



COMMISSIONERS COURT  
COMMUNICATION

COURT ORDER NUMBER 145564  
PAGE 1 OF 237  
DATE: 8/5/2025

SUBJECT: **CONSIDERATION OF THE DEVELOPER AWARDED PROJECT AGREEMENT BETWEEN TARRANT COUNTY HOSPITAL DISTRICT, D/B/A JPS HEALTH NETWORK AND J.T. VAUGHN CONSTRUCTION, LLC**

**COMMISSIONERS COURT ACTION REQUESTED**

It is requested that the Commissioners Court approve the Developer Awarded Project Agreement between Tarrant County Hospital District, d/b/a JPS Health Network (District) and J.T. Vaughn Construction, LLC.

**BACKGROUND**

The District is constructing a new Psychiatric Emergency Center (PEC) as part of the JPS Master Facilities Plan. This Agreement provides for labor, material, supervision, and planning for public utility water line improvements to serve the new PEC. This Agreement involves construction in an amount exceeding \$500,000.00 which requires Commissioners Court approval.

The District's Board of Managers approved the attached Developer Awarded Project Agreement at its July 10, 2025, Board of Managers meeting. The District's Counsel reviewed the agreement and approved it as to form.

**FISCAL IMPACT**

Funding in the amount of \$3,871,816.07 is available in the District's approved Master Facilities Plan budget.

SUBMITTED BY	JPS Health Network - Administration	PREPARED BY:	Lani Taylor
		APPROVED BY:	Daphne Walker



**PROJECT MANUAL  
FOR  
THE CONSTRUCTION OF**

***12" AND 16" WATER LINE IMPROVEMENTS  
TO SERVE JOHN PETER SMITH HOSPITAL PEC***

**IPRC Record No. *IPRC 24-0208*  
City Project No. *CPN 105900*  
FID No. *30114-0200431-105900-E07685*  
X File No. *X-283883***

Mattie Parker  
Mayor

David Cooke  
City Manager

Lauren Prieur, P.E.  
Director, Transportation and Public Works Department

Christopher P. Harder, P.E.  
Director, Water Department

**Prepared for  
The City of Fort Worth**

**December 2024**



**teague nall & perkins**  
5237 N. Riverside Drive, Suite 100  
Fort Worth, TX 76137  
817.336.5773 ph 817.336.2813 fx  
TBPE Registration No. F-230  
[www.tnpinc.com](http://www.tnpinc.com)  
BKA 21233





32-13-73	Concrete Paving Joint Sealants	12/20/2012
32-14-16	Brick Unit Paving	12/20/2012
32-16-13	Concrete Curb and Gutters and Valley Gutters	10/05/2016
32-17-23	Pavement Markings	11/22/2013
32-17-25	Curb Address Painting	11/04/2013
32-31-13	Chain Fences and Gates	12/20/2012
32-31-26	Wire Fences and Gates	12/20/2012
32-31-29	Wood Fences and Gates	12/20/2012
32-32-13	Cast-in-Place Concrete Retaining Walls	06/05/2018
32-91-19	Topsoil Placement and Finishing of Parkways	12/20/2012
32-92-13	Hydro-Mulching, Seeding, and Sodding	12/20/2012
32-93-43	Trees and Shrubs	12/20/2012

**Division 33 - Utilities**

33-01-30	Sewer and Manhole Testing	12/20/2012
33-01-31	Closed Circuit Television (CCTV) Inspection	03/03/2016
33-03-10	Bypass Pumping of Existing Sewer Systems	12/20/2012
33-04-10	Joint Bonding and Electrical Isolation	12/20/2012
33-04-11	Corrosion Control Test Stations	12/20/2012
33-04-12	Magnesium Anode Cathodic Protection System	12/20/2012
33-04-30	Temporary Water Services	07/01/2011
33-04-40	Cleaning and Acceptance Testing of Water Mains	02/06/2013
33-04-50	Cleaning of Sewer Mains	12/20/2012
33-05-10	Utility Trench Excavation, Embedment, and Backfill	12/12/2016
33-05-12	Water Line Lowering	12/20/2012
33-05-13	Frame, Cover and Grade Rings—Cast Iron	01/22/2016
33-05-13.10	Frame, Cover and Grade Rings—Composite	01/22/2016
33-05-14	Adjusting Manholes, Inlets, Valve Boxes, and Structures to Grade	12/20/2012
33-05-16	Concrete Water Vaults	12/20/2012
33-05-17	Concrete Collars	12/20/2012
33-05-20	Auger Boring	12/20/2012
33-05-21	Tunnel Liner Plate	12/20/2012
33-05-22	Steel Casing Pipe	12/20/2012
33-05-23	Hand Tunneling	12/20/2012
33-05-24	Installation of Carrier Pipe in Casing or Tunnel Liner Plate	12/09/2022
33-05-26	Utility Markers/Locators	12/20/2012
33-05-30	Location of Existing Utilities	12/20/2012
33-11-05	Bolts, Nuts, and Gaskets	12/20/2012
33-11-10	Ductile Iron Pipe	12/20/2012
33-11-11	Ductile Iron Fittings	12/20/2012
33-11-12	Polyvinyl Chloride (PVC) Pressure Pipe	11/16/2018
33-11-13	Concrete Pressure Pipe, Bar-Wrapped, Steel Cylinder Type	12/20/2012
33-11-14	Buried Steel Pipe and Fittings	12/20/2012
33-12-10	Water Services 1-inch to 2-inch	02/14/2017
33-12-11	Large Water Meters	12/20/2012
33-12-20	Resilient Seated Gate Valve	12/20/2012
33-12-21	AWWA Rubber-Seated Butterfly Valves	12/20/2012
33-12-25	Connection to Existing Water Mains	02/06/2013
33-12-30	Combination Air Valve Assemblies for Potable Water Systems	12/20/2012

33 12 40	Fire Hydrants	01/03/2014
33 12 50	Water Sample Stations	12/20/2012
33 12 60	Standard Blow-off Valve Assembly	06/19/2013
33 31 12	Cured in Place Pipe (CIPP)	12/20/2012
33 31 13	Fiberglass Reinforced Pipe for Gravity Sanitary Sewers	12/20/2012
33 31 15	High Density Polyethylene (HDPE) Pipe for Sanitary Sewer	12/20/2012
33 31 20	Polyvinyl Chloride (PVC) Gravity Sanitary Sewer Pipe	06/19/2013
33 31 21	Polyvinyl Chloride (PVC) Closed Profile Gravity San. Sewer Pipe	12/20/2012
33 31 22	Sanitary Sewer Slip Lining	12/20/2012
33 31 23	Sanitary Sewer Pipe Enlargement	12/20/2012
33 31 50	Sanitary Sewer Service Connections and Service Line	04/26/2013
33 31 70	Combination Air Valve for Sanitary Sewer Force Mains	12/20/2012
33 39 10	Cast in-Place Concrete Manholes	12/20/2012
33 39 20	Precast Concrete Manholes	12/20/2012
33 39 30	Fiberglass Manholes	12/20/2012
33 39 40	Wastewater Access Chamber (WAC)	12/20/2012
33 39 60	Epoxy Liners for Sanitary Sewer Structures	12/20/2012
33 41 10	Reinforced Concrete Storm Sewer Pipe/Culverts	07/01/2011
33 41 11	High Density Polyethylene (HDPE) Pipe for Storm Drain	12/20/2012
33 41 12	Reinforced Polyethylene (SRPE) Pipe	11/13/2015
33 46 00	Subdrainage	12/20/2012
33 46 01	Slotted Storm Drains	07/01/2011
33 46 02	Trench Drains	07/01/2011
33 49 10	Cast in-Place Manholes and Junction Boxes	12/20/2012
33 49 20	Curb and Drop Inlets	12/20/2012
33 49 40	Storm Drainage Headwalls and Wingwalls	07/01/2011

**Division 34 - Transportation**

34 41 10	Traffic Signals	10/12/2015
34 41 10.01	Attachment A— Controller Cabinet	12/18/2015
34 41 10.02	Attachment B— Controller Specification	02/2012
34 41 10.03	Attachment C— Software Specification	01/2012
34 41 11	Temporary Traffic Signals	11/22/2013
34 41 13	Removing Traffic Signals	12/20/2012
34 41 15	Rectangular Rapid Flashing Beacon	11/22/2013
34 41 16	Pedestrian Hybrid Signal	11/22/2013
34 41 20	Roadway Illumination Assemblies	12/20/2012
34 41 20.01	Arterial LED Roadway Luminaires	06/15/2015
34 41 20.02	Freeway LED Roadway Luminaires	06/15/2015
34 41 20.03	Residential LED Roadway Luminaires	06/15/2015
34 41 30	Aluminum Signs	11/12/2013
34 41 50	Single Mode Fiber Optic Cable	02/26/2016
34 71 13	Traffic Control	11/22/2013

**Appendix**

- GC-4.02 Subsurface and Physical Conditions
- GR-01 60 00 Product Requirements

**END OF SECTION**

**SECTION 00 42 43**  
Developer Awarded Projects - PROPOSAL FORM

**UNIT PRICE BID**

**Bidder's Application**

Project Item Information					Bidder's Proposal	
Bidlist Item No.	Description	Specification Section No.	Unit of Measure	Bid Quantity	Unit Price	Bid Value
<b>UNIT I: WATER IMPROVEMENTS</b>						
1	0171.0101 Construction Staking	01 71 23	LS	1	\$8,374.05	\$8,374.05
2	0241.0100 Remove Sidewalk	02 41 13	SF	170	\$6.75	\$1,147.50
3	0241.1000 Remove Conc Pvmnt	02 41 15	SY	937	\$24.30	\$22,769.10
4	0241.1001 Water Line Grouting	02 41 14	CY	73	\$1,092.15	\$79,726.95
5	0241.1218 4"-12" Water Abandonment Plug	02 41 14	EA	1	\$19,411.65	\$19,411.65
6	0241.1302 Remove 6" Water Valve	02 41 14	EA	2	\$663.70	\$1,327.40
7	0241.1506 2" Surface Milling	02 41 15	SY	2321	\$56.70	\$131,600.70
8	0241.1510 Salvage Fire Hydrant	02 41 14	EA	2	\$1,494.45	\$2,988.90
9	3201.0132 5' Wide Asphalt Pvmnt Repair, Industrial	32 01 17	LF	696	\$240.30	\$167,248.80
10	3201.0616 Conc Pvmnt Repair, Arterial/Industrial	32 01 29	SY	937	\$486.00	\$455,382.00
11	3212.0301 2" Asphalt Pvmnt Type D (DG-D)	32 12 16	SY	2321	\$75.60	\$175,467.60
12	3213.0301 4" Conc Sidewalk	32 13 20	SF	170	\$21.60	\$3,672.00
13	3216.0101 6" Conc Curb and Gutter	32 16 13	LF	45	\$105.30	\$4,738.50
14	3304.0101 Temporary Water Services	33 04 30	LS	1	\$121,500.00	\$121,500.00
15	3305.0109 Trench Safety	33 05 10	LF	2180	\$1.35	\$2,943.00
16	3305.1004 24" Casing By Open Cut	33 05 22	LF	15	\$850.50	\$12,757.50
17	3311.0001 Ductile Iron Water Fittings w/ Restraint	33 11 11	TON	6.6	\$18,459.90	\$121,835.34
18	3311.0061 4" PVC Water Pipe	33 11 12	LF	40	\$162.00	\$6,480.00
19	3311.0161 6" PVC Water Pipe	33 11 12	LF	165	\$700.65	\$115,607.25
20	3311.0261 8" PVC Water Pipe	33 11 12	LF	100	\$1,614.60	\$161,460.00
21	3311.0451 12" DIP Water	33 11 10	LF	50	\$923.40	\$46,170.00
22	3311.0457 12" DIP Water, CLSM Backfill	33 11 10	LF	30	\$932.85	\$27,985.50
23	3311.0461 12" PVC Water Pipe	33 11 12	LF	969	\$645.30	\$625,295.70
24	3311.0467 12" PVC Water Pipe, CLSM Backfill	33 11 12	LF	10	\$689.85	\$6,898.50
25	3311.0561 16" PVC C905 Water Pipe	33 11 12	LF	1020	\$654.75	\$667,845.00
26	3311.0567 16" PVC C905 Water Pipe, CLSM Backfill	33 11 12	LF	30	\$664.20	\$19,926.00
27	3312.0001 Fire Hydrant	33 12 40	EA	2	\$7,699.05	\$15,398.10
28	3312.0106 Connection to Existing 16" Water Main	33 12 25	EA	2	\$23,615.55	\$47,231.10
29	3312.0117 Connection to Existing 4"-12" Water Main	33 12 25	EA	12	\$7,503.30	\$90,039.60
30	3312.2203 2" Water Service	33 12 10	EA	1	\$9,358.20	\$9,358.20
31	3312.2801 3" Water Meter and Vault	33 12 11	EA	2	\$40,073.40	\$80,146.80
32	3312.3002 6" Gate Valve	33 12 20	EA	2	\$2,444.85	\$4,889.70
33	3312.3003 8" Gate Valve	33 12 20	EA	1	\$5,003.37	\$5,003.37
34	3312.3005 12" Gate Valve	33 12 20	EA	5	\$6,782.40	\$33,912.00
35	3312.3006 16" Gate Valve w/ Vault	33 12 20	EA	5	\$71,517.60	\$357,588.00
36	3312.3103 8" Cut-in Gate Valve	33 12 20	EA	2	\$8,087.85	\$16,175.70
37	3312.4106 12" x 6" Tapping Sleeve & Valve	33 12 25	EA	3	\$11,858.40	\$35,575.20
38	3312.4110 16" x 4" Tapping Sleeve & Valve	33 12 25	EA	1	\$24,074.55	\$24,074.55
39	3312.4111 16" x 6" Tapping Sleeve & Valve	33 12 25	EA	1	\$24,074.55	\$24,074.55
40	3471.0001 Traffic Control	34 71 13	MO	14	\$8,413.59	\$117,790.26
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<b>TOTAL UNIT I: WATER IMPROVEMENTS</b>						<b>\$3,871,816.07</b>

**SECTION 00 42 43**  
Developer Awarded Projects - PROPOSAL FORM

**UNIT PRICE BID**

**Bidder's Application**

Project Item Information					Bidder's Proposal	
Bidlist Item No.	Description	Specification Section No.	Unit of Measure	Bid Quantity	Unit Price	Bid Value

**Bid Summary**

UNIT I: WATER IMPROVEMENTS					\$3,871,816.07	
<b>Total Construction Bid</b>					<b>\$3,871,816.07</b>	

**This Bid is submitted by the entity named below:**

**BIDDER:**  
J.T. Vaughn Construction, LLC  
9160 Sterling Street  
Suite 100  
Irving, TX 75063

**BY:** Danny Thompson

**TITLE:** CEO

**DATE:** 3/25/2025

Contractor agrees to complete WORK for FINAL ACCEPTANCE within 293 working days after the date when the CONTRACT commences to run as provided in the General Conditions.

