

AGENDA
BOARD OF CITY COMMISSIONERS
OCTOBER 16, 2023 AT 6:00 PM
COMMISSION CHAMBERS AT CITY HALL
16 WEST 9TH STREET
SHAWNEE, OKLAHOMA

Official action can only be taken on items which appear on the agenda. The public body may adopt, approve, ratify, deny, defer, recommend, amend, strike, or continue any agenda item. When more information is needed to act on an item, the public body may refer the matter to Staff or back to Committee or the recommending body. Under certain circumstances, items are deferred to a future date or stricken from the agenda entirely.

CALL TO ORDER

DECLARATION OF A QUORUM

INVOCATION

FLAG SALUTE

1. Recognition of Ann Davis' Contributions to the Shawnee Community.
2. Citizens Participation (A three-minute limit per person)
(A twelve-minute limit per topic)
3. Consider approval of Consent Agenda:
 - a. Minutes from the September 18, 2023 regular meeting and September 29, 2023 special call meeting.
 - b. Acknowledge the following minutes and reports:
 - Planning Commission Minutes from the August 2, 2023, regular meeting.
 - Shawnee Beautification, Parks, and Recreation Committee Minutes from the August 17, 2023 regular meeting and the September 7, 2023 special meeting.
 - License Payment Report for September 2023.
 - Project Payment Report for September 2023.

- c. Acknowledge receipt of Pioneer Library System Audit for Year Ended June 30, 2023.
 - d. Acknowledge receipt of Pioneer Library System Revised Budget for July 1, 2023 through June 30, 2024.
 - e. Renewal of an agreement with Project H.E.A.R.T., Inc. to provide meals to elderly persons.
4. Presentation of the Pet of the Month by Animal Control.
 5. Presentation and update regarding Shawnee Forward by Casey Bell, Chair of the Shawnee Forward Board of Directors and Crystal Romanyszyn, President & CEO.
 6. Discussion and consideration of possible appointment for Ward 3 Commissioner to complete remainder of term, expiring 2024.
 7. Consideration of a Professional Services Agreement with TAP Architecture for Architecture and Engineering Services related to the April 19, 2023, Storm Event.
 8. Consideration of an Amendment to Agreement for CDBG-CV2 Grant Mental Health Assistance.
 9. Consideration of a resolution authorizing the acceptance of a grant offer from the State of Oklahoma 911 Management Authority for the Shawnee 911 Communications Center.
 10. Consideration of a resolution setting the hours of opening and closing of Public Parks and Recreation Area under the jurisdiction of the City of Shawnee; and repealing all resolutions in conflict therewith.
 11. Consideration of an ordinance amending portions of the Shawnee Municipal Code, Chapter 21 "Parks and Recreation"; providing for repeal; providing for codification; and providing for severability.
 12. Consideration of an ordinance of the City of Shawnee, Oklahoma amending portions of Chapter 15 "Health and Sanitation", Article V "Designated Health Zone"; providing for severability; providing for codification; and providing for repealer.

13. Consideration of an ordinance amending Chapter 8 of the Shawnee Municipal Code by creating a new Article XI of Chapter 8, prohibiting feeding operations in the downtown area; providing for repeal; providing for severability; and providing for codification.
14. Consideration of an ordinance amending Chapter 5 "Animals" of the Shawnee Municipal Code by amending Article III "Dogs", Division 2 "License"; Article III "Dogs", Division 5 "Kennels"; and Article IV "Cats", Division 2 "License"; providing for repeal; providing for severability; and providing for codification.
15. Consideration of a resolution of the City of Shawnee, Oklahoma updating the City Fee Schedule by amending fees established in Chapter 5 "Animals" of the Shawnee Municipal Code; and providing for the readoption of the City Fee Schedule in whole.
16. Public hearing to rezone from A-1 (Rural Agricultural District) to I-2 (Light Industrial District) property at 7109 N. Kickapoo Avenue.
Case No. RZ11-23 | Applicant: Oklahoma Gas & Electric Company.
17. Consideration of an ordinance to rezone from A-1 (Rural Agricultural District) to I-2 (Light Industrial District) property at 7109 N. Kickapoo Avenue.
Case No. RZ11-23 | Applicant: Oklahoma Gas & Electric Company
18. Discussion, consideration, and possible action to convey real estate owned by the City of Shawnee by entering into, signing, and acknowledging a certain proposed Warranty Deed, between the City of Shawnee, as Grantor, and Building New Foundations, Inc., as Grantee, specifically regarding the following property: A tract of land and improvements within the City of Shawnee, Pottawatomie County, Oklahoma described as follows: 1320 East Fay Street, 1316 East Fay Street, and 1231 Sherry Lane (Lots 33 and 34, Block 6, Melrose Park Addition to the City of Shawnee; Lot 16, Block 2, Thompson Heights Addition); and authorizing the City Manager to sign, execute, and enter into said Deed on behalf of the City.
19. Consideration of the following budget amendments for Fiscal Year 2023 – 2024:
 - a. Insurance Recovery Fund - Fund 603 - to appropriate insurance proceeds received in response to the April 19, 2023 tornado.
 - b. CDBG-CV Grant Fund - Fund 191 - to appropriate grant funds for the

CDBG-CV Nutrition Assistance program continuing from the prior fiscal year.

- c. Home Rehabilitation Program Fund - Fund 199 - to appropriate fund balance for the use of home rehabilitation on SURA-owned properties.
- d. General Fund - Fund 001 - to appropriate fund balance for obligations on a prior fiscal year contract with Central Oklahoma Community Action Agency for COTS Transportation services.

20. Consider Bid(s):

- a. Thompson Heights Waterline Project (Award)
- b. Sewer Pipe Bursting (Award)
- c. Clearpond Road Culvert Replacement (Award)
- d. Fencing Installation and Repair Services (Award)

21. Consideration of a Task Order in accordance with the agreement between the City of Shawnee and Freese and Nichols Inc. (FNI) for Owner's Representative Inspection Services for Independence Water Line (C-23-02), Thompson Heights Water Line (C-23-05) and Sewer Pipe Bursting (C-23-08) projects.

22. Acknowledge Monthly Sales Tax Report.

23. Administrative Report(s):

- a. Presentation of the Quarterly Half-Cent Sales Tax Report - Linsey McNabb-Fox, Finance Director
- b. City Financial Information - Andrea Weckmueller-Behringer, City Manager
- c. Animal Welfare Update - Mason Wilson, Chief of Police
- d. State of the City - Andrea Weckmueller-Behringer, City Manager

24. New Business (Any matter not known or which could not have been reasonably foreseen prior to the posting of the agenda.)

25. Commissioners Comments

26. Consider an executive session to discuss annual evaluation of the City Manager pursuant to 25 O.S. §307(B)(1) "Discussing the employment, hiring, appointment, promotion, demotion, disciplining, or resignation of any individual salaried public officer or employee."

27. Consider matters discussed in executive session regarding discussion of annual evaluation of City Manager pursuant to 25 O.S. §307(B)(1) "Discussing the employment, hiring, appointment, promotion, demotion, disciplining, or resignation of any individual salaried public officer or employee."

28. Adjournment

Respectfully submitted,



Lisa Lasyone, CMC, City Clerk

The City of Shawnee encourages participation from its citizens in public meetings. If participation is not possible due to a disability, notify the City Clerk, in writing, at least forty-eight hours prior to the scheduled meeting, and necessary accommodations will be made. (ADA 28 CFR 36)



Certificate of Appreciation

PRESENTED TO

ANN DAVIS

THIS 16TH DAY OF OCTOBER, 2023

ON BEHALF OF THE CITY OF SHAWNEE FOR HER

Selfless and Caring Service to Shawnee
including her Inspiring Leadership in many
Community Organizations since 1955

ED BOLT, MAYOR

LISA LASYONE, CITY CLERK

DRAFT

BOARD OF CITY COMMISSIONERS PROCEEDINGS

SEPTEMBER 18, 2023 AT 6:00 PM

The Board of City Commissioners of the City of Shawnee, County of Pottawatomie, State of Oklahoma, met in Regular Session in the Commission Chambers at City Hall, 16 West 9th Street, Shawnee, Oklahoma on, Monday, September 18, 2023 at 6:00 PM, pursuant to notice duly posted as prescribed by law on Thursday, September 14, 2023, at 3:26 PM. Mayor Bolt presided and Mr. Eli Smith called the meeting to order. Upon roll call, the following members were in attendance.

Ed Bolt
Mayor

Daniel Matthews
Commissioner Ward 1

Cami Engles
Commissioner Ward 2

Travis Flood
Commissioner Ward 3

Darren Rutherford
Commissioner Ward 4 - Vice Mayor

Mark Sehorn
Commissioner Ward 5

Lauren Richter
Commissioner Ward 6

ABSENT: None

CALL TO ORDER

DECLARATION OF A QUORUM

INVOCATION

FLAG SALUTE

1. Citizens Participation (A three-minute limit per person)
(A twelve-minute limit per topic)

Mr. Fred Turner, Mr. Stephen Joosten, Mr. James Smith, Mr. Jearold Gill, Mr. Rob Morris, Mr. Michael Barksdale, Ms. Danita Dayton, Mr. Rick Young, and Ms. Katha DeCamara spoke during Citizens Participation.

2. Consider approval of Consent Agenda:

- a. Acknowledge staff will proceed in the instant meeting with the opening and consideration of bids as set forth in Item No. 9.

b. Minutes from the August 21, 2023 regular meeting.

c. Acknowledge the following minutes and reports:

- Shawnee Beautification, Parks, and Recreation Committee Minutes from the July 20, 2023 regular meeting.
- Shawnee Senior Citizens Advisory Board Minutes from the May 9, 2023 regular meeting.
- License Payment Report for August, 2023.
- Project Payment Report for August, 2023.

d. Lake Lease Transfer:

- Coffman Tract Lot 3, 15403 Perry Rd
From: Charles Moore and Sue Sigman
To: Sue and Jimmy Sigman
- Belcher Tract Lot 19, 33402 Post Office Neck
From: Carol Kaye Hopkins
To: The DM Revocable Trust Dated March 3, 2020

e. Acknowledge the resignation of Cody Smithson from the Airport Advisory Board.

f. Mayor's Appointments

Airport Advisory Board

Keith Layne 1st Partial Term Expires: July 1, 2025
Replaces Cody Smithson
- Resigned

Shawnee Hospital Authority

Angi Mohr 1st Full Term Expires: September 30, 2029
Reappointment
Tina Hanna 1st Full Term Expires: September 30, 2029
Reappointment

Shawnee Urban Renewal Authority

Sydney Davidson 1st Partial Term Expires: February 2, 2025
Replaces Tosha
Tanquary - Resigned

Commission Sehorn asked that Consent Agenda Item No. 2(b) be pulled for separate consideration.

A motion was made by Commissioner Matthews, seconded by Vice Mayor Rutherford, to approve Consent Agenda Item Nos. 2(a-f), less item 2(b). Motion carried 7-0-0.

AYE: Matthews, Rutherford, Sehorn, Richter, Engles, Flood, Bolt

NAY: None

ABSTAIN: None

A motion was made by Commissioner Matthews, seconded by Vice Mayor Rutherford, to approve Consent Agenda Item No. 2(b). Motion carried 5-0-2.

AYE: Matthews, Rutherford, Engles, Flood, Bolt

NAY: None

ABSTAIN: Sehorn, Richter

3. Presentation of the Pet of the Month by Animal Control.

Animal Control Officer Theresa Touchet introduced Dezi, a one- to three-year old Labrador Retriever.

4. Presentation of Governor's Approval of the City of Shawnee Charter Amendments.

City Manager Andrea Weckmueller-Behringer reported that the Governor has approved the Charter changes that were approved by the vote of the people in June 2023. The Charter's amendments included:

- Ward-specific voting for City Commissioners
- Streamlining the competitive bidding process
- Clarifying the start date for a newly elected Mayor or Commissioner
- Aligning requirements for City employees
- Updating conflict-of-interest policies
- Aligning the recreational use policy for Shawnee Twin Lakes
- Updating the policy for the Cemetery Perpetual Care Fund

5. Presentation of the Shawnee Fire Department - Agency Evaluation and Cultural Assessment by Emergency Services Consulting International (ESCI).

City Manager Andrea Weckmueller-Behringer stated that in November 2022, the City issued Request for Proposals for an operational review of the Shawnee Fire Department (SFD). In January 2023, the City Commission approved a contract with Emergency Services Consulting International (ESCI). Ms.

Weckmueller-Behringer introduced Mr. Jeff Grote, Project Manager with ESCI.

Mr. Grote provided a presentation that included:

- Purpose of Study
- March Site Visit Observations
 - Positive Findings
 - Improvement Areas
- Service Demand

- Staffing
 - Current Response Time
 - 4-Minute Response Time (NFPA 1710)
 - 8-Minute Response Time (NFPA 1710)
 - Overall Response Performance
 - Cultural Assessment
 - Positive Findings
 - Areas of Improvement
 - Recommendations
6. Discussion regarding amending Chapter 8 of the Shawnee Municipal Code by creating a new Article XI of Chapter 8, prohibiting feeding operations in the downtown area.

Community Development Director Rian Harkins provided a Staff report. He advised that the draft ordinance defines the actual area for downtown. He advised that outside the geographical area of downtown would not have to have a permit. He advised that this item is a discussion item only and will be brought back to the Commission at a later date for consideration of a proposed ordinance.

7. Consideration of an agreement with the Oklahoma Water Resources Board for High Hazard Potential Dam (HHPD) Grant.

Director of Engineering Seth Barkhimer stated that at the August meeting, the City Commission approved a supplemental scope of work to complete the needed additional investigation for field exploration and inspection services at Twin Lake Dam No. 1. The proposed Agreement with the Oklahoma Water Resources Board (OWRB) would secure an additional Ninety-Nine Thousand Seven Hundred Forty-Five Dollars and Thirty Cents (\$99,745.30) in federal funds, supplementing the previously awarded Sixty-Five Thousand Dollars (\$65,000.00), for a total funding allocation of One Hundred Sixty-Four Thousand Seven Hundred Forty-Five Dollars and Thirty Cents (\$164,745.30). The additional funds would ensure the comprehensive investigation of the dam and position the City for future grant opportunities to support necessary construction work at a later stage.

A motion was made by Vice Mayor Rutherford, seconded by Commissioner Flood, to approve an agreement with the Oklahoma Water Resources Board for High Hazard Potential Dam (HHPD) Grant. Motion carried 7-0-0.

AYE: Rutherford, Flood, Bolt, Sehorn, Richter, Matthews, Engles

NAY: None

ABSTAIN: None

8. Consideration of a Memorandum of Understanding between the City of Shawnee and Pottawatomie Go related to a collaborative partnership.

City Manager Andrea Weckmueller-Behringer advised that the proposed Memorandum of Understanding (MOU) provides for the City to collaborate with Pottawatomie Go (Pogo) to measurably improve health and well-being in Pottawatomie County. The MOU does not obligate the City to expend staffing resources or funds.

A motion was made by Commissioner Flood, seconded by Vice Mayor Rutherford, to approve a Memorandum of Understanding between the City of Shawnee and Pottawatomie Go related to a collaborative partnership. Motion carried 6-1-0.

AYE: Flood, Rutherford, Sehorn, Matthews, Engles, Bolt

NAY: Richter

ABSTAIN: None

9. Consider Bid(s):

- a. Independence Avenue Waterline Project (Award)

Director of Engineering Seth Barkhimer announced that four (4) bids were received. Staff recommends awarding to Circle B Underground for the Base Bid and Alternates 1 and 2 in the total amount of One Million Seven Hundred Eighty-Three Thousand Seven Hundred Sixty-Two Dollars (\$1,783,762.00).

A motion was made by Commissioner Engles, seconded by Commissioner Flood, to award the bid to Circle B Undergrand in the total amount of One Million Seven Hundred Eighty-Three Thousand Seven Hundred Sixty-Two Dollars (\$1,783,762.00). Motion carried 7-0-0.

AYE: Engles, Flood, Bolt, Rutherford, Sehorn, Richter, Matthews

NAY: None

ABSTAIN: None

b. Thompson Heights Waterline Project (Open)

<u>BIDDER</u>	<u>AMOUNT</u>
Marsau Enterprises, Inc. Enid, Oklahoma	\$2,051,860.00
Patriot Construction Guthrie, Oklahoma	\$1,236,741.00
Davenport Construction, Inc. Edmond, Oklahoma	\$1,193,985.00
Circle B Underground, LLC Bristow, Oklahoma	\$1,331,788.00
Orr Construction, Inc. Davenport, Oklahoma	\$1,496,025.00

Director of Engineering Seth Barkhimer read five (5) bids into the record and requested that the bid award be deferred to a future City Commission meeting.

A motion was made by Commissioner Matthews, seconded by Vice Mayor Rutherford, to defer the item to a future City Commission meeting. Motion carried 7-0-0.

AYE: Matthews, Rutherford, Sehorn, Richter, Engles, Flood, Bolt

NAY: None

ABSTAIN: None

c. Sewer Pipe Bursting (Open)

<u>BIDDER</u>	<u>AMOUNT</u>
Horseshoe Construction, Inc. Bryan, Texas	\$1,908,796.00
Krapff Reynolds Construction Oklahoma City, Oklahoma	\$2,978,893.00

Bennett, Inc.
Lamar, Missouri

\$2,409,611.50

Director of Engineering Seth Barkhimer read three (3) bids into the record and requested that the bid award be deferred to a future City Commission meeting.

A motion was made by Commissioner Flood, seconded by Commissioner Engles, to defer the item to a future City Commission meeting. Motion carried 7-0-0.

AYE: Flood, Engles, Bolt, Rutherford, Sehorn, Richter, Matthews

NAY: None

ABSTAIN: None

10. Acknowledge Monthly Sales Tax Report.

Finance Director Lindsey McNabb-Fox reported sales tax is up Seven Hundred Seven Thousand Nine Hundred Dollars (\$707,900.00) or Nine Point Seven Percent (9.7%), over the projected budget year-to-date. She stated that use tax collections are up Two Hundred One Thousand One Hundred Seventy-Nine Dollars (\$201,179.00) or Twenty-Three Point Two Percent (23.2%), above the projected budget year-to-date.

11. Administrative Report(s):

a. Santa Fe Depot Update - Rian Harkins, Community Development Director

Community Development Director Rian Harkins provided an administrative report on the Santa Fe Depot Update. Items discussed included:

- 2022 Community Feedback
- Preferred Functions
- Grant Application Status
- Design Update
- Cost Estimate
- Not Included in Cost Estimate
- Available Funding

12. New Business (Any matter not known or which could not have been reasonably foreseen prior to the posting of the agenda.)

There was no new business.

13. Commissioners Comments

Commissioner Sehorn commented regarding sales tax and homelessness.

Vice Mayor Rutherford commented on the sale tax and the fire department report.

Commissioner Flood commented on Citizens Participation. He also invited everyone to the Rock the Block event on Thursday, September 21, 2023.

Commissioner Engles commented on Citizens Participation, sales tax, and animal control issues.

Commissioner Matthews commented on the approved Charter changes and the fire department report. He asked Staff to provide a legal opinion regarding Dockery Park being a viable location for a homeless camp. He also asked for an education piece on animal control.

Mayor Bolt commented on Citizens Participation, the RV Rally at the Expo, and animal control issues. He asked Staff to do a report next month on where to find the City's financial information online.

14. Adjournment

There being no further business to be considered, the meeting was adjourned by power of the Chair. (8:18 p.m.)

ED BOLT, MAYOR

ATTEST:

LISA LASYONE, CMC
CITY CLERK

DRAFT

BOARD OF CITY COMMISSIONERS PROCEEDINGS

SEPTEMBER 29, 2023 AT 12:30 PM

The Board of City Commissioners of the City of Shawnee, County of Pottawatomie, State of Oklahoma, met in Special Call Session in the Commission Chambers at City Hall, 16 West 9th Street, Shawnee, Oklahoma on, Friday, September 29, 2023 at 12:30 PM, pursuant to notice duly posted as prescribed by law on Wednesday, September 27, 2023 at 12:04 PM. Mayor Bolt presided and called the meeting to order. Upon roll call, the following members were in attendance.

Ed Bolt
Mayor

Daniel Matthews
Commissioner Ward 1

Absent
Commissioner Ward 2

Vacant
Commissioner Ward 3

Darren Rutherford
Commissioner Ward 4 - Vice Mayor

Mark Sehorn
Commissioner Ward 5

Absent
Commissioner Ward 6

ABSENT: Cami Engles, Lauren Richter

CALL TO ORDER

DECLARATION OF A QUORUM

1. Acknowledgment of the resignation of Ward 3 Commissioner Travis Flood, effective September 26, 2023 (*no motion necessary*).

City Manager Andrea Weckmueller-Behringer stated that Ward 3 Commissioner Travis Flood tendered his resignation on September 26, 2023 effective immediately. No action was taken.

2. Consideration of a resolution of the City of Shawnee authorizing the application for an Oklahoma Dam Rehabilitation Grant from the Oklahoma Water Resources Board.

Director of Engineering Seth Barkhimer gave a Staff report.

Resolution No. 6711 was introduced.

A RESOLUTION AUTHORIZING APPLICATION FOR OKLAHOMA DAM REHABILITATION (OKDR) GRANT FROM THE OKLAHOMA WATER RESOURCES BOARD.

A motion was made by Commissioner Matthews, seconded by Commissioner Sehorn, to approve a resolution of the City of Shawnee authorizing the application for an Oklahoma Dam Rehabilitation Grant from the Oklahoma Water Resources Board. Motion carried 4-0-0.

AYE: Matthews, Sehorn, Bolt, Rutherford

NAY: None

ABSTAIN: None

3. Consideration of the purchase of two (2) vehicles from Seth Wadley Ford Perry under state contract pricing in the total amount of \$63,414.01.

Director of Engineering Seth Barkhimer provided a Staff report. He advised that the agenda item language reads it is state bid pricing and it is not. The vehicles are smaller vehicles that are fuel efficient and smaller vehicles are not on the state bid. Staff did request and receive three quotes and Seth Wadley Ford Perry had the lowest quote.

A motion was made by Commissioner Sehorn, seconded by Commissioner Matthews, to approve the purchase of two (2) vehicles from Seth Wadley Ford Perry in the total amount of \$63,414.01. Motion carried 4-0-0.

AYE: Sehorn, Matthews, Bolt, Rutherford

NAY: None

ABSTAIN: None

4. Adjournment

There being no further business to be considered, the meeting was adjourned by power of the Chair. (12:39 p.m.)

ED BOLT, MAYOR

ATTEST:

LISA LASYONE, CMC
CITY CLERK

REGULAR PLANNING COMMISSION MINUTES

DATE: August 2, 2023

The Planning Commission of the City of Shawnee, County of Pottawatomie, State of Oklahoma, met in person for a regular meeting on August 2, 2023, at 1:30 p.m., according to notice duly posted as prescribed by law.

Chair Reese called the meeting to order at **1:30 p.m.** Community Development Director Rian Harkins called Roll and stated a quorum was present.

The following Commissioners were present:

Present: Johnson, Reese, Barrett, Rowell, Walker, Porter

Absent: Mew-Palmer

Item 1. Approval of Minutes – Regular Meeting

Consideration of approval of the minutes from the regular meeting of July 5, 2023. Chair Reese asked for questions or corrections to the minutes.

Commissioner Johnson made a motion to **Approve** the amended minutes as presented, which Commissioner Barrett seconded.

Motion **passed 6-0-0.**

Aye: Johnson, Reese, Barrett, Rowell, Walker, Porter

Nay: None

Abstain: None

Item 2. Case No. **CUP02-23** – Public hearing and consideration of a request for a Conditional Use Permit (CUP) for telecommunications housing on property located at 43008 E. MacArthur Street.

City Planner Rachel Clyne provided a staff report and the following information and recommendation.

Findings and Facts:

- The subject property is located in C-3 zoning (Highway Commercial District) and conforms with the Comprehensive Plan.
- The proper notification for a public hearing was served.
- The application was reviewed, and conditions are recommended.
- The proposed structures will be fenced and screened as required by the Zoning Code.

Chair Reese opened the public hearing. The applicants, Donna and Tim Russell were present and available for questions. The applicants advised that the representatives for companies placing the telecommunications housing, Bluepeak and MBO, were present. With no other public input, the public hearing was closed.

Based on the review of the application and the listed Findings, staff recommended that the Planning Commission recommend to the City Commission **APPROVAL** of CUP02-23 to locate telecommunications housing on property located at 43008 E. MacArthur Street with the following conditions:

- Acknowledgment by the applicant that the Approval of a Conditional Use Permit (CUP) does not negate or circumvent the other requirements of development as stated in the City Codes, which include the Zoning Code and the adopted Building and Fire Codes.
- Acknowledgment by the applicant that additional permits may be required and standard inspections will be conducted.

Commissioner Barrett made a motion to recommend the **APPROVAL**, with the listed conditions, of Case No. CUP02-23, which Commissioner Porter seconded.

Motion **passed 6-0-0.**

Aye: Johnson, Reese, Barrett, Rowell, Walker, Porter

Nay: None

Abstain: None

It was noted the application would be on the agenda of the City Commission at its regular meeting on August 21, 2023, at 6:00 p.m.

Item 5. Planning Commission Training Session – Part Three

Director Harkins presented a PowerPoint presentation discussing Development Tools and Financing.

Tax Increment Financing

- Authorized by the Oklahoma Local Development Act
- Facilitates development or redevelopment in areas unsuitable due to certain enumerated conditions
- Must be part of holistic community development plan that considers impacts to taxing jurisdictions
- Care must be taken not to “force” a project without sufficient inherent economic viability
- Most commonly used to fund infrastructure improvements or remediate natural hazards or environmental conditions
- Financing can be “up front” or over time.

Business Improvement Districts

- Require voluntary participation to form and govern
- Assessment methodology is set forth in the authorizing statute
- Most often used for installation and maintenance of streetscape, wayfinding and other placemaking projects

Leveraging/Coordinating Resources

- Housing Development
- LIHTC, HOME
- Business Retention and Expansion
- Tourism Promotion

Plan Historic Preservation and Preservation Districts

- Main Street Programs
- Business Improvement Districts
- Code Enforcement
- Capital Improvement Plan Implementation Strategies

Grants and Grant Management

- Non-Federal Funding
 - Foundations
 - Civic Groups
 - State Agencies
- Popular Federal Funding Sources
 - CDBG
 - USDA Rural Development
 - SBA/EDA
- Areas of Focus:
 - Building Internal Capacity
 - Needs Assessment
 - Opportunity Universe
 - Application Development

- Compliance and Implementation

Plan Implementation Strategies

- Requests for Proposals (RFPs) and Requests for Qualifications (RFQs)
- Using Consultants and Outside Resources

Item 6. Community Development Update

Community Development Director Harkins advised the Planning Commission that the meeting was being recorded and was airing on YouTube. With the continuing strive for transparency, the Planning Commission was the first advisory board to be recorded and aired. Harkins stated that staff had received the signage section of the UDC project and had returned comments to the consultant. Harkins stated the UDC would complement the Twin Lakes Master Plan to reduce conflict in the Code's language. He stated that the final drafts for the Santa Fe Depot roof were nearing completion, and the Senior Center roof also needed repair. Next, Harkins announced that staff received five (5) more prototypes for the infill housing project, and they were currently undergoing internal review. Lastly, Director Harkins stated that Love Your Block (LYB) mini-grants were being processed. There are four projects: three (3) residential and one (1) commercial.

Item 7. Planning Commissioners' Comments

The Commissioners thanked staff for their work, for keeping them informed, and for the transparency provided by live streaming the meeting.

Item 8. Adjournment

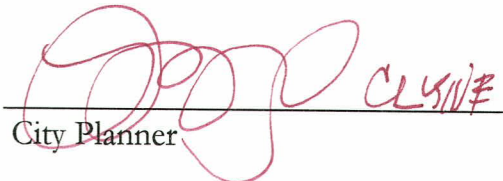
The meeting adjourned at 2:07 p.m.



Chair/Vice-Chair

10/4/23

Date



City Planner

10.4.23

Date

**SHAWNEE BEAUTIFICATION, PARKS, AND RECREATION COMMITTEE
PROCEEDINGS**

AUGUST 17, 2023 AT 4:00 PM

The Shawnee Beautification, Parks, and Recreation Committee of the City of Shawnee, County of Pottawatomie, State of Oklahoma, met in Regular Session in the Commission Chambers at City Hall, 16 West 9th Street, Shawnee, Oklahoma on, August 17, 2023 at 4:00 P.M., pursuant to notice duly posted as prescribed by law at 11:10 A.M. on August 15, 2023. Chairperson Payn presided and called the meeting to order. Upon roll call, the following members were in attendance.

Chad Payn
Chairperson

Sherry Lankford
Vice Chairperson

Zach Foster
Committee Member

Ian Hayes
Committee Member

Sue Nelson
Committee Member

Absent
Committee Member

Travis Flood
Commissioner/Committee Member

ABSENT: Vickie Winters

CALL TO ORDER

DECLARATION OF QUORUM

1. Consideration of approval of the Minutes from the July 20, 2023 regular meeting.

A motion to approve the minutes was made by Sherry Lankford. A 2nd was made by Zach Foster. Motion carried 6-0.

Aye: Chad Payn, Sherry Lankford, Sue Nelson, Zach Foster, Ian Hayes, and Travis Flood.

Nay: None

2. Staff Reports

Kerri shared an update regarding the pickleball courts at KidSpace. There will be no cost to the city or tax payers for the correction of the design issues.

KidSpace has not been turned over to the City as the construction company is continuing to work on the punch list. Construction on Woodland Park is

progressing at this time. The Fall/Winter recreation guide came out on the webpage last week. Amy discussed the installation of mirrors in the fitness studio at the Recreation Center and we have premium fitness classes starting for any age with a small cost to attend. We will have a part time recreation aid job opening at the end of August as Bradley Hunnicutt will be transferring to the parks department. Splash has now closed to the public for the season. We will still be hosting the Shawnee High School and YMCA practices as the YMCA pool is still closed. Overall, the Splash season went well considering all the construction in the park.

3. Discussion of a Sub-Committee for Park Rules and Regulations

Discussion of forming a sub-committee for park rules and ordinances took place. The committee came to the decision of holding a Special Call Meeting to approve department recommendations of time critical changes to some rules and/or ordinances. More discussion on the topic will take place later at a regular scheduled committee meeting.

4. Discussion of a Sub-Committee for Woodland Park Opening

A discussion for a sub-committee to celebrate the opening of Woodland Park occurred. The committee decided to add this item to a Special Call Meeting so it could be discussed further and approved.

5. Citizens Participation (A three-minute limit per person)
(A twelve-minute limit per topic)

We had no citizens participation at this meeting.

6. Committee Comments

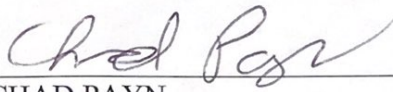
Sherry Lankford asked Kerri if she had checked on the pickleball court situation at Woodland Park. Kerri responded saying that the designer is assessing the work on that project to insure correct installation.

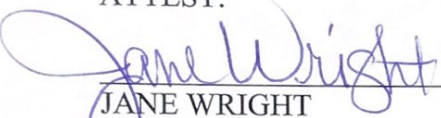
7. Adjournment

A motion to adjourn was made by Sherry Lankford at 4:44. A 2nd was made by Zach Foster. Motion carried 6-0.

Aye: Chad Payn, Sherry Lankford, Sue Nelson, Ian Hayes, Zach Foster, and Travis Flood.

Nay: None


CHAD PAYN
CHAIRPERSON

ATTEST:

JANE WRIGHT
SECRETARY

**SHAWNEE BEAUTIFICATION, PARKS, AND RECREATION COMMITTEE
PROCEEDINGS**

SEPTEMBER 7, 2023 AT 4:00 PM

The Shawnee Beautification, Parks, and Recreation Committee of the City of Shawnee, County of Pottawatomie, State of Oklahoma, met in Special Called Session in the Commission Chambers at City Hall, 16 West 9th Street, Shawnee, Oklahoma on, Thursday, September 7, 2023 at 4:00 PM, pursuant to notice duly posted as prescribed by law at 4:36 P.M. on September 1, 2023. Vice Chairperson Sherry Lankford presided and called the meeting to order. Upon roll call, the following members were in attendance.

Absent

Chairperson

Sherry Lankford

Vice Chairperson

Zach Foster

Committee Member

Ian Hayes

Committee Member

Sue Nelson

Committee Member

Vickie Winters

Committee Member

Travis Flood

Commissioner/Committee Member

ABSENT: Chad Payn

CALL TO ORDER

DECLARATION OF QUORUM

1. Discussion and Approval of recommendation of change to Section 21-6 to park hours.

In summary, Kerri explained to the committee that they would be making a proposal for changes. Travis Flood expressed concern for parents and children being in the park waiting for a school bus. Kerri explained that the recommended change would have the parks open at 7:00 a.m., so there should not be a conflict.

Discussion was made by the committee. A motion to approve recommended changes was made by Travis Flood. A 2nd was made by Ian Hayes. Motion carried 6-0.

Aye: Sherry Lankford, Vickie Winters, Sue Nelson, Travis Flood, Ian Hayes, and Zach Foster.

Nay: None

2. Discussion and Approval of recommendation of addition to Section 21-9 to add "services" to the vendor list.

Kerri and Amy both discussed the need for this proposal regarding services for things such as fitness classes, camps, lessons, etc.. This change would ensure a permit was purchased prior to holding such a service in city parks or facilities. Kerri also informed the committee that this is something that is routine throughout other cities. Discussion was made by the committee. A motion to approve was made by Vickie Winters. A 2nd was made by Zach Foster. Motion carried 6-0. Aye: Sherry Lankford, Vickie Winters, Sue Nelson, Travis Flood, Ian Hayes, and Zach Foster.
Nay: None

3. Discussion and Approval of recommendation of addition to Designated Health Zone adding "City of Shawnee Parks and Recreation Facilities".

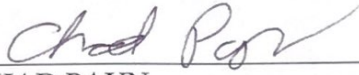
Kerri proposed two different recommendations for adding Parks and Recreation spaces to the Designated Health Zones. She presented the opportunities and limitations of each. The committee discussed each option and agreed with both options being beneficial to the Parks and Recreation Department operations. Discussion was made to make one recommended over the other. The committee proposed: Plan A to make all City of Shawnee properties a Designated Health Zone and plan B would only add parks and recreation facilities to the Designated Health Zone. A motion to approve was made by Travis Flood. A 2nd was made by Ian Hayes. Motion carried 6-0. Aye: Sherry Lankford, Vickie Winters, Sue Nelson, Travis Flood, Ian Hayes, and Zach Foster.
Nay: None

4. Discussion and Approval of sub-committee for Woodland Park Opening.

The committee discussed the need for a sub-committee for the opening of Woodland Park. A motion to create a sub-committee consisting of Sherry Lankford, Travis Flood, and Ian Hayes was made by Zach Foster. A 2nd was made by Travis Flood. Sherry Lankford appointed all 3. Motion carried 6-0. Aye: Sherry Lankford, Vickie Winters, Sue Nelson, Travis Flood, Ian Hayes, and Zach Foster.
Nay: None

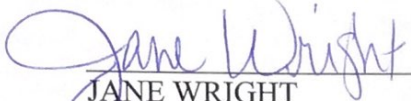
5. Adjournment

A motion to adjourn was made at 4:36 by Vickie Winters. A 2nd was made by Sue Nelson.



CHAD PAYN
CHAIRPERSON

ATTEST:



JANE WRIGHT
SECRETARY



Entity Payment Report

09/01/2023 - 09/30/2023

Payment Date	Name	Payment Type	Receipt #	Payment Amount
9/29/2023	FIVE STAR PLUMBING	Check	2634	100.00
9/29/2023	AC SERVICE PLUS LLC	Check	2633	75.00
9/28/2023	MARK H & MARY JANE CANNON	Check	2630	776.00
9/28/2023	SAVE-A-LOT	Check	2629	25.00
9/28/2023	PERRY & ELIZABETH GATEWOOD TRUST	Check	2628	776.00
9/28/2023	TAPATIO MEXICAN RESTAURANT	IBX CC	2631	905.00
9/28/2023	OKLANDE	IBX CC	2632	100.00
9/27/2023	CAPITAL DANK	Cash	2624	1,500.00
9/27/2023	CHARLES & MARY SHIFF	Check	2625	776.00
9/27/2023	LIT UP ELECTRIC, LLC	IBX CC	2626	100.00
9/27/2023	DANNY ODEN ELECTRIC	IBX CC	2627	100.00
9/26/2023	VFW POST 1317	Check	2623	500.00
9/25/2023	ELLIOT SHULER & GRETA MADSON	Check	2622	776.00
9/25/2023	ADAM BALKEMA	Check	2621	776.00
9/25/2023	HILL ELECTRIC	IBX CC	2620	100.00
9/22/2023	CITIZEN POTAWATAMI ELECTRIC	Check	2617	75.00
9/22/2023	DEBORAH GEORGE	Check	2616	15.00
9/22/2023	MJ	Check	2615	100.00

	MECHANICAL LLC			
9/22/2023	HERMAN'S PLUMBING	Check	2614	75.00
9/22/2023	COMMERCIAL CONSTRUCTION SERVICES LLC	IBX CC	2619	100.00
9/22/2023	EARLY BIRDS ELECTRIC LLC	IBX CC	2618	100.00
9/21/2023	1ST CHOICE HVACR	IBX CC	2613	100.00
9/20/2023	PATRICK H & JUDITH HENDERSON, LEVI CAIN WEEMS	Check	2611	776.00
9/20/2023	NATHAN SNYDER ELECTRIC LLC	Check	2610	75.00
9/19/2023	LELAND PREWITT	Check	2608	776.00
9/19/2023	A-TEAM HEATING COOLING	IBX CC	2607	75.00
9/19/2023	RIDERS IN THE SKY LLC dba KUSH GARDENS	IBX CC	2609	1,500.00
9/18/2023	WILL MCCONNELL CONSTRUCTION DBA MCDONNELL PLUMBING	Check	2606	100.00
9/18/2023	SCOTT LACKEY	Check	2605	776.00
9/18/2023	DUSTIN C BODKIN	Check	2604	776.00
9/18/2023	SMALL TOWN SOLAR	IBX CC	2603	75.00
9/15/2023	VERNON & ELZABETH HATLEY	Check	2602	15.00
9/15/2023	THE ARTS AT317	Check	2601	15.00
9/15/2023	DEBORAH ELLIS	Cash	2598	15.00
9/15/2023	CHARLES SKILLINGS	Check	2597	25.00
9/15/2023	405	Check	2596	100.00

	ELECTRICAL SERVICES			
9/15/2023	GALAXY DISTRIBUTION LLC	IBX CC	2599	50.00
9/15/2023	WARREN & SANDRA JOHNSON	IBX CC	2600	15.00
9/14/2023	PACE REAL ESTATE, LLC	Check	2594	25.00
9/14/2023	TOMMY'S PLUMBING SERVICE, LLC	IBX CC	2595	100.00
9/13/2023	COOVER ELECTRIC	Check	2592	100.00
9/13/2023	DUCT SPECIALIST HEAT AND AIR	IBX CC	2593	100.00
9/12/2023	LIEBER MECHANICAL LLC	Check	2591	100.00
9/12/2023	HOMESTEAD ELECTRIC	Check	2589	75.00
9/12/2023	METROPLEX ELECTRIC	IBX CC	2590	100.00
9/11/2023	ROBERT & SHARON PATNAUDE	Check	2586	776.00
9/11/2023	JOHN BARRETT	Check	2585	776.00
9/11/2023	PITTMAN ELECTRIC LLC	IBX CC	2587	75.00
9/11/2023	ASTEN ELECTRIC, LLC	IBX CC	2588	100.00
9/8/2023	WINTCO INC	Check	2584	15.00
9/8/2023	SUTTON RYAN PETZ IRREVOCABLE TRUST	Check	2583	776.00
9/8/2023	OCEAN AIR LLC	Check	2582	75.00
9/7/2023	SHINE SOLAR, LLC - SHINE AIR	Check	2581	75.00
9/7/2023	JACKS ELECTRIC	Check	2580	100.00
9/7/2023	MEGAN LINCOLN & JODI AYERS	Check	2579	776.00

9/7/2023	WINWIN FARM LLC	Cash	2577	1,500.00
9/7/2023	WINWIN FARM LLC	Cash	2576	1,500.00
9/7/2023	WINWIN FARM LLC	Cash	2575	50.00
9/7/2023	WINWIN FARM LLC	IBX CC	2578	1,500.00
9/5/2023	JULIE & CHARLIE AKERMAN	Check	2570	200.00
9/5/2023	STANFIELD PLUMBING LLC	IBX CC	2571	75.00
9/5/2023	STREATER CONSTRUCTION, LLC	IBX CC	2574	100.00
9/5/2023	RESCARE OKLAHOMA, INC	IBX CC	2572	50.00
9/5/2023	RESCARE OKLAHOMA, INC	IBX CC	2573	50.00
9/1/2023	SPIRIT HALLOWEEN	IBX CC	2566	50.00
9/1/2023	RED ROCK BEHAVIORAL HEALTH SERVICES	IBX CC	2567	50.00
9/1/2023	AIR STREAMS LLC	IBX CC	2569	100.00
9/1/2023	ZION SERVICES, LLC	IBX CC	2568	100.00
9/1/2023	IPLUMB CO	IBX CC	2565	100.00
				22,683.00

Total Records: 69

10/6/2023



Monthly - City Clerk

09/01/2023 - 09/30/2023

Permit #	Permit Date	Permit Type	Parcel Address	Applicant Name	Description	Project Cost	Square Feet	Total Fees
20231711	9/29/2023	B - Accessory Structure	1434 N MINNESOTA	INFINITY CARPORTS	CARPORT	0	600	\$132.00
20231597	9/11/2023	B - Accessory Structure	1606 E HIGHLAND	NEAL RAMIREZ	NEW CONSTRUCTION	24,000	2,000	\$429.50
20231564	9/7/2023	B - Accessory Structure	33491 LAKE RD	ROCK CREEK BUILDINGS, LLC	NEW CONSTRUCTION	45,000	1,200	\$259.50
20231547	9/6/2023	B - Accessory Structure	707 W SARATOGA ST	DAVE HARWOOD DR	WARE HOUSE / STORAGE BUILDING	18,000	720	\$184.50
20231545	9/6/2023	B - Accessory Structure	1515 E 7TH ST	H&H CONCRETE	ALREADY BUILT	10,000	360	\$81.00
20231588	9/8/2023	B - Carport	1145 ADELINE DR	INFINITY CARPORTS	NEW CONSTRUCTION	3,900	180	\$54.50
20231574	9/8/2023	B - Commercial - New	43008 MACARTHUR	TIM AND DONNA RUSSELL		60,000	480	\$124.50
20231554	9/6/2023	B - Commercial - New	210 N KICKAPOO	ANH CONSTRUCTION	NEW CONSTRUCTION	48,000	2,800	\$704.50
20231531	9/1/2023	B - Commercial - New	1402 ELLIE CT	RAUSCH COLEMAN HOMES	MOVE ON	5,000	224	\$785.50
20231702	9/29/2023	B - Commercial - Remodel	1601 N KICKAPOO STE 500	COWBOY PHA CONTRACTORS	REMODEL	28,000	2,700	\$679.50
20231687	9/26/2023	B - Commercial - Remodel	1602 N HARRISON AVE	OAKSIDE CONSTRUCTION	REMODEL	81,000	4,134	\$1,038.00
20231624	9/14/2023	B - Commercial - Remodel	3306 N KICKAPOO	KEVIN HILL	REMODEL	555,000	4,300	\$1,075.00
20231612	9/13/2023	B - Commercial	4840 N KICKAPOO AVE	L5 CONSTRUCTION	REMODEL	375,000	2,703	\$680.25

		- Remodel						
20231600	9/12/2023	B - Commercial - Remodel	700 SARATOGA ST	CANTRELL EXTERIORS COMMERCIAL LLC	REMODEL	4,000,000	0	
20231573	9/7/2023	B - Commercial - Remodel	3700 N KICKAPOO AVE SUITE 140	CHRIS LANE	REMODEL SUITE 140	792,996	5,566	\$54.50
20231572	9/7/2023	B - Commercial - Remodel	3700 N KICKAPOO AVE SUITE 132	CHRIS LANE	REMODEL SUITE 132	377,549	2,650	\$54.50
20231571	9/7/2023	B - Commercial - Remodel	3700 N KICKAPOO AVE	CHRIS LANE	REMODEL SUITE 124	1,280,249	8,986	\$54.50
20231570	9/7/2023	B - Commercial - Remodel	3700 N KICKAPOO AVE	CHRIS LANE	REMODEL SUITE 116	431,261	3,027	\$54.50
20231569	9/7/2023	B - Commercial - Remodel	3700 N KICKAPOO AVE	CHRIS LANE	REMODEL SUITE 100	766,639	5,381	\$54.50
20231565	9/7/2023	B - Commercial - Remodel	1315 N MCKINLEY	PROVIDENCE LAND AND DEVELOPMENT	REMODEL	370,000	5,600	\$1,404.50
20231677	9/22/2023	B - Residential - New	4 EMERALD CT	OAKSIDE CONSTRUCTION	NEW CONSTRUCTION	210,500	791	\$172.59
20231676	9/22/2023	B - Residential - New	2 EMERALD CT	OAKSIDE CONSTRUCTION	NEW CONSTRUCTION	210,500	791	\$172.59
20231644	9/19/2023	B - Residential - New	1415 LEXI DR	RAUSCH COLEMAN HOMES	NEW CONSTRUCTION	190,000	2,377	\$1,234.61
20231641	9/19/2023	B - Residential - New	1102 CYPRESS CT	SBZ PROPERTIES LLC	NEW CONSTRUCTION	175,000	2,472	\$1,254.80
20231639	9/18/2023	B - Residential - New	1410 LEXI DR	RAUSCH COLEMAN HOMES	NEW CONSTRUCTION	190,000	2,112	\$1,178.30
20231532	9/1/2023	B - Residential - New	15350 WALKER RD	EDDIE HOWARD	MOVE ON	27,000	1,200	\$259.50
20231634	9/15/2023	B - Residential - Remodel	1704 N MARKET AVE	EMMET WILSON	REMODEL	50,000	2,400	\$29.50
20231631	9/15/2023	B - Residential - Remodel	1138 E ALICE ST	DWAYNE FOGLE	REMODEL	15,000	819	\$178.54
20231629	9/14/2023	B -	806 N UNION	TONY DOWDY	REMODEL	20,000	0	\$29.50

		Residential - Remodel						
20231628	9/14/2023	B - Residential - Remodel	804 N UNION	TONY DOWDY	REMODEL	20,000	0	\$29.50
20231606	9/12/2023	B - Residential - Remodel	11 RED ROCK	AMANDA WILLIAMS	REMODEL / REPAIR	23,000	1,401	\$302.21
20231604	9/12/2023	B - Residential - Remodel	1421 N PHILADELPHIA	DIAMOND B ROOFING	ALTERATION	3,208	350	\$78.88
20231587	9/8/2023	B - Residential - Remodel	321 N MCKINLEY	FUTURE HOME SOLUTIONS	REMODEL	10,000	88	\$29.50
20231581	9/8/2023	B - Residential - Remodel	3040 N TUCKER AVE	JACOB FLOYD	REMODEL	75,000	1,833	\$394.01
20231568	9/7/2023	B - Residential - Remodel	903 W 39TH ST	STEVEN BARRETT	REMODEL / REPAIR	65,000	600	\$132.00
20231563	9/7/2023	B - Residential - Remodel	1011 OVERLAND CT	ERIN BORTH	REMODEL	40,000	900	\$195.75
20231562	9/7/2023	B - Residential - Remodel	946 W HIGHLAND	ERIN BORTH	REMODEL	50,000	900	\$195.75
20231541	9/5/2023	B - Residential - Remodel	403 N TUCKER	Streater CONSTRUCTION	remodel	55,039	1,175	\$254.19
20231701	9/29/2023	B - Roof Redeck	16 E FRANKLIN ST	PARKER BROTHER ROOFING	RE-DECK	23,882	0	\$54.50
20231657	9/21/2023	B - Roof Redeck	3902 N AYDELOTTE	JOSHUA JONES	RE-ROOF / RE-DECK / ADD ON	60,000	3,600	\$54.50
20231567	9/7/2023	B - Roof Redeck	1135 QUAIL HOLLOW	777 ROOFING & CONSTRUCTION, LLC	ROOF RE-DECK	27,314	2,000	\$54.50
20231642	9/19/2023	B - Solar Panels	1313 WINDSOR PL	ARIZONA SOLAR SOLUTIONS DBA SUNTRIA	SOLAR PANELS	44,599	330	\$74.68
20231557	9/7/2023	B - Solar Panels	3 MOHICAN	ARIZONA SOLAR SOLUTIONS INC, dba SUNTRIA	NEW INSTALLATION	53,674	495	\$109.69
20231546	9/6/2023	B - Storm Shelter	1914 OAK TREE CT	FIRESTORM SEPTICS AND SHELTERS	STORM SHELTER	0	0	\$29.50
20231603	9/12/2023	B - Swimming	2028 LANTANA CIR	JV3 CONCRETE SOLUTIONS	NEW INSTALLATION	28,000	448	\$64.50

		Pool						
20231709	9/29/2023	E - Electrical	615 N PARK	T & S ELECTRICAL SERVICES LLC	NEW SERVICE	0	0	\$104.50
20231700	9/28/2023	E - Electrical	709 S BROADWAY AVE	RED RIVER ELECTRIC	REPLACE EXISTING	0	0	\$54.50
20231699	9/28/2023	E - Electrical	1138 E ALICE ST	OKLANDE	REMODEL - BURN OUT	0	0	\$104.50
20231696	9/27/2023	E - Electrical	3954 N KICKAPOO AVE	DANNY ODEN ELECTRIC	BCW	0	0	\$54.50
20231695	9/27/2023	E - Electrical	802 N MINNESOTA	24/7 ELECTRICAL SERVICES & REPAIRS LLC	REMODEL	0	0	\$54.50
20231692	9/27/2023	E - Electrical	3040 N TUCKER AVE	LIT UP ELECTRIC, LLC	REMODEL	0	0	\$104.50
20231691	9/27/2023	E - Electrical	3700 N KICKAPOO AVE	LACY ELECTRIC LLC	BRANCH CIRCUIT WIRING	0	0	\$54.50
20231682	9/25/2023	E - Electrical	15403 PERRY RD	HILL ELECTRIC	NEW INSTALLATION	0	0	\$29.50
20231681	9/25/2023	E - Electrical	117 MEADOWS	WILSON ELECTRIC	REPAIR DAMAGE TO SUN ROOM REBUILD	0	0	\$54.50
20231680	9/22/2023	E - Electrical	1029 E 39TH	KB ELECTRIC	ADD ON	0	0	\$54.50
20231669	9/22/2023	E - Electrical	3024 N BEARD AVE	INCE ELECTRIC	MISCELLANEOUS	0	0	\$104.50
20231668	9/22/2023	E - Electrical	311 N MCKINLEY	INCE ELECTRIC	MISCELLANEOUS	0	0	\$54.50
20231664	9/21/2023	E - Electrical	2802 N BELL	PASSION ELECTRIC	NEW SERVICE	0	0	\$104.50
20231663	9/21/2023	E - Electrical	1208 E HICKMAN	EARLY BIRDS ELECTRIC	NEW SERVICE	0	0	\$104.50
20231661	9/21/2023	E - Electrical	313 E MAIN	SELECT SERVICE ELECTRIC		0	0	\$54.50
20231659	9/21/2023	E - Electrical	33403 LAKE RD	BMF ELECTRIC	NEW SERVICE	0	0	\$54.50
20231652	9/20/2023	E - Electrical	700 SARATOGA ST	MARSH ELECTRIC, LLC	REMODEL	0	0	\$54.50
20231651	9/20/2023	E - Electrical	311 CLUB HOUSE DR	JOHNSON ELECTRIC LLC	SERVICE	0	0	\$54.50
20231643	9/19/2023	E - Electrical	1313 WINDSOR PL	ARIZONA SOLAR SOLUTIONS DBA SUNTRIA	6.56kw residential rooftop solar system	0	0	\$54.50
20231636	9/15/2023	E - Electrical	202 S EDEN	GARY'S	NEW SERVICE	0	0	\$54.50

			AVE	ELECTRIC				
20231633	9/15/2023	E - Electrical	225 E MACARTHUR	405 ELECTRICAL SERVICES	BRANCH CIRCUIT WIRING	0	0	\$54.50
20231630	9/15/2023	E - Electrical	321 N MCKINLEY	BEACON ELECTRIC LLC	REMODEL	0	0	\$54.50
20231621	9/13/2023	E - Electrical	1604 N LOUISA	ROLLERS ELECTRIC	METER RESET	0	0	\$54.50
20231615	9/13/2023	E - Electrical	2204 BRYANT VIA	COOVERS ELECTRIC	BCW	0	0	\$54.50
20231596	9/11/2023	E - Electrical	941 N UNION	ALEX ELECTRIC INC	UNIT B	0	0	\$54.50
20231595	9/11/2023	E - Electrical	941 N UNION	ALEX ELECTRIC INC	MAIN HOUSE	0	0	\$54.50
20231593	9/11/2023	E - Electrical	19 QUAIL RIDGE	ASTEN ELECTRIC, LLC	NEW INSTALLATION	0	0	\$54.50
20231584	9/8/2023	E - Electrical	4611 N KICKAPOO	PITTMAN ELECTRIC LLC	BCW	0	0	\$54.50
20231583	9/8/2023	E - Electrical	34 SEQUOYAH BLVD	METROPLEX ELECTRIC	NEW SERVICE	0	0	\$104.50
20231577	9/8/2023	E - Electrical	2505 OVAL DR	JESSE LEWIS INC	NEW SERVICE / BCW	0	0	\$204.50
20231561	9/7/2023	E - Electrical	719 N KICKAPOO	JACKS ELECTRIC	200 AMP SERVICE	0	0	\$54.50
20231558	9/7/2023	E - Electrical	3 MOHICAN	ARIZONA SOLAR SOLUTIONS INC, dba SUNTRIA	NEW INSTALLATION	0	0	\$54.50
20231548	9/6/2023	E - Electrical	1704 N MARKET AVE	YARDY ELECTRIC	REMODEL	0	0	\$54.50
20231534	9/5/2023	E - Electrical	623 w INDEPENDENCE	ALL PHASE ELECTRIC	NEW SERVICE 200-400 AMP	0	0	\$104.50
20231529	9/1/2023	E - Electrical	1510 N PARK	ZION SERVICES, LLC	REMODEL	0	0	\$54.50
20231667	9/22/2023	F - Burn	3308 N HARRISON AVE	BILL CRUMB - YELLOWSTONE CONSTRUCTION	BURN PERMIT	0	0	\$29.50
20231645	9/19/2023	F - Burn	33909 LAKE RD	GERALD LINDA NOWLIN	BURN PERMIT	0	0	\$29.50
20231640	9/18/2023	F - Burn	613 E 10TH ST	KATE JOYCE	BURN PERMIT	0	0	\$29.50
20231576	9/8/2023	F - Burn	1306 W WHEELER ST	KATHY KINGSLEY	BURN PERMIT	0	0	\$29.50
20231543	9/6/2023	F - Fire Alarm / Smoke Control System	716 W AYER ST	TROY QUALLS	FIRE ALARM	0	0	\$104.50

20231690	9/26/2023	F - Fire Suppression	4611 N KICKAPOO	AUTOMATIC FIRE CONTROL	NEW INSTALLATION	0	0	\$104.50
20231688	9/26/2023	F - Fire Suppression	2505 OVAL DR	CONTROL FIRE SYSTEM	NEW INSTALLATION	0	26,256	\$629.62
20231637	9/18/2023	F - Fire Suppression	301 N BEARD	FIRE SUPPRESSION SPECIALIST	HOOD SUPPRESSION SYSTEM	0	0	\$104.50
20231533	9/1/2023	F - Fire Suppression	8032 INDUSTRIAL DR	OKLAHOMA FIRE PROTECTION	NEW INSTALLATION	0	50,000	\$1,104.50
20231694	9/27/2023	F - Firework Display	500 W UNIVERSITY	WALD FIREWORKS / KEVIN HANNA	FIREWORKS DISPLAY	0	0	\$104.50
20231632	9/15/2023	F - Open Air / Tent	1010 E INDEPENDENCE ST	CINDY WILLIAMS	TENT	0	0	\$54.50
20231679	9/22/2023	L - Urban Chickens	4108 N AYDELOTTE AVE	MICHAEL JACK	CHICKEN PERMIT	0	0	\$15.00
20231708	9/29/2023	M - Mechanical	910 N SHAWNEE ST	WAGGONERS HEATING AND AIR	CHANGE OUT APT #14	0	0	\$64.50
20231693	9/27/2023	M - Mechanical	42 SERENADA CT	SOWDER HEAT & AIR	CHANGE OUT	0	0	\$104.50
20231689	9/26/2023	M - Mechanical	2201 N MINNESOTA AVE	AIRCO SERVICE	CHANGE OUT	0	0	\$64.50
20231683	9/25/2023	M - Mechanical	1421 E 45	SPARKS HEAT AND AIR	NEW SYSTEM	0	0	\$164.50
20231672	9/22/2023	M - Mechanical	1029 E 39TH	MJ MECHANICAL LLC	NEW INSTALLATION	0	0	\$104.50
20231671	9/22/2023	M - Mechanical	304 E MACARTHUR ST	A-TEAM HTG & COOLING	REPLACE EXISTING	0	0	\$54.50
20231666	9/21/2023	M - Mechanical	3902 N AYDELOTTE	1ST CHOICE HVACR	CHANGE OUT	0	0	\$64.50
20231625	9/14/2023	M - Mechanical	421 E DARROW	WAGGONERS HEAT & AIR	CHANGE OUT	0	0	\$64.50
20231620	9/13/2023	M - Mechanical	25 W KEN DEL DR	DUCT SPECIALIST	NEW SYSTEM / MINI SPLIT	0	0	\$149.50
20231616	9/13/2023	M - Mechanical	117 MEADOWS	LIEBER MECHANICAL, LLC	CHANGE OUT	0	0	\$64.50
20231599	9/12/2023	M - Mechanical	2520 SUTTON CT	SPARKS HEAT AND AIR	NEW SYSTEM	0	0	\$84.50
20231589	9/11/2023	M - Mechanical	910 N SHAWNEE ST	WAGGONERS HEATING AND	CHANGE OUT APT #11	0	0	\$64.50

				AIR				
20231566	9/7/2023	M - Mechanical	2003 N TUCKER	ROBERTS AND SONS HVAC	NEW INSTALLATION	0	0	\$304.50
20231555	9/6/2023	M - Mechanical	3040 N TUCKER AVE	AIM HEAT AND AIR	NEW SYSTEM / 4 TON	0	0	\$84.50
20231698	9/28/2023	O - Curb Cut, Driveway and Sidewalk	319 N MARKET	KING DAVIDS	DRIVEWAY	0	0	\$50.00
20231662	9/21/2023	O - Curb Cut, Driveway and Sidewalk	221 E PULASKI	WARREN BAXTER		0	0	\$50.00
20231635	9/15/2023	O - Curb Cut, Driveway and Sidewalk	1901 N BROADWAY AVE	DYNAMIC EARTH SOLUTIONS	SIDEWALK	0	0	\$50.00
20231704	9/29/2023	O - Demolition and Moving	2320 AIRPORT DR	MIDWEST WRECKING CO	DEMOLITION	0	0	
20231665	9/21/2023	O - Demolition and Moving	15 RED OAK	TOTAL DEMOLITION SERVICES, LLC	DEMOLITION	0	0	
20231617	9/13/2023	O - Demolition and Moving	720 S BROADWAY	WADES SERVICES	DEMOLITION	0	0	
20231610	9/13/2023	O - Demolition and Moving	3306 N KICKAPOO	BMS-CAT BLACKMON MOORING	DEMOLITION	0	0	\$50.00
20231586	9/8/2023	O - Demolition and Moving	308 S LOUISA AVE	WADES SERVICES	DEMOLITION	0	0	
20231585	9/8/2023	O - Demolition and Moving	911 N MINNESOTA	WADES SERVICES	DEMOLITION	0	0	
20231582	9/8/2023	O - Demolition and Moving	1025 E 10TH ST	WADES SERVICES	DEMOLITION	0	0	
20231580	9/8/2023	O - Demolition and Moving	1111 KICKAPOO SPUR	MIDWEST WRECKING CO	DEMOLITION	0	0	\$50.00
20231578	9/8/2023	O - Demolition and Moving	711 KICKAPOO SPUR	MIDWEST WRECKING CO	DEMOLITION	0	0	\$50.00
20231556	9/6/2023	O - Demolition and Moving	1302 N MARKET	KW SERVICES LLC	DEMOLITION	0	0	\$50.00
20231575	9/8/2023	O - Land	43008	K2	LAND	0	0	\$50.00

		Disturbance	MACARTHUR	CONSTRUCTION LLC	DISTURBANCE			
20231703	9/29/2023	O - Paving Cut and Boring	1326 E CHANDLER	COWBOYS PLUMBING	STREET CUT	0	0	
20231685	9/25/2023	O - Paving Cut and Boring	2304 N AIRPORT RD	VYVE BROADBAND	ROAD BORE	0	0	
20231638	9/18/2023	O - Paving Cut and Boring	2109 N KICKAPOO	CODE RED UNDERGROUND	ROAD BORE	0	0	
20231623	9/14/2023	O - Paving Cut and Boring		B&H CONSTRUCTION	W HIGHLAND ST & N LOUISA AVE	0	0	
20231609	9/12/2023	O - Paving Cut and Boring	203 OUTLANDER WAY	TSU 1	ROAD BORE	0	0	
20231594	9/11/2023	O - Paving Cut and Boring	2801 N KICKAPOO AVE	ARIAS UTILITY LLC	ROAD BORE	0	0	
20231684	9/27/2023	O - Sign	39004 W MACARTHUR SUITE 100	SIGNWORKS	NEW INSTALLATION	0	0	\$50.00
20231647	9/25/2023	O - Sign	1005 N KICKAPOO AVE	SIGNS AND WONDERS LLC	REPLACE EXISTIN	0	0	
20231646	9/25/2023	O - Sign	1005 N KICKAPOO AVE	SIGNS AND WONDERS LLC	REPLACE EXISTIN	0	0	
20231627	9/25/2023	O - Sign	830 E MAIN ST	SIGNS & WONDERS, LLC	REPLACE FACES	6,000	144	
20231622	9/25/2023	O - Sign	3309 N KICKAPOO AVE	METRO SIGN CORPORATION	REPLACE EXISTING	0	0	
20231591	9/11/2023	O - Sign	1627 N KICKAPOO	FAST SIGNS	REPLACE	4,000	30	\$50.00
20231560	9/7/2023	O - Sign	42003 WESTECH RD	BLISS ELECTRIC, INC	NEW SIGN	1,000	24	\$50.00
20231559	9/7/2023	O - Sign	42003 WESTECH RD	BLISS ELECTRIC, INC	NEW SIGN	1,000	16	\$50.00
20231549	9/6/2023	O - Sign	2700 N KICKAPOO	SIGNS AND WONDERS LLC	REPLACE EXISTING	3,000	36	\$50.00
20231542	9/6/2023	O - Sign	1601 N KICKAPOO STE 500	GENERAL LIGHTING AND SIGN SERVICES	18' WALL SIGN	0	0	\$50.00
20231710	9/29/2023	P - Plumbing	11 CROWN POINT	WEST SHORE HOME, LLC	MISCELLANEOUS	0	0	\$54.50
20231707	9/29/2023	P - Plumbing	1816 W FRANKLIN ST	FIVE STAR PLUMBING	REPAIR / REPLACE	0	0	\$54.50
20231705	9/29/2023	P - Plumbing	531 N	FIVE STAR	REPAIR /	0	0	\$54.50

			AYDELOTTE	PLUMBING	REPLACE			
20231697	9/27/2023	P - Plumbing	417 N MEAD AVE	DALE'S PLUMBING	REMODEL	0	0	\$54.50
20231678	9/22/2023	P - Plumbing	1029 E 39TH	COWBOYS PLUMBING LLC	ADD ON	0	0	\$54.50
20231675	9/22/2023	P - Plumbing	2505 OVAL DR	COMMERCIAL CONSTRUCTION SERVICES LLC	SEWER TAP	0	0	\$375.00
20231670	9/22/2023	P - Plumbing	4208 N POTTENGER AVE	DALES PLUMBING	SEWER TAP	0	0	\$429.50
20231660	9/21/2023	P - Plumbing	601 N OKLAHOMA	ALL ABOUT PLUMBING	REPLACE	0	0	\$54.50
20231658	9/21/2023	P - Plumbing	2505 OVAL DR	HARRISON ORR AIR CONDITIONING	remodel	0	0	\$54.50
20231656	9/21/2023	P - Plumbing	1909 N PENNSYLVANIA	STANLEY PLUMBING SERVICES	METER RESET	0	0	
20231655	9/21/2023	P - Plumbing	600 W INDEPENDENCE ST 900	HORIZON PLUMBING & DRAIN	GAS SERVICE	0	0	\$54.50
20231654	9/21/2023	P - Plumbing	600 W INDEPENDENCE ST 1000	HORIZON PLUMBING & DRAIN	GAS SERVICE	0	0	\$54.50
20231653	9/21/2023	P - Plumbing	600 W INDEPENDENCE ST 1100	HORIZON PLUMBING & DRAIN	GAS SERVICE	0	0	\$54.50
20231650	9/20/2023	P - Plumbing	47 NORTHRIDGE	STANLEY PLUMBING	METER RESET	0	0	
20231648	9/20/2023	P - Plumbing	1326 E CHANDLER	COWBOYS PLUMBING	REPAIR / TAP	0	0	
20231626	9/14/2023	P - Plumbing	1534 N PENNSYLVANIA AVE	DALE'S PLUMBING	REPLACE EXISTING	0	0	\$54.50
20231608	9/12/2023	P - Plumbing	25 W KEN DEL DR	HERMANS PLUMBING CO INC	MISCELLANEOUS	0	0	\$54.50
20231607	9/12/2023	P - Plumbing	1008 E 11TH ST	DALE'S PLUMBING	MISCELLANEOUS	0	0	\$54.50
20231605	9/12/2023	P - Plumbing	1911 N KICKAPOO	ROWDY BOYS PLUMBING	MISCELLANEOUS	0	0	\$54.50
20231602	9/12/2023	P - Plumbing	801 N HARRISON AVE	B & H CONSTRUCTION	AUX GAS LINE	0	0	\$54.50
20231601	9/12/2023	P - Plumbing	1603 N PENNSYLVANIA	STANLEY PLUMBING SERVICES	GAS LINE EXTENSION	0	0	

20231598	9/12/2023	P - Plumbing	70 SEQUOYAH BLVD	CS PLUMBING	REMODEL	0	0	\$54.50
20231592	9/11/2023	P - Plumbing	4313 ELOISE DR	progressive plumbing	RETRO FIT NEW CONSTRUCTION	0	0	\$54.50
20231590	9/11/2023	P - Plumbing	1523 N MARKET	COMPLETE PLUMBING	gas pressure test, corrections for water heater install	0	0	\$54.50
20231579	9/8/2023	P - Plumbing	14301 US HIGHWAY 177	COWBOYS PLUMBING	MOVE GAS LINE	0	0	\$54.50
20231553	9/6/2023	P - Plumbing	611 N CHAPMAN	DALES PLUMBING	WATER SEVICE	0	0	\$54.50
20231552	9/6/2023	P - Plumbing	226 N LOUISA	DALES PLUMBING	WATER SERVICE	0	0	\$54.50
20231551	9/6/2023	P - Plumbing	53 TIMBER CREEK DR	BRANDON'S PLUMBING	GAS METER REHANG	0	0	
20231550	9/6/2023	P - Plumbing	1213 CAROL DR	BRANDON'S PLUMBING	GAS METER REHANG	0	0	
20231544	9/6/2023	P - Plumbing	1005 N MCKINLEY	DALES PLUMBING	WATER SERVICE	0	0	\$54.50
20231540	9/5/2023	P - Plumbing	3700 N KICKAPOO AVE	MULLIN PLUMBING	GAS LINE/ PRESSURE TEST	0	0	\$54.50
20231539	9/5/2023	P - Plumbing	3700 N KICKAPOO AVE	MULLIN PLUMBING	GAS LINE/ PRESSURE TEST	0	0	\$54.50
20231538	9/5/2023	P - Plumbing	3700 N KICKAPOO AVE	MULLIN PLUMBING	GAS LINE/ PRESSURE TEST	0	0	\$54.50
20231537	9/5/2023	P - Plumbing	3700 N KICKAPOO AVE	MULLIN PLUMBING	GAS LINE/ PRESSURE TEST	0	0	\$54.50
20231536	9/5/2023	P - Plumbing	3700 N KICKAPOO AVE	MULLIN PLUMBING	GAS LINE/ PRESSURE TEST	0	0	\$54.50
20231535	9/5/2023	P - Plumbing	321 N MCKINLEY	STANFIELD PLUMBING	GROUND TO FINAL / BATHROOM	0	0	\$54.50
20231530	9/1/2023	P - Plumbing	2606 N BROADWAY AVE	IPLUMBCO	REPAIR / REPLACE	0	0	\$54.50
20231528	9/1/2023	P - Plumbing	1201 N DRAPER	DALE'S PLUMBING	REPAIR / REPLACE	0	0	\$54.50
20231686	9/26/2023	PC - Deed Approval	515 N CHAPMAN AVE	WILLIAM D DAVIS	MERGE WITH 519 N CHAPMAN	0	0	
20231674	9/22/2023	PC - Deed Approval	1131 E WALNUT STE 1	ACOCK PROPERTIES, LLC	DEED APPROVAL	0	0	
20231673	9/22/2023	PC - Lot Split	42405 WESTECH RD	ECO DEVELOPMENT, LLC	LOT SPLIT	0	0	\$75.00

								\$23,893.46
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Total Records: 177

10/4/2023



Financial Statements

For the Year Ended June 30, 2023

Pioneer Library System

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June 30, 2023

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Gray, Blodgett & Company, PLLC

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INDEPENDENT AUDITORS' REPORT

September 21, 2023

To the Board of Trustees of
Pioneer Library System
Norman, Oklahoma

Report on the Audit of the Financial Statements

Opinions

We have audited the accompanying financial statements of the governmental activities, the aggregate discretely presented component unit of Pioneer Library System (the System), as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the aggregate discretely presented component unit of the System, as of June 30, 2023, and the respective changes in financial position, for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Pioneer Library System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

To the Board of Trustees of
Pioneer Library System
September 21, 2023

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is

higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards and Government Auditing Standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgement, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 6–14 and the budgetary comparison information on page 35, be presented to supplement the basic financial statements. Such information the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of

To the Board of Trustees of
Pioneer Library System
September 21, 2023

management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated September 21, 2023, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Pioneer Library System's internal control over financial reporting and compliance.

GRAY, BLODGETT & COMPANY, PLLC
Gray, Blodgett & Company, PLLC



Management's Discussion & Analysis (Unaudited) for the Fiscal Year Ended June 30, 2023

This discussion and analysis of the financial performance of Pioneer Library System (PLS) provides an overall review of PLS's financial condition and results of operations for the fiscal year ended June 30, 2023. Readers should read this information in conjunction with the System's financial statements.

Governmental Accounting Standards Board (GASB) statements 94 and 96 became effective as of June 30, 2023. Statement 96 was on subscription-based information technology arrangements (SBITAs) and the statement's objective was to increase the usefulness of governments' financial statements by requiring recognition of certain SBITAs as a right-to-use subscription assets and a corresponding subscription liability that were previously classified as expenses and recognized as inflows of resources or outflows of resources based on the provisions of the contract. The other pronouncement does not affect the System's financial statements.

PLS Overview

The Pioneer Library System is comprised of twelve library branches in ten communities within three counties serving more than 400,000 residents. 1,092,823 visits were made to PLS libraries in FY22-23. Print and digital collections are checked out nearly 2.9 million times per year by people of all ages. Approximately 71% of people in this service area have a library card and 91% of library users surveyed would recommend the library to others.

- Mission: Inspiring innovation, engagement, and learning in our communities.
- Customer Service Philosophy: Creating positive experiences for you.
- Values: Welcome, Empower, Respect.

Working with local partners, PLS helps connect people with jobs and supports career development, partners with schools to offer resources and assistance to students with their schoolwork, and delivers programming focused on early literacy. The library provides services to those unable to come to the library through homebound services, digital materials, virtual programs, and more. The library provides Internet access and assistance to connect customers with vital services, including housing, utilities, food, health care, and public assistance. Whether in-person or virtually, PLS inspires innovation, engagement, and learning in our communities.

As our communities adapt to life after the COVID-19 pandemic, PLS, too, implemented new tactics to reach and engage customers as customer behavior continues to shift. PLS continues to draw in more Digitarians, or customers who primarily check out digital materials, than ever before, and customers returned to our facilities with door counts nearly back to pre-pandemic numbers. Services implemented in the pandemic, curbside pick-up, boosted Wi-Fi to parking lots, and digital, on-demand content, continue to be popular channels for customers to connect to library resources. Through these services and targeted marketing campaigns, PLS increased total market penetration from 29% in Q2 of 2022 to 32% in Q1 of 2023. By the end of Q1 of 2023, 32% of households in our service area had an active library card, nearly back to pre-pandemic numbers. The 2023 Summer Learning Challenge set yet another record-breaking summer with more than 22 million minutes of learning. Nearly 10,000 learners enrolled in the Challenge this year and 48% of customers reached their personal goal of 1,000 points. This was a 4.4% increase from 2022 (43.9%). As a result, the PLS Foundation donated books to children ages 0-5 enrolled in WIC programs across our three counties.

All of this work and more continues to have been led by the 2021 Strategic Plan, the priorities of which move the PLS mission, philosophy, and values forward. Decisions made this year and outlined in this document were measured and aligned with each section of the Strategic Plan.

Financial Highlights

For FY22-23, PLS's general fund reported an ending balance of \$19,890,158 versus \$17,891,907 for the FY21-22. Of the 2022-2023 year-end total, \$486,266 is committed for outstanding encumbrances, and \$722,361 is assigned for service upgrades and improvements of library services at current and future libraries within the System. A majority of the outstanding encumbrances are for materials, and technology equipment. Although the remaining balance of \$18,681,531 is unassigned, the library administration, with the Board of Trustee's approval, will use a portion of these funds to fund upcoming library projects in the service area. The remainder of the money in these funds will be prudently used or committed to alleviate summer/fall cash flow problems and other emergencies that might arise.

PLS's operating revenue increased by 6.34% this year. This increase enabled PLS to further the library's mission through a variety of opportunities:

- PLS began as the first Oklahoma library system to participate in Dolly Parton's Imagination Library program and spent \$57,084 on this program.
- Authors Douglas Tallamy and Philippe Cousteau were paid a total of \$20,629 this fiscal year as a part of the PLS Reads/Spark a Change community conversation series.
- PLS spent \$12,383 on the Sunday Stars program in Tecumseh. Sunday Stars is an enrichment program for students in first through third grade who are below grade level in reading and math. Students engage in hands-on STEAM activities, quality reading instruction by Lead Instructors based on Orton Gillingham curriculum, and one-on-one reading time with a Teen Reading Ambassador. PLS partnered with Purcell, Noble and Tecumseh Public Schools to identify and recruit eligible students and measure academic success. The System has received grant funding from the State Department of Education for the Noble and Purcell locations.
- PLS spent \$8,800 on scholarships and fees for Gale Presents: Excel Adult High School. Eight scholarships were awarded, and four students graduated from the program with their high school diploma.
- Items purchased from the Technology/Equipment budget included equipment for the maker labs at the Noble, Shawnee, & SOKC branches at a total cost of \$118,645. The maker lab equipment consists of one laser printer, two 3D printers, one embroidery machine, one sewing machine, and one vinyl cutter. Three media boxes were purchase for a total cost of \$188,997 and will be installed at the Shawnee branch, the Shawnee Mall, and the Newcastle branch. These items will improve the customer experience by providing faster and, in some cases, 24/7 access to materials and technology.
- Additional digital materials were purchased to meet demand and provide customers with a wider selection of titles. As mentioned previously, digital activity increased throughout the year as the pandemic changed daily life in our communities.

The general fund balance increased by \$1,998,251 from the previous fiscal year due to the increase in collection of revenue and the decrease in spending in expense categories because the roof at the 300 Norman Center Court location was replaced during the previous fiscal year.

The Pioneer Library System Foundation completed its thirteenth year of operation as of June 30, 2023. The PLS Foundation was organized for the purpose of "Supporting Literacy and a Love of Learning throughout Pioneer Library System Communities." The PLS Foundation awarded a total of \$11,685 to all of PLS's twelve branches to support local programs supporting literacy. More than \$46,879 in grant funds were awarded to the PLS Foundation by the Oklahoma Department of Libraries and the Institute of Museum and Library Services for health literacy initiatives at eleven of the twelve branches. In addition, the PLS Foundation provided financial support for many of PLS's programs including the 2023 PLS Reads/Spark a Change series and the systemwide Summer Learning Challenge. The PLS Foundation sponsored and hosted Literally Yours featuring best-selling author Philippe Cousteau. The PLS Foundation also funded \$10,000 that was raised in 2022 for books that were donated this year to children enrolled in area health department programs as

reward for exceeding the Summer Learning Challenge community goal of spending more than 22 million minutes learning. The PLS Foundation has been included as a component unit of the Pioneer Library System and the PLS Foundation has issued its own financial statements, available from the Pioneer Library Foundation administrative office.

Overview of the Financial Statement

The Pioneer Library System's basic financial statements consist of fund financial statements, notes to financial statements, and required supplementary information.

Government-Wide Financial Statements

The government-wide financial statements are designed to provide readers with a broad overview of the System's finances, in a manner similar to a private-sector business.

The statement of net position represents information on all of the System's assets, liabilities, deferred inflows, and deferred outflows, with the difference between them reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the System is improving or deteriorating.

The statement of activities presents information showing how the System's net position changed during the most recent fiscal year. All changes in net assets are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows.

Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future periods (e.g. uncollected taxes and earned but unused vacation leave).

The government-wide financial statements can be found on pages 14 and 15 of this report.

Fund Financial Statements

The Library System has one kind of funds – Governmental Funds:

Governmental Funds encompass two types: General Fund and Other Governmental Funds:

General Fund represents unrestricted resources that are available for on-going general library operations. This is PLS's primary operating fund.

Other Governmental Funds include Gift/Grant Funds.

Gifts/Grant Funds include funds provided by intergovernmental grants and other third parties' gifts and grants. All those funds are generally restricted as to use. Therefore, each fund accounts for its receipts and disbursements of the restricted functions.

Notes to the Financial Statements

The accompanying notes to the financial statements provide information essential for a full understanding of PLS's financial statements.

Supplemental Information

In addition to the basic financial statements and accompanying notes, this report also presents required supplementary information – the Budget Comparison Schedule – General Fund (Unaudited).

Financial Analysis of Library System's Funds

As financial information is accumulated on a continuous and consistent basis, financial statements and expenditure reports for governmental funds are presented to the Pioneer Library System Board of Trustees.

For fiscal year 2022-2023 governmental fund balances changed as follows:

	General Fund Funds	Other Governmental Funds	Total Governmental Funds
Revenues	\$ 23,221,439	\$ 159,765	\$ 23,381,204
Expenditures	\$ 21,223,188	\$ 116,653	\$ 21,339,841
Net Increase	\$ 1,998,251	\$ 43,112	\$ 2,041,363

For fiscal year 2021-2022 governmental fund balances changed as follows:

	General Fund Funds	Other Governmental Funds	Total Governmental Funds
Revenues	\$ 21,835,151	\$ 111,401	\$ 21,946,552
Expenditures	\$ 20,103,158	\$ 175,799	\$ 20,278,957
Net Decrease	\$ 1,731,993	\$ (64,398)	\$ 1,667,595

General Fund

PLS is primarily (or 95%) funded by Ad Valorem (property) tax. For the 2022-23 financial year the tax rates were: a 6.06 mill Ad Valorem tax in Pottawatomie County; a 6.11 mill Ad Valorem tax in McClain County; and a 6.11 mill Ad Valorem tax in Cleveland County. For FY22-23, the Counties' assessed property value had an increase of 8.06% versus 3.87% for FY21-22. Actual tax collections increased by 6.74% versus 5.73% for the prior year. The increase of 6.74% was due to the collection of more tax revenue. Fine and other charges for services revenue for FY22-23 decreased by \$428,330 from FY21-22. This decrease was precipitated by the fact that no insurance proceeds were received from the insurance company for the roof this year. State Aid increased by \$1,525 over the prior year. Interest income increased by \$412,458 over the prior year. This increase is attributed to an increase in interest rates and the increase in the amount of funds in the fund balance.

The Expense category Personnel Services increased from 2022 to 2023 due to the increase in salaries paid as a result of the pay compensation study completed this year; an increase in health insurance expenses due to a rate increase from the service provider; an increase in employee assistant program caused by a full-year contract with the new provider who started in the middle of the previous year; an increase in workers' compensation insurance as our rate increased; and an increase in unemployment expenses due to the increase in usage. The Expense category of Materials increased to purchase more digital materials for the collection to meet demand. The Technology and Automation category increased because of the purchase of three media boxes, the purchase of maker lab equipment to create three additional maker labs, and the cost of replacing computers throughout the System.

The System Services and General and Administrative expense categories were different in 2023 than in 2022 because of the following:

- Professional Services decreased due to several contracts being capitalized instead of expensed due to the new accounting guidance contained in the GASB 96 accounting standard.
- The Continuing Education expenses increased as the OLA conference was held in Norman this year and more staff attended the conference.
- Equipment expenses increased compared to last year for the purchase of new staff chairs for several branches and the purchase of maker lab equipment for some of the branches.
- Insurance increased to reflect actual insurance costs.
- Supplies increased to reflect the addition of Sunday Stars expenses for the Tecumseh branch.
- Telephone expenses decreased to reflect the elimination of fax lines that were no longer needed.
- Vehicles decreased because fewer vehicles were purchased this year.
- Marketing & Communications costs increased to cover the costs associated with the website redesign.
- Printing expenses decreased as lease expenses for copiers were capitalized instead of expensed due to the new accounting guidance contained in the GASB 87 accounting standard.
- The number of employees and wages paid increased resulting in an increase in Data Processing expenses.
- Board Development expenses increased when compared to last year due to attendance at a development conference.
- Programming expenses increased to cover the costs of author visits for PLS Reads/Spark a Change programs.
- System Outreach expenses increased to reflect the expenses for the new Dolly Parton Imagination Library Program and the Excel online high school program.
- System Facilities decreased to reflect the fact that a new roof and new HVAC units were not needed at the System's Administration building located at 300 Norman Center Court this year like they were last year.

Other Governmental Funds

Gifts/Grants Funds: In FY22-23, Pioneer Library System received \$113,572 in gifts and grants.

Pioneer Library System received \$42,164 in grants this year. \$17,952 of these funds were a grant received from the Oklahoma Partnership for School Readiness. These funds were spent on GLAR Bags and Standup Books. The System received a \$10,000 grant from the H. H. Wilson Foundation. Outright gifts to PLS totaled \$71,408, over 51% (\$36,377) of which was provided by Friends groups throughout PLS. The City of Purcell donated \$7,500 to fund programs at the Purcell Library. All grantors and donors provided financial support and were also active partners providing excellent library services to the community.

The Library System as a Whole

	2022-2023	2021-2022
Assets		
Current and Other Assets	\$ 21,478,050	\$ 20,129,795
Lease Receivable	\$ 685,374	\$ 779,556
Right to Use Leased Assets	\$ 9,805	\$ 133,357
Right to Use Subscription Assets	\$ 408,611	\$ -
Capital Assets	\$ 9,683,901	\$ 9,538,119
Total Assets	\$ 32,265,741	\$ 30,580,827
Liabilities		
Accounts Payable and Accrued Expenses	\$ 389,826	\$ 1,117,786
Accrued Interest Payable	\$ 8,107	\$ -
Other Liabilities	\$ 420,613	\$ 409,329
Subscription Liability	\$ 262,850	\$ -
Subscription Liability - Current	\$ 143,471	\$ -
Right to Use Liability	\$ 10,111	\$ 135,557
Total Liabilities	\$ 1,234,978	\$ 1,662,672
Deferred Inflows of Resources		
Inflows Related to Leases	\$ 730,691	\$ 801,403
Total Deferred Inflows of Resources	\$ 730,691	\$ 801,403
Net Position		
Net Investment in Capital Assets	\$ 9,683,901	\$ 9,538,119
Restricted Net Assets	\$ 732,136	\$ 689,024
Unrestricted Net Assets	\$ 19,884,035	\$ 17,889,609
Total Net Position	\$ 30,300,072	\$ 28,116,752
Change in Net Position		
Beginning Net Position	\$ 28,116,752	\$ 26,114,128
Revenues		
Property Taxes	\$ 22,064,787	\$ 20,671,488
Charges for Services	\$ 302,165	\$ 311,979
Operating Grants	\$ 113,572	\$ 155,783
Capital Grants	\$ 7,977	\$ 11,034
State Aid	\$ 112,782	\$ 111,257
Investment Earnings	\$ 496,376	\$ 83,918
Net Change In Beneficial Assets Held by Others	\$ 38,216	\$ (55,416)
Loss on Disposal	\$ (59,860)	\$ 352,109
Total Revenues	\$ 23,076,015	\$ 21,642,152
Expenses		
Public Library Services	\$ 15,321,466	\$ 14,368,178
Administrative Services	\$ 3,030,725	\$ 2,876,709
Depreciation-Unallocated	\$ 2,540,504	\$ 2,394,641
Total Expenses	\$ 20,892,695	\$ 19,639,528
Increase in Net Position	\$ 2,183,320	\$ 2,002,624
Ending Net Position	\$ 30,300,072	\$ 28,116,752

General Fund Budgetary Highlights

The General Fund budget for FY22-23 was \$23,020,148. This was a 7.78% increase over the previous year. The highlights of the budget include:

- A 6.0% salary adjustment for staff who receive a successful or outstanding rating on their performance evaluation and are not in their training period and market adjustments for those staff who were recommended for them based on a pay compensation market study.
- Retirement decreased \$100,000 to reflect no costs needed to terminate the PLS Defined Benefit Pension Plan.
- Health Insurance increased \$16,920 to cover an expected increase in costs for the last three months of the fiscal year when we receive the new rates for Medical and Dental Insurance in April.
- Employee Assistance Programs increased \$11,000 which reflects a change in vendor who provides unlimited online access.
- Contract Labor increased \$960 which reflects the cost of outstanding purchase orders at year-end,
- Unemployment increased \$7,000 which reflects the payment of prior years' amounts in the current year.
- Materials increased \$313,384 to reflect additional funds to purchase digital materials and to cover the costs of outstanding purchase orders as of year-end.
- Professional Services increased \$110,278 to cover additional costs related to Phase Two and OrangeBoy and to cover the costs of a website redesign.
- Equipment decreased \$71,740 to reflect actual needs.
- Postage increased \$5,000 to reflect the increase in postage rates.
- Supplies was increased \$15,000 to reflect an increase in program activity and to cover the cost of Sunday Stars programs.
- Telephone decreased \$8,000 to reflect certain services that were eliminated.
- Travel decreased \$7,000 to reflect a reduction in travel due to the pandemic.
- Vehicles decreased \$2,529 to reflect actual costs.
- Miscellaneous increased \$1,400 to reflect actual costs.
- Printing increased \$35,000 which reflects the cost increased of the copier leases.
- Sales tax decreased \$2,000 to reflect actual activity.
- Data Processing increased \$2,000 which reflects the cost increase of processing payroll.
- Revaluation increased \$54,417 to reflect the increase in costs and the payments of two of last year's invoices out of this year.
- Technology increased \$98,315 to cover the cost of outstanding purchase orders at year-end, and to cover the Envisionware price increase.
- Employee Development increased \$12,008 to cover the costs of outstanding purchase orders at year-end and the cost of the OLA conference.
- Marketing and Communications increased \$16,537 to cover the costs of outstanding purchase orders at year-end.
- Programming increased \$65,265 to cover the costs of outstanding purchase orders at year-end and to cover the costs of speaker fees.
- System Outreach increased \$25,000 to cover the cost of the Dolly Parton Imagination Library Program.
- Assigned Fund Balance reflects several items: Cleveland County, \$124,560; Moore Public Library \$153,806; McClain County, \$173,995; and Pottawatomie County, \$50,000; Library Projects, \$220,000.
- Unassigned Fund Balance increased \$1,608,891.
- Total Fund Balance for 2022-2023 is anticipated to be \$17,240,436.

Capital Asset and Long-Term Debt

PLS's investment in capital assets, net of accumulated depreciation, as of June 30, 2023 was \$9,683,901, and on June 30, 2022 was \$9,538,119. Of the total depreciable capital assets, net of accumulated depreciation, on June 30, 2023, 21% are furniture, equipment and vehicles; 44% are building and property; and the remaining 35% are books and materials. Of the total depreciable capital assets, net of accumulated depreciation, on June 30, 2022, 17% are furniture, equipment, and vehicles; 47% are building and property; and the remaining 36% are books and materials.

PLS has no long-term liabilities. The Board limits borrowing to short-term, usually in the fall in anticipation of ad valorem receipts beginning in December. Typically, the note is paid off in mid-January. In FY22-23, PLS borrowed no money and incurred no interest expense related to borrowed money. PLS did record interest expense related to the copier leases and SBITA's that are contained in the financial statement notes.

Economic Environment and Next Year's Budget

PLS's primary revenue is Ad Valorem (property) tax. The annual growth in the Cleveland, McClain and Pottawatomie County's property value is the most important factor for PLS's revenue outlook. For the most recent fiscal year PLS collected 6.11, 6.11 and 6.06 mills of the assessed property value from the respective counties. The fractional part of the millage is due to the abolishment of the personal property tax in two of the counties. PLS is now at the millage cap allowed by state law.

In general, PLS still expects a continued growth in the tax revenue for the next year. The Cleveland County Assessor has certified 8.88% growth in property value for 2023; the Pottawatomie County Assessor has certified a 3.63% growth and the McClain County Assessor has certified a 12.96% growth.

For Fiscal Year 2023-2024, the PLS Board of Trustees plan to approve a general fund budget of \$25,029,543 versus \$23,020,148 for 2022-2023. A highlight of the budget follows:

- A 6% performance adjustment for staff who qualify.
- Retirement increased to cover projected retirement benefit changes.
- Health Insurance increased \$224,133 to cover the cost of new positions and an estimated 15% increase in April 2024.
- Group Term Life Insurance increased \$1,400 due to salary increases.
- Disability Insurance increased \$3,000 due to salary increases.
- Workers Compensation increased \$10,000 because insurance rates increased.
- Unemployment decreased due to actual activity.
- Scholarship increased 10,000 due to additional scholarships being awarded.
- Materials increased \$393,348 to reflect materials cost increases.
- Professional Services increased \$162,133 to reflect contract cost increases.
- Equipment increased \$150,000 to reflect the purchase of additional task chairs and the amount of year-end outstanding purchase orders.
- Insurance increased \$21,000 due to the insurance rates increased.
- Supplies increased \$30,000 due to the increase in the amount and cost of supplies.
- Telephone decreased \$4,000 to reflect the elimination of duplicative services.
- Mileage increased \$5,000 to reflect an expected increase in the mileage rate.
- Vehicles increased \$15,000 to reflect the increase in vehicle costs.
- Audit decreased \$4,500 to reflect the decrease in the contract cost.
- Miscellaneous increased \$18,600 to reflect an increase in costs.
- Printing decreased to reflect the decrease in copier lease costs.
- Data Processing increased to reflect the actual payroll costs.

- Technology increased \$6,745 to reflect the purchase of additional technology, current year outstanding purchase orders, and the removal of previous year's outstanding purchase orders.
- Employee Development increased \$27,992 due to current year outstanding purchase orders and additional conference expenses.
- Marketing and Communications increased \$131,605 to cover the cost of increased advertising campaigns and outstanding year-end purchase orders.
- Programming decreased \$15,265 due to the removal of prior year and addition of the current year outstanding purchase orders.
- Assigned Fund Balance reflects several items: Cleveland County, \$124,560; McClain County, \$173,996; and Pottawatomie County, \$50,000; Library Projects, \$220,000; Moore Public Library, \$153,806.
- Unassigned Fund Balance increased \$2,163,456.
- Total Fund Balance for 2023-2024 is anticipated to be \$19,890,158.

Contacting the Library System's Financial Management

This financial report is designed to provide a general overview of the Pioneer Library System, comply with finance-related laws and regulations, and demonstrate the Library System's commitment to public accountability. If you have any questions about this report or would like to request additional information, contact the Pioneer Library System's Business Office at 300 Norman Center Court, Norman, OK 73072.

PIONEER LIBRARY SYSTEM
Statement of Net Position
June 30, 2023

	Primary Government <u>Governmental Activities</u>	Component Unit <u>Library Foundation</u>
Assets		
Current assets:		
Cash and Cash Equivalents	\$ 19,715,619	\$ 426,747
Beneficial Interest in asset held by others	466,745	72,866
Ad Valorem Tax Receivable	236,716	-
Accrued Interest Receivable	-	251
Lease Receivable	685,374	-
Other Current Assets	1,035,749	5,174
Other Receivable	23,221	-
Subscription Assets	408,611	-
Non Current assets:		
Right to Use Assets, Net	9,805	-
Non-Depreciable Capital Assets	536,951	-
Depreciable Capital Assets, Net	<u>9,146,950</u>	<u>-</u>
Total Assets	<u>\$ 32,265,741</u>	<u>\$ 505,038</u>
Liabilities		
Accounts Payable and Accrued Expenses	\$ 389,826	\$ 12,087
Accrued Interest Payable	8,107	-
Compensated Absences Payable	420,613	-
Subscription Liability	262,850	-
Subscription Liability - Current	143,471	-
Right to Use Liability	<u>10,111</u>	<u>-</u>
Total Liabilities	<u>\$ 1,234,978</u>	<u>\$ 12,087</u>
Deferred Inflows of Resources		
Inflows related to leases	<u>\$ 730,691</u>	<u>\$ -</u>
Net Position		
Net Investment in Capital Assets	\$ 9,683,901	\$ -
Restricted - Non Spendable Net Assets	-	46,408
Restricted - Literacy and Other Programs	732,136	144,427
Unrestricted - Board Designated Endowment	-	17,768
Unrestricted - Undesignated	<u>19,884,035</u>	<u>284,348</u>
Total Net Position	<u>\$ 30,300,072</u>	<u>\$ 492,951</u>

See Accompanying Notes to Financial Statements

PIONEER LIBRARY SYSTEM
Statement of Activities
For the Year Ended June 30, 2023

Program Revenues					Net (Expense) Revenue and Changes in Net Assets	Net (Expense) Revenue and Changes in Net Assets
					Primary Government	Component Unit
Functions/Programs	Expenses	Charges for Services	Operating Grants and Contribution s	Capital Grants and Contribution s	Governmental Activities	Library Foundation
Governmental Activities:						
Public Library Services	\$ 15,321,466	\$ 302,165	\$ 113,572	\$ 7,977	\$ (14,897,752)	
Administrative Services	3,030,725	-	-	-	(3,030,725)	
Depreciation - unallocated	2,540,504	-	-	-	(2,540,504)	
Total Primary Government	<u>\$ 20,892,695</u>	<u>\$ 302,165</u>	<u>\$ 113,572</u>	<u>\$ 7,977</u>	<u>\$ (20,468,981)</u>	
Component Unit						
Library Foundation	<u>\$ 173,754</u>	<u>\$ -</u>	<u>\$ 243,003</u>	<u>\$ -</u>		<u>\$ 69,249</u>
General Revenues:						
Property taxes, levied for general purposes					\$ 22,064,787	\$ -
State aid					112,782	-
Net change in beneficial assets held by others					38,216	13,366
Investment earnings					496,376	4,471
Loss on disposals					(59,860)	-
Total General Revenues					<u>\$ 22,652,301</u>	<u>\$ 17,837</u>
Change in Net Assets					\$ 2,183,320	\$ 87,086
Net position - beginning					<u>28,116,752</u>	<u>405,865</u>
Net position - ending					<u>\$ 30,300,072</u>	<u>\$ 492,951</u>

See Accompanying Notes to Financial Statements

PIONEER LIBRARY SYSTEM
Balance Sheet
Governmental Funds
June 30, 2023

ASSETS	<u>General Fund</u>	<u>Gifts and Grants Fund</u>	<u>Total Governmental Funds</u>
Cash	\$ 19,574,398	\$ 141,221	\$ 19,715,619
Investments	-	466,745	466,745
Receivable from General Fund	-	118,522	118,522
Ad Valorem Tax Receivable	236,716	-	236,716
Lease Receivable	685,374	-	685,374
Other Receivable	13,468	9,753	23,221
Deposit	9,593	-	9,593
Prepaid Expenses	1,026,156	-	1,026,156
Total Assets	<u>\$ 21,545,705</u>	<u>\$ 736,241</u>	<u>\$ 22,281,946</u>

LIABILITIES AND FUND BALANCES

Liabilities			
Accounts Payable	\$ 182,208	\$ 4,105	\$ 186,313
Accrued Salaries and Employee Benefits	203,513	-	203,513
Compensated Absences Payable	420,613	-	420,613
Payable to Special Revenue	118,522	-	118,522
Total Liabilities	<u>\$ 924,856</u>	<u>\$ 4,105</u>	<u>\$ 928,961</u>
Deferred Inflow of Resources			
Leases	\$ 730,691	\$ -	\$ 730,691
Fund Balances			
Assigned for Service Upgrades and Improvements	\$ 722,361	\$ 730,346	\$ 1,452,707
Committed for Outstanding Encumbrances	486,266	1,790	488,056
Unassigned	18,681,531	-	18,681,531
Fund Balances, End of Year	<u>\$ 19,890,158</u>	<u>\$ 732,136</u>	<u>\$ 20,622,294</u>
Total Liabilities and Fund Balances	<u>\$ 21,545,705</u>	<u>\$ 736,241</u>	

Amounts reported for governmental activities in the statement of net assets are different because:

Capital assets used in governmental activities are not financial resources and therefore are not reported as assets in governmental funds. The cost of the assets is \$30,705,051 including \$536,951 of non-depreciable assets, and the accumulated depreciation is \$21,021,150.	\$ 9,683,901
Right to use leased assets used in governmental activities are not financial resources and therefore are not reported as assets in governmental funds. The cost of the assets is \$237,462 and the accumulated amortization is \$227,657.	9,805
Long-term debt issued for lease liabilities	(135,558)
Principal payments on long-term debt for lease liabilities	125,447
Subscription leased assets used in governmental activities are not financial resources and therefore are not reported as assets in governmental funds. The cost of the assets is \$550,037 and the accumulated amortization is \$141,426.	408,611
Long-term debt issued for SBITA liabilities	(550,037)
Principal payments on long-term debt for SBITA liabilities	143,716
Increase payments on debt service	(8,107)

Total Net Position - Governmental Activities	<u>\$ 30,300,072</u>
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See Accompanying Notes to Financial Statements

PIONEER LIBRARY SYSTEM
Statement of Revenues, Expenditures, and Changes in Fund Balances -
Governmental Funds
For the Year Ended June 30, 2023

	General Fund	Gifts and Grants Fund	Total Governmental Funds
Revenues:			
Property Taxes	\$ 22,064,787	\$ -	\$ 22,064,787
Collections on Book Fines and Copy Services	198,284	-	198,284
Gifts and Grants	-	113,572	113,572
State Revenue	112,782	-	112,782
Other Contracts	103,881	-	103,881
Other Financing Sources	245,329	-	245,329
In-Kind Donations	-	7,977	7,977
Interest	496,376	38,216	534,592
Total Revenues	<u>\$ 23,221,439</u>	<u>\$ 159,765</u>	<u>\$ 23,381,204</u>
Expenditures			
Personal Services	\$ 12,733,524	\$ -	\$ 12,733,524
Materials	3,303,101	116,653	3,419,754
General and Administrative	2,544,465	-	2,544,465
Technology and Automation	1,753,670	-	1,753,670
System Services	888,428	-	888,428
Total Expenditures	<u>\$ 21,223,188</u>	<u>\$ 116,653</u>	<u>\$ 21,339,841</u>
Net Change in Fund Balance	\$ 1,998,251	\$ 43,112	\$ 2,041,363
Beginning Fund Balance	<u>17,891,907</u>	<u>689,024</u>	<u>18,580,931</u>
Ending Fund Balances	<u>\$ 19,890,158</u>	<u>\$ 732,136</u>	<u>\$ 20,622,294</u>

Total net changes in fund balances - governmental funds \$ 2,041,363

The change in nets assets reported in the statement of activities is different because:

Capital outlays to purchase or build capital assets are reported in governmental funds as expenditures. However, for governmental activities those costs are shown in the statement allocated over their estimated useful lives as annual depreciation expenses in the statement of activities. This is the amount by which depreciation exceeds capital outlay during the period.

Depreciation Expense	\$ (2,275,624)	
Capital Outlay	<u>2,625,738</u>	350,114

Amortization expense for intangible right to use lease assets.	\$ <u>(123,552)</u>	(123,552)
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The issuance of long-term debt provides current financial resources to governmental funds while the repayment of the principal of long-term debt consumes the current financial resources of governmental funds. Neither transaction has any effect on net position. the amount is the net effect of these differences in the treatment of long-term debt.

Principal Payments on Long Term Debt	\$ <u>125,456</u>	125,456
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Subscription based IT arrangement capital outlay expenditures which were capitalized	\$ 550,037	
Amortization expense for intangible subscription based IT arrangement assets.	<u>(141,426)</u>	408,611

The issuance of long-term debt provides current financial resources to governmental funds while the repayment of the principal of long-term debt consumes the current financial resources of governmental funds. Neither transaction has any effect on net position. the amount is the net effect of these differences in the treatment of long-term debt.

New Long Term Debt	\$ (550,037)	
Principal Payments on Long Term Debt	143,716	
Increase in Accrued Interest	<u>(8,107)</u>	(414,428)

Disposals of capital assets are not considered to be expenditures in the governmental funds. They are however, recorded as a loss in the statement of activities.

Some expenses reported in the statement of activities do not require the use of current financial resources and, therefore, are not reported as expenditures in governmental funds:		(59,860)
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Disposals of non-depreciable capital assets		<u>(144,384)</u>
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Change in net position of governmental activities	<u>\$ 2,183,320</u>	
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See Accompanying Notes to Financial Statements

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 1 – Summary of Significant Accounting Policies

The Reporting Entity –

Pioneer Library System (the Library) is a corporate body for public purposes created under Title 65 of the Oklahoma Statutes and, accordingly, is a separate entity for operating and financial reporting purposes.

The Library is governed by trustees composed of 13 voting members. The Library's operations are conducted by a librarian appointed by the trustees. Trustees include voting members who are appointees of the various cities and counties in which the Library has locations.

The Library's financial statements are prepared in accordance with generally accepted accounting principles in the United States of America (U.S. GAAP). The Library's reporting entity applies all relevant Governmental Accounting Standards Board (GASB) pronouncements and applicable Financial Accounting Standards Board (FASB) pronouncements and Accounting Principles Board (APB) opinions issued on or before November 30, 1989, unless they conflict with GASB pronouncements. The Library's reporting entity does not apply FASB pronouncements or APB opinions issued after November 30, 1989.

Financial Statement Presentation –

In evaluating how to define the Library, for financial reporting purposes, management has considered all potential component units. The decision to include a potential component unit in the reporting entity was made by applying the criteria established by the GASB. The basic -- but not the only -- criterion for including a potential component unit within the reporting entity is the governing body's ability to exercise oversight responsibility. The most significant manifestation of this ability is financial interdependency. Other manifestations of the ability to exercise responsibility include, but are not limited to, the selection of governing authority, the designation of management, the ability to significantly influence operations, and accountability for fiscal matters. A second criterion used in evaluating potential component units is the scope of public service. Application of this criterion involves considering whether the activity benefits the Library and/or its citizens, or whether the activity is conducted within the geographic boundaries of the Library and is generally available to its patrons. A third criterion used to evaluate potential component units for inclusion or exclusion from the reporting entity is the existence of special financing relationships, regardless of whether the Library is able to exercise oversight responsibilities. Based upon the application of these criteria, the Pioneer Library System Foundation meets the criteria, which requires a component unit to be presented discretely and including in the System's reporting entity.

Complete financial statements for the Foundation are available from the Foundation administrative office.

Basic Financial Statements – Government-Wide Statements –

The Library's basic financial statements include both government-wide (reporting the Library System as a whole) and fund financial statements (reporting the Library's major funds). Both the government-wide and fund financial statements categorize primary activities as either governmental or business type. The

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 1 – Summary of Significant Account Policies (continued)

Library does not have any activities classified as business-type activities. Internal service fund activity is eliminated to avoid “doubling up” revenues and expenses.

In the government-wide Statement of Net Position, the Library’s governmental activities are reported using the economic resources measurement focus and the accrual basis of accounting. The Library’s net assets are reported in three parts – invested in capital assets, net of related debt; restricted net assets; and unrestricted net assets. Revenues are recognized when earned and expenses are recognized when incurred.

The government-wide Statement of Activities reports both the gross and net cost of each of the Library’s programs and functions. The functions are also supported by general government revenues. The Statement of Activities reduces gross expenses (including depreciation) by related program revenues, operating and capital grants. Program revenues must be directly associated with the function. Operating grants include operating-specific and discretionary (either operating or capital) grants while the capital grants column reflects capital-specific grants.

The net costs are normally covered by general revenue (property taxes, State aid, other taxes etc.).

The government-wide focus is more on the sustainability of the Library as an entity and the change in the Library’s net position resulting from the current year’s activities.

Basic Financial Statements – Fund Financial Statements

Fund financial statements report detailed information about the Library. The focus of governmental fund financial statements is on major funds rather than reporting funds by type. Non-major funds are aggregated and presented in a single column.

All governmental funds are accounted for using the current financial resources measurement focus and the modified accrual basis of accounting. Under this basis revenues are recorded when susceptible to accrual; i.e. both measurable and available. “Available” means collectible within the current period or within 60 days after year end. Expenditures are generally recognized under the modified accrual basis of accounting when the related liability is incurred. The exception to this general rule is that principal and interest on general obligation long-term debt, if any, is recognized when due.

The Library reports the following major governmental funds:

General Fund – is the primary operating fund of the Library. It is used to account for all financial resources except those required to be accounted for in another fund.

Gifts and Grants Fund – is used to account for all gifts and grants made to the Library, which are to be used for specific purposes.

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 1 – Summary of Significant Accounting Policies (continued)

Fund Balance:

Fund Balance – In the government-wide financial statements, equity is classified as net assets and displayed in three components:

1. Invested in capital assets – Consists of capital assets, net of accumulated depreciation.
2. Restricted net assets – Consists of net assets with constraints placed on the use either by external groups, such as grantors or laws and regulations of other governments, or law through constitutional provisions or enabling legislation.
3. Unrestricted net assets – All other assets that do not meet the definition of "restricted" or "invested in capital assets, net of related debt."

When both restricted and unrestricted net assets are available for use, generally it is the Library's policy to use restricted resources first.

Governmental fund equity is classified as fund balance. Fund balance is further classified as follows:

- a) Non-spendable – Includes fund balance amounts that cannot be spent either because it is not in spendable form or because of legal or contractual requirements.
- b) Restricted – Includes fund balance amounts that are constrained for specific purposes which are externally imposed by contributors, grantors, or amounts constrained due to constitutional provisions or enabling legislation.
- c) Committed – Includes fund balance amounts that are constrained for specific purposes that are internally imposed by the System through formal action of the highest level of decision making authority. The Board of Trustees is the highest level of decision making authority that can commit fund balance. Once committed, the limitation imposed remains in place until a similar action is taken to remove or revise the limitation.
- d) Assigned – Includes fund balance amounts that are constrained by the Library's intent to be used for specific purposes, but are neither restricted nor committed. Intent can be stipulated by the Board of Trustees. With the exception of the General Fund, this is the residual fund balance of the classification for all governmental funds with positive balances.
- e) Unassigned – Includes the residual balance of the General Fund that has not been assigned to other funds and that has not been restricted, committed, or assigned to specific purposes with the General Fund.

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 1 – Summary of Significant Accounting Policies (continued)

When an expenditure is incurred for which committed, assigned, or unassigned fund balances are available, the Library considers amounts to be spent first out of committed funds, then assigned funds, and finally unassigned funds as needed, unless the Board of Trustees has provided otherwise in its commitment or assignment actions.

Basis of Accounting – Basis of accounting refers to when revenues and expenditures are recognized in the accounts and reported in the financial statements. It relates to the timing of the measurements made regardless of the measurement focus applied.

Capital Assets – Capital assets purchased or acquired with an original cost of \$1,000 or more are reported at historical cost or estimated historical cost. Additions, improvements and other capital outlays that significantly extend the useful life of an asset are capitalized. Other costs incurred for repairs and maintenance are expenses as incurred. Depreciation on all assets is provided on the straight-line basis over the following estimated useful lives:

Furniture and Fixtures	7 years
Computer Equipment	4 years
Vehicles	5 years
Books and Materials	5 years
Buildings	40 years

Compensated Absences – The Library accrues accumulated unpaid annual leave when earned by the employee. Generally, annual leave must be taken during the calendar year earned. Eligible employees who end their employment with the Library are reimbursed for each day of accumulated annual leave.

Budgets and Budgetary Accounting – The Library is required by state law to prepare an annual budget. The budget is filed with the Oklahoma Department of Libraries, various City or Town Clerks if the City or Town has a PLS Board of Directors member, the County Commissioners and County Excise Boards of each County that is a Library member, the Oklahoma State Auditor, the Oklahoma State Inspector, and the State of Oklahoma Equalization Board.

Budgets generally assume the expenditure of all available resources. Therefore, when the legal budget is prepared, it is assumed these funds will not have a carryover balance to a subsequent year. Program revenue received but not spent is restricted and deferred to the subsequent fiscal year. Amounts reported as program revenue includes (1) charges to customers, (2) operating grants and contributions, and (3) capital grants and contributions.

Cash and Cash Equivalents – The Library considers all cash on hand, demand deposits, money market checking and certificates of deposit with an initial maturity of three months or less, held at an individual bank which are subject to early withdrawal penalties no matter what the maturity period, to be cash. All short-term cash surpluses are maintained in a cash pool, the earnings from which are allocated to each fund based on month-end deposit balances.

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 1 – Summary of Significant Accounting Policies (continued)

Fair Market Value Measurement – Fair value is defined as “the price that would be received to sell an asset, or paid to transfer a liability in an orderly transaction between market participants at a measurement date”.

Accounting standards set a framework for measuring fair value using a three tier hierarchy based on the extent to which inputs used in measuring fair value are observable in the market.

Level 1 – Values are unadjusted quoted prices for identical assets and liabilities in active markets that are accessible at the measurement date.

Level 2 – Inputs other than quoted prices for identical assets or liabilities that are observable in the market place. For example, Level 2 inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices are observable for the asset or liability (such as interest rates and yield curves, volatilities, prepayment speeds, loss severities, credit risks, and default rates), and market-corroborated inputs.

Level 3 – Inputs that are unobservable (supported by little or no market activity) and are significant to the fair value measurement. Unobservable inputs reflect the Library’s best estimate of what hypothetical market participants would use to determine a transaction price for the asset or the liability at the reporting date.

Financial assets and liabilities carried at fair value on a recurring basis include beneficial interests in assets held by others.

Receivables – All taxes receivable are expected to be collected in one year.

Property Tax Revenues – Property taxes attach an enforceable lien on property as of January 1. Taxes are levied annually on November 1 and are due one-half by December 31 and one-half by March 31. The County Assessor's office bills and collects the property taxes and remits to the Library its portion. Property taxes not paid prior to April are considered delinquent. Such delinquent tax payments have not historically been material. Delinquent tax payments are received throughout the year and are recognized as revenue in the year received, except for those received within 60 days of year end, which are recognized as revenues as of June 30, 2023 in both the government-wide and fund financial statements.

State Revenues – The Library receives revenue from the state to administer certain categorical library programs.

Interfund Balances - During the course of normal operations, the Library has transactions between funds including expenditures and transfers of resources to provide services, purchase assets and service debt. Transactions that are normal and recurring between funds are recorded as operating transfers.

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 1 – Summary of Significant Accounting Policies (continued)

Contributed Facilities and Services – The Library operates several branches located in government-owned buildings and receives certain services without charge. The estimated fair rental value of the premises and service is not reported in the accompanying statement of revenues, expenditures, and changes in fund balance.

Grants - The Library records income from grants in the period received or to the extent of expenses paid prior to reimbursement by a grant.

Income Taxes - The Library was established under the provisions of the Oklahoma Constitution and as such is exempt from income taxes under the Internal Revenue Code as a unit of government.

The Foundation is exempt from income taxes under Section 501(c)(3) of the Internal Revenue Code. The Foundation has also been classified as an entity that is not a private foundation within the meaning of Section 509(a) and qualifies for deductible contributions. No provision for federal or state income taxes has been recorded. There was no interest or penalties to the Internal Revenue Service included in these financial statements.

Tax years before 2019 are no longer subject to examination by the Internal Revenue Service and the State of Oklahoma.

Prepaid Expenses - The Library records prepaid insurance, subscriptions and maintenance agreements for that portion of payments which have not been used at year-end for government-wide financial statement purposes. Prepaid expense is included in other current assets in the statement of net assets.

Restricted Resources - The Library records gifts and grants as restricted when the donor specifies a restriction on the timing or use of the gift or grant. Expenses are allocated first to the restricted resource. If additional expense is incurred, the expense is allocated to unrestricted funds when the restriction has been depleted.

Deferred Outflows and Inflows of Resources – In addition to assets, the statement of financial position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position or fund balance that applies to a future period(s) and thus, will not be recognized as an outflow of resources (expense/expenditure) until then.

In addition to liabilities, the statement of financial position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position or fund balance that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time.

See Note 6 for discussion of the System's deferred outflows of resources and deferred inflows of resources.

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 1 – Summary of Significant Accounting Policies (continued)

Use of Estimates - The preparation of financial statements requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The System uses an estimate based on municipal bond rate yield curves as the discount rate for leases and subscription-based information technology arrangements unless the rate that the lessor/vendor charges is known.

New Accounting Pronouncements - During the year, the System implemented GASB Statement No. 96, *Subscription-based information technology arrangements*. A subscription-based information technology arrangements (SBITA's) is defined as a contract that conveys control of the right to use another party's (a SBITA vendor's) information technology (IT) software, alone or in combination with tangible capital assets (the underlying IT assets), as specified in the contract for a period of time in an exchange or exchange-like transaction.

The subscription term includes the period during which a government has a noncancellable right to use the underlying IT assets. The subscription term also includes periods covered by an option to extend (if it is reasonably certain that the government or SBITA vendor will exercise that option) or to terminate (if it is reasonably that the government or SBITA will not exercise that option).

Under this statement, a government generally should recognize a right-to-use subscription asset-an intangible asset-and a corresponding subscription liability. A government should recognize the subscription liability at the commencement of the subscription term, which is when the subscription asset is placed into service. The subscription liability should be initially measured at the present value of subscription payments expected to be made during the subscription term. Future subscription payments should be discounted using the interest rate the SBITA vendor charges the government, which may be implicit, or the government's incremental borrowing rate if the interest rate is not readily determinable. A government should recognize amortization of the discount on the subscription liability as an outflow of resources (for example, interest expense) in subsequent financial reporting periods.

The subscription asset should be initially measured as the sum of (1) the initial subscription liability amount, (2) payments made to the SBITA vendor before commencement of the subscription term and (3) capitalized implementation costs, less any incentives received from the SBITA vendor at or before the commencement of the subscription term. A government should recognize amortization of the subscription asset as an outflow of resources over the subscription term.

GASB Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements*, also became effective this year but doesn't affect the Library's financial statements.

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 2 – Cash and Investments

The Library's investment policies are governed by state statute. Permissible investments include direct obligations of the United States Government and Agencies; certificates of deposit of savings and loan associations and bank and trust companies; and savings accounts or savings certificates of savings and loan associations and trust companies. A certificate of deposit in the amount of \$9,593 is pledged on a letter of credit for a security deposit.

Custodial Credit Risk - Deposits – Custodial credit risk is the risk that in the event of a bank failure, the Library's deposits may not be returned to it. At June 30, 2023, none of the Library's bank balance of 20,130,177 was exposed to custodial credit risk because it was not insured or collateralized. The balance is fully collateralized with securities held by First Fidelity Bank in the Library's name. The market value of these securities as of June 30, 2023 was \$25,861,670 plus \$250,000 of FDIC insurance gives coverage of \$26,111,670.

Beneficial interest in assets held by others – In previous years the Library transferred funds to the Communities Foundation of Oklahoma (CFO) and the Norman Communities Foundation (managed by the Communities Foundation of Oklahoma) for investment. The recorded portion of all of these funds consists of transfers to CFO from the Library and the earnings thereon.

The following methods and assumptions were used to estimate the fair value of the beneficial interest in assets held by others reported at fair market value in the accompanying financial statements.

The organization believes that fair value of the future cash flows to be received from its beneficial interest in assets held by other the CFO which primarily include a diversified portfolio of marketable securities. The organization classifies its beneficial interest in the assets held by the CFO as level 3.

As of June 30, 2023, assets measured at fair value on a recurring basis are classified within the fair value hierarchy as follows:

	Total	Level 1	Level 2	Level 3
Beneficial interest in assets held by CFO	\$ 466,745	\$ -	\$ -	\$ 466,745
Total Recurring Fair Value Measurements	<u>\$ 466,745</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 466,745</u>

Grant awards shall be available for distribution on a yearly basis, subject to final approval by the Board of Directors of CFO, and based on a specified percentage of the fair market value of assets on a rolling average of the previous eight quarters. The Community Foundation maintains variance power over these assets.

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 2 – Cash and Investments (continued)

Variance power assures donors that if the charitable purpose of their contribution becomes impractical or impossible, the distributions will be directed to similar purposes in the community. The Library's board may, by an affirmative vote of two thirds of the board, for an unusual circumstance, recommend and request distribution of all or part of the assets held by CFO. However, the CFO has the ultimate authority over and control of all property held by CFO. Distributions in the amount of \$22,425 for the year ended June 30, 2023, was received by the System from these combined funds.

The Community Foundation maintains legal ownership of the funds. However, accounting principles generally accepted in the United States of America requires the Organization to reflect its beneficial interest in these assets in its financial statements. At June 30, 2023, assets transferred to the Community

Foundation by the Organization had a fair value of \$466,745 based on the approximate present value of future cash flows from CFO.

Direct donations to existing funds at the Community Foundation from individuals are restricted for endowment purposes and are not recorded as assets of the Library. Only the earnings on these funds can be distributed to the Library.

Distributions in the amount of \$1,737 for the year ended June 30, 2023, were received by the System. The fair value of the funds originally donated by third parties at June 30, 2023 was \$35,890. The Organization has no remainder interest in the corpus of these funds.

Note 3 – Collections

The Library has not capitalized existing inexhaustible collections, including research books, because the values are not readily determinable.

Note 4 – Lease Receivable

On November 1, 2013, the Library entered into a 20 year lease with the City of Norman, a related party, to lease building space to the city. The fixed payment increases \$.90 per square foot every five years of the lease term. The Library purchased \$500,000 and put into service \$500,000 of F&E that the City is repaying at a rate of \$50,000 per year for 10 years at 3.75% interest. The lease receivable is measured at the present value of the future minimum rent payments expected to be received during the lease term at a discount rate of 3.75% which is stated in the agreement.

A deferred inflow of resources is recorded for the lease. The deferred inflow of resources is recorded at the initiation of the lease in an amount equal to the initial recording of the lease receivable. The deferred inflow of resources is amortized on a straight-line basis over the term of the lease.

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 4 – Lease Receivable (continued)

In fiscal year 2023, the Library recognized \$70,173 of lease revenue and \$27,618 of interest revenue under the lease which is included in Other Contracts on the Statement of Revenue, Expenditures, and Changes in Fund Balances – Governmental Funds.

The cost of the leased space is included in the Building category in Note 12 – Capital Assets, and the amount of accumulated depreciation thereon. The amount of cost attributable to only the leased space is not determinable and therefore not disclosed here.

The future minimum lease payments are due as follows:

Year Ending June 30	Principal Payments	Interest Payments	Total
2024	\$ 66,414	\$ 24,378	\$ 90,792
2025	53,299	22,301	75,600
2026	55,332	20,268	75,600
2027	57,443	18,157	75,600
2028	59,635	15,965	75,600
2029-2033	366,163	41,237	407,400
2034	27,088	212	27,300
	<u>\$ 685,374</u>	<u>\$ 142,518</u>	<u>\$ 827,892</u>

Note 5 – Right to Use Assets

The Library has recorded right to use lease assets as a result of implementing GASB 87. The right to use assets are initially measured at an amount equal to the initial measurement of the related lease liability plus any lease payment made prior to the lease term, less lease incentives, and plus any ancillary charges necessary to place the lease into service. The right to use assets are amortized on a straight-line basis over the life of the related lease. The Library has recorded two types of right to use leased assets. The assets are right to use assets for 32 leased copiers and 1 leased postage machine. The right to use leased assets are amortized on a straight-line basis over the terms of the related leases.

Right to use asset activity for the Primary Government for the year ended June 30, 2023 was as follows:

	Beginning Balance	Increases	Decreases	Ending Balance
Right to use assets				
Leased copiers	\$ 219,812	\$ -	\$ -	\$ 219,812
Leased postage meter	17,650	-	-	17,650
Total right to use assets	<u>\$ 237,462</u>	<u>\$ -</u>	<u>-</u>	<u>\$ 237,462</u>
Less accumulated amortization for:				
Leased copiers	100,183	119,671	-	219,854
Leased postage meter	3,922	3,881	-	7,803
Total accumulated amortization	<u>104,105</u>	<u>123,552</u>	<u>-</u>	<u>227,657</u>
Right to use assets, net	<u>\$ 133,357</u>	<u>\$ (123,552)</u>	<u>\$ -</u>	<u>\$ 9,805</u>

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 6 – Deferred Outflows/Inflows of Resources

In addition to assets, the statement of financial position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *Deferred Outflows of resources*, represents a consumption of net position that applies to a future period and so will not be recognized as an expense or expenditure until then. The System has no current items that meet this criterion.

In addition to liabilities, the statement of financial position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *Deferred Inflows of Resources*, represents an acquisition of net position that applies to a future period and so will not be recognized as revenue until then. The System has one item that meets the criterion for this category – leases. Refer to Note 4.

Note 7 – Long-Term Obligations

Leases

The Library has entered into agreements to lease certain equipment. The lease agreements qualify as other than short-term leases under GASB 87 and, therefore, have been recorded at the present value of the future minimum lease payments as of the date of their inception.

The first lease agreement was executed on 1/1/2021 to lease a postage machine and requires twenty quarterly payments of \$1,071. There are no variable components of this lease. The lease liability is measured at a discount rate of 4.3% which was the rate provided to the Library by its bank. As a result of this lease the Library has recorded a right to use asset with a current net book value of \$9,805.

The second lease agreement was executed on 6/1/2018 to lease one copier and requires sixty monthly lease payments of \$165. There are no variable components of this lease. The lease liability is measured at a discount rate of 4.3% which was the rate provided to the Library by its bank. As a result of this lease the Library has recorded a right to use asset with a current net book value of \$0.

The third lease agreement was executed on 6/1/2018 to lease twenty-four copiers and requires sixty monthly lease payments of \$2,745. There are no variable components of this lease. The lease liability is measured at a discount rate of 4.3% which was the rate provided to the Library by its bank. As a result of this lease the Library has recorded a right to use asset with a net book value of \$0.

The fourth lease agreement was executed on 10/1/2021 to lease six copiers and requires twenty-two monthly lease payments of \$2,750. There are no variable components to this lease. The lease liability is measured at a discount rate of 4.3% which was the rate provided to the Library by its bank. As a result of this lease the Library has recorded a right to use asset with a net book value of \$0.

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 7 – Long-Term Obligations (continued)

The fifth lease agreement was executed on 10/1/2021 to lease one copier and requires twenty-two monthly lease payments of \$4,954. There are no variable components to this lease. The lease liability is measured at a discount rate of 4.3% which was the rate provided to the Library by its bank. As a result of this lease the Library has recorded a right to use asset with a net book value of \$0.

The future minimum lease obligations and net present value of these minimum lease payments as of June 30, 2023, were as follows:

Year Ending June 30	Principal Payments	Interest Payments	Total
2024	\$ 3,917	\$ 368	\$ 4,285
2025	4,086	198	4,284
2026	2,108	34	2,142
	<u>\$ 10,111</u>	<u>\$ 600</u>	<u>\$ 10,711</u>

Note 8 – Subscription-Based Information Technology Arrangements (SBITAs)

The System has entered into subscription-based technology arrangements involving various library management and operational software with terms ranging from 1.5 to 6 years.

A summary of SBITA asset activity during the year ended June 30, 2023, for the System is as follows:

	(Restated) Balance June 30, 2022	Increases	Decreases	Balance June 30, 2023
Other capital assets				
SBITA	\$ 304,708	\$ 245,329	\$ -	\$ 550,037
Total capital assets (intangible)	<u>304,708</u>	<u>245,329</u>	<u>-</u>	<u>550,037</u>
Less accumulated amortization				
SBITA	-	(141,426)	-	(141,426)
Total accumulated amortization	<u>-</u>	<u>(141,426)</u>	<u>-</u>	<u>(141,426)</u>
Other capital assets, net	<u>\$ 304,708</u>	<u>\$ 103,903</u>	<u>\$ -</u>	<u>\$ 408,611</u>

SBITA Obligations during the year ended June 30, 2023, for the System is as follows:

	Balance June 30, 2022	Increases	Decreases	Balance June 30, 2023	Amounts Due Within One Year
Lease Obligations	\$ 304,708	\$ 245,329	\$ 143,716	\$ 406,321	\$ 143,471
	<u>\$ 304,708</u>	<u>\$ 245,329</u>	<u>\$ 143,716</u>	<u>\$ 406,321</u>	<u>\$ 143,471</u>

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 8 – Subscription-Based Information Technology Arrangements (SBITAs) (continued)

The future subscription payments under SBITAs for the System are as follows:

Year Ending June 30	Principal Payments	Interest Payments	Total
2024	\$ 143,471	\$ 8,107	\$ 151,578
2025	140,615	5,111	145,726
2026	59,824	2,854	62,678
2027	62,411	1,457	63,868
	<u>\$ 406,321</u>	<u>\$ 17,529</u>	<u>\$ 423,850</u>

Note 9 – Short-Term Borrowing

On an annual basis, the Library utilizes short-term unsecured promissory notes in anticipation of the collection of ad valorem taxes. In accordance with Title 65 Section 4-105 of the Oklahoma Statutes, the term of the loan may not exceed one year. As of June 30, 2023, no balance was owed. No interest expense was paid or incurred during the year ended June 30, 2023 related to short-term borrowing.

Note 10 – Other Current Liabilities

The liability balance and activity for the year were as follows:

	Beginning Balance	Additions	Reductions	Ending Balance	Amounts Due Within One Year
Compensated Absences	<u>\$409,329</u>	<u>596,250</u>	<u>584,966</u>	<u>\$420,613</u>	<u>\$ 420,613</u>

The general fund will be used to settle the compensated absences liability.

Note 11– Commitments

Encumbrances – As discussed in Note 1 above, budgetary information, budgetary basis of accounting, and encumbrance accounting is utilized to the extent necessary to assure effective budgetary control and accountability and to facilitate effective cash planning and control. At June 30, 2023 the amount of encumbrances expected to be honored upon performance by the vendor in the next year were:

General Fund	\$ 486,266
Gifts and Grants Fund	<u>1,790</u>
Total	<u>\$ 488,056</u>

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 12 – Capital Assets

Subscription based information technology arrangement assets are amortized over the shorter of useful life or the term of the associated contract.

Capital assets of the System at June 30, 2023 are as follows:

	<u>Beginning Balances</u>	<u>Increases</u>	<u>Decreases</u>	<u>Ending Balances</u>
Non-depreciable Capital Assets:				
Land	\$ 161,179	\$ -	\$ -	\$ 161,179
Computer Equipment	<u>247,847</u>	<u>272,397</u>	<u>144,472</u>	<u>375,772</u>
Total Non-Depreciable Capital Assets	<u>\$ 409,026</u>	<u>\$ 272,397</u>	<u>\$ 144,472</u>	<u>\$ 536,951</u>
Depreciable Capital Assets:				
Library Books	\$ 17,083,198	\$ 1,253,777	\$ 1,075,657	\$ 17,261,318
Building	5,147,902	-	-	5,147,902
Furniture and Fixtures	1,213,848	131,148	1,140	1,343,856
Computer Equipment	5,765,882	902,314	811,070	5,857,126
Vehicles	<u>491,796</u>	<u>66,102</u>	<u>-</u>	<u>557,898</u>
Total Depreciable Capital Assets	<u>29,702,626</u>	<u>2,353,341</u>	<u>1,887,867</u>	<u>30,168,100</u>
Less Accumulated Depreciation for:				
Library Books	13,744,348	1,388,012	1,075,657	14,056,703
Building	942,016	136,027	-	1,078,043
Furniture and Fixtures	1,179,673	18,377	1,140	1,196,910
Computer Equipment	4,331,148	685,269	751,210	4,265,207
Vehicles	<u>376,348</u>	<u>47,939</u>	<u>-</u>	<u>424,287</u>
Total Accumulated Depreciation	<u>20,573,533</u>	<u>2,275,624</u>	<u>1,828,007</u>	<u>21,021,150</u>
Total Depreciable Capital Assets, Net	<u>\$ 9,129,093</u>	<u>\$ 77,717</u>	<u>\$ 59,860</u>	<u>\$ 9,146,950</u>

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 13 – Fund Balance

The following table shows the fund balance classifications as shown on the governmental funds balance sheet as of June 30, 2023:

	General Fund	Gifts and Grants Fund	Total Governmental Funds
Fund Balance			
Assigned:			
Cleveland County Libraries	\$ 124,560	\$ -	\$ 124,560
Moore Library Project	153,806	-	153,806
McClain County Libraries	173,995	-	173,995
Pottawatomie County Libraries	50,000	-	50,000
Library Projects	220,000	-	220,000
Special Revenue Funds	-	730,346	730,346
Committed:			
Reserved for Encumbrances	486,266	1,790	488,056
Unassigned	18,681,531	-	18,681,531
Total Fund Balance	<u>\$ 19,890,158</u>	<u>\$ 732,136</u>	<u>\$ 20,622,294</u>

Note 14– Defined Contribution Retirement Plan

Plan Description - On January 1, 2009 the Library implemented this plan. Normal retirement age for this plan is 65 years of age. Death and deferred vested benefits are also available under this plan. All benefits vest after 5 years of credited service. Employees who retire after age sixty-five will receive their vested benefits in one of the following manners out of the amount accumulated in their accounts: (i) by lump sum payments, or (ii) in equal monthly, quarterly, semi-annual or annual installment payments; provided an installment election must be for a period less than their life expectancy or the life expectancy of their beneficiaries.

Funding Policy - Employees of the Library are not required to contribute to the plan. The Library makes an annual contribution based on a percentage of an employee's salary. For employees that were members of the Defined Benefit retirement plan that was frozen in 2008, the percentage of salary was based on an actuarial calculation that was done in 2008. These percentages were reviewed and recalculated during the current year which resulted in several of the percentages being changed. These new percentages were used when calculating the contributions to participants' accounts for 2023. The Pioneer Library System Board of Trustees has the authority to establish and or amend the funding policy of the plan. Contributions paid to the plan for the year ended June 30, 2023 totaled \$429,364.

Note 15 – Risk Management

The Library is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions and natural disasters for which the System carries commercial insurance. There have been no significant reductions in coverage from the prior year and settlements have not exceeded coverage in the past three years.

PIONEER LIBRARY SYSTEM
Notes to Financial Statements
June 30, 2023

Note 16 – Termination Benefits

The Library offered a one-time voluntary retirement incentive to up to 5 employees. To be eligible the employee was required to be a salaried employee and to have 15 years of service with the Library. The first 5 employees who completed and returned a signed offer agreement were selected to receive the benefit. By accepting the offer the employees agreed to retirement date of May 1, 2023. The offer was for the employee to receive a one-time payment in the amount equal to their annual salary. The total amount of payments issued to employees was \$303,299. Payments were issued on May 15, 2023.

Note 17 – Subsequent Events

Subsequent events have been evaluated through the issuance date of this report.

The System continues to operate at pre-pandemic service levels at the essential services provided in the previous phase continue with the addition of browsing and Wi-Fi access in grab-and-go environment.

	Budgeted Amounts Original	Budgeted Amounts Final	Actual Amounts GAAP Basis	Budget to GAAP Differences Over(Under)	Actual Amounts Budgetary Basis	Variance with Final Budget Positive (Negative)
Resources (inflows)						
Property Taxes	\$ 20,174,506	\$21,910,706	\$ 22,064,787	\$ 44,302	\$ 22,020,485	\$ 109,779
State Revenue	111,257	111,257	112,782	-	112,782	1,525
Interest	35,000	60,000	496,376	28,010	468,366	408,366
Other Financing Sources	-	-	245,329	245,329	-	-
Other	288,202	286,714	302,165	5,653	296,512	9,798
Use of Designated Fund Balan	-	651,471	-	-	-	(651,471)
Amounts Available for Appropriatic	<u>20,608,965</u>	<u>23,020,148</u>	<u>23,221,439</u>	<u>323,294</u>	<u>22,898,145</u>	<u>(122,003)</u>
Charges to Appropriations (outflows)						
Personnel Services	12,730,057	13,841,586	12,733,524	380,366	13,113,890	727,696
Materials	3,000,000	3,356,652	3,303,101	(2,307)	3,300,794	55,858
General and Administrative	1,981,513	2,268,367	2,544,465	(152,257)	2,392,208	(123,841)
Technology	1,890,548	2,493,255	1,753,670	112,299	1,865,969	627,286
System Services	905,000	1,060,288	888,428	(17,673)	870,755	189,533
Total Charges to Appropriations	20,507,118	23,020,148	21,223,188	320,428	21,543,616	1,476,532
Change in Net Assets	101,847	-	1,998,251	2,866	1,354,529	(1,598,535)
Beginning Fund Balance	<u>15,375,892</u>	<u>17,240,436</u>	<u>17,240,436</u>	<u>-</u>	<u>17,240,436</u>	<u>-</u>
Ending Fund Balance	<u>\$ 15,477,739</u>	<u>\$ 17,240,436</u>	<u>\$ 19,238,687</u>	<u>\$ 2,866</u>	<u>\$ 18,594,965</u>	<u>\$ (1,598,535)</u>

Budget to Actual Reconciliation:

Revenues on a budgetary basis are based on cash received rather than the modified accrual basis used for financial reporting	\$ 323,294
Encumbrances for the prior fiscal year which were included in the year ordered for budgetary purposes but were canceled during the current budgetary year	<u>(320,428)</u>
	<u>\$ 2,866</u>

Under the budgetary basis of accounting revenues are recognized when they are received rather than earned. Purchases of materials, outside services and capital outlay are recognized as expenditures when the commitment to purchase is made (encumbered).

Notes to required Budgetary Information

Note Budgeting and Budgetary Control

Oklahoma Statue requires the System to prepare an annual budget. The budget is filed with the various County Excise Boards. The System adopts its budget at the fund level.

Budgetary Basis of Accounting

Under the budgetary basis of accounting, revenues are recognized when they are received rather than earned. Purchases of materials, outside services and capital outlay are recognized as expenditures when the commitment to purchase is made (encumbered).



Gray, Blodgett & Company, PLLC

CERTIFIED PUBLIC ACCOUNTANTS
BUSINESS ADVISORS

629 24TH AVE SW
NORMAN, OKLAHOMA 73069
(405) 360-5533 FAX (405) 364-3771

TED BLODGETT, CPA/ABV, CVA, JD
C. JANESE SHEPARD, CPA
ROSS H. ROYE, CPA
PHILIP BERTRAND, CPA
SAM BLODGETT, CPA
CYNTHIA K. BYARS, CPA
JERRY D. KING, CPA
BLAKE T. MCGUCKIN, CPA
BREE MONTOYA, CPA/ABV, CVA
RHONDA E. RAY, CPA
BRIAN C. WILKINS, CPA
TIM WILSON, CPA
JASON D. WINTERS, CPA

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

September 21, 2023

To the Board of Trustees of
Pioneer Library System
Norman, Oklahoma

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the financial statements of the governmental activities, the aggregate discretely presented component unit, each major fund and the fiduciary fund type of Pioneer Library System (the System), as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the System's basic financial statements, and have issued our report thereon dated September 21, 2023. The financial statements of the aggregate discretely presented component unit, the Pioneer Library System Foundation, were not audited in accordance with *Government Auditing Standards*, and accordingly, this report does not include reporting on internal control over financial reporting or instances of reportable noncompliance associated with the Pioneer Library System Foundation.

Report on Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

To the Board of Trustees of
Pioneer Library System
September 21, 2023

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

GRAY, BLODGETT & COMPANY, PLLC
Gray, Blodgett & Company, PLLC

**PIONEER LIBRARY SYSTEM
REVISED BUDGET
JULY 1, 2023 - JUNE 30, 2024**

REVENUES

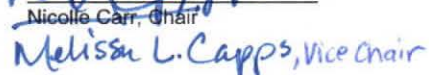
Ad Valorem Taxes			
Cleveland County	\$17,918,030		
McClain County	2,965,484		
Pottawatomie County	<u>2,930,960</u>		
Total Ad Valorem Taxes		\$23,814,474	
Oklahoma Department of Libraries			
State Aid	<u>\$112,782</u>		
Total State Aid		\$112,782	
Other Revenue	<u>\$616,021</u>		
		<u>\$616,021</u>	
Subtotal All Revenue			\$24,543,277
Use of Designated Fund Balance			\$0
Fund Balance			
Reserved for Encumbrances			\$486,266
Fund Balance Carryover			
Assigned Fund Balance		\$722,361	
Committed Fund Balance		\$0	
Unassigned Fund Balance		<u>\$18,681,531</u>	
Total Fund Balance			<u>\$19,403,892</u>
TOTAL REVENUE			<u>\$44,433,435</u>

EXPENDITURES

Personnel Services	\$14,905,443		
Books and Other Materials	3,750,000		
General & Administrative	2,669,100		
Technology	2,500,000		
System Services	<u>1,205,000</u>		
(C/E, Development, Programming, Outreach)			
(Marketing and Communications, Facilities)			
Subtotal All Expenditures		\$25,029,543	
Use of Assigned Fund Balance Current Yr.			\$0
Use of Unassigned Fund Balance Current Yr.			\$0

Fund Balance

Fund Balance Carryover Current Year		\$0	
Fund Balance Carryover Prior			
Assigned Fund Balance		\$722,361	
Committed Fund Balance		\$0	
Unassigned Fund Balance		<u>\$18,681,531</u>	
Total Fund Balance			<u>\$19,403,892</u>
TOTAL GENERAL FUND EXP & FUND BALANCE			<u>\$44,433,435</u>


Nicole Carr, Chair

Melissa L. Capps, Vice Chair

9/26/2023


Lisa Wells, Secretary

Lease Agreement

This Agreement is entered into this ____ day of _____, 2023, by and between the City of Shawnee, Oklahoma, a municipal corporation acting by and through its City Manager, hereinafter “LESSOR”, and Project H.E.A.R.T., Inc. hereinafter referred to as “LESSEE”.

WITNESSETH:

WHEREAS, Project H.E.A.R.T., Inc. is a non-profit corporation organized to receive federal, state and local donations to carry on a program of providing meals for persons who are aged sixty (60) plus; and

WHEREAS, in order to carry on the program of providing meals to persons who are aged sixty (60) plus within the City of Shawnee, it is necessary for the LESSEE to have space for operation and utility services; and

WHEREAS, it is beneficial to the public health and welfare in the City of Shawnee for the LESSOR to provide such space and utility services to the LESSEE.

THEREFORE, it is hereby agreed that the LESSOR hereby leases to the LESSEE the non-exclusive right to occupy certain designated spaces at the Shawnee Community Center (804 South Park Street), for the purpose of preparing and serving meals to persons aged sixty (60) plus for the term commencing the ____ day of _____, 2023 and ending the 30th day of June, 2024. LESSEE agrees to pay LESSOR Five Hundred Dollars (\$500.00) per month rent, due by the 10th day of each month. The LESSOR agrees to furnish, at no expense to the Lessee, electric, gas and water utility services to the LESSEE at such locations. The LESSORS’ City Manager shall have the right to inspect and approve all appliances used by the LESSEE at the sites. The LESSEE agrees that it will not waste any utility services. Waste of utility services found by the City Manager or other representative of the LESSOR shall be grounds for immediate termination of the Lease Agreement. Any changes in operations equipment or appliances shall be subject to the approval of the City Manager.

The LESSEE shall have complete autonomy over the implementation of its program. The LESSEE shall supervise and manage all aspects of the food service operation and shall interview and employ personnel to fill positions needed to conduct LESSEE’s operation including but not limited to site manager, cook, cook aide, dish washer and custodian, as well as supervise the personnel in their duties concerning the program.

The LESSEE shall provide meals for persons aged sixty (60) plus. The LESSEE agrees to provide food services to persons aged sixty (60) plus in the City of Shawnee. Such meals shall be approximately seventy-eight (78) noon (12:00 p.m.) meals per day, five (5) days a week, two hundred and fifty (250) days a year, excluding eleven (11) holidays and weekends at the Shawnee Community Center (804 South Park Street). Food service may be suspended during inclement weather or unforeseen circumstances. Number of meals served per day is dependent upon continued funding being received by the Lessee.

Personal property owned by the LESSEE shall remain the property of the LESSEE. However, the LESSOR shall have the right to use the LESSEE's tables and chairs when they are not in use by the LESSEE. Said tables and chairs are not to leave the premises.

LESSEE agrees that said space will be provided for LESSEE's use for six (6) hours per day every day of operation. LESSEE's staff and participants shall have access to the bathrooms located directly south of leased premises.

LESSEE shall provide its own custodial services for the leased premises.

LESSEE shall provide pest control, termite control and minor maintenance for only the leased premises.

LESSOR shall provide major repairs (defined as repairs exceeding Two Hundred and Fifty Dollars (\$250.00) and exterior maintenance to the City owned facilities as required, provided that LESSEE shall pay for all repairs of any equipment and appliances it owns regardless of cost and any proportionate repair costs for jointly used or shared equipment. Any issues concerning said repairs and maintenance shall be expressly conducted between LESSEE and City of Shawnee employee(s). LESSEE shall clean and service the grease trap on a regular basis.

The LESSEE is authorized to secure the leased premises by any necessary means including locks or other forms of security. The LESSOR shall provide keys, codes or entry passwords to the LESSEE for all locks on all doors, which the LESSEE may lock, and LESSEE shall provide the same to LESSOR. LESSOR retains the right to utilize a locksmith at LESSEE's expense should access be necessary and the appropriate key or combination not provided.

The LESSEE shall provide to the LESSOR the names of responsible parties for the site, and the name and telephone number of a person who may be contacted on a 24-hour basis.

The LESSOR agrees to provide to the LESSEE a schedule of activities during hours which the LESSEE is not operating its services at the site. The LESSOR shall have the exclusive right to schedule activities at the site during the hours that LESSEE is not conducting its operation with the exception of the kitchen.

This lease may be canceled by either party upon sixty (60) days' notice in writing to the other party. Notice to the LESSEE shall be addressed to the Director, Project H.E.A.R.T., Inc., P.O. Box 3667, Shawnee, Oklahoma 74802-3667. Notice to the LESSOR shall be addressed to the City Manager, P.O. Box 1448, Shawnee, Oklahoma 74802-1448.

[Signature page to follow.]

IN WITNESS WHEREOF, the said parties, by their representatives, set their hands to this Agreement on _____.

THE CITY OF SHAWNEE, OKLAHOMA
A MUNICIPAL CORPORATION

ANDREA WECKMUELLER-BEHRINGER
CITY MANAGER

ATTEST:
(SEAL)

LISA LASYONE, CMC, CITY CLERK

PROJECT H.E.A.R.T., INC.

EXECUTIVE DIRECTOR

SECRETARY/NOTARY

Approved as to form and legality on _____.

JOSEPH M. VORNDRAN, CITY ATTORNEY

**Let's Shop
Shawnee
this Holiday
Season!**



Shop Shawnee 2023



A digital gift card that unites
business, consumers and local
merchants

**Supports local businesses
and keeps dollars local!**

THE
LUNCH BOX



ONE CARD MANY PLACES

SCAN
ME



A “Shop Shawnee”

Gift Card is....

- Multi-use paper or digital gift card, lives on your phone
- Works at any number of different merchants in a community
- Merchants opt into the program at no cost
- Consumers give them as gifts to family and friends via email or text
- Cards do not expire. Yiftee provides customer support and security



[How It Works](#)[Where Can I Use It?](#)[Check Balance](#)[Volume Discount Program](#)

Choose an eGift Card Amount

\$5

\$25

\$50

CUSTOM

[Buy eGift Card\(s\)](#)

eDelivery fee of \$2.25 will be applied. ⓘ

Who Buys Shop Shawnee Cards?

Customers buy them online and give them as gifts, thank yous, etc. to support local businesses. They can be purchased from our Shop Shawnee website, merchant websites, and Facebook pages as well!

Local companies can use them for employee rewards, customer appreciation, marketing and other programs!

Realtors and other professionals use them to appreciate their customers and prospects!

Shawnee
FORWARD

Redeeming Your eGift Community Cards

Multi-use, unique-to-this-gift digital MasterCard, redeemable only at participating merchants

MasterCard validates transaction

Any merchant that takes MasterCard can participate. Key in codes to redeem (like a phone order)

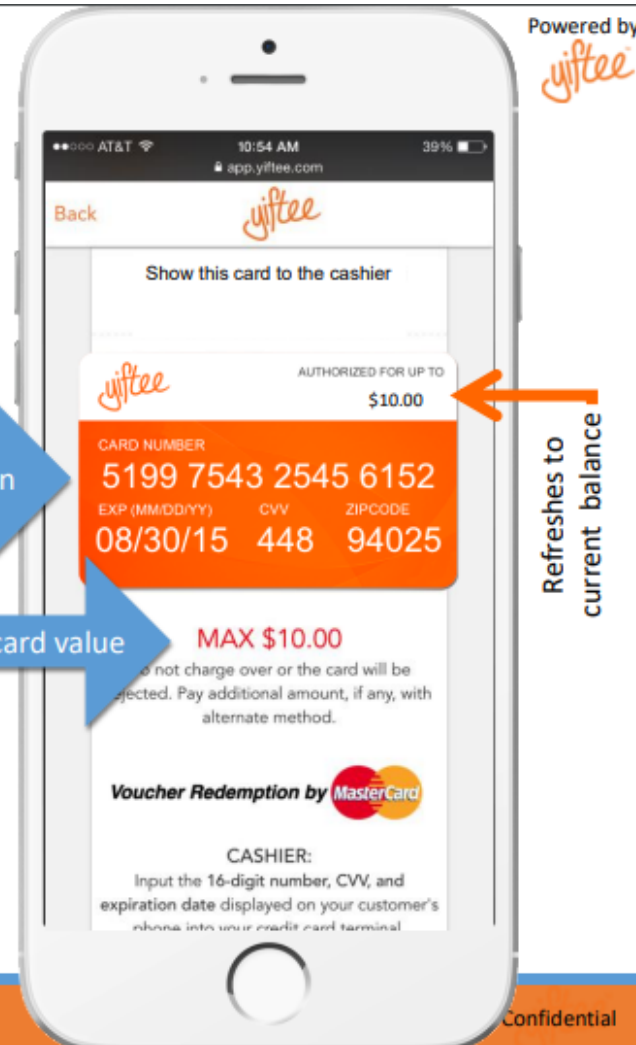
Do not exceed card value

Reconciled by normal MC bank. CNP interchange fees apply on redemption

No App required on phone to redeem, Yiftee sends monthly reminders. Gifts can be printed

eGift Card DEMO

Text the word "smitten" to: (855) 890-2028



Shop Shawnee

Shawnee
FORWARD



Shawnee
FORWARD

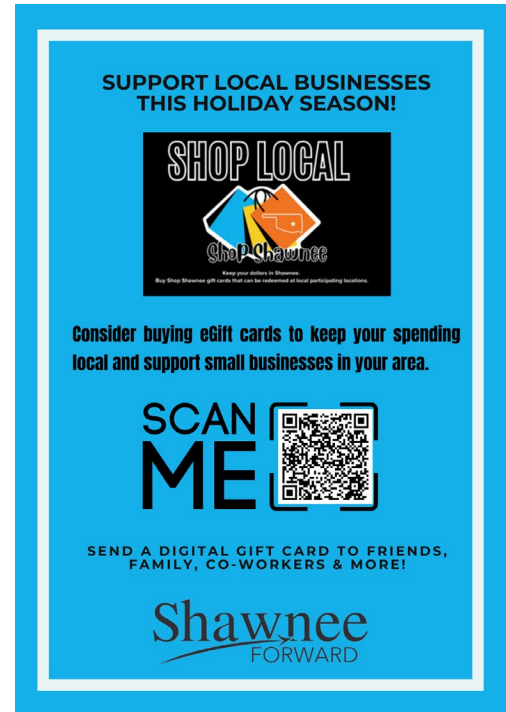
SHOP SHAWNEE

Support Local Businesses by buying **Shop Shawnee** cards this year. Consider buying eGift cards to keep your spending local and support small businesses in your area.



Shop Shawnee

- Merchant Training
- Branded Marketing Materials



September 2023

SHAWNEE BY THE NUMBERS

Shawnee
FORWARD

September 2023

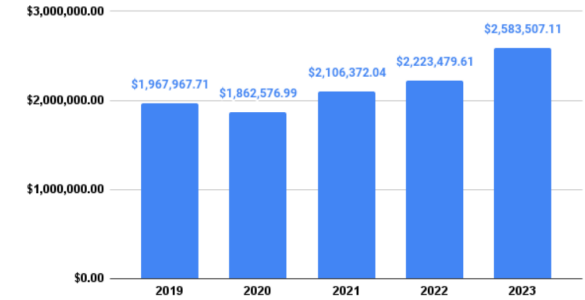
Shawnee
FORWARD

\$2,583,507.11

SHAWNEE SALES TAX COLLECTIONS
IN SEPTEMBER

SOURCE: OKLAHOMA TAX COMMISSION

5 YEAR SALES TAX COMPARISON FOR THE MONTH OF SEPTEMBER



Shawnee
FORWARD

SOURCE: OKLAHOMA TAX COMMISSION

PERMITS

September 2023

Shawnee
FORWARD

12

SINGLE FAMILY
HOME PERMITS

2

NEW BUSINESS
OCCUPANCY

HOUSING

August 2023

Shawnee
FORWARD

44

HOMES SOLD
IN AUGUST

128

HOMES FOR SALE
IN AUGUST

SOURCE: MLSOK

HOUSING

August 2023

\$224,508

AVERAGE HOME PRICE, AUGUST 2023

In appreciation for the significant contribution our local manufacturers make to the Shawnee community.

Manufacturing Day October 6, 2023



HONOR WALL



Sponsored by:



Meet the



Team



Crystal Romanyszyn, IOM
President & CEO



Jessica Nickerson
Director of Operations



Fhionna Shaughnessy
Director of Investor Relations



City Attorney Department
130 N. Broadway Ave., Suite 100
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Joe Vondran, City Attorney
Subject: Discussion and consideration of possible appointment for Ward 3 Commissioner to complete remainder of term, expiring 2024.

Background: With the recent resignation of the Ward 3 Commissioner, a vacancy has occurred in the Office of Commissioner. In compliance with the City of Shawnee Charter, Article III, Section 8, "the Board of Commissioners, by a majority vote of the remaining commissioners, shall appoint a person meeting the qualifications for the vacant commissioner's seat to serve until the next general or special municipal election and until a successor is elected and qualified. Any such vacancy shall then be filled at the next general or special municipal election to complete the balance of any unexpired term."

In accordance with Title 11 of the Oklahoma Statutes, Section 8-109, the vacancy on the Board of Commissioners has to be filled within 60 days or alternatively, within certain parameters, may result in a special election.

City staff is asking the City Commission for guidance related to the advertisement of the Ward 3 Commissioner's seat to find an eligible appointee to complete the remainder of the term, expiring in 2024.

Financial Impact: None

Attachments: Notice of Vacancy Ad Ward 3, Ward 3 City Commission Application 10-2023

Staff Recommendation: Approval of the item

NOTICE OF VACANCY ON SHAWNEE CITY COMMISSION

The Board of Commissioners of the City of Shawnee may appoint a new City Commissioner to represent Ward III until the next general or special municipal election and until a successor is elected and qualified. All persons residing in Ward III who are at least 25 years old and qualified electors of the City of Shawnee may apply for the seat. The person appointed must qualify to hold the office under State Law and the Charter and Code of Ordinances of the City of Shawnee.

Applications may be obtained from the City of Shawnee's website, www.shawneeok.org or may be obtained at the City Clerk's Office at City Hall, 16 West 9th Street. Each application must be received in the office of the Shawnee City Clerk no later than 12:00 p.m. Thursday, October 30, 2023.

Applications should be mailed/emailed or delivered to:

**City Clerk's Office
16 West 9th Street
P.O. Box 1448
Shawnee, Oklahoma 74802-1448
Email: CityClerk@ShawneeOK.org**

All applications will be considered during the City Commission meeting on November 20, 2023, at 6:00 p.m. Each member of the City Commission will receive a copy of each application.

Each applicant will be given the opportunity to address the City Commission and be interviewed at the City Commission meeting on Monday, November 20, 2023 at 6:00 p.m. Following the interviews, the City Commission will consider the appointment of a person to fill the vacancy during the City Commission meeting on Monday, November 20, 2023, or have the option to defer appointment to a subsequent meeting.

***The City of Shawnee does not discriminate on the basis of race, color, religion, sex, national origin, age, marital status, veteran status, handicapped status or any other legally protected status. The City of Shawnee adheres to the equal employment opportunity guidelines set forth by state and federal laws.**



CITY COMMISSION
WARD 3
APPLICATION TO SERVE

Deadline to Apply: October 30, 2023
12:00 pm

Boards, Committees, and Commissions

Name: _____	Application Date: _____
Address: _____	
Mailing Address: _____	
Daytime Phone: _____	Email: _____
Profession: _____	
Business Name: _____	
Business Address: _____	
Business Phone: _____	Fax: _____ Email: _____

Do you live within Ward 3 of the City of Shawnee? Yes or No (please circle)

Do you currently serve on a City board or committee? Yes or No (please circle)

How many years have you lived in Shawnee? _____

Why are you interested in serving as Ward 3 Commissioner on the City Commission?

What will make you a good Commissioner and what skills or knowledge do you have that would be relevant to this Commission?

What civic or volunteer activities (if any) are you currently involved in?

List education, including degree(s) earned:

Have you ever served on a City-appointed board/committee/commission before? If so, which ones and for how long did you serve?

Please include up to three personal or professional references:

Name:	Relationship:	Phone Number:

PLEASE READ CAREFULLY:

My signature affirms that all information contained herein is true to the best of my knowledge, and that I understand that any misstatement of fact or misrepresentation of credentials may result in disqualification from further consideration.

Signature _____ Date: _____

Applicants are encouraged to include a letter of interest and/or resume with this application.
Thank you for your interest in serving the City of Shawnee.

Send application for to:

Shawnee City Clerk
16 W. 9th Street / P.O. Box 1448
Shawnee, OK 74802
Phone: (405) 878-1604
Fax: (405) 878-1581
CityClerk@ShawneeOK.org



City Manager Department
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Danny Vise, Assistant City Manager
Subject: Consideration of a Professional Services Agreement with TAP Architecture for Architecture and Engineering Services related to the April 19, 2023, Storm Event.

Background: The City of Shawnee has requested proposals from qualified firms for architecture and engineering services for City-owned buildings to be utilized for both the continued response to the April 19, 2023, tornado as well as providing on demand services to the City as needed. Proposals were due to the City on August 29, 2023.

Staff received three (3) qualified responses and one (1) Notice of No Proposal. The responses were then evaluated based on the criteria included in the Request for Qualifications (RFQ). The evaluation scores were tabulated as follows:

1. Guernsey - 406
2. HP Engineering - 467
3. TAP Architecture - 526

Based upon these evaluation scores, staff recommends approval of a contract with TAP Architecture to provide architecture and engineering services for the City of Shawnee.

Financial Impact: None at this time

Attachments: RFQ 2023-806 Professional Engineering Services for City-Owned Buildings, 02-TAP-RFQ2023-806-ScannedSignatures, Shawnee-ProposedOutlineofAgreement-Full

Staff Recommendation: Award of the Contract



**Request for Qualifications for:
Professional Engineering Services for City-Owned Buildings
RFQ# 2023-806**

Request for Qualifications Due:
Tuesday 8/29/2023 at 4:00 P.M. Central

Issued By:
City of Shawnee, Oklahoma

Authorized Representative
Del Sol Consulting, Inc.

City of Shawnee, Oklahoma
Request for Qualifications

Professional Engineering Services for City-Owned Buildings

Released: *Wednesday, August 2, 2023*

Submittal shall be sent to:

**City of Shawnee
Attn: City Clerk
16 W 9th Street
Shawnee, OK 74801**

**Sealed Proposal should be clearly marked:
RFQ# 2023-806 Professional Engineering Services
for City-Owned Buildings**

SUBMITTAL COVER SHEET

The Entity and the Officer with authority to commit for the Entity are:

RESPONDENT:	FEDERAL ID OR SOCIAL SECURITY NO.	
STREET ADDRESS:	P.O. BOX:	ZIP:
CITY & STATE & ZIP:	TELEPHONE NO.	TOLL FREE TEL. NO (800)
NAME & TITLE OF PERSON SIGNING:	FAX NUMBER:	E-MAIL:
PROPOSAL IS FROM A/AN: () Corporation organized and existing under the laws of the STATE OF _____ () Partnership () Individual		

NON-COLLUSION

The undersigned certifies that the Entity has not entered into any agreement of any nature whatsoever to fix, maintain, increase or reduce the prices or competition regarding the items covered by this proposal invitation.

PROPOSAL CERTIFICATION

The Undersigned certifies that to the best of their knowledge:

() There is no officer or employee of the City of Shawnee who has, or whose relative has, a substantial interest in any contract award subsequent to this proposal.

() The names of any and all public officers or employees of the City of Shawnee have, or whose relative has, a substantial interest in any contract award subsequent to this proposal are identified by name as part of this submittal.

() The undersigned further certifies that the Entity IS NOT currently debarred, suspended, or proposed for debarment by any federal or State agency. The undersigned agrees to notify the City of Shawnee of any change in this status, should one occur, until such time as an award has been made under this action.

Date: _____

Entity Name: _____

By: _____

Print Name: _____

City of Shawnee, Oklahoma

RFQ#2023-806 Professional Engineering Services for City-Owned Buildings

SIGNATURE PAGE

In compliance with this RFQ, the undersigned agrees to furnish the services in accordance with the attached Proposal or as mutually agreed upon by subsequent negotiation.

Firm Submitting Proposal

Address

City

State

Zip

Phone Number

Fax Number

Email

Web Address

Authorized Person Submitting RFQ (Print)

Title

Signature

Date

STATEMENT OF NEED

The intent of this Request for Qualifications (RFQ) is to solicit from engineers a submittal of qualifications to provide Professional Engineering Services for the CITY OWNED BUILDINGS that the City of Shawnee lost or were damaged from the Tornadoes, Severe Storms and Straight-Line Winds on April 19-April 20, 2023, DR-4706-OK, and for future events and needs.

The City of Shawnee encourages minority, woman, veteran owned and small businesses to submit on this RFQ. The scope includes, but not limited to the following:

Shawnee Police Range Tower/Office, Indoor Skateboard Park, Shawnee Police Department Main Building, Public Works Buildings, Emergency Management Storage Building, Animal Shelter, Buildings at the Heart of Oklahoma Expo Center, Lions Club Park, site work, electrical work, and any other buildings as deemed necessary.

CALENDAR OF EVENTS

Listed below are the dates and times by which stated actions must be taken or completed. If the City of Shawnee determines, in its sole discretion, that it is necessary to change any of the dates and times, it will issue an Addendum to this RFQ. All listed times are applicable local times for Shawnee, Oklahoma.

DATE / TIME	ACTION
Wednesday, August 2, 2023	Advertising of Request for Qualifications
Same Day	Request for Qualifications documents released to potential Respondents
Friday, August 18, 2023	Last day and time for Respondents to submit written communications and/or inquiries
Monday, August 21, 2023	Addenda, if any, responding to written communications/inquiries
Tuesday, August 29, 2023 at 4:00 PM Central	Deadline for submittals
To be determined	Presentations, if invited to participate
To be determined	Recommendation of selected Respondent to the City of Shawnee for approval

1. SCOPE OF SERVICES

- 1.1. Selected firms will be required to provide professional architectural, engineering and related services, including but not limited to some or all of the following services:
 - 1.1.1. Provision of engineering support in disciplines required to operate and maintain the assets managed by the City of Shawnee including but not limited to General Civil, Structural, Mechanical, Electrical, Architectural, Environmental, Surveying and other disciplines required to perform the essential task.
 - 1.1.2. Investigation of maintenance concerns and development of reports detailing alternatives including budget estimates and recommendations.
 - 1.1.3. Development of project scope, budget, and design documents necessary to solicit bids/quotes in accordance with relevant design standards and public bid law.
 - 1.1.4. Consultation and coordination during the bid phase and construction contract procurement.
 - 1.1.5. Construction administration including consultation and coordination during the construction process, pay applications, and change orders.
 - 1.1.6. Attendance at on-site field investigations and local-site meetings as directed by the City of Shawnee.
 - 1.1.7. Research of As-Built plans and existing field conditions.
 - 1.1.8. Performance of environmental or other investigations and preparation of reports as requested by the City of Shawnee.
 - 1.1.9. Obtaining or renewing environmental and other state and federal permits required.
 - 1.1.10. Computer Aided Design and Drafting (CADD) Services
 - 1.1.11. Geographic Information Systems (GIS) Services
 - 1.1.12. Miscellaneous tasks requiring engineering judgment or services.
- 1.2. Projects may be funded by the City of Shawnee, State, Grant, and/or Federal Funds. Successful firms will be required to comply with all applicable requirements.
- 1.3. Task orders will be given at the Owner's discretion.
- 1.4. Phase One comprehensive services include the Schematic Design Stage along with assisting the City of Shawnee in budget and schedule development. Additionally, Design professionals may submit a proposal for Programming Services and/or the City of Shawnee may elect to solicit additional proposals for programming from such firms as the City of Shawnee deems qualified to provide programming services and may elect to contract such services. *If then authorized in writing by the City of Shawnee, this stage will enter the Design Development. *If then authorized in writing by the City of Shawnee, this stage will enter the Construction Document Stage.
 - 1.4.1. The Programming Stage shall produce a document describing gross facility areas, space requirements, approximate assignable areas, spatial relationships and adjacencies. This comprehensive document shall provide a narrative of the program as well as the tabular data and illustrations required to fully describe the program and its components. Programming shall comply with the City of Shawnee Design Standards.

- 1.4.2. The Schematic Design Stage shall include development of the Project site plan, floor plans, elevations, selection of all building systems, and selection of major construction materials. Schematic Design documents shall completely describe and depict Project requirements in sufficient detail to allow approval by the City of Shawnee. These details may include some combination of study models, perspective sketches or digital modeling. The Design Professional shall assist the City of Shawnee with updating the preliminary Project budget and schedule.
- 1.4.3. *If authorized in writing by the City of Shawnee*, the Design Development Stage shall produce documents that define and describe the size, character and location of all Facility systems, components, finishes and other items that may be appropriate; satisfy program requirements; comply with the City 's comprehensive Plan and the City of Shawnee Design Standards; and comply with all applicable codes and regulations. The Design Professional shall provide detailed plans, elevations, sections, typical details and outline specifications of all building components and systems. Value engineering and lifecycle cost studies, environmentally responsible design alternates and other items to aid in the City of Shawnee decision making shall be provided as required by the City of Shawnee. Documents shall include, but not be limited to, criteria, evaluation of alternates and recommendation of structural systems, HVAC systems, electrical systems and energy conservation alternates. The Design Professional, in coordination with the Project Manager, shall assist the City of Shawnee with development of probable cost to verify that the Project remains within the established budget.
- 1.4.4. *If authorized in writing by the City of Shawnee*, the Construction Document Stage services shall result in a comprehensive set of construction drawings and specifications in sufficient detail as determined by the City of Shawnee for procurement of construction services and construction of the Project including the preparation and certification of a Storm Water Pollution Prevention Plan. The Design Professional shall also assist the City of Shawnee with an update of probable cost, preparation of procurement packages, value engineering and bid alternates development, if required. The Design Professional shall be responsible for submissions to and coordination with governing bodies having jurisdiction over the Project and revisions and modifications to the documents mandated by such governing bodies if required. Final Construction Documents shall be reasonably coordinated and free of any material errors or omissions, and the Design Professional shall document corrections in a timely manner.
- 1.5. Phase Two comprehensive services, *if authorized in writing by the City of Shawnee*, shall include the Bidding Stage and the Construction Administration Stage.
- 1.5.1. Bidding Stage services shall include, but not be limited to, assisting with bidder list development; printing and distributing bid documents; attending pre-bid conference and general contractor interviews; preparing responses to questions from prospective bidders; providing clarification and interpretation of bid documents; reviewing bid alternates, exceptions and substitutions; and assisting with evaluation of contractor proposals and contract negotiations.
- 1.5.2. Construction Administration Stage services shall include, but not be limited to, attendance at regular construction meetings simultaneously with construction observation, preparation of meeting reports, review and approval of contractor submittals and pay applications, response to Requests for Information, evaluation of change proposals, preparation of a final punch list and one follow-up punch list, assistance in correction of punch list deficiencies, attendance at Substantial and Final Completion inspections and assistance with Project acceptance and contract close-out activities. The Design Professional shall also conduct a one (1) year warranty inspection with applicable subcontractors, prepare a deficiency report and assist with resolving warranty issues. The Design Professional, and its subcontractors as applicable, shall visit the site at a minimum of weekly intervals and also as needed to respond to construction issues and to determine in general if the work observed is being carried out in accordance with the contract documents; however, the Design Professional shall not be required to make exhaustive or continuous on-site inspections

to check the quality or quantity of the work. The Design Professional shall report to the City of Shawnee any known deviations from the contract documents and any defects and deficiencies observed in the work. The Design Professional agrees that its representatives during the construction phase shall be qualified by training and experience to make decisions and interpretations of plans and specifications and shall be empowered by the Design Professional to do so; such decisions and interpretations shall be binding upon the Design Professional as if made by him, and all such decisions shall be confirmed in writing at the earliest reasonable date. The Design Professional shall have no liability for site safety or the means and methods employed by the contractor.

2. SUBMITTAL REQUIREMENTS, FORMAT, AND PREPARATION GUIDELINES

2.1. Format and Preparation Guidelines

2.1.1. Submittal Remittance

Send Sealed Submittal To

City of Shawnee
Attn: City Clerk
16 West 9th Street
Shawnee, Oklahoma 74801

Clearly Marked on Outside Envelope

RFQ# 2023-806 Professional Engineering Services for City-Owned Buildings

Due Date: Tuesday, August 29, 2023 at 4:00 p.m. Central

2.2. Instructions to Professionals

2.2.1. Respondents are to submit one (1) original complete submittals with signatures in blue ink, and FOUR copies, and one (1) electronic form of the complete submittal package that can be reproduced.

2.2.2. At due date and time, all submittals received by the due date will be opened for the sole purpose of recording the names of the individuals or firms submitting written responses.

2.2.3. If the submittal is mailed, sufficient time must be allowed to ensure the City of Shawnee's proper receipt of the package by the time specified above. Allow an additional 24 hours for the City of Shawnee's internal mail process. It is the responsibility of the firms to ensure that the properly marked and sealed submittal arrives at the City of Shawnee. Submittals received after the due date and time will be returned to Respondent unopened.

2.2.4. Any submittal not prepared and received in accordance with provisions stated herein will be considered an informal response and any/or all of the submittal may be rejected.

2.2.5. Withdrawal of submittal will be accepted until the submission due date and time above. No submittal may be withdrawn after the deadline.

2.2.6. Each firm will pay all costs associated with the preparation of the submittal, and, if applicable, subsequent oral presentations if requested by the City of Shawnee.

2.2.7. This file becomes a matter of public record and is open for review by the public upon the full execution of the agreement.

2.3. Submittal Content: The following information must, but not limited to, be included in the submittal packet:

- 2.3.1. Signed Proposal Cover Sheet.
- 2.3.2. Acknowledgement of number and date of addenda received
- 2.3.3. Company profile including but not limited to: State of Oklahoma License
- 2.3.4. General Reputation and Performance Capabilities: Describe the general reputation and performance capabilities of the firm and explain how these characteristics translate to optimizing results for the City of Shawnee.
- 2.3.5. Years in business under current name, and project team members.
- 2.3.6. Description of the staff members of your firm and detailed resumes (can be an attachment)
- 2.3.7. Proposed technique(s) that will be utilized for life cycle costing.
- 2.3.8. Description of the quality of products to be considered to improve facilities, improve comfort and efficiency in reducing energy consumption and operating costs.
- 2.3.9. RFQ Signature Page.
- 2.3.10. Five (5) professional references for similar projects completed within the last five years:
- 2.3.11. Services and equipment provided, project cost, and benefits to the owner.
- 2.3.12. Client Name
- 2.3.13. Contact Name, Title
- 2.3.14. Contact Person: Phone/Fax Number/Email Address
- 2.3.15. Attachment A: Certification for Contracts, Grants, Loans, and Cooperative Agreements as required by the Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352
- 2.3.16. Attachment B: No Proposal Notification, if necessary
- 2.3.17. If the Respondent fails to supply all required information, the submission may be deemed non- responsive at the discretion of the City of Shawnee.

2.4. Submittal Format

- 2.4.1. Submittal shall be prepared simply and economically, providing a straightforward, concise description of the Respondent's ability to meet the requirements of this RFQ. Emphasis shall be on the quality, completeness, clarity of content, responsiveness to the requirements and an understanding of the City of Shawnee's needs.
- 2.4.2. Submittals should be printed on letter size paper (8 ½" x 11") and bound with a spiral type binding that will allow the submittal to lie flat when open. Do not use metal-ring hard cover binders.
- 2.4.3. Include a Table of Contents page for the entire submittal and give sequential page numbers for each part of the submittal including attachments. **ARRANGE THE SUBMITTAL IN THE ORDER LISTED IN THE**

SUBMITTAL CONTENT SECTION OF THIS RFQ. Additional optional attachments that are listed in the SUBMITTAL CONTENT section may be included at the end of the submittal packet.

- 2.4.4. Separate each part of the submittal packet by use of a divider sheet with a tab for ready reference. Tab references shall correspond with the Table of Contents page.
- 2.4.5. Submittals are to be double sided with each side counted as a page. Table of Contents, 1 page Cover Letter, Submittal Cover Sheet and Divider tabs do not count toward total page count.
- 2.4.6. Each complete submittal will contain a maximum of thirty (30) pages, a cover letter, the Submittal cover sheet, the relevant requested Submittal information, and the required signature page. Brevity is a plus.
- 2.4.7. At the discretion of the respondent, a maximum of ten (10) additional qualifications related or marketing informational pages can be included in the submittal.
- 2.4.8. Detailed staff resumes including list of industry certifications may be included as a second attachment to the submittal packet. These additional pages will not be counted against the thirty (30) pages of the main content or the ten (10) additional pages of information.

2.5. Interpretation or Correction

- 2.5.1. The City of Shawnee is not liable for interpretations/misinterpretations or other errors or omissions made by the Respondent in responding to this Request. Any required addendum to the RFQ and all clarifications, answers to questions, or changes to this RFP shall be provided through a City of Shawnee-issued Addendum, which shall be distributed to vendors by fax and posted on the City website found at:

www.shawneeok.org/services/current_bids_proposals/index.php

Any clarifications, answers, or changes provided in any manner other than a formally issued addendum, are to be considered “unofficial” and shall not bind the City to any requirements, terms or conditions not stated herein.

- 2.5.2. The City shall make every possible, good faith effort to issue any and all addenda(s) no later than seven (7) days prior to the due date for proposals. Any addendum issued after this date, shall be for material, necessary clarifications to the Request for Qualifications.
- 2.5.3. Any person, firm or corporation submitting a response is deemed to have read, understood and agreed to all terms, conditions and requirements set forth in the specifications. Respondent agrees to conform in general to the terms of these specifications, details of which will be set forth in a signed agreement mutually acceptable to and executed by the City of Shawnee and the Respondent.
- 2.5.4. From the date of issuance until the City of Shawnee takes final agency action, the Respondent must not discuss their submittal or any part thereof with any employee, agent, or representative of the City of Shawnee except as expressly requested by the City of Shawnee in writing. Violation of this restriction will result in rejection of the Respondent’s response.
- 2.5.5. No negotiations, decisions, or actions shall be initiated or executed by the Respondent as a result of any discussions with any the City of Shawnee employee. All inquiries, requests for clarification, change of condition or requirement, specification omissions, doubt as to meaning, or requests for additional information must be submitted, in writing, or via email to Danny Vise, Jr. email address: Danny.Vise@Shawneeok.org. In the written request, the Respondent must identify him/herself and provide the page number, section, and paragraph of the conditions or requirements in question. The Respondent

must also recommend specific written changes to the specified condition(s) or requirement(s).

2.5.6. All written inquiries or requests for changes or information must be received by Danny Vise, Jr: Danny.Vise@Shawneeok.org, no later than the scheduled date shown in the Calendar of Events outlined in this document. All Respondent inquiries or requests, the City of Shawnee responses to these inquiries or requests, and other needs as may apply will be provided to all prospective Respondents by addendum. All addenda issued by the City of Shawnee shall become a part of the RFQ, and Respondents shall acknowledge receipt of each addendum by number and date in its response.

2.5.7. Inquiries concerning Request for Qualifications – City Owned Damaged Buildings should be addressed as follows:

City of Shawnee
Attn: Danny Vise, Jr
16 W. 9th Street
Shawnee, OK 74801

Or via email to: danny.vise@shawneeok.org

2.6. Provisions for Recommendation: It is understood that the City of Shawnee reserves the right to the following:

2.6.1. Reject any and/or all Proposal submittals.

2.6.2. Accept any submittal or portion thereof most advantageous to the City of Shawnee.

2.6.3. Revise the RFQ and/or issue addenda to the RFQ, in the event it becomes necessary to revise any or part of the RFQ. Addenda will be provided to all those who received the RFQ.

2.6.4. Cancel or re-issue the Request for Qualifications, in whole or in part, prior to execution of a contract.

2.6.5. Negotiate with the Respondent.

2.6.6. Award contract based on the overall best business decision for the City of Shawnee including firm location or services offered.

2.6.7. Waive any informalities or regularities.

2.6.8. Award to single or multiple firms.

2.6.9. Request additional information or require a meeting with the Respondent for clarification.

2.6.10. Request presentations from Respondents following submission of the Proposals submittal.

2.6.11. Modify timelines, as issued in the form of an addendum.

3. EVALUATION CRITERIA AND SELECTION PROCESS

3.1. All proposals shall be initially evaluated based on criteria listed below by members of an advisory evaluation committee. Such advisory committee shall consist of individuals who have expertise regarding, or some experience with, the subject matter of the RFQ or, individuals who could be characterized as recipients, beneficiaries, or users of the RFQ's subject matter. All qualified proposals shall be evaluated by the committee using a point earned matrix. Evaluations and selection of the successful Respondent shall be based on the

information submitted in the proposal.

- 3.2. In determining the professional services firms whose Proposals are in the best interests of the City of Shawnee and a Quality Based Selection. The following criteria, among possible others, will be considered:

General Professional Impression	10 pts
Quality and successful completion of projects of similar size and cost.	15 pts
Socioeconomic Contractors	5 pts
Firm's proximity to geographic location of the project.	10 pts
Firm's ability and capacity to perform the work.	20 pts
Time schedule and experience at timely delivery of design documents.	10 pts
Firm's ability to demonstrate understanding of the project requirements.	10 pts
Financial Controls	20 pts

Ability to accurately estimate and complete the project within available budget

Maximum Point Total

100 pts

- 3.3. By submitting a response to this RFQ, the Respondent accepts the evaluation process and acknowledges and accepts that determination of the most qualified firm(s) will require subjective judgments by the City of Shawnee.

- 3.4. In Person Interview may be requested by the City of Shawnee

4. GENERAL TERMS AND CONDITIONS

- 4.1. Firms are cautioned to read the information contained in this RFQ carefully and to submit a complete response to all requirements and questions as directed.
- 4.2. It is the intent of the City of Shawnee to enter into a one (1) year agreement, with a renewal clause for four (4) additional one (1) year terms for services as described herein.
- 4.3. The City of Shawnee reserves the right to reject any and all submittals and to waive any irregularities or technical defects in the response and reserves the right to select the best total program. the City of Shawnee is not liable for any expense incurred by the professional services firm in the preparation and presentation of proposals.
- 4.4. Acceptable Sealed Submittals: Any submittal not prepared and received in accordance with provisions stated herein, will be considered an informal response and any/or all of the submittal may be rejected. the City of Shawnee reserves the right to accept submittals or amendments to submittals that arrive after due date as deemed appropriate.
- 4.5. It is the responsibility of the firm to ensure that the properly marked and sealed submittal package arrives at the City of Shawnee by the due date and time.
- 4.6. Governing Law and Venue: This RFQ and resulting contract, if any, and any disputes there under will be governed by the laws of the State of Oklahoma and the City of Shawnee, Oklahoma.
- 4.7. Appropriated Funds: The purchase of any service, which arises from this solicitation, is contingent upon the availability of appropriated funds. If funds are withdrawn or do not become available, the City of Shawnee can cancel the service contract by giving the firm written notice of its intention to cancel not less than ninety (90) days prior to the end of the term without penalty. Upon cancellation of the contract, the City of Shawnee shall not be responsible for any payment of any services received that occur after the end of the current contract period.

- 4.8. Sales and Use Tax: The City of Shawnee as a public entity and some cases exempt from state and local sales taxes.
- 4.9. Invoices: Payment terms on services that have been received and accepted by the City of Shawnee will be net forty-five (45) days.
- 4.10. Observance of the City of Shawnee Rules and Regulations: Firm agrees that at all times its employees will observe and comply with all policies and procedures of the City of Shawnee, including but not limited to smoking, parking and security directives. The firm will be required to follow the City of Shawnee policies in dealing with improper conduct and discrimination and shall report all incidents or injuries to the City of Shawnee.
- 4.11. Non-Exclusive Contract: This is not an exclusive contract and will not restrict in any way the City of Shawnee's rights to contract with other firms for services and/or commodities similar to those specified within this RFQ.
- 4.12. Limitations of Remedies and Indemnification: Any firm awarded the RFQ accepts full responsibility for acts or conduct of its employees or agents, or services rendered, and agrees to indemnify, defend and hold harmless the City of Shawnee and its officers, agents and employees from any and all claims, demands, damages, actions and costs or expenses in connection therewith that may relate to any subsequent agreement, or acts of the firm's employees or agents. the City of Shawnee will not be liable for any damage or injury to the firm's employees or its properties. the City of Shawnee does not agree to indemnify the vendor.
- 4.13. The firm may not assign, transfer, convey or otherwise dispose of this agreement or any right, title or interest herein without the prior written consent of the City of Shawnee. Any contract resulting from this RFQ may only be amended in writing and signed by the firm and the City of Shawnee using the same degree of formality evidenced in the contract resulting from this RFQ.
- 4.14. The professional service firm shall not name the City of Shawnee in its external advertising, marketing programs or other promotional efforts, any data, pictures or other representation of the City of Shawnee except on the specific, written authorization in advance by the City of Shawnee's Mayor/City Commission and/or the City Manager.
- 4.15. The agreement between the firm and the City of Shawnee may be cancelled by mutual written agreement of both parties upon ninety (90) days notice. the City of Shawnee may cancel the agreement effective thirty (30) days after a written notice from the City of Shawnee is provided to the firm if the firm does not provide satisfactory service or fails to follow a reasonable schedule of agreed upon services, or otherwise fails to operate in a professional manner.
- 4.16. The professional services firm is subject to and must comply with provisions of the City of Shawnee's policies and applicable state and federal anti-discrimination laws.
- 4.17. Insurance: Prior to beginning work, successful bidder shall deliver certificates of insurance as evidence of the coverage indicated below; such evidence shall include documentation of thirty (30) day prior written notice to the City of Shawnee of cancellation, non-renewal or material change in coverage.
- 4.17.1. The firm will obtain all insurance required under this agreement before commencing work and shall furnish the City of Shawnee with a certificate of insurance as proof of coverage. Companies writing insurance under this article must be licensed to do business in the State of Oklahoma. All costs for insurance will be borne by the firm. With the exception of professional liability, all policies shall be written on an "occurrence" not "claims made" basis.
- 4.17.2. The insurance certificates should be delivered to:

City of Shawnee
Attn: City Manager's Office
16 West 9th Street
Shawnee, OK 74801

4.17.3. Each insurance policy maintained by Contractor must be endorsed as follows:

4.17.3.1. "The City of Shawnee is Named an Additional Insured." (Except the Workers' Compensation)

4.17.3.2. "Underwriters waive all rights of subrogation against the City of Shawnee."

4.17.3.3. "The coverage afforded herein shall be primary in relation to any policies carried by the City of Shawnee." Provide thirty (30) days written notice of cancellation or reduction of any coverage to the City of Shawnee.

4.17.4. Insurance provider shall provide thirty (30) days written notice of cancellation, non-renewal, or reduction of any coverage to the City of Shawnee.

4.17.5. The firm shall maintain the following:

4.17.5.1. Workers' Compensation and Employers' Liability Insurance in accordance with all applicable State laws. Employers' Liability Insurance, including Occupational Disease, with limits of liability of not less than \$1,000,000 each accident and \$1,000,000 each employee.

4.17.5.2. The firm shall maintain general liability coverage during the term of the agreement. The minimum acceptable limits shall be \$1,000,000 per occurrence, \$2,000,000 general aggregate, and \$2,000,000 products/completed operations aggregate. Each policy of insurance required by this clause shall contain an Additional Insured endorsement in favor of the City of Shawnee, its elected and appointed officials, agents, directors, employees, and volunteers, using form CG 20 10 Form B (edition 07 04) or approved equivalent; and a Waiver of Transfer of Rights of Recovery Against Others to Us in favor of the City of Shawnee, its elected and appointed officials, agents, directors, employees, and volunteers. The firm shall provide certification of such insurance and a copy of the policy upon request.

4.17.5.3. The firm shall maintain automobile liability coverage during the term of the agreement. The minimum limit of this coverage shall be \$1,000,000 combined single limit for bodily injury and property damage. Liability coverage to be provided for "Any Auto" or "All Owned Autos and Hired and Non-owned Autos." If the firm owns no vehicles, then a "Hired and Non-owned Auto" liability policy is required. An Additional Insured endorsement in favor of the City of Shawnee, its elected and appointed officials, agents, directors, employees, and volunteers is required; and a Waiver of Transfer of Rights of Recovery Against Others to Us in favor of the City of Shawnee, its elected and appointed officials, agents, directors, employees, and volunteers is also required. The firm shall provide certification of such insurance and a copy of the policy upon request.

5. COMPLIANCE WITH FEDERAL REQUIREMENTS

Since the parties anticipate that federal funding will be applied to this Request for Proposal/Agreement/Contract, the following federal contract clauses must be complied with, where applicable, in addition to the clauses already mentioned.

5.1. Equal Employment Opportunity: The regulation at 41 C.F.R. § 60-1.4(b) requires, except as otherwise provided or exempted in 41 C.F.R. Part 60, the insertion of the following contract clause: "During the performance of this

contract, the contractor agrees as follows:

- 5.1.1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:
 - 5.1.1.1. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- 5.1.2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- 5.1.3. The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
- 5.1.4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 5.1.5. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- 5.1.6. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- 5.1.7. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- 5.1.8. The contractor will include the portion of the sentence in Section 5.1 that immediately precedes Section 5.1.1 and the provisions of Sections 5.1.1 through 5.1.8 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of

Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

5.1.8.1. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

5.1.9. The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract. The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

5.1.10. The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

5.2. Compliance with the Contract Work Hours and Safety Standards Act (2 CFR 200 Appendix II).

5.2.1. Overtime requirements: No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

5.2.2. Violation, liability for unpaid wages, liquidated damages: In the event of any violation of the clause set forth in Section 5.2.1 of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in Section 5.2.1 of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in Section 5.2.1 of this section.

5.2.3. Withholding for unpaid wages and liquidated damages: The (write in the name of the Federal agency or the

loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally- assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in Section 5.2.2 of this section.

5.2.4. Subcontracts: The contractor or subcontractor shall insert in any subcontracts the clauses set forth in Section 5.2.1 through 5.2.4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in Section 5.2.1 through 5.2.4 of this section.

5.2.5. The contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.

5.2.6. Records to be maintained under this provision shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Department of Homeland Security, the Federal Emergency Management Agency, and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5.3. Extension to Successors and Assigns: Each and all of the covenants and agreements contained in the Agreement affected by the acceptance of the Proposal shall extend to and be binding upon the successors and assigns of the parties thereto. Rights under this Agreement may not be assigned without mutual written consent of the parties.

5.4. Binding Agreement: This Agreement shall be construed in a neutral manner. This Agreement reflects the complete and full terms of agreement that is binding between the parties. The pages may be signed on separate pages, in counterparts and together are deemed to be one document. A true electronic copy is deemed an original.

5.5. Governing Law: All disputes relating to the execution, interpretation, construction, performance, or enforcement of the Agreement and the rights and obligations of the parties hereto shall be governed by the laws of the State of Oklahoma and resolved in a District Court of Oklahoma or applicable Federal Court of Oklahoma. Contractor hereby consents to and waives any objection to venue and jurisdiction in such courts.

5.6. Severability: If any term of this Agreement is to any extent illegal, otherwise invalid, or incapable of being enforced, such term shall be excluded to the extent of such invalidity or unenforceability; all other terms hereof shall remain in full force and effect; and, to the extent permitted and possible, the invalid or unenforceable term shall be deemed replaced by a term that is valid and enforceable and that comes closest to expressing the intention of such invalid or unenforceable term.

5.7. Clean Air Act

5.7.1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

5.7.2. The Contractor agrees to report each violation to the City of Shawnee and understands and agrees that the City of Shawnee will, in turn, report each violation as required to assure notification to FEMA, and the appropriate Environmental Protection Agency Regional Office.

5.7.3. The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

5.8. Federal Water Pollution Control Act

5.8.1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 7401 et seq.

5.8.2. The Contractor agrees to report each violation to the City of Shawnee and understands and agrees that the City of Shawnee will, in turn, report each violation as required to assure notification to the FEMA, and the appropriate Environmental Protection Agency Regional Office.

5.8.3. The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

5.9. Suspension And Debarment

5.9.1. This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

5.9.2. The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

5.9.3. This certification is a material representation of fact relied upon by the City of Shawnee. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the City of Shawnee, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

5.10. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

5.11. Byrd Anti-Lobbying Act: The Contractor will be expected to comply with Federal statutes required in the Anti-Lobbying Act.

5.11.1. If applicable, contractors must sign and submit the following certification to the non-federal entity (NFE) with each bid or offer exceeding \$100,000. Each tier certifies to the tier above that it will not and has not used federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the federal awarding agency. The "44 C.F.R. Part 18 – Certification Regarding Lobbying" shown on ATTACHMENT A must be signed and included with the contract documents.

5.12. Anti-Kickback Clause: The Contractor hereby agrees to adhere to the mandate dictated by the Copeland "Anti-Kickback" Act which provides that each Contractor or subgrantee shall be prohibited from inducing, by any means, any person employed in the completion of work, to give up any part of the compensation to which he is

otherwise entitled.

5.13. Procurement Of Recovered Materials: In the performance of this Contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:

5.13.1. Competitively within a timeframe providing for compliance with the Contract performance schedule;

5.13.2. Meeting Contract performance requirements; or

5.13.3. At a reasonable price.

5.13.4. Information about this requirement, along with the list of EPA-designate items, is available at EPA's Comprehensive Procurement Guidelines website, www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program

5.14. Prohibition on Contracting for Covered Telecommunications Equipment or Services.

5.14.1. Definitions. As used in this clause, the terms backhaul; covered foreign country; covered telecommunications equipment or services; interconnection arrangements; roaming; substantial or essential component; and telecommunications equipment or services have the meaning as defined in FEMA Policy 405-143-1, Prohibitions on Expending FEMA Award Funds for Covered Telecommunications Equipment or Services (Interim), as used in this clause.

5.14.2. Prohibitions.

5.14.2.1. Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after Aug.13, 2020, from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.

5.14.2.2. Unless an exception in Section 5.14.3 of this clause applies, the contractor and its subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds from the Federal Emergency Management Agency to:

5.14.2.2.1. Procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

5.14.2.2.2. Enter into, extend, or renew a contract to procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

5.14.2.2.3. Enter into, extend, or renew contracts with entities that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system; or

5.14.2.2.4. Provide, as part of its performance of this contract, subcontract, or other contractual instrument, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

5.14.3. Exceptions.

5.14.3.1. This clause does not prohibit contractors from providing:

5.14.3.1.1. A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

5.14.3.1.2. Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

5.14.3.2. By necessary implication and regulation, the prohibitions also do not apply to:

5.14.3.2.1. Covered telecommunications equipment or services that:

5.14.3.2.1.1. Are not used as a substantial or essential component of any system; and

5.14.3.2.1.2. Are not used as critical technology of any system.

5.14.3.2.2. Other telecommunications equipment or services that are not considered covered telecommunications equipment or services.

5.14.4. Reporting requirement.

5.14.4.1. In the event the contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the contractor is notified of such by a subcontractor at any tier or by any other source, the contractor shall report the information in Section 5.14.4.2 of this clause to the recipient or subrecipient, unless elsewhere in this contract are established procedures for reporting the information.

5.14.4.2. The Contractor shall report the following information pursuant to Section 5.14.4.1 of this clause:

5.14.4.2.1. Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

5.14.4.2.2. Within 10 business days of submitting the information in Section 5.14.4.2.1 of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

5.14.5. Subcontracts. The Contractor shall insert the substance of this clause (Section 5.14), including this paragraph (5.14 .5), in all subcontracts and other contractual instruments.

5.15. Domestic Preferences for Procurements.

5.15.1. As appropriate, and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States. This includes, but is not limited to iron, aluminum, steel, cement, and other

manufactured products.

5.15.2. For purposes of this clause:

5.15.2.1. Produced in the United States means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

5.15.2.2. Manufactured products mean items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

5.16. Access to Records

5.16.1. The following access to records requirements applies to this contract:

5.16.1.1. The Contractor agrees to provide the City of Shawnee, OEM, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives' access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

5.16.1.2. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

5.16.1.3. The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

5.16.1.4. In compliance with Section 1225 of the Disaster Recovery Reform Act of 2018, the City of Shawnee and the contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

5.17. Termination

5.17.1. Termination for Cause. The City of Shawnee (Owner) shall submit a written notice to the contractor and surety which justifies placement of the contractor in default if:

5.17.1.1. The Work is not begun within the time specified in the Notice to Proceed.

5.17.1.2. The Work is performed with insufficient workmen, equipment, or materials to assure prompt completion.

5.17.1.3. The contractor performs unsuitable, neglected, or rejected work, refuses to remove materials.

5.17.1.4. The Work is discontinued.

5.17.1.5. The Work is not completed within the Contract Time or time extension.

5.17.1.6. Work is not resumed within a reasonable time after receiving a notice to continue.

5.17.1.7. The contractor becomes insolvent or is declared bankrupt or commits any act of bankruptcy or insolvency.

5.17.1.8. The contractor allows any final judgment to stand unsatisfied for a period of ten (10) days.

5.17.1.9. The contractor makes an assignment for the benefit of creditors.

5.17.1.10. The Work is not performed in an acceptable manner.

5.17.1.11. If the contractor or Surety does not remedy all conditions cited in the written notice within ten (10) days after receiving such a notice, the contractor is placed into default. In that event, the Owner may obtain the necessary labor, materials, and equipment, or enter into a new Contract in order to complete the Work. All costs incurred by the Owner for completing the Work under the new Contract will be deducted from the payment due the contractor. If the expense exceeds the sum payable under the Contract, the contractor and surety shall be liable to pay the Owner the difference.

5.17.2. Termination for Convenience. The City of Shawnee (Owner) may, at any time, terminate this Contract or any portion thereof, for Owner's convenience, upon providing written notice to the contractor. In such case, contractor shall be paid for all work completed through the date notice was provided (less payments already received) and reasonable demobilization and restocking charges incurred, and reasonable overhead and profit based upon industry standards on the work performed. In no event shall the contractor be entitled to payment of overhead and profit on work not performed. In the event it is determined that the contractor was wrongfully terminated for cause, such termination shall be automatically converted to a termination for convenience and payment be made as provided under this Section.

5.18. Breach: Any breach of the Contract by Contractor shall be governed by the Termination provision of the Contract. Additionally, in the event that the City of Shawnee incurs damages as a result of Contractor's breach, the City of Shawnee may pursue recovery of such damages from Contractor. The City of Shawnee further retains the right to seek specific performance of the Contract at any time as authorized by law. The City of Shawnee further retains the right to otherwise pursue any remedies available to the City of Shawnee as a result of the Contractor's breach, including but not limited to administrative, contractual, or legal remedies. Termination for cause and convenience are governed by the Termination provision of the Contract

5.19. Changes: To be allowable under a FEMA grant or cooperative agreement award, the cost of any contract change, modification, amendment, addendum, change order, or constructive change must be necessary, allocable, within the scope of the grant or cooperative agreement, reasonable for the scope of work, and otherwise allowable.

5.20. DHS Seal, Logo, And Flags: The contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval. The contractor shall include this provision in any subcontracts.

5.21. Compliance with Federal Executive Orders: This is an acknowledgement that FEMA financial assistance will be used to fund the Contract only. The Contractor will comply with all applicable federal law, regulations, executive orders, FEMA policies, procedures, and directives.

5.22. No Obligation by the Federal Government: The Federal Government is not a party to this Contract and is not subject to any obligations or liabilities to the non-Federal entity, Contractor, or any other party pertaining to any matter resulting from the Contract.

5.23. Program Fraud and False or Fraudulent Statements or Related Acts: The Contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Contractor's actions pertaining to this contract.

5.24. Contracting with Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms: If subcontracts are to be let, the prime contractor is required to take all necessary steps identified in 2 C.F.R. § 200.321(b)(1)-(5) to ensure that small and minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

5.24.1. Any party to this contract must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. These steps are also required for the hiring of any subcontractors under this contract.

5.24.2. Affirmative steps must include:

5.24.2.1. Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

5.24.2.2. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

5.24.2.3. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

5.24.2.4. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; and

5.24.2.5. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce

5.25. Copyright and Data Rights: License and Delivery of Works Subject to Copyright and Data Rights – The contractor grants to the City of Shawnee, a paid-up, royalty-free, nonexclusive, irrevocable, worldwide license in data first produced in the performance of this contract to reproduce, publish, or otherwise use, including prepare derivative works, distribute copies to the public, and perform publicly and display publicly such data. For data required by the contract but not first produced in the performance of this contract, the contractor will identify such data and grant to the City of Shawnee or acquires on its behalf a license of the same scope as for data first produced in the performance of this contract. Data, as used herein, shall include any work subject to copyright under 17 U.S.C. § 102, for example, any written reports or literary works, software and/or source code, music, choreography, pictures or images, graphics, sculptures, videos, motion pictures or other audiovisual works, sound and/or video recordings, and architectural works. Upon or before the completion of this contract, the contractor will deliver to the City of Shawnee data first produced in the performance of this contract and data required by the contract but not first produced in the performance of this contract in formats acceptable by the City of Shawnee.

Attachment A: Certification for Contracts, Grants, Loans, and Cooperative Agreements as required by the Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$ 100,000 for each such failure.

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

Contractor's Authorized Official

Date

Name & title of Contractor's Authorized Official

Attachment B: No Proposal Notification

City of Shawnee RFQ 2023-806 Professional Engineering Services for City-Owned Buildings

The City of Shawnee is interested in receiving competitive pricing on all products and services. The City of Shawnee places significant value on quality vendors and desires to keep interested companies as vendors and suppliers of materials, equipment, and services. It is important for the City of Shawnee to determine the reasons that vendors do not respond to this contract item. The City of Shawnee will evaluate responses and attempt to determine if future changes are necessary in our specification development or procedures.

WILL NOT SUBMIT A RESPONSE

Vendor Name

REASON FOR NO RESPONSE: *(Please place an X by one or more of the reasons listed below.)*

_____ Do not supply the requested product or service.

_____ Quantities offered or scope of project is TOO SMALL to be supplied by our company.

_____ Quantities offered or scope of project is TOO LARGE to be supplied by our company.

_____ Cannot bid against MANUFACTURER on this item.

_____ Cannot bid against RESELLER on this item.

_____ Specifications not clear enough to submit a response *(please explain)*.

_____ Time frame for bidding is too short *(please explain)*.

_____ Time frame to produce the product or service is too short.

_____ Other *(Please state the reasons.)* _____

FOR PURPOSES OF FUTURE SUBMITTALS, PLEASE INDICATE:

_____ My Company would like to remain on the vendor list.

_____ My Company **does not** want to remain on the vendor list.

Signature

Date

Address

CITY

State

Zip

Phone Number

Fax Number

Email Address



RFQ #2023-806 | Professional Engineering Services for City-Owned Building

SUBMITTING FIRM |



TAP Architecture

tapokc.com | 415 N Broadway Avenue

Oklahoma City, OK 73102 | (405) 232-8787

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TAP Architecture
tapokc.com

415 N Broadway Avenue
Oklahoma City, OK 73102
(405) 232-8787

Primary Contacts

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(405) 820-2041

Chris Teehee
cteehee@tapokc.com
(405) 640-3362

City of Shawnee
16 W 9th Street
Shawnee, OK 74801

August 28, 2023

TAP Architecture is a multi-disciplinary firm with more than 30 years of experience in virtually every project type. Our design team has completed large and small projects across the state of Oklahoma with a focus on work that builds and transforms communities instantly and will have a lasting impact for future generations. Our wide range of projects have allowed us to not only gain experience in various types of projects but to also see behind the scenes of numerous types of organizations and environments.

Our range of work is a unique strength we believe we have as a firm. We aren't stagnant in one type of project. Instead, we have been afforded opportunities to work with a mix of industries and clients. Each new job gives insights and points of view that expand our processes and improve upon on any future project.

We have experience working directly with municipalities and communities throughout the state, including the City of Shawnee. We've performed building assessments and renovations on city owned buildings, a great example of that is Shawnee's Police Department. We also are actively working with numerous Shawnee businesses. On the following pages you will find more details about TAP, our team, our experience, our qualifications and how we work.

TAP prides itself on having great relationships with the communities and businesses we serve. Shawnee has been a wonderful community to work with, filled with inviting and hard working citizens who care so much for their neighbors. We believe we would continue to be a strong partner for Shawnee and would be honored to have the chance to help you restore and rebuild your community while improving upon systems and structures to last for future generations.

We appreciate the opportunity to submit our response to your RFQ. Thank you for your time and consideration.

A handwritten signature in black ink, appearing to be 'AM', written over a light gray circular background.

Anthony McDermid, AIA, RIBA

Principal & Founding Owner
amcdermid@tapokc.com | (405) 820-2041

A handwritten signature in black ink, appearing to be 'Chris Teehee', written over a light gray circular background.

Chris Teehee

Sr. Project Manager & Owner
cteehee@tapokc.com | (405) 640-3362

SUBMITTAL CONTENT

SUBMITTAL CONTENT | Cover Sheet

City of Shawnee, Oklahoma Request for Qualifications

Professional Engineering Services for City-Owned Buildings

Released: *Wednesday, August 2, 2023*

Submittal shall be sent to:

City of Shawnee
Attn: City Clerk
16 W 9th Street
Shawnee, OK 74801

Sealed Proposal should be clearly marked:
RFQ# 2023-806 Professional Engineering Services
for City-Owned Buildings

SUBMITTAL COVER SHEET

The Entity and the Officer with authority to commit for the Entity are:

RESPONDENT: TAP Architecture	FEDERAL ID OR SOCIAL SECURITY NO. 73-1382365	
STREET ADDRESS: 415 N Broadway Avenue	P.O. BOX: n/a	ZIP: 73102
CITY & STATE & ZIP: Oklahoma City, OK 73102	TELEPHONE NO. (405) 232-8787	TOLL FREE TEL. NO (800) N/A
NAME & TITLE OF PERSON SIGNING: Chris Teehee, Sr. Project Manager & Owner	FAX NUMBER: n/a	E-MAIL: cteehee@tapokc.com
PROPOSAL IS FROM A/AN: (☐) Corporation organized and existing under the laws of the STATE OF <u>OKLAHOMA</u> (☐) Partnership (☐) Individual		

NON-COLLUSION

The undersigned certifies that the Entity has not entered into any agreement of any nature whatsoever to fix, maintain, increase or reduce the prices or competition regarding the items covered by this proposal invitation.

PROPOSAL CERTIFICATION

The Undersigned certifies that to the best of their knowledge:

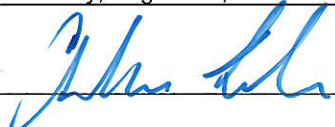
(i) There is no officer or employee of the City of Shawnee who has, or whose relative has, a substantial interest in any contract award subsequent to this proposal.

(ii) The names of any and all public officers or employees of the City of Shawnee have, or whose relative has, a substantial interest in any contract award subsequent to this proposal are identified by name as part of this submittal.

(iii) The undersigned further certifies that the Entity IS NOT currently debarred, suspended, or proposed for debarment by any federal or State agency. The undersigned agrees to notify the City of Shawnee of any change in this status, should one occur, until such time as an award has been made under this action.

Date: Monday, August 28, 2023

Entity Name: TAP Architecture

By: 

Print Name: Chris Teehee

SUBMITTAL CONTENT | Addenda Acknowledgment

ADDENDUM #1 TO RFQ 2023-806

☒ Received Addendum



Signature

Chris Teehee | Sr. Project Manager & Owner

Name & Title

Wednesday, August 24, 2023

Date



SUBMITTAL CONTENT | Company Profile

When **TAP** (The Architectural Partnership) began in 1988, we envisioned a design firm blending many disciplines and talents to provide our clients with complete, integrated environments. Our name reflects the philosophy and was carefully and deliberately considered to grow with the firm, inclusive of our team, without being defined by the names of past principals. Our work is more than just beautiful buildings. It is the realization of many conversations and long hours of planning and visioning. We dream with our clients. Part of that dream is work that benefits our clients and the community through designs that will endure and contribute to the built environment beyond our lifetimes.

Generations are defined by their architecture. TAP will be defined by the truth with which we imbue our designs, and the relationships we build with our community, clients and colleagues.

We have completed thousands of projects in 15 states and on 3 continents. We are an award winning firm located in downtown Oklahoma City. We deliberately and vigorously seek involvement with projects that are important to community.

Our vision is simple, seek to make a difference by doing work that matters.



ARCHITECT OF RECORD

John Ward

Anthony McDermid

STATE OF OKLAHOMA

Board of Governors of the Licensed Architects,
Landscape Architects and Registered Interior Designers

Certificate of Authority

No. CA

00521

This is to certify that

Tap Architecture

is issued the Certificate of Authority based on the individual license and good standing of the Architect of Record pursuant to the provisions of The State Architectural and Registered Interior Designers Act.

It is revocable for causes specified in the law and valid only by renewal.

SUBMITTAL CONTENT | Reputation & Performance Capabilities

TAP has been fortunate enough to work with numerous communities, business and organizations across the state of Oklahoma. In our past 35 years, we've built wonderful long lasting relationships that attest to our reputation as a well respected and collaborative firm.

Our relationship and work with City Rescue Mission (CRM) is a prime example of our reputation and capabilities. We've completed projects for CRM since our beginning, big and small. As the non-profit has grown their needs have. In early 2000 we transformed an entire city block in downtown Oklahoma City into their "campus of care." Since that time their needs again have evolved as well as their surroundings with the growth of Oklahoma City. We continue to design, renovate, and reutilize their spaces to function for present day. Recently we renovated one of their historic brick buildings from offices to one of their newest program and social enterprise, Rise Cafe.

Large organizations like CRM and municipalities such as Shawnee are made up many moving parts, and being able to pivot when needed is essential. We are innovative and nimble firm, which we believe is a strength. We easily adapt to the needs of the work at hand just as the City of Shawnee has after the damage the severe weather produced.

Additionally, we have a deep understanding of working with clients who require their projects to be fiscally responsible, responsive, multi-functional, will grow with their needs and last for generations. Many of our projects are funded with public dollars and/or private donations, we realize the importance of setting priorities and working within a set budget. We believe in creating design solutions which would meet any budget or timeline the City of Shawnee set; designing for the Client, not the Architect or Builder.

SUBMITTAL CONTENT | Years in Business

YEARS IN BUSINESS | 35 Years, founded in October 1988

TAP PROJECT TEAM | *For detailed resumes see pages 33 – 39.



ANTHONY McDERMID, AIA, RIBA

PRINCIPAL

Anthony has a years of experience and has worked on several influential projects across Oklahoma. He is a great communicator and has a wealth of knowledge on everything from Oklahoma history, motorcycles, cars and architecture.



CHRIS TEEHEE

PROJECT MANAGER

Chris will also be with you from start to finish on any project. You will see him often. He will be in constant contact with your team and any project consultants. Chris was educated as an architect and has a construction background, he truly is the best of both worlds.



CLAY DOBBINS, AIA, NCARB

PROJECT ARCHITECT

You will see Clay in the beginning stages of most projects attending design meetings. Behind-the-scenes Clay will be producing the digital drawings and renderings. He is our technology pro.



RUSSELL MEGEE

PROJECT DESIGNER

Design details are Russell's expertise. Behind-the-scenes he will be a sounding board of design ideas for our team. If any construction begins Russell will be heavily involved making sure every detailed is followed and your project stays on-time and on budget.



ALLISON FREDRICKSON, NCIDQ, RCID, IIDA, LEED GA

INTERIOR DESIGN LEAD

Allison will assist with any programming needs that may arise in your project as well as space planning and the interior finishes. She is wonderful at showing what is possible all while explaining what are effective and practical layout and finishes.



RACHEL SMITH-STRECK

COMMUNICATIONS

Rachel is the office communicator and organizer. She is a great point of contact for our firm on any inquiry. She can also help with any graphics or content needed for your project.

SUPPORT STAFF | We have additional architects, CAD techs and interiors supporting our team when needed.

DETAILED RESUMES | Found on pages 33 – 39.

PROJECT CONSULTANTS

The consultants we select to work with us are as important to us as any new employee we bring into our office. We ensure that they are more than equipped to tackle the project at hand. We have had great experiences with all of the consultants listed. These firms are experts in their fields and we have complete confidence in their abilities to tackle any challenges the City of Shawnee projects bring.

Should the City of Shawnee have a preference on any consultants we are happy to partner alongside any preferred consultants listed below or named by city staff.



MEP | STRUCTURAL

At **CEC®**, we serve the purpose to “Get Stuff Built Right®”. CEC® is a privately-held, multi-discipline engineering firm that exists to better our community through the collaboration of highly skilled problem-solvers, driving to provide the best solutions to improve your infrastructure. CEC® was incorporated in 1966 and has grown to over 260 employees strong, with offices located in both Oklahoma and Texas. Our clients include numerous federal, state, municipal, county, government agencies and private organizations. We offer extensive services, which allow us to be involved with projects from conception, to design, to construction.



CIVIL

In 2010 Cedar Creek Consulting, Inc was established based on a mindset. A mindset that somehow had been lost in the oldest engineering profession. The foundation of Cedar Creek Consulting is built on common sense, integrity, and responsiveness. Our formula for success is simple, “See the project through the eyes of the client and provide them with more than they had envisioned”

In the built environment we understand that the human experience cannot be ignored. We emphasize the participation of a coordinated design process involving other design professionals. Our continued success is measured by our client's and employee's satisfaction and these relationships are vital. Lastly, we strive to continue to love what we do.



MEP | STRUCTURAL

HP Engineering is a full-service mechanical, electrical, plumbing (MEP), and structural design company. Additional services include energy modeling, daylight modeling, and energy analysis. We believe that everyone deserves a comfortable, safe, healthy, and easy to manage building environments. We do this by collaborating with you from project outset to occupancy. We are guided and held accountable by our core values: exceed expectations, provide world-class service, committed, determined, demonstrate integrity, credible, trustworthy, aware, engaging, adaptable, confident, humble, take pride, take responsibility, look ahead, and anticipate



STRUCTURAL

Mark Eudaley Engineers was established by Mark Eudaley in 1962. Over the course of the last 50 years, Mark Eudaley has developed a reputation for outstanding professional engineering service founded on providing prompt, dependable, personal service to his clients. MEEI offers services that include design of new or existing buildings, pedestrian walkways, retaining walls, and structural retrofit. We are experienced in all types of building structures, including high rises, arenas and auditoriums, warehouses, churches, schools, municipal buildings, historical building retrofits and large corporate campuses. MEEI has successfully completed thousands of projects in thirty-two states.



CIVIL

Native Strategies is a privately held, certified Native American Owned Small Business and Indian Small Business Economic Enterprise incorporated in Oklahoma and founded in 2020 with offices throughout the US. We provide full-service civil engineering, construction management, and program management services to a wide variety of clients including Tribal Governments, Federal Government Agencies, State Departments of Transportation, Municipalities, Engineering Partners, Architects, and Commercial and Residential Developers. Our vision is to increase the standard of living, nationally and internationally, by managing, designing, and constructing with humility, skill and perseverance.



CIVIL | MEP | STRUCTURAL

Founded in 1965, Professional Engineering Consultants (PEC) is a full-service firm providing holistic and sustainable solutions to both public and private sectors across the United States and beyond. We are a team of proactive problem solvers and take pride in the diversity of expertise within our company. Our deep understanding of the markets, technology, and regulations that govern the work we do allows us to create forward-thinking solutions that are effective and economical for our clients and create value for the communities we live and work within.



CIVIL | MEP | STRUCTURAL

Founded in 1981, Wallace provides civil and structural engineering, IBC-mandated special inspections, roof consulting, landscape architecture and surveying. We have extensive experience in the design of new projects as well as in the evaluation, renovation and repair of existing facilities. We're proud of our history of producing highly optimized and safe projects on-time and on budget. We work with a wide variety of clients who expect—and receive—quality work from us, as evidenced by the amount of repeat work with which we are entrusted. We have engineered well over \$100B of construction nationwide and are known for our quality control and quick response. Our company is large enough to meet the demands of any size project and small enough to provide personalized attention to every client.

SUBMITTAL CONTENT | Proposed Techniques for Life Cycle Costing

During the design development stage we will work extensively with our engineers to evaluate alternate systems and report the life cycle cost studies of those systems. We strive to design all our buildings as sustainable and maintainable buildings for our clients while keeping those systems aligned with their budgets.

Our two LEED professionals will work to insure that are buildings have the smallest foot print possible while leaving the smallest environmental footprint for the project.

SUBMITTAL CONTENT | Quality Products to Improve Facilities | Comfort | Consumption | Costs

Although these projects have not been labeled as LEED certified, we design our projects to LEED silver. This consideration takes into account comfort, efficiency, energy consumption and operating costs. It results in a sustainable project.

Example of considerations:

Envelope Efficiency | Systems Controls | Constructibility | Daylighting | Durability | Function | Maintenance

SUBMITTAL CONTENT | Signature Page

City of Shawnee, Oklahoma

RFQ#2023-806 Professional Engineering Services for City-Owned Buildings

SIGNATURE PAGE

In compliance with this RFQ, the undersigned agrees to furnish the services in accordance with the attached Proposal or as mutually agreed upon by subsequent negotiation.

TAP Architecture

Firm Submitting Proposal

415 N Broadway Avenue

Address

Oklahoma City, OK 73102

City

State

Zip

(405) 232-8787

Phone Number

n/a

Fax Number

cteehee@tapokc.com

Email

www.tapokc.com

Web Address

Chris Teehee

Authorized Person Submitting RFQ (Print)

Sr. Project Manager & Owner

Title

Signature



Monday, August 28, 2023

Date



CITY OF MOORE

Brooks Mitchell | City Manager
bmitchell@cityofmoore.com | (405) 793-5200

TAP has been fortunate enough to work for and within the **City of Moore** since the early 2000's. Completed projects include: Fritts Farm Development, The Curve Master Plan, City of Moore City Hall Remodels, Public Works Maintenance Facility, Old Town Park, Buck Thomas Park and, most notably, the master plan and all the improvements at Central Park including the new addition to The Station.

We believe we have a deep understanding of Moore and its citizens and see similarities between the Shawnee community and Moore. They are hard-working, honest people. They are a resilient and determined community that shows up for their friends and neighbors during times of need. They have had their share of weather related damage and continually come together as a community to pick up the pieces.

THE STATION AT CENTRAL PARK & ADDITION

Master Planning | Design & Development | Construction Administration | Public Engagement

TAP was chosen as the firm to master plan and design Moore's Station at Central Park. The project is located in the heart of Moore along Broadway Avenue. The park is approximately 50 acres in size with a 60,000 sq. ft. recreation facility equipped with sport courts, exercise equipment, tracks and class space. There is an adjoining 30,000 sq. ft. aquatic facility with a pool, deck, shade structures, water slides, lap lanes, lazy river, zero depth entry area and a support building. Surrounding the facilities you will find walking trails, an amphitheater and a Farmer's Market pavilion.

The facilities have been immaculately up-kept by the Station employees. They have consistently had full membership. We are currently under construction administration of their new addition which was designed to include more indoor recreation space. The new space was also designed to allow for expansion to the building for next phases of growth.

The Station Phase 1 Completed in 2014 | Project Cost of \$22

Addition Phase 2 Estimated Completion in 2024 | Project Cost of \$6 Million

MOORE PUBLIC WORKS MAINTENANCE COMPLEX

Master Planning | Design & Development | Construction Administration | Public Project

TAP was chosen as the firm to design the city of Moore's Public Works maintenance facility. Their current facilities are old and not meeting the needs of the users as well as creating gaps in efficiency. The new 29,000 sq. ft. space includes overhead crane installations, jib crane installations, heavy and light truck maintenance bays, CNG filling stations, oil tank storage, and lube, oil and air distribution systems. The new facility is a one stop shop for any of their maintenance vehicles from trash trucks, fire trucks or simple city trucks to be maintained at a timely manner while those performing the maintenance can do so in a safe and comfortable space

Facility Completed in 2022 | Project Cost of \$3.35 Million



CITY OF OKLAHOMA CITY

Eric Wenger | Public Works Director
eric.wenger@okc.gov | (405) 297-3486

Debbie Miller | Asst. Public Works Director
debbie.miller@okc.gov | (405) 297-2581

TAP was established in Oklahoma City and has seen its transformation from our front door, literally. We have been lucky enough to be involved in many of the City of Oklahoma City projects through the years and plan to continue to be a partner. A few of our completed projects over the years include: Core to Shore Master Planning (what is now the developed area of Scissortail Park), OKC Lakes Improvement Projects, OKC Southwest Briefing Station, Bricktown Plaza, Arts District Parking Garage, Intermodal Transportation Hub and, most recently, the Oklahoma City Convention Center Garage.

Our team and founders are committed to producing high quality planning and design services, but more than that we are committed to the people of Oklahoma City. We have and will always look to bring about change for the better in our city and for our neighbors. We want our work and our actions to speak volumes which is why we seek out work that specifically sparks change and good will for all.

OKC CONVENTION CENTER GARAGE & COTPA OFFICES

Design & Development | Construction Administration | Public Engagement

TAP worked with the City of Oklahoma City and the Central Oklahoma Transportation & Parking Authority to create a unique parking garage concept to accompany the OKC Convention Center approved in the MAPS 3 Initiative. The east, south and west sides of the building are wrapped in a mural by artist Martin Donlin. The piece, 'What Is The City but the People,' is inspired by the multitude of histories and above all, the people. The garage is a 6.5 story 1,100 parking space facility and serves as the parking hub for many OKC amenities. The garage houses 3,000 sq. ft. of office space for COTPA.

Garage Completed in 2022 | Project Cost of \$24.1 Million

INTERMODAL TRANSPORTATION HUB | SANTA FE TRAIN DEPOT

Historic Preservation | Design & Development | Construction Administration | Public Project

TAP was awarded the contract to rehabilitate the Santa Fe Train Depot and revitalize it into a new Intermodal Transportation Hub for downtown Oklahoma City. The renovation and restoration includes a grand hall, common area, Amtrak station ticketing area, as well as baggage and waiting areas. The hub serves connectivity for various travel modes; including the streetcar, intercity bus, and additional cycle and pedestrian facilities. Historic preservation played a vital role in the project as the depot is a landmark 88-year-old structure in Oklahoma City.

Renovation Completed in 2020 | Project Cost of \$19 Million



CITY OF MIDWEST CITY

Brandon Bundy | Director of Engineering & Construction Services
bbundy@midwestcityok.org | (405) 739-1213

We take great pride in working for and within the communities we live, work, shop, play and visit. Midwest City is another wonderful community TAP has been lucky to work alongside. Recent completed projects include: Carburetor Alley Master Planning, I-40 Spirit Torch Welcome Monument, The Hangar at W.P. Bill Atkinson Park and, most currently, the ongoing code review projects for the city.

CITY OF MIDWEST CITY CODE REVIEW | LARGE COMMERCIAL PROJECTS

Construction Document | Code Review | Building Inspection | Public Project

Midwest City (MWC) has been fortunate to have an influx of development, but it has left its staff overwhelmed with work. Due to the demand MWC reached out for a partner to take on the review of their larger commercial projects. MWC enlisted TAPs help in reviewing the planning and constructing of their larger commercial and industrial projects. TAP's expertise and great track record of working with MWC has made for a great partnership.

Ongoing | Project Cost Varies

THE HANGAR AT W.P. BILL ATKINSON PARK

Historic Preservation | Design & Development | Construction Administration | Public Project

TAP designed The Hangar, a covered flexible third space nodding to the community's air base history, as well as other outdoor recreation facilities. The project is located in Midwest City's 3.5 acre park in the heart of their Original Mile neighborhood. It can transition depending on programmed events of the neighborhood. Throughout the day it is used as covered parking for patrons of the park and shopping center as well as a drive connecting both. During events and festivals The Hangar can block off traffic by raising adjustable bollards in the roadway. It also houses restrooms, a ticket office and green room. The design and construction is meant to mimic an aircraft hangar, a nod to Midwest City's long history with Tinker Air Force Base.

Hangar Completed in 2022 | Project Cost of \$1 Million



NOBLE PUBLIC SCHOOLS

Frank Solomon | Superintendent
fsolomon@nobleps.com | (405) 872-3452

TAP has had a wonderful relationship with Frank Solomon and the Noble Public School system. He was referred to us by another superintendent to help with their 2017 Bond vote. Our relationship is great example of our respected reputation and relationship building.

Our work in Noble started with their extensive list of bond projects but continues through any needs they may face. We've helped with programming and space planning side projects as well as maintenance and re-roofing projects. Like Shawnee they have had tornado damage to their buildings and are using FEMA funds to re-roof.

NOBLE PUBLIC SCHOOLS BOND PROJECTS

Bond Planning | Master Planning | Design & Development | Construction Administration | Public Engagement

TAP worked alongside Superintendent Frank Solomon and Noble Public Schools throughout the design and construction process for multiple K-12 education projects. In 2017 the residents of Noble unanimously passed a bond issue that sought improvements to multiple facilities for Noble Public Schools and for the entire community.

In all, TAP has expanded Hubbard Elementary School, expanded the library and front facade at Pioneer Middle School, designed and completed on a brand new competition gymnasium and auditorium building on the high school campus, The Den. TAP was in charge of re-energizing the interior of Katherine I. Daily Elementary School as well. Installation of a new competition track at the high school campus was also completed by TAP.

TAP added value by thoughtful and careful programming and cost estimating which resulted in the project bidding below budget. This allowed the district the benefits of the savings which provided them with a much needed physical education building at Hubbard Elementary.

Facility Completed in 2020 | Project Cost of \$22 Million

NOBLE PUBLIC SCHOOLS | CURTIS INGE MIDDLE SCHOOL RE-ROOF

Development of Construction Bid Documents | Construction Administration | Public Project

TAP continues to perform any architectural and engineering services needs for Noble Public Schools. Recently Curtis Inge Middle School received hail damage to their facility. TAP provided the development of construction bid documents. Currently Noble is waiting on their FEMA funds and then they will be ready for construction.

Re-Roof Estimated Completion in 2023 | Project Cost of \$2 Million



SHAWNEE POLICE DEPARTMENT

Mason Wilson | Police Chief

mwilson@shawneeok.org | (405) 273-2121

The Shawnee community is filled with wonderful businesses and citizens who truly care about each other. We've been lucky to have been involved in Shawnee through several projects. It is always our goal to work on projects that have positive impacts, seek to make a difference by doing work that matters. Our interactions with the Shawnee citizens, business owners and city leaders mimic our views, always looking to give back and improve their community.

Completed Shawnee projects include: Shawnee Dispatch Center Renovation, Finley & Cook's Shawnee headquarters, Georg Fischer Central Plastics Research & Development Facility, Shawnee Police Station, and the Shawnee Fire Department Master Planning project.

SHAWNEE POLICE DEPARTMENT RENOVATION

Renovation | Building Assessment | Design & Development | Construction Administration | Public Project

TAP was chosen by the City of Shawnee to design and renovate an existing bank building into their new Police Department. The renovation included repurposing the drive-thru into inspection bays as well as using the former bank window for records drop-off. The campus includes administration offices, locker rooms, break areas, a communication center and a stand alone vehicle inspection building.

Facility Completed in 2021 | Project Cost of \$2.6 Million

SUBMITTAL CONTENT | Attachment A

Attachment A: Certification for Contracts, Grants, Loans, and Cooperative Agreements as required by the Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$ 100,000 for each such failure.

The Contractor, TAP Architecture, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.



Contractor's Authorized Official

Date Monday, August 28, 2023

Chris Teehee | Sr. Project Manager & Owner

Name & title of Contractor's Authorized Official

ADDITIONAL QUALIFICATIONS

ADDITIONAL QUALIFICATIONS | Experience

We don't box ourselves into one certain type of project at TAP. We enjoy designing for all types of uses and users. We love the challenge of working within parameters determined by the owner, space, landscape and existing surroundings. We believe our strength is bringing a raft of design ideas to the table, opening up the possibilities of a project. We then work with owners, users and stakeholders on what resonates with them.

Below we've highlighted our strengths that make TAP a strong partner for the City of Shawnee.

LOCAL PARTNERS

TAP is a local Oklahoma firm and has been a local partner for the City of Shawnee on several projects. We are invested in Shawnee because they are our community and we want to see their continued positive growth.

PUBLIC ENGAGEMENT EXPERTS

Publicly funded projects come with extra steps and transparency that some might find frustrating but we enjoy the process. We have participated in hundreds of community sessions and public informational meetings and completed numerous public projects.

PROFESSIONAL COLLABORATION

We have an open and collaborative office at TAP. It is no stretch for us to team up with other firms to work together on projects. We do not anticipate the need to bring on additional experts for the city-owned projects but are able to do so if the needed. We are flexible and work well with others to provide the best services for the City of Shawnee.

BUILDING ASSESSMENT & RENOVATION EXPERTS

TAP has worked on numerous building assessment and renovation projects from smaller historic downtown Oklahoma City buildings to large once in a lifetime projects like the Oklahoma Judicial building on the state Capitol campus. We are currently completing a project for Boyett Petroleum. The project includes an assessment and renovation of a historic 1920s building in Bricktown. The building was crumbling but now will last another 100 years.

SUSTAINABLE DESIGN EXPERIENCE

TAP has broad experience in designing to LEED. We believe in building sustainable buildings no matter if our client's goal is to gain a LEED certification or not.

On the following pages are a few examples of our work highlighting the above points. We have the experience and skills to provide professional engineering services for the city owned buildings that the City of Shawnee lost or were damaged from the severe storms.

GEORG FISCHER CENTRAL PLASTICS PROJECTS

Master Planning | New Construction | Renovation
Research & Development | Warehouse | LEED

TAP helped Georg Fischer, one of Oklahoma's largest manufacturer, renovate and add to their research and development facilities in Shawnee, OK. The renovation of their training and research facilities included training class rooms, conference areas as well as hands-on training sections. 21,000 sq. ft. of parts storage and dock leveling entry points were created in the addition.

Throughout their working relationship TAP has been GF's local architect to address any ongoing needs. Anything from adding covered outdoor employee break stations, reworking the parking lot layout and any small change needed.

Currently TAP is under contract designing a new 150,000+ sq. ft. LEED Gold facility in Shawnee. The project will be a much needed addition to GF's manufacturing allowing them to continue to grow and adapt in Shawnee.



SHAWNEE FIRE DEPARTMENT MASTER PLANNING

Master Planning | Emergency Services
Office Space | Public Project

TAP was chosen by the City of Shawnee to help plan the future of their new fire department and training headquarters. The campus included a fire station, public education building, training facility, training tower, administration building, and truck storage maintenance barn.



SHAWNEE POLICE STATION

Renovation | Construction | Emergency Services
Office Space | Public Project

TAP was chosen by the City of Shawnee to design and renovate an existing bank building into their new Police Department. The renovation included repurposing the drive-thru into inspection bays as well as using the former bank window for records drop-off. The campus includes administration offices, locker rooms, break areas, a communication center and a stand alone vehicle inspection building.

SHAWNEE POLICE DEPARTMENT DISPATCH CENTER RENOVATION

Renovation | Demolition | Interior Design
Office Space | Public Project

Before TAP was selected to design and renovate Shawnee's new police station in 2014 we were tasked with the renovation of their old Police Department briefing area into a Dispatch Center.

FINLEY & COOK

New Construction | Space Planning
Office Space | Interior Design

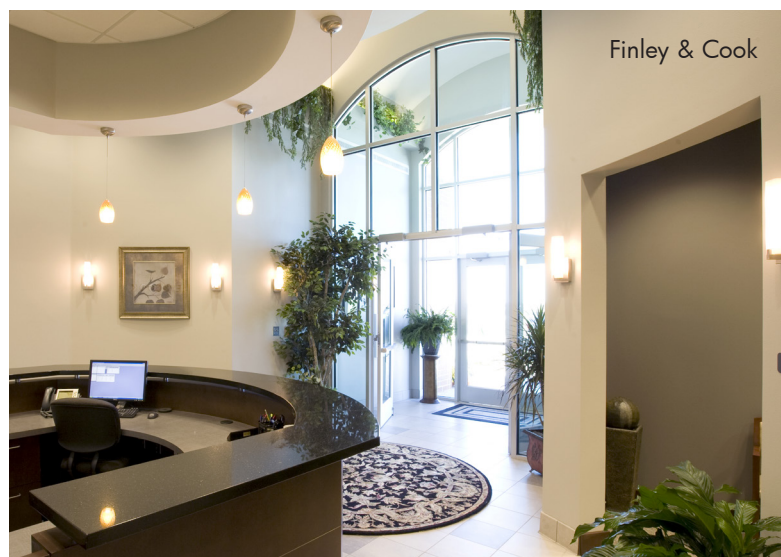
TAP provided Finley and Cook, a national Certified Public Accounting Firm, with a 20,000 sq. ft. office complex in Shawnee, OK. The facility consolidated several location throughout Shawnee into one main office building and conference area. The site currently serves 135 staff but can configured to accommodate up to 225.



Shawnee Police Station Rendering



Finley & Cook



Finley & Cook



GEORG FISCHER CENTRAL PLASTICS

Master Planning | New Construction | Manufacturing/Distribution | LEED

TAP is currently working with Georg Fischer on their next phase of projects, designing a new 150,000+ sq. ft. LEED Gold facility in Shawnee. The project will be a much needed addition to GF's manufacturing allowing them to continue to grow and adapt in Shawnee.



INDACO METALS

Master Planning | Metal Fabrication | Manufacturing/Distribution

TAP is working with Indaco Metals on the master planning of their campus. Indaco Metals is a family owned and operated manufacturer in Shawnee, OK established in 1995. They began their company in a 6,000 sq. ft. plant have increased to over 42,000 and are now looking to continue their growth by master planning their campus to allow for continuous expansion.



SHAWNEE MALL

On-Call Services

TAP serves as an on-call architect for the Shawnee Mall through StreetMAC.



SHAWNEE MILLS

Master Planning | Food Processing | Distribution

TAP was given the opportunity to start a wonderful relationship with one of Oklahoma's iconic businesses, Shawnee Mills. Shawnee Mills is a fourth generation family business with the original mill starting in 1906. Their facilities have evolved as technology has throughout the years. TAP is honored to be a part of the Shawnee Mills history and to aid in ensuring that their facilities are efficiently running and are able to pivot as needed.

OKC CONVENTION CENTER GARAGE & COTPA OFFICES

New Construction | Parking Planning
Interior Design | Office Space | Public Project

TAP worked with the City of Oklahoma City and the Central Oklahoma Transportation & Parking Authority (COTPA) to create a unique parking garage concept to accompany the OKC Convention Center. The garage is a 6.5 story and 1,100 parking space facility. The garage also houses 3,000 sq. ft. of office space for COTPA.



Convention Garage

ARTS DISTRICT GARAGE & EMBARK OFFICES

New Construction | Parking Planning
Interior Design | Office Space | Public Project

TAP was selected by the City of Oklahoma City to design a much needed new 7 story 836 parking space garage in the heart of OKC. The structure was to fit within the historic context of the site while providing much needed parking. Embark offices in the 20,000 sq. ft. office space along with leased retail space is located on the first floor.



Arts District Garage

OKC SW BRIEFING STATION

New Construction | Emergency Services
Office Space | Sustainable Design | Public Project

Design of OKC's new police station near Will Rogers World Airport. The building's floor plan was heavily influence by the function of it's program, providing an easily accessible interface with the public while offering a secured work environment for it's users. The City of OKC wanted a sustainable design to have the benefits of LEED design without going after the certification due to cost.



SW Briefing Station

THE STATION AT CENTRAL PARK

Master Planning | New Construction

Recreation/Aquatics | Parks | Public Project

TAP master planned/designed Moore's Station at Central Park. The park is approximately 50 acres with a 60,000 sq. ft. recreation facility equipped with courts, exercise equipment, tracks and class space. An adjoining 30,000 sq. ft. aquatic facility includes a pool, deck, shade structures, water slides, lap lanes, lazy river, zero depth entry area and a support building. Surrounding the facilities you will find walking trails, amphitheater and a Farmer's Market pavilion. **Currently** a \$6 million addition is underway to include more indoor recreation space.



MOORE PUBLIC WORKS

Master Planning | New Construction

Maintenance Facility | Public Project

TAP designed the City of Moore's Public Works maintenance facility. The new 29,000 sq. ft. space includes overhead crane and jib installations, heavy and light truck maintenance bays, CNG filling stations, oil tank storage, and lube-oil-air distribution systems. The facility is a one stop shop for their maintenance vehicles from trash trucks, fire trucks or simple city trucks to be maintained at a timely manner while those performing the maintenance can do so in a safely and comfortably.



THE CURVE MASTER PLAN

Master Planning | High Density Housing

Low Income Housing | HUD | Public Project

TAP master planned a 14.4 acre site for the City of Moore. TAP lead community sessions and stakeholder meetings to design a plan for the site. The project was funded by funds received from the Department of Housing and Urban Development in response to the May 20, 2013 tornado.



OKLAHOMA JUDICIAL CENTER

Historic Preservation | Restoration | Rehabilitation | Interior Design | Public Project

TAP worked on the conversion of the 145,518 sq. ft. Wiley Post Building into what is now the Oklahoma Judicial Center. The 1929 facility is on the National Register of Historic Places. The restoration retained original finishes and architectural elements. Many details were carried throughout the interior and exterior addition creating an appropriate relationship between the historical and new. This was a once in a lifetime project that required several firms to work together as a team to restore and build a center that would last another 90+ years.

CORE TO SHORE (SCISSORTAIL PARK DEVELOPMENT AREA)

Urban Master Planning | Mixed Use | Public Project

TAP was apart of the reinventing of 1,375 acres from the shore of the Oklahoma River to the core of downtown OKC. Analysis of existing conditions created a framework plan to propose future land use and development typologies. The Core to Shore project started in the early 2000's has now transformed into the Omni Hotel in OKC, Scissortail Park and the surrounding areas.

CITY OF MOORE CITY HALL RENOVATIONS

Building Assessment | Renovation | Interior Design | Public Project

TAP has renovated several parts of Moore City Hall including renovations and adding a hardened room. Currently TAP is working on a partial interior renovation of City Hall. The renovation will provide more functional departmental spaces based on end user needs, including spaces like office, restrooms, break room and lobby areas.

BUCK THOMAS PARK - MOORE, OK

New Construction | Maintenance | Recreation/Parks | Public Project

TAP constructed a Parks Maintenance Facility for Buck Thomas Park. Currently we are working two new restroom facilities for the baseball field complex.

OLD TOWN PARK - MOORE, OK

Master Planning | Historic Design Recreation | Parks | Public Project

TAP was apart of the team that master planned Old Town Park and envisioned the recreation of the old Santa Fe Train Depot. TAP field measured the structure and designed a copy to sit at it's original location in Old Town Park. The depot was designed to house an artist in residence along with a cafe that would serve the adjacent park. LAUD landscape architects were a part of the master planning team for the park.

DETAILED RESUMES



ANTHONY McDERMID, AIA, RIBA

PRINCIPAL & FOUNDING OWNER

University of Manchester, England, Bachelor of Architecture, 1977

University of Manchester, England, Bachelor of Arts with Honors in Architecture, 1975

Anthony and his business partner, John Ward, founded **TAP (The Architectural Partnership)** in downtown Oklahoma City in 1988. Anthony has design credentials for over one thousand projects in Oklahoma, across the nation and several continents. Many of his projects have received design awards from inside and outside the profession. In recent years, he had the opportunity to affect the urban landscape in Oklahoma City with visionary urban planning and designs that have helped reinvent the OKC metro. You can see his influence from his part in the Core to Shore master planning project (what is now Scissortail Park) to the recent Oklahoma City Convention Center Garage.

Anthony's involvement in the community includes Board Chair of City Rescue Mission, deadCenter, Automobile Alley, and his HOA. He is a graduate of Leadership Oklahoma City, Leadership Oklahoma and a past President for AIA Oklahoma and AIA Central Oklahoma. Anthony is a member of the Greater Oklahoma City Chamber, South Oklahoma City Chamber and downtown Rotary.

KEY PROJECTS

- City of Shawnee Fire Department Master Planning | Shawnee, OK
- City of Shawnee Police Station | Shawnee, OK
- Convention Center Garage/COTPA Offices | OKC, OK
- Arts District Parking Garage/Embark Offices | OKC, OK
- American Fidelity Parking Garage | OKC, OK
- Oklahoma County Parking Garage | OKC, OK
- Metro Parking Garage Updates | OKC, OK
- OKC Town Center 5th Street Garage | OKC, OK
- Transportation Hub, Santa Fe Train Depot | OKC, OK
- City of OKC Southwest Briefing Station | OKC, OK
- City of OKC Core to Shore Master Planning | OKC, OK
- Oklahoma Judicial Center | OKC, OK
- OKC Firefighters Local 157 Union Hall | OKC, OK
- City of OKC Fire Station #4 | OKC, OK
- City of OKC Fire Station #33 | OKC, OK
- OKCPS 2022 Bonds, U.S. Grant High School | OKC, OK
- John Rex Charter Elementary School | OKC, OK
- John Rex McAlpine Center Reno | OKC, OK
- Hefner Public Schools | OKC, OK
- Rancho Village Elementary | OKC, OK
- OKCPS, Southern Hills Elementary | OKC, OK
- OKCPS, Eugene Field Elementary | OKC, OK
- OKCPS, Martin Luther King, Jr. Elementary | OKC, OK
- City Rescue Mission, Rise Cafe | OKC, OK
- City Rescue Mission Campus | OKC, OK
- Homeless Alliance, West Town Campus | OKC, OK
- Boyett Petroleum OK Headquarters | OKC, OK
- The University of Oklahoma Jacobson Hall | Norman, OK
- The Moore Station, Aquatic/Recreation | Moore, OK
- The Moore Station Addition | Moore, OK
- City of Moore Public Works Maintenance Complex | Moore, OK
- City of Moore City Hall Renovations | Moore, OK
- The Curve Master Plan | Moore, OK
- Fritts Farm Development | Moore, OK
- Computer RX Corporate Headquarters | Moore, OK
- W.P. Bill Atkinson Park – The Hangar | Midwest City, OK
- City of Piedmont Master Planning | Piedmont, OK
- City of Piedmont Police Department | Piedmont, OK



CHRIS TEEHEE

SENIOR PROJECT MANAGER & PARTNER

University of Oklahoma, Bachelor in Architecture, 1999

Chris has 20 plus years of professional experience in the architecture field as a project manager and specializes in building analysis, cost estimating, construction management and client correspondence. He has been the lead project manager for many of TAP's projects, large and small. In 2022 he was named a Partner at TAP.

He began his career working on large entertainment projects for GSB Architects like Disney's Animal Kingdom. During his time at TAP he's worked on transformational projects for the City of Oklahoma City like the Transportation Hub in Bricktown to the multi award winning Oklahoma Convention Center Parking Garage. He is excellent at working with consultants of all trades and is always a team player.

Prior to joining TAP in 2016 he was the owner of Teehee Design-Build where he provided architectural services as well as general contractor for residential and commercial developments. Chris is a member of the Associated General Contractors of Oklahoma and a citizen of the Cherokee Nation.

KEY PROJECTS

- City of Shawnee Fire Department Master Planning | Shawnee, OK
- City of Shawnee Police Station | Shawnee, OK
- Georg Fischer Central Plastics | Shawnee, OK
- Convention Center Garage/COTPA Offices | OKC, OK
- Transportation Hub, Santa Fe Train Depot | OKC, OK
- City Rescue Mission, Rise Cafe | OKC, OK
- OKC Firefighters Local 157 Union Hall | OKC, OK
- OKCPS 2022 Bonds, U.S. Grant High School | OKC, OK
- Hefner Public Schools | OKC, OK
- Metro Technology Centers, Nursing Renovation | OKC, OK
- John Rex McAlpine Center Reno | OKC, OK
- Boyett Petroleum OK Headquarters | OKC, OK
- Arca Continental, Coca Cola | OKC, OK
- The University of Oklahoma Jacobson Hall | Norman, OK
- The Moore Station, Aquatic/Recreation | Moore, OK
- The Moore Station Addition | Moore, OK
- City of Moore Public Works Maintenance Complex | Moore, OK
- City of Moore City Hall Renovations | Moore, OK
- Buck Thomas Park Renovations & Additions | Moore, OK
- Old Town Park | Moore, OK
- Fritts Farm Development | Moore, OK
- W.P. Bill Atkinson Park – The Hangar | Midwest City, OK
- Noble Public Schools 2017 Bond Initiative | Noble, OK
- Little Axe Public Schools | Norman, OK
- Tecumseh Early Childhood Center | Tecumseh, OK
- The Market at Catholic Charities of Eastern OK | Tulsa, OK



CLAY DOBBINS, AIA, NCARB

PARTNER ARCHITECT

University of Oklahoma, Bachelor of Architecture, 2019

Clay Dobbins is Partner Architect at TAP Architecture. He was promoted to Partner in January 2022. As a Partner, he has the responsibility of setting goals for the firm and directing his colleagues in achieving success. He plans to continue TAP's 30+ year legacy as being a local community focused firm in downtown Oklahoma City.

Clay is a graduate of the University of Oklahoma and earned a BS in Architecture. His architectural career started at TAP as the 2016 University of Oklahoma TAP prize awardee. He became an Intern Architect and eventually received his licensure. Clay is continually learning new design and construction technologies and has become TAP's resident 3-D and LiDAR modeling specialist.

He is an active American Institute of Architects member and served as 2022's Secretary. He is a graduate of Leadership AIA's Class 5 and currently a member of AIAOK's Government Affairs Committee as well as AIACOK's Local Advocacy Committee. Clay is a member of the Oklahoma City Foundation for Architecture, Tau Sigma Delta Honor Society in Architecture, a 2019 Mine OKC Fellow, an Allied Arts member and a citizen of the Choctaw Nation.

KEY PROJECTS

- City of Shawnee Fire Department Master Planning | Shawnee, OK
- City of Shawnee Police Station | Shawnee, OK
- Georg Fischer Central Plastics | Shawnee, OK
- Convention Center Garage/COTPA Offices | OKC, OK
- Transportation Hub, Santa Fe Train Depot | OKC, OK
- City Rescue Mission, Rise Cafe | OKC, OK
- OKC Firefighters Local 157 Union Hall | OKC, OK
- OKCPS 2022 Bonds, U.S. Grant High School | OKC, OK
- Hefner Public Schools | OKC, OK
- Metro Technology Centers, Nursing Renovation | OKC, OK
- John Rex McAlpine Center Reno | OKC, OK
- Oklahoma City University Dorm Space Planning | OKC, OK
- Boyett Petroleum OK Headquarters | OKC, OK
- Arca Continental, Coca Cola | OKC, OK
- The University of Oklahoma Jacobson Hall | Norman, OK
- The Moore Station, Aquatic/Recreation | Moore, OK
- The Moore Station Addition | Moore, OK
- City of Moore Public Works Maintenance Complex | Moore, OK
- City of Moore City Hall Renovations | Moore, OK
- Buck Thomas Park Renovations & Additions | Moore, OK
- Old Town Park | Moore, OK
- Fritts Farm Development | Moore, OK
- W.P. Bill Atkinson Park – The Hangar | Midwest City, OK
- Noble Public Schools 2017 Bond Initiative | Noble, OK
- Little Axe Public Schools | Norman, OK
- Tecumseh Early Childhood Center | Tecumseh, OK
- The Market at Catholic Charities of Eastern OK | Tulsa, OK



RUSSELL MEGEE

DESIGNER & PROJECT MANAGER

University of Oklahoma, Bachelor of Architecture, 1995

Harvard University, Architectural Design Studio, 1993

Russell has been involved with a wide range of project types at many different levels. He served as designer and project manager on numerous builds that have earned local and national AIA award distinctions, as well as performed a 2-year on-site construction administration for a \$90 million beach front resort development in Florida like Windmark Beach, Watersound and Watercolor. He also spent time working on Disney projects for GSB. With these opportunities, he has gained strong knowledge in design, management, and construction.

Russell has been design lead for numerous projects across the Oklahoma City metro. He's currently working to finish up Boyett Petroleum's Oklahoma City headquarters. The project consists of a renovation of dilapidated 1920s brick building along with the adjoining 1940s quonset hut. It's been an honor for TAP to be apart of another historic OKC building.

Russell's attention to detail and enthusiastic approach to problem solving aids in maintaining timelines and budget targets, while producing high impact designs for his clients. His goal is to ensure every project TAP designs is built with the highest quality of materials and with the correct installation resulting in a top performing building for our clients.

KEY PROJECTS

- City of Shawnee Fire Department Master Planning | Shawnee, OK
- City of Shawnee Police Station | Shawnee, OK
- Georg Fischer Central Plastics | Shawnee, OK
- Convention Center Garage/COTPA Offices | OKC, OK
- Transportation Hub, Santa Fe Train Depot | OKC, OK
- OKC Firefighters Local 157 Union Hall | OKC, OK
- Metro Technology Centers, Nursing Renovation | OKC, OK
- OKCPS 2022 Bonds, U.S. Grant High School | OKC, OK
- John Rex McAlpine Center Reno | OKC, OK
- City Rescue Mission, Rise Cafe | OKC, OK
- Boyett Petroleum OK Headquarters | OKC, OK
- Oklahoma City Museum of Art | OKC, OK (previous employer)
- The Moore Station Addition | Moore, OK
- City of Moore Public Works Maintenance Complex | Moore, OK
- City of Moore City Hall Renovations | Moore, OK
- The University of Oklahoma Jacobson Hall | Norman, OK
- Fritts Farm Development | Moore, OK
- W.P. Bill Atkinson Park – The Hangar | Midwest City, OK
- Noble Public Schools 2017 Bond Initiative | Noble, OK
- Little Axe Public Schools | Norman, OK
- The Market at Catholic Charities of Eastern OK | Tulsa, OK
- Windmark Beach Development | Florida (previous employer)
- Watersound Beach Development | Florida (previous employer)
- Watercolor Beach Development | Florida (previous employer)



ALLISON FREDRICKSON, NCIDQ, RCID, IIDA, LEED GA

DIRECTOR OF INTERIOR DESIGNER

Oklahoma State University, Bachelor of Science in Interior Design, 2012

Allison is a NCIDQ Certified Interior Designer, an Oklahoma and Texas Registered Interior Designer and a LEED Green Associate. Allison has experience in programming, schematic design, design development, construction documents, construction administration, sustainable/environmental design, consultant coordination, FF&E packages as well as finish and furniture selection. She is an integral part of TAP's design team.

Allison has an eye for space planning. She is quick to understand the constraints and limits of a space. All TAP clients enjoy working with Allison because of her ability to understand their needs and communicate options so they are able to choose the best program for them. She is always open to looking outside of the box for solutions..

KEY PROJECTS

- City of Shawnee Police Station
- Georg Fischer Central Plastics | Shawnee, OK
- City of Moore Public Works Maintenance Complex
- City of Moore City Hall Renovations
- Arca Continental, Coca Cola | OKC, OK
- The Market at Catholic Charities of Eastern OK | Tulsa, OK
- The University of Oklahoma Jacobson Hall | Norman, OK
- Boyett Petroleum OK Headquarters | OKC, OK
- Convention Center Garage/COTPA Offices | OKC, OK
- The Moore Station, Aquatic/Recreation | Moore, OK
- The Moore Station Addition | Moore, OK
- Fritts Farm Development | Moore, OK
- Midwest City W.P. Bill Atkinson Park | The Hangar
- City Rescue Mission, Rise Cafe | OKC, OK
- City Rescue Mission, Women's Center | OKC, OK
- Lawton ARFF Fire Station | Lawton, OK (previous employer)



RACHEL SMITH-STRECK

DIRECTOR OF MARKETING & BUSINESS DEVELOPMENT

Oklahoma City University, Bachelor of Arts and Sciences in Communications, 2012

Rachel has the responsibility of developing marketing strategies, identifying prospects and maintaining new and old relationships, some that have been built since TAP opened in 1988. She has become an integral part of TAP in her short time here. Since she has joined TAP has won various impactful projects like The University of Oklahoma Jacobson Hall Renovation, Oklahoma City Public School 2022 Bond Project, U.S. Grant High School and downtown Oklahoma City's Fire Fighter Union Hall to name a few.

Prior to joining TAP, she worked in marketing for a wide range of industries including the entertainment sector with the Cheyenne and Arapaho Tribe's Lucky Star Casinos as well as the nonprofit sector for the Oklahoma Medical Research Foundation. She is a graduate of Oklahoma City University and earned a BS in Communications. Rachel sits on the board of her neighborhood association and served as a community liaison for the Innovation District studies. She is a voting member of the Capitol-Medical Center Improvement/Zoning Commission Citizens' Advisory Committee that oversees several historic, residential and mixed-use districts. She is a member of the Greater Oklahoma City Chamber, South Oklahoma City Chamber, Norman Chamber and a recent graduate of the Greater Oklahoma City Chamber's 2022 OKConnect Class.

KEY PROJECTS

- Georg Fischer Wolverine Road | Shawnee, OK
- Youth & Family Services | El Reno, OK
- Metro Technology Centers, Nursing Renovation | OKC, OK
- OKCPS 2022 Bonds, U.S. Grant High School | OKC, OK
- Boyett Petroleum OK Headquarters | OKC, OK
- OKC Firefighters Local 157 Union Hall | OKC, OK
- City Rescue Mission, Rise Cafe | OKC, OK
- The University of Oklahoma Jacobson Hall | Norman, OK
- Moore Station Addition | Moore, OK
- City of Moore Public Works Maintenance Complex | Moore, OK
- City of Moore City Hall Renovations | Moore, OK
- W.P. Bill Atkinson Park – The Hangar | Midwest City, OK
- The Market at Catholic Charities of Eastern OK | Tulsa, OK
- Cheyenne & Arapaho Elder Nutrition Center | Clinton, OK



We thank you again for your time and consideration. Please direct any inquiries to Rachel Smith-Streck at rsmith@tapokc.com.

415 N Broadway Avenue, OKC | (405) 232-8787 | tapokc.com



TAP Architecture
tapokc.com

415 N Broadway Avenue
Oklahoma City, OK 73102
(405) 232-8787

Primary Contacts

Anthony McDermid
amcdermid@tapokc.com
(405) 820-2041

Chris Teehee
cteehee@tapokc.com
(405) 640-3362

City of Shawnee
16 W 9th Street
Shawnee, OK 74801



RFQ# 2023-806 PROFESSIONAL ENGINEERING SERVICES FOR CITY-OWNED BUILDINGS | PROPOSED OUTLINE OF AGREEMENT & SERVICES

MASTER AGREEMENT (EXHIBIT A) | AIA Document B121-2018

The Master Agreement shall apply to all Service Orders agreed upon by the owner and architect, and with the agreement of the Service Order together with the Master Agreement forms a Service Agreement. A Service Agreement represents the entire and integrated agreement between the owner and architect and would be detailed out in the service order for each project.

SERVICE ORDER (EXHIBIT B) | AIA Document B221-2018

The Service Order, together with Master Agreement between Owner and Architect are an agreement based on the information set forth below and would be detailed out per that specific project for each service order.

Service Order 001 | Overall Building Site Assessment of the First (5) Buildings
Hourly Rate Schedules (Exhibit C)

Service Order 002 | Hangar 16 (Red Cloud)
Fixed Fee

Service Order 003 | Airport Terminal
Fixed Fee

Service Order 004 | T-Hangar Buildings (201-208)
Fixed Fee

Service Order 005 | Public Works Building
Fixed Fee

Service Order 006 | Indoor Skateboard Park Buildings
Fixed Fee

Service Order 00_ | Additional Projects as Instructed by the Owner
Fixed Fee



CONSTRUCTION MANAGER | CM

TAP recommends the city interview (3) Construction Managers, which TAP can recommend a list of trusted and qualified CM's along with requesting qualifications prior to the interview. Once the CM is selected, they would perform the work for each or all of the (5) projects. Building a team to task a group of projects would carry a great amount of value of services for the entire design/build team.

BUILDING INSPECTION FORMS (EXHIBIT D & E)

ATC-45 Forms provide guidelines and procedures for conducting post windstorm and post flood building safety evaluations. The purpose of these evaluations is to determine whether damaged or potentially damaged buildings are safe for use, or if entry should be restricted or prohibited.

Site and building inspections will be performed by licensed architects, licensed structural engineers, and professional contractors.

PROJECT SCHEDULE PHASES

The Service Order, together with Master Agreement between Owner and Architect are an agreement based on the information set forth below and would be detailed out per that specific project for each service order.

PHASE I

- Perform Overall Building Site Assessment
Build analysis for each project using ATC-45 Detailed Evaluation Safety Assessment Form and ATC-Fixed Equipment Checklist to determine the extent of the damage to these structures and determine if the buildings are to be considered restricted or prohibited.
- Provide the City of Shawnee a detailed report of the buildings assessment for the city to review and determine how to proceed. If we are directed to move forward at this time, TAP will assign each project a service order contract.
- At this stage the city will be able to compare each of the assessments performed by FEMA, the City, Insurance Company, and registered professional architects, engineers, and contractors.

PHASE II

- Provide the city AIA Document B221-2018 Service Order for each project.
- Create a well-defined project program, establish design schedules, coordinate with the selected CM on overall project schedule and probable cost.
- Provide full and complete services for Programming, Schematic Design, Design Development, Construction Documents, Bidding, and Construction Administration.



COMPLIANCE WITH FEDERAL REQUIREMENTS (EXHIBIT F)

CERTIFICATION FOR CONTRACTS (EXHIBIT G)

Thank you for the opportunity to work with the City of Shawnee. Please contact us if you have any questions or need any clarification to our proposed services.

A handwritten signature in black ink, appearing to read 'AM', with a stylized flourish extending from the bottom.

Anthony McDermid, AIA, RIBA
Principal & Founding Owner

A handwritten signature in black ink, appearing to read 'Chris Teehee', with a stylized flourish extending from the bottom.

Chris Teehee
Sr. Project Manager & Owner



ANTHONY McDERMID, AIA, RIBA

PRINCIPAL

Anthony has a years of experience and has worked on several influential master planning projects across Oklahoma. He is a great communicator and has a wealth of knowledge on everything from Oklahoma history, motorcycles, cars and architecture.



CHRIS TEEHEE

PROJECT MANAGER

Chris will also be with you from start to finish on the project. You will see him often. He will be in constant contact with your team and any project consultants. Chris was educated as an architect and has a construction background, he truly is the best of both worlds.



CLAY DOBBINS, AIA, NCARB

PROJECT ARCHITECT

You will see Clay in the beginning stages of the project attending design meetings. Behind-the-scenes Clay will be producing the digital drawings and renderings. He is our technology pro.



RUSSELL MEGEE

PROJECT DESIGNER

Design details are Russell's expertise. Behind-the-scenes he will be a sounding board of design ideas for our team. If any construction begins Russell will be heavily involved making sure every detailed is followed and your project stays on-time and on budget.



ALLISON FREDRICKSON, NCIDQ, RCID, IIDA, LEED GA

INTERIOR DESIGN LEAD

Allison will assist with any programming needs that may arise in your project as well as space planning and the interior finishes. She is wonderful at showing what is possible all while explaining what are effective and practical layout and finishes.



RACHEL SMITH-STRECK

COMMUNICATIONS

Rachel is the office communicator and organizer. She is a great point of contact for our firm on any inquiry. She can also help with any graphics or content needed for your project.

SUPPORT STAFF | We have additional architects, CAD techs and interiors supporting our team when needed.

We believe it would be beneficial to secure a full service engineering firm for these projects since a large number of city-owned buildings received a variety of damage to them. We would recommend working with PEC. We have great experiences working with them in the past and currently. They are experts in their field and are more than equipped to perform at a high capacity for the City of Shawnee.



Founded in 1965, **Professional Engineering Consultants (PEC)** is a full-service firm providing holistic and sustainable solutions to both public and private sectors across the United States and beyond. With offices spanning Oklahoma, Kansas, Missouri, and Colorado, we have more than 350 employees and PE licenses in all 50 states.

We are a team of proactive problem solvers and take pride in the diversity of expertise within our company. Our deep understanding of the market, technology, and regulations that govern the work we do allows us to create forward-thinking solutions that are effective and economical for our clients and create value for their communities.

We understand the crucial role the community plays in shaping and influencing businesses, regardless of size or sector. Our expertise works quietly in the background, positioning you as the champion for your community. From the roads and bridges connecting them, and the energy powering them, to the hospitals healing them, and schools teaching them, we know when you succeed, your community succeeds, and that is what matters most.



STEVE VO, PE

PROJECT MANAGER

Steve is versed in project master planning and provides technical direction for assessments, calculations, and design of electrical systems. He has led project management and construction administration activities for the majority of projects he is involved in all variation of project construction delivery.



MATTHEW BILLINGSLEA, PE

CIVIL

Matt serves as the Vice President of Site Civil Engineering and Landscape Architecture group. He has extensive experience in site investigation, and site civil design including grading, paving, drainage, stormwater, water, and sewer design.



SHANE LEE, PE

MECHANICAL ENGINEER

Shane's responsibilities include the design of heating, ventilation, and air conditioning (HVAC) systems, plumbing, and temperature control systems. He also has experience with several variations of hydronic and direct expansion (DX) systems including central plant design.



JAMES HOLT, PE, SE, LEED AP

STRUCTURAL

James has a diverse background in structural engineering including medical, federal, military, commercial, and education projects. He is the lead structural engineer for PEC's Oklahoma offices and also specializes in project management.

DRAFT AIA® Document B121™ – 2018

Standard Form of Master Agreement Between Owner and Architect for Services provided under multiple Service Orders

AGREEMENT made as of the « » day of « » in the year « »
(In words, indicate day, month, and year.)

BETWEEN the Owner:
(Name, legal status, address, and other information)

«City of Shawnee»«, Other»
«16 W 19th Street
Shawnee, Oklahoma 74801»
«»
«»

and the Architect:
(Name, legal status, address, and other information)

«TAP Architecture, LLC»«»
«415 N Broadway
Oklahoma City, OK
73102»
«Telephone Number: 405-833-4667»
«»

The Owner and Architect agree as follows.

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This document does not contain a description of the Architect's scope of Services and related terms. This document is intended to be used in conjunction with AIA Document B221™-2018, Service Order for use with Master Agreement Between Owner and Architect

ELECTRONIC COPYING of any portion of this AIA® Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

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ARTICLE 1 MASTER AGREEMENT TERM AND PARTY REPRESENTATIVES

§ 1.1 This Master Agreement shall be effective for one year after the date first written above ("Date of this Master Agreement").

§ 1.2 This Master Agreement shall apply to all Service Orders agreed to by the Parties within the term of this Master Agreement until completion of the Service Order. In the event of a conflict between terms and conditions of this Master Agreement and a Service Order, the terms of the Service Order shall take precedence for the services provided pursuant to the Service Order. An agreed upon Service Order together with this Master Agreement form a Service Agreement. A Service Agreement represents the entire and integrated agreement between the parties, and supersedes prior negotiations, representations, or agreements, either written or oral. A Service Agreement may be amended or modified only by a Modification.

§ 1.3 This Master Agreement will renew on an annual basis, on the day and month of the Date of this Master Agreement, unless either party provides notice of their intent not to renew this Master Agreement. Notice must be provided at least 60 days prior to the renewal date. In the event either party elects not to renew this Master Agreement, the terms of this Master Agreement shall remain applicable until all Service Orders under this Master Agreement are completed or terminated.

§ 1.4 The Owner identifies the following representative authorized to act on the Owner's behalf with respect to this Master Agreement:

«Danny Vise»
«16 W 19th Street
Shawnee, Oklahoma 74801»

«>»

«>»

«>»

«Email Address: danny.vise@shawneeok.org»

§ 1.4.1 In each Service Order, the Owner will identify a representative authorized to act on the Owner's behalf with respect to the Service Order.

§ 1.5 The Architect identifies the following representative authorized to act on the Architect's behalf with respect to this Master Agreement:

«Chris Teehee»
«415 N Broadway
Oklahoma City, OK
73102»
«Telephone Number: 405-833-4667»
«»
«Mobile Number: 405-640-3362»
«Email Address: cteehee@tapokc.com»

§ 1.5.1 In each Service Order, the Architect will identify a representative authorized to act on behalf of the Architect with respect to the Service Order.

§ 1.6 Nothing contained in this Master Agreement or in a Service Order shall create a contractual relationship with, or a cause of action in favor of, a third party against either the Owner or Architect.

ARTICLE 2 SERVICE ORDERS

§ 2.1 The Owner is not required to issue any Service Orders under this Master Agreement.

§ 2.2 The Architect may decline to accept any Service Order issued by the Owner.

§ 2.3 The Architect shall perform the services set forth in each agreed upon Service Order, consisting of AIA Document B221-2018, Service Order, or such other document as the Owner and Architect may mutually agree upon. Each Service Order shall state the name, location, and detailed description of the Project; describe the Architect's Services; state the Architect's compensation; and list the attachments and exhibits incorporated by reference.

ARTICLE 3 ARCHITECT'S RESPONSIBILITIES

§ 3.1 The Architect shall perform its services consistent with the professional skill and care ordinarily provided by architects practicing in the same or similar locality under the same or similar circumstances. The Architect shall perform its services as expeditiously as is consistent with such professional skill and care and the orderly progress of the services provided pursuant to a Service Agreement.

§ 3.2 Except with the Owner's knowledge and consent, the Architect shall not engage in any activity, or accept any employment, interest or contribution that would reasonably appear to compromise the Architect's professional judgment with respect to this Master Agreement or any Service Agreement.

§ 3.3 The Architect shall maintain the following insurance until termination of this Master Agreement. If any of the requirements set forth below are in addition to the types and limits the Architect normally maintains, the Owner shall pay the Architect as set forth in Section 9.4.

(Identify types and limits of insurance coverage, and other insurance requirements applicable to the Agreement, if any.)

.1 General Liability

« Comprehensive Business Liability

Personal Injury –	\$1,000,000 Each Occurrence
	\$2,000,000 General Aggregate
Excess Liability (Umbrella) –	\$1,000,000 Each Occurrence
Valuable Papers –	\$275,000 »

.2 Automobile Liability

« Auto ENOL (Employee Non-Owned or Leased) – \$1,000,000 Limit
\$250 Deductible »

.3 Workers' Compensation

« at Statutory Limits unless altered by a Contract Amendment. »

.4 Professional Liability

« \$1,000,000 Each Occurrence
\$2,000,000 General Aggregate »

§ 3.4 The Architect shall coordinate its services with those services provided by the Owner and the Owner's consultants. The Architect shall be entitled to rely on the accuracy and completeness of the services and information furnished by the Owner and the Owner's consultants. The Architect shall provide prompt written notice to the Owner if the Architect becomes aware of any error, omission, or inconsistency in such services or information.

§ 3.5 The Architect shall not be responsible for an Owner's directive or substitution made without the Architect's approval.

ARTICLE 4 ADDITIONAL SERVICES

§ 4.1 The Architect may provide Additional Services after execution of a Service Order without invalidating the Service Agreement. Except for services required due to the fault of the Architect, any Additional Services provided in accordance with this Article 4 shall entitle the Architect to compensation pursuant to Section 9.3.

§ 4.2 Unless otherwise provided in a Service Order, upon recognizing the need to perform the following Additional Services, as they relate to the services provided pursuant to the Service Order, the Architect shall notify the Owner with reasonable promptness and explain the facts and circumstances giving rise to the need. The Architect shall not proceed to provide the following Additional Services until the Architect receives the Owner's written authorization:

- .1 Services necessitated by a change in the Initial Information, previous instructions or approvals given by the Owner, or a material change in the Project including size, quality, complexity, the Owner's schedule or budget for Cost of the Work, or procurement or delivery method;
- .2 Services necessitated by the enactment or revision of codes, laws, or regulations, including changing or editing previously prepared Instruments of Service;
- .3 Changing or editing previously prepared Instruments of Service necessitated by official interpretations of applicable codes, laws or regulations that are either (a) contrary to specific interpretations by the applicable authorities having jurisdiction made prior to the issuance of the building permit, or (b) contrary to requirements of the Instruments of Service when those Instruments of Service were prepared in accordance with the applicable standard of care;
- .4 Services necessitated by decisions of the Owner not rendered in a timely manner or any other failure of performance on the part of the Owner or the Owner's consultants or contractors;
- .5 Preparing digital models or other design documentation for transmission to the Owner's consultants and contractors, or to other Owner-authorized recipients;
- .6 Preparation of design and documentation for alternate bid or proposal requests proposed by the Owner;
- .7 Preparation for, and attendance at, a public presentation, meeting or hearing;
- .8 Preparation for, and attendance at, a dispute resolution proceeding or legal proceeding, except where the Architect is party thereto;
- .9 Evaluation of the qualifications of entities providing bids or proposals; or
- .10 Consultation concerning replacement of Work resulting from fire or other cause during construction.

ARTICLE 5 OWNER'S RESPONSIBILITIES

§ 5.1 The Owner shall provide information in a timely manner regarding requirements for and limitations of each Service Order.

§ 5.2 The Owner shall render decisions and approve the Architect's submittals in a timely manner in order to avoid unreasonable delay in the orderly and sequential progress of the Architect's services.

§ 5.3 The Owner shall coordinate the services of its own consultants with those services provided by the Architect. Upon the Architect's request, the Owner shall furnish copies of the scope of consulting services in the contracts

between the Owner and the Owner's consultants. The Owner shall furnish the services of consultants as designated in an individual Service Order, or authorize the Architect to furnish them as an Additional Service, when the Architect requests such services and demonstrates that they are reasonably required by the scope of the Service Order. The Owner shall require that its consultants and contractors maintain insurance, including professional liability insurance, as appropriate to the services or work provided.

§ 5.4 The Owner shall furnish all legal, insurance, and accounting services, including auditing services, that may be reasonably necessary at any time to meet the Owner's needs and interests under a Service Agreement.

§ 5.5 The Owner shall provide prompt written notice to the Architect if the Owner becomes aware of any fault or defect in the services or work related to a Service Agreement, including errors, omissions or inconsistencies in the Architect's Instruments of Service.

§ 5.6 Within 15 days after receipt of a written request from the Architect, the Owner shall furnish the requested information as necessary and relevant for the Architect to evaluate, give notice of, or enforce lien rights.

ARTICLE 6 COPYRIGHTS AND LICENSES

§ 6.1 The Architect and the Owner warrant that in transmitting Instruments of Service, or any other information, the transmitting party is the copyright owner of such information or has permission from the copyright owner to transmit such information for its use in relation to a Service Agreement.

§ 6.2 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and shall retain all common law, statutory and other reserved rights, including copyrights. Submission or distribution of Instruments of Service to meet official regulatory requirements or for similar purposes in connection with a Service Agreement is not to be construed as publication in derogation of the reserved rights of the Architect and the Architect's consultants.

§ 6.3 The Architect grants to the Owner a nonexclusive license to use the Architect's Instruments of Service solely and exclusively for purposes of constructing, using, maintaining, altering and adding to the Project, provided that the Owner substantially performs its obligations under the Service Agreement, including prompt payment of all sums when due pursuant to Articles 8 and 9. The Architect shall obtain similar nonexclusive licenses from the Architect's consultants consistent with this Master Agreement. The license granted under this section permits the Owner to authorize the Contractor, Subcontractors, Sub-subcontractors, and suppliers, as well as the Owner's consultants and separate contractors, to reproduce applicable portions of the Instruments of Service, subject to any protocols established pursuant to Section 10.9, solely and exclusively for use in performing services or construction for the Project. If the Architect rightfully terminates a Service Agreement for cause as provided in Section 8.4, the license granted in this Section 6.3, and related to the terminated Service Agreement, shall terminate.

