

AGENDA
BOARD OF CITY COMMISSIONERS
April 5, 2021 AT 6:00 P.M.
COMMISSION CHAMBERS AT CITY HALL
16 WEST 9TH STREET
SHAWNEE, OKLAHOMA

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)
2. Consider approval of Consent Agenda:
 - a. Minutes from the March 15, 2021 regular meeting.
 - b. Acceptance of a Permanent Easement from Sai Om Sai, LLC., regarding parcel no. 0000-31-011-004-0-001-01.
 - c. Acceptance of a Permanent Easement from Sai Om Sai, LLC., regarding parcel no. 0000-31-011-004-0-006-01.
 - d. Acknowledge a recommendation to the Wes Watkins Reservoir Oversight Committee to appoint Bradley Schmidt as the City's representative to the Wes Watkins Reservoir Oversight Committee.
 - e. Acknowledge the resignation of LaDonna Bryce from the Shawnee Community Beautification Committee.
 - f. Acknowledge the resignation of Mike Mlynek from the Shawnee Community Beautification Committee.

g. Mayor's Appointments:

Shawnee Community Beautification Committee

Lisa Hair 1st Partial Term Expires: January 1, 2022
Replaces LaDonna Bryce – Resigned

Sarah Murphy 1st Partial Term Expires: January 1, 2022
Replaces Mike Mlynek – Resigned

Shawnee Urban Renewal Authority

Crista Blue 1st Full Term Expires: February 2, 2024
Replaces Paul Davis – Resigned

3. Presentation by Animal Control to present the Pet of the Week.
4. Mayor's Proclamation:

"National Public Safety Telecommunications Week"
April 11-17, 2021
5. Presentation by Lauren Craig, Homeless Services Coordinator, regarding the Homeless Initiative.
6. Consider Oklahoma Municipal Retirement Fund lump sum payment from Defined Benefit Plan for Cynthia S. Arnold.
7. Discussion and consideration of acceptance of the Fairview Cemetery Mausoleum.
8. Consider Bids:
 - a. Whittaker Street Rehabilitation Project No. 20SHAWWHITST (Award)
9. New Business

(Any matter not known or which could not have been reasonably foreseen prior to the posting of the agenda)
10. Commissioners Comments
11. 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)

Regular Board of Commissioners

2. a.

Meeting Date: 04/05/2021

Minutes

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Minutes from the March 15, 2021 regular meeting.

Attachments

Minutes

BOARD OF CITY COMMISSIONERS PROCEEDINGS

MARCH 15, 2021 AT 6:00 P.M.

The Board of City Commissioners of the City of Shawnee, County of Pottawatomie, State of Oklahoma, met in Regular Session, Monday, March 15, 2021 at 6:00 p.m., pursuant to notice duly posted as prescribed by law at 9:35 a.m. on March 12, 2021. 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

Bob Weaver
Commissioner Ward 2

Absent
Commissioner Ward 3

Darren Rutherford
Commissioner Ward 4-Vice Mayor

Mark Sehorn
Commissioner Ward 5

Ben Salter
Commissioner Ward 6

ABSENT: Travis Flood

INVOCATION

Commissioner Matthews

FLAG SALUTE

AGENDA ITEM NO. 1:

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

Ms. Erin Stevens with the Heart of Oklahoma Exposition Center advised that tickets are available at www.microwrestling.com for the Micro Wrestling event on Saturday, March 20, 2021. She also stated that Matthew West, a Christian singer/song writer, will be in concert on Friday, April 23, 2021.

Mr. John Bobb-Semple, a resident of Shawnee, stated appreciation for a letter he received from the City of Shawnee advising that his water bill may be a little higher. He thanked city workers, neighbors, and elected leaders for their work during the winter storm.

AGENDA ITEM NO. 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 Agenda Item No. 6.
- b. Minutes from the March 1, 2021 regular meeting.
- c. Acknowledge the following minutes and reports:
 - Wes Watkins Reservoir Oversight Committee Minutes from the September 3, 2020 regular meeting
 - License Payment Report for February 2021
 - Project Payment Report for February 2021
- d. Authorize a right-of-way easement to be given to Canadian Valley Electric Cooperative, Inc. to serve an existing City Lake Lot Lease site at the Shawnee Twin Lakes.
- e. Approve amended agreement with South Central Industries, Inc. for Right-of-way Maintenance Services.
- f. Approve Change Order No. 5 for Shawnee Police Department Architect's Project No. 1811, 912 East Independence, Shawnee, Oklahoma 74801.
- g. Acknowledge the resignation of Paul E. Davis from the Shawnee Urban Renewal Authority.
- h. Mayor's Appointment:

Shawnee Urban Renewal Authority

Audra Barksdale 2nd Full Term

Expires: February 2, 2024

Reappointment

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

A motion was made by Commissioner Sehorn, seconded by Commissioner Matthews, to approve the Consent Agenda Item Nos. 2(a-h), less item 2(b). Motion carried 6-0.

AYE: Sehorn, Matthews, Weaver, Bolt, Rutherford, Salter
NAY: None

Regarding Consent Agenda Item No. 2(b), Commissioner Weaver stated the March 1, 2021 City Commission meeting minutes reflect that he abstained from Agenda Item No. 12 regarding the arts in public places ordinance. He requested that the record reflect he intended to vote no.

A motion was made by Commissioner Weaver, seconded by Vice Mayor Rutherford, to approve Consent Agenda Item No. 2(b) as presented. Motion carried 6-0.

AYE: Weaver, Rutherford, Sehorn, Salter, Matthews, Bolt
NAY: None

AGENDA ITEM NO. 3: Presentation by Animal Control to present the Pet of the Week.

Animal Control Officer Spoon and Officer Cooksey introduced Sunshine, a five-to six-year-old female canine. Sunshine is up for adoption.

Officer Spoon advised that the Animal Shelter currently has fifteen dogs, two cats, and a pig.

AGENDA ITEM NO. 4: Presentation of the First Responders Recognition by the Avedis Foundation.

Mr. Chuck Skillings, Avedis Foundation, recognized First Responders and introduced Dr. John Robinson, Avedis Foundation. Dr. Robinson read the Avedis Foundation First Responders Resolution. Ms. Sarah Haselwood, Avedis Foundation, thanked First Responders.

AGENDA ITEM NO. 5: Case No. RZ05-21 – Public hearing and consideration of an ordinance to rezone property located at 602 North Kickapoo Street on the northwest corner of North Kickapoo Street and West Ridgewood Street, containing 0.16-acre, from C-1 (Neighborhood Commercial District) to C-3 (Highway Commercial District) for the purpose of an office and shop space.

Applicant: Christopher Middleton,
Electromagnetix, LLC.

Planning Director Rebecca Blaine explained the property has been vacant for quite some time. She stated that Electromagnetix, LLC is currently located in Oklahoma City and is interested in moving to Shawnee. She advised that Staff and the Planning Commission recommend approval.

Mayor Bolt declared a public hearing in session to consider an ordinance rezoning property located at 602 North Kickapoo Street on the northwest corner of North Kickapoo Street and West Ridgewood Street, containing 0.16-acre, from C-1 (Neighborhood Commercial District) to C-3 (Highway Commercial District) for the purpose of an office and shop space. Mr. Chris Middleton appeared in favor of said rezoning. No one appeared against said rezoning. The public hearing was closed.

A motion was made by Commissioner Matthews, seconded by Commissioner Weaver, to approve the ordinance rezoning property located at 602 North Kickapoo Street on the northwest corner of North Kickapoo Street and West Ridgewood Street, containing 0.16-acre, from C-1 (Neighborhood Commercial District) to C-3 (Highway Commercial District).

Ordinance No. 2717NS was introduced.

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: LOTS ELEVEN (11) AND TWELVE (12), BLOCK FOURTEEN (14), HOFFMAN ADDITION, SHAWNEE, POTTAWATOMIE COUNTY, OKLAHOMA ACCORDING TO THE PLAT RECORDED THEREOF, FROM ZONING CLASSIFICATION C-1 (NEIGHBORHOOD COMMERCIAL DISTRICT) TO C-3 (HIGHWAY COMMERCIAL DISTRICT) AND AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF SHAWNEE ACCORDINGLY.

Motion carried 6-0.

AYE: Matthews, Weaver, Bolt, Rutherford, Sehorn, Salter

NAY: None

Ordinance No. 2717NS was adopted by the City Commission.

AGENDA ITEM NO. 6:

Consider bids:

- a. Whittaker Street Rehabilitation Project No. 20SHAWWHITST
(Open)

BIDDER

AMOUNT

A-Tech Paving
Oklahoma City, OK

Option #1: \$634,152.05
Option #2: \$603,704.05

Nash Construction Company
Oklahoma City, OK

Option #1: \$928,348.00
Option #2: \$926,028.00

Wynn Construction Co., Inc.
Oklahoma City, OK

Option #1: \$645,785.00
Option #2: \$643,945.00

Public Works Director Brad Schmidt read three (3) bids into the record. Staff requested that the bid award be deferred to a future City Commission meeting.

A motion was made by Vice Mayor Rutherford, seconded by Commissioner Sehorn, to defer the bid award to a future City Commission meeting to allow staff to review each bid for the Whittaker Street Rehabilitation Project. Motion carried 6-0.

AYE: Rutherford, Sehorn, Salter, Matthews, Weaver, Bolt
NAY: None

AGENDA ITEM NO. 7:

Acknowledge monthly Sales Tax and Budget Reports.

Assistant Finance Director Jacob Bussell reported sales tax is up \$2,431,894.00, or 15.82%, over the projected budget year-to-date. He stated that use tax collections are up approximately \$33,520.00, or 1.81%, over the projected budget year-to-date.

AGENDA ITEM NO. 8:

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.

AGENDA ITEM NO. 9:

Commissioners Comments

Commissioner Matthews thanked First Responders and City Staff. He also stated he is thankful for Mayor Bolt's homeless initiative.

Commissioner Weaver, Vice Mayor Rutherford and Commissioner Sehorn stated that they appreciated the repair work they have seen City Staff doing on waterlines and streets after the winter storm.

Commissioner Salter acknowledged the passing of Mr. Bob Perry, Superintendent at Gordon Cooper Technology Center.

Mayor Bolt stated that Mr. Bob Perry was a nice guy and leader in the community.

Mayor Bolt expressed his appreciation for the Avedis Foundation's recognition of the efforts of First Responders. He also thanked the Streets and Utility Departments for their work in restoring streets and water around the community after the winter storm.

AGENDA ITEM NO. 10:

Adjournment

There being no further business to be considered, the meeting was adjourned by power of the Chair. (6:36 p.m.)

ED BOLT, MAYOR

ATTEST:

LISA LASYONE, CMC, CITY CLERK

Regular Board of Commissioners

2. b.

Meeting Date: 04/05/2021

Easement

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Acceptance of a Permanent Easement from Sai Om Sai, LLC., regarding parcel no.
0000-31-011-004-0-001-01.

Attachments

Easement

Project No.

202100002825
Filed for Record in
POTTAWATOMIE OKLAHOMA
RAESHEL FLEWALLER, COUNTY CLERK
03-02-2021 At 08:55 am.
EASEMENT 22.00
Instrument PG 1 of 3
202100002825

PERMANENT EASEMENT

KNOW ALL MEN BY THESE PRESENTS THAT SAI OM SAI LLL
("grantor") for and in consideration of One Dollar and other good and valuable consideration, receipt of which is hereby
acknowledged, does hereby grant and convey unto **THE CITY OF SHAWNEE**, a municipal corporation, its
public trusts, and their successors and assigns (herein collectively referred to as "grantee") a permanent easement over,
under, across, through and to the following described property situated in Pottawatomie County,
Oklahoma, to wit:

See Attachment Exhibits "A" & "B" (Subject Property)

plus the right of ingress and egress through grantor's property to and from said Subject Property along with all rights, title
and interest in and to all land, fixtures, and appurtenances within the boundaries of the Subject Property, incidentally
removed during the use of said easement, for the use of grantee for the exclusive purpose of constructing, operating,
maintaining, and replacing **Public Sanitary Sewer** and other City owned or operated utilities and appurtenances thereto,
over, under, through and upon the same. Grantor further covenants and agrees to neither erect a building or other
structure nor change the terrain (no excavation or addition of soil) within the described easement without the prior
approval of the grantee. Grantor acknowledges the requirement of Oklahoma Statutes Title 63, Section 142.1 et seq., to
call OKIE/One Call. Should the grantee abandon the permanent easement and right-of-way for the purposes above stated,
then the said easement shall revert to the grantor, its successors and/or assigns.

The grantor hereby agrees that grantor, its heirs, successors, grantees, and assigns, will repair, maintain, and replace
paving and facilities on this permanent easement whenever it becomes necessary due to the normal operation,
maintenance, and/or repair of the utilities, appurtenances, and facilities. The grantor hereby further agrees that grantor, its
heirs, successors, grantees and assigns, will hold the grantee harmless for any damage that should occur as a result of
operations, maintenance, and/or repair of such facilities and utilities within the easement.

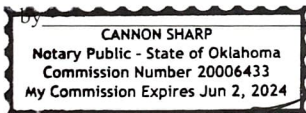
Dated this 1st day of MARCH, 2021

A. R. Rabel

STATE OF Oklahoma)
COUNTY OF Pottawatomie) ss

This instrument was acknowledged before me on this 1 day of March, 2021,

by _____ as _____ of Grantor.



My Commission Expires: Jun 2 2024

Cannon Sharp

Notary Public # 20006433

ACCEPTED by the Council of **THE CITY OF SHAWNEE** this day _____ of _____, 20

Mayor



EXHIBIT "A"

SUPER 8 MOTEL

A 15' wide Utility Easement for a Public Sanitary Sewer line and Manhole, being the SOUTH 33.30 FEET OF THE EAST 15.00 FEET of the following described tract of land:

A tract of land lying in the East Half (E/2) of the Northeast Quarter (NE/4) of Section Thirty-one (31), Township Eleven (11) North, Range Four (4) East of the Indian Meridian, Pottawatomie County, Oklahoma, being described as follows:

Beginning at the Southeast corner of the Northeast Quarter (NE/4) of Section 31, Township 11 North, Range 4 East of the Indian Meridian, Pottawatomie County, State of Oklahoma;

Thence North 00°40'04" East along the East line of said Quarter Section a distance of 864.10 feet;

Thence South 89°56'01" West distance of 71.29 feet;

Thence South 05°35'22" West a distance of 9.40 feet to a point being on the West Right-of-Way line of State Highway No. 18;

Thence South 88°30'36" West a distance of 133.40 feet;

Thence on a curve to the right having a radius of 1.60 feet, (a chord bearing of North 46°43'37" West, a chord length of 2.25 feet) an arc distance of 2.50 feet;

Thence North 00°40'00" West a distance of 117.40 feet to the Point of Beginning;

Thence South 89°52'00" West distance of 374.41 feet;

Thence North 89°52'00" East a distance of 351.50 feet;

Thence South 00°30'55" East a distance of 106.20 feet;

Thence North 89°52'00" East a distance of 22.29 feet;

Thence South 00°40'00" East a distance of 33.30 feet to the Point of Beginning.

SCALE: 1"=100'



SCALE: 1"=40'

Regular Board of Commissioners**2. c.**

Meeting Date: 04/05/2021

Easement

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Acceptance of a Permanent Easement from Sai Om Sai, LLC., regarding parcel no.
0000-31-011-004-0-006-01.

AttachmentsEasement

Project No.

202100002824
Filed for Record in
POTTAWATOMIE OKLAHOMA
RAESHEL FLEMALLEN, COUNTY CLERK
03-02-2021 At 08:55 am.
EASEMENT 22.00
Instrument PG 1 of 3
202100002824

PERMANENT EASEMENT

KNOW ALL MEN BY THESE PRESENTS THAT SAI OM SAI LLL
("grantor") for and in consideration of One Dollar and other good and valuable consideration, receipt of which is hereby
acknowledged, does hereby grant and convey unto **THE CITY OF SHAWNEE**, a municipal corporation, its
public trusts, and their successors and assigns (herein collectively referred to as "grantee") a permanent easement over,
under, across, through and to the following described property situated in Pottawatomie County,
Oklahoma, to wit:

See Attachment Exhibits "A" & "B" (Subject Property)

plus the right of ingress and egress through grantor's property to and from said Subject Property along with all rights, title
and interest in and to all land, fixtures, and appurtenances within the boundaries of the Subject Property, incidentally
removed during the use of said easement, for the use of grantee for the exclusive purpose of constructing, operating,
maintaining, and replacing **Public Sanitary Sewer** and other City owned or operated utilities and appurtenances thereto,
over, under, through and upon the same. Grantor further covenants and agrees to neither erect a building or other
structure nor change the terrain (no excavation or addition of soil) within the described easement without the prior
approval of the grantee. Grantor acknowledges the requirement of Oklahoma Statutes Title 63, Section 142.1 et seq., to
call OKIE/One Call. Should the grantee abandon the permanent easement and right-of-way for the purposes above stated,
then the said easement shall revert to the grantor, its successors and/or assigns.

The grantor hereby agrees that grantor, its heirs, successors, grantees, and assigns, will repair, maintain, and replace
paving and facilities on this permanent easement whenever it becomes necessary due to the normal operation,
maintenance, and/or repair of the utilities, appurtenances, and facilities. The grantor hereby further agrees that grantor, its
heirs, successors, grantees and assigns, will hold the grantee harmless for any damage that should occur as a result of
operations, maintenance, and/or repair of such facilities and utilities within the easement.

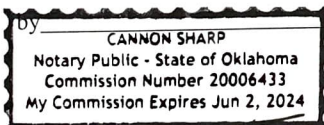
Dated this 7 day of March, 2021

A. N. K. B. B.

STATE OF Oklahoma)
COUNTY OF Pottawatomie) ss

This instrument was acknowledged before me on this 1 day of March, 2021,

as _____ of Grantor.



My Commission Expires: Jun 2, 2024

Cannon Sharp

Notary Public # 20006433

ACCEPTED by the Council of **THE CITY OF SHAWNEE** this day _____ of _____, 20

Mayor



Return to: Quality Inn, 4900 N. Harrison St,
Shawnee, OK 74804

EXHIBIT A

LEGAL DESCRIPTION UTILITY EASEMENT

A tract of land lying in the East Half (E/2) of the Northeast Quarter (NE/4) of Section Thirty-one (31), Township Eleven (11) North, Range Four (4) East of the Indian Meridian, Pottawatomie County, Oklahoma, being described as:

Commencing at the Southeast corner of the Northeast Quarter (NE/4) of Section 31;

Thence North 00°40'04" East along the East line of said Quarter Section a distance of 1110.13 feet;

Thence South 89°52'00" West a distance of 50.08 feet to a point lying on the Westerly right-of-way line for State Highway 18;

Thence South 05°35'22" West along said right-of-way line a distance of 86.37 feet; also being the Point of Beginning;

Thence South 05°35'22" West a distance of 15.06 feet;

Thence North 89°30'28" West a distance of 141.51 feet;

Thence South 45°40'02" West a distance of 14.38 feet;

Thence North 00°40'00" West a distance of 3.30 feet;

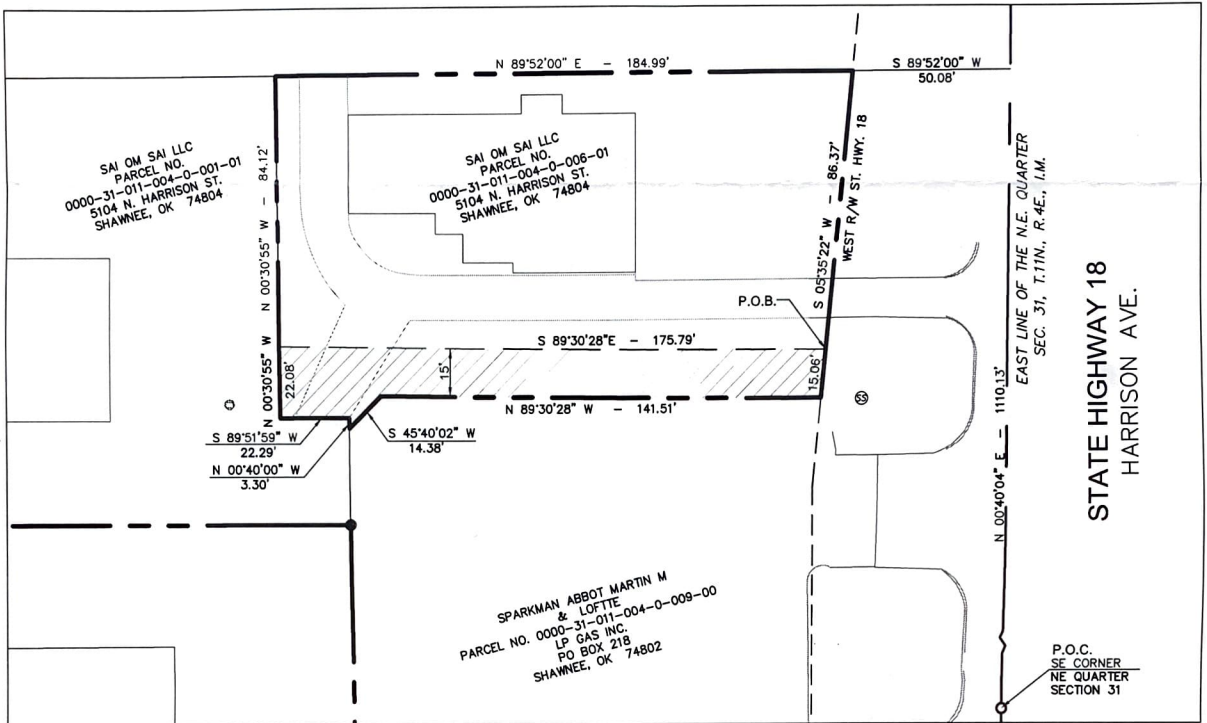
Thence South 89°51'59" West a distance of 22.29 feet;

Thence North 00°30'55" West a distance of 22.08 feet;

Thence South 89°30'28" East a distance of 175.79 feet to a point on said right-of-way for State Highway 18; and the true Point of Beginning.

Said Easement contains 2,832.67 sq. ft. or 0.06 acres, more or less.

EXHIBIT B



EASEMENT

SCALE: 1"=50'

Regular Board of Commissioners

2. d.

Meeting Date: 04/05/2021

Board Recommendation

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Acknowledge a recommendation to the Wes Watkins Reservoir Oversight Committee to appoint Bradley Schmidt as the City's representative to the Wes Watkins Reservoir Oversight Committee.

Attachments

Memo



Office of the City Manager

Date: April 5, 2021
To: Mayor and Commissioners
From: Chance Allison, CPA, City Manager
Subject: Wes Watkins Oversight Committee Appointment

Mr. James Bryce previously served as the City's representative on the Wes Watkins Oversight Committee, however; he is no longer employed by the City of Shawnee to serve. I submit Bradley Schmidt, Public Works Director, as the City's representative on the Wes Watkins Oversight Committee. Mr. Schmidt currently serves and represents the City well on the Pottawatomie County Development Authority. The additional appointment will provide consistent and well-rounded representation on the Wes Watkins Reservoir and accompanying park facilities.

Sincerely,

Chance Allison, CPA
City Manager

Regular Board of Commissioners

2. e.

Meeting Date: 04/05/2021

Resignation

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Acknowledge the resignation of LaDonna Bryce from the Shawnee Community Beautification Committee.

Attachments

Resignation Bryce

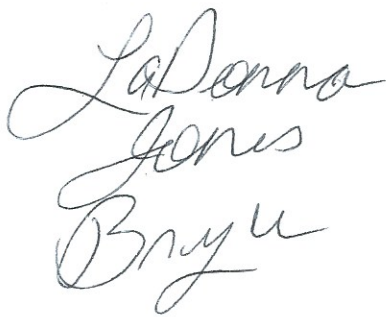
March 15, 2021

Beautification Committee

It has been a pleasure to serve with you on this committee. However, I'm going to resign my post effective immediately.

Thank you,

LaDonna Jones Bryce

A handwritten signature in cursive script, reading "LaDonna Jones Bryce". The signature is written in dark ink and is positioned below the printed name.

Regular Board of Commissioners

2. f.

Meeting Date: 04/05/2021

Resignation

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Acknowledge the resignation of Mike Mlynek from the Shawnee Community Beautification Committee.

Attachments

Resignation Mlynek

From: [Kacie Eck](#)
To: [Kacie Eck](#)
Subject: FW: Shawnee Beautification Committee Resignation
Date: Thursday, April 1, 2021 2:20:49 PM
Attachments: [image001.png](#)

From:
Sent: Tuesday, March 30, 2021 3:26 PM
To:
Cc:
Subject: Shawnee Beautification Committee Resignation

Dear James and the Shawnee Beautification Committee:

I have tendered my resignation to the American Red Cross and will be transitioning out of the role of Executive Director for the SC/SE OK Chapter in Shawnee. I have accepted a position in Oklahoma City at the State Capital, therefore I will also need to resign my position on the Shawnee Beautification Committee.

It has been a pleasure serving with you all and getting to know everyone. I am remaining in Prague and will still spend quite a lot of time in Shawnee, so you may see me around.

I wish you and the group all the best!

Thank you,

Mike

Mike Mlynek
American Red Cross
Executive Director
South Central & Southeast Chapter Oklahoma

[SC/SE Chapter Website](#)

Resolve to Volunteer

New Year, New You!



American
Red Cross

Regular Board of Commissioners

2. g.

Meeting Date: 04/05/2021

Mayor's Appointments

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Mayor's Appointments:

Shawnee Community Beautification Committee

Lisa Hair 1st Partial Term Expires: January 1, 2022

Replaces LaDonna Bryce – Resigned

Sarah Murphy 1st Partial Term Expires: January 1, 2022

Replaces Mike Mlynek – Resigned

Shawnee Urban Renewal Authority

Crista Blue 1st Full Term Expires: February 2, 2024

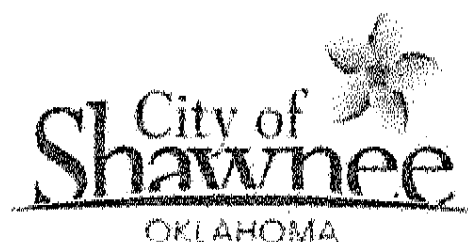
Replaces Paul Davis – Resigned

Attachments

Appointment Hair

Appointment Murphy

Appointment Blue



APPLICATION TO SERVE
Boards, Committees and Commissions

- ☒ Appointment
☐ Reappointment – Partial/First/Second Term

Name: <u>LISA K HAIR</u>	Application Date: <u>12-16-2020</u>
Address: <u>1410 LAVERNE AVE</u>	Date of Birth: <u>06-12-1954</u>
Mailing Address: <u>SAME</u>	
Daytime Phone: <u>405-695-1417</u> Fax: <u>—</u>	Email: <u>lkhair53@gmail.com</u>
Profession: <u>SALES ASSOCIATE</u>	
Business Name: <u>WHITE'S ACE HBC BUILDING MATERIALS</u>	
Business Address: <u>601 E. INDEPENDANCE</u>	
Business Phone: <u>405-275-4900</u> Fax: <u>—</u>	Email: <u>—</u>

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

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

If so, please list the board/committee: _____

How many years have you lived in Shawnee? 1989 31

Select the Board/Committee/Commission you are interested in serving on: (please check)

☐ Airport Advisory Board ☒ Beautification Committee ☐ Board of Adjustment (Zoning) ☐ Civic and Cultural Development Authority ☐ Community Service Contract Review Committee ☐ Housing Authority ☐ Library Board	☐ Oklahoma Baptist University Trust Authority ☐ Parks and Recreation Committee ☐ Planning Commission ☐ Senior Citizens of Shawnee Board ☐ Shawnee Hospital Authority ☐ Shawnee Urban Renewal Authority ☐ Traffic Commission ☐ Other
---	--

Why are you interested in serving on the Board/Committee/Commission selected above?

I love to garden + do all things related to it. I've been gardening since I was 5 years old. I love to make buildings and yards more attractive.

What will make you a good board member and what skills or knowledge do you have that would be relevant to this board/committee/commission?

I was the campus landscaper at OBU for over 18 years, went back to college at age 54 to get my degree in Horticulture while employed there full-time

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

I volunteer at our church (Life Church), write a column for the News-Star each month, and do volunteer landscape design consulting (as a Certified Master Gardener)

List education, including degree(s) earned:

Associates in Business, OSU/OKC
Associates in Horticulture; Landscape Design, OSU/OKC
Both in 2015

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

No

Have you ever been charged and/or convicted of a felony? No

If so, please explain the circumstances and the current status of the charge(s) and/or conviction(s):

Have you ever declared personal or business bankruptcy? Yes

If so, please explain:

Husband's medical bills from Stage IV cancer

Please Include up to three personal or professional references:

Name	Relationship	Telephone Number
<u>Bob Weaver</u>	<u>Friend</u>	<u>405-642-8346</u>
<u>Tom Terry</u>	<u>Friend</u>	<u>405-273-7882</u>
<u>Robert Marguaret</u>	<u>former boss</u>	<u>405-585-5500</u>
<u>Berry Nichols</u>	<u>" supervisor</u>	<u>918-441-2584</u>

o30
o34

PLEASE READ CAREFULLY:

Appointment by the Commission is for one term and individuals may not serve more than two consecutive full terms. Appointment to a second term remains at the discretion of the City Commission.

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 Lisa K. New

Date 12-16-2020



RECEIVED
NOV 30 2020
CITY CLERK

APPLICATION TO SERVE
Boards, Committees and Commissions

- ☒ Appointment
☐ Reappointment – Partial/First/Second Term

Name: <u>Sarah (Sally) Murphy</u>	Application Date: <u>11-21-2020</u>
Address: <u>2213 Crooked Oak Drive</u>	Date of Birth: <u>09-02-1948</u>
Mailing Address: <u>Same</u>	
Daytime Phone: <u>405-919-7884</u> Fax: _____	Email: <u>murphysally938@gmail.com</u>
Profession: <u>Retired</u>	
Business Name: _____	
Business Address: _____	
Business Phone: _____ Fax: _____	Email: _____

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

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

If so, please list the board/committee: _____

How many years have you lived in Shawnee? 8 years

Select the Board/Committee/Commission you are interested in serving on: (please check)

☐ Airport Advisory Board	☐ Oklahoma Baptist University Trust Authority
☒ Beautification Committee	☐ Parks and Recreation Committee
☐ Board of Adjustment (Zoning)	☐ Planning Commission
☐ Civic and Cultural Development Authority	☐ Senior Citizens of Shawnee Board
☐ Community Service Contract Review Committee	☐ Shawnee Hospital Authority
☐ Housing Authority	☐ Shawnee Urban Renewal Authority
☐ Library Board	☐ Traffic Commission
	☐ Other

Why are you interested in serving on the Board/Committee/Commission selected above?

I have just completed the Master Gardener Program and am anxious to use my current knowledge and learn even more.

What will make you a good board member and what skills or knowledge do you have that would be relevant to this board/committee/commission?

I have been gardening since my elementary school days. There is nothing like a beautiful tree, shrub or flowers to bring joy.

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

We have spent the last 6 months at the Senior Center taking care of their flowers and shrubs

List education, including degree(s) earned:

I have a BS degree from the University of Nebraska in secondary education. I have additional graduate credits as well.

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

NO

Have you ever been charged and/or convicted of a felony? No

If so, please explain the circumstances and the current status of the charge(s) and/or conviction(s):

Have you ever declared personal or business bankruptcy? No

If so, please explain:

Please include up to three personal or professional references:

Name	Relationship	Telephone Number
Mr. Tom Terry	Master Gardening	273-7882
Joe/Joy Harbeson	Master Gardener's	496-8140
Amy Riggins	Sr. Center-Facility Supervisor	878-1528

PLEASE READ CAREFULLY:

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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

Sarah Q. Murphy
(Sally)

Date

11-21-2020

Applications are retained on file for one (1) year. Applicants are encouraged to include a letter of interest with this application. Thank you for your interest in serving Shawnee.

Send completed application to:

Shawnee City Clerk
PO Box 1448
Shawnee OK 74802
Phone 405-878-1605
Fax 405-878-1581
CityClerk@shawneeok.org



APPLICATION TO SERVE
Boards, Committees and Commissions

- ☐ Appointment
☐ Reappointment – Partial/First/Second Term

Name: <u>Crista Blue</u>	Application Date: <u>08.18.2020</u>
Address: <u>9 Dustin Circle</u>	Date of Birth: <u>04.01.1986</u>
Mailing Address: <u>9 Dustin Circle</u>	
Daytime Phone: <u>405.401.9076</u>	Fax: _____ Email: <u>crista.blue@jamarshall.com</u>
Profession: <u>Interior Designer</u>	
Business Name: <u>John A. Marshall, Co.</u>	
Business Address: <u>11400 N. I-35 Service Rd. Ste E. Oklahoma City, OK 73131</u>	
Business Phone: <u>405.752.9696</u>	Fax: _____ Email: <u>crista.blue@jamarshall.com</u>

Do you live within the City Limits of the City of Shawnee? Yes ☒ No ☐

Do you currently serve on a City board, committee or commission? Yes ☐ No ☒

If so, please list the board/committee: _____

How many years have you lived in Shawnee? 1

Select the Board/Committee/Commission you are interested in serving on: (please check)

☐ Airport Advisory Board ☐ Beautification Committee ☐ Board of Adjustment (Zoning) ☐ Civic and Cultural Development Authority ☐ Community Service Contract Review Committee ☐ Housing Authority ☐ Library Board	☐ Oklahoma Baptist University Trust Authority ☐ Parks and Recreation Committee ☒ Planning Commission ☐ Senior Citizens of Shawnee Board ☐ Shawnee Hospital Authority ☐ Shawnee Urban Renewal Authority ☐ Traffic Commission ☐ Other
--	---

Why are you interested in serving on the Board/Committee/Commission selected above?

Having grown up near Shawnee I have a strong desire to see our community thrive! I love raising my family here and want to contribute wherever possible to help ensure the best future for our city. I believe in order to be the best resource though, I first need to gain a clearer understanding of Shawnee's unique struggles and strengths. I believe being a board member will afford me the opportunity to gain this insight while making a useful contribution.

Revised July 12, 2019

What will make you a good board member and what skills or knowledge do you have that would be relevant to this board/committee/commission?

In my work as a commercial interior designer I help people see the potential of their environment by building upon the strengths in order to realize each spaces' full potential.

I make sure each space works to support the people inside as they strive to reach their own goals. I see our community in the same way; it should empower the community to grow and improve the lives of those living here. I believe I have the unique ability to see that potential and want to do my part to help it come to fruition.

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

OIDC-OKC Sponsorship Committee Chair

List education, including degree(s) earned:

Bachelor of Science in Interior Design, Oklahoma State University, 2008

Graduate of Harrah High School, 2004

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

No

Have you ever been charged and/or convicted of a felony? No

If so, please explain the circumstances and the current status of the charge(s) and/or conviction(s):

Have you ever declared personal or business bankruptcy? No

If so, please explain:

Please include up to three personal or professional references:

Name	Relationship	Telephone Number
John Baker	VP of Sales in my office	405.205.8688
Sherry Culpepper	Sr. Interior Designer in my office	316.253.9303
Carl Maddamma	Project Manager in my office	918.565.1262

PLEASE READ CAREFULLY:

Appointment by the Commission is for one term and individuals may not serve more than two consecutive full terms. Appointment to a second term remains at the discretion of the City Commission.

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 Crista B Blue

Date 08.26.2020

Revised July 12, 2019

Applications are retained on file for one (1) year. Applicants are encouraged to include a letter of interest with this application. Thank you for your interest in serving Shawnee.

Send completed application to:

Shawnee City Clerk
PO Box 1448
Shawnee OK 74802
Phone 405-878-1605
Fax 405-878-1581
CityClerk@shawneeok.org

Dear board members of the City of Shawnee Planning Commission,

As an interior designer with 7 years of experience in the commercial space I was thrilled to hear of the opportunity to apply for the open board position on the City of Shawnee Planning Commission. I bring professional knowledge and enthusiasm necessary to serve successfully in this role and would be honored to be selected.

In my work as a commercial interior designer I help shape environments to meet the needs of the people inside, ultimately ensuring these people reach their full potential. I focus not only on the most immediate needs but help to assure a space supports the users well into the future. I see a direct correlation to the responsibility undertaken by the Planning Commission and believe I can be an allied member of the board.

I thrive on seeking creative solutions and enjoy meeting and collaborating with people from differing backgrounds and fields of experience. Having volunteered successfully with professional organizations and initiatives in the Oklahoma City area I have the experience necessary and am eager to focus my time and expertise in my community.

I look forward to the opportunity to serve with you all!

Thank you for your time and consideration,

Crista Blue

Regular Board of Commissioners

4.

Meeting Date: 04/05/2021

Proclamation

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Mayor's Proclamation:

"National Public Safety Telecommunications Week"
April 11-17, 2021

Attachments

Proclamation



Proclamation

“National Public Safety Telecommunications Week”

Whereas, emergencies can occur at any time that requires police, fire, or emergency medical services. When an emergency occurs the prompt response of police officers, firefighters, and paramedics is critical to the protection of life and preservation of property; and

Whereas, the safety of our police officers and firefighters is dependent upon the quality and accuracy of information obtained from citizens who telephone the City of Shawnee; and

Whereas, professional Public Safety Telecommunicators are a vital link between citizens and victims and are the first and most critical contact our citizen have with emergency services; and

Whereas, Public Safety Telecommunicators of the City of Shawnee Communications Center have contributed substantially to the apprehension of criminals, suppression of fires, and treatment of patients while exhibiting compassion, understanding, and professionalism during the performance of their job in the past year; and

Whereas, in honor of the men and women whose diligence and professionalism keep our city and citizens safe. Your valuable service should be applauded and held in the highest regard all through the year, for without your commitment, devotion, and hard work, countless number of lives and property would be in jeopardy. Thank you for helping our communities and keeping us safe.

Now, Therefore, I, Ed Bolt, Mayor of the City of Shawnee, Oklahoma, do hereby proclaim, the week of April 11 – 17, 2021, to be

“National Public Safety Telecommunications Week”

In the City of Shawnee, Oklahoma
Dated this 5th day of April, 2021

Ed Bolt, Mayor

Lisa Lasyone, CMC, City Clerk

Regular Board of Commissioners

7.

Meeting Date: 04/05/2021

Mausoleum

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Discussion and consideration of acceptance of the Fairview Cemetery Mausoleum.

Attachments

Letter

Paul Tiemann

222 Long Hill Rd

Dover NH

Phone: 603-534-5682

▶ **James Bryce**

Director of Operations

Fairview Cemetery,
1400 N. Center Street,
Shawnee, Ok. 74801

Dear James,

It is the intention of Fairview Mausoleum Association Inc. to donate it's assets including building, trust fund and records to the City of Shawnee as soon as possible with a preferred transfer date before May 27 2013. Fairview Mausoleum Association Inc. has ceased operations due to lack of funds. Upon completion of the transfer, the corporation will dissolve.

History and reasoning

Around 1974, William D. Tiemann was offered half-interest in the building known as Fairview Mausoleum by the owner, Alfred Hunter, a Shawnee real estate broker. I am unclear as to how Mr. Hunter got possession either acquiring title at little or no cost from the heirs of the previous owner or due to abandonment. The building was in disrepair and needed a complete renovation. Mr. Tiemann was given the half-interest with the expectation that he would provide labor and materials for the needed renovations. Work was started but Mr. Hunter died shortly thereafter. Mr. Tiemann purchased the remaining half of the building from Mr. Hunter's widow, Susanna.

Mr. Tiemann incorporated, "Fairview Mausoleum Association Inc.", with the single asset being the building. He and his wife, Faye Powers Tiemann were sole stockholders. At that time, I believe 20-30% of the crypts were sold, no cash equity existed and the perpetual care fund had not been established. Mr. Tiemann completed the renovations, A number of crypts were sold with 10% of sales placed in a perpetual care fund for continued maintenance of the building.

Mr. Tiemann passed away of chronic lymphocytic leukemia in 1989. His wife, Faye, inherited the corporation and continued to run the business. She hired Carl Mathews to maintain the building. sell

crypts and handle interments. After a few years, Mrs. Tiemann began seeking a local buyer for the business. She listed it with two different real estate broker without success.

In 2003, Mrs. Tiemann passed away leaving the corporation to my brother, Philip Tiemann and me. At that time, the business checking account was mostly depleted and we deposited a significant percentage of what little we inherited from her estate into the account for maintenance costs. However, continued sales and maintenance were unmanageable. Neither one of us resides in Oklahoma, Philip lives in Texas and I live in New Hampshire and both of us have full time jobs with no time to pursue selling crypts. Our solution was to retain Carl Mathews on a monthly stipend to handle maintenance and sales as he had done for Mrs. Tiemann.

Efforts to find a buyer were immediately increased. Offers were given to enhance the sale including the offer of an 50% commission to a business broker who specializes in cemeteries and funeral homes. Attempts have also been made to find an interested non-profit such as a church or religious organization with the necessary resources to take over the property. Although there were a few interested parties, none completed a sale. The biggest difficulty to selling Fairview Mausoleum as a business was the fact that it was not part of Fairview Cemetery; and, therefore, not part of larger multifaceted enterprise.

As current shareholders, Philip and I have come to the resolution that the only option for Fairview Mausoleum is for it to become part of Fairview Cemetery as it should have been from inception. Since 2003, crypt sales have not been enough to cover care and maintenance costs. The business checking account has decreased to the point that even the electric bill cannot be paid. With the current low interest rates, the perpetual care fund does not earn the needed maintenance monies it was set-up to provide.

At this point, Fairview Mausoleum Association has two assets, the building and the trust fund, with a current balance around \$30,000. Philip and I are closing the corporation known as Fairview Mausoleum Association and need to dispose of the building, perpetual care fund and records to a trustworthy person or business. One of our concerns in the decision to close the business has been the possible diversion of the perpetual care funds for uses other than care of the mausoleum. Philip and I know the city of Shawnee will be judicious with the fund.

It is our desire to provide a rapid, orderly transition of the building, trust fund, and records to the City of Shawnee, Oklahoma as soon as reasonably possible.



Sincerely,

Paul Tiemann for Fairview Mausoleum Association Inc.

Regular Board of Commissioners

8. a.

Meeting Date: 04/05/2021

Bid Award

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Whittaker Street Rehabilitation Project No. 20SHAWWHITST (Award)

Attachments

Bid Tabulation

Bid Documents

Plan Holders List

Plans

Addendum Nos. 1-3

SHAWNEE WHITTAKER STREET REHABILITATION CITY OF SHAWNEE SHAWNEE, OKLAHOMA Bids Due By: March 11, 2021 at 4:00 p.m. Bids Opened: March 15, 2021 at 6:00 p.m.				CONTRACTOR Engineering Estimate		CONTRACTOR RDNI, LLC dba A-Tech Paving 500 N. Vickie Drive Oklahoma City, OK 73117		CONTRACTOR Wynn Construction 11901 N Eastern Ave. Oklahoma City, OK 73131		CONTRACTOR Nash Construction Company 700 South Irving Oklahoma City, OK 73129	
				Base Bid	\$496,620.00	Base Bid	\$469,512.05	Base Bid	\$612,465.00	Base Bid	\$602,988.00
				Base Bid + Mat. Opt. 1	\$550,520.00	Base Bid + Mat. Opt. 1	\$634,152.05	Base Bid + Mat. Opt. 1	\$645,785.00	Base Bid + Mat. Opt. 1	\$928,348.00
				Base Bid + Mat. Opt. 2	\$551,620.00	Base Bid + Mat. Opt. 2	\$603,704.05	Base Bid + Mat. Opt. 2	\$643,945.00	Base Bid + Mat. Opt. 2	\$926,028.00
				Add Alternate No. 1	\$21,000.00	Add Alternate No. 1	\$50,400.00	Add Alternate No. 1	\$18,600.00	Add Alternate No. 1	\$49,500.00
				Add Alternate No. 2	\$10,000.00	Add Alternate No. 2	\$25,000.00	Add Alternate No. 2	\$17,000.00	Add Alternate No. 2	\$8,360.00
BID TABULATION		QTY	UNIT	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
	Schedule 1 - Base Bid										
1	Unclassified Excavation	1,500	CY	\$20.00	\$30,000.00	\$21.00	\$31,500.00	\$23.00	\$34,500.00	\$20.00	\$30,000.00
2	SWPPP Documentation and Management	1	LS	\$2,500.00	\$2,500.00	\$3,000.00	\$3,000.00	\$655.00	\$655.00	\$975.00	\$975.00
3	Temporary Silt Fence	1,000	LF	\$4.00	\$4,000.00	\$3.75	\$3,750.00	\$6.00	\$6,000.00	\$8.00	\$8,000.00
4	Solid Slab Sodding (Like Kind)	750	SY	\$6.00	\$4,500.00	\$6.65	\$4,987.50	\$7.00	\$5,250.00	\$5.00	\$3,750.00
5	Aggregate Base Type "A"	1,225	CY	\$50.00	\$61,250.00	\$71.45	\$87,526.25	\$85.00	\$104,125.00	\$70.00	\$85,750.00
6	Subgrade Method "B" – 8"	3,200	SY	\$3.00	\$9,600.00	\$3.85	\$12,320.00	\$3.00	\$9,600.00	\$4.00	\$12,800.00
7	Separator Fabric	3,520	SY	\$4.00	\$14,080.00	\$1.30	\$4,576.00	\$3.00	\$10,560.00	\$3.00	\$10,560.00
8	Superpave, Type S3 (PG 64-22 OK)	1,070	TON	\$80.00	\$85,600.00	\$75.78	\$81,084.60	\$92.00	\$98,440.00	\$95.00	\$101,650.00
9	Superpave, Type S4 (PG 64-22 OK)	350	TON	\$85.00	\$29,750.00	\$90.47	\$31,664.50	\$130.00	\$45,500.00	\$120.00	\$42,000.00
10	Cont. Reinforcement P.C.C. Pavement (Placement)	36	SY	\$60.00	\$2,160.00	\$67.25	\$2,421.00	\$140.00	\$5,040.00	\$50.00	\$1,800.00
11	P.C. Concrete for Pavement	8	CY	\$145.00	\$1,160.00	\$155.00	\$1,240.00	\$200.00	\$1,600.00	\$150.00	\$1,200.00
12	Combined Curb & Gutter 6" Barrier	1,600	LF	\$20.00	\$32,000.00	\$20.00	\$32,000.00	\$30.00	\$48,000.00	\$22.00	\$35,200.00
13	Concrete Sidewalk	100	SY	\$45.00	\$4,500.00	\$52.30	\$5,230.00	\$92.00	\$9,200.00	\$45.00	\$4,500.00
14	Concrete Sidewalk with Brick Accent	285	SY	\$60.00	\$17,100.00	\$74.50	\$21,232.50	\$100.00	\$28,500.00	\$60.00	\$17,100.00
15	Concrete Driveway	375	SY	\$60.00	\$22,500.00	\$57.60	\$21,600.00	\$90.00	\$33,750.00	\$65.00	\$24,375.00
16	Manhole Adjusted to Grade	1	EA	\$1,200.00	\$1,200.00	\$350.00	\$350.00	\$650.00	\$650.00	\$3,850.00	\$3,850.00
17	Valve Boxes Adjusted to Grade	1	EA	\$300.00	\$300.00	\$168.00	\$168.00	\$400.00	\$400.00	\$1,650.00	\$1,650.00
18	6" Gate Valve, RJ	8	EA	\$900.00	\$7,200.00	\$1,065.00	\$8,520.00	\$1,400.00	\$11,200.00	\$1,100.00	\$8,800.00
19	Valve Box	8	EA	\$150.00	\$1,200.00	\$84.00	\$672.00	\$180.00	\$1,440.00	\$605.00	\$4,840.00
20	6 Inch Fire Hydrant	1	EA	\$3,800.00	\$3,800.00	\$3,920.00	\$3,920.00	\$5,000.00	\$5,000.00	\$3,300.00	\$3,300.00
21	Fire Hydrant Extension	1	EA	\$500.00	\$500.00	\$728.00	\$728.00	\$900.00	\$900.00	\$1,100.00	\$1,100.00
22	6 Inch Sleeve	4	EA	\$350.00	\$1,400.00	\$336.00	\$1,344.00	\$330.00	\$1,320.00	\$330.00	\$1,320.00
23	6 Inch Ductile Iron 90 Degree Bend (RJ)	8	EA	\$350.00	\$2,800.00	\$369.60	\$2,956.80	\$650.00	\$5,200.00	\$385.00	\$3,080.00
24	6 Inch x 6 Inch Ductile Iron Tee (RJ)	1	EA	\$400.00	\$400.00	\$481.60	\$481.60	\$600.00	\$600.00	\$440.00	\$440.00
25	6 Inch x 6 Inch Ductile Iron Cross (RJ)	1	EA	\$400.00	\$400.00	\$705.60	\$705.60	\$940.00	\$940.00	\$550.00	\$550.00
26	Water Service Connection (Short)	8	EA	\$1,000.00	\$8,000.00	\$1,120.00	\$8,960.00	\$1,100.00	\$8,800.00	\$2,200.00	\$17,600.00
27	Water Service Connection (Long)	8	EA	\$1,700.00	\$13,600.00	\$1,680.00	\$13,440.00	\$1,600.00	\$12,800.00	\$4,400.00	\$35,200.00
28	Remove Existing Fire Hydrant	1	EA	\$500.00	\$500.00	\$560.00	\$560.00	\$650.00	\$650.00	\$1,100.00	\$1,100.00
29	Removal of Obstructions	1	LS	\$5,000.00	\$5,000.00	\$2,000.00	\$2,000.00	\$4,000.00	\$4,000.00	\$3,800.00	\$3,800.00
30	Removal of Existing Sidewalk	20	SY	\$6.00	\$120.00	\$12.00	\$240.00	\$26.00	\$520.00	\$18.00	\$360.00
31	Removal of Existing Paving	2,450	SY	\$10.00	\$24,500.00	\$7.35	\$18,007.50	\$13.00	\$31,850.00	\$10.00	\$24,500.00
32	Removal of Existing Driveway	375	SY	\$8.00	\$3,000.00	\$8.80	\$3,300.00	\$13.00	\$4,875.00	\$10.00	\$3,750.00
33	Removal of Existing Curb	1,600	SY	\$5.00	\$8,000.00	\$5.00	\$8,000.00	\$10.00	\$16,000.00	\$10.00	\$16,000.00
34	Mobilization	1	LS	\$50,000.00	\$50,000.00	\$22,200.00	\$22,200.00	\$5,000.00	\$5,000.00	\$53,300.00	\$53,300.00
35	Construction Staking	1	LS	\$9,500.00	\$9,500.00	\$5,625.00	\$5,625.00	\$16,000.00	\$16,000.00	\$8,325.00	\$8,325.00
36	Handicap Ramp with Tactile Warning Dome	8	EA	\$1,000.00	\$8,000.00	\$800.00	\$6,400.00	\$1,200.00	\$9,600.00	\$1,210.00	\$9,680.00
37	School Crossing Sign S1-1 (Complete-In-Place)	6	EA	\$450.00	\$2,700.00	\$450.00	\$2,700.00	\$400.00	\$2,400.00	\$660.00	\$3,960.00
38	Traffic Stripe (24")	120	LF	\$15.00	\$1,800.00	\$53.76	\$6,451.20	\$5.00	\$600.00	\$43.00	\$5,160.00
39	Traffic Control	1	LS	\$12,000.00	\$12,000.00	\$3,650.00	\$3,650.00	\$18,000.00	\$18,000.00	\$4,540.00	\$4,540.00
40	Urban ROW Restoration	1	LS	\$10,000.00	\$10,000.00	\$4,000.00	\$4,000.00	\$13,000.00	\$13,000.00	\$7,123.00	\$7,123.00
Material Option No. 1 (HDPE)											
41	8 Inch (OD) HDPE AWWA C906 DR-11	980	LF	\$55.00	\$53,900.00	\$168.00	\$164,640.00	\$34.00	\$33,320.00	\$332.00	\$325,360.00
Material Option NO. 2 (PVC)											
42	6 Inch DIP, CL50 Polyethylene Wrapped (RJ)	240	LF	\$75.00	\$18,000.00	\$162.00	\$38,880.00	\$51.00	\$12,240.00	\$347.00	\$83,280.00
43	6 Inch PVC AWWA C900 Class 200, DR-14	740	LF	\$50.00	\$37,000.00	\$128.80	\$95,312.00	\$26.00	\$19,240.00	\$324.00	\$239,760.00
Add Alternate No. 1											
44	Rectangular Rapid Flashing Beacon (RRFB) - Solar	6	EA	\$3,500.00	\$21,000.00	\$8,400.00	\$50,400.00	\$3,100.00	\$18,600.00	\$8,250.00	\$49,500.00
Add Alternate No. 2											
45	(SP) Contractor's Quality Control	1	LS	\$10,000.00	\$10,000.00	\$25,000.00	\$25,000.00	\$17,000.00	\$17,000.00	\$8,360.00	\$8,360.00

Specifications

For

WHITTAKER STREET REHABILITATION

City of Shawnee
Shawnee, Oklahoma



Prepared by:



Holloway, Updike and Bellen

Consulting Engineers
Muskogee · Broken Arrow

January, 2021
20SHAWWHITST

CA 219
Expires 6/30/21



Dale Seaton, P.E.
OK 27288

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TECHNICAL SPECIFICATIONS

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Project should be built to ODOT Specifications 2019 Edition.