END OF SECTION

**SECTION 00 45 11**  
**BIDDERS PREQUALIFICATIONS**

- 1. Summary.** All contractors are required to be prequalified by the City prior to submitting bids. To be eligible to bid the contractor must submit Section 00 45 12, Prequalification Statement for the work type(s) listed with their Bid. Any contractor or subcontractor who is not prequalified for the work type(s) listed must submit Section 00 45 13, Bidder Prequalification Application in accordance with the requirements below.

The prequalification process will establish a bid limit based on a technical evaluation and financial analysis of the contractor. The information must be submitted seven (7) days prior to the date of the opening of bids. For example, a contractor wishing to submit bids on projects to be opened on the 7th of April must file the information by the 31st day of March in order to bid on these projects. In order to expedite and facilitate the approval of a Bidder's Prequalification Application, the following must accompany the submission.

- a. A complete set of audited or reviewed financial statements.
    - (1) Classified Balance Sheet
    - (2) Income Statement
    - (3) Statement of Cash Flows
    - (4) Statement of Retained Earnings
    - (5) Notes to the Financial Statements, if any
  - b. A certified copy of the firm's organizational documents (Corporate Charter, Articles of Incorporation, Articles of Organization, Certificate of Formation, LLC Regulations, Certificate of Limited Partnership Agreement).
  - c. A completed Bidder Prequalification Application.
    - (1) The firm's Texas Taxpayer Identification Number as issued by the Texas Comptroller of Public Accounts. To obtain a Texas Taxpayer Identification number visit the Texas Comptroller of Public Accounts online at the following web address [www.window.state.tx.us/taxpermit/](http://www.window.state.tx.us/taxpermit/) and fill out the application to apply for your Texas tax ID.
    - (2) The firm's e-mail address and fax number.
    - (3) The firm's DUNS number as issued by Dun & Bradstreet. This number is used by the City for required reporting on Federal Aid projects. The DUNS number may be obtained at [www.dnb.com](http://www.dnb.com).
  - d. Resumes reflecting the construction experience of the principles of the firm for firms submitting their initial prequalification. These resumes should include the size and scope of the work performed.
  - e. Other information as requested by the City.
- 2. Prequalification Requirements**
- a. *Financial Statements.* Financial statement submission must be provided in accordance with the following:
    - (1) The City requires that the original Financial Statement or a certified copy be submitted for consideration.

- (2) To be satisfactory, the financial statements must be audited or reviewed by an independent, certified public accounting firm registered and in good standing in any state. Current Texas statutes also require that accounting firms performing audits or reviews on business entities within the State of Texas be properly licensed or registered with the Texas State Board of Public Accountancy.
  - (3) The accounting firm should state in the audit report or review whether the contractor is an individual, corporation, or limited liability company.
  - (4) Financial Statements must be presented in U.S. dollars at the current rate of exchange of the Balance Sheet date.
  - (5) The City will not recognize any certified public accountant as independent who is not, in fact, independent.
  - (6) The accountant's opinion on the financial statements of the contracting company should state that the audit or review has been conducted in accordance with auditing standards generally accepted in the United States of America. This must be stated in the accounting firm's opinion. It should: (1) express an unqualified opinion, or (2) express a qualified opinion on the statements taken as a whole.
  - (7) The City reserves the right to require a new statement at any time.
  - (8) The financial statement must be prepared as of the last day of any month, not more than one year old and must be on file with the City 16 months thereafter, in accordance with Paragraph 1.
  - (9) The City will determine a contractor's bidding capacity for the purposes of awarding contracts. Bidding capacity is determined by multiplying the positive net working capital (working capital = current assets – current liabilities) by a factor of 10. Only those statements reflecting a positive net working capital position will be considered satisfactory for prequalification purposes.
  - (10) In the case that a bidding date falls within the time a new financial statement is being prepared, the previous statement shall be updated with proper verification.
- b. *Bidder Prequalification Application.* A Bidder Prequalification Application must be submitted along with audited or reviewed financial statements by firms wishing to be eligible to bid on all classes of construction and maintenance projects. Incomplete Applications will be rejected.
- (1) In those schedules where there is nothing to report, the notation of "None" or "N/A" should be inserted.
  - (2) A minimum of five (5) references of related work must be provided.
  - (3) Submission of an equipment schedule which indicates equipment under the control of the Contractor and which is related to the type of work for which the Contractor is seeking prequalification. The schedule must include the manufacturer, model and general common description of each piece of equipment. Abbreviations or means of describing equipment other than provided above will not be accepted.

### **3. Eligibility to Bid**

- a. The City shall be the sole judge as to a contractor's prequalification.
- b. The City may reject, suspend, or modify any prequalification for failure by the contractor to demonstrate acceptable financial ability or performance.
- c. The City will issue a letter as to the status of the prequalification approval.

- d. If a contractor has a valid prequalification letter, the contractor will be eligible to bid the prequalified work types until the expiration date stated in the letter.

**END OF SECTION**

**SECTION 00 45 12**  
DAP – PREQUALIFICATION STATEMENT

Each Bidder is required to complete the information below by identifying the prequalified contractors and/or subcontractors whom they intend to utilize for the major work type(s) listed. In the “Major Work Type” box provide the complete major work type and actual description as provided by the Water Department for water and sewer and TPW for paving.

Major Work Type	Contractor/Subcontractor Company Name	Prequalification Expiration Date
Water New Development Open Cut (24” and under)	<Company Name Here or Blank>	<Date Here or Blank>

The undersigned hereby certifies that the contractors and/or subcontractors described in the table above are currently prequalified for the work types listed.

**BIDDER:**

J.T. Vaughn Construction, LLC  
9160 Sterling Street  
Suite 100  
Irving, TX 75063

BY: <Name of Principal>

\_\_\_\_\_

(Signature)

TITLE: <Title Here>

DATE: <Date Here>

**END OF SECTION**

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**SECTION 00 45 26**

**CONTRACTOR COMPLIANCE WITH WORKER'S COMPENSATION LAW**

Pursuant to Texas Labor Code Section 406.096(a), as amended, Contractor certifies that it provides worker's compensation insurance coverage for all of its employees employed on City Project No. 105900 Contractor further certifies that, pursuant to Texas Labor Code, Section 406.096(b), as amended, it will provide to City its subcontractor's certificates of compliance with worker's compensation coverage.

**CONTRACTOR:**

\_\_\_\_\_  
Company By: \_\_\_\_\_  
(Please Print)  
\_\_\_\_\_  
Address Signature: \_\_\_\_\_  
\_\_\_\_\_  
City/State/Zip Title: \_\_\_\_\_  
(Please Print)

THE STATE OF TEXAS §  
COUNTY OF TARRANT §

BEFORE ME, the undersigned authority, on this day personally appeared \_\_\_\_\_, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same as the act and deed of \_\_\_\_\_ for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public in and for the State of Texas

**END OF SECTION**



39 **Article 4. CONTRACT PRICE**

40 Developer agrees to pay Contractor for performance of the Work in accordance with the Contract  
41 Documents an amount in current funds of Three Million Eight Hundred Seventy-One Thousand  
42 Eight Hundred Sixteen and 07/100\_ Dollars (\$\_3,871,816.07\_).

43 **Article 5. CONTRACT DOCUMENTS**

44 5.1 CONTENTS:

- 45 A. The Contract Documents which comprise the entire agreement between Developer and  
46 Contractor concerning the Work consist of the following:
- 47 1. This Agreement.
  - 48 2. Attachments to this Agreement:
    - 49 a. Bid Form (As provided by Developer)
    - 50 1) Proposal Form (DAP Version)
    - 51 2) Prequalification Statement
    - 52 3) State and Federal documents (*project specific*)
    - 53 b. Insurance ACORD Form(s)
    - 54 c. Payment Bond (DAP Version)
    - 55 d. Performance Bond (DAP Version)
    - 56 e. Maintenance Bond (DAP Version)
    - 57 f. Power of Attorney for the Bonds
    - 58 g. Worker's Compensation Affidavit
    - 59 h. MBE and/or SBE Commitment Form (If required)
  - 60 3. Standard City General Conditions of the Construction Contract for Developer  
61 Awarded Projects.
  - 62 4. Supplementary Conditions.
  - 63 5. Specifications specifically made a part of the Contract Documents by attachment  
64 or, if not attached, as incorporated by reference and described in the Table of  
65 Contents of the Project's Contract Documents.
  - 66 6. Drawings.
  - 67 7. Addenda.
  - 68 8. Documentation submitted by Contractor prior to Notice of Award.
  - 69 9. The following which may be delivered or issued after the Effective Date of the  
70 Agreement and, if issued, become an incorporated part of the Contract Documents:
    - 71 a. Notice to Proceed.
    - 72 b. Field Orders.
    - 73 c. Change Orders.
    - 74 d. Letter of Final Acceptance.
    - 75

77 **Article 6. INDEMNIFICATION**

78 **6.1 Contractor covenants and agrees to indemnify, hold harmless and defend, at its own**  
79 **expense, the city, its officers, servants and employees, from and against any and all**  
80 **claims arising out of, or alleged to arise out of, the work and services to be performed**  
81 **by the contractor, its officers, agents, employees, subcontractors, licenses or invitees**  
82 **under this contract. This indemnification provision is specifically intended to operate**  
83 **and be effective even if it is alleged or proven that all or some of the damages being**  
84 **sought were caused, in whole or in part, by any act, omission or negligence of the city.**  
85 **This indemnity provision is intended to include, without limitation, indemnity for**  
86 **costs, expenses and legal fees incurred by the city in defending against such claims and**  
87 **causes of actions.**

88  
89 **6.2 Contractor covenants and agrees to indemnify and hold harmless, at its own expense,**  
90 **the city, its officers, servants and employees, from and against any and all loss, damage**  
91 **or destruction of property of the city, arising out of, or alleged to arise out of, the work**  
92 **and services to be performed by the contractor, its officers, agents, employees,**  
93 **subcontractors, licensees or invitees under this contract. This indemnification**  
94 **provision is specifically intended to operate and be effective even if it is alleged or**  
95 **proven that all or some of the damages being sought were caused, in whole or in part,**  
96 **by any act, omission or negligence of the city.**

97  
98 **Article 7. MISCELLANEOUS**

99 7.1 Terms.

100 Terms used in this Agreement are defined in Article 1 of the Standard City Conditions of  
101 the Construction Contract for Developer Awarded Projects.

102 7.2 Assignment of Contract.

103 This Agreement, including all of the Contract Documents may not be assigned by the  
104 Contractor without the advanced express written consent of the Developer.

105 7.3 Successors and Assigns.

106 Developer and Contractor each binds itself, its partners, successors, assigns and legal  
107 representatives to the other party hereto, in respect to all covenants, agreements and  
108 obligations contained in the Contract Documents.

109 7.4 Severability.

110 Any provision or part of the Contract Documents held to be unconstitutional, void or  
111 unenforceable by a court of competent jurisdiction shall be deemed stricken, and all  
112 remaining provisions shall continue to be valid and binding upon DEVELOPER and  
113 CONTRACTOR.

114 7.5 Governing Law and Venue.

115 This Agreement, including all of the Contract Documents is performable in the State of  
116 Texas. Venue shall be Tarrant County, Texas, or the United States District Court for the  
117 Northern District of Texas, Fort Worth Division.

118

119 7.6 Authority to Sign.

120 Contractor shall attach evidence of authority to sign Agreement, if other than duly  
121 authorized signatory of the Contractor.