§ 6.3.1 In the event the Owner uses the Instruments of Service without retaining the authors of the Instruments of Service, the Owner releases the Architect and Architect's consultant(s) from all claims and causes of action arising from such uses. The Owner, to the extent permitted by law, further agrees to indemnify and hold harmless the Architect and its consultants from all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or entity to the extent such costs and expenses arise from the Owner's use of the Instruments of Service under this Section 6.3.1. The terms of this Section 6.3.1 shall not apply if the Owner rightfully terminates this Agreement for cause under Section 8.4.

§ 6.4 Except for the licenses granted in this Article 6, no other license or right shall be deemed granted or implied under this Master Agreement. The Owner shall not assign, delegate, sublicense, pledge or otherwise transfer any license granted herein to another party without the prior written agreement of the Architect. Any unauthorized use of the Instruments of Service shall be at the Owner's sole risk and without liability to the Architect and the Architect's consultants.

§ 6.5 Except as otherwise stated in Section 6.3, the provisions of this Article 6 shall survive the termination of this Master Agreement.

ARTICLE 7 CLAIMS AND DISPUTES

§ 7.1 General

§ 7.1.1 The Owner and Architect shall commence all claims and causes of action against the other and arising out of or related to any Service Agreement, whether in contract, tort, or otherwise, in accordance with the requirements of the binding dispute resolution method selected in this Master Agreement and within the period specified by applicable law, but in any case not more than 10 years after the completion of the services provided pursuant to a specific Service Agreement, whichever is sooner. Completion of the services pursuant to a specific Service Agreement shall be the date of Substantial Completion of construction related to the services performed pursuant to the Service Agreement or, where there is no construction work related to a Service Agreement, the date the Architect completes its services under the Service Agreement. The Owner and Architect waive all claims and causes of action not commenced in accordance with this Section 7.1.1.

§ 7.1.2 To the extent damages are covered by property insurance, the Owner and Architect waive all rights against each other and against the contractors, consultants, agents, and employees of the other for damages, except such rights as they may have to the proceeds of such insurance as set forth in AIA Document A201™-2017, General Conditions of the Contract for Construction. The Owner or the Architect, as appropriate, shall require of the contractors, consultants, agents, and employees of any of them, similar waivers in favor of the other parties enumerated herein.

§ 7.1.3 The Architect and Owner waive consequential damages for claims, disputes, or other matters in question, arising out of or relating to a Service Agreement. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination of a Service Agreement, except as specifically provided in Section 8.6.

§ 7.2 Mediation

§ 7.2.1 Any claim, dispute or other matter in question arising out of or related to a Service Agreement shall be subject to mediation as a condition precedent to binding dispute resolution. If such matter relates to or is the subject of a lien arising out of the Architect's services, the Architect may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the matter by mediation or by binding dispute resolution.

§ 7.2.2 The Owner and Architect shall endeavor to resolve claims, disputes and other matters in question between them by mediation, which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of this Master Agreement. A request for mediation shall be made in writing, delivered to the other party to this Master Agreement, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of a complaint or other appropriate demand for binding dispute resolution but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration proceeding is stayed pursuant to this section, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 7.2.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 7.2.4 If the parties do not resolve a dispute through mediation pursuant to this Section 7.2, the method of binding dispute resolution shall be the following:

(Check the appropriate box.)

☒ Arbitration pursuant to Section 7.3 of this Master Agreement

☐ Litigation in a court of competent jurisdiction

☐ Other: (Specify)

« »

If the Owner and Architect do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, the dispute will be resolved in a court of competent jurisdiction.

§ 7.3 Arbitration

§ 7.3.1 If the parties have selected arbitration as the method for binding dispute resolution in this Master Agreement, any claim, dispute or other matter in question arising out of or related to a Service Agreement subject to, but not resolved by, mediation shall be subject to arbitration, which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of this Master Agreement. A demand for arbitration shall be made in writing, delivered to the other party to this Master Agreement, and filed with the person or entity administering the arbitration.

§ 7.3.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the claim, dispute or other matter in question would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the claim, dispute or other matter in question.

§ 7.3.2 The foregoing agreement to arbitrate, and other agreements to arbitrate with an additional person or entity duly consented to by parties to this Master Agreement, shall be specifically enforceable in accordance with applicable law in any court having jurisdiction thereof.

§ 7.3.3 The award rendered by the arbitrator(s) shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 7.3.4 Consolidation or Joinder

§ 7.3.4.1 Either party, at its sole discretion, may consolidate an arbitration conducted under this Master Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 7.3.4.2 Either party, at its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 7.3.4.3 The Owner and Architect grant to any person or entity made a party to an arbitration conducted under this Section 7.3, whether by joinder or consolidation, the same rights of joinder and consolidation as the Owner and Architect under this Master Agreement.

§ 7.4 The provisions of this Article 7 shall survive the termination of a Service Agreement.

ARTICLE 8 TERMINATION OR SUSPENSION OF SERVICE AGREEMENTS

§ 8.1 If the Owner fails to make payments to the Architect in accordance with a Service Agreement, such failure shall be considered substantial nonperformance and cause for termination of the Service Agreement or, at the Architect's option, cause for suspension of performance of services under the Service Agreement for which the Owner failed to make payment. If the Architect elects to suspend services, the Architect shall give seven days' written notice to the Owner before suspending services. In the event of a suspension of services, the Architect shall have no liability to the Owner for delay or damage caused the Owner because of such suspension of services. Before resuming services, the Owner shall pay the Architect all sums due prior to suspension and any expenses incurred in the interruption and resumption of the Architect's services. The Architect's fees for the remaining services and the time schedules shall be equitably adjusted.

§ 8.2 If the services under a Service Agreement have been suspended by the Owner, the Architect shall be compensated for services performed prior to notice of such suspension. When the services under the Service Agreement are resumed, the Architect shall be compensated for expenses incurred in the interruption and resumption

of the Architect's services. The Architect's fees for the remaining services and the time schedules shall be equitably adjusted.

§ 8.3 If the Owner suspends the services under a Service Agreement for more than 90 cumulative days for reasons other than the fault of the Architect, the Architect may terminate the Service Agreement by giving not less than seven days' written notice.

§ 8.4 Either party may terminate a Service Agreement upon not less than seven days' written notice should the other party fail substantially to perform in accordance with the terms of the Service Agreement, through no fault of the party initiating the termination. Termination of a Service Agreement under this Section 8.4 shall not be deemed a termination of other Service Agreements under this Master Agreement.

§ 8.5 The Owner may terminate a Service Agreement, upon not less than seven days' written notice to the Architect for the Owner's convenience and without cause.

§ 8.6 In the event of termination of a Service Agreement not the fault of the Architect, the Architect shall be compensated for services performed prior to termination, Reimbursable Expenses incurred, and all costs attributable to termination, including the costs attributable to the Architect's termination of consultant agreements.

§ 8.7 In addition to any amounts paid under Section 8.6, if the Owner terminates a Service Agreement for its convenience pursuant to Section 8.5, or the Architect terminates a Service Agreement pursuant to Section 8.3, the Owner shall pay to the Architect the following fees:
(Set forth below the amount of any termination or licensing fee, or the method for determining any termination or licensing fee.)

.1 Termination Fee:

« \$0.00 »

.2 Licensing Fee if the Owner intends to continue using the Architect's Instruments of Service:

« 12% of the remaining unearned fee for open Service Orders. »

§ 8.8 Except as otherwise expressly provided herein, a Service Agreement shall terminate one year from the date of Substantial Completion.

§ 8.9 The Owner's rights to use the Architect's Instruments of Service in the event of termination of a Service Agreement are set forth in Article 6 and Section 9.5 of this Master Agreement.

ARTICLE 9 COMPENSATION

§ 9.1 The Owner shall compensate the Architect for the services described in a Service Order pursuant to the Service Order and as set forth in this Article 9.

§ 9.2 Except as otherwise set forth in a Service Order, the hourly billing rates for services of the Architect and the Architect's consultants, if any, are set forth below. The rates shall be adjusted in accordance with the Architect's and Architect's consultants' normal review practices.
(If applicable, attach an exhibit of hourly billing rates or insert them below.)

« The Architect will reissue its Hourly Rate Schedule annually. When the Architect updates its hourly billing rates, the Architect will notify the Owner of the changes in writing. Upon written acknowledgement that the Owner has received the updated billing rates, the new rates shall go into effect for this Agreement and all Service Orders. »

Employee or Category	Rate (\$0.00)
Refer Exhibit C: 2023 Hourly Rates	

§ 9.3 Except as otherwise set forth in a Service Order, the Owner shall compensate the Architect for Additional Services designated in Article 4 as follows:
(Insert amount of, or basis for, compensation. If necessary, list specific services to which particular methods of compensation apply.)

« Additional Services of the Architect shall be billed hourly or a mutually agreeable amount. Additional Services of Consultants to the Architect shall be billed also at an hourly or mutually agreeable amount. »

§ 9.4 Compensation for Reimbursable Expenses

§ 9.4.1 Reimbursable Expenses are in addition to compensation for the Architect's professional services and include expenses incurred by the Architect and the Architect's consultants directly related to a Service Agreement, as follows:

- .1 Transportation and authorized out-of-town travel and subsistence;
- .2 Long distance services, dedicated data and communication services, teleconferences, Project web sites, and extranets;
- .3 Permitting and other fees required by authorities having jurisdiction over the Project;
- .4 Printing, reproductions, plots, and standard form documents;
- .5 Postage, handling, and delivery;
- .6 Expense of overtime work requiring higher than regular rates, if authorized in advance by the Owner;
- .7 Renderings, physical models, mock-ups, professional photography, and presentation materials requested by the Owner or required for the Project;
- .8 If required by the Owner, and with the Owner's prior written approval, the Architect's consultant's expense of professional liability insurance dedicated exclusively to the Project, or the expense of additional insurance coverage or limits in excess of that normally maintained by the Architect or the Architect's consultants, and disclosed by the Architect in writing prior to execution of this Master Agreement or a related Service Agreement;
- .9 All taxes levied on professional services and on reimbursable expenses;
- .10 Site office expenses; and
- .11 Other similar Project-related expenditures.

§ 9.4.2 For Reimbursable Expenses the compensation shall be the expenses incurred by the Architect and the Architect's consultants plus « zero » percent (« 0 » %) of the expenses incurred.

§ 9.4.3 Reimbursable Expenses will be allocated to each Service Agreement.

§ 9.5 Payments to the Architect

§ 9.5.1 Progress Payments

§ 9.5.1.1 Unless otherwise agreed, payments for services provided pursuant to a Service Agreement shall be made monthly in proportion to services performed. Payments are due and payable upon presentation of the Architect's invoice. Amounts unpaid « thirty » (« 30 ») days after the invoice date shall bear interest at the rate entered below, or in the absence thereof at the legal rate prevailing from time to time at the principal place of business of the Architect.
(Insert rate of monthly or annual interest agreed upon.)

« 1.5 » % « per month »

§ 9.5.1.2 The Owner shall not withhold amounts from the Architect's compensation to impose a penalty or liquidated damages on the Architect, or to offset sums requested by or paid to contractors for the cost of changes in the Work unless the Architect agrees or has been found liable for the amounts in a binding dispute resolution proceeding. In any event, the Owner shall not withhold payments to the Architect pertaining to a Service Agreement to offset amounts in dispute under a separate Service Agreement.

§ 9.5.1.3 Records of Reimbursable Expenses, expenses pertaining to Additional Services, and services performed on the basis of hourly rates shall be available to the Owner at mutually convenient times.

ARTICLE 10 MISCELLANEOUS PROVISIONS

§ 10.1 Each Service Agreement shall be governed by the law of the place where the Project described in the Service Order is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 7.3.

§ 10.2 Notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission.

§ 10.3 The Owner and Architect, respectively, bind themselves, their agents, successors, assigns, and legal representatives to each Service Agreement. Neither the Owner nor the Architect shall assign a Service Agreement without the written consent of the other, except that the Owner may assign a Service Agreement to a lender providing financing for the Project if the lender agrees to assume the Owner's rights and obligations under the Service Agreement, including any payments due to the Architect by the Owner prior to the assignment.

§ 10.4 If the Owner requests the Architect to execute certificates, the proposed language of such certificates shall be submitted to the Architect for review at least 14 days prior to the requested dates of execution. If the Owner requests the Architect to execute consents reasonably required to facilitate assignment to a lender, the Architect shall execute all such consents that are consistent with the Service Agreement, provided the proposed consent is submitted to the Architect for review at least 14 days prior to execution. The Architect shall not be required to execute certificates or consents that would require knowledge, services, or responsibilities beyond the scope of the Service Agreement.

§ 10.5 Unless otherwise required in a Service Agreement, the Architect shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to, hazardous materials or toxic substances in any form at the Project site.

§ 10.6 The Architect shall have the right to include photographic or artistic representations of the design of the Projects for which services are performed among the Architect's promotional and professional materials. The Architect shall be given reasonable access to the completed Projects to make such representations. However, the Architect's materials shall not include the Owner's confidential or proprietary information if the Owner has previously advised the Architect in writing of the specific information considered by the Owner to be confidential or proprietary. The Owner shall provide professional credit for the Architect in the Owner's promotional materials for the Projects. This Section 10.6 shall survive the termination of a Service Agreement unless the Owner terminates a Service Agreement for cause pursuant to Section 8.4.

§ 10.7 If the Architect or Owner receives information specifically designated as "confidential" or "business proprietary," the receiving party may disclose such information as required by law or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity. The Party receiving such information may also disclose it to its employees, consultants or contractors in order to perform services or work solely and exclusively for the Project, provided those employees, consultants and contractors are subject to the restrictions on the disclosure and use of such information as set forth in this Section 10.7.

§ 10.8 The invalidity of any provision of the Agreement shall not invalidate the Agreement or its remaining provisions. If it is determined that any provision of the Agreement violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Agreement shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Agreement.

§ 10.9 The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 10.9.1 Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™-2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 11 SPECIAL TERMS AND CONDITIONS

Special terms and conditions that modify this Master Agreement are as follows:

(Include other terms and conditions applicable to this Agreement.)

« § 11.1 The Architect makes no warranty, either expressed or implied, as to findings, recommendations, plans, specifications, or professional advice. The Architect will endeavor to perform services in accordance with generally accepted standards of practice in effect at the time of performance of services. The Owner recognized that neither the Architect nor its consultants owe any fiduciary responsibility to the Owner. Notwithstanding the foregoing, the Architect and its consultants shall work on behalf of the Owner, putting the Owner's interest ahead of its own, with duty to preserve good faith and trust.

§ 11.2 To the maximum extent permitted by law, the Owner agrees to limit the Architect's total aggregate liability for damages to the Owner to a sum not greater than the fee paid to the Architect. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

§ 11.3 To the maximum extent permitted by law, the Architect shall not be liable for damages to the Owner for Value Engineering Items which originated with the Contractor or the Owner. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

§ 11.4 Unless otherwise required in a Service Order, the Architect's liability for each Service Order shall extend a period of two (2) years beyond the completion of that Service Order, Substantial Completion of that Service Order, or Owner Occupancy for that Service Order, whichever occurs first.

§ 11.5 The Architect and Owner waive consequential damages for claims, disputes or other matters in question arising out of or relating to this Agreement or any Service Orders relating to this Agreement. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination of this Agreement with the exception that in the event of termination, Reimbursable Expenses incurred, and all costs attributable to termination, including the costs attributable to the Architect's termination of consultant agreements.

§ 11.6 Unless otherwise required in a Service Order, the Architect shall assist the Owner or Contractor with filing application forms and documents required for International Building Code (IBC) compliance by the authority having jurisdiction (AHJ) and shall be responsible for any revisions required for compliance with the International Building Code (IBC). All fees associated with permitting/approvals are the responsibility of the Owner and / or Contractor.

§ 11.7 Unless otherwise required in a Service Order, the Architect shall notify the Owner of any additional permits/approvals required beyond IBC compliance. In support of any permits/approvals required for the Project beyond IBC compliance, the Architect shall provide one electronic set of design drawings as part of Basic Services. Additional permits/approvals examples include without limitation, zoning, revocable(s), district design(s), health department, sign, traffic management, detention, landscape requirements, etc. The Owner may request in writing the Architect to perform services to secure additional permits/approvals required for the Project such as, but not limited to, attending meetings, in-person or virtual presentations, correspondence, changes to the IBC compliant design based on review comments from AHJ's. Any owner requested and authorized services provided in support of additional permits/approvals shall be invoiced hourly as an Additional Service.

§ 11.8 The description of scope and fee shall be included on each individual Service Order. »

ARTICLE 12 SCOPE OF THIS MASTER AGREEMENT

§ 12.1 This Master Agreement represents the entire and integrated agreement between the Owner and the Architect and supersedes all prior negotiations, representations or agreements, either written or oral. This Master Agreement may be amended only by written instrument signed by both the Owner and Architect.

§ 12.2 This Master Agreement is comprised of the following documents identified below:

- .1 AIA Document B121™-2018, Standard Form of Master Agreement Between Owner and Architect
- .2 AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:

(Insert the date of the E203-2013 incorporated into this Master Agreement.)

« N/A »

- .3** Exhibits:
(Clearly identify any other exhibits incorporated into this Master Agreement.)

« Exhibit C: 2023 Hourly Rates »

- .4** Other documents:
(List other documents, if any, forming part of the Master Agreement.)

« »

This Master Agreement entered into as of the day and year first written above.

OWNER (Signature)

«Danny Vise», Assistant City Manager»
(Printed name and title)

ARCHITECT (Signature)

«Chris Teehee», Manager, Senior Project Manager»
(Printed name, title, and license number, if required)

DRAFT AIA® Document B221™ – 2018

Service Order for use with Master Agreement Between Owner and Architect

SERVICE ORDER number « » made as of the « » day of « » in the year « »
(In words, indicate day, month, and year.)

BETWEEN the Owner:
(Name, legal status, address, and other information)

«City of Shawnee»«»
«16 W 19th Street
Shawnee, OK 74801»
« »
«»

and the Architect:
(Name, legal status, address, and other information)

«TAP Architecture, LLC»«, Limited Liability Company»
«415 N Broadway Ave
Oklahoma City, OK 73102»
«Telephone Number: 405.232.8787»
«»

for the following **PROJECT**:
(Name, location, and detailed description)

«Each Specific Project for each Service Order»
«Location of each of specific project
Shawnee, OK 74801»
« »

THE SERVICE AGREEMENT

This Service Order, together with the Master Agreement between Owner and Architect dated the « » day of « » in the year « »
(In words, indicate day, month, and year.)

form a Service Agreement.

The Owner and Architect agree as follows.

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This document provides the Architect's scope of services for the Service Order only and is intended to be used with AIA Document B121™-2018, Standard Form of Master Agreement Between Owner and Architect

ELECTRONIC COPYING of any portion of this AIA® Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

TABLE OF ARTICLES

- 1 INITIAL INFORMATION
- 2 SERVICES UNDER THIS SERVICE ORDER
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- 4 COMPENSATION
- 5 INSURANCE
- 6 PARTY REPRESENTATIVES
- 7 ATTACHMENTS AND EXHIBITS

ARTICLE 1 INITIAL INFORMATION

§ 1.1 Unless otherwise provided in an exhibit to this Service Order, this Service Order and the Service Agreement are based on the Initial Information set forth below:

(State below details of the Project's site and program, Owner's contractors and consultants, Architect's consultants, Owner's budget and schedule, anticipated procurement method, Owner's Sustainable Objective, and other information relevant to the Project.)

<< >>

§ 1.2 The Owner and Architect may rely on the Initial Information. Both parties, however, recognize that such information may materially change and, in that event, the Owner and the Architect shall appropriately adjust the schedule, the Architect's services, and the Architect's compensation. The Owner shall adjust the Owner's budget for the Cost of the Work and the Owner's anticipated design and construction milestones, as necessary, to accommodate material changes in the Initial Information.

ARTICLE 2 SERVICES UNDER THIS SERVICE ORDER

§ 2.1 The Architect's Services under this Service Order are described below or in an exhibit to this Service Order, such as a Scope of Architect's Services document.

§ 2.1.1 Basic Services

(Describe below the Basic Services the Architect shall provide pursuant to this Service Order or state whether the services are described in documentation attached to this Service Order.)

<< >>

§ 2.1.2 Additional Services

(Describe below the Additional Services the Architect shall provide pursuant to this Service Order or state whether the services are described in documentation attached to this Service Order.)

<< >>

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 Unless otherwise provided in an exhibit to this Service Order, the Owner's anticipated dates for commencement of construction and Substantial Completion of the Work are set forth below:

- .1 Commencement of construction date:

<< >>

- .2 Substantial Completion date:

« »

ARTICLE 4 COMPENSATION

§ 4.1 For Basic Services described under Section 2.1.1, the Owner shall compensate the Architect as follows:

- .1 Stipulated Sum
(Insert amount)

« »

- .2 Percentage Basis
(Insert percentage value)

« » (« ») % of the Owner's budget for the Cost of the Work, as calculated in accordance with Section 4.4.

- .3 Other
(Describe the method of compensation)

« »

§ 4.2 For Additional Services described under Section 2.1.2 or in the Master Agreement, the Architect shall be compensated in accordance with the Master Agreement unless otherwise set forth below:
(Insert amount of, or basis for, compensation if other than as set forth in the Master Agreement. Where the basis of compensation is set forth in an exhibit to this Service Order, such as a Scope of Architect's Services document, list the exhibit below.)

« »

§ 4.3 For Reimbursable Expenses described in the Master Agreement, the Architect shall be compensated in accordance with the Master Agreement unless otherwise set forth below:
(Insert amount of, or basis for, compensation if other than as set forth in the Master Agreement. Where the basis of compensation is set forth in an exhibit to this Service Order, such as a Scope of Architect's Services document, list the exhibit below.)

« »

§ 4.4 When compensation identified in Section 4.1 is on a percentage basis, progress payments for each phase of Basic Services shall be calculated by multiplying the percentages identified in this Article by the Owner's most recent budget for the Cost of the Work. Compensation paid in previous progress payments shall not be adjusted based on subsequent updates to the Owner's budget for the Cost of the Work.

ARTICLE 5 INSURANCE

§ 5.1 Insurance shall be in accordance with section 3.3 of the Master Agreement, except as indicated below:
(Insert any insurance requirements that differ from those stated in the Master Agreement, such as coverage types, coverage limits, and durations for professional liability or other coverages.)

« »

§ 5.2 In addition to insurance requirements in the Master Agreement, the Architect shall carry the following types of insurance.
(List below any other insurance coverage to be provided by the Architect, not otherwise set forth in the Master Agreement, and any applicable limits.)

Coverage

Limits

ARTICLE 6 PARTY REPRESENTATIVES

§ 6.1 The Owner identifies the following representative in accordance with Section 1.4.1 of the Master Agreement:
(List name, address, and other information.)

«Danny Vise»
«Assistant City Manager»
«16 W 19th Street
Shawnee, OK 74801»
«Telephone Number: 405.878.1607»
«»
«Email Address: danny.vise@shawneeok.org»

§ 6.2 The Architect identifies the following representative in accordance with Section 1.5.1 of the Master Agreement:
(List name, address, and other information.)

«Christopher Teehee»
«415 N Broadway Ave
Oklahoma City, OK 73102»
«Telephone Number: 405.232.8787»
«»
«»
«Email Address: cteehee@tapokc.com»

ARTICLE 7 ATTACHMENTS AND EXHIBITS

§ 7.1 The following attachments and exhibits, if any, are incorporated herein by reference:

- .1 AIA Document, B121TM-2018, Standard Form of Master Agreement Between Owner and Architect for Services provided under multiple Service Orders;
- .2 Other Exhibits incorporated into this Agreement:
(Clearly identify any other exhibits incorporated into this Agreement.)

« »

- .3 Other documents:
(List other documents, if any, including additional scopes of service forming part of this Service Order.)

« »

This Service Order entered into as of the day and year first written above.

OWNER (Signature)

«Danny Vise»«, Assistant City Manager»

(Printed name and title)

ARCHITECT (Signature)

«Christopher Teehee»«, Director of Project
Management / Managing Member»

(Printed name, title, and license number, if required)



TAP Architecture

415 N Broadway Ave.
Oklahoma City, OK

(405) 232-8787

tapokc.com

info@tapokc.com

2023 HOURLY RATE SCHEDULE

Senior Principal \$225 per hour
Principal \$210 per hour

Architect IV \$195 per hour
Architect III \$170 per hour
Architect II \$145 per hour
Architect I \$120 per hour

Interiors III \$145 per hour
Interiors II \$120 per hour
Interiors I \$85 per hour

Architectural Intern III \$110 per hour
Architectural Intern II \$100 per hour
Architectural Intern I \$90 per hour
Architectural Student Intern \$70 per hour

Director of Project Management ... \$195 per hour
Senior Project Manager \$170 per hour
Project Manager \$145 per hour

CAD Tech II \$75 per hour
CAD Tech I \$65 per hour

Marketing Director \$110 per hour

**The Hourly Rate Schedule is reissued annually and
applies to the calendar year in which it is published.**

ATC-45 Detailed Evaluation Safety Assessment Form

Inspection

Inspector ID: _____ Inspection date: _____

Affiliation: _____ Inspection time: _____ ☐ AM ☐ PM

Final Posting from page 2

- ☐ Inspected
☐ Restricted Use
☐ Unsafe

Building Description

Building name: _____

Address: _____

Building contact/phone: _____

Number of stories: _____

"Footprint area" (square feet): _____

Number of residential units: _____

Type of Building

- ☐ Mid-rise or High-rise
☐ Low-rise multi-family
☐ Low-rise commercial

- ☐ Pre-fabricated
☐ One- or two-family dwelling
☐ Other: _____

Primary Occupancy

- ☐ Dwelling
☐ Other residential
☐ Public assembly
☐ Emergency services

- ☐ Commercial
☐ Offices
☐ Industrial
☐ Other: _____
- ☐ Government
☐ Historic
☐ School

Evaluation

Investigate the building for the conditions below and check the appropriate column. There is room on the second page for a sketch.

	Minor/None	Moderate	Severe	Comments
Overall hazards:				
Collapse or partial collapse	☐	☐	☐	_____
Building or story lean or drift	☐	☐	☐	_____
Fractured or displaced foundation	☐	☐	☐	_____
Structural hazards:				
Failure of significant element/connection	☐	☐	☐	_____
Column, pier, or bearing wall	☐	☐	☐	_____
Roof/floor framing or connection	☐	☐	☐	_____
Superstructure/foundation connection	☐	☐	☐	_____
Moment frame	☐	☐	☐	_____
Diaphragm/horizontal bracing	☐	☐	☐	_____
Vertical bracing	☐	☐	☐	_____
Shear wall	☐	☐	☐	_____
Nonstructural hazards:				
Parapets, ornamentation	☐	☐	☐	_____
Canopy	☐	☐	☐	_____
Cladding, glazing	☐	☐	☐	_____
Ceilings, light fixtures	☐	☐	☐	_____
Stairs, exits, access walkways, gratings	☐	☐	☐	_____
Interior walls, partitions	☐	☐	☐	_____
Mechanical & electrical equipment	☐	☐	☐	_____
Elevators	☐	☐	☐	_____
Building contents, other _____	☐	☐	☐	_____
Geotechnical hazards:				
Slope failure, debris impact	☐	☐	☐	_____
Ground movement, erosion, sedimentation	☐	☐	☐	_____
Differential settlement	☐	☐	☐	_____

ATC-45 Fixed Equipment Checklist

Building Description

Building name: _____

Address: _____

Inspection

Inspector ID: _____

Affiliation: _____

Inspection date: _____

Inspection time: _____ ☐ AM ☐ PM

Checklist

Overall hazards:

	Equipment Damaged			
	Minor/None	Moderate	Severe	Comments

Main boilers	☐	☐	☐	_____
--------------	--------------------------	--------------------------	--------------------------	-------

Chillers	☐	☐	☐	_____
----------	--------------------------	--------------------------	--------------------------	-------

Emergency generators	☐	☐	☐	_____
----------------------	--------------------------	--------------------------	--------------------------	-------

Fuel tanks	☐	☐	☐	_____
------------	--------------------------	--------------------------	--------------------------	-------

Battery racks	☐	☐	☐	_____
---------------	--------------------------	--------------------------	--------------------------	-------

Fire pumps	☐	☐	☐	_____
------------	--------------------------	--------------------------	--------------------------	-------

On-site water storage	☐	☐	☐	_____
-----------------------	--------------------------	--------------------------	--------------------------	-------

Communications equipment	☐	☐	☐	_____
--------------------------	--------------------------	--------------------------	--------------------------	-------

Main transformers	☐	☐	☐	_____
-------------------	--------------------------	--------------------------	--------------------------	-------

Main electrical panels	☐	☐	☐	_____
------------------------	--------------------------	--------------------------	--------------------------	-------

Elevators (traction)	☐	☐	☐	_____
----------------------	--------------------------	--------------------------	--------------------------	-------

Other fixed equipment	☐	☐	☐	_____
-----------------------	--------------------------	--------------------------	--------------------------	-------

_____	☐	☐	☐	_____
-------	--------------------------	--------------------------	--------------------------	-------

_____	☐	☐	☐	_____
-------	--------------------------	--------------------------	--------------------------	-------

_____	☐	☐	☐	_____
-------	--------------------------	--------------------------	--------------------------	-------

_____	☐	☐	☐	_____
-------	--------------------------	--------------------------	--------------------------	-------

_____	☐	☐	☐	_____
-------	--------------------------	--------------------------	--------------------------	-------

_____	☐	☐	☐	_____
-------	--------------------------	--------------------------	--------------------------	-------

Special concerns for hospitals and other health care facilities

Radiation equipment	☐	☐	☐	_____
---------------------	--------------------------	--------------------------	--------------------------	-------

Toxic chemical storage	☐	☐	☐	_____
------------------------	--------------------------	--------------------------	--------------------------	-------

_____	☐	☐	☐	_____
-------	--------------------------	--------------------------	--------------------------	-------

_____	☐	☐	☐	_____
-------	--------------------------	--------------------------	--------------------------	-------

_____	☐	☐	☐	_____
-------	--------------------------	--------------------------	--------------------------	-------

_____	☐	☐	☐	_____
-------	--------------------------	--------------------------	--------------------------	-------

Liquid oxygen tanks	☐	☐	☐	_____
---------------------	--------------------------	--------------------------	--------------------------	-------

Other: _____	☐	☐	☐	_____
--------------	--------------------------	--------------------------	--------------------------	-------

_____	☐	☐	☐	_____
-------	--------------------------	--------------------------	--------------------------	-------

Recommendations/Comments: _____

1. COMPLIANCE WITH FEDERAL REQUIREMENTS

Since the parties anticipate that federal funding will be applied to this Request for Proposal/Agreement/Contract, the following federal contract clauses must be complied with, where applicable, in addition to the clauses already mentioned.

1.1. Equal Employment Opportunity: The regulation at 41 C.F.R. § 60-1.4(b) requires, except as otherwise provided or exempted in 41 C.F.R. Part 60, the insertion of the following contract clause: "During the performance of this contract, the contractor agrees as follows:

1.1.1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

1.1.1.1. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

1.1.2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

1.1.3. The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

1.1.4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

1.1.5. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

1.1.6. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or

pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

- 1.1.7. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- 1.1.8. The contractor will include the portion of the sentence in Section 1.1 that immediately precedes Section 1.1.1 and the provisions of Sections 1.1.1 through 1.1.8 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:
 - 1.1.8.1. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.
- 1.1.9. The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract. The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.
- 1.1.10. The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency

may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

1.2. Compliance with the Contract Work Hours and Safety Standards Act (2 CFR 200 Appendix II).

- 1.2.1. Overtime requirements: No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- 1.2.2. Violation, liability for unpaid wages, liquidated damages: In the event of any violation of the clause set forth in Section 5.2.1 of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in Section 5.2.1 of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in Section 5.2.1 of this section.
- 1.2.3. Withholding for unpaid wages and liquidated damages: The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally- assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in Section 5.2.2 of this section.
- 1.2.4. Subcontracts: The contractor or subcontractor shall insert in any subcontracts the clauses set forth in Section 5.2.1 through 5.2.4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in Section 5.2.1 through 5.2.4 of this section.
- 1.2.5. The contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social

security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.

- 1.2.6. Records to be maintained under this provision shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Department of Homeland Security, the Federal Emergency Management Agency, and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.
- 1.3. Extension to Successors and Assigns: Each and all of the covenants and agreements contained in the Agreement affected by the acceptance of the Proposal shall extend to and be binding upon the successors and assigns of the parties thereto. Rights under this Agreement may not be assigned without mutual written consent of the parties.
- 1.4. Binding Agreement: This Agreement shall be construed in a neutral manner. This Agreement reflects the complete and full terms of agreement that is binding between the parties. The pages may be signed on separate pages, in counterparts and together are deemed to be one document. A true electronic copy is deemed an original.
- 1.5. Governing Law: All disputes relating to the execution, interpretation, construction, performance, or enforcement of the Agreement and the rights and obligations of the parties hereto shall be governed by the laws of the State of Oklahoma and resolved in a District Court of Oklahoma or applicable Federal Court of Oklahoma. Contractor hereby consents to and waives any objection to venue and jurisdiction in such courts.
- 1.6. Severability: If any term of this Agreement is to any extent illegal, otherwise invalid, or incapable of being enforced, such term shall be excluded to the extent of such invalidity or unenforceability; all other terms hereof shall remain in full force and effect; and, to the extent permitted and possible, the invalid or unenforceable term shall be deemed replaced by a term that is valid and enforceable and that comes closest to expressing the intention of such invalid or unenforceable term.
- 1.7. Clean Air Act
 - 1.7.1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
 - 1.7.2. The Contractor agrees to report each violation to the City of Shawnee and understands and agrees that the City of Shawnee will, in turn, report each violation as required to assure notification to FEMA, and the appropriate Environmental Protection Agency Regional Office.
 - 1.7.3. The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.
- 1.8. Federal Water Pollution Control Act
 - 1.8.1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 7401 et seq.

1.8.2. The Contractor agrees to report each violation to the City of Shawnee and understands and agrees that the City of Shawnee will, in turn, report each violation as required to assure notification to the FEMA, and the appropriate Environmental Protection Agency Regional Office.

1.8.3. The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

1.9. Suspension And Debarment

1.9.1. This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

1.9.2. The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

1.9.3. This certification is a material representation of fact relied upon by the City of Shawnee. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the City of Shawnee, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

1.10. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

1.11. Byrd Anti-Lobbying Act: The Contractor will be expected to comply with Federal statutes required in the Anti-Lobbying Act.

1.11.1. If applicable, contractors must sign and submit the following certification to the non-federal entity (NFE) with each bid or offer exceeding \$100,000. Each tier certifies to the tier above that it will not and has not used federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the federal awarding agency. The "44 C.F.R. Part 18 – Certification Regarding Lobbying" shown on ATTACHMENT A must be signed and included with the contract documents.

1.12. Anti-Kickback Clause: The Contractor hereby agrees to adhere to the mandate dictated by the Copeland "Anti- Kickback" Act which provides that each Contractor or subgrantee shall be prohibited from inducing, by any means, any person employed in the completion of work, to give up any part of the compensation to which he is otherwise entitled.

1.13. Procurement Of Recovered Materials: In the performance of this Contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:

1.13.1. Competitively within a timeframe providing for compliance with the Contract performance schedule;

1.13.2. Meeting Contract performance requirements; or

1.13.3. At a reasonable price.

1.13.4. Information about this requirement, along with the list of EPA-designate items, is available at EPA's Comprehensive Procurement Guidelines website, www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program

1.14. Prohibition on Contracting for Covered Telecommunications Equipment or Services.

1.14.1. Definitions. As used in this clause, the terms backhaul; covered foreign country; covered telecommunications equipment or services; interconnection arrangements; roaming; substantial or essential component; and telecommunications equipment or services have the meaning as defined in FEMA Policy 405-143-1, Prohibitions on Expending FEMA Award Funds for Covered Telecommunications Equipment or Services (Interim), as used in this clause.

1.14.2. Prohibitions.

1.14.2.1. Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after Aug.13, 2020, from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.

1.14.2.2. Unless an exception in Section 5.14.3 of this clause applies, the contractor and its subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds from the Federal Emergency Management Agency to:

1.14.2.2.1. Procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

1.14.2.2.2. Enter into, extend, or renew a contract to procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

1.14.2.2.3. Enter into, extend, or renew contracts with entities that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system; or

1.14.2.2.4. Provide, as part of its performance of this contract, subcontract, or other contractual instrument, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

1.14.3. Exceptions.

1.14.3.1. This clause does not prohibit contractors from providing:

1.14.3.1.1. A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

1.14.3.1.2. Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

1.14.3.2. By necessary implication and regulation, the prohibitions also do not apply to:

1.14.3.2.1. Covered telecommunications equipment or services that:

1.14.3.2.1.1. Are not used as a substantial or essential component of any system; and

1.14.3.2.1.2. Are not used as critical technology of any system.

1.14.3.2.2. Other telecommunications equipment or services that are not considered covered telecommunications equipment or services.

1.14.4. Reporting requirement.

1.14.4.1. In the event the contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the contractor is notified of such by a subcontractor at any tier or by any other source, the contractor shall report the information in Section 5.14.4.2 of this clause to the recipient or subrecipient, unless elsewhere in this contract are established procedures for reporting the information.

1.14.4.2. The Contractor shall report the following information pursuant to Section 5.14.4.1 of this clause:

1.14.4.2.1. Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

1.14.4.2.2. Within 10 business days of submitting the information in Section 5.14.4.2.1 of

this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

1.14.5. Subcontracts. The Contractor shall insert the substance of this clause (Section 1.14), including this paragraph (1.14 .5), in all subcontracts and other contractual instruments.

1.15. Domestic Preferences for Procurements.

1.15.1. As appropriate, and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States. This includes, but is not limited to iron, aluminum, steel, cement, and other manufactured products.

1.15.2. For purposes of this clause:

1.15.2.1. Produced in the United States means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

1.15.2.2. Manufactured products mean items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

1.16. Access to Records

1.16.1. The following access to records requirements applies to this contract:

1.16.1.1. The Contractor agrees to provide the City of Shawnee, OEM, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives' access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

1.16.1.2. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

1.16.1.3. The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

1.16.1.4. In compliance with Section 1225 of the Disaster Recovery Reform Act of 2018, the City of Shawnee and the contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

1.17. Termination

1.17.1. Termination for Cause. The City of Shawnee (Owner) shall submit a written notice to the contractor and surety which justifies placement of the contractor in default if:

1.17.1.1. The Work is not begun within the time specified in the Notice to Proceed.

1.17.1.2. The Work is performed with insufficient workmen, equipment, or materials to assure prompt completion.

1.17.1.3. The contractor performs unsuitable, neglected, or rejected work, refuses to remove materials.

1.17.1.4. The Work is discontinued.

1.17.1.5. The Work is not completed within the Contract Time or time extension.

1.17.1.6. Work is not resumed within a reasonable time after receiving a notice to continue.

1.17.1.7. The contractor becomes insolvent or is declared bankrupt or commits any act of bankruptcy or insolvency.

1.17.1.8. The contractor allows any final judgment to stand unsatisfied for a period of ten (10) days.

1.17.1.9. The contractor makes an assignment for the benefit of creditors.

1.17.1.10. The Work is not performed in an acceptable manner.

1.17.1.11. If the contractor or Surety does not remedy all conditions cited in the written notice within ten (10) days after receiving such a notice, the contractor is placed into default. In that event, the Owner may obtain the necessary labor, materials, and equipment, or enter into a new Contract in order to complete the Work. All costs incurred by the Owner for completing the Work under the new Contract will be deducted from the payment due the contractor. If the expense exceeds the sum payable under the Contract, the contractor and surety shall be liable to pay the Owner the difference.

1.17.2. Termination for Convenience. The City of Shawnee (Owner) may, at any time, terminate this Contract or any portion thereof, for Owner's convenience, upon providing written notice to the contractor. In such case, contractor shall be paid for all work completed through the date notice was provided (less payments already received) and reasonable demobilization and restocking charges incurred, and reasonable overhead and profit based upon industry standards on the work performed. In no event shall the contractor be entitled to payment of overhead and profit on work not performed. In the event it is determined that the contractor was wrongfully terminated for cause, such termination shall be automatically converted to a termination for convenience and payment be made as provided under this Section.

- 1.18. Breach: Any breach of the Contract by Contractor shall be governed by the Termination provision of the Contract. Additionally, in the event that that the City of Shawnee incurs damages as a result of Contractor's breach, the City of Shawnee may pursue recovery of such damages from Contractor. The City of Shawnee further retains the right to seek specific performance of the Contract at any time as authorized by law. The City of Shawnee further retains the right to otherwise pursue any remedies available to the City of Shawnee as a result of the Contractor's breach, including but not limited to administrative, contractual, or legal remedies. Termination for cause and convenience are governed by the Termination provision of the Contract
- 1.19. Changes: To be allowable under a FEMA grant or cooperative agreement award, the cost of any contract change, modification, amendment, addendum, change order, or constructive change must be necessary, allocable, within the scope of the grant or cooperative agreement, reasonable for the scope of work, and otherwise allowable.
- 1.20. DHS Seal, Logo, And Flags: The contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval. The contractor shall include this provision in any subcontracts.
- 1.21. Compliance with Federal Executive Orders: This is an acknowledgement that FEMA financial assistance will be used to fund the Contract only. The Contractor will comply will all applicable federal law, regulations, executive orders, FEMA policies, procedures, and directives.
- 1.22. No Obligation by the Federal Government: The Federal Government is not a party to this Contract and is not subject to any obligations or liabilities to the non-Federal entity, Contractor, or any other party pertaining to any matter resulting from the Contract.
- 1.23. Program Fraud and False or Fraudulent Statements or Related Acts: The Contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Contractor's actions pertaining to this contract.
- 1.24. Contracting with Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms: If subcontracts are to be let, the prime contractor is required to take all necessary steps identified in 2 C.F.R. § 200.321(b)(1)-(5) to ensure that small and minority businesses, women's business enterprises, and labor surplus area firms are used when possible.
- 1.24.1. Any party to this contract must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. These steps are also required for the hiring of any subcontractors under this contract.
- 1.24.2. Affirmative steps must include:
- 1.24.2.1. Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- 1.24.2.2. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- 1.24.2.3. Dividing total requirements, when economically feasible, into smaller tasks or

quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

1.24.2.4. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; and

1.24.2.5. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce

- 1.25. Copyright and Data Rights: License and Delivery of Works Subject to Copyright and Data Rights
– The contractor grants to the City of Shawnee, a paid-up, royalty-free, nonexclusive, irrevocable, worldwide license in data first produced in the performance of this contract to reproduce, publish, or otherwise use, including prepare derivative works, distribute copies to the public, and perform publicly and display publicly such data. For data required by the contract but not first produced in the performance of this contract, the contractor will identify such data and grant to the City of Shawnee or acquires on its behalf a license of the same scope as for data first produced in the performance of this contract. Data, as used herein, shall include any work subject to copyright under 17 U.S.C. § 102, for example, any written reports or literary works, software and/or source code, music, choreography, pictures or images, graphics, sculptures, videos, motion pictures or other audiovisual works, sound and/or video recordings, and architectural works. Upon or before the completion of this contract, the contractor will deliver to the City of Shawnee data first produced in the performance of this contract and data required by the contract but not first produced in the performance of this contract in formats acceptable by the City of Shawnee.

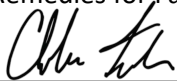
**Certification for Contracts, Grants, Loans, and Cooperative Agreements as required by the
Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352**

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$ 100,000 for each such failure.

The Contractor, TAP Architecture, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.



Contractor's Authorized Official

October 11, 2023

Date

Chris Teehee | Sr. Project Manager & Owner

Name & title of Contractor's Authorized Official

CONFLICT OF INTEREST CERTIFICATION

In accordance with 2 CFR 200.318(c)(1) the Bidder certifies that no member, officer, or employee of the City or its designees or agents, no member of the governing body of the City of Shawnee in which the program is situated, and no other public official of the City who exercises any functions or responsibilities with respect to the program during his tenure or for one year thereafter, has any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof for work to be performed in connection with the program assisted under the Agreement. The Bidder shall incorporate, or cause to be incorporated, in all subcontracts, a provision prohibiting such interest pursuant to the purposes of Section 2 CFR 200.318(c)(1).

This certification is a material representation of the fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering this transaction imposed by section 31 USC 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Bidder Name	TAP Architecture
Signature	
Printed Name	Chris Teehee
Position	Sr. Project Manager & Owner
Date	October 11, 2023

DRUG FREE WORKPLACE FORM

Company Name:

City of Shawnee Drug-Free Workplace Form

The undersigned firm hereby certifies that TAP Architecture does:
(Name of Firm)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the danger of drug abuse in the workplace, the business' policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, employee assistance programs and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee, engaged in providing the contractual services that are described in the City's request for proposals to provide bond underwriter services, a copy of the statement specified in paragraph 1.
4. In the statement specified in paragraph 1, notify the employees that, as a condition of working on the contractual services described in paragraph 3, the employee will abide by the terms of the statement and will notify the employer of any conviction of or plea of guilty or no contest to, any violation of the State of Oklahoma, or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction or plea.
5. Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community by, any employee who is so convicted.
6. Consistent with applicable provisions with State or Federal law, rule, or regulation, make a good faith effort to continue to maintain a drug-free workplace.

As the person authorized to sign this statement, I certify that this firm complies fully with the above requirements.



Signature

October 11, 2023

Date

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY
MATTERS**

In accordance with 2 CFR Part 180 (OMB Guidance on Debarment and Suspension) the Respondent certifies, to the best of his or her knowledge and belief, that:

- (1) No employee of the Respondent who will materially participate in the Respondent's delivery of labor or work product under this RFP is currently suspended or debarred under the applicable laws or regulations in effect on the date of certification.
- (2) No sub-contractor, partner or other party who will materially participate in the Respondent's delivery of labor or work product under this RFP is currently suspended or debarred under the applicable laws or regulations in effect on the date of certification.
- (3) The undersigned Respondent shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of the fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering this transaction imposed by 31 USC 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature	
Printed Name	Chris Teehee
Position	Sr. Project Manager & Owner
Date	October 11, 2023



Shawnee Urban Renewal Authority Department
16 W 9th Street
Shawnee, OK 78401
shawneeok.org

Date: October 16, 2023
To: Board of City Commissioners
From: Rian Harkins, Community Development Director
Subject: Consideration of an Amendment to Agreement for CDBG-CV2 Grant Mental Health Assistance.

Background: In October 2022, the City of Shawnee entered into an agreement with the Shawnee Housing Authority to provide services under the Mental Health Assistance project component of the Community Development Block Grant (CDBG) Coronavirus (CV) 2 agreement awarded to the City by the Oklahoma Department of Commerce.

The current agreement has a funding period that is set to expire in September 2023. This partnership and budget were envisioned when the grant was initially awarded in 2021, but the project was not implemented until a year later, dramatically reducing the amount of time in which the City and the Shawnee Housing Authority could accomplish the goals set forth in the agreement.

The proposed Amendment will extend the funding period from September 2023 to November 2023, which will provide an appropriate amount of time to complete the administrative portions of this project.

Financial Impact: None

Attachments: Amendment to Agreement

Staff Recommendation: Approval of Item

AMENDMENT TO AGREEMENT FOR CDBG-CV2 GRANT MENTAL HEALTH ASSISTANCE

THIS AMENDMENT dated the 27th day of September, 2023 to the Agreement for CDBG-CV2 Grant Mental Health Assistance dated September 2022 between the City of Shawnee (Contractor) and Shawnee Housing Authority (Subcontractor);

WHEREAS, the Contractor and Subcontractor entered into an Agreement to provide Mental Health Assistance as a project of the CDBG-CV2 grant; and

WHEREAS, it is the intention of the Subcontractor to continue the administration and performance of the Agreement; and

WHEREAS, the Funding Period will otherwise expire in September 2023;

NOW, THEREFORE, the Contractor and Subcontractor agree to the following:

1. The Contractor agrees to extend the funding period beyond September 2023 to November 2023.
2. All other conditions contained with the Agreement (dated September 2022) remain intact, in full force and effect.

IN WITNESS WHEREOF, we, the undersigned Contractor and Subcontractor, have read, understand, and agree with this Amendment to Agreement for CDBG-CV2 Grant Mental Health Assistance.

Executed this 27th day of September, 2023.

EXECUTED BY:

Subcontractor (Mental Health Community Partner)

Shawnee Housing Authority



Diane Adams

Executive Director

EXECUTED BY:

Contractor (Sponsor)

City of Shawnee

Ed Bolt

Mayor

Attest:

Lisa Lasyone, CMC

City Clerk



Engineering Department
222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Seth Barkhimer, Director of Engineering
Subject: Consideration of a resolution authorizing the acceptance of a grant offer from the State of Oklahoma 911 Management Authority for the Shawnee 911 Communications Center.

Background: The City of Shawnee is obligated to ensure compliance with the state-mandated standards for the municipality's 911 GIS Data. The State 911 Management Authority has made available a grant opportunity specifically designated for achieving and maintaining these standards.

The State 911 Management Authority grant requires the submission of a resolution from the City Commission for the grant application to be eligible for consideration. Staff recommends approval of the item.

Financial Impact: Grant funding up to \$28,520.00

Attachments: Draft Resolution

Staff Recommendation: Approval of the item

RESOLUTION NO. _____

A RESOLUTION ACCEPTING A GRANT OFFER FROM THE STATE OF OKLAHOMA 911 MANAGEMENT AUTHORITY FOR THE SHAWNEE 911 COMMUNICATIONS CENTER.

WHEREAS, the Shawnee 911 Communications Center receives all 9-1-1 calls in the City of Shawnee and dispatches First Responders i.e., Police, Fire & Emergency Medical Services (EMS) to both emergency and non-emergency calls within the boundaries of the City of Shawnee; and

WHEREAS, the Shawnee 911 Communications Center wants to improve GIS Data and to meet the new Oklahoma State 911 Authority Board Addressing Standards for Next Generation 9-1-1; and

WHEREAS, the Shawnee 911 Communications Center needs additional funding for 911 GIS Data Remediation; and

WHEREAS, the Oklahoma 911 Management Authority has grant funding available for Next Generation 9-1-1 GIS Data Remediation; and

WHEREAS, the Shawnee 911 Communications Center agrees to provide upfront local funding for Next Generation 9-1-1 GIS Data Remediation, until such time as full reimbursement through the grant is received.

NOW, THEREFORE, BE IT RESOLVED by the City of Shawnee, that it affirms a commitment to the citizens of Shawnee, and through application to the State of Oklahoma 911 Management Authority, certifies a local funding is available to meet the grant requirements.

Passed and approved this 16th day of October, 2023.

ED BOLT, MAYOR

ATTEST:

LISA LASYONE, CMC, CITY CLERK



Public Works Department
111 S. Kickapoo St.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Brad Schmidt, Public Works Director
Subject: Consideration of a resolution setting the hours of opening and closing of Public Parks and Recreation Area under the jurisdiction of the City of Shawnee; and repealing all resolutions in conflict therewith.

Background: Staff requests the City Commission's approval to standardize park hours. Currently, several parks have different hours of operation.

This proposed resolution will allow for parks that have lighting and amenities to be enjoyed to their maximum potential, while removing confusion of all other parks' hours of operation.

Financial Impact: None

Attachments: Draft Resolution

Staff Recommendation: Approval of item

RESOLUTION NO. _____

A RESOLUTION SETTING THE HOURS OF OPENING AND CLOSING OF PARKS UNDER THE JURISDICTION OF THE CITY OF SHAWNEE; AND REPEALING ALL RESOLUTIONS IN CONFLICT THEREWITH.

WHEREAS, Chapter 21, Section 21-6, provides the City Commission shall by resolution determine the hours public parks and recreation areas are closed to the public;

WHEREAS, it is in the public interest that formal opening and closing times for Municipal Parks be established.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND BOARD OF COMMISSIONERS OF THE CITY OF SHAWNEE, OKLAHOMA:

Section 1. For parks under the jurisdiction of the City of Shawnee shall have hours of operation as follows: parks with lighting for sports and fields, the hours are 7:00 a.m. to 11:00 p.m. For parks and green spaces without activity lighting, the hours are sunrise to sunset.

Section 2. All resolutions in conflict with this resolution are hereby repealed.

Passed and approved this ____ day of _____, 2023

ED BOLT, MAYOR

ATTEST:
(SEAL)

LISA LASYONE, CMC, CITY CLERK



Public Works Department
111 S. Kickapoo St.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Brad Schmidt, Public Works Director
Subject: Consideration of an ordinance amending portions of the Shawnee Municipal Code, Chapter 21 "Parks and Recreation"; providing for repeal; providing for codification; and providing for severability.

Background: The proposed amendment enhances the definition of vendors and activities allowed in our parks as well as clarifies the granting of permission for programs and events. This change will allow staff to update signage and improve the permit process.

Financial Impact: None

Attachments: Draft Ordinance

Staff Recommendation: Approval of item

ORDINANCE NO. _____NS

AN ORDINANCE AMENDING PORTIONS OF THE SHAWNEE MUNICIPAL CODE, CHAPTER 21 "PARKS AND RECREATION"; PROVIDING FOR REPEAL; PROVIDING FOR CODIFICATION; AND PROVIDING FOR SEVERABILITY.

WHEREAS, it is the intent of the Mayor and City Commission in acting this ordinance to provide for and protect the public health, safety, and welfare of the City of Shawnee, Oklahoma; and

NOW THEREFORE BE IT ORDAINED BY THE MAYOR AND CITY COMMISSIONERS OF THE CITY OF SHAWNEE, OKLAHOMA:

Section 1: **AMENDATORY.** Chapter 21 "Parks and Recreation", Sections 21-7 and 21-9 shall be amended as follows:

Section 21-7. "Entering when closed; signs."

- (a) It shall be unlawful for any person to be in any public park or recreation area during hours such public park or recreation area is closed to the public. Appropriate signs shall be erected in conspicuous places notifying the public of the hours such public park or recreation area is closed to the public.
- (b) The city manager or designee may grant special permission to groups of persons to use public parks and recreation area after closing hours when, in their judgement, such groups are properly supervised and will be engaged in lawful activities.

Section 21-9. "Vendors in recreational areas."

- (a) The term "vendor," as used in this section, shall mean any person who sells or offers services regardless of character of property sold or service provided.
- (b) It shall be unlawful for any vendor to engage in the business of vending or to sell property of any kind in any of the City's recreational areas, without first obtaining a permit from the city manager or designee.
- (c) The city manager or designee is authorized to designate city recreation area where vendors may operate. The city manager or designee is authorized to issue space designation permits for vendors who desire to operate in such city recreational areas. Vendors holding such space permits shall operate in only those spaces designated by such space permits. Such permits shall be issued on a daily basis. However, permits may be issued to cover specific events held in the recreational areas. The city manager or designee shall charge a fee in an amount as described in the city fee schedule adopted and updated from time to time by the city commission per day for each of such permits issued on a daily basis or a fee in an amount as described in the city fee schedule adopted and updated from time to time by the city commission for each specific event.
- (d) Permit fees for vendors that are charitable organizations may be waived by the city commission. The term "charitable organization" is defined as an organization that has no capital stock and no provision for making dividends or profits but derives its funds mainly from public and private charity and holds them in trust to be expended for charitable purposes.
- (e) Any vendor who operates within any of the city's recreational areas without first securing a permit as provided for in this section, along with their merchandise, vending equipment and other property relating to such vending, shall be subject to immediate removal from such place by the police department, and such vendors shall be deemed guilty of a misdemeanor and, upon conviction, shall be fined up to an amount as described in the city fee schedule adopted and updated from time to time by the city commission, plus costs.

Section 2: **REPEALER.** All sections, subsections, clauses, and sentences of existing law in conflict with this ordinance are repealed.

Section 3: **CODIFICATION.** This Ordinance shall be codified in the Shawnee Municipal Code, and the codifier is authorized to set out the ordinance as appropriate.

Section 4: SEVERABILITY. The provisions of this ordinance are severable and, if any sentence, provision, or other part of this Ordinance shall be held invalid, the decision of the court so holding shall not affect or impair any of the remaining parts or provisions of this ordinance.

PASSED AND APPROVED this _____ day of _____, 2023.

ED BOLT, MAYOR

ATTEST:
(SEAL)

LISA LASYONE, CMC, CITY CLERK

Approved as to form and legality this _____ day of _____, 2023.

JOSEPH M. VORNDRAN
CITY ATTORNEY

DRAFT



Public Works Department
401 North Bell Avenue
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Brad Schmidt, Public Works Director
Subject: Consideration of an ordinance of the City of Shawnee, Oklahoma amending portions of Chapter 15 "Health and Sanitation", Article V "Designated Health Zone"; providing for severability; providing for codification; and providing for repealer.

Background: In 2019, Designated Health Zones were created and determined to assist the community to become a safer, healthier place. Local health advocates, community partners, and City of Shawnee staff developed Designated Health Zones with certain health requirements. The establishment of a designated health zone is defined to provide a designated area within the municipal limits of the City of Shawnee that promotes the health, safety, and wellness of the City's constituents and discourages certain activities that are deemed to be contrary to the health, safety, and welfare of the public.

Since these zones were created in 2019, our State and community have experienced the rise of destructive and grave effects of vaping among adults as well as our youth. The Beautification, Parks and Recreation Board is requesting that the "City of Shawnee Property" be identified as a Designated Health Zone. This inclusion would provide a safe and healthy environment for our patrons participating in recreational programs, events, activities, services, and group rentals in all our parks and facilities.

City of Shawnee properties are already tobacco-free. In order to be eligible for certain health initiative grants, the City must also include the prohibition of vaping products in our City ordinances. Adding "City of Shawnee Property" as a Designated Health Zone would increase the City's ability to apply for additional grant opportunities.

Financial Impact: None

Attachments: Draft Ordinance

Staff Recommendation: Approval of item

ORDINANCE NO. ____ NS

AN ORDINANCE OF THE CITY OF SHAWNEE, OKLAHOMA AMENDING PORTIONS OF CHAPTER 15 “HEALTH & SANITATION”, ARTICLE V “DESIGNATED HEALTH ZONE”; PROVIDING FOR SEVERABILITY; PROVIDING FOR CODIFICATION; AND PROVIDING FOR REPEALER.

WHEREAS, it is the intent of the Mayor and City Commission enacting this ordinance to provide for and protect the public health, safety, and welfare of the City of Shawnee, Oklahoma; and

WHEREAS, it is the intent of the Mayor and City Commissioners enacting this ordinance to amend the Designated Health Zone encompassing certain areas within the municipal limits of the City of Shawnee, Oklahoma.

NOW THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COMMISSIONERS OF THE CITY OF SHAWNEE, OKLAHOMA:

Section 1: AMENDATORY. Chapter 15 “Health & Sanitation”, Article V “Designated Health Zone”, Sections 15-177 and 15-181 shall be amended as follows:

15-177. Designated Area. The following entities shall constitute the designated Health Zone, which shall include the real property upon which each entity sits:

- a. SSM Health Hospital;
- b. Oklahoma Baptist University;
- c. Oklahoma Baptist University Green Campus;
- d. Shawnee Early Childhood Center;
- e. Shawnee High School;
- f. Pottawatomie County Department of Human Services;
- g. Oklahoma Gas & Electric; and
- h. City of Shawnee Municipal Parks and Recreation Facilities

15-181. Enforcement. The city manager or designee will have the authority to enforce the requirements under this article.

Section 2: SEVERABILITY. The provisions of this ordinance are severable and, if any sentence, provision, or other part of this Ordinance shall be held invalid, the decision of the court so holding shall not affect or impair any of the remaining parts or provisions of this ordinance.

Section 3: CODIFICATION. This Ordinance shall be codified in the Shawnee Municipal Code, and the codifier is authorized to set out the ordinance as appropriate.

Section 4: REPEALER. All sections, subsections, clauses, and sentences of existing law in conflict with this ordinance, are repealed.

Passed and approved this ____ day of October, 2023.

(SEAL)
ATTEST:

ED BOLT, MAYOR

LISA LASYONE, CMC, CITY CLERK

Approved as to form and legality this ____ day of October, 2023.

JOSEPH M. VORNDRAN
CITY ATTORNEY



Community Development Department
16 W 9th Street
Shawnee, OK 74801
shawneeok.org

Date: October 16, 2023
To: Board of City Commissioners
From: Rian Harkins, Community Development Director
Subject: Consideration of an ordinance amending Chapter 8 of the Shawnee Municipal Code by creating a new Article XI of Chapter 8, prohibiting feeding operations in the downtown area; providing for repeal; providing for severability; and providing for codification.

Background: To end homelessness, a community-wide coordinated approach is needed. Since the association between homelessness and food is so strong, most organizations and individuals focus their efforts on feeding those who are experiencing homelessness.

Unregulated feeding operations on public property may create situations which exceed the City of Shawnee's capacity to provide adequate security, sanitation, and waste disposal. Furthermore, unregulated feeding operations may harm public health; create noise, congestion, and other nuisances; and interfere with the citizens' peaceful enjoyment of their homes, businesses, and property.

It is the intent of the proposed ordinance to regulate feeding operations in order to prevent such issues.

Financial Impact: None

Attachments: Draft Ordinance

Staff Recommendation: Approval of the item

ORDINANCE NO. _____

AN ORDINANCE AMENDING CHAPTER 8 OF THE SHAWNEE MUNICIPAL CODE BY CREATING A NEW ARTICLE XI OF CHAPTER 8, PROHIBITING FEEDING OPERATIONS IN THE DOWNTOWN AREA; PROVIDING FOR REPEAL; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR CODIFICATION.

BE IT ORDAINED BY THE COMMISSIONERS OF THE CITY OF SHAWNEE:

SECTION 1. That Article XI of Chapter 8 of the Shawnee Municipal Code is hereby created to read as follows:

§8-600. PURPOSE

The City finds that unregulated special events such as feeding operations may pose a threat to the health, safety, welfare, and environment of the community. Unregulated special events like feeding operations may attract large numbers of patrons. Their belongings, vehicles, or bicycles can prevent passage of emergency vehicles, obstruct entrances to homes and businesses, and impede the inhabitants' use of streets and sidewalks. Unregulated special events can create situations that exceed the City's capacity to provide adequate security, public safety, medical care, health, parking, water, sanitation, and waste disposal. Furthermore, unregulated special events can harm public health and create noise, congestion, and other nuisances, which interfere with the inhabitants' peaceful enjoyment of their homes, businesses, and properties. It is the intent of this article to regulate feeding operations as a type of special event. Therefore, the City Commission adopts an ordinance to regulate feeding operations and mitigate any adverse effects they may cause.

§8-601. DEFINITIONS

The following words, terms, and phrases, when used in this article shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning.

Downtown shall mean the area whose boundaries are Highland Street, 7th Street, Harrison, and Kickapoo Street.

Feeding area or site means any outdoor place, which will be maintained, used, or operated for a special event or feeding operation.

Feeding Operation shall mean an organized and deliberate preparation and/or serving of food to four or more individuals for free.

Operator means an individual, group of individuals, association, partnership, corporation, firm, company, or property owner who conducts or sponsors a special event. An operator of an event may or may not include the City.

Park shall mean a city-owned park or recreational facility.

Public Right-of-Way shall include streets, alleys, and sidewalks.

Public Building shall mean a structure designed and used in a manner for the the public's benefit, including but not limited to convention centers, libraries, police and fire stations, utilities stations, City facilities where the public is allowed use for educational or training sessions, and City office facilities where City staff regularly interact with members of the public.

§8-602. PROHIBITED AND ALLOWED OPERATIONS

- A. All Feeding Operations within Downtown, including parks, public right-of-way, or other publicly owned facilities shall only be held as part of a valid Special Event Permit.
- B. This ordinance shall in no way prohibit:
 - 1. Feeding Operations held indoors or on private property; or
 - 2. Feeding Operations held in conjunction with a declared emergency or similar event.

§8-603. OFFENSE AND PENALTY

- A. An Operator, or any person or persons participating with the Operator, commits an offense if the Operator violates the terms of the issued permit, closes a street without a permit, damages or destroys any City property, or violates any provisions of this article of the City Code.
- B. The first offense under this section is a punishable \$250 fine.

- C. Each subsequent offense shall incur a \$500 fine.
- D. An Operator, or any person or persons participating with the Operator, found to be in violation of the terms of a permit issued under this chapter, or to be found holding a Feeding Operation without a special event permit, may not apply for or receive a permit for one (1) year after the date of revocation or violation.

SECTION 2. REPEALER. All sections, subsections, clauses, and sentences of existing law in conflict with this ordinance, are repealed.

SECTION 3. SEVERABILITY. The provisions of this ordinance are severable, and if any sentence, provision, or other part of this Ordinance shall be held invalid, the decision of the courts so holding shall not affect or impair any of the remaining parts or provisions of this ordinance.

SECTION 4. CODIFICATION. This Ordinance shall be codified in the Shawnee Municipal Code, and the codifier is authorized to set out the ordinance as appropriate.

PASSED AND APPROVED this ____ day of October, 2023.

ED BOLT, MAYOR

ATTEST:
(SEAL)

LISA LASYONE, CMC, CITY CLERK

Approved as to form and legality this ____ day of October, 2023.

JOSEPH M. VORNDRAN
CITY ATTORNEY



Police Department
912 E. Independence St.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Mason Wilson, Chief of Police
Subject: Consideration of an ordinance amending Chapter 5 "Animals" of the Shawnee Municipal Code by amending Article III "Dogs", Division 2 "License"; Article III "Dogs", Division 5 "Kennels"; and Article IV "Cats", Division 2 "License"; providing for repeal; providing for severability; and providing for codification.

Background: The proposed amendment of Chapter 5 "Animals" of the Shawnee Municipal Code will pave the way to initiate our online payment system for pet licensing, allowing a third party to receive the funds online on behalf of the City of Shawnee. The amendment will also better define the operation of a kennel within the city limits of Shawnee as well as clarify the procedure to obtain a kennel license.

Financial Impact: No new impact to budget

Attachments: Draft Ordinance

Staff Recommendation: Approval of the item

ORDINANCE NO. _____

AN ORDINANCE AMENDING CHAPTER 5 “ANIMALS” OF THE SHAWNEE MUNICIPAL CODE BY AMENDING ARTICLE III “DOGS”, DIVISION 2 “LICENSE”; ARTICLE III “DOGS”, DIVISION 5 “KENNELS”; AND ARTICLE IV “CATS”, DIVISION 2 “LICENSE”; PROVIDING FOR REPEAL; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR CODIFICATION.

BE IT ORDAINED BY THE COMMISSIONERS OF THE CITY OF SHAWNEE:

SECTION 1: AMENDATORY. That Article III of Chapter 5 of the Shawnee Municipal Code is hereby amended to read as follows:

§5-111. REQUIRED GENERALLY: USER FEE.

- a) Definitions. The following words, terms and phrases, when used in this division, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

Altered dog means either a male or female dog that, by a procedure rendered by a veterinarian, has been prevented from impregnating or from becoming impregnated.

Unaltered dog means a dog that has not been spayed or neutered by a veterinarian.

Government Service Dog means any dog owned or employed by a Municipal, County, State, Federal or Tribal government used for official purposes.

Third-Party Vendor means any company the City enters into an agreement with to provide pet licensing service.

- b) Fee. Every person owning or harboring any dog within the City over the age of four (4) months shall pay a license user fee provided by the City Fee Schedule for each unaltered male or female dog; and a fee for each altered male or female dog having been neutered or sprayed. Senior citizens shall receive a fifty percent (50%) discount on licenses. Such license user fee shall cover a period of one (1) year or three (3) years from the date of issuance, dependent upon the length of license purchased. Upon the expiration of a period of one (1) year or three (3) years from the date of issuance of such dog, the license shall expire, dependent upon the length of license purchased. The license user fee shall become due and payable upon each dog attaining the age of four (4) months and upon the expiration of the period covered by the license.

§5-112. - REQUIRED AFTER ACQUISITION.

It shall be the responsibility of any person acquiring a dog, whether newly born or transferred from another owner, to obtain a new license, which shall be valid one (1) year or three (3) years from the date of license issuance, dependent upon the length of license purchased.

§ 5-113. - EXCEPTIONS.

Any dog brought into the City by any traveler or nonresident of the City, while with its owner or keeper, shall not be impounded, nor shall such owner or keeper be arrested for the reason that the dog is not lawfully licensed by the City.

§ 5-114. - ISSUANCE.

- a) The Animal Welfare Division is responsible for the issuance of licenses and collections of fees. Fees shall be remitted to the City Finance Department in a timely manner. The City and the Animal Welfare Division may use a third-party vendor for handling of pet licensing and collection of fees.
- b) Procedures for handling of funds dictated by policy and/or contracts with third-party vendors.

The Animal Welfare Division or third-party vendor shall record information concerning each such license issued, including the following:

1. The date of issuance,
2. The date of expiration,
3. The name of the owner or the person in whose name the license was issued,
4. The sex of the dog,
5. The age, color, and breed of the dog, and
6. The date of vaccination and by whom vaccinated.

§ 5-115. - RECEIPT.

- a) The Animal Welfare Division or third-party vendor shall issue a receipt to the person paying the dog license user fee. Such receipt shall show the following:
 1. The date and the amount of payment,
 2. The age of the dog, as stated by the owner, and
 3. The sex, color, and breed of the dog.
- b) The dog user license receipt shall operate as a license to own, keep, or harbor the dog therein described for the year ending on the last day of the period covered by the license, which shall be valid for a period of one (1) year or three (3) years from the date of license issuance, dependent upon the length of license purchased.

§ 5-116. - EXPIRATION; DELINQUENT PAYMENT.

The license user fee required in this division shall become delinquent upon the expiration of the period covered by a license issued pursuant to this division. If the license user fee is not paid within thirty (30) days after the delinquency date, a penalty shall be added to the delinquent fee and collected together with such fee. A senior citizen discount shall not apply to any penalty fees. Penalty fee shall be listed in the City Fee Schedule.

§ 5-117. - ISSUANCE AND USE OF TAGS.

The Animal Welfare Division or third-party vendor shall furnish any person who shall pay a dog license user fee a metal tag, on which shall be inscribed and stamped or printed in a durable manner, the year for which the fee was paid, a number separate and distinct from all other numbers used for like purposes in the same year, and "City of Shawnee". The owner of the dog shall provide a substantial collar to be worn by the dog at all times and to which such tag shall be firmly fixed in a good and substantial manner.

§ 5-119. - REPLACEMENT TAGS.

Whenever a dog license tag is lost or stolen from any dog, the owner of the dog shall procure another tag from the Animal Welfare Division or third-party vendor. Upon proof of a current license for said dog and payment of a replacement tag fee, the Animal Welfare Division or third-party vendor shall issue a replacement tag. A senior citizen discount shall not apply to duplicate tag fees. Replacement tag fee shall be listed in the City Fee Schedule.

§ 5-147. - REGISTRATION FOR VACCINATION CERTIFICATE.

The owner of every dog vaccinated pursuant to this division shall present the certificate therefor to the Animal Welfare Division or third-party vendor who shall register the vaccination certificate by noting in the dog register the date of vaccination and the veterinarian who administered the vaccine. No license shall be issued to keep or harbor a dog within the City until such certificate has been presented to the Animal Welfare Division or third-party vendor.

§ 5-148. - OBSERVATION OF DOG THAT BITES PERSON.

- a) Any dog that bites a person within the City limits shall be reported to Animal Welfare. The owner of the dog shall place the dog in the care of a veterinarian. Exceptions to this rule include the following circumstances:
 1. Dogs involved in a first party ownership may be allowed to be placed in a home quarantine for a ten-day period immediately following the bite.
 2. Dogs meeting the criteria of currently vaccinated against rabies, and not inflicting a severe injury, shall be placed in a home quarantine until the end of a ten-day period from the bite. In some instances, a certification of animal health obtained

after examination by a licensed veterinarian on the tenth day may be required.

3. Animals in service to the blind or hearing-impaired, and search and rescue dogs or other animals used for police enforcement duties shall be exempt from the quarantine when a bite exposure occurs and proper record of immunization against rabies is presented. A certification of animal health obtained after examination by a licensed veterinarian at the end of ten days may be required by the department.
- b) Within twenty-four (24) hours, the dog will be placed under the care of a veterinarian. Failure to do so will constitute a violation of this article.
- c) The owner may elect at his own expense to have the animal euthanized by a licensed veterinary doctor and tested by the Oklahoma City Health Department for rabies. Once the testing is completed, the owner must supply a copy of the health department report to the City animal shelter.
- d) The veterinarian shall impound the dog for care and observation for a period of ten (10) days from the date of the bite.
- e) When a dog under observation has been diagnosed as being rabid or suspected by a veterinarian as being rabid and dies while under observation, the veterinarian shall immediately send the dog to the Oklahoma City Health Department for rabies testing and shall notify the animal shelter of the test results.
- f) It shall be a violation of this article for any person to release any dog held for observation to any person prior to completion of the period of observation.
- g) The person to whom the dog is released shall have proof prior to release that the dog does not have rabies and that the dog has been properly vaccinated against rabies.
- h) If ownership of a dog that bites a person within the city limits cannot be verified, the dog shall be impounded for twenty-four (24) hours and then euthanized and tested by the Oklahoma City Health Department for rabies.

§ SEC. 5-207. - LICENSE REQUIRED.

- a) No person shall maintain or operate any kennel for the sale, exchange, boarding, training, breeding, or raising of dogs within the City without first obtaining an inspection of the facility by the Animal Welfare Division and City Code Enforcement Office. Upon approval by the City Code Enforcement Office and Animal Welfare Division a kennel license shall be issued.
- b) Each facility regulated by this division shall be considered a separate enterprise and shall require an individual license.
- c) No fee shall be required of any veterinary hospital or government-operated zoological park or city-operated facility.
- d) Failure to obtain a license before opening any facility covered in this division shall be an offense, punishable with each day constituting a separate violation.

§ 5-208. - LICENSE FEE; PERMIT TERMS AND CONDITIONS.

- a) Any person desiring to operate a dog kennel shall pay an annual license fee provided by the City Fee Schedule for such privilege. All such dogs over four months of age shall be vaccinated in the same manner as other dogs. A City license shall also be required for each dog kept at an established licensed kennel.
- b) The license shall not be valid until approved in writing by the Animal Welfare Division and City Code Enforcement Office.
- c) Each permit shall state the following:
 1. The name of the person to whom it is issued.

2. The date of issuance.
 3. The period for which the permit is valid, which shall be one (1) year from the date of issuance.
 4. The maximum number of dogs allowed, which will be determined with the restriction that each dog must have at least thirty-five (35) square feet of unrestricted pen area with a solid floor.
- d) It shall be the duty of the Animal Welfare Division and/or City Code Enforcement Office to notify the person who keeps a kennel contrary to this section to correct the violation within three (3) days from the date of such notice.

§ 5-209. - REVOCATION OF PERMIT OR LICENSE.

- a) The City Manager may, after opportunity for hearing before the City Manager or designate, revoke any dog kennel license if the person holding the license refuses or fails to comply with this chapter, the regulations promulgated by the animal control officer or any law governing the protection and keeping of animals.
- b) Any person whose license is revoked shall, within ten (10) days thereafter, humanely dispose of all animals owned, kept or harbored by such person. No part of the license fee shall be refunded.
- c) It shall be a condition of the issuance of any license that the Animal Welfare Division shall be permitted to inspect all dogs and the premises where dogs are kept at any time. The City Manager shall, if permission for such inspection is refused, revoke the license of the refusing owner, after affording an opportunity for hearing before the City Manager or designate.
- d) If the applicant has withheld or falsified any information on the application, the Animal Welfare Division shall refuse to issue a license. No person who has been convicted of an offense related to cruelty to animals shall be issued a permit or license to operate a commercial animal establishment or kennel.
- e) Any person having been denied a license may not reapply for a period of thirty (30) days. Each reapplication shall be accompanied by a fee, as set forth in this division.

§ 5-210. - STANDARDS AND SANITATION.

- a) Standards for dog kennels shall be developed by the Animal Welfare Division as a policy and shall be administered by the Animal Welfare Division.
- b) Any building, fence, pen or other enclosure in which the dogs are confined shall be located fifty (50) feet from any structure used for dwelling purposes or business purposes, and no human habitation shall be allowed within the animal establishment.
- c) The kennel wherein dogs are kept shall be maintained in a clean condition and free from filth at all times. Dog feces shall be removed from the kennel daily and the premises disinfected not less than once in each period of two weeks. Feces shall be disposed of properly by either burying or removing it from the site on a weekly basis.

SECTION 2: AMENDEATORY. That Article IV of Chapter 5 of the Shawnee Municipal Code is hereby created to read as follows:

§ 5-276. - REQUIRED GENERALLY: FEE.

Every person owning or harboring any cat within the City over the age of four (4) months shall pay a license user fee provided by the City Fee Schedule for each unaltered male or female cat, and a fee, for each altered male or female cat having been neutered or spayed. Senior citizens shall receive a fifty percent (50%) discount on licenses. Such license user fee shall cover a period of one (1) year or three (3) years from the date of vaccination of the cat for rabies. Upon the expiration of a period of one (1) year or three (3) years from the issuance of said license, the license shall expire, dependent upon the length of license purchased. The license user fee shall become due and payable upon each cat attaining the age of four (4) months and upon the expiration of the period covered by the license.

§ 5-277. - REQUIRED AFTER ACQUISITION.

It shall be the responsibility of any person acquiring a cat, whether newly born or transferred from another owner, to obtain a new license, which shall be valid for one (1) year or three (3) years from the date of license issuance, dependent upon the length of license purchased.

§ 5-278. - ISSUANCE; TERM.

- a) The Animal Welfare Division or third-party vendor shall issue a receipt to the person paying the cat license fee. Such receipt shall show the following:
 1. The date and the amount of payment:
 2. The age as stated by the owner:
 3. The sex, color, and breed of the cat.
- b) The cat license receipt shall operate as a license to own, keep or harbor the cat therein described for the year ending on the last day of the period covered by such license, which shall be one (1) year or three (3) years from the date such license was issued, dependent upon the length of license purchased.

§ 5-279. - DELINQUENT PAYMENT.

The license fee required in this division shall become delinquent upon the expiration of the period covered by a license issued pursuant to this division. If the fee is not paid within thirty (30) days after the delinquency date, a penalty fee shall be added to such delinquent fee and collected together with such fee. A senior citizen discount shall not apply to any penalty fees. Penalty fee shall be listed in the City Fee Schedule.

§ 5-280. - TAG.

The Animal Welfare Division or third-party vendor shall furnish any person who shall pay a cat license user fee a metal tag, on which shall be inscribed, stamped, or printed in a durable manner the year for which the fee was paid, a number separate and distinct from all other numbers used for like purposes in the same year, and the words "City of Shawnee". The owner of such cat shall provide a substantial collar to be worn by the cat at all times and to which such tag shall be firmly fixed in a good and substantial manner.

§ 5-280. – UNLAWFUL USE OF DISPOSAL OF TAGS

No person shall unlawfully use or dispose of any cat license tag for any consideration or without any consideration.

§ 5-281. REPLACEMENT TAG

Whenever a cat license tag is lost or stolen from any cat, the owner of the cat shall procure another tag from the Animal Welfare Division or third-party vendor. Upon proof of a current license for said cat and payment of a replacement tag fee, the Animal Welfare Division or third-party vendor shall issue a replacement tag. A senior citizen discount shall not apply to duplicate tag fees. Replacement tag fee shall be listed in the City Fee Schedule.

SECTION 3. REPEALER. All sections, subsections, clauses, and sentences of existing law in conflict with this ordinance, are repealed.

SECTION 4. SEVERABILITY. The provisions of this ordinance are severable, and if any sentence, provision, or other part of this Ordinance shall be held invalid, the decision of the courts so holding shall not affect or impair any of the remaining parts or provisions of this ordinance.

SECTION 5. CODIFICATION. This Ordinance shall be codified in the Shawnee Municipal Code, and the codifier is authorized to set out the ordinance as appropriate.

PASSED AND APPROVED this 16th day of October, 2023.

(SEAL)
ATTEST:

ED BOLT, MAYOR

LISA LASYONE, CMC, CITY CLERK

Approved as to form and legality this 16th day of October, 2023.

JOSEPH M. VORNDRAN
CITY ATTORNEY

DRAFT

RESOLUTION NO. _____

A RESOLUTION OF THE CITY OF SHAWNEE, OKLAHOMA UPDATING THE CITY FEE SCHEDULE BY AMENDING FEES ESTABLISHED IN CHAPTER 5 “ANIMALS” OF THE SHAWNEE MUNICIPAL CODE; AND PROVIDING FOR THE READOPTION OF THE CITY FEE SCHEDULE IN WHOLE.

WHEREAS, the City, through the passage of Ordinance No. 2599NS has adopted a City Fee Schedule as a part of the Code of the City of Shawnee, Oklahoma that contains the description of various fees administered by the City;

WHEREAS, pursuant to Ordinance No. 2599NS, subsequent versions, adoptions, and updates of the City Fee Schedule shall be accomplished by resolution of the City Commission;

WHEREAS, the City Commission wishes to update the City Fee Schedule in a manner described below so as to set fees pursuant to Chapter 5.

NOW THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COMMISSIONERS OF THE CITY OF SHAWNEE, OKLAHOMA:

Section 1. Section 5-111(b) Article III of Chapter 5 shall be amended to include the following fees in the City Fee Schedule:

Municipal Code Site	Department	Description	Fee
Part II Chapter 5 Art III Div 2 Sec 5-111(b)	Animals	Dogs: Annual license fee for adult unaltered male or female (Note: Senior 50% discount)	\$20
Part II Chapter 5 Art III Div 2 Sec 5-111(b)	Animals	Dogs: Annual license fee for adult altered male or female (Note: Senior 50% discount)	\$10
Part II Chapter 5 Art III Div 2 Sec 5-111(b)	Animals	Dogs: Three (3) year license fee for adult unaltered male or female (Note: Senior 50% discount)	\$45
Part II Chapter 5 Art III Div 2 Sec 5-111(b)	Animals	Dogs: Three (3) year license fee for adult altered male or female (Note: Senior 50% discount)	\$25

Section 2. Section 5-116 of Article III of Chapter 5 shall be amended to include the following fees in the City Fee Schedule:

Municipal Code Site	Department	Description	Fee
Part II Chapter 5 Art III Div 2 Sec 5-116	Animals	Dogs: Delinquent license penalty fee	\$5

Section 3. Section 5-119 of Article III of Chapter 5 shall be amended to include the following fees in the City Fee Schedule:

Municipal Code Site	Department	Description	Fee
Part II Chapter 5 Art III Div 2 Sec 5-119	Animals	Dogs: Issuance of duplicate tags: Fee to replace lost or stolen dog license tag.	\$5

Section 4. Section 5-208 of Article III of Chapter 5 shall be amended to include the following fees in the City Fee Schedule:

Municipal Code Site	Department	Description	Fee
Part II Chapter 5 Art III Div 5 Sec 5-208	Animals	Dogs: Kennels: Dog kennel operation annual license	\$300

Section 5. Section 5-276 Article IV of Chapter 5 shall be amended to include the following fees in the City Fee Schedule:

Municipal Code Site	Department	Description	Fee
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Annual license fee for adult unaltered male or female (Note: Senior 50% discount)	\$20
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Annual license fee for adult altered male or female (Note: Senior 50% discount)	\$10
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Three (3) year license fee for adult unaltered male or female (Note: Senior 50% discount)	\$45
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Three (3) year license fee for adult altered male or female (Note: Senior 50% discount)	\$25

Section 6. Section 5-279 of Article IV of Chapter 5 shall be amended to include the following fees in the City Fee Schedule:

Municipal Code Site	Department	Description	Fee
Part II Chapter 5 Art IV Div 2 Sec 5-279	Animals	Cats: Delinquent license penalty fee	\$5

Section 7. Section 5-281 of Article IV of Chapter 5 shall be amended to include the following fees to the City Fee Schedule:

Municipal Code Site	Department	Description	Fee
Part II Chapter 5 Art IV Div 2 Sec 5-281	Animals	Cats: Issuance of duplicate tags: Fee to replace lost or stolen dog license tag.	\$5

Section 8. **Adoption and Update of City Fee Schedule.** Attached hereto is the updated portion of the City Fee Schedule as created above (Exhibit “A”), and the updated City Fee Schedule in whole (Exhibit “B”). This Resolution updates and amends City Fee Schedule only to the extent as described above. All other existing fees, fines, bonds, and insurance amounts described in the City Fee Schedule, not expressly updated herein, shall remain the same, and are otherwise re-adopted, for full force and effect, in the Code of the City of Shawnee.

PASSED AND APPROVED this ____ day of _____, 2023.

ED BOLT, MAYOR

ATTEST:
(SEAL)

LISA LASYONE, CMC, CITY CLERK

Shawnee, OK Code of Ordinances - Fee, Fine, Bond, And Insurance Dollar Amount						
<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
CHAPTER 5: ANIMALS						
Part II Chapter 5 Art I Sec 5-1	Animals	Maximum Fine		\$500		
Part II Chapter 5 Art I Sec 5-2 (e)	Animals	Cruelty: Maximum Fine		\$500		
Part II Chapter 5 Art I Sec 5-3 (g)	Animals	Vicious Animals: Maximum Fine		\$200		
		Keeping porcine, goats, sheep, or hoofed animals other than bovines or equines.				
Part II Chapter 5 Art I Sec 5-5 (2)	Animals	Goat, sheep, or hoofed animal -- Permit Fee	\$10			
		Keeping porcine, goats, sheep, or hoofed animals other an bovines or equines.				
Part II Chapter 5 Art I Sec 5-5 (3)	Animals	Porcine--Permit Fee	\$10			
		Abandoning animals in public or private place: Fine upon conviction		\$200		
Part II Chapter 5 Art I Sec 5-17	Animals	Use of traps: Fine		\$100		
Part II Chapter 5 Art I Sec 5-20 (a)	Animals	Animal a nuisance: Bond			\$500	
Part II Chapter 5 Art I Sec 5-20 (g)	Animals	Animal a nuisance: Fine		\$200		
		Impoundment: Initial Seizure and Impoundment Fee	\$30			
Part II Chapter 5 Art II Sec 5-50	Animals	Impoundment: Per Day Seizure and Impoundment Fee	\$10			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 5 Art II Sec 5-50	Animals	Impoundment: Seizure and Impoundment-- Use of Tranquilizer Fee	\$20			
Part II Chapter 5 Art II Sec 5-51 (d)	Animals	Redemption: Maximum Fine		\$500		
Part II Chapter 5 Art III Div 2 Sec 5-111 (b)	Animals	Dogs: Annual license fee for adult unaltered male or female (Note: Seniors 50% discount)	\$20			
Part II Chapter 5 Art III Div 2 Sec 5-111 (b)	Animals	Dogs: Annual license fee for adult altered male or female (Note: Seniors 50% discount)	\$10			
Part II Chapter 5 Art III Div 2 Sec 5-111 (b)	Animals	Dogs: Three (3) year license fee for adult unaltered male or female (Note: Seniors 50% discount)	\$45			
Part II Chapter 5 Art III Div 2 Sec 5-111 (b)	Animals	Dogs: Three (3) year license fee for adult altered male or female (Note: Seniors 50% discount)	\$25			
Part II Chapter 5 Art III Div 2 Sec 5-116	Animals	Dogs: Delinquent license penalty fee	\$5			
Part II Chapter 5 Art III Div 2 Sec 5-119	Animals	Dogs: Issuance of duplicate tags: Fee to Replaces lost or stolen Dog License Tag	\$5			
Part II Chapter 5 Art III Div 4 Sec 5-178 (1)	Animals	Dogs: Redemption; release: Initial Impoundment Fee; and Per Day Impoundment Fee	\$30; and \$10			
Part II Chapter 5 Art III Div 4 Sec 5-179	Animals	Dogs: Adoption in Lieu of Disposal Fee; together with spay/neuter deposit and cost of city license tag	\$10; and \$50			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 5 Art III Div 5 Sec 5-208	Animals	Dogs: Kennels: Dog Kennel Operation Annual License	\$300			
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Annual license fee for adult unaltered male or female Note: Seniors 50% discount	\$20			
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Annual license fee for adult altered male or female Note: Seniors 50% discount	\$10			
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Three (3) year license fee for adult unaltered male or female Note: Seniors 50% discount	\$45			
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Three (3) year license fee for adult altered male or female Note: Seniors 50% discount	\$25			
Part II Chapter 5 Art IV Div 2 Sec 5-279	Animals	Cats: Delinquent license penalty fee	\$5			
Part II Chapter 5 Art IV Div 2 Sec 5-281	Animals	Cats: Issuance of duplicate tags: Fee to Replaces lost or stolen Cat License Tag	\$5			
Part II Chapter 5 Art IV Div 3 Sec 5-307 (1)&(2)	Animals	Cats: Redemption; release: Initial Impoundment Fee; and Per Day Impoundment Fee	\$30; and \$10			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 5 Art IV Div 3 Sec 5-308	Animals	Cats: Adoption in Lieu of Disposal Fee; together with spay/neuter deposit and cost of city license tag	\$10; and \$50			
Part II Chapter 5 Art IV Div 4 Sec 5-338 (a)	Animals	Cats: Kennels: Cat Kennel Operation Annual License	\$200			
Part II Chapter 5 Art V Sec 5-372	Animals	Dog and Cat Sterilization. Sterilization or agreement and deposit required for adoption	\$50			
Part II Chapter 5 Art V Sec 5-374 (2)	Animals	Maximum Fine of Violation of Form Agreement		\$500		
Part II Chapter 5 Art V Sec 5-379	Animals	Dog and Cat Sterilization. Failure to Comply: Maximum Fine		\$500		

Shawnee, OK Code of Ordinances - Fee, Fine, Bond, And Insurance Dollar Amount						
<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
CHARTER						
Part I Art V Sec 4	Charter	Bond of City Manager and Other Appointive Officers and Employees			\$25,000	
CHAPTER 1: GENERAL PROVISIONS						
Part II Chapter 1 Sec 1-10 (a) (1) and (b)	General Provisions	General Penalty. Class A Offenses: Maximum Fine for all alcohol and drug related offenses, plus cost		\$800		
Part II Chapter 1 Sec 1-10 (a) (2) and (b)	General Provisions	General Penalty. Class B Offenses: Maximum Fine for violations of ordinances regulating pretreatment of wastewater and stormwater discharges		\$1,000		
Part II Chapter 1 Sec 1-10 (a) (3) and (b)	General Provisions	General Penalty. Class C Offenses: Maximum Fine for all other violations.		\$750		

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
CHAPTER 2: ADMINISTRATION						
Part II Chapter 2 Art IV Div 3 Sec 2-206 (13)	Administration	City Clerk. Fee charge per page for photocopy all ordinances, papers, records, or commission proceedings	\$0.25			
Part II Chapter 2 Art IV Div 3 Sec 2-206 (13)	Administration	City Clerk. Fee charge per page for certifying all ordinances, papers, records, or commission proceedings	\$1			
Part II Chapter 2 Art VI Div 1 Sec 2-358	Administration	Human Rights. Maximum Fine		\$500		
CHAPTER 3: ADVERTISING AND SIGNS						
Part II Chapter 3 Art II Div 1 Sec 3-37 (c)	Advertising and Signs	Redemption fee for impounded sign	\$25			
Part II Chapter 3 Art II Div 2 Sec 3-69 (a) (1)	Advertising and Signs	Portable signs (temporary)	\$25			
Part II Chapter 3 Art II Div 2 Sec 3-69 (a) (2)	Advertising and Signs	Permanent signs	\$25 x 4			
Part II Chapter 3 Art II Div 3 Sec 3-96 (a)	Advertising and Signs	Electrical and Non-Electrical Sign Contractors License	\$75			
Part II Chapter 3 Art II Div 3 Sec 3-97 (a)	Advertising and Signs	Electrical and Neon Sign Hanger's License	\$50			
Part II Chapter 3 Art II Div 3 Sec 3-97 (b)	Advertising and Signs	Late License Renewal Fee		\$15		
Part II Chapter 3 Art II Div 3 Sec 3-98 (a)	Advertising and Signs	Bond Required Prior to any License			\$2,000	

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 3 Art II Div 3 Sec 3-98 (a)	Advertising and Signs	When the number of permits issued to any person shall cover more than 50 signs, panels or structures of 25 feet in length or less, the penal sum of such bond shall be increased \$2,000.00 for each additional 40 of such panels, signs or structures or fraction thereof for which permits are issued to such person.			\$2,000	
Part II Chapter 3 Art II Div 3 Sec 3-98 (b)	Advertising and Signs	Insurance Policy Required. Minimum Liability Policy Amount for injury or death of one person in one accident				\$5,000
Part II Chapter 3 Art II Div 3 Sec 3-98 (b)	Advertising and Signs	Insurance Policy Required. Minimum Liability Policy Amount for injury or death of any number of persons in any one accident				\$10,000
Part II Chapter 3 Art II Div 3 Sec 3-98 (b)	Advertising and Signs	Insurance Policy Required. Minimum Liability Policy Amount for property damage in any one accident				\$5,000

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
CHAPTER 4: ALCOHOLIC BEVERAGES						
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Complimentary Beverage License	\$100			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Brewer's License	\$1,250			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Oklahoma Brewer's License	\$125			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Distiller's License	\$3,125			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Winemaker's License	\$625			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: State winemaker's License	\$75			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Rectifier's License	\$3,125			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Wholesaler's License	\$3,500			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Interim Wine and Spirits Wholesaler's License	\$3,000			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Class B wholesaler's License	\$625			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Interim beer distributor's License	\$750			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Package store's License	\$905			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Interim retail wine license	\$1,000			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Interim retail beer license	\$ 500			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Mixed beverage license - initial and renewal	\$1,005; and \$905			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Bottle Club's License--Initial and Renewal	\$1,000; and \$900			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Caterer's License--Initial and Renewal. If caterer is holder of a mixed beverage license issued by the city	\$ 1,250.00			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Caterer's License--Initial and Renewal.	\$1,005; and \$905			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Special Event License, per day	\$50.00			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Special Event License, annual/quarterly	\$55.00			
Part II Chapter 4 Art I Sec 4-4 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Beer and Wine License--Initial and Renewal	\$500; and \$450			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Complimentary Beverage License	\$100			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Brewer's License	\$1,250			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Oklahoma Brewer's License	\$125			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Distiller's License	\$3,125			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Winemaker's License	\$625			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: State winemaker's License	\$75			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Rectifier's License	\$3,125			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Wholesaler's License	\$3,500			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Interim Wine and Spirits Wholesaler's License	\$3,000			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Class B wholesaler's License	\$625			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Interim beer distributor's License	\$750			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Package store's License	\$905			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Interim retail wine license	\$1,000			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Interim retail beer license	\$ 500			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Mixed beverage license - initial and renewal	\$1,005; and \$905			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Bottle Club's License--Initial and Renewal	\$1,000; and \$900			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Caterer's License--Initial and Renewal. If caterer is holder of a mixed beverage license issued by the city	\$ 1,250.00			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Caterer's License--Initial and Renewal.	\$1,005; and \$905			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Special Event License, per day	\$50.00			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Special Event License, annual/quarterly	\$55.00			
Part II Chapter 4 Art I Sec 4-5 (a)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Beer and Wine License--Initial and Renewal	\$500; and \$450			
Part II Chapter 4 Art I Sec 4-5 (b)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: License Fee for Section 501 (c) (19) exempt service organizations	\$500			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 4 Art I Sec 4-5 (c)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: Annual Public Event License	\$1,005			
Part II Chapter 4 Art I Sec 4-5 (c)	Alcoholic Beverages	Occupation Tax Schedules/Liquor License: One-time public event license	\$255			
Part II Chapter 4 Art I Sec 4-7 (b)	Alcoholic Beverages	Possession by minors: Maximum Fine		\$500		
Part II Chapter 4 Art I Sec 4-9 (b)	Alcoholic Beverages	Posting of signs by business: Spread of Minimum Fine and Maximum Fine		\$2,500 to \$5,000		
Part II Chapter 4 Art I Sec 4-9 (c)	Alcoholic Beverages	Posting of signs by business: Failure to post a sign Fine		\$500		
CHAPTER 5: ANIMALS						
Part II Chapter 5 Art I Sec 5-1	Animals	Maximum Fine		\$500		
Part II Chapter 5 Art I Sec 5-2 (e)	Animals	Cruelty: Maximum Fine		\$500		
Part II Chapter 5 Art I Sec 5-3 (g)	Animals	Vicious Animals: Maximum Fine		\$200		
Part II Chapter 5 Art I Sec 5-5 (2)	Animals	Keeping porcine, goats, sheep, or hooved animals other than bovines or equines. Goat, sheep, or hooved animal -- Permit Fee	\$10			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 5 Art I Sec 5-5 (3)	Animals	Keeping porcine, goats, sheep, or hoofed animals other an bovines or equines. Porcine--Permit Fee	\$10			
Part II Chapter 5 Art I Sec 5-17	Animals	Abandoning animals in public or private place: Fine upon conviction		\$200		
Part II Chapter 5 Art I Sec 5-18	Animals	Use of traps: Fine		\$100		
Part II Chapter 5 Art I Sec 5-20 (a)	Animals	Animal a nuisance: Bond			\$500	
Part II Chapter 5 Art I Sec 5-20 (g)	Animals	Animal a nuisance: Fine		\$200		
Part II Chapter 5 Art II Sec 5-50	Animals	Impoundment: Initial Seizure and Impoundment Fee	\$30			
Part II Chapter 5 Art II Sec 5-50	Animals	Impoundment: Per Day Seizure and Impoundment Fee	\$10			
Part II Chapter 5 Art II Sec 5-50	Animals	Impoundment: Seizure and Impoundment-- Use of Tranquilizer Fee	\$20			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 5 Art II Sec 5-51 (d)	Animals	Redemption: Maximum Fine		\$500		
Part II Chapter 5 Art III Div 2 Sec 5-111 (b)	Animals	Dogs: Annual license fee for adult unaltered male or female (Note: Seniors 50% discount)	\$20			
Part II Chapter 5 Art III Div 2 Sec 5-111 (b)	Animals	Dogs: Annual license fee for adult altered male or female (Note: Seniors 50% discount)	\$10			
Part II Chapter 5 Art III Div 2 Sec 5-111 (b)	Animals	Dogs: Three (3) year license fee for adult unaltered male or female (Note: Seniors 50% discount)	\$45			
Part II Chapter 5 Art III Div 2 Sec 5-111 (b)	Animals	Dogs: Three (3) year license fee for adult altered male or female (Note: Seniors 50% discount)	\$25			
Part II Chapter 5 Art III Div 2 Sec 5-116	Animals	Dogs: Delinquent license penalty fee	\$5			
Part II Chapter 5 Art III Div 2 Sec 5-119	Animals	Dogs: Issuance of duplicate tags: Fee to Replaces lost or stolen Dog License Tag	\$5			
Part II Chapter 5 Art III Div 4 Sec 5-178 (1)	Animals	Dogs: Redemption; release: Initial Impoundment Fee; and Per Day Impoundment Fee	\$30; and \$10			
Part II Chapter 5 Art III Div 4 Sec 5-179	Animals	Dogs: Adoption in Lieu of Disposal Fee; together with spay/neuter deposit and cost of city license tag	\$10; and \$50			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 5 Art III Div 5 Sec 5-208	Animals	Dogs: Kennels: Dog Kennel Operation Annual License	\$300			
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Annual license fee for adult unaltered male or female Note: Seniors 50% discount	\$20			
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Annual license fee for adult altered male or female Note: Seniors 50% discount	\$10			
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Three (3) year license fee for adult unaltered male or female Note: Seniors 50% discount	\$45			
Part II Chapter 5 Art IV Div 2 Sec 5-276	Animals	Cats: Three (3) year license fee for adult altered male or female Note: Seniors 50% discount	\$25			
Part II Chapter 5 Art IV Div 2 Sec 5-279	Animals	Cats: Delinquent license penalty fee	\$5			
Part II Chapter 5 Art IV Div 2 Sec 5-281	Animals	Cats: Issuance of duplicate tags: Fee to Replaces lost or stolen Cat License Tag	\$5			
Part II Chapter 5 Art IV Div 3 Sec 5-307 (1)&(2)	Animals	Cats: Redemption; release: Initial Impoundment Fee; and Per Day Impoundment Fee	\$30; and \$10			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 5 Art IV Div 3 Sec 5-308	Animals	Cats: Adoption in Lieu of Disposal Fee; together with spay/neuter deposit and cost of city license tag	\$10; and \$50			
Part II Chapter 5 Art IV Div 4 Sec 5-338 (a)	Animals	Cats: Kennels: Cat Kennel Operation Annual License	\$200			
Part II Chapter 5 Art V Sec 5-372	Animals	Dog and Cat Sterilization. Sterilization or agreement and deposit required for adoption	\$50			
Part II Chapter 5 Art V Sec 5-374 (2)	Animals	Maximum Fine of Violation of Form Agreement		\$500		
Part II Chapter 5 Art V Sec 5-379	Animals	Dog and Cat Sterilization. Failure to Comply: Maximum Fine		\$500		
CHAPTER 6: AVIATION						
Part II Chapter 6 Art III Sec 6-58 (b)	Aviation			\$500		
CHAPTER 7: BUILDINGS AND BUILDING REGULATIONS						
Part II Chapter 7 Art II Sec 7-32 (a)(1)	Buildings and Building Regulations	New Construction of a Room, Addition, Building, or Structure Fee--RESIDENTIAL	\$0.17 per square feet			
Part II Chapter 7 Art II Sec 7-32 (a)(1)	Buildings and Building Regulations	New Construction of a Room, Addition, Building, or Structure Fee--COMMERCIAL	\$0.20 per square feet			
Part II Chapter 7 Art II Sec 7-32 (a)(2)	Buildings and Building Regulations	Remodel or Alteration of Existing Structure-- Construction of a Room, Addition, Building, or Structure Fee--RESIDENTIAL	\$0.17 per square feet			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 7 Art II Sec 7-32 (a)(2)	Buildings and Building Regulations	Remodel or Alteration of Existing Structure-- Construction of a Room, Addition, Building, or Structure Fee--COMMERCIAL	\$0.20 per square feet			
Part II Chapter 7 Art II Sec 7-32 (a)(3)	Buildings and Building Regulations	Construction of an accessory structure (between 200-400 Feet): Permit Fee	\$50			
Part II Chapter 7 Art II Sec 7-32 (a)(4)	Buildings and Building Regulations	Plan Check Fee for Building Plan Review	25% of the building permit fee			
Part II Chapter 7 Art II Sec 7-32 (a)(5)	Buildings and Building Regulations	Removal of Structure to Another Location Permit Fee	\$50			
Part II Chapter 7 Art II Sec 7-32 (a)(6)	Buildings and Building Regulations	Demolition Permit Fee	\$50			
Part II Chapter 7 Art II Sec 7-32 (a)(7)	Buildings and Building Regulations	Swimming Pool Permit Fee	\$60			
Part II Chapter 7 Art II Sec 7-32 (a)(8)	Buildings and Building Regulations	Driveway Permit Fee	\$50			
Part II Chapter 7 Art II Sec 7-32 (a)(9)	Buildings and Building Regulations	Minimum Permit Fee	\$20			
Part II Chapter 7 Art II Sec 7-32 (a)(11)	Buildings and Building Regulations	Reinspection made because of defective work: First Occurrence	\$25			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 7 Art II Sec 7-32 (a)(11)	Buildings and Building Regulations	Reinspection made because of defective work: Subsequent occurrence(s)	\$50			
Part II Chapter 7 Art II Sec 7-32 (a)(12)	Buildings and Building Regulations	Oklahoma Uniform Building Code Commission Permit Fee	\$4			
Part II Chapter 7 Art II Sec 7-32 (a)(12)	Buildings and Building Regulations	Permit Processing Fee	.50¢			
Part II Chapter 7 Art II Sec 7-32 Sec 114.4	Buildings and Building Regulations	Maximum Fine		\$500		
Part II Chapter 7 Art II Sec 7-32 Sec 115.3	Buildings and Building Regulations	Unlawful Continuance Minimum and Maximum Fine Amounts		\$100, \$500		
Part II Chapter 7 Art III Div 3 Sec 7-126 (a)	Buildings and Building Regulations	Electricians. Qualifications. Issuance of Certificate of Registration: Initial Electrical Contractor Fee	\$100			
Part II Chapter 7 Art III Div 3 Sec 7-126 (b)	Buildings and Building Regulations	Electricians. Qualifications. Issuance of Certificate of Registration: Annual Renewal Electrical Contractor Fee	\$75			
Part II Chapter 7 Art III Div 3 Sec 7-156 (e)	Buildings and Building Regulations	Miscellaneous Permit Fee	\$50			
Part II Chapter 7 Art III Div 3 Sec 7-160 (e)	Buildings and Building Regulations	Electrical Inspection Fees. Change of an existing Service, Single Family Residence Fee--Up to 200 amps	\$50			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 7 Art III Div 3 Sec 7-160 (e)	Buildings and Building Regulations	Electrical Inspection Fees. Change of an existing Service, Single Family Residence Fee--200 to 400 amps	\$100			
Part II Chapter 7 Art III Div 3 Sec 7-160 (e)	Buildings and Building Regulations	Electrical Inspection Fees. Change of an existing Service, Single Family Residence Fee-- 400+ amps	\$150			
Part II Chapter 7 Art III Div 3 Sec 7-160 (f)	Buildings and Building Regulations	Electrical Inspection Fees. Reinspection made because of defective work: First Occurrence	\$25			
Part II Chapter 7 Art III Div 3 Sec 7-160 (f)	Buildings and Building Regulations	Electrical Inspection Fees. Reinspection made because of defective work: Subsequent occurrence(s)	\$50			
Part II Chapter 7 Art III Div 3 Sec 7-160 (i)	Buildings and Building Regulations	Oklahoma Uniform Building Code Commission Permit Fee	\$4			
Part II Chapter 7 Art III Div 3 Sec 7-160 (i)	Buildings and Building Regulations	Permit Processing Fee	.50¢			
Part II Chapter 7 Art IV Sec 7-267 Section IFGC-106.6.2. (c)	Buildings and Building Regulations	Fuel and Gas Code. Change of existing service	\$50			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 7 Art IV Sec 7-267 Section IFGC-106.6.2. (d)	Buildings and Building Regulations	Fuel and Gas Code. Reinspacetion made because of defective work: First Occurance	\$25			
Part II Chapter 7 Art IV Sec 7-267 Section IFGC-106.6.2. (d)	Buildings and Building Regulations	Fuel and Gas Code. Reinspacetion made because of defective work: Subsequent occurance(s)	\$50			
Part II Chapter 7 Art IV Sec 7-267 Section IFGC-106.6.2. (e)	Buildings and Building Regulations	Fuel and Gas Code. Boring Fee	\$60			
Part II Chapter 7 Art IV Sec 7-267 Section IFGC-106.6.2. (g)	Buildings and Building Regulations	Oklahoma Uniform Building Code Commission Permit Fee	\$4			
Part II Chapter 7 Art IV Sec 7-267 Section IFGC-106.6.2. (g)	Buildings and Building Regulations	Permit Processing Fee	.50¢			
Part II Chapter 7 Art V Div 1 Sec 7-299	Buildings and Building Regulations	Refrigeration, Air Conditioning, and Forced Air Heating. Maximum Fine		\$500		
Part II Chapter 7 Art V Div 1 Sec 7-302 (a)	Buildings and Building Regulations	Refrigeration, Air Conditioning, and Forced Air Heating. Registration with City: Initial Contractor License Fee	\$100			
Part II Chapter 7 Art V Div 1 Sec 7-302 (b)	Buildings and Building Regulations	Refrigeration, Air Conditioning, and Forced Air Heating. Registration with City: Annual Renewal Contractor Fee	\$75			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 7 Art V Div 2 Sec 7-331(c)	Buildings and Building Regulations	Refrigeration, Air Conditioning, and Forced Air Heating. Permits and Inspections. Permits Fees: Change of existing service fee	\$25 (\$500 max)			
Part II Chapter 7 Art V Div 2 Sec 7-331(d)	Buildings and Building Regulations	Refrigeration, Air Conditioning, and Forced Air Heating. Permits and Inspections. Permits Fees: Reinspection fee because of defective work First Occurrence	\$25			
Part II Chapter 7 Art V Div 2 Sec 7-331(d)	Buildings and Building Regulations	Refrigeration, Air Conditioning, and Forced Air Heating. Permits and Inspections. Permits Fees: Reinspection fee because of defective work Subsequent Occurrence(s)	\$50			
Part II Chapter 7 Art V Div 2 Sec 7-331(f)	Buildings and Building Regulations	Refrigeration, Air Conditioning, and Forced Air Heating. Permits and Inspections. Permits Fees: New or change of existing equipment	\$20 per ton			
Part II Chapter 7 Art V Div 2 Sec 7-331(g)	Buildings and Building Regulations	Refrigeration, Air Conditioning, and Forced Air Heating. Permits and Inspections. Permits Fees: Commercial refrigeration	\$20 per HP			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 7 Art V Div 2 Sec 7-331(h)	Buildings and Building Regulations	Refrigeration, Air Conditioning, and Forced Air Heating. Permits and Inspections. Permits Fees: Chilled water-cooling system	\$20 per ton			
Part II Chapter 7 Art V Div 2 Sec 7-331(i)	Buildings and Building Regulations	Refrigeration, Air Conditioning, and Forced Air Heating. Permits and Inspections. Permits Fees: Boiler	\$20 per unit			
Part II Chapter 7 Art V Div 2 Sec 7-331(j)	Buildings and Building Regulations	Oklahoma Uniform Building Code Commission Permit Fee	\$4			
Part II Chapter 7 Art V Div 2 Sec 7-331(j)	Buildings and Building Regulations	Permit Processing Fee	.50¢			
Part II Chapter 7 Art V Div 2 Sec 7-331(k)	Buildings and Building Regulations	Miscellaneous Permit Fee	\$50			
Part II Chapter 7 Art VI Div 1 Sec 7-362(c)	Buildings and Building Regulations	Plumbing. Change of existing service fee	\$50			
-Part II Chapter 7 Art VI Div 1 Sec 7-362(d)	Buildings and Building Regulations	Plumbing. Reinspection fee because of defective work: First Occurrence	\$25			
-Part II Chapter 7 Art VI Div 1 Sec 7-362(d)	Buildings and Building Regulations	Plumbing. Reinspection fee because of defective work: Subsequent Occurrence(s)	\$50			
Part II Chapter 7 Art VI Div 1 Sec 7-362(e)	Buildings and Building Regulations	Plumbing. Boring Fee	\$50			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 7 Art VI Div 1 Sec 7-362(g)	Buildings and Building Regulations	Oklahoma Uniform Building Code Commission Permit Fee	\$4			
Part II Chapter 7 Art VI Div 1 Sec 7-362(g)	Buildings and Building Regulations	Permit Processing Fee	.50¢			
Part II Chapter 7 Art V Div 2 Sec 7-362(h)	Buildings and Building Regulations	Miscellaneous Permit Fee	\$50			
Part II Chapter 7 Art VI Div 2 Sec 7-397	Buildings and Building Regulations	Registration of Plumbers. Qualifications and Registration Fees -- Initial	\$100			
Part II Chapter 7 Art VI Div 2 Sec 7-398 (a)	Buildings and Building Regulations	Registration of Plumbers. Qualifications and Registration Fees -- Annual Renewal Fee	\$75			
Part II Chapter 7 Art VI Div 2 Sec 7-399 (b)	Buildings and Building Regulations	Registration of Plumbers. Liability Insurance Minimums				\$5,000, \$10,000, \$5,000
Part II Chapter 7 Art VII Sec 7-432	Buildings and Building Regulations	International Property Maintenance Code: Minimum and Maximum Fine Amounts		\$50, \$500		
Part II Chapter 7 Art X Sec 7-521	Buildings and Building Regulations	Fair Housing. Maximum Fine		\$500		
Part II Chapter 7 Art XIII Sec 7-612	Buildings and Building Regulations	Demolitions of Buildings: Maximum Fine		\$500		
Part II Chapter 7 Art XIII Sec 7-614 (b)	Buildings and Building Regulations	Demolitions of Buildings: License Fee	\$75			
Part II Chapter 7 Art XIII Sec 7-615	Buildings and Building Regulations	Demolitions of Buildings: Surety Bond			\$10,000	

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 7 Art XIII Sec 7-616 (b)	Buildings and Building Regulations	Demolitions of Buildings: Liability Insurance Minimums				\$50,000, \$100,000, \$50,000
Part II Chapter 7 Art XIV Sec 7-646 (a)	Buildings and Building Regulations	Storm Cellars: Annual License Fee for engaging in the business of constructing or repairing	\$75			
Part II Chapter 7 Art XIV Sec 7-646 (b)	Buildings and Building Regulations	Storm Cellars: Annual License Fee for engaging in the business of constructing or repairing -- Late Fee	\$15			
Part II Chapter 7 Art XIV Sec 7-647 (a)	Buildings and Building Regulations	Storm Cellars: Surety Bond for engaging in the business of constructing or repairing			\$2,000	
Part II Chapter 7 Art XIV Sec 7-648 (b)	Buildings and Building Regulations	Storm Cellars: Liability Insurance Minimums for engaging in the business of constructing or repairing				\$5,000, \$10,000, \$5,000
Part II Chapter 7 Art XV Div 1 Sec 7-676	Buildings and Building Regulations	Moving of Buildings: Minimum Fine		\$500		
Part II Chapter 7 Art XV Div 2 Sec 7-713	Buildings and Building Regulations	Moving of Buildings: Minimum Fine	\$25			
Part II Chapter 7 Art XV Div 2 Sec 7-713	Buildings and Building Regulations	Moving of Buildings: Permit Fee: For building up to 24 feet in width	\$50			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 7 Art XV Div 2 Sec 7-713	Buildings and Building Regulations	Moving of Buildings: Permit Fee: For building 30 feet to 32 feet in width	\$75			
Part II Chapter 7 Art XV Div 2 Sec 7-714 (b)	Buildings and Building Regulations	Moving of Buildings: Surety Bond			\$2,000	
Part II Chapter 7 Art XV Div 2 Sec 7-715 (b)	Buildings and Building Regulations	Moving of Buildings: Minimum Liability Insurance				\$5,000, \$10,000 \$5,000
Part II Chapter 7 Art XV Div 2 Sec 7-716 (c)	Buildings and Building Regulations	Moving of Buildings: Clean up Deposit Prior to Issuance	\$500			
Part II Chapter 7 Art XV Div 2 Sec 7-717	Buildings and Building Regulations	Moving of Buildings: Time Limits for Completion of Moving-- per day fee for exceeding allowable days in permit	\$10			
CHAPTER 8: BUSINESS, PERMITS, AND LICENSES						
Part II Chapter 8 Art II Sec 8-32 (c)	Business, Permits, and Licenses	Alarm Permits required. Fines tied to violation		1st conviction \$25; subsequent conviction \$100		
Part II Chapter 8 Art II Sec 8-34 (a)	Business, Permits, and Licenses	Alarm fees required: initial registration	\$25			
Part II Chapter 8 Art II Sec 8-34 (b)	Business, Permits, and Licenses	Alarm fees required: renewal license	\$15			
Part II Chapter 8 Art II Sec 8-34 (c)	Business, Permits, and Licenses	Alarm fees required: reinstatement fee	\$50			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 8 Art II Sec 8-35	Business, Permits, and Licenses	False alarms		1st conviction \$25; subsequent conviction \$100		
Part II Chapter 8 Art II Sec 8-40	Business, Permits, and Licenses	Enforcement of all other section violations		1st conviction \$25; subsequent conviction \$100		
Part II Chapter 8 Art VI Div 1 Sec 8-192	Business, Permits, and Licenses	Peddlers, Solicitors, and Itinerant Merchants: Penalty for violation		\$500		
Part II Chapter 8 Art VI Div 2 Sec 8-224	Business, Permits, and Licenses	License fee	\$3 per day; or \$15 per week; or \$50 per year			
Part II Chapter 8 Art VI Div 2 Sec 8-225 (a)	Business, Permits, and Licenses	Bond			\$2,000	
Part II Chapter 8 Art VI Div 3 Sec 8-256	Business, Permits, and Licenses	Penalty for violation		\$500		
Part II Chapter 8 Art VI Div 3 Sec 8-259	Business, Permits, and Licenses	Snow cone merchant's license	\$25			
Part II Chapter 8 Art VI Div 4 Sec 8-291	Business, Permits, and Licenses	Charitable Solicitations: Penalty for violation		\$500		
Part II Chapter 8 Art VII Sec 8-326	Business, Permits, and Licenses	Pawnbrokers: Violations penalty		\$500		
Part II Chapter 8 Art VII Sec 8-327	Business, Permits, and Licenses	Pawnbrokers: Regulatory Fee	\$50			
Part II Chapter 8 Art VII Sec 8-328 (a)	Business, Permits, and Licenses	Pawnbrokers: Bond			\$1,000	
Part II Chapter 8 Art VIII Sec 8-363	Business, Permits, and Licenses	Auctioneers: License Fee per annum; per day in lieu of per annum; per week in lieu of annum; per month in lieu of annum	\$100; \$10; \$20; \$30			
Part II Chapter 8 Art VIII Sec 8-364	Business, Permits, and Licenses	Auctioneers: Bond			\$1,000	

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 8 Art VIII Sec 8-542(1)	Business, Permits, and Licenses	Medical Marijuana Establishments	\$1,500 annual	\$200 per day		
Part II Chapter 8 Art IX Div 1 Sec 8-398	Business, Permits, and Licenses	Violations penalty		\$500		
Part II Chapter 8 Art X Div 1 Sec 8-465	Business, Permits, and Licenses	Vehicles For Hire: Violations Penalty		\$500		
Part II Chapter 8 Art X Div 2 Sec 8-505	Business, Permits, and Licenses	Vehicles For Hire: Initial License Fee; License fee for each additional vehicle	 \$25; \$10			
CHAPTER 9: CABLE COMMUNICATIONS						

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 9 Art II Div 1 Sec 9-38 (c)(1) (2)	Cable Communications	Liability and indemnification: insurance				General liability Insurance: Bodily injury per person-\$500,000. Bodily injury per occurrence - \$1,000,000. Property damage per occurrence - \$1,000,000. Property damage, aggregate - \$1,000,000. Automobile insurance: Bodily injury per person - \$500,000 Bodily injury per occurrence \$1,000,000. Property damage per occurrence - \$1,000,000.
Part II Chapter 9 Art II Div 2 Sec 9-66 (b)	Cable Communications	System Requirements: Bond			\$125,000	

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CHAPTER 10: CEMETERIES						
Part II Chapter 10 Sec 10-1	Cemeteries	Violations Penalty		\$500		
Part II Chapter 10 Sec 10-9	Cemeteries	Sale of Lots:				
		Adult Lot;	\$500;			
		Infant Lot	\$200			
Part II Chapter 10 Sec 10-11	Cemeteries	Preparation and closing of graves; fees.				
		If the City provides such services;	\$400			

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Part II Chapter 10 Sec 10-11	Cemeteries	Preparation and closing of graves; fees. Additional Tent Fee	\$100			
Part II Chapter 10 Sec 10-11	Cemeteries	Preparation and closing of graves; fees. Opening and Closing Infant Graves	\$200			
Part II Chapter 10 Sec 10-11	Cemeteries	Preparation and closing of graves; fees. Cremation burials	\$200			
Part II Chapter 10 Sec 10-11	Cemeteries	Preparation and closing of graves; fees. After 4:00PM Monday thru Friday an Overtime charge	\$250			
Part II Chapter 10 Sec 10-11	Cemeteries	fees. Overtime Charge Saturday prior to 12:00 Noon	\$500			
Part II Chapter 10 Sec 10-11	Cemeteries	Preparation and closing of graves; fees. Overtime Charges after 12:00 Noon on Saturday	\$500			
Part II Chapter 10 Sec 10-11	Cemeteries	fees. Overtime Charge for services on a nonfederal municipal holiday	\$600			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 10 Sec 10-11	Cemeteries	Preparation and closing of graves; fees. Disinterment Fee	\$800			
Part II Chapter 10 Sec 10-11	Cemeteries	Preparation and closing of graves; fees. Reinternment Fee	\$400			
Part II Chapter 10 Sec 10-11	Cemeteries	Columbarium Fees: Two Lower Rows, Per Niche, Includes Opening and Closing, and Name, Birth and Death Dates (rows C&D)	\$800 per niche			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 10 Sec 10-11	Cemeteries	Columbarium Fees: Two Upper Rows, Per Niche, Includes Opening and Closing, and Name, Birth and Death Dates (rows A&B)	\$1000 per niche			
CHAPTER 11: CIVIL EMERGENCIES						
Part II Chapter 11 Art III Sec 11-133	Civil Emergencies	911 Emergency Number: False alarm, complaint, or information: Conviction maximum fine		\$500		
CHAPTER 12: COURT						
Part II Chapter 12 Art 1 Sec 12-26	Court			\$35		
Part II Chapter 12 Art III Sec 12-55	Court	Bond of Clerk and Judge; Fees, Fines, and Forfeitures: Service of arrest warrant sheriffs' fee	\$20			
Part II Chapter 12 Art III Sec 12-66	Court	Bond of Clerk and Judge; Fees, Fines, and Forfeitures: Maximum Bail		\$1,000		

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Part II Chapter 12 Art III Sec 12-66	Court	Bond of Clerk and Judge; Fees, Fines, and Forfeitures: Maximum Cash Bond		\$1,000		
Part II Chapter 12 Art III Sec 12-67	Court	Bond of Clerk and Judge; Fees, Fines, and Forfeitures: Release on personal recognizance Maximum Bail		\$1,000		
Part II Chapter 12 Art V Sec 12-118 (a)	Court	Imprisonment; Judgments and Sentences. Enforcement of payments of fines or costs by imprisonment-- Persons unable to pay: Imprisonment Rate per day for financially able defendant	\$25			
Part II Chapter 12 Art V Sec 12-119	Court	Imprisonment; Judgments and Sentences. Municipal Court judgments and sentences Maximum Fine for deferred sentence administrative fee		\$500		

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 12 Art VI Sec 12-145	Court	Court costs and fees. Maximum Court Costs		\$30		
Part II Chapter 12 Art VI Sec 12-149 (b)	Court	Appeals. Upon conviction, the judge of the municipal court will enter an order on the docket fixing an amount in which bond may be given by the defendant, in cash or sureties for cash in an amount of not less than \$100.00 nor more than twice the amount of such fine.			\$100 or more	
Part II Chapter 12 Art VI Sec 12-152	Court	Penalty for exceeding the posted speed limit. Maximum Fine, Maximum Court Costs		\$10; and \$15		
CHAPTER 13: FIRE PREVENTION AND PROTECTION						

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 13 Art I Sec 13-3 (d)1	Fire Prevention and Protection	Operating a special amusement building fee	\$50			
Part II Chapter 13 Art I Sec 13-3(d)2	Fire Prevention and Protection	Conducting a carnival or fair fee	\$50			
Part II Chapter 13 Art I Sec 13-3(d)3	Fire Prevention and Protection	Displays in covered malls of liquid- or gas-fired equipment, open-flame or flame-producing equipment, highly combustible goods and similar items fee	\$50			
Part II Chapter 13 Art I Sec 13-3(d)4	Fire Prevention and Protection	Operating exhibits and trade shows fee	\$50			
Part II Chapter 13 Art I Sec 13-3(d)5	Fire Prevention and Protection	Manufacture, storage, handling, sale or use of any quantity of explosive, explosive material, fireworks, or pyrotechnic special effects fee	\$50			
Part II Chapter 13 Art I Sec 13-3(d)6	Fire Prevention and Protection	Open burning for any purpose other than recreational fires fee	\$25			
Part II Chapter 13 Art I Sec 13-3(d)7	Fire Prevention and Protection	Operating an air-supported temporary membrane structure, a temporary special event structure, or a tent having an area in excess of 400 square feet.	\$100 per structure			
Part II Chapter 13 Art I Sec 13-3(d)8	Fire Prevention and Protection	Installation of an automatic fire-extinguishing system fee.	\$100 plus .02¢ per sq. ft.			
Part II Chapter 13 Art I Sec 13-4 (d) 8	Fire Prevention and Protection	Modification to an automatic fire-extinguishing system fee. To include installation or modification of an automatic hood suppression system fee.	\$100			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 13 Art I Sec 13-4 (d) 8	Fire Prevention and Protection	Installation of or modification to an automatic hood suppression system fee.	\$100			
Part II Chapter 13 Art I Sec 13-4 (d) 9	Fire Prevention and Protection	Installation of fire alarm and detection systems fee.	\$100 plus .02¢ per sq. ft.			
Part II Chapter 13 Art I Sec 13-4 (d) 9	Fire Prevention and Protection	Modification to fire alarm and detection systems fee.	\$100			
Part II Chapter 13 Art I Sec 13-3(d)10	Fire Prevention and Protection	Installation of fire pumps and related fuel tanks, jockey pumps, controllers, and generators.	\$100			
Part II Chapter 13 Art I Sec 13-3(d)10	Fire Prevention and Protection	Modification to fire pumps and related fuel tanks, jockey pumps, controllers, and generators.	\$100			
Part II Chapter 13 Art I Sec 13-3(d)11	Fire Prevention and Protection	Install, alter, remove, abandon or otherwise dispose of a flammable or combustible liquid tank fee	\$100			
Part II Chapter 13 Art I Sec 13-3(d)12	Fire Prevention and Protection	Installation, modification, or removal from service of a standpipe system fee	\$100			
Part II Chapter 13 Art I Sec 13-3(e)	Fire Prevention and Protection	Operational Permit Fee	\$50			
Part II Chapter 13 Art I Sec 13-3(f)	Fire Prevention and Protection	Oklahoma Uniform Building Code Commission Permit Fee	\$4			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 13 Art I Sec 13-3(f)	Fire Prevention and Protection	Permit Processing Fee	.50¢			
Part II Chapter 13 Art I Sec 13-8(b)	Fire Prevention and Protection	False Alarm maximum fine if convicted		\$750		
Part II Chapter 13 Art II Sec 13-37 Sec 110.4 & Sec 112.4	Fire Prevention and Protection	Fire Prevention Code: Amendments of Section 109.3: Violation Penalties (\$500); Amendments of Section 111.4: Failure to Comply penalty (\$100-\$500)		Amendments of Section 109.3: Violation Penalties = \$500 Amendments of Section 111.4: Failure to Comply penalty = between \$100 and \$500		
Part II Chapter 13 Art IV Sec 13-139	Fire Prevention and Protection	Fireworks Display Permit Fee	\$100 per site			
Part II Chapter 13 Art IV Sec 13-139	Fire Prevention and Protection	Fireworks Display Permit General Liability Insurance Policy				\$1,000,000
Part II Chapter 13 Art IV Sec 13-139	Fire Prevention and Protection	Oklahoma Uniform Building Code Commission Permit Fee	\$4			
Part II Chapter 13 Art IV Sec 13-139	Fire Prevention and Protection	Permit Processing Fee	.50¢			
CHAPTER 14: FLOODS						

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 14 Art II Div 2 Sec 14-70 (1)	Floods	Floodplain management fee schedule: Notice of Intent Fee	\$25			
Part II Chapter 14 Art II Div 2 Sec 14-70 (2)	Floods	Floodplain management fee schedule: Floodplain Development Permit Application Review	\$100			
Part II Chapter 14 Art II Div 2 Sec 14-70 (3)	Floods	Floodplain management fee schedule: Floodplain Development Permit Fee	\$25			
Part II Chapter 14 Art II Div 2 Sec 14-70 (4)	Floods	Floodplain management fee schedule: Inspection Fee	\$25			
Part II Chapter 14 Art II Div 2 Sec 14-71	Floods	Maximum Penalty for each conviction of noncompliance		\$500		
CHAPTER 15: HEALTH & SANITATION						
Part II Chapter 15 Art 1 Sec 15-2 (b)	Health & Sanitation	Food Service Sanitation: Maximum Penalty for Violation and Conviction		\$500		
Part II Chapter 15 Art II Div 1 Sec 15-32	Health & Sanitation	Ambulances: Maximum Penalty for Violation and Conviction		\$500		

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
						\$100,000 for injuries to or death of any one person arising out of any one accident; \$300,000 for injuries to or death for more than one person arising out of any one accident; \$100,000 for damages to property arising from any one accident
Part II Chapter 15 Art II Div 1 Sec 15-37 (b)	Health & Sanitation	Ambulances: Minimum Insurance Per Vehicle				
		Emergency Calls:				
Part II Chapter 15 Art II Div 1 Sec 15-58 (b)	Health & Sanitation	Maximum Penalty		\$500		
		Emergency Calls:				
Part II Chapter 15 Art II Div 1 Sec 15-58 (c)	Health & Sanitation	Maximum Penalty		\$500		
Part II Chapter 15 Art II Div 2 Sec 15-90	Health & Sanitation	Annual License Fee to Engage in Ambulance Business	\$25			
		Sprayers and Exterminators:				
Part II Chapter 15 Art III Sec 15-122 (a)	Health & Sanitation	Annual License Fee	\$25			
CHAPTER 16: LAKES						
Part II Chapter 16 Art II Div 1 Sec 16-27	Lakes	Combination Fishing and Boating Annual Permit	\$45			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 16 Art II Div 4 Sec 16-117 (a)	Lakes	Fishing: Annual License Fee	\$20			
Part II Chapter 16 Art II Div 4 Sec 16-117 (a)	Lakes	Fishing: Daily License Fee	\$3			
Part II Chapter 16 Art II Div 4 Sec 16-117 (g)	Lakes	Fishing: Portion of License Fee May Be Kept By Retail Outfits Other Than The City	\$1			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 16 Art II Div 4 Sec 16-118 (b)	Lakes	Fishing: Maximum Penalty Imposed On Violation of Kind Of Fish Taken Section		\$500		
Part II Chapter 16 Art II Div 4 Sec 16-121 (a)	Lakes	Fishing: Maximum Penalty Imposed On Violation of Fishing In Connecting Channel Subsection;		\$500		
Part II Chapter 16 Art II Div 4 Sec 16-121 (b)	Lakes	Fishing: Maximum Penalty Imposed On Violation of Number of Fish Taken Subsection		\$500		
Part II Chapter 16 Art II Div 5 SubDiv I Sec 16-151 (c)	Lakes	Hunting: Penalty for Use of Motor-Driven Vehicle in Game Refuge		\$100		
Part II Chapter 16 Art II Div 5 SubDiv I Sec 16-153 (d)	Lakes	Hunting: Seasonal License Fee Dove, Quail, Squirrel, or Rabbit Hunting	\$30			
Part II Chapter 16 Art II Div 5 SubDiv I Sec 16-153 (d)	Lakes	Hunting: Daily License Fee Per Dove, Quail, Squirrel, or Rabbit Hunting Season	\$5			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 16 Art II Div 5 SubDiv II Sec 16-183 (a)	Lakes	Hunting: Annual Hunting License Upon the Waters or Lands Owned or Controlled By City Surrounding Twin Lakes No. 1 and 2	\$30			
Part II Chapter 16 Art II Div 5 SubDiv II Sec 16-183 (a)	Lakes	Hunting: Daily Hunting License Upon the Waters or Lands Owned or Controlled By City Surrounding Twin Lakes No. 1 and 2	\$5			
Part II Chapter 16 Art II Div 6 SubDiv II Sec 16-253 (a)	Lakes	Recreator's Annual License to Operate Watercraft	\$30			
Part II Chapter 16 Art II Div 6 SubDiv II Sec 16-253 (a)	Lakes	Recreator's Daily License to Operate Watercraft	\$7			
Part II Chapter 16 Art II Div 6 SubDiv II Sec 16-253 (b)	Lakes	Dealers' Annual License to Operate Watercraft	\$25			
Part II Chapter 16 Art II Div 7 Sec 16-288 (a)	Lakes	Camping: Daily Fee	\$8			
Part II Chapter 16 Art II Div 8 Sec 16-321	Lakes	Lot Rentals: Annual Rental/Lease Fee Per Lake Lot	\$600			
Part II Chapter 16 Art II Div 8 Sec 16-322 (b)	Lakes	Lot Rentals: Transfer Fee	\$1,000			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 16 Art II Div 8 Sec 16-326	Lakes	Lot Rentals: Early Cancellation of Lease Fee	\$1,000			
Part II Chapter 16 Art II Div 8 Sec 16-327	Lakes	Lot Rentals: Renewal of Lease After Cancellation Fee	\$75			
Part II Chapter 16 Art II Div 8 Sec 16-328	Lakes	Inspection Fee of Lake Lot Septic System	\$75			
CHAPTER 18: MANUFACTURED HOMES						
Part II Chapter 18 Art 1 Sec 18-2	Manufactured Homes	Maximum Penalty For Each Offense of This Chapter		\$500		
Part II Chapter 18 Art V Div 2 Sec 18-154	Manufactured Homes	Travel Trailer/RV Park.	\$30			
Part II Chapter 18 Art V Div 2 Sec 18-154	Manufactured Homes	Mobile/Manufactured Home or Travel Trailer/RV Park. Maximum Initial License Fee for each space over 30 spaces	\$3			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
CHAPTER 19: MOTOR VEHICLES AND TRAFFIC						
Part II Chapter 19 Art I Sec 19-4 (a) (b)	Motor Vehicles and Traffic	Valid License Required. Maximum Fine		\$100		
Part II Chapter 19 Art I Sec 19-4 (a) (b)	Motor Vehicles and Traffic	Valid License Required. Maximum Fine for Driving with suspended, cancelled, denied, or revoked license: Maximum Fine - First Offense		\$100		
Part II Chapter 19 Art I Sec 19-4 (a) (b)	Motor Vehicles and Traffic	Valid License Required. Maximum Fine for Driving with suspended, cancelled, denied, or revoked license: Maximum Fine - Subsequent Offense		\$500		
Part II Chapter 19 Art II Div 1 Sec 19-42 (a)	Motor Vehicles and Traffic	Administration and Enforcement. Maximum Fine		\$100		
Part II Chapter 19 Art II Div 1 Sec 19-51 (a)	Motor Vehicles and Traffic	Motor Vehicle Impoundment Fee	\$100			
Part II Chapter 19 Art IV Sec 19-178 (c)	Motor Vehicles and Traffic	Driving under the influence of intoxicating liquor or drugs Maximum Fine		\$500		
Part II Chapter 19 Art IV Sec 19-178.5	Motor Vehicles and Traffic	Driving while impaired Maximum Fine		\$200		

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 19 Art IV Sec 19-182 (e)	Motor Vehicles and Traffic	Use of safety belts: Fine and court cost		\$10, \$15		
Part II Chapter 19 Art IV Sec 19-183 (f)	Motor Vehicles and Traffic	Child passenger restraint system: Fine and court cost		\$10, \$15		
Part II Chapter 19 Art VI Sec 19-251	Motor Vehicles and Traffic	Accidents. Maximum Fine		\$200		
Part II Chapter 19 Art XI Div 2 Subdiv I Sec 19-451 (b)	Motor Vehicles and Traffic	Parking on posted private property: Maximum Fine		\$20 plus removal charges incurred		
Part II Chapter 19 Art XI Div 2 Subdiv I Sec 19-453 (c) (d)	Motor Vehicles and Traffic	Central business district. Illegal parking fine		\$5		
Part II Chapter 19 Art XI Div 4 Sec 19-696 (d)	Motor Vehicles and Traffic	Heavy Vehicles. Load limits on bridges: Maximum Fine		\$200		
CHAPTER 20: OFFENSES AND MISC. PROVISIONS						
Part II Chapter 20 Art I Sec 20-7 (b)	Offenses and Miscellaneous Provisions	Maximum Penalty For Removing, Destroying, or Defacing Decorations		\$500		
Part II Chapter 20 Art I Sec 20-8 (c)	Offenses and Miscellaneous Provisions	Assault, Battery: Use of Taser Fee	\$30			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 20 Art I Sec 20-9	Offenses and Miscellaneous Provisions	Blasphemy: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-10 (c)	Offenses and Miscellaneous Provisions	Fortunetelling: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-11 (b)	Offenses and Miscellaneous Provisions	Disorderly House: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-12 (b)	Offenses and Miscellaneous Provisions	Consuming or Inhaling Intoxicants in Public Places: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-13 (b)	Offenses and Miscellaneous Provisions	Abandoned Refrigerators, Iceboxes, or Airtight Containers: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-14 (d)	Offenses and Miscellaneous Provisions	Disturbing Assemblies: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-15	Offenses and Miscellaneous Provisions	Disturbance by loud or unusual noise or abusive, violent, profane, or threatening language: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-16 (b)	Offenses and Miscellaneous Provisions	Insulting Displays: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-17 (a)	Offenses and Miscellaneous Provisions	Fraud to Obtain Food, Lodging, or Services: Maximum Penalty under this Subsection		\$500		

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 20 Art I Sec 20-17 (b)	Offenses and Miscellaneous Provisions	Fraud to Obtain Food, Lodging, or Services: Maximum Penalty under this Subsection		\$500		
Part II Chapter 20 Art I Sec 20-18 (d)	Offenses and Miscellaneous Provisions	Petit Larceny: Maximum Penalty upon Conviction		\$500		
Part II Chapter 20 Art I Sec 20-21 (e)	Offenses and Miscellaneous Provisions	Shoplifting: Range of fines		\$50 to \$200		
Part II Chapter 20 Art I Sec 20-22 (b)	Offenses and Miscellaneous Provisions	Malicious Mischief: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-24 (b)	Offenses and Miscellaneous Provisions	Taking or Withholding Possession of City Property: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-26 (b)	Offenses and Miscellaneous Provisions	Radio and Television Interference: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-27 (c)	Offenses and Miscellaneous Provisions	Trespassing: Maximum Penalty		\$500		
Part II Chapter 20 Art 1 Sec 20-30 (b)	Offenses and Miscellaneous Provisions	Barbed Wire Fence: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-31 (b)	Offenses and Miscellaneous Provisions	Electrical Fences: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-32 (d) (1)	Offenses and Miscellaneous Provisions	Possession of Marijuana: Maximum Penalty for First Violation		\$100		

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 20 Art I Sec 20-32 (d) (2)	Offenses and Miscellaneous Provisions	Possession of Marijuana: Maximum Penalty for Second and Subsequent Violation		\$500		
Part II Chapter 20 Art I Sec 20-33 (b)	Offenses and Miscellaneous Provisions	Indecent Exposure: Maximum Penalty		\$500		
Part II Chapter 20 Art I Sec 20-34 (b)	Offenses and Miscellaneous Provisions	Abuse of City Tennis Courts: Maximum Fine		\$500		
Part II Chapter 20 Art I Sec 20-35 (c)	Offenses and Miscellaneous Provisions	Uses of Airport Trail: Maximum Fine		\$500		
Part II Chapter 20 Art I Sec 20-36 (c)	Offenses and Miscellaneous Provisions	Possession of Laser Pointing Devices: Maximum Fine		\$500		
Part II Chapter 20 Art I Sec 20-39 (e)	Offenses and Miscellaneous Provisions	Resisting a Police Officer: Use of Taser Fee	\$30			
Part II Chapter 20 Art II Sec 20-68 (b)	Offenses and Miscellaneous Provisions	Discharging Firearms in Public Place: Maximum Fine		\$500		
Part II Chapter 20 Art III Div 1 Sec 20-98 (e)	Offenses and Miscellaneous Provisions	Unlawful Curfew: Maximum Fine		\$500		
Part II Chapter 20 Art III Div 1 Sec 20-99 (b)	Offenses and Miscellaneous Provisions	Leaving Child in Vehicle: Maximum Fine		\$500		
Part II Chapter 20 Art III Div 1 Sec 20-100 (b)	Offenses and Miscellaneous Provisions	Allowing or Encouraging Minor to Commit Offenses: Maximum Fine		\$500		

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Part II Chapter 20 Art III Div 1 Sec 20-101 (b)	Offenses and Miscellaneous Provisions	Parental Responsibility; Failure to Control: Maximum Fine		\$500		
Part II Chapter 20 Art III Div 1 Sec 20-102 (b)	Offenses and Miscellaneous Provisions	Commission of Crime in Presence of Minor: Maximum Fine		\$500		
Part II Chapter 20 Art III Div 1 Sec 20-103 (b)	Offenses and Miscellaneous Provisions	Permitting Crimes or Disorderliness on Premises: Maximum Fine		\$500		
Part II Chapter 20 Art III Div 1 Sec 20-105 (c)	Offenses and Miscellaneous Provisions	Truancy: Maximum Fine For Parent		\$500		
Part II Chapter 20 Art III Div 1 Sec 20-105 (d)	Offenses and Miscellaneous Provisions	Truancy: Maximum Fine First Offense; Second Offense; and Subsequent Offense		\$50; \$100; \$500		
Part II Chapter 20 Art III Div 2 Sec 20-133 (e)	Offenses and Miscellaneous Provisions	Tobacco Products. Furnishing Prohibited: Maximum Fine First Offense; and Second and Subsequent Offense		\$100; \$200		
Part II Chapter 20 Art III Div 2 Sec 20-134 (b)	Offenses and Miscellaneous Provisions	Tobacco Products. Falsifying Proof of Age: Maximum Fine First Offense; and Second and Subsequent Offense		\$100; \$200		

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Part II Chapter 20 Art III Div 2 Sec 20-135 (c)	Offenses and Miscellaneous Provisions	Tobacco Products. Distribution of Samples: Maximum Fine First Offense; and Second and Subsequent Offense		\$100; \$200		
Part II Chapter 20 Art III Div 2 Sec 20-136 (b)	Offenses and Miscellaneous Provisions	Tobacco Products. Sale of Cigarettes in Non-original, Sealed, Packaging: Maximum Fine		\$200		
Part II Chapter 20 Art III Div 2 Sec 20-137 (b)	Offenses and Miscellaneous Provisions	Tobacco Products. Tobacco Vending Machines: Fine First Offense; and Second and Subsequent Offense		\$100, \$200		
Part II Chapter 20 Art III Div 2 Sec 20-138 (b)	Offenses and Miscellaneous Provisions	Tobacco Products. Display of Tobacco Age Restriction Signage: Fine For Each Day of Violation		\$100		
Part II Chapter 20 Art III Div 2 Sec 20-139 (c)	Offenses and Miscellaneous Provisions	Tobacco Products. Public Access to Tobacco Products: Fine First Offense; and Second and Subsequent Offense		\$100, \$200		
Part II Chapter 20 Art III Div 2 Sec 20-140	Offenses and Miscellaneous Provisions	Tobacco Products. Tobacco Paraphernalia: Fine		\$100		

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Part II Chapter 20 Art III Div 3 Sec 20-162 (f)	Offenses and Miscellaneous Provisions	Consumption of Alcoholic Beverages By Minors. Hosting, Permitting, or Allowing a Party, Gathering or Event Where Minors are Consuming Alcohol: Maximum Fine		\$500		
Part II Chapter 20 Art IV Div 1 Sec 20-169	Offenses and Miscellaneous Provisions	Nuisances. Maintaining or Permitting Nuisances: Maximum Fine		\$500		
Part II Chapter 20 Art IV Div 1 Sec 20-172 (d)	Offenses and Miscellaneous Provisions	Nuisances. Loud Sound from Amplification Systems in Motor Vehicle: Maximum Fine		\$500		
Part II Chapter 20 Art IV Div 1 Sec 20-173 (d)	Offenses and Miscellaneous Provisions	Nuisances. Loud Sound from Amplification Systems in Private Residences: Maximum Fine		\$500		
Part II Chapter 20 Art IV Div 2 Sec 20-202 (j)	Offenses and Miscellaneous Provisions	Accumulation of Trash and Weeds. Health Nuisances: Maximum Fine		\$200		
Part II Chapter 20 Art V Sec 20-240 (c)	Offenses and Miscellaneous Provisions	Graffiti. Application Prohibited: Maximum Fine		\$500		
Part II Chapter 20 Art V Sec 20-242 (e)	Offenses and Miscellaneous Provisions	Graffiti. Sale of Spray Paint to Minors: Maximum Fine		\$500		

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Part II Chapter 20 Art V Sec 20-243 (c)	Offenses and Miscellaneous Provisions	Prohibitions on Spray Paint Containers and Broad-tipped Indelible Markers: Maximum Fine		\$500		
CHAPTER 21: PARKS & RECREATION						
Part II Chapter 21 Art I Sec 21-1	Parks & Recreation	Maximum Fine		\$500		
Part II Chapter 21 Art I Sec 21-9 (c)	Parks & Recreation	Vendors in recreational areas: Daily Fee	\$2.50			
Part II Chapter 21 Art I Sec 21-9 (c)	Parks & Recreation	Vendors in recreational areas: Specific Event Fee	\$7.50			
Part II Chapter 21 Art I Sec 21-9 (e)	Parks & Recreation	Vendors in recreational areas: Maximum Fine		\$500		
Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Youth/ Senior Daily Admission Fee	\$5			
Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Adult Daily Admission Fee	\$6			
Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Non Swimmer Admission Fee	\$2			

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Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Youth/Senior Twilight Admission Fee	\$2.50			
Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Adult Twilight Admission Fee	\$3			
Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Non Swimmer Twilight Fee	\$1			
Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Individual Season Pass	\$50			
Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Senior Season Pass	\$40			
Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Family Season Pass	\$150			
Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Per Hour Private Rental Up to 100 people; 101 to 225 people; 226 or more people	\$220; \$250; \$275;			
Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Per Hour Private Rental for Season Pass Holder	\$175			
Part II Chapter 21 Art I Sec 21-25 (1)	Parks & Recreation	Shawnee Splash: Party Space Rental	\$110 to \$185			
Part II Chapter 21 Art I Sec 21-25 (2)	Parks & Recreation	Municipal Gym Rental Fees: Per Hour Gym Space	\$35			

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Part II Chapter 21 Art I Sec 21-25 (2)	Parks & Recreation	Municipal Gym Rental Fees: Admission Open Gym	\$3			
Part II Chapter 21 Art I Sec 21-25 (3)	Parks & Recreation	Community Center Rental Fees: Per Hour Rental after 5:00 pm	\$35			
Part II Chapter 21 Art I Sec 21-25 (3)	Parks & Recreation	Community Center Rental Fees: Per Hour Rental Monday thru Friday 8:00 am to 5:00 pm	\$25			
Part II Chapter 21 Art I Sec 21-25 (3)	Parks & Recreation	Community Center Rental Fees: Daily Rate (8 hours) + Rate per each additional hour up to 9:00pm	\$200 Daily Rate; \$10 per additional hour			
Part II Chapter 21 Art I Sec 21-25 (3)	Parks & Recreation	Community Center Rental Fees: Refundable Cleaning Deposit	\$25			
Part II Chapter 21 Art I Sec 21-25 (4)	Parks & Recreation	Park Pavilion Rental per 3 Hour Time Slot	\$25			
CHAPTER 22: PLANNING AND DEVELOPMENT						
Part II Chapter 22 Art I Sec 22-2	Planning and Development	Fee-in-lieu of providing detention facilities	\$0.15 per square foot			
Part II Chapter 22 Art I Sec 22-3	Planning and Development	Land Disturbance Permit	\$50.00 permit fee; \$50.00 permit renewal fee; \$35.00 re-inspection fee			
Part II Chapter 22 Art VIII Sec 22-728 (2)(c)(2)	Planning and Development	Fee for Submission of an Application to amend the Comprehensive Plan	\$370 application fee; plus an additional \$6 per property owner to be notified			
Part II Chapter 22 Art IX Sec 22-750	Planning and Development	Application Fee	\$50.00			

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CHAPTER 23: SOLID WASTE						
Part II Chapter 23 Art II Sec 23-38 (a)	Solid Waste	Once a week residential curbside solid waste collection				
		Type of Service	Monthly Rate			
		Small Polycart (65 gallon)	\$18.54			
		Large Polycart (95 gallon)	\$23.36			
		Additional Polycart (95 gallon)	\$11.79			
		Solid Waste Service Only	\$23.36			
Part II Chapter 23 Art II Sec 23-38 (c)	Solid Waste	Multifamily Dwelling Monthly Rate / Unit	\$5			
Part II Chapter 23 Art II Sec 23-38 (f)	Solid Waste	Minimum deposit for garbage service from City	\$20.00			
Part II Chapter 23 Art II Sec 23-38 (g)	Solid Waste	Public Safety Fee	\$1.65			
Part II Chapter 23 Art II Sec 23-40	Solid Waste	Disposal of household hazardous waste; rates	Not included in this Schedule; See Code Sec 23-40			
Part II Chapter 23 Art III Sec 23-67 (b)	Solid Waste	City Dump; Sanitary Landfill: Fee per cubic yard	\$0.75			
CHAPTER 24: STREETS AND SIDEWALKS						
Part II Chapter 24 Art I Sec 24-1	Streets and Sidewalks	Maximum Fine		\$500		
Part II Chapter 24 Art I Sec 24-2 (a)	Streets and Sidewalks	Street Paving or Improvement Work Bond			\$5,000	
Part II Chapter 24 Art I Sec 24-2 (b)	Streets and Sidewalks	Street Paving or Improvement Work Liability				\$100,000, \$300,000, \$100,000

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Part II Chapter 24 Art II Sec 24-46 (a)	Streets and Sidewalks	Permit to Construct or Repair Fee				
Part II Chapter 24 Art III Div 2 Sec 24-114 (e)	Streets and Sidewalks	Administrative Fee	\$10			
		If a curb is cut into, a fee for cutting or removing a curbing exceeding 20 feet shall be \$1.00 per foot for each additional foot in excess of 20 feet.				
Part II Chapter 24 Art III Div 2 Sec 24-114 (e)	Streets and Sidewalks		\$20			
Part II Chapter 24 Art III Div 2 Sec 24-115	Streets and Sidewalks	Permit Renewal Fee	\$1			
		Excavations:				
Part II Chapter 24 Art IV Div 1 Sec 24-146	Streets and Sidewalks	Maximum Fine	\$10			
		Excavation:				
Part II Chapter 24 Art IV Div 1 Sec 24-147	Streets and Sidewalks	Bond		\$500	\$2,000	
		Excavations:				
Part II Chapter 24 Art IV Div 1 Sec 24-148 (b)	Streets and Sidewalks	liability Insurance Coverage				\$5,000, \$10,000, \$5,000
		Streets:				
Part II Chapter 24 Art IV Div 2 Sec 24-177 (b)	Streets and Sidewalks	Cut Fee	\$60			
CHAPTER 25: TAXATION						
		Failure or Refusal to Pay or Fraudulent Returns under this Section:				
Part II Chapter 25 Art II Div 1 Sec 25-35	Taxation	Maximum Fine		\$500		
		Failure or Refusal to Pay or Fraudulent Returns under this Section:				
Part II Chapter 25 Art III Div 1 Sec 25-162	Taxation	Maximum Fine		\$500		

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CHAPTER 26: UTILITIES						
CHAPTER 26 ARTICLE I GENERAL						
Part II Chapter 26 Art I Sec 26-1 (c) and (d)	Utilities	Investor Owned Utilities	Franchise Tax + Current Sales Tax			
CHAPTER 26 ARTICLE II WATER and SEWER						

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 26 Art II Sec 26-26 (a)	Utilities	Water Rates: The minimum charge for water used by consumers inside the city limits:				
		RESIDENTIAL:				
		Number of Gallons	Monthly Rate Per Thousand Gallons			
		0—1,000	\$24.94			
		1,001—4,000	\$4.69			
		4,001—1,000,000	\$4.80			
		1,000,001—2,000,000	\$4.94			
		More than 2,000,000	\$5.05			
	Utilities	Water Rates: The minimum charge for water used by consumers inside city limits:				
		COMMERCIAL:				
		Number of Gallons	Monthly Rate Per Thousand Gallons			
		0—1,000	\$31.18			
		1,001—4,000	\$4.69			
		4,001—1,000,000	\$4.80			
		1,000,001—2,000,000	\$4.94			
		More than 2,000,000	\$5.05			
		Water Rates: The minimum charge for water used by consumers inside city limits:				
		INSIDE COMPOUND METER:				
		Number of Gallons	Monthly Rate Per Thousand Gallons			

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		0—1,000	\$31.18			
		1,001—4,000	\$4.69			
		4,001—1,000,000	\$4.80			
		1,000,001—2,000,000	\$4.94			
		More than 2,000,000	\$5.05			

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Part II Chapter 26 Art II Sec 26-26 (b)	Utilities	Water Rates: The rate to be charged for furnishing water for consumption outside the city limits:				
		RESIDENTIAL				
		Number of Gallons	Monthly Rate Per Thousand Gallons			
		0—1,000	\$28.99			
		1,001—4,000	\$7.04			
		4,001—1,000,000	\$7.22			
		1,000,001—2,000,000	\$7.40			
		More than 2,000,000	\$7.58			
		Water Rates: The rate to be charged for furnishing water for consumption outside the limits:				
		COMMERCIAL				
		Number of Gallons	Monthly Rate Per Thousand Gallons			
		0—1,000	\$36.25			
		1,001—4,000	\$7.04			
		4,001—1,000,000	\$7.22			
		1,000,001—2,000,000	\$7.40			
		More than 2,000,000	\$7.58			

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Part II Chapter 26 Art II Sec 26-27 (b)	Utilities	Sewer Rates: The charge for sanitary sewer use by consumers inside the city limits: RESIDENTIAL				
		Number of Gallons	Monthly Rate Per Thousand Gallons			
		0—1,000	\$16.26			
		Over 1,000	\$3.60			
		Sewer Rates: The charge for sanitary sewer use by consumers				
		Number of Gallons	Monthly Rate Per Thousand Gallons			
		0—1,000	\$20.35			
		Over 1,000	\$3.50			
Part II Chapter 26 Art II Sec 26-27 (c)	Utilities	The rate for furnishing water for consumption outside the city				
		Number of Gallons	Monthly Rate Per Thousand Gallons			
		0—1,000	\$24.41			
		Over 1,000	\$5.24			

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		The rate for furnishing water for consumption outside the city				
		Number of Gallons	Monthly Rate Per Thousand Gallons			
		0—1,000	\$30.50			
		Over 1,000	\$5.24			
Part II Chapter 26 Art II Sec 26-27 (c)	Utilities	Septic Hauler Permit Fee	\$100/Truck			
Part II Chapter 26 Art II Sec 26-28 (a), (b) 1	Utilities	Industrial Pretreatment Fees	RESERVED			
Part II Chapter 26 Art II Sec 26-28 (a), (b) 2	Utilities	Industrial Pretreatment Fees	RESERVED			
Part II Chapter 26 Art II Sec 26-28 (a), (b) 3	Utilities	Industrial Pretreatment Fees	RESERVED			
Part II Chapter 26 Art II Sec 26-28 (a), (b) 4	Utilities	Industrial Pretreatment Fees	RESERVED			
Part II Chapter 26 Art II Sec 26-28 (a), (b) 5	Utilities	Industrial Pretreatment Fees	RESERVED			
Part II Chapter 26 Art II Sec 26-28 (a), (b) 6	Utilities	Industrial Pretreatment Fees	RESERVED			

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Part II Chapter 26 Art II Sec 26-28 (a), (b) 7	Utilities	Industrial Pretreatment Fees	RESERVED			
		(Metered Users) User Charge - Treatment of Domestic Wastewater	Refer to Code			
Part II Chapter 26 Art II Sec 26-29 (a) (b)	Utilities					
		(Non-Metered Users) User Charge - Treatment of Domestic Wastewater	Refer to Code			
Part II Chapter 26 Art II Sec 26-29 (a) (b)	Utilities					
Part II Chapter 26 Art II Sec 26-29 (c)	Utilities	Excessive Strength Charges	Refer to Code			
Part II Chapter 26 Art II Sec 26-29 (e)	Utilities	Toxic Pollutant Charges	Refer to Code			
Part II Chapter 26 Art II Sec 26-29 (g)	Utilities	Charges for Extraneous Flows	Refer to Code			
CHAPTER 26 ARTICLE III WATER						
		Furnishing to other premises:				
Part II Chapter 26 Art III Div 1 Sec 26-59	Utilities	Resetting the Meter Fee	\$25			
		Water--Drought Management Plans:				
Part II Chapter 26 Art III Div 1 Sec 26-67 (d) (1)	Utilities	<u>Fines:</u> 1st Violation;		Warning		
		Water--Drought Management Plans:				
Part II Chapter 26 Art III Div 1 Sec 26-67 (d) (2)	Utilities	<u>Fines:</u> 2nd Violation;		\$150 plus costs		

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Part II Chapter 26 Art III Div 1 Sec 26-67 (d) (3)	Utilities	Water--Drought Management Plans: Fines: 3rd Violation;		\$250 plus costs		
Part II Chapter 26 Art III Div 1 Sec 26-67 (d) (4)	Utilities	Water--Drought Management Plans: Fines: 4th and Subsequent Violations		\$500 plus costs		
Part II Chapter 26 Art III Div 1 Sec 26-70 (a)	Utilities	Failure to Repair Water Leak: Maximum Fine		\$150		
Part II Chapter 26 Art III Div 1 Sec 26-70 (a)	Utilities	Failure to Repair Water Leak: Subsequent Fine for each day		\$25		
Part II Chapter 26 Art III Div 1 Sec 26-71 (a) (2)	Utilities	Individual Water Well: Permit Fee	\$100			
Part II Chapter 26 Art III Div 1 Sec 26-72	Utilities	Fire hydrant meter for bulk water purchase: Refundable Deposit	\$1,100			
Part II Chapter 26 Art III Div 1 Sec 26-97	Utilities	Water Service Tapping Fee: Meter Size of 5/8" or 3/4"	\$300			
Part II Chapter 26 Art III Div 1 Sec 26-97	Utilities	Water Service Tapping Fee: Meter Size of 1/2" or 3/4"	\$350			
Part II Chapter 26 Art III Div 1 Sec 26-97	Utilities	Water Service Tapping Fee: Meter Size of 1.0" and over	\$450			
Part II Chapter 26 Art III Div 1 Sec 26-104	Utilities	Filling Swimming Pools	Refer to Code			
Part II Chapter 26 Art III Div 1 Sec 26-132 (a)	Utilities	Water Service Cash Deposit - Residential	\$75			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 26 Art III Div 1 Sec 26-133 (a)	Utilities	Water Service Cash Deposit - Commercial	Refer to Code			
Part II Chapter 26 Art III Div 1 Sec 26-134	Utilities	Water Meter Deposit	\$200			
Part II Chapter 26 Art III Div 1 Sec 26-135 (b)	Utilities	Temporary Service Charge	\$25			
Part II Chapter 26 Art III Div 1 Sec 26-137	Utilities	Utility Deposit Amount Increase	Refer to Code			
Part II Chapter 26 Art III Div 1 Sec 26-171	Utilities	Water Meter Testing	Refer to Code			
Part II Chapter 26 Art III Div 1 Sec 26-202	Utilities	Late Payment Penalty	10 % of bill, minimum \$1.25			
Part II Chapter 26 Art III Div 2 Sec 26-101(c)	Utilities	Transfer of Service Fee	\$25			
Part II Chapter 26 Art III Div 2 Sec 26-132(a)	Utilities	Water Service Cash Deposit - Residential	\$75			
Part II Chapter 26 Art III Div 2 Sec 26-132(c)	Utilities	Processing Fee	\$25			
Part II Chapter 26 Art III Div 2 Sec 26-173	Utilities	Meter Maintenance Fees				
		Residential	\$6 per month			
		Commercial				
		Meter Size	Rate Per Month			
		3/4" Meter	\$6			
		5/8" Meter	\$6			
		1" Meter	\$6			
		1-1/2" Meter	\$7			
		2" Meter	\$9			
		3" Meter	\$13			
		4" Meter	\$17			
		5" Meter	\$21			
		6" Meter	\$25			
		8" Meter	\$34			
Part II Chapter 26 Art III Div 2 Sec 26-174	Utilities	Public Safety Fee	\$1.65			
		Removal, Plugging, Locking, and Resetting of City Water Meters:				
Part II Chapter 26 Art III Div 4 Sec 26-231 (c)	Utilities	Fee	\$75			
Part II Chapter 26 Art III Div 4 Sec 26-231 (d)	Utilities	Administration Fee for Process of Disconnecting	\$50			
Part II Chapter 26 Art III Div 4 Sec 26-231(e)	Utilities	Rescheduling Fee	\$25			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 26 Art III Div 4 Sec 26-231(f)	Utilities	Cutoff Notice Fee	\$5			
Part II Chapter 26 Art III Div 4 Sec 26-231(g)	Utilities	After-Hours Connection Service Fee	\$50			
Part II Chapter 26 Art III Div 4 Sec 26-233	Utilities	Dishonored Check Fee	\$35			
		Sewers:				
Part II Chapter 26 Art IV Div 1 Sec 26-264	Utilities	Maximum Fine		\$1,000		
Part II Chapter 26 Art IV Div 1 Sec 26-265	Utilities			\$500		
Part II Chapter 26 Art IV Div 1 Sec 26-266 (h)	Utilities			\$1,000		
Part II Chapter 26 Art IV Div 1 Sec 26-271 (c)	Utilities	Fees for dumping Septage (section 26-28)	RESERVED			
Part II Chapter 26 Art IV Div 1 Sec 26-272 (f)	Utilities	Sewer connection. Wastewater tap fee: 4 inch pipe	\$375			
Part II Chapter 26 Art IV Div 1 Sec 26-272 (f)	Utilities	Sewer connection. Wastewater tap fee: 6 inch pipe	\$500			
Part II Chapter 26 Art IV Div 1 Sec 26-272 (f)	Utilities	Sewer connection. Wastewater tap fee: 8 inch pipe	\$1,000			
Part II Chapter 26 Art V Sec 26-437 (3)	Utilities	Change of Existing Service Fee:	\$20			
Part II Chapter 26 Art V Sec 26-437 (4)	Utilities	Reinspection Fee: First Occurrence	\$25			
Part II Chapter 26 Art V Sec 26-437 (4)	Utilities	Reinspection Fee: Subsequent Occurrences	\$50			
Ordinance Pending	Utilities	Fee: Field Charge to turn on Domestic Water and No Adult Present	\$25			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Ordinance Pending	Utilities	Fee: Field Charge For Seconds Trip to turn on Domestic Water and No Adult Present	\$25			
CHAPTER 27: VEGETATION						
Part II Chapter 27 Art II Div 2 Sec 27-56	Vegetation	License to Trim, Prune, or Remove: License Fee	\$25			
Part II Chapter 27 Art II Div 2 Sec 27-57	Vegetation	License to Trim, Prune, or Remove: Bond			\$1,000	
Part II Chapter 27 Art II Div 2 Sec 27-58	Vegetation	License to Trim, Prune, or Remove: Liability Insurance			\$5,000, \$10,000, \$5,000	
Part II Chapter 27 Art II Div 3 Sec 27-92	Vegetation	Arborists License Fee; Bond; and Liability Insurance			\$1,000	\$50,000, \$100,000
Part II Chapter 27 Art II Div 3 Sec 27-94	Vegetation	Maximum Fine.		\$100		
CHAPTER 28: WELLS, OIL AND GAS						
Part II Chapter 28 Art II Div 1 Sec 28-33 (b)	Wells, Oil and Gas	Maximum Fine		\$500		
Part II Chapter 28 Art II Div 1 Sec 28-37	Wells, Oil and Gas	on sale of well:	\$50			
Part II Chapter 28 Art II Div 1 Sec 28-37	Wells, Oil and Gas	Release of bonds and insurance on sale of well: Release of 10 or more wells	\$500			
Part II Chapter 28 Art II Div 2 Sec 28-67 (b)	Wells, Oil and Gas	Application and Permit Fee and first year of operation fee	\$3,500			
Part II Chapter 28 Art II Div 2 Sec 28-69 (a)	Wells, Oil and Gas	Surety Bond			\$50,000	
Part II Chapter 28 Art II Div 2 Sec 28-69 (c)	Wells, Oil and Gas	Blanket Corporate Surety Bond			\$500,000	

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 28 Art II Div 2 Sec 28-69 (d)	Wells, Oil and Gas	Continuing Irrevocable Letter of Credit in lieu of Corporate Surety Bond			\$50,000.00	
Part II Chapter 28 Art II Div 2 Sec 28-70 (b)	Wells, Oil and Gas	Liability Insurance Minimum				\$500,000
Part II Chapter 28 Art II Div 2 Sec 28-72	Wells, Oil and Gas	Denial; cancellation of application processing fee	\$250			
Part II Chapter 28 Art II Div 2 Sec 28-73 (a)	Wells, Oil and Gas	Annual Permit Fee	\$250			
Part II Chapter 28 Art II Div 2 Sec 28-73 (b) (1-2)	Wells, Oil and Gas	Annual Permit Fee: <u>If the price per barrel of Oklahoma Sweet has averaged less than \$15 per barrel for the 12 months preceding the anniversary date</u>	\$150			
Part II Chapter 28 Art II Div 2 Sec 28-73 (b) (1-2)	Wells, Oil and Gas	Annual Permit Fee: <u>If the price per barrel of Oklahoma Sweet has averaged more than \$15 per barrel for the 12 months preceding the anniversary date</u>	\$250			
Part II Chapter 28 Art II Div 2 Sec 28-74	Wells, Oil and Gas	Prior nonpermitted wells	\$250			
Part II Chapter 28 Art III Sec 28-131 (c)	Wells, Oil and Gas	Abandonment and Plugging Permit Fee	\$350			
Part II Chapter 28 Art V Sec 28-194 (a)	Wells, Oil and Gas	Enhanced Recovery System and Disposal Wells. Enhanced recovery project or disposal well application fee	\$5,000			
Part II Chapter 28 Art V Sec 28-194 (b)	Wells, Oil and Gas	Enhanced Recovery System and Disposal Wells. Enhanced Recovery project: Annual inspection fee	\$250			

<u>MUNICIPAL CODE SITE</u>	<u>DEPARTMENT</u>	<u>DESCRIPTION</u>	<u>FEE</u>	<u>FINE</u>	<u>BOND</u>	<u>INSURANCE</u>
Part II Chapter 28 Art V Sec 28-194 (c)	Wells, Oil and Gas	Enhanced Recovery System and Disposal Wells. Disposal Well: Annual inspection fee	\$1,000			
Part II Chapter 28 Art V Sec 28-196 (2) (d)	Wells, Oil and Gas	Enhanced Recovery System and Disposal Wells. Additional Bond and Insurance Coverage: Minimum Insurance Coverage				\$1,000,000



Community Development Department
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Rian Harkins, Community Development Director
Subject: Public hearing to rezone from A-1 (Rural Agricultural District) to I-2 (Light Industrial District) property at 7109 N. Kickapoo Avenue.
Case No. RZ11-23 | Applicant: Oklahoma Gas & Electric Company.

Background: The subject property is located at 7109 N. Kickapoo Avenue and contains approximately 3.97 acres. The request is to rezone the property from A-1 (Rural Agricultural District) to I-2 (Light Industrial District). The proposed use is an OG&E electrical substation. The lands adjacent to the east, south, and west are zoned A-1 (Rural Agricultural District). The property adjacent to the north is zoned I-2 (Light Industrial District). If approved, this action would continue the industrial zoning and uses located southeast of the intersection of N. Kickapoo Avenue and Wolverine Road. The Comprehensive Plan Future Land Use Map (FLUM) indicates that the subject property has the designation of Industrial Land Use. The proposed zoning change is in conformance with the 2040 Comprehensive Plan.

Findings and Facts:

- The subject property is adjacent to land with the desired zoning district I-2 (Light Industrial District).
- The request is in conformance with the Comprehensive Plan Future Land Use Map (FLUM).
- The proper notification for a public hearing was served.

Options:

- Approval of Case No. RZ11-23 to rezone from A-1 (Rural Agricultural District) to I-2 (Light Industrial District) as requested by the applicant.
- Denial of the application for RZ11-23 to rezone the subject property.
- Deferral of Case No. RZ11-23 to a certain date with a request for additional and specific information.

Financial Impact: N/A

Attachments: Staff Report, Notice

Staff Recommendation: Approval of Case No. RZ11-23 to rezone the subject property from A-1 (Rural Agricultural District) to I-2 (Light Industrial District), based upon the factors outlined in the staff report

and the recommendation of the Planning Commission.



Planning Commission Meeting – 10.4.2023 – City of Shawnee, Oklahoma

Staff Report | RZ11-23 | A-1 to I-2 | 7109 N. Kickapoo Ave.

Date: 9.27.2023

To: Shawnee Planning Commission

From: Rachel Clyne, City Planner

Subject: **Staff Report** - Public hearing and consideration of a request to rezone from A-1 (Rural Agricultural District) to I-2 (Light Industrial District) property at 7109 N. Kickapoo Avenue.
Case No. **RZ11-23** | Applicant: Oklahoma Gas & Electric Company

Background

The subject property is located at 7109 N. Kickapoo Avenue and contains approximately 3.97 acres. The request is to rezone the property from A-1 (Rural Agricultural District) to I-2 (Light Industrial District). The proposed use is an OG&E electrical substation.

Discussion

The land adjacent to the east, south, and west are zoned A-1 (Rural Agricultural District). The property adjacent to the north is zoned I-2 (Light Industrial District). If approved, this action would continue the industrial zoning and uses located southeast of the intersection of N. Kickapoo Avenue and Wolverine Road. The Comprehensive Plan Future Land Use Map (FLUM) indicates that the subject property has the designation of Industrial Land Use. The proposed zoning change is in conformance with the 2040 Comprehensive Plan.

Referencing the City of Shawnee Zoning Code (Code) DIVISION 15. - Amendments; Procedures. Section 22-645. – Planning commission recommendation required. This section gives authority to the Planning Commission to make changes (amendments) to the official Zoning Map. *"...be amended, supplemented, changed, modified, or repealed by ordinance, but no change shall be made until the planning commission, after notice and public hearing, files with the city commission a report and recommendation on the proposed change."*

Staff completed the required public hearing notifications for this application. All property owners within 300' from the perimeter of the subject property were mailed a public hearing notification letter. Additionally, a notice of a public hearing was published in The County Democrat weekly newspaper. A sign providing details and contact information was placed on the subject property.

Findings and Facts:

- The subject property is adjacent to land with the desired zoning district I-2 (Light Industrial District)
- The request is in conformance with the Comprehensive Plan Future Land Use Map (FLUM).
- The proper notification for a public hearing was served.

Recommendation Options:

- Recommending Approval of Case No. RZ11-23 to rezone from A-1 (Rural Agricultural District) to I-2 (Light Industrial District) as requested by the applicant.
- Recommending Denial of the application for RZ11-23 to rezone the subject property.
- Recommending Deferral Case No. RZ11-23 with a request for additional and specific information to a certain date.

Recommendation: Based on the Findings and Facts, staff recommends that the Planning Commission recommend to the City Commission **APPROVAL** of **RZ11-23** to rezone the subject property from A-1 (Rural Agricultural District) to I-2 (Light Industrial District).

This rezoning application will be heard at the City Commission meeting on Monday, October 16, 2023, at 6:00 pm.

Publish September 1, 2023
NOTICE OF PUBLIC HEARING
Rezoning Request (RZ11-23)

It is hereby noticed that the City of Shawnee Planning Commission will hold a public hearing on October 4, 2023, at 1:30 p.m. in the Commission Chambers at City Hall, 16 W. 9th St, Shawnee, OK. The City of Shawnee City Commission will hold a public hearing on October 16, 2023, at 6:00 p.m. in the Commission Chambers at City Hall. The Planning Commission and City Commission will consider a rezoning request (**RZ11-23**) to rezone from A-1 (Rural Agricultural District) to I-2 (Light Industrial District) on a parcel located at 7109 N. Kickapoo Avenue and described as:

A tract of land being a part of the Southwest Quarter (SW/4) of Section Nineteen (19), Township Eleven (11) North, Range Four (4) East of the Indian Meridian, Shawnee, Pottawatomie County, Oklahoma, being more particularly described as follows: Beginning at the Northwest (NW) Corner of said Southwest Quarter (SW/4), said point being the POINT OF BEGINNING; THENCE North $88^{\circ}56'01''$ East, along and with the North line of said Southwest Quarter (SW/4), a distance of 433.00 feet; THENCE South $00^{\circ}36'16''$ East, departing said North line, a distance of 400.00 feet; THENCE South $88^{\circ}56'01''$ West, a distance of 433.00 feet to a point on the West line of said Southwest Quarter (SW/4); THENCE North $00^{\circ}36'16''$ West, along and with the West line of said Southwest Quarter (SW/4), a distance of 400.00 feet to the POINT OF BEGINNING. Containing 173,195 square feet or 3.9760 acres, more or less. Basis of Bearing: Grid North as established by state plane datum (Oklahoma State Plane South Zone NAD83). All Distances are grid distances in U.S. Survey Feet.

Public hearings will be held at the above times and dates. All residents and parties in interest shall have an opportunity to be heard regarding the request above.



AN ORDINANCE CONCERNING THE ZONING CLASSIFICATION OF THE FOLLOWING DESCRIBED PROPERTY LOCATED WITHIN THE CORPORATE LIMITS OF THE CITY OF SHAWNEE, POTTAWATOMIE COUNTY, OKLAHOMA, TO-WIT: THE SURFACE ONLY TO: A TRACT OF LAND BEING A PART OF THE SOUTHWEST QUARTER (SW/4) OF SECTION NINETEEN (19), TOWNSHIP ELEVEN (11) NORTH, RANGE FOUR (4) EAST OF THE INDIAN MERIDIAN, SHAWNEE, POTTAWATOMIE COUNTY, OKLAHOMA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST (NW) CORNER OF SAID SOUTHWEST QUARTER (SW/4), SAID POINT BEING THE POINT OF BEGINNING; THENCE NORTH 88°56'01" EAST, ALONG AND WITH THE NORTH LINE OF SAID SOUTHWEST QUARTER (SW/4), A DISTANCE OF 433.00 FEET; THENCE SOUTH 00°36'16" EAST, DEPARTING SAID NORTH LINE, A DISTANCE OF 400.00 FEET; THENCE SOUTH 88°56'01" WEST, A DISTANCE OF 433.00 FEET TO A POINT ON THE WEST LINE OF SAID SOUTHWEST QUARTER (SW/4); THENCE NORTH 00°36'16" WEST, ALONG AND WITH THE WEST LINE OF SAID SOUTHWEST QUARTER (SW/4), A DISTANCE OF 400.00 FEET TO THE POINT OF BEGINNING. CONTAINING 173,195 SQUARE FEET OR 3.9760 ACRES, MORE OR LESS. BASIS OF BEARING: GRID NORTH AS ESTABLISHED BY STATE PLANE DATUM (OKLAHOMA STATE PLANE SOUTH ZONE NAD83). ALL DISTANCES ARE GRID DISTANCES IN U.S. SURVEY FEET.

FROM ZONING CLASSIFICATION A-1 (RURAL AGRICULTURAL DISTRICT) TO I-2 (LIGHT INDUSTRIAL DISTRICT), AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF SHAWNEE ACCORDINGLY.

WHEREAS, pursuant to notice duly given as required by law, a public hearing conducted by the Board of Commissioners of the City of Shawnee, Oklahoma, on the 16th day of October 2023, upon an application to rezone certain properties located in the City of Shawnee, Oklahoma, from zoning classification A-1 (Rural Agricultural District) and to I-2 (Light Industrial District).

WHEREAS, the Planning Commission of the City of Shawnee has conducted one or more public hearings on said application pursuant to notice as required by law and has submitted its final report and recommendation upon said application to the Board of Commissioners; and,

WHEREAS, it appears to be in the best interest of the City of Shawnee and the inhabitants thereof for said properties to be rezoned to I-2 (Light Industrial District).

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COMMISSIONERS OF THE CITY OF SHAWNEE, OKLAHOMA:

SECTION 1: That the following described property located in the City of Shawnee, Oklahoma, to-wit: THE SURFACE ONLY TO: A TRACT OF LAND BEING A PART OF THE SOUTHWEST QUARTER (SW/4) OF SECTION NINETEEN (19), TOWNSHIP ELEVEN (11) NORTH, RANGE FOUR (4) EAST OF THE INDIAN MERIDIAN, SHAWNEE, POTTAWATOMIE COUNTY, OKLAHOMA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST (NW) CORNER OF SAID SOUTHWEST QUARTER (SW/4), SAID POINT BEING THE POINT OF BEGINNING; THENCE NORTH 88°56'01" EAST, ALONG AND WITH THE NORTH LINE OF SAID SOUTHWEST QUARTER (SW/4), A DISTANCE OF 433.00 FEET; THENCE SOUTH 00°36'16" EAST, DEPARTING SAID NORTH LINE, A DISTANCE OF 400.00 FEET; THENCE SOUTH 88°56'01" WEST, A DISTANCE OF 433.00 FEET TO A POINT ON THE WEST LINE OF SAID SOUTHWEST QUARTER (SW/4); THENCE NORTH 00°36'16" WEST, ALONG AND WITH THE WEST LINE OF SAID SOUTHWEST QUARTER (SW/4), A DISTANCE OF 400.00 FEET TO THE POINT OF BEGINNING. CONTAINING 173,195 SQUARE FEET OR 3.9760 ACRES, MORE OR LESS. BASIS OF BEARING: GRID NORTH AS ESTABLISHED BY STATE PLANE DATUM (OKLAHOMA STATE PLANE SOUTH ZONE NAD83). ALL DISTANCES ARE GRID DISTANCES IN U.S. SURVEY FEET.

FROM ZONING CLASSIFICATION A-1 (RURAL AGRICULTURAL DISTRICT) TO I-2 (LIGHT INDUSTRIAL DISTRICT), AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF SHAWNEE ACCORDINGLY.

PASSED AND APPROVED this 16th day of October, 2023.

(SEAL)
ATTEST:

ED BOLT, MAYOR

LISA LASYONE, CMC, CITY CLERK

Approved as to form and legality this 16th day of October, 2023.

JOSEPH M. VORNDRAN,
CITY ATTORNEY

DRAFT



Community Development Department
16 West 9th Street
Shawnee, OK 74801
shawneeok.org

Date: October 16, 2023
To: Board of City Commissioners
From: Rian Harkins, Community Development Director
Subject: Discussion, consideration, and possible action to convey real estate owned by the City of Shawnee by entering into, signing, and acknowledging a certain proposed Warranty Deed, between the City of Shawnee, as Grantor, and Building New Foundations, Inc., as Grantee, specifically regarding the following property: A tract of land and improvements within the City of Shawnee, Pottawatomie County, Oklahoma described as follows: 1320 East Fay Street, 1316 East Fay Street, and 1231 Sherry Lane (Lots 33 and 34, Block 6, Melrose Park Addition to the City of Shawnee; Lot 16, Block 2, Thompson Heights Addition); and authorizing the City Manager to sign, execute, and enter into said Deed on behalf of the City.

Background: Building New Foundations, a 501c3 non-profit entity authorized to operate in Oklahoma, serves those who are disabled and/or veterans by providing housing opportunities through new construction or rehabilitation of existing dwelling units. As part of their efforts to assist these individuals within the community and/or local area, Building New Foundations, Inc. has reached out to City staff in order to help secure suitable properties.

They have asked the City of Shawnee, via the Shawnee Urban Renewal Authority (SURA), for the transfer of three (3) residential properties that would be used in their next round of construction. The properties are located at 1320 E Fay Street, and 1316 E Fay Street, and 1231 Sherry Lane. These properties will be used to construct new single-family, detached housing that will serve their clients. The properties are currently listed as owned by SURA, which has given their approval of the property transfer at their September 28, 2023 meeting, subject to approval by the City Commission.

To transfer property from the City of Shawnee to another organization, an ordinance must be passed transferring title of the property from the City to the new owner. This action item addresses that requirement.

Financial Impact: None

Attachments: Shawnee Lot Donation Request, Special Limited Warranty Deed, Exhibit B, Entity Information , IRS Letter

Staff Recommendation: Approval of the item



Building New Foundations, Inc.
9936 Rattlesnake Lane, Oklahoma City, OK 73099
603 Denmark Place, The Villages, FL 32162
www.building-new-foundations.org

August 9, 2023

RE: Request for the donation of the following lots: 1231 Sherry Lane, Shawnee, OK 74081, 1316 E. Fay St., Shawnee, OK 74801, 1320 E. Fay St. Shawnee, OK 74801

Dear Shawnee Redevelopment Authority:

Building New Foundations, Inc. (501c3) formally requests the donation of the lots cited above for the construction of three single family homes for purposes of providing affordable housing to your community.

Building New Foundations, Inc., a 501c3, plans to build new handicap accessible homes on these lots owned by the Shawnee Redevelopment Authority. Receiving those lots as a donation will help us leverage other funding opportunities for construction. As owner, Building New Foundations Inc. will offer the homes to residents earning less than 60% of the area median income. Likely residents will include disabled veterans, individuals with a mobility impairment, and the elderly.

Thank you,

Jay Trevor
CEO
Building New Foundations, Inc.

Our Mission

Building New Foundations, Inc. (501c3) has a mission to provide affordable housing to physically disabled persons, the elderly, veterans, and families in need. We aim to build fifty percent of our homes as ADA wheelchair accessible. To achieve this goal, we build our own housing, and collaborate with other organizations.

Examples from other Oklahoma Communities:

Owner: Building New Foundations, Inc. (501c3)

Financing: HOME Program via Oklahoma Housing Finance Agency

9936 Rattlesnake Lane, Yukon, Ok 73099

Construction foreman inspecting one story home for an elderly resident



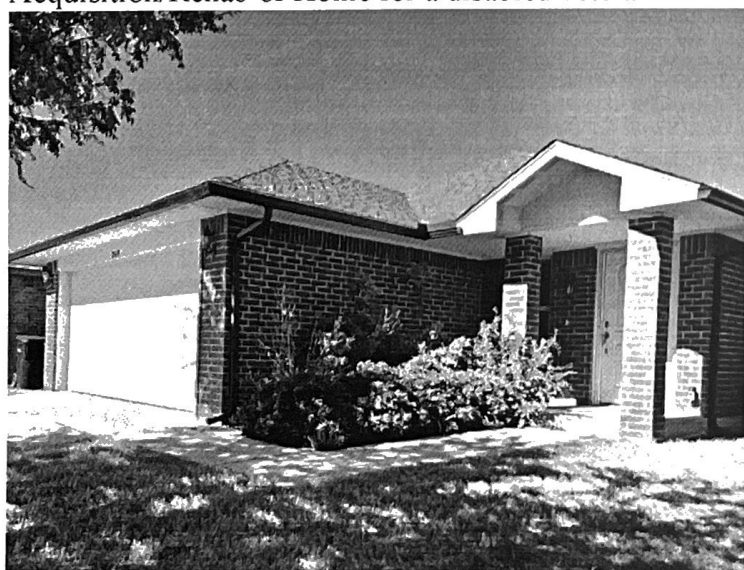
Edmond, Oklahoma

Owner: Building New Foundations, Inc. (501c3)

Financing: HOME Program via Oklahoma Housing Finance Agency

2349 NW 197th St, Edmond, OK 73012

Acquisition/Rehab of Home for a disabled veteran



Mustang, Oklahoma

Owner: Building New Foundations, Inc. (501c3)

Financing: HOME Program via Oklahoma Housing Finance Agency

1213 West Churchill Way, Mustang, OK 73064

Acquisition/Rehab of Home for a disabled veteran



Harrah, Oklahoma

Owner: Building New Foundations, Inc. (501c3)

Financing: HOME Program via Oklahoma Housing Finance Agency

20755 Autumn Trail, Harrah, OK 73045

Acquisition/Rehab of house for a couple that lost their home to a tornado



References:

Chevelle E. Galbreath, Supervisor

Oklahoma Housing Finance Agency

100 N.W. 63rd, Ste. 200

Oklahoma City, Oklahoma 73116

(405) 419-8130

Chevelle.galbreath@ohfa.org

<https://www.ok.gov/ohfa/>

SPECIAL LIMITED-WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS:

That the **City of Shawnee, Oklahoma**, party of the first part, in consideration of the sum of Ten Dollars (\$10.00) and other valuable consideration in hand paid, the receipt of which is hereby acknowledged, does hereby grant, bargain, sell and convey unto **Building New Foundations, Inc.**, an Oklahoma Not for Profit Corporation, 10998 Rosehill Road, Overland Park, Kansas, 66210, party of the second part, the real property and premises located in Pottawatomie County, Oklahoma, as are fully described as follows, to-wit:

Lots Thirty-Seven (37) and Thirty Eight (38), Block Six (6), Melrose Park Addition to the City of Shawnee, Oklahoma, and

Lots Thirty Three (33) and Thirty Four (34), Block Six (6), Melrose Park Addition to the City of Shawnee, Oklahoma, and

Lot Two (2), Block Two (2), Thompson Heights Addition to the City of Shawnee,

together with all the improvements thereon and appurtenances thereunto belong, subject to rights-of-ways, easements, building and use restrictions and covenants of record, and thereunto belonging, and warrants the title, subject to the limitations set out below, to the same.

To have and to hold said described real property and premises unto the said party of the second part, and to their successors and assigns, forever, free, clear and discharged of and from all former grants, charges, taxes, judgments, mortgages and other liens and encumbrances of whatsoever nature made by Grantor, but not otherwise, except for the certain matters listed on Exhibit "A" attached hereto and including those matters listed on Exhibit "B" attached hereto and made a part hereof, which matters continue in full force and effect.

Except for the limited warranty of title set forth in this Special Warranty Deed, Grantor specifically disclaims any warranty, guaranty or representation, oral or written, express or implied of, as to, or concerning (a) the nature, condition or state of repair of the above described property, or any portion thereof, (b) any visible or hidden defects in material, workmanship or capacity of the above described property, or any portion thereof, (c) the square footage, expenses, operation or any other matter or thing affecting or relating to the above described property, (d) the habitability, merchantability or fitness of the above described property, or any portion thereof, for a particular purpose, (e) the existence or nonexistence of any Environmental Conditions (herein defined) or Hazardous Materials (herein defined) with respect to the above described property or any facilities or operations thereon, or (f) the compliance of the above described property or any activity or operation conducted by any person or entity on or off the above described property with Environmental Laws (herein defined).

As used in this Special Warranty Deed, the term “Environment” shall mean soil, surface, waters, ground waters, land, stream sediments, surface or subsurface strata, ambient air, and any environmental medium; the term “Environmental Condition” shall mean any condition with respect to the Environment on or off the above described property, whether or not yet discovered, which could or does result in any damage, loss, cost, expense, claim, demand, order or liability to or against Grantor or Grantee by any third party (including, without limitation, any governmental entity), including, without limitation, any condition resulting from the operation of the above described property and/or the operation of any business within the above described property and/or the operation of the business of any other property owner or operator in the vicinity of the above described property and/or any activity or operation formerly conducted by any person or entity on or off the above described property; the term “Hazardous Material” shall mean any pollutant, toxic substance, hazardous waste, hazardous material, hazardous substance or oil as defined in or pursuant to the Resource Conservation and Recovery Act, as amended, the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, the Federal Clean Water Act, as amended, the Federal Clean Air Act, as amended, or any other federal, state, or local Environmental Law, regulation, ordinance, rule or bylaw, whether existing as of the date hereof or previously enforced; and the term “Environmental Law” shall mean any environmental or health and safety related law, regulation, rule, ordinance or bylaw at the federal, state, or local level, whether existing as of the date hereof or previously enforced. Grantee represents, warrants, acknowledges and agrees that Grantee has inspected the above described property to his satisfaction and all leases, contracts and other information relating to the above described property referenced in the preceding paragraph; and such other information as Grantee may have obtained from sources other than Grantor, that Grantee is satisfied with the physical condition of the above described property and all other aspects thereof, and that except for the limited warranty of title set forth in this Special Warranty Deed and the limited warranty and covenant set forth in the preceding paragraph, Grantee accepts the above described property **“AS IS,” “WHERE IS”, AND “WITH ALL FAULTS.”**

IN WITNESS THEREOF, Grantor and Grantee have executed this Special Warranty Deed to effective as of this ____ day of _____, 2023.

The City of Shawnee, Oklahoma
An Oklahoma Municipality

By: _____
Andrea Weckmueller-Behringer
City Manager

STATE OF OKLAHOMA)
) SS:
COUNTY OF POTTAWATOMIE)

Before me, in and for said County and State, on this ____ day of _____, 2023, personally appeared The City of Shawnee, Oklahoma, by and through its City Manager, Andrea Weckmueller-Behringer, to me known to be the identical person who executed the within and foregoing instrument, and acknowledged to me that she executed the same on behalf of the City of Shawnee, Oklahoma, as her free and voluntary act and deed for the uses and purposes therein set forth.

NOTARY PUBLIC
Commission No. _____
Commission Expires: _____

EXHIBIT "A"
Exceptions to Warranty of Title

Exceptions to marketable title, as defined by the Oklahoma Title Examination Standards and Oklahoma Statutes, existing prior to Grantor obtaining title to the above described property.

Real and personal property ad valorem taxes for 2022 and subsequent years.

Outstanding interests of record in the oil, gas, coal, metallic ores and other minerals in, under and that may be produced from the real estate described on this document, together with all rights, privileges and immunities relating thereto.

Easements, rights-of-way, restrictions, covenants, plats, building set-back lines and other matters of record and not of record.

EXHIBIT “B”
Covenants, Conditions, and Restrictions

Seller imposes the following Covenants, Conditions, and Restrictions which shall be covenants and restrictions that will attach to the Property and will be Covenants, Conditions, and Restrictions that run with the title to the Property:

Buyer shall only use the Property as widely program housing which is affordable community housing and is managed by a not for profit corporation or charitable organization as defined by 18 OKLA. Stat. § 18-851. Buyer shall not convey the Property to any other entity, or third party without the express approval of the Seller.

Subsequent to closing, Buyer shall duly pay and discharge, or cause to be paid or discharged, all taxes, assessments, and other governmental charges imposed upon the Property, as well as all claims for labor, materials, or supplies which if unpaid, might by law become a lien or charge upon the Property.

Buyer, its agents, officers, directors or assigns shall not use the Property for any commercial or business purposes unless it relates to the operation of affordable community housing under Building New Foundations, Inc., an Oklahoma Not For Profit Corporation type of project housing.

Buyer, and its successors in interest shall at all times subsequent to the execution of this agreement maintain its 501 (C) non-profit status in the operation of the community housing project.

Buyer, or its successors and assigns agrees and stipulates that if it breaches or violates any of the foregoing conditions and covenants the title to said Property shall ipso facto and immediately revert to and vest in the Seller, or its successors or assigns, or in any corporation to which it may grant reversion, and it, or its successors or assigns, shall be entitled to immediate possession thereof, but said reversion shall not affect any mortgage or liens which in good faith at that time may be existing upon said property or any improvements thereon.

Agreed Hereto by: Building New Foundations, Inc
 An Oklahoma Not for Profit Corporation

By: _____
Printed Name: _____
Title: _____

EXHIBIT "B"
Covenants, Conditions, and Restrictions

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Agreed Hereto by: Building New Foundations, Inc
An Oklahoma Not for Profit Corporation

By: 
Printed Name: JAY TREVON
Title: 10-2-23

[Home](#) : [Business Services](#) : [Corp Search](#) : [Corp Information](#)

Entity Summary Information

Select the buttons below to file or place an order.

To view Entity Details there will be a \$5.00 charge and you will need to click on **VIEW ENTITY DETAILS** button at the bottom of the page.

If you are ordering documents such as a "Certificate of Good Standing" or "copies" you will need to click on the **ORDER DOCUMENTS** button at the bottom of the page.

If you are filing a legal document such as a trade name, amendment, annual certificate, etc., you will need to click on **FILE A DOCUMENT** button at the bottom of the page.

BUILDING NEW FOUNDATIONS, INC.

Details

Filing Number: 4313188319

Name Type: Legal Name

Status: In Existence 

Corp type: Charitable Organization

Jurisdiction: Oklahoma

Formation Date: 25 Aug 2022

Registered Agent Information

Name:

Effective: N/A

Address:

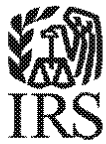
City, State , ZipCode:

[View Entity Detail](#)

[File a Document](#)

[Order Documents](#)

[New Search](#)



Department of the Treasury
Internal Revenue Service
Tax Exempt and Government Entities
P.O. Box 2508
Cincinnati, OH 45201

BUILDING NEW FOUNDATIONS INC
603 DENMARK PL
THE VILLAGES, FL 32162

Date:
10/22/2021
Employer ID number:
87-0950609
Person to contact:
Name: Customer Service
ID number: 31954
Telephone: 877-829-5500
Accounting period ending:
December 31
Public charity status:
170(b)(1)(A)(vi)
Form 990 / 990-EZ / 990-N required:
Yes
Effective date of exemption:
April 9, 2021
Contribution deductibility:
Yes
Addendum applies:
No
DLN:
26053561004501

Dear Applicant:

We're pleased to tell you we determined you're exempt from federal income tax under Internal Revenue Code (IRC) Section 501(c)(3). Donors can deduct contributions they make to you under IRC Section 170. You're also qualified to receive tax deductible bequests, devises, transfers or gifts under Section 2055, 2106, or 2522. This letter could help resolve questions on your exempt status. Please keep it for your records.

Organizations exempt under IRC Section 501(c)(3) are further classified as either public charities or private foundations. We determined you're a public charity under the IRC Section listed at the top of this letter.

If we indicated at the top of this letter that you're required to file Form 990/990-EZ/990-N, our records show you're required to file an annual information return (Form 990 or Form 990-EZ) or electronic notice (Form 990-N, the e-Postcard). If you don't file a required return or notice for three consecutive years, your exempt status will be automatically revoked.

If we indicated at the top of this letter that an addendum applies, the enclosed addendum is an integral part of this letter.

For important information about your responsibilities as a tax-exempt organization, go to www.irs.gov/charities. Enter "4221-PC" in the search bar to view Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, which describes your recordkeeping, reporting, and disclosure requirements.

Sincerely,

Stephen A. Martin
Director, Exempt Organizations
Rulings and Agreements



Finance Department
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Lindsey McNabb-Fox, Finance Director
Subject: Insurance Recovery Fund - Fund 603 - to appropriate insurance proceeds received in response to the April 19, 2023 tornado.

Background: Over the last several months, the City has received funds from our insurance carrier, Oklahoma Municipal Assurance Group (OMAG), for property damaged in the April 19, 2023 tornado. City management has determined that the creation of a new fund would be beneficial for the tracking of insurance proceeds as well as expenses to repair or replace affected assets. The new Fund 603, titled "Insurance Recovery Fund," can also be used for future insurance claims.

This budget amendment appropriates the revenue received for, and expected expenses in, various departments for a total of \$1,953,720.85.

Financial Impact: See budget amendment

Attachments: 10-16-2023 - BA-Fund 603

Staff Recommendation: Approval of the item

City of Shawnee
2023-2024 Budget Amendment
Insurance Recovery Fund

Estimated Revenue, Fund Balance, or Transfers IN

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
603	48040			Insurance Recovery	-	1,953,720.85	1,953,720.85
							-
				Total	-	1,953,720.85	1,953,720.85

Appropriations

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
603	5-0120-54500			Capital Outlay - Equipment	-	6,425.00	6,425.00
603	5-0810-54500			Capital Outlay - Equipment	-	14,795.00	14,795.00
603	5-0720-54500			Capital Outlay - Equipment	-	14,916.24	14,916.24
603	5-0620-54500			Capital Outlay - Equipment	-	145,650.57	145,650.57
603	5-0740-54500			Capital Outlay - Equipment	-	11,049.10	11,049.10
603	5-1040-54500			Capital Outlay - Equipment	-	9,428.43	9,428.43
603	5-0120-54200			Capital Outlay - Buildings & Improvements	-	977,869.04	977,869.04
603	5-1420-54200			Capital Outlay - Buildings & Improvements	-	8,734.85	8,734.85
603	5-1010-54200			Capital Outlay - Buildings & Improvements	-	89,930.84	89,930.84
603	5-1210-54200			Capital Outlay - Buildings & Improvements	-	626,670.90	626,670.90
603	5-0620-54200			Capital Outlay - Buildings & Improvements	-	9,126.24	9,126.24
603	5-0940-54200			Capital Outlay - Buildings & Improvements	-	13,818.03	13,818.03
603	5-0640-54200			Capital Outlay - Buildings & Improvements	-	15,557.73	15,557.73
603	5-0740-54200			Capital Outlay - Buildings & Improvements	-	8,864.00	8,864.00
603	5-0510-54200			Capital Outlay - Buildings & Improvements	-	884.88	884.88
					-	1,953,720.85	1,953,720.85

Approved by the City Commission this

Explanation of Budget Amendment:

To appropriate insurance proceeds received in response to the April 19, 2023 tornado.

Approved:

Mayor _____

Attest: _____

City Clerk _____

On Date _____

Posted By _____ Date _____ BA# _____ Pkt.# _____



Finance Department
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Lindsey McNabb-Fox, Finance Director
Subject: CDBG-CV Grant Fund - Fund 191 - to appropriate grant funds for the CDBG-CV Nutrition Assistance program continuing from the prior fiscal year.

Background: This budget amendment is to appropriate grant funds from the Community Development Block Grant (CDBG) - Coronavirus (CV) program for the Nutrition Assistance program continuing from the prior fiscal year. This grant must be obligated by December 2023.

Financial Impact: See budget amendment

Attachments: 10-16-2023 - BA-Fund 191

Staff Recommendation: Approval of the item

City of Shawnee
2023-2024 Budget Amendment
CDBG-CV Grant Fund

Estimated Revenue, Fund Balance, or Transfers IN

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
191	41020			State Grant Revenue	164,872.00	99,725.00	264,597.00
							-
				Total	164,872.00	99,725.00	264,597.00

Appropriations

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
191	5-1420-53715			Nutrition Assistance	-	99,725.00	99,725.00
							-
					-	-	-
					-	99,725.00	99,725.00

Approved by the City Commission this

Explanation of Budget Amendment:

To appropriate grant funds for the CDBG-CV Nutrition Assistance program continuing from prior fiscal year.

Approved:

Mayor _____
 Attest: _____

City Clerk _____

On Date _____

Posted By _____ Date _____ BA# _____ Pkt.# _____



Finance Department
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Lindsey McNabb-Fox, Finance Director
Subject: Home Rehabilitation Program Fund - Fund 199 - to appropriate fund balance for the use of home rehabilitation on SURA-owned properties.

Background: This budget amendment is to appropriate fund balance to use for home rehabilitation on Shawnee Urban Renewal Authority (SURA) owned properties.

Financial Impact: See budget amendment

Attachments: 10-16-2023 - BA-Fund 199

Staff Recommendation: Approval of the item

City of Shawnee
2023-2024 Budget Amendment
Home Rehabilitation Program Fund

Estimated Revenue, Fund Balance, or Transfers IN

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
							-
							-
				Total	-	-	-

Appropriations

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
199	5-1420-53721			Home Rehabilitation	-	75,000.00	75,000.00
							-
					-	-	-
					-	75,000.00	75,000.00

Approved by the City Commission this

Explanation of Budget Amendment:

To appropriate fund balance for the use of home rehabilitation on SURA-owned properties.

Approved:

Mayor _____
Attest: _____

City Clerk _____

On Date _____

Posted By _____ Date _____ BA# _____ Pkt.# _____



Finance Department
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Lindsey McNabb-Fox, Finance Director
Subject: General Fund - Fund 001 - to appropriate fund balance for obligations on a prior fiscal year contract with Central Oklahoma Community Action Agency for COTS Transportation services.

Background: This budget amendment is to appropriate fund balance for the remaining balance of an encumbrance from Fiscal Year 2022-2023, stemming from a contract with the Central Oklahoma Community Action Agency for COTS Transportation services.

Financial Impact: See budget amendment

Attachments: 10-16-2023 - BA-Fund 001

Staff Recommendation: Approval of the item

City of Shawnee
2023-2024 Budget Amendment
General Fund

Estimated Revenue, Fund Balance, or Transfers IN

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
							-
							-
				Total	-	-	-

Appropriations

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
001	5-0110-53300			Community Service Contracts	155,000.00	27,500.00	182,500.00
							-
					-	-	-
					155,000.00	27,500.00	182,500.00

Approved by the City Commission this

Explanation of Budget Amendment:

To appropriate fund balance for obligations on a prior fiscal year contract with Central OK Community Action Agency for the COTS Transportation services.

Approved:

Mayor _____
Attest: _____
City Clerk _____
On Date _____

Posted By _____ Date _____ BA# _____ Pkt.# _____



Engineering Department
222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Seth Barkhimer, Director of Engineering
Subject: Thompson Heights Waterline Project (Award)

Background: In March of 2023, the City of Shawnee entered into a Professional Services Agreement with Cowan Group Engineering, LLC (Cowan) for the final design of the Thompson Heights Waterline project. With design complete, the project was advertised, and staff opened bids at the September 18, 2023, City Commission meeting.

City staff and the Cowan design team have reviewed the bid proposals. Five (5) bids were received, and the base bids ranged from \$1,193,985.00 (low) to \$2,051,860.00 (high). The design estimate for the Base Bid, prior to the bid opening, was \$2,312,156.00.

Staff recommends awarding the contract to Davenport Construction, Inc. who submitted the lowest bid at \$1,193,985.00

Financial Impact: \$1,193,985.00, funded from account 304-5-1040-54200 - American Rescue Plan Fund, Water Distribution, Capital Outlay-Bldgs & Improvements; Project No. C-23-05 - Thompson Heights Water Line Replacement

Attachments: Advertisement for Bids, Plans, Specs, Plan Holder List, Addendum No. 1, Bid Tabulation, Bid Recommendation

Staff Recommendation: Award of the contract

Advertisement for Bids

Notice is hereby given that the City of Shawnee (hereinafter called the "Owner") will receive sealed bids at the City Clerk's Office, 16 W. 9th Street, Shawnee, Pottawatomie County, Oklahoma until 4pm the 18th day of September, 2023 for the Thompson Heights Waterline.

Funding for this project is provided through American Rescue Plan Act (ARPA) grant program. As such, compliance with Labor Standards Contract Provisions is mandatory. Compliance with the Davis Bacon Act is mandatory **if the total project cost exceeds \$10,000,000 (ten million dollars)**.

All bids received at said time will be opened at the City Commission meeting at 6PM and evaluated for completeness and correctness. All work shall be performed, and all construction and materials used and furnished shall be in accordance with the Plans and Specifications prepared by Cowan Group Engineering, and on file in the office of the City Clerk, 16 W. 9th Street, Shawnee, OK 74802-1448.

The Bid Packet and Contract Documents for this project may be examined at the following locations:

1. The City Clerk's Office, 16 W. 9th Street, Shawnee, OK 74802-1448.
2. Cowan Group Engineering, 7100 N. Classen, Suite 500, Oklahoma City, OK 73116

Hard copy plans and specifications may be obtained by the prospective bidders at these locations for \$100.00. No documents will be mailed until payment is received in full.

Complete digital project bidding documents are available for a non-refundable fee of \$50.00 by going to www.cowangroup.co, navigating to the Bid Documents page, and by entering Quest Project # 8558234 on the website's project search page. Please contact QuestCDN.com at 952.233.1632 or info@questcdn.com for assistance in free membership registration, downloading and working with this digital project information.

Each bidder shall accompany his original bid, filed with the City Clerk's Office with a certified or Cashier's Check on a solvent bank located in Oklahoma, or a Bidder's Bond, in the amount of five (5) percent of the amount bid, as a guarantee of his ability to perform the contract bid upon, and that he will enter into a written contract with the Owner to perform said work and/or furnish said materials in accordance with said Plans and Specifications and furnish the required bonds according to the Public Competitive Bidding Act of 1974.

The Owner will retain the deposit for liquidated damages in case the successful bidder fails to enter in said contract and furnish the required bonds provided for in the specifications within the time required. Deposit of the unsuccessful bidders will be returned upon the execution of the Contract and required bonds.

Each bidder shall accompany his bid with a sworn statement in writing that the bidder has not directly or indirectly entered into an agreement, expressed or implied, with any other bidder concerning the price or amount of such bid or any bids, the limiting of the bids or bidders, the paying to anyone any money for promotion expenses, the parceling or farming out to any bidder or bidders or other persons of any part of the contract or any part of the subject matter of the bid or of the profits thereof.

Construction, Maintenance and Statutory Payment Bonds in the amount of 100% of the contract price are required for this project. These bonds must be obtained from a Corporate Surety licensed in Oklahoma and approved by the Owner and Consulting Engineer. The bidder shall state in the proposal the name and address of the Surety or Sureties who will sign this bond in case the contract is awarded. The Maintenance Bond required will guarantee the repair of all damage due to improper materials or workmanship for a period of one (1) year after the acceptance of the work by the Owner.

This project is to be financed by the ARPA grant program managed by the Oklahoma Water Resources Board (OWRB) and shall be referred to as Project No. ARP-23-0188-G. The following requirements and regulations must be complied with:

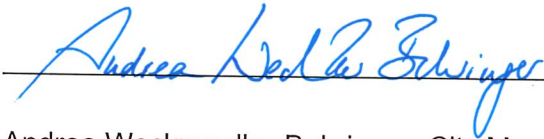
- A. "Equal Opportunity in Employment: All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age or physical handicap. Bidders on this work will be required to comply with the President's Executive Order No. 11246, as amended."
- B. "Each bidder must fully comply with the requirements, terms and conditions of the Environmental Protection Agency's Disadvantaged Business Enterprise Requirements, which have been adopted for the OWRB ARPA program, and include employing the six (6) good faith efforts and soliciting disadvantaged business enterprises during the performance of this contract. Requirements are contained in OWRB's Guidance and Procedures, ARP-267. The bidder commits itself to following the good faith efforts to solicit disadvantaged business enterprises contained herein and all other requirements, terms, and conditions of these bid conditions by submitting a properly signed bid."
- C. **If the total project cost exceeds \$10,000,000 (ten million dollars)** "Davis Bacon Act wage rules shall apply. All laborers and mechanics employed by contractors and sub- contractors on projects funded directly by or assisted in whole or in part by and through the Federal Government shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of Chapter 31 of Title 40, United States Code and 29 CFR parts 1,3, and 5. The Department of Labor provides all pertinent information related to compliance with labor standards, including prevailing wage rates and instructions for reporting. More information is available at <http://www.sam.gov/>" and <https://www.dol.gov/agencies/whd/government-contracts/construction>
- D. System for Award Management (SAM) registration is required for all Applicants and Awardees (Entities, Prime Contractors, Subcontractors, Vendors) in order to receive funds from the ARPA program. SAM replaced the Central Contractor Registration/Federal Agency Registration, Online Representations and Certifications Application, and Excluded Parties List System. Applicants and awardees are required to complete a one-time free registration to provide basic information relevant to procurement and financial transactions. On April 4, 2022, the unique entity identifier used across the federal government changed from the DUNS Number to the Unique Entity ID (generated by SAM.gov). Registrants must retain an active status to be eligible for ARPA funding. Applicants and Awardees can go to SAM.gov to complete the registration process.

The bids filed with the City Clerk's Office will be opened and considered by the Owner, at a meeting to be held in The City of Shawnee Commission Chambers, 16 W. 9th Street, Shawnee, OK 74802, on the day of Monday September 18th, 2023 at 6pm. Bids received past 4pm on the stated date prior to the Bid Opening will be returned.

The contract is to be awarded to the lowest, responsive, responsible bidder. The Owner reserves the right to correct any non-material clerical errors in the bidding as allowed under Oklahoma Law. The Owner reserves the right to reject any and all bids in accordance with the Oklahoma Public Competitive Bidding Act of 1974. Conditional bids shall not be accepted.

A pre-bid conference will be held on this project at: City of Shawnee, Commission Chambers on the 7th day of September 2023 at 9 am.

Approved on this ____ day of _____, 20____



Andrea Weckmueller-Behringer, City Manager

PLAN OF PROPOSED THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

ARP-23-0092-G
CITY OF SHAWNEE
SECTION 17, T10N, R4E, I.M.
POTTAWATOMIE COUNTY, OKLAHOMA

SURVEY CONTROL DATA

- HORIZONTAL/VERTICAL CONTROL
HORIZONTAL DATUM IS BASED ON THE OKLAHOMA STATE
PLANE COORDINATE SYSTEM (NORTH ZONE) NAD 83. VERTICAL
DATUM IS BASED ON THE NORTH AMERICAN VERTICAL DATUM
OF 1988 (NAVD 88)
- BASIS OF BEARINGS:
BEARINGS ARE BASED ON GRID NORTH (N00°00'00"E)

UTILITY CONTACTS

COMPANY NAME	CONTACT NAME	PHONE NUMBER
SHAWNEE UTILITIES	SHAWNEE PUBLIC WORKS	405-273-1960
OG&E ENERGY CORPORATION	RAE ANN LAWRENCE, P.E. SENIOR LAND MANAGEMENT COORDINATOR	405-553-5785 (O) 405-388-8599 (C)
OG&E ENERGY CORPORATION	TIM THOMPSON	405-401-7229
AT&T OKLAHOMA	JOE ANDERSON	539-444-1026
OKLAHOMA NATURAL GAS	ALEXANDRIA MARSHALL	405-551-6389
BLUEPEAK	JERRY LEIBY	JERRY.LEIBY@MYBLUEPEAK.COM

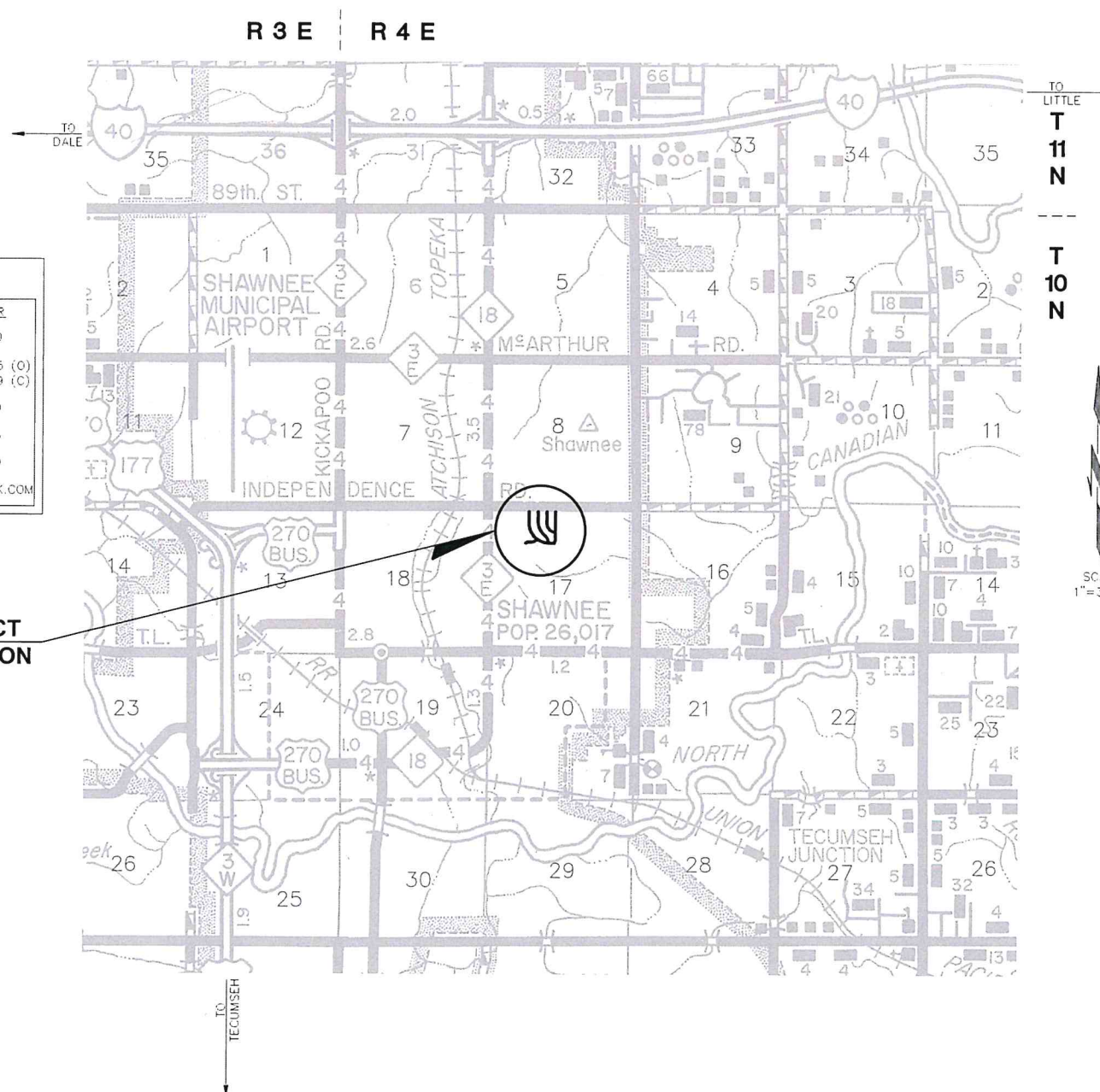
LEGEND

---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	SECTION LINE
---	QUARTER SECTION LINE
---	RIGHT-OF-WAY (EXISTING)
---	RIGHT-OF-WAY (PROPOSED)
---	EXISTING ROAD
---	PROPOSED ROAD
---	FENCES
---	POWER OVERHEAD
---	POWER UNDERGROUND
---	TELEPHONE UNDERGROUND
---	GAS LINE
---	WATER LINE
---	SANITARY SEWER LINE
---	STORM SEWER (EXISTING)
---	STORM SEWER (PROPOSED)



- AN EFFORT HAS BEEN MADE TO LOCATE AND SHOW
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINES.
BURIED UTILITIES ARE NOT NECESSARILY SHOWN. IT IS
THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND
PRESERVE ALL UTILITIES.
- CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL
UTILITY COMPANIES WITHIN WORK ZONE PRIOR TO
CONSTRUCTION.

PROJECT
LOCATION



SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PAY QUANTITIES & NOTES
3	STORMWATER MANAGEMENT PLAN
4	SURVEY DATA
5	OVERALL MAP
6-9	LINE 1 P&P
10-12	LINE 2 P&P
13-14	LINE 3 P&P
15-17	LINE 4 P&P
18	LINE 5 P&P
19-21	WATER DETAILS
22-26	SPECIAL DETAILS
27	EROSION CONTROL DETAIL

STATE OF OKLAHOMA
Department of Environmental Quality

APPROVED

August 08 2023

Rocky W. Chen, P.E.

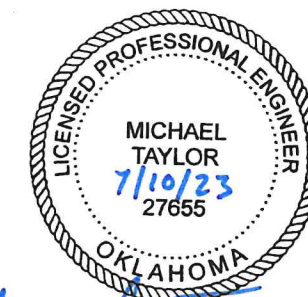
Water Quality Division

Adam Divine

D. Adam Divine, P.E.

Construction Permitting Section

PREPARED BY



MICHAEL TAYLOR, P.E.
OKLAHOMA REGISTERED PROFESSIONAL ENGINEER NO. 27655
COWAN GROUP ENGINEERING, LLC
OKLAHOMA CERTIFICATE OF AUTHORIZATION NO. 6414
EXPIRES JUNE 30, 2024



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CA# 6414 EXPDRES 6/30/2024

THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

TITLE SHEET

DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-152
DATE	6/13/2023

REVISIONS

SHEET NUMBER

GENERAL CONSTRUCTION NOTES

1.

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE, FEDERAL, AND LOCAL STANDARDS AND SPECIFICATIONS AND THE REQUIREMENTS OF THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY. WHERE IN CONFLICT THE MOST STRINGENT REQUIREMENT SHALL APPLY.
2.

ANY CONSTRUCTION ITEMS THAT ARE NOT LISTED IN THE SUMMARY OF QUANTITIES SHALL BE CONSIDERED INCIDENTAL CONSTRUCTION ITEMS. THE COST OF INCIDENTAL CONSTRUCTION ITEMS SHALL BE INCLUDED IN THE COST OF OTHER BID ITEMS.
3.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PUBLIC AND/OR PRIVATE UTILITY COMPANIES IN THE VICINITY OF CONSTRUCTION.
4.

EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
5.

RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY. ALL DISPOSAL SITES MUST BE APPROVED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN SHALL REQUIRE THE NECESSARY PERMITS. ANY MATERIAL DUMPED IN THE WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORP OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS AND STATE APPROVAL.
6.

A COPY OF THE EROSION CONTROL SITE PLANS AND THE STORM WATER POLLUTION PREVENTION PLAN MUST BE ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE INSPECTOR UPON REQUEST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION , MAINTENANCE, REPAIR, AND REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
7.

CONTRACTOR SHALL PROVIDE BONDS AND PROOF OF INSURANCE IN ACCORDANCE WITH THE LOCAL REQUIREMENTS.
8.

CONSTRUCTION STAKING AND TESTING SHALL BE PROVIDED BY THE CONTRACTOR.
9.

THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING CONSTRUCTION OF THIS PROJECT MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.
10.

THE CONTRACTOR SHALL AVOID TREE DAMAGE IF AT ALL POSSIBLE AND SHALL PRUNE ALL ROOTS DAMAGED DURING CONSTRUCTION ACTIVITIES
11.

ALL WATER LINE MAINS SHALL BE CONSTRUCTED WITH A MINIMUM COVER OF FOUR (4) FEET, UNLESS OTHERWISE NOTED.
12.

SHOP DRAWNGS FOR ALL PIPE MATERIALS INCLUDING BUT NOT LIMITED TO VALVES, FITTINGS, AND PIPE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION BEGINS.
13.

ALL DISTURBED AREAS SHALL HAVE 4” TOPSOIL AND SOLID SLAB SOD LAID. CONTRACTORS SHALL TAKE NECESSARY MEASURES TO RE-ESTABLISH SOD. PRICE BID TO INCLUDE COST OF (10–20–10) FERTILIZER, ESTIMATED AT 200 POUNDS PER 1000 SY. OF SODDING. PRICE BID ALSO TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER SY.
14.

WATER VALVES TO BE ABANDONED IN SIDEWALKS OR PAVEMENT SHALL BE CLOSED; POUR CONCRETE OVER VALVE, PULL VALVE BOX, AND REPAIR SIDEWALK OR PAVING.
15.

CONTRACTOR SHALL CONDUCT PRESSURE TESTS AND DISINFECTION ON ALL WATER MAINS PRIOR TO CONNECTION TO EXISTING DISTRIBUTION SYSTEM.

PRESSURE AND LEAKAGE TESTS SHALL BE PERFORMED BY CONTRACTOR IN ACCORDANCE WITH OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY OAC252:626–19–2(E) AND LATEST REVISION OF AWWA C906.

DISINFECTION TESTS SHALL BE PERFORMED BY CONTRACTOR IN ACCORDANCE WITH OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY OAC252:626–19–2(F) AND LATEST REVISION OF AWWA STANDARD SPECIFICATIONS.
16.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL IN ACCORDANCE WITH FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES

- AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION. COST OF TRAFFIC CONTROL SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN THE COST OF OTHER BID ITEMS.
17.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE REQUIRED 10 FOOT HORIZONTAL AND 2 FOOT VERTICAL SEPARATION BETWEEN SANITARY SEWER AND POTABLE WATER MAINS AND 5 FOOT HORIZONTAL AND 2 FOOT VERTICAL SEPARATION BETWEEN WATER MAINS AND OTHER UTILITIES
18.

CONTRACTOR SHALL MAINTAIN WATER SERVICE DURING CONSTRUCTION. CONNECTION SHALL BE COORDINATED WITH OWNER AND COMPLETED IN A TIMELY MANNER TO MINIMIZE INTERRUPTION TO SERVICE.
19.

ALL EXISTING WATER MAINS AND APPURTENANCES BEING ABANDONED BY ANY PROJECT ARE TO REMAIN THE PROPERTY OF SHAWNEE WATER DEPARTMENT, AND SHALL BE SALVAGED FOR THE SHAWNEE WATER DEPARTMENT.
20.

IN INSTANCES WHERE FLOW LINES ARE NOT INDICATED ON THE DRAWINGS, MAIN SHALL BE CONSTRUCTED WITH A MINIMUM OF 4’ COVER, OR AS DIRECTED BY THE CITY ENGINEER AND IN ACCORDANCE WITH OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY STANDARDS.
21.

ALL EMBANKMENTS AND BACKFILL SHALL MEET THE STANDARD SPECIFICATION.
22.

ANY CONSTRUCTION PROCEDURES NOT COVERED IN THE PLANS AND SPECIFICATIONS WILL BE EXECUTED IN ACCORDANCE WITH PROPER CONSTRUCTION TECHNIQUES AND SHALL BE APPROVED BY THE ENGINEER.
27.

CONTRACTOR IS RESPONSIBLE FOR PROMPT REPLACEMENT OF ANY FENCE DISTURBED DURING CONSTRUCTION AND SHALL BE CONSIDERED INCIDENTAL.
1.

TEMPORARY EROSION AND SEDIMENT CONTROL SHALL CONSIST OF TEMPORARY MEASURES WITHIN THE PROJECT LIMITS AND MINIMIZE POLLUTION OF RIVERS, STREAMS, AND PRIVATE PROPERTIES. SUCH MEASURES MAY INCLUDE SILT FENCES, BERMS, DIKES, SLOPE DRAINS, BALE BARRIERS, SEDIMENT FILTERS, SEDIMENT BASINS, SILT FENCES, MULCHES, AND GRASSES.
2.

INCLUDES COST FOR STORMWATER POLLUTION PREVENTION PLAN DOCUMENTATION AND MANAGEMENT AS PER ODEQ STANDARDS.
3.

ALL DISTURBED NON–PAVED AREAS SHALL BE SOLID SLAB SODDED. INCLUDES COST OF WATERING AT 40 GALLONS PER SQUARE YARD, AND FERTILIZING 10–20–10 AT 10 LBS PER 1000 SQUARE FEET.
4.

QUANTITY IS CALCULATED USING THE STANDARD TRENCH WIDTH AS SHOWN ON WATER DETAILS SHEET NO EXTRA PAYMENT IS MADE FOR ANY ADDITIONAL TRENCH WIDTH OR SODDING.
5.

COST OF EXCAVATION AND BACKFILL INCLUDING COST OF BEDDING MATERIALS AS PER STANDARD WATER DETAILS SHALL BE INCLUDED IN THE COST OF PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.
6.

QUANTITY INCLUDES ALL FITTINGS INCLUDING BUT NOT LIMITED TO TEES, CROSS. WYE, SOLID SLEEVES, BENDS, REDUCERS, CAPS, AND PLUGS TO MAKE CONNECTIONS TO EXISTING OR NEW WATER LINES.
7.

CONCRETE USED FOR DRIVE PLACEMENT AND PAVING SHALL BE 3,500 PSI HIGH EARLY STRENGTH CONCRETE.10. CONTRACTOR TO REMOVE AND REPLACE CONCRETE TO THE NEAREST CONTRACTION JOINT TO MATCH EXISTING PANELS. PRICE BID TO INCLUDE THE SAW CUTS OF CONCRETE, REMOVAL AND REPLACEMENT OF EXPANSION JOINTS, DOWELS, AND CURB AND GUTTER.
8.

FIRE HYDRANT ASSEMBLY COMPLETE PRICE BID ITEM TO INCLUDE THE COST OF (3 L.F. OF 6” WATER LINE , 1–FIRE HYDRANT, 4–6” MEGALUG SERIES 2006 PV, 1–12” RISER IF REQUIRED).
9.

ESTIMATED QUANTITY. LOCATION, IF AND WHERE REQUIRED, TO BE DETERMINED BY THE ENGINEER. COST TO INCLUDE CURB AND GUTTER.
10.

EXISTING WATERLINES ARE SHOWN AT APPROXIMATE LOCATIONS ON PLANS. CONTRACTOR TO FIELD LOCATE THE EXISTING WATERLINES. CONNECTION TO EXISTING WATERLINE SHALL INCLUDE ALL COSTS FOR LABOR AND MATERIAL TO LOCATE AND CUT EXISTING WATERLINE AND INSTALL THE REQUIRED VALVES AND FITTINGS CONNECTING THE NEW WATERLINE. NO ADDITIONAL PAYMENT SHALL BE MADE.
11.

COST TO INCLUDE HDPE FITTINGS.
12.

SHALL BE PLACED IN EVERY BORE PIT AND AT MINIMUM EVERY 400 FEET. SEE SPECIAL DETAIL SHEET 28.

PAY QUANTITY NOTES

PAY QUANTITIES

BASE BID					
ITEM #	ITEM	NOTES	UNIT	QUANTITY	AS-BUILT
1	MOBILIZATION		LS	1	
2	CLEARING AND GRUBBING		LS	1	
3	SOLID SLAB SOD	(3)(4)	SY	2,708	
4	STORMWATER POLLUTION PREVENTION PLAN	(2)	LS	1	
5	8" HDPE DR-11 WATERLINE (HDD)	(10)(11)	LF	5,322	
6	8" HDPE DR-11 WATERLINE (TRENCHING)	(4)(5)	LF	282	
7	6" GATE VALVE & BOX		EA	10	
8	8" GATE VALVE & BOX		EA	7	
9	1" AIR RELIEF VALVE		EA	1	
10	HDPE WALL ANCHOR	(12)	EA	17	
11	FIRE HYDRANT ASSEMBLY	(8)	EA	10	
12	MECHANICAL JOINT FITTINGS	(6)	LB	3,837	
13	WATER SERVICE RECONNECTION (SHORT)		EA	72	
14	WATER SERVICE RECONNECTION (LONG)		EA	77	
15	LEAD SERVICE REPLACEMENT (SHORT)		EA	1	
16	LEAD SERVICE REPLACEMENT (LONG)		EA	1	
17	REMOVE & REPLACE CONCRETE PAVEMENT	(7)(9)	SY	3	
18	REMOVE & REPLACE CONCRETE DRIVE	(7)(9)	SY	19	
19	REMOVE EXISTING FIRE HYDRANT		EA	6	
20	CONSTRUCTION SIGNING AND TRAFFIC CONTROL		LS	1	
21	TEMPORARY EROSION AND SEDIMENT CONTROL	(1)	LS	1	
22	PRESSURE AND LEAKAGE TESTING		LS	1	
23	DISINFECTION AND TESTING		LS	1	

STATE OF OKLAHOMA

Department of Environmental Quality

APPROVED

August 08 2023

Rocky W. Chen, P.E.

Water Quality Division

Adam Divine

D. Adam Divine, P.E.

Construction Permitting Section

THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

CITY OF SHAWNEE

POTTAWATOMIE COUNTY, OKLAHOMA

PAY QUANTITIES & NOTES

DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-152
DATE	6/13/2023

REVISIONS

SHEET NUMBER	2
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STORM WATER MANAGEMENT PLAN

SITE DESCRIPTION

PROJECT LIMITS: PROJECT LOCATED IN SECTION 17, T10N, R4E, I.M. SHAWNEE, OKLAHOMA.

PROJECT DESCRIPTION: 5600 LF OF WATERLINE IMPROVEMENTS.

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES: PRIOR TO INITIATING SOIL DISTURBING ACTIVITIES, THE CONTRACTOR WILL STRIP, STOCKPILE, AND STABILIZE TOPSOIL. CLEAR AND GRUB ONLY IN AREAS NECESSARY, PRESERVING AS MUCH NATIVE VEGETATION AS POSSIBLE. INSTALL, MAINTAIN, AND/OR MOVE TEMPORARY SEDIMENT ITEMS AS PRACTICAL WITH CONSTRUCTION OPERATIONS. IF DIRECTED BY THE ENGINEER, PLANT TEMPORARY SEEDING. PLACE SALVAGED TOPSOIL AND DEVICES WHEN AN ACCEPTABLE VEGETATION COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF THE DATES OF MAJOR SOIL DISTURBANCE ACTIVITIES AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: AYDELOTTE LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 4.0 ACRE

ESTIMATED AREA TO BE DISTURBED: 0.5 ACRE

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 3.0 ACRE

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 3.0 ACRE

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: C=0.5

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 35°20'50"N, 96°54'07"W

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: CANADIAN RIVER

SENSITIVE WATERS OR WATERSHEDS: YES NO X

303 (d) IMPAIRED WATERS: YES X NO

IF YES, LIST IMPAIRMENT: ENTEROCOCCUS

LOCATED IN A TMDL: YES X NO

LAKE THUNDERBIRD TMDL: YES NO X

MS4 ENTITY YES X NO

IF YES, LOCATION:

NOTE: THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- X TEMPORARY SEEDING
- X PERMANENT SODDING, SPRIGGING OR SEEDING
- VEGETATIVE MULCHING
- SOIL RETENTION BLANKET
- X PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- STABILIZED CONSTRUCTION EXIT
- X TEMPORARY SILT FENCE
- TEMPORARY SILT DIKES
- TEMPORARY FIBER LOG
- DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ROCK FILTER DAMS
- TEMPORARY SLOPE DRAIN
- PAVED DITCH W/ DITCH LINER PROTECTION
- TEMPORARY DIVERSION CHANNELS
- TEMPORARY SEDIMENT BASINS
- TEMPORARY SEDIMENT TRAPS
- TEMPORARY SEDIMENT FILTERS
- TEMPORARY SEDIMENT REMOVAL
- RIP RAP
- X INLET SEDIMENT FILTER
- TEMPORARY BRUSH SEDIMENT BARRIERS
- SANDBAG BERMS
- TEMPORARY STREAM CROSSINGS

OFFSITE VEHICLE TRACKING:

- HAUL ROADS DAMPENED FOR DUST CONTROL
- X LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- X EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

CONTRACTOR TO REMOVE SEDIMENT WHEN TEMPORARY DEVICES ARE HALF FULL OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGE WAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:

A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC., THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

- 103.05 BONDING REQUIREMENTS
- 104.10 FINAL CLEANING UP
- 104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 104.13 ENVIRONMENTAL PROTECTION
- 106.08 STORAGE AND HANDLING OF MATERIAL
- 107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
- 107.20 STORM WATER MANAGEMENT
 - 220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION AND CONTROL
 - 221 TEMPORARY SEDIMENT CONTROL

IN ADDITION:

"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2017.

THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA



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CA# 6414 EXPIRES 6/30/2024

STORMWATER MANAGEMENT PLAN	
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3	

Monday, July 3, 2023 11:12:58 AM



STATE OF OKLAHOMA
Department of Environmental Quality
APPROVED
August 08 2023
Rocky W. Chen, P.E.
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POTTAWATOMIE COUNTY, OKLAHOMA

SURVEY DATA

DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-152
DATE	6/13/2023

REVISIONS

SHEET NUMBER	4
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BM-1
LAVERNE AVENUE
CUT "X" ON CONC. CURB
N: 734667.105
E: 2295424.312
ELEV.=1088.60'



BM-2
LAVERNE AVENUE
CUT "X" ON CONC. CURB
N: 733917.1086
E: 2295426.7428
ELEV.=1075.70'



BM-3
LAVERNE AVENUE
CUT "X" ON CONC. CURB
N: 733562.3725
E: 2295410.804
ELEV.=1079.45'



BM-4
THOMPSON DRIVE
CUT "X" ON CONC. CURB
N: 734669.897
E: 2295102.665
ELEV.=1089.79'



BM-5
THOMPSON DRIVE
CUT "X" ON CONC. CURB
N: 734136.477
E: 2295133.608
ELEV.=1085.52'



BM-6
RICKEY ROAD
CUT "X" ON CONC. CURB
N: 734679.989
E: 2294778.786
ELEV.=1095.14'



BM-7
RICKEY ROAD
CUT "X" ON CONC. CURB
N: 734272.689
E: 2294797.153
ELEV.=1095.42'



BM-8
SHERRY LANE
CUT "X" ON CONC. CURB
N: 733529.038
E: 2295192.902
ELEV.=1082.70'



BM-9
SHERRY LANE
CUT "X" ON CONC. CURB
N: 734684.643
E: 2294509.633
ELEV.=1095.97'

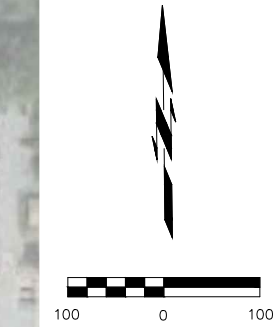
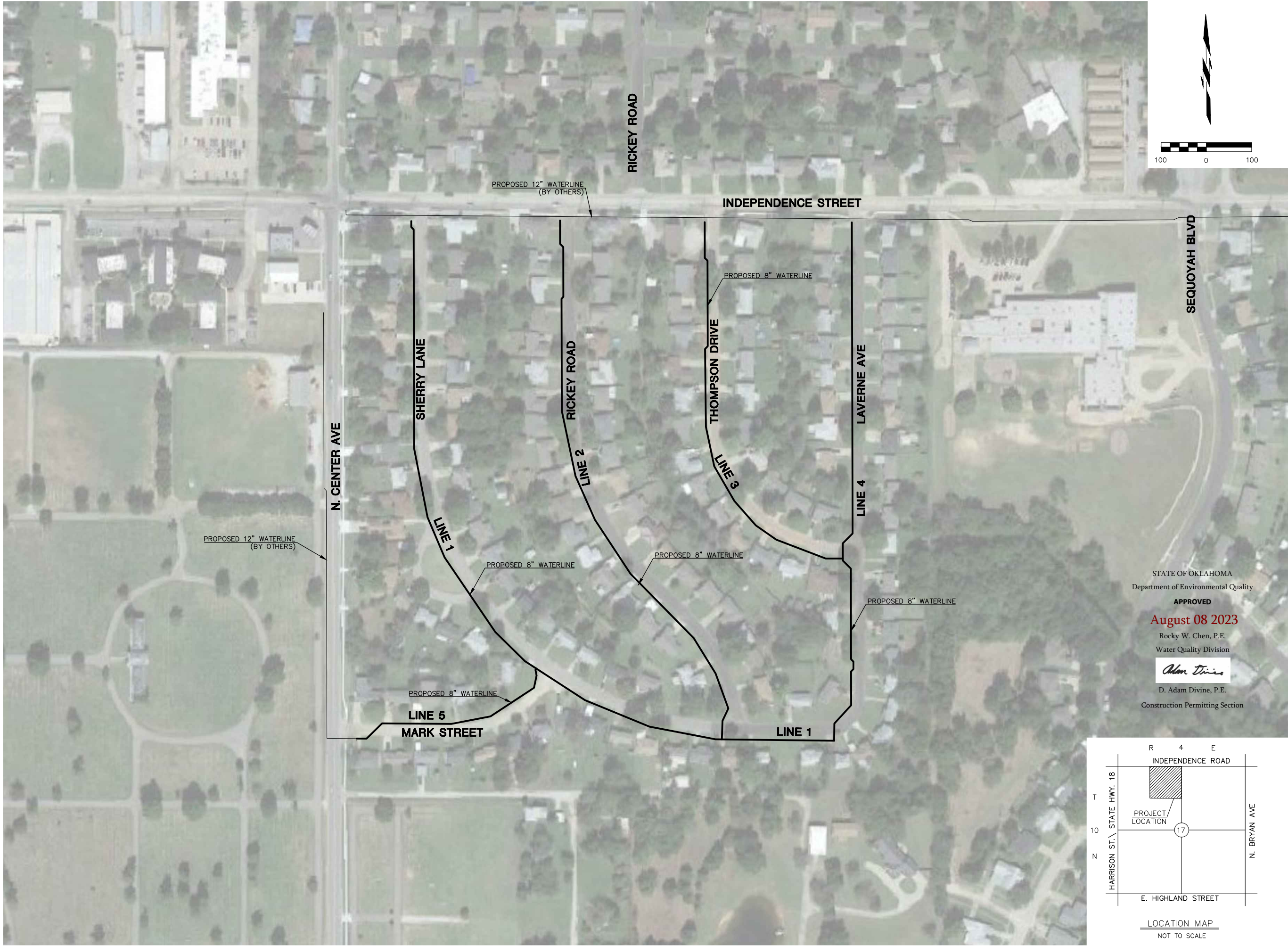


BM-10
SHERRY LANE
CUT "X" ON CONC. CURB
N: 734150.480
E: 2294476.574
ELEV.=1093.44'

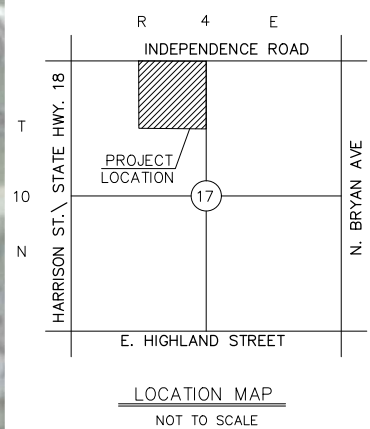


BM-11
MARK STREET
CUT "X" ON CONC. CURB
N: 733624.352
E: 2294763.592
ELEV.=1083.49'

Monday, July 3, 2023 11:13:05 AM



STATE OF OKLAHOMA
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THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

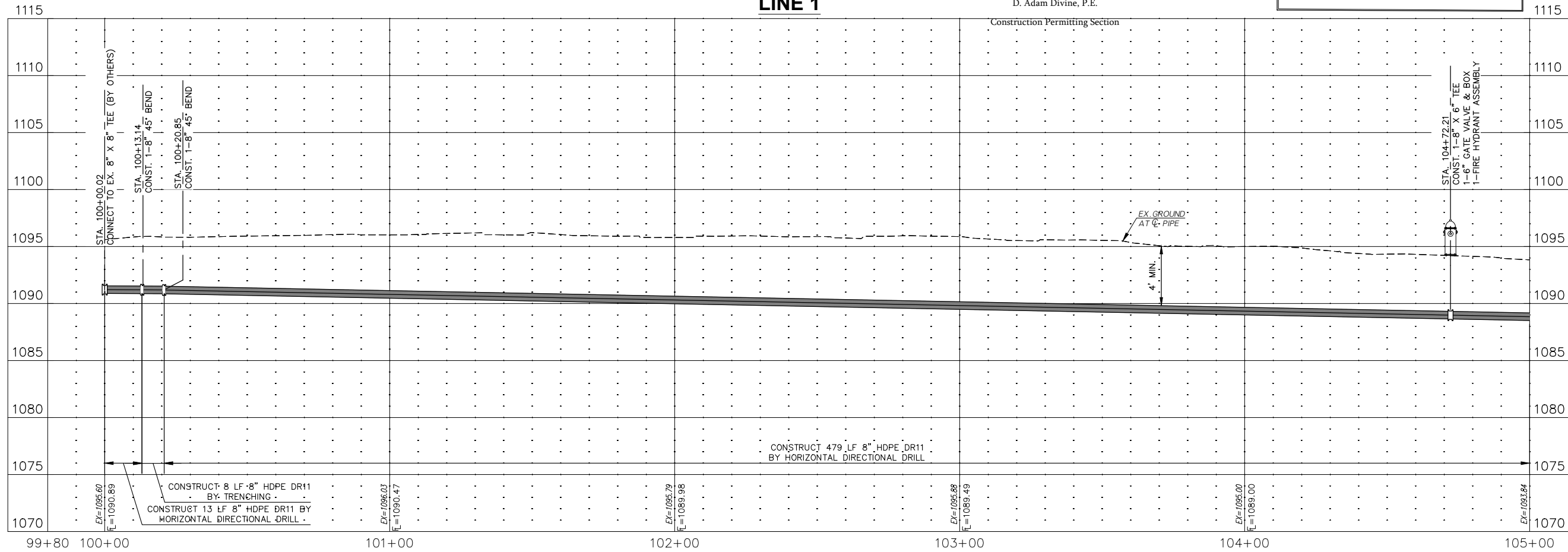
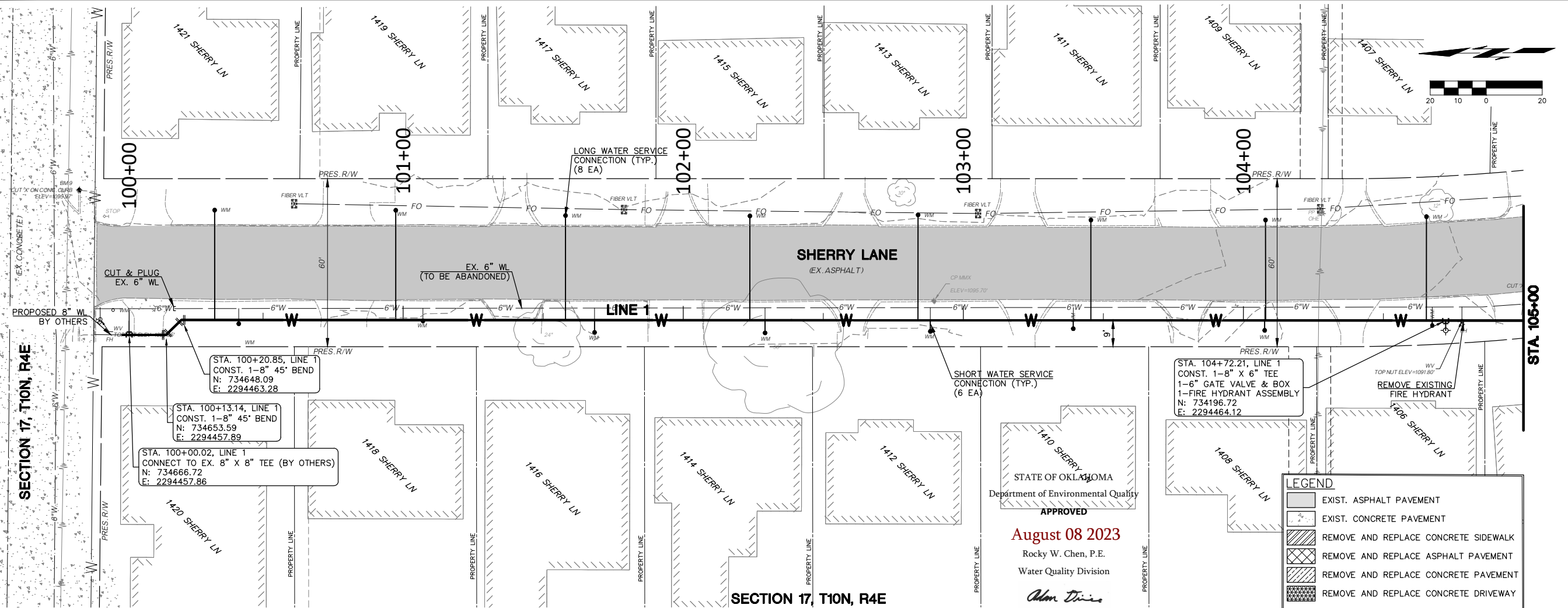
CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

OVERALL MAP	
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SECTION 8, T10N, R4E

SECTION 17, T10N, R4E





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THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

CITY OF SHAWNEE

POTTAWATOMIE COUNTY, OKLAHOMA

LINE 1 P&P
(1 OF 4)

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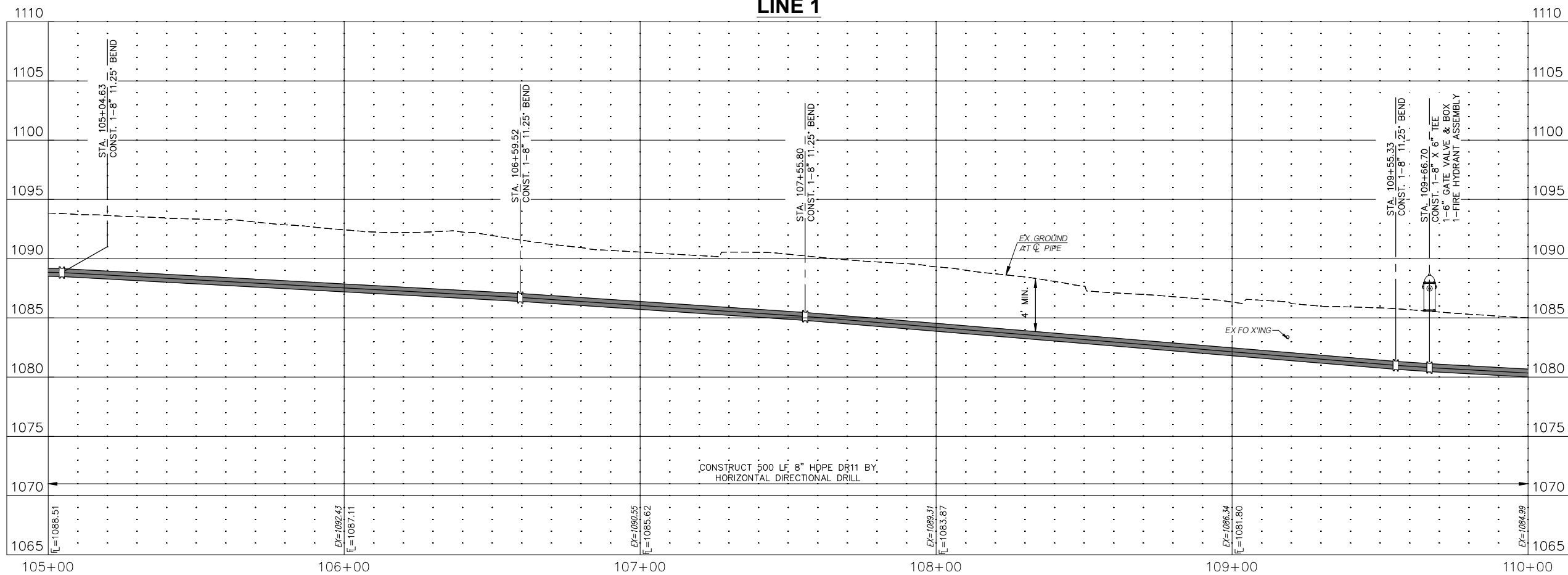
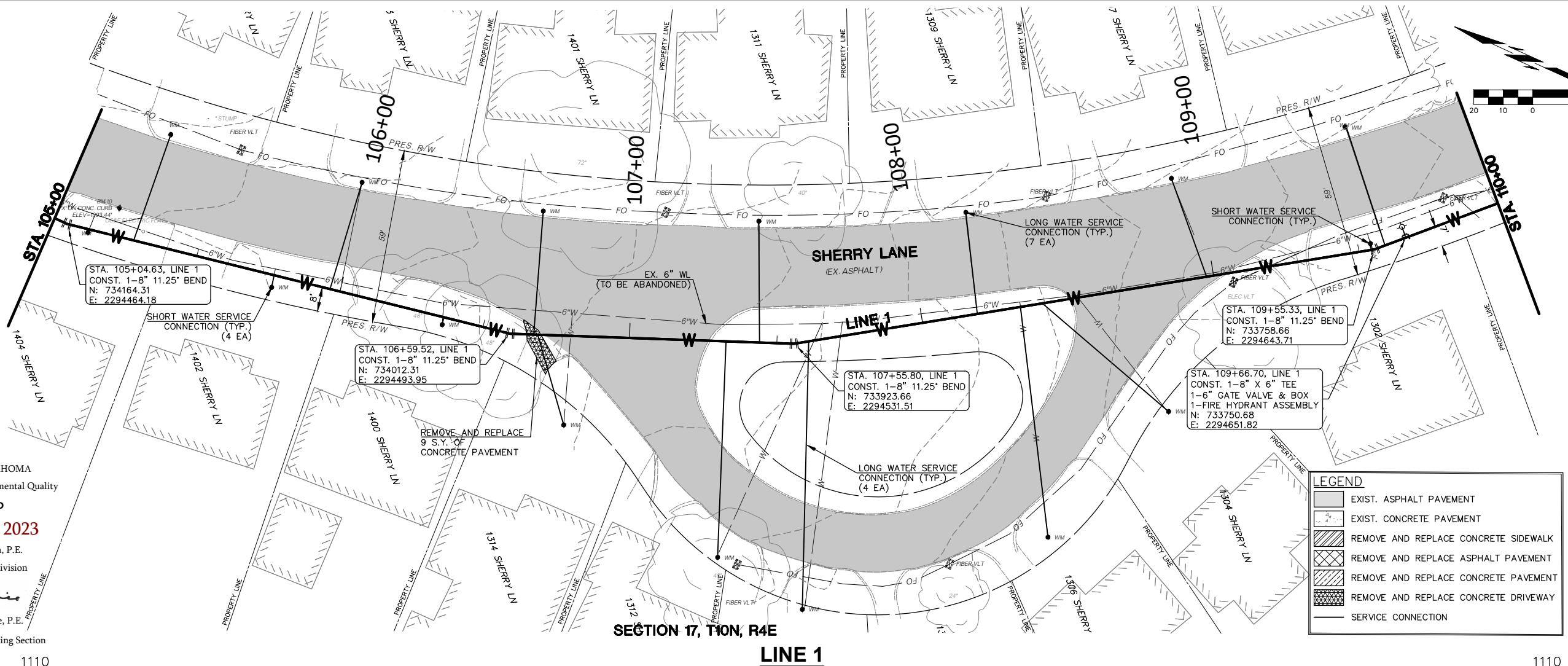
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6

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CITY OF SHAWNEE
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LINE 1 P&P (2 OF 4)

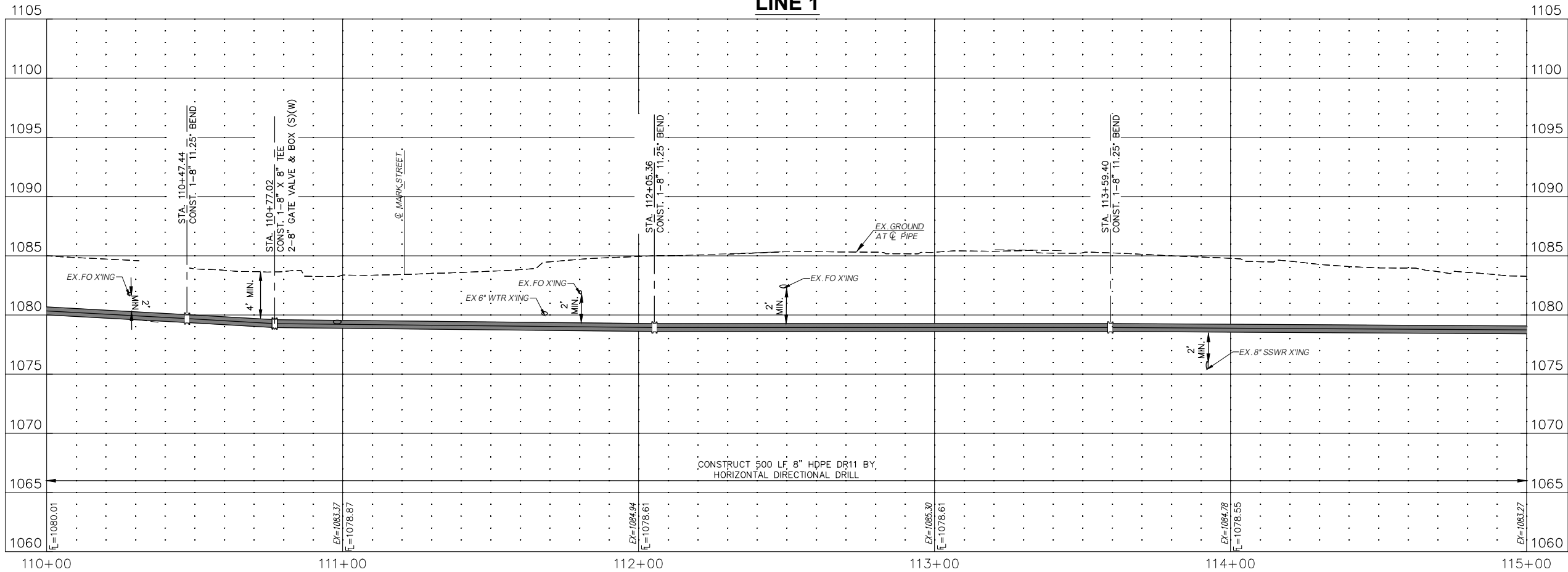
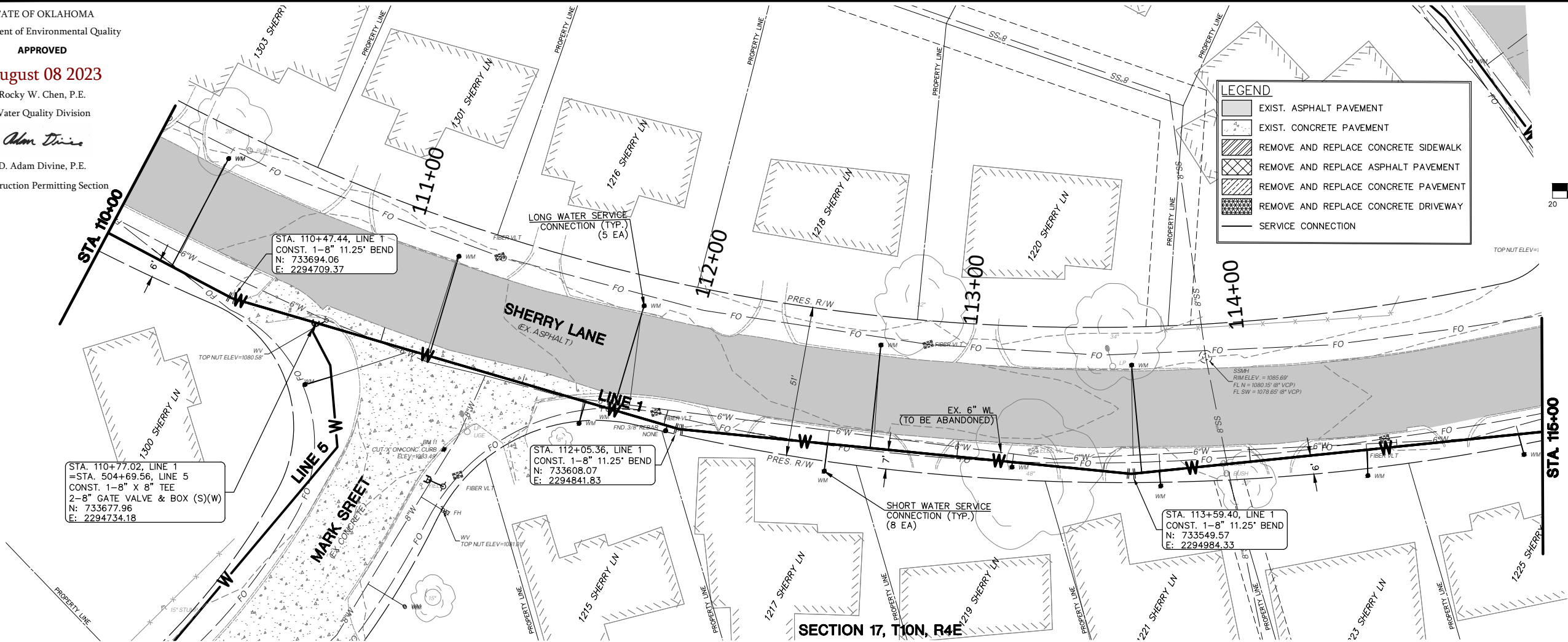
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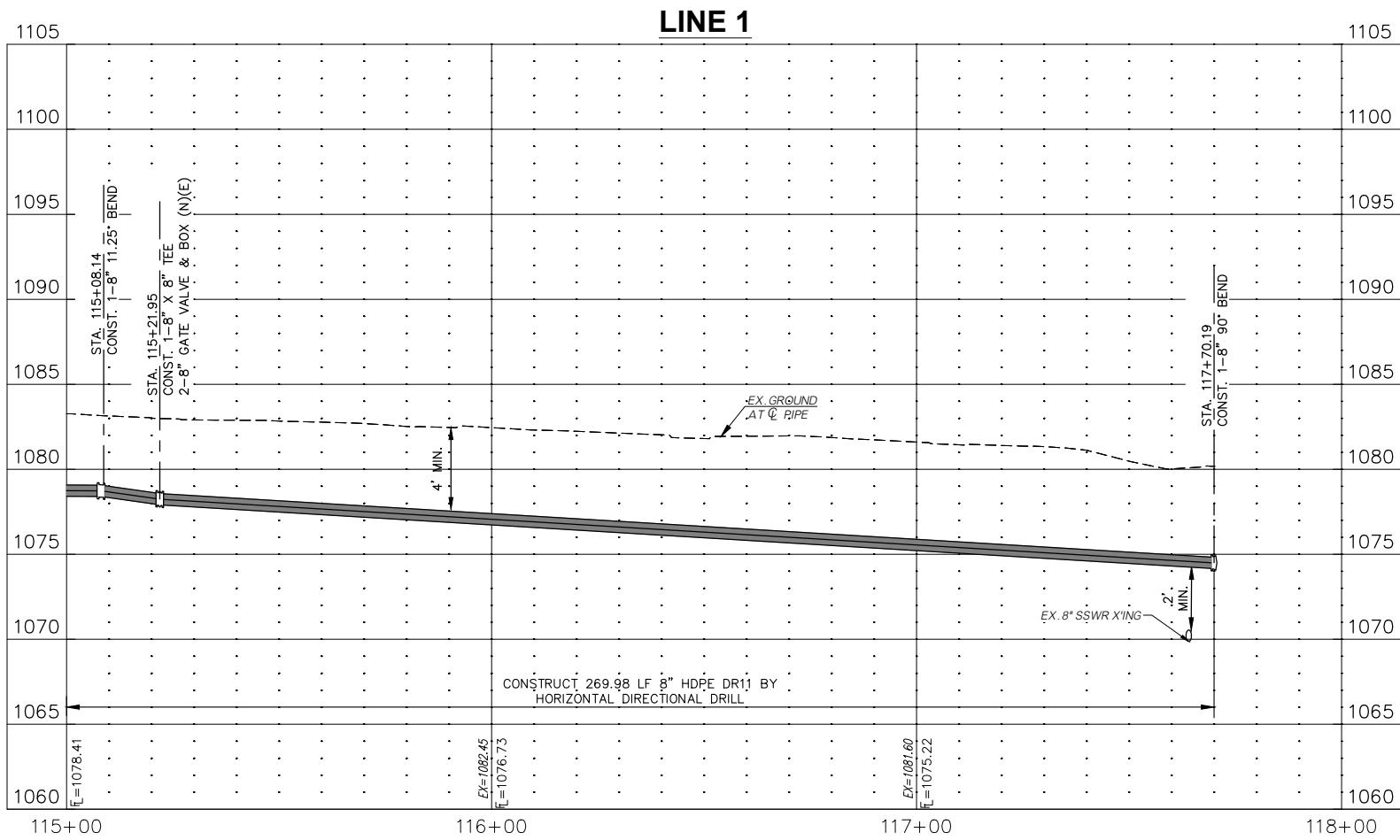
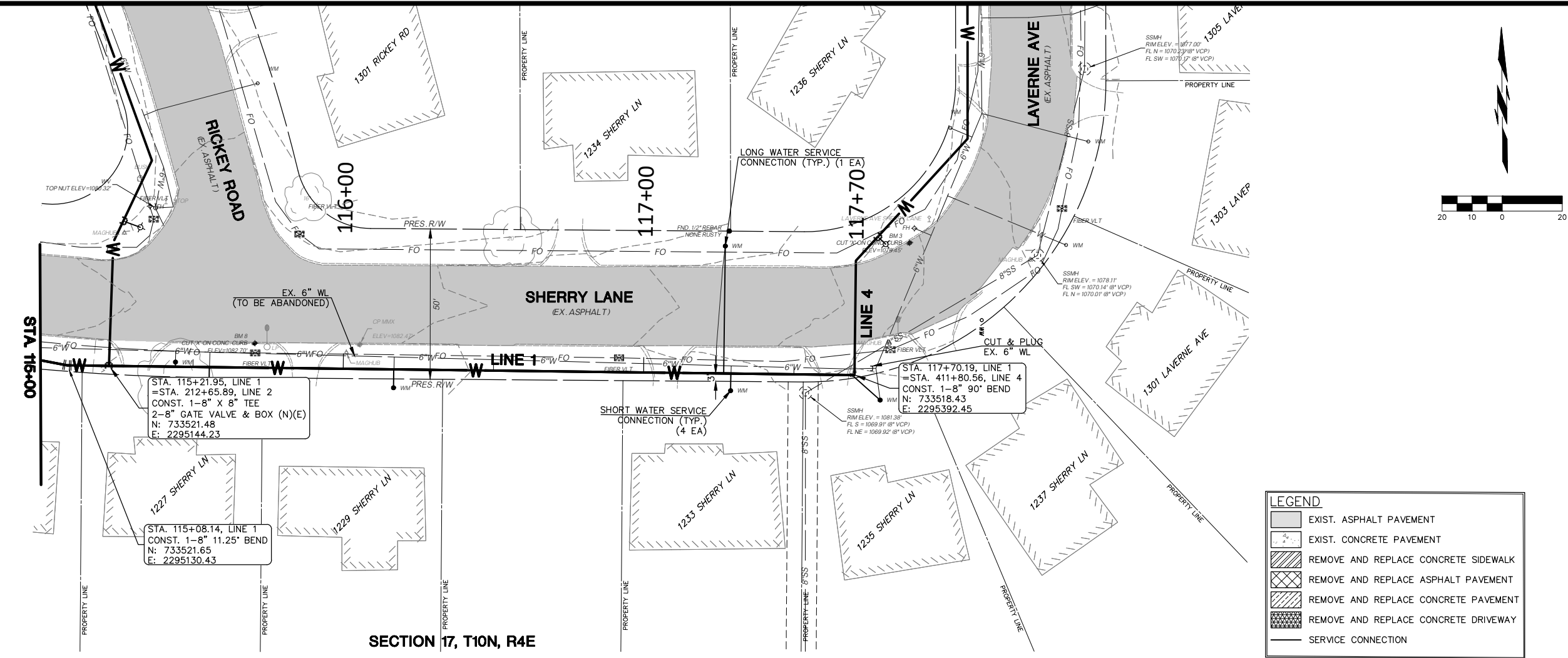


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LINE 1 P&P (3 OF 4)	
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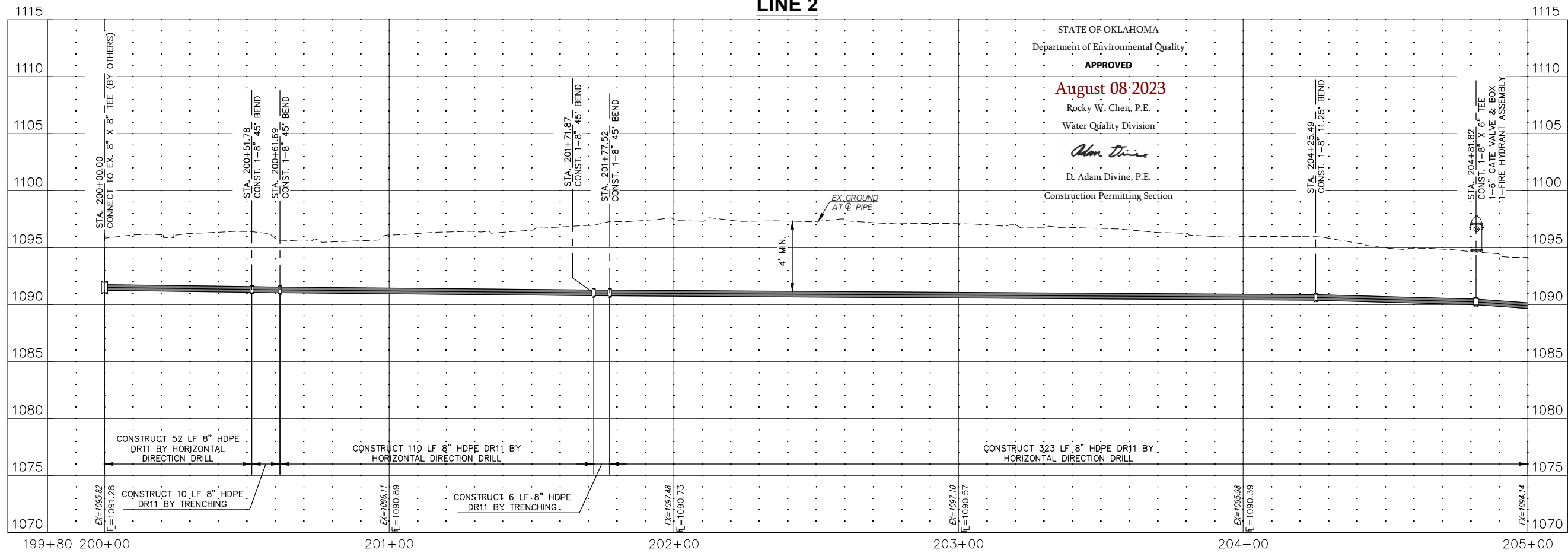
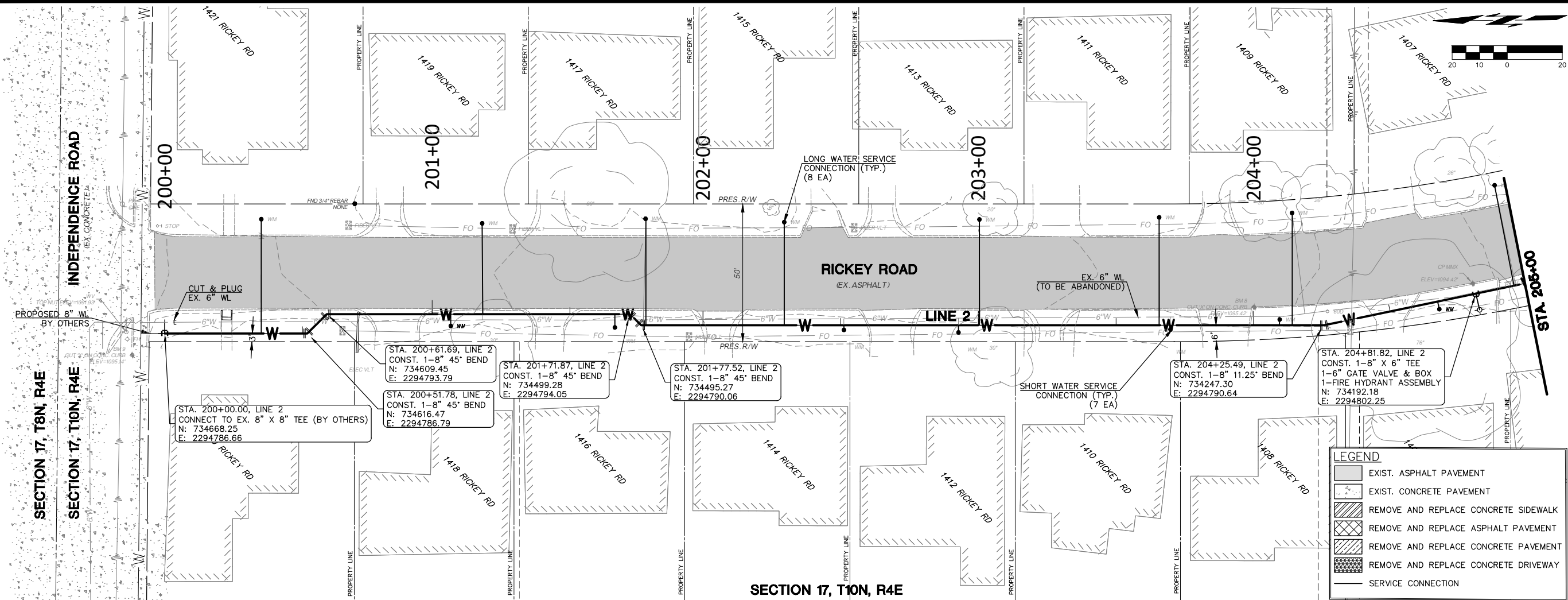
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LINE 1 P&P (4 OF 4)	
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THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

CITY OF SHAWNEE
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LINE 2 P&P (1 OF 3)

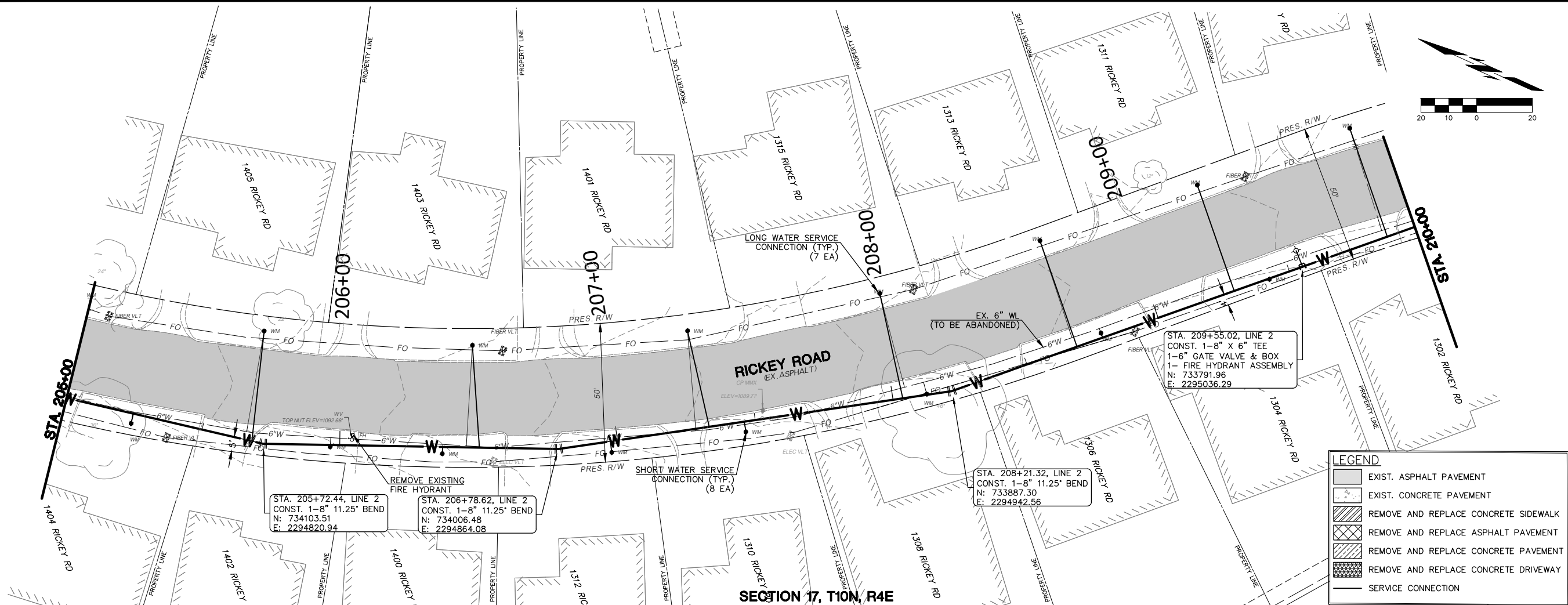
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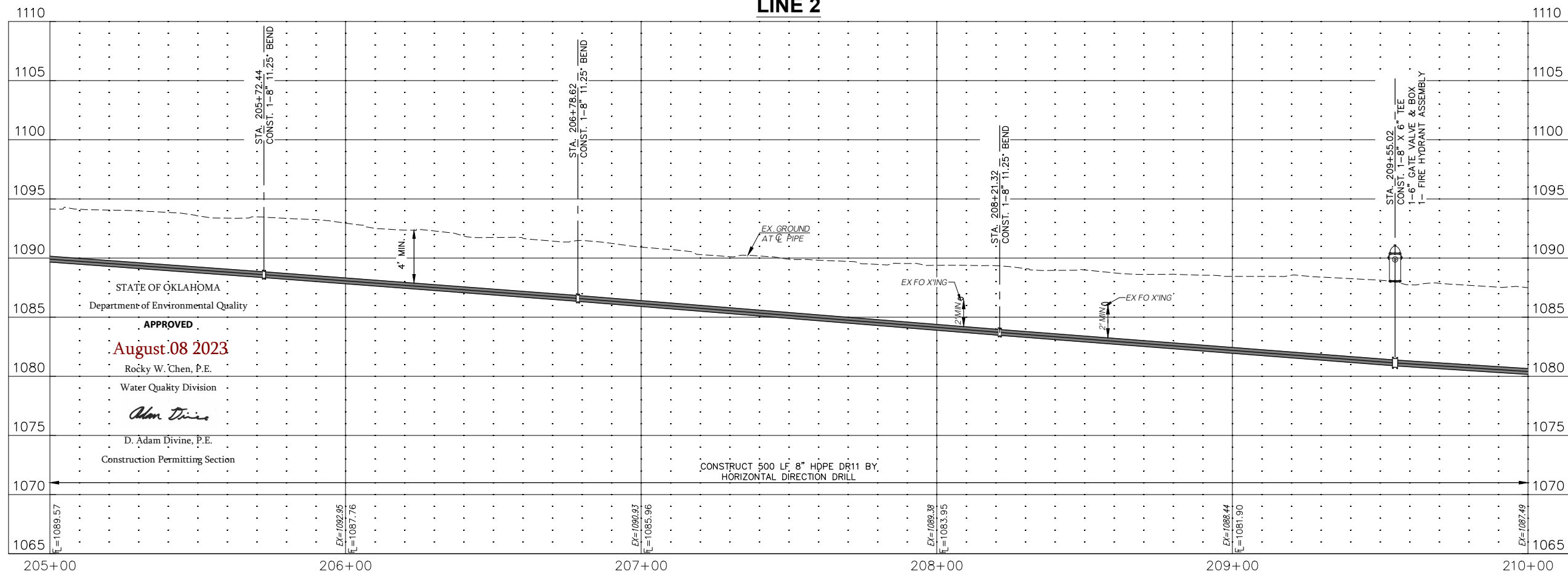
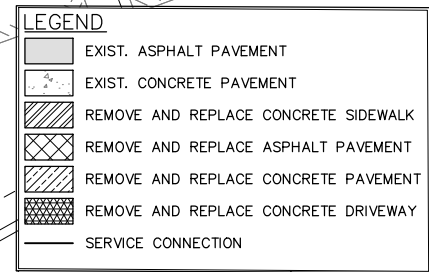
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SECTION 17, T10N, R4E
LINE 2



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CITY OF SHAWNEE
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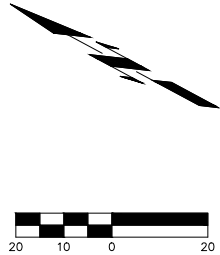
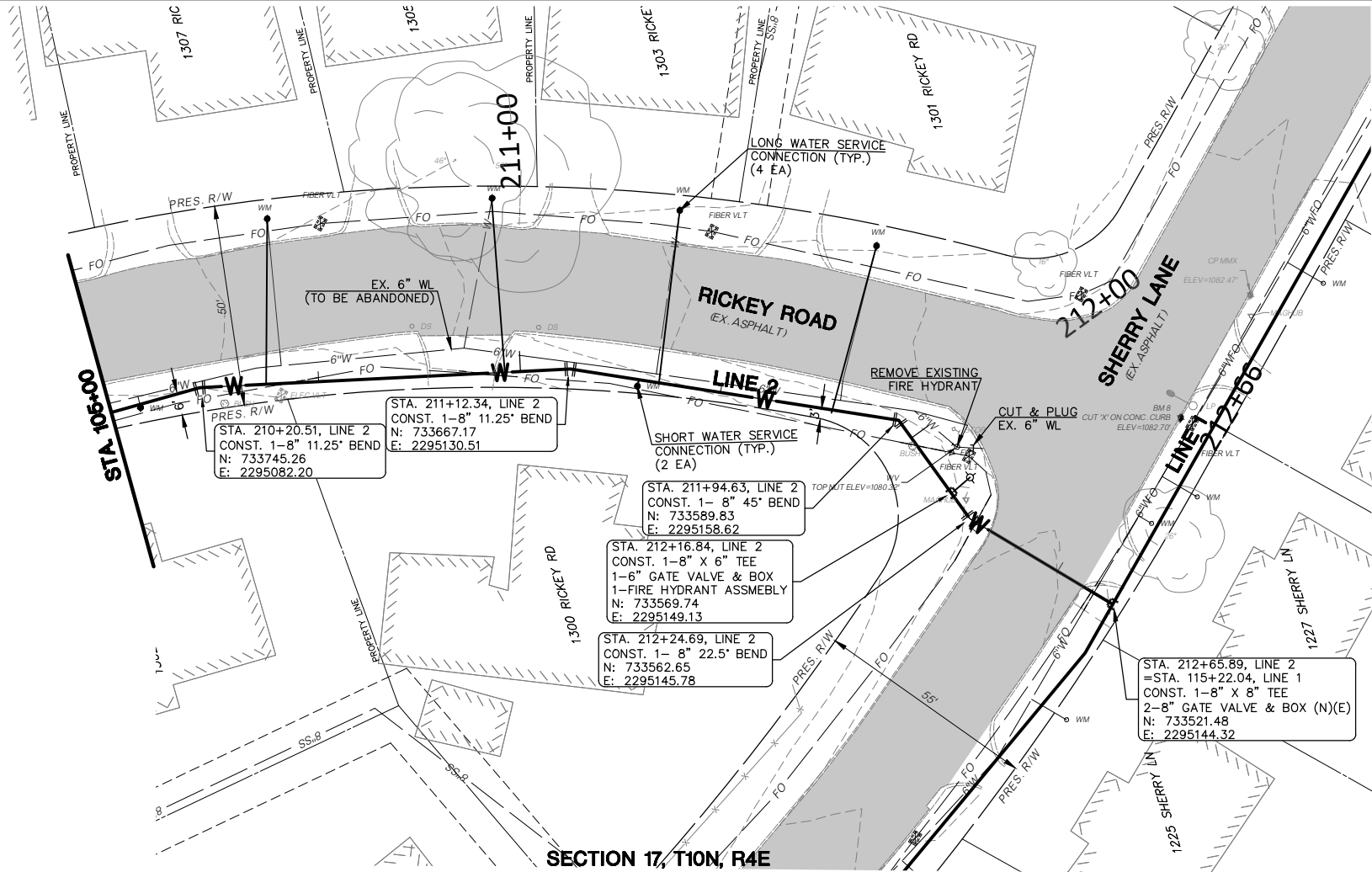
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(2 OF 3)**

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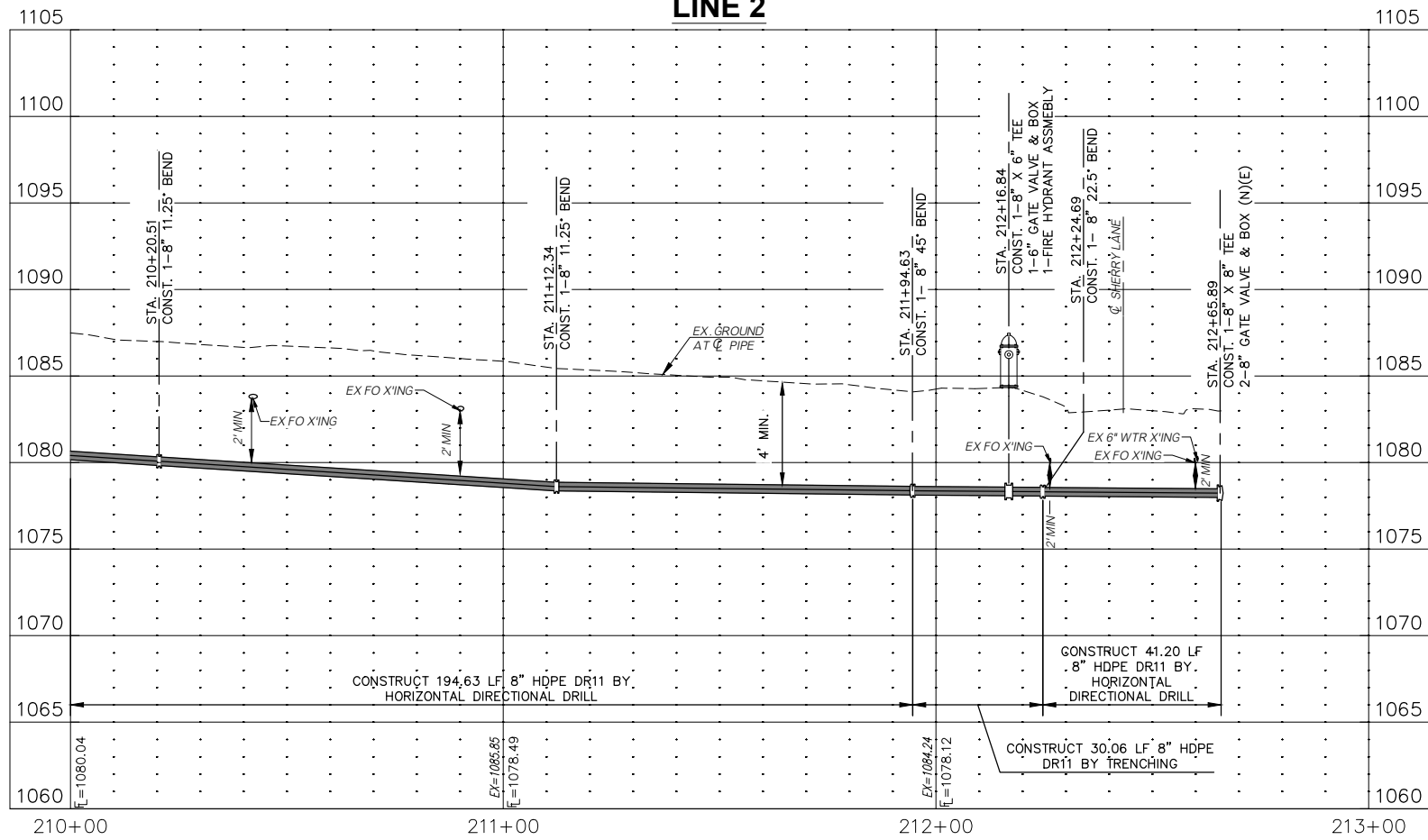
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11

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LEGEND	
	EXIST. ASPHALT PAVEMENT
	EXIST. CONCRETE PAVEMENT
	REMOVE AND REPLACE CONCRETE SIDEWALK
	REMOVE AND REPLACE ASPHALT PAVEMENT
	REMOVE AND REPLACE CONCRETE PAVEMENT
	REMOVE AND REPLACE CONCRETE DRIVEWAY
	SERVICE CONNECTION



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LINE 2 P&P
(3 OF 3)

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12

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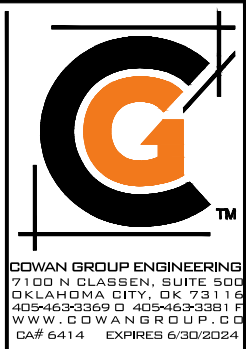
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Adam Divine

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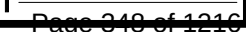
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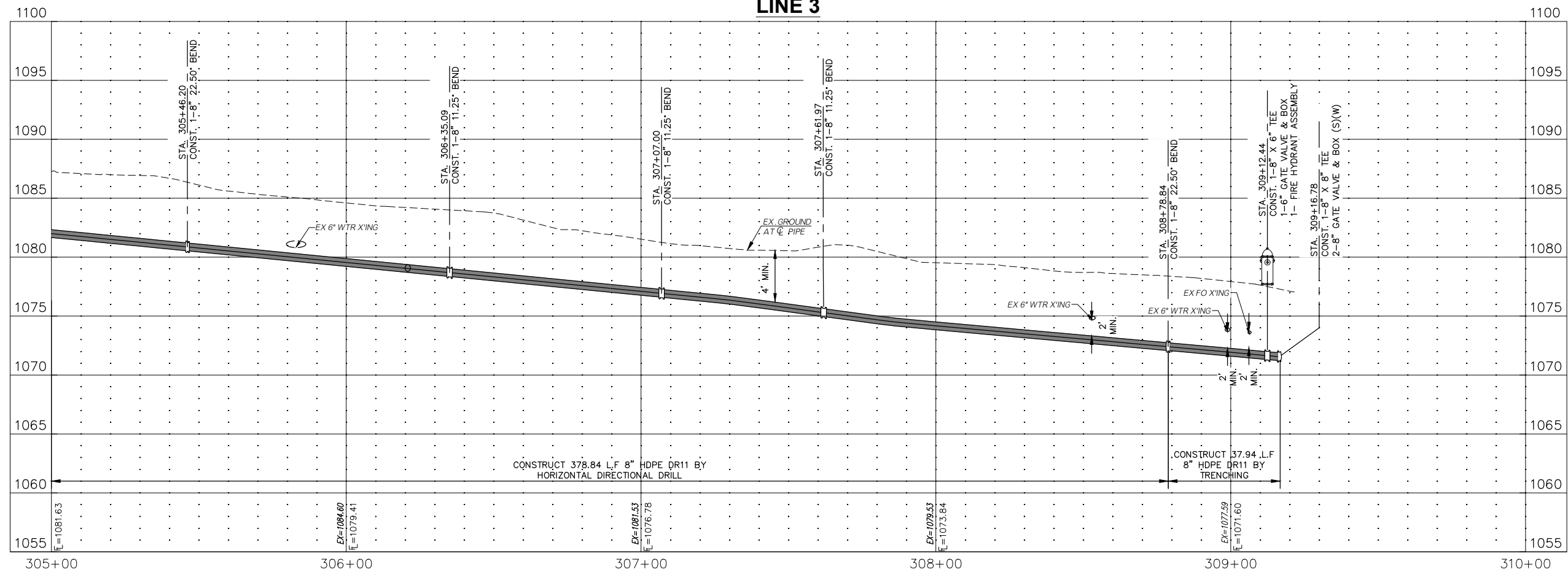
LINE 3 P&P
(2 OF 2)

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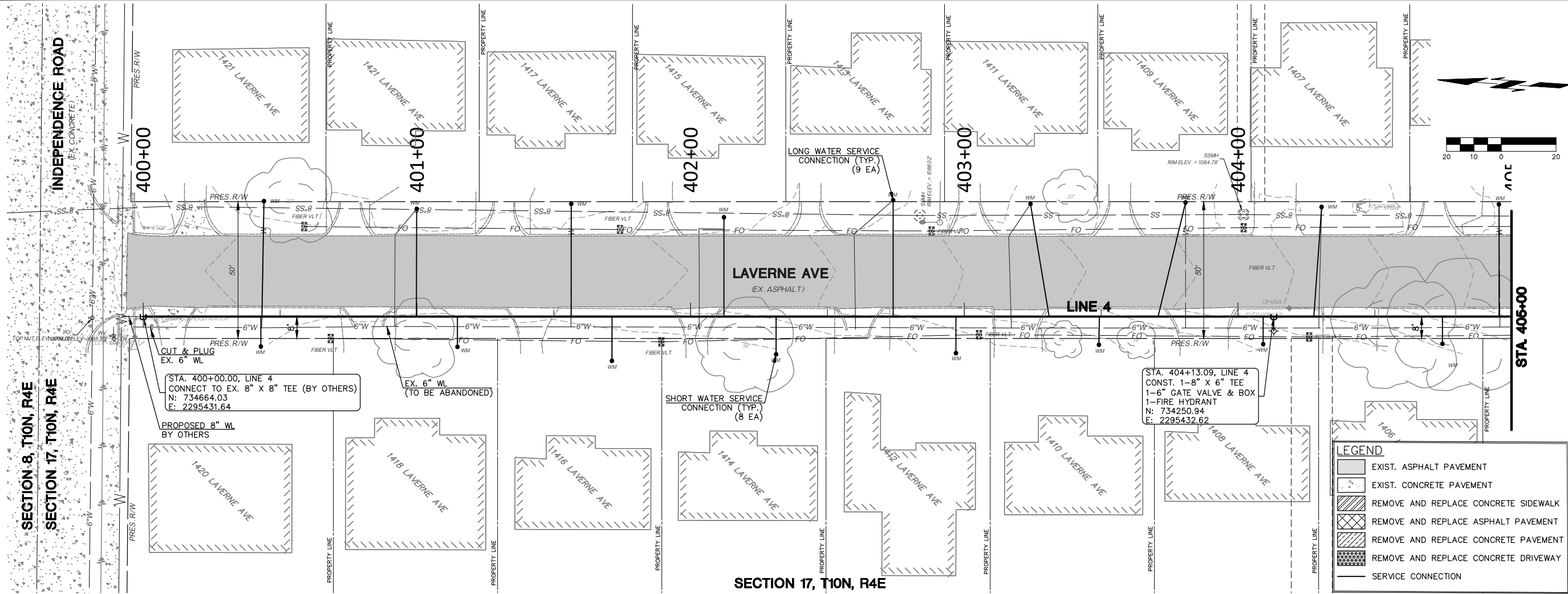
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PROJECTS\23-152 SHAWNEE THOMPSON HEIGHTS WATERLINES\CAD\WTR\23-152 LINE 3 P&P.DWG

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**LINE 4 P&P
(1 OF 3)**

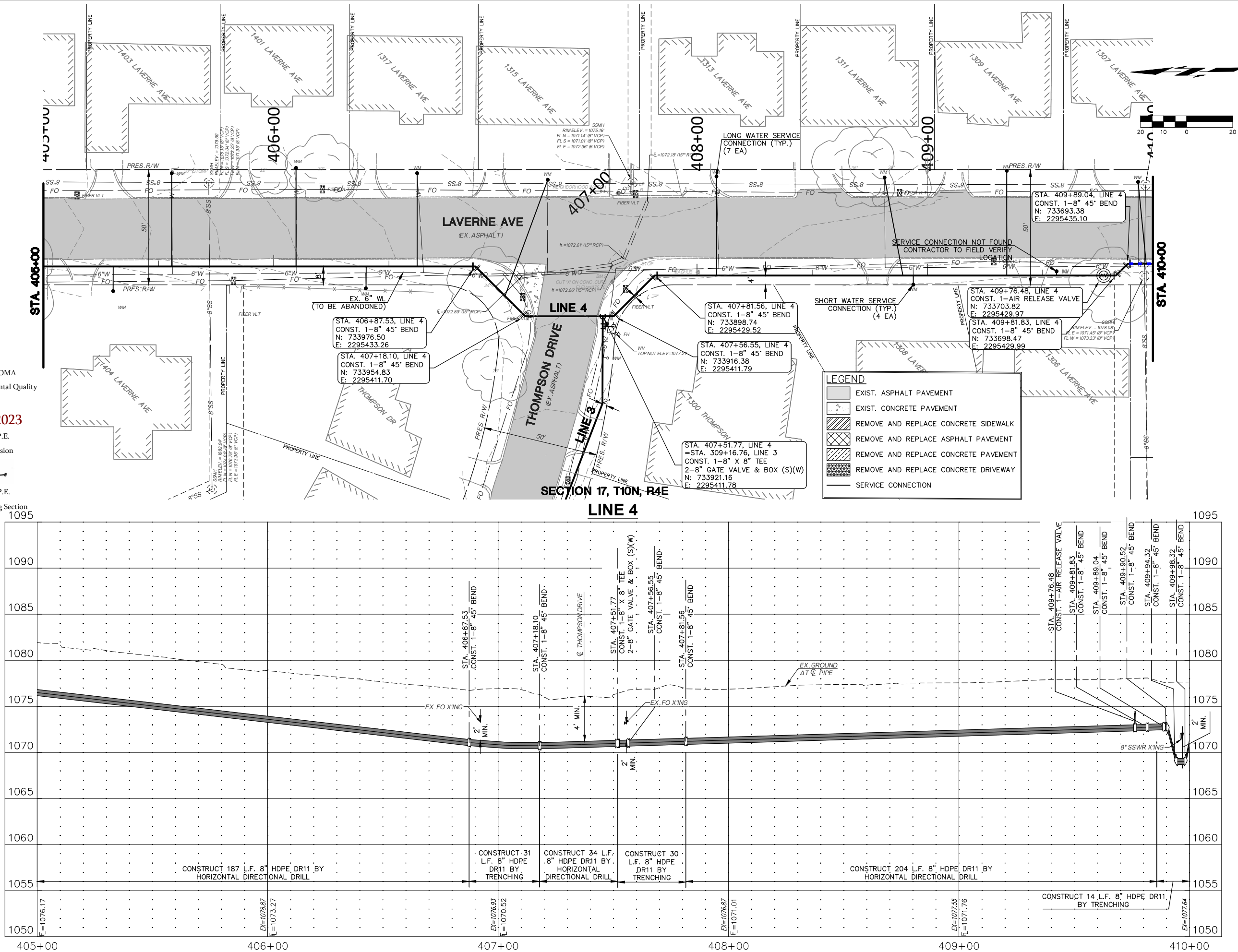
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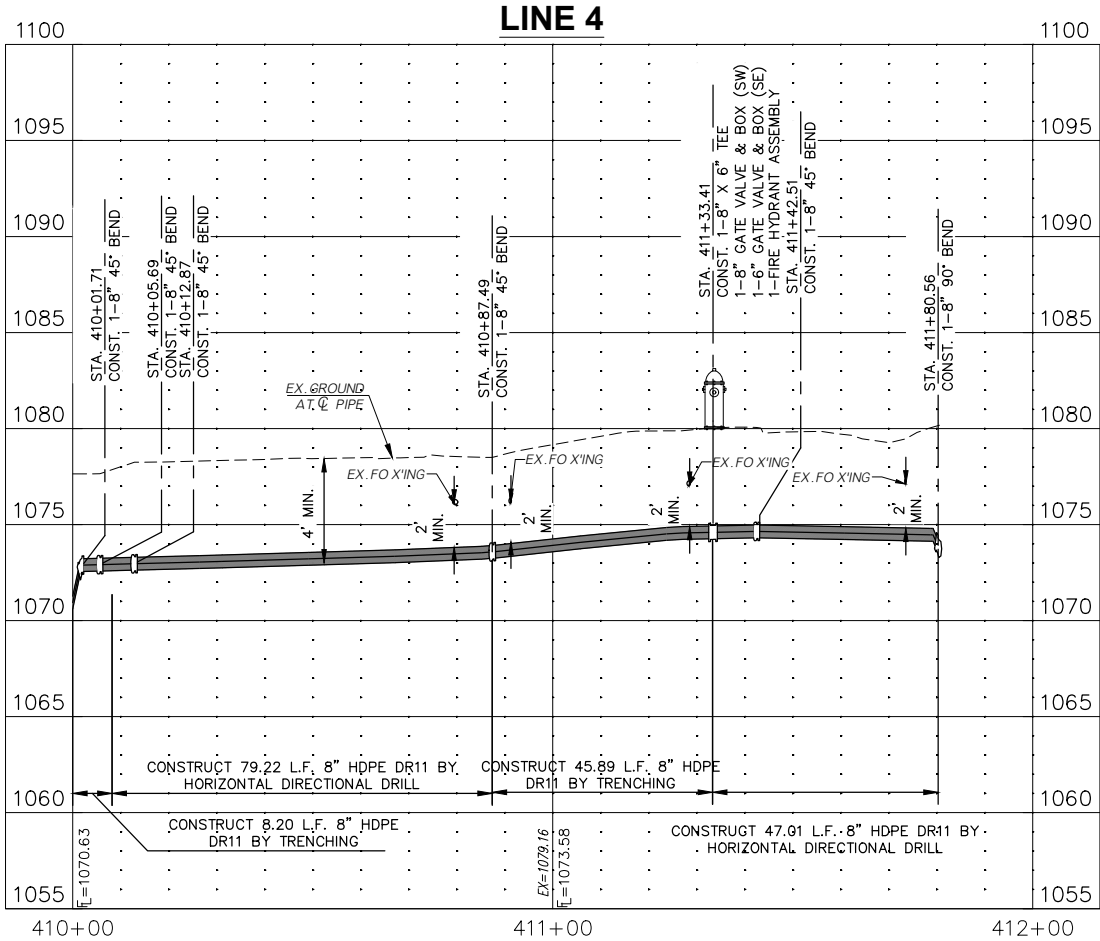
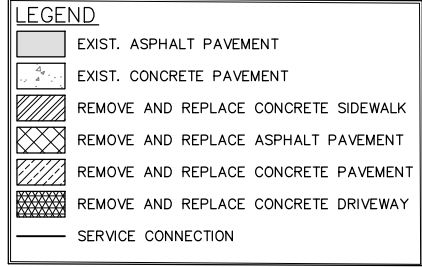
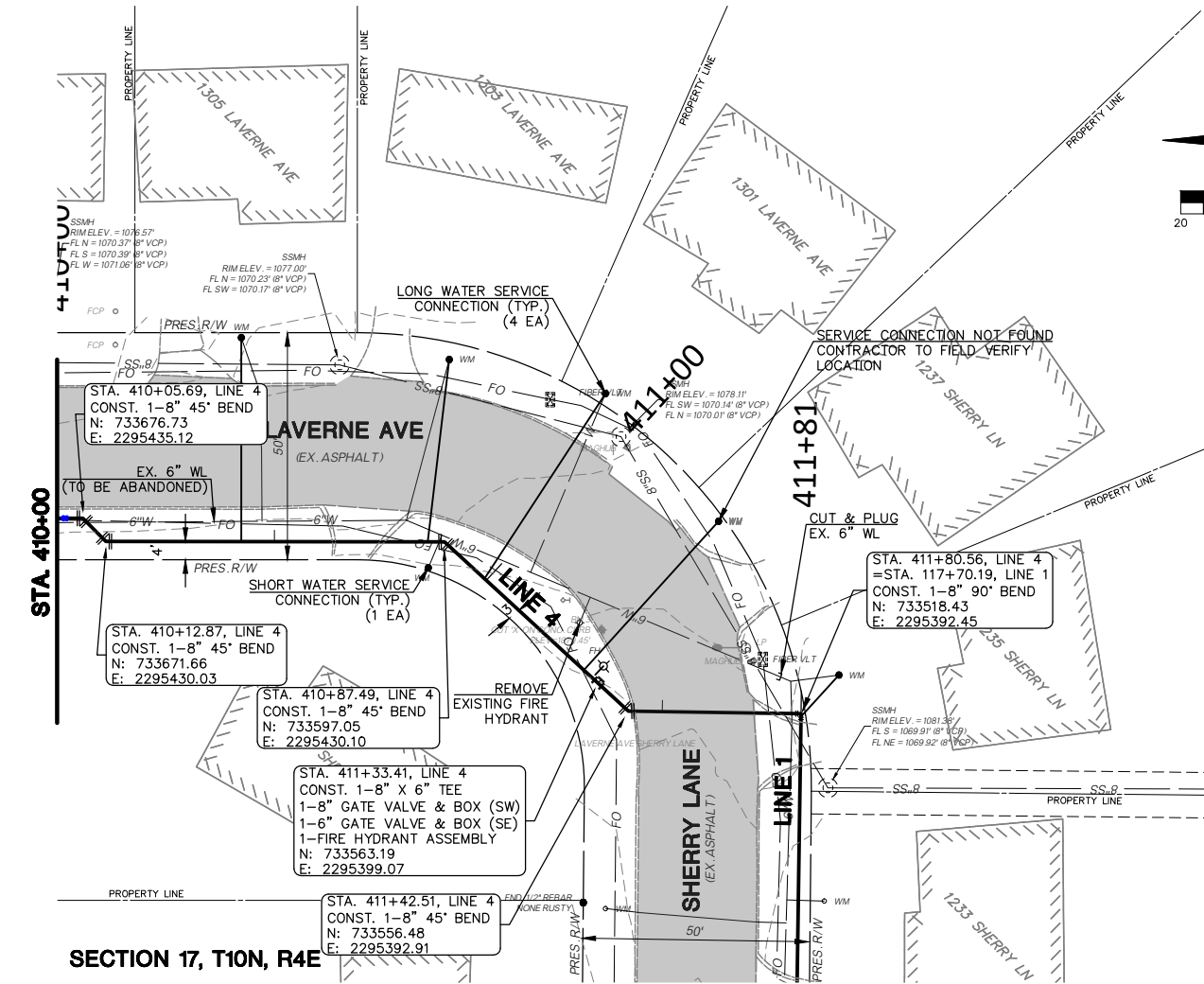
THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

CITY OF SHAWNEE
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LINE 4 P&P (2 OF 3)	
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LINE 4 P&P (3 OF 3)

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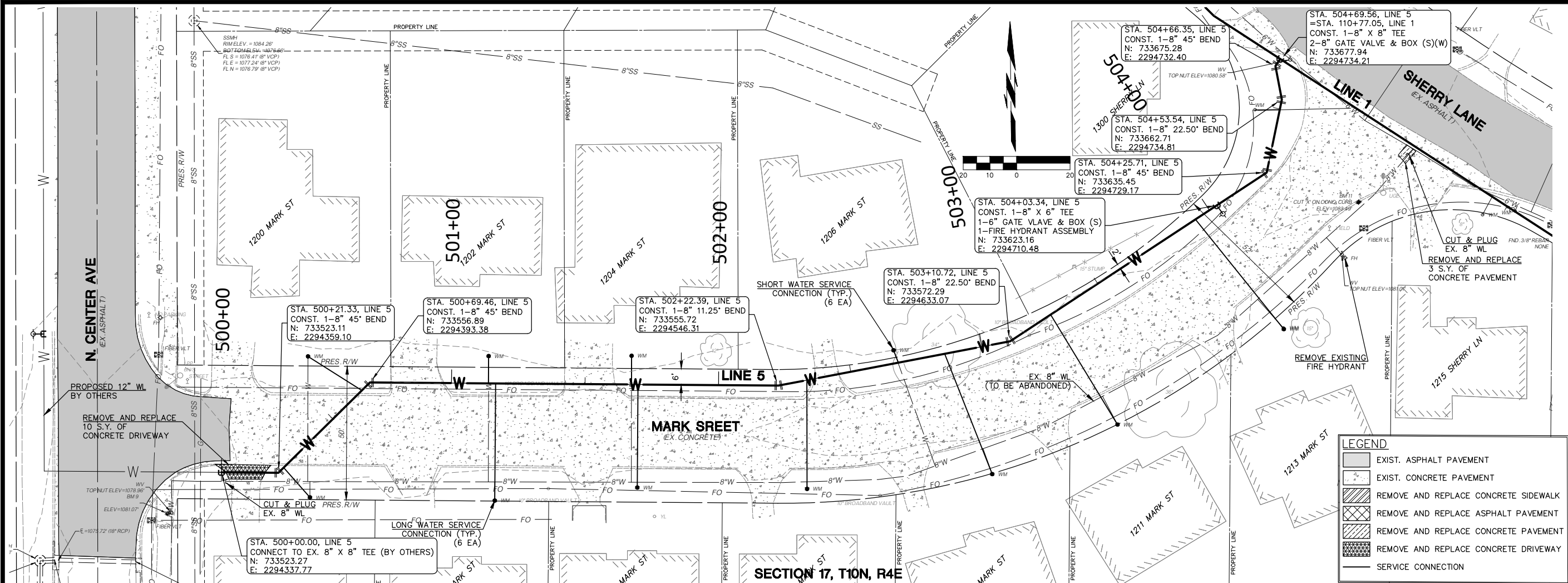
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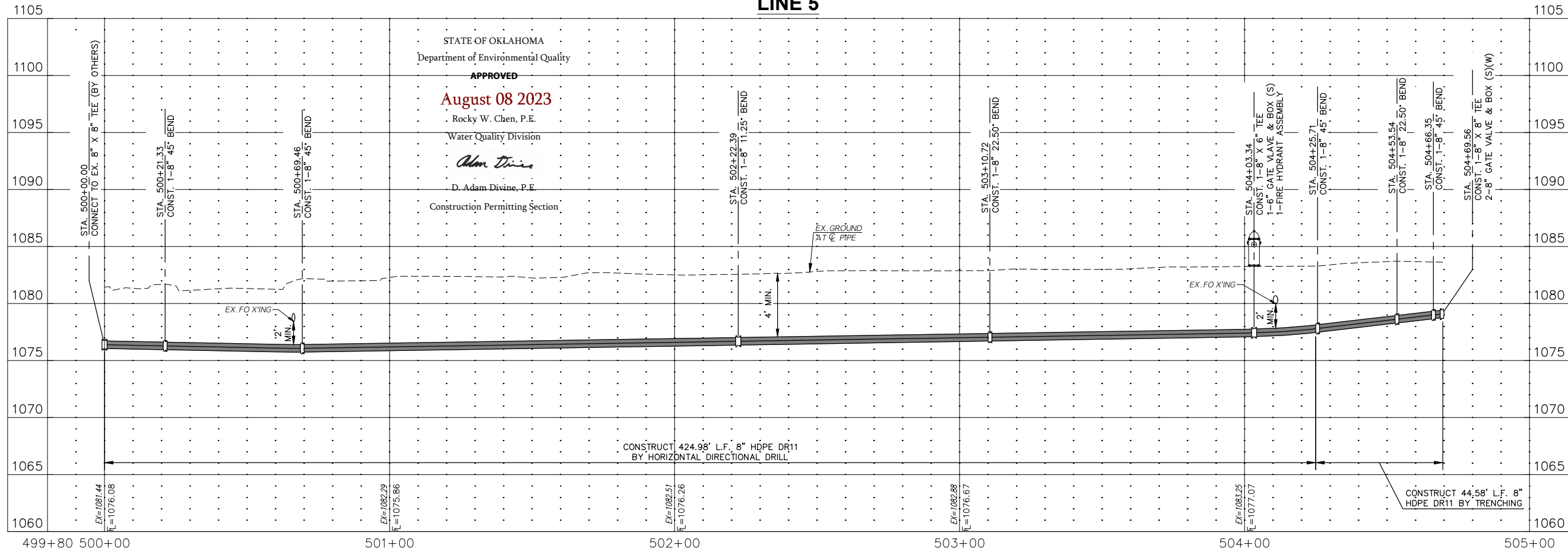
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SECTION 17, T10N, R4E

LINE 5





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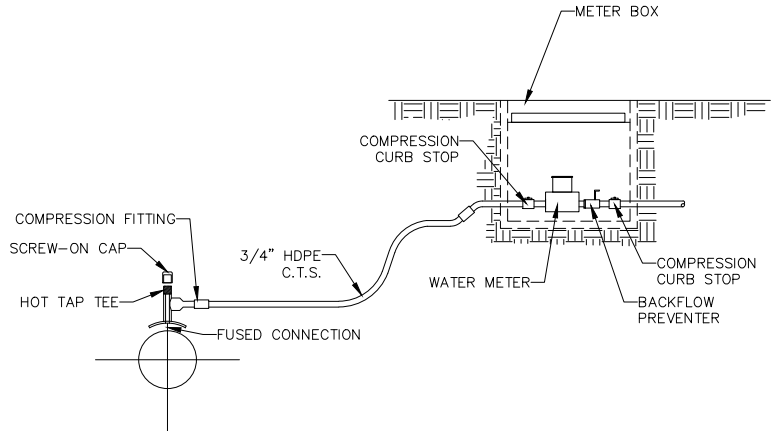
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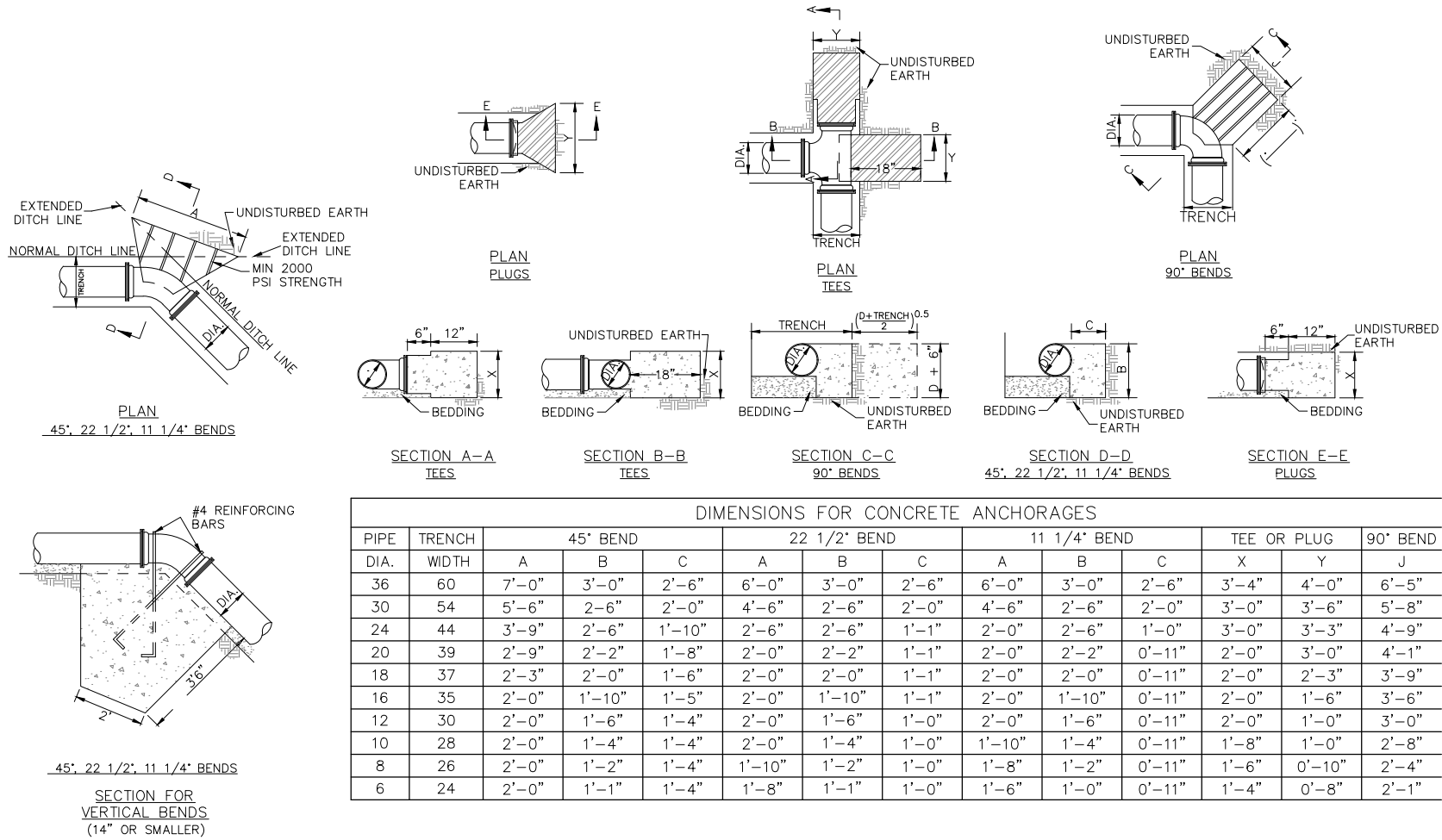
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TYPICAL SERVICE LINE CONNECTION

SCALE: N.T.S.



THRUST BLOCKING



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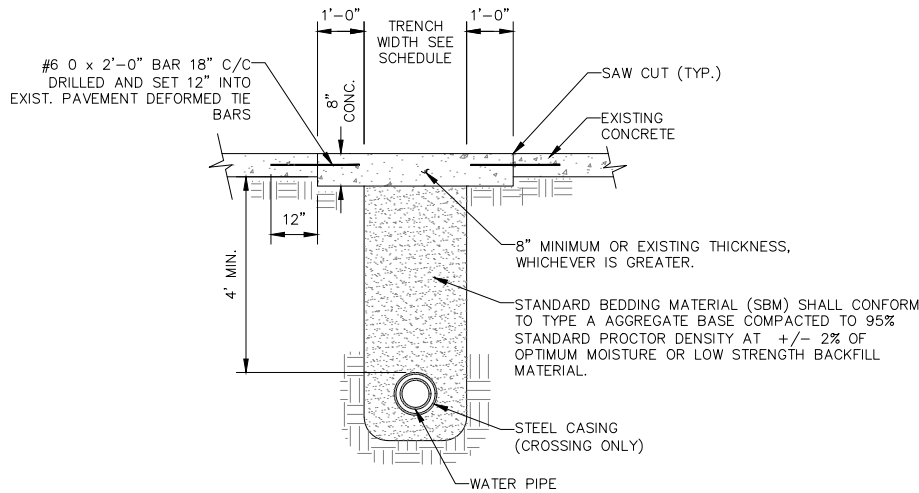
WATER DETAILS
(2 OF 3)

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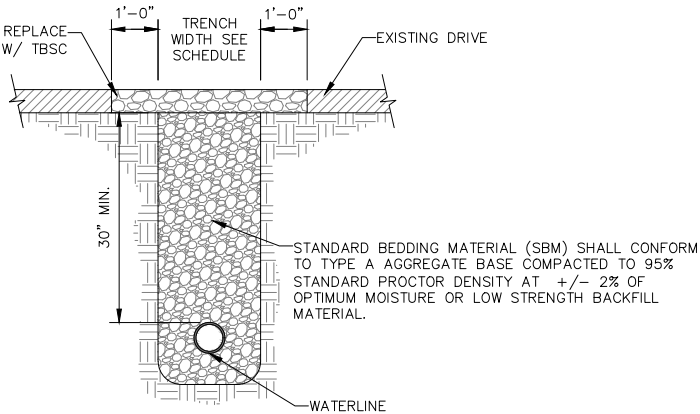
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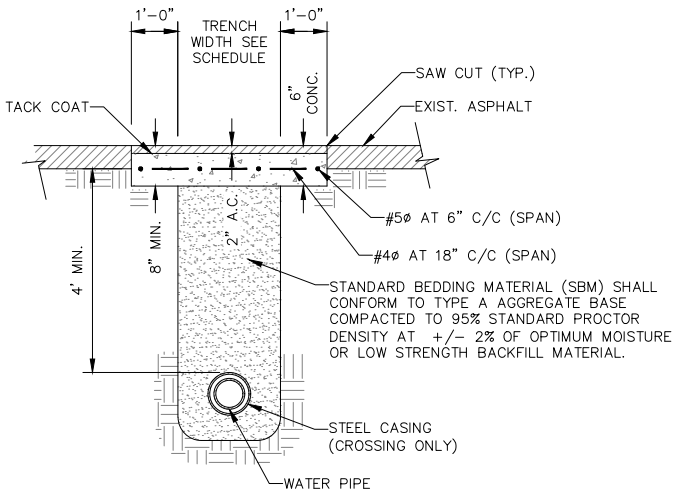
PAVING CUT AND PERMANENT REPAIR CONCRETE

SCALE: N.T.S.



DRIVE CUT AND PERMANENT REPAIR GRAVEL

SCALE: N.T.S.



PAVING CUT AND PERMANENT REPAIR ASPHALT

SCALE: N.T.S.

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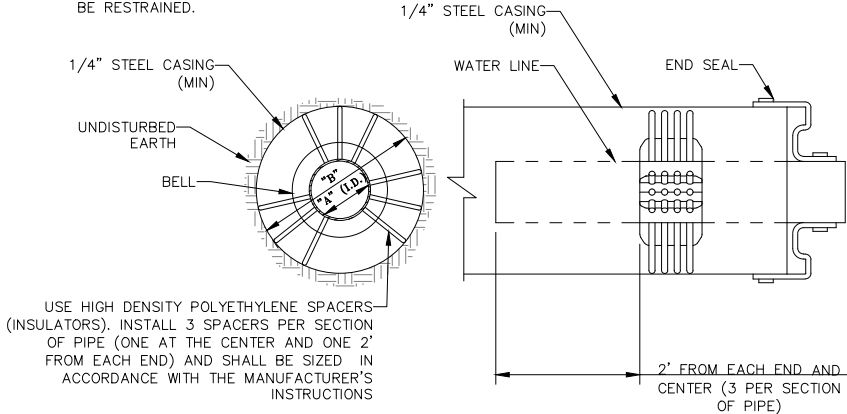
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NOTES:

1. CONSTRUCT WATER TIGHT PLUG AT EACH END OF CASING
2. ALL WATERLINE JOINTS WITHIN CASING SHALL BE RESTRAINED.

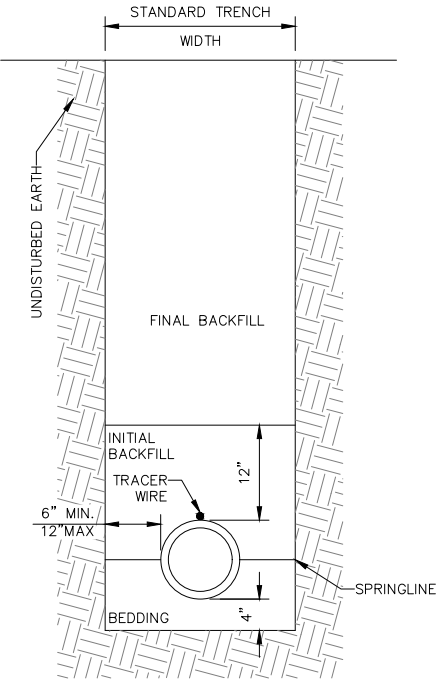


STANDARD ROAD CROSSING BORE

SCALE: N.T.S.

PIPE & STEEL CASING SCHEDULE	
PIPE DIA. "A"	CASING DIA. "B"
6"	16"
8"	18"
10"	20"
12"	24"
16"	30"
18"	30"
24"	42"

INSIDE PIPE DIAMETER (IN.)	STANDARD TRENCH WIDTH (IN.)
6	18
8	24
10	30
12	30
15	36
18	36
21	42
24	42
27	48
30	48
36	54
42	60
48	66



PIPE INSTALLATION

SCALE: N.T.S.

NOTES:

1. STANDARD BEDDING MATERIAL (SBM), SHALL CONFORM TO TYPE A AGGREGATE BASE LOW STRENGTH BACKFILL MATERIAL.
2. SELECT FILL CONSISTS OF EXCAVATED MATERIALS FREE OF ROCKS LARGER THAN 2-1/2 INCHES, ORGANIC MATERIAL, RUBBISH, DEBRIS, AND ALL OTHER OBJECTIONABLE MATERIAL.
3. IF STONE IS DISCOVERED IN TRENCH, REMOVE ALL STONES FOUND IN THE TRENCH TO A DEPTH OF AT LEAST 6 INCHES BELOW THE BOTTOM OF THE PIPE.
4. COMPACTION REQUIREMENTS:
A. PAVED AREAS: 95% STANDARD PROCTOR DENSITY
B. NON-PAVED AREAS: 90% STANDARD PROCTOR DENSITY IF COVER DEPTH < 10'. 95% STANDARD PROCTOR DENSITY IF COVER DEPTH > 10'.

DESCRIPTION	PAVED AREAS		NON-PAVED AREAS	
	FLEXIBLE PIPE	RIGID PIPE	FLEXIBLE PIPE	RIGID PIPE
FINAL BACKFILL	STAND. BEDDING MATERIAL (SBM)	STAND. BEDDING MATERIAL (SBM)	EXCAVATED MATERIAL	EXCAVATED MATERIAL
INITIAL BACKFILL	STAND. BEDDING MATERIAL (SBM)	STAND. BEDDING MATERIAL (SBM)	COVER DEPTH < 10' - SELECT FILL COVER DEPTH > 10' - STAND. BEDDING MATERIAL	SELECT FILL
BEDDING	STAND. BEDDING MATERIAL (SBM)	STAND. BEDDING MATERIAL (SBM)	STAND. BEDDING MATERIAL (SBM)	STAND. BEDDING MATERIAL (SBM)



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THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

WATER DETAILS (3 OF 3)

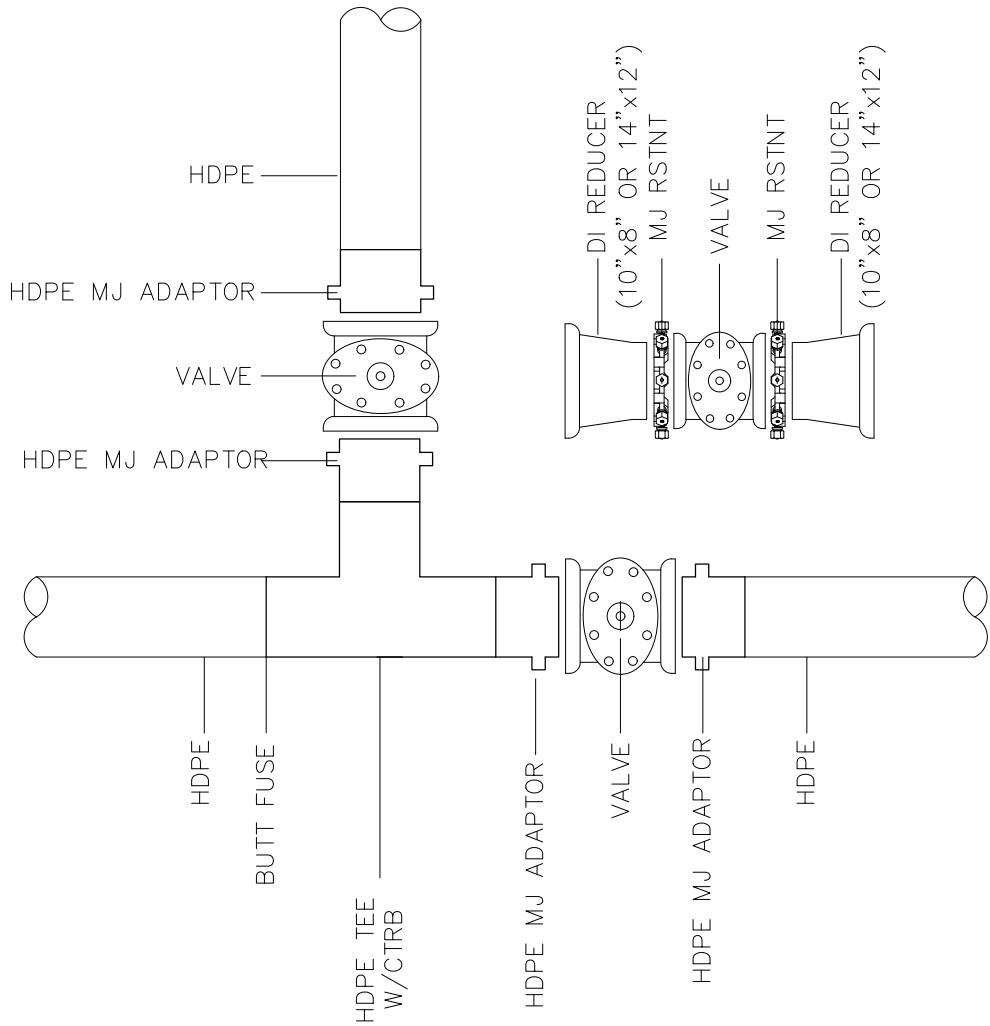
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HDPE TEE (HDPE MAIN / HDPE BRANCH)

WHEN HDPE MAIN IS CONNECTED TO DI FITTING, USE HDPE MJ ADAPTER AND DI REDUCER AS NECESSARY TO MAKE CONNECTION.

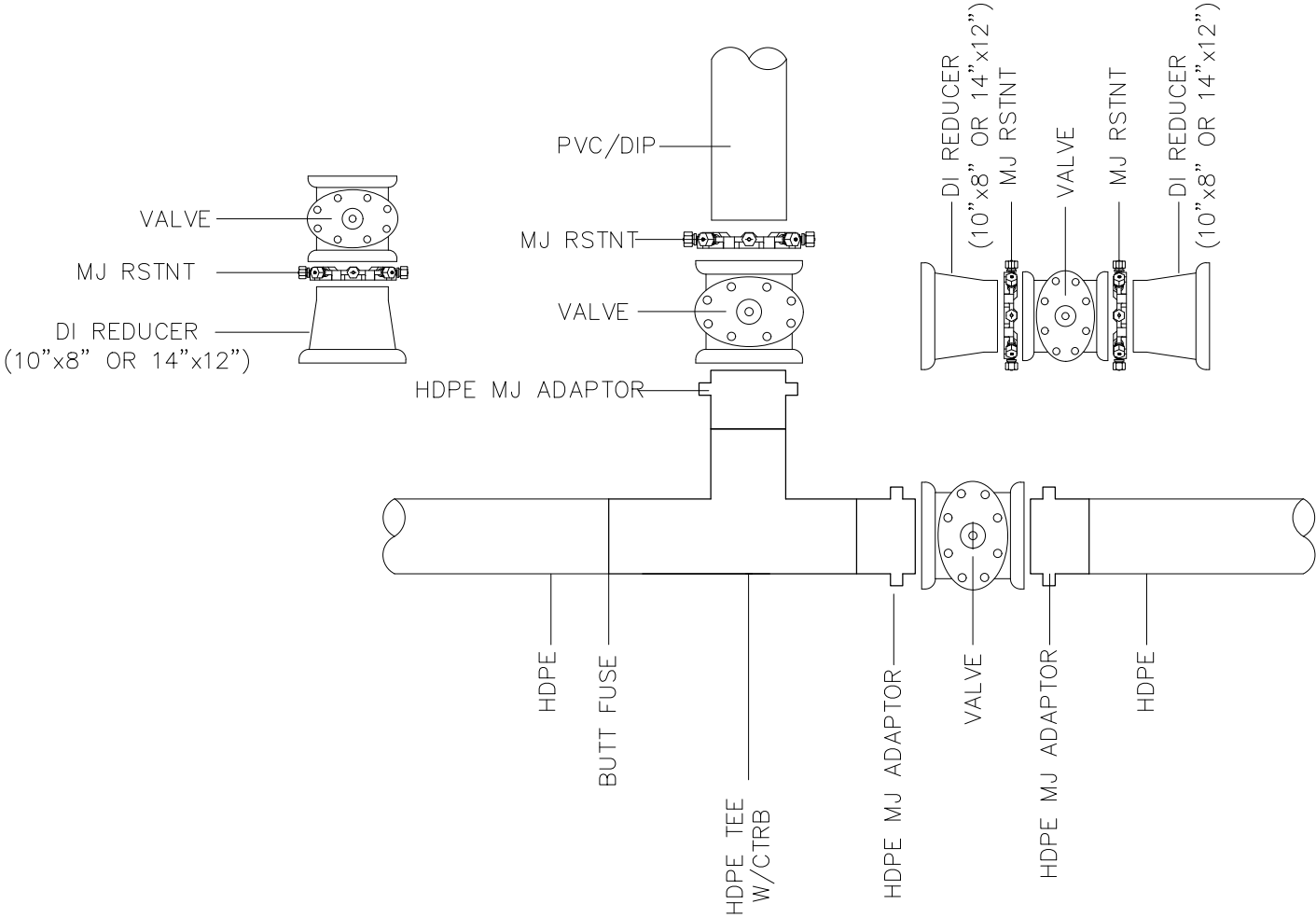
TYPICAL CONFIGURATIONS:

WHEN HDPE BRANCH IS 8", USE 8" GATE VALVE. USE 8" x 6" DI REDUCER AND 6" GATE VALVE ONLY WHEN CONNECTING TO 6" DIP/PVC.

WHEN HDPE BRANCH IS 10", USE 10" x 8" DI REDUCER AND 8" GATE VALVE.

WHEN HDPE BRANCH IS 12", USE 12" GATE VALVE.

WHEN HDPE BRANCH IS 14", USE 14" x 12" DI REDUCER AND 12" GATE VALVE.



HDPE TEE (HDPE MAIN / DIP OR PVC BRANCH)

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Department of Environmental Quality

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THOMPSON HEIGHTS WATERLINE IMPROVEMENTS
CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

SPECIAL DETAILS
(1 OF 5)

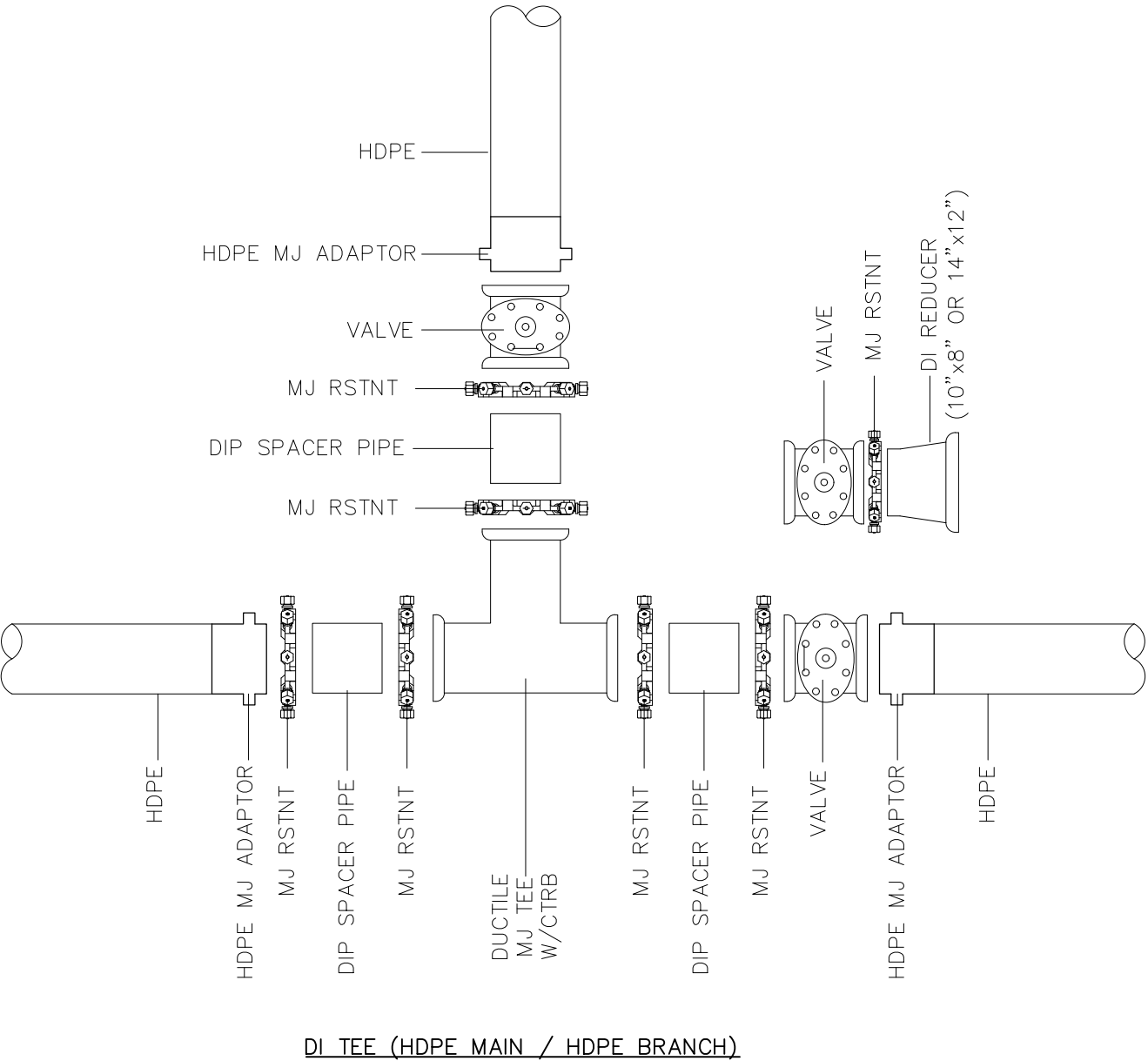
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Monday, July 3, 2023 11:18:09 AM



WHEN HDPE MAIN IS CONNECTED TO DI FITTING, USE HDPE MJ ADAPTER AND DI REDUCER AS NECESSARY TO MAKE CONNECTION.

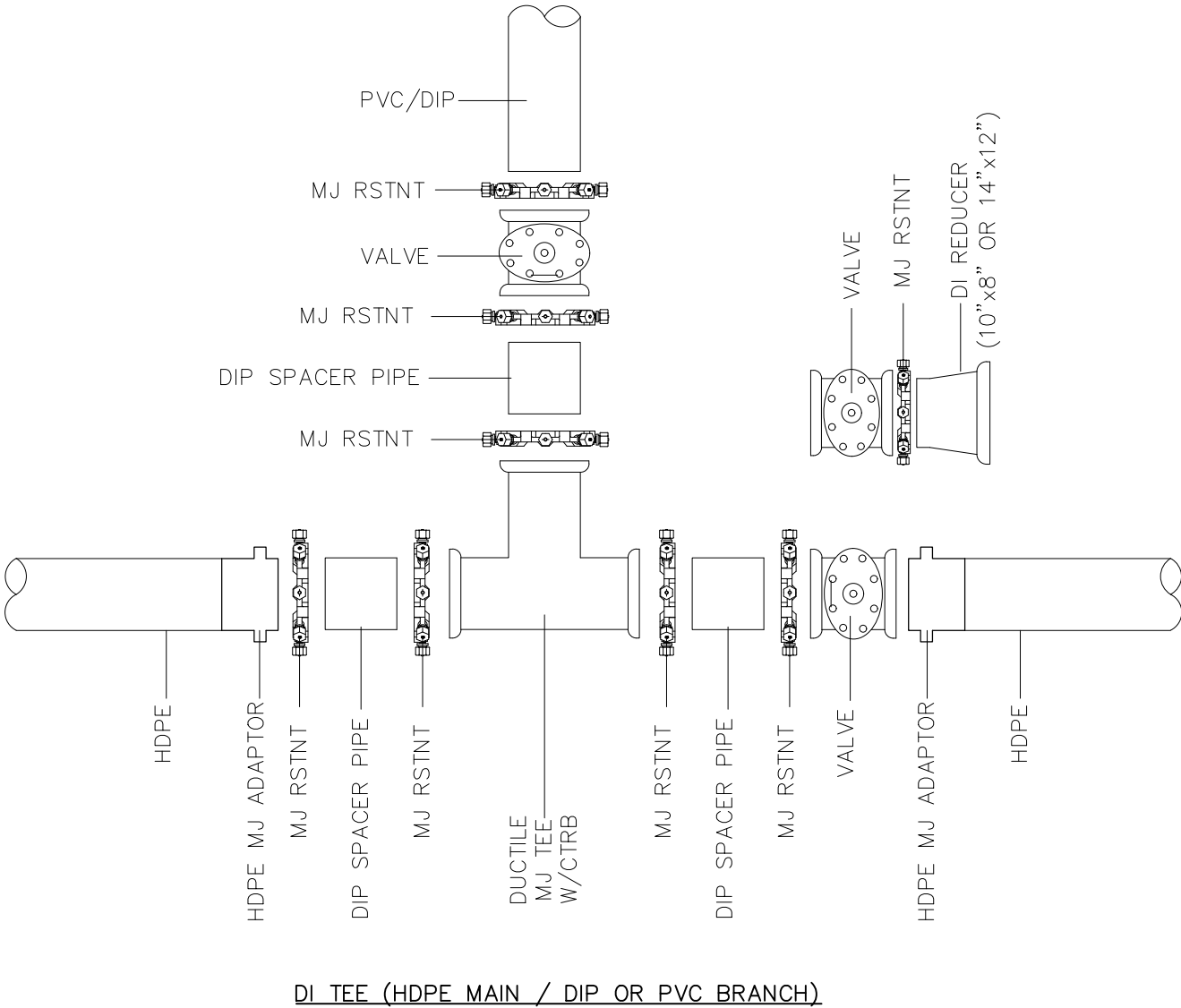
TYPICAL CONFIGURATIONS:

WHEN HDPE BRANCH IS 8", USE 8" GATE VALVE. USE 8" x 6" DI REDUCER AND 6" GATE VALVE ONLY WHEN CONNECTING TO 6" DIP/PVC.

WHEN HDPE BRANCH IS 10", USE 10" x 8" DI REDUCER AND 8" GATE VALVE.

WHEN HDPE BRANCH IS 12", USE 12" GATE VALVE.

WHEN HDPE BRANCH IS 14", USE 14" x 12" DI REDUCER AND 12" GATE VALVE.



STATE OF OKLAHOMA
Department of Environmental Quality

APPROVED

August 08 2023

Rocky W. Chen, P.E.
Water Quality Division

Adam Divine

D. Adam Divine, P.E.
Construction Permitting Section

THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

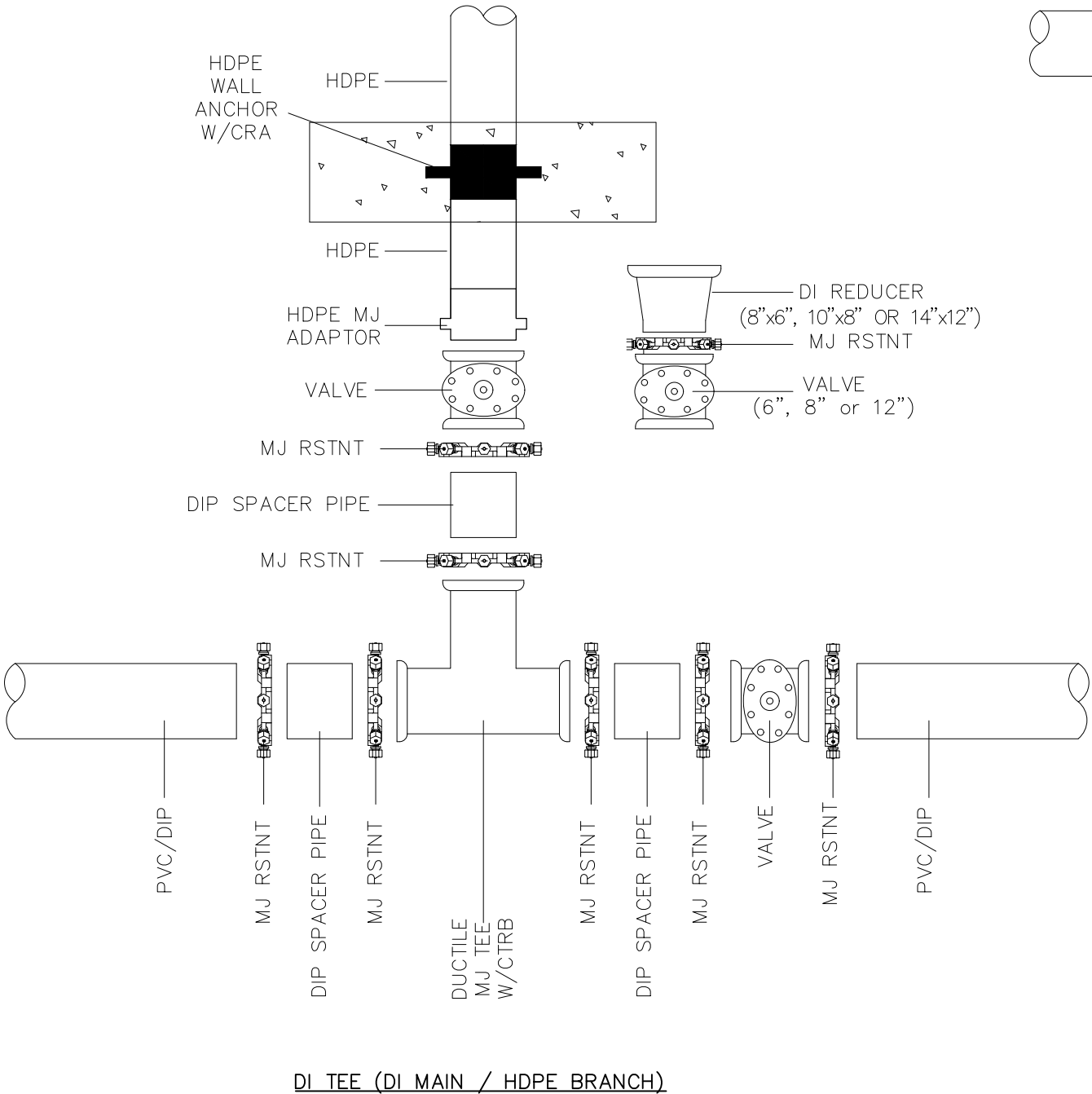
SPECIAL DETAILS
(2 OF 5)

DESIGNED BY	GMT
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REVIEWED BY	GMT
PROJECT NUMBER	23-152
DATE	6/13/2023

REVISIONS

SHEET NUMBER
23

Monday, July 3, 2023 11:18:14 AM



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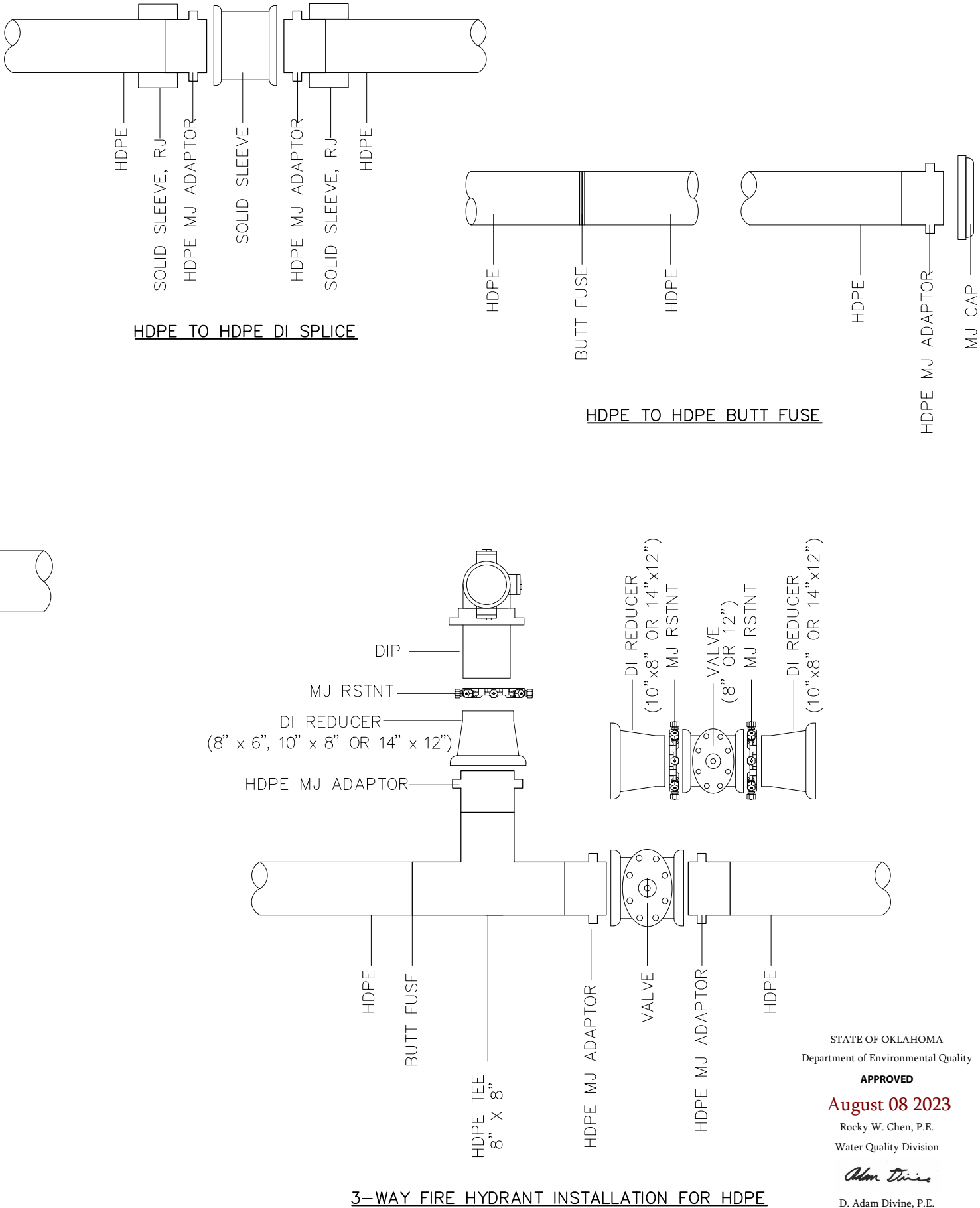
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WHEN HDPE BRANCH IS 10", USE 10" x 8" DI REDUCER AND 8" GATE VALVE.

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WHEN HDPE BRANCH IS 14", USE 14" x 12" DI REDUCER AND 12" GATE VALVE.



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COWAN GROUP ENGINEERING
7100 N GLASSEN, SUITE 500
OKLAHOMA CITY, OK 73116
405-463-3369 | 405-463-3381 F
WWW.COWANGROUP.CO
CA# 6414 EXPIRES 6/30/2024

THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

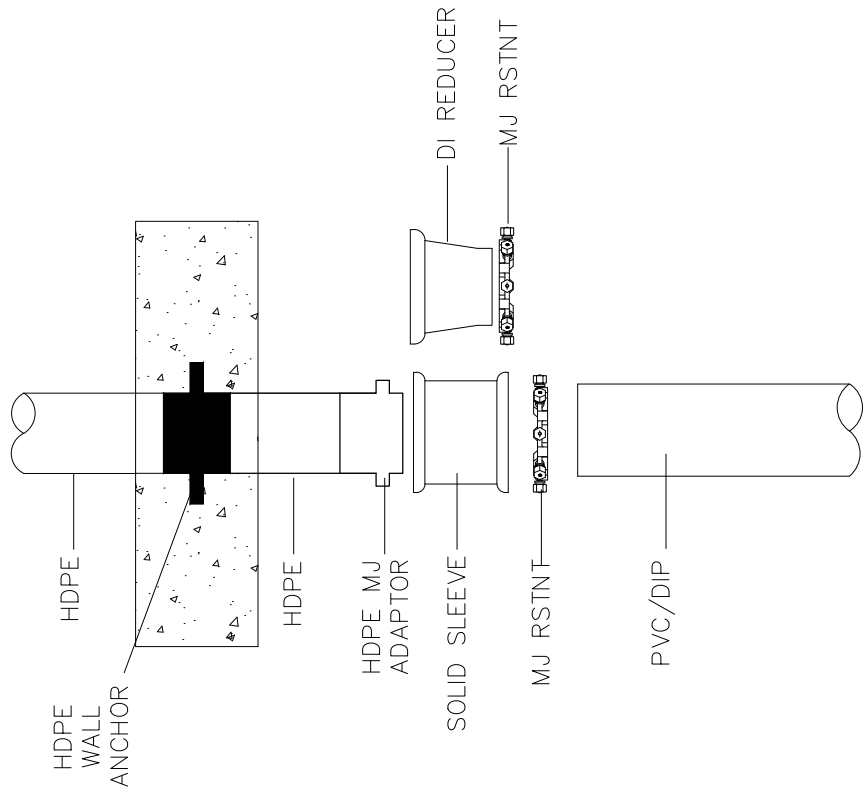
SPECIAL DETAILS
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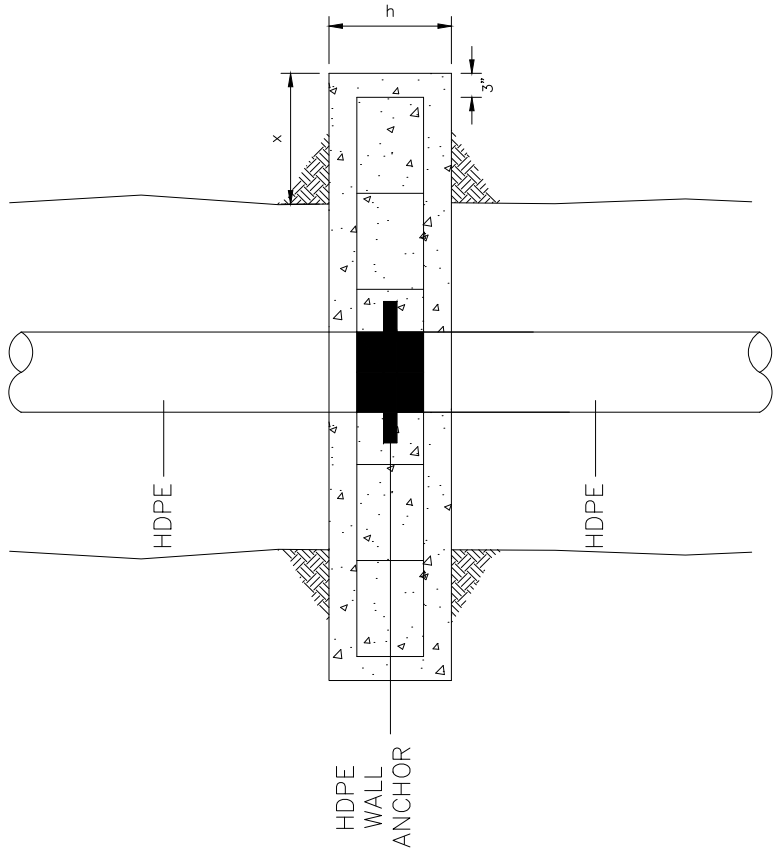
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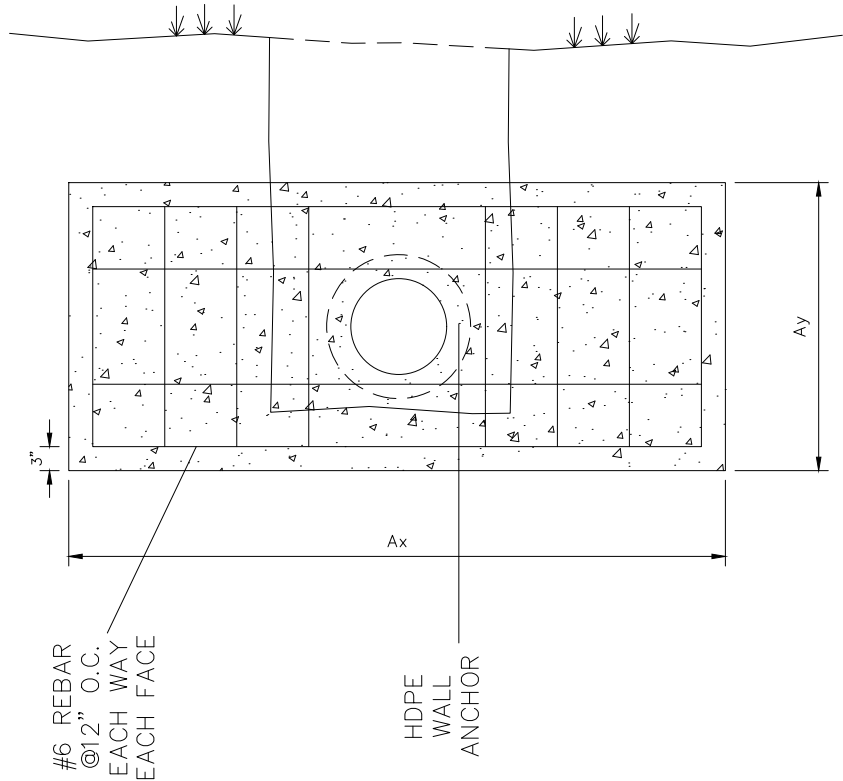
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HDPE TO DI/PVC SPLICE



HDPE WALL ANCHOR



DIPS PIPE SIZE (DR11)	PRESSURE	x (in)	Ax (in)	Ay (in)	Ab (sf)	h (in)	Vol (in)
8"	150 PSI	30	90	36	15	18	34
10"	150 PSI	36	102	42	221	18	45
12"	150 PSI	45	120	48	30	24	80
14"	150 PSI	54	144	54	40	24	108

THE MINIMUM SURFACE AREAS SHOWN ARE BASED ON A MAX STATIC PIPE PRESSURE OF 150 PSI AND ANN ALLOWABLE SOIL BEARING CAPACITY OF 1000 PSI. POLYETHYLENE PIPINS SYSTEM FIELD MANUAL FOR MUNICIPAL WATER APPLICATIONS 2009 EDITION.

THE DESIGN ENGINEER IS RESPONSIBLE FOR VERIFYING ASSUMPTION BASED ON ACTUAL SITE CONDITIONS. IF SITE CONDITIONS VARY FROM THE ASSUMPTIONS THE DESIGN ENGINEER SHALL PROVIDE A SITE SPECIFIC DESIGN.

THE MINIMUM LATERAL BEARING SURFACE AREA (Ab) AND APPROXIMATE VOLUME OF CONCRETE (Vol) SHALL BE SHOWN ON THE CONSTRUCTION PLANS FOR ALL CONCRETE WALL ANCHOR BLOCKS.

THE APPROXIMATE VOLUMES SHOWN ARE BASED ON THE MINIMUM DIMENSIONS IN THE TABLE.
A TRENCH WIDTH OF 30-INCHES (8"-12") OR 36-INCHES (14") AND 6" BEDDING UNDER THE PIPE ARE ASSUMED FOR BEARING CALCULATIONS (Ax, Ay, x AND y).

THE DESIGN ENGINEER SHALL ENSURE THE CONSTRUCTION OF THE CONCRETE WALL ANCHOR BLOCK SHALL NOT CONFLICT WITH OTHER UTILITIES.

WHEN HDPE MAIN IS CONNECTED TO DI FITTING, USE HDPE MJ ADAPTER AND DI REDUCER AS NECESSARY TO MAKE CONNECTION.

TYPICAL CONFIGURATIONS:

WHEN HDPE BRANCH IS 8", USE 8" GATE VALVE. USE 8" x 6" DI REDUCER AND 6" GATE VALVE ONLY WHEN CONNECTING TO 6" DIP/PVC.

WHEN HDPE BRANCH IS 10", USE 10" x 8" DI REDUCER AND 8" GATE VALVE.

WHEN HDPE BRANCH IS 12", USE 12" GATE VALVE.

WHEN HDPE BRANCH IS 14", USE 14" x 12" DI REDUCER AND 12" GATE VALVE.

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THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

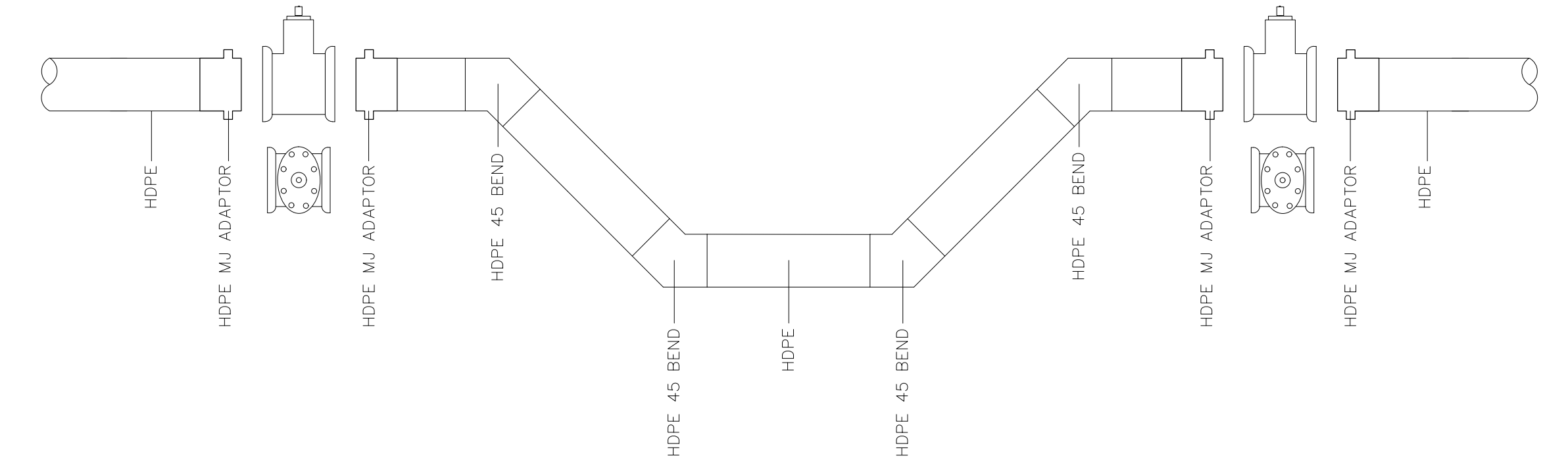
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SPECIAL DETAILS
(4 OF 5)

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25



HDPE HORIZONTAL / VERTICAL REALIGNMENT USING FITTINGS

WHEN HDPE MAIN IS CONNECTED TO DI FITTING, USE HDPE MJ ADAPTER AND DI REDUCER AS NECESSARY TO MAKE CONNECTION.

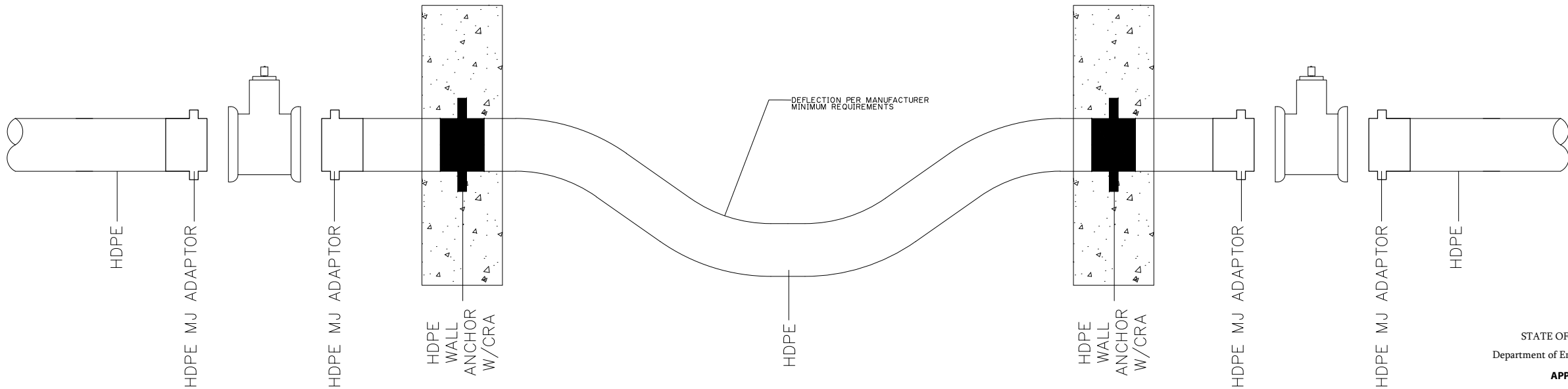
TYPICAL CONFIGURATIONS:

WHEN HDPE BRANCH IS 8", USE 8" x 6" DI REDUCER AND 6" GATE VALVE, OR USE 8" GATE VALVE.

WHEN HDPE BRANCH IS 10", USE 10" x 8" DI REDUCER AND 8" GATE VALVE.

WHEN HDPE BRANCH IS 12", USE 12" GATE VALVE.

WHEN HDPE BRANCH IS 14", USE 14" x 12" DI REDUCER AND 12" GATE VALVE.



HDPE VERTICAL/HORIZONTAL REALIGNMENT USING DEFLECTION

STATE OF OKLAHOMA
Department of Environmental Quality

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August 08 2023

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THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

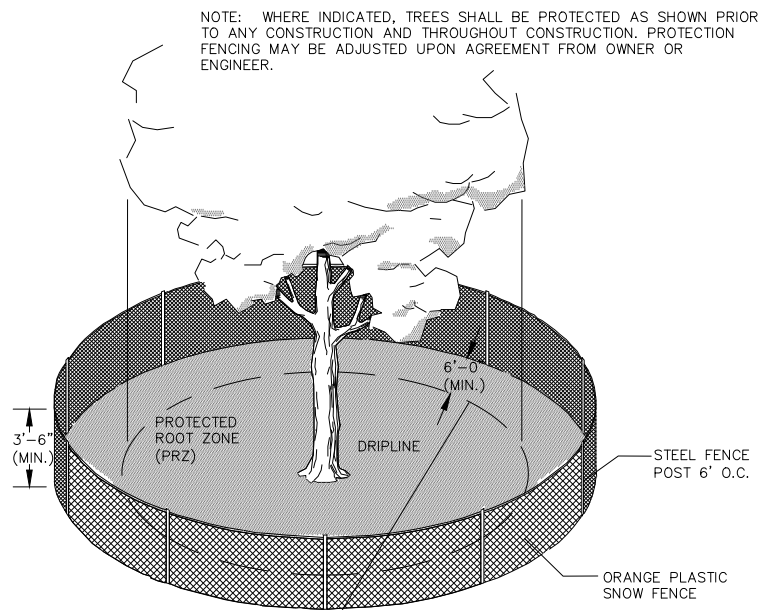
CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

SPECIAL DETAILS
(5 OF 5)

DESIGNED BY	GMT
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DATE	6/13/2023

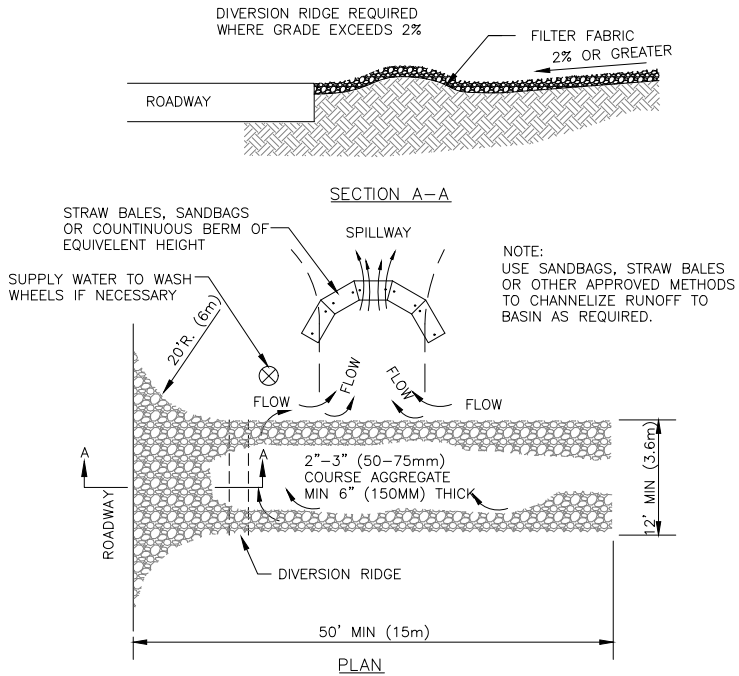
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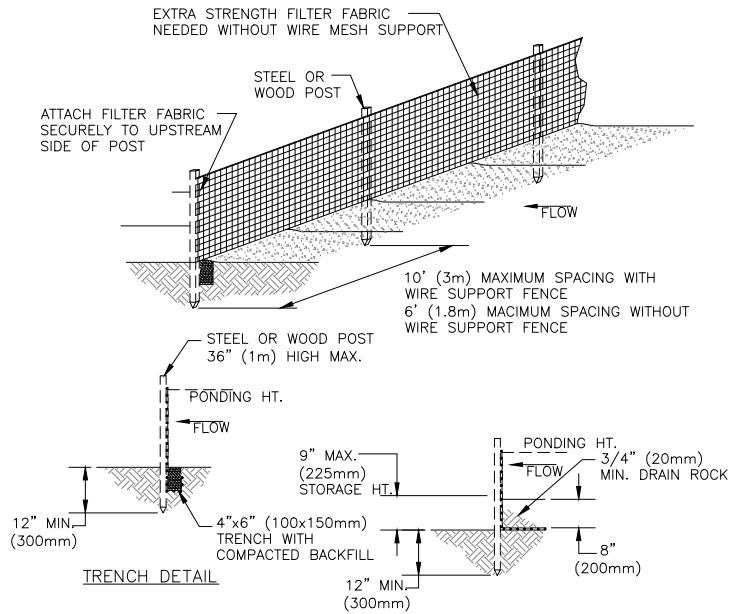
NOTE: THE TEMPORARY FENCE IS TO BE CONSTRUCTED AROUND SPECIFIED AREAS/TREES PRIOR TO ANY CONSTRUCTION AND SHALL REMAIN UNTIL ALL CONSTRUCTION IS COMPLETE. CONSTRUCTION EQUIPMENT AND MATERIALS ARE NOT PERMITTED WITHIN THE (PRZ). THE FENCE PLACEMENT AROUND THE (PRZ) MAY ONLY BE ADJUSTED WITH PERMISSION FROM THE OWNER OR ENGINEER.

TREE PROTECTION DETAIL



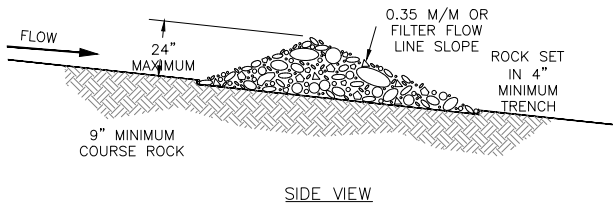
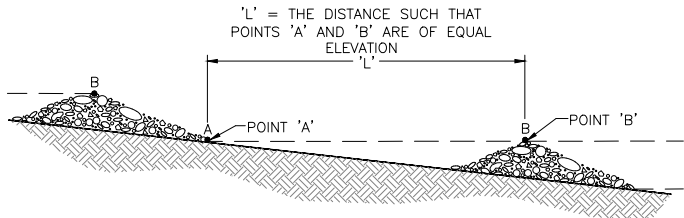
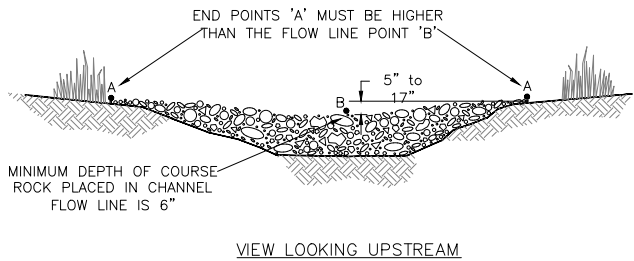
- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMP. GRAVEL CONSTRUCTION ENTRANCE



- NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
 2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
 3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

SILT FENCE



ROCK CHECK DAM

D-50 OF ROCK (MM)	DOWNSTREAM FLOWLINE SLOPE OF STRUCTURE (M / M)					
	0.35	0.30	0.25	0.20	0.15	0.10
75	15	18	20	25	33	48
150	30	36	41	50	66	100



COWAN GROUP ENGINEERING
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THOMPSON HEIGHTS WATERLINE IMPROVEMENTS
CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

EROSION CONTROL DETAIL

DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-152
DATE	6/13/2023

REVISIONS

SHEET NUMBER

27



CONTRACT DOCUMENTS AND SPECIFICATIONS

FOR

THOMPSON HEIGHTS WATERLINE

PROJECT NUMBER: 23-152

ARPA Grant Project Number: ARP – 23-0188-G

BID DATE:

By:

Cowan Group Engineering, LLC
7100 N Classen, Suite 500
Oklahoma City, OK 73116
Phone: 405-463-3369
CA # 6414 Expires 6/30/24

STATE OF OKLAHOMA
Department of Environmental Quality

APPROVED

August 08 2023

Rocky W. Chen, P.E.

Water Quality Division

Adam Divine

D. Adam Divine, P.E.

Construction Permitting Section

July 2023

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Responsible Registrant

Cowan Group Engineering, LLC
CA No. 6414 (Expires 6/30/24)



Michael Taylor
Michael Taylor, PE
Project Manager
OK PE 27655

Advertisement for Bids

Notice is hereby given that the City of Shawnee (hereinafter called the "Owner") will receive sealed bids at the City Clerk's Office, 16 W. 9th Street, Shawnee, Pottawatomie County, Oklahoma until the ____ day of _____, 20__ for the Thompson Heights Waterline.

Funding for this project is provided through American Rescue Plan Act (ARPA) grant program. As such, compliance with Labor Standards Contract Provisions is mandatory. Compliance with the Davis Bacon Act is mandatory **if the total project cost exceeds \$10,000,000 (ten million dollars)**.

All bids received at said time will be opened and evaluated for completeness and correctness. All work shall be performed, and all construction and materials used and furnished shall be in accordance with the Plans and Specifications prepared by Cowan Group Engineering, and on file in the office of the City Clerk, 16 W. 9th Street, Shawnee, OK 74802-1448.

The Bid Packet and Contract Documents for this project may be examined at the following locations:

1. The City Clerk's Office, 16 W. 9th Street, Shawnee, OK 74802-1448.
2. Cowan Group Engineering, 7100 N. Classen, Suite 500, Oklahoma City, OK 73116

Hard copy plans and specifications may be obtained by the prospective bidders at these locations for \$100.00. No documents will be mailed until payment is received in full.

Complete digital project bidding documents are available for a non-refundable fee of \$50.00 by going to www.cowangroup.co, navigating to the Bid Documents page, and by entering Quest Project # 8558234 on the website's project search page. Please contact QuestCDN.com at 952.233.1632 or info@questcdn.com for assistance in free membership registration, downloading and working with this digital project information.

Each bidder shall accompany his original bid, filed with the City Clerk's Office with a certified or Cashier's Check on a solvent bank located in Oklahoma, or a Bidder's Bond, in the amount of five (5) percent of the amount bid, as a guarantee of his ability to perform the contract bid upon, and that he will enter into a written contract with the Owner to perform said work and/or furnish said materials in accordance with said Plans and Specifications and furnish the required bonds according to the Public Competitive Bidding Act of 1974.

The Owner will retain the deposit for liquidated damages in case the successful bidder fails to enter in said contract and furnish the required bonds provided for in the specifications within the time required. Deposit of the unsuccessful bidders will be returned upon the execution of the Contract and required bonds.

Each bidder shall accompany his bid with a sworn statement in writing that the bidder has not directly or indirectly entered into an agreement, expressed or implied, with any other bidder concerning the price or amount of such bid or any bids, the limiting of the bids or bidders, the paying to anyone any money for promotion expenses, the parceling or farming out to any bidder or bidders or other persons of any part of the contract or any part of the subject matter of the bid or of the profits thereof.

Construction, Maintenance and Statutory Payment Bonds in the amount of 100% of the contract price are required for this project. These bonds must be obtained from a Corporate Surety licensed in Oklahoma and approved by the Owner and Consulting Engineer. The bidder shall state in the proposal the name and address of the Surety or Sureties who will sign this bond in case the contract is awarded. The Maintenance Bond required will guarantee the repair of all damage due to improper materials or workmanship for a period of one (1) year after the acceptance of the work by the Owner.

This project is to be financed by the ARPA grant program managed by the Oklahoma Water Resources Board (OWRB) and shall be referred to as Project No. ARP-23-0188-G. The following requirements and regulations must be complied with:

- A. "Equal Opportunity in Employment: All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age or physical handicap. Bidders on this work will be required to comply with the President's Executive Order No. 11246, as amended."
- B. "Each bidder must fully comply with the requirements, terms and conditions of the Environmental Protection Agency's Disadvantaged Business Enterprise Requirements, which have been adopted for the OWRB ARPA program, and include employing the six (6) good faith efforts and soliciting disadvantaged business enterprises during the performance of this contract. Requirements are contained in OWRB's Guidance and Procedures, ARP-267. The bidder commits itself to following the good faith efforts to solicit disadvantaged business enterprises contained herein and all other requirements, terms, and conditions of these bid conditions by submitting a properly signed bid."
- C. **If the total project cost exceeds \$10,000,000 (ten million dollars)** "Davis Bacon Act wage rules shall apply. All laborers and mechanics employed by contractors and sub- contractors on projects funded directly by or assisted in whole or in part by and through the Federal Government shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of Chapter 31 of Title 40, United States Code and 29 CFR parts 1,3, and 5. The Department of Labor provides all pertinent information related to compliance with labor standards, including prevailing wage rates and instructions for reporting. More information is available at <http://www.sam.gov/>" and <https://www.dol.gov/agencies/whd/government-contracts/construction>
- D. System for Award Management (SAM) registration is required for all Applicants and Awardees (Entities, Prime Contractors, Subcontractors, Vendors) in order to receive funds from the ARPA program. SAM replaced the Central Contractor Registration/Federal Agency Registration, Online Representations and Certifications Application, and Excluded Parties List System. Applicants and awardees are required to complete a one-time free registration to provide basic information relevant to procurement and financial transactions. On April 4, 2022, the unique entity identifier used across the federal government changed from the DUNS Number to the Unique Entity ID (generated by SAM.gov). Registrants must retain an active status to be eligible for ARPA funding. Applicants and Awardees can go to SAM.gov to complete the registration process.

The bids filed with the City Clerk's Office will be opened and considered by the Owner, at a meeting to be held in _____, on the day of _____, 20____. Bids received more than ninety-six (96) hours prior to the Bid Opening will be returned.

The contract is to be awarded to the lowest, responsive, responsible bidder. The Owner reserves the right to correct any non-material clerical errors in the bidding as allowed under Oklahoma Law. The Owner reserves the right to reject any and all bids in accordance with the Oklahoma Public Competitive Bidding Act of 1974. Conditional bids shall not be accepted.

A pre-bid conference will be held on this project at:
_____ on the _____ day of _____, 20____.

Approved on this _____ day of _____, 20____

Information for Bidders

Notice is hereby given that the City of Shawnee (hereinafter called the "Owner") will receive sealed bids at the City Clerk's Office, 16 W. 9th Street, Shawnee, Pottawatomie County, Oklahoma until the ____ day of _____, 20____, for the Thompson Heights Waterline.

This project is to be financed by the ARPA grant program managed by the Oklahoma Water Resources Board (OWRB) and shall be referred to as Project No. ARP-23-0188-G. The following requirements and regulations must be complied with:

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- B. " Each bidder must fully comply with the requirements, terms, and conditions of the Environmental Protection Agency's Disadvantaged Business Enterprise Requirements, which have been adopted for the OWRB ARPA program, and include employing the six (6) good faith efforts and soliciting disadvantaged business enterprises during the performance of this contract. Requirements are contained in OWRB's Guidance and Procedures, ARP-267. The bidder commits itself to following the good faith efforts to solicit disadvantaged business enterprises contained herein and all other requirements, terms, and conditions of these bid conditions by submitting a properly signed bid."
- C. **If the total project cost exceeds \$10,000,000 (ten million dollars)** "Davis Bacon Act wage rules shall apply. All borers and mechanics employed by contractors and sub-contractors on projects funded directly by or assisted in whole or in part by and through the Federal Government shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of Chapter 31 of Title 40, United States Code and 29 CFR parts 1,3, and 5. The Department of Labor provides all pertinent information related to compliance with labor standards, including prevailing wage rates and instructions for reporting. More information is available at <https://www.dol.gov/agencies/whd/government-contracts/construction> and <http://www.sam.gov/>"
- D. System for Award Management (SAM) registration is required for all Applicants and Awardees (Entities, Prime Contractors, Subcontractors, Vendors) in order to receive funds from the ARPA program. SAM replaced the Central Contractor Registration/Federal Agency Registration, Online Representations and Certifications Application, and Excluded Parties List System. Applicants and awardees are required to complete a one-time free registration to provide basic information relevant to procurement and financial transactions. On April 4, 2022, the unique entity identifier used across the federal government changed from the DUNS Number to the Unique Entity ID (generated by SAM.gov). Registrants must retain an active status to be eligible for ARPA funding. Applicants and Awardees can go to SAM.gov to complete the registration process.

Each sealed envelope containing a bid must be plainly marked on the outside as "Bid for Independence Avenue Waterline", and the envelope should bear on the outside the bidder's name, address, and license number (if applicable). If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to the Owner at: City of Shawnee, City Clerk's Office, 16 W. 9TH St., Shawnee, OK 74802-1448.

All bids must be made on the required bid form, where all blank spaces for bid prices must be filled in, in ink or typewritten. The bid form must be fully completed and executed when submitted. Only one copy of the bid form is required. The Owner may waive any informalities or minor defects or reject any and all bids as allowed under Oklahoma Law. Any bid may be withdrawn prior to the above scheduled time for bid opening, or authorized postponement thereof. Bids received more than ninety-six (96) hours before the time specified, or those received after the time set for bid opening will not be considered and will be returned unopened. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Owner and the bidders.

Bidders must satisfy themselves of the accuracy of estimated quantities in the bid proposal by review of the Plans and Specifications, including any existing addenda, and by examination of the project site. Once a bid is submitted, the bidder shall not assert that there was a misunderstanding concerning the quantities or the nature of work to be performed. The failure or omission of any bidder to do any of the foregoing shall in no way relieve any bidder from any obligation in respect to its bid.

Prior to bidding, the Owner shall provide to the bidders all pertinent information that delineates and describes the land owned and rights-of-way acquired or to be acquired.

The Contract Documents contain the provisions required for the construction of the product. Information obtained from an officer, agent, or employee of the Owner or any other person shall not affect the risks or obligations assumed by the contractor or relieve the contractor from fulfilling any of the conditions of the contract.

Each bid exceeding \$100,000 must be accompanied by a Bid Bond for five percent of the total amount of the bid and payable to the Owner. A certified check may be used in lieu of the Bid Bond. As soon as the bid prices have been compared, the Owner will return the bonds of all except the three lowest responsive, responsible bidders. The bid securities of the successful bidder and the two remaining unsuccessful bidders will be returned upon Owner's approval of the successful bidder's executed certificate of insurance and construction bonds.

Construction bonds (Performance, Statutory, and Maintenance) in the amount of 100 percent with a corporate surety approved by the Owner will be required for the faithful performance of the contract. Attorneys-in-fact who sign bid and construction bonds must file with each bond a certified and effective dated copy of their Power-of-Attorney.

The Owner shall award a contract to the lowest, responsive, responsible bidder or bidders within thirty (30) calendar days after bid opening. The Owner may extend the award period not to exceed fifteen (15) calendar days by formal recorded action and for good cause. The time may be extended further by mutual agreement between the Owner and the bidder per O.S. Title 61 Section 111, Public Competitive Bidding Act of 1974 (PCBA).

The Notice of Award shall be accompanied by the necessary contract, bonds, and insurance. In the event of failure of the bidder to execute the contract, the Owner may consider the bidder in default, in which case the Bid Bond accompanying the proposal shall become the property of the Owner.

The party to whom the contract is awarded will be required to execute the contract and obtain the construction bonds (Performance, Statutory and Maintenance) and certificate of insurance within **calendar days** (not to exceed 60 days) from the date when the Notice of Award is delivered to the bidder. The time may be extended further by mutual agreement between the Owner and the bidder per O.S. Title 61 Section 113 (PCBA).

With an acceptable contract, bonds and certificate of insurance signed by the party to whom the Contract was awarded, the Owner shall sign the contract and return to such party an executed duplicate. Should the Owner not execute the contract within the agreed upon period, the bidder may by written notice withdraw the signed contract. Such notice of withdrawal shall be effective upon its receipt by the Owner.

The Owner shall issue the Notice to Proceed after the execution of the contract, approval of bonds and certificate of insurance. If the Notice to Proceed has not been issued within the agreed upon period, the contractor may terminate the contract without further liability on the part of either party.

The Owner may make such investigations as deemed necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of such bidders fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein.

A conditional or qualified bid will not be accepted. Tied bids are non-restrictive, and in order for a tied bid to be accepted it must be lower than the sum of low separate bids.

All applicable laws, ordinances, rules, and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout. The successful bidder will be required to meet all requirements of the Underground Facilities Damage Prevention Act when engaged in work within public rights-of-way.

When using alternate bids, they will be listed in numerical order, with the highest priority being number one, the second highest priority being number two, etc. The lowest bidder will be determined by comparing all bids that contain the selected alternates and computing the total value of the base bid plus the alternates.

All bidders and owners shall comply with the Oklahoma PCBA of 1974.

The awarded bidder shall supply the names and addresses of all subcontractors and material suppliers when required to do so by the Owner.

To avoid bypassing of raw sewage during construction, the contractor shall use the methods and/or schedule(s) described in Section 33 11 00 of these Specifications, or the method(s) and/or schedule(s) described as follows:

The Contractor will be required to begin work within calendar days of the date shown on the Notice to Proceed. The time for completion is 120 calendar days. Liquidated damages will be \$ 500 per calendar day.

In the event of a conflict between the Plans and the Specifications, the Specifications will govern.

The following items, included in this Bid Packet, shall be submitted along with the bid:

- Bid Proposal
- Bid Bond
- Non-Collusion Affidavit
- Business Relationship Affidavit
- Contractor's Statement about Equal Opportunity (ARP-211)
- Contractor's Certificate of Non-Segregated Facilities (ARP-212)
- Sub-Contractor's Certificate of Non-Segregated Facilities (ARP-212a)
- Bidder's/Supplier's List (ARP-249)
- Subcontractor Performance form (ARP-6100-3)
- Subcontractor Utilization form (ARP-6100-4)
- DBE documentation (if applicable)
- Statement of Qualifications

The consulting engineer is Cowan Group Engineering. The consulting engineer's contact person for this project is Michael Taylor, PE, with phone number 405.463.3369 and email michael@cowangroup.co.

BID PROPOSAL FORM

CITY OF SHAWNEE BID NOTICE: **ARP 23-0188-G**

THE UNDERSIGNED BIDDER, having examined the plans, specifications, the locations, arrangements, and conditions of roads, street, utilities and other facilities or appurtenances which affect or may be affected by the proposed work, the actual sites of the proposed improvements and being acquainted with and fully understanding: (1) the extent and character of the work covered by this proposal; (2) the locations and specified requirements of and for the proposed improvements and other items of work appurtenant thereto; and (3) the normal existing and probable construction difficulties, hazards or all other factors or conditions which may or may not be apparent, which may affect or be affected by the specified work.

HEREBY PROPOSES to furnish all required materials, supplies, equipment, tools, and plant; to perform all necessary labor; and to construct, erect, equip, and complete all work stipulated in, required by, and in accordance with the contract documents hereto attached and the specifications referred to therein (as altered, changed, or modified by any and all addenda thereto), for and in connection with the Contract for which this proposal is herein submitted for and in consideration of the prices set out herein.

The undersigned bidder hereby agrees to furnish the required Performance Bond, Statutory Bond, Maintenance Bond, and evidence of insurance and to enter into a contract within fifteen (15) days after the acceptance of this proposal, and further agrees to complete the work in 120 days (stipulated in the Contract Agreement) from the date of the issuance by the City's Engineer of a Work Order authorizing commencement of work.

Attached hereto is a Certified Check, Cashier's Check or Bidder's Surety Bond in the amount of: _____ DOLLARS \$ _____ which the undersigned agrees is to be forfeited to and become the property of the City of Shawnee, as liquidated damages, should this proposal be accepted and the Contract be awarded to him, he fails to enter into a Contract in the form prescribed and to furnish the required bonds and evidence of insurance within fifteen (15) days as above stipulated, but otherwise the proposal guarantee shall be returned to the undersigned upon the signing of the Contract and delivery of the approved bonds and evidence of insurance to the City of Shawnee.

DATED this _____ day of _____ 20 _____.

Signature: _____

Name and Title: _____

Company: _____ Circle One: Corporation Partnership Individual

Address: _____

Phone: _____ Fax: _____

E-mail Address: _____

Federal Tax I.D. _____

Attest: _____

Secretary

Corporate Seal

(if applicable)

THOMPSON HEIGHTS WATERLINE

BID SCHEDULE: ARP 23-0188-G

BASE BID

ITEM #	ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
1	MOBILIZATION	LS	1		
2	CLEARING AND GRUBBING	LS	1		
3	SOLID SLAB SOD	SY	2,708		
4	STORMWATER POLLUTION PREVENTION PLAN	LS	1		
5	8" HDPE DR-11 WATERLINE (HDD)	LF	5,322		
6	8" HDPE DR-11 WATERLINE (TRENCHING)	LF	282		
7	6" GATE VALVE & BOX	EA	10		
8	8" GATE VALVE & BOX	EA	7		
9	1" AIR RELIEF VALVE	EA	1		
10	HDPE WALL ANCHOR	EA	17		
11	FIRE HYDRANT ASSEMBLY	EA	10		
12	MECHANICAL JOINT FITTINGS	LB	3,837		
13	WATER SERVICE RECONNECTION (SHORT)	EA	72		
14	WATER SERVICE RECONNECTION (LONG)	EA	77		
15	LEAD SERVICE REPLACEMENT (SHORT)	EA	1		
16	LEAD SERVICE REPLACEMENT (LONG)	EA	1		
17	REMOVE & REPLACE CONCRETE PAVEMENT	SY	3		
18	REMOVE & REPLACE CONCRETE DRIVE	SY	19		
19	REMOVE EXISTING FIRE HYDRANT	EA	6		
20	CONSTRUCTION SIGNING AND TRAFFIC CONTROL	LS	1		
21	TEMPORARY EROSION AND SEDIMENT CONTROL	LS	1		
22	PRESSURE AND LEAKAGE TESTING	LS	1		
23	DISINFECTION AND TESTING	LS	1		

ALL ITEMS TO INCLUDE ALL APPURTENANCES NECESSARY TO PROVIDE A COMPLETE AND OPERABLE SYSTEM AS DESCRIBED IN THE PLANS AND SPECIFICATIONS.

TOTAL BASE BID \$ _____

TOTAL BASE BID IN WORDS _____

Bidder's Statement about: Equal Opportunity Clause (ARP-211)

Mark one:

- ☐ I have participated in previous contract(s) or subcontract(s) subject to the equal opportunity clause under Executive Orders 11246 and 11375 or preceding Executive Orders 10925 and 11114. I have filed all reports due under the requirements contained in 40 CFR, Part C, 8.11.
- ☐ I have not participated in previous contract(s) subject to the equal opportunity clause under Executive Orders 11246 and 11375 or preceding Executive Orders 10925 and 11114.

- ☐ I will obtain a similar statement from any proposed subcontractor(s), when appropriate.

Bidder's Statement about: Non-Segregated Facilities (ARP-212 and ARP-212a)

- ☐ I hereby certify that I do not and will not maintain any facilities provided for my employees in a segregated manner or permit my employees to perform their services at any location under my control where segregated facilities are maintained; and that I will obtain a similar certification prior to the award of any subcontract exceeding \$10,000 which is not exempted from the equal opportunity clause.

Bidder's Statement about: Bonds

- ☐ I hereby certify that I will obtain and provide a Bid Bond along with my Bid.
- ☐ I hereby certify that, in the event of being awarded a Contract, I will provide a Performance Bond for 100% of the contract amount.
- ☐ I hereby certify that, in the event of being awarded a Contract, I will provide a Statutory/Payment Bond for 100% of the contract amount.
- ☐ I hereby certify that, in the event of being awarded a Contract, I will provide a Maintenance Bond for at least 1 year after construction completion, and 100% of the contract amount

Bidder's Statement about: sam.gov registration

Mark one:

- ☐ I have registered in SAM.gov and my status is "active".
- ☐ I am not currently registered in SAM.gov, but I will be registered and holding an "active" status prior to the beginning of any construction.

- ☐ I certify that I will actively review the SAM.gov status of all of the subcontractors in this work to verify they are registered and their status is "active".

Bidder's Statement about: Davis Bacon Act

If the total project cost exceeds \$10,000,000 (ten million dollars):

- ☐ I hereby certify that all of my employees will be paid according to the Davis Bacon Act.

Name and Title of Prospective Prime Contractor's Representative

Signature of Prospective Prime Contractor's Representative

Name and address of Prospective Prime Contractor

AFFIDAVITS

State of _____ ss.
County of _____

_____, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid.

Non-Collusion

Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any government official or employee as to quantity, quality, or price in the prospective contract, or any other terms of said prospective contract; or in any discussions between bidders and any government official concerning exchange of money or other value for special consideration in the letting of a contract; that the bidder/contractor had not paid, given or donated or agreed to pay, give or donate to any officer or employee of the _____ (or other entity) any money or other thing of value, either directly or indirectly in the procurement of a contract or pursuant to this bid.

Business Relationships

Affiant further states that the nature of any partnership, joint venture, or other business relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

If none of the business relationship herein above mentioned exists, affiant should so state.

Subscribed and sworn to before me this ____ day of _____, 20__.

Notary Public Signature

My Commission Expires: _____

ARP-249 BIDDERS/SUPPLIERS LIST

To be completed by Project Owner with documentation from all bidding Prime Contractors & Subcontractors
(List of all firms that bid or quote on Prime Contracts and Subcontracts on the project including Services and Supplies)

Project Name: _____ OWRB Project Number: ARP-__-__-__

Company Name:	
Address:	
Contact Name:	
Phone:	
Email:	
Quote/Bid Amount (\$)	
Date:	
Utilized: Yes No	If <u>utilized</u> and >\$10,000 then ARP 212a form is required (from all subcontractors and suppliers).
DBE: Yes No	If <u>yes</u> , MBE or WBE? _____ Check one: Construction _____ Equipment _____ Services _____ Supplies _____ ARP 6100-3 form is <u>required</u> for all DBEs that bid/quote, even if not utilized. <u>Submit with Bidders List.</u> If <u>utilized</u> submit the following with Bidders List: - A copy of the companies MBE or WBE certificate is <u>required</u>. - ARP 6100-4 form is also <u>required</u>.

Company Name:	
Address:	
Contact Name:	
Phone:	
Email:	
Quote/Bid Amount (\$)	
Date:	
Utilized: Yes No	If <u>utilized</u> and >\$10,000 then ARP 212a form is required (from all subcontractors and suppliers).
DBE: Yes No	If <u>yes</u> , MBE or WBE? _____ Check one: Construction _____ Equipment _____ Services _____ Supplies _____ ARP 6100-3 form is <u>required</u> for all DBEs that bid/quote, even if not utilized. <u>Submit with Bidders List.</u> If <u>utilized</u> submit the following with Bidders List: - A copy of the companies MBE or WBE certificate is <u>required</u>. - ARP 6100-4 form is also <u>required</u>.

Company Name:	
Address:	
Contact Name:	
Phone:	
Email:	
Quote/Bid Amount (\$)	
Date:	
Utilized: Yes No	If <u>utilized</u> and >\$10,000 then ARP 212a form is required (from all subcontractors and suppliers).
DBE: Yes No	If <u>yes</u> , MBE or WBE? _____ Check one: Construction _____ Equipment _____ Services _____ Supplies _____ ARP 6100-3 form is <u>required</u> for all DBEs that bid/quote, even if not utilized. <u>Submit with Bidders List.</u> If <u>utilized</u> submit the following with Bidders List: - A copy of the companies MBE or WBE certificate is <u>required</u>. - ARP 6100-4 form is also <u>required</u>.

STATEMENT OF QUALIFICATIONS:

Bidder

Address

Similar Projects Completed by Bidder:

1. NAME OF PROJECT: _____
OWNER: _____ ADDRESS: _____
DATE STARTED: _____ DATE COMPLETED: _____
APPROX. QUANTITIES OF MAJOR ITEMS: _____

VALUE OF CONTRACT: _____
2. NAME OF PROJECT: _____
OWNER: _____ ADDRESS: _____
DATE STARTED: _____ DATE COMPLETED: _____
APPROX. QUANTITIES OF MAJOR ITEMS: _____

VALUE OF CONTRACT: _____
3. NAME OF PROJECT: _____
OWNER: _____ ADDRESS: _____
DATE STARTED: _____ DATE COMPLETED: _____
APPROX. QUANTITIES OF MAJOR ITEMS: _____

VALUE OF CONTRACT: _____
4. OTHER PROJECT REFERENCES: _____

NOTE: THIS FORM IS TO BE RETURNED WITH THE BID.

BID BOND

We, the undersigned, _____, as Principal, and _____, as Surety, are hereby held and firmly bound unto **City of Shawnee**, as Owner, in the penal sum of _____ for the payment of which, well and truly to be made, hereby jointly and severally bind ourselves, our successors and our assigns.

Signed this _____ day of _____, _____.

The condition of the above obligation is such that, whereas the Principal has submitted to **City of Shawnee**, a certain bid, attached hereto and hereby made a part hereof, to enter into a contract, in writing, for the **Thompson Heights Waterline**;

NOW, THEREFORE, if said bid shall be rejected or if said bid shall be accepted and the Principal shall execute and deliver a contract in the form of the contract attached hereto (properly completed in accordance with said bid) and shall furnish a bond for faithful performance of said contract and for the payment of all persons performing labor or furnishing materials in connection therewith and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void; otherwise, the same shall remain in force and effect, it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bonds shall in no way be impaired or affected by any extension of the time within which the Owner may accept such bid and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers the day and year first set forth above.

Principal

Surety

By:_____

ATTEST: (if by corporation)

Type Name & Title

Corporate Seal

NOTE: THIS FORM IS TO BE RETURNED WITH THE BID.

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____,
hereinafter called the Principal, and the _____
of, _____, a corporation duly organized under the laws of the State
of _____, hereinafter called the Surety, as Surety, are held and firmly bound unto the City of
Shawnee, hereinafter call the Obligee, in the sum of _____
Dollars (\$_____), for the payment of which sum well and truly to be made, the said Principal
and the said Surety, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and
severally, firmly by these presents.

WHEREAS, said Principal entered into a written Contract with said Obligee dated _____,
for Thompson Heights Waterline, all in compliance with the plans and specifications therefore, made a part of said
Contract and on file in the office of Cowan Group Engineering, LLC, 7100 N. Classen Blvd., Suite 500, Oklahoma
City, OK 73116.

WHEREAS, this bond is given in compliance with Title 61, Oklahoma Statutes 2001, Section 113(B)(3).

NOW THEREFORE, if said Principal shall pay or cause to be paid to Obligee all damage, loss, and expense which
may result by reason of defective materials and/or workmanship in connection with said work, occurring within a
period of one (1) year after acceptance of said project by Obligee; and if Principal shall pay or cause to be paid all
labor and materials, including the prime contractor and all subcontractors; and if Principal shall save and hold Obligee
harmless from all damages, loss, and expense occasioned by, or resulting from, any failure whatsoever of said
Principal, then this obligation shall be null and void, otherwise to be and remain in full force and effect.

It is further expressly agreed and understood by the parties hereto that no changes or alternations in said Contract
and no deviations from the plan or mode of procedure herein fixed shall have the effect of releasing the sureties, or
any of them, from the obligations of this Bond.

IN WITNESS WHEREOF, this instrument is executed in 4 counterparts, each of which shall be deemed an original,
this ____ day of _____, 2023.

_____	(	_____
WITNESS AS TO PRINCIPAL	(	PRINCIPAL
	(	
	BY:	_____

_____	(	_____
WITNESS AS TO SURETY	(	SURETY
	(	
	BY:	_____
	(	ATTORNEY-IN-FACT

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list
(Circular 570 as amended) and be authorized to transact business in the State of Oklahoma. Attach a certified Copy
of the Power of Attorney.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____,
hereinafter called the Principal, and the _____
of, _____, a corporation duly organized under the laws of the State
of _____, hereinafter called the Surety, as Surety, are held and firmly bound unto the City of
Shawnee, hereinafter call the Obligee, in the sum of _____
Dollars (\$_____), for the payment of which sum well and truly to be made, the said Principal
and the said Surety, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and
severally, firmly by these presents.

WHEREAS, said Principal entered into a written Contract with said Obligees dated _____, for Thompson Heights Waterline, all in compliance with the plans and specifications therefore, made a part of said Contract and on file in the office of Cowan Group Engineering, 7100 N. Classen Blvd., Suite 500, Oklahoma City, OK 73116.

WHEREAS, this bond is given in compliance with Title 61, Oklahoma Statutes 2001, Section 113(B)(2).
NOW THEREFORE, if said Principal shall, in all particulars, well, truly and faithfully perform and abide by said Contract and each and every covenant, condition, and part thereof, and shall fulfill all obligations resting upon said Principal by the terms of said Contract and said specifications, and if said Principal shall protect and save harmless said Obligees from any pecuniary loss resulting from the breach of any of the items, covenants and conditions of said Contract resting upon said Principal, then this obligation shall be null and void, otherwise to be and remain in full force and effect.

It is further expressly agreed and understood by the parties hereto that no changes or alternations in said Contract and no deviations from the plan or mode of procedure herein fixed shall have the effect of releasing the sureties, or any of them, from the obligations of this Bond.

IN WITNESS WHEREOF, this instrument is executed in 4 counterparts, each of which shall be deemed an original,
this ____ day of _____, 2023.

WITNESS AS TO PRINCIPAL () BY: _____
PRINCIPAL

WITNESS AS TO SURETY

(
(SURETY
(
(BY: _____
(ATTORNEY-IN-FACT

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Oklahoma. Attach a certified Copy of the Power of Attorney.

STATUTORY BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____,
hereinafter called the Principal, and the _____
of, _____, a corporation duly organized under the laws of the State
of _____, hereinafter called the Surety, as Surety, are held and firmly bound unto the City of
Shawnee, hereinafter call the Obligee, in the sum of _____
Dollars (\$_____), for the payment of which sum well and truly to be made, the said Principal
and the said Surety, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and
severally, firmly by these presents.

WHEREAS, said Principal entered into a written Contract with said Obligee dated _____,
for Thompson Heights Waterline, all in compliance with the plans and specifications therefore, made a part of said
Contract and on file in the office of Cowan Group Engineering, LLC, 7100 N. Classen Blvd., Oklahoma City, OK
73116.

WHEREAS, this bond is given in compliance with Title 61, Oklahoma Statutes 2001, Sections 1 and 113(B)(1).
NOW THEREFORE, if said Principal shall fail or neglect to pay all indebtedness incurred by said Principal or
subcontractors of said Principal who perform work in the performance of such contract, for labor and materials and
repairs to and parts for equipment used and consumed in the performance of said contract after the same becomes
due and payable the person, firm, or corporation entitled thereto may sue and recover on this bond, the amount so
due and unpaid.

It is further expressly agreed and understood by the parties hereto that no changes or alternations in said Contract
and no deviations from the plan or mode of procedure herein fixed shall have the effect of releasing the sureties, or
any of them, from the obligations of this Bond.

IN WITNESS WHEREOF, this instrument is executed in 4 counterparts, each of which shall be deemed an original,
this ____ day of _____, 2023.

_____ WITNESS AS TO PRINCIPAL	(	(_____ (PRINCIPAL (BY: _____
----------------------------------	---	--

_____ WITNESS AS TO SURETY	(	(_____ (SURETY ((BY: _____ (ATTORNEY-IN-FACT
-------------------------------	---	---

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list
(Circular 570 as amended) and be authorized to transact business in the State of Oklahoma. Attach a certified
Copy of the Power of Attorney

APPLICATION AND CERTIFICATE FOR PAYMENT

PROJECT: THOMPSON HEIGHTS WATERLINE
TO: (OWNER): CITY OF SHAWNEE

ENGINEER: Cowan Group Engineering, LLC

CONTRACTOR:

CONTRACT FOR:

APPLICATION DATE:

APPLICATION NO:

PERIOD FROM:

TO:

CHANGE ORDER SUMMARY

Application is made for Payment, as shown below, in connection with the Contract. The present status of the account for this Contract is as follows:

Change Orders approved		ADDITIONS \$	DEDUCTIONS \$		
in previous months by				ORIGINAL CONTRACT SUM	\$ _____
Owner					
TOTAL				Net change by Change Orders	\$ _____
Subsequent Change Orders					
No. Approved				CONTRACT SUM TO DATE	\$ _____
(Date)				TOTAL COMPLETED TO DATE	\$ _____
				RETAINAGE _____ %	\$ _____
				TOTAL EARNED LESS RETAINAGE	\$ _____
				LESS PREVIOUS CERTIFICATES FOR PAYMENT	\$ _____

TOTALS

Net change by Change Orders \$ _____

CURRENT PAYMENT DUE \$ _____

The undersigned Contractor certifies that the work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by him for work for which previous Certificates for Payment were issued and payments received from the Owner, and that the current payment shown herein is now due.

CONTRACTOR:

By: _____ Date: _____

In accordance with the Contract Documents, based on on-site observations and the data comprising the above application, the Engineer certifies to the Owner that to the best of the Engineer's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED. \$ _____

INSPECTOR:

ENGINEER:

OWNER:

By: _____

By: _____

By: _____

Item No.	Description of Item	Scheduled Quantities	Unit Price	<u>Quantities of Work Completed</u>				
				<u>Previous Applications</u>		<u>This Application</u>		Amount Completed to Date
				Quantities	Amount	Quantities	Amount	

Subtotal or Total

CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS

THIS DOCUMENT HAS IMPORTANT LEGAL CONSEQUENCES; CONSULTATION WITH AN ATTORNEY IS ENCOURAGED WITH RESPECT TO ITS COMPLETION OR MODIFICATION.

TO OWNER: **City of Shawnee**
16 W. 9th Street
Shawnee, OK 74822-1448

PROJECT: Thompson Heights Waterline

CONTRACT DATED: _____

STATE OF: _____

COUNTY OF: _____

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered against any property of the Owner arising in any manner out of the performance of the Contract referenced above:

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

The following supporting documents should be attached hereto if required by Owner:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.
3. Contractor's Affidavit of Release of Liens.

CONTRACTOR:

(Name and address)

BY: _____
(Signature of authorized representative)

(Printed name and title)

Subscribed and sworn before me on this date:

Notary Public: _____

My Commission Expires: _____

CLAIM OR INVOICE AFFIDAVIT

State of _____ ss.
County of _____

The undersigned (engineer or supervisory official), of lawful age, being first duly sworn, on oath says that this (invoice, claim, or contract) is true and correct. Affiant further states that the (work, services, or materials) as shown by this invoice or claim have been (completed or supplied) in accordance with the plans, specifications, orders, or requests furnished to the affiant. Affiant further states that (s)he has made no payment, given, or donated or agreed to pay, give, or donate, either directly or indirectly, to any elected official, officer, or employee of the State of Oklahoma, of money or any other thing of value to obtain payment or the award of this contract.

Engineer/Supervisory Official signature

Subscribed and sworn to before me this ____ day of _____, 20 ____.

Notary Public signature

My Commission Expires: _____

NOTICE OF AWARD

Date: ____/____/____

Project: _____

Grant#: ARP-____-____-____

The _____ has considered the bid submitted by
Owner
_____ for the above referenced project in response to the
Contractor
Advertisement for Bids dated ____/____/____ and Information for Bidders. You are hereby notified
that your bid has been accepted for items in the amount of \$ _____.

You are required per the Information for Bidders to execute the Agreement and furnish the required Contractor's Performance Bond, Statutory Bond, Maintenance Bond, and Certificate of Insurance within ____ calendar days from the date of this Notice. If you fail to provide these in the specified time, the Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and as a forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.

Owner's Authorized Representative signature

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by _____,

Contractor's Representative name

Authorized Representative of _____

Contractor

Contractor's Authorized Representative signature

____/____/____
Date

AGREEMENT

This Agreement made this ____ day of _____, 20__ between _____
(hereinafter called the Owner) and _____ (hereinafter called the Contractor).

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor will commence and complete the work for:

_____.

2. The Contractor will furnish all of the materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the project described herein.

3. The Contractor will commence the work required by the Contract documents within ____ calendar days after the date of the Notice to Proceed and will complete the same within ____ calendar days unless the period for completion is extended otherwise.

4. The Contractor agrees to perform all the work described in the Contract documents and comply with the terms therein for the sum of \$ _____ or as shown in the Bid Schedule.

5. The term "Contract documents" means and includes the following:

- | | |
|---|---------------------------------|
| (A) Advertisement for Bids | (I) Standard Requirements |
| (B) Information for Bidders | (J) Statutory Bond |
| (C) Bid Proposal | (K) Performance Bond |
| (D) Bid Schedule | (L) Maintenance Bond |
| (E) Business Relationships Affidavit | (M) Certificate of Insurance |
| (F) Non-collusion Affidavit | (N) Notice of Award |
| (G) Bid Bond | (O) Notice to Proceed |
| (H) Agreement | (P) Change Order |
| (Q) Drawings prepared by _____. | |
| Numbers ____ through ____ and dated ____/____/____. | |
| (R) Specifications prepared by _____, dated ____/____/____. | |
| (S) ADDENDA: | |
| No. _____, dated ____/____/____ | No. _____, dated ____/____/____ |
| No. _____, dated ____/____/____ | No. _____, dated ____/____/____ |

6. The Owner will pay to the Contractor in the manner and at such times as set forth in the Standard Requirements such amounts as required by the Contract documents.

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

8. It is understood that the following are also required of the Contractor in performance of this contract:

- a. Liquidated damages for failure to complete the work within the time specified shall be assessed at the rate of \$_____ per day for each additional calendar day until the work is completed.
- b. Contractor shall comply with the Underground Facilities Damage Prevention Act (63 O.S. 42.1 et seq.).

IN WITNESS WHEREOF, the parties hereto have executed or caused to be executed by their duly authorized officials, this Agreement in _____ copies each of which shall be deemed an original on the date first above written.

Owner's Authorized Representative	Title	Signature	____/____/____ Date
Attested by	Title	Signature	____/____/____ Date
Contractor's Authorized Representative	Title	Signature	____/____/____ Date
Attested by	Title	Signature	____/____/____ Date

NOTICE TO PROCEED

Date: ____/____/____

Project: _____

Grant#: ARP-____-____-____

Notice is hereby given to _____ to commence work on the above
Contractor
referenced project on or before ____/____/____. In accordance with the Agreement dated
____/____/____, you are to complete the work within ____ consecutive calendar days. The date of
completion of all work is ____/____/____.

Owner's Authorized Representative signature

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by _____,
Contractor's Representative name

Authorized Representative of _____
Contractor

Contractor's Authorized Representative signature

____/____/____
Date

**CERTIFICATE OF APPROVAL OF CONTRACTS AND BONDS BY LOCAL
ATTORNEY**

I, the undersigned _____,
the duly authorized and acting legal representative of the _____,
after careful examination of the Contract between this Entity and
_____, and the surety bonds given by the contractor in
connection with the performance of said contract, do hereby certify that:

1. Each of the aforesaid agreements has been duly executed by the proper parties thereto, acting through their duly authorized representatives.
2. Said representatives have full power and authority to execute said agreements on behalf of the respective parties named therein.
3. The foregoing contract and surety bonds, as applicable, constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

Dated this ____ day of _____, 20 ____.

Attorney's signature

Disadvantaged Business Enterprise Program (DBE) Guidance (ARP-267)

Important note: All OWRB ARPA information can be found at: <https://www.owrb.ok.gov/financing/grant/arpa.php>

The OWRB is administering the State of Oklahoma's ARPA funding for various wastewater and water quality projects. The ARPA program is federally funded, and one of the conditions of federal grant awards is for recipients and sub-recipients (i.e., prime contractors and subcontractors) make a good-faith effort to award a fair share of work to DBEs who are small business enterprises (SBEs), minority business enterprises (MBEs) and women's business enterprises (WBEs).

To ensure compliance with federal DBE requirements, both Grant Recipients (Project Owners) and Prime Contractors must undertake the good faith efforts to provide opportunities for DBE firms to participate in contracts. Federal regulations require evidence of the demonstration of the six good faith efforts in trying to achieve the DBE participation goals. The Oklahoma Department of Transportation has a Directory of Certified DBE Firms. This directory can be accessed at <https://okdot.gob2g.com/Default.asp>

Good Faith Efforts: EPA's Good Faith Efforts for the Clean Water State Revolving Fund (CWSRF) will be used for the OWRB ARPA grant program. The following good faith efforts will apply to all procurement categories involving ARPA funds (See Appendices A & B).

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For state and local government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For state and local government recipients, this will include dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
5. Use the services and assistance of the Small Business Administration (SBE) and the Minority Business Development Agency of the Department of Commerce.
6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.

Please submit all information to:
Financial Assistance Division, OWRB
3800 North Classen Blvd, Oklahoma City, OK 73118
Phone: 405.530.8800, FAX: 405.530.8900
<http://www.owrb.ok.gov>

Disadvantaged Business Enterprise Program (DBE) Guidance

Demonstration of the Six Good Faith Efforts. See Appendices A & B for additional bidding instructions and contract administrative provisions.

A: Project Owners are required to create and maintain a bidders list in accordance with Subpart E of Part 33 of EPA's Disadvantaged Business Enterprise Program rule, (§ 33.501(b)). This requirement will be adopted for projects funded through the OWRB ARPA program. The list must include all firms that bid or quote on prime contracts, or bid or quote subcontracts, on competitively bid ARPA funded projects. The bidders list must only be kept until the project period for the identified grant has ended. The following information must be obtained from all prime and subcontractors and can be provided on Bidders List (ARP-249):

1. Entity's name with point of contact
2. Entity's mailing address, telephone number, and e-mail address
3. The procurement on which the entity bid or quoted, and when; and
4. Entity's status as an MBE/WBE or non-MBE/WBE

B: Project Owners are required to undertake good faith efforts. Steps 1 through 5 can be utilized during the project planning, design and/or pre-bidding phase, to assure that qualified DBE firms have procurement opportunities in construction, equipment, services, and supplies.

To provide procurement opportunities to DBE Firms, the Project Owner should undertake the following:

- Conduct pre-bid meetings to inform potential bidders/contractors about DBE requirements and provide guidance in undertaking the required good faith efforts.
- Use listings of certified DBEs from the U.S. Small Business Administration (SBA), Oklahoma Department of Transportation (ODOT), etc., to solicit DBE firms as prime contractors whenever they are potential candidates. Project Owners should advertise in minority, local and regional newspapers.
- Invite DBE firms, where appropriate, to meetings, conferences etc., to inform them of procurement opportunities and develop, where possible, reasonable contract and delivery schedules that encourage and facilitate participation by DBE's. This includes, whenever possible, a minimum of 30 calendar days for bids or request for proposals.
- Determine if a project can be broken down into smaller components/contracts to allow opportunity for DBE firms to bid both as prime-contractors and as sub-contractors.
- For projects broken down into smaller components (e.g., painting, roofing, excavation, pipe laying, etc.) ensure that the delivery schedules are reasonable.
- Encourage DBE firms, where appropriate, to apply as a consortium of DBEs, when a contract is too large for one of these firms to handle individually.
- Require prime contractor to complete ARP Form 6100-3 & ARP Form 6100-4 and submit with bid proposal to Project Owner.

C: Project Owners must require the prime contractor to undertake steps 1 through 5 of the Good Faith Efforts in providing DBE firms opportunity for sub-contracts.

Project Owner must provide the DBE Guidance (ARP-267) and associated forms to Prime Contractors for utilization of DBEs in the bidding documents.

APPENDIX A: Project Owner, Prime Contractor and Sub-Contractor Responsibilities

EPA's Disadvantaged Business Enterprise Program rule applies to contract procurement actions funded in part by EPA assistance agreements awarded after May 27, 2008. The rule is found at Federal regulation Title 40, Part 33. Specific responsibilities are highlighted below.

Project Owner Responsibilities:

- Include OWRB's DBE guidance (ARP-267) in each contract with a primary contractor.
- Employ the six Good Faith Efforts during prime contractor procurement (§33.301).
- Require prime contractor to comply with the following prime contractor requirements of Title 40 Part 33:
 - a) To employ the six Good Faith Efforts steps in paragraphs (a) through (e) of § 33.301 if the prime contractor awards subcontracts (§ 33.301(f)).
 - b) To provide **ARP form 6100-2 – DBE Subcontractor Participation Form** to all DBE subcontractors (Optional submittal by subcontractors) (§ 33.302(e)).
 - c) To submit **ARP form 6100-3 – DBE Program Subcontractor Performance Form** and **ARP form 6100-4 – DBE Program Subcontractor Utilization Form** with bid package or proposal. (§ 33.302 (f) and (g)).
 - d) To pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient (§ 33.302(a)).
 - e) To notify recipient in writing by its prime contractor prior to any termination of a DBE subcontractor for convenience by the prime contractor (§ 33.302(b)).
 - f) To employ the six good faith efforts described in § 33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason. (§ 33.302(c)).
 - g) To employ the six good faith efforts described in § 33.301 even if the prime contractor has achieved its fair share objectives under subpart D of Part 33. (§33.302(d)).
 - h) Provide Project Owner DBE participation achievements with bid proposal – this includes all information necessary for the Owner to complete the **Bidders List (ARP-249)**. The Owner may allow the prime contractor to complete the Bidders List (ARP-249); however, the Owner is responsible for review and submittal.
- Maintain records documenting compliance with the requirements of Title 40 Part 33, including **Bidders List (ARP-249)** and documentation of the good faith efforts (§ 33.301(a)) by the project owner and prime contractor.

Prime Contractor Responsibilities:

- Employ the six Good Faith Efforts steps in paragraphs (a) through (e) of § 33.301 if the prime contractor awards subcontracts (§ 33.301(f)).

- Provide **ARP form 6100-2 – DBE Program Subcontractor Participation Form** and **ARP form 6100-3 – DBE Program Subcontractor Performance Form** to each **DBE subcontractor as part of the bid conference and prior to opening of the contractor's bid or proposal** (§ 33.302(e) and (f)). Complete **ARP form 6100-4 – DBE Program Subcontractor Utilization Form** (§ 33.302(g)).
- Submit to recipient with bid package or proposal the completed **ARP form 6100-4**, plus an **ARP form 6100-3** for each DBE subcontractor used in the contractor's bid or proposal (§ 33.302(f) and (g)).
- Pay subcontractors for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the Project Owner (§ 33.302(a)).
- Notify the recipient in writing prior to prime contractor termination of a DBE subcontractor for convenience (§ 33.302(b)).
- Employ the six good faith efforts described in (§ 33.301) if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason. (§ 33.302(c)).
- Employ the six good faith efforts described in (§ 33.301) even if the prime contractor has achieved its fair share objectives under subpart D of Part 33. (§33.302(d)).
- Provide Project Owner DBE participation achievements with bid proposal. This includes information necessary for Owner's completion of the **Bidders List (ARP-249)**.
- Maintain records documenting its compliance with the requirements of Title 40 Part 33, including **Bidders List (ARP-249)** and documentation of the good faith efforts (§ 33.301(a)) by the project owner and prime contractor.

Subcontractor Responsibilities:

- May submit **ARP form 6100-2 – DBE Subcontractor Participation Form** to Debra Bradford, EPA Region 6 DBE Coordinator (§ 33.302(e)). Submitted if concerns with EPA funded project (e.g., termination, late payment, etc.)
- Must complete **ARP form 6100-3 – DBE Program Subcontractor Performance Form** and submit it to the prime contractor soliciting services from the subcontractor prior to the opening of bids for the prime contract.

Summary of ARP Forms

<i>ARP Form</i>	<i>Requirement</i>	<i>Provided By</i>	<i>Completed By</i>	<i>Submitted To</i>
6100-2: DBE Subcontractor Participation Form	Project Owners required to have prime contractors provide form to Subcontractors	Prime Contractors to DBE Subcontractors	DBE Subcontractors if concerns with EPA funded project (e.g., termination, late payment, etc.)	EPA Region 6 DBE Coordinator, Debora Bradford
6100-3: DBE Subcontractor Performance Form	Project Owners required to have prime contractors provide form to Subcontractors	Prime Contractors to DBE Subcontractors	DBE Subcontractors with Prime Contractor's Signature. Completed when bidding on a job.	Project Owners as part of a bid or proposal package
6100-4: DBE Subcontractor Utilization Form	Project Owners required to have prime contractors complete the form	Project Owners to Prime Contractors	Prime Contractors to indicate the utilization of a DBE.	Project Owners as part of bid or proposal

APPENDIX B: TITLE 40 PART 33 SUBPART C—GOOD FAITH EFFORTS

§ 33.102 When do the requirements of this part apply?

The requirements of this part apply to procurement under ARPA Grant program agreements performed entirely within the United States, whether by a Project Owner or its prime contractor, for construction, equipment, services, and supplies.

§ 33.106 What assurances must ARPA Grant program recipients obtain from their contractors?

The recipient must ensure that each procurement contract it awards contains the term and condition specified in Appendix A to this part concerning compliance with the requirements of this part.

§ 33.206 Is there a list of certified MBEs and WBEs?

The Oklahoma Department of Transportation has a Directory of Certified DBE Firms. This database can be found at this website: <https://okdot.gob2g.com/Default.asp>.

§ 33.301 What does this subpart require?

A recipient, including one exempted from applying the fair share objective requirements by § 33.411, is required to make the following good faith efforts whenever procuring construction, equipment, services, and supplies under an ARPA Grant program agreement, even if it has achieved its fair share objectives under subpart D of this part:

- a) Ensure DBEs are made aware of contracting opportunities fully practicable through outreach and recruitment activities. For State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
- b) Make information on forthcoming opportunities available to DBE's, arrange periods for contracts, and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
- c) Consider in the contracting process whether firms competing for large contracts could subcontract with DBE's. For state and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
- d) Encourage contracting with a consortium of DBE's when a contract is too large for one of these firms to handle individually.
- e) Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.
- f) If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

§ 33.302 Are there any additional contract administration requirements?

- a) Project Owners must require its prime contractor to pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient.
- b) Its prime contractor must notify Project Owner in writing prior to any termination of a DBE subcontractor for convenience by the prime contractor.
- c) If a DBE subcontractor fails to complete work under the subcontract for any reason, the recipient must require the prime contractor to employ the six good faith efforts described in § 33.301 if soliciting a replacement subcontractor.
- d) A project owner must require its prime contractor to employ the six good faith efforts described in §33.301 even if the prime contractor has achieved its fair share objectives under §33.301 subpart D above.

- e) A recipient must require its prime contractor to provide ARP Form 6100-2—DBE Program Subcontractor Participation Form to all of its DBE subcontractors. ARP Form 6100-2 gives a DBE subcontractor the opportunity to describe the work the DBE subcontractor received from the prime contractor, how much the DBE subcontractor was paid and any other concerns the DBE subcontractor might have, for example reasons why the DBE subcontractor believes it was terminated by the prime contractor. DBE subcontractors may send completed copies of ARP Form 6100-2 directly to the appropriate EPA DBE Coordinator.
- f) A recipient must require its prime contractor to have its DBE subcontractors complete ARP Form 6100-3—DBE Program Subcontractor Performance Form. A recipient must then require its prime contractor to include all completed forms as part of the prime contractor's bid or proposal package.
- g) A recipient must require its prime contractor to complete and submit ARP Form 6100-4—DBE Program Subcontractor Utilization Form as part of the prime contractor's bid or proposal package.
- h) Copies of ARP Form 6100-2—DBE Program Subcontractor Participation Form, ARP Form 6100-3—DBE Program Subcontractor Performance Form and ARP Form 6100-4—DBE Program Subcontractor Utilization Form may be obtained from EPA OSDBU's Home Page on the Internet or directly from EPA OSDBU.
- i) A recipient must ensure that each procurement contract it awards contains the term and condition specified in the Appendix A concerning compliance with the requirements of this part. A recipient must also ensure that this term and condition is included in each procurement contract awarded by an entity receiving a grant under federal financial assistance agreement.

§ 33.410 Can a recipient be penalized for failing to meet its fair share objectives?

A recipient cannot be penalized or treated by EPA as being in noncompliance with this subpart, solely because its MBE or WBE participation does not meet its applicable fair share objective. However, EPA may take remedial action under § 33.105 for a recipient's failure to comply with other provisions of this part, including, but not limited to, the good faith efforts requirements described in subpart C of this part.

Source: Federal Requirements and Contract Provisions for Special Appropriation Act Projects, US Environmental Protection Agency, Region III, June 2008

APPENDIX C: RESOURCE LISTING AND CONTACT INFORMATION
FOR UTILIZATION OF MINORITY AND WOMEN'S BUSINESS ENTERPRISES

Resource Listing	Contact Information	Website if applicable
U.S. Small Business Administration (SBA) In addition to the national office, the SBA has local district and regional offices to assist small businesses in contracting with the public and private sector.	US Small Business Administration 409 3rd St, SW Washington DC 20416 Phone: 800-827-5722	https://www.sba.gov/
U. S. Small Business Administration (SBA) - OK. District Office	301 NW 6 th St. Oklahoma City, OK 73102 Phone: 405.609.8000	https://www.sba.gov/offices/district/ok/oklahoma-city
Minority Business Development Administration (MBDA): The MBDA is an agency within the U.S. Dept. of Commerce, created to foster the development and growth of minority businesses in the U.S. and coordinates resources in the public and private sectors to help MBEs.	1401 Constitution Ave NW Washington, D.C. 20230 Email: support@mbda.gov Phone: (202) 482-2000	http://www.mbda.gov/
Standard Industrial Classification Codes (SIC) or North American Industry Classification System (NAICS) codes visit the websites.	U.S. Bureau of Labor Statistics Postal Square Building, 2 Massachusetts Ave. NE Washington, DC 20212-0001 Phone: 1-202-691-5200	http://www.bls.gov/iag/tgs/iag_index_naics.htm
Oklahoma Department of Transportation (ODOT) and the <u>Minority/Disadvantaged Business Enterprise (ODOT – MBE/DBE)</u> . Project Owners and bidders may locate qualified M/WBE's through the MBE/WBE Directory	200 NE 21 st Street Oklahoma City, OK 73105 Phone: 405.521.2082	https://okdot.gob2g.com/Default.asp
US EPA Office of Small and Disadvantaged Business Utilization (OSDBU): advocates and advances the business, regulatory, and environmental compliance concerns of small and socio-economically disadvantaged businesses. The Small Business Vendor Profile System contains information of number of small and disadvantaged companies registered with OSDBU.	USEPA Office of Small Programs 1200 Pennsylvania Ave. NW Mail Code 1230T Washington, D.C. 20460 Phone: 202 566-2075	https://www.epa.gov/aboutepa/about-office-small-and-disadvantaged-business-utilization-osdbu Select "search the OSBP Registry" Click on the search criteria of interest (ethnicity, size, SIC, etc.)

National Black Chamber of Commerce	4400 Jenifer St NW #331, Washington, DC 20015 Phone: 202 466-6888 Fax: 202 466-4918 Email: info@nationalbcc.org	http://www.nationalbcc.org
U.S. Hispanic Chamber of Commerce	424 K St NW #401, Washington, DC 20005 Phone: (202) 842-1212	http://www.usbcc.com
National Association of Minority Contractors (NAMC)	910 17th Street, NW, Suite 413 Washington, DC 20006 Phone: 202.296.1600 info@namcnational.org	http://namcnational.org/
National Association of Women's Business Owners (NAWBO)	601 Pennsylvania Ave NW South Building, Ste 900 Washington, DC 20004 Phone: 800-556-2926 Fax: 202-403-3788	www.nawbo.org
National Minority Supplier Development Council, Inc. (NMSDC)	1359 Broadway, 10th Floor, Suite 1000 New York, NY 10018 Phone: (212) 944-2430 Fax: (212) 719-9611	http://www.nmsdc.org/
Native American Development Corporation (NADC) - provides technical assistance, financial lending opportunities, and champions small businesses	17 N. 26th St. Billings, MT 59101 Phone: (406) 259-3804 Fax: (406) 259-4569 Email: nadcptac@nadc-nabn.org	http://www.nadc-nabn.org/
City of Tulsa – Small Business Enterprise Program Maintains a list of Minority and Female business Enterprises that are certified through the “building Resources in Developing and Growing Enterprises	175 E. 2nd St. Tulsa, OK. 74103 Phone: (918) 596-7818	https://www.cityoftulsa.org/developmentbusiness/small-business-enterprise-program/ Click on the ‘member list’
Southwest Minority Supplier Development Council: Maintains lists of certified Minority Business Enterprises in Oklahoma	7301 Broadway Ext Ste 224, OKC, OK 73116 Phone: (405) 767-9900	http://www.smsdc.org/

National Association of Women in Construction (NAWIC)	327 S. Adams Street Fort Worth, TX 76104 Phone: 800-552-3506 817.877.5551 Fax: 817.877.0324	http://www.nawic.org/
Bureau of Indian Affairs - Maintains a list of Native American Contractors and Suppliers by Trade	P.O. Box 368 (1 Mile North on Hwy 281) Anadarko, OK 73005 Phone: (405) 247-6673 Fax: (405) 247-5611	https://www.bia.gov/as-ia/eed/division-economic-development/native-american-business-development
Oklahoma Department of Commerce Certification Programs and information	900 N Stiles Ave. Oklahoma City, OK 73104 Phone: (405) 815-6552 Toll-Free: (800) 879-6552	https://www.okcommerce.gov/doing-business/#business-services
Cherokee Nation Tribal Employment Rights Office - Maintains a directory of Indian-owned businesses	Cherokee Nation TERO Dept. P.O. Box 948 Tahlequah, OK 74465 Phone: (918) 453-5334 or Toll Free: 800-256-0671 ext. 5334	http://cherokeetero.com/

ARP-6100-2 DBE Subcontractor Participation Form

OWRB Financial Assistance Agreement Recipients must require prime contractors to provide this form to their DBE subcontractors. This form gives a DBE subcontractor the opportunity to describe work received and/or report any concerns regarding the project.

Subcontractor Name	Project Name	
Bid/Proposal No.		Point of Contact
Address		
Telephone No.	Email address	
Prime Contractor Name		Funding entity Oklahoma Water Resources Board

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services , Equipment or Supplies	Amount Received by Prime Contractor

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Subcontractor Signature	Print Name
Title	Date

ARP-6100-3 DBE Subcontractor Performance Form

This form is intended to capture the DBE₁ subcontractor's₂ description of work to be performed and the price of the work submitted to the prime contractor. OWRB Financial Assistance Agreement Recipients must require prime contractors to provide this form to their DBE subcontractors.

Subcontractor Name	Project Name
Bid/Proposal No.	Point of Contact
Address	
Telephone No.	Email Address
Prime Contractor Name	Funding Entity Oklahoma Water Resources Board

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services , Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: ____ DOT ____ SBA ____ Other: _____		Meets/ exceeds EPA certification standards? ____ YES ____ NO ____ Unknown

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

Subcontractor Signature	Print Name
Title	Date

ARP-6100-4 DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE₁ subcontractors₂ and the estimated dollar amount of each subcontract. OWRB Financial Assistance Agreement Recipients must require their prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name	Project Name
Bid/Proposal No.	Point of Contact
Address	
Telephone No.	Email address
Funding Entity Oklahoma Water Resources Board	

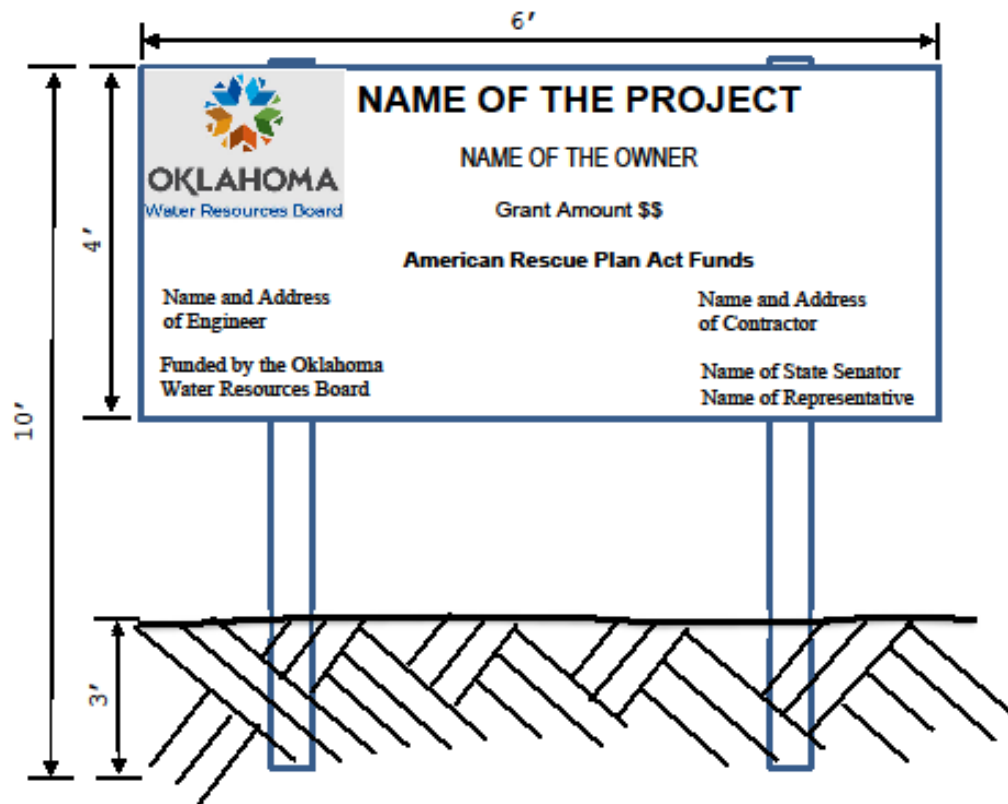
I have identified potential DBE certified Subcontractors	___ YES	___ NO	
If yes, please complete the table below. If no, please explain:			
Subcontractor Name/ Company Name	Company Address/ Phone/ Email	Est. Dollar Amt.	Currently DBE Certified?

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

PROJECT SIGN

- The general contractor shall erect and maintain for the life of the construction contract a suitable sign, 4' x 6' in size, and detailed hereon, lettered black on white background. Sign shall be professionally painted. Lettering to be appropriate size. No separate bid item. Sign shall be the general obligation of the Contractor.
- The OWRB logo is required on the project sign if the project is funded in part with OWRB Financial Assistance Program funds. The OWRB logo is available at <http://www.owrb.ok.gov/about/index.php> or may be provided directly by OWRB.
- Redwood Posts shall be 4" x 4" x 10' buried securely a minimum of 3 feet below ground.
- Sign face shall be constructed of 3/4" x 4' x 6' - 5 ply Dura-plywood board & mounted to Posts with four (4) 5/8" x 6" Carriage Bolts.



CONTRACT SPECIFICATIONS

A. General

1. This Contract is intended to, and hereby does, provide for complete in place, **Thompson Heights Waterline (ARP-23-0188-G)**, including all necessary work and material for a total job, whether or not such work and material is shown or implied in the plans and specifications.
2. All construction and materials shall conform to the City of Shawnee Standard Specifications as contained herein. All work necessary to make for a complete and operable Independence Avenue Waterline as intended by these plans and specifications for which bid items are not provided, shall be considered incidental work and the cost thereof shall be included in other appropriate bid items.
3. The cost to include the furnishing and installation of all temporary sheeting, shoring, timbering and bracing required to maintain any excavation in a condition to furnish safe working conditions and to permit the safe and efficient installation of all items of contract work shall be included in other items of work. The CONTRACTOR shall further, at his own expense, shore up or otherwise protect all fences, buildings, walls, walks, curbs, or other property adjacent to any excavation which might be disturbed during the progress of the work. The CONTRACTOR will be held liable for any damage which may result to neighboring property from excavation or construction operations.
4. Whenever any excavation is carried beyond the lines and grades shown on the Contract Drawings, written in the Contract Documents, and/or given by the ENGINEER, the CONTRACTOR shall, at his own expense, refill all such excavated space with such materials and in such a manner as may be directed. Beneath and around concrete structures, space excavated without authority shall be thoroughly compacted when refilling, or if deemed necessary by the ENGINEER, shall be refilled with concrete at the CONTRACTOR'S expense.
5. If the materials encountered on any excavation are not suitable for structural foundations, or if necessary, to go an additional depth or width from that designated on the contract drawings to provide proper bearing for pipe and concrete, the CONTRACTOR shall make such additional excavations outside the regular limits of the work as may be directed by the ENGINEER. The cost of such additional excavation shall be merged into the appropriate unit price.
6. Excavated material shall be deposited so as to interfere as little as possible with the execution of the whole work or its several parts. Such material as cannot be placed in its final position in fills and embankment shall be removed to a temporary spoil bank, from which it shall later be taken and placed in embankment or fills.
7. Unsuitable and surplus excavated material not incorporated in the improvement shall be disposed of by the CONTRACTOR at his own expense unless otherwise designated in the project specifications, or on the contract drawings.
8. If private land is used by the CONTRACTOR as a spoil site, the CONTRACTOR shall obtain written permission from the OWNER or agent of the land agreeing to its use for this purpose and provide the project OWNER with a certified copy of such agreement.
9. The CONTRACTOR shall notify residents and business OWNERS of construction by distributing door hangers to each and every house, business, and /or occupied structure located

on the street or alley where the construction shall occur, at least 48 hours in advance of the commencement of construction.

B. Site Conditions

The CONTRACTOR shall be responsible for familiarizing himself with surface and subsurface conditions. The base bid as shown in the proposal shall include cost for unclassified excavating of earth, rock, dewatering, stabilizing unsuitable soils such as quicksand or other unsuitable materials, or any hazard that may be encountered. The cost for such work shall be included in the appropriate bid item. No additional compensation shall be given for such work. The CONTRACTOR shall satisfy himself as to the accuracy of all measurements before constructing any permanent structure.

C. Surveys

The CONTRACTOR shall develop and make all detailed surveys needed for construction such as slope stakes, batter boards, stakes for construction location and other working points, lines and elevations. The CONTRACTOR shall carefully preserve all benchmarks, reference points and stakes established by the ENGINEER and in case he causes damage or disturbance, he will be charged for the cost of replacement and shall be responsible for any mistakes that may be caused by their loss.

D. Utility Locations

The elevation and location of all utilities shown on the contract drawings were taken from public records. It shall be the duty of the CONTRACTOR to make final and exact determination of the location and extent of these utilities, and he will be liable for any expense resulting from damage to them. Unless otherwise indicated on the contract drawings or unless otherwise taken care of by the OWNER thereof, all utilities and all structures of any nature, whether below or above ground, that may be affected by the work shall be protected and maintained by the CONTRACTOR and shall not be disturbed or damaged by him during the progress of the work. Should the CONTRACTOR disturb, disconnect or damage any utility or any structure, all expenses of whatever nature arising from such disturbance or the replacement or repair thereof shall be borne by the CONTRACTOR. This provision shall apply whether or not said utility or structure is shown on the plans. All utility locations shown or not shown on these plans shall be the responsibility of the CONTRACTOR prior to excavation. Utility location telephone numbers are:

1-800-522-6543	Statewide
1-800-654-8349	Out of State

E. As-Built Records

The CONTRACTOR is required to keep a current record of all field changes on jobsite at all times. They shall be legibly marked on his plan and shall become property of the City of Shawnee prior to completion for purposes of constructing an as-built record of this project.

F. Arrangement and Charge for Water Furnished by the City

If the CONTRACTOR desires to use City water, he shall pay the rate established by City Ordinance for such service and he shall make complete and satisfactory arrangements with the City Utility Department for so doing. Flush meters will be used and the CONTRACTOR shall deposit the cost of the flush meter with the Utility Department and will pay for repairs and maintenance of the meter

for the period which he has the meter in use in his possession. CONTRACTOR shall be charged for the amount of water he uses, including any monthly minimum charge.

G. Use of Fire Hydrants

The CONTRACTOR or his employees shall not open, turn off, interfere with, attach pipe or hose to, or connect anything with any fire hydrant, stop valve or stop cock or tap any water-main belonging to the City unless duly authorized to do so by the OWNER.

H. Protection and Opening to Pedestrians and Traffic

The CONTRACTOR is required to receive permission from the CITY ENGINEER to close any traffic lanes or alleys or roads during construction. No road shall be permanently or temporarily closed without prior approval by the CITY ENGINEER. The CONTRACTOR shall conduct his work so as to interfere as little as possible with public travel, whether vehicular or pedestrian; whenever it is necessary to cross, obstruct, or temporarily close roads, driveways and walks, whether public or private. The CONTRACTOR shall, at his own expense, provide and maintain suitable and safe bridges, detours, barricades, signing, lighting, striping and/or other temporary expedients for the accommodation of public and private travel, and shall give reasonable notice to OWNERS of private drives before interfering with them; provided, however, that such maintenance of traffic will not be required at any point where the CONTRACTOR has obtained permission from the OWNER and/or tenant of private property, or from the authority having jurisdiction over public property involved to obstruct traffic at any designated point thereon and for the duration of whatever period of time as may be agreed upon. All work pertaining to traffic control shall be in accordance with the latest revision of "The Manual on Uniform Traffic Control Devices."

I. Materials and Construction

All materials and construction shall be in accordance with the City of Shawnee Standard Specifications for Construction (Standard Specifications) and Construction Standards as contained herein.

J. Testing and Acceptance Requirements

The CONTRACTOR shall be responsible for paying the cost of all testing outlined in the Standard Specifications. Testing shall be performed by a qualified testing laboratory approved by the OWNER.

K. Protection and Preservation of Property and Landscape

The CONTRACTOR will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. The CONTRACTOR shall furnish such watchmen, guards, fences, warning signs, lights and walkways, and shall take all other precautions as shall be necessary to prevent damage to persons or property. All structures and improvements damaged by the CONTRACTOR, his employees, SUBCONTRACTORS, or agents, shall be restored to a condition as good as when he entered upon the work. The duty of the ENGINEER to conduct construction inspection of the CONTRACTOR'S performance does not include any review of the adequacy of the CONTRACTOR'S safety measures in, on, or near the construction site or sites. The ENGINEER has not been retained or compensated to provide design and construction review services relating to the CONTRACTOR'S safety precautions or to means, methods, techniques, sequences, or procedures required for the CONTRACTOR to perform his work.

No trees shall be removed on the site of the work where outside of excavation limits, except where their removal is authorized by the ENGINEER. Where trees are on the line of the trench or adjacent thereto such trees and roots shall be removed and disposed of by and at the expense of the CONTRACTOR.

Trees remaining at the end of construction shall be adequately protected from permanent damage by reason of construction operations. Trimming of remaining trees where required shall be as directed by the ENGINEER.

All turf, shrubbery, and other landscaping, damaged or removed by the CONTRACTOR shall be replaced under the direction and to the satisfaction of the OWNER, by and at the expense of the CONTRACTOR.

Any traffic signal loop wire, pull box, or conduit that is damaged or destroyed shall be replaced under the direction and to the satisfaction of the OWNER, by and at the expense of the CONTRACTOR.

L Administrative Matters

All permits, fees, and licenses required under City Ordinance not regulated by state or federal law will be collected.

DIVISION 01 – GENERAL REQUIREMENTS**SECTION 01 00 00 – GENERAL CONDITIONS****PART 1 – GENERAL****1.1 DESCRIPTION**

The General Conditions shall govern and control all work to which they apply; however, since these specifications are of a general nature, they may refer to work not found in this project, in which case such non-applicable stipulations will have no meaning in this Contract. In case of conflict between the General Conditions and the Special Conditions, the Special Conditions shall govern. In case of conflict with either the General or Special Conditions by Supplemental Conditions of a funding agency such as EPA, FMHA, EDA or HUD, the Supplemental Conditions will govern.

PART 2 – DEFINITIONS**2.1 DEFINITIONS**

DEFINITIONS: Whenever the words defined below, or pronouns used in their stead occur hereinafter, they shall have the meanings given as follows:

- A. "OWNER" shall mean the City of Shawnee or Shawnee Public Works Authority.
- B. "ENGINEER" shall mean Cowan Group Engineering, LLC, who has been employed by the OWNER for this work, or his duly authorized agent.
- C. "Inspector" shall mean the engineering or technical inspector or inspectors duly authorized by the ENGINEER, limited to the particular duties entrusted to him or them.
- D. "CONTRACTOR" shall mean the person, persons, partnership, company, firm or corporation entering into this contract for the performance of the work, or the agent appointed to act for such party.
- E. "Specification" shall mean, collectively, all of the terms and stipulations contained in the written portion of information furnished.
- F. "Drawings or Plan Sheets" shall mean, collectively, all of the drawings pertaining to the contract and made a part thereof, and also such supplementary drawings as the ENGINEER may issue from time to time in order to clarify the drawings, or for the purpose of showing authorized changes in the work, or for showing details which are not shown thereon.
- G. The term "Grade" used in these Specification is understood to refer to and indicate the established elevations of the paving, flow line of waterlines and other appurtenances as shown on the drawings.
- H. Whenever in these CONTRACT DOCUMENTS the words "as ordered", "as directed", "as permitted", "as allowed", or words or phrases of like import are used, it shall

be understood that the order, direction, requirements, permission, or allowance of the OWNER and ENGINEER is intended.

- I. Similarly, the words "approved", "reasonable", "suitable", "acceptable", "properly", "satisfactory", or words of like effect and import, unless otherwise particularly specified herein, shall mean approved, reasonable, suitable, acceptable, proper, or satisfactory in the judgment of the OWNER and ENGINEER.
- J. Whenever the term "or equal" is used in the drawings and/or Specification it shall refer to a material which will adequately perform the same function, in the opinion of the ENGINEER, as the material specified or shown on the drawings.

PART 3 - SCOPE OF WORK

The work to be covered under these contracts in accordance with the drawings listed herein and, in these specifications, consists of the furnishing of all materials, equipment, tools, labor, transportation and services necessary to complete the construction as outlined herein and as shown on the drawings. The complete installation shall not lack any part which can be reasonably implied as necessary to its proper functioning nor any subsidiary which is customarily furnished.

PART 4 - EXAMINATION OF SITE OF WORK

It is the obligation of the bidder to examine carefully the site of the proposed work; to ascertain for himself all the facts concerning conditions therein, including all physical characteristics above, on and below the surface of the ground; to investigate the subsurface conditions and to determine for his information the character and proportionate quantities of soils, rock and other subsurface material which may be encountered in the work; to inform himself by independent research of the difficulties to be encountered and judge for himself the accessibility of the work and all other circumstances affecting the cost of doing the work or the time required for its completion; and the bidder agrees to this obligation in signing the proposal. When provided, the soils boring and testing report is attached to these Specification for the CONTRACTOR'S information and is not a part of the contract. No guarantee is made as to their accuracy or completeness. The OWNER assumes no responsibility whatsoever with respect to ascertaining for the bidder such facts covering physical characteristics at the site of the work. The bidder agrees that, if awarded the contract, he will make no claim for, and will have no right to, additional payment or extension of time for completion of the work or any other concession because of any failure on his part to fully acquaint himself with all conditions relating to the work. The bidder shall rely exclusively upon his own estimate, investigation and evaluation of site conditions.

PART 5 - SITE CONDITIONS

Where connections to existing utilities are shown on the drawings, the work may be required to be done at night or at a time which will least interfere with the operation of the existing facility.

The tie to existing utilities will be coordinated with personnel of the OWNER of the existing lines and will be done at a time to least inconvenience their operation. The work may be required to be done at night or weekends or both.

Where possible the existing utilities (water, gas, etc.) have been noted on the drawings. There may be additional buried lines that are not shown and if such is encountered, said lines will be left in service. CONTRACTOR shall take all precautions available prior to construction to locate, identify, and verify utilities. If said lines are broken by the CONTRACTOR, they shall be repaired as soon as possible.

The work along or across state highways shall be done in accordance with the permit from Division Engineer, Department of Transportation. The right-of-way shall be maintained in a satisfactory manner at all times. All roads, streets, drives, etc., cut during construction shall be properly protected by barricades, flashing lights, etc., and shall be made passable as soon as possible after laying of lines during the day and always at night. CONTRACTOR shall maintain the above cut roads in a passable condition until the wearing surface is replaced and then kept in a satisfactory condition for five (5) years after job is completed.

PART 6 - EXPLOSIVES

In handling explosives used during the construction of the project, the CONTRACTOR shall adhere to all Federal and State laws and City ordinances regulating the purchase, transportation, storage, handling, and use of such explosives. No blasting shall be done without 12-hour notification of the OWNER and ENGINEER, proof of insurance, and the presence of the Inspector. All equipment, tools, and materials used shall be of the correct type and in good condition for the operation. The CONTRACTOR shall take all necessary precautions to avoid damage to property resulting from the transportation, storage, handling and use of explosives. Before blasting, the CONTRACTOR shall take all necessary precautions to ensure that rock and debris will be confined to the excavation. Any blasting within 10 ft. of a water, sewer, gas or pipeline shall be done with very light charges, and utmost care shall be taken to avoid disturbance to these lines.

PART 7 - SUBMITTALS

Engineering data covering all equipment and fabricated materials to be furnished under this contract shall be submitted to the ENGINEER for review. This data shall include drawings and operation of component materials and devices; the external connections; anchorages and supports required; performance characteristics; and dimensions needed for installation and correlation with other materials and equipment. Data submitted shall include drawings showing essential details of any changes proposed by CONTRACTOR and all required structural layout and wiring diagrams.

No work shall be performed in connection with the fabrication or manufacture of materials and equipment, nor shall any accessory or appurtenance be purchased until the drawings and data therefore have been reviewed, except at the CONTRACTOR'S own risk and responsibility.

At least five (5) copies of each drawing and necessary data with statement of approval by the CONTRACTOR, shall be submitted to the ENGINEER. Each drawing or data sheet shall be clearly marked with the name of the project, the ENGINEER'S name, CONTRACTOR'S name and references to applicable specification paragraphs and drawing sheets. When catalog pages are submitted, the applicable items shall be identified.

The ENGINEER'S review of drawings and data submitted by the CONTRACTOR will cover only general conformity to the drawings and specifications, external connections and

dimensions which affect the layout. The ENGINEER'S review of drawings returned marked NO EXCEPTIONS NOTED or EXCEPTIONS NOTED does not indicate a thorough review of all dimensions, quantities and details of the material, equipment, device or items shown and does not relieve the CONTRACTOR from any responsibility for errors, omissions, or deviations from the contract requirements.

All drawings and data, after final processing by the ENGINEER, shall become a part of the contract documents, and the work shown or described thereby shall be performed in conformance therewith unless otherwise authorized by the OWNER or the ENGINEER.

After drawings and data have been accepted by OWNER or ENGINEER, the CONTRACTOR shall submit three (3) additional copies of all data and one (1) set of reproducible of all drawings to OWNER for file records. Also, CONTRACTOR shall keep accurate "record drawings" records of the work and turn these records over to the OWNER at the completion of the work.

PART 8 - SURVEYS

The OWNER shall establish base lines or control points for the location of the principal component parts of the work together with benchmarks adjacent to the work as shown or indicated on the Drawings. The CONTRACTOR shall develop and make all detail surveys necessary for construction. The CONTRACTOR shall be responsible for the accuracy of all lines and grades for all parts of the work. He shall do all field work necessary to lay out and maintain the work and shall make available to the OWNER all facilities and information necessary for properly checking the accuracy of such field work. Such checking shall in no way relieve the CONTRACTOR of his responsibility of the correctness of all field work.

The OWNER will provide survey of property including reference points, property corners and benchmarks where necessary in the opinion of the ENGINEER. If necessary, the CONTRACTOR shall transfer these reference points and benchmarks to permanent locations where they will not be disturbed. If disturbed, the CONTRACTOR shall re-install them to OWNER'S satisfaction, at CONTRACTOR'S cost.

PART 9 - PERMITS AND REGULATIONS

The CONTRACTOR shall secure and pay for all construction permits required to carry out the work unless otherwise specified and shall produce same upon demand of the OWNER. The CONTRACTOR shall give all notices and pay all fees and shall, before starting work, ascertain whether the drawings and specification are at variance with any codes or regulations applying at the site. The CONTRACTOR shall obtain completion survey, certificate of completion or occupancy if required by local regulations.

All features of design and construction shall comply with the local building regulations and/or other lawful or public regulations which apply at the site. If any features of construction as shown on the OWNER'S plan, do not conform to the regulations, the CONTRACTOR shall notify the OWNER of such discrepancy, and shall base his quotation and work on features of construction which do conform to the regulations.

If the CONTRACTOR performs any work contrary to such laws, ordinances, rules and regulations and without such notice to the OWNER, he shall bear all costs arising therefrom.

PART 10 - INSPECTION

The CONTRACTOR will provide access to the work site and facilities for representatives of the Environmental Protection Agency, Oklahoma Department of Environmental Quality and other agencies, as well as, OWNER and ENGINEER, as required whenever the work is in progress.

PART 11 - SATURDAY, SUNDAY, HOLIDAY AND NIGHT WORK

No work shall be done between the hours of 7:00 p.m. and 7:00 a.m., nor on Saturday, Sunday or legal holidays without the written approval or permission of the ENGINEER in each case, except such work as may be necessary for the proper care, maintenance and protection of work already done, or of equipment, or in the case of an emergency.

PART 12 - PROTECTION OF PROPERTY

- A. The protection of City, State and Government monuments, street signs and other OWNER's property is of prime importance, and if the same be damaged, destroyed or removed, they shall be repaired, replaced or paid for by the CONTRACTOR. Disturbance to this property must first be approved by the agency which controls it.
- B. No valves or other control on any utility main or building service line shall be operated for any purpose by the CONTRACTOR.
- C. At places where the CONTRACTOR'S operations are adjacent to the plant of railway, telegraph, telephone, electric and gas companies, or water, sanitary sewers and storm sewers, damage to which might result in expense, loss or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.
- D. The OWNER has attempted to locate all storm sewers, culverts, buried telephone or electrical conduits, sanitary sewers and water mains that might interfere with the construction of this project. The CONTRACTOR shall cooperate with the owners of any underground or overhead utility lines in their removal and rearrangement operations in order that these operations may progress in a reasonable manner and duplication or rearrangement work may be reduced to a minimum and that services rendered by those parties will not be unnecessarily interrupted. The revision and crossings of the various types of lines shall be made as follows:
 - 1. Storm sewers and culverts may be removed at the time of crossing or may be adequately braced and held in position while the pipe is placed beneath them. If the storm sewer or culvert is removed, it shall be replaced with pipe of the same type and size as that removed and it shall be re-joined to the undisturbed line with a joint satisfactory to the ENGINEER. Backfill over the main up to and around the storm sewer shall be thoroughly compacted in order that no settlement will occur. The revision and crossing of said lines shall be at the expense of the CONTRACTOR.
 - 2. All overhead and buried telephone and electrical conduits, to be revised or crossed by the construction of this project shall be protected in accordance with the directions of the utility company owning the conduits and/or mains. The CONTRACTOR shall notify the companies and obtain their permission before

making any crossing or revisions. The revision and crossing of said lines shall be at the expense of the CONTRACTOR. Any overhead cables or buried cables or conduits damaged by the CONTRACTOR shall be repaired at his expense to the satisfaction of the ENGINEER and of the OWNER.

3. The CONTRACTOR shall not remove any water or sanitary sewer lines except as directed by the ENGINEER or as required by the Drawings and specifications and shall adequately brace and protect them from any damage during construction. Any existing water main or sewer main or lateral damage caused by the CONTRACTOR'S operations will be repaired by the CONTRACTOR. The repairs will be made at the CONTRACTOR'S expense.
- E. The location of utility service lines serving individual properties may or may not be shown on the Drawings, but the CONTRACTOR shall assume that such service lines exist whether or not they are shown on the Drawings, and it shall be the responsibility of the CONTRACTOR to make any necessary changes in the line and/or grade of such services, or to secure the necessary changes therein to be made by the particular utility company involved or other OWNER thereof, or by an agent or individual CONTRACTOR approved by such utility company or other OWNER. CONTRACTOR shall pay the cost of all such revisions whether performed by CONTRACTOR, the utility company or other OWNER, or an approved CONTRACTOR. In the event of interruption of a utility service as a result of accidental breakage, CONTRACTOR shall promptly notify the ENGINEER and the OWNER of the utility and shall repair or cause the same to be repaired, in the same manner as necessary changes above are provided for, the CONTRACTOR shall do all things necessary to see that the restoration of services is done as promptly as may be reasonably done. All sanitary sewer service lines damaged shall be replaced with cast iron pipe regardless of type or kind damaged.
- F. In the event the CONTRACTOR in any way fails to comply with the requirements of protecting, repairing and restoring of any utility or utility service, the OWNER may, upon forty-eight (48) hours written notice proceed to protect, repair, rebuild or otherwise restore such utility or utility service as may be deemed necessary, and the cost thereof will be deducted from any money due, or which may become due the CONTRACTOR pursuant to the terms of his contract.

PART 13 - FIELD OFFICE

Copies of the drawings, specification, and other contract documents shall be kept at the site of the work available for use at all times.

PART 14 - ALTERATION OF QUANTITIES

The CONTRACTOR agrees that the quantities of work as stated in the Bid Schedule or indicated on the drawings are only approximate, and that the OWNER shall have the right to omit portions of the work and to increase or decrease the quantities of any item of work. Final payment will be based on the actual quantities used and installed in accordance with the drawings and Specification.

PART 15 - QUALITY CONTROL

When required in writing by the ENGINEER, the CONTRACTOR shall make such tests as may be necessary to show that the requirements of the Specification have been fulfilled.

All tests shall be made under the supervision and direction of the ENGINEER, and the CONTRACTOR will provide all required materials, labor and apparatus, etc., or so directed, engage an approved testing laboratory for making same. Any work found defective shall be removed, replaced and retested until satisfactory to the ENGINEER, all at the CONTRACTOR'S expense.

Should tests required by the ENGINEER, except those specifically called for elsewhere in these General Requirements or in the Specification show that the requirements of the Specification have been fulfilled, then the costs of such tests shall be paid for by the OWNER.

PART 16 - MEASUREMENT AND FITTING OF PARTS

The CONTRACTOR, without extra charge, shall make such slight alterations as may be necessary to make adjustable parts fit the fixed parts, leaving all complete and in proper shape when done. The CONTRACTOR shall verify all dimensions given in the drawings and shall report any error or inconsistency to the ENGINEER before commencing work.

PART 17 - CONTRACTOR'S SUPERINTENDENT

The CONTRACTOR shall keep a competent Superintendent and any necessary assistants at the site throughout the progress of the work. All directions given to said Superintendent shall be as binding as if given to the CONTRACTOR. Upon request, such directions will be confirmed, in writing, to the CONTRACTOR.

The CONTRACTOR'S Superintendent and/or any of his assistants shall be promptly replaced in the event he or they shall prove to be incompetent and/or unsatisfactory to the ENGINEER.

PART 18 - ASSISTANCE BY ENGINEER

It is distinctly understood and agreed that such assistance as the ENGINEER may render to the CONTRACTOR in connection with the interpretation of drawings and specification shall not relieve the CONTRACTOR from any responsibility for the work. Any work which proves faulty shall be made right by the CONTRACTOR without delay. The failure of the ENGINEER, or his Inspectors to call the CONTRACTOR'S attention to faulty work or work done which is not in accordance with drawings and specification shall not prevent the OWNER from insisting that the CONTRACTOR make all work right.

PART 19 - INCIDENTAL WORK

Work called for on the drawings and/or specifications and are not set forth in the Bid Schedule as pay items, shall be considered as incidental work and will not be paid for directly, but shall be included in the price bid for the various pay items.

PART 20 - TERMINATION OF CONTRACT

If the CONTRACTOR shall be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he should persistently or repeatedly refuse, or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen, equipment or proper materials, or if he should fail to make prompt payment to SUBCONTRACTOR or for material or labor, or persistently disregard laws, ordinances or the instructions of the ENGINEER, or otherwise be guilty of a substantial violation of any provision of the Contract, then the OWNER upon the certificate of the ENGINEER that sufficient cause exists to justify such action, may without prejudice to any other right or remedy and after giving the CONTRACTOR seven days written notice, terminate the employment of the CONTRACTOR and take possession of the premises and of all materials, tools and appliances thereon and finish the work by whatever method the OWNER may deem expedient. In such case, the CONTRACTOR shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract Price shall exceed the expense of finishing the work, including compensation for additional managerial and administrative services, such excess shall be paid to the CONTRACTOR. If such expense shall exceed such unpaid balance, the CONTRACTOR shall pay the difference to the OWNER as herein provided, and the damage incurred through the CONTRACTOR's default shall be certified by the ENGINEER.

In the event of termination of Contract before completion of the work, due to abandonment of the project or discontinuance thereof, the CONTRACTOR will be paid in proportion to the work completed and in progress as per scope of work described in the drawings and specification and in accordance with the unit price schedule.

PART 21 – PROGRESS PAYMENTS, ACCEPTANCE AND FINAL PAYMENT

Basis for Progress Payments: The Schedule of Quantities as shown in the Plans will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period. The amount of retainage with respect to progress payments will be 5% until 50 percent completion after which retainage shall be 2.5%.

Upon receipt of written notice from the CONTRACTOR that the work is ready for final inspection and acceptance, the ENGINEER shall promptly make such inspection and when he finds the work acceptable under the Contract and the Contract fully performed, he shall promptly issue a final certificate over his own signature, stating that the work provided for in this Contract has been completed and is accepted by him under the terms and conditions thereof, and the entire balance found to be due the CONTRACTOR, including the retained percentage, shall be paid to the CONTRACTOR, as approved by the OWNER, at the office of the OWNER within 30 days after the date of said final certificate.

If, after receipt of written notice from CONTRACTOR requesting final inspection and the performance of said final inspection by ENGINEER, additional inspections are necessary in order for ENGINEER to issue a final certificate; the OWNER shall withhold the cost associated with said additional inspections from the final payment due the CONTRACTOR.

Before issuance of final certificate, the CONTRACTOR shall submit evidence satisfactory to the ENGINEER that all payrolls, material bills, equipment rentals, and all other indebtedness connected with the work have been paid.

PART 22 - PLACING WORK IN SERVICE

If desired by the OWNER, portions of the work may be placed in service when completed and the CONTRACTOR shall give prior access to the work for this purpose, but such use and operation shall not constitute an acceptance of the work.

PART 23 - SCHEDULES

The CONTRACTOR shall furnish the ENGINEER with a tentative schedule, in a format approved by the ENGINEER, setting forth in detail the procedure he proposes to follow, and giving the dates on which he expects to start and to complete separate portions of the work. If at any time, in the opinion of the ENGINEER, proper progress is not being maintained, such changes shall be made in the schedule of operations which will satisfy the ENGINEER that the work will be completed within the period stated in the proposal, or extension thereof made as herein provided.

CONTRACTOR is to prepare list of proposed SUBCONTRACTORS including material suppliers; submit to ENGINEER for approval before subcontracts are awarded. No SUBCONTRACTOR is to be employed on work unless approved by OWNER and ENGINEER.

PART 24 - PROJECT SIGN

A project sign is required for this project. See Division 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS, page 44 for project sign requirements and an example.

PART 25 - INSURANCE

The CONTRACTOR shall protect, indemnify, save and hold harmless the OWNER, their officers, agents, and employees from all suits, actions or claims of any kind or character brought because of bodily injuries, sickness, disease or personal injury, or damages received or sustained by any person, persons, or property on account of any operations of the CONTRACTOR, his agents, employees, his subcontractors or any others authorized by the CONTRACTOR to perform work on the project.

Third Party Beneficiary Clause. It is specifically agreed by and between the parties executing this Contract, that it is not intended by any of the provisions of any part of the Contract to create in the public or any member thereof any third-party beneficiary provisions or to authorize anyone not a party to this Contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Contract.

The CONTRACTOR shall carry insurance of the following kinds and amounts on all City Contracts:

A. CONTRACTOR'S Public Liability, Auto Liability and Property Damage Liability

Insurance. The CONTRACTOR shall provide regular CONTRACTOR'S Public Liability Insurance for a combined amount of one million (\$1,000,000) dollars of coverage for all damages arising out of bodily injury, death, and property damage for each occurrence with an aggregate limit of two million (\$2,000,000) dollars.

The CONTRACTOR shall provide business auto liability coverage for an aggregate limit of one million (\$1,000,000) dollars of coverage for bodily injury and property damage arising out of the operation or maintenance of any vehicle including owned, non-owned and hired vehicles, and employee non-ownership use.

B. Insurance for SUBCONTRACTOR'S and CONTRACTOR'S Protective Public Liability and Property Damage Liability Insurance. In the event that any of the work to be performed by the CONTRACTOR on the project is sublet or assigned or is otherwise to be performed by anyone other than the CONTRACTOR'S own employees, then the insurance specified above shall extend to cover such work.

C. Workmen's Compensation Insurance and Employer's Liability Insurance. The CONTRACTOR shall furnish satisfactory evidence to the City that, with respect to the work to be performed by him on the project, he carries regular Workmen's Compensation and Employers Liability Insurance covering his liability under the "Workmen's Compensation Law of the State of Oklahoma". The CONTRACTOR shall maintain the aforementioned insurance in full force and effect for the duration of the Contract. Should the CONTRACTOR fail or neglect to maintain the aforementioned insurance, the City specifically reserves the right to withhold all funds due and owing the CONTRACTOR until such time as the required insurance is in effect.

In addition to the aforementioned insurance coverage, on any project in which the CONTRACTOR shall perform any Railway-Highway work, the CONTRACTOR shall also secure the following: "Railroads' Protective Liability and Property Damage Insurance".

D. Railroads' Protective Liability and Property Damage Insurance. In addition to the above, the CONTRACTOR shall furnish satisfactory evidence to the City that, with respect to the work to be performed by him under the Contract, he has provided for and on behalf of the Railway Company or Railway Companies involved, Protective Public Liability Insurance in an amount as may be required by the Railway Company, which amount shall be specified in the bid documents. Policies shall not include liability for negligence on the part of the Railway Company, its agents or employees, except as set out in Coverage A, B, or C of the form of policy, or amendments thereto, referred to under paragraph 6 below. This insurance applies to each and all Railway Companies involved in the work.

E. General. The insurance hereinbefore specified shall be carried in Insurance Companies approved by the City, and where applicable the Railway Company, during all times when work is being carried on under the terms of the Contract, until all work required to be performed under the Contract is satisfactorily completed as evidenced by the formal acceptance by the City.

F. Certificates of Insurance. Required insurance shall be documented by Certificates of Insurance which provide that the OWNER shall be notified at least thirty (30) days

in advance of cancellation, non-renewal or adverse change. The Certificate of Insurance shall show the OWNER as the named insured.

For general liability, the CONTRACTOR shall provide an indication of the amounts of claims, payments or reserves chargeable to the aggregate amount of liability coverage.

PART 26 - SAFETY STANDARDS AND ACCIDENT PREVENTION

With respect to all work performed under this Contract, the CONTRACTOR shall:

- A. Comply with the safety standards provisions of applicable laws, building and construction codes and the Manual of Accident Prevention in Construction published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of Title 29 of the Code of Federal Regulations, Section 1910 or 1926 as applicable.
- B. Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) and property.
- C. Trench Excavation and Safety System: All work under this item shall be in accordance with the current edition of the OSHA Standard for Excavation and Trench Safety Systems, 29 CFR 1926 Subpart P.

The CONTRACTOR shall notify all utility companies and OWNERS in accordance with the OSHA requirements given in 29 CFR 1926.651 (b) (2) for the purpose of locating utilities and underground installations.

Where the trench or excavation endangers the stability of a building, wall, street, highway, utilities, or other facility, the CONTRACTOR shall provide support systems such as shoring, bracing, or underpinning to ensure the stability of such facility. The CONTRACTOR may elect to remove and replace or relocate such facilities with the written approval of the facility owner, the ENGINEER, and the OWNER.

Payment for the work required by this item shall be included in the lump sum price bid. With each periodic payment request, CONTRACTOR shall submit a certification that the CONTRACTOR has complied with the provisions of the OSHA standards.

PART 27 - WAGE RATES

NO SPECIFIC REQUIREMENTS FOR THIS PROJECT.

PART 28 - WORKMEN

The CONTRACTOR shall employ foreman and skilled laborers where necessary, and if any person employed on the work shall refuse or neglect to obey orders of the ENGINEER or Inspector when such orders are in keeping with the provisions of these specifications or shall appear to the ENGINEER or his Inspector to be incompetent, disorderly or unfaithful, he shall, upon order of the ENGINEER, be at once discharged and not again employed upon any part of the work. It shall be the responsibility of the superintendent representing the CONTRACTOR to transmit all necessary orders and instructions. If requested by the ENGINEER, the CONTRACTOR shall submit, in written form, qualifications including work experience of any workman used on the project.

PART 29 - NUMBER OF WORKING DRAWINGS AND SPECIFICATIONS

The ENGINEER will furnish to the CONTRACTOR not more than two (2) sets of drawings and specifications for construction. The CONTRACTOR may procure additional copies of drawings and specifications for construction at cost of reproduction. Such costs are reimbursable by the ENGINEER.

PART 30 - PRECONSTRUCTION CONFERENCE

Prior to the commencement of work at the site, a preconstruction conference will be held at a mutually agreed time and place. The conference shall be attended by:

- A. CONTRACTOR and his superintendent.
- B. Principal SUBCONTRACTORS.
- C. Representatives of principal suppliers and manufacturers as appropriate.
- D. ENGINEER and its Resident Project Representative.
- E. Representatives of OWNER.
- F. Government representatives as appropriate.
- G. Others as requested by CONTRACTOR, OWNER, or ENGINEER.
- H. Unless previously submitted to ENGINEER, CONTRACTOR shall bring to the conference a preliminary schedule for each of the following:
 - 1. Progress.
 - 2. Procurement.
 - 3. Values for progress payment purposes.
 - 4. Shop Drawings and other submittals.

The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The agenda will include:

- A. CONTRACTOR'S preliminary schedules.

- B. Transmittal, review, and distribution of CONTRACTOR'S submittals.
- C. Processing applications for payment.
- D. Maintaining record documents.
- E. Critical work sequencing.
- F. Field decisions and change orders.
- G. Use of premises, office and storage areas, security, housekeeping, and OWNER'S needs.
- H. Major equipment deliveries and priorities.
- I. CONTRACTOR'S assignments for safety and first aid.

ENGINEER will preside at the conference and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.

PART 31 - PROGRESS MEETINGS

CONTRACTOR shall schedule and hold regular progress meetings at least monthly and at other times as requested by ENGINEER or required by progress of the work. CONTRACTOR, ENGINEER, and all SUBCONTRACTORS active on the site shall be represented at each meeting. CONTRACTOR may at its discretion request attendance by representatives of its suppliers, manufacturers, and other SUBCONTRACTORS.

CONTRACTOR shall preside at the meetings. Meeting minutes will be prepared and distributed by CONTRACTOR. The purpose of the meetings will be to review the progress of the work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop.

PART 32 - SUBSTANTIAL AND FINAL COMPLETION

All work including site restoration shall be finished within the time called out on the Bid Form for final completion.

PART 33 - EXCAVATION

All excavation shall be unclassified. No additional payment shall be made for rock, groundwater, or other natural formations encountered. Payment for excavation shall be included in other items of work.

PART 34 - SUBCONTRACTORS

CONTRACTOR is to prepare a list of proposed SUBCONTRACTORS including material suppliers and submit to ENGINEER for approval before SUBCONTRACTORS are awarded.

No SUBCONTRACTOR is to be employed on work unless approved by OWNER and ENGINEER.

PART 35 - RIGHT-OF-WAY/PROJECT VIDEO

CONTRACTOR shall video the complete right-of-way of the project prior to initiating construction and deliver video tape to the ENGINEER at the pre-construction conference. The video shall be taken in such a way to document pre- construction conditions for use in documenting satisfactory right-of-way restoration and other issues relative to initial conditions prior to construction.

PART 36 - RECORD DRAWINGS**36.1 GENERAL**

- A. The CONTRACTOR shall be responsible for accumulation and maintenance of a complete set of Project Record Documents and upon completion and acceptance of the project shall submit these documents to the ENGINEER, as the OWNER'S representative, for a permanent record.
- B. The Project Record Documents shall consist of:
 - 1. One complete set of drawings, with revisions.
 - 2. One complete Project Manual with all addenda, field bulletins and change orders.
 - 3. Complete set of all field test data.
 - 4. Complete set of approved shop drawings, product data brochures and samples.
 - 5. Six complete sets of maintenance and operating instructions, parts lists and supplier identification on all operating fixtures and equipment.

36.2 MAINTENANCE OF RECORD DOCUMENTS

- A. The CONTRACTOR shall maintain, on the site, one complete set of contract documents, other than those used for construction, throughout the life of the job.
 - 1. This set of documents shall be marked "Record Set" and shall be maintained up to date at all times and available to the ENGINEER for inspection.
 - 2. The only notations or other markings to be made on this set are notations of field variations made from the work shown on the drawings for purposes of "Record Drawings" revisions when the project is complete. Failure to record revisions by each CONTRACTOR, shall be considered a breach of contract.
 - 3. This set of Documents will be turned over to the ENGINEER for preparation of "Record Drawings" prior to approval of final application for payment.

36.3 MAINTENANCE AND OPERATING INSTRUCTIONS

- A. A complete set of maintenance and operating instructions on the project shall be prepared for the OWNER'S continual use.
 - 1. To be bound in booklet form, 8-1/2" x 11" in size, labeled "Operating Manual".
 - 2. To be indexed for quick reference use.
 - 3. To contain manufacturer's printed data, record forms, diagrams, parts lists,

maintenance procedures, start-up procedures, operating procedures, service requirements and schedules, and names, addresses and phone numbers of SUBCONTRACTOR, manufacturer and local service agent.

4. To contain all written warranties and guarantees.
- B. Each CONTRACTOR shall submit six complete copies of this "Operating Manual" material from his trade to the ENGINEER at the completion of the project.
- C. The ENGINEER shall assemble, bind, label and index this material for the OWNER as stated above. Failure to submit the data listed on the part of any CONTRACTOR may be considered cause to withhold final payment until all such information is received.

PART 37 - CHANGES IN THE WORK

ALL CHANGES SHALL BE MADE IN WRITING AND APPROVED BY THE OWNER OR ENGINEER. THIS INCLUDES CHANGES INVOLVING COST OR THOSE NOT INVOLVING COST. NO CHANGE WILL BE ACCEPTABLE UNLESS APPROVED IN WRITING.

The OWNER, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the work with the Contract Total being adjusted accordingly. All changes involving cost shall be made using a written modification order and shall be supported with necessary documentation as to the increase or decrease in cost and time. No increase or decrease in cost or time will be made without an approved modification order that is completed at or before the change is made. Increases in cost or time will not be allowed at the end of the job for work completed earlier without an approved change order. The OWNER shall have authority to make minor changes in the work which do not involve extra cost, and which do not significantly change the design. All such changes shall be made with a written field order.

END OF SECTION 01 00 00

SECTION 01 11 00 - SUMMARY OF WORK**PART 1 - GENERAL****1.1 DESCRIPTION**

- A. The work covered by these specifications and drawings shall consist of all materials, transportation costs, equipment, and tools that are related to, or are to be incorporated in this contract and must be received, unloaded, stored, installed, erected, service connections provided, and coordinated with the construction by the CONTRACTOR under this contract. Installation of equipment and materials shall mean furnishing of all labor and materials as required to place the improvements in successful operation. The CONTRACTOR shall be responsible for all equipment and materials and shall replace at his own expense all such equipment and materials found defective in manufacture or damaged in handling after delivery by the manufacturer. The improvements are as listed:

CITY OF SHAWNEE / PUBLIC WORKS AUTHORITY

THOMPSON HEIGHTS WATERLINE

- B. This contract shall include minor items not specifically mentioned herein but shown on the accompanying plans or obviously necessary to provide a complete job.
- C. The following description, while not intended to cover all details, outlines some items of the work to be accomplished under this Contract:
- 1.
 - 2.

Note: The water treatment plant must stay in operation throughout construction. Temporary pumping, piping, plugs, shut offs, etc. shall be considered incidental and included in the cost of other bid items.

- D. The price named in the Proposal shall include the furnishing of all labor, material, transportation costs, equipment rental, etc., necessary to construct the project as herein specified and as shown on the accompanying plans.
- E. The CONTRACTOR shall cooperate with the OWNER during construction so as to place the improvements in operation at minimum inconvenience and without significant disruption of the OWNER. The CONTRACTOR shall minimize his area of operation. Any areas disturbed will be restored to the OWNER'S satisfaction.

END OF SECTION 01 11 00

SECTION 01 11 50 – MEASUREMENTS AND PAYMENTS**PART 1 – PAY REQUESTS****1.1 CONTRACTOR TO SUBMIT DETAILED BREAKDOWN OF CONTRACT AMOUNT**

- A. Except in the cases where the unit prices form the basis for payment under the contract, the CONTRACTOR shall, within ten (10) days of receipt of the Notice to Proceed, submit a complete breakdown of the contract amount showing the value assigned to each part of the work, including an allowance for profit and overhead. Upon approval of the breakdown of the contract amount by the ENGINEER, it shall be used as the basis for all requests for payment.

1.2 CONTRACTOR MONTHLY PAY REQUESTS

- A. The CONTRACTOR may submit periodically, but not more than once each month, a request for payment for work done and materials delivered and stored on the site. The CONTRACTOR shall furnish the ENGINEER all reasonable facilities required for obtaining the necessary information relative to the progress and execution of the work. Payment for materials stored on the site will be conditioned upon evidence submitted to establish the OWNER'S title to such materials. Each request for payment shall be computed from the work completed on all items listed in the detailed breakdown of contract amount, less five (5) percent to be retained until 50 percent completion and acceptance of the work, and less previous payments, provided that any after 50 percent of the work has been satisfactorily completed, the OWNER shall reduce the percentage retainage to two and one-half (2 ½) percent where unit prices are specified. The request for payment shall be based on the quantities completed.

1.3 MATERIAL STORED ON SITE

- A. The following items will be required if the CONTRACTOR requests payment for material stored on the site.
1. CONTRACTOR must furnish invoices showing quantity, size, costs, etc. of the material.
 2. The invoices must be approved by the OWNER, PROJECT INSPECTOR and/or ENGINEER.
 3. Payment will be made only for material stored in a location approved by the ENGINEER and the OWNER. The storage area must provide adequate protection from the weather and vandalism.
 4. The 5 percent retainer which applies to materials installed will also apply to materials stored.
 5. Payment for materials stored on the site for this project will be made as follows: The above items must be furnished with the current pay estimate, and the CONTRACTOR will be paid as per invoice. In order for the CONTRACTOR to receive payment for the next pay estimate, he must furnish a notarized statement of payment in full from the suppliers for materials invoiced in preceding pay estimate. The procedure shall hold true for all successive materials payments until all materials have been acquired by the CONTRACTOR.

1.4 ENGINEER'S ACTIONS TO PENDING PAY REQUESTS

- A. Within ten (10) days of submission of any request for payment by the CONTRACTOR, the ENGINEER shall:
 - 1. Approve the request for payment as submitted.
 - 2. Approve such other amount as he shall decide is due the CONTRACTOR, informing the CONTRACTOR in writing of his reasons for approving the amended amount.
 - 3. Withhold the request for payment, informing the CONTRACTOR in writing for his reasons for withholding it.

1.5 OWNER'S ACTIONS TO APPROVED PAYMENT REQUEST

- A. Within thirty (30) days from the date of approval of a request for payment by the ENGINEER, the OWNER shall:
 - 1. Pay the request of payment as approved.
 - 2. Pay such other amount in accordance as herein provided as he shall decide is due the CONTRACTOR, informing the CONTRACTOR and the ENGINEER in writing of his reasons for paying the amended amount.
 - 3. Withhold payment in accordance as herein provided informing the CONTRACTOR and the ENGINEER of his reasons for withholding payment in writing.

1.6 OWNER'S RIGHT TO WITHHOLD PAYMENT ON APPROVED REQUESTS

- A. The OWNER may withhold payment in whole or in part on an approved request for payment to the extent necessary to protect himself from loss on account of any of the following causes discovered subsequent to approval of a request for payment by the ENGINEER:
 - 1. Defective work.
 - 2. Evidence indicating the probable filing of claims by other parties against the CONTRACTOR.
 - 3. Failure of the CONTRACTOR to make payments to SUBCONTRACTORS, material suppliers or labor.
 - 4. Damage to another CONTRACTOR.

1.7 PAYMENT FOR UNCORRECTED WORK

- A. If, in the opinion of the ENGINEER, it is undesirable to replace any defective or damaged material or to reconstruct or correct any portion of the work injured or not performed in accordance with the contract documents, the compensation to be paid the CONTRACTOR hereunder shall be reduced by such amount as in the judgment of the ENGINEER shall be equitable.

1.8 PAYMENT FOR REJECTED WORK AND MATERIALS

- A. The removal of work and materials rejected by the OWNER and the re-execution of acceptable work by the CONTRACTOR shall be at the expense of the CONTRACTOR, and he shall pay the cost of replacing the work of other CONTRACTORS destroyed or damaged by the removal of the rejected work or materials and the subsequent replacement of acceptable work.
- B. Removal of rejected work or materials and storage of materials by the OWNER shall be paid by THE CONTRACTOR within thirty (30) days after written notice to pay is given by the OWNER. If the CONTRACTOR does not pay expenses of such removal and after ten (10) days written notice being given by the OWNER of his intent to sell the materials, the OWNER may sell the materials at auction or at private sale and shall pay to the CONTRACTOR the net proceeds therefrom after deducting all the costs and expenses that should have been borne by the CONTRACTOR.

1.9 ACCEPTANCE AND FINAL PAYMENT

- A. When the CONTRACTOR shall have completed the work in accordance with the terms of the contract documents, the ENGINEER shall certify his acceptance to the OWNER and his approval of the CONTRACTOR'S final request for payment, which shall be the contract amount plus all approved additions less all approved deductions and less previous payments made. The CONTRACTOR shall furnish evidence that he has fully paid all debts for labor, materials, and equipment incurred in connection with the work, following which the OWNER shall accept the work and release the CONTRACTOR except as to the conditions of the Performance Bond, any legal rights of the OWNER, required guarantee and correction of faulty work after final payment, and shall authorize payment of the CONTRACTOR'S final request for payment. The CONTRACTOR must allow sufficient time between the time of completion of the work and approval of the final request for payment for the ENGINEER to assemble and check the necessary data.

1.10 CORRECTION OF FAULTY WORK AFTER FINAL PAYMENT

- A. The approval of the final request for payment by the ENGINEER and the making of the final payment by the OWNER to the CONTRACTOR shall not relieve the CONTRACTOR of responsibility for faulty materials or workmanship. The OWNER shall promptly give notice of faulty materials or workmanship and the CONTRACTOR shall promptly replace any such defects discovered within one year from the date of written acceptance of the work. The ENGINEER shall decide all questions arising under this paragraph.

END OF SECTION 01 11 50

SECTION 01 21 19 - TESTING LABORATORY-SERVICES (CONTRACTOR-Employed Lab)

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. CONTRACTOR shall employ and pay for the services of an independent testing laboratory to perform specified services and testing.

1.2 RELATED REQUIREMENTS

- A. Conditions of the Contract: Inspections and testing required by laws, ordinances, rules, regulations, orders, or approvals of public authorities.
- B. Respective sections of specifications: Certification of products.
- C. Respective sections of specifications, laboratory tests required, and standards for testing.

1.3 QUALIFICATION OF LABORATORY

- A. Meet "Recommended Requirements for Independent Laboratory Qualification," published by American Council of Independent Laboratories.
- B. Meet basic requirements of ASTM E329, "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used in Construction."
- C. Authorized to operate in the state in which the project is located.
- D. Submit copy of report of inspection of facilities made by Materials Reference Laboratory of National Bureau of Standards during the most recent tour of inspection, with memorandum of remedies of any deficiencies reported by the inspection.
- E. Testing Equipment
 - 1. Calibrated at reasonable intervals by devices of accuracy traceable to either
 - a. National Bureau of Standards.
 - b. Accepted values of natural physical constants.

1.4 LABORATORY DUTIES

- A. Cooperate with OWNER'S REPRESENTATIVE and CONTRACTOR; provide qualified personnel after due notice.
- B. Perform specified inspections, sampling and testing of materials and methods of construction:
 - 1. Comply with specified standards.
 - 2. Ascertain compliance of materials with requirements of Contract Documents.

- C. Promptly notify OWNER'S REPRESENTATIVE and CONTRACTOR of observed irregularities or deficiencies of work or products.
- D. Promptly submit written report of each test and inspection; one copy each to OWNER'S REPRESENTATIVE, OWNER, CONTRACTOR, and one copy to Record Document File. Each report shall include:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Testing laboratory name, address, telephone number.
 - 4. Name and signature of laboratory inspector.
 - 5. Date and time of sampling or inspection.
 - 6. Record of temperature and weather conditions.
 - 7. Date of test.
 - 8. Identification of product and specification section.
 - 9. Location of sample or test in the project.
 - 10. Type of inspection or test.
 - 11. Results of tests & compliance with Contract Documents.
 - 12. Interpretation of test results, when requested by OWNER'S REPRESENTATIVE.
- E. Perform additional tests as required by OWNER'S REPRESENTATIVE or the OWNER.

1.5 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
 - 1. Release, revoke, alter or enlarge on requirements of Contract Documents.
- B. Approve or accept any portion of the work.
- C. Perform any duties of the CONTRACTOR.

1.6 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel, provide access to work, to manufacturer's operations.
- B. Secure and deliver to the laboratory adequate quantities of representation samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other materials mixes which require control by the testing laboratory.

- D. Furnish copies of products test reports as required.
- E. Furnish incidental labor and facilities:
 - 1. To provide access to work to be tested.
 - 2. To obtain and handle samples at the project site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.
- F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
 - 1. When tests or inspections cannot be performed after such notice, reimburse OWNER for laboratory personnel and travel expenses incurred due to CONTRACTOR'S negligence.
- G. Employ and pay for the services of a separate, equally qualified independent testing laboratory to perform additional inspections, sampling and testing required:
 - 1. For the CONTRACTOR'S convenience.
 - 2. When initial tests indicate work does not comply with Contract Documents.

1.7 CONTRACTOR'S GENERAL RESPONSIBILITIES

- A. No failure of test agencies to perform adequate inspections or tests or to properly analyze or report results shall relieve CONTRACTOR of responsibility for fulfillment of requirements of contract documents. It is recognized that required inspection and testing program is intended to assist the CONTRACTOR, OWNER, ARCHITECT, ENGINEER, and governing authorities in nominal determination of probable compliances with requirements for certain elements of work. The program is not intended to limit the CONTRACTOR'S regular quality control program, as needed for general assurance of compliances.

END OF SECTION 01 21 19

SECTION 01 33 00 - SUBMITTALS AND SUBSTITUTIONS**PART 1 - GENERAL****1.1 DESCRIPTION****A. Work Included**

1. Wherever possible throughout the contract documents, the minimum acceptable quality of workmanship and materials has been defined by manufacturer's name and catalog number, reference to recognized industry and government standards, or description of required attributes and performance.
2. To ensure that the specified products are furnished and installed in accordance with design intent, procedures have been established for advance submittal of design data and for their review by the ENGINEER.
3. Make all submittals required by the contract documents, and revise and resubmit as necessary to establish compliance with the specified requirements.

B. Related Work Described Elsewhere: Individual requirements for submittals are described in pertinent other Sections of these specifications.

1.2 QUALITY ASSURANCE

A. Coordination of Submittals: Prior to each submittal, carefully review and coordinate all aspects of each item being submitted and verify that each item and the submittal for it conforms in all respects with the requirements of the contract documents. By affixing the CONTRACTOR'S signature to each submittal, certify that this coordination has been performed.

B. Certificates of Compliance

1. When requested, certify that materials used in the work comply with specified provisions thereof. Certification shall not be construed as relieving the CONTRACTOR from furnishing satisfactory materials if, after tests are performed on selected samples, the material is found to not meet specified requirements.
2. Show on each certification the name and location of the work, name and address of CONTRACTOR, quantity and date or dates of shipment or delivery to which the certificate applies, and name of the manufacturing or fabricating company. Certification shall be in the form of letter or company-standard forms containing all required data. Certificates shall be signed by an officer of the manufacturing or fabricating company.
3. In addition to the above information, all laboratory test reports submitted with certificates of compliance shall show the date or dates of testing, the specified requirements for which testing was performed, and results of the test or tests.

1.3 SUBMITTALS

- A. Submittal Schedule: Within 10 days after award of Contract, and before any items are submitted for approval, submit to the ENGINEER two copies of the schedule described in Article 2.1 of this Section.
- B. Certificates of Compliance: Upon completion of the work, and as a condition of its acceptance, submit to the ENGINEER all Certificates of Compliance.
- C. Procedures: Make submittals in strict accordance with the provisions of this Section.
- D. Schedule of Values: Within 10 days of the Pre-Construction Conference, submit a schedule of values for lump sum bid items indicating the cost breakdown of lump sum bid items for use in progress payment preparation. Submit to the ENGINEER two copies of the schedule described in Article 2.2 of this Section.

PART 2 - PRODUCTS

2.1 SUBMITTAL SCHEDULE

- A. General: Compile a complete and comprehensive schedule of all submittals anticipated to be made during progress of the work. Include a list of each type of item for which CONTRACTOR'S drawings, Shop Drawings, Certificates of Compliance, material samples, guarantees, Operations and Maintenance manuals or other types of submittals are required. Upon approval by the ENGINEER this schedule will become part of the Contract and the CONTRACTOR will be required to adhere to the schedule except when specifically otherwise permitted.
- B. Coordination: Coordinate the schedule with all necessary subcontractors and materials suppliers to ensure their understanding of the importance of adhering to the approved schedule and their ability to so adhere. Coordinate as required to ensure the grouping of submittals as described in Article 1.3.
- C. Revisions: Revise and update the schedule on a monthly basis as necessary to reflect conditions and sequences. Promptly submit revised schedules to the ENGINEER for review and comment.

2.2 SCHEDULE OF VALUES

- A. The ENGINEER will review the tentative schedule of values to determine whether, in his judgment, the schedule of values is of sufficient detail and if the prices included are "unbalanced" or "front-end loaded", in an effort to inflate the prices of those items of work to be completed in the early stages of the work.
- B. Breakdown cost to list major products or operations for each line item which has an installed value of more than \$5,000.00. The sum of the items listed on the schedule of values shall equal the contract lump sum price.

- C. The ENGINEER will provide the CONTRACTOR with his comments and/or may request additional information from the CONTRACTOR to justify certain item quantities and prices, therefore. On the basis of the ENGINEER'S comments, the CONTRACTOR shall revise and resubmit the tentative schedule for further review and/or approval.
- D. Once the ENGINEER accepts the tentative schedule, it shall become the schedule of values to be used in determining partial payment estimates. Two (2) copies of this schedule shall be submitted to the ENGINEER for distribution and his use. No modifications will be made to the schedule of values, except as required by approved change orders.
- E. No partial payment request (including the first) shall be approved until the schedule of values has been approved by the OWNER and ENGINEER.

2.3 SHOP DRAWINGS AND COORDINATION DRAWINGS

- A. Shop Drawings
 - 1. Scale and Measurements: Make all Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the work.
 - 2. Type of Prints Required: Submit all Shop Drawings in the form of electronic (.pdf) or hardcopy, minimum of 8 ½" by 11".

2.4 MANUFACTURERS' LITERATURE

- A. General: Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly indicate which portion of the contents is being submitted for review.
- B. Number of Copies Required: Submit the number of copies which are required to be returned plus two copies which will be retained by the ENGINEER. Under no circumstances shall less than five copies be submitted.

2.5 SAMPLES

- A. Accuracy of Samples: Samples shall be of the precise article proposed to be furnished. Samples shall have stickers or tags which bear identification of the project, the subcontractor, the vendor or manufacturer, the product color name or number, model, style or series, and the size and thickness of components.
- B. Number of Samples Required: Unless otherwise specified, submit all Samples in the quantity which is required to be returned plus one which will be retained by the ENGINEER.
- C. Reuse of Samples: In situations specifically so approved by the ENGINEER, the ENGINEER'S retained sample may be used in the construction as one of the installed items.

- D. Match Existing Materials: Brick or other materials that are to match existing materials shall require a "test panel" to be erected adjacent to the existing material to allow the OWNER to approve the match in size, color, and texture.

2.6 COLORS AND PATTERNS

- A. Unless the precise color and pattern is specifically described in the contract documents, and whenever a choice of color or pattern is available in a specified product, submit accurate color and pattern charts to the ENGINEER for review and selection.

2.7 SUBSTITUTIONS

A. Approval Required

1. The Contract is based on the standards of quality established in the contract documents.
2. All products proposed for use, including those specified by required attributes and performance, shall require approval by the ENGINEER before being incorporated into the work.
3. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved for this work by the ENGINEER.

B. "Or Equal":

1. Where the phrase "or equal" or "approved or equal" occurs in the contract documents, do not assume that materials, equipment, or methods will be approved as equal unless the item has been specifically approved for this work by the ENGINEER.
2. The decision of the ENGINEER shall be final.

PART 3 - EXECUTION

3.1 IDENTIFICATION OF SUBMITTALS

- A. General: Bind submittals with cover label that identifies project, division of work, subcontractor, and vendor/manufacturer. Consecutively number all submittals. Accompany each submittal with a letter of transmittal containing all pertinent information required for identification and checking of submittals.
- B. Internal Identification: On at least the first page of each copy of each submittal, and elsewhere as required for positive identification, clearly indicate the submittal number in which the item was included.
- C. Resubmittals: When material is resubmitted for any reason, transmit under a new letter of transmittal and with a new submittal number.

3.2 COORDINATION OF SUBMITTALS

- A. General: Prior to submittal for approval, use all means necessary to fully coordinate all material including, but not necessarily limited to:
 - 1. Determine and verify all interface conditions, catalog numbers, and similar data.
 - 2. Coordinate with other trades as required.
 - 3. Clearly indicate all deviations from requirements of the contract documents.
- B. Grouping of Submittals: Unless otherwise specified, make all submittals in groups containing all associated items to ensure that information is available for checking each item when it is received. Partial submittals may be rejected as not complying with the provisions of the contract documents and the CONTRACTOR shall be strictly liable for all delays so occasioned.

3.3 TIMING OF SUBMITTALS

- A. General: Make all submittals far enough in advance of scheduled dates for installation to provide all time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery.
- B. ENGINEER'S Review Time: In scheduling, allow at least 21 calendar days for review by the ENGINEER following his receipt of the submittal. Should unanticipated circumstances prevent the normal review time, a minimum of 10 working days review time must be allowed for reviews.
- C. Delays: Delays caused by tardiness in receipt of submittals will not be an acceptable basis for extension of the contract completion date.

3.4 ENGINEER'S REVIEW

- A. CONTRACTOR'S approval: Prior to submission to the ENGINEER, all submittals shall have been reviewed and approved by the CONTRACTOR.
- B. General: Review by the ENGINEER shall not be construed as a complete check, but only that the general method of construction and detailing is satisfactory. Review shall not relieve the CONTRACTOR from responsibility for errors which may exist.
- C. Authority to Proceed: The notations "Reviewed, No Exceptions Noted" or "Reviewed, Exceptions Noted" authorize the CONTRACTOR to proceed with fabrication, purchase, or both, of the items so noted, subject to the revisions, if any, required by the ENGINEER'S review comments.
- D. Revisions: Make all revisions required by the ENGINEER. If the CONTRACTOR considers any required revision to be a change, he shall so notify the ENGINEER as provided for under "Changes" in the General Considerations. Show each drawing revision by number, date, and subject in a revision block on the drawing. Make only those revisions directed or approved by the ENGINEER.

- E. Revisions After Approval: When a submittal has been reviewed by the ENGINEER, resubmittal for substitution of materials or equipment will not be considered unless accompanied by an acceptable explanation as to why the substitution is necessary.

END OF SECTION 01 33 00

SECTION 01 45 00 - QUALITY CONTROL

PART 1 - GENERAL

1.1 DESCRIPTION

A. Section Includes

1. Quality assurance - control of installation.
2. Tolerances
3. References and standards.
4. Mock-up.
5. Testing laboratory services.
6. Inspection services.
7. Manufacturers' field services.
8. Subcontracting.

B. Related Sections

1. Section 01 33 00 – Submittals and Substitutions: Submission of manufacturers' instructions and certificates.

1.2 QUALITY ASSURANCE

- A. The CONTRACTOR will be held strictly to the intent of the contract documents in regard to the quality of materials, workmanship, and execution of the work. Inspections may be made at the factory or fabrication plant of the source of material supply.
- B. The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedure, or construction safety.
- C. The CONTRACTOR shall monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- D. The CONTRACTOR will supervise and direct the work. He will be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The CONTRACTOR will employ and maintain on the work a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervisor and coordination of the work.
- E. The CONTRACTOR shall comply with manufacturers' instructions, including each step in sequence.

- F. Should the manufacturers' instructions conflict with Contract Documents, the CONTRACTOR shall request clarification from ENGINEER before proceeding.
- G. The CONTRACTOR shall comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- H. The CONTRACTOR shall perform work by persons qualified to produce required and specified quality.
- I. The CONTRACTOR shall verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- J. The CONTRACTOR shall secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 IMPROPER COVERAGE OF BURIED CONSTRUCTION

- A. If any work is covered contrary to the written instructions of the ENGINEER, it must, if requested by the ENGINEER, be uncovered for the ENGINEER'S observation, and replaced at the CONTRACTOR'S expense.
- B. If the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such work is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction; if, however, such work is not found to be defective, the CONTRACTOR will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate change order shall be issued.
- C. Defect Assessment
 - 1. Replace the work, or portions of the work, not conforming to specified requirements.
 - 2. If, in the opinion of the ENGINEER it is not practical to remove and replace the work, the ENGINEER will direct an appropriate remedy or adjust payment.
- D. Tolerances
 - 1. The CONTRACTOR shall monitor fabrication and installation tolerance control of all products to produce acceptable work. Do not permit products and installation outside of allowable tolerances to accumulate.
 - 2. The CONTRACTOR shall comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from ENGINEER before proceeding.

3. The CONTRACTOR shall adjust products to appropriate dimension and position before securing products in place.

E. References and Standards

1. For products or workmanship specified by association, trade, or other consensus standards, the CONTRACTOR shall comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
2. The CONTRACTOR shall conform to reference standard by date of issue current date for receiving bids, except where a specific date is established by code.
3. The CONTRACTOR shall obtain copies of standards where required by product specification sections.
4. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the ENGINEER shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

F. Mock-Up

1. Tests will be performed under provisions identified in this section and identified in the respective product specification sections.
2. The CONTRACTOR shall assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
3. Accepted mock-ups shall be a comparison standard for the remaining work.
4. Where mock-up has been accepted by ENGINEER and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so.

G. Testing Services

1. The OWNER will appoint and employ services of an independent firm to perform testing. OWNER shall pay for services.
2. The independent firm will perform tests and other services specified in individual specification sections and as required by the ENGINEER.
3. Testing and source quality control may occur on or off the project site. Perform off-site testing as required by the ENGINEER or the OWNER.
4. Reports will be submitted by the independent firm to the ENGINEER and CONTRACTOR, in duplicate indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
5. The CONTRACTOR shall cooperate with the independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.

- a. Notify ENGINEER and independent firm 24 hours prior to expected time for operations requiring services.
 - b. Make arrangements with independent firm and pay for additional samples and tests required for CONTRACTOR'S use.
 6. Testing does not relieve CONTRACTOR to perform work to contract requirements.
 7. Re-testing required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the ENGINEER. Payment for re-testing will be charged to the CONTRACTOR or by deducting testing charges from the Contract Sum/Price.
- J. Removal of Defective and Unauthorized Work
1. All work which has been rejected or condemned shall be repaired, or, if it cannot be satisfactorily repaired it shall be removed and replaced at the CONTRACTOR'S expense. Defective materials shall be removed immediately from the site of the work.
 2. Work done without lines and grades having been given, work done beyond the lines or not in conformity with the grades shown on the plans or as given, save as herein provided, work done without proper inspection will be done at the contractor's risk and will be considered unauthorized and at the option of the ENGINEER may not be accepted and may be ordered removed at the CONTRACTOR'S expense.
 3. If any work is covered contrary to the written instructions of the ENGINEER it must, if requested by the ENGINEER, be uncovered for the ENGINEER'S observation, and replaced at the CONTRACTOR'S expense.
 4. If the ENGINEER considers it necessary or advisable that covered work be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such work is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction; if, however, such work is not found to be defective, the CONTRACTOR will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate change order shall be issued.
- K. Inspection Services
1. Owner will appoint, employ, and pay for specified services of an independent firm to perform inspection.
- L. Manufacturers' Field Services
1. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of

equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.

2. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
3. Refer to Section 01 33 00 – Submittals and Substitutions, Manufacturers' Field Reports article.
4. Coordination of Plans, Specifications, and Special General Conditions: The plans, these specifications, Special General Conditions, and all supplementary documents are intended to describe a complete work and are essential parts of the contract. A requirement occurring in any of them is binding. In case of discrepancies, figured dimensions shall govern over scaled dimensions; plans shall govern over specifications. Special General Conditions shall govern over both General and Standard Specifications, and the plans and quantities shown on the plans shall govern over those shown on the proposal. The CONTRACTOR shall take no advance of any apparent error or omission in the plans and specifications, and the ENGINEER shall be permitted to make such corrections or interpretations as may be deemed necessary for the fulfillment of the intent of the plans and specification.

In the event the CONTRACTOR discovers any apparent error or discrepancy, he shall immediately call such error or discrepancy to the attention of the ENGINEER, and request in writing an interpretation thereof by the ENGINEER.

M. Subcontracting

1. The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the work which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.
2. The CONTRACTOR shall not award work to SUBCONTRACTOR(S) in excess of fifty (50) percent of contract price, or in excess of fifty (50) percent of the labor and equipment required to install the project, without prior written approval of the OWNER.
3. The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of its SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as the CONTRACTOR is for the acts and omissions of persons directly employed by the CONTRACTOR.
4. The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the contract documents insofar as applicable to the work of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.
5. Nothing contained in this CONTRACT shall create any contractual relationship between the SUBCONTRACTOR and the OWNER.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Beginning new work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify that utility services are available, of the correct characteristics, and in the correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

END OF SECTION 01 45 00

SECTION 01 60 00 – PRODUCT REQUIREMENTS**PART 1 - GENERAL****1.1 DESCRIPTION****A. Section Includes**

1. Products.
2. Transportation and handling.
3. Storage and protection.
4. Product options.
5. Substitutions.

B. Related Sections

1. Section 01 45 00 - Quality Control: Product quality monitoring.

C. Products

1. The CONTRACTOR shall not use materials and equipment removed from existing premises, except as specifically permitted by the contract documents.
2. The CONTRACTOR shall provide interchangeable components of the same manufacture for components being replaced.

D. Transportation and Handling

1. The CONTRACTOR shall:
 - a. Transport and handle products in accordance with manufacturer's instructions.
 - b. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
 - c. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

E. Storage and Protection

1. The CONTRACTOR shall:
 - a. Store and protect products in accordance with manufacturers' instructions.
 - b. Store with seals and labels intact and legible.
 - c. Store sensitive products in weathertight, climate controlled enclosures in an environment favorable to product.
 - d. Provide for exterior storage of fabricated products, which shall be placed on sloped supports above ground.

- e. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- f. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- g. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- h. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- i. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

F. Product Options

- 1. The CONTRACTOR shall provide products specified by reference standards or by description only: any product meeting those standards or description.
- 2. The CONTRACTOR shall provide products specified by naming one or more manufacturers with a provision for substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following article.

G. Substitutions

- 1. ARCHITECT / ENGINEER will consider requests for substitutions only within 15 days after date established in Notice to Proceed.
- 2. Substitutions may be considered when a product becomes unavailable through no fault of the CONTRACTOR.
- 3. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.

A request constitutes a representation that the BIDDER or CONTRACTOR:

- a. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - b. Will provide the same warranty for the substitution as for the specified product.
 - c. Will coordinate installation and make changes to other work which may be required for the work to be completed with no additional cost to OWNER.
 - d. Waives claims for additional costs or time extension which may subsequently become apparent.
 - e. Will reimburse OWNER and ARCHITECT / ENGINEER for review or redesign services associated with re-approval by authorities.
- 4. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the contract documents.

5. Substitution Submittal Procedure:
 - a. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
 - b. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
 - c. The ARCHITECT / ENGINEER will notify CONTRACTOR in writing of decision to accept or reject request.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

NOT USED.

END OF SECTION 01 60 00

SECTION 01 70 00 - CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures
- B. Final cleaning
- C. Adjusting
- D. Project record documents
- E. Operation and maintenance data
- F. Spare parts and maintenance products
- G. Maintenance service

1.2 CLOSEOUT PROCEDURES

- A. The CONTRACTOR shall:
 - 1. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for ENGINEER'S review.
 - 2. Provide submittals to ENGINEER that are required by governing or other authorities.
 - 3. Submit final Application for Payment identifying total adjusted contract sum, previous payments, and sum remaining due.

1.3 FINAL CLEANING

- A. The CONTRACTOR shall:
 - 1. Execute final cleaning prior to final project assessment.
 - a. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
 - b. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
 - c. Replace filters of operating equipment.
 - d. Clean debris from roofs, gutters, downspouts, and drainage systems.
 - e. Clean site, sweep paved areas, rake clean landscaped surfaces.
 - f. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.4 ADJUSTING

- A. The CONTRACTOR shall adjust operating products and equipment to ensure smooth and unhindered operation.

1.5 PROJECT RECORD DOCUMENTS

- A. The CONTRACTOR shall maintain on site one set of the following record documents and record actual revisions to the work:
 - 1. Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change Orders and other modifications to the Contract
 - 5. Reviewed Shop Drawings, Product Data, and Samples
 - 6. Manufacturer's instruction for assembly, installation, and adjusting
- B. The CONTRACTOR shall ensure entries are complete and accurate, enabling future reference by OWNER.
- C. The CONTRACTOR shall store record documents separate from documents used for construction.
- D. The CONTRACTOR shall record information concurrent with construction progress.
- E. Specifications: The CONTRACTOR shall legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 1. Product substitutions or alternates utilized.
 - 2. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: The CONTRACTOR shall legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original contract drawings.

1.6 OPERATION AND MAINTENANCE DATA

A. The CONTRACTOR shall:

1. Submit data bound in 8 ½ x 11-inch text pages, three D side ring binders with durable plastic or cloth covers.
2. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.
3. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
4. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, typed on 20-pound white paper, in three parts as follows:
 - a. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, CONTRACTOR, SUBCONTRACTORS, and major equipment suppliers.
 - b. Part 2: Operation and maintenance instructions, arranged by system. For each category, identify names, addresses, and telephone numbers of SUBCONTRACTORS and suppliers. Identify the following:
 - 1) Significant design criteria
 - 2) List of equipment
 - 3) Parts list for each component
 - 4) Operating instructions
 - 5) Maintenance instructions for equipment and systems
 - 6) Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents
 - c. Part 3: Project documents and certificates, including the following:
 - 1) Shop drawings and product data
 - 2) Air and water balance reports
 - 3) Certificates
 - 4) Photocopies of warranties and bonds
5. Submit one (1) draft copy of completed volumes 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with ENGINEER'S comments. Revise content of all document sets as required prior to final submission.
6. Submit five sets of revised final volumes, prior to final payment.

1.7 SPARE PARTS AND MAINTENANCE PRODUCTS

A. The CONTRACTOR shall:

1. Provide spare parts, maintenance, and extra products in quantities specified in individual specification sections.
2. Deliver to project site and place in location as directed and obtain a receipt prior to final payment.

1.8 MAINTENANCE SERVICE

A. The CONTRACTOR shall:

1. Furnish service and maintenance of components indicated in specification sections during the warranty period.
2. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
3. Maintenance service shall not be assigned or transferred to any agent or SUBCONTRACTOR without prior written consent of the OWNER.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

NOT USED.

END OF SECTION 01 70 00

SECTION 01 78 39 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. Maintain at the site for the OWNER one record copy of:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the contract.
 - 5. Approved shop drawings, product data and samples.
 - 6. Field test records.
- B. Related Requirements in other parts of the Project Manual:
 - 1. Conditions of the Contract.

1.2 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in CONTRACTOR'S field office apart from documents used for construction.
 - 1. Provide files and racks for storage of documents.
 - 2. Provide locked cabinet or secure storage space for storage of samples.
- B. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- C. Make documents and samples available at all times for inspection by OWNER'S REPRESENTATIVE.

1.3 RECORDING

- A. Label each document "PROJECT RECORD" in neat large printed letters.
- B. Record information concurrently with construction progress.
 - 1. Do not conceal work until required information is recorded.
- C. Drawings: Legibly Mark to Record Actual Construction:
 - 1. Location of waste water treatment plant, referenced to permanent improvements.
 - 2. Actual construction of waste water treatment plant.
 - 3. Actual construction of permanent installation.

- D. Specifications and Addenda; Legibly Mark Each Section to Record:
 - 1. Manufacturer, trade name, catalog number, and supplier of Representative for the OWNER.
 - 2. Changes made by Change Order.
- E. Drawings and Specifications: Post addenda items, whether written or drawn, on the pages affected such that:
 - 1. Cut-outs of items are securely attached to the sheet that the addenda modified.
 - 2. The addenda number is reflected in each posted item.
 - 3. Completely revised sheets are posted over the sheet revised and the outdated sheet is labeled "void".

1.4 SUBMITTALS

- A. At contract close-out, deliver Record Documents to OWNER'S REPRESENTATIVE.
- B. Accompany submittal with transmittal letter in duplicate, containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. CONTRACTOR'S name and address.
 - 4. Title and number of each Record Document.
 - 5. Signature of CONTRACTOR or his authorized REPRESENTATIVE.

END OF SECTION 01 78 39

DIVISION 02 – EXISTING CONDITIONS

SECTION 02 10 00 – SITE REMEDIATION

PART 1 - GENERAL

1.1 SCOPE

Work under this heading shall include all items of demolition and clearing necessary to prepare the site for construction.

PART 2 - PRODUCTS

2.1 MATERIALS

All salvage materials from demolition or other clearing shall remain the property of the OWNER, unless specifically noted otherwise.

PART 3 - EXECUTION

- A. Protection of trees and improvements: CONTRACTOR shall exercise extreme care in the protection of all existing trees and other improvements on the site designated by the OWNER'S REPRESENTATIVE to remain.
- B. Topsoil shall be stripped from the area to be occupied by building, walks, drives, parking etc., and stockpiled in area designated by OWNER'S REPRESENTATIVE where it will not interfere with building or utility operations. Use topsoil for finish grading.
- C. Remove from site all brush, rubbish and miscellaneous debris resulting from demolition and clearing ahead of construction to meet all safety standards on the site. All wood, vegetation and non-vegetable matter to be removed from topsoil as it is being stockpiled and hauled off with other debris.
- D. Care must be taken to confine clearing operation to the building site with no encroachments on adjacent foliage or possible damage to adjacent areas.
- E. OWNER shall designate area to be cleared for parking, storage of materials and other workspace in addition to building site. This area shall not be cleared of trees and no soil to be stripped or disturbed. Fill and level holes and depressions, prior to final acceptance of project.

END OF SECTION 02 10 00

SECTION 02 42 00 - REMOVALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General Supplementary Conditions and Division 01 Specification Sections, apply to this section.

1.2 WORK INCLUDED

- A. The work required under this section consists of operations, methods, labor, and materials for partial interior, exterior, and/or site underground removals with all related items necessary to complete the Work indicated on the contract drawings.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

3.1 CONDITION OF SITE AND BUILDINGS

- A. The condition of site and buildings shall be accepted as found. The OWNER will not assume responsibility for conditions found or continuation of conditions existing at time of Proposal Invitation or thereafter. Any damage or loss, whether by reason of fire, theft, or other casualty or happening on the site, will not relieve the CONTRACTOR'S obligations to complete the work.

3.2 PROTECTION OF LIFE, STRUCTURES AND PROPERTY

- A. Execute work to insure against damages to remaining property. Do not interfere with property or portions of building without permission from authorized persons approved by the OWNER. Maintain free and safe passages in and around work areas. Do not seal off required exits without permission from authorities having jurisdiction.
- B. Provide, erect, and maintain lights, barriers, barricades as necessary to protect life, meeting all Federal, OSHA, State and local laws and regulations.

3.3 UTILITY SERVICES

- A. Remove all utility services as required and/or indicated on the drawings. Provide temporary utilities and services into areas requiring continued services before and after removal work.
- B. All electrical equipment and circuits shall be restored to original condition that are damaged or destroyed during removals and are not called out to be removed on the contract drawings.

3.4 REMOVALS

- A. Before starting demolition work, review all requirements for final remodeling work so that useable existing system components as required for completion of the new work is not destroyed. Coordinate all work with other CONTRACTORS.
- B. Remove any personal property, equipment, machinery, or other fixtures and turn them over to the OWNER as called for on the contract drawings.

3.5 DEBRIS

- A. Remove from the areas of removals, all debris as it accumulates. Do not store or permit debris to accumulate on the site. If the CONTRACTOR fails to remove excess debris promptly, the ENGINEER shall reserve the right to have debris removed by others at CONTRACTOR'S expense.
- B. Upon work completion, remove all tools, materials, equipment, apparatus, temporary toilets, and rubbish of every sort. Leave all existing building surfaces, not scheduled to be removed, swept clean condition at completion of work within any given area. Leave buildings and site clean, neat, and orderly.

3.6 REMOVAL OF PAVEMENT, SIDEWALKS, CURBS, ETC.

- A. Break concrete pavement, base course, and other similar materials designated for removal into pieces no heavier than 150 lbs. [68 kg]. Stockpile at locations shown on the plans.
- B. If the contract documents require the removal of asphalt concrete or Portland cement concrete pavement, saw the joint to the line and depth, as approved by the ENGINEER, to prevent under-break or shatter of adjacent areas.

3.7 REMOVAL AND DISPOSAL OF SALVAGED MATERIALS, STRUCTURES, AND OBSTRUCTIONS

- A. Unless otherwise required by the contract documents, all salvaged material shall become the property of the CONTRACTOR. Ownership of salvaged materials implies the responsibility to dispose of the salvaged material in accordance with all applicable local, state, and federal rules and regulations. CONTRACTOR is not allowed to bury or otherwise dispose of material within the project's boundaries or on any publicly owned property without the ENGINEER'S prior written approval.

END OF SECTION 02 42 00

SECTION 02 44 00 - ADJUSTMENT OF EXISTING STRUCTURES**PART 1 - GENERAL REQUIREMENTS****1.1 SCOPE**

This work shall consist of the necessary adjustments, alterations, relocating, or resetting to the required grade and alignment of existing structures, equipment or appurtenances which are not to be removed or abandoned and which are not the property of a private company, firm, or corporation required to move their own property, in accordance with these specifications and in reasonably close conformity with the lines, grades, elevations and dimensions shown on the drawings or established by the ENGINEER.

PART 2 - PRODUCTS**2.1 MATERIALS**

Materials for use in this work shall be as set out on the drawings, or if not specified, shall be of the same grade of material as specified elsewhere in these specifications for a similar type of work or of a material equivalent to that in the structure being adjusted.

PART 3 - EXECUTION**3.1 CONSTRUCTION METHODS****A. General**

1. The materials and workmanship necessary in raising, lowering, or otherwise adjusting or resetting existing structures shall conform to the requirements of the drawings and specifications for the class of work involved, or as directed by the ENGINEER. Whole bricks salvaged in good condition from structures may be used in rebuilding such structures provided the bricks are cleaned satisfactorily and approved by OWNER. Existing structures shall be rebuilt in accordance with the drawings and specifications. The final adjustment to grade shall be completed after the final surface course has been placed if the structure is in the pavement.
2. The CONTRACTOR shall guard against damage or breakage to any portion of the structure or appurtenance to be altered, removed, or reset. Any damage or breakage due to the CONTRACTOR'S negligence or failure to properly protect such structure or appurtenances, shall be repaired or replaced at the CONTRACTOR'S expense.

B. Manholes

1. Where the tops of the manholes are to be lowered to a new grade, the walls shall be removed and rebuilt to an elevation far enough below the new grade so that the maximum batter of the walls does not exceed 4 in. (10.1 cm) per foot (30.5 cm).
2. Where manholes are to be built up a distance of one foot (0.305 m) or less to a new grade, the walls may be carried up vertically and one new standard step shall

be set. Where the walls are to be built up a distance exceeding one foot (0.305 m), the existing walls shall first be removed to the bottom of the batter section of the walls, or to such elevation that the inside diameter of the manhole is not less than 3.5 ft. (1.1 m). The manhole shall then be rebuilt in conformity with the size and shape requirements for new manholes.

C. Catch Basins, Inlets, Manholes

1. Where inlets, catch basins, manholes or similar structures are to be revised to grade or rebuilt, the work shall be done in conformity with the requirements for new construction of this class of work as provided elsewhere in these specifications.

D. Valve Boxes, Meter Boxes, Lampholes

1. Care shall be taken in removing and resetting to grade, valve boxes, meter boxes, etc., to avoid breaking and any breakage shall be replaced by the CONTRACTOR at his expense.

E. Fire Hydrants, Valves, Water Meters, Water Line, etc.

1. Where adjustment or relocation of water lines and appurtenances is to be done by the OWNER, the CONTRACTOR shall be responsible for coordinating the arrangements with the OWNER for lowering or relocating of all water lines and the resetting of water valves, meters, manholes, and fire hydrants. When the alteration is part of the work to be performed by the CONTRACTOR as a part of his contract, such work shall be done in conformity with the requirements of the OWNER and in accordance with the requirements of these specifications for new work of this type.

F. Electric Traffic Signals or Right-of-Way Systems

1. Where the adjustment or relocation of electric traffic signals, highway lighting standard or conduits, cables, or appurtenances is to be done by the OWNER where the work is located, the CONTRACTOR shall make complete arrangements with the proper City or ODOT officials for the work to be done. When the alteration is part of the work to be performed by the CONTRACTOR as a part of his contract, such work shall be done in conformity with requirements of the OWNER, or as specified on the Drawings or in the Proposal and as directed by the ENGINEER.

G. Sewer Pipe

1. Sewer pipe removed to be re-laid shall be re-laid in conformity with the requirements of new sewers.

3.2 METHOD OF MEASUREMENT

Unless otherwise shown on bid form, the cost for various items, listed in Part 3.3, but not limited to, shall be included in other items of work.

3.3 BASIS OF PAYMENT

A. Accepted items, measured as provided above, will be paid for at the contract unit price for:

1. MANHOLES ADJUST TO GRADE	EA.
2. MANHOLES REBUILT	EA.
3. CATCH BASINS ADJUST TO GRADE	EA.
4. CATCH BASINS REBUILT	EA.
5. INLETS ADJUST TO GRADE	EA.
6. INLETS REBUILT	EA.
7. VALVE BOXES ADJUST TO GRADE	EA.
8. METER BOXES ADJUST TO GRADE	EA.
9. LAMPHOLES ADJUST TO GRADE	EA.
10. FIRE HYDRANT RESET	EA.
11. VALVES RESET	EA.
12. WATER METERS RESET	EA.
13. WATER LINE LOWERED	L.F.
14. WATER LINE REMOVED AND RELAID	L.F.
15. ELECTRIC TRAFFIC SIGNALS RESET	EA.
16. HIGHWAY LIGHTING STANDARDS RESET	EA.
17. ELECTRIC CABLE RELAID	L.F.
18. ELECTRIC CABLE CONDUIT RELAID	L.F.
19. PIPE SEWER REMOVED AND RELAID	L.F.
20. REMOVE AND RESET MANHOLE FRAME AND COVER	EA.

B. Valve boxes, meter boxes, etc., in conjunction with valves or meters to be reset will be considered as part of the valve or meter and will not be paid for as a separate item.

C. Valves in water lines or fire hydrant leads will not be considered as a separate pay item, but the cost of resetting same, and shall be included in the price bid for the water line or lead.

D. When the valve is under pavement, adjustment of valve box will be a separate pay item.

END OF SECTION 02 44 00

DIVISION 03 - CONCRETE**SECTION 03 10 00 - FORMWORK****PART 1 - GENERAL****1.1 SCOPE OF WORK**

- A. Furnish, install all labor, materials, equipment, and services as required to complete all formwork for all cast-in-place concrete as shown on drawings, and/or specified herein.

1.2 SHOP DRAWINGS

- A. Per Division 01 General Conditions, submit Shop Drawings showing location, layout of construction joints, form joints, locations of tie holes or plugs, and procedure for pouring into formwork.

1.3 COORDINATION

- A. Secure all pipe sleeves, anchors, bolts, including those for angle frames, inserts, supports, ties, other materials in connection with concrete construction, in position before concrete is placed.
- B. Obtain information, instructions from other trades, suppliers in ample time to schedule, coordinate installation of items furnished by them to be embedded in concrete so provisions for their work can be made without delaying project.
- C. Make cutting and/or patching made necessary by failure or delay in complying with these requirements at no cost to OWNER.

1.4 GENERAL REQUIREMENTS

- A. Furnish formwork and formwork accessories according to ACI SPEC-301.
- B. Provide complete forms of such strength and construction as to prevent any spread, shifting, or settling when concrete is deposited, tight enough to avoid any leakage or washing out of cement mortar.
- C. Design forms, false-work supports so stresses indifferent members can be determined, including details. They shall have sufficient rigidity to resist deflection more than 1/8" between supports after concrete has been placed, to assure smooth, even appearance of surfaces.
- D. Plywood or lined forms will not be required for surfaces which are normally submerged or not ordinarily exposed to view. Other types of forms, such as steel or unlined wooden forms, may be used for surfaces which are not restricted to plywood and may be used as backing for form linings. Concrete forms are required above all extended footings.

- E. Where concrete is placed against a gravel or crushed rock which does not contain at least 25% material passing a No. 4 sieve, such surfaces shall be covered with polyethylene film 6 mil thick to protect the concrete from loss of water. Joints in the film shall be lapped at least 4".
- F. Use bolts, rods, other approved devices for internal ties, spreaders; of such construction that when forms are removed, no metal is within 1" of an exterior nor within 1/2" of an interior concrete surface.
- G. Take special care that forms are true to required lines, grades, surfaces so as to give uniform, neat, workmanlike finish to all concrete surfaces, and to make form supports of sufficient strength, well braced, on adequate foundations so there is no settling or distortion when weight of concrete is added.
- H. Remove all dirt, chips, sawdust, rubbish, water, etc., from forms by water hosing and air pressure before any concrete is deposited. Leave no wooden ties or blocking in concrete except where indicated for attachment of other work.
- I. ENGINEER will cooperate with CONTRACTOR in matter of removing forms and shoring as early as possible. Length of time forms must remain in place depends on rate of time required for concrete to obtain proper strength and on construction loads that will be placed on concrete. Forms shall not be removed until authorized by the ENGINEER.
- J. Forms shall not be removed or disturbed for at least seven (7) days from date of last pouring unless approved by the ENGINEER.
- K. On removal of forms, all bolts, wires for anchoring, etc., shall be either removed, cut off to lengths as directed, or left in place for anchorage of other work as specified.
- L. Forms to be reused shall be in good condition, thoroughly cleaned before being reused.
- M. Provide 3/4" chamfer at any wall, column and vertical corners unless otherwise shown.

1.5 CONSTRUCTION JOINTS

- A. Make and locate generally as indicated on drawings all construction joints so as not to impair strength of structure and only at locations approved by the ENGINEER. Form keys used in any cold joints shown or required.

PART 2 - MATERIALS

2.1 SLABS, WALLS AND EXPOSED CONCRETE:

- A. Forms for flat exposed surfaces shall be 5-ply Exterior B-B (Concrete Form) panels. Panels with raised or separate face veneers shall not be used for exposed concrete.

2.2 SURFACE TREATMENT

- A. Surface Treatment: Plywood panels shall have smooth surface treatment to prevent any development of bond or adhesion to concrete and to seal plywood surfaces against moisture. Master Finish RL Series as manufactured by Master Builder Solutions; Burke Form Sealer as manufactured by W. J. Burke Company, or approved equal, shall be used, applied in strict accordance with manufacturer's directions.

2.3 FORM TIES AND SPREADERS

- A. Form Ties and Spreaders: Shall be metal, cone nut type. No wood spreaders will be permitted.

2.4 ROUGH HARDWARE

- A. Rough Hardware: Nails, bolts, screws, anchors, etc., as shown or needed shall be furnished and set.

END OF SECTION 03 10 00

SECTION 03 20 00 - REINFORCEMENT**PART 1 - GENERAL****1.1 DESCRIPTION**

- A. Furnish all labor, materials, equipment, and services as required to complete all reinforcing steel work as shown on drawings, and/or specified herein.

1.2 SHOP DRAWINGS

- A. Per Division 01, General Conditions, submit Shop drawings showing bending and placing of all reinforcing. Drawings shall include diagrammatic elevations of all walls at a scale sufficiently large to clearly show the position, erection marks of marginal bars and their dowels and splices.

1.3 COORDINATION

- A. Coordinate with other trades so as not to interfere. Bring interferences between trades to ENGINEER'S attention; resolve before any concrete is poured.

1.4 STORAGE

- A. Store reinforcement to avoid rusting or coating with grease, oil, dirt, or other objectionable materials. Reinforcement coated with such materials will be rejected.

1.5 STANDARDS

- A. Comply with requirements set forth in the "Manual of Standard Practice for Detailing Reinforced Concrete Structures", published by the American Concrete Institute except where more exacting requirements are specified in Contract Documents.

PART 2 - MATERIALS**2.1 REINFORCEMENT**

- A. Reinforcing bars shall be deformed bars conforming to ASTM A-615 Grade 60.
- B. Welded wire fabric shall conform to requirements of ASTM A-1064 using bright steel wire meeting ASTM A-1064. Gauges, dimensions shall be as noted on the drawings.
- C. All steel for reinforcement shall be new, non-rusted stock, free from mill scale, delivered without rust other than may have accumulated in prompt transportation to the work.
- D. Tie wire shall be No. 16 American Wire Gauge or heavier, black annealed.
- E. Supports for reinforcing bars in slabs shall be metal, of sufficient strength to adequately support bars, of a type approved by ENGINEER. Supports or spacers for

bars in walls shall be such that exterior face of wall will not be marred when forms are stripped, and final finish has been completed.

- F. Dowels from footings to walls shall be same size, spacing as wall reinforcement, unless otherwise shown. Dowels shall project 12 inches into wall, 12 inches into footing unless detailed or noted otherwise.

PART 3 - REINFORCING BARS TO BE FURNISHED TO OTHER TRADES

3.1 VERTICAL REINFORCING

- A. All vertical reinforcing bars required for vertically reinforcing masonry work shall be furnished by REINFORCING CONTRACTOR, properly cut, shaped as indicated on drawings. Masons shall install in place all reinforcements supplied them as required by Drawing details.

3.2 HORIZONTAL REINFORCING

- A. Horizontal mesh type masonry reinforcing shall be furnished.

PART 4 –REINFORCING STEEL

4.1 REQUIREMENTS FOR PLACEMENT OF REINFORCING STEEL

- A. Reinforcement shall be accurately placed, securely tied at intersections with 16-gauge black annealed wire; shall be maintained in proper position by chair, bars, supports, or approved devices.
- B. Bars shall lap 18 inches at splices, except as otherwise indicated. Splices in adjoining horizontal bars shall be staggered at least 6'. Where this is not feasible, submit suggestions for ENGINEER'S consideration. Horizontal bars shall be hooked around corners not less than 9 inches, with minimum of 12 inches as per typical details.

4.2 CONCRETE PROTECTION OF REINFORCING

- A. Shall be not less than the following:
 1. 3" where concrete is poured against ground.
 2. 2" where concrete is poured against forms but may be in contact with ground.
 3. 1-1/2" minimum in exterior face of exterior walls (exposed to weather but not in contact with ground).
 4. 3/4" minimum in interior walls and interior face of exterior walls.
 5. 1-1/2" in beams, girders, and columns.
 6. Clear distance between bars shall be not less than 1-1/2", 1-1/2 bar diameters, nor less than 1-1/3 times the maximum size of coarse aggregate. See details for any specific variations to these requirements. Where conduits, piping, inserts, sleeves, etc., interfere with placing of reinforcing steel as shown or called for,

CONTRACTOR must consult with ENGINEER, secure method of procedure from him before pouring any concrete. Bending or field cutting of bars around openings or sleeves will not be permitted.

END OF SECTION 03 20 00

SECTION 03 30 00 - CAST-IN-PLACE CONCRETE**PART 1 - GENERAL****1.1 SCOPE**

- A. This section covers all cast-in-place concrete, including reinforcing steel, forms, finishing, curing and other appurtenant work.
- B. Transit mix concrete will be permitted if it meets the requirements of this section and is mixed and delivered in accordance with ASTM C94.

1.2 SUBMITTALS

- A. Submittals shall be made in accordance with all the requirements of the General Conditions and the Contract Documents.
- B. Submit for review a proposed design mix for each concrete strength and class required by these Specifications. Failure to include any items of information noted in this paragraph for a given concrete strength or type will be cause for requirement of a resubmittal. Information to be submitted for each strength and class shall include the following items:
 - 1. Concrete mix design
 - a. Constituent quantities per cubic yard.
 - b. Sources of all concrete mix components including coarse aggregate, fine aggregate, cement, water, admixtures, and pozzolans where included.
 - c. Cement type and manufacturer, include chemical analysis (mill test report) for each cement type to be used.
 - d. Pozzolan type and source; include chemical analysis for each pozzolan type to be used.
 - e. Water/cement ratio, by weight.
 - f. Air content
 - g. Mix design slump.
 - h. Average compressive strengths conforming to the requirements of ACI 318 at 28 days. Provide both average strengths and sample standard deviation. Provide results at 7 and 14 days if available.
 - i. Laboratory shrinkage test results for concrete mix designs, where specified.
 - 2. Aggregate:
 - a. Laboratory sieve analysis, conforming to ASTM C33.
 - b. Verification that aggregate is not "deleterious," or "potentially deleterious." Provide documentation or other certification that aggregate does not contain deleterious substances and has been used without issues on previous projects.

3. Admixtures. Submit Manufacturer's data brochures on all admixtures proposed for use and provide certification of compliance with specified ASTM standards for each admixture.
- C. Submit concrete placement drawings showing pour sequence, lift numbers, locations of all joints, concrete mix being placed, concrete finishes, and all pertinent embedments including embedded plates, sleeves, pipes, conduits, anchors, etc., where applicable. Where the Drawings permit the CONTRACTOR to select joint locations, show the selected dimensions on the placement drawings. Approval of the placement drawings shall not relieve the CONTRACTOR of the responsibility of placing all concrete and embedments as specified.
 - D. If cold weather or hot weather concrete conditions are anticipated on the Project, submit a work plan for cold weather concreting and/or for hot weather concreting, describing proposed methods and procedures for mixing, delivering, placing, finishing, and curing concrete. Submit plans well in advance of cold or hot weather job conditions. Include procedures to be implemented upon abrupt changes in weather conditions or due to equipment failures. If a plan for either is not submitted and cold or hot weather concrete conditions are present, the CONTRACTOR will not be allowed to pour concrete until a plan is received and reviewed as long as cold or hot weather conditions are present on the Project.
 - E. Furnish a delivery ticket for ready mixed concrete to the OWNER'S REPRESENTATIVE as each truck arrives. Each ticket shall provide a printed record of the weight of cement batched and each separate aggregate individually batched. Use the type of indicator that returns for zero punch or returns to zero after a batch is discharged. Clearly indicate the weight of fine and coarse aggregate, cement, and water in each batch, the quantity delivered, the time any water is added, and the numerical sequence of the delivery. Show the time of day batched and time of discharge from the truck. Indicate the number of revolutions of mix trucks.
 - F. Submit Manufacturer's data sheets and product specifications for curing compounds and items specified in other Sections including form release agents, bonding agents, etc. Identify the locations where each will be used in the Work as a part of the submittal.
 - G. Submitted data shall demonstrate compliance with all requirements of this Specification or deviations shall be clearly noted.

1.3 QUALITY ASSURANCE

A. Concrete Consistency

1. Test for slump shall be performed at the job site immediately prior to placing in accordance with ASTM C143. Slump tests shall be performed for every 35 CY separately for each construction item to indicate workability and consistency throughout the entire project.
2. If the slump is outside the allowed limits, the concrete shall be rejected. Concrete showing either poor cohesion or poor coating of the coarse

aggregate with paste shall be remixed or rejected.

3. If the slump is within the allowable limit, but excessive bleeding, poor workability, or poor finishability are observed, the concrete shall be rejected and changes in the concrete mix shall be made only by an adjustment of one or more of the following:
 - a. The gradation of aggregate.
 - b. The proportion of fine and coarse aggregate.
 - c. The percentage of entrained air, within the allowable limits.

B. Concrete Temperature

1. Concrete temperature shall be taken immediately before placement with the point of measurement being in the chute or bucket.
2. Perform temperature test for each batch and record result on batch ticket.
3. If fresh concrete temperature does not meet requirements in this section the concrete shall be rejected.

C. Concrete Air

1. Test for air content shall be made on a fresh concrete sample for every 35 CY separately for each construction item prior to placing in forms.
2. Air content for concrete made of ordinary aggregates having low absorption shall be made in accordance with either ASTM C231, or ASTM C173. If light weight aggregates or aggregates with high absorptions are used, use ASTM C173.
3. If air content of fresh concrete does not meet requirements specified in this Section, the concrete shall be rejected. Do not place concrete that does not meet the air entrainment requirements of this Section.

D. Compression Testing

1. Compression test specimens shall be made, cured and tested in accordance with ASTM C31 and ASTM C39.
2. Compressive strength tests shall be made on cylinders at 7 and 28 days. The value of each test result shall be the average compressive strength of a minimum of 2 cylinders taken at the same time from the same batch of concrete.
3. Compressive test specimens shall be 6" x 12" cylinders or 4" x 8" cylinders. Sets of concrete test cylinders shall be cast for each day's concrete pour as follows.
 - a. A "set" of test cylinders consists of a minimum of six cylinders, one to be broken and strengths recorded at seven days; and three broken and strengths averaged at 28 days. Two hold cylinders will remain unbroken so that they will be available to be broken upon unforeseen circumstances or upon the option of the Engineer to break cylinders at different times.

- b. A minimum of one “set” of cylinders will be made for each concrete pour up to 25 CY in volume. For pours larger than 25 CY, additional “sets” of cylinders will be made for each additional 50 CY of concrete poured.
- 4. Evaluation of compressive strength for compliance with design requirements will be conducted by the ENGINEER per ACI 318 – Section 26.12 based on the results of the 28-day test.
- 5. All test specimens shall be kept as near to the point of sampling as possible and yet receive the same protection from the elements as is given to the portions of the structure being built. Specimens shall be protected from injury. They shall be sent to a testing laboratory approved by the ENGINEER after a minimum of three days of field curing and while in the laboratory shall be kept in the ordinary air at the temperature of approximately 70°F until tested.

E. Failure to Meet Requirements

- 1. The OWNER may withhold payment for any section of concrete which does not meet the requirements of the plans and specifications. Withheld payment shall be based upon unit prices established for concrete, if available. Payment shall be withheld until the unacceptable concrete has been repaired or removed and replaced or otherwise brought into conformance with the plans and specifications.
- 2. Concrete Strength
 - a. If the 28-day strength test results fall below required values, additional curing may be performed and test cores may be obtained in accordance with ASTM C42 with approval of the ENGINEER. Additional curing, core removal and testing, if allowed by the ENGINEER, shall be at the CONTRACTOR'S expense.
 - b. If the strength results from test cores do not exhibit the required strength, the ENGINEER or OWNER'S REPRESENTATIVE reserve the right to require strengthening, replacement of substandard materials and/or additional testing at the CONTRACTOR'S expense. The choice of remedy is at the sole discretion of the ENGINEER or OWNER'S REPRESENTATIVE.
 - c. Other Concrete Properties
 - 1) If concrete properties besides strength do not meet required values, the ENGINEER may require concrete samples to be obtained in accordance with ASTM C42 and evaluated in accordance with ASTM C856 at the CONTRACTOR'S expense.
 - 2) If concrete properties besides strength do not meet required values, and the results of additional examination per ASTM C856 are deemed unsatisfactory at the sole discretion of the ENGINEER, the OWNER reserves the right to require strengthening, replacement of substandard materials and/or additional testing at the CONTRACTOR'S expense.

PART 2 - PRODUCTS**2.1 GENERAL**

Cement	ASTM C150, Type II or I/II
Coarse Aggregate	Crushed rock, washed gravel or other inert material conforming to ASTM C33
Fine Aggregate	Shall conform to ASTM C33
Crushed	
Water	Clean and free from deleterious substances
Reinforcing Steel	Per specification 03 20 00 "Reinforcement"
Welded Wire Fabric	Per specification 03 10 00 "Form Work"
Expansion Joints	Preformed, bituminous type ASTM D994
Joint Sealer	Per specification 03 31 00 "Construction Joint Sealing"

2.2 DESIGN CRITERIA

- A. Use ACI 211.1 as the basis for selecting the proportions of ingredients to produce concrete having proper durability, strength, workability appearance and other required properties. Proportion ingredients to produce a homogenous mixture, which will work readily into corners and angles of forms and around reinforcement by methods of placing and consolidation employed on the work, but without permitting materials to segregate or allowing excessive free water to collect on the surface.
- B. Strength:
 - 1. All concrete is required to have an average 28-day compressive strength equal to or greater than specified strength in section 2.2(F) unless otherwise specified.
- C. Entrained Air:
 - 1. Air-entrain all concrete, unless otherwise specified.
 - 2. Drilled shafts do not require air entrainment unless placed underwater.
 - 3. Provide for not less than three percent (3.0%) nor more than six percent (6.0%) by volume of total entrapped and entrained air for normal weight concrete.
 - 4. Do not air entrain finished floors that call for a troweled finish.
- D. Slump:
 - 1. Provide adequate slump to produce acceptable workability, do not exceed maximum specified slump.
- E. Admixtures:
 - 1. Proportion admixtures according to the Manufacturer's recommendations. All admixtures shall be batched at the batch plant only.

F. Concrete Classification

Class	Min. 28-Day Compressive Strength (psi)	Coarse Aggregate Size (in.)	Max. Water Cement Ratio	Max. Slump (in.)	Min. Cement Content (lb. per CY)
A	4000	1.5 (No. 467)	0.45	5	517
B	3000	1.5 (No. 467)	0.50	4	470
C	4000	1.0 (No. 57)	0.45	4	564
D	5000	0.75 (No. 67)	0.45	5	611
E	1500	1.5 (No. 467)	0.70	4	376
F	4000	0.375 (No. 8)	0.45	8	611

G. Concrete Usage

Class	Usage
A	All reinforced concrete unless otherwise specified
B	Concrete Encasement; Sidewalks, Curbs, Driveways
C	Drilled Shafts; Pumped Concrete; Thin Wall Sections
D	Precast Concrete and Panels
E	Lean Concrete Backfill; Foundation Seal; Blocking/Cradling
F	Underground Duct Banks

2.3 ADMIXTURES

A. Air-Entraining Admixture: ASTM C260.

B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing intentionally added chlorides.

1. Water-Reducing Admixture: ASTM C494/C 494M, Type A. Products.
2. Retarding Admixture: ASTM C 494/C 494M, Type B. Products.
3. Water-Reducing and Retarding Admixture: ASTM C494 / C494M, Type D.
4. Accelerating Admixture: ASTM C494/C494M, Type C.
5. Water-reducing and Accelerating Admixture: ASTM C494/C494M, Type E.
6. High-Range, Water-Reducing Admixture: ASTM C494 / C494M, Type F.

7. High-Range, Water-Reducing and Retarding Admixture: ASTM C494 / C494M, Type G.
8. Plasticizing and Retarding Admixture: ASTM C1017 / C1017M, Type II.
9. Workability-Retaining Admixture: ASTM C494/C494M, Type S.
10. Other admixtures shall be as specified in Section 03 30 00.

2.4 FIBERS

A. Synthetic Microfibers

1. Shall be manufactured from a proprietary blend of polypropylene resins in compliance with ASTM D7508/D7508M for micro-chopped strands, for use in fiber-reinforced concrete meeting the requirements of ASTM C1116/C1116M, Type III.
2. Shall provide a minimum cracking reduction ratio (CRR) of 40 percent when tested in accordance with ASTM C1579.
3. Dosage shall be as recommended by the manufacturer.