Publish in the Shawnee News-Star on February 2, 2021 and February 9, 2021

**Advertisement for Bids
Whittaker Street Rehabilitation
City of Shawnee
Shawnee, Oklahoma
Project No. 20SHAWWHITST**

Notice is hereby given that the City of Shawnee will receive sealed bids at the City Hall, 16 West 9th, Shawnee, Oklahoma 74801, up to 4:00 p.m. on Thursday, February 25, 2021 and publicly read aloud at the Board Meeting being held at 6:00 p.m. on March 1, 2021 or furnishing all labor and materials and performing all work necessary for:

The project is consists of the full reconstruction of Whittaker Street from Center Avenue to Draper Avenue.

Bidders must bid on all items of the contract. The whole work under this contract will be awarded as a single contract to the lowest responsible bidder for the work. No bid may be withdrawn for at least sixty (60) days after the scheduled closing time for receipt of bids.

Plans and Specifications are on file and can be seen and obtained online at <http://www.hubengineers.com> or at the Office of Holloway, Updike & Bellen Inc., 905-A South 9th Street, Broken Arrow, OK 74012; (918) 251-0717. **Payment Options: Online Download \$30.00 or ½ size Paper Set \$60.00, none** of which are refundable. All checks shall be made payable to Holloway, Updike & Bellen, Inc. Each proposal must be accompanied by a Bidder's Bond, or Cashier's Check upon any solvent Bank or Trust Company, payable without reserve to the City of Shawnee, Oklahoma, in an amount not less than five percent (5%) of the total amount of the bid. Bid security of the two low bidders will be retained until approval of contract and execution of satisfactory bonds by the successful bidder, or until other disposition on the bids is made.

BIDDER must purchase plans and specifications from Holloway, Updike and Bellen, Inc. either directly for a hard copy of bidding documents or through Quest CDN for an electronic copy. Bidder must be on the Engineer's official plan holder's list in order to receive addendums and submit a bid.

The bonds required will be a Performance Bond, a Payment Bond, and a Maintenance Bond, each in the full amount of the contract. The City will not accept letters of credit in lieu of any bond required herein.

MANDATORY Pre-Bid Conference is scheduled for 10:00 a.m. on February 15, 2021 at the City of Shawnee City Hall located at 16 West 9th, Shawnee, OK 74801. The bidder must supply all the information required by the bid and proposal form including completion of affidavits or his bid will be considered incomplete and therefore rejected.

The City may request of any bidder, before his bid is considered for award, that he submit a statement of facts as to his previous experience in performing work of the same character and magnitude, as to his business and technical organization, and financial resources and plant available and to be use in performing the contemplated work. Each bidder must have such information, together with a recent financial statement, available upon request.

This project is to be paid by local funds.

Contract to be awarded to low responsive responsible bidder. The Owner reserves the right to waive any informalities in the bidding and the right to reject any and all bids in accordance with the Oklahoma Competitive Bidding Act. Conditional bids shall not be accepted.

City of Shawnee
Shawnee, Oklahoma

By Chance Allison

INSTRUCTIONS TO BIDDERS

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ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. *Issuing Office* – The office from which the Bidding Documents are to be issued.
1. **Copies of the Plans and Specifications can be seen and obtained online at <http://www.hubengineers.com> or at the Office of Holloway, Updike & Bellen, Inc., 905-A South 9th Street, Broken Arrow, OK, 74012; (918) 251-0717.**
 2. **BIDDER must purchase plans and specifications from Holloway, Updike and Bellen, Inc. either directly for a hard copy of bidding documents or through Quest CDN for an electronic copy. Bidder must be on the Engineer's official plan holder's list in order to receive addendums and submit a bid.**

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office in the number and format stated in the advertisement or invitation to bid.
- 2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within [10] days of Owner's request, Bidder shall submit (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:
- A. [Evidence of Bidder's authority to do business in the state where the Project is located.]
 - B. [Bidder's state or other contractor license number, if applicable.]
 - C. [Subcontractor and Supplier qualification information; coordinate with provisions of Article 12 of these Instructions, "Subcontractors, Suppliers, and Others."]
 - D. [Other required information regarding qualifications]
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.
- 3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER’S SAFETY PROGRAM; OTHER WORK AT THE SITE

4.01 *Site and Other Areas*

- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 *Existing Site Conditions*

- A. Subsurface and Physical Conditions; Hazardous Environmental Conditions
 - 1. The Supplementary Conditions identify:
 - a. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.
 - b. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
 - c. reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
 - d. Technical Data contained in such reports and drawings.
 - 2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
 - 3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.
- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.
- C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

4.03 *Site Visit and Testing by Bidders*

- A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.
- B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.
- D. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- E. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

ARTICLE 5 – BIDDER'S REPRESENTATIONS

5.01 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;
- E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, 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 Bidder; and (3) Bidder's safety precautions and programs;

- F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
- J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 6 – PRE-BID CONFERENCE

- 6.01 Mandatory Pre-Bid Conference is scheduled for 10:00 a.m. on February 15, 2021.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than seven days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.
- 7.03 Conflict Statements: In the event of a conflict between the plans and specifications, the specifications shall govern.

ARTICLE 8 – BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of [5] percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract

Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.

- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be substantially completed and ready for final payment is 100 days.

ARTICLE 10 – LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, is \$1,000.00 per calendar day.

ARTICLE 11 – SUBSTITUTE AND “OR-EQUAL” ITEMS

- 11.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or “or-equal” items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or “or-equal” item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.
- 11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of “or-equal” or substitution requests are made at Bidder's sole risk.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 12.01 A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.
- 12.02 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.

- 12.03 The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers proposed for the following portions of the Work:

A. [NONE]

If requested by Owner, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other individual or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

- 12.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents.

- A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
- B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."

- 13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.

- 13.03 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.

- 13.04 A Bid by an individual shall show the Bidder's name and official address.

- 13.05 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.

- 13.06 All names shall be printed in ink below the signatures.

- 13.07 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.08 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.09 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID

14.01 *Lump Sum (If specified in the Bid Form)*

- A. Bidders shall submit a Bid on a lump sum basis as set forth in the Bid Form.

14.02 *Unit Price (If specified in the Bid Form)*

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity" (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

14.03 *Allowances*

- A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

ARTICLE 15 – SUBMITTAL OF BID

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.
- 15.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to:

- A. City Hall, Attn: City Clerk, City of Shawnee, 16 West 9th, Shawnee, Oklahoma 74801
- 15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.
- 15.04 The following items must be submitted with the bid:
 - A. Bid Bond
 - B. Proposal
 - C. Business Relationships Affidavit
 - D. Noncollusion Affidavit

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 16.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of **60 days**, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.

- 19.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.
- 19.03 Evaluation of Bids
- A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
 - B. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.
- 19.04 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 20 – BONDS AND INSURANCE

- 20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.
- 20.02 Bond Requirements: (100% Performance Bond, 100% Statutory Bond (Payment Bond), 100% Maintenance Bond (1 year minimum) and Power of Attorney Certification.

ARTICLE 21 – SIGNING OF AGREEMENT

- 21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within 10 days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.
- A. Successful Bidder shall execute and deliver the required number of counterparts of the agreement (and any bonds and insurance documentation required by to be delivered by the Contract Documents) to Owner within 15 days after receipt.
 - B. Owner shall return executed copy of the agreement within 10 days after its receipt from the contractor.
 - C. Owner shall issue a Notice to Proceed within 30 days after the Owner executes the agreement.

- D. Contractor shall begin construction within 3 days after the final day of the Shawnee Public Schools Spring semester. Date will be established at the Pre-Construction Meeting.

ARTICLE 22 – SALES AND USE TAXES

Owner is exempt from OKLAHOMA state sales and use taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Bid. Refer to Paragraph SC-7.09 of the Supplementary Conditions for additional information.

BID PACKET

The following shall be submitted with and included as a part of the Bid on the forms provided or as otherwise described herein:

- Bid Bond
- Proposal
- Business Relationships Affidavit
- Noncollusion Affidavit

(All of the above forms must be submitted, in complete form at the bid opening)

BID BOND

KNOW ALL MEN BE 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 _____, hereinafter called 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, the Principal has submitted a bid for

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 material 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 which the Obligee may in good faith contract with another party to perform the work covered by said bid, this obligation shall be null and void, otherwise to remain in full force and effect.

SIGNED AND SEALED this _____ day of _____, _____.

(Seal)	(	
	(	PRINCIPAL
	(	
	(	
WITNESS	(	TITLE
	(	
(Seal)	(	
	(	SURETY
	(	
	(	
WITNESS	(	TITLE

BID PROPOSAL

OWNER: City of Shawnee
16 West 9th
Shawnee, Oklahoma 74801

PROJECT: Whittaker Street Rehabilitation

PROJECT NO.: 20SHAWWHITST

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.
2. BIDDER accepts all of the terms and conditions of the Information for Bidders, including without limitation those dealing with the disposition of Bid Security. Bids shall be held for 60 days after the day of Bid opening. BIDDER shall sign the Agreement and submit the Contract Security and other documents required by the Contract Documents within fifteen days after the date of OWNER'S Notice of Award.
3. In submitting this Bid, the BIDDER represents, as more fully set forth in the Agreement, that:
 - (a) BIDDER has examined copies of all the Contract Documents and Bidding Documents and of the following addenda:

Date	Number
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(receipt of all of which is hereby acknowledged) and also copies of the Advertisement and the Information for Bidders;

- (b) BIDDER has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as BIDDER deems necessary.
 - (c) BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or a corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for himself any advantage over any other Bidder or over OWNER.

4. In submitting this Bid, BIDDER represents that:
- (a) The total bid for the Bid Schedule includes all work necessary to complete that portion of the project described in the Bid Schedule and represents the entire scope of work covered by the Contract Documents. If a particular item of work is not specifically separated as a bid item the cost therefore is to be considered included in the bid item most nearly related.
 - (b) The total bid for each Bid Schedule is based on the quantities shown on the Bid Form and on the dimensions shown on the drawings where specific quantities are not itemized. The Contract Amount will be adjusted for bid schedule items with unit prices according to the actual quantities and measurement of the finished construction as determined by the Engineer.
 - (c) BIDDER will complete the work for the following price(s):

For the Design and Construction of all the work necessary to complete the work under Bid Schedule, as defined in the Contract Documents.

BID SCHEDULE WHITTAKER STREET REHABILITATION				
<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
1.	1,925 CY	Unclassified Excavation Dollars – per cubic yard	\$ _____	\$ _____
2.	1 LS	SWPPP Documentation and Management Dollars – lump sum	\$ _____	\$ _____
3.	1,000 LF	Temporary Silt Fence Dollars – per linear foot	\$ _____	\$ _____
4.	750 SY	Solid Slab Sodding (Like Kind) Dollars – per square yard	\$ _____	\$ _____

BID SCHEDULE
WHITTAKER STREET REHABILITATION

<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
5.	1200 CY	Aggregate Base Type "A" _____ Dollars – per cubic yard	\$ _____	\$ _____
6.	3,200 SY	Subgrade Method "B" – 8" _____ Dollars – per square yard	\$ _____	\$ _____
7.	3520 SY	Separator Fabric _____ Dollars – per square yard	\$ _____	\$ _____
8.	1220 TON	Superpave, Type S3 (PG 64-22 OK) _____ Dollars – per ton	\$ _____	\$ _____
9.	350 TON	Superpave, Type S4 (PG 70-28 OK) _____ Dollars –per ton	\$ _____	\$ _____
10.	36 SY	P.C. Concrete Pavement (Placement) _____ Dollars – per square yard	\$ _____	\$ _____
11.	8 CY	P.C. Concrete for Pavement _____ Dollars – per cubic yard	\$ _____	\$ _____
12.	1,600 LF	Combined Curb & Gutter 6" Barrier _____ Dollars – per linear foot	\$ _____	\$ _____

**BID SCHEDULE
WHITTAKER STREET REHABILITATION**

<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
13.	100 SY	Concrete Sidewalk _____ Dollars – per square yard	\$ _____	\$ _____
14.	285 SY	Concrete Sidewalk with Brick Accent _____ Dollars – per square yard	\$ _____	\$ _____
15.	375 SY	Concrete Driveway _____ Dollars – per square yard	\$ _____	\$ _____
16.	1 EA	Manhole Adjusted to Grade _____ Dollars – per each	\$ _____	\$ _____
17.	1 EA	Valve Boxes Adjusted to Grade _____ Dollars – per each	\$ _____	\$ _____
18.	9 EA	6” Gate Valve, RJ _____ Dollars – per each	\$ _____	\$ _____
19.	9 EA	Valve Box _____ Dollars – per each	\$ _____	\$ _____
20.	1 EA	6 Inch Fire Hydrant _____ Dollars – per each	\$ _____	\$ _____

BID SCHEDULE WHITTAKER STREET REHABILITATION				
<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
21.	1 EA	Fire Hydrant Extension Dollars – per each	\$ _____	\$ _____
22.	4 EA	6 Inch Sleeve Dollars – per each	\$ _____	\$ _____
23.	2 EA	6 Inch Ductile Iron 45 Degree Bend (RJ) Dollars – per each	\$ _____	\$ _____
24.	6 EA	6 Inch Ductile Iron 90 Degree Bend (RJ) Dollars – per each	\$ _____	\$ _____
25.	2 EA	6 Inch x 6 Inch Ductile Iron Tee (RJ) Dollars – per each	\$ _____	\$ _____
26.	8 EA	Water Service Connection (Short) Dollars – per each	\$ _____	\$ _____
27.	8 EA	Water Service Connection (Long) Dollars – per each	\$ _____	\$ _____
28.	1 EA	Remove Existing Fire Hydrant Dollars – per each	\$ _____	\$ _____

**BID SCHEDULE
WHITTAKER STREET REHABILITATION**

<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
29.	1 LS	Removal of Obstructions _____ Dollars – lump sum	\$ _____	\$ _____
30.	20 SY	Removal of Existing Sidewalk _____ Dollars – per square yard	\$ _____	\$ _____
31.	2450 SY	Removal of Existing Paving _____ Dollars – per square yard	\$ _____	\$ _____
32.	375 SY	Removal of Existing Driveway _____ Dollars – per square yard	\$ _____	\$ _____
33.	1600 SY	Removal of Existing Curb _____ Dollars – per square yard	\$ _____	\$ _____
34.	1 LS	Mobilization _____ Dollars – lump sum	\$ _____	\$ _____
35.	1 LS	Construction Staking _____ Dollars – lump sum	\$ _____	\$ _____
36.	4 EA	Handicap Ramp with Tactile Warning Dome _____ Dollars – per each	\$ _____	\$ _____

BID SCHEDULE WHITTAKER STREET REHABILITATION				
<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
37.	4 EA	School Crossing Sign S1-1 (Complete-In-Place) _____ Dollars – per each	\$ _____	\$ _____
38.	80 LF	Traffic Stripe (24”) _____ Dollars – per linear foot	\$ _____	\$ _____
39.	1 LS	Traffic Control _____ Dollars – lump sum	\$ _____	\$ _____
40.	1 LS	Urban ROW Restoration _____ Dollars – lump sum	\$ _____	\$ _____
Material Option No. 1 - HDPE				
41.	980 LF	8 Inch (OD) HDPE AWWA C906 DR-11 _____ Dollars – per linear foot	\$ _____	\$ _____
Material Option No. 2 - PVC				
42.	240 LF	6 Inch DIP, CL50 Polyethylene Wrapped (RJ) _____ Dollars – per linear foot	\$ _____	\$ _____
43	740 LF	6 Inch PVC AWWA C900 Class 200, DR-14 _____ Dollars – per linear foot	\$ _____	\$ _____

Add Alternate No. 1				
44.	4 EA	Rectangular Rapid Flashing Beacon (RRFB) - Solar		
		_____	\$ _____	\$ _____
		Dollars – per each		
TOTAL BID – (BASE BID + MATERIAL OPTION 1 (HDPE)) SHAWNEE WHITTAKER STREET REHABILITATION _____ DOLLARS (\$ _____) (in words) (in figures)				
TOTAL BID – (BASE BID + MATERIAL OPTION 2 (PVC)) SHAWNEE WHITTAKER STREET REHABILITATION _____ DOLLARS (\$ _____) (in words) (in figures)				

5. BIDDER agrees that the Work will be substantially completed within **100 consecutive calendar days** after the date when the Contract Time commences to run.

BIDDER accepts the **Liquidated damages will be \$1,000.00 per calendar day.**

6. The following documents are attached to and made a condition of this Bid:

- A. Required Bid Security in the form of (Bid Bond) (Certified Check). Each BID must be accompanied by a bid bond payable to the OWNER for five percent of the total amount of the bid. A certified check may be used in lieu of the bid bond. No bid security is required if bid is \$7,500.00 or less. As soon as the bid prices have been compared, the OWNER will return the BONDS of all except the three lowest responsible BIDDERS. The bid bond of the successful bidder will be retained until Performance Bond, Statutory Bond, Maintenance Bond, and Certificate of Insurance have been executed and approved, after which it will be returned. The bid security of the two remaining unsuccessful Bidders will be returned after the successful bidder has entered into a contract and has furnished the required bonds and insurance.
- B. A tabulation of Subcontractors and other persons and organizations required to be identified in the bid.
- C. Contractor's Pre-Qualification Statement with supporting data.
- D. Project Superintendent and Supervision Roster.

7. The terms used in this Bid which are defined in the General Conditions of the Construction Contract are included as part of the Contract Documents and have the meaning assigned to them in the General Conditions.
8. Communications from Owner to Bidder will be sent to the address below.

THE BIDDER SHALL COMPLETE THE FOLLOWING AS APPLICABLE:

AN INDIVIDUAL

By _____ (Individual's Name)
doing business as _____

A PARTNERSHIP

By _____ (Firm Name)

A CORPORATION

By _____ (Corporation Name)

State of Incorporation is _____

By _____
(Name)

Attest: Secretary

(Title) (Corporate Seal)

Business address: _____

Phone No. _____ Fax No. _____

SUBMITTED on _____, 20____.

BUSINESS RELATIONSHIPS AFFIDAVIT

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. 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 relationships hereinabove mentioned exist, affiant should so state.)

Signed: _____

Subscribed and sworn to before me this _____ day of _____, _____.

Notary Public

My Commission Expires:

NONCOLLUSION AFFIDAVIT

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. 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.

Signed: _____

Subscribed and sworn to before me this _____ day of _____, _____.

Notary Public

My Commission Expires:

CLAIM OR INVOICE AFFIDAVIT

STATE OF _____) ss.
COUNTY OF _____)

The undersigned (contractor or supervisory official), certifies that this (invoice, claim or contract) is true and correct. Affiant further states 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, 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.

Signed: _____

Subscribed and sworn to before me this _____ day of _____, 20__.

Notary Public

My Commission Expires:

PERFORMANCE BOND

KNOW ALL MEN BE 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 City of Shawnee, hereinafter called 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 Whittaker Street Rehabilitation, all in compliance with the plans and specifications therefore, made a part of said Contract and on file in the office of _____.

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 6 counterparts, each of which shall be deemed an original, this ____ day of _____, _____.

WITNESS AS TO PRINCIPAL (_____
(PRINCIPAL
(_____
(BY: _____

WITNESS AS TO SURETY (_____
(SURETY
(_____
(BY: _____
(ATTORNEY-IN-FACT

STATUTORY BOND

KNOW ALL MEN BE 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 City of Shawnee, hereinafter called 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 Whittaker Street Rehabilitation, all in compliance with the plans and specifications therefore, made a part of said Contract and on file in the office of _____.

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 6 counterparts, each of which shall be deemed an original, this _____ day of _____, _____.

WITNESS AS TO PRINCIPAL

(_____
(PRINCIPAL
(_____
(BY: _____

WITNESS AS TO SURETY

(_____
(SURETY
(_____
(BY: _____
(ATTORNEY-IN-FACT

MAINTENANCE BOND

KNOW ALL MEN BE 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 City of Shawnee, hereinafter called 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 Whittaker Street Rehabilitation, all in compliance with the plans and specifications therefore, made a part of said Contract and on file in the office of _____.

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 6 counterparts, each of which shall be deemed an original, this _____ day of _____, _____.

WITNESS AS TO PRINCIPAL (_____
(PRINCIPAL
(_____
(BY: _____

WITNESS AS TO SURETY (_____
(SURETY
(_____
(BY: _____
(ATTORNEY-IN-FACT

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between City of Shawnee ("Owner") and
____ ("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 *Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: Whittaker Street Rehabilitation*

ARTICLE 2 – THE PROJECT

2.01 *The Project, of which the Work under the Contract Documents is a part, is generally described as follows: **Whittaker Street Rehabilitation***

ARTICLE 3 – ENGINEER

3.01 *The Project has been designed by Holloway, Updike and Bellen Inc.*

3.02 *The Owner has retained Holloway, Updike and Bellen Inc.("Engineer") to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.*

ARTICLE 4 – CONTRACT TIMES

4.01 Time of the Essence

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Contract Times: Days

A. The Work will be substantially completed within 100 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 120 days after the date when the Contract Times commence to run.

4.03 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of

requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner \$1000.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$1000.00 for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

ARTICLE 5 – CONTRACT PRICE

5.01 *Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:*

- A. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

- B. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment) \$.
- C. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 Progress Payments; Retainage

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 25th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
 - a. 95 percent of Work completed (with the balance being retainage).
 - B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.
- 6.03 Final Payment
- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

7.01 *All amounts not paid when due shall bear interest at the rate of 0 percent per annum.*

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 *In order to induce Owner to enter into this Contract, Contractor makes the following representations:*
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, 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. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, ~~and (2) reports and drawings relating to Hazardous Environmental Conditions, if any,~~ at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
 - E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, 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.

- F. Based on the information and observations referred to in the preceding paragraph, 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.
- G. 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.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract 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 – CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to , inclusive).
 - 2. Performance bond (pages to , inclusive).
 - 3. Payment bond (pages to , inclusive).
 - 4. Maintenance bond (pages to , inclusive).
 - 5. General Conditions (pages to , inclusive).
 - 6. Supplementary Conditions (pages to , inclusive).
 - 7. Specifications as listed in the table of contents of the Project Manual.
 - 8. Drawings (not attached but incorporated by reference) consisting of sheets with each sheet bearing the following general title: [or] the Drawings listed on the attached sheet index.
 - 9. Addenda (numbers to , inclusive).
 - 10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages to , inclusive).
 - 11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.

- c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 Terms

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, 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 Documents.

10.03 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.

10.04 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall 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.

10.05 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on (which is the Effective Date of the Contract).

OWNER:

CONTRACTOR:

City of Shawnee

By: _____

By: _____

Title: _____

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

Attn: City Clerk, City Hall

16 West 9th

Shawnee, OK 74801

License No.: _____

(where applicable)

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer

has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *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.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.
35. *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 reviewing Contractor's Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor 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.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:*
1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:*
1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).
- E. *Furnish, Install, Perform, Provide:*
1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
 - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs 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.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

- A. *Limitation on Use of Site and Other Areas:*
 - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder 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 the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; or
 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;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

- c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* 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 Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after

becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any 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, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation 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.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. 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); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against claims 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 shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall 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 above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
 - 1. include at least the specific coverages provided in this Article.
 - 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 - 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 - 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 - 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed 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.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 - 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. 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, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 - 3. cover, as insured property, at least the following: (a) the 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 within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but 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.
 - 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to 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).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and

guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 "Or Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
- d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
2. shall create any obligation on the part of Owner or Engineer 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.

7.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights 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 specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights 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 not specified in the Contract Documents.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such 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. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall 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, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
 - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
 - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
 - E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
 - F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or

exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all 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
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
- 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to

provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples:*

- a. Contractor shall submit the number of Samples required in the Specifications.
- b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals 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. Engineer'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. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.

- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *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 and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury 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, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop

Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during

or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate 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.

11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) 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 (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are 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. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim

submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 Cost of the Work

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. 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-fee, 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. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable

thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including 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. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes

other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, 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.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

- B. *Cash Allowances*: Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 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 no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work 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 comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 Access to Work

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 Tests, Inspections, and Approvals

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer'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; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will

include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 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, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 - 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 - 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications:*
 - 1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 - 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner:*

- 1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
- 2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount

remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

- A. *Application for Payment:*
 - 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. 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 or otherwise for

expenses or 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. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY GENERAL CONDITIONS - EJCDC

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ARTICLE 2 – PRELIMINARY MATTERS

SC-2.02 Copies of Documents

SC-2.02.A. Amend the first sentence of Paragraph 2.02.A. to read as follows:

Owner shall furnish to Contractor [4] copies of the Contract Documents (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF).

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

SC-4.05 Delay in Contractor's Progress

SC-4.05.C.2 Amend the paragraph on Abnormal Weather Conditions to read as follows:

Abnormal Weather Conditions- shall be defined as wet or cold weather condition that exceed the normal adverse weather days. A normal adverse weather day means adverse weather which, regardless of its severity, is to be reasonably expected for that particular place at that particular time of the year. The adverse weather days for a given month is shown in the following table

NORMAL ADVERSE WEATHER DAYS

Month	Avg. Weather Days	Month	Avg. Weather Days
January	8	July	2
February	6	August	2
March	6	September	3
April	4	October	3
May	4	November	5
June	3	December	7

“Actual adverse weather days are those days meeting one or more of the criteria in “A”, “B”, “C”, and “D” below. Time extension for days meeting more than one criterion will take into consideration only that criterion having the greatest impact.

Those actual adverse weather days covered by criterion “A”, “B” or “C” when they occur (except prior to mobilization or during suspension for other reasons) or their impact on contract completion. However, those days covered by criterion “D” will be subject to the limitations as noted.

- A. Days whose maximum temperature is 32° F or less – one full day allowed.
- B. Days whose minimum temperature is 32° F or less, but whose maximum temperature is over 32° F- one half day allowed.
- C. Days when ½ inch or more precipitation (rain or snow equivalent) occurs – one full day allowed.
- D. Days when weather related conditions exist which prohibit proper performance of work as specified – one full day allowed. Allowance for such days will be subject to the work which is being delayed, being critical to timely contract completion and the Contractor making every reasonable effort to minimize the adverse impact of the conditions.”

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-5.03 *Subsurface and Physical Conditions*

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.B:

- C. The following reports of explorations and tests of subsurface conditions at or adjacent to the Site are known to Owner:
 - 1. Report dated _____ OR

SC 5.03 Delete Paragraphs 5.03.A and 5.03.B in their entirety and insert the following:

- A. No reports of explorations or tests of subsurface conditions at or adjacent to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.

ARTICLE 6 – BONDS AND INSURANCE

SC-6.03 *Contractor’s Liability Insurance*

SC 6.03 Add the following new paragraph immediately after Paragraph 6.03.J:

- K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:
 - 1. Workers’ Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

State:

Statutory

Employer’s Liability:

Bodily injury, each accident	\$ <u>1,000,000</u>
Bodily injury by disease, each employee	\$ <u>1,000,000</u>
Bodily injury/disease aggregate	\$ <u>1,000,000</u>

Foreign voluntary worker compensation	<u>Statutory</u>
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2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

General Aggregate	\$ <u>1,000,000</u>
Products - Completed Operations Aggregate	\$ <u>1,000,000</u>
Personal and Advertising Injury	\$ <u>1,000,000</u>
Each Occurrence (Bodily Injury and Property Damage)	\$ <u>1,000,000</u>

3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:

Bodily Injury:

Each person	\$ <u>1,000,000</u>
Each accident	\$ <u>1,000,000</u>

Property Damage:

Each accident	\$ <u>1,000,000</u>
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[or]

Combined Single Limit of	\$ <u>1,000,000</u>
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4. Excess or Umbrella Liability:

Per Occurrence	\$ <u>1,000,000</u>
General Aggregate	\$ <u>2,000,000</u>

[See Paragraph 6.03.E of the General Conditions.]

5. Contractor's Pollution Liability:

Each Occurrence	\$ <u>1,000,000</u>
General Aggregate	\$ <u>1,000,000</u>



If box is checked, Contractor is not required to provide Contractor's Pollution Liability insurance under this Contract

6. Additional Insured: In addition to Owner and Engineer, include as additional insured the following: [N/A]

7. Contractor's Professional Liability:

Each Claim	\$	<u>N/A</u>
Annual Aggregate	\$	<u>N/A</u>

SC-6.05 *Property Insurance*

SC-6.05. Delete Section 6.05 thru 6.07

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

SC-7.02 *Labor; Working Hours*

SC-7.02.B. Add the following new subparagraphs immediately after Paragraph 7.02.B:

1. Regular working hours will be 7:00 am to 6:00 pm M-F

SC-7.09 *Taxes*

SC 7.09 Add a new paragraph immediately after Paragraph 7.09.A:

- B. Owner is exempt from payment of sales and compensating use taxes of the State of *Oklahoma* and of cities and counties thereof on all materials to be incorporated into the Work.
1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.
 2. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

SC-10.03 *Project Representative*

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.A:

- B. The Resident Project Representative (RPR) will be Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.
1. General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall

generally communicate with Owner only with the knowledge of and under the direction of Engineer.

2. **Schedules:** Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
3. **Conferences and Meetings:** Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings, and prepare and circulate copies of minutes thereof.
4. **Liaison:**
 - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
5. **Interpretation of Contract Documents:** Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
6. **Shop Drawings and Samples:**
 - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
 - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
 - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
7. **Modifications:** Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
8. **Review of Work and Rejection of Defective Work:**
 - a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed

Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

9. Inspections, Tests, and System Start-ups:

- a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
- b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

10. Records:

- a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
- b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- c. Maintain records for use in preparing Project documentation.

11. Reports:

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.

12. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. **Certificates, Operation and Maintenance Manuals:** During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.
 14. **Completion:**
 - a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.
 - b. Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.
 - c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.
- C. The RPR shall not:
1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
 3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.
 5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
 6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
 7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
 8. Authorize Owner to occupy the Project in whole or in part.

APPOINTMENT OF AGENT

The City of Shawnee, hereinafter referred to as the "City" has entered into a contract with _____ a Corporation, on the _____ day of _____, 20____, for the sole purpose of completing a Whittaker Street Rehabilitation, hereinafter referred to as the "Project". The City does hereby appoint _____ and the following:

which are subcontractors of _____, Inc. to act as "Agents" of the City. The company agrees to act as "Agent" for the City subject to the provisions of this Appointment.

Legal title to all tangible personal property purchased, and the right to direct the use of all tangible personal property rented, by the agent pursuant to this Appointment shall pass directly from vendor to the City. Agent shall designate on its purchase orders and elsewhere as appropriate when it is making purchases pursuant to this Appointment, the following legend:

_____ has been appointed agent to the City for the purpose of the property described herein. Upon passage of title, all of such property will be included in the project owned by the City. Title to all such property shall pass to said City from the vendor F.O.B. place specified in this purchase order. All such property is exempt from Oklahoma sales and use taxes and/or City sales taxes."

Rental agreements relating to such property shall contain suitable provisions which disclose the agent's agency and indicate that no Oklahoma sales or use tax or City sales tax is payable.

Agent agrees not to purchase or rent any tangible personal property pursuant to this Appointment unless such property is authorized for inclusion in or exclusive use in the construction of the project described above.

Agent shall be responsible in a separate capacity for payment of the purchase price or other consideration for the property purchased or rented as agent and shall not have the power to bind the City to any financial or other commitments or obligations. Agent shall hold the City harmless from any liability for, or arising out of, the purchase, rental or use of the property purchased or rented hereunder.

This appointment shall be effective upon execution, and shall be binding upon the successors of the parties hereto.

Executed by the undersigned, on behalf of the City, on this _____ day of _____ 20____.

CITY OF SHAWNEE

SEAL

(Chairman)

(Secretary)

NOTICE OF AWARD

To: _____

Project Description: Whittaker Street Rehabilitation

The OWNER has considered the BID submitted by you for the above described WORK in response to its 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 by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR's Performance Bond and Certificate of Insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS within ten (10) days from the date of this Notice, said 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.

You are required to return an acknowledged copy of the NOTICE OF AWARD to the OWNER.

Dated this ____ day of _____, _____.

City of Shawnee
OWNER

BY:

TITLE

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by _____
_____ this ____ day of _____, _____, and
hereby certify that this firm does not appear on the List of Parties Excluded from Federal
Procurement Programs, i.e., list of Debarred Contractors.

BY

TITLE

NOTICE TO PROCEED

To: _____

Date: _____

Project Description: Whittaker Street Rehabilitation

You are hereby notified to commence WORK in accordance with the Agreement dated: _____
_____, _____, on or before _____, _____, and you are to
complete the WORK within 100 consecutive calendar days thereafter. The date of completion of
all WORK is, therefore, _____, _____.

City of Shawnee
OWNER

BY:

TITLE

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by _____
_____ this _____ day of _____, _____, and
hereby certify that this firm does not appear on the List of Parties Excluded from Federal
Procurement Programs, i.e., list of Debarred Contractors.

BY

TITLE

**CERTIFICATE OF APPROVAL
OF CONTRACT AND BONDS**

I, the undersigned _____, being duly authorized and acting legal representative of _____, _____ County, State of Oklahoma, do certify as follows:

I have examined the construction contract between the contractor, _____, and the above named entity, and the surety bonds given by the contractor in connection with the performance of said contract, and the manner of execution of the contract and surety bonds; and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto, acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named therein; and that the foregoing contract and surety bonds 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 _____, _____.

ATTORNEY

County
State of Oklahoma

A. PROJECT TITLE:

Whittaker Street Rehabilitation
City of Shawnee
Shawnee, Oklahoma

B. PROJECT IDENTIFICATION:

HUB Project No. 20SHAWWHITST

C. OWNER:

City of Shawnee
16 West 9th
Shawnee, OK 74801

D. PROJECT ENGINEERS:

Dale Seaton, P.E.
Holloway, Updike and Bellen, Inc.
905-A South 9th Street
Broken Arrow, OK 74012
(918) 251-0717

E. TRADE NAMES AND MATERIALS:

Where materials or equipment are specified by a trade or brand name, it is not the intention of the Owner to discriminate against an equal product of another manufacturer, but rather to set a definite standard of quality of performance, and to establish equal basis for the evaluation of bids. Where the words "Equivalent", "proper", or "equal to" are used, they shall be understood to mean that the thing referred to shall be proper, the equivalent of, or equal to some other thing, in the opinion or judgment of the Engineer. Unless otherwise specified, all materials shall be the best of their respective kinds and shall be in all cases fully equal to approved samples. Notwithstanding that the words "or equal to" or other such expressions may be used in the Specification in connection with a material, manufactured article or process, the material, article or process, specifically designated shall be used, unless a substitute shall have been approved in writing by the Engineer and the Engineer shall have the right to require the use of such specifically designed material, article or process.

No material which has been used by the Contractor for any temporary purpose whatsoever is to be incorporated in the permanent structure without written consent of the Engineer.

F. GENERAL:

The Contractor shall give the Engineer seven calendar days notice prior to starting any work so that a Pre-construction conference can be held with the Owner's representative, the Contractor, and the Engineer. The pre-construction conference will be held at the job site at a time mutually agreed upon, but prior to starting any work.

G. STANDARD SPECIFICATIONS:

The Oklahoma State Highway Commission "Standard Specifications for Highway Construction" latest edition is hereby adopted as part of these specifications where reference is made. Said specifications will be hereinafter referred to as the "Standard Specifications". However, no portion of the Standard Specifications referring to Basis of Payment will be adopted as part of these specifications.

H. MAINTENANCE OF EXISTING FACILITIES DURING CONSTRUCTION:

The intent of these plans and specifications is to perform the work without the bypass of raw sewage. The Contractor shall coordinate all work involving temporary stoppage of flow to any connection or plant facility with Owner personnel and/or the Engineer. In no case, will raw sewage or sludge be allowed to be dumped directly or indirectly into ditches, creeks or other drainage ways during construction.

I. OPERATIONS AND MAINTENANCE MANUALS:

Eight hard bound copies and two searchable PDF copies on jump drives, unless otherwise stated, of a manual containing specifications, drawings and descriptions of each individual item of equipment; installation instructions; operating and maintenance instructions; and parts lists shall be provided. The manual shall be a single manual covering complete operating installation; separate sheets or brochures for equipment not manufactured by the major supplier shall all be included. These manuals shall be in addition to any instructions packed with the equipment and shall be submitted not later than the date of shipment of the equipment. Each manual shall be bound in a "notebook style" cover having indicated thereon the manufacturer's name and date of purchase. Each equipment which the Manufacture provides start up services for, the Contactor shall include a finalized start up report in the manual delivered to the City.

J. OWNER FACILITIES: Continuous operation of OWNER's facilities is of critical importance. Schedule and conduct activities to enable existing facilities to operate continuously, unless otherwise specified.K. CONTRACTOR'S USE OF PREMISES: Where portions of work will be located on public or private property, easements or permits have been obtained by the OWNER. Easements will provide for use of property for construction purposes only to the extent indicated on the easements. Copies of these easements or permits can be obtained from the OWNER. CONTRACTOR shall determine the adequacy of easements obtained and

abide by easement provisions. Confine construction operations to within easement limits or make special arrangement with property owners or appropriate public agency for additional area. Before final payment will be authorized, CONTRACTOR shall furnish the OWNER written releases from property owners or public agencies where side agreements or special easements have been made.

In the event CONTRACTOR is unable to secure written releases, inform the OWNER of the reasons.

OWNER or its representatives will examine the site, and OWNER will direct CONTRACTOR to complete work that may be necessary to satisfy terms of the easement.

L. CONSTRUCTION STAKING: All staking shall be provided by the Contractor.

M. PROTECTION OF WORK, PROPERTY AND PERSONS:

The Contractor shall protect, shore, brace, support and maintain all underground construction uncovered or otherwise affected by the construction work performed by him. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, and other surface structures affected by construction operations in connection with the performance of the contract, together with all sod and shrubs in yards and parking removed or otherwise damaged, shall be restored to their original condition as determined and approved by the Engineer.

The Contractor shall be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges, or other public or private property, regardless of location of character, which may be caused by moving, hauling, or otherwise transporting equipment, materials, or men to or from the work or any part or site thereof whether by him or his subcontractor. The Contractor shall make satisfactory and acceptable arrangements with the Owner of, or the agency or authority having jurisdiction over, the damaged property or facility concerning its repair or replacement or payment of costs incurred in connection with said damage.

All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.

All streets, roads, highways, and other public thoroughfares which are closed to traffic shall be protected by means of effective barricades on which shall be placed suitable warning signs. Barricades shall be located on the nearest intersecting public highway or street on each side of the blocked section.

All open trenches and other excavations shall be provided with suitable barriers, signs, and lights to the extent that protection is provided to the public. Obstructions, such as materials, piles and equipment, shall be provided with similar warning signs and lights.

All barricades and obstructions shall be illuminated by means of warning lights at night. All lights used for this purpose shall be kept burning from sunset to sunrise. Materials stored upon or alongside public streets and highways shall be so placed, and the work at all times shall be so conducted, as to cause the minimum obstruction and inconvenience to the public.

All barricades, signs, lights, and other protective devices shall be installed and maintained in conformity with applicable statutory requirements and, where within railroad and highway rights-of-way, as required by the authority having jurisdiction thereof.

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 close roads, driveways, and walks, whether public or private, the Contractor shall at his own expense provide and maintain suitable and safe bridges, detours, or other temporary expedients for the accommodations 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 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.

It shall be the responsibility of the Contractor to notify the Police and Fire Department prior to cutting or blocking any public street or roadway.

Work to be performed may require draining, pumping and dewatering necessary to complete the work as specified and as indicated on the Plans. It is the intent of these Specifications that such draining, pumping and dewatering shall be the obligation of the Contractor, and he shall provide ditches, levees and dikes to prevent water, mud or liquid from damaging the Owner or private property or interfering with the continuous operation of construction.

SECTION 02220
UTILITY TRENCHING AND BACKFILLING

PART 1 - GENERAL

1.1 WORK INCLUDED: Work under this section includes site preparation, earthwork and surface restoration for underground pipelines, conduits, cables and appurtenances as shown on the drawings and specified herein.

1.2 REFERENCE STANDARDS: - Standards listed hereunder and referenced elsewhere in these specifications shall become a part of this specification and are incorporated herein. The latest edition, amendment or supplement thereto in effect 30 days before date of invitation shall apply.

American Society for Testing and Materials (ASTM)

C33	Concrete Aggregates
D698	Moisture-Unit Weight Relations of Soils and Soil-Aggregate Mixtures, Using 5.5 lb. Rammer and 12 inch Drop
D1556	Density of Soil-In-Place by the Sand Cone Method
D2922	Density of Soil and Soil-Aggregate In-Place by Nuclear Methods (Shallow Depth)

American Association of State Highway and Transportation Officials (AASHTO)

T99	Moisture Density Relations of Soils Using a 5.5 lb. Rammer and a 12 inch drop
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1.3 SUBMITTALS: Refer to Section 01300 - Submittals. Include the following:

- A. Methods - Submit the proposed sheeting and shoring methods to be employed by the Contractor.
- B. Samples - Test sample of granular bedding material.

1.4 SURFACE IMPROVEMENTS: Protect from damage or restore to their original condition all surface improvements encountered during trenching or construction. Improvements shall include but not be limited to surfacing, sidewalks, curbs, valley gutters, trees and shrubs, other surface vegetation, driveways, mailboxes, utilities, signs and fencing.

1.5 UNDERGROUND OBSTRUCTIONS: Protect from damage any underground pipes, utilities or structures encountered during construction. Restore any damaged underground utilities to their original condition at no additional expense to the Owner unless evidence of other arrangements satisfactory to all parties is presented to the Owner.

- A. Before commencing work, obtain information concerning location, type, and extent of concealed existing utilities on the site and adjacent properties. Consult records and personnel of local utility companies, municipal utility departments, and Telephone Company. File Notice of Excavation with these agencies at least 48 hours prior to commencing work.
- B. Underground obstructions known to the Engineer, except service lines are shown on the drawings or otherwise referred to in the specifications. The locations shown may prove to be inaccurate and other obstructions not shown may be encountered. In any case, it shall be the responsibility of the Contractor to protect or restore all underground obstructions encountered.

1.6 SHEETING, SHORING AND BRACING: Except where trench banks are cut back on a stable slope, provide and maintain all sheeting and shoring necessary to protect adjoining grades and structures from caving, sliding, erosion or other damage. Protect against bodily injury in accordance with applicable codes and governing authorities.

- A. Do not remove any sheeting unless the pipe strength is sufficient to support the trench loads based on trench width measured to the back of sheeting. Remove sheeting and shoring gradually as excavations are backfilled to protect the construction and other structures, utilities or property. Do not attempt removal of sheeting in one operation after backfilling is complete.

1.7 BLASTING: No blasting will be permitted without written consent by the Owner.

1.8 DRAINAGE: Maintain the excavations and site free from water throughout the work. Remove any water encountered in the trench to provide firm sub-grade, to permit joints to be made dry at the final grade and to prevent entrance of water into the pipeline. Excavation shall be kept dry during subgrade preparation and continually until thereafter until the structure or pipe line is installed and backfilled so that no damage from hydrostatic pressure or flotation will result. Backfill shall be placed to a height above the pipe or around a structure to ensure a safety factor of 2.5 against flotation before dewatering activities are terminated.

All excavations for structures or trenches, which extend to or below groundwater shall be dewatered by lowering and keeping the groundwater level to a minimum of 12" below the low point of the excavation.

The contractor shall divert surface water from entering the excavations or trenches, without causing damage to adjacent property.

Contractor shall be responsible for obtaining the approval of agencies and authorities by acquiring the necessary discharge permits to remove and dispose of groundwater or surface water.

Accomplish dewatering by the use of sumps and gravel blankets, well points, or drain lines.

1.9 INTERRUPTION OF SERVICE: Coordinate interruptions of utility services with the Owner through the Engineer. Make connections to the existing system requiring the interruption of service during the time (weekends, nights or holidays) designated by the Owner.

- A. Obtain permission to cut and replace existing service lines to facilitate trenching. Notify affected users two hours in advance of, and restore service within four hours after any interruption. Repair all lines at no additional expense to the Owner.
- B. No valve or other control on the existing system shall be operated for any purpose by the Contractor. The Owner will operate all valves, hydrants, blow-offs and curb stops.

1.10 SEQUENCING: Pipeline installation shall follow trench excavation within one city block. Trench backfill shall follow pipe installation within one city block. Cleanup shall follow trench excavation within 500 lineal feet.

1.11 CONSTRUCTION IN STREETS: When construction operations are located within streets, make provisions at cross streets and walks for free passage of vehicles and pedestrians by bridging or other approved methods. Do not block streets, walks or driveway without prior approval by the Owner.

1.12 CLASSIFICATION OF EXCAVATED MATERIALS: No classification of excavated materials will be made. Perform excavation of every description and of whatever substance encountered to the depths indicated or as otherwise specified. All excavated material, which is unsuitable or not needed for backfill, shall be wasted or disposed of. It shall be the Contractor's responsibility to provide areas to deposit waste material and rock. The cost of disposing of waste materials from Utility Trenching shall be included in the unit price for pipes.

1.13 TRENCH MAINTENANCE: Maintain all trench backfill and resurfacing thereon for a period of one year after final acceptance by the Owner.

1.14 STABILIZATION: Sub-grades for structures or trench bottoms shall be firm, dense and thoroughly compacted. The material shall be free of mud and muck. The workers shall be able to stand and walk without sinking into the subgrade.

Unstable sub-grade shall be reinforced by over-excavation and replacing the unstable material with crushed rock or gravel. The material shall be placed and compacted in lifts, with no voids. Backfill trench to proper grade with granular material and compact to 95% of maximum density.

PART 2 - PRODUCTS

2.1 BACKFILL MATERIALS:

- A. Concrete - 3,000 psi concrete as specified in Section 03300 -Cast-In-Place Concrete.
- B. Granular Material - 1½" Crusher Run
- C. Fine Granular Material - Natural or manufactured sand meeting the requirements of ODOT Section 701.05, gradation for fine aggregate (3/8" to No. 200).
- D. On Site Material – Excavated material may be used for compacted backfill when the material is finely graded, free from debris, organic material, cinders, corrosive material and stoned larger than 3" in any dimension. Each layer of material shall have the best moisture content for satisfactory compaction. Material that is wet or saturated shall be dried and thoroughly mixed to ensure uniform moisture content and adequate compaction before it is placed. Material that is unsuitable shall be disposed of by the contractor at no additional expense.
- E. Select Backfill - Selected soil free from rocks, clods and stones greater than 1-1/2" in any dimension.
 - 1. Upper Portion of Trench - Material placed within one foot of pavement sub-grade or the finished surface in unpaved areas shall be free from rocks and stones larger than 2-1/2" in any dimension.
 - 2. Remainder of Trench - Soil may contain a limited number of stones smaller than 3" in any dimension, provided they are dispersed in the surrounding material in a manner to allow specified compaction.
- F. Class 'A' bedding for pipe – Granular Material meeting the requirements of ODOT Section 701.06, Coarse Aggregate No. 57.

PART 3 - EXECUTION

3.1 PREPARATION:

- A. Field Measurements - before commencing work, locate all initial base lines as required by the Contract Documents.
- B. Pavement and Curb and Gutter Removal - before trenching begins remove any pavement, curbs, gutters, sidewalks, and driveways necessary to install the utility. All pavement, curbs, gutters, sidewalks and driveways shall be removed to the nearest construction joint using saw cutting methods with neat straight lines and edges.
- C. Clearing - Remove all stumps, roots, brush, other vegetation and debris from areas that will be disturbed by the construction operations. Legally dispose of all cleared materials at public or private dumping areas, off the owner's property.

- D. Top soiling - Strip existing topsoil from areas to be disturbed by construction operations. Stockpile in areas designated by the Engineer. Keep topsoil segregated from non-organic trench excavation materials and debris.

3.2 EXCAVATING:

- A. Trenching - Excavate trenches by open cut except where boring and jacking is indicated on the drawings. Conform to sheeting, shoring and bracing requirements of regulating agency or ruling authority.
- B. Stockpiling Excavated Material - Stockpile suitable material for backfilling a minimum of four feet from banks of the trench to avoid overloading and to prevent slides or cave-ins. Remove waste off the site. Excavated materials not suitable or not required for backfilling shall be removed and disposed of by the Contractor. The Contractor shall not place any waste material in a designated floodplain unless they receive a permit from the proper authority.
- C. Excavation to Grade - Accurately grade trench bottoms to provide uniform bearing and support for each section of pipe on undisturbed soil at every point along its entire length, except portions of pipe sections where it is necessary to excavate for bell holes and for proper sealing of pipe joints.
- D. Bell Holes - Dig bell holes and depressions for joints after trench bottom has been graded. Bell holes and depressions shall be only of such length, depth, and width as required for properly making the particular type of joint. No part of the bell or coupling shall come in contact with the trench wall or bottom.
- E. Pipe Clearance in Rocks - Where rock excavation is necessary, over excavate the trench bottom a minimum of 6" below the bottom of the pipe for pipe 24" in diameter or less and 12" for pipe larger than 24". Backfill the over excavated area with concrete or granular material. Compact granular material to 98% of standard density under paving.
- F. Limiting Trench Widths - Excavate trenches to provide adequate working space and pipe clearances for proper pipe installation, jointing and embedment. The maximum allowable trench width used in computing pipe-bedding quantities shall be as shown in Table 1 in the plans. Trench widths in excess of these widths shall be backfilled per the typical trench detail shown in the plans.
- H. Excavation for Appurtenances - Make excavations for manholes, vaults and similar structures sufficient to leave at least 12" clear space between outer surface of structure and the bank shoring material that may be used to hold and protect the banks.
- I. Unauthorized Excavation - If any areas are inadvertently over excavated, backfill such over excavation with concrete or granular material. Compact granular material to 95% of maximum density. If the maximum trench width is exceeded, provide concrete encasement or a higher strength of pipe at no additional expense to the Owner.

3.3 PLACING EMBEDMENT MATERIAL: Place granular pipe bedding and select material to a cover depth of one foot by hand to prevent damage or displacement of the pipe.

3.4 TRENCH BACKFILLING AND COMPACTION: Refer to the Standard Detail Sheet for pipe bedding requirements. Deposit material in layers of a thickness required to achieve the compaction specified below. Maintain moisture content of moisture content of material within $\pm 1\text{-}1/2\%$ of optimum condition.

- A. State Highways - 100% of maximum density for paved areas and shoulder slopes, 95% of maximum density for all other areas.
- B. Paved Roadways and Paved Driveways – Class ‘A’ backfill around pipe and 1 ½” crushed run from 4” above pipe to base of paving, compacted to 98% of modified proctor density.
- C. Shoulders and Sidewalks : -Top foot: 98% of modified proctor density, remainder of trench: 95% of modified proctor density.
- C. Unpaved Areas - Top Foot: 90% of maximum density; remainder of trench: 85% of modified proctor density.

3.5 METHOD OF COMPACTION:

- A. Mechanically compact trench backfill by means of tamping rollers, sheep foot rollers, pneumatic tire rollers, vibrating rollers or other mechanical tampers.
- B. Compaction by jetting will not be permitted for state highways, paved roadways, gravel roadways, structural foundations, or any other structures and improvements which sustain design loading relative to public health and safety.

3.6 FIELD QUALITY CONTROL:

- A. Density Testing and Control - Refer to Division 1 - Quality Control, for responsibilities.

3.7 SURFACE RESTORATION:

- A. Final Grading - Grade all areas disturbed by the construction operations after completion of backfilling and compacting. Areas that are to receive pavements, surfacing, topsoil, seeding or landscaping shall be graded as specified or shown on the drawings. Grade all other areas to match the existing ground line.
- B. Top Soil - Replace suitable topsoil to depth of stripping over all areas disturbed by construction that do not receive other surface treatment. Do not compact topsoil during stripping, stockpiling or placing.

END OF SECTION

SECTION 02660
WATER TRANSMISSION AND DISTRIBUTION LINES

PART I - GENERAL

1.1 WORK INCLUDED - Work under this section includes furnishing, installing, disinfecting, and testing water transmission and distribution pipeline systems as shown on Exhibits #1 through #3 and as specified herein.