122

123 IN WITNESS WHEREOF, Developer and Contractor have executed this Agreement in multiple  
124 counterparts.

125

126 This Agreement is effective as of the last date signed by the Parties (“Effective Date”).

127

Contractor:  
*J.T. Vaughn Construction, LLC*

Developer:  
*Tarrant County Hospital District (dba JPS Health Network)*

By: \_\_\_\_\_  
(Signature)

By: \_\_\_\_\_  
(Signature)

Danny Thompson  
\_\_\_\_\_  
(Printed Name)

Jill Farrell  
\_\_\_\_\_  
(Printed Name)

Title: CEO

Title: Sr. Executive Vice President, Chief Operating Officer

Company Name:  
Address: 9160 Sterling Street

Company name:  
Address: 1500 S. Main Street

City/State/Zip: Irving, TX 75063

City/State/Zip: Fort Worth, TX 76104

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Date

\_\_\_\_\_  
Date

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\_\_\_\_\_  
Witness as to Surety

\_\_\_\_\_  
Telephone Number: \_\_\_\_\_

\*Note: If signed by an officer of the Surety Company, there must be on file a certified extract from the by-laws showing that this person has authority to sign such obligation. If Surety's physical address is different from its mailing address, both must be provided.

The date of the bond shall not be prior to the date the Contract is awarded.

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**SECTION 00 62 14**  
**PAYMENT BOND**

**THE STATE OF TEXAS**  
**COUNTY OF TARRANT**

§  
§  
§

**KNOW ALL BY THESE PRESENTS:**

That we, J.T. Vaughn Construction, LLC, known as “Principal” herein, and \_\_\_\_\_, a corporate surety (or sureties if more than one), duly authorized to do business in the State of Texas, known as “Surety” herein (whether one or more), are held and firmly bound unto the Developer, Tarrant County Hospital District (d/b/a JPS Health Network), authorized to do business in Texas “(Developer)”, and the City of Fort Worth, a Texas municipal corporation (“City”), in the penal sum of Three Million Eight Hundred Seventy One Thousand Eight Hundred Sixteen and 07/100 Dollars (\$ 3,871,816.07 ), lawful money of the United States, to be paid in Fort Worth, Tarrant County, Texas, for the payment of which sum well and truly be made jointly unto the Developer and the City as dual obligees, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents:

**WHEREAS**, Developer and City have entered into an Agreement for the construction of community facilities in the City of Fort Worth, by and through a Community Facilities Agreement, CFA Number 25-0042; and

**WHEREAS**, Principal has entered into a certain written Contract with Developer, awarded the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, which Contract is hereby referred to and made a part hereof for all purposes as if fully set forth herein, to furnish all materials, equipment, labor and other accessories as defined by law, in the prosecution of the Work as provided for in said Contract and designated as 12” AND 16” WATER LINE IMPROVEMENTS TO SERVE JOHN PETER SMITH HOSPITAL PEC



1 Note: If signed by an officer of the Surety, there must be on file a certified extract from the bylaws  
2 showing that this person has authority to sign such obligation. If Surety's physical address is  
3 different from its mailing address, both must be provided.

4  
5 The date of the bond shall not be prior to the date the Contract is awarded.

6 **END OF SECTION**

7





1 **IN WITNESS WHEREOF**, the Principal and the Surety have each SIGNED and SEALED this  
2 instrument by duly authorized agents and officers on this the \_\_\_\_\_ day of \_\_\_\_\_  
3 \_\_\_\_\_, 20\_\_\_\_.

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PRINCIPAL:  
\_\_\_\_\_  
J.T. Vaughn Construction, LLC  
\_\_\_\_\_

BY: \_\_\_\_\_  
Signature

ATTEST:  
\_\_\_\_\_  
(Principal) Secretary

\_\_\_\_\_  
David Thompson, CEO  
Name and Title

Address: 9160 Sterling Street  
Irving, TX 75063  
\_\_\_\_\_

\_\_\_\_\_  
Witness as to Principal

SURETY:  
\_\_\_\_\_  
\_\_\_\_\_

BY: \_\_\_\_\_  
Signature

ATTEST:  
\_\_\_\_\_  
(Surety) Secretary

\_\_\_\_\_  
Name and Title

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Witness as to Surety

Telephone Number: \_\_\_\_\_

\*Note: If signed by an officer of the Surety Company, there must be on file a certified extract from the by-laws showing that this person has authority to sign such obligation. If Surety's physical address is different from its mailing address, both must be provided.

The date of the bond shall not be prior to the date the Contract is awarded.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly by



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Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

## TABLE OF CONTENTS

	<b>Page</b>
Article 1 – Definitions and Terminology.....	1
1.1 Defined Terms .....	1
1.2 Terminology .....	5
Article 2 – Preliminary Matters .....	6
2.1 Delivery of Bonds and Evidence of Insurance .....	6
2.2 Copies of Documents .....	6
2.3 Commencement of Contract Times; Notice to Proceed .....	6
2.4 Starting the Work .....	7
2.5 <del>Before Starting Construction</del> .....	7
2.6 <del>Preconstruction Conference; Designation of Authorized Representatives</del> .....	7
2.7 Initial Acceptance of Schedules.....	7
Article 3 – Contract Documents: Intent, Amending, Reuse.....	8
3.1 Intent.....	8
3.2 <del>Reference Standards</del> .....	8
3.3 Reporting and Resolving Discrepancies.....	8
3.4 <del>Amending and Supplementing Contract Documents</del> .....	9
3.5 Reuse of Documents .....	10
3.6 Electronic Data.....	10
Article 4 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions; Reference Points .....	10
4.1 Availability of Lands.....	10
4.2 Subsurface and Physical Conditions.....	11
4.3 Differing Subsurface or Physical Conditions .....	11
4.4 Underground Facilities.....	13
4.5 Reference Points.....	14
4.6 Hazardous Environmental Condition at Site .....	14
Article 5 – Bonds and Insurance.....	16
5.1 <del>Performance, Payment, and Other Bonds</del> .....	16
5.2 <del>Licensed Sureties and Insurers</del> .....	16
5.3 <del>Certificates of Insurance</del> .....	16
5.4 Contractor’s Insurance .....	17
5.5 Owner’s Liability Insurance.....	18
5.6 <del>Property Insurance</del> .....	18
5.7 Waiver of Rights .....	20
5.8 Receipt and Application of Insurance Proceeds .....	21

5.9	Acceptance of Bonds and Insurance; Option to Replace .....	21
5.10	Partial Utilization, Acknowledgment of Property Insurer.....	21
Article 6	– Contractor’s Responsibilities.....	22
6.1	Supervision and Superintendence.....	22
6.2	Labor; Working Hours.....	22
6.3	Services, Materials, and Equipment .....	22
6.4	Progress Schedule .....	23
6.5	Substitutes and “Or Equals” .....	23
6.6	Concerning Subcontractors, Suppliers, and Others.....	25
6.7	Patent Fees and Royalties .....	27
6.8	Permits.....	27
6.9	Laws and Regulations.....	27
6.10	Taxes.....	28
6.11	Use of Site and Other Areas .....	28
6.12	Record Documents.....	29
6.13	Safety and Protection .....	29
6.14	Safety Representative.....	30
6.15	Hazard Communication Programs .....	30
6.16	Emergencies .....	30
6.17	Shop Drawings and Samples .....	30
6.18	Continuing the Work.....	32
6.19	Contractor’s General Warranty and Guarantee .....	32
6.20	Indemnification .....	33
6.21	Delegation of Professional Design Services.....	34
Article 7	– Other Work at the Site.....	35
7.1	Related Work at Site .....	35
7.2	Coordination.....	35
7.3	Legal Relationships.....	36
Article 8	– Owner’s Responsibilities.....	36
8.1	Communications to Contractor.....	36
8.2	Replacement of Engineer.....	36
8.3	Furnish Data .....	36
8.4	Pay When Due.....	36
8.5	Lands and Easements; Reports and Tests.....	36
8.6	Insurance .....	36
8.7	Change Orders.....	36
8.8	Inspections, Tests, and Approvals.....	37
8.9	Limitations on Owner’s Responsibilities.....	37
8.10	Undisclosed Hazardous Environmental Condition.....	37
8.11	Evidence of Financial Arrangements.....	37
8.12	Compliance with Safety Program .....	37
Article 9	– Engineer’s Status During Construction.....	37
9.01	Owner’s Representative .....	37
9.02	Visits to Site .....	37

9.3	Project Representative.....	38
9.4	Authorized Variations in Work.....	38
9.5	<del>Rejecting Defective Work .....</del>	<del>38</del>
9.6	Shop Drawings, Change Orders and Payments.....	38
9.7	Determinations for Unit Price Work.....	39
9.8	Decisions on Requirements of Contract Documents and Acceptability of Work.....	39
9.9	Limitations on Engineer’s Authority and Responsibilities.....	39
9.10	Compliance with Safety Program.....	40
Article 10 – Changes in the Work; Claims .....		40
10.1	Authorized Changes in the Work.....	40
10.2	Unauthorized Changes in the Work.....	40
10.3	Execution of Change Orders .....	41
10.4	<del>Notification to Surety.....</del>	<del>41</del>
10.5	Claims.....	41
Article 11 – Cost of the Work; Allowances; Unit Price Work.....		42
11.1	Cost of the Work .....	42
11.2	Allowances .....	45
11.3	Unit Price Work .....	45
Article 12 – Change of Contract Price; Change of Contract Times.....		46
12.1	Change of Contract Price .....	46
12.2	Change of Contract Times .....	47
12.3	Delays.....	47
Article 13 – Tests and Inspections; Correction, Removal or Acceptance of Defective Work .....		48
13.1	<del>Notice of Defects .....</del>	<del>48</del>
13.2	<del>Access to Work .....</del>	<del>48</del>
13.3	Tests and Inspections .....	48
13.4	<del>Uncovering Work .....</del>	<del>49</del>
13.5	Owner May Stop the Work.....	50
13.6	<del>Correction or Removal of Defective Work .....</del>	<del>50</del>
13.7	<del>Correction Period.....</del>	<del>50</del>
13.8	<del>Acceptance of Defective Work.....</del>	<del>51</del>
13.9	<del>Owner May Correct Defective Work .....</del>	<del>51</del>
Article 14 – Payments to Contractor and Completion.....		52
14.1	Schedule of Values.....	52
14.2	Progress Payments .....	52
14.3	<del>Contractor’s Warranty of Title .....</del>	<del>55</del>
14.4	Substantial Completion .....	55
14.5	<del>Partial Utilization .....</del>	<del>56</del>
14.6	<del>Final Inspection.....</del>	<del>56</del>
14.7	Final Payment.....	57
14.8	Final Completion Delayed .....	58
14.9	Waiver of Claims .....	58

Article 15 – Suspension of Work and Termination.....	58
15.1 Owner May Suspend Work.....	58
15.2 Owner May Terminate for Cause .....	58
15.3 Owner May Terminate For Convenience .....	60
15.4 Contractor May Stop Work or Terminate.....	60
Article 16 – Dispute Resolution.....	61
16.01 Methods and Procedures .....	61
Article 17 – Miscellaneous .....	61
17.1 Giving Notice.....	61
17.2 Computation of Times .....	61
17.3 Cumulative Remedies .....	62
17.4 Survival of Obligations.....	62
17.5 Controlling Law .....	62
17.6 Headings.....	62

## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.1 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. 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 which is evidence of the agreement between Owner and Contractor covering the Work.
  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. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
  5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
  7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
  8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
  9. *Change Order*—A document recommended by Engineer 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, issued on or after the Effective Date of the Agreement.
  10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
  11. ~~*Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.~~

- ~~12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.~~
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- ~~19. *Engineer*—The individual or entity named as such in the Agreement.~~
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
- ~~21. *General Requirements*—Sections of Division 1 of the Specifications.~~
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
- ~~26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.~~

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given 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 under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *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.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *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.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. ~~*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 for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.~~
42. ~~*Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.~~
43. *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 at the Site.
44. *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.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *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 Subcontractor.
48. *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 those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. ~~*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, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.~~
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

## 1.2 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F 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 Paragraph 9.09 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~~
  - e. ~~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 14.04 or 14.05).~~

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. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.~~
- 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

### 2.1 *Delivery of Bonds and Evidence of Insurance*

- A. 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 Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

### 2.2 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

### 2.3 *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 Agreement 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 Agreement. 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 Agreement, whichever date is earlier.~~

## 2.4 *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 the date on which the Contract Times commence to run.

## 2.5 *Before Starting Construction*

- A. ~~Preliminary Schedules: Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), 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 Documents;~~
  - 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.~~

## 2.6 *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 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, 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 instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

## 2.7 *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 2.05.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 component parts of the Work.

### **ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE**

#### **3.1 *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. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

#### **3.2 *Reference Standards***

##### **~~A. Standards, Specifications, Codes, Laws, and Regulations~~**

- ~~1. Reference to standards, specifications, manuals, 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, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement 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, 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 Contract Documents. 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 Contract Documents.~~

#### **3.3 *Reporting and Resolving Discrepancies***

##### **A. *Reporting Discrepancies:***

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, 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) any standard, specification, manual, or code, or (c) 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 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
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 Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
  - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); 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).

3.4 ~~Amending and Supplementing Contract Documents~~

- A. ~~The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.~~
- B. ~~The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:~~
  1. ~~A Field Order;~~
  2. ~~Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or~~

~~3. Engineer's written interpretation or clarification.~~

3.5 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier 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
  2. 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.
- 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.

3.6 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

**ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS;  
HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS**

4.1 *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. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the

Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- 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 the Work is to be performed 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.

#### 4.2 *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 contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "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.