B. Synthetic Macrofibers

1. Shall be manufactured from a proprietary blend of polypropylene resins in compliance with ASTM D7508/D7508M for macro-chopped strands or hybrids chopped strands for use in fiber-reinforced concrete meeting the requirements of ASTM C1116/C1116M, Type 111.
2. Shall provide a minimum average residual strength (f_{150}^D) [minimum average equivalent flexural strength ($f_{e,3}$)] of [] psi when tested in accordance with ASTM C1609/C1609M, using the roller support system in ASTM C1812/C1812M.
3. Dosage shall be as recommended by the manufacturer.

2.5 VAPOR RETARDER

- A. Plastic sheet, ASTM E1745, Class A or B.
- B. Polyethylene sheet, ASTM D4397, not less than 10 mils (0.25 mm) thick; or plastic sheet, ASTM E1745, Class C.

2.6 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming; manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 3, burlap cloth or cotton mats.

- C. Moisture-Retaining Cover: ASTM C171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C309, Type 1, Class B.
- F. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C1315, Type 1, Class A.

2.7 STORAGE OF MATERIALS

- C. Cement shall be stored in suitable moisture-proof enclosures. Cement which has become caked or lumpy shall not be used.
- D. Aggregates shall be stored so that segregation and the inclusion of foreign materials is prevented. The bottom 6" of aggregate piles in contact with the ground shall not be used.
- E. Reinforcing steel shall be carefully handled and shall be stored on supports which will keep the steel from contact with the ground.

2.8 FORMS

- A. All forms shall be in accordance with Specification 03 10 00 "Form Work".

2.9 EMBEDMENTS

- A. Anchor bolts, castings, steel shapes, conduit, sleeves, masonry anchorage and other materials that are to be embedded in the concrete shall be accurately positioned in the forms and securely anchored. Conduits shall be installed between the reinforcing steel in walls or slabs which have reinforcements in both faces. In slabs which have only a single layer of reinforcing steel, conduits shall be placed under the reinforcement.
- B. Unless installed pipe sleeves, anchor bolts shall have sufficient threads to permit a nut to be installed on the concrete side of the form or template. A second nut shall be installed on the other side of the form or template and the two nuts shall be adjusted so that the bolt will be held rigidly to proper position.
- C. Embedments shall be clean when installed. After concrete placement, surfaces not in contact with concrete shall be cleaned of concrete spatter and other foreign substances.

2.10 BATCHING AND MIXING

- A. Concrete shall be furnished by an acceptable ready-mixed concrete supplier and shall conform to ASTM C94 and furnish batch ticket information.
 - 1. When air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.
- B. The consistency of concrete shall be suitable for the placement conditions. Aggregates shall float uniformly throughout the mass and the concrete shall flow sluggishly when vibrated or spaded. The slump shall be kept uniform.

PART 3 - EXECUTION**3.1 GENERAL**

- A. The limits of each concrete pour shall be predetermined by the CONTRACTOR and shall be acceptable to the ENGINEER. All concrete within such limits shall be placed in one continuous operation.
- B. Before test sampling and placing concrete, water may be added at project site at the direction and approval of the ENGINEER.
- C. Before concrete is placed, forms, reinforcements, water stops, anchor bolts and embedments shall be rigidly secured in proper position; all dirt, mud, water, and debris shall be removed from the space to be occupied by concrete; all surfaces incrustured with dried concrete from previous placement operations shall be cleaned; and the entire installation shall be acceptable to the ENGINEER.
- D. Concrete shall be conveyed to the point of final deposit by methods which will prevent separation or loss of ingredients. Concrete shall be placed in final position without being moved laterally in the forms more than 6 feet. Lateral placement beyond 6 feet shall require the use of tremie pipe to meet the lateral limit.
- E. Concrete for piers shall be carefully deposited to avoid contact with forms, reinforcing and earth sides until completion of the drop. Necessary precautions shall be taken to prevent earth or other material from falling into excavations and to prevent dislocation of reinforcing during concrete placement. Concrete shall be placed continuously to the top of each pier at a rate of vertical rise of not less than 2' per hour. Forms above grade, if required, shall be cylindrical steel or fiber forms acceptable to the ENGINEER.
- F. During and immediately after placement, concrete shall be thoroughly compacted and worked around all reinforcements and embedments and into the corners of the forms. Mechanical vibrators shall be used which will maintain at least 9000 cycles per minute when immersed in the concrete. Each vibrator shall be driven by not smaller than a 1-1/2 hp motor. The number and type of vibrators shall be acceptable to the ENGINEER.

3.2 HOT WEATHER CONCRETING

- A. Except as modified herein, hot weather concreting shall comply with ACI 305. At air temperatures of 90° F or above, concrete shall be kept as cool as possible during placement and curing. The temperature of the concrete when placed in the work shall not exceed 90° F.
- B. Plastic shrinkage cracking, due to rapid evaporation of moisture, shall be prevented. Concrete shall not be placed when the evaporation rate (actual or anticipated) equals or exceeds 0.2 lbs. per sq. ft. per hour, as determined in ACI 305.

3.3 COLD WEATHER CONCRETING

- A. Except as modified herein, cold weather concreting shall comply with ACI 306. The temperature of concrete at the time of mixing shall be not less than that shown in the following table for corresponding outdoor temperature (in shade) existing at the time of placement.

<u>Outdoor Temperature</u>	<u>Concrete Temperature</u>
Below 10° F	70° F
Between 10° F and 45° F	60° F
Above 45° F	45° F

- B. When placed, heated concrete shall not be warmer than 80° F.
- C. When freezing temperatures may be expected during the curing period, the concrete shall be maintained at a temperature of at least 50° F for five days or 70° F for three days after placement. Concrete and adjacent form surfaces shall be kept continuously moist. Sudden cooling of concrete shall not be permitted.

3.4 FINISHING

- A. All exposed surfaces shall be given a steel float finish.
- B. No Finish: A finish is not required on surfaces which are not visible from the inside or outside of the structure or more than 12 inches below finished grade.
- C. Screened surfaces shall be given an initial float finish as soon as the concrete has stiffened sufficiently for proper working. Any piece of coarse aggregate which is disturbed by the float or which causes a surface irregularity shall be removed and replaced with mortar. Initial floating shall produce a surface of uniform texture and appearance with no unnecessary working of the surface.
- D. Initial floating shall be followed by a second floating at the time of initial set. The second floating shall produce a finish of uniform texture and color. Unless additional finishing is specifically required, the completed finish for unformed surfaces shall be the float finish produced by the second floating.
- E. Floating shall be performed with hand floats or suitable mechanical compactor floats.

F. Smooth Form Finish:

1. Unless otherwise specified, all surfaces not meeting the requirements for “no finish” shall receive a smooth form finish. Use a smooth form finish on all surfaces exposed to view and liquid.
2. Provide a smooth, hard uniform texture on the concrete surface. Use plywood or fiberboard linings or forms in as large sheets as practicable and with smooth, even edges and close joints.
3. Patch tie holes and defects.
4. Provide a smooth, uniform, rubbed surface texture. Rub fins and joint marks and other irregularities with carborundum stone immediately after forms are stripped to leave a smooth, unmarred finish surface. If rubbing of surface is delayed to the point where the concrete surface is dry and cannot be rubbed to produce a smooth, uniform surface Contractor shall provide a blast finish to achieve a smooth uniform surface at no additional cost to the Owner.

G. Related Unformed Surfaces: Tops of piers, walls, bent caps and similar unformed surfaces occurring adjacent to formed surfaces shall be struck smooth after concrete is placed. Float unformed surfaces to a texture reasonably consistent with that of the formed surfaces. Final treatment on formed surfaces shall continue uniformly across the unformed surfaces.

3.5 FINISHING SLABS AND SIMILAR FLAT SURFACES

- A. Comply with the recommendations in ACI 302.1R for screeding, re-straightening and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Finish slabs and similar flat surfaces monolithically and apply as indicated in the Plans and as follows:
 1. Rough Finish.
 - a. Tank floors and slabs that receive grout or additional concrete toppings.
 - b. Provide a rough surface by screeding only without further finish.
 2. Trowel Finish
 - a. Slab surfaces exposed to view, liquids or to be covered with a coating system, flooring coverings or membranes.
 - b. After apply float finish, apply trowel finish and consolidate by hand or power driven trowel. Continue troweling passes and re-straighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
 3. Broom Finish
 - a. Sidewalks, walkways and platforms.
 - b. Immediately after float finishing, slightly roughen trafficked surface by

brooming with fiber-bristle broom perpendicular to main traffic route.

3.6 CONCRETE CURING

A. All concrete shall be cured in accordance with the specifications. The curing methods shall be wet curing, sheet materials or membrane curing compound. Unless the curing method is specified otherwise, select one of the appropriate curing methods below.

1. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI SPEC-306.1 for cold-weather protection and with ACI SPEC-301 for hot-weather protection during curing.
2. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb./sq. ft. / h (1 kg/sq. m / h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
3. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
4. Length of Curing Period
 - a. A "curing day" shall be any day on which the atmospheric temperature taken in the shade, or the air temperature adjacent to the concrete, remains above 50° F for at least 18 hours.
 - b. Continuously cure concrete for a period until 7 curing days have been reached. In cold weather, curing may be terminated after a period of 14 consecutive days.

B. Wet Curing

1. Immediately after the finishing operations are completed or forms are stripped, the concrete shall be covered with wet cotton mats or with a temporary covering of canvas or burlap, thoroughly saturated with water before placement. A temporary covering shall be used when factors dictate that cotton mats cannot be placed immediately after finishing operations without marring the finishing of the concrete surface.
2. When temporary coverings are used keep them in place only until the surface has sufficiently hardened so that a cotton mat can be substituted without marring or disturbing the concrete finish.
3. The coverings shall remain in contact with the concrete for the duration of the curing period.
4. The coverings shall be kept saturated with water for the entire curing period.
5. Water used for curing shall be potable and free from any injurious materials or deleterious substances.

C. Sheet Curing

1. Immediately after the finishing operations are completed or forms are stripped, install sheet curing materials in accordance with all Manufacturer's recommendations.
2. Sheet curing shall be in contact with the entire concrete surface so as to prevent drying for the duration of the curing period.
3. When pedestrian traffic is unavoidable, provide suitable walkways to protect the sheet material.

D. Membrane Curing

1. Membrane curing compound is not permitted on surfaces to be rubbed or on surfaces to receive additional concrete, grout, plaster or coatings.
 2. Immediately after the finishing operations are completed or forms are stripped, apply membrane curing compound solution under pressure with a spray nozzle so the entire exposed surface is completely covered with a uniform film. The rate of application shall insure complete coverage but shall not exceed 150 square feet per gallon of curing compound.
 3. After application and under normal conditions, the curing compound shall be dry to the touch within 1 hour and shall be dry thoroughly and completely within 4 hours. When thoroughly dry it shall provide a continuous flexible membrane free from cracks and pinholes and shall remain intact during the required curing period.
 4. If the membrane seal is broken during the curing period, immediately repair it with additional curing compound.
- E. After the curing period, the temperature of the exposed surface shall not be permitted to drop faster than 30 degrees F in 24 hours.

3.7 JOINTS

- A. Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Contraction Joints in Slabs-on-Grade: Form weakened-plane sawed contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness.
- C. Isolation Joints: Install joint-filler strips at junctions with slabs-on-grade and vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
 1. Extend joint fillers full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated.

3.8 CONCRETE SURFACE REPAIRS

- A. Repair defective areas immediately after the removal of forms in accordance with this Section 02 42 00 "Removals" and Section 03 10 00 "Form Work". Repair of defective areas shall be at no additional cost to the OWNER.
- B. If the concrete surface is bulged, uneven or exhibits defects which in the ENGINEER'S opinion cannot be satisfactorily repaired, remove and replace the entire concrete section as directed at no additional cost to the OWNER.
- C. Patch tie holes immediately after removal of forms. After cleaning and thoroughly dampening the tie hole, fill solid with non-shrink, non-metallic grout.

3.9 MISCELLANEOUS ON-SITE MIXED BATCH

- A. The concrete shall be mixed in the approximate proportion of 1:2-1/2:4-1/4 and shall contain not less than one and one quarter barrels of cement per cubic yard of finished concrete. With the approval of the ENGINEER, admixtures may be added in order to increase workability.
- B. The onsite mixed batch will be subject to all testing requirements listed in this specification. The concrete shall meet or exceed strength requirements as required in this specification unless otherwise noted in the plans.

3.10 RESPONSIBILITY OF CONTRACTOR FOR STRENGTH

- C. It is the intent of these specifications that the CONTRACTOR shall guarantee that concrete of the specified compressive strength is incorporated in the structures and that the responsibility for producing the required grades of concrete is assumed by the CONTRACTOR.
- D. Should the average strengths shown by test cylinders fall below the strengths required, the ENGINEER will require any or all of the following changes: amount of cement, grading of aggregate, or ratio of the water to the cement used. If the tests disclosed that the strength of the concrete is insufficient for the structure as built, the ENGINEER may condemn the part of any structure in which concrete of insufficient strength has been placed and the CONTRACTOR, at his cost, shall remove and replace such concrete meeting these specifications.

3.11 EXPERIMENTAL CONCRETE MIXES

- A. The CONTRACTOR shall make experimental mixes prior to the placing of the concrete and at any time during the progress of the work when necessary to demonstrate that the concrete will meet these specifications. Materials for making experimental mixes shall be furnished by the CONTRACTOR and these materials shall be identical with those intended for use in the work. The cost of the materials shall be borne by the CONTRACTOR and shall be included in the price bid for concrete.

3.12 PAYMENT

- A. No separate measurement and payment will be made for the work covered under this section unless specified in the Bid Schedule. All costs in connection with this work shall be included in the applicable contract unit price for which the work pertains. Concrete encasement for underground piped utilities shall be paid for separately. Refer to the Standard Drawings for computation of encasement quantities.

END OF SECTION 03 30 00

SECTION 03 31 00 - CONSTRUCTION JOINT SEALING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work under this section shall include furnishing all labor, materials, and equipment necessary to clean and seal existing construction joints in concrete structures.

1.2 DELIVERY, STORAGE, AND HANDLING

- A. All materials shall be delivered to the site in the manufacturer's original unopened containers, with all labels and other markings intact.
- B. All materials shall be stored off the ground and protected from vandalism, the environment, and possible contamination in accordance with the manufacturer's recommendations.
- C. Materials not meeting the above shall be unacceptable and removed from the site.

1.3 SUBMITTALS

- A. All proposed materials and methods shall be submitted in accordance with Division 01.

PART 2 - PRODUCTS

2.1 GENERAL

- A. The joints shall be sealed by a one-part gun grade polyurethane sealant preceded by a primer receptive to urethane sealants. Modified amine epoxy or polyurethane grout with backer rod.

2.2 ACCEPTABLE PRODUCTS

- A. Primer:
 - 1. "Vulkem® Sealant Primer 171" as manufactured by Tremco.'
 - 2. "MasterSeal P 173" as manufactured by Master Builders Solutions.
- B. Sealant:
 - 1. "Vulkem® 116 Polyurethane Sealant" as manufactured by Tremco.
 - 2. "MasterSeal NP 1" as manufactured by Master Builders Solutions.

PART 3 - EXECUTION**3.1 ROUTING**

- A. All construction joints shall be routed or sawed to provide the correct joint shape. That shape shall be 3/4" wide by 2" deep. The joint width shall be made with one pass of the saw or router.

3.2 CLEANING

- A. After routing, the joint shall be sandblast cleaned to remove all latent material and provide a good blast profile for sealant adhesion. After sandblasting, the joint shall be blown clean.
- B. After cleaning, install a bond breaker/backing rod in the bottom of the routed joint. The rod shall be installed by roller to ensure constant depth of the joint to be sealed. Backing rod materials are to be recommended by the sealant manufacturer; however, no low melting point or bituminous products are to be used.
- C. Apply one coat of the primer to the prepared joint, exercising care to avoid excessive coverage of the adjacent surface.
- D. After the primer has cured, in accordance with the manufacturer's recommendations, apply the joint sealer to within 1/4" of the top of the joint. The sealant shall then be tooled to provide a uniform concave finish.

3.3 GENERAL INSTALLATION NOTES

- A. All joints to be sealed shall be dry.
- B. Any leaking joints shall be pressure grouted as described elsewhere.
- C. Prior to sealing, all loose or spalled concrete adjacent to the joints shall be removed and replaced as described elsewhere.
- D. No joints are to be sealed which contain new concrete which has not cured for a minimum of 28 days.

END OF SECTION 03 31 00

DIVISION 31 – EARTHWORK**SECTION 31 00 00 – GENERAL EARTHWORK****PART 1 - GENERAL****1.1 DESCRIPTION**

This section covers the requirements and procedures for excavation and backfill for structures.

1.2 STANDARD SPECIFICATIONS

- A. The following is a list of standard specifications with the accompanying abbreviations used in this specification section:
 - 1. American Association of State Highway and Transportation Officials Standard Specifications - AASHTO.

1.3 QUALITY ASSURANCE

- A. Compaction shall be in accordance with Section 31 23 33 - Trenching, Backfilling and Compaction.
- B. The OWNER shall be the sole and final judge of suitability of all materials.
- C. Materials in question, pending test results, shall not be used in the work. The CONTRACTOR shall remove all materials that fail to meet the requirements of the specifications, whether in stockpiles or in place.
- D. Fills, embankments, backfills or subgrades which do not meet the specification requirements shall be removed or recompacted until the requirements are satisfied.

1.4 PROTECTION

- A. Protection of Existing Improvements
 - 1. Protection shall be provided to prevent damage to existing improvements indicated to remain in place on the OWNER'S property and adjoining properties.
 - 2. Damaged improvements shall be restored to their original condition, as acceptable to parties having jurisdiction.
 - 3. Land areas outside the limits of permanent work performed under this contract shall be preserved in their present condition. The CONTRACTOR shall confine his construction activities to areas defined for work on the Drawings.
- B. Protection of Existing Utilities
 - 1. The CONTRACTOR shall verify all existing utility locations either shown or not shown on the drawings.

2. The CONTRACTOR shall immediately notify the OWNER and applicable utility company of any damages to existing utilities.
 3. Repairs to damaged utilities shall be made in accordance with the requirements of the OWNER and applicable utility company at no extra cost to the OWNER.
 4. The CONTRACTOR shall coordinate with the OWNER and the applicable utility company for shutoff of or connection to active utilities. Existing utility services shall not be interrupted except as authorized in writing by the OWNER.
- C. Protection of Work Site: Barricades or other type protectors shall be provided to prevent unauthorized personnel from entering work sites.

1.5 JOB CONDITIONS

A. Classification of Excavation

1. No classification shall be made to differentiate the various surface and subsurface conditions the CONTRACTOR may encounter during his performance under this contract.
2. It is the CONTRACTOR'S sole responsibility to verify the site surface and subsurface conditions.

B. Dewatering

1. Excavation and embankment shall be performed in such manner that the area of the site and the area immediately surrounding the site will be continually and effectively drained by gravity or temporary pumps.
2. Water shall not be permitted to accumulate in excavations or other areas of the site.
3. The excavation shall be drained by methods which prevent the softening of subgrades and embankments.

C. Blasting shall not be allowed.

1. Shoring, including sheet piling, shall be furnished and installed as necessary to protect workmen, banks, adjacent paving, structures, and utilities.
2. Shoring, bracing, and sheeting shall be removed as excavations are backfilled, in a manner to prevent caving.

PART 2 - PRODUCTS

2.1 SUITABLE MATERIALS

- A. Suitable materials for fill and, backfill include materials that are free of debris, roots, organic or frozen materials, stones having a maximum dimension of four (4) inches in the upper six (6) inches of fill or six (6) inches in the remainder of fill.

- B. Otherwise, suitable material which is unsuitable due to excess moisture content will not be classified as unsuitable material unless it cannot be dried by manipulation, aeration or blending with other materials to the satisfaction of the OWNER.
- C. Unsuitable materials shall include those materials that are determined by the OWNER to be inadequate for providing a stable slope, fill, subgrade, or foundation for structure.
- D. Expansive clay soils shall be classified as unsuitable unless treated or mixed in a manner approved by the OWNER.

2.2 CAPILLARY WATER BARRIER

A. Coarse Aggregate (Gravel) Capillary Water Barrier.

- 1. Coarse aggregate shall meet the requirements of AASHTO M80.
- 2. Coarse aggregate shall consist of gravel, crushed gravel, or crushed stone.
- 3. Gradation of coarse aggregate shall conform to the requirements of AASHTO M 43, Size Number 57:

Sieve	Mass-Percent Passing
1 ½ inches	(38 mm) 100
1 inch	95 – 100
½ inch (13 mm)	25 – 60
No. 4	0 – 10
No. 8	0 - 5

- 4. Maximum allowable percent of deleterious substances shall meet the requirements of AASHTO M 80, Class B.

B. Fine Aggregate (Sand) Capillary Water Barrier:

- 1. Fine aggregate shall meet the requirements of AASHTO M6.
- 2. In general, fine aggregate shall consist of natural sand having hard, strong, durable particles free from deleterious substances and meeting the following gradation requirements:

Sieve	Mass-Percent Passing
3/8 inch (9.5 mm)	100
No. 4	95 – 100
No. 16	45 – 80
No. 50	10 - 30
No. 100	2 - 10

2.3 FINE AGGREGATE (SAND) BACKFILL

- A. Fine aggregate backfill shall meet the requirements of Paragraph 2.2.B.

2.4 SELECTION OF BORROW MATERIAL

- A. Borrow material, if required, shall be selected to meet requirements and conditions of the particular fill for which it is to be used.
- B. For borrow material obtained outside the limits of the project site, the CONTRACTOR shall obtain the right to procure material and shall pay all royalties and other charges involved.

PART 3 - EXECUTION

3.1 EXCAVATION

- A. Excavation, regardless of material encountered, shall conform to the dimensions and elevations indicated on the Drawings for each building and structure, and shall include trenching for utility and foundation drainage systems to a point five (5) feet beyond the building line of each building and structure.
- B. Excavation shall extend a sufficient distance from walls and footings to allow for placing and removal of forms, installation of services, and for inspection, except where the concrete for walls and footings is authorized by the OWNER to be deposited directly against excavated surfaces.
- C. Suitable excavated material shall be transported to and placed to fill areas within the limits of the work.
- D. Unsuitable materials encountered within the limits of the work shall be excavated below grade and replaced with suitable materials as directed by the OWNER, except that concrete footings shall be increased in thickness to the bottom of the over-depth excavations and over-break in rock excavation.
- E. No excavated material shall be wasted without the authorization of the OWNER.
 - 1. Surplus excavated material and unsuitable material shall be disposed of by the CONTRACTOR at his own expense and responsibility.
 - 2. Material authorized to be wasted shall be disposed of in such manner as not to obstruct the flow characteristics of any stream or to impair the efficiency or appearance of any structure.
- F. No excavated material shall be deposited in a manner that may endanger a partly finished structure by direct pressure or by overloading banks contiguous to the operations or that may otherwise be detrimental to the completed work.
- G. Blasting shall not be allowed.

3.2 PREPARATION OF GROUND SURFACE FOR FILL

- A. Areas upon which fills are to be placed shall be cleared and grubbed before the fill is started.

- B. Sloped ground surfaces steeper than one (1) vertical to four (4) horizontal on which fill is to be placed shall be plowed, stepped, or benched, or broken up as directed by the OWNER, in such a manner that the fill material will bond with the existing surface.
- C. When surfaces on which fills are to be placed do not meet the specified density requirements, the ground surface shall be broken up, pulverized, and compacted to the specified density.
- D. When surfaces on which fills are to be placed do not meet the specified moisture content requirements, the ground shall be wetted, aerated, or dried to the specified density.
- E. When the subgrade is part fill and part excavation, the excavated portion shall be scarified to a depth of 12 inches and compacted as specified for the adjacent fill.

3.3 FILL AND BACKFILL

- A. Fills and backfills shall conform to the dimensions and elevations indicated on the Drawings for each building and structure.
- B. Placing Fill and Backfill
 - 1. Suitable material shall be placed in successive horizontal uniformly spread layers of loose material not more than six (6) inches thick, except that in areas not accessible or permitted for the use of self-propelled rollers or vibrators, the loose layer shall be four (4) inches thick.
 - 2. Fills and backfills shall not be placed in wet or frozen areas.
- C. Backfill
 - 1. Backfill shall not begin until construction below finish grade has been completed, underground utility systems have been inspected and tested, form removed, and the excavation cleaned of trash and debris.
 - 2. Fine aggregate backfill shall be placed to the dimensions and elevations indicated on the Drawings.
 - 3. Heavy equipment for spreading and compacting backfill shall not be operated closer to foundation or retaining walls than a distance equal to the height of backfill above the top of footing; the area remaining shall be compacted by power-driven hand tampers suitable for the material being compacted.
 - 4. Backfill shall be placed carefully around pipes to avoid damage to coatings.
 - 5. Backfill shall not be placed against foundation walls prior to 7 days after placement of the walls.
 - 6. As far as practical, backfill shall be brought up evenly on each side of the wall and sloped to drain away from the wall.

7. Where fill or backfill is to be placed and compacted against structure walls, the walls shall be supported laterally as necessary to prevent damaging or displacing the walls. Any wall so damaged as a result of the CONTRACTOR'S operation shall be completely and promptly replaced.

3.4 COMPACTION

- A. For fill and backfill compaction densities and moisture contents, see Section 31 23 33.
- B. Compaction shall be accomplished by those methods listed in Section 31 23 33. Material shall be aerated or moistened to maintain the required moisture content.
- C. Fine aggregate backfill shall be compacted with a minimum of two (2) passes of a power-driven hand tamper.

3.5 CAPILLARY WATER BARRIER

- A. Either coarse aggregate (gravel) or fine aggregate (sand) capillary water barriers shall be installed under slabs-on-grade as indicated on the Drawings.
- B. The capillary water barrier shall be placed directly on the subgrade after the subgrade has been compacted to the required density and placed to the elevation indicated on the Drawings.
- C. The barrier shall be constructed to the thickness shown in layers not exceeding six (6) inches in compacted thickness.
- D. Each layer shall be compacted to the required density, with a minimum of two passes of a plate-type vibratory compactor.

3.6 FINISH GRADING

- A. Excavated and filled sections, and adjacent transition areas, shall be uniformly smoothly graded. The finished surface shall be reasonably smooth, compacted, and free from irregular surface changes.
- B. The degree of finish shall be that ordinarily obtainable from blade-grader operations, except as otherwise specified.
- C. The surface of fills or excavated areas for slabs-on-grade shall not vary more than 0.05 foot from the established grade.
- D. Other finished surfaces shall not vary more than 0.15 foot from the established grade and cross section and shall be free of depressed areas where water would pond.

END OF SECTION 31 00 00

SECTION 31 22 00 – SITE GRADING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The work covered under this item includes all supervision, labor, equipment, and materials required for rough and final site grading. Included in this item are any stripping, filling, excavating, backfilling and compaction required to complete the grading as shown on the plans or as specified herein.

1.2 DUST AND BLOWING MATERIAL CONTROL

- A. The CONTRACTOR shall use all means necessary to control dust on and near the site and on and near all off-site borrow areas if such dust is caused by the CONTRACTOR'S operations during performance of the work or if resulting from the condition in which the CONTRACTOR leaves the site.
- B. All surfaces shall be thoroughly moistened as required to prevent dust being a nuisance to the public, neighbors, and concurrent performance of other work on the site.
- C. Any landfilled material which is uncovered during any construction operation will immediately be covered with a minimum of 12 inches of soil and compacted to 90% Standard Proctor Density. The CONTRACTOR will be responsible for ensuring that existing landfilled material is not allowed to be blown or carried off the site and will clean up any material uncovered by his operations which is blown from the site.
- D. Protection of Existing Utilities
 - 1. The CONTRACTOR shall verify all existing utility locations either shown or not shown on the Drawings.
 - 2. The CONTRACTOR shall immediately notify the OWNER and applicable utility company of any damages to existing utilities.
 - 3. Repairs to damaged utilities shall be made in accordance with the requirements of the OWNER and applicable utility company at no extra cost to the OWNER.
 - 4. The CONTRACTOR shall coordinate with the OWNER and the applicable utility company for shutoff of or connection to active utilities. Existing utility services shall not be interrupted except as authorized in writing by the OWNER.
- E. Protection of Work Site: Barricades or other type protectors shall be provided to prevent unauthorized personnel from entering work sites.

PART 2 - PRODUCTS

2.1 FILL MATERIAL, GENERAL

- A. All fill material shall be subject to the approval of the ENGINEER.

2.2 ON-SITE FILL MATERIAL

- A. All on-site fill material used shall be soil or soil-rock mixture which is free from organic matter and other deleterious substance. It shall contain no rocks or lumps over 6 inches in greatest dimension, and not more than 15 percent of the rocks or lumps shall be larger than 2-1/2 inches in greatest dimension.

2.3 IMPORTED FILL MATERIAL (BORROW)

- A. All imported fill material shall meet the requirements stated in Section 31 00 00 and, in addition, shall be predominantly granular with a maximum particle size of 2 inches and a plasticity index of 12 or less.
- B. Any fill material, including topsoil, must be approved by the ENGINEER prior to placement. The CONTRACTOR shall notify the ENGINEER at least four working days in advance of intention to import material, designating the location of proposed borrow material. The CONTRACTOR shall be responsible for obtaining any permits or permission required for ENGINEER to sample, as necessary, from the borrow area for the purpose of making acceptance tests to prove the quality of proposed borrow material.

2.4 OTHER MATERIALS

- A. All other materials, not specifically described but required for a complete and proper installation, shall be as selected by the CONTRACTOR subject to the approval of the ENGINEER.

PART 3 – EXECUTION**3.1 FINISH ELEVATIONS AND LINES**

- A. Grade stakes will be set by the CONTRACTOR and approved by OWNER'S REPRESENTATIVE establishing rough and finish elevations and lines. The CONTRACTOR shall take care to preserve all survey control data and monuments set by the ENGINEER and, if displaced or lost, immediately replace to the approval of the ENGINEER and at no additional cost to the OWNER.

3.2 GRADING**A. General Requirements**

- 1. The CONTRACTOR will perform all rough and finish grading required to obtain the elevations shown in the Drawings.

B. Grading Tolerances

- 1. All rough and finished grading shall be performed with approved equipment to a tolerance of plus or minus 0.1 ft.

C. Compaction

1. Existing cover material will be compacted prior to the placement of any additional fill material. Two passes, at right angles to each other, will be made on existing cover with a sheep's foot roller, to obtain this compaction.
2. New fill material and material disturbed by grading will be compacted to a minimum of 90% Standard Proctor Density using approved compaction equipment.

D. Treatment after Completion of Grading

1. After grading is completed and the ENGINEER has finished his inspection, no further excavating, filling, or grading except with the approval of an inspection of the ENGINEER will be allowed.
2. The CONTRACTOR shall use all means necessary to prevent erosion of freshly graded areas during construction and until such time as permanent drainage and erosion control measures have been installed.

END OF SECTION 31 22 00

SECTION 31 23 33 - TRENCHING, BACKFILLING & COMPACTION**PART 1 - GENERAL****1.1 DESCRIPTION**

- A. The work under this item shall include all earth, shale, gravel, loose rock, solid rock, debris, junk and/or other material excavated or otherwise removed in the preparation of the trench, all work in connection with the excavation, removal and subsequent handling and disposal of such material regardless of its type, character, composition or condition; subgrade preparation, all sheeting, piling, shoring, bracing; and dewatering of trenches; protection of adjacent property; backfilling; sand cushion; grade base stabilization; all specified backfill consolidation; and other work necessary or required. The CONTRACTOR shall fully inform himself of the conditions to be encountered and shall include all payment for same in his bid prices stated in the proposal. No payment will be made for extra work caused by unusual conditions not anticipated by the CONTRACTOR.

PART 2 - PRODUCTS**2.1 STANDARD BEDDING MATERIAL**

- A. Standard Bedding Material (SBM) shall meet the requirements of ASTM D-2321 for the class of materials described in this subsection.
1. Class I shall be an angular, 1/4 in. to 1-1/2 in. graded crushed stone.
 2. Class II shall include coarse sands and gravels with maximum particle size of 1-1/2 inch. These materials may have small percentages of fines but shall be generally granular and non-cohesive, either wet or dry. Class II materials shall include Unified Soil Classification System (USCS) Soil Types GW, GP, SW and SP.
 3. Class III shall include fine sands, sand-clay mixtures and gravel-clay mixtures. USCS Soil Types GM, GC, SM and SC are included in this class.

2.2 BACKFILL

- A. Initial Backfill material used shall be as described below and/or as shown on the standard details.
1. Paved area: SBM material in accordance with section 2.1 of this specification.
 2. Non-Paved area:
 - a. For flexible pipe, SBM material used shall be in accordance with section 2.1 of this specifications at depths greater than 10-feet. Select Fill shall be used from depth 0-10 feet.
 - b. For rigid pipe, Select Fill shall be used.
 - i. Select Fill consists of excavated materials free of rocks larger than 2-1/2 inches, organic material, rubbish, debris, and all other objectionable material.

- B. Final Backfill material used shall be as described below and/or as shown on the standard details.
 - 1. Paved area: SBM material in accordance with section 2.1 of this specification.
 - 2. Non-Paved area: Excavated material shall be used.

PART 3 - EXECUTION

3.1 TRENCH EXCAVATION

- A. The trench shall be excavated so that the pipe can be laid to the alignment and grades shown on the drawings, or as directed by the OWNER'S REPRESENTATIVE. It shall be excavated a maximum of 150 feet in advance of pipe laying, or less, as permitted by the OWNER'S REPRESENTATIVE. Opening of trenches in excess of the maximum requires specific approval of the ENGINEER.
- B. Trenches shall be dry when the trench bottom is prepared. The trench bottom shall be shaped so that even bearing is obtained for the barrel of the pipe, with the bells unsupported. Any required dewatering shall be incidental to the trenching.
- C. From 12-inches above the pipe and below, the standard trench width as shown on the standard drawings shall not be exceeded. If, for any reason this portion of the trench exceeds the permitted width and if the OWNER'S REPRESENTATIVE shall determine that cradling or encasement then is required, said concrete cradle or encasement shall be installed.
- D. Any part of the bottom of the trench excavated more than 4 inches below the specified grade shall be considered incidental and shall be corrected with approved material as directed by the OWNER'S REPRESENTATIVE. In the event suitable material is not available, standard bedding material shall be used. When rock is encountered and concrete cradle is required, it shall be excavated 4 inches below the bottom of the pipe and the trench refilled to grade with standard bedding material.
- E. When quicksand or other unstable earth is encountered, the CONTRACTOR shall excavate to sufficient depth to permit backfilling with crushed stone to provide a stable base for the pipe and shall be considered incidental.

3.2 STANDARD BEDDING MATERIAL

- A. Standard Bedding Material (SBM) shall be used for embedding all pipe as shown on the Standard Details. SBM shall be carefully placed, compacted and tested along the entire length of the pipe to be installed to the limits of trench excavation until the thickness specified in the Standard Details is obtained. This layer of bedding material shall be smoothed by flat bottomed shovel or other appropriate means prior to the placement of pipe.
 - 1. Gravity Pipelines: SBM shall be placed simultaneously on each side of pipe and shall be carefully compacted in accordance with the SPECIFICATIONS for the type of pipe to be installed.

- a. Class I SBM requires little or no compaction due to the nature of the angular particles.
 - b. Class II SBM shall be compacted to a minimum 85% Standard Proctor Density using hand or mechanical tamping methods. Slightly damp material will generally result in maximum compaction with minimum effort. Avoid saturation of Class II SBM.
 - c. Class III SBM shall be compacted to a minimum 90% Standard Proctor Density using hand or mechanical methods. Take care to avoid excessive moisture in using Class III SBM.
2. Pressure Pipelines (except Rural Water): SBM shall be placed simultaneously on each side of pipe and compacted by hand sufficiently to maintain proper grade and alignment.

3.3 BACKFILL

- A. When the type of backfill material to be placed above the standard bedding material is not indicated on the drawings or specified, the backfill may be made with the excavated material, provided that such material, in the opinion of the OWNER'S REPRESENTATIVE, is suitable for backfilling. In the event the excavated material is not suitable, standard bedding material or other approved material shall be used.
- B. The trench shall be backfilled 12" above the pipe by hand or by other methods approved by the OWNER'S REPRESENTATIVE. Special care shall be used in placing this portion of the backfill to avoid damaging or moving the pipe. The remainder of the trench may be backfilled by mechanical methods. Backfilling operation shall be completed within 100 feet or less of the finished line at all times as directed by the OWNER'S REPRESENTATIVE.
- C. ALL clearing requiring proposed underground sewer line trench backfill materials and its placement must meet referenced ASTM D 2321, in accordance with OAC 252:656-5-3(b).

3.4 COMPACTION

- A. All trenching and backfill shall be tested every on every 8-inch lift, every 400 lineal feet for sanitary sewer, every 800 lineal feet for waterlines and all other applications. The trenching and backfill shall meet the specification listed in section 3.2 of this specification or otherwise the required standards below:
 1. Paved area: 95% Standard Proctor Density (SPD)
 2. Non-Paved area: 90% SPD if cover is less than 10-feet and 95% SPD if cover is greater than 10-feet
- B. If the backfilling has been completed and the backfill material does not meet the requirements for compaction, all the material shall be removed and hauled from the job site and the trenches refilled with material as specified above. Boring will be required at all paved street crossings unless otherwise specified or approved by the ENGINEER.

END OF SECTION 31 23 33

SECTION 31 25 00 - EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Temporary and permanent erosion control systems.
2. Slope protection systems.

1.2 REFERENCES

A. United States Environmental Protection Agency (EPA):

1. NPDES - National Pollutant Discharge Elimination System.

B. Oklahoma Department of Environmental Quality (ODEQ):

1. DEQ General Storm Water Permit (OKR10 and OKR05)

C. Oklahoma Department of Transportation (ODOT):

1. ODOT - State of Oklahoma Department of Transportation Standard Specifications for Highway Construction, Section 735 - Material for Roadside Development and Erosion Control.

1.3 QUALITY ASSURANCE

A. Perform Work in accordance with the following ODOT standards:

1. Section 220 – Management of Erosion Sedimentation, and Storm Water Pollution Prevention and Control
2. Section 221 - Temporary Sediment
3. Section 230 - Sodding and Sprigging.

B. Regulatory Requirements: Conform to requirements of local Authority Having Jurisdiction for prevention of erosion and sediment control.

1. Conform to NPDES and ODEQ requirements, where required.

1.4 PROJECT CONDITIONS

A. Environmental Requirements: Protect adjacent properties and water resources from erosion and sediment damage throughout work. Take all necessary measures to prevent sedimentation from construction operations to enter adjacent property. Offsite discharge of sedimentation is not permitted.

B. Storm Water Pollution Prevention Plan: Maintain plan at project site at all times available for inspection during contract duration.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Quick Growing Grasses: Wheat, rye, or oats.
- B. Straw Bales: Free of weed seed.
- C. Fencing for Siltation Control: UV resistant geotextile fabric.
- D. Slab Sod: Rectangular slabs of Bermuda grass.
- E. Temporary Mulches: Loose straw, netting, wood cellulose, or agricultural silage free of seed.
- F. Bale Stakes:
 - 1. Minimum 3 feet length.
 - 2. 2 No. 4 steel reinforcing bars or,
 - 3. 2 steel pickets or,
 - 4. 2 - 2x2 inch hardwood stakes driven 18 inches to 24 inches into ground.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive work.
- B. Report in writing to ENGINEER prevailing conditions that will adversely affect satisfactory execution of the work of this section. Do not proceed with work until unsatisfactory conditions have been corrected.
- C. By beginning work, CONTRACTOR accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the OWNER.

3.2 EROSION CONTROL AND SLOPE PROTECTION

- A. Provide erosion control and slope protection measures to prevent sediment from site entering adjacent property or public right-of-way to include but not be limited to:
 - 1. Temporary silt fences.
 - 2. Straw bales placed around culvert openings or inlets.
 - 3. Diked area with earth berm and silt trap for draining dredged material.
- B. Install erosion control and slope protection in accordance with ODOT standards.
- C. Place all erosion and siltation control measures before start of earthwork and grading construction operations.

- D. Mulch and seed all storm and sanitary sewer trenches not in streets no later than 10 days after backfill. Do not permit more than 500 feet of trench to be open at any one time.
- E. Place all excavated material on uphill side of trenches where possible. Do not place materials in stream beds. Seed any stockpiled material which remains in place longer than 30 days with temporary vegetation and mulch.
- F. Mulch and seed all temporary earth berms, diversions, erosion barriers and temporary stockpiles with temporary vegetative cover with 10 days after grading.
- G. Do not stockpile or otherwise place dredged, excavated or other material, at any time, in or near stream bed which may increase turbidity of water. If turbidity producing materials are present, hold surface drainage from cuts and fills within construction area and from borrow and waste disposal areas in suitable sedimentation ponds or grade surface drainage to control erosion within acceptable limits. Provide and maintain temporary erosion and sediment control measures such as berms, dikes, drains, or sedimentation basins, if required, until permanent damage and erosion control facilities are completed and operative. Hold to minimum area of bare soil exposed at any one time by construction operations.
- H. Drain dredged material minimum 7 days. Store material for drainage to a maximum height of 4 feet.
- I. OWNER'S REPRESENTATIVE may direct CONTRACTOR to limit surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow and embankment operations and may direct CONTRACTOR to provide immediate permanent or temporary erosion control measures.
- J. Maintain temporary erosion control systems as directed by OWNER'S Representative to control siltation during construction. Provide maintenance or additional work directed by OWNER'S REPRESENTATIVE immediately upon notification by OWNER'S REPRESENTATIVE.

END OF SECTION 31 25 00

SECTION 32 12 13.13 – TACK COAT**PART 1 – GENERAL****1.1 DESCRIPTION**

- A. This work consists of preparing and treating an existing bituminous or concrete surface with bituminous material.
1. Original Emulsion. A mixture of asphalt, water, and a small amount of emulsifying agent to maintain a uniform blend.
 2. Diluted Emulsion. An original emulsion diluted with additional water to reduce the viscosity and to allow easier spraying, typically used for fog seals.
 3. Residual Asphalt Content. The amount of asphalt remaining on the pavement surface after all of the water, both in the original emulsion and any additional water, has evaporated.

1.2 MATERIALS

- A. Provide materials in accordance with Section 32 12 16.39 Part 2, "Asphalt Materials."

1.3 EQUIPMENT

- A. Distributors and Supply Tanks
1. Provide distributors and supply tanks capable of uniformly applying bituminous material in accordance with the following:
 - a. At the temperatures specified in the relevant specification sections;
 - b. On variable widths of surface not to exceed 26 ft [7.8 m];
 - c. At rates from 0.010 gal/yd² to 1.000 gal/yd² [0.045 L/m² to 4.525 L/m²]; and
 - d. With constant pressure and uniform temperature.
 2. Ensure the distributor can apply material to vertical faces of asphalt pavement at the joints between paving operations.
 3. Prevent variation that exceeds the specified application rate by more than 0.01 gal/yd² [0.045 L/m²].
 4. Provide a distributor equipped with the following:
 - a. A tachometer,
 - b. Pressure gauges,
 - c. Volume-metering devices or a calibrated tank,
 - d. A thermometer for measuring temperatures of tank contents,
 - e. A power unit for the pump,
 - f. Full circulation spray bars adjustable vertically and laterally,

- g. A positive shut-off valve, and
 - h. Fittings that prevent bituminous material from dripping.
5. Frequently check and adjust the angle of the spray nozzles and the height of the spray bar to ensure uniform distribution of the bituminous material. The ENGINEER will not allow drilling, clogging, or streaking the bituminous material. If any of these conditions occur, stop the operation and correct the problems creating these conditions before resuming distribution.
 6. Check the rate and uniformity of distribution if directed by the ENGINEER. Provide supply tanks in accordance with AASHTO M 156, Section 3.

B. Compactors

1. Provide rollers of the following types:
 - a. Vibratory steel-wheel,
 - b. Non-vibratory steel-wheel,
 - c. Pneumatic tire, or
 - d. A combination of the three types.
2. Provide rollers in good condition, capable of reversing without backlash, and operating at speeds that do not displace the bituminous mixture.
3. Equip vibratory rollers with working amplitude controls or frequency controls designed specifically for the compaction of the specified bituminous material.
4. Use rollers of a type, number, and weight to complete the compaction of the bituminous material before its temperature drops below the specified minimum.
5. Do not use equipment that crushes the aggregate in the bituminous material.

1.4 CONSTRUCTION METHODS

A. Preparation

1. Clean the existing roadbed surface before placing tack coat. Paint a thin, uniform tack coat on all surfaces of curbs and gutters, manholes, and other structures that will come in contact with hot mix asphalt. Ensure the tack coat applications minimize damage and inconvenience to traffic and allow one-way traffic without pickup or tracking the bituminous material.
2. Do not apply tack coat during wet or cold weather or in windy conditions that would cause the tack coat emulsion to drift. Do not apply tack coat to wet surfaces with free standing water. The ENGINEER will allow tack coat application to damp surfaces.
3. The ENGINEER must approve of the following before application:
 - a. Quantity,
 - b. Rate of application,
 - c. Temperature, and

d. Areas to be treated.

B. Fog Seal

1. Apply the fog seal at a rate of 0.100 gal/yd² [0.455 L/m²] of diluted emulsion diluted at 5:1 water to original emulsion. Alter the application rate or dilution ratio as directed by the ENGINEER (based on weather, type of emulsion, and surface type or layer).

C. Tack Coat

1. Apply the tack coat or NT tack material as shown in Table 1 on the following page, unless otherwise required by the Contract. Alter the application rate as directed by the ENGINEER (based on weather and surface type or layer). Use the highest rate in the table for the surface type or layer (top or bottom).

Table 1		
Tack Application Rates		
Surface Type/Layer	Original Emulsion gal/yd² [L/m²]	Residual gal/yd² [L/m²]
New Asphalt (bottom)	0.060 [0.270]	0.035 [0.160]
Old Asphalt (bottom)	0.085 [0.385]	0.050 [0.225]
Milled (bottom)	0.085 [0.385]	0.050 [0.225]
New Fabric (bottom)	----	0.200 [0.905]
PFC, OGFSC (top)	0.100 [0.455]	0.060 [0.270]
UTBWC (top)	0.200 [0.905]	0.120 [0.545]
PCC (bottom)	0.075 [0.340]	0.45 .205]

2. Ensure that the tack breaks before the application of the next surfacing layer.
3. Re-apply tack at a rate that ensures proper bonding if the tack loses its adhesive properties or is damaged by traffic before being covered by the next surfacing layer, as directed by the ENGINEER, at no additional cost to the OWNER.

1.5 METHOD OF MEASUREMENT

- A. The ENGINEER will measure the volume of Emulsion for Fog Seal, Tack Coat, and NT Tack Material as delivered, before dilution.
- B. The ENGINEER will measure bituminous material by the gallon [liter] or ton [metric ton].

1.6 BASIS OF PAYMENT

- A. The OWNER will pay for each pay item at the contract unit price per the specified pay unit as follows:

Pay Item:	Pay Unit:
(A) FOG SEAL	Gallon [Liter]
(B) TACK COAT	Gallon [Liter]
(C) NT TACK MATERIAL	Gallon [Liter]

- B. The OWNER considers the cost of water for dilution to be included in the contract unit price for *Fog Seal* and *Tack Coat*.

END OF SECTION 32 12 13.13

SECTION 32 12 16.39 – PLANT MIX BITUMINOUS BASES AND SURFACES**PART 1 – MATERIALS****1.1 MATERIAL APPROVAL**

- A. ENGINEER must approve aggregate sources and blend percentages on a project basis before use.
- B. Stockpile the aggregate in accordance with Section 1.2. The ENGINEER may accept aggregates in stockpiles and plant mixed materials after blending and mixing at the plant. Obtain asphalt from an approved source in accordance with Subsection 4.1B.

1.2 STORAGE AND HANDLING OF MATERIAL**A. General**

- 1. Store and handle materials to preserve their quality and fitness for the work. Transport bulk materials in vehicles constructed to prevent loss or segregation after loading and measuring. Store materials to facilitate prompt inspection. Materials will be subject to inspection and retesting before incorporation in the work in accordance with Subsection 1.3, "Samples, Tests, and Cited Specifications."
- 2. At the CONTRACTOR'S request, the ENGINEER may allow the use of approved portions of the right- of-way for storing materials and the CONTRACTOR'S plant and equipment. As part of the request for use of the site, provide the ENGINEER with written documentation of the location of the proposed site, access and egress points, a proposed erosion control plan, a proposed traffic control plan, and any other information required by the ENGINEER relevant to use of the site for materials and equipment storage and plant set up. Provide additional storage space as necessary at no additional cost to the OWNER.
- 3. For controlled access facilities, the CONTRACTOR must obtain approval from the ENGINEER, subject to the approval of FHWA, prior to altering, severing or removing any right-of-way fences. Do not use private property for storage without prior written permission of the OWNER or lessee. If requested, provide copies of such written permission to the ENGINEER.
- 4. When allowed use of approved portions of the right-of-way for establishing asphalt or concrete plants, such plants must be established for the sole purpose of providing material for the respective project. Material production for other projects will not be allowed.
- 5. Restore storage and plant sites on the right-of-way to their original condition at no additional cost to the OWNER.

1.3 SAMPLES, TESTS, AND CITED SPECIFICATIONS

- A. The ENGINEER will inspect, test, and approve material before its incorporation in the work. Unless otherwise specified, tests will be performed using the most recent cited standard methods or specifications, AASHTO, ASTM, or other referenced authority.

For differing test procedures, the ENGINEER will use the following order of precedence:

1. AASHTO, and
 2. ASTM.
- B. For acceptance testing, samples will be taken and tested by certified technicians.
- C. The ENGINEER may inspect, test, or reject material before or during its incorporation into the work. The ENGINEER will address unacceptable material in accordance with Section 01 45 00, "Quality Control." The ENGINEER may retest material and reject material that does not meet the requirements of the contract documents, even if the material was previously tested and conditionally approved at the source of supply. The ENGINEER will provide copies of test results to the CONTRACTOR upon request.

1.4 MINERAL AGGREGATE

- A. Provide mineral aggregate composed of coarse aggregate, fine aggregate, and mineral filler in accordance with these specifications. If crushing natural gravel for mixes, the ENGINEER may require a washing operation to separate fines from the gravel. Different materials are not allowed to be blended in the same storage or feeder. Provide aggregates in accordance with Table 1 below.

Table 1 Physical Properties of Aggregates								
Test	Aggregates to be used in:							
	Superpave, Rich Intermediate Layer ⁱ			Stone Matrix Asphalt	Permeable Friction Course	Rich Bottom Layer	Open Graded Friction Surface Course	Open Graded Bituminous Base
	PG 64	PG 70	PG 76	PG76	PG76	PG64	PG76	PG64
L.A. Abrasion ^a , % wear	≤ 40	≤ 40	≤ 40	≤ 30	≤ 30	≤ 40	≤ 30	≤ 40
Micro-Deval ^a , % wear	—	—	≤2 5	≤25	≤25	—	≤ 25	—
Sand equivalent ^b	≥ 40	≥ 45	≥ 50	—	—	≥ 40	—	—
Mechani cally Fracture d Faces ^{b, c, h} , %	≥ 85/ 80	≥ 95/ 90	≥ 98/ 95	≥ 98/95	≥ 98/95	≥ 85/80	≥ 98/95	≥ 85/80
Aggregate Durability Index ^a	≥ 40	≥ 40	≥ 40	≥ 40	≥ 40	≥ 40	≥ 40	≥ 40
Insoluble Residue ^d , ^e , %	≥ 30	≥ 40	≥ 40	≥ 40	≥ 40	—	≥ 40	—
Flat and Elongated ^{b, c, f} , %	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10
Natural Sand and Gravel ^b , %	≤ 15	≤ 15	≤ 15	0	0	≤ 15	0	0
Clay Balls and Friable Particles ^g , %	≤ 1.0	≤ 1.0	≤ 1.0	0	0	≤ 1.0	0	0

Table 1 Continued Physical Properties of Aggregates								
Test	Aggregates to be used in:							
	Superpave, Rich Intermediate Layer ⁱ			Stone Matrix Asphalt	Permeable Friction Course	Rich Bottom Layer	Open Graded Friction Surface Course	Open Graded Bituminous Base
	PG 64	PG 70	PG 76	PG76	PG76	PG64	PG76	PG64
Soft Particles ^a , %	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
Sticks or Roots ^a , %	≤ 0.5	≤ 0.5	≤ 0.5	0	0	≤ 0.5	0	0
Note: For this table: PG64, PG70, and PG76 refer to the high temperature grade of the binder. Unless otherwise noted, specifications for PG binder grades higher than PG76 will use PG76 specifications. ^a Applies to each source. ^b Applies to the combined aggregate. Assume 10% natural sand in coarse RAP and 20% in fine RAP for mix design purposes. ^c Applies to the aggregate retained on the No. 4 [4.75 mm] sieve. ^d Applies to the combined coarse aggregate. ^e Applies to the coarse aggregate in the surface course. Does not apply to shoulders, driveways, and temporary detours. ^f A flat and elongated piece has a length greater than five times the thickness. ^g Applies to combined aggregate. If the maximum for the combined aggregate is not exceeded, the ENGINEER will allow 1.5% for one source. ^h In the mechanically fractured faces requirement format "xx/yy," "xx" is the minimum percentage of coarse aggregate requiring one fractured face, and "yy" is the percentage requiring two fractured faces. ⁱ Only applies to PG 76E-28.								

- B. Ensure a crusher run or similarly graded aggregate is not the only source of crushed coarse aggregate in asphalt concrete.

1.5 COARSE AGGREGATE

- A. Coarse aggregate is defined as that part of the aggregate retained on the No. 8 [2.36 mm] sieve. Provide coarse aggregate consisting of clean, tough and durable particles that are free of soft and disintegrated pieces, shale, clay, organic, or other deleterious material.
- B. Natural gravel is not allowed as a source of insoluble material unless it is crushed so that at least 75 percent of the material retained on the No. 4 (4.75 mm) sieve has at least two mechanically fractured faces.

1.6 FINE AGGREGATE

- A. Fine aggregate is defined as that part of the aggregate that passes the No. 8 (2.36 mm) sieve and consists of hard, durable natural sand grains, crushed stone, stone dust, crushed gravel, mine chat, jig sand or any combination of these. Produce crushed materials from a source that meets the requirements for coarse aggregate in Table 1.

1.7 MINERAL FILLER

- A. If required by the contract documents, provide mineral filler in accordance with AASHTO M 17.

PART 2 – ASPHALT MATERIALS**2.1 ASPHALT REQUIREMENTS**

- A. Provide asphalt cement in accordance with AASHTO M 320 and Table 2.

Table 2			
Additional Requirements to AASHTO M 320 for Asphalt Cement			
Test	PG 64-22 OK	PG 70-28 OK	PG 76-28 OK
Elastic recovery at 77°F (25°C), %	-----	≥65	≥75
Separation ^a , %	-----	≤10	≤10
Original DSR $G^*/\sin(\delta)$, kPa	≤2.50	≤2.50	≤2.50
RTFO DSR $G^*/\sin(\delta)$, kPa	≤5.50	≤5.50	≤5.50
PAV DSR change in testing temperature, °F (°C)	-----	77 [25]	77 [25]
Spot test ^b	Negative	-----	-----
Flash point, °F (°C)	≥500 [260]	≥500 [260]	≥500 [260]
Solubility in trichloroethylene, %	≥99	≥99	≥99
Note: Asphalt binder suppliers will provide handling requirements and recommended field mixing and compaction temperatures for their product to the hot-mix producer. ^a Separation test samples are prepared in accordance with ASTM D 5976 but are reported as the difference in G^* between the top and bottom samples. ^b Spot test using solvent blend of 65 percent heptane and 35 percent xylene by volume.			

- B. Provide medium-curing cutback asphalt in accordance with AASHTO M 82 for the asphalt type and grade required by the contract documents. The spot test is required

using a solvent blend of 65 percent heptane and 35 percent xylene by volume. Residue may also be obtained by evaporation.

C. Provide emulsified asphalt in accordance with AASHTO M 140 for the asphalt type and grade required by the contract documents with the following exception:

1. The minimum Saybolt Furol Viscosity for RS-2 at 122°F (50°C) is 150.
2. Residue may also be obtained by evaporation.

D. Provide cationic emulsified asphalt in accordance with AASHTO M 208 for the asphalt type and grade required by the contract documents with the following exception:

1. The minimum Saybolt Furol Viscosity for CRS-2 at 122°F (50°C) is 150.
2. Perform the demulsibility test within 30 days of shipment. If the particle charge test is inconclusive, the ENGINEER will approve material with a maximum pH of 6.7. Residue may also be obtained by evaporation.
3. Provide polymer modified cationic emulsified asphalt in accordance with Table 3 for the asphalt type and grade required by the contract documents.

Table 3 Requirements for Polymer Modified Cationic Emulsified Asphalt			
Test	Rapid-Setting	Rapid-Setting	Slow-Setting
	PMCRS-1s	PMCRS-2s ^a	PMCSS-1h
Viscosity, Saybolt Furol, 122°F [50°C], s	25 – 125	125 – 400	—
Storage stability test 24 hr, %	≤1	—	≤1
Settlement test ^b , 5 day, %	—	≤5%	—
Particle charge test	—	positive	positive
Sieve test, %	≤0.05	≤0.10	≤0.10
Demulsibility, %	≥60	≥60	—
Distillation ^e			
Oil distillate, by volume of emulsion, %	≤2	≤2	≤0.5
Residue, %	≥63	≥65	≥62
Tests on residue from distillation test ^{c,d, e}			
Penetration, 77°F, [25°C], 100 g, 5 s	90 – 150	100 – 200	40 – 90
Ductility, 77°F, [25°C], 5cm/min, cm	—	—	≥70
Ductility, 40°F, [4°C], 5 cm/min, cm	—	≥30	—
Softening point, ring, and ball, °F[°C]	—	≥112 [44]	≥135 [57]
Elastic recovery, 50°F [10°C], %	≥60	≥58	—

Table 3, Continued Requirements for Polymer Modified Cationic Emulsified Asphalt			
Test	Rapid-Setting	Rapid-Setting	Slow-Setting
	PMCRS-1s	PMCRS-2s ^a	PMCSS-1h
Tensile stress at 800% elongation, 40°F [4°C], 50 cm/min, kPa	—	≥196	—
Solubility in trichloroethylene ^f , %	≥97.5	—	≥97
Ash content, %	—	≤1.0	—
^a Provide a Type B certification for each polymer modified asphalt lot. Type B defined as manufacturer prepared certification showing the limits of test values as determined by manufacturer's laboratory, a qualified commercial laboratory, or another approved laboratory. ^b After the test cylinder stands undisturbed for 5 days, ensure that there is no milky colored substance and there is a homogenous brown color throughout the cylinder. ^c Modify the distillation procedure as follows: Maintain a temperature from 345°F [174°C] to 355°F [180°C] on the lower thermometer for the last 20 min of the test. Maintain a test duration from 50 min to 70 min from the first application of heat. ^d Ensure the distillation residue of the modified emulsion contains at least 3 percent polymer solids by asphalt mass as determined by an analytical method approved by the ENGINEER. ^e Residue may also be obtained by evaporation. ^f An organic solvent may be used.			

Table 4 Requirements for NT Tack Material			
Test	Emulsion		
	CBC-1H	NTSS-1HM	NTQS-1HH
Saybolt Furol Viscosity, SFS @ 77°F [25°C]	10 – 100	15 – 100	15 – 100
Storage stability test, 24 hours, %	≤ 1	≤ 1	≤ 1
Particle Charge	Positive	–	–
Sieve test, %	≤ 0.1	≤ 0.3	≤ 0.3
Tests on residue from distillation ^a			
Residue, %	≥ 50	≥ 50	≥ 50
Penetration, 77°F [25°C], 100 g, 5 s	40 - 90	≤ 20	≤ 15
Softening point, ring, and ball, °F [°C]	–	≥ 149 [65]	≥ 149 [65]
Flash point, °F [°C]	–	–	–
Original DSR $G^*/\sin(\delta)$ @ 180°F [82°C], kPa	–	≥ 1.00	≥ 1.00
Solubility in trichloroethylene, %	≥ 97.5	≥ 97.5	≥ 97.5
^a Modify the distillation procedure as follows: Maintain a temperature from 345°F [174°C] to 355°F [180°C] on the lower thermometer for the last 20 minutes of the test. Residue may also be obtained by evaporation.			

Table 5 Requirements for 1 NT Tack Material	
Test	Asphalt Cement
	NTHAP
Rotational viscosity ^a @ 300°F [149°C], PaAs	≤ 3
Penetration, 77°F [25°C], 100 g, 5 s	≤ 25
Softening point, ring, and ball, °F [°C]	≥ 158 [70]
Flash point, °F [°C]	≥ 500 [260]
Original DSR $G^*/\sin(\delta)$ @ 180°F [82°C], kPa	≥ 1.00
Solubility in trichloroethylene, %	–
^a Limit may be waived if no application problems are present in the field and material can be pumped.	

E. Handling

1. Handle, load, haul, and transfer bituminous materials in accordance with the following:
 - a. Each transport shall be equipped with a sampling device with a gate valve or petcock located in the discharge line in such a way as to allow a sample to be drawn during the unloading of transport. The device shall be maintained in an operating condition at all times.
 - b. Each hauler shall maintain a "log" or record with each transport showing the type, grade, source, destination and date of the last previous delivery made using the hauling tank as identified therein.
 - c. Each transport to be equipped with an observation hatch so located as to be suitable for inspection and direct measurement of the depth of the material at the lowest point in the tank. (An approximate six inch diameter opening with cover located at the top and near the discharge end of the transport is considered suitable.)
 - d. Before loading, the producer's representative shall inspect the transport to assure that it is empty and check the hauler's "log" to assure that no contamination will result from the previous load.
 - e. When bituminous materials are received for storage at the mixing plant or project site, separate tanks shall be provided for each type and grade material. Storage tanks shall be cleaned before being used for a different material except that cleaning is not required when the material to be stored is compatible with the material last contained in the tank and the tank has been completely emptied.
2. The ENGINEER will reject further shipments if materials fail to produce the results required by the contract documents. The ENGINEER will not accept further work until satisfied that the material has been corrected so that it produces the results required by the contract documents.

F. Application Temperature

1. Heat asphalt materials in accordance with Table 6 below unless otherwise required by the contract documents.

Table 6 Temperature Ranges for Use of Asphalt Materials			
Type or Grade	Mixture, °F [°C]	For Mixing, °F [°C]	For Spraying, °F [°C]
NTHAP	—	350 – 400 [177 -204]	350 – 400 [177 -204]
All PGs	≤350 [177]	275 – 350 [135 – 177]	285 – 350 [141 – 177]
MC-30	—	50 – 120 [10 – 49]	50 – 120 [10 – 49]
MC-70	—	80 – 150 [27 – 66]	80 – 150 [27 – 66]
MC-250	≤200 [93]	100 – 200 [38 – 93]	100 – 200 [38 – 93]
MC-800	≤210 [99]	160 – 210 [71 – 99]	185 – 260 [85 – 127]
MC-3000	≤250 [121]	200 – 250 [93 – 121]	225 – 275 [107 – 135]
All emulsions	—	70 – 185 [21 – 85]	70 – 185 [21 – 85]

PART 3 – COMPOSITION OF MIXTURES

3.1 ASPHALT MIX DESIGN AND INITIAL JOB MIX FORMULA

- A. Prepare superpave mix designs in general accordance with AASHTO R 35 except where modified by these specifications. Prepare PFC mix designs in general accordance with AASHTO PP 77 except where modified by these specifications. Prepare SMA mix designs in general accordance with AASHTO R 46 except where modified by these specifications. The mix design and initial job-mix formula (JMF) are the responsibility of the CONTRACTOR. Submit the mix design and initial JMF to the ENGINEER for review.
- B. The ENGINEER will determine if the mix design meets the design criteria. Provide one mix design for each asphalt concrete mixture required by the contract documents.
- C. Ensure that the initial JMF is in accordance with Tables 8, 10, and 11, or Tables 9, 10, and 11 for the type of mix required by the contract documents. Prepare a trial mixture in accordance with Section 32 12 16.13 Plant Mix Asphalt Paving, Subsection 1.4C. Propose changes to the JMF if the trial, prepared at the initial JMF proportions, fails to meet the requirements of Tables 8, 12, 13, and 14, or Tables 9, 12, 13, and 14. If the changes do not produce a mix design in accordance with these tables, the ENGINEER will require a new mix design. If the changes do produce a mix design in accordance with these tables, the ENGINEER will approve the changes for adjustment of the JMF.
- D. Ensure the JMF establishes a percentage of aggregate passing each required sieve, a percentage of asphalt contained in the mixture, and a mixture temperature at the point of discharge from the plant.
- E. The JMF with the allowable tolerances shown in Table 15, establish the specification limits for each mixture. These limits may be outside the range in Table 8 or Table 9 except for the following conditions:

1. The absolute maximum sieve size,
2. PFC and Open Graded Friction Surface Course, where the JMF with allowable tolerances must be within the broad range in accordance with Table 9.
3. When no tolerances are shown in Table 15, the broad ranges given in Table 9 are the specification limits.

3.2 PLANT PRODUCED MIXTURES

- A. Provide a uniform, plant produced mixture of the combined aggregate and asphalt in accordance with Tables 8, 12, and 13, or Tables 9, 12, and 13 within the specification limits established by the JMF with allowable tolerances.
- B. After the plant is in operation, propose any necessary adjustments to the JMF in accordance with Table 8 or Table 9. If test results indicate the adjustments are in accordance with Tables 12 and 13, adjust the JMF accordingly.
- C. Provide a new mix design to the ENGINEER if the source of materials changes before the use of the new materials. If unsatisfactory results or other conditions make it necessary, the ENGINEER will require a new mix design.
- D. The ENGINEER defines the asphalt JMF as the target value. Attempt to incorporate that asphalt amount regardless of the allowable tolerances.

3.3 RECLAIMED ASPHALT PAVEMENT

- A. Superpave mixtures containing reclaimed asphalt pavement (RAP) will be accepted in accordance with Table 7 if the mixture is not used in the surface layer and meets the contract document requirements for the type or grade.

Table 7	
Reclaimed Asphalt Pavements	
Superpave with Binder Type	Maximum RAP, %
PG 58-28	25
PG 64-22 OK	25
PG 70-28 OK	15
PG 76-28 OK	15
PG 76E-28	0

- B. Regardless of the layer or binder type, the ENGINEER will accept superpave mixtures with no more than 25 percent RAP for shoulders, driveways, and layers serving as a bond breaker under PCC pavements if the mixture meets the contract document requirements for the type or grade. Superpave mixtures containing up to 35 percent RAP will be accepted in temporary detours if the mixture meets the contract document requirements for the type or grade, and if the mixture can be produced meeting air quality standards set forth by the Oklahoma Department of Environmental Quality. Temporary is defined as any material that will not become part of any permanent pavement. Temporary material must be removed before the end of the project.

- C. Process RAP by fractionating it into at least two stockpiles: a coarse stockpile and a fine stockpile. Crush, screen, or size the coarse stockpile so that 100 percent passes through a 1.5 in (37.5 mm) sieve. Crush, screen, or size the fine stockpile so that 100 percent passes through a $\frac{3}{8}$ in (16.5 mm), $\frac{1}{2}$ in (12.5 mm), or $\frac{3}{8}$ in (9.5 mm) sieve. If RAP comes from an unknown source and documentation is unavailable, the ENGINEER will consider the insoluble residue content to be zero. The ENGINEER will reduce the amount of natural sand and gravel allowed in the combined aggregate by the amount of natural sand and gravel contained in the RAP. Do not use RAP in Stone Matrix Asphalt (SMA), Permeable Friction Course (PFC), Rich Bottom Layer (RBL), Open-Graded Friction Surface Course (OGFSC), or Open-Graded Bituminous Base (OGBB) mixes.

Table 8					
Mixtures for Superpave					
Sieve Size ^a	Percent Passing per Superpave Mixture Type				
	S2	S3	S4	S5 / RIL	S6
1½ in [37.5 mm]	100	—	—	—	—
1 in [25.0 mm]	90 – 100	100	—	—	—
¾ in [19.0 mm]	≤ 90	90 – 100	100	—	—
½ in [12.5 mm]	—	≤ 90	90 – 100	100	—
⅜ in [9.5 mm]	—	—	≤ 90	90 – 100	100
No. 4 [4.75 mm]	≥ 40	—	—	≤ 90	80 – 100
No. 8 [2.36 mm]	29 – 45	31 – 49	34 – 58	37 – 67	54 – 90
No. 16 [1.18 mm]	—	—	—	—	—
No. 30 [0.600 mm]	—	—	—	—	—
No. 50 [0.300 mm]	—	—	—	—	—
No. 100 [0.150 mm]	—	—	—	—	—
No. 200 [0.075 mm]	1.0 – 7.0 ^b	2.0 – 8.0 ^b	2.0 – 10.0 ^b	2.0 – 10.0 ^b	5.0 – 15.0
Other Mixture Requirements					
NMS ^c	1 in [25 mm]	$\frac{3}{4}$ in [19 mm]	$\frac{1}{2}$ in [12.5 mm]	$\frac{3}{8}$ in [9.5 mm]	No. 4 [4.75 mm]
Asphalt Cement ^d , % of mix mass	≥ 3.9	≥ 4.3	≥ 4.8	≥ 5.3 / ≥ 5.5	≥ 5.8
Performance grade asphalt cement	e	e	e	e	e
^a Table 8 reflects the sieve size boundaries for design and JMF purposes. After the design is established, the JMF will designate combined aggregate sieve requirements with tolerances in Table 14.					

^b Ensure the ratio of the percent passing the No. 200 (75 µm) sieve to the percent effective asphalt cement is from 0.6 to 1.6.
^c Nominal Maximum Size (NMS) is defined as one size larger than the first sieve to retain more than 10 percent.
^d The ENGINEER may adjust the lower limit if the effective specific gravity of the combined aggregates is greater than 2.65. The ENGINEER may allow adjustments if a theoretical lab molded specimen at the JMF asphalt content meets the VMA requirement at 4% air voids.
^e The CONTRACTOR may substitute a higher grade of asphalt than that shown on the Plans at no additional cost to the OWNER.

Table 9 Asphalt Mixture, Non-Superpave					
Sieve Size ^a	Percent Passing per Asphalt Concrete Mixture Type				
	SMA	PFC ^b	RBL	OGFSC ^{b, c}	OGBB
1 ½ in [37.5 mm]	—	—	—	—	100
1 in [25.0 mm]	—	—	—	—	95 – 100
¾ in [19.0 mm]	100	100	100	—	—
½ in [12.5 mm]	90 – 100	80 – 100	90 – 100	100	25 – 60
⅜ in [9.5 mm]	65 – 80	35 – 60	72 – 90	90 – 100	—
No. 4 [4.75 mm]	22 – 30	1 – 20	53 – 70	25 – 45	≤10
No. 8 [2.36 mm]	16 – 24	1 – 10	34 – 58	≤10	≤5
No. 16 [1.18 mm]	—	—	—	—	—
No. 30 [0.600 mm]	—	—	—	—	—
No. 50 [0.300 mm]	—	—	—	—	—
No. 100 [0.150 mm]	—	—	—	—	—
No. 200 [0.075 mm]	9.0 – 12.0	1.0 – 4.0	2.0 – 10.0	≤5.0	≤3.0
Other Mixture Requirements					
NMS ^d	½ in [12.5 mm]	½ in [12.5 mm]	½ in [12.5 mm]	¾ in [9.5 mm]	1 in [25 mm]
Cellulose Fiber, % of mix mass	0.3 – 0.4	0.2 – 0.5	—	—	—
Asphalt Cement ^e , % of mix mass	≥6.0	6.0 – 7.0	≥5.2	≥5.1 ^f	2.5 ^g

Table 9, Continued Asphalt Mixture, Non-Superpave					
Performance grade asphalt cement	PG 76-28 OK	PG 76-28 OK	h	h	h
^a Table 9 reflects the sieve size boundaries for design and JMF purposes. After the design is established, the JMF will designate the combined aggregate sieve requirements with tolerances set in Table 15. ^b Use an approved anti-stripping agent at the rate of 5 gal/1,000 gal [5 L/1,000L] of asphalt cement. ^c Retain at least 55 percent of the aggregate between the $\frac{3}{8}$ in [9.5 mm] and the No. 4 [4.75 mm]. ^d Nominal Maximum Size (NMS) is defined as one size larger than the first sieve to retain more than 10 percent. ^e The ENGINEER may allow the lower limit to be adjusted if the effective specific gravity of the combined aggregates is greater than 2.65. The ENGINEER may allow adjustments if a theoretical lab molded specimen at the JMF asphalt content meets the VMA requirement at 4 percent air voids. ^f Calculate the JMF for percent AC in the open graded friction course with the following equation: $\% \text{ AC} = (16.5) / (\text{Effective Specific Gravity (Gse)} + 0.165).$ ^g The ENGINEER may allow the amount of asphalt binder to be adjusted if the effective specific gravity of the combined aggregate is greater than 2.833 or less than 2.495. ^h The CONTRACTOR may substitute a higher grade of asphalt than that shown on the Plans, at no additional cost to the OWNER.					

Table 10 Mix Design Properties of Laboratory Molded Specimens							
Property	Superpave			RIL	SMA	PFC	RBL
	PG64	PG70	PG76	PG76E-28	PG76	PG76	PG64
	Number of SGC Gyration						
Nini	6	7	8	—	—	—	—
Ndes	50	65	80	50	50	50	50
	Required Density, % of Gmm						
Nini	85.5 – 91.5	85.5 – 90.5	85.5 – 89.0	—	—	—	—

Table 10, Continued Mix Design Properties of Laboratory Molded Specimens							
Ndes	96	96	96	97	96	≤ 82.0	98
VMA, %	See Table 3.3:5						
VFA, %	See Table 3.3:5						
Lab Permeability, $\text{cm/s} \times 10^{-5}$	≤ 12.5	≤ 12.5	≤ 12.5	≤ 12.5	≤ 12.5	—	≤ 12.5
TSR, Min.	0.8	0.8	0.8	0.8	0.8	—	0.8
ITS ^a , psi	—	—	≥ 75	—	—	—	—
Draindown, %	—	—	—	—	≤ 0.20	≤ 0.20	—
Hamburg Rut Test, Min. No. of Cycles to 12.50 mm, 122 °F	10,000	15,000	20,000	20,000	20,000	—	5,000
Note: For this table: PG64, PG70, and PG76 refer to the high temperature grade of the binder. Unless otherwise noted, specifications for PG binder grades higher than PG76 will use PG76 specifications. ^a Indirect Tensile Strength from AASHTO T 283, preconditioned specimen average, in psi.							

Table 11 Mix Design Properties of laboratory Molded Specimens									
Property	Superpave					RIL	SMA	PFC	RBL
	S2	S3	S4	S5	S6				
VMA ^a , %	≥ 12.5	≥ 13.5	≥ 14.5	≥ 15.5	≥ 16.5	≥ 15.5	≥ 17.0	—	≥ 14.0
VFA ^b , %	67 - 73	70 - 75	72 - 77	73 - 78	75 - 79	73 - 79	—	—	—
	^a VMA is based on the bulk specific gravity of the aggregates. ^b VFA is defined as the percentage of VMA containing asphalt binder.								

Table 12 Field Properties of Laboratory Molded Specimens							
Property	Superpave			RIL	SMA	PFC	RBL
	PG64	PG70	PG76	PG76E-28	PG76	PG76	PG64
	Number of SGC Gyration						
Nini	6	7	8	—	—	—	—
Ndes	50	65	80	50	50	50	50
	Required Density, % of Gmm						
Nini	85.5 – 91.5	85.5 – 90.5	85.5 – 89.0	—	—	—	—

Table 12, Continued Field Properties of Laboratory Molded Specimens							
Ndes	94.5 - 97.4	94.5 - 97.4	94.5 - 97.4	95.5 - 98.4	94.5 - 97.4	≤ 82.0	96.5 - 99.4
VMA, %	See Table 13						
VFA, %	See Table 13						
Lab Permeability, cm/s × 10 ⁻⁵	—	—	—	—	—	—	—
TSR, Min.	0.75	0.75	0.75	0.75	0.75	—	0.75
ITS ^a , psi	—	—	—	—	—	—	—
Draindown, %	—	—	—	—	—	—	—
Hamburg Rut Test, Min. No. of Cycles to 12.50 mm, 122 °F	—	—	—	—	—	—	—
Note: For this table: PG64, PG70, and PG76 refer to the high temperature grade of the binder. Unless otherwise noted, specifications for PG binder grades higher than PG76 will use PG76 specifications.							
^a Indirect Tensile Strength from AASHTO T 283, preconditioned specimen average, in psi.							

Table 13 Field Properties of Laboratory Molded Specimens									
Property	Superpave					RIL	SMA	PFC	RBL
	S2	S3	S4	S5	S6				
VMA ^a , %	≥ 12.0	≥ 13.0	≥ 14.0	≥ 15.0	≥ 16.0	≥ 15.0	≥ 16.5	—	≥ 13.5
VFA ^b , %	—	—	—	—	—	—	—	—	—
^a VMA is based on the bulk specific gravity of the aggregates. Compute a new bulk specific gravity from each AASHTO T 209 test. Calculate the value by multiplying the aggregate Effective Specific Gravity (Gse) calculated from the latest AASHTO T 209 test by the aggregate Bulk Specific Gravity (Gsb) from the design. Afterwards, divide the product by the aggregate Gse from the design.									
^b VFA is defined as the percentage of VMA containing asphalt binder.									

Table 14 Hamburg Test Requirements^a	
Binder Grade	Minimum Number of Passes to 12.50 mm Rut Depth, Tested at 122°F
PG 58	10,000
PG 64	10,000
PG 70	15,000
PG 76	20,000

**Table 14, Continued
Hamburg Test Requirements**

Note: For the purposes of this table PG64, PG70, and PG76 refer to the high temperature grade of the binder.

^a Rut test requirements apply to Superpave, SMA, and RIL mixes only.

3.4 ACCEPTANCE OF COMBINED COLD FEED AGGREGATE GRADATION

- A. The ENGINEER may use combined aggregate samples taken before asphalt coating for mixture gradation acceptance. Obtain the sample by an approved sampling device and perform a sieve analysis in accordance with Subsection 32 12 16.39 Part 4, AASHTO T 27, and AASHTO T 11. This method may be allowed if the asphalt mixture does not contain reclaimed bituminous materials and the aggregate does not appreciably degrade during the drying and mixing process.
- B. The ENGINEER may accept bituminous plant mix gradation results based on specified cold feed combined aggregate samples under the following condition:
 - 1. If the aggregate gradation test on extracted aggregates in accordance with AASHTO T 30 compares favorably with the results of cold feed aggregate gradation results.
- C. If test results do not compare favorably, the ENGINEER will base acceptance gradation tests performed in accordance with AASHTO T 30, on aggregate from extraction or ignition oven testing.

3.5 ACCEPTANCE OF BITUMEN CONTENT

- A. Determine the bitumen content of plant produced mixtures in accordance with OHD L-26 method of test. Determine the bitumen content of open-graded plant produced mixtures (PFC, OGFSC, OGGB) using the tank strap method or a digital printout from the asphalt plant of the quantity used.

3.6 WARM MIX ASPHALT

- A. Unless otherwise shown on the plans, mixtures produced as Warm Mix Asphalt (WMA) will be accepted at the CONTRACTOR'S option. For WMA, mixing temperatures may be reduced. Unless otherwise directed, use only WMA additives or processes preapproved by the ENGINEER. The ENGINEER may accept new additives or processes with sufficient evidence of performance.
- B. Prepare WMA mix designs in general accordance with AASHTO R 35 except where modified by these specifications. Additive manufacturer recommendations will be evaluated and considered for approval by the ENGINEER. WMA requirements are the same as for HMA except where noted. When using the technology during a mix design, increase the oven aging period to four hours before preparing samples for moisture susceptibility and rut testing. Report R 35's, the Materials Division recommended temperatures, or the supplier's recommended temperatures for plant mixing and roadway compaction on the mix design. Report R 35's, the Materials Division

recommended temperatures, or the supplier's recommended temperatures, for laboratory mixing and compaction on the mix design.

- C. For WMA using an additive technology, perform the mix design using the additive. For WMA designs that use a plant process, perform the mix design as an HMA mix design. If the laboratory has a foamer, the design may be performed using that process.
- D. Alternatively, use an existing approved HMA mix design when converting to a WMA, except when the percent binder absorbed exceeds 1.00 percent. The percent binder absorbed formula is shown at the end of this paragraph. When the percent binder absorbed exceeds 1.00 percent, use the plant-produced WMA material for moisture susceptibility and rut testing. Report the additive or process used by name, supplier source, and application rate (if applicable) on the mix design.

$$P_{ba} = \frac{100 G_b (G_{se} - G_{sb})}{G_{se} G_{sb}}$$

Where:

Pba = Percent binder absorbed by total mass of aggregate

Gb = Specific gravity of the binder

Gse = Effective specific gravity of the combined aggregates

Gsb = Bulk specific gravity of the combined aggregates

3.7 TOLERANCES

- A. Apply the tolerances shown in Table 15 to the JMF in accordance with Subsection 3.6.

Table 15 JMF Tolerances Per Mixture						
Sieve Size	Superpave	Stone Matrix Asphalt	Permeable Friction Course	Rich Bottom Layer	Open Graded Friction Course	Open Graded Bitum. Base
	Percent Passing					
≥No. 4 [4.75 mm]	±7	±7	±7	±7	±7	—
No. 8 [2.36 mm]	±5	±5	±5	±5	±5	—
No. 16 [1.18 mm]	±4	±4	—	±4	—	—
No. 30 [0.600 mm]	±4	±4	—	±4	—	—
No. 50 [0.300 mm]	±4	±4	—	±4	—	—
No. 100 [0.150 mm]	±3	±3	—	±3	—	—
No. 200 [0.075 mm]	±2	±2	±2	±2	±2	—

Table 15, Continued						
JMF Tolerances Per Mixture						
Sieve Size	Superpave	Stone Matrix Asphalt	Permeable Friction Course	Rich Bottom Layer	Open Graded Friction Course	Open Graded Bitum. Base
	Percent Passing					
Other Mixture Tolerances:						
Asphalt cement, % of mix mass	±0.4	±0.4	±0.3	±0.4	±0.3	±0.3
Mix temperature as discharged from mixer, °F [°C]	±20 [±10]	±20 [±10]	±20 [±10]	±20 [±10]	±20 [±10]	±20 [±10]

PART 4 – SAMPLING AND TESTING

4.1 TESTING METHODS

- A. Sample and test in accordance with Table 16 on following page.
- B. Method and Procedure for Sampling Asphalt Materials
 1. Sample asphalt materials in accordance with AASHTO R 66. Sample asphalt materials at the project site or mixing plant in accordance with the following:
 - a. Truck Transports: Sample to be taken by means of a sampling valve (3/8 inch = to ½ inch) located in the discharge or unloading line during the unloading of the approximate middle one-third of the load. The first flow through the sampling valve of one or two gallons shall be wasted after which the sample shall be drawn directly into the sample containers.
 - b. Mixing Plant: Sample to be taken from a sampling tap, complying with the requirements of ASTM D 140, located in the bituminous feed lines connecting the storage tanks to be bituminous control unit. The first flow from the sampling valve of one or two gallons shall be wasted after which the sample shall be drawn directly into the sample containers.
 - c. Storage Tank: Sample taken during the circulation of tank contents. Sampling procedure is the same as section 4.1B.1.b.
 - d. Storage Tank: If circulation is not in operation at the time of sampling, obtain sample by means of weighted bottle or other suitable sample thief. Quickly lower sample thief to near bottom of tank and withdraw at a rate of speed so that the sample thief is not completely filled when removed. Sample thief should be cleaned each time it is used and dipped two or three times in the

material being sampled before taking the sample. Immediately after taking pour sample from sample thief directly into sampling containers.

2. The ENGINEER may modify the sampling methods, testing, and acceptance for the asphalt materials. Obtain copies of the procedure from the ENGINEER.
3. Sample at the point of manufacture if the quantity shipped warrants testing. Alternatively, take samples at the point of destination. Use asphalt materials only after the ENGINEER approves them at the source.

Table 16	
Sampling and Testing of Aggregates, Bituminous Mixtures, and Asphalt Materials	
Materials	Testing Method
Aggregates	
Sampling	AASHTO T 2
Sieve analysis	AASHTO T 27
Material passing No. 200 [75 µm] sieve	AASHTO T 11
Specific gravity and absorption of fine aggregate	AASHTO T 84
Specific gravity and absorption of coarse aggregate	AASHTO T 85
Los Angeles abrasion	AASHTO T 96
Sand equivalent	AASHTO T 176
Aggregate durability index	AASHTO T 210
Total evaporable moisture content	AASHTO T 255
Aggregate degradation by Micro-Deval apparatus	AASHTO T 327
Lime for asphalt mixtures	AASHTO M 303
Flat and elongated particles in coarse aggregate	ASTM D4791
Mud, clay balls, sand clusters, sticks and roots retained on No. 4 [4.75 mm] sieve	OHD L-9
Fractured faces	OHD L-18
Insoluble residue	OHD L-25
Soft particles	OHD L-38
Asphalt Mixtures	
Mechanical analysis of extracted aggregate	AASHTO T 30
Sampling asphalt mixtures	AASHTO T 168
Bulk specific gravity (Gmb) of compacted asphalt mixtures using saturated surface-dry specimens	OHD L-14
Maximum specific gravity of asphalt mixtures	AASHTO T 209
Resistance to moisture damage ^{a, g}	AASHTO T 283
Draindown characteristics of uncompacted asphalt samples	AASHTO T 305
Preparing specimens by superpave gyratory compactor ^b	AASHTO T 312
Bulk specific gravity (Gmb) and density of compacted asphalt mixtures using automatic vacuum sealing method CoreLok™	OHD L-45

Table 16, Continued	
Sampling and Testing of Aggregates, Bituminous Mixtures, and Asphalt Materials	
Materials	Testing Method
Hamburg wheel-track testing of compacted hot mix asphalt (HMA)	AASHTO T 324
Superpave volumetric mix design	AASHTO M 323
Reclaimed asphalt shingles for use in asphalt mixtures	AASHTO MP 23
Design considerations when using reclaimed asphalt shingles (RAS) in asphalt mixtures	AASHTO PP78
Mixture conditioning of hot-mix asphalt	AASHTO R 30
Superpave volumetric design for HMA ^C	AASHTO R 35
Sampling Asphalt Mixtures after compaction (obtaining cores)	AASHTO R 67
Bulk impregnated specific gravity of aggregates ^d	OHD L-7
Specific gravity, unit weight, and percent density of compacted asphalt mixtures	OHD L-14
Bitumen content	OHD L-26
Rutting susceptibility using the hamburg rut tester	OHD L-55
Water permeability of compacted paving mixtures	OHD L-44
Asphalt Materials	
Sampling asphalt materials	AASHTO R 66
Solubility of bituminous materials	AASHTO T 44
Flash and fire points by Cleveland Open Cup	AASHTO T 48
Penetration of bituminous materials	AASHTO T 49
Ductility of bituminous materials	AASHTO T 51
Softening point of bitumen (ring-and-ball apparatus)	AASHTO T 53
Water in bituminous materials by distillation	AASHTO T 55
Standard test methods for emulsified asphalts	AASHTO T 59
Saybolt viscosity	AASHTO T 72
Distillation of cutback asphaltic (bituminous) products	AASHTO T 78
Flash points with tag open-cup apparatus	AASHTO T 79
Inorganic matter or ash in bituminous material	AASHTO T 111
pH of aqueous solutions with the glass electrode	AASHTO T 200
Kinematic viscosity of asphalts (bitumens)	AASHTO T 201
Viscosity of asphalts by vacuum capillary viscometer	AASHTO T 202
Specific gravity of semi-solid bituminous materials	AASHTO T 228

Table 16, Continued	
Sampling and Testing of Aggregates, Bituminous Mixtures, and Asphalt Materials	
Materials	Testing Method
Rolling thin film oven test	AASHTO T 240
Polymer content of polymer-modified emulsified asphalt residue and asphalt binders	AASHTO T 302
Flexural creep stiffness using the bending beam rheometer	AASHTO T 313
Rheological properties using a dynamic shear rheometer	AASHTO T 315
Viscosity determination using rotational viscometer	AASHTO T 316
Multiple stress creep recovery (MSCR) test of asphalt binder using a dynamic shear rheometer (DSR)	AASHTO T 350
Emulsified asphalt	AASHTO M 140
Cationic emulsified asphalt	AASHTO M 208
Polymer-modified cationic emulsified asphalt	AASHTO M 316
Performance-graded asphalt binder	AASHTO M 320
Performance-graded asphalt binder using multiple stress creep recovery (MSCR) test	AASHTO M 332
Recovering residue from emulsified asphalt using low-temperature evaporative techniques	AASHTO R 78
Classifying hot mix recycling agents	AASHTO R 14
Accelerated aging using a pressurized aging vessel	AASHTO R 28
Grading or verifying the performance guide	AASHTO R 29
Recovery of asphalt binder from solution by abson method	AASHTO R 59
Estimating application rate and residual application rate of bituminous distributors	ASTM D 2995
Specific gravity by hydrometer	ASTM D 3142
Elastic recovery test by means of ductilometer ^e	ASTM D 6084
Elastic recovery test by means of ductilometer ^f	OHD L-42
Compatibility of an asphalt emulsion and a job aggregate	OHD L-59
Emulsified asphalt residue by evaporation (pan)	OHD L-61
^a Run AASHTO T 283 on 6 in [150 mm] diameter specimens compacted by the Superpave Gyratory Compactor to an approximate height of 3.75 in [95 mm].	
^b Mix design mixtures at 325°F [163°C] and age at 300°F [149°C] from 2 hr to 4 hr. Compact design mixtures at 300°F [149°C]. No minimum aging period is required for field samples. Heat field samples uniformly to 300°F [149°C] for no greater than 4 hr.	

Table 16, Continued	
Sampling and Testing of Aggregates, Bituminous Mixtures, and Asphalt Materials	
Materials	Testing Method
^c Compact lab-molded specimens to N _{des} gyrations to determine the density at N _{des} , percent of G _{mm} . Back-calculate the density at N _{ini} , percent of G _{mm} , from these specimens. Compact lab-molded specimens to N _{max} gyrations to determine the density at N _{max} , percent of G _{mm} for mix designs and JMF changes only. Ensure reported values are the average of two specimens.	
^d Use OHD L-7 for OGFSC only.	
^e Use ASTM D 6084 for PG binders only.	
^f Use OHD L-42 for polymer modified emulsions only.	
^g Use AASHTO R 30 for aging instead of the procedure outlined in AASHTO T 283.	

END OF SECTION 32 12 16.39

SECTION 32 16 13 - CONCRETE CURBS AND GUTTERS**PART 1 – GENERAL****1.1 SCOPE**

- A. This work shall consist of the construction of integral curb, combined curb and gutter, header curbing, in accordance with these specifications and in reasonably close conformity with the lines, grades and dimensions shown on the plans or established by the ENGINEER.

PART 2 – PRODUCTS**2.1 MATERIALS**

- A. Concrete for integral curb, combined curb and gutter or header curbing shall be Class A concrete meeting the requirement of Section 03 30 00 Cast-In Place Concrete.
- B. Sealing materials for concrete curbs shall conform to Section 03 31 00 Construction Joint Sealing.

2.2 EQUIPMENT

- A. A self-propelled or towed curb machine may be used when approved by the ENGINEER. The curb machine shall be capable of extruding a uniformly textured material to the shape and density specified and placing it in reasonably close conformity to the established line and grade.

PART 3 – EXECUTION**3.1 EXCAVATION**

- A. Excavation shall be made to the required depth, and the base upon which the curb is to be set shall be compacted to a firm, even surface. All soft and unsuitable material shall be removed and replaced with suitable material which shall be thoroughly compacted.

3.2 FORMS

- A. Forms shall be of wood, metal or other suitable material, straight, free from warp and of such construction that there will be no interference to the inspection of grade or alignment. All forms shall extend for the entire depth of the curb or curb and gutter and shall be braced and secured sufficiently so that no deflection from alignment or grade will occur during the placing of the concrete or asphalt.
- B. Fastening hardwood strips to the bottom of the forms not to exceed 2 inches in built-up thickness for special curb sections to provide the specified thickness may be permitted. The material and method of fastening the built-up section to the form shall be approved by the ENGINEER prior to use.
- C. Forms shall be sufficiently tight as to prevent leakage. Forms shall be clean and oiled or wetted before placing concrete.
- D. Placing Concrete. Checking forms and placing and vibrating concrete shall be in accordance with Section 03 10 00 - Form Work.

3.3 SURFACE FINISH

- A. As soon as the curb concrete has set sufficiently to retain its shape without support, the final surface finish shall be obtained by uniformly brushing the surface in a manner approved by the ENGINEER.
- B. The edges of all formed concrete joints, including edges at expansion and contraction joints or planes of weakness joints, shall be neatly edged to the required radius.

3.4 JOINTS

- A. All joints in curbs shall be perpendicular to the sub-grade at right angles to the longitudinal axis of the curb. Expansion and contraction joints shall be constructed at the same location as similar joints in the paving slab.
- B. Expansion joints shall be pre-molded expansion joint filler and shall be of the thickness and placed at the locations shown on the Plans or as approved by the ENGINEER. Joints shall be placed in the curb, gutter, or combined curb and gutter opposite the joints in the pavement.
- C. Contraction joints in curb and gutter, when used in conjunction with asphalt surfacing, shall be sawed as specified in Section 03 30 53 Miscellaneous Cast-In Place Concrete and sealed with the same material specified for sealing expansion joints.

3.5 CURB OPENINGS

- A. Where curb is to be omitted for driveways, or other cause, either all or only the top portion of the separate curb may be omitted as shown on the plans or approved by the ENGINEER. In general, only the curb will be left off combined curb and gutter. Where the bottom portion of separate curb or the gutter of combined curb and gutter is left in place, the concrete shall be constructed slightly higher at the back of the curb line than at the front as shown on the plans or as approved by the ENGINEER. Such curb shall be considered as regular curb.
- B. Curing: Concrete curbs or combined curb and gutter shall be cured in accordance with Section 32 13 13 Portland Cement Concrete Pavement, Subsection 3.10 Curing.
- C. Extruded Method
 - 1. When the extruded method is used to construct combined curb and gutter, the extrusion machine shall be operated on a string or wire line, rails or forms set at uniform depth below the predetermined finished top of curb grade.
 - 2. Concrete shall be uniformly fed to the machine and shall be of such consistency that after extrusion the concrete will maintain the shape of the section without support. The finished curb or curb and gutter shall present a well-compacted mass with a surface free from voids and honeycomb and reasonably true to established shape, line, and grade. Any additional surface finishing required shall be performed immediately after extrusion.
 - 3. Joints shall be constructed at the same locations as required when form construction is being used. Weakened joints, spaced at 20-foot intervals, shall be made by sawing unless other methods are approved by the ENGINEER.

- E. Backfill. The back side of the curbs shall be backfilled with approved earth and thoroughly compacted in layers not exceeding 6 inches in depth and neatly graded as shown on the Plans or as approved by the ENGINEER. Care shall be taken not to damage the concrete in placing or compacting the backfill; any damage will be repaired at the CONTRACTOR'S expense.

END OF SECTION 32 16 13

SECTION 32 92 23 - SODDING**PART 1 - GENERAL****1.1 SCOPE**

- A. This work shall consist of furnishing and planting viable Bermuda grass sod in accordance with these specifications. All areas which are not covered by pavement or structures shall be sodded, and/or areas utilized for construction staging.

PART 2 - PRODUCTS**2.1 SOD**

- A. Bermuda grass sod to be used as source material shall be a thick stand of common Bermuda grass growing on fertile topsoil. Types of Bermuda grass other than "Common" may not be used unless approved by the ENGINEER. The vegetative parts (rhizomes, stolons, and roots) of Bermuda grass shall be viable as indicated by a dense, deep rooted stand.
- B. The source for sod shall be free of reproducing parts of weeds classified as "Prohibited Noxious" and shall be as free of other legally "Restricted Noxious" plant materials as required by the Oklahoma Department of Agriculture Seed Law. The proposed source of sod will be approved by the ENGINEER before the beginning of sodding operations. Prior to approval, the area shall not be tilled or mowed. However, all vegetative growth exceeding 3 inches in height shall be mowed and the residue removed prior to harvesting the sod or sprigs.
- C. The sod shall be moist when excavated from the source and shall be kept moist until planted. Sod in storage which becomes dry, shall not be re-moistened and used, but shall be discarded.
- D. Sod material shall consist of vegetative parts (rhizomes, stolons and roots) of Bermuda grass with an appreciable quantity of adhering soil.
- E. Solid slab sod shall be rectangular slabs of Bermuda grass. Bermuda grass vegetative parts shall exist throughout the slab and shall be obtained from soils with a minimum P.I. of 3. The slab must have a dense vegetative growth and be capable of being transported in a condition closely resembling its original state.

2.2 FERTILIZER

- A. Fertilizer of 10 20 10 grade and ammonium nitrate (33.5% N), uniform in composition, free flowing and suitable for application with approved equipment shall be provided. The fertilizer shall be delivered to the site in bags or other convenient containers, each fully labeled, conforming to the applicable State fertilizer laws, and bearing the name, trade name or trademark and warranty of the producer.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Preparation of areas to be sodded shall include filling, reshaping of eroded areas, cleaning ditches and refinishing slopes to the established grading section. The area shall be cleared of all litter and debris.

3.2 APPLICATION

- A. The slabs of sod shall be placed soil side down. They shall be placed in rows, which on slopes shall run perpendicular to flow of water. Each slab shall fit tightly against the edge of adjoining slabs and shall be placed so that the vertical joints are not continuous across adjoining horizontal rows. Voids shall be filled with additional sod. All slabs shall be thoroughly pressed into firm contact with the soil underneath.
- B. After the slabs have been placed, the sodded area shall be thoroughly watered. When sufficiently dry, additional voids shall be filled with good soil and watered again. The area shall then be thoroughly watered daily for a period of at least seven days after placement.
- C. Soil moisture shall exist throughout the zone from 1 inch below the surface to at least 5 inches below the surface at the time of planting. The required moisture content of the soil may be estimated and judged closely by the hand squeeze test. The soil should readily form a tight cast when squeezed in the hand. The cast should break into two pieces without crumbling and without leaving excess water on the hand after casting.
- D. Fertilizer shall not be placed on hard or glazed surfaces. Fertilizer shall be applied at the rates shown on the plans or specifications.
- E. When satisfactory results can be obtained, disking for soil preparation, weed removal and incorporation of fertilizer may be accomplished in one operation.
- F. If a fertilizer containing phosphorous is specified, one half of the fertilizer shall be applied before placement of solid slab sod and shall then be incorporated into the soil by disking. After placement and compaction of the sod, the remaining one half of the fertilizer shall be applied and immediately incorporated into the soil with water.
- G. Fertilizer containing nitrogen only shall be applied after the sodding and sprigging operations have been completed.

3.3 SEASON

- A. If the construction work is not completed during the normal planting season (beginning April 15 through September 1), the CONTRACTOR shall seed the entire area with an approved temporary vegetative cover, such as wheat, oats or rye grass to prevent erosion until the following spring at which time the CONTRACTOR will be required to return and prepare the area to be sodded as specified above and sod the entire area with Bermuda grass as specified above at no additional cost to the OWNER. All areas

which have eroded will at this time be brought back to original line and grade as directed by the ENGINEER.

3.4 WATER SUPPLY

- A. The CONTRACTOR must make provisions to obtain water for this operation at his own expense. It will be the CONTRACTOR'S responsibility to transport the water to the area where it is needed.

END OF SECTION 32 92 23

SECTION 33 05 07.13 – DIRECTIONAL BORE**PART 1 – GENERAL****1.1 WORK INCLUDED**

- A. The work specified in this section consists of furnishing and installing underground utilities using the directional boring (horizontal directional drilling, HDD) method of installation also commonly referred to as guided horizontal boring. This work includes all services, equipment, materials, and environmental protection and restoration.

1.2 QUALITY ASSURANCE

- A. The requirement set forth in this document specifies a wide range of procedural precautions necessary to ensure that the very basic, essential aspects of a proper directional bore installation are adequately controlled. Strict adherence shall be required under specifically covered conditions outlined in this specification. Adherence to the specifications contained herein, or the ENGINEER'S approval of any aspect of any directional bore operation covered by this specification, shall in no way relieve the CONTRACTOR or their ultimate responsibility for the satisfactory completion of the work authorized under the contract.

1.3 SUBMITTALS

- A. Work Plan: Prior to beginning work, the CONTRACTOR must submit to the ENGINEER a general work plan outlining the procedure and schedule to be used to execute the project. Plan should document the thoughtful planning required to successfully complete the project.
- B. Equipment: CONTRACTOR will submit specifications on directional boring equipment to be used to ensure that the equipment will be adequate to complete the project. Spare inventory shall be included.
- C. Material: Specifications on material to be used shall be submitted to the ENGINEER. Material shall include the pipe, fittings and any other item which is to be an installed component of the project.
- D. Personnel: Documentation of training and relevant experience of personnel shall be submitted.

PART 2 – EQUIPMENT REQUIREMENTS**2.1 GENERAL**

- A. The directional boring equipment shall consist of a directional boring rig of sufficient capacity to perform the bore and pullback the pipe, a boring fluid mixing and delivery system of sufficient capacity to successfully complete the crossing, a guidance system to accurately guide boring operations along with trained and competent personnel to operate the system. All equipment shall be in good, safe operating condition with sufficient supplies, materials, and spare parts on hand to maintain the system in good working order for the duration of this project.

2.2 BORING SYSTEM

- A. Boring Rig: The directional boring machine shall consist of a hydraulically powered system to rotate, push and pull hollow drill pipe into the ground at a variable angle while delivering a pressurized fluid mixture to a guidable drill (bore) head. The machine shall be anchored to the ground to withstand the pulling, pushing and rotating pressure required to complete the crossing. The hydraulic power system shall be self-contained with sufficient pressure and volume to power boring operations. Hydraulic system shall be free of leaks. Rig shall have a system to monitor and record maximum pull-back pressure during pull-back operations. The rig shall be grounded during boring and pull-back operations. Sufficient spares shall be kept on hand for any break downs which can be reasonably anticipated.
- B. Bore Head: The bore head shall be steerable by changing its rotation and shall provide the necessary cutting surfaces and boring fluid jets.
- C. Mud Motors (if required): Mud motors shall be adequate power to turn the required boring tools.
- D. Drill Pipe: Shall be constructed of high-quality, 4130 seamless tubing, grade D or better, with threaded box and pins. Tool joints should be hardened to 32-36RC.

2.3 GUIDANCE SYSTEM

- A. The Guidance System shall be of a proven type and shall be set up and operated by personnel trained and experienced with this system. The operator shall be aware of any magnetic anomalies and shall consider such influences in the operation of the guidance system in using a magnetic system.

2.4 BORING FLUID (MUD) SYSTEM

- A. Mixing System: A self-contained, closed boring fluid mixing system shall be of sufficient size to mix and deliver boring fluid composed of bentonite clay, potable water, and appropriate additives. Mixing system shall be able to molecularly shear individual bentonite particles from the dry powder to avoid clumping and ensure thorough mixing. The boring fluid reservoir tank shall be of a sufficient capacity for that project. Mixing systems shall continually agitate the boring fluid during boring operations.
- B. Boring Fluids: Drilling fluid shall be composed of clean water and an appropriate additive. Water shall be from a clean source with a pH of 8.5 – 10. Water of a lower pH or with excessive calcium shall be treated with the appropriate amount of sodium carbonate or equal. The water and additives shall be mixed thoroughly and be absent of any clumps or clods. No hazardous additives may be used. Boring fluid shall be maintained at a viscosity sufficient to suspend cuttings and maintain the integrity of the bore wall.
- C. Delivery System: The mud pumping shall be capable of delivering the boring fluid at a constant pressure. The delivery system shall have filters in-line to prevent solids from being pumped into the drill pipe. Connections between the pump and drill pipe shall be relatively leak-free. Used boring fluid and boring fluid spilled during operations

shall be contained and properly disposed of. A berm, minimum of 12 inches high, shall be maintained around boring equipment, boring fluid mixing system, entry and exit pits and boring fluid recycling system (if used) to prevent spills into the surrounding environment. Pumps and or vacuum truck(s) of sufficient size shall be in place to convey excess boring fluid from containment areas to storage facilities.

2.5 OTHER EQUIPMENT

- A. Pipe Rollers: Pipe rollers, if required, shall be of sufficient size to fully support the weight of the pipe while being hydro-tested and during pull back operations. Sufficient number of rollers shall be used to prevent excess sagging of pipe.
- B. Pipe Reamers / Pullers: Hydraulic or pneumatic pipe rammers or pullers may only be used if necessary and with the authorization of the ENGINEER.

Other devices or utility placement systems for providing horizontal thrust other than those previously defined in the preceding sections shall not be used unless approved by the ENGINEER prior to commencement of the work. Consideration for approval will be made on an individual basis for each specified location. The proposed device or system will be evaluated prior to approval or rejection on its potential ability to complete the utility placement satisfactorily without undue stoppage and to maintain line and grade within tolerances prescribed by the particular conditions of the project.

PART 3 – OPERATIONS

3.1 GENERAL

- A. The ENGINEER must be notified 48 hours in advance of starting work. The directional bore shall not begin until the ENGINEER is present at the job site and agrees that proper preparations for the operation have been made. The ENGINEER approval for beginning the installation shall in no way relieve the CONTRACTOR of the ultimate responsibility for the satisfactory completion of the work as authorized under the contract. It shall be the responsibility of the OWNER to provide inspection personnel at such time as appropriate without causing undue hardship by reason of delay to the CONTRACTOR.

3.2 PERSONNEL REQUIREMENTS

- A. All personnel shall be fully trained in their respective duties as part of the directional boring crew and in safety. Training shall be provided specific to the project if any potential hazards may be encountered which have not already been included in the personnel's training.

3.3 BORING PROCEDURE

- A. Site Preparation: Prior to any alterations to the work site, CONTRACTOR shall photograph or videotape the entire work area, including entry and exit points. One copy shall be given to the ENGINEER and one copy shall remain with the CONTRACTOR for a period of one year following completion of the project.

The work site, as indicated on the drawings, within right-of-way, shall be graded or filled to provide a level working area. No alterations beyond what is required for

operations are to be made. The CONTRACTOR shall confine all activities to the designated work areas.

- B. Bore Path Survey: Entire drill path shall be accurately surveyed with entry and exit stakes placed in the appropriate locations within the areas indicated on the drawings. If CONTRACTOR is using a magnetic guidance system, drill path will be surveyed for any surface geo-magnetic variations or anomalies.
- C. Environmental Protection: CONTRACTOR shall place silt fence between all boring operations and any drainage, wetland, waterway, or other area designated for such protection by contract documents, state, federal and local regulations. Additional environmental protection necessary to contain any hydraulic or boring fluids spills shall be put in place, including berms, liners, turbidity curtains and other measures. CONTRACTOR shall adhere to all applicable environmental regulations. Fuel or oil may not be stored in bulk containers within 200 feet of any water body or wet land.
- D. Utility Locates: CONTRACTOR shall notify all companies with underground utilities in the work area via the state or local "one call" to obtain utility locates. Once the utilities have been located, CONTRACTOR shall physically identify the exact location of the utilities by vacuum or hand excavation, when possible, in order to determine the actual location and path of any underground utilities which might be within 20 feet of the bore path. CONTRACTOR shall not commence boring operations until the location of all underground utilities within the work area have been verified.
- E. Safety: CONTRACTOR shall adhere to all applicable State, Federal and local safety regulations and all operations shall be conducted in a safe manner. Safety meetings shall be conducted at least weekly with a written record of attendance and topic submitted to the ENGINEER.
- F. Pipe: Pipe shall be connected together in one length prior to pull-back operations. If space permits, pipe will be placed on pipe rollers before pulling into bore hole with rollers spaced close enough to prevent excessive sagging of pipe.
- G. Pilot Hole: Pilot hole shall be drilled on bore path with no deviations greater than 5% of depth over a length of 100 feet. In the event that pilot dies deviate from the bore path more than 5% of depth in 100 feet, CONTRACTOR will notify ENGINEER and the ENGINEER may require CONTRACTOR to pull back and re-drill from the location along bore path before the deviation.

In the event that a boring fluid fracture, inadvertent returns or return loss occurs during pilot hole boring operations, CONTRACTOR shall cease boring, wait at least 30 minutes, inject a quantity of boring fluid with a viscosity exceeding 120 seconds as measured by a March funnel and then wait another 30 minutes. If mud fractured or return loss continues, CONTRACTOR will cease operations and notify ENGINEER. ENGINEER and CONTRACTOR will discuss additional options and work will then proceed accordingly.
- H. Reaming: Upon successful completion of pilot hole, CONTRACTOR will ream bore hole to a minimum of 25% greater than outside diameter of pipe using the appropriate tool. CONTRACTOR will not attempt to ream at one time more than the boring equipment and mid-system are designed to safely handle.

- I. Pull Back: After successfully reaming bore hole to the required diameter, CONTRACTOR will pull the pipe through the bore hole. In front of the pipe will be a swivel. Once pull-back operations have commenced, operations must continue without interruption until pipe is completely pulled into bore hole. During pull-back operations, CONTRACTOR will not apply more than the maximum safe pipe pull pressure at any time.

In the event that pipe become stuck, CONTRACTOR will cease pulling operations to allow any potential hydro-lock to subside and will commence pulling operations. If pipe remains stuck, CONTRACTOR will notify ENGINEER. ENGINEER and CONTRACTOR will discuss options and then work will proceed accordingly.

- J. Pipe Testing: Following successful pull back of pipe, CONTRACTOR will hydro test using potable water in accordance with ODEQ permits test requirements. A calibrated pressure recorder will be used to record the pressure during the test period. This record will be presented to the ENGINEER.

3.5 SITE RESTORATION

- A. Following boring operations, CONTRACTOR will de-mobilize equipment and restore the work site to original condition. All excavations will be backfilled and compacted to 95% of original density. Landscaping will be restored to original.

3.6 RECORD KEEPING, AS BUILT

- A. CONTRACTOR shall maintain a daily project log of boring operations and a guidance system log with a copy given to the ENGINEER at completion of the project. As-built drawings shall be certified as to accuracy by the CONTRACTOR.

END OF SECTION 33 05 07.13

SECTION 33 11 00 - WATERLINE AND SANITARY SEWER SPECIFICATIONS

PART 1 – GENERAL

1.1 DESCRIPTION

- A. This division shall consist of the material and construction specification of water distribution lines, sanitary sewer lines, appurtenances, and related work, at the locations and grades as set out on the plans or established by the ENGINEER.

1.2 SUBMITTALS

- A. Submittals shall be in accordance with Section 01 33 00 “Submittal Procedures” and shall include:
 - 1. Shop Drawings:
 - a. Drawings shall show complete physical description and performance capabilities of the equipment, including, but not necessarily limited to dimensions, flange ratings, weights, materials of construction, assemblies, sectional views.
 - b. Hydraulic calculations and CV characteristics certifying the valve can meet all the design conditions attached to this specification.
 - 2. Operation and Maintenance Manuals: Manuals shall be prepared by the equipment manufacturer and shall also incorporate appropriate final certified shop drawings. Manuals may be the manufacturer’s standard instructions but shall be supplemented as necessary to cover any special feature not included in standard material. O&M manuals shall include storage instructions, valve installation and adjustment procedures and troubleshooting procedures. Manuals shall be provided in hard copy and digital format fully indexed.

PART 2 - APPLICABLE SPECIFICATIONS

2.1 DESCRIPTION

- A. The specifications, standards, and publications, including the latest amendments thereto, listed in these specifications by basic designation only, form a part of this specification to the extent indicated by the references thereto.
- B. Specification 03 30 00 – Cast-In Place Concrete
- C. Specification 31 23 33 – Trenching, Backfilling, & Compaction
- D. Specification 32 12 16.39 – Plant Mix Bituminous Bases and Surfaces
- E. Specification 33 05 07.13 – Directional Bore
- F. Specification 33 31 30 – Pipe Busting

PART 3 - CAST IRON AND DUCTILE IRON PIPE, FITTINGS AND VALVES**3.1 DESCRIPTION**

- A. The work under this item shall include furnishing, hauling, placing, and jointing of Cast Iron and Ductile Iron Pipe in the trench in specific conformity with the lines and levels given. For all pipe, the AWWA Standard for Installation of Cast Iron Water Mains, AWWA Designation C-600 shall govern the installation as applicable. The method of bedding shall be in accordance with Specification 31 23 33 and as shown on the plan Standard Details. If the paint is damaged, the valve shall be cleaned by wire-brushing and given two coats of black asphalt paint.

3.2 PIPE AND FITTINGS

- A. Where Ductile Iron Pipe (DIP) three (3) inches in diameter and larger is specified or required, it shall conform to, and be tested in accordance with, the current American Standard Specification for Ductile Iron Pipe, Centrifugally Cast in metal molds or sand-lined molds, for water or other liquids, AWWA Designation C 151 (ANSI A21.51). Ductile iron pipe less than three (3) inches in diameter shall conform to the manufacturer's standards, either centrifugally or statically cast with a minimum thickness of 0.25 inches. The ductile iron (nodular cast iron) shall conform to ASTM Specification A536 with physical properties of Grade 60-40-18. Length of joints shall be either eighteen or twenty feet. The minimum standard thickness of each size pipe shall be as follows:

<u>Pipe Size</u>	<u>Thickness Class</u>
3" thru 4"	51
6" thru 24"	50
30" thru 54"	51

For larger diameter or deep cover, special design will be provided.

- B. Where Cast Iron Pipe (CIP) is specified or required, it shall conform to, and be tested in accordance with, the American Standard for Gray Iron Pipe Centrifugally Cast in Metal Molds for water or other liquids, AWWA Designation C106. Lengths shall be either eighteen feet or twenty feet. Strength of iron shall be 18/40 and the minimum standard thickness of each size pipe shall be as follows:

<u>Pipe Size</u>	<u>Thickness Class</u>
3" thru 10"	22
12"	23
14" thru 24"	24
30" thru 48"	25

- C. Where Cast Iron Pipe (CIP) and Ductile Iron Fittings are specified or required, they shall conform to, and be tested in accordance with the American Standard for Gray Iron and Ductile Iron Fittings, 3-inch through 48-inch for water and other liquids, AWWA Designation C110. Pressure rating shall be 250 psi. All sleeves shall be the longest of the lengths allowed.

- D. The work under this item shall include all of the requirements specified under the item

of pipe, in that "pipe" is understood to also mean "bends, tees, crosses, sleeves, outlet assemblies and other specified fittings". Unless otherwise specified, outlet assemblies shall consist of a flanged outlet constructed into the wall of steel or concrete pipe. If cast or ductile iron pipe is used, the outlet shall consist of a tee with the outlet flanged. If a gate valve or butterfly valve is shown on the drawings to be attached to the outlet, the line side end shall be flanged, and the opposite end shall be bell or mechanical joint according to the item for valves. All bends, tees, crosses, outlet assemblies, and plugs shall be blocked with concrete as shown on the attached Standard Details, except where the fittings have flanged, welded, or harnessed joints, the ENGINEER may under certain conditions delete the blocking. Concrete blocking shall be placed so that joints are accessible for repair.

3.3 JOINTS

- A. Cast Iron and Ductile Iron Pipe and Fittings shall be jointed with any of the end types as specified below unless a particular end type is specified. Flange ends shall be used only where specifically noted on the drawings except that the valve connection end of all tapping sleeves shall be flanged.
- B. Push-on joints shall conform to, and be tested in accordance with, the American Standard for Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings, AWWA Designation C111.
- C. Mechanical joints shall conform to, and be tested in accordance with, the American Standard for Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings, AWWA Designation C111.
- D. Bell and spigot joints shall consist of square, braided, sterilized hemp and 99.73 percent pure lead caulking.
- E. Flange joints shall conform to the American Standard for Cast Iron Pipe Flanges and Flanged Fittings, A.S.A. Designation B.16.1.

3.4 LINING AND COATING

- A. All Cast Iron and Ductile Iron Pipe and Fittings shall be bituminous coated outside and cement-mortar lined inside with seal coat in accordance with American Standards for Cement Mortar Lining for Ductile Iron and Gray Iron Pipe and Fittings for Water, AWWA Designation C104.

3.5 VALVES

- A. All valves shall be rated for 250 psi working pressure.
- B. Valve boxes shall consist of a cast iron valve box, encased with a concrete collar over a section of 6-inch PVC pipe, SDR-35 typically, which is of adequate length enabling the valve box to be set at ground level as shown on the standard drawings.

3.6 GATE VALVES

- A. Where gate valves are specified or required, they shall conform to, and be tested in accordance with, the AWWA Standard for Gate Valves, 3-inch through 48-inch NPS for Water and Sewage Systems, AWWA Designation C500. Valves shall have double disc parallel seats, non-rising stem, vertical mounting "O" ring stem seal, counterclockwise opening, and ends to fit the pipe or fitting to which attached.

3.7 BUTTERFLY VALVES

- A. Where butterfly valves are specified or required, they shall conform to, and be tested in accordance with the AWWA Standard for Rubber-Seated Butterfly Valves, AWWA Designation C504. Valves shall have operators which are side mounted with plumb, non-rising stems, counterclockwise opening, and have mechanical joint connections of the size shown on the plans. The operator shall be mounted so that the square operating nut on the valve can be operated from the top.

3.8 AIR RELIEF VALVES

- A. Where air relief valves are specified or required, the valve shall be heavy-duty combination air release and vacuum type for 300 psi water working pressure, tested to 300 psi unless otherwise specified, two-inch size. Body, cover, and baffle shall be cast iron. All internal parts to be either highest quality stainless steel or bronze, and the inside of valve coated with rust inhibitor. Air relief valves shall be set so that the square operating nut on the valve can be operated from the top. Construction standards for air relief valve vaults shall be the same as for manholes.

3.9 CHECK VALVES

- A. Where check valves are specified or required, they shall conform to, and be tested in accordance with the AWWA Standard for Swing Check Valves for Ordinary Water Works Service, AWWA Designation C508. They shall be horizontally mounted, single disc, swing type with a full diameter passage providing minimum pressure loss. Valves shall be of the non-slamming type designed for the future installation of outside lever and weight. Disc faces and seat rings shall be bronze. Ends shall fit the pipe or fitting to which attached (push-on, mechanical, bell and spigot, or flanged). Construction standards for check valve vaults shall be the same as for manholes.

3.10 TAPPING VALVES

- A. Tapping valves shall have the same features as above double disc gate valves and shall have piloted flange or centering lip on the valve flange to fit the tapping sleeve flange.

3.11 FIRE HYDRANTS

- B. Fire hydrants shall conform to the AWWA Standard for Dry-Barrel Fire Hydrants, AWWA Designation C502 as to design, composition, quality of materials, workmanship and shall be manufactured by Mueller, American, M & H, or approved equal by ENGINEER.
- C. All fire hydrants shall be 6" mechanical joint connection, 5-1/4" valve openings

furnished with two 2-1/2" nozzles, and one 4-1/2" pumper connection, with National Standard threads. Two 2-1/2" nozzles shall be spaced 180 degrees apart, with the 4-1/2" pumper nozzle centered between them.

- D. Hydrants shall be of the compression type and shall have incorporated in their design a special section or bolts which intentionally have a lower breaking point than the balance of the unit (traffic flange).
- E. Hydrants shall have a 1-1/2" pentagon shaped operating nut, open left and shall be sized for 3-1/2 feet depth of bury.
- F. All nozzles shall be equipped with chained caps provided with gaskets made of suitable plastic or neoprene.
- G. All fire hydrants shall be painted with two coats of Pittsburg, first line, or approved equal paint. Colors are to be designated by the OWNER'S Fire Department to conform with color-coding system.
- H. Where fire hydrant extensions are specified or required, they shall be of the proper design to accommodate the make of fire hydrant installed.

3.12 CONSTRUCTION

- A. Proper implements, tools and facilities satisfactory to the ENGINEER shall be provided and used by the CONTRACTOR for the safe and convenient performance of the work. All pipe, valves and hydrants shall be carefully lowered into the trench piece by piece by means of a derrick, ropes, or other suitable tools or equipment, in such a manner as to prevent damage to water main materials and protective coatings and linings. Under no circumstances shall water main materials be dropped or dumped into the trench. If damage occurs to any pipe or water main accessories in handling, the damage shall be immediately brought to the ENGINEER'S attention. The ENGINEER shall prescribe corrective repairs or rejection of the damaged items. All pipe and fittings shall be carefully examined for cracks and other defects while suspended above the trench immediately before installation in final position. Defective pipe or fittings shall be laid aside for inspection by the ENGINEER, who will prescribe corrective repairs or rejection. All lumps, blisters, and excess coating shall be removed from the bell and spigot end of each pipe, and the outside of the spigot and the inside of the bell shall be wire brushed and wiped clean and dry and free from oil and grease before the pipe is laid.

Every precaution shall be taken to prevent foreign material from entering the pipe while it is being placed in the line. During laying operations, no debris, tools, clothing, or other materials shall be placed in the pipe. As each length of pipe is placed in the trench, the spigot end shall be centered in the bell and pipe forced home and brought to correct line and grade. The pipe shall be secured in place with approved backfill material tamped under it except at the bells. Precautions shall be taken to prevent dirt from entering the joint space.

1. Joining of Push-On Joint Pipe: The inside of the bell and the outside of the spigot

end shall be thoroughly cleaned to remove oil, grit, excess coating and other foreign matter. The circular rubber gasket shall be flexed inward and inserted in the gasket recess of the bell socket.

A thin film of gasket lubricant shall be applied to either the inside surface of the gasket or the spigot end of the pipe or both. Gaskets lubricant shall be as supplied by the pipe manufacturer and approved by the ENGINEER.

The spigot end of the pipe shall be entered into the socket with care used to keep the joint from contacting the ground. The joint shall then be completed by forcing the plain end to the bottom of the socket with a forked tool, jack-type tool or other device approved by the ENGINEER.

Pipe that is not furnished with a depth mark shall be marked before assembly to assure that the spigot end is inserted to the full depth of the joint. Field-cut pipe lengths shall be filed or ground to resemble the spigot end of such pipe as manufactured.

2. Joining of Mechanical-Joint Pipe: The outside of the spigot and inside of the bell of mechanical-joint pipe shall be thoroughly cleaned to remove oil, grit, excess coating and other foreign matter from the joint, and then a thin film of gasket lubricant shall be applied to either the inside surface of the gasket or the spigot end of the pipe or both. Gasket lubricant shall be as supplied by the pipe manufacturer and approved by the ENGINEER.

The cast-iron gland shall be coated with the lubricant and placed on the spigot end with the thick edge toward the gland. The entire section of the pipe shall be pushed forward to seat the spigot end in the bell. The gasket shall then be pressed into place within the bell; care shall be taken to locate the gasket evenly around the entire joint.

When tightening bolts, the gland shall be brought up toward the pipe flange evenly, maintaining approximately the same distance between the gland and the face of the flange at all points around the socket. This shall be done by partially tightening the bottom bolt first then the top bolt, next the bolts at either side, and last, the remaining bolts. This cycle should be repeated until all bolts are within the range of torques as shown below:

Bolt Size (Inches)	Range of Torque (Ft. – Lb.)	Length of Wrench (Inches)
5/8	40 – 60	8
3/4	60 – 90	10
1	70 – 100	12
1 1/4	90 – 120	14

The torque loads may be applied with torque-measuring or torque-indicating wrenches, which may also be used to check the application of approximate torque loads applied by men trained to give an average pull on a definite length or regular socket wrench. If effective sealing is not attained at the maximum torque indicated, the joint should be disassembled, thoroughly cleaned, and reassembled. Overstressing of bolts to compensate for poor installation practice shall not be allowed.

3. For waterlines, all fittings or specials included as pipe shall be blocked in accordance with the attached Standard Details.
 4. For sanitary sewers, a joint between cast iron pipe and vitrified clay pipe or reinforced concrete pipe shall be made with special adapters as approved by the ENGINEER. If adapters are not available, the joint shall be made as instructed by the ENGINEER and encased with concrete one foot (1 ft.) each side of the joints and six inches (6) in thickness.
- I. Fire hydrants shall be located as shown or as directed to provide complete accessibility and minimize the possibility of damage from vehicles or injury to pedestrians.
1. When placed behind the curb, the hydrant barrel shall be set so that no portion of the pumper or hose nozzle cap will be closer than three (3) feet nor more than six (6) feet from the face of the curb.
 2. When set in the lawn space between the curb and the sidewalk, no portion of the hydrant or nozzle cap shall be within six (6) inches of the sidewalk.
 3. All hydrants shall stand plumb and shall have their nozzles parallel with, or at right angles to the curb, with the pumper nozzle facing the curb, and centerline nozzles at least eighteen (18) inches above the ground.
 4. Each hydrant shall be connected to the main with a six (6) inch ductile iron branch controlled by an independent six (6) inch gate valve, unless otherwise specified.
 5. Each hydrant shall be placed upon a slab of stone or concrete not less than six (6) inches thick and fifteen (15) inches square. The rear side of the hydrant, opposite the pipe, shall be blocked with concrete or stone, firmly wedged between the hydrant and the vertical face of the end of the trench of undisturbed earth or it shall be tied to the pipe with suitable straps or metal tension rods as shown on the standard drawings or as directed by the ENGINEER.
 6. Dry walls shall be constructed of crushed stone or coarse gravel having a volume of approximately one-half cubic yard and shall be placed beneath and around the drain ports of the hydrant so the hydrant will properly drain when closed.
 7. Fire hydrant extensions shall be required to bring the fire hydrant up to the existing or proposed grade of the surrounding areas, whereby an 18-inch minimum distance from the ground level to the center of the pumper nozzle may be obtained as shown on the standard drawings.

3.13 METHOD OF PAYMENT

- A. Cast Iron and Ductile Iron Pipe (CIP and DIP) shall be measured for payment by the linear foot of pipe of the size specified in the proposal and shown on the plans and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the center line of the pipe. No additional payment shall be made for vertical bends in the pipe, fittings used with drop manholes, fittings or specials not included in this specification, or for concrete blocking.
- B. Deductions will not be made for bends or specials.

3.14 BASIS OF PAYMENT

- A. Accepted quantities of Cast Iron and Ductile Iron Pipe (CIP and DIP) measured as provided above, will be paid for at the contract unit price for:

Cast Iron Pipe Lineal Feet

Ductile Iron Pipe. Lineal Feet

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 4 - STEEL PIPE AND FITTINGS**4.1 DESCRIPTION**

- A. The work under this item shall include furnishing, hauling, placing, and jointing of steel pipe in the trench in specific conformity with the lines and levels given. For all lines, the AWWA Standard for Installation of Cast Iron Water Mains, AWWA Designation C-600 shall govern the installation, as applicable. The method bedding shall be in accordance with Specification 31 23 33 and as shown on the attached Standard Details. The drawings show the plan and grade for the pipeline. The CONTRACTOR shall submit detail drawings to the ENGINEER for approval, showing his proposed method of laying the pipe to these grades. All pipelines to be crossed shall be located before these drawings are prepared. Fittings or specials included as pipe shall be blocked in accordance with the attached Standard Details

4.2 PIPE AND FITTINGS

- A. Where steel pipe is specified or required, it shall conform to the AWWA Standard for Steel Water Pipe 6-inches and larger, AWWA Designation C200. Only the following mill pipes specified under AWWA C200 shall be acceptable: ASTM A139, Grades B and C; ASTM A53, Grade B; ASTM A135, Grade B. Only the following steel plate fabricated under ASTM A134 shall be acceptable: ASTM A36, ASTM A572.
- B. All pipe shall be hydrostatically tested to 80% of the minimum yield point with the hydrostatic test pressure indicated on shop fabrication drawings. AWWA Designation C200 shall govern the testing. Pipe length shall be not less than 35 feet per joint, except for specials unless otherwise noted. There shall be no more than one longitudinal or girth seam per section. Nominal pipe diameter and steel thickness shall be as specified on the drawings. The diameter shown is the required inside diameter of steel pipe if coal tar lining is used or inside diameter of lining if mortar lining is used.
- C. All pipe shall be manufactured by an established manufacturer who has had at least three (3) years' experience in successfully building this type of pipe. Openings for air valves, main connections, and blow-off connections must be provided with suitable reinforcements around the opening, welded to the body of the pipe. Openings of the sizes shown on the drawings shall be furnished with steel blind flanges of proper strength to withstand the working pressure of the line where no other provision is made for closing the openings. The pipe shall have ends for slip joints for field welding,

beveled ends for field welding, beveled ends for field butt welding, or plain ends for mechanically coupled field joints.

- D. Twenty-four inch (24") or smaller pipe shall be manufactured with ends of true circular shape, free from indentations, projections, or roll marks for a distance of eight inches (8") from the end of the pipe. This shall be done by hydraulic expansion or some other method satisfactory to the ENGINEER. The outside diameter of the pipe shall be true enough in dimension to permit the passage for a distance of eight inches (8") from the end of the pipe a ring gauge with a bore three-thirty seconds (3/32") of an inch larger than the outside diameter of the pipe.
- E. Where steel fittings or special fittings are specified or required, they shall conform to all of the steel pipe specification requirements and to the AWWA Standard for Dimensions for Steel Water Pipe Fittings, AWWA Designation C208. Where fittings and specials are fabricated from mill pipe, they shall be fabricated from pipe hydrostatically tested to 80% of the pipe steel yield point with mitered joints dye checked for welding flaws. Where fittings and specials are fabricated from plate, they shall be hydrostatically tested to 80% of the minimum plate steel yield point. Changes in line and grade shall be made by steel specials or in the joints. Steel specials shall be used wherever the angle exceeds ten degrees (10°).
- F. Where field cutting of steel pipe is permitted, pipe shall be cut by sawing. The inside lining shall be removed for a minimum of eight inches each side of the cut and the pipe surface shall be cleaned and brushed to bright metal. After welding, the inside lining shall be replaced in accordance with AWWA C203.
- G. All steel blind flanges supplied in accordance with Section 405 shall be ASTM A36 Steel, 5/8-inch thick with approved gaskets and bolts. All bolts shall be carbon steel ASTM A307 Grade A only, in accordance with AWWA C207.
- H. The work under this item shall include all of the requirements specified under the item of pipe, in that "pipe" is understood to also mean "bends, tees, crosses, sleeves, outlet assemblies and other specified fittings". Unless otherwise specified, outlet assemblies shall consist of a flanged outlet constructed into the wall of steel or concrete pipe. If cast or ductile iron pipe is used, the outlet shall consist of a tee with the outlet flanged. If a gate valve or butterfly valve is shown on the drawings to be attached to the outlet, the line side end shall be flanged, and the opposite end shall be bell or mechanical joint according to the item for valves. All bends, tees, crosses, outlet assemblies, and plugs shall be blocked with concrete as shown on the attached Standard Details, except where the fittings have flanged, welded, or harnessed joints, the ENGINEER may under certain conditions delete the blocking. Concrete blocking shall be placed so that joints are accessible for repair.

4.3 JOINTS

- A. Steel Pipe and fittings shall be jointed with any of the end types as specified below unless a particular end type is specified. Flange ends shall be used only where specifically noted on the drawings.
- B. Welded joints shall conform to, and be tested in accordance with, the AWWA Standard

- for Field Welding of Steel Water Pipe, AWWA Designation C206.
- C. Mechanically coupled joints shall consist of Dresser Couplings, Style 38, or equal, or as specified on the drawings.
 - D. Flanged joints shall conform to the AWWA Standard for Steel Pipe Flanges for Waterworks Service Size 4-inch through 144-inch, AWWA Des. C207, Class E.

4.4 LINING AND COATING

- A. Steel pipe and fittings shall be lined in accordance with the AWWA Standard for Cement Mortar Protective Lining and Coat for Steel Water Pipe, AWWA Designation C205, or the AWWA Standard for Coal-Tar Enamel Protective Coatings for Steel Water Pipe, AWWA Designation C203. The exterior of all underground pipe shall be cleaned, primed, and coated with coal-tar enamel, fibrous glass mat, and a bonded asbestos felt wrapper, and with either a whitewash coating or a final wrap of kraft paper, and the exterior of all above ground pipe shall be cleaned, primed, and painted, all in accordance with the AWWA Standard for Coal-Tar Enamel Protective Coatings and Linings for Steel Water Pipe, AWWA Designation C203, or in accordance with the AWWA Standard for Chlorinated Rubber-Alkyd Paint System for the Exterior of Above Ground Steel Water Piping.
- B. If mechanical couplings are used for field joints, the ends of the pipe shall be primed and enameled before the pipe is laid. If field welding is used, the pipe joints shall be furnished with the inside lining and outside coating held back twelve inches on each end for field welding. All of the lining and coating, including any field touch-up work, shall be done under the direction of the manufacturer of the lining and coating to the satisfaction of the ENGINEER. The lining at the joints on welded pipe may be patched with a minimum of two (2) coats of a coal tar or epoxy-based paint which shall be compatible with the interior lining and which shall impart no taste or odor to the water in the lines.

4.5 CONSTRUCTION

- A. If joints are field-welded, they shall develop the full strength of the pipe. The CONTRACTOR shall file with the ENGINEER a description of the method of welding which he proposes to use, the name of the individual or company who will do the welding, and a statement regarding the previous experience of such individual or company in this particular line of work. If requested, coupons shall be cut across the field welds and tested by an approved testing laboratory. The line may be welded continuously with provisions for slack in the line, or in sections to be lowered in the trench and connected by a position weld.
- B. If joints are to be mechanically coupled, sections up to 240 feet may be coupled and lowered carefully into the ditch. Electrical continuity shall be provided at all joints. Preparation for, protection of, and repair of pipe coating and lining, and coating of mechanical couplings shall conform to the applicable section of these specifications.

4.6 METHOD OF PAYMENT

- A. Steel pipe shall be measured for payment by the linear foot of pipe specified in the proposal and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the centerline of the pipe. No additional payment shall be made for vertical bends in the pipe, fittings used with drop manholes, fittings or specials included as pipe, or for concrete blocking.

4.7 BASIS OF PAYMENT

- A. Accepted quantities of steel pipe measured as provided above, will be paid for at the contract unit price for:

STEEL PIPE Lineal Feet

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 5 - REINFORCED CONCRETE PIPE AND FITTINGS

5.1 DESCRIPTION

- A. The work under this item shall include furnishing, hauling, placing and jointing of reinforced concrete pipe (RCP) in the trench in specific conformity with the lines and levels given.

5.2 PIPE AND FITTINGS

- A. Where reinforced concrete pipe (RCP) and fittings are specified or required for waterlines, they shall conform to and be tested in accordance with the AWWA Standard for Prestressed Concrete Pressure Pipe, Steel Cylinder Type, for Water and Other Liquids, AWWA Designation C301. All pipe shall be manufactured by an established manufacturer who has had at least three years' experience in successfully building this type of pipe. All specials and fittings shall be either of Type A or Type B and must be built to the details furnished by the manufacturer and approved by the ENGINEER. Each special and each length of straight pipe shall be plainly marked to indicate the head for which the pipe is designed and to indicate where the pipe will be used by reference to the layout drawings.
- B. Where reinforced concrete pipe (RCP) and fittings are specified or required for sanitary sewers, they shall conform to and be tested in accordance with the specifications for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe, ASTM Designation C76, Class as shown on the drawings. No lengths of pipe shall be less than eight feet. All concrete pipe shall be coated inside with two (2) coats of a coal-tar base paint (Standard Inertol®, or approved equal), with a twenty-four hour drying period between coats.

5.3 JOINTS

- A. Reinforced concrete pipe and fittings for waterlines shall be jointed according to AWWA Standard for Prestressed Concrete Pressure Pipe Steel Cylinder Type, for Water and Other Liquids, AWWA Designation C301.
- B. Reinforced concrete pipe and fittings for sanitary sewer shall be jointed with a single natural rubber or neoprene gasket and cement mortar formed by a diaper. It shall be formed in a continuous ring of suitable cross sections and of such size as to assure a watertight joint. Each length of pipe shall be provided with bell-and-spigot ends formed in the concrete wall. The spigot end shall contain a groove so that the gasket will be enclosed and compressed on four surfaces when the joint is in final position. All jointing materials shall be used in accordance with the manufacturer's instructions and subject to approval of the ENGINEER.

5.4 CONSTRUCTION

- A. For waterlines, the AWWA Standard for Installation of Cast Iron Water Mains, AWWA designation C-600, shall govern the installation as applicable. The method of bedding shall be in accordance with Specification 31 23 33 and as shown on the attached Standard Details. The drawings show the plan and grade for the pipeline. The CONTRACTOR shall submit detailed drawings to the ENGINEER for approval, showing the proposed method of laying the pipe to these grades. All pipelines to be crossed shall be located before these drawings are prepared. The ends of the pipes to be jointed shall be cleaned immediately prior to joining and the rubber gasket thoroughly lubricated with a thin film of gasket lubricant before it is placed in position on the spigot end.
- B. Gasket lubricant shall be as supplied by the pipe manufacturer and approved by the ENGINEER. Extreme care shall be taken in moving the spigot end of the pipe into the bell end of previously laid pipe. If the gasket is damaged or moved out of place, the new pipe shall be removed, and a new gasket applied before rejoining. Any lubricant remaining on the exposed concrete surfaces inside or outside the pipe shall be completely removed. Fittings or specials included as pipe shall be blocked in accordance with the attached Standard Details.
- C. For sanitary sewers, the methods of laying pipe, foundation, and grade specified under Pipe, Vitrified Clay, shall apply. All pipe shall be installed with the mark "C-76" visible on the top of the pipe. The ends of the pipes to be jointed shall be cleaned immediately prior to joining and the rubber gasket thoroughly lubricated with gasket lubricant before it is placed in position on the spigot end. Extreme care shall be taken in moving the spigot end of the pipe into the bell end of the previously laid pipe. If the gasket is damaged or moved out of place, the new pipe shall be removed, and a new gasket applied before rejoining.
- D. For all lines, after the pipe has been jointed, a band at least 5-1/2 inches wide shall be placed around the outside of the pipe at the joint. This band shall serve as a form for placing 1:1 cement mortar grout in the external recess formed by the face of the groove and the shoulder of the tongue. If a reinforced paper joint bank is used, it shall be drawn up tight around the pipe and the backfill tamped against it up to the spring line before pouring the grout. If a cloth band is used, it shall be wired around the outside

of the pipe, and the grout poured before backfilling. On all pipes, the joint space remaining on the inside of the pipe shall be filled with a stiff mixture of 1:1 cement mortar which shall be troweled in place to produce a continuous, smooth, flush surface across the joint.

5.5 METHOD OF PAYMENT

- A. Reinforced Concrete Pipe (RCP) shall be measured for payment by the linear foot of pipe of the size specified in the proposal and on the plans and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the centerline of the pipe. No additional payment shall be made for vertical bends in the pipe, fittings used with drop manholes, fittings or specials included as pipe, or for concrete blocking.

5.6 BASIS OF PAYMENT

- A. Accepted quantities of Reinforced Concrete Pipe (RCP), measured as provided above, will be paid for at the contract unit price for:

REINFORCED CONCRETE PIPE (RCP) Lineal Feet

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 6 - THERMOPLASTIC POLYVINYL CHLORIDE (PVC) WATER PIPE AND FITTINGS

6.1 DESCRIPTION

- A. Thermoplastic Polyvinyl Chloride (PVC) water pipe 6 to 12-inches in size shall be allowed in the distribution system of the OWNER. The AWWA Standard for the installation of PVC water mains, AWWA Designation C-605 shall govern the installation, as applicable.

6.2 PIPE AND FITTINGS

- A. Where thermoplastic polyvinyl chloride (PVC) water pipe is specified or required, it shall conform to the AWWA Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4-inch through 12-inch, for water, AWWA Designation C900. PVC pipe shall conform to the dimensions shown in Table 2 of AWWA C900, Dimensions and Pressure Classes for Dimension Ratio (DR) for PVC 1120 Pipe with Cast Iron Pipe Equivalent ODS. The minimum DR shall be in accordance with the plans and the minimum working pressure rating shall be 150 psi.
- B. Fittings for PVC pipe 8-inches in diameter and smaller shall be Cast Iron Short Body Fittings in accordance with AWWA C110 specification for Cast Iron Fittings, 2-inch through 48-inch, for Water and Other Liquids. All fittings shall be designed and rated for 250 psi water working pressure.

- C. The work under this item shall include all of the requirements specified under the item of pipe, in that "pipe" is understood to also mean "bends, tees, crosses, sleeves, outlet assemblies and other specified fittings". Unless otherwise specified, outlet assemblies shall consist of a flanged outlet constructed into the wall of steel or concrete pipe. If cast or ductile iron pipe is used, the outlet shall consist of a tee with the outlet flanged. If a gate valve or butterfly valve is shown on the drawings to be attached to the outlet, the line side end shall be flanged, and the opposite end shall be bell or mechanical joint according to the item for valves. All bends, tees, crosses, outlet assemblies, and plugs shall be blocked with concrete as shown on the attached Standard Details, except where the fittings have flanged, welded, or harnessed joints, the ENGINEER may under certain conditions delete the blocking. Concrete blocking shall be placed so that joints are accessible for repair.

6.3 JOINTS

- A. Jointing of plastic pipe shall be accomplished by push-on type joints. Push-on joints consisting of a rubber "O" ring shall be used. The CONTRACTOR shall furnish to the ENGINEER details of the proposed joint in triplicate for approval before any such jointing material is delivered to the job site.

6.4 CONSTRUCTION

- A. Pipe shall be laid to the lines and grades established by the ENGINEER. The bottom of the trench shall be relatively uniform and in no case shall pipe be laid on rock. Where rock is encountered, Class "A" bedding shall be required.
- B. Long plastic pipelines, over three hundred feet (300 ft.) in length without an abrupt change in direction, shall be "snaked" in the trench to provide for expansion and contraction. Snaking shall be equivalent to the pipe touching opposite sides of a twenty-four inch (24) wide trench within a distance of eighty feet (80 ft.). It is recommended that, during warm weather, whenever practical, pipelines be filled with cold water or allowed to cool overnight before backfilling trench. Push-on joints shall be made with extreme care and by following the manufacturer's recommendation as to installation procedures. If the design of the joint permits for linear expansion of the pipe, the trench width may be reduced. Adequate thrust blocks as approved by the ENGINEER will be required at all bends, tees, and crosses.

6.5 METHOD OF PAYMENT

- A. Thermoplastic Polyvinyl Chloride (PVC) water pipe shall be measured for payment by the linear foot of pipe of the size specified in the proposal and on the plans and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the centerline of the pipe. No additional payment shall be made for vertical bends in the pipe.

6.6 BASIS OF PAYMENT

- A. Accepted quantities of Thermoplastic Polyvinyl Chloride (PVC) water pipe, measured as provided above, will be paid for at the contract unit price for:

THERMOPLASTIC POLYVINYL CHLORIDE (PVC) PIPE Lineal Feet

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 7 - TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS**7.1 DESCRIPTION**

- A. Type PSM Polyvinyl Chloride (PVC) sewer pipe ranging in size from 4 inches to 15 inches, may be installed within the OWNER'S collection system, as approved by the ENGINEER. The work under this item shall include furnishing, hauling, placing, and joining of PVC sewer pipe within the trench in specific conformity with lines and levels given. For all pipe, the ASTM Standard 2321-89 "Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications" shall govern with respect to installation of the pipe. The method of bedding shall be in accordance with PART 5 of this specification and any exceptions listed below, and as shown on the attached standard details.

7.2 PIPE AND FITTINGS

- A. Where Type PSM polyvinyl chloride (PVC) sewer pipe is specified or required, it shall conform to ASTM Standard D3034-94 "Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings". Nominal pipe diameter may be from 4 inches to 15 inches in size. All PVC sewer pipe shall have a minimum pipe stiffness of 115 psi and shall have a Standard Thermoplastic Pipe Dimension Ratio (SDR) in accordance to the plans. The pipe shall be made of PVC plastic having a cell classification of 12454-B or 12454-C or 12364-C or 13364-B (with minimum tensile modulus of 3450 MPa (500,000 psi) as defined in ASTM Standard D1784. The pipe shall be clearly marked at intervals of 1.5 meters (5 ft.) or less, and the markings shall indicate manufacturer's name or trademark and code, nominal pipe size, the cell classification, the designation "Type PSM SDR-XX PVC Sewer Pipe", and the designation "Specification D3034". The fittings shall be marked with manufacturer's name or trademark, nominal size, the material designation "PVC", PSM, and the designation "Specification D3034".

7.3 JOINTS

- A. Jointing of plastic pipe shall be accomplished by push-on type joint, with an elastomeric seal conforming to ASTM Standard D3212-92 "Standard Specification for Joint for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals". The CONTRACTOR shall furnish to the ENGINEER details of proposed joint in triplicate for approval before any such jointing material is delivered to the job site.

7.4 CONSTRUCTION

- A. The pipe shall be laid on a firm foundation as required in over-excavated areas, and a bedding with a minimum thickness of 4 inches (6 inches in rock cuts). Haunching material shall be placed to the springline of the pipe and be installed in layers with a maximum thickness of 6 inches. The haunching material shall be worked around the pipe by hand, and the shovel slicing method to provide uniform support of the pipe. The initial backfill shall be placed in layers to a minimum depth of 6 inches to the top of the pipe and be placed in layers with a maximum thickness of 6 inches. All material for foundation, bedding, haunching and initial backfill shall be compacted to 85% or 95% of Standard Proctor as required according to the USCS soil classification system, and in conjunction with ASTM Standard D2321-89. Maximum particle size for all backfill material shall be 3/4 inch. All backfill shall be free from clods, lumps, boulders and frozen matter.
- B. Place pipe and fittings in the trench with the invert conforming to the required elevations, slopes and alignment. Provide bell holes in the pipe bedding, no larger than necessary, in order to ensure uniform pipe support. Fill all voids under the bell by working in bedding material. In special cases where the pipe is to be installed to a curved alignment, maintain angular "joint deflection" (axial alignment) or pipe bending radius, or both, within acceptable design limits.
- C. Comply with manufacturers recommendation for assembly of joint components, lubrication, and making of joints. When pipe laying is interrupted, secure piping against movement and seal open ends to prevent the entrance of water, mud, or foreign material.
- D. For elastomeric seal joints conforming to ASTM D3212-92 "Standard Specification for Joints for Drain and Sewer Plastic Pipe Using Flexible Elastomeric Seal", the pipe ends shall be marked to indicate insertion stop position and ensure that the pipe is inserted into pipe or fitting bells to this mark. Push spigot into bell using methods recommended by the manufacturer, keeping pipe true to line and grade. Protect end of the pipe during homing and do not use excessive force that may result in over-assembled joints or dislodged gaskets. If full entry is not achieved, disassemble and clean the joint and reassemble. Use only lubricant supplied or recommended for use by the pipe manufacturer. Do not exceed manufacturer's recommendation for angular "joint deflection" (axial alignment).
- E. Where coarse and open-graded material is placed adjacent to finer material and within anticipated ground water elevations, a geotextile filter fabric shall be placed around the bedding and initial backfill material to prevent the migration of the surrounding fines into the open voided area.
- F. After installation of the pipe has been completed and air tested, the CONTRACTOR shall pull a mandrel that has been machined to 5% of the inside diameter of the pipe from manhole to manhole. The pulling of the mandrel shall be performed no earlier than 30 days from the date of the air testing.

7.5 METHOD OF PAYMENT

- A. Type PSM Polyvinyl Chloride (PVC) sewer pipe shall be measured for payment by linear foot of pipe of the size specified in the proposal and on the plans and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the centerline of the pipe. No additional payment shall be made for vertical bends in the pipe or fittings used with drop manholes.

7.6 BASIS OF PAYMENT

- A. Accepted quantities of Polyvinyl Chloride (PVC) sewer pipe, measured as provided above, will be paid for at the contract price for:

Polyvinyl Chloride (PVC) Sewer Pipe Lineal Feet

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 8 – HDPE PIPE AND FITTINGS**8.1 DESCRIPTION**

- A. This specification covers the material, joining methods, and general installation practice for high density polyethylene pipe (HDPE) piping systems for use as indicated on the drawings. For all pipe, it must be installed in accordance with AWWA C901 and C906.

8.2 PIPE AND FITTINGS

- A. All materials shall be manufactured from a PE 4710 resin listed with the Plastic Pipe Institute (PPI) as TR-4. The resin material shall meet the specifications of ASTM D3350 with a minimum cell classification of 445474C or 445574C. HDPE pipe and fittings shall contain no recycled compounds except that generated in the manufacturer's own plant from resin of the same specification from the same raw material. HDPE products shall be homogenous throughout and free of visible cracks, holes, foreign inclusions, voids, or other injurious defects.
- B. Pipe shall be made of HDPE material with a minimum material designation code of PE 4710 and with a minimum Cell classification as noted in Section A. The polyethylene compound shall be suitably protected against degradation by ultraviolet light by means of carbon black of not less than 2 percent. The manufacturer of the HDPE resin shall certify the cell classification indicated.
- C. Pipe sizes 3" DIPS/4" IPS and larger shall have a manufacturing standards of ASTM F714, while IPS pipe 3" and smaller shall be manufactured to the dimensional requirements listed in ASTM D3035. Dimension Ratio (DR) and Outside Diameter (IPS/DIPS) shall be as specified on plans.

- D. Pipe shall be manufactured by an ISO 9001 certified manufacturer. The pipe manufacturer shall have an ongoing Quality Control program for incoming and outgoing materials and shall assure that the pipe will meet the material requirements of this specification. HDPE resins for manufacturing of pipe shall be checked for density, melt flow rate, and decontamination. For potable water systems the facility shall have the necessary testing equipment to verify that pipe meets the AWWA and NSF standards. Pipe shall be checked for outside diameter, wall thickness, length, and surface finish on the inside and outside. The manufacturer's production facilities shall be open for inspection by the Owner or Engineer.
- E. All pipe may be color coded for the intended service. When required, the color coding shall be permanently co-extruded stripes on the pipe outside surface as part of the pipe's manufacturing process. Painting HDPE pipe to accomplish color coding is not permitted.
- F. All fabricated elbows, tees, reducing tees and end caps shall be produced and meet the requirements of ASTM F2206, as manufactured by ISCO Industries, Inc or other approved manufacturer holding an ISO 9001 quality system certificate. Each fitting will be marked per ASTM F2206 section 10 including the nominal size and fitting EDR, which will meet or exceed the pipe DR identified for the project. Fabricated fittings shall be manufactured using a data recording device to record fusion pressure and temperature and shall be stamped with unique joint number that corresponds to the joint report. A graphic representation of the temperature and pressure data for all fusion joints made producing fittings shall be maintained for a minimum of 5 years as part of the quality control and will be available upon request of owner. Test results to validate ASTM F2206 section 7.3 and 9 shall be provided to owner or owner's representative upon request.
- G. Fittings shall have a minimum pressure rating equal to or greater than the pipe to which they are joined unless otherwise specified on the plans or accepted by ENGINEER.
- H. The work under this item shall include all of the requirements specified under the item of pipe, in that "pipe" is understood to also mean "bends, tees, crosses, sleeves, outlet assemblies and other specified fittings". Unless otherwise specified, outlet assemblies shall consist of a flanged outlet constructed into the wall of steel or concrete pipe. If cast or ductile iron pipe is used, the outlet shall consist of a tee with the outlet flanged. If a gate valve or butterfly valve is shown on the drawings to be attached to the outlet, the line side end shall be flanged, and the opposite end shall be bell or mechanical joint according to the item for valves. All bends, tees, crosses, outlet assemblies, and plugs shall be blocked with concrete as shown on the attached Standard Details, except where the fittings have flanged, welded, or harnessed joints, the ENGINEER may under certain conditions delete the blocking. Concrete blocking shall be placed so that joints are accessible for repair.
- I. Bolted Connections
 - 1. Flanged and Mechanical Joint Adapters can be made to ASTM D3261. Flange adapters, if machined, may also meet the requirements of ASTM F2880. Flanges and MJ Adapters shall be fused onto the pipe and have a minimum pressure rating equal to or greater than the pipe unless otherwise specified on the plans.

2. Metallic back-up rings (Van-Stone style lap joint flanges), shall have a radius on the inside diameter of the bore so as to be compatible with AWWA C207 Class D (or B or E), ASME/ANSI B 16.5 Class 150, ASME/ANSI B 16.1 Class 125, or ASME/ANSI B16.47 Series A.
3. Flange assemblies shall be assembled and torqued according to PPI TN-38, "Bolt Torque for Polyethylene Flanged Joints."

J. Mechanical Fittings

1. The use of mechanical coupling and saddles shall be approved by the ENGINEER prior to installation. Mechanical fittings shall be designed for use an compatible with HDPE pipe.
2. Coupling without self-restraining capabilities (integrated serrated teeth or grippers) shall include a plan for external restraint or isolation from pipeline generated forces.
3. Mechanical saddles shall have wide straps for distribution of clamping loads. No U-Bolts shall be allowed.
4. When required by mechanical coupling manufacturer, pipe stiffeners shall be employed to support the interior wall of the HDPE. The stiffeners shall support the pipe's end and control the "necking down" reaction to the pressure applied during normal installation. The pipe stiffeners shall be formed of 304 or 316 stainless steel, with a wedged style design to fit the HDPE manufacturers published average inside diameter of the specific size and DR of the HDPE.

8.3 EQUIPMENT

- A. All fusion equipment, whether new or used, rented or owned, shall comply with the requirements of ISO 12176-1 "Equipment for Fusion Jointing Polyethylene Systems".
- B. Butt Fusion
 1. Butt fusion equipment must be in satisfactory working order and the hydraulic system must be leak free. Heater plates shall be free from scrapes, gouges, and have a consistent clean coated surface. The pressure gauge and thermometer should be properly calibrated. When requested by the ENGINEER, records showing a maintenance service or inspection within 3 months prior to use for this project shall be provided.
 2. For 16" and larger pipe sizes, the butt fusion machine shall be capable of autonomously calculating the drag pressure and perform the shift sequence autonomously.

3. For 6" and larger pipe sizes, the pipe butt fusion machine shall be a self-contained hydraulic fusion machine capable of butt fusing HDPE pipe. The carriage must be removable from the chassis for in-ditch use. The machine must be compatible with an electronic data recording device. Accessories will include all butt fusion inserts for the specified range of pipe sizes, a pyrometer kit for checking the surface temperature of the heater, extension cord of appropriate gauge (25' minimum), and hydraulic extension hoses (minimum of four). The butt fusion machine will be McElroy, or approved equivalent.
 4. In areas where there may be insufficient space for layout of the entire length of fused pipe to be pulled-back, the Contractor shall utilize a continuous HDPE pipe fusion equipment such as a PolyHorse by McElroy or other means in order to fuse the length of pipe necessary for the installation.
- C. Electrofusion processors shall be maintained and calibrated per manufacturer's requirements and recommendations.

8.4 JOINTS

- A. All HDPE pipe shall be joined to by the heat fusion process which produces homogeneous, sealed, leak-tight joints. Tie-ins between sections of HDPE pipe shall be made by butt fusion whenever possible.
- B. Butt Fusion
1. The pipe shall be joined by the butt fusion procedure outlined in ASTM F2620 or PPI TR-33. All fusion joints shall be made in compliance with the pipe or fitting manufacturer's recommendations. Fusion joints shall be made by qualified fusion technicians per ASTM F3190. A record or certificate of training for the fusion operator must be provided that documents training to the fundamentals of ASTM F2620. Considerations should be given to and provisions made for adverse weather conditions, such as temperatures below freezing, precipitation, or wind, which is accepted by the owner/engineer. The use of a controlled cooling cycle procedure to reduce cooling time is acceptable only as part of a controlled cooling cycle procedure where testing demonstrates that acceptable joints are produced using the controlled cooling cycle procedure.
- C. Electrofusion
1. Electrofusion joining shall be done in accordance with the manufacturers recommended procedure. Other sources of electrofusion joining information are PPI TN 34 and PPI Municipal Advisory Board (MAB) Generic Electrofusion Procedure for Field Joining of 12 Inch and Smaller Polyethylene (PE) Pipe. The process of electrofusion requires an electric source, commonly called an electrofusion processor that has wire leads and a method to read electronically (by laser) or otherwise input the barcode of the fitting. The electrofusion processor must be capable of reading and storing the input parameters and the fusion results for later download to a record file. Qualification of the fusion technician shall be demonstrated by evidence electrofusion training within the past year on the equipment to be utilized for this project.

D. Data Recording

1. For 6" and larger pipe sizes, McElroy DataLogger or equivalent fusion data recorder shall be used to record all fusion welds on hydraulically operated fusion machines. The device shall be capable of meeting the requirements of ASTM F3124, "Standard Practice for Data Recording the Procedure used to Produce Heat Butt Fusion Joints in Plastic Piping Systems or Fittings". The device, or combination of devices, shall record the following variables of each fused joint:
 - i. Heater surface temperature- immediately before inserting the heater plate, measure with a pyrometer and manually enter into the weld record.
 - ii. Gauge pressure during the initial heat cycle
 - iii. Gauge pressure and elapsed time during the heat-soak cycle
 - iv. Heater removal (dwell) time
 - v. Gauge pressure and elapsed time during the fusing/cool cycle
 - vi. Drag pressure
 - vii. Pipe diameter and wall thickness
 - viii. Type of HDPE material (Specification and Classification) and manufacturer
 - ix. Fusion Machine Identification
2. The device shall record the operator name and a unique operator ID number, along with the date and time of each weld.
3. Records showing the device is up to date on all required calibration should be available for presentation when requested.
4. All fusion welds should be traceable to the report (via operator and weld ID) with an indentation weld stamp or by permanent paint marker/pen next to fusion weld.
5. A weld location map may be requested, prior to commencement of work, by the owner or owner's representative.

8.5 CONSTRUCTION

A. For direct burial, refer to Specification 31 23 33.

B. Pull-In Installation

1. Per ASTM F1804 and/or www.HDPEapp.com, the contractor shall determine and document the maximum proposed pull-in length and pull-in force for the pressure class and pipe diameter to be pulled into an open trench. Pull-in lengths will not exceed the maximum lengths for the class and diameter pipe. A commercially available load limiter (weak link) approved by the Engineer shall be used between the puller and the pipe.
2. Prior to pulling the pipeline, contractor shall place rollers or other approved devices beneath the pipe to avoid unnecessary damage and to reduce pipe drag.

3. Trenchless installations:

- i. For Horizontal Directional Drilling (HDD), refer to Specification 33 05 07.13 and ASTM F1962, PPI TR-46, PPI PE Handbook (Chapter 12).
- ii. For sliplining, refer to ASTM F585, PPI PE Handbook (Chapter 11).
- iii. For pipe bursting, refer to Specification 33 31 30 and PPI PE Handbook (Chapter 16)

C. Appurtenances

- 1. All appurtenances (tees, elbows, services, valves, air relief valves, fire hydrants, etc.), must be independently supported and shall not rely on the pipeline and its connections for this support. Excessive stresses may be encountered when appurtenances are inadequately supported.
- 2. Hydrant Assemblies shall be installed and field tested according to the requirements of AWWA M17.
- 3. Installation of Tracer Wire. When tracer wire is required, the Contractor shall install along the entire section of pipeline and along all service connections as listed below. The tracer wire shall be installed simultaneously with the polyethylene piping system. Tracer wire shall be installed by the Contractor once backfill has been placed and compacted to at least 12 inches above the top of the pipe and not more than 18 inches above the top of the pipe. Tracer wire shall be properly spliced at each end connection and each service connection. Care should be taken to adequately wrap and protect wire at all splice locations. No bare tracer wire shall be accepted. Provide Magnesium alloy anode for cathodic protection that conforms to the requirements of ASTM B843. Install tracer wire per local and manufacturer's requirements.

8.6 METHOD OF PAYMENT

- A. HDPE pipe shall be measured for payment by the linear foot of pipe of the size specified in the proposal and on the plans and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the centerline of the pipe. No additional payment shall be made for vertical bends in the pipe.

PART 9 – SEWER CONNECTION

9.1 DESCRIPTION

- A. The work under this item shall include all excavation, furnishing all materials required, construction, finishing, and backfilling of connections to existing mains, manholes, drop connections to manholes, special connections, service line connections, or plugs, as indicated on the drawings or as directed by the ENGINEER.

9.2 CONSTRUCTION

- A. Connections to existing manholes shall be made by cutting into the manhole at the specified grade, inserting the pipe, and encasing the joint with concrete. CONTRACTOR shall not break into any existing sewer unless the OWNER'S REPRESENTATIVE is present and the work done shall be under the direction of the OWNER'S REPRESENTATIVE. The manhole base shall be cut and reconstructed in such a manner that a proper invert section is maintained. All waste mortar, debris, and sharp edges shall be removed from the joints, bottom, and invert. CONTRACTOR shall remove and replace the manhole steps in the proper location and in accordance with the attached standard details if they are not properly located after the connection is made. Any and all diversion or pumping of water or sewage in a wet connection is included in this item.
- B. Methods of construction shall be the same for sewer service line reconnections as for main sewers. All reconnections shall be constructed in conformance with the Plumbing Code of the OWNER unless modified herein. New pipe used shall be of the same diameter as the existing line.
- C. Plugs shall be constructed of manhole brick and mortar, extending at least one foot into the line plugged from the manhole. The plug shall be watertight and troweled to a smooth finish on the interior of the manhole.
- D. At points indicated on the plans or by the ENGINEER, risers of the size indicated on the plans, or as required by the ENGINEER, shall be constructed. A 45-degree bell and spigot bend shall be jointed to the wye to a point level with lower side of bell of 45-degree bend. Pipe for risers shall be regular length joints of sewer pipe. Risers using full joints of pipe shall be set so that the top of riser is near to but not less than ten (10) feet below finished ground grade at rear of building location. If the OWNER desires, the CONTRACTOR may, at the OWNER's expense, extend risers to a point not less than six (6) feet below finished grade at rear of the building locations, but, in no case, shall there be less than four (4) feet of cover over riser.

When contained wholly on the public right-of-way, or within the boundaries of utility easements, risers may be laid on a slope of 45 degrees.

9.3 METHOD OF MEASUREMENT

- A. Connections will be measured for payment per each classification of connection as shown on the proposal. No additional payment will be made for excavation, backfilling, furnishing and placing concrete, removing and replacing manhole steps, or for diversion or pumping of water or sewage necessary to make the connection. Connections shown on the plans but not classified on the proposal shall be considered incidental to the work and will not be measured for payment but the cost shall be included in other items.

9.4 BASIS OF PAYMENT

- A. Accepted quantities measured as provided above will be paid for at the contract unit price as shown on the proposal for each connection which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 10 – WATER CONNECTION

10.1 DESCRIPTION

- A. The work under this item shall include all excavation, furnishing all materials required, construction, finishing, and backfilling of connections to existing mains, valves, special connections, service line connections, as indicated on the drawings or as directed by the ENGINEER.

10.2 CONSTRUCTION

- A. The drawing shows details of the various connections and they shall be made in accordance with the details or as directed by the ENGINEER. On water mains, the CONTRACTOR will make the pressure and wet connections to existing mains as shown on the drawing unless specifically noted otherwise. In making these connections all material, equipment, and personal necessary for the job shall be assembled at the site and all work possible shall be done before the service is interrupted. The order and time of the work will be under the jurisdiction of the ENGINEER. If deemed necessary, the ENGINEER may order the CONTRACTOR to make the connection at night so as to inconvenience the public as little as possible.

- B. Where called for on the plans, or by the specifications, tapping valves and sleeves shall be used to make connections with existing water mains. The CONTRACTOR, when ready to make any of these connections, will notify the ENGINEER 48 hours in advance. The CONTRACTOR shall furnish all material, labor and equipment to make the taps.

The tapping valves furnished shall be Mueller, American Flow, or approved equal and tapping sleeves furnished shall be Ford, Smith Blair, or approved equal satisfactory to the ENGINEER. The tapping sleeves shall be the bolted type, heavy duty, using iron bolts, cast iron or equal satisfactory to the ENGINEER.

- C. Service line connections for water services shall be constructed as shown on the standard drawings and materials shall be copper, brass, municipex, or approved equal by ENGINEER.
- D. The material and workmanship for brass goods shall be of the highest quality and shall interchange with brass goods presently in use by the owner. Brass goods shall conform to the same precise standards as described in AWWA Specifications Number C800 Standard Specifications for underground service line fittings.
- E. Brass goods shall contain 85 percent copper and 5 percent each of tin, lead, and zinc and shall be tested by hydrostatic pressure of 200 pounds per square inch. The bidder shall furnish a complete description of brass goods with his bid.

- F. Copper tubing shall be Type "K" soft annealed seamless tubing and shall conform to ASTM-B88 Standard Specification for Seamless Copper Water Tube.
- G. The coils of copper tubing shall be in individual packages. The CONTRACTOR shall furnish an affidavit that the copper tubing furnished complies with all specifications.
- H. Municipex pipe shall be in accordance with AWWA 904 and ASTM F876.

PART 11 – CASTINGS

11.1 GENERAL

- A. Castings for valve boxes, valve vaults, manholes, lamp holes, and other appurtenances shall conform to, and be tested in accordance with the specifications for Gray Cast Iron, ASTM Designation A48, Class 30. Design shall be according to the attached Standard Details. Frames and covers that are to be located within dedicated public right-of-way, or any other location subject to vehicular traffic, shall have all bearing surfaces machined so that fittings parts will not rattle or rock under traffic. All castings shall be subject to a hammer test before installation.

PART 12 - RIGHT-OF-WAY CLEARING AND RESTORING

12.1 DESCRIPTION

- A. Work under this item shall include the removal and reconstruction or replacement of all obstructions affected, other than those covered in this specification, by the construction of the project including, but not limited to fences, retaining walls, patios, barbecues, signs, mailboxes, outbuildings, landscaping, sidewalks, driveways, parking lot surfacing, curbs, and the like. Any such obstructions which are not to be reconstructed are so designed on the drawings. Such shall be removed and disposed of by the CONTRACTOR. All obstructions to be replaced or reconstructed shall be restored to substantially the same condition as existed prior to the construction, except as otherwise noted. All sidewalk, driveway, and parking lot replacement shall be of at least equal quality, thickness, compacted subgrade and base course, and surface course as that removed or damaged. The CONTRACTOR shall remove and dispose of all debris, restore the grade of the surface of the earth as reasonably as may be done to the grade existing prior to construction, and upon completion of the work shall leave the site in as neat, clean, and orderly condition as nearly as it was prior to construction as may be reasonably done.

12.2 MATERIALS AND TESTS

- A. Backfill materials under parking lots and driveways shall be in accordance with Specification 31 23 33 or as approved by the ENGINEER.
- B. Portland Cement Concrete shall be in accordance with Specification 03 30 00. All concrete placed in parking lots, driveways, sidewalks, and all other concrete structures within the right-of-way shall use high-early strength cement.
- C. Asphaltic Concrete - Bituminous pavement shall meet the requirements shown in Section 32 12 16.39.

- D. Sampling and Testing - Sampling of materials will be made in accordance with the appropriate methods specified in the corresponding section listed above. Tests will be conducted in accordance with the schedule of tests provided in the special provisions or as shown on the plans.

12.3 CONSTRUCTION

- A. Passable surfaces across or along the construction vicinity shall be maintained at all times with gravel, steel mat or plate, or temporary bituminous surfacing material where a sidewalk, driveway, or parking lot previously existed.
- B. Sidewalks, driveways, parking lots, and other paved areas, all or partially composed of concrete, asphaltic concrete, or bituminous material shall be saw cut, removed, and replaced to at least the standard trench width if the project crossing is at right angles to the obstruction. If a construction joint is within two (2) feet of any proposed sawed line, the cut shall be extended to the joint, or as directed by the ENGINEER. Curbs shall be tunneled under in all cases, unless otherwise approved in writing by the ENGINEER.
- C. Backfill under sidewalks, driveways, parking lots, and other paved areas shall be in accordance with Specification 31 23 33. All backfill shall be thoroughly compacted with sufficient moisture and by mechanical means to prevent settlement. Settlement or other failure of backfill or restored right-of-way shall be corrected immediately. The method of correction shall be as directed by the ENGINEER.
- D. Existing water and sewer lines: Wherever existing water or sewer lines are encountered, the CONTRACTOR shall protect the same from damage. In case damage does result, the CONTRACTOR shall, as directed by the ENGINEER, repair the same at his own expense.
- E. Vertical and horizontal separation of water and sewer lines: Where a sanitary sewer crosses any existing or proposed water main and is closer than 10-feet horizontally or 2-feet vertically the sanitary sewer shall be ductile iron pipe for a distance of 20-feet horizontally. If the sanitary sewer crosses above the water main, the sanitary sewer shall be ductile iron pipe and concrete encased. Where a sanitary sewer is constructed closer than 50 feet to a water well (existing or proposal) the sanitary sewer shall be ductile iron pipe.

Where a water main crosses any existing or proposed sanitary sewer and is closer than 10-feet horizontally or 2-feet vertically, the sanitary sewer shall be replaced for a distance of 20-feet horizontally with ductile iron pipe. If the water main crosses below the sanitary sewer, the sanitary sewer shall be replaced with ductile iron pipe and concrete encased.

- F. Existing structures which are to be abandoned shall be broken off or removed to a depth of not less than six (6) inches below the foundation grade of new structures. Any blasting or other operation which might endanger the new work shall be completed prior to the construction of any part of the new structure. After the removal of any existing structures, all excavations not to be occupied by new structures and all holes created shall be cleaned up and the site left in a neat and orderly condition.

- G. If an obstruction is of public ownership, the CONTRACTOR shall notify the appropriate agency, and obtain any necessary permit or license forty-eight (48) hours before beginning any operations affecting the obstruction. All work shall conform to the current standards and specifications of that agency and shall be approved by the agency before completion of the project. At the CONTRACTOR'S request, the ENGINEER will furnish information as to what licenses or permits are required.
- H. The CONTRACTOR shall notify all utility companies prior to beginning construction and shall provide an electrical or mechanical device or use such other means he may select, to locate any hidden utility line, oil or gas pipe line, water pipe line, sewer pipe line, telegraph and telephone line or other structures provided for in these specifications and locate such line or structures shown on the plans and any uncharted line or structure whether shown on the plans or not and protect, adjust to grade, disconnect and replace, relocate and replace, remove, provide supports during the construction and settlement of backfill and protect against freezing or unnecessary damage by the elements of existing utility lines, oil or gas pipe lines, water pipe lines, sewer pipe lines, telegraph and telephone lines, railroad right-of-way lines and other structures and shall pay all fees to County, City, State or Federal agencies which may be required in the performance of this work. In the event injury does result to any gas lines, power lines or poles, telephone lines or poles, etc., the CONTRACTOR shall, holding the OWNER entirely blameless, make proper restitution.

12.4 METHOD OF MEASUREMENT

- A. Remove and replace paved driveways, paved parking lots and other paved areas, except sidewalks, shall be measured by the square yard. This area will be derived by multiplying the length along the centerline of the pipe by the standard trench width and converting to square yards, unless otherwise approved by the ENGINEER.
- B. Remove and replace sidewalks shall be measured by the square foot, whereby the area was measured in the same manner as paved driveways in 12.3(B) above.
- C. Gravel and rock driveways, parking lots, and other areas will not be measured for payment, but rather shall be considered incidental to the work.
- D. Temporary materials required for maintenance of traffic through pavement cut locations will not be measured for payment.
- E. Compaction of backfill to 90% Standard Density in driveways, parking lots, etc. will not be measured for payment, and the cost of this work shall be included in other bid items.
- F. Other structures and obstructions shall not be measured for payment, unless shown on the proposal, and the cost of this work shall be included in other bid items.

12.5 BASIS OF PAYMENT

- A. Accepted quantities, measured as provided above will be paid at the contract unit price for:

Pavement repair, HES concrete Sq. Yd.

Pavement repair, asphaltic Sq. Yd.

Sidewalk repair, concrete Sq. Yd.

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 13 - STREET AND ALLEY, RIGHT-OF-WAY CROSSINGS**13.1 DESCRIPTION**

- A. Work under this item shall consist of backfilling, compacting, and pavement repair, where applicable, of all trenches crossing streets and alleys, dedicated or proposed to be dedicated to the public in accordance with the lines, grades and dimensions shown on the plans or as directed by the ENGINEER.

13.2 MATERIALS AND TESTS

- A. Backfill materials and streets and alleys shall be in accordance with Specification 31 23 33.
- B. Portland Cement Concrete shall be in accordance with 03 30 00. All concrete placed within the right-of-way shall be high-early-strength (HES) cement.
- C. Asphaltic Concrete - Bituminous Pavement shall meet the requirements of Specification 32 12 16.39.
- D. Sampling and Testing - Sampling of materials will be made in accordance with the appropriate methods specified in the corresponding section listed above. Tests will be conducted in accordance with the schedule of tests provided in the special provisions or as shown on the plans.

13.3 CONSTRUCTION

- A. Compaction: The CONTRACTOR shall place the select soil in accordance with Specification 31 23 33.
- B. Pavement Removal: Removal of paved surfaces shall be in accordance with the standard drawings.
- C. Pavement Repair: Concrete and Bituminous Pavement shall be repaired in accordance with the standard drawings and the Standard Specifications for Streets and Alley Construction of the OWNER.

13.4 METHOD OF MEASUREMENT

- A. Compacted backfill in unpaved streets and alleys will be measured by the cubic yard. This volume will be derived by multiplying the length along the centerline of the pipe by the standard trench width and by the average depth of the trench and converting to cubic yards, unless otherwise approved by the ENGINEER.
- B. Compaction of backfill to 95% Standard Density in paved streets and alleys will not be measured for payment, and the cost of this work shall be included in removal and replacement of pavement.
- C. Remove and replace concrete and bituminous pavement will be measured by the square yard. This area will be derived by multiplying the length along the centerline of the pipe by the standard trench width plus 12-inches on each side of the trench and converting to square yards.
- D. Over-breakage (the removal of more paving than is specified in 4.4(C) above) will not be measured for payment but shall be repaired in accordance with these specifications at the expense of the CONTRACTOR.

13.5 BASIS OF PAYMENT

- A. Accepted quantities of the type specified on the proposal, measured as provided above, will be paid for at the contract unit price for:

Remove and replace pavement Sq. Yd.

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 14 - PIERS, REINFORCED CONCRETE**14.1 DESCRIPTION**

- A. The work under this item shall include all materials, forming, pipe anchorage, construction and finishing of above ground standard reinforced concrete piers and below ground, restraining collar, reinforced concrete piers. Piers shall be located and constructed as shown on the drawings and the attached standard drawings.

14.2 MATERIALS AND TESTS

- A. Materials and testing shall be in accordance with Section 03 30 00.

14.3 CONSTRUCTION

- A. Forms shall be made to conform to the shape of the pier and securely braced. Reinforcing steel shall be bent as detailed and securely tied in place. Bearing area for the pipe shall be made to fit the outside diameter of the pipe and shall support the pipe at the proper grade. Any honeycomb or other unevenness in the concrete shall be patched with cement mortar immediately after form removal. Construction of piers shall be in accordance with Specification 03 30 00.

14.4 METHOD OF PAYMENT

- A. Reinforced concrete piers and restraining collars shall be measured by the number of units constructed. No additional payment will be made for excavation, forming, bracing, dewatering, backfilling, reinforcing steel, or pipe anchorage.

14.5 BASIS OF PAYMENT

- A. Accepted quantities of reinforced concrete piers, measured as provided above, will be paid at the contract unit price for:

Reinforced Concrete Pier, Standard EA.

Reinforced Concrete Pier, Restraining Collar EA.

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 15 - FIELD TESTS AND REVISIONS:**15.1 DESCRIPTION**

- A. Field tests and revisions of water and sewer mains shall be successfully completed prior to final acceptance. All discrepancies shall be corrected by the CONTRACTOR to make a complete and workable system.

15.2 MATERIALS AND TESTS

A. Sewer:

1. Alignment: After joints have been inspected and approved and trench backfilled as specified, the ENGINEER shall check alignment between manholes or manhole locations. Any misplaced pipes detected shall be corrected to line and grade at the CONTRACTOR'S expense.
2. Deflection: In accordance with OAC 252:656-5-5(a), CONTRACTOR shall perform deflection tests on all flexible pipe after the final backfill has been in place at least 30 days. Deflection must not exceed 5%. Tests must be run using a rigid ball or mandrel with a diameter equal to 95% of the inside diameter of the pipe, taking into account manufacturing tolerances. Tests must be performed without mechanical pulling devices. Tests must be in accordance with applicable ASTM standards.
3. Line Leakage Test: Leakage tests shall be required for all new construction in accordance with OAC 252:656-5-5(b). The leakage test shall be an exfiltration test, whereby a minimum positive head of two (2) feet shall be exerted on a section of line by plugging the lower end and filling the manhole upstream with water. The leakage outward shall not exceed 10 gallons per inch of pipe diameter per mile per day (10 gallons/inches/miles/day) for any section of the system. If infiltration is observed due to hydrostatic ground water leakage the infiltration shall be reduced so as not to exceed 10 gallons/inches/miles/day. The procedures listed in the Handbook of PVC Pipe, Uni-Bell PVC Pipe Association, 2001 may be used for PVC pipe. Pipe testing must meet the provisions for the applicable ASTM standard

for the test to be used.

4. Manhole Leakage Test: Leakage tests shall be required for all new construction in accordance with OAC 252:656-5-4(g)(7) and shall be performed per ASTM C1244.
5. Where test results, in the opinion of the ENGINEER, indicated construction deficiencies, the CONTRACTOR shall make all effort to locate same and make satisfactory corrections. Infiltration through manhole walls shall be corrected regardless of the results of these tests.

B. Water:

1. Hydrostatic and Leakage Test:
 - a. PVC: Shall be in accordance with AWWA C605 procedures. After the pipe has been laid and backfilled, all newly laid pipe or any valved section thereof shall be subjected to a hydrostatic gauge pressure of 200 psi, for a duration of two hours, said pressure not to vary more than five pounds, except that PVC pipe shall be tested a design working pressure.
 - b. HDPE: Shall be in accordance with AWWA C906 procedures. After the pipe has been laid and backfilled, subject the pipe to a pressure of 1.5 times the design working pressure at the lowest point in the test section is used as the test pressure. Acceptance is found by reducing the test pressure by 10 psi and monitoring the pressure for one hour. If the pressure remains steady – within five percent of the target value – for one hour, leakage is not indicated.
2. Each valved section of pipe shall be slowly filled with water and the specified test pressure, based on the elevation of the lowest point of the line of lowest point of the section under test, and corrected to the elevation of the test gauge shall be applied by means of a test pump connected to the pipe in a manner satisfactory to the ENGINEER. The CONTRACTOR shall make arrangements for metering the amount of water used during the test.
3. The CONTRACTOR shall backfill all pipe and provide all reaction blocking before hydrostatic testing. It shall be the CONTRACTOR'S responsibility to locate and repair any and all leaks that may develop. The ENGINEER may direct the CONTRACTOR to leave certain joints and connections uncovered until testing has been completed.
 - a. Before applying the specified test pressure, all air shall be expelled from the pipe. If hydrants or blow-offs are not available at high places taps at points of highest elevation shall be made before test is made and plugs inserted after the test has been completed. Any cracked or defective pipe, fittings, valves or hydrants discovered in consequence of this pressure test shall be removed and replaced with sound material and the test shall be repeated until satisfactory to the ENGINEER.
 - b. In conjunction with the hydrostatic test, a leakage test shall be conducted as detailed in Section 4 of ANSI/AWWA Specification C-600/605, a portion of which is stated below.
 - c. Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within

5 psi of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water. No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{ND P^{1/2}}{7400}$$

in which "L" is the allowable leakage in gallons per hour; "N" is the number of joints in the length of pipe test; "D" is the nominal diameter of the pipe, in inches; and "P" is the average test pressure during the leakage test, in pounds per square inch gage. Allowable leakage per 1000 ft. of pipeline in gallons per hour at 200 psi for selected pipe diameters is listed below for 18-foot nominal lengths. Leakage tests for PVC pipe shall be at the design working pressure.

Nominal Pipe Diameter (Inches)	Allowable Leakage Per 1000 Feet of Pipeline (GPH)
2	0.22
3	0.33
4	0.44
6	0.65
8	0.87
10	1.09
12	1.31
Nominal Pipe Diameter (Inches)	Allowable Leakage Per 1000 Feet of Pipeline (GPH)
16	1.74
18	1.96
20	2.18
24	2.61
30	3.27
36	3.92
42	4.58
48	5.23
54	5.88

- d. When testing against closed metal-seated valves, an additional leakage per closed valve of 0.0078 gallons/hours/inches of nominal valve size shall be allowed. When hydrants are in the test section, the test shall be made against the closed hydrant. Acceptance shall be determined on the basis of allowable leakage. If any test of pipe laid discloses leakage greater than that specified, the CONTRACTOR shall, at his own expense, locate and repair the defect until the leakage is within the specified allowance. All visible leaks are to be repaired regardless of the amount of leakage.
- e. In accordance with OAC 252:626-19-2 (e), leakage must not exceed 10 gal/inch diameter per mile of pipe per 24 hours at 150 psi testing pressure.
4. Disinfection of Waterlines: All waterlines shall be flushed and disinfected, after testing and before being placed in service, by the methods detailed in AWWA C-601 except as modified herein.
 - a. Chlorine shall be introduced into the main in a liquid solution or as dry gas in a

continuous feed unless otherwise approved by the ENGINEER.

- b. The results of the disinfection procedure shall produce a residual of a minimum of ten parts per million (10 ppm) of chlorine in the portion of the main farthest from the point of application, after a period of twenty-four (24) hours has elapsed, as well as any other portion of the main. Samples shall be taken at location determined by the ENGINEER for tests of residual chlorine.
5. Water and sewer lines shall be constructed at the locations shown on the plans or as directed by the ENGINEER. Planned locations, grades or depths shall be adhered to unless, in the opinion of the ENGINEER, actual field conditions dictate revisions thereof. When the ENGINEER considers it necessary to deviate from planned locations, the CONTRACTOR shall construct said water or sewer lines to new alignment and/or grades established by the ENGINEER or as directed by the ENGINEER, such directions, construction stakes showing alignment and depth of cut, or revised construction plans issued by the ENGINEER.

15.3 BASIS OF PAYMENT

- A. No extra payment will be made for construction to revised locations other than increased or decreased quantities of pipe, fittings, manholes, or other items tabulated on the proposal. No extra payment will be made for additional excavation required by deviations from planned alignment or grades. Leakage tests will not be measured for payment, but the cost shall be included in other bid items. The CONTRACTOR'S bid price for waterlines to include all costs of hydrostatic and leakage test and sterilization as no separate payment will be made for these items.

END OF SECTION 33 11 00

SECTION 33 12 17 – WATER METER BOX AND LID

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Furnish, install all labor, materials, equipment, and services as required to complete all residential meter boxes and lids as specified herein.

1.2 DELIVERY, STORAGE, HANDLING

- A. Individual equipment components shall be crated in structurally adequate packing containers to prevent damage during shipping, facilitate ease of handling and to provide suitable protection from weather for extended storage at the jobsite prior to installation. Packing containers shall be permanently labeled with appropriate equipment identification, shipping address and return address. Packing list shall be provided with equipment at the time of delivery.
- B. Electrical equipment shall be kept thoroughly dry at all times and shall be stored indoors. Equipment storage shall be protected and maintained in accordance with the manufacturer's recommendations. Equipment shall not be stored directly on the ground. Equipment to be installed inside shall be stored inside.
- C. The CONTRACTOR shall utilize equipment and tools of adequate size suitable for unloading, transporting, storing and supporting the equipment during installation. Caution shall be employed to prevent equipment damage resulting from abrupt contact with other materials or equipment.

PART 2 - PRODUCTS

2.1 ACCEPTABLE SUPPLIERS

- A. Carson Industries, LLC
- B. DFW Plastics, Inc.
- C. ENGINEER approved equal

2.2 DIMENSIONS

- A. Box Requirements
 - 1. Box shall be round.
 - 2. Material shall be plastic.
 - 3. DFW 800 A.B. Body.
- B. Lid Requirements
 - 1. Lid shall be round (anti-float).
 - 2. Material shall be plastic.

3. DFW 18 AMR-AF1EQAF (anti-float) .

PART 3 - EXECUTION

3.1 GENERAL

- A. The GENERAL CONTRACTOR shall assume full responsibility for coordination of the entire project, including verification all structures, piping, coating systems and equipment components are compatible. The GENERAL CONTRACTOR shall initially operate each equipment system and shall make all necessary adjustments so that each system is placed in proper operating condition.
- B. Equipment and materials utilized for this project must be approved by the ENGINEER prior to installation. Approval for installation or incorporation in this project will be made only after submittal or manufacturer's shop and installation drawings, test results or other data as specified herein.
- C. Installation of equipment shall be in full conformance with the manufacturer's shop drawings and requirements as approved by the ENGINEER. Wherever a conflict arises between manufacturer's instructions and the contract documents, the contractor shall follow the ENGINEER'S decision at no additional cost to the OWNER.

END OF SECTION 33 12 17

SECTION 33 12 18 – METER RISER

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Furnish, install all labor, materials, equipment, and services as required to complete all residential meter settings as specified herein.

1.2 DELIVERY, STORAGE, HANDLING

- A. Individual equipment components shall be crated in structurally adequate packing containers to prevent damage during shipping, facilitate ease of handling and to provide suitable protection from weather for extended storage at the jobsite prior to installation. Packing containers shall be permanently labeled with appropriate equipment identification, shipping address and return address. Packing list shall be provided with equipment at the time of delivery.
- B. Electrical equipment shall be kept thoroughly dry at all times and shall be stored indoors. Equipment storage shall be protected and maintained in accordance with the manufacturer's recommendations. Equipment shall not be stored directly on the ground. Equipment to be installed inside shall be stored inside.
- C. The CONTRACTOR shall utilize equipment and tools of adequate size suitable for unloading, transporting, storing and supporting the equipment during installation. Caution shall be employed to prevent equipment damage resulting from abrupt contact with other materials or equipment.

PART 2 – PRODUCTS

2.1 ACCEPTABLE SUPPLIERS

- A. Uponor North America
- B. SharkBite®
- C. ENGINEER approved equal

PART 3 - EXECUTION

3.1 GENERAL

- A. The GENERAL CONTRACTOR shall assume full responsibility for coordination of the entire project, including verification all structures, piping, coating systems and equipment components are compatible. The GENERAL CONTRACTOR shall initially operate each equipment system and shall make all necessary adjustments so that each system is placed in proper operating condition.

- B. Equipment and materials utilized for this project must be approved by the ENGINEER prior to installation. Approval for installation or incorporation in this project will be made only after submittal or manufacturer's shop and installation drawings, test results or other data as specified herein.
- C. Installation of equipment shall be in full conformance with the manufacturer's shop drawings and requirements as approved by the ENGINEER. Wherever a conflict arises between manufacturer's instructions and the contract documents, the CONTRACTOR shall follow the ENGINEER'S decision at no additional cost to the OWNER.
- D. Meters shall be brought and set to grade with PEX pipe utilizing metal ring compression crimping.

END OF SECTION 33 12 18

SECTION 33 13 00 - DISINFECTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section covers the requirements for disinfecting waterlines or structures that will hold or carry potable water. Before the use of water is permitted from any portion of newly constructed waterline or structure that will hold or carry potable water, it shall be disinfected and flushed or cleaned.

1.2 SUBMITTAL

- A. The CONTRACTOR shall submit the following: Chlorine residuals immediately after the chlorine application.
 - 1. Chlorine residuals after the 24-hour retention period, but before the chlorinated water is flushed.
 - 2. Chlorine residuals after the chlorinated water is flushed.
 - 3. Results of the bacteriologic quality tests conducted after the waterline or structure is disinfected and flushed.

PART 2 - PRODUCTS

2.1 MATERIAL

- A. The waterline or structure shall be disinfected by the use of liquid chlorine gas water mixture.

PART 3 - EXECUTION

3.1 FLUSHING AND CLEANING

- A. Prior to disinfection, all dirt and foreign matter shall be removed by a thorough flushing or cleaning of the newly laid pipeline or newly constructed structure.

3.2 CHLORINE APPLICATION

- A. A chlorine gas water mixture shall be applied by means of a solution feed chlorinating device. The rate of the chlorine gas water mixture flow shall be in such proportion to the rate of water entering the pipe or structure that the chlorine dose applied to the water entering the pipe or structure shall be 50 to 100 parts per million.
- B. The treated water shall be retained in the pipe or structure at least 24 hours, and then flushed to waste.
- C. The chlorine residual shall not be less than 10 ppm at any point in the pipe or structure at the end of the retention period.

- D. During the application of the chlorine and during the retention period, all necessary precautions, such as closing valves, shall be taken to prevent the chlorinated water from flowing back into the line supplying the water.
- E. As an alternate and supplement to the above, the CONTRACTOR shall use any of the methods described in the latest revisions of AWWA C-601 and AWWA B-100.

3.3 BACTERIOLOGIC TESTS

- A. After final flushing and before the waterline or structure is placed in service, samples shall be collected from the end of the line or as directed and tested for bacteriologic quality and shall show the absence of coliform organisms on two (2) consecutive days as per ODEQ 252:626-19-2(f).

END OF SECTION 33 13 00

Thompson Heights Waterline

Quest eBidDoc™ Number: 8558234

Closing Date: Mon, 09/18/2023 04:00 PM CDT **Posting Type:** Construction Project **Owner Name:** City of Shawnee **Solicitor Name:** Cowan Group Engineering, LLC **Contact:** Michael Taylor **Phone:** 4054633369 **Email:** michael@cowangroup.co

Company Name & Address	Contact Name/Email Address	Phone/Fax	Bus. Cert	Bus. Desig	Entry Date	Doc Type	Comments
Cowan Group Engineering, LLC 7100 N. Classen, Suite 500, Oklahoma City, OK-73116	Michael Taylor michael@cowangroup.co	4054633369 4054633381		A/E Consultant	08/27/2023	eBidDoc	
Orr Construction, Inc. 510 North Broadway, Davenport, OK-74026	Orr Staff projects@orrconstructionok.com	918-377-4362		Prime Bidder	08/28/2023	eBidDoc	
Dodge Data & Analytics 2860 S State Hwy 161, Grand Prairie, TX-75052	Daedri Cavuoto daedri.cavuoto@construction.com	513.666.3354 800-768-5594		Prime Bidder	08/29/2023	eBidDoc	
ConstructConnect 3825 Edwards Rd, Cincinnati, OH-45209	Eric Mills content@constructconnect.com	800-364-2059 866-570-8187		Plan Room	08/29/2023	eBidDoc	
Tri-Star Utilities, Inc. P.O Box 903, Independence, KS-67301	Ben Chism indyunderground@outlook.com	620-331-7159 620-331-7455		Prime Bidder	08/30/2023	eBidDoc	
Marsau Enterprises 1209 N. 30th St., Enid, OK-73701	Terry Alexander terry.alexander@marsauenterprises.com	580-233-3910 580-233-5063		Prime Bidder	08/30/2023	eBidDoc	
Southern Excavation and Utilities, LLC 4601 N William Ct, Stillwater, OK-74075	Ty Wick ty.wick@gmail.com	405-747-6904		Prime Bidder	09/05/2023	eBidDoc	
AX&T Dirtworks LLC P.O. Box 4573, Bozeman, MT-59772	James Armstrong axtdirtworks@gmail.com	406-581-4491	DBE	Prime Bidder	09/05/2023	eBidDoc	
Circle B Underground LLC PO Box 868, Bristow, OK-74010	Darin Dean ddean@cbruok.com	918-367-8881 918-367-8882		Prime Bidder	09/06/2023	eBidDoc	
UTILITY TECHNOLOGY SERVICES 9636 west reno, oklahoma city, OK-73127	DAVID MOORE domoore0562@gmail.com	4058854131		Supplier	09/08/2023	eBidDoc	
OKLAHOMA CONTRACTORS SUPPLY 7216 sw 3rd, OKC, OK-73099	JOSH LILES ibuildnoleaks@gmail.com	405-495-6161/405-787-5008		Supplier	09/08/2023	eBidDoc	



Addendum #1

Date: September 13, 2023
Project: City of Shawnee
Thompson Heights Waterline
Bid Closing Date: September 18, 2023
Shawnee, Oklahoma

The Items contained below now become a part of the referenced contract documents and specifications. Please read the following items and acknowledge receipt (see attached sheet) of this addendum on the proposal form when submitting bids.

- Please fax or e-mail Acknowledgement Page to Cowan Group Engineering, LLC, at 405-463-3369.
- If submitting a hard copy bid, bidders shall acknowledge receipt of this Addendum by signing and submitting the Acknowledgement Page with bid. Failure to do so may subject the Bidder to disqualification.
- Please find the attached revised specification documents and contract documents and replace the corresponding outdated documents with them.

PLAN SHEETS

1. Updated pay quantity note 7 to remove public works reference.

CLARIFICATIONS

1. The project is tax exempt.
2. Pipe size shall be DIPS.
3. All bids shall be typewritten or in blue ink pen.
4. Unit costs & total costs shall be provided.
5. The city does not have a dumping location for excess dirt. Hauling will need to be included in bid and incidental.
6. Street bonds shall be provided with the length of five years. The first year shall cover 100 percent of the cost with the remaining four years being 10 percent of the cost.
7. Utility bonds shall be provided with the length of two years. The first year shall cover 100 percent of the cost with the second year covering 10 percent.
8. Hydrant meters shall be obtained through public works for boring if needed for water.
9. Service connections shall only include tap and line to existing meter.
10. Strap (JCM) taps to be used for tapping valves.
11. Blue CTS shall be used for services.

Thank you for your attention. Should you have any questions, please contact the undersigned at 405.463.3369.

Cowan Group Engineering, LLC

Michael Taylor
Michael Taylor, P.E.
Team Lead

Attachment: Acknowledgement Page
Plan Sheet 3



Acknowledgement Page

Addendum #1 September 13, 2023

Project: City of Shawnee
Thompson Heights Waterline
Project Number: ARP-23-0092-G
Bid Closing Date: September 18, 2023
Shawnee, Oklahoma

Company: _____

Name: _____

Signature: _____

Title: _____

Date: _____

GENERAL CONSTRUCTION NOTES

1.

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE, FEDERAL, AND LOCAL STANDARDS AND SPECIFICATIONS AND THE REQUIREMENTS OF THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY. WHERE IN CONFLICT THE MOST STRINGENT REQUIREMENT SHALL APPLY.
2.

ANY CONSTRUCTION ITEMS THAT ARE NOT LISTED IN THE SUMMARY OF QUANTITIES SHALL BE CONSIDERED INCIDENTAL CONSTRUCTION ITEMS. THE COST OF INCIDENTAL CONSTRUCTION ITEMS SHALL BE INCLUDED IN THE COST OF OTHER BID ITEMS.
3.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PUBLIC AND/OR PRIVATE UTILITY COMPANIES IN THE VICINITY OF CONSTRUCTION.
4.

EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
5.

RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY. ALL DISPOSAL SITES MUST BE APPROVED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN SHALL REQUIRE THE NECESSARY PERMITS. ANY MATERIAL DUMPED IN THE WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORP OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS AND STATE APPROVAL.
6.

A COPY OF THE EROSION CONTROL SITE PLANS AND THE STORM WATER POLLUTION PREVENTION PLAN MUST BE ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE INSPECTOR UPON REQUEST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION , MAINTENANCE, REPAIR, AND REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
7.

CONTRACTOR SHALL PROVIDE BONDS AND PROOF OF INSURANCE IN ACCORDANCE WITH THE LOCAL REQUIREMENTS.
8.

CONSTRUCTION STAKING AND TESTING SHALL BE PROVIDED BY THE CONTRACTOR.
9.

THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING CONSTRUCTION OF THIS PROJECT MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.
10.

THE CONTRACTOR SHALL AVOID TREE DAMAGE IF AT ALL POSSIBLE AND SHALL PRUNE ALL ROOTS DAMAGED DURING CONSTRUCTION ACTIVITIES
11.

ALL WATER LINE MAINS SHALL BE CONSTRUCTED WITH A MINIMUM COVER OF FOUR (4) FEET, UNLESS OTHERWISE NOTED.
12.

SHOP DRAWINGS FOR ALL PIPE MATERIALS INCLUDING BUT NOT LIMITED TO VALVES, FITTINGS, AND PIPE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION BEGINS.
13.

ALL DISTURBED AREAS SHALL HAVE 4” TOPSOIL AND SOLID SLAB SOD LAID. CONTRACTORS SHALL TAKE NECESSARY MEASURES TO RE-ESTABLISH SOD. PRICE BID TO INCLUDE COST OF (10–20–10) FERTILIZER, ESTIMATED AT 200 POUNDS PER 1000 SY. OF SODDING. PRICE BID ALSO TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER SY.
14.

WATER VALVES TO BE ABANDONED IN SIDEWALKS OR PAVEMENT SHALL BE CLOSED; POUR CONCRETE OVER VALVE, PULL VALVE BOX, AND REPAIR SIDEWALK OR PAVING.
15.

CONTRACTOR SHALL CONDUCT PRESSURE TESTS AND DISINFECTION ON ALL WATER MAINS PRIOR TO CONNECTION TO EXISTING DISTRIBUTION SYSTEM.

PRESSURE AND LEAKAGE TESTS SHALL BE PERFORMED BY CONTRACTOR IN ACCORDANCE WITH OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY OAC252:626–19–2(E) AND LATEST REVISION OF AWWA C906.

DISINFECTION TESTS SHALL BE PERFORMED BY CONTRACTOR IN ACCORDANCE WITH OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY OAC252:626–19–2(F) AND LATEST REVISION OF AWWA STANDARD SPECIFICATIONS.
16.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL IN ACCORDANCE WITH FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES

- AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION. COST OF TRAFFIC CONTROL SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN THE COST OF OTHER BID ITEMS.
17.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE REQUIRED 10 FOOT HORIZONTAL AND 2 FOOT VERTICAL SEPARATION BETWEEN SANITARY SEWER AND POTABLE WATER MAINS AND 5 FOOT HORIZONTAL AND 2 FOOT VERTICAL SEPARATION BETWEEN WATER MAINS AND OTHER UTILITIES
18.

CONTRACTOR SHALL MAINTAIN WATER SERVICE DURING CONSTRUCTION. CONNECTION SHALL BE COORDINATED WITH OWNER AND COMPLETED IN A TIMELY MANNER TO MINIMIZE INTERRUPTION TO SERVICE.
19.

ALL EXISTING WATER MAINS AND APPURTENANCES BEING ABANDONED BY ANY PROJECT ARE TO REMAIN THE PROPERTY OF SHAWNEE WATER DEPARTMENT, AND SHALL BE SALVAGED FOR THE SHAWNEE WATER DEPARTMENT.
20.

IN INSTANCES WHERE FLOW LINES ARE NOT INDICATED ON THE DRAWINGS, MAIN SHALL BE CONSTRUCTED WITH A MINIMUM OF 4’ COVER, OR AS DIRECTED BY THE CITY ENGINEER AND IN ACCORDANCE WITH OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY STANDARDS.
21.

ALL EMBANKMENTS AND BACKFILL SHALL MEET THE STANDARD SPECIFICATION.
22.

ANY CONSTRUCTION PROCEDURES NOT COVERED IN THE PLANS AND SPECIFICATIONS WILL BE EXECUTED IN ACCORDANCE WITH PROPER CONSTRUCTION TECHNIQUES AND SHALL BE APPROVED BY THE ENGINEER.
27.

CONTRACTOR IS RESPONSIBLE FOR PROMPT REPLACEMENT OF ANY FENCE DISTURBED DURING CONSTRUCTION AND SHALL BE CONSIDERED INCIDENTAL.

PAY QUANTITIES

BASE BID					
ITEM #	ITEM	NOTES	UNIT	QUANTITY	AS-BUILT
1	MOBILIZATION		LS	1	
2	CLEARING AND GRUBBING		LS	1	
3	SOLID SLAB SOD	(3)(4)	SY	956	
4	STORMWATER POLLUTION PREVENTION PLAN	(2)	LS	1	
5	8" HDPE DR-11 WATERLINE (HDD & TRENCHING)	(10)(11)	LF	5,604	
6	BORING PIT	(13)	EA	36	
7	6" GATE VALVE & BOX	(4)(5)	EA	10	
8	8" GATE VALVE & BOX	(4)(5)	EA	7	
9	1" AIR RELIEF VALVE		EA	1	
10	HDPE WALL ANCHOR	(10)	EA	17	
11	FIRE HYDRANT ASSEMBLY	(7)	EA	10	
12	12"X8" TEE		LB	1	
13	8"X8" TEE		EA	3	
14	8"X6" TEE		EA	10	
15	8"X11 1/4" BEND		EA	19	
16	8"X22 1/2" BEND		EA	4	
17	8"X45" BEND		EA	29	
18	8"X90" BEND		EA	1	
19	6" CUT & PLUG		EA	8	
20	WATER SERVICE RECONNECTION (SHORT)	(12)	EA	72	
21	WATER SERVICE RECONNECTION (LONG)	(12)	EA	77	
22	LEAD SERVICE REPLACEMENT (SHORT)		EA	1	
23	LEAD SERVICE REPLACEMENT (LONG)		EA	1	
24	REMOVE & REPLACE CONCRETE PAVEMENT	(6)(8)	SY	25	
25	REMOVE & REPLACE CONCRETE DRIVE	(6)(8)	SY	133	
26	REMOVE & REPLACE ASPHALT PAVEMENT	(8)	SY	35	
27	REMOVE EXISTING FIRE HYDRANT		EA	6	
28	CONSTRUCTION SIGNING AND TRAFFIC CONTROL		LS	1	
29	TEMPORARY EROSION AND SEDIMENT CONTROL	(1)	LS	1	
30	PRESSURE AND LEAKAGE TESTING		LS	1	
31	DISINFECTION AND TESTING		LS	1	

PAY QUANTITY NOTES

7.

FIRE HYDRANT ASSEMBLY COMPLETE PRICE BID ITEM TO INCLUDE THE COST OF (3 L.F. OF 6" WATER LINE , 1–FIRE HYDRANT, 4–6" MEGALUG SERIES 2006 PV, 1–12" RISER IF REQUIRED).
8.

ESTIMATED QUANTITY. LOCATION, IF AND WHERE REQUIRED, TO BE DETERMINED BY THE ENGINEER. COST TO INCLUDE CURB AND GUTTER.
9.

EXISTING WATERLINES ARE SHOWN AT APPROXIMATE LOCATIONS ON PLANS. CONTRACTOR TO FIELD LOCATE THE EXISTING WATERLINES. CONNECTION TO EXISTING WATERLINE SHALL INCLUDE ALL COSTS FOR LABOR AND MATERIAL TO LOCATE AND CUT EXISTING WATERLINE AND INSTALL THE REQUIRED VALVES AND FITTINGS CONNECTING THE NEW WATERLINE. NO ADDITIONAL PAYMENT SHALL BE MADE.
10.

WALL ANCHORS SHALL BE PLACED IN EVERY BORE PIT AND AT MINIMUM EVERY 400 FEET. SEE SPECIAL DETAIL SHEET 25.
11.

PIPE SIZE SHALL BE DIPS.
12.

SERVICE CONNECTIONS SHALL ONLY INCLUDE TAP AND LINE TO EXISTING METER.
13.

EXCESS DIRT HAULING SHALL BE INCIDENTAL.

THOMPSON HEIGHTS WATERLINE IMPROVEMENTS

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

PAY QUANTITIES & NOTES

DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-152
DATE	6/13/2023

REVISIONS

SHEET NUMBER



COWAN GROUP ENGINEERING
7100 N GLASSEN, SUITE 500
OKLAHOMA CITY, OK 73116
405-463-3369 O 405-463-3381 F
WWW.COWANGROUP.CO
CA# 6414 EXPIRES 6/30/2024



COWAN GROUP ENGINEERING, LLC
7100 N Classen, Suite 500
OKLAHOMA CITY, OK 73116
405.463.3369 O

City of Shawnee

THOMPSON HEIGHTS WATERLINE

BID NO. ARP-23-0092-G

DATE September 18, 2023

I do solemnly swear that the below amount is
correct, reasonable and just.

Michael Taylor
Michael Taylor, P.E.



BASE BID		BID: SHAWNEE THOMPSON HEIGHTS WATERLINE											
ITEM NUMBER	DESCRIPTION	QTY	UNIT	DAVENPORT CONSTRUCTION		PATRIOT CONSTRUCTION		CIRCLE B UNDERGROUND		ORR CONSTRUCTION		MARSAU CONSTRUCTION	
1	MOBILIZATION	1	LS	\$ 20,000.00	\$ 20,000.00	\$ 31,500.00	\$ 31,500.00	\$ 33,000.00	\$ 33,000.00	\$ 40,000.00	\$ 40,000.00	\$ 55,000.00	\$ 55,000.00
2	CLEARING AND GRUBBING	1	LS	\$ 20,000.00	\$ 20,000.00	\$ 26,700.00	\$ 26,700.00	\$ 11,000.00	\$ 11,000.00	\$ 10,000.00	\$ 10,000.00	\$ 18,000.00	\$ 18,000.00
3	SOLID SLAB SOD	955	SY	\$ 5.00	\$ 4,775.00	\$ 10.00	\$ 9,550.00	\$ 12.00	\$ 11,460.00	\$ 10.00	\$ 9,550.00	\$ 20.00	\$ 19,100.00
4	STORMWATER POLLUTION PREVENTION PLAN	1	LS	\$ 2,200.00	\$ 2,200.00	\$ 2,500.00	\$ 2,500.00	\$ 14,163.00	\$ 14,163.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00
5	8" HDPE DR-11 WATERLINE (HDD & TRENCHING)	5,604	LF	\$ 125.00	\$ 700,500.00	\$ 91.50	\$ 512,766.00	\$ 87.00	\$ 487,548.00	\$ 125.00	\$ 700,500.00	\$ 190.00	\$ 1,064,760.00
6	BORING PIT	36	EA	\$ 400.00	\$ 14,400.00	\$ 1,700.00	\$ 61,200.00	\$ 2,200.00	\$ 79,200.00	\$ 1,000.00	\$ 36,000.00	\$ 1,525.00	\$ 54,900.00
7	6" GATE VALVE & BOX	10	EA	\$ 2,080.00	\$ 20,800.00	\$ 1,700.00	\$ 17,000.00	\$ 3,529.00	\$ 35,290.00	\$ 2,800.00	\$ 28,000.00	\$ 1,735.00	\$ 17,350.00
8	8" GATE VALVE & BOX	7	EA	\$ 3,280.00	\$ 22,960.00	\$ 2,300.00	\$ 16,100.00	\$ 5,064.00	\$ 35,448.00	\$ 3,700.00	\$ 25,900.00	\$ 2,715.00	\$ 19,005.00
9	1" AIR RELIEF VALVE	1	EA	\$ 1,800.00	\$ 1,800.00	\$ 2,800.00	\$ 2,800.00	\$ 8,393.00	\$ 8,393.00	\$ 4,200.00	\$ 4,200.00	\$ 3,440.00	\$ 3,440.00
10	HDPE WALL ANCHOR	17	EA	\$ 1,400.00	\$ 23,800.00	\$ 1,450.00	\$ 24,650.00	\$ 1,049.00	\$ 17,833.00	\$ 3,000.00	\$ 51,000.00	\$ 8,780.00	\$ 149,260.00
11	FIRE HYDRANT ASSEMBLY	10	EA	\$ 5,980.00	\$ 59,800.00	\$ 5,900.00	\$ 59,000.00	\$ 9,828.00	\$ 98,280.00	\$ 7,500.00	\$ 75,000.00	\$ 5,525.00	\$ 55,250.00
12	12"X8" TEE	1	LB	\$ 2,130.00	\$ 2,130.00	\$ 1,500.00	\$ 1,500.00	\$ 1,219.00	\$ 1,219.00	\$ 2,000.00	\$ 2,000.00	\$ 1,700.00	\$ 1,700.00
13	8" X 8" TEE	3	EA	\$ 1,640.00	\$ 4,920.00	\$ 1,000.00	\$ 3,000.00	\$ 1,169.00	\$ 3,507.00	\$ 1,500.00	\$ 4,500.00	\$ 1,080.00	\$ 3,240.00
14	8" X 6" TEE	10	EA	\$ 1,400.00	\$ 14,000.00	\$ 1,500.00	\$ 15,000.00	\$ 1,186.00	\$ 11,860.00	\$ 1,500.00	\$ 15,000.00	\$ 1,475.00	\$ 14,750.00
15	8" X 11 1/4° BEND	19	EA	\$ 1,160.00	\$ 22,040.00	\$ 1,000.00	\$ 19,000.00	\$ 674.00	\$ 12,806.00	\$ 900.00	\$ 17,100.00	\$ 900.00	\$ 17,100.00
16	8" X 22 1/2° BEND	4	EA	\$ 1,160.00	\$ 4,640.00	\$ 1,000.00	\$ 4,000.00	\$ 674.00	\$ 2,696.00	\$ 900.00	\$ 3,600.00	\$ 940.00	\$ 3,760.00
17	8" X 45° BEND	29	EA	\$ 1,160.00	\$ 33,640.00	\$ 1,000.00	\$ 29,000.00	\$ 674.00	\$ 19,546.00	\$ 800.00	\$ 23,200.00	\$ 940.00	\$ 27,260.00
18	8" X 90° BEND	1	EA	\$ 1,200.00	\$ 1,200.00	\$ 1,000.00	\$ 1,000.00	\$ 674.00	\$ 674.00	\$ 1,000.00	\$ 1,000.00	\$ 950.00	\$ 950.00
19	6" CUT & PLUG	8	EA	\$ 900.00	\$ 7,200.00	\$ 600.00	\$ 4,800.00	\$ 1,155.00	\$ 9,240.00	\$ 1,500.00	\$ 12,000.00	\$ 1,905.00	\$ 15,240.00
20	WATER SERVICE RECONNECTION (SHORT)	72	EA	\$ 760.00	\$ 54,720.00	\$ 1,900.00	\$ 136,800.00	\$ 1,554.00	\$ 111,888.00	\$ 1,500.00	\$ 108,000.00	\$ 2,050.00	\$ 147,600.00
21	WATER SERVICE RECONNECTION (LONG)	77	EA	\$ 1,480.00	\$ 113,960.00	\$ 2,500.00	\$ 192,500.00	\$ 2,833.00	\$ 218,141.00	\$ 3,000.00	\$ 231,000.00	\$ 3,290.00	\$ 253,330.00
22	LEAD SERVICE REPLACEMENT (SHORT)	1	EA	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ 1,581.00	\$ 1,581.00	\$ 1,500.00	\$ 1,500.00	\$ 2,050.00	\$ 2,050.00
23	LEAD SERVICE REPLACEMENT (LONG)	1	EA	\$ 1,600.00	\$ 1,600.00	\$ 1,700.00	\$ 1,700.00	\$ 2,833.00	\$ 2,833.00	\$ 3,000.00	\$ 3,000.00	\$ 3,390.00	\$ 3,390.00
24	REMOVE & REPLACE CONCRETE PAVEMENT	25	SY	\$ 150.00	\$ 3,750.00	\$ 185.00	\$ 4,625.00	\$ 220.00	\$ 5,500.00	\$ 300.00	\$ 7,500.00	\$ 350.00	\$ 8,750.00
25	REMOVE AND REPLACE CONCRETE DRIVE	133	SY	\$ 150.00	\$ 19,950.00	\$ 150.00	\$ 19,950.00	\$ 193.00	\$ 25,669.00	\$ 300.00	\$ 39,900.00	\$ 300.00	\$ 39,900.00
26	REMOVE AND REPLACE ASPHALT PAVEMENT	35	SY	\$ 150.00	\$ 5,250.00	\$ 220.00	\$ 7,700.00	\$ 220.00	\$ 7,700.00	\$ 225.00	\$ 7,875.00	\$ 275.00	\$ 9,625.00
27	REMOVE EXISTING FIRE HYDRANT	6	EA	\$ 500.00	\$ 3,000.00	\$ 1,000.00	\$ 6,000.00	\$ 2,200.00	\$ 13,200.00	\$ 1,200.00	\$ 7,200.00	\$ 1,500.00	\$ 9,000.00
28	CONSTRUCTION SIGNING AND TRAFFIC CONTROL	1	LS	\$ 4,500.00	\$ 4,500.00	\$ 6,300.00	\$ 6,300.00	\$ 27,500.00	\$ 27,500.00	\$ 5,000.00	\$ 5,000.00	\$ 10,000.00	\$ 10,000.00
29	TEMPORARY EROSION AND SEDIMENT CONTROL	1	LS	\$ 3,500.00	\$ 3,500.00	\$ 6,300.00	\$ 6,300.00	\$ 11,000.00	\$ 11,000.00	\$ 6,000.00	\$ 6,000.00	\$ 2,500.00	\$ 2,500.00
30	PRESSURE AND LEAKAGE TESTING	1	LS	\$ 800.00	\$ 800.00	\$ 6,300.00	\$ 6,300.00	\$ 7,288.00	\$ 7,288.00	\$ 10,000.00	\$ 10,000.00	\$ 12,500.00	\$ 12,500.00
31	DISINFECTION AND TESTING	1	LS	\$ 950.00	\$ 950.00	\$ 6,300.00	\$ 6,300.00	\$ 6,325.00	\$ 6,325.00	\$ 8,000.00	\$ 8,000.00	\$ 10,650.00	\$ 10,650.00
BASE BID TOTAL					\$ 1,193,985.00		\$ 1,236,741.00		\$ 1,331,788.00		\$ 1,496,025.00		\$ 2,051,860.00



September 28, 2023

Seth Barkhimer, Director of Engineering
City of Shawnee
222 N Broadway Avenue
Shawnee, OK 74801

Reference: Shawnee Thompson Heights Waterline
Engineer's Recommendation for Award
ARPA Number: ARP-23-0092-G

Dear Mr. Barkhimer:

Pursuant to the bid opening held on September 18, 2023, attached please find the bid tabulation for the subject project. The bid consisted of five (5) responsive bidders.

The apparent low bidder for the subject project is Davenport Construction, INC, with the following base bid amount:

Base Bid	\$ 1,193,985.00
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The apparent low bidder of \$1,193,985.00 for the subject project is Davenport Construction, INC. Pursuant to the review of the bid package, bonds, and bid tabulation, the low bid is accurate and complete.

After careful review and consideration, Cowan Group Engineering recommends the City of Shawnee award the subject contract to the low bidder, Davenport Construction, INC at \$1,193,985.00.

Should you have any questions, please contact the undersigned at 405.463.3369.

Sincerely,

COWAN GROUP ENGINEERING, LLC


Michael Taylor, P.E.
Project Manager

cc: file



Engineering Department
222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Seth Barkhimer, Director of Engineering
Subject: Sewer Pipe Bursting (Award)

Background: In March of 2023, the City of Shawnee entered into a Professional Services Agreement with Cowan Group Engineering, LLC (Cowan) for the final design of the Sanitary Sewer Pipe Bursting project. With design complete, the project was advertised, and staff opened bids at the September 18, 2023, City Commission Meeting.

City staff and the Cowan design team have reviewed the bid proposals. Three (3) bids were received, and the Base bids ranged from \$1,908,796 (low) to \$2,978,893.00 (high). The design estimate for the Base Bid, prior to the bid opening, was \$1,077,000.

Staff recommends awarding the contract to Horseshoe Construction, who submitted the lowest bid at \$1,908,796.00.

Financial Impact: \$1,908,796.00, funded from account 304-5-1040-54200 - American Rescue Plan Fund, Sewer Collection, Capital Outlay-Bldgs & Improvements; Project No. C-23-08 - Thompson Heights Water Line Replacement

Attachments: Advertisement for Bidders, Plans, Specs, Plan Holder List, Addendum No. 1, Bid Tabulation, Bid Recommendation

Staff Recommendation: Award of the Contract

Advertisement for Bids

Notice is hereby given that the City of Shawnee (hereinafter called the "Owner") will receive sealed bids at the City Clerk's Office, 16 W. 9th Street, Shawnee, Potawatomie County, Oklahoma until 4pm on the 18th day of September, 2023 for the Sewer Pipe Bursting.

Funding for this project is provided through American Rescue Plan Act (ARPA) grant program. As such, compliance with Labor Standards Contract Provisions is mandatory. Compliance with the Davis Bacon Act is mandatory **if the total project cost exceeds \$10,000,000 (ten million dollars)**.

All bids received at said time will be opened and evaluated for completeness and correctness. All work shall be performed, and all construction and materials used and furnished shall be in accordance with the Plans and Specifications prepared by Cowan Group Engineering, and on file in the office of the City Clerk, 16 W. 9th Street, Shawnee, OK 74802-1448.

The Bid Packet and Contract Documents for this project may be examined at the following locations:

1. The City Clerk's Office, 16 W. 9th Street, Shawnee, OK 74802-1448.
2. Cowan Group Engineering, 7100 N. Classen, Suite 500, Oklahoma City, OK 73116

Hard copy plans and specifications may be obtained by the prospective bidders at these locations for \$100.00. No documents will be mailed until payment is received in full.

Complete digital project bidding documents are available for a non-refundable fee of \$50.00 by going to www.cowangroup.co, navigating to the Bid Documents page, and by entering Quest Project # 8556116 on the website's project search page. Please contact QuestCDN.com at 952.233.1632 or info@questcdn.com for assistance in free membership registration, downloading and working with this digital project information.

Each bidder shall accompany his original bid, filed with the City Clerk's Office with a certified or Cashier's Check on a solvent bank located in Oklahoma, or a Bidder's Bond, in the amount of five (5) percent of the amount bid, as a guarantee of his ability to perform the contract bid upon, and that he will enter into a written contract with the Owner to perform said work and/or furnish said materials in accordance with said Plans and Specifications and furnish the required bonds according to the Public Competitive Bidding Act of 1974.

The Owner will retain the deposit for liquidated damages in case the successful bidder fails to enter in said contract and furnish the required bonds provided for in the specifications within the time required. Deposit of the unsuccessful bidders will be returned upon the execution of the Contract and required bonds.

Each bidder shall accompany his bid with a sworn statement in writing that the bidder has not directly or indirectly entered into an agreement, expressed or implied, with any other bidder concerning the price or amount of such bid or any bids, the limiting of the bids or bidders, the paying to anyone any money for promotion expenses, the parceling or farming out to any bidder or bidders or other persons of any part of the contract or any part of the subject matter of the bid or of the profits thereof.

Construction, Maintenance and Statutory Payment Bonds in the amount of 100% of the contract price are required for this project. These bonds must be obtained from a Corporate Surety licensed in Oklahoma and approved by the Owner and Consulting Engineer. The bidder shall state in the proposal the name and address of the Surety or Sureties who will sign this bond in case the contract is awarded. The Maintenance Bond required will guarantee the repair of all damage due to improper materials or workmanship for a period of one (1) year after the acceptance of the work by the Owner.

This project is to be financed by the ARPA grant program managed by the Oklahoma Water Resources Board (OWRB) and shall be referred to as Project No. ARP-23-0092-G. The following requirements and regulations must be complied with:

- A. "Equal Opportunity in Employment: All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age or physical handicap. Bidders on this work will be required to comply with the President's Executive Order No. 11246, as amended."
- B. "Each bidder must fully comply with the requirements, terms and conditions of the Environmental Protection Agency's Disadvantaged Business Enterprise Requirements, which have been adopted for the OWRB ARPA program, and include employing the six (6) good faith efforts and soliciting disadvantaged business enterprises during the performance of this contract. Requirements are contained in OWRB's Guidance and Procedures, ARP-267. The bidder commits itself to following the good faith efforts to solicit disadvantaged business enterprises contained herein and all other requirements, terms, and conditions of these bid conditions by submitting a properly signed bid."
- C. **If the total project cost exceeds \$10,000,000 (ten million dollars)** "Davis Bacon Act wage rules shall apply. All laborers and mechanics employed by contractors and sub- contractors on projects funded directly by or assisted in whole or in part by and through the Federal Government shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of Chapter 31 of Title 40, United States Code and 29 CFR parts 1,3, and 5. The Department of Labor provides all pertinent information related to compliance with labor standards, including prevailing wage rates and instructions for reporting. More information is available at <http://www.sam.gov/>" and <https://www.dol.gov/agencies/whd/government-contracts/construction>
- D. System for Award Management (SAM) registration is required for all Applicants and Awardees (Entities, Prime Contractors, Subcontractors, Vendors) in order to receive funds from the ARPA program. SAM replaced the Central Contractor Registration/Federal Agency Registration, Online Representations and Certifications Application, and Excluded Parties List System. Applicants and awardees are required to complete a one-time free registration to provide basic information relevant to procurement and financial transactions. On April 4, 2022, the unique entity identifier used across the federal government changed from the DUNS Number to the Unique Entity ID (generated by SAM.gov). Registrants must retain an active status to be eligible for ARPA funding. Applicants and Awardees can go to SAM.gov to complete the registration process.

The bids filed with the City Clerk's Office will be opened and considered by the Owner, at a meeting to be held in The City of Shawnee Commission Chambers, 16 W. 9th Street, Shawnee OK 74802, on the day of September 18th, 2023 at 6pm. Bids received past 4pm on the stated date prior to the Bid Opening will be returned.

The contract is to be awarded to the lowest, responsive, responsible bidder. The Owner reserves the right to correct any non-material clerical errors in the bidding as allowed under Oklahoma Law. The Owner reserves the right to reject any and all bids in accordance with the Oklahoma Public Competitive Bidding Act of 1974. Conditional bids shall not be accepted.

A pre-bid conference will be held on this project at: City of Shawnee, Commission Chambers on the 7th day of September, 2023 at 10am.

Approved on this ____ day of _____, 2023



Andrea Weckmueller-Behringer, City Manager

SURVEY CONTROL DATA

1. HORIZONTAL/VERTICAL CONTROL
HORIZONTAL DATUM IS BASED ON THE OKLAHOMA STATE PLANE COORDINATE SYSTEM (NORTH ZONE) NAD 83. VERTICAL DATUM IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
2. BASIS OF BEARINGS:
BEARINGS ARE BASED ON GRID NORTH (N00°00'00"E)

BENCHMARKS

BM #1 CUT 'X' ON CONC. N: 743388.771 E: 2286591.835 ELEV.=1051.67'	BM #6 CUT 'X' ON CONC. CURB N: 730986.205 E: 2290308.776 ELEV.=1035.33'
BM #2 CUT 'X' ON CONC. CURB N: 730957.569 E: 2286364.869 ELEV.=1070.79'	BM #7 SET PK NAIL IN ASPHALT N: 730103.163 E: 2294618.354 ELEV.=1033.53'
BM #3 CUT 'X' ON CONC. DRNG. STRC. N: 730400.844 E: 2286386.763 ELEV.=1068.69'	BM #8 CUT 'X' ON CONC. CURB N: 729019.309 E: 2295000.479 ELEV.=1073.92'
BM #4 CUT 'X' ON CONC. CURB N: 729282.495 E: 2287156.967 ELEV.=1063.42'	BM #9 CUT 'X' ON CONC. CURB N: 728432.671 E: 2292400.901 ELEV.=1022.82'
BM #5 CUT 'X' ON CONC. DRIVEWAY N: 729267.822 E: 2287521.874 ELEV.=1067.49'	BM #10 CUT 'X' ON CONC. CURB N: 727654.730 E: 2291493.107 ELEV.=1020.35'

UTILITY CONTACTS

COMPANY NAME	CONTACT NAME	PHONE NUMBER
SHAWNEE UTILITIES	SHAWNEE PUBLIC WORKS	405-273-1960
OG&E ENERGY CORPORATION	RAE ANN LAWRENCE, P.E. SENIOR LAND MANAGEMENT COORDINATOR	405-553-5785 (O) 405-388-8599 (C)
OG&E ENERGY CORPORATION	TIM THOMPSON	405-401-7229
AT&T OKLAHOMA	JOE ANDERSON	539-444-1026
OKLAHOMA NATURAL GAS	ALEXANDRIA MARSHALL	405-551-6889
BLUEPEAK	JERRY LEIBY	JERRY.LEIBY@MYBLUEPEAK.COM

LEGEND

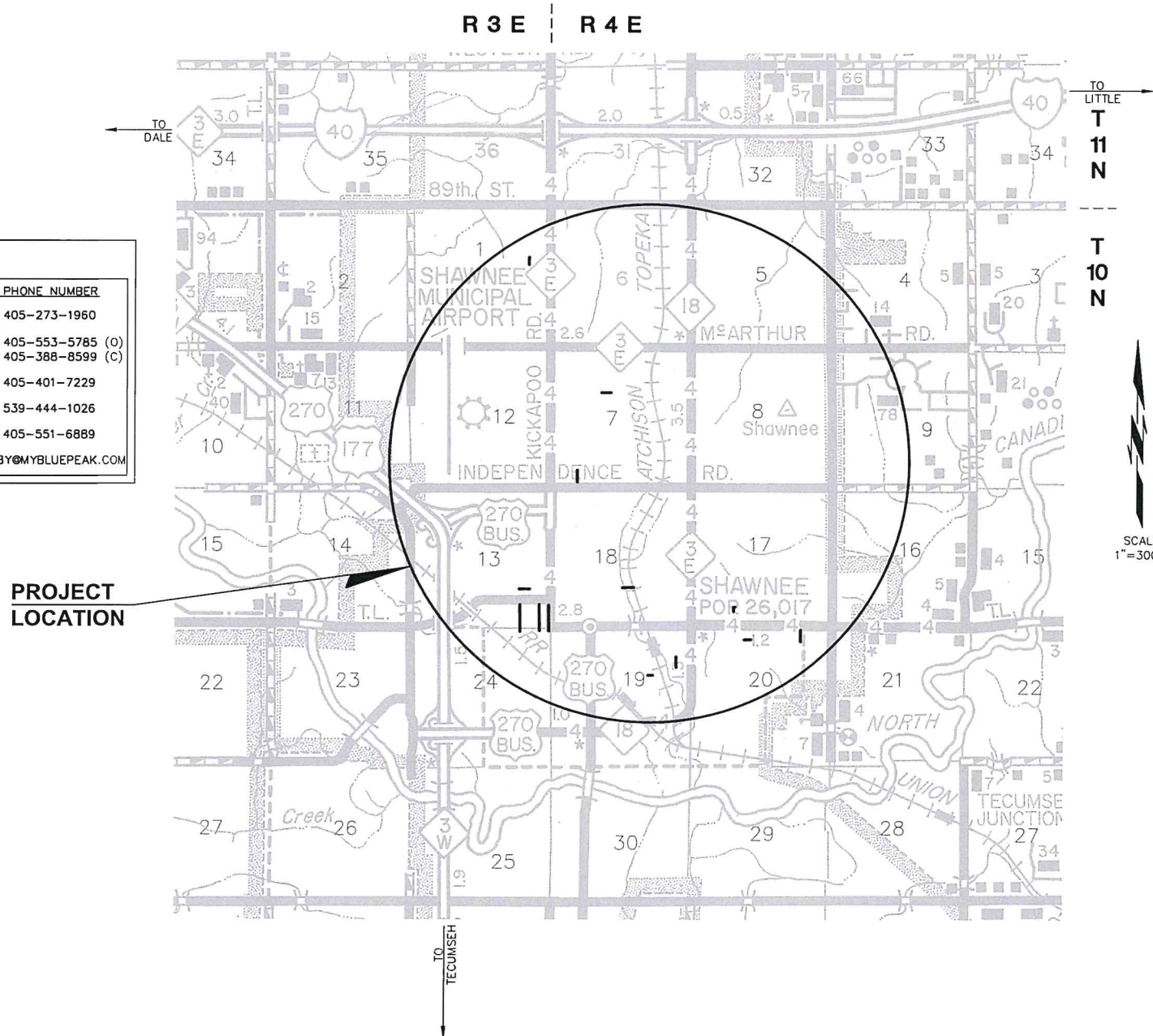
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	SECTION LINE
---	QUARTER SECTION LINE
---	RIGHT-OF-WAY (EXISTING)
---	RIGHT-OF-WAY (PROPOSED)
---	EXISTING ROAD
---	PROPOSED ROAD
-X-X-	FENCES
---	POWER OVERHEAD
---	POWER UNDERGROUND
---	TELEPHONE UNDERGROUND
---	GAS LINE
---	WATER LINE
---	SANITARY SEWER LINE
---	STORM SEWER (EXISTING)
---	STORM SEWER (PROPOSED)



- (1) AN EFFORT HAS BEEN MADE TO LOCATE AND SHOW APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINES. BURIED UTILITIES ARE NOT NECESSARILY SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND PRESERVE ALL UTILITIES.
- (2) CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES WITHIN WORK ZONE PRIOR TO CONSTRUCTION.

PLAN OF PROPOSED SANITARY SEWER PIPE BURSTING

CITY OF SHAWNEE
SECTION 1 & 13, T10N, R3E, I.M.
& SECTION 7 & 17-20, T10N, R4E, I.M.
POTTAWATOMIE COUNTY, OKLAHOMA



STATE OF OKLAHOMA
Department of Environmental Quality

APPROVED
August 23 2023

Rocky W. Chen, P.E.

Water Quality Division

Adam Divine

D. Adam Divine, P.E.

Construction Permitting Section

Sheet List Table

SHEET NUMBER	SHEET TITLE
1	TITLE SHEET
2	PAY QUANTITIES & NOTES
3	OVERALL MAP
4	SURVEY DATA
5	LINE 1 P&P
6	LINE 2 P&P
7	LINE 3 P&P
8	LINE 4 P&P
9	LINE 5 P&P (1 OF 2)
10	LINE 5 P&P (2 OF 2)
11	LINE 6 P&P (1 OF 2)
12	LINE 6 P&P (2 OF 2)
13	LINE 7 P&P (1 OF 2)
14	LINE 7 P&P (2 OF 2)
15	LINE 8 P&P
16	LINE 9 P&P
17	LINE 10 P&P
18	LINE 11 P&P
19	LINE 12 P&P
20	LINE 13 P&P
21	DETAIL SHEET (1 OF 3)
22	DETAIL SHEET (2 OF 3)
23	DETAIL SHEET (3 OF 3)

PREPARED BY



MICHAEL TAYLOR, P.E.
OKLAHOMA REGISTERED PROFESSIONAL ENGINEER NO. 27655
COWAN GROUP ENGINEERING, LLC
OKLAHOMA CERTIFICATE OF AUTHORIZATION NO. 6414
EXPIRES JUNE 30, 2024

SANITARY SEWER PIPE BURSTING

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

TITLE SHEET

DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-153
DATE	5/8/2023

REVISIONS

SHEET NUMBER

1

SUMMARY OF QUANTITIES

PAY ITEM	DESCRIPTION	NOTES	UNIT	QUANTITY	AS-BUILT
1	MOBILIZATION		LSUM	1	
2	8-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	(1)(2)(3)(4)	LF	2766	
4	10-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	(1)(2)(3)(4)	LF	2222	
5	12-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	(1)(2)(3)(4)	LF	1440	
6	SERVICE CONNECTION	(5)	EA	196	
7	CEMENTITIOUS MANHOLE COATING		VF	69	
8	1' MANHOLE GRADE ADJUSTMENT WITH SEAL AND REPLACE FRAME, COVER AND SEAL		EA	1	
9	4' DIAMETER MANHOLE GRADE ADJUSTMENT WITH SEAL AND REPLACE FRAME, COVER AND SEAL		EA	1	
10	STANDARD 4' DIAMETER MANHOLE REMOVAL AND REPLACEMENT	(6)(7)	EA	15	
11	CONSTRUCT 4' DIAMETER MANHOLE	(6)(7)	EA	2	
12	ASPHALT REMOVAL AND REPLACEMENT		SY	106	
13	CONCRETE REMOVAL AND REPLACEMENT	(1)	SY	21	
14	GRAVEL REMOVAL AND REPLACEMENT		SY	49	
15	SOLID SLAB SODDING		SY	53	
16	EXTRA DEPTH MANHOLE		VF	71	
17	PRE INSTALLATION VIDEO INSPECTION		LF	6428	
18	POST INSTALLATION VIDEO INSPECTION		LF	6428	
19	TESTING		LSUM	1	
20	BYPASS PUMPING		EA	24	
21	TEMPORARY EROSION AND SEDIMENT CONTROL		LSUM	1	
22	CONSTRUCTION SIGNING & TRAFFIC CONTROL		LSUM	1	
23	SPOT REPAIRS	(8)	EA	4	

PAY QUANTITY NOTES

1. CONCRETE USED FOR DRIVE REPLACEMENT AND PAVING PATCH SHALL BE 3,500 PSI HIGH EARLY STRENGTH CONCRETE.
2. HDPE PIPE SHALL HAVE AN ENTIRELY LIGHT COLOR (NATURAL, WHITE, GREEN, ETC.) INSIDE SURFACE TO ALLOW LIGHT REFLECTION FOR ROBOTIC TELEVISION INSPECTIONS AND SHALL CONFORM TO DIPS PIPE SIZING WITH A DR RATING OF 17.
3. IF PRE-INSTALLATION VIDEO REVEALS A SAG IN THE EXISTING SEWER THAT IS GREATER THAN ONE-HALF THE DIAMETER OF THE EXISTING PIPE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL THE REPLACEMENT PIPE TO RESULT IN AN ACCEPTABLE GRADE WITHOUT THE SAG.
4. CONTRACTOR TO TELEVISION INSPECT EXISTING LINES PRIOR TO CONSTRUCTION TO VERIFY SERVICE LINE PIPE SIZE. AND LOCATION. COST SHALL INCLUDE CLEANING EXPENSES.
5. APPLIES TO ALL SERVICE RECONNECTIONS REGARDLESS OF SIZE, MATERIAL, OR LENGTH. INCLUDES MATERIAL AND LABOR FOR THE REROUTING OF SERVICE LINES TO THE TRUNK LINE ON ALL NEW AND/OR REPLACED MANHOLES. SERVICE RECONNECTIONS SHALL INCLUDE A BACKFLOW PREVENTER AT THE EASEMENT OR R.O.W. LINE AND SHALL BE INCIDENTAL TO THE COST OF THIS ITEM.
6. STANDARD DEPTH FOR ALL MANHOLES SHALL BE 6'. BID ITEM SHALL INCLUDE ANY NECESSARY GRAVEL REMOVAL & REPLACEMENT.
7. MANHOLE GRADE ADJUSTMENTS FOR MANHOLE RINGS WHICH REQUIRE LEVEL ADJUSTMENTS TO GRADE ARE INCIDENTAL AND SHALL BE INCLUDED IN COSTS.
8. TO BE USED IN 15FT INCREMENTS FOR ANY SAGS FOUND DURING PRE INSTALLATION VIDEO INSPECTION, AS COORDINATED WITH THE ENGINEER.

STRUCTURE TABLE				
STRUCTURE NAME:	LINE #:	RIM:	PIPE INVERTS	DESCRIPTION:
30228	LINE 1	1048.44	8" 1038.94	REMOVE AND REPLACE 4' DIA. MH
1	LINE 1	1050.20	8" 1040.49	EX. 4' DIA. MH
30202	LINE 2	1096.60	10" 1084.46	REHAB EX. 4' DIA. MH
30207	LINE 2	1100.74	10" 1094.83	REMOVE AND REPLACE 4' DIA. MH
30218	LINE 3	1077.53	10" 1070.33	REHAB EX. 4' DIA. MH
30223	LINE 3	1084.52	10" 1068.79	REMOVE AND REPLACE 4' DIA. MH
2	LINE 4	1071.78	10" 1065.65	EX. 4' DIA. MH
20033	LINE 4	1073.94	10" 1064.49	REMOVE AND REPLACE 4' DIA. MH
3	LINE 5	1062.18	8" 1058.20	CONST. 4' DIA. MH
30008	LINE 5	1064.21	8" 1057.25 8" 1056.87	EX. 4' DIA. MH
30013	LINE 5	1066.05	8" 1058.97 8" 1059.02	REMOVE AND REPLACE 4' DIA. MH
30028	LINE 5	1068.81	8" 1060.93	EX. 4' DIA. MH
30005	LINE 6	1065.31	12" 1056.07	EX. 4' DIA. MH
30006	LINE 6	1066.51	12" 1054.21 12" 1054.18	REMOVE AND REPLACE 4' DIA. MH
30007	LINE 6	1068.58	12" 1058.10 12" 1058.08	EX. 4' DIA. MH
4	LINE 6	1071.16	12" 1058.81	CONST. 4' DIA. MH
30001	LINE 7	1065.75	8" 1056.91	REMOVE AND REPLACE 4' DIA. MH
30003	LINE 7	1066.76	8" 1057.48 8" 1057.38	REMOVE AND REPLACE 4' DIA. MH
30002	LINE 7	1068.64	8" 1054.91 8" 1054.88	REHAB EX. 4' DIA. MH
30004	LINE 7	1070.67	8" 1058.88	REHAB EX. 4' DIA. MH

STRUCTURE TABLE				
STRUCTURE NAME:	LINE #:	RIM:	PIPE INVERTS	DESCRIPTION:
5	LINE 8	1022.63	12" 1013.55	REHAB AND RAISE LID- EX.4' DIA. MH
20028	LINE 8	1034.62	12" 1017.32	CONST. 4' DIA. MH W/ DROP
30073	LINE 9	1020.60	10" 1008.60	EX. 4' DIA. MH
30085	LINE 9	1023.94	10" 1010.06	REMOVE AND REPLACE 4' DIA. MH
30104	LINE 10	1011.73	10" 1001.47	EX. 4' DIA. MH
30097	LINE 10	1020.55	10" 1011.71	REMOVE AND REPLACE 4' DIA. MH
6	LINE 11	1033.82	8" 1025.00	EX. 4' DIA. MH (PAVED OVER, TO FIELD VERIFY)
30122	LINE 11	1033.90	8" 1025.90 8" 1025.75	REMOVE AND REPLACE 4' DIA. MH
30139	LINE 11	1034.07	8" 1026.13	REHAB EX. 4' DIA. MH
30167	LINE 12	1072.70	8" 1063.65	REHAB EX. 4' DIA. MH
30156	LINE 12	1078.16	8" 1070.22	REMOVE AND REPLACE 4' DIA. MH
30193	LINE 13	1059.76	10" 1053.62	REHAB EX. 4' DIA. MH
30178	LINE 13	1071.04	10" 1062.32	REMOVE AND REPLACE 4' DIA. MH
2019	LINE 14	1053.68	12" 1041.08	EX. 4' DIA. MH
7	LINE 14	1061.79	12" 1046.04 12" 1046.36	REMOVE AND REPLACE 4' DIA. MH
1894	LINE 14	1063.93	12" 1050.00	EX. 4' DIA. MH

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF SHAWNEE STANDARDS AND SPECIFICATIONS AND THE REQUIREMENTS OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION, AND OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY WHERE IN CONFLICT THE MOST STRINGENT REQUIREMENT SHALL APPLY.
2. ANY CONSTRUCTION ITEMS THAT ARE NOT LISTED IN THE SUMMARY OF QUANTITIES SHALL BE CONSIDERED INCIDENTAL CONSTRUCTION ITEMS. THE COST OF INCIDENTAL CONSTRUCTION ITEMS SHALL BE INCLUDED IN THE COST OF OTHER BID ITEMS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PUBLIC AND/OR PRIVATE UTILITY COMPANIES IN THE VICINITY OF CONSTRUCTION.
4. EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
5. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION SHALL BE WASTED ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY. ALL DISPOSAL SITES MUST BE APPROVED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN SHALL REQUIRE THE NECESSARY PERMITS. ANY MATERIAL DUMPED IN THE WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORP OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS AND STATE APPROVAL.
6. A COPY OF THE EROSION CONTROL SITE PLANS AND THE STORM WATER POLLUTION PREVENTION PLAN MUST BE ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE INSPECTOR UPON REQUEST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, REPAIR, AND REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
7. ALL DISTURBED AREAS SHALL BE SODDED WITH SOLID SLAB PER CITY OF SHAWNEE STANDARD SPECIFICATIONS, INCLUDES WATER AT 40 GALLONS PER S.Y. AND FERTILIZE PER TOWN STANDARD. THE CITY OF SHAWNEE TO PAY PLAN QUANTITIES ONLY, ANY EXCESS WILL BE RESPONSIBILITY OF CONTRACTOR.
8. CONTRACTOR SHALL PROVIDE BONDS AND PROOF OF INSURANCE IN ACCORDANCE WITH THE LOCAL REQUIREMENTS.
9. CONSTRUCTION STAKING AND TESTING SHALL BE PROVIDED BY THE CONTRACTOR.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION.
11. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING CONSTRUCTION OF THIS PROJECT MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.
12. THE CONTRACTOR SHALL AVOID TREE DAMAGE IF AT ALL POSSIBLE AND SHALL PRUNE ALL ROOTS DAMAGED DURING CONSTRUCTION ACTIVITIES.
13. ALL MANHOLE RIMS SHALL BE 6-INCHES ABOVE SURROUNDING GRADE UNLESS LOCATED IN LOW-LYING AREA SUBJECT TO FLOODING SPECIFIED BY ENGINEER.
14. TEMPORARY EROSION AND SEDIMENT CONTROL SHALL CONSIST OF TEMPORARY MEASURES WITHIN THE PROJECT LIMITS AND MINIMIZE POLLUTION OF RIVERS, STREAMS, AND PRIVATE PROPERTIES. SUCH MEASURES MAY INCLUDE BERMS, DIKES, SLOPE DRAINS, BALE BARRIERS, SEDIMENT FILTERS, SEDIMENT BASINS, MULCHES, AND GRASSES. ALL UNPAVED AND DISTURBED AREAS SHALL RECEIVE SOLID SLAB SOD TREATMENT IN ACCORDANCE WITH SECTION 31 25 00 OF THE PROJECT SPECIFICATIONS.
15. CONSTRUCTION SIGNING AND TRAFFIC CONTROL SHALL CONSIST OF FURNISHING AND ERECTING SIGNS, LIGHTS, BARRICADES, AND DEVICES IN ACCORDANCE WITH CITY STANDARD SPECS AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
16. CONTRACTOR TO PHOTOGRAPH EACH MANHOLE PRIOR TO, AND AFTER REHABILITATION.
17. DEFLECTION TESTS SHALL BE IN ACCORDANCE WITH OAC 252:656-5-5(A). PERFORM DEFLECTION TESTS ON ALL FLEXIBLE PIPE AFTER FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. DEFLECTION MUST NOT EXCEED 5%. TEST MUST BE RUN USING A RIGID BALL OR MANDREL WITH A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE TAKING INTO ACCOUNT MANUFACTURING TOLERANCES. TESTS MUST BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES. TESTING MUST ADHERE ASTM F2160.
18. LEAKAGE TESTS SHALL BE IN ACCORDANCE WITH OAC 252:656-5-5(B). LEAKAGE TESTS ARE REQUIRED FOR ALL GRAVITY LINES. HYDROSTATIC TESTS MUST USE A 2-FOOT TEST HEAD AND LEAKAGE INWARD OR OUTWARD MUST NOT EXCEED 10 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY. TESTING MUST ADHERE ASTM F2164. THE PROCEDURES LISTED IN THE HANDBOOK OF PVC PIPE, UNI-BELL PVC PIPE ASSOCIATION, 2001 MAY BE USED FOR PVC PIPE. AN AIR TEST RESULT MUST ASSURE A LEAKAGE LIMIT EQUIVALENT TO THE HYDROSTATIC TEST LIMIT.
19. CONTRACTOR SHALL CONSTRUCT ALL MANHOLES IN ACCORDANCE TO THE MANHOLE SCHEDULES ON SHEET 3 PER SPECIFICATIONS 33 01 30 & 33 05 61. RIM ELEVATIONS AND SURFACE SHOWN IN ALL PROFILE VIEWS ARE APPROXIMATE AND SHALL NOT BE CONSIDERED FINAL GRADE.