1.2 QUALITY ASSURANCE

- A. Allowable Tolerances - Maximum deviation shall not exceed plus or minus five-tenths (0.5) of a foot from alignment shown on the drawings. Where the pipeline is to be laid to a specific grade shown on the drawings, vertical deviation shall not exceed three-tenths ($\pm$.3) of a foot.
- B. Pipe and Fittings Marking - Mark pipe with the following information applied at intervals of not more than 5 feet:
- Nominal size and O.D. base.
 - Material code designation.
 - Applicable dimension ratio, pressure class or schedule number.
 - Applicable standard designation number.
 - Manufacturer's name or trade mark.
 - Seal of the testing agency that verified the suitability of the pipe material for potable water service.
- C. Reference Standards - Standards listed hereunder and referenced elsewhere in these specifications shall become a part of this specification and are incorporated herein by reference. The latest edition, amendment or supplement thereto in effect 30 days before date of invitation shall apply.

American Water Works Association (AWWA)

AWWA C104	ANS for Cement-Mortar Lining for Ductile-Iron Pipe and Fittings
AWWA C105	Polyethylene Encasement for Ductile Iron Piping
AWWA C110	Gray Iron and Ductile Iron Fittings, 3 in. thru 48 in., for water and other liquids
AWWA C111	Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings
AWWA C151	Ductile-Iron Pipe, Centrifugally Cast
AWWA C502	Dry Barrel Fire Hydrants
AWWA C509	Resilient-Seated Gate Valves

AWWA C512	Air Release, Air/Vacuum and Combination Air Valves
AWWA C600	Installation of Ductile-Iron Pipe and their Appurtenances
AWWA C601	Pressure and Leakage Testing
AWWA C603	Standard for the Installation of Asbestos –Cement Pressure Pipe
AWWA C605	Underground installation of Polyvinyl Chloride (PVC) Pressure Pipe & Fittings for Water
AWWA C651	Disinfecting Water Mains
AWWA C800	Underground Service Line Valves and Fittings
AWWA C900	Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. thru 12 in., for Water
AWWA C906	Polyethylene Pressure Pipe and fittings, 4” thru 65”

1.3 SUBMITTALS - Refer to Section 01300 - Submittals. Include the following:

- A. Product Data - Catalog sheets and descriptive literature on all materials and equipment specified herein.
- B. Certificates of Compliance - Manufacturer's affidavit stating compliance with referenced published standards specified herein.

1.4 JOB CONDITIONS

- A. Protection - Take every precaution to prevent foreign material from entering the pipe, fittings, and valves during installation. Apply a protective cover over each end of the pipe until the connection is made to the adjacent pipe.
- B. Coordinate pipe delivery closely with installation to minimize the possibility of contamination. Place no debris, tools, clothing or other materials in the pipe.
- C. Whenever pipe installation is interrupted, seal the open end of the pipe with a watertight plug to prevent trench water, debris or other material from entering the pipe. Follow procedures or techniques which will prevent pipe flotation.
- D. Under no circumstances shall trench water be allowed to enter the pipeline. If water is present in the trench, the seal shall remain in place until the trench is pumped dry.
- E. Unsuitable conditions - No pipe shall be installed when trench or weather conditions prevent installation in accordance with standards specified herein.
- F. Product Delivery, Storage and Handling - All pipe, fittings, valves and specials shall be handled, stored and protected to prevent damage to materials and protective coatings and linings. Under no circumstances shall such materials be dropped or dumped into the trench. Remove any broken or damaged materials from the construction site and do not use in any

portion of the construction. Any broken, damaged, or otherwise defective materials, which are included in the construction, shall be removed and replaced at no additional expense to the Owner.

PART 2 - PRODUCTS

2.1 PIPE AND PIPE FITTINGS (4" to 12")

Service	Buried
Conformance	PVC Conforming to AWWA C900, Ductile Iron Pipe (Class 50 or 52), AWWA C104 & C105 with Cement-Mortar Lining with Polyethylene Encasement, HDPE AWWA C906
O.D. Base	Cast Iron
Wall Thickness	DR Series 18 (Class 150), DR Series 14 (Class 200) DR Series 11
Joints	Push-on Conforming to ASTM D3139

2.2 PIPE AND PIPE FITTINGS (Greater Than 12")

Service	Buried
Conformance	PVC Conforming to AWWA C905 (14" to 36") or Ductile Iron Pipe (Class 50 or 52), AWWA C104 & C105, Cement-Mortar Lining with Polyethylene Encasement.
O.D. Base	Cast Iron
Wall Thickness	DR Series 18 (235 PSI) DR Series 21 (200 PSI) DR Series 25 (165 PSI)
Joints	Push-on Conforming to ASTM D3139

2.3 FITTINGS (3" TO 48")

Use ductile iron mechanical joint fittings conforming to AWWA C110 or ductile iron compact fittings conforming to AWWA C153. On all fire hydrant leads use ductile iron mechanical joint fittings with a swivel tee.

2.4 PIPE AND PIPE FITTINGS (2")

Service	Buried
Conformance	PVC Conforming to AWWA C900
O.D. Base	Sch. 40
Fittings	Cast Iron Conforming to AWWA C110
Wall Thickness	SDR-21 (Class 200)

Joints Push-on Conforming to ASTM D3139

2.5 FIRE HYDRANTS

Type	Dry Barrel
Conformance	AWWA C502
Outlet Size	One 4-1/2", Two 2-1/2" nozzles
Outlet Threads	National Standard
Main Valve Size	5-1/4"
Inlet Size	6", M.J.
Operation	Open counterclockwise, with 1- 1/2" pentagon nut
Color	Bright Aluminum
Special Features	Provide traffic model hydrants with break away bolts and coupling
Specified Product	Mueller Centurion, Model A- 423, American Darling Model B-84-B, M & H Style 929 Reliant, Clow Medallion No. 2546.5B, or AVK Series 27/80

2.6 VALVES (6" & 12")

Type	Gate, Non-rising Stem, Dry Head, Left Hand Opening
Conformance	AWWA C509
Size	See Drawings
Wedge	Resilient Seat
Ends	Mechanical Joint conforming to AWWA C111
Stem Seal	O-ring
Operator	Buried Service - 2" Operating Nut
Tapping Sleeves	Stainless Steel Flange
Specified Product	Mueller H-2380-20 or A2370-20, M & H Fig. 67M or 3067, American Darling No.55 or CRS-80, Clow F-6100, or AVK 25/30 or 18/07

2.7 VALVES (18" AND Larger)

Type	Butterfly
Conformance	AWWA C504
Size	See Drawings
Valve Seat	Molded-in rubber seat bonded to the valve body, patented by Pratt
Ends	Mechanical Joint conforming to AWWA C111
Shaft	Stainless Steel
Operator	Buried Service - 2" Operating Nut
Specified Product	Pratt or approved equal

2.8 VALVES (2")

Type	Gate, Non-rising Stem
Conformance	AWWA C509
Size	2"
Ends	Screwed
Specified Product	American Model No. 502, Clow F6103, M&H 4067-07 or Mueller Equal
Accessories	2"x 12" Long Threaded Brass Nipples and 2" Smith-Blair Style 411 (6" long) Bolted Coupling, or an Approved Equal

2.9 VALVE BOXES

Location	Buried Gate Valves
Material	Cast Iron
Size	5-1/4" Shaft, 2 pieces
Type	Adjustable of the slip type
Cover	Deep socket type with the work "WATER" cast in the top Acceptable Product Tyler Series 6855 or equal

2.10 SERVICE LINE MATERIALS

A. Copper Water Tube – Conformance; ASTM B88, Type K, soft copper, domestic

B. Corporation stops

Inlet	AWWA thread
Outlet	Coupling for copper pipe, flared couplings
Acceptable Product	Mueller H-15000, Ford F 600, or McDonald 4701B

C. Service Clamps

Type	Bronze, Double Strap
Outlet	CC Thread (AWWA)
Service	For iron pipe size plastic pipe
Acceptable Product	Mueller H-16000 Series or Rockwell 323 Series

2.11 WATER SERVICE METERS

A. Meter	Furnished by Owner
B. Meter Yoke Type	Flexible copper, horizontal inlet and outlet, with Wing Stops and combination coupling nuts with FIP or copper flare connections and

with angle dual check on inlet side.

Acceptable Product

McDonald Meter Setter No. 20- 209QFDD33,
Ford VBHC72-9WR-11- 33, or equal by
Mueller.

C. Meter Box

20-gauge, galv., corrugated steel, complete
with cast-iron locking lid. Lid to be marked
WATER in raised letters. 5/8 x 3/4 Boxes to
be 18" Diameter x 18" high, & 1" boxes to be
24" Diameter x 24" high. As manufactured by
Western Foundry, Bass & Hayes, or Tyler
Pipe & Foundry.

2.12 CONCRETE

Refer to Section 03300 - Cast-in-place Concrete

2.13 POLYETHYLENE ENCASUREMENT – Polyethylene encasement shall be furnished and installed for all ductile iron pipe. Encasement material shall be 8 mil polyethylene film tubes conforming to AWWA C105. Installation shall conform to method A or B.

2.14 RESTRAINED JOINTS – All cost for components necessary to restrained joints for pipe and fittings designated Restrained Joint (RJ) shall be included in the unit price bid for pipe or fittings. U.S. Pipe TRFLEX, Griffin SNAPLOCK, McWane THRUSTLOCK, American FLEXRING or EBAA MEGALUG, Smith-Blair CAMLOCK, Clow TUFGRIP or equal shall be used on this project. Locking gaskets are not allowed. Should RJ pipe be specified thru uncased bores, only US Pipe TRFLEX, Griffin SNAPLOCK, McWane THRUSTLOCK or American FLEXRING is to be used.

PART 3 - EXECUTION

3.1 PREPARATION

A. Excavation - Perform excavation in accordance with the requirements of:

Section 02220 - Utility Trenching, Backfilling and Compacting
Section 02667 – Pipeline Bore and Casing

B. Verification - Verify dimensions and class of all existing and proposed pipe, valves, fittings and equipment prior to installation to insure a sound and continuous piping system.

- C. Cleaning and Inspection - Clean all pipe, fittings, valves and related materials thoroughly of all foreign material and inspect for cracks, flaws or other defects prior to installation. Mark all defective, damaged or unsound materials with bright marking crayon or paint and remove from job site.

3.2 INSTALLATION

- A. Connections to Existing Pipelines - Make connections between new work and existing piping using suitable fittings for the conditions encountered. Make each connection at a time authorized by the Owner that will least interfere with service to customers. Provide facilities for proper de-watering and disposal of all water from de-watered lines and excavations without damage to adjacent property.
- B. The Owner will operate all valves, hydrants, blow-offs, and curb stops and no valve or other control unit shall be operated for any purpose by the Contractor.
- C. Take all precautions to prevent contamination when making connections to existing potable water lines. No trench water, mud or other contaminating substances shall be permitted to enter the pipeline.
- D. Swab the interior all new pipe, fittings and valves installed in the existing pipeline with a 5 percent (50,000 ppm) chlorine solution prior to installation. After the connection is completed flush the main to reduce chlorine to a concentration of 1 mg/l or less.
- E. Pipe Installation - Cut pipe and tubing square with saws or pipe cutters designed specifically for the material. Protect the pipe and fittings from serrated holding devices and abrasions.
- F. Bevel or flare the ends in accordance with the manufacturer's recommendations. Locate a depth mark with a pencil or crayon to assure the spigot end is inserted to the recommended depth.
- G. Remove burrs and wipe off all dust and dirt from the jointing surfaces and remove cuttings from interior of pipe or tubing. Perform all jointing operations in accordance with manufacturer's printed instruction.
- H. Remove all dirt and foreign material from the spigot and bell end gasket and gasket groove. Apply lubricant furnished by the pipe manufacturer to the spigot end of the pipe. Insert the spigot to the reference mark. Take care during jointing to avoid disturbing previously installed joints.
- I. Pipe Laying - Install pipe with bell ends facing the direction of laying. Where pipe is laid on a grade of 10 percent or greater, proceed uphill with the installation with the bell ends facing

upgrade.

- J. The pipe line shall be installed so that a positive or negative grade is maintained between high and low points to avoid air pockets. If a permanent air vents are not provided, record location of all high points so they may be readily located.
- K. As each length of pipe is placed in the trench, the joint shall be completed in accordance with the applicable portions of the specifications and the pipe shall be brought to the correct line and grade. Secure the pipe in place with the specified bedding material tamped under and around the pipe except at the joints.
- L. Depth of Pipeline - Unless otherwise shown on the drawings, minimum depth of cover from the finished grade to the top of the pipe shall be 3 feet.
- M. Thrust Blocks - Construct thrust block in accordance with Engineer's Construction Standard, sized to accommodate the specified test pressure of the pipeline. Thrust blocks shall extend from the fitting to solid undisturbed earth and shall be constructed so the joints are accessible for repair. If adequate support against undisturbed earth cannot be obtained, provide joint harnesses.
- N. A joint harness will be required in lieu of thrust blocks at all bends on all pipe 24" and larger in diameter.
- O. Protection of Metal Surfaces - Protect all ferrous metal rods, clamps, bolts, and other accessories in contact with earth or fill material and not encased in concrete with two coats of coal tar paint. Apply the first coat to clean, dry metal surfaces and allow drying before applying the second coat.
- P. Sewer Crossings - Where water lines cross sewer mains, and the sewer pipe is above the water main or less than 24 inches clear distance vertically below the water main, construct the crossing by one of the following methods:
- Q. Install ductile iron pipe centered on the intersection with the sewer main of sufficient length to maintain 10-foot clear distance between any joint and the sewer line. Use approved transition couplings for joints between the water pipe and the sewer pipe or encase the joints in a concrete collar at least six inches thick extending a minimum of six inches either side of the joints.
- R. Encase sewer pipe with concrete at least 6 inches thick at all locations with 10 feet either side of the water line. Minimum reinforcement shall consist of four NO. 5 bars, one placed at each corner of the section and tied by No. 3 bare at 3-foot centers.

3.3 INSTALLATION OF PIPELINE APPURTENANCES - Install all valves, manholes and other

equipment appurtenant to the pipeline at the locations indicated on the drawings. Record "as-built" measurements prior to backfill referencing all newly installed material and equipment to the nearest permanent surface improvement.

- A. Service Connection Piping - Follow generally the arrangement shown on drawings and Construction Standard, but with necessary modifications to make a neat appearance and to coordinate with other work.
- B. Verify dimensions of all valves, fittings, and equipment, and coordinate with measurements made at the site so that the piping system will fit together properly.
- C. Clean all pieces carefully before installation. Cap, plug, or protect systems with covers to keep out dirt and moisture. Blow out, rod out, flush out all piping before final connections to equipment to remove all foreign materials. Furnish temporary connections, valves and fittings for this purpose.
- D. Cut tubing square with adjustable tube cutter. Carefully ream and file to remove all burrs. Prior to making up joints, clean tubing and fittings with wire brush or sand cloth and finish with steel wool to remove all traces of oxidation, regardless of how clean the surface may appear. Use solder specified for piping system and non-corrosive paste flux. Do not use acid core solder or lead base solder. Do not apply excessive heat that may soften or burn the tubing or fitting.
- E. Connect piping equipment without strain. Demonstrate absence of strain where requested by the Engineer. Make all branches and changes in size or direction with factory-fabricated fittings. Perform soldering operation in accordance with procedures outlined in AWS Publication, "Soldering Manual."
- F. Install threaded or compression fittings in strict accordance with manufacturer's recommendations.
- G. Installation of Valves - Install valves in the pipeline in the same manner specified for laying and jointing the pipe and in accordance with Engineer's Construction Standard.
- H. Valve Boxes - Except where specified otherwise, install valve boxes on all buried valves. Install boxes so that no stress is transmitted to the valve. Set boxes plumb and directly over the valve with the top of the box placed flush with the finished grade. Backfill and thoroughly compact around each box. Provide extended stems on valves where required so that the operating nut is not lower than 4 feet below finished grade.
- I. Water Meter Assemblies - Construct water meter assemblies in accordance with details shown on the drawings.

- J. Fire Hydrant Installation - Construct fire hydrants in accordance with Engineer's Construction Standard.

3.4 FIELD QUALITY CONTROL

- A. Allowable Leakage - No pipe installation will be accepted if the leakage is greater than that determined by AWWA Standard C600.

$$L = (ND\sqrt{P})/7,400$$

L = Allowable Leakage, in gallons per hour

N = Number of joints in the length of pipeline tested

D = nominal diameter of the pipe, in inches

P = average test pressure during the leakage test, in psi

Leakage should not exceed ten gallons per inch diameter per mile of pipe per 24 hours at 150 psi testing pressure.

- B. Repair of Leaks - If the test discloses leakage greater than the allowable leakage, the Contractor shall locate and repair the defective joints until leakage is within the specified limit. The Contractor shall repair all visible leaks regardless of the test results.

3.5 DISINFECTION OF POTABLE WATERLINES

- A. General - Flush and disinfect potable waterlines in accordance with the procedure set forth in AWWA C651 Disinfecting Water Mains. Provide all temporary blow-offs, pumps, chlorination equipment, chlorine and all other necessary apparatus required.
- B. Pipe Cleaning - If the pipe contains dirt or heavy encrusted matter that cannot be removed by flushing, clean and swab the interior of the pipe with a 5 percent (50,00 ppm) chlorine solution.
- C. Preliminary Flushing - Flush pipeline prior to disinfection, except when the tablet method is used, to remove all remaining foreign material. The flushing operation shall develop a minimum velocity of 2.5 ft./sec.
- D. Chlorine Application - In general, chlorine shall be applied using the continuous feed method. However, on large diameter lines where this method is not practical, the slug method may be substituted.
- E. Continuous Feed Method - Introduce water into the line at a constant rate while adding chlorine at a minimum concentration of 50 mg/l. Maintain the chlorinated water in the pipeline for a minimum of 24 hours after which period the treated water shall contain no less

than 25 mg. /1 or chlorine throughout the entire length. Repeat the above procedure if the residual at the end of the 24 hours fails to meet the minimum concentration.

- F. Slug Method - Introduce water with a minimum chlorine concentration of 300 mg/1 at a constant measured rate into the pipeline. Apply the chlorine for a sufficient length of time to develop a solid column or slug of chlorinated water that will, as it passes along the line, expose all interior surfaces for a period of 3 hours. Check the application at the upstream end of the line.
- G. Final Flushing - After the required retention period, flush all heavily chlorinated water from the main until the chlorine concentration is no higher than that prevailing in the system, or less than 1 mg/1.
- H. Bacteriologic Tests - After completion of the final flushing and prior to placing the pipeline in service, collect samples from the end of the line and test for bacteriologic quality to show the absence of Coliform organisms. The number and frequency of samples shall conform to the requirements of the public health authority having jurisdiction but in no case shall the number be less than one for chlorinated supplies. Collect samples in sterile bottles from a standard corporation stop furnished and installed by the Contractor in the main. Do not collect samples using a hose or fire hydrant.
- I. Repetition of Procedure - If the original disinfection fails to produce satisfactory samples, repeat the disinfection procedure at no additional expense to the Owner until specified results are obtained.

3.6 BEDDING - All pipe shall be installed using Bedding as described in the Plan Detail Sheets.

3.7 TRACER WIRE & MARKING TAPE

- A. All non-metallic water lines shall have a tracer line attached to and buried with the pipe. The tracer line shall be a No. 12 solid, copper, insulated wire.
- B. The tracer line shall be attached to the pipe at intervals not to exceed 10 feet with nylon self locking ties or 1 1/2" wide duct tape.
- C. All splicing shall be made with copper compression tap connectors, as manufactured by Burndy, "Crimpfit", Cat. No. YC10C10, or equal.
- D. The tracer wire shall be connected to all service saddles. Such connection shall be made from a splice extension from the main tracer wire to the bolt on the saddle. A loop of wire shall fully in circle the bolt in a clockwise direction.
- E. When water line extensions do not end or begin with a connection to an existing water line

with a tracer wire, and where an extension dead-ends, a standard cast-iron valve box shall be placed over the water line and an extension of the tracer wire coiled to near the top of the valve box. Uncoiled the wire shall extend at least 18" out of the box.

- F. The tracer wire shall be terminated inside an electrical box attached to the base of all new fire hydrants. See standard detail sheet for specific features.
- G. Line Marker Signs – All water transmission lines (lines greater than 18" in diameter) shall have marker signs placed along the centerline of the buried pipe. The signs shall be a minimum of 10" x 12" in size. The sign shall be fastened to a steel sign post 7 feet in length. The post shall have a galvanized coating. The post shall be set a minimum of 24" in the ground. The sign material shall be constructed using 0.040" aluminum with a baked enamel finish that is highly weather resistant and durable. A pure high density poly coating with a thickness of 0.110" with UV inhibitors shall be applied to the aluminum. The signs shall contain the following wording:

CAUTION
City of _____
Buried Water Line
Call 999-999-9999
Before Digging

The word "CAUTION" shall be masked with a blue border in reflective lettering.

- H. Sign Location – Marker signs shall be located on either side of a street, highway or railroad crossing. Marker signs shall be located every 500 feet and at every change of pipe direction. The marker signs shall be located on the centerline of the pipe line where possible.
- I. Marking Tape – The contractor shall install underground warning tape on all water lines. The tape shall be placed 12" to 18" above the top of the pipe. The tape shall be low density polyethylene (150 mm wide x 0.10 mm thick) with pre-printed wording identifying the product "WATER LINE".

3.8 BASIS OF PAYMENT - Where payment for piping is to be made at a unit price per lineal foot, measurement will be made along the centerline of the pipe through manholes, valves and fittings, to the centerline or ends of connecting lines and to limits of payment for other bid items.

END OF SECTION

SECTION 02665
HORIZONTAL DIRECTIONAL BORE

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK: This specification covers the requirements for furnishing all labor, equipment and materials associated with the installation of a high-density polyethylene (HDPE) waterline pipe by directional drilling method. This shall include, but not be limited to, steerable directional boring equipment, boring pits and equipment, sheeting maintenance of traffic and coordination with other Contractors, miscellaneous appurtenances to complete the work as shown on the contract drawings, cleanup and disposal of spoils, and restoration. Directional drilling operation shall be performed within the right of way and/or easements shown on the drawings.

The work specified herein shall include:

- A. Excavation of drilling and receiving pits.
- B. Potholing or other similar practices as required verifying underground utilities along the entry and exiting drill paths.
- C. Drilling of a pilot hole at prescribed line and grade.
- D. Reaming of the hole (as needed).
- E. Pullback of the HDPE pipe through the hole.
- F. Pressure testing of the HDPE pipe.
- G. All incidental work such as horizontal and vertical control points, survey, grids, permits, slurry treatment and disposal, shoring and casing of the pits if required, and all else necessary for the complete installation of the pipe in accordance with these specifications and contract documents.

1.2 QUALITY ASSURANCE: The requirements set forth in this document specify a wide range of procedural precautions necessary to insure 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 of their ultimate responsibility for the satisfactory completion of the work authorized under the Contract.

A. Referenced ASTM Specifications

Property	Test Procedures	Metric Units*	English Units*
Cell Classification	ASTM D3350-05	345464C	Grade PE34
Melt Index	ASTM D1238	<.15 gm/10 min.	----
Tensile Strength (Yield)	ASTM D638	21-24 MPa	3000 – 3500 psi
Flexural Modulus	ASTM D790	----	110,000-160,000 psi
Environmental Stress			
Crack Resistance (ESCR)	ASTM F1473(PENT)	>100 hrs	>100 hrs
Ultimate Elongation	ASTM D638	>800%	>800%
Material Density	ASTM D1505	0.940-0.947 gm/cc	----
Brittleness Temperature	ASTM D746	<-118°C	<-180°C
Izod Impact Strength	ASTM D256	.32 KJ/m	6 ft – lb/in
Volume Resistivity	ASTM D991	>10 ¹⁵ ohm – cm	----
Thermal Expansion	ASTM D696	2x10 ⁻⁴ cm/cm°C	1.1x10 ⁻⁴ (in/in/°F)
Hydrostatic Design Basis @23°C	ASTM D2837		1600 psi
*Consult ASTM Standards for acceptable tolerances			

B. Contractor's Qualifications

1. Directional drilling Contractor shall have actively engaged in the installation of pipe using on-grade boring for a minimum of three (3) years. Evidence of qualification shall be submitted with Bid.
2. Field supervisory personnel employed by the directional drilling contractor shall have at least (3) years experience in the performance of the work. Qualifications shall be submitted with Bid.
3. The Owner reserves the right to require an on-site representative of the directional drilling equipment manufacturer and/or a representative of the drilling fluids manufacturer, knowledgeable in the use of the product(s). The cost for the on-site representative(s) will be paid on an hourly basis plus expenses without any markup or profit by the contractor.

1.3 SUBMITTALS

- A. Work Plan: Prior to beginning work, the Contractor shall 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 drilling equipment to be used to ensure that the equipment will be adequate to complete the project.
- C. Materials: Specifications on material to be used shall be submitted to Engineer. Material shall include the pipe, fittings and any other item, which is to be an installed component of the project.

1.3 JOB CONDITIONS – Environmental Requirements

- A. Drilling operations must not interfere with or endanger surface and activity upon the surface. Areas outside designated work areas should not be disturbed. Examine work area and notify Engineer of conditions that may adversely affect work.
- B. Contractor shall conduct operations and schedule cleanup in a manner to cause the least possible obstruction and inconvenience to traffic, pedestrians and to adjacent property owners.
- C. Safety. The Contractor shall carry out the operations in strict accordance with all applicable OSHA regulations.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall take precautions to protect the pipe while being handled. Chain, end hooks, or cables slings shall not be used to handle pipe. Pipe shall be stored on clean, level ground to prevent undue scratching or gouging of the pipe.
- B. Care shall be taken to protect the pipe from scarring, gouging, or excessive abrasion. Pipe with gouges greater than 10% of the minimum wall thickness will be rejected.
 - 1. If pipe is stacked, stacking height shall not exceed the manufacturer's recommendations.
 - 2. The Contractor shall comply with the Manufacturer's storage and handling requirements.

1.5 MANUFACTURER: All HDPE pipe and fitting shall be from a single manufacturer, who is fully experienced, reputable and qualified in the manufacture of the HDPE pipe to be furnished. The pipe shall be designed, constructed and installed in accordance with the best practices and methods and shall comply with these Specifications. Qualified manufacturers shall be: PLEXCO Division of Chevron Chemical Company, DRISCOPIPE as manufactured by Phillips Products Co., Inc., SCLAIRPIPE as manufactured by Dupont of Canada or Engineer-approved equivalent.

PART 2 - MATERIALS

2.1 HIGH DENSITY POLYETHELENE (HDPE) PIPE, JOINTS AND FITTINGS

- A. The pipe supplied under this specification shall be high performance, high molecular weight, high density polyethylene (HDPE) pipe conforming to PE3408 Standards. Minimum cell classification values of the pipe material shall be (345464C) as referenced in ASTM D 3350. The pipe shall be minimum DR 11. The fittings supplied under this specification shall be molded from a polyethylene compound having a cell

classification equal to or exceeding the cell classification of the pipe supplied under this specification.

B. Physical Properties of Pipe and Pipe Compound

1. Density – The density shall be 0.940-0.947 gms/cm when, tested in accordance with ASTM D 1505.
2. Melt Flow – Melt Flow shall be no greater than 0.15 gms/10 min.
3. Flex Modulus – Flex Modulus shall be greater than 110,000 psi when tested in accordance with ASTM D 790.
4. Tensile Strength at Yield – Tensile strength at yield shall be greater 3,200 psi when tested in accordance with ASTM D 638.
5. ECSR Environmental Stress Crack Resistance shall be in excess of 100 hours with zero failures.
6. Hydrostatic Design Basic shall be 1,600 psi at 23°C when tested in accordance with ASTM D 2837.

C. Pipe shall be made of virgin materials. The pipe shall contain no recycled compound except that generated in the manufacturer's own plant for resin of the same specification from the same raw material pipe.

D. Fittings

1. All molded fittings and fabricated fittings shall be fully pressure rated to match the pipe SDR pressure rating to which they are made. All fittings shall be molded or fabricated by the manufacturer. No Contractor fabricated fittings shall be used unless approved by the Engineer.
2. The manufacturer of the HDPE pipe shall supply all HDPE fittings and accessories as well as any adapters and/or specials required to perform the work as shown on the Drawings and specified herein.
3. All fittings shall be installed using butt-fused fittings, thermo fused fittings/couplings, or flanged adapters and must be approved by the Engineer. NO size on size wet taps shall be permitted.
4. All transition from HDPE pipe to ductile iron or PVC shall be made per the approval of Engineer and per the HDPE pipe manufacturer's recommendations and specifications. Unless otherwise directed by the Engineer, pipe of dissimilar materials shall be connected with stainless steel shielded water couplings. Gaskets shall meet ASTM C1173-91, 300 Series stainless steel shear ring with a minimum thickness of 0.012", 316 grade stainless steel nut and bolt tightening

clamps, shear ring and clamps to meet all requirements of ASTM A167-70. Transitional sizes shall utilize a one piece gasket. Stainless steel water coupling shall be manufactured by Mission Rubber Company MR Series, Fernco Inc. RC Series, or Engineer-approved equivalent.

E. Pipe and Fittings Markings:

1. The following shall be continuously indent printed on the pipe or spaced at intervals not exceeding 5 feet: Name and/or trademark of the pipe manufacturer; nominal pipe size; dimension ratio; the letters PE followed by the polyethylene grade in accordance with ASTM D1248 followed by the hydrostatic design basis in 160's of psi (e.g., PE 3408); manufacturing standard reference (e.g., ASTM F714 or D3035); and a production code from which the date and place of manufacture can be determined.
2. Fittings shall be marked with the manufacturer's name (or trade mark), the designation ASTM D and ASTM F 714, and the manufacturer's code identifying the resin manufacturer, lot number and date of manufacture.
3. Pipe and Fittings shall be homogeneous throughout and free of : serious abrasion, cutting, or gouging of the outside surface extending to more than 10 percent of the minimum wall thickness in depth; cracks; kinking (generally due to excessive or abrupt bending); flattening; holes; blisters; and other injurious defects. They shall be uniform as commercially practical in color, opacity, density, and other physical properties. Any pipe and fittings no meeting these criteria shall be rejected.
4. The average outside diameter and wall thickness of pipe and fittings shall conform to either IPS or DIPS when measured in accordance with ASTM D2122.

F. Joints:

1. Pipe lengths shall be assembled in the field with butt-fused joints in accordance with ASTM D 2657 and the pipe manufacturer's written instructions shall apply. Joint strength shall be equal to or greater than the tensile strength of the pipe and shall indicate a ductile rather than brittle fracture when tested.
2. Joint with Fusion Equipment: The fusion machine shall have hydraulic pressure control for fusing two pipe ends together and shall be equipped with gauges to monitor fusion pressures. The machine shall be equipped with an electric or gasoline engine powered facing unit to square and trim the pipe ends smooth and provide full surface contact with the heating plate. The heating plate on the fusion machine shall be electrically heated and thermostatically controlled with a temperature gauge and be capable of 10°F. Fusion temperature shall be as recommended by the pipe manufacturer. The heater plate shall be equipped with suitable means to measure the temperature of plate surfaces and to assure uniform heating such as thermometers or pyrometers.

3. Where excavations for pipe installation are made between manholes, the pipe shall be jointed by butt-fusion or per manufacturer's recommendations.
- G. The finished HDPE pipe shall be continuous over the entire length of run between two manholes and shall be free from visual defects.
- H. Certification: Submit certified lab data or manufacturer's written certifications to verify the physical properties of the materials supplied under this specification.
- I. Rejection: Polyethylene pipe and fittings may be rejected for failure to meet any of the requirements of this specification.
- J. Pipe Dimension: Pipe supplied under this specification shall have an actual inside diameter not less than the diameters of pipe shown in the Contract Documents.

2.2 EQUIPMENT

A. General

1. As a minimum, the directional drilling equipment shall consist of a directional drilling rig of sufficient capacity to perform the bore and pullback the water pipe, a drilling fluid mixing, delivery and recovery system of sufficient capacity to successfully complete the bore, a guidance system to accurately guide boring operations, a vacuum truck of sufficient capacity to handle the drilling fluid volume, personnel meeting the training requirements, and all other equipment required to complete the installation. The Contractor has the option of using a drilling fluid recycling system capable of removing solids from the drilling fluid so that the fluid can be re-used.

B. Drilling System

1. Drilling Rig: The directional drilling machine shall consist of a hydraulically powered system to rotate, push, and pull hollow drive 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 bore. The hydraulic power system shall be self-contained with sufficient pressure and volume to power drilling 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 Contractor shall record this information and provide a copy to the Engineer. The rig shall be grounded during drilling and pull-back operations. There shall be a system to detect electrical current from the drilling string and on audible alarm which automatically sounds when an electrical current is detected.
2. Drill Head: The drill head shall be steerable by changing its rotation and shall provide the necessary cutting surfaces and drilling fluid jets.

3. Mud or Mechanical Motors (if required): Mud or Mechanical motors shall be of adequate power to turn the required drilling tools.
4. Drill Pipe: Shall be constructed of high quality 4130 seamless tubing, grade D or better, with a threaded box and pins. Tool joints should be hardened to 32-36 RC. If the Contractor chooses another type of drill pipe, the Contractor shall supply to the Engineer the reason for change along with drilling rig manufacturer's approval.

C. Guidance System

1. A magnetic guidance system (MGS), grade beacon or proven gyroscopic system shall be used to provide a continuous and accurate determination of the location of the drill head during the drilling operation. The directional drilling guidance system shall have the capability of measuring vertical and horizontal positions and roll. The system shall obtain accuracy range within one-inch of the actual position of the drilling head. It shall enable the driller to guide the drill head by providing immediate information on the tool face, azimuth (horizontal direction) and inclination (vertical direction).
2. The Contractor shall compute the position in the X, Y, and Z axis relative to the ground surface a minimum of every 1 foot. Ground surface elevation shall be based on surveyed field conditions.
3. The guidance system shall be of a proven type and shall be operated by personnel trained and experienced with the system.
4. The Contractor shall demonstrate a viable method to eliminate error. Contractor shall submit calibration results showing that the equipment is within tolerance. The Contractor shall follow the manufacturer's recommended calibration sequence and calibration time schedule.
5. The guidance system shall be capable of generating a plot of the bore hole survey for the purpose of an as-built drawing.
6. Contractor shall use a locating and tracking system capable of ensuring that the proposed horizontal and vertical alignment is installed as intended.

F. Drilling Fluid System

1. Mixing System: A self contained, closed, drilling fluid mixing system shall be of sufficient size to mix and deliver drilling fluid. Mixing system shall continually agitate the drilling fluid during drilling operations.
2. Drilling Fluid: The Contractor shall use a drilling fluid suitable for the soil conditions as they exist for the project. The Contractor shall fully determine the

soil conditions prior to fluid selection (be it from additional geotechnical investigation, exposing utilities, digging a slurry catch pit or other method). This decision shall include product concentrations and additives.

3. **Delivery System:** The drilling fluid pumping system shall have a capacity to provide an adequate flow rate and pressure to facilitate the HDD operation as defined in the construction documents. 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 leak-free. Used drilling fluid and drilling fluid spilled during drilling operations shall be contained and conveyed to the drilling fluid recycling system (if used). A berm, minimum of 12" high, shall be maintained around drill rigs, drilling fluid mixing system, entry and exit pits, and drilling fluid recycling system to prevent spills into the surrounding environment. Pumps and or vacuum trucks of sufficient size shall be in place to convey excess drilling fluid from containment areas to storage and recycling facilities.
4. **Drilling Fluid Recycling System:** If the Contractor chooses to use a drilling fluid recycling system, the system shall separate sand, dirt and other solids from the drilling fluid to render the drilling fluid re-usable. Spoils separated from the drilling fluid will be stored in a suitable location, as approved by the City, for later use or disposal.

2.3 OTHER EQUIPMENT

- A. **Pipe Rollers** - Pipe rollers, if required, shall be of sufficient size to fully support the weight of the pipe while being hydrotested and during pullback operations. Sufficient number of rollers shall be used to prevent excess sagging of pipe. The HDPE pipe shall not be dragged across the surface.
- B. **Pullback** - Contractor shall use breakaway swivel or mechanical "weak link" to prevent overstressing of the pipe.
- C. **Pipe Rammers** - Hydraulic or pneumatic pipe rammers may only be used if necessary and with the authorization of Engineer.

PART 3 - INSTALLATION

3.1 **GENERAL** - The Engineer shall 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 Engineer to provide inspection personnel at such times as appropriate without causing undue hardship by reason of delay to the Contractor.

- A. **Installation Tolerance** - Tolerance requirements for the installed pipe (HDPE) are performance oriented. Tolerances specified herein are the minimum requirements. It is

the sole responsibility of the Contractor to select the appropriate types of equipment, work methods and procedures to meet the tolerance requirements.

1. Gravity Systems – If the pipe is to convey water by gravity, it is essential that minimal to no changes in pipe slope occur and that a downward slope be maintained throughout the entire length of the pipe. The tie-in elevations shown for the beginning and ending of the HDD work of the project must meet the elevations shown on the plans. The ends of the pipe shall be located (horizontally and vertically) such that the HDPE pipe under this contract can be tied to other segments of water line without negative slopes or sags.
2. Pressurized Systems - If the pipe is to convey water by pressure, it is essential that the pipe has the minimal cover specified and there is no sharp bends in the pipe. The tie-in elevations shown for the beginning and ending of the HDD work of the project must meet the elevations shown on the plans. The ends of the pipe shall be located (horizontally and vertically) such that the HDPE pipe under this contract can be tied to other segments of water line.
3. The Owner reserves the right to reject pipe installed not meeting the tolerance requirements specified herein. It will be the responsibility of the Contractor to replace rejected work with pipe meeting these requirements. No additional compensation shall be provided to the Contractor for replacement of pipe not meeting tolerance requirements.
4. It is the responsibility of the Contractor to implement means and procedures compatible with anticipated ground conditions. The Contractor shall have a representative who is thoroughly knowledgeable of the equipment and HDD procedures present at the job site during the entire installation and available to address immediate concerns and emergency operations.
5. The Engineer must be notified immediately if any condition is encountered that stops the forward progress of drilling operations. When it is determined that it is impossible to continue drilling operations, the Contractor shall determine the best course of action. The Contractor may be allowed to abandon the completed portion in place and start a new hole as directed by the Engineer at no additional cost to the Owner.
6. Contractor shall take responsibility for the restoration of any damage caused by heaving, settlement, separation of pavement, escaping drilling fluid, or the directional drilling operation, at no cost to the Owner.
7. The installation of the water pipe into the bore hole shall be on the same day that the bore is completed to ensure the necessary support exists.
8. The required piping shall be assembled in a manner that minimizes the obstruction of adjacent roadways, driveways or public activities. The Contractor shall erect

temporary fencing around entry and exit pipes staging areas as needed. The Contractor staging areas shall be as approved by the Engineer.

9. Permits: The Contractor is responsible for obtaining all necessary permits. Copies of each permit shall be available to the Engineer at the work site.

3.2 PERSONNEL REQUIREMENTS: All personnel shall be fully trained in their respective duties as part of the directional drilling crew in safety.

3.3 DRILLING PROCEDURE

- A. Site Preparation - Work site as indicated on 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. Contractor shall confine all activities to designated work areas.
- B. Environmental Protection - Contractor shall place silt fence between all drilling 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 drilling fluid 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' of any waterbody or wetland.
- C. 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 Engineer.
- D. Pilot Hole - The Contractor shall follow the pipeline alignment as shown on the Drawings, within the specified tolerances. If adjustments are required, the Contractor shall notify the Engineer for approval prior to making the adjustments.
 1. In the event of difficulties at any time during HDD operations requiring the complete withdrawal from the bore, the Contractor may be allowed to withdraw and abandon the bore and begin a second attempt at a location approved by the Engineer.
 2. In the event that a drilling fluid fracture, inadvertent returns or returns loss occurs during pilot hole drilling operations, contractor shall cease drilling, wait at least 30 minutes, inject a quantity of drilling fluid with a viscosity exceeding 120 seconds as measured by a March funnel and then wait another 30 minutes. If mud fracture or returns loss continues, contractor will cease operations and notify Engineer. Engineer and contractor will discuss additional options and work will then proceed accordingly.

3. Establish an entry angle hole so that the curvature of the pilot hole does not exceed the allowable bending radius of the HDPE pipe.
4. Sags in the water pipe shall not exceed 10% of nominal pipe diameter.
 - a. Force mains and Gravity Lines - Sags will only be allowed where the entering and exiting grades are adequate to provide velocities through the sag area sufficient for moving solids. No more than one sag area shall occur between two manholes. The Engineer must approve the alignment of the bore before pipe can be pulled. If the pilot bore fails to conform to the above tolerances, the Engineer may require a new pilot boring be made.
5. At completion of the pilot hole drilling, provide Engineer tabulations of the horizontal and vertical alignment at minimum, intervals of 10 feet.

E. Pipe Installation

1. High Density Polyethylene (HDPE) Pipe shall be installed in accordance with the instruction of the manufacturer, as shown on the Drawings and as specified herein. A factory qualified joining technician as designated by the pipe manufacturer shall perform all heat fusion joints.
2. Care shall be taken in loading, transporting, and unloading to prevent injury to the pipe. Pipe or fitting shall not be dropped. All pipe or fitting shall be examined before installation, and no piece shall be installed which is found to be defective. Any damage to the pipe shall be repaired as directed by the Engineer. If any defective pipe is discovered after it has been installed, it shall be removed and replaced with a sound pipe in a satisfactory manner by the contractor, at his own expense.
3. Ropes, fabric or rubber protected slings and straps shall be used when handling pipes. Chains, cables or hooks inserted into the pipe ends shall not be used. Two slings spread apart shall be used for lifting each length of pipe.
4. After the pilot hole is completed, the Contractor shall enlarge the hole by pre-reaming (as needed), and install a swivel to the reamer and commence pullback operations.
5. Contractor will ream bore hole to a minimum size necessary to safely and properly install the pipe. The annular space on the final bore hole shall not exceed 3-inches measured from the outside diameter of the host pipe.
6. The pipe being pulled into the bore shall be protected and supported by rollers so that it moves freely and is not damaged by debris on the ground during installation. The HDPE pipe may not be dragged across the ground surface.

7. Pullback forces shall not exceed the allowable pulling forces for the product pipe. The thickness of the pipe shall be increased by Contractor at their cost if pullback forces are anticipated to exceed the allowable pulling force on the specified pipe.
8. The Contractor shall allow sufficient lengths of pipe to extend past the termination point (4" minimum) to allow connections to adjacent pipe sections or manholes. Pulled pipe shall be allowed 12 hours of stabilization prior to making tie-ins. The length of extra product pipe shall be at the Contractor's discretion.
9. Contractor shall provide a temporary cap for the ends of the pipe until the connection or tie-ins are made. The end of the pipe shall be marked by a post or leaving a section of the pipe exposed.

F. Drilling Fluid:

1. Disposal of excess drilling fluid and spoils will be the responsibility of the Contractor who shall comply with all relevant regulations, right-of-way, work space, and permit agreements. Excess drilling fluid and spoils shall be disposed of properly. The Contractor is responsible for transporting all excess drilling fluid and spoils to the disposal site and paying any disposal costs. Excess drilling fluid and spoils shall be transported in a manner that prevents accidental spillage onto roadways. Excess drilling fluid and spoils shall not be discharged into sanitary or storm systems, ditches or waterways.
2. Drilling fluid returns (caused by fracturing or formations) at locations other than the entry and exit points shall be minimized. The Contractor shall immediately clean up any drilling fluid that inadvertently surfaces.
3. The Contractor shall be responsible for all fees and provisions for a clean water supply for mixing of drilling fluid.

G. Construction Practices:

1. Repair of Damaged Sections: Segments of pipe having cuts or gouges on the exterior of the pipe in excess of 10% of the minimum wall thickness of the pipe shall be cut out and removed or that section of pipe will be rejected. The undamaged portions of the pipe shall be rejoined using the butt fusion joining method.
2. Pipe Joining: Sections of polyethylene pipe should be joined into continuous lengths on the job site above ground. The joining method shall be performed in strict accordance with the pipe manufacturer's recommendations. The butt fusion equipment used in the joining procedure shall be capable of meeting all conditions, alignment, and fusion pressure. Pipe lengths to be joined by thermal butt-fusion shall be of the same type, grade, and class of polyethylene compound and supplied from the same raw material supplier.

3. Handling of Fused Pipe: Fused segments of pipe shall be handled so as to avoid damage to the pipe. When lifting fused sections of pipe, chains or cable type chokers should be avoided. Nylon slings are preferred. Care should be exercised to avoid cutting or gouging the pipe.
 - a. The pipe fusion machine shall have the following minimum design features:
 - 1) Guide rods shall be in a plane that passes through the centerline of the pipe thus canceling the bending forces in the machine caused by the fusion forces.
 - 2) The clamp shall be mechanically or hydraulically operated and have the strength to “round up” the pipe close to the fused joint and clamp each piece of pipe on continuing straight centerline. The jaws shall be designed for quick installation and removal of inserts for smaller pipe sizes.
 - 3) The heater-plate shall be electrically heated, and thermostatically temperature controlled. The surface shall be smooth with a high quality Ryton coating. The machine shall be capable of maintaining the surface temperature set at the pipe manufacturer’s recommended temperature range. The heater plate shall be equipped with an indicating thermometer but surface temperatures should be checked with a pyrometer occasionally. The heater surface shall be kept clean and free from plastic accumulation.
 - 4) The hydraulically operated machines shall have a pressure regulator to preset the correct pressure for the desired fusion force, and there shall be an auxiliary system to control “feed” rate for the pipe face-off. Each machine shall be permanently equipped with a chart showing correct fusion pressure for each pipe size and wall thickness (DR).

3.4 FIELD TESTING

- A. Prior to any pipe testing the pipe shall be cleaned and ready for testing.
- B. After the pipe is in place, the Contractor shall provide and run a mandrel to check for anomalies in the form of sags, buckles, dents, excessive ovality, and any other deformations. Mandrel testing shall be completed a minimum of 30 days after installation of the water pipe. The pipe diameter of the installed pipe must be established to properly size the mandrel. Pipe ID dimensions and tolerances should be obtained from the pipe manufacturer. The mandrel run shall be considered acceptable if the survey results indicate that there are no sharp anomalies (e.g. dents, buckles, gouges, and internal obstructions) greater than 2 percent of nominal pipe diameter, or excessive ovality greater than 5 percent of the measured nominal diameter.
- C. Hydrostatic Pressure Testing:

1. At the Contractor's option, hydrostatic pressure testing of the pipe may be done each time after fusing several segments of the HDPE pipe segments together on the surface. The testing is intended to verify proper fusion of the pipe, but will not verify proper fusion of these segments to those previously installed. The test shall be conducted at a minimum 150 psi.
2. Once the pipe is installed, it shall be tested at a minimum pressure of 150 psi at the lower end of the bore for 4 hours to verify that the pipe or pipe joints have no cracks as a result of the installation. This test must be performed prior to any service connections.
3. Pipe not holding the specified pressure for the test duration shall be removed from the hole, repaired, and installed and tested again.
4. The cost of the hydrostatic test shall be included in the bid price for the appropriate sections of pipe.

3.5 CLEANING, SITE RESTORATION, AND INSPECTION

- A. Following drilling operations, contractor will demobilize equipment and restore the worksite to original condition. All excavations will be backfilled and compacted to 95% of original density. Landscaping will be restored to original. All mud shall be disposed of by the Contractor.
- B. The Contractor is required to maintain the work site in a neat and orderly condition throughout the period of work and after completing the work at each site, remove debris, surplus material and temporary structures erected by the Contractor. Upon completion of work, the site must be restored to its former condition.

3.6 RECORD KEEPING

- A. As-Builts - Contractor shall maintain a daily project log of drilling operations and a guidance system log with a copy given to Engineer at completion of project. As-built drawings shall be certified as to accuracy by the Engineer.

3.7 MEASUREMENT AND PAYMENT

- A. The unit price stipulated per linear foot for the various sizes of HDPE pipe shall include earth excavation and backfill, the furnishing of all labor, materials, tools, and appliances necessary to complete the work as specified, shown or directed. No additional payment will be made.
- B. The lengths of HDPE water pipe to be paid for under this Item shall be the total number of linear feet of each size actually furnished and placed in accordance with the Specifications, measured along the axis of the pipe after the pipe has been connected in place.