#### 4.3 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed 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 4.02 is materially inaccurate; or
- 2. is of such a nature as to require a change in the Contract Documents; 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 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition 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 meet any one or more of the categories described in Paragraph 4.03.A; and
  - 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 Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
  - a. Contractor knew of the existence of such conditions at the time Contractor made a final 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
  - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
  - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or 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) sustained by Contractor on or in connection with any other project or anticipated project.

#### 4.4 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous 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 shall not be responsible for 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 such information and data;
  - b. locating all Underground Facilities shown or indicated in the Contract Documents;
  - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
  - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, 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 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price

or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 4.5 *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.

#### 4.6 *Hazardous Environmental Condition at Site*

- A. ~~Reports and Drawings: The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.~~
- B. ~~Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "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 any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by

Paragraph 6.16.A); and (iii) 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 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. 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, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. 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. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. 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: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. 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 a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 5 – BONDS AND INSURANCE

### ~~5.1 Performance, Payment, and Other Bonds~~

- A. ~~Contractor shall furnish performance and payment bonds, 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 Documents. 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 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.~~
- B. ~~All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds 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 each bond.~~
- C. ~~If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, 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 requirements of Paragraphs 5.01.B and 5.02.~~

### ~~5.2 Licensed Sureties and Insurers~~

- A. ~~All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.~~

### ~~5.3 Certificates of Insurance~~

- A. ~~Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.~~

- ~~B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.~~
- ~~C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.~~
- ~~D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.~~
- ~~E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.~~

#### 5.4 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which 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:
  - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
  - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
  - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
  - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
    - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
    - b. by any other person for any other reason;
  - 5. 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; and
  - 6. 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.
- B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and 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;
2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
  - a. Such insurance shall remain in effect for two years after final payment.
  - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

#### *5.5 Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, 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.

#### *5.6 Property Insurance*

- A. ~~Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full 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 interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;~~
  - ~~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, extended coverage, theft, vandalism and malicious mischief, earthquake, eollapse, 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.~~
  - ~~3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);~~
  - ~~4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;~~
  - ~~5. allow for partial utilization of the Work by Owner;~~
  - ~~6. include testing and startup; and~~
  - ~~7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.~~
- ~~B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.~~
- ~~C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.~~
- ~~D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property~~

~~insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.~~

~~E.If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.~~

#### 5.7 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies 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 of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their 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 Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (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 as trustee 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 utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.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, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

#### 5-8 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

#### ~~5.9 *Acceptance of Bonds and Insurance; Option to Replace*~~

- ~~A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, 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. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.~~

#### 5-10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

## ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

### ~~6.1 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. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.~~
- ~~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.~~

### ~~6.2 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. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.~~

### ~~6.3 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.~~
- ~~B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, 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.~~

## ~~6.4 Progress Schedule~~

~~A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 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 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto:~~

~~2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.~~

## ~~6.5 Substitutes and "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 specification or description 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 or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below:~~

~~1. "Or-Equal" Items: If in Engineer's sole discretion 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, it may be considered by Engineer as an "or equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, 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; and~~
- ~~3) it has a proven record of performance and availability of responsive service.~~

~~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.~~

## ~~2. Substitute Items:~~

- ~~a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.~~
- ~~b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.~~
- ~~e. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.~~
- ~~d. 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:
  - ~~1) shall certify that the proposed substitute item will:
    - ~~a) perform adequately the functions and achieve the results called for by the general design;~~
    - ~~b) be similar in substance to that specified, and~~
    - ~~e) be suited to the same use as that specified;~~~~
  - ~~2) will state:
    - ~~a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;~~
    - ~~b) 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~~
    - ~~e) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;~~~~
  - ~~3) will identify:
    - ~~a) all variations of the proposed substitute item from that specified, and~~
    - ~~b) available engineering, sales, maintenance, repair, and replacement services; and~~~~~~

4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

- B. ~~Substitute Construction Methods or Procedures:~~ If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. ~~Engineer's Evaluation:~~ Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. ~~Special Guarantee:~~ Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. ~~Engineer's Cost Reimbursement:~~ Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. 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.
- F. ~~Contractor's Expense:~~ Contractor shall provide all data in support of any proposed substitute or "or equal" at Contractor's expense.

## 6.6 Concerning Subcontractors, Suppliers, and Others

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection

~~in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or~~

~~other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. 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 any right of Owner or Engineer to reject defective Work.~~

- ~~C. 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. 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 moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.~~
- ~~D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.~~
- ~~E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.~~
- ~~F. 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.~~
- ~~G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (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 such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.~~

## ~~6.7 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.~~

## 6.8 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, 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 opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

## ~~6.9 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 knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear 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. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.~~

- C. ~~Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.~~

#### 6.10 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.

#### 6.11 Use of Site and Other Areas

A. *Limitation on Use of Site and Other Areas:*

~~1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.~~

~~2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.~~

~~3. 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 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 by or based upon Contractor's performance of the Work.~~

- B. *Removal of Debris During Performance of the Work:* ~~During the progress of the Work Contractor shall keep the Site and other 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 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 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 property to stresses or pressures that will endanger it.~~

#### ~~6.12 Record Documents~~

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

#### ~~6.13 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, 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 owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.~~
- 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 6.13.A.2 or 6.13.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 (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 for protection of the Work 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 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).~~

#### ~~6.14 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.~~

#### ~~6.15 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.~~

#### ~~6.16 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.~~

#### ~~6.17 Shop Drawings and Samples~~

- A. ~~Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.~~

~~1. Shop Drawings:~~

- ~~a. Submit number of copies specified in the General Requirements.~~
- ~~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 6.17.D.~~

~~2. Samples:~~

- ~~a. Submit number of Samples specified in the Specifications.~~
- ~~b. 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 6.17.D.~~

~~B. 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. Submittal Procedures:~~

~~1. Before submitting each Shop Drawing or Sample, Contractor shall have:~~

- ~~a. reviewed and coordinated each 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 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 and approval of that 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 both a written communication separate from the Shop~~

~~Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.~~

*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 (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.~~
- ~~3. Engineer's review and approval 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 6.17.C.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's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.~~

*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.~~

**6.18** *Continuing the Work*

- A. 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, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

**6.19** *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 representation of 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 or the issuance of a notice of acceptability by Engineer;~~

~~6.any inspection, test, or approval by others; or~~

~~7.any correction of defective Work by Owner.~~

## 6.20 *Indemnification*

A. ~~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 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 6.20.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 6.20.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.~~

#### *6.21 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 law.~~
- 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, Shop Drawings 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 6.21, 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 6.17.D.1.~~
- E. ~~Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.~~

## ARTICLE 7 – OTHER WORK AT THE SITE

### 7.1 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
1. written notice thereof will be given to Contractor prior to starting any such other work; and
  2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. 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. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, 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.

### 7.2 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
  2. the specific matters to be covered by such authority and responsibility will be itemized; and
  3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

### 7.3 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

## **ARTICLE 8 – OWNER'S RESPONSIBILITIES**

### 8.1 *Communications to Contractor*

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

### 8.2 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

### 8.3 *Furnish Data*

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

### 8.4 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

### 8.5 *Lands and Easements; Reports and Tests*

- A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

### 8.6 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

### 8.7 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

## 8.8 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

## 8.9 *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.

## 8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

## 8.11 *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.

## 8.12 *Compliance with Safety Program*

- 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 pursuant to Paragraph 6.13.D.

## **ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION**

### 9.1 *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 Documents.

### 9.2 *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 9.09. 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.

### 9.3 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. 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.

### 9.4 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which 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. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

### 9.5 *Rejecting Defective Work*

- A. ~~Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.~~

### 9.6 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

- B. In connection with 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, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.7 *Determinations for Unit Price Work*

- A. 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 Paragraph 10.05.

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

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.9 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents 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 14.07.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 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

#### 9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

### **ARTICLE 10 – CHANGES IN THE WORK; CLAIMS**

#### 10.1 *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 by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

#### 10.2 *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 as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

### 10.3 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
  2. 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; and
  3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

### 10.4 *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.~~

### 10.5 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The

opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part;
  2. approve the Claim; or
  3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

## **ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

### **11.1 *Cost of the Work***

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs 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 11.01.B, 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, 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 11.01.
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 5.06.D), 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 telegrams, long distance telephone calls, telephone 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 Contractor is required by the Contract Documents to purchase and maintain.

B. *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 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which 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 Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work 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 or when a Claim for an 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 12.01.C.

- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, 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.

## 11.2 *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:*

1. Contractor agrees that:

- a. 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
- b. 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:*

1. 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.

## 11.3 *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. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- 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. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 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; and
  2. there is no corresponding adjustment with respect to any other item of Work; and
  3. Contractor believes that Contractor 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 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES**

### **12.1 *Change of Contract Price***

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for 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, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
  2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
  3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee:* 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 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
    - b. for costs incurred under Paragraph 11.01.A.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 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
- d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
- 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 12.01.C.2.a through 12.01.C.2.e, inclusive.

## 12.2 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

## 12.3 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, 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 Price or the Contract Times, or both. 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.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the

control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is 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 described in this Paragraph 12.03.C.

- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or 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) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

## **ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

### ~~13.1 Notice of Defects~~

- A. ~~Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.~~

### ~~13.2 Access to Work~~

- A. ~~Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests 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.~~

### ~~13.3 Tests and Inspections~~

- A. ~~Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.~~
- B. ~~Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:~~
  - ~~1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;~~
  - ~~2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and~~
  - ~~3. as otherwise specifically provided in the Contract Documents.~~

- 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 and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.~~
- E. ~~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.~~
- F. ~~Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.~~

#### *13.4 Uncovering Work*

- A. ~~If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.~~
- B. ~~If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, 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, furnishing all necessary labor, material, and equipment.~~
- C. ~~If it is found that the uncovered Work is defective, 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 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 Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.~~
- D. ~~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, Contractor may make a Claim therefor as provided in Paragraph 10.05.~~

### 13.5 *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, 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.

### ~~13.6 *Correction or Removal of Defective Work*~~

- ~~A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. 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 removal (including but not limited to all costs of repair or replacement of work of others).~~
- ~~B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.~~

### ~~13.7 *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 land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
  - ~~1. repair such defective land or areas; or~~
  - ~~2. correct such defective Work; or~~
  - ~~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 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. 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) will be paid by Contractor.~~

- ~~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 13.07, 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 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.~~

### ~~13.8 Acceptance of Defective Work~~

- ~~A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. 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) 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 pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.~~

### ~~13.9 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 in accordance with Paragraph 13.06.A, 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, 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 13.09, 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, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, 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 (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) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. 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 13.09.~~

## **ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION**

### *14.1 Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A 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.

### *14.2 Progress Payments*

#### *A. 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 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.

B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, 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 9.07, 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 Documents; 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 moneys 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 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
  - b. the Contract Price has been reduced by Change Orders;
  - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
  - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

*C. Payment Becomes Due:*

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

*D. Reduction in Payment:*

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
  - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
  - b. 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;
  - c. there are other items entitling Owner to a set-off against the amount recommended; or

- d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action 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, when Contractor remedies the reasons for such action.
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 14.02.C.1 and subject to interest as provided in the Agreement.

#### ~~14.03 Contractor's Warranty of Title~~

- ~~A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.~~

#### 14.4 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 (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- 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 tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities

pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

- E. 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 tentative list.

#### 14.5 *Partial Utilization*

- 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. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and 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 14.04.A through D for that part of the Work.~~
- ~~2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and 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 14.04 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 5.10 regarding property insurance.~~

#### 14.6 *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 is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.~~

## 14.7 *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, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
  - b. consent of the surety, if any, to final payment;
  - c. a list of all Claims against Owner that Contractor believes are unsettled; and
  - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) 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.

### 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 Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. 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 14.09. 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. *Payment Becomes Due:*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

#### 14.8 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.9 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
  1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
  2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

### **ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION**

#### 15.1 *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 notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

#### 15.2 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will 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 established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
  2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
  3. Contractor's repeated disregard of the authority of Engineer; or
  4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
  2. 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
  3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.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 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) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed 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.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. 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. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

### 15.3 *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;
  3. 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) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
  4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

### 15.4 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) 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 15.03.
- 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 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 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 16 – DISPUTE RESOLUTION

### 16.1 *Methods and Procedures*

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer’s action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
  - 1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or
  - 2. agrees with the other party to submit the Claim to another dispute resolution process; or
  - 3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

## ARTICLE 17 – MISCELLANEOUS

### ~~17.1 *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 to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or~~
  - ~~2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.~~

### ~~17.2 *Computation of Times*~~

- A. ~~When any period of time is referred to in the Contract Documents 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.~~

### ~~17.3 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 Documents. 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.~~

### ~~17.4 Survival of Obligations~~

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

### ~~17.5 Controlling Law~~

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

### ~~17.06 Headings~~

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

## SUPPLEMENTARY CONDITIONS

### Supplementary Conditions

**These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC C-700 (2007 Edition). All provisions which are not so amended or supplemented remain in full force and effect.**

**The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.**

**The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.**

#### SC1.01 DEFINED TERMS

The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract, EJCDC C-700 (2007 Edition) have the meanings assigned to them in the General Conditions and the Standard City Conditions of the Construction Contract for Developer Awarded Project

Amend the following definitions of 1.01 to read as follows:

*Contract* – Refer to Standard City Condition of the Construction Contract for Developer Awarded Project.

*Contract Documents* - Refer to Standard City Condition of the Construction Contract for Developer Awarded Project.

*Contract Times* – is defined as a working day including weekends and holidays.