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SANITARY SEWER PIPE BURSTING

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

PAY QUANTITES & NOTES

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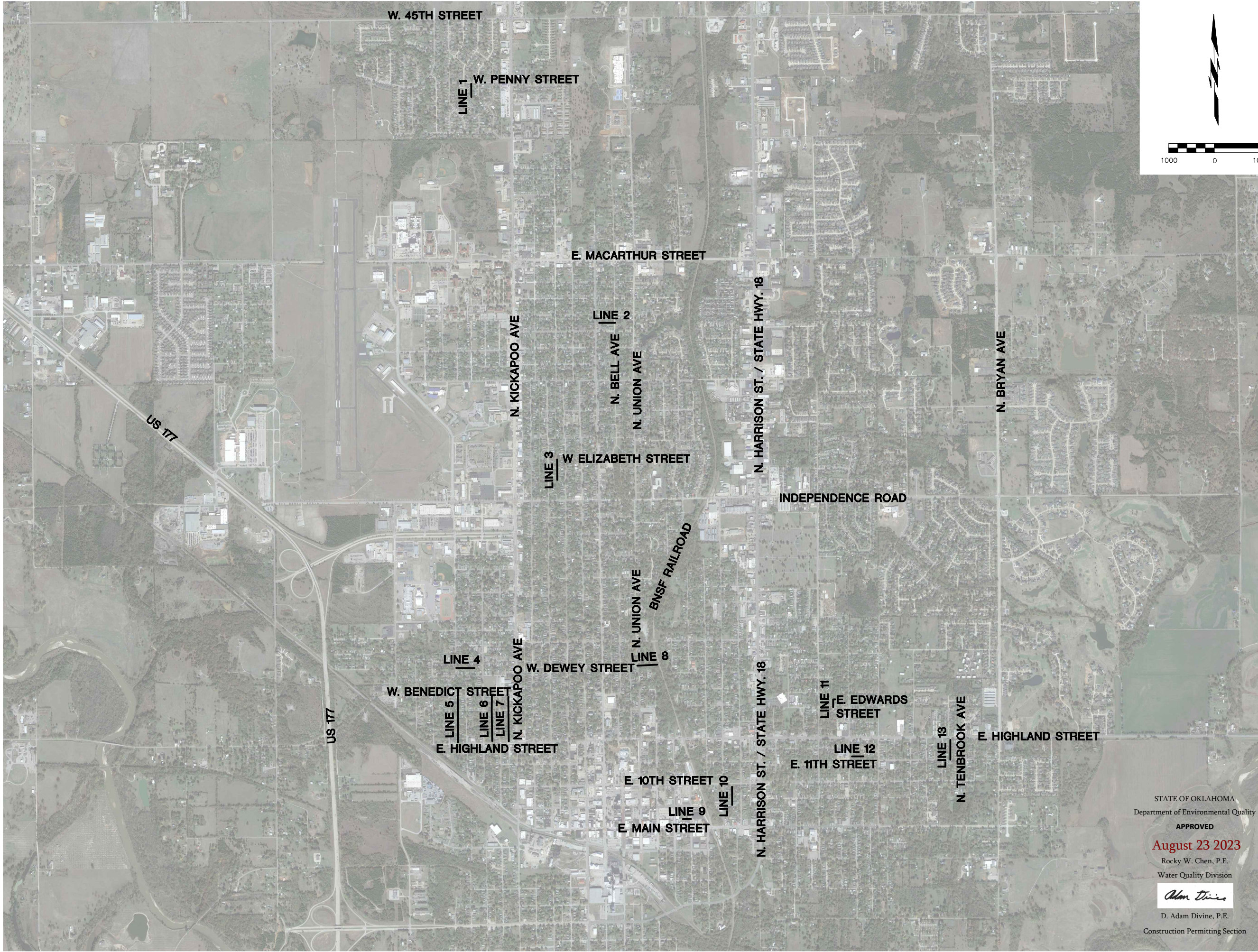
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2

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Water Quality Division
Adam Divine
D. Adam Divine, P.E.
Construction Permitting Section

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OVERALL MAP

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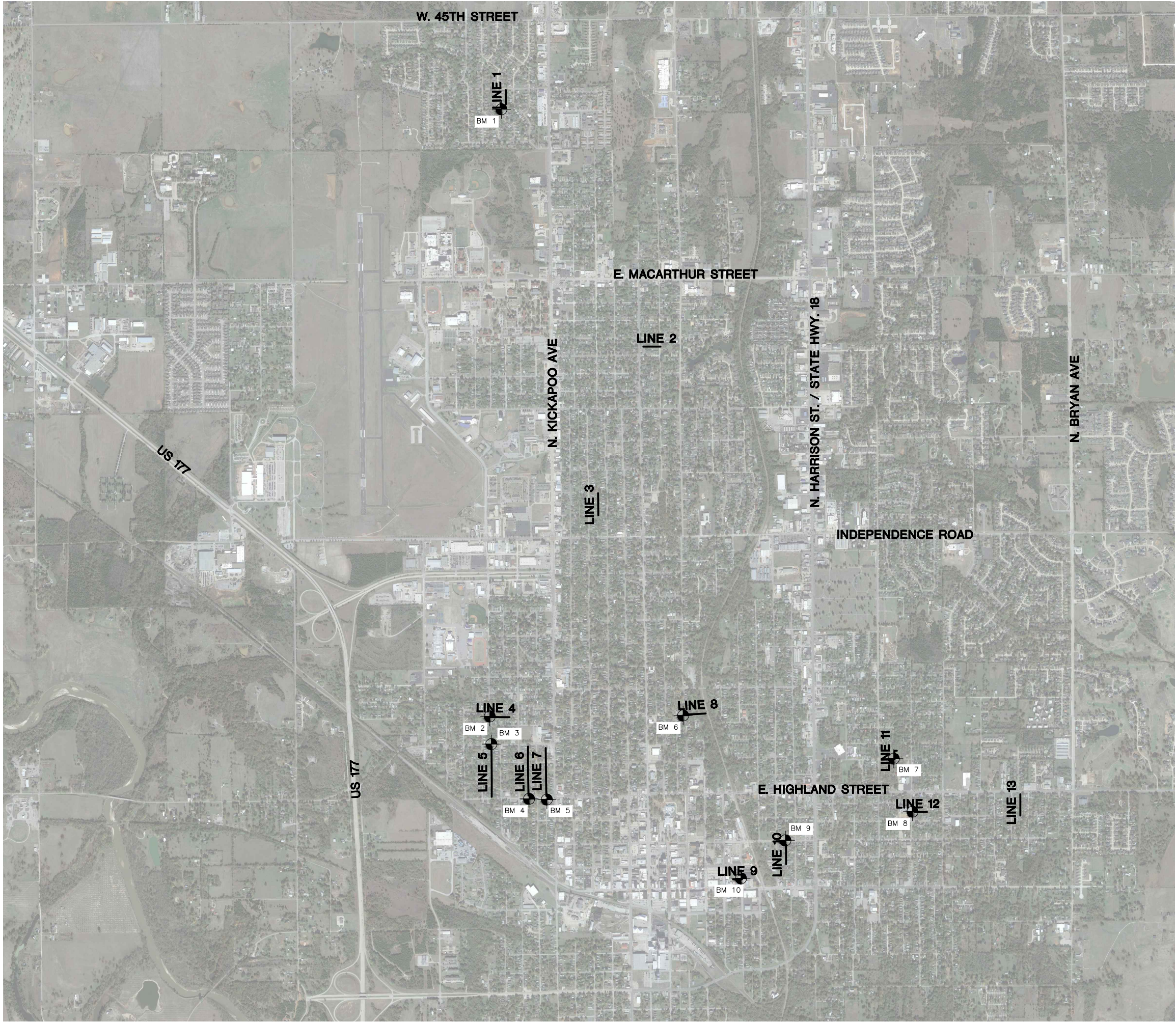
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**BM-1**
CUT 'X' ON CONC.
N: 743388.771
E: 2286591.835
ELEV.=1051.67'

**BM-2**
CUT 'X' ON CONC. CURB
N: 730957.569
E: 2286364.869
ELEV.=1070.79'

**BM-3**
CUT 'X' ON CONC. DRNG. STRC.
N: 730400.844
E: 2286386.763
ELEV.=1068.69'

**BM-4**
CUT 'X' ON CONC. CURB
N: 729282.495
E: 2287156.967
ELEV.=1063.42'

**BM-5**
CUT 'X' ON CONC. DRIVEWAY
N: 729267.822
E: 2287521.874
ELEV.=1067.49'

**BM-6**
CUT 'X' ON CONC. CURB
N: 730986.205
E: 2290308.776
ELEV.=1035.33'

**BM-7**
SET PK NAIL IN ASPHALT
N: 730103.163
E: 2294618.354
ELEV.=1033.53'

**BM-8**
CUT 'X' ON CONC. CURB
N: 729019.309
E: 2295000.479
ELEV.=1073.92'

**BM-9**
CUT 'X' ON CONC. CURB
N: 728432.671
E: 2292400.901
ELEV.=1022.82'

**BM-10**
CUT 'X' ON CONC. CURB
N: 727654.730
E: 2291493.107
ELEV.=1020.35'



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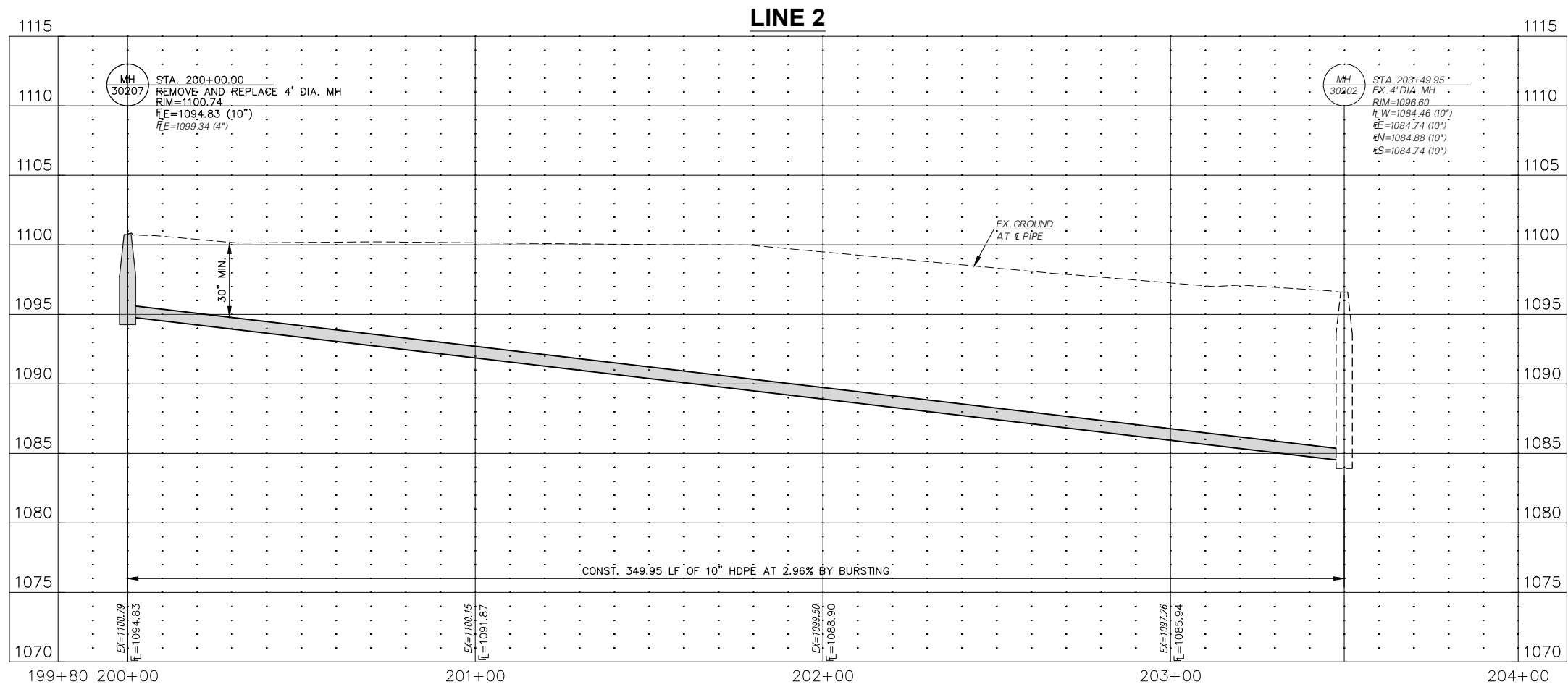
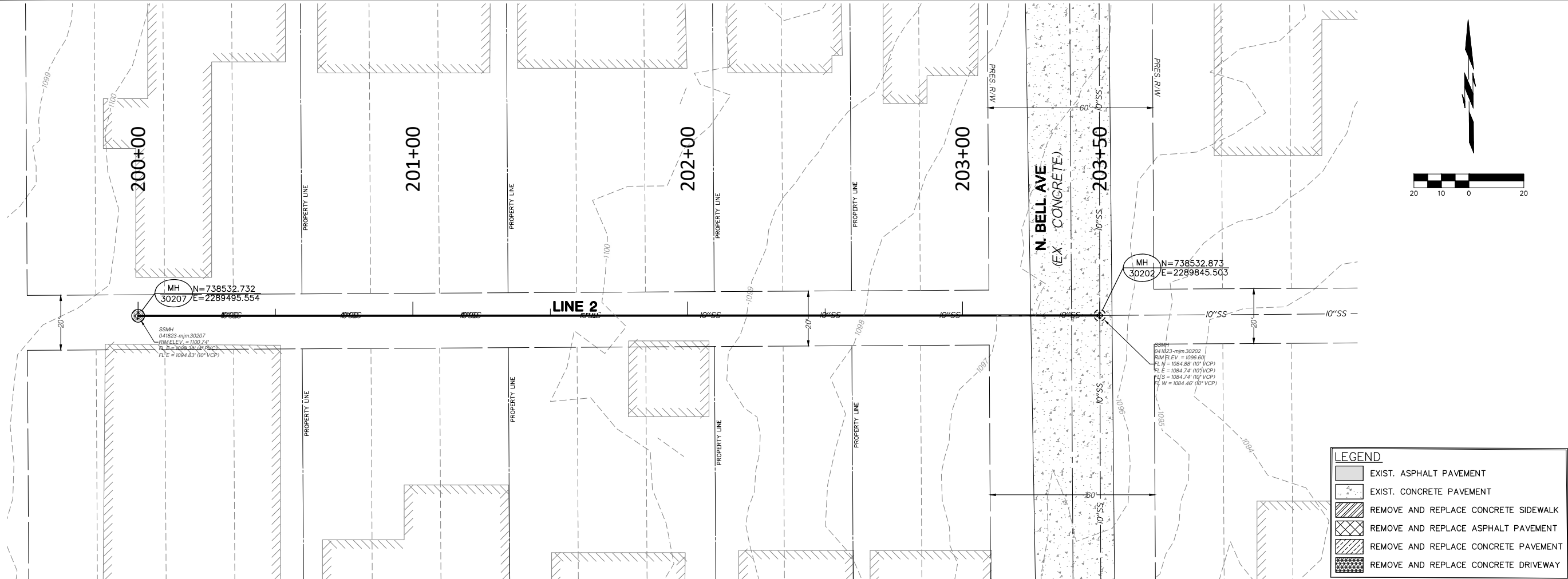
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23-153 SURVEY DATA - OVERALL MAP

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LINE 2 P&P

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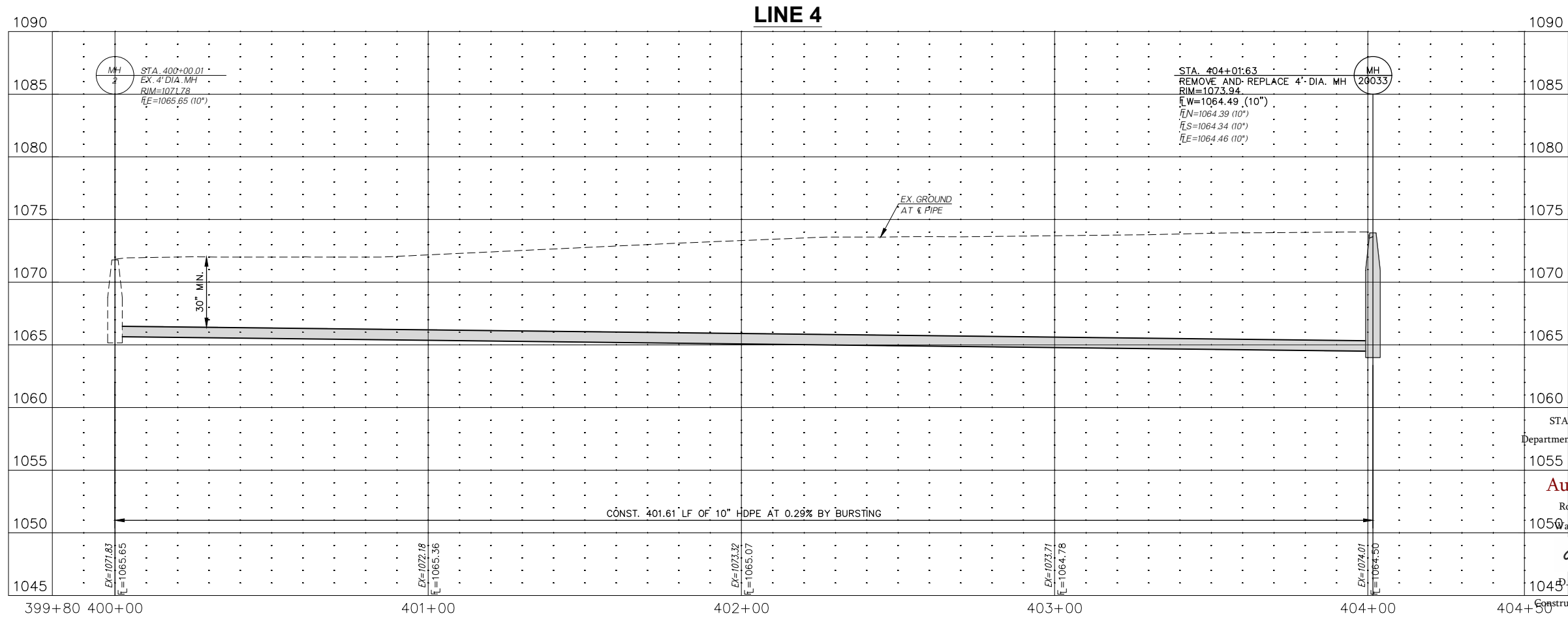
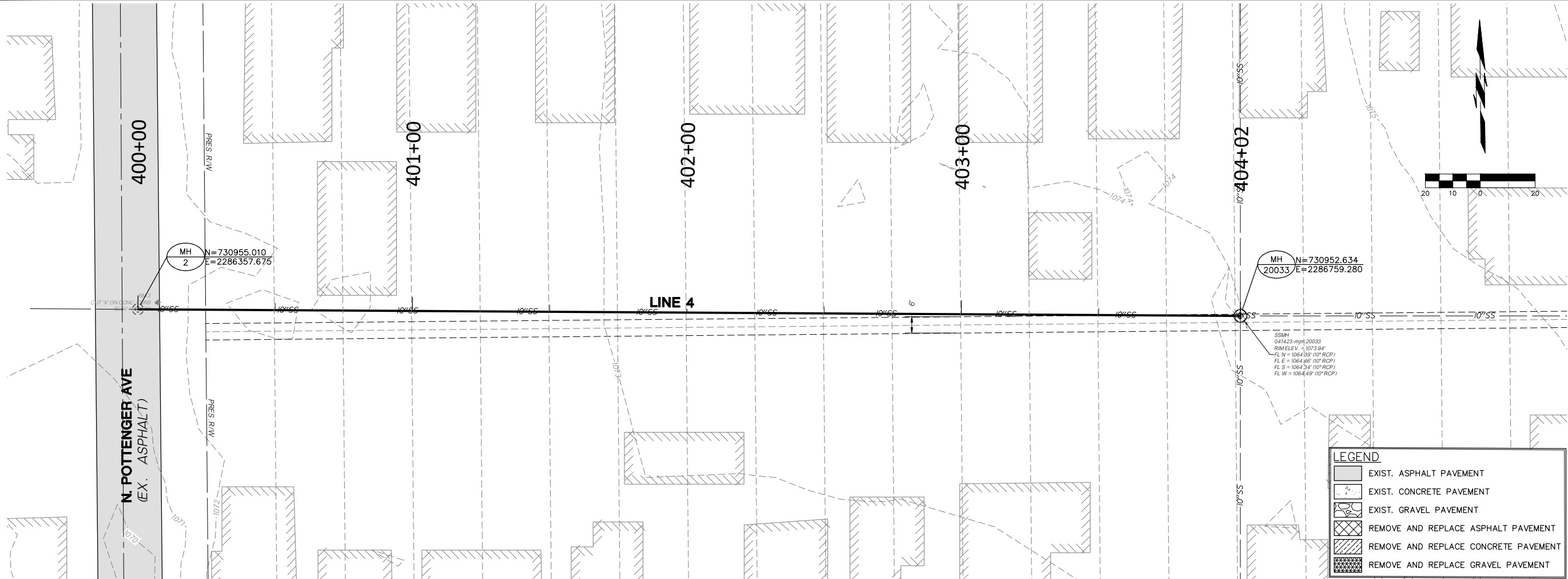
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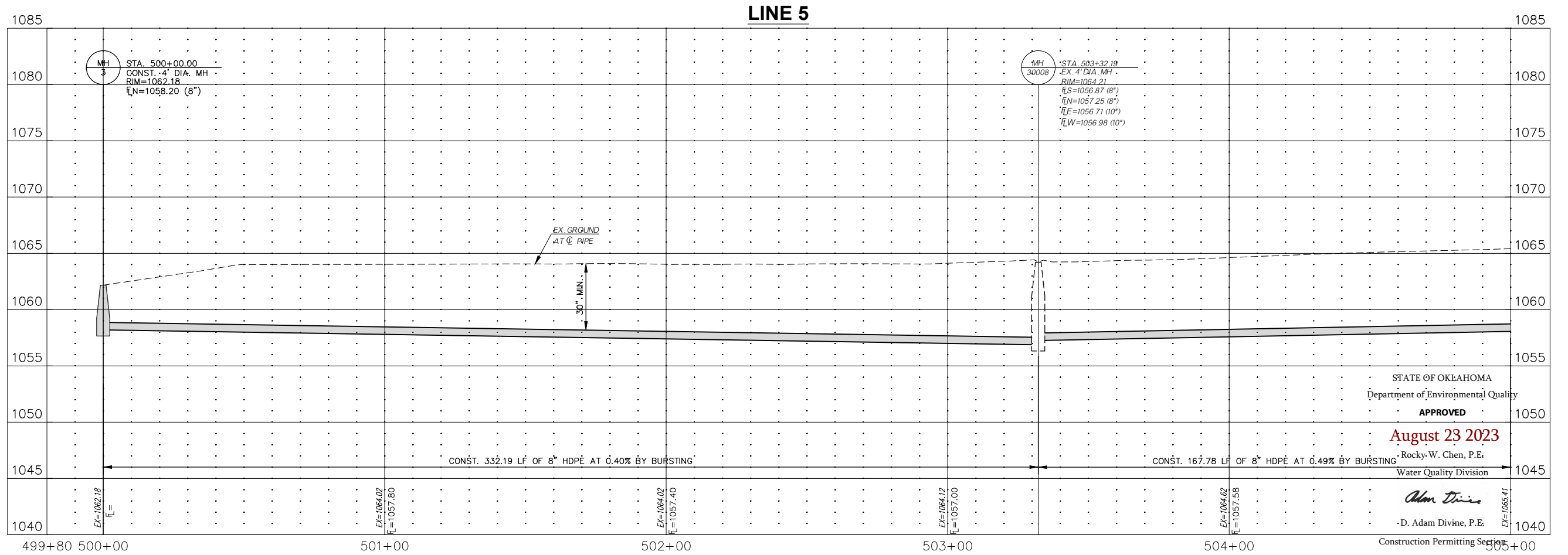
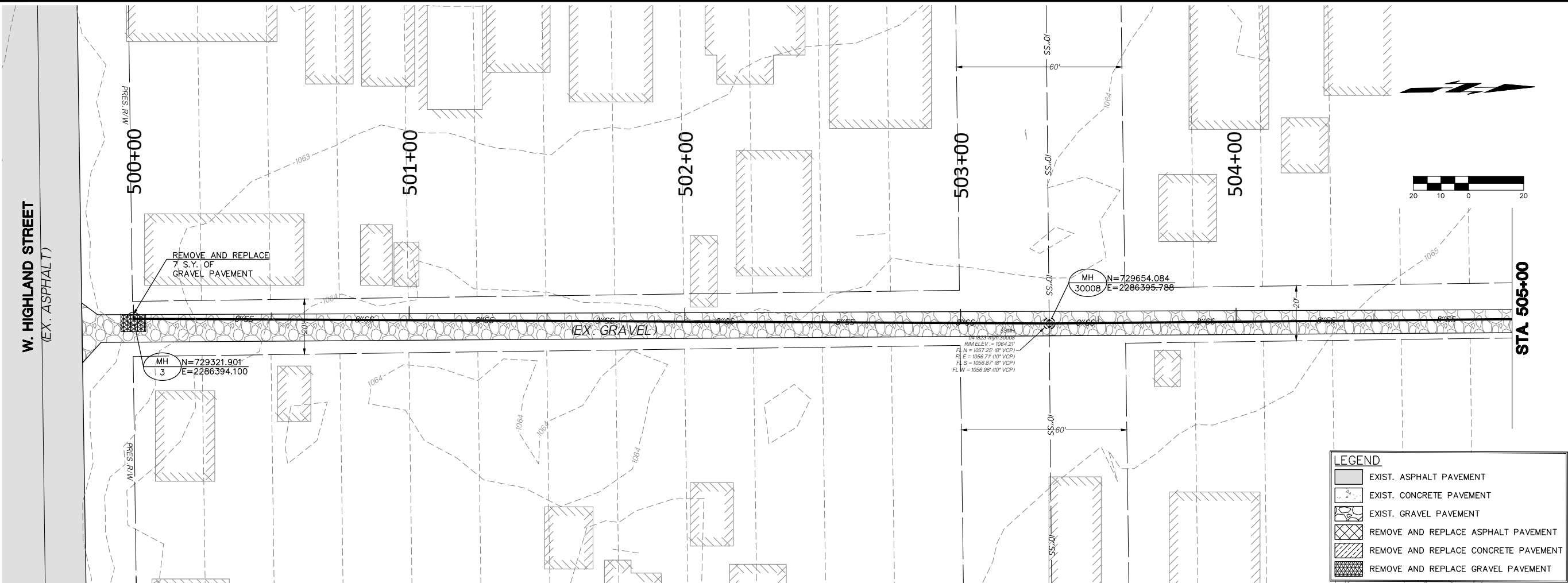
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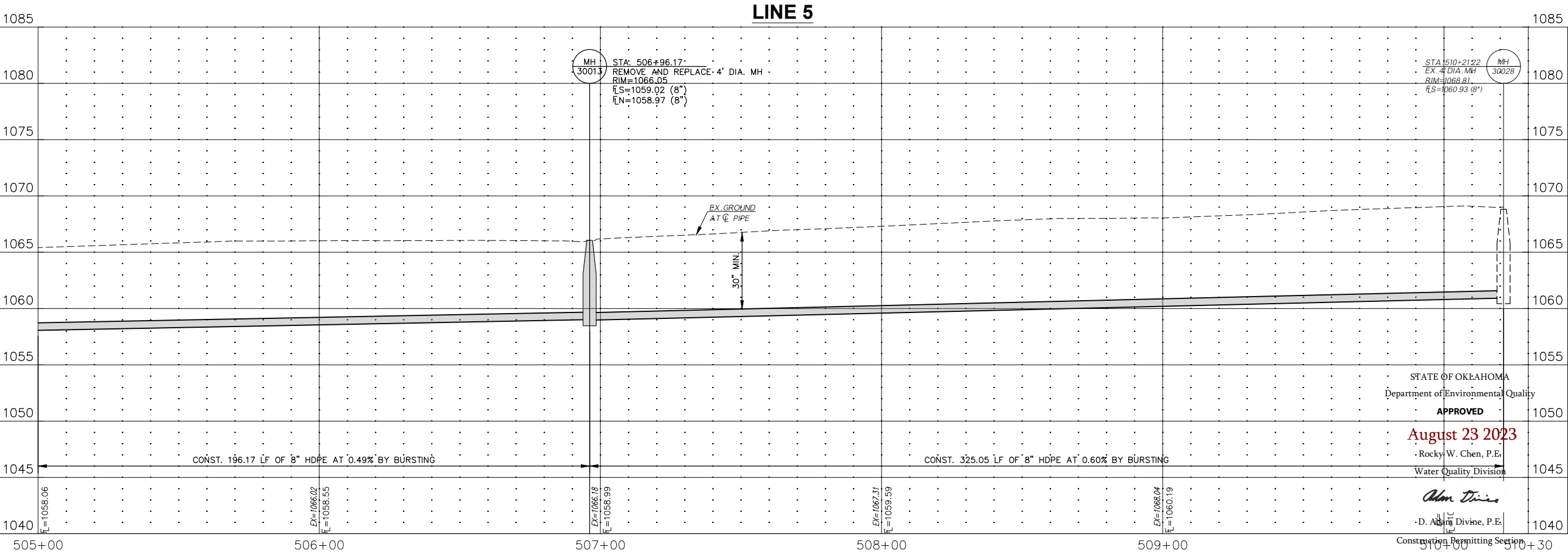
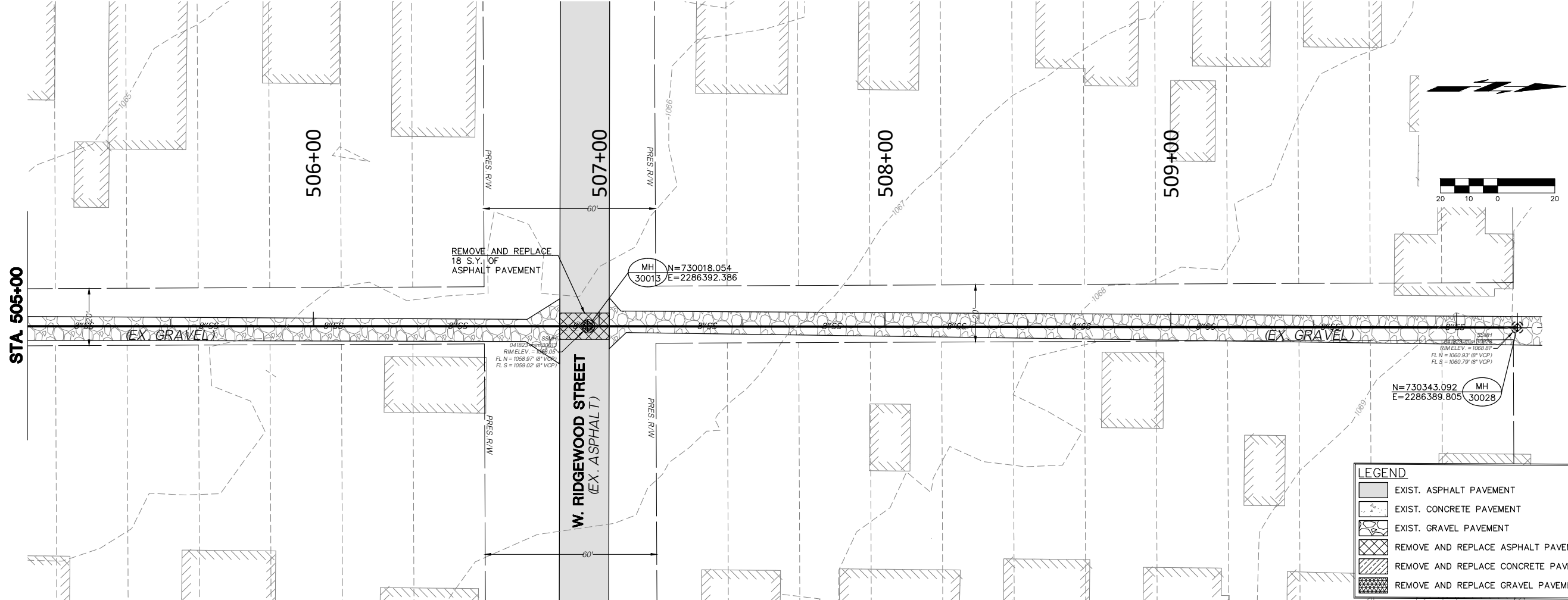
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LINE 5 P&P
(2 OF 2)

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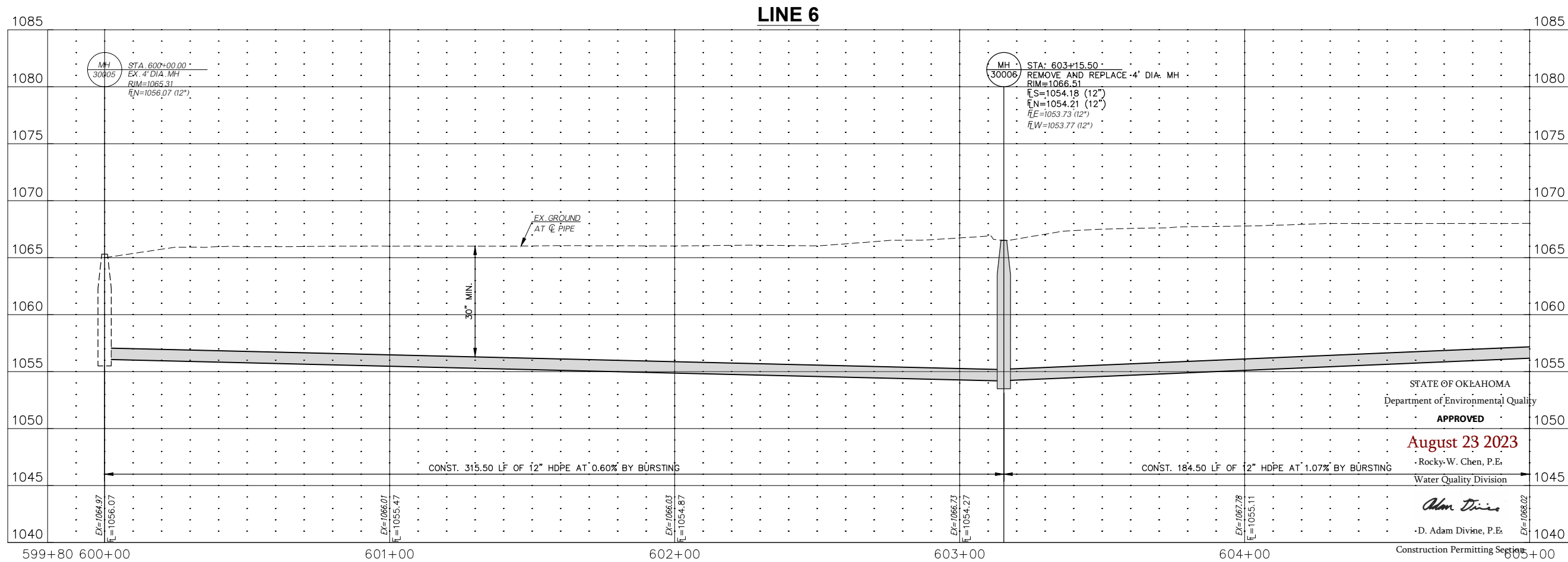
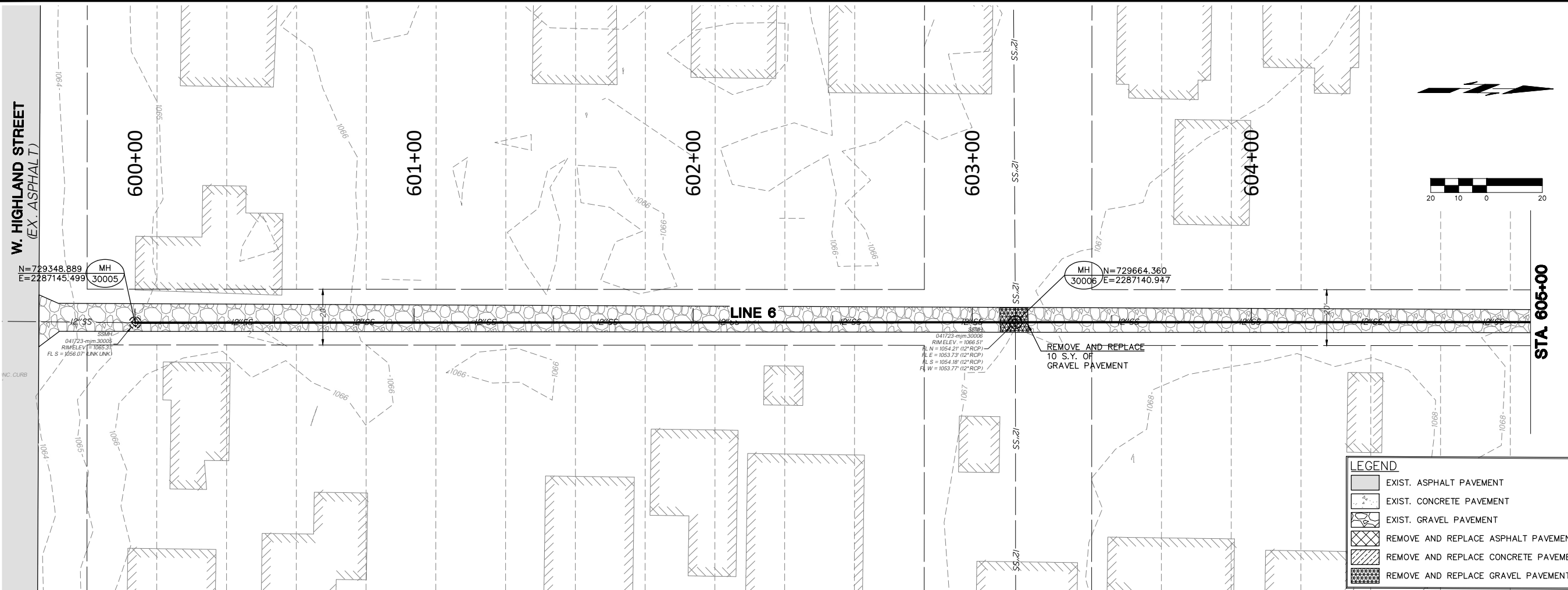
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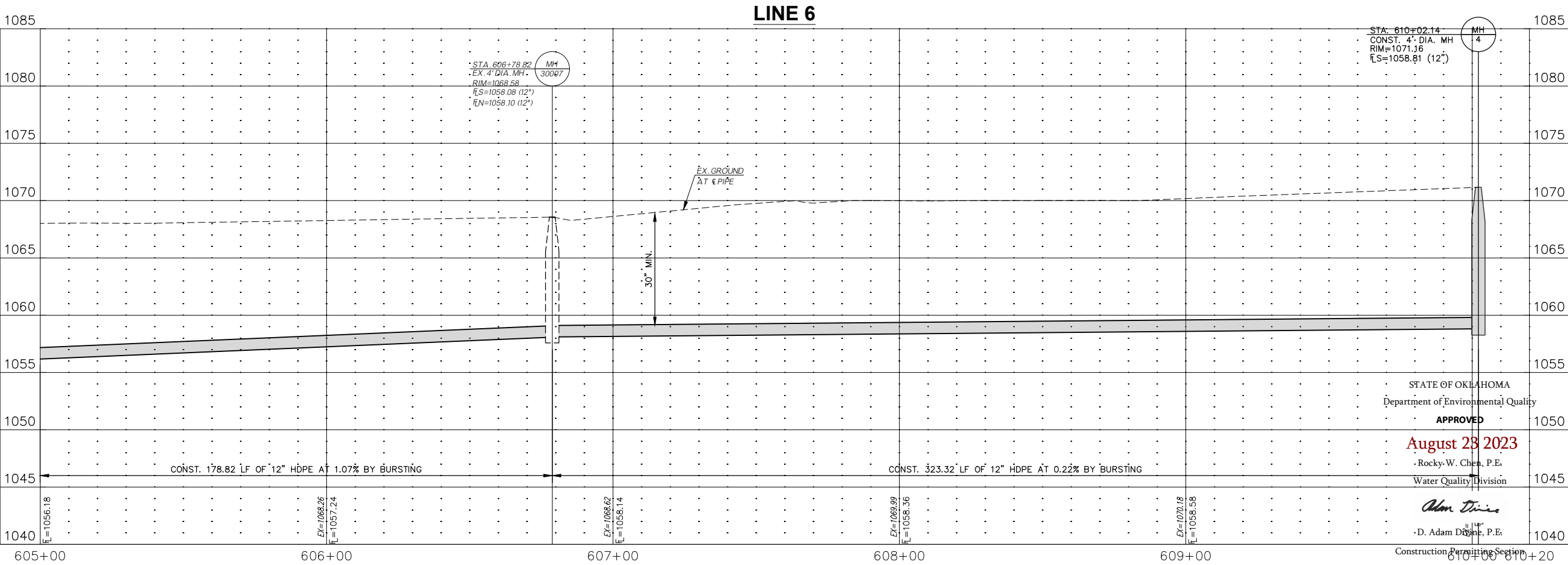
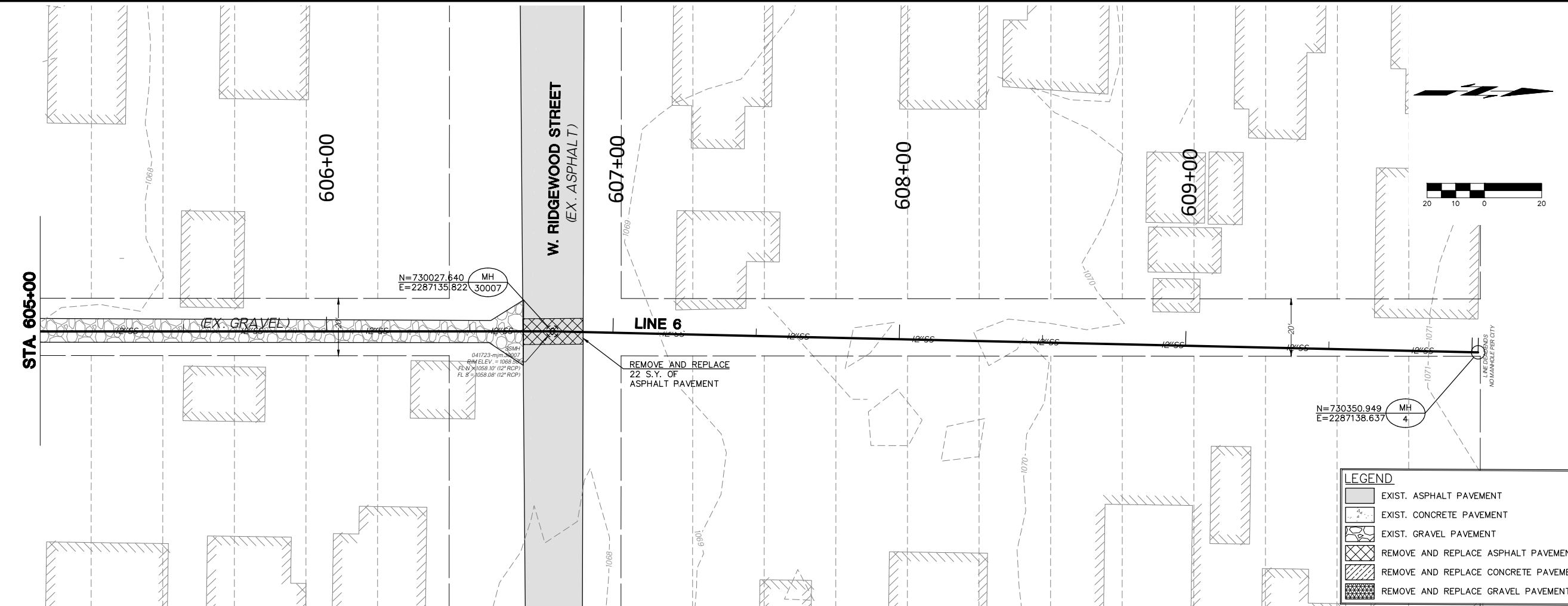
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LINE 6 P&P (2 OF 2)

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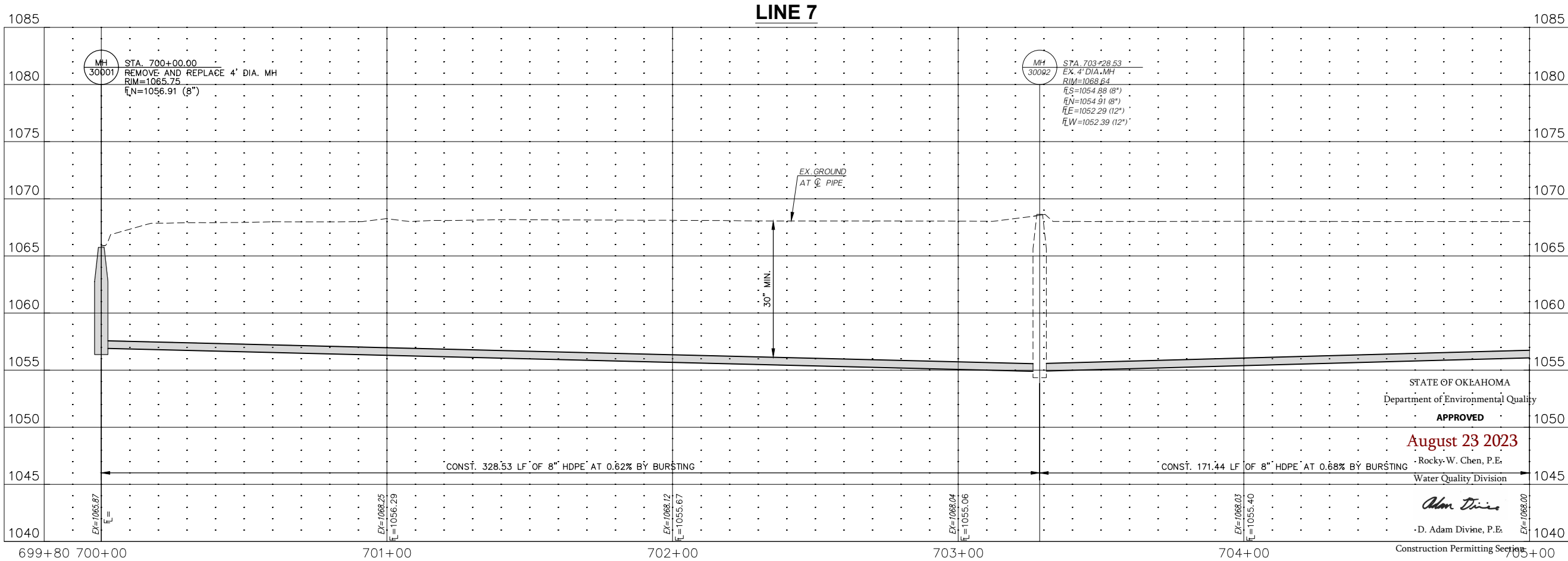
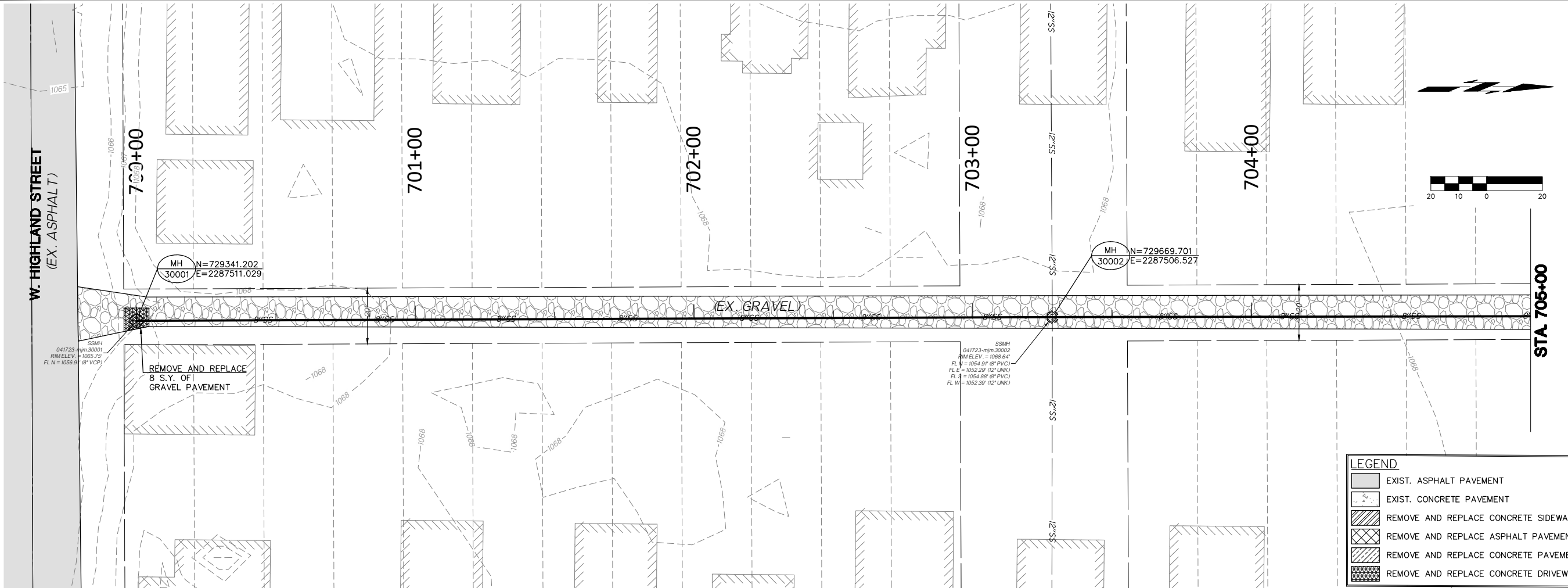
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**LINE 7 P&P
(1 OF 2)**

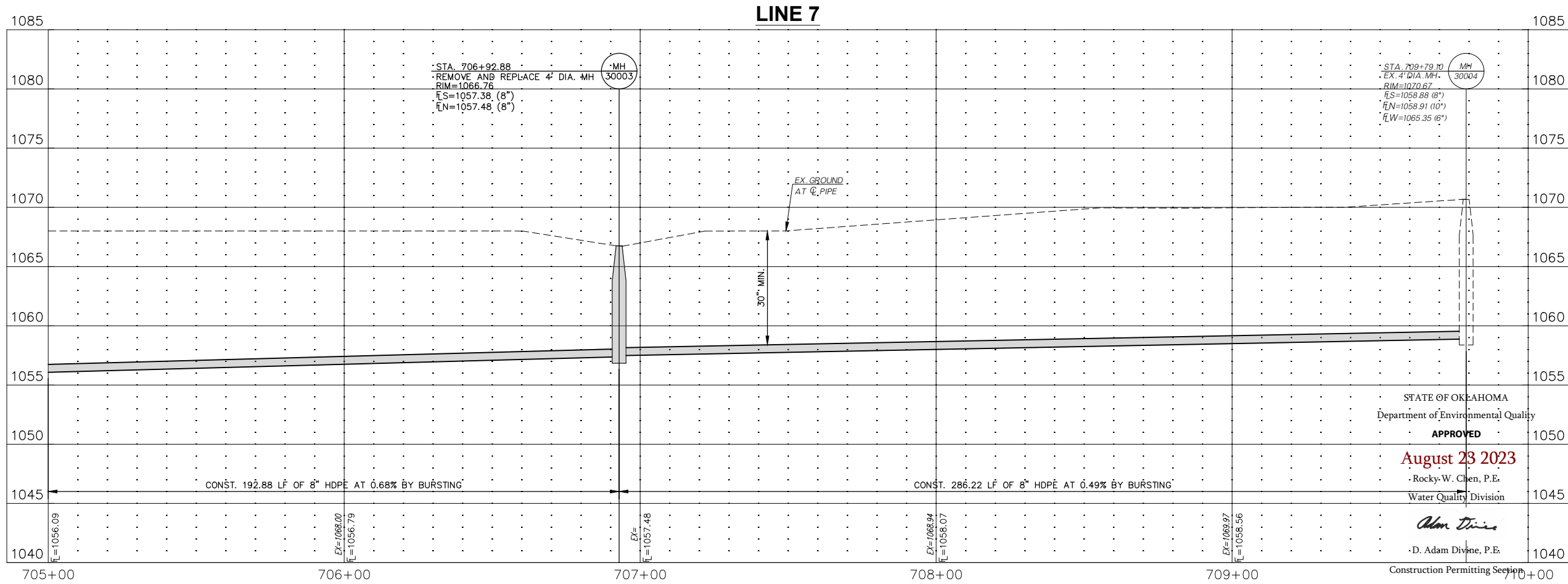
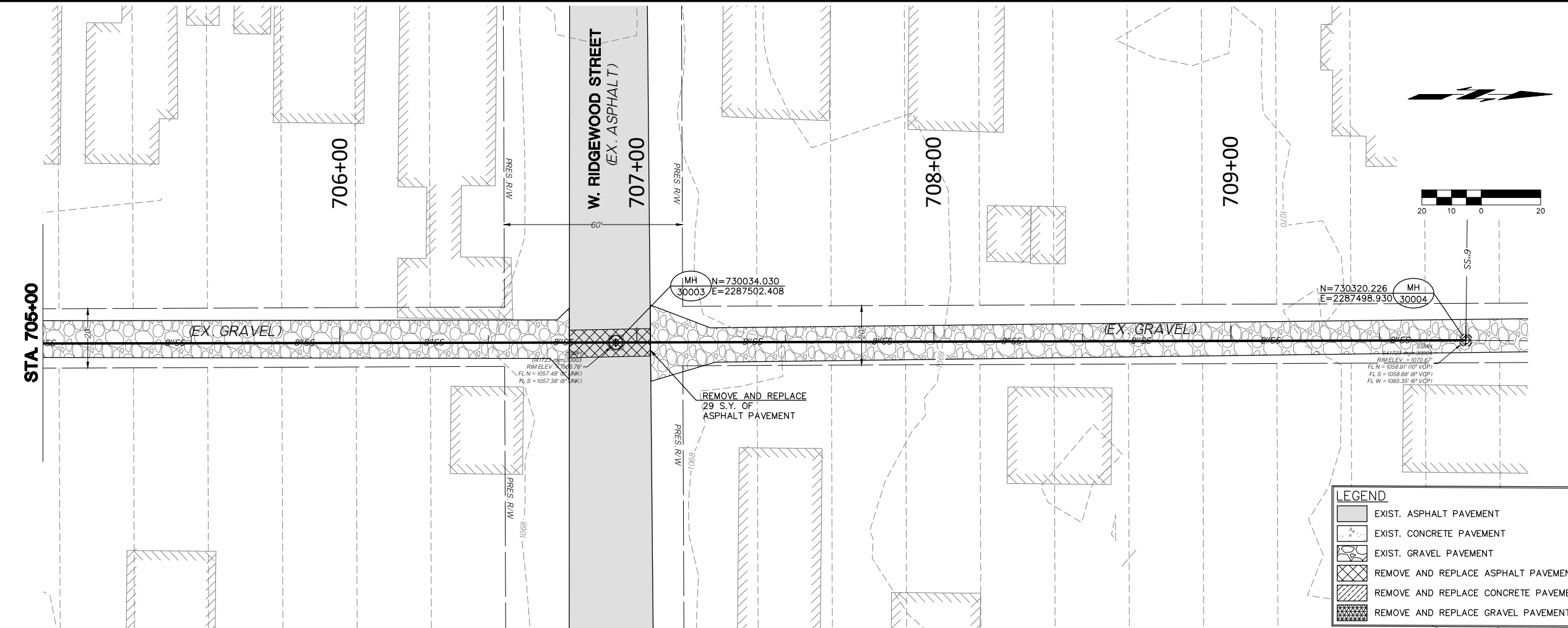
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**LINE 7 P&P
(2 OF 2)**

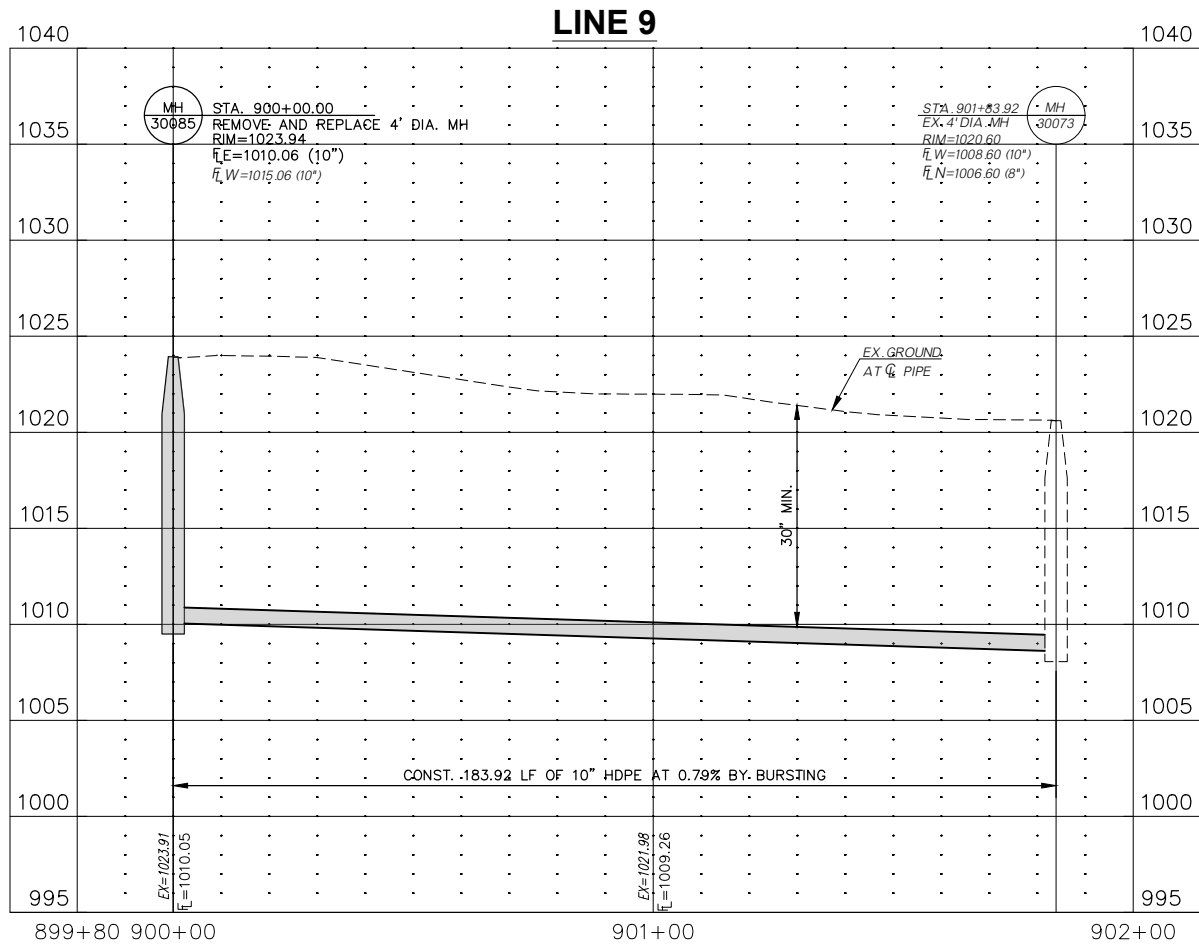
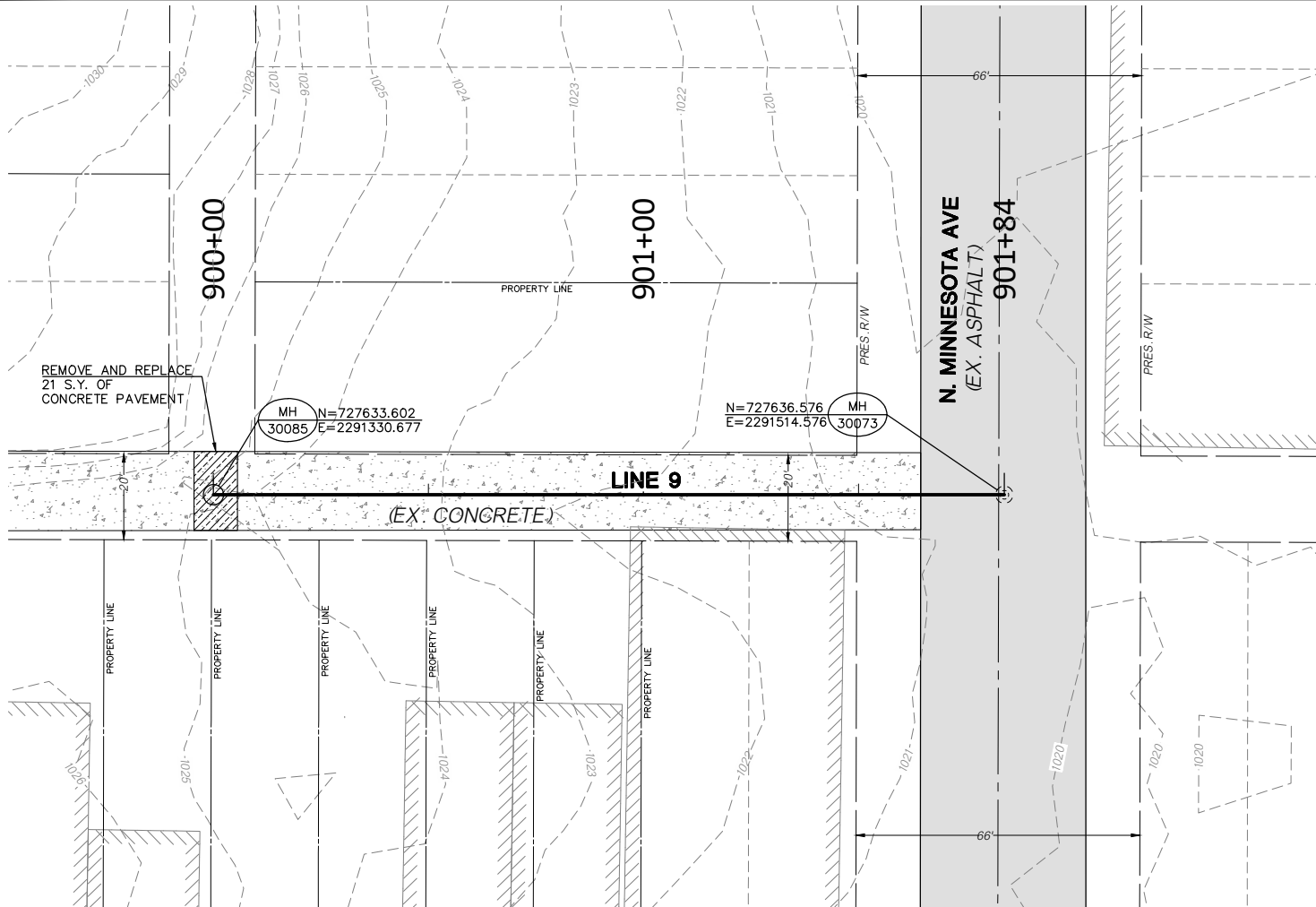
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SHEET NUMBER

14

Monday, July 3, 2023 9:16:38 AM



LEGEND	
	EXIST. ASPHALT PAVEMENT
	EXIST. CONCRETE PAVEMENT
	EXIST. GRAVEL PAVEMENT
	REMOVE AND REPLACE ASPHALT PAVEMENT
	REMOVE AND REPLACE CONCRETE PAVEMENT
	REMOVE AND REPLACE GRAVEL PAVEMENT

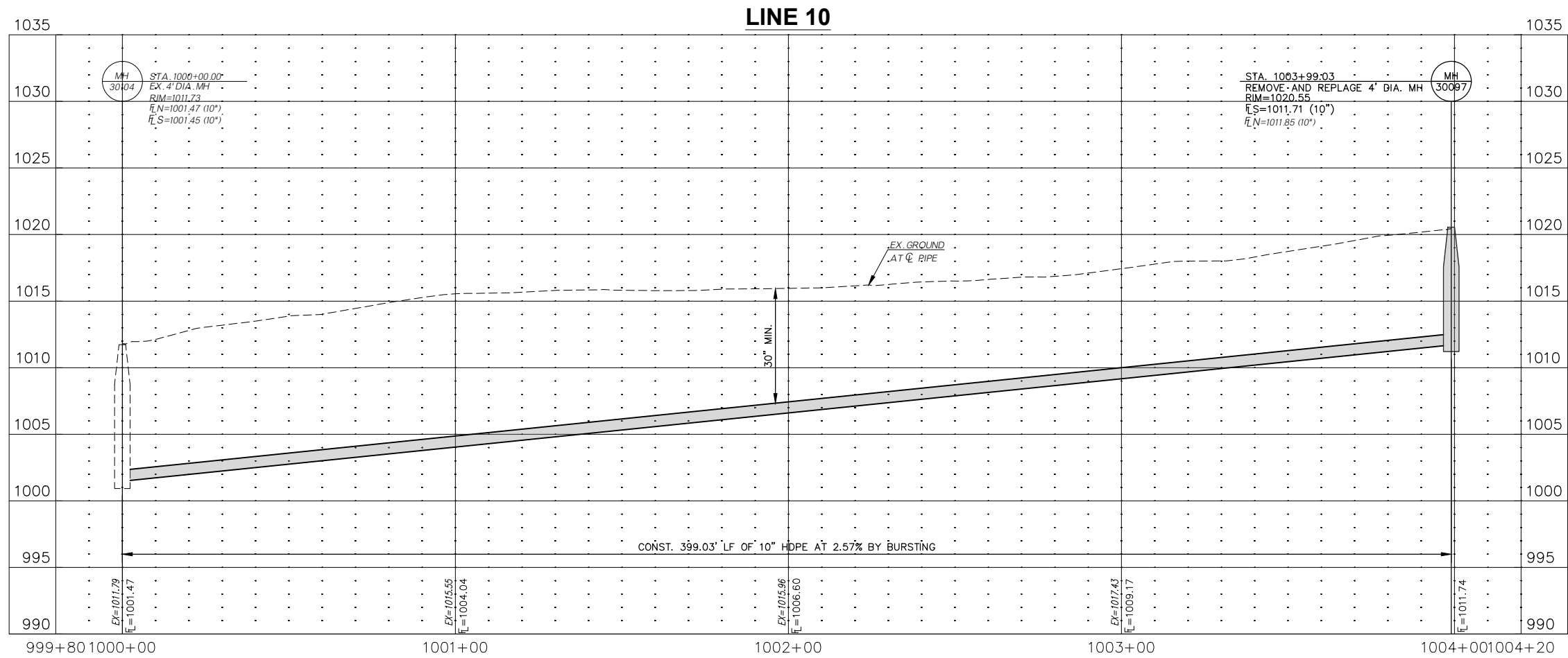
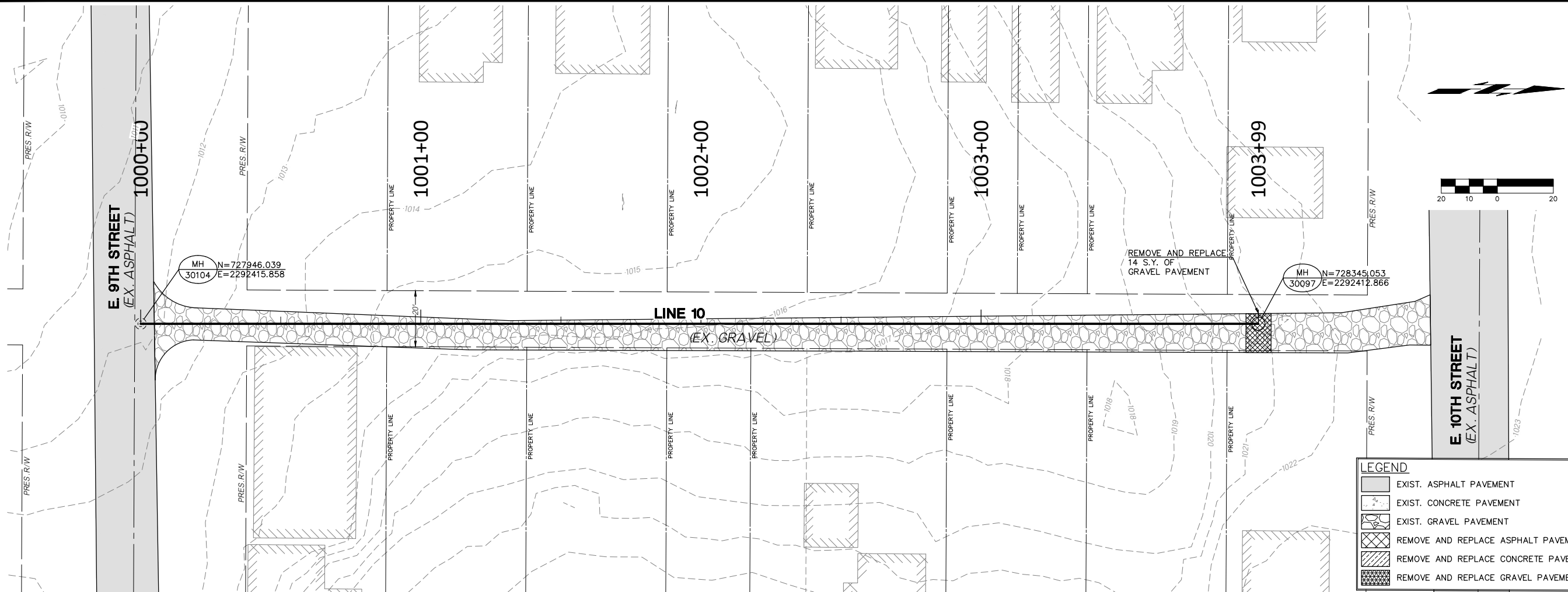
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LINE 9 P&P	
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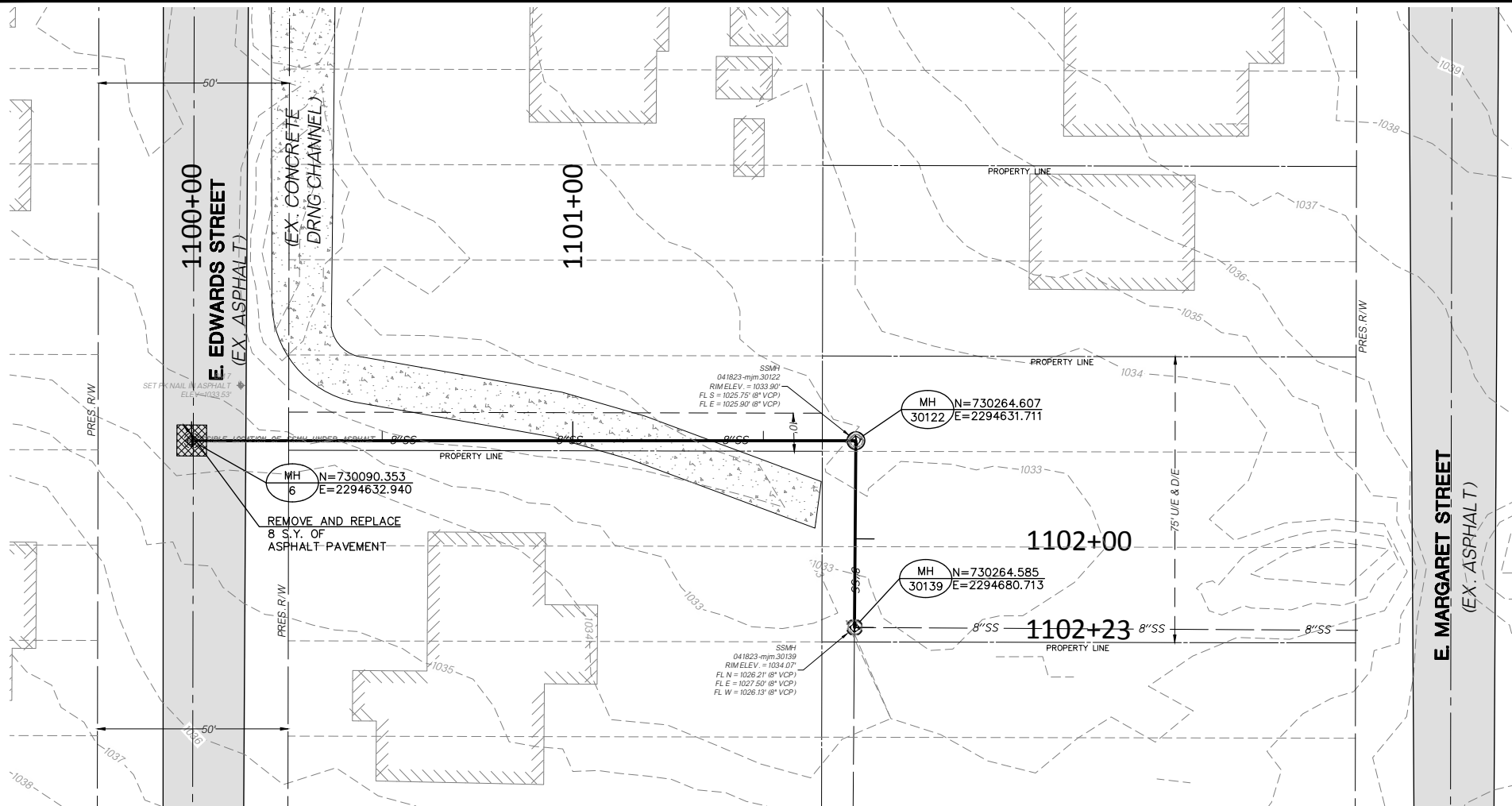
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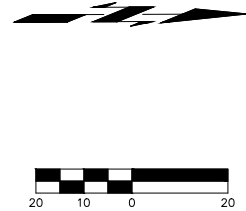
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17	

Wednesday, August 16, 2023 10:24:47 AM



LEGEND	
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	EXIST. CONCRETE PAVEMENT
	EXIST. GRAVEL PAVEMENT
	REMOVE AND REPLACE ASPHALT PAVEMENT
	REMOVE AND REPLACE CONCRETE PAVEMENT
	REMOVE AND REPLACE GRAVEL PAVEMENT



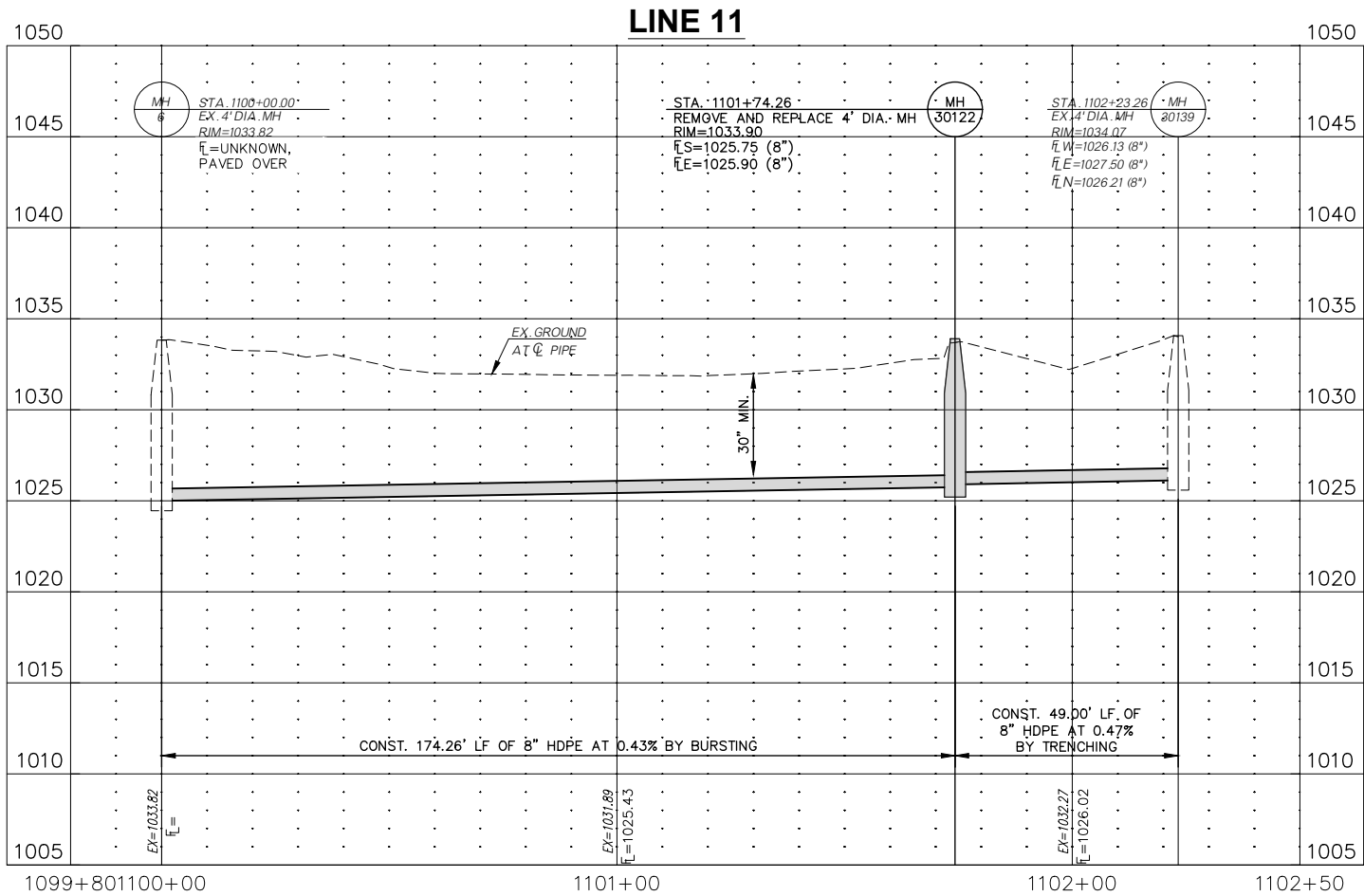
COWAN GROUP ENGINEERING
7100 N GLASSEN, SUITE 500
OKLAHOMA CITY, OK 73116
405-463-3369 O 405-463-3381 F
WWW.COWANGROUP.COM
CA# 6414 EXPIRES 6/30/2024

SANITARY SEWER PIPE BURSTING

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

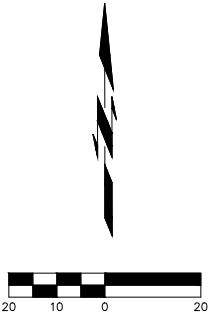
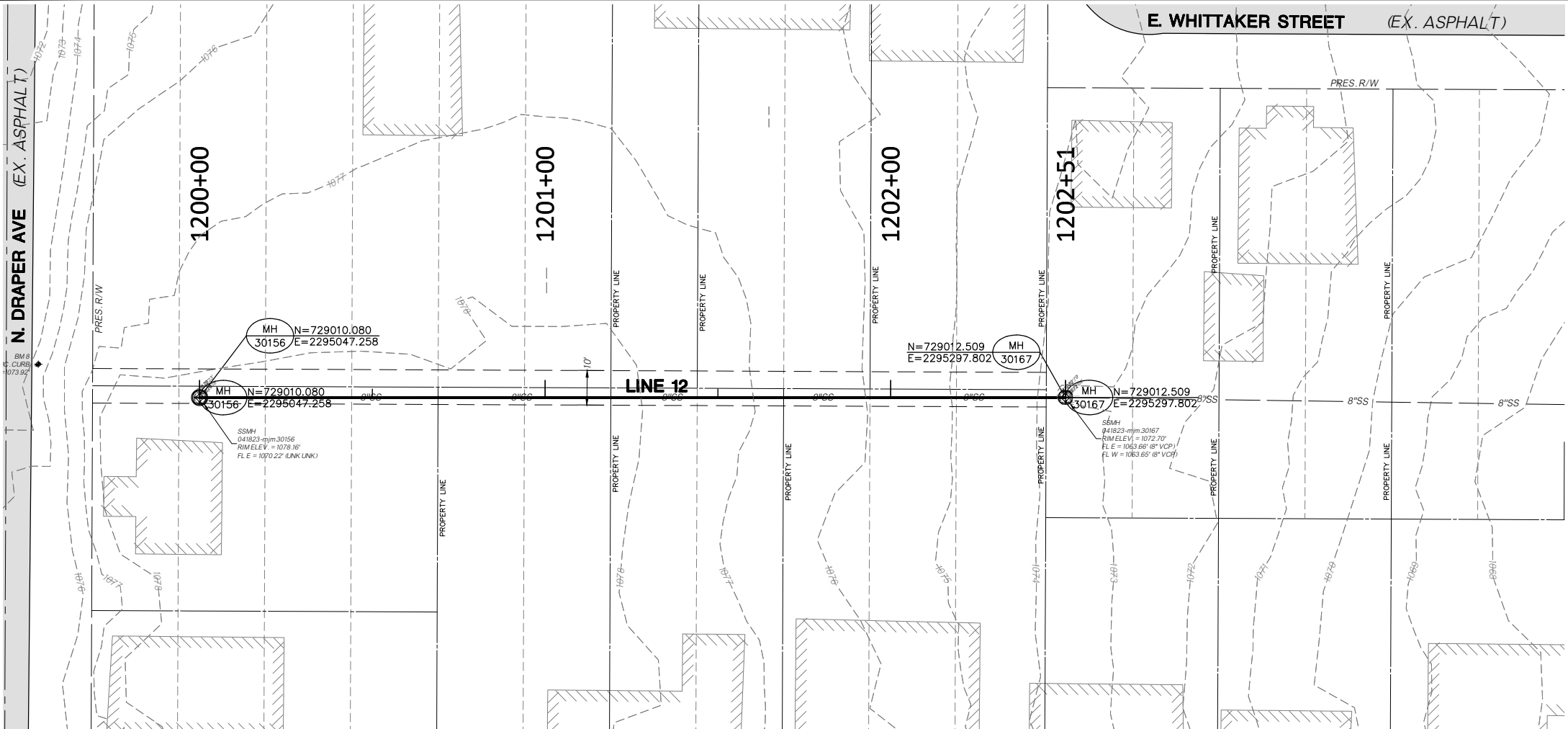
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DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-153
DATE	5/8/2023
REVISIONS	
SHEET NUMBER	
18	

STATE OF OKLAHOMA
Department of Environmental Quality
APPROVED
August 23 2023
Rocky W. Chen, P.E.
Water Quality Division
Adam Divine
D. Adam Divine, P.E.
Construction Permitting Section



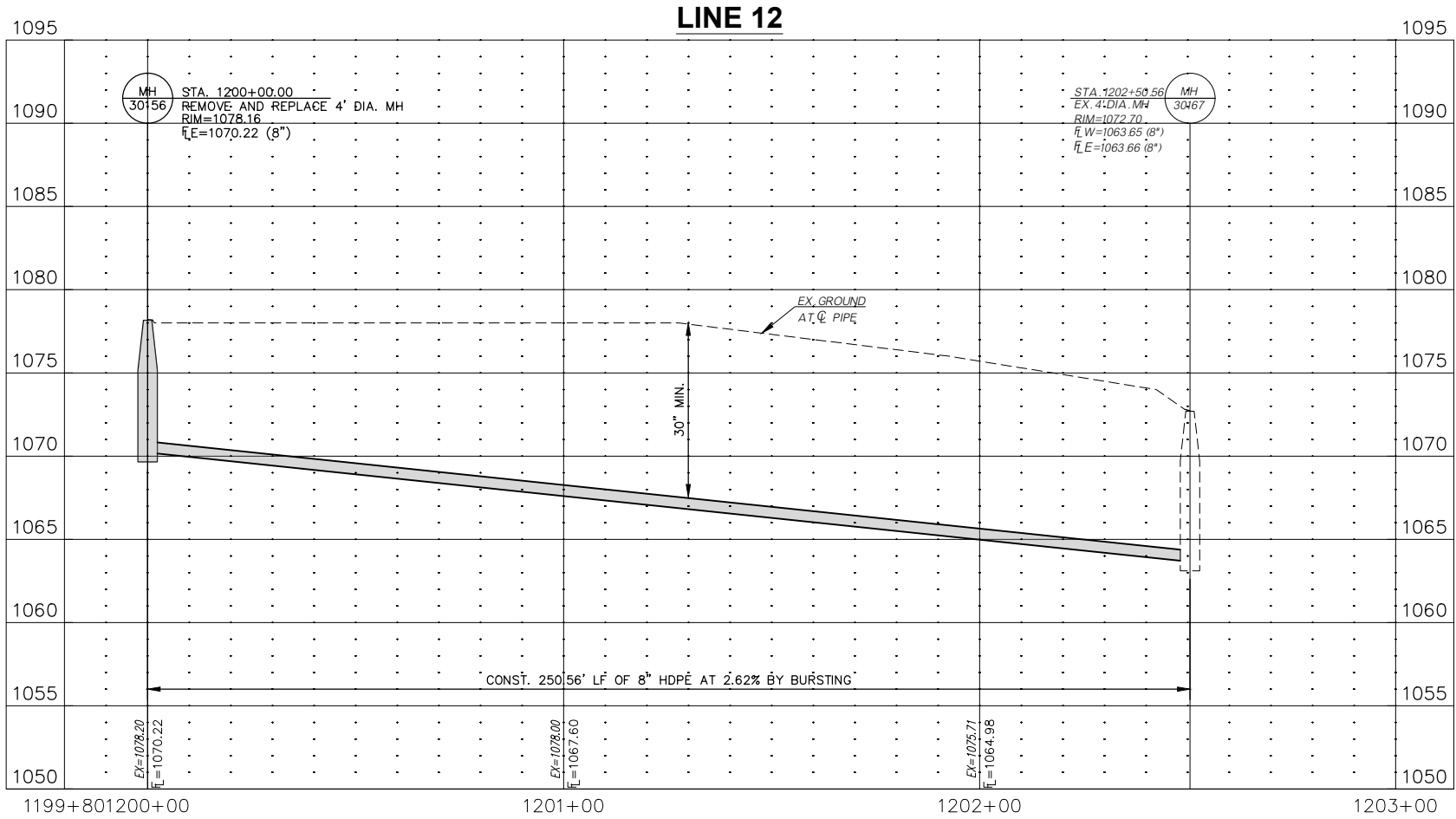
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Wednesday, July 12, 2023 2:05:27 PM



LEGEND

- EXIST. ASPHALT PAVEMENT
- EXIST. CONCRETE PAVEMENT
- EXIST. GRAVEL PAVEMENT
- REMOVE AND REPLACE ASPHALT PAVEMENT
- REMOVE AND REPLACE CONCRETE PAVEMENT
- REMOVE AND REPLACE GRAVEL PAVEMENT



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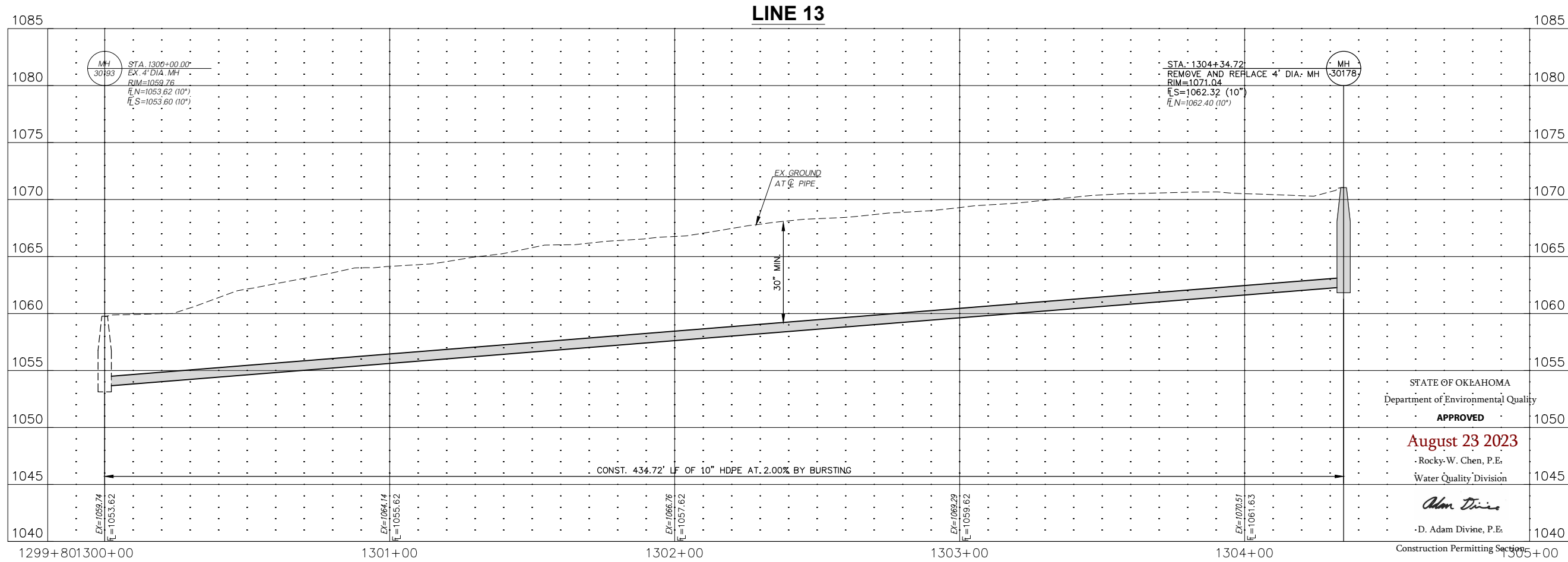
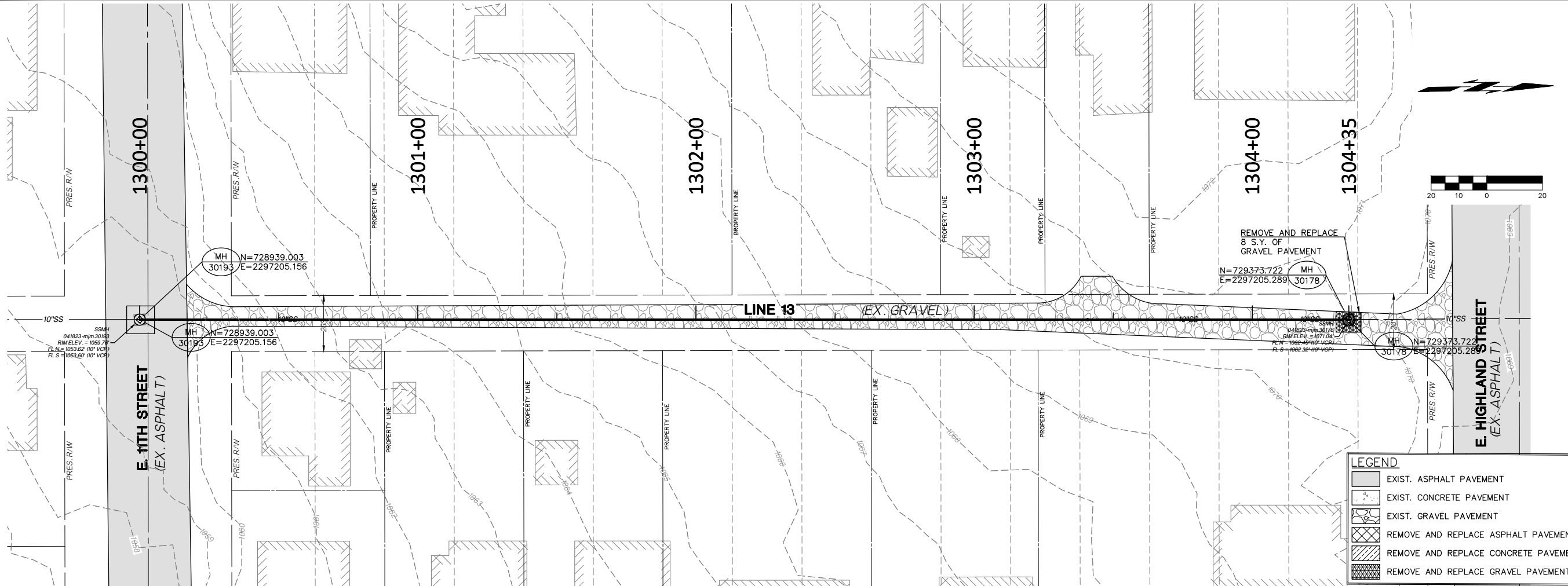
SANITARY SEWER PIPE BURSTING
CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

LINE 12 P&P	
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REVIEWED BY	GMT
PROJECT NUMBER	23-153
DATE	5/8/2023
REVISIONS	
SHEET NUMBER	
19	

STATE OF OKLAHOMA
Department of Environmental Quality
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Water Quality Division
Adam Divine
D. Adam Divine, P.E.
Construction Permitting Section

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Monday, July 3, 2023 9:18:24 AM



SANITARY SEWER PIPE BURSTING
CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

LINE 13 P&P

DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-153
DATE	5/8/2023

REVISIONS

GENERAL NOTES

- BACKFILL WITH SUITABLE, ON SITE SOIL COMPACTED TO REQUIRED DENSITY. IN ACCORDANCE WITH SPECIFICATIONS.
- THE COST OF MOVING, REMOVING AND REPLACING ALL FENCES, TREES, STRUCTURES OR OTHER OBSTRUCTIONS NECESSARY FOR CONSTRUCTION WILL NOT BE PAID FOR AS SUCH, BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS UNLESS OTHERWISE NOTED.
- A WATER TIGHT PLUG SHALL BE INSTALLED IN ANY NEW LINE AT ITS ENTRANCE INTO AN EXISTING MANHOLE. UPON SATISFACTORY COMPLETION OF THE PROJECT, PERMISSION WILL BE GIVEN BY THE CITY ENGINEER TO REMOVE THE PLUG.
- DO NOT BREAK OUT THE EXISTING SEWER PIPE WITHIN ANY MANHOLE BUILT AROUND AN EXISTING SEWER UNTIL PROPER APPROVAL TO DO SO IS GIVEN BY THE CITY ENGINEER.
- ALL STUBS SHALL BE ONE LENGTH OF BELL-END PIPE EXTENDING THRU THE MANHOLE WALL AND SHALL BE TIGHTLY PLUGGED.
- AT ABANDONED MANHOLES AND SEWERS, PLUG ALL SEWERS AT MANHOLES, TEAR MANHOLES DOWN 3' BELOW FINISHED GROUND ELEVATION, AND FILL BALANCE OF MANHOLES WITH APPROVED BACKFILL.
- ALL ABANDONED MANHOLE RINGS AND LIDS SHALL BE PROPERTY OF THE MUNICIPALITY OR AUTHORITY UTILITY LINE MAINTENANCE WASTEWATER DEPARTMENT.
- PIERS AND COLLARS TO BE BUILT ACCORDING TO STANDARD SPECIFICATIONS, OR AS NOTED.
- ALL FILL AREAS SHOWN ON PROFILE SHALL BE MADE BEFORE CONSTRUCTION OF SEWER.
- UNLESS OTHERWISE REQUIRED, DENSITY TESTING SHALL BE PERFORMED ON A AVERAGE OF EVERY 200 L.F. OF TRENCH EACH 5 FT. OF DEPTH. DENSITY REQUIREMENTS FOR TRANSVERSE CROSSINGS UNDER PAVING OR DRIVEWAYS SHALL COMPLY WITH THE SCHEDULE SHOWN ON STANDARD CONSTRUCTION PAVING DETAILS.
- THE CONSTRUCTION OF MONOLITHICALLY CAST-IN-PLACE MANHOLES WILL BE ALLOWED ONLY AS SHOWN ON THE PLANS. THE SUBMITTAL OF PROPOSED LEG SUPPORTS SHALL BE REQUIRED AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- PLACEMENT OF CONCRETE STRUCTURES, MANHOLES AND ETC., SHALL COMPLY WITH THE SPECIFICATIONS.
- IN LIEU OF THE COLD WEATHER REQUIREMENTS SHOWN IN THE SPECIFICATIONS, PLACEMENT OF CONCRETE BELOW GRADE WILL BE ALLOWED TO TEMPERATURES AS LOW AS 25° F. HOWEVER, UNTIL SUCH TIME AS FINAL BACKFILL IS PLACED, ADDITIONAL PROTECTION, INSULATION, HEATING AND ETC. SHALL BE REQUIRED.
- EXCAVATION AND BACKFILL NEAR MANHOLES SHALL BE EQUAL ON ALL SIDES OF THE MANHOLE.
- REINFORCING STEEL: ASTM 416 GR60
- WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1.
- GROUT SHALL BE NON-SHRINK EPOXY GROUT.
- ALL COUPLINGS SHALL BE SUBSIDIARY AND INCLUDED IN THE BID PRICE.

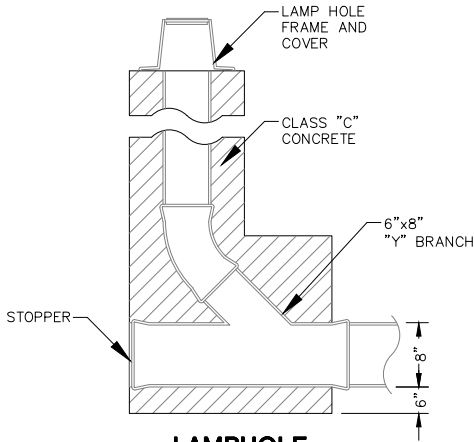
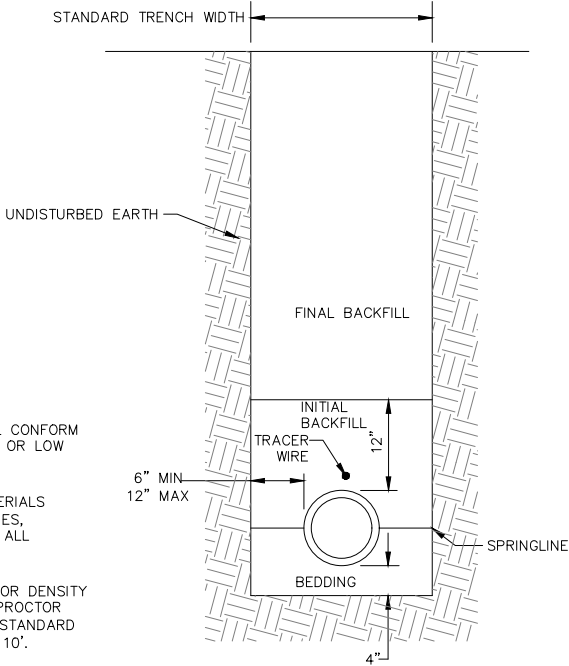
INSIDE PIPE DIAMETER (IN.)	STANDARD TRENCH WIDTH (IN.)
8	24
10	30
12	30
15	36
18	36
21	42
24	42
27	48
30	48
36	54
42	60
48	66

- NOTES:
- STANDARD BEDDING MATERIAL (SBM) SHALL CONFORM TO ASTM D2321 CLASS I AGGREGATE BASE OR LOW STRENGTH BACKFILL MATERIAL.
 - SELECT FILL CONSISTS OF EXCAVATED MATERIALS FREE OF ROCKS LARGER THAN 2-1/2 INCHES, ORGANIC MATERIAL, RUBBISH, DEBRIS, AND ALL OTHER OBJECTIONABLE MATERIAL.
 - COMPACTION REQUIREMENTS:
A. PAVED AREAS: 95% STANDARD PROCTOR DENSITY
B. NON-PAVED AREAS: 90% STANDARD PROCTOR DENSITY IF COVER DEPTH < 10'. 95% STANDARD PROCTOR DENSITY IF COVER DEPTH > 10'.

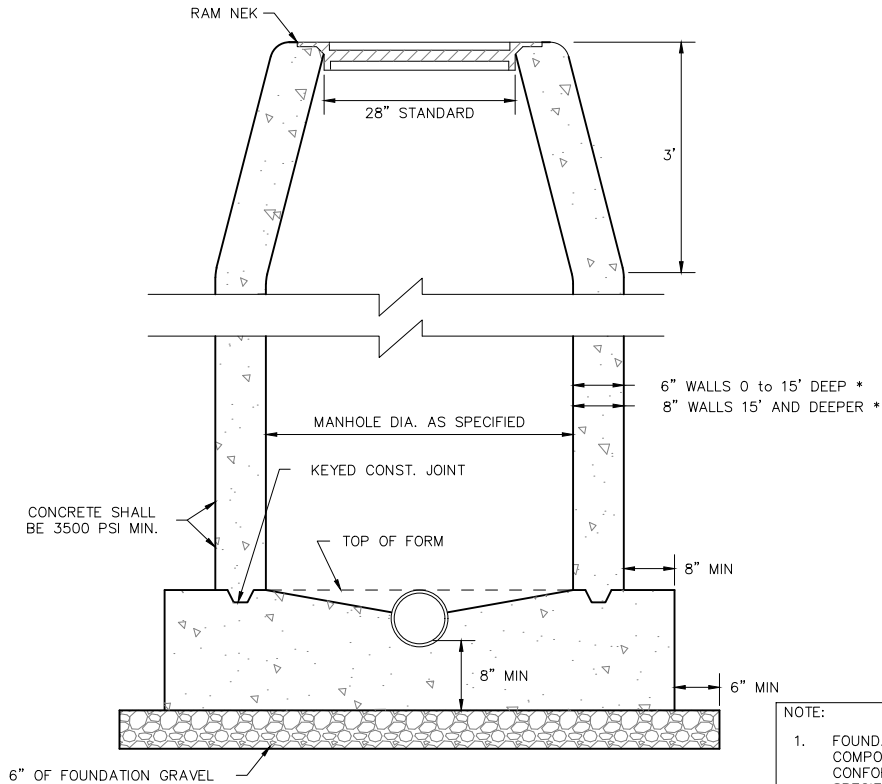
DESCRIPTION	BEDDING MATERIALS			
	PAVED AREAS		NON-PAVED AREAS	
	FLEXIBLE PIPE	RIGID PIPE	FLEXIBLE PIPE	RIGID PIPE
FINAL BACKFILL	STAND. BEDDING MATERIAL (SBM)	STAND. BEDDING MATERIAL (SBM)	EXCAVATED MATERIAL	EXCAVATED MATERIAL
INITIAL BACKFILL	STAND. BEDDING MATERIAL (SBM)	STAND. BEDDING MATERIAL (SBM)	COVER DEPTH ≤ 10' - SELECT FILL COVER DEPTH > 10' - STAND. BEDDING MATERIAL	SELECT FILL
BEDDING	STAND. BEDDING MATERIAL (SBM)	STAND. BEDDING MATERIAL (SBM)	STAND. BEDDING MATERIAL (SBM)	STAND. BEDDING MATERIAL (SBM)

PIPE INSTALLATION

SCALE: NTS



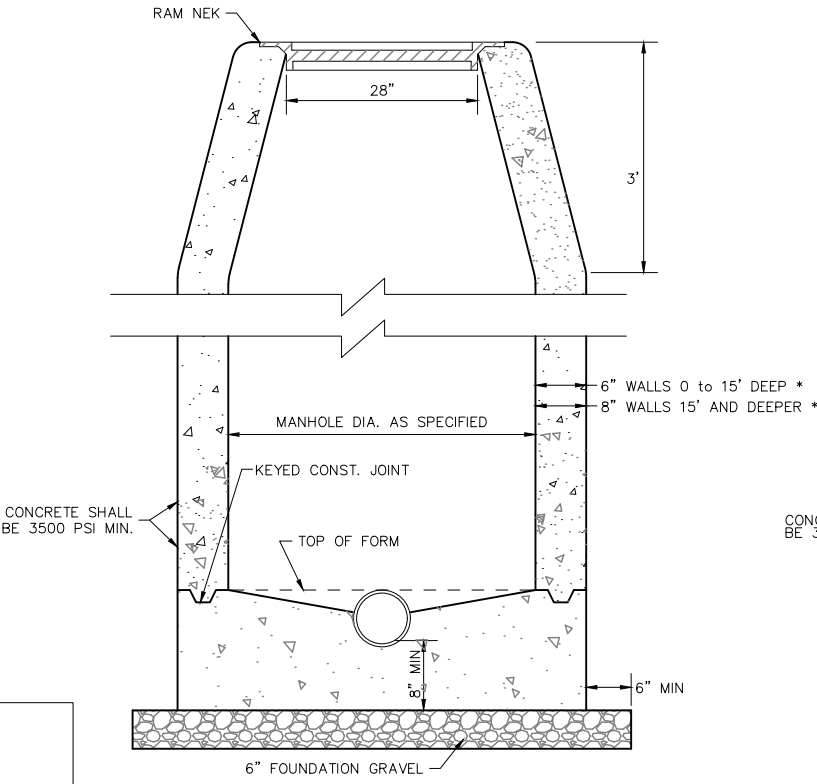
LAMPHOLE
SCALE: NTS



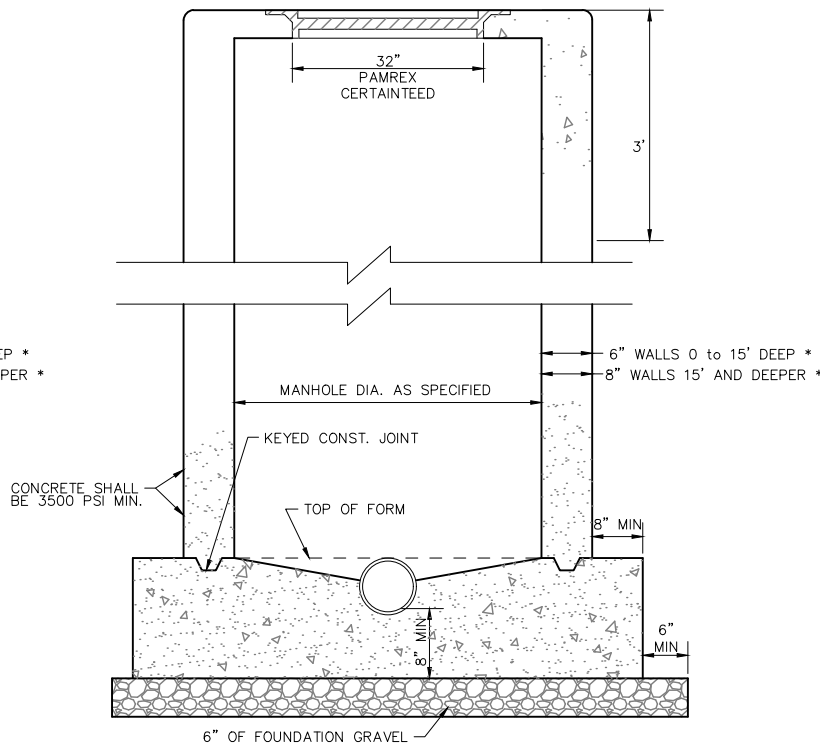
STANDARD MANHOLE
SCALE: NTS

- NOTE:
- FOUNDATION GRAVEL SHALL BE COMPOSED OF CRUSHED ROCK CONFORMING TO STANDARD SPECIFICATIONS, SECTION 31 23 33.

* MANHOLE WALL THICKNESS SHALL BE CONSTANT. NO TRANSITION SHALL BE ALLOWED



STANDARD MANHOLE TYPE 'A'
SCALE: NTS



STANDARD MANHOLE FLAT TOP
SCALE: NTS

STATE OF OKLAHOMA
Department of Environmental Quality
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August 23 2023
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Adam Divine
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Construction Permitting Section

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CA# 6414 EXPIRES 6/30/2024

SANITARY SEWER PIPE BURSTING

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

DETAIL SHEET
(1 OF 3)

DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-153
DATE	5/8/2023

REVISIONS

SHEET NUMBER	21
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STATE OF OKLAHOMA
Department of Environmental Quality

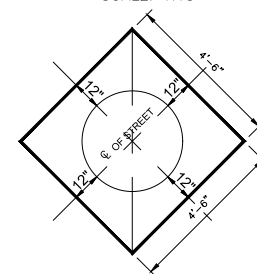
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Construction Permitting Section



PLAN VIEW OF MANHOLE



1. THE MANHOLE FRAME SHALL BE SET TO GRADE AND CONCRETE BASE POURED AFTER RESURFACING OPERATIONS.
2. CONCRETE BASE SHALL BE H.E.S. CLASS A P.C. CONCRETE (3000 PSI IN 24 HOURS).
3. THE WORK SHALL BE PROTECTED BY BARRIERS AND LIGHTS MEETING MUTCD AND SHALL NOT BE REMOVED FOR A PERIOD OF 24 HOURS AFTER THE POUR IS MADE.



SANITARY SEWER PIPE BURSTING

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

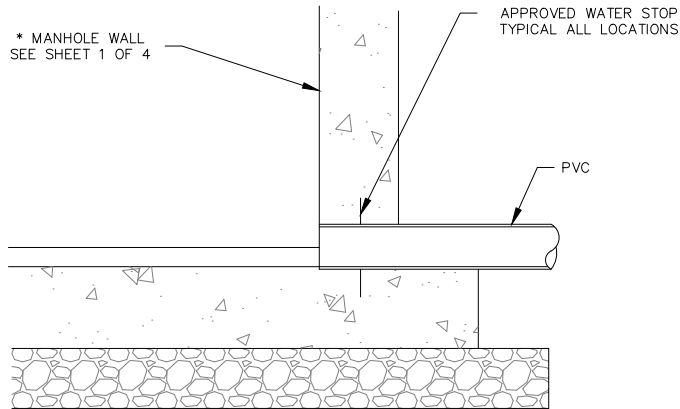
DETAIL SHEET
(2 OF 3)

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PROJECT NUMBER	23-153
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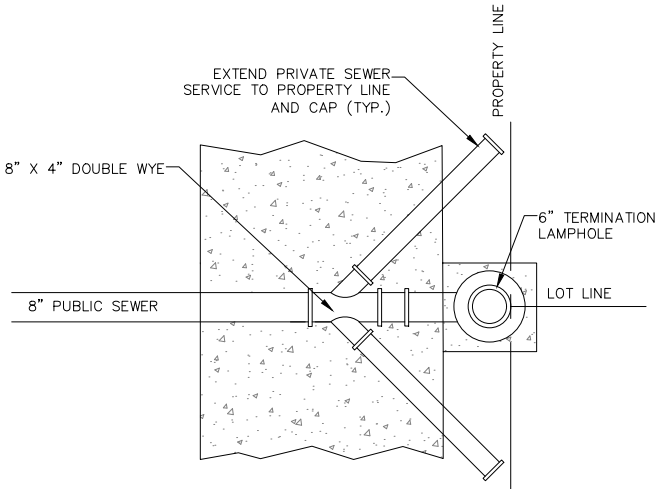
SHEET NUMBER

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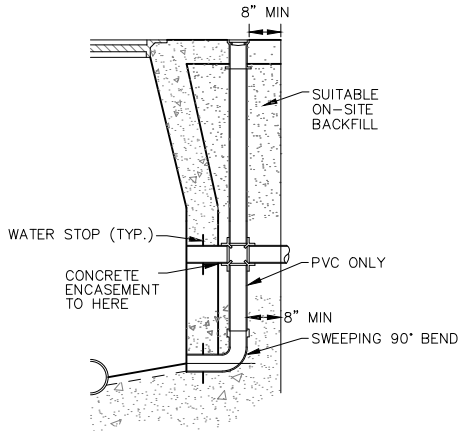


PVC PIPE DETAILS
SCALE: NTS

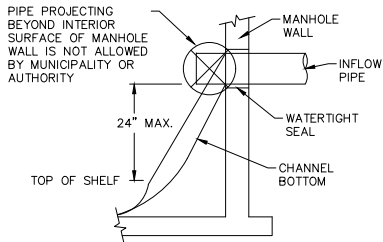
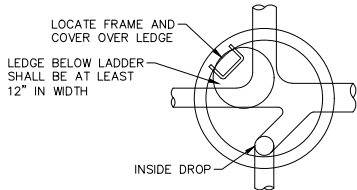
NOTE:
COMPRESSION JOINTS AND COUPLINGS SHALL BE ASSEMBLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. JOINTS AND COUPLINGS SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH ASTM-D3212-92.



PLAN VIEW OF SEWER LAMPHOLE WITH DOUBLE WYE SEWER SET
SCALE: N.T.S.



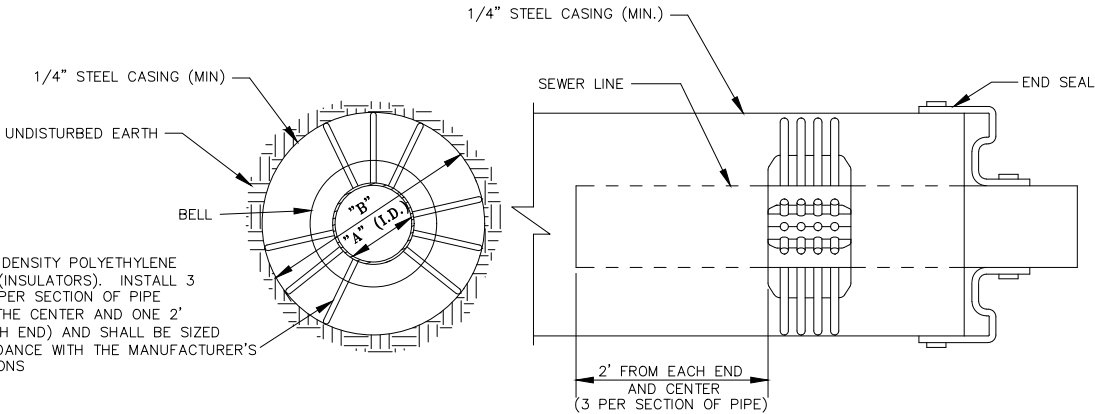
STANDARD DROP MANHOLE
SCALE: NTS



OPEN INSIDE DROP WITH BEAVER SLIDE

PIPE & STEEL CASING SCHEDULE	
PIPE DIA.	CASING DIA.
"A"	"B"
6"	12"
8"	14" OR 16"
10"	18"
12"	20"
16"	24"
18"	26"
24"	33"

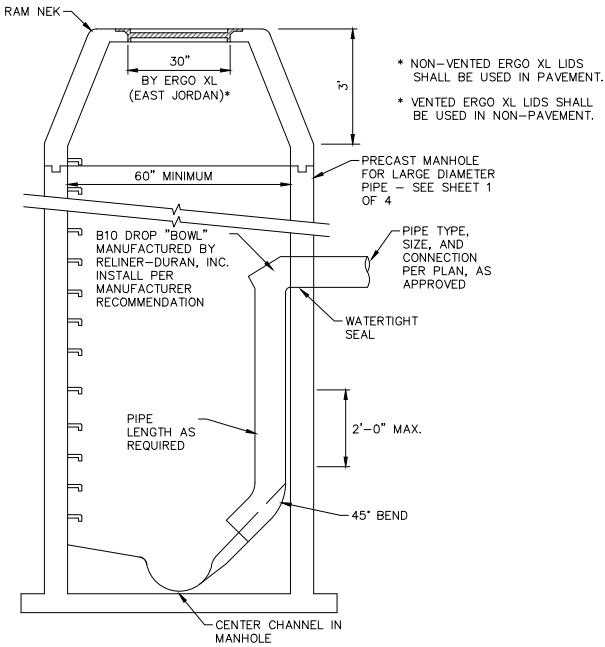
NOTE: CONSTRUCT WATER TIGHT PLUG AT EACH END OF CASING



NOTE: STEEL CASING PIPE SHALL CONFORM WITH ASTM A-139. STANDARD SPECIFICATION FOR ELECTRIC-FUSION(ARC)-WELDED STEEL PIPE (NPS4 AND OVER). THE STEEL MATERIAL SHALL BE NEW, SMOOTH WALL, CARBON STEEL, GRADE B, WITH A MINIMUM TENSILE STRENGTH, AND MINIMUM 35,000 PSI YIELD STRENGTH.

CASING DETAIL
SCALE: NTS

- UNLESS OTHERWISE SHOWN OR NOTED ON THIS DRAWING, ALL SANITARY SEWER INSIDE DROP MANHOLE CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 478
- A SINGLE "OPEN" (UNENCLOSED) INSIDE DROP WITH A "BEAVER SLIDE" MAY BE ALLOWED WITH PRIOR WRITTEN APPROVAL OF THE ENGINEER.
- THE MUNICIPALITY OR AUTHORITY DOES NOT ALLOW OUTSIDE DROPS, "OPEN" (UNENCLOSED) INSIDE DROPS OVER 2 FEET HIGH, OR PARTITIONED INSIDE DROPS.
- PIPE AND FITTINGS FOR DROP ASSEMBLY SHALL BE SAME SIZES AS INFLOW PIPE TO MANHOLE.
- PIPE AND FITTINGS FOR DROP ASSEMBLY SHALL BE: DUCTILE IRON ANSI A21.50-1, AWWA C150-1, AWWA C-900 OR PVC ASTM 3034 SDR 35.
- PIPE CONNECTIONS OF FOUR OR MORE MAINLINES SHALL REQUIRE A MANHOLE CONNECTION AND CHANNEL DETAIL.
- PROVIDE A MINIMUM OF 8-INCHES OF INTACT (UNDISTURBED) MANHOLE WALL BETWEEN PIPE BREAKOUTS AS MEASURED ON THE INSIDE FACE OF THE MANHOLE.
- MINIMUM FALL BETWEEN INLET AND OUTLET TO BE NOT LESS THAN 0.20 FEET.
- THE MUNICIPALITY OR AUTHORITY RESERVES THE RIGHT TO DEViate FROM THIS DRAWING AND RELATED REQUIREMENTS AS DICTATED BY PROJECT DESIGN PARAMETERS, AND AS APPROVED BY THE ENGINEER.



MECHANICAL INSIDE DROP
SCALE: NTS

STATE OF OKLAHOMA
Department of Environmental Quality
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August 23 2023
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SANITARY SEWER PIPE BURSTING

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

**DETAIL SHEET
(3 OF 3)**

DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-153
DATE	5/8/2023

REVISIONS	

SHEET NUMBER	23
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CONTRACT DOCUMENTS AND SPECIFICATIONS

FOR

SEWER PIPE BURSTING

ARPA Grant Project Number: ARP-23-0092-G

BID DATE:

By:

Cowan Group Engineering, LLC
7100 N Classen, Suite 500
Oklahoma City, OK 73116
Phone: 405-463-3369
CA # 6414 Expires 6/30/24

STATE OF OKLAHOMA
Department of Environmental Quality

APPROVED

August 23 2023

Rocky W. Chen, P.E.
Water Quality Division

Adam Divine

D. Adam Divine, P.E.
Construction Permitting Section

July 2023

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Responsible Registrant

Cowan Group Engineering, LLC
CA No. 6414 (Expires 6/30/24)



Michael Taylor

Michael Taylor, PE
Project Manager
OK PE 27655

Advertisement for Bids

Notice is hereby given that the City of Shawnee (hereinafter called the "Owner") will receive sealed bids at the City Clerk's Office, 16 W. 9th Street, Shawnee, Potawatomie County, Oklahoma until the ____ day of _____, 2023 for the Sewer Pipe Bursting.

Funding for this project is provided through American Rescue Plan Act (ARPA) grant program. As such, compliance with Labor Standards Contract Provisions is mandatory. Compliance with the Davis Bacon Act is mandatory **if the total project cost exceeds \$10,000,000 (ten million dollars)**.

All bids received at said time will be opened and evaluated for completeness and correctness. All work shall be performed, and all construction and materials used and furnished shall be in accordance with the Plans and Specifications prepared by Cowan Group Engineering, and on file in the office of the City Clerk, 16 W. 9th Street, Shawnee, OK 74802-1448.

The Bid Packet and Contract Documents for this project may be examined at the following locations:

1. The City Clerk's Office, 16 W. 9th Street, Shawnee, OK 74802-1448.
2. Cowan Group Engineering, 7100 N. Classen, Suite 500, Oklahoma City, OK 73116

Hard copy plans and specifications may be obtained by the prospective bidders at these locations for \$100.00. No documents will be mailed until payment is received in full.

Complete digital project bidding documents are available for a non-refundable fee of \$50.00 by going to www.cowangroup.co, navigating to the Bid Documents page, and by entering Quest Project # 8556116 on the website's project search page. Please contact QuestCDN.com at 952.233.1632 or info@questcdn.com for assistance in free membership registration, downloading and working with this digital project information.

Each bidder shall accompany his original bid, filed with the City Clerk's Office with a certified or Cashier's Check on a solvent bank located in Oklahoma, or a Bidder's Bond, in the amount of five (5) percent of the amount bid, as a guarantee of his ability to perform the contract bid upon, and that he will enter into a written contract with the Owner to perform said work and/or furnish said materials in accordance with said Plans and Specifications and furnish the required bonds according to the Public Competitive Bidding Act of 1974.

The Owner will retain the deposit for liquidated damages in case the successful bidder fails to enter in said contract and furnish the required bonds provided for in the specifications within the time required. Deposit of the unsuccessful bidders will be returned upon the execution of the Contract and required bonds.

Each bidder shall accompany his bid with a sworn statement in writing that the bidder has not directly or indirectly entered into an agreement, expressed or implied, with any other bidder concerning the price or amount of such bid or any bids, the limiting of the bids or bidders, the paying to anyone any money for promotion expenses, the parceling or farming out to any bidder or bidders or other persons of any part of the contract or any part of the subject matter of the bid or of the profits thereof.

Construction, Maintenance and Statutory Payment Bonds in the amount of 100% of the contract price are required for this project. These bonds must be obtained from a Corporate Surety licensed in Oklahoma and approved by the Owner and Consulting Engineer. The bidder shall state in the proposal the name and address of the Surety or Sureties who will sign this bond in case the contract is awarded. The Maintenance Bond required will guarantee the repair of all damage due to improper materials or workmanship for a period of one (1) year after the acceptance of the work by the Owner.

This project is to be financed by the ARPA grant program managed by the Oklahoma Water Resources Board (OWRB) and shall be referred to as Project No. ARP-23-0092-G. The following requirements and regulations must be complied with:

- A. "Equal Opportunity in Employment: All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age or physical handicap. Bidders on this work will be required to comply with the President's Executive Order No. 11246, as amended."
- B. "Each bidder must fully comply with the requirements, terms and conditions of the Environmental Protection Agency's Disadvantaged Business Enterprise Requirements, which have been adopted for the OWRB ARPA program, and include employing the six (6) good faith efforts and soliciting disadvantaged business enterprises during the performance of this contract. Requirements are contained in OWRB's Guidance and Procedures, ARP-267. The bidder commits itself to following the good faith efforts to solicit disadvantaged business enterprises contained herein and all other requirements, terms, and conditions of these bid conditions by submitting a properly signed bid."
- C. **If the total project cost exceeds \$10,000,000 (ten million dollars)** "Davis Bacon Act wage rules shall apply. All laborers and mechanics employed by contractors and sub- contractors on projects funded directly by or assisted in whole or in part by and through the Federal Government shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of Chapter 31 of Title 40, United States Code and 29 CFR parts 1,3, and 5. The Department of Labor provides all pertinent information related to compliance with labor standards, including prevailing wage rates and instructions for reporting. More information is available at <http://www.sam.gov/>" and <https://www.dol.gov/agencies/whd/government-contracts/construction>
- D. System for Award Management (SAM) registration is required for all Applicants and Awardees (Entities, Prime Contractors, Subcontractors, Vendors) in order to receive funds from the ARPA program. SAM replaced the Central Contractor Registration/Federal Agency Registration, Online Representations and Certifications Application, and Excluded Parties List System. Applicants and awardees are required to complete a one-time free registration to provide basic information relevant to procurement and financial transactions. On April 4, 2022, the unique entity identifier used across the federal government changed from the DUNS Number to the Unique Entity ID (generated by SAM.gov). Registrants must retain an active status to be eligible for ARPA funding. Applicants and Awardees can go to SAM.gov to complete the registration process.

The bids filed with the City Clerk's Office will be opened and considered by the Owner, at a meeting to be held in _____, on the day of _____, 2023. Bids received more than ninety-six (96) hours prior to the Bid Opening will be returned.

The contract is to be awarded to the lowest, responsive, responsible bidder. The Owner reserves the right to correct any non-material clerical errors in the bidding as allowed under Oklahoma Law. The Owner reserves the right to reject any and all bids in accordance with the Oklahoma Public Competitive Bidding Act of 1974. Conditional bids shall not be accepted.

A pre-bid conference will be held on this project at:
_____ on the _____ day of _____, 2023.

Approved on this _____ day of _____, 2023

Information for Bidders

Notice is hereby given that the City of Shawnee (hereinafter called the "Owner") will receive sealed bids at the City Clerk's Office, 16 W. 9th Street, Shawnee, Pottawatomie County, Oklahoma until the ____ day of _____, 2023, for the Sewer Pipe Bursting.

This project is to be financed by the ARPA grant program managed by the Oklahoma Water Resources Board (OWRB) and shall be referred to as Project No. ARP-23-0092-G. The following requirements and regulations must be complied with:

- A. "Equal Opportunity in Employment: All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age or physical handicap Bidders on this work will be required to comply with the President's Executive Order No. 11246, as amended."
- B. " Each bidder must fully comply with the requirements, terms, and conditions of the Environmental Protection Agency's Disadvantaged Business Enterprise Requirements, which have been adopted for the OWRB ARPA program, and include employing the six (6) good faith efforts and soliciting disadvantaged business enterprises during the performance of this contract. Requirements are contained in OWRB's Guidance and Procedures, ARP-267. The bidder commits itself to following the good faith efforts to solicit disadvantaged business enterprises contained herein and all other requirements, terms, and conditions of these bid conditions by submitting a properly signed bid."
- C. **If the total project cost exceeds \$10,000,000 (ten million dollars)** "Davis Bacon Act wage rules shall apply. All borers and mechanics employed by contractors and sub-contractors on projects funded directly by or assisted in whole or in part by and through the Federal Government shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of Chapter 31 of Title 40, United States Code and 29 CFR parts 1,3, and 5. The Department of Labor provides all pertinent information related to compliance with labor standards, including prevailing wage rates and instructions for reporting. More information is available at <https://www.dol.gov/agencies/whd/government-contracts/construction> and <http://www.sam.gov/>"
- D. System for Award Management (SAM) registration is required for all Applicants and Awardees (Entities, Prime Contractors, Subcontractors, Vendors) in order to receive funds from the ARPA program. SAM replaced the Central Contractor Registration/Federal Agency Registration, Online Representations and Certifications Application, and Excluded Parties List System. Applicants and awardees are required to complete a one-time free registration to provide basic information relevant to procurement and financial transactions. On April 4, 2022, the unique entity identifier used across the federal government changed from the DUNS Number to the Unique Entity ID (generated by SAM.gov). Registrants must retain an active status to be eligible for ARPA funding. Applicants and Awardees can go to SAM.gov to complete the registration process.

Each sealed envelope containing a bid must be plainly marked on the outside as "Bid for Independence Avenue Waterline", and the envelope should bear on the outside the bidder's name, address, and license number (if applicable). If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to the Owner at: City of Shawnee, City Clerk's Office, P.O. Box 1448, Shawnee, OK 74802-1448.

All bids must be made on the required bid form, where all blank spaces for bid prices must be filled in, in ink or typewritten. The bid form must be fully completed and executed when submitted. Only one copy of the bid form is required. The Owner may waive any informalities or minor defects or reject any and all bids as allowed under Oklahoma Law. Any bid may be withdrawn prior to the above scheduled time for bid opening, or authorized postponement thereof. Bids received more than ninety-six (96) hours before the time specified, or those received after the time set for bid opening will not be considered and will be returned unopened. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Owner and the bidders.

Bidders must satisfy themselves of the accuracy of estimated quantities in the bid proposal by review of the Plans and Specifications, including any existing addenda, and by examination of the project site. Once a bid is submitted, the bidder shall not assert that there was a misunderstanding concerning the quantities or the nature of work to be performed. The failure or omission of any bidder to do any of the foregoing shall in no way relieve any bidder from any obligation in respect to its bid.

Prior to bidding, the Owner shall provide to the bidders all pertinent information that delineates and describes the land owned and rights-of-way acquired or to be acquired.

The Contract Documents contain the provisions required for the construction of the product. Information obtained from an officer, agent, or employee of the Owner or any other person shall not affect the risks or obligations assumed by the contractor or relieve the contractor from fulfilling any of the conditions of the contract.

Each bid exceeding \$100,000 must be accompanied by a Bid Bond for five percent of the total amount of the bid and payable to the Owner. A certified check may be used in lieu of the Bid Bond. As soon as the bid prices have been compared, the Owner will return the bonds of all except the three lowest responsive, responsible bidders. The bid securities of the successful bidder and the two remaining unsuccessful bidders will be returned upon Owner's approval of the successful bidder's executed certificate of insurance and construction bonds.

Construction bonds (Performance, Statutory, and Maintenance) in the amount of 100 percent with a corporate surety approved by the Owner will be required for the faithful performance of the contract. Attorneys-in-fact who sign bid and construction bonds must file with each bond a certified and effective dated copy of their Power-of-Attorney.

The Owner shall award a contract to the lowest, responsive, responsible bidder or bidders within thirty (30) calendar days after bid opening. The Owner may extend the award period not to exceed fifteen (15) calendar days by formal recorded action and for good cause. The time may be extended further by mutual agreement between the Owner and the bidder per O.S. Title 61 Section 111, Public Competitive Bidding Act of 1974 (PCBA).

The Notice of Award shall be accompanied by the necessary contract, bonds, and insurance. In the event of failure of the bidder to execute the contract, the Owner may consider the bidder in default, in which case the Bid Bond accompanying the proposal shall become the property of the Owner.

The party to whom the contract is awarded will be required to execute the contract and obtain the construction bonds (Performance, Statutory and Maintenance) and certificate of insurance within 30 calendar days (not to exceed 60 days) from the date when the Notice of Award is delivered to the bidder. The time may be extended further by mutual agreement between the Owner and the bidder per O.S. Title 61 Section 113 (PCBA).

With an acceptable contract, bonds and certificate of insurance signed by the party to whom the Contract was awarded, the Owner shall sign the contract and return to such party an executed duplicate. Should the Owner not execute the contract within the agreed upon period, the bidder may by written notice withdraw the signed contract. Such notice of withdrawal shall be effective upon its receipt by the Owner.

The Owner shall issue the Notice to Proceed after the execution of the contract, approval of bonds and certificate of insurance. If the Notice to Proceed has not been issued within the agreed upon period, the contractor may terminate the contract without further liability on the part of either party.

The Owner may make such investigations as deemed necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of such bidders fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein.

A conditional or qualified bid will not be accepted. Tied bids are non-restrictive, and in order for a tied bid to be accepted it must be lower than the sum of low separate bids.

All applicable laws, ordinances, rules, and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout. The successful bidder will be required to meet all requirements of the Underground Facilities Damage Prevention Act when engaged in work within public rights-of-way.

When using alternate bids, they will be listed in numerical order, with the highest priority being number one, the second highest priority being number two, etc. The lowest bidder will be determined by comparing all bids that contain the selected alternates and computing the total value of the base bid plus the alternates.

All bidders and owners shall comply with the Oklahoma PCBA of 1974.

The awarded bidder shall supply the names and addresses of all subcontractors and material suppliers when required to do so by the Owner.

To avoid bypassing of raw sewage during construction, the contractor shall use the methods and/or schedule(s) described in Section _____ of these Specifications, or the method(s) and/or schedule(s) described as follows:

The Contractor will be required to begin work within 15 calendar days of the date shown on the Notice to Proceed. The time for completion is 90 calendar days. Liquidated damages will be \$500 per calendar day.

In the event of a conflict between the Plans and the Specifications, the Specifications will govern.

The following items, included in this Bid Packet, shall be submitted along with the bid:

- Bid Proposal
- Bid Bond
- Non-Collusion Affidavit
- Business Relationship Affidavit
- Contractor's Statement about Equal Opportunity (ARP-211)
- Contractor's Certificate of Non-Segregated Facilities (ARP-212)
- Sub-Contractor's Certificate of Non-Segregated Facilities (ARP-212a)
- Bidder's/Supplier's List (ARP-249)
- Subcontractor Performance form (ARP-6100-3)
- Subcontractor Utilization form (ARP-6100-4)
- DBE documentation (if applicable)
- Statement of Qualifications

The consulting engineer is Cowan Group Engineering. The consulting engineer's contact person for this project is Michael Taylor, PE, with phone number 405.463.3369 and email michael@cowangroup.co.

BID PROPOSAL FORM

CITY OF SHAWNEE **BID NOTICE: ARP 23-0092-G**

THE UNDERSIGNED BIDDER, having examined the plans, specifications, the locations, arrangements, and conditions of roads, street, utilities and other facilities or appurtenances which affect or may be affected by the proposed work, the actual sites of the proposed improvements and being acquainted with and fully understanding: (1) the extent and character of the work covered by this proposal; (2) the locations and specified requirements of and for the proposed improvements and other items of work appurtenant thereto; and (3) the normal existing and probable construction difficulties, hazards or all other factors or conditions which may or may not be apparent, which may affect or be affected by the specified work.

HEREBY PROPOSES to furnish all required materials, supplies, equipment, tools, and plant; to perform all necessary labor; and to construct, erect, equip, and complete all work stipulated in, required by, and in accordance with the contract documents hereto attached and the specifications referred to therein (as altered, changed, or modified by any and all addenda thereto), for and in connection with the Contract for which this proposal is herein submitted for and in consideration of the prices set out herein.

The undersigned bidder hereby agrees to furnish the required Performance Bond, Statutory Bond, Maintenance Bond, and evidence of insurance and to enter into a contract within fifteen (15) days after the acceptance of this proposal, and further agrees to complete the work in 90 days (stipulated in the Contract Agreement) from the date of the issuance by the City's Engineer of a Work Order authorizing commencement of work.

Attached hereto is a Certified Check, Cashier's Check or Bidder's Surety Bond in the amount of: _____ DOLLARS \$ _____ which the undersigned agrees is to be forfeited to and become the property of the City of Shawnee, as liquidated damages, should this proposal be accepted and the Contract be awarded to him, he fails to enter into a Contract in the form prescribed and to furnish the required bonds and evidence of insurance within fifteen (15) days as above stipulated, but otherwise the proposal guarantee shall be returned to the undersigned upon the signing of the Contract and delivery of the approved bonds and evidence of insurance to the City of Shawnee.

DATED this _____ day of _____ 20 _____.

Signature: _____

Name and Title: _____

Company: _____ Circle One: Corporation Partnership Individual

Address: _____

Phone: _____ Fax: _____

E-mail Address: _____

Federal Tax I.D. _____

Attest: _____

Secretary

Corporate Seal

(if applicable)

SEWER PIPE BURSTING

BID SCHEDULE: ARP 23-0092-G



COWAN GROUP ENGINEERING
7100 N CLASSEN, SUITE 500
OKLAHOMA CITY, OK 73116
405.463.3369 O
405.463.3381 F



PROJECT NAME SANITARY SEWER PIPE BURSTING
DESCRIPTION SS COLLECTION IMPROVEMENTS
LOCATION SHAWNEE, OKLAHOMA
PHASE FINAL ESTIMATE
DATE 7/5/2023

ITEM NUMBER	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
BASE BID					
1	MOBILIZATION	1	LSUM		
2	8-INCH HDPE DR-17 SANITARY SEWER (BURSTING)	2,766	LF		
3	8-INCH HDPE DR-17 SANITARY SEWER (TRENCHING)	49	LF		
4	10-INCH HDPE DR-17 SANITARY SEWER (BURSTING)	2,222	LF		
5	12-INCH HDPE DR-17 SANITARY SEWER (BURSTING)	1,440	LF		
6	SERVICE CONNECTION	196	EA		
7	CEMENTITIOUS MANHOLE COATING	69	VF		
8	1' MANHOLE GRADE ADJUSTMENT WITH SEAL AND REPLACE FRAME, COVER AND SEAL	1	EA		
9	4' DIAMETER MANHOLE GRADE ADJUSTMENT WITH SEAL AND REPLACE FRAME. COVER AND SEAL	1	EA		
10	STANDARD 4' DIAMETER MANHOLE REMOVAL AND REPLACEMENT	15	EA		
11	CONSTRUCT 4' DIAMETER MANHOLE	2	EA		
12	ASPHALT REMOVAL AND REPLACEMENT	106	SY		
13	CONCRETE REMOVAL AND REPLACEMENT	21	SY		
14	GRAVEL REMOVAL AND REPLACEMENT	49	SY		
15	SOLID SLAB SODDING	53	SY		
16	EXTRA DEPTH MANHOLE	71	VF		
17	PRE INSTALLATION VIDEO INSPECTION	6,428	LF		
18	POST INSTALLATION VIDEO INSPECTION	6,428	LF		
19	TESTING	1	LSUM		
20	BYPASS PUMPING	1	LSUM		
21	TEMPORARY EROSION AND SEDIMENT CONTROL	1	LSUM		
22	CONSTRUCTION SIGNING & TRAFFIC CONTROL	1	LSUM		
23	SPOT REPAIRS	-	EA		

ALL ITEMS TO INCLUDE ALL APPURTENANCES NECESSARY TO PROVIDE A COMPLETE AND OPERABLE SYSTEM AS DESCRIBED IN THE PLANS AND SPECIFICATIONS.

TOTAL BASE BID \$ _____

TOTAL BASE BID IN WORDS _____

Bidder's Statement about: Equal Opportunity Clause (ARP-211)

Mark one:

- ☐ I have participated in previous contract(s) or subcontract(s) subject to the equal opportunity clause under Executive Orders 11246 and 11375 or preceding Executive Orders 10925 and 11114. I have filed all reports due under the requirements contained in 40 CFR, Part C, 8.11.
- ☐ I have not participated in previous contract(s) subject to the equal opportunity clause under Executive Orders 11246 and 11375 or preceding Executive Orders 10925 and 11114.

- ☐ I will obtain a similar statement from any proposed subcontractor(s), when appropriate.

Bidder's Statement about: Non-Segregated Facilities (ARP-212 and ARP-212a)

- ☐ I hereby certify that I do not and will not maintain any facilities provided for my employees in a segregated manner or permit my employees to perform their services at any location under my control where segregated facilities are maintained; and that I will obtain a similar certification prior to the award of any subcontract exceeding \$10,000 which is not exempted from the equal opportunity clause.

Bidder's Statement about: Bonds

- ☐ I hereby certify that I will obtain and provide a Bid Bond along with my Bid.
- ☐ I hereby certify that, in the event of being awarded a Contract, I will provide a Performance Bond for 100% of the contract amount.
- ☐ I hereby certify that, in the event of being awarded a Contract, I will provide a Statutory/Payment Bond for 100% of the contract amount.
- ☐ I hereby certify that, in the event of being awarded a Contract, I will provide a Maintenance Bond for at least 1 year after construction completion, and 100% of the contract amount

Bidder's Statement about: sam.gov registration

Mark one:

- ☐ I have registered in SAM.gov and my status is "active".
- ☐ I am not currently registered in SAM.gov, but I will be registered and holding an "active" status prior to the beginning of any construction.

- ☐ I certify that I will actively review the SAM.gov status of all of the subcontractors in this work to verify they are registered and their status is "active".

Bidder's Statement about: Davis Bacon Act

If the total project cost exceeds \$10,000,000 (ten million dollars):

- ☐ I hereby certify that all of my employees will be paid according to the Davis Bacon Act.

Name and Title of Prospective Prime Contractor's Representative

Signature of Prospective Prime Contractor's Representative

Name and address of Prospective Prime Contractor

AFFIDAVITS

State of _____ ss.
County of _____

_____, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid.

Non-Collusion

Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any government official or employee as to quantity, quality, or price in the prospective contract, or any other terms of said prospective contract; or in any discussions between bidders and any government official concerning exchange of money or other value for special consideration in the letting of a contract; that the bidder/contractor had not paid, given or donated or agreed to pay, give or donate to any officer or employee of the _____ (or other entity) any money or other thing of value, either directly or indirectly in the procurement of a contract or pursuant to this bid.

Business Relationships

Affiant further states that the nature of any partnership, joint venture, or other business relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

If none of the business relationship herein above mentioned exists, affiant should so state.

Subscribed and sworn to before me this ____ day of _____, 20 ____.

Notary Public Signature

My Commission Expires: _____

ARP-249 BIDDERS/SUPPLIERS LIST

To be completed by Project Owner with documentation from all bidding Prime Contractors & Subcontractors
(List of all firms that bid or quote on Prime Contracts and Subcontracts on the project including Services and Supplies)

Project Name: _____ OWRB Project Number: ARP- ____ - ____ - ____

Company Name:	
Address:	
Contact Name:	
Phone:	
Email:	
Quote/Bid Amount (\$)	
Date:	
Utilized: Yes No	If <u>utilized</u> and >\$10,000 then ARP 212a form is required (from all subcontractors and suppliers).
DBE: Yes No	If <u>yes</u> , MBE or WBE? _____ Check one: Construction _____ Equipment _____ Services _____ Supplies _____ ARP 6100-3 form is <u>required</u> for all DBEs that bid/quote, even if not utilized. <u>Submit with Bidders List</u> . If <u>utilized</u> submit the following with Bidders List: - A copy of the companies MBE or WBE certificate is <u>required</u>. - ARP 6100-4 form is also <u>required</u>.

Company Name:	
Address:	
Contact Name:	
Phone:	
Email:	
Quote/Bid Amount (\$)	
Date:	
Utilized: Yes No	If <u>utilized</u> and >\$10,000 then ARP 212a form is required (from all subcontractors and suppliers).
DBE: Yes No	If <u>yes</u> , MBE or WBE? _____ Check one: Construction _____ Equipment _____ Services _____ Supplies _____ ARP 6100-3 form is <u>required</u> for all DBEs that bid/quote, even if not utilized. <u>Submit with Bidders List</u> . If <u>utilized</u> submit the following with Bidders List: - A copy of the companies MBE or WBE certificate is <u>required</u>. - ARP 6100-4 form is also <u>required</u>.

Company Name:	
Address:	
Contact Name:	
Phone:	
Email:	
Quote/Bid Amount (\$)	
Date:	
Utilized: Yes No	If <u>utilized</u> and >\$10,000 then ARP 212a form is required (from all subcontractors and suppliers).
DBE: Yes No	If <u>yes</u> , MBE or WBE? _____ Check one: Construction _____ Equipment _____ Services _____ Supplies _____ ARP 6100-3 form is <u>required</u> for all DBEs that bid/quote, even if not utilized. <u>Submit with Bidders List</u> . If <u>utilized</u> submit the following with Bidders List: - A copy of the companies MBE or WBE certificate is <u>required</u>. - ARP 6100-4 form is also <u>required</u>.

STATEMENT OF QUALIFICATIONS:

Bidder

Address

Similar Projects Completed by Bidder:

1. NAME OF PROJECT: _____

OWNER: _____ ADDRESS: _____

DATE STARTED: _____ DATE COMPLETED: _____

APPROX. QUANTITIES OF MAJOR ITEMS: _____

VALUE OF CONTRACT: _____

2. NAME OF PROJECT: _____

OWNER: _____ ADDRESS: _____

DATE STARTED: _____ DATE COMPLETED: _____

APPROX. QUANTITIES OF MAJOR ITEMS: _____

VALUE OF CONTRACT: _____

3. NAME OF PROJECT: _____

OWNER: _____ ADDRESS: _____

DATE STARTED: _____ DATE COMPLETED: _____

APPROX. QUANTITIES OF MAJOR ITEMS: _____

VALUE OF CONTRACT: _____

4. OTHER PROJECT REFERENCES: _____

NOTE: THIS FORM IS TO BE RETURNED WITH THE BID.

BID BOND

We, the undersigned, _____, as Principal, and _____, as Surety, are hereby held and firmly bound unto **City of Shawnee**, as Owner, in the penal sum of _____ for the payment of which, well and truly to be made, hereby jointly and severally bind ourselves, our successors and our assigns.

Signed this _____ day of _____, _____.

The condition of the above obligation is such that, whereas the Principal has submitted to **City of Shawnee**, a certain bid, attached hereto and hereby made a part hereof, to enter into a contract, in writing, for the **Sewer Pipe Bursting**.

NOW, THEREFORE, if said bid shall be rejected or if said bid shall be accepted and the Principal shall execute and deliver a contract in the form of the contract attached hereto (properly completed in accordance with said bid) and shall furnish a bond for faithful performance of said contract and for the payment of all persons performing labor or furnishing materials in connection therewith and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void; otherwise, the same shall remain in force and effect, it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bonds shall in no way be impaired or affected by any extension of the time within which the Owner may accept such bid and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers the day and year first set forth above.

Principal

Surety

By:_____

ATTEST: (if by corporation)

Type Name & Title

Corporate Seal

NOTE: THIS FORM IS TO BE RETURNED WITH THE BID.

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____,
hereinafter called the Principal, and the _____
of, _____, a corporation duly organized under the laws of the State
of _____, hereinafter called the Surety, as Surety, are held and firmly bound unto the City of
Shawnee, hereinafter call the Obligee, in the sum of _____
Dollars (\$_____), for the payment of which sum well and truly to be made, the said Principal
and the said Surety, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and
severally, firmly by these presents.

WHEREAS, said Principal entered into a written Contract with said Obligee dated _____,
for Sewer Pipe Bursting, all in compliance with the plans and specifications therefore, made a part of said Contract
and on file in the office of Cowan Group Engineering, LLC, 7100 N. Classen Blvd., Suite 500, Oklahoma City, OK
73116.

WHEREAS, this bond is given in compliance with Title 61, Oklahoma Statutes 2001, Section 113(B)(3).

NOW THEREFORE, if said Principal shall pay or cause to be paid to Obligee all damage, loss, and expense which
may result by reason of defective materials and/or workmanship in connection with said work, occurring within a
period of one (1) year after acceptance of said project by Obligee; and if Principal shall pay or cause to be paid all
labor and materials, including the prime contractor and all subcontractors; and if Principal shall save and hold Obligee
harmless from all damages, loss, and expense occasioned by, or resulting from, any failure whatsoever of said
Principal, then this obligation shall be null and void, otherwise to be and remain in full force and effect.

It is further expressly agreed and understood by the parties hereto that no changes or alternations in said Contract
and no deviations from the plan or mode of procedure herein fixed shall have the effect of releasing the sureties, or
any of them, from the obligations of this Bond.

IN WITNESS WHEREOF, this instrument is executed in 4 counterparts, each of which shall be deemed an original,
this ____ day of _____, 2023.

_____	(	_____
WITNESS AS TO PRINCIPAL	(	PRINCIPAL
	(	
	BY:	_____

_____	(	_____
WITNESS AS TO SURETY	(	SURETY
	(	
	BY:	_____
	(	ATTORNEY-IN-FACT

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list
(Circular 570 as amended) and be authorized to transact business in the State of Oklahoma. Attach a certified Copy
of the Power of Attorney.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____,
hereinafter called the Principal, and the _____
of, _____, a corporation duly organized under the laws of the State
of _____, hereinafter called the Surety, as Surety, are held and firmly bound unto the City of
Shawnee, hereinafter call the Obligee, in the sum of _____
Dollars (\$_____), for the payment of which sum well and truly to be made, the said Principal
and the said Surety, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and
severally, firmly by these presents.

WHEREAS, said Principal entered into a written Contract with said Obligee dated _____,
for Sewer Pipe Bursting, all in compliance with the plans and specifications therefore, made a part of said Contract
and on file in the office of Cowan Group Engineering, 7100 N. Classen Blvd., Suite 500, Oklahoma City, OK 73116.

WHEREAS, this bond is given in compliance with Title 61, Oklahoma Statutes 2001, Section 113(B)(2).

NOW THEREFORE, if said Principal shall, in all particulars, well, truly and faithfully perform and abide by said
Contract and each and every covenant, condition, and part thereof, and shall fulfill all obligations resting upon said
Principal by the terms of said Contract and said specifications, and if said Principal shall protect and save harmless
said Obligee from any pecuniary loss resulting from the breach of any of the items, covenants and conditions of said
Contract resting upon said Principal, the this obligation shall be null and void, otherwise to be and remain in full force
and effect.

It is further expressly agreed and understood by the parties hereto that no changes or alternations in said Contract
and no deviations from the plan or mode of procedure herein fixed shall have the effect of releasing the sureties, or
any of them, from the obligations of this Bond.

IN WITNESS WHEREOF, this instrument is executed in 4 counterparts, each of which shall be deemed an original,
this ____ day of _____, 2023.

_____	(	_____
WITNESS AS TO PRINCIPAL	(	PRINCIPAL
	(	
	(	BY: _____

_____	(	_____
WITNESS AS TO SURETY	(	SURETY
	(	
	(	BY: _____
	(	ATTORNEY-IN-FACT

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list
(Circular 570 as amended) and be authorized to transact business in the State of Oklahoma. Attach a certified Copy
of the Power of Attorney.

STATUTORY BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____,
hereinafter called the Principal, and the _____
of, _____, a corporation duly organized under the laws of the State
of _____, hereinafter called the Surety, as Surety, are held and firmly bound unto the City of
Shawnee, hereinafter call the Obligee, in the sum of _____
Dollars (\$_____), for the payment of which sum well and truly to be made, the said Principal
and the said Surety, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and
severally, firmly by these presents.

WHEREAS, said Principal entered into a written Contract with said Obligee dated _____,
for Sewer Pipe Bursting, all in compliance with the plans and specifications therefore, made a part of said Contract
and on file in the office of Cowan Group Engineering, LLC, 7100 N. Classen Blvd., Oklahoma City, OK 73116.

WHEREAS, this bond is given in compliance with Title 61, Oklahoma Statutes 2001, Sections 1 and 113(B)(1).
NOW THEREFORE, if said Principal shall fail or neglect to pay all indebtedness incurred by said Principal or
subcontractors of said Principal who perform work in the performance of such contract, for labor and materials and
repairs to and parts for equipment used and consumed in the performance of said contract after the same becomes
due and payable the person, firm, or corporation entitled thereto may sue and recover on this bond, the amount so
due and unpaid.

It is further expressly agreed and understood by the parties hereto that no changes or alternations in said Contract
and no deviations from the plan or mode of procedure herein fixed shall have the effect of releasing the sureties, or
any of them, from the obligations of this Bond.

IN WITNESS WHEREOF, this instrument is executed in 4 counterparts, each of which shall be deemed an original,
this ____ day of _____, 2023.

_____	(	_____
WITNESS AS TO PRINCIPAL	(	PRINCIPAL
	(	BY: _____

_____	(	_____
WITNESS AS TO SURETY	(	SURETY
	(	BY: _____
	(	ATTORNEY-IN-FACT

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list
(Circular 570 as amended) and be authorized to transact business in the State of Oklahoma. Attach a certified
Copy of the Power of Attorney

APPLICATION AND CERTIFICATE FOR PAYMENT

PROJECT: SEWER PIPE BURSTING
TO: (OWNER): CITY OF SHAWNEE

ENGINEER: Cowan Group Engineering, LLC

CONTRACTOR:

CONTRACT FOR:

APPLICATION DATE:

APPLICATION NO:

PERIOD FROM:

TO:

CHANGE ORDER SUMMARY

Application is made for Payment, as shown below, in connection with the Contract. The present status of the account for this Contract is as follows:

Change Orders approved		ADDITIONS \$	DEDUCTIONS \$		
in previous months by				ORIGINAL CONTRACT SUM	\$ _____
Owner					
TOTAL				Net change by Change Orders	\$ _____
Subsequent Change Orders					
No.	Approved			CONTRACT SUM TO DATE	\$ _____
	(Date)			TOTAL COMPLETED TO DATE	\$ _____
				RETAINAGE _____%	\$ _____
				TOTAL EARNED LESS RETAINAGE	\$ _____
				LESS PREVIOUS CERTIFICATES FOR PAYMENT	\$ _____

TOTALS

Net change by Change Orders \$ _____

CURRENT PAYMENT DUE \$ _____

The undersigned Contractor certifies that the work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by him for work for which previous Certificates for Payment were issued and payments received from the Owner, and that the current payment shown herein is now due.

CONTRACTOR:

By: _____ Date: _____

In accordance with the Contract Documents, based on on-site observations and the data comprising the above application, the Engineer certifies to the Owner that to the best of the Engineer's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED. \$ _____

INSPECTOR:

ENGINEER:

OWNER:

By: _____

By: _____

By: _____

Item No.	Description of Item	Scheduled Quantities	Unit Price	<u>Quantities of Work Completed</u>				
				<u>Previous Applications</u>		<u>This Application</u>		Amount Completed to Date
				Quantities	Amount	Quantities	Amount	

Subtotal or Total

CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS

THIS DOCUMENT HAS IMPORTANT LEGAL CONSEQUENCES; CONSULTATION WITH AN ATTORNEY IS ENCOURAGED WITH RESPECT TO ITS COMPLETION OR MODIFICATION.

TO OWNER: **City of Shawnee**
16 W. 9th Street
Shawnee, OK 74822-1448

PROJECT: Sewer Pipe Bursting

CONTRACT DATED: _____

STATE OF: _____

COUNTY OF: _____

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered against any property of the Owner arising in any manner out of the performance of the Contract referenced above:

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

The following supporting documents should be attached hereto if required by Owner:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.
3. Contractor's Affidavit of Release of Liens.

CONTRACTOR:
(Name and address)

BY: _____
(Signature of authorized representative)

(Printed name and title)

Subscribed and sworn before me on this date:

Notary Public: _____

My Commission Expires: _____

CLAIM OR INVOICE AFFIDAVIT

State of _____ ss.
County of _____

The undersigned (engineer or supervisory official), of lawful age, being first duly sworn, on oath says that this (invoice, claim, or contract) is true and correct. Affiant further states that the (work, services, or materials) as shown by this invoice or claim have been (completed or supplied) in accordance with the plans, specifications, orders, or requests furnished to the affiant. Affiant further states that (s)he has made no payment, given, or donated or agreed to pay, give, or donate, either directly or indirectly, to any elected official, officer, or employee of the State of Oklahoma, of money or any other thing of value to obtain payment or the award of this contract.

Engineer/Supervisory Official signature

Subscribed and sworn to before me this ____ day of _____, 20 ____.

Notary Public signature

My Commission Expires: _____

NOTICE OF AWARD

Date: ____/____/____

Project: _____

Grant#: ARP-____-____-____

The _____ has considered the bid submitted by
Owner
_____ for the above referenced project in response to the
Contractor
Advertisement for Bids dated ____/____/____ and Information for Bidders. You are hereby notified
that your bid has been accepted for items in the amount of \$_____.

You are required per the Information for Bidders to execute the Agreement and furnish the required Contractor's Performance Bond, Statutory Bond, Maintenance Bond, and Certificate of Insurance within ____ calendar days from the date of this Notice. If you fail to provide these in the specified time, the Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and as a forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.

Owner's Authorized Representative signature

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by _____,
Contractor's Representative name

Authorized Representative of _____
Contractor

Contractor's Authorized Representative signature

____/____/____
Date

AGREEMENT

This Agreement made this ____ day of _____, 20__ between _____
(hereinafter called the Owner) and _____ (hereinafter called the Contractor).

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor will commence and complete the work for:

_____.

2. The Contractor will furnish all of the materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the project described herein.

3. The Contractor will commence the work required by the Contract documents within ____ calendar days after the date of the Notice to Proceed and will complete the same within ____ calendar days unless the period for completion is extended otherwise.

4. The Contractor agrees to perform all the work described in the Contract documents and comply with the terms therein for the sum of \$ _____ or as shown in the Bid Schedule.

5. The term "Contract documents" means and includes the following:

- | | |
|---|-------------------------------------|
| (A) Advertisement for Bids | (I) Standard Requirements |
| (B) Information for Bidders | (J) Statutory Bond |
| (C) Bid Proposal | (K) Performance Bond |
| (D) Bid Schedule | (L) Maintenance Bond |
| (E) Business Relationships Affidavit | (M) Certificate of Insurance |
| (F) Non-collusion Affidavit | (N) Notice of Award |
| (G) Bid Bond | (O) Notice to Proceed |
| (H) Agreement | (P) Change Order |
| (Q) Drawings prepared by _____
Numbers ____ through ____ and dated ____ / ____ / ____. | |
| (R) Specifications prepared by _____, dated ____ / ____ / ____. | |
| (S) ADDENDA: | |
| No. _____, dated ____ / ____ / ____ | No. _____, dated ____ / ____ / ____ |
| No. _____, dated ____ / ____ / ____ | No. _____, dated ____ / ____ / ____ |

6. The Owner will pay to the Contractor in the manner and at such times as set forth in the Standard Requirements such amounts as required by the Contract documents.

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

8. It is understood that the following are also required of the Contractor in performance of this contract:

- a. Liquidated damages for failure to complete the work within the time specified shall be assessed at the rate of \$_____ per day for each additional calendar day until the work is completed.
- b. Contractor shall comply with the Underground Facilities Damage Prevention Act (63 O.S. 42.1 et seq.).

IN WITNESS WHEREOF, the parties hereto have executed or caused to be executed by their duly authorized officials, this Agreement in _____ copies each of which shall be deemed an original on the date first above written.

Owner's Authorized Representative	Title	Signature	____/____/____ Date
Attested by	Title	Signature	____/____/____ Date
Contractor's Authorized Representative	Title	Signature	____/____/____ Date
Attested by	Title	Signature	____/____/____ Date

NOTICE TO PROCEED

Date: ____/____/____

Project: _____

Grant#: ARP-____-____-____

Notice is hereby given to _____ to commence work on the above
Contractor
referenced project on or before ____/____/____. In accordance with the Agreement dated
____/____/____, you are to complete the work within ____ consecutive calendar days. The date of
completion of all work is ____/____/____.

Owner's Authorized Representative signature

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by _____,
Contractor's Representative name

Authorized Representative of _____
Contractor

Contractor's Authorized Representative signature

____/____/____
Date

**CERTIFICATE OF APPROVAL OF CONTRACTS AND BONDS BY LOCAL
ATTORNEY**

I, the undersigned _____,
the duly authorized and acting legal representative of the _____,
after careful examination of the Contract between this Entity and
_____, and the surety bonds given by the contractor in
connection with the performance of said contract, do hereby certify that:

1. Each of the aforesaid agreements has been duly executed by the proper parties thereto,
acting through their duly authorized representatives.
2. Said representatives have full power and authority to execute said agreements on behalf of
the respective parties named therein.
3. The foregoing contract and surety bonds, as applicable, constitute valid and legally binding
obligations upon the parties executing the same in accordance with the terms, conditions,
and provisions thereof.

Dated this ____ day of _____, 20 ____.

Attorney's signature

Disadvantaged Business Enterprise Program (DBE) Guidance (ARP-267)

Important note: All OWRB ARPA information can be found at: <https://www.owrb.ok.gov/financing/grant/arpa.php>

The OWRB is administering the State of Oklahoma's ARPA funding for various wastewater and water quality projects. The ARPA program is federally funded, and one of the conditions of federal grant awards is for recipients and sub-recipients (i.e., prime contractors and subcontractors) make a good-faith effort to award a fair share of work to DBEs who are small business enterprises (SBEs), minority business enterprises (MBEs) and women's business enterprises (WBEs).

To ensure compliance with federal DBE requirements, both Grant Recipients (Project Owners) and Prime Contractors must undertake the good faith efforts to provide opportunities for DBE firms to participate in contracts. Federal regulations require evidence of the demonstration of the six good faith efforts in trying to achieve the DBE participation goals. The Oklahoma Department of Transportation has a Directory of Certified DBE Firms. This directory can be accessed at <https://okdot.gob2g.com/Default.asp>

Good Faith Efforts: EPA's Good Faith Efforts for the Clean Water State Revolving Fund (CWSRF) will be used for the OWRB ARPA grant program. The following good faith efforts will apply to all procurement categories involving ARPA funds (See Appendices A& B).

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For state and local government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For state and local government recipients, this will include dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
5. Use the services and assistance of the Small Business Administration (SBE) and the Minority Business Development Agency of the Department of Commerce.
6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.

Please submit all information to:
Financial Assistance Division, OWRB
3800 North Classen Blvd, Oklahoma City, OK 73118
Phone: 405.530.8800, FAX: 405.530.8900
<http://www.owrb.ok.gov>

Disadvantaged Business Enterprise Program (DBE) Guidance

Demonstration of the Six Good Faith Efforts. See Appendices A & B for additional bidding instructions and contract administrative provisions.

A: Project Owners are required to create and maintain a bidders list in accordance with Subpart E of Part 33 of EPA's Disadvantaged Business Enterprise Program rule, (§ 33.501(b)). This requirement will be adopted for projects funded through the OWRB ARPA program. The list must include all firms that bid or quote on prime contracts, or bid or quote subcontracts, on competitively bid ARPA funded projects. The bidders list must only be kept until the project period for the identified grant has ended. The following information must be obtained from all prime and subcontractors and can be provided on Bidders List (ARP-249):

1. Entity's name with point of contact
2. Entity's mailing address, telephone number, and e-mail address
3. The procurement on which the entity bid or quoted, and when; and
4. Entity's status as an MBE/WBE or non-MBE/WBE

B: Project Owners are required to undertake good faith efforts. Steps 1 through 5 can be utilized during the project planning, design and/or pre-bidding phase, to assure that qualified DBE firms have procurement opportunities in construction, equipment, services, and supplies.

To provide procurement opportunities to DBE Firms, the Project Owner should undertake the following:

- Conduct pre-bid meetings to inform potential bidders/contractors about DBE requirements and provide guidance in undertaking the required good faith efforts.
- Use listings of certified DBEs from the U.S. Small Business Administration (SBA), Oklahoma Department of Transportation (ODOT), etc., to solicit DBE firms as prime contractors whenever they are potential candidates. Project Owners should advertise in minority, local and regional newspapers.
- Invite DBE firms, where appropriate, to meetings, conferences etc., to inform them of procurement opportunities and develop, where possible, reasonable contract and delivery schedules that encourage and facilitate participation by DBE's. This includes, whenever possible, a minimum of 30 calendar days for bids or request for proposals.
- Determine if a project can be broken down into smaller components/contracts to allow opportunity for DBE firms to bid both as prime-contractors and as sub-contractors.
- For projects broken down into smaller components (e.g., painting, roofing, excavation, pipe laying, etc.) ensure that the delivery schedules are reasonable.
- Encourage DBE firms, where appropriate, to apply as a consortium of DBEs, when a contract is too large for one of these firms to handle individually.
- Require prime contractor to complete ARP Form 6100-3 & ARP Form 6100-4 and submit with bid proposal to Project Owner.

C: Project Owners must require the prime contractor to undertake steps 1 through 5 of the Good Faith Efforts in providing DBE firms opportunity for sub-contracts.

Project Owner must provide the DBE Guidance (ARP-267) and associated forms to Prime Contractors for utilization of DBEs in the bidding documents.

**APPENDIX A: Project Owner, Prime Contractor and
Sub-Contractor Responsibilities**

EPA's Disadvantaged Business Enterprise Program rule applies to contract procurement actions funded in part by EPA assistance agreements awarded after May 27, 2008. The rule is found at Federal regulation Title 40, Part 33. Specific responsibilities are highlighted below.

Project Owner Responsibilities:

- Include OWRB's DBE guidance (ARP-267) in each contract with a primary contractor.
- Employ the six Good Faith Efforts during prime contractor procurement (§33.301).
- Require prime contractor to comply with the following prime contractor requirements of Title 40 Part 33:
 - a) To employ the six Good Faith Efforts steps in paragraphs (a) through (e) of § 33.301 if the prime contractor awards subcontracts (§ 33.301(f)).
 - b) To provide **ARP form 6100-2 – DBE Subcontractor Participation Form** to all DBE subcontractors (Optional submittal by subcontractors) (§ 33.302(e)).
 - c) To submit **ARP form 6100-3 – DBE Program Subcontractor Performance Form** and **ARP form 6100-4 – DBE Program Subcontractor Utilization Form with bid package or proposal.** (§ 33.302 (f) and (g)).
 - d) To pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient (§ 33.302(a)).
 - e) To notify recipient in writing by its prime contractor prior to any termination of a DBE subcontractor for convenience by the prime contractor (§ 33.302(b)).
 - f) To employ the six good faith efforts described in § 33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason. (§ 33.302(c)).
 - g) To employ the six good faith efforts described in § 33.301 even if the prime contractor has achieved its fair share objectives under subpart D of Part 33. (§33.302(d)).
 - h) Provide Project Owner DBE participation achievements with bid proposal – this includes all information necessary for the Owner to complete the Bidders List (ARP-249). The Owner may allow the prime contractor to complete the Bidders List (ARP-249); however, the Owner is responsible for review and submittal.
- Maintain records documenting compliance with the requirements of Title 40 Part 33, including Bidders List (ARP-249) and documentation of the good faith efforts (§ 33.301(a)) by the project owner and prime contractor.

Prime Contractor Responsibilities:

- Employ the six Good Faith Efforts steps in paragraphs (a) through (e) of § 33.301 if the prime contractor awards subcontracts (§ 33.301(f)).

- Provide ARP form 6100-2 – *DBE Program Subcontractor Participation Form* and ARP form 6100-3 – *DBE Program Subcontractor Performance Form* to each DBE subcontractor as part of the bid conference and prior to opening of the contractor's bid or proposal (§ 33.302(e) and (f)). Complete ARP form 6100-4 – *DBE Program Subcontractor Utilization Form* (§ 33.302(g)).
- Submit to recipient with bid package or proposal the completed ARP form 6100-4, plus an ARP form 6100-3 for each DBE subcontractor used in the contractor's bid or proposal (§ 33.302(f) and (g)).
- Pay subcontractors for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the Project Owner (§ 33.302(a)).
- Notify the recipient in writing prior to prime contractor termination of a DBE subcontractor for convenience (§ 33.302(b)).
- Employ the six good faith efforts described in (§ 33.301) if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason. (§ 33.302(c)).
- Employ the six good faith efforts described in (§ 33.301) even if the prime contractor has achieved its fair share objectives under subpart D of Part 33. (§33.302(d)).
- Provide Project Owner DBE participation achievements with bid proposal. This includes information necessary for Owner's completion of the Bidders List (ARP-249).
- Maintain records documenting its compliance with the requirements of Title 40 Part 33, including Bidders List (ARP-249) and documentation of the good faith efforts (§ 33.301(a)) by the project owner and prime contractor.

Subcontractor Responsibilities:

- May submit ARP form 6100-2 – *DBE Subcontractor Participation Form* to Debra Bradford, EPA Region 6 DBE Coordinator (§ 33.302(e)). Submitted if concerns with EPA funded project (e.g., termination, late payment, etc.)
- Must complete ARP form 6100-3 – *DBE Program Subcontractor Performance Form* and submit it to the prime contractor soliciting services from the subcontractor prior to the opening of bids for the prime contract.

Summary of ARP Forms

ARP Form	Requirement	Provided By	Completed By	Submitted To
6100-2: DBE Subcontractor Participation Form	Project Owners required to have prime contractors provide form to Subcontractors	Prime Contractors to DBE Subcontractors	DBE Subcontractors if concerns with EPA funded project (e.g., termination, late payment, etc.)	EPA Region 6 DBE Coordinator, Debora Bradford
6100-3: DBE Subcontractor Performance Form	Project Owners required to have prime contractors provide form to Subcontractors	Prime Contractors to DBE Subcontractors	DBE Subcontractors with Prime Contractor's Signature. Completed when bidding on a job.	Project Owners as part of a bid or proposal package
6100-4: DBE Subcontractor Utilization Form	Project Owners required to have prime contractors complete the form	Project Owners to Prime Contractors	Prime Contractors to indicate the utilization of a DBE.	Project Owners as part of bid or proposal

APPENDIX B: TITLE 40 PART 33 SUBPART C—GOOD FAITH EFFORTS

§ 33.102 When do the requirements of this part apply?

The requirements of this part apply to procurement under ARPA Grant program agreements performed entirely within the United States, whether by a Project Owner or its prime contractor, for construction, equipment, services, and supplies.

§ 33.106 What assurances must ARPA Grant program recipients obtain from their contractors?

The recipient must ensure that each procurement contract it awards contains the term and condition specified in Appendix A to this part concerning compliance with the requirements of this part.

§ 33.206 Is there a list of certified MBEs and WBEs?

The Oklahoma Department of Transportation has a Directory of Certified DBE Firms. This database can be found at this website: <https://okdot.gob2g.com/Default.asp>.

§ 33.301 What does this subpart require?

A recipient, including one exempted from applying the fair share objective requirements by § 33.411, is required to make the following good faith efforts whenever procuring construction, equipment, services, and supplies under an ARPA Grant program agreement, even if it has achieved its fair share objectives under subpart D of this part:

- a) Ensure DBEs are made aware of contracting opportunities fully practicable through outreach and recruitment activities. For State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
- b) Make information on forthcoming opportunities available to DBE's, arrange periods for contracts, and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
- c) Consider in the contracting process whether firms competing for large contracts could subcontract with DBE's. For state and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
- d) Encourage contracting with a consortium of DBE's when a contract is too large for one of these firms to handle individually.
- e) Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.
- f) If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

§ 33.302 Are there any additional contract administration requirements?

- a) Project Owners must require its prime contractor to pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient.
- b) Its prime contractor must notify Project Owner in writing prior to any termination of a DBE subcontractor for convenience by the prime contractor.
- c) If a DBE subcontractor fails to complete work under the subcontract for any reason, the recipient must require the prime contractor to employ the six good faith efforts described in § 33.301 if soliciting a replacement subcontractor.
- d) A project owner must require its prime contractor to employ the six good faith efforts described in §33.301 even if the prime contractor has achieved its fair share objectives under §33.301 subpart D above.

- e) A recipient must require its prime contractor to provide ARP Form 6100-2—DBE Program Subcontractor Participation Form to all of its DBE subcontractors. ARP Form 6100-2 gives a DBE subcontractor the opportunity to describe the work the DBE subcontractor received from the prime contractor, how much the DBE subcontractor was paid and any other concerns the DBE subcontractor might have, for example reasons why the DBE subcontractor believes it was terminated by the prime contractor. DBE subcontractors may send completed copies of ARP Form 6100-2 directly to the appropriate EPA DBE Coordinator.
- f) A recipient must require its prime contractor to have its DBE subcontractors complete ARP Form 6100-3—DBE Program Subcontractor Performance Form. A recipient must then require its prime contractor to include all completed forms as part of the prime contractor's bid or proposal package.
- g) A recipient must require its prime contractor to complete and submit ARP Form 6100-4—DBE Program Subcontractor Utilization Form as part of the prime contractor's bid or proposal package.
- h) Copies of ARP Form 6100-2—DBE Program Subcontractor Participation Form, ARP Form 6100-3—DBE Program Subcontractor Performance Form and ARP Form 6100-4—DBE Program Subcontractor Utilization Form may be obtained from EPA OSDBU's Home Page on the Internet or directly from EPA OSDBU.
- i) A recipient must ensure that each procurement contract it awards contains the term and condition specified in the Appendix A concerning compliance with the requirements of this part. A recipient must also ensure that this term and condition is included in each procurement contract awarded by an entity receiving a grant under federal financial assistance agreement.

§ 33.410 Can a recipient be penalized for failing to meet its fair share objectives?

A recipient cannot be penalized or treated by EPA as being in noncompliance with this subpart, solely because its MBE or WBE participation does not meet its applicable fair share objective. However, EPA may take remedial action under § 33.105 for a recipient's failure to comply with other provisions of this part, including, but not limited to, the good faith efforts requirements described in subpart C of this part.

Source: Federal Requirements and Contract Provisions for Special Appropriation Act Projects, US Environmental Protection Agency, Region III, June 2008

**APPENDIX C: RESOURCE LISTING AND CONTACT INFORMATION
FOR UTILIZATION OF MINORITY AND WOMEN'S BUSINESS ENTERPRISES**

Resource Listing	Contact Information	Website if applicable
U.S. Small Business Administration (SBA) In addition to the national office, the SBA has local district and regional offices to assist small businesses in contracting with the public and private sector.	US Small Business Administration 409 3rd St, SW Washington DC 20416 Phone: 800-827-5722	https://www.sba.gov/
U. S. Small Business Administration (SBA) - OK. District Office	301 NW 6 th St. Oklahoma City, OK 73102 Phone: 405.609.8000	https://www.sba.gov/offices/district/ok/oklahoma-city
Minority Business Development Administration (MBDA): The MBDA is an agency within the U.S. Dept. of Commerce, created to foster the development and growth of minority businesses in the U.S. and coordinates resources in the public and private sectors to help MBEs.	1401 Constitution Ave NW Washington, D.C. 20230 Email: support@mbda.gov Phone: (202) 482-2000	http://www.mbda.gov/
Standard Industrial Classification Codes (SIC) or North American Industry Classification System (NAICS) codes visit the websites.	U.S. Bureau of Labor Statistics Postal Square Building, 2 Massachusetts Ave. NE Washington, DC 20212-0001 Phone: 1-202-691-5200	http://www.bls.gov/iag/tgs/iag_index_naics.htm
Oklahoma Department of Transportation (ODOT) and the <u>Minority/Disadvantaged Business Enterprise (ODOT – MBE/DBE)</u> . Project Owners and bidders may locate qualified M/WBE's through the MBE/WBE Directory	200 NE 21 st Street Oklahoma City, OK 73105 Phone: 405.521.2082	https://okdot.gob2g.com/Default.asp
US EPA Office of Small and Disadvantaged Business Utilization (OSDBU): advocates and advances the business, regulatory, and environmental compliance concerns of small and socio-economically disadvantaged businesses. The Small Business Vendor Profile System contains information of number of small and disadvantaged companies registered with OSDBU.	USEPA Office of Small Programs 1200 Pennsylvania Ave. NW Mail Code 1230T Washington, D.C. 20460 Phone: 202 566-2075	https://www.epa.gov/aboutepa/about-office-small-and-disadvantaged-business-utilization-osdbu Select "search the OSBP Registry" Click on the search criteria of interest (ethnicity, size, SIC, etc.)

National Black Chamber of Commerce	4400 Jenifer St NW #331, Washington, DC 20015 Phone: 202 466-6888 Fax: 202 466-4918 Email: info@nationalbcc.org	http://www.nationalbcc.org
U.S. Hispanic Chamber of Commerce	424 K St NW #401, Washington, DC 20005 Phone: (202) 842-1212	http://www.usbcc.com
National Association of Minority Contractors (NAMC)	910 17th Street, NW, Suite 413 Washington, DC 20006 Phone: 202.296.1600 info@namcnational.org	http://namcnational.org/
National Association of Women's Business Owners (NAWBO)	601 Pennsylvania Ave NW South Building, Ste 900 Washington, DC 20004 Phone: 800-556-2926 Fax: 202-403-3788	www.nawbo.org
National Minority Supplier Development Council, Inc. (NMSDC)	1359 Broadway, 10th Floor, Suite 1000 New York, NY 10018 Phone: (212) 944-2430 Fax: (212) 719-9611	http://www.nmsdc.org/
Native American Development Corporation (NADC) - provides technical assistance, financial lending opportunities, and champions small businesses	17 N. 26th St. Billings, MT 59101 Phone: (406) 259-3804 Fax: (406) 259-4569 Email: nadcptac@nadc-nabn.org	http://www.nadc-nabn.org/
City of Tulsa – Small Business Enterprise Program Maintains a list of Minority and Female business Enterprises that are certified through the “building Resources in Developing and Growing Enterprises	175 E. 2nd St. Tulsa, OK. 74103 Phone: (918) 596-7818	https://www.cityoftulsa.org/developmentbusiness/small-business-enterprise-program/ Click on the ‘member list”
Southwest Minority Supplier Development Council: Maintains lists of certified Minority Business Enterprises in Oklahoma	7301 Broadway Ext Ste 224, OKC, OK 73116 Phone: (405) 767-9900	http://www.smsdc.org/

National Association of Women in Construction (NAWIC)	327 S. Adams Street Fort Worth, TX 76104 Phone: 800-552-3506 817.877.5551 Fax: 817.877.0324	http://www.nawic.org/
Bureau of Indian Affairs - Maintains a list of Native American Contractors and Suppliers by Trade	P.O. Box 368 (1 Mile North on Hwy 281) Anadarko, OK 73005 Phone: (405) 247-6673 Fax: (405) 247-5611	https://www.bia.gov/as-ia/eed/division-economic-development/native-american-business-development
Oklahoma Department of Commerce Certification Programs and information	900 N Stiles Ave. Oklahoma City, OK 73104 Phone: (405) 815-6552 Toll-Free: (800) 879-6552	https://www.okcommerce.gov/doing-business/#business-services
Cherokee Nation Tribal Employment Rights Office - Maintains a directory of Indian-owned businesses	Cherokee Nation TERO Dept. P.O. Box 948 Tahlequah, OK 74465 Phone: (918) 453-5334 or Toll Free: 800-256-0671 ext. 5334	http://cherokeetero.com/

ARP-6100-2 DBE Subcontractor Participation Form

OWRB Financial Assistance Agreement Recipients must require prime contractors to provide this form to their DBE subcontractors. This form gives a DBE subcontractor the opportunity to describe work received and/or report any concerns regarding the project.

Subcontractor Name	Project Name	
Bid/Proposal No.		Point of Contact
Address		
Telephone No.	Email address	
Prime Contractor Name		Funding entity Oklahoma Water Resources Board

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services , Equipment or Supplies	Amount Received by Prime Contractor

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Subcontractor Signature	Print Name
Title	Date

ARP-6100-3 DBE Subcontractor Performance Form

This form is intended to capture the DBE₁ subcontractor's₂ description of work to be performed and the price of the work submitted to the prime contractor. OWRB Financial Assistance Agreement Recipients must require prime contractors to provide this form to their DBE subcontractors.

Subcontractor Name	Project Name
Bid/Proposal No.	Point of Contact
Address	
Telephone No.	Email Address
Prime Contractor Name	Funding Entity Oklahoma Water Resources Board

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services , Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: ____ DOT ____ SBA ____ Other: _____		Meets/ exceeds EPA certification standards? ____ YES ____ NO ____ Unknown

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

Subcontractor Signature	Print Name
Title	Date

ARP-6100-4 DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE₁ subcontractors₂ and the estimated dollar amount of each subcontract. OWRB Financial Assistance Agreement Recipients must require their prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name	Project Name
Bid/Proposal No.	Point of Contact
Address	
Telephone No.	Email address
Funding Entity Oklahoma Water Resources Board	

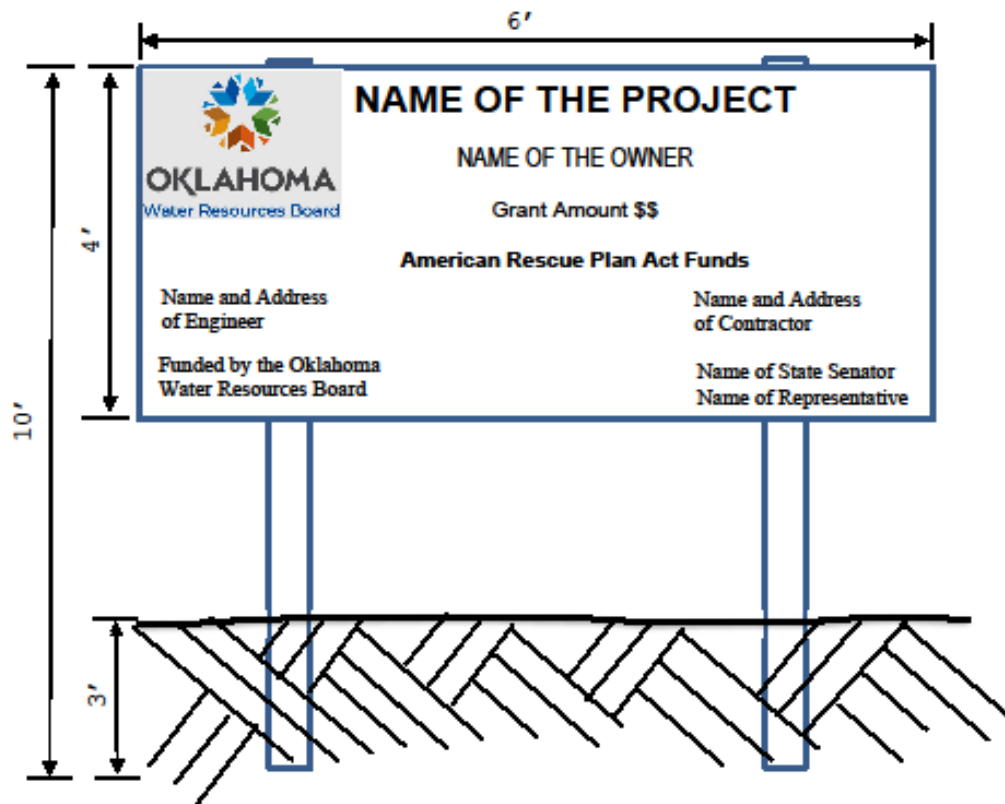
I have identified potential DBE certified Subcontractors	___ YES	___ NO	
If yes, please complete the table below. If no, please explain:			
Subcontractor Name/ Company Name	Company Address/ Phone/ Email	Est. Dollar Amt.	Currently DBE Certified?

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

PROJECT SIGN

- The general contractor shall erect and maintain for the life of the construction contract a suitable sign, 4' x 6' in size, and detailed hereon, lettered black on white background. Sign shall be professionally painted. Lettering to be appropriate size. No separate bid item. Sign shall be the general obligation of the Contractor.
- The OWRB logo is required on the project sign if the project is funded in part with OWRB Financial Assistance Program funds. The OWRB logo is available at <http://www.owrb.ok.gov/about/index.php> or may be provided directly by OWRB.
- Redwood Posts shall be 4" x 4" x 10' buried securely a minimum of 3 feet below ground.
- Sign face shall be constructed of 3/4" x 4' x 6' - 5 ply Dura-plywood board & mounted to Posts with four (4) 5/8" x 6" Carriage Bolts.



CONTRACT SPECIFICATIONS

A. General

1. This Contract is intended to, and hereby does, provide for complete in place, **Sewer Pipe Bursting (ARP-23-0092-G)**, including all necessary work and material for a total job, whether or not such work and material is shown or implied in the plans and specifications.
2. All construction and materials shall conform to the City of Shawnee Standard Specifications as contained herein. All work necessary to make for a complete and operable Independence Avenue Waterline as intended by these plans and specifications for which bid items are not provided, shall be considered incidental work and the cost thereof shall be included in other appropriate bid items.
3. The cost to include the furnishing and installation of all temporary sheeting, shoring, timbering and bracing required to maintain any excavation in a condition to furnish safe working conditions and to permit the safe and efficient installation of all items of contract work shall be included in other items of work. The CONTRACTOR shall further, at his own expense, shore up or otherwise protect all fences, buildings, walls, walks, curbs, or other property adjacent to any excavation which might be disturbed during the progress of the work. The CONTRACTOR will be held liable for any damage which may result to neighboring property from excavation or construction operations.
4. Whenever any excavation is carried beyond the lines and grades shown on the Contract Drawings, written in the Contract Documents, and/or given by the ENGINEER, the CONTRACTOR shall, at his own expense, refill all such excavated space with such materials and in such a manner as may be directed. Beneath and around concrete structures, space excavated without authority shall be thoroughly compacted when refilling, or if deemed necessary by the ENGINEER, shall be refilled with concrete at the CONTRACTOR'S expense.
5. If the materials encountered on any excavation are not suitable for structural foundations, or if necessary, to go an additional depth or width from that designated on the contract drawings to provide proper bearing for pipe and concrete, the CONTRACTOR shall make such additional excavations outside the regular limits of the work as may be directed by the ENGINEER. The cost of such additional excavation shall be merged into the appropriate unit price.
6. Excavated material shall be deposited so as to interfere as little as possible with the execution of the whole work or its several parts. Such material as cannot be placed in its final position in fills and embankment shall be removed to a temporary spoil bank, from which it shall later be taken and placed in embankment or fills.
7. Unsuitable and surplus excavated material not incorporated in the improvement shall be disposed of by the CONTRACTOR at his own expense unless otherwise designated in the project specifications, or on the contract drawings.
8. If private land is used by the CONTRACTOR as a spoil site, the CONTRACTOR shall obtain written permission from the OWNER or agent of the land agreeing to its use for this purpose and provide the project OWNER with a certified copy of such agreement.
9. The CONTRACTOR shall notify residents and business OWNERS of construction by distributing door hangers to each and every house, business, and /or occupied structure located

on the street or alley where the construction shall occur, at least 48 hours in advance of the commencement of construction.

B. Site Conditions

The CONTRACTOR shall be responsible for familiarizing himself with surface and subsurface conditions. The base bid as shown in the proposal shall include cost for unclassified excavating of earth, rock, dewatering, stabilizing unsuitable soils such as quicksand or other unsuitable materials, or any hazard that may be encountered. The cost for such work shall be included in the appropriate bid item. No additional compensation shall be given for such work. The CONTRACTOR shall satisfy himself as to the accuracy of all measurements before constructing any permanent structure.

C. Surveys

The CONTRACTOR shall develop and make all detailed surveys needed for construction such as slope stakes, batter boards, stakes for construction location and other working points, lines and elevations. The CONTRACTOR shall carefully preserve all benchmarks, reference points and stakes established by the ENGINEER and in case he causes damage or disturbance, he will be charged for the cost of replacement and shall be responsible for any mistakes that may be caused by their loss.

D. Utility Locations

The elevation and location of all utilities shown on the contract drawings were taken from public records. It shall be the duty of the CONTRACTOR to make final and exact determination of the location and extent of these utilities, and he will be liable for any expense resulting from damage to them. Unless otherwise indicated on the contract drawings or unless otherwise taken care of by the OWNER thereof, all utilities and all structures of any nature, whether below or above ground, that may be affected by the work shall be protected and maintained by the CONTRACTOR and shall not be disturbed or damaged by him during the progress of the work. Should the CONTRACTOR disturb, disconnect or damage any utility or any structure, all expenses of whatever nature arising from such disturbance or the replacement or repair thereof shall be borne by the CONTRACTOR. This provision shall apply whether or not said utility or structure is shown on the plans. All utility locations shown or not shown on these plans shall be the responsibility of the CONTRACTOR prior to excavation. Utility location telephone numbers are:

1-800-522-6543	Statewide
1-800-654-8349	Out of State

E. As-Built Records

The CONTRACTOR is required to keep a current record of all field changes on jobsite at all times. They shall be legibly marked on his plan and shall become property of the City of Shawnee prior to completion for purposes of constructing an as-built record of this project.

F. Arrangement and Charge for Water Furnished by the Town

If the CONTRACTOR desires to use Town water, he shall pay the rate established by Town Ordinance for such service and he shall make complete and satisfactory arrangements with the Town Utility Department for so doing. Flush meters will be used and the CONTRACTOR shall deposit the cost of the flush meter with the Utility Department and will pay for repairs and maintenance of the meter for the period which he has the meter in use in his possession.

CONTRACTOR shall be charged for the amount of water he uses, including any monthly minimum charge.

G. Use of Fire Hydrants

The CONTRACTOR or his employees shall not open, turn off, interfere with, attach pipe or hose to, or connect anything with any fire hydrant, stop valve or stop cock or tap any water-main belonging to the Town unless duly authorized to do so by the OWNER.

H. Protection and Opening to Pedestrians and Traffic

The CONTRACTOR is required to receive permission from the TOWN ENGINEER to close any traffic lanes or alleys or roads during construction. No road shall be permanently or temporarily closed without prior approval by the TOWN ENGINEER. The CONTRACTOR shall conduct his work so as to interfere as little as possible with public travel, whether vehicular or pedestrian; whenever it is necessary to cross, obstruct, or temporarily close roads, driveways and walks, whether public or private. The CONTRACTOR shall, at his own expense, provide and maintain suitable and safe bridges, detours, barricades, signing, lighting, striping and/or other temporary expedients for the accommodation of public and private travel, and shall give reasonable notice to OWNERS of private drives before interfering with them; provided, however, that such maintenance of traffic will not be required at any point where the CONTRACTOR has obtained permission from the OWNER and/or tenant of private property, or from the authority having jurisdiction over public property involved to obstruct traffic at any designated point thereon and for the duration of whatever period of time as may be agreed upon. All work pertaining to traffic control shall be in accordance with the latest revision of "The Manual on Uniform Traffic Control Devices."

I. Materials and Construction

All materials and construction shall be in accordance with the City of Shawnee Standard Specifications for Construction (Standard Specifications) and Construction Standards as contained herein.

J. Testing and Acceptance Requirements

The CONTRACTOR shall be responsible for paying the cost of all testing outlined in the Standard Specifications. Testing shall be performed by a qualified testing laboratory approved by the OWNER.

K. Protection and Preservation of Property and Landscape

The CONTRACTOR will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. The CONTRACTOR shall furnish such watchmen, guards, fences, warning signs, lights and walkways, and shall take all other precautions as shall be necessary to prevent damage to persons or property. All structures and improvements damaged by the CONTRACTOR, his employees, SUBCONTRACTORS, or agents, shall be restored to a condition as good as when he entered upon the work. The duty of the ENGINEER to conduct construction inspection of the CONTRACTOR'S performance does not include any review of the adequacy of the CONTRACTOR'S safety measures in, on, or near the construction site or sites. The ENGINEER has not been retained or compensated to provide design and construction review services relating to the CONTRACTOR'S safety precautions or to means, methods, techniques, sequences, or procedures required for the CONTRACTOR to perform his work.

No trees shall be removed on the site of the work where outside of excavation limits, except where their removal is authorized by the ENGINEER. Where trees are on the line of the trench or adjacent thereto such trees and roots shall be removed and disposed of by and at the expense of the CONTRACTOR.

Trees remaining at the end of construction shall be adequately protected from permanent damage by reason of construction operations. Trimming of remaining trees where required shall be as directed by the ENGINEER.

All turf, shrubbery, and other landscaping, damaged or removed by the CONTRACTOR shall be replaced under the direction and to the satisfaction of the OWNER, by and at the expense of the CONTRACTOR.

Any traffic signal loop wire, pull box, or conduit that is damaged or destroyed shall be replaced under the direction and to the satisfaction of the OWNER, by and at the expense of the CONTRACTOR.

L Administrative Matters

All permits, fees, and licenses required under City Ordinance not regulated by state or federal law will be collected.

DIVISION 01 – GENERAL REQUIREMENTS**SECTION 01 00 00 – GENERAL CONDITIONS****PART 1 – GENERAL****1.1 DESCRIPTION**

The General Conditions shall govern and control all work to which they apply; however, since these specifications are of a general nature, they may refer to work not found in this project, in which case such non-applicable stipulations will have no meaning in this Contract. In case of conflict between the General Conditions and the Special Conditions, the Special Conditions shall govern. In case of conflict with either the General or Special Conditions by Supplemental Conditions of a funding agency such as EPA, FMHA, EDA or HUD, the Supplemental Conditions will govern.

PART 2 – DEFINITIONS**2.1 DEFINITIONS**

DEFINITIONS: Whenever the words defined below, or pronouns used in their stead occur hereinafter, they shall have the meanings given as follows:

- A. "OWNER" shall mean the City of Shawnee or Shawnee Public Works Authority.
- B. "ENGINEER" shall mean Cowan Group Engineering, LLC, who has been employed by the OWNER for this work, or his duly authorized agent.
- C. "Inspector" shall mean the engineering or technical inspector or inspectors duly authorized by the ENGINEER, limited to the particular duties entrusted to him or them.
- D. "CONTRACTOR" shall mean the person, persons, partnership, company, firm or corporation entering into this contract for the performance of the work, or the agent appointed to act for such party.
- E. "Specification" shall mean, collectively, all of the terms and stipulations contained in the written portion of information furnished.
- F. "Drawings or Plan Sheets" shall mean, collectively, all of the drawings pertaining to the contract and made a part thereof, and also such supplementary drawings as the ENGINEER may issue from time to time in order to clarify the drawings, or for the purpose of showing authorized changes in the work, or for showing details which are not shown thereon.
- G. The term "Grade" used in these Specification is understood to refer to and indicate the established elevations of the paving, flow line of waterlines and other appurtenances as shown on the drawings.
- H. Whenever in these CONTRACT DOCUMENTS the words "as ordered", "as directed", "as permitted", "as allowed", or words or phrases of like import are used, it shall

be understood that the order, direction, requirements, permission, or allowance of the OWNER and ENGINEER is intended.

- I. Similarly, the words "approved", "reasonable", "suitable", "acceptable", "properly", "satisfactory", or words of like effect and import, unless otherwise particularly specified herein, shall mean approved, reasonable, suitable, acceptable, proper, or satisfactory in the judgment of the OWNER and ENGINEER.
- J. Whenever the term "or equal" is used in the drawings and/or Specification it shall refer to a material which will adequately perform the same function, in the opinion of the ENGINEER, as the material specified or shown on the drawings.

PART 3 - SCOPE OF WORK

The work to be covered under these contracts in accordance with the drawings listed herein and, in these specifications, consists of the furnishing of all materials, equipment, tools, labor, transportation and services necessary to complete the construction as outlined herein and as shown on the drawings. The complete installation shall not lack any part which can be reasonably implied as necessary to its proper functioning nor any subsidiary which is customarily furnished.

PART 4 - EXAMINATION OF SITE OF WORK

It is the obligation of the bidder to examine carefully the site of the proposed work; to ascertain for himself all the facts concerning conditions therein, including all physical characteristics above, on and below the surface of the ground; to investigate the subsurface conditions and to determine for his information the character and proportionate quantities of soils, rock and other subsurface material which may be encountered in the work; to inform himself by independent research of the difficulties to be encountered and judge for himself the accessibility of the work and all other circumstances affecting the cost of doing the work or the time required for its completion; and the bidder agrees to this obligation in signing the proposal. When provided, the soils boring and testing report is attached to these Specification for the CONTRACTOR'S information and is not a part of the contract. No guarantee is made as to their accuracy or completeness. The OWNER assumes no responsibility whatsoever with respect to ascertaining for the bidder such facts covering physical characteristics at the site of the work. The bidder agrees that, if awarded the contract, he will make no claim for, and will have no right to, additional payment or extension of time for completion of the work or any other concession because of any failure on his part to fully acquaint himself with all conditions relating to the work. The bidder shall rely exclusively upon his own estimate, investigation and evaluation of site conditions.

PART 5 - SITE CONDITIONS

Where connections to existing utilities are shown on the drawings, the work may be required to be done at night or at a time which will least interfere with the operation of the existing facility.

The tie to existing utilities will be coordinated with personnel of the OWNER of the existing lines and will be done at a time to least inconvenience their operation. The work may be required to be done at night or weekends or both.

Where possible the existing utilities (water, gas, etc.) have been noted on the drawings. There may be additional buried lines that are not shown and if such is encountered, said lines will be left in service. CONTRACTOR shall take all precautions available prior to construction to locate, identify, and verify utilities. If said lines are broken by the CONTRACTOR, they shall be repaired as soon as possible.

The work along or across state highways shall be done in accordance with the permit from Division Engineer, Department of Transportation. The right-of-way shall be maintained in a satisfactory manner at all times. All roads, streets, drives, etc., cut during construction shall be properly protected by barricades, flashing lights, etc., and shall be made passable as soon as possible after laying of lines during the day and always at night. CONTRACTOR shall maintain the above cut roads in a passable condition until the wearing surface is replaced and then kept in a satisfactory condition for five (5) years after job is completed.

PART 6 - EXPLOSIVES

In handling explosives used during the construction of the project, the CONTRACTOR shall adhere to all Federal and State laws and City ordinances regulating the purchase, transportation, storage, handling, and use of such explosives. No blasting shall be done without 12-hour notification of the OWNER and ENGINEER, proof of insurance, and the presence of the Inspector. All equipment, tools, and materials used shall be of the correct type and in good condition for the operation. The CONTRACTOR shall take all necessary precautions to avoid damage to property resulting from the transportation, storage, handling and use of explosives. Before blasting, the CONTRACTOR shall take all necessary precautions to ensure that rock and debris will be confined to the excavation. Any blasting within 10 ft. of a water, sewer, gas or pipeline shall be done with very light charges, and utmost care shall be taken to avoid disturbance to these lines.

PART 7 - SUBMITTALS

Engineering data covering all equipment and fabricated materials to be furnished under this contract shall be submitted to the ENGINEER for review. This data shall include drawings and operation of component materials and devices; the external connections; anchorages and supports required; performance characteristics; and dimensions needed for installation and correlation with other materials and equipment. Data submitted shall include drawings showing essential details of any changes proposed by CONTRACTOR and all required structural layout and wiring diagrams.

No work shall be performed in connection with the fabrication or manufacture of materials and equipment, nor shall any accessory or appurtenance be purchased until the drawings and data therefore have been reviewed, except at the CONTRACTOR'S own risk and responsibility.

At least five (5) copies of each drawing and necessary data with statement of approval by the CONTRACTOR, shall be submitted to the ENGINEER. Each drawing or data sheet shall be clearly marked with the name of the project, the ENGINEER'S name, CONTRACTOR'S name and references to applicable specification paragraphs and drawing sheets. When catalog pages are submitted, the applicable items shall be identified.

The ENGINEER'S review of drawings and data submitted by the CONTRACTOR will cover only general conformity to the drawings and specifications, external connections and

dimensions which affect the layout. The ENGINEER'S review of drawings returned marked NO EXCEPTIONS NOTED or EXCEPTIONS NOTED does not indicate a thorough review of all dimensions, quantities and details of the material, equipment, device or items shown and does not relieve the CONTRACTOR from any responsibility for errors, omissions, or deviations from the contract requirements.

All drawings and data, after final processing by the ENGINEER, shall become a part of the contract documents, and the work shown or described thereby shall be performed in conformance therewith unless otherwise authorized by the OWNER or the ENGINEER.

After drawings and data have been accepted by OWNER or ENGINEER, the CONTRACTOR shall submit three (3) additional copies of all data and one (1) set of reproducible of all drawings to OWNER for file records. Also, CONTRACTOR shall keep accurate "record drawings" records of the work and turn these records over to the OWNER at the completion of the work.

PART 8 - SURVEYS

The OWNER shall establish base lines or control points for the location of the principal component parts of the work together with benchmarks adjacent to the work as shown or indicated on the Drawings. The CONTRACTOR shall develop and make all detail surveys necessary for construction. The CONTRACTOR shall be responsible for the accuracy of all lines and grades for all parts of the work. He shall do all field work necessary to lay out and maintain the work and shall make available to the OWNER all facilities and information necessary for properly checking the accuracy of such field work. Such checking shall in no way relieve the CONTRACTOR of his responsibility of the correctness of all field work.

The OWNER will provide survey of property including reference points, property corners and benchmarks where necessary in the opinion of the ENGINEER. If necessary, the CONTRACTOR shall transfer these reference points and benchmarks to permanent locations where they will not be disturbed. If disturbed, the CONTRACTOR shall re-install them to OWNER'S satisfaction, at CONTRACTOR'S cost.

PART 9 - PERMITS AND REGULATIONS

The CONTRACTOR shall secure and pay for all construction permits required to carry out the work unless otherwise specified and shall produce same upon demand of the OWNER. The CONTRACTOR shall give all notices and pay all fees and shall, before starting work, ascertain whether the drawings and specification are at variance with any codes or regulations applying at the site. The CONTRACTOR shall obtain completion survey, certificate of completion or occupancy if required by local regulations.

All features of design and construction shall comply with the local building regulations and/or other lawful or public regulations which apply at the site. If any features of construction as shown on the OWNER'S plan, do not conform to the regulations, the CONTRACTOR shall notify the OWNER of such discrepancy, and shall base his quotation and work on features of construction which do conform to the regulations.

If the CONTRACTOR performs any work contrary to such laws, ordinances, rules and regulations and without such notice to the OWNER, he shall bear all costs arising therefrom.

PART 10 - INSPECTION

The CONTRACTOR will provide access to the work site and facilities for representatives of the Environmental Protection Agency, Oklahoma Department of Environmental Quality and other agencies, as well as, OWNER and ENGINEER, as required whenever the work is in progress.

PART 11 - SATURDAY, SUNDAY, HOLIDAY AND NIGHT WORK

No work shall be done between the hours of 7:00 p.m. and 7:00 a.m., nor on Saturday, Sunday or legal holidays without the written approval or permission of the ENGINEER in each case, except such work as may be necessary for the proper care, maintenance and protection of work already done, or of equipment, or in the case of an emergency.

PART 12 - PROTECTION OF PROPERTY

- A. The protection of City, State and Government monuments, street signs and other OWNER's property is of prime importance, and if the same be damaged, destroyed or removed, they shall be repaired, replaced or paid for by the CONTRACTOR. Disturbance to this property must first be approved by the agency which controls it.
- B. No valves or other control on any utility main or building service line shall be operated for any purpose by the CONTRACTOR.
- C. At places where the CONTRACTOR'S operations are adjacent to the plant of railway, telegraph, telephone, electric and gas companies, or water, sanitary sewers and storm sewers, damage to which might result in expense, loss or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.
- D. The OWNER has attempted to locate all storm sewers, culverts, buried telephone or electrical conduits, sanitary sewers and water mains that might interfere with the construction of this project. The CONTRACTOR shall cooperate with the owners of any underground or overhead utility lines in their removal and rearrangement operations in order that these operations may progress in a reasonable manner and duplication or rearrangement work may be reduced to a minimum and that services rendered by those parties will not be unnecessarily interrupted. The revision and crossings of the various types of lines shall be made as follows:
 - 1. Storm sewers and culverts may be removed at the time of crossing or may be adequately braced and held in position while the pipe is placed beneath them. If the storm sewer or culvert is removed, it shall be replaced with pipe of the same type and size as that removed and it shall be re-joined to the undisturbed line with a joint satisfactory to the ENGINEER. Backfill over the main up to and around the storm sewer shall be thoroughly compacted in order that no settlement will occur. The revision and crossing of said lines shall be at the expense of the CONTRACTOR.
 - 2. All overhead and buried telephone and electrical conduits, to be revised or crossed by the construction of this project shall be protected in accordance with the directions of the utility company owning the conduits and/or mains. The CONTRACTOR shall notify the companies and obtain their permission before

making any crossing or revisions. The revision and crossing of said lines shall be at the expense of the CONTRACTOR. Any overhead cables or buried cables or conduits damaged by the CONTRACTOR shall be repaired at his expense to the satisfaction of the ENGINEER and of the OWNER.

3. The CONTRACTOR shall not remove any water or sanitary sewer lines except as directed by the ENGINEER or as required by the Drawings and specifications and shall adequately brace and protect them from any damage during construction. Any existing water main or sewer main or lateral damage caused by the CONTRACTOR'S operations will be repaired by the CONTRACTOR. The repairs will be made at the CONTRACTOR'S expense.
- E. The location of utility service lines serving individual properties may or may not be shown on the Drawings, but the CONTRACTOR shall assume that such service lines exist whether or not they are shown on the Drawings, and it shall be the responsibility of the CONTRACTOR to make any necessary changes in the line and/or grade of such services, or to secure the necessary changes therein to be made by the particular utility company involved or other OWNER thereof, or by an agent or individual CONTRACTOR approved by such utility company or other OWNER. CONTRACTOR shall pay the cost of all such revisions whether performed by CONTRACTOR, the utility company or other OWNER, or an approved CONTRACTOR. In the event of interruption of a utility service as a result of accidental breakage, CONTRACTOR shall promptly notify the ENGINEER and the OWNER of the utility and shall repair or cause the same to be repaired, in the same manner as necessary changes above are provided for, the CONTRACTOR shall do all things necessary to see that the restoration of services is done as promptly as may be reasonably done. All sanitary sewer service lines damaged shall be replaced with cast iron pipe regardless of type or kind damaged.
- F. In the event the CONTRACTOR in any way fails to comply with the requirements of protecting, repairing and restoring of any utility or utility service, the OWNER may, upon forty-eight (48) hours written notice proceed to protect, repair, rebuild or otherwise restore such utility or utility service as may be deemed necessary, and the cost thereof will be deducted from any money due, or which may become due the CONTRACTOR pursuant to the terms of his contract.

PART 13 - FIELD OFFICE

Copies of the drawings, specification, and other contract documents shall be kept at the site of the work available for use at all times.

PART 14 - ALTERATION OF QUANTITIES

The CONTRACTOR agrees that the quantities of work as stated in the Bid Schedule or indicated on the drawings are only approximate, and that the OWNER shall have the right to omit portions of the work and to increase or decrease the quantities of any item of work. Final payment will be based on the actual quantities used and installed in accordance with the drawings and Specification.

PART 15 - QUALITY CONTROL

When required in writing by the ENGINEER, the CONTRACTOR shall make such tests as may be necessary to show that the requirements of the Specification have been fulfilled.

All tests shall be made under the supervision and direction of the ENGINEER, and the CONTRACTOR will provide all required materials, labor and apparatus, etc., or so directed, engage an approved testing laboratory for making same. Any work found defective shall be removed, replaced and retested until satisfactory to the ENGINEER, all at the CONTRACTOR'S expense.

Should tests required by the ENGINEER, except those specifically called for elsewhere in these General Requirements or in the Specification show that the requirements of the Specification have been fulfilled, then the costs of such tests shall be paid for by the OWNER.

PART 16 - MEASUREMENT AND FITTING OF PARTS

The CONTRACTOR, without extra charge, shall make such slight alterations as may be necessary to make adjustable parts fit the fixed parts, leaving all complete and in proper shape when done. The CONTRACTOR shall verify all dimensions given in the drawings and shall report any error or inconsistency to the ENGINEER before commencing work.

PART 17 - CONTRACTOR'S SUPERINTENDENT

The CONTRACTOR shall keep a competent Superintendent and any necessary assistants at the site throughout the progress of the work. All directions given to said Superintendent shall be as binding as if given to the CONTRACTOR. Upon request, such directions will be confirmed, in writing, to the CONTRACTOR.

The CONTRACTOR'S Superintendent and/or any of his assistants shall be promptly replaced in the event he or they shall prove to be incompetent and/or unsatisfactory to the ENGINEER.

PART 18 - ASSISTANCE BY ENGINEER

It is distinctly understood and agreed that such assistance as the ENGINEER may render to the CONTRACTOR in connection with the interpretation of drawings and specification shall not relieve the CONTRACTOR from any responsibility for the work. Any work which proves faulty shall be made right by the CONTRACTOR without delay. The failure of the ENGINEER, or his Inspectors to call the CONTRACTOR'S attention to faulty work or work done which is not in accordance with drawings and specification shall not prevent the OWNER from insisting that the CONTRACTOR make all work right.

PART 19 - INCIDENTAL WORK

Work called for on the drawings and/or specifications and are not set forth in the Bid Schedule as pay items, shall be considered as incidental work and will not be paid for directly, but shall be included in the price bid for the various pay items.

PART 20 - TERMINATION OF CONTRACT

If the CONTRACTOR shall be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he should persistently or repeatedly refuse, or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen, equipment or proper materials, or if he should fail to make prompt payment to SUBCONTRACTOR or for material or labor, or persistently disregard laws, ordinances or the instructions of the ENGINEER, or otherwise be guilty of a substantial violation of any provision of the Contract, then the OWNER upon the certificate of the ENGINEER that sufficient cause exists to justify such action, may without prejudice to any other right or remedy and after giving the CONTRACTOR seven days written notice, terminate the employment of the CONTRACTOR and take possession of the premises and of all materials, tools and appliances thereon and finish the work by whatever method the OWNER may deem expedient. In such case, the CONTRACTOR shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract Price shall exceed the expense of finishing the work, including compensation for additional managerial and administrative services, such excess shall be paid to the CONTRACTOR. If such expense shall exceed such unpaid balance, the CONTRACTOR shall pay the difference to the OWNER as herein provided, and the damage incurred through the CONTRACTOR's default shall be certified by the ENGINEER.

In the event of termination of Contract before completion of the work, due to abandonment of the project or discontinuance thereof, the CONTRACTOR will be paid in proportion to the work completed and in progress as per scope of work described in the drawings and specification and in accordance with the unit price schedule.

PART 21 – PROGRESS PAYMENTS, ACCEPTANCE AND FINAL PAYMENT

Basis for Progress Payments: The Schedule of Quantities as shown in the Plans will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period. The amount of retainage with respect to progress payments will be 5% until 50 percent completion after which retainage shall be 2.5%.

Upon receipt of written notice from the CONTRACTOR that the work is ready for final inspection and acceptance, the ENGINEER shall promptly make such inspection and when he finds the work acceptable under the Contract and the Contract fully performed, he shall promptly issue a final certificate over his own signature, stating that the work provided for in this Contract has been completed and is accepted by him under the terms and conditions thereof, and the entire balance found to be due the CONTRACTOR, including the retained percentage, shall be paid to the CONTRACTOR, as approved by the OWNER, at the office of the OWNER within 30 days after the date of said final certificate.

If, after receipt of written notice from CONTRACTOR requesting final inspection and the performance of said final inspection by ENGINEER, additional inspections are necessary in order for ENGINEER to issue a final certificate; the OWNER shall withhold the cost associated with said additional inspections from the final payment due the CONTRACTOR.

Before issuance of final certificate, the CONTRACTOR shall submit evidence satisfactory to the ENGINEER that all payrolls, material bills, equipment rentals, and all other indebtedness connected with the work have been paid.

PART 22 - PLACING WORK IN SERVICE

If desired by the OWNER, portions of the work may be placed in service when completed and the CONTRACTOR shall give prior access to the work for this purpose, but such use and operation shall not constitute an acceptance of the work.

PART 23 - SCHEDULES

The CONTRACTOR shall furnish the ENGINEER with a tentative schedule, in a format approved by the ENGINEER, setting forth in detail the procedure he proposes to follow, and giving the dates on which he expects to start and to complete separate portions of the work. If at any time, in the opinion of the ENGINEER, proper progress is not being maintained, such changes shall be made in the schedule of operations which will satisfy the ENGINEER that the work will be completed within the period stated in the proposal, or extension thereof made as herein provided.

CONTRACTOR is to prepare list of proposed SUBCONTRACTORS including material suppliers; submit to ENGINEER for approval before subcontracts are awarded. No SUBCONTRACTOR is to be employed on work unless approved by OWNER and ENGINEER.

PART 24 - PROJECT SIGN

A project sign is required for this project. See Division 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS, page 45 for project sign requirements and an example.

PART 25 - INSURANCE

The CONTRACTOR shall protect, indemnify, save and hold harmless the OWNER, their officers, agents, and employees from all suits, actions or claims of any kind or character brought because of bodily injuries, sickness, disease or personal injury, or damages received or sustained by any person, persons, or property on account of any operations of the CONTRACTOR, his agents, employees, his subcontractors or any others authorized by the CONTRACTOR to perform work on the project.

Third Party Beneficiary Clause. It is specifically agreed by and between the parties executing this Contract, that it is not intended by any of the provisions of any part of the Contract to create in the public or any member thereof any third-party beneficiary provisions or to authorize anyone not a party to this Contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Contract.

The CONTRACTOR shall carry insurance of the following kinds and amounts on all City Contracts:

A. CONTRACTOR'S Public Liability, Auto Liability and Property Damage Liability

Insurance. The CONTRACTOR shall provide regular CONTRACTOR'S Public Liability Insurance for a combined amount of one million (\$1,000,000) dollars of coverage for all damages arising out of bodily injury, death, and property damage for each occurrence with an aggregate limit of two million (\$2,000,000) dollars.

The CONTRACTOR shall provide business auto liability coverage for an aggregate limit of one million (\$1,000,000) dollars of coverage for bodily injury and property damage arising out of the operation or maintenance of any vehicle including owned, non-owned and hired vehicles, and employee non-ownership use.

B. Insurance for SUBCONTRACTOR'S and CONTRACTOR'S Protective Public Liability and Property Damage Liability Insurance. In the event that any of the work to be performed by the CONTRACTOR on the project is sublet or assigned or is otherwise to be performed by anyone other than the CONTRACTOR'S own employees, then the insurance specified above shall extend to cover such work.

C. Workmen's Compensation Insurance and Employer's Liability Insurance. The CONTRACTOR shall furnish satisfactory evidence to the City that, with respect to the work to be performed by him on the project, he carries regular Workmen's Compensation and Employers Liability Insurance covering his liability under the "Workmen's Compensation Law of the State of Oklahoma". The CONTRACTOR shall maintain the aforementioned insurance in full force and effect for the duration of the Contract. Should the CONTRACTOR fail or neglect to maintain the aforementioned insurance, the City specifically reserves the right to withhold all funds due and owing the CONTRACTOR until such time as the required insurance is in effect.

In addition to the aforementioned insurance coverage, on any project in which the CONTRACTOR shall perform any Railway-Highway work, the CONTRACTOR shall also secure the following: "Railroads' Protective Liability and Property Damage Insurance".

D. Railroads' Protective Liability and Property Damage Insurance. In addition to the above, the CONTRACTOR shall furnish satisfactory evidence to the City that, with respect to the work to be performed by him under the Contract, he has provided for and on behalf of the Railway Company or Railway Companies involved, Protective Public Liability Insurance in an amount as may be required by the Railway Company, which amount shall be specified in the bid documents. Policies shall not include liability for negligence on the part of the Railway Company, its agents or employees, except as set out in Coverage A, B, or C of the form of policy, or amendments thereto, referred to under paragraph 6 below. This insurance applies to each and all Railway Companies involved in the work.

E. General. The insurance hereinbefore specified shall be carried in Insurance Companies approved by the City, and where applicable the Railway Company, during all times when work is being carried on under the terms of the Contract, until all work required to be performed under the Contract is satisfactorily completed as evidenced by the formal acceptance by the City.

F. Certificates of Insurance. Required insurance shall be documented by Certificates of Insurance which provide that the OWNER shall be notified at least thirty (30) days

in advance of cancellation, non-renewal or adverse change. The Certificate of Insurance shall show the OWNER as the named insured.

For general liability, the CONTRACTOR shall provide an indication of the amounts of claims, payments or reserves chargeable to the aggregate amount of liability coverage.

PART 26 - SAFETY STANDARDS AND ACCIDENT PREVENTION

With respect to all work performed under this Contract, the CONTRACTOR shall:

- A. Comply with the safety standards provisions of applicable laws, building and construction codes and the Manual of Accident Prevention in Construction published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of Title 29 of the Code of Federal Regulations, Section 1910 or 1926 as applicable.
- B. Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) and property.
- C. Trench Excavation and Safety System: All work under this item shall be in accordance with the current edition of the OSHA Standard for Excavation and Trench Safety Systems, 29 CFR 1926 Subpart P.

The CONTRACTOR shall notify all utility companies and OWNERS in accordance with the OSHA requirements given in 29 CFR 1926.651 (b) (2) for the purpose of locating utilities and underground installations.

Where the trench or excavation endangers the stability of a building, wall, street, highway, utilities, or other facility, the CONTRACTOR shall provide support systems such as shoring, bracing, or underpinning to ensure the stability of such facility. The CONTRACTOR may elect to remove and replace or relocate such facilities with the written approval of the facility owner, the ENGINEER, and the OWNER.

Payment for the work required by this item shall be included in the lump sum price bid. With each periodic payment request, CONTRACTOR shall submit a certification that the CONTRACTOR has complied with the provisions of the OSHA standards.

PART 27 - WAGE RATES

NO SPECIFIC REQUIREMENTS FOR THIS PROJECT.

PART 28 - WORKMEN

The CONTRACTOR shall employ foreman and skilled laborers where necessary, and if any person employed on the work shall refuse or neglect to obey orders of the ENGINEER or Inspector when such orders are in keeping with the provisions of these specifications or shall appear to the ENGINEER or his Inspector to be incompetent, disorderly or unfaithful, he shall, upon order of the ENGINEER, be at once discharged and not again employed upon any part of the work. It shall be the responsibility of the superintendent representing the CONTRACTOR to transmit all necessary orders and instructions. If requested by the ENGINEER, the CONTRACTOR shall submit, in written form, qualifications including work experience of any workman used on the project.

PART 29 - NUMBER OF WORKING DRAWINGS AND SPECIFICATIONS

The ENGINEER will furnish to the CONTRACTOR not more than two (2) sets of drawings and specifications for construction. The CONTRACTOR may procure additional copies of drawings and specifications for construction at cost of reproduction. Such costs are reimbursable by the ENGINEER.

PART 30 - PRECONSTRUCTION CONFERENCE

Prior to the commencement of work at the site, a preconstruction conference will be held at a mutually agreed time and place. The conference shall be attended by:

- A. CONTRACTOR and his superintendent.
- B. Principal SUBCONTRACTORS.
- C. Representatives of principal suppliers and manufacturers as appropriate.
- D. ENGINEER and its Resident Project Representative.
- E. Representatives of OWNER.
- F. Government representatives as appropriate.
- G. Others as requested by CONTRACTOR, OWNER, or ENGINEER.
- H. Unless previously submitted to ENGINEER, CONTRACTOR shall bring to the conference a preliminary schedule for each of the following:
 - 1. Progress.
 - 2. Procurement.
 - 3. Values for progress payment purposes.
 - 4. Shop Drawings and other submittals.

The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The agenda will include:

- A. CONTRACTOR'S preliminary schedules.

- B. Transmittal, review, and distribution of CONTRACTOR'S submittals.
- C. Processing applications for payment.
- D. Maintaining record documents.
- E. Critical work sequencing.
- F. Field decisions and change orders.
- G. Use of premises, office and storage areas, security, housekeeping, and OWNER'S needs.
- H. Major equipment deliveries and priorities.
- I. CONTRACTOR'S assignments for safety and first aid.

ENGINEER will preside at the conference and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.

PART 31 - PROGRESS MEETINGS

CONTRACTOR shall schedule and hold regular progress meetings at least monthly and at other times as requested by ENGINEER or required by progress of the work. CONTRACTOR, ENGINEER, and all SUBCONTRACTORS active on the site shall be represented at each meeting. CONTRACTOR may at its discretion request attendance by representatives of its suppliers, manufacturers, and other SUBCONTRACTORS.

CONTRACTOR shall preside at the meetings. Meeting minutes will be prepared and distributed by CONTRACTOR. The purpose of the meetings will be to review the progress of the work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop.

PART 32 - SUBSTANTIAL AND FINAL COMPLETION

All work including site restoration shall be finished within the time called out on the Bid Form for final completion.

PART 33 - EXCAVATION

All excavation shall be unclassified. No additional payment shall be made for rock, groundwater, or other natural formations encountered. Payment for excavation shall be included in other items of work.

PART 34 - SUBCONTRACTORS

CONTRACTOR is to prepare a list of proposed SUBCONTRACTORS including material suppliers and submit to ENGINEER for approval before SUBCONTRACTORS are awarded.

No SUBCONTRACTOR is to be employed on work unless approved by OWNER and ENGINEER.

PART 35 - RIGHT-OF-WAY/PROJECT VIDEO

CONTRACTOR shall video the complete right-of-way of the project prior to initiating construction and deliver video tape to the ENGINEER at the pre-construction conference. The video shall be taken in such a way to document pre- construction conditions for use in documenting satisfactory right-of-way restoration and other issues relative to initial conditions prior to construction.

PART 36 - RECORD DRAWINGS**36.1 GENERAL**

- A. The CONTRACTOR shall be responsible for accumulation and maintenance of a complete set of Project Record Documents and upon completion and acceptance of the project shall submit these documents to the ENGINEER, as the OWNER'S representative, for a permanent record.
- B. The Project Record Documents shall consist of:
 - 1. One complete set of drawings, with revisions.
 - 2. One complete Project Manual with all addenda, field bulletins and change orders.
 - 3. Complete set of all field test data.
 - 4. Complete set of approved shop drawings, product data brochures and samples.
 - 5. Six complete sets of maintenance and operating instructions, parts lists and supplier identification on all operating fixtures and equipment.

36.2 MAINTENANCE OF RECORD DOCUMENTS

- A. The CONTRACTOR shall maintain, on the site, one complete set of contract documents, other than those used for construction, throughout the life of the job.
 - 1. This set of documents shall be marked "Record Set" and shall be maintained up to date at all times and available to the ENGINEER for inspection.
 - 2. The only notations or other markings to be made on this set are notations of field variations made from the work shown on the drawings for purposes of "Record Drawings" revisions when the project is complete. Failure to record revisions by each CONTRACTOR, shall be considered a breach of contract.
 - 3. This set of Documents will be turned over to the ENGINEER for preparation of "Record Drawings" **prior to approval of final application for payment.**

36.3 MAINTENANCE AND OPERATING INSTRUCTIONS

- A. A complete set of maintenance and operating instructions on the project shall be prepared for the OWNER'S continual use.
 - 1. To be bound in booklet form, 8-1/2" x 11" in size, labeled "Operating Manual".
 - 2. To be indexed for quick reference use.
 - 3. To contain manufacturer's printed data, record forms, diagrams, parts lists,

maintenance procedures, start-up procedures, operating procedures, service requirements and schedules, and names, addresses and phone numbers of SUBCONTRACTOR, manufacturer and local service agent.

4. To contain all written warranties and guarantees.
- B. Each CONTRACTOR shall submit six complete copies of this "Operating Manual" material from his trade to the ENGINEER at the completion of the project.
- C. The ENGINEER shall assemble, bind, label and index this material for the OWNER as stated above. Failure to submit the data listed on the part of any CONTRACTOR may be considered cause to withhold final payment until all such information is received.

PART 37 - CHANGES IN THE WORK

ALL CHANGES SHALL BE MADE IN WRITING AND APPROVED BY THE OWNER OR ENGINEER. THIS INCLUDES CHANGES INVOLVING COST OR THOSE NOT INVOLVING COST. NO CHANGE WILL BE ACCEPTABLE UNLESS APPROVED IN WRITING.

The OWNER, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the work with the Contract Total being adjusted accordingly. All changes involving cost shall be made using a written modification order and shall be supported with necessary documentation as to the increase or decrease in cost and time. No increase or decrease in cost or time will be made without an approved modification order that is completed at or before the change is made. Increases in cost or time will not be allowed at the end of the job for work completed earlier without an approved change order. The OWNER shall have authority to make minor changes in the work which do not involve extra cost, and which do not significantly change the design. All such changes shall be made with a written field order.

END OF SECTION 01 00 00

SECTION 01 11 00 - SUMMARY OF WORK**PART 1 - GENERAL****1.1 DESCRIPTION**

- A. The work covered by these specifications and drawings shall consist of all materials, transportation costs, equipment, and tools that are related to, or are to be incorporated in this contract and must be received, unloaded, stored, installed, erected, service connections provided, and coordinated with the construction by the CONTRACTOR under this contract. Installation of equipment and materials shall mean furnishing of all labor and materials as required to place the improvements in successful operation. The CONTRACTOR shall be responsible for all equipment and materials and shall replace at his own expense all such equipment and materials found defective in manufacture or damaged in handling after delivery by the manufacturer. The improvements are as listed:

CITY OF SHAWNEE / SHAWNEE PUBLIC WORKS AUTHORITY
SEWER PIPE BURSTING

- B. This contract shall include minor items not specifically mentioned herein but shown on the accompanying plans or obviously necessary to provide a complete job.
- C. The following description, while not intended to cover all details, outlines some items of the work to be accomplished under this Contract:
1. Construction of approximately 2,766 LF of 8" HDPE Sewer Line via bursting.
 2. Construction of approximately 2,222 LF of 10" HDPE Sewer Line via bursting.
 3. Construction of approximately 1,440 LF of 12" HDPE Sewer Line via bursting.
 4. Construction of approximately 17 manholes.
 5. Pre and post video inspection.

Note: The Sanitary Sewer Collection System plant must stay in operation throughout construction. Temporary pumping, piping, plugs, shut offs, etc. shall be considered incidental and included in the cost of other bid items.

- D. The price named in the Proposal shall include the furnishing of all labor, material, transportation costs, equipment rental, etc., necessary to construct the project as herein specified and as shown on the accompanying plans.
- E. The CONTRACTOR shall cooperate with the OWNER during construction so as to place the improvements in operation at minimum inconvenience and without significant disruption of the OWNER. The CONTRACTOR shall minimize his area of operation. Any areas disturbed will be restored to the OWNER'S satisfaction.

END OF SECTION 01 11 00

SECTION 01 11 50 – MEASUREMENTS AND PAYMENTS**PART 1 – PAY REQUESTS****1.1 CONTRACTOR TO SUBMIT DETAILED BREAKDOWN OF CONTRACT AMOUNT**

- A. Except in the cases where the unit prices form the basis for payment under the contract, the CONTRACTOR shall, within ten (10) days of receipt of the Notice to Proceed, submit a complete breakdown of the contract amount showing the value assigned to each part of the work, including an allowance for profit and overhead. Upon approval of the breakdown of the contract amount by the ENGINEER, it shall be used as the basis for all requests for payment.

1.2 CONTRACTOR MONTHLY PAY REQUESTS

- A. The CONTRACTOR may submit periodically, but not more than once each month, a request for payment for work done and materials delivered and stored on the site. The CONTRACTOR shall furnish the ENGINEER all reasonable facilities required for obtaining the necessary information relative to the progress and execution of the work. Payment for materials stored on the site will be conditioned upon evidence submitted to establish the OWNER'S title to such materials. Each request for payment shall be computed from the work completed on all items listed in the detailed breakdown of contract amount, less five (5) percent to be retained until 50 percent completion and acceptance of the work, and less previous payments, provided that any after 50 percent of the work has been satisfactorily completed, the OWNER shall reduce the percentage retainage to two and one-half (2 ½) percent where unit prices are specified. The request for payment shall be based on the quantities completed.

1.3 MATERIAL STORED ON SITE

- A. The following items will be required if the CONTRACTOR requests payment for material stored on the site.
1. CONTRACTOR must furnish invoices showing quantity, size, costs, etc. of the material.
 2. The invoices must be approved by the OWNER, PROJECT INSPECTOR and/or ENGINEER.
 3. Payment will be made only for material stored in a location approved by the ENGINEER and the OWNER. The storage area must provide adequate protection from the weather and vandalism.
 4. The 5 percent retainer which applies to materials installed will also apply to materials stored.
 5. Payment for materials stored on the site for this project will be made as follows: The above items must be furnished with the current pay estimate, and the CONTRACTOR will be paid as per invoice. In order for the CONTRACTOR to receive payment for the next pay estimate, he must furnish a notarized statement of payment in full from the suppliers for materials invoiced in preceding pay estimate. The procedure shall hold true for all successive materials payments until all materials have been acquired by the CONTRACTOR.

1.4 ENGINEER'S ACTIONS TO PENDING PAY REQUESTS

- A. Within ten (10) days of submission of any request for payment by the CONTRACTOR, the ENGINEER shall:
1. Approve the request for payment as submitted.
 2. Approve such other amount as he shall decide is due the CONTRACTOR, informing the CONTRACTOR in writing of his reasons for approving the amended amount.
 3. Withhold the request for payment, informing the CONTRACTOR in writing for his reasons for withholding it.

1.5 OWNER'S ACTIONS TO APPROVED PAYMENT REQUEST

- A. Within thirty (30) days from the date of approval of a request for payment by the ENGINEER, the OWNER shall:
1. Pay the request of payment as approved.
 2. Pay such other amount in accordance as herein provided as he shall decide is due the CONTRACTOR, informing the CONTRACTOR and the ENGINEER in writing of his reasons for paying the amended amount.
 3. Withhold payment in accordance as herein provided informing the CONTRACTOR and the ENGINEER of his reasons for withholding payment in writing.

1.6 OWNER'S RIGHT TO WITHHOLD PAYMENT ON APPROVED REQUESTS

- A. The OWNER may withhold payment in whole or in part on an approved request for payment to the extent necessary to protect himself from loss on account of any of the following causes discovered subsequent to approval of a request for payment by the ENGINEER:
1. Defective work.
 2. Evidence indicating the probable filing of claims by other parties against the CONTRACTOR.
 3. Failure of the CONTRACTOR to make payments to SUBCONTRACTORS, material suppliers or labor.
 4. Damage to another CONTRACTOR.

1.7 PAYMENT FOR UNCORRECTED WORK

- A. If, in the opinion of the ENGINEER, it is undesirable to replace any defective or damaged material or to reconstruct or correct any portion of the work injured or not performed in accordance with the contract documents, the compensation to be paid the CONTRACTOR hereunder shall be reduced by such amount as in the judgment of the ENGINEER shall be equitable.

1.8 PAYMENT FOR REJECTED WORK AND MATERIALS

- A. The removal of work and materials rejected by the OWNER and the re-execution of acceptable work by the CONTRACTOR shall be at the expense of the CONTRACTOR, and he shall pay the cost of replacing the work of other CONTRACTORS destroyed or damaged by the removal of the rejected work or materials and the subsequent replacement of acceptable work.
- B. Removal of rejected work or materials and storage of materials by the OWNER shall be paid by THE CONTRACTOR within thirty (30) days after written notice to pay is given by the OWNER. If the CONTRACTOR does not pay expenses of such removal and after ten (10) days written notice being given by the OWNER of his intent to sell the materials, the OWNER may sell the materials at auction or at private sale and shall pay to the CONTRACTOR the net proceeds therefrom after deducting all the costs and expenses that should have been borne by the CONTRACTOR.

1.9 ACCEPTANCE AND FINAL PAYMENT

- A. When the CONTRACTOR shall have completed the work in accordance with the terms of the contract documents, the ENGINEER shall certify his acceptance to the OWNER and his approval of the CONTRACTOR'S final request for payment, which shall be the contract amount plus all approved additions less all approved deductions and less previous payments made. The CONTRACTOR shall furnish evidence that he has fully paid all debts for labor, materials, and equipment incurred in connection with the work, following which the OWNER shall accept the work and release the CONTRACTOR except as to the conditions of the Performance Bond, any legal rights of the OWNER, required guarantee and correction of faulty work after final payment, and shall authorize payment of the CONTRACTOR'S final request for payment. The CONTRACTOR must allow sufficient time between the time of completion of the work and approval of the final request for payment for the ENGINEER to assemble and check the necessary data.

1.10 CORRECTION OF FAULTY WORK AFTER FINAL PAYMENT

- A. The approval of the final request for payment by the ENGINEER and the making of the final payment by the OWNER to the CONTRACTOR shall not relieve the CONTRACTOR of responsibility for faulty materials or workmanship. The OWNER shall promptly give notice of faulty materials or workmanship and the CONTRACTOR shall promptly replace any such defects discovered within one year from the date of written acceptance of the work. The ENGINEER shall decide all questions arising under this paragraph.

END OF SECTION 01 11 50

SECTION 01 21 19 - TESTING LABORATORY-SERVICES (CONTRACTOR-Employed Lab)

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. CONTRACTOR shall employ and pay for the services of an independent testing laboratory to perform specified services and testing.

1.2 RELATED REQUIREMENTS

- A. Conditions of the Contract: Inspections and testing required by laws, ordinances, rules, regulations, orders, or approvals of public authorities.
- B. Respective sections of specifications: Certification of products.
- C. Respective sections of specifications, laboratory tests required, and standards for testing.

1.3 QUALIFICATION OF LABORATORY

- A. Meet "Recommended Requirements for Independent Laboratory Qualification," published by American Council of Independent Laboratories.
- B. Meet basic requirements of ASTM E329, "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used in Construction."
- C. Authorized to operate in the state in which the project is located.
- D. Submit copy of report of inspection of facilities made by Materials Reference Laboratory of National Bureau of Standards during the most recent tour of inspection, with memorandum of remedies of any deficiencies reported by the inspection.
- E. Testing Equipment
 - 1. Calibrated at reasonable intervals by devices of accuracy traceable to either
 - a. National Bureau of Standards.
 - b. Accepted values of natural physical constants.

1.4 LABORATORY DUTIES

- A. Cooperate with OWNER'S REPRESENTATIVE and CONTRACTOR; provide qualified personnel after due notice.
- B. Perform specified inspections, sampling and testing of materials and methods of construction:
 - 1. Comply with specified standards.
 - 2. Ascertain compliance of materials with requirements of Contract Documents.

- C. Promptly notify OWNER'S REPRESENTATIVE and CONTRACTOR of observed irregularities or deficiencies of work or products.
- D. Promptly submit written report of each test and inspection; one copy each to OWNER'S REPRESENTATIVE, OWNER, CONTRACTOR, and one copy to Record Document File. Each report shall include:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Testing laboratory name, address, telephone number.
 - 4. Name and signature of laboratory inspector.
 - 5. Date and time of sampling or inspection.
 - 6. Record of temperature and weather conditions.
 - 7. Date of test.
 - 8. Identification of product and specification section.
 - 9. Location of sample or test in the project.
 - 10. Type of inspection or test.
 - 11. Results of tests & compliance with Contract Documents.
 - 12. Interpretation of test results, when requested by OWNER'S REPRESENTATIVE.
- E. Perform additional tests as required by OWNER'S REPRESENTATIVE or the OWNER.

1.5 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
 - 1. Release, revoke, alter or enlarge on requirements of Contract Documents.
- B. Approve or accept any portion of the work.
- C. Perform any duties of the CONTRACTOR.

1.6 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel, provide access to work, to manufacturer's operations.
- B. Secure and deliver to the laboratory adequate quantities of representation samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other materials mixes which require control by the testing laboratory.

- D. Furnish copies of products test reports as required.
- E. Furnish incidental labor and facilities:
 - 1. To provide access to work to be tested.
 - 2. To obtain and handle samples at the project site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.
- F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
 - 1. When tests or inspections cannot be performed after such notice, reimburse OWNER for laboratory personnel and travel expenses incurred due to CONTRACTOR'S negligence.
- G. Employ and pay for the services of a separate, equally qualified independent testing laboratory to perform additional inspections, sampling and testing required:
 - 1. For the CONTRACTOR'S convenience.
 - 2. When initial tests indicate work does not comply with Contract Documents.

1.7 CONTRACTOR'S GENERAL RESPONSIBILITIES

- A. No failure of test agencies to perform adequate inspections or tests or to properly analyze or report results shall relieve CONTRACTOR of responsibility for fulfillment of requirements of contract documents. It is recognized that required inspection and testing program is intended to assist the CONTRACTOR, OWNER, ARCHITECT, ENGINEER, and governing authorities in nominal determination of probable compliances with requirements for certain elements of work. The program is not intended to limit the CONTRACTOR'S regular quality control program, as needed for general assurance of compliances.

END OF SECTION 01 21 19

SECTION 01 33 00 - SUBMITTALS AND SUBSTITUTIONS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included

1. Wherever possible throughout the contract documents, the minimum acceptable quality of workmanship and materials has been defined by manufacturer's name and catalog number, reference to recognized industry and government standards, or description of required attributes and performance.
2. To ensure that the specified products are furnished and installed in accordance with design intent, procedures have been established for advance submittal of design data and for their review by the ENGINEER.
3. Make all submittals required by the contract documents, and revise and resubmit as necessary to establish compliance with the specified requirements.

B. Related Work Described Elsewhere: Individual requirements for submittals are described in pertinent other Sections of these specifications.

1.2 QUALITY ASSURANCE

A. Coordination of Submittals: Prior to each submittal, carefully review and coordinate all aspects of each item being submitted and verify that each item and the submittal for it conforms in all respects with the requirements of the contract documents. By affixing the CONTRACTOR'S signature to each submittal, certify that this coordination has been performed.

B. Certificates of Compliance

1. When requested, certify that materials used in the work comply with specified provisions thereof. Certification shall not be construed as relieving the CONTRACTOR from furnishing satisfactory materials if, after tests are performed on selected samples, the material is found to not meet specified requirements.
2. Show on each certification the name and location of the work, name and address of CONTRACTOR, quantity and date or dates of shipment or delivery to which the certificate applies, and name of the manufacturing or fabricating company. Certification shall be in the form of letter or company-standard forms containing all required data. Certificates shall be signed by an officer of the manufacturing or fabricating company.
3. In addition to the above information, all laboratory test reports submitted with certificates of compliance shall show the date or dates of testing, the specified requirements for which testing was performed, and results of the test or tests.

1.3 SUBMITTALS

- A. Submittal Schedule: Within 10 days after award of Contract, and before any items are submitted for approval, submit to the ENGINEER two copies of the schedule described in Article 2.1 of this Section.
- B. Certificates of Compliance: Upon completion of the work, and as a condition of its acceptance, submit to the ENGINEER all Certificates of Compliance.
- C. Procedures: Make submittals in strict accordance with the provisions of this Section.
- D. Schedule of Values: Within 10 days of the Pre-Construction Conference, submit a schedule of values for lump sum bid items indicating the cost breakdown of lump sum bid items for use in progress payment preparation. Submit to the ENGINEER two copies of the schedule described in Article 2.2 of this Section.

PART 2 - PRODUCTS

2.1 SUBMITTAL SCHEDULE

- A. General: Compile a complete and comprehensive schedule of all submittals anticipated to be made during progress of the work. Include a list of each type of item for which CONTRACTOR'S drawings, Shop Drawings, Certificates of Compliance, material samples, guarantees, Operations and Maintenance manuals or other types of submittals are required. Upon approval by the ENGINEER this schedule will become part of the Contract and the CONTRACTOR will be required to adhere to the schedule except when specifically otherwise permitted.
- B. Coordination: Coordinate the schedule with all necessary subcontractors and materials suppliers to ensure their understanding of the importance of adhering to the approved schedule and their ability to so adhere. Coordinate as required to ensure the grouping of submittals as described in Article 1.3.
- C. Revisions: Revise and update the schedule on a monthly basis as necessary to reflect conditions and sequences. Promptly submit revised schedules to the ENGINEER for review and comment.

2.2 SCHEDULE OF VALUES

- A. The ENGINEER will review the tentative schedule of values to determine whether, in his judgment, the schedule of values is of sufficient detail and if the prices included are "unbalanced" or "front-end loaded", in an effort to inflate the prices of those items of work to be completed in the early stages of the work.
- B. Breakdown cost to list major products or operations for each line item which has an installed value of more than \$5,000.00. The sum of the items listed on the schedule of values shall equal the contract lump sum price.

- C. The ENGINEER will provide the CONTRACTOR with his comments and/or may request additional information from the CONTRACTOR to justify certain item quantities and prices, therefore. On the basis of the ENGINEER'S comments, the CONTRACTOR shall revise and resubmit the tentative schedule for further review and/or approval.
- D. Once the ENGINEER accepts the tentative schedule, it shall become the schedule of values to be used in determining partial payment estimates. Two (2) copies of this schedule shall be submitted to the ENGINEER for distribution and his use. No modifications will be made to the schedule of values, except as required by approved change orders.
- E. No partial payment request (including the first) shall be approved until the schedule of values has been approved by the OWNER and ENGINEER.

2.3 SHOP DRAWINGS AND COORDINATION DRAWINGS

A. Shop Drawings

- 1. Scale and Measurements: Make all Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the work.
- 2. Type of Prints Required: Submit all Shop Drawings in the form of electronic (.pdf) or hardcopy, minimum of 8 ½" by 11".

2.4 MANUFACTURERS' LITERATURE

- A. General: Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly indicate which portion of the contents is being submitted for review.
- B. Number of Copies Required: Submit the number of copies which are required to be returned plus two copies which will be retained by the ENGINEER. Under no circumstances shall less than five copies be submitted.

2.5 SAMPLES

- A. Accuracy of Samples: Samples shall be of the precise article proposed to be furnished. Samples shall have stickers or tags which bear identification of the project, the subcontractor, the vendor or manufacturer, the product color name or number, model, style or series, and the size and thickness of components.
- B. Number of Samples Required: Unless otherwise specified, submit all Samples in the quantity which is required to be returned plus one which will be retained by the ENGINEER.
- C. Reuse of Samples: In situations specifically so approved by the ENGINEER, the ENGINEER'S retained sample may be used in the construction as one of the installed items.

- D. Match Existing Materials: Brick or other materials that are to match existing materials shall require a "test panel" to be erected adjacent to the existing material to allow the OWNER to approve the match in size, color, and texture.

2.6 COLORS AND PATTERNS

- A. Unless the precise color and pattern is specifically described in the contract documents, and whenever a choice of color or pattern is available in a specified product, submit accurate color and pattern charts to the ENGINEER for review and selection.

2.7 SUBSTITUTIONS

A. Approval Required

1. The Contract is based on the standards of quality established in the contract documents.
2. All products proposed for use, including those specified by required attributes and performance, shall require approval by the ENGINEER before being incorporated into the work.
3. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved for this work by the ENGINEER.

B. "Or Equal":

1. Where the phrase "or equal" or "approved or equal" occurs in the contract documents, do not assume that materials, equipment, or methods will be approved as equal unless the item has been specifically approved for this work by the ENGINEER.
2. The decision of the ENGINEER shall be final.

PART 3 - EXECUTION

3.1 IDENTIFICATION OF SUBMITTALS

- A. General: Bind submittals with cover label that identifies project, division of work, subcontractor, and vendor/manufacturer. Consecutively number all submittals. Accompany each submittal with a letter of transmittal containing all pertinent information required for identification and checking of submittals.
- B. Internal Identification: On at least the first page of each copy of each submittal, and elsewhere as required for positive identification, clearly indicate the submittal number in which the item was included.
- C. Resubmittals: When material is resubmitted for any reason, transmit under a new letter of transmittal and with a new submittal number.

3.2 COORDINATION OF SUBMITTALS

- A. General: Prior to submittal for approval, use all means necessary to fully coordinate all material including, but not necessarily limited to:
 - 1. Determine and verify all interface conditions, catalog numbers, and similar data.
 - 2. Coordinate with other trades as required.
 - 3. Clearly indicate all deviations from requirements of the contract documents.
- B. Grouping of Submittals: Unless otherwise specified, make all submittals in groups containing all associated items to ensure that information is available for checking each item when it is received. Partial submittals may be rejected as not complying with the provisions of the contract documents and the CONTRACTOR shall be strictly liable for all delays so occasioned.

3.3 TIMING OF SUBMITTALS

- A. General: Make all submittals far enough in advance of scheduled dates for installation to provide all time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery.
- B. ENGINEER'S Review Time: In scheduling, allow at least 21 calendar days for review by the ENGINEER following his receipt of the submittal. Should unanticipated circumstances prevent the normal review time, a minimum of 10 working days review time must be allowed for reviews.
- C. Delays: Delays caused by tardiness in receipt of submittals will not be an acceptable basis for extension of the contract completion date.

3.4 ENGINEER'S REVIEW

- A. CONTRACTOR'S approval: Prior to submission to the ENGINEER, all submittals shall have been reviewed and approved by the CONTRACTOR.
- B. General: Review by the ENGINEER shall not be construed as a complete check, but only that the general method of construction and detailing is satisfactory. Review shall not relieve the CONTRACTOR from responsibility for errors which may exist.
- C. Authority to Proceed: The notations "Reviewed, No Exceptions Noted" or "Reviewed, Exceptions Noted" authorize the CONTRACTOR to proceed with fabrication, purchase, or both, of the items so noted, subject to the revisions, if any, required by the ENGINEER'S review comments.
- D. Revisions: Make all revisions required by the ENGINEER. If the CONTRACTOR considers any required revision to be a change, he shall so notify the ENGINEER as provided for under "Changes" in the General Considerations. Show each drawing revision by number, date, and subject in a revision block on the drawing. Make only those revisions directed or approved by the ENGINEER.

- E. Revisions After Approval: When a submittal has been reviewed by the ENGINEER, resubmittal for substitution of materials or equipment will not be considered unless accompanied by an acceptable explanation as to why the substitution is necessary.

END OF SECTION 01 33 00

SECTION 01 45 00 - QUALITY CONTROL

PART 1 - GENERAL

1.1 DESCRIPTION

A. Section Includes

1. Quality assurance - control of installation.
2. Tolerances
3. References and standards.
4. Mock-up.
5. Testing laboratory services.
6. Inspection services.
7. Manufacturers' field services.
8. Subcontracting.

B. Related Sections

1. Section 01 33 00 – Submittals and Substitutions: Submission of manufacturers' instructions and certificates.

1.2 QUALITY ASSURANCE

- A. The CONTRACTOR will be held strictly to the intent of the contract documents in regard to the quality of materials, workmanship, and execution of the work. Inspections may be made at the factory or fabrication plant of the source of material supply.
- B. The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedure, or construction safety.
- C. The CONTRACTOR shall monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- D. The CONTRACTOR will supervise and direct the work. He will be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The CONTRACTOR will employ and maintain on the work a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervisor and coordination of the work.
- E. The CONTRACTOR shall comply with manufacturers' instructions, including each step in sequence.

- F. Should the manufacturers' instructions conflict with Contract Documents, the CONTRACTOR shall request clarification from ENGINEER before proceeding.
- G. The CONTRACTOR shall comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- H. The CONTRACTOR shall perform work by persons qualified to produce required and specified quality.
- I. The CONTRACTOR shall verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- J. The CONTRACTOR shall secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 IMPROPER COVERAGE OF BURIED CONSTRUCTION

- A. If any work is covered contrary to the written instructions of the ENGINEER, it must, if requested by the ENGINEER, be uncovered for the ENGINEER'S observation, and replaced at the CONTRACTOR'S expense.
- B. If the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such work is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction; if, however, such work is not found to be defective, the CONTRACTOR will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate change order shall be issued.
- C. Defect Assessment
 - 1. Replace the work, or portions of the work, not conforming to specified requirements.
 - 2. If, in the opinion of the ENGINEER it is not practical to remove and replace the work, the ENGINEER will direct an appropriate remedy or adjust payment.
- D. Tolerances
 - 1. The CONTRACTOR shall monitor fabrication and installation tolerance control of all products to produce acceptable work. Do not permit products and installation outside of allowable tolerances to accumulate.
 - 2. The CONTRACTOR shall comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from ENGINEER before proceeding.

3. The CONTRACTOR shall adjust products to appropriate dimension and position before securing products in place.

E. References and Standards

1. For products or workmanship specified by association, trade, or other consensus standards, the CONTRACTOR shall comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
2. The CONTRACTOR shall conform to reference standard by date of issue current date for receiving bids, except where a specific date is established by code.
3. The CONTRACTOR shall obtain copies of standards where required by product specification sections.
4. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the ENGINEER shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

F. Mock-Up

1. Tests will be performed under provisions identified in this section and identified in the respective product specification sections.
2. The CONTRACTOR shall assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
3. Accepted mock-ups shall be a comparison standard for the remaining work.
4. Where mock-up has been accepted by ENGINEER and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so.

G. Testing Services

1. The OWNER will appoint and employ services of an independent firm to perform testing. OWNER shall pay for services.
2. The independent firm will perform tests and other services specified in individual specification sections and as required by the ENGINEER.
3. Testing and source quality control may occur on or off the project site. Perform off-site testing as required by the ENGINEER or the OWNER.
4. Reports will be submitted by the independent firm to the ENGINEER and CONTRACTOR, in duplicate indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
5. The CONTRACTOR shall cooperate with the independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.

- a. Notify ENGINEER and independent firm 24 hours prior to expected time for operations requiring services.
 - b. Make arrangements with independent firm and pay for additional samples and tests required for CONTRACTOR'S use.
 6. Testing does not relieve CONTRACTOR to perform work to contract requirements.
 7. Re-testing required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the ENGINEER. Payment for re-testing will be charged to the CONTRACTOR or by deducting testing charges from the Contract Sum/Price.
- J. Removal of Defective and Unauthorized Work
1. All work which has been rejected or condemned shall be repaired, or, if it cannot be satisfactorily repaired it shall be removed and replaced at the CONTRACTOR'S expense. Defective materials shall be removed immediately from the site of the work.
 2. Work done without lines and grades having been given, work done beyond the lines or not in conformity with the grades shown on the plans or as given, save as herein provided, work done without proper inspection will be done at the contractor's risk and will be considered unauthorized and at the option of the ENGINEER may not be accepted and may be ordered removed at the CONTRACTOR'S expense.
 3. If any work is covered contrary to the written instructions of the ENGINEER it must, if requested by the ENGINEER, be uncovered for the ENGINEER'S observation, and replaced at the CONTRACTOR'S expense.
 4. If the ENGINEER considers it necessary or advisable that covered work be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such work is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction; if, however, such work is not found to be defective, the CONTRACTOR will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate change order shall be issued.
- K. Inspection Services
1. Owner will appoint, employ, and pay for specified services of an independent firm to perform inspection.
- L. Manufacturers' Field Services
1. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of

equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.

2. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
3. Refer to Section 01 33 00 – Submittals and Substitutions, Manufacturers' Field Reports article.
4. Coordination of Plans, Specifications, and Special General Conditions: The plans, these specifications, Special General Conditions, and all supplementary documents are intended to describe a complete work and are essential parts of the contract. A requirement occurring in any of them is binding. In case of discrepancies, figured dimensions shall govern over scaled dimensions; plans shall govern over specifications. Special General Conditions shall govern over both General and Standard Specifications, and the plans and quantities shown on the plans shall govern over those shown on the proposal. The CONTRACTOR shall take no advance of any apparent error or omission in the plans and specifications, and the ENGINEER shall be permitted to make such corrections or interpretations as may be deemed necessary for the fulfillment of the intent of the plans and specification.

In the event the CONTRACTOR discovers any apparent error or discrepancy, he shall immediately call such error or discrepancy to the attention of the ENGINEER, and request in writing an interpretation thereof by the ENGINEER.

M. Subcontracting

1. The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the work which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.
2. The CONTRACTOR shall not award work to SUBCONTRACTOR(S) in excess of fifty (50) percent of contract price, or in excess of fifty (50) percent of the labor and equipment required to install the project, without prior written approval of the OWNER.
3. The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of its SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as the CONTRACTOR is for the acts and omissions of persons directly employed by the CONTRACTOR.
4. The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the contract documents insofar as applicable to the work of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.
5. Nothing contained in this CONTRACT shall create any contractual relationship between the SUBCONTRACTOR and the OWNER.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Beginning new work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify that utility services are available, of the correct characteristics, and in the correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

END OF SECTION 01 45 00

SECTION 01 54 00 – TEMPORARY BYPASS PUMPING SYSTEMS

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

NOT USED.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of this Contract, including General and Supplementary Conditions and other specifications apply to this section.
- B. Related Sections
 - 1. Section 01 11 00 – Summary of Work

1.3 SUBMITTALS

- A. The CONTRACTOR shall submit to the ENGINEER detailed plans and a description outlining all provisions and precautions to be taken by the CONTRACTOR regarding the handling of existing wastewater flows. This plan must be specific and complete, including such items as schedules, locations, elevations, capacities of equipment, materials and all other incidental items necessary and/or required to insure proper protection of the facilities, including protection of the access and bypass pumping locations from damage due to the discharge flows, and compliance with the requirements and permit conditions specified in these Contract Documents. No construction shall begin until all provisions and requirements have been reviewed by the ENGINEER.
- B. The plan shall include, but not be limited to, details of the following:
 - 1. Staging areas for pumps;
 - 2. Sewer plugging method and types of plugs;
 - 3. Number, size, material, location and method of installation of suction piping;
 - 4. Number, size, material, method of installation and location of installation of discharge piping;
 - 5. Bypass pump sizes, capacity, number of each size to be on site and power requirements;
 - 6. Calculations of static lift, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted);
 - 7. Standby power generator size, location;
 - 8. Downstream discharge plan;
 - 9. Method of protecting discharge manholes or structures from erosion and damage;
 - 10. Thrust and restraint block sizes and locations;

11. Sections showing suction and discharge pip depth, embedment, select fill and special backfill;
12. Method of noise control for each pump and/or generator;
13. Any temporary pipe supports and anchoring required;
14. Design plans and computation for access to bypass pumping locations indicated on the drawings;
15. Calculations for selection of bypass pumping pipe size;
16. Schedule for installation of and maintenance of bypass pumping lines;
17. Plan indication of proposed bypass pumping lines showing accepting and receiving locations.

1.4 EQUIPMENT

- A. All pumps used shall be fully automatic self-priming units that do not require the use of foot valves or vacuum pumps in the priming system. The pumps may be electric or diesel powered. All pumps used must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of effluent flows.
- B. The CONTRACTOR shall provide the necessary stop/start controls for each pump.
- C. The CONTRACTOR shall include one stand-by pump of each size to be maintained on site. Back-up pumps shall be on-line, isolated from the primary system by a valve.
- D. Discharge Piping – In order to prevent the accidental spillage of flows, all discharge systems shall be temporarily constructed of rigid pipe with positive, restrained joints. Under no circumstances will aluminum “irrigation” type piping or glued PVC pipe be allowed. Discharge hose will only be allowed in short sections and by specific permission from the ENGINEER.

1.5 SYSTEM DESCRIPTION

- A. Design Requirements
 1. Bypass pumping systems shall have sufficient capacity to pump a peak flow of 3.0 MGD. The CONTRACTOR shall provide all pipeline plugs, pumps of adequate size to handle peak flow, and temporary discharge piping to ensure that the total flow can be safely diverted around the section to be repaired. Bypass pumping system will be required to be operated 24 hours per day.
 2. The CONTRACTOR shall have adequate stand-by equipment available and ready for immediate operation and use in the event of an emergency or breakdown. One stand-by pump for each size pump utilized shall be installed at the mainline flow bypassing locations, ready for use in the event of primary pump failure.
 3. Bypass pumping system shall be capable of bypassing the flow around the work area and of releasing any amount of flow up to full available flow into the work area as necessary for satisfactory performances of work.

4. Bypass pump system must overcome any existing force main pressure on discharge.

B. Performance Requirements

1. It is essential to the operation of the existing system that there be no interruption in the flow of sewage throughout the duration of the project. To this end, the CONTRACTOR shall provide, maintain and operate all temporary facilities such as dams, plugs, pumping equipment (both primary and back-up units as required), conduits, all necessary power, and all other labor and equipment necessary to intercept the flow before it reaches the point where it would interfere with work, carry it past the work and return it downstream of the work.
2. The design, installation and operation of the temporary pumping system shall be the CONTRACTOR'S responsibility. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.
3. The CONTRACTOR shall provide all necessary means to safely convey the flow past the work area. The CONTRACTOR will not be permitted to stop or impede the flows under any circumstances.
4. The CONTRACTOR shall maintain flow around the work area in a manner than will not cause surcharging of sewers, damage to downstream facilities and that will protect public and private property from damage and flooding.
5. The CONTRACTOR shall protect water resources, wetlands and other natural resources.

1.6 FIELD QUALITY CONTROL AND MAINTENANCE

A. Test

1. The CONTRACTOR shall perform leakage and pressure tests of the bypass pumping discharge piping using clean water prior to actual operation. The ENGINEER will be given 24-hours' notice prior to testing.

B. Inspection

1. CONTRACTOR shall inspect bypass pumping system every two hours to ensure that the system is working correctly.

C. Maintenance Service

1. The CONTRACTOR shall insure that the temporary pumping system is properly maintained, and a responsible operator shall be on hand at all times when pumps are operating.

D. Extra Materials

1. Spare parts for pumps and piping shall be kept on site as required.
2. Adequate hoisting equipment for each pump and accessories shall be maintained on the site.

1.7 PREPARATION

A. Precautions

1. CONTRACTOR is responsible for locating any existing utilities in the area the CONTRACTOR selects to locate the bypass pipelines. The CONTRACTOR shall locate bypass pipelines to minimize any disturbance to existing utilities and shall obtain approval of the pipeline locations from the pipeline owner and the ENGINEER. All costs associated with relocating utilities and obtaining all approvals shall be paid by the CONTRACTOR.
2. During all bypass pumping operation, the CONTRACTOR shall protect all effected facilities and all downstream facilities from damage inflicted by any equipment. The CONTRACTOR shall be responsible for all physical damage caused by human or mechanical failure.

1.8 INSTALLATION AND REMOVAL

- A. The CONTRACTOR shall modify or make connections to existing facilities and construct temporary bypass pumping structures only at the access location indicated on the Drawings and as may be required to provide adequate suction conduit.
- B. Plugging or blocking of sewage flows shall incorporate a primary and secondary plugging device. When plugging or blocking is no longer needed for performance and acceptance of work, it is to be removed in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.
- C. When working inside manhole or force main, the CONTRACTOR shall exercise caution and comply with OSHA requirements when working in the presence of sewer gases, combustible or oxygen-deficient atmospheres, and confined spaces.
- D. The installation of the bypass pipelines is prohibited in all saltmarsh/wetland areas. The pipeline must be located off streets and sidewalks and on shoulders of the roads. When the bypass pipeline crosses local streets and private driveways, the CONTRACTOR must place the bypass pipelines in trenches and cover with temporary pavement. Upon completion of the bypass pumping operations, and after the receipt of written permission from the ENGINEER, the CONTRACTOR shall remove all the piping, restore all property to pre-construction condition and restore all pavement. The CONTRACTOR is responsible for obtaining any approvals for placement of the temporary pipeline within public ways.

PART 2 – PRODUCTS

NOT USED.

PART 3 – EXECUTION

NOT USED.

END OF SECTION 01 54 00

SECTION 01 60 00 – PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Section Includes

1. Products.
2. Transportation and handling.
3. Storage and protection.
4. Product options.
5. Substitutions.

B. Related Sections

1. Section 01 45 00 - Quality Control: Product quality monitoring.

C. Products

1. The CONTRACTOR shall not use materials and equipment removed from existing premises, except as specifically permitted by the contract documents.
2. The CONTRACTOR shall provide interchangeable components of the same manufacture for components being replaced.

D. Transportation and Handling

1. The CONTRACTOR shall:
 - a. Transport and handle products in accordance with manufacturer's instructions.
 - b. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
 - c. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

E. Storage and Protection

1. The CONTRACTOR shall:
 - a. Store and protect products in accordance with manufacturers' instructions.
 - b. Store with seals and labels intact and legible.
 - c. Store sensitive products in weathertight, climate controlled enclosures in an environment favorable to product.
 - d. Provide for exterior storage of fabricated products, which shall be placed on sloped supports above ground.

- e. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- f. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- g. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- h. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- i. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

F. Product Options

- 1. The CONTRACTOR shall provide products specified by reference standards or by description only: any product meeting those standards or description.
- 2. The CONTRACTOR shall provide products specified by naming one or more manufacturers with a provision for substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following article.

G. Substitutions

- 1. ARCHITECT / ENGINEER will consider requests for substitutions only within 15 days after date established in Notice to Proceed.
- 2. Substitutions may be considered when a product becomes unavailable through no fault of the CONTRACTOR.
- 3. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.

A request constitutes a representation that the BIDDER or CONTRACTOR:

- a. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - b. Will provide the same warranty for the substitution as for the specified product.
 - c. Will coordinate installation and make changes to other work which may be required for the work to be completed with no additional cost to OWNER.
 - d. Waives claims for additional costs or time extension which may subsequently become apparent.
 - e. Will reimburse OWNER and ARCHITECT / ENGINEER for review or redesign services associated with re-approval by authorities.
- 4. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the contract documents.

5. Substitution Submittal Procedure:
 - a. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
 - b. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
 - c. The ARCHITECT / ENGINEER will notify CONTRACTOR in writing of decision to accept or reject request.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

NOT USED.

END OF SECTION 01 60 00

SECTION 01 70 00 - CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures
- B. Final cleaning
- C. Adjusting
- D. Project record documents
- E. Operation and maintenance data
- F. Spare parts and maintenance products
- G. Maintenance service

1.2 CLOSEOUT PROCEDURES

- A. The CONTRACTOR shall:
 - 1. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for ENGINEER'S review.
 - 2. Provide submittals to ENGINEER that are required by governing or other authorities.
 - 3. Submit final Application for Payment identifying total adjusted contract sum, previous payments, and sum remaining due.

1.3 FINAL CLEANING

- A. The CONTRACTOR shall:
 - 1. Execute final cleaning prior to final project assessment.
 - a. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
 - b. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
 - c. Replace filters of operating equipment.
 - d. Clean debris from roofs, gutters, downspouts, and drainage systems.
 - e. Clean site, sweep paved areas, rake clean landscaped surfaces.
 - f. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.4 ADJUSTING

- A. The CONTRACTOR shall adjust operating products and equipment to ensure smooth and unhindered operation.

1.5 PROJECT RECORD DOCUMENTS

- A. The CONTRACTOR shall maintain on site one set of the following record documents and record actual revisions to the work:
 - 1. Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change Orders and other modifications to the Contract
 - 5. Reviewed Shop Drawings, Product Data, and Samples
 - 6. Manufacturer's instruction for assembly, installation, and adjusting
- B. The CONTRACTOR shall ensure entries are complete and accurate, enabling future reference by OWNER.
- C. The CONTRACTOR shall store record documents separate from documents used for construction.
- D. The CONTRACTOR shall record information concurrent with construction progress.
- E. Specifications: The CONTRACTOR shall legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 1. Product substitutions or alternates utilized.
 - 2. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: The CONTRACTOR shall legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original contract drawings.

1.6 OPERATION AND MAINTENANCE DATA

A. The CONTRACTOR shall:

1. Submit data bound in 8 ½ x 11-inch text pages, three D side ring binders with durable plastic or cloth covers.
2. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.
3. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
4. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, typed on 20-pound white paper, in three parts as follows:
 - a. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, CONTRACTOR, SUBCONTRACTORS, and major equipment suppliers.
 - b. Part 2: Operation and maintenance instructions, arranged by system. For each category, identify names, addresses, and telephone numbers of SUBCONTRACTORS and suppliers. Identify the following:
 - 1) Significant design criteria
 - 2) List of equipment
 - 3) Parts list for each component
 - 4) Operating instructions
 - 5) Maintenance instructions for equipment and systems
 - 6) Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents
 - c. Part 3: Project documents and certificates, including the following:
 - 1) Shop drawings and product data
 - 2) Air and water balance reports
 - 3) Certificates
 - 4) Photocopies of warranties and bonds
5. Submit one (1) draft copy of completed volumes 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with ENGINEER'S comments. Revise content of all document sets as required prior to final submission.
6. Submit five sets of revised final volumes, prior to final payment.

1.7 SPARE PARTS AND MAINTENANCE PRODUCTS

A. The CONTRACTOR shall:

1. Provide spare parts, maintenance, and extra products in quantities specified in individual specification sections.
2. Deliver to project site and place in location as directed and obtain a receipt prior to final payment.

1.8 MAINTENANCE SERVICE

A. The CONTRACTOR shall:

1. Furnish service and maintenance of components indicated in specification sections during the warranty period.
2. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
3. Maintenance service shall not be assigned or transferred to any agent or SUBCONTRACTOR without prior written consent of the OWNER.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

NOT USED.

END OF SECTION 01 70 00

DIVISION 02 – EXISTING CONDITIONS

SECTION 02 10 00 – SITE REMEDIATION

PART 1 - GENERAL

1.1 SCOPE

Work under this heading shall include all items of demolition and clearing necessary to prepare the site for construction.

PART 2 - PRODUCTS

2.1 MATERIALS

All salvage materials from demolition or other clearing shall remain the property of the OWNER, unless specifically noted otherwise.

PART 3 - EXECUTION

- A. Protection of trees and improvements: CONTRACTOR shall exercise extreme care in the protection of all existing trees and other improvements on the site designated by the OWNER'S REPRESENTATIVE to remain.
- B. Topsoil shall be stripped from the area to be occupied by building, walks, drives, parking etc., and stockpiled in area designated by OWNER'S REPRESENTATIVE where it will not interfere with building or utility operations. Use topsoil for finish grading.
- C. Remove from site all brush, rubbish and miscellaneous debris resulting from demolition and clearing ahead of construction to meet all safety standards on the site. All wood, vegetation and non-vegetable matter to be removed from topsoil as it is being stockpiled and hauled off with other debris.
- D. Care must be taken to confine clearing operation to the building site with no encroachments on adjacent foliage or possible damage to adjacent areas.
- E. OWNER shall designate area to be cleared for parking, storage of materials and other workspace in addition to building site. This area shall not be cleared of trees and no soil to be stripped or disturbed. Fill and level holes and depressions, prior to final acceptance of project.

END OF SECTION 02 10 00

SECTION 02 42 00 - REMOVALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General Supplementary Conditions and Division 01 Specification Sections, apply to this section.

1.2 WORK INCLUDED

- A. The work required under this section consists of operations, methods, labor, and materials for partial interior, exterior, and/or site underground removals with all related items necessary to complete the Work indicated on the contract drawings.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

3.1 CONDITION OF SITE AND BUILDINGS

- A. The condition of site and buildings shall be accepted as found. The OWNER will not assume responsibility for conditions found or continuation of conditions existing at time of Proposal Invitation or thereafter. Any damage or loss, whether by reason of fire, theft, or other casualty or happening on the site, will not relieve the CONTRACTOR'S obligations to complete the work.

3.2 PROTECTION OF LIFE, STRUCTURES AND PROPERTY

- A. Execute work to insure against damages to remaining property. Do not interfere with property or portions of building without permission from authorized persons approved by the OWNER. Maintain free and safe passages in and around work areas. Do not seal off required exits without permission from authorities having jurisdiction.
- B. Provide, erect, and maintain lights, barriers, barricades as necessary to protect life, meeting all Federal, OSHA, State and local laws and regulations.

3.3 UTILITY SERVICES

- A. Remove all utility services as required and/or indicated on the drawings. Provide temporary utilities and services into areas requiring continued services before and after removal work.
- B. All electrical equipment and circuits shall be restored to original condition that are damaged or destroyed during removals and are not called out to be removed on the contract drawings.

3.4 REMOVALS

- A. Before starting demolition work, review all requirements for final remodeling work so that useable existing system components as required for completion of the new work is not destroyed. Coordinate all work with other CONTRACTORS.
- B. Remove any personal property, equipment, machinery, or other fixtures and turn them over to the OWNER as called for on the contract drawings.

3.5 DEBRIS

- A. Remove from the areas of removals, all debris as it accumulates. Do not store or permit debris to accumulate on the site. If the CONTRACTOR fails to remove excess debris promptly, the ENGINEER shall reserve the right to have debris removed by others at CONTRACTOR'S expense.
- B. Upon work completion, remove all tools, materials, equipment, apparatus, temporary toilets, and rubbish of every sort. Leave all existing building surfaces, not scheduled to be removed, swept clean condition at completion of work within any given area. Leave buildings and site clean, neat, and orderly.

3.6 REMOVAL OF PAVEMENT, SIDEWALKS, CURBS, ETC.

- A. Break concrete pavement, base course, and other similar materials designated for removal into pieces no heavier than 150 lbs. [68 kg]. Stockpile at locations shown on the plans.
- B. If the contract documents require the removal of asphalt concrete or Portland cement concrete pavement, saw the joint to the line and depth, as approved by the ENGINEER, to prevent under-break or shatter of adjacent areas.

3.7 REMOVAL AND DISPOSAL OF SALVAGED MATERIALS, STRUCTURES, AND OBSTRUCTIONS

- A. Unless otherwise required by the contract documents, all salvaged material shall become the property of the CONTRACTOR. Ownership of salvaged materials implies the responsibility to dispose of the salvaged material in accordance with all applicable local, state, and federal rules and regulations. CONTRACTOR is not allowed to bury or otherwise dispose of material within the project's boundaries or on any publicly owned property without the ENGINEER'S prior written approval.

END OF SECTION 02 42 00

SECTION 02 44 00 - ADJUSTMENT OF EXISTING STRUCTURES**PART 1 - GENERAL REQUIREMENTS****1.1 SCOPE**

This work shall consist of the necessary adjustments, alterations, relocating, or resetting to the required grade and alignment of existing structures, equipment or appurtenances which are not to be removed or abandoned and which are not the property of a private company, firm, or corporation required to move their own property, in accordance with these specifications and in reasonably close conformity with the lines, grades, elevations and dimensions shown on the drawings or established by the ENGINEER.

PART 2 - PRODUCTS**2.1 MATERIALS**

Materials for use in this work shall be as set out on the drawings, or if not specified, shall be of the same grade of material as specified elsewhere in these specifications for a similar type of work or of a material equivalent to that in the structure being adjusted.

PART 3 - EXECUTION**3.1 CONSTRUCTION METHODS****A. General**

1. The materials and workmanship necessary in raising, lowering, or otherwise adjusting or resetting existing structures shall conform to the requirements of the drawings and specifications for the class of work involved, or as directed by the ENGINEER. Whole bricks salvaged in good condition from structures may be used in rebuilding such structures provided the bricks are cleaned satisfactorily and approved by OWNER. Existing structures shall be rebuilt in accordance with the drawings and specifications. The final adjustment to grade shall be completed after the final surface course has been placed if the structure is in the pavement.
2. The CONTRACTOR shall guard against damage or breakage to any portion of the structure or appurtenance to be altered, removed, or reset. Any damage or breakage due to the CONTRACTOR'S negligence or failure to properly protect such structure or appurtenances, shall be repaired or replaced at the CONTRACTOR'S expense.

B. Manholes

1. Where the tops of the manholes are to be lowered to a new grade, the walls shall be removed and rebuilt to an elevation far enough below the new grade so that the maximum batter of the walls does not exceed 4 in. (10.1 cm) per foot (30.5 cm).
2. Where manholes are to be built up a distance of one foot (0.305 m) or less to a new grade, the walls may be carried up vertically and one new standard step shall

be set. Where the walls are to be built up a distance exceeding one foot (0.305 m), the existing walls shall first be removed to the bottom of the batter section of the walls, or to such elevation that the inside diameter of the manhole is not less than 3.5 ft. (1.1 m). The manhole shall then be rebuilt in conformity with the size and shape requirements for new manholes.

C. Catch Basins, Inlets, Manholes

1. Where inlets, catch basins, manholes or similar structures are to be revised to grade or rebuilt, the work shall be done in conformity with the requirements for new construction of this class of work as provided elsewhere in these specifications.

D. Valve Boxes, Meter Boxes, Lampholes

1. Care shall be taken in removing and resetting to grade, valve boxes, meter boxes, etc., to avoid breaking and any breakage shall be replaced by the CONTRACTOR at his expense.

E. Fire Hydrants, Valves, Water Meters, Water Line, etc.

1. Where adjustment or relocation of water lines and appurtenances is to be done by the OWNER, the CONTRACTOR shall be responsible for coordinating the arrangements with the OWNER for lowering or relocating of all water lines and the resetting of water valves, meters, manholes, and fire hydrants. When the alteration is part of the work to be performed by the CONTRACTOR as a part of his contract, such work shall be done in conformity with the requirements of the OWNER and in accordance with the requirements of these specifications for new work of this type.

F. Electric Traffic Signals or Right-of-Way Systems

1. Where the adjustment or relocation of electric traffic signals, highway lighting standard or conduits, cables, or appurtenances is to be done by the OWNER where the work is located, the CONTRACTOR shall make complete arrangements with the proper City or ODOT officials for the work to be done. When the alteration is part of the work to be performed by the CONTRACTOR as a part of his contract, such work shall be done in conformity with requirements of the OWNER, or as specified on the Drawings or in the Proposal and as directed by the ENGINEER.

G. Sewer Pipe

1. Sewer pipe removed to be re-laid shall be re-laid in conformity with the requirements of new sewers.

3.2 METHOD OF MEASUREMENT

Unless otherwise shown on bid form, the cost for various items, listed in Part 3.3, but not limited to, shall be included in other items of work.

3.3 BASIS OF PAYMENT

A. Accepted items, measured as provided above, will be paid for at the contract unit price for:

1. MANHOLES ADJUST TO GRADE	EA.
2. MANHOLES REBUILT	EA.
3. CATCH BASINS ADJUST TO GRADE	EA.
4. CATCH BASINS REBUILT	EA.
5. INLETS ADJUST TO GRADE	EA.
6. INLETS REBUILT	EA.
7. VALVE BOXES ADJUST TO GRADE	EA.
8. METER BOXES ADJUST TO GRADE	EA.
9. LAMPHOLES ADJUST TO GRADE	EA.
10. FIRE HYDRANT RESET	EA.
11. VALVES RESET	EA.
12. WATER METERS RESET	EA.
13. WATER LINE LOWERED	L.F.
14. WATER LINE REMOVED AND RELAID	L.F.
15. ELECTRIC TRAFFIC SIGNALS RESET	EA.
16. HIGHWAY LIGHTING STANDARDS RESET	EA.
17. ELECTRIC CABLE RELAID	L.F.
18. ELECTRIC CABLE CONDUIT RELAID	L.F.
19. PIPE SEWER REMOVED AND RELAID	L.F.
20. REMOVE AND RESET MANHOLE FRAME AND COVER	EA.

B. Valve boxes, meter boxes, etc., in conjunction with valves or meters to be reset will be considered as part of the valve or meter and will not be paid for as a separate item.

C. Valves in water lines or fire hydrant leads will not be considered as a separate pay item, but the cost of resetting same, and shall be included in the price bid for the water line or lead.

D. When the valve is under pavement, adjustment of valve box will be a separate pay item.

END OF SECTION 02 44 00

DIVISION 03 - CONCRETE

SECTION 03 10 00 - FORMWORK

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Furnish, install all labor, materials, equipment, and services as required to complete all formwork for all cast-in-place concrete as shown on drawings, and/or specified herein.

1.2 SHOP DRAWINGS

- A. Per Division 01 General Conditions, submit Shop Drawings showing location, layout of construction joints, form joints, locations of tie holes or plugs, and procedure for pouring into formwork.

1.3 COORDINATION

- A. Secure all pipe sleeves, anchors, bolts, including those for angle frames, inserts, supports, ties, other materials in connection with concrete construction, in position before concrete is placed.
- B. Obtain information, instructions from other trades, suppliers in ample time to schedule, coordinate installation of items furnished by them to be embedded in concrete so provisions for their work can be made without delaying project.
- C. Make cutting and/or patching made necessary by failure or delay in complying with these requirements at no cost to OWNER.

1.4 GENERAL REQUIREMENTS

- A. Furnish formwork and formwork accessories according to ACI SPEC-301.
- B. Provide complete forms of such strength and construction as to prevent any spread, shifting, or settling when concrete is deposited, tight enough to avoid any leakage or washing out of cement mortar.
- C. Design forms, false-work supports so stresses indifferent members can be determined, including details. They shall have sufficient rigidity to resist deflection more than 1/8" between supports after concrete has been placed, to assure smooth, even appearance of surfaces.
- D. Plywood or lined forms will not be required for surfaces which are normally submerged or not ordinarily exposed to view. Other types of forms, such as steel or unlined wooden forms, may be used for surfaces which are not restricted to plywood and may be used as backing for form linings. Concrete forms are required above all extended footings.

- E. Where concrete is placed against a gravel or crushed rock which does not contain at least 25% material passing a No. 4 sieve, such surfaces shall be covered with polyethylene film 6 mil thick to protect the concrete from loss of water. Joints in the film shall be lapped at least 4".
- F. Use bolts, rods, other approved devices for internal ties, spreaders; of such construction that when forms are removed, no metal is within 1" of an exterior nor within 1/2" of an interior concrete surface.
- G. Take special care that forms are true to required lines, grades, surfaces so as to give uniform, neat, workmanlike finish to all concrete surfaces, and to make form supports of sufficient strength, well braced, on adequate foundations so there is no settling or distortion when weight of concrete is added.
- H. Remove all dirt, chips, sawdust, rubbish, water, etc., from forms by water hosing and air pressure before any concrete is deposited. Leave no wooden ties or blocking in concrete except where indicated for attachment of other work.
- I. ENGINEER will cooperate with CONTRACTOR in matter of removing forms and shoring as early as possible. Length of time forms must remain in place depends on rate of time required for concrete to obtain proper strength and on construction loads that will be placed on concrete. Forms shall not be removed until authorized by the ENGINEER.
- J. Forms shall not be removed or disturbed for at least seven (7) days from date of last pouring unless approved by the ENGINEER.
- K. On removal of forms, all bolts, wires for anchoring, etc., shall be either removed, cut off to lengths as directed, or left in place for anchorage of other work as specified.
- L. Forms to be reused shall be in good condition, thoroughly cleaned before being reused.
- M. Provide 3/4" chamfer at any wall, column and vertical corners unless otherwise shown.

1.5 CONSTRUCTION JOINTS

- A. Make and locate generally as indicated on drawings all construction joints so as not to impair strength of structure and only at locations approved by the ENGINEER. Form keys used in any cold joints shown or required.

PART 2 - MATERIALS

2.1 SLABS, WALLS AND EXPOSED CONCRETE:

- A. Forms for flat exposed surfaces shall be 5-ply Exterior B-B (Concrete Form) panels. Panels with raised or separate face veneers shall not be used for exposed concrete.

2.2 SURFACE TREATMENT

- A. Surface Treatment: Plywood panels shall have smooth surface treatment to prevent any development of bond or adhesion to concrete and to seal plywood surfaces against moisture. Master Finish RL Series as manufactured by Master Builder Solutions; Burke Form Sealer as manufactured by W. J. Burke Company, or approved equal, shall be used, applied in strict accordance with manufacturer's directions.

2.3 FORM TIES AND SPREADERS

- A. Form Ties and Spreaders: Shall be metal, cone nut type. No wood spreaders will be permitted.

2.4 ROUGH HARDWARE

- A. Rough Hardware: Nails, bolts, screws, anchors, etc., as shown or needed shall be furnished and set.

END OF SECTION 03 10 00

SECTION 03 20 00 - REINFORCEMENT

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Furnish all labor, materials, equipment, and services as required to complete all reinforcing steel work as shown on drawings, and/or specified herein.

1.2 SHOP DRAWINGS

- A. Per Division 01, General Conditions, submit Shop drawings showing bending and placing of all reinforcing. Drawings shall include diagrammatic elevations of all walls at a scale sufficiently large to clearly show the position, erection marks of marginal bars and their dowels and splices.

1.3 COORDINATION

- A. Coordinate with other trades so as not to interfere. Bring interferences between trades to ENGINEER'S attention; resolve before any concrete is poured.

1.4 STORAGE

- A. Store reinforcement to avoid rusting or coating with grease, oil, dirt, or other objectionable materials. Reinforcement coated with such materials will be rejected.

1.5 STANDARDS

- A. Comply with requirements set forth in the "Manual of Standard Practice for Detailing Reinforced Concrete Structures", published by the American Concrete Institute except where more exacting requirements are specified in Contract Documents.

PART 2 - MATERIALS

2.1 REINFORCEMENT

- A. Reinforcing bars shall be deformed bars conforming to ASTM A-615 Grade 60.
- B. Welded wire fabric shall conform to requirements of ASTM A-1064 using bright steel wire meeting ASTM A-1064. Gauges, dimensions shall be as noted on the drawings.
- C. All steel for reinforcement shall be new, non-rusted stock, free from mill scale, delivered without rust other than may have accumulated in prompt transportation to the work.
- D. Tie wire shall be No. 16 American Wire Gauge or heavier, black annealed.
- E. Supports for reinforcing bars in slabs shall be metal, of sufficient strength to adequately support bars, of a type approved by ENGINEER. Supports or spacers for

bars in walls shall be such that exterior face of wall will not be marred when forms are stripped, and final finish has been completed.

- F. Dowels from footings to walls shall be same size, spacing as wall reinforcement, unless otherwise shown. Dowels shall project 12 inches into wall, 12 inches into footing unless detailed or noted otherwise.

PART 3 - REINFORCING BARS TO BE FURNISHED TO OTHER TRADES

3.1 VERTICAL REINFORCING

- A. All vertical reinforcing bars required for vertically reinforcing masonry work shall be furnished by REINFORCING CONTRACTOR, properly cut, shaped as indicated on drawings. Masons shall install in place all reinforcements supplied them as required by Drawing details.

3.2 HORIZONTAL REINFORCING

- A. Horizontal mesh type masonry reinforcing shall be furnished.

PART 4 –REINFORCING STEEL

4.1 REQUIREMENTS FOR PLACEMENT OF REINFORCING STEEL

- A. Reinforcement shall be accurately placed, securely tied at intersections with 16-gauge black annealed wire; shall be maintained in proper position by chair, bars, supports, or approved devices.
- B. Bars shall lap 18 inches at splices, except as otherwise indicated. Splices in adjoining horizontal bars shall be staggered at least 6'. Where this is not feasible, submit suggestions for ENGINEER'S consideration. Horizontal bars shall be hooked around corners not less than 9 inches, with minimum of 12 inches as per typical details.

4.2 CONCRETE PROTECTION OF REINFORCING

- A. Shall be not less than the following:
 1. 3" where concrete is poured against ground.
 2. 2" where concrete is poured against forms but may be in contact with ground.
 3. 1-1/2" minimum in exterior face of exterior walls (exposed to weather but not in contact with ground).
 4. 3/4" minimum in interior walls and interior face of exterior walls.
 5. 1-1/2" in beams, girders, and columns.
 6. Clear distance between bars shall be not less than 1-1/2", 1-1/2 bar diameters, nor less than 1-1/3 times the maximum size of coarse aggregate. See details for any specific variations to these requirements. Where conduits, piping, inserts, sleeves, etc., interfere with placing of reinforcing steel as shown or called for,

CONTRACTOR must consult with ENGINEER, secure method of procedure from him before pouring any concrete. Bending or field cutting of bars around openings or sleeves will not be permitted.

END OF SECTION 03 20 00

SECTION 03 30 00 - CAST-IN-PLACE CONCRETE**PART 1 - GENERAL****1.1 SCOPE**

- A. This section covers all cast-in-place concrete, including reinforcing steel, forms, finishing, curing and other appurtenant work.
- B. Transit mix concrete will be permitted if it meets the requirements of this section and is mixed and delivered in accordance with ASTM C94.

1.2 SUBMITTALS

- A. Submittals shall be made in accordance with all the requirements of the General Conditions and the Contract Documents.
- B. Submit for review a proposed design mix for each concrete strength and class required by these Specifications. Failure to include any items of information noted in this paragraph for a given concrete strength or type will be cause for requirement of a resubmittal. Information to be submitted for each strength and class shall include the following items:
 - 1. Concrete mix design
 - a. Constituent quantities per cubic yard.
 - b. Sources of all concrete mix components including coarse aggregate, fine aggregate, cement, water, admixtures, and pozzolans where included.
 - c. Cement type and manufacturer, include chemical analysis (mill test report) for each cement type to be used.
 - d. Pozzolan type and source; include chemical analysis for each pozzolan type to be used.
 - e. Water/cement ratio, by weight.
 - f. Air content
 - g. Mix design slump.
 - h. Average compressive strengths conforming to the requirements of ACI 318 at 28 days. Provide both average strengths and sample standard deviation. Provide results at 7 and 14 days if available.
 - i. Laboratory shrinkage test results for concrete mix designs, where specified.
 - 2. Aggregate:
 - a. Laboratory sieve analysis, conforming to ASTM C33.
 - b. Verification that aggregate is not "deleterious," or "potentially deleterious." Provide documentation or other certification that aggregate does not contain deleterious substances and has been used without issues on previous projects.

3. Admixtures. Submit Manufacturer's data brochures on all admixtures proposed for use and provide certification of compliance with specified ASTM standards for each admixture.
- C. Submit concrete placement drawings showing pour sequence, lift numbers, locations of all joints, concrete mix being placed, concrete finishes, and all pertinent embedments including embedded plates, sleeves, pipes, conduits, anchors, etc., where applicable. Where the Drawings permit the CONTRACTOR to select joint locations, show the selected dimensions on the placement drawings. Approval of the placement drawings shall not relieve the CONTRACTOR of the responsibility of placing all concrete and embedments as specified.
- D. If cold weather or hot weather concrete conditions are anticipated on the Project, submit a work plan for cold weather concreting and/or for hot weather concreting, describing proposed methods and procedures for mixing, delivering, placing, finishing, and curing concrete. Submit plans well in advance of cold or hot weather job conditions. Include procedures to be implemented upon abrupt changes in weather conditions or due to equipment failures. If a plan for either is not submitted and cold or hot weather concrete conditions are present, the CONTRACTOR will not be allowed to pour concrete until a plan is received and reviewed as long as cold or hot weather conditions are present on the Project.
- E. Furnish a delivery ticket for ready mixed concrete to the OWNER'S REPRESENTATIVE as each truck arrives. Each ticket shall provide a printed record of the weight of cement batched and each separate aggregate individually batched. Use the type of indicator that returns for zero punch or returns to zero after a batch is discharged. Clearly indicate the weight of fine and coarse aggregate, cement, and water in each batch, the quantity delivered, the time any water is added, and the numerical sequence of the delivery. Show the time of day batched and time of discharge from the truck. Indicate the number of revolutions of mix trucks.
- F. Submit Manufacturer's data sheets and product specifications for curing compounds and items specified in other Sections including form release agents, bonding agents, etc. Identify the locations where each will be used in the Work as a part of the submittal.
- G. Submitted data shall demonstrate compliance with all requirements of this Specification or deviations shall be clearly noted.

1.3 QUALITY ASSURANCE

A. Concrete Consistency

1. Test for slump shall be performed at the job site immediately prior to placing in accordance with ASTM C143. Slump tests shall be performed for every 35 CY separately for each construction item to indicate workability and consistency throughout the entire project.
2. If the slump is outside the allowed limits, the concrete shall be rejected. Concrete showing either poor cohesion or poor coating of the coarse

aggregate with paste shall be remixed or rejected.

3. If the slump is within the allowable limit, but excessive bleeding, poor workability, or poor finishability are observed, the concrete shall be rejected and changes in the concrete mix shall be made only by an adjustment of one or more of the following:
 - a. The gradation of aggregate.
 - b. The proportion of fine and coarse aggregate.
 - c. The percentage of entrained air, within the allowable limits.

B. Concrete Temperature

1. Concrete temperature shall be taken immediately before placement with the point of measurement being in the chute or bucket.
2. Perform temperature test for each batch and record result on batch ticket.
3. If fresh concrete temperature does not meet requirements in this section the concrete shall be rejected.

C. Concrete Air

1. Test for air content shall be made on a fresh concrete sample for every 35 CY separately for each construction item prior to placing in forms.
2. Air content for concrete made of ordinary aggregates having low absorption shall be made in accordance with either ASTM C231, or ASTM C173. If light weight aggregates or aggregates with high absorptions are used, use ASTM C173.
3. If air content of fresh concrete does not meet requirements specified in this Section, the concrete shall be rejected. Do not place concrete that does not meet the air entrainment requirements of this Section.

D. Compression Testing

1. Compression test specimens shall be made, cured and tested in accordance with ASTM C31 and ASTM C39.
2. Compressive strength tests shall be made on cylinders at 7 and 28 days. The value of each test result shall be the average compressive strength of a minimum of 2 cylinders taken at the same time from the same batch of concrete.
3. Compressive test specimens shall be 6" x 12" cylinders or 4" x 8" cylinders. Sets of concrete test cylinders shall be cast for each day's concrete pour as follows.
 - a. A "set" of test cylinders consists of a minimum of six cylinders, one to be broken and strengths recorded at seven days; and three broken and strengths averaged at 28 days. Two hold cylinders will remain unbroken so that they will be available to be broken upon unforeseen circumstances or upon the option of the Engineer to break cylinders at different times.

- b. A minimum of one “set” of cylinders will be made for each concrete pour up to 25 CY in volume. For pours larger than 25 CY, additional “sets” of cylinders will be made for each additional 50 CY of concrete poured.
- 4. Evaluation of compressive strength for compliance with design requirements will be conducted by the ENGINEER per ACI 318 – Section 26.12 based on the results of the 28-day test.
- 5. All test specimens shall be kept as near to the point of sampling as possible and yet receive the same protection from the elements as is given to the portions of the structure being built. Specimens shall be protected from injury. They shall be sent to a testing laboratory approved by the ENGINEER after a minimum of three days of field curing and while in the laboratory shall be kept in the ordinary air at the temperature of approximately 70°F until tested.

E. Failure to Meet Requirements

- 1. The OWNER may withhold payment for any section of concrete which does not meet the requirements of the plans and specifications. Withheld payment shall be based upon unit prices established for concrete, if available. Payment shall be withheld until the unacceptable concrete has been repaired or removed and replaced or otherwise brought into conformance with the plans and specifications.
- 2. Concrete Strength
 - a. If the 28-day strength test results fall below required values, additional curing may be performed and test cores may be obtained in accordance with ASTM C42 with approval of the ENGINEER. Additional curing, core removal and testing, if allowed by the ENGINEER, shall be at the CONTRACTOR'S expense.
 - b. If the strength results from test cores do not exhibit the required strength, the ENGINEER or OWNER'S REPRESENTATIVE reserve the right to require strengthening, replacement of substandard materials and/or additional testing at the CONTRACTOR'S expense. The choice of remedy is at the sole discretion of the ENGINEER or OWNER'S REPRESENTATIVE.
 - c. Other Concrete Properties
 - 1) If concrete properties besides strength do not meet required values, the ENGINEER may require concrete samples to be obtained in accordance with ASTM C42 and evaluated in accordance with ASTM C856 at the CONTRACTOR'S expense.
 - 2) If concrete properties besides strength do not meet required values, and the results of additional examination per ASTM C856 are deemed unsatisfactory at the sole discretion of the ENGINEER, the OWNER reserves the right to require strengthening, replacement of substandard materials and/or additional testing at the CONTRACTOR'S expense.

PART 2 - PRODUCTS**2.1 GENERAL**

Cement	ASTM C150, Type II or I/II
Coarse Aggregate	Crushed rock, washed gravel or other inert material conforming to ASTM C33
Fine Aggregate	Shall conform to ASTM C33
Crushed Water	Clean and free from deleterious substances
Reinforcing Steel	Per specification 03 20 00 "Reinforcement"
Welded Wire Fabric	Per specification 03 10 00 "Form Work"
Expansion Joints	Preformed, bituminous type ASTM D994
Joint Sealer	Per specification 03 31 00 "Construction Joint Sealing"

2.2 DESIGN CRITERIA

- A. Use ACI 211.1 as the basis for selecting the proportions of ingredients to produce concrete having proper durability, strength, workability appearance and other required properties. Proportion ingredients to produce a homogenous mixture, which will work readily into corners and angles of forms and around reinforcement by methods of placing and consolidation employed on the work, but without permitting materials to segregate or allowing excessive free water to collect on the surface.
- B. Strength:
 - 1. All concrete is required to have an average 28-day compressive strength equal to or greater than specified strength in section 2.2(F) unless otherwise specified.
- C. Entrained Air:
 - 1. Air-entrain all concrete, unless otherwise specified.
 - 2. Drilled shafts do not require air entrainment unless placed underwater.
 - 3. Provide for not less than three percent (3.0%) nor more than six percent (6.0%) by volume of total entrapped and entrained air for normal weight concrete.
 - 4. Do not air entrain finished floors that call for a troweled finish.
- D. Slump:
 - 1. Provide adequate slump to produce acceptable workability, do not exceed maximum specified slump.
- E. Admixtures:
 - 1. Proportion admixtures according to the Manufacturer's recommendations. All admixtures shall be batched at the batch plant only.