Plan Holder Report as of 03/10/2021 01:04:10 PM CST**Holloway, Updike & Bellen Inc**

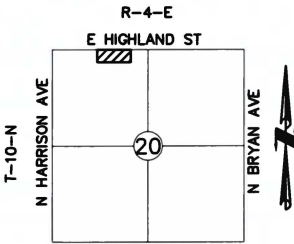
Shawnee Whittaker Street Rehabilitation (eBidDoc #7580320)

Contact: Dale Seaton, P.E., dseaton@hubengineers.com
 Phone: 918-251-0717
 E-mail: thilton@hubengineers.com
 Bid Date: 03/11/2021 04:00 PM CST

[Help](#)

Company	Contact	Designation	Bus. Types	Entry Date	Doc Type	Comments
Dodge Data & Analytics Next Member Numbe 2860 S State Hwy 161 Ste. 160 #501 Grand Prairie, TX 75052	Adam Bouman Phone: 513.666.3354 Fax: 800-768-5594 Email: dodge.docs@construction.com	Plan Room	DBE	02/11/2021	eBidDoc	
ConstructConnect 3825 Edwards Rd Cincinnati, OH 45209	Eric Mills Phone: 800-364-2059 Fax: 866-570-8187 Email: content@constructconnect.com	Plan Room		02/11/2021	eBidDoc	
ATech Paving 500 N. Vickie Dr Oklahoma City, OK 73117	Timothy Lunday Phone: 405-777-9957 Fax: Email: tlunday@atechpaving.com	Prime Bidder	SBE	02/12/2021	eBidDoc	
ePlan 1400 Forum Blvd Ste 7B Suite 105 Columbia, MO 65203	Eplan Reporter Phone: 5734477130 Fax: 573-355-5404 Email: eplan@eplanbidding.com	Plan Room		02/15/2021	eBidDoc	
Haskell Lemon Const. Co. P.O. Box 75608 Oklahoma City, OK 73147	Tammy Robinson Phone: 405-947-6068 Fax: Email: trobinson@haskelllemon.com	Construction Manager		02/16/2021	eBidDoc	
Crossland Heavy Contractors - Columbus 501 South East Ave Columbus, KS 66725	Kaylee Mann Phone: 620-429-1410 Fax: 620-429-2977 Email: kmann@heavycontractors.com	Prime Bidder		02/18/2021	eBidDoc	
C-P Integrated Services, Inc 3007 NW 63rd Street ste 205 Oklahoma City, OK 73116	Durinda Fisher Phone: 405-732-0532 Fax: 405-242-6499 Email: dfisher@cpiokc.com	Prime Bidder		02/19/2021	eBidDoc	
Ellsworth Construction LLC 5141 S. 24Th West Ave. Tulsa, OK 74107	Jeremy Worthington Phone: 918-446-1500 Fax: 918-446-8148 Email: jeremy@ellsworthinc.com	Prime Bidder		02/19/2021	eBidDoc	
Nash Construction Company 700 S. Irving Oklahoma City, OK 73129	William K Nash Phone: 405-672-2792 Fax: 405-672-1022 Email: nashkrcc@aol.com	Prime Bidder		02/22/2021	eBidDoc	
Wynn Construction Co., Inc. 11901 N Eastern Avenue Oklahoma City, OK 73131	Madison Lankford Phone: 405-753-1120 Fax: 405-753-1159 Email: bid@wynnconstruction.com	Construction Manager	SBE	02/22/2021	eBidDoc	
Krapff-Reynolds Construction Co. 2400 N.E. 4th Street Oklahoma City, OK 73117	Jim King Phone: 405-733-9682 Fax: 405-516-0081 Email: jking@krapff-reynolds.com	Prime Bidder		02/23/2021	eBidDoc	

WHITTAKER STREET REHABILITATION SHAWNEE, OK



ED BOLT
MAYOR

DANIEL MATTHEWS
COMMISSIONER

DARREN RUTHERFORD
COMMISSIONER

BOB WEAVER
COMMISSIONER

MARK SEHORN
COMMISSIONER

TRAVIS FLOOD
COMMISSIONER

BEN SALTER
COMMISSIONER

CHANCE ALLISON
CITY MANAGER

LISA LASYONE
CITY CLERK

ASHLEY NEEL
CITY TREASURER

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES
3-4	PAY ITEM NOTES
5	GENERAL NOTES
6	TYPICAL SECTIONS
7	MISCELLANEOUS DETAILS
8	SURVEY DATA
9	DRIVEWAY TABLES
10	KEY MAP ROAD
11	N CENTER AVE PLAN
12-13	E WHITTAKER ST PLAN & PROFILE
14	N DRAPER AVE PLAN & PROFILE
15	INTERSECTION PLANS
16	KEY MAP WATER
17-19	WATER LINE PLAN & PROFILE
20	WATER LINE DETAILS
21	HDPE STD. DETAILS
X1-X8	CROSS SECTIONS

UTILITY LOCATION NUMBERS

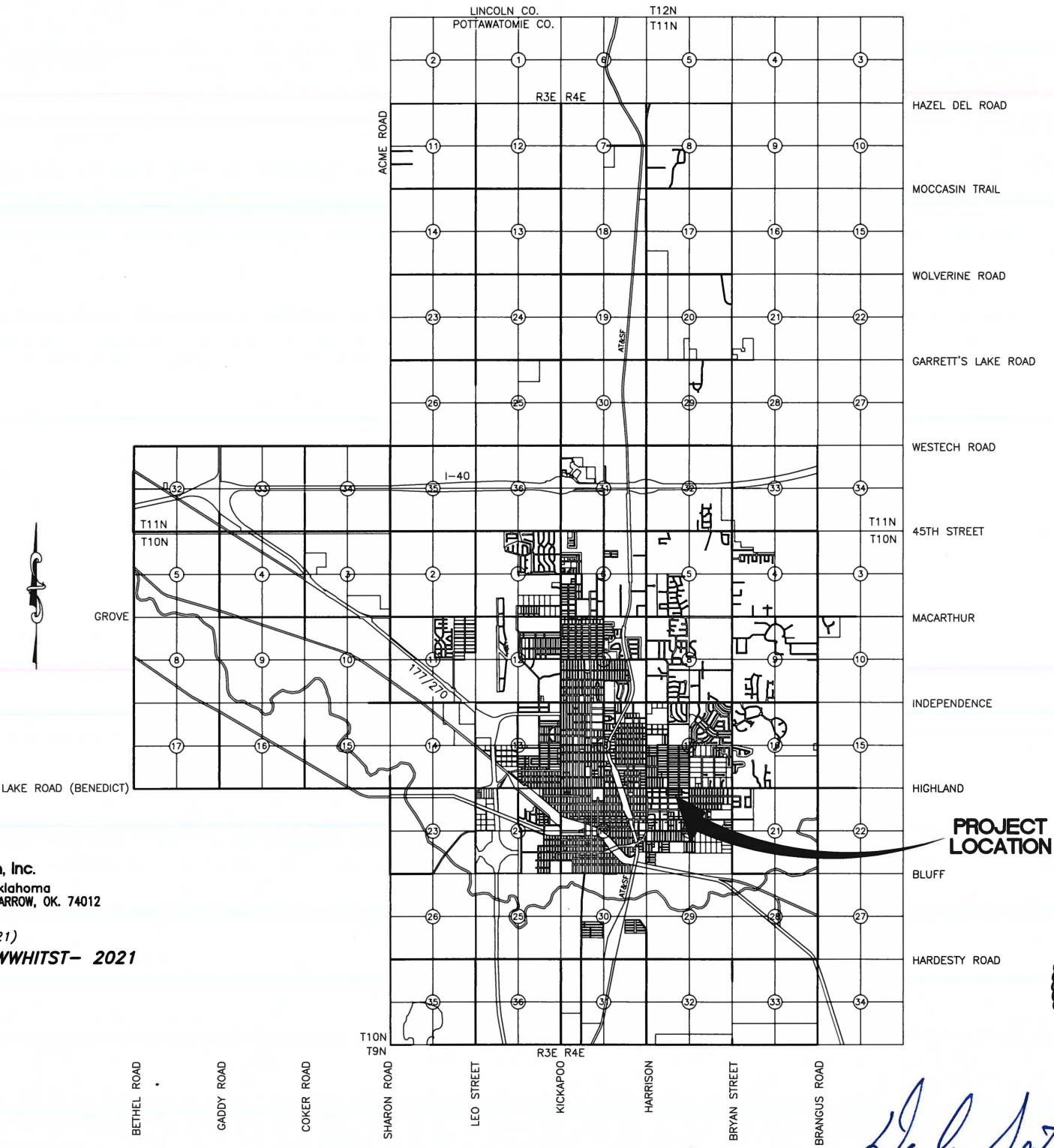
STATE WIDE	1-800-522-6543
OUT OF STATE	1-800-654-8249
LOCAL	1-405-273-1250

ENGINEERING DEPARTMENT

APPROVED AS FINAL PLANS:

MAYOR _____ DATE _____
CITY MANAGER _____ DATE _____
CITY CLERK _____ DATE _____

CITY ENGINEER _____ DATE _____



**PROJECT
LOCATION**



Dale Seaton
Dale Seaton
P.E. No. OK 27288
Date **1-14-21**

Holloway, Updike and Bellen, Inc.
Muskogee - Broken Arrow, Oklahoma
905-A SOUTH 9TH STREET, BROKEN ARROW, OK. 74012
918-251-0717, FAX 918-251-0754
ENGINEERS (C.A. No. 219, EXP. 6-30-21)
HUB PROJECT NO. 20SHAWWHITST- 2021

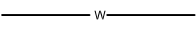
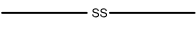
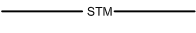
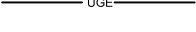
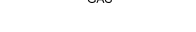
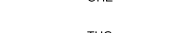
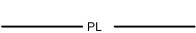


SUMMARY OF QUANTITIES					
ITEM NO.	SPEC. NO.	DESCRIPTION	PAY ITEM NOTES	UNIT	TOTAL QUANTITY
1	202(A)	UNCLASSIFIED EXCAVATION	1,6,28,35,42	CY	1,500
2	220	SWPPP DOCUMENTATION AND MANAGEMENT	8,36	LS	1
3	221(C)	TEMPORARY SILT FENCE		LF	1,000
4	230(A)	SOLID SLAB SODDING (LIKE KIND)	9,10,11	SY	750
5	303(A)	AGGREGATE BASE TYPE "A"	2,3,49	CY	1,225
6	310(B)	SUBGRADE METHOD 'B' - 8"		SY	3,200
7	325	SEPARATOR FABRIC	4	SY	3,520
8	411(B)	SUPERPAVE, TYPE S3 (PG 64-22 OK)	12,13,14	TON	1,070
9	411(C)	SUPERPAVE, TYPE S4 (PG 64-22 OK)	12,13,14	TON	350
10	414(C)	CONT. REINF. P.C.C. PAVT. (PLACEMENT)	18	SY	36
11	414(G)	P.C. CONCRETE FOR PAVEMENT	15	CY	8
12	609(B)	COMBINED CURB & GUTTER 6" BARRIER	15,17,18	LF	1,600
13	610(A)	CONCRETE SIDEWALK	15,18,20	SY	100
14	610(A)	CONCRETE SIDEWALK WITH BRICK ACCENT	15,18,20,41	SY	285
15	610(B)	CONCRETE DRIVEWAY	15,18,19	SY	375
16	612(A)	MANHOLE ADJUSTED TO GRADE	16,21,22	EA	1
17	612(E)	VALVE BOXES ADJUSTED TO GRADE	16,22	EA	1
18	616(D)	6" GATE VALVE, RJ	44	EA	8
19	616(D)	VALVE BOX	52	EA	8
20	616(G)	6 INCH FIRE HYDRANT		EA	1
21	616(G)	FIRE HYDRANT EXTENSION		EA	1
22	616(K)	6 INCH SLEEVE	38,48	EA	4
23	616(O)	6 INCH DUCTILE IRON 90 DEGREE BEND (RJ)	38,44	EA	8
24	616(T)	6 INCH X 6 INCH DUCTILE IRON TEE (RJ)	38,44	EA	1
25	616(T)	6 INCH X 6 INCH DUCTILE IRON CROSS (RJ)	38,44	EA	1
26	616	WATER SERVICE CONNECTION (SHORT)	50,51	EA	8
27	616	WATER SERVICE CONNECTION (LONG)	50,51	EA	8
28	616	REMOVE EXISTING FIRE HYDRANT	41	EA	1
29	619(A)	REMOVAL OF OBSTRUCTIONS	6,16,31	LS	1
30	619(B)	REMOVAL OF EXISTING SIDEWALK	6,16	SY	20
31	619(B)	REMOVAL OF EXISTING PAVING	6,16	SY	2,450
32	619(B)	REMOVAL OF EXISTING DRIVEWAY	6,16	SY	375
33	619(B)	REMOVAL OF EXISTING CURB	6,16	SY	1,600
34	641	MOBILIZATION	33	LS	1
35	642	CONSTRUCTION STAKING	5,30	LS	1
36	790	HANDICAP RAMP WITH TACTILE WARNING DOME		EA	8
37	850(A)	SCHOOL CROSSING SIGN S1-1 COMPLETE-IN-PLACE	55	EA	6
38	855(A)	TRAFFIC STRIPE (24")		LF	120
39	880(J)	TRAFFIC CONTROL	24,25,26,27,29	LS	1
40	SPECIAL	URBAN ROW RESTORATION	7,23,40,53	LS	1
		MATERIAL OPTION NO. 1 - HDPE			
41	616 (P)	8 INCH (OD) HDPE AWWA C906 DR-11	37,38,39,45,46,54,57	LF	980
		MATERIAL OPTION NO. 2 - PVC			
42	616(A)	6 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	37,38,39,44,45,47,54	LF	240
43	616(B)	6 INCH PVC AWWA C900 CLASS 200, DR-14	37,38,39,45,46,54	LF	740
		ADD. ALT. NO 1			
44	SPECIAL	RECTANGULAR RAPID FLASHING BEACON (RRFB) - SOLAR	56	EA	6
		ADD. ALT. NO 2			
45	643	(SP) CONTRACTOR'S QUALITY CONTROL		LS	1

SURVEY SYMBOLS

-  WATER METER
-  WATER VALVE
-  FIRE HYDRANT
-  IRON PIN FOUND
-  SANITARY SEWER MANHOLE
-  TELEPHONE PEDESTAL
-  BENCH MARK
-  POWER POLE
-  GUY WIRE
-  LIGHT POLE
-  STORM SEWER MANHOLE
-  TRAFFIC SIGN

EXISTING UTILITY LINE SYMBOLS

-  WATER LINE
-  SANITARY SEWER LINE
-  STORM SEWER
-  UNDERGROUND ELECTRIC
-  GAS LINE
-  OVERHEAD ELECTRIC
-  UNDERGROUND TELEPHONE
-  FIBER OPTIC CABLE
-  PROPERTY LINE

REVISION		BY	DATE
ADDENDUM 		D.S.	3/8/21
SUMMARY OF QUANTITIES			
WHITTAKER STREET REHABILITATION			
SHAWNEE MUNICIPAL AUTHORITY CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		 HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
PLAN SCALE:	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL:	LEAD ENGR.		
	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2020
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PAY ITEM NOTES

1.

THIS QUANTITY INCLUDES AN ADDITIONAL 10% ABOVE PLAN QUANTITY FOR UNDERCUTTING OF UNSUITABLE SUBGRADE MATERIAL OR ADDITIONAL PATCHING AS DIRECTED BY THE ENGINEER.
2.

TYPE A AGGREGATE BASE WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 90% OF THE PATCHING. QUICK SET FLOWABLE FILL WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 10% OF THE PATCHING. ACTUAL QUANTITIES TO BE DETERMINED BY THE ENGINEER.
3.

INCLUDES COMPACTION OF AGGREGATE TO 98% AASHTO T180 MODIFIED PROCTOR.
4.

SEPARATOR FABRIC SHALL BE USED AT ALL PAVEMENT PATCHES AND RECONSTRUCTION SECTIONS. THE SEPARATOR FABRIC SHALL BE CUT AND OVERLAPPED A MINIMUM OF 2 FT AT ALL EDGES OF THE REPAIR.
5.

CONSTRUCTION STAKING SHALL INCLUDE SURVEYING AND THE FURNISHING, PLACING, AND MAINTAINING OF THE CONSTRUCTION LAYOUT STAKES NECESSARY FOR THE PROPER COMPLETION AND INSPECTION OF THE ENTIRE PROJECT.
6.

WASTE MATERIAL TO BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE IN A MANNER APPROVED BY THE ENGINEER.
7.

CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS DAMAGED OR REQUIRING RELOCATION DURING THE CONSTRUCTION OF THIS PROJECT TO THE SATISFACTION OF THE PROPERTY OWNER AND CITY ARBORIST. COST SHALL BE INCLUDED IN THE PRICE BID.
8.

EROSION PROTECTION SHALL BE PLACED AROUND DRAINAGE INLETS AS REQUIRED TO PREVENT ENTRANCE OF EROSION MATERIAL. EROSION PROTECTION SHALL BE PLACED AS NECESSARY TO PREVENT EROSION WASH TO ADJACENT PROPERTY. ALL EROSION PROTECTION INSTALLED MUST BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE PROJECT. EROSION PROTECTION SHALL BE REMOVED AT THE END OF THE PROJECT AS DIRECTED BY THE ENGINEER, COST TO BE INCLUDED IN THE PRICE BID. THE PRICE INCLUDES THE COST OF SEDIMENT REMOVAL PER THE STORMWATER MANAGEMENT PLAN.
9.

THE PAY ITEM FOR SOLID SLAB SODDING INCLUDES QUANTITIES FOR PLACEMENT AND COMPACTION OF SUITABLE BACKFILL AND SOD AT EXISTING GRASS AREAS WHICH MAY BE DAMAGED DURING CONSTRUCTION OF CURBS, SIDEWALKS, DRIVEWAYS, AND OTHER MISCELLANEOUS ITEMS. THE QUANTITIES ARE BASED ON UTILIZING A 3 FOOT WIDE STRIP IN THESE AREAS. THE SOD SHALL BE OF LIKE KIND TO THE EXISTING SOD. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF DAMAGE TO EXISTING GRASS THAT EXCEEDS THESE LIMITS.
10.

PAY ITEM INCLUDES ALL MOWING WITHIN THE RIGHT-OF-WAY AS DIRECTED DURING CONSTRUCTION.
11.

COST OF WATERING AND FERTILIZING SHALL BE INCLUDED. FERTILIZERS SHALL BE 10-20-10 AND SHALL BE APPLIED AT THE RATE OF 1.5 LBS PER 10 SQ YDS. FERTILIZER SHALL BE APPLIED PER SECTION 230.04H OF ODOT STANDARD SPECIFICATIONS. WATERING SHALL BE APPLIED AS NECESSARY UNTIL VEGETATION IS ESTABLISHED OR UNTIL THE WORK IS ACCEPTED AS COMPLETE.
12.

THE COST OF TACK COAT, EDGE JOINT SEAL MATERIAL AND SCREENINGS FOR BLOTING, AND ALL LABOR ASSOCIATED WITH THESE ITEMS, SHALL BE INCLUDED IN ASPHALT CONCRETE.
13.

ESTIMATED AT 112 LBS PER SQ YD PER 1 INCH THICK.
14.

ODOT PAY FACTOR FOR AVERAGE LOT DENSITY SHALL NOT BE USED FOR THIS PROJECT. FAILURE TO REACH AVERAGE LOT DENSITY OF 92%-97% WILL RESULT IN REJECTION OF WORK.
15.

THE USE OF FLY-ASH IN CONCRETE IS PROHIBITED.
16.

ALL SAW CUTTING AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE ITEM TO BE ADJUSTED, REMOVED, REPAIRED, OR REPLACED.
17.

THIS ITEM SHALL BE MEASURED AS THE ACTUAL AMOUNT OF CURB AND/OR GUTTER INSTALLED. NO PAYMENT WILL BE MADE FOR CURB AND/OR GUTTER THROUGH DRIVEWAYS AND INLETS.
18.

INCLUDES ALL COST OF SAWED JOINTS, SEALING OF ALL JOINTS INCLUDING LONGITUDINAL JOINTS, AND REINFORCEMENT.
19.

CURB, GUTTER, AND/OR SIDEWALK ASSOCIATED WITH THE DRIVEWAY AND THROUGH THE DRIVEWAY IS INCLUDED IN THE COST OF THE DRIVEWAY.
20.

ONE SIDEWALK PANEL ON EACH SIDE OF DRIVEWAYS SHALL BE A MINIMUM OF 6" THICK OR MATCH EXISTING DRIVEWAY THICKNESS, WHICHEVER IS GREATER. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE COST OF THE THICKENED SIDEWALK THROUGH THIS AREA.
21.

ALL SANITARY AND STORM SEWER MANHOLE CASTINGS AND LIDS THAT ARE LOCATED IN THE STREET AND ARE DISTURBED BY THE CONTRACTOR SHALL BE REPLACED WITH NEW LIDS AND CASTINGS AND THE OLD ONES SHALL BE SALVAGED AND DELIVERED TO THE METAL RECYCLE BINS IN THE STOCKROOM AREA AT SEWER OPERATIONS AND MAINTENANCE, 9319 E. 42ND STREET NORTH, BETWEEN THE HOURS OF 7:30 AM AND 3:00 PM MONDAY THROUGH FRIDAY.
22.

THE TOTAL COST FOR RUBBERIZED ASPHALT AND/OR SILICONE AT MANHOLES, VALVE BOXES, INLETS, AND INLET APRONS, SHALL BE INCLUDED.
23.

ALL HOUSE NUMBERS SHALL BE REPLACED/ REESTABLISHED THROUGHOUT PROJECT LIMITS. COST TO BE INCLUDED IN URBAN RIGHT OF WAY RESTORATION. CONTRACTOR SHALL REESTABLISH DRAINS, ROOF DRAINS AND OTHER DRAINAGE THROUGH THE CURBS IN ACCORDANCE WITH CITY OF SHAWNEE STANDARDS.
24.

ALL PLASTIC PAVEMENT MARKINGS SHALL BE EITHER:

EXTRUDED-APPLIED THERMOPLASTIC (USE ON ASPHALT PAVEMENT). THERMOPLASTIC PAVEMENT MARKINGS SHALL ONLY BE APPLIED WHEN THE SURFACE TEMPERATURE EXCEED 55°F FOR ALL OF THE SIX HOURS PRIOR TO INSTALLATION AND MAXIMUM WIND GUSTS ARE BELOW 15 MPH AT THE TIME OF APPLICATION. PRICE BID TO INCLUDE FLEX TABS OR LIKE KIND FOR POST CONSTRUCTION LANE MARKING/SEPARATION. MECHANICALLY APPLIED PREFORMED PLASTIC TAPE ("COLD TAPE") WILL NOT BE ACCEPTED.
25.

REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH-INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01

- TYPE III RETROREFLECTIVE SHEETING.
26.

IF WARNING LIGHTS ARE TO BE USED ON TRAFFIC CONTROL DEVICES, TYPE "A" LIGHTS SHALL ONLY BE USED ON DEVICES WARNING OF UNEXPECTED HAZARDS, AND SHALL NOT BE USED FOR DELINEATION OF THE TRAVELED WAY. ONLY TYPE "C" WARNING LIGHTS SHALL BE USED FOR DELINEATION OF THE TRAVELED WAY, AND TYPE "C" LIGHTS SHALL NOT BE USED FOR ANY OTHER PURPOSE.
27.

FLAGGER SHALL BE PAID FOR IN BID ITEM "TRAFFIC CONTROL".
28.

THE CONTRACTOR SHALL BE PAID FOR UNCLASSIFIED EXCAVATION ON THE BASIS OF PLAN QUANTITY. ANY ADDITIONAL EXCAVATION REQUIRED OR OVERRUN OF PLAN QUANTITY WILL BE PAID FOR ON THE BASIS OF UNIT PRICE BID FOR THE ITEM. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SURVEY TO VERIFY ANY ADDITIONAL QUANTITIES.
29.

PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL REQUIRED FOR COMPLETION OF THE PROJECT.
30.

THE COST TO REPLACE REMOVED OR DAMAGED SECTION CORNERS AND ALL OTHER PERMANENT RIGHT OF WAY MARKERS SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NO ADDITIONAL PAYMENT WILL BE MADE.
31.

PAY ITEM INCLUDES REMOVAL OF ALL STRUCTURES AND OBSTRUCTIONS WITHIN PROJECT LIMITS NOT SPECIFIED BY OTHER ITEMS OF WORK.
32.

NOT USED.
33.

MOBILIZATION FOR THE PROJECT IS TO BE INCLUDED IN THIS PAY ITEM. THE MAXIMUM ALLOWABLE AMOUNT WILL BE IN ACCORDANCE WITH THE OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION TABLE 641:1.
34.

CONTRACTOR SHALL COORDINATE WITH HOMEOWNERS TO RESET ALL PAVERS, LANDSCAPE STONE, PRIVATE SIDEWALKS AND FENCES THAT ARE DISTURBED DURING CONSTRUCTION OPERATIONS. ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED FOR RESETTING OF SUCH ITEMS IS TO BE INCLUDED IN PRICE BID FOR URBAN RIGHT OF WAY RESTORATION.
35.

UNCLASSIFIED EXCAVATION INCLUDES REMOVAL OF AGGREGATE BASE AND MODIFIED SUBGRADE UNDER EXISTING PAVEMENT TO BE REPAIRED.
36.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM.
37.

TESTING AND CHLORINATION OF WATER MAINS SHALL BE PERFORMED BY THE CONTRACTOR.

A. CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY PLUGS WITH ADEQUATE BLOCKING OR RESTRAINTS, PLUS CORPORATION STOPS, AS DIRECTED BY CITY TESTING PERSONNEL, THEN, ONCE TESTING, CHLORINATION AND FLUSHING BY CITY PERSONNEL IS COMPLETED, REMOVE TEMPORARY BLOCKING AND TIE INTO EXISTING SYSTEM, USING FITTINGS SWABBED INTERNALLY WITH 2% BLEACH SOLUTION.

B. TESTING, CHLORINATION AND FLUSHING OF NEW WATER MAIN SHALL BE PERFORMED BY THE CONTRACTOR ON MAINS WHICH ARE PHYSICALLY DISCONNECTED FROM THE EXISTING WATER SYSTEM. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAINS SHALL NOT BE PREFORMED AGAINST VALVES WHICH ARE PHYSICALLY CONNECTED TO EXISTING SYSTEM.

C. ALL COSTS FOR TEMPORARY PLUGS, BLOCKING, RESTRAINING, CORPORATION STOPS, TUBING, THREADED CONNECTIONS, BLEACH AND OTHER INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.
38.

BURIED BOLTS, HARNESS LUGS, AND COUPLINGS SHALL BE GIVEN TWO COATS OF KOPPER'S BITUMASTIC 300-M (DRY MIL THICKNESS OF 16 MILS) OR EQUAL. COST TO BE INCLUDED IN UNIT PRICE BID FOR PIPE AND FITTINGS.
39.

CONTRACTOR TO EXCAVATE ALL UTILITY CROSSINGS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ON THE PROPOSED WATER MAIN TO AVOID UTILITY CONFLICTS. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. COST FOR EXCAVATING UTILITY CROSSINGS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.
40.

CONTRACTOR SHALL INSURE ALL POLES WHICH ARE AFFECTED BY TRENCHING CONDITIONS ARE BRACED BY OWNERS. PAYMENT SHALL BE INCLUDED IN "URBAN RIGHT OF WAY RESTORATION". NO ADDITIONAL PAYMENT SHALL BE MADE.
41.

CONCRETE PATTERN SHALL BE OLD CHICAGO RUNNING BRICK, COLOR U-34.
42.

PAY ITEM SHALL BE USED FOR OVER EXCAVATION OF SOFT SPOTS. OVER EXCAVATION REQUIRES APPROVAL FROM THE ENGINEER OR CITY STAFF.
43.

NOT USED.

44.

ALL COSTS FOR COMPONENTS NECESSARY TO RESTRAIN JOINTS FOR PIPE AND FITTINGS DESIGNATED RETRAINED JOINT ("RJ") SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE OR FITTINGS.

A. DUCTILE IRON PIPE RESTRAINED JOINT SYSTEMS: U.S. PIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, AMERICAN FLEXRING, EBAA MEGALUG, SMITH-BLAIR CAMLOCK, CLOW TUFGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. SHOULD RJ PIPE BE SPECIFIED THRU UNCASSED BORES, ONLY US PIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, OR AMERICAN FLEXRING IS TO BE USED. LOCKING GASKETS NOT PERMITTED.

B. POLYVINYL CHLORIDE (PVC) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. LOCKING GASKETS NOT PERMITTED; SHOULD RJ PIPE BE SPECIFIED ON BORE CASING IS REQUIRED.

C. HIGH DENSITY POLYETHYLENE (HDPE) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT.
- NO ADDITIONAL PAYMENT SHALL BE MADE.
45.

ALL CUT ENDS AND WHERE SALVAGED FITTINGS HAVE BEEN REMOVED FROM ABANDONED WATER LINES LEFT IN PLACE, SHALL BE PLUGGED WITH 24" OF CONCRETE INSIDE THE PIPE. COST OF CONCRETE PLUGGING TO BE INCLUDED IN UNIT PRICE BID FOR PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.
46.

TRACER WIRE AND DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED ABOVE ALL PVC AND HDPE PIPE, TERMINATING ONLY ONTO HYDRANTS JUST ABOVE GROUND LEVEL AS PER CONST SPEC 310. COST OF TRACER WIRE AND DETECTABLE MYLAR TAPE SHALL BE INCLUDED IN UNIT PRICE BID FOR PVC AND HDPE PIPE. ALLOWS #12 COPPER CLAD STEEL (CCS) WIRE, 21% CONDUCTIVITY, IN LIEU OF #8 COPPER WIRE AS TRACER WIRE ATOP PVC AND HDPE PIPE.
47.

DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED OVER DUCTILE IRON PIPE.
48.

ALL LABOR, MATERIALS, AND EQUIPMENT TO CONNECT PROPOSED WATER MAINS TO EXISTING WATER MAINS ARE INCLUDED IN COST OF SLEEVES/ADAPTORS. CONTRACTOR TO EXCAVATE ALL EXISTING WATER MAINS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ACCORDINGLY. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. COST FOR EXCAVATING EXISTING WATER MAINS SHALL BE INCLUDED IN UNIT PRICE BID FOR SLEEVES. NO ADDITIONAL PAYMENT SHALL BE MADE.
49.

CONTRACTOR IS REMINDED TO BACKFILL ALL TRENCHES EXCAVATED ACROSS ANY EXISTING OR PROPOSED DRIVING OR PARKING SURFACE WITH 1-1/2" TYPE A AGGREGATE BASE, PLACED IN 8-INCH MAXIMUM LIFTS AND COMPACTED TO 98% MODIFIED PROCTOR DENSITY. COST TO BE INCLUDED IN COST OF EXCAVATION AND BACKFILL. NO ADDITIONAL PAYMENT SHALL BE MADE.
50.

WATER SERVICE CONNECTIONS SHALL INCLUDE COST OF MATERIAL, LABOR AND EQUIPMENT TO REMOVE AND INSTALL SADDLES, SERVICE CLAMPS, CORPORATION STOPS, BENDS, 3-PART UNIONS, COUPLINGS, SETTERS AND ANY OTHER INCIDENTALS REQUIRED FOR A COMPLETE WATER SERVICE CONNECTION WITH EXCEPTION OF METER CANS, RIMS AND LIDS. NO ADDITIONAL PAYMENT SHALL BE MADE. METER CANS, LIDS AND RIMS SHALL BE PAID AS SEPARATE BID ITEM.

A. SHORT SERVICE SHALL BE ANY SERVICE LINE THAT IS 25 FEET OR LESS IN LENGTH. SHORT SERVICES DO NOT INCLUDE PAVEMENT REPLACEMENT, I.E. ¾ INCH WATER SERVICE CONNECTIONS (SHORT SERVICE).

B. LONG SERVICE SHALL BE ANY SERVICE LINE THAT IS GREATER THAN 25 FEET UP TO 80 FEET IN LENGTH. LONG SERVICES INCLUDE PAVEMENT REPLACEMENT AND/OR COST TO BORE. EXAMPLE: 3/4 INCH WATER SERVICE CONNECTIONS (LONG SERVICE).

REVISION		BY	DATE
ADDENDUM 		D.S.	3/8/21
PAY ITEM NOTES			
WHITTAKER STREET REHABILITATION			
SHAWNEE MUNICIPAL AUTHORITY\ CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		 HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
PLAN SCALE:	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
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PAY ITEM NOTES (CONTINUED)

51. SERVICE LINES ON NON-ARTERIALS SHALL BE EITHER COPPER TUBING (TYPE K SOFT ANNEALED CONFORMING TO ASTM B 88) OR PEX TUBING (UPON OR AQUA PEX 5206 BLUE CONFORMING TO ASTM F876/F877/F2023). PEX TUBING IS NOT PERMITTED WITHIN ARTERIAL RIGHT OF WAY. WHEN CONTRACTOR ELECTS TO USE PEX TUBING:

A. 3/4-INCH WATER SERVICE CONNECTIONS SHALL USE 1-INCH PEX TUBING MINIMUM.

B. 1-INCH WATER SERVICE CONNECTION SHALL USE 1 1/4-INCH PEX TUBING MINIMUM..
52. TOP OF VALVE BOX SHALL BE FLUSH WITH FINISHED GRADE.
53. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION. THE CONTRACTOR SHALL REPLACE THE SOD TO MATCH IN-KIND AND QUALITY. LIMITS OF DISTURBANCE SHALL NOT EXCEED 9- FEET CENTERED ON THE WATERLINE. ANY DISTURBANCE OUTSIDE OF THIS AREA SHALL BE RESTORED AT THE CONTRACTOR’S EXPENSE.
54. PRESSURE TESTING AND CHLORINATION OF WATER MAINS SHALL NOT BE PERFORMED UNTIL THE CITY INSPECTOR HAS AUTHORIZED.
55. PAY ITEM SHALL INCLUDED ALL POLES NECESSARY TO INSTALL SIGNS TO CURRENT MUTCD STANDARDS.
56. PAY ITEM SHALL INCLUDE ALL PARTS AND LABOR REQUIRED TO MOUNT RFRB’S. RFRB’S SHALL BE TAPCO OR APPROVED EQUAL.
57. PAY ITEM SHALL INCLUDE ALL PARTS AND ADAPTERS TO INSTALL PIPE.

WATER LINE GENERAL NOTES:

1. THE CITY OF SHAWNEE SHALL INSPECT ALL TRENCHING, BEDDING, PIPE INSTALLATION, BACKFILL, AND COMPACTION.
2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT STANDARD SPECIFICATIONS AND STANDARD DETAILS, CITY OF SHAWNEE.
3. EXISTING SERVICE CONNECTIONS ARE TO BE KEPT IN SERVICE UNTIL CONNECTIONS TO NEW MAIN ARE MADE. ALL SERVICE LINE RECONNECTIONS SHALL BE MADE BY THE CONTRACTOR. SERVICE RECONNECTIONS SHALL BE INSTALLED AS PER CITY OF SHAWNEE STANDARD SPECIFICATIONS AND STANDARD DETAILS.
4. MINIMUM COVER OVER WATER LINES SHALL BE AS NOTED ON PLANS.
5. CONTRACTOR SHALL REPLACE EXISTING GRASS WITH SEED/SOD OF SAME TYPE AND VARIETY OR AS NOTED ON PLANS.
6. WATER OPERATIONS SHALL OPERATE ALL VALVES ON TRANSMISSION MAINS (16” AND LARGER). CONTRACTOR SHALL OPERATE ALL VALVES ON DISTRIBUTION MAINS (SMALLER THAN 16”) WITH THE COORDINATION OF SHAWNEE AND WATER OPERATIONS.

A. ATTEMPTS WILL BE MADE WITH ASSISTANCE FROM THE CONTRACTOR TO NOTIFY ALL AFFECTED CUSTOMERS 48-HOURS IN ADVANCE, PARTICULARLY IF COMMERCIAL OR INDUSTRIAL CUSTOMERS ARE INVOLVED. PRIOR TO SHUTDOWN, SHAWNEE WILL NOTIFY WATER OPERATIONS GIVING AN ESTIMATED DOWNTIME. WATER OPERATIONS WILL NOTIFY THE FIRE DEPARTMENT OF ALL FIRE HYDRANTS OUT OF SERVICE AND WHEN THEY ARE BACK IN SERVICE, BY STREET ADDRESS OR INTERSECTION.

B. WHERE COMMERCIAL, INDUSTRIAL, OR CRITICAL CUSTOMERS ARE AFFECTED, AND FOR ALL LINES 16” AND LARGER IN SIZE, FIELD ENGINEERING WILL REQUEST WATER OPERATIONS TO SHUT DOWN THE MAIN. THERE WILL BE A MINIMUM OF 48-HOUR NOTICE TO WATER OPERATIONS.
7. CONTRACTOR SHALL PROVIDE AS LEAST 48 HOUR NOTICE TO ALL RESIDENTS OR BUSINESSES AFFECTED BEFORE TURNING OFF ANY WATER. CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING DOOR HANGERS ON AFFECTED HOMES AND BUSINESSES.
8. CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF THE OKLAHOMA ONE-CALL SYSTEM INC. NOTICE OF ANY EXCAVATION NO SOONER THAN 48 HOURS OR LATER THAN 10 DAYS, EXCLUDING SATURDAYS, SUNDAYS, LEGAL HOLIDAYS PRIOR TO COMMENCEMENT OF WORK, PHONE 1-800-522-6543.
9. LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH PROJECT AT ALL TIMES. OPEN CUT STREET CROSSINGS REQUIRE AN APPROVED TRAFFIC CONTROL PLAN WITH TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH CURRENT MUTCD REQUIREMENTS.
10. ANY DAMAGE CAUSED BY CONTRACTOR TO ADJACENT TRAFFIC SIGNAL INFRASTRUCTURE SHALL BE REPAIRED AT CONTRACTOR’S EXPENSE TO THE SATISFACTION OF THE TRAFFIC ENGINEER.
11. CONSTRUCTION FOR ALL ENGINEERING SERVICES FACILITIES SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF TITLE 252, DEPARTMENT OF ENVIRONMENTAL QUALITY, CHAPTER 626, PUBLIC WATER SUPPLY CONSTRUCTION STANDARDS, OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ).
12. ALL EXCAVATED MATERIAL NOT REQUIRED IN OTHER AREAS OF THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE ENGINEER WITHOUT COST TO THE CITY. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF ANY EXCESS MATERIAL IS TO BE DISPOSED OF WITHIN THE CITY LIMITS OF SHAWNEE.
13. ANY CHANGES FROM APPROVED PLANS SHALL BE SUBMITTED TO THE CITY OF SHAWNEE FOR WRITTEN APPROVAL PRIOR TO INSTALLATION.

REVISION		BY	DATE
PAY ITEM NOTES			
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SHAWNEE MUNICIPAL AUTHORITY\ CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		 HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
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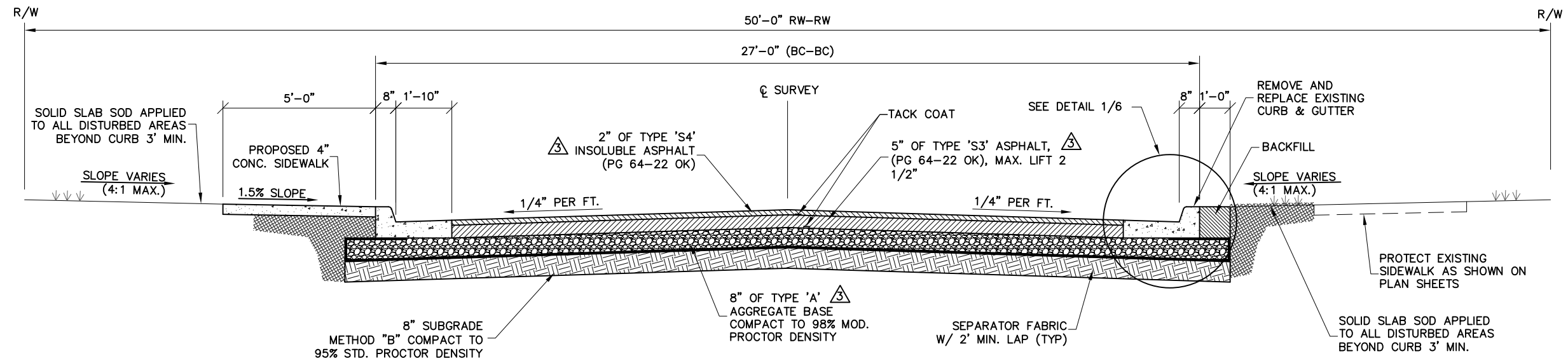
GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE CURRENT CITY OF SHAWNEE STANDARD SPECIFICATIONS AND STANDARD DETAILS AND STANDARD DRAWINGS AND CITY OF SHAWNEE SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING SAFETY, HEALTH AND SANITATION. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT, AND TAKE ANY OTHER NEEDED ACTION ON AS HIS OWN RESPONSIBILITY OR AS THE ENGINEER MAY DETERMINE REASONABLY NECESSARY TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.
3. PAY ITEMS SHALL BE AS SPECIFIED ON THE CITY OF SHAWNEE OR ON THE ODOT STANDARD DRAWINGS EXCEPT AS MODIFIED BY THE CONTRACT.
4. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM HIS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.
5. THE LOCATIONS OF THE UTILITIES ARE SHOWN ACCORDING TO ALL AVAILABLE INFORMATION. THE CONTRACTOR SHALL NOTIFY EACH UTILITY OWNER PRIOR TO COMMENCEMENT OF WORK TO VERIFY BOTH HORIZONTAL AND VERTICAL LOCATIONS.
6. THE CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF OKLAHOMA ONE-CALL SYSTEM, INC. NOTICE OF ANY EXCAVATION NO SOONER THAN TEN DAYS NOR LATER THAN 48 HOURS , EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, PRIOR TO THE COMMENCEMENT OF WORK. PHONE 1-800-522-6543.
7. THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS TO PREVENT EXCESS MOISTURE FROM INCLEMENT WEATHER OR OTHER SOURCES FROM ENTERING ANY STREET EXCAVATION. IF EXCESS MOISTURE DOES ENTER THE EXCAVATION THROUGH THE NEGLIGENCE OF THE CONTRACTOR AND THE ADJOINING PAVEMENT IS ADVERSELY EFFECTED BY THE EXCESS MOISTURE, THE CONTRACTOR SHALL REPLACE THE ADJOINING PAVEMENT AND SUBBASE AT HIS SOLE EXPENSE.
8. THE CONTRACTOR SHALL PRESERVE THE INTEGRITY OF THE SANITARY SEWER STRUCTURES AND ALL OTHER UTILITY STRUCTURES WITHIN THE PROJECT EXTENTS.
9. THE CONTRACTOR SHALL WORK IN COOPERATION WITH THE CITY OF SHAWNEE TO ESTABLISH, INSTALL, MAINTAIN, AND OPERATE COMPLETE, ADEQUATE, AND SAFE TRAFFIC CONTROLS DURING THE ENTIRE CONSTRUCTION PERIOD. ALL FLAGMEN, BARRICADES, AND TRAFFIC CONTROL DEVICES SHALL BE APPROVED BY THE FIELD ENGINEERING REPRESENTATIVE.
10. CONSTRUCTION SIGNAGE WILL BE INSTALLED IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT ADDITION, AND APPLICABLE ODOT STANDARD DRAWINGS. THE CONTRACTOR SHALL PROVIDE A PROPOSED TRAFFIC CONTROL PLAN PRIOR TO BEGINNING WORK.
11. THE CONTRACTOR SHALL NOTIFY THE CITY OF SHAWNEE AT 405-878-1560 A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK OR PRIOR TO REMOVING TRAFFIC SIGNS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ALL EXISTING TRAFFIC SIGNS AND MARKINGS REMOVED OR DAMAGED. ALL TRAFFIC SIGNS SHALL MEET MUTCD STANDARDS (CURRENT ADDITION).
13. THE CONTRACTOR WILL BE RESPONSIBLE FOR PREPARATION AND DISTRIBUTION OF A WRITTEN NOTICE TO RESIDENTS 48 HOURS PRIOR TO BEGINNING PAVEMENT REMOVAL OPERATIONS.
14. LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH THE PROJECT AT ALL TIMES.
15. ALL PUBLIC AND PRIVATE STREETS AND DRIVES SHALL BE ACCESSIBLE AT ALL TIMES.
16. ALL BROKEN CONCRETE, WASTE MATERIAL, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.
17. ALL EXCAVATED MATERIAL NOT REQUIRED IN THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE ENGINEER WITHOUT COST TO THE CITY. THE CONTRACTOR WILL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF ANY MATERIAL IS STORED ON THE PROJECT SITE AND/OR DISPOSED OF WITHIN THE CITY LIMITS.
18. ALL TREES, BRUSH AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER IS TO BE CLEANED OUT TO THE RIGHT-OF-WAY LINE IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK. TREES OUTSIDE THE FILL SLOPES AND THE TOP OF CUT SLOPES SHALL NOT BE DISTURBED EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.
19. WHERE MATERIALS ARE TRANSPORTED IN THE PROSECUTION OF WORK, VEHICLES SHALL NOT BE LOADED BEYOND THE CAPACITY RECOMMENDED BY THE VEHICLE MANUFACTURER OR AS PRESCRIBED BY ANY FEDERAL, STATE OR LOCAL LAW OR REGULATION.
20. ANY DAMAGE TO THE ROADWAY PAVEMENT, CURB, DRIVEWAYS OR SIDEWALK CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED TO THE ENGINEER'S SATISFACTION AND SHALL BE ACCOMPLISHED AT THE CONTRACTOR'S SOLE EXPENSE. ALL DISTURBED ITEMS SHALL BE REPAIRED TO MATCH EXISTING MATERIALS AND PATTERNING.
21. IF THE CONTRACTOR ENCOUNTERS VOIDS WHEN PATCHING STREETS, THE CONTRACTOR SHALL CALL THE CITY OF SHAWNEE AT 405-878-1560 FOR AN INSPECTION BEFORE PROCEEDING WITH WORK.
22. THE PROJECT SHALL BE CONSTRUCTED WITH CONTINUOUS FLOW OF MATERIAL SUPPLIED TO THE PROJECT SUCH THAT THE LAYDOWN MACHINE WILL REMAIN IN MOTION. ANY DELAY IN FORWARD PROGRESSION OF THE LAYDOWN MACHINE MAY REQUIRE A TRANSVERSE JOINT AS DIRECTED BY THE ENGINEER.
23. NO FLY ASH IS ALLOWED TO BE USED ON THIS PROJECT.
- 3

24. PHYSICAL TESTING FOR QUALITY ASSURANCE SHALL BE FURNISHED BY THE CITY.
25. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY QUALITY CONTROL TESTING TO ENSURE THAT PROJECT REQUIREMENTS ARE MET.
26. MASONRY STRUCTURES SHALL NOT BE CONSTRUCTED WITHIN THE STREET RIGHT-OF-WAY.
27. ALL CONCRETE CURB AND GUTTERS SHALL BE MONOLITHIC POURS. DOWELED-ON CURBS WILL NOT BE ALLOWED.
28. NO LIFTING HOLES WILL BE ALLOWED ON ANY REINFORCED CONCRETE PIPES OR REINFORCED CONCRETE BOXES.
29. CURB RAMP CONSTRUCTION SHALL COMPLY WITH THE CURRENT AMERICANS WITH DISABILITIES ACT STANDARDS.
30. REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH-INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE III RETROREFLECTIVE SHEETING.
31. ALL SANITARY AND STORM SEWER MANHOLE CASTINGS AND LIDS THAT ARE LOCATED IN THE STREET AND ARE DISTURBED BY THE CONTRACTOR SHALL BE REPLACED WITH NEW LIDS AND CASTINGS AND THE OLD ONES SHALL BE SALVAGED AND DELIVERED TO THE CITY OF SHAWNEE.

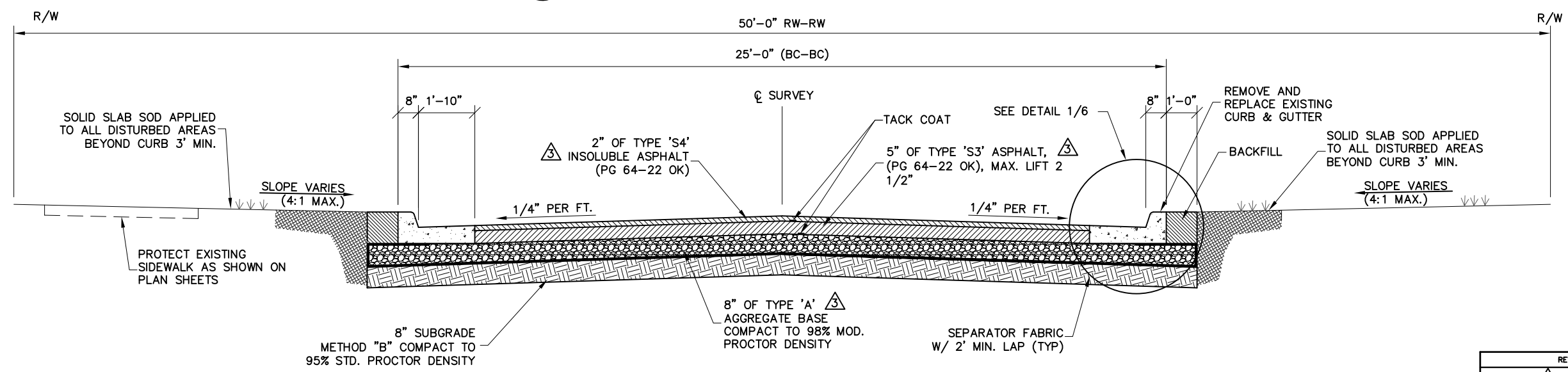
32. THE SIGN PLACEMENT STATIONING AND LOCATIONS SHOWN ON THE PLAN SHEETS AND SUMMARY SHEETS ARE APPROXIMATE. EXACT STATIONING AND LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH CITY OF SHAWNEE STANDARDS, CURRENT AMERICANS WITH DISABILITIES ACT STANDARDS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES, OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.
33. POST LENGTHS SHALL BE DETERMINED BY A FIELD SURVEY CONDUCTED BY THE CONTRACTOR.
34. ALL ASPHALT STREETS THAT ARE TO BE RECONSTRUCTED SHALL BE LEFT WITH A DRIVABLE SURFACE AT ALL TIMES. THE CONTRACTOR WILL NOT BE ALLOWED TO MILL OFF ALL THE ASPHALT BEFORE EXCAVATION BEGINS.
35. THE CONTRACTOR SHALL REPLACE ANY SECTION CORNERS OR OTHER PERMANENT RIGHT OF WAY MARKERS REMOVED OR DISTURBED AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT. REPLACEMENT OF SECTION CORNERS OR ANY OTHER MONUMENTS SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR AUTHORIZED TO PERFORM WORK IN THE STATE OF OKLAHOMA.
36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL AND MAINTENANCE OF THE STORMWATER DRAINAGE. STORMWATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED.
37. STRAW OR HAY BALES AS STORMWATER BEST MANAGEMENT PRACTICES ARE NO LONGER ALLOWED ON CONSTRUCTION PROJECTS.
38. THE CONTRACTOR MUST CALL 1-800-458-4251 IMMEDIATELY IF A NATURAL GAS PIPELINE IS CUT, DAMAGED, OR OTHERWISE DISTURBED.
39. PRIOR TO FINAL ACCEPTANCE, ALL EXPOSED CURB SURFACES SHALL BE CLEANED OF ALL DISCOLORATION SUCH AS ASPHALT STAIN, TIRE MARKS, OR OTHER DISFIGUREMENT. ENSURE PROPER BACKFILL BEHIND CURB AND HEIGHT OF SOD.
40. ALL FEATURES OF THIS PROJECT INCLUDING, BUT NOT LIMITED TO, SIDEWALKS, CURB RAMPS, AND CROSSWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES, AND THE PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY, PUBLISHED ON JULY 26, 2011 BY THE U.S. ACCESS BOARD. WHERE SPATIAL LIMITATIONS OR EXISTING FEATURES WITHIN THE LIMITS OF THE PROJECT PREVENT FULL COMPLIANCE WITH THIS ACT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF SUCH FEATURES. THE CONTRACTOR SHALL NOT PROCEED WITH ANY ASPECT OF THE WORK, WHICH IS NOT IN FULL COMPLIANCE WITH THE ADA WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER. ANY WORK WHICH IS NOT PERFORMED WITHIN THE GUIDELINES OF THE ADA, FOR WHICH THE CONTRACTOR DOES NOT HAVE WRITTEN APPROVAL, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
41. ALL TRENCH WIDTHS & BEDDING MATERIAL SHALL BE AS SHOWN ON SHEET 21, WATER LINE BEDDING DETAIL. SPECIFIED TRENCH WIDTHS SHALL BE MAINTAINED FULL DEPTH FROM THE FLOWLINE TO THE GRADING TEMPLATE. THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED.
42. THE CONTRACTOR SHALL NOTIFY THE CITY OF SHAWNEE AT 405-878-1560, A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK, LANE CLOSURES OR PRIOR TO DETOURING TRAFFIC. THE CONTRACTOR WILL SUBMIT A TRAFFIC PLAN TO THE CITY OF SHAWNEE FOR APPROVAL A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK.