*Engineer* - Refer to Standard City Condition of the Construction Contract for Developer Awarded Project.

*General Requirements* - Refer to Standard City Condition of the Construction Contract for Developer Awarded Project.

*Milestone* - Refer to Standard City Condition of the Construction Contract for Developer Awarded Project.

*Owner* – as known as the developer in the Standard City Condition of the Construction Contract for Developer Awarded Project.

*Site* - Refer to Standard City Condition of the Construction Contract for Developer Awarded Project.

*Specifications* - Refer to Standard City Condition of the Construction Contract for Developer Awarded Project.

*Work* - Refer to Standard City Condition of the Construction Contract for Developer Awarded Project.

### **SC1.02        TERMINOLOGY**

Delete Paragraph 1.02.D in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 1.02.B.

Delete Paragraph 1.02.E in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 1.02.C.

### **SC2.02        COPIES OF DOCUMENTS**

Amend the first sentence of Paragraph 2.02 to read as follows:

“Owner shall furnish to Contractor up to three printed or hard copies of the Drawings and Project Manual.”

### **SC2.03        COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED**

Delete Paragraph 2.03.A. of the General Conditions in its entirety and insert the following in its place:

“Commencement of Contract Time shall begin on the date indicated during the pre-construction meeting with the City. The date indicated during the pre-construction meeting will be determined by the Owner, City and Contractor and as indicated in the Notice to Proceed.”

### **SC2.05        BEFORE STARTING CONSTRUCTION**

Delete Paragraph 2.05 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 2.01.

### **SC2.06        PRECONSTRUCTION CONFERENCE; DESIGNATION OF AUTHORIZED REPRESENTATIVE**

Delete Paragraph 2.06 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 2.02.

### **SC3.01        INTENT**

Add the following language after the second sentence of Paragraph 3.01.B of the General Conditions:

“In the event there are any conflicts between the plans, the specifications or other Contract Documents the priority of interpretation will be as follows: Signed Contract Agreement, CONTRACTOR’S Proposal, Project Drawings or Plans, Standard City

Conditions of the Construction Contract for Developer Awarded Projects, Supplementary Conditions, General Conditions, Project Specifications, Referenced Specifications.”

### **SC3.02 REFERENCE STANDARDS**

Delete Paragraph 3.02 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 3.01.

### **SC3.04 AMENDING AND SUPPLEMENTING CONTRACT DOCUMENTS**

Delete Paragraph 3.04 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 3.02.

### **SC4.02 SUBSURFACE AND PHYSICAL CONDITION**

Add the following new paragraphs immediately after Paragraph 4.02.B:

- C. The following reports of explorations and tests of subsurface conditions at or contiguous to the Site are known to Owner:



1. Geotechnical Investigation Report, provided by the Owner, is incorporated into this project.

- a. All of the information in such drawings constitutes “technical data” on which Contractor may rely.

- D. The reports and drawings identified above are not part of the Contract Documents, but the “technical data” contained therein upon which Contractor may rely, as expressly identified and established above, are incorporated in the Contract Documents by reference. Contractor is not entitled to rely upon any other information and data known to or identified by Owner or Engineer.

### **SC4.04 UNDERGROUND FACILITIES**

Add the following language to the beginning of Paragraph 4.04.B of the General Conditions:

“Contractor shall contact the city water & sewer and public works departments and utility companies which have a franchise to operate in the area of the project site and shall determine the location of their facilities at or contiguous to the site and shall protect same from damage during construction.”

### **SC4.06 HAZARDOUS ENVIRONMENTAL CONDITIONS**

Delete Paragraphs 4.06.A and 4.06.B in their entirety and insert the following:

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.

B. Not Used.

**SC5.01        PERFROMANCE, PAYMENT AND OTHER BONDS**

Delete Paragraph 5.01 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 4.02.

**SC5.02        LICENSED SURETIES AND INSURERS**

Delete Paragraph 5.02 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 4.01.

**SC5.03        CERTIFICATES OF INSURANCE**

Delete Paragraph 5.03 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 4.03.

**SC5.04        CONTRACTOR'S INSURANCE**

Add the following language at the end of the Paragraph 5.04.B.6.b:

“Contractor shall include the Engineer and their designee as additional insured.”

**SC5.06        PROPERTY INSURANCE**

Delete Paragraph 5.06 in its entirety.

**SC5.09        ACCEPTANCE OF BONDS AND INSURANCE; OPTION TO REPLACE**

Delete Paragraph 5.09 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 4.05.

**SC6.01        SUPERVISION AND SUPERINTENDENCE**

Delete Paragraph 6.01 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.01.

**SC6.02        LABOR; WORKING HOURS**

Delete Paragraph 6.02 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.02.

**SC6.03        SERVICES, MATERIALS AND EQUIPMENT**

Delete Paragraph 6.03 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.03.

**SC6.04        PROGRESS SCHEDULE**

Delete Paragraph 6.04 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.04.

**SC6.05        SUBSTITUTES AND “OR-EQUALS”**

Delete Paragraph 6.05 its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.05.

**SC6.06        CONCERNING SUBCONTRACTORS AND SUPPLIERS**

Delete Paragraph 6.06 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.07 and insert the following:

“Owner may furnish to any such Subcontractor, Supplier or other person or organization, to the extent practicable, evidence of amounts paid to Contractor in accordance with Contractor’s application for payment.”

**SC6.07        PATENT FEES AND ROYALTIES**

Delete Paragraph 6.07 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.09.

**SC6.09        LAWS AND REGULATIONS**

Delete Paragraph 6.09 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.10.

**SC6.11        USE OF SITE AND OTHER AREAS**

Delete Paragraph 6.11 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.11.

**SC6.12        RECORD DOCUMENTS**

Delete Paragraph 6.12 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.12.

**SC6.13        SAFETY AND PROTECTION**

Delete Paragraph 6.13 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.13.

**SC6.14        SAFETY REPRESENTATIVE**

Delete Paragraph 6.14 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.14.

**SC6.15 HAZARD COMMUNICATION PROGRAMS**

Delete Paragraph 6.15 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.15.

**SC6.17 SHOP DRAWINGS AND SAMPLES**

Delete Paragraph 6.17 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.16.

**SC6.19 CONTRACTOR'S GENERAL WARRANTY AND GUARANTEE**

Delete Paragraph 6.19 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.17.

**SC6.20 INDEMNIFICATION**

Delete Paragraph 6.20 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.18 and insert the following:

**CONTRACTOR ASSUMES ENTIRE RESPONSIBILITY AND LIABILITY FOR, AND AGREES TO RELEASE, DEFEND, INDEMNIFY AND HOLD OWNER, OWNER'S AGENTS, EMPLOYEES, REPRESENTATIVES AND INSURERS HARMLESS FROM, ANY AND ALL LIABILITIES, CLAIMS, COSTS, EXPENSES, JUDGMENTS, ATTORNEYS' FEES, LITIGATION EXPENSES, CAUSES OF ACTION, DEMANDS, LOSSES AND/OR DAMAGES ARISING OUT OF, IN CONNECTION WITH, OR IN ANY WAY INCIDENTAL TO THE PERFORMANCE OF WORK OR SERVICES UNDER THIS CONTRACT BY CONTRACTOR, CONTRACTOR'S EMPLOYEES, AGENTS, REPRESENTATIVES AND INDEPENDENT CONTRACTORS. THIS PROVISION APPLIES WITH FULL FORCE AND EFFECT FOR ANY AND ALL CLAIMS, DEMANDS, ALLEGATIONS OR ACTIONS FOUNDED IN WHOLE OR IN PART FROM THE NEGLIGENCE, GROSS NEGLIGENCE, INTENTIONAL ACTS, OR ALLEGED NEGLIGENCE, GROSS NEGLIGENCE OR INTENTIONAL ACTS, OF OWNER, OWNER'S AGENTS, EMPLOYEES, REPRESENTATIVES, AND INDEPENDENT CONTRACTORS, AS WELL AS CONTRACTOR, CONTRACTOR'S AGENTS, EMPLOYEES, REPRESENTATIVES AND INDEPENDENT CONTRACTORS. THIS INDEMNITY PROVISION IS TO BE CONSTRUED AS BROADLY AS POSSIBLE TO INCLUDE ANY AND ALL LIABILITIES, CLAIMS, COSTS, EXPENSES, JUDGMENTS, CAUSES OF ACTIONS, DEMENDS, LOSSES, AND/OR WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, CAUSES OR ACTION AND DAMAGES SOUNDING IN TORT, PERSONAL INJURIES, CONTRACT DAMAGES, ECONOMIC DAMAGES, STRICT LIABILITY, STRICT PRODUCTS LIABILITY AND PRODUCTS LIABILITY, COMMON LAW NEGLIGENCE AND GROSS NEGLIGENCE, INTENTIONAL TORTS, FEDERAL AND STATE STATUTORY AND COMMON LAW PUNITIVE AND/OR MULTIPLIED DAMAGES, WORKERS' COMPENSATION CLAIMS,**

**CLAIMS UNDER THE TEXAS TORT CLAIMS ACT, EMPLOYMENT DISPUTES, WRONGFUL DISCHARGE, FEDERAL AND STATE CIVIL RIGHTS CLAIMS, CLAIMS FOUNDED IN CONTRACT OR QUASI-CONTRACT, BREACH OF WARRANTY, CLAIMS UNDER THE TEXAS DECEPTIVE TRADE PRACTICES-CONSUMER PROTECTION ACT, AND ANY AND ALL CLAIMS, CAUSES OF ACTION OR DEMANDS, WHEREBY ANY LOSS IS SOUGHT AND/OR INCURRED AND/OR PAYABLE BY OWNER, OWNER'S AGENTS, EMPLOYEES, REPRESENTATIVES, AND/OR INSURERS. THIS PROVISION IS TO BE CONSTRUED UNDER THE LAWS OF THE STATE OF TEXAS, AND IT IS EXPRESSLY RECOGNIZED BY ALL PARTIES TO THE CONSPICUOUSNESS REQUIREMENT AND THE EXPRESS NEGLIGENCE TEST, AND IS VALID AND ENFORCEABLE AGAINST CONTRACTOR, CONTRACTOR'S AGENTS, EMPLOYEES, REPRESENTATIVES, AND INDEPENDENT CONTRACTORS. CONTRACTOR HAS READ, FULLY UNDERSTANDS, AND AGREES TO BE BOUND BY THE TERMS AND CONDITIONS OF THIS PROVISION AND THE INDIVIDUAL SIGNING THIS CONTRACT ON BEHALF OF CONTRACTOR HAS FULL AUTHORITY TO BIND CONTRACTOR TO THIS CONTRACT AND THIS INDEMNITY PROVISION CONTAINED HEREIN. IT IS FURTHER RECOGNIZED AND AGREED THAT, SHOULD ANY PARTICULAR PORTION OR PROVISION OF THIS INDEMNITY PROVISION BE HELD INVALID, VOID AND/OR UNENFORCEABLE, IT SHALL NOT EFFECT THE VALIDITY AND ENFORCEABILITY OF THE REMAINDER OF THIS PROVISION.**

**CONTRACTOR AGREES TO MAINTAIN AT CONTRACTOR'S SOLE COST AND EXPENSE, INSURANCE OF ANY AND ALL TYPE AND WITH MINIMUM LIMITS AS FOLLOWS, AND FURNISH CERTIFICATES TO OWNER EVIDENCING SUCH INSURANCE WITH INSURERS ACCEPTABLE TO OWNER:**

**ALL INSURANCE COVERAGES CARRIED BY THE OWNER, WHETHER OR NOT REQUIRED HEREBY, SHALL EXTEND TO AN PROTECT OWNER, OWNER'S AGENTS, EMPLOYEES, REPRESENTATIVES, AND INDEPENDENT CONTRACTORS, TO THE FULL EXTENT OF SUCH COVERAGES AND CONTRACTOR AGREES TO NAME OWNER AS AN ADDITIONAL INSURED UNDER EACH SUCH INSURANCE COVERAGE. SAID INSURANCE SHALL APPLY TO ANY AND ALL LIABILITY OF THE CONTRACTOR, CONTRACTOR'S AGENTS, REPRESENTATIVES, EMPLOYEES, AND/OR INDEPENDENT CONTRACTORS, ARISING FROM THE INDEMNITY PROVISION IN THIS SECTION.**

**HOWEVER, LIABILITY OF THE CONTRACTOR, AS PROVIDED IN THIS SECTION SHALL NOT BE LIMITED BY THE INSURANCE COVERAGE REQUIRED OF CONTRACTOR IN THIS PROVISION.**

**SC6.21 DELEGATION OF PROFESSIONAL DESIGN SERVICES**

Delete Paragraph 6.21 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 5.19.

**SC9.05 REJECTING DEFECTIVE WORK**

Delete Paragraph 9.05 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 8.03.

**SC10.04 NOTIFICATION TO SURETY**

Delete Paragraph 10.04 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 9.02.

**SC11.03 UNIT PRICE WORK**

Add the following new paragraph immediately after Paragraph 11.03.A:

“Any and all Work specifically called for in the Contract Documents or which is required for the proper construction of items called for in the Contract Documents is to be performed by Contractor unless specifically indicated otherwise. The cost of all work for which there is no separate pay item in the proposal shall be included in the price for a related pay item such that work called for or required by the Contract Documents will be constructed for the Contract Price.”

**SC13.01 NOTICE OF DEFECTS**

Delete Paragraph 13.01 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 11.01.