F. Concrete Classification

Class	Min. 28-Day Compressive Strength (psi)	Coarse Aggregate Size (in.)	Max. Water Cement Ratio	Max. Slump (in.)	Min. Cement Content (lb. per CY)
A	4000	1.5 (No. 467)	0.45	5	517
B	3000	1.5 (No. 467)	0.50	4	470
C	4000	1.0 (No. 57)	0.45	4	564
D	5000	0.75 (No. 67)	0.45	5	611
E	1500	1.5 (No. 467)	0.70	4	376
F	4000	0.375 (No. 8)	0.45	8	611

G. Concrete Usage

Class	Usage
A	All reinforced concrete unless otherwise specified
B	Concrete Encasement; Sidewalks, Curbs, Driveways
C	Drilled Shafts; Pumped Concrete; Thin Wall Sections
D	Precast Concrete and Panels
E	Lean Concrete Backfill; Foundation Seal; Blocking/Cradling
F	Underground Duct Banks

2.3 ADMIXTURES

A. Air-Entraining Admixture: ASTM C260.

B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing intentionally added chlorides.

1. Water-Reducing Admixture: ASTM C494/C 494M, Type A. Products.
2. Retarding Admixture: ASTM C 494/C 494M, Type B. Products.
3. Water-Reducing and Retarding Admixture: ASTM C494 / C494M, Type D.
4. Accelerating Admixture: ASTM C494/C494M, Type C.
5. Water-reducing and Accelerating Admixture: ASTM C494/C494M, Type E.
6. High-Range, Water-Reducing Admixture: ASTM C494 / C494M, Type F.

7. High-Range, Water-Reducing and Retarding Admixture: ASTM C494 / C494M, Type G.
8. Plasticizing and Retarding Admixture: ASTM C1017 / C1017M, Type II.
9. Workability-Retaining Admixture: ASTM C494/C494M, Type S.
10. Other admixtures shall be as specified in Section 03 30 00.

2.4 FIBERS

A. Synthetic Microfibers

1. Shall be manufactured from a proprietary blend of polypropylene resins in compliance with ASTM D7508/D7508M for micro-chopped strands, for use in fiber-reinforced concrete meeting the requirements of ASTM C1116/C1116M, Type III.
2. Shall provide a minimum cracking reduction ratio (CRR) of 40 percent when tested in accordance with ASTM C1579.
3. Dosage shall be as recommended by the manufacturer.

B. Synthetic Macrofibers

1. Shall be manufactured from a proprietary blend of polypropylene resins in compliance with ASTM D7508/D7508M for macro-chopped strands or hybrids chopped strands for use in fiber-reinforced concrete meeting the requirements of ASTM C1116/C1116M, Type 111.
2. Shall provide a minimum average residual strength (f_{150}^D) [minimum average equivalent flexural strength ($f_{e,3}$)] of [] psi when tested in accordance with ASTM C1609/C1609M, using the roller support system in ASTM C1812/C1812M.
3. Dosage shall be as recommended by the manufacturer.

2.5 VAPOR RETARDER

- A. Plastic sheet, ASTM E1745, Class A or B.
- B. Polyethylene sheet, ASTM D4397, not less than 10 mils (0.25 mm) thick; or plastic sheet, ASTM E1745, Class C.

2.6 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming; manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 3, burlap cloth or cotton mats.

- C. Moisture-Retaining Cover: ASTM C171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C309, Type 1, Class B.
- F. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C1315, Type 1, Class A.

2.7 STORAGE OF MATERIALS

- C. Cement shall be stored in suitable moisture-proof enclosures. Cement which has become caked or lumpy shall not be used.
- D. Aggregates shall be stored so that segregation and the inclusion of foreign materials is prevented. The bottom 6" of aggregate piles in contact with the ground shall not be used.
- E. Reinforcing steel shall be carefully handled and shall be stored on supports which will keep the steel from contact with the ground.

2.8 FORMS

- A. All forms shall be in accordance with Specification 03 10 00 "Form Work".

2.9 EMBEDMENTS

- A. Anchor bolts, castings, steel shapes, conduit, sleeves, masonry anchorage and other materials that are to be embedded in the concrete shall be accurately positioned in the forms and securely anchored. Conduits shall be installed between the reinforcing steel in walls or slabs which have reinforcements in both faces. In slabs which have only a single layer of reinforcing steel, conduits shall be placed under the reinforcement.
- B. Unless installed pipe sleeves, anchor bolts shall have sufficient threads to permit a nut to be installed on the concrete side of the form or template. A second nut shall be installed on the other side of the form or template and the two nuts shall be adjusted so that the bolt will be held rigidly to proper position.
- C. Embedments shall be clean when installed. After concrete placement, surfaces not in contact with concrete shall be cleaned of concrete spatter and other foreign substances.

2.10 BATCHING AND MIXING

- A. Concrete shall be furnished by an acceptable ready-mixed concrete supplier and shall conform to ASTM C94 and furnish batch ticket information.
 - 1. When air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.
- B. The consistency of concrete shall be suitable for the placement conditions. Aggregates shall float uniformly throughout the mass and the concrete shall flow sluggishly when vibrated or spaded. The slump shall be kept uniform.

PART 3 - EXECUTION**3.1 GENERAL**

- A. The limits of each concrete pour shall be predetermined by the CONTRACTOR and shall be acceptable to the ENGINEER. All concrete within such limits shall be placed in one continuous operation.
- B. Before test sampling and placing concrete, water may be added at project site at the direction and approval of the ENGINEER.
- C. Before concrete is placed, forms, reinforcements, water stops, anchor bolts and embedments shall be rigidly secured in proper position; all dirt, mud, water, and debris shall be removed from the space to be occupied by concrete; all surfaces incrustated with dried concrete from previous placement operations shall be cleaned; and the entire installation shall be acceptable to the ENGINEER.
- D. Concrete shall be conveyed to the point of final deposit by methods which will prevent separation or loss of ingredients. Concrete shall be placed in final position without being moved laterally in the forms more than 6 feet. Lateral placement beyond 6 feet shall require the use of tremie pipe to meet the lateral limit.
- E. Concrete for piers shall be carefully deposited to avoid contact with forms, reinforcing and earth sides until completion of the drop. Necessary precautions shall be taken to prevent earth or other material from falling into excavations and to prevent dislocation of reinforcing during concrete placement. Concrete shall be placed continuously to the top of each pier at a rate of vertical rise of not less than 2' per hour. Forms above grade, if required, shall be cylindrical steel or fiber forms acceptable to the ENGINEER.
- F. During and immediately after placement, concrete shall be thoroughly compacted and worked around all reinforcements and embedments and into the corners of the forms. Mechanical vibrators shall be used which will maintain at least 9000 cycles per minute when immersed in the concrete. Each vibrator shall be driven by not smaller than a 1-1/2 hp motor. The number and type of vibrators shall be acceptable to the ENGINEER.

3.2 HOT WEATHER CONCRETING

- A. Except as modified herein, hot weather concreting shall comply with ACI 305. At air temperatures of 90° F or above, concrete shall be kept as cool as possible during placement and curing. The temperature of the concrete when placed in the work shall not exceed 90° F.
- B. Plastic shrinkage cracking, due to rapid evaporation of moisture, shall be prevented. Concrete shall not be placed when the evaporation rate (actual or anticipated) equals or exceeds 0.2 lbs. per sq. ft. per hour, as determined in ACI 305.

3.3 COLD WEATHER CONCRETING

- A. Except as modified herein, cold weather concreting shall comply with ACI 306. The temperature of concrete at the time of mixing shall be not less than that shown in the following table for corresponding outdoor temperature (in shade) existing at the time of placement.

<u>Outdoor Temperature</u>	<u>Concrete Temperature</u>
Below 10° F	70° F
Between 10° F and 45° F	60° F
Above 45° F	45° F

- B. When placed, heated concrete shall not be warmer than 80° F.
- C. When freezing temperatures may be expected during the curing period, the concrete shall be maintained at a temperature of at least 50° F for five days or 70° F for three days after placement. Concrete and adjacent form surfaces shall be kept continuously moist. Sudden cooling of concrete shall not be permitted.

3.4 FINISHING

- A. All exposed surfaces shall be given a steel float finish.
- B. No Finish: A finish is not required on surfaces which are not visible from the inside or outside of the structure or more than 12 inches below finished grade.
- C. Screened surfaces shall be given an initial float finish as soon as the concrete has stiffened sufficiently for proper working. Any piece of coarse aggregate which is disturbed by the float or which causes a surface irregularity shall be removed and replaced with mortar. Initial floating shall produce a surface of uniform texture and appearance with no unnecessary working of the surface.
- D. Initial floating shall be followed by a second floating at the time of initial set. The second floating shall produce a finish of uniform texture and color. Unless additional finishing is specifically required, the completed finish for unformed surfaces shall be the float finish produced by the second floating.
- E. Floating shall be performed with hand floats or suitable mechanical compactor floats.

F. Smooth Form Finish:

1. Unless otherwise specified, all surfaces not meeting the requirements for “no finish” shall receive a smooth form finish. Use a smooth form finish on all surfaces exposed to view and liquid.
2. Provide a smooth, hard uniform texture on the concrete surface. Use plywood or fiberboard linings or forms in as large sheets as practicable and with smooth, even edges and close joints.
3. Patch tie holes and defects.
4. Provide a smooth, uniform, rubbed surface texture. Rub fins and joint marks and other irregularities with carborundum stone immediately after forms are stripped to leave a smooth, unmarred finish surface. If rubbing of surface is delayed to the point where the concrete surface is dry and cannot be rubbed to produce a smooth, uniform surface Contractor shall provide a blast finish to achieve a smooth uniform surface at no additional cost to the Owner.

G. Related Unformed Surfaces: Tops of piers, walls, bent caps and similar unformed surfaces occurring adjacent to formed surfaces shall be struck smooth after concrete is placed. Float unformed surfaces to a texture reasonably consistent with that of the formed surfaces. Final treatment on formed surfaces shall continue uniformly across the unformed surfaces.

3.5 FINISHING SLABS AND SIMILAR FLAT SURFACES

- A. Comply with the recommendations in ACI 302.1R for screeding, re-straightening and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Finish slabs and similar flat surfaces monolithically and apply as indicated in the Plans and as follows:
 1. Rough Finish.
 - a. Tank floors and slabs that receive grout or additional concrete toppings.
 - b. Provide a rough surface by screeding only without further finish.
 2. Trowel Finish
 - a. Slab surfaces exposed to view, liquids or to be covered with a coating system, flooring coverings or membranes.
 - b. After apply float finish, apply trowel finish and consolidate by hand or power driven trowel. Continue troweling passes and re-straighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
 3. Broom Finish
 - a. Sidewalks, walkways and platforms.
 - b. Immediately after float finishing, slightly roughen trafficked surface by

brooming with fiber-bristle broom perpendicular to main traffic route.

3.6 CONCRETE CURING

A. All concrete shall be cured in accordance with the specifications. The curing methods shall be wet curing, sheet materials or membrane curing compound. Unless the curing method is specified otherwise, select one of the appropriate curing methods below.

1. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI SPEC-306.1 for cold-weather protection and with ACI SPEC-301 for hot-weather protection during curing.
2. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb./sq. ft. / h (1 kg/sq. m / h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
3. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
4. Length of Curing Period
 - a. A "curing day" shall be any day on which the atmospheric temperature taken in the shade, or the air temperature adjacent to the concrete, remains above 50° F for at least 18 hours.
 - b. Continuously cure concrete for a period until 7 curing days have been reached. In cold weather, curing may be terminated after a period of 14 consecutive days.

B. Wet Curing

1. Immediately after the finishing operations are completed or forms are stripped, the concrete shall be covered with wet cotton mats or with a temporary covering of canvas or burlap, thoroughly saturated with water before placement. A temporary covering shall be used when factors dictate that cotton mats cannot be placed immediately after finishing operations without marring the finishing of the concrete surface.
2. When temporary coverings are used keep them in place only until the surface has sufficiently hardened so that a cotton mat can be substituted without marring or disturbing the concrete finish.
3. The coverings shall remain in contact with the concrete for the duration of the curing period.
4. The coverings shall be kept saturated with water for the entire curing period.
5. Water used for curing shall be potable and free from any injurious materials or deleterious substances.

C. Sheet Curing

1. Immediately after the finishing operations are completed or forms are stripped, install sheet curing materials in accordance with all Manufacturer's recommendations.
2. Sheet curing shall be in contact with the entire concrete surface so as to prevent drying for the duration of the curing period.
3. When pedestrian traffic is unavoidable, provide suitable walkways to protect the sheet material.

D. Membrane Curing

1. Membrane curing compound is not permitted on surfaces to be rubbed or on surfaces to receive additional concrete, grout, plaster or coatings.
 2. Immediately after the finishing operations are completed or forms are stripped, apply membrane curing compound solution under pressure with a spray nozzle so the entire exposed surface is completely covered with a uniform film. The rate of application shall insure complete coverage but shall not exceed 150 square feet per gallon of curing compound.
 3. After application and under normal conditions, the curing compound shall be dry to the touch within 1 hour and shall be dry thoroughly and completely within 4 hours. When thoroughly dry it shall provide a continuous flexible membrane free from cracks and pinholes and shall remain intact during the required curing period.
 4. If the membrane seal is broken during the curing period, immediately repair it with additional curing compound.
- E. After the curing period, the temperature of the exposed surface shall not be permitted to drop faster than 30 degrees F in 24 hours.

3.7 JOINTS

- A. Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Contraction Joints in Slabs-on-Grade: Form weakened-plane sawed contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness.
- C. Isolation Joints: Install joint-filler strips at junctions with slabs-on-grade and vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
 1. Extend joint fillers full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated.

3.8 CONCRETE SURFACE REPAIRS

- A. Repair defective areas immediately after the removal of forms in accordance with this Section 02 42 00 "Removals" and Section 03 10 00 "Form Work". Repair of defective areas shall be at no additional cost to the OWNER.
- B. If the concrete surface is bulged, uneven or exhibits defects which in the ENGINEER'S opinion cannot be satisfactorily repaired, remove and replace the entire concrete section as directed at no additional cost to the OWNER.
- C. Patch tie holes immediately after removal of forms. After cleaning and thoroughly dampening the tie hole, fill solid with non-shrink, non-metallic grout.

3.9 MISCELLANEOUS ON-SITE MIXED BATCH

- A. The concrete shall be mixed in the approximate proportion of 1:2-1/2:4-1/4 and shall contain not less than one and one quarter barrels of cement per cubic yard of finished concrete. With the approval of the ENGINEER, admixtures may be added in order to increase workability.
- B. The onsite mixed batch will be subject to all testing requirements listed in this specification. The concrete shall meet or exceed strength requirements as required in this specification unless otherwise noted in the plans.

3.10 RESPONSIBILITY OF CONTRACTOR FOR STRENGTH

- C. It is the intent of these specifications that the CONTRACTOR shall guarantee that concrete of the specified compressive strength is incorporated in the structures and that the responsibility for producing the required grades of concrete is assumed by the CONTRACTOR.
- D. Should the average strengths shown by test cylinders fall below the strengths required, the ENGINEER will require any or all of the following changes: amount of cement, grading of aggregate, or ratio of the water to the cement used. If the tests disclosed that the strength of the concrete is insufficient for the structure as built, the ENGINEER may condemn the part of any structure in which concrete of insufficient strength has been placed and the CONTRACTOR, at his cost, shall remove and replace such concrete meeting these specifications.

3.11 EXPERIMENTAL CONCRETE MIXES

- A. The CONTRACTOR shall make experimental mixes prior to the placing of the concrete and at any time during the progress of the work when necessary to demonstrate that the concrete will meet these specifications. Materials for making experimental mixes shall be furnished by the CONTRACTOR and these materials shall be identical with those intended for use in the work. The cost of the materials shall be borne by the CONTRACTOR and shall be included in the price bid for concrete.

3.12 PAYMENT

- A. No separate measurement and payment will be made for the work covered under this section unless specified in the Bid Schedule. All costs in connection with this work shall be included in the applicable contract unit price for which the work pertains. Concrete encasement for underground piped utilities shall be paid for separately. Refer to the Standard Drawings for computation of encasement quantities.

END OF SECTION 03 30 00

SECTION 03 31 00 - CONSTRUCTION JOINT SEALING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work under this section shall include furnishing all labor, materials, and equipment necessary to clean and seal existing construction joints in concrete structures.

1.2 DELIVERY, STORAGE, AND HANDLING

- A. All materials shall be delivered to the site in the manufacturer's original unopened containers, with all labels and other markings intact.
- B. All materials shall be stored off the ground and protected from vandalism, the environment, and possible contamination in accordance with the manufacturer's recommendations.
- C. Materials not meeting the above shall be unacceptable and removed from the site.

1.3 SUBMITTALS

- A. All proposed materials and methods shall be submitted in accordance with Division 01.

PART 2 - PRODUCTS

2.1 GENERAL

- A. The joints shall be sealed by a one-part gun grade polyurethane sealant preceded by a primer receptive to urethane sealants. Modified amine epoxy or polyurethane grout with backer rod.

2.2 ACCEPTABLE PRODUCTS

- A. Primer:
 - 1. "Vulkem® Sealant Primer 171" as manufactured by Tremco.'
 - 2. "MasterSeal P 173" as manufactured by Master Builders Solutions.
- B. Sealant:
 - 1. "Vulkem® 116 Polyurethane Sealant" as manufactured by Tremco.
 - 2. "MasterSeal NP 1" as manufactured by Master Builders Solutions.

PART 3 - EXECUTION

3.1 ROUTING

- A. All construction joints shall be routed or sawed to provide the correct joint shape. That shape shall be 3/4" wide by 2" deep. The joint width shall be made with one pass of the saw or router.

3.2 CLEANING

- A. After routing, the joint shall be sandblast cleaned to remove all latent material and provide a good blast profile for sealant adhesion. After sandblasting, the joint shall be blown clean.
- B. After cleaning, install a bond breaker/backing rod in the bottom of the routed joint. The rod shall be installed by roller to ensure constant depth of the joint to be sealed. Backing rod materials are to be recommended by the sealant manufacturer; however, no low melting point or bituminous products are to be used.
- C. Apply one coat of the primer to the prepared joint, exercising care to avoid excessive coverage of the adjacent surface.
- D. After the primer has cured, in accordance with the manufacturer's recommendations, apply the joint sealer to within 1/4" of the top of the joint. The sealant shall then be tooled to provide a uniform concave finish.

3.3 GENERAL INSTALLATION NOTES

- A. All joints to be sealed shall be dry.
- B. Any leaking joints shall be pressure grouted as described elsewhere.
- C. Prior to sealing, all loose or spalled concrete adjacent to the joints shall be removed and replaced as described elsewhere.
- D. No joints are to be sealed which contain new concrete which has not cured for a minimum of 28 days.

END OF SECTION 03 31 00

DIVISION 31 – EARTHWORK

SECTION 31 00 00 – GENERAL EARTHWORK

PART 1 - GENERAL

1.1 DESCRIPTION

This section covers the requirements and procedures for excavation and backfill for structures.

1.2 STANDARD SPECIFICATIONS

- A. The following is a list of standard specifications with the accompanying abbreviations used in this specification section:
 - 1. American Association of State Highway and Transportation Officials Standard Specifications - AASHTO.

1.3 QUALITY ASSURANCE

- A. Compaction shall be in accordance with Section 31 23 33 - Trenching, Backfilling and Compaction.
- B. The OWNER shall be the sole and final judge of suitability of all materials.
- C. Materials in question, pending test results, shall not be used in the work. The CONTRACTOR shall remove all materials that fail to meet the requirements of the specifications, whether in stockpiles or in place.
- D. Fills, embankments, backfills or subgrades which do not meet the specification requirements shall be removed or recompacted until the requirements are satisfied.

1.4 PROTECTION

- A. Protection of Existing Improvements
 - 1. Protection shall be provided to prevent damage to existing improvements indicated to remain in place on the OWNER'S property and adjoining properties.
 - 2. Damaged improvements shall be restored to their original condition, as acceptable to parties having jurisdiction.
 - 3. Land areas outside the limits of permanent work performed under this contract shall be preserved in their present condition. The CONTRACTOR shall confine his construction activities to areas defined for work on the Drawings.
- B. Protection of Existing Utilities
 - 1. The CONTRACTOR shall verify all existing utility locations either shown or not shown on the drawings.

2. The CONTRACTOR shall immediately notify the OWNER and applicable utility company of any damages to existing utilities.
 3. Repairs to damaged utilities shall be made in accordance with the requirements of the OWNER and applicable utility company at no extra cost to the OWNER.
 4. The CONTRACTOR shall coordinate with the OWNER and the applicable utility company for shutoff of or connection to active utilities. Existing utility services shall not be interrupted except as authorized in writing by the OWNER.
- C. Protection of Work Site: Barricades or other type protectors shall be provided to prevent unauthorized personnel from entering work sites.

1.5 JOB CONDITIONS

A. Classification of Excavation

1. No classification shall be made to differentiate the various surface and subsurface conditions the CONTRACTOR may encounter during his performance under this contract.
2. It is the CONTRACTOR'S sole responsibility to verify the site surface and subsurface conditions.

B. Dewatering

1. Excavation and embankment shall be performed in such manner that the area of the site and the area immediately surrounding the site will be continually and effectively drained by gravity or temporary pumps.
2. Water shall not be permitted to accumulate in excavations or other areas of the site.
3. The excavation shall be drained by methods which prevent the softening of subgrades and embankments.

C. Blasting shall not be allowed.

1. Shoring, including sheet piling, shall be furnished and installed as necessary to protect workmen, banks, adjacent paving, structures, and utilities.
2. Shoring, bracing, and sheeting shall be removed as excavations are backfilled, in a manner to prevent caving.

PART 2 - PRODUCTS

2.1 SUITABLE MATERIALS

- A. Suitable materials for fill and, backfill include materials that are free of debris, roots, organic or frozen materials, stones having a maximum dimension of four (4) inches in the upper six (6) inches of fill or six (6) inches in the remainder of fill.

- B. Otherwise, suitable material which is unsuitable due to excess moisture content will not be classified as unsuitable material unless it cannot be dried by manipulation, aeration or blending with other materials to the satisfaction of the OWNER.
- C. Unsuitable materials shall include those materials that are determined by the OWNER to be inadequate for providing a stable slope, fill, subgrade, or foundation for structure.
- D. Expansive clay soils shall be classified as unsuitable unless treated or mixed in a manner approved by the OWNER.

2.2 CAPILLARY WATER BARRIER

A. Coarse Aggregate (Gravel) Capillary Water Barrier.

- 1. Coarse aggregate shall meet the requirements of AASHTO M80.
- 2. Coarse aggregate shall consist of gravel, crushed gravel, or crushed stone.
- 3. Gradation of coarse aggregate shall conform to the requirements of AASHTO M 43, Size Number 57:

Sieve	Mass-Percent Passing
1 ½ inches	(38 mm) 100
1 inch	95 – 100
½ inch (13 mm)	25 – 60
No. 4	0 – 10
No. 8	0 - 5

- 4. Maximum allowable percent of deleterious substances shall meet the requirements of AASHTO M 80, Class B.

B. Fine Aggregate (Sand) Capillary Water Barrier:

- 1. Fine aggregate shall meet the requirements of AASHTO M6.
- 2. In general, fine aggregate shall consist of natural sand having hard, strong, durable particles free from deleterious substances and meeting the following gradation requirements:

Sieve	Mass-Percent Passing
3/8 inch (9.5 mm)	100
No. 4	95 – 100
No. 16	45 – 80
No. 50	10 - 30
No. 100	2 - 10

2.3 FINE AGGREGATE (SAND) BACKFILL

- A. Fine aggregate backfill shall meet the requirements of Paragraph 2.2.B.

2.4 SELECTION OF BORROW MATERIAL

- A. Borrow material, if required, shall be selected to meet requirements and conditions of the particular fill for which it is to be used.
- B. For borrow material obtained outside the limits of the project site, the CONTRACTOR shall obtain the right to procure material and shall pay all royalties and other charges involved.

PART 3 - EXECUTION

3.1 EXCAVATION

- A. Excavation, regardless of material encountered, shall conform to the dimensions and elevations indicated on the Drawings for each building and structure, and shall include trenching for utility and foundation drainage systems to a point five (5) feet beyond the building line of each building and structure.
- B. Excavation shall extend a sufficient distance from walls and footings to allow for placing and removal of forms, installation of services, and for inspection, except where the concrete for walls and footings is authorized by the OWNER to be deposited directly against excavated surfaces.
- C. Suitable excavated material shall be transported to and placed to fill areas within the limits of the work.
- D. Unsuitable materials encountered within the limits of the work shall be excavated below grade and replaced with suitable materials as directed by the OWNER, except that concrete footings shall be increased in thickness to the bottom of the over-depth excavations and over-break in rock excavation.
- E. No excavated material shall be wasted without the authorization of the OWNER.
 - 1. Surplus excavated material and unsuitable material shall be disposed of by the CONTRACTOR at his own expense and responsibility.
 - 2. Material authorized to be wasted shall be disposed of in such manner as not to obstruct the flow characteristics of any stream or to impair the efficiency or appearance of any structure.
- F. No excavated material shall be deposited in a manner that may endanger a partly finished structure by direct pressure or by overloading banks contiguous to the operations or that may otherwise be detrimental to the completed work.
- G. Blasting shall not be allowed.

3.2 PREPARATION OF GROUND SURFACE FOR FILL

- A. Areas upon which fills are to be placed shall be cleared and grubbed before the fill is started.

- B. Sloped ground surfaces steeper than one (1) vertical to four (4) horizontal on which fill is to be placed shall be plowed, stepped, or benched, or broken up as directed by the OWNER, in such a manner that the fill material will bond with the existing surface.
- C. When surfaces on which fills are to be placed do not meet the specified density requirements, the ground surface shall be broken up, pulverized, and compacted to the specified density.
- D. When surfaces on which fills are to be placed do not meet the specified moisture content requirements, the ground shall be wetted, aerated, or dried to the specified density.
- E. When the subgrade is part fill and part excavation, the excavated portion shall be scarified to a depth of 12 inches and compacted as specified for the adjacent fill.

3.3 FILL AND BACKFILL

- A. Fills and backfills shall conform to the dimensions and elevations indicated on the Drawings for each building and structure.
- B. Placing Fill and Backfill
 - 1. Suitable material shall be placed in successive horizontal uniformly spread layers of loose material not more than six (6) inches thick, except that in areas not accessible or permitted for the use of self-propelled rollers or vibrators, the loose layer shall be four (4) inches thick.
 - 2. Fills and backfills shall not be placed in wet or frozen areas.
- C. Backfill
 - 1. Backfill shall not begin until construction below finish grade has been completed, underground utility systems have been inspected and tested, form removed, and the excavation cleaned of trash and debris.
 - 2. Fine aggregate backfill shall be placed to the dimensions and elevations indicated on the Drawings.
 - 3. Heavy equipment for spreading and compacting backfill shall not be operated closer to foundation or retaining walls than a distance equal to the height of backfill above the top of footing; the area remaining shall be compacted by power-driven hand tampers suitable for the material being compacted.
 - 4. Backfill shall be placed carefully around pipes to avoid damage to coatings.
 - 5. Backfill shall not be placed against foundation walls prior to 7 days after placement of the walls.
 - 6. As far as practical, backfill shall be brought up evenly on each side of the wall and sloped to drain away from the wall.

7. Where fill or backfill is to be placed and compacted against structure walls, the walls shall be supported laterally as necessary to prevent damaging or displacing the walls. Any wall so damaged as a result of the CONTRACTOR'S operation shall be completely and promptly replaced.

3.4 COMPACTION

- A. For fill and backfill compaction densities and moisture contents, see Section 31 23 33.
- B. Compaction shall be accomplished by those methods listed in Section 31 23 33. Material shall be aerated or moistened to maintain the required moisture content.
- C. Fine aggregate backfill shall be compacted with a minimum of two (2) passes of a power-driven hand tamper.

3.5 CAPILLARY WATER BARRIER

- A. Either coarse aggregate (gravel) or fine aggregate (sand) capillary water barriers shall be installed under slabs-on-grade as indicated on the Drawings.
- B. The capillary water barrier shall be placed directly on the subgrade after the subgrade has been compacted to the required density and placed to the elevation indicated on the Drawings.
- C. The barrier shall be constructed to the thickness shown in layers not exceeding six (6) inches in compacted thickness.
- D. Each layer shall be compacted to the required density, with a minimum of two passes of a plate-type vibratory compactor.

3.6 FINISH GRADING

- A. Excavated and filled sections, and adjacent transition areas, shall be uniformly smoothly graded. The finished surface shall be reasonably smooth, compacted, and free from irregular surface changes.
- B. The degree of finish shall be that ordinarily obtainable from blade-grader operations, except as otherwise specified.
- C. The surface of fills or excavated areas for slabs-on-grade shall not vary more than 0.05 foot from the established grade.
- D. Other finished surfaces shall not vary more than 0.15 foot from the established grade and cross section and shall be free of depressed areas where water would pond.

END OF SECTION 31 00 00

SECTION 31 22 00 – SITE GRADING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The work covered under this item includes all supervision, labor, equipment, and materials required for rough and final site grading. Included in this item are any stripping, filling, excavating, backfilling and compaction required to complete the grading as shown on the plans or as specified herein.

1.2 DUST AND BLOWING MATERIAL CONTROL

- A. The CONTRACTOR shall use all means necessary to control dust on and near the site and on and near all off-site borrow areas if such dust is caused by the CONTRACTOR'S operations during performance of the work or if resulting from the condition in which the CONTRACTOR leaves the site.
- B. All surfaces shall be thoroughly moistened as required to prevent dust being a nuisance to the public, neighbors, and concurrent performance of other work on the site.
- C. Any landfilled material which is uncovered during any construction operation will immediately be covered with a minimum of 12 inches of soil and compacted to 90% Standard Proctor Density. The CONTRACTOR will be responsible for ensuring that existing landfilled material is not allowed to be blown or carried off the site and will clean up any material uncovered by his operations which is blown from the site.
- D. Protection of Existing Utilities
 - 1. The CONTRACTOR shall verify all existing utility locations either shown or not shown on the Drawings.
 - 2. The CONTRACTOR shall immediately notify the OWNER and applicable utility company of any damages to existing utilities.
 - 3. Repairs to damaged utilities shall be made in accordance with the requirements of the OWNER and applicable utility company at no extra cost to the OWNER.
 - 4. The CONTRACTOR shall coordinate with the OWNER and the applicable utility company for shutoff of or connection to active utilities. Existing utility services shall not be interrupted except as authorized in writing by the OWNER.
- E. Protection of Work Site: Barricades or other type protectors shall be provided to prevent unauthorized personnel from entering work sites.

PART 2 - PRODUCTS

2.1 FILL MATERIAL, GENERAL

- A. All fill material shall be subject to the approval of the ENGINEER.

2.2 ON-SITE FILL MATERIAL

- A. All on-site fill material used shall be soil or soil-rock mixture which is free from organic matter and other deleterious substance. It shall contain no rocks or lumps over 6 inches in greatest dimension, and not more than 15 percent of the rocks or lumps shall be larger than 2-1/2 inches in greatest dimension.

2.3 IMPORTED FILL MATERIAL (BORROW)

- A. All imported fill material shall meet the requirements stated in Section 31 00 00 and, in addition, shall be predominantly granular with a maximum particle size of 2 inches and a plasticity index of 12 or less.
- B. Any fill material, including topsoil, must be approved by the ENGINEER prior to placement. The CONTRACTOR shall notify the ENGINEER at least four working days in advance of intention to import material, designating the location of proposed borrow material. The CONTRACTOR shall be responsible for obtaining any permits or permission required for ENGINEER to sample, as necessary, from the borrow area for the purpose of making acceptance tests to prove the quality of proposed borrow material.

2.4 OTHER MATERIALS

- A. All other materials, not specifically described but required for a complete and proper installation, shall be as selected by the CONTRACTOR subject to the approval of the ENGINEER.

PART 3 – EXECUTION**3.1 FINISH ELEVATIONS AND LINES**

- A. Grade stakes will be set by the CONTRACTOR and approved by OWNER'S REPRESENTATIVE establishing rough and finish elevations and lines. The CONTRACTOR shall take care to preserve all survey control data and monuments set by the ENGINEER and, if displaced or lost, immediately replace to the approval of the ENGINEER and at no additional cost to the OWNER.

3.2 GRADING**A. General Requirements**

- 1. The CONTRACTOR will perform all rough and finish grading required to obtain the elevations shown in the Drawings.

B. Grading Tolerances

- 1. All rough and finished grading shall be performed with approved equipment to a tolerance of plus or minus 0.1 ft.

C. Compaction

1. Existing cover material will be compacted prior to the placement of any additional fill material. Two passes, at right angles to each other, will be made on existing cover with a sheep's foot roller, to obtain this compaction.
2. New fill material and material disturbed by grading will be compacted to a minimum of 90% Standard Proctor Density using approved compaction equipment.

D. Treatment after Completion of Grading

1. After grading is completed and the ENGINEER has finished his inspection, no further excavating, filling, or grading except with the approval of an inspection of the ENGINEER will be allowed.
2. The CONTRACTOR shall use all means necessary to prevent erosion of freshly graded areas during construction and until such time as permanent drainage and erosion control measures have been installed.

END OF SECTION 31 22 00

SECTION 31 23 33 - TRENCHING, BACKFILLING & COMPACTION**PART 1 - GENERAL****1.1 DESCRIPTION**

- A. The work under this item shall include all earth, shale, gravel, loose rock, solid rock, debris, junk and/or other material excavated or otherwise removed in the preparation of the trench, all work in connection with the excavation, removal and subsequent handling and disposal of such material regardless of its type, character, composition or condition; subgrade preparation, all sheeting, piling, shoring, bracing; and dewatering of trenches; protection of adjacent property; backfilling; sand cushion; grade base stabilization; all specified backfill consolidation; and other work necessary or required. The CONTRACTOR shall fully inform himself of the conditions to be encountered and shall include all payment for same in his bid prices stated in the proposal. No payment will be made for extra work caused by unusual conditions not anticipated by the CONTRACTOR.

PART 2 - PRODUCTS**2.1 STANDARD BEDDING MATERIAL**

- A. Standard Bedding Material (SBM) shall meet the requirements of ASTM D-2321 for the class of materials described in this subsection.
1. Class I shall be an angular, 1/4 in. to 1-1/2 in. graded crushed stone.
 2. Class II shall include coarse sands and gravels with maximum particle size of 1-1/2 inch. These materials may have small percentages of fines but shall be generally granular and non-cohesive, either wet or dry. Class II materials shall include Unified Soil Classification System (USCS) Soil Types GW, GP, SW and SP.
 3. Class III shall include fine sands, sand-clay mixtures and gravel-clay mixtures. USCS Soil Types GM, GC, SM and SC are included in this class.

2.2 BACKFILL

- A. Initial Backfill material used shall be as described below and/or as shown on the standard details.
1. Paved area: SBM material in accordance with section 2.1 of this specification.
 2. Non-Paved area:
 - a. For flexible pipe, SBM material used shall be in accordance with section 2.1 of this specifications at depths greater than 10-feet. Select Fill shall be used from depth 0-10 feet.
 - b. For rigid pipe, Select Fill shall be used.
 - i. Select Fill consists of excavated materials free of rocks larger than 2-1/2 inches, organic material, rubbish, debris, and all other objectionable material.

- B. Final Backfill material used shall be as described below and/or as shown on the standard details.
 - 1. Paved area: SBM material in accordance with section 2.1 of this specification.
 - 2. Non-Paved area: Excavated material shall be used.

PART 3 - EXECUTION

3.1 TRENCH EXCAVATION

- A. The trench shall be excavated so that the pipe can be laid to the alignment and grades shown on the drawings, or as directed by the OWNER'S REPRESENTATIVE. It shall be excavated a maximum of 150 feet in advance of pipe laying, or less, as permitted by the OWNER'S REPRESENTATIVE. Opening of trenches in excess of the maximum requires specific approval of the ENGINEER.
- B. Trenches shall be dry when the trench bottom is prepared. The trench bottom shall be shaped so that even bearing is obtained for the barrel of the pipe, with the bells unsupported. Any required dewatering shall be incidental to the trenching.
- C. From 12-inches above the pipe and below, the standard trench width as shown on the standard drawings shall not be exceeded. If, for any reason this portion of the trench exceeds the permitted width and if the OWNER'S REPRESENTATIVE shall determine that cradling or encasement then is required, said concrete cradle or encasement shall be installed.
- D. Any part of the bottom of the trench excavated more than 4 inches below the specified grade shall be considered incidental and shall be corrected with approved material as directed by the OWNER'S REPRESENTATIVE. In the event suitable material is not available, standard bedding material shall be used. When rock is encountered and concrete cradle is required, it shall be excavated 4 inches below the bottom of the pipe and the trench refilled to grade with standard bedding material.
- E. When quicksand or other unstable earth is encountered, the CONTRACTOR shall excavate to sufficient depth to permit backfilling with crushed stone to provide a stable base for the pipe and shall be considered incidental.

3.2 STANDARD BEDDING MATERIAL

- A. Standard Bedding Material (SBM) shall be used for embedding all pipe as shown on the Standard Details. SBM shall be carefully placed, compacted and tested along the entire length of the pipe to be installed to the limits of trench excavation until the thickness specified in the Standard Details is obtained. This layer of bedding material shall be smoothed by flat bottomed shovel or other appropriate means prior to the placement of pipe.
 - 1. Gravity Pipelines: SBM shall be placed simultaneously on each side of pipe and shall be carefully compacted in accordance with the SPECIFICATIONS for the type of pipe to be installed.

- a. Class I SBM requires little or no compaction due to the nature of the angular particles.
 - b. Class II SBM shall be compacted to a minimum 85% Standard Proctor Density using hand or mechanical tamping methods. Slightly damp material will generally result in maximum compaction with minimum effort. Avoid saturation of Class II SBM.
 - c. Class III SBM shall be compacted to a minimum 90% Standard Proctor Density using hand or mechanical methods. Take care to avoid excessive moisture in using Class III SBM.
2. Pressure Pipelines (except Rural Water): SBM shall be placed simultaneously on each side of pipe and compacted by hand sufficiently to maintain proper grade and alignment.

3.3 BACKFILL

- A. When the type of backfill material to be placed above the standard bedding material is not indicated on the drawings or specified, the backfill may be made with the excavated material, provided that such material, in the opinion of the OWNER'S REPRESENTATIVE, is suitable for backfilling. In the event the excavated material is not suitable, standard bedding material or other approved material shall be used.
- B. The trench shall be backfilled 12" above the pipe by hand or by other methods approved by the OWNER'S REPRESENTATIVE. Special care shall be used in placing this portion of the backfill to avoid damaging or moving the pipe. The remainder of the trench may be backfilled by mechanical methods. Backfilling operation shall be completed within 100 feet or less of the finished line at all times as directed by the OWNER'S REPRESENTATIVE.
- C. ALL clearing requiring proposed underground sewer line trench backfill materials and its placement must meet referenced ASTM D 2321, in accordance with OAC 252:656-5-3(b).

3.4 COMPACTION

- A. All trenching and backfill shall be tested every on every 8-inch lift, every 400 lineal feet for sanitary sewer, every 800 lineal feet for waterlines and all other applications. The trenching and backfill shall meet the specification listed in section 3.2 of this specification or otherwise the required standards below:
 - 1. Paved area: 95% Standard Proctor Density (SPD)
 - 2. Non-Paved area: 90% SPD if cover is less than 10-feet and 95% SPD if cover is greater than 10-feet
- B. If the backfilling has been completed and the backfill material does not meet the requirements for compaction, all the material shall be removed and hauled from the job site and the trenches refilled with material as specified above. Boring will be required at all paved street crossings unless otherwise specified or approved by the ENGINEER.

END OF SECTION 31 23 33

SECTION 31 25 00 - EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Temporary and permanent erosion control systems.
2. Slope protection systems.

1.2 REFERENCES

A. United States Environmental Protection Agency (EPA):

1. NPDES - National Pollutant Discharge Elimination System.

B. Oklahoma Department of Environmental Quality (ODEQ):

1. DEQ General Storm Water Permit (OKR10 and OKR05)

C. Oklahoma Department of Transportation (ODOT):

1. ODOT - State of Oklahoma Department of Transportation Standard Specifications for Highway Construction, Section 735 - Material for Roadside Development and Erosion Control.

1.3 QUALITY ASSURANCE

A. Perform Work in accordance with the following ODOT standards:

1. Section 220 – Management of Erosion Sedimentation, and Storm Water Pollution Prevention and Control
2. Section 221 - Temporary Sediment
3. Section 230 - Sodding and Sprigging.

B. Regulatory Requirements: Conform to requirements of local Authority Having Jurisdiction for prevention of erosion and sediment control.

1. Conform to NPDES and ODEQ requirements, where required.

1.4 PROJECT CONDITIONS

A. Environmental Requirements: Protect adjacent properties and water resources from erosion and sediment damage throughout work. Take all necessary measures to prevent sedimentation from construction operations to enter adjacent property. Offsite discharge of sedimentation is not permitted.

B. Storm Water Pollution Prevention Plan: Maintain plan at project site at all times available for inspection during contract duration.

PART 2 - PRODUCTS**2.1 MATERIALS**

- A. Quick Growing Grasses: Wheat, rye, or oats.
- B. Straw Bales: Free of weed seed.
- C. Fencing for Siltation Control: UV resistant geotextile fabric.
- D. Slab Sod: Rectangular slabs of Bermuda grass.
- E. Temporary Mulches: Loose straw, netting, wood cellulose, or agricultural silage free of seed.
- F. Bale Stakes:
 - 1. Minimum 3 feet length.
 - 2. 2 No. 4 steel reinforcing bars or,
 - 3. 2 steel pickets or,
 - 4. 2 - 2x2 inch hardwood stakes driven 18 inches to 24 inches into ground.

PART 3 - EXECUTION**3.1 EXAMINATION**

- A. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive work.
- B. Report in writing to ENGINEER prevailing conditions that will adversely affect satisfactory execution of the work of this section. Do not proceed with work until unsatisfactory conditions have been corrected.
- C. By beginning work, CONTRACTOR accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the OWNER.

3.2 EROSION CONTROL AND SLOPE PROTECTION

- A. Provide erosion control and slope protection measures to prevent sediment from site entering adjacent property or public right-of-way to include but not be limited to:
 - 1. Temporary silt fences.
 - 2. Straw bales placed around culvert openings or inlets.
 - 3. Diked area with earth berm and silt trap for draining dredged material.
- B. Install erosion control and slope protection in accordance with ODOT standards.
- C. Place all erosion and siltation control measures before start of earthwork and grading construction operations.

- D. Mulch and seed all storm and sanitary sewer trenches not in streets no later than 10 days after backfill. Do not permit more than 500 feet of trench to be open at any one time.
- E. Place all excavated material on uphill side of trenches where possible. Do not place materials in stream beds. Seed any stockpiled material which remains in place longer than 30 days with temporary vegetation and mulch.
- F. Mulch and seed all temporary earth berms, diversions, erosion barriers and temporary stockpiles with temporary vegetative cover with 10 days after grading.
- G. Do not stockpile or otherwise place dredged, excavated or other material, at any time, in or near stream bed which may increase turbidity of water. If turbidity producing materials are present, hold surface drainage from cuts and fills within construction area and from borrow and waste disposal areas in suitable sedimentation ponds or grade surface drainage to control erosion within acceptable limits. Provide and maintain temporary erosion and sediment control measures such as berms, dikes, drains, or sedimentation basins, if required, until permanent damage and erosion control facilities are completed and operative. Hold to minimum area of bare soil exposed at any one time by construction operations.
- H. Drain dredged material minimum 7 days. Store material for drainage to a maximum height of 4 feet.
- I. OWNER'S REPRESENTATIVE may direct CONTRACTOR to limit surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow and embankment operations and may direct CONTRACTOR to provide immediate permanent or temporary erosion control measures.
- J. Maintain temporary erosion control systems as directed by OWNER'S Representative to control siltation during construction. Provide maintenance or additional work directed by OWNER'S REPRESENTATIVE immediately upon notification by OWNER'S REPRESENTATIVE.

END OF SECTION 31 25 00

SECTION 32 12 16.39 – PLANT MIX BITUMINOUS BASES AND SURFACES**PART 1 – MATERIALS****1.1 MATERIAL APPROVAL**

- A. ENGINEER must approve aggregate sources and blend percentages on a project basis before use.
- B. Stockpile the aggregate in accordance with Section 1.2. The ENGINEER may accept aggregates in stockpiles and plant mixed materials after blending and mixing at the plant. Obtain asphalt from an approved source in accordance with Subsection 4.1B.

1.2 STORAGE AND HANDLING OF MATERIAL**A. General**

- 1. Store and handle materials to preserve their quality and fitness for the work. Transport bulk materials in vehicles constructed to prevent loss or segregation after loading and measuring. Store materials to facilitate prompt inspection. Materials will be subject to inspection and retesting before incorporation in the work in accordance with Subsection 1.3, "Samples, Tests, and Cited Specifications."
- 2. At the CONTRACTOR'S request, the ENGINEER may allow the use of approved portions of the right- of-way for storing materials and the CONTRACTOR'S plant and equipment. As part of the request for use of the site, provide the ENGINEER with written documentation of the location of the proposed site, access and egress points, a proposed erosion control plan, a proposed traffic control plan, and any other information required by the ENGINEER relevant to use of the site for materials and equipment storage and plant set up. Provide additional storage space as necessary at no additional cost to the OWNER.
- 3. For controlled access facilities, the CONTRACTOR must obtain approval from the ENGINEER, subject to the approval of FHWA, prior to altering, severing or removing any right-of-way fences. Do not use private property for storage without prior written permission of the OWNER or lessee. If requested, provide copies of such written permission to the ENGINEER.
- 4. When allowed use of approved portions of the right-of-way for establishing asphalt or concrete plants, such plants must be established for the sole purpose of providing material for the respective project. Material production for other projects will not be allowed.
- 5. Restore storage and plant sites on the right-of-way to their original condition at no additional cost to the OWNER.

1.3 SAMPLES, TESTS, AND CITED SPECIFICATIONS

- A. The ENGINEER will inspect, test, and approve material before its incorporation in the work. Unless otherwise specified, tests will be performed using the most recent cited standard methods or specifications, AASHTO, ASTM, or other referenced authority.

For differing test procedures, the ENGINEER will use the following order of precedence:

1. AASHTO, and
 2. ASTM.
- B. For acceptance testing, samples will be taken and tested by certified technicians.
- C. The ENGINEER may inspect, test, or reject material before or during its incorporation into the work. The ENGINEER will address unacceptable material in accordance with Section 01 45 00, "Quality Control." The ENGINEER may retest material and reject material that does not meet the requirements of the contract documents, even if the material was previously tested and conditionally approved at the source of supply. The ENGINEER will provide copies of test results to the CONTRACTOR upon request.

1.4 MINERAL AGGREGATE

- A. Provide mineral aggregate composed of coarse aggregate, fine aggregate, and mineral filler in accordance with these specifications. If crushing natural gravel for mixes, the ENGINEER may require a washing operation to separate fines from the gravel. Different materials are not allowed to be blended in the same storage or feeder. Provide aggregates in accordance with Table 1 below.

Table 1 Physical Properties of Aggregates								
Test	Aggregates to be used in:							
	Superpave, Rich Intermediate Layer ⁱ			Stone Matrix Asphalt	Permeable Friction Course	Rich Bottom Layer	Open Graded Friction Surface Course	Open Graded Bituminous Base
	PG 64	PG 70	PG 76	PG76	PG76	PG64	PG76	PG64
L.A. Abrasion ^a , % wear	≤ 40	≤ 40	≤ 40	≤ 30	≤ 30	≤ 40	≤ 30	≤ 40
Micro-Deval ^a , % wear	—	—	≤2 5	≤25	≤25	—	≤ 25	—
Sand equivalent ^b	≥ 40	≥ 45	≥ 50	—	—	≥ 40	—	—
Mechani cally Fracture d Faces ^{b, c, h} , %	≥ 85/ 80	≥ 95/ 90	≥ 98/ 95	≥ 98/95	≥ 98/95	≥ 85/80	≥ 98/95	≥ 85/80
Aggregate Durability Index ^a	≥ 40	≥ 40	≥ 40	≥ 40	≥ 40	≥ 40	≥ 40	≥ 40
Insoluble Residue ^d , ^e , %	≥ 30	≥ 40	≥ 40	≥ 40	≥ 40	—	≥ 40	—
Flat and Elongated ^{b, c, f} , %	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10
Natural Sand and Gravel ^b , %	≤ 15	≤ 15	≤ 15	0	0	≤ 15	0	0
Clay Balls and Friable Particles ^g , %	≤ 1.0	≤ 1.0	≤ 1.0	0	0	≤ 1.0	0	0

Table 1 Continued Physical Properties of Aggregates								
Test	Aggregates to be used in:							
	Superpave, Rich Intermediate Layer ⁱ			Stone Matrix Asphalt	Permeable Friction Course	Rich Bottom Layer	Open Graded Friction Surface Course	Open Graded Bituminous Base
	PG 64	PG 70	PG 76	PG76	PG76	PG64	PG76	PG64
Soft Particles ^a , %	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
Sticks or Roots ^a , %	≤ 0.5	≤ 0.5	≤ 0.5	0	0	≤ 0.5	0	0
Note: For this table: PG64, PG70, and PG76 refer to the high temperature grade of the binder. Unless otherwise noted, specifications for PG binder grades higher than PG76 will use PG76 specifications. ^a Applies to each source. ^b Applies to the combined aggregate. Assume 10% natural sand in coarse RAP and 20% in fine RAP for mix design purposes. ^c Applies to the aggregate retained on the No. 4 [4.75 mm] sieve. ^d Applies to the combined coarse aggregate. ^e Applies to the coarse aggregate in the surface course. Does not apply to shoulders, driveways, and temporary detours. ^f A flat and elongated piece has a length greater than five times the thickness. ^g Applies to combined aggregate. If the maximum for the combined aggregate is not exceeded, the ENGINEER will allow 1.5% for one source. ^h In the mechanically fractured faces requirement format "xx/yy," "xx" is the minimum percentage of coarse aggregate requiring one fractured face, and "yy" is the percentage requiring two fractured faces. ⁱ Only applies to PG 76E-28.								

- B. Ensure a crusher run or similarly graded aggregate is not the only source of crushed coarse aggregate in asphalt concrete.

1.5 COARSE AGGREGATE

- A. Coarse aggregate is defined as that part of the aggregate retained on the No. 8 [2.36 mm] sieve. Provide coarse aggregate consisting of clean, tough and durable particles that are free of soft and disintegrated pieces, shale, clay, organic, or other deleterious material.
- B. Natural gravel is not allowed as a source of insoluble material unless it is crushed so that at least 75 percent of the material retained on the No. 4 (4.75 mm) sieve has at least two mechanically fractured faces.

1.6 FINE AGGREGATE

- A. Fine aggregate is defined as that part of the aggregate that passes the No. 8 (2.36 mm) sieve and consists of hard, durable natural sand grains, crushed stone, stone dust, crushed gravel, mine chat, jig sand or any combination of these. Produce crushed materials from a source that meets the requirements for coarse aggregate in Table 1.

1.7 MINERAL FILLER

- A. If required by the contract documents, provide mineral filler in accordance with AASHTO M 17.

PART 2 – ASPHALT MATERIALS**2.1 ASPHALT REQUIREMENTS**

- A. Provide asphalt cement in accordance with AASHTO M 320 and Table 2.

Table 2 Additional Requirements to AASHTO M 320 for Asphalt Cement			
Test	PG 64-22 OK	PG 70-28 OK	PG 76-28 OK
Elastic recovery at 77°F (25°C), %	-----	≥65	≥75
Separation ^a , %	-----	≤10	≤10
Original DSR G*/sin(δ), kPa	≤2.50	≤2.50	≤2.50
RTFO DSR G*/sin(δ), kPa	≤5.50	≤5.50	≤5.50
PAV DSR change in testing temperature, °F (°C)	-----	77 [25]	77 [25]
Spot test ^b	Negative	-----	-----
Flash point, °F (°C)	≥500 [260]	≥500 [260]	≥500 [260]
Solubility in trichloroethylene, %	≥99	≥99	≥99
Note: Asphalt binder suppliers will provide handling requirements and recommended field mixing and compaction temperatures for their product to the hot-mix producer. ^a Separation test samples are prepared in accordance with ASTM D 5976 but are reported as the difference in G* between the top and bottom samples. ^b Spot test using solvent blend of 65 percent heptane and 35 percent xylene by volume.			

- B. Provide medium-curing cutback asphalt in accordance with AASHTO M 82 for the asphalt type and grade required by the contract documents. The spot test is required

using a solvent blend of 65 percent heptane and 35 percent xylene by volume. Residue may also be obtained by evaporation.

- C. Provide emulsified asphalt in accordance with AASHTO M 140 for the asphalt type and grade required by the contract documents with the following exception:
1. The minimum Saybolt Furol Viscosity for RS-2 at 122°F (50°C) is 150.
 2. Residue may also be obtained by evaporation.
- D. Provide cationic emulsified asphalt in accordance with AASHTO M 208 for the asphalt type and grade required by the contract documents with the following exception:
1. The minimum Saybolt Furol Viscosity for CRS-2 at 122°F (50°C) is 150.
 2. Perform the demulsibility test within 30 days of shipment. If the particle charge test is inconclusive, the ENGINEER will approve material with a maximum pH of 6.7. Residue may also be obtained by evaporation.
 3. Provide polymer modified cationic emulsified asphalt in accordance with Table 3 for the asphalt type and grade required by the contract documents.

Table 3 Requirements for Polymer Modified Cationic Emulsified Asphalt			
Test	Rapid-Setting	Rapid-Setting	Slow-Setting
	PMCRS-1s	PMCRS-2s ^a	PMCSS-1h
Viscosity, Saybolt Furol, 122°F [50°C], s	25 – 125	125 – 400	—
Storage stability test 24 hr, %	≤1	—	≤1
Settlement test ^b , 5 day, %	—	≤5%	—
Particle charge test	—	positive	positive
Sieve test, %	≤0.05	≤0.10	≤0.10
Demulsibility, %	≥60	≥60	—
Distillation ^e			
Oil distillate, by volume of emulsion, %	≤2	≤2	≤0.5
Residue, %	≥63	≥65	≥62
Tests on residue from distillation test ^{c,d, e}			
Penetration, 77°F, [25°C], 100 g, 5 s	90 – 150	100 – 200	40 – 90
Ductility, 77°F, [25°C], 5cm/min, cm	—	—	≥70
Ductility, 40°F, [4°C], 5 cm/min, cm	—	≥30	—
Softening point, ring, and ball, °F [°C]	—	≥112 [44]	≥135 [57]
Elastic recovery, 50°F [10°C], %	≥60	≥58	—

Table 3, Continued Requirements for Polymer Modified Cationic Emulsified Asphalt			
Test	Rapid-Setting	Rapid-Setting	Slow-Setting
	PMCRS-1s	PMCRS-2s ^a	PMCSS-1h
Tensile stress at 800% elongation, 40°F [4°C], 50 cm/min, kPa	—	≥196	—
Solubility in trichloroethylene ^f , %	≥97.5	—	≥97
Ash content, %	—	≤1.0	—
^a Provide a Type B certification for each polymer modified asphalt lot. Type B defined as manufacturer prepared certification showing the limits of test values as determined by manufacturer's laboratory, a qualified commercial laboratory, or another approved laboratory. ^b After the test cylinder stands undisturbed for 5 days, ensure that there is no milky colored substance and there is a homogenous brown color throughout the cylinder. ^c Modify the distillation procedure as follows: Maintain a temperature from 345°F [174°C] to 355°F [180°C] on the lower thermometer for the last 20 min of the test. Maintain a test duration from 50 min to 70 min from the first application of heat. ^d Ensure the distillation residue of the modified emulsion contains at least 3 percent polymer solids by asphalt mass as determined by an analytical method approved by the ENGINEER. ^e Residue may also be obtained by evaporation. ^f An organic solvent may be used.			

Table 4 Requirements for NT Tack Material			
Test	Emulsion		
	CBC-1H	NTSS-1HM	NTQS-1HH
Saybolt Furol Viscosity, SFS @ 77°F [25°C]	10 – 100	15 – 100	15 – 100
Storage stability test, 24 hours, %	≤ 1	≤ 1	≤ 1
Particle Charge	Positive	–	–
Sieve test, %	≤ 0.1	≤ 0.3	≤ 0.3
Tests on residue from distillation ^a			
Residue, %	≥ 50	≥ 50	≥ 50
Penetration, 77°F [25°C], 100 g, 5 s	40 - 90	≤ 20	≤ 15
Softening point, ring, and ball, °F [°C]	–	≥ 149 [65]	≥ 149 [65]
Flash point, °F [°C]	–	–	–
Original DSR $G^*/\sin(\delta)$ @ 180°F [82°C], kPa	–	≥ 1.00	≥ 1.00
Solubility in trichloroethylene, %	≥ 97.5	≥ 97.5	≥ 97.5
^a Modify the distillation procedure as follows: Maintain a temperature from 345°F [174°C] to 355°F [180°C] on the lower thermometer for the last 20 minutes of the test. Residue may also be obtained by evaporation.			

Table 5 Requirements for 1 NT Tack Material	
Test	Asphalt Cement
	NTHAP
Rotational viscosity ^a @ 300°F [149°C], PaAs	≤ 3
Penetration, 77°F [25°C], 100 g, 5 s	≤ 25
Softening point, ring, and ball, °F [°C]	≥ 158 [70]
Flash point, °F [°C]	≥ 500 [260]
Original DSR $G^*/\sin(\delta)$ @ 180°F [82°C], kPa	≥ 1.00
Solubility in trichloroethylene, %	–
^a Limit may be waived if no application problems are present in the field and material can be pumped.	

E. Handling

1. Handle, load, haul, and transfer bituminous materials in accordance with the following:
 - a. Each transport shall be equipped with a sampling device with a gate valve or petcock located in the discharge line in such a way as to allow a sample to be drawn during the unloading of transport. The device shall be maintained in an operating condition at all times.
 - b. Each hauler shall maintain a "log" or record with each transport showing the type, grade, source, destination and date of the last previous delivery made using the hauling tank as identified therein.
 - c. Each transport to be equipped with an observation hatch so located as to be suitable for inspection and direct measurement of the depth of the material at the lowest point in the tank. (An approximate six inch diameter opening with cover located at the top and near the discharge end of the transport is considered suitable.)
 - d. Before loading, the producer's representative shall inspect the transport to assure that it is empty and check the hauler's "log" to assure that no contamination will result from the previous load.
 - e. When bituminous materials are received for storage at the mixing plant or project site, separate tanks shall be provided for each type and grade material. Storage tanks shall be cleaned before being used for a different material except that cleaning is not required when the material to be stored is compatible with the material last contained in the tank and the tank has been completely emptied.
2. The ENGINEER will reject further shipments if materials fail to produce the results required by the contract documents. The ENGINEER will not accept further work until satisfied that the material has been corrected so that it produces the results required by the contract documents.

F. Application Temperature

1. Heat asphalt materials in accordance with Table 6 below unless otherwise required by the contract documents.

Table 6 Temperature Ranges for Use of Asphalt Materials			
Type or Grade	Mixture, °F [°C]	For Mixing, °F [°C]	For Spraying, °F [°C]
NTHAP	—	350 – 400 [177 -204]	350 – 400 [177 -204]
All PGs	≤350 [177]	275 – 350 [135 – 177]	285 – 350 [141 – 177]
MC-30	—	50 – 120 [10 – 49]	50 – 120 [10 – 49]
MC-70	—	80 – 150 [27 – 66]	80 – 150 [27 – 66]
MC-250	≤200 [93]	100 – 200 [38 – 93]	100 – 200 [38 – 93]
MC-800	≤210 [99]	160 – 210 [71 – 99]	185 – 260 [85 – 127]
MC-3000	≤250 [121]	200 – 250 [93 – 121]	225 – 275 [107 – 135]
All emulsions	—	70 – 185 [21 – 85]	70 – 185 [21 – 85]

PART 3 – COMPOSITION OF MIXTURES

3.1 ASPHALT MIX DESIGN AND INITIAL JOB MIX FORMULA

- A. Prepare superpave mix designs in general accordance with AASHTO R 35 except where modified by these specifications. Prepare PFC mix designs in general accordance with AASHTO PP 77 except where modified by these specifications. Prepare SMA mix designs in general accordance with AASHTO R 46 except where modified by these specifications. The mix design and initial job-mix formula (JMF) are the responsibility of the CONTRACTOR. Submit the mix design and initial JMF to the ENGINEER for review.
- B. The ENGINEER will determine if the mix design meets the design criteria. Provide one mix design for each asphalt concrete mixture required by the contract documents.
- C. Ensure that the initial JMF is in accordance with Tables 8, 10, and 11, or Tables 9, 10, and 11 for the type of mix required by the contract documents. Prepare a trial mixture in accordance with Section 32 12 16.13 Plant Mix Asphalt Paving, Subsection 1.4C. Propose changes to the JMF if the trial, prepared at the initial JMF proportions, fails to meet the requirements of Tables 8, 12, 13, and 14, or Tables 9, 12, 13, and 14. If the changes do not produce a mix design in accordance with these tables, the ENGINEER will require a new mix design. If the changes do produce a mix design in accordance with these tables, the ENGINEER will approve the changes for adjustment of the JMF.
- D. Ensure the JMF establishes a percentage of aggregate passing each required sieve, a percentage of asphalt contained in the mixture, and a mixture temperature at the point of discharge from the plant.
- E. The JMF with the allowable tolerances shown in Table 15, establish the specification limits for each mixture. These limits may be outside the range in Table 8 or Table 9 except for the following conditions:

1. The absolute maximum sieve size,
2. PFC and Open Graded Friction Surface Course, where the JMF with allowable tolerances must be within the broad range in accordance with Table 9.
3. When no tolerances are shown in Table 15, the broad ranges given in Table 9 are the specification limits.

3.2 PLANT PRODUCED MIXTURES

- A. Provide a uniform, plant produced mixture of the combined aggregate and asphalt in accordance with Tables 8, 12, and 13, or Tables 9, 12, and 13 within the specification limits established by the JMF with allowable tolerances.
- B. After the plant is in operation, propose any necessary adjustments to the JMF in accordance with Table 8 or Table 9. If test results indicate the adjustments are in accordance with Tables 12 and 13, adjust the JMF accordingly.
- C. Provide a new mix design to the ENGINEER if the source of materials changes before the use of the new materials. If unsatisfactory results or other conditions make it necessary, the ENGINEER will require a new mix design.
- D. The ENGINEER defines the asphalt JMF as the target value. Attempt to incorporate that asphalt amount regardless of the allowable tolerances.

3.3 RECLAIMED ASPHALT PAVEMENT

- A. Superpave mixtures containing reclaimed asphalt pavement (RAP) will be accepted in accordance with Table 7 if the mixture is not used in the surface layer and meets the contract document requirements for the type or grade.

Table 7	
Reclaimed Asphalt Pavements	
Superpave with Binder Type	Maximum RAP, %
PG 58-28	25
PG 64-22 OK	25
PG 70-28 OK	15
PG 76-28 OK	15
PG 76E-28	0

- B. Regardless of the layer or binder type, the ENGINEER will accept superpave mixtures with no more than 25 percent RAP for shoulders, driveways, and layers serving as a bond breaker under PCC pavements if the mixture meets the contract document requirements for the type or grade. Superpave mixtures containing up to 35 percent RAP will be accepted in temporary detours if the mixture meets the contract document requirements for the type or grade, and if the mixture can be produced meeting air quality standards set forth by the Oklahoma Department of Environmental Quality. Temporary is defined as any material that will not become part of any permanent pavement. Temporary material must be removed before the end of the project.

- C. Process RAP by fractionating it into at least two stockpiles: a coarse stockpile and a fine stockpile. Crush, screen, or size the coarse stockpile so that 100 percent passes through a 1.5 in (37.5 mm) sieve. Crush, screen, or size the fine stockpile so that 100 percent passes through a $\frac{5}{8}$ in (16.5 mm), $\frac{1}{2}$ in (12.5 mm), or $\frac{3}{8}$ in (9.5 mm) sieve. If RAP comes from an unknown source and documentation is unavailable, the ENGINEER will consider the insoluble residue content to be zero. The ENGINEER will reduce the amount of natural sand and gravel allowed in the combined aggregate by the amount of natural sand and gravel contained in the RAP. Do not use RAP in Stone Matrix Asphalt (SMA), Permeable Friction Course (PFC), Rich Bottom Layer (RBL), Open-Graded Friction Surface Course (OGFSC), or Open-Graded Bituminous Base (OGBB) mixes.

Table 8					
Mixtures for Superpave					
Sieve Size ^a	Percent Passing per Superpave Mixture Type				
	S2	S3	S4	S5 / RIL	S6
1½ in [37.5 mm]	100	—	—	—	—
1 in [25.0 mm]	90 – 100	100	—	—	—
¾ in [19.0 mm]	≤ 90	90 – 100	100	—	—
½ in [12.5 mm]	—	≤ 90	90 – 100	100	—
⅜ in [9.5 mm]	—	—	≤ 90	90 – 100	100
No. 4 [4.75 mm]	≥ 40	—	—	≤ 90	80 – 100
No. 8 [2.36 mm]	29 – 45	31 – 49	34 – 58	37 – 67	54 – 90
No. 16 [1.18 mm]	—	—	—	—	—
No. 30 [0.600 mm]	—	—	—	—	—
No. 50 [0.300 mm]	—	—	—	—	—
No. 100 [0.150 mm]	—	—	—	—	—
No. 200 [0.075 mm]	1.0 – 7.0 ^b	2.0 – 8.0 ^b	2.0 – 10.0 ^b	2.0 – 10.0 ^b	5.0 – 15.0
Other Mixture Requirements					
NMS ^c	1 in [25 mm]	$\frac{3}{4}$ in [19 mm]	$\frac{1}{2}$ in [12.5 mm]	$\frac{3}{8}$ in [9.5 mm]	No. 4 [4.75 mm]
Asphalt Cement ^d , % of mix mass	≥ 3.9	≥ 4.3	≥ 4.8	≥ 5.3 / ≥ 5.5	≥ 5.8
Performance grade asphalt cement	e	e	e	e	e
^a Table 8 reflects the sieve size boundaries for design and JMF purposes. After the design is established, the JMF will designate combined aggregate sieve requirements with tolerances in Table 14.					

- ^b Ensure the ratio of the percent passing the No. 200 (75 µm) sieve to the percent effective asphalt cement is from 0.6 to 1.6.
- ^c Nominal Maximum Size (NMS) is defined as one size larger than the first sieve to retain more than 10 percent.
- ^d The ENGINEER may adjust the lower limit if the effective specific gravity of the combined aggregates is greater than 2.65. The ENGINEER may allow adjustments if a theoretical lab molded specimen at the JMF asphalt content meets the VMA requirement at 4% air voids.
- ^e The CONTRACTOR may substitute a higher grade of asphalt than that shown on the Plans at no additional cost to the OWNER.

Table 9 Asphalt Mixture, Non-Superpave					
Sieve Size ^a	Percent Passing per Asphalt Concrete Mixture Type				
	SMA	PFC ^b	RBL	OGFSC ^{b, c}	OGBB
1 ½ in [37.5 mm]	—	—	—	—	100
1 in [25.0 mm]	—	—	—	—	95 – 100
¾ in [19.0 mm]	100	100	100	—	—
½ in [12.5 mm]	90 – 100	80 – 100	90 – 100	100	25 – 60
⅜ in [9.5 mm]	65 – 80	35 – 60	72 – 90	90 – 100	—
No. 4 [4.75 mm]	22 – 30	1 – 20	53 – 70	25 – 45	≤10
No. 8 [2.36 mm]	16 – 24	1 – 10	34 – 58	≤10	≤5
No. 16 [1.18 mm]	—	—	—	—	—
No. 30 [0.600 mm]	—	—	—	—	—
No. 50 [0.300 mm]	—	—	—	—	—
No. 100 [0.150 mm]	—	—	—	—	—
No. 200 [0.075 mm]	9.0 – 12.0	1.0 – 4.0	2.0 – 10.0	≤5.0	≤3.0
Other Mixture Requirements					
NMS ^d	½ in [12.5 mm]	½ in [12.5 mm]	½ in [12.5 mm]	⅜ in [9.5 mm]	1 in [25 mm]
Cellulose Fiber, % of mix mass	0.3 – 0.4	0.2 – 0.5	—	—	—
Asphalt Cement ^e , % of mix mass	≥6.0	6.0 – 7.0	≥5.2	≥5.1 ^f	2.5 ^g

Table 9, Continued Asphalt Mixture, Non-Superpave					
Performance grade asphalt cement	PG 76-28 OK	PG 76-28 OK	h	h	h
^a Table 9 reflects the sieve size boundaries for design and JMF purposes. After the design is established, the JMF will designate the combined aggregate sieve requirements with tolerances set in Table 15. ^b Use an approved anti-stripping agent at the rate of 5 gal/1,000 gal [5 L/1,000L] of asphalt cement. ^c Retain at least 55 percent of the aggregate between the $\frac{3}{8}$ in [9.5 mm] and the No. 4 [4.75 mm]. ^d Nominal Maximum Size (NMS) is defined as one size larger than the first sieve to retain more than 10 percent. ^e The ENGINEER may allow the lower limit to be adjusted if the effective specific gravity of the combined aggregates is greater than 2.65. The ENGINEER may allow adjustments if a theoretical lab molded specimen at the JMF asphalt content meets the VMA requirement at 4 percent air voids. ^f Calculate the JMF for percent AC in the open graded friction course with the following equation: $\% \text{ AC} = (16.5) / (\text{Effective Specific Gravity (Gse)} + 0.165).$ ^g The ENGINEER may allow the amount of asphalt binder to be adjusted if the effective specific gravity of the combined aggregate is greater than 2.833 or less than 2.495. ^h The CONTRACTOR may substitute a higher grade of asphalt than that shown on the Plans, at no additional cost to the OWNER.					

Table 10 Mix Design Properties of Laboratory Molded Specimens							
Property	Superpave			RIL	SMA	PFC	RBL
	PG64	PG70	PG76	PG76E-28	PG76	PG76	PG64
	Number of SGC Gyration						
Nini	6	7	8	—	—	—	—
Ndes	50	65	80	50	50	50	50
	Required Density, % of Gmm						
Nini	85.5 – 91.5	85.5 – 90.5	85.5 – 89.0	—	—	—	—

Table 10, Continued Mix Design Properties of Laboratory Molded Specimens							
Ndes	96	96	96	97	96	≤ 82.0	98
VMA, %	See Table 3.3:5						
VFA, %	See Table 3.3:5						
Lab Permeability, $\text{cm/s} \times 10^{-5}$	≤ 12.5	≤ 12.5	≤ 12.5	≤ 12.5	≤ 12.5	—	≤ 12.5
TSR, Min.	0.8	0.8	0.8	0.8	0.8	—	0.8
ITS ^a , psi	—	—	≥ 75	—	—	—	—
Draindown, %	—	—	—	—	≤ 0.20	≤ 0.20	—
Hamburg Rut Test, Min. No. of Cycles to 12.50 mm, 122 °F	10,000	15,000	20,000	20,000	20,000	—	5,000
Note: For this table: PG64, PG70, and PG76 refer to the high temperature grade of the binder. Unless otherwise noted, specifications for PG binder grades higher than PG76 will use PG76 specifications. ^a Indirect Tensile Strength from AASHTO T 283, preconditioned specimen average, in psi.							

Table 11 Mix Design Properties of laboratory Molded Specimens									
Property	Superpave					RIL	SMA	PFC	RBL
	S2	S3	S4	S5	S6				
VMA ^a , %	≥ 12.5	≥ 13.5	≥ 14.5	≥ 15.5	≥ 16.5	≥ 15.5	≥ 17.0	—	≥ 14.0
VFA, ^b , %	67 - 73	70 - 75	72 - 77	73 - 78	75 - 79	73 - 79	—	—	—
^a VMA is based on the bulk specific gravity of the aggregates. ^b VFA is defined as the percentage of VMA containing asphalt binder.									

Table 12 Field Properties of Laboratory Molded Specimens							
Property	Superpave			RIL	SMA	PFC	RBL
	PG64	PG70	PG76	PG76E-28	PG76	PG76	PG64
Number of SGC Gyration							
Nini	6	7	8	—	—	—	—
Ndes	50	65	80	50	50	50	50
Required Density, % of Gmm							
Nini	85.5 – 91.5	85.5 – 90.5	85.5 – 89.0	—	—	—	—

Table 12, Continued Field Properties of Laboratory Molded Specimens							
Ndes	94.5 - 97.4	94.5 - 97.4	94.5 - 97.4	95.5 - 98.4	94.5 - 97.4	≤ 82.0	96.5 - 99.4
VMA, %	See Table 13						
VFA, %	See Table 13						
Lab Permeability, cm/s × 10 ⁻⁵	—	—	—	—	—	—	—
TSR, Min.	0.75	0.75	0.75	0.75	0.75	—	0.75
ITS ^a , psi	—	—	—	—	—	—	—
Draindown, %	—	—	—	—	—	—	—
Hamburg Rut Test, Min. No. of Cycles to 12.50 mm, 122 °F	—	—	—	—	—	—	—
Note: For this table: PG64, PG70, and PG76 refer to the high temperature grade of the binder. Unless otherwise noted, specifications for PG binder grades higher than PG76 will use PG76 specifications.							
^a Indirect Tensile Strength from AASHTO T 283, preconditioned specimen average, in psi.							

Table 13 Field Properties of Laboratory Molded Specimens									
Property	Superpave					RIL	SMA	PFC	RBL
	S2	S3	S4	S5	S6				
VMA ^a , %	≥ 12.0	≥ 13.0	≥ 14.0	≥ 15.0	≥ 16.0	≥ 15.0	≥ 16.5	—	≥ 13.5
VFA ^b , %	—	—	—	—	—	—	—	—	—
^a VMA is based on the bulk specific gravity of the aggregates. Compute a new bulk specific gravity from each AASHTO T 209 test. Calculate the value by multiplying the aggregate Effective Specific Gravity (Gse) calculated from the latest AASHTO T 209 test by the aggregate Bulk Specific Gravity (Gsb) from the design. Afterwards, divide the product by the aggregate Gse from the design.									
^b VFA is defined as the percentage of VMA containing asphalt binder.									

Table 14 Hamburg Test Requirements^a	
Binder Grade	Minimum Number of Passes to 12.50 mm Rut Depth, Tested at 122°F
PG 58	10,000
PG 64	10,000
PG 70	15,000
PG 76	20,000

Table 14, Continued
Hamburg Test Requirements

Note: For the purposes of this table PG64, PG70, and PG76 refer to the high temperature grade of the binder.

^a Rut test requirements apply to Superpave, SMA, and RIL mixes only.

3.4 ACCEPTANCE OF COMBINED COLD FEED AGGREGATE GRADATION

- A. The ENGINEER may use combined aggregate samples taken before asphalt coating for mixture gradation acceptance. Obtain the sample by an approved sampling device and perform a sieve analysis in accordance with Subsection 32 12 16.39 Part 4, AASHTO T 27, and AASHTO T 11. This method may be allowed if the asphalt mixture does not contain reclaimed bituminous materials and the aggregate does not appreciably degrade during the drying and mixing process.
- B. The ENGINEER may accept bituminous plant mix gradation results based on specified cold feed combined aggregate samples under the following condition:
 - 1. If the aggregate gradation test on extracted aggregates in accordance with AASHTO T 30 compares favorably with the results of cold feed aggregate gradation results.
- C. If test results do not compare favorably, the ENGINEER will base acceptance gradation tests performed in accordance with AASHTO T 30, on aggregate from extraction or ignition oven testing.

3.5 ACCEPTANCE OF BITUMEN CONTENT

- A. Determine the bitumen content of plant produced mixtures in accordance with OHD L-26 method of test. Determine the bitumen content of open-graded plant produced mixtures (PFC, OGFSC, OGGB) using the tank strap method or a digital printout from the asphalt plant of the quantity used.

3.6 WARM MIX ASPHALT

- A. Unless otherwise shown on the plans, mixtures produced as Warm Mix Asphalt (WMA) will be accepted at the CONTRACTOR'S option. For WMA, mixing temperatures may be reduced. Unless otherwise directed, use only WMA additives or processes preapproved by the ENGINEER. The ENGINEER may accept new additives or processes with sufficient evidence of performance.
- B. Prepare WMA mix designs in general accordance with AASHTO R 35 except where modified by these specifications. Additive manufacturer recommendations will be evaluated and considered for approval by the ENGINEER. WMA requirements are the same as for HMA except where noted. When using the technology during a mix design, increase the oven aging period to four hours before preparing samples for moisture susceptibility and rut testing. Report R 35's, the Materials Division recommended temperatures, or the supplier's recommended temperatures for plant mixing and roadway compaction on the mix design. Report R 35's, the Materials Division

recommended temperatures, or the supplier's recommended temperatures, for laboratory mixing and compaction on the mix design.

- C. For WMA using an additive technology, perform the mix design using the additive. For WMA designs that use a plant process, perform the mix design as an HMA mix design. If the laboratory has a foamer, the design may be performed using that process.
- D. Alternatively, use an existing approved HMA mix design when converting to a WMA, except when the percent binder absorbed exceeds 1.00 percent. The percent binder absorbed formula is shown at the end of this paragraph. When the percent binder absorbed exceeds 1.00 percent, use the plant-produced WMA material for moisture susceptibility and rut testing. Report the additive or process used by name, supplier source, and application rate (if applicable) on the mix design.

$$P_{ba} = \frac{100 G_b (G_{se} - G_{sb})}{G_{se} G_{sb}}$$

Where:

Pba = Percent binder absorbed by total mass of aggregate

Gb = Specific gravity of the binder

Gse = Effective specific gravity of the combined aggregates

Gsb = Bulk specific gravity of the combined aggregates

3.7 TOLERANCES

- A. Apply the tolerances shown in Table 15 to the JMF in accordance with Subsection 3.6.

Table 15 JMF Tolerances Per Mixture						
Sieve Size	Superpave	Stone Matrix Asphalt	Permeable Friction Course	Rich Bottom Layer	Open Graded Friction Course	Open Graded Bitum. Base
	Percent Passing					
≥No. 4 [4.75 mm]	±7	±7	±7	±7	±7	—
No. 8 [2.36 mm]	±5	±5	±5	±5	±5	—
No. 16 [1.18 mm]	±4	±4	—	±4	—	—
No. 30 [0.600 mm]	±4	±4	—	±4	—	—
No. 50 [0.300 mm]	±4	±4	—	±4	—	—
No. 100 [0.150 mm]	±3	±3	—	±3	—	—
No. 200 [0.075 mm]	±2	±2	±2	±2	±2	—

Table 15, Continued JMF Tolerances Per Mixture						
Sieve Size	Superpave	Stone Matrix Asphalt	Permeable Friction Course	Rich Bottom Layer	Open Graded Friction Course	Open Graded Bitum. Base
	Percent Passing					
Other Mixture Tolerances:						
Asphalt cement, % of mix mass	±0.4	±0.4	±0.3	±0.4	±0.3	±0.3
Mix temperature as discharged from mixer, °F [°C]	±20 [±10]	±20 [±10]	±20 [±10]	±20 [±10]	±20 [±10]	±20 [±10]

PART 4 – SAMPLING AND TESTING

4.1 TESTING METHODS

- A. Sample and test in accordance with Table 16 on following page.
- B. Method and Procedure for Sampling Asphalt Materials
 1. Sample asphalt materials in accordance with AASHTO R 66. Sample asphalt materials at the project site or mixing plant in accordance with the following:
 - a. Truck Transports: Sample to be taken by means of a sampling valve (3/8 inch = to 1/2 inch) located in the discharge or unloading line during the unloading of the approximate middle one-third of the load. The first flow through the sampling valve of one or two gallons shall be wasted after which the sample shall be drawn directly into the sample containers.
 - b. Mixing Plant: Sample to be taken from a sampling tap, complying with the requirements of ASTM D 140, located in the bituminous feed lines connecting the storage tanks to be bituminous control unit. The first flow from the sampling valve of one or two gallons shall be wasted after which the sample shall be drawn directly into the sample containers.
 - c. Storage Tank: Sample taken during the circulation of tank contents. Sampling procedure is the same as section 4.1B.1.b.
 - d. Storage Tank: If circulation is not in operation at the time of sampling, obtain sample by means of weighted bottle or other suitable sample thief. Quickly lower sample thief to near bottom of tank and withdraw at a rate of speed so that the sample thief is not completely filled when removed. Sample thief should be cleaned each time it is used and dipped two or three times in the

material being sampled before taking the sample. Immediately after taking pour sample from sample thief directly into sampling containers.

2. The ENGINEER may modify the sampling methods, testing, and acceptance for the asphalt materials. Obtain copies of the procedure from the ENGINEER.
3. Sample at the point of manufacture if the quantity shipped warrants testing. Alternatively, take samples at the point of destination. Use asphalt materials only after the ENGINEER approves them at the source.

Table 16	
Sampling and Testing of Aggregates, Bituminous Mixtures, and Asphalt Materials	
Materials	Testing Method
Aggregates	
Sampling	AASHTO T 2
Sieve analysis	AASHTO T 27
Material passing No. 200 [75 µm] sieve	AASHTO T 11
Specific gravity and absorption of fine aggregate	AASHTO T 84
Specific gravity and absorption of coarse aggregate	AASHTO T 85
Los Angeles abrasion	AASHTO T 96
Sand equivalent	AASHTO T 176
Aggregate durability index	AASHTO T 210
Total evaporable moisture content	AASHTO T 255
Aggregate degradation by Micro-Deval apparatus	AASHTO T 327
Lime for asphalt mixtures	AASHTO M 303
Flat and elongated particles in coarse aggregate	ASTM D4791
Mud, clay balls, sand clusters, sticks and roots retained on No. 4 [4.75 mm] sieve	OHD L-9
Fractured faces	OHD L-18
Insoluble residue	OHD L-25
Soft particles	OHD L-38
Asphalt Mixtures	
Mechanical analysis of extracted aggregate	AASHTO T 30
Sampling asphalt mixtures	AASHTO T 168
Bulk specific gravity (Gmb) of compacted asphalt mixtures using saturated surface-dry specimens	OHD L-14
Maximum specific gravity of asphalt mixtures	AASHTO T 209
Resistance to moisture damage ^{a, g}	AASHTO T 283
Draindown characteristics of uncompacted asphalt samples	AASHTO T 305
Preparing specimens by superpave gyratory compactor ^b	AASHTO T 312
Bulk specific gravity (Gmb) and density of compacted asphalt mixtures using automatic vacuum sealing method CoreLok™	OHD L-45

Table 16, Continued	
Sampling and Testing of Aggregates, Bituminous Mixtures, and Asphalt Materials	
Materials	Testing Method
Hamburg wheel-track testing of compacted hot mix asphalt (HMA)	AASHTO T 324
Superpave volumetric mix design	AASHTO M 323
Reclaimed asphalt shingles for use in asphalt mixtures	AASHTO MP 23
Design considerations when using reclaimed asphalt shingles (RAS) in asphalt mixtures	AASHTO PP78
Mixture conditioning of hot-mix asphalt	AASHTO R 30
Superpave volumetric design for HMA ^C	AASHTO R 35
Sampling Asphalt Mixtures after compaction (obtaining cores)	AASHTO R 67
Bulk impregnated specific gravity of aggregates ^d	OHD L-7
Specific gravity, unit weight, and percent density of compacted asphalt mixtures	OHD L-14
Bitumen content	OHD L-26
Rutting susceptibility using the hamburg rut tester	OHD L-55
Water permeability of compacted paving mixtures	OHD L-44
Asphalt Materials	
Sampling asphalt materials	AASHTO R 66
Solubility of bituminous materials	AASHTO T 44
Flash and fire points by Cleveland Open Cup	AASHTO T 48
Penetration of bituminous materials	AASHTO T 49
Ductility of bituminous materials	AASHTO T 51
Softening point of bitumen (ring-and-ball apparatus)	AASHTO T 53
Water in bituminous materials by distillation	AASHTO T 55
Standard test methods for emulsified asphalts	AASHTO T 59
Saybolt viscosity	AASHTO T 72
Distillation of cutback asphaltic (bituminous) products	AASHTO T 78
Flash points with tag open-cup apparatus	AASHTO T 79
Inorganic matter or ash in bituminous material	AASHTO T 111
pH of aqueous solutions with the glass electrode	AASHTO T 200
Kinematic viscosity of asphalts (bitumens)	AASHTO T 201
Viscosity of asphalts by vacuum capillary viscometer	AASHTO T 202
Specific gravity of semi-solid bituminous materials	AASHTO T 228

Table 16, Continued	
Sampling and Testing of Aggregates, Bituminous Mixtures, and Asphalt Materials	
Materials	Testing Method
Rolling thin film oven test	AASHTO T 240
Polymer content of polymer-modified emulsified asphalt residue and asphalt binders	AASHTO T 302
Flexural creep stiffness using the bending beam rheometer	AASHTO T 313
Rheological properties using a dynamic shear rheometer	AASHTO T 315
Viscosity determination using rotational viscometer	AASHTO T 316
Multiple stress creep recovery (MSCR) test of asphalt binder using a dynamic shear rheometer (DSR)	AASHTO T 350
Emulsified asphalt	AASHTO M 140
Cationic emulsified asphalt	AASHTO M 208
Polymer-modified cationic emulsified asphalt	AASHTO M 316
Performance-graded asphalt binder	AASHTO M 320
Performance-graded asphalt binder using multiple stress creep recovery (MSCR) test	AASHTO M 332
Recovering residue from emulsified asphalt using low-temperature evaporative techniques	AASHTO R 78
Classifying hot mix recycling agents	AASHTO R 14
Accelerated aging using a pressurized aging vessel	AASHTO R 28
Grading or verifying the performance guide	AASHTO R 29
Recovery of asphalt binder from solution by abson method	AASHTO R 59
Estimating application rate and residual application rate of bituminous distributors	ASTM D 2995
Specific gravity by hydrometer	ASTM D 3142
Elastic recovery test by means of ductilometer ^e	ASTM D 6084
Elastic recovery test by means of ductilometer ^f	OHD L-42
Compatibility of an asphalt emulsion and a job aggregate	OHD L-59
Emulsified asphalt residue by evaporation (pan)	OHD L-61
^a Run AASHTO T 283 on 6 in [150 mm] diameter specimens compacted by the Superpave Gyratory Compactor to an approximate height of 3.75 in [95 mm].	
^b Mix design mixtures at 325°F [163°C] and age at 300°F [149°C] from 2 hr to 4 hr. Compact design mixtures at 300°F [149°C]. No minimum aging period is required for field samples. Heat field samples uniformly to 300°F [149°C] for no greater than 4 hr.	

Table 16, Continued	
Sampling and Testing of Aggregates, Bituminous Mixtures, and Asphalt Materials	
Materials	Testing Method
^c Compact lab-molded specimens to Ndes gyrations to determine the density at Ndes, percent of Gmm. Back-calculate the density at Nini, percent of Gmm, from these specimens. Compact lab-molded specimens to Nmax gyrations to determine the density at Nmax, percent of Gmm for mix designs and JMF changes only. Ensure reported values are the average of two specimens.	
^d Use OHD L-7 for OGFSC only.	
^e Use ASTM D 6084 for PG binders only.	
^f Use OHD L-42 for polymer modified emulsions only.	
^g Use AASHTO R 30 for aging instead of the procedure outlined in AASHTO T 283.	

END OF SECTION 32 12 16.39

SECTION 32 92 23 - SODDING**PART 1 - GENERAL****1.1 SCOPE**

- A. This work shall consist of furnishing and planting viable Bermuda grass sod in accordance with these specifications. All areas which are not covered by pavement or structures shall be sodded, and/or areas utilized for construction staging.

PART 2 - PRODUCTS**2.1 SOD**

- A. Bermuda grass sod to be used as source material shall be a thick stand of common Bermuda grass growing on fertile topsoil. Types of Bermuda grass other than "Common" may not be used unless approved by the ENGINEER. The vegetative parts (rhizomes, stolons, and roots) of Bermuda grass shall be viable as indicated by a dense, deep rooted stand.
- B. The source for sod shall be free of reproducing parts of weeds classified as "Prohibited Noxious" and shall be as free of other legally "Restricted Noxious" plant materials as required by the Oklahoma Department of Agriculture Seed Law. The proposed source of sod will be approved by the ENGINEER before the beginning of sodding operations. Prior to approval, the area shall not be tilled or mowed. However, all vegetative growth exceeding 3 inches in height shall be mowed and the residue removed prior to harvesting the sod or sprigs.
- C. The sod shall be moist when excavated from the source and shall be kept moist until planted. Sod in storage which becomes dry, shall not be re-moistened and used, but shall be discarded.
- D. Sod material shall consist of vegetative parts (rhizomes, stolons and roots) of Bermuda grass with an appreciable quantity of adhering soil.
- E. Solid slab sod shall be rectangular slabs of Bermuda grass. Bermuda grass vegetative parts shall exist throughout the slab and shall be obtained from soils with a minimum P.I. of 3. The slab must have a dense vegetative growth and be capable of being transported in a condition closely resembling its original state.

2.2 FERTILIZER

- A. Fertilizer of 10 20 10 grade and ammonium nitrate (33.5% N), uniform in composition, free flowing and suitable for application with approved equipment shall be provided. The fertilizer shall be delivered to the site in bags or other convenient containers, each fully labeled, conforming to the applicable State fertilizer laws, and bearing the name, trade name or trademark and warranty of the producer.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Preparation of areas to be sodded shall include filling, reshaping of eroded areas, cleaning ditches and refinishing slopes to the established grading section. The area shall be cleared of all litter and debris.

3.2 APPLICATION

- A. The slabs of sod shall be placed soil side down. They shall be placed in rows, which on slopes shall run perpendicular to flow of water. Each slab shall fit tightly against the edge of adjoining slabs and shall be placed so that the vertical joints are not continuous across adjoining horizontal rows. Voids shall be filled with additional sod. All slabs shall be thoroughly pressed into firm contact with the soil underneath.
- B. After the slabs have been placed, the sodded area shall be thoroughly watered. When sufficiently dry, additional voids shall be filled with good soil and watered again. The area shall then be thoroughly watered daily for a period of at least seven days after placement.
- C. Soil moisture shall exist throughout the zone from 1 inch below the surface to at least 5 inches below the surface at the time of planting. The required moisture content of the soil may be estimated and judged closely by the hand squeeze test. The soil should readily form a tight cast when squeezed in the hand. The cast should break into two pieces without crumbling and without leaving excess water on the hand after casting.
- D. Fertilizer shall not be placed on hard or glazed surfaces. Fertilizer shall be applied at the rates shown on the plans or specifications.
- E. When satisfactory results can be obtained, disking for soil preparation, weed removal and incorporation of fertilizer may be accomplished in one operation.
- F. If a fertilizer containing phosphorous is specified, one half of the fertilizer shall be applied before placement of solid slab sod and shall then be incorporated into the soil by disking. After placement and compaction of the sod, the remaining one half of the fertilizer shall be applied and immediately incorporated into the soil with water.
- G. Fertilizer containing nitrogen only shall be applied after the sodding and sprigging operations have been completed.

3.3 SEASON

- A. If the construction work is not completed during the normal planting season (beginning April 15 through September 1), the CONTRACTOR shall seed the entire area with an approved temporary vegetative cover, such as wheat, oats or rye grass to prevent erosion until the following spring at which time the CONTRACTOR will be required to return and prepare the area to be sodded as specified above and sod the entire area with Bermuda grass as specified above at no additional cost to the OWNER. All areas

which have eroded will at this time be brought back to original line and grade as directed by the ENGINEER.

3.4 WATER SUPPLY

- A. The CONTRACTOR must make provisions to obtain water for this operation at his own expense. It will be the CONTRACTOR'S responsibility to transport the water to the area where it is needed.

END OF SECTION 32 92 23

DIVISION 33 – UTILITIES

SECTION 33 01 29 – TELEVISION INSPECTION OF SEWER LINES

PART 1 – GENERAL

1.1 DESCRIPTION

A. Work Included

1. This section covers closed-circuit television (CCTV) inspection of existing sewer lines and rehabilitated and newly constructed sewer lines.
2. The work shall consist of furnishing all labor, materials, accessories, equipment, tools, transportation, services, and technical competence for performing all operations required to professionally execute the internal inspection of sewers in strict accordance with these specifications.

B. Safety Considerations

1. Information concerning depths of flow, manhole depths, air quality in the sewers, accessibility of manholes, traffic conditions, and other safety considerations are to be the sole responsibility of the CONTRACTOR to obtain and to incorporate the necessary provisions into the overall contract price to complete the specified work under the conditions existing in the sewers to be inspected.

1.2 LARGE-DIAMETER SEWER INSPECTIONS

A. Potential Requirements

1. For large-diameter sewer inspections, the CONTRACTOR may be required to submit sample video recordings from recently completed projects demonstrating the picture quality obtained with each available inspection system for pipe diameters twenty-seven inches (27") and larger.

1.3 GUIDELINES

- A. All television testing shall be performed in accordance with guidelines published by the National Association of Sewer Service Companies (NASSCO) and as modified or specified in these specifications.

PART 2 – EQUIPMENT

2.1 EQUIPMENT REQUIREMENTS

- A. All television cameras used for inspection shall be color units specifically designed and constructed for the method of inspection performed.
- B. Camera(s) may be modified by mounting on conventional or floating skids, or rafts, for use in multiple-diameter, sewer line inspection work.

- C. Units shall have either automatic or remote focus and iris controls.
- D. The complete system(s) shall be operable in conditions of hundred (100) percent humidity.
- E. Lighting shall be suitable to allow a clear picture of the entire periphery of the main sewer pipe.
- F. For large-diameter (twenty-seven inches (27") and larger) pipe, the camera lens shall have not less than a sixty-five (65°) degree viewing angle.
- G. A radial viewing camera with a three hundred and sixty (360°) degree vertical rotation and a two hundred and seventy (270°) degree horizontal rotation, or any combination of the two, may be required to properly evaluate the condition of the main sewer and laterals. Lighting shall operate in a manner that allows the viewed object to be illuminated no matter what the angle of the lens. For a radial viewing camera, the lighting shall be built into the unit so that the lamp(s) remains aligned with the lens.
- H. A minimum illumination of three (3) lux with a light color in the twenty-two hundred (2200°) to thirty-two hundred (3200°) degree Kelvin range shall be provided. Auxiliary lighting acceptable to the ENGINEER shall be provided for large diameter pipe. For diameters of sixty inches (60") and greater, a minimum of one million (1,000,000) candlepower lighting in the thirty-two hundred (3200°) degree Kelvin range shall be made available.
- I. The CONTRACTOR shall be responsible for having the necessary camera skids, floats, and rafts available to allow for inspection of lines in a manner acceptable to the OWNER under live flow conditions.
- J. In all cases, the complete video system (camera, lens, lighting, cables, monitors, and recorders) shall be capable of providing a picture quality acceptable to the ENGINEER, and if unsatisfactory, equipment shall be removed, and no payment shall be made for unsatisfactory inspections.

PART 3 – CONSTRUCTION METHODS

3.1 GENERAL

- A. The CONTRACTOR shall use one of the following methods individually or in combination, as approved by the ENGINEER:
 - 1. Conventional color inspection cameras specifically designed for use in sewer line inspection work, mounted on conventional camera skids or tracks.
 - 2. Conventional color inspection cameras specifically designed for use in sewer line inspection work, mounted on floating skids or rafts.
 - 3. Special industrial grade, color-inspection cameras contained in waterproof

housings, and mounted on floating skids or rafts

4. Special industrial grade, color-inspection cameras, either handheld or contained in waterproof housings, and carried manually through the sewer during inspection work.

3.2 PROCEDURES

- A. Pre-Work Submittals for Inspection of Large Diameter Pipes: For pipes 27 inches and larger, the CONTRACTOR shall submit a listing of actual measured flow depths and times of measurement at a sufficient number of locations to indicate the flow depths that could be expected during inspection work. A minimum of one (1) flow depth measurement shall be provided for each line section at no additional cost to the OWNER. Additional off-peak flow measurements (i.e., night flow measurements) may be requested by the ENGINEER at various locations, also at no additional cost to the OWNER.
- B. A meeting shall be scheduled prior to beginning any internal pipe inspection work to review the CONTRACTOR'S proposed inspection methods for each of the line section groupings. At that time, the CONTRACTOR shall have available the necessary flow depth data as well as the overall listing of proposed inspection methods in each area.
- C. Remote Inspections: Remote pipe inspections shall be permitted in cases where conditions are, as determined by the ENGINEER, to be unsafe or impractical for manual inspections, and where acceptable picture quality can be obtained by the CONTRACTOR.
- D. The main sewer shall be cleaned as directed by the ENGINEER and free of grease, roots and debris that may hinder movement of inspection equipment through the lines. Major line obstructions that require point repairs are excluded.
- E. The maximum flow depth for remote inspection work in pipes twenty-four inches (24") and less is twenty (20%) percent of the pipe diameter.
- F. For large pipe diameters [twenty-seven inches and greater], the maximum flow shall be thirty (30%) percent of the pipe diameter. The CONTRACTOR may be required to perform inspections during off-peak hours (night inspections) when specifically requested by the ENGINEER to obtain this flow standard.
- G. No inspections shall be performed where flow depths exceed 50 percent of pipe diameter without prior approval of the ENGINEER.
- H. Suspended moisture or fog in pipes shall be cleared with blowers. Filming shall commence only when the ambient temperature above ground is a minimum of 40° degrees Fahrenheit.
- I. CCTV inspection shall be done one manhole section at a time and the flow in the section being inspected shall be suitably controlled as specified in Section 33 01 31. The inspection shall proceed from one section to another starting either upstream or downstream and completing in that order for the entire line. When

an obstruction prevents the camera from passing through the entire manhole section, the inspection shall be continued from the opposite manhole before proceeding to the next section.

- J. The camera shall be moved through the line at a moderate rate, stopping when necessary to permit proper documentation of the sewer's condition. The maximum speed of the camera shall not exceed 30 feet per minute. Caution shall be taken to not linger in one spot allowing the heat generated from the unit to ignite roots, debris, etc.
- K. The camera shall be moved through the line by conventional means of manual winches, power winches, television cable, and powered rewinds or other devices, which do not obstruct camera view or interfere with proper documentation of the sewer conditions. In instances where manual or remote power winches are used to pull the camera through the sewer constant two-way communication shall be set up between the two manholes of the line being inspected.
- L. Accurate and continuous footage readings shall be superimposed on the video recording for each line inspected by remote inspection methods. Also shown shall be the date of inspection and a manhole number designation that corresponds to the field logs for each manhole on the line section inspected.
- M. When specified, a lateral sewer camera shall be employed to inspect up to 25 feet of the lateral. The lateral camera launcher shall be brought into position by the main sewer television camera. Lateral sewers entering manholes shall be inspected with a mini push camera. Actual footage inspected shall vary depending on the condition of the pipe. Videotapes of laterals may be in black and white and shall show a view of the lateral connection by the main sewer camera before showing the internal view of the lateral by the launcher.
- N. The CONTRACTOR shall provide photographs developed from the television screen of problems revealed by the CCTV camera upon the request of the ENGINEER, as long as such photographing does not interfere with the CONTRACTOR'S operations.
- O. Manual (Walk Through) Inspections: Manual inspections shall be required in lines where conditions will allow the CONTRACTOR'S inspection crew to safely walk through the sewer. In general, lines 60 inches in diameter and larger and having flow depths of less than 20 percent of the pipe diameter, shall be manually inspected as directed by the ENGINEER.
- P. Inspection crews shall consist of two or more people. Blowers and exhaust fans shall be available to provide ventilation for the sewer line being inspected.
- Q. Manual pipe inspections shall be conducted in such a manner as to transmit the video signal to an aboveground viewing room to permit the ENGINEER to watch the inspection work live on a color monitor in the viewing facility. In addition, direct voice communication between the ENGINEER, the in-pipe inspection personnel, and the recording technician in the aboveground unit shall be maintained at all times during the manual inspection work. Video recording equipment shall also be

located above ground in the inspection truck and accurate, continuous footage readings shall be superimposed on the video recording for permanent record. Camcorders shall not be permitted for use as the sole means of obtaining video records.

- R. During manual inspections, the video camera shall be used to look up sidelines and laterals, whenever practical. Conditions noted in these sidelines and laterals shall be noted on the inspection logs and videotapes for the project.
- S. During manual inspections, thirty-five (35mm) millimeter color photographs shall be obtained as instructed by the ENGINEER or as deemed necessary by the in-pipe technicians to document line conditions.

PART 4 – DOCUMENTATION

4.1 REQUIREMENTS

- A. Television Inspection Logs: Printed location records shall be kept by the CONTRACTOR and will clearly show the location in relation to an adjacent manhole of each infiltration point observed during inspection. In addition, other points of significance such as locations of building sewers, unusual conditions, roots, storm sewer connections, broken pipe, presence of scale and corrosion, and other discernible features will be recorded, and a copy of such records shall be supplied to the ENGINEER. The video audio recording and written report of the condition of each lateral, if inspected, shall be included along with an identification number corresponding to main sewer log and approximate locations of any pipe defects.
- B. If preliminary inspection occurs in conjunction with a rehabilitation or replacement project, no construction activities shall begin without prior review and subsequent approval by the ENGINEER of the work outlined in the submittals.
- C. During large-diameter pipe inspections, the CONTRACTOR shall document in writing observed conditions and comments given about each sewer line. These field logs shall then be reviewed by the CONTRACTOR'S technical staff, along with reviewing the associated video record, as a means of insuring that no defects or entries are omitted or incorrect, and as a means of gaining a second opinion as to the condition of each sewer line. Edited field logs shall then be reprinted or typed for use in the final project reports. Detailed, one-page summaries shall also be prepared for each line section inspected, during the data review, presenting the ENGINEER'S synopsis of the line's general condition and the relative severity of observed defects. These summaries shall also be included in all field report copies immediately before each associated inspection report. Direct submittal of copies of the field technician's field logs, without this secondary review and summary pages, shall not be acceptable.
- D. Five (5) complete copies of the final project reports shall be submitted to the OWNER within fifteen (15) calendar days of completion of all field activities. One of the five (5) copies shall contain the original photos.

- E. An overall summary narrative shall be provided in the final report describing the overall conditions found in each associated line section grouping and detailed summary tables shall also be compiled showing those lines where major and significant defects were located.
- F. Original recordings, along with the required submittals, shall be forwarded to the ENGINEER upon completion of the inspection and shall become the property of the OWNER.
- G. Video Audio Recordings - A forward introduction sequence stating the time and date, location or segment number, depth, diameter, and pipe material for each length between manholes shall precede the recording of each line segment. The camera shall progress through the pipe indicating the beginning manhole and destination manhole as it marks the footage continuously. Should there be a need to access the line from the other direction, a new introduction track shall precede the setup, and the footage shall begin at zero.
- H. The camera shall pause as it approaches a service so that the connection between pipe and service may be evaluated. The lens shall then rotate to display the interior of the service. The service inspection should reveal any roots, cracks, or capped risers.
- I. Audio description shall accompany the visual. Operator's comments shall contain verbal verification of footage and condition of each service, and any defects or unusual conditions noted in the main. When television inspection is performed as a part of final examination for acceptance of project, it shall be performed after all the lines have been constructed and within twenty-four hours of conducting deflection test on a line. It shall be continuous and present each segment in the order laid out in the plans (e.g., Line A: station 0+00 to 4+00, station 4+00 to 8+00, Line B: station 0+00 to 3+00, etc.).
- J. All recordings shall be DVD format, or a format specified by the ENGINEER. Each tape shall be professionally labeled showing the OWNER'S name, project number, project location, the date(s), etc., lines recorded on the tape, and name of the Contractor. If the quality of the recordings is not satisfactory to the ENGINEER, the lines shall be re-recorded at the CONTRACTOR'S expense.
- K. Photographs: All photographs taken during manual walk-through inspections shall be properly mounted and labeled on eight and one half by eleven (8½" x 11") inch paper for inclusion in the final project reports. One (1) copy of the final reports shall contain the original thirty-five (35) millimeter photos, on fully laminated pages, and the remaining requested copies shall contain copier of pages of these photos. The photo pages shall be presented immediately following the inspection report for the line section in which they were taken.

Photographs taken from the monitor for remote television inspections shall also be presented in the same manner as described above.

PART 5 – METHOD OF MEASUREMENT

5.1 PAYMENT DEFINITIONS

- A. Payment shall be made for pre-construction inspection, when required for construction, and post construction inspection only. Unless separately specified, all other recording and/or photographs requested by the ENGINEER shall be considered incidental to the project and the cost included in the price for other items.
- B. "Television Inspection" shall be measured along the stations, through manholes, junction boxes and other small structures. Payment for "Television Inspection (CCTV)" shall be made at the unit price bid per lineal foot of pipe regardless of size. The price established shall be full compensation for all equipment, labor, materials, mobilization, demobilization, reverse setups, recordings, reports, photographs, and incidentals necessary to complete these items of work.

PART 6 – BASIS OF PAYMENT

6.1 PAYMENT TERMS

- A. The items measured as provided above will be paid for at the contract unit price bid:

PRE AND POST VIDEO INSPECTIONL.F.
- B. Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools, and incidentals, and for performing the work in accordance with these specifications.

END OF SECTION 33 01 29

SECTION 33 11 00 - WATERLINE AND SANITARY SEWER SPECIFICATIONS**PART 1 – GENERAL****1.1 DESCRIPTION**

- A. This division shall consist of the material and construction specification of water distribution lines, sanitary sewer lines, appurtenances, and related work, at the locations and grades as set out on the plans or established by the ENGINEER.

1.2 SUBMITTALS

- A. Submittals shall be in accordance with Section 01 33 00 "Submittal Procedures" and shall include:
1. Shop Drawings:
 - a. Drawings shall show complete physical description and performance capabilities of the equipment, including, but not necessarily limited to dimensions, flange ratings, weights, materials of construction, assemblies, sectional views.
 - b. Hydraulic calculations and CV characteristics certifying the valve can meet all the design conditions attached to this specification.
 2. Operation and Maintenance Manuals: Manuals shall be prepared by the equipment manufacturer and shall also incorporate appropriate final certified shop drawings. Manuals may be the manufacturer's standard instructions but shall be supplemented as necessary to cover any special feature not included in standard material. O&M manuals shall include storage instructions, valve installation and adjustment procedures and troubleshooting procedures. Manuals shall be provided in hard copy and digital format fully indexed.

PART 2 - APPLICABLE SPECIFICATIONS**2.1 DESCRIPTION**

- A. The specifications, standards, and publications, including the latest amendments thereto, listed in these specifications by basic designation only, form a part of this specification to the extent indicated by the references thereto.
- B. Specification 03 30 00 – Cast-In Place Concrete
- C. Specification 31 23 33 – Trenching, Backfilling, & Compaction
- D. Specification 32 12 16.39 – Plant Mix Bituminous Bases and Surfaces
- E. Specification 33 05 07.13 – Directional Bore
- F. Specification 33 31 30 – Pipe Busting

PART 3 - CAST IRON AND DUCTILE IRON PIPE, FITTINGS AND VALVES**3.1 DESCRIPTION**

- A. The work under this item shall include furnishing, hauling, placing, and jointing of Cast Iron and Ductile Iron Pipe in the trench in specific conformity with the lines and levels given. For all pipe, the AWWA Standard for Installation of Cast Iron Water Mains, AWWA Designation C-600 shall govern the installation as applicable. The method of bedding shall be in accordance with Specification 31 23 33 and as shown on the plan Standard Details. If the paint is damaged, the valve shall be cleaned by wire-brushing and given two coats of black asphalt paint.

3.2 PIPE AND FITTINGS

- A. Where Ductile Iron Pipe (DIP) three (3) inches in diameter and larger is specified or required, it shall conform to, and be tested in accordance with, the current American Standard Specification for Ductile Iron Pipe, Centrifugally Cast in metal molds or sand-lined molds, for water or other liquids, AWWA Designation C 151 (ANSI A21.51). Ductile iron pipe less than three (3) inches in diameter shall conform to the manufacturer's standards, either centrifugally or statically cast with a minimum thickness of 0.25 inches. The ductile iron (nodular cast iron) shall conform to ASTM Specification A536 with physical properties of Grade 60-40-18. Length of joints shall be either eighteen or twenty feet. The minimum standard thickness of each size pipe shall be as follows:

<u>Pipe Size</u>	<u>Thickness Class</u>
3" thru 4"	51
6" thru 24"	50
30" thru 54"	51

For larger diameter or deep cover, special design will be provided.

- B. Where Cast Iron Pipe (CIP) is specified or required, it shall conform to, and be tested in accordance with, the American Standard for Gray Iron Pipe Centrifugally Cast in Metal Molds for water or other liquids, AWWA Designation C106. Lengths shall be either eighteen feet or twenty feet. Strength of iron shall be 18/40 and the minimum standard thickness of each size pipe shall be as follows:

<u>Pipe Size</u>	<u>Thickness Class</u>
3" thru 10"	22
12"	23
14" thru 24"	24
30" thru 48"	25

- C. Where Cast Iron Pipe (CIP) and Ductile Iron Fittings are specified or required, they shall conform to, and be tested in accordance with the American Standard for Gray Iron and Ductile Iron Fittings, 3-inch through 48-inch for water and other liquids, AWWA Designation C110. Pressure rating shall be 250 psi. All sleeves shall be the longest of the lengths allowed.

- D. The work under this item shall include all of the requirements specified under the item

of pipe, in that "pipe" is understood to also mean "bends, tees, crosses, sleeves, outlet assemblies and other specified fittings". Unless otherwise specified, outlet assemblies shall consist of a flanged outlet constructed into the wall of steel or concrete pipe. If cast or ductile iron pipe is used, the outlet shall consist of a tee with the outlet flanged. If a gate valve or butterfly valve is shown on the drawings to be attached to the outlet, the line side end shall be flanged, and the opposite end shall be bell or mechanical joint according to the item for valves. All bends, tees, crosses, outlet assemblies, and plugs shall be blocked with concrete as shown on the attached Standard Details, except where the fittings have flanged, welded, or harnessed joints, the ENGINEER may under certain conditions delete the blocking. Concrete blocking shall be placed so that joints are accessible for repair.

3.3 JOINTS

- A. Cast Iron and Ductile Iron Pipe and Fittings shall be jointed with any of the end types as specified below unless a particular end type is specified. Flange ends shall be used only where specifically noted on the drawings except that the valve connection end of all tapping sleeves shall be flanged.
- B. Push-on joints shall conform to, and be tested in accordance with, the American Standard for Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings, AWWA Designation C111.
- C. Mechanical joints shall conform to, and be tested in accordance with, the American Standard for Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings, AWWA Designation C111.
- D. Bell and spigot joints shall consist of square, braided, sterilized hemp and 99.73 percent pure lead caulking.
- E. Flange joints shall conform to the American Standard for Cast Iron Pipe Flanges and Flanged Fittings, A.S.A. Designation B.16.1.

3.4 LINING AND COATING

- A. All Cast Iron and Ductile Iron Pipe and Fittings shall be bituminous coated outside and cement-mortar lined inside with seal coat in accordance with American Standards for Cement Mortar Lining for Ductile Iron and Gray Iron Pipe and Fittings for Water, AWWA Designation C104.

3.5 VALVES

- A. All valves shall be rated for 250 psi working pressure.
- B. Valve boxes shall consist of a cast iron valve box, encased with a concrete collar over a section of 6-inch PVC pipe, SDR-35 typically, which is of adequate length enabling the valve box to be set at ground level as shown on the standard drawings.

3.6 GATE VALVES

- A. Where gate valves are specified or required, they shall conform to, and be tested in accordance with, the AWWA Standard for Gate Valves, 3-inch through 48-inch NPS for Water and Sewage Systems, AWWA Designation C500. Valves shall have double disc parallel seats, non-rising stem, vertical mounting "O" ring stem seal, counterclockwise opening, and ends to fit the pipe or fitting to which attached.

3.7 BUTTERFLY VALVES

- A. Where butterfly valves are specified or required, they shall conform to, and be tested in accordance with the AWWA Standard for Rubber-Seated Butterfly Valves, AWWA Designation C504. Valves shall have operators which are side mounted with plumb, non-rising stems, counterclockwise opening, and have mechanical joint connections of the size shown on the plans. The operator shall be mounted so that the square operating nut on the valve can be operated from the top.

3.8 AIR RELIEF VALVES

- A. Where air relief valves are specified or required, the valve shall be heavy-duty combination air release and vacuum type for 300 psi water working pressure, tested to 300 psi unless otherwise specified, two-inch size. Body, cover, and baffle shall be cast iron. All internal parts to be either highest quality stainless steel or bronze, and the inside of valve coated with rust inhibitor. Air relief valves shall be set so that the square operating nut on the valve can be operated from the top. Construction standards for air relief valve vaults shall be the same as for manholes.

3.9 CHECK VALVES

- A. Where check valves are specified or required, they shall conform to, and be tested in accordance with the AWWA Standard for Swing Check Valves for Ordinary Water Works Service, AWWA Designation C508. They shall be horizontally mounted, single disc, swing type with a full diameter passage providing minimum pressure loss. Valves shall be of the non-slamming type designed for the future installation of outside lever and weight. Disc faces and seat rings shall be bronze. Ends shall fit the pipe or fitting to which attached (push-on, mechanical, bell and spigot, or flanged). Construction standards for check valve vaults shall be the same as for manholes.

3.10 TAPPING VALVES

- A. Tapping valves shall have the same features as above double disc gate valves and shall have piloted flange or centering lip on the valve flange to fit the tapping sleeve flange.

3.11 FIRE HYDRANTS

- B. Fire hydrants shall conform to the AWWA Standard for Dry-Barrel Fire Hydrants, AWWA Designation C502 as to design, composition, quality of materials, workmanship and shall be manufactured by Mueller, American, M & H, or approved equal by ENGINEER.
- C. All fire hydrants shall be 6" mechanical joint connection, 5-1/4" valve openings

furnished with two 2-1/2" nozzles, and one 4-1/2" pumper connection, with National Standard threads. Two 2-1/2" nozzles shall be spaced 180 degrees apart, with the 4-1/2" pumper nozzle centered between them.

- D. Hydrants shall be of the compression type and shall have incorporated in their design a special section or bolts which intentionally have a lower breaking point than the balance of the unit (traffic flange).
- E. Hydrants shall have a 1-1/2" pentagon shaped operating nut, open left and shall be sized for 3-1/2 feet depth of bury.
- F. All nozzles shall be equipped with chained caps provided with gaskets made of suitable plastic or neoprene.
- G. All fire hydrants shall be painted with two coats of Pittsburg, first line, or approved equal paint. Colors are to be designated by the OWNER'S Fire Department to conform with color-coding system.
- H. Where fire hydrant extensions are specified or required, they shall be of the proper design to accommodate the make of fire hydrant installed.

3.12 CONSTRUCTION

- A. Proper implements, tools and facilities satisfactory to the ENGINEER shall be provided and used by the CONTRACTOR for the safe and convenient performance of the work. All pipe, valves and hydrants shall be carefully lowered into the trench piece by piece by means of a derrick, ropes, or other suitable tools or equipment, in such a manner as to prevent damage to water main materials and protective coatings and linings. Under no circumstances shall water main materials be dropped or dumped into the trench. If damage occurs to any pipe or water main accessories in handling, the damage shall be immediately brought to the ENGINEER'S attention. The ENGINEER shall prescribe corrective repairs or rejection of the damaged items. All pipe and fittings shall be carefully examined for cracks and other defects while suspended above the trench immediately before installation in final position. Defective pipe or fittings shall be laid aside for inspection by the ENGINEER, who will prescribe corrective repairs or rejection. All lumps, blisters, and excess coating shall be removed from the bell and spigot end of each pipe, and the outside of the spigot and the inside of the bell shall be wire brushed and wiped clean and dry and free from oil and grease before the pipe is laid.

Every precaution shall be taken to prevent foreign material from entering the pipe while it is being placed in the line. During laying operations, no debris, tools, clothing, or other materials shall be placed in the pipe. As each length of pipe is placed in the trench, the spigot end shall be centered in the bell and pipe forced home and brought to correct line and grade. The pipe shall be secured in place with approved backfill material tamped under it except at the bells. Precautions shall be taken to prevent dirt from entering the joint space.

1. Joining of Push-On Joint Pipe: The inside of the bell and the outside of the spigot

end shall be thoroughly cleaned to remove oil, grit, excess coating and other foreign matter. The circular rubber gasket shall be flexed inward and inserted in the gasket recess of the bell socket.

A thin film of gasket lubricant shall be applied to either the inside surface of the gasket or the spigot end of the pipe or both. Gaskets lubricant shall be as supplied by the pipe manufacturer and approved by the ENGINEER.

The spigot end of the pipe shall be entered into the socket with care used to keep the joint from contacting the ground. The joint shall then be completed by forcing the plain end to the bottom of the socket with a forked tool, jack-type tool or other device approved by the ENGINEER.

Pipe that is not furnished with a depth mark shall be marked before assembly to assure that the spigot end is inserted to the full depth of the joint. Field-cut pipe lengths shall be filed or ground to resemble the spigot end of such pipe as manufactured.

2. Joining of Mechanical-Joint Pipe: The outside of the spigot and inside of the bell of mechanical-joint pipe shall be thoroughly cleaned to remove oil, grit, excess coating and other foreign matter from the joint, and then a thin film of gasket lubricant shall be applied to either the inside surface of the gasket or the spigot end of the pipe or both. Gasket lubricant shall be as supplied by the pipe manufacturer and approved by the ENGINEER.

The cast-iron gland shall be coated with the lubricant and placed on the spigot end with the thick edge toward the gland. The entire section of the pipe shall be pushed forward to seat the spigot end in the bell. The gasket shall then be pressed into place within the bell; care shall be taken to locate the gasket evenly around the entire joint.

When tightening bolts, the gland shall be brought up toward the pipe flange evenly, maintaining approximately the same distance between the gland and the face of the flange at all points around the socket. This shall be done by partially tightening the bottom bolt first then the top bolt, next the bolts at either side, and last, the remaining bolts. This cycle should be repeated until all bolts are within the range of torques as shown below:

Bolt Size (Inches)	Range of Torque (Ft. – Lb.)	Length of Wrench (Inches)
5/8	40 – 60	8
3/4	60 – 90	10
1	70 – 100	12
1 1/4	90 – 120	14

The torque loads may be applied with torque-measuring or torque-indicating wrenches, which may also be used to check the application of approximate torque loads applied by men trained to give an average pull on a definite length or regular socket wrench. If effective sealing is not attained at the maximum torque indicated, the joint should be disassembled, thoroughly cleaned, and reassembled. Overstressing of bolts to compensate for poor installation practice shall not be allowed.

3. For waterlines, all fittings or specials included as pipe shall be blocked in accordance with the attached Standard Details.
 4. For sanitary sewers, a joint between cast iron pipe and vitrified clay pipe or reinforced concrete pipe shall be made with special adapters as approved by the ENGINEER. If adapters are not available, the joint shall be made as instructed by the ENGINEER and encased with concrete one foot (1 ft.) each side of the joints and six inches (6) in thickness.
- I. Fire hydrants shall be located as shown or as directed to provide complete accessibility and minimize the possibility of damage from vehicles or injury to pedestrians.
1. When placed behind the curb, the hydrant barrel shall be set so that no portion of the pumper or hose nozzle cap will be closer than three (3) feet nor more than six (6) feet from the face of the curb.
 2. When set in the lawn space between the curb and the sidewalk, no portion of the hydrant or nozzle cap shall be within six (6) inches of the sidewalk.
 3. All hydrants shall stand plumb and shall have their nozzles parallel with, or at right angles to the curb, with the pumper nozzle facing the curb, and centerline nozzles at least eighteen (18) inches above the ground.
 4. Each hydrant shall be connected to the main with a six (6) inch ductile iron branch controlled by an independent six (6) inch gate valve, unless otherwise specified.
 5. Each hydrant shall be placed upon a slab of stone or concrete not less than six (6) inches thick and fifteen (15) inches square. The rear side of the hydrant, opposite the pipe, shall be blocked with concrete or stone, firmly wedged between the hydrant and the vertical face of the end of the trench of undisturbed earth or it shall be tied to the pipe with suitable straps or metal tension rods as shown on the standard drawings or as directed by the ENGINEER.
 6. Dry walls shall be constructed of crushed stone or coarse gravel having a volume of approximately one-half cubic yard and shall be placed beneath and around the drain ports of the hydrant so the hydrant will properly drain when closed.
 7. Fire hydrant extensions shall be required to bring the fire hydrant up to the existing or proposed grade of the surrounding areas, whereby an 18-inch minimum distance from the ground level to the center of the pumper nozzle may be obtained as shown on the standard drawings.

3.13 METHOD OF PAYMENT

- A. Cast Iron and Ductile Iron Pipe (CIP and DIP) shall be measured for payment by the linear foot of pipe of the size specified in the proposal and shown on the plans and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the center line of the pipe. No additional payment shall be made for vertical bends in the pipe, fittings used with drop manholes, fittings or specials not included in this specification, or for concrete blocking.
- B. Deductions will not be made for bends or specials.

3.14 BASIS OF PAYMENT

- A. Accepted quantities of Cast Iron and Ductile Iron Pipe (CIP and DIP) measured as provided above, will be paid for at the contract unit price for:

Cast Iron Pipe Lineal Feet

Ductile Iron Pipe. Lineal Feet

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 4 - STEEL PIPE AND FITTINGS**4.1 DESCRIPTION**

- A. The work under this item shall include furnishing, hauling, placing, and jointing of steel pipe in the trench in specific conformity with the lines and levels given. For all lines, the AWWA Standard for Installation of Cast Iron Water Mains, AWWA Designation C-600 shall govern the installation, as applicable. The method bedding shall be in accordance with Specification 31 23 33 and as shown on the attached Standard Details. The drawings show the plan and grade for the pipeline. The CONTRACTOR shall submit detail drawings to the ENGINEER for approval, showing his proposed method of laying the pipe to these grades. All pipelines to be crossed shall be located before these drawings are prepared. Fittings or specials included as pipe shall be blocked in accordance with the attached Standard Details

4.2 PIPE AND FITTINGS

- A. Where steel pipe is specified or required, it shall conform to the AWWA Standard for Steel Water Pipe 6-inches and larger, AWWA Designation C200. Only the following mill pipes specified under AWWA C200 shall be acceptable: ASTM A139, Grades B and C; ASTM A53, Grade B; ASTM A135, Grade B. Only the following steel plate fabricated under ASTM A134 shall be acceptable: ASTM A36, ASTM A572.
- B. All pipe shall be hydrostatically tested to 80% of the minimum yield point with the hydrostatic test pressure indicated on shop fabrication drawings. AWWA Designation C200 shall govern the testing. Pipe length shall be not less than 35 feet per joint, except for specials unless otherwise noted. There shall be no more than one longitudinal or girth seam per section. Nominal pipe diameter and steel thickness shall be as specified on the drawings. The diameter shown is the required inside diameter of steel pipe if coal tar lining is used or inside diameter of lining if mortar lining is used.
- C. All pipe shall be manufactured by an established manufacturer who has had at least three (3) years' experience in successfully building this type of pipe. Openings for air valves, main connections, and blow-off connections must be provided with suitable reinforcements around the opening, welded to the body of the pipe. Openings of the sizes shown on the drawings shall be furnished with steel blind flanges of proper strength to withstand the working pressure of the line where no other provision is made for closing the openings. The pipe shall have ends for slip joints for field welding,

beveled ends for field welding, beveled ends for field butt welding, or plain ends for mechanically coupled field joints.

- D. Twenty-four inch (24") or smaller pipe shall be manufactured with ends of true circular shape, free from indentations, projections, or roll marks for a distance of eight inches (8") from the end of the pipe. This shall be done by hydraulic expansion or some other method satisfactory to the ENGINEER. The outside diameter of the pipe shall be true enough in dimension to permit the passage for a distance of eight inches (8") from the end of the pipe a ring gauge with a bore three-thirty seconds (3/32") of an inch larger than the outside diameter of the pipe.
- E. Where steel fittings or special fittings are specified or required, they shall conform to all of the steel pipe specification requirements and to the AWWA Standard for Dimensions for Steel Water Pipe Fittings, AWWA Designation C208. Where fittings and specials are fabricated from mill pipe, they shall be fabricated from pipe hydrostatically tested to 80% of the pipe steel yield point with mitered joints dye checked for welding flaws. Where fittings and specials are fabricated from plate, they shall be hydrostatically tested to 80% of the minimum plate steel yield point. Changes in line and grade shall be made by steel specials or in the joints. Steel specials shall be used wherever the angle exceeds ten degrees (10°).
- F. Where field cutting of steel pipe is permitted, pipe shall be cut by sawing. The inside lining shall be removed for a minimum of eight inches each side of the cut and the pipe surface shall be cleaned and brushed to bright metal. After welding, the inside lining shall be replaced in accordance with AWWA C203.
- G. All steel blind flanges supplied in accordance with Section 405 shall be ASTM A36 Steel, 5/8-inch thick with approved gaskets and bolts. All bolts shall be carbon steel ASTM A307 Grade A only, in accordance with AWWA C207.
- H. The work under this item shall include all of the requirements specified under the item of pipe, in that "pipe" is understood to also mean "bends, tees, crosses, sleeves, outlet assemblies and other specified fittings". Unless otherwise specified, outlet assemblies shall consist of a flanged outlet constructed into the wall of steel or concrete pipe. If cast or ductile iron pipe is used, the outlet shall consist of a tee with the outlet flanged. If a gate valve or butterfly valve is shown on the drawings to be attached to the outlet, the line side end shall be flanged, and the opposite end shall be bell or mechanical joint according to the item for valves. All bends, tees, crosses, outlet assemblies, and plugs shall be blocked with concrete as shown on the attached Standard Details, except where the fittings have flanged, welded, or harnessed joints, the ENGINEER may under certain conditions delete the blocking. Concrete blocking shall be placed so that joints are accessible for repair.

4.3 JOINTS

- A. Steel Pipe and fittings shall be jointed with any of the end types as specified below unless a particular end type is specified. Flange ends shall be used only where specifically noted on the drawings.
- B. Welded joints shall conform to, and be tested in accordance with, the AWWA Standard

for Field Welding of Steel Water Pipe, AWWA Designation C206.

- C. Mechanically coupled joints shall consist of Dresser Couplings, Style 38, or equal, or as specified on the drawings.
- D. Flanged joints shall conform to the AWWA Standard for Steel Pipe Flanges for Waterworks Service Size 4-inch through 144-inch, AWWA Des. C207, Class E.

4.4 LINING AND COATING

- A. Steel pipe and fittings shall be lined in accordance with the AWWA Standard for Cement Mortar Protective Lining and Coat for Steel Water Pipe, AWWA Designation C205, or the AWWA Standard for Coal-Tar Enamel Protective Coatings for Steel Water Pipe, AWWA Designation C203. The exterior of all underground pipe shall be cleaned, primed, and coated with coal-tar enamel, fibrous glass mat, and a bonded asbestos felt wrapper, and with either a whitewash coating or a final wrap of kraft paper, and the exterior of all above ground pipe shall be cleaned, primed, and painted, all in accordance with the AWWA Standard for Coal-Tar Enamel Protective Coatings and Linings for Steel Water Pipe, AWWA Designation C203, or in accordance with the AWWA Standard for Chlorinated Rubber-Alkyd Paint System for the Exterior of Above Ground Steel Water Piping.
- B. If mechanical couplings are used for field joints, the ends of the pipe shall be primed and enameled before the pipe is laid. If field welding is used, the pipe joints shall be furnished with the inside lining and outside coating held back twelve inches on each end for field welding. All of the lining and coating, including any field touch-up work, shall be done under the direction of the manufacturer of the lining and coating to the satisfaction of the ENGINEER. The lining at the joints on welded pipe may be patched with a minimum of two (2) coats of a coal tar or epoxy-based paint which shall be compatible with the interior lining and which shall impart no taste or odor to the water in the lines.

4.5 CONSTRUCTION

- A. If joints are field-welded, they shall develop the full strength of the pipe. The CONTRACTOR shall file with the ENGINEER a description of the method of welding which he proposes to use, the name of the individual or company who will do the welding, and a statement regarding the previous experience of such individual or company in this particular line of work. If requested, coupons shall be cut across the field welds and tested by an approved testing laboratory. The line may be welded continuously with provisions for slack in the line, or in sections to be lowered in the trench and connected by a position weld.
- B. If joints are to be mechanically coupled, sections up to 240 feet may be coupled and lowered carefully into the ditch. Electrical continuity shall be provided at all joints. Preparation for, protection of, and repair of pipe coating and lining, and coating of mechanical couplings shall conform to the applicable section of these specifications.

4.6 METHOD OF PAYMENT

- A. Steel pipe shall be measured for payment by the linear foot of pipe specified in the proposal and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the centerline of the pipe. No additional payment shall be made for vertical bends in the pipe, fittings used with drop manholes, fittings or specials included as pipe, or for concrete blocking.

4.7 BASIS OF PAYMENT

- A. Accepted quantities of steel pipe measured as provided above, will be paid for at the contract unit price for:

STEEL PIPE Lineal Feet

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 5 - REINFORCED CONCRETE PIPE AND FITTINGS

5.1 DESCRIPTION

- A. The work under this item shall include furnishing, hauling, placing and jointing of reinforced concrete pipe (RCP) in the trench in specific conformity with the lines and levels given.

5.2 PIPE AND FITTINGS

- A. Where reinforced concrete pipe (RCP) and fittings are specified or required for waterlines, they shall conform to and be tested in accordance with the AWWA Standard for Prestressed Concrete Pressure Pipe, Steel Cylinder Type, for Water and Other Liquids, AWWA Designation C301. All pipe shall be manufactured by an established manufacturer who has had at least three years' experience in successfully building this type of pipe. All specials and fittings shall be either of Type A or Type B and must be built to the details furnished by the manufacturer and approved by the ENGINEER. Each special and each length of straight pipe shall be plainly marked to indicate the head for which the pipe is designed and to indicate where the pipe will be used by reference to the layout drawings.
- B. Where reinforced concrete pipe (RCP) and fittings are specified or required for sanitary sewers, they shall conform to and be tested in accordance with the specifications for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe, ASTM Designation C76, Class as shown on the drawings. No lengths of pipe shall be less than eight feet. All concrete pipe shall be coated inside with two (2) coats of a coal-tar base paint (Standard Inertol®, or approved equal), with a twenty-four hour drying period between coats.

5.3 JOINTS

- A. Reinforced concrete pipe and fittings for waterlines shall be jointed according to AWWA Standard for Prestressed Concrete Pressure Pipe Steel Cylinder Type, for Water and Other Liquids, AWWA Designation C301.
- B. Reinforced concrete pipe and fittings for sanitary sewer shall be jointed with a single natural rubber or neoprene gasket and cement mortar formed by a diaper. It shall be formed in a continuous ring of suitable cross sections and of such size as to assure a watertight joint. Each length of pipe shall be provided with bell-and-spigot ends formed in the concrete wall. The spigot end shall contain a groove so that the gasket will be enclosed and compressed on four surfaces when the joint is in final position. All jointing materials shall be used in accordance with the manufacturer's instructions and subject to approval of the ENGINEER.

5.4 CONSTRUCTION

- A. For waterlines, the AWWA Standard for Installation of Cast Iron Water Mains, AWWA designation C-600, shall govern the installation as applicable. The method of bedding shall be in accordance with Specification 31 23 33 and as shown on the attached Standard Details. The drawings show the plan and grade for the pipeline. The CONTRACTOR shall submit detailed drawings to the ENGINEER for approval, showing the proposed method of laying the pipe to these grades. All pipelines to be crossed shall be located before these drawings are prepared. The ends of the pipes to be jointed shall be cleaned immediately prior to joining and the rubber gasket thoroughly lubricated with a thin film of gasket lubricant before it is placed in position on the spigot end.
- B. Gasket lubricant shall be as supplied by the pipe manufacturer and approved by the ENGINEER. Extreme care shall be taken in moving the spigot end of the pipe into the bell end of previously laid pipe. If the gasket is damaged or moved out of place, the new pipe shall be removed, and a new gasket applied before rejoining. Any lubricant remaining on the exposed concrete surfaces inside or outside the pipe shall be completely removed. Fittings or specials included as pipe shall be blocked in accordance with the attached Standard Details.
- C. For sanitary sewers, the methods of laying pipe, foundation, and grade specified under Pipe, Vitrified Clay, shall apply. All pipe shall be installed with the mark "C-76" visible on the top of the pipe. The ends of the pipes to be jointed shall be cleaned immediately prior to joining and the rubber gasket thoroughly lubricated with gasket lubricant before it is placed in position on the spigot end. Extreme care shall be taken in moving the spigot end of the pipe into the bell end of the previously laid pipe. If the gasket is damaged or moved out of place, the new pipe shall be removed, and a new gasket applied before rejoining.
- D. For all lines, after the pipe has been jointed, a band at least 5-1/2 inches wide shall be placed around the outside of the pipe at the joint. This band shall serve as a form for placing 1:1 cement mortar grout in the external recess formed by the face of the groove and the shoulder of the tongue. If a reinforced paper joint bank is used, it shall be drawn up tight around the pipe and the backfill tamped against it up to the spring line before pouring the grout. If a cloth band is used, it shall be wired around the outside

of the pipe, and the grout poured before backfilling. On all pipes, the joint space remaining on the inside of the pipe shall be filled with a stiff mixture of 1:1 cement mortar which shall be troweled in place to produce a continuous, smooth, flush surface across the joint.

5.5 METHOD OF PAYMENT

- A. Reinforced Concrete Pipe (RCP) shall be measured for payment by the linear foot of pipe of the size specified in the proposal and on the plans and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the centerline of the pipe. No additional payment shall be made for vertical bends in the pipe, fittings used with drop manholes, fittings or specials included as pipe, or for concrete blocking.

5.6 BASIS OF PAYMENT

- A. Accepted quantities of Reinforced Concrete Pipe (RCP), measured as provided above, will be paid for at the contract unit price for:

REINFORCED CONCRETE PIPE (RCP) Lineal Feet

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 6 - THERMOPLASTIC POLYVINYL CHLORIDE (PVC) WATER PIPE AND FITTINGS

6.1 DESCRIPTION

- A. Thermoplastic Polyvinyl Chloride (PVC) water pipe 6 to 12-inches in size shall be allowed in the distribution system of the OWNER. The AWWA Standard for the installation of PVC water mains, AWWA Designation C-605 shall govern the installation, as applicable.

6.2 PIPE AND FITTINGS

- A. Where thermoplastic polyvinyl chloride (PVC) water pipe is specified or required, it shall conform to the AWWA Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4-inch through 12-inch, for water, AWWA Designation C900. PVC pipe shall conform to the dimensions shown in Table 2 of AWWA C900, Dimensions and Pressure Classes for Dimension Ratio (DR) for PVC 1120 Pipe with Cast Iron Pipe Equivalent ODS. The minimum DR shall be in accordance with the plans and the minimum working pressure rating shall be 150 psi.
- B. Fittings for PVC pipe 8-inches in diameter and smaller shall be Cast Iron Short Body Fittings in accordance with AWWA C110 specification for Cast Iron Fittings, 2-inch through 48-inch, for Water and Other Liquids. All fittings shall be designed and rated for 250 psi water working pressure.

- C. The work under this item shall include all of the requirements specified under the item of pipe, in that "pipe" is understood to also mean "bends, tees, crosses, sleeves, outlet assemblies and other specified fittings". Unless otherwise specified, outlet assemblies shall consist of a flanged outlet constructed into the wall of steel or concrete pipe. If cast or ductile iron pipe is used, the outlet shall consist of a tee with the outlet flanged. If a gate valve or butterfly valve is shown on the drawings to be attached to the outlet, the line side end shall be flanged, and the opposite end shall be bell or mechanical joint according to the item for valves. All bends, tees, crosses, outlet assemblies, and plugs shall be blocked with concrete as shown on the attached Standard Details, except where the fittings have flanged, welded, or harnessed joints, the ENGINEER may under certain conditions delete the blocking. Concrete blocking shall be placed so that joints are accessible for repair.

6.3 JOINTS

- A. Jointing of plastic pipe shall be accomplished by push-on type joints. Push-on joints consisting of a rubber "O" ring shall be used. The CONTRACTOR shall furnish to the ENGINEER details of the proposed joint in triplicate for approval before any such jointing material is delivered to the job site.

6.4 CONSTRUCTION

- A. Pipe shall be laid to the lines and grades established by the ENGINEER. The bottom of the trench shall be relatively uniform and in no case shall pipe be laid on rock. Where rock is encountered, Class "A" bedding shall be required.
- B. Long plastic pipelines, over three hundred feet (300 ft.) in length without an abrupt change in direction, shall be "snaked" in the trench to provide for expansion and contraction. Snaking shall be equivalent to the pipe touching opposite sides of a twenty-four inch (24) wide trench within a distance of eighty feet (80 ft.). It is recommended that, during warm weather, whenever practical, pipelines be filled with cold water or allowed to cool overnight before backfilling trench. Push-on joints shall be made with extreme care and by following the manufacturer's recommendation as to installation procedures. If the design of the joint permits for linear expansion of the pipe, the trench width may be reduced. Adequate thrust blocks as approved by the ENGINEER will be required at all bends, tees, and crosses.

6.5 METHOD OF PAYMENT

- A. Thermoplastic Polyvinyl Chloride (PVC) water pipe shall be measured for payment by the linear foot of pipe of the size specified in the proposal and on the plans and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the centerline of the pipe. No additional payment shall be made for vertical bends in the pipe.

6.6 BASIS OF PAYMENT

- A. Accepted quantities of Thermoplastic Polyvinyl Chloride (PVC) water pipe, measured as provided above, will be paid for at the contract unit price for:

THERMOPLASTIC POLYVINYL CHLORIDE (PVC) PIPE Lineal Feet

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 7 - TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS**7.1 DESCRIPTION**

- A. Type PSM Polyvinyl Chloride (PVC) sewer pipe ranging in size from 4 inches to 15 inches, may be installed within the OWNER'S collection system, as approved by the ENGINEER. The work under this item shall include furnishing, hauling, placing, and joining of PVC sewer pipe within the trench in specific conformity with lines and levels given. For all pipe, the ASTM Standard 2321-89 "Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications" shall govern with respect to installation of the pipe. The method of bedding shall be in accordance with PART 5 of this specification and any exceptions listed below, and as shown on the attached standard details.

7.2 PIPE AND FITTINGS

- A. Where Type PSM polyvinyl chloride (PVC) sewer pipe is specified or required, it shall conform to ASTM Standard D3034-94 "Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings". Nominal pipe diameter may be from 4 inches to 15 inches in size. All PVC sewer pipe shall have a minimum pipe stiffness of 115 psi and shall have a Standard Thermoplastic Pipe Dimension Ratio (SDR) in accordance to the plans. The pipe shall be made of PVC plastic having a cell classification of 12454-B or 12454-C or 12364-C or 13364-B (with minimum tensile modulus of 3450 MPa (500,000 psi) as defined in ASTM Standard D1784. The pipe shall be clearly marked at intervals of 1.5 meters (5 ft.) or less, and the markings shall indicate manufacturer's name or trademark and code, nominal pipe size, the cell classification, the designation "Type PSM SDR-XX PVC Sewer Pipe", and the designation "Specification D3034". The fittings shall be marked with manufacturer's name or trademark, nominal size, the material designation "PVC", PSM, and the designation "Specification D3034".

7.3 JOINTS

- A. Jointing of plastic pipe shall be accomplished by push-on type joint, with an elastomeric seal conforming to ASTM Standard D3212-92 "Standard Specification for Joint for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals". The CONTRACTOR shall furnish to the ENGINEER details of proposed joint in triplicate for approval before any such jointing material is delivered to the job site.

7.4 CONSTRUCTION

- A. The pipe shall be laid on a firm foundation as required in over-excavated areas, and a bedding with a minimum thickness of 4 inches (6 inches in rock cuts). Haunching material shall be placed to the springline of the pipe and be installed in layers with a maximum thickness of 6 inches. The haunching material shall be worked around the pipe by hand, and the shovel slicing method to provide uniform support of the pipe. The initial backfill shall be placed in layers to a minimum depth of 6 inches to the top of the pipe and be placed in layers with a maximum thickness of 6 inches. All material for foundation, bedding, haunching and initial backfill shall be compacted to 85% or 95% of Standard Proctor as required according to the USCS soil classification system, and in conjunction with ASTM Standard D2321-89. Maximum particle size for all backfill material shall be 3/4 inch. All backfill shall be free from clods, lumps, boulders and frozen matter.
- B. Place pipe and fittings in the trench with the invert conforming to the required elevations, slopes and alignment. Provide bell holes in the pipe bedding, no larger than necessary, in order to ensure uniform pipe support. Fill all voids under the bell by working in bedding material. In special cases where the pipe is to be installed to a curved alignment, maintain angular "joint deflection" (axial alignment) or pipe bending radius, or both, within acceptable design limits.
- C. Comply with manufacturers recommendation for assembly of joint components, lubrication, and making of joints. When pipe laying is interrupted, secure piping against movement and seal open ends to prevent the entrance of water, mud, or foreign material.
- D. For elastomeric seal joints conforming to ASTM D3212-92 "Standard Specification for Joints for Drain and Sewer Plastic Pipe Using Flexible Elastomeric Seal", the pipe ends shall be marked to indicate insertion stop position and ensure that the pipe is inserted into pipe or fitting bells to this mark. Push spigot into bell using methods recommended by the manufacturer, keeping pipe true to line and grade. Protect end of the pipe during homing and do not use excessive force that may result in over-assembled joints or dislodged gaskets. If full entry is not achieved, disassemble and clean the joint and reassemble. Use only lubricant supplied or recommended for use by the pipe manufacturer. Do not exceed manufacturer's recommendation for angular "joint deflection" (axial alignment).
- E. Where coarse and open-graded material is placed adjacent to finer material and within anticipated ground water elevations, a geotextile filter fabric shall be placed around the bedding and initial backfill material to prevent the migration of the surrounding fines into the open voided area.
- F. After installation of the pipe has been completed and air tested, the CONTRACTOR shall pull a mandrel that has been machined to 5% of the inside diameter of the pipe from manhole to manhole. The pulling of the mandrel shall be performed no earlier than 30 days from the date of the air testing.

7.5 METHOD OF PAYMENT

- A. Type PSM Polyvinyl Chloride (PVC) sewer pipe shall be measured for payment by linear foot of pipe of the size specified in the proposal and on the plans and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the centerline of the pipe. No additional payment shall be made for vertical bends in the pipe or fittings used with drop manholes.

7.6 BASIS OF PAYMENT

- A. Accepted quantities of Polyvinyl Chloride (PVC) sewer pipe, measured as provided above, will be paid for at the contract price for:

Polyvinyl Chloride (PVC) Sewer Pipe Lineal Feet

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 8 – HDPE PIPE AND FITTINGS**8.1 DESCRIPTION**

- A. This specification covers the material, joining methods, and general installation practice for high density polyethylene pipe (HDPE) piping systems for use as indicated on the drawings. For all pipe, it must be installed in accordance with AWWA C901 and C906.

8.2 PIPE AND FITTINGS

- A. All materials shall be manufactured from a PE 4710 resin listed with the Plastic Pipe Institute (PPI) as TR-4. The resin material shall meet the specifications of ASTM D3350 with a minimum cell classification of 445474C or 445574C. HDPE pipe and fittings shall contain no recycled compounds except that generated in the manufacturer's own plant from resin of the same specification from the same raw material. HDPE products shall be homogenous throughout and free of visible cracks, holes, foreign inclusions, voids, or other injurious defects.
- B. Pipe shall be made of HDPE material with a minimum material designation code of PE 4710 and with a minimum Cell classification as noted in Section A. The polyethylene compound shall be suitably protected against degradation by ultraviolet light by means of carbon black of not less than 2 percent. The manufacturer of the HDPE resin shall certify the cell classification indicated.
- C. Pipe sizes 3" DIPS/4" IPS and larger shall have a manufacturing standards of ASTM F714, while IPS pipe 3" and smaller shall be manufactured to the dimensional requirements listed in ASTM D3035. Dimension Ratio (DR) and Outside Diameter (IPS/DIPS) shall be as specified on plans.

- D. Pipe shall be manufactured by an ISO 9001 certified manufacturer. The pipe manufacturer shall have an ongoing Quality Control program for incoming and outgoing materials and shall assure that the pipe will meet the material requirements of this specification. HDPE resins for manufacturing of pipe shall be checked for density, melt flow rate, and decontamination. For potable water systems the facility shall have the necessary testing equipment to verify that pipe meets the AWWA and NSF standards. Pipe shall be checked for outside diameter, wall thickness, length, and surface finish on the inside and outside. The manufacturer's production facilities shall be open for inspection by the Owner or Engineer.
- E. All pipe may be color coded for the intended service. When required, the color coding shall be permanently co-extruded stripes on the pipe outside surface as part of the pipe's manufacturing process. Painting HDPE pipe to accomplish color coding is not permitted.
- F. All fabricated elbows, tees, reducing tees and end caps shall be produced and meet the requirements of ASTM F2206, as manufactured by ISCO Industries, Inc or other approved manufacturer holding an ISO 9001 quality system certificate. Each fitting will be marked per ASTM F2206 section 10 including the nominal size and fitting EDR, which will meet or exceed the pipe DR identified for the project. Fabricated fittings shall be manufactured using a data recording device to record fusion pressure and temperature and shall be stamped with unique joint number that corresponds to the joint report. A graphic representation of the temperature and pressure data for all fusion joints made producing fittings shall be maintained for a minimum of 5 years as part of the quality control and will be available upon request of owner. Test results to validate ASTM F2206 section 7.3 and 9 shall be provided to owner or owner's representative upon request.
- G. Fittings shall have a minimum pressure rating equal to or greater than the pipe to which they are joined unless otherwise specified on the plans or accepted by ENGINEER.
- H. The work under this item shall include all of the requirements specified under the item of pipe, in that "pipe" is understood to also mean "bends, tees, crosses, sleeves, outlet assemblies and other specified fittings". Unless otherwise specified, outlet assemblies shall consist of a flanged outlet constructed into the wall of steel or concrete pipe. If cast or ductile iron pipe is used, the outlet shall consist of a tee with the outlet flanged. If a gate valve or butterfly valve is shown on the drawings to be attached to the outlet, the line side end shall be flanged, and the opposite end shall be bell or mechanical joint according to the item for valves. All bends, tees, crosses, outlet assemblies, and plugs shall be blocked with concrete as shown on the attached Standard Details, except where the fittings have flanged, welded, or harnessed joints, the ENGINEER may under certain conditions delete the blocking. Concrete blocking shall be placed so that joints are accessible for repair.
- I. Bolted Connections
 - 1. Flanged and Mechanical Joint Adapters can be made to ASTM D3261. Flange adapters, if machined, may also meet the requirements of ASTM F2880. Flanges and MJ Adapters shall be fused onto the pipe and have a minimum pressure rating equal to or greater than the pipe unless otherwise specified on the plans.

2. Metallic back-up rings (Van-Stone style lap joint flanges), shall have a radius on the inside diameter of the bore so as to be compatible with AWWA C207 Class D (or B or E), ASME/ANSI B 16.5 Class 150, ASME/ANSI B 16.1 Class 125, or ASME/ANSI B16.47 Series A.
3. Flange assemblies shall be assembled and torqued according to PPI TN-38, "Bolt Torque for Polyethylene Flanged Joints."

J. Mechanical Fittings

1. The use of mechanical coupling and saddles shall be approved by the ENGINEER prior to installation. Mechanical fittings shall be designed for use an compatible with HDPE pipe.
2. Coupling without self-restraining capabilities (integrated serrated teeth or grippers) shall include a plan for external restraint or isolation from pipeline generated forces.
3. Mechanical saddles shall have wide straps for distribution of clamping loads. No U-Bolts shall be allowed.
4. When required by mechanical coupling manufacturer, pipe stiffeners shall be employed to support the interior wall of the HDPE. The stiffeners shall support the pipe's end and control the "necking down" reaction to the pressure applied during normal installation. The pipe stiffeners shall be formed of 304 or 316 stainless steel, with a wedged style design to fit the HDPE manufacturers published average inside diameter of the specific size and DR of the HDPE.

8.3 EQUIPMENT

- A. All fusion equipment, whether new or used, rented or owned, shall comply with the requirements of ISO 12176-1 "Equipment for Fusion Jointing Polyethylene Systems".
- B. Butt Fusion
 1. Butt fusion equipment must be in satisfactory working order and the hydraulic system must be leak free. Heater plates shall be free from scrapes, gouges, and have a consistent clean coated surface. The pressure gauge and thermometer should be properly calibrated. When requested by the ENGINEER, records showing a maintenance service or inspection within 3 months prior to use for this project shall be provided.
 2. For 16" and larger pipe sizes, the butt fusion machine shall be capable of autonomously calculating the drag pressure and perform the shift sequence autonomously.

3. For 6" and larger pipe sizes, the pipe butt fusion machine shall be a self-contained hydraulic fusion machine capable of butt fusing HDPE pipe. The carriage must be removable from the chassis for in-ditch use. The machine must be compatible with an electronic data recording device. Accessories will include all butt fusion inserts for the specified range of pipe sizes, a pyrometer kit for checking the surface temperature of the heater, extension cord of appropriate gauge (25' minimum), and hydraulic extension hoses (minimum of four). The butt fusion machine will be McElroy, or approved equivalent.
 4. In areas where there may be insufficient space for layout of the entire length of fused pipe to be pulled-back, the Contractor shall utilize a continuous HDPE pipe fusion equipment such as a PolyHorse by McElroy or other means in order to fuse the length of pipe necessary for the installation.
- C. Electrofusion processors shall be maintained and calibrated per manufacturer's requirements and recommendations.

8.4 JOINTS

- A. All HDPE pipe shall be joined to by the heat fusion process which produces homogeneous, sealed, leak-tight joints. Tie-ins between sections of HDPE pipe shall be made by butt fusion whenever possible.
- B. Butt Fusion
1. The pipe shall be joined by the butt fusion procedure outlined in ASTM F2620 or PPI TR-33. All fusion joints shall be made in compliance with the pipe or fitting manufacturer's recommendations. Fusion joints shall be made by qualified fusion technicians per ASTM F3190. A record or certificate of training for the fusion operator must be provided that documents training to the fundamentals of ASTM F2620. Considerations should be given to and provisions made for adverse weather conditions, such as temperatures below freezing, precipitation, or wind, which is accepted by the owner/engineer. The use of a controlled cooling cycle procedure to reduce cooling time is acceptable only as part of a controlled cooling cycle procedure where testing demonstrates that acceptable joints are produced using the controlled cooling cycle procedure.
- C. Electrofusion
1. Electrofusion joining shall be done in accordance with the manufacturers recommended procedure. Other sources of electrofusion joining information are PPI TN 34 and PPI Municipal Advisory Board (MAB) Generic Electrofusion Procedure for Field Joining of 12 Inch and Smaller Polyethylene (PE) Pipe. The process of electrofusion requires an electric source, commonly called an electrofusion processor that has wire leads and a method to read electronically (by laser) or otherwise input the barcode of the fitting. The electrofusion processor must be capable of reading and storing the input parameters and the fusion results for later download to a record file. Qualification of the fusion technician shall be demonstrated by evidence electrofusion training within the past year on the equipment to be utilized for this project.

D. Data Recording

1. For 6" and larger pipe sizes, McElroy DataLogger or equivalent fusion data recorder shall be used to record all fusion welds on hydraulically operated fusion machines. The device shall be capable of meeting the requirements of ASTM F3124, "Standard Practice for Data Recording the Procedure used to Produce Heat Butt Fusion Joints in Plastic Piping Systems or Fittings". The device, or combination of devices, shall record the following variables of each fused joint:
 - i. Heater surface temperature- immediately before inserting the heater plate, measure with a pyrometer and manually enter into the weld record.
 - ii. Gauge pressure during the initial heat cycle
 - iii. Gauge pressure and elapsed time during the heat-soak cycle
 - iv. Heater removal (dwell) time
 - v. Gauge pressure and elapsed time during the fusing/cool cycle
 - vi. Drag pressure
 - vii. Pipe diameter and wall thickness
 - viii. Type of HDPE material (Specification and Classification) and manufacturer
 - ix. Fusion Machine Identification
2. The device shall record the operator name and a unique operator ID number, along with the date and time of each weld.
3. Records showing the device is up to date on all required calibration should be available for presentation when requested.
4. All fusion welds should be traceable to the report (via operator and weld ID) with an indentation weld stamp or by permanent paint marker/pen next to fusion weld.
5. A weld location map may be requested, prior to commencement of work, by the owner or owner's representative.

8.5 CONSTRUCTION

A. For direct burial, refer to Specification 31 23 33.

B. Pull-In Installation

1. Per ASTM F1804 and/or www.HDPEapp.com, the contractor shall determine and document the maximum proposed pull-in length and pull-in force for the pressure class and pipe diameter to be pulled into an open trench. Pull-in lengths will not exceed the maximum lengths for the class and diameter pipe. A commercially available load limiter (weak link) approved by the Engineer shall be used between the puller and the pipe.
2. Prior to pulling the pipeline, contractor shall place rollers or other approved devices beneath the pipe to avoid unnecessary damage and to reduce pipe drag.

3. Trenchless installations:

- i. For Horizontal Directional Drilling (HDD), refer to Specification 33 05 07.13 and ASTM F1962, PPI TR-46, PPI PE Handbook (Chapter 12).
- ii. For sliplining, refer to ASTM F585, PPI PE Handbook (Chapter 11).
- iii. For pipe bursting, refer to Specification 33 31 30 and PPI PE Handbook (Chapter 16)

C. Appurtenances

- 1. All appurtenances (tees, elbows, services, valves, air relief valves, fire hydrants, etc.), must be independently supported and shall not rely on the pipeline and its connections for this support. Excessive stresses may be encountered when appurtenances are inadequately supported.
- 2. Hydrant Assemblies shall be installed and field tested according to the requirements of AWWA M17.
- 3. Installation of Tracer Wire. When tracer wire is required, the Contractor shall install along the entire section of pipeline and along all service connections as listed below. The tracer wire shall be installed simultaneously with the polyethylene piping system. Tracer wire shall be installed by the Contractor once backfill has been placed and compacted to at least 12 inches above the top of the pipe and not more than 18 inches above the top of the pipe. Tracer wire shall be properly spliced at each end connection and each service connection. Care should be taken to adequately wrap and protect wire at all splice locations. No bare tracer wire shall be accepted. Provide Magnesium alloy anode for cathodic protection that conforms to the requirements of ASTM B843. Install tracer wire per local and manufacturer's requirements.

8.6 METHOD OF PAYMENT

- A. HDPE pipe shall be measured for payment by the linear foot of pipe of the size specified in the proposal and on the plans and placed as shown on the drawings. Total footage shall be the actual horizontal measurement along the centerline of the pipe. No additional payment shall be made for vertical bends in the pipe.

PART 9 – SEWER CONNECTION**9.1 DESCRIPTION**

- A. The work under this item shall include all excavation, furnishing all materials required, construction, finishing, and backfilling of connections to existing mains, manholes, drop connections to manholes, special connections, service line connections, or plugs, as indicated on the drawings or as directed by the ENGINEER.

9.2 CONSTRUCTION

- A. Connections to existing manholes shall be made by cutting into the manhole at the specified grade, inserting the pipe, and encasing the joint with concrete. CONTRACTOR shall not break into any existing sewer unless the OWNER'S REPRESENTATIVE is present and the work done shall be under the direction of the OWNER'S REPRESENTATIVE. The manhole base shall be cut and reconstructed in such a manner that a proper invert section is maintained. All waste mortar, debris, and sharp edges shall be removed from the joints, bottom, and invert. CONTRACTOR shall remove and replace the manhole steps in the proper location and in accordance with the attached standard details if they are not properly located after the connection is made. Any and all diversion or pumping of water or sewage in a wet connection is included in this item.
- B. Methods of construction shall be the same for sewer service line reconnections as for main sewers. All reconnections shall be constructed in conformance with the Plumbing Code of the OWNER unless modified herein. New pipe used shall be of the same diameter as the existing line.
- C. Plugs shall be constructed of manhole brick and mortar, extending at least one foot into the line plugged from the manhole. The plug shall be watertight and troweled to a smooth finish on the interior of the manhole.
- D. At points indicated on the plans or by the ENGINEER, risers of the size indicated on the plans, or as required by the ENGINEER, shall be constructed. A 45-degree bell and spigot bend shall be jointed to the wye to a point level with lower side of bell of 45-degree bend. Pipe for risers shall be regular length joints of sewer pipe. Risers using full joints of pipe shall be set so that the top of riser is near to but not less than ten (10) feet below finished ground grade at rear of building location. If the OWNER desires, the CONTRACTOR may, at the OWNER's expense, extend risers to a point not less than six (6) feet below finished grade at rear of the building locations, but, in no case, shall there be less than four (4) feet of cover over riser.

When contained wholly on the public right-of-way, or within the boundaries of utility easements, risers may be laid on a slope of 45 degrees.

9.3 METHOD OF MEASUREMENT

- A. Connections will be measured for payment per each classification of connection as shown on the proposal. No additional payment will be made for excavation, backfilling, furnishing and placing concrete, removing and replacing manhole steps, or for diversion or pumping of water or sewage necessary to make the connection. Connections shown on the plans but not classified on the proposal shall be considered incidental to the work and will not be measured for payment but the cost shall be included in other items.

9.4 BASIS OF PAYMENT

- A. Accepted quantities measured as provided above will be paid for at the contract unit price as shown on the proposal for each connection which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 10 – WATER CONNECTION**10.1 DESCRIPTION**

- A. The work under this item shall include all excavation, furnishing all materials required, construction, finishing, and backfilling of connections to existing mains, valves, special connections, service line connections, as indicated on the drawings or as directed by the ENGINEER.

10.2 CONSTRUCTION

- A. The drawing shows details of the various connections and they shall be made in accordance with the details or as directed by the ENGINEER. On water mains, the CONTRACTOR will make the pressure and wet connections to existing mains as shown on the drawing unless specifically noted otherwise. In making these connections all material, equipment, and personal necessary for the job shall be assembled at the site and all work possible shall be done before the service is interrupted. The order and time of the work will be under the jurisdiction of the ENGINEER. If deemed necessary, the ENGINEER may order the CONTRACTOR to make the connection at night so as to inconvenience the public as little as possible.

- B. Where called for on the plans, or by the specifications, tapping valves and sleeves shall be used to make connections with existing water mains. The CONTRACTOR, when ready to make any of these connections, will notify the ENGINEER 48 hours in advance. The CONTRACTOR shall furnish all material, labor and equipment to make the taps.

The tapping valves furnished shall be Mueller, American Flow, or approved equal and tapping sleeves furnished shall be Ford, Smith Blair, or approved equal satisfactory to the ENGINEER. The tapping sleeves shall be the bolted type, heavy duty, using iron bolts, cast iron or equal satisfactory to the ENGINEER.

- C. Service line connections for water services shall be constructed as shown on the standard drawings and materials shall be copper, brass, municipex, or approved equal by ENGINEER.
- D. The material and workmanship for brass goods shall be of the highest quality and shall interchange with brass goods presently in use by the owner. Brass goods shall conform to the same precise standards as described in AWWA Specifications Number C800 Standard Specifications for underground service line fittings.
- E. Brass goods shall contain 85 percent copper and 5 percent each of tin, lead, and zinc and shall be tested by hydrostatic pressure of 200 pounds per square inch. The bidder shall furnish a complete description of brass goods with his bid.

- F. Copper tubing shall be Type "K" soft annealed seamless tubing and shall conform to ASTM-B88 Standard Specification for Seamless Copper Water Tube.
- G. The coils of copper tubing shall be in individual packages. The CONTRACTOR shall furnish an affidavit that the copper tubing furnished complies with all specifications.
- H. Municipex pipe shall be in accordance with AWWA 904 and ASTM F876.

PART 11 – CASTINGS

11.1 GENERAL

- A. Castings for valve boxes, valve vaults, manholes, lamp holes, and other appurtenances shall conform to, and be tested in accordance with the specifications for Gray Cast Iron, ASTM Designation A48, Class 30. Design shall be according to the attached Standard Details. Frames and covers that are to be located within dedicated public right-of-way, or any other location subject to vehicular traffic, shall have all bearing surfaces machined so that fittings parts will not rattle or rock under traffic. All castings shall be subject to a hammer test before installation.

PART 12 - RIGHT-OF-WAY CLEARING AND RESTORING

12.1 DESCRIPTION

- A. Work under this item shall include the removal and reconstruction or replacement of all obstructions affected, other than those covered in this specification, by the construction of the project including, but not limited to fences, retaining walls, patios, barbecues, signs, mailboxes, outbuildings, landscaping, sidewalks, driveways, parking lot surfacing, curbs, and the like. Any such obstructions which are not to be reconstructed are so designed on the drawings. Such shall be removed and disposed of by the CONTRACTOR. All obstructions to be replaced or reconstructed shall be restored to substantially the same condition as existed prior to the construction, except as otherwise noted. All sidewalk, driveway, and parking lot replacement shall be of at least equal quality, thickness, compacted subgrade and base course, and surface course as that removed or damaged. The CONTRACTOR shall remove and dispose of all debris, restore the grade of the surface of the earth as reasonably as may be done to the grade existing prior to construction, and upon completion of the work shall leave the site in as neat, clean, and orderly condition as nearly as it was prior to construction as may be reasonably done.

12.2 MATERIALS AND TESTS

- A. Backfill materials under parking lots and driveways shall be in accordance with Specification 31 23 33 or as approved by the ENGINEER.
- B. Portland Cement Concrete shall be in accordance with Specification 03 30 00. All concrete placed in parking lots, driveways, sidewalks, and all other concrete structures within the right-of-way shall use high-early strength cement.
- C. Asphaltic Concrete - Bituminous pavement shall meet the requirements shown in Section 32 12 16.39.

- D. Sampling and Testing - Sampling of materials will be made in accordance with the appropriate methods specified in the corresponding section listed above. Tests will be conducted in accordance with the schedule of tests provided in the special provisions or as shown on the plans.

12.3 CONSTRUCTION

- A. Passable surfaces across or along the construction vicinity shall be maintained at all times with gravel, steel mat or plate, or temporary bituminous surfacing material where a sidewalk, driveway, or parking lot previously existed.
- B. Sidewalks, driveways, parking lots, and other paved areas, all or partially composed of concrete, asphaltic concrete, or bituminous material shall be saw cut, removed, and replaced to at least the standard trench width if the project crossing is at right angles to the obstruction. If a construction joint is within two (2) feet of any proposed sawed line, the cut shall be extended to the joint, or as directed by the ENGINEER. Curbs shall be tunneled under in all cases, unless otherwise approved in writing by the ENGINEER.
- C. Backfill under sidewalks, driveways, parking lots, and other paved areas shall be in accordance with Specification 31 23 33. All backfill shall be thoroughly compacted with sufficient moisture and by mechanical means to prevent settlement. Settlement or other failure of backfill or restored right-of-way shall be corrected immediately. The method of correction shall be as directed by the ENGINEER.
- D. Existing water and sewer lines: Wherever existing water or sewer lines are encountered, the CONTRACTOR shall protect the same from damage. In case damage does result, the CONTRACTOR shall, as directed by the ENGINEER, repair the same at his own expense.
- E. Vertical and horizontal separation of water and sewer lines: Where a sanitary sewer crosses any existing or proposed water main and is closer than 10-feet horizontally or 2-feet vertically the sanitary sewer shall be ductile iron pipe for a distance of 20-feet horizontally. If the sanitary sewer crosses above the water main, the sanitary sewer shall be ductile iron pipe and concrete encased. Where a sanitary sewer is constructed closer than 50 feet to a water well (existing or proposal) the sanitary sewer shall be ductile iron pipe.

Where a water main crosses any existing or proposed sanitary sewer and is closer than 10-feet horizontally or 2-feet vertically, the sanitary sewer shall be replaced for a distance of 20-feet horizontally with ductile iron pipe. If the water main crosses below the sanitary sewer, the sanitary sewer shall be replaced with ductile iron pipe and concrete encased.

- F. Existing structures which are to be abandoned shall be broken off or removed to a depth of not less than six (6) inches below the foundation grade of new structures. Any blasting or other operation which might endanger the new work shall be completed prior to the construction of any part of the new structure. After the removal of any existing structures, all excavations not to be occupied by new structures and all holes created shall be cleaned up and the site left in a neat and orderly condition.

- G. If an obstruction is of public ownership, the CONTRACTOR shall notify the appropriate agency, and obtain any necessary permit or license forty-eight (48) hours before beginning any operations affecting the obstruction. All work shall conform to the current standards and specifications of that agency and shall be approved by the agency before completion of the project. At the CONTRACTOR'S request, the ENGINEER will furnish information as to what licenses or permits are required.
- H. The CONTRACTOR shall notify all utility companies prior to beginning construction and shall provide an electrical or mechanical device or use such other means he may select, to locate any hidden utility line, oil or gas pipe line, water pipe line, sewer pipe line, telegraph and telephone line or other structures provided for in these specifications and locate such line or structures shown on the plans and any uncharted line or structure whether shown on the plans or not and protect, adjust to grade, disconnect and replace, relocate and replace, remove, provide supports during the construction and settlement of backfill and protect against freezing or unnecessary damage by the elements of existing utility lines, oil or gas pipe lines, water pipe lines, sewer pipe lines, telegraph and telephone lines, railroad right-of-way lines and other structures and shall pay all fees to County, City, State or Federal agencies which may be required in the performance of this work. In the event injury does result to any gas lines, power lines or poles, telephone lines or poles, etc., the CONTRACTOR shall, holding the OWNER entirely blameless, make proper restitution.

12.4 METHOD OF MEASUREMENT

- A. Remove and replace paved driveways, paved parking lots and other paved areas, except sidewalks, shall be measured by the square yard. This area will be derived by multiplying the length along the centerline of the pipe by the standard trench width and converting to square yards, unless otherwise approved by the ENGINEER.
- B. Remove and replace sidewalks shall be measured by the square foot, whereby the area was measured in the same manner as paved driveways in 12.3(B) above.
- C. Gravel and rock driveways, parking lots, and other areas will not be measured for payment, but rather shall be considered incidental to the work.
- D. Temporary materials required for maintenance of traffic through pavement cut locations will not be measured for payment.
- E. Compaction of backfill to 90% Standard Density in driveways, parking lots, etc. will not be measured for payment, and the cost of this work shall be included in other bid items.
- F. Other structures and obstructions shall not be measured for payment, unless shown on the proposal, and the cost of this work shall be included in other bid items.

12.5 BASIS OF PAYMENT

- A. Accepted quantities, measured as provided above will be paid at the contract unit price for:

Pavement repair, HES concrete Sq. Yd.

Pavement repair, asphaltic Sq. Yd.

Sidewalk repair, concrete Sq. Yd.

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 13 - STREET AND ALLEY, RIGHT-OF-WAY CROSSINGS**13.1 DESCRIPTION**

- A. Work under this item shall consist of backfilling, compacting, and pavement repair, where applicable, of all trenches crossing streets and alleys, dedicated or proposed to be dedicated to the public in accordance with the lines, grades and dimensions shown on the plans or as directed by the ENGINEER.

13.2 MATERIALS AND TESTS

- A. Backfill materials and streets and alleys shall be in accordance with Specification 31 23 33.
- B. Portland Cement Concrete shall be in accordance with 03 30 00. All concrete placed within the right-of-way shall be high-early-strength (HES) cement.
- C. Asphaltic Concrete - Bituminous Pavement shall meet the requirements of Specification 32 12 16.39.
- D. Sampling and Testing - Sampling of materials will be made in accordance with the appropriate methods specified in the corresponding section listed above. Tests will be conducted in accordance with the schedule of tests provided in the special provisions or as shown on the plans.

13.3 CONSTRUCTION

- A. Compaction: The CONTRACTOR shall place the select soil in accordance with Specification 31 23 33.
- B. Pavement Removal: Removal of paved surfaces shall be in accordance with the standard drawings.
- C. Pavement Repair: Concrete and Bituminous Pavement shall be repaired in accordance with the standard drawings and the Standard Specifications for Streets and Alley Construction of the OWNER.

13.4 METHOD OF MEASUREMENT

- A. Compacted backfill in unpaved streets and alleys will be measured by the cubic yard. This volume will be derived by multiplying the length along the centerline of the pipe by the standard trench width and by the average depth of the trench and converting to cubic yards, unless otherwise approved by the ENGINEER.
- B. Compaction of backfill to 95% Standard Density in paved streets and alleys will not be measured for payment, and the cost of this work shall be included in removal and replacement of pavement.
- C. Remove and replace concrete and bituminous pavement will be measured by the square yard. This area will be derived by multiplying the length along the centerline of the pipe by the standard trench width plus 12-inches on each side of the trench and converting to square yards.
- D. Over-breakage (the removal of more paving than is specified in 4.4(C) above) will not be measured for payment but shall be repaired in accordance with these specifications at the expense of the CONTRACTOR.

13.5 BASIS OF PAYMENT

- A. Accepted quantities of the type specified on the proposal, measured as provided above, will be paid for at the contract unit price for:

Remove and replace pavement Sq. Yd.

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 14 - PIERS, REINFORCED CONCRETE**14.1 DESCRIPTION**

- A. The work under this item shall include all materials, forming, pipe anchorage, construction and finishing of above ground standard reinforced concrete piers and below ground, restraining collar, reinforced concrete piers. Piers shall be located and constructed as shown on the drawings and the attached standard drawings.

14.2 MATERIALS AND TESTS

- A. Materials and testing shall be in accordance with Section 03 30 00.

14.3 CONSTRUCTION

- A. Forms shall be made to conform to the shape of the pier and securely braced. Reinforcing steel shall be bent as detailed and securely tied in place. Bearing area for the pipe shall be made to fit the outside diameter of the pipe and shall support the pipe at the proper grade. Any honeycomb or other unevenness in the concrete shall be patched with cement mortar immediately after form removal. Construction of piers shall be in accordance with Specification 03 30 00.

14.4 METHOD OF PAYMENT

- A. Reinforced concrete piers and restraining collars shall be measured by the number of units constructed. No additional payment will be made for excavation, forming, bracing, dewatering, backfilling, reinforcing steel, or pipe anchorage.

14.5 BASIS OF PAYMENT

- A. Accepted quantities of reinforced concrete piers, measured as provided above, will be paid at the contract unit price for:

Reinforced Concrete Pier, Standard EA.

Reinforced Concrete Pier, Restraining Collar EA.

which shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

PART 15 - FIELD TESTS AND REVISIONS:**15.1 DESCRIPTION**

- A. Field tests and revisions of water and sewer mains shall be successfully completed prior to final acceptance. All discrepancies shall be corrected by the CONTRACTOR to make a complete and workable system.

15.2 MATERIALS AND TESTS

- A. Sewer:

1. Alignment: After joints have been inspected and approved and trench backfilled as specified, the ENGINEER shall check alignment between manholes or manhole locations. Any misplaced pipes detected shall be corrected to line and grade at the CONTRACTOR'S expense.
2. Deflection: In accordance with OAC 252:656-5-5(a), CONTRACTOR shall perform deflection tests on all flexible pipe after the final backfill has been in place at least 30 days. Deflection must not exceed 5%. Tests must be run using a rigid ball or mandrel with a diameter equal to 95% of the inside diameter of the pipe, taking into account manufacturing tolerances. Tests must be performed without mechanical pulling devices. Tests must be in accordance with applicable ASTM standards.
3. Line Leakage Test: Leakage tests shall be required for all new construction in accordance with OAC 252:656-5-5(b). The leakage test shall be an exfiltration test, whereby a minimum positive head of two (2) feet shall be exerted on a section of line by plugging the lower end and filling the manhole upstream with water. The leakage outward shall not exceed 10 gallons per inch of pipe diameter per mile per day (10 gallons/inches/miles/day) for any section of the system. If infiltration is observed due to hydrostatic ground water leakage the infiltration shall be reduced so as not to exceed 10 gallons/inches/miles/day. The procedures listed in the Handbook of PVC Pipe, Uni-Bell PVC Pipe Association, 2001 may be used for PVC pipe. Pipe testing must meet the provisions for the applicable ASTM standard

for the test to be used.

4. Manhole Leakage Test: Leakage tests shall be required for all new construction in accordance with OAC 252:656-5-4(g)(7) and shall be performed per ASTM C1244.
5. Where test results, in the opinion of the ENGINEER, indicated construction deficiencies, the CONTRACTOR shall make all effort to locate same and make satisfactory corrections. Infiltration through manhole walls shall be corrected regardless of the results of these tests.

B. Water:

1. Hydrostatic and Leakage Test:
 - a. PVC: Shall be in accordance with AWWA C605 procedures. After the pipe has been laid and backfilled, all newly laid pipe or any valved section thereof shall be subjected to a hydrostatic gauge pressure of 200 psi, for a duration of two hours, said pressure not to vary more than five pounds, except that PVC pipe shall be tested a design working pressure.
 - b. HDPE: Shall be in accordance with AWWA C906 procedures. After the pipe has been laid and backfilled, subject the pipe to a pressure of 1.5 times the design working pressure at the lowest point in the test section is used as the test pressure. Acceptance is found by reducing the test pressure by 10 psi and monitoring the pressure for one hour. If the pressure remains steady – within five percent of the target value – for one hour, leakage is not indicated.
2. Each valved section of pipe shall be slowly filled with water and the specified test pressure, based on the elevation of the lowest point of the line of lowest point of the section under test, and corrected to the elevation of the test gauge shall be applied by means of a test pump connected to the pipe in a manner satisfactory to the ENGINEER. The CONTRACTOR shall make arrangements for metering the amount of water used during the test.
3. The CONTRACTOR shall backfill all pipe and provide all reaction blocking before hydrostatic testing. It shall be the CONTRACTOR'S responsibility to locate and repair any and all leaks that may develop. The ENGINEER may direct the CONTRACTOR to leave certain joints and connections uncovered until testing has been completed.
 - a. Before applying the specified test pressure, all air shall be expelled from the pipe. If hydrants or blow-offs are not available at high places taps at points of highest elevation shall be made before test is made and plugs inserted after the test has been completed. Any cracked or defective pipe, fittings, valves or hydrants discovered in consequence of this pressure test shall be removed and replaced with sound material and the test shall be repeated until satisfactory to the ENGINEER.
 - b. In conjunction with the hydrostatic test, a leakage test shall be conducted as detailed in Section 4 of ANSI/AWWA Specification C-600/605, a portion of which is stated below.
 - c. Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within

5 psi of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water. No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{ND P^{1/2}}{7400}$$

in which "L" is the allowable leakage in gallons per hour; "N" is the number of joints in the length of pipe test; "D" is the nominal diameter of the pipe, in inches; and "P" is the average test pressure during the leakage test, in pounds per square inch gage. Allowable leakage per 1000 ft. of pipeline in gallons per hour at 200 psi for selected pipe diameters is listed below for 18-foot nominal lengths. Leakage tests for PVC pipe shall be at the design working pressure.

Nominal Pipe Diameter (Inches)	Allowable Leakage Per 1000 Feet of Pipeline (GPH)
2	0.22
3	0.33
4	0.44
6	0.65
8	0.87
10	1.09
12	1.31
Nominal Pipe Diameter (Inches)	Allowable Leakage Per 1000 Feet of Pipeline (GPH)
16	1.74
18	1.96
20	2.18
24	2.61
30	3.27
36	3.92
42	4.58
48	5.23
54	5.88

- d. When testing against closed metal-seated valves, an additional leakage per closed valve of 0.0078 gallons/hours/inches of nominal valve size shall be allowed. When hydrants are in the test section, the test shall be made against the closed hydrant. Acceptance shall be determined on the basis of allowable leakage. If any test of pipe laid discloses leakage greater than that specified, the CONTRACTOR shall, at his own expense, locate and repair the defect until the leakage is within the specified allowance. All visible leaks are to be repaired regardless of the amount of leakage.
- e. In accordance with OAC 252:626-19-2 (e), leakage must not exceed 10 gal/inch diameter per mile of pipe per 24 hours at 150 psi testing pressure.
4. Disinfection of Waterlines: All waterlines shall be flushed and disinfected, after testing and before being placed in service, by the methods detailed in AWWA C-601 except as modified herein.
 - a. Chlorine shall be introduced into the main in a liquid solution or as dry gas in a

continuous feed unless otherwise approved by the ENGINEER.

- b. The results of the disinfection procedure shall produce a residual of a minimum of ten parts per million (10 ppm) of chlorine in the portion of the main farthest from the point of application, after a period of twenty-four (24) hours has elapsed, as well as any other portion of the main. Samples shall be taken at location determined by the ENGINEER for tests of residual chlorine.
5. Water and sewer lines shall be constructed at the locations shown on the plans or as directed by the ENGINEER. Planned locations, grades or depths shall be adhered to unless, in the opinion of the ENGINEER, actual field conditions dictate revisions thereof. When the ENGINEER considers it necessary to deviate from planned locations, the CONTRACTOR shall construct said water or sewer lines to new alignment and/or grades established by the ENGINEER or as directed by the ENGINEER, such directions, construction stakes showing alignment and depth of cut, or revised construction plans issued by the ENGINEER.

15.3 BASIS OF PAYMENT

- A. No extra payment will be made for construction to revised locations other than increased or decreased quantities of pipe, fittings, manholes, or other items tabulated on the proposal. No extra payment will be made for additional excavation required by deviations from planned alignment or grades. Leakage tests will not be measured for payment, but the cost shall be included in other bid items. The CONTRACTOR'S bid price for waterlines to include all costs of hydrostatic and leakage test and sterilization as no separate payment will be made for these items.

END OF SECTION 33 11 00

SECTION 33 31 30 - PIPE BURSTING**PART 1 – GENERAL****1.1 DESCRIPTION**

- A. It is the intent of this portion of the specification to provide for replacement of sewer mains via the trenchless technology of pipe-bursting. Pipe-bursting for sewer main rehabilitation/replacement shall be reviewed and approved by the OWNER on a case-by-case basis.

1.2 WORK INCLUDED

- A. Scope of Work shall be per the design submittal and the Contract Documents.
- B. Work may include installation of equipment and incidentals required for sanitary sewer system improvements, including sewer mains, laterals, manholes, flushing inlets, grease traps and interceptors, and pumping facilities in accordance with the requirements of the Contract Documents.
- C. Any and all work to be performed on the Collection System shall be inspected and approved by the OWNER.
- D. The CONTRACTOR shall be certified by the particular pipe-bursting system manufacturer, and personnel shall be certified as fusion technicians by a manufacturer of HDPE pipe.
- E. The CONTRACTOR shall perform a pre-construction Closed Circuit Television (CCTV) inspection to evaluate the condition of the existing pipe and determine whether the pipe-bursting method is a valid alternative for repair. Inspection video shall be made available to the OWNER.
- F. The CONTRACTOR shall comply with the OWNER'S NPDES Discharge permit, as updated, for discharges to the storm drain system, including adherence to all applicable Best Management Practices to prevent pollutants, including sediment, from entering the storm drains.

1.3 RELATED SECTIONS

Section 33 11 00 – Waterline and Sanitary SS Specifications

1.4 REFERENCE STANDARDS

- A. ASTM D3035 "Standard Specification for Polyethylene Plastic Pipe (SDR-PR). Based on Controlled Outside Diameter."
- B. ASTM D 3350 "Standard Specification for Polyethylene Plastic Pipe and Fitting".
- C. ASTM F714-13 "Standard Specification for Polyethylene Plastic Pipe (DR-PR). Based on Outside Diameter".

D. ASTM D 3350 "Standard Specification for Polyethylene Plastic Pipe and Fitting".

1.5 QUALITY ASSURANCE

A. All materials and equipment furnished under this Section shall be:

1. From a manufacturer who has been regularly engaged in the design and manufacture of the materials and equipment for at least five (5) years; and
2. Approved by the ENGINEER before installation. The ENGINEER shall verify that the quality is equal to the materials and equipment made by those manufacturers specifically named herein, if an alternate product manufacturer is proposed.

1.6 SUBMITTALS

- A. Shop Drawings: Submit data to show that the product conforms to the specification requirements.
- B. Materials List: Submit a list of all materials proposed to be used on the project, showing manufacturer's name, product trade name, type, grade, and weight. Materials list shall be submitted and approved before any installation occurs.
- C. Manufacturer's Warranty: Submit manufacturer's warranty on the product and a certificate showing compliance with applicable ASTM Standards.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Only HDPE SDR 17 and butt-fusion joints shall be used for pipe bursting applications.

2.2 CONSTRUCTION

At a minimum, the CONTRACTOR shall adhere to the following requirements during construction:

A. Defects and Obstructions

1. CONTRACTOR shall perform all necessary point repairs and remove all obstructions when pre-construction CCTV inspection reveal heavy solids, offset joints, sags in the pipe, or collapsed pipe that will prevent the completion of the pipe bursting process.

2. If preconstruction CCTV inspection reveals a sag in the lateral that is greater than one-quarter of an inch (1/4"), CONTRACTOR shall excavate and replace those sections of pipe to result in acceptable grade without the sag.

B. Utility Location and Required Clearances

1. New pipe shall maintain a thirty-inch (30") minimum clearance for parallel utilities, sixty inches (60") for parallel high-risk utilities, and a twelve inch (12") minimum vertical clearance for perpendicular (or crossing) utilities.
2. Due to the hazards associated with pipe-bursting near natural gas lines, all natural gas lines, including but not limited to distribution mains, transmission mains, and service lines, marked within four feet (4') of the existing sewer main, shall be uncovered (pot-holed) to confirm the required clearance exists. If the existing gas line is installed parallel and within four feet (4') horizontally to the existing sewer main, the gas line shall be uncovered a minimum of once every 100 feet along the length of the sewer main.

C. Pipe Relaxation

1. After the pipe has been installed, allow pipe manufacturer's recommended amount of time, but not less than four (4) hours, for cooling and relaxation due to tensile stressing prior to reconnecting to the lateral or sewer.

D. Reconnections to Existing Laterals

1. Connections to existing laterals shall be made with a watertight non-shear coupling.

E. Bedding and Backfill Requirements

1. Bedding and backfill for all point repairs or connections to the existing lateral shall be in accordance with Standard Specifications Section 31 23 33 TRENCHING, BACKFILLING, AND COMPACTION.

F. Post-Construction CCTV Inspection

1. CONTRACTOR shall perform a post-construction Closed Circuit TV (CCTV) inspection to verify the new pipe was functional and acceptable. CONTRACTOR shall repair any sections of pipe that do not meet the requirements of this Section. The inspection video shall be provided to the OWNER.

2.3 DESIGN REQUIREMENTS

A. Conveyance Capacity

1. New pipe installation by pipe-bursting shall provide the maximum conveyance capacity possible and in no case shall provide less capacity than currently exists.

B. Design Criteria

1. In addition to the requirements for submittals set forth in the construction contracts and the requirements for submittals contained in companion sections of these specifications, CONTRACTOR shall submit the following:
 - a. Manufacturer's literature for new HDPE pipe, fittings, and materials.
 - b. Test results and certification of compliance for materials.
 - c. Proposed plan for bypassing sewage during installation, if applicable.
 - d. Proposed method of reconnecting service laterals.
 - e. Details identifying proposed installation method, equipment, and location of access and receiving pits.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Cleaning and Inspection

1. Prior to the pipe-bursting operation, CONTRACTOR shall thoroughly clean the sewer main designated for pipe bursting to be followed by Closed Circuit Television Inspection (CCTV) to identify the location of all laterals and other connections. CONTRACTOR shall inspect the sewer main in accordance with Standard Specifications Section 33 01 29 Television Inspection of Sewer Lines.

B. Sewage Flow Control

1. CONTRACTOR shall provide for maintenance of flow in the affected portions of the sewer system during pipe-bursting.
2. Unless otherwise specifically required, CONTRACTOR shall locate excavation(s) for insertion of new pipe to cause the least disruption to existing utilities, traffic, and area businesses. If CONTRACTOR locates insertion pit at an existing precast concrete manhole location, CONTRACTOR shall remove manhole frame, cover, cone, riser, and manhole sections as necessary and store for reinstallation upon completion.
3. Sections of new HDPE pipe shall be field connected above the insertion pit using butt-fused joints.

C. Service Connections

1. CONTRACTOR shall reconnect all service connections to the sewer unless the ENGINEER deems connection to be inactive or abandoned. CONTRACTOR shall comply with the following connection procedures:
 - a. CONTRACTOR shall excavate and install a heat-fused saddle configured to the outside diameter of the new pipe of tee length necessary to connect existing service or lateral.
 - b. To join pipes of dissimilar material, CONTRACTOR shall joint plain ends and connect the existing pipes and services using flexible pipe connectors

equipped with stainless steel bands and fastening devices as specified.

D. Manholes

1. Where existing manhole locations have been used as access or receiving pit sites, CONTRACTOR shall reconstruct manholes using salvaged materials. If existing manhole materials are not suitable for salvage, CONTRACTOR shall reconstruct manhole in accordance with OWNER Standard Specifications and Detail Drawings.

3.2 TESTING AND ACCEPTANCE

- A. After all work is completed, CONTRACTOR shall conduct a post-construction CCTV Inspection of the new pipe and provide the OWNER with a DVD or flash drive showing both the pre- and post-installation conditions, including the restored connections. All defects discovered during the post-installation television inspection shall be corrected by the CONTRACTOR at no expense to the OWNER before the work under the Contract will be considered for Substantial Completion. After the defects, if any, are corrected, the affected sewer segment(s) shall be video inspected again. The post-installation television inspection shall be submitted in sufficient time to allow the OWNER to review the video prior to the Substantial Completion milestone.

PART 4 - MEASUREMENT AND PAYMENT

- A. Payment shall include all bypass pumping, cleaning, pre- and post- construction televising, labor, equipment, material, supervision, sheeting, shoring, bracing, installation, manhole reconstruction at access and pit locations, safety, dust/erosion control, testing, site restoration and all other work specified or not which is reasonably required to provide a completed installation. Any item not specified shall be considered incidental to the work. CONTRACTOR shall include all incidental cost in the unit price for the slip liner.
- B. CONTRACTOR shall receive payment for building sewer lateral reinstatement on a unit price basis per lateral connection reinstated in accordance with the unit prices contained in the Contract Documents.
- C. CONTRACTOR shall receive payment for Mobilization/Demobilization and Traffic Control on a lump sum basis in accordance with the prices contained in the Contract Documents.

END OF SECTION 33 31 30

Sanitary Sewer Pipe Bursting

Quest eBidDoc™ Number: 8556116

Closing Date: Mon, 09/18/2023 04:00 PM CDT **Posting Type:** Construction Project **Owner Name:** City of Shawnee **Solicitor Name:** Cowan Group Engineering, LLC **Contact:** Michael Taylor **Phone:** 4054633369 **Email:** michael@cowangroup.co

Company Name & Address	Contact Name/Email Address	Phone/Fax	Bus. Cert	Bus. Desig	Entry Date	Doc Type	Comments
Cowan Group Engineering, LLC 7100 N. Classen, Suite 500, Oklahoma City, OK-73116	Michael Taylor michael@cowangroup.co	4054633369 4054633381		A/E Consultant	08/27/2023	eBidDoc	
Dodge Data & Analytics 2860 S State Hwy 161, Grand Prairie, TX-75052	Daedri Cavuoto daedri.cavuoto@construction.com	513.666.3354 800-768-5594		Plan Room	08/28/2023	eBidDoc	
Horseshoe Construction, Inc. 853 Innovation Drive, Bryan, TX-77808	Chad Wall chad@horseshoe-inc.com	713-344-3645 281-478-6436		Prime Bidder	08/28/2023	eBidDoc	
Orr Construction, Inc. 510 North Broadway, Davenport, OK-74026	Orr Staff projects@orrconstructionok.com	918-377-4362		Prime Bidder	08/28/2023	eBidDoc	
Bennett, Inc 103 NE 15th Ln, Lamar, MO-64759	Ron Bennett bandkexcavation@sbcglobal.net	417-682-6826 417-682-2775		Prime Bidder	08/29/2023	eBidDoc	
ConstructConnect 3825 Edwards Rd, Cincinnati, OH-45209	Eric Mills content@constructconnect.com	800-364-2059 866-570-8187		Plan Room	08/29/2023	eBidDoc	
Tri-Star Utilities, Inc. P.O Box 903, Independence, KS-67301	Ben Chism indyunderground@outlook.com	620-331-7159 620-331-7455		Prime Bidder	08/30/2023	eBidDoc	
Krapff-Reynolds Construction Co. 2400 N.E. 4th Street, Oklahoma City, OK-73117	Jim King jking@krapff-reynolds.com	405-733-9682 405-516-0081		Prime Bidder	09/06/2023	eBidDoc	
OKLAHOMA CONTRACTORS SUPPLY 7216 sw 3rd, OKC, OK-73099	JOSH LILES ibuildnoleaks@gmail.com	405-495-6161/405-787-5008		Supplier	09/07/2023	eBidDoc	
Circle B Underground LLC PO Box 868, Bristow, OK-74010	Darin Dean ddean@cbruok.com	918-367-8881 918-367-8882		Prime Bidder	09/07/2023	eBidDoc	
UTILITY TECHNOLOGY SERVICES 9636 west reno, oklahoma city, OK-73127	DAVID MOORE domoore0562@gmail.com	4058854131		Supplier	09/11/2023	eBidDoc	



Addendum #1

Date: September 13, 2023

Project: City of Shawnee
Sewer Pipe Bursting
Bid Closing Date: September 18, 2023
Shawnee, Oklahoma

The Items contained below now become a part of the referenced contract documents and specifications. Please read the following items and acknowledge receipt (see attached sheet) of this addendum on the proposal form when submitting bids.

- Please fax or e-mail Acknowledgement Page to Cowan Group Engineering, LLC, at 405-463-3369.
- If submitting a hard copy bid, bidders shall acknowledge receipt of this Addendum by signing and submitting the Acknowledgement Page with bid. Failure to do so may subject the Bidder to disqualification.
- Please find the attached revised specification documents and contract documents and replace the corresponding outdated documents with them.

SPECIFICATIONS

1. Changed project duration from 90 days to 150 days.
2. Updated bid schedule.

PLAN SHEETS

1. Changed pay quantity note 8 from 15ft increment for sags to 20ft on sheet 2.
2. Updated Pay Quantities in response to service reconnections demo on sheet 2.
3. Added sewer service detail on sheet 23.
4. Removed asphalt removal on sheet 12.

CLARIFICATIONS

1. The project is tax exempt.
2. Pipe size shall be DIPS.
3. All bids shall be typewritten or in blue ink pen.
4. Unit costs & total costs shall be provided.
5. The city does not have a dumping location for excess dirt. Hauling will need to be included in bid and incidental.
6. Street bonds shall be provided with the length of five years. The first year shall cover 100 percent of the cost with the remaining four years being 10 percent of the cost.
7. Utility bonds shall be provided with the length of two years. The first year shall cover 100 percent of the cost with the second year covering 10 percent.
8. This project is not designated under AIS or Davis Bacon wage requirements.
9. Replacement manholes were chosen to facilitate the bursting process. If any existing manhole is to be improved, it has been called out on the plans.
10. Sewer services do not necessarily need to be taken to the property line. Services need to be connected to the new main and have enough horizontal width to properly install a backflow preventer before the service hits the main in a vertical fashion.
11. Estimated overall project cost is \$1,250,000.00.
12. City will not provide means and methods of bursting. Entry and receiving pits shall be brought back to existing condition and incidental to the manhole.
13. Services shall be backfilled per the backfill detail on the plans.

Thank you for your attention. Should you have any questions, please contact the undersigned at 405.463.3369.

Cowan Group Engineering, LLC

Michael Taylor
Michael Taylor, P.E.
Team Lead



Attachment: Acknowledgement Page
Pages 2, 12, 23 of construction documents
Bid Proposal

Acknowledgement Page

Addendum #1 September 13, 2023

Project: City of Shawnee
Shawnee Sewer Bursting
Project Number: ARP-23-0092-G
Bid Closing Date: September 18, 2023
Shawnee, Oklahoma

Company: _____

Name: _____

Signature: _____

Title: _____

Date: _____

BID PROPOSAL FORM

CITY OF SHAWNEE **BID NOTICE: ARP 23-0092-G**

THE UNDERSIGNED BIDDER, having examined the plans, specifications, the locations, arrangements, and conditions of roads, street, utilities and other facilities or appurtenances which affect or may be affected by the proposed work, the actual sites of the proposed improvements and being acquainted with and fully understanding: (1) the extent and character of the work covered by this proposal; (2) the locations and specified requirements of and for the proposed improvements and other items of work appurtenant thereto; and (3) the normal existing and probable construction difficulties, hazards or all other factors or conditions which may or may not be apparent, which may affect or be affected by the specified work.

HEREBY PROPOSES to furnish all required materials, supplies, equipment, tools, and plant; to perform all necessary labor; and to construct, erect, equip, and complete all work stipulated in, required by, and in accordance with the contract documents hereto attached and the specifications referred to therein (as altered, changed, or modified by any and all addenda thereto), for and in connection with the Contract for which this proposal is herein submitted for and in consideration of the prices set out herein.

The undersigned bidder hereby agrees to furnish the required Performance Bond, Statutory Bond, Maintenance Bond, and evidence of insurance and to enter into a contract within fifteen (15) days after the acceptance of this proposal, and further agrees to complete the work in **150** days (stipulated in the Contract Agreement) from the date of the issuance by the City's Engineer of a Work Order authorizing commencement of work.

Attached hereto is a Certified Check, Cashier's Check or Bidder's Surety Bond in the amount of: _____ DOLLARS \$ _____ which the undersigned agrees is to be forfeited to and become the property of the City of Shawnee, as liquidated damages, should this proposal be accepted and the Contract be awarded to him, he fails to enter into a Contract in the form prescribed and to furnish the required bonds and evidence of insurance within fifteen (15) days as above stipulated, but otherwise the proposal guarantee shall be returned to the undersigned upon the signing of the Contract and delivery of the approved bonds and evidence of insurance to the City of Shawnee.

DATED this _____ day of _____ 20 _____.

Signature: _____

Name and Title: _____

Company: _____ Circle One: Corporation Partnership Individual

Address: _____

Phone: _____ Fax: _____

E-mail Address: _____

Federal Tax I.D. _____

Attest: _____

Secretary

Corporate Seal

(if applicable)

SEWER PIPE BURSTING
BID SCHEDULE: ARP 23-0092-G

BASE BID

ITEM #	ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
1	MOBILIZATION	LSUM	1		
2	8-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	LF	2766		
3	10-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	LF	2222		
4	12-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	LF	2151		
5	SERVICE CONNECTION	EA	214		
6	CEMENTITIOUS MANHOLE COATING	VF	69		
7	1' MANHOLE GRADE ADJUSTMENT WITH SEAL AND REPLACE FRAME, COVER AND SEAL	EA	1		
8	4' DIAMETER MANHOLE GRADE ADJUSTMENT WITH SEAL AND REPLACE FRAME. COVER AND SEAL	EA	1		
9	STANDARD 4' DIAMETER MANHOLE REMOVAL AND REPLACEMENT	EA	16		
10	CONSTRUCT 4' DIAMETER MANHOLE	EA	2		
11	ASPHALT REMOVAL AND REPLACEMENT	SY	446		
12	CONCRETE REMOVAL AND REPLACEMENT	SY	105		
13	GRAVEL REMOVAL AND REPLACEMENT	SY	2332		
14	SOLID SLAB SODDING	SY	912		
15	EXTRA DEPTH MANHOLE	VF	80		
16	PRE INSTALLATION VIDEO INSPECTION	LF	7139		
17	POST INSTALLATION VIDEO INSPECTION	LF	7139		
18	TESTING	LSUM	1		
19	BYPASS PUMPING	EA	27		
20	TEMPORARY EROSION AND SEDIMENT CONTROL	LSUM	1		
21	CONSTRUCTION SIGNING & TRAFFIC CONTROL	LSUM	1		
22	SPOT REPAIRS	EA	4		

ALL ITEMS TO INCLUDE ALL APPURTENANCES NECESSARY TO PROVIDE A COMPLETE AND OPERABLE SYSTEM AS DESCRIBED IN THE PLANS AND SPECIFICATIONS.

TOTAL BASE BID \$ _____

TOTAL BASE BID IN WORDS _____



SUMMARY OF QUANTITIES

PAY ITEM	DESCRIPTION	NOTES	UNIT	QUANTITY	AS-BUILT
1	MOBILIZATION		LSUM	1	
2	8-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	(1)(2)(3)(4)	LF	2766	
4	10-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	(1)(2)(3)(4)	LF	2222	
5	12-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	(1)(2)(3)(4)	LF	2151	
6	SERVICE CONNECTION	(5)	EA	214	
7	CEMENTITIOUS MANHOLE COATING		VF	69	
8	1' MANHOLE GRADE ADJUSTMENT WITH SEAL AND REPLACE FRAME, COVER AND SEAL		EA	1	
9	4' DIAMETER MANHOLE GRADE ADJUSTMENT WITH SEAL AND REPLACE FRAME, COVER AND SEAL		EA	1	
10	STANDARD 4' DIAMETER MANHOLE REMOVAL AND REPLACEMENT	(6)(7)	EA	16	
11	CONSTRUCT 4' DIAMETER MANHOLE	(6)(7)	EA	2	
12	ASPHALT REMOVAL AND REPLACEMENT		SY	446	
13	CONCRETE REMOVAL AND REPLACEMENT	(1)	SY	105	
14	GRAVEL REMOVAL AND REPLACEMENT		SY	2332	
15	SOLID SLAB SODDING		SY	912	
16	EXTRA DEPTH MANHOLE		VF	80	
17	PRE INSTALLATION VIDEO INSPECTION		LF	7139	
18	POST INSTALLATION VIDEO INSPECTION		LF	7139	
19	TESTING		LSUM	1	
20	BYPASS PUMPING		EA	27	
21	TEMPORARY EROSION AND SEDIMENT CONTROL		LSUM	1	
22	CONSTRUCTION SIGNING & TRAFFIC CONTROL		LSUM	1	
23	SPOT REPAIRS	(8)	EA	4	

PAY QUANTITY NOTES

1. CONCRETE USED FOR DRIVE REPLACEMENT AND PAVING PATCH SHALL BE 3,500 PSI HIGH EARLY STRENGTH CONCRETE.
2. HDPE PIPE SHALL HAVE AN ENTIRELY LIGHT COLOR (NATURAL, WHITE, GREEN, ETC.) INSIDE SURFACE TO ALLOW LIGHT REFLECTION FOR ROBOTIC TELEVISION INSPECTIONS AND SHALL CONFORM TO DIPS PIPE SIZING WITH A DR RATING OF 17.
3. IF PRE-INSTALLATION VIDEO REVEALS A SAG IN THE EXISTING SEWER THAT IS GREATER THAN ONE-HALF THE DIAMETER OF THE EXISTING PIPE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL THE REPLACEMENT PIPE TO RESULT IN AN ACCEPTABLE GRADE WITHOUT THE SAG.
4. CONTRACTOR TO TELEVISION INSPECT EXISTING LINES PRIOR TO CONSTRUCTION TO VERIFY SERVICE LINE PIPE SIZE. AND LOCATION. COST SHALL INCLUDE CLEANING EXPENSES.
5. APPLIES TO ALL SERVICE RECONNECTIONS REGARDLESS OF SIZE, MATERIAL, OR LENGTH. INCLUDES MATERIAL AND LABOR FOR THE REROUTING OF SERVICE LINES TO THE TRUNK LINE ON ALL NEW AND/OR REPLACED MANHOLES. SERVICE RECONNECTIONS SHALL INCLUDE A BACKFLOW PREVENTER AT THE EASEMENT OR R.O.W. LINE AND SHALL BE INCIDENTAL TO THE COST OF THIS ITEM.
6. STANDARD DEPTH FOR ALL MANHOLES SHALL BE 6'. BID ITEM SHALL INCLUDE ANY NECESSARY GRAVEL REMOVAL & REPLACEMENT.
7. MANHOLE GRADE ADJUSTMENTS FOR MANHOLE RINGS WHICH REQUIRE LEVEL ADJUSTMENTS TO GRADE ARE INCIDENTAL AND SHALL BE INCLUDED IN COSTS.
8. TO BE USED IN 20FT INCREMENTS FOR ANY SAGS FOUND DURING PRE INSTALLATION VIDEO INSPECTION, AS COORDINATED WITH THE ENGINEER.

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF SHAWNEE STANDARDS AND SPECIFICATIONS AND THE REQUIREMENTS OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION, AND OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY WHERE IN CONFLICT THE MOST STRINGENT REQUIREMENT SHALL APPLY.
2. ANY CONSTRUCTION ITEMS THAT ARE NOT LISTED IN THE SUMMARY OF QUANTITIES SHALL BE CONSIDERED INCIDENTAL CONSTRUCTION ITEMS. THE COST OF INCIDENTAL CONSTRUCTION ITEMS SHALL BE INCLUDED IN THE COST OF OTHER BID ITEMS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PUBLIC AND/OR PRIVATE UTILITY COMPANIES IN THE VICINITY OF CONSTRUCTION.
4. EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
5. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION SHALL BE WASTED ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY. ALL DISPOSAL SITES MUST BE APPROVED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN SHALL REQUIRE THE NECESSARY PERMITS. ANY MATERIAL DUMPED IN THE WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORP OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS AND STATE APPROVAL.
6. A COPY OF THE EROSION CONTROL SITE PLANS AND THE STORM WATER POLLUTION PREVENTION PLAN MUST BE ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE INSPECTOR UPON REQUEST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, REPAIR, AND REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
7. ALL DISTURBED AREAS SHALL BE SODDED WITH SOLID SLAB PER CITY OF SHAWNEE STANDARD SPECIFICATIONS, INCLUDES WATER AT 40 GALLONS PER S.Y. AND FERTILIZE PER TOWN STANDARD. THE CITY OF SHAWNEE TO PAY PLAN QUANTITIES ONLY, ANY EXCESS WILL BE RESPONSIBILITY OF CONTRACTOR.
8. CONTRACTOR SHALL PROVIDE BONDS AND PROOF OF INSURANCE IN ACCORDANCE WITH THE LOCAL REQUIREMENTS.
9. CONSTRUCTION STAKING AND TESTING SHALL BE PROVIDED BY THE CONTRACTOR.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION.
11. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING CONSTRUCTION OF THIS PROJECT MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.
12. THE CONTRACTOR SHALL AVOID TREE DAMAGE IF AT ALL POSSIBLE AND SHALL PRUNE ALL ROOTS DAMAGED DURING CONSTRUCTION ACTIVITIES.
13. ALL MANHOLE RIMS SHALL BE 6-INCHES ABOVE SURROUNDING GRADE UNLESS LOCATED IN LOW-LYING AREA SUBJECT TO FLOODING SPECIFIED BY ENGINEER.
14. TEMPORARY EROSION AND SEDIMENT CONTROL SHALL CONSIST OF TEMPORARY MEASURES WITHIN THE PROJECT LIMITS AND MINIMIZE POLLUTION OF RIVERS, STREAMS, AND PRIVATE PROPERTIES. SUCH MEASURES MAY INCLUDE BERMS, DIKES, SLOPE DRAINS, BALE BARRIERS, SEDIMENT FILTERS, SEDIMENT BASINS, MULCHES, AND GRASSES. ALL UNPAVED AND DISTURBED AREAS SHALL RECEIVE SOLID SLAB SOD TREATMENT IN ACCORDANCE WITH SECTION 31 25 00 OF THE PROJECT SPECIFICATIONS.
15. CONSTRUCTION SIGNING AND TRAFFIC CONTROL SHALL CONSIST OF FURNISHING AND ERECTING SIGNS, LIGHTS, BARRICADES, AND DEVICES IN ACCORDANCE WITH CITY STANDARD SPECS AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
16. CONTRACTOR TO PHOTOGRAPH EACH MANHOLE PRIOR TO, AND AFTER REHABILITATION.
17. DEFLECTION TESTS SHALL BE IN ACCORDANCE WITH OAC 252:656-5-5(A). PERFORM DEFLECTION TESTS ON ALL FLEXIBLE PIPE AFTER FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. DEFLECTION MUST NOT EXCEED 5%. TEST MUST BE RUN USING A RIGID BALL OR MANDREL WITH A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE TAKING INTO ACCOUNT MANUFACTURING TOLERANCES. TESTS MUST BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES. TESTING MUST ADHERE ASTM F2160.
18. LEAKAGE TESTS SHALL BE IN ACCORDANCE WITH OAC 252:656-5-5(B). LEAKAGE TESTS ARE REQUIRED FOR ALL GRAVITY LINES. HYDROSTATIC TESTS MUST USE A 2-FOOT TEST HEAD AND LEAKAGE INWARD OR OUTWARD MUST NOT EXCEED 10 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY. TESTING MUST ADHERE ASTM F2164. THE PROCEDURES LISTED IN THE HANDBOOK OF PVC PIPE, UNI-BELL PVC PIPE ASSOCIATION, 2001 MAY BE USED FOR PVC PIPE. AN AIR TEST RESULT MUST ASSURE A LEAKAGE LIMIT EQUIVALENT TO THE HYDROSTATIC TEST LIMIT.
19. CONTRACTOR SHALL CONSTRUCT ALL MANHOLES IN ACCORDANCE TO THE MANHOLE SCHEDULES ON SHEET 3 PER SPECIFICATIONS 33 01 30 & 33 05 61. RIM ELEVATIONS AND SURFACE SHOWN IN ALL PROFILE VIEWS ARE APPROXIMATE AND SHALL NOT BE CONSIDERED FINAL GRADE.

STRUCTURE TABLE

STRUCTURE NAME:	LINE #:	RIM:	PIPE INVERTS	DESCRIPTION:
30228	LINE 1	1048.44	8" 1038.94	REMOVE AND REPLACE 4' DIA. MH
1	LINE 1	1050.20	8" 1040.49	EX. 4' DIA. MH
30202	LINE 2	1096.60	10" 1084.46	REHAB EX. 4' DIA. MH
30207	LINE 2	1100.74	10" 1094.83	REMOVE AND REPLACE 4' DIA. MH
30218	LINE 3	1077.53	10" 1070.33	REHAB EX. 4' DIA. MH
30223	LINE 3	1084.52	10" 1068.79	REMOVE AND REPLACE 4' DIA. MH
2	LINE 4	1071.78	10" 1065.65	EX. 4' DIA. MH
20033	LINE 4	1073.94	10" 1064.49	REMOVE AND REPLACE 4' DIA. MH
3	LINE 5	1062.18	8" 1058.20	CONST. 4' DIA. MH
30008	LINE 5	1064.21	8" 1057.25 8" 1056.87	EX. 4' DIA. MH
30013	LINE 5	1066.05	8" 1058.97 8" 1059.02	REMOVE AND REPLACE 4' DIA. MH
30028	LINE 5	1068.81	8" 1060.93	EX. 4' DIA. MH
30005	LINE 6	1065.31	12" 1056.07	EX. 4' DIA. MH
30006	LINE 6	1066.51	12" 1054.21 12" 1054.18	REMOVE AND REPLACE 4' DIA. MH
30007	LINE 6	1068.58	12" 1058.10 12" 1058.08	EX. 4' DIA. MH
4	LINE 6	1071.16	12" 1058.81	CONST. 4' DIA. MH
30001	LINE 7	1065.75	8" 1056.91	REMOVE AND REPLACE 4' DIA. MH
30003	LINE 7	1066.76	8" 1057.48 8" 1057.38	REMOVE AND REPLACE 4' DIA. MH
30002	LINE 7	1068.64	8" 1054.91 8" 1054.88	REHAB EX. 4' DIA. MH
30004	LINE 7	1070.67	8" 1058.88	REHAB EX. 4' DIA. MH

STRUCTURE TABLE

STRUCTURE NAME:	LINE #:	RIM:	PIPE INVERTS	DESCRIPTION:
5	LINE 8	1022.63	12" 1013.55	REHAB AND RAISE LID- EX.4' DIA. MH
20028	LINE 8	1034.62	12" 1017.32	CONST. 4' DIA. MH W/ DROP
30073	LINE 9	1020.60	10" 1008.60	EX. 4' DIA. MH
30085	LINE 9	1023.94	10" 1010.06	REMOVE AND REPLACE 4' DIA. MH
30104	LINE 10	1011.73	10" 1001.47	EX. 4' DIA. MH
30097	LINE 10	1020.55	10" 1011.71	REMOVE AND REPLACE 4' DIA. MH
6	LINE 11	1033.82	8" 1025.00	EX. 4' DIA. MH (PAVED OVER, TO FIELD VERIFY)
30122	LINE 11	1033.90	8" 1025.90 8" 1025.75	REMOVE AND REPLACE 4' DIA. MH
30139	LINE 11	1034.07	8" 1026.13	REHAB EX. 4' DIA. MH
30167	LINE 12	1072.70	8" 1063.65	REHAB EX. 4' DIA. MH
30156	LINE 12	1078.16	8" 1070.22	REMOVE AND REPLACE 4' DIA. MH
30193	LINE 13	1059.76	10" 1053.62	REHAB EX. 4' DIA. MH
30178	LINE 13	1071.04	10" 1062.32	REMOVE AND REPLACE 4' DIA. MH
2019	LINE 14	1053.68	12" 1041.08	EX. 4' DIA. MH
7	LINE 14	1061.79	12" 1046.04 12" 1046.36	REMOVE AND REPLACE 4' DIA. MH
1894	LINE 14	1063.93	12" 1050.00	EX. 4' DIA. MH



COWAN GROUP ENGINEERING
7100 N GLASSEN, SUITE 500
OKLAHOMA CITY, OK 73116
405-463-3369 O 405-463-3381 F
WWW.COWANGROUP.CO
CA# 6414 EXPIRES 6/30/2024

SANITARY SEWER PIPE BURSTING

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

PAY QUANTITES & NOTES

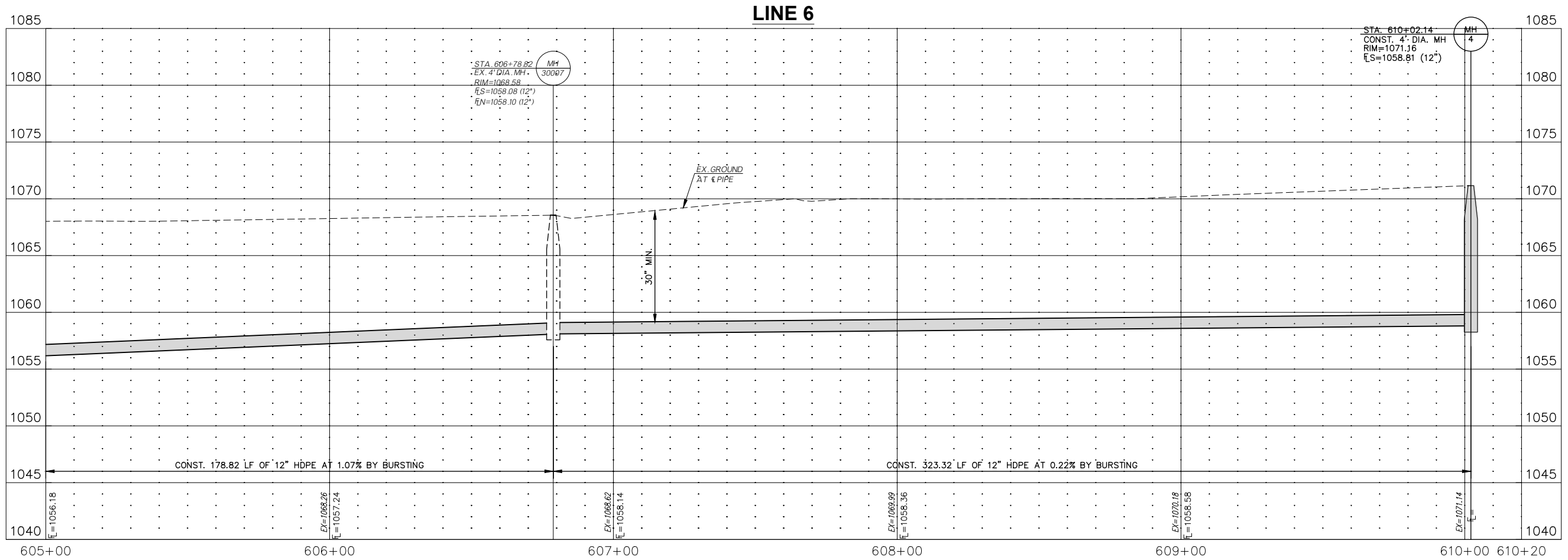
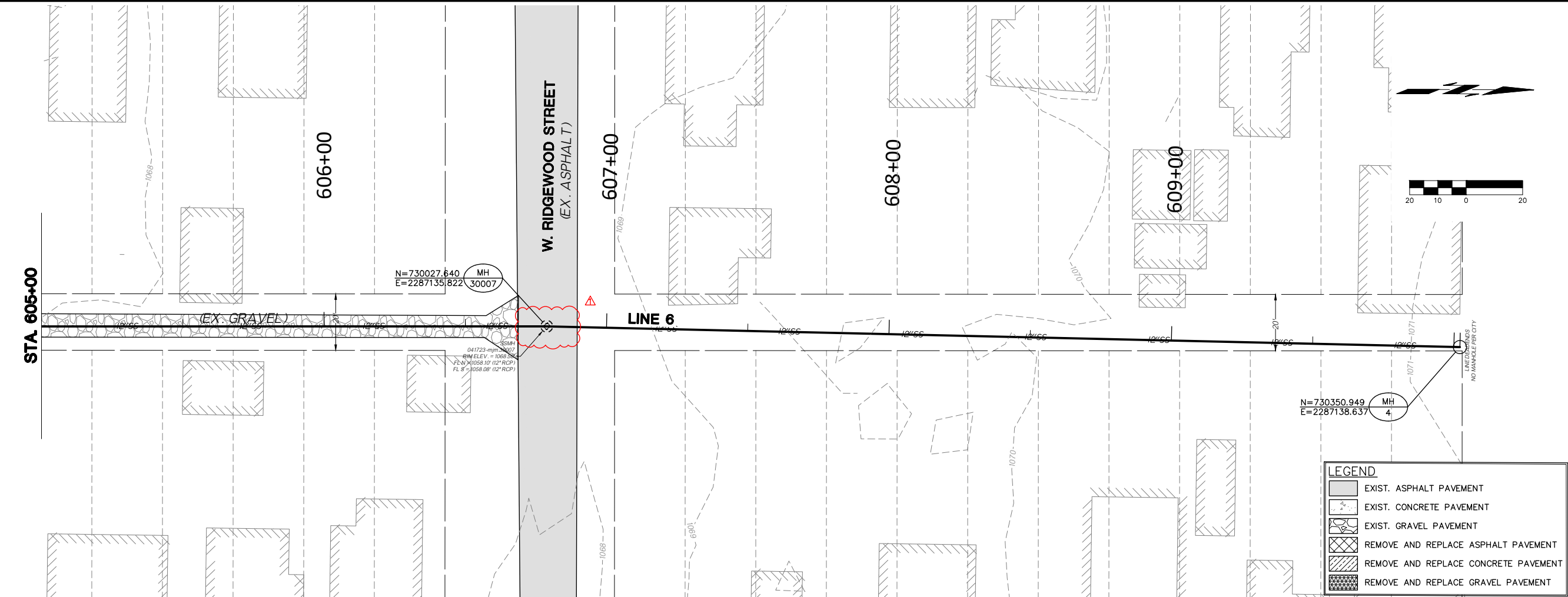
DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-153
DATE	5/8/2023

REVISIONS

SHEET NUMBER

2

Tuesday, September 12, 2023 10:44:37 AM



COWAN GROUP ENGINEERING
7100 N GLASSEN, SUITE 500
OKLAHOMA CITY, OK 73116
405-463-3369 | 405-463-3381 F
WWW.COWANGROUP.COM
CA# 6414 EXPIRES 6/30/2024

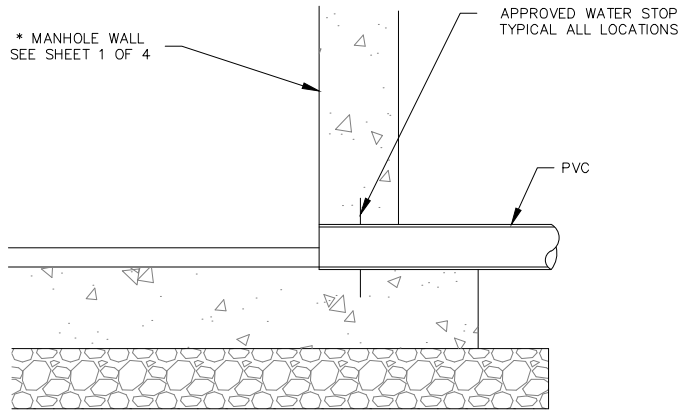
PRELIMINARY
NOT FOR CONSTRUCTION

SANITARY SEWER PIPE BURSTING

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

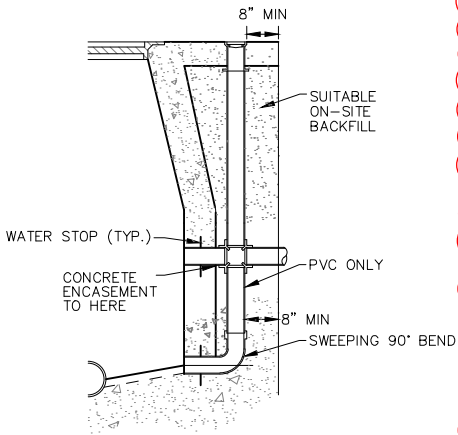
LINE 6 P&P (2 OF 2)	
DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-153
DATE	5/8/2023
REVISIONS	
SHEET NUMBER	
12	

G:\PROJECTS\23-153 SHAWNEE SEWER PIPE BURSTING\CAD\SSN\23-153 LINE 6 P&P.DWG

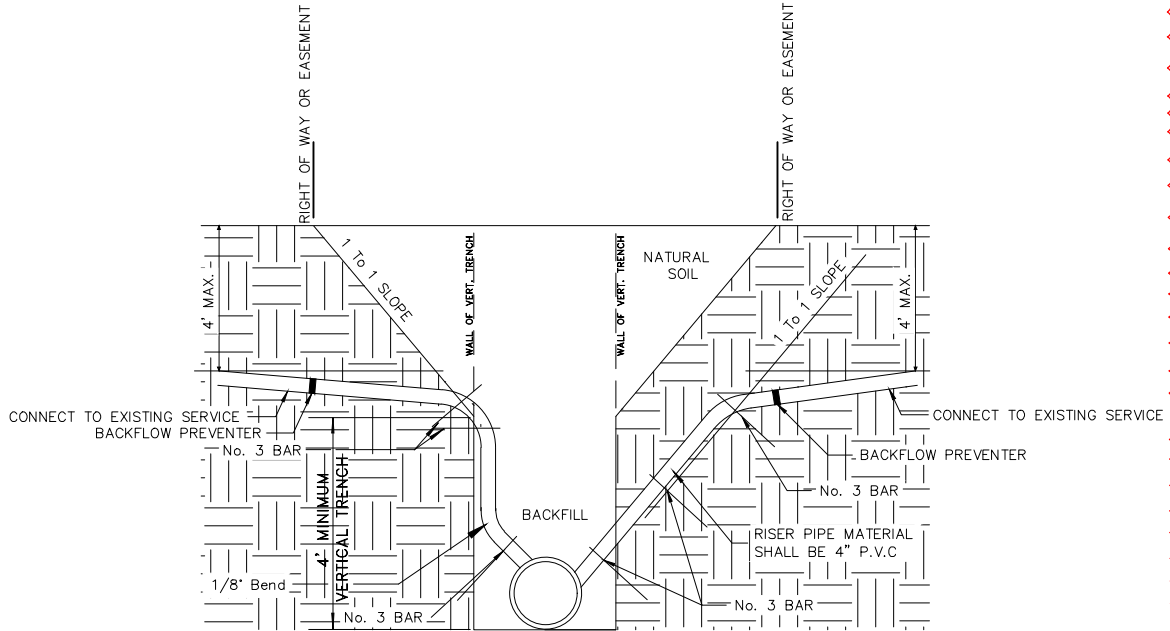


PVC PIPE DETAILS
SCALE: NTS

NOTE:
COMPRESSION JOINTS AND COUPLINGS SHALL BE ASSEMBLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. JOINTS AND COUPLINGS SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH ASTM-D3212-92.



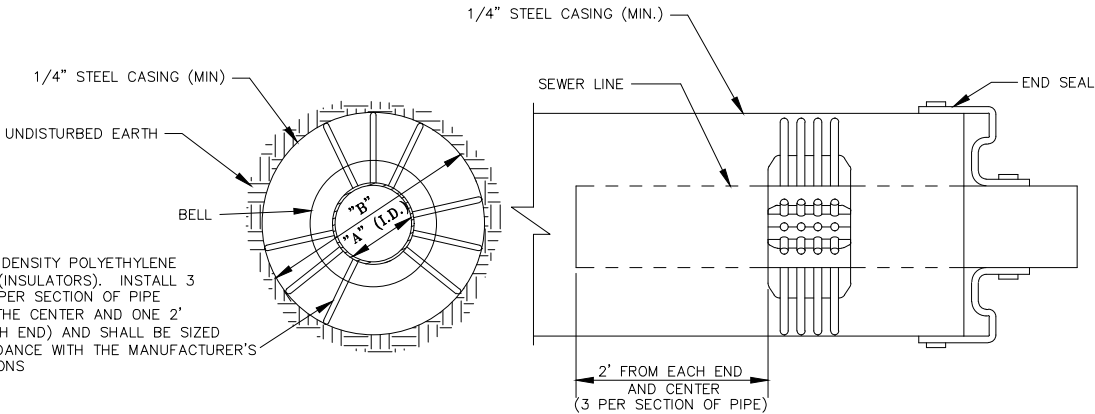
STANDARD DROP MANHOLE
SCALE: NTS



SEWER SERVICE RECONNECTION
SCALE: NTS

PIPE & STEEL CASING SCHEDULE	
PIPE DIA.	CASING DIA.
"A"	"B"
6"	12"
8"	14" OR 16"
10"	18"
12"	20"
16"	24"
18"	26"
24"	33"

NOTE: CONSTRUCT WATER TIGHT PLUG AT EACH END OF CASING



USE HIGH DENSITY POLYETHYLENE SPACERS (INSULATORS). INSTALL 3 SPACERS PER SECTION OF PIPE (ONE AT THE CENTER AND ONE 2' FROM EACH END) AND SHALL BE SIZED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS

NOTE: STEEL CASING PIPE SHALL CONFORM WITH ASTM A-139. STANDARD SPECIFICATION FOR ELECTRIC-FUSION(ARC)-WELDED STEEL PIPE (NPS4 AND OVER). THE STEEL MATERIAL SHALL BE NEW, SMOOTH WALL, CARBON STEEL, GRADE B, WITH A MINIMUM TENSILE STRENGTH, AND MINIMUM 35,000 PSI YIELD STRENGTH.

CASING DETAIL
SCALE: NTS



COWAN GROUP ENGINEERING
7100 N. CLASSEN, SUITE 500
OKLAHOMA CITY, OK 73116
405-463-3369 D 405-463-3381 F
WWW.COWANGROUP.CO
CA# 6414 EXPIRES 6/30/2024

PRELIMINARY
NOT FOR CONSTRUCTION

SANITARY SEWER PIPE BURSTING

CITY OF SHAWNEE
POTTAWATOMIE COUNTY, OKLAHOMA

DETAIL SHEET
(3 OF 3)

DESIGNED BY	GMT
DRAWN BY	HMH
REVIEWED BY	GMT
PROJECT NUMBER	23-153
DATE	5/8/2023

REVISIONS

SHEET NUMBER
25



COWAN GROUP ENGINEERING, LLC
7100 N Classen, Suite 500
OKLAHOMA CITY, OK 73116
405.463.3369 O

City of Shawnee

Sewer Pipe Bursting

BID NO. ARP-23-0092-G

DATE September 18, 2023

I do solemnly swear that the below amount is
correct, reasonable and just.

Michael Taylor
Michael Taylor, P.E.



BASE BID		BID: SHAWNEE SEWER PIPE BURSTING							
ITEM NUMBER	DESCRIPTION	QTY	UNIT	HORSESHOE CONSTRUCTION		BENNETT CONSTRUCTION		KRAPFF REYNOLDS CONSTRUCTION	
1	MOBILIZATION	1	LSUM	\$ 75,000.00	\$ 75,000.00	\$ 150,000.00	\$ 150,000.00	\$ 25,000.00	\$ 25,000.00
2	8-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	2,766	LF	\$ 125.00	\$ 345,750.00	\$ 130.00	\$ 359,580.00	\$ 308.00	\$ 851,928.00
3	10-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	2,222	LF	\$ 150.00	\$ 333,300.00	\$ 140.00	\$ 311,080.00	\$ 312.00	\$ 693,264.00
4	12-INCH HDPE DR-17 SANITARY SEWER (BURSTING AND TRENCHING)	2,151	LF	\$ 170.00	\$ 365,670.00	\$ 155.00	\$ 333,405.00	\$ 318.00	\$ 684,018.00
5	SERVICE CONNECTION	214	EA	\$ 900.00	\$ 192,600.00	\$ 3,000.00	\$ 642,000.00	\$ 650.00	\$ 139,100.00
6	CEMENTITIOUS MANHOLE COATING	69	VF	\$ 300.00	\$ 20,700.00	\$ 300.00	\$ 20,700.00	\$ 150.00	\$ 10,350.00
7	1' MANHOLE GRADE ADJUSTMENT WITH SEAL AND REPLACE FRAME, COVER AND SEAL	1	EA	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00	\$ 750.00	\$ 750.00
8	4' DIAMETER MANHOLE GRADE ADJUSTMENT WITH SEAL AND REPLACE FRAME, COVER AND SEAL	1	EA	\$ 4,000.00	\$ 4,000.00	\$ 3,500.00	\$ 3,500.00	\$ 1,500.00	\$ 1,500.00
9	STANDARD 4' DIAMETER MANHOLE REMOVAL AND REPLACEMENT	16	EA	\$ 10,000.00	\$ 160,000.00	\$ 7,000.00	\$ 112,000.00	\$ 6,000.00	\$ 96,000.00
10	CONSTRUCT 4' DIAMETER MANHOLE	2	EA	\$ 9,500.00	\$ 19,000.00	\$ 6,000.00	\$ 12,000.00	\$ 5,500.00	\$ 11,000.00
11	ASPHALT REMOVAL AND REPLACEMENT	446	SY	\$ 200.00	\$ 89,200.00	\$ 175.00	\$ 78,050.00	\$ 250.00	\$ 111,500.00
12	CONCRETE REMOVAL AND REPLACEMENT	105	SY	\$ 225.00	\$ 23,625.00	\$ 175.00	\$ 18,375.00	\$ 250.00	\$ 26,250.00
13	GRAVEL REMOVAL AND REPLACEMENT	2,332	SY	\$ 30.00	\$ 69,960.00	\$ 35.00	\$ 81,620.00	\$ 50.00	\$ 116,600.00
14	SOLID SLAB SODDING	912	SY	\$ 20.00	\$ 18,240.00	\$ 10.00	\$ 9,120.00	\$ 5.00	\$ 4,560.00
15	EXTRA DEPTH MANHOLE	80	VF	\$ 500.00	\$ 40,000.00	\$ 500.00	\$ 40,000.00	\$ 250.00	\$ 20,000.00
16	PRE INSTALLATION VIDEO INSPECTION	7,139	LF	\$ 7.00	\$ 49,973.00	\$ 5.00	\$ 35,695.00	\$ 5.00	\$ 35,695.00
17	POST INSTALLATION VIDEO INSPECTION	7,139	LF	\$ 2.00	\$ 14,278.00	\$ 3.50	\$ 24,986.50	\$ 2.00	\$ 14,278.00
18	TESTING	1	LSUM	\$ 1,000.00	\$ 1,000.00	\$ 25,000.00	\$ 25,000.00	\$ 1,000.00	\$ 1,000.00
19	BYPASS PUMPING	27	EA	\$ 1,000.00	\$ 27,000.00	\$ 2,000.00	\$ 54,000.00	\$ 300.00	\$ 8,100.00
20	TEMPORARY EROSION AND SEDIMENT CONTROL	1	LSUM	\$ 1,000.00	\$ 1,000.00	\$ 5,000.00	\$ 5,000.00	\$ 18,000.00	\$ 18,000.00
21	CONSTRUCTION SIGNING AND TRAFFIC CONTROL	1	LSUM	\$ 25,000.00	\$ 25,000.00	\$ 30,000.00	\$ 30,000.00	\$ 10,000.00	\$ 10,000.00
22	SPOT REPAIRS	4	EA	\$ 7,500.00	\$ 30,000.00	\$ 15,000.00	\$ 60,000.00	\$ 25,000.00	\$ 100,000.00
BASE BID TOTAL					\$ 1,908,796.00		\$ 2,409,611.50		\$ 2,978,893.00



September 28, 2023

Seth Barkhimer, Director of Engineering
City of Shawnee
222 N Broadway Avenue
Shawnee, OK 74801

Reference: Shawnee Sanitary Sewer Pipe Bursting
Engineer's Recommendation for Award
ARPA Number: ARP-23-0092-G

Dear Mr. Barkhimer:

Pursuant to the bid opening held on September 18, 2023, attached please find the bid tabulation for the subject project. The bid consisted of three (3) responsive bidders.

The apparent low bidder for the subject project is Horseshoe Construction, with the following base bid amount:

Base Bid	\$ 1,908,796.00
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The apparent low bidder of \$1,908,796.00 for the subject project is Horseshoe Construction. Pursuant to the review of the bid package, bonds, and bid tabulation, the low bid is accurate and complete.

After careful review and consideration, Cowan Group Engineering recommends the City of Shawnee award the subject contract to the low bidder, Horseshoe Construction at \$1,908,796.00.

Should you have any questions, please contact the undersigned at 405.463.3369.

Sincerely,

COWAN GROUP ENGINEERING, LLC

A handwritten signature in blue ink that reads 'Michael Taylor'.

Michael Taylor, P.E.
Project Manager

cc: file



Engineering Department
222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Seth Barkhimer, Director of Engineering
Subject: Clearpond Road Culvert Replacement (Award)

Background: In March 2023, a culvert on Clearpond Road, about one quarter-mile west of Highway 102, collapsed during a storm event. Prior to that collapse, the Public Works Department had made repeated repairs to the existing culvert. Due to the saturated environment in which it sits, the culvert had experienced settling problems. The area surrounding the culvert often stays saturated due to the proximity to the lake.

Given the need for repetitive maintenance, in May of 2023, the City Commission approved a Professional Services Agreement with Freese and Nichols, Inc. (FNI) for the design of a more durable replacement. With design complete, the project was advertised, and staff opened bids on September 10, 2023.

City staff and the FNI design team have reviewed the bid proposals. Four (4) bids were received, and the Base bids ranged from \$576,808.00 (low) to \$877,514.00 (high). The design estimate for the Base Bid, prior to the bid opening, was \$736,000.00.

Staff recommends awarding the contract to SAC Services Inc., who submitted the lowest bid at \$576,808.00.

Financial Impact: \$576,808.00; funded from account 302-5-0920-54800 - Street Improvement Fund, Capital Outlay-Streets

Attachments: Notice to Bidders, 100% Plan Set, Spec Book, Planholder's List - Clearpond, Addendum , Bid Tabulation Sheet, Bid Recommendation

Staff Recommendation: Award of the Contract

**CITY OF SHAWNEE/PUBLIC WORKS DEPARTMENT
REQUEST FOR BIDS
Clearpond Road Culvert Replacement**

Notice is hereby given that the City of Shawnee (Owner) will receive sealed bids at the Shawnee City Hall, 16 W. 9th St. until **3:00 p.m.** on the **10th** day of **October** 2023, for **Clearpond Road Culvert Replacement** Project. Bids will be publicly opened and read aloud in the Commission Chambers at Shawnee City Hall October 10, 2023, at 3:00 p.m. Bids received after 3:00 p.m. will not be considered. Bidders are invited to be present when the bids are opened. Minority and small business owners are encouraged to submit bids.

Bid documents and copies of specifications may be obtained at <https://construction.freese.com>. A **MANDATORY** pre-bid conference will be held in the Commission Chambers at City Hall, Shawnee, Oklahoma on **September 29, 2023**, at **2:00 p.m.** Bids submitted by firms not represented at the Pre-Bid Meeting will be returned unopened and will not be considered.

A cashier's check or a certified check on a solvent bank in Oklahoma or a proposal bond in the amount of five percent (5%) of the bid shall accompany the bid of each proposer. The check or bond shall be made payable to the Owner. All checks or bonds will be returned to unsuccessful proposers. This check or bond shall be as a guarantee of contractor's ability to perform the contract bid upon, and that he will enter into a written contract with the Owner to perform said work and/or furnish said materials in accordance with said specifications and furnish the required bonds within ten (10) business days after the acceptance of his bid. No proposer may withdraw his bid for a period of sixty (60) days after the closing date for the receipt of bids.

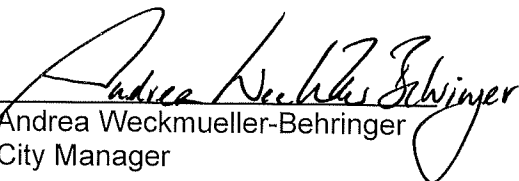
Bid, Performance, Maintenance and Statutory Payment Bonds in the amount of 100% of the contract price each with a Corporate Surety licensed in Oklahoma and approved by the Owner will be required for the faithful performance of the contractor for projects **over fifty thousand dollars (\$50,000.00)**, and the bidder shall state in the bid the name and address of the Surety or Sureties who will sign this bond in case the contract is awarded to him. Copies of acceptable bond forms are included in this packet.

A Maintenance Bond guaranteeing the repair of all damage due to improper materials or workmanship for a period of one (1) year after the acceptance of the work by the Owner will be required.

Questions concerning this project should be addressed to the Public Works Department at (405) 878-1560.

The Owner reserves the right to reject any and all bids, to waive irregularities in any bid and award a contract to the proposer who, in the opinion of the Owner, offers a bid which appears to be in the best interest of the Owner.

FOR THE CITY OF SHAWNEE


Andrea Weckmueller-Behringer
City Manager

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AUGUST 2023

PRELIMINARY
PLANS
AUGUST 2023

STATE OF OKLAHOMA
CITY OF SHAWNEE

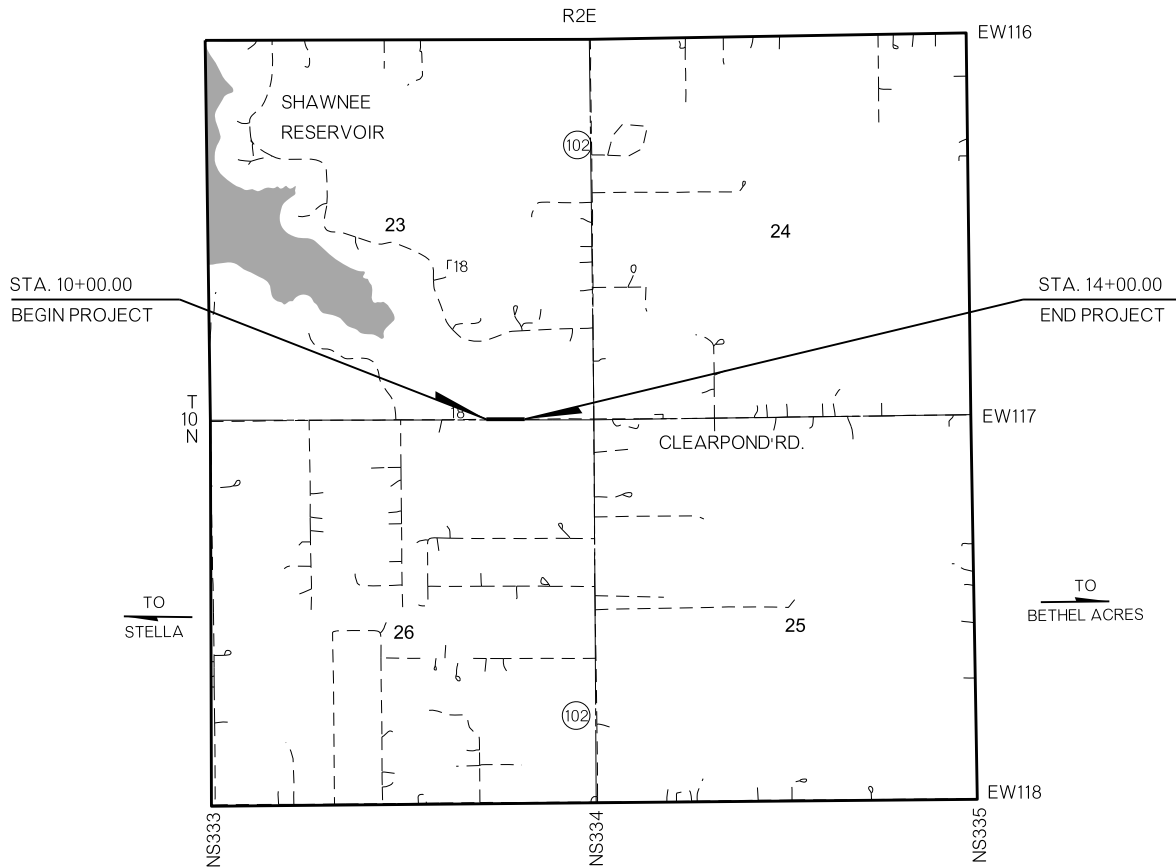
PLAN OF PROPOSED
CULVERT REPLACEMENT
FEDERAL AID PROJECT NO. XX-XXXX(XXX)XX
CLEARPOND CULVERT REPLACEMENT
CLEARPOND ROAD

POTTAWATOMIE COUNTY

FOR SURVEY CONTROL DATA,
SEE SURVEY DATA SHEETS

INDEX OF SHEETS

0001	TITLE SHEET
0002	PAY QUANTITY AND NOTES
0003	TYPICAL SECTIONS
S-01	CULVERT DETAILS
S-02	FOUNDATION PLAN
S-03	CULVERT WINGWALL DETAILS
S-04	EXTENDED CURB DETAIL
HC-01	HORIZONTAL CONTROL
RM-01	REMOVAL PLAN
R001	PLAN AND PROFILE
R002	GRADING PLAN
XS01-XS02	CROSS SECTIONS

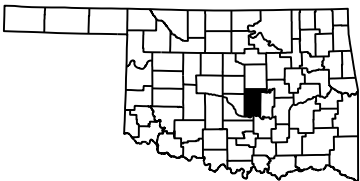


SCALES 1" = 40'

PLAN 1" = 40'
PROFILE HOR. 1" = 40'
VER. 1" = 5'
LAYOUT MAP 1" = 2,640'

CONVENTIONAL SYMBOLS

- PROPOSED ROAD
- RAILROADS
- RANGE & TOWNSHIP
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- GROUND LINE
- EXISTING ROADS
- BASE LINE
- GRADE LINES
- TELEPHONE & TELEGRAPH
- POWER LINES
- BUILDINGS
- OIL WELL
- DRAINAGE STRUCTURES - IN PLACE
- DRAINAGE STRUCTURES - NEW
- RIGHT-OF-WAY LINES - EXISTING
- RIGHT-OF-WAY LINES - NEW
- CONTROLLED ACCESS
- RIGHT-OF-WAY FENCE



LOCATION MAP

PRELIMINARY EARTHWORK SUMMARY
UNCLASSIFIED EXCAVATION - xx,xxx CY
UNCLASSIFIED BORROW - xx,xxx CY

ROADWAY LENGTH 400 FT. 0.075 MI.
PROJECT LENGTH 0.075 MI.

EQUATIONS : NONE
EXCEPTIONS : NONE

2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION GOVERN, APPROVED BY
THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, DECEMBER 18, 2020.

**FREESE
& NICHOLS**
3600 NW 138th Street, Suite 202
Oklahoma City, OK 73134
Phone - (405) 607-7060
Web - www.freese.com
Certificate of Authorization: CA#511
Expiration Date: 06/30/2024

PREPARED BY:
FREESE AND NICHOLS, INC.

BRANDON J. HUXFORD
OKLA REG NO. 29343

DATE

CITY OF SHAWNEE, OKLAHOMA

DEPARTMENT OF TRANSPORTATION

DATE APPROVED

BY

CITY ENGINEER

DATE APPROVED

BY

DIVISION ADMINISTRATOR

SHEET NO. 0001

EARTHWORK				
202(A)	2200	UNCLASSIFIED EXCAVATION	300	CY
202(D)	2500	UNCLASSIFIED BORROW	250	CY

PAVING				
230(A)	7200	SOLID SLAB SODDING	377	SY
303(A)	1200	AGGREGATE BASE TYPE A	139	CY
307(K)	4300	STABILIZED SUBGRADE	623	SY
325	5217	SEPARATOR FABRIC	623	SY
407(B)	7300	TACK COAT	218	GAL
408	8100	PRIME COAT	218	GAL
411(B)	1330	SUPERPAVE, TYPE S3(PG 64-22 OK)	120	TON
411(C)	1420	SUPERPAVE, TYPE S4(PG 70-28 OK)	150	TON
411(C)	1430	SUPERPAVE, TYPE S4(PG 64-22 OK)	10	TON
601(F)	1610	TYPE IV GROUTED RIPRAP	200	SY

CULVERT				
501(A)	1210	STRUCTURAL EXCAVATION UNCLASSIFIED	43	CY
502	3100	TEMPORARY EARTH RETAINAGE	1	LSUM
509.06 (A)	0000	CLASS AA CONCRETE	15,471	CY
511.06 (A)	0000	REINFORCING STEEL	13,968	LB
514 (B)	5310	PILES, DRIVEN (HP 10X42)	1,050	LF

REMOVALS				
619(A)	6200	REMOVAL OF STRUCTURES & OBSTRUCTIONS	1	LSUM
619(B)	6364	REMOVAL OF ASPHALT PAVEMENT	525	SY
619(B)	-	REMOVAL OF CONCRETE PAVEMENT WITH ASPHALT OVERLA	75	SY

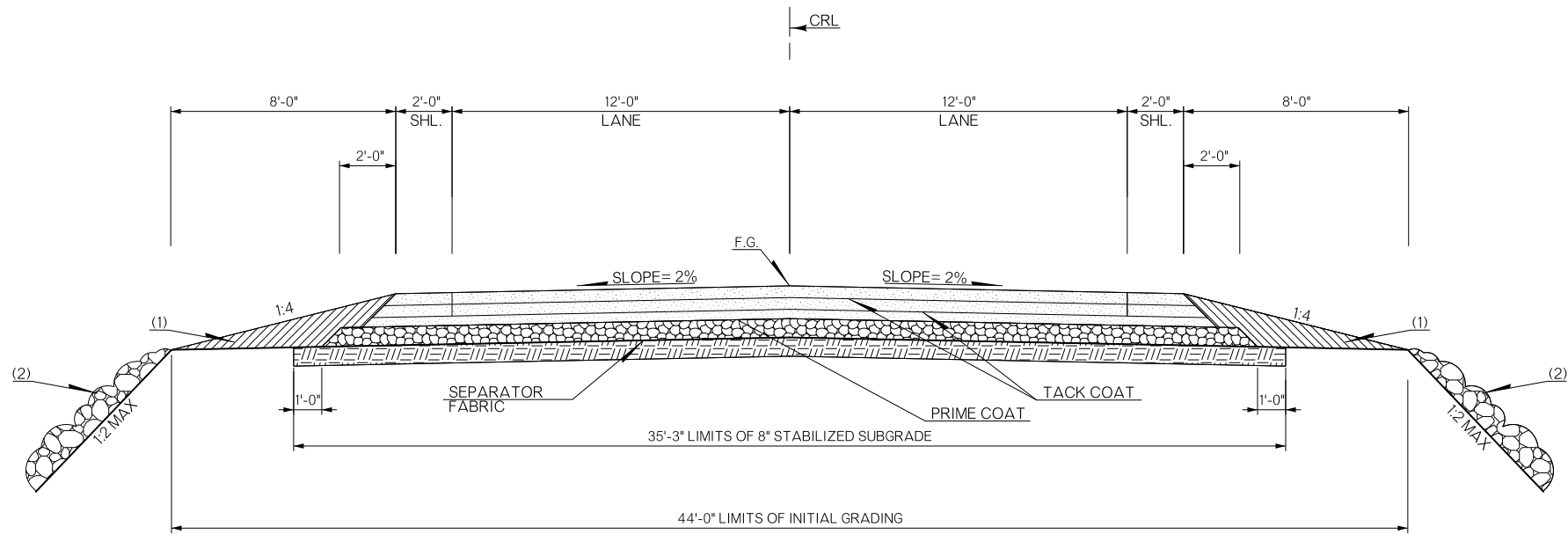
CONSTRUCTION ITEMS				
641	2110	MOBILIZATION	1	LSUM
642(B)	3300	CONSTRUCTION STAKING LEVEL II	1	LSUM

PAY QUANTITY NOTES

- (R-16) PAYMENT FOR THIS ITEM WILL BE THE THEORETICAL CROSS SECTION MULTIPLIED BY THE INSTALLED LENGTH.
- (R-19) PRICE BID TO INCLUDE THE CHEMICAL ADDITIVE(S) TO ACHIEVE THE RATE SPECIFIED FOR THE APPROPRIATE SOIL CLASSIFICATION AS SPECIFIED IN THE MOST CURRENT ODOT MATERIALS DIVISION OHD L-50. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CLASSIFY THE SOIL AND DETERMINE THE APPROPRIATE ADDITIVE(S).
- (R-23) PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ. YD. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.
- (R-25) ESTIMATED AT 0.075 GALLONS PER SQUARE YARD OF ORIGINAL EMULSION OF TACK COAT (BEFORE DILUTION FOR APPLICATION) IN ACCORDANCE WITH SECTION 407 OF THE STANDARD SPECIFICATIONS.
- (R-26) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.
- (R-39) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.
- (R-40) TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.
- (R-41) MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.
- (1) INCLUDES ANY DEWATERING, DE-MUCKING, AND SHORING OF CHANNEL NECESSARY FOR INSTALLATION OF STRUCTURE.

GENERAL CONSTRUCTION NOTES

- (G-1) IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.
- (G-2) ALL TREES, BRUSH, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER SHALL BE CLEANED OUT TO THE RIGHT-OF-WAY LINE, AT EACH STRUCTURE AND BRIDGE, IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.
- (G-3) THE CONTRACTOR SHALL NOT WASTE ANY EXCESS EXCAVATION UNTIL ALL PLANNED EMBANKMENTS AND BACKFILLS ARE COMPLETED. EXCESS UNCLASSIFIED EXCAVATION MATERIAL DETERMINED BY THE ENGINEER TO BE SUITABLE FOR BACKFILL SHALL BE USED TO REDUCE ANY UNCLASSIFIED BORROW NEEDED. COST OF SECOND HANDLING SHALL BE INCLUDED IN OTHER ITEMS OF WORK. ANY REMAINING EXCESS EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.
- (G-4) THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.
- (G-5) PAY ITEMS LISTED IN THE BID SCHEDULE ARE THE ONLY PAY ITEMS FOR THE PROJECT. ANY OTHER ITEMS NECESSARY FOR A COMPLETE PROJECT, BUT NOT SHOWN IN THE BID SCHEDULE SHALL BE CONSIDERED AN INCIDENTAL ITEM AND IT'S COST TO BE INCLUDED IN OTHER ITEMS.
- (G-6) ANY CONTRACTOR-CAUSED DAMAGE TO UTILITY AND/OR SERVICE LINES, SHOWN OR NOT SHOWN ON THE PLANS, SHALL BE REPAIRED OR REPLACED AT NO COST TO THE CITY OF SHAWNEE AND SHALL BE ACCOMPLISHED BY THE CONTRACTOR, SUBCONTRACTOR OR LICENSED PLUMBER AS APPROVED BY THE CITY ENGINEER.
- (G-7) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEYING AND CONSTRUCTION STAKING FOR THE PROJECT.
- (G-8) THE CONTRACTOR SHALL ESTABLISH A HEALTHY STAND OF TURF OVER AREAS DISTURBED DURING CONSTRUCTION. THE METHOD OF APPLICATION SHALL BE SOLID SLAB SOD. THE PRICE FOR WATERING AND PROPER MAINTENANCE IS CONSIDERED TO BE INCIDENTAL AND SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS.
- (G-9) THE CONTRACTOR SHALL TAKE SPECIAL CARE NOT TO DAMAGE TREES AND SHRUBS. TREES AND SHRUBS SHALL NOT BE REMOVED UNLESS SO DIRECTED BY THE ENGINEER OR AS NOTED IN THE REMOVAL SHEET NOTES. SHRUBS SO REMOVED SHALL BE DISPOSED OF OFF-SITE AS DIRECTED BY THE ENGINEER. ALL COSTS SHALL BE INCLUDED IN THE PRICE BID FOR CLEARING AND GRUBBING.
- (G-10) THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOR THE TEMPORARY IMPROVEMENT OF THE GROUND THAT IS NECESSARY TO PERFORM THE WORK AND ALLOW FOR TRAFFICABILITY OF EQUIPMENT AND PERSONNEL. ALL COSTS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.
- (G-11) THE SITE HAS SHALLOW GROUNDWATER THAT FLUCTUATES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY DEWATERING OF THE GROUND AS REQUIRED TO PERFORM THE WORK AND ALLOW FOR TRAFFICABILITY OF EQUIPMENT AND PERSONNEL. ALL COSTS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.



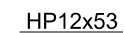
TYPICAL SECTION 1.
STA. 11+00 TO STA. 13+00

PAVEMENT REQUIREMENT		
24" PAVT. STRUCTURE	12'-0" DRIVING LANES	2'-0" PAVED SHOULDERS
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
	3" SUPERPAVE TYPE S4 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
	8" AGGREGATE BASE TYPE "A"	8" AGGREGATE BASE TYPE "A"

- (1) BACKFILL NOTE
THIS AREA TO BE BACKFILLED & COMPACTED AS PART OF THE FINISHING OPERATIONS. QUANTITY TO BE FIGURED AND PAID FOR IN UNCLASSIFIED BORROW.
- (2) GROUTED RIP-RAP TO BE USED TO STABILIZE SLOPES THAT ARE STEEPER THAN 1:3. SEE PLAN SHEET FOR EXTENTS.

AUGUST 2023

AUGUST 2023

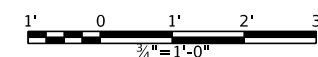


CULVERT BAR LIST					
MARK	SIZE	NO.	FORM	LENGTH	VARIATION
REINFORCING					
A1	#5	60	STR.	12'-2"	
A2	#4	90	STR.	12'-2"	
B1	#5	60	BNT.	4'-0"	
B2	#5	60	BNT.	7'-4"	
C1	#4	45	STR.	2'-0"	
C2	#4	45	STR.	5'-8"	
E1	#4	64	STR.	43'-8"	
E2	#4	30	STR.	43'-8"	
L1	#6	12	STR.	43'-8"	
S1	#5	138	BNT.	7'-7"	
S2	#5	60	BNT.	9'-2"	
T	#5	60	BNT.	2'-7"	
V	#7	15	BNT.	8'-7"	

CULVERT QUANTITIES		
ITEM	UNIT	TOTAL
CLASS AA	C.Y.	77.3
REINFORCING	LB	11645.6



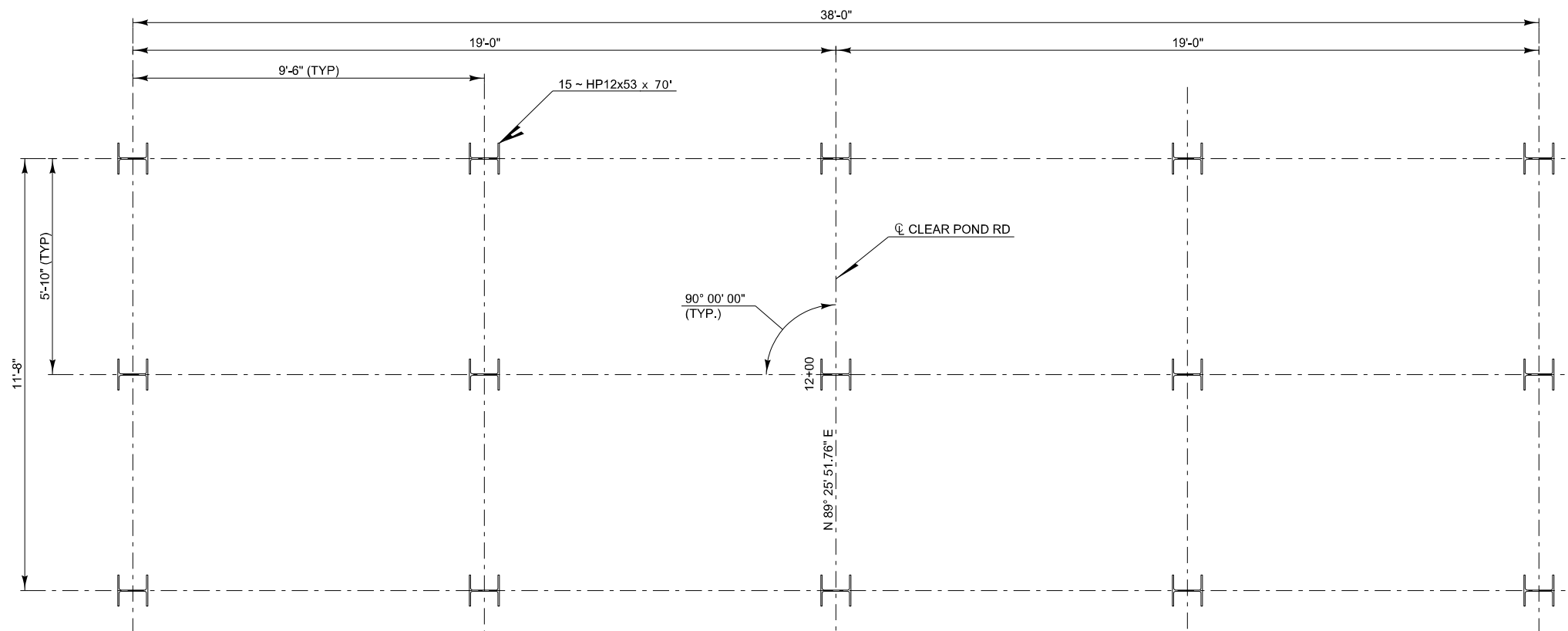
NOTES:
SEE SHEET S-02 FOR NOTES.



DESIGN	CITY OF SHAWNEE
DRAWN	
 FRESE NICHOLS 3600 NW 13th Street, Suite 202 Oklahoma City, Oklahoma 73104 Phone: (405) 607-7000 Fax: (405) 607-7000 Certificate of Authorization: CA#511 Expiration Date: 06/30/2024	CULVERT DETAILS
	PROJECT NO. _____ SHEET NO. <u>S-01</u>

AUGUST 2023

AUGUST 2023



1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSION, FIELD CONDITIONS AND LOCATION OF ANY UTILITIES PRIOR TO EXECUTION OF ANY WORK OR PURCHASE OF ANY MATERIAL.
2. ALL REINFORCING STEEL DIMENSIONS ARE OUT TO OUT OF THE BARS AND ARE PROVIDED FOR CONTRACTOR'S INFORMATION. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL BAR DIMENSIONS.
3. ALL REINFORCING STEEL SHALL BE DEFORMED A615 GRADE 60.
4. WHEN CONCRETE IS CAST AGAINST EARTH STEEL REINFORCING SHALL HAVE A CLEAR CONCRETE COVER OF 3 INCHES. CONCRETE COVER FOR STEEL REINFORCING SHALL BE 2 INCHES WHEN CONCRETE IS CAST AGAINST FORMWORK.
5. CONCRETE FOR THE CULVERT AND PILE CAP(S) SHALL BE CLASS AA F'C OF 4000 PSI.
6. UNLESS OTHERWISE NOTED ALL WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH OKLAHOMA DEPARTMENT OF TRANSPORTATION 2019 STANDARD SPECIFICATION.

DESIGN		CITY OF SHAWNEE
DRAWN		
 3600 NW 138th Ave., Suite 202 Oklahoma City, OK 73154 Phone: (405) 607-7000 www.freese-nichols.com		FOUNDATION PLAN
Certificate of Authorization: CAWS11 Registration Expiration Date: 03/31/2014		PROJECT NO. _____ SHEET NO. S-02

TABLE OF ESTIMATED
CURB QUANTITIES ⑦

Curb Height "C"	Conc (CY/LF)	Reinf Steel (Lb/LF)
1'-0"	0.037	10.4
1'-6"	0.056	14.5
2'-0"	0.074	15.6
2'-6"	0.093	18.0
3'-0"	0.111	19.0
3'-6"	0.130	21.3
4'-0"	0.148	22.4
4'-6"	0.167	24.8
5'-0"	0.185	25.9

CONSTRUCTION NOTES:

Adjust reinforcing steel as necessary to provide 1¼" cover.
For vehicle safety, top of the curb must not project more than 3" above the finished grade.

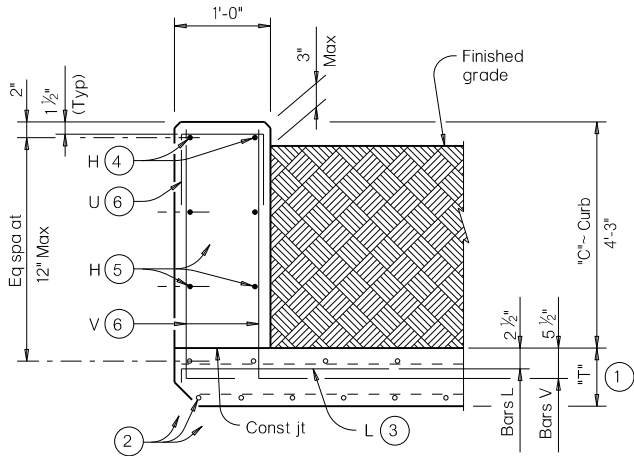
MATERIAL NOTES:

Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans.
Provide Class "AA" concrete (f'c = 4,000 psi) minimum for curbs.
Provide bar laps, where required, as follows:
· Uncoated or galvanized ~ #4 = 1'-8" Min

GENERAL NOTES:

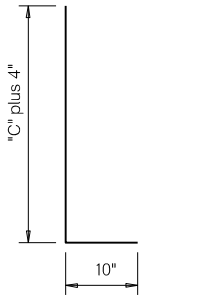
Designed according to AASHTO LRFD Bridge Design Specifications.
This Curb is considered as part of the Box Culvert for payment.

Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bar dimensions shown are out-to-out of bar.



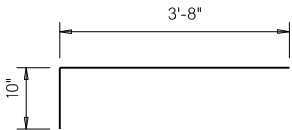
TYPICAL SECTION

Used for curbs over 1'-0" to 5'-0"



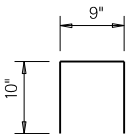
BARS V (#5)

Spaced at 12" Max



BARS L (#5)

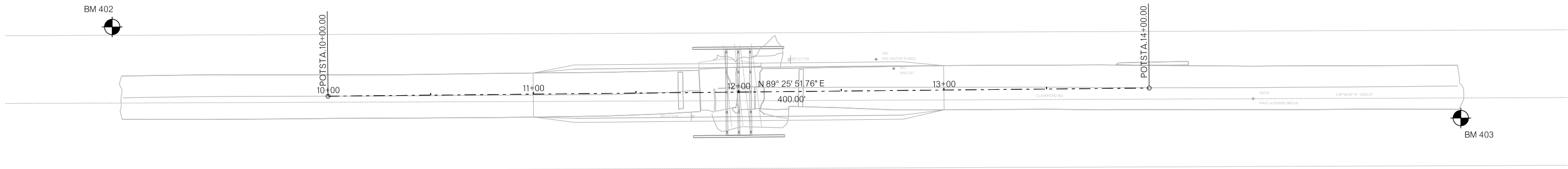
Spaced at 12" Max



BARS U (#4)

Spaced at 12" Max

- ① "T" is equal to the culvert top slab thickness.
- ② Adjust normal culvert slab bars as necessary to clear obstructions.
- ③ Place bars L as shown. Tilt hook as necessary to maintain cover.
- ④ Place normal culvert curb bars H(#4) as shown. Adjust as necessary to clear obstructions.
- ⑤ Additional bars H(#4) as required to maintain 12" Max spacing.
- ⑥ Replace normal culvert curb bars K with one bar U and two bars V as shown spaced at 12" Max. Adjust length of bars V as necessary to maintain clear cover.
- ⑦ Quantities shown are for Contractor's information only. Quantities are per linear foot of curb length. The value in table can be interpolated for intermediate values of curb height, "C". Quantity includes bars K (when applicable).

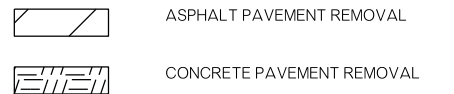


CL BL01
POINT BL011 N 723,833.2004 E 2,248,990.3216 STA. 10+00.00
COURSE FROM BL011 TO BL012 N 89° 25' 51.76° E DIST 400.00
POINT BL012 N 723,837.1724 E 2,249,390.3019 STA. 14+00.00

POINT	ALIGNMENT	NORTHING	EASTING	ELEVATION	STATION	OFFSET	DESCRIPTION
BM 402	BL01	723,866.91	2,248,885.18	1,088.34	8+95.20	34.75' LT	3/8" IPSC (NATIVE PLAINS)
BM 403	BL01	723,822.54	2,249,542.10	1,079.10	15+51.64	16.14' RT	3/8" IPSC (NATIVE PLAINS)

MicroStation V8 User:08161 Office:On Site
Plotter: J:\CLIENTS\OKlahoma DOT\p101.dgn
Plot Scale: 49,999 SF / in
Date: Sep 01, 2023 - 12:29:18 PM
Model: Default
Project: Oklahoma DOT (South)

PRELIMINARY
PLANS
AUGUST 2023

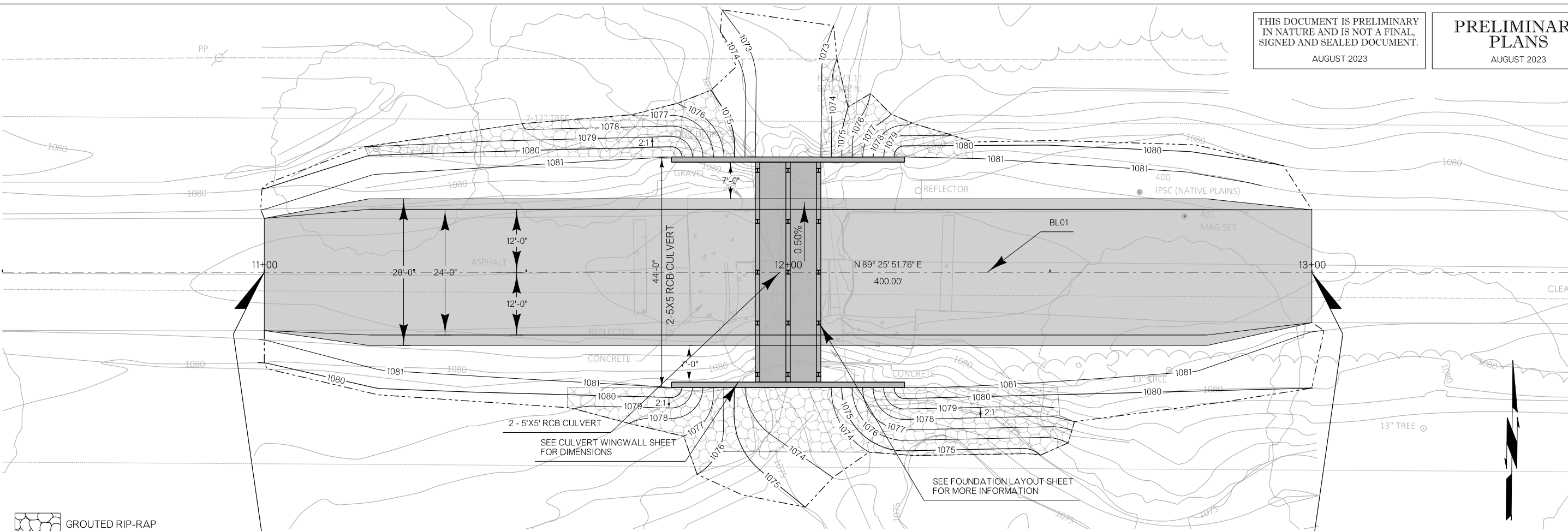


4. ANY REMOVAL ITEM NOT SPECIFICALLY IDENTIFIED AS A SEPERATE PAY ITEM IN THE CONTRACT SHALL BE CONSIDERED SUBSIDIARY TO LIKE ITEMS.