REVISION		BY	DATE
ADDENDUM 		D.S.	3/8/21
GENERAL NOTES			
WHITTAKER STREET REHABILITATION			
SHAWNEE MUNICIPAL AUTHORITY\ CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		 HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
PLAN SCALE:	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
	LEAD ENGR.		
HORIZONTAL:	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2020
	DESIGN MANAGER		SHEET 5 OF 22 SHEETS



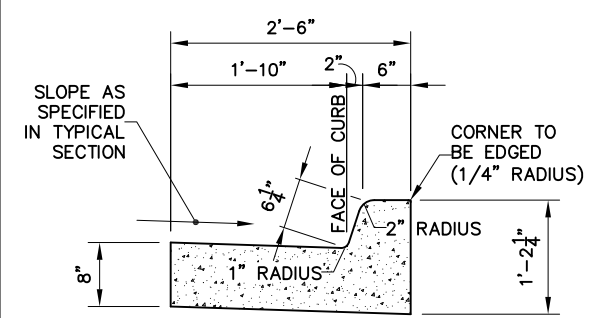
TYPICAL SECTION "A"				
STREET NAME	BEGIN STATION	END STATION	BC-BC (FT)	RW-RW (FT)
E WHITAKER ST	10+10.93	17+85.34	27.00	50.00

A TYPICAL ASPHALT SECTION "A"
SCALE: 1/2" = 1'-0"

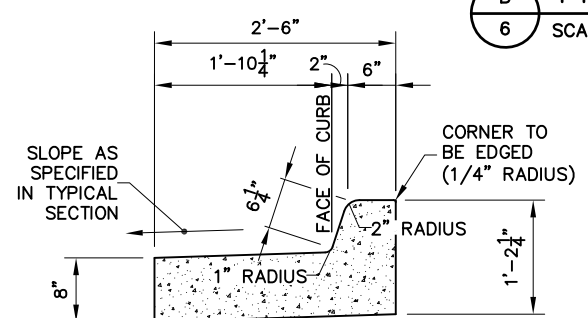


TYPICAL SECTION "B"				
STREET NAME	BEGIN STATION	END STATION	BC-BC (FT)	RW-RW (FT)
N DRAPER AVE	20+05.00	22+59.70	25.00	50.00

B TYPICAL ASPHALT SECTION "B"
SCALE: 1/2" = 1'-0"



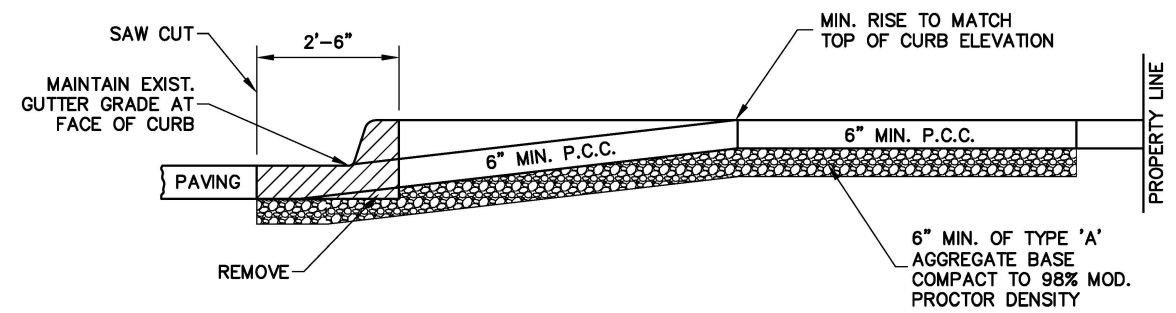
1 CURB & GUTTER
6 6" BARRIER TYPE



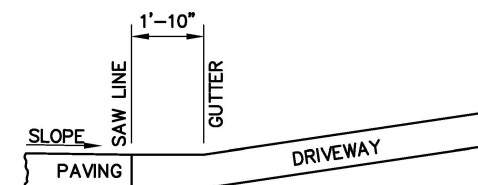
2 CURB & GUTTER
6 6" BARRIER TYPE - FALL AWAY

REVISION		BY	DATE
ADDENDUM Δ		D.S.	3/8/21
TYPICAL SECTIONS			
WHITTAKER STREET REHABILITATION			
SHAWNEE MUNICIPAL AUTHORITY CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
PLAN SCALE: 1/2"=1'-0"	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL:	LEAD ENGR.		
	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2020
	DESIGN MANAGER		SHEET 6 OF 22 SHEETS

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1 CROSS STREET CONCRETE VALLEY GUTTER DETAIL
7 SCALE: 3/32" = 1'-0"



5 GUTTER SECTION AT PAVEMENT
7 NTS



COLOR:
BORDER AND LEGEND:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLOURESCENT YELLOW-GREEN
(REFLECTORIZED)

REVISION	BY	DATE
ADDENDUM <u>3</u>	D.S.	3/8/21

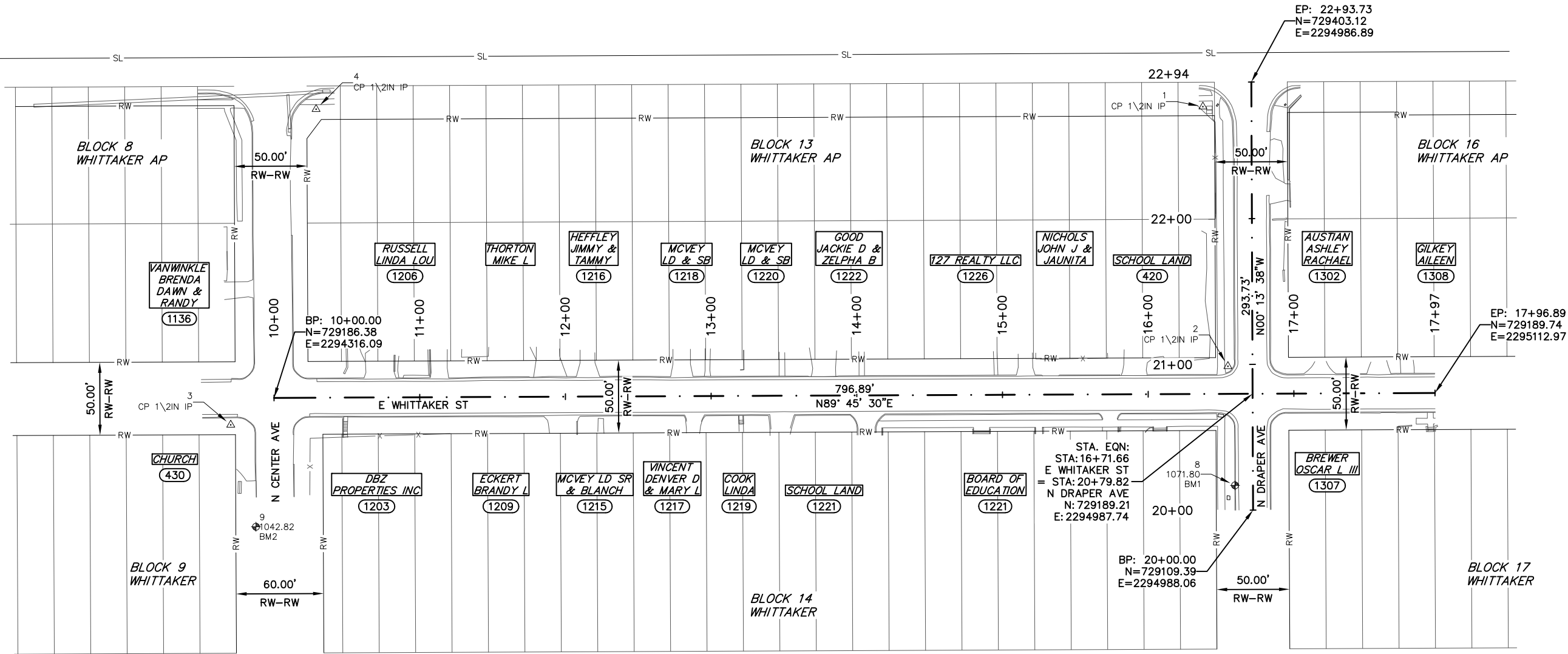
SHAWNEE MUNICIPAL AUTHORITY\

CITY OF SHAWNEE, OKLAHOMA

ENGINEERING SERVICES DEPARTMENT

PLAN SCALE: AS SHOWN	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL:	LEAD ENGR.		
	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2020
	DESIGN MANAGER		SHEET 7 OF 22 SHEETS

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SURVEY COORDINATE TABLE				
ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
8	BM1	729126.35	2294975.69	1071.80
9	BM2	729097.93	2294303.65	1042.82

SURVEY COORDINATE TABLE			
ID	DESCRIPTION	NORTHING	EASTING
1	CP 1\2IN IP	729386.22	2294953.64
2	CP 1\2IN IP	729208.09	2294970.81
3	CP 1\2IN IP	729167.85	2294286.39
4	CP 1\2IN IP	729384.50	2294344.95

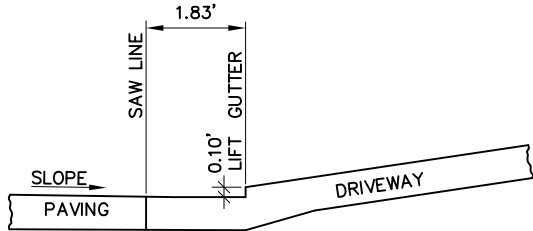
REVISION	BY	DATE
SURVEY DATA		
WHITTAKER STREET REHABILITATION		
SHAWNEE MUNICIPAL AUTHORITY\ CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY:  HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012		
PLAN SCALE: 1"=40'	DRAWN DESIGNED SURVEY	PGM DAS
PROFILE SCALE:	PROJ. MGR.	
HORIZONTAL:	LEAD ENGR. FIELD MGR.	
VERTICAL:	RECOMMENDED: DESIGN MANAGER	DATE: 2020 SHEET 8 OF 21 SHEETS

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E WHITTAKER ST DRIVEWAY TABLE										
DRIVEWAY	STATION	RADIUS DOWN (FT)	RADIUS UP (FT)	WIDTH (FT)	DEPTH (FT)	AREA (SY)	AGG. BASE TYPE "A" (CY)	SURFACE	EXIST. SLOPE %	PROP. SLOPE %
* DW-1	10+72.71 LT	2.5	2.5	19.6	13.9	32.0	5.3	CONCRETE	9.4	13.5
* DW-2	11+13.46 LT	2.5	2.5	11.4	13.9	19.2	3.2	CONCRETE	11.0	12.0
DW-3	11+88.57 LT	2.5	2.5	17.2	13.9	33.1	5.5	CONCRETE	6.3	9.3
* DW-4	12+00.00 RT	5.0	2.5	18.6	14.1	33.4	5.6	CONCRETE	14.5	18.1
* DW-5	12+15.26 LT	2.5	2.5	10.2	13.9	21.7	3.6	CONCRETE	10.2	17.8
DW-6	12+79.91 LT	2.5	2.5	12.0	13.9	22.4	3.7	CONCRETE	2.8	5.6
* DW-7	12+87.52 RT	2.5	2.5	9.1	14.1	12.0	2.0	CONCRETE	17.8	17.5
* DW-8	13+50.00 RT	2.5	2.5	14.2	14.1	27.4	4.6	CONCRETE	13.2	13.2
DW-9	13+77.36 LT	2.5	2.5	17.1	13.9	28.0	4.7	CONCRETE	3.1	-3.7
DW-10	14+06.90 RT	10.0	10.0	6.3	6.5	18.8	3.1	CONCRETE	10.0	7.8
DW-11	15+15.79 LT	2.5	2.5	9.9	13.9	18.2	3.0	CONCRETE	2.6	-0.6
* DW-12	15+73.73 RT	2.5	2.5	10.7	6.5	11.5	1.9	CONCRETE	10.2	16.5
DW-13	15+93.60 LT	2.5	2.5	20.2	13.9	26.5	4.4	CONCRETE	3.3	0.4
* DW-14	17+18.47 LT	10.0	10.0	7.3	11.5	21.2	3.5	CONCRETE	13.6	5.7
DW-15	17+58.58 LT	2.5	2.5	10.4	11.5	19.1	3.2	CONCRETE	7.1	5.0
DW-16	17+77.86 LT	2.5	2.5	9.3	7.5	9.6	1.6	CONCRETE	11.1	7.2
					TOTAL	354.1	59.0			

N DRAPER AVE DRIVEWAY TABLE										
DRIVEWAY	STATION	RADIUS DOWN (FT)	RADIUS UP (FT)	WIDTH (FT)	DEPTH (FT)	AREA (SY)	AGG. BASE TYPE "A" (CY)	SURFACE	EXIST. SLOPE %	PROP. SLOPE %
DW-17	22+19.05 RT	2.5	10.0	16.1	7.5	18.5	3.1	CONCRETE	4.8	4.7

* SEE DETAIL



* PROVIDE 0.10' LIFT AT DRIVEWAY

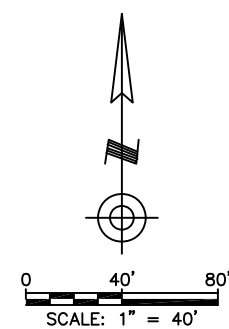
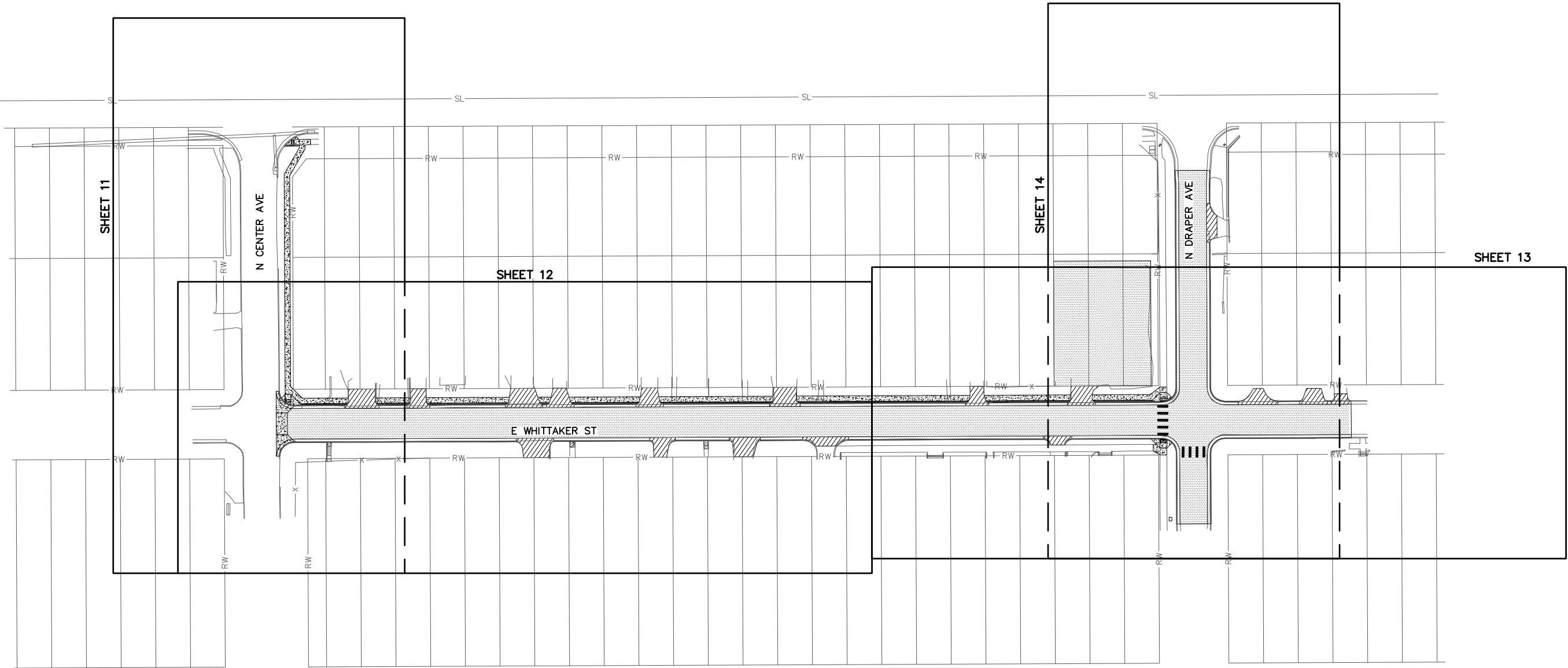


*DRIVEWAY SECTION

NTS

REVISION		BY	DATE
DRIVEWAY TABLES			
WHITTAKER STREET REHABILITATION			
SHAWNEE MUNICIPAL AUTHORITY\ CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
PLAN SCALE:	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL:	LEAD ENGR.		
	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2020
	DESIGN MANAGER		SHEET 9 OF 21 SHEETS

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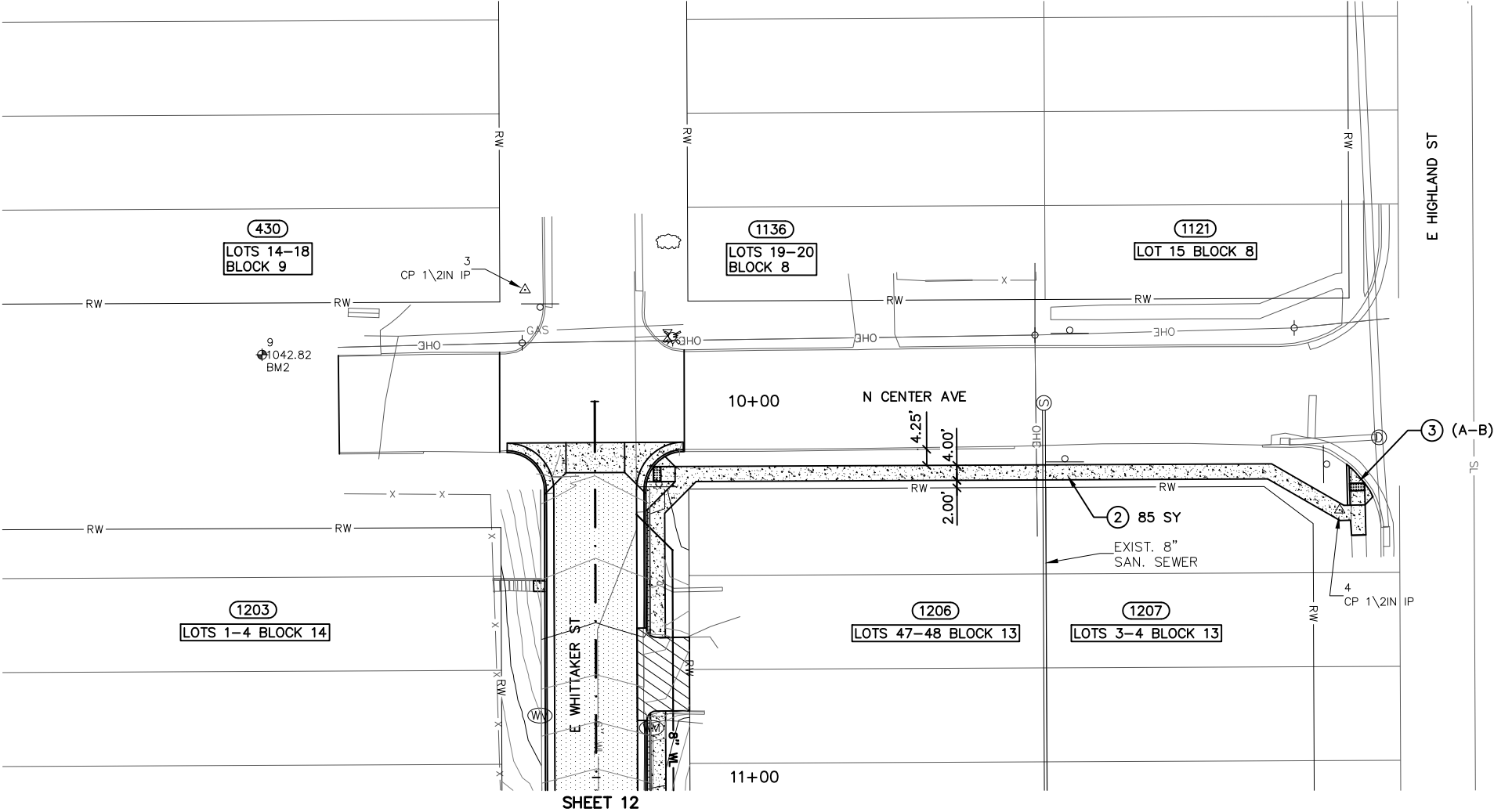


LEGEND

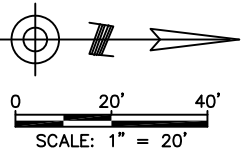
	ASPHALT PAVEMENT FULL REPLACEMENT
	DRIVEWAY (REMOVE & REPLACE)
	CONCRETE SIDEWALK/CONCRETE VALLEY GUTTER

REVISION		BY	DATE
KEY MAP PAVING			
WHITTAKER STREET REHABILITATION			
SHAWNEE MUNICIPAL AUTHORITY CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		 HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
PLAN SCALE: 1"=40'	DRAWN	PGM	
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VERTICAL:	RECOMMENDED:		DATE: 2020
	DESIGN MANAGER		SHEET 10 OF 21 SHEETS

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- PLAN AND PROFILE KEYED NOTES
FOR STREET REPLACEMENT
- ① SAW PAVEMENT (FULL DEPTH)
MATCH EXISTING ELEV. WITH NEW PAVEMENT
 - ② CONSTRUCT NEW SIDEWALK
 - ③ INSTALL SIDEWALK RAMP, ODOT STD R-98E TYPE ()
 - ④ CONSTRUCT VALLEY GUTTER PER DETAIL 1/7
 - ⑤ ADJUST VALVE BOX TO GRADE
 - ⑥ ADJUST MANHOLE TO GRADE
 - ⑦ RELOCATE/ADJUST EXISTING WATER METER
 - ⑧ RELOCATE/RECONNECT FIRE HYDRANT
 - ⑨ REPLACE ROOF DRAIN PER PAY ITEM NOTE 29
 - ⑩ REMOVE/RESET SIGN
(RELOCATE WHEN NECESSARY)
 - ⑪ INSTALL SCHOOL X-ING SIGN (S1-1)
PER DETAIL 6/6
*ADD ALT NO. 1 w/ RRB COMPLETE-IN-PLACE



LEGEND	
	ASPHALT PAVEMENT FULL REPLACEMENT
	DRIVEWAY (REMOVE & REPLACE)
	CONCRETE SIDEWALK/CONCRETE VALLEY GUTTER
	STAMPED CONCRETE
	(9999) STREET ADDRESS

REVISION	BY	DATE

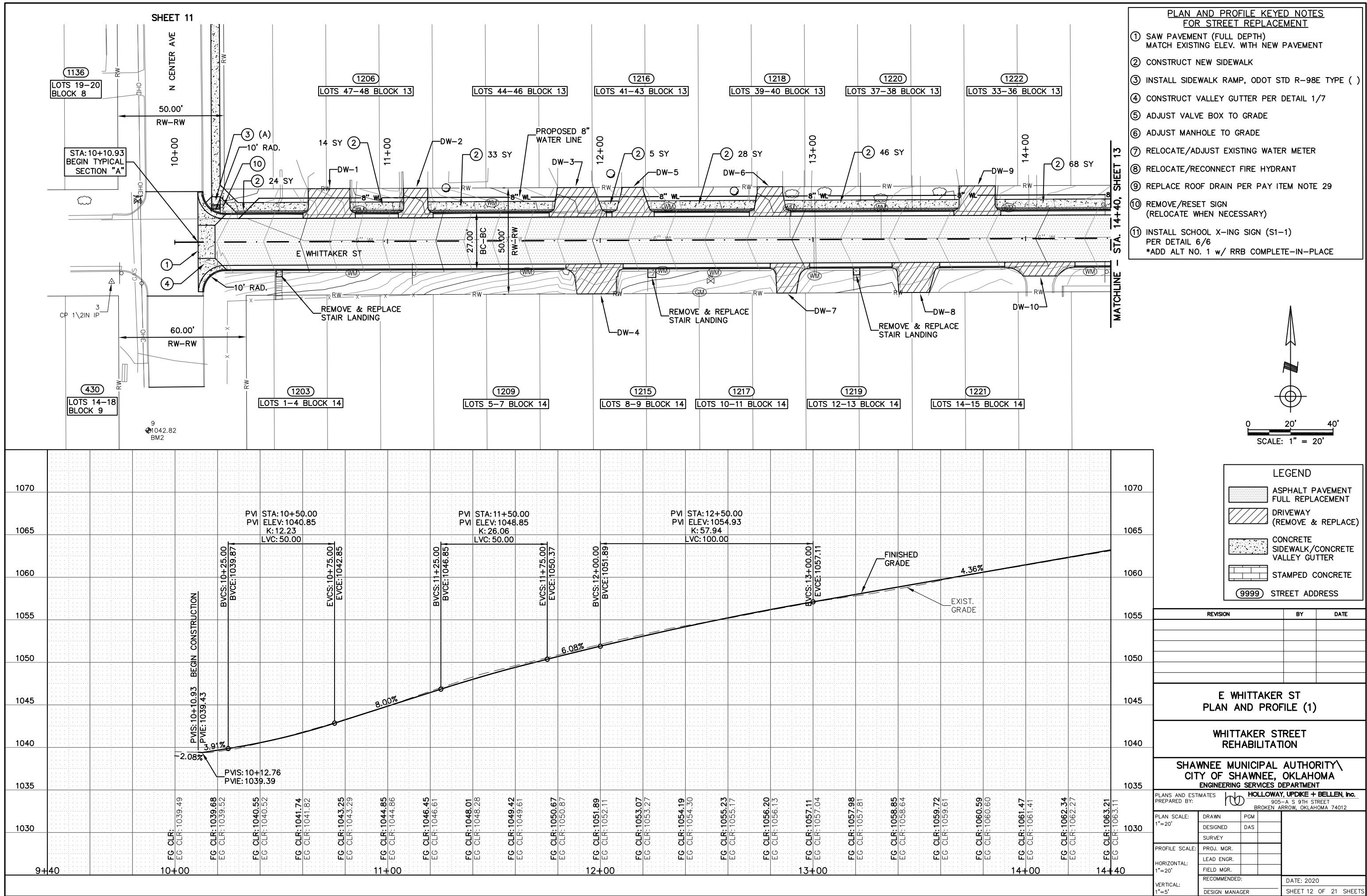
N CENTER ST
PLAN

WHITTAKER STREET
REHABILITATION

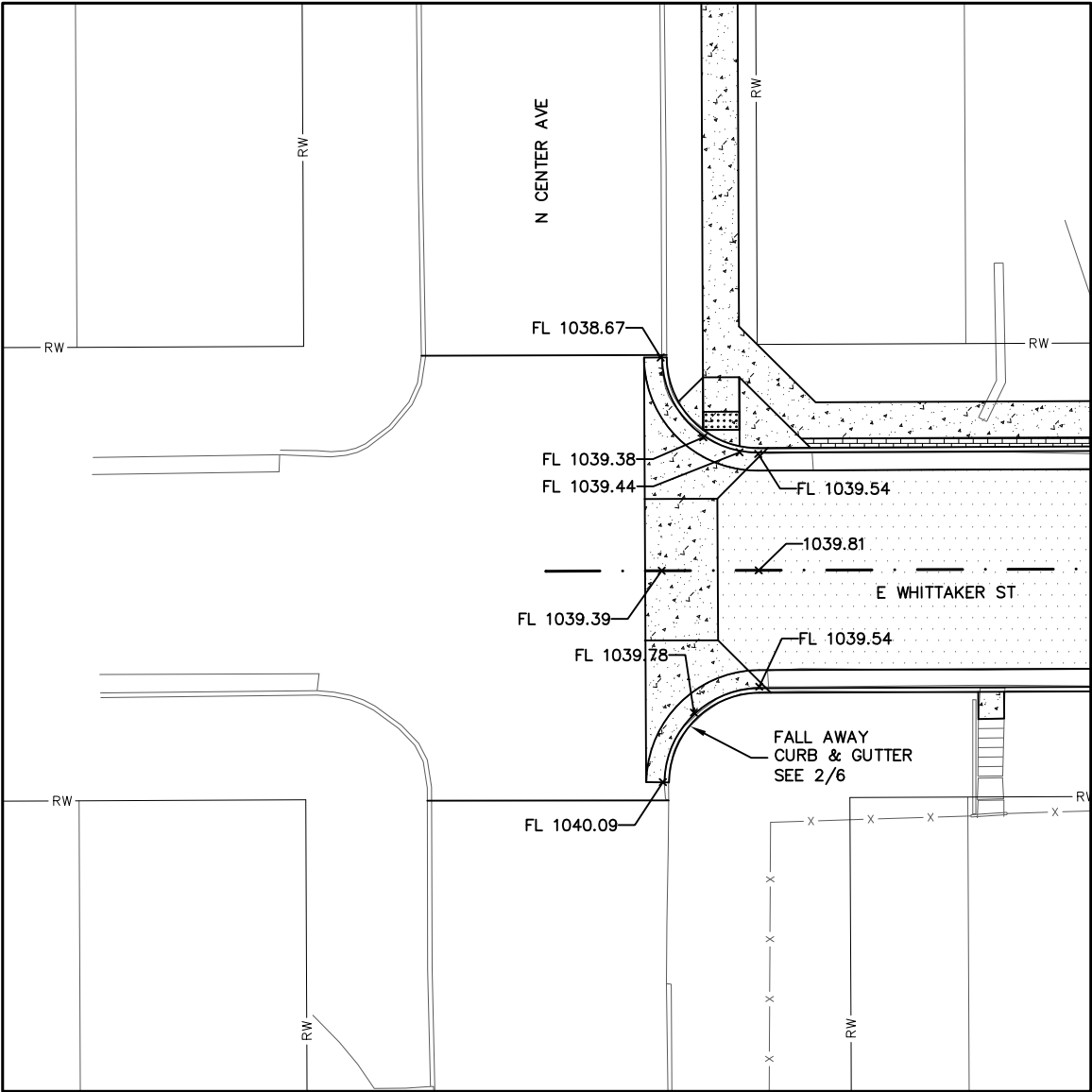
SHAWNEE MUNICIPAL AUTHORITY
CITY OF SHAWNEE, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES
PREPARED BY:  HOLLOWAY, UPDIKE + BELLEN, Inc.
905-A S 9TH STREET
BROKEN ARROW, OKLAHOMA 74012

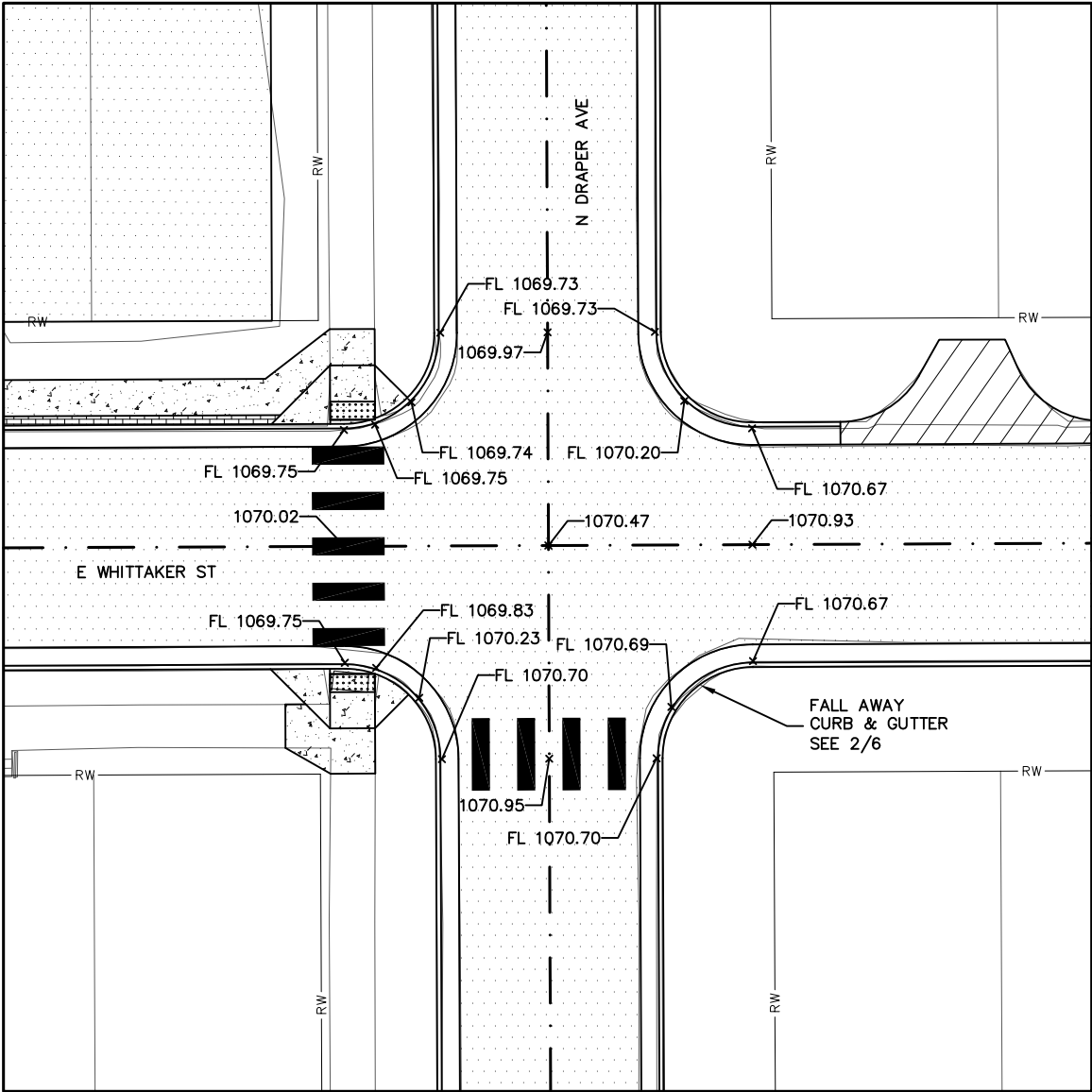
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	RECOMMENDED:		
	DESIGN MANAGER		
			DATE: 2020
			SHEET 11 OF 21 SHEETS



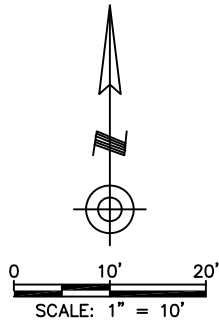
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1 E WHITTAKER ST & N CENTER AVE
SCALE: 1" = 10'



2 E WHITTAKER & N DRAPER AVE
SCALE: 1" = 10'



LEGEND	
	ASPHALT PAVEMENT FULL REPLACEMENT
	DRIVEWAY (REMOVE & REPLACE)
	CONCRETE SIDEWALK/CONCRETE VALLEY GUTTER
	STAMPED CONCRETE
	9999 STREET ADDRESS

REVISION	BY	DATE

INTERSECTION
PLANS

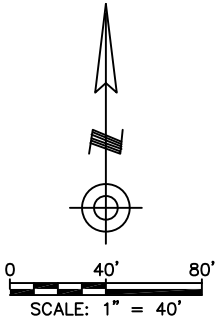
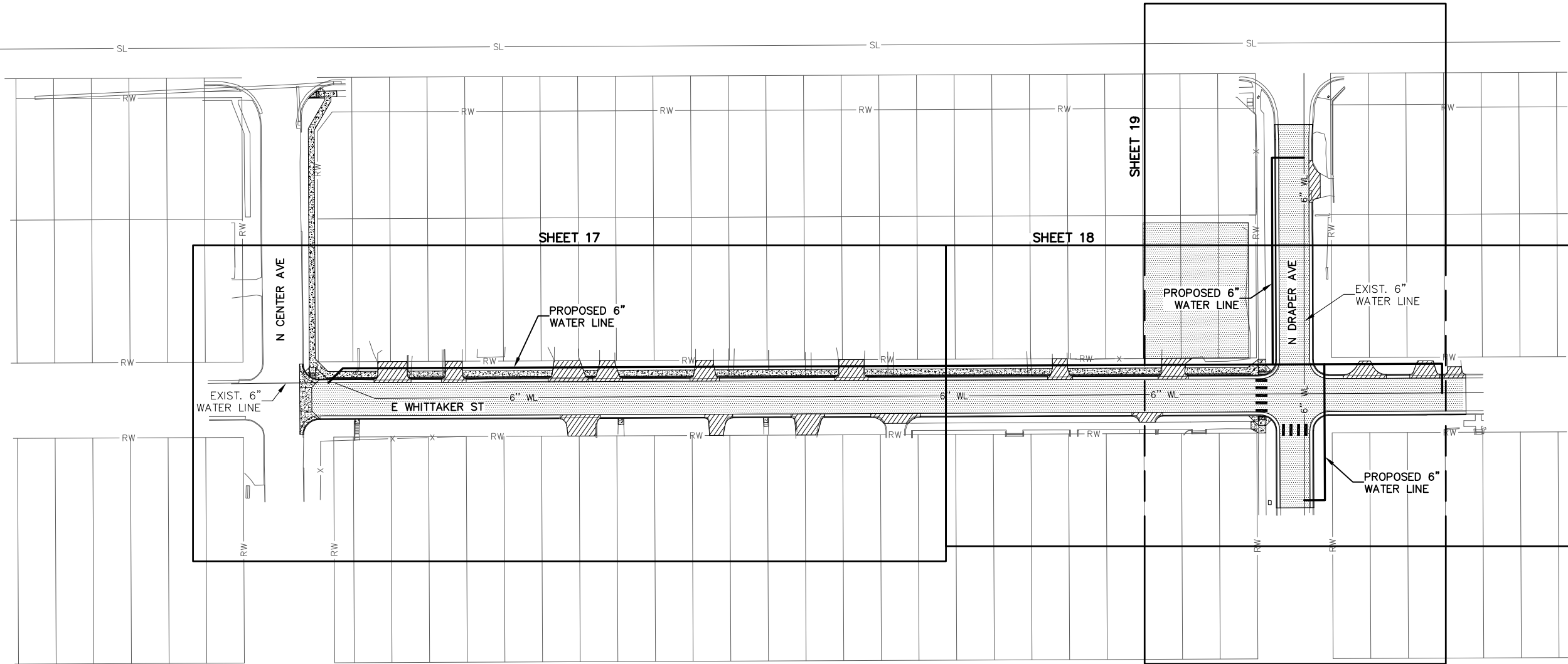
WHITTAKER STREET
REHABILITATION

SHAWNEE MUNICIPAL AUTHORITY
CITY OF SHAWNEE, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES
PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
905-A S 9TH STREET
BROKEN ARROW, OKLAHOMA 74012

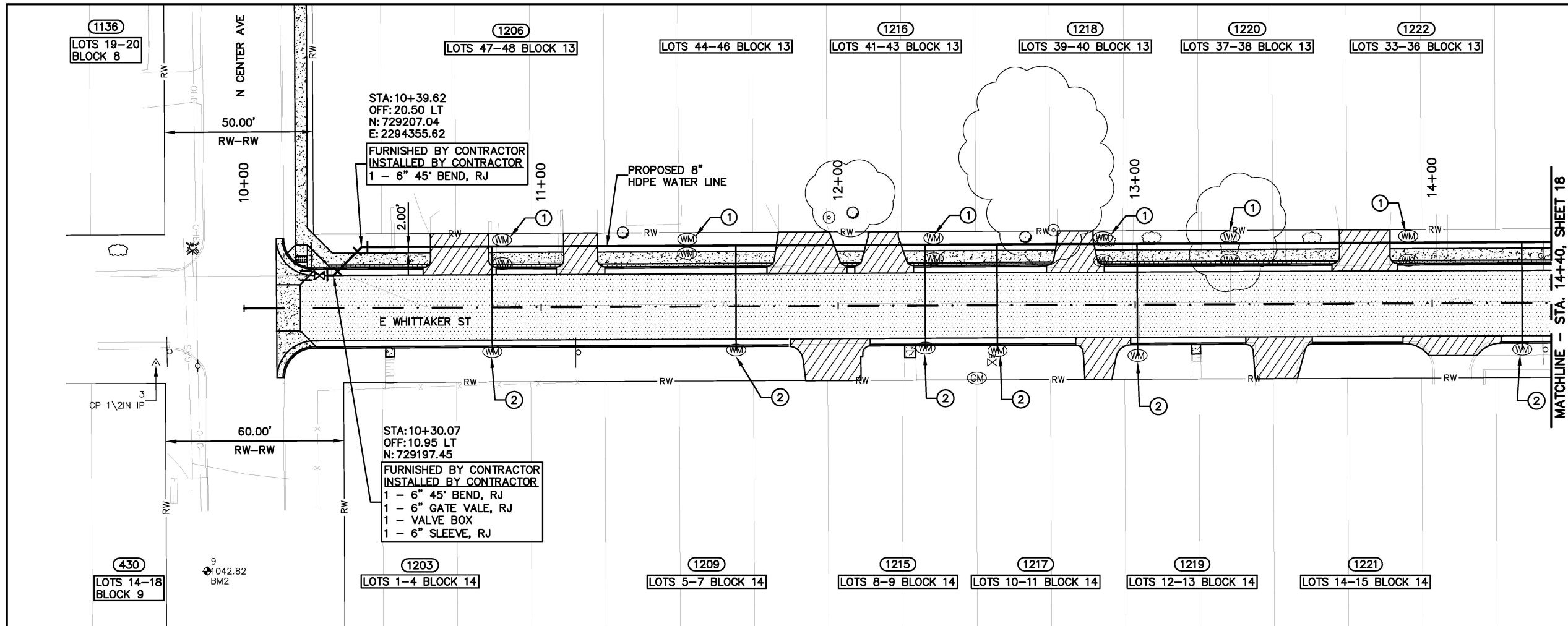
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	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2020
	DESIGN MANAGER		SHEET 15 OF 21 SHEETS

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REVISION		BY	DATE
KEY MAP WATER			
WHITTAKER STREET REHABILITATION			
SHAWNEE MUNICIPAL AUTHORITY CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
PLAN SCALE: 1"=40'	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL:	LEAD ENGR.		
	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2020
	DESIGN MANAGER		SHEET 16 OF 21 SHEETS

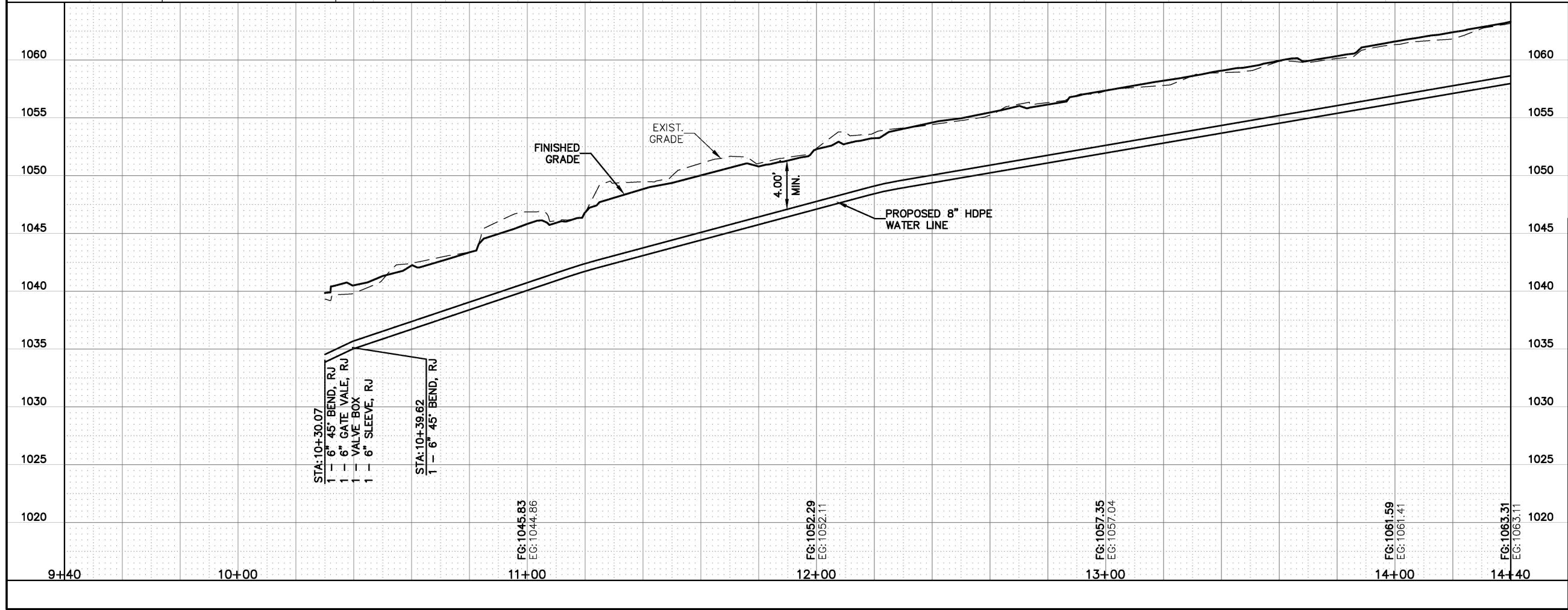
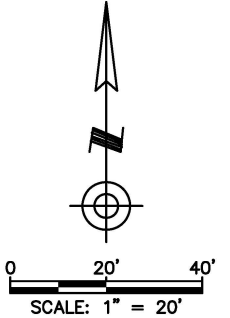
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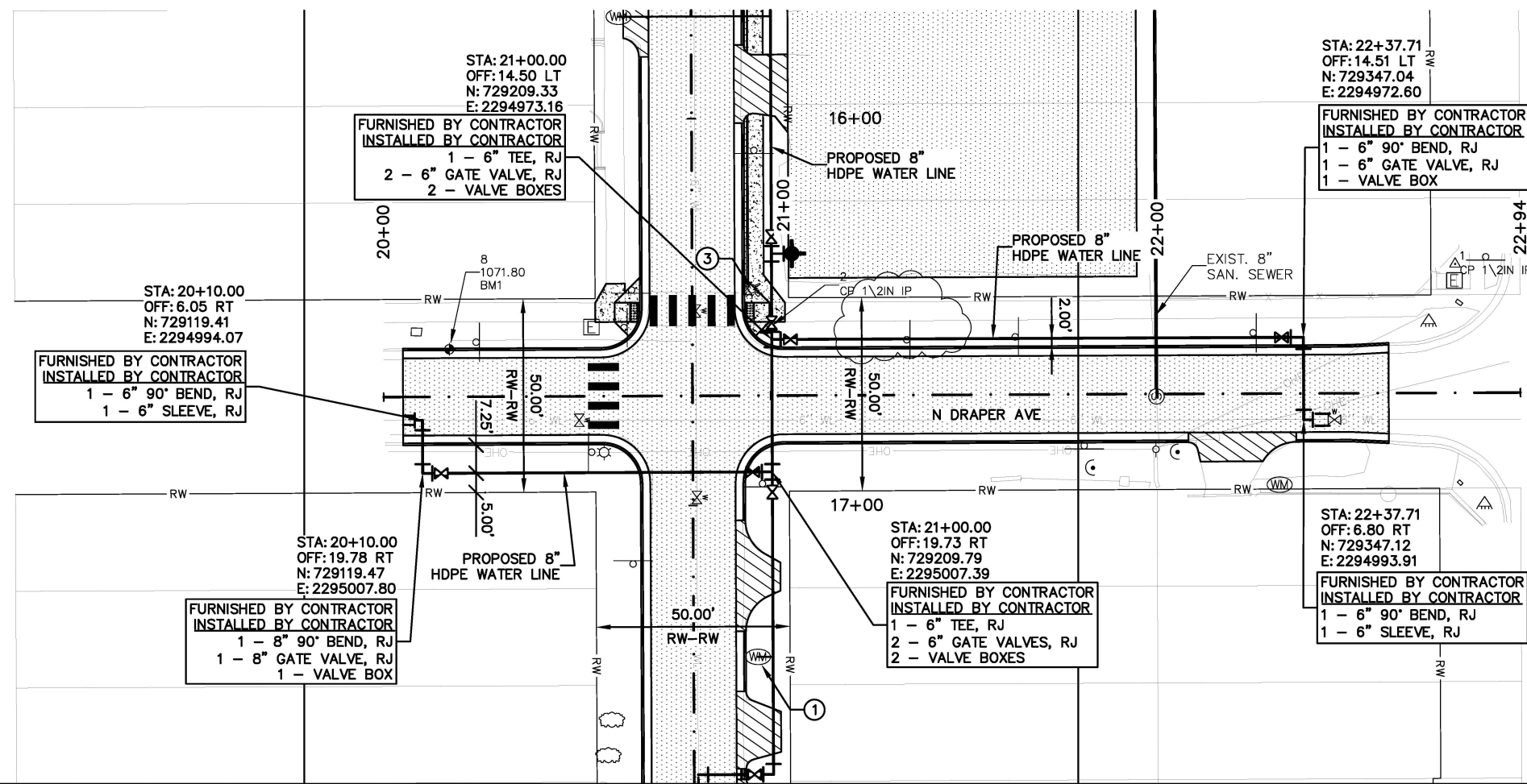
KEYED NOTES & LEGEND

- ① RELOCATE/RECONNECT EXISTING WATER METER TO PROPOSED WATER LINE AND INSTALL NEW WATER SERVICE LINE (SHORT SERVICE).
- ② RECONNECT EXISTING WATER METER TO PROPOSED WATER LINE AND INSTALL NEW WATER SERVICE LINE AND CROSSING (LONG SERVICE).
- ③ REMOVE EXISTING HYDRANT.