**SC13.02 ACCESS TO WORK**

Delete Paragraph 13.02 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 11.02.

**SC13.03 TESTS AND INSPECTION**

Delete Paragraph 13.03 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 11.03.

**SC13.04 UNCOVERING WORK**

Delete Paragraph 13.04 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 11.04.

**SC13.06 CORRECTION OR REMOVAL OF DEFECTIVE WORK**

Delete Paragraph 13.06 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 11.06.

**SC13.07      CORRECTION PERIOD**

Delete Paragraph 13.07 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 11.07.

**SC13.08      ACCEPTANCE OF DEFECTIVE WORK**

Delete Paragraph 13.08 in its entirety.

**SC13.09      OWNER MAY CORRECT DEFECTIVE WORK**

Delete Paragraph 13.09 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 11.08.

**SC14.02      PROGRESS PAYMENT**

Revise the first sentence of Paragraph 14.02.A.1 to read as follows:

“At least thirty (30) days before each progress payment,....”

**SC14.03      CONTRACTOR’S WARRANTY OF TITLE**

Delete Paragraph 14.03 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 12.01.

**SC14.05      PARTIAL UTILIZATION**

Delete Paragraph 14.05 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 12.02.

**SC14.06      FINAL INSPECTION**

Delete Paragraph 14.05 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 12.03.

**SC17.01      GIVING NOTICE**

Delete Paragraph 17.01 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 14.01.

**SC17.02      COMPUTATION OF TIMES**

Delete Paragraph 17.02 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 14.02.

**SC17.03 CUMULATIVE REMEDIES**

Delete Paragraph 17.03 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 14.03.

**SC17.04 SURVIVAL OF OBLIGATIONS**

Delete Paragraph 17.04 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 14.04

**SC17.06 HEADINGS**

Delete Paragraph 17.06 in its entirety and refer to Standard City Condition of the Construction Contract for Developer Awarded Project Paragraph 14.05.

**STANDARD CITY CONDITIONS  
OF THE CONSTRUCTION CONTRACT  
FOR DEVELOPER AWARDED PROJECTS**

# STANDARD CITY CONDITIONS OF THE CONSTRUCTION CONTRACT FOR DEVELOPER AWARDED PROJECTS

## TABLE OF CONTENTS

	<b>Page</b>
Article 1 – Definitions and Terminology .....	1
1.01 Defined Terms.....	1
1.02 Terminology.....	5
Article 2 – Preliminary Matters.....	6
2.01 Before Starting Construction .....	6
2.02 Preconstruction Conference.....	6
2.03 Public Meeting .....	6
Article 3 – Contract Documents and Amending.....	6
3.01 Reference Standards .....	6
3.02 Amending and Supplementing Contract Documents .....	6
Article 4 – Bonds and Insurance .....	7
4.01 Licensed Sureties and Insurers .....	7
4.02 Performance, Payment, and Maintenance Bonds .....	7
4.03 Certificates of Insurance .....	7
4.04 Contractor’s Insurance.....	9
4.05 Acceptance of Bonds and Insurance; Option to Replace.....	12
Article 5 – Contractor’s Responsibilities .....	12
5.01 Supervision and Superintendent.....	12
5.02 Labor; Working Hours.....	13
5.03 Services, Materials, and Equipment.....	13
5.04 Project Schedule.....	14
5.05 Substitutes and “Or-Equals” .....	14
5.06 Pre-Qualification of Bidders (Prime Contractors and Subcontractors).....	16
5.07 Concerning Subcontractors, Suppliers, and Others .....	16
5.08 Wage Rates.....	18
5.09 Patent Fees and Royalties .....	19
5.10 Laws and Regulations.....	19
5.11 Use of Site and Other Areas .....	19
5.12 Record Documents.....	20
5.13 Safety and Protection .....	21
5.14 Safety Representative .....	21
5.15 Hazard Communication Programs .....	22
5.16 Submittals.....	22
5.17 Contractor’s General Warranty and Guarantee.....	23

5.18	Indemnification .....	24
5.19	Delegation of Professional Design Services .....	24
5.20	Right to Audit: .....	25
5.21	Nondiscrimination.....	25
Article 6 – Other Work at the Site.....		26
6.01	Related Work at Site .....	26
Article 7 – City’s Responsibilities.....		26
7.01	Inspections, Tests, and Approvals .....	26
7.02	Limitations on City’s Responsibilities .....	26
7.03	Compliance with Safety Program.....	27
Article 8 – City’s Observation Status During Construction .....		27
8.01	City’s Project Representative .....	27
8.02	Authorized Variations in Work .....	27
8.03	Rejecting Defective Work .....	27
8.04	Determinations for Work Performed.....	28
Article 9 – Changes in the Work.....		28
9.01	Authorized Changes in the Work .....	28
9.02	Notification to Surety.....	28
Article 10 – Change of Contract Price; Change of Contract Time .....		28
10.01	Change of Contract Price.....	28
10.02	Change of Contract Time.....	28
10.03	Delays.....	28
Article 11 – Tests and Inspections; Correction, Removal or Acceptance of Defective Work.....		29
11.01	Notice of Defects .....	29
11.02	Access to Work .....	29
11.03	Tests and Inspections .....	29
11.04	Uncovering Work .....	30
11.05	City May Stop the Work.....	30
11.06	Correction or Removal of Defective Work.....	30
11.07	Correction Period.....	30
11.08	City May Correct Defective Work .....	31
Article 12 – Completion .....		32
12.01	Contractor’s Warranty of Title .....	32
12.02	Partial Utilization .....	32
12.03	Final Inspection.....	32
12.04	Final Acceptance.....	33
Article 13 – Suspension of Work .....		33
13.01	City May Suspend Work .....	33
Article 14 – Miscellaneous .....		34
14.01	Giving Notice .....	34

14.02 Computation of Times .....	34
14.03 Cumulative Remedies .....	34
14.04 Survival of Obligations .....	35
14.05 Headings .....	35

## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in these General Conditions or in other Contract Documents, the terms listed below have the meanings indicated which are applicable to both the singular and plural thereof, and words denoting gender shall include the masculine, feminine and neuter. Said terms are generally capitalized or written in italics, but not always. When used in a context consistent with the definition of a listed-defined term, the term shall have a meaning as defined below whether capitalized or italicized or otherwise. 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. *Agreement* - The written instrument which is evidence of the agreement between Developer and Contractor covering the Work
  2. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
  3. *Business Day* – A business day is defined as a day that the City conducts normal business, generally Monday through Friday, except for federal or state holidays observed by the City.
  4. *Buzzsaw* – City’s on-line, electronic document management and collaboration system.
  5. *Calendar Day* – A day consisting of 24 hours measured from midnight to the next midnight.
  6. *City*— *The City of Fort Worth, Texas, a Texas home-rule municipal corporation, acting by, its governing body through its City Manager, his designee, or agents authorized pursuant to its duly authorized charter on his behalf.*
  7. *Community Facilities Agreement (CFA)* —*A Contract between the Developer and the City for the Construction of one or more following public facilities within the City public right-of-way or easement: Water, Sanitary Sewer, Street, Storm Drain, Street Light, and Street Signs. A CFA may include private facilities within the right-of-way dedicated as private right-of-way or easement on a recorded plat.*
  8. *Contract*—*The entire and integrated written document incorporating the Contract Documents between the Developer, Contractor, and/or City concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.*
  9. *Contract Documents*—*Those items that make up the contract and which must include the Agreement, and it’s attachments such as standard construction specifications, standard City Conditions, other general conditions of the Developer, including:*
    - a. An Agreement

- b. Attachments to the Agreement
    - i. Bid Form
    - ii. Vendor Compliance with State Law Non-Resident Bidder
    - iii. Prequalification Statement
  - c. Current Prevailing Wage Rates Table (if required by City)
  - d. Insurance Accord Form
  - e. Payment Bond
  - f. Performance Bond
  - g. Maintenance Bond
  - h. Power of Attorney for Bonds
  - i. Workers Compensation Affidavit
  - j. MWBE Commitment Form( If required by City)
  - k. General Conditions
  - l. Supplementary Conditions
  - m. The Standard City Conditions
  - n. Specifications specifically made part of the Contract Documents by attachment, if not attached, as incorporated by reference and described in the Table of Contents of the Project's Contract Documents
  - o. Drawings
  - p. Documentation submitted by contractor prior to Notice of Award.
  - q. The following which may be delivered or issued after the effective date if the Agreement and, if issued become an incorporated part of the Contract Documents
    - i. Notice to Proceed
    - ii. Field Orders
    - iii. Change Orders
    - iv. Letters of Final Acceptance
  - r. Approved Submittals, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
10. *Contractor*—*The individual or entity with whom Developer has entered into the Agreement.*
11. *Day or day* – *A day, unless otherwise defined, shall mean a Calendar Day.*
12. *Developer* – *An individual or entity that desires to make certain improvements within the City of Fort Worth*
13. *Drawings*—*That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Submittals are not Drawings as so defined.*
14. *Engineer*—*The licensed professional engineer or engineering firm registered in the State of Texas performing professional services for the Developer.*
15. *Final Acceptance* – *The written notice given by the City to the Developer and/or Contractor that the Work specified in the Contract Documents has been completed to the satisfaction of the City.*

16. *Final Inspection* – *Inspection carried out by the City to verify that the Contractor has completed the Work, and each and every part or appurtenance thereof, fully, entirely, and in conformance with the Contract Documents.*
17. *General Requirements*—*A part of the Contract Documents between the Developer and a Contractor.*
18. *Laws and Regulations*—*Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.*
19. *Liens*—*Charges, security interests, or encumbrances upon Project funds, real property, or personal property.*
20. *Milestone*—*A principal event specified in the Contract Documents relating to an intermediate Contract Time prior to Final Acceptance of the Work.*
21. *Non-Participating Change Order*—*A document, which is prepared for and reviewed by the City, which is signed by Contractor, and Developer, and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.*
22. *Participating Change Order*—*A document, which is prepared for and approved by the City, which is signed by Contractor, Developer, and City and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.*
23. *Plans* – *See definition of Drawings.*
24. *Project Schedule*—*A schedule, prepared and maintained by Contractor, in accordance with the General Requirements, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Time.*
25. *Project*—*The Work to be performed under the Contract Documents.*
26. *Project Representative*—*The authorized representative of the City who will be assigned to the Site.*
27. *Public Meeting* – *An announced meeting conducted by the Developer to facilitate public participation and to assist the public in gaining an informed view of the Project.*
28. *Regular Working Hours* – *Hours beginning at 7:00 a.m. and ending at 6:00 p.m., Monday thru Friday (excluding legal holidays).*
29. *Samples*—*Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.*

30. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
31. *Site*—Lands or areas indicated in the Contract Documents as being furnished by City or Developer upon which the Work is to be performed, including rights-of-way, permits, and easements for access thereto, and such other lands furnished by City or Developer which are designated for the use of Contractor.
32. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto. Specifications may be specifically made a part of the Contract Documents by attachment or, if not attached, may be incorporated by reference as indicated in the Table of Contents (Division 00 00 00) of each Project.
33. *Standard City Conditions* – That part of the Contract Documents setting forth requirements of the City.
34. *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 at the Site.
35. *Submittals*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
36. *Superintendent* – The representative of the Contractor who is available at all times and able to receive instructions from the City and/or Developer and to act for the Contractor.
37. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements the General Conditions.
38. *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 Subcontractor.
39. *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, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
40. *Weekend Working Hours* – Hours beginning at 9:00 a.m. and ending at 5:00 p.m., Saturday, Sunday or legal holiday, as approved in advance by the City.

41. *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 including any Participating Change Order, Non-Participating Change Order, or Field Order, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
42. *Working Day* – A working day is defined as a day, not including Saturdays, Sundays, or legal holidays authorized by the City for contract purposes, in which weather or other conditions not under the control of the Contractor will permit the performance of the principal unit of work underway for a continuous period of not less than 7 hours between 7 a.m. and 6 p.m.

## 1.02 Terminology

- A. The words and terms discussed in Paragraph 1.02.B through D are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *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 City’s written acceptance.
- C. *Furnish, Install, Perform, Provide*:
1. The word “Furnish” or the word “Install” or the word “Perform” or the word “Provide” or the word “Supply,” or any combination or similar directive or usage thereof, shall mean furnishing and incorporating in the Work including all necessary labor, materials, equipment, and everything necessary to perform the Work indicated, unless specifically limited in the context used.
- D. 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 Before Starting Construction*

*Baseline Schedules:* Submit to City in accordance with the Contract Documents, and prior to starting the Work. New schedules will be submitted to City when Participating Change Orders or Non-Participating Change Orders occur.

### *2.02 Preconstruction Conference*

Before any Work at the Site is started, the Contractor shall attend a Preconstruction Conference as specified in the Contract Documents.

### *2.03 Public Meeting*

Contractor may not mobilize any equipment, materials or resources to the Site prior to Contractor attending the Public Meeting as scheduled by the City.

## **ARTICLE 3 – CONTRACT DOCUMENTS AND AMENDING**

### *3.01 Reference Standards*

#### **A. Standards, Specifications, Codes, Laws, and Regulations**

1. Reference to standards, specifications, manuals, 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, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
2. No provision or instruction shall be effective to assign to City, or any of its 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 Contract Documents.