MicroStation V8 User: 08161 Office: On Site
N:\FD\Drawings\1. General\REMOVAL01.dgn
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Plot Scale: 20,0000 SF / in.
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Model: Default
Project: Oklahoma DOT [South]

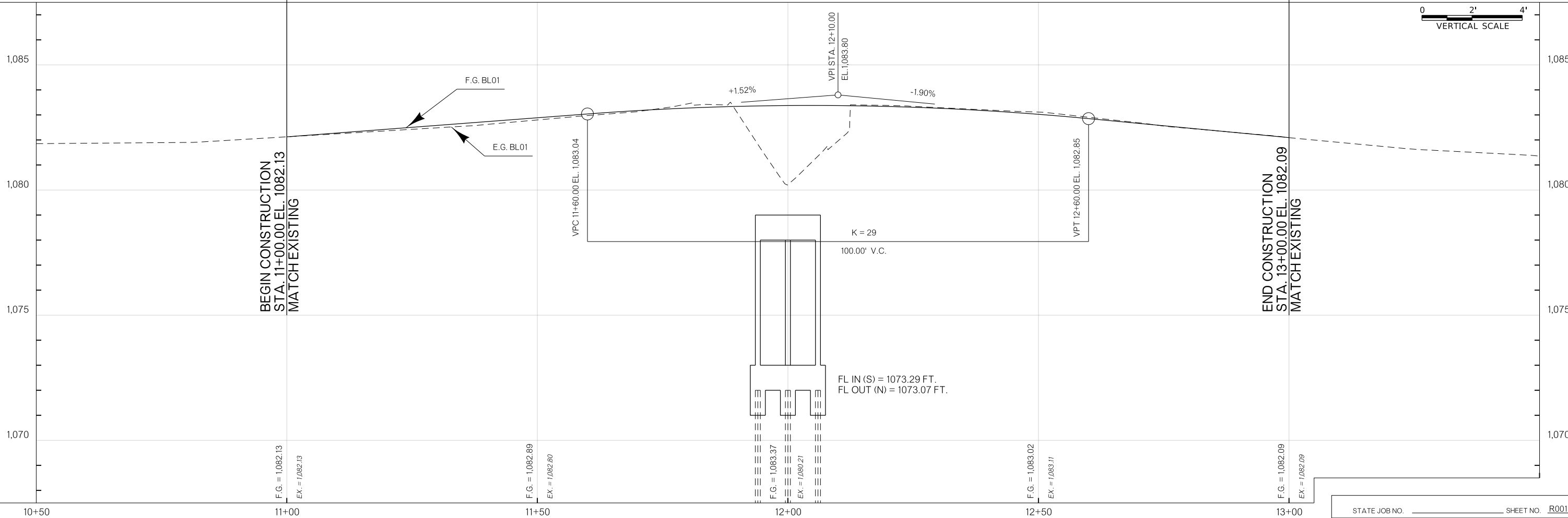
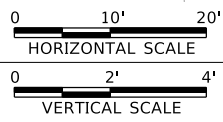
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GRouted RIP-RAP

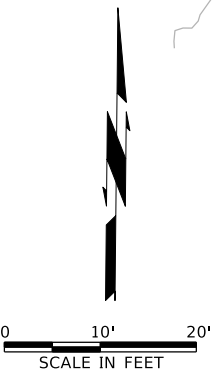
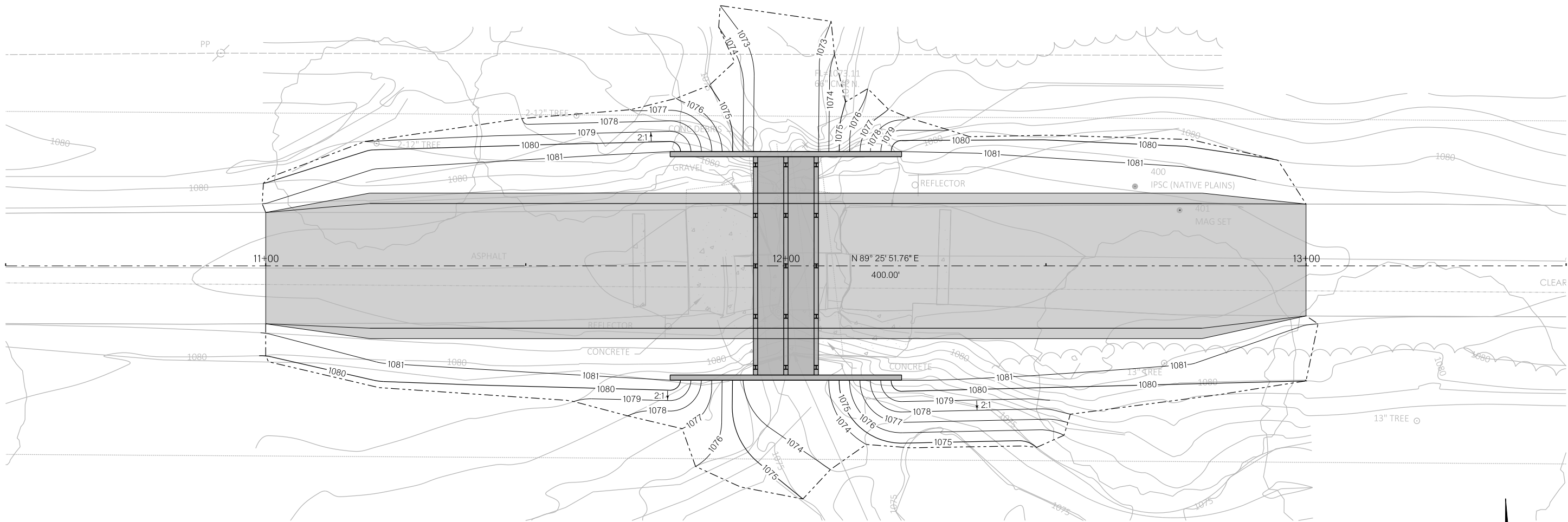
NOTE: SEE CULVERT DETAILS SHEET FOR DETAILS OF RCB AND FOUNDATION



MacroStation V8 (used for Office On Site)
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Date: Sep 01, 2023 - 12:29:21 PM
Project: Oklahoma DOT (South)

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AUGUST 2023

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PLANS
AUGUST 2023

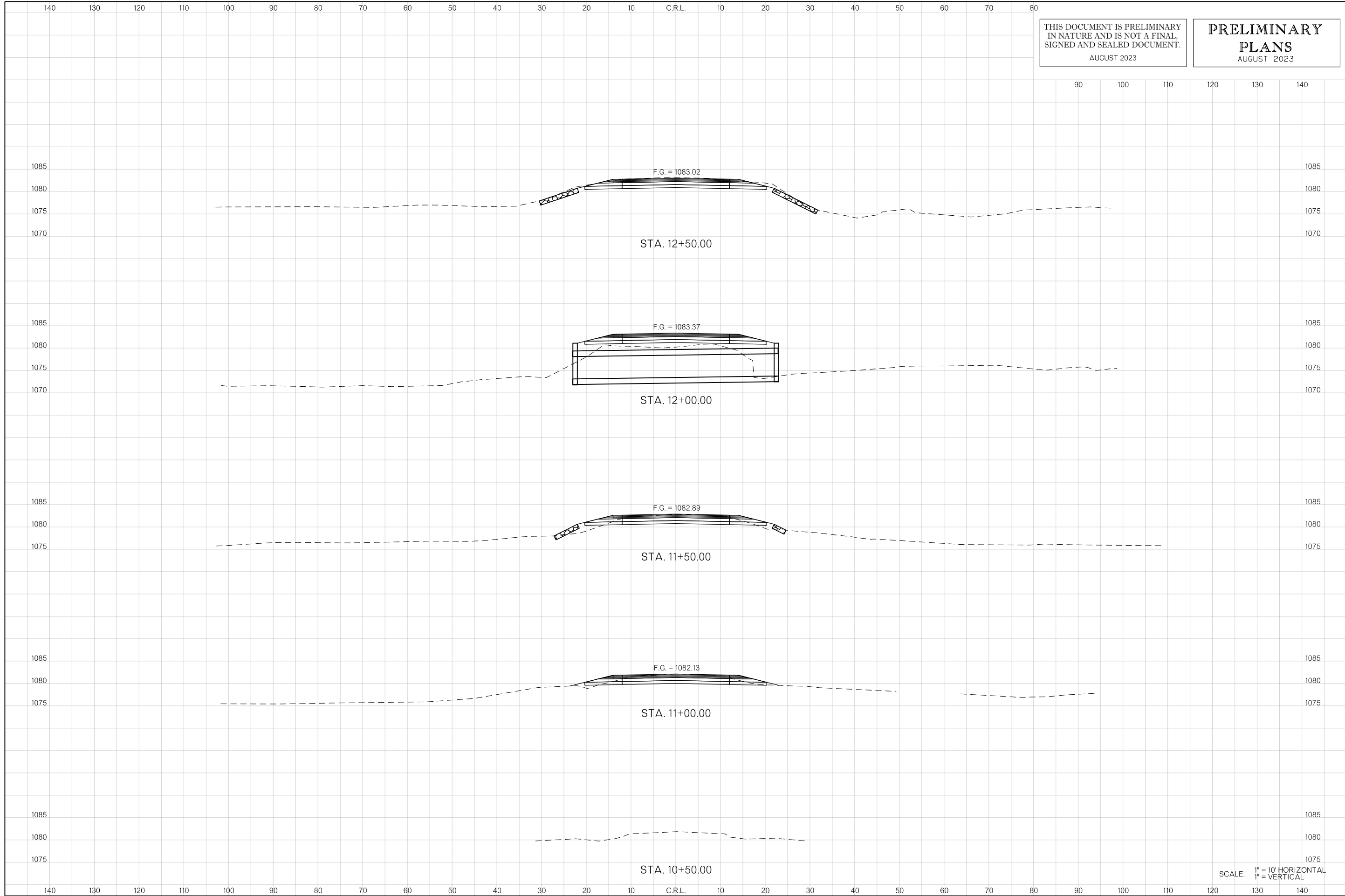


DESIGN	KNB		CITY OF SHAWNEE
DRAWN	KNB		
			GRADING PLAN
3600 NW 13th Street, Suite 202 Oklahoma City, OK 73154 Phone - (405) 607-7060 Web - www.freese.com Certificate of Authorization: CA#511 Expiration Date: 06/30/2024			
PROJECT NO. _____			SHEET NO. <u>R002</u>

MicroStation V8 User:08161 Office:On Site
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Project: Oklahoma DOT (South)

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AUGUST 2023

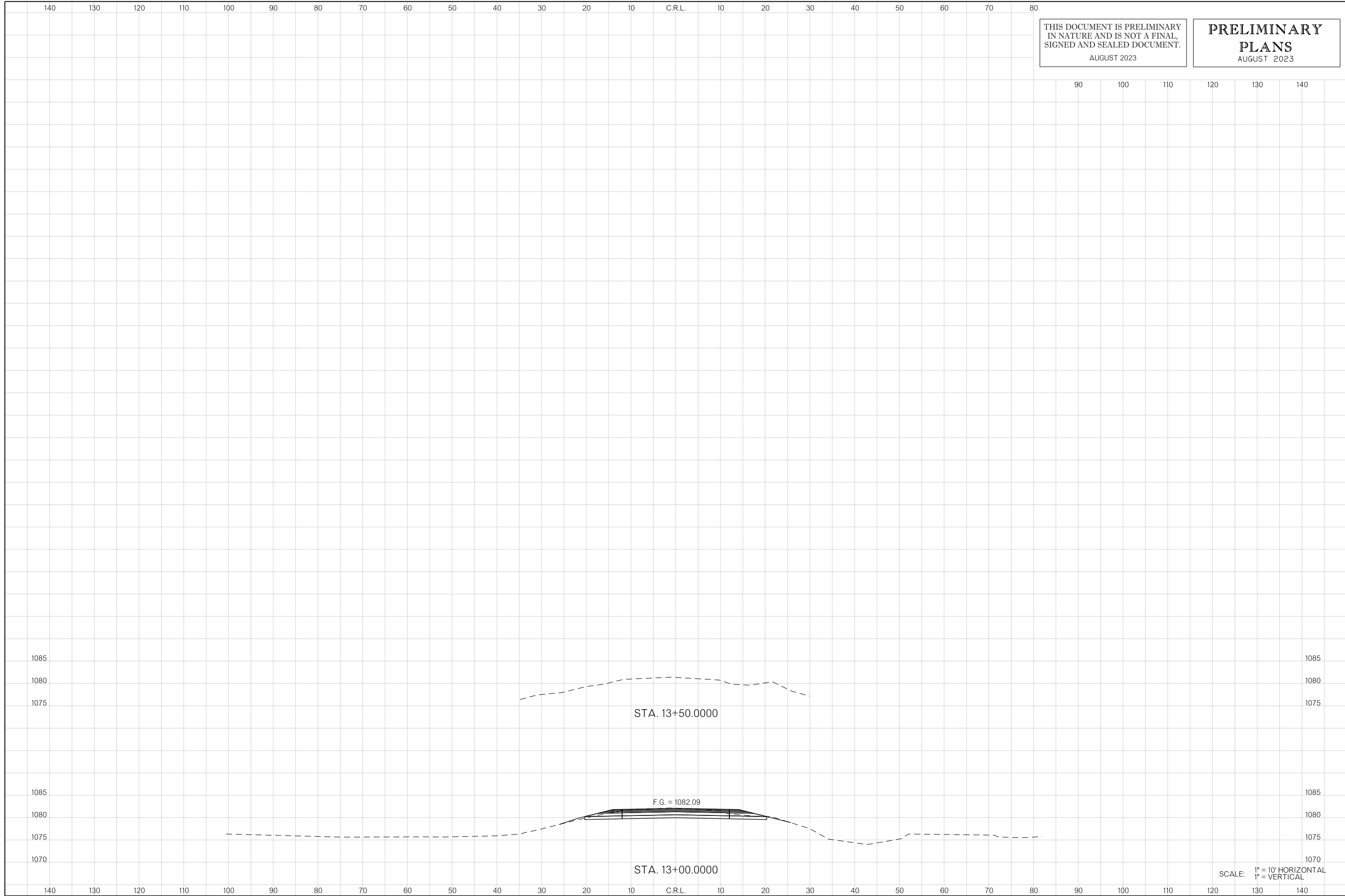
**PRELIMINARY
PLANS**
AUGUST 2023



SCALE: 1" = 10' HORIZONTAL
1" = VERTICAL

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AUGUST 2023

**PRELIMINARY
PLANS**
AUGUST 2023



SCALE: 1" = 10' HORIZONTAL
1" = VERTICAL

CONTRACTOR _____

PROPOSALS MUST BE RECEIVED BY TUESDAY,
OCTOBER 10, 2023 AT 3:00 P.M.

CONTRACT BID DOCUMENTS

CITY OF SHAWNEE
ROADWAY PROJECT
CLEARPOND ROAD CULVERT REPLACEMENT
C-24-01

BID OPENING:
TUESDAY, OCTOBER 10, 2023 AT 3:00 P.M.



Kayla Burd 9/15/2023

16 West 9th Street
Shawnee, OK 74801-6812
Telephone: (405) 878-1760

PREPARED BY:

Freese and Nichols, Inc.
3600 NW 138th Street
Suite 202
OKC, OK 73134

00 01 10 TABLE OF CONTENTS

Section	Title
Division 00	Procurement and Contracting Requirements
00 01 01	Project Cover Sheet
00 01 10	Table of Contents
00 01 15	List of Drawings
00 11 16	Invitation to Bid
00 21 13	Instructions to Offerors
00 41 13	Bid Form
00 41 16	Bid Form Exhibit A
00 43 13	Bid Bond
00 45 01	Nonresident Bidders
00 45 02	Non-Collusion Certification
00 45 03	Business Relationship Statement
00 45 13	Qualifications Statement
00 52 13	Agreement
00 61 13	Performance Bond
00 61 16	Payment Bond
00 61 19	Maintenance Bond
00 61 20	Maintenance Bond Requirements
00 72 00	General Conditions
00 73 00	Supplementary Conditions
00 73 16	Insurance Requirements
Division 01	General Requirements
01 11 00	Summary of Work
01 23 10	Alternates and Allowances
01 26 00	Change Management
01 29 00	Application for Payment Procedures
01 29 01	Measurement and Basis for Payment
01 31 00	Project Management and Coordination
01 31 13	Project Administration
01 33 00	Document Management
01 33 02	Shop Drawings
01 33 03	Product Data
01 33 05	Construction Progress Schedule
01 40 00	Quality Management
01 57 00	Temporary Controls
01 57 23	Temporary Stormwater Pollution Control
01 60 00	Product Requirements
01 70 00	Execution and Closeout Requirements

Section	Title
	Technical Specifications
	Reference 2019 Oklahoma Department of Transportation Standard Specifications
	Appendix
Appendix A	Report of Geotechnical Investigation

END OF SECTION

00 01 15 LIST OF DRAWINGS

Sheet No.	Sheet Title
0001	TITLE SHEET
0002	PAY QUANTITY AND NOTES
0003	TYPICAL SECTIONS
S-01	CULVERT DETAILS
S-02	FOUNDATION PLAN
S-03	CULVERT WINGWALL DETAILS
S-04	EXTENDED CURB DETAIL
HC-01	HORIZONTAL CONTROL
RM-01	REMOVAL PLAN
R001	PLAN AND PROFILE
R002	GRADING PLAN
XS01-XS02	CROSS SECTIONS
-	-
-	-
-	-
-	-

END OF SECTION

00 11 16 INVITATION TO BID

ARTICLE 1 – GENERAL NOTICE

- 1.01 The City of Shawnee (Owner) is requesting Bids for the construction of the following Project:
Clearpond Road Culvert Replacement
C-24-01
- 1.02 Description of the Work
 - A. Replacement of culvert structure along Clearpond Road. This will include the construction of a double 5'x5' concrete box structure with HP Piles and reconstruction of approximately 300 ft. of a two-lane asphalt roadway.
- 1.03 The Project is to be complete, ready for operation, and eligible for final payment 90 days from Notice to Proceed.

ARTICLE 2 – EXAMINATION AND PURCHASE OF DOCUMENTS

- 2.01 Advertisement and bidding information for the Project can be found at the following procurement website:

www.civcastusa.com
- 2.02 Prospective Offerors must register with the procurement website as a plan holder, even if the Contract Documents are obtained from a plan room or other site. All official notifications, Addenda, and other documents will be offered only through the procurement website.
- 2.03 The Contract Documents may be downloaded from the procurement website by prospective Offerors registered as plan holders. Offerors are responsible for ensuring that a complete set of documents, as defined in "Agreement," are used in the preparation of their Bids. The documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download does not confer a license or grant permission or authorization for any other use. Authorization to download documents includes the right for Offerors to print documents for their sole use, provided they pay all costs associated with printing or reproduction. Printed documents may not be resold under any circumstances.
- 2.04 The procurement website will be updated periodically with Addenda, lists of interested parties, reports, or other information relevant to submitting a Bid for the Project.

Printed copies of the Contract Documents, Technical Data, and other information may be examined free of charge at the following address:

City of Shawnee
222 N Broadway
Shawnee, OK 74801
Hours Available for Viewing: 8 AM to 4 PM Monday-Friday (Closed 12-1 for lunch)

ARTICLE 3 – PRE-BID CONFERENCE

- 3.01 A mandatory pre-bid conference for the Project will be held on September 29th at 2 pm at the following location:

City of Shawnee
City Hall
Commission Chambers
16 W 9th St
Shawnee, OK 74801

ARTICLE 4 – QUESTIONS REGARDING BIDDING PROCESS OR SOLICITATION DOCUMENTS

- 4.01 Questions are to be submitted using the question and answer process on the procurement website. Responses to questions posted on the procurement website will be posted for the benefit of all Offerors. A response will be posted for questions submitted until 12:00 p.m. on October 3rd.
- 4.02 A response to a question posted on the procurement website that requires modification of the Contract Documents will be made by Addenda. Modifications to the Contract Documents prior to the award of the Contract can only be made by Addenda. Only answers in Addenda posted on the procurement website will be binding. Oral and other interpretations or clarifications will be without legal effect.

ARTICLE 5 – BID SECURITY

- 5.01 Offerors must submit an acceptable Bid Security with their Bids as a guarantee that the Successful Offeror will enter into a contract for the Project with the Owner within 15 days of Notice of Award of the Contract. The Bid Security must be payable to the City of Shawnee in the amount of 5 percent of the proposed Contract Price. The Successful Offeror must execute the Contract and bonds on the forms provided in the Contract Documents and provide evidence of insurance as required by the Contract Documents.
- 5.02 Bid Security must be in the form of a bid bond. The bid bond may be submitted on the form provided in Section 00 43 13 "Bid Bond" or Offerors may provide their surety's standard penal sum bid bond form. The bid bond must reference the Owner and the Project by name as identified in this Section.
- 5.03 Bid Security may be in the form of a bid bond, irrevocable letter of credit, cashier's check, or certified check. Checks must be made out to the City of Shawnee. The bid bond may be submitted on the form provided in Section 00 43 13 "Bid Bond" or Offerors may provide their surety's standard penal sum bid bond form. The bid bond must reference the Owner and Project by name as identified in this Section.

ARTICLE 6 – DELIVERY OF BIDS

- 6.01 Sealed Bids must be delivered to the Owner at the address below no later than October 10th at 3 P.M. to be accepted. The Bids will be publicly opened and read aloud at 3 P.M. at City Hall which will include the names and the Offerors and their Bids. Address Bids to the Owner as follows:

City of Shawnee
Public Works Department
Attn: Bid – Clearpond Road Culvert Replacement C-24-01
16 W. 9th St.,
Shawnee, OK 74801-6812

- 6.02 Any Bid received by the Owner, more than 96 hours excluding Saturdays, Sundays and holidays before the time set for the opening of Bids, or any Bid so received after the time set for opening of Bids, will not be considered by the Owner and will be returned unopened to the Offeror.

ARTICLE 7 – AWARD OF CONTRACT

- 7.01 It is the intent of the Owner to award this Contract to the lowest responsible Offeror. The Owner reserves the right to adopt the most advantageous interpretation of the Bids submitted in the case of ambiguity or lack of clearness in stating bid prices, to reject any or all Bids, and/or waive formalities. Bids will remain subject to acceptance and may not be withdrawn within 30 days from the date on which Bids are opened.

ARTICLE 8 – OTHER CONTRACT REQUIREMENTS

- 8.01 A bid bond, maintenance bond, performance bond, and payment bond will be required for this Project.
- 8.02 Selected Contractor will be required to purchase goods and equipment manufactured or produced in the United States of America to the extent required by Okla. Stat. §61-51.

X

Andrea Weckmueller-Behringer
City Manager

END OF SECTION

00 21 13 INSTRUCTIONS TO OFFERORS

ARTICLE 1 – DEFINED TERMS

- 1.01 The terms used in these Instructions to Offerors have the meanings assigned to them in the General Conditions and Supplementary Conditions.

ARTICLE 2 – RECEIPT OF BIDS

- 2.01 Refer to Section 00 11 16 “Invitation to Bid” for information on receipt of Bids.

ARTICLE 3 – COPIES OF CONTRACT DOCUMENTS

- 3.01 Obtain a complete set of the Contract Documents as indicated in Section 00 52 13 “Agreement.”
- 3.02 Use complete sets of Contract Documents in preparing Bids. Offeror assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents.
- 3.03 Owner makes copies of Contract Documents available for the sole purpose of obtaining Bids for completion of the Project and does not confer a license or grant permission or authorization for any other use.

ARTICLE 4 – QUALIFICATIONS STATEMENT

- 4.01 Submit information as required in Section 00 45 13 “Qualifications Statement” within 5 days of the date Bids are due if requested to do so by the Owner.

ARTICLE 5 – EXAMINATION OF THE CONTRACT DOCUMENTS AND THE SITE

- 5.01 Examine the Contract Documents, the Site, and other information readily available before submitting a Bid.
- A. Examine the Contract Documents and supplemental data:
1. Carefully study the Contract Documents.
 2. Carefully study supplemental information, including Technical Data, record drawings from previous projects, available utility maps, reports, and studies referenced or made available to the Offeror.
 3. Promptly notify the Construction Manager of all conflicts, errors, ambiguities, or discrepancies that the Offeror discovers in the Contract Documents, Addenda, and supplemental information.
 4. Determine that the Contract Documents, Addenda, and supplemental data are generally sufficient to indicate and convey understanding of all terms and conditions for completion of Work to the degree necessary to prepare a Bid for the Project.
 5. Make observations and investigations, correlate knowledge and observations with the requirements of the Contract Documents, and consider these in preparation of a Bid for the Project.

- B. Become familiar with all federal, state, and local Laws and Regulations that may affect cost, progress, or the completion of Work.
- C. Visit the Site to become familiar with any general, local, or Site conditions that may affect the cost, progress, or performance of the Work in any manner. The Site is generally accessible to the public. Coordinate access to private property through the Owner.
- D. Subsurface exploration is not allowed.
- E. The submission of a Bid will constitute an incontrovertible representation by the Offeror that the Offeror has complied with every requirement of this Article, and that without exception the Bid is premised on the following:
 - 1. Work will be completed in accordance with the Contract Documents for the Contract Price within the Contract Times;
 - 2. Offeror has given the Construction Manager written notice of all conflicts, errors, ambiguities, and discrepancies that the Offeror has discovered in the Contract Documents, Addenda, and the related supplemental data;
 - 3. Written resolutions provided by the Construction Manager are acceptable to the Offeror; and
 - 4. Contract Documents, Addenda, and the related supplemental data are generally sufficient to indicate and convey understanding of all terms and conditions for completion of Work.

ARTICLE 6 – PRE-BID CONFERENCE

- 6.01 A mandatory pre-bid conference will be held at the time and location indicated in Section 00 11 16 “Invitation to Bid.” Bids will not be accepted from Offerors who do not attend the conference. It is the Offerors’ responsibility to sign in at the pre-bid conference to verify their participation.

ARTICLE 7 – INTERPRETATIONS AND ALTERNATE BIDS

- 7.01 Submit all questions about the meaning or intent of the Contract Documents, Addenda, and the related supplemental data to the Construction Manager using the procurement website as indicated in Section 00 11 16 “Invitation to Bid.”
- 7.02 Submit any offer of alternate terms and conditions, or offer of Work not in strict compliance with the Contract Documents to the Construction Manager no later than 10 days after the date Project is advertised. Construction Manager and Design Professional will issue Addenda as appropriate if any of the proposed changes to the Contract Documents are accepted. A Bid submitted with clarifications or taking exceptions to the Contract Documents, except as modified by Addenda, will be considered non-responsive.
- 7.03 Offeror may submit a separate and additional Bid if the Offeror includes exceptions or the Offeror wishes to make a Bid that is not in accordance with the terms and conditions of the Contract Documents, or for Work that is not in strict compliance with the Contract Documents. Describe the intent and substance of the changes in the additional Bid in adequate detail so they are clearly understood. Alternate Bids will not be considered in the evaluation of the Bids. Upon selection of the Bid of the lowest responsible Offeror, and after the award of the Contract, the

Construction Manager may issue a Request for a Change Proposal if Owner chooses to accept any Bid alternates.

- 7.04 Addenda may be issued to clarify, correct, or change the Contract Documents, Addenda, or the related supplemental data as deemed advisable by the Owner or Designer.

ARTICLE 8 – BID SECURITY

- 8.01 Offerors must submit an acceptable bid bond, irrevocable letter of credit, cashier's check, or certified check as Bid Security with their Bids as required by Section 00 11 16 "Invitation to Bid." The acceptable bid bond must be issued by a surety legally authorized to do business in Oklahoma and meet the requirements of the General Conditions. Cashier's or certified checks must be made payable to the **City of Shawnee** and are to be effective on the day Bids are submitted and valid for a period of at least **15** days from the date the check is issued.
- 8.02 Owner may annul the Notice of Award and retain the Bid Security of the apparent Successful Offeror upon Offeror's failure to execute and deliver the Agreement or Amendments to the Agreement.
- 8.03 Bid Securities are to remain in effect until the Contract is executed. Bid bonds will become void when the Contract is awarded or all Bids are rejected.

ARTICLE 9 – CONTRACT TIMES

- 9.01 See applicable provisions for Contract Times in the Agreement.

ARTICLE 10 – LIQUIDATED DAMAGES, RETAINAGE, AND INTEREST

- 10.01 Provisions for liquidated damages and the payment of retainage and interest are set forth in the Agreement.

ARTICLE 11 – PREPARATION OF THE BID FORM

- 11.01 The Bid Form is included with the Contract Documents and is also available at the procurement website. Complete all blanks on the Bid Form by typing or printing in ink. Indicate prices for each item or alternate shown in the Bid Form.
- 11.02 The unit price governs if a conflict exists between the extended amount derived by multiplying the unit price by the stated quantity of units and the extended amount shown in the Bid Form.
- 11.03 Execute the Bid Form as indicated in the document and include evidence of authority to sign.
- 11.04 Acknowledge receipt of all Addenda by filling in the number and date of each Addendum. Provide a signature as indicated to verify that the Addenda were received. A Bid that does not acknowledge the receipt of all Addenda may be considered non-responsive.
- 11.05 Provide the name, address, and telephone number of the individual to be contacted for any communications regarding the Bid in the Bid Form.
- 11.06 Provide evidence of the Offeror's authority and qualification to do business in Oklahoma or agree to obtain such qualification prior to award of the Contract. Failure to obtain this qualification will render the Bid non-responsive and Offeror will forfeit its Bid Security.

ARTICLE 12 – CONFIDENTIALITY OF BID INFORMATION

- 12.01 All Bids, both successful and unsuccessful, and all contracts and required bonds shall be placed on file and maintained in the main office of the Owner for a period of 5 years from the date of opening of Bids or for a period of 3 years from the date of completion of the Contract, whichever is longer, and shall be open to public inspection and shall be matters of public record.
- 12.02 Clearly indicate which specific documents are considered to be trade secrets or confidential information by stamping or watermarking all such documents with the word “confidential” prominently on each page or sheet or on the cover of bound documents. Place “confidential” stamps or watermarks so that they do not obscure any of the required information on the document, either in the original or in a way that would obscure any of the required information in a photocopy of the document. Submit all confidential information in a different binder so this confidential material is separate from the rest of the Bid.
- 12.03 The Owner will protect this information to the extent allowed by state Laws and Regulations. However, if the Owner is requested or becomes legally compelled (by oral questions, interrogatories, requests for information or documents, subpoena, civil or criminal investigative demand, public information requests, or similar process) or is required by a regulatory body to make any disclosure that is prohibited or otherwise constrained by this Agreement, the Owner will provide Offeror with prompt notice of this request so that it may seek an appropriate protective order or other appropriate remedy.
- 12.04 Notwithstanding any other provision of the Contract Documents, it is stipulated and agreed that by accepting a Bid, the Owner has not and does not waive its sovereign immunity from suit and/or liability.

ARTICLE 13 – DELIVERY OF BIDS

- 13.01 Complete and deliver the Bid Form along with all required documents identified in the Bid Form.
- 13.02 Submit the Bid no later than the date and time prescribed and at the place indicated in Section 00 11 16 “Invitation to Bid.” Enclose the Bid in an opaque sealed envelope plainly marked with the Project name and the name and address of the Offeror, along with the Bid Security and other required documents. Enclose the sealed envelope containing the Bid in a separate envelope plainly marked on the outside with the notation “BID ENCLOSED” if the Bid is sent by mail or other delivery system. Address the outer envelope to the mailing address shown in Section 00 11 16 “Invitation to Bid.” Offeror assumes full responsibility for ensuring that the Bid arrives at the prescribed location before the prescribed time.

ARTICLE 14 – MODIFICATION OR WITHDRAWAL OF BIDS

- 14.01 Modify or withdraw a Bid using a document executed in the same manner that a Bid must be executed. Deliver the document to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 14.02 An Offeror may withdraw its Bid within 24 hours after Bids are opened if the Offeror files a signed written notice with the Owner and promptly thereafter demonstrates to the reasonable satisfaction of the Owner that there was a material and substantial mistake in the preparation of its Bid. The Bid Security will be returned if it is clearly demonstrated to the Owner that there was a material and substantial mistake in its Bid. An Offeror that requests to withdraw its Bid

under these conditions may be disqualified from responding to a reissued Invitation to Bid for the Work to be furnished under these Contract Documents.

ARTICLE 15 – OPENING OF BIDS

- 15.01 Bids will be opened at the time and place indicated in Section 00 11 16 “Invitation to Bid.” The Owner will publicly acknowledge receipt of Bids received in time to be considered and then open and read aloud the names of the Offerors and the amount bid as required by applicable Laws and Regulations.

ARTICLE 16 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 16.01 All Bids will remain subject to acceptance for the number of days specified in Section 00 11 16 “Invitation to Bid.” The Owner may, at its sole discretion, release any Bid and return the Bid Security prior to the end of this period.

ARTICLE 17 – EVALUATION OF BIDS

- 17.01 The Owner will consider the proposed Contract Price and Contract Times and the qualifications of the Offerors to determine the lowest responsible Offeror.
- 17.02 Owner may conduct such investigations as it deems necessary to establish the responsibility, qualifications, and financial ability of consultants, individuals, or entities proposed to furnish parts of the Work in accordance with the Contract Documents.
- 17.03 Each Offeror agrees to waive any claim it has or may have against the members of the OPT and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any Bid.

ARTICLE 18 – AWARD OF CONTRACT

- 18.01 Owner reserves the right to reject any and all Bids, including without limitation, non-conforming, non-responsive, or conditional Bids. The Owner may also reject the Bid of any Offeror if the Owner believes that it would not be in the best interest of the Owner to make an award to that Offeror. The Owner reserves the right to waive all formalities.
- 18.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered, except as additional Bids in accordance with Article [7]. Reasonable grounds for believing that any Offeror has an interest in more than one Bid for the Work will be cause for disqualification of that Offeror and the rejection of all Bids in which that Offeror has an interest.
- 18.03 The Contract will be awarded to the lowest responsible Offeror if a contract is to be awarded.
- 18.04 Owner may consider the following in evaluating the Bids and awarding the Contract:
- A. Offeror's qualifications and ability to demonstrate current capability to complete the Project in conformance with the requirements of the Contract Documents.
 - B. Compliance of the Bids with requirements of the Contract Documents.
 - C. Alternates and unit prices if requested in the bid forms.
 - D. The amount bid.

- E. Proposed date of completion and the ability to meet intermediate Milestones that may have been established for the Project.

ARTICLE 19 – BONDS AND INSURANCE

- 19.01 The General Conditions set forth the Owner’s requirements as to bonds and insurance. When the Successful Offeror delivers the executed Agreement to the Owner, it must be accompanied by the performance and payment bonds and required evidence of insurance.
- 19.02 Provide a performance bond and payment bond for this Project that fully comply with the provisions of Title 61 of the Oklahoma Statutes. Administration of these bonds will conform to Title 61 of the Oklahoma Statutes and the provisions of the Contract Documents.

ARTICLE 20 – SIGNING OF THE AGREEMENT

- 20.01 The Notice of Award to the Successful Offeror will be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents that are identified in the Agreement. The Successful Offeror must sign and deliver the required number of counterparts of the Agreement and attached documents to the Owner within 15 days. The Owner will deliver two fully signed counterparts to the Successful Offeror within 10 days after receiving the signed documents from the Successful Offeror.

ARTICLE 21 – SALES AND USE TAXES

- 21.01 Offerors will be required to comply with applicable state Laws and Regulations related to the payment of sales and use taxes for this Project. Offerors must include all applicable sales and use taxes and other related costs in their Bids.

END OF SECTION

00 41 13 BID FORM

ARTICLE 1 – BID RECIPIENT

- 1.01 The Offeror submits this Bid to:
- City of Shawnee
City Clerk's Office
16 W 9th St
Shawnee, OK 74801
Attention: Seth Barkhimer
Clearpond Road Culvert Replacement

ARTICLE 2 – OFFEROR'S ACKNOWLEDGMENTS

- 2.01 Offeror proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner on the form included in the Contract Documents, to perform all Work specified or indicated in Contract Documents for the Contract Price indicated in this Bid or as modified by Contract Amendment. Offeror agrees to complete the Work within the Contract Times established in the Agreement or as modified by Contract Amendment and comply with all terms and conditions of the Contract Documents.
- 2.02 Offeror accepts all terms and conditions of Section 00 11 16 "Invitation to Bid" and Section 00 21 13 "Instructions to Offerors."
- 2.03 Offeror accepts the provisions of the Agreement as to liquidated damages in the event of its failure to complete Work in accordance with the schedule set forth in the Agreement.
- 2.04 Offeror acknowledges receipt of the following Addenda:

Addendum No.	Addendum Date	Signature Acknowledging Receipt

ARTICLE 3 – OFFEROR'S REPRESENTATIONS

- 3.01 The Offeror has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- 3.02 The Offeror has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- 3.03 The Offeror is familiar with Laws and Regulations that may affect cost, progress, and performance of the Work.
- 3.04 The Offeror has carefully studied the following Site-related reports and drawings as identified in the Supplementary Conditions:
- A. Geotechnical Data Reports regarding subsurface conditions at or adjacent to the Site;

- B. Drawings of physical conditions relating to existing surface or subsurface structures at the Site;
 - C. Underground Facilities referenced in reports and drawings;
 - D. Reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site; and
 - E. Technical Data related to each of these reports and drawings.
- 3.05 The Offeror has considered the:
- A. Information known to Offeror;
 - B. Information commonly known to contractors doing business in the locality of the Site;
 - C. Information and observations obtained from visits to the Site; and
 - D. The Contract Documents.
- 3.06 The Offeror has considered the items identified in this Article with respect to the effect of such information, observations, and documents on:
- A. The cost, progress, and performance of the Work;
 - B. The means, methods, techniques, sequences, and procedures of construction to be employed by Offeror; and
 - C. Offeror's safety precautions and programs.
- 3.07 The Offeror agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents based on the information and observations referred to in the preceding paragraphs.
- 3.08 The Offeror is aware of the general nature of Work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- 3.09 The Offeror has correlated the information known to the Offeror, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- 3.10 The Offeror has given the Construction Manager written notice of all conflicts, errors, ambiguities, or discrepancies that the Offeror has discovered in the Contract Documents, and the written resolution provided by the Construction Manager is acceptable to the Offeror.
- 3.11 The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- 3.12 Offeror's submittal of a Bid constitutes an incontrovertible representation that, without exception, all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 4 – BASIS OF OFFER

- 4.01 Offeror will complete the Work in accordance with the Contract Documents at the unit prices shown in the attached in Section 00 41 16 “Bid Form Exhibit A”:
- A. Extended amounts have been computed in accordance with Article 13 of the General Conditions.
 - B. Offeror acknowledges that the estimated quantities are not guaranteed, and final payment for all Unit Price items will be based on actual quantities provided, measured as provided in the Contract Documents.
 - C. Unit Prices will be used to compute the actual bid price.

ARTICLE 5 – TIME OF COMPLETION

- 5.01 Offeror agrees that the Work will be Substantially Complete and will be completed and ready for final payment in accordance with Article 15 of the General Conditions within the number of calendar days indicated in Section 00 41 16 “Bid Form Exhibit A.”

ARTICLE 6 – ATTACHMENTS TO THIS BID

- 6.01 The following documents are attached to and made a condition of this Bid:
- A. Section 00 41 16 “Bid Form Exhibit A.”
 - B. Section 00 43 13 “Bid Bond.”
 - C. Section 00 45 01 “Nonresident Bidders.”
 - D. Section 00 45 02 “Non-Collusion Certification.”
 - E. Section 00 45 03 “Business Relationship Statement.”

ARTICLE 7 – VENUE

- 7.01 Offeror agrees that venue will lie exclusively in Pottawatomie County, Oklahoma for any legal action.

ARTICLE 8 – BID DELIVERY

8.01 This Bid is submitted by:

Offeror: _____
(typed or printed name of organization)

Signature: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Address for giving notices:

Phone: _____ Email: _____

(Attach evidence of authority to sign if Offeror is a corporation, partnership, or a joint venture.)

END OF SECTION

Project:	Clearpond Road Culvert Replacement		Project No.:
Owner:	City of Shawnee		C-24-01
Design Professional:	Kayla Burd, PE		SWN23456
Offeror:			

Base Bid

Item No.	Item Description	Unit	Estimated Quantity	Unit Price	Extended Amount
Items in Base Bid (excluding Allowances) per Section 01 29 01 "Measurement and Basis for Payment"					
1	UNCLASSIFIED EXCAVATION	CY	300		
2	UNCLASSIFIED BORROW	CY	250		
3	SOLID SLAB SODDING	SY	363		
4	AGGREGATE BASE TYPE A	CY	139		
5	STABILIZED SUBGRADE	SY	623		
6	SEPARATOR FABRIC	SY	623		
7	TACK COAT	GAL	218		
8	PRIME COAT	GAL	218		
9	SUPERPAVE, TYPE S3(PG 64-22 OK)	TON	120		
10	SUPERPAVE, TYPE S4(PG 70-28 OK)	TON	150		
11	SUPERPAVE, TYPE S4(PG 64-22 OK)	TON	10		
12	TYPE IV GROUTED RIPRAP	SY	213		
13	SHEET ALUMINUM SIGNS	SF	12		
14	2" SQUARE TUBE POST	LF	40		
15	STRUCTURAL EXCAVATION UNCLASSIFIED	CY	43		
16	TEMPORARY EARTH RETAINAGE	LSUM	1		
17	CLASS AA CONCRETE	CY	15,480		
18	REINFORCING STEEL	LB	12,720		
19	PILES, DRIVEN (HP 10X42)	LF	1,050		
20	REMOVAL OF STRUCTURES & OBSTRUCTIONS	LSUM	1		
21	REMOVAL OF ASPHALT PAVEMENT	SY	525		
22	REMOVAL OF CONCRETE PAVEMENT WITH ASPHALT OVERLAY	SY	75		
23	MOBILIZATION	LSUM	1		
24	CONSTRUCTION STAKING LEVEL II	LSUM	1		
25	OWNER'S ALLOWANCE	LSUM	1	20,000.00	
A	Total Base Bid Items Amount (Sum of Extended Amounts for each Base Bid Line Item)				

BID SUBMITTED BY:

Offeror:

Signature:

Printed Name:

Title:

Date:

Offeror as Principal Name: Mailing address (principal place of business):	Surety Name: Mailing address (principal place of business):
Owner Name: Mailing address (principal place of business):	Physical address (principal place of business): Telephone (Main): Telephone (Claims):
Contract Project name and number: Bid/Proposal Due Date:	Surety's state of incorporation: <i>By submitting this bond, Surety affirms it is authorized to do business and licensed to execute bonds in the state where the Project is located.</i> Local Agent for Surety Name:
Bond Contract Price Offered: Penal Sum of Bond: 5% of Contract Price offered Date of Bond:	Company: Mailing address (principal place of business): Telephone (Main):

Surety and Offeror, intending to be legally bound by this bond, do each cause this bond to be duly executed on its behalf by its authorized officer, agent, or representative. Surety and Offeror bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally to this bond. The condition of this obligation is such that if Owner accepts the Offeror's Bid or Proposal and Offeror delivers the executed Agreement and the required bonds and evidence of insurance within the time stipulated in the Bidding or Proposal Documents this obligation is null and void. Payment under this bond will be due and payable upon default by Offeror and within 30 days after receipt by Offeror and Surety of written notice of default from Owner. This Agreement shall be administered and interpreted under the laws of the state where the Project is located. Venue lies exclusively in [specify name of county and state] for any legal action.

Offeror as Principal Signature: _____ Name: _____ Title: _____ Email: _____	Surety Signature: _____ Name: _____ Title: _____ Email: _____ <i>(Attach Power of Attorney)</i>
--	---

END OF SECTION

00 45 01 NONRESIDENT BIDDERS

Okla. Stat. §61-14 applies to the award of government contracts to nonresident bidders. This section provides that:

“To the extent permitted by federal laws and regulations, whenever the State of Oklahoma, or any department, agency or institution thereof or any city, town or county shall let for bid any contract to a contractor for any public works, the contractor domiciled outside the boundaries of Oklahoma shall be required, in order to be successful, to submit a bid the same percent less than the lowest bid submitted by a responsible contractor domiciled in Oklahoma as would be required for such an Oklahoma domiciled contractor to succeed over the bidding contractor domiciled outside Oklahoma on a like contract being let in his domiciliary state.”

Check the statement that is correct for Offeror:

- ☐ Offeror (includes parent company or majority owner) qualifies as a resident bidder whose principal place of business is in Oklahoma.
- ☐ Offeror qualifies as a nonresident bidder whose principal place of business or residency is in the state of: _____

Bidder preferences, if any, will be determined in accordance with applicable Laws and Regulations.

Offeror: _____
(typed or printed name of organization)

Signature: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Business Address: _____

Phone: _____ Email: _____
(Attach evidence of authority to sign if Offeror is a corporation, partnership, or a joint venture.)

END OF SECTION

I certify, if awarded the contract, whether competitively bid or not, neither the contractor nor anyone subject to the contractor's direction or control has paid, given or donated or agreed to pay, give or donate to any officer or employee of the State of Oklahoma any money or other thing of value, either directly or indirectly, in procuring the contract to which this statement is attached.

Offeror: _____
(typed or printed name of organization)

Signature: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Business Address:

Phone: _____ Email: _____

(Attach evidence of authority to sign if Offeror is a corporation, partnership, or a joint venture.)

Subscribed and sworn to before me on
this _____ day of _____ 20 ____ .

Notary Public: _____ My commission expires: _____

Notary Seal:

END OF SECTION

00 45 03 BUSINESS RELATIONSHIP STATEMENT

STATE OF Oklahoma §

COUNTY OF Pottawatomie §

Owner: City of Shawnee
16 W 9th St
Shawnee, OK 74801

Contract: Clearpond Road Culvert Replacement
C-24-01

_____, being first duly sworn, on oath declares that he/she is authorized to represent the Offeror in all matters related to this Bid. Affiant further states that the nature of any partnership, joint venture, or other business relationship presently in effect or which existed within 1 year prior to the date of this statement with the architect, engineer, or other party to the Project is as follows:

--

Affiant further states that any such business relationship presently in effect or which existed within 1 year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the Project is as follows:

--

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

--

If none of the business relationships hereinabove mentioned exists, affiant should so state in the spaces provided above.

Offeror: _____
(typed or printed name of organization)

Signature: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Business Address:

Phone: _____ Email: _____
(Attach evidence of authority to sign if Offeror is a corporation, partnership, or a joint venture.)

Subscribed and sworn to before me on
this _____ day of _____ 20 ____ .

Notary Public: _____ My commission expires: _____

Notary Seal:

END OF SECTION

00 45 13 QUALIFICATIONS STATEMENT

ARTICLE 1 – REQUIREMENTS FOR THE QUALIFICATIONS STATEMENT

- 1.01 The Qualifications Statement must be submitted by the apparent low Offeror within 5 calendar days of the bid opening and include the information as described in this Section as a minimum. Failure to submit the required information in the Qualifications Statement may result in Owner considering the Bid non-responsive and may result in rejection of the Bid by Owner. Offerors may be required to provide supplemental information if requested by Owner to clarify, enhance, or supplement the information provided in the Qualifications Statement.
- 1.02 Offeror must provide the information requested in this Qualifications Statement using the forms attached to this Section. The information requested in these forms must be provided completely and in detail. Information that cannot be totally incorporated in the forms may be included as an appendix to the form. This appendix must be clearly referenced by appendix number on the form, and the appended material must include the appendix number on every sheet of the appendix. The appendix must include only the information that responds to the question or item number to which the appended information applies.
- 1.03 Offeror may provide supplemental information to the Qualifications Statement such as organizational brochures or other marketing information to help demonstrate their qualifications to Owner. This information may not be submitted as a substitute for the information specifically requested in this Section. The reference must include the specific paragraph or section that applies to that question or item if this information is included as an appendix to the information requested in Article 2.

ARTICLE 2 – INSTRUCTIONS FOR PREPARING THE QUALIFICATIONS STATEMENT

- 2.01 Offeror's Organization and General Information:
 - A. Provide general information about the Offeror's organization using copies of Table 1. Provide the same information for each joint venture partner if the Offeror is a joint venture.
 - B. Provide information regarding the operational structure of the Offeror's organization, including a list of officers, the limits of authority for these individuals with regards to the proposed Project, documentation of authority to execute documents, and a copy of organizations' certificate of authorization to conduct business in the state the Project is located in. If the Project is located in a state that licenses contractors, Offeror must also provide documentation showing that the organization is licensed as a general contractor in that state, including any applicable classifications and limitations.
 - C. Financial Management:
 1. Provide the Offeror's most recent audited financial statement and the most recent financial statement if the most recent audited financial statement is more than 2 years old.

2. Provide the Offeror's financial summary information in Table 1, including the financial indicators from the Offeror's most recent financial statement using the formulas below:

Current Ratio: $\text{Current Assets} \div \text{Current Liabilities}$

Quick Ratio: $(\text{Cash and Cash Equivalents} + \text{Accounts Receivable} + \text{Short Term Investments}) \div \text{Current Liabilities}$

3. Describe the resources that are available to Offeror to provide adequate cash flow for the Project if the Offeror's Current Ratio or Quick Ratio are less than 1.0.

D. Safety:

1. Provide a narrative not to exceed four pages describing the Offeror's success in implementing an effective project site safety program. Provide a narrative describing the Offeror's safety program and a statement regarding the organization's commitment to safety. Do not provide copies of safety manuals or programs.
2. Provide Experience Modification Ratio (EMR) and Total Recordable Frequency Rate (TRFR) history for the last 3 years for Offeror and any proposed subcontractors that will provide Work valued at 25 percent or more of the Contract Price. Provide this information in Table 1.
 - a. Offeror's EMR is a computation by the insurance industry that compares a company's annual losses in workers' compensation insurance claims against its policy premiums over a three-year period, excluding the current year.
 - b. Offeror's TRFR is a calculation of a firm's total number of OSHA-recordable injuries and illnesses over a given period (usually a year), divided by the total number of personnel-hours worked.

- E. Claims Experience and Litigation History: Provide a list of all claims or litigation involving owners on other construction projects that have been active over the last 5 years or that are currently unresolved. Include this information in Table 1. Provide a narrative describing the issues being contested and when it is anticipated that the disputes will be resolved. Claims are to include only those items which have progressed through the change management process for the project and are being disputed by Offeror or the project owner.

- F. Past Experience with the Owner: Provide a list of projects that have been completed with Owner over the last 5 years. Include this information in Table 1. Provide a narrative not to exceed two pages describing how this experience will impact the performance of Offeror on this Project.

2.02 Project Experience:

- A. Provide a list of projects completed by Offeror in the last 5 years using copies of Table 2.
- B. Provide detailed descriptions of projects which demonstrate the experience of the Offeror's team with construction of similar projects. Experience must include, as a minimum, the satisfactory completion of at least five similar projects within the last 5 years. Offerors not

meeting the requirement for similar projects may be disqualified as being non-responsive. Similar projects must include:

1. Culvert Installation, Roadway Construction

- C. Provide a narrative not to exceed two pages for each project describing up to five specific projects that qualify as similar projects. Projects selected must demonstrate the capabilities of Offeror.

2.03 Experience and Qualifications of Proposed Key Personnel:

- A. Provide a narrative not to exceed four pages describing the Offeror's project management structure and the qualifications of the project management team for this Project. Include an organization chart showing the relationship between Offeror and key subcontractors and suppliers.
- B. Provide information on the key personnel proposed for this Project on Tables 3 through 7. Key personnel include the project manager, project superintendent, safety manager, and quality control manager. Offeror may provide information on an alternate individual if it is not able to commit to one individual for the Project at the time the Bid is submitted. Qualifications of these individuals will be considered in evaluating the Offeror's qualifications. Offeror must commit to providing the services of the proposed key personnel or alternate for the life of the Project as a condition of qualification. Failure to provide the proposed key personnel may result in the disqualification of Offeror and will provide the basis for termination of the Contract at the discretion of Owner.
- C. Include a list of the current project assignments for each of the individuals proposed, the anticipated completion date for these assignments, and the percentage of the time they will have available to devote to this Project. The project superintendent must be dedicated to the Project full time for the duration of the Project. If any other key personnel are not devoted solely to the Project, indicate how time is to be divided between the Project and other assignments. Specifically address how and when individuals currently on other assignments will transition to the Project.
- D. Provide resumes not exceeding two pages for each individual proposed for the key personnel positions and their alternates. Resumes must describe the qualifications of the individual and include the following as a minimum: technical experience, managerial experience, education and formal training, primary language, and a work history which describes project experience, including the roles and responsibilities for each assignment. Additional information highlighting the experience which makes them the best candidate for the assignment should also be included. Focus on projects on which individuals proposed have had significant involvement in the last 5 years and which demonstrate experience with similar projects.
- E. Identify individuals that will fill one or more of these key roles and describe their ability to handle multiple responsibilities. Provide a written narrative describing the percentage of the time that will be devoted to each role and the qualifications to fulfill each role if an individual is to fulfill more than one of the key personnel roles.
- F. Provide a tabulation of the projects on which the key personnel have been personally involved using copies of Table 7. This tabulation is to include the name and a current telephone number for references for each of these project assignments.

- G. Provide a narrative not to exceed two pages for each project the proposed individuals have worked on that qualify as similar projects. Specifically identify the role and responsibilities of the individual on these similar projects. Projects selected must demonstrate the capabilities of the proposed key personnel.
 - H. Provide a narrative not to exceed ten pages to describe the overall performance of the individuals on these projects. This narrative may include references to letters of recommendation, project awards, and other references to demonstrate experience in constructing a project which meets the project owner's expectations for a quality project constructed on time and within budget.
- 2.04 Offeror's Ability to Complete Projects within the Contract Price and Contract Times:
- A. Provide a tabulation of budget performance on projects completed by Offeror within the last 5 years using copies of Table 8 to demonstrate the ability of the Offeror to complete projects for the Contract Price. Notes may be added to each line item to describe circumstances for change orders beyond the control of Offeror.
 - B. Provide a tabulation of all projects completed by Offeror within the last 5 years on Table 9 to demonstrate performance in completing projects on time. Notes may be added to the tabulations to indicate the reasons for not meeting original contract completion dates.

ARTICLE 3 – BID REQUIREMENTS

- 3.01 Provide the Qualifications Statement using the referenced tables and narrative descriptions as described in this Section. Pages are to be 8-1/2 x 11, with a minimum font size of 10. Provide a tab to separate materials responding to each of the rating categories listed in Article 2.
- 3.02 Additional information may be included in appendices attached to the Bid. Each appendix must reference the section of the criteria it is in reference to.
- 3.03 Provide one printed copy of the Bid at the time and place set forth in Section 00 11 16 "Invitation to Bid." Provide a digital copy of the Bid in Portable Document Format (pdf) on a CD. This digital copy is to include all information required to evaluate the Bid.

ARTICLE 4 – FORMS

4.01 The following tables are attached to this Section:

Table	Description
1	General Information
2	Current Projects and Project Completed within the last 5 Years
3	Proposed Project Managers
4	Proposed Project Superintendents
5	Proposed Project Safety Managers
6	Proposed Project Quality Control Managers
7	Project Information for Key Personnel
8	Demonstration of Budget Performance
9	Demonstration of On-Time Performance

ARTICLE 5 – CERTIFICATION

5.01 By submitting this Qualifications Statement and related information, Offeror certifies that it has read this Qualifications Statement and that the Offeror's responses are true and correct and contain no material misrepresentations, and that the individual signing below is authorized to make this certification on behalf of the Offeror's organization.

Offeror: _____
(typed or printed name of organization)

Signature: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Attest: _____
(individual's signature)

Designated Representative:

Name: _____

Title: _____

Address for giving notices:

Phone: _____ Email: _____

(Attach evidence of authority to sign if Offeror is a corporation, partnership, or a joint venture.)

Table 1 - General Information

Organization			
Legal Name of Business			
Form of Business Entity: ☐ Joint Venture ☐ Corporation ☐ General Partnership ☐ Limited Partnership			
Date Business was formed		State under which Business was formed	
Is this Business authorized to operate in the Project location: ☐ Yes ☐ No ☐ Pending			
Is this Business licensed as a general contractor in the Project location: ☐ Yes ☐ No ☐ Pending ☐ N/A			
List of companies, firms, or organizations that own any part of this Business.			
Name of company, firm, or organization.			Percent ownership
Principal Office			
Primary contact		Main telephone number	
Email address		Website address	
Business address of principal office			
Regional Office			
Primary contact		Main telephone number	
Email address		Website address	
Business address of regional office			
Business History			
List of names that this Business currently has or anticipates operating under over the history of the Business, including the names of related companies presently doing business.			
Names of organization	From date	To date	
Indicators of Organization Size			
Average number of current full-time employees			
Average estimate of revenue for the current year			

Table 1 - General Information Cont'd

Previous Contracting Experience			
Years of experience in projects similar to the proposed Project:			
As a general contractor		As a joint venture partner	
Has this organization or a participating or predecessor organization ever been disqualified as a bidder by any local, state, or federal agency within the last 5 years? ☐ Yes* ☐ No			
Has this organization or a participating or predecessor organization ever been barred from contracting by any local, state, or federal agency within the last 5 years? ☐ Yes* ☐ No			
Has this organization or a participating or predecessor organization been released from a bid or proposal in the past 5 years? ☐ Yes* ☐ No			
Has this organization or a participating or predecessor organization ever defaulted on a project or failed to complete any contract awarded to it? ☐ Yes* ☐ No			
Has this organization or a participating or predecessor organization ever refused to construct or refused to provide materials defined in the contract documents or in a change order? ☐ Yes* ☐ No			
Is this organization or a participating or predecessor organization currently involved in any litigation or contemplating litigation? ☐ Yes* ☐ No			
Provide full details in a separate attachment for each statement above with a "yes" response above.			
Previous History with Owner			
List projects that have been completed with the Owner over the last 5 years. If more than 5 projects, list only the most recent.			
	Project Name		Year
1			
2			
3			
4			
5			
Previous Claims History and Litigation Experience			
List all claims or litigation involving owners on other construction projects that have been active over the last 5 years or that are currently unresolved.			
	Description of Claim or Litigation		Status
1			
2			
3			
4			
5			

Table 1 - General Information Cont'd

Surety								
Surety Name								
Mailing address (principal place of business):					Physical address (principal place of business):			
Telephone (main number)					Telephone (claims notices)			
Name of Local Agent for Surety								
Telephone				Email				
Surety is a corporation organized and existing under the laws of the state of								
Is surety authorized to provide surety bonds in the Project location? ☐ Yes ☐ No								
Is surety listed in the U.S. Department of the Treasury's Listing of Approved Sureties (Department Circular 570 "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies")? ☐ Yes ☐ No								
Insurance								
Name of Insurance Provider								
Provider is a corporation organized and existing under the laws of the state of								
Is Provider licensed or authorized to issue insurance policies in the Project location?							☐ Yes ☐ No	
Does Provider have an A.M. Best Rating of A-VIII or Better?							☐ Yes ☐ No	
Mailing Address (principal place of business)								
Physical Address (principal place of business)								
Telephone (main number)								
Telephone (for notice of claims)								
Local Agent for Provider								
Address for Local Agent								
Telephone for Local Agent								
Construction Site Safety Experience								
Provide Offeror's Experience Modification Ratio (EMR) and Total Recordable Frequency Rate (TRFR) for the last 3 years and the EMR and TRFR history for the last 3 years of any proposed Subcontractor that will provide Work valued at 25% or more of the Contract Price.								
Year	Offeror		Subcontractor		Subcontractor		Subcontractor	
	EMR	TRFR	EMR	TRFR	EMR	TRFR	EMR	TRFR
1								
2								
3								

Table 1 - General Information Cont'd

Financial Summary Information for Offeror		
Date of Offeror's most current financial statement		
Date of Offeror's most current audited financial statement		
Financial indicators from the most current financial statement:		
Offeror's Current Ratio = Current Assets ÷ Current Liabilities		
Offeror's Quick Ratio = (Cash and Cash Equivalents + Accounts Receivable + Short Term Investments) ÷ Current Liabilities		
Describe the resources that are available to the Offeror to provide adequate cash flow for the Project if Offeror's Current Ratio or Quick Ratio are less than 1.0:		
Disadvantaged Business Certifications		
Name of Certification	Certifying Agency	Certification Date
☐ Disadvantage Business Enterprise		
☐ Minority Business Enterprise		
☐ Woman Business Enterprise		
☐ Disabled Veteran Owned Business		
☐ Historically Underutilized Business		
☐ Small Business Enterprise		
☐ Other		
☐ None		

Table 2 - Current Projects and Project Completed within the last 5 Years

Name of Organization					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project Completed		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project Completed		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project Completed		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Table 3 - Proposed Project Managers

Name of Organization			
Primary Candidate			
Name of individual			
Years of experience as project manager			
Years of experience with this organization			
Number of similar projects as project manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment	Percent of time used for this project	Estimated project completion date	
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Role on project		Role on project	
Alternate Candidate			
Name of individual			
Years of experience as project manager			
Years of experience with this organization			
Number of similar projects as project manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment	Percent of time used for this project	Estimated project completion date	
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Role on project		Role on project	

Table 4 - Proposed Project Superintendents

Name of Organization			
Primary Candidate			
Name of individual			
Years of experience as project superintendent			
Years of experience with this organization			
Number of similar projects as project superintendent			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment	Percent of time used for this project	Estimated project completion date	
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Role on project		Role on project	
Alternate Candidate			
Name of individual			
Years of experience as project superintendent			
Years of experience with this organization			
Number of similar projects as project superintendent			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment	Percent of time used for this project	Estimated project completion date	
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Role on project		Role on project	

Table 5 - Proposed Project Safety Managers

Name of Organization			
Primary Candidate			
Name of individual			
Years of experience as project safety manager			
Years of experience with this organization			
Number of similar projects as project safety manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment	Percent of time used for this project	Estimated project completion date	
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Role on project		Role on project	
Alternate Candidate			
Name of individual			
Years of experience as project safety manager			
Years of experience with this organization			
Number of similar projects as project safety manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment	Percent of time used for this project	Estimated project completion date	
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Role on project		Role on project	

Table 6 - Proposed Project Quality Control Managers

Name of Organization			
Primary Candidate			
Name of individual			
Years of experience as quality control manager			
Years of experience with this organization			
Number of similar projects as quality control manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment	Percent of time used for this project	Estimated project completion date	
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Role on project		Role on project	
Alternate Candidate			
Name of individual			
Years of experience as quality control manager			
Years of experience with this organization			
Number of similar projects as quality control manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment	Percent of time used for this project	Estimated project completion date	
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Role on project		Role on project	

Table 7 - Project Information for Key Personnel

Name of Organization							
Provide information on all projects completed by the Organization within the last 5 years.							
Project Owner				Project Name			
General Description of Project							
Project Budget and Schedule Performance							
Budget History	Amount	% of Bid Amount	Schedule Performance		Date	Days	
Original Contract Price			Notice to Proceed				
Change Orders			Contract Substantial Completion Date at Notice to Proceed				
Owner Enhancements			Contract Final Completion Date at Notice to Proceed				
Unforeseen Conditions			Change Order Authorized Substantial Completion Date				
Design Issues			Change Order Authorized Final Completion Date				
Total			Actual / Estimated Substantial Completion Date				
Final Cost			Actual / Estimated Final Completion Date				
Key Project Personnel							
		Project Manager	Project Superintendent	Safety Manager	Quality Control Manager		
Name							
Percentage of time devoted to the project							
Percentage of time proposed for this Project							
Did Individual start and complete the project?							
If not, who started or completed the project in their place?							
Reason for change?							
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)							
	Name	Title/Position	Organization	Telephone	Email		
Owner							
Designer							
Construction Manager							
Surety							
Issues / disputes resolved or pending resolution by arbitration, litigation or dispute review boards							
Number of issues resolved		Total amount involved in resolved issues		Number of issues pending		Total amount involved in issues pending	

Table 8 - Demonstration of Budget Performance

Name of Offeror							
Provide information on all projects completed by the Offeror within the last 5 years.							
Owner Name	Project Description	Original Contract Price	Value of Change Orders			Total Change Orders	Percent of Changes to Original Contract Price
			Owner Enhancements	Unforeseen Conditions	Design Issues		
Notes:							
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Table 9 - Demonstration of On-Time Performance

[illegible]

END OF SECTION

00 52 13 **AGREEMENT**

This Agreement is between **City of Shawnee** (Owner) and _____(Contractor).

Owner and Contractor agree as follows:

ARTICLE 1 – WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is designated as follows:

Clearpond Road Culvert Replacement

C-24-01

ARTICLE 2 – DESIGN PROFESSIONAL

- 2.01 The Design Professional for this Project is:

Freese and Nichols, Inc.

3600 NW 138th St, Suite 202

OKC, OK 73134

ARTICLE 3 – CONSTRUCTION MANAGER

- 3.01 The Construction Manager for this Project is:

ARTICLE 4 – CONTRACT TIMES

- 4.01 Contract Times

- A. The Work is required to be substantially complete within **90** days after the date when the Contract Times commence to run as provided in the General Conditions and complete and ready for final payment in accordance with the General Conditions within **30** days after the date of Substantial Completion.

- 4.02 Liquidated Damages

- A. Owner and Contractor recognize that the Contract Times specified for Substantial Completion and Final Completion are of the essence in the Contract. Owner and Contractor recognize that the Owner will suffer financial loss if the Work is not completed within the Contract Times specified in this Agreement may be adjusted in accordance with the General Conditions. Owner and Contractor also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration preceding the actual loss suffered by Owner if the Work is not completed within the Contract Times. Accordingly, instead of requiring

proof of the amount of these damages, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Contractor agrees to pay Owner **\$500** for each day that expires after the time specified in this Agreement for Substantial Completion until the Work is substantially complete.
 2. Contractor agrees to pay Owner **\$500** for each day that expires after the time specified in this Agreement for Final Completion until the Work is completed and ready for final payment in accordance with the General Conditions.
- B. Liquidated damages for failing to timely attain Substantial Completion and Final Completion are not additive and will not be imposed concurrently.
- C. OPT will determine whether the Work has been completed within the Contract Times. Assessment of liquidated damages by the Owner does not waive the Owner's right to assess or collect additional damages which Owner may sustain by the failure of the Contractor to perform in accordance with the terms of its Contract.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner will pay Contractor for completion of the Work in accordance with the Contract Documents at the prices shown in Section 00 52 13 "Agreement." The Contract Price has been computed in accordance with the General Conditions. Contractor acknowledges that for unit price items, estimated quantities are not guaranteed and are solely for the purpose of comparing Bids, and that final payment will be based on actual quantities determined in accordance with the Contract Documents.

ARTICLE 6 – PAYMENT PROCEDURES

- 6.01 Submit Applications for Payment in accordance with the General Conditions. Applications for Payment will be processed by the Construction Manager per Section 01 29 00 "Application for Payment Procedures."
- 6.02 The Owner will make progress payments each month during performance of the Work. Payment is based on the total earned value of Work completed in the previous month in accordance with the Schedule of Values established as provided in the General Conditions.
- 6.03 Payment will be made for the total earned value of Work completed in the previous month after deducting:
- A. Retainage calculated per this Agreement;
 - B. Set-offs determined in accordance with the General Conditions; and
 - C. The total amount of payments previously made.
- 6.04 Retainage
- A. Progress payments will be made in an amount equal to 95 percent of the total earned value to date for completed Work and properly stored materials. The remaining 5 percent of the total earned value to date will be held as retainage in accordance with Title 61 of the Oklahoma Statutes.
 - B. No later than 21 calendar days after a Certificate of Substantial Completion is issued for the Project or separate usable phase of the Project and upon adequate performance of the

Contractor and with approval of the surety, retainage will be released by the Owner to the Contractor less an amount no greater than 150 percent of the estimated costs to correct any incomplete or Defective Work as identified, itemized, and attached to the Certificate of Substantial Completion. All remaining funds will be released as each deficiency is satisfactorily completed.

- C. Release or reduction in retainage is contingent upon the consent of surety to the reduction in retainage. Submit a Consent of Surety Company to Reduction of or Partial Release of Retainage form as provided by or approved by the Construction Manager.

- 6.05 Owner will pay the remainder of the Contract Price as recommended by Construction Manager in accordance with the General Conditions upon Final Completion and acceptance of the Work.

ARTICLE 7 – PAYMENT OF INTEREST

- 7.01 All moneys not paid when due as provided in the General Conditions will earn interest at the rate specified in Title 61 of the Oklahoma Statutes. Interest accrual will cease upon payment by the Owner.

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

- 8.01 The Contractor makes the following representations:
 - A. The Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - B. The Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. The Contractor is familiar with Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. The Contractor has carefully studied the following Site related reports and drawings as identified in the Supplementary Conditions:
 - 1. Geotechnical Data Reports regarding subsurface conditions at or adjacent to the Site;
 - 2. Drawings of physical conditions relating to existing surface or subsurface structures at the Site;
 - 3. Underground Facilities referenced in reports and drawings;
 - 4. Reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site; and
 - 5. Technical Data related to each of these reports and drawings.
 - E. The Contractor has considered the:
 - 1. Information known to Contractor;
 - 2. Information commonly known to contractors doing business in the locality of the Site;
 - 3. Information and observations obtained from visits to the Site; and
 - 4. The Contract Documents.

- F. The Contractor has considered the items identified in this Article with respect to the effect of such information, observations, and documents on:
 - 1. The cost, progress, and performance of the Work;
 - 2. The means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and
 - 3. Contractor's safety precautions and programs.
- G. Based on the information and observations referred to in the preceding paragraphs, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- H. The Contractor is aware of the general nature of Work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- I. The Contractor has correlated the information known to the Contractor, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- J. The Contractor has given the Construction Manager written notice of all conflicts, errors, ambiguities, or discrepancies that the Contractor has discovered in the Contract Documents, and the written resolution provided by the Construction Manager is acceptable to the Contractor.
- K. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- L. Contractor's entry into this Agreement constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – ACCOUNTING RECORDS

- 9.01 Accounting Record Availability: The Contractor is to establish and maintain, in accordance with generally accepted accounting practices, full and detailed accounting records of materials incorporated into the Project, and labor, tools, materials, and equipment used for the Work, consistent with the requirements of the General Conditions and as necessary for proper financial management under this Agreement. Subject to prior written notice, provide Owner reasonable access during normal business hours to Contractor's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and the Contractor's fee. Preserve all such documents for a period of 3 years after the final payment by the Owner.

ARTICLE 10 – VENUE

- 10.01 Contractor agrees that venue lies exclusively in Pottawatomie County, Oklahoma for any legal action.

ARTICLE 11 – CONTRACT DOCUMENTS

11.01 Contract Documents

- A. Specifications Sections listed in Section 00 01 10 “Table of Contents” except as specifically excluded in Paragraph 11.02.
- B. Drawings listed in the Sheet Index on the Drawings.
- C. Addenda
- D. Appendices listed in Section 00 01 10 “Table of Contents” except as specifically excluded in Paragraph 11.02.
- E. The following are also Contract Documents which may be delivered or issued on or after the Effective Date of the Contract:
 - 1. Notice to Proceed.
 - 2. Contract Amendment(s).
 - 3. Change Order(s).
 - 4. Field Order(s).
 - 5. Work Change Directive(s).
- F. There are no Contract Documents other than those listed above in this Paragraph. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

11.02 Bidding Requirements and Informational Documents:

- A. The following Bidding Requirements are not Contract Documents:
 - 1. 00 11 16 Invitation to Bid
 - 2. 00 21 13 Instructions to Offerors
 - 3. 00 41 13 Bid Form
 - 4. 00 41 16 Bid Form Exhibit A
 - 5. 00 43 13 Bid Bond
 - 6. 00 45 01 Nonresident Bidders
 - 7. 00 45 02 Non-Collusion Certification
 - 8. 00 45 03 Business Relationship Statement
 - 9. 00 45 13 Qualifications Statement
- B. The following documents are provided for information only and are not part of the Contract Documents:
 - 1. Geotechnical Investigation Report.

The Effective Date of the Contract is _____.

Owner: _____
(typed or printed)

Contractor: _____
(typed or printed)

By: _____
(individual's signature)

By: _____
(individual's signature)

Name: _____
(typed or printed)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Title: _____
(typed or printed)
(Attach evidence of authority to sign)

Address for giving notice:

Address for giving notice:

Designated representative:

Designated representative:

Name: _____

Name: _____

Title: _____

Title: _____

Address: _____

Address: _____

Phone: _____

Phone: _____

Email: _____

Email: _____

END OF SECTION

00 61 13 PERFORMANCE BOND

Contractor as Principal Name: Mailing address (principal place of business):	Surety Name: Mailing address (principal place of business):
Owner Name: Mailing address (principal place of business):	Physical address (principal place of business): Telephone (Main): Telephone (Claims):
Contract Contract No.: Project name and number: Clearpond Road Culvert Replacement C-24-01 Contract Price: Effective Date of Contract:	Surety's state of incorporation: <i>By submitting this bond, Surety affirms that it is licensed to provide and execute this bond and authorized to do business in the Oklahoma.</i>
Bond Bond Amount: 100 percent of Contract Price Date of Bond: (Date of Bond cannot be earlier than Effective Date of Contract)	Local Agent for Surety Name: Mailing address (principal place of business): Telephone (Main):

Surety and Contractor, intending to be legally bound and obligated to Owner, do each cause this performance bond to be duly executed on its behalf by its authorized officer, agent, or representative. The Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally to this bond. The condition of this obligation is such that if the Contractor as Principal faithfully performs the Work required by the Contract then this obligation will be null and void; otherwise the obligation is to remain in full force and effect. Provisions of this bond shall be pursuant to the terms and provisions of Title 61 of the Oklahoma Statutes as amended and all liabilities on this bond shall be determined in accordance with the terms and provisions of said statutes to the same extent as if it were copied at length herein. Venue lies exclusively in Pottawatomie County, Oklahoma for any legal action.

Contractor as Principal Signature: _____ Name: _____ Title: _____ Email: _____	Surety Signature: _____ Name: _____ Title: _____ Email: _____ <i>(Attach Power of Attorney and place surety seal below)</i>
--	--

END OF SECTION

00 61 16 PAYMENT BOND

Contractor as Principal Name: Mailing address (principal place of business):	Surety Name: Mailing address (principal place of business):
Owner Name: Mailing address (principal place of business):	Physical address (principal place of business): Telephone (Main): Telephone (Claims):
Contract Contract No.: Project name and number: Clearpond Road Culvert Replacement C-24-01 Contract Price: Effective Date of Contract:	Surety's state of incorporation:
	<i>By submitting this bond, Surety affirms that it is licensed to provide and execute this bond and authorized to do business in the Oklahoma.</i>
Bond Bond Amount: 100 percent of Contract Price Date of Bond: (Date of Bond cannot be earlier than Effective Date of Contract)	Local Agent for Surety Name: Mailing address (principal place of business): Telephone (Main):

Surety and Contractor intending to be legally bound and obligated to Owner do each cause this payment bond to be duly executed on its behalf by its authorized officer, agent, or representative. The Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally to this bond. The condition of this obligation is such that if the Contractor as Principal pays all claimants providing labor or materials to Contractor or to a Subcontractor in the prosecution of the Work required by the Contract then this obligation will be null and void; otherwise the obligation is to remain in full force and effect. Provisions of this bond shall be pursuant to the terms and provisions of Title 61 of the Oklahoma Statutes as amended and all liabilities on this bond shall be determined in accordance with the terms and provisions of said statutes to the same extent as if it were copied at length herein. Venue lies exclusively in Pottawatomie County, Oklahoma for any legal action.

Contractor as Principal

Signature: _____
 Name: _____
 Title: _____
 Email: _____

Surety

Signature: _____
 Name: _____
 Title: _____
 Email: _____

(Attach Power of Attorney and place surety seal below)

END OF SECTION

00 61 19 MAINTENANCE BOND

Contractor as Principal Name: Mailing address (principal place of business):	Surety Name: Mailing address (principal place of business):
Owner Name: Mailing address (principal place of business):	Physical address (principal place of business): Telephone (Main): Telephone (Claims):
Contract Project name and number: Clearpond Road Culvert Replacement C-24-01 Contract Price: Effective Date of Contract:	Surety's state of incorporation: <i>By submitting this bond, Surety affirms it is authorized to do business and licensed to execute bonds in the state where the Project is located.</i> Local Agent for Surety Name: Mailing address (principal place of business):
Bond Bond Amount: 100 percent of Contract Price in the first year, 10 percent in the second year Bond Duration: 2 years Bond Date: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i>	Telephone (Main):

Surety and Contractor, intending to be legally bound and obligated to Owner do each cause this maintenance bond to be duly executed on its behalf by its authorized officer, agent, or representative. Surety and Contractor bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally to this bond. The condition of this obligation is such that if the Contractor faithfully performs maintenance work required by the Contract Documents then this obligation will be null and void; otherwise the obligation is to remain in full force and effect. Provisions of the bond shall be pursuant to the terms and provisions of the Contract Documents with regard to the continued maintenance of the Project for the period specified in the Contract Documents. All liabilities on this bond will be determined in accordance with the provisions of said Contract Documents to the same extent as if they were copied at length herein. This Agreement shall be administered and interpreted under the laws of the state where the Project is located. Venue lies exclusively in Pottawatomie, Oklahoma for any legal action.

Contractor as Principal	Surety
Signature: _____	Signature: _____
Name: _____	Name: _____
Title: _____	Title: _____
Email: _____	Email: _____
	<i>(Attach Power of Attorney)</i>

END OF SECTION

00 61 20 MAINTENANCE BOND REQUIREMENTS

ARTICLE 1 – MAINTENANCE BOND REQUIREMENTS

- 1.01 Provide a maintenance bond that complies with the requirements of this Section. A maintenance bond is defined as a performance bond that extends the correction period for a specified period of time beyond the one-year correction period described in the General Conditions.
- 1.02 Provide a maintenance bond that begins at the end of the one-year correction period and continues for the period stated in Section 00 61 19 “Maintenance Bond.”
- 1.03 Provide a maintenance bond in the amount stated in Section 00 61 19 “Maintenance Bond.”
- 1.04 Provide a maintenance bond that meets the same requirements for bonds as the Contractor’s performance bond as described in the Contract Documents.
- 1.05 Surety for the maintenance bond must meet the same requirements for the performance and payment bonds as set forth in the General Conditions.
- 1.06 Indemnification provisions of the General Conditions apply to the maintenance bond period.

ARTICLE 2 – DOCUMENTATION

- 2.01 Provide a maintenance bond using the form provided in Section 00 61 19 “Maintenance Bond.”
- 2.02 Comply with the requirements of Section 01 70 00 “Execution and Closeout Requirements.”

ARTICLE 3 – CORRECTIVE ACTION DURING THE MAINTENANCE BOND PERIOD

- 3.01 Correct Defective Work during the one-year correction period in accordance with the General Conditions.
- 3.02 Correct Defective Work during the maintenance bond period just as required for the one-year correction period specified in the General Conditions. Provide labor and materials required to correct Defective Work or correct Work that does not function as required by the Contract Documents.
- 3.03 Correction of Defective Work during the maintenance bond period does not extend the correction period as is required under the provisions of the one-year correction period described in the General Conditions.
- 3.04 Promptly correct damages to the Site or adjacent areas that Contractor has arranged to use through construction easements or other agreements. Promptly correct damages to the Work or the work of others. Make the corrections without cost to Owner.
- 3.05 Owner may correct Defective Work without notice to Contractor in an emergency where delay would cause serious risk of loss or damage.
- 3.06 Include the cost for correcting Defective Work during the maintenance bond period in the Contract Price. Include all costs associated with providing the maintenance bond in the Contract Price.
- 3.07 Reimburse Owner for engineering and special services required to be furnished by Owner which are directly attributable to the corrective Work.

3.08 Remedy for Failure to Correct Defective Work:

- A. Owner may correct Defective Work if Contractor fails or refuses to perform corrective Work within 10 days after Owner notifies Contractor of Defective Work.
- B. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this paragraph are to be paid by Contractor or its surety. These claims, costs, losses, and damages include costs of repair and the cost of replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's Defective Work. Owner is not required to obtain the lowest price for the Work performed when exercising its rights or remedies under this paragraph.

ARTICLE 4 – INSURANCE REQUIREMENTS

- 4.01 Provide insurance as required by the Contract Documents during the maintenance bond period. Provide evidence of insurance prior to beginning corrective Work if evidence of insurance is not current.

END OF SECTION

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

- A. A term with initial capital letters, including the term's singular and plural forms, has the meaning indicated in this Paragraph wherever used in the Bidding Requirements or Proposal Requirements or Contract Documents. In addition to the terms specifically defined, terms with initial capital letters in the Contract Documents may include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Documents issued prior to the receipt of Bids or Proposals which clarify or modify the Bidding Requirements/Proposal Requirements or the proposed Contract Documents.
 2. *Agreement*—The document signed by Owner and Contractor that establishes the Contract Price and Contract Times, and designates the specific documents that are Contract Documents.
 3. *Application for Payment*—The documents used by Contractor to request payments from Owner and the supporting documentation required by the Contract Documents.
 4. *Bid; Proposal*—An offer submitted to Owner for the Project setting forth the Contract Price and Contract Times for the Work to be performed.
 5. *Bidding Documents; Proposal Documents*—The Bidding Requirements or Proposal Requirements, the proposed Contract Documents, and Addenda.
 6. *Bidding Requirements; Proposal Requirements*—The Invitation to Bid or Request for Proposals, Instructions to Offerors, Bid Security or Proposal Security, Bid Form or Proposal Form and attachments, and required certifications and affidavits.
 7. *Bid Security; Proposal Security*—The financial security provided by Offeror at the time the Bid or Proposal is submitted and held by Owner until the Agreement is executed and the evidence of insurance and bonds required by the Contract Documents are provided.
 8. *Change Order*—A document issued on or after the Effective Date of the Contract and signed by Owner and Contractor which modifies the Work, Contract Price, Contract Times, or terms and conditions of the Contract.
 9. *Change Proposal*—A document submitted by Contractor in accordance with the requirements of the Contract Documents:
 - a. Requesting an adjustment in Contract Price or Contract Times;
 - b. Contesting an initial decision concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents;
 - c. Challenging a Set-off against payment due; or
 - d. Seeking other relief with respect to the terms and conditions of the Contract.
 10. *Claim*—A demand or assertion by Owner or Contractor submitted in accordance with the requirements of the Contract Documents. A demand for money or services by an entity other than Owner or Contractor is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning any hazardous, toxic, or dangerous waste, substance, or material.
12. *Construction Manager*—The individual or entity named as Construction Manager in the Agreement and the consultants, subconsultants, individuals, or entities directly or indirectly employed or retained by them to provide construction management as advisor services to Owner.
13. *Construction Manager at Risk (CMAR)*—The individual or entity selected by Owner to construct the Project using the Construction Manager at Risk project delivery method. The term Contractor means Construction Manager at Risk in the Contract Documents when the Construction Manager at Risk project delivery method is used.
14. *Contract*—The entire integrated set of documents concerning the Work and describing the relationship between the Owner and Contractor.
15. *Contract Amendment*—A document issued on or after the Effective Date of the Contract and signed by Owner and Contractor which:
 - a. Authorizes new phases of the Work and establishes the Contract Price, Contract Times, or terms and conditions of the Contract for the new phase of Work; or
 - b. Modifies the terms and conditions of the Contract, but does not make changes in the Work.
16. *Contract Documents*—Those items designated as Contract Documents in the Agreement.
17. *Contract Price*—The monetary amount stated in the Agreement and as adjusted by Modifications, and increases or decreases in unit price quantities, if any, that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
18. *Contract Times*—The number of days or the dates by which Contractor must achieve specified Milestones, achieve Substantial Completion, and complete the Work.
19. *Contractor*—The individual or entity with which Owner has contracted to perform the Work.
20. *Contractor's Team*—Contractor, Subcontractors, Suppliers, and individuals or entities directly or indirectly employed or retained by Contractor, Subcontractors, or Suppliers to perform part of the Work, or anyone for whose acts they may be liable.
21. *Cost of the Work*—The sum of costs incurred for the performance of the Work as allowed by Article 13.
22. *Day*—A day of 24 hours measured from midnight to the next midnight.
23. *Defective*—When applied to Work, refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. Does not conform to the Contract Documents;

- b. Does not meet the requirements of applicable inspections, reference standards, tests, or approvals referred to in the Contract Documents; or
 - c. Has been damaged prior to Construction Manager's recommendation of final payment unless responsibility for the protection of the Work has been assumed by Owner at Substantial Completion in accordance with Article 15.
24. *Design Professional*—The individuals or entity named as the Architect or Engineer in the Agreement and the subconsultants, individuals, or entities directly or indirectly employed or retained by Design Professional to provide design or other technical services to Owner. Design Professional has responsibility for design and technical issues related to the Contract Documents.
25. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work. Shop Drawings and other documents generated by Contractor's Team are not Drawings.
26. *Effective Date of the Contract*—The date indicated in the Agreement on which the Contract becomes effective.
27. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including Shop Drawings and other Submittals, that are in an electronic or digital format.
28. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.
29. *Field Order*—A document issued by Construction Manager or Design Professional requiring changes in the Work that do not change the Contract Price or the Contract Times.
30. *Final Completion*—The point where the Work is complete in accordance with the Contract Documents, items and documents required by the Contract Documents have been accepted by Owner and the Project is ready for Final Payment.
31. *Guaranteed Maximum Price (GMP)*—The maximum amount to be paid by Owner for the sum of the Cost of the Work plus Contractor's fee as set forth in the Agreement, subject to increases or decreases for changes in the Work, when the Construction Manager at Risk project delivery method is used.
32. *Hazardous Environmental Condition*—The presence of Constituents of Concern at the Site in quantities or circumstances that may present a danger to persons or property exposed to Constituents of Concern. The presence of Constituents of Concern at the Site necessary for the execution of the Work or to be incorporated into the Work is not a Hazardous Environmental Condition provided these Constituents of Concern are

controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract.

- a. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
33. *Indemnified Costs*—All costs, losses, judgments, and damages resulting from claims or demands against Owner’s Indemnitees. These costs include fees for design professionals, attorneys, and other professionals and any legal, court, arbitration, or other dispute resolution costs.
 34. *Laws and Regulations; Laws or Regulations*—Applicable laws, statutes, rules, regulations, ordinances, codes, permits, and binding decrees, resolutions, and orders of governmental bodies, agencies, authorities, and courts having jurisdiction over the Project.
 35. *Liens*—Charges, security interests, or encumbrances upon Contract related funds, real property, or private property.
 36. *Manufacturer*—The individual or entity that designs, casts, fabricates, manufactures, assembles, tests, and provides materials or equipment to be incorporated in the Work.
 37. *Milestone*—A principal event in the performance of the Work that Contractor is required by Contract to complete by a specified date or within a specified time.
 38. *Modification*—Change made to the Contract Documents by Contract Amendment, Change Order, Field Order, or Work Change Directive.
 39. *Notice of Award*—The notice of Owner’s acceptance of the Successful Offeror’s Bid or Proposal.
 40. *Notice to Proceed*—A notice to Contractor of the Contract Times and the date Work is to begin.
 41. *Offeror*—An individual or entity that submits a Bid or Proposal to Owner.
 42. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
 43. *Owner’s Budget*—The amount budgeted by Owner for the construction of the Project.
 44. *Owner’s Indemnitees*—Each member of OPT and their officers, directors, members, partners, employees, agents, consultants, and subcontractors.
 45. *Owner’s Project Team (OPT)*—The Owner, Design Professional, Construction Manager, and the other entities identified in the Supplementary Conditions and the consultants, subconsultants, individuals or entities directly or indirectly employed or retained by them to provide services to Owner.

46. *Progress Schedule*—A schedule prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
47. *Project*—The total undertaking to be accomplished for Owner under the Contract Documents.
48. *Project Construction Manager (PCM)*—The authorized representative of OPT assigned to assist Construction Manager at the Site. The term Project Construction Manager includes assistants and field staff of Construction Manager.
49. *Project Management Information System (PMIS)*—The online project management system that will be used by OPT and Contractor to submit and share documentation and other related communications and information for this Project.
50. *Samples*—Physical examples of materials, equipment, or workmanship representing some portion of the Work that are used to establish the standards for that portion of the Work.
51. *Schedule of Anticipated Payments*—A detailed tabulation, prepared and maintained by Contractor, showing the anticipated amount of each Application for Payment and the month in which they will be submitted.
52. *Schedule of Submittals*—A detailed tabulation, prepared and maintained by Contractor, of each required submittal and the time requirements for review and approval of each submittal.
53. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for Contractor’s Applications for Payment.
54. *Set-off*—A reduction in payment due to Contractor under Article 15.
55. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by Contractor’s Team and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
56. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed. The Site includes rights-of-way, easements, and other lands or areas furnished by Owner which are designated for use by Contractor.
57. *Specifications*—The part of the Contract that describes the requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
58. *Subcontractor*—An individual or entity having a direct contract with Contractor or with other Subcontractors or Suppliers for the performance of a part of the Work.
59. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Construction Manager, or that is indicated as a Submittal in the Schedule of Submittals accepted by Construction Manager. Submittals, whether approved or accepted by OPT, are not Contract Documents.

60. *Substantial Completion*—The point where the Work or a specified part of the Work is sufficiently complete to be used for its intended purpose in accordance with the Contract Documents.
61. *Successful Offeror*—The Offeror to which Owner awards the Contract.
62. *Supplementary Conditions*—The part of the Contract that amends or supplements the General Conditions.
63. *Supplier*—A Manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with Subcontractors or other Suppliers to furnish materials or equipment to be incorporated in the Work.
64. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions with respect to either:
 - a. Existing subsurface conditions at or adjacent to the Site;
 - b. Existing physical conditions at or adjacent to the Site including existing surface or subsurface structures at the Site, except Underground Facilities; or
 - c. Hazardous Environmental Conditions at the Site.
65. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
66. *Unit Price Work*—Work to be paid for based on unit prices.
67. *Work*—The construction of the Project or its component parts as required by the Contract Documents. Work includes and is the result of performing and providing all labor, services, and documentation to construct the Project; providing all materials and equipment to be incorporated into the Project, and providing related services for testing, startup and commissioning, all as required by the Contract Documents.
68. *Work Change Directive*—A directive issued to Contractor on or after the Effective Date of the Contract ordering an addition, deletion, or revision in the Work. The Work Change Directive serves as a memorandum of understanding regarding the directive until a Change Order can be issued.

1.02 Terminology

- A. The words and terms discussed in this Paragraph 1.02 are not defined terms that require initial capital letters, but when used in the Bidding Requirements or Proposal Requirements or Contract Documents, have the indicated meaning.
- B. Contract Documents are written using imperative language:
 1. Simple imperative sentence structure is used which places a verb as the first word in the sentence. It is understood that the words “furnish,” “install,” “perform,” “provide,”

or similar words include the meaning of the phrase "Contractor shall..." before these words.

2. Unless specifically stated that action is to be taken by OPT or others, it is understood that the action described is a requirement of Contractor.
- C. The use of the words "furnish," "install," "perform," and "provide" have the following meanings when used relating to services, materials, or equipment:
1. Furnish means to supply and deliver the specified services, materials, or equipment to the Site or other specified location ready for use or installation.
 2. Install means to complete construction or assembly of the specified services, materials, or equipment so they are ready for their intended use.
 3. Perform or provide means to furnish and install specified services, materials, or equipment, complete and ready for their intended use.
 4. Perform or provide the specified services, materials, or equipment complete and ready for intended use if the Contract Documents require specific services, materials, or equipment, but do not expressly use the words "furnish," "install," "perform," or "provide."
- D. The meaning and intent of certain terms or adjectives are described as follows:
1. The terms "as allowed," "as approved," "as ordered," "as directed," or similar terms in the Contract Documents indicate an exercise of professional judgment by OPT.
 2. Adjectives like "reasonable," "suitable," "acceptable," "proper," "satisfactory," or similar adjectives are used to describe a determination of OPT regarding the Work.
 3. Any exercise of professional judgment by OPT will be made solely to evaluate the Work for general compliance with the Contract Documents unless there is a specific statement in the Contract Documents indicating otherwise.
 4. The use of these or similar terms or adjectives does not assign a duty or give OPT authority to supervise or direct the performance of the Work, or assign a duty or give authority to OPT to undertake responsibilities contrary to the provisions of Article 9, Article 10 or other provisions of the Contract Documents.
- E. Requirements apply to all Work of the same kind, class, and type even though the word "all" or "any" is not stated.
- F. The terms "includes" and "including" are used as terms of enlargement and not of limitation or exclusive enumeration, and use of these terms does not create a presumption that components not expressed are excluded. The terms "consist of" or "consisting of" limits the interpretation to only those items specifically listed.
- G. It is understood that the cost of providing Work is included in the Contract Price and no additional compensation is to be paid by Owner unless specifically stated otherwise in the Contract Documents. Expressions like "at no additional cost to Owner," "at Contractor's expense," or similar words mean that Contractor is to include the cost of this Work in their Contract Price and perform or provide specified Work without an increase in the Contract Price.

- H. Words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with this recognized meaning unless stated otherwise in the Contract Documents.
- I. Written documents are required where reference is made to notices, reports, approvals, consents, statements, instructions, opinions, or other types of documentation or communications required by the Contract Documents. Approval and consent documents must be received by Contractor prior to the action or decision for which approval or consent is given. These may be made in printed or electronic format through OPT's Project Management Information System or other electronic media as required by the Contract Documents or approved by Construction Manager.
- J. Giving notice as required by the Contract Documents may be by printed or electronic media using a method that requires acknowledgment of the receipt of that notice.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

- A. Provide required bonds and evidence of insurance required by the Contract Documents to Construction Manager with the executed Agreement.
- B. Evidence of insurance must include copies of the insurance policies, including all endorsements, and identification of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

2.02 Copies of Documents

- A. OPT will furnish one copy of the executed Contract Documents in electronic portable document format (PDF). This document is the Project Record Copy of the Contract Documents.

2.03 Before Starting Construction

- A. Provide the following preliminary documents in accordance with the Contract Documents within 10 days after the Effective Date of the Contract:
 - 1. Progress Schedule;
 - 2. Schedule of Submittals;
 - 3. Schedule of Values; and
 - 4. Schedule of Anticipated Payments.
- B. Designate the specific individuals authorized to act as representatives of Contractor. These individuals must have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of Contractor.
- C. Owner will designate the specific individuals authorized to act as representatives of Owner and the limits of their authority regarding acting on behalf of Owner.

2.04 Electronic Transmittals

- A. Except as otherwise stated elsewhere in the Contract Documents, the OPT and Contractor will send and accept Electronic Documents sent by Electronic Means using the protocols specified in Section 01 33 00 "Document Management."

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 Intent

- A. Requirements of each part of the Contract Documents are as binding as if required by all Contract Documents. It is the intent of the Contract Documents to describe a functionally complete project. The Contract Documents do not indicate or describe all the Work required to complete the Project. Additional details required for construction of the Project are to be provided by Contractor and coordinated with OPT.
- B. Provide the labor, documentation, services, materials, or equipment that may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result, whether specifically called for in the Contract Documents or not. Include these related costs in the offered Contract Price.
- C. Provide equipment that is functionally complete as described in the Contract Documents. The Drawings and Specifications do not indicate or describe all the Work required to complete the installation of equipment purchased by the Owner or Contractor. Additional details required for the correct installation of selected equipment are to be provided by Contractor and coordinated with Design Professional through Construction Manager.
- D. Comply with the most stringent requirements where compliance with two or more standards is specified and they establish different or conflicting requirements for the Work, unless the Contract Documents indicate otherwise.
- E. Provide materials and equipment comparable in quality to similar materials and equipment incorporated in the Project or as required to meet the minimum requirements of the application if the materials and equipment are shown in the Drawings but are not included in the Specifications.
- F. The Project Record Copy of the Contract Documents governs if there is a discrepancy between the Project Record Copy of the Contract Documents and subsequent electronic or digital versions of the Contract Documents, including printed copies derived from these electronic or digital versions.
- G. The Contract supersedes all prior written or oral negotiations, representations, and agreements. The Contract Documents comprise the entire Agreement between Owner and Contractor. The Contract Documents may be modified only by a Modification.
- H. Request clarification from Construction Manager for a decision before proceeding if Contractor is not clear on the meaning of the Contract Documents. Construction Manager is to issue clarifications and interpretations of the Contract Documents in accordance with the Contract Documents.

I. Organization of the Documents:

1. Organization of the Contract Documents is not intended to control or lessen the responsibility of Contractor when dividing Work among Subcontractors or Suppliers, or to establish the extent of Work to be performed by trades, Subcontractors, or Suppliers, except on multi-prime contracts. Specifications or details do not need to be indicated or specified in each Specification or Drawing. Items shown in the Contract Documents are applicable regardless of their location in the Contract Documents.
2. Standard Paragraph titles and other identifications of subject matter in the Specifications are intended to aid in locating and recognizing various requirements of the Specifications. Titles do not define, limit, or otherwise restrict Specification text.
3. The Contract requirements described in the General Conditions, Supplementary Conditions, and General Requirements (Division 01 Sections of the Specifications) apply to Work regardless of where it is described in the Contract Documents, unless specifically noted otherwise.
4. Specifications or details do not need to be indicated or specified in each Specification or Drawing. Items shown in the Contract Documents are applicable regardless of their location in the Contract Documents.

J. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

K. Nothing in the Contract Documents creates:

1. a contractual relationship between OPT and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
2. an obligation on the part of OPT to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 Reference Standards

A. Standard Specifications, Codes, Laws and Regulations:

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of technical societies, organizations, or associations, or to Laws or Regulations, whether specific or implied, are those in effect at the time Contractor's Bid or Proposal is submitted or when Contractor negotiates the Contract Price unless specifically stated otherwise in the Contract Documents.
2. No provision of referenced standard specifications, manuals, reference standards, codes, or instructions of a Supplier changes the duties or responsibilities of OPT or Contractor from those described in the Contract Documents or assigns a duty to or gives authority to OPT to supervise or direct the performance of the Work or undertake responsibilities inconsistent with the Contract Documents.

3. The provisions of the Contract Documents take precedence over standard specifications, manuals, reference standards, codes, or instructions of a Supplier unless specifically stated otherwise in the Contract Documents.
- B. Comply with applicable construction industry standards, whether referenced or not.
 1. Standards referenced in the Contract Documents govern over standards not referenced but recognized as applicable in the construction industry.
 2. Comply with the requirements of the Contract Documents if they produce a higher quality of Work than the applicable construction industry standards.
 3. Submit questions regarding which code or standard is applicable to Construction Manager. Design Professional will determine whether a code or standard is applicable, which of several codes or standards are applicable, or if the Contract Documents produce a higher quality of Work. Construction Manager will respond to the question as appropriate.
- C. Make copies of reference standards available if requested by Construction Manager.

3.03 Reporting and Resolving Discrepancies

- A. Reporting Discrepancies:
 1. Carefully study the Drawings and verify pertinent figures and dimensions with respect to actual field measurements before undertaking the Work. Immediately report conflicts, errors, ambiguities, or discrepancies that Contractor discovers or has actual knowledge of to Construction Manager.
 2. Immediately notify the Construction Manager of conflicts, errors, ambiguities, or discrepancies in the Contract Documents or discrepancies between the Contract Documents and:
 - a. Applicable Laws or Regulations;
 - b. Actual field conditions;
 - c. Standard specifications, manuals, reference standards, or codes; or
 - d. Instructions of Suppliers.
 3. Do not proceed with affected Work until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation from Construction Manager or by a Modification to the Contract Documents issued pursuant to Paragraph 11.01, except in an emergency as required by Paragraph 7.12.
 4. Contractor is liable to OPT for failure to report conflicts, errors, ambiguities, or discrepancies in the Contract Documents of which Contractor has actual knowledge.
 5. Contractor is deemed to have included the most expensive item, system, procedure, etc. in the Contract Price if a conflict, error, ambiguity, or discrepancy in the Contract Documents was known, but not reported prior to submitting the Bid or Proposal or when Contractor negotiates the Contract Price.

3.04 Interpretation of the Contract Documents

- A. Submit questions concerning the non-technical or contractual/administrative requirements of the Contract Documents to Construction Manager immediately after the question arises. Construction Manager will provide an interpretation of the Contract Documents regarding these questions and will coordinate the response of OPT to Contractor.
- B. Submit questions regarding the design of the Project described in the Contract Documents to Construction Manager immediately after the question arises. Construction Manager will request an interpretation of the Contract Documents from Design Professional. Construction Manager will coordinate the response of OPT to Contractor.
- C. OPT may initiate a Modification to the Contract Documents through Construction Manager if a response to the question indicates that a change in the Contract Documents is required. Contractor may appeal Design Professional's or Construction Manager's interpretation by submitting a Change Proposal.

3.05 Reuse of Documents

- A. Contractor's Team has no rights to the Contract Documents and may not use the Contract Documents or copies or electronic media editions of the Contract Documents other than for the construction of this Project. This provision survives final payment or termination of the Contract.
- B. Contractor can retain a copy of the Contract Documents for record purposes, unless specifically prohibited by Owner for security reasons. Surrender paper and digital copies of the Contract Documents and other related documents and remove these documents from computer equipment or storage devices as a condition of final payment if Owner so directs.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 Commencement of Contract Times; Notice to Proceed

- A. The Contract Times commence to run on the date indicated in the Notice to Proceed. If a Notice to Proceed is not issued, the Contract Times will commence to run 15 days after the Contract is signed by all parties.
- B. Begin performing the Work on the date indicated in the Notice to Proceed. Do not begin Work before the date indicated in the Notice to Proceed or prior to providing evidence that insurance required in Article 6 is in effect.

4.02 Progress Schedule

- A. Construct the Work in accordance with the Progress Schedule established in accordance with the Contract Documents.
 - 1. Adjust the Progress Schedule as required to accurately reflect actual progress on the Work.
 - 2. Submit proposed adjustments in the Progress Schedule that change the Contract Times in accordance with the requirements of Article 11.

- B. Continue performing Work and adhere to the Progress Schedule during disputes or disagreements with Owner. Do not delay or postpone Work pending resolution of disputes or disagreements, or during an appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree.

4.03 Delays in Contractor's Progress

- A. Contractor is not entitled to an adjustment in Contract Price or Contract Times for delays, disruptions, or interference caused by or within the control of Contractor's Team.
- B. Contractor is entitled to an equitable adjustment in Contract Price or Contract Times if OPT directly delays, disrupts, or interferes with the performance or progress of the Work. Contractor is not entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Owner if this delay is concurrent with a delay, disruption, or interference attributable to or within the control of Contractor's Team.
- C. Contractor is entitled to an equitable adjustment in the Contract Times, but not Contract Price, if Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of OPT or Contractor. These adjustments in Contract Times are Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. These unanticipated causes include:
 - 1. Severe and unavoidable natural catastrophes e.g. fires, floods, epidemics, and earthquakes;
 - 2. Acts of war or terrorism;
 - 3. Acts or failures to act of utility owners or other third-party entities other than those third-party utility owners performing other work at or adjacent to the Site as arranged by Owner and, as contemplated in Article 8;
 - 4. The existence of a differing subsurface or physical condition;
 - 5. An Underground Facility not shown or not indicated with reasonable accuracy by the Contract Documents;
 - 6. Hazardous Environmental Conditions; and
 - 7. Delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site unless this other work also for Owner.
- D. Contractor is entitled to an equitable adjustment in the Contract Times, but not Contract Price, if Contractor's performance or progress is delayed or disrupted by weather conditions provided such weather conditions exceed those that could normally be expected for the Site in that month of the year, unless other provisions for Weather related delays are included in the Contract Documents. Contractor is to include time associated with normal weather-related delays in the Project Schedule and assumes the risks, including costs, associated with delays related to normal weather conditions.
- E. Contractor is only entitled to an adjustment of the Contract Times for specific delays, disruptions, and interference to the performance or progress of the Work that can be

demonstrated to directly impact the ability of Contractor to complete the Work within the Contract Times. No adjustments in Contract Times are allowed for delays on components of the Work which were or could have been completed without impacting the Contract Times.

- F. Notify Construction Manager immediately of a potential delaying, disrupting, or interfering event. Submit a Change Proposal seeking an adjustment in Contract Price or Contract Times within 30 days of the commencement of the delaying, disrupting, or interfering event. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11. Change Proposal seeking an increase in Contract Times or Contract Price submitted must include supporting data that details the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference;
 5. A revised Progress Schedule indicating all the activities affected by the delay, disruption, or interference;
 6. An explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work;
 7. The impact on Contract Price; and
 8. Such additional supporting documentation as OPT may require.

ARTICLE 5 – SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 Availability of Lands

- A. Owner will furnish the Site and inform Contractor of encumbrances or restrictions known to Owner related to use of the Site with which Contractor must comply in performing the Work.
- B. Provide for additional lands and access Contractor requires for temporary construction facilities or storage of materials and equipment, other than those identified in the Contract Documents. Provide documentation of authority to use these additional lands to Construction Manager before using them.

5.02 Use of Site and Other Areas

- A. Confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Owner or Contractor has arranged to use through construction easements or agreements, and other adjacent areas as permitted by Laws and Regulations. Assume full responsibility for damage

or injuries which result from the performance of the Work or from other actions or conduct of Contractor's Team, including:

1. Damage to the Site;
 2. Damage to adjacent areas used for Contractor's Team's operations;
 3. Damage to other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and
 4. Injuries and losses sustained by the owners or occupants of these lands or areas.
- B. Take the following action if a damage or injury claim is made by the owner or occupant of adjacent land or area because of the performance of the Work, or because of other actions or conduct of Contractor's Team:
1. Take immediate corrective or remedial action as required by Paragraph 7.10; and
 2. Attempt to settle the claim through negotiations with the owner or occupant, or otherwise resolve the claim by mediation or other dispute resolution proceeding or at law; and
 3. **TO THE FULLEST EXTENT PERMITTED BY LAWS AND REGULATIONS, INDEMNIFY AND HOLD HARMLESS OWNER'S INDEMNITEES FROM AND AGAINST ANY SUCH CLAIM AND ALL INDEMNIFIED COSTS ARISING OUT OF OR RELATING TO ANY CLAIM OR ACTION BROUGHT BY ANY SUCH OWNER OR OCCUPANT AGAINST OWNER'S INDEMNITEES TO THE EXTENT CAUSED DIRECTLY OR INDIRECTLY, IN WHOLE OR IN PART BY, OR BASED UPON, CONTRACTOR'S PERFORMANCE OF THE WORK, OR BECAUSE OF OTHER ACTIONS OR CONDUCT OF CONTRACTOR'S TEAM.**

5.03 Subsurface and Physical Conditions

- A. The Supplementary Conditions identify:
1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
 2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site, except Underground Facilities, that contain Technical Data; and
 3. Technical Data contained in these reports and drawings.
- B. If no Technical Data have been identified in the Supplementary Conditions, then Technical Data is defined, with respect to conditions at the Site, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, or environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
- C. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.

- D. Contractor may rely upon the accuracy of the Technical Data contained in these reports and drawings, but these reports and drawings are not Contract Documents. Except for this reliance on Technical Data, Contractor may not rely upon or make claims against Owner's Indemnitees with respect to:
1. The completeness of reports and drawings for Contractor's purposes, including aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, or Contractor's safety precautions and programs;
 2. Other data, interpretations, opinions, and information contained in these reports or shown or indicated in the drawings;
 3. The contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
 4. Contractor's interpretation of or conclusions drawn from Technical Data or other data, interpretations, opinions, or information.

5.04 Differing Subsurface or Physical Conditions

- A. Notify Construction Manager immediately, but in no event later than 3 days, after becoming aware of a subsurface or physical condition that is uncovered or revealed at the Site, and before further disturbing the subsurface or physical conditions or performing any related Work that:
1. Establishes that the Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
 2. Requires a change in the Drawings or Specifications;
 3. Differs materially from that shown or indicated in the Contract Documents; or
 4. Is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.
- B. Do not further disturb or perform Work related to this subsurface or physical condition, except in an emergency as required by Paragraph 7.12, until permission to do so is issued by Construction Manager.
- C. Construction Manager is to notify OPT after receiving notice of a differing subsurface or physical condition from Contractor. OPT will:
1. Promptly review the subsurface or physical condition;
 2. Determine the necessity of OPT's obtaining additional exploration or tests with respect to the subsurface or physical condition;
 3. Determine if the subsurface or physical condition falls within one or more of the differing site condition categories in Paragraph 5.04.A;
 4. Prepare recommendations regarding Contractor's resumption of Work relating to the subsurface or physical condition in question;
 5. Determine the need for changes in the Drawings or Specifications; and

6. Advise Contractor of OPT's findings, conclusions, and recommendations.
- D. Construction Manager is to issue a statement to Contractor regarding the subsurface or physical condition in question and recommend action as appropriate after review of OPT's findings, conclusions, and recommendations. Construction Manager may instruct Contractor to resume Work if OPT determines that the subsurface or physical condition in question has been adequately documented.
- E. Contractor is entitled to an equitable adjustment in Contract Price or Contract Times to the extent that a differing subsurface or physical condition causes a change in Contractor's cost or time to perform the Work provided the condition falls within one or more of the categories described in Paragraph 5.04.A. Any adjustment in Contract Price for Work that is paid for on a unit price basis is subject to the provisions of Paragraph 13.03. Contractor is not entitled to an adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 1. Contractor knew of the existence of the subsurface or physical condition at the time Contractor made an offer to Owner with respect to Contract Price and Contract Times;
 2. The existence of the subsurface or physical condition could have been discovered or revealed by examinations, investigations, explorations, tests, or studies of the Site and contiguous areas expressly required by the Bidding Requirements or Proposal Requirements or the Contract Documents prior to when Contractor's Bid or Proposal is submitted or when Contractor negotiates the Contract Price; or
 3. Contractor failed to give notice as required by Paragraph 5.04.A.
- F. Contractor may submit a Change Proposal no later than 30 days after Construction Manager's issuance of the OPT's statement to Contractor regarding the subsurface or physical condition in question.

5.05 Underground Facilities

- A. The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to OPT by the owners of these Underground Facilities or by others. OPT is not responsible for the accuracy or completeness of information or data provided by others that OPT makes available to Contractor. Contractor is responsible for:
 1. Reviewing and checking available information and data regarding existing Underground Facilities at the Site;
 2. Complying with Laws and Regulations related to locating Underground Facilities before beginning Work;
 3. Locating Underground Facilities shown or indicated in the Contract Documents;
 4. Coordinating the Work with the owners, including Owner, of Underground Facilities during construction; and
 5. The safety and protection of existing Underground Facilities at or adjacent to the Site and repairing damage resulting from the Work.
- B. Notify Construction Manager and the owner of the Underground Facility immediately if an Underground Facility is uncovered or revealed at the Site that was not shown in the

Contract Documents or was not shown with reasonable accuracy in the Contract Documents. Do not further disturb conditions or perform Work affected by this discovery, except in the event of an emergency as required by Paragraph 7.12.

- C. OPT is to take the following action after receiving notice from Construction Manager:
 - 1. Promptly review the Underground Facility to determine if the Underground Facility was shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy;
 - 2. Identify and communicate with the owner of the Underground Facility;
 - 3. Prepare recommendations to OPT regarding Contractor's resumption of Work relating to this Underground Facility;
 - 4. Determine the extent to which a change is required in the Drawings or Specifications to document the consequences of the existence or location of the Underground Facility; and
 - 5. Construction Manager will advise Contractor of OPT's findings, conclusions, and recommendations and provide revised Drawings and Specifications if required.
- D. Construction Manager is to issue a statement to Contractor regarding the Underground Facility in question and recommend action as appropriate after review of OPT's findings, conclusions, and recommendations.
- E. Contractor is entitled to an equitable adjustment in the Contract Price or Contract Times to the extent that the existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy. Any adjustment in Contract Price for Work that is paid for on a unit price basis is subject to the provisions of Paragraph 13.03.
- F. Contractor is not entitled an adjustment in the Contract Price or Contract Times with respect to an existing Underground Facility at the Site if:
 - 1. Contractor knew of the existence of the existing Underground Facility at the Site at the time Contractor made an offer to Owner with respect to Contract Price and Contract Times;
 - 2. The existence of the existing Underground Facility at the Site could have been discovered or revealed by examinations, investigations, explorations, tests, or studies of the Site and contiguous areas expressly required by the Bidding Requirements or Proposal Requirements or the Contract Documents prior to when Contractor's Bid or Proposal is submitted or when Contractor negotiates the Contract Price; or
 - 3. Contractor failed to give notice as required by Paragraph 5.05.B.
- G. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of adjustments in the Contract Price or Contract Times no later than 30 days after Construction Manager's issuance of OPT's statement to Contractor regarding the Underground Facility.

5.06 Hazardous Environmental Conditions at Site

- A. The Supplementary Conditions identify those reports and drawings known to OPT relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and the Technical Data contained in these reports and drawings.
- B. Contractor may rely upon the accuracy of the Technical Data contained in reports and drawings relating to Hazardous Environmental Conditions identified in the Supplementary Conditions, but these reports and drawings are not Contract Documents. Except for the reliance on expressly identified Technical Data, Contractor may not rely upon or make claims against Owner's Indemnitees with respect to:
 - 1. The completeness of these reports and drawings for Contractor's purposes, including aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor or Contractor's safety precautions and programs related to Hazardous Environmental Conditions;
 - 2. Other data, interpretations, opinions, and information contained in these reports or shown or indicated in the drawings; or
 - 3. Any Contractor interpretation of or conclusion drawn from Technical Data or other data, interpretations, opinions, or information.
- C. The results of tests performed on materials described in environmental reports specifically prepared for the Project and made available to Contractor are defined as Technical Data unless Technical Data has been defined more specifically in the Supplementary Conditions.
- D. Contractor is not responsible for removing or remediating Hazardous Environmental Conditions encountered, uncovered, or revealed at the Site unless this removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- E. Contractor is responsible for controlling, containing, and duly removing and remediating Constituents of Concern brought to the Site by Contractor's Team and paying associated costs.
 - 1. Owner may remove and remediate the Hazardous Environmental Condition and impose a Set-off against payments to Contractor for associated costs if Contractor's Team creates a Hazardous Environmental Condition and Contractor does not take acceptable action to remove and remediate the Hazardous Environmental Condition.
 - 2. **TO THE FULLEST EXTENT PERMITTED BY LAWS AND REGULATIONS, CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS OWNER'S INDEMNITEES FROM AND AGAINST ALL CLAIMS AND INDEMNIFIED COSTS ARISING OUT OF OR RELATING TO THE FAILURE TO CONTROL, CONTAIN, OR REMOVE A CONSTITUENT OF CONCERN BROUGHT TO THE SITE BY CONTRACTOR'S TEAM, OR TO A HAZARDOUS ENVIRONMENTAL CONDITION CREATED BY CONTRACTOR'S TEAM. NOTHING IN THIS PARAGRAPH SHALL OBLIGATE CONTRACTOR TO INDEMNIFY ANY INDIVIDUAL OR ENTITY FROM AND AGAINST THE CONSEQUENCES OF THAT INDIVIDUAL'S OR ENTITY'S OWN NEGLIGENCE.**

- F. Immediately notify Construction Manager and take the following action if Contractor uncovers or reveals a Hazardous Environmental Condition at the Site or adjacent areas used by Contractor's Team that was not created by Contractor's Team:
 - 1. Secure or otherwise isolate this condition;
 - 2. Stop Work in affected areas or connected with the condition, except in an emergency as required by Paragraph 7.12; and
 - 3. Do not resume Work relating to the Hazardous Environmental Condition or in affected areas until after OPT has obtained required permits and Construction Manager sends notice to Contractor:
 - a. Specifying that this condition and affected areas are or have been rendered safe for the resumption of Work; or
 - b. Specifying special conditions under which Work may be resumed safely.
 - 4. Owner may order the portion of the Work that is in the area affected by the Hazardous Environmental Condition to be deleted from the Work following the procedures in Article 11 if Contractor does not agree to:
 - a. Resume the Work based on a reasonable belief it is unsafe; or
 - b. Resume the Work under the special conditions provided by Construction Manager.
 - 5. Owner may have this deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- G. Contractor may submit a Change Proposal or Owner may impose a Set-off if an agreement is not reached within 10 days of Construction Manager's notice regarding the resumption of Work as to whether Contractor is entitled to an adjustment in Contract Price or Contract Times or on the amount or extent of adjustments resulting from this Work stoppage or special conditions under which Contractor agrees to resume Work.
- H. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 Performance, Payment, and Other Bonds

- A. Furnish a performance bond in an amount equal to the Contract Price as security for the faithful performance of Work. Contractor is to use amounts paid by Owner to Contractor under the Contract for the performance of the Contract. This bond is to remain in effect until 1 year after the date of final payment.
- B. Furnish a payment bond in an amount equal to the Contract Price as security to ensure payment of Contractor's obligations under the Contract Documents. This bond is to remain in effect until 1 year after the date of final payment.
 - 1. Notify Construction Manager of claims filed against the payment bond. Notify the claimant and Construction Manager of undisputed amounts and the basis for

challenging disputed amounts when a claimant has satisfied the conditions prescribed by Laws and Regulations. Promptly pay undisputed amounts.

2. Owner is not liable for payment of costs or expenses of claimants under the payment bond. Owner has no obligations to pay, give notice, or take other action to claimants under the payment bond.
 3. OPT will provide a copy of the payment bond and payment information to Subcontractors, Suppliers, or other persons or entities claiming to have furnished labor or materials used in the performance of the Work that request this information in accordance with Laws and Regulations.
- C. Notify Construction Manager immediately if the surety on bonds furnished by Contractor:
1. Is declared bankrupt, or becomes insolvent;
 2. Has its right to do business in state in which the Project is located is terminated; or
 3. Ceases to meet the requirements of Paragraph 6.02.
- D. Provide a bond and surety which comply with the requirements of Paragraph 6.02 within 20 days after the event giving rise to this notification.
- E. Furnish other bonds as required by the Contract Documents.
- F. Owner may exclude Contractor from the Site and exercise Owner's termination rights under Article 16 if Contractor fails to obtain or maintain required bonds.

6.02 Licensed Sureties

- A. Provide bonds in the form prescribed by the Contract Documents from sureties named in the U.S. Department of the Treasury's Listing of Approved Sureties (Department Circular 570 "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies").
- B. Provide bonds required by the Contract Documents from surety companies that are duly licensed or authorized to provide bonds in the state in which the Project is constructed.

6.03 Insurance - General Provisions

- A. Obtain and maintain insurance with coverage amounts equal to or greater than the amounts specified in Section 00 73 16 "Insurance Requirements" or greater where required by Laws and Regulations.
- B. Obtain insurance from companies that are duly licensed or authorized in the state in which the Project is constructed to issue insurance policies and that have an A.M. Best rating of A-VIII or better.
- C. Deliver evidence of insurance in accordance with Section 00 73 16 "Insurance Requirements" to Owner to demonstrate that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Provide copies of these certificates to Owner and additional insured.
- D. Furnish copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles upon request by Owner or any additional insured. Contractor

may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this paragraph.

- E. OPT's failure to demand such certificates or other evidence of Contractor's full compliance with the insurance requirements or failure to identify a deficiency in compliance from the evidence provided is not a waiver of Contractor's obligation to obtain and maintain the insurance required by the Contract Documents.
- F. Notify Owner if Contractor fails to purchase or maintain the insurance required by the Contract Documents. Do not perform any Work on the Project unless the required insurance policies are in effect. Owner may exclude Contractor from the Site and exercise Owner's termination rights under Article 16 if Contractor fails to obtain or maintain the required insurance.
- G. Owner may elect to obtain equivalent insurance to protect Owner's interests without prejudice to any other right or remedy if Contractor fails to obtain or maintain the required insurance. Owner may impose a reasonable Set-off against payments due under Article 15 to recover the cost of the insurance.
- H. Owner does not represent that the insurance coverage and limits established in this Contract are adequate to protect Contractor or Contractor's interests.
- I. The required insurance and insurance limits do not limit Contractor's liability under the indemnities granted to Owner's Indemnitees in the Contract Documents.
- J. Provide for an endorsement that the "other insurance" clause will not apply to OPT where OPT is an additional insured shown on the policy. Contractor's insurance is primary and non-contributory with respect to any insurance or self-insurance carried by OPT for liability arising out of operations under this Agreement.
- K. Include and list OPT and any other individuals or entities identified in the Section 00 73 16 "Insurance Requirements" as additional insureds on all policies except for the workers' compensation policy and Contractor's professional liability policy.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 Contractor's Means and Methods of Construction

- A. Contractor is solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. Provide professional engineering or other design services if the Contract Documents require such services or if Contractor determines that such services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety. Engineering or other design services are to be provided by a properly licensed design professional authorized to provide these services in the state in which the Project is constructed. Such services are not Owner-delegated professional design services under this Contract, and OPT does not have any responsibility with respect to:
 - 1. Contractor's determination of the need for such services;

2. The qualifications or licensing of the design professionals retained or employed by Contractor;
3. The performance of such services; or
4. Any errors, omissions, or defects in such services.

7.02 Supervision and Superintendence

- A. Supervise, inspect, and direct the performance of the Work.
- B. Provide a competent resident superintendent acceptable to OPT. The resident superintendent or acceptable qualified assistant is to always be present when Work is being done. Do not replace this resident superintendent except under extraordinary circumstances. Provide a replacement resident superintendent equally competent to the previous resident superintendent if replacement is required. Notify Owner prior to replacing the resident superintendent and obtain Owner's consent to the change in superintendent.

7.03 Labor; Working Hours

- A. Provide competent, suitably qualified personnel to complete the Work. Maintain good discipline and order at the Site. Contractor is responsible for all acts and omissions of Contractor's Team.
- B. Perform Work at the Site during regular working hours except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent to the Site and except as otherwise stated in the Contract Documents.
- C. Do not perform Work on a Saturday, Sunday, or Owner-observed holiday without Construction Manager's consent. If a legal holiday falls on a Saturday, it will be observed the preceding Friday. If a legal holiday falls on a Sunday, it will be observed the following Monday.
- D. Pay additional cost incurred by Owner for services of Construction Manager to observe Work constructed outside of regular working hours. Construction Manager will issue a Set-off in the Application for Payment for this cost per Paragraph 15.01.B.

7.04 Services, Materials, and Equipment

- A. Provide services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and other facilities and incidentals necessary for the performance, testing, startup, and completion of the Work, whether or not these items are specifically called for in the Contract Documents.
- B. Provide new materials and equipment to be incorporated into the Work. Provide special warranties and guarantees required by the Contract Document. Provide satisfactory evidence, including reports of required tests, as to the source, kind, and quality of materials and equipment as required by the Contract Documents or as requested by Construction Manager.

- C. Store, apply, install, connect, erect, protect, use, clean, and condition materials and equipment in accordance with instructions of the applicable Supplier, unless otherwise required by the Contract Documents.

7.05 Concerning Subcontractors, and Suppliers

- A. Contractor may retain Subcontractors and Suppliers which are acceptable to Owner for the performance of parts of the Work. Contractor must retain specific Subcontractors or Suppliers if required to do so by the Contract Documents. Contractor must use Subcontractors or Suppliers named in the Bid or Proposal if Contractor was selected in part based on these named Subcontractors or Suppliers.
- B. Submit a list of proposed Subcontractors and Suppliers to Construction Manager prior to entering into binding subcontracts or purchase orders. These proposed Subcontractors or Suppliers are deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 10 days after receiving this list.
- C. Owner may require the replacement of Subcontractors or Suppliers retained by Contractor. Provide an acceptable replacement for the rejected Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements, subject to Contractor's reasonable objections.
- D. Contractor may be entitled to an adjustment in Contract Price or Contract Times with respect to a replacement of Subcontractors or Suppliers required by Owner. Notify Construction Manager immediately if a replacement of Subcontractors or Suppliers increases the Contract Price or Contract Times. Initiate a Change Proposal for the adjustment within 10 days of Owner's notice to replace a Subcontractor or Supplier. Do not make the replacement until the change in Contract Price or Contract Times has been accepted by Owner if Change Proposal is to be submitted. Contractor is not entitled to an adjustment in Contract Price or Contract Times if OPT requires the replacement of the Subcontractor or Supplier based on an unacceptable safety record, lack of experience or qualifications, or other cause.
- E. Acceptance by Owner of Subcontractors, Suppliers, or other individuals or entities, whether initially or as a replacement, does not constitute a waiver of the obligation of Contractor to complete the Work in accordance with the Contract Documents.
- F. Maintain a current and complete list of Subcontractors and Suppliers that are to perform or furnish part of the Work.
- G. Contractor is fully responsible for the acts and omissions of Subcontractors and Suppliers and is solely responsible for scheduling and coordinating their Work.
- H. Require Subcontractors, Suppliers, and other individuals or entities performing or furnishing Work to communicate with OPT through Contractor.
- I. Contracts between Contractor and their Subcontractors or Suppliers may specifically bind the Subcontractors or Suppliers to the applicable terms and conditions of the Contract Documents. Contractor is responsible for meeting the requirements of the Contract Documents if they choose to not bind the Subcontractors or Suppliers to applicable terms or conditions of the Contract Documents.

- J. OPT may furnish information about amounts paid to Contractor for Work provided by Subcontractors or Suppliers to the entity providing the Work.
- K. Nothing in the Contract Documents:
 - 1. Creates a contractual relationship between members of OPT and members of Contractor's Team; or
 - 2. Creates an obligation on the part of Owner to pay or to see to the payment of money due members of Contractor's Team, except as may be required by Laws and Regulations.

7.06 Patent Fees and Royalties

- A. Pay license fees, royalties, and costs incident to the use of inventions, designs, processes, products, or devices which are patented or copyrighted by others in the performance of the Work, or to incorporate these inventions, designs, processes, products, or devices which are patented or copyrighted by others in the Work. The Contract Documents identify inventions, designs, processes, products, or devices OPT knows are patented or copyrighted by others, or that its use is subject to patent rights or copyrights calling for the payment of a license fee or royalty to others. Contractor is to include the cost associated with the use of patented or copyrighted products or processes, whether specified or selected by Contractor, in the Contract Price.
- B. TO THE FULLEST EXTENT PERMITTED BY LAWS AND REGULATIONS, CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS OWNER'S INDEMNITEES FROM AND AGAINST ALL CLAIMS AND INDEMNIFIED COSTS ARISING OUT OF OR RELATING TO ANY INFRINGEMENT OF PATENT RIGHTS OR COPYRIGHTS BY CONTRACTOR'S TEAM INCIDENT TO THE USE IN THE PERFORMANCE OF THE WORK OR RESULTING FROM THE INCORPORATION IN THE WORK OF ANY INVENTION, DESIGN, PROCESS, PRODUCT, OR DEVICE.**

7.07 Permits

- A. Obtain and pay for construction permits and licenses, and certificates of occupancy, if required. OPT is to assist Contractor in obtaining permits and licenses when required to do so by applicable Laws and Regulations. Pay governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time the Contractor's Bid or Proposal is submitted or when Contractor negotiates the Contract Price.

7.08 Taxes

- A. Contractor is responsible for all taxes and duties arising out of the Work. Contractor is responsible for including in the Contract Price any applicable sales and use taxes and is responsible for complying with all applicable Laws and Regulations. Pay sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations.

7.09 Laws and Regulations

- A. Give required notices and comply with Laws and Regulations applicable to the performance of the Work. OPT is not responsible for monitoring Contractor's compliance with Laws or Regulations except where expressly required by applicable Laws and Regulations.

- B. Pay costs resulting from actions taken by Contractor that are contrary to Laws or Regulations. Contractor is not responsible for determining that the design aspects of the Work described in the Contract Documents is in accordance with Laws and Regulations. This does not relieve Contractor of its obligations under Paragraph 3.03.
- C. **TO THE FULLEST EXTENT PERMITTED BY LAWS AND REGULATIONS, CONTRACTOR SHALL INDEMNIFY AND HOLD OWNER'S INDEMNITEES HARMLESS FROM ALL CLAIMS AND INDEMNIFIED COSTS RESULTING FROM ACTIONS TAKEN BY CONTRACTOR'S TEAM THAT ARE CONTRARY TO LAWS OR REGULATIONS.**
- D. Owner or Contractor may give notice to the other party of changes in Laws or Regulations that may affect the cost or time of performance of the Work, including:
 - 1. Changes in Laws or Regulations affecting procurement of permits; and
 - 2. Sales, use, value-added, consumption, and other similar taxes which come into effect after Contractor's Bid or Proposal is submitted or when Contractor negotiates the Contract Price.
- E. Contractor may submit a Change Proposal or Owner may initiate a Claim within 30 days of this notice if Owner and Contractor are unable to agree on entitlement to or on the amount or extent of adjustments in Contract Price or Contract Times resulting from these changes.

7.10 Safety and Protection

- A. Contractor is solely responsible for initiating, maintaining, and supervising safety precautions and programs relating to the Work. This responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their Work, nor for compliance with applicable safety Laws and Regulations.
- B. Take necessary precautions for the safety of persons on the Site or who may be affected by the Work, and provide the necessary protection to prevent damage, injury, or loss to:
 - 1. Work and materials and equipment to be incorporated in the Work, whether stored on or off the Site; and
 - 2. Other property at or adjacent to the Site, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement during construction.
- C. Comply with applicable Laws and Regulations relating to the safety and protection of persons or property. Erect and maintain necessary safeguards for safety and protection. Notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site when prosecution of the Work may affect them. Cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- D. Remedy damage, injury, or loss to property referred to in Paragraph 7.10.B caused by Contractor's Team. Pay remediation costs unless the damage or loss is:
 - 1. Attributable to the fault of the Contract Documents;
 - 2. Attributable to acts or omissions of OPT; or

- 3. Not attributable to the actions or failure to act of Contractor's Team.
- E. Contractor's duties and responsibilities for safety and protection of persons or the Work or property at or adjacent to the Site continues until Work is completed and resumes whenever Contractor's Team returns to the Site to fulfill warranty or correction obligations or to conduct other tasks.
- F. Comply with the applicable requirements of the Owner's safety program if required to do so in the Supplementary Conditions. A copy of the Owner's safety program will be provided in the Bidding Documents or Proposal Documents.
- G. Provide a qualified and experienced safety representative at the Site whose duties and responsibilities are the prevention of accidents and maintaining and supervising safety programs.

7.11 Hazard Communication Programs

- A. Coordinate the exchange of safety data sheets or other hazard communication information required to be made available or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.12 Emergencies

- A. Act to prevent threatened damage, injury, or loss in emergencies affecting the safety or protection of persons or the Work or property at or adjacent to the Site. Notify Construction Manager immediately if Contractor believes that significant changes in the Work or variations from the Contract Documents have been caused or are required because of this need to act. A Modification is to be issued by Construction Manager if OPT determines that the incident giving rise to the emergency action was not the responsibility of Contractor and that a change in the Contract Documents is required because of the action taken by Contractor in response to this emergency.

7.13 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that Work is in accordance with the Contract Documents and is not Defective. Owner is entitled to rely on Contractor's warranty and guarantee. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 7.14. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.13 is limited only by applicable Laws and Regulations restricting actions to enforce such rights. Assume and bear responsibility for costs and time delays associated with variations from the requirements of the Contract Documents.
- B. This Contractor's warranty and guarantee excludes defects or damage caused by abuse, improper maintenance or operation, or modification by OPT; or normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete Work in accordance with the Contract Documents is absolute. None of the following constitute an acceptance of Defective Work,

a release of Contractor's obligation to perform Work in accordance with the Contract Documents or a release of Owner's warranty or guarantee rights under this Paragraph:

1. Observations by OPT;
 2. Recommendation by Construction Manager or payment by Owner of progress or final payments;
 3. The issuance of a certificate of Substantial Completion;
 4. The issuance of a certificate of Final Completion;
 5. The end of the correction period established in Paragraph 7.14;
 6. Use or occupancy of part of the Work by Owner;
 7. Review and approval of a Shop Drawing or Sample;
 8. Inspections, tests, or approvals by others; or
 9. Correction of Defective Work by Owner.
- D. The Contract Documents may require Contractor to accept the assignment of a contract between the Owner and a contractor or supplier. The specific warranties, guarantees, and correction obligations contained in an assigned contract govern with respect to Contractor's performance obligations to Owner for the Work described in an assigned contract.

7.14 Correction Period

- A. Promptly correct Defective Work without cost to Owner for 1 year after the date of Substantial Completion or longer periods of time prescribed by the terms of the Contract Documents.
- B. Promptly correct damages to the Site or adjacent areas that Contractor has arranged to use through construction easements or other agreements. Promptly correct damages to Work or the work of others. Make corrections without cost to Owner.
- C. Owner may have the Defective Work and damages described in Paragraphs 7.14.A and 7.14.B corrected if Contractor does not comply with the terms of Construction Manager's instructions, or in an emergency where delay would cause serious risk of loss or damage.
- D. **NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS AGREEMENT OR THE CONTRACT DOCUMENTS AND TO THE FULLEST EXTENT PERMITTED BY LAWS AND REGULATIONS, CONTRACTOR SHALL INDEMNIFY AND HOLD OWNER'S INDEMNITEES HARMLESS FROM AND AGAINST ALL CLAIMS AND INDEMNIFIED COSTS ARISING OUT OF OR RELATING TO THE CORRECTION OF DEFECTIVE WORK.**
- E. The correction period starts to run from the date when a specific item of equipment or systems are placed in continuous beneficial use by Owner before Substantial Completion of Work if so provided in the Specifications or if accepted for beneficial use by Owner.
- F. The correction period is extended for an additional period of 1 year for Defective Work corrected after the date of Substantial Completion or after the accepted date the correction period starts to run as described in Paragraph 7.14.E. This extended correction

period starts to run when Defective Work has been satisfactorily corrected under this Paragraph 7.14.

- G. Contractor's obligations under this Paragraph 7.14 are in addition to other obligations or warranties. The provisions of this Paragraph 7.14 are not a substitute for, or a waiver of, the provisions of applicable statutes of limitation or repose.

7.15 Indemnification

- A. **TO THE FULLEST EXTENT PERMITTED BY LAWS AND REGULATIONS, AND IN ADDITION TO ANY OTHER OBLIGATIONS OF CONTRACTOR UNDER THE CONTRACT OR OTHERWISE, CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS OWNER'S INDEMNITEES FROM AND AGAINST ALL CLAIMS AND INDEMNIFIED COSTS ARISING OUT OF OR RELATING TO THE PERFORMANCE OF THE WORK, PROVIDED THAT ANY SUCH CLAIM, ACTION, LOSS, OR DAMAGE IS ATTRIBUTABLE TO BODILY INJURY, SICKNESS, DISEASE, OR DEATH, OR TO DAMAGE TO OR DESTRUCTION OF TANGIBLE PROPERTY (OTHER THAN THE WORK ITSELF), INCLUDING THE LOSS OF USE RESULTING THEREFROM BUT ONLY TO THE EXTENT CAUSED BY ANY NEGLIGENT ACT OR OMISSION OF CONTRACTOR'S TEAM.**
- B. The indemnification obligation under Paragraph 7.15.A is not limited by the amount or type of damages, compensation, or benefits payable by or for members of Contractor's Team or other individuals or entities under workers' compensation acts, disability benefit acts, or other employee benefit acts in claims against Owner's Indemnitees by an employee or the survivor or personal representative of employee of Contractor's Team.

7.16 Delegation of Professional Design Services

- A. Contractor is to provide professional design services required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures.
- B. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. This delegation will specify the performance and design criteria that such services must satisfy and the Submittals that Contractor must furnish to Construction Manager with respect to Owner delegated design. Contractor is not required to provide these professional services in violation of applicable Laws and Regulations.
- C. Owner-delegated professional design services provided through Contractor are to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and other Submittals prepared by such design professional. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Construction Manager, then such Shop Drawing or other Submittal must bear the design professional's written approval when submitted by Contractor to Construction Manager.
- D. OPT is entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by Contractor's design professionals, provided OPT has specified to Contractor the performance and design criteria that these services must satisfy.

- E. Pursuant to this Paragraph 7.16, OPT's review and approval of design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this paragraph;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor is not responsible for the adequacy of the performance or design criteria specified by OPT. Advise OPT if the performance or design criteria are known or considered likely to be inadequate or otherwise deficient.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 Other Work

- A. Owner may arrange for other work at or adjacent to the Site which is not part of the Contractor's Work. This other work may be performed by Owner's employees or through other contractors. Utility owners may perform work on their utilities and facilities at or adjacent to the Site. Include costs associated with coordinating with entities performing other work or associated with connecting to this other work in the Contract Price if this other work is shown in the Contract Documents.
- B. OPT is to notify Contractor of other work prior to starting the work and provide any knowledge they have regarding the start of utility work at or adjacent to the Site to Contractor.
- C. Provide other contractors:
 - 1. Proper and safe access to the Site;
 - 2. Reasonable opportunity for the introduction and storage of materials and equipment; and
 - 3. Reasonable opportunity to execute their work.
- D. Provide cutting, fitting, and patching of the Work required to properly connect or integrate with other work. Do not endanger the work of others by cutting, excavating, or otherwise altering the work of others without the consent of Construction Manager and the others whose work will be affected.
- E. Inspect the work of others and immediately notify Construction Manager if the proper execution of part of Contractor's Work depends upon work performed by others and this work has not been performed or is unsuitable for the proper execution of Contractor's Work. Contractor's failure to notify Construction Manager constitutes an acceptance of this other work as acceptable for integration with Contractor's Work. This acceptance does not apply to latent defects or deficiencies in the work of others.
- F. Take adequate measures to prevent damages, delays, disruptions, or interference with the work of Owner, other contractors, or utility owners performing other work at or adjacent to the Site.

- G. The provisions of this Article 8 are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.03.

8.02 Coordination

- A. Owner has sole authority and responsibility for coordination of this other work unless otherwise provided in the Contract Documents. Owner is to identify the entity with authority and responsibility for coordination of the activities of the various contractors, the limitations of their authority, and the work to be coordinated prior to the start of other work at or adjacent to the Site.

8.03 Legal Relationships

- A. Contractor may be entitled to a change in Contract Price or Contract Times if, while performing other work at or adjacent to the Site for Owner, the OPT, other contractor, or utility owner:
 - 1. Damages the Work or property of Contractor's Team;
 - 2. Delays, disrupts, or interferes with the execution of the Work; or
 - 3. Increases the scope or cost of performing the Work through their actions or inaction.
- B. Notify Construction Manager immediately of the event leading to a potential Change Proposal so corrective or mitigating action can be taken. Submit the Change Proposal within 30 days of the event if corrective action has not adequately mitigated the impact of the actions or inactions of others. Information regarding this other work in the Contract Documents is used to determine if Contractor is entitled to a change in Contract Price or Contract Times. Changes in Contract Price require that Contractor assign rights against the other contractor or utility owner to Owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Changes in Contract Times require that the time extension is essential to Contractor's ability to complete the Work within the Contract Times.
- C. Take prompt corrective action if Contractor's Team damages, delays, disrupts, or interferes with the work of Owner's employees, other contractors, or utility owners performing other work at or adjacent to the Site or agree to compensate other contractors or utility owners for correcting the damage. Promptly attempt to settle claims with other contractors or utility owners if Contractor damages, delays, disrupts, or interferes with the work of other contractors or utility owners performing other work at or adjacent to the Site.
- D. Owner may impose a Set-off against payments due to Contractor and assign the Owner's contractual rights against Contractor with respect to the breach of the obligations described in this Paragraph 8.03 to other contractors or utility owners if damages, delays, disruptions, or interference occur.
- E. **NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS AGREEMENT OR THE CONTRACT DOCUMENTS AND TO THE FULLEST EXTENT PERMITTED BY LAWS AND REGULATIONS, CONTRACTOR SHALL INDEMNIFY AND HOLD OWNER'S INDEMNITEES**

HARMLESS FROM AND AGAINST ALL CLAIMS AND INDEMNIFIED COSTS RESULTING FROM CONTRACTOR'S TEAM'S ACTION OR INACTION RELATED TO DAMAGES, DELAYS, DISRUPTIONS, OR INTERFERENCE WITH THE WORK OF OWNER'S EMPLOYEES, OTHER CONTRACTORS, OR UTILITY OWNERS PERFORMING OTHER WORK AT OR ADJACENT TO THE SITE.

ARTICLE 9 – OWNER'S AND OPT'S RESPONSIBILITIES

9.01 Communications to Contractor

- A. OPT issues communications to Contractor through Construction Manager except as otherwise provided in the Contract Documents.

9.02 Replacement of Owner's Project Team Members

- A. Owner may replace members of OPT at its discretion.

9.03 Furnish Data

- A. OPT is to furnish the data required of OPT under the Contract Documents.

9.04 Pay When Due

- A. Owner is to make payments to Contractor when due as described in Article 15.

9.05 Lands and Easements; Reports and Tests

- A. Owner's duties with respect to providing lands and easements are described in Paragraph 5.01. OPT will make copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site available to Contractor in accordance with Paragraph 5.03.

9.06 Insurance

- A. Owner's responsibilities with respect to purchasing and maintaining insurance are described in Article 6.

9.07 Modifications

- A. Owner's responsibilities with respect to Modifications are described in Article 11.

9.08 Inspections, Tests, and Approvals

- A. OPT's responsibility with respect to certain inspections, tests, and approvals are described in Paragraph 14.02.

9.09 Limitations on OPT's Responsibilities

- A. OPT does not supervise, direct, or have control or authority over, and is not responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or related safety precautions and programs, or for failure of Contractor to comply with Laws

and Regulations applicable to the performance of the Work. OPT is not responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

- B. OPT is not responsible for the acts or omissions of Contractor's Team. No actions or failure to act, or decisions made in good faith to exercise or not exercise the authority or responsibility available under the Contract Documents creates a duty in contract, tort, or otherwise of OPT to the Contractor or members of Contractor's Team.

9.10 Undisclosed Hazardous Environmental Condition

- A. OPT's responsibility for undisclosed Hazardous Environmental Conditions is described in Paragraph 5.06.

9.11 Compliance with Safety Program

- A. Contractor is to inform OPT of its safety programs and OPT is to comply with the specific applicable requirements of this program.

ARTICLE 10 – DESIGN PROFESSIONAL'S AND CONSTRUCTION MANAGER'S STATUS DURING CONSTRUCTION

10.01 Owner's Representative

- A. Construction Manager is Owner's representative. The duties and responsibilities and the limitations of authority of Construction Manager as Owner's representative are described in the Contract Documents.

10.02 Visits to Site

- A. Design Professional is to make periodic visits to the Site to observe the progress and quality of the Work. Design Professional is to determine, in general, if the Work is proceeding in accordance with the Contract Documents based on observations made during these visits. Design Professional is not required to make exhaustive or continuous inspections to check the quality or quantity of the Work. Design Professional is to inform OPT of issues or concerns and Construction Manager is to work with Contractor to address these issues or concerns. Design Professional's visits and observations are subject to the limitations on Design Professional's authority and responsibility described in the Contract Documents.
- B. Construction Manager is to observe the Work to check the quality and quantity of Work, implement Owner's quality assurance program and administer the Contract as Owner's representative as described in the Contract Documents. Construction Manager's visits and observations are subject to the limitations on Construction Manager's authority and responsibility described in the Contract Documents.

10.03 Rejecting Defective Work

- A. OPT has the authority to reject Work in accordance with Article 14. Construction Manager is to notify Contractor of Defective Work of which it is aware and document when Defective Work has been corrected or accepted in accordance with Article 14.

10.04 Decisions on Requirements of Contract Documents and Acceptability of Work

- A. Construction Manager is to render decisions regarding non-technical or contractual/administrative requirements of the Contract Documents and will coordinate the response of OPT to Contractor.
- B. Design Professional is to render decisions regarding the conformance of the Work to the requirements of the Contract Documents. Design Professional will render a decision to either correct the Defective Work, or accept the Work under the provisions of Paragraph 14.04, if Work does not conform to the Contract Documents. Construction Manager will coordinate the response of OPT to Contractor.
- C. Construction Manager will issue a Request for a Change Proposal if a Modification is required. Construction Manager will provide documentation for changes related to the non-technical or contractual/administrative requirements of the Contract Documents. Design Professional will provide documentation if design related changes are required through Construction Manager.
- D. Contractor may appeal OPT's decision by submitting a Change Proposal if Contractor does not agree with the OPT's decision.

ARTICLE 11 – CHANGES TO THE CONTRACT

11.01 Amending and Supplementing the Contract Documents

- A. A Contract Amendment, Change Order, Work Change Directive, or Field Order may modify the Contract Documents. Modifications that include a change in the Contract Price or Contract Times can only be made in a Contract Amendment or Change Order.
- B. Changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other design or technical matters, must be supported by Design Professional's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of Design Professional.
- C. Proceed with the Changes in the Work or, in the case of a deletion in the Work, immediately cease construction activities related to the deleted Work upon receipt of the Modification.
- D. Contractor is not entitled to an increase in the Contract Price or an extension of the Contract Times with respect to Work performed that is not required by the Contract Documents, except in the case of an emergency as provided in Paragraph 7.12, or in the case of uncovering Work as provided in Paragraph 14.05. Contractor is responsible for costs and time delays associated with variations from the requirements of the Contract Documents unless the variations are specifically approved by Change Order.
- E. Acceptance of a Modification by Contractor constitutes agreement that the compensation provided by that Modification is the full, complete, and final compensation for all costs Contractor has or may incur because of or relating to this Modification whether these costs are known, unknown, foreseen, or unforeseen at this time, including any cost for delay, extended overhead, ripple or impact cost, or any other effect on changed or unchanged Work as a result of this Modification.

- F. Acceptance of a Modification by Contractor constitutes agreement that the changes in Contract Times are the complete and final adjustments for direct impacts to the ability of Contractor to complete the Work within the Contract Times and are the only adjustments to which Contractor is entitled.
- G. Perform added or revised Work under the applicable provisions of the Contract Documents for the same or similar Work unless different Drawings, Specifications, or directions are provided in the Modification.
- H. Nothing in this paragraph obligates Contractor to undertake Work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.02 Contract Amendments

- A. Owner and Contractor may modify the terms and conditions of the Contract Documents without the recommendation of Design Professional using a Contract Amendment.
- B. A Contract Amendment may also be used for authorizing a new task order for task order contracts or a new phase of the Work when using phased construction or purchasing Goods and Special Services to be incorporated into the Project. The Contract Amendment may be used to establish the Contract Price, Contract Times, or terms and conditions of the Contract for the new task order or phase of Work if not already established in the Contract Documents.

11.03 Change Orders

- A. All changes to the Contract Documents that include a change in the Contract Price or the Contract Times for previously authorized Work and changes to the Work requiring Design Professional's approval must be made by a Change Order. Change Orders prepared by Construction Manager may cover:
 1. Changes in Contract Price or Contract Times which are submitted by Contractor as a Change Proposal and agreed to by the parties;
 2. Changes in Contract Price or Contract Times to pay for undisputed Work performed in accordance with a Work Change Directive;
 3. Changes in Contract Price or Contract Times making final adjustments for Work covered under Alternates and Allowances;
 4. Changes in Contract Price or Contract Times making final adjustments to actual quantities for Unit Price Work;
 5. Changes in Contract Price resulting from an Owner Set-off, unless the set off has been successfully challenged by Contractor;
 6. Changes in Contract Price or Contract Times resulting from resolution of Claims;
 7. Changes in Contract Price or Contract Times required because of Owner's acceptance of Defective Work under Paragraph 14.04 or Owner's correction of Defective Work under Paragraph 14.07; or
 8. Other similar provisions that will modify the Contract Price or Contract Times.

- B. A Change Order may also be used to establish modifications of the Contract Documents that do not affect the Contract Price or Contract Times.

11.04 Work Change Directives

- A. A Work Change Directive does not change the Contract Price or the Contract Times, but is evidence that the parties expect that the modifications ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations on the Contract Price and Contract Times.
- B. Contractor must submit a Change Proposal seeking an adjustment of the Contract Price or the Contract Times no later than 30 days after the completion of the Work set out in the Work Change Directive if negotiations are unsuccessful under the terms of the Contract Documents governing adjustments.

11.05 Field Orders

- A. Design Professional may require minor changes in the Work that do not change the Contract Price or Contract Times using a Field Order through Construction Manager. Construction Manager may issue a Field Order for non-technical, administrative issues. Submit a Change Proposal if Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times before proceeding with the Work described in the Field Order.

11.06 Change Proposals

- A. Submit a Change Proposal to Construction Manager to:
 - 1. Request an adjustment in the Contract Price or Contract Times;
 - 2. Contest an initial decision by OPT concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents;
 - 3. Contest a Set-off against payment due; or
 - 4. Seek other relief under the Contract Documents.
- B. Notify Construction Manager immediately if a Change Proposal is to be submitted. Submit each Change Proposal to Construction Manager no later than 30 days after the event initiating the Change Proposal. Submit the following as part of the Change Proposal:
 - 1. Any proposed change in Contract Price, Contract Times, or other relief, accompanied by a statement that the requested Change Order is the entire adjustment to which Contractor believes it is entitled;
 - 2. The reason for the proposed change; and
 - 3. Supporting data, accompanied by a statement that the supporting data is accurate and complete.
- C. Construction Manager is to advise OPT regarding the Change Proposal. OPT is to review each Change Proposal and Contractor's supporting data, and within 30 days after receipt of the documents, direct Construction Manager to either approve or deny the Change Proposal in whole or in part. Construction Manager is to issue a Change Order for an approved Change Proposal. Change Proposals are denied if Construction Manager does not

act on the Change Proposal within 30 days. Contractor may start the time for appeal of the denial under Article 12.

11.07 Change of Contract Price; Contract Times

- A. Change Proposals for an adjustment in the Contract Price must comply with the provisions of this Paragraph 11.07. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12. Any adjustment of the Contract Times is subject to the limitations described in Paragraph 4.03.
- B. An adjustment in the Contract Price is to be determined as follows:
 - 1. By applying unit prices to the quantities of the items involved, subject to the provisions of Paragraph 13.03, where the Work involved is covered by unit prices in the Contract Documents;
 - 2. By a mutually agreed lump sum where the Work involved is not covered by unit prices in the Contract Documents; or
 - 3. Payment based on the Cost of the Work determined as provided in Article 13 when the Work involved is not covered by unit prices in the Contract Documents or the parties do not reach a mutual agreement to a lump sum.
- C. The original Contract Price may not be increased by more than 25 percent unless further limited by Laws and Regulations. Owner may decrease the Work by up to 25 percent of the Contract Price without adjusting Contractor's fee.

11.08 Execution of Change Orders and Contract Amendments

- A. Each Change Order or Contract Amendment must be specific and final as to changes in Contract Price and Contract Times for the changes described in the Change Order or Contract Amendment. Acceptance of a Change Order or Contract Amendment by Contractor constitutes a full accord and satisfaction for all claims and costs of any kind, whether direct or indirect, including impact, delay, or acceleration damages related to the Change Order or Contract Amendment. The execution of a Change Order or Contract Amendment by Contractor constitutes conclusive evidence of Contractor's agreement to the ordered changes in the Work, with no reservations or other provisions allowing for future changes in the Contract Price or Contract Times. This Contract, as amended, forever releases any claim against Owner for additional time or compensation for matters relating to or arising out of or resulting from the Work included within or affected by the executed Change Order or Contract Amendment. This release applies to claims related to the cumulative impact of all Change Orders or Contract Amendment and to any claim related to the effect of a change on unchanged Work.
- B. A Change Order or Contract Amendment is deemed to be in full force as if executed by Contractor if Contractor refuses to execute a Change Order or Contract Amendment that is required to be executed under the terms of this Paragraph 11.08.

11.09 Notice to Surety

- A. Notify the surety of Modifications affecting the general scope of the Work, changes in the provisions of the Contract Documents, or changes in Contract Price or Contract Times. Adjust the amount of each bond when Modifications change the Contract Price.

ARTICLE 12 – CLAIMS

12.01 Claims

- A. Follow the Claims process described in this Article for a demand or assertion by Contractor:
 - 1. Contesting an initial decision by OPT concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents;
 - 2. Contesting OPT's decision regarding a Change Proposal;
 - 3. Seeking resolution of a contractual issue that OPT has declined to address;
 - 4. Seeking other relief with respect to the terms of the Contract; or
 - 5. Any issue, request, demand, or dispute arising after Construction Manager's recommendation of Final Payment not specifically listed in the Certificate of Final Completion.
- B. Notify Construction Manager no later than 7 days after the start of the event giving rise to the Claim or, in the case of appeals regarding Change Proposals, within 7 days of the decision under appeal. The responsibility to substantiate a Claim rests with the entity making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Price or Contract Times, Contractor must certify that the Claim is made in good faith, that the supporting data is accurate and complete, and that to the best of Contractor's knowledge and belief, the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. The entity receiving a Claim is to review the Claim and consider its merits. The Owner and Contractor are to seek to resolve the Claim through the exchange of information and direct negotiations. The Owner and Contractor may extend the time for resolving the Claim by mutual agreement. Notify Construction Manager of actions taken on a Claim.
- D. Owner and Contractor may mutually agree to mediate the underlying dispute at anytime after initiation of a Claim.
 - 1. The agreement to mediate suspends the Claims process.
 - 2. Owner or Contractor may unilaterally terminate the mediation process after 60 days from the agreement to mediate and resume the Claims process as of the date of the termination. The Claim process resumes as of the date of the conclusion of the mediation, as determined by the mediator, if the mediation is unsuccessful in resolving the dispute.
 - 3. Owner and Contractor are to each pay one-half of the mediator's fees and costs.
- E. If the entity receiving a Claim approves the Claim in part or denies it in part, this action is final and binding unless the other entity invokes the procedure described in Article 17 for final resolution of disputes within 30 days of this action.

- F. Notify Construction Manager if efforts to resolve the Claim are not successful and the Claim is denied. A denial of the Claim is final and binding unless the other entity invokes the procedure described in Article 17 for the final resolution of disputes within 30 days of the denial.
- G. The results of the agreement or action on the Claim is to be incorporated in a Change Order by Construction Manager to the extent they affect the Contract Documents, the Contract Price, or the Contract Times if the Owner and Contractor reach an agreement regarding a Claim.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 Cost of the Work

- A. The Cost of the Work is the sum of costs described in this Paragraph 13.01, except those excluded in Paragraph 13.01.D, necessary for the proper performance of the Work. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price under cost-plus, time-and-materials, or other cost-based terms; or
 - 2. To determine the value of a Change Order, Change Proposal, Claim, Set-off, or other adjustment in Contract Price.
- B. Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the events giving rise to the adjustment when the value of the adjustment is determined on the basis of the Cost of the Work.
- C. Costs included in the Cost of the Work may not exceed the costs commonly incurred in the proximate area of the Site for similar work unless agreed to by Owner. Cost of the Work includes only the following items:
 - 1. Payroll costs for Contractor's employees performing the Work, including one foreman per crew, and other required and agreed upon personnel for the time they are employed on the Work. Employees are to be paid according to wage rates for job classifications as agreed to by Owner in advance of the Work. Rates paid for this Work are to be the same as paid for Contract Work as established by certified payroll. Payroll costs may include:
 - a. Actual costs paid for salaries and wages;
 - b. Actual cost paid for fringe benefits, which consists of:
 - 1) Social security contributions,
 - 2) Unemployment,
 - 3) Excise and payroll taxes,
 - 4) Workers' compensation,
 - 5) Health and retirement benefits, and
 - 6) Paid time off for sick leave, vacations and holidays; and

- c. Actual cost of additional compensation paid for performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, to the extent authorized by Owner.
- 2. Cost of materials and equipment furnished and incorporated in the Work, including transportation and storage costs and required Suppliers' field services. Contractor may retain cash discounts unless Owner provided funds to Contractor for early payment of these materials and equipment. Cash discounts are to be credited to Owner if Owner provides funds for early payment. Make provisions for trade discounts, rebates, refunds, and returns from sale of surplus materials and equipment and reduce the Cost of the Work by these amounts.
- 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. Obtain competitive bids from Subcontractors acceptable to Owner if required by OPT. Bids are to be opened in the presence of Construction Manager and other designated members for OPT. Provide copies of bids to Construction Manager to use in determining, with OPT, which bids are acceptable. The Subcontractor's Cost of the Work and fee are determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01 if the subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee.
- 4. Supplemental costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work;
 - b. Costs of materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site including transportation and maintenance costs related specifically to the Work;
 - c. Costs of engineers, architects, testing laboratories, surveyors, employed or retained for services specifically related to the Work.
 - d. Actual cost for construction equipment, including the costs of transporting, loading, unloading, assembling, dismantling, and removing construction equipment, whether owned by Contractor or rented from others.
 - 1) Cost for construction equipment must not exceed the cost shown in the most current edition of the rental rate book named in the Supplemental Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
 - 2) With respect to Work that is the result of a Change Order, Change Proposal, Claim, Set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

- e. Applicable sales, consumer, use, and other similar taxes related to the Work for which Owner is not exempt, and which Contractor pays consistent with Laws and Regulations;
 - f. Deposits lost for causes other than negligence of Contractor's Team;
 - g. Royalty payments and fees for permits and licenses;
 - h. Cost of additional utilities, fuel, and sanitary facilities at the Site;
 - i. Minor expense items directly required by the Work; and
 - j. Premiums for bonds and insurance required by the Contract Documents.
- D. The Cost of the Work does not include the following administrative costs which are to be covered by the Contractor's fee:
- 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, safety managers, superintendents, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office, for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.C.1.
 - 2. The cost of purchasing, renting or furnishing any tool or equipment whose current price would be less than \$500 if purchased new at retail.
 - 3. Office expenses other than Contractor's office at the Site.
 - 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 5. Costs due to the actions of Contractor's Team for the correction of Defective Work, disposal of materials or equipment that do not comply with Specifications, and correcting damage to property.
 - 6. Losses, damages, and related expenses caused by damage to the Work or sustained by Contractor in connection with the performance of the Work. Contractor is entitled to recover costs if covered by Owner's insurance, if applicable. Such losses may include settlements made with the approval of Owner. Do not include these losses, damages, and expenses in the Cost of the Work when determining Contractor's fee.
 - 7. Expenses incurred in preparing and advancing Claims.
 - 8. Any Indemnified Cost paid with regard to Contractor's indemnification of Owner's Indemnitees.
 - 9. Other overhead or general expense costs and the costs of items not described in Paragraph 13.01.C.
- E. Contractor's fee is determined in accordance with the Agreement when the Work is performed on a cost-plus basis.

- F. Contractor's Fee is determined as follows for Work included in a Change Proposal.
1. Contractor's fee is 15 percent of the costs included in the Cost of the Work per Paragraph 13.01.C.1 for payroll cost and per Paragraph 13.01.C.2 for cost of materials and equipment furnished and incorporated in the Work.
 2. Contractor's fee is 5 percent of costs included in the Cost of the Work paid by Contractor for Work performed by Subcontractors per Paragraph 13.01.C.3.
 3. No fee will be payable for costs included in the Cost of the Work for supplemental costs per Paragraph 13.01.C.4.
 4. Fees are to be determined as follows where one or more tiers of Subcontracts are used:
 - a. The Subcontractor's fee is 15 percent for costs incurred under Paragraphs 13.01.C (excluding Paragraph 13.01.C.3) for the Subcontractor that performs the Work;
 - b. The Contractor and Subcontractors of a tier higher than that of the Subcontractor that performs the Work are allowed a fee of 5 percent of the total costs incurred by the next lower tier Subcontractor; and
 - c. Regardless of the number of subcontractor tiers involved, the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that performs the Work.
- G. When a Change Proposal includes additions and credits, the Contractor's fee will be calculated on the sum of costs for each cost category in Paragraph 13.01.C. and applying the appropriate fee from Paragraph 13.01.E. The amount to be credited by Contractor to Owner for any Change Proposal which results in a net decrease in the Cost of Work will be the amount of the actual net decrease in the Cost of Work plus an additional amount equal to 5 percent of the actual net decrease in the Cost of Work.
- H. Establish and maintain records in accordance with generally accepted accounting practices and submit these records, including an itemized cost breakdown together with supporting data, in a form and at intervals acceptable to Construction Manager whenever the Cost of the Work is to be determined pursuant to this Paragraph 13.01.

13.02 Allowances

- A. Include allowances specified in the Contract Documents in the Contract Price and provide Work covered by the allowance as authorized by Owner through Construction Manager.
- B. Contractor agrees that:
1. The cash allowance is used to compensate Contractor for the cost of furnishing materials and equipment for the Work covered by the allowance item in the Contract Documents. Cost may include applicable taxes. Make provisions for trade discounts, rebates, and refunds and reduce the allowance costs by these amounts.
 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances; and

3. Costs for cash allowances and installation costs as described in Paragraphs 13.02.B.1 and 13.02.B.2 above are included in the Contract Price.
- C. Construction Manager will issue a Change Order to adjust the Contract Price by the difference between the allowance amount and the actual amount paid by Contractor for Work covered by the allowance. The Change Order will be issued at the time costs are incurred by Contractor for Work covered by the allowance and this Work is included on the Application for Payment.

13.03 Unit Price Work

- A. The initial Contract Price for Unit Price Work is equal to the sum of the unit price line items in the Agreement. Each unit price line item amount is equal to the product of the unit price for each line item times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparing offers and determining an initial Contract Price. Payments to Contractor for Unit Price Work are to be based on actual quantities measured for Work in place.
- C. Each unit price is deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Construction Manager is to determine the actual quantities and classifications of Unit Price Work performed by Contractor to be incorporated into each Application for Payment. Construction Manager's decision on actual quantities is final and binding, subject to the provisions of Paragraph 13.03.E.
- E. Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price within 30 days of Construction Manager's decision under Paragraph 13.03.D, if:
 1. The total cost of a particular item of Unit Price Work amounts to 20 percent or more of the total Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 20 percent from the estimated quantity of an item indicated in the Agreement;
 2. There is no corresponding adjustment with respect to other items of Work; and
 3. Contractor believes it has incurred additional expense as a result of this condition or if Owner believes that the quantity variation entitles Owner to an adjustment in the Contract Price.
- F. Construction Manager will issue a Change Order adjusting estimated quantities to actual quantities to determine the final Contract Price.

13.04 Contingencies

- A. Contingency funds may be included in the Contract Price to pay for Work not defined specifically by the Contract Documents that is essential to the completion of the Project. Contingency funds will be as described in the Agreement.

- B. The contingency funds may be used for costs incurred by Contractor, provided these costs are approved by Owner. Costs are to be determined and documented in accordance with Paragraph 13.01. The contingency funds are not to be used for the following items:
 - 1. Cost overruns due to changes in material costs after the Contract Price is established, unless specific price escalation provisions are made in the Agreement;
 - 2. Rework required to correct Defective Work;
 - 3. Inefficiencies in completing the Work due to Contractor's selected means, methods, sequences, or procedures of construction;
 - 4. Work Contractor failed to include in the Contract Price;
 - 5. Changes required by changes in Laws and Regulations enacted after the Contract Price is established; or
 - 6. Any Work that does not constitute a change in Scope in the Work included in the Contract Price.
- C. Construction Manager is to issue a Change Order for approved expenditures from contingency funds. When the Change Order is issued, the costs are to be added to the Application for Payment. Contractor is to maintain a tabulation showing the contingency amount, adjustments to the contingency amount, and amounts remaining as the Project progresses.
- D. Any contingency amounts that are not included in a Change Order are retained by Owner. A Change Order will be issued to deduct unused contingency amounts from the Contract Price prior to Final Payment.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 Access to Work

- A. Provide safe access to the Site and the Work for the observation, inspection, and testing of the Work in progress. Contractor can require compliance with Contractor's safety procedures and programs as part of providing safe access.

14.02 Tests, Inspections, and Approvals

- A. OPT may retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform inspections. Cooperate with inspection and testing personnel and assist with providing access for required inspections, tests, and handling test specimens or Samples.
- B. Arrange for and facilitate inspections, tests, and approvals required by Laws or Regulations of governmental entities having jurisdiction that require Work to be inspected, tested, or approved by an employee or other representative of that entity. Pay associated costs and furnish Construction Manager with the required certificates of inspection or approval.
- C. Arrange, obtain, and pay for inspections and tests required:
 - 1. By the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to OPT;

2. To attain OPT's acceptance of materials or equipment to be incorporated in the Work;
 3. By manufacturers of equipment furnished under the Contract Documents;
 4. For testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work;
 5. For acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work;
 6. For re-inspecting or retesting Defective Work, including any associated costs incurred by the testing laboratory for cancelled tests or standby time; and
 7. For retesting due to failed tests.
- D. Provide independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to OPT to provide these inspections and tests.

14.03 Defective Work

- A. It is Contractor's obligation to ensure that the Work is not Defective.
- B. OPT has the authority to determine whether Work is Defective and to reject Defective Work.
- C. Construction Manager is to notify Contractor of Defective Work of which OPT has actual knowledge.
- D. Promptly correct Defective Work.
- E. Take no action that would void or otherwise impair Owner's special warranties or guarantees when correcting Defective Work.
- F. Pay claims, costs, losses, and damages arising out of or relating to Defective Work, including:
 1. Costs for correction, removal, and replacement of Defective Work;
 2. Cost of the inspection and testing related to correction of Defective Work;
 3. Costs for Design Professional's fees associated with review and approval of design modifications for correction, removal, and replacement of Defective Work.
 4. Fines levied against Owner by governmental authorities because of Defective Work; and
 5. Costs of repair or replacement of work of others resulting from Defective Work.

14.04 Acceptance of Defective Work

- A. Owner may elect to accept Defective Work instead of requiring correction or removal and replacement of Defective Work provided:
 1. This acceptance occurs prior to final payment;
 2. Design Professional confirms that the Defective Work is in general accordance with the design intent and applicable design principles; and

3. Design Professional confirms that acceptance of the Defective Work does not endanger public health or safety.
- B. Owner may impose a reasonable Set-off against payments due under Article 15 for costs associated with OPT's evaluation of Defective Work to determine if it can be accepted and to determine the diminished value of the Work. Owner may impose a reasonable Set-off against payments due under Article 15 if the parties are unable to agree as to the decrease in the Contract Price to compensate Owner for the diminished value of Defective Work accepted. Construction Manager is to issue a Change Order for acceptance of the Defective Work prior to final payment. Pay an appropriate amount to Owner if the acceptance of Defective Work occurs after final payment.

14.05 Uncovering Work

- A. OPT has the authority to require inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. Work that is covered prior to approval of Construction Manager must be uncovered for OPT's observation if requested by Construction Manager. Pay for uncovering Work and its subsequent restoration unless Contractor has given Construction Manager timely notice of Contractor's intention to cover the Work and Construction Manager fails to act with reasonable promptness in response to this notice.
- C. Provide necessary labor, material, and equipment and uncover, expose, or otherwise make available the portion of the Work suspected of being Defective for observation, inspection, or testing if OPT considers it necessary or advisable that covered Work be observed by Design Professional or inspected or tested by others as directed by Construction Manager.
 1. Pay for claims, costs, losses, and damages associated with uncovering, exposing, observing, inspecting, and testing if it is found that the uncovered Work is Defective. Pay costs for correction of Defective Work. Pay for reconstruction, repair, or replacement of work of others if it is found that the uncovered Work is Defective.
 2. Submit a Change Proposal for an increase in the Contract Price or an extension of the Contract Times directly attributable to this uncovering, exposure, observation, inspection, testing, and reconstruction if the uncovered Work is found to not be Defective.

14.06 Owner May Stop the Work

- A. Owner may order Contractor to stop the Work if:
 1. The Work is Defective;
 2. Contractor fails to supply sufficient skilled workers or suitable materials or equipment;
or
 3. Contractor performs Work that may fail to conform to the Contract Documents when completed.
- B. This stop work order is to remain in effect until the reason for the stop work order has been eliminated. Owner's right to stop the Work does not create a duty to exercise this right for the benefit of Contractor's Team or surety.

14.07 Owner May Correct Defective Work

- A. Owner may remedy Defective Work after 7 days' notice to Contractor if Contractor fails to correct Defective Work, or to remove and replace Defective Work as required by OPT;
- B. Owner may:
 - 1. Exclude Contractor from the Site;
 - 2. Take possession of the Work and suspend Contractor's services related to the Work; and
 - 3. Incorporate stored materials and equipment in the Work.
- C. Allow OPT access to the Site and off-site storage areas to enable Owner to exercise the rights and remedies under this paragraph.
- D. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 are to be charged against Contractor as a Set-off against payments due under Article 15. These claims, costs, losses, and damages include costs of repair and the cost of replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's Defective Work.
- E. Contractor is not allowed an extension of the Contract Times because of delays in the performance of the Work attributable to the exercise of the Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; FINAL COMPLETION

15.01 Progress Payments

- A. Progress payments are to be submitted to Construction Manager on the Application for Payment form provided by Construction Manager following procedures in the Contract Documents.
 - 1. Progress payments for lump sum Work are to be paid based on the earned value to date at the amounts shown in the Schedule of Values submitted as required by Paragraph 2.03. Final payment will be for the total lump sum amount.
 - 2. Progress payments for Unit Price Work are based on the number of units completed as determined under the provisions of Paragraph 13.03.
 - 3. Progress payments for Work to be paid based on the Cost of the Work per Article 13 are to be paid for Work completed by Contractor during the pay period.
- B. Reduction in Payment by Owner:
 - 1. Owner is entitled to impose a Set-off against payment based on the following:
 - a. Claims made against Owner or costs, losses, or damages incurred by Owner related to:
 - 1) Contractor's conduct in the performance of the Work, including workplace injuries, non-compliance with Laws and Regulations, or patent infringement; or

- 2) Contractor's failure to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site, including workplace injuries, property damage, and non-compliance with Laws and Regulations.
- b. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
- c. Work is Defective, or completed Work has been damaged by Contractor's Team, requiring correction or replacement;
- d. Owner has been required to correct Defective Work or complete Work in accordance with Paragraph 14.07;
- e. The Contract Price has been reduced by Change Orders;
- f. Events have occurred that would constitute a default by Contractor justifying a termination for cause;
- g. Liquidated or other damages have accrued because of Contractor's failure to achieve Milestones, Substantial Completion, or completion of the Work;
- h. Liens have been filed regarding the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of these Liens;
- i. Owner has been notified of failure to make payments to Subcontractors, Suppliers, or Employees;
- j. Failure to submit up-to-date record documents as required by the Contract Documents;
- k. Failure to submit monthly Progress Schedule updates or revised schedules as requested by Construction Manager;
- l. Failure to provide Project photographs required by the Contract Documents;
- m. Failure to provide Certified Payroll required by the Contract Documents;
- n. Compensation for OPT for overtime charges of Construction Manager, third review of Shop Drawings, review of substitutions, re-inspection fees, inspections or designs related to correction of Defective Work, or other services identified as requiring payment by Contractor;
- o. Costs for tests performed by Owner to verify that Work previously tested and found to be Defective has been corrected;
- p. OPT has actual knowledge of the occurrence of events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents with associated cost impacts;
- q. Payment would result in an over-payment of the Contract Price; or
- r. Other items entitling Owner to a Set-off against the amount recommended.
2. Compensation for services of OPT staff is to be at the rates established in the Supplementary Conditions.

3. Construction Manager is to notify Contractor stating the amount and the reasons for an imposed Set-off. Owner is to pay Contractor amounts remaining after deduction of the Set-off. Owner is to pay the Set-off amount agreed to by Owner and Contractor if Contractor remedies the reasons for the Set-off. Contractor may submit a Change Proposal contesting the Set-off.
- C. No payment will be made for Work authorized by a Work Change Directive until the Work Change Directive is incorporated into a Change Order, unless arrangements or interim payments have been included in the Work Change Directive. Payment can be included in an Application for Payment when the Change Order is approved.
- D. Owner is to pay the amount of payment recommended by Construction Manager within 30 days after receipt of the Application for Payment and accompanying documentation from Construction Manager.
- E. Contractor certifies that all Work, including materials, covered by each Application for Payment have been completed or delivered and stored in accordance with the Contract Documents, that all amounts have been paid for Work, materials, and equipment for which previous payment has been made by Owner, and that the current payment amount shown in this Application for Payment is due.

15.02 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to the Work, materials, and equipment furnished under the Contract is to pass to Owner free and clear of Liens, title defects, and patent, licensing, copyright, or royalty obligations no later than 7 days after the time of payment by Owner of the Application for Payment which includes these items.

15.03 Substantial Completion

- A. Notify Construction Manager when the Work or portion of the Work to be accepted under Paragraph 15.04 is substantially complete and request a Certificate of Substantial Completion.
- B. OPT is to inspect the Work after Contractor's notification to determine if the Work is substantially complete. Construction Manager is to either issue the Certificate of Substantial Completion which sets the date of Substantial Completion or notify Contractor of the reasons the Project is not considered to be substantially complete.
- C. The OPT and Contractor are to meet to discuss Owner's use or occupancy of the Work following Substantial Completion. Items to be discussed at this meeting include:
 1. Review of insurance policies with respect to the end of the Contractor's coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner;
 2. Owner's assumption of responsibility for security, operation, protection of the Work, maintenance, and utilities upon Owner's use or occupancy of the Work;
 3. Contractor's obligations for operations and maintenance during performance and acceptance testing;
 4. Contractor's access to the Site to complete punch list items; and

5. Procedures for correction of Defective Work during the one-year correction period.

15.04 Partial Utilization

- A. Owner may use or occupy substantially completed parts of the Work which are specifically identified in the Contract Documents, or which OPT and Contractor agree constitutes a separately functioning and usable part of the Work prior to Substantial Completion of the Work. Owner must be able to use that part of the Work for its intended purpose without significant interference with Contractor's performance of the remainder of the Work. Contractor and OPT are to follow the procedures of Paragraph 15.03 for this part of the Work.
- B. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Article 6.

15.05 Final Inspection

- A. OPT is to make a final inspection upon notice from Contractor that the entire Work or portion to be accepted under Paragraph 15.04 is complete. Construction Manager is to notify Contractor of Work determined to be incomplete or Defective. Immediately take corrective measures to complete the Work and correct Defective Work.
- B. Notify Construction Manager when the entire Project and ready for Final Payment under Paragraph 15.06 and request a Certificate of Final Completion.
- C. OPT is to inspect the Work after Contractor's notification to determine if the Project is complete. Construction Manager is to either issue the Certificate of Final Completion which sets the date of Final Completion or notify Contractor of the reasons the Project is not considered to be complete.

15.06 Final Payment

- A. Make application for final payment after completing required corrections identified during the final inspection and delivering items and documents required by the Contract Documents. Provide the following with the final Application for Payment:
 - 1. Consent of Surety to Final Payment acknowledging unsettled disputes; or
 - 2. Affidavit of Payment of Debts and Claims or Affidavit of Release of Liens or furnish receipts or releases from Subcontractors and Suppliers when a payment bond is not required.
- B. Construction Manager is to either recommend payment of the final Application for Payment to Owner if OPT is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled or notify Contractor of OPT's reasons for not recommending final payment.
- C. The Work is complete, subject to surviving obligations, when it is ready for final payment as established by the Construction Manager's recommendation of payment of the final Application for Payment to Owner and the issuance of a Certificate of Final Completion.
- D. Owner is to pay the amount of final payment recommended by Construction Manager within 30 days after receipt of the final Application for Payment and accompanying

documentation from Construction Manager; unless additional time is required for approval of a governing board or entity. Payment will be within 30 days of approval by the governing board or entity.

15.07 Waiver of Claims

- A. The making of final payment does not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from:
 - 1. Unsettled Liens or claims for non-payment;
 - 2. Defective Work appearing after final inspection pursuant to Paragraph 15.05;
 - 3. Contractor's failure to comply with the terms of special guarantees specified in the Contract Documents;
 - 4. Outstanding Claims or express reservation of rights by Owner; or
 - 5. Contractor's continuing obligations under the Contract Documents.
- B. Contractor waives claims and rights against Owner by accepting final payment except for those Claims made in accordance with the provisions of Article 17 and specifically noted in the Certificate of Final Completion.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 Owner May Suspend Work

- A. Owner may suspend the Work or a portion of the Work for a period of not more than 90 consecutive days, at any time and without cause, by notice to Contractor. This notice fixes the date on which Contractor is to resume Work. Contractor is entitled to adjustments in the Contract Price and Contract Times directly attributable to this suspension. Submit a Change Proposal seeking an adjustment no later than 30 days after the date fixed for resumption of Work.

16.02 Owner May Terminate for Cause

- A. The occurrence of one or more of the following events constitutes a default by Contractor and justifies termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents, including failure to supply sufficient skilled workers or suitable materials or equipment;
 - 2. Failure to adhere to the Progress Schedule;
 - 3. Failure of Contractor to provide a satisfactory replacement bond or insurance in the event either is lost or canceled;
 - 4. Failure of Contractor to maintain financial solvency to adequately complete the Project as indicated by one or more of the following:
 - a. A petition of bankruptcy is filed by or against Contractor;
 - b. Contractor is adjudged as bankrupt or insolvent;

- c. Contractor or surety makes a general assignment for the benefit of creditors;
 - d. A receiver is appointed for the benefit of Contractor's creditors; or
 - e. A receiver is appointed because Contractor's insolvency;
- 5. Contractor's disregard of Laws or Regulations of public bodies having jurisdiction; or
- 6. Contractor's repeated disregard of the authority of OPT.
- B. Contractor and surety must provide adequate assurance of future performance in accordance with the Contract Documents that is satisfactory to Owner if Contractor is believed to be in financial distress due to the existence of one or more of the indicators listed in Paragraph 16.02.A.4. Owner may terminate this Contract if Contractor and surety fail to provide adequate documentation satisfactory to Owner within 10 days of Construction Manager's request for this information.
- C. Owner may declare Contractor to be in default, give notice to Contractor and surety that the Contract is terminated, and enforce the rights available to Owner under the performance bond after giving Contractor and surety 10 days' notice that one or more of the events identified in Paragraph 16.02.A has occurred.
- D. Owner may exclude Contractor from the Site, take possession of the Work, incorporate the materials and equipment stored and complete the Work as Owner may deem expedient if Owner has terminated the Contract for cause.
- E. Owner may elect not to proceed with termination of the Contract under this Paragraph 16.02 if Contractor begins to cure the cause for termination within 7 days of receipt of notice of intent to terminate.
- F. Contractor is not entitled to receive further payments until the Work is completed if Owner proceeds as provided in this Paragraph 16.02. The amount of the Contract Price remaining is to be paid to Contractor if the unpaid balance exceeds the cost to complete the Work. This cost to complete the Work may include related claims, costs, losses, damages, and the fees and charges of engineers, architects, attorneys, and other professionals retained by Owner. Pay the difference to Owner if the cost to complete the Work including related claims, costs, losses, and damages exceeds the unpaid balance of the Contract Price. Claims, costs, losses, and damages incurred by Owner are to be reviewed as to their reasonableness and incorporated in a Change Order by Construction Manager. Owner is not required to obtain the lowest price for the Work performed when exercising its rights or remedies under this paragraph.
- G. Termination does not affect the rights or remedies of Owner against Contractor or against surety under the payment bond or performance bond. Owner does not release Contractor from liability by paying or retaining money due Contractor.

16.03 Owner May Terminate for Convenience

- A. Owner may terminate the Contract without cause after giving 7 days' notice to Contractor of the effective date of termination. Contractor is to be paid for the following if Owner terminates for convenience:
 - 1. Work completed in accordance with the Contract Documents prior to the effective date of termination;

2. Actual costs sustained prior to the effective date of termination for Work in progress, plus a fair and reasonable amount for overhead and profit; fee calculated in accordance with Paragraph 13.01; and
 3. Reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor will not be paid for loss of anticipated profits or revenue, post termination overhead costs, or other economic loss arising out of or resulting from this termination.

16.04 Contractor May Stop Work or Terminate

- A. Contractor may terminate the Contract and issue a Change Proposal requesting payment from Owner on the same terms as provided in Paragraph 16.03 after 10 days' notice to Construction Manager provided that, through no act or fault of Contractor:
1. The Work is suspended for more than 90 consecutive days by Owner;
 2. Construction Manager fails to act on an Application for Payment within 30 days after it is submitted; or
 3. Owner fails to pay Contractor sums determined to be due, other than the final payment, within 30 days after payment is recommended by Construction Manager; and
 4. OPT does not remedy this suspension or failure within 10 days after receipt of the notice.
- B. Contractor may stop Work, without prejudice to other rights or remedies in lieu of terminating the Contract if Construction Manager has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed to pay Contractor within 30 days after payment is recommended by Construction Manager. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times for damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 Methods and Procedures

- A. The Owner or Contractor may appeal a Claim, approved or denied in part or in full, by:
1. Electing to invoke the dispute resolution process if one is provided for in the Supplementary Conditions;
 2. Agreeing with the other party to submit the dispute to a dispute resolution process; or
 3. Notifying the other party of the intent to submit the dispute to a court of competent jurisdiction if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to.

ARTICLE 18 – MISCELLANEOUS

18.01 Computation of Times

- A. Exclude the first day and include the last day when determining dates for a period referred to in the Contract Documents by days. The last day of this period is to be omitted from the determination if it falls on a Saturday, Sunday, or a legal holiday.
- B. All references and conditions for a calendar day contract in the Contract Documents apply for a Fixed Date Contract. A fixed date contract is one in which the calendar dates for reaching Substantial Completion and/or Final Completion are specified in lieu of identifying the number of calendar days involved.

18.02 Independent Contractor

- A. Contractor is to perform its duties under this Contract as an independent contractor. Contractor's Team and their personnel are not considered to be employees or agents of Owner. Nothing in this Agreement is to be interpreted as granting Contractor's Team the right or authority to make commitments for Owner. This Agreement does not constitute or create a joint venture, partnership, or formal business organization of any kind.

18.03 Cumulative Remedies

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available to the Owner or Contractor by these General Conditions are in addition to, and are not a limitation of, the rights and remedies which are otherwise imposed or available by:
 - 1. Laws or Regulations,
 - 2. Special warranties or guarantees, or
 - 3. Other provisions of the Contract Documents.
- B. The provisions of this Paragraph 18.03 are as effective as if repeated specifically in the Contract Documents regarding each duty, obligation, right, and remedy to which they apply.

18.04 Limitation of Damages

- A. Owner's Indemnitees are not liable to Contractor for claims, costs, losses, or damages sustained by Contractor's Team associated with other projects or anticipated projects.

18.05 No Waiver

- A. The failure of Owner or Contractor to enforce any provision of this Contract does not constitute a waiver of that provision, affect the enforceability of that provision, or the enforceability of the remainder of this Contract.

18.06 Severability

- A. If a court of competent jurisdiction renders a part of this Contract invalid or unenforceable, that part is to be severed and the remainder of this Contract continues in full force.

18.07 Survival of Obligations

- A. Representations, indemnifications, warranties, guarantees, and continuing obligations required by the Contract Documents survive completion and acceptance of the Work or termination of the Contract.

18.08 No Third-Party Beneficiaries

- A. Nothing in this Contract can be construed to create rights in any entity other than the Owner and Contractor. Neither the Owner nor Contractor intends to create third party beneficiaries by entering into this Contract.

18.09 Successors and Assigns

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents

18.10 Assignment of Contract

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights or interests in the Contract will be binding on the other party without the written consent of the other party. Money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.11 No Waiver of Sovereign Immunity

- A. Owner has not waived its sovereign immunity by entering into and performing its obligations under this Contract.

18.12 Controlling Law

- A. This Contract is to be governed by the law of the state in which the Project is located.
- B. Venue for legal proceedings lies exclusively in the county in which the Owner's home office is located unless specified elsewhere in the Contract Documents.

END OF SECTION

00 73 00 SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement Section 00 72 00 "General Conditions." The General Conditions remain in full force and effect except as amended.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below.

The paragraph numbers used in the Supplementary Conditions correspond to the General Condition paragraphs they modify with the prefix "SC" added—for example, "Paragraph SC-4.05." modifies General Conditions Paragraph 4.05.

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

SC-1.01 *Defined Terms*

- A. The Owner's Project Team as defined in the Paragraph 1.01.A.45 of the General Conditions consists of the following organizations:
1. City of Shawnee
 2. Freese and Nichols, Inc

ARTICLE 5 – SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-5.03 *Subsurface and Physical Conditions*

- A. This Supplementary Condition identifies the reports and drawings referenced in Paragraph 5.03 of the General Conditions related to subsurface and physical conditions.
1. The following table lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which Contractor may rely:

Report Title	Report Date	Technical Data
Report of Geotechnical Investigation of the Clearpond Road RCB	July 14, 2023	Appendix A, Field Investigation, Appendix B, Laboratory Results, Appendix C, General Notes

END OF EXHIBIT A

00 73 16 INSURANCE REQUIREMENTS

ARTICLE 1 – GENERAL PROVISIONS

1.01 CONTRACTOR’S INSURANCE

- A. Obtain and maintain insurance that complies with this Section with coverage amounts equal to or greater than the amounts specified in Article 2 or greater where required by Laws and Regulations.
- B. Coverage is to remain in effect at least until the Work is complete and longer if expressly required elsewhere in this Contract, and when Contractor may be correcting, removing, or replacing Defective Work as a warranty or correction obligation, or returning to the Site to conduct other tasks arising from the Contract.
- C. Coverage is to apply with respect to the performance of the Work, whether performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- D. Obtain insurance from companies that are duly licensed or authorized in the state in which the Project is constructed to issue insurance policies for the required limits and coverages and that have an A.M. Best rating of A-VIII or better.
- E. Alternative forms of insurance coverage, including self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not acceptable to meet the insurance requirements of this Contract.
- F. Owner will not purchase or maintain insurance to protect the interest of Contractor, subcontractors, or others in the Work. Owner does not represent that the insurance coverage and limits established in this Contract are adequate to protect Contractor or the Contractor’s interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that it deems necessary and including the cost of this insurance in the offered Contract Price.
- G. Contractor is fully responsible for all losses arising out of, resulting from, or connected with operations under this Contract whether or not these losses are covered by insurance. The acceptance of evidence of insurance by OPT, or others listed as an additional insured, that does not comply with the Contract requirements does not release Contractor from the requirement to comply with Contract requirements.
- H. The required insurance and insurance limits do not limit the Contractor’s liability under the indemnities granted to Owner’s Indemnitees in the Contract Documents.
- I. Do not perform any Work on the Project unless the required insurance policies are in effect. Owner may exclude Contractor from the Site and exercise the Owner’s termination rights under the General Conditions if Contractor fails to obtain or maintain the required insurance.
- J. Policies must provide notice before cancellation, non-renewal, or any material change in the policy’s terms and conditions as described in Paragraph 1.04.D. Contractor is to notify Owner and the additional insured of any notice received within 3 days of receipt of a notice

by Contractor. Contractor is to cease all Work covered by cancelled or non-renewed insurance if suitable coverage is not in place in time to prevent a lapse in coverage. Contractor is solely responsible for any delays associated with lapsed coverage.

- K. Owner may elect, but is in no way obligated, to obtain equivalent insurance to protect the Owner's interests without prejudice to any other right or remedy if Contractor fails to obtain or maintain the required insurance. Owner may impose a reasonable Set-off against payments to recover the cost of the insurance.
- L. Owner's policies, if any, operate separately and independently from policies required to be provided by Contractor and Contractor cannot rely upon the Owner's policies to meet any of the Contractor's obligations to Owner, Design Professional, or any third party.

1.02 SUBCONTRACTOR OR SUPPLIER INSURANCE

- A. Require subcontractors to purchase and maintain workers' compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project. Include OPT as additional insureds on subcontractor policies in accordance with Paragraph 1.03.
- B. Require suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- C. Contractor is liable for all losses that would have been covered by subcontractor or supplier insurance if subcontractor or supplier fails to provide coverage.

1.03 ADDITIONAL INSURED

- A. The following are to be named as an additional insured on all insurance policies, except workers' compensation insurance, builder's risk insurance, and the Contractor's professional liability insurance:
 - 1. **City of Shawnee**
Attn: **Seth Barkhimer, Public Works**
111 S Kickapoo Ave
Shawnee, OK 74801
 - 2. **Freese and Nichols, Inc.**
Attn: **Brandon Huxford, PE**
3600 NW 138th St., Suite 202
Oklahoma, OK, 73134
- B. All insurance related notices are to be sent to the addresses listed above.
- C. Notify Owner and each additional insured if Contractor fails to purchase or maintain the insurance required by the Contract Documents.
- D. All insurance policies must include a waiver of subrogation in favor of each additional insured.
- E. Provide for an endorsement that the "other insurance" clause will not apply to OPT where OPT is an additional insured. Contractor's insurance is primary and non-contributory with respect to any insurance or self-insurance carried by OPT for liability arising out of operations under this Contract.

1.04 EVIDENCE OF INSURANCE

- A. Deliver evidence of insurance, in accordance with this Section, to the Owner with the signed Contract Documents to demonstrate that Contractor has obtained the policies, coverages, and endorsements required by the Contract.
 - 1. Continue to provide evidence Contractor is maintaining the required insurance for the duration of the Contract Times and such extended periods as required by the Contract Documents.
 - 2. Provide this evidence of insurance to Owner and each additional insured.
 - 3. Contractor may block out (redact) any confidential premium or pricing information and wording specific to a project or jurisdiction in any policy or endorsement furnished under this paragraph not applicable to this Contract.
- B. OPT's failure to demand evidence of insurance or verify the Contractor's full compliance with insurance requirements or failure to identify a deficiency in compliance from the evidence provided is not a waiver of the Contractor's obligation to obtain and maintain the insurance required by the Contract Documents.
- C. Provide evidence of insurance acceptable to Owner with the executed Contract Documents. Provide the following as evidence of insurance:
 - 1. Copy of insurance policies;
 - 2. Certificates of insurance on an acceptable form;
 - 3. Full disclosure of exclusions;
 - 4. Declaration pages, riders, or endorsements to policies;
 - 5. Documentation of deductibles;
 - 6. List of named and additional insureds for each policy; and
 - 7. Evidence that waivers of subrogation are provided on applicable policies.
- D. Provide evidence of a requirement in the policy that at least 10 days' notice will be given before cancellation, non-renewal or any material change in the policy's terms and conditions including:
 - 1. Type of coverage provided;
 - 2. Riders or endorsements to policies;
 - 3. Policy limits of coverage;
 - 4. Change in deductible amount;
 - 5. Status of named or additional insured; or
 - 6. Waivers of subrogation.
- E. Certificates of Insurance:
 - 1. Submit certificates of insurance meeting the applicable requirements of the applicable state department of insurance. No requirement of this Contract may be interpreted as requiring the issuance of a certificate of insurance on a form that has not first been filed with and/or approved by the applicable state department of insurance.

2. Include the name of the Project in the description of operations box on the certificate of insurance, and the name of each additional insured.
- F. Continuing Evidence of Coverage:
1. Provide updated, revised, or new evidence of insurance prior to the expiration of existing policies. A certificate of insurance is acceptable as evidence of renewal of insurance policies, provided no changes are made in the policy originally provided with signed Contract Documents.
 2. Provide evidence of continuation of insurance coverage at final payment and for the following 3 years.

ARTICLE 2 – INSURANCE COVERAGE AMOUNTS AND POLICY REQUIREMENTS

2.01 CONTRACTOR’S INSURANCE

A. Workers’ Compensation and Employer’s Liability Insurance:

1. Purchase and maintain workers’ compensation and employer’s liability insurance, including, as applicable, United States Longshoreman and Harbor Workers’ Compensation Act, Jones Act, stop-gap employer’s liability coverage for monopolistic states, and foreign voluntary workers’ compensation, including off-site operations.
2. Provide the following coverage with not less than the minimum limits indicated:

Workers’ Compensation and Related Insurance	Policy Limits
Workers’ Compensation	
State	Statutory
Applicable Federal (e.g., Longshore)	Statutory
Foreign Voluntary Workers’ Compensation (Employer’s Responsibility Coverage), if Applicable	Statutory
Employers’ Liability	
Each Accident	\$1,000,000
Each Employee	\$1,000,000
Policy Limit	\$1,000,000

B. Commercial General Liability:

1. Purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:
 - a. Damages because of bodily injury, sickness or disease, or death of any person other than Contractor’s employees;
 - b. Damages insured by reasonably available personal injury liability coverage; and
 - c. Damages because of injury to or destruction of tangible property wherever located, including loss of use resulting from the damage.
2. Contractor’s commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form).
 - a. Provide additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements

CG 20 10 10 01 and CG 20 37 10 01 (together). Equivalent endorsements may be used if Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available.

- b. Provide ISO Endorsement CG 20 32 07 04 “Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured” or its equivalent for Design Professional additional insured.
3. Provide the following coverages and endorsements:
- a. Products and completed operations coverage.
 - 1) Maintain coverage for 3 years after final payment.
 - 2) Provide Owner and each other additional insured evidence of continuation of such insurance at final payment and for 3 years thereafter.
 - b. Blanket contractual liability coverage, including coverage of Contractor’s contractual indemnity obligations in the General Conditions.
 - c. Severability of interests and no insured-versus-insured or cross-liability exclusions.
 - d. Underground, explosion, and collapse coverage.
 - e. Personal injury coverage.
4. The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:
- a. Modifications of the standard definition of “insured contract” (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).
 - b. Exclusion for water intrusion or water damage.
 - c. Provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.
 - d. Exclusion of coverage relating to earth subsidence or movement.
 - e. Exclusion for the insured’s vicarious liability, strict liability, or statutory liability (other than workers’ compensation).
 - f. Limitations or exclusions based on the nature of Contractor’s work.
 - g. Professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

5. Provide the following coverage with not less than the minimum limits indicated:

Commercial General Liability Insurance	Policy Limits
General Aggregate	\$1,000,000/Occurrence \$2,000,000/Aggregate
Products - Completed Operations	\$1,000,000/Occurrence \$2,000,000/Aggregate
Personal and Advertising Injury (Limit Per Person)	\$1,000,000
Bodily Injury and Property Damage – Each Occurrence	\$1,000,000

C. Automobile Liability:

- Purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy must be written on an occurrence basis. Coverage can be provided through individual limits for bodily injury and for property damage or a combined single limit covering both bodily injury and property damage.
- Provide the following coverage with not less than the minimum limits indicated:

Automobile Liability Insurance	Policy Limits
Bodily Injury	
Each Person	\$1,000,000
Each Accident	\$1,000,000
Property Damage	
Each Accident	\$1,000,000
Combined Single Limit	
Combined Single Limit for Bodily Injury and Property Damage	\$1,000,000

D. Umbrella or Excess Liability:

- Purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the Paragraphs A through C above. The coverage afforded must be at least as broad as that of each underlying policy.
- Contractor may meet the policy limits specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy's policy limits and partial attribution of the policy limits of an umbrella or excess liability policy that is at least as broad in coverage as that of the underlying policy. If such umbrella or excess liability policy was required under this Contract, at a specified minimum policy limit, such umbrella or excess policy must retain a minimum limit of \$[specify amount] after accounting for partial attribution of its limits to underlying policies, as allowed above.

3. Provide the following coverage with not less than the minimum limits indicated:

Umbrella or Excess Liability Insurance	Policy Limits
Each Occurrence	\$1,000,000
General Aggregate	\$1,000,000

E. Contractor's Pollution Liability Insurance:

1. Purchase and maintain a policy covering third-party injury and property damage, including cleanup costs, as a result of pollution conditions arising from the Contractor's operations and completed operations. This insurance must be maintained for no less than 3 years after Final Completion.
2. Provide the following coverage with not less than the minimum limits indicated:

Contractor's Pollution Liability Insurance	Policy Limits
Each Occurrence	\$1,000,000
General Aggregate	\$2,000,000

F. Contractor's Professional Liability Insurance:

1. Purchase and maintain applicable professional liability insurance if Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise. This insurance must cover negligent acts, errors, or omissions in the performance of professional design or related services by the insured or others for whom the insured is legally liable. The insurance must be maintained throughout the duration of the Contract and for a minimum of 2 years after Substantial Completion. The policy must pre-date the commencement of furnishing services on the Project.
2. Provide the following coverage with not less than the minimum limits indicated:

Contractor's Professional Liability Insurance	Policy Limits
Each Claim	\$1,000,000
Annual Aggregate	\$1,000,000

G. Unmanned Aerial Vehicle Liability Insurance:

1. Purchase and maintain Unmanned Aerial Vehicle (UAV—commonly referred to as drones) liability insurance if Contractor uses UAV at the Site or in support of any aspect of the Work. Insurance must provide coverage for property damage, bodily injury or death, and invasion of privacy.
2. Provide the following coverage with not less than the minimum limits indicated:

Unmanned Aerial Vehicle Liability Insurance	Policy Limits
Each Claim	\$1,000,000
Annual Aggregate	\$1,000,000

2.02 BUILDER'S RISK INSURANCE

- A. Purchase and maintain builder's risk insurance on a completed value basis in the amount of the Work's full insurable replacement cost.

1. The builder's risk insurance must be written on a builder's risk "all risk" policy form that, at a minimum, includes insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment stored and in transit, and must not exclude the coverage of the following risks: fire; windstorm; hail; flood; earthquake, volcanic activity, and other earth movement; lightning; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; and water damage (other than that caused by flood).
 - a. Policy must include coverage for losses from physical damage or loss with respect to defective workmanship, methods, design, or materials.
 - b. Provide other insurance policies acceptable to Owner if insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake, volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise.
2. The builder's risk insurance must cover, as insured property, at least the following:
 - a. Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property;
 - b. Spare parts inventory required by the Contract; and
 - c. Temporary works which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures but are not intended to form part of the permanent constructed Work.
3. The builder's risk insurance must be maintained in effect until the Work is complete, or until written confirmation of Owner's procurement of property insurance following Substantial Completion, whichever occurs first.
4. The builder's risk insurance must:
 - a. Cover expenses incurred in the repair or replacement of any insured property (including fees and charges of contractors, engineers, and architects).
 - b. Allow for the waiver of the insurer's subrogation rights, as set forth in this Contract.
 - c. Allow for partial occupancy or use by Owner by endorsement, and without cancellation or lapse of coverage.
 - d. Include performance/hot testing and startup, if applicable.
 - e. Cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier). If this coverage is subject to a sublimit, such sublimit will be a minimum of Contract Price.

- f. Cover damage or loss to insured property while in transit. If this coverage is subject to a sublimit, such sublimit will be a minimum of Contract Price.
- 5. If debris removal in connection with repair or replacement of insured property is subject to a coverage sublimit, such sublimit will be a minimum of Contract Price.
- 6. The builder's risk insurance must include as named insureds the Owner, Contractor, subcontractors (of every tier), and any other individuals or entities required by this Contract to be insured under such builder's risk policy.
- 7. In addition to Owner, Contractor, and subcontractors of every tier, include the following as insured:
 - a. Freese and Nichols, Inc.
- B. The builder's risk policy will include, for the benefit of Owner, loss of revenue and soft cost coverage for losses arising from delays in completion that result from covered physical losses or damage. Such coverage will include, without limitation, fixed expenses and debt service for a minimum of 12 months with a maximum deductible of 30 days, compensation for loss of net revenues, rental costs, and attorneys' fees and engineering or other consultants' fees, if not otherwise covered.

2.03 INSTALLATION FLOATER

- A. Provide and maintain installation floater insurance on a broad form or "all risk" policy providing coverage for materials, supplies, machinery, fixtures, and equipment that will be incorporated into the Work ("Covered Property"). Coverage under the Contractor's installation floater will include loss from covered "all risk" causes (perils) to Covered Property:
 - 1. of the Contractor, and Covered Property of others that is in the Contractor's care, custody, and control;
 - 2. while in transit to the Site, including while at temporary storage sites;
 - 3. while at the Site awaiting and during installation, erection, and testing;
 - 4. continuing at least until the installation or erection of the Covered Property is completed, and the Work into which it is incorporated is accepted by Owner.
- B. The installation floater coverage cannot be contingent on an external cause or risk or limited to property for which Contractor is legally liable.
- C. The installation floater coverage will be in an amount sufficient to protect the Contractor's interest in the Covered Property. The Contractor will be solely responsible for any deductible carried under this coverage.
- D. This policy will include a waiver of subrogation applicable to Owner, Contractor, Design Professional, all subcontractors, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them.

2.04 OWNER'S LIABILITY INSURANCE

- A. Contractor is required to provide Owner's Protective Liability Insurance coverage for at least the following amounts, unless greater amounts are required by Laws and Regulations.

Owner's Liability Insurance	Policy Limits
General Aggregate	\$1,000,000
Each Occurrence (Bodily Injury and Property Damage)	\$1,000,000

END OF SECTION

01 11 00 SUMMARY OF WORK

PART 1 - GENERAL

1.01 SUMMARY

- A. Construct Work as described in the Contract Documents.
 - 1. Provide the materials, equipment, and incidentals required to make the Project completely and fully operable.
 - 2. Provide the labor, equipment, tools, and consumable supplies required for a complete Project.
 - 3. Provide the civil, architectural, structural, mechanical, electrical, instrumentation, and all other Work required for a complete and operable Project.
 - 4. The Contract Documents do not indicate or describe all Work required to complete the Project. Additional details required for the correct installation of selected products are to be provided by the Contractor and coordinated with the Construction Manager.

1.02 DESCRIPTION OF WORK

- A. Work is described in general, non-inclusive terms as:
 - 1. Construction of 2-5'x5' RCB Culvert
 - 2. Construction of HP Pile Foundation
 - 3. Reconstruction of approximately 300' of a two-lane asphalt roadway
 - 4. Surface restoration including grading and sodding

1.03 WORK UNDER OTHER CONTRACTS

- A. Owner has no knowledge of work, other than the Work included in this Contract, which may impact construction scheduling, testing, and startup.

1.04 WORK BY OWNER

- A. Owner has no knowledge of work, other than the Work included in this Contract that may impact construction scheduling, testing, and startup.
- B. Owner will provide normal operation and maintenance of the existing facilities during construction, unless otherwise stated.

1.05 CONSTRUCTION OF UTILITIES

- A. Existing utilities will be used for this Project.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 23 10 ALTERNATES AND ALLOWANCES

PART 1 - GENERAL

1.01 SUMMARY

A. Alternates:

1. This Section describes each alternate by number and describes the basic changes to be incorporated into the Work when this alternate is made a part of the Work in the Agreement.
2. The Drawings and Specifications will outline the extent of Work to be included in the alternate Contract Price.
3. Coordinate related Work and modify surrounding Work as required to properly integrate the Work under each alternate, and provide a complete and functional Project as required by the Contract Documents.
4. Alternate Bids or Proposals may be accepted or rejected at the option of the Owner.
5. Owner may incorporate these alternates in the Contract when executed, or may issue a Change Order to incorporate these alternates within 120 days of the opening of Contractor's Bid or Proposal at the prices offered in the Contractor's Bid or Proposal, unless noted otherwise. A Request for a Change Proposal may be issued after 120 days or other designated time period to negotiate a new price for incorporating the Work into the Project.

B. Allowances:

1. Include the specified allowance amounts in the Contract Price.
2. The amount of each allowance includes:
 - a. The cost of the product to the Contractor less any applicable trade discounts;
 - b. Delivery to the Site; and
 - c. Applicable taxes.
3. Include in the Contract Price all costs for:
 - a. Handling at the Site, including unloading, uncrating, and storage per Section 01 31 00 "Project Management and Coordination."
 - b. Cost for labor and equipment for installation and finishing.
 - c. Cost for related products not specifically listed in the allowance required for installation, including consumable supplies and materials.
 - d. All overhead, profit, and related costs.
4. Assist Owner in the selection of products.
 - a. Identify qualified Suppliers.
 - b. Obtain bids or proposals from qualified Suppliers.

- c. Present available alternates to the Owner through the Construction Manager. Notify Construction Manager of:
 - 1) Any objections to a particular Supplier or product.
 - 2) Effect on the construction schedule anticipated by the selection of each option.
 - 3) Cost of each option.
- 5. Upon selection of the product:
 - a. Purchase and install the product.
 - b. Contractor's responsibilities for products will be the same as for products selected by the Contractor.
- 6. Submit a Change Proposal per Section 01 26 00 "Change Management" to adjust the Contract Price if the net cost of the product is more or less than the specified amount.
 - a. Adjust the unit cost applied to the quantities installed per the method of payment described in Section 01 29 00 "Application for Payment Procedures" for products specified as Unit Price Work.
 - b. Do not perform Work until selection of alternate has been approved by the Owner.
 - c. Provide actual invoices for the materials.

1.02 DOCUMENTATION

- A. Provide documents for materials furnished as part of each alternate in accordance with Section 01 33 00 "Document Management."

1.03 DESCRIPTION OF ALLOWANCES

- A. Allowance – Owner's Allowance - This allowance shall be designated and distributed at the discretion of the Owner and Engineer for the effort and materials used to perform the miscellaneous work related to the construction items not previously identified in the documents. The allowance may be authorized from anywhere from 0% to 100% at the discretion of the Owner and Engineer.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 26 00 CHANGE MANAGEMENT

PART 1 - GENERAL

1.01 REQUESTS FOR CHANGE PROPOSAL

- A. Construction Manager will initiate Modifications by issuing a Request for Change Proposal (RCP).
 - 1. Construction Manager and Design Professional will prepare a description of proposed Modifications.
 - 2. Construction Manager will issue the Request for Change Proposal form to Contractor. A number will be assigned to the Request for a Change Proposal when issued.
 - 3. Return a Change Proposal in accordance with Paragraph **[1.02]** for evaluation by the OPT.

1.02 CHANGE PROPOSALS

- A. Submit a Change Proposal (CP) to the Construction Manager for Contractor initiated changes in the Contract Documents or in response to a Request for Change Proposal. Submit the Change Proposal and attach the forms provided by the Construction Manager.
 - 1. Use the Change Proposal form provided by the Construction Manager.
 - 2. Include with the Change Proposal:
 - a. A complete description of the proposed Modification if Contractor initiated or proposed changes to the OPT's description of the proposed Modification.
 - b. The reason the Modification is requested, if not in response to a Request for a Change Proposal.
 - c. A detailed breakdown of the cost of the change if the Modification requires a change in Contract Price. The itemized breakdown is to include:
 - 1) List of materials and equipment to be installed;
 - 2) Man hours for labor by classification;
 - 3) Equipment used in construction;
 - 4) Consumable supplies, fuels, and materials;
 - 5) Royalties and patent fees;
 - 6) Bonds and insurance;
 - 7) Overhead and profit;
 - 8) Field office costs;
 - 9) Home office cost; and
 - 10) Other items of cost.
 - d. Provide the level of detail outlined in the paragraph above for each Subcontractor or Supplier actually performing the Work if Work is to be provided by a

Subcontractor or Supplier. Indicate appropriate Contractor mark ups for Work provided through Subcontractors and Suppliers. Provide the level of detail outlined in the paragraph above for self-performed Work.

- e. Submit Change Proposals that comply with the General Conditions for Cost of Work.
 - f. Provide a revised schedule. Show the effect of the change on the Project Schedule and the Contract Times.
- B. Submit a Change Proposal to the Construction Manager to request a Field Order.
 - C. A Change Proposal is required for all substitutions or deviations from the Contract Documents.
 - D. Request changes to products in accordance with Section 01 33 02 "Shop Drawings."

1.03 CONSTRUCTION MANAGER WILL EVALUATE THE REQUEST FOR A MODIFICATION

- A. Construction Manager will issue a Modification per the General Conditions if the Change Proposal is acceptable to the Owner. Construction Manager will issue a Change Order or Contract Amendment for any changes in Contract Price or Contract Times.
 - 1. Change Orders and Contract Amendments will be sent to the Contractor for execution with a copy to the Owner recommending approval. A Work Change Directive may be issued if Work needs to progress before the Change Order or Contract Amendment can be authorized by the Owner.
 - 2. Work Change Directives, Change Orders, and Contract Amendments can only be approved by the Owner.
 - a. Work performed on the Change Proposal prior to receiving a Work Change Directive or approval of the Change Order or Contract Amendment is performed at the Contractor's risk.
 - b. No payment will be made for Work on Change Orders or Contract Amendments until approved by the Owner.
- B. Contractor may be informed that the Change Proposal is not approved and construction is to proceed in accordance with the Contract Documents.

1.04 EQUAL NON-SPECIFIED PRODUCTS

- A. The products of the listed manufacturers are to be furnished where the Specifications list several manufacturers and do not specifically list "or equal" or "or approved equal" products. Use of any products other than those specifically listed is a substitution. Follow the procedures in Paragraph 1.05 for a substitution.
- B. Contractor may submit other manufacturers' products that are in full compliance with the Specifications where Specifications list one or more manufacturers followed by the phrase "or equal" or "or approved equal."
 - 1. Submit a Shop Drawing as required by Section 01 33 02 "Shop Drawings" to document that the proposed product is equal or superior to the specified product.

2. Prove that the product is equal. It is not the OPT's responsibility to prove the product is not equal.
 - a. Indicate on a point-by-point basis for each specified feature that the product is equal to the Contract Document requirements.
 - b. Make a direct comparison with the specified manufacturer's published data sheets and available information. Provide this printed material with the Shop Drawing.
 - c. The decision of the Design Professional regarding the acceptability of the proposed product is final.
3. Provide a certification that, in furnishing the proposed product as an equal, the Contractor:
 - a. Has thoroughly examined the proposed product and has determined that it is equal or superior in all respects to the product specified.
 - b. Has determined that the product will perform in the same manner and result in the same process as the specified product.
 - c. Will provide the same warranties and/or bonds as for the product specified.
 - d. Will assume all responsibility to coordinate any modifications that may be necessary to incorporate the product into the construction and will waive all claims for additional Work which may be necessary to incorporate the product into the Project which may subsequently become apparent.
 - e. Will maintain the same time schedule as for the specified product.
- C. A Change Proposal is not required for any product that is in full compliance with the Contract Documents. If the product is not in full compliance, it may be offered as a Substitution.

1.05 SUBSTITUTIONS

- A. Substitutions are defined as any product that the Contractor proposes to provide for the Project in lieu of the specified product. Submit a Change Proposal per Paragraph **[1.02]** along with documents required for a Shop Drawing as required by Section 01 33 02 "Shop Drawings" to request approval of a substitution.
- B. Prove that the product is acceptable as a substitute. It is not the Design Professional's responsibility to prove the product is not acceptable as a substitute.
 1. Indicate on a point-by-point basis for each specified feature that the product is acceptable to meet the intent of the Contract Documents requirements.
 2. Make a direct comparison with the specified Suppliers published data sheets and available information. Provide this printed material with the Shop Drawing.
 3. The decision of the Design Professional regarding the acceptability of the proposed substitute product is final.

- C. Provide a certification that, in making the substitution request, the Contractor:
 - 1. Has determined that the substituted product will perform in substantially the same manner and result in the same ability to meet the specified performance as the specified product;
 - 2. Will provide the same warranties and/or bonds for the substituted product as specified or as would be provided by the manufacturer of the specified product;
 - 3. Will assume all responsibility to coordinate any modifications that may be necessary to incorporate the substituted product into the Project and will waive all claims for additional Work which may be necessary to incorporate the substituted product into the Project which may subsequently become apparent; and
 - 4. Will maintain the same time schedule as for the specified product.
- D. Pay for review of substitutions in accordance with Section 01 33 02 "Shop Drawings."

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 29 00 APPLICATION FOR PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. Submit Applications for Payment for completed Work and for materials and equipment in accordance with the General Conditions, the Supplementary Conditions, the Agreement, and this Section. The Contract Price is to include costs for:
 - 1. Providing the Work in accordance with the Contract Documents;
 - 2. Installing Owner furnished equipment and materials, if any;
 - 3. Providing Work for alternates and allowances, if any;
 - 4. Providing Work for extra work items, if any and if authorized
 - 5. Commissioning, startup, training, and initial maintenance and operation;
 - 6. Acceptance testing at the manufacturer's facilities or at the Site;
 - 7. All home office overhead costs and expenses, including profit made directly or indirectly from the Project;
 - 8. Project management, contract administration, and field office and field operations staff including supervision, clerical support, and technology system support;
 - 9. Professional services including design fees, legal fees, and other professional services;
 - 10. Bonds and insurance;
 - 11. Permits, licenses, patent fees, and royalties;
 - 12. Taxes;
 - 13. Providing all documentation and Samples required by the Contract Documents;
 - 14. Facilities and equipment at the Site including:
 - a. Field offices, office furnishings, and all related office supplies, software, and equipment,
 - b. Storage facilities for Contractor's use and storage facilities for stored materials and equipment including spare parts storage,
 - c. Shops, physical plant, construction equipment, small tools, vehicles, and technology and telecommunications equipment,
 - d. Safety equipment and facilities to provide safe access and working conditions for workers and for others working at the Site,
 - e. Temporary facilities for power and communications,
 - f. Potable water and sanitation facilities, and
 - g. Mobilization and demobilization for all these facilities and equipment.
 - 15. Products, materials, and equipment stored at the Site or other suitable location in accordance with Section 01 31 00 "Project Management and Coordination";

16. Products, materials, and equipment permanently incorporated into the Project;
 17. Temporary facilities for managing water including facilities for pumping, storage, and treatment as required for construction and protection of the environment;
 18. Temporary facilities for managing environmental conditions and Constituents of Concern;
 19. Temporary facilities such as sheeting, shoring, bracing, formwork, embankments, storage facilities, working areas, and other facilities required for construction of the Project;
 20. Temporary and permanent facilities for protection of all overhead, surface, or underground structures or features;
 21. Temporary and permanent facilities for removal, relocation, or replacement of any overhead, surface, or underground structures or features;
 22. Products, materials, and equipment consumed during the construction of the Project;
 23. Contractor labor and supervision to complete the Project including that provided through Subcontractors or Suppliers;
 24. Correcting Defective Work during the Contract Times, during the Correction Period, or as required to meet any warranty provision of the Contract Documents;
 25. Risk associated with weather and environmental conditions, startup, and initial operation of facilities including equipment, processes, and systems;
 26. Contractor safety programs, including management, administration, and training;
 27. Maintenance of facilities including equipment, processes, and systems until operation is transferred to Owner;
 28. Warranties, extended or special warranties, or extended service agreements;
 29. Cleanup and disposal of any and all surplus materials; and
 30. Demobilization of all physical, temporary facilities not incorporated into the Project.
- B. Include the cost not specifically set forth as an individual payment item but required to provide a complete and functional system in the Contract Price.
 - C. Provide written approval of the surety company providing performance and payment bonds for the Schedule of Values, Application for Payment form, and method of payment prior to submitting the first Application for Payment. Submit approval using the "Consent of Surety Company to Payment Procedures" form provided by the Construction Manager. Payment will not be made without this approval.
 - D. Construction Manager may withhold processing the Applications for Payment if any of the following processes or documentation is not up to date:
 1. Progress Schedule per Section 01 33 05 "Construction Progress Schedule."
 2. Project videos and photographs per Section 01 33 06 "Graphic Documentation."
 3. Record Documents per Section 01 31 13 "Project Administration."

1.02 SCHEDULE OF VALUES

- A. Divide the Contract Price into an adequate number of line items to allow more accurate determination of the earned value for each line item when evaluating progress payments. Submit a detailed Schedule of Values for the Project at least 10 days prior to submitting the first Application for Payment using forms provided by the Construction Manager.
- B. Do not apply for payment until the Schedule of Values has been approved by the Construction Manager.
- C. Divide the cost associated with each line item in the Schedule of Values into installation and materials components.
 - 1. Installation cost is to include all cost associated with the line item except materials cost.
 - 2. Materials cost is the direct cost (as verified by invoice values) for products, materials, and equipment to be permanently incorporated into the Project associated with the line item.
 - 3. Installation cost is to include all direct costs and a proportionate amount of the indirect costs for the Work associated with each line item. Include costs not specifically set forth as an individual payment item but required to provide a complete and functional system.
 - 4. The sum of materials and installation costs for all line items must equal the Contract Price.
- D. Use each unit price line item in the Agreement as a line item in the Schedule of Values. The sum of materials and installation costs for each line item for unit price contracts must equal the value of the line item in the Agreement. In addition to the installation cost described in Paragraph 1.02.C.3, installation costs for unit price items are to include costs for waste and overages.
 - 1. Installation and materials cost may be left as a single installation component if:
 - a. Contractor does not intend to request payment for stored materials for that line item; or
 - b. Work in the line item will be completed within a single payment period.
 - 2. Provide adequate detail to allow a more accurate determination of the earned value for installation costs, expressed as a decimal fraction of Work completed, for each line item.
 - 3. Installation cost line items may not exceed \$50,000.00. Items that are not subdivided into smaller units may only be included in the Application for Payment when Work on the entire unit is complete.
 - 4. Lump sum items may be divided into an estimated number of units to estimate earned value. The estimated number of units times the cost per unit must equal the lump sum amount for that line item.
 - 5. Include Contractor's overhead and profit in the installation costs each line item in proportion to the value of the line item to the Contract Price.

6. Include cost not specifically set forth as an individual payment item but required to provide a complete and functional system in the Contract Price for each item.
 7. Line items may be used to establish the value of Work to be added or deleted from the Project.
- E. Include a breakdown of both mobilization and demobilization costs in the Schedule of Values. The total cost for both mobilization and demobilization may not exceed 5% percent of the total Contract Price. Payment for mobilization and demobilization will be based on the earned value of Work completed. Payment for these costs will only be made for Work completed for the following:
1. Bonds and insurance;
 2. Transportation and setup for equipment;
 3. Transportation and/or erection of all field offices, sheds, and storage facilities;
 4. Salaries for preparation of documents required before the first Application for Payment; and
 5. Salaries for field personnel directly related to the mobilization of the Project.

1.03 SCHEDULE OF ANTICIPATED PAYMENTS

- A. Submit a schedule of the anticipated Application for Payments showing the anticipated application numbers, submission dates, and the amount to be requested for each Application for Payment on the form provided by the Construction Manager.
- B. Update the schedule of anticipated payments as necessary to provide a reasonably accurate indication of the funds required to make payments each month to the Contractor for Work performed.

1.04 ALTERNATES, ALLOWANCES, AND EXTRA WORK ITEMS

- A. Include line items and amounts for specified alternate Work and allowances for Work in the Agreement, if any, and as described in Section 01 23 10 "Alternates and Allowances."
- B. Include line items and amounts for Extra Work items in the Agreement, if any, and as described in Section 01 29 01 "Measurement and Basis for Payment."

1.05 RETAINAGE AND SET-OFFS

- A. Retainage will be withheld from each Application for Payment per the Agreement.
- B. Reduce payments for set-offs per the General Conditions as directed by the Construction Manager.

1.06 PROCEDURES FOR SUBMITTING AN APPLICATION FOR PAYMENT

- A. Submit a draft Application for Payment to the Construction Manager each month at least 10 days before the date established in the Agreement for Owner to make progress payments. Do not submit Applications for Payment more often than monthly. Review the

draft Application for Payment with the Construction Manager to determine concurrence with:

1. Values requested for materials and equipment, stored or incorporated into the Project as documented by invoices;
 2. The earned value for installation costs for each line item in the Application for Payment form expressed as a percent complete for that line item;
 3. The quantity of Work completed for each unit price item;
 4. Amount of retainage to be withheld; and
 5. Set-offs included in the Application for Payment.
- B. Submit Applications for Payment to the Construction Manager after agreement has been reached on the draft Application for Payment with the Construction Manager.
- C. Provide all information requested in the Application for Payment form. Do not leave any blanks incomplete. If information is not applicable, enter "N/A" in the space provided.
1. Number each application sequentially and include the dates for the application period.
 2. Complete the "Contract Time Summary" section on the Application for Payment form. If the Final Completion date shows the Project is more than 30 days behind schedule, revise the Schedule of Anticipated Payments to correspond to the updated schedule required per Section 01 33 05 "Construction Progress Schedule."
 3. Complete the "Summary of Earned Value and Set-offs" section on the Application for Payment form. Show the total amounts for earned value of original Contract performed, earned value for Work on approved Contract Amendments and Change Orders, retainage and set-offs.
 4. Sign and date the Contractor's Certification on the Application for Payment form that all Work, including materials, covered by this Application for Payment have been completed or delivered and stored in accordance with the Contract Documents, that all amounts have been paid for Work, materials, and equipment for which previous Payment has been made by the Owner, and that the current payment amount shown in this Application for Payment is now due.
 5. Include "Attachment A - Tabulation of Earned Value of Original Contract Performed" to show the value of materials stored and successfully incorporated into the Project and the earned value for installation of the Work for each line item in the Application for Payment for Work. Attachment A includes Work on the original Contract Price and on approved Contract Amendments and Change Orders.
 6. Include "Attachment B - Tabulation of Values for Materials and Equipment" to track invoices used to support amounts requested as materials in Attachment A. Enter materials to show the amount of the invoice assigned to each item in Attachment A if an invoice includes materials used on several line items.
 7. Include "Attachment C - Summary of Set-offs" to document set-offs made per the Contract Documents. Show each set-off as it is applied. Show a corresponding line item to reduce the set-off amount if a payment held by a set-off is released for payment.

8. Include "Attachment D - Retainage Calculation" to show method for calculating retainage. The amount of retainage with respect to progress payments is stipulated in the Agreement. Any request for a reduction in retainage must be accompanied by a Consent of Surety to Reduction or Partial Release of Retainage.
 9. Include "Attachment E - EVA Calculation" and the EVA Chart showing the anticipated and actual total earned value of fees, Work, and materials. Create a graphic representation (curve) of the anticipated progress on the Project each month. Compare the anticipated cumulative total earned value of fees, Work, and materials to the actual total earned value of fees, Work, and materials to determine performance on budget and schedule. Adjust the table and curve to incorporate Modifications.
- D. Submit attachments in Portable Document Format (PDF).
1. Generate attachments to the Application for Payment using the Excel spreadsheet provided by the Construction Manager.
 2. Submit PDF documents with adequate resolution to allow documents to be printed in a format equivalent to the document original. Documents are to be scalable to allow printing on standard 8-1/2 x 11 or 11 x 17 paper.

1.07 ADJUSTMENTS TO THE SCHEDULE OF VALUES IN THE APPLICATION FOR PAYMENT

- A. Submit a Change Proposal to request any changes to the Schedule of Values incorporated into the Application for Payment once approved. A Field Order will be issued by the Construction Manager to modify the Application for Payment form if approved.
- B. Payment for materials and equipment shown in the Application for Payment will be made for the total of associated invoice amounts, up to the value shown for materials in the Application for Payment for that line item.
 1. If the total amount for invoices for materials and equipment for a line item are less than the amount shown for the materials component of that line item in the Application for Payment, and it can be demonstrated that no additional materials or equipment are required to complete Work described in that item, the difference between the total invoice for materials and equipment and the materials component for that line item can be added to the installation component of that Work item.
 2. Costs for material and equipment in excess of the value shown in the Schedule of Values may not be paid for under other line items.

1.08 CONSTRUCTION MANAGER'S RESPONSIBILITY

- A. Construction Manager will review each draft Application for Payment with Contractor to reach an agreement on the amount to be recommended to Owner for payment. Contractor is to revise the Application for Payment to incorporate changes, if any, resulting from this review process.
- B. Construction Manager will review the Application for Payment to determine that the Application for Payment has been properly submitted and is in accordance with the agreed to draft Application for Payment.
- C. Construction Manager will either recommend payment of the Application for Payment to Owner or notify the Contractor of the reasons for not recommending payment. Contractor

may make necessary corrections and resubmit the Application for Payment. Construction Manager will review resubmitted Application for Payment and reject or recommend payment of the Application for Payment to Owner as appropriate.

- D. Construction Manager's recommendation of the Application for Payment constitutes a representation that based on its experience and the information available:
 - 1. The Work has progressed to the point indicated;
 - 2. The quality of the Work is generally in accordance with the Contract Documents; and
 - 3. Requirements prerequisite to payment have been met.
- E. This representation is subject to:
 - 1. Further evaluation of the Work as a functioning whole;
 - 2. The results of subsequent tests called for in the Contract Documents; or
 - 3. Any other qualifications stated in the recommendation.
- F. Construction Manager does not represent by recommending payment that:
 - 1. Inspections made to check the quality or the quantity of the Work as it was performed were exhaustive or extended to every aspect of the Work in progress; or
 - 2. Other matters or issues that might entitle Contractor to additional compensation or entitle Owner to withhold payment to Contractor exist.
- G. Neither Construction Manager's review of Contractor's Work for the purposes of recommending payments nor Construction Manager's recommendation of payment imposes responsibility on the Construction Manager or Owner:
 - 1. To supervise, direct, or control the Work;
 - 2. For the means, methods, techniques, sequences, or procedures of construction, or safety precautions and programs;
 - 3. For Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - 4. To make examinations to ascertain how or for what purposes Contractor has used the monies paid on account of the Contract Price; or
 - 5. To determine that title to the Work, materials, or equipment has passed to Owner free and clear of Liens.

1.09 FINAL APPLICATION FOR PAYMENT

- A. Include adjustments to the Contract Price in the final Application for Payment for:
 - 1. Approved Change Orders and Contract Amendments;
 - 2. Allowances not previously adjusted by Change Order;
 - 3. Deductions for Defective Work that have been accepted by the Owner;
 - 4. Penalties and bonuses;
 - 5. Deduction for all final set-offs; and

6. Other adjustments if needed.
- B. Construction Manager will prepare a final Change Order reflecting the approved adjustments to the Contract Price which have not been covered by previously approved Change Orders and, if necessary, to reconcile estimated unit price quantities with actual quantities.
- C. Submit the final Application for Payment per the General Conditions, including the final Change Order. Provide the following with the final Application for Payment:
 1. Evidence of payment or release of Liens on the forms provided by the Construction Manager and as required by the General Conditions.
 2. Consent from surety to final payment.
- D. Final payment will also require additional procedures and documentation per Section 01 70 00 "Execution and Closeout Requirements."

1.10 PAYMENT BY OWNER

- A. Owner is to pay the amount recommended for monthly payments within 30 days after receipt of the Construction Manager's recommended Application for Payment.
- B. Final payment may take longer than 30 days since Owner's council must approve final payment.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 29 01 MEASUREMENT AND BASIS FOR PAYMENT

PART 1 - GENERAL

1.01 PAYMENT FOR MATERIALS AND EQUIPMENT

- A. Payment will be made for materials and equipment materials properly stored and successfully incorporated into the Project less the specified retainage.
- B. Provide a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of Liens. Provide documentation of payment for materials and equipment with the next Application for Payment. Remove items from the tabulation of materials and equipment if this documentation is not provided with the next Application for Payment.
- C. Provide evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest.
- D. The Work covered by progress payments becomes the property of the Owner at the time of payment. The Contractor's obligations with regard to proper care and maintenance, insurance, and other requirements are not changed by this transfer of ownership until final acceptance in accordance with the General Conditions.
- E. Payment for materials and equipment does not constitute acceptance of the product.

1.02 MEASUREMENT AND BASIS FOR PAYMENTS ON LUMP SUM ITEMS

- A. Measurement for progress payments is the invoice value for stored materials and the earned value for all other cost for constructing each item. Earned value is expressed as the value of the Work completed divided by the total value of installation cost. The total amount paid will be equal to the total lump sum amount for that item.

1.03 MEASUREMENT AND BASIS FOR PAYMENTS ON UNIT PRICE ITEMS

- A. Measure the Work using the unit of measure indicated in this Section for each unit price line item. Payment will be made only for the actual measured unit and/or computed length, area, solid contents, number, and weight unless other provisions are made in the Contract Documents. Payment on a unit price basis will not be made for Work outside dimensions shown in the Contract Documents.
- B. Payment will be made for the actual quantity of Work completed and for materials and equipment stored during the payment period. Payment amount is the Work quantity measured per Paragraph A above multiplied by the unit price for that line item in the Agreement.

1.04 MEASUREMENT AND BASIS FOR PAYMENT FOR BASE ITEMS

- A. Items 1 - 24
 - 1. To be measured and paid for as described in Oklahoma Department of Transportation Standard Specifications 2019.
- B. Item 25 – OWNER'S ALLOWANCE

1. Include the specified allowance amounts in the Contract Price.
2. This allowance shall be designated and distributed at the discretion of the Owner and Engineer for the effort and materials used to perform the miscellaneous work related to the construction items not previously identified in the documents. The allowance may be authorized from anywhere from 0% to 100% at the discretion of the Owner and Engineer.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 31 00 PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Furnish resources required to complete the Project in accordance with the Contract Documents and within the Contract Times.
- B. Construct Project in accordance with current safety practices.
- C. Manage Site to allow access to Site and control construction operations.
- D. Construct temporary facilities to provide and maintain control over environmental conditions at the Site. Remove temporary facilities when no longer needed.
- E. Provide temporary controls for pollution, management of water, and management of excess earth as required in Section 01 57 00 "Temporary Controls."

1.02 STANDARDS

- A. Perform Work to comply with:
 - 1. Requirements of the Contract Documents;
 - 2. Laws and Regulations; and
 - 3. Specified industry standards.

1.03 DOCUMENTATION

- A. Provide documents in accordance with Section 01 33 00 "Document Management."
- B. Provide copies of Supplier's printed storage instructions prior to furnishing materials or products and installation instructions prior to beginning the installation.
- C. Incorporate field notes, sketches, recordings, and computations made by the Contractor in Record Drawings per Section 01 31 13 "Project Administration."

1.04 PERMITS

- A. Obtain building permits for the Project from the local authorities having jurisdiction. Pay building permit fees and include these costs in the Contract Price.
- B. Obtain environmental permits required for construction at the Site.
- C. Provide required permits for transporting heavy or oversized loads.
- D. Provide other permits required to conduct any part of the Work.
- E. Arrange for inspections and certification by agencies having jurisdiction over the Work and include the cost for these inspections and certifications in the Contract Price.
- F. Make arrangements with private utility companies and pay fees associated with obtaining services or inspections.
- G. Retain copies of permits and licenses at the Site and comply with all regulations and conditions of the permit or license.

1.05 SAFETY REQUIREMENTS

- A. Manage safety to protect the safety and welfare of persons at the Site.
- B. Provide safe access to move through the Site. Provide protective devices to warn and protect from hazards at the Site.
- C. Provide safe access for those performing tests and inspections.
- D. Maintain a supply of personal protective equipment for visitors to the Site.
- E. Comply with latest provisions of the Occupational Health and Safety Administration (OSHA) and other Laws and Regulations.
- F. Cooperate with accident investigations. Provide two copies of all reports, including insurance company reports, prepared concerning accidents, injuries, or deaths related to the Project to the Construction Manager as Record Data per Section 01 31 13 "Project Administration."

1.06 ACCESS TO THE SITE

- A. Maintain access to the facilities at all times. Do not obstruct roads, pedestrian walks, or access to the various buildings, structures, stairways, or entrances. Provide safe access for normal operations during construction.
- B. Provide adequate and safe access for inspections. Leave ladders, bridges, scaffolding, and protective equipment in place until inspections have been completed. Construct additional safe access if required for inspections.
- C. Use roadways for construction traffic only with written approval of the appropriate representatives of each entity. Roadways may not be approved for construction traffic. Obtain written approval to use roads to deliver heavy or oversized loads to the Site. Furnish copies of the written approvals to the Construction Manager as Record Data per Section 01 31 13 "Project Administration."

1.07 CONTRACTOR'S USE OF THE SITE

- A. Limit the use of Site for Work and storage to those areas designated on the Drawings or approved by the Construction Manager. Coordinate the use of the Site with the Construction Manager.
- B. Provide security at the Site as necessary to protect against vandalism and loss by theft.
- C. Park construction equipment in designated areas only and provide spill control measures as discussed in Section 01 57 00 "Temporary Controls."
- D. Park employees' vehicles in designated areas only.
- E. Obtain written permission of the property owner before entering privately-owned land outside of the Owner's property, rights-of-way, or easements.
- F. Cooperate with public and private agencies with facilities operating within the limits of the Project. Provide 48 hours' notice to any applicable agency when Work is anticipated to proceed in the vicinity of any facility by using Oklahoma's One-Call System, OKIE811 at 1-800-522-OKIE.

G. Conduct of Contractor's or Subcontractor's Employees:

1. Do not permit alcoholic beverages or illegal substances on the Site. Do not allow persons under the influence of alcoholic beverages or illegal substances to enter or remain on the Site at any time. Persons on Site under the influence of alcoholic beverages or illegal substances will be permanently prohibited from returning to the Site. Criminal or civil penalties may also apply.
2. Do not allow the use of offensive language or sexual harassment in any form. These actions will cause immediate and permanent removal of the offender from the premises. Criminal or civil penalties may apply.
3. Require workers to wear clothing that is inoffensive and meets safety requirements. Do not allow sleeveless shirts, shorts, or any exceedingly torn, ripped, or soiled clothing to be worn on the Site.
4. Do not allow the use, possession, concealment, transportation, promotion, or sale of the following prohibited items anywhere on the Site:
 - a. Firearms (including air rifles and pistols and BB or pellet guns) and ammunition;
 - b. Bows, crossbows, arrows, bolts, or any other projectile weapons;
 - c. Explosives of any kind, including fireworks;
 - d. Illegal knives;
 - e. Other weapons prohibited by state Laws and Regulations; and
 - f. Any other item that has been designed or intended to be used as a weapon.

No exceptions will be made for the possession of a firearm by a person that has a valid state-issued license to carry a firearm. Remove any of the prohibited items listed above from the Site immediately and permanently. Any person found to be in possession of any prohibited item must also be removed from the Site and may be reported to local law enforcement.

1.08 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

- A. Examine the Site and review the available information concerning the Site. Locate utilities, underground facilities, and existing structures. Verify the elevations of the structures adjacent to excavations. Report any discrepancies from information in the Contract Documents to the Construction Manager before beginning construction.
- B. Determine if existing structures, poles, piping, or other utilities at excavations will require relocation or replacement. Prepare a Plan of Action per Section 01 31 13 "Project Administration." Coordinate Work with local utility company and others for the relocation or replacement.
- C. Protect utilities, underground facilities and existing structures unless they are shown to be replaced or relocated on the Drawings. Restore damaged items to the satisfaction of the Owner and utility or property owner.
- D. Carefully support and protect all structures and/or utilities so that there will be no failure or settlement where excavation or demolition endangers adjacent structures and utilities. Do not take existing utilities out of service unless required by the Contract Documents or

approved by the Construction Manager. Notify and cooperate with the utility owner if it is necessary to move services, poles, guy wires, pipelines, or other obstructions.

- E. Protect existing trees and landscaping at the Site. Mark trees that may be removed during construction and review with the Construction Manager for approval before removing. Protect trees to remain from damage limiting activity, including stockpiling of materials within the drip line of the tree.
- F. Protect buildings from damage when handling material or equipment. Protect finished surfaces, including floors, doors, and jambs. Remove doors and install temporary wood protective coverings over jambs, if needed.

1.09 DISRUPTION TO SERVICES/CONTINUED OPERATIONS

- A. Owner's facilities are to continue in service as usual during the construction unless noted otherwise. Owner or utilities must be able to operate and maintain the facilities. Keep disruptions to existing utilities, piping, process piping, or electrical services to a minimum.
 - 1. Do not restrict access to critical valves, operators, or electrical panels.
 - 2. Do not store material or products inside structures unless authorized by the Construction Manager.
 - 3. Limit operations to the minimum amount of space needed to complete the specified Work.
 - 4. Maintain storm sewers and sanitary sewers in service at all times. Provide temporary service around the construction or otherwise construct the Work in a manner that flow is not restricted.
- B. Provide a Plan of Action in accordance with Section 01 35 00 "Special Procedures" if facilities must be taken out of operation.

1.10 FIELD VERIFICATION

- A. Perform complete field measurements prior to purchasing products or beginning construction for products required to fit existing conditions.
- B. Verify property lines, control lines, grades, and levels indicated on the Drawings.
- C. Verify pipe class, equipment capacities, existing electrical systems, and power sources for existing conditions.
- D. Check Shop Drawings and indicate the actual dimensions available where products are to be installed.
- E. Include field measurements in Record Documents as required in Section 01 31 13 "Project Administration."

1.11 REFERENCE DATA AND CONTROL POINTS

- A. Construction Manager will provide the following control points:
 - 1. Base line or grid reference points for horizontal control.
 - 2. Benchmarks for vertical control.

- B. Locate and protect control points prior to starting the Work and preserve permanent reference points during construction. Designated control points may be on an existing structure or monument. Do not change or relocate points without prior approval of the Construction Manager. Notify Construction Manager when a reference point is lost, destroyed, or requires relocation. Replace Project control points on the basis of the original survey. Control points or benchmarks damaged, disturbed or destroyed as a result of the Contractor's negligence will be restored by the Construction Manager. Owner will impose a set-off as compensation for the effort required.
- C. Provide complete engineering layout of the Work needed for construction.
 - 1. Provide competent personnel. Provide equipment including accurate surveying instruments, stakes, platforms, tools, and materials.
 - 2. Provide surveying with accuracy meeting the requirements established by the Oklahoma State Board of Licensure for Professional Engineers and Land Surveyors.
 - 3. Provide Record Data per Section 01 31 13 "Project Administration" and measurements per standards.

1.12 DELIVERY AND STORAGE

- A. Deliver products and materials to the Site in time to prevent delays in construction.
- B. Deliver packaged products to Site in original undamaged containers with identifying labels attached. Open cartons as necessary to check for damage and to verify invoices. Reseal cartons and store properly until used. Leave products in original packages or other containers until installed. If original packages or containers are damaged, repackage in containers and include packing slips, labels and other information from the original packaging.
- C. Deliver products that are too large to fit through openings to the Site in advance of the time enclosing walls and roofs are erected. Set in place, raised above floor on cribs or pallets.
- D. Assume full responsibility for the protection and safekeeping of products stored at the Site.
- E. Store products at locations acceptable to the Construction Manager and to allow Owner access to maintain and operate existing facilities.
- F. Store products in accordance with the Supplier's storage instructions immediately upon delivery. Leave seals and labels intact. Arrange storage to allow access for maintenance of stored items and for inspection. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.
- G. Provide additional storage areas as needed for construction. Store products subject to damage by elements in substantial weather-tight enclosures or storage sheds. Provide and maintain storage sheds as required for the protection of products. Provide temperature, humidity control, and ventilation within the ranges stated in the Supplier's instructions. Remove storage facilities at the completion of the Project.
- H. Protect the pipe interior. Keep all foreign materials such as dirt, debris, animals, or other objects out of the pipe during the Work.
- I. Provide adequate exterior storage for products that may be stored out-of-doors.

1. Provide substantial platforms, blocking, or skids to support materials and products above ground which has been sloped to provide drainage. Protect products from soiling or staining.
 2. Cover products subject to discoloration or deterioration from exposure to the elements, with impervious sheet materials. Provide ventilation to prevent condensation below covering.
 3. Store loose, granular materials on clean, solid surfaces, or on rigid sheet materials, to prevent mixing with foreign matter.
 4. Provide surface drainage to prevent erosion and ponding of water.
 5. Prevent mixing of refuse or chemically injurious materials or liquids with stored materials.
 6. Pipes and conduits stored outdoors are to have open ends sealed to prevent the entrance of dirt, moisture, and other injurious materials. Protect PVC pipe from ultraviolet light exposure.
 7. Store products to prevent wind damage.
- J. Protect and maintain mechanical and electrical equipment in storage.
1. Provide Supplier's service instructions on the exterior of the package.
 2. Service equipment on a regular basis as recommended by the Supplier. Maintain a log of maintenance services. Submit the log as Record Data per Section 01 31 13 "Project Administration" when Owner assumes responsibility for maintenance and operation.
 3. Provide power to and energize space heaters for all equipment for which these devices are provided.
 4. Provide temporary enclosures for all electrical equipment, including electrical systems on mechanical devices. Provide and maintain heat in the enclosures until equipment is energized.
- K. Maintain storage facilities. Inspect stored products on a weekly basis and after periods of severe weather to verify that:
1. Storage facilities continue to meet specified requirements;
 2. Supplier's required environmental conditions are continually maintained; and
 3. Products that can be damaged by exposure to the elements are not adversely affected.
- L. Replace any stored item damaged by inadequate protection or environmental controls.
- M. Payment may be withheld for any products not properly stored.

1.13 CLEANING DURING CONSTRUCTION

- A. Provide positive methods to minimize raising dust from construction operations and provide positive means to prevent air-borne dust from discharging into the atmosphere. Control dust and dirt from demolition, cutting, and patching operations.

- B. Clean the Site as Work progresses and dispose of waste materials, keeping the Site free from accumulations of waste or rubbish. Provide containers at the Site for waste collection. Do not allow waste materials or debris to blow around or off of the Site. Control dust from waste materials. Transport waste materials with as few handlings as possible.
- C. Comply with Laws and Regulations. Do not burn or bury waste materials. Remove waste materials, rubbish, and debris from the Site and legally dispose of these at public or private disposal facilities.

1.14 MAINTENANCE OF ROADS, DRIVEWAYS, AND ACCESS

- A. Maintain roads and streets in a manner that is suitable for safe operations of public vehicle during all phases of construction unless the Owner approves a street closing. Do not close public roads overnight. Coordinate and arrange for emergency vehicle access when streets are to be closed.
- B. Submit a Notification by Contractor for Owner's approval of a street closing. The request must state:
 - 1. The reason for closing the street.
 - 2. How long the street will remain closed.
 - 3. Procedures to be taken to maintain the flow of traffic.
- C. Obtain permits and permissions of the entity that owns the road prior to any Work and provide a copy of the permit or permission Record Data per Section 01 31 13 "Project Administration."
- D. Construct temporary detours, including by-pass roads around construction, with adequately clear width to maintain the free flow of traffic at all times. Maintain barricades, signs, and safety features around the detour and excavations. Maintain barricades, signs, and safety features around the Work in accordance with all provisions of the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- E. Assume responsibility for any damage resulting from construction along roads or drives.

1.15 BLASTING

- A. Blasting is not allowed for any purpose.

1.16 ARCHAEOLOGICAL REQUIREMENTS

- A. Cease operations immediately and contact the Owner for instructions if historical or archaeological artifacts are found during construction.
- B. Conduct all construction activities to avoid adverse impact of the sites where significant historical or archaeological artifacts are found or identified as an area where other artifacts could be found.
 - 1. Obtain details for working in these areas from regulatory agencies.
 - 2. Maintain confidentiality regarding the site(s) of artifacts.
 - 3. Adhere to the requirements of applicable local, state, and federal Laws and Regulations.

4. Notify the Construction Manager and any local, state, or federal agency as required by applicable Laws and Regulations.
- C. Do not disturb archaeological sites.
 1. Obtain the services of a qualified archaeological specialist to instruct construction personnel on how to identify and protect archaeological finds on an emergency basis.
 2. Coordinate activities to permit archaeological work to take place within the area.
 - a. Attempt to archaeologically clear areas needed for construction as soon as possible.
 - b. Provide a determination of priority for such areas.
- D. Assume responsibility for any unauthorized destruction that might result to such sites by construction personnel, and pay all penalties assessed by state or federal agencies for non-compliance with these requirements.
- E. Contract Times will be modified to compensate for delays caused by such archaeological finds. No additional compensation will be paid for delays.

1.17 ENDANGERED SPECIES RESOURCES

- A. Do not perform any activity that is likely to destroy or adversely modify the habitat or jeopardize the continued existence of a threatened or endangered species as listed or proposed for listing under the Federal Endangered Species Act (ESA) or applicable state Laws and Regulations.
- B. Cease Work immediately in the area of the encounter and notify the Construction Manager if a threatened or endangered species is encountered during construction. Construction Manager will implement actions in accordance with the ESA and applicable state statutes. Resume construction in the area of the encounter when authorized to do so by the Construction Manager.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 31 13 PROJECT ADMINISTRATION

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Administer contract requirements to construct the Project. Provide documentation per the requirements of this Section. Provide information as requested by the OPT.

1.02 DOCUMENTATION

- A. Provide documents in accordance with Section 01 33 00 "Document Management."

1.03 COMMUNICATION DURING THE PROJECT

- A. Construction Manager is to be the first point of contact for all parties on matters concerning this Project.
- B. Construction Manager will coordinate correspondence concerning:
 - 1. Contract administration;
 - 2. Clarification and interpretation of the Contract Documents;
 - 3. Contract modifications;
 - 4. Observation of Work and testing; and
 - 5. Claims.
- C. Construction Manager will normally communicate only with the Contractor. Any required communication with Subcontractors or Suppliers will only be with the direct involvement of the Contractor.
- D. Direct written communications to the Construction Manager at the address indicated at the pre-construction conference. Include the following with communications as a minimum:
 - 1. Name of the Owner;
 - 2. Project name;
 - 3. Contract title;
 - 4. Project number;
 - 5. Date; and
 - 6. A reference statement.
- E. Submit communications on the forms referenced in this Section or in Section 01 33 00 "Document Management."

1.04 PROJECT MEETINGS

- A. Pre-Construction Conference:
 - 1. Attend a pre-construction conference;
 - 2. The location of the conference will be determined by the Construction Manager;

3. The time of the conference will be determined by the Construction Manager, but will be after the Notice of Award is issued and not later than 15 days after the Notice to Proceed is issued;
 4. OPT, Contractor's project manager and superintendent, representatives of utility companies, and representatives from major Subcontractors and Suppliers may attend the conference; and
 5. Provide and be prepared to discuss:
 - a. Preliminary construction schedule per Section 01 33 05 "Construction Progress Schedule";
 - b. Preliminary Schedule of Documents per Section 01 33 00 "Document Management";
 - c. Schedule of Values and anticipated schedule of payments per Section 01 29 00 "Application for Payment Procedures";
 - d. List of Subcontractors and Suppliers;
 - e. Contractor's organizational chart as it relates to this Project; and
 - f. Letter indicating the agents of authority for the Contractor and the limit of that authority with respect to the execution of legal documents, contract modifications, and payment requests.
- B. Progress Meetings:
1. Attend meetings with the Construction Manager, Design Professional, and Owner.
 - a. Meet monthly or as requested by the Construction Manager to discuss the Project.
 - b. Meet at the Site or other location as designated by the Construction Manager.
 - c. Contractor's superintendent and other key personnel are to attend the meeting. Other individuals may be requested to attend to discuss specific matters.
 - d. Notify the Construction Manager of any specific items to be discussed a minimum of 1 week prior to the meeting.
 2. Provide information as requested by the Construction Manager, Design Professional or Owner concerning this Project. Prepare to discuss:
 - a. Status of overall project schedule;
 - b. Contractor's detailed schedule for the next month;
 - c. Anticipated delivery dates for equipment;
 - d. Coordination with the Owner;
 - e. Status of documents;
 - f. Information or clarification of the Contract Documents;
 - g. Claims and proposed modifications to the Contract;
 - h. Field observations, problems, or conflicts; and

- i. Maintenance of quality standards.
- 3. Construction Manager will prepare a record of meeting proceedings. Review the record of the meeting and notify the Construction Manager of any discrepancies within 10 days of the date the record of the meeting is provided. The record will not be corrected after the 10 days have expired. Corrections will be reflected in the record of the following meeting.
- C. Pre-Documentation and Pre-Installation Meetings:
 - 1. Conduct pre-documentation and pre-installation meetings as required in the individual technical Specifications or as determined necessary by the Construction Manager (for example, instrumentation, roofing, concrete mix design, etc.).
 - 2. Set the time and location of the meetings when ready to proceed with the associated Work. Submit a Notification by Contractor in accordance with Paragraph **[1.07]** for the meeting 2 weeks before the meeting. OPT must approve of the proposed time and location.
 - 3. Attend the meeting and require the participation of appropriate Subcontractors and Suppliers in the meeting.
 - 4. Construction Manager will prepare a record of meeting proceedings. Review the record of the meeting and notify the Construction Manager of any discrepancies within 10 days of the date the record of the meeting is provided. The record will not be corrected after the 10 days have expired. Corrections will be reflected in the record of the following meeting.
- D. Weekly Coordination Meetings: Meet on a weekly basis with the Construction Manager or designated on-site representative of the OPT to discuss Work planned for the following week, review coordination issues, testing required, or other issues. Records of these meetings are not required.

1.05 REQUESTS FOR INFORMATION

- A. Submit a Request for Information to the Construction Manager to obtain additional information or clarification of the Contract Documents.
 - 1. Submit a separate Request for Information for each item on the form provided by the Construction Manager.
 - 2. Attach adequate information to permit a response without further clarification. Construction Manager will return requests that do not have adequate information to the Contractor for additional information. Contractor is responsible for all delays resulting from multiple reviews due to inadequate information.
 - 3. A response will be made when adequate information is provided. The response will be made on the Request for Information form provided by the Construction Manager.
- B. Response to a Request for Information is given to provide additional information, interpretation, or clarification of the requirements of the Contract Documents, and does not modify the Contract Documents.
 - 1. Submit a Change Proposal per Section 01 26 00 "Change Management" if a contract modification is suggested or required.

- C. Use the Decision Register to document decisions made at meetings and actions to be taken in accordance with Paragraph 1.06.
- D. Use the Action Item Register to document assignments for actions to be taken in accordance with Paragraph 1.06.

1.06 DECISION AND ACTION ITEM REGISTER

- A. Construction Manager will maintain a Decision Register to document key decisions made during meetings, telephone conversations, or visits to the Site using the format provided by the Construction Manager:
 - 1. Review the Decision Register prior to each regular meeting.
 - 2. Report any discrepancies to the Construction Manager for correction or discussion at the next monthly meeting.
- B. Construction Manager will maintain an Action Item Register in conjunction with the Decision Register to track assignments made during meetings, telephone conversations or visits to the Site using the format provided by the Construction Manager:
 - 1. Review the Action Item Register prior to each regular meeting.
 - 2. Report actions taken after the previous progress meeting on items in the register assigned to the Contractor or through the Contractor to a Subcontractor or Supplier to the Construction Manager. Report on status of progress 1 week prior to each progress meeting established in Paragraph 1.04 to allow Construction Manager to update the register prior to the Progress Meetings.
 - 3. Be prepared to discuss the status at each meeting.
- C. Decisions or action items in the register that require a change in the Contract Documents will have the preparation of a Modification as an action items if appropriate. The Contract Documents can only be changed by a Modification.

1.07 NOTIFICATION BY CONTRACTOR

- A. Notify the Construction Manager of:
 - 1. Need for testing;
 - 2. Intent to work outside regular working hours;
 - 3. Request to shut down facilities or utilities;
 - 4. Proposed utility connections;
 - 5. Required observation by Construction Manager, Engineer, or inspection agencies prior to covering Work; and
 - 6. Training.
- B. Provide notification a minimum of 2 weeks in advance to allow OPT time to respond appropriately to the notification.
- C. Use the Notification by Contractor form provided by the Construction Manager.

1.08 REQUESTS FOR MODIFICATIONS

- A. Submit requests for Modifications per Section 01 26 00 "Change Management."

1.09 RECORD DATA

- A. Submit information required by the Contract Documents that is not related to a product as Record Data using the form provided by the Construction Manager.

1.10 RECORD DOCUMENTS

- A. Maintain one complete set of printed Record Documents at the Site including:
 - 1. Drawings;
 - 2. Specifications;
 - 3. Addenda;
 - 4. Modifications;
 - 5. Product Data and approved Shop Drawings;
 - 6. Construction photographs;
 - 7. Test Reports;
 - 8. Clarifications and other information provided in Request for Information responses; and
 - 9. Reference standards.
- B. Store printed Record Documents and Samples in the Contractor's field office.
 - 1. Record Documents are to remain separate from documents used for construction.
 - 2. Provide files and racks for the storage of Record Documents.
 - 3. Provide a secure storage space for the storage of Samples.
 - 4. Maintain Record Documents in clean, dry, legible conditions, and in good order.
 - 5. Make Record Documents and Samples available at all times for inspection by the OPT.
- C. Maintain an electronic record of Specifications and Addenda to identify products provided in PDF format.
 - 1. Reference the Product Data number, Shop Drawing number, and O&M manual number for each product and item of equipment furnished or installed.
 - 2. Reference Modifications by type and number for all changes.
- D. Maintain an electronic record of Drawings in PDF format.
 - 1. Reference the Product Data number, Shop Drawing number, and O&M manual number for each product and item of equipment furnished or installed.
 - 2. Reference Modifications by type and number for all changes.
 - 3. Record information as construction is being performed. Do not conceal any Work until the required information is recorded.

4. Mark drawings to record actual construction.
 - a. Depths of various elements of the foundation in relation to finished first floor datum or the top of walls.
 - b. Horizontal and vertical locations of underground utilities and appurtenances constructed, and existing utilities encountered during construction.
 - c. Location of utilities and appurtenances concealed in the Work. Refer measurements to permanent structures on the surface. Include the following equipment:
 - 1) Piping;
 - 2) Ductwork;
 - 3) Equipment and control devices requiring periodic maintenance or repair;
 - 4) Valves, unions, traps, and tanks;
 - 5) Services entrance;
 - 6) Feeders; and
 - 7) Outlets.
 - d. Changes of dimension and detail.
 - e. Changes by Modifications.
 - f. Information in Requests for Information or included in the Decision Register.
 - g. Details not on the original Drawings. Include field verified dimensions and clarifications, interpretations, and additional information issued in response to Requests for Information.
 5. Mark Drawings with the following colors:
 - a. Highlight references to other documents, including Modifications in blue.
 - b. Highlight mark ups for new or revised Work (lines added) in yellow.
 - c. Highlight items deleted or not installed (lines to be removed) in red.
 - d. Highlight items constructed per the Contract Documents in green.
 6. Submit Record Documents to Construction Manager for review and acceptance 30 days prior to Final Completion of the Project.
- E. Applications for Payment will not be recommended for payment if Record Documents are found to be incomplete or not in order. Final payment will not be recommended without complete Record Documents.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 33 00 DOCUMENT MANAGEMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Submit documentation as required by the Contract Documents and as requested by the Construction Manager.
- B. Use the Project Management Information System (PMIS) provided by the Construction Manager. Software for the PMIS is FNIManager which has the following system requirements:
 - 1. Operating Systems: Windows 7 or later and OS X v10.8 or later.
 - 2. Supported Internet Browsers: Internet Explorer 11.0 or later, Google Chrome 70.0 or later, Firefox 63.0 or later, Safari 11.0 or later, and Microsoft Edge 17.0 or later.
 - 3. Screen Resolution: The recommended screen resolution is 1280 x 1024 or higher. The minimum screen resolution required to support all features is 1024 x 768.

1.02 QUALITY ASSURANCE

- A. Submit legible, accurate, complete documents presented in a clear, easily understood manner. Documents not meeting these criteria will be returned without review as “Not Approved.”

1.03 CONTRACTOR’S RESPONSIBILITIES

- A. Review documents prior to submission. Make certifications as required by the Contract Documents and as indicated on Construction Manager provided forms.
- B. Provide a Schedule of Documents to list the documents that are to be submitted and the dates on which documents are to be sent to the Construction Manager for review. Use the form provided by the Construction Manager for this list.
- C. Incorporate the dates for processing documents into the Progress Schedule required by Section 01 33 05 “Construction Progress Schedule.”
 - 1. Provide documents in accordance with the schedule so construction of the Project is not delayed.
 - 2. Allow a reasonable time for the review of documents when preparing the Progress Schedule. Assume a 14-day review cycle for each document unless a longer period of time is indicated in the Contract Documents or agreed to by Construction Manager and Contractor.
 - 3. Schedule delivery of review documents to provide all information for interrelated Work at one time.
 - 4. Allow adequate time for processing documents so construction of the Project is not delayed.

1.04 FORMS AND WORKFLOWS

- A. Use the forms or workflow process provided by the Construction Manager for project documentation.

1.05 DOCUMENT PREPARATION AND DELIVERY PROCEDURES

- A. Deliver documents in electronic format as directed by the Construction Manager.
 - 1. Do not leave any blanks incomplete. If information is not applicable, enter NA in the space provided.
 - 2. Deliver all documents in Portable Document Format (PDF).
 - a. Create PDF document using Bluebeam Revu software.
 - b. Create PDF documents from native format files unless files are only available from scanned documents.
 - c. Rotate pages so that the top of each document appears at the top of the monitor screen when opened in PDF viewing software.
 - d. Provide PDF document with adequate resolution to allow documents to be printed in a format equivalent to the document original. Documents are to be scalable to allow printing on standard 8-1/2 x 11 or 11 x 17 paper.
 - e. Submit color PDF documents where color is required to interpret the document.
 - f. Create or convert documents to allow text to be selected for comments or searched using text search features. Run scanned documents through Optical Character Recognition (OCR) software if necessary.
 - g. Flatten markups in documents to prevent markups made by Contractor from being moved or deleted. Flatten documents to allow markup recovery.
 - h. Use Bluebeam Revu software to reduce file size using default settings except the option for "Drop Metadata". Uncheck the "Drop Metadata" box when reducing file size.
 - i. Add footers to each document with the name of the Project.

1.06 DOCUMENTATION

- A. Furnish documents as indicated in Section 01 33 01 "Document Register" or in the individual Specification Sections. Submit documents per the procedures described in the Contract Documents.
- B. Submit documents per the Specification Sections shown in the following table:

Document Type	Specification Section
Application for Payment	01 29 00
Certified Test Report	01 33 02 for approval of product 01 40 00 to demonstrate compliance
Change Management	01 26 00
Equipment Installation Report	01 75 00
Graphic Documentation	01 33 06

Document Type	Specification Section
Notification by Contractor	01 31 13
Operation & Maintenance Manuals	01 33 04
Product Data	01 33 03
Progress Schedules	01 33 05
Record Data	01 31 13
Request for Information	01 31 13
Schedule of Values	01 29 00
Shop Drawing	01 33 02
Substitutions	01 26 00
Suppliers and Subcontractors	01 31 13 01 33 03

1.07 Electronic Documents Protocol

- A. The parties shall follow the provisions in this Section, referred to as the Electronic Documents Protocol ("EDP"), for exchange of electronic transmittals.
- B. Basic Requirements:
 1. Except as otherwise stated elsewhere in the Contract Documents, the OPT and Contractor will send and accept Electronic Documents sent by Electronic Means using the protocols provided in this Section.
 2. The contents of the information in any Electronic Document will be the responsibility of the transmitting party. Electronic Documents may be used in the same manner as the printed versions of the same documents that are exchanged using non-electronic format and methods, and are subject to the same governing requirements, limitations, and restrictions, set forth in the Contract Documents.
 3. Provisions of this Contract regarding Electronic Documents must be incorporated into other agreements or subcontracts on the Project. Nothing in this paragraph reduces or eliminates requirements:
 - a. to create, provide, or maintain an original printed record version of Drawings and Specifications, signed and sealed according to applicable Laws and Regulations;
 - b. to comply with any applicable Law or Regulation governing the signing and sealing of design documents and related Modifications or the signing and electronic transmission of any other documents; or
 - c. to comply with the notice requirements.
 4. When sending Electronic Documents by Electronic Means the sending party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or sending Electronic Documents.

C. System Infrastructure for Electronic Document Exchange:

1. Contractor will provide hardware, operating system(s) software, internet, e-mail, and large file transfer functions ("System Infrastructure") at its own cost. System Infrastructure must comply with these requirements.
2. The maximum size of an email attachment for exchange of Electronic Documents under this EDP is 100 MB. Attachments larger than that may be exchanged in parts or by using large file transfer functions or physical media.
3. Contractor assumes full and complete responsibility for its own costs, delays, deficiencies, and errors associated with converting, translating, updating, verifying, licensing, or otherwise enabling its System Infrastructure, including operating systems and software.
4. Contractor is responsible for its own system operations, security, back-up, archiving, audits, printing resources, and other Information Technology ("IT") for maintaining operations of its System Infrastructure during the Project, including coordination with individual(s) or entity responsible for managing its System Infrastructure and capable of addressing routine communications and other IT issues affecting the exchange of Electronic Documents.
5. Contractor will operate and maintain industry-standard, industry-accepted, ISO standard, commercial-grade security software and systems that are intended to protect others from: software viruses and other malicious software like worms, trojans, adware; data breaches; loss of confidentiality; and other threats in the transmission to or storage of information from the other parties, including transmission of Electronic Documents by physical media such as CD/DVD/flash drive/hard drive. Contractor will not be liable to others for any breach of system security to the extent that Contractor maintains and operates required security software and systems.
6. In the case of disputes, conflicts, or modifications to the use of Electronic Documents required to address issues affecting System Infrastructure, Contractor and OPT will cooperatively resolve the issues; but, failing resolution, OPT is authorized to make and require reasonable and necessary changes meet its original intent. Contractor may submit a Change Proposal if the changes cause additional cost or time to Contractor that could not have reasonably been anticipated.
7. Contractor and OPT are both responsible for their own back-up and archive of documents sent and received during the term of the contract. Contractor and OPT remain solely responsible for its own post-Project back-up and archive of Project documents after the term of the Contract as each party deems necessary for its own purposes.
8. If a Contractor or OPT receives an obviously corrupted, damaged, or unreadable Electronic Document, the receiving party will advise the sending party of the incomplete transmission. The parties will attempt to complete a successful transmission of the Electronic Document or use an alternative delivery method to complete the communication.
9. OPT will operate a project information management system (Project Website) for use of OPT and Contractor during the Project for exchange and storage of Project-related

communications and information. Except as otherwise provided in this Contract, use of the Project Website will be mandatory for exchange of Project documents, communications, submittals, and other Project-related information.

D. Software Requirements:

1. OPT and Contractor will each acquire the software and software licenses necessary to create and transmit Electronic Documents and to read and to use any Electronic Documents received from the other party (and if relevant from third parties), using the following software formats:

Document	Document Format
Email	.htm, .rtf, or .txt without formatting that impair legibility of content on screen or in printed copies
Submittals	Bluebeam PDF
Applications for Payment	Bluebeam PDF and Microsoft® Excel
Progress Schedules	PDF and Schedule in Schedule in Native Format
Layouts and drawings to be submitted to Owner for future use and modification	Autodesk® AutoCAD .dwg format
Document submitted to OPT for future word processing use and modification	Microsoft® Word
Spreadsheets and data submitted to OPT for future data processing use and modification	Microsoft® Excel
Photographs	.jpg or .jpeg
Videos	.mp4, .mpeg, or .avi

2. Software will be the version currently published at the time Contract is signed, unless a specific software version is listed in the Supplementary Conditions. Prior to using any updated version of the software required in this section for sending Electronic Documents to the other party, the originating party will first notify and receive concurrence from the other party for use of the updated version or convert to comply with this Section.
3. The parties agree not to intentionally edit, reverse engineer, decrypt, remove security or encryption features, or convert to another format for modification purposes any Electronic Document or information contained therein that was transmitted in a software data format, including Portable Document Format (PDF), intended by sender not to be modified, unless the receiving party obtains the permission of the sending party or is citing or quoting excerpts of the Electronic Document for Project purposes.

E. Requests by Contractor for Electronic Documents in Other Formats:

1. Release of any Electronic Documents developed during the design process (including Contract Documents, Technical Data, Drawings, and computer models) in formats other than those identified in this Section will be at the discretion of the OPT.
2. To the extent determined by OPT, release of Electronic Documents and other project information requested by Contractor ("Request") in formats other than those

identified in this Section will be subject to the provisions of Owner's response to the Request, and to the following conditions:

- a. The content included in the Electronic Documents covered by the Request was prepared by Design Professional as an internal working document or electronic computer model solely for Design Professional's purposes and not for any construction processes and is being provided to Contractor on an "AS IS" basis without any warranties of any kind, including, any implied warranties of fitness for any purpose. Contractor is advised and acknowledges that the content may not be suitable for Contractor's application or may require substantial modification and independent verification by Contractor. The content may include limited resolution of models, not-to-scale schematic representations and symbols, use of notes to convey design concepts in lieu of accurate graphics, approximations, graphical simplifications, undocumented intermediate revisions, and other devices that may affect subsequent reuse.
 - b. Electronic Documents containing text, graphics, metadata, or other types of data that are provided by Design Professional to Contractor under the Request are only for convenience of Contractor. Any conclusion or information obtained or derived from such data will be at the Contractor's sole risk and Contractor waives any claims against the Design Professional or Owner arising from use of data in Electronic Documents covered by the Request.
 - c. **CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND DESIGN PROFESSIONAL AND THEIR SUBCONSULTANTS FROM ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES, INCLUDING ATTORNEYS' FEES AND DEFENSE COSTS ARISING OUT OF OR RESULTING FROM THE CONTRACTOR'S USE, ADAPTATION, OR DISTRIBUTION OF ANY ELECTRONIC DOCUMENTS PROVIDED UNDER THE REQUEST.**
 - d. Contractor agrees not to sell, copy, transfer, forward, give away or otherwise distribute this information (in source or modified file format) to any third party without the direct written authorization of Design Professional, unless such distribution is specifically identified in the Request and is limited to the Contractor's subcontractors. Contractor warrants that subsequent use by the Contractor's subcontractors complies with all terms of the Contract Documents and the Owner's response to Request.
3. In the event that Owner elects to provide or directs Design Professional to provide to Contractor any Contractor-requested Electronic Document versions of project information that is not explicitly identified in the Contract Documents as being available to Contractor, Owner shall be reimbursed by Contractor on an hourly basis for any costs necessary to create or otherwise prepare the data in a manner deemed appropriate by Design Professional in accordance with the General Conditions.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 33 02 SHOP DRAWINGS

PART 1 - GENERAL

1.01 SUMMARY

- A. Shop Drawings are required for those products that cannot adequately be described in the Contract Documents to allow fabrication, erection, or installation of the product without additional detailed information from the Supplier.
- B. Submit Shop Drawings as required by the Contract Documents and as reasonably requested by the Construction Manager to:
 - 1. Record the products incorporated into the Project;
 - 2. Provide detailed information for the products proposed for the Project regarding their fabrication, installation, commissioning, and testing; and
 - 3. Allow the Design Professional to advise the Owner if products proposed for the Project by the Contractor conform, in general, to the design concepts of the Contract Documents.
- C. Contractor's responsibility for full compliance with the Contract Documents is not relieved by the review of Shop Drawings, Samples, or mockups.
- D. Submit a Change Proposal per Section 01 26 00 "Change Management" to request modifications to the Contract Documents, including those for approval of "or equal" products when specifically allowed by the Contract Documents or as a substitution for specified products or procedures. Deviations from the Contract Documents can only be approved by Change Order or Field Order.

1.02 QUALITY ASSURANCE

- A. Submit legible, accurate, and complete documents presented in a clear, easily understood manner. Shop Drawings not meeting these criteria will not be approved.
- B. Demonstrate that the proposed products are in full compliance with the design criteria and requirements of the Contract Documents, or will be if deviations requested per Paragraph 1.10 are approved.
- C. Furnish and install products that fully comply with the information included in the Shop Drawings.

1.03 CONTRACTOR'S RESPONSIBILITIES

- A. Include Shop Drawings in the Document Register required by Section 01 33 00 "Document Management" to indicate the Shop Drawings to be submitted, the dates on which Shop Drawings are to be sent to the Construction Manager for review, and proposed dates that the product will be incorporated into the Project.
- B. Incorporate the dates for processing Shop Drawings into the Progress Schedule required by Section 01 33 05 "Construction Progress Schedule."
 - 1. Submit Shop Drawings in accordance with the schedule so construction of the Project is not delayed.

2. Submit Shop Drawings for interrelated Work at one time.
 3. Allow adequate time for ordering, fabricating, delivering, and installing products so construction of the Project is not delayed.
- C. Complete the following before submitting a Shop Drawing or Sample:
1. Prepare and review the Shop Drawing or Sample. Coordinate the Shop Drawing or Sample with other Shop Drawings and Samples, with the requirements of the Work, and the Contract Documents;
 2. Determine and verify specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to Shop Drawings and Samples;
 3. Determine and verify the suitability of materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 4. Determine and verify information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- D. Determine and verify:
1. Field measurements, quantities, and dimensions are shown on the Shop Drawing and are accurate;
 2. Location of existing structures, utilities, and equipment related to the Shop Drawing have been shown and conflicts between the products, existing structures, utilities, and equipment have been identified;
 3. Conflicts that impact the installation of the products have been brought to the attention of the Construction Manager;
 4. Shop Drawing is complete for its intended purpose; and
 5. Conflicts between the Shop Drawing related to the various Subcontractors and Suppliers have been resolved.
- E. Review Shop Drawings prior to submitting to the Construction Manager. Certify that all Shop Drawings have been reviewed by the Contractor and are in strict conformance with the Contract Documents as modified by Addenda, Change Order, Field Order, or Contract Amendment when submitting Shop Drawings except for deviations specifically brought to the Construction Manager's attention on an attached Shop Drawing Deviation Request form in accordance with Paragraph 1.11.
- F. Fabrication or installation of any products prior to the approval of Shop Drawings is done at the Contractor's risk. Defective products may be rejected at the Owner's option.
- G. Payment will not be made for products for which Shop Drawings or Samples are required until these are approved by the Construction Manager and Design Professional.