☁ TREE CANOPY LINE

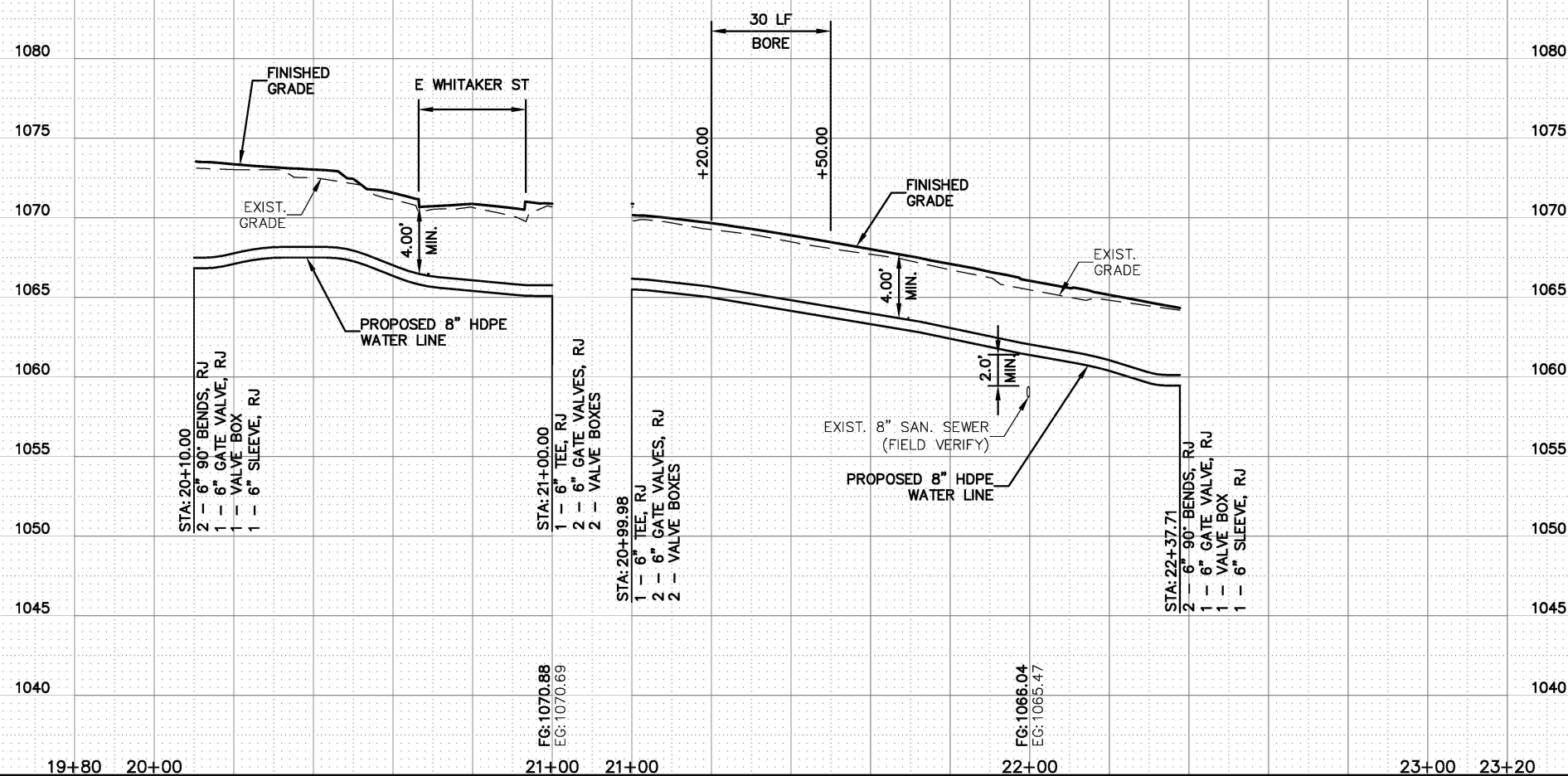
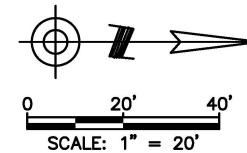


REVISION	BY	DATE
PROPOSED WATER LINE PLAN AND PROFILE (1)		
WHITTAKER STREET REHABILITATION		
SHAWNEE MUNICIPAL AUTHORITY CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012		
PLAN SCALE: 1"=20'	DRAWN DESIGNED SURVEY	PGM DAS
PROFILE SCALE: 1"=20'	PROJ. MGR. LEAD ENGR. FIELD MGR.	
HORIZONTAL: 1"=20'		
VERTICAL: 1"=5'	RECOMMENDED: DESIGN MANAGER	DATE: 2020 SHEET 17 OF 21 SHEETS



- ### KEYED NOTES & LEGEND
- ① RELOCATE/RECONNECT EXISTING WATER METER TO PROPOSED WATER LINE AND INSTALL NEW WATER SERVICE LINE (SHORT SERVICE).
 - ② RECONNECT EXISTING WATER METER TO PROPOSED WATER LINE AND INSTALL NEW WATER SERVICE LINE AND CROSSING (LONG SERVICE).
 - ③ REMOVE EXISTING HYDRANT.
- 

TREE CANOPY LINE



REVISION	BY	DATE

PROPOSED WATER LINE PLAN AND PROFILE (3)

WHITTAKER STREET REHABILITATION

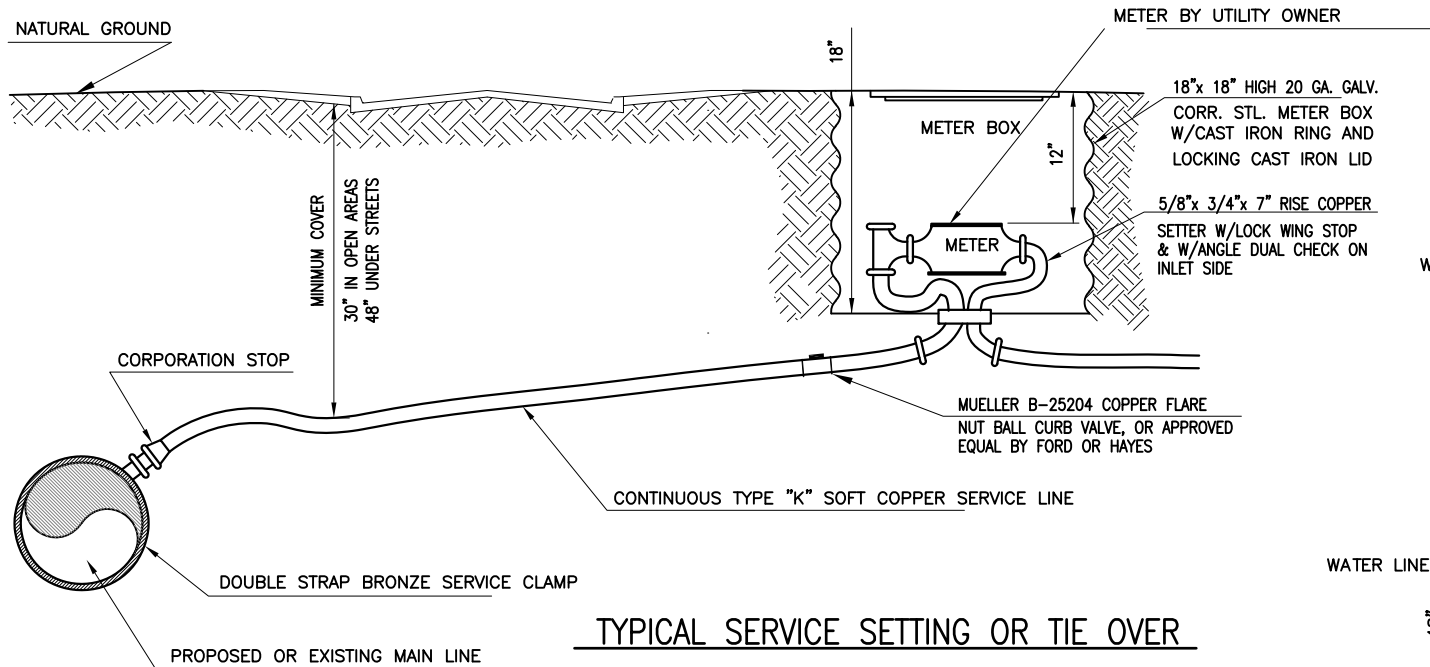
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CITY OF SHAWNEE, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES
PREPARED BY:

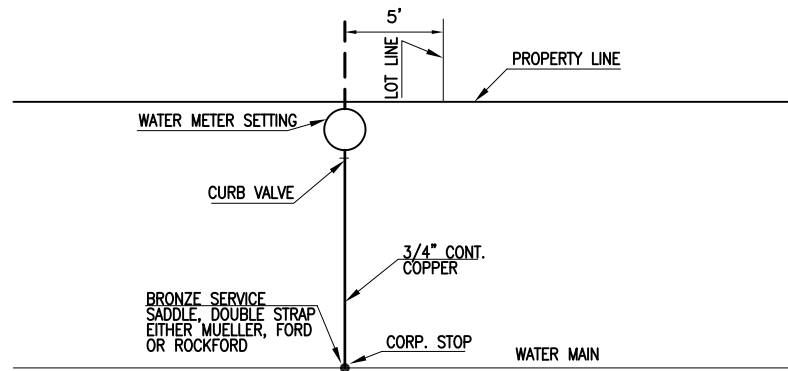
 **HOLLOWAY, UPDIKE + BELLEN, Inc.**
905-A S 9TH STREET
BROKEN ARROW, OKLAHOMA 74012

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	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
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	FIELD MGR.		
VERTICAL: 1"=5'	RECOMMENDED:		
	DESIGN MANAGER		

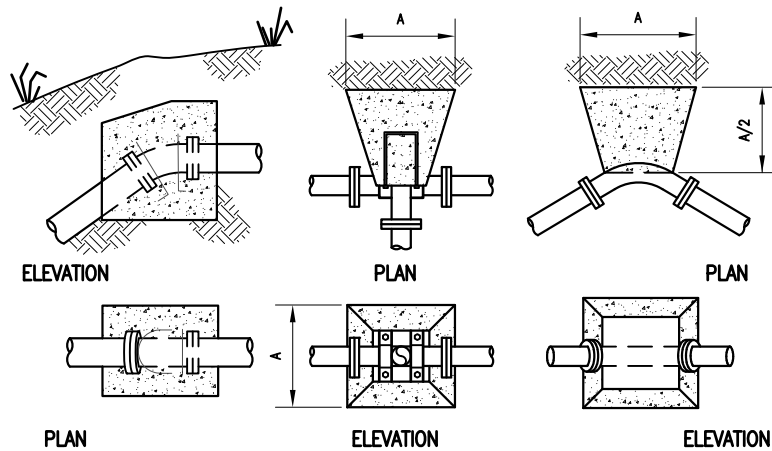
DATE: 2020
SHEET 19 OF 21 SHEET



TYPICAL SERVICE SETTING OR TIE OVER



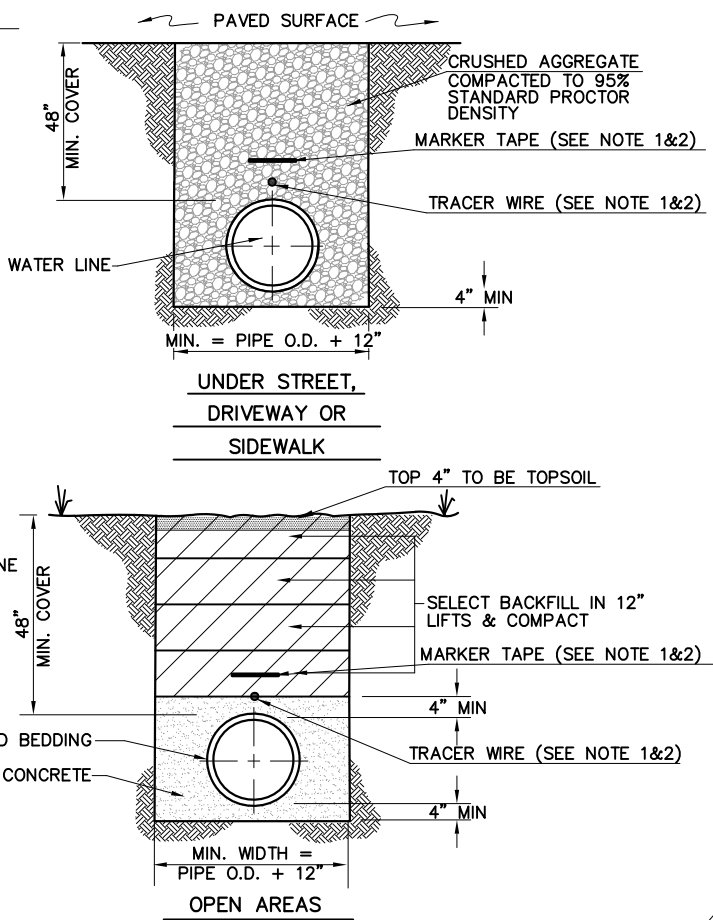
SERVICE CONNECTION DETAIL



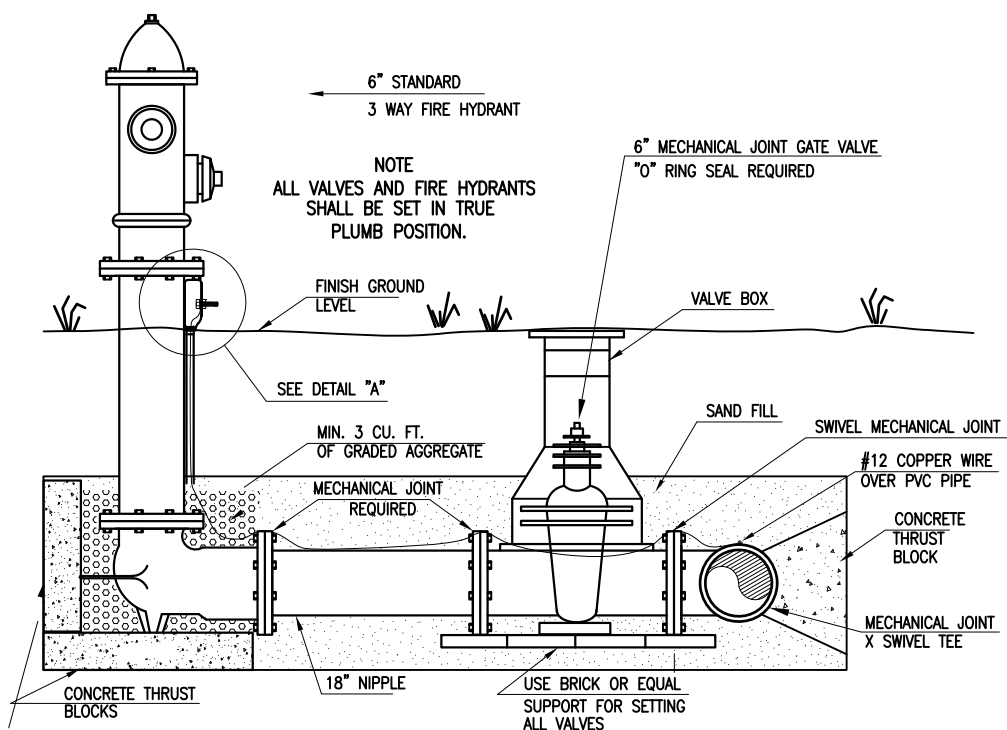
VERTICAL BENDS

"A" DIMENSION (FEET)								
FITTINGS	4' - 6"	8' - 10"	12' - 14"	16' - 18"	20' - 24"	30' - 36"	42' - 48"	54' - 60"
90° OR TEE	1.73	2.89	4.04	5.20	6.93	10.39	13.85	17.32
45°	1.28	2.12	2.97	3.82	5.10	7.64	10.19	12.74
22 1/2°	0.91	1.55	2.12	2.73	3.64	5.48	7.28	9.10
11 1/4°	0.65	1.10	1.50	1.93	2.58	3.87	5.16	6.45

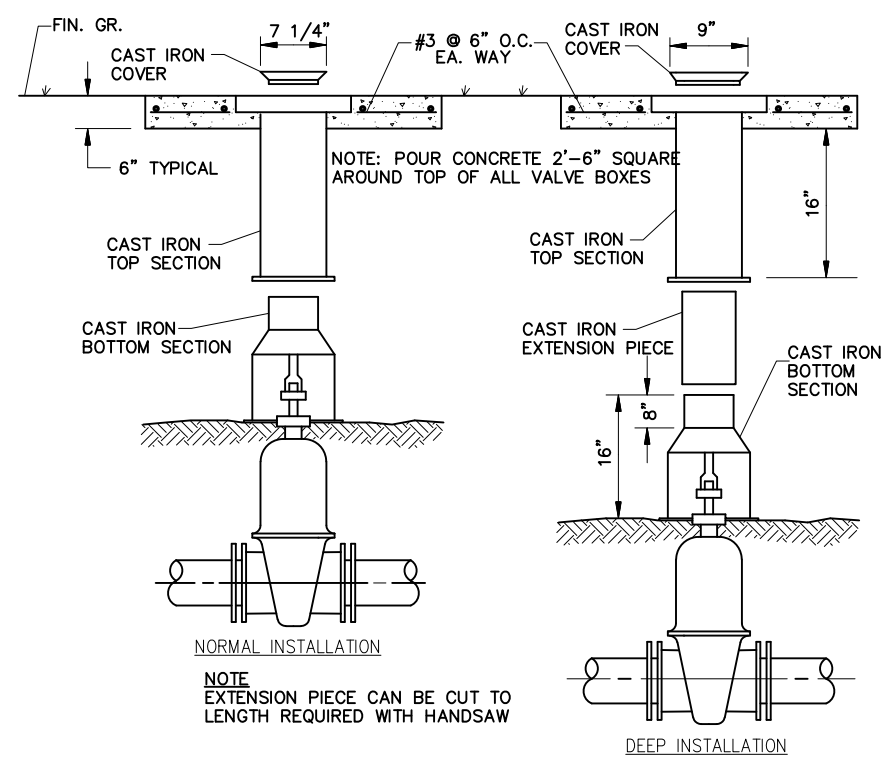
THRUST BLOCKING DETAILS



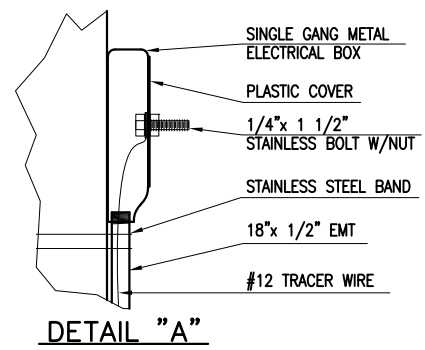
WATER LINE BEDDING DETAIL



FIRE HYDRANT AND VALVE SETTING DETAIL



TYPICAL GATE VALVE

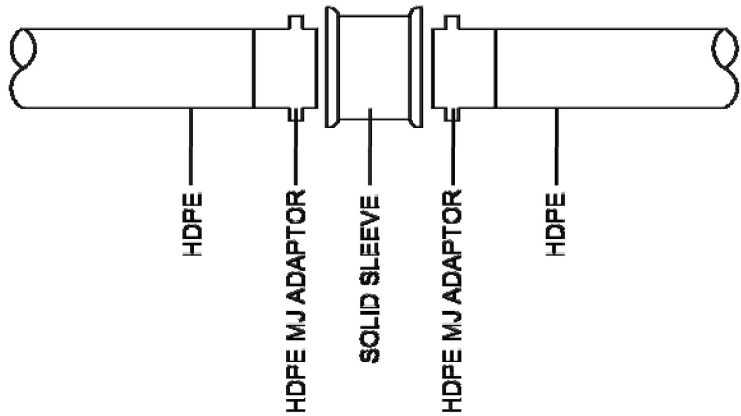


DETAIL "A"

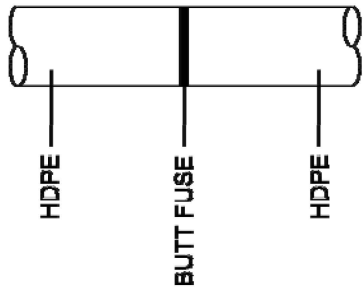
- KEYED AND GENERAL NOTES:
1. TRACER WIRE AND DETECTABLE MARKING TAPE SHALL BE INSTALLED ABOVE ALL PVC AND HDPE PIPE, TERMINATING ONLY ONTO HYDRANTS JUST ABOVE THE GROUND LEVEL PER DETAIL. USE #12 SOLID COPPER WIRE. COST WILL BE INCLUDED IN THE COST OF THE PIPE.
 2. DETECTABLE MARKING TAPE SHALL BE INSTALLED OVER DUCTILE IRON PIPE. COST WILL BE INCLUDED IN THE COST OF THE PIPE.

REVISION	BY	DATE
WATER LINE DETAILS (1)		
WHITTAKER STREET REHABILITATION		
SHAWNEE MUNICIPAL AUTHORITY CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY:  HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012		
PLAN SCALE:	DRAWN PGM	
	DESIGNED DAS	
	SURVEY	
PROFILE SCALE:	PROJ. MGR.	
HORIZONTAL:	LEAD ENGR.	
	FIELD MGR.	
VERTICAL:	RECOMMENDED:	DATE: 2020
	DESIGN MANAGER	SHEET 20 OF 21 SHEETS

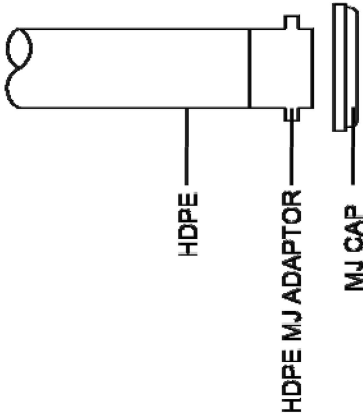
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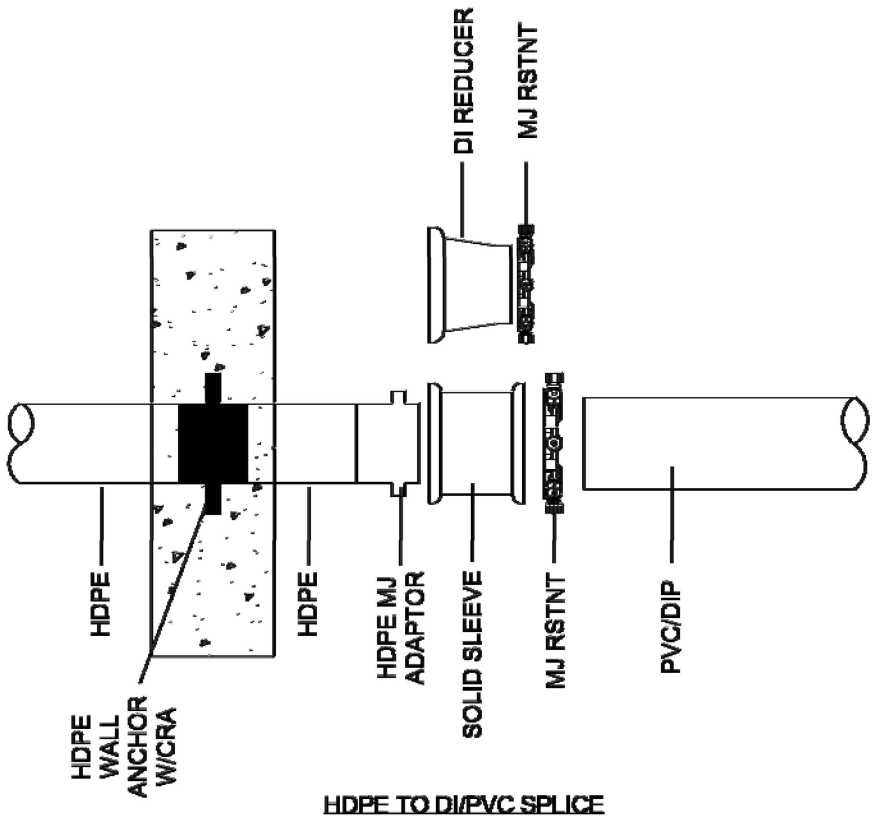
HDPE TO HDPE DI SPLICE



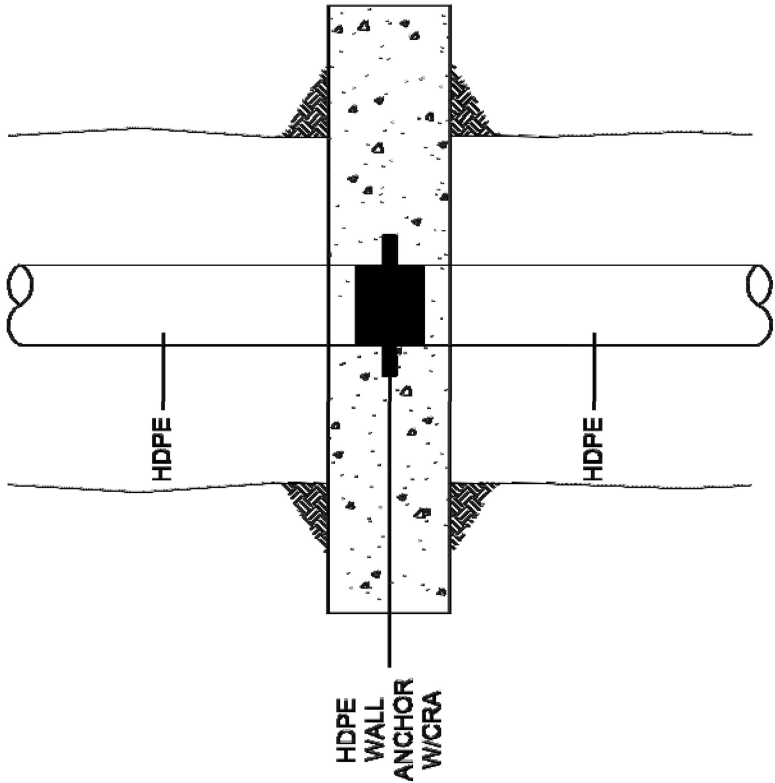
HDPE TO HDPE BUTT FUSE



HDPE TO HDPE BUTT FUSE



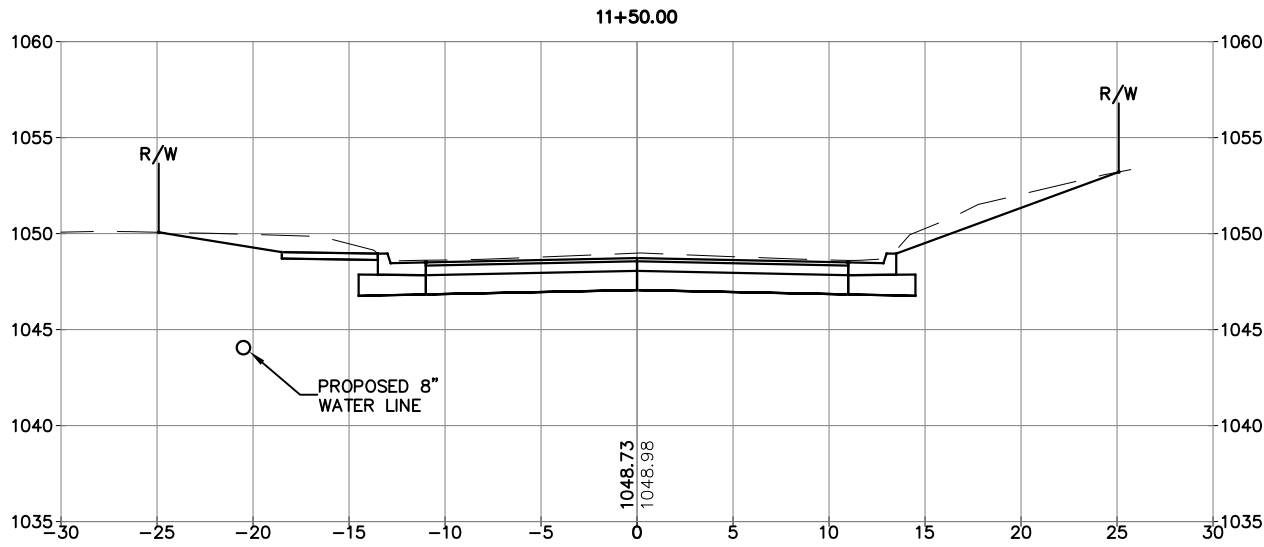
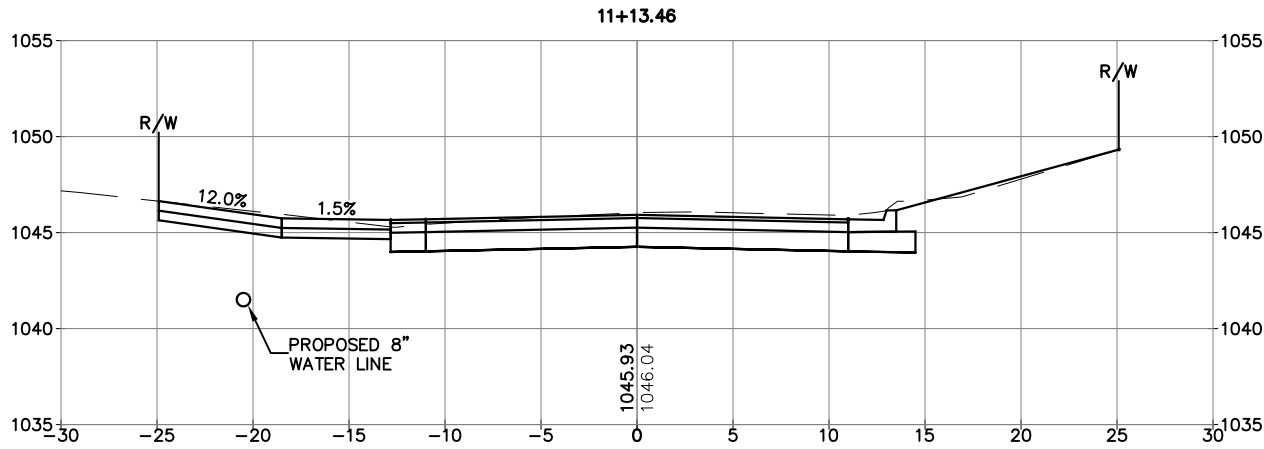
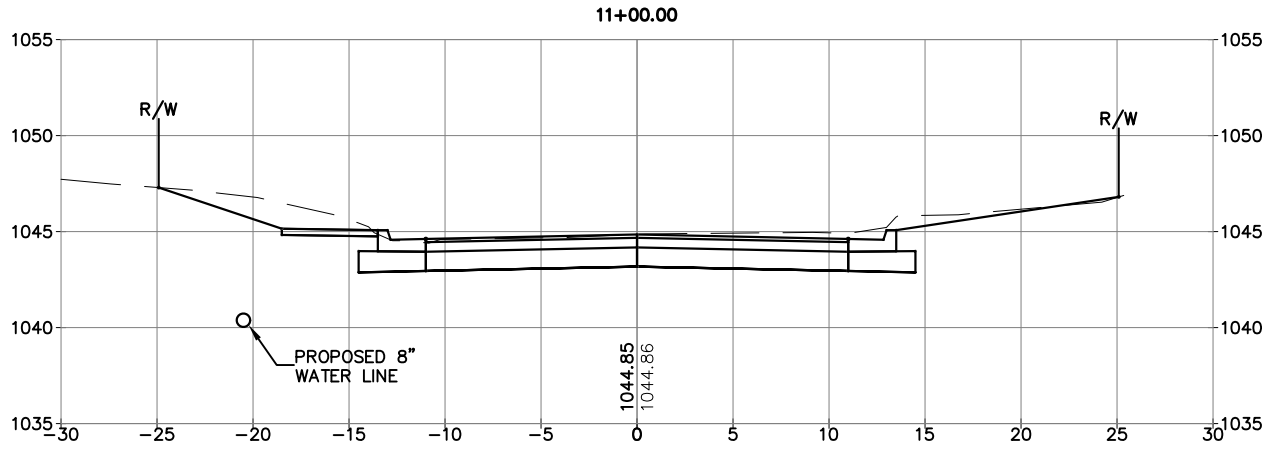
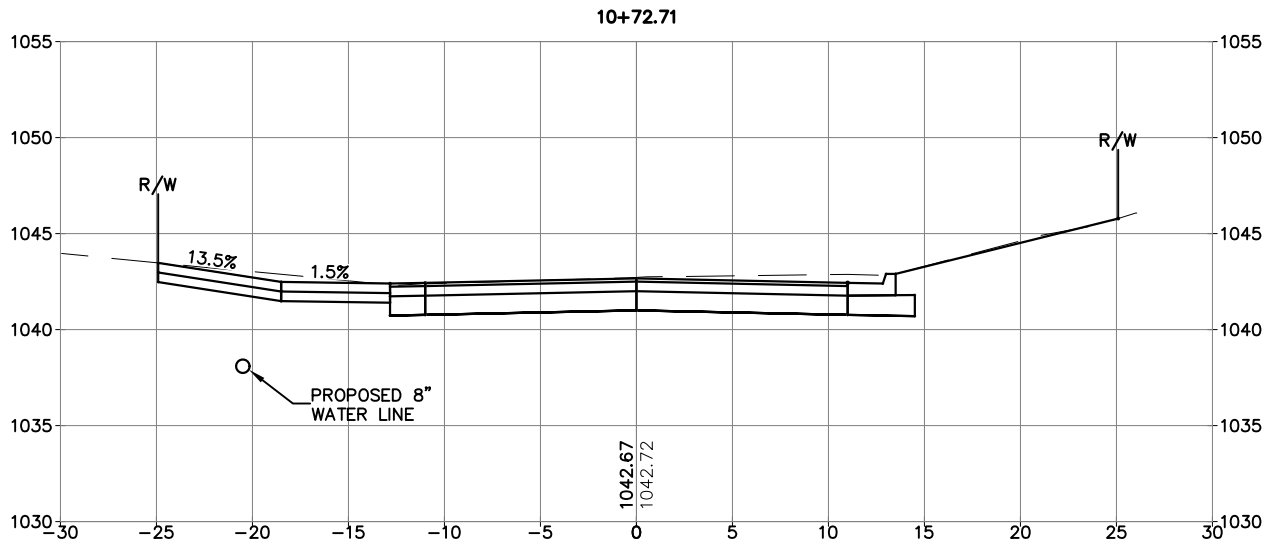
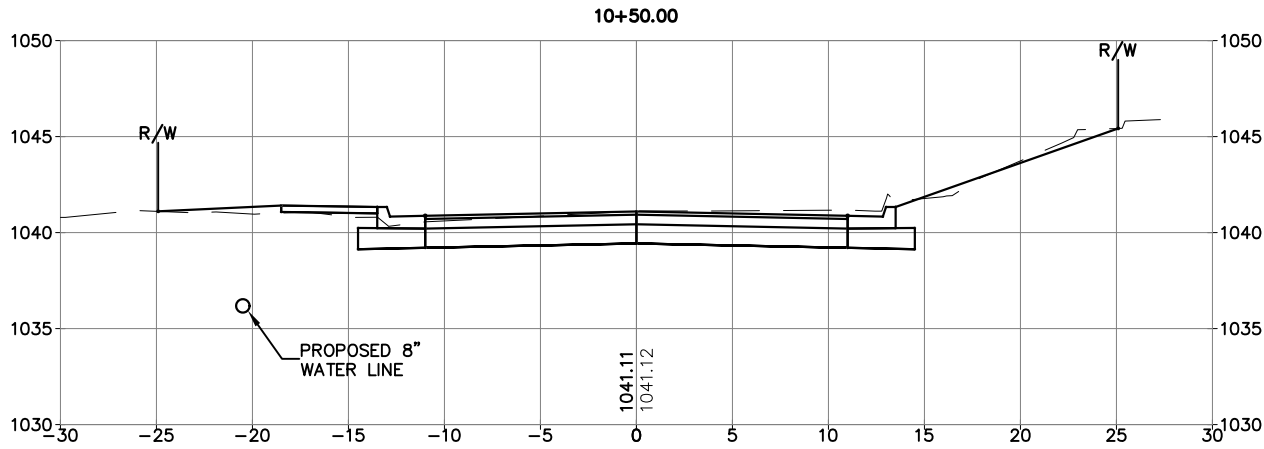
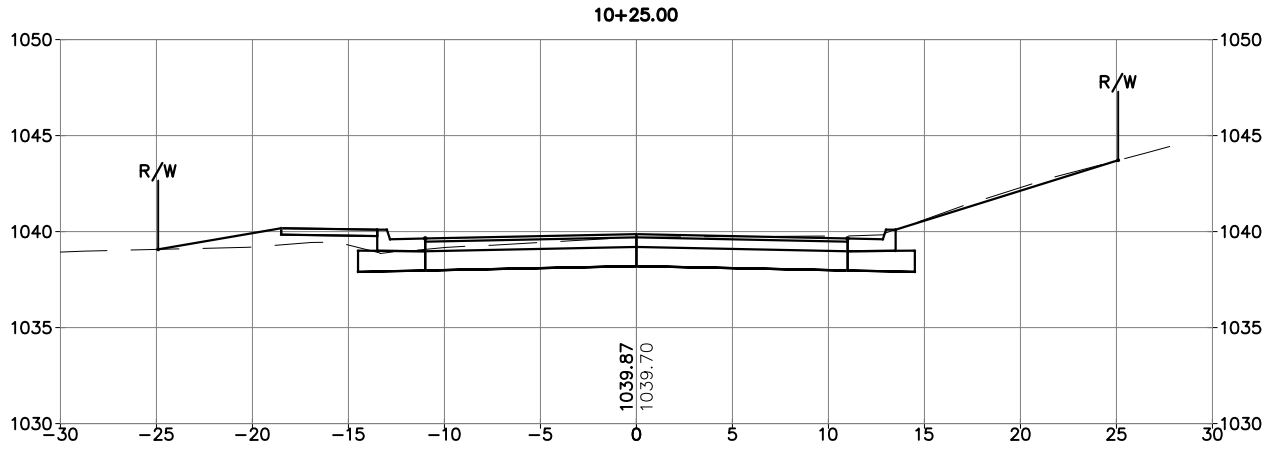
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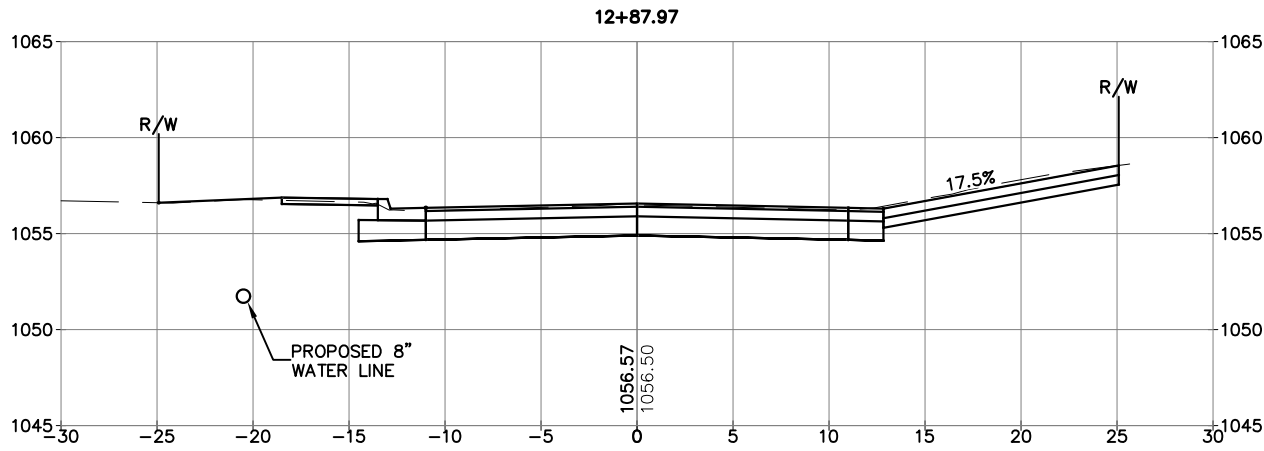
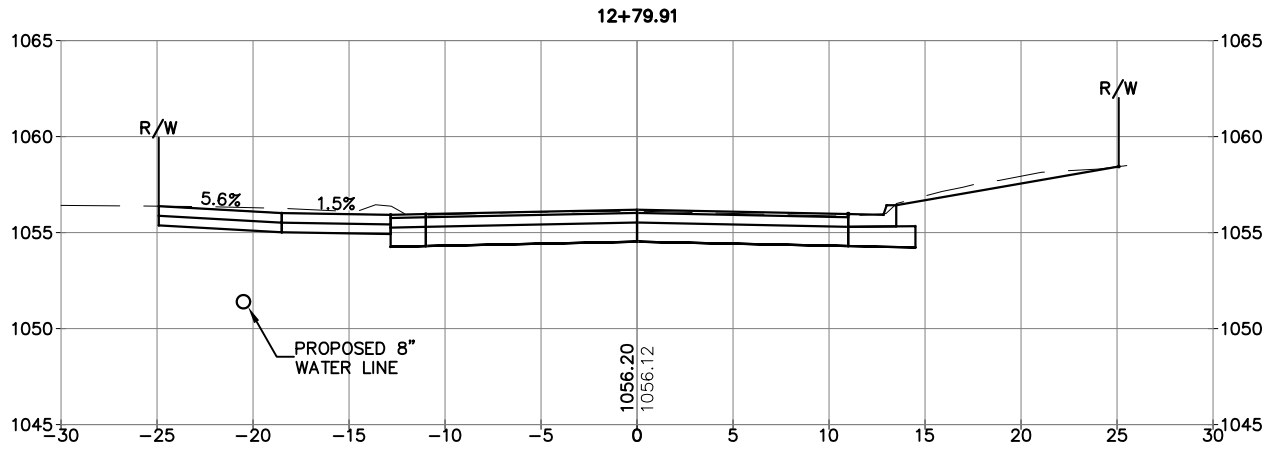
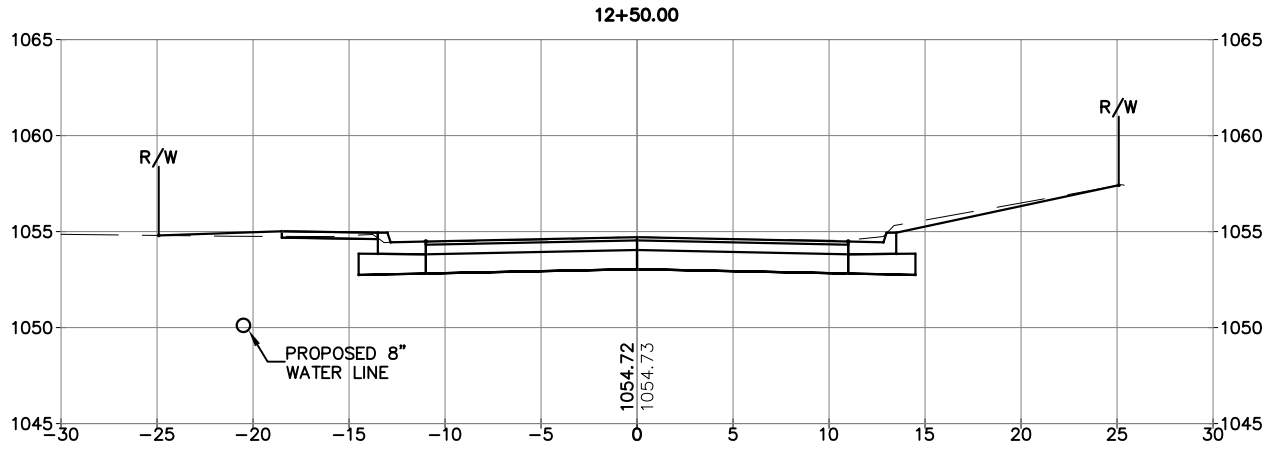
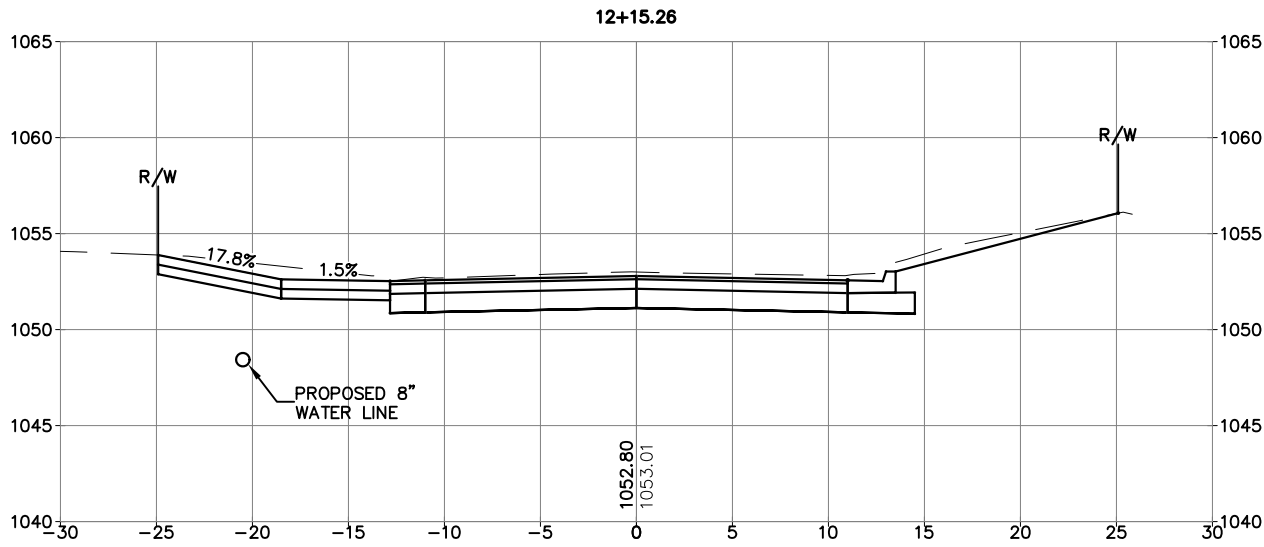
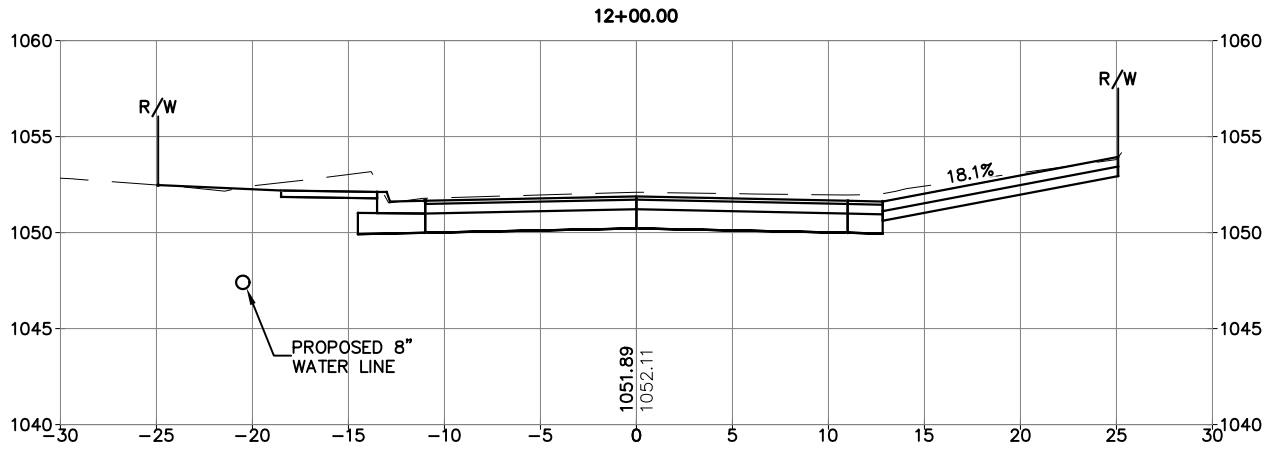
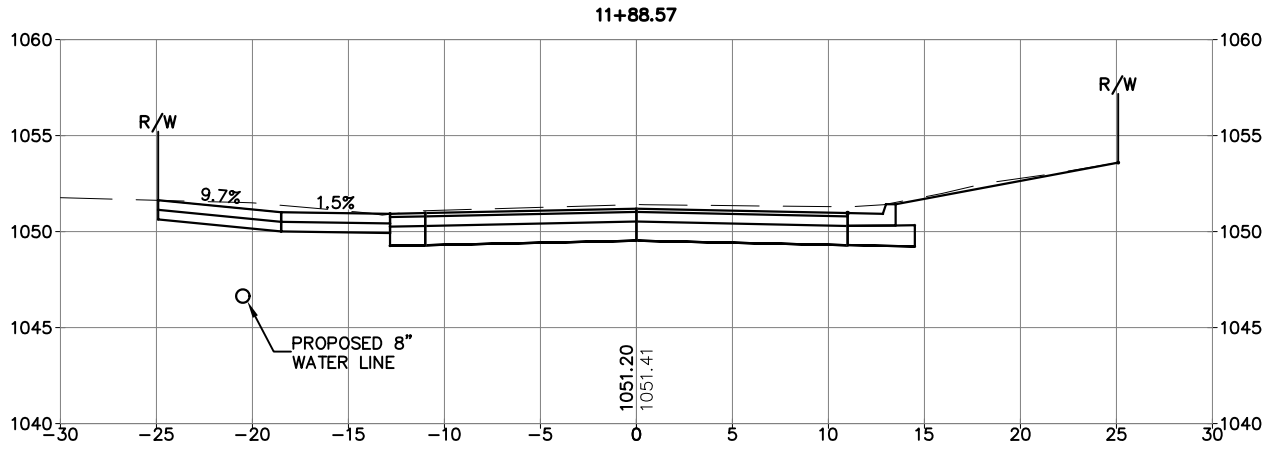
HDPE WALL ANCHOR

REVISION		BY	DATE
HDPE STANDARD DETAILS			
WHITTAKER STREET REHABILITATION			
SHAWNEE MUNICIPAL AUTHORITY CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
PLAN SCALE:	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
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HORIZONTAL:	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2020
	DESIGN MANAGER		SHEET 21 OF 21 SHEETS