### *3.02 Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by a Participating Change Order or a Non-Participating Change Order.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work not involving a change in Contract Price or Contract Time, may be authorized, by one or more of the following ways:
  1. A Field Order;

1. City's or Engineer's review of a Submittal (subject to the provisions of Paragraph 5.16.C); or
2. City's written interpretation or clarification.

## **ARTICLE 4 – BONDS AND INSURANCE**

### *4.01 Licensed Sureties and Insurers*

All bonds and insurance required by the Contract Documents to be purchased and maintained by Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the State of Texas to issue bonds or insurance policies for the limits and coverage so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided Section 4.04.

### *4.02 Performance, Payment, and Maintenance Bonds*

- A. Contractor shall furnish performance and payment bonds in the name of Developer and City, in accordance with Texas Government Code Chapter 2253 or successor statute, each in an amount equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents.
- B. Contractor shall furnish maintenance bonds in the name of Developer and City in an amount equal to the Contract Price as security to protect the City against any defects in any portion of the Work described in the Contract Documents. Maintenance bonds shall remain in effect for two (2) years after the date of Final Acceptance by the City.
- C. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a sealed and dated power of attorney which shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- D. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Texas or it ceases to meet the requirements of Paragraph 4.02.C, Contractor shall promptly notify City and shall, within 30 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 4.01 and 4.02.C.

### *4.03 Certificates of Insurance*

Contractor shall deliver to Developer and City, with copies to each additional insured and loss payee identified in these Standard City Conditions certificates of insurance (and other evidence of insurance requested by City or any other additional insured) which Contractor is required to purchase and maintain.

1. The certificate of insurance shall document the City, as an “Additional Insured” on all liability policies.
2. The Contractor’s general liability insurance shall include a, “per project” or “per location”, endorsement, which shall be identified in the certificate of insurance provided to the City.
3. The certificate shall be signed by an agent authorized to bind coverage on behalf of the insured, be complete in its entirety, and show complete insurance carrier names as listed in the current A.M. Best Property & Casualty Guide
4. The insurers for all policies must be licensed and/or approved to do business in the State of Texas. Except for workers’ compensation, all insurers must have a minimum rating of A-: VII in the current A. M. Best Key Rating Guide or have reasonably equivalent financial strength and solvency to the satisfaction of Risk Management. If the rating is below that required, written approval of City is required.
5. All applicable policies shall include a Waiver of Subrogation (Rights of Recovery) in favor of the City. In addition, the Contractor agrees to waive all rights of subrogation against the Engineer (if applicable), and each additional insured identified in these Standard City Conditions. Failure of the City to demand such certificates or other evidence of full compliance with the insurance requirements or failure of the City to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor’s obligation to maintain such lines of insurance coverage.
6. If insurance policies are not written for specified coverage limits, an Umbrella or Excess Liability insurance for any differences is required. Excess Liability shall follow form of the primary coverage.
7. Unless otherwise stated, all required insurance shall be written on the “occurrence basis”. If coverage is underwritten on a claims-made basis, the retroactive date shall be coincident with or prior to the date of the effective date of the agreement and the certificate of insurance shall state that the coverage is claims-made and the retroactive date. The insurance coverage shall be maintained for the duration of the Contract and for three (3) years following Final Acceptance provided under the Contract Documents or for the warranty period, whichever is longer. An annual certificate of insurance submitted to the City shall evidence such insurance coverage.
8. Policies shall have no exclusions by endorsements, which, neither nullify or amend, the required lines of coverage, nor decrease the limits of said coverage unless such endorsements are approved in writing by the City. In the event a Contract has been bid or executed and the exclusions are determined to be unacceptable or the City desires additional insurance coverage, and the City desires the contractor/engineer to obtain such coverage, the contract price shall be adjusted by the cost of the premium for such additional coverage plus 10%.
9. Any self-insured retention (SIR), in excess of \$25,000.00, affecting required insurance coverage shall be approved by the City in regards to asset value and stockholders' equity. In

lieu of traditional insurance, alternative coverage maintained through insurance pools or risk retention groups, must also be approved by City.

10. Any deductible in excess of \$5,000.00, for any policy that does not provide coverage on a first-dollar basis, must be acceptable to and approved by the City.
11. City, at its sole discretion, reserves the right to review the insurance requirements and to make reasonable adjustments to insurance coverage's and their limits when deemed necessary and prudent by the City based upon changes in statutory law, court decision or the claims history of the industry as well as of the contracting party to the City. The City shall be required to provide prior notice of 90 days, and the insurance adjustments shall be incorporated into the Work by Change Order.
12. City shall be entitled, upon written request and without expense, to receive copies of policies and endorsements thereto and may make any reasonable requests for deletion or revision or modifications of particular policy terms, conditions, limitations, or exclusions necessary to conform the policy and endorsements to the requirements of the Contract. Deletions, revisions, or modifications shall not be required where policy provisions are established by law or regulations binding upon either party or the underwriter on any such policies.
13. City shall not be responsible for the direct payment of insurance premium costs for Contractor's insurance.

#### 4.04 *Contractor's Insurance*

- A. *Workers Compensation and Employers' Liability.* Contractor shall purchase and maintain such insurance coverage with limits consistent with statutory benefits outlined in the Texas Workers' Compensation Act (Texas Labor Code, Ch. 406, as amended), and minimum limits for Employers' Liability as is appropriate for the Work being performed and as will provide protection from claims set forth below which 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:
  1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
  2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees.
  3. The limits of liability for the insurance shall provide the following coverages for not less than the following amounts or greater where required by Laws and Regulations
    - a. Statutory limits
    - b. Employer's liability

- 1) \$100,000 each accident/occurrence
- 2) \$100,000 Disease - each employee
- 3) \$500,000 Disease - policy limit

B. **Commercial General Liability.** Coverage shall include but not be limited to covering liability (bodily injury or property damage) arising from: premises/operations, independent contractors, products/completed operations, personal injury, and liability under an insured contract. Insurance shall be provided on an occurrence basis, and as comprehensive as the current Insurance Services Office (ISO) policy. This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to the City. The Commercial General Liability policy, shall have no exclusions by endorsements that would alter or nullify premises/operations, products/completed operations, contractual, personal injury, or advertising injury, which are normally contained with the policy, unless the City approves such exclusions in writing.

1. For construction projects that present a substantial completed operation exposure, the City may require the contractor to maintain completed operations coverage for a minimum of no less than three (3) years following the completion of the project
2. Contractor's Liability Insurance under this Section which shall be on a per project basis covering the Contractor with minimum limits of:
  - a. \$1,000,000 each occurrence
  - b. \$2,000,000 aggregate limit
3. The policy must have an endorsement (Amendment – Aggregate Limits of Insurance) making the General Aggregate Limits apply separately to each job site.
4. The Commercial General Liability Insurance policies shall provide “X”, “C”, and “U” coverage’s. Verification of such coverage must be shown in the Remarks Article of the Certificate of Insurance.

C. **Automobile Liability.** A commercial business auto policy shall provide coverage on “any auto”, defined as autos owned, hired and non-owned and provide indemnity for claims for damages because bodily injury or death of any person and or property damage arising out of the work, maintenance or use of any motor vehicle by the 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.

1. Automobile Liability, Contractor’s Liability Insurance under this Section, which shall be in an amount not less than the following amounts:
  - a. **Automobile Liability** - a commercial business policy shall provide coverage on "Any Auto", defined as autos owned, hired and non-owned.

- 1) \$1,000,000 each accident on a combined single limit basis. Split limits are acceptable if limits are at least:
- 2) \$250,000 Bodily Injury per person
- 3) \$500,000 Bodily Injury per accident /
- 4) \$100,000 Property Damage

D. *Railroad Protective Liability*. If any of the work or any warranty work is within the limits of railroad right-of-way, the Contractor shall comply with the following requirements:

1. The Contractor's construction activities will require its employees, agents, subcontractors, equipment, and material deliveries to cross railroad properties and tracks owned and operated by: None  
Write the name of the railroad company. (If none, then write none)
2. The Contractor shall conduct its operations on railroad properties in such a manner as not to interfere with, hinder, or obstruct the railroad company in any manner whatsoever in the use or operation of its/their trains or other property. Such operations on railroad properties may require that Contractor to execute a "Right of Entry Agreement" with the particular railroad company or companies involved, and to this end the Contractor should satisfy itself as to the requirements of each railroad company and be prepared to execute the right-of-entry (if any) required by a railroad company. The requirements specified herein likewise relate to the Contractor's use of private and/or construction access roads crossing said railroad company's properties.
3. The Contractual Liability coverage required by Paragraph 5.04D of the General Conditions shall provide coverage for not less than the following amounts, issued by companies satisfactory to the City and to the Railroad Company for a term that continues for so long as the Contractor's operations and work cross, occupy, or touch railroad property:
  - a. General Aggregate: None  
Enter limits provided by Railroad Company (If none, write none)
  - b. Each Occurrence: : None  
Enter limits provided by Railroad Company (If none, write none)
4. With respect to the above outlined insurance requirements, the following shall govern:
  - a. Where a single railroad company is involved, the Contractor shall provide one insurance policy in the name of the railroad company. However, if more than one grade separation or at-grade crossing is affected by the Project at entirely separate locations on the line or lines of the same railroad company, separate coverage may be required, each in the amount stated above.
  - b. Where more than one railroad company is operating on the same right-of-way or where several railroad companies are involved and operated on their own separate rights-of-

way, the Contractor may be required to provide separate insurance policies in the name of each railroad company.

- c. If, in addition to a grade separation or an at-grade crossing, other work or activity is proposed on a railroad company's right-of-way at a location entirely separate from the grade separation or at-grade crossing, insurance coverage for this work must be included in the policy covering the grade separation.
  - d. If no grade separation is involved but other work is proposed on a railroad company's right-of-way, all such other work may be covered in a single policy for that railroad, even though the work may be at two or more separate locations.
5. No work or activities on a railroad company's property to be performed by the Contractor shall be commenced until the Contractor has furnished the City with an original policy or policies of the insurance for each railroad company named, as required above. All such insurance must be approved by the City and each affected Railroad Company prior to the Contractor's beginning work.
  6. The insurance specified above must be carried until all Work to be performed on the railroad right-of-way has been completed and the grade crossing, if any, is no longer used by the Contractor. In addition, insurance must be carried during all maintenance and/or repair work performed in the railroad right-of-way. Such insurance must name the railroad company as the insured, together with any tenant or lessee of the railroad company operating over tracks involved in the Project.
- E. *Notification of Policy Cancellation:* Contractor shall immediately notify City upon cancellation or other loss of insurance coverage. Contractor shall stop work until replacement insurance has been procured. There shall be no time credit for days not worked pursuant to this section.

#### 4.05 *Acceptance of Bonds and Insurance; Option to Replace*

If City has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the Contractor in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the Developer and City shall so notify the Contractor in writing within 10 Business Days after receipt of the certificates (or other evidence requested). Contractor shall provide to the City such additional information in respect of insurance provided as the Developer or City may reasonably request. If Contractor does not purchase or maintain all of the bonds and insurance required by the Contract Documents, the Developer or City shall notify the Contractor in writing of such failure prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

## **ARTICLE 5 – CONTRACTOR'S RESPONSIBILITIES**

### 5.01 *Supervision and Superintendent*

- 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, English-speaking, Superintendent who shall not be replaced without written notice to City. The Superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communication given to or received from the Superintendent shall be binding on Contractor.
- C. Contractor shall notify the City 24 hours prior to moving areas during the sequence of construction.

#### 5.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to 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. Contractor will not permit the performance of Work beyond Regular Working Hours or for Weekend Working Hours without City's written consent (which will not be unreasonably withheld). Written request (by letter or electronic communication) to perform Work:
  - 1. for beyond Regular Working Hours request must be made by noon at least two (2) Business Days prior
  - 2. for Weekend Working Hours request must be made by noon of the preceding Thursday
  - 3. for legal holidays request must be made by noon two Business Days prior to the legal holiday.

#### 5.03 *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, Contractor required testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, 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 City. If required by City, 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 to be incorporated into the Work 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.

5.04 *Project Schedule*

- A. Contractor shall adhere to the Project Schedule established in accordance with Paragraph 2.01 and the General Requirements as it may be adjusted from time to time as provided below.
1. Contractor shall submit to City for acceptance (to the extent indicated in Paragraph 2.01 and the General Requirements) proposed adjustments in the Project Schedule.
  2. Proposed adjustments in the Project Schedule that will change the Contract Time shall be submitted in accordance with the requirements of Article 9. Adjustments in Contract Time for projects with City participation shall be made by participating change orders.