1.04 DOCUMENTATION

- A. Provide adequate information in Shop Drawings and with Samples so the Design Professional can:
 - 1. Assist the Owner in selecting colors, textures, or other aesthetic features.
 - 2. Compare the proposed features of the product with the specified features and advise Owner that the product does, in general, conform to the Contract Documents.
 - 3. Compare the performance features of the proposed product with those specified and advise the Owner that the product does, in general, conform to the performance criteria specified in the Contract Documents.
 - 4. Review required certifications, guarantees, warranties, and service agreements for compliance with the Contract Documents.
- B. Include a complete description of the material or equipment to be furnished, including:
 - 1. Type, dimensions, size, arrangement, model number, and operational parameters of the components;
 - 2. Weights, gauges, materials of construction, external connections, anchors, and supports required;
 - 3. Performance characteristics, capacities, engineering data, motor curves, and other information necessary to allow a complete evaluation of mechanical components;
 - 4. All applicable standards;
 - 5. Fabrication and installation drawings, setting diagrams, manufacturing instructions, templates, patterns, and coordination drawings;
 - 6. Wiring and piping diagrams and related controls;
 - 7. Mix designs for concrete, asphalt, or other materials proportioned for the Project; and
 - 8. Complete and accurate field measurements for products which must fit existing conditions. Indicate on the document that the measurements represent actual dimensions obtained at the Site.
- C. Submit Shop Drawings that require coordination with other Shop Drawings for fabrication at the same time. Shop Drawings requiring coordination with other Shop Drawings will not be approved until a complete package is submitted, unless approved by the Construction Manager.
- D. Submit information for all of the components and related equipment required for a complete and operational system in one Submittal.
 - 1. Include electrical, mechanical, and other information required to indicate how the various components of the system function together as a system.
 - 2. Provide certifications, warranties, and written guarantees and service contracts with the document package for review when these are required.

1.05 SPECIAL CERTIFICATIONS AND REPORTS

- A. Provide all required special certifications, reports, and other documentation with the Shop Drawings as specified in the individual Specification Sections which may include:
 - 1. Certified Test Reports (CTR): A report prepared by an approved testing agency giving results of tests performed on products to indicate their compliance with the Specifications. This report is to demonstrate that the product, when installed, will meet the requirements of the Contract Documents and is part of the Shop Drawing. Field tests may be performed by the Owner to determine that in place materials or products meet the same quality as indicated in the CTR submitted as part of the Shop Drawing.
 - 2. Certification of Local Field Service (CLS): A certified letter stating that field service is available from a factory or supplier approved service organization located within a 300-mile radius of the Site. Include the names, addresses, and telephone numbers of approved service organizations with the certificate.
 - 3. Certification of Adequacy of Design (CAD): A certified letter from the manufacturer of the equipment stating that the equipment has been designed to be structurally stable and to withstand all imposed loads without deformation, failure, or adverse effects to the performance and operational requirements of the unit. The letter must state that mechanical and electrical components have been adequately sized to be fully operational for the conditions specified or normally encountered by the product's intended use.
 - 4. Certification of Applicator/Subcontractor (CSQ): A certified letter stating that the applicator or subcontractor proposed to perform a specified function is duly designated as factory authorized and trained for the application of the specified product.

1.06 WARRANTIES AND GUARANTEES

- A. Provide all required warranties, guarantees, and related documents with the Shop Drawing. The effective date of warranties and guarantees will be the date of Substantial Completion.
- B. Identify all extended warranties which are defined as any guarantee of performance for the product or system beyond the one-year correction period described in the General Conditions. Issue the warranty certificate in the name of the Owner. Provide a warranty bond for extended warranties if required by the individual Specification Sections.
- C. Include an additional copy of equipment warranties in operation and maintenance manuals.
- D. Provide a copy of all warranties in a separate document in accordance with Section 01 70 00 "Execution and Closeout Requirements."

1.07 EXTENDED SERVICE AGREEMENTS

- A. Provide Extended Service Agreements and related documents with the Product Data. An Extended Service Agreement is a contract between the Owner and an approved Subcontractor or Supplier to provide service and or maintenance beyond that required to

fulfill requirements for warranty repairs, or to perform routine maintenance for a definite period beyond the one-year correction period specified in the General Conditions.

- B. An Extended Service Agreement does not relieve the Contractor from obligations under the one-year correction period or warranty provisions specified in the General Conditions.
- C. An Extended Service Agreement does not relieve the Contractor from obligations under the maintenance bond, if a maintenance bond is required by the Contract.
- D. Requirements for the Extended Service Agreement are described in the Specification Sections for each piece of equipment or system requiring an Extended Service Agreement.
- E. Enter into a contract with the service provider and assign the service contract to the Owner on the date Substantial Completion. Once assigned to the Owner, Contract requirements for the Extended Service Agreement will be complete and will not extend the Contract between the Owner and Contractor.
- F. Owner may require that a performance bond be provided for the Extended Service Agreement. Provide a separate bond meeting the same requirements as those for the Contractor's performance bond if required. The bond will be in the amount of the Extended Service Agreement.
- G. Include an additional copy of Extended Service Agreements in operation and maintenance manuals.
- H. Provide a copy of Extended Service Agreements in a separate document in accordance with Section 01 70 00 "Execution and Closeout Requirements."

1.08 SHOP DRAWING SUBMITTAL PROCEDURES

- A. Submit Shop Drawings to the Construction Manager. Send all documents in digital format for processing.
 - 1. Provide all information requested. Do not leave any blanks incomplete. If information is not applicable, enter NA in the space provided.
 - 2. Submit all documents in Portable Document Format (PDF) as required by Section 01 33 00 "Document Management." Provide color PDF documents where color is required to interpret the Shop Drawing. Provide Samples and color charts per Paragraph 1.09.
 - 3. Submit each specific product, class of material, or equipment system separately so these can be tracked and processed independently. Do not submit Shop Drawings for more than one independent system in the same Submittal.
 - 4. Submit items specified in different Specification Sections separately unless they are part of an integrated system.
 - 5. Define abbreviations and symbols used in Shop Drawings.
 - a. Use terms and symbols in Shop Drawings consistent with the Contract Drawings.
 - b. Provide a list of abbreviations and their meaning as used in the Shop Drawings.
 - c. Provide a legend for symbols used on Shop Drawings.

6. Mark Shop Drawings to reference:
 - a. Related Specification Sections;
 - b. Drawing number and detail designation;
 - c. Equipment designation or name;
 - d. Schedule references;
 - e. System into which the product is incorporated; and
 - f. Location where the product is incorporated into the Project.
- B. Use the following conventions to markup Shop Drawings for review:
 1. Make comments and corrections in the color blue. Add explanatory comments to the markup.
 2. Highlight items in black (redact) that are not being furnished when the Supplier's standard drawings or information sheets are provided so that only the products to be provided are in their original color.
 3. Make comments in yellow where selections or decisions by the Design Professional are required, but such selections do not constitute a deviation from the Contract Documents. Add explanatory comments to the markup to indicate the action requested of the Design Professional.
 4. Make comments in orange that are deviation requests. Include the deviation request number on the Shop Drawing that corresponds to the deviation request on the Shop Drawing Deviation Request form. Include explanatory comments in the Shop Drawing Deviation Request form.
 5. Mark dimensions with the prefix "FD" to indicate field verified dimensions on the Shop Drawings.
- C. Designate a document as requiring priority treatment to place the review of the Shop Drawing ahead of other Shop Drawings previously delivered. Shop Drawings are typically reviewed in the order received, unless Contractor requests that a different priority be assigned. Priority Shop Drawings will be reviewed before other Shop Drawings already received but not yet reviewed. Use of this priority designation for Shop Drawings may delay the review of Shop Drawings previously submitted. Contractor is responsible for delays resulting from the use of the priority designation status on Shop Drawings.
- D. Complete the certification required by Paragraph 1.03.G.

1.09 SAMPLE AND MOCKUP SUBMITTAL PROCEDURES

- A. Submit color charts and Samples for every product requiring color, texture, or finish selection.
 1. Submit color charts and Samples only after Shop Drawings for the products have been approved.
 2. Deliver all color charts and Samples at one time.
 3. Provide Samples of adequate size to clearly illustrate the functional characteristics of the product, with integrally related parts and attachment devices.

4. Indicate the full range of color, texture, and patterns.
 5. Deliver color charts and Samples to the field office and store for the duration of the Project.
 6. Notify the Construction Manager that color charts and Samples have been delivered for approval using the Notification by Contractor form.
 7. Submit color charts and Samples not less than 30 days prior to when these products are to be ordered or released for fabrication to comply with the Project schedule.
 8. Remove Samples that have not been approved. Submit new Samples following the same process as for the initial Sample until Samples are approved.
 9. Dispose of Samples when related Work has been completed and approved and disposal is approved by the Construction Manager. At Owner's option, Samples will become the property of the Owner.
- B. Construct mockups for comparison with the Work being performed.
1. Construct mockups from the actual products to be used in construction per the detailed specifications.
 2. Construct mockups of the size and in the area indicated in the Contract Documents.
 3. Construct mockups complete with texture and finish to represent the finished product.
 4. Notify the Construction Manager that mockups have been constructed and are ready for approval using the Notification by Contractor form. Allow 2 weeks for Construction Manager to approve of the mockup before beginning the Work represented by the mockup.
 5. Remove mockups that have not been approved. Construct new mockups following the same process as for the initial mockup until mockup is approved.
 6. Protect mockups until Work has been completed and accepted by the Construction Manager.
 7. Dispose of mockups when related Work has been completed and disposal is approved by the Construction Manager.

1.10 REQUESTS FOR DEVIATION

- A. Submit a Change Proposal per Section 01 26 00 "Change Management" to request modifications to the Contract Documents, including those for approval of "or equal" products when specifically allowed by the Contract Documents or as a substitution for specified products or procedures.
- B. Provide a Shop Drawing with the Change Proposal that clearly identifies deviations for any product or component of the product that does not fully comply with the Contract Documents using the Shop Drawing Deviation Request form provided by the Construction Manager. Mark deviations on the Shop Drawing per Paragraph 1.08.B.
- C. Include a description of why the deviation is required and the impact on Contract Price or Contract Times. Include the amount of any cost savings to the Owner for deviations that result in a reduction in cost.

- D. Identify each deviation request as a separate item. Include all requested deviations that must be approved as a group together and identify them as a single item.
- E. Construction Manager will issue a Field Order or Change Order to approve acceptable deviations. Approval of a requested Shop Drawing deviation by the Design Professional on the Shop Drawings Deviation Request form indicates approval of the requested deviation only on its technical merits as generally conforming to the Contract Documents. Deviations from the Contract Documents can only be approved by a Modification issued by the Construction Manager.

1.11 CONSTRUCTION MANAGER AND DESIGN PROFESSIONAL RESPONSIBILITIES

- A. Shop Drawings will be received by the Construction Manager. Construction Manager will log the documents and forward to the Design Professional for review per this Section for general conformance with the Contract Documents.
 - 1. Design Professional's review and approval will be only to determine if the products described in the Shop Drawing or Sample will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 - 2. Design Professional's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
 - 3. Design Professional's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
- B. Comments will be made on items called to the attention of the Design Professional for review and comment. Any marks made by the Design Professional do not constitute a blanket review of the document or relieve the Contractor from responsibility for errors or deviations from the Contract requirements.
 - 1. Design Professional will respond to Contractor's markups by either making markups directly in the Shop Drawing file using the color red or by attaching a Document Review Comments form with review comments keyed to the Drawings or Shop Drawing Deviation Request.
 - 2. Shop Drawings that are reviewed will be returned with one or more of the following status designations:
 - a. Approved: Shop Drawing is found to be acceptable as submitted.
 - b. Approved as Noted: Shop Drawing is approved so long as corrections or notations made by Design Professional are incorporated into the Shop Drawing.
 - c. Not Approved: Shop Drawing or products described are not acceptable.
 - d. Cancelled: This action indicates that for some reason, the Shop Drawing is to be removed from consideration and all efforts regarding the processing of that document are to cease.

3. Shop Drawings will also be designated for one of the following actions:
 - a. Documents Filed: Shop Drawing is acceptable without further action and has been filed as a record document.
 - b. Shop Drawing Not Required: A Shop Drawing was not required by the Contract Documents. Resubmit the document per Section 01 33 03 "Product Data."
 - c. Cancelled: This action indicates that for some reason, the Shop Drawing is to be removed from consideration and all efforts regarding the processing of that document are to cease.
 - d. Revise and Resubmit: Shop Drawing has deviations from the Contract Documents, significant errors, or is inadequate and must be revised and resubmitted for subsequent review.

Actions "a" through "c" will close out the Shop Drawing review process and no further action is required as a Shop Drawing. Action "d" requires follow up action to close out the review process.

4. Drawings with a significant or substantial number of markings by the Contractor may be marked "Approved as Noted." These drawings are to be revised to provide a clean record of the document. Proceed with ordering products as the documents are revised.
 5. Dimensions or other data that do not appear to conform to the Contract Documents will be marked as "At Variance With" (AVW) the Contract Documents or other information provided. The Contractor is to make revisions as appropriate to comply with the Contract Documents.
- C. Bring deviations to the Shop Drawings to the attention of the Design Professional for approval by using the Shop Drawing Deviation Request form. Use a single line for each requested deviation so the Status and Action for each deviation can be determined for that requested deviation. If approval or rejection of a requested deviation will impact other requested deviation, then all related deviations should be included in that requested deviation line so the status and action can be determined on the requested deviation as a whole.
 - D. Requested deviations will be reviewed as a possible Modification to the Contract Documents.
 1. A requested deviation will be marked as "Not Approved" if the requested deviation is unacceptable. Contractor is to revise and resubmit the Shop Drawing with corrections for approval.
 2. A Field Order will be issued by the Construction Manager for deviations approved by the Design Professional if the requested deviation is acceptable and if the requested deviation will not result in a change in Contract Price or Contract Times. Requested deviations from the Contract Documents may only be approved by Field Order.
 3. A requested deviation will not be approved if the requested deviation is acceptable but the requested deviation will or should result in a change in Contract Price or Contract Times. Submit any requested deviation that requires a change in Contract

Price or Contract Times as a Change Proposal for approval prior to resubmitting the Shop Drawing.

- E. Contractor is to resubmit a complete Shop Drawing incorporating revisions until it is acceptable and marked "Approved" or "Approved as Noted" and is assigned an action per Paragraph 1.11.B.3 that indicates that the Shop Drawing process is closed.
- F. Information that is submitted as a Shop Drawing that should be submitted as Product Data or other type of document, or is not required may be returned without review, or may be deleted. No further action is required and the Shop Drawing process for this document will be closed.

1.12 RESUBMISSION REQUIREMENTS

- A. Make all corrections or changes required by the Design Professional in the document and resubmit to the Construction Manager until approved.
- B. Resubmit a complete Shop Drawing for each resubmittal. The last approved Shop Drawing must not rely on previous submissions. The final Shop Drawing is to provide a complete record for the Owner's records.
- C. Revise initial drawings or data and resubmit as specified for the reviewed document.
 - 1. Highlight or cloud in green those revisions which have been made in response to the previous reviews by the Design Professional. This will include changes previously highlighted or clouded in yellow to direct attention to Design Professional to items requiring selections, decisions by the Design Professional or highlighted or clouded in orange for a requested deviation from the Contract Documents, or comments in red made by the Construction Manager.
 - 2. Highlight and cloud new items in yellow where selections or decisions by the Design Professional are required, but such selections do not constitute a deviation from the Contract Documents. Add explanatory comments to the markup to indicate the action to be taken by the Design Professional.
 - 3. Highlight and cloud new items in orange that are deviation requests. Include the deviation request number on the Shop Drawing that corresponds to the deviation request on the Shop Drawing Deviation Request form. Numbering for these new items is to start with the next number following the last Shop Drawing deviation requested. Include explanatory comments in the Shop Drawing Deviation Request form.
- D. Pay for excessive review of Shop Drawings.
 - 1. Excessive review of Shop Drawings is defined as any review required after the original review has been made and the first resubmittal has been checked to see that corrections have been made.
 - 2. Review of Shop Drawings or Samples will be an additional service requiring payment by the Contractor if the Contractor submits a substitution for a product for which a Shop Drawing or Sample has previously been approved, unless the need for such change is beyond the control of Contractor.
 - 3. Cost for additional review time will be billed to the Owner by the Design Professional for the actual hours required for the review of Shop Drawings by Design Professional

and in accordance with the rates listed in Section 00 73 00 "Supplementary Conditions."

4. A set-off will be included in each Application for Payment to pay the cost for the additional review. The set-off will be based on invoices submitted to the Owner for these services.
5. Need for more than one resubmission or any other delay in obtaining Design Professional's approval of Shop Drawings will not entitle the Contractor to an adjustment in Contract Price or an extension of Contract Times.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 33 03 PRODUCT DATA

PART 1 - GENERAL

1.01 SUMMARY

- A. Submit Product Data as required by the Contract Documents and as reasonably requested by the Construction Manager. Provide Product Data for all products unless a Shop Drawing is required for the same item.
- B. Submit Product Data to provide documents that allow the Owner to:
 - 1. Record the products incorporated into the Project;
 - 2. Record detailed information about products regarding their fabrication, installation, commissioning, and testing; and
 - 3. Provide replacement or repair of products at some future date.
- C. Contractor's responsibility for full compliance with the Contract Documents is not relieved by the receipt or cursory review of Product Data.
- D. Submit a Change Proposal per Section 01 26 00 "Change Management" to request modifications to the Contract Documents, including those for approval of "or equal" products when specifically allowed by the Contract Documents or as a substitution for specified products or procedures. Deviations from the Contract Documents can only be made by an approved Change Order or Field Order.

1.02 QUALITY ASSURANCE

- A. Submit legible, accurate, and complete documents presented in a clear, easily understood manner. Product Data not meeting these criteria will not be accepted and must be resubmitted.

1.03 CONTRACTOR'S RESPONSIBILITIES

- A. Include Product Data in the Document Register required by Section 01 33 00 "Document Management" to indicate the Product Data to be submitted, the dates on which documents are to be sent to the Construction Manager for review, and proposed dates that the product will be incorporated into the Project.
- B. Complete the following before submitting Product Data:
 - 1. Prepare Product Data and coordinate with Shop Drawings, Samples, Product Data for related products, and with the requirements of the Contract Documents;
 - 2. Determine and verify specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information;
 - 3. Determine and verify the suitability of materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

4. Determine and verify information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- C. Determine and verify:
1. Field measurements, quantities, and dimensions are shown on the Product Data and are accurate;
 2. Location of existing structures, utilities, and equipment related to the Product Data have been shown and conflicts between the products, existing structures, utilities, and equipment have been brought to the attention of the Construction Manager;
 3. Conflicts that impact the installation of the products have been brought to the attention of the Construction Manager;
 4. Product Data is complete for its intended purpose; and
 5. Conflicts between the Product Data related to the various Subcontractors and Suppliers have been resolved.
- D. Review Product Data prior to submitting to the Construction Manager. Certify that all Product Data has been reviewed by the Contractor and is in strict conformance with the Contract Documents as modified by Addenda, Change Order, Field Order, or Contract Amendment when submitting Product Data.

1.04 DOCUMENTATION

- A. Include a complete description of the material or equipment to be furnished, including:
1. Type, dimensions, size, arrangement, model number, and operational parameters of the components;
 2. Weights, gauges, materials of construction, external connections, anchors, and supports required;
 3. Performance characteristics, capacities, engineering data, motor curves, and other information necessary to allow a complete evaluation of mechanical components;
 4. All applicable standards;
 5. Fabrication and installation drawings, setting diagrams, manufacturing instructions, templates, patterns, and coordination drawings;
 6. Wiring and piping diagrams and related controls;
 7. Mix designs for concrete, asphalt, or other materials proportioned for the Project; and
 8. Complete and accurate field measurements for products which must fit existing conditions. Indicate on the document that the measurements represent actual dimensions obtained at the Site.
- B. Submit information for all components and related equipment required for a complete and operational system in one submittal.
1. Include electrical, mechanical, and other information required to indicate how the various components of the system function together as a system.

2. Provide certifications, warranties, and written guarantees and service contracts with the document package for review when these are required.

1.05 SPECIAL CERTIFICATIONS AND REPORTS

- A. Provide all required certifications with the Product Data as specified in the individual Specification Sections:
 1. Certified Test Reports (CTR): A report prepared by an approved testing agency giving results of tests performed on products to indicate their compliance with the Specifications. This report is to demonstrate that the product when installed will meet the requirements of the Contract Documents and is part of the Product Data. Field tests may be performed by the Owner to determine that in place materials or products meet the same quality as indicated in the CTR submitted as part of the Product Data.
 2. Certification of Local Field Service (CLS): A certified letter stating that field service is available from a factory or supplier approved service organization located within a 300-mile radius of the Site. Include the names, addresses, and telephone numbers of approved service organizations with the certificate.
 3. Certification of Adequacy of Design (CAD): A certified letter from the manufacturer of the equipment stating that the equipment has been designed to be structurally stable and to withstand all imposed loads without deformation, failure, or adverse effects to the performance and operational requirements of the unit. The letter must state that mechanical and electrical components have been adequately sized to be fully operational for the conditions specified or normally encountered by the product's intended use.
 4. Certification of Applicator/Subcontractor (CSQ): A certified letter stating that the applicator or subcontractor proposed to perform a specified function is duly designated as factory authorized and trained for the application of the specified product.

1.06 WARRANTIES AND GUARANTEES

- A. Provide all required warranties, guarantees, and related documents with the Product Data. The effective date of warranties and guarantees will be the date of Substantial Completion.
- B. Identify all Extended Warranties which are defined as any guarantee of performance for the product or system beyond the one-year correction period described in the General Conditions. Issue the warranty certificate in the name of the Owner. Provide a warranty bond for extended warranties if required by Specification Sections.
- C. Include an additional copy of equipment warranties in operation and maintenance manuals.
- D. Provide a copy of all warranties in a separate document in accordance with Section 01 70 00 "Execution and Closeout Requirements."

1.07 EXTENDED SERVICE AGREEMENTS

- A. Provide Extended Service Agreements and related documents with the Product Data. An Extended Service Agreement is a contract between the Owner and an approved

Subcontractor or Supplier to provide service and or maintenance beyond that required to fulfill requirements for warranty repairs, or to perform routine maintenance for a definite period beyond the one-year correction period specified in the General Conditions.

- B. An Extended Service Agreement does not relieve the Contractor from obligations under the one-year correction period or Warranty provisions specified in the General Conditions.
- C. An Extended Service Agreement does not relieve the Contractor from obligations under the maintenance bond, if a maintenance bond is required by the Contract.
- D. Requirements for the Extended Service Agreement are described in the Specification Sections for each piece of equipment or system requiring an Extended Service Agreement.
- E. Enter into a contract with the service provider and assign the service contract to the Owner on the date of Substantial Completion. Once assigned to the Owner, Contract requirements for the Extended Service Agreement will be complete and will not extend the Contract between the Owner and Contractor.
- F. Owner may require that a performance bond be provided for the Extended Service Agreement. Provide a separate bond meeting the same requirements as those for the Contractor's performance bond if required. The bond will be in the amount of the Extended Service Agreement.
- G. Include an additional copy of Extended Service Agreements in operation and maintenance manuals.
- H. Provide a copy of Extended Service Agreements in a separate document in accordance with Section 01 70 00 "Execution and Closeout Requirements."

1.08 PRODUCT DATA SUBMITTAL PROCEDURES

- A. Submit Product Data to the Construction Manager. Send all documents in digital format for processing.
 - 1. Provide all information requested. Do not leave any blanks incomplete. If information is not applicable, enter NA in the space provided.
 - 2. Submit all documents in Portable Document Format (PDF) as required by Section 01 33 00 "Document Management." Provide color PDF documents where color is required to interpret the Product Data.
 - 3. Submit each specific product, class of material, or equipment system separately so these can be tracked and processed independently. Do not submit Product Data for more than one system in the same Submittal.
 - 4. Submit items specified in different Specification Sections separately unless they are part of an integrated system.
 - 5. Define abbreviations and symbols used in Product Data.
 - a. Use terms and symbols in Product Data consistent with the Contract Drawings.
 - b. Provide a list of abbreviations and their meaning as used in the Product Data.
 - c. Provide a legend for symbols used on Product Data.

6. Mark Product Data to reference:
 - a. Related Specification Sections;
 - b. Drawing number and detail designation;
 - c. Equipment designation or name;
 - d. Schedule references;
 - e. System into which the product is incorporated; and
 - f. Location where the product is incorporated into the Project.
- B. Complete the certification required by Paragraph 1.03.E.

1.09 CONSTRUCTION MANAGER AND DESIGN PROFESSIONAL RESPONSIBILITIES

- A. Product Data will be received by the Construction Manager, logged, and provided to Owner as the Project record.
 1. Product Data may be reviewed to see that the information provided is adequate for the purpose intended. Product Data not meeting the requirements of Paragraph 1.02 may not be approved.
 2. Product Data is not reviewed for compliance with the Contract Documents. Comments may be returned if deviations from the Contract Documents are noted during the cursory review performed to see that the information is adequate.
 3. Contractor's responsibility for full compliance with the Contract Documents is not relieved by the review of Product Data. Contract modifications can only be approved by a Change Order or Field Order.
- B. Construction Manager may take the following action in processing Product Data:
 1. File Product Data as received if the cursory review indicates that the document meets the requirements of Paragraph 1.02. Document will be marked "Filed as Received" and "Documents Filed." No further action is required on that Product Data.
 2. Not approve the Product Data for one of the following reasons:
 - a. The documentation requirements of the Contract Documents indicate that the document submitted as Product Data should have been submitted as a Shop Drawing. The Product Data will be marked "Not Approved" and "Submit as Shop Drawing." No further action is required on this document as Product Data and the Product Data process will be closed. Resubmit the document as a Shop Drawing per Section 01 33 02 "Shop Drawings."
 - b. The cursory review indicates that the document does not meet the requirements of Paragraph 1.02. The Product Data will be marked "Not Approved" and "Revise and Resubmit." Contractor is to resubmit the Product Data until it is acceptable and marked "Filed as Received." When Product Data is filed, no further action is required and the Product Data process will be closed.
 - c. The Product Data is not required by the Contract Documents nor is applicable to the Project. The Product Data will be marked "Not Approved" and "Cancelled." No further action is required and the Product Data process will be closed.

- C. Contractor is to resubmit the Product Data until it is acceptable and marked "Filed as Received."

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 33 05 CONSTRUCTION PROGRESS SCHEDULE

PART 1 - GENERAL

1.01 SUMMARY

- A. Prepare and submit a Progress Schedule for the Work and update the schedule on a monthly basis for the duration of the Project.
- B. Provide Progress Schedule in adequate detail to allow Owner to monitor progress and to relate submittal processing to sequential activities of the Work.
- C. Incorporate Contract Milestones into the schedule and show activities leading to achievement of these milestones.
- D. Assume complete responsibility for maintaining the progress of the Work per the Progress Schedule submitted.

1.02 DOCUMENTATION

- A. Submit the schedules to the Construction Manager. Send all documents in digital format for processing.
- B. Do not leave any blanks incomplete. If information is not applicable, enter NA in the space provided.
- C. Provide schedules, schedule updates and revisions to the Construction Manager in electronic format in its originating software and in Portable Document Format (PDF) as required by Section 01 33 00 "Document Management."
- D. Submit a preliminary Progress Schedule at the pre-construction conference.
- E. Submit a detailed Progress Schedule at least 10 days prior to the first payment request.
- F. Submit Progress Schedule updates monthly within 10 days after submitting Applications for Payment to indicate the progress made on the Project to the closing date for the Application for Payment. Failure to submit Progress Schedules will cause delay in the review and approval of subsequent Applications for Payment.

1.03 PROGRESS SCHEDULE REQUIREMENTS

- A. Progress Schedule is to be in adequate detail to:
 - 1. Ensure adequate planning, scheduling, and reporting during the execution of the Work;
 - 2. Ensure the coordination of the Work of the Contractor and the various Subcontractors and Suppliers;
 - 3. Monitor the progress of the Work; and
 - 4. Evaluate the impact of proposed changes to the Contract Times and Project Schedule.
- B. Provide personnel with 5 years' minimum experience in scheduling construction work comparable to this Project. Prepare the Progress Schedule using acceptable scheduling software.

- C. Provide the Progress Schedule in the form of a computer-generated critical path schedule which includes Work to be performed on the Project. It is intended that the Progress Schedule accomplish the following:
 - 1. Give early warning of delays in time for correction.
 - 2. Provide detailed plans for the execution of the Work in the form of future activities and events in sequential relationships.
 - 3. Establish relationships of significant planned Work activities and provide a logical sequence for planned Work activities.
 - 4. Provide continuous current status information.
 - 5. Allow analysis of the Contractor's program for the completion of the Project.
 - 6. Permit schedules to be revised when the existing schedule is not achievable.
 - 7. Log the progress of the Work as it actually occurs.
- D. Provide a time-scaled horizontal bar chart which indicates graphically the Work scheduled at any time during the Project. The chart is to indicate:
 - 1. Complete sequence of construction by activity;
 - 2. Identification of the activity by structure, location, and type of Work;
 - 3. Chronological order of the start of each item of Work;
 - 4. The activity start and stop dates;
 - 5. The activity duration; and production rates used to determine the duration;
 - 6. Successor and predecessor relationships for each activity;
 - 7. A clearly indicated single critical path; and
 - 8. Projected percentage of completion, based on dollar value of the Work included in each activity as of the first day of each month.
- E. Provide a Progress Schedule for Submittals:
 - 1. Indicate the specific dates each document is to be delivered to the Construction Manager.
 - 2. Allow a reasonable time to review each document, taking into consideration the size and complexity of the document, other documents being processed, and other factors that may affect review time.
 - 3. Include time for making revisions to the Shop Drawings and resubmitting the Shop Drawing for at least a second review.
 - 4. Assume a 14-day review cycle for each time a Shop Drawing is submitted for review unless a longer period is indicated in the Contract Documents or provided by the Construction Manager.
 - 5. Contractor is responsible for delays associated with additional time required to review incomplete or erroneous documents and for time lost when documents are submitted for products that do not meet specification requirements.

1.04 PROGRESS SCHEDULE REVISIONS

- A. Revise the Progress Schedule if it appears that the schedule no longer represents the actual progress of the Work.
 - 1. Submit a Plan of Action for schedule recovery if the Progress Schedule or earned value analysis indicates that the Project is more than 30 days behind schedule. The report is to include:
 - a. Number of days behind schedule;
 - b. Narrative description of the steps to be taken to bring the Project back on schedule; and
 - c. Anticipated time required to bring the Project back on schedule.
 - 2. Submit a revised Progress Schedule indicating the action that the Contractor proposes to take to bring the Project back on schedule.
- B. Revise the Progress Schedule to indicate any adjustments in Contract Times approved by a Modification.
 - 1. Include a revised Progress Schedule with Change Proposals if a change in Contract Times is requested.
 - 2. Construction Manager will deem any Change Proposal that does not have a revised Progress Schedule and request for a change in Contract Times as having no impact on the ability of the Contractor to complete the Project within the Contract Times.
- C. Updating the Progress Schedule to reflect actual progress is not considered a revision to the schedule.
- D. Applications for Payment will not be recommended for payment without a revised Progress Schedule and if required, the report indicating the Contractor's plan for bringing the Project back on schedule.

1.05 FLOAT TIME

- A. Define float time as the amount of time between the earliest start date and the latest start date of a chain of activities on the construction schedule.
- B. Float time is not for the exclusive use or benefit of either the Contractor or Owner.
- C. Where several subsystems each have a critical path, the subsystem with the longest time of completion is the critical path and float time is to be assigned to other subsystems.
- D. Schedule completion date must be the same as the Contract completion date. Time between the end of construction and the Contract completion date is float time.

1.06 MODIFICATION OF CONTRACT TIMES

- A. Contract Times cannot be changed by the submission of a Progress Schedule. Contract Times can only be modified by a Change Order or Contract Amendment.
- B. Submit a Change Proposal for any proposed change in Contract Times, and include justification for the change in accordance with the provisions of the Contract Documents.

1.07 NEAR-TERM LOOK AHEAD SCHEDULES

- A. Provide a near-term look ahead schedule (NTLA Schedule) every 30 days, typically at periodic coordination meetings, using the form provided by the Construction Manager which shows the days of planned activity for the following:
 - 1. Submittals to be provided and day of anticipated return;
 - 2. Equipment and material deliveries;
 - 3. Arrival and departure of key construction equipment; and
 - 4. Activities for the Contractor and each Subcontractor.
- B. Coordinate NTLA Schedule with Project Schedule. Submit a report with each NTLA Schedule identifying deviations from the Project Schedule.
- C. Submit a report of near-term work planned in the previous NTLA Schedule that was delayed or not executed by marking actual activity on the previous near term look ahead schedule. Provide explanation of why planned work was not executed and plan to execute in the future and regain time lost.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 40 00 QUALITY MANAGEMENT

PART 1 - GENERAL

1.01 OVERVIEW

- A. Quality management refers to the overall process of delivering a completed Project to the Owner that complies with the requirements of the Contract Documents. Quality management applies to documentation, products, services, and the Work.
- B. Contractor is responsible for the quality of documentation, products, services, and the Work provided.
 - 1. Contractor is to integrate quality control procedures into the execution of the Work that are adequate to produce a Project that meets the requirements of the Contract Documents, while minimizing loss of time and increased costs. Contractor is solely responsible for time and cost impacts of correcting Defective Work.
 - 2. Contractor is to provide all testing and inspection required to control the quality of the Work in progress to determine that completed Work will comply with the requirements of the Contract Documents.
 - 3. Contractor is to provide verification or acceptance testing as required by the Contract Documents to demonstrate that the completed Work complies with the requirements of the Contract Documents.

1.02 STANDARDS

- A. Provide testing laboratories that comply with the American Council of Independent Laboratories (ACIL) "Recommended Requirements for Independent Laboratory Qualifications."
- B. Perform testing in accordance with the published standards and procedures for testing listed in the Specifications and applicable Laws and Regulations.

1.03 DOCUMENTATION

- A. Provide documentation which includes:
 - 1. Contractor's Quality Management Plan that establishes the methods of ensuring compliance with the Contract Documents. Submit this plan as Product Data per Section 01 31 13 "Project Administration."
 - 2. A statement of qualifications for any proposed testing laboratory that includes a list of the engineers and technical staff that will provide testing services on the Project, descriptions of the qualifications of these individuals, list of tests that can be performed, equipment used with date of last certification, and a list of recent projects for which testing has been performed with references for those projects.
 - 3. Certified Test Reports for products to be incorporated into the Project. Provide reports to indicate that the proposed products comply with the Contract Documents or indicate that the proposed products do not comply with the Contract Documents and why those products do not comply. Submit Certified Test Reports as part of a Shop Drawing submitted per Section 01 33 02 "Shop Drawings."

4. Certified Test Reports for inspections and testing required in this Section and in other Sections of the Specifications. Provide reports to indicate that the Work complies with the Contract Documents or indicate that the Work does not comply with the Contract Documents and why the Work does not comply. Submit these test reports on forms provided by the Construction Manager per Section 01 33 00 "Document Management."
5. Certified Test Reports of Defective Work and Certified Test Reports documenting that successful corrective action has produced Work that complies with the Contract Documents. Maintain a register listing Defective Work and record when corrective action has produced Work that complies with the Contract Documents. Present this Defective Work register as part of the Quality Report at progress meetings as described in Paragraph 1.05.E. Incorporate this register in the closeout documentation per Section 01 70 00 "Execution and Closeout Requirements" to demonstrate that all Defective Work has been corrected.

1.04 OWNER'S QUALITY MANAGEMENT ACTIVITIES

- A. Owner may perform its own verification testing independent of the Contractor to verify the results of the Contractor's Work complies with the requirements of the Contract Documents. Performance or non-performance of verification activities by the Owner:
 1. Does not relieve the Contractor of its responsibility to provide Work and furnish products that comply with the requirements of the Contract Documents;
 2. Does not relieve the Contractor of its responsibility to provide adequate quality control measures to produce quality documents, products, services, or Work;
 3. Does not relieve the Contractor of its responsibility for damage to or loss of Work or products before Owner's acceptance; and
 4. Does not affect the continuing rights of the Owner after acceptance of the completed Work.
- B. The Work is subject to observations or testing at any time by the OPT. Products which have been tested or inspected and accepted by the Owner at a supply source or staging area may be inspected or tested again by the OPT before, during, or after incorporation into the Work and rejected if products do not comply with the Contract Documents.
- C. Verification testing performed by the OPT will be paid for by the Owner, except for testing related to Defective Work as discussed in Paragraph 3.03.

1.05 CONTRACTOR'S RESPONSIBILITIES

- A. Provide a Contractor's Quality Control Plan (CQCP) outlining testing to be provided by the Contractor per Paragraph 1.07.
- B. Implement the CQCP to provide Work that complies with the requirements of the Contract Documents.
 1. Provide quality documents meeting the requirements of the Contract Documents.
 2. Provide services meeting the requirements of the Contract Documents.

3. Provide the services of a Construction Materials Inspection and Testing (CMIT) provider meeting the requirements of this Section to provide testing required by the Contract Documents to demonstrate that products proposed for the Project in Shop Drawings and Product Data fully comply with the Contract Documents.
4. Inspect and test products to be incorporated into the Project to identify defects before installing them. Do not install Defective products. Conspicuously mark Defective products and remove from the Site. If products are installed before the defect is recognized, remove the Defective products, mark them as Defective and remove them from the Site when the defect is recognized.
5. Integrate production quality control measures into construction activities to produce Work meeting the requirements of the Contract Documents. Inspect self-performed Work and the Work of Subcontractors and Suppliers to identify defects. Correct or replace Defective Work.
6. Provide facilities, equipment, and Samples required for inspections and tests.
 - a. Give the Construction Manager adequate notice before proceeding with Work that would interfere with inspections or testing.
 - b. Notify the Construction Manager and CMIT provider prior to the time that testing is required, providing adequate lead time to allow arrangements for inspections or testing to be performed.
 - c. Do not proceed with Work that would impact the ability to correct defects, or with Work that would require that it be removed to correct defects, until testing is complete, and test results indicate that the corrected Work is acceptable.
 - d. Provide safe access for all CMIT activities, including those to be conducted by the OPT.
 - e. Cooperate fully with the performance of sampling, inspection, and testing. Provide personnel to assist with sampling or to assist in making inspections and field tests.
 - f. Provide Samples and products in adequate quantities for testing at the Site or at the production source of the product for testing.
 - g. Provide facilities required to store and cure test Samples.
 - h. Provide adequate lighting for inspections.
- C. Perform tests as indicated in Contract Documents. All verification testing is to be observed by the Construction Manager or its designated representative.
- D. Submit test reports to the Construction Manager.
- E. Provide an update on quality control activities performed the previous month and planned for the coming month at monthly progress meetings required by Section 01 31 13 "Project Administration."
- F. Determine testing or inspections required to implement the CQCP. Include costs for additional testing and inspections required to meet the Contractor's quality control obligations in the Contract Price.

1.06 CONTRACTOR'S QUALITY CONTROL MANAGER

- A. Provide a Quality Control Manager for the Project. Quality Control Manager must have authority to reject Defective Work, redirect the efforts of the Contractor, Subcontractor and Suppliers to correct Defective Work, and implement steps to prevent future Defective Work.
- B. The resident superintendent or an approved assistant can serve as Quality Control Manager, provided other duties will allow adequate time to serve in this capacity.

1.07 CONTRACTOR'S QUALITY CONTROL PLAN

- A. Provide a CQCP that describes testing and inspections for Work performed at the Site and at remote locations. Include Work by Subcontractors and Suppliers. The CQCP is to include:
 - 1. A description of the quality control organization, including an organization chart showing lines of authority to control the quality of Work.
 - 2. Documentation describing name, qualifications (in resume format), duties, responsibilities, and level of authority of the Quality Control Manager.
 - 3. The name, qualifications (in resume format), duties, responsibilities, and authorities of other persons assigned a quality control function.
 - 4. Procedures for scheduling, reviewing, certifying, and managing documentation including documentation provided by Subcontractors and Suppliers.
 - 5. Control, verification, and acceptance testing procedures for each specific test. Include:
 - a. Name of tests to be performed;
 - b. Specification paragraph requiring test;
 - c. Parameters of Work to be tested;
 - d. Test frequency;
 - e. Persons responsible for each test; and
 - f. Applicable industry testing standards and laboratory facilities to be used for the test.
 - 6. Procedures for tracking and documenting quality management efforts per Paragraph 1.03.
 - 7. Reporting procedures which incorporate the use of forms provided by the Construction Manager.
 - 8. The name of the proposed testing laboratories along with documentation of qualifications per Paragraph 1.03.
- B. Use the Contractor's Quality Control Plan Checklist provided by the Construction Manager to review the CQCP before submitting and include a copy of the completed checklist with the CQCP. Do not begin Work until the CQCP is accepted. Submit an interim plan covering only the portion of Work to be performed if the Contractor plans to begin Work prior to submitting the complete CQCP for the Project. Do not begin Work on other parts of the Project until the complete CQCP is accepted.

- C. Meet with the OPT 7 days after CQCP is submitted and before start of construction to discuss the CQCP.
- D. Notify the Construction Manager of any changes to the CQCP or quality control personnel.

1.08 CONTRACTOR'S USE OF OWNER'S TEST REPORTS

- A. Contractor will receive copies of all test reports documenting the Owner's verification tests. Contractor is entitled to rely on the accuracy of these tests results and use these as part of its quality control efforts.

1.09 LIMITATION OF AUTHORITY OF THE TESTING LABORATORY

- A. The testing laboratory representatives are limited to providing testing services and interpreting the results of the test performed.
- B. The testing laboratory is not authorized to:
 - 1. Alter the requirements of the Contract Documents;
 - 2. Accept or reject any portion of the Work;
 - 3. Perform any of the duties of the Contractor; or
 - 4. Direct or stop the Work.

1.10 TEST REPORTS

- A. Certified Test Reports are to be prepared for all tests.
 - 1. Tests performed by testing laboratories may be submitted on their standard test report forms if acceptable to the Owner using the process directed by the Construction Manager. These reports must include the following:
 - a. Name of the Owner, Project title and number, and name of the Contractor;
 - b. Name, address, and telephone number of the laboratory;
 - c. Name and signature of the laboratory personnel performing the test;
 - d. Description of the product being sampled or tested;
 - e. Date and time of sampling, inspection, and testing;
 - f. Date the report was issued;
 - g. Description of the test performed;
 - h. Weather conditions and temperature at time of test or sampling;
 - i. Location at the Site or structure where the test was taken;
 - j. Standard or test procedure used in making the test;
 - k. A description of the results of the test;
 - l. Statement of compliance or non-compliance with the Contract Documents; and
 - m. Interpretations of test results, if appropriate.

2. Submit reports on tests performed by the Contractor, Subcontractors, or Suppliers as directed by the Construction Manager.
 - B. Submit test reports as directed by the Construction Manager within 24 hours of completing the test. Flag tests reports with results that do not comply with Contract Documents for immediate attention. Notify the Construction Manager, using acceptable means other than the test report, immediately of any test that fails to comply with the Contract Documents.
- 1.11 DELIVERY, STORAGE, AND HANDLING
- A. Handle and protect test specimens of products and construction materials at the Site in accordance with recognized test procedures. Provide facilities for storing, curing, and processing test specimens as required by test standards to maintain the integrity of Samples. Transport test specimens in a manner to prevent damage to specimens while in transit.

PART 2 - PRODUCTS

2.01 TESTING APPARATUS

- A. Furnish testing apparatus and related accessories necessary to perform the tests.

2.02 SAMPLE PRODUCTS

- A. Provide Samples of products in adequate quantity for testing.

PART 3 - EXECUTION

3.01 IMPLEMENTING CONTRACTOR'S QUALITY CONTROL PLAN

- A. Perform quality control observations and testing as required in each Section of the Specifications and where indicated on the Drawings.
- B. Include the phases listed below for each definable work task. A definable work task is one which is separate and distinct from other tasks, has separate control requirements, may be provided by different trades or disciplines, or may be work by the same trade in a different environment.
 1. Planning Phase: Perform the following before beginning each definable work task:
 - a. Review the Contract Documents.
 - b. Review documents the Contractor will submit and determine that they are complete in accordance with the Contract Documents.
 - c. Check to ensure that all materials and/or equipment have been tested, submitted, and approved.
 - d. Examine the work area to ensure that all required preliminary Work has been completed and complies with the Contract Documents.
 - e. Examine required materials, equipment, and sample Work to ensure that they are on hand, conform to Contract Documents, Shop Drawings and Product Data, and are properly stored.

- f. Review requirements for quality control inspection and testing.
 - g. Discuss procedures for controlling quality of the Work. Document construction tolerances and workmanship standards for the work task.
 - h. Check that the portion of the plan for the Work to be performed incorporates document review comments.
 - i. Discuss results of planning phase with the Construction Manager. Conduct a meeting attended by the Construction Manager, Quality Control Manager, superintendent, other quality control personnel as applicable, and the foreman responsible for the work task. Instruct applicable workers as to the acceptable level of workmanship required to meet the requirements of the Contract Documents. Document the results of the planning phase actions by separate meeting minutes prepared by the Quality Control Manager and attached to the quality control report.
 - j. Do not move to the next phase unless results of investigations required for the planning phase indicate that requirements have been met.
2. Work Phase: Complete this phase after the planning phase.
- a. Notify the Construction Manager at least 1 week in advance of beginning the Work and discuss the review of the planning phase effort to indicate that requirements have been met.
 - b. Check the Work to ensure that it is in full compliance with the Contract Documents.
 - c. Verify adequacy of controls to ensure full compliance with the Contract Documents. Verify required control inspection and testing is performed.
 - d. Verify that established levels of workmanship meet acceptable workmanship standards. Compare with required Sample panels as appropriate.
 - e. Repeat the work phase for each new crew to work on-site, or any time acceptable specified quality standards are not being met.
3. Follow-Up Phase: Perform daily checks to ensure control activities, including control testing, are providing continued compliance with contract requirements.
- a. Make checks daily and record observations in the quality control documentation.
 - b. Conduct follow-up checks and correct all defects prior to the start of additional work tasks that may be affected by the Defective Work. Do not build upon nor conceal Defective Work.
 - c. Conduct a review of the Work at least 1 month prior to the expiration of the correction period prescribed in the General Conditions with the OPT. Correct defects as noted during the review.
- C. Conduct additional planning and work phases if:
- 1. The quality of on-going Work is unacceptable;
 - 2. Changes are made in applicable quality control staff, on-site production supervision, or crews;

3. Work on a task is resumed after a substantial period of inactivity; or
4. Other quality problems develop.

3.02 DEFECTIVE WORK

- A. Immediately correct any Defective Work or notify the Construction Manager why the Work is not to be corrected immediately and when corrective action will be completed.
- B. Work performed that is connected or adjacent to Defective Work or Work that would have to be removed to correct Defective Work is also considered to be Defective. Contractor is responsible for all costs associated with replacing any acceptable Work that must be removed, or might be damaged by corrective actions.
- C. Document Defective Work, corrective actions taken to correct defects, and that corrected Work complies with the Contract Documents.
- D. Implement countermeasures to prevent future Defective Work.
- E. No payment will be made for Defective Work. Remove Work from the Application for Payment if Work paid for on a previous Application for Payment is found to be Defective.
- F. Owner will withhold payment for Defective Work or Work that has not been tested or inspected in accordance with the CQCP or the Contract Documents.

3.03 VERIFICATION TESTING FOR CORRECTED DEFECTS

- A. Provide verification testing on corrected Work when corrective action is complete to demonstrate that the corrected Work complies with the Contract Documents. Conduct the same tests or inspections used to determine that the original Work was Defective. Different tests or methods may be used if approved by the Owner. Document that Defective Work has been corrected with the Construction Manager.
- B. Pay for verification testing until Work meets quality requirement set forth in the Contract Documents. OPT may perform verification testing as part of the Owner's Quality Management Program and impose a set-off to recover the cost for this testing.

END OF SECTION

01 57 00 TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide labor, materials, equipment, and incidentals necessary to construct temporary facilities to provide and maintain control over environmental conditions at the Site. Remove temporary facilities when no longer needed.
- B. Construct temporary impounding works, channels, diversions, furnishing, and operation of pumps, installing piping and fittings, and other construction for control of conditions at the Site. Remove temporary controls at the end of the Project.

1.02 DOCUMENTATION

- A. Provide Shop Drawings in accordance with Section 01 33 02 "Shop Drawings."
- B. Provide copies of notices, records, and reports required by the Contract Documents or Laws and Regulations as Product Data in accordance with Section 01 31 13 "Project Administration."

1.03 QUALITY ASSURANCE

- A. Construct and maintain temporary controls with adequate workmanship using durable materials to provide effective environmental management systems meeting the requirements of the Contract Documents and Laws and Regulations. Use materials that require minimal maintenance to prevent disruption of construction activities while providing adequate protection of the environment.
- B. Periodically inspect systems to determine that they are meeting the requirements of the Contract Documents.

1.04 POLLUTION CONTROL

- A. Prevent the contamination of soil, water, or atmosphere by the discharge of noxious substances from construction operations. Provide adequate measures to prevent the creation of noxious air-borne pollutants. Prevent dispersal of pollutants into the atmosphere. Do not dump or otherwise discharge noxious or harmful fluids into drains or sewers, nor allow noxious liquids to contaminate public waterways in any manner.
- B. Provide equipment and personnel and perform emergency measures necessary to contain any spillage.
 - 1. Contain chemicals in protective areas and do not dump on soil. Dispose of such materials at off-site locations in an acceptable manner.
 - 2. Excavate contaminated soil and dispose at an off-site location if contamination of the soil does occur. Fill resulting excavations with suitable backfill and compact to the density of the surrounding undisturbed soil.
 - 3. Provide documentation to the Owner which states the nature and strength of the contaminant, method of disposal, and the location of the disposal site.

4. Comply with Laws and Regulations regarding the disposal of pollutants.
- C. Groundwater or run-off water which has come into contact with noxious chemicals, sludge, or contaminated soil is considered contaminated. Do not allow contaminated water to enter streams or water courses, leave the Site in a non-contained form, or enter non-contaminated areas of the Site.
 1. Construct temporary holding ponds or take other precautions and measures as required to contain the contaminated water and pump to a designated storage area.
 2. Wash any equipment used for handling contaminated water or soil within contaminated areas three times with uncontaminated water prior to using such equipment in an uncontaminated area. Dispose of wash water used to wash such equipment as contaminated water.

1.05 EARTH CONTROL

- A. Remove excess soil, spoil materials, and other earth not required for backfill. Control stockpiled materials to eliminate interference with Contractor and Owner's operations.
- B. Dispose of excess earth off the Site. Provide written approval from the property owner for soils deposited on private property as Product Data per Section 01 31 13 "Project Administration." Obtain approval of the OPT if this disposal impacts the use of Site or other easements.

1.06 AIR POLLUTION CONTROL

- A. Air Pollution Watch Days:
 1. Air Pollution Watch Days (APWD) may occur in the following times:
 - a. Typical Ozone Season: May 1 through October 31.
 - b. Critical Emission Time: 6:00 a.m. to 10:00 a.m.
 2. Watch Days:
 - a. State or local environmental regulatory agencies, in coordination with the National Weather Service, may designate the following day as an APWD by 3:00 p.m. on the prior afternoon.
 - b. Begin work after 10:00 a.m. on designated APWD if work requires the use of heavy construction equipment for run times in excess of 1 hour prior to 10:00 a.m. Heavy construction equipment may be used prior to 10:00 a.m. if equipment is certified by EPA as "Low Emitting" or equipment burns Ultra Low Sulfur Diesel (ULSD), diesel emulsions, or alternative fuels such as CNG.
- B. Obtain air permit for construction activities per requirements of Laws and Regulations.

1.07 TEMPORARY STORMWATER POLLUTION CONTROL

- A. Provide temporary stormwater pollution control per Section 01 57 23 "Temporary Stormwater Pollution Control."

1.08 MANAGEMENT OF WATER

- A. Manage water resulting from rains or ground water at the Site. Maintain trenches and excavations free of water at all times.
- B. Lower the water table in the construction area by acceptable means if necessary to maintain a dry and workable condition at all times. Provide drains, sumps, casings, well points, and other water control devices as necessary to remove excess water.
- C. Provide continuous operation of water management actions. Maintain standby equipment to provide proper and continuous operation for water management.
- D. Ensure that water drainage does not damage adjacent property. Divert water into the same natural watercourse in which its headwaters are located, or other natural stream or waterway as approved by the Owner. Assume responsibility for the discharge of water from the Site.
- E. Remove the temporary construction and restore the Site in a manner acceptable to the Construction Manager and to match surrounding material at the conclusion of the Work.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Provide materials that comply with Laws and Regulations.

PART 3 - EXECUTION

3.01 CONSTRUCTING, MAINTAINING, AND REMOVING TEMPORARY CONTROLS

- A. Construct temporary controls in accordance with Laws and Regulations.
- B. Maintain controls in accordance with regulatory requirements where applicable or in accordance with the requirements of the Contract Documents.
- C. Remove temporary control when no longer required, but before the Project is complete. Correct any damage or pollution that occurs as the result of removing controls while they are still required.

END OF SECTION

01 57 23 TEMPORARY STORMWATER POLLUTION CONTROL

PART 1 - GENERAL

1.01 SUMMARY

- A. Furnish labor, materials, equipment, and incidentals necessary to provide stormwater pollution prevention for the duration of the construction period including furnishing, installing, and maintaining erosion and sediment control structures and procedures and properly removing the features when no longer required.
- B. Develop, implement, and maintain a stormwater pollution prevention plan (SWPPP) in compliance with local, state, and federal Laws and Regulations. Provide preventive measures to keep sediment and other pollutants from the construction activity from entering any stormwater system, including open channels.
- C. Comply with all requirements of the Oklahoma Department of Environmental Quality (ODEQ) General Permit OKR10 for storm water discharges from construction activities under the Oklahoma Pollutant Discharge Elimination System (OPDES).
- D. File all required legal notices and obtain required permits prior to beginning any construction activity.
- E. This Section provides guidelines and Best Management Practices information for the Contractor to use in adhering to all local, state, and federal environmental Laws and Regulations with respect to stormwater pollution prevention during construction activities.

1.02 DOCUMENTATION

- A. Documentation must be provided in accordance with Section 01 33 00 "Document Management."
- B. Submit copies of required notices and reports to the Construction Manager as Product Data in accordance with Section 01 33 03 "Product Data." Retain copies of these documents at the Site for review and inspection by the OPT or regulatory agencies at all times.
- C. Submit copies of required notices to local, state, and federal authorities and any other entity as required by the General Permit and applicable Laws and Regulations.
- D. Post a copy of required notices at the Site in a location where it is readily available for viewing by the general public and local, state, and federal authorities prior to starting construction activities and maintain the posting until completion of the construction activities.
- E. Maintain copies of a schedule of major construction activities, inspection reports, and revision documentation with the SWPPP required under the General Permit.
- F. Provide schedules in accordance with Paragraph 3.05.

1.03 QUALITY ASSURANCE

- A. Comply with applicable requirements of all governing authorities having jurisdiction. The Specifications and the Drawings are not intended to be prescriptive but rather to convey

the intent to provide complete slope protection, erosion control, and stormwater pollution prevention for both the Owner's property and adjacent properties.

- B. Perform Work to comply with "Best Practices" as established by ODEQ or the local agency of jurisdiction.
- C. Contractor must develop and implement a SWPPP in accordance with the General Permit prior to the beginning of construction activity
- D. Contractor assumes sole responsibility for implementing, updating, and modifying the General Permit per Laws and Regulations for the SWPPP and Best Management Practices.
- E. Stormwater pollution prevention measures must be established prior to the beginning of construction and maintained during the entire length of construction until final stabilization has been achieved for the area protected.
- F. All land-disturbing activities must be planned and conducted to minimize the area to be exposed at any one time as well as time of exposure, off-site erosion, sedimentation, and adverse water quality impacts.
- G. Surface water runoff originating upgrade of an exposed area must be managed to minimize erosion and sediment loss during the period of exposure.
- H. Install measures to control both the velocity and rate of release so as to minimize erosion and sedimentation of the receiving water body (i.e. , ditch, channel, stream) in accordance with regulatory requirements and as directed by the OPT.
- I. Periodically clean out and dispose of all sediment and other pollutants as necessary to maintain adequate treatment capacity of each pollution control feature. Clean out and properly dispose of all sediment and other stormwater pollutants at the time of completion of the Work.

1.04 JOB CONDITIONS, CODES AND ORDINANCES

- A. Comply with the local codes and ordinances. If local codes and ordinances require more stringent or additional stormwater pollution prevention measures during construction beyond those required by state and federal Laws and Regulations, the Contractor must provide such measures at no additional cost.

1.05 STANDARDS

- A. The applicable provisions of the following standards apply as if written here in their entirety:
 - 1. ASTM International (ASTM):

ASTM D4632	Standard Test Method for Grab Breaking Load and Elongation of Geotextiles, 90 pounds
ASTM D4833	Standard Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products, 60 pounds
ASTM D3786	Standard Test Method for Hydraulic Bursting Strength of Textile Fabrics-Diaphragm Bursting Strength Tester Method, 280 psi
ASTM D4751	Standard Test Method for Determining Apparent Opening Size of a Geotextile, U.S. Sieve No. 70 (max) to No. 100 (min)

ASTM D4355	Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc-Type Apparatus
ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort

PART 2 - PRODUCTS

2.01 MATERIALS

- A. All materials used for stormwater pollution prevention must meet the minimum design and specification requirements for commonly used sediment loss prevention and meeting all regulatory requirements. The Contractor must use appropriate control devices to protect against stormwater pollution from construction site activities.

PART 3 - EXECUTION

3.01 PREPARATION

- B. Comply with the current requirements of ODEQ General Permit OKR10 (General Storm Water Permit) set forth by the Oklahoma Department of Environmental Quality for the duration of the Project:
 1. Develop a Storm Water Pollution Prevention Plan meeting all requirements of the General Storm Water Permit.
 2. Submit of a Notice of Intent to the Oklahoma Department of Environmental Quality.
 3. Develop and implement appropriate Best Management Practices as established by local agencies of jurisdiction.
 4. Provide all monitoring and/or sampling required for reporting to the Oklahoma Department of Environmental Quality.
 5. Submit reports to the Oklahoma Department of Environmental Quality as required as a condition of the permit.
 6. Submit copies of the reports to the Engineer as Record Data in accordance with Section 01 33 00 "Submittal Procedures."
 7. Retain copies of these documents at the Site at all times for review and inspection by the Owner or regulatory agencies. Post a copy of the permit as required by regulations.
 8. Pay all costs associated with complying with the provisions of the General Storm Water Permit. Assume solely responsible for implementing, updating, and modifying the General Storm Water Permit per regulatory requirements the Storm Water Pollution Prevention Plan and Best Management Practices.
- C. Use forms required by the Oklahoma Department of Environmental Quality to file the Notice of Intent. Submit the Notice of Intent at least 2 days prior to the start of construction. Develop the Storm Water Pollution Prevention Plan prior to submitting the Notice of Intent. Provide draft copies of the Notice of Intent, Storm Water Pollution Prevention Plan, and any other pertinent Oklahoma Department of Environmental Quality

submittal documents to Owner for review prior to submittal to the Oklahoma Department of Environmental Quality.

- D. Return any property disturbed by construction activities to either specified conditions or pre-construction conditions as set forth in the Contract Documents. Provide an overall erosion and sedimentation control system that will protect all undisturbed areas and soil stockpiles/spoil areas. Implement appropriate Best Management Practices and techniques to control erosion and sedimentation and maintain these practices and techniques in effective operating condition during construction. Permanently stabilize exposed soil and fill as soon as practical during the Work.
- E. Assume sole responsibility for the means, methods, techniques, sequences, and procedures for furnishing, installing, and maintaining erosion and sedimentation control structures and procedures and overall compliance with the General Storm Water Permit. Modify the system as required to effectively control erosion and sediment.
- F. Retain copies of reports required by the General Storm Water Permit for 3 years from date of final completion.
- G. OPT may require Contractor to install stormwater pollution prevention devices and/or practices during construction in addition to those required under the approved SWPPP. Contractor must remain solely responsible for complying with all local, state, and federal Laws and Regulations.

3.02 INSTALLATION

- A. Erosion control blankets to hold seed and soil in place until vegetation is established on disturbed areas are subject to the following installation criteria:
 - 1. Prior to the installation of any erosion control matting, all rocks, dirt clods, stumps, roots, trash, and any other obstructions that would prevent the mat from lying in direct contact with the soil must be removed.
 - 2. Anchor trenching must be located along the entire perimeter of the installation area, except for small areas with less than 2 percent slope.
 - 3. Installation and anchoring must conform to the recommendations shown within the manufacturer's published literature for the erosion control blanket.
 - 4. Anchors (staples) must be a minimum of 6 inches in length and 1 inch wide. They must be made of 11-gauge wire, or equivalent, unless the ECB is intended to remain in place with final stabilization and biodegrade.
 - 5. Particular attention must be paid to joints and overlapping material. Overlap along the sides and at the ends of ECBs should be per the manufacturer's recommendations for site conditions and the type of ECB being installed. At a minimum, the end of each roll of ECB must overlap the next roll by 3 feet and the sides of rolls must overlap 4 inches.
 - 6. After installation, check blankets for uniform contact with the soil, security of the lap joints, and flushness of the staples with the ground.
- B. Silt fences for perimeter controls located downstream of disturbed areas are subject to the following installation criteria:
 - 1. Construct fences along a line of constant elevation (along a contour line if possible).

2. Maximum drainage area must be 0.25 acres per 100 linear feet of silt fence.
 3. Maximum flow to any 20-foot section of silt fence must be 1 cfs.
 4. Maximum distance of flow to silt fence must be 200 feet or less. If the slope exceeds 10 percent, the flow distance must be less than 50 feet.
 5. Maximum slope adjacent to the fence must be 2:1.
 6. Stone overflow structures or other outlet control devices must be installed at all low points along the fence or spaced at approximately 300 feet if there is no apparent low point.
 7. A 6-inch wide trench is to be cut 6 inches deep at the toe of the fence to allow the fabric to be laid below the surface and backfilled with compacted earth or gravel to prevent bypass of runoff under the fence. Fabric must overlap at abutting ends a minimum of 3 feet and must be joined such that no leakage or bypass occurs. If soil conditions prevent a minimum toe-in depth of 6 inches or installation of support post to depth of 12 inches, silt fences must not be used.
 8. Sufficient room for the operation of sediment removal equipment must be provided between the silt fence and other obstructions in order to properly maintain the fence.
 9. The last 10 feet (or more) at the ends of a line of silt fence must be turned upslope to prevent bypass of stormwater. Additional upslope runs of silt fence may be needed every 200 to 400 linear feet, depending on the traverse slope along the line of silt fence.
- C. Inlet protection for new developments that include new inlets or roads with new curb inlets or during repairs to existing roadways are subject to the following installation criteria:
1. Maintain barricades, signs, and safety features around the Work in accordance with all provisions of the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD), when installing inlet protection on publicly traveled streets or in developed areas. Ensure that inlet protection is properly designed, installed, and maintained to avoid flooding of the roadway or adjacent properties and structures.
 2. Maximum depth of flow must be 8 inches or less.
 3. A 2-inch overflow gap or weir is required on all curb inlet protection devices.
 4. Positive drainage is critical in the design of inlet protection. If overflow is not provided for at the inlet, excess flows must be routed through established swales, streets, or other watercourses to minimize damage due to flooding.
 5. Filter Fabric Protection:
 - a. Filter fabric protection is appropriate where the drainage area is less than 1 acre and the basin slope is less than 5 percent.
 - b. Filter fabric, posts, and wire mesh must meet the material requirements specified in Paragraph 2.01.a.
 - c. A 6-inch wide trench is to be cut 6 inches deep at the toe of the fence to allow the fabric to be laid below the surface and backfilled with compacted earth or gravel. This entrenchment prevents any bypass of runoff under the fence.

- d. Stone overflow structures must be installed where flow to the inlet is concentrated and more than 1 cfs according to the criteria in Paragraph 2.01.
6. Block and Gravel Protection (Curb and Drop Inlets):
- a. Concrete blocks are to be placed on their sides in a single row around the perimeter of the inlet, with ends abutting.
 - b. Openings in the blocks should face outward, not upward. 1/2-inch by 1/2-inch wire mesh must then be placed over the outside face of the blocks covering the holes.
 - c. Filter stone must then be piled against the wire mesh to the top of the blocks with the base of the stone being a minimum of 18 inches from the blocks.
 - d. Alternatively, where loose stone is a concern (streets, etc.), the filter stone may be placed in appropriately sized geotextile fabric bags.
7. Excavated Impoundment Protection:
- a. Excavated impoundment protection is only applicable to drop inlets.
 - b. It should not be applied to Y inlets because it will undermine the concrete pad surrounding the inlet opening. Nor can it be used for inlets on pavement.
 - c. With this protection method, it is necessary to install weep holes to allow the impoundment to drain completely.
 - d. The impoundment must be sized such that the volume of excavation is equal to or exceeds the runoff volume from the temporary control design storm (2-year, 24-hour) for the inlet's drainage area.
 - e. The trap must have a minimum depth of 1 foot and a maximum depth of 2 feet as measured from the top of the inlet and must have side slopes of 2:1 or flatter.
8. Organic Filter Tube Protection (Curb and Drop Inlets):
- a. Organic filter tubes may be used on paved or unpaved surfaces. On paved surfaces, tubes must be secured in place by rock bags. On unpaved surfaces, the tubes must be embedded in the ground a minimum of 3 inches and staked at 4-foot spacing.
 - b. Designer must provide calculations and specify the diameter of tube to be used based on the inlet's drainage area and the flow rate of runoff to the inlet.
 - c. The minimum allowable diameter is 12 inches.
 - d. For curb protection, the diameter of the tube must be at least 2 inches less than the height of the inlet opening. The tube should not be allowed to block the entire opening, since it will clog.
 - e. The tube must be placed on 4-inch by 4-inch or 2-inch by 4-inch wire mesh to prevent the tube from sagging into the inlet. The tube should be long enough to extend a minimum of 12 inches past the curb opening on each side of the inlet.

- D. Stone outlet sediment traps (excavated or bermed) for situations where flows are concentrated in a drainage swale or channel are subject to the following installation criteria:
1. The maximum drainage area contributing to the trap must be less than 10 acres for the excavated trap, and 5 acres or less for the bermed trap. For larger drainage areas a sediment basin must be used.
 2. The minimum storage volume must be the volume of runoff from the temporary control design storm (2-year, 24-hour) for the sediment trap's drainage area.
 3. The surface area of the design storage must be 1 percent of the area draining to the device.
 4. The maximum embankment height must be 6 feet as measured from the toe of the slope on the downstream side.
 5. Minimum width of the embankment at the top must be 2 feet.
 6. Embankment slope must be 1:5:1 or flatter.
 7. The embankment must have a depressed area to serve as the outlet with a minimum width of 4 feet.
 8. A 6-inch minimum thickness layer of 1-1/2-inch filter stone must be placed on the upstream face of the embankment when stormwater runoff contains fine silt and clay particles.
 9. The embankment must consist of stone riprap or a combination of compacted fill with stone riprap. The stone may be enclosed in wire mesh or a gabion basket and anchored to the channel bottom to prevent washing away.
 10. Fill must be placed in 8-inch loose lifts (maximum) and compacted to 95 percent Standard Proctor Density at optimum moisture content using ASTM D698 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort.
 11. Geotextile fabric, covered with a layer of stone, must extend past the base of the embankment on the downstream side a minimum of 2 feet.
 12. The outlet must be designed to have a minimum freeboard of 6 inches at design flow.
- E. Check dams for long drainage swales or ditches to reduce erosive velocities are subject to the following installation criteria:
1. Typically, the dam height should be between 9 inches and 36 inches, depending on the material of which they are made. The height of the check dam must always be less than one-third the depth of the channel.
 2. Dams should be spaced such that the top of the downstream dam is at the same elevation as the toe of the upstream dam. On channel grades flatter than 0.4 percent, check dams should be placed at a distance that allows small pools to form between each check dam.
 3. The top of the side of the check dam must be a minimum of 12 inches higher than the middle of the dam. In addition, the side of the dams must be embedded a minimum of 18 inches into the side of the drainage ditch, swale or channel to minimize the potential for flows to erode around the side of the dam.

4. Larger flows (greater than 2-year, 24-hour design storm) must pass the check dam without causing excessive upstream flooding.
 5. Check dams should be used in conjunction with other sediment reduction techniques prior to releasing flow off-site.
 6. Rock Check Dams: Rock check dams must have a minimum top width of 2 feet with side slopes of 2:1 or flatter.
 7. Rock Bag Check Dams:
 - a. Rock bag check dams should have a minimum top width of 16 inches.
 - b. Bag length must be 24 to 30 inches, width must be 16 to 18 inches, and thickness must be 6 to 8 inches and having a minimum weight of 40 pounds.
 - c. Minimum rock bag dam height of 12 inches would consist of one row of bags stacked on top of two rows of bag. The dam must always be one more row wide than it is high, stacked pyramid fashion.
 - d. PVC pipes may be installed through the dam to allow for controlled flow through the dam. Pipe should be schedule 40 or heavier polyvinyl chloride (PVC) having a nominal internal diameter of 2 inches.
 8. Sack Gabion Check Dams:
 - a. Sack gabion check dams may be used in channels with a contributing drainage area of 5 acres or less.
 - b. Wire mesh must be one piece, wrapped around the rock, and secured to itself on the downstream side using wire ties or hog rings.
 - c. Sack gabions must be staked with 3/4-inch rebar at a maximum spacing of 3 feet. Each wire sack must have a minimum of two stakes.
 9. Organic Filter Tube Check Dams:
 - a. Organic filter tubes may be used as check dams in channels with a contributing drainage area of 5 acres or less.
 - b. Organic filter tubes must be a minimum of 12 inches in diameter.
 - c. Staking of filter tubes must be at a maximum of 4-foot spacing and must alternate through the tube and on the downstream face of the tube.
- F. Stabilized construction exits for sites in which significant truck traffic occurs on a daily basis are subject to the following installation criteria:
1. Limit site access to one route during construction, if possible; two routes for linear and larger projects.
 2. Prevent traffic from avoiding or shortcutting the full length of the construction exit by installing barriers. Barriers may consist of silt fence, construction safety fencing, or similar barriers.
 3. Design the access point(s) to be at the upslope side of the construction site. Do not place construction access at the lowest point on the construction site.

4. Stabilized Construction Exits are to be constructed such that drainage across the entrance is directed to a controlled, stabilized outlet on-site with provisions for storage, proper filtration, and removal of wash water.
5. The exit must be sloped away from the paved surface so that stormwater is not allowed to leave the Site onto roadways.
6. Minimum width of exit must be 15 feet.
7. Vehicles must not be permitted to track or drop sediment onto paved roads, streets, or parking lots. When necessary, vehicles must be cleaned to remove sediment prior to exit onto paved areas. When washing is required, it must be done on a constructed wheel wash facility that drains into an approved sediment trap or sediment basin or other sedimentation/filtration device.
8. Minimum dimensions for the exit must be as follows:

Tract Area	Min. Width of Exit	Min. Length of Exit
<1 Acre	15 feet	20 feet
≥ 1 acre but <5 Acres	25 feet	50 feet
≥5 Acres	30 feet	50 feet

- G. Install pollution control devices in a manner consistent with their designed intent.

3.03 MAINTENANCE

- A. Maintain pollution prevention control structures and procedures in full working order at all times during construction. This must include any necessary repair or replacement of items which have become damaged or ineffective. Remove sediment and other pollutants which accumulate in pollution control devices as necessary to maintain the intended design efficiency for the pollution prevention measure.
- B. Dispose properly of trash, debris, and other pollutants.
- C. Place sediment material in approved earth spoil areas or return the sediment material to the area from which it eroded.
- D. Maintain pollution prevention structures and procedures until construction is complete for the area protected and until the Site achieves final stabilization. Unless more stringently defined by local, state, or federal requirements, final stabilization is defined as achieving 70 percent of background vegetative cover or placement of permanent cover, such as concrete or asphalt.
- E. Upon completion of construction and achievement of final stabilization, properly remove the temporary pollutant control structures and complete the area as indicated. Pollution control devices made of organic materials designed to degrade naturally in place will not require removal, unless specifically required by the OPT.
- F. Erosion control blankets must be inspected regularly (at least as often as required by the General Permit) for bare spots caused by weather related events. Missing or loosened blankets must be replaced or re-anchored. Also check for excess sediment deposited from runoff. Remove sediment and/or replace blanket as necessary. In addition, determine the source of excess sediment and implement appropriate Best Management Practices to control the erosion.

- G. Silt fences must be inspected regularly (at least as often as required by the General Permit) for buildup of excess sediment, undercutting, sags, and other failures. Sediment should be removed when it reaches approximately one-half the height of the fence. In addition, determine the source of excess sediment and implement appropriate Best Management Practices to control the erosion. If the fabric becomes damaged or clogged, it must be repaired or replaced as necessary.
- H. Inlet protection must be inspected regularly (at least as often as required by the General Permit). Floatable debris and other trash caught by the inlet protection should be removed after each storm event. Sediment should also be removed from curb inlet protection after each storm event because of the limited storage area associated with curb inlets. Sediment collected at inlet protection should be removed before it reaches half the height of the protection device. Sediment should be removed from inlets with excavated impoundment protection before the volume of the excavation is reduced by 50 percent. In addition, the weep holes should be checked and kept clear of blockage. Concrete blocks, 2-inch by 4-inch boards, stakes, and other materials used to construct inlet protection should be checked for damaged and repaired or replaced if damaged. When filter fabric or organic filter tubes are used, they should be cleaned or replaced when the material becomes clogged. For systems using filter stone, when the filter stone becomes clogged with sediment, the stones must be pulled away from the inlet and cleaned or replaced. Because of the potential for inlet protection to divert runoff or cause localized flooding, remove inlet protection as soon as the drainage area contributing runoff to the inlet is stabilized. Ensure that all inlet protection devices are removed at the end of the construction.
- I. The stone outlet sediment trap should be inspected regularly (at least as often as required by the General Permit) to check for clogging of the void spaces between stones. If the filter stone appears to be clogged, such that the basin will not completely drain, then the filter stone will require maintenance. If the filter stone is not completely clogged it may be raked with a garden rake to allow the water to release from the basin. If filter stone is completely clogged with mud and sediment, then the filter stone will have to be removed and replaced. Failure to keep the filter stone material properly maintained will lead to clogging of the stone riprap embankment. When this occurs, the entire stone rip-rap structure will need to be replaced. If the aggregate appears to be silted in such that efficiency is diminished, the stone should be replaced. Trash and debris should be removed from the trap after each storm event to prevent it from plugging the rock. Deposited sediment must be removed before the storage capacity is decreased by one-third, or sediment has reached a depth of 1 foot, whichever is less. The removed sediment must be stockpiled or redistributed in areas that are protected with erosion and sediment controls.
- J. Sediment basins should be inspected regularly (at least as often as required by the General Permit) to check for damage and to ensure that obstructions are not diminishing the effectiveness of the structure. Sediment must be removed and the basin must be re-graded to its original dimensions when the sediment storage capacity of the impoundment has been reduced by 20 percent. The removed sediment may be stockpiled or redistributed on-site in areas that are protected by erosion and sediment controls. Inspect temporary stabilization of the embankment and graded basin and the velocity dissipaters at the outlet and spillway for signs of erosion. Repair any eroded areas that are found. Install additional erosion controls if erosion is frequently evident.

- K. Check dams should be inspected regularly (at least as often as required by the General Permit). Silt must be removed when it reaches approximately one-third the height of the dam or 12 inches, whichever is less. Inspectors should monitor the edges of the dam where it meets the sides of the drainage ditch, swale, or channel for evidence of erosion due to bypass or high flows. Eroded areas must be repaired. If erosion continues to be a problem, modifications to the check dam or additional controls are needed. Care must be used when taking out rock check dams in order to remove as much rock as possible. Loose rock can create an extreme hazard during mowing operations once the area has been stabilized.
- L. Stabilized construction exits should be inspected regularly (at least as often as required by the General Permit). The stabilized construction exit must be maintained in a condition that prevents tracking or flow of sediment onto paved surfaces. Periodic re-grading and top dressing with additional stone must be done to keep the efficiency of the exit from diminishing. The rock must be re-graded when ruts appear. Additional rock must be added when soil is showing through the rock surface. Additional controls are needed if inspections reveal a properly installed and maintained exit, but tracking of soil outside the construction area is still evident. Additional controls may be daily sweeping of all soil spilled, dropped, or tracked onto public rights-of-way or the installation of a wheel cleaning system.

3.04 FIELD QUALITY CONTROL

- A. In the event of conflict between the specified requirements and stormwater pollution control laws, rules, or regulations or other local, state, or federal agencies, the more restrictive laws, rules, or regulations will apply.

3.05 SCHEDULES

- A. Prior to start of construction, submit schedules to the OPT for accomplishment of temporary and permanent erosion control work in connection with required clearing and grubbing, grading, construction, and paving. Include a proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials in the submittal.

END OF SECTION

01 60 00 PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide products for this Project that comply with the requirements of this Section. Specific requirements of the detailed equipment specifications govern in the case of a conflict with the requirements of this Section.
- B. Comply with applicable specifications and standards.

1.02 DOCUMENTATION

- A. Provide documents in accordance with the Contract Documents.

1.03 QUALITY ASSURANCE

- A. Design Criteria:
 - 1. Provide products designed for structural stability and operational capability.
 - 2. Provide members designed to withstand all loads imposed by installation, erection, and operation of the product without deformation, failure, or adversely affecting the operational requirements of the product. Size and strength of materials for structural members are specified as minimums only.
 - 3. Design mechanical and electrical components for all loads, currents, stresses, and wear imposed by startup and normal operations of the equipment without deformation, failure, or adversely affecting the operation of the unit. Mechanical and electrical components specified for equipment are specified as the minimum acceptable for the equipment.
- B. Coordination:
 - 1. Provide coordination of the entire Project, including verification that structures, piping, and equipment components to be furnished and installed for this Project are compatible.
 - 2. Determine that the equipment furnished for this Project is compatible with the requirements of the Contract Documents and with the equipment and materials furnished by others.
 - 3. Provide electrical components for equipment that comply with all provisions of the Contract Documents.
 - 4. Apply protective coatings and paints to equipment in the shop that are fully compatible with the final coatings to be field applied in accordance with the Contract Documents.
- C. Adapting Substitute Products:
 - 1. The Drawings and Specifications are prepared for the specified products. Make modifications to incorporate the products into the Project if a substitution is requested

for a product is and approved in accordance with Section 01 26 00 "Change Management."

2. Do not provide a product with a physical size that exceeds the available space. Consideration may be given to the acceptance of these products or equipment if the Contractor assumes all costs necessary to incorporate the item and the OPT approves such revisions.
3. Coordinate electrical requirements for the products to be installed in the Project, including revisions in electrical equipment components wiring and other elements necessary to incorporate the component.

1.04 STANDARDS

- A. The applicable industry standards referenced in the Specifications apply as if written here in their entirety.
- B. Provide equipment manufactured using structural and miscellaneous fabricated steel conforming to the standards of the American Institute of Steel Construction, except where indicated otherwise.

1.05 WARRANTIES AND GUARANTEES

- A. Normal warranty provisions are as stated in the General Conditions and Section 01 78 36 "Warranties and Service Agreements."
- B. Correct Defective Work under the provisions of the General Conditions.
- C. Provide warranties and guarantees for periods as defined in the Contract Documents. Individual Sections of the Specifications may have more stringent warranty requirements than stated in the General Conditions. The most stringent warranty will apply in the event of conflicts within the Contract Documents.
- D. The Contract Documents may require special warranties that guarantee performance at a specified capacity, power consumption, efficiency, or other operating parameter. Correct defects that prevent products from meeting the specified performance parameters. The requirements of the special warranty that guarantee performance will be satisfied when the specified performance parameters have been met for a period of 1 calendar year of operation, unless Owner elects to accept Defective Work under the provisions of the General Conditions.
- E. The Contract Documents may require special warranties for periods extending beyond the one-year correction period specified in the General Conditions. The full warranty provisions and requirements for correction of Defective Work stated in the General Conditions apply throughout the extended warranty period.
- F. Provide a warranty bond to provide the same protection as the Contractor's performance bond for extended special warranties. The warranty bond will become effective on the day the performance bond expires which is 1 year after the date of final payment per the General Conditions. The warranty bond will remain in effect until the extended warranty period has expired.
- G. In the event that products are repaired, modified, or replaced under the warranty bond, then the warranty period will continue on the date of completion of these repairs for a

period of 6 months or until the end of the original warranty period, whichever is later. In no event will the warranty period extend more than 6 months beyond the end of the original warranty period.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Provide products according to normally accepted engineering and shop practices, except where a higher standard of quality is required by the Contract Documents.
- B. Manufacture like parts of duplicate units to standard sizes and gages that are interchangeable.
- C. Two or more items of the same kind are to be identical and made by the same Supplier.
- D. Provide products suitable for the intended service.
- E. Adhere to the equipment capacities, sizes, and dimensions indicated in the Contract Documents.
- F. Do not use products for any purpose other than that for which they were designed.
- G. Provide new products. Do not provide equipment that has been in service at any time prior to delivery except for testing in accordance with the Contract Documents.
- H. Provide materials suitable for service conditions.
- I. Provide iron castings that are tough, close grained gray iron free from blowholes, flaws, or excessive shrinkage and that conform to ASTM A48.
- J. Design structural members for shock or vibratory loads.
- K. Provide steel that is at least 1/4 inch thick for all elements that will be submerged or subject to splashing all or part of the time during normal operation of the equipment. Chamfer or grind all edges to eliminate sharp exposed edges.

2.02 EQUIPMENT APPURTENANCES

- A. Provide a safety guard covering all sides on belt or chain drives, fan blades, couplings, and other moving or rotating parts:
 - 1. Fabricate safety guards from 16 US gauge or heavier galvanized or aluminum clad sheet steel or 1/2-inch mesh galvanized expanded metal;
 - 2. Design guards for easy installation and removal;
 - 3. Provide galvanized supports and accessories for each guard;
 - 4. Provide stainless steel bolts and hardware; and
 - 5. Provide safety guards designed to prevent the entrance of rain and dripping water in outdoor locations.

2.03 ANCHOR BOLTS

- A. Provide suitable anchor bolts for each product.

- B. Provide anchor bolts with templates or setting drawings in time to permit casting the anchor bolts in the concrete when concrete is placed.
- C. Provide two nuts for each bolt.
- D. Provide anchor bolts for products mounted on baseplates that are long enough to permit 1-1/2 inches of grout beneath the baseplate and to provide adequate anchorage into structural concrete. Bolts must be long enough to provide full nut engagement and leave three threads exposed. Housekeeping pads are not structural concrete.
- E. Provide stainless steel anchor bolts, nuts, and washers.

2.04 SPECIAL TOOLS AND ACCESSORIES

- A. Furnish tools, instruments, lifting and handling devices, and accessories necessary for proper maintenance and adjustment that are available only from the manufacturer or are not commonly available.

2.05 EQUIPMENT IDENTIFICATION PLAQUES

- A. Provide a plaque for each piece of equipment in accordance with Section 40 05 53 "Identification for Process Piping and Equipment."

2.06 LUBRICATION SYSTEMS FOR EQUIPMENT

- A. Provide equipment lubricated by systems which:
 1. Require attention no more frequently than weekly during continuous operation.
 2. Do not require attention during startup or shut down.
 3. Do not waste lubricants.
- B. Provide lubricants to fill lubricant reservoirs and to replace lubricant consumed during testing, startup, and operation prior to acceptance of equipment by the Owner.

2.07 INSULATION OF PIPING

- A. Insulate all piping on or related to equipment as required to prevent freezing under any condition. Insulate piping per the manufacturer's written instruction or per Section 23 07 19 "HVAC Piping Insulation" whichever is more stringent.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install equipment including equipment pre-selected or furnished by the Owner. Assume responsibility for proper installation, startup, and making the necessary adjustments so that the equipment is placed in proper operating condition per Section 01 75 00 "Starting and Adjusting."

3.02 LUBRICATION

- A. Lubricate all products provided or installed for this Project, including products furnished by the Owner, per the manufacturer's written recommendations until the product is accepted by the Owner.

END OF SECTION

01 70 00 EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. Comply with requirements of the General Conditions and specified administrative procedures in closing out the Contract.

1.02 DOCUMENTATION

- A. Submit affidavits and releases on forms provided by the Construction Manager through the PMIS.

1.03 SUBSTANTIAL COMPLETION

- A. The following requirements must be met for the Project or a designated portion of the Work to be Substantially Complete per the General Conditions:
 - 1. Work must be fully functional and able to operate in accordance with the Contract Documents without special or extraordinary efforts on the part of the Owner.
 - 2. The following items may remain incomplete in accordance with the Contract Documents:
 - a. Above ground site restoration, including sod, does not need to be completed prior to Substantial Completion.
- B. Conduct inspections with superintendent, Subcontractors, and Suppliers for the Work or a designated portion of the Work prior to calling for a Substantial Completion inspection by the OPT. Create a list of deficiencies in the Work that must be completed for the Project to qualify for Substantial Completion. Review the list with the Construction Manager or the designated member of the OPT. The Construction Manager or the designated member of the OPT may assist the Contractor with this effort; however, it is the Contractor's responsibility to create and manage this list of deficiencies until corrections are made.
- C. Correct the identified deficiencies prior to calling for a Substantial Completion inspection.
- D. Notify the Construction Manager that the Work or a designated portion of the Work is Substantially Complete per the General Conditions. Include a list of the items remaining to be completed or corrected before the Project will be considered for Final Completion.
- E. OPT will visit the Site to observe the Work within a reasonable time after notification is received to determine the status of the Project.
- F. Construction Manager will notify the Contractor that the Work is either Substantially Complete or that additional Work must be performed before the Project will be considered Substantially Complete.
 - 1. Construction Manager will notify the Contractor of items that must be completed before the Project will be considered Substantially Complete.
 - 2. Correct the noted deficiencies in the Work.

3. Notify the Construction Manager when the items of Work in the Construction Manager's notice have been completed.
4. OPT will revisit the Site and repeat the process.
5. Construction Manager will issue a Certificate of Substantial Completion to the Contractor when the OPT considers the Project to be Substantially Complete. The certificate will include a tentative list of items to be corrected before Final Payment will be recommended.
6. Review the list and notify the Construction Manager of any objections to items on the list within 10 days after receiving the Certificate of Substantial Completion.

1.04 CLOSEOUT REQUIREMENTS

- A. Provide the following before Final Completion:
 1. Record Documents per Section 01 31 13 "Project Administration";
 2. Shop Drawings, Product Data, and other documentation required by the Contract Documents;
 3. Evidence of continuing insurance and bond coverage as required by the Contract Documents

1.05 WARRANTIES, BONDS, AND SERVICES AGREEMENTS

- A. Provide warranties, bonds, and service agreements required by Section 01 33 00 "Document Management" or by the individual Sections of the Specifications.
- B. The date for the start of warranties, bonds, and service agreements is established per the General Conditions.
- C. Compile warranties, bonds, and service agreements and review these documents for compliance with the Contract Documents.
 1. Each document is to be signed by the respective Supplier or Subcontractor.
 2. Each document is to include:
 - a. The product or Work item description;
 - b. The firm name, with the name of the principal, address, and telephone number;
 - c. Scope of warranty, bond, or services agreement;
 - d. Date, duration, and expiration date for each warranty bond and service agreement;
 - e. Procedures to be followed in the event of a failure; and
 - f. Specific instances that might invalidate the warranty or bond.
- D. Submit digital copies of the documents to the Construction Manager for review.
- E. Submit warranties, bonds, and services agreements within 10 days after equipment or components placed in service.

1.06 FINAL COMPLETION

- A. Conduct inspections with Superintendent, Subcontractors, and Suppliers prior to calling for a Final Completion inspection by the OPT. Create a list of deficiencies in the Work that must be completed for the Project to qualify for the Final Completion inspection. Review the list with the Construction Manager or the designated member of the OPT. The Construction Manager or the designated member of the OPT may assist the Contractor with this effort; however, it is the Contractor's responsibility to create and manage this list of deficiencies until corrections are made.
- B. Identify, list, and correct deficiencies prior to calling for a Final Completion inspection. The Project at the call for Final Completion represents the Contractor's interpretation of a project completed in conformance with the Contract Documents and reflects the Contractor's representation of a quality project meeting the Owner's expectations.
- C. Notify the Construction Manager when:
 - 1. Work has been completed and complies with the Contract Documents;
 - 2. Equipment and systems have been tested per the Contract Documents and are fully operational;
 - 3. Final operation and maintenance manuals have been provided to the Owner and all operator training has been completed;
 - 4. Specified spare parts and special tools have been provided;
 - 5. Work is complete and ready for final inspection;
 - 6. Final documentation for all outstanding Modifications and Claims (other than those listed on the Certificate of Final Completion) have been processed and are ready for incorporation into the final Application for Payment; and
 - 7. Closeout requirements in Paragraph 1.05 have been completed.
- D. OPT will visit the Site to determine if the Project is complete and ready for final payment within a reasonable time after the notice is received.
- E. Construction Manager will notify the Contractor that the Project is complete or will notify the Contractor that Work is Defective.
- F. Take immediate steps to correct Defective Work. Notify the Construction Manager when Defective Work has corrected. OPT will visit the Site to determine if the Project is complete and the Work is acceptable. Construction Manager will issue a Certificate of Final Completion to the Contractor when the Project is complete or will notify the Contractor that Work is Defective.
- G. Submit the request for final payment with closeout documentation described in Paragraph **[1.06]** if notified that the Project is complete and the Work is acceptable.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

APPENDIX A
REPORT OF GEOTECHNICAL INVESTIGATION

RED ROCK CONSULTING

Report of Geotechnical Investigation

OF THE

***CLEARPOND ROAD RCB
SHAWNEE, OKLAHOMA***

Prepared For:

Freese and Nichols, Inc.
3600 NW 138th Street, Suite 202
Oklahoma City, Oklahoma 73134
Attention: Ms. Kayla Burd, PE

Prepared By:

Red Rock Consulting, LLC
PO Box 30591
Edmond, Oklahoma 73003
(405) 562-3328

July 14, 2023
Project No. 23043

RED ROCK CONSULTING

July 14, 2023

Freese and Nichols, Inc.
3600 NW 138th Street, Suite 202
Oklahoma City, Oklahoma 73134

Attention: Ms. Kayla Burd, PE

Re: Report of Geotechnical Investigation
Clearpond Road RCB
Shawnee, Oklahoma
Project No. 23043

Dear Ms. Burd:

I am pleased to submit herewith this report entitled "Geotechnical Investigation, Clearpond Road RCB, Shawnee, Oklahoma".

In an effort to provide a more environmentally friendly service, this report has been provided electronically.

It has been our pleasure to assist you with this project. Should you have any questions regarding the contents of this report, please contact Red Rock Consulting.

Yours very truly,
RED ROCK CONSULTING, LLC
CA No. 5707 Exp. 06/30/25



Dawson Wiseman, EI
Project Specialist



Jeremy Basler, PE
Geotechnical Manager
Oklahoma PE No. 20233



REPORT OF GEOTECHNICAL INVESTIGATION
CLEARPOND ROAD RCB
SHAWNEE, OKLAHOMA
PROJECT NO. 23043

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REPORT OF GEOTECHNICAL INVESTIGATION

CLEARPOND ROAD RCB SHAWNEE, OKLAHOMA

PROJECT NO. 23043

INTRODUCTION

General

This report presents the results of the geotechnical investigation performed for the proposed Reinforced Concrete Box (RCB) on Clearpond Road near Shawnee, Oklahoma. The RCB is located approximately 0.29 miles west of the SH 102 junction. The purpose of this investigation is to evaluate the subsurface conditions at the proposed RCB site.

Proposed Construction

The project will include the replacement of two 60-inch CMP culverts with hardened headers on the upstream and downstream ends with a new RCB. The RCB is expected to be supported on a large mat foundation or a deep foundation.

Scope of Work

The scope of this investigation includes the following:

1. Review of previous geotechnical and geological information of this site and sites near this site. This was augmented with data obtained during the field investigation phase of the project.
2. Investigation of the subsurface soils to provide information for the anticipated RCB location by drilling and sampling 2 boreholes at the RCB
3. A laboratory testing program consisting of Atterberg limits, sieve analysis, resistivity, pH, and unconfined compression testing on the soils encountered

FIELD AND LABORATORY INVESTIGATIONS

Field Exploration

Subsurface exploration for the project was performed on June 9th, 2023. The borings were located in the field by a representative of Red Rock Consulting using a handheld GPS based on a survey that was provided by Freese & Nichols, Inc. on a KMZ file. The locations of the borings should be considered accurate only to the degree implied by the methods used to define them.

At the request of the client, the subsurface exploration program consisted of drilling 2 borings at the existing crossing. The borings were advanced to depths of 65 and 75 feet under the full-time supervision of an engineer. The approximate boring locations can be found on the Boring Location Diagram in Appendix A.

The borings were advanced using an all-terrain vehicle (ATV) mounted CME 750 drill rig equipped with an automatic hammer. Draft boring logs of the subsurface conditions encountered were developed in the field. Representative samples were obtained using a split-barrel sampler in general accordance with ASTM D-1586 and thin walled tubes in general accordance with ASTM D-1587. SPT sampling and testing extended from the surface to the top of bedrock. After SPT refusal was attained, the hardness of bedrock was evaluated using a Texas cone penetrometer (TCP) in accordance with the AASHTO Manual on Subsurface Investigation and as modified by ODOT. The sampling procedures are presented on the boring logs located in Appendix A.

The SPT test uses a standard, 2-inch O.D. (outside diameter), split-barrel sampling spoon that is driven into the bottom of the boring with a 140 pound automatic drive hammer falling 30 inches. The blows per foot, N, is the number of blows required to advance the sampling spoon the last 12 inches, or less, of an 18-inch sampling interval. The N value is used to estimate the in-situ relative density of granular soils, the consistency of cohesive soils, and the hardness of weathered bedrock.

The TCP test is a standard test developed by the Texas Highway Department to evaluate the consistency or hardness of the bedrock material. The Texas Cone Penetrometer (TCP) test drives a penetrometer cone into the bedrock material with a 140-pound automatic drive hammer that falls 30 inches. The TCP is driven for a series of blows, the first 10 being seating blows, followed by two 50 blow counts. After 50 blows of the automatic hammer, the distance the TCP has advanced is measured and recorded. The distance the TCP is driven is used to estimate the hardness of bedrock.

Samples were collected and transported back to the lab for further classification and testing. The final boring logs were developed from the draft log and observations and

test results of the samples returned to the laboratory. The stratigraphic contacts indicated are only for the specific dates and locations reported and, therefore, are not necessarily representative of other locations and times. The Boring Logs, presenting conditions encountered at the locations explored, are included in Appendix A.

Laboratory Testing

Representative soil samples were tested to refine the field classifications and evaluate physical properties of the soils which may affect the geotechnical aspects of project design and construction.

The laboratory testing program included the following:

- Liquid and plastic limits (ASTM D4318)
- Full sieve (ASTM D6913/D7928)
- Resistivity (ASTM G57)
- pH (ASTM D4972)
- Unconfined compression test (ASTM D2166)

The results of the physical laboratory tests conducted are shown on the Boring Logs in Appendix A and on the Laboratory Results in Appendix B.

The above laboratory tests were performed in general accordance with applicable ASTM procedures, or generally accepted practice. It should be noted that reference to ASTM procedures does not imply that all cross-referenced procedures in ASTM standards have been used, or that all ASTM procedures used have been followed exactly. Only those ASTM procedures and/or portions of procedures, which, in the professional judgment of the geotechnical engineer of record for this report, are applicable, appropriate, and necessary for this project, have been used or followed.

SITE DESCRIPTION

Surface Conditions

At the time of the field investigation, Clearpond Road was a two-lane Asphalt Concrete paved roadway. The general area of the site is located 0.10 mile south of Shawnee Lake within residential and wooded areas. The back waters of the Shawnee Lake cross in the area of the failed RCB. Evidence of recent flooding was observed at the time of the field investigation. The site was dry at the time of drilling and the ATV-mounted drill rig did not experience any difficulty maneuvering around the site.

Traffic was nonexistent due to the temporary closure of Clearpond Road.

The surface elevations at the boring locations were determined using differential leveling procedures. BM-402, a "3/8" iron pin section corner" set in the grass utility right of way, was used as a benchmark for boring B-1. BM-403, a "3/8" iron pin section corner" set in the grass ditch, was used as a benchmark for boring B-2. The benchmarks had elevations of 1088.34 and 1079.10 feet. The location and elevation of the benchmarks were shown on the existing survey provided by the client on a KMZ file. Based on the benchmarks, the elevations of the borings ranged from 1082.33 to 1082.52 feet. The approximate elevation at each boring location is shown on the Boring Logs and on the Boring Location Diagram in Appendix A.

Site Geology

The geology of the project site was researched using the "Division Three Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) and the Geologic Map of the "Hydrologic Atlas 4 of Oklahoma," Reconnaissance of the Water Resources of the Oklahoma City quadrangle, central Oklahoma," by Roy H. Bingham and Robert L. Moore, U.S. Geological Survey, 1975.

ODOT PUBLICATION

Division Three of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates the project site consists of Alluvium (Qal) underlain by the Garber-Wellington Unit (Pgw).

Alluvium is a fine material such as sand, mud, or other sediments deposited on land by streams. Stratification is a common characteristic.

The Garber-Wellington Unit comprises much of the lower "red beds" of Division 3. The unit consists dominantly of reddish shales but includes considerable amounts of

sandstone which occurs as lenses within the shale “red beds.” Conglomerates and limestones are prominent locally.

The sandstones are mostly soft, massive (up to 40 feet thick), and reddish in color. Some sandstones are arkosic in the southern part of the Division. The sandstones generally occur as lenses and are more prominent in the upper portion of the unit, especially in Cleveland County where sandstones make up some 60% of the upper portion. One prominent group of sandstone beds are mapped and described separately as the Fallis Subunit.

The limestones are prominent at the base of the unit in southwestern Pontotoc and adjacent counties. Here, the limestones (commonly called the Hart limestone) occur in thickness up to 15 feet and are overlain by a thick sequence of dark shales. From this locate, the limestones thin both southwestward and northward. North of the Gerty Sand Deposits (Pontotoc County) the limestones are absent and the shales are reddish in color. Here, the base of the unit is obscure but is assigned to a buff to light dirty brown or reddish purple, limy, cross-bedded sandstone.

North of the Canadian River, the base of the unit is assigned to the lowermost sandstone of the Fallis Subunit which occurs some 1100 feet above the former base of the unit. The 1100 feet of strata north of the Canadian River are mapped and described as the Wellington-Admire unit.

This division of geologic strata changes the total thickness of the Garber-Wellington Unit from about 2100 feet south of the Canadian River to 1000 feet north of the River.

In division 3, the unit outcrops in a north-south band 12 to 24 miles wide through Cleveland, western Pottawatomie and western Pontotoc Counties. In Garvin and northern Murray Counties the outcrop turns westward around the northern and western limits of the Arbuckle Mountains.

Topographically, the unit is usually gently rolling prairie plains. In the upper portion of the unit, where the sandstones are prominent, the topography is rolling, with the sandstone hills covered with black jack trees. This north-south area is geographically known as the Oklahoma “blackjack belt.”

USGS MAP

The USGS map indicates the project site is underlain by Alluvium (Qal) and the Rush Wellington Formation (Pw).

Alluvium consists of stream-laid deposits of sand, silt, clay, and gravel; thickness ranges from 30 to 100 feet and averages 50 feet in major streams. Along minor streams, thickness ranges from a few feet to 50 feet and averages 25 feet.

The Wellington Formation consists of red-brown shale and orange-brown fine-grain sandstone containing maroon mudstone conglomerate and chert conglomerate to the south. Thickness ranges from 150 to 50 feet in the north.

Subsurface Conditions

Information collected during this investigation indicates that the overburden materials predominately consisted of sand with various amounts of silt and clay and sandy lean clay that extended from the surface to the top of bedrock.

A N value, or “blow count”, of zero was achieved in both borings ranging in depths from 15 to 20 feet. An N value of zero means that only the weight of the hammer and drill pipe was required to advance the SPT 18 inches. This is an indication of very soft or very loose soil.

The depth to bedrock ranged between 50 to 56 feet in the borings. The bedrock encountered in the borings consisted of sandstone with interbedded shale and shale with interbedded sandstone. The approximate depths to bedrock and conditions are summarized in Table 1.

Table 1 – Depth to Bedrock and Conditions

Boring	Depth to Bedrock (feet)	Elevation (ft)	Type of Bedrock	Hardness
B-1	56	1026.3	Sandstone with Interbedded Shale	very poorly cemented to well cemented
B-2	50	1032.5	Shale with Interbedded Sandstone	moderately hard to very hard

Subsurface conditions are described in greater detail on the Boring Logs, which are included in Appendix A.

Groundwater Conditions

Groundwater conditions were monitored in the borings during and following completion of drilling operations. The borings remained open after completion of drilling operations. The approximate groundwater levels are summarized in Table 2. It should be noted that the groundwater levels measured immediately following drilling may not be precise due

to the nature of wet rotary drilling. Cave in depth can be indicative of actual groundwater levels. At this site, the cave in depths measured after a period of delay following drilling may be due to the cohesionless subsurface soils. The cave in depths measured in the borings are shown in Table 3.

Table 2 – Groundwater Levels

Boring	During Drilling		After Drilling		
	Depth (ft)	Elevation (ft)	Hours After	Depth (ft)	Elevation (ft)
B-1	15	1067.3	0	12	1070.3
			648	9	1073.3
B-2	n/a	n/a	0	7.3	1075.2

Table 3 – Cave In Depths

Boring	Immediately After Drilling		Following a Delay After Drilling		
	Depth (feet)	Elevation (feet)	Depth (feet)	Elevation (feet)	Delay (hours)
B-1	--	--	10	1072.3	648
B-2	15.5	1067.0	6.5	1076	648

To obtain more accurate groundwater level information, long-term observations in a well or piezometer that is sealed from the influence of surface water would be needed. Fluctuations in groundwater levels can occur due to seasonal variations in the amount of rainfall, runoff, altered drainage paths, and other factors not evident at the time borings were advanced. Consequently, the contractor should be aware of this possibility while constructing this project.

CLOSURE

The information presented in this report is based on the scope defined in the proposal and site conditions as they existed at the time of the field exploration. It is further assumed that the conditions encountered in the exploratory borings are representative subsurface conditions within the study area. If conditions differ from those described in this report are encountered, Red Rock Consulting should be advised.

This report was prepared for the exclusive use of Freese and Nichols Inc. and their agents and consultants. It should be made available to prospective contractors for information factual data only and not as a warranty of subsurface conditions similar to those interpreted from the boring logs or discussions presented herein.

APPENDIX A



Boring	Northing	Easting	Elevation
B-1	723828.560	2249142.033	1082.3'
B-2	723850.519	2249232.827	1082.5'

Locations estimated from survey provided by Freese and Nichols, Inc.

BM 402: 3/8" IPSC
N = 723866.99
E = 2248885.18
Elevation = 1088.34'

BM 403: 3/8" IPSC
N = 723822.54
E = 2249542.10
Elevation = 1079.10'

**RED ROCK
CONSULTING**

PO Box 30591
Edmond, Oklahoma 73003
(405) 562-3328

BORING LOCATION DIAGRAM
CLEARPOND ROAD RCB
SHAWNEE, OKLAHOMA

Project Mngr:	DLW	RRC Project No.	23043
Designed By:	DLW	Scale:	NOT TO SCALE
Checked By:	JWB	Date:	06/20/2023
Approved By:	JWB	Page No:	1/1

CLIENT Freese and Nichols, Inc.

PROJECT NAME Clearpond Road RCB

PROJECT NUMBER 23043

PROJECT LOCATION Shawnee, Oklahoma

DATE STARTED 6/9/23 COMPLETED 6/9/23

GROUND ELEVATION 1082.3 ft STATION _____ OFFSET _____

DRILLING CONTRACTOR DSO - Drilling Services of Oklahoma

GROUND WATER LEVELS:

DRILLING METHOD HSA to 40', wet rotary to BTD - CME 750 ATV

▽ DURING DRILLING 15 ft / Elev 1067.3 ft

LOGGED BY DLW CHECKED BY JWB

▼ 0 hrs AFTER DRILLING 12 ft / Elev 1070.3 ft

NOTES N 723828.560 E 2249142.033

▼ 648 hrs AFTER DRILLING 9 ft / Elev 1073.3 ft

▼ Cave In Depth 10 ft / Elev 1072.3 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE	BLOW COUNTS	MOISTURE CONTENT (%)	ATTERBERG LIMITS			PASSING #200 SIEVE (%)
							LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
1080	0		12" ASPHALT							
			SANDY LEAN CLAY, dark red	⊗ SPT	22					
			SILTY SAND, yellowish brown, loose to medium dense	⊗ SPT	6					
			SILTY, CLAYEY SAND, brown, very loose to loose	⊗ SPT	6		18	13	5	41.7
			N=0, weight of hammer at 15 feet	⊗ SPT	0					
			N=0, weight of hammer at 20 feet	⊗ SPT	0					
			*reddish brown at 25.5 ft	⊗ SPT	5					
			SANDY LEAN CLAY, reddish brown with light gray seams, stiff	⊗ SPT	9					
			*very soft at 40 feet unconfined compressive strength at 40 ft = 185 psf undrained shear strength at 40 ft = 92.5 psf	ST						
			SILTY, CLAYEY SAND, reddish brown with light gray seams, loose	⊗ SPT	4					
				⊗ SPT	7					
			SANDSTONE with INTERBEDDED SHALE, reddish brown, very poorly cemented to well cemented	⊗ SPT ▼ TC	10 19 50/6" 50/5" 40/6"					

(Continued Next Page)

CLIENT Freese and Nichols, Inc.

PROJECT NAME Clearpond Road RCB

PROJECT NUMBER 23043

PROJECT LOCATION Shawnee, Oklahoma

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE	BLOW COUNTS	MOISTURE CONTENT (%)	ATTERBERG LIMITS			PASSING #200 SIEVE (%)
							LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
60										
1020			SANDSTONE with INTERBEDDED SHALE , reddish brown, very poorly cemented to well cemented (<i>continued</i>) *dark red seams at 60 ft	▼ SPT TC	50/5.5" 50/1" 50/0.5"					
				▼ TC	50/0.8" 50/0.8"					
70				▼ TC	50/3.5" 50/4"					
1010				▼ TC	50/4.5" 50/4.5"					
			Boring Termination Depth = 75 feet Boring Completed on 6/9/2023 and Grouted on 7/2/2023							
1000										
990										
980										
970										
960										

1 RED ROCK LOG 23043 LOGS.GPJ RED ROCK.GDT 7/14/23

CLIENT Freese and Nichols, Inc.

PROJECT NAME Clearpond Road RCB

PROJECT NUMBER 23043

PROJECT LOCATION Shawnee, Oklahoma

DATE STARTED 6/9/23 COMPLETED 6/9/23

GROUND ELEVATION 1082.5 ft STATION _____ OFFSET _____

DRILLING CONTRACTOR DSO - Drilling Services of Oklahoma

GROUND WATER LEVELS:

DRILLING METHOD wet rotary - CME 750 ATV

DURING DRILLING n/a

LOGGED BY DLW CHECKED BY JWB

▼ 0 hrs AFTER DRILLING 7.3 ft / Elev 1075.2 ft

NOTES N 723850.519 E 2249232.827

▼ 648 hr CAVE IN DEPTH 6.5 ft / Elev 1076 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE	BLOW COUNTS	MOISTURE CONTENT (%)	ATTERBERG LIMITS			PASSING #200 SIEVE (%)
							LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
1080	0		SILTY GRAVEL , light brown, loose	1082.5 SPT	10					
			SILTY SAND , yellowish brown, very loose to loose	1082 SPT	3		0	0	NP	13.7
				SPT	1					
				SPT	5					
				SPT	2					
			N=0, weight of hammer at 15 feet	SPT	0					
			*brown to dark brown at 17 ft							
				SPT	1					
			CLAYEY SAND , reddish brown, loose	1057 SPT	4					
			SANDY LEAN CLAY , reddish brown with gray and yellow seams, very stiff	1052.5 SPT	16					
			*very soft to 35 feet unconfined compressive strength at 35 ft = 131 psf undrained shear strength at 35 ft = 65.5 psf	1045.5 ST	14					
			SANDY SHALEY CLAY , red, hard	1045.5 TC	25					
				TC	50/6"					
				TC	40/6"					
				SPT	68					
				SPT	48					
			SHALE with INTERBEDDED SANDSTONE , red, moderately hard to very hard	1032.5 SPT	50/4.5"					
				TC	50/0.8"					
				TC	50/0.5"					
				TC	50/0.3"					

(Continued Next Page)

CLIENT Freese and Nichols, Inc.

PROJECT NAME Clearpond Road RCB

PROJECT NUMBER 23043

PROJECT LOCATION Shawnee, Oklahoma

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE	BLOW COUNTS	MOISTURE CONTENT (%)	ATTERBERG LIMITS			PASSING #200 SIEVE (%)
							LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
60										
1020			SHALE with INTERBEDDED SANDSTONE red, moderately hard to very hard (<i>continued</i>)	TC	50/0.5" 50/0.3"					
			Boring Termination Depth = 65 feet Boring Completed on 6/9/2023 and Grouted on 7/2/2023	TC	50/0.5" 50/0.3"					
1010										
1000										
990										
980										
970										
960										

APPENDIX B

SUMMARY OF LABORATORY RESULTS

PAGE 1 OF 1

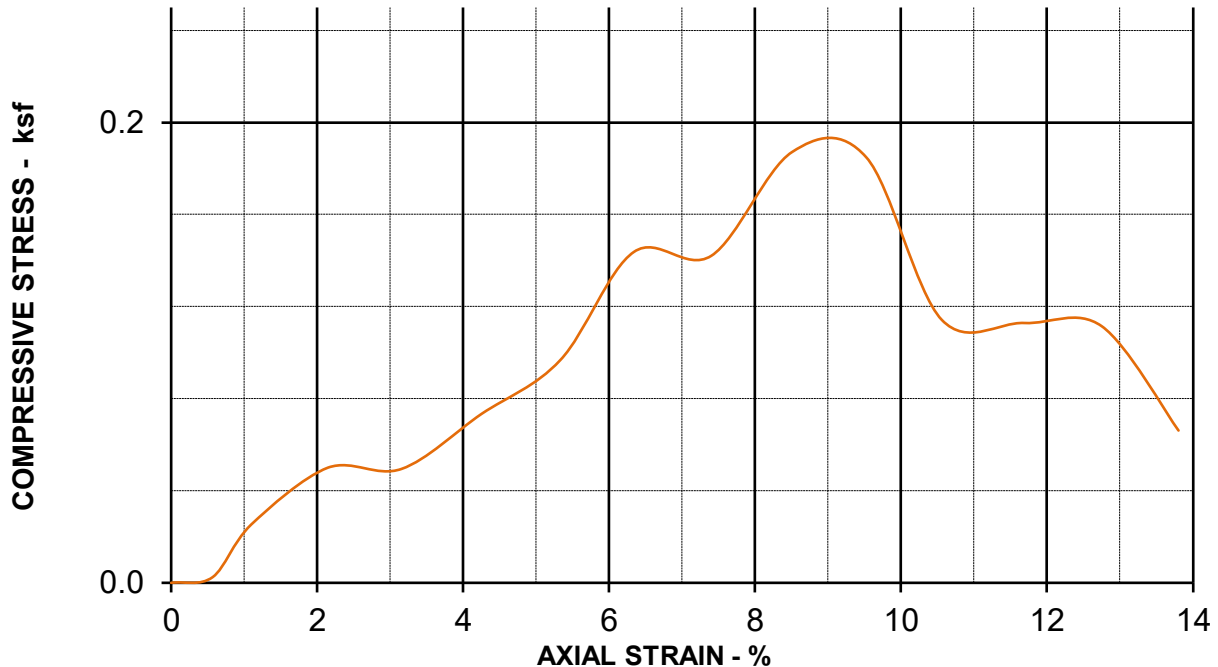
RED ROCK CONSULTING
PO Box 30591
Edmond, OK 73003
405-562-3328

CLIENT Freese and Nichols, Inc. PROJECT NAME Clearpond Road RCB
PROJECT NUMBER 23043 PROJECT LOCATION Shawnee, Oklahoma

Borehole	Depth (ft)	% Moist.	Liquid Limit	Plastic Limit	Plasticity Index	-3" Sieve	- 3/4" Sieve	-4 Sieve	-10 Sieve	-40 Sieve	-200 Sieve	pH	Resistivity (ohm-cm)
B-01	7.0		18	13	5	100	100	100	100	99	41.7		
B-01	20.0											7.3	5,010
B-02	2.0		NP	NP	NP	100	100	100	99	97	13.7		
B-02	10.0											7.4	5,714
B-02	40.0											7.2	1,074

RED ROCK CONSULTING

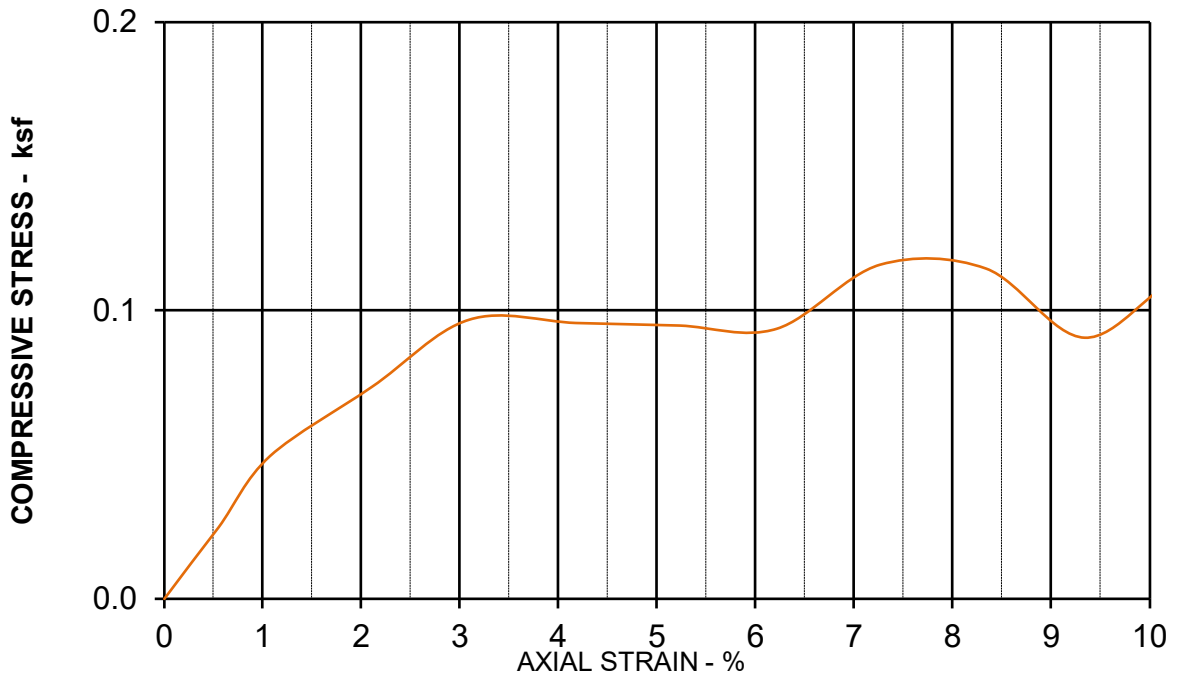
UNCONFINED COMPRESSIVE STRENGTH TEST REPORT ASTM D2166



SPECIMEN FAILURE MODE		SPECIMEN TEST DATA	
 Failure Mode : Multi-Crack		Moisture Content	%
		Dry Density	pcf
		Diameter	in 2.68
		Height	in 5.77
		Height/Diameter Ratio	2.15
		Calculated Saturation	%
		Calculated Void Ratio	
		Assumed Specific Gravity	2.70
		Failure Strain	% 8.50
		Unconfined Compressive Strength	ksf 0.185
		Undrained Shear Strength	ksf 0.093
		Strain Rate	in/min 0.06
		REMARKS: Tested at natural moisture content.	
		Sample was observed to be soft, disturbed, and irregularly shaped during extrusion.	
TEST DESCRIPTION		PROJECT INFORMATION	
SAMPLE TYPE: Shelby Tube		PROJECT: Clearpond Road RCB	
SAMPLE LOCATION: B-1 at 40 ft		LOCATION: Shawnee, Oklahoma	
SAMPLE DESCRIPTION: SANDY LEAN CLAY		PROJECT NO: 23043	
		CLIENT: Freese and Nichols, Inc	
		DATE: 6/29/2023	
LL:	PL:	PI :	Percent < 200 Sieve:
			
		B-1 at 40 ft	

RED ROCK CONSULTING

UNCONFINED COMPRESSIVE STRENGTH TEST REPORT ASTM D2166



SPECIMEN FAILURE MODE		SPECIMEN TEST DATA	
 Failure Mode : Wedge		Moisture Content	%
		Dry Density	pcf
		Diameter	in 2.71
		Height	in 5.88
		Height/Diameter Ratio	2.17
		Calculated Saturation	%
		Calculated Void Ratio	
		Assumed Specific Gravity	2.70
		Failure Strain	% 12.50
		Unconfined Compressive Strength	ksf 0.131
		Undrained Shear Strength	ksf 0.066
		Strain Rate	in/min 0.06
		REMARKS: Tested at natural moisture content. Sample was observed to be disturbed during extrusion.	
TEST DESCRIPTION		PROJECT INFORMATION	
SAMPLE TYPE: Shelby Tube		PROJECT: Clearpond Road RCB	
SAMPLE LOCATION: B-2 at 35 ft		LOCATION: Shawnee, Oklahoma	
SAMPLE DESCRIPTION: SANDY LEAN CLAY		PROJECT NO: 23043	
		CLIENT: Freese and Nichols, Inc.	
		DATE: 6/30/2023	
LL:	PL:	PI :	Percent < 200 Sieve:
RED ROCK CONSULTING			B-2 at 35 ft

APPENDIX C

GENERAL NOTES

SOIL PROPERTY ABBREVIATIONS

N	Uncorrected SPT Penetration, blows per foot
N ₆₀	Corrected SPT Penetration, blows per foot
Q _u	Unconfined Compressive Strength, psf
Mc	Moisture Content, %
LL	Liquid Limit, %
PL	Plastic Limit, %
PI	Plasticity Index, %

DRILLING & SAMPLING ABBREVIATIONS

BS	Bag Sample
SPT	Split Spoon Sample
ST	Shelby Tube Sample
AU	Auger Sample
TC	Texas Cone Penetrometer
DCP	Dynamic Cone Penetrometer

UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487)

-- used to classify all soils unless otherwise noted --

Major Divisions			Group Symbol	Typical Names
Course-Grained Soils >50% retained on #200 sieve	Gravels 50% + of course fraction retained on #4 sieve	Clean Gravels	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
		Gravels with Fines	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	Sands 50% + of course fraction passes #4 sieve	Clean Sands	SW	Well-graded sands and gravelly sands, little or no fines
			SP	Poorly graded sands and gravelly sands, little or no fines
		Sands with Fines	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils <50% passes #200 sieve	Silts and Clays Liquid Limit ≤ 50%		ML	Inorganic silts, very fine sands, rock four, silty or clayey fine sands
			CL	Inorganic clays of low to medium plasticity, gravelly/sandy/silty/lean clays
			OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays Liquid Limit > 50%		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
			CH	Inorganic clays or high plasticity, fat clays
			OH	Organic clays of medium to high plasticity
			Highly Organic Soils	

Prefix: G = Gravel, S = Sand, M = Silt, C = Clay, O = Organic **Suffix:** W = Well Graded, P = Poorly Graded, M = Silty, L = Clay, LL < 50%, H = Clay, LL > 50%

PLASTICITY OF COHESIVE SOIL

Degree of Plasticity	Plasticity Index	Swell Potential
None	0 to 4	Very Low
Slight	5 to 9	Low
Medium	10 to 19	Low to Medium
High	20 to 39	Medium to High
Very High	40+	Very High

CONSISTENCY - COHESIVE SOILS

Consistency	SPT
Very Soft	<2
Soft	2 to 4
Medium Stiff	5 to 8
Stiff	9 to 14
Very Stiff	15 to 30
Hard	31+

ROCK HARDNESS

SPT (in/50)	TCP (in/100)	Rock Description
6+	6+	Very Soft / Very Poorly Cemented
5 - 6	3 - 6	Soft / Poorly Cemented
4 - 5	2 - 3	Moderately Hard / Cemented
3 - 4	1 - 2	Hard / Well Cemented
<3	<1	Very Hard / Very Well Cemented

MOISTURE OF COHESIVE SOIL

Description	Condition	Moisture Content
Dry, Dusty	Dry	0 to 10%
Damp	Moist	10 to 30%
Free Water	Wet	30 to 70%

DENSITY - COHESIONLESS SOILS

Relative Density	SPT
Very Loose	<4
Loose	4 to 10
Medium Dense	11 to 30
Dense	31 to 50
Very Dense	51+

ROCK CORE QUALITY

Core Quality	RQD
Excellent Quality	90 – 100%
Good Quality	75 – 90%
Fair Quality	50 – 75%
Poor Quality	25 – 50%
Very Poor Quality	<25%

Plan Holder's List			
CITY OF SHAWNEE - CLEARPONG ROAD CULVERT PROJECT - C-24-01			
1	EMC Services LLC	405-605-8131	Kaitlin Alba emcservicesllc16@gmail.com
2	SAC Services	405682-4948	Saira Martinez saira@sacservicesinc.com
3	CP3 Enterprises	405-226-1495	Nick Peters cp3nick@yahoo.com
4	Downey Contracting	405-334-9500	Ramon Dickens bids@downeycontracting.com
5	Haskell Lemon	405-401-0075	Jay Hughes Bids@haskellemon.com
6	Dave Haynie LLC	405-834-5888	Dave Haynie Davehaynie@AOL.com

ADDENDUM NUMBER 1

Owner: City of Shawnee
Project: Clearpond Road Culvert Replacement
Bid No.: C-24-01
Addendum No. 1
Addendum Date: October 6th, 2023



FREESE AND NICHOLS, INC.
OKLAHOMA REGISTERED ENGINEERING FIRM CA 511

The following additions, deletions, modifications, or clarifications shall be made to the appropriate portions of the Contract Documents. Bidders must acknowledge receipt of this Addendum in the space provided in the Contract Documents.

This Addendum #1 issues the attached sign-in sheet and meeting minutes from the Prebid conference held on September 29th, 2023.

Below defined in this addendum are additional changes/clarifications associated with the project.

CLARIFICATIONS

The issuance of this addendum marks the end of the question period for this advertisement.

BID FORM EXHIBIT A

Reference Page 18, 00 41 16 Bid Form Exhibit A:

Modification: Delete this Section and replace it with the Bid Form Exhibit A included with this Addendum (Page 2). The revised form is to be attached to the Contract Documents and submitted with the Bid.

DRAWINGS

Reference Sheet 0002, Pay Quantity and Notes:

Addition: Add item 856(A) 8200 - "TRAFFIC STRIPE (MULTI-POLY.)(4" WIDE)" Unit "LF" Qty "400"
Revise: Item 514(B) 5310 "PILES, DRIVEN (HP 10X42)" to item "514(B) 5320 "PILES, DRIVEN (HP 12X53)" Qty "1,050"

Q&A RESPONSES:

Will striping be added to this project?

Yes, will replace double 4" yellow centerline stripe.

ATTACHED IS THE PRE-BID MEETING MINUTES AND SIGN-IN SHEET

END OF ADDENDUM NO. 1

Project:	Clearpond Road Culvert Replacement		Project No.:
Owner:	City of Shawnee		C-24-01
Design Professional:	Kayla Burd, PE		SWN23456
Offeror:			

Base Bid

Item No.	Item Description	Unit	Estimated Quantity	Unit Price	Extended Amount
Items in Base Bid (excluding Allowances) per Section 01 29 01 "Measurement and Basis for Payment"					
1	UNCLASSIFIED EXCAVATION	CY	300		
2	UNCLASSIFIED BORROW	CY	250		
3	SOLID SLAB SODDING	SY	363		
4	AGGREGATE BASE TYPE A	CY	139		
5	STABILIZED SUBGRADE	SY	623		
6	SEPARATOR FABRIC	SY	623		
7	TACK COAT	GAL	218		
8	PRIME COAT	GAL	218		
9	SUPERPAVE, TYPE S3(PG 64-22 OK)	TON	120		
10	SUPERPAVE, TYPE S4(PG 70-28 OK)	TON	150		
11	SUPERPAVE, TYPE S4(PG 64-22 OK)	TON	10		
12	TYPE IV GROUTED RIPRAP	SY	213		
13	SHEET ALUMINUM SIGNS	SF	12		
14	2" SQUARE TUBE POST	LF	40		
15	TRAFFIC STRIPE (MULTI-POLY.)(4" WIDE)	LF	400		
16	STRUCTURAL EXCAVATION UNCLASSIFIED	CY	43		
17	TEMPORARY EARTH RETAINAGE	LSUM	1		
18	CLASS AA CONCRETE	CY	103		
19	REINFORCING STEEL	LB	12,720		
20	PILES, DRIVEN (HP 12X53)	LF	1,050		
21	REMOVAL OF STRUCTURES & OBSTRUCTIONS	LSUM	1		
22	REMOVAL OF ASPHALT PAVEMENT	SY	525		
23	REMOVAL OF CONCRETE PAVEMENT WITH ASPHALT OVERLAY	SY	75		
24	MOBILIZATION	LSUM	1		
25	CONSTRUCTION STAKING LEVEL II	LSUM	1		
26	OWNER'S ALLOWANCE	LSUM	1	20,000.00	
A	Total Base Bid Items Amount (Sum of Extended Amounts for each Base Bid Line Item)				

BID SUBMITTED BY:

Offeror: _____
Signature: _____
Printed Name: _____
Title: _____
Date: _____

Pre-Bid Meeting Minutes – Clearpond Road Culvert Replacement

PROJECT NO. C-24-01

TO: PROSPECT CONTRACTORS

FROM: CITY OF SHAWNEE

DATE: September 29,2023

SUBJECT: PROJECT PRE-BID MEETING – Clearpond Road Culvert Replacement, Project NO. C-24-01

1. WELCOME AND INTRODUCTIONS

- a. Sign-In Sheet – See attached
- b. Design Consultant (FNI)
 - i. Kayla Burd, PE (405-252-5940)
 - ii. Brandon Huxford, PE (405-252-5938)
- c. City of Shawnee Project Manager – Seth Barkhimer (405-878-1506)

2. MANDATORY MEETING

- a. Attendance at pre-bid meeting is required for bid.

3. SCOPE OF PROJECT

- a. Reconstruct 200 LF of Clearpond Rd and install 2- 5X5' RCB culvert with parallel wingwalls.
 - i. Roadway
 - 1. Pavement section will consist of 8" stabilized subgrade, 8" aggregate base and 8" asphalt.
 - 2. Slopes greater than 1:3 shall be stabilized with grouted rip-rap as shown on the plans.
 - 3. Object marker signs will be removed and replaced
 - 4. Note the grading plan for channel grading and tie in to the wingwalls.
 - ii. Culvert
 - 1. 2 – 5'X5' RCB with parallel wingwalls at 0.5% slope
 - 2. Note foundation design consists of 15 – HP 12 X 53 X 70' piles
 - a. Bid item will be changed from HP 10X42 to 12X53 in addendum No 1.

3. Note Pay Quantity Note 1 – Structural Excavation Unclassified is to include any dewatering, de-mucking, and shoring of channel necessary for installation of structure.

- iii. Traffic Control

1. Road is closed and will stay closed through construction

4. BID INFORMATION

- a. Bid Opening – Tuesday, October 10th 3:00 p.m., City of Shawnee Public Works Departments, 16 W 9th St, Shawnee OK 74801
- b. Bids to be received by the Owner by 3:00 p.m. on October 10th, 2023 at the City Clerk's Office
- c. Plan to award project at the October 16th Council Meeting
- d. Method of Bidding – Unit Price
- e. Final Completion – 90 days from NTP
- f. See Agreement in Spec Book for detailed information.
- g. Liquidated Damages –liquidated damages of \$500 for each consecutive calendar day

5. SPECIFICATIONS

- a. 2019 ODOT Standard Specifications

6. QUESTIONS AND OPEN DISCUSSION

- a. Questions end October 3rd
- b. Question – Will striping be added to this project? Yes, will replace double 4" yellow centerline stripe.



PRE BID MEETING SIGN-IN SHEET

Project: Clearpond Road Culvert Replacement

Meeting Date: September 29, 2023
TIME: 2:00 pm

City Project No.: C-24-01

Place/Room: City Commission Chambers

[illegible]

BID TABULATION SHEET

CLEARPOND ROAD CULVERT REPLACEMENT

October 10, 2023

<u>BIDDER</u>	<u>AMOUNT</u>
<u>SAC Services Inc., Oklahoma City, OK</u>	\$ <u>576,808.⁰⁰</u>
<u>Downey Contracting LLC, Oklahoma City, OK</u>	\$ <u>877,514.⁰⁶</u>
<u>EMC Services LLC, Oklahoma City, OK</u>	\$ <u>696,617.⁰⁰</u>
<u>Haskell Lemon Construction Co., Oklahoma City, OK</u>	\$ <u>630,000.⁰⁰</u>

October 11, 2023

Seth Barkhimer, PE
Director of Engineering
City of Shawnee, Oklahoma
222 N Broadway Ave
Shawnee, OK 74801

Re: Clearpond Road Culvert Replacement
Project No. C-24-01
Recommendation of Award

Dear Mr. Barkhimer:

A total of four (4) bidders submitted bid packages on Tuesday, October 10th, 2023. Bids were for the construction of Clearpond Road Culvert Replacement including the construction of a double 5'x5' concrete box structure with HP Piles and reconstruction of approximately 200 ft. of a two-lane asphalt roadway. SAC Services Inc. provided the lowest responsive bid for the project at a total cost of \$576,808.00. A summary of the bids is provided in the table below, and the detailed bid tabulation is attached.

BID SUMMARY

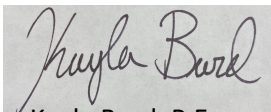
BIDDER	BID TOTAL
SAC Services Inc.	\$ 576,808.00
Downey Contracting LLC	\$ 877,514.00
EMC Services LLC	\$ 696,617.00
Haskell Lemon Construction Co.	\$ 630,000.00
Engineer's Estimate	\$ 717,565.20

SAC Services Inc. is located in Oklahoma City, Oklahoma. The bid total amount was lower than the Engineer's estimate of \$717,565.20. The City of Shawnee and Freese and Nichols, Inc. have both worked with SAC Services Inc. on projects in the past with favorable outcomes.

The four (4) responsive bids were checked for errors and none were found. We therefore recommend the contract for construction of the Clearpond Road Culvert Replacement be awarded to SAC Services Inc. in the amount of \$576,808.00.

Sincerely,

Freese and Nichols, Inc.


Kayla Burd, P.E.

Comprehensive Bid Tab - Bid No. C-24-01				Error in bid									
City of Shawnee				Apparent Lowest Bidder									
Clearpond Rd. Culvert Replacement													
SWN23456													
				SAC Services Inc.		Downey Contracting LLC		EMC Services LLC		Haskell Lemon Construction Co.		ENGINEER'S ESTIMATE	
Item No.	Description	Unit	Estimated Quantity	Unit Price	Extended Amount	Unit Price	Extended Amount	Unit Price	Extended Amount	Unit Price	Extended Amount	Unit Price	Extended Amount
BASE BID													
1	UNCLASSIFIED EXCAVATION	CY	300	\$ 15.00	\$ 4,500.00	\$ 30.00	\$ 9,000.00	\$ 10.00	\$ 3,000.00	\$ 41.00	\$ 12,300.00	\$ 30.00	\$ 9,000.00
2	UNCLASSIFIED BORROW	CY	250	\$ 17.00	\$ 4,250.00	\$ 40.00	\$ 10,000.00	\$ 26.00	\$ 6,500.00	\$ 65.00	\$ 16,250.00	\$ 40.00	\$ 10,000.00
3	SOLID SLAB SODDING	SY	363	\$ 5.00	\$ 1,815.00	\$ 8.00	\$ 2,904.00	\$ 7.00	\$ 2,541.00	\$ 22.50	\$ 8,167.50	\$ 4.00	\$ 1,452.00
4	AGGREGATE BASE TYPE A	CY	139	\$ 90.00	\$ 12,510.00	\$ 95.00	\$ 13,205.00	\$ 78.00	\$ 10,842.00	\$ 176.50	\$ 24,533.50	\$ 125.00	\$ 17,375.00
5	STABILIZED SUBGRADE	SY	623	\$ 118.00	\$ 73,514.00	\$ 12.00	\$ 7,476.00	\$ 30.00	\$ 18,690.00	\$ 29.00	\$ 18,067.00	\$ 25.00	\$ 15,575.00
6	SEPARATOR FABRIC	SY	623	\$ 3.00	\$ 1,869.00	\$ 2.00	\$ 1,246.00	\$ 6.00	\$ 3,738.00	\$ 3.80	\$ 2,367.40	\$ 5.00	\$ 3,115.00
7	TACK COAT	GAL	218	\$ 5.00	\$ 1,090.00	\$ 4.00	\$ 872.00	\$ 11.00	\$ 2,398.00	\$ 7.55	\$ 1,645.90	\$ 10.00	\$ 2,180.00
8	PRIME COAT	GAL	218	\$ 6.00	\$ 1,308.00	\$ 7.00	\$ 1,526.00	\$ 11.00	\$ 2,398.00	\$ 10.00	\$ 2,180.00	\$ 10.00	\$ 2,180.00
9	SUPERPAVE, TYPE S3(PG 64-22 OK)	TON	120	\$ 346.00	\$ 41,520.00	\$ 200.00	\$ 24,000.00	\$ 132.00	\$ 15,840.00	\$ 202.00	\$ 24,240.00	\$ 200.00	\$ 24,000.00
10	SUPERPAVE, TYPE S4(PG 70-28 OK)	TON	150	\$ 423.00	\$ 63,450.00	\$ 240.00	\$ 36,000.00	\$ 164.00	\$ 24,600.00	\$ 250.00	\$ 37,500.00	\$ 250.00	\$ 37,500.00
11	SUPERPAVE, TYPE S4(PG 64-22 OK)	TON	10	\$ 423.00	\$ 4,230.00	\$ 400.00	\$ 4,000.00	\$ 150.00	\$ 1,500.00	\$ 250.00	\$ 2,500.00	\$ 225.00	\$ 2,250.00
12	TYPE IV GROUTED RIPRAP	SY	213	\$ 130.00	\$ 27,690.00	\$ 200.00	\$ 42,600.00	\$ 200.00	\$ 42,600.00	\$ 212.50	\$ 45,262.50	\$ 140.00	\$ 29,820.00
13	SHEET ALUMINUM SIGNS	SF	12	\$ 110.00	\$ 1,320.00	\$ 90.00	\$ 1,080.00	\$ 36.00	\$ 432.00	\$ 93.80	\$ 1,125.60	\$ 50.00	\$ 600.00
14	2" SQUARE TUBE POST	LF	40	\$ 45.00	\$ 1,800.00	\$ 36.00	\$ 1,440.00	\$ 7.00	\$ 280.00	\$ 22.10	\$ 884.00	\$ 20.00	\$ 800.00
15	TRAFFIC STRIPE (MULTI-POLY.)(4" WIDE)	LF	400	\$ 2.50	\$ 1,000.00	\$ 8.00	\$ 3,200.00	\$ 23.00	\$ 9,200.00	\$ 8.30	\$ 3,320.00	\$ 3.00	\$ 1,200.00
16	STRUCTURAL EXCAVATION UNCLASSIFIED	CY	43	\$ 25.00	\$ 1,075.00	\$ 150.00	\$ 6,450.00	\$ 21.00	\$ 903.00	\$ 165.00	\$ 7,095.00	\$ 1,000.00	\$ 43,000.00
17	TEMPORARY EARTH RETAINAGE	LSUM	1	\$ 16,950.00	\$ 16,950.00	\$ 138,000.00	\$ 138,000.00	\$ 10,000.00	\$ 10,000.00	\$ 42,455.00	\$ 42,455.00	\$ 80,000.00	\$ 80,000.00
18	CLASS AA CONCRETE	CY	103	\$ 703.00	\$ 72,409.00	\$ 1,900.00	\$ 195,700.00	\$ 1,450.00	\$ 149,350.00	\$ 1,376.00	\$ 141,728.00	\$ 1,400.00	\$ 144,200.00
19	REINFORCING STEEL	LB	12,720	\$ 1.40	\$ 17,808.00	\$ 2.00	\$ 25,440.00	\$ 4.00	\$ 50,880.00	\$ 3.50	\$ 44,520.00	\$ 3.00	\$ 38,160.00
20	PILES, DRIVEN (HP 12X53)	LF	1,050	\$ 132.00	\$ 138,600.00	\$ 180.00	\$ 189,000.00	\$ 130.00	\$ 136,500.00	\$ 89.25	\$ 93,712.50	\$ 59.00	\$ 61,950.00
21	REMOVAL OF STRUCTURES & OBSTRUCTIONS	LSUM	1	\$ 16,000.00	\$ 16,000.00	\$ 25,000.00	\$ 25,000.00	\$ 20,000.00	\$ 20,000.00	\$ 24,100.00	\$ 24,100.00	\$ 25,000.00	\$ 25,000.00
22	REMOVAL OF ASPHALT PAVEMENT	SY	525	\$ 15.00	\$ 7,875.00	\$ 15.00	\$ 7,875.00	\$ 12.00	\$ 6,300.00	\$ 19.85	\$ 10,421.25	\$ 25.00	\$ 13,125.00
23	REMOVAL OF CONCRETE PAVEMENT WITH ASPHALT OVERLAY	SY	75	\$ 15.00	\$ 1,125.00	\$ 20.00	\$ 1,500.00	\$ 15.00	\$ 1,125.00	\$ 65.00	\$ 4,875.00	\$ 30.00	\$ 2,250.00
24	MOBILIZATION	LSUM	1	\$ 35,000.00	\$ 35,000.00	\$ 100,000.00	\$ 100,000.00	\$ 150,000.00	\$ 150,000.00	\$ 35,224.85	\$ 35,224.85	\$ 56,300.00	\$ 56,300.00
25	CONSTRUCTION STAKING LEVEL II	LSUM	1	\$ 8,100.00	\$ 8,100.00	\$ 10,000.00	\$ 10,000.00	\$ 7,000.00	\$ 7,000.00	\$ 5,525.00	\$ 5,525.00	\$ 11,300.00	\$ 11,300.00
26	OWNER'S ALLOWANCE	LSUM	1	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00
BID TOTAL				\$ 576,808.00		\$ 877,514.00		\$ 696,617.00		\$ 630,000.00		w/ 10% cont. \$ 717,565.20	



City Manager Department
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Danny Vise, Assistant City Manager
Subject: Fencing Installation and Repair Services (Award)

Background: During the April 19, 2023 storm event, the City of Shawnee lost over 11,000 linear feet of security, privacy, and decorative fencing at various City properties. In September of 2023, staff solicited sealed bids for the repair, removal, and replacement of this fencing. The project was advertised and staff opened bids on October 6, 2023.

The project was broken into multiple packages, including a package for miscellaneous services and future fence repair and installation services. The packages include:

- Package 1- Shawnee Regional Airport
- Package 2- Police Shooting Range
- Package 3- Public Works Complex
- Package 4- Heart of Oklahoma Expo Center
- Package 5- Airport Rental Property
- Package 6- I-40 Fencing
- Package 7- Miscellaneous Services and Projects

City staff has reviewed the bid proposals. Two (2) bids were received, and the project totals ranged from \$298,899.50 (low) to \$308,676.00 (high). Staff recommends awarding the full contract, including all packages, to Deep South Fencing, who submitted the lowest total bid of \$298,899.50.

Financial Impact: \$48,928.56, funded from account 603-5-0120-54200, Insurance Recovery Fund, Airport, Capital Outlay- Buildings & Improvements;
\$4,252.96, funded from account 603-5-1010-54200, Insurance Recovery Fund, Utility Administration, Capital Outlay- Buildings & Improvements;
\$70,399.44, funded from account 010-5-0120-54200, Grant Fund, Airport, Capital Outlay- Buildings & Improvements;
\$21,560.00, funded from account 010-5-0620-54200, Grant Fund, Police Patrol, Capital Outlay- Buildings & Improvements;
\$1,947.04, funded from account 010-5-1010-54200, Grant Fund, Utility Administration, Capital Outlay- Buildings & Improvements;
\$77,000.00, funded from account 010-5-1210-54200, Grant Fund, Expo Center, Capital Outlay- Buildings & Improvements;
\$40,186.50, funded from account 010-5-0120-54200, Grant Fund, Airport, Capital Outlay- Buildings &

Improvements;

\$34,625.00, funded from account 010-5-0920-54200, Grant Fund, Streets, Capital Outlay- Buildings & Improvements.

Attachments: B2023-809 Received Bids Agenda Packet, B2023-809 Fencing Installation and Repair Services, Notice for Proposals B2023-809 SIGNED

Staff Recommendation: Award of the Contract

B2023-809 Fencing Installation and Repair Services**Bid Tabulation**

Item		Fence OKC	Deep South Fencing
Package 1	Shawnee Regional Airport	\$ 117,828.00	\$ 119,328.00
Package 2	Police Shooting Range	\$ 21,060.00	\$ 21,560.00
Package 3	Public Works Fencing	\$ 6,500.00	\$ 6,200.00
Package 4	Heart of Oklahoma Expo Center	\$ 87,000.00	\$ 77,000.00
Package 5	Airport Rental Property	\$ 40,820.00	\$ 39,750.00
Package 6	I-40 Fencing	\$ 35,000.00	\$ 34,625.00
Package 7	Miscellaneous Services and Projects	\$ 468.00	\$ 436.50
TOTAL		\$ 308,676.00	\$ 298,899.50

Please print.

10/06/2023

SIGN-IN SHEET BID OPENING

Name:

Jarrett Gable

Phone Number:

405 420 3224

Company:

Fence OKC

Email:

jarrett@fenceokc.com

Name:

Danny Vise Jr.

Phone Number:

405/878-1607

Company:

City of Shawnee

Email:

danny.vise@shawneekok.org

Name:

Brandy Walker

Phone Number:

405-878-1601

Company:

City of Shawnee

Email:

brandy.Walker@Shawneeok.org

Name:

Phone Number:

Company:

Email:

City of Shawnee, Oklahoma
Request for Sealed Bids

Fencing Installation and Repair Services

Released: September 8, 2023

Submittal shall be sent to:

**City of Shawnee
Attn: City Clerk
16 W 9th Street
Shawnee, OK 74801**

Sealed Bid should be clearly marked:

B2023-809 Fencing Installation and Repair Services

SUBMITTAL COVER SHEET

The Entity and the Officer with authority to commit for the Entity are:

RESPONDENT: <i>Deep South Fencing</i>	FEDERAL ID OR SOCIAL SECURITY NO. <i>527 27 2910</i>	
STREET ADDRESS: <i>15608 WALKER RD</i>	P.O. BOX:	ZIP: <i>74801</i>
CITY & STATE & ZIP: <i>SHAWNEE OK 74801</i>	TELEPHONE NO. <i>405 748 6308</i>	TOLL FREE TEL. NO (800)
NAME & TITLE OF PERSON SIGNING: <i>Adam Welliver/owner</i>	FAX NUMBER:	E-MAIL: <i>DeepSouthFence2016@gmail.com</i>
PROPOSAL IS FROM A/AN: () Corporation organized and existing under the laws of the STATE OF _____ () Partnership (☒) Individual		

NON-COLLUSION

The undersigned certifies that the Entity has not entered into any agreement of any nature whatsoever to fix, maintain, increase or reduce the prices or competition regarding the items covered by this bid invitation.

PROPOSAL CERTIFICATION

The Undersigned certifies that to the best of their knowledge:

(☒) There is no officer or employee of the City of Shawnee who has, or whose relative has, a substantial interest in any contract award subsequent to this proposal.

(☒) The names of any and all public officers or employees of the City of Shawnee have, or whose relative has, a substantial interest in any contract award subsequent to this proposal are identified by name as part of this submittal.

(☒) The undersigned further certifies that the Entity IS NOT currently debarred, suspended, or proposed for debarment by any federal or State agency. The undersigned agrees to notify the City of Shawnee of any change in this status, should one occur, until such time as an award has been made under this action.

Date: *10-5-23*

Entity Name: *Deep South Fencing*

By: *[Signature]*

Print Name: *Adam Welliver*

City of Shawnee, Oklahoma

B2023-806 Fencing Installation and Repair Services

SIGNATURE PAGE

THE UNDERSIGNED BIDDER, having examined the plans, specifications, the locations, arrangements, and conditions of the facilities or appurtenances which affect or may be affected by the proposed work, the actual sites of the proposed improvements and being acquainted with and fully understanding: (1) the extent and character of the work covered by this proposal; (2) the locations and specified requirements of and for the proposed improvements and other items of work appurtenant thereto; and (3) the normal existing and probable construction difficulties, hazards or all other factors or conditions which may or may not be apparent, which may affect or be affected by the specified work.

HEREBY PROPOSES to furnish all required materials, supplies, equipment, tools, and plant; to perform all necessary labor; and to construct, erect, equip, and complete all work stipulated in, required by, and in accordance with the contract documents hereto attached and the specifications referred to therein (as altered, changed, or modified by any and all addenda thereto), for and in connection with the Contract for which this proposal is herein submitted for and in consideration of the prices set out herein.

The undersigned bidder hereby agrees to furnish the required Performance Bond, Statutory Bond, Maintenance Bond, and evidence of insurance and to enter into a contract within fifteen (15) days after the acceptance of this proposal.

Attached hereto is a Certified Check, Cashier's Check or Bidder's Surety Bond in the amount of: 5% of \$294,363.00
_____ DOLLARS \$ _____ which the undersigned agrees is to be forfeited to and become the property of the City of Shawnee, as liquidated damages, should this proposal be accepted and the Contract be awarded to him, he fails to enter into a Contract in the form prescribed and to furnish the required bonds and evidence of insurance within fifteen (15) days as above stipulated, but otherwise the proposal guarantee shall be returned to the undersigned upon the signing of the Contract and delivery of the approved bonds and evidence of insurance to the City of Shawnee.

Deep South Fencing
Company Submitting Bid

15608 Walker Rd
Address

Shawnee OK 74801
City State Zip

405 740 6308
Phone Number

N/A
Fax Number

DeepSouthFence2016@outlook.com www.DeepSouthFence.com
Email Web Address

Adam Wehner
Authorized Person Submitting Sealed Bid (Print)

owner
Title

[Signature]
Signature

10/5/23
Date

Attest

Corporate Seal (If Applicable)

Attachment A: Certification for Contracts, Grants, Loans, and Cooperative Agreements as required by the Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$ 100,000 for each such failure.

The Contractor, Deep South Fencing, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

[Signature]
Contractor's Authorized Official

Date

10-5-23

ADAM Welliver / owner
Name & title of Contractor's Authorized Official

Attachment C – Addendum Acknowledgement Form

City of Shawnee B2023-80
Fencing Installation and Repair Services

The undersigned acknowledges receipt of the following addenda to the Bid/Request for Proposals (indicate number and date of each):

Addendum No.:

Dated:

Addendum No.:

Dated:

Addendum No.:

Dated:

Addendum No.:

Dated:

Addendum No.:

Dated:

Addendum No.:

Dated:

FAILURE TO SUBMIT ACKNOWLEDGEMENT OF ANY ADDENDUM THAT AFFECTS PRICING AND/OR SCOPE IS CONSIDERED A MAJOR IRREGULARITY AND MAY BE CAUSE FOR REJECTION OF ANY BID.

Acknowledgement: I certify that I have read and agree to the above terms and conditions and that I am authorized to sign for the Vendor/Contractor.

Company Name: *Deep South Fencing* FEIN: *527 27 2910*

Authorized Signature: *[Signature]* Date: *10/31/23*

Printed Name: *ADAM Welliver* Title: *Owner*

Attachment D – References

City of Shawnee B2023-807

Fencing Installation and Repair Services

Provide the names and phone numbers of three (3) references for which you have provided goods or services similar to those specified herein in the last five (5) years. Include all information available:

<u>Seminole Housing Authority Larry</u>	<u>405-380-7560</u>	<u>N/A</u>
Company Name	Contact Name	Contact Number
		Contact Email

<u>City of Seminole Curtis</u>	<u>405-990-9550</u>	<u>N/A</u>
Company Name	Contact Name	Contact Number
		Contact Email

<u>ASHA</u>	<u>Bob</u>	<u>405-615-41808</u>	<u>N/A</u>
Company Name	Contact Name	Contact Number	Contact Email

Attachment E: Cost Proposal
B2023-809 Fencing Installation and Repair Services

Package 1: Shawnee Regional Airport Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	4364	\$3.00	\$13,092.00
Site preparation	LS	1		\$500.00
72" Height Chain Link Fencing with 3 stranded barbed wire	LF	4364	\$24.00	\$104,736.00
Package 2: Police Shooting Range Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	780	\$3.00	\$2,340.00
Site preparation	LS	1		\$500.00
72" Height Chain Link Fencing with 3 stranded barbed wire	LF	780	\$24.00	\$18,720.00
Package 3: Public Works Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	250	\$2.00	\$500.00
Site preparation	LS	1		\$200.00
72" Height Chain Link Fencing	LF	250	\$22.00	\$5,500.00
Package 4: Heart of Oklahoma Expo Center Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	3000	\$3.00	\$9,000.00
Site preparation	LS	1		\$500.00
72" Height PVC Coated Chain Link Fencing		1500	\$23.00	\$34,500.00
72" Height Chain Link Fencing	LF	1500	\$22.00	\$33,000.00
Package 5: Airport Rental Property Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	1570	\$3.00	\$4,710.00
Site preparation	LS	1		\$500.00
72" Height Chain Link Fencing	LF	1570	\$22.00	\$34,540.00
Package 6: I-40 Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	1750	\$3.00	\$5,250.00
Site preparation	LS	1		\$500.00
48" White Vinyl Standard 3 (Ranch Rail) Rail Fence	LF	1750	\$16.50	\$28,875.00

Package 7: Misc. Services and Projects Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	1	22.00	
Site preparation	HR	1	75.00	
Labor for repair of existing usable fence	HR	1	75.00	
48" Height Chain Link Fence	LF	1	18.00	
60" Height Chain Link Fence	LF	1	18.50	
60" Height Chain Link Fence w/ 3 Stranded Barbed Wire	LF	1	19.00	
72" Height Chain Link Fence	LF	1	22.00	
72" Height Chain Link Fence w/ 3 Stranded Barbed Wire	LF	1	24.00	
48" Height PVC Coated Chain Link Fence	LF	1	21.00	
60" Height PVC Coated Chain Link Fence	LF	1	22.00	
72" Height PVC Coated Chain Link Fence	LF	1	23.00	
3 Stranded Barbed Wire	LF	1	2.00	
Labor for any work not otherwise specified including labor to: repair existing fencing, repair existing gates, install new gates, and other similar services	HR	1	Per M25 75.00	
Mark-up for parts not covered in existing line items, including but not limited to: gates, gate openers, and other associated items	%		40%	

Unit price for all items shall include all labor, equipment, and material necessary for the installation of the specified product or service.

All quantities are estimates only. Actual quantities will be determined prior to any task order for work to be performed. Additional projects yet to be identified will be priced based on the pricing from Package 7. Additional repairs needed for any package will be based on the pricing from that package and where a line item does not exist in that package, from Package 7.

Attachment F - BID BOND

See Attached

We, the undersigned, _____, as Principal, and _____, as Surety, are hereby held and firmly bound unto City of Shawnee, as Owner, in the penal sum of _____ for the payment of which, well and truly to be made, hereby jointly and severally bind ourselves, our successors and our assigns.

Signed this _____ day of _____, _____

The condition of the above obligation is such that, whereas the Principal has submitted to City of Shawnee, a certain bid, attached hereto and hereby made a part hereof, to enter into a contract, in writing, for the Fencing Installation and Repair Service (B2023-809);

NOW, THEREFORE, if said bid shall be rejected or if said bid shall be accepted and the Principal shall execute and deliver a contract in the form of the contract attached hereto (properly completed in accordance with said bid) and shall furnish a bond for faithful performance of said contract and for the payment of all persons performing labor or furnishing materials in connection therewith and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void; otherwise, the same shall remain in force and effect, it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bonds shall in no way be impaired or affected by any extension of the time within which the Owner may accept such bid and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers the day and year first set forth above.

Principal

Surety

By: _____

ATTEST: (if by corporation)

Type Name & Title

Corporate Seal

THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we

Deep South Fencing

as Principal, hereinafter call the Principal, and

Old Republic Surety Company

a corporation duly organized under the laws of the State of Wisconsin
as Surety, hereinafter called the Surety, are held and firmly bound unto

City of Shawnee

as Obligee, hereinafter called the Obligee, in the sum of

Five Percent of Total Amount Bid

\$298,363.80

Dollars (\$ 5% \$14,918.19),

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for

Various sites around town with tornado damage

NOW THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and materials furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this

6th

day of October, 2023

(Witness)

Deep South Fencing

(Principal)

(Seal)

OWNER

(Title)

(Witness) Becky Killman

Old Republic Surety Company

(Surety)

(Seal)

Shelli R. Samsel

(Title)

Attorney-in-Fact



OLD REPUBLIC SURETY COMPANY

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That OLD REPUBLIC SURETY COMPANY, a Wisconsin stock insurance corporation, does make, constitute and appoint: Travis E. Brown, Debbie Raper, Kent J. Bradford, Kyle P. Bradford, Shelli R. Samsel, Vicki Wilson, Austin K. Greenhaw, Clayton D. Howell, Carey Kennemer, Joshua D. Bryan of Oklahoma City, OK

its true and lawful Attorney(s)-in-Fact, with full power and authority for and on behalf of the company as surety, to execute and deliver and affix the seal of the company thereto (if a seal is required), bonds, undertakings, recognizances or other written obligations in the nature thereof, (other than bail bonds, bank depository bonds, mortgage deficiency bonds, mortgage guaranty bonds, guarantees of installment paper and note guaranty bonds, self-insurance workers compensation bonds guaranteeing payment of benefits, or black lung bonds), as follows:

ALL WRITTEN INSTRUMENTS

and to bind OLD REPUBLIC SURETY COMPANY thereby, and all of the acts of said Attorneys-in-Fact, pursuant to these presents, are ratified and confirmed. This appointment is made under and by authority of the board of directors at a special meeting held on February 18, 1982.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of the OLD REPUBLIC SURETY COMPANY on February 18, 1982.

RESOLVED that, the president, any vice-president or assistant vice president, in conjunction with the secretary or any assistant secretary, may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the company to execute and deliver and affix the seal of the company to bonds, undertakings, recognizances, and suretyship obligations of all kinds; and said officers may remove any such attorney-in-fact or agent and revoke any Power of Attorney previously granted to such person.

RESOLVED FURTHER, that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the Company

- (i) when signed by the president, any vice president or assistant vice president, and attested and sealed (if a seal be required) by any secretary or assistant secretary; or
- (ii) when signed by the president, any vice president or assistant vice president, secretary or assistant secretary, and countersigned and sealed (if a seal be required) by a duly authorized attorney-in-fact or agent; or
- (iii) when duly executed and sealed (if a seal be required) by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority evidenced by the Power of Attorney issued by the company to such person or persons.

RESOLVED FURTHER that the signature of any authorized officer and the seal of the company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the company; and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, OLD REPUBLIC SURETY COMPANY has caused these presents to be signed by its proper officer, and its corporate seal to be affixed this 2nd day of November, 2022.

Karen J. Haffner
Assistant Secretary



OLD REPUBLIC SURETY COMPANY

Alan Pavlic
President

STATE OF WISCONSIN, COUNTY OF WAUKESHA - SS

On this 2nd day of November, 2022, personally came before me, Alan Pavlic and Karen J. Haffner, to me known to be the individuals and officers of the OLD REPUBLIC SURETY COMPANY who executed the above instrument, and they each acknowledged the execution of the same, and being by me duly sworn, did severally depose and say: that they are the said officers of the corporation aforesaid, and that the seal affixed to the above instrument is the seal of the corporation, and that said corporate seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority of the board of directors of said corporation.



Kathryn R. Pearson
Notary Public

My Commission Expires: September 28, 2026

(Expiration of notary's commission does not invalidate this instrument)

CERTIFICATE

I, the undersigned, assistant secretary of the OLD REPUBLIC SURETY COMPANY, a Wisconsin corporation, CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and furthermore, that the Resolutions of the board of directors set forth in the Power of Attorney, are now in force.



87 8872

Signed and sealed at the City of Brookfield, WI this 6th day of October, 2023.

Karen J. Haffner
Assistant Secretary

City of Shawnee, Oklahoma**Request for Sealed Bids****Fencing Installation and Repair Services****Released: September 8, 2023****Submittal shall be sent to:****City of Shawnee
Attn: City Clerk
16 W 9th Street
Shawnee, OK 74801****Sealed Bid should be clearly marked:****B2023-809 Fencing Installation and Repair Services****SUBMITTAL COVER SHEET**

The Entity and the Officer with authority to commit for the Entity are:

RESPONDENT: <u>Fence OKC</u>	FEDERAL ID OR SOCIAL SECURITY NO. <u>45-3630900</u>	
STREET ADDRESS: <u>3200 W Reno Ave</u>	P.O. BOX:	ZIP: <u>73107</u>
CITY & STATE & ZIP: <u>OKC, OK 73107</u>	TELEPHONE NO. <u>405 420 3224</u>	TOLL FREE TEL. NO (800)
NAME & TITLE OF PERSON SIGNING: <u>Jarrett Goble VP</u>	FAX NUMBER:	E-MAIL: <u>jarrett@fenceokc.com</u>
PROPOSAL IS FROM A/AN: (X) Corporation organized and existing under the laws of the STATE OF <u>Oklahoma</u> () Partnership () Individual		

NON-COLLUSION

The undersigned certifies that the Entity has not entered into any agreement of any nature whatsoever to fix, maintain, increase or reduce the prices or competition regarding the items covered by this bid invitation.

PROPOSAL CERTIFICATION

The Undersigned certifies that to the best of their knowledge:

- ☒ There is no officer or employee of the City of Shawnee who has, or whose relative has, a substantial interest in any contract award subsequent to this proposal.
- ☒ The names of any and all public officers or employees of the City of Shawnee have, or whose relative has, a substantial interest in any contract award subsequent to this proposal are identified by name as part of this submittal.
- ☒ The undersigned further certifies that the Entity IS NOT currently debarred, suspended, or proposed for debarment by any federal or State agency. The undersigned agrees to notify the City of Shawnee of any change in this status, should one occur, until such time as an award has been made under this action.

Date: 10/5/23Entity Name: Fence OKCBy: Print Name: Jarrett Goble

**Attachment A: Certification for Contracts, Grants, Loans, and Cooperative Agreements as required by the
Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352**

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$ 100,000 for each such failure.

The Contractor, Fence OKC, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

John A. Goble
Contractor's Authorized Official

Date

9/1/23

Jerrett Goble, VP
Name & title of Contractor's Authorized Official

Attachment C – Addendum Acknowledgement Form

City of Shawnee B2023-80
Fencing Installation and Repair Services

The undersigned acknowledges receipt of the following addenda to the Bid/Request for Proposals (indicate number and date of each):

Addendum No.: **1 B2023-807** Dated: **9/1/23**

Addendum No.: Dated:

Addendum No.: Dated:

Addendum No.: Dated:

Addendum No.: Dated:

Addendum No.: Dated:

FAILURE TO SUBMIT ACKNOWLEDGEMENT OF ANY ADDENDUM THAT AFFECTS PRICING AND/OR SCOPE IS CONSIDERED A MAJOR IRREGULARITY AND MAY BE CAUSE FOR REJECTION OF ANY BID.

Acknowledgement: I certify that I have read and agree to the above terms and conditions and that I am authorized to sign for the Vendor/Contractor.

Company Name: **Fence OKC** FEIN: **45-3630900**

Authorized Signature:  Date: **9-6-23**

Printed Name: **Jarrett Goble** Title: **VP**

Attachment D – References
City of Shawnee B2023-807
Fencing Installation and Repair Services

Provide the names and phone numbers of three (3) references for which you have provided goods or services similar to those specified herein in the last five (5) years. Include all information available:

Company Name	Contact Name	Contact Number	Contact Email
City of Warr Acres	Mayor Godwin	405-789-2892	mayor@warracres-ok.gov

Company Name	Contact Name	Contact Number	Contact Email
Crutch o Schools	Melvin Perry	405-476-5344	mperry@crutchoesd.org

Company Name	Contact Name	Contact Number	Contact Email
Comanche Nation	Randell Baker	580-678-3339	randell.baker@ com comancheration.com

Attachment E: Cost Proposal
B2023-809 Fencing Installation and Repair Services

Package 1: Shawnee Regional Airport Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	4364	\$2	\$8728
Site preparation	LS	1	\$0	\$0
72" Height Chain Link Fencing with 3 stranded barbed wire	LF	4364	\$25	\$109,100
Package 2: Police Shooting Range Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	780	\$2	\$1560
Site preparation	LS	1	\$0	\$0
72" Height Chain Link Fencing with 3 stranded barbed wire	LF	780	\$25	\$19,500
Package 3: Public Works Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	250	\$2	\$500
Site preparation	LS	1	\$0	\$0
72" Height Chain Link Fencing	LF	250	\$24	\$6000
Package 4: Heart of Oklahoma Expo Center Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	3000	\$2	\$6000
Site preparation	LS	1	\$0	\$0
72" Height PVC Coated Chain Link Fencing		1500	\$30	\$45000
72" Height Chain Link Fencing	LF	1500	\$24	\$36000
Package 5: Airport Rental Property Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	1570	\$2	\$3140
Site preparation	LS	1	\$0	\$0
72" Height Chain Link Fencing	LF	1570	\$24	\$37680
Package 6: I-40 Fence Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	1750	\$2	\$3500
Site preparation	LS	1	\$0	\$0
48" White Vinyl Standard 3 (Ranch Rail) Rail Fence	LF	1750	\$18	\$31,500

Package 7: Misc. Services and Projects Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	1	\$ 2	\$ 2
Site preparation	HR	1	\$ 50	\$ 50
Labor for repair of existing usable fence	HR	1	\$ 100	\$ 100
48" Height Chain Link Fence	LF	1	\$ 20	\$ 20
60" Height Chain Link Fence	LF	1	\$ 22	\$ 22
60" Height Chain Link Fence w/ 3 Stranded Barbed Wire	LF	1	\$ 23	\$ 23
72" Height Chain Link Fence	LF	1	\$ 24	\$ 24
72" Height Chain Link Fence w/ 3 Stranded Barbed Wire	LF	1	\$ 25	\$ 25
48" Height PVC Coated Chain Link Fence	LF	1	\$ 22	\$ 22
60" Height PVC Coated Chain Link Fence	LF	1	\$ 24	\$ 24
72" Height PVC Coated Chain Link Fence	LF	1	\$ 30	\$ 30
3 Stranded Barbed Wire	LF	1	\$ 6	\$ 6
Labor for any work not otherwise specified including labor to: repair existing fencing, repair existing gates, install new gates, and other similar services	HR	1	\$ 100	\$ 100
Mark-up for parts not covered in existing line items, including but not limited to: gates, gate openers, and other associated items	%		20	20

Unit price for all items shall include all labor, equipment, and material necessary for the installation of the specified product or service.

All quantities are estimates only. Actual quantities will be determined prior to any task order for work to be performed. Additional projects yet to be identified will be priced based on the pricing from Package 7. Additional repairs needed for any package will be based on the pricing from that package and where a line item does not exist in that package, from Package 7.



The Ohio Casualty Insurance Company

BID OR PROPOSAL BOND

KNOW ALL MEN BY THESE PRESENTS, That we,

Stiner Brothers LLC dba Fence OKC

of 3200 W Reno Ave Oklahoma City, OK 73107

(hereinafter called the Principal) as Principal, and The Ohio Casualty Insurance Company, with its principal office in the City of Fairfield, Ohio (hereinafter called the Surety), as Surety, are held and firmly bound unto

City of Shawnee

of 16 W 9th Street Shawnee, OK 74802

(hereinafter called the Obligee) in the penal sum of

Five Percent of Total Amount Bid

Dollars \$ 5% lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas, the Principal has submitted the accompanying bid dated October 6, 2023 for

City of Shawnee - Installing fence and gates

NOW, THEREFORE, if the Obligee shall make any award according to the terms of said bid and the Principal shall enter into a contract with said Obligee in accordance with the terms of said bid and give bond for the faithful performance thereof within the time specified; or if no time is specified within thirty days after the date of said award; or if the Principal shall, in the case of failure so to do, indemnify the Obligee against any loss the Obligee may suffer directly arising by reason of such failure, not exceeding the penalty of this bond, then this obligation shall be null and void: otherwise to remain in full force and virtue.

Signed, sealed and dated: October 6, 2023

Stiner Brothers LLC dba Fence OKC

(Principal)

By:

The Ohio Casualty Insurance Company

By:

Deborah L. Raper

(Attorney-in-Fact)



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8210146-974476

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Kent J. Bradford, Kyle P. Bradford, Travis E. Brown, Joshua Bryan, Austin K. Greenhaw, Clayton Howell, Carey L. Kennemer, Becky Killman, Seth Leonard, Gary Liles, Mark D. Nowell, Dwight A. Pilgrim, Deborah L. Raper, Shelli R. Samsel, Brian K. Story, Randy D. Webb, Vicki Wilson, Aaron Woolsey, Bobby Joe Young

all of the city of Oklahoma City state of OK each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 26th day of May, 2023.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By:

David M. Carey
David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY

On this 26th day of May, 2023 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By:

Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 6th day of October, 2023.



By:

Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.



**Request for Sealed Bids for:
Fencing Installation and Repair Services
B2023-809**

Sealed Bids Due Friday, October 6, 2023, at 1:00 p.m. Central

Issued By:

City of Shawnee, Oklahoma

Authorized Representative
Del Sol Consulting, Inc.

City of Shawnee, Oklahoma
Request for Sealed Bids

Fencing Installation and Repair Services

Released: *September 8, 2023*

Submittal shall be sent to:

**City of Shawnee
Attn: City Clerk
16 W 9th Street
Shawnee, OK 74801**

**Sealed Bid should be clearly marked:
B2023-809 Fencing Installation and Repair Services**

SUBMITTAL COVER SHEET

The Entity and the Officer with authority to commit for the Entity are:

RESPONDENT:	FEDERAL ID OR SOCIAL SECURITY NO.	
STREET ADDRESS:	P.O. BOX:	ZIP:
CITY & STATE & ZIP:	TELEPHONE NO.	TOLL FREE TEL. NO (800)
NAME & TITLE OF PERSON SIGNING:	FAX NUMBER:	E-MAIL:
PROPOSAL IS FROM A/AN: () Corporation organized and existing under the laws of the STATE OF _____ () Partnership () Individual		

NON-COLLUSION

The undersigned certifies that the Entity has not entered into any agreement of any nature whatsoever to fix, maintain, increase or reduce the prices or competition regarding the items covered by this bid invitation.

PROPOSAL CERTIFICATION

The Undersigned certifies that to the best of their knowledge:

() There is no officer or employee of the City of Shawnee who has, or whose relative has, a substantial interest in any contract award subsequent to this proposal.

() The names of any and all public officers or employees of the City of Shawnee have, or whose relative has, a substantial interest in any contract award subsequent to this proposal are identified by name as part of this submittal.

() The undersigned further certifies that the Entity IS NOT currently debarred, suspended, or proposed for debarment by any federal or State agency. The undersigned agrees to notify the City of Shawnee of any change in this status, should one occur, until such time as an award has been made under this action.

Date: _____

Entity Name: _____

By: _____

Print Name: _____

City of Shawnee, Oklahoma

B2023-806 Fencing Installation and Repair Services

SIGNATURE PAGE

THE UNDERSIGNED BIDDER, having examined the plans, specifications, the locations, arrangements, and conditions of the facilities or appurtenances which affect or may be affected by the proposed work, the actual sites of the proposed improvements and being acquainted with and fully understanding: (1) the extent and character of the work covered by this proposal; (2) the locations and specified requirements of and for the proposed improvements and other items of work appurtenant thereto; and (3) the normal existing and probable construction difficulties, hazards or all other factors or conditions which may or may not be apparent, which may affect or be affected by the specified work.

HEREBY PROPOSES to furnish all required materials, supplies, equipment, tools, and plant; to perform all necessary labor; and to construct, erect, equip, and complete all work stipulated in, required by, and in accordance with the contract documents hereto attached and the specifications referred to therein (as altered, changed, or modified by any and all addenda thereto), for and in connection with the Contract for which this proposal is herein submitted for and in consideration of the prices set out herein.

The undersigned bidder hereby agrees to furnish the required Performance Bond, Statutory Bond, Maintenance Bond, and evidence of insurance and to enter into a contract within fifteen (15) days after the acceptance of this proposal.

Attached hereto is a Certified Check, Cashier's Check or Bidder's Surety Bond in the amount of:

_____ DOLLARS \$ _____ which the undersigned agrees is to be forfeited to and become the property of the City of Shawnee, as liquidated damages, should this proposal be accepted and the Contract be awarded to him, he fails to enter into a Contract in the form prescribed and to furnish the required bonds and evidence of insurance within fifteen (15) days as above stipulated, but otherwise the proposal guarantee shall be returned to the undersigned upon the signing of the Contract and delivery of the approved bonds and evidence of insurance to the City of Shawnee.

Company Submitting Bid

Address

City

State

Zip

Phone Number

Fax Number

Email

Web Address

Authorized Person Submitting Sealed Bid (Print)

Title

Signature

Date

Attest

Corporate Seal (If Applicable)

STATEMENT OF NEED

The intent of this Request for Sealed Bids is to solicit bids for the installation and repair of various fence materials and types throughout the City of Shawnee. The City of Shawnee encourages minority, woman, veteran owned and small businesses to submit for this bid.

CALENDAR OF EVENTS

Listed below are the dates and times by which stated actions must be taken or completed. If the City of Shawnee determines, in its sole discretion, that it is necessary to change any of the dates and times, it will issue an Addendum to this Request. All listed times are applicable local times for Shawnee, Oklahoma.

DATE / TIME	ACTION
September 14, 2023 September 21, 2023	Advertising of Request for Sealed Bids
September 8, 2023	Request for Sealed bids documents released to potential Respondents
September 29, 2023, at 5:00 p.m.	Last day and time for Respondents to submit written communications and/or inquiries
October 6, 2023, at 1:00 p.m.	Deadline for submittals
October 6, 2023, at 2:00 p.m.	Bid Opening at City Hall, 16 W. 9 th Street, Shawnee, OK
October 16, 2023	Recommendation of selected Respondent to the City of Shawnee for approval

1. SCOPE OF SERVICES: The scope of the work is for the removal, repair, and/or installation of fencing complete with all posts, braces, gates, and all other appurtenances. All existing fencing materials are to be disposed of properly.
 - 1.1. Specifications for this request are separated by work areas and designated services. Bids shall provide for furnishing all equipment and labor for services as specified.
 - 1.2. Site Visits. Firms are encouraged to visit each individual property prior to bidding in order to become familiar with each property being bid on and the services requested for that location. For all Airport Packages and Police Packages, firms shall contact the Assistant City Manager, Danny Vise, Jr., at 405-878-1607 to schedule a visit. All visits shall be scheduled 7 days prior to bid closing, between the hours of 9:00 a.m. and 4:00 p.m., Monday-Friday.
 - 1.2.1. Firms, by making their bid, represent that they have read and understand the site conditions where which work will be performed. No extra compensation will be allowed for matters that result from a firm not informing themselves of site conditions prior to bidding.
 - 1.3. Bid Packages. See Attachment F for more information.
 - 1.3.1. Shawnee Regional Airport Fence Package (2202 Airport Drive)
 - 1.3.2. Police Shooting Range Fence Package (10500 North Kickapoo)
 - 1.3.3. Public Works Fence Package (111 South Kickapoo)
 - 1.3.4. Heart of Oklahoma Expo Center Package (1700 West Independence)
 - 1.3.5. Airport Rental Property Package (1821 Airport Drive)
 - 1.3.6. I-40 Fence Package (I-40 Service Rd. between Kickapoo and Harrison)
 - 1.3.7. Misc. Services and Projects Package
 - 1.4. Cost Proposal. Line items of cost proposal shall include all labor, material, tools, permits, and equipment to provide the following services:
 - 1.1.1. Demolition, removal, and disposal of all damaged, destroyed, or unused fence material and other related debris. This proposal shall include linear foot (LF) pricing for packages and an hourly rate (HR) for other projects as needed.
 - 1.1.2. Site Preparation. This shall include all necessary dirt work, mowing, cleanup, and other related activities needed to prepare the site for new fence installation. Site shall be mowed and/or graded so that properties can be properly mowed and maintained by staff after installation. This proposal shall include lump sum (LS) pricing for packages and an hourly rate (HR) for other projects as needed.
 - 1.1.3. New Fence Installation. This shall be linear foot (LF) pricing for the purchase and installation of various fencing types. The fencing shall include but not be limited to the materials found in Section 1.5 of this proposal.
 - 1.5. Material: The material for the chain link fence shall be as follows:
 - 1.5.1. Galvanized
 - 1.5.1.1. Chain link fence fabric shall conform to the requirements of ASTM A 392, 2-inch mesh and 9-gauge galvanized steel wire. Zinc coating shall be class 2.

- 1.5.1.2. Posts and fence framework shall conform to the requirements of ASTM F 1043 Group 1A, for Heavy Industrial Fence. Coatings shall be a type A galvanized coating for internal and external surfaces. Steel pipe posts shall conform to the requirements of ASTM F 1043 and F1083.
- 1.5.1.3. Fence fittings shall conform to the requirements of ASTM F 626. Fittings shall be galvanized steel. Wire ties and clips shall be 9-gauge.
- 1.5.1.4. Gates, gateposts, and gate accessories shall conform to the requirements of ASTM F 900. The coating shall be the same as selected for adjoining fence and framework.
- 1.5.1.5. Barbed wire shall be 12.5 gauge and shall conform to the requirements of ASTM A 121, chain link fence grade.

1.5.2. Galvanized and PVC Coated

- 1.5.2.1. Chain link fence fabric shall conform to the requirements of ASTM F 668 for class 2a or 2b, 2-inch mesh, and 9-gauge galvanized steel wire. The fabric shall have a polymer top coating of the color specified in section 6.
- 1.5.2.2. Posts and fence framework shall conform to the requirements of ASTM F 1043 Group 1A, for Heavy Industrial Fence. Coatings shall be a type A galvanized coating for internal and external surfaces and covered with a polymer top coating of color as specified in section 6.
- 1.5.2.3. Fence fittings shall conform to the requirements of ASTM F 626. Fittings shall be galvanized steel with a polymer top coating of color as specified in section 6.
- 1.5.2.4. Any damage to the coating shall be repaired in accordance with the manufacturer's recommendations, or the damaged fencing material shall be replaced.

1.5.3. White Vinyl Standard 3 (Ranch Rail) Rail

- 1.5.3.1. Fencing material shall conform to the requirements of ASTM F964- Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Exterior Fencing.
- 1.5.3.2. Rails shall be 1 ½" x 5" and made from white vinyl material with routed rails and posts.
- 1.5.3.3. Posts shall be 5" x 5" of the same material as the rails.

1.6. Installing fence posts

- 1.6.1. Unless otherwise specified, line posts shall be placed at intervals of 10 feet measured from center to center of adjacent posts. In determining the post spacing, measurement is made parallel with the ground surface.
- 1.6.2. Posts shall be set in concrete backfill in the manner shown on the drawings.
- 1.6.3. Posts set in the tops of concrete walls shall be grouted into preformed holes to a depth of 12 inches.
- 1.6.4. All corner posts, end posts, gateposts, and pull posts shall be embedded, braced, and trussed as shown on any drawings that may be provided or in accordance with appropriate industry practice if not otherwise shown or specified.

1.7. Installing wire fabric

- 1.7.1. Fencing fabric shall not be stretched until at least 4 days after the posts are grouted into walls or 7 days after the posts are set in the concrete backfill.
- 1.7.2. Fencing fabric shall be installed on the side of the posts designated on any drawings provided. If no drawing is provided, contractor shall verify in writing with the Assistant City Manager or their designee the side in which the fence fabric is to be installed.
- 1.7.3. The fabric shall be stretched taut and securely fastened, by means of tie clips, to the posts at intervals not exceeding 15 inches and to the top rails or tension wires at intervals not exceeding 2 feet. Care shall be taken to equalize the fabric tension on each side of each post.
- 1.7.4. Barbed wire shall be installed as shown on any drawings provided and shall be pulled taut and fastened to each post or arm with the tie wires or metal tie clips.

1.8. Measurement and payment

- 1.8.1. The length of fence is measured to the nearest 0.1 foot along the fence, excluding gate openings. Payment is made at the contract unit price for the specified height and type of fence. The number of each size and type of gate installed is then determined. Payment is made at the contract unit price for the hourly labor and material markup for each gate as priced in Package 7. Such payment constitutes full compensation for all labor, material, equipment, and all other items necessary and incidental to the completion of the work.
- 1.8.2. The following provisions apply to all methods of measurement and payment. Compensation for any item of work described in the contract, but not listed in the bid schedule, is included in the payment for the item of work to which it is made subsidiary.

1.9. The above may not be an exhaustive list and may be amended to include other types of fencing and materials.

2. SUBMITTAL REQUIREMENTS, FORMAT, AND PREPARATION GUIDELINES

2.1. Format and Preparation Guidelines

2.1.1. Submittal Remittance

Send Sealed Submittal To

City of Shawnee
Attn: City Clerk
16 West 9th Street
Shawnee, Oklahoma 74801

Clearly Marked on Outside Envelope

SB# 2023-809 Fencing Maintenance, Repair, and Installation

Due Date: Friday, October 6, 2023, at 1:00 p.m. Central

2.2. Instructions to Respondents

2.2.1. Respondents are to submit one (1) original complete submittal with signatures in blue ink and one (1) electronic form of the complete submittal package that can be reproduced.

2.2.2. At due date and time, all submittals received by the due date will be opened for the sole purpose of

recording the names of the individuals or firms submitting written responses.

2.2.3. If the submittal is mailed, sufficient time must be allowed to ensure the City of Shawnee's proper receipt of the package by the time specified above. Allow an additional 24 hours for the City of Shawnee's internal mail process. It is the responsibility of the firms to ensure that the properly marked and sealed submittal arrives at the City of Shawnee. Submittals received after the due date and time will be returned to Respondent unopened.

2.2.4. Any submittal not prepared and received in accordance with provisions stated herein will be considered an informal response and any/or all of the submittal may be rejected.

2.2.5. Withdrawal of submittal will be accepted until the submission due date and time above. No submittal may be withdrawn after the deadline.

2.2.6. Each firm will pay all costs associated with the preparation of the submittal, and, if applicable, subsequent oral presentations if requested by the City of Shawnee.

2.2.7. This file becomes a matter of public record and is open for review by the public upon the full execution of the agreement.

2.3. Submittal Content: The following information must, but not limited to, be included in the submittal packet:

2.3.1. Signed Cover Sheet (Page 2)

2.3.2. Sealed Bid Signature Page (Page 3)

2.3.3. Certification for Contracts, Grants, Loans, and Cooperative Agreements as required by the Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352 (Attachment A)

2.3.4. No Proposal Notification, if necessary (Attachment B)

2.3.5. Acknowledgement of number and date of addenda received (Attachment C)

2.3.6. Three (3) references for similar projects completed within the last five years (Attachment D)

2.3.7. Cost Sheet (Attachment E)

2.3.8. Bid Bond (Attachment F)

2.3.9. If the Respondent fails to supply all required information, the submission may be deemed non-responsive at the discretion of the City of Shawnee.

2.4. Submittal Format

2.4.1. Submittals should be printed on letter size paper (8 1/2" x 11") and either bound with a spiral type binding that will allow the submittal to lie flat when open, stapled, or bound in a folder. Do not use metal-ring hard cover binders.

2.4.2. A Table of Contents page may be included but is not required. **ARRANGE THE SUBMITTAL IN THE ORDER LISTED IN THE SUBMITTAL CONTENT SECTION OF THIS REQUEST FOR BID IN SECTION 2.3.** Additional optional attachments that are listed in the SUBMITTAL CONTENT section may be included at the end of the submittal packet.

2.4.3. At the discretion of the respondent, a maximum of five (5) additional qualifications related or marketing informational pages can be included in the submittal.

2.4.4. Detailed equipment lists and staff resumes, including list of industry certifications, may be included as a second attachment to the submittal packet.

2.5. Interpretation or Correction

2.5.1. The City of Shawnee is not liable for interpretations/misinterpretations or other errors or omissions made by the Respondent in responding to this Request. Any required addendum to the Request and all clarifications, answers to questions, or changes to this Request shall be provided through a City of Shawnee-issued Addendum, which shall be distributed to vendors by email and posted on the City website found at:

www.shawneeok.org/services/current_bids_proposals/index.php

Any clarifications, answers, or changes provided in any manner other than a formally issued addendum, are to be considered “unofficial” and shall not bind the City to any requirements, terms or conditions not stated herein.

2.5.2. The City shall make every possible, good faith effort to issue any and all addenda(s) no later than five (5) days prior to the due date for bids. Any addendum issued after this date, shall be for material, necessary clarifications to the Request for Sealed Bids.

2.5.3. Any person, firm or corporation submitting a response is deemed to have read, understood and agreed to all terms, conditions and requirements set forth in the specifications. Respondent agrees to conform in general to the terms of these specifications, details of which will be set forth in a signed agreement mutually acceptable to and executed by the City of Shawnee and the Respondent.

2.5.4. From the date of issuance until the City of Shawnee takes final agency action, the Respondent must not discuss their submittal or any part thereof with any employee, agent, or representative of the City of Shawnee except as expressly requested by the City of Shawnee in writing. Violation of this restriction will result in rejection of the Respondent’s response.

2.5.5. No negotiations, decisions, or actions shall be initiated or executed by the Respondent as a result of any discussions with any the City of Shawnee employee. All inquiries, requests for clarification, change of condition or requirement, specification omissions, doubt as to meaning, or requests for additional information must be submitted, in writing, or via email to Danny Vise, Jr. email address: danny.vise@shawneeok.org. In the written request, the Respondent must identify him/herself and provide the page number, section, and paragraph of the conditions or requirements in question. The Respondent should also recommend specific written changes to the specified condition(s) or requirement(s).

2.5.6. All written inquiries or requests for changes or information must be received by Danny Vise, Jr: danny.vise@shawneeok.org, no later than the scheduled date shown in the Calendar of Events outlined in this document. All Respondent inquiries or requests, the City of Shawnee responses to these inquiries or requests, and other needs as may apply will be provided to all prospective Respondents by addendum. All addenda issued by the City of Shawnee shall become a part of the Request for Sealed Bid, and Respondents shall acknowledge receipt of each addendum by number and date in its response.

2.5.7. Inquiries concerning Request for Sealed Bids-Fencing Maintenance, Repair, and Installation should be addressed as follows:

City of Shawnee
Attn: Danny Vise, Jr
16 W. 9th Street
Shawnee, OK 74801

Or via email to: danny.vise@shawneeok.org

2.6. Provisions for Recommendation: It is understood that the City of Shawnee reserves the right to the following:

- 2.6.1. Reject any and/or all Bid submittals.
- 2.6.2. Accept any submittal or portion thereof most advantageous to the City of Shawnee.
- 2.6.3. Revise the Request and/or issue addenda to the Request, in the event it becomes necessary to revise any or part of the Request. Addenda will be provided to all those who received the Request.
- 2.6.4. Cancel or re-issue the Request for Sealed Bids, in whole or in part, prior to execution of a contract.
- 2.6.5. Negotiate with the Respondent.
- 2.6.6. Award contract based on the overall best business decision for the City of Shawnee including firm location or services offered.
- 2.6.7. Waive any informalities or regularities.
- 2.6.8. Award to single or multiple firms.
- 2.6.9. Request additional information or require a meeting with the Respondent for clarification.
- 2.6.10. Request presentations from Respondents following submission of the bid submittal.
- 2.6.11. Modify timelines, as issued in the form of an addendum.

3. EVALUATION CRITERIA AND SELECTION PROCESS

- 3.1. Contract will be awarded to one or more vendors by item or groups of items whose bid(s) is(are) considered to be the lowest and best acceptable responsive bid, as determined by City staff.
 - 3.1.1. In addition to pricing, determination of best acceptable responsive bid may include the following elements:
Whether the firm/respondent involved:
 - 3.1.1.1. Maintains a permanent place of business.
 - 3.1.1.2. Has adequate equipment to do the work properly and expeditiously.
 - 3.1.1.3. Has suitable financial status to meet obligations incident to the work.
 - 3.1.1.4. Has appropriate technical experience.
 - 3.1.2. Respondents should include any information pertinent to this determination by the City of Shawnee with their response.

3.2. Firms may submit bids for individual packages or all packages, however, partial packages will not be considered.

4. GENERAL TERMS AND CONDITIONS

4.1. Firms are cautioned to read the information contained in this Request carefully and to submit a complete response to all requirements and questions as directed.

4.2. It is the intent of the City of Shawnee to enter into a one (1) year agreement, with a renewal clause for four (4) additional one (1) year terms for services as described herein.

4.3. The City of Shawnee reserves the right to reject any and all submittals and to waive any irregularities or technical defects in the response and reserves the right to select the best total program. the City of Shawnee is not liable for any expense incurred by the professional services firm in the preparation and presentation of proposals.

4.4. Acceptable Sealed Submittals: Any submittal not prepared and received in accordance with provisions stated herein, can be considered an informal response and any/or all of the submittal may be rejected. The City of Shawnee reserves the right to accept submittals or amendments to submittals that arrive after due date as deemed appropriate.

4.5. It is the responsibility of the firm to ensure that the properly marked and sealed submittal package arrives at the City of Shawnee by the due date and time.

4.6. Governing Law and Venue: This Request and resulting contract, if any, and any disputes there under will be governed by the laws of the State of Oklahoma, the City of Shawnee, Oklahoma, and the United States.

4.7. Appropriated Funds: The purchase of any service, which arises from this solicitation, is contingent upon the availability of appropriated funds. If funds are withdrawn or do not become available, the City of Shawnee can cancel the service contract by giving the firm written notice of its intention to cancel not less than ninety (90) days prior to the end of the term without penalty. Upon cancellation of the contract, the City of Shawnee shall not be responsible for any payment of any services received that occur after the end of the current contract period.

4.8. Sales and Use Tax: The City of Shawnee as a public entity and some cases exempt from state and local sales taxes.

4.9. Invoices: Payment terms on services that have been received and accepted by the City of Shawnee will be net forty-five (45) days.

4.10. Observance of the City of Shawnee Rules and Regulations: Firm agrees that at all times its employees will observe and comply with all policies and procedures of the City of Shawnee, including but not limited to smoking, parking and security directives. The firm will be required to follow the City of Shawnee policies in dealing with improper conduct and discrimination and shall report all incidents or injuries to the City of Shawnee.

4.11. Non-Exclusive Contract: This is not an exclusive contract and will not restrict in any way the City of Shawnee's rights to contract with other firms for services and/or commodities similar to those specified within this Request.

4.12. Limitations of Remedies and Indemnification: Any firm awarded a contract accepts full responsibility for acts or conduct of its employees or agents, or services rendered, and agrees to indemnify, defend and hold harmless the City of Shawnee and its officers, agents and employees from any and all claims, demands, damages, actions and costs or expenses in connection therewith that may relate to any subsequent agreement, or acts of the firm's employees or agents. The City of Shawnee will not be liable for any damage or injury to the firm's employees or its properties. The City of Shawnee does not agree to indemnify the vendor.

- 4.13. The firm may not assign, transfer, convey or otherwise dispose of this agreement or any right, title or interest herein without the prior written consent of the City of Shawnee. Any contract resulting from this Request may only be amended in writing and signed by the firm and the City of Shawnee using the same degree of formality evidenced in the contract resulting from this Request.
- 4.14. The firm shall not name the City of Shawnee in its external advertising, marketing programs or other promotional efforts, any data, pictures or other representation of the City of Shawnee except on the specific, written authorization in advance by the City of Shawnee's Mayor/City Commission and/or the City Manager.
- 4.15. Termination. The agreement between the firm and the City of Shawnee may be cancelled or terminated pursuant to Section 5.17 of this Request.
- 4.16. The firm is subject to and must comply with provisions of the City of Shawnee's policies and applicable state and federal anti-discrimination laws.
- 4.17. Insurance: Prior to beginning work, successful bidder shall deliver certificates of insurance as evidence of the coverage indicated below; such evidence shall include documentation of thirty (30) day prior written notice to the City of Shawnee of cancellation, non-renewal or material change in coverage.

4.17.1. The insurance certificates should be delivered to:

City of Shawnee
Attn: City Manager's Office
16 West 9th Street
Shawnee, OK 74801

4.17.2. Each insurance policy maintained by Contractor must be endorsed as follows:

4.17.2.1. "The City of Shawnee is Named an Additional Insured." (Except the Workers' Compensation)

4.17.2.2. "Underwriters waive all rights of subrogation against the City of Shawnee."

4.17.2.3. "The coverage afforded herein shall be primary in relation to any policies carried by the City of Shawnee." Provide thirty (30) days written notice of cancellation or reduction of any coverage to the City of Shawnee.

4.17.3. Insurance provider shall provide thirty (30) days written notice of cancellation, non-renewal, or reduction of any coverage to the City of Shawnee.

4.17.4. Contractor shall maintain the following:

4.17.4.1. Workers' Compensation and Employers' Liability Insurance in accordance with all applicable State laws. Employers' Liability Insurance, including Occupational Disease, with limits of liability of not less than \$1,000,000 each accident and \$1,000,000 each employee.

4.17.4.2. Commercial General Liability Insurance with limits of liability of not less than \$1,000,000 combined single limit per occurrence for bodily injury (including death), property damage and fire damage. Such insurance shall include, but not be limited to personal injury (libel, slander and false arrest), broad form property damage, blanket contractual liability and products/completed operations insurance.

4.17.4.3. Comprehensive Automobile Liability Insurance including owned, hired and non-owned vehicles with limits of liability of not less than \$500,000 combined single limit per occurrence for bodily injury

(including death) and property damage.

4.18. Bid Bond. Firm shall accompany their original bid, filed with the City Clerk's Office with a certified or Cashier's Check on a solvent bank located in Oklahoma or a Bidder's Bond, in the amount of five (5) percent of the amount bid, as a guarantee of their ability to perform the contract bid upon, and that they will enter into a written contract with the City of Shawnee to perform said work and/or furnish said materials in accordance with the specifications of this request, and any and all plans and specification and furnish the required bonds according to the Public Competitive Biddings Act of 1974.

4.18.1. The City of Shawnee will retain the deposit for liquidated damages in case the successful bidder fails to enter in said contract and furnish the required bonds provided for herein within the time required. Deposit of the unsuccessful bidders will be returned upon the execution of a contract and required bonds.

4.19. Construction, Performance, Maintenance, and Statutory Bonds. Firm may be required to post these bonds in the amount of up to or equal to one hundred percent (100%) of the total amount of the work awarded upon contract award. These bonds must be obtained from a Corporate Surety licensed in Oklahoma. The firm shall state in the proposal the name and address of the Surety or Sureties who will sign the bond in the event the contract is awarded. The Maintenance Bond will guarantee the repair of all damage due to improper materials or workmanship for a period of one (1) year after the acceptance of the work by the City of Shawnee.

5. COMPLIANCE WITH FEDERAL REQUIREMENTS

Since the parties anticipate that federal funding will be applied to this Request for Proposal/Agreement/Contract, the following federal contract clauses must be complied with, where applicable, in addition to the clauses already mentioned. Where any clauses conflict, the more stringent shall be the used.

5.1. Equal Employment Opportunity: The regulation at 41 C.F.R. § 60-1.4(b) requires, except as otherwise provided or exempted in 41 C.F.R. Part 60, the insertion of the following contract clause: "During the performance of this contract, the contractor agrees as follows:

5.1.1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

5.1.1.1. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

5.1.2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

5.1.3. The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding,

hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

- 5.1.4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 5.1.5. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- 5.1.6. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- 5.1.7. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- 5.1.8. The contractor will include the portion of the sentence in Section 5.1 that immediately precedes Section 5.1.1 and the provisions of Sections 5.1.1 through 5.1.8 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:
 - 5.1.8.1. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.
- 5.1.9. The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract. The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.
- 5.1.10. The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity

clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

5.2. Compliance with the Contract Work Hours and Safety Standards Act (2 CFR 200 Appendix II).

- 5.2.1. Overtime requirements: No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- 5.2.2. Violation, liability for unpaid wages, liquidated damages: In the event of any violation of the clause set forth in Section 5.2.1 of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in Section 5.2.1 of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in Section 5.2.1 of this section.
- 5.2.3. Withholding for unpaid wages and liquidated damages: The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally- assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in Section 5.2.2 of this section.
- 5.2.4. Subcontracts: The contractor or subcontractor shall insert in any subcontracts the clauses set forth in Section 5.2.1 through 5.2.4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in Section 5.2.1 through 5.2.4 of this section.
- 5.2.5. The contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.
- 5.2.6. Records to be maintained under this provision shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Department of Homeland Security, the Federal Emergency Management Agency, and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

- 5.3. Extension to Successors and Assigns: Each and all of the covenants and agreements contained in the Agreement affected by the acceptance of the Proposal shall extend to and be binding upon the successors and assigns of the parties thereto. Rights under this Agreement may not be assigned without mutual written consent of the parties.
- 5.4. Binding Agreement: This Agreement shall be construed in a neutral manner. This Agreement reflects the complete and full terms of agreement that is binding between the parties. The pages may be signed on separate pages, in counterparts and together are deemed to be one document. A true electronic copy is deemed an original.
- 5.5. Governing Law: All disputes relating to the execution, interpretation, construction, performance, or enforcement of the Agreement and the rights and obligations of the parties hereto shall be governed by the laws of the State of Oklahoma and resolved in a District Court of Oklahoma or applicable Federal Court of Oklahoma. Contractor hereby consents to and waives any objection to venue and jurisdiction in such courts.
- 5.6. Severability: If any term of this Agreement is to any extent illegal, otherwise invalid, or incapable of being enforced, such term shall be excluded to the extent of such invalidity or unenforceability; all other terms hereof shall remain in full force and effect; and, to the extent permitted and possible, the invalid or unenforceable term shall be deemed replaced by a term that is valid and enforceable and that comes closest to expressing the intention of such invalid or unenforceable term.

5.7. Clean Air Act

- 5.7.1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- 5.7.2. The Contractor agrees to report each violation to the City of Shawnee and understands and agrees that the City of Shawnee will, in turn, report each violation as required to assure notification to FEMA, and the appropriate Environmental Protection Agency Regional Office.
- 5.7.3. The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

5.8. Federal Water Pollution Control Act

- 5.8.1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 7401 et seq.
- 5.8.2. The Contractor agrees to report each violation to the City of Shawnee and understands and agrees that the City of Shawnee will, in turn, report each violation as required to assure notification to the FEMA, and the appropriate Environmental Protection Agency Regional Office.
- 5.8.3. The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

5.9. Suspension And Debarment

- 5.9.1. This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
- 5.9.2. The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

- 5.9.3. This certification is a material representation of fact relied upon by the City of Shawnee. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the City of Shawnee, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- 5.10. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.
- 5.11. Byrd Anti-Lobbying Act: The Contractor will be expected to comply with Federal statutes required in the Anti-Lobbying Act.
- 5.11.1. If applicable, contractors must sign and submit the following certification to the non-federal entity (NFE) with each bid or offer exceeding \$100,000. Each tier certifies to the tier above that it will not and has not used federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the federal awarding agency. The “44 C.F.R. Part 18 – Certification Regarding Lobbying” shown on ATTACHMENT A must be signed and included with the contract documents.
- 5.12. Anti-Kickback Clause: The Contractor hereby agrees to adhere to the mandate dictated by the Copeland “Anti-Kickback” Act which provides that each Contractor or subgrantee shall be prohibited from inducing, by any means, any person employed in the completion of work, to give up any part of the compensation to which he is otherwise entitled.
- 5.13. Procurement Of Recovered Materials: In the performance of this Contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:
- 5.13.1. Competitively within a timeframe providing for compliance with the Contract performance schedule;
- 5.13.2. Meeting Contract performance requirements; or
- 5.13.3. At a reasonable price.
- 5.13.4. Information about this requirement, along with the list of EPA-designate items, is available at EPA’s Comprehensive Procurement Guidelines website, www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program
- 5.14. Prohibition on Contracting for Covered Telecommunications Equipment or Services.
- 5.14.1. Definitions. As used in this clause, the terms backhaul; covered foreign country; covered telecommunications equipment or services; interconnection arrangements; roaming; substantial or essential component; and telecommunications equipment or services have the meaning as defined in FEMA Policy 405-143-1, Prohibitions on Expending FEMA Award Funds for Covered Telecommunications Equipment or Services (Interim), as used in this clause.
- 5.14.2. Prohibitions.

5.14.2.1. Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after Aug.13, 2020, from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.

5.14.2.2. Unless an exception in Section 5.14.3 of this clause applies, the contractor and its subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds from the Federal Emergency Management Agency to:

5.14.2.2.1. Procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

5.14.2.2.2. Enter into, extend, or renew a contract to procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

5.14.2.2.3. Enter into, extend, or renew contracts with entities that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system; or

5.14.2.2.4. Provide, as part of its performance of this contract, subcontract, or other contractual instrument, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

5.14.3. Exceptions.

5.14.3.1. This clause does not prohibit contractors from providing:

5.14.3.1.1. A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

5.14.3.1.2. Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

5.14.3.2. By necessary implication and regulation, the prohibitions also do not apply to:

5.14.3.2.1. Covered telecommunications equipment or services that:

5.14.3.2.1.1. Are not used as a substantial or essential component of any system; and

5.14.3.2.1.2. Are not used as critical technology of any system.

5.14.3.2.2. Other telecommunications equipment or services that are not considered covered telecommunications equipment or services.

5.14.4. Reporting requirement.

5.14.4.1. In the event the contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the contractor is notified of such by a subcontractor at any tier or by any other source, the contractor shall report the information in Section 5.14.4.2 of this clause to the

recipient or subrecipient, unless elsewhere in this contract are established procedures for reporting the information.

5.14.4.2. The Contractor shall report the following information pursuant to Section 5.14.4.1 of this clause:

5.14.4.2.1. Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

5.14.4.2.2. Within 10 business days of submitting the information in Section 5.14.4.2.1 of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

5.14.5. Subcontracts. The Contractor shall insert the substance of this clause (Section 5.14), including this paragraph (5.14 .5), in all subcontracts and other contractual instruments.

5.15. Domestic Preferences for Procurements.

5.15.1. As appropriate, and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States. This includes, but is not limited to iron, aluminum, steel, cement, and other manufactured products.

5.15.2. For purposes of this clause:

5.15.2.1. Produced in the United States means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

5.15.2.2. Manufactured products mean items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

5.16. Access to Records

5.16.1. The following access to records requirements applies to this contract:

5.16.1.1. The Contractor agrees to provide the City of Shawnee, OEM, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives' access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

5.16.1.2. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

5.16.1.3. The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

5.16.1.4. In compliance with Section 1225 of the Disaster Recovery Reform Act of 2018, the City of Shawnee and the contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

5.17. Termination

5.17.1. Termination for Cause. The City of Shawnee (Owner) shall submit a written notice to the contractor and surety which justifies placement of the contractor in default if:

5.17.1.1. The Work is not begun within the time specified in the Notice to Proceed.

5.17.1.2. The Work is performed with insufficient workmen, equipment, or materials to assure prompt completion.

5.17.1.3. The contractor performs unsuitable, neglected, or rejected work, refuses to remove materials.

5.17.1.4. The Work is discontinued.

5.17.1.5. The Work is not completed within the Contract Time or time extension.

5.17.1.6. Work is not resumed within a reasonable time after receiving a notice to continue.

5.17.1.7. The contractor becomes insolvent or is declared bankrupt or commits any act of bankruptcy or insolvency.

5.17.1.8. The contractor allows any final judgment to stand unsatisfied for a period of ten (10) days.

5.17.1.9. The contractor makes an assignment for the benefit of creditors.

5.17.1.10. The Work is not performed in an acceptable manner.

5.17.1.11. If the contractor or Surety does not remedy all conditions cited in the written notice within ten (10) days after receiving such a notice, the contractor is placed into default. In that event, the Owner may obtain the necessary labor, materials, and equipment, or enter into a new Contract in order to complete the Work. All costs incurred by the Owner for completing the Work under the new Contract will be deducted from the payment due the contractor. If the expense exceeds the sum payable under the Contract, the contractor and surety shall be liable to pay the Owner the difference.

5.17.2. Termination for Convenience. The City of Shawnee (Owner) may, at any time, terminate this Contract or any portion thereof, for Owner's convenience, upon providing written notice to the contractor. In such case, contractor shall be paid for all work completed through the date notice was provided (less payments already received) and reasonable demobilization and restocking charges incurred, and reasonable overhead and profit based upon industry standards on the work performed. In no event shall the contractor be entitled to payment of overhead and profit on work not performed. In the event it is determined that the contractor was wrongfully terminated for cause, such termination shall be automatically converted to a termination for convenience and payment be made as provided under this Section.

5.18. Breach: Any breach of the Contract by Contractor shall be governed by the Termination provision of the Contract. Additionally, in the event that the City of Shawnee incurs damages as a result of Contractor's breach, the City of Shawnee may pursue recovery of such damages from Contractor. The City of Shawnee further retains the right to seek specific performance of the Contract at any time as authorized by law. The City of Shawnee further retains the right to otherwise pursue any remedies available to the City of Shawnee as a result of the Contractor's

breach, including but not limited to administrative, contractual, or legal remedies. Termination for cause and convenience are governed by the Termination provision of the Contract

- 5.19. Changes: To be allowable under a FEMA grant or cooperative agreement award, the cost of any contract change, modification, amendment, addendum, change order, or constructive change must be necessary, allocable, within the scope of the grant or cooperative agreement, reasonable for the scope of work, and otherwise allowable.
- 5.20. DHS Seal, Logo, And Flags: The contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval. The contractor shall include this provision in any subcontracts.
- 5.21. Compliance with Federal Executive Orders: This is an acknowledgement that FEMA financial assistance will be used to fund the Contract only. The Contractor will comply will all applicable federal law, regulations, executive orders, FEMA policies, procedures, and directives.
- 5.22. No Obligation by the Federal Government: The Federal Government is not a party to this Contract and is not subject to any obligations or liabilities to the non-Federal entity, Contractor, or any other party pertaining to any matter resulting from the Contract.
- 5.23. Program Fraud and False or Fraudulent Statements or Related Acts: The Contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Contractor's actions pertaining to this contract.
- 5.24. Contracting with Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms: If subcontracts are to be let, the prime contractor is required to take all necessary steps identified in 2 C.F.R. § 200.321(b)(1)-(5) to ensure that small and minority businesses, women's business enterprises, and labor surplus area firms are used when possible.
- 5.24.1. Any party to this contract must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. These steps are also required for the hiring of any subcontractors under this contract.
- 5.24.2. Affirmative steps must include:
- 5.24.2.1. Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
 - 5.24.2.2. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
 - 5.24.2.3. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
 - 5.24.2.4. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; and
 - 5.24.2.5. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce
- 5.25. Copyright and Data Rights: License and Delivery of Works Subject to Copyright and Data Rights – The contractor grants to the City of Shawnee, a paid-up, royalty-free, nonexclusive, irrevocable, worldwide license in data first produced in the performance of this contract to reproduce, publish, or otherwise use, including prepare

derivative works, distribute copies to the public, and perform publicly and display publicly such data. For data required by the contract but not first produced in the performance of this contract, the contractor will identify such data and grant to the City of Shawnee or acquires on its behalf a license of the same scope as for data first produced in the performance of this contract. Data, as used herein, shall include any work subject to copyright under 17 U.S.C. § 102, for example, any written reports or literary works, software and/or source code, music, choreography, pictures or images, graphics, sculptures, videos, motion pictures or other audiovisual works, sound and/or video recordings, and architectural works. Upon or before the completion of this contract, the contractor will deliver to the City of Shawnee data first produced in the performance of this contract and data required by the contract but not first produced in the performance of this contract in formats acceptable by the City of Shawnee.

**Attachment A: Certification for Contracts, Grants, Loans, and Cooperative Agreements as required by the
Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352**

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$ 100,000 for each such failure.

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

Contractor's Authorized Official

Date

Name & title of Contractor's Authorized Official

Attachment B: No Proposal Notification

City of Shawnee B2023-807 Fencing Installation and Repair Services

The City of Shawnee is interested in receiving competitive pricing on all products and services. The City of Shawnee places significant value on quality vendors and desires to keep interested companies as vendors and suppliers of materials, equipment, and services. It is important for the City of Shawnee to determine the reasons that vendors do not respond to this contract item. The City of Shawnee will evaluate responses and attempt to determine if future changes are necessary in our specification development or procedures.

WILL NOT SUBMIT A RESPONSE

Vendor Name

REASON FOR NO RESPONSE: *(Please place an X by one or more of the reasons listed below.)*

_____ Do not supply the requested product or service.

_____ Quantities offered or scope of project is TOO SMALL to be supplied by our company.

_____ Quantities offered or scope of project is TOO LARGE to be supplied by our company.

_____ Cannot bid against MANUFACTURER on this item.

_____ Cannot bid against RESELLER on this item.

_____ Specifications not clear enough to submit a response *(please explain)*.

_____ Time frame for bidding is too short *(please explain)*.

_____ Time frame to produce the product or service is too short.

_____ Other *(Please state the reasons.)* _____

FOR PURPOSES OF FUTURE SUBMITTALS, PLEASE INDICATE:

_____ My Company would like to remain on the vendor list.

_____ My Company **does not** want to remain on the vendor list.

Signature

Date

Address

CITY

State

Zip

Phone Number

Fax Number

Email Address

Attachment C – Addendum Acknowledgement Form

City of Shawnee B2023-80
Fencing Installation and Repair Services

The undersigned acknowledges receipt of the following addenda to the Bid/Request for Proposals (indicate number and date of each):

Addendum No.: Dated:

Addendum No.: Dated:

Addendum No.: Dated:

Addendum No.: Dated:

Addendum No.: Dated:

Addendum No.: Dated:

FAILURE TO SUBMIT ACKNOWLEDGEMENT OF ANY ADDENDUM THAT AFFECTS PRICING AND/OR SCOPE IS CONSIDERED A MAJOR IRREGULARITY AND MAY BE CAUSE FOR REJECTION OF ANY BID.

Acknowledgement: I certify that I have read and agree to the above terms and conditions and that I am authorized to sign for the Vendor/Contractor.

Company Name: FEIN:

Authorized Signature: Date:

Printed Name: Title:

Attachment D – References
City of Shawnee B2023-807
Fencing Installation and Repair Services

Provide the names and phone numbers of three (3) references for which you have provided goods or services similar tot hose specified herein in the last five (5) years. Include all information available:

Company Name	Contact Name	Contact Number	Contact Email
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Company Name	Contact Name	Contact Number	Contact Email
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Company Name	Contact Name	Contact Number	Contact Email
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Attachment E: Cost Proposal
B2023-809 Fencing Installation and Repair Services

<u>Package 1: Shawnee Regional Airport Fence Package</u>				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	4364		
Site preparation	LS	1		
72" Height Chain Link Fencing with 3 stranded barbed wire	LF	4364		
<u>Package 2: Police Shooting Range Fence Package</u>				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	780		
Site preparation	LS	1		
72" Height Chain Link Fencing with 3 stranded barbed wire	LF	780		
<u>Package 3: Public Works Fence Package</u>				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	250		
Site preparation	LS	1		
72" Height Chain Link Fencing	LF	250		
<u>Package 4: Heart of Oklahoma Expo Center Fence Package</u>				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	3000		
Site preparation	LS	1		
72" Height PVC Coated Chain Link Fencing		1500		
72" Height Chain Link Fencing	LF	1500		
<u>Package 5: Airport Rental Property Fence Package</u>				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	1570		
Site preparation	LS	1		
72" Height Chain Link Fencing	LF	1570		
<u>Package 6: I-40 Fence Package</u>				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	1750		
Site preparation	LS	1		
48" White Vinyl Standard 3 (Ranch Rail) Rail Fence	LF	1750		

Package 7: Misc. Services and Projects Package				
Description	Unit	Est. Qty	Unit Price	Total Price
Demo, remove, and dispose of all existing fencing and related debris	LF	1		
Site preparation	HR	1		
Labor for repair of existing usable fence	HR	1		
48" Height Chain Link Fence	LF	1		
60" Height Chain Link Fence	LF	1		
60" Height Chain Link Fence w/ 3 Stranded Barbed Wire	LF	1		
72" Height Chain Link Fence	LF	1		
72" Height Chain Link Fence w/ 3 Stranded Barbed Wire	LF	1		
48" Height PVC Coated Chain Link Fence	LF	1		
60" Height PVC Coated Chain Link Fence	LF	1		
72" Height PVC Coated Chain Link Fence	LF	1		
3 Stranded Barbed Wire	LF	1		
Labor for any work not otherwise specified including labor to: repair existing fencing, repair existing gates, install new gates, and other similar services	HR	1		
Mark-up for parts not covered in existing line items, including but not limited to: gates, gate openers, and other associated items	%			

Unit price for all items shall include all labor, equipment, and material necessary for the installation of the specified product or service.

All quantities are estimates only. Actual quantities will be determined prior to any task order for work to be performed. Additional projects yet to be identified will be priced based on the pricing from Package 7. Additional repairs needed for any package will be based on the pricing from that package and where a line item does not exist in that package, from Package 7.

Attachment F - BID BOND

We, the undersigned, _____, as Principal, and _____, as Surety, are hereby held and firmly bound unto City of Shawnee, as Owner, in the penal sum of _____ for the payment of which, well and truly to be made, hereby jointly and severally bind ourselves, our successors and our assigns.

Signed this _____ day of _____, _____

The condition of the above obligation is such that, whereas the Principal has submitted to City of Shawnee, a certain bid, attached hereto and hereby made a part hereof, to enter into a contract, in writing, for the Fencing Installation and Repair Service (B2023-809);

NOW, THEREFORE, if said bid shall be rejected or if said bid shall be accepted and the Principal shall execute and deliver a contract in the form of the contract attached hereto (properly completed in accordance with said bid) and shall furnish a bond for faithful performance of said contract and for the payment of all persons performing labor or furnishing materials in connection therewith and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void; otherwise, the same shall remain in force and effect, it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bonds shall in no way be impaired or affected by any extension of the time within which the Owner may accept such bid and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers the day and year first set forth above.

Principal

Surety

By: _____

ATTEST: (if by corporation)

Type Name & Title

Corporate Seal

NOTICE TO BIDDERS:

Notice is hereby given that the City of Shawnee will receive sealed bids at City Hall (City Clerk's Office) at 16 W. 9th St., Shawnee, OK, 74801 for: **FENCING INSTALLATION AND REPAIR SERVICES.**

Sealed bids will be received by the City Clerk until 1:00 p.m. on Friday, October 6, 2023. All bids received at said time will be opened in the City Hall City Commission Chamber at 16 W. 9th St., Shawnee, OK, 74801 at 2:00 p.m. on Friday, October 6, 2023 and evaluated for completeness and correctness. All bids received past 1 p.m. shall be returned. Firms or companies desiring to provide services, as described in the Scope of Work, shall submit one (1) original complete physical sealed bid and one (1) electronic copy on a USB device in a sealed envelope. The outside of the proposal envelope should be clearly marked with the project name "B2023-809 FENCING INSTALLATION AND REPAIR SERVICES" as well as the name and address of bidder.

The Request for Sealed Bid documents may be examined at: City Clerk's Office, at the address listed above. A physical copy of the Request for Sealed Bid may be obtained from the City Clerk by prospect bidders at this location, upon request from the for \$25. Prospective bidders may obtain a digital copy, at no cost by requesting the documents via email from Danny Vise, Jr., Assistant City Manager, at: danny.vise@shawneeok.org,

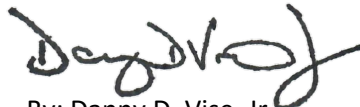
Each bidder must use the provided forms and affidavits, which must be signed and attested. Each bidder shall accompany his original bid with a certified or Cashier's Check on a solvent bank located in Oklahoma, or a Bidder's Bond in accordance with the bid documents and furnish the required bonds according to the Public Competitive Bidding Act of 1974.

Additional information regarding the Request for Sealed Bid documents, including addenda and responses, may be obtained from: https://www.shawneeok.org/services/current_bids_proposals/index.php

Bids will be referred to City staff for evaluation. The City of Shawnee reserves the right to reject any and all bids without assigning reason thereof and to waive any technicalities in the bid process. No bids may be altered, withdrawn, or resubmitted within 90 days after the date set for the opening of the sealed bids.

All questions regarding this sealed bid request must be submitted in writing or by email to the City of Shawnee, Attention: Asst. City Manager, Danny Vise, Jr. (danny.vise@shawneeok.org) no later than 5:00 p.m. (CST), on September 29, 2023. The City may issue an addendum to the Request for Bids for distribution to all known prospective bidders.

City of Shawnee, Oklahoma



By: Danny D. Vise, Jr

Assistant City Manager



Engineering Department
222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: Board of City Commissioners
From: Seth Barkhimer, Director of Engineering
Subject: Consideration of a Task Order in accordance with the agreement between the City of Shawnee and Freese and Nichols Inc. (FNI) for Owner's Representative Inspection Services for Independence Water Line (C-23-02), Thompson Heights Water Line (C-23-05) and Sewer Pipe Bursting (C-23-08) projects.

Background: Given the award of multiple American Rescue Plan Act (ARPA) utility project(s), City staff is requesting an Owner's Representative Inspection Services contract. Given the project(s) scope, an on-site inspector is necessary to ensure the projects are progressing as expected. Staff is requesting the approval of the contract with Freese and Nichols (FNI) for inspection and resident engineering services.

If approved, FNI will act as an owner's representative over the life of the Independence, Thompson Heights, and the Pipe Bursting construction contracts and will aid City staff in ensuring the projects are built per design in the most efficient manner possible. FNI's proposed responsibilities include, but are not limited to:

- Be the owner's representative onsite throughout construction;
- Review and approve contractor pay applications before City staff receives them;
- Provide monthly owner's reports;
- Facilitate coordination among the design team, City staff, and contractor on any issues that may arise during construction;
- Perform additional tasks as described in the attached contract.

Financial Impact: The contract is for \$162,842.00; funded from account - 304-5-1040-54200 - American Rescue Plan Fund

Attachments: PSA - Task Authorization FNI Signed Revised 10/03/2023

Staff Recommendation: Award of the Contract

**MASTER PROFESSIONAL SERVICES AGREEMENT****TASK AUTHORIZATION #3**

City of Shawnee / Shawnee Municipal Authority

FNI Project: _____

16 W. 9th St.

Client Contract: _____

Shawnee, OK 74801

Date: 10/03/2023

Project Name:

Shawnee Waterline Independence (ARP-23-0026-G)/Thompson Heights (ARP-23-0188-G)/Sewer Pipe Bursting (ARP-23-0092-G)

Description of Services:

Freese and Nichols will provide a full-time, knowledgeable, resident inspector for an estimated time of eight hours/day (including drive-time), five days/week for 26 weeks (plus 4 partial weeks at 25-hour weeks as needed). The inspector will be in place to ensure sound engineering principles and building practices for the **City of Shawnee**. The inspector will report on the progress of the project and confirm correct usage of materials referencing approved project plans and specifications, assure joint fusing is completed properly, and approve pay applications. The inspector will help resolve landowner issues during the project. The inspector will follow the ORF-151 Daily Construction Report (provided by **OWRB**), as well as standard **Freese and Nichols** inspection procedures.

The inspector will be present for all necessary testing to confirm that the procedure and results abide by the current American Water Works Association, American Association of State Highway and Transportation Officials, American Society of Testing and Materials, and the Oklahoma Department of Transportation published procedures, or similar criteria.

Deliverables:

Daily Construction Reports Approved Pay Applications

Schedule:

October 2023 – May 2024

Compensation Type:

Not to Exceed

Amount Authorized:

\$162,842.00

The services described above shall proceed upon execution of this Task Authorization. All other provisions, terms, and conditions of the Master Professional Services Agreement which are not expressly amended shall remain in full force and effect.

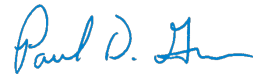
**CITY OF SHAWNEE / SHAWNEE MUNICIPAL
AUTHORITY**

By: _____

Name: _____

Title: _____

Date: _____

FREESE AND NICHOLS, INC.By:  _____

Name: Paul D. Green

Title: Principal/Vice President

Date: 10/03/2023

COMPENSATION

<u>Position</u>	<u>Hourly Rate</u>
Construction Representative	\$115
Construction Manager	\$233
Senior Group Manager	\$285
Senior Advisor	\$267
Administrative	\$86

RATES FOR IN-HOUSE SERVICES AND EQUIPMENT:

<u>Mileage</u>	<u>Bulk Printing and Reproduction</u>		<u>Equipment</u>		
Standard IRS Rates		<u>B&W</u>	<u>Color</u>	Valve Crew Vehicle (hour)	\$75
	Small Format (per copy)	\$0.10	\$0.25	Pressure Data Logger (each)	\$100
	Large Format (per sq. ft.)			Water Quality Meter (per day)	\$100
<u>Technology Charge</u>	Bond	\$0.25	\$0.75	Microscope (each)	\$150
\$8.50 per hour	Glossy / Mylar	\$0.75	\$1.25	Pressure Recorder (per day)	\$200
	Vinyl / Adhesive	\$1.50	\$2.00	Ultrasonic Thickness Gauge (per day)	\$275
				Coating Inspection Kit (per day)	\$275
	Mounting (per sq. ft.)	\$2.00		Flushing / Cfactor (each)	\$500
	Binding (per binding)	\$0.25		Backpack Electrofisher (each)	\$1,000
					<u>Survey Grade</u> <u>Standard</u>
				Drone (per day)	\$200 \$100
				GPS (per day)	\$150 \$50

OTHER DIRECT EXPENSES:

Other direct expenses are reimbursed at actual cost times a multiplier of 1.15. They include outside printing and reproduction expense, communication expense, travel, transportation and subsistence away from the FNI office. For other miscellaneous expenses directly related to the work, including costs of laboratory analysis, test, and other work required to be done by independent persons other than staff members, these services will be billed at a cost times a multiplier of 1.15. For Resident Representative services performed by non-FNI employees and CAD services performed In-house by non-FNI employees where FNI provides workspace and equipment to perform such services, these services will be billed at cost times a multiplier of 2.0. This markup approximates the cost to FNI if an FNI employee was performing the same or similar services.

DESIGNATED REPRESENTATIVES: FNI and Client designate the following representatives:

Client's Designated Representative – Seth Barkhimer, P.E.

Phone: (405)-878-1506

Email: seth.barkhimer@shawneeok.org

Client's Accounting Representative – Lindsey McNabb-Fox

Phone: (405)-878-1650

Email: lindsey.fox@shawneeok.org

FNI's Designated Representative – Paul D. Green, P.E.

Phone: (405) 252-5936

Email: paul.green@freese.com

FNI's Accounting Representative – Stephanie Kirchstein

Phone: (817) 614-2360

Email: stephanie.kirchstein@freese.com



Finance Department
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: October 16, 2023
To: City Commission
From: Lindsey McNabb-Fox, Finance Director
Subject: October 2023 Sales and Use Tax Deposit

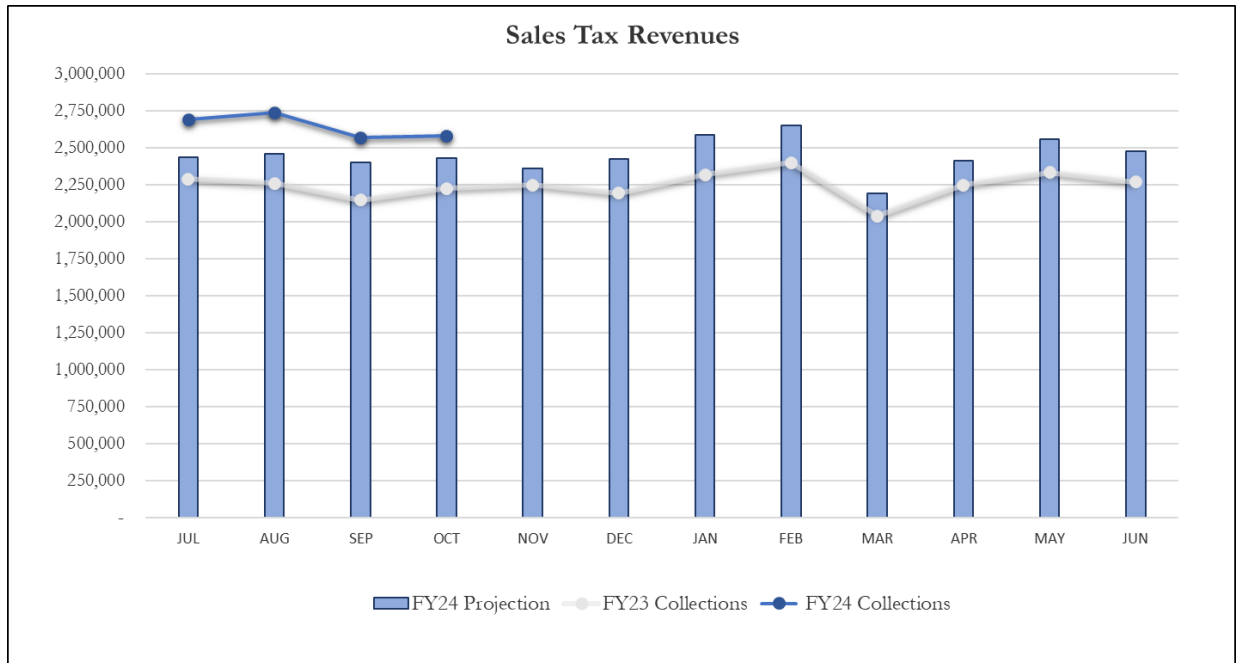
Background: The Oklahoma Tax Commission (the “OTC”) collects and enforces collection of sales and use taxes, including special earmarked taxes such as alcohol and tobacco, for the entities responsible for remitting taxes to the City of Shawnee. Entities with monthly tax liabilities exceeding \$2,500 are required to remit tax estimates each month by the 20th; in addition, entities are required to report their final tax collections for the previous month along with a final payment of taxes for the previous month on the 20th. To summarize, tax collections remitted to the City of Shawnee by the OTC in October consists of September estimates and August final reported collections. Any taxes collected for months prior to August will include accrued late penalties and interest.

- Sales Tax Collection Allocated by Fund - The October sales tax deposit was \$2,583,507.11 including interest of \$2,873.66, to be allocated as follows:

<u>Fund</u>	<u>Allocation</u>
General Fund	\$ 1,291,753.56
2018 Capital Improvements Fund	322,938.39
Capital Improvements Fund	250,277.25
Street Improvements Fund	282,571.09
Economic Development Fund	32,293.84
Police Sales Tax Fund	40,367.30
Fire Sales Tax Fund	40,367.30
2023 Capital Improvements Fund	322,938.39
Total Sales Taxes Collected	<u><u>\$ 2,583,507.11</u></u>

- Finance Department Report - Sales and use tax collections totaled \$2,915,078.67 for October 2023. Sales tax projections are based on an average of the most recent three years of sales tax history. For the year, sales tax collections are up \$860,256 or 8.85%, over the projected budget year-to-date. Use tax collections are up \$228,108 or 19.45%, above the projected budget year-to-date.

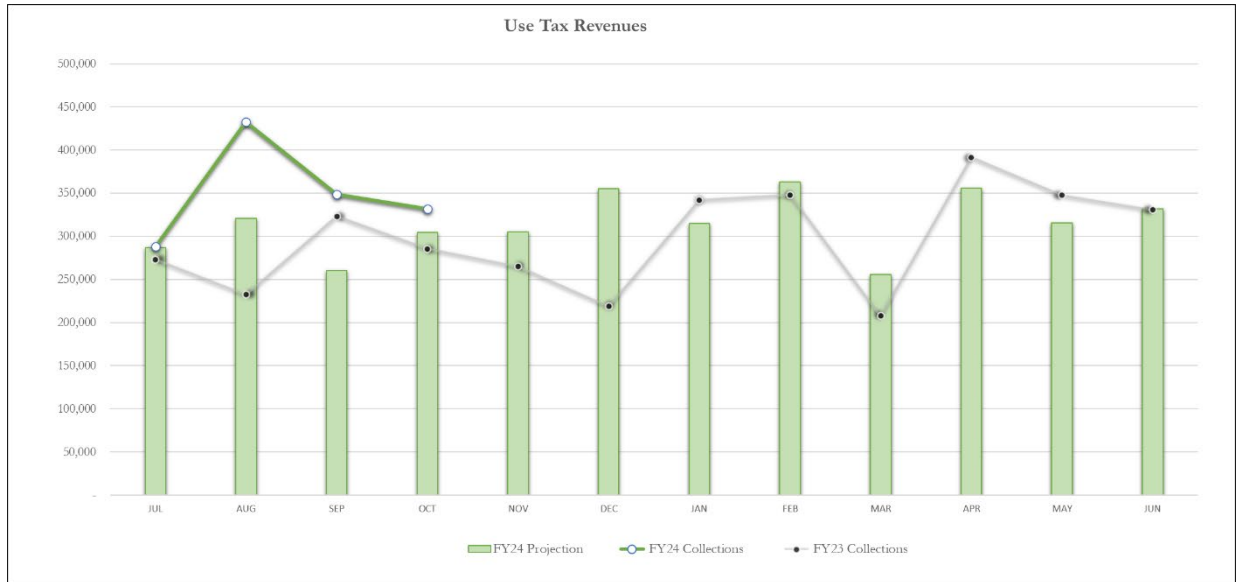
○ Fiscal Year 2024 Sales Tax Collections and Performance:



	Projected Budget	Actual	Amount Variance	Percentage Variance	
Sales Tax Receipts - October 2023	\$ 2,431,151	\$ 2,583,507	\$ 152,356	6.27%	
Sales Tax Receipts (year-to-date):	\$ 9,721,498	\$ 10,581,754	\$ 860,256	8.85%	
					% Variance w/ Rate Normalization
	October 2022	October 2023	Amount Variance	Percentage Variance	
Sales Tax Receipts (vs Prior Year):	\$ 2,223,480	\$ 2,583,507	\$ 360,028	16.19%	1.67%
					% Variance w/ Rate Normalization
	Year To Date FY 2023	Year To Date FY 2024	Amount Variance	Percentage Variance	
Sales Tax Receipts (vs Prior Year):	\$ 8,916,647	\$ 10,581,754	\$ 1,665,107	18.67%	3.84%

* City's Sales & Use Tax Rate increased from 3.5% to 4% effective April 1, 2023. The table above shows a "Percentage Variance with Rate Normalization" to compare the change in actual tax collections by removing the 0.5% rate increase.

○ Fiscal Year 2024 Use Tax Collections and Performance:



	Projected Budget	Actual	Amount Variance	Percentage Variance	
Use Tax Receipts (Oct 2023):	\$ 304,642	\$ 331,572	\$ 26,930	8.84%	
Use Tax Receipts (year-to-date):	\$ 1,172,567	\$ 1,400,676	\$ 228,108	19.45%	

	Oct 2022	Oct 2023	Amount Variance	Percentage Variance	% Variance w/ Rate Normalization
Use Tax Receipts (vs Prior Year):	\$ 285,584	\$ 331,572	\$ 45,987	16.10%	1.59%

	Year To Date FY 2023	Year To Date FY 2024	Amount Variance	Percentage Variance	% Variance w/ Rate Normalization
Use Tax Receipts (vs Prior Year):	\$ 1,113,996	\$ 1,400,676	\$ 286,680	25.73%	10.02%

* City's Sales & Use Tax Rate increased from 3.5% to 4% effective April 1, 2023. The table above shows a “% Variance with Rate Normalization” to compare the change in actual tax collections by removing the 0.5% rate increase.

○ Fiscal Year 2024 – General Fund Sales & Use Tax – Above Projections:

General Fund Projections (year-to-date)

Sales Tax Above/(Below) Projections: \$ 429,546

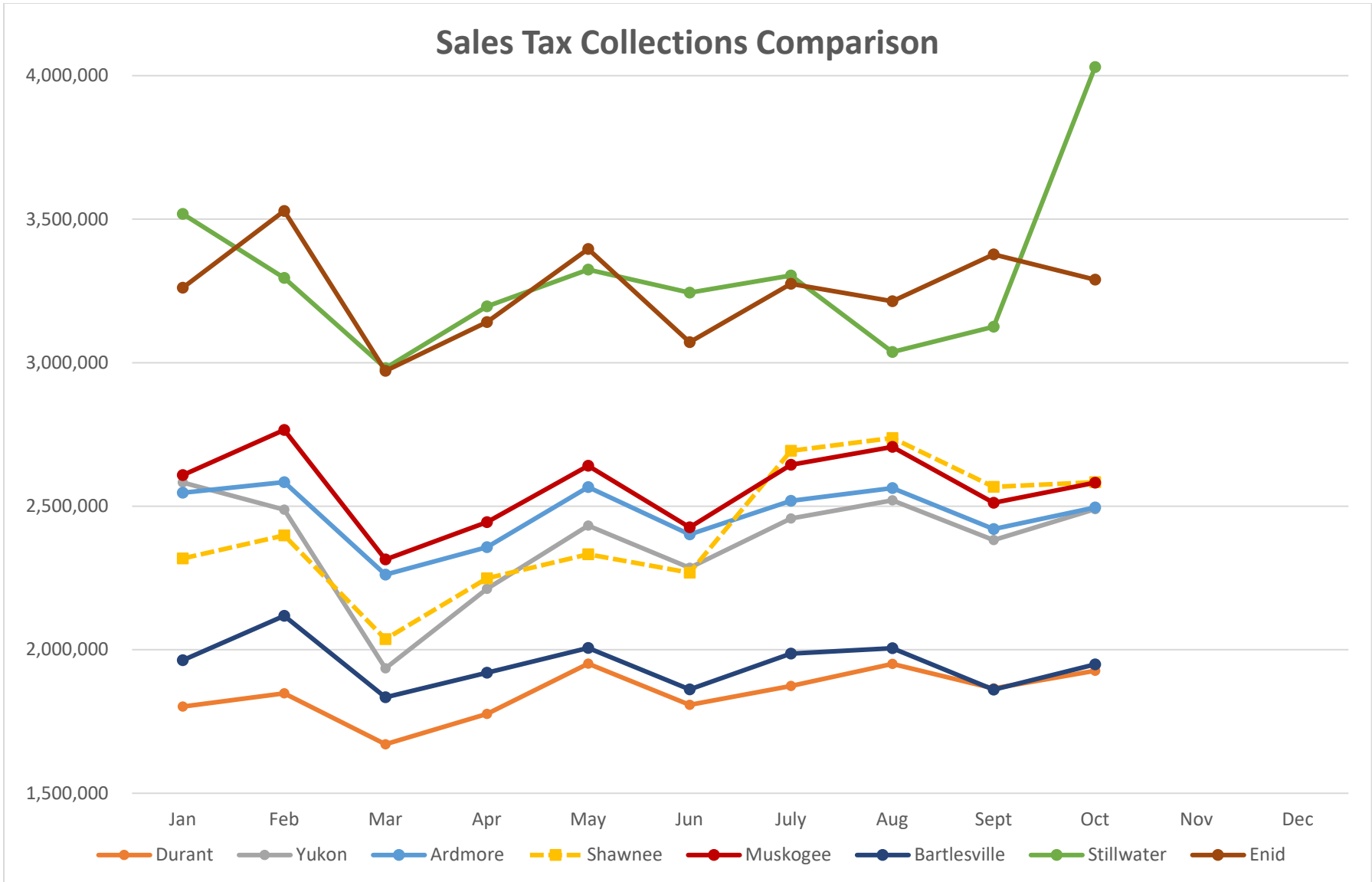
Use Tax Above/(Below) Projections: \$ 228,108

Appropriated:

Total Appropriated \$ -

Total Unappropriated: \$ 657,654

To provide insight into how the City of Shawnee compares to its peers, the following graphic offers an overview of sales tax collections in 2023.



	Durant	Yukon	Ardmore	Shawnee	Muskogee	Bartlesville	Stillwater	Enid
Population	18,589	23,630	24,725	31,377	36,878	37,290	48,394	51,308
City Tax Rate	4.38%	4.00%	3.75%	4.00%	4.00%	3.40%	3.63%	4.25%
State Rank by Total Collections (Prior Year)	17	14	13	15	12	16	11	10

2018 Half-cent Sales Tax Update

October 16, 2023

Lindsey McNabb-Fox, Finance Director



2018 Sales Tax Election

- **“Proposition #4”** passed on June 26, 2018
- **Added 0.5% to existing sales tax**
- Revenue allocated for **capital improvements**
 - Public Safety: 0.125% sales tax or 25% of total
 - Streets/Roads: 0.125% sales tax or 25% of total
 - Parks/Public Facilities: 0.25% sales tax or 50% of total

Investment Updates

\$17.2 million in Sales Tax Collections

- Through October 2023 collections

\$19.2 million invested in Community Projects

- Through September 2023
- \$8.7 million spent in FY23
- \$988k spent YTD in FY24

Investment Updates – 1st Qtr. FY24

\$251 k Kidspace Park

\$580 k Woodland Veterans Park

\$147 k Highland Street Sidewalk

Public Safety	Original Allocation	New Allocation	Expensed to date	Status
Police Department Headquarters	\$3,200,000	\$4,339,268	\$4,339,268	Complete
Police Patrol Vehicles	\$1,250,000	\$1,098,727	\$1,098,727	Complete
Fire Station #1 & #3	\$1,750,000	\$2,070,025	\$26,921	Design
Fire Engine	\$750,000	\$855,880	\$855,880	Complete
Fire Training Structure	\$300,000	\$50,195	\$50,195	Hold
Emergency Warning System	\$250,000	\$250,000	\$250,000	Complete
Total Public Safety	\$7,500,000	\$8,664,095	\$6,620,991	

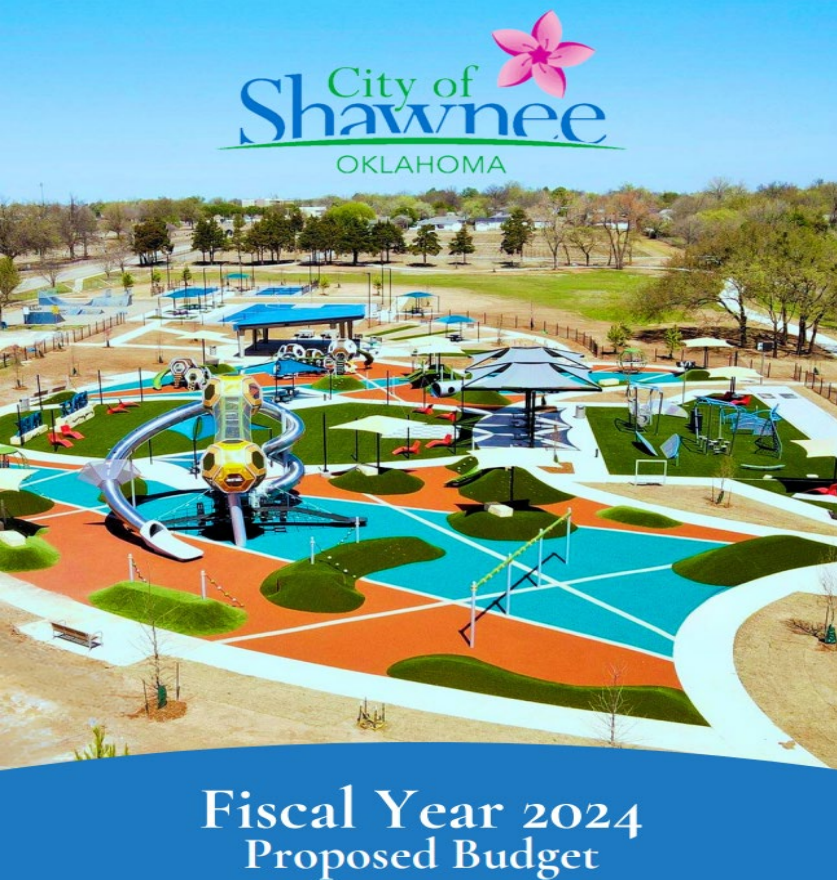
Streets and Roads	Original Allocation	New Allocation	Expensed to date	Status
45th Street widening	\$3,500,000	\$4,664,095	\$504,356	Design
Pavement Overlays & Panel Replacements	\$4,000,000	\$4,000,000	\$920,639	Ongoing
Total Streets & Roads	\$7,500,000	\$8,664,095	\$1,424,995	

Parks & Public Facilities	Original Allocation	New Allocation	Expensed to date	Status
Implement Parks Master Plan	\$7,000,000	\$8,628,066	\$7,717,114	Nearing completion
EXPO Enhancement & Remodel	\$3,500,000	\$3,500,000	\$1,585,520	Roof & Fence, Various equipment & repairs
Sidewalks & Trails	\$1,750,000	\$1,750,000	\$1,356,742	Projects in progress
Santa Fe Depot Roof & Remodel	\$400,000	\$400,000	\$48,946	Design
Library Roof & Remodel	\$1,000,000	\$1,000,000	\$161,689	Various Components Completed
Senior Ctr Roof & Remodel	\$1,000,000	\$1,000,000	\$114,827	
Community Ctr Roof & Remodel	\$350,000	\$350,000	\$212,971	
Unallocated funds	\$0	\$700,123	\$0	

Total Facilities
\$15,000,000
\$17,328,189
\$11,197,809

A special “Thank You” to
the citizens of Shawnee
for their support!



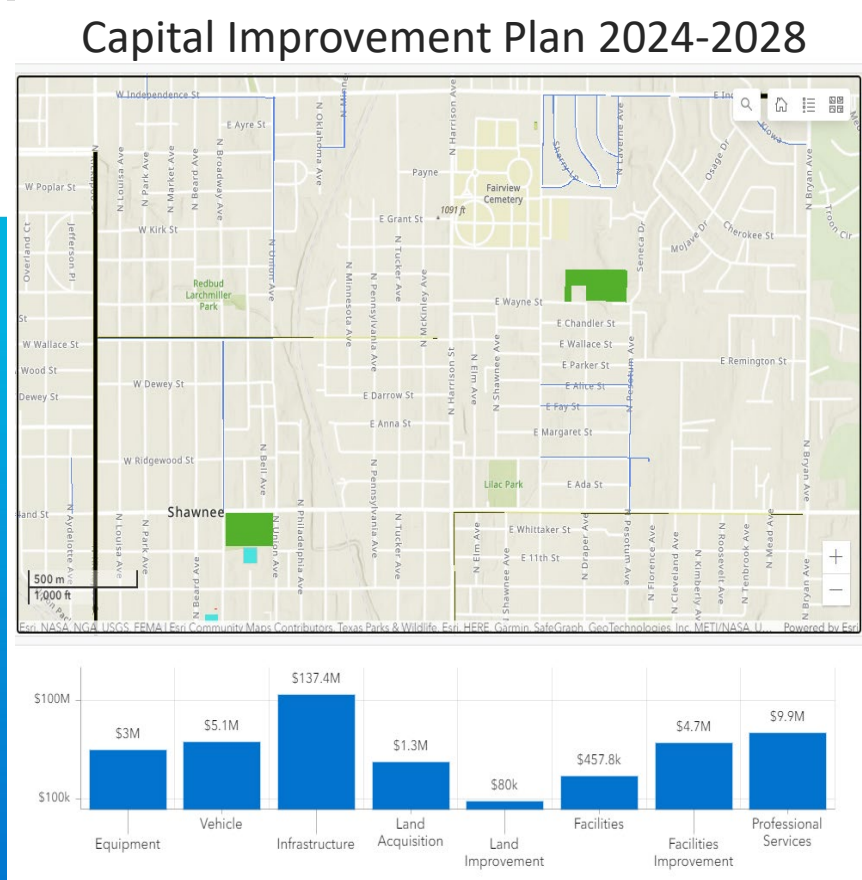


Pay My Bill
 Citizen Request Portal
 Department Contacts

Welcome

Welcome to the City of Shawnee Online City Hall. Please take a minute to browse all our services and resources! We have added some quick links below to some of our most popular pages.

PARKS AND RECREATION	CITY FINANCIAL INFORMATION
CITY CODE	BIDS/PROPOSALS



City Financial Information

Andrea Weckmueller-Behringer, City Manager

October 16, 2023 – Administrative Report





Pay My Bill



Citizen Request Portal



Department Contacts

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PARKS AND RECREATION	CITY FINANCIAL INFORMATION
CITY CODE	BIDS/PROPOSALS



City Financials

- Access from City's Landing Page
- On Finance Department webpage, including:
 - Capital Improvement Plan
 - Annual Budget Book
 - City Manager Budget Message
 - Annual Comprehensive Financial Report
 - "Performer" Presentation

City Commission Questions





Animal Welfare

Mason Wilson
Chief of Police
October 16, 2023





PHONE NUMBERS

911- Always call if it is an emergency.

405-273-2121- Call to report any non-emergency calls.

405-878-1531- Only call to adopt or look for lost animal.

Current Capacity

- 18 Dog Runs
- 10 Cat Cages
- 8 Overflow



No Kill Shelter

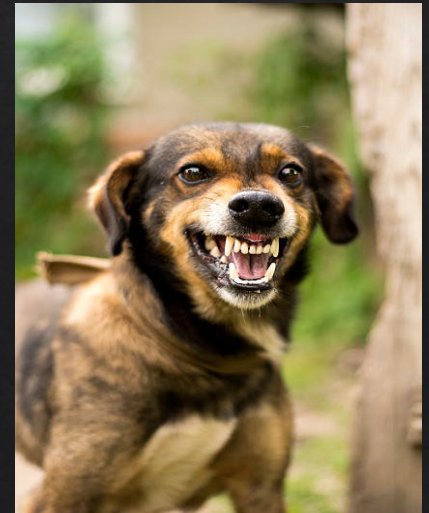
- + Rescues
- ○ Adoptions



Vicious Animal

Vicious Animal

The animal is deemed vicious when in the opinion of the animal welfare officer or other officer of the law, the animal poses a personal or public threat. The animal commits an unprovoked attack on a person or animal.



How many is too many?

City ordinance allows any premise or lot to have the following:

Unaltered- 2 dogs over the age of 4 months.

Altered- 3 dogs over the age of 4 months.



How many is too many?

(Continued)

City ordinance allows any premise or lot to have the following:

Unaltered- 3 cats over the age of 4 months.

Altered- 6 cats over the age of 4 months.





Improvements

- One extra animal welfare officer in 2023
- New shelter project
- Online reporting for animal calls soon
- Online purchase of city license for dogs and cats



Thank You!

Please spay or neuter your pets.



State of the City Shawnee, OK

Andrea Weckmueller-Behringer
City Manager

October 16, 2023



Our Government



- Incorporated in 1894
- First Charter adopted 1908
- Commission-Manager Form of Government
- 1 at-large Mayor & 6 Commissioners for 6 Wards
 - Set all Policies and pass Ordinances
 - Appoints City Manager and confirms Department Heads
- City Manager oversees Daily Operations
- Full-Service City, 15 Departments & ~300 Employees

Progress & Growth Continue



Great Things
Are
Happening!

Last Year's Priorities for 2023

UNDERWAY

New
Strategic Plan
2023 -2027

ONGOING

Improved Public
Relations

COMPLETE

Asset
Management
and Capital
Improvements

ONGOING

Fiscal
Sustainability

ONGOING

Homelessness
Continuum of
Care

UNDERWAY

Unified
Development
Code

**Almost
COMPLETE**

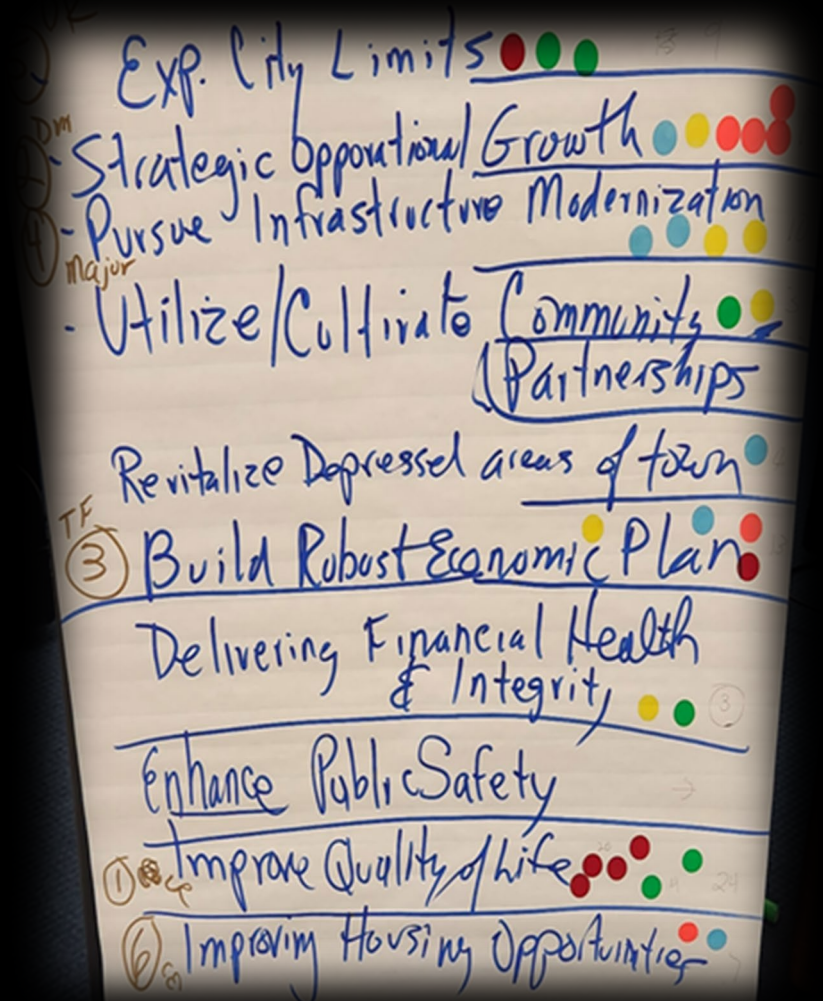
Lake Master Plan

**Almost
COMPLETE**

Infill Housing
Palette

UNDERWAY Strategic Plan 2023-2027

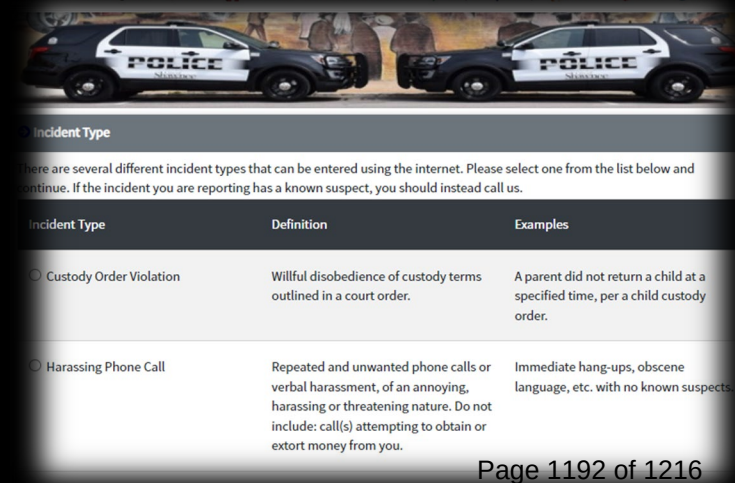
- April 2023 – City Commission Visioning Session
- June 2023 – Presentation of major Goal Areas
- November/December 2023 – Public Meetings



ONGOING Improved Public Relations



- 32 Special Reports on Key Topics
 - bit.ly/ShawneeInfo
- City Participation in Partner & Citizen-led Meetings
- 24/7 Online Citizen Request Portal
 - bit.ly/ShawneePortal
- Police Online Reporting System
 - bit.ly/ShawneePoliceRpt



COMPLETED

Asset Management & Capital Improvement Plan

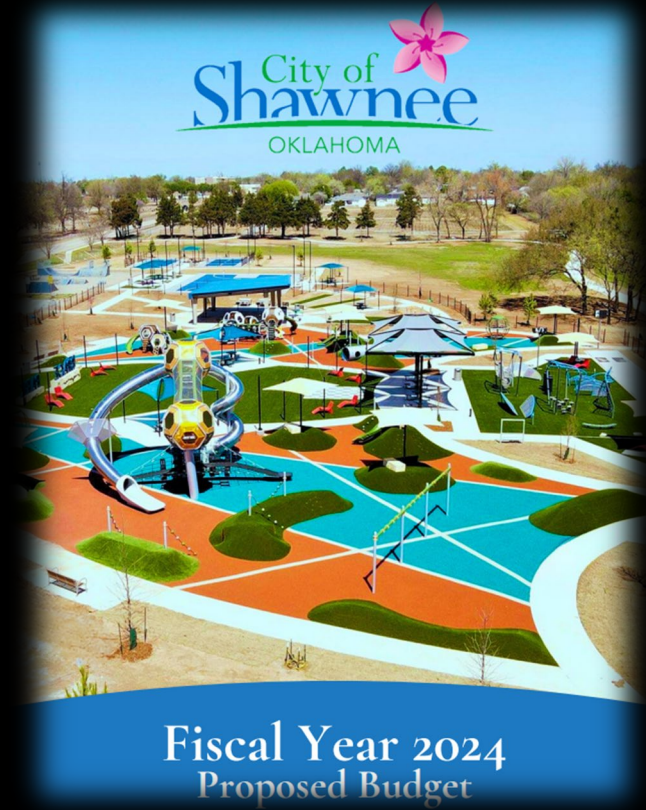
- Digital Asset Management System **CityWorks**
 - Paperless Service Tickets, Work Order System, and map-supported Online Reporting of issues
- 5-Year Capital Improvement Plan
 - Dashboard: bit.ly/ShawneeCIP
 - Report: bit.ly/ShawneeCIP2024



ONGOING

Fiscal Sustainability

- Conservative Financial Policies
- Money-saving Procedures
- Employee Step Increases - but no added COLA
- Fiscal Evaluation of Agreements continues
- Exploring Feasibility of On-Call Contracts



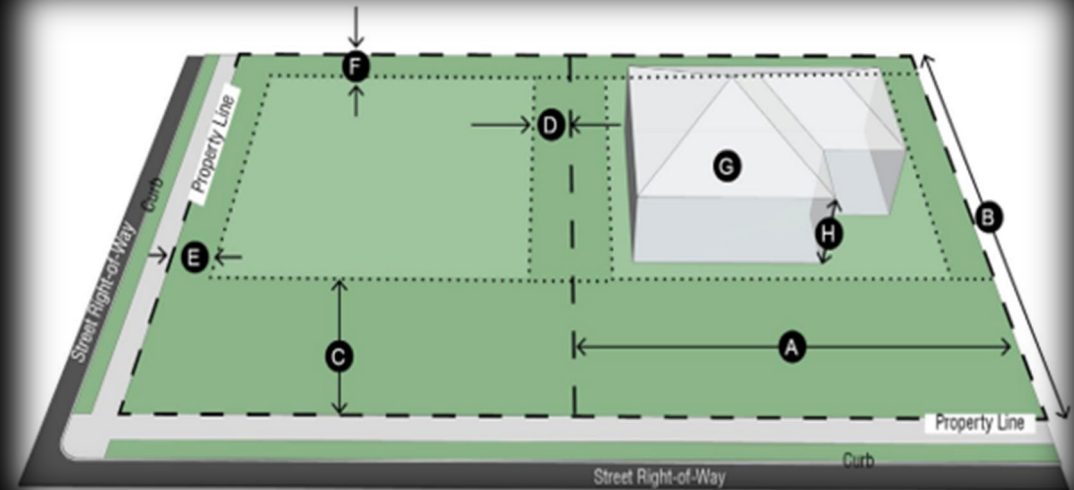
ONGOING Homelessness Continuum of Care

- Native Homeless Alliance formed
- Continuum of Care Application submitted
- Shawnee PD Crisis Intervention Team activated
- Number of Homeless decreased - Visibility increased
- Collaboration with Property Owners continues



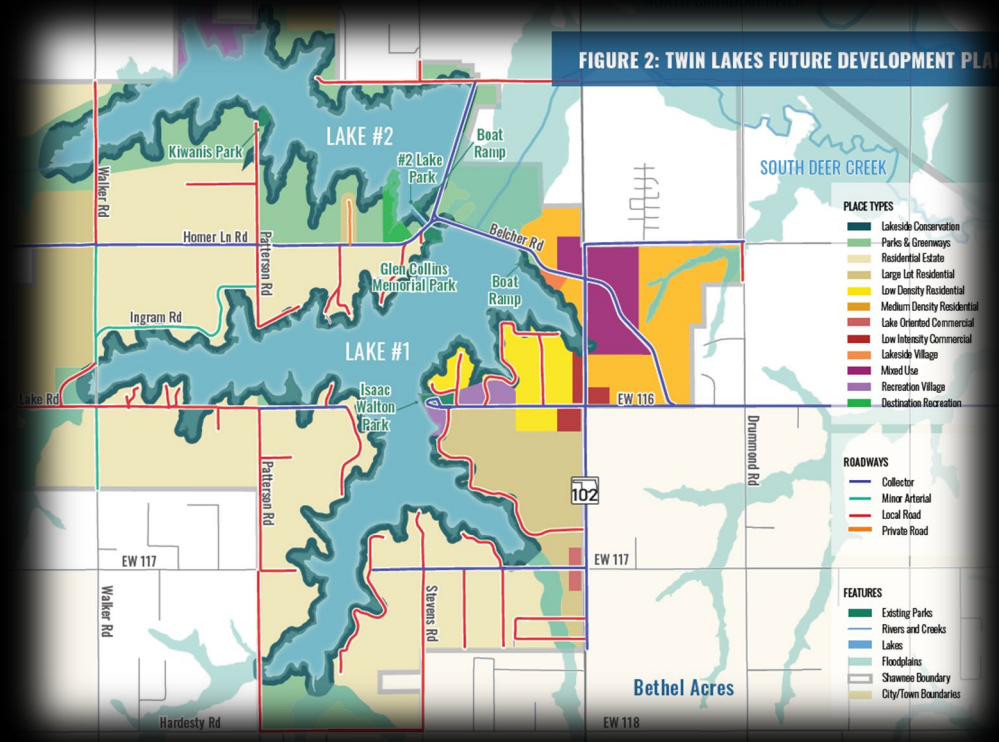
UNDERWAY Unified Development Code

- Subdivision Development Standards completed
- Engineering Design Standards in development
- Zoning Districts and Sign Regulations drafted
- Anticipated UDC Completion in Summer 2024



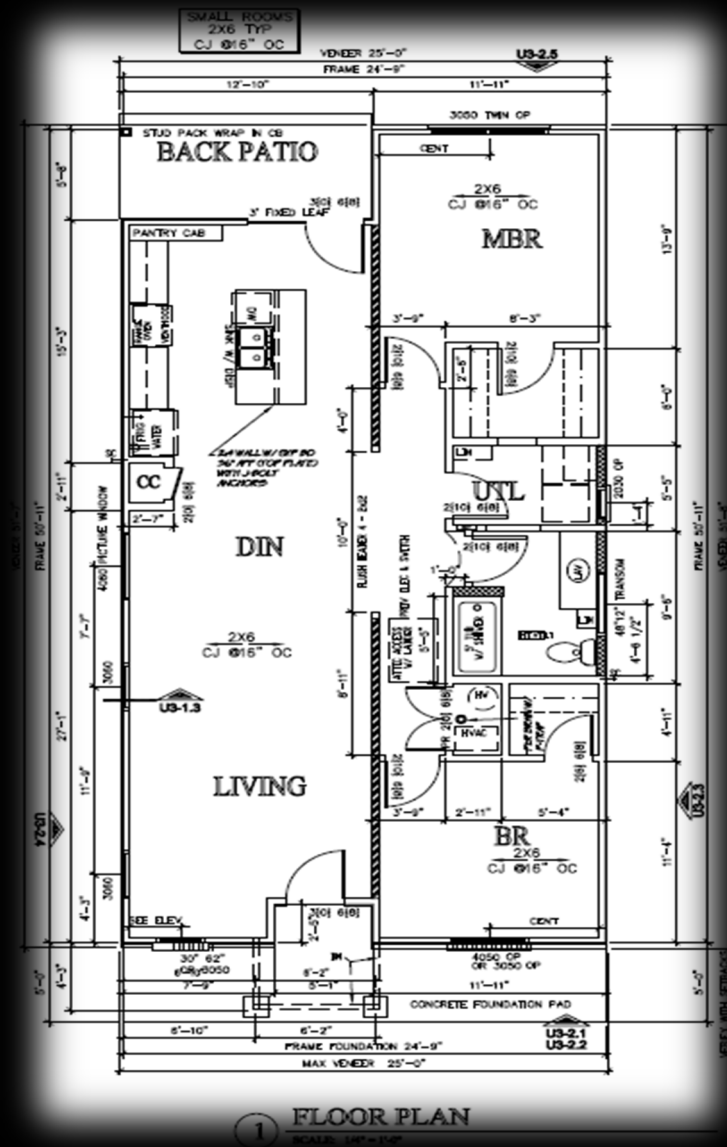
Almost COMPLETED Lake Master Plan

- Twin Lakes Master Plan to be finalized in November
- Master Plan focuses on –
 - Protection of Water Source
 - Maintenance & Improvement of Recreational Assets
 - Promotion of Fiscally Responsible Growth
 - Enhancement of Public Service Delivery



Almost COMPLETED Infill Housing Palette

- Permit-Ready House Plans for Smaller Neighborhood Lots
 - 15-, 25-, and 40-foot width
 - One- to Three-Bedroom Designs
 - Floorplans and Elevations
- Building Code-Compliant for Rapid Completion



Further Accomplishments in 2023

- Charter Amendment Vote in June
- New Water Treatment Plant in September
- New Wastewater Treatment Plant project now underway
- KidSpace Park & Woodland Veterans Park
(2018 Half-Cent Sales Tax Projects)

Charter Amendment Vote

- Public Feedback & Review showed Need for Amendment
 - Ward-Specific Voting
 - Alignment with City Code, State Law, and Federal Law
- Voters approved ALL Proposed Amendments

Important Amendments to the Shawnee City Charter

Proposition 1: Ward-Specific Voting for Commissioners

Current Charter language calls for a Commissioner to be nominated from the Ward in which he/she resides, and the Commissioner is then elected by vote of the City at-large. Citizens and elected officials proposed this amendment to determine if the citizens of Shawnee would prefer to have only Ward residents elect the Commissioner for that Ward.

If approved, registered voters residing in the individual Ward will have the opportunity to vote for the Commissioner they wish to represent their specific Ward.

Proposition 2: Streamlining the Bidding Process

Current Charter language requires contractors and vendors to comply with local procedures not necessarily required by the State of Oklahoma. By aligning the City procedures with State law, the contractors' and vendors' familiarity with the common process will save the City time and money.

If approved, this amendment will align the City's competitive bidding requirements with those required by the State of Oklahoma, providing procedural clarity.

Proposition 3: Clarifying Start Date for Newly-elected Mayor and Commissioners

Current Charter language requires the swearing-in of newly-elected Mayors and Commissioners on a specific date that does not always coincide with the dates of regularly scheduled City Commission meetings.

If approved, this amendment will adjust the term of office for a newly-elected official to start on the first regularly scheduled City Commission meeting following the election certification.

Proposition 4: Updating Requirements for City Employees

Current Charter language conflicts with State and Federal employment regulations and laws.

If approved, this amendment will expand employment prospects and align the City's employment requirements with State and Federal laws.

Proposition 5: Aligning Conflict-of-Interest Policies

Current Charter language differs from the requirements established by State law.

If approved, this amendment will align the City's requirements for Commissioners, City officers, and employees with those established by State law.

Proposition 6: Updating the Recreational Use Policy for Shawnee Twin Lakes

Current Charter language related to swimming, water skiing, surfboard riding, and other water recreation sports conflicts with Shawnee Twin Lakes related City codes, most recently updated in March 2022 following the conclusion of an in-depth review by the Lake Advisory Committee.

If approved, this amendment will align the Charter with adopted City codes regulating recreational activities on the Shawnee Twin Lakes.

Proposition 7: Updating the Policy for Cemetery Perpetual Care

Current Charter language regarding the management of revenues generated at the municipal cemetery for Perpetual Care Funds differs from requirements established by State law.

If approved, this amendment will align the Charter with State law regarding the management of Perpetual Care Funds for the Fairview Cemetery.

YOUR VOTE, YOUR CHOICE ON JUNE 13, 2023





New Water Treatment Plant

- Completed in September



New Wastewater Treatment Plant

- Shawnee needed a new Wastewater Treatment Plant
- Low-interest loan from OWRB was secured through voter-approved sales tax





KidSpace & Woodland Veterans Parks

- KidSpace Park reopened in June
- Woodland Veterans Park will officially reopen on October 28



Significant Challenges in 2023

- Devastating Tornado in April
- Shawnee Twin Lake Dam #1 Investigation

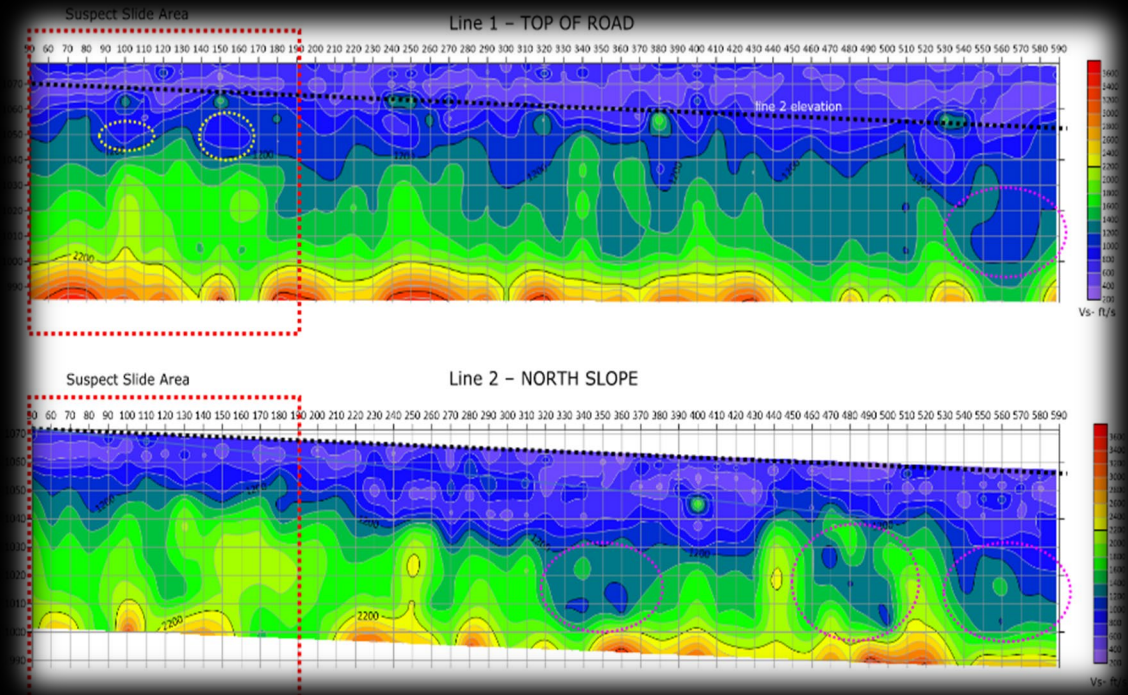


Devastating Tornado

- 1,800 Structures affected
- Approximately 30% of Businesses impacted
- \$6 million Debris Removal
- \$18 million Damages to City Assets

Shawnee Twin Lakes Dam #1

- Annual Evaluation of Dams
- Anomalies found
- Geo-Technical Investigation expanded
- Next Step - Project Design



What's in Store for 2024?

Toughest Challenges



Replenish Funding Reserves



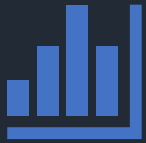
Continue to Engage Citizens



Encourage Housing & Address Homelessness

Strongest Assets

Community Feedback
through 2023 Survey



Engaged
Management Team



**Focused Vision,
Mission, and
Goals**

Dedicated City
Commission



Strong Community
Partners



City Top Priorities for 2024



Tornado Recovery



Airport Terminal
Development Plan



Pressure Pave
Roadway Repair



Water & Sewer Lines



Wastewater
Treatment Plant



Fire Station 3
Remodel Design
(2018 ½-Cent)



Santa Fe Depot Ext.
(2018 ½-Cent)



Auditorium Roof
(2018 ½-Cent)



Lake Dam #1
Repair

ONGOING



Improved
Public Relations

ONGOING



Housing &
Homelessness
Continuum

ONGOING



Fiscal
Sustainability

Tornado Recovery

- City Retained Services of Recovery Consultant
- Ongoing Communication with FEMA & OEM
- Projects defined for **Future**, Federal Reimbursement
- **Federal** Compliance required



Airport Terminal Development Plan

- Planning study for future development in SE Quadrant and storm-impacted Main Terminal Area
- In Partnership with OK Aeronautics Commission



Infrastructure Projects

- Pressure Pave Roadway Repair
- Water & Sewer Line Replacement
- Wastewater Treatment Plant Construction



2018 ½-Cent Sales Tax Projects

- Fire Station 3
Remodel Design
- Santa Fe Depot
Exterior Restoration
- Auditorium Roof Repair





Lake Dam #1 Repair

- Collaboration with OWRB and US ACE on Lake Level Management
- Additional Grant Funding for Design of Repair Project



Let's Work Together!

It will be a busy year...