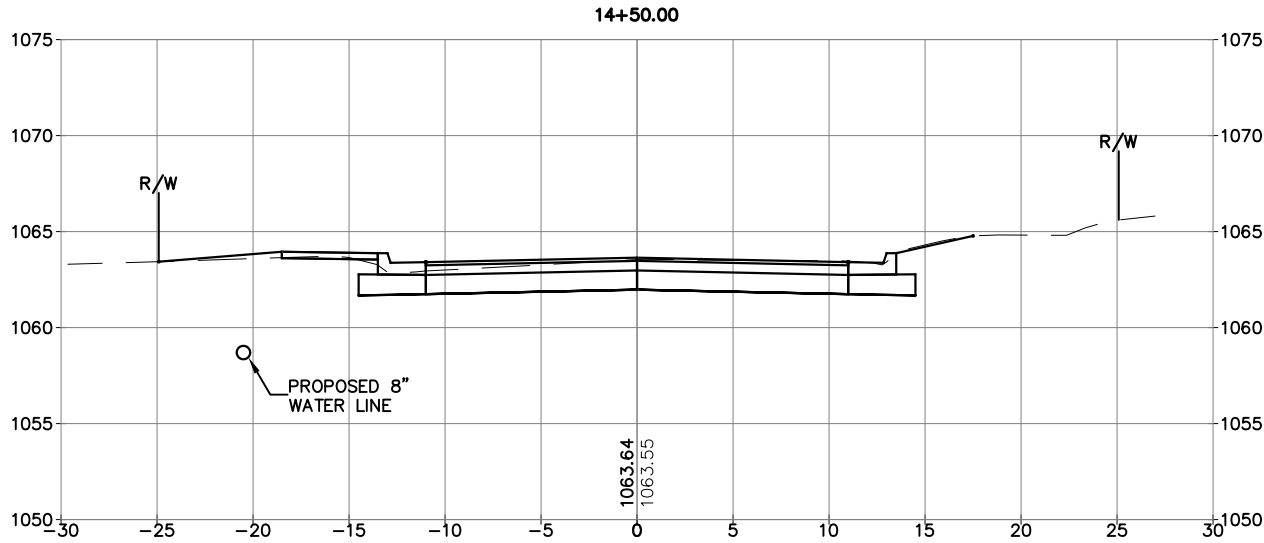
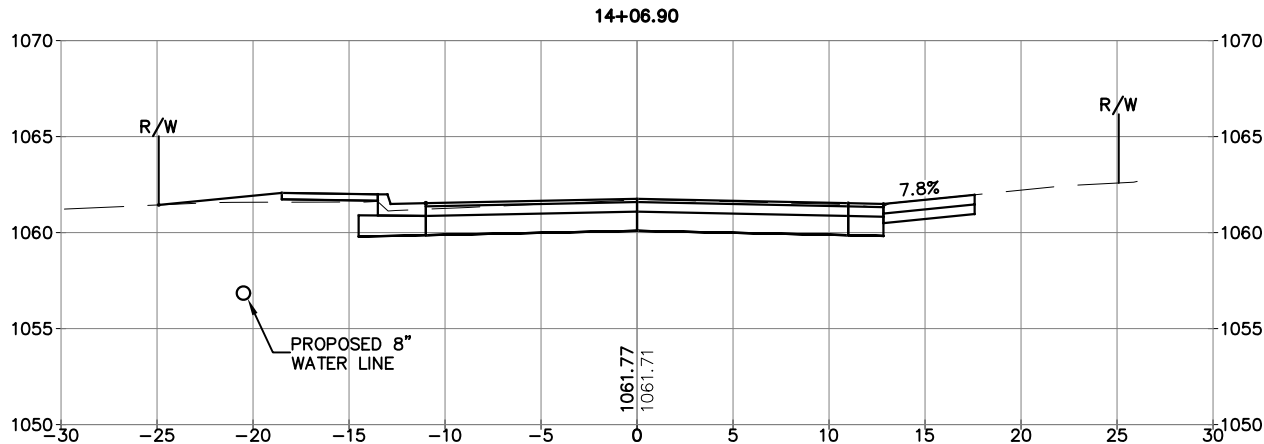
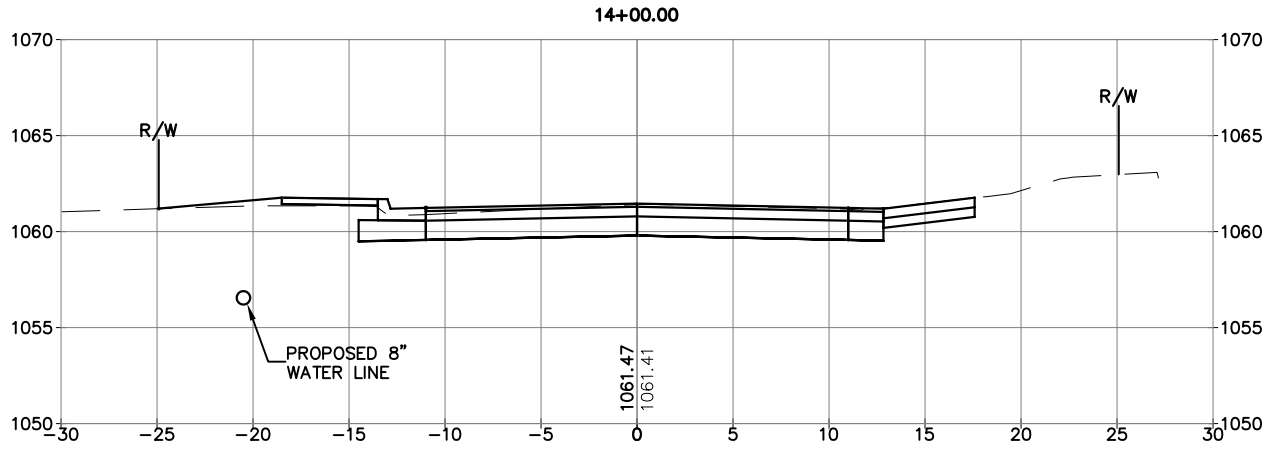
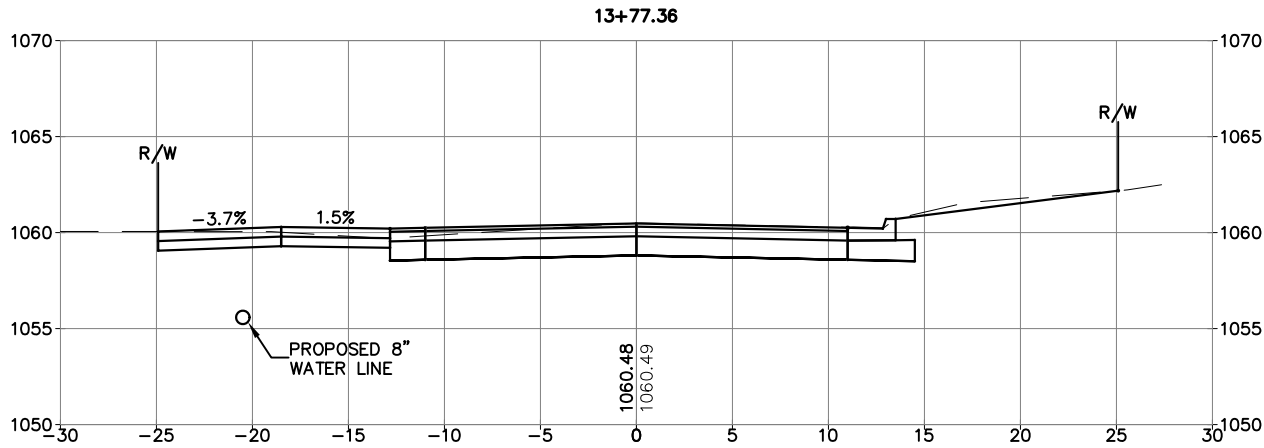
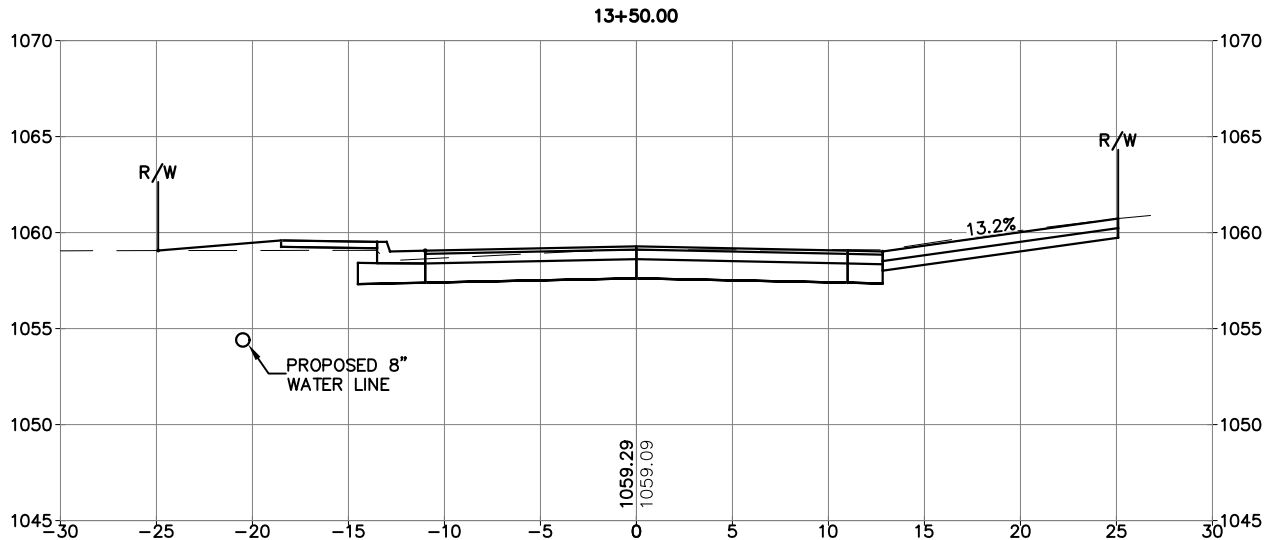
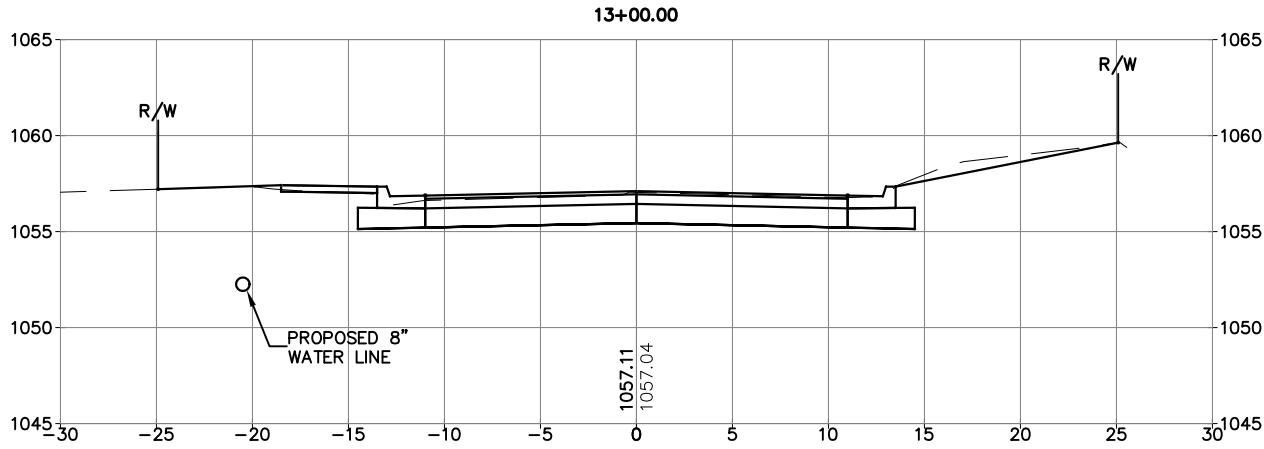
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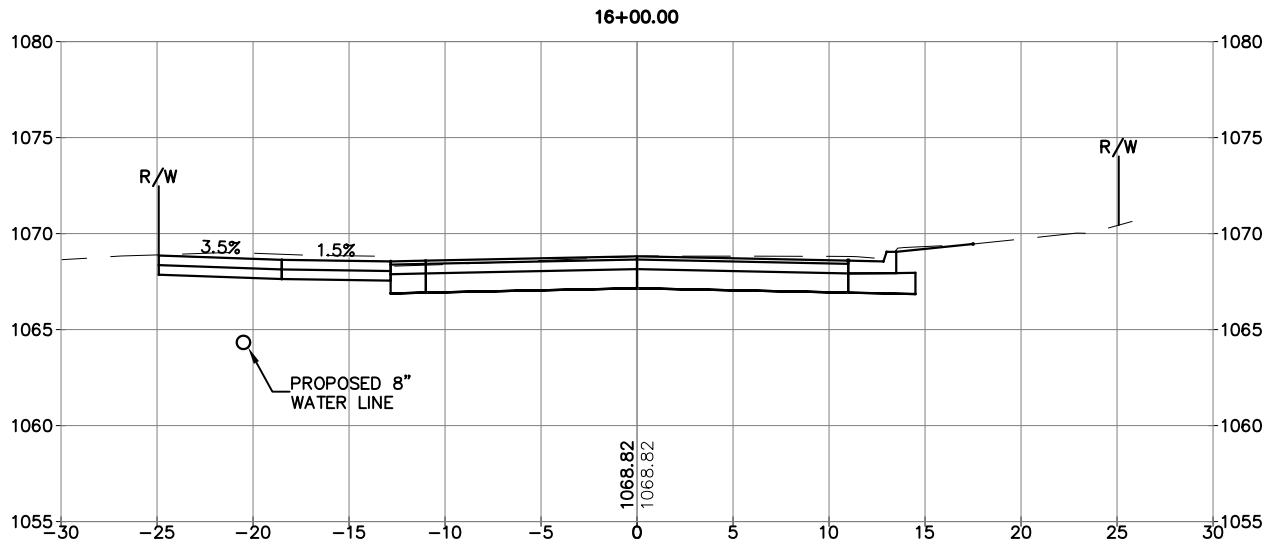
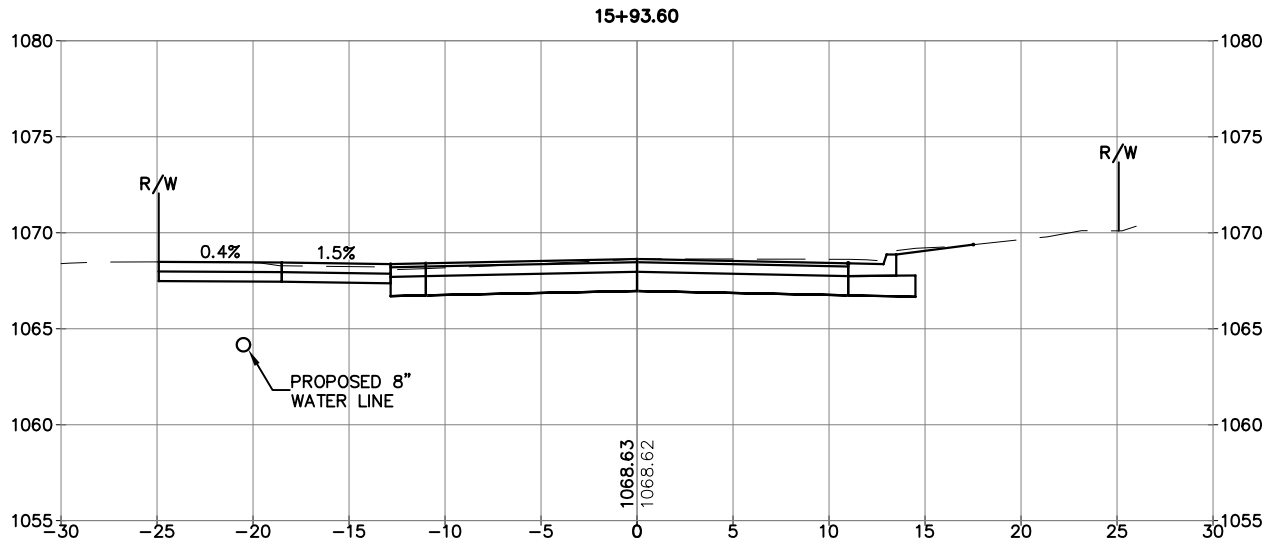
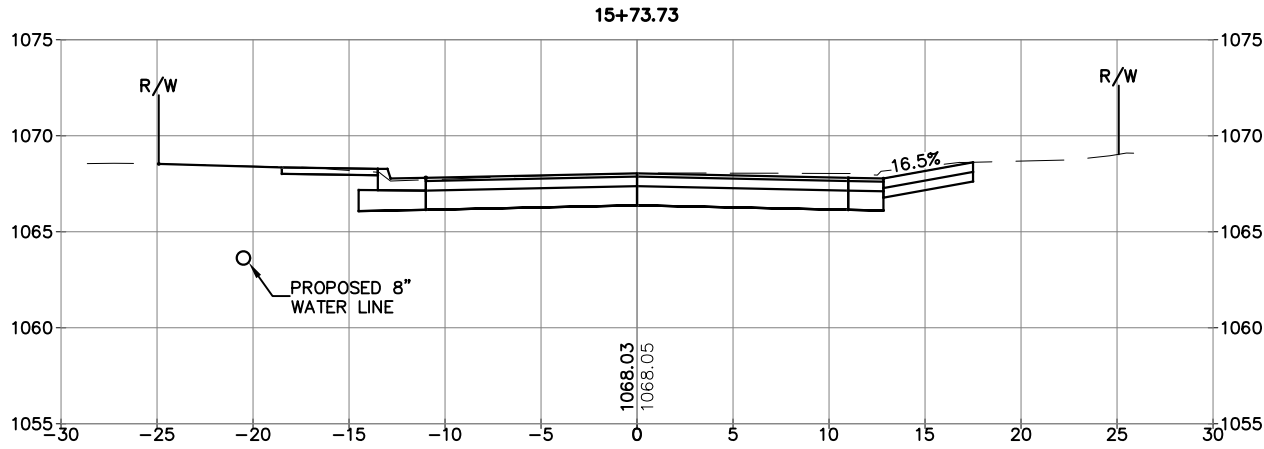
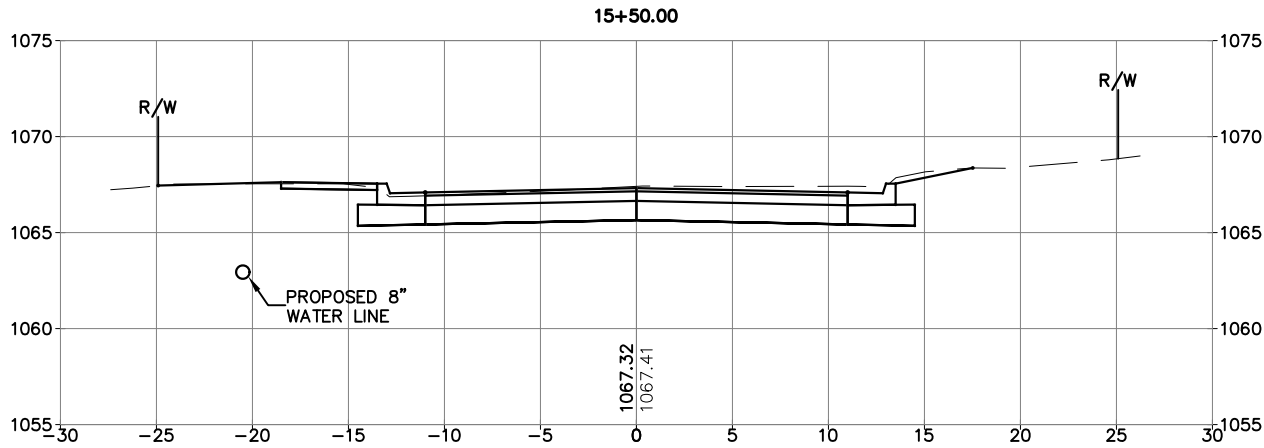
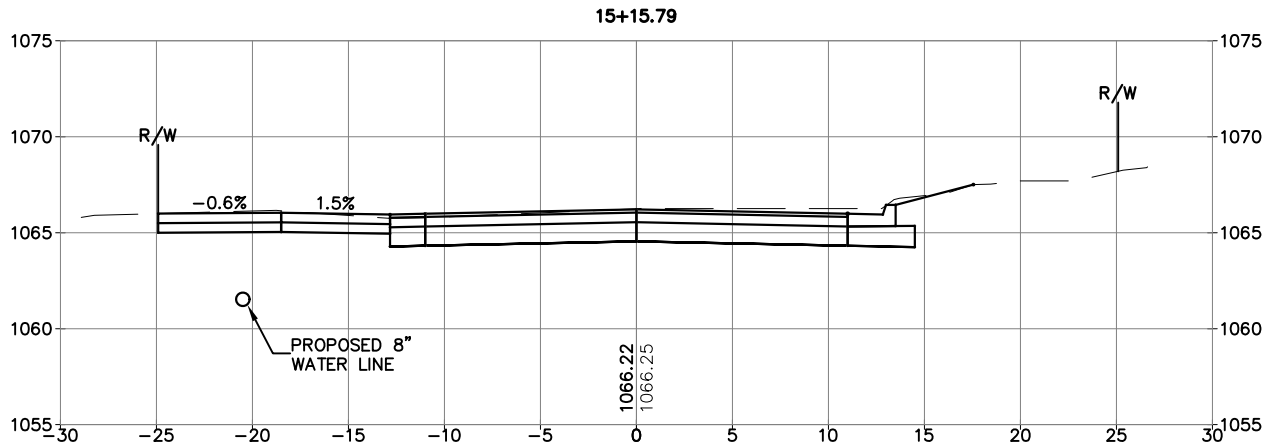
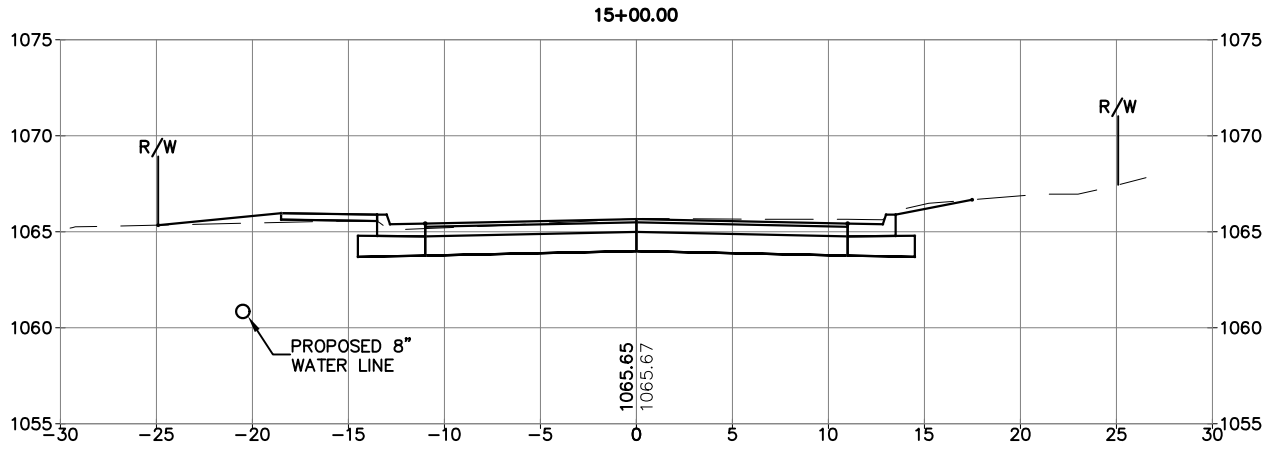
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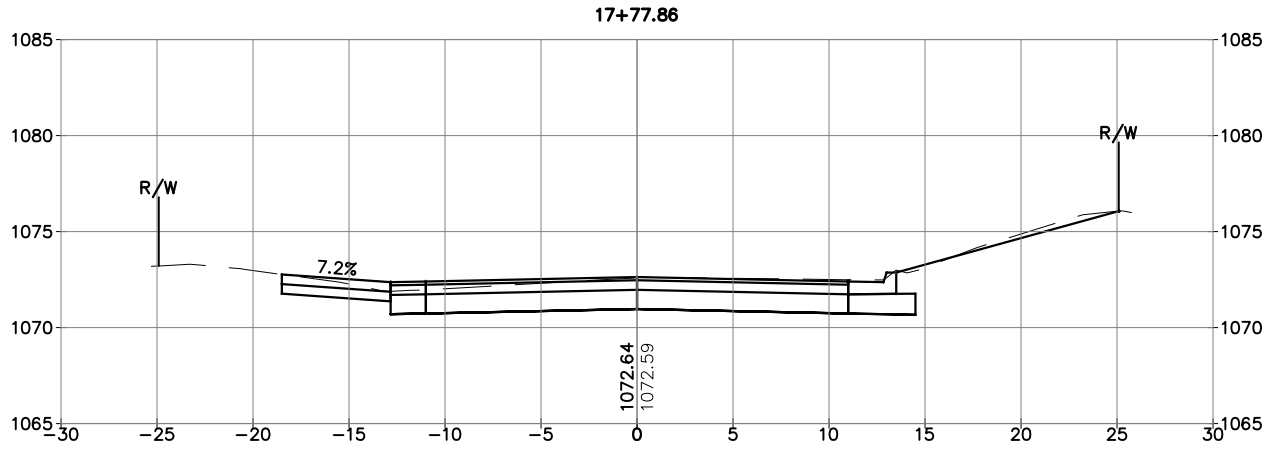
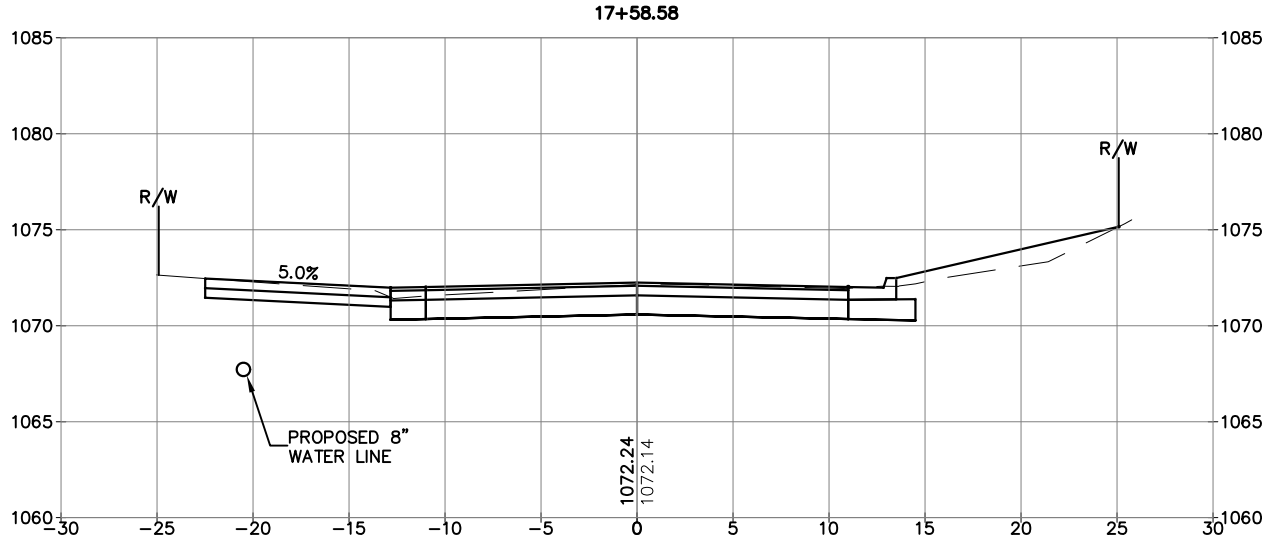
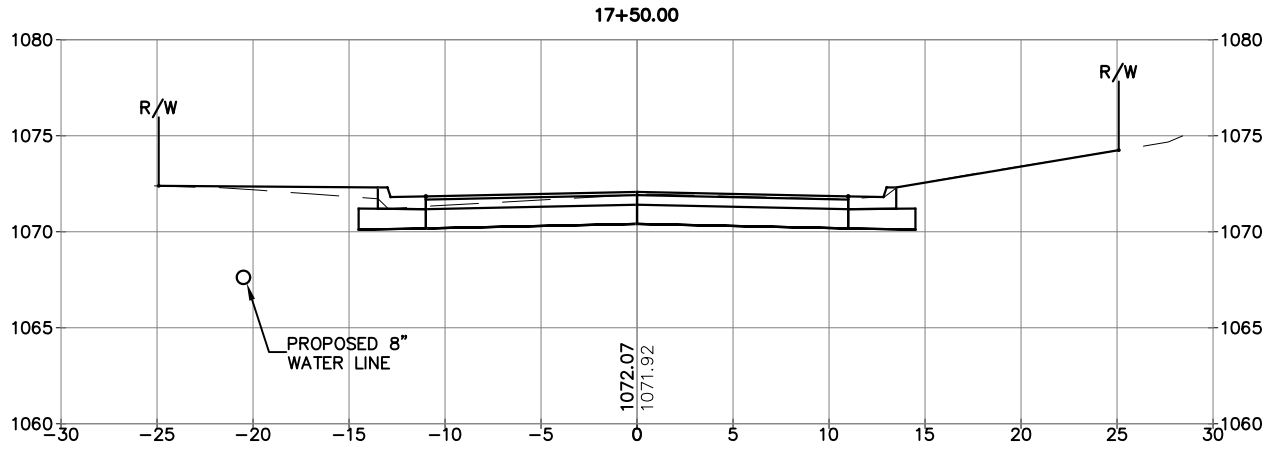
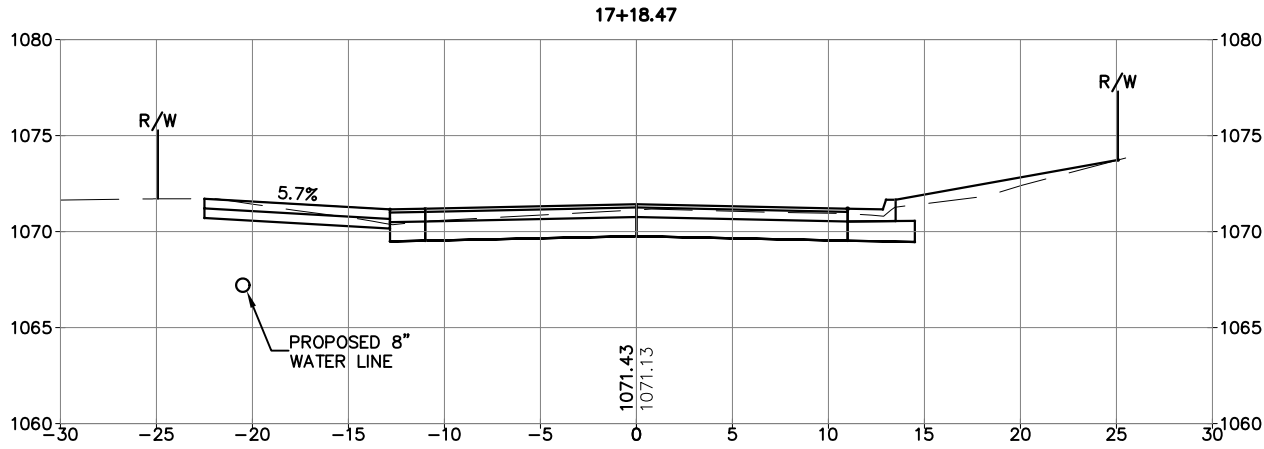
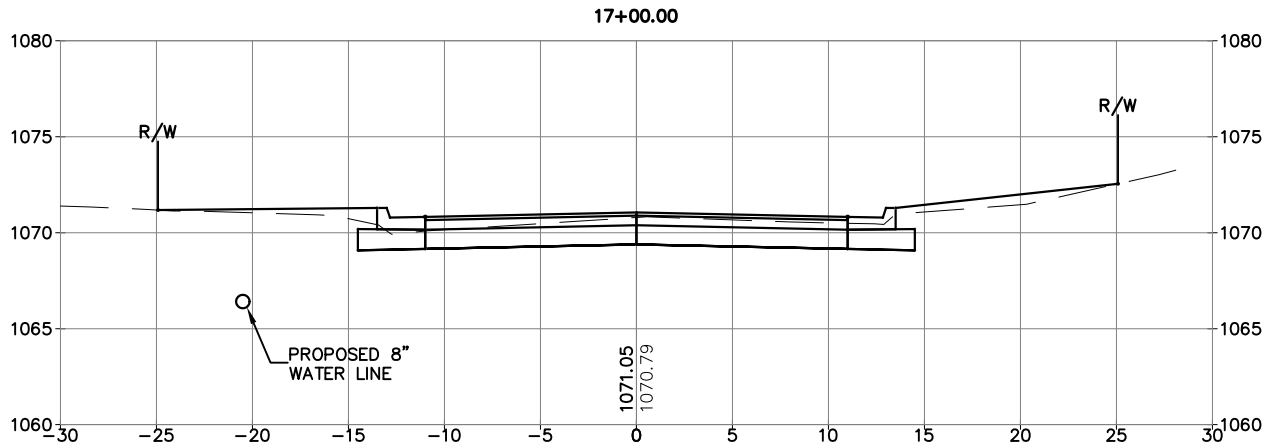
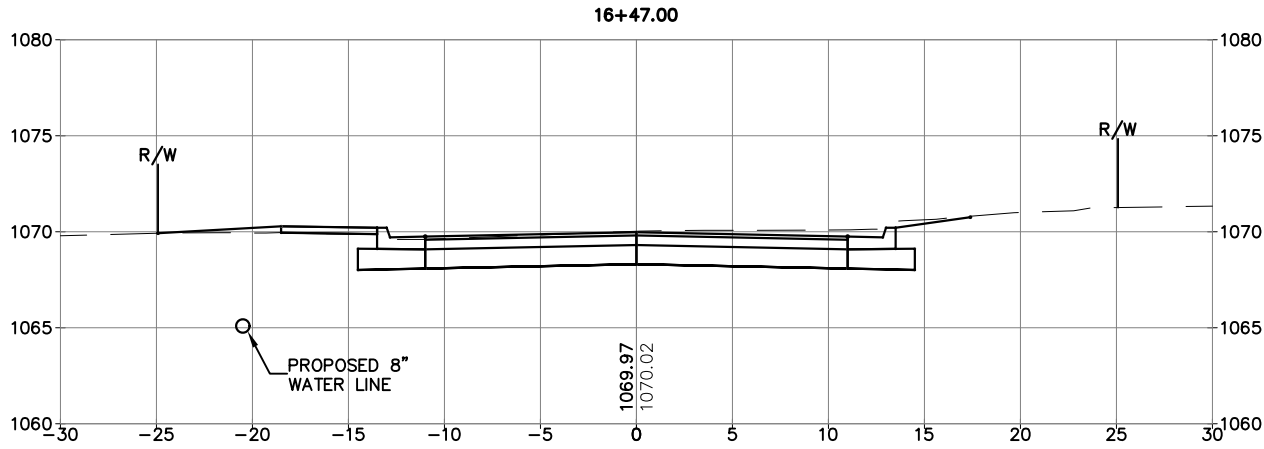
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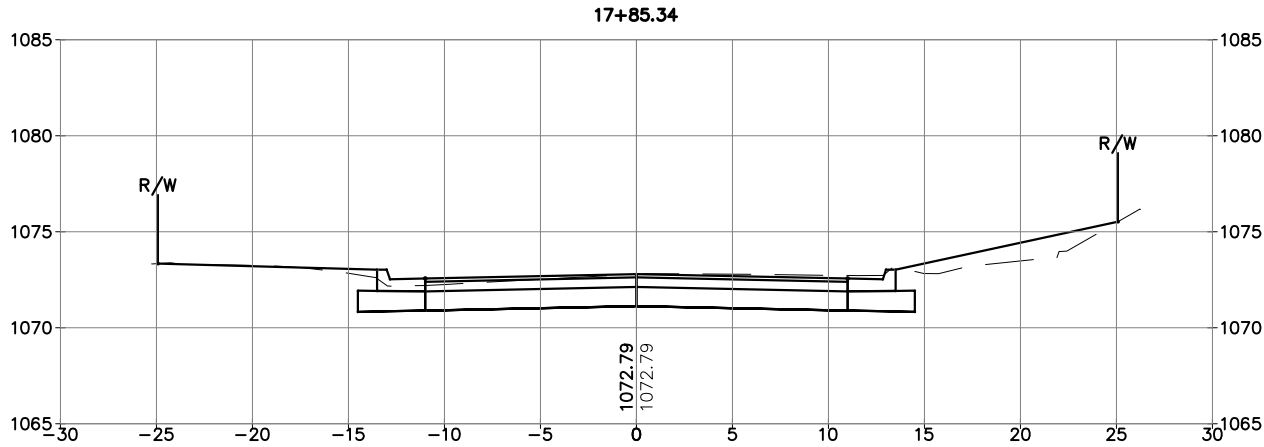
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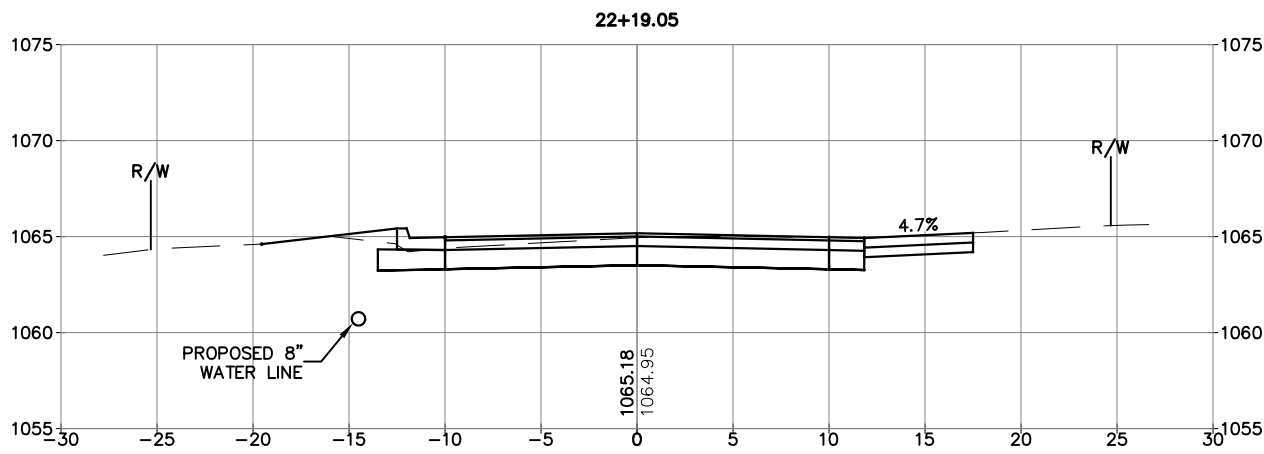
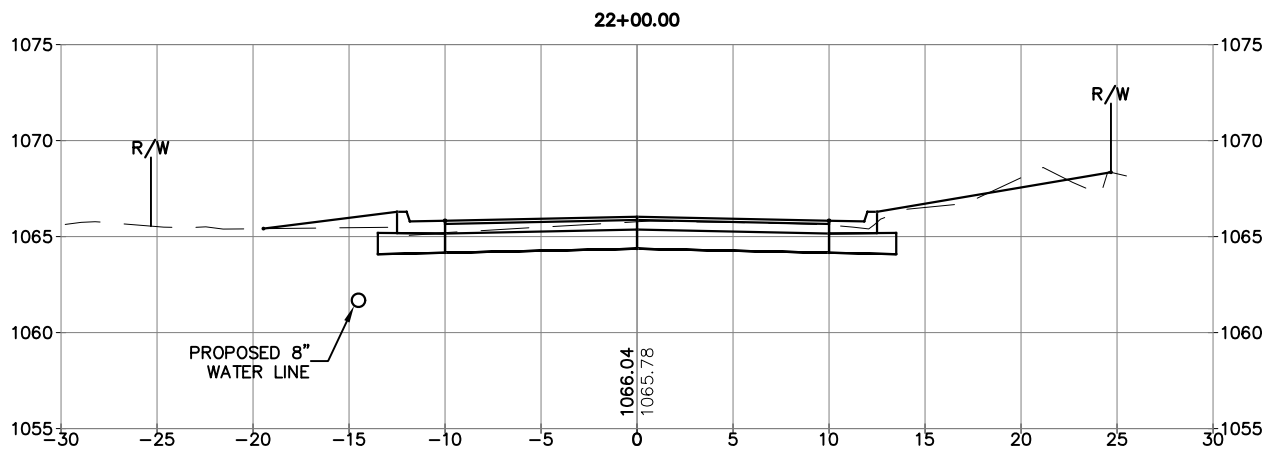
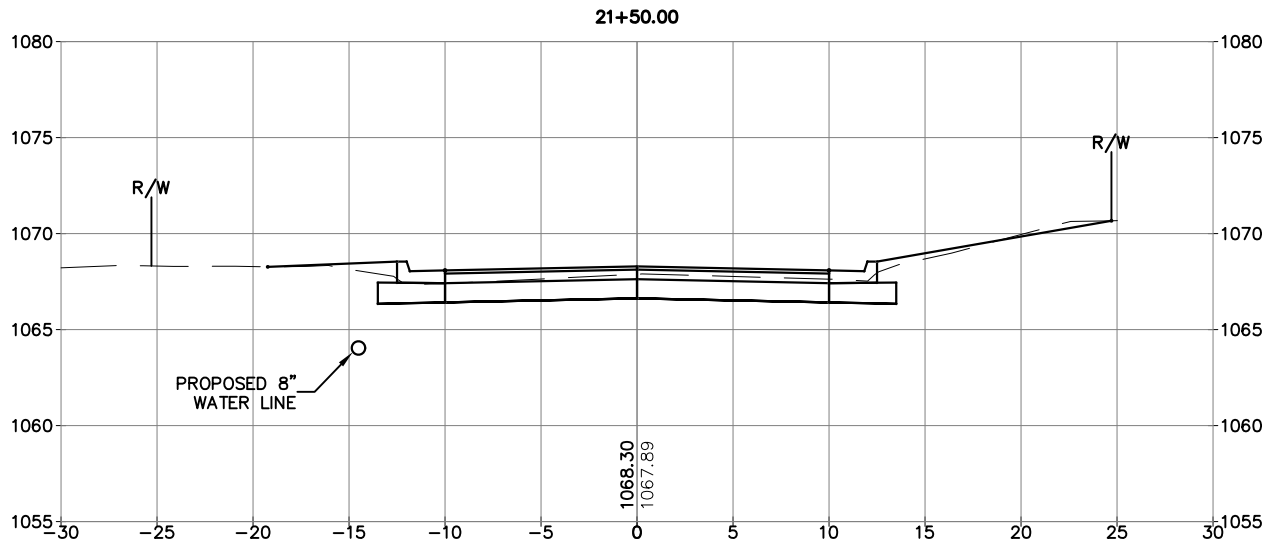
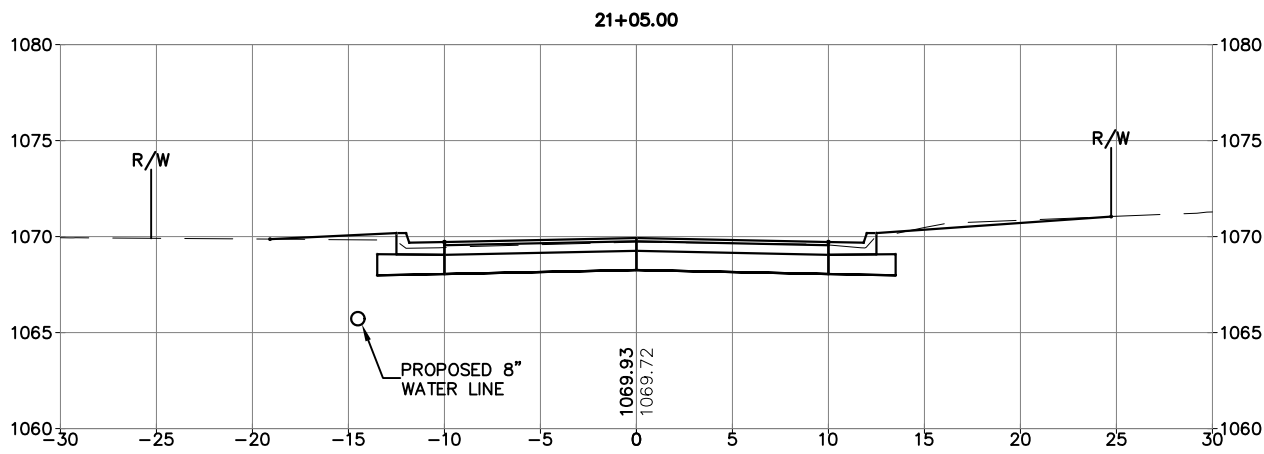
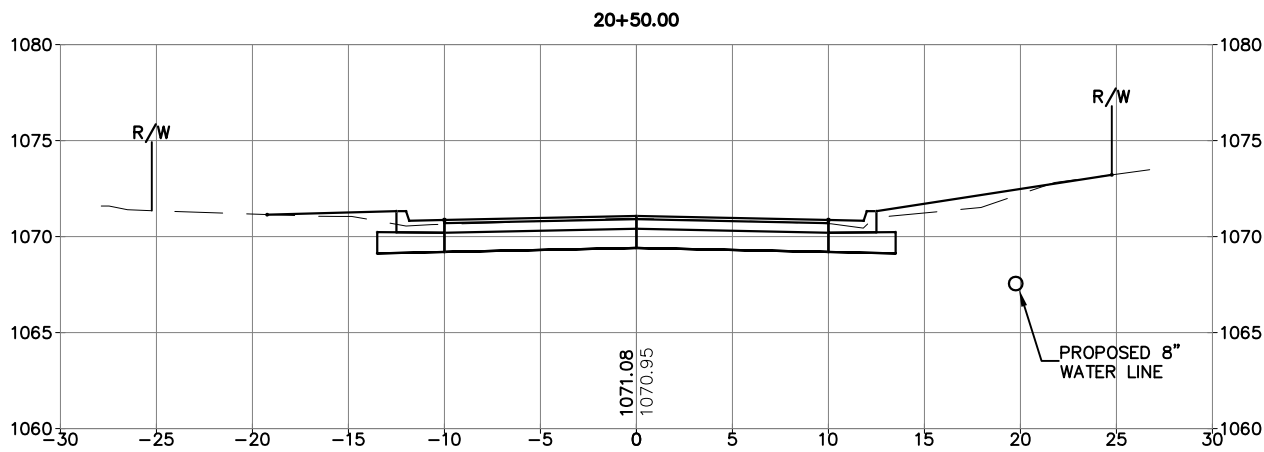
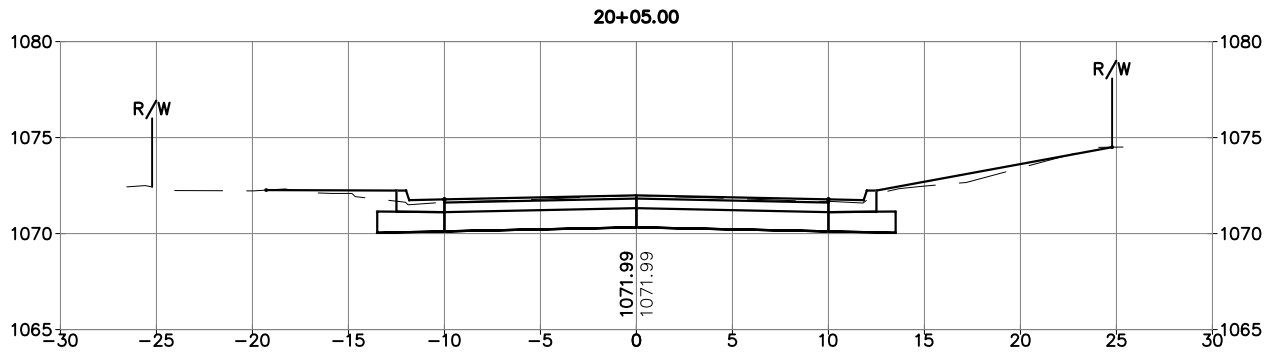
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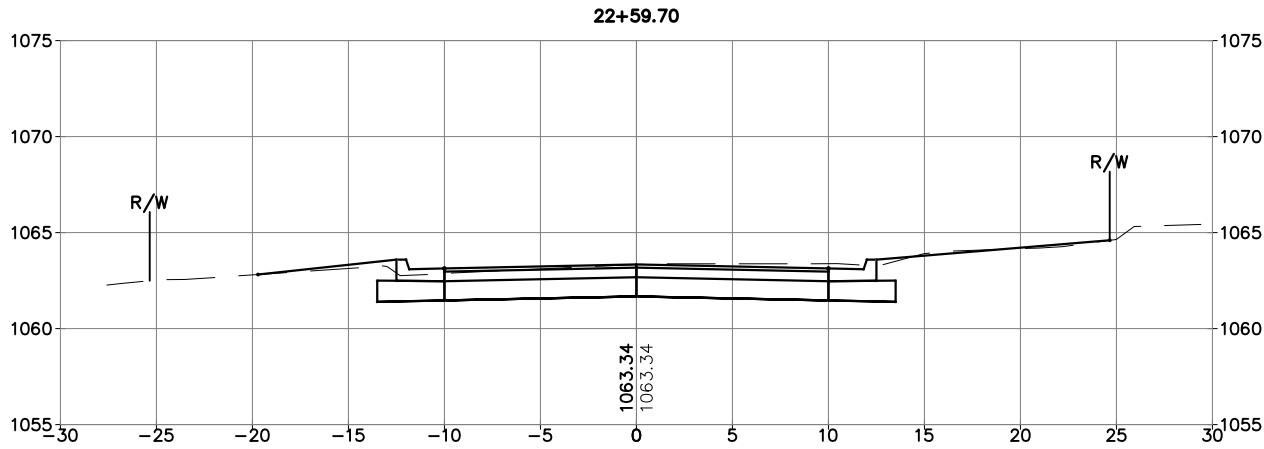
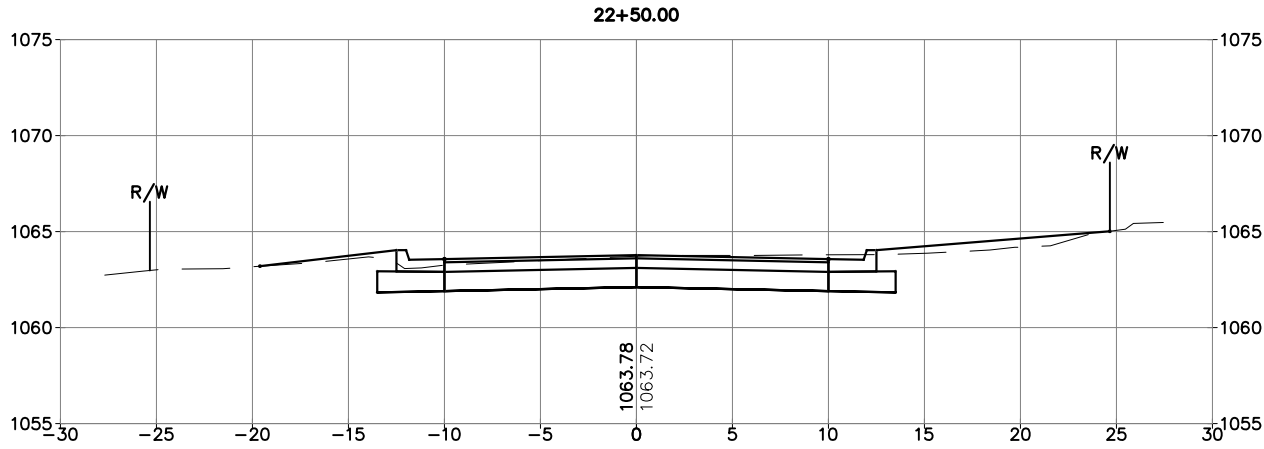
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**ADDENDUM NO. 1
WHITTAKER STREET REHABILITATION
CITY OF SHAWNEE**

FEBRUARY 12, 2021

This Addendum No. 1 is hereby made a part of the contract documents to the same extent as though it were originally included therein, and shall supersede anything contained in the plans and specifications with which it might conflict. **This Addendum shall be acknowledged on Page 1 of the Bid Form and stapled to the Bid Documents.**

This addendum consists of the following revisions to the CONTRACT DOCUMENTS FOR:
WHITTAKER STREET REHABILITATION.

ITEM NO. 1 – MANDATORY PRE-BID CONFERENCE

The mandatory pre-bid conference will be held virtually due to inclement weather. A meeting invite will be emailed to all plan holders. If you do not receive an email invite and wish to attend please contact Tiffany Hilton at thilton@hubengineers.com or directly at (918) 869-1609 by 9:00 a.m., Tuesday, February 16, 2021.

Meeting Time does not change. Meeting will be held Tuesday, February 16, 2021 at 10:00 a.m.

All other provisions of the Contract Documents shall remain in full force and effect.

HOLLOWAY, UPDIKE AND BELLEN, INC.



Dale Seaton, P.E.
Sr. Project Manager



**ADDENDUM NO. 2
WHITTAKER STREET REHABILITATION
CITY OF SHAWNEE**

FEBRUARY 15, 2021

This Addendum No. 2 is hereby made a part of the contract documents to the same extent as though it were originally included therein, and shall supersede anything contained in the plans and specifications with which it might conflict. **This Addendum shall be acknowledged on Page 1 of the Bid Form and stapled to the Bid Documents.**

This addendum consists of the following revisions to the CONTRACT DOCUMENTS FOR: WHITTAKER STREET REHABILITATION.

ITEM NO. 1 – BID DATE: MANDATORY PRE-BID AND BID OPENING

> Mandatory Pre-Bid Conference

In-Person with virtual option meeting is scheduled for 10:00 a.m. on February 23, 2021 at the City of Shawnee City Hall located at 16 West 9th, Shawnee, OK 74801. A Virtual Option to attend the Pre-Bid Conference is available. Please contact Holloway, Updike and Bellen, Inc. (Attn: Tiffany Hilton) at 918-251-0717 or thilton@hubengineers.com by 9:00 a.m. February 23, 2021 to utilize the virtual option.

> Bid Opening

City of Shawnee will receive sealed bids at the City Hall, 16 West 9th, Shawnee, Oklahoma 74801, “**Attn: City Clerk**” up to 4:00 p.m. on Thursday, March 11, 2021 and publicly read aloud at the Board Meeting being held at 6:00 p.m. on March 15, 2021.

All other provisions of the Contract Documents shall remain in full force and effect.

HOLLOWAY, UPDIKE AND BELLEN, INC.



Dale Seaton, P.E.
Sr. Project Manager



**ADDENDUM NO. 3
WHITTAKER STREET REHABILITATION
CITY OF SHAWNEE**

MARCH 8, 2021

This Addendum No. 3 is hereby made a part of the contract documents to the same extent as though it were originally included therein, and shall supersede anything contained in the plans and specifications with which it might conflict. **This Addendum shall be acknowledged on Page 1 of the Bid Form and stapled to the Bid Documents.**

This addendum consists of the following revisions to the CONTRACT DOCUMENTS FOR: WHITTAKER STREET REHABILITATION.

ITEM NO. 1 – BID PROPOSAL

Replace the bid proposal in its entirety with the attached Revised Bid Proposal dated 3/8/21.

ITEM NO. 2 – PLAN SHEETS NO. 2, 3, 5, 6, & 7

Replace Plan Sheets No. 2, 3, 5, 6, & 7 with the attached revised drawing.

All other provisions of the Contract Documents shall remain in full force and effect.

HOLLOWAY, UPDIKE AND BELLEN, INC.



Dale Seaton, P.E.
Sr. Project Manager



Attached:

Revised Bid Proposal dated 3/8/21

Revised Plan Sheets No. 2, 3, 5, 6, & 7

Pre-Bid Sign-in Sheet

Pre-Bid Meeting Minutes and Question Responses

REVISED BID PROPOSAL
ADDENDUM NO. 3 (3/8/2021)

OWNER: City of Shawnee
16 West 9th
Shawnee, Oklahoma 74801

PROJECT: Whittaker Street Rehabilitation

PROJECT NO.: 20SHAWWHITST

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.
2. BIDDER accepts all of the terms and conditions of the Information for Bidders, including without limitation those dealing with the disposition of Bid Security. Bids shall be held for 60 days after the day of Bid opening. BIDDER shall sign the Agreement and submit the Contract Security and other documents required by the Contract Documents within fifteen days after the date of OWNER'S Notice of Award.
3. In submitting this Bid, the BIDDER represents, as more fully set forth in the Agreement, that:
 - (a) BIDDER has examined copies of all the Contract Documents and Bidding Documents and of the following addenda:

Date	Number
------	--------

(receipt of all of which is hereby acknowledged) and also copies of the Advertisement and the Information for Bidders;

- (b) BIDDER has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as BIDDER deems necessary.
 - (c) BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or a corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for himself any advantage over any other Bidder or over OWNER.

4. In submitting this Bid, BIDDER represents that:

- (a) The total bid for the Bid Schedule includes all work necessary to complete that portion of the project described in the Bid Schedule and represents the entire scope of work covered by the Contract Documents. If a particular item of work is not specifically separated as a bid item the cost therefore is to be considered included in the bid item most nearly related.
- (b) The total bid for each Bid Schedule is based on the quantities shown on the Bid Form and on the dimensions shown on the drawings where specific quantities are not itemized. The Contract Amount will be adjusted for bid schedule items with unit prices according to the actual quantities and measurement of the finished construction as determined by the Engineer.
- (c) BIDDER will complete the work for the following price(s):

For the Design and Construction of all the work necessary to complete the work under Bid Schedule, as defined in the Contract Documents.

REVISED BID SCHEDULE WHITTAKER STREET REHABILITATION				
<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
1.	1,500 CY	Unclassified Excavation _____ Dollars – per cubic yard	\$ _____	\$ _____
2.	1 LS	SWPPP Documentation and Management _____ Dollars – lump sum	\$ _____	\$ _____
3.	1,000 LF	Temporary Silt Fence _____ Dollars – per linear foot	\$ _____	\$ _____
4.	750 SY	Solid Slab Sodding (Like Kind) _____ Dollars – per square yard	\$ _____	\$ _____

**REVISED BID SCHEDULE
WHITTAKER STREET REHABILITATION**

<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
5.	1,225 CY	Aggregate Base Type "A" Dollars – per cubic yard	\$ _____	\$ _____
6.	3,200 SY	Subgrade Method "B" – 8" Dollars – per square yard	\$ _____	\$ _____
7.	3,520 SY	Separator Fabric Dollars – per square yard	\$ _____	\$ _____
8.	1,070 TON	Superpave, Type S3 (PG 64-22 OK) Dollars – per ton	\$ _____	\$ _____
9.	350 TON	Superpave, Type S4 (PG 64-22 OK) Dollars – per ton	\$ _____	\$ _____
10.	36 SY	Cont. Reinforcement P.C.C. Pavement (Placement) Dollars – per square yard	\$ _____	\$ _____
11.	8 CY	P.C. Concrete for Pavement Dollars – per cubic yard	\$ _____	\$ _____
12.	1,600 LF	Combined Curb & Gutter 6" Barrier Dollars – per linear foot	\$ _____	\$ _____

**REVISED BID SCHEDULE
WHITTAKER STREET REHABILITATION**

<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
13.	100 SY	Concrete Sidewalk Dollars – per square yard	\$ _____	\$ _____
14.	285 SY	Concrete Sidewalk with Brick Accent Dollars – per square yard	\$ _____	\$ _____
15.	375 SY	Concrete Driveway Dollars – per square yard	\$ _____	\$ _____
16.	1 EA	Manhole Adjusted to Grade Dollars – per each	\$ _____	\$ _____
17.	1 EA	Valve Boxes Adjusted to Grade Dollars – per each	\$ _____	\$ _____
18.	8 EA	6" Gate Valve, RJ Dollars – per each	\$ _____	\$ _____
19.	8 EA	Valve Box Dollars – per each	\$ _____	\$ _____
20.	1 EA	6 Inch Fire Hydrant Dollars – per each	\$ _____	\$ _____

**REVISED BID SCHEDULE
WHITTAKER STREET REHABILITATION**

<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
21.	1 EA	Fire Hydrant Extension Dollars – per each	\$ _____	\$ _____
22.	4 EA	6 Inch Sleeve Dollars – per each	\$ _____	\$ _____
23.	8 EA	6 Inch Ductile Iron 90 Degree Bend (RJ) Dollars – per each	\$ _____	\$ _____
24.	1 EA	6 Inch x 6 Inch Ductile Iron Tee (RJ) Dollars – per each	\$ _____	\$ _____
25.	1 EA	6 Inch x 6 Inch Ductile Iron Cross (RJ) Dollars – per each	\$ _____	\$ _____
26.	8 EA	Water Service Connection (Short) Dollars – per each	\$ _____	\$ _____
27.	8 EA	Water Service Connection (Long) Dollars – per each	\$ _____	\$ _____
28.	1 EA	Remove Existing Fire Hydrant Dollars – per each	\$ _____	\$ _____

**REVISED BID SCHEDULE
WHITTAKER STREET REHABILITATION**

<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
29.	1 LS	Removal of Obstructions Dollars – lump sum	\$ _____	\$ _____
30.	20 SY	Removal of Existing Sidewalk Dollars – per square yard	\$ _____	\$ _____
31.	2,450 SY	Removal of Existing Paving Dollars – per square yard	\$ _____	\$ _____
32.	375 SY	Removal of Existing Driveway Dollars – per square yard	\$ _____	\$ _____
33.	1,600 SY	Removal of Existing Curb Dollars – per square yard	\$ _____	\$ _____
34.	1 LS	Mobilization Dollars – lump sum	\$ _____	\$ _____
35.	1 LS	Construction Staking Dollars – lump sum	\$ _____	\$ _____
36.	8 EA	Handicap Ramp with Tactile Warning Dome Dollars – per each	\$ _____	\$ _____

**REVISED BID SCHEDULE
WHITTAKER STREET REHABILITATION**

<u>Item No.</u>	<u>Qty. & Unit</u>	<u>Description</u>	<u>Unit Cost</u>	<u>Total Cost</u>
37.	6 EA	School Crossing Sign S1-1 (Complete-In-Place) _____ Dollars – per each	\$ _____	\$ _____
38.	120 LF	Traffic Stripe (24") _____ Dollars – per linear foot	\$ _____	\$ _____
39.	1 LS	Traffic Control _____ Dollars – lump sum	\$ _____	\$ _____
40.	1 LS	Urban ROW Restoration _____ Dollars – lump sum	\$ _____	\$ _____
Material Option No. 1 - HDPE				
41.	980 LF	8 Inch (OD) HDPE AWWA C906 DR-11 _____ Dollars – per linear foot	\$ _____	\$ _____
Material Option No. 2 - PVC				
42.	240 LF	6 Inch DIP, CL50 Polyethylene Wrapped (RJ) _____ Dollars – per linear foot	\$ _____	\$ _____
43	740 LF	6 Inch PVC AWWA C900 Class 200, DR-14 _____ Dollars – per linear foot	\$ _____	\$ _____

Add Alternate No. 1				
44.	6 EA	Rectangular Rapid Flashing Beacon (RRFB) - Solar _____ Dollars – per each	\$ _____	\$ _____
Add Alternate No. 2				
45.	1 LS	(SP) Contractor's Quality Control _____ Dollars – per lump sum	\$ _____	\$ _____
TOTAL BID – (BASE BID + MATERIAL OPTION 1 (HDPE) SHAWNEE WHITTAKER STREET REHABILITATION _____ (in words) DOLLARS (\$ _____) (in figures)				
TOTAL BID – (BASE BID + MATERIAL OPTION 2 (PVC) SHAWNEE WHITTAKER STREET REHABILITATION _____ (in words) DOLLARS (\$ _____) (in figures)				

5. BIDDER agrees that the Work will be substantially completed within **100 consecutive calendar days** after the date when the Contract Time commences to run.

BIDDER accepts the **Liquidated damages will be \$1,000.00 per calendar day.**

6. The following documents are attached to and made a condition of this Bid:

- A. Required Bid Security in the form of (Bid Bond) (Certified Check). Each BID must be accompanied by a bid bond payable to the OWNER for five percent of the total amount of the bid. A certified check may be used in lieu of the bid bond. No bid security is required if bid is \$7,500.00 or less. As soon as the bid prices have been compared, the OWNER will return the BONDS of all except the three lowest responsible BIDDERS. The bid bond of the successful bidder will be retained until Performance Bond, Statutory Bond, Maintenance Bond, and Certificate of Insurance have been executed and approved,

after which it will be returned. The bid security of the two remaining unsuccessful Bidders will be returned after the successful bidder has entered into a contract and has furnished the required bonds and insurance.

- B. A tabulation of Subcontractors and other persons and organizations required to be identified in the bid.
 - C. Contractor's Pre-Qualification Statement with supporting data.
 - D. Project Superintendent and Supervision Roster.
- 7. The terms used in this Bid which are defined in the General Conditions of the Construction Contract are included as part of the Contract Documents and have the meaning assigned to them in the General Conditions.
 - 8. The Owner reserves the right to award the Contract to the lowest responsible Bidder for either Material Option 1, or Material Option 2. Bids that do not provide values for both material options will be considered unresponsive.
 - 9. Communications from Owner to Bidder will be sent to the address below.

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THE BIDDER SHALL COMPLETE THE FOLLOWING AS APPLICABLE:

AN INDIVIDUAL

By _____ (Individual's Name)
doing business as _____

A PARTNERSHIP

By _____ (Firm Name)

A CORPORATION

By _____ (Corporation Name)

State of Incorporation is _____

By _____
(Name)

Attest: Secretary

(Title)

(Corporate Seal)

Business address: _____

Phone No. _____ Fax No. _____

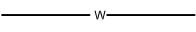
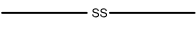
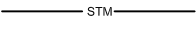
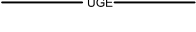
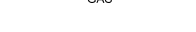
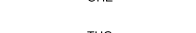
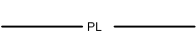
SUBMITTED on _____, 20____.

SUMMARY OF QUANTITIES					
ITEM NO.	SPEC. NO.	DESCRIPTION	PAY ITEM NOTES	UNIT	TOTAL QUANTITY
1	202(A)	UNCLASSIFIED EXCAVATION	1,6,28,35,42	CY	1,500
2	220	SWPPP DOCUMENTATION AND MANAGEMENT	8,36	LS	1
3	221(C)	TEMPORARY SILT FENCE		LF	1,000
4	230(A)	SOLID SLAB SODDING (LIKE KIND)	9,10,11	SY	750
5	303(A)	AGGREGATE BASE TYPE "A"	2,3,49	CY	1,225
6	310(B)	SUBGRADE METHOD 'B' - 8"		SY	3,200
7	325	SEPARATOR FABRIC	4	SY	3,520
8	411(B)	SUPERPAVE, TYPE S3 (PG 64-22 OK)	12,13,14	TON	1,070
9	411(C)	SUPERPAVE, TYPE S4 (PG 64-22 OK)	12,13,14	TON	350
10	414(C)	CONT. REINF. P.C.C. PAVT. (PLACEMENT)	18	SY	36
11	414(G)	P.C. CONCRETE FOR PAVEMENT	15	CY	8
12	609(B)	COMBINED CURB & GUTTER 6" BARRIER	15,17,18	LF	1,600
13	610(A)	CONCRETE SIDEWALK	15,18,20	SY	100
14	610(A)	CONCRETE SIDEWALK WITH BRICK ACCENT	15,18,20,41	SY	285
15	610(B)	CONCRETE DRIVEWAY	15,18,19	SY	375
16	612(A)	MANHOLE ADJUSTED TO GRADE	16,21,22	EA	1
17	612(E)	VALVE BOXES ADJUSTED TO GRADE	16,22	EA	1
18	616(D)	6" GATE VALVE, RJ	44	EA	8
19	616(D)	VALVE BOX	52	EA	8
20	616(G)	6 INCH FIRE HYDRANT		EA	1
21	616(G)	FIRE HYDRANT EXTENSION		EA	1
22	616(K)	6 INCH SLEEVE	38,48	EA	4
23	616(O)	6 INCH DUCTILE IRON 90 DEGREE BEND (RJ)	38,44	EA	8
24	616(T)	6 INCH X 6 INCH DUCTILE IRON TEE (RJ)	38,44	EA	1
25	616(T)	6 INCH X 6 INCH DUCTILE IRON CROSS (RJ)	38,44	EA	1
26	616	WATER SERVICE CONNECTION (SHORT)	50,51	EA	8
27	616	WATER SERVICE CONNECTION (LONG)	50,51	EA	8
28	616	REMOVE EXISTING FIRE HYDRANT	41	EA	1
29	619(A)	REMOVAL OF OBSTRUCTIONS	6,16,31	LS	1
30	619(B)	REMOVAL OF EXISTING SIDEWALK	6,16	SY	20
31	619(B)	REMOVAL OF EXISTING PAVING	6,16	SY	2,450
32	619(B)	REMOVAL OF EXISTING DRIVEWAY	6,16	SY	375
33	619(B)	REMOVAL OF EXISTING CURB	6,16	SY	1,600
34	641	MOBILIZATION	33	LS	1
35	642	CONSTRUCTION STAKING	5,30	LS	1
36	790	HANDICAP RAMP WITH TACTILE WARNING DOME		EA	8
37	850(A)	SCHOOL CROSSING SIGN S1-1 COMPLETE-IN-PLACE	55	EA	6
38	855(A)	TRAFFIC STRIPE (24")		LF	120
39	880(J)	TRAFFIC CONTROL	24,25,26,27,29	LS	1
40	SPECIAL	URBAN ROW RESTORATION	7,23,40,53	LS	1
		MATERIAL OPTION NO. 1 - HDPE			
41	616 (P)	8 INCH (OD) HDPE AWWA C906 DR-11	37,38,39,45,46,54,57	LF	980
		MATERIAL OPTION NO. 2 - PVC			
42	616(A)	6 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	37,38,39,44,45,47,54	LF	240
43	616(B)	6 INCH PVC AWWA C900 CLASS 200, DR-14	37,38,39,45,46,54	LF	740
		ADD. ALT. NO 1			
44	SPECIAL	RECTANGULAR RAPID FLASHING BEACON (RRFB) - SOLAR	56	EA	6
		ADD. ALT. NO 2			
45	643	(SP) CONTRACTOR'S QUALITY CONTROL		LS	1

SURVEY SYMBOLS

-  WATER METER
-  WATER VALVE
-  FIRE HYDRANT
-  IRON PIN FOUND
-  SANITARY SEWER MANHOLE
-  TELEPHONE PEDESTAL
-  BENCH MARK
-  POWER POLE
-  GUY WIRE
-  LIGHT POLE
-  STORM SEWER MANHOLE
-  TRAFFIC SIGN

EXISTING UTILITY LINE SYMBOLS

-  WATER LINE
-  SANITARY SEWER LINE
-  STORM SEWER
-  UNDERGROUND ELECTRIC
-  GAS LINE
-  OVERHEAD ELECTRIC
-  UNDERGROUND TELEPHONE
-  FIBER OPTIC CABLE
-  PROPERTY LINE

REVISION		BY	DATE
ADDENDUM 		D.S.	3/8/21
SUMMARY OF QUANTITIES			
WHITTAKER STREET REHABILITATION			
SHAWNEE MUNICIPAL AUTHORITY CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		 HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
PLAN SCALE:	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL:	LEAD ENGR.		
	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2020
	DESIGN MANAGER		SHEET 2 OF 22 SHEETS

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PAY ITEM NOTES

1.

THIS QUANTITY INCLUDES AN ADDITIONAL 10% ABOVE PLAN QUANTITY FOR UNDERCUTTING OF UNSUITABLE SUBGRADE MATERIAL OR ADDITIONAL PATCHING AS DIRECTED BY THE ENGINEER.
2.

TYPE A AGGREGATE BASE WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 90% OF THE PATCHING. QUICK SET FLOWABLE FILL WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 10% OF THE PATCHING. ACTUAL QUANTITIES TO BE DETERMINED BY THE ENGINEER.
3.

INCLUDES COMPACTION OF AGGREGATE TO 98% AASHTO T180 MODIFIED PROCTOR.
4.

SEPARATOR FABRIC SHALL BE USED AT ALL PAVEMENT PATCHES AND RECONSTRUCTION SECTIONS. THE SEPARATOR FABRIC SHALL BE CUT AND OVERLAPPED A MINIMUM OF 2 FT AT ALL EDGES OF THE REPAIR.
5.

CONSTRUCTION STAKING SHALL INCLUDE SURVEYING AND THE FURNISHING, PLACING, AND MAINTAINING OF THE CONSTRUCTION LAYOUT STAKES NECESSARY FOR THE PROPER COMPLETION AND INSPECTION OF THE ENTIRE PROJECT.
6.

WASTE MATERIAL TO BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE IN A MANNER APPROVED BY THE ENGINEER.
7.

CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS DAMAGED OR REQUIRING RELOCATION DURING THE CONSTRUCTION OF THIS PROJECT TO THE SATISFACTION OF THE PROPERTY OWNER AND CITY ARBORIST. COST SHALL BE INCLUDED IN THE PRICE BID.
8.

EROSION PROTECTION SHALL BE PLACED AROUND DRAINAGE INLETS AS REQUIRED TO PREVENT ENTRANCE OF EROSION MATERIAL. EROSION PROTECTION SHALL BE PLACED AS NECESSARY TO PREVENT EROSION WASH TO ADJACENT PROPERTY. ALL EROSION PROTECTION INSTALLED MUST BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE PROJECT. EROSION PROTECTION SHALL BE REMOVED AT THE END OF THE PROJECT AS DIRECTED BY THE ENGINEER, COST TO BE INCLUDED IN THE PRICE BID. THE PRICE INCLUDES THE COST OF SEDIMENT REMOVAL PER THE STORMWATER MANAGEMENT PLAN.
9.

THE PAY ITEM FOR SOLID SLAB SODDING INCLUDES QUANTITIES FOR PLACEMENT AND COMPACTION OF SUITABLE BACKFILL AND SOD AT EXISTING GRASS AREAS WHICH MAY BE DAMAGED DURING CONSTRUCTION OF CURBS, SIDEWALKS, DRIVEWAYS, AND OTHER MISCELLANEOUS ITEMS. THE QUANTITIES ARE BASED ON UTILIZING A 3 FOOT WIDE STRIP IN THESE AREAS. THE SOD SHALL BE OF LIKE KIND TO THE EXISTING SOD. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF DAMAGE TO EXISTING GRASS THAT EXCEEDS THESE LIMITS.
10.

PAY ITEM INCLUDES ALL MOWING WITHIN THE RIGHT-OF-WAY AS DIRECTED DURING CONSTRUCTION.
11.

COST OF WATERING AND FERTILIZING SHALL BE INCLUDED. FERTILIZERS SHALL BE 10-20-10 AND SHALL BE APPLIED AT THE RATE OF 1.5 LBS PER 10 SQ YDS. FERTILIZER SHALL BE APPLIED PER SECTION 230.04H OF ODOT STANDARD SPECIFICATIONS. WATERING SHALL BE APPLIED AS NECESSARY UNTIL VEGETATION IS ESTABLISHED OR UNTIL THE WORK IS ACCEPTED AS COMPLETE.
12.

THE COST OF TACK COAT, EDGE JOINT SEAL MATERIAL AND SCREENINGS FOR BLOTING, AND ALL LABOR ASSOCIATED WITH THESE ITEMS, SHALL BE INCLUDED IN ASPHALT CONCRETE.
13.

ESTIMATED AT 112 LBS PER SQ YD PER 1 INCH THICK.
14.

ODOT PAY FACTOR FOR AVERAGE LOT DENSITY SHALL NOT BE USED FOR THIS PROJECT. FAILURE TO REACH AVERAGE LOT DENSITY OF 92%-97% WILL RESULT IN REJECTION OF WORK.
15.

THE USE OF FLY-ASH IN CONCRETE IS PROHIBITED.
16.

ALL SAW CUTTING AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE ITEM TO BE ADJUSTED, REMOVED, REPAIRED, OR REPLACED.
17.

THIS ITEM SHALL BE MEASURED AS THE ACTUAL AMOUNT OF CURB AND/OR GUTTER INSTALLED. NO PAYMENT WILL BE MADE FOR CURB AND/OR GUTTER THROUGH DRIVEWAYS AND INLETS.
18.

INCLUDES ALL COST OF SAWED JOINTS, SEALING OF ALL JOINTS INCLUDING LONGITUDINAL JOINTS, AND REINFORCEMENT.
19.

CURB, GUTTER, AND/OR SIDEWALK ASSOCIATED WITH THE DRIVEWAY AND THROUGH THE DRIVEWAY IS INCLUDED IN THE COST OF THE DRIVEWAY.
20.

ONE SIDEWALK PANEL ON EACH SIDE OF DRIVEWAYS SHALL BE A MINIMUM OF 6" THICK OR MATCH EXISTING DRIVEWAY THICKNESS, WHICHEVER IS GREATER. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE COST OF THE THICKENED SIDEWALK THROUGH THIS AREA.
21.

ALL SANITARY AND STORM SEWER MANHOLE CASTINGS AND LIDS THAT ARE LOCATED IN THE STREET AND ARE DISTURBED BY THE CONTRACTOR SHALL BE REPLACED WITH NEW LIDS AND CASTINGS AND THE OLD ONES SHALL BE SALVAGED AND DELIVERED TO THE METAL RECYCLE BINS IN THE STOCKROOM AREA AT SEWER OPERATIONS AND MAINTENANCE, 9319 E. 42ND STREET NORTH, BETWEEN THE HOURS OF 7:30 AM AND 3:00 PM MONDAY THROUGH FRIDAY.
22.

THE TOTAL COST FOR RUBBERIZED ASPHALT AND/OR SILICONE AT MANHOLES, VALVE BOXES, INLETS, AND INLET APRONS, SHALL BE INCLUDED.
23.

ALL HOUSE NUMBERS SHALL BE REPLACED/ REESTABLISHED THROUGHOUT PROJECT LIMITS. COST TO BE INCLUDED IN URBAN RIGHT OF WAY RESTORATION. CONTRACTOR SHALL REESTABLISH DRAINS, ROOF DRAINS AND OTHER DRAINAGE THROUGH THE CURBS IN ACCORDANCE WITH CITY OF SHAWNEE STANDARDS.
24.

ALL PLASTIC PAVEMENT MARKINGS SHALL BE EITHER:

EXTRUDED-APPLIED THERMOPLASTIC (USE ON ASPHALT PAVEMENT). THERMOPLASTIC PAVEMENT MARKINGS SHALL ONLY BE APPLIED WHEN THE SURFACE TEMPERATURE EXCEED 55°F FOR ALL OF THE SIX HOURS PRIOR TO INSTALLATION AND MAXIMUM WIND GUSTS ARE BELOW 15 MPH AT THE TIME OF APPLICATION. PRICE BID TO INCLUDE FLEX TABS OR LIKE KIND FOR POST CONSTRUCTION LANE MARKING/SEPARATION. MECHANICALLY APPLIED PREFORMED PLASTIC TAPE ("COLD TAPE") WILL NOT BE ACCEPTED.
25.

REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH-INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01

- TYPE III RETROREFLECTIVE SHEETING.
26.

IF WARNING LIGHTS ARE TO BE USED ON TRAFFIC CONTROL DEVICES, TYPE "A" LIGHTS SHALL ONLY BE USED ON DEVICES WARNING OF UNEXPECTED HAZARDS, AND SHALL NOT BE USED FOR DELINEATION OF THE TRAVELED WAY. ONLY TYPE "C" WARNING LIGHTS SHALL BE USED FOR DELINEATION OF THE TRAVELED WAY, AND TYPE "C" LIGHTS SHALL NOT BE USED FOR ANY OTHER PURPOSE.
27.

FLAGGER SHALL BE PAID FOR IN BID ITEM "TRAFFIC CONTROL".
28.

THE CONTRACTOR SHALL BE PAID FOR UNCLASSIFIED EXCAVATION ON THE BASIS OF PLAN QUANTITY. ANY ADDITIONAL EXCAVATION REQUIRED OR OVERRUN OF PLAN QUANTITY WILL BE PAID FOR ON THE BASIS OF UNIT PRICE BID FOR THE ITEM. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SURVEY TO VERIFY ANY ADDITIONAL QUANTITIES.
29.

PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL REQUIRED FOR COMPLETION OF THE PROJECT.
30.

THE COST TO REPLACE REMOVED OR DAMAGED SECTION CORNERS AND ALL OTHER PERMANENT RIGHT OF WAY MARKERS SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NO ADDITIONAL PAYMENT WILL BE MADE.
31.

PAY ITEM INCLUDES REMOVAL OF ALL STRUCTURES AND OBSTRUCTIONS WITHIN PROJECT LIMITS NOT SPECIFIED BY OTHER ITEMS OF WORK.
32.

NOT USED.
33.

MOBILIZATION FOR THE PROJECT IS TO BE INCLUDED IN THIS PAY ITEM. THE MAXIMUM ALLOWABLE AMOUNT WILL BE IN ACCORDANCE WITH THE OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION TABLE 641:1.
34.

CONTRACTOR SHALL COORDINATE WITH HOMEOWNERS TO RESET ALL PAVERS, LANDSCAPE STONE, PRIVATE SIDEWALKS AND FENCES THAT ARE DISTURBED DURING CONSTRUCTION OPERATIONS. ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED FOR RESETTNG OF SUCH ITEMS IS TO BE INCLUDED IN PRICE BID FOR URBAN RIGHT OF WAY RESTORATION.
35.

UNCLASSIFIED EXCAVATION INCLUDES REMOVAL OF AGGREGATE BASE AND MODIFIED SUBGRADE UNDER EXISTING PAVEMENT TO BE REPAIRED.
36.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM.
37.

TESTING AND CHLORINATION OF WATER MAINS SHALL BE PERFORMED BY THE CONTRACTOR.

A.

CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY PLUGS WITH ADEQUATE BLOCKING OR RESTRAINTS, PLUS CORPORATION STOPS, AS DIRECTED BY CITY TESTING PERSONNEL, THEN, ONCE TESTING, CHLORINATION AND FLUSHING BY CITY PERSONNEL IS COMPLETED, REMOVE TEMPORARY BLOCKING AND TIE INTO EXISTING SYSTEM, USING FITTINGS SWABBED INTERNALLY WITH 2% BLEACH SOLUTION.

B.

TESTING, CHLORINATION AND FLUSHING OF NEW WATER MAIN SHALL BE PERFORMED BY THE CONTRACTOR ON MAINS WHICH ARE PHYSICALLY DISCONNECTED FROM THE EXISTING WATER SYSTEM. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAINS SHALL NOT BE PREFORMED AGAINST VALVES WHICH ARE PHYSICALLY CONNECTED TO EXISTING SYSTEM.

C.

ALL COSTS FOR TEMPORARY PLUGS, BLOCKING, RESTRAINING, CORPORATION STOPS, TUBING, THREADED CONNECTIONS, BLEACH AND OTHER INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.
38.

BURIED BOLTS, HARNESS LUGS, AND COUPLINGS SHALL BE GIVEN TWO COATS OF KOPPER'S BITUMASTIC 300-M (DRY MIL THICKNESS OF 16 MILS) OR EQUAL. COST TO BE INCLUDED IN UNIT PRICE BID FOR PIPE AND FITTINGS.
39.

CONTRACTOR TO EXCAVATE ALL UTILITY CROSSINGS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ON THE PROPOSED WATER MAIN TO AVOID UTILITY CONFLICTS. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. COST FOR EXCAVATING UTILITY CROSSINGS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.
40.

CONTRACTOR SHALL INSURE ALL POLES WHICH ARE AFFECTED BY TRENCHING CONDITIONS ARE BRACED BY OWNERS. PAYMENT SHALL BE INCLUDED IN "URBAN RIGHT OF WAY RESTORATION". NO ADDITIONAL PAYMENT SHALL BE MADE.
41.

CONCRETE PATTERN SHALL BE OLD CHICAGO RUNNING BRICK, COLOR U-34.
42.

PAY ITEM SHALL BE USED FOR OVER EXCAVATION OF SOFT SPOTS. OVER EXCAVATION REQUIRES APPROVAL FROM THE ENGINEER OR CITY STAFF.
43.

NOT USED.

44.

ALL COSTS FOR COMPONENTS NECESSARY TO RESTRAIN JOINTS FOR PIPE AND FITTINGS DESIGNATED RETRAINED JOINT ("RJ") SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE OR FITTINGS.

A.

DUCTILE IRON PIPE RESTRAINED JOINT SYSTEMS: U.S. PIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, AMERICAN FLEXRING, EBAA MEGALUG, SMITH-BLAIR CAMLOCK, CLOW TUFGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. SHOULD RJ PIPE BE SPECIFIED THRU UNCASED BORES, ONLY US PIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, OR AMERICAN FLEXRING IS TO BE USED. LOCKING GASKETS NOT PERMITTED.

B.

POLYVINYL CHLORIDE (PVC) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. LOCKING GASKETS NOT PERMITTED; SHOULD RJ PIPE BE SPECIFIED ON BORE CASING IS REQUIRED.

C.

HIGH DENSITY POLYETHYLENE (HDPE) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT.

NO ADDITIONAL PAYMENT SHALL BE MADE.

45.

ALL CUT ENDS AND WHERE SALVAGED FITTINGS HAVE BEEN REMOVED FROM ABANDONED WATER LINES LEFT IN PLACE, SHALL BE PLUGGED WITH 24" OF CONCRETE INSIDE THE PIPE. COST OF CONCRETE PLUGGING TO BE INCLUDED IN UNIT PRICE BID FOR PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.

46.

TRACER WIRE AND DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED ABOVE ALL PVC AND HDPE PIPE, TERMINATING ONLY ONTO HYDRANTS JUST ABOVE GROUND LEVEL AS PER CONST SPEC 310. COST OF TRACER WIRE AND DETECTABLE MYLAR TAPE SHALL BE INCLUDED IN UNIT PRICE BID FOR PVC AND HDPE PIPE. ALLOWS #12 COPPER CLAD STEEL (CCS) WIRE, 21% CONDUCTIVITY, IN LIEU OF #8 COPPER WIRE AS TRACER WIRE ATOP PVC AND HDPE PIPE.

47.

DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED OVER DUCTILE IRON PIPE.

48.

ALL LABOR, MATERIALS, AND EQUIPMENT TO CONNECT PROPOSED WATER MAINS TO EXISTING WATER MAINS ARE INCLUDED IN COST OF SLEEVES/ADAPTORS. CONTRACTOR TO EXCAVATE ALL EXISTING WATER MAINS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ACCORDINGLY. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. COST FOR EXCAVATING EXISTING WATER MAINS SHALL BE INCLUDED IN UNIT PRICE BID FOR SLEEVES. NO ADDITIONAL PAYMENT SHALL BE MADE.

49.

CONTRACTOR IS REMINDED TO BACKFILL ALL TRENCHES EXCAVATED ACROSS ANY EXISTING OR PROPOSED DRIVING OR PARKING SURFACE WITH 1-1/2" TYPE A AGGREGATE BASE, PLACED IN 8-INCH MAXIMUM LIFTS AND COMPACTED TO 98% MODIFIED PROCTOR DENSITY. COST TO BE INCLUDED IN COST OF EXCAVATION AND BACKFILL. NO ADDITIONAL PAYMENT SHALL BE MADE.

50.

WATER SERVICE CONNECTIONS SHALL INCLUDE COST OF MATERIAL, LABOR AND EQUIPMENT TO REMOVE AND INSTALL SADDLES, SERVICE CLAMPS, CORPORATION STOPS, BENDS, 3-PART UNIONS, COUPLINGS, SETTERS AND ANY OTHER INCIDENTALS REQUIRED FOR A COMPLETE WATER SERVICE CONNECTION WITH EXCEPTION OF METER CANS, RIMS AND LIDS. NO ADDITIONAL PAYMENT SHALL BE MADE. METER CANS, LIDS AND RIMS SHALL BE PAID AS SEPARATE BID ITEM.

A.

SHORT SERVICE SHALL BE ANY SERVICE LINE THAT IS 25 FEET OR LESS IN LENGTH. SHORT SERVICES DO NOT INCLUDE PAVEMENT REPLACEMENT, I.E. ¾ INCH WATER SERVICE CONNECTIONS (SHORT SERVICE).

B.

LONG SERVICE SHALL BE ANY SERVICE LINE THAT IS GREATER THAN 25 FEET UP TO 80 FEET IN LENGTH. LONG SERVICES INCLUDE PAVEMENT REPLACEMENT AND/OR COST TO BORE. EXAMPLE: 3/4 INCH WATER SERVICE CONNECTIONS (LONG SERVICE).
- | REVISION | | BY | DATE |
|--|----------------|---|----------------------|
| ADDENDUM  | | D.S. | 3/8/21 |
| | | | |
| | | | |
| | | | |
| | | | |
| PAY ITEM NOTES | | | |
| WHITTAKER STREET REHABILITATION | | | |
| SHAWNEE MUNICIPAL AUTHORITY\ CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT | | | |
| PLANS AND ESTIMATES PREPARED BY: | |  HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012 | |
| PLAN SCALE: | DRAWN | PGM | |
| | DESIGNED | DAS | |
| | SURVEY | | |
| PROFILE SCALE: | PROJ. MGR. | | |
| | LEAD ENGR. | | |
| | FIELD MGR. | | |
| HORIZONTAL: | | | |
| | | | |
| VERTICAL: | RECOMMENDED: | | DATE: 2020 |
| | DESIGN MANAGER | | SHEET 3 OF 22 SHEETS |

Z:\Projects\2020\20SHAWHITST Shawnee Whitaker Street\Design\Production Plans\General Notes.dwg, 3/8/2021 2:42:26 PM

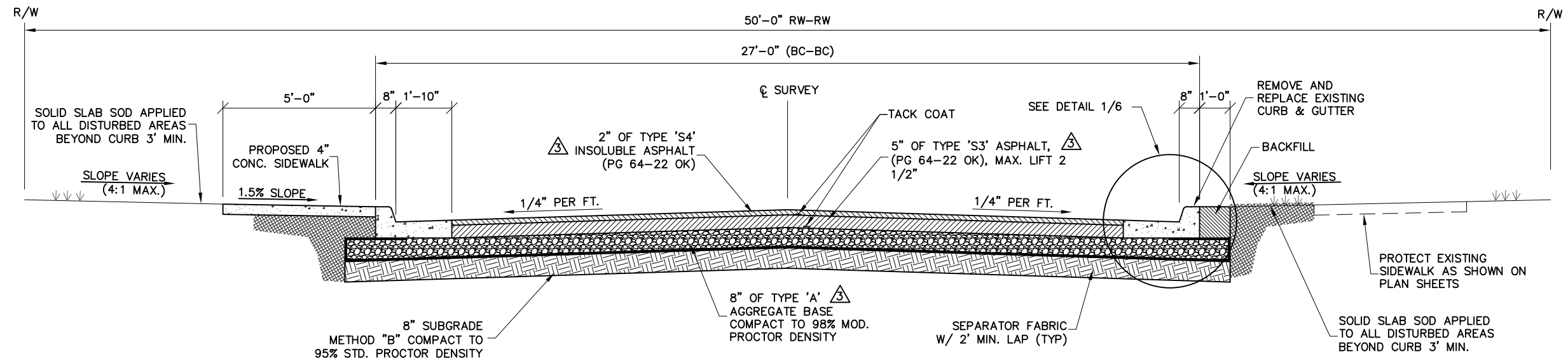
GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE CURRENT CITY OF SHAWNEE STANDARD SPECIFICATIONS AND STANDARD DETAILS AND STANDARD DRAWINGS AND CITY OF SHAWNEE SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING SAFETY, HEALTH AND SANITATION. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT, AND TAKE ANY OTHER NEEDED ACTION ON AS HIS OWN RESPONSIBILITY OR AS THE ENGINEER MAY DETERMINE REASONABLY NECESSARY TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.
3. PAY ITEMS SHALL BE AS SPECIFIED ON THE CITY OF SHAWNEE OR ON THE ODOT STANDARD DRAWINGS EXCEPT AS MODIFIED BY THE CONTRACT.
4. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM HIS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.
5. THE LOCATIONS OF THE UTILITIES ARE SHOWN ACCORDING TO ALL AVAILABLE INFORMATION. THE CONTRACTOR SHALL NOTIFY EACH UTILITY OWNER PRIOR TO COMMENCEMENT OF WORK TO VERIFY BOTH HORIZONTAL AND VERTICAL LOCATIONS.
6. THE CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF OKLAHOMA ONE–CALL SYSTEM, INC. NOTICE OF ANY EXCAVATION NO SOONER THAN TEN DAYS NOR LATER THAN 48 HOURS , EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, PRIOR TO THE COMMENCEMENT OF WORK. PHONE 1–800–522–6543.
7. THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS TO PREVENT EXCESS MOISTURE FROM INCLEMENT WEATHER OR OTHER SOURCES FROM ENTERING ANY STREET EXCAVATION. IF EXCESS MOISTURE DOES ENTER THE EXCAVATION THROUGH THE NEGLIGENCE OF THE CONTRACTOR AND THE ADJOINING PAVEMENT IS ADVERSELY EFFECTED BY THE EXCESS MOISTURE, THE CONTRACTOR SHALL REPLACE THE ADJOINING PAVEMENT AND SUBBASE AT HIS SOLE EXPENSE.
8. THE CONTRACTOR SHALL PRESERVE THE INTEGRITY OF THE SANITARY SEWER STRUCTURES AND ALL OTHER UTILITY STRUCTURES WITHIN THE PROJECT EXTENTS.
9. THE CONTRACTOR SHALL WORK IN COOPERATION WITH THE CITY OF SHAWNEE TO ESTABLISH, INSTALL, MAINTAIN, AND OPERATE COMPLETE, ADEQUATE, AND SAFE TRAFFIC CONTROLS DURING THE ENTIRE CONSTRUCTION PERIOD. ALL FLAGMEN, BARRICADES, AND TRAFFIC CONTROL DEVICES SHALL BE APPROVED BY THE FIELD ENGINEERING REPRESENTATIVE.
10. CONSTRUCTION SIGNAGE WILL BE INSTALLED IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT ADDITION, AND APPLICABLE ODOT STANDARD DRAWINGS. THE CONTRACTOR SHALL PROVIDE A PROPOSED TRAFFIC CONTROL PLAN PRIOR TO BEGINNING WORK.
11. THE CONTRACTOR SHALL NOTIFY THE CITY OF SHAWNEE AT 405–878–1560 A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK OR PRIOR TO REMOVING TRAFFIC SIGNS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ALL EXISTING TRAFFIC SIGNS AND MARKINGS REMOVED OR DAMAGED. ALL TRAFFIC SIGNS SHALL MEET MUTCD STANDARDS (CURRENT ADDITION).
13. THE CONTRACTOR WILL BE RESPONSIBLE FOR PREPARATION AND DISTRIBUTION OF A WRITTEN NOTICE TO RESIDENTS 48 HOURS PRIOR TO BEGINNING PAVEMENT REMOVAL OPERATIONS.
14. LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH THE PROJECT AT ALL TIMES.
15. ALL PUBLIC AND PRIVATE STREETS AND DRIVES SHALL BE ACCESSIBLE AT ALL TIMES.
16. ALL BROKEN CONCRETE, WASTE MATERIAL, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.
17. ALL EXCAVATED MATERIAL NOT REQUIRED IN THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE ENGINEER WITHOUT COST TO THE CITY. THE CONTRACTOR WILL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF ANY MATERIAL IS STORED ON THE PROJECT SITE AND/OR DISPOSED OF WITHIN THE CITY LIMITS.
18. ALL TREES, BRUSH AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER IS TO BE CLEANED OUT TO THE RIGHT–OF–WAY LINE IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK. TREES OUTSIDE THE FILL SLOPES AND THE TOP OF CUT SLOPES SHALL NOT BE DISTURBED EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.
19. WHERE MATERIALS ARE TRANSPORTED IN THE PROSECUTION OF WORK, VEHICLES SHALL NOT BE LOADED BEYOND THE CAPACITY RECOMMENDED BY THE VEHICLE MANUFACTURER OR AS PRESCRIBED BY ANY FEDERAL, STATE OR LOCAL LAW OR REGULATION.
20. ANY DAMAGE TO THE ROADWAY PAVEMENT, CURB, DRIVEWAYS OR SIDEWALK CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED TO THE ENGINEER'S SATISFACTION AND SHALL BE ACCOMPLISHED AT THE CONTRACTOR'S SOLE EXPENSE. ALL DISTURBED ITEMS SHALL BE REPAIRED TO MATCH EXISTING MATERIALS AND PATTERNING.
21. IF THE CONTRACTOR ENCOUNTERS VOIDS WHEN PATCHING STREETS, THE CONTRACTOR SHALL CALL THE CITY OF SHAWNEE AT 405–878–1560 FOR AN INSPECTION BEFORE PROCEEDING WITH WORK.
22. THE PROJECT SHALL BE CONSTRUCTED WITH CONTINUOUS FLOW OF MATERIAL SUPPLIED TO THE PROJECT SUCH THAT THE LAYDOWN MACHINE WILL REMAIN IN MOTION. ANY DELAY IN FORWARD PROGRESSION OF THE LAYDOWN MACHINE MAY REQUIRE A TRANSVERSE JOINT AS DIRECTED BY THE ENGINEER.
23. NO FLY ASH IS ALLOWED TO BE USED ON THIS PROJECT.
- 3

24. PHYSICAL TESTING FOR QUALITY ASSURANCE SHALL BE FURNISHED BY THE CITY.
25. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY QUALITY CONTROL TESTING TO ENSURE THAT PROJECT REQUIREMENTS ARE MET.
26. MASONRY STRUCTURES SHALL NOT BE CONSTRUCTED WITHIN THE STREET RIGHT–OF–WAY.
27. ALL CONCRETE CURB AND GUTTERS SHALL BE MONOLITHIC POURS. DOWELED–ON CURBS WILL NOT BE ALLOWED.
28. NO LIFTING HOLES WILL BE ALLOWED ON ANY REINFORCED CONCRETE PIPES OR REINFORCED CONCRETE BOXES.
29. CURB RAMP CONSTRUCTION SHALL COMPLY WITH THE CURRENT AMERICANS WITH DISABILITIES ACT STANDARDS.
30. REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956–01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH–INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956–01 TYPE III RETROREFLECTIVE SHEETING.
31. ALL SANITARY AND STORM SEWER MANHOLE CASTINGS AND LIDS THAT ARE LOCATED IN THE STREET AND ARE DISTURBED BY THE CONTRACTOR SHALL BE REPLACED WITH NEW LIDS AND CASTINGS AND THE OLD ONES SHALL BE SALVAGED AND DELIVERED TO THE CITY OF SHAWNEE.

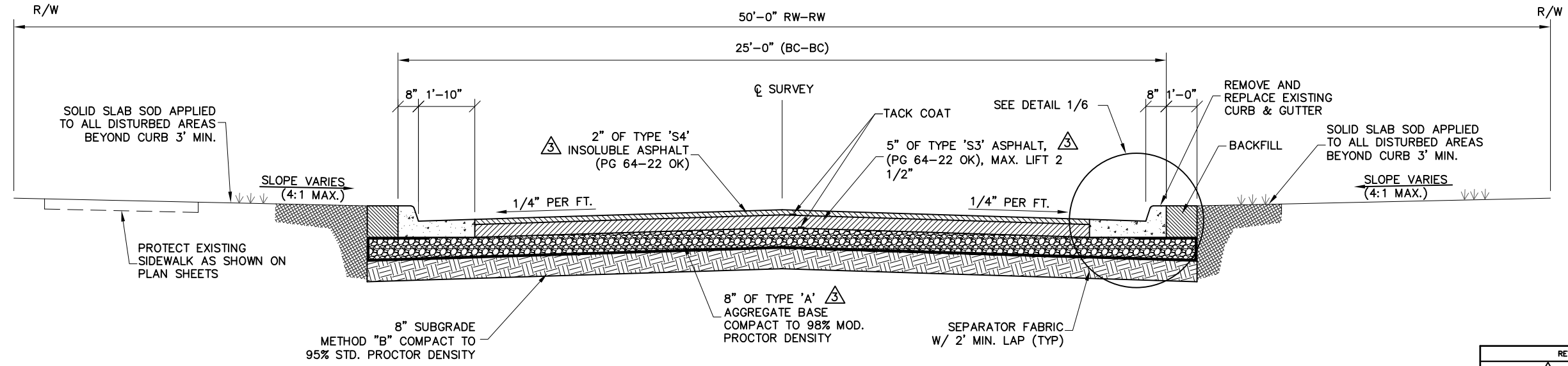
32. THE SIGN PLACEMENT STATIONING AND LOCATIONS SHOWN ON THE PLAN SHEETS AND SUMMARY SHEETS ARE APPROXIMATE. EXACT STATIONING AND LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH CITY OF SHAWNEE STANDARDS, CURRENT AMERICANS WITH DISABILITIES ACT STANDARDS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES, OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.
33. POST LENGTHS SHALL BE DETERMINED BY A FIELD SURVEY CONDUCTED BY THE CONTRACTOR.
34. ALL ASPHALT STREETS THAT ARE TO BE RECONSTRUCTED SHALL BE LEFT WITH A DRIVABLE SURFACE AT ALL TIMES. THE CONTRACTOR WILL NOT BE ALLOWED TO MILL OFF ALL THE ASPHALT BEFORE EXCAVATION BEGINS.
35. THE CONTRACTOR SHALL REPLACE ANY SECTION CORNERS OR OTHER PERMANENT RIGHT OF WAY MARKERS REMOVED OR DISTURBED AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT. REPLACEMENT OF SECTION CORNERS OR ANY OTHER MONUMENTS SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR AUTHORIZED TO PERFORM WORK IN THE STATE OF OKLAHOMA.
36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL AND MAINTENANCE OF THE STORMWATER DRAINAGE. STORMWATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED.
37. STRAW OR HAY BALES AS STORMWATER BEST MANAGEMENT PRACTICES ARE NO LONGER ALLOWED ON CONSTRUCTION PROJECTS.
38. THE CONTRACTOR MUST CALL 1–800–458–4251 IMMEDIATELY IF A NATURAL GAS PIPELINE IS CUT, DAMAGED, OR OTHERWISE DISTURBED.
39. PRIOR TO FINAL ACCEPTANCE, ALL EXPOSED CURB SURFACES SHALL BE CLEANED OF ALL DISCOLORATION SUCH AS ASPHALT STAIN, TIRE MARKS, OR OTHER DISFIGUREMENT. ENSURE PROPER BACKFILL BEHIND CURB AND HEIGHT OF SOD.
40. ALL FEATURES OF THIS PROJECT INCLUDING, BUT NOT LIMITED TO, SIDEWALKS, CURB RAMPS, AND CROSSWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES, AND THE PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT–OF–WAY, PUBLISHED ON JULY 26, 2011 BY THE U.S. ACCESS BOARD. WHERE SPATIAL LIMITATIONS OR EXISTING FEATURES WITHIN THE LIMITS OF THE PROJECT PREVENT FULL COMPLIANCE WITH THIS ACT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF SUCH FEATURES. THE CONTRACTOR SHALL NOT PROCEED WITH ANY ASPECT OF THE WORK, WHICH IS NOT IN FULL COMPLIANCE WITH THE ADA WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER. ANY WORK WHICH IS NOT PERFORMED WITHIN THE GUIDELINES OF THE ADA, FOR WHICH THE CONTRACTOR DOES NOT HAVE WRITTEN APPROVAL, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
41. ALL TRENCH WIDTHS & BEDDING MATERIAL SHALL BE AS SHOWN ON SHEET 21, WATER LINE BEDDING DETAIL. SPECIFIED TRENCH WIDTHS SHALL BE MAINTAINED FULL DEPTH FROM THE FLOWLINE TO THE GRADING TEMPLATE. THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED.
42. THE CONTRACTOR SHALL NOTIFY THE CITY OF SHAWNEE AT 405–878–1560, A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK, LANE CLOSURES OR PRIOR TO DETOURING TRAFFIC. THE CONTRACTOR WILL SUBMIT A TRAFFIC PLAN TO THE CITY OF SHAWNEE FOR APPROVAL A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK.

REVISION		BY	DATE
ADDENDUM 		D.S.	3/8/21
GENERAL NOTES			
WHITTAKER STREET REHABILITATION			
SHAWNEE MUNICIPAL AUTHORITY\ CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		 HOLLOWAY, UPDIKE + BELLEN, Inc. 905–A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
PLAN SCALE:	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
	LEAD ENGR.		
	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2020
	DESIGN MANAGER		SHEET 5 OF 22 SHEETS



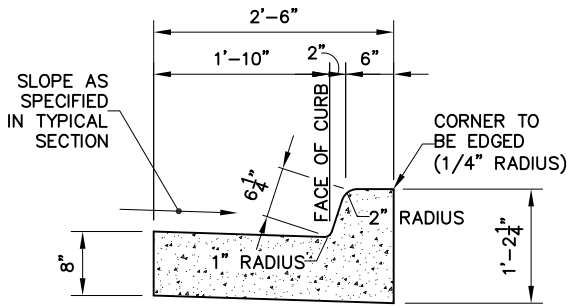
TYPICAL SECTION "A"				
STREET NAME	BEGIN STATION	END STATION	BC-BC (FT)	RW-RW (FT)
E WHITAKER ST	10+10.93	17+85.34	27.00	50.00

A
6
TYPICAL ASPHALT SECTION "A"
SCALE: 1/2" = 1'-0"

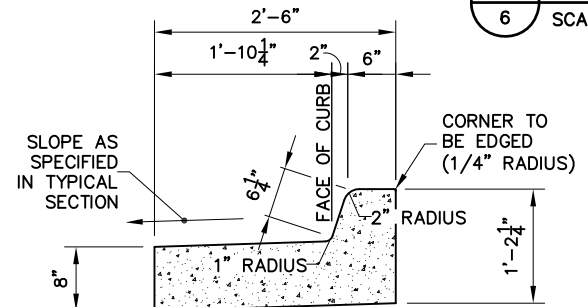


TYPICAL SECTION "B"				
STREET NAME	BEGIN STATION	END STATION	BC-BC (FT)	RW-RW (FT)
N DRAPER AVE	20+05.00	22+59.70	25.00	50.00

B
6
TYPICAL ASPHALT SECTION "B"
SCALE: 1/2" = 1'-0"



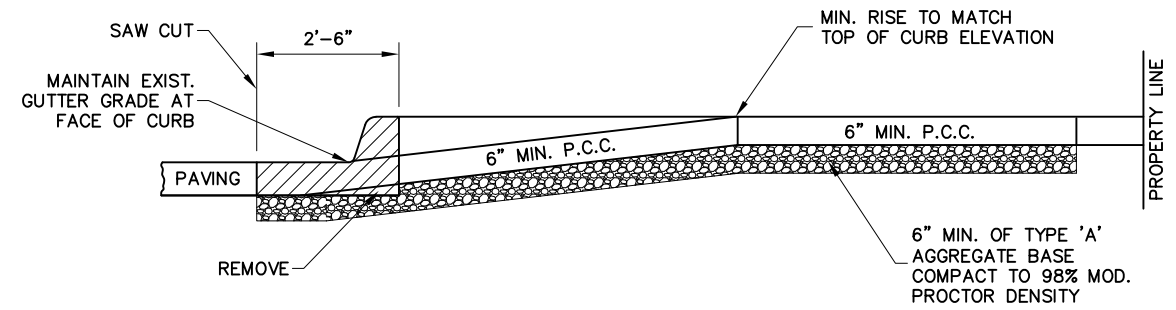
1
6
CURB & GUTTER
6" BARRIER TYPE



2
6
CURB & GUTTER
6" BARRIER TYPE - FALL AWAY

REVISION		BY	DATE
ADDENDUM A		D.S.	3/8/21
TYPICAL SECTIONS			
WHITTAKER STREET REHABILITATION			
SHAWNEE MUNICIPAL AUTHORITY CITY OF SHAWNEE, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		HOLLOWAY, UPDIKE + BELLEN, Inc. 905-A S 9TH STREET BROKEN ARROW, OKLAHOMA 74012	
PLAN SCALE: 1/2"=1'-0"	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
	LEAD ENGR.		
HORIZONTAL:	FIELD MGR.		
	RECOMMENDED:		
	DESIGN MANAGER		
			DATE: 2020
			SHEET 6 OF 22 SHEETS

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FIRST JOINT OR SECOND JOINT
SEE DRIVEWAY SCHEDULE

5'-0"

SAW OR SCORE 1" CONTRACTION JOINTS AT 5' INTERVALS MAX.

ROLLED CURB

SIDEWALK- 4" THICK

IF DRIVE IS WIDER THAN 15',
SAW CUT AT CL.

EXP. JOINT

6" THICK SIDEWALK FOR 1-4' PANEL PINNED w/ #3 @ 12" O.C. REINFORCEMENT (TYP BOTH SIDES OF DRIVEWAY)

EXP. JOINT @ 25' O.C.

GUTTER FL (NOT A JOINT)

BLOCK OUT CURB THROUGH DRIVEWAY OPENING. SEALED EXP. JOINT

DRIVEWAY PLAN

Diagram illustrating the cross-section of a concrete curb and sidewalk assembly. The assembly includes a 4" thick stamped concrete sidewalk with a red brick pattern, sloped at 1/4" per foot. The curb is 4" high and 1'-0" wide. A 1/2" expansion joint is spaced 25' O.C., filled with 1/2" premolded bituminous fiberboard, sealed with 1/2" self-leveling silicone, and sloped toward the curb or ditch at 1/4" per foot. A contraction joint is spaced at 5' O.C. max. The curb is supported by 4" of sand bedding and 6" of subgrade method "B".

A cross-sectional diagram of a gutter installation. On the left, a horizontal line is labeled 'PAVING'. To its right is a vertical line labeled 'SAW LINE'. Further right is a vertical line labeled 'GUTTER'. The horizontal distance between the 'SAW LINE' and the 'GUTTER' is indicated by a dimension line and labeled '1'-10"'. Below the 'PAVING' label, a horizontal arrow pointing to the right is labeled 'SLOPE'. The ground surface is represented by a diagonal line sloping downwards from left to right, labeled 'DRIVEWAY'.



COLOR:
BORDER AND LEGEND:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLOURESCENT YELLOW-GREEN
(REFLECTORIZED)

S1-1	36 x 36	6.75 SF
S1-1E	48 x 48	12.00 SF

REVISION	BY	DATE
ADDENDUM <u>3</u>	D.S.	3/8/21

SHAWNEE MUNICIPAL AUTHORITY\

CITY OF SHAWNEE, OKLAHOMA

ENGINEERING SERVICES DEPARTMENT

PLAN SCALE:		DRAWN	PGM	
AS SHOWN		DESIGNED	DAS	
		SURVEY		
PROFILE SCALE:		PROJ. MGR.		
HORIZONTAL:		LEAD ENGR.		
		FIELD MGR.		
VERTICAL:		RECOMMENDED:		DATE: 2020
		DESIGN MANAGER		SHEET 7 OF 22 SHEETS

SIGN IN SHEET
MANDATORY PRE-BID CONFERENCE
10:00 A.M., FEBRUARY 23, 2021
WHITTAKER STREET REHABILITATION
CITY OF SHAWNEE, OKLAHOMA

Name	Representing	Phone No.	Email
Dale Seaton, P.E.	HUB Engineers	M - 918-381-5914 O - 918-251-0717	dseaton@hubengineers.com
Brad Schmidt <i>BS</i>	City of Shawnee		bradley.schmidt@shawneeok.org
Chance Allison	City of Shawnee		chance.allison@shawneeok.org
Seth Barkhimer <i>SB</i>	City of Shawnee		seth.barkhimer@shawneeok.org
Shane Lomeli	city of shawnee	405-878-1560	Shane.Lomeli@shawneeok.org
John McGee	Haskell Lemon Const.	405-219-2661	jmcgee@haskelllemon.com
JIM MARTIN	A-1 DOZER	405 317-3474	JAMES.MARTIN@SBCGLOBAL.NET
Tammy Robinson	Haskell Lemon Const	405-206-5119	bids@haskelllemon.com
Tim DIBLER	CITY OF SHAWNEE	405-650-8602	tdibler@shawneeok.org
Alan Blankenship	SMA	405-406-1960	alan.blankenship@shawneeok.org
Bryl Wilkins	HASKELL Lemon Const	405-982-3266	bwilkins@haskelllemon.com
Kassie Choat	City of Shawnee	405	Kassandra.Choat@shawneeok.org

SIGN IN SHEET
MANDATORY PRE-BID CONFERENCE
10:00 A.M., FEBRUARY 23, 2021
WHITTAKER STREET REHABILITATION
CITY OF SHAWNEE, OKLAHOMA

Name	Representing	Phone No.	Email
Derek Robbins*	Wynn Construction		bid@wynnconstruction.com
Durinda Fisher*	CPI	405-732-0532 x403	dfisher@cpiokc.com
Timothy Lunday*	A-Tech Paving		bids@atechpaving.com tlunday@atechpaving.com
Jeremy Worthington*	Ellsworth Construction, LLC.	918-446-1500 918-446-8148	Jeremy@ellsworthinc.com
Bobbie Woodrow*	Nash Construction	405-672-2792	bwnashconst@gmail.com
Tiffany Hilton	HUB Engineers	918-251-0717	thilton@hubengineers.com

*Attended Virtually via Teams.

AGENDA
MANDATORY PRE-BID CONFERENCE
10:00 A.M., FEBRUARY 23, 2021
WHITTAKER STREET REHABILITATION
CITY OF SHAWNEE, OKLAHOMA

- Sign-In
- Introductions (See attached sign-in sheet for attendance)
- Bid: 4:00 p.m., March 11, 2021
 - Bids are due to the City Clerk up to 4:00 p.m. on Thursday, March 11, 2021
 - Bids will be opened and read at the board meeting being held at 6:00 p.m. on March 15, 2021
- List of Plan Holders (Visit www.hubengineers.com for plan holder list)
- Bid Submission
 - Bid Proposal
 - Bid Bond
 - Business Relationships Affidavit
 - Non-collusion Affidavit
 - Bidder must be on the plan holders list at HUB, Inc. to submit a bid.
 - Bidder must acknowledge all Addenda
 - To date, two (2) have been issued.
- Bid Proposal
- Project Overview: The project consists of the full reconstruction of Whittaker Street from Center Avenue to Draper Avenue and corresponding waterline relocation. Also included is Draper Ave from Whittaker St to Highland St.
- Project Completion Time: 100 Calendar Days
- Liquidated Damages: \$1,000/Day
- Schedule: Contractor is expected to mobilize immediately following the last day of Shawnee Public Schools (Spring Semester) – Expected to be end of May/Beginning of June
- Staging shall be on the NW lot of Whittaker/Draper. Cleaning/paving lot shall follow.
- Contractors' Questions:
 1. Construction Sequencing/Street Shutdown:
Street may be shut down as long as residents have access to homes ("No Thru Traffic"). At minimum, a gravel surface must be provided. The existing water line shall remain in service until the proposed water line is in place.
 2. Is the asphalt material recycled or virgin?
Asphalt shall be in compliance with ODOT specifications (up to 25% recycled material in base layer).
- Adjourn