5.05 *Substitutes and "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 specification or description 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 or no substitution is permitted, other items of material or equipment of other Suppliers may be submitted to City for review under the circumstances described below.
1. "*Or-Equal*" Items: If in City's sole discretion 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, it may be considered by City as an "or-equal" item, in which case review and approval of the proposed item may, in City's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 5.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
    - a. City 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; and
      - 3) it has a proven record of performance and availability of responsive service; and
    - b. Contractor certifies that, if approved and incorporated into the Work:
      - 1) there will be no increase in cost to the City or increase in Contract Time; and

- 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in City's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 5.05.A.1, it may be submitted as a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow City to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by City from anyone other than Contractor.
- c. Contractor shall make written application to City for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application shall comply with Section 01 25 00 and:
  - 1) shall certify that the proposed substitute item will:
    - i. perform adequately the functions and achieve the results called for by the general design;
    - ii. be similar in substance to that specified;
    - iii. be suited to the same use as that specified; and
  - 2) will state:
    - i. the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of final completion on time;
    - ii. 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 City for other work on the Project) to adapt the design to the proposed substitute item;
    - iii. whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty; and
  - 3) will identify:
    - i. all variations of the proposed substitute item from that specified;
    - ii. available engineering, sales, maintenance, repair, and replacement services; and

- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and Damage Claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by City. Contractor shall submit sufficient information to allow City, in City's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. Contractor shall make written application to City for review in the same manner as those provided in Paragraph 5.05.A.2.
- C. *City's Evaluation:* City will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 5.05.A and 5.05.B. City may require Contractor to furnish additional data about the proposed substitute. City will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until City's review is complete, which will be evidenced by a Change Order in the case of a substitute and an accepted Submittal for an "or-equal." City will advise Contractor in writing of its determination.
- D. *Special Guarantee:* City may require Contractor to furnish at Contractor's expense a special performance guarantee, warranty, or other surety with respect to any substitute. *Contractor shall indemnify and hold harmless City and anyone directly or indirectly employed by them from and against any and all claims, damages, losses and expenses (including attorneys fees) arising out of the use of substituted materials or equipment.*
- E. *City's Cost Reimbursement:* City will record City's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 5.05.A.2 and 5.05.B. Whether or not City approves a substitute so proposed or submitted by Contractor, Contractor may be required to reimburse City for evaluating each such proposed substitute. Contractor may also be required to reimburse City for the charges for making changes in the Contract Documents.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.
- G. *Substitute Reimbursement:* Costs (savings or charges) attributable to acceptance of a substitute shall be incorporated to the Contract by Participating Change Order.

#### 5.06 *Pre-Qualification of Bidders (Prime Contractors and Subcontractors)*

- A. The Contractor and any subcontractors are required to be prequalified for the work types requiring pre-qualification

#### 5.07 *Concerning Subcontractors, Suppliers, and Others*

- A. *Minority and Women Owned Business Enterprise Compliance:*

- Required for this Contract.  
(Check this box if there is any City Participation)
- Not Required for this Contract.

It is City policy to ensure the full and equitable participation by Minority and Women Business Enterprises (MWBE) in the procurement of goods and services on a contractual basis. If the Contract Documents provide for a MWBE goal, Contractor is required to comply with the intent of the City's MWBE Ordinance (as amended) by the following:

1. Contractor shall, upon request by City, provide complete and accurate information regarding actual work performed by a MWBE on the Contract and payment therefor.
  2. Contractor will not make additions, deletions, or substitutions of accepted MWBE without written consent of the City. Any unjustified change or deletion shall be a material breach of Contract and may result in debarment in accordance with the procedures outlined in the Ordinance.
  3. Contractor shall, upon request by City, allow an audit and/or examination of any books, records, or files in the possession of the Contractor that will substantiate the actual work performed by an MWBE. Material misrepresentation of any nature will be grounds for termination of the Contract. Any such misrepresentation may be grounds for disqualification of Contractor to bid on future contracts with the City for a period of not less than three years.
- B. Contractor shall be fully responsible to City 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. 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 City and any such Subcontractor, Supplier or other individual or entity; nor
  2. shall create any obligation on the part of City to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- C. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- D. All Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work shall communicate with City through Contractor.
- E. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of these Contract

Documents, Contractor shall provide City contract numbers and reference numbers to the Subcontractors and/or Suppliers.

5.08 *Wage Rates*

- Required for this Contract.
- Not Required for this Contract.

- A. *Duty to pay Prevailing Wage Rates.* The Contractor shall comply with all requirements of Chapter 2258, Texas Government Code (as amended), including the payment of not less than the rates determined by the City Council of the City of Fort Worth to be the prevailing wage rates in accordance with Chapter 2258. Such prevailing wage rates are included in these Contract Documents.
- B. *Penalty for Violation.* A Contractor or any Subcontractor who does not pay the prevailing wage shall, upon demand made by the City, pay to the City \$60 for each worker employed for each calendar day or part of the day that the worker is paid less than the prevailing wage rates stipulated in these contract documents. This penalty shall be retained by the City to offset its administrative costs, pursuant to Texas Government Code 2258.023.
- C. *Complaints of Violations and City Determination of Good Cause.* On receipt of information, including a complaint by a worker, concerning an alleged violation of 2258.023, Texas Government Code, by a Contractor or Subcontractor, the City shall make an initial determination, before the 31st day after the date the City receives the information, as to whether good cause exists to believe that the violation occurred. The City shall notify in writing the Contractor or Subcontractor and any affected worker of its initial determination. Upon the City's determination that there is good cause to believe the Contractor or Subcontractor has violated Chapter 2258, the City shall retain the full amounts claimed by the claimant or claimants as the difference between wages paid and wages due under the prevailing wage rates, such amounts being subtracted from successive progress payments pending a final determination of the violation.
- D. *Arbitration Required if Violation Not Resolved.* An issue relating to an alleged violation of Section 2258.023, Texas Government Code, including a penalty owed to the City or an affected worker, shall be submitted to binding arbitration in accordance with the Texas General Arbitration Act (Article 224 et seq., Revised Statutes) if the Contractor or Subcontractor and any affected worker does not resolve the issue by agreement before the 15th day after the date the City makes its initial determination pursuant to Paragraph C above. If the persons required to arbitrate under this section do not agree on an arbitrator before the 11th day after the date that arbitration is required, a district court shall appoint an arbitrator on the petition of any of the persons. The City is not a party in the arbitration. The decision and award of the arbitrator is final and binding on all parties and may be enforced in any court of competent jurisdiction.
- E. *Records to be Maintained.* The Contractor and each Subcontractor shall, for a period of three (3) years following the date of acceptance of the work, maintain records that show (i) the name and

occupation of each worker employed by the Contractor in the construction of the Work provided for in this Contract; and (ii) the actual per diem wages paid to each worker. The records shall be open at all reasonable hours for inspection by the City. The provisions of Paragraph 6.23, Right to Audit, shall pertain to this inspection.

- F. *Progress Payments.* With each progress payment or payroll period, whichever is less, the Contractor shall submit an affidavit stating that the Contractor has complied with the requirements of Chapter 2258, Texas Government Code.
- G. *Posting of Wage Rates.* The Contractor shall post prevailing wage rates in a conspicuous place at all times.
- H. *Subcontractor Compliance.* The Contractor shall include in its subcontracts and/or shall otherwise require all of its Subcontractors to comply with Paragraphs A through G above.

#### 5.09 *Patent Fees and Royalties*

- A. *To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless City, 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.*

#### 5.10 *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, the City shall not be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear 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. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.01.

#### 5.11 *Use of Site and Other Areas*

##### A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or

other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. At any time when, in the judgment of the City, the Contractor has obstructed or closed or is carrying on operations in a portion of a street, right-of-way, or easement greater than is necessary for proper execution of the Work, the City may require the Contractor to finish the section on which operations are in progress before work is commenced on any additional area of the Site.
  3. Should any Damage Claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly attempt to resolve the Damage Claim.
  4. *Pursuant to Paragraph 5.18, Contractor shall indemnify and hold harmless City, from and against all claims, costs, losses, and damages arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against City.*
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other 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. *Site Maintenance Cleaning:* 24 hours after written notice is given to the Contractor that the clean-up on the job site is proceeding in a manner unsatisfactory to the City or Developer, if the Contractor fails to correct the unsatisfactory procedure, the City may take such direct action as the City deems appropriate to correct the clean-up deficiencies cited to the Contractor in the written notice (by letter or electronic communication), and shall be entitled to recover its cost in doing so. The City may withhold Final Acceptance until clean-up is complete and cost are recovered.
- D. *Final Site Cleaning:* Prior to Final Acceptance of the Work Contractor shall clean the Site and the Work and make it ready for utilization by City or adjacent property owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition or better all property disturbed by the Work.
- E. *Loading 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 property to stresses or pressures that will endanger it.

#### 5.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site or in a place designated by the Contractor and approved by the City, one (1) record copy of all Drawings, Specifications, Addenda, Change Orders, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved

Samples and a counterpart of all accepted Submittals will be available to City for reference. Upon completion of the Work, these record documents, any operation and maintenance manuals, and Submittals will be delivered to City prior to Final Inspection. Contractor shall include accurate locations for buried and imbedded items.

### 5.13 *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, 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 owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of City's safety programs, if any.
- D. Contractor shall inform City of the specific requirements of Contractor's safety program, if any, with which City's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 5.13.A.2 or 5.13.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.
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and City has accepted the Work.

### 5.14 *Safety Representative*

Contractor shall inform City in writing of Contractor's designated safety representative at the Site.

### 5.15 *Hazard Communication Programs*

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 in accordance with Laws or Regulations.

### 5.16 *Submittals*

- A. Contractor shall submit required Submittals to City for review and acceptance. Each submittal will be identified as required by City.
1. Submit number of copies specified in the General Requirements.
  2. Data shown on the Submittals will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show City the services, materials, and equipment Contractor proposes to provide and to enable City to review the information for the limited purposes required by Paragraph 5.16.C.
  3. Submittals submitted as herein provided by Contractor and reviewed by City for conformance with the design concept shall be executed in conformity with the Contract Documents unless otherwise required by City.
  4. When Submittals are submitted for the purpose of showing the installation in greater detail, their review shall not excuse Contractor from requirements shown on the Drawings and Specifications.
  5. For-Information-Only submittals upon which the City is not expected to conduct review or take responsive action may be so identified in the Contract Documents.
  6. Submit required number of Samples specified in the Specifications.
  7. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as City may require to enable City to review the submittal for the limited purposes required by Paragraph 5.16.C.
- B. Where a Submittal is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to City's review and acceptance of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *City's Review:*
1. City will provide timely review of required Submittals in accordance with the Schedule of Submittals acceptable to City. City's review and acceptance 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. City's review and acceptance will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and acceptance of a separate item as such will not indicate approval of the assembly in which the item functions.
3. City's review and acceptance shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Section 01 33 00 and City has given written acceptance of each such variation by specific written notation thereof incorporated in or accompanying the Submittal. City's review and acceptance shall not relieve Contractor from responsibility for complying with the requirements of the Contract Documents.

5.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to City that all Work will be in accordance with the Contract Documents and will not be defective. City and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of 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 City;
  2. recommendation or payment by City or Developer of any progress or final payment;
  3. the issuance of a certificate of Final Acceptance by City or any payment related thereto by City;
  4. use or occupancy of the Work or any part thereof by City;
  5. any review and acceptance of a Submittal by City;
  6. any inspection, test, or approval by others; or

7. any correction of defective Work by City.

- D. The Contractor shall remedy any defects or damages in the Work and pay for any damage to other work or property resulting therefrom which shall appear within a period of two (2) years from the date of Final Acceptance of the Work unless a longer period is specified and shall furnish a good and sufficient maintenance bond, complying with the requirements of Article 4.02.B. The City will give notice of observed defects with reasonable promptness.

#### 5.18 Indemnification

- A. Contractor covenants and agrees to indemnify, hold harmless and defend, at its own expense, the City, its officers, servants and employees, from and against any and all claims arising out of, or alleged to arise out of, the work and services to be performed by the Contractor, its officers, agents, employees, subcontractors, licenses or invitees under this Contract. **THIS INDEMNIFICATION PROVISION IS SPECIFICALLY INTENDED TO OPERATE AND BE EFFECTIVE EVEN IF IT IS ALLEGED OR PROVEN THAT ALL OR SOME OF THE DAMAGES BEING SOUGHT WERE CAUSED, IN WHOLE OR IN PART, BY ANY ACT, OMISSION OR NEGLIGENCE OF THE CITY.** This indemnity provision is intended to include, without limitation, indemnity for costs, expenses and legal fees incurred by the City in defending against such claims and causes of actions.
- B. Contractor covenants and agrees to indemnify and hold harmless, at its own expense, the City, its officers, servants and employees, from and against any and all loss, damage or destruction of property of the City, arising out of, or alleged to arise out of, the work and services to be performed by the Contractor, its officers, agents, employees, subcontractors, licensees or invitees under this Contract. **THIS INDEMNIFICATION PROVISION IS SPECIFICALLY INTENDED TO OPERATE AND BE EFFECTIVE EVEN IF IT IS ALLEGED OR PROVEN THAT ALL OR SOME OF THE DAMAGES BEING SOUGHT WERE CAUSED, IN WHOLE OR IN PART, BY ANY ACT, OMISSION OR NEGLIGENCE OF THE CITY.**

#### 5.19 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.
- 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, City 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 Submittals prepared by such professional. 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 City.

- C. City shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided City has specified to Contractor performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 5.19, City's review and acceptance 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. City's review and acceptance of Submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 5.16.C.

5.20 *Right to Audit:*

- A. The City reserves the right to audit all projects utilizing City funds
- B. The Contractor agrees that the City shall, until the expiration of three (3) years after final payment under this Contract, have access to and the right to examine and photocopy any directly pertinent books, documents, papers, and records of the Contractor involving transactions relating to this Contract. Contractor agrees that the City shall have access during Regular Working Hours to all necessary Contractor facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this Paragraph. The City shall give Contractor reasonable advance notice of intended audits.
- C. Contractor further agrees to include in all its subcontracts hereunder a provision to the effect that the subcontractor agrees that the City shall, until the expiration of three (3) years after final payment under this Contract, have access to and the right to examine and photocopy any directly pertinent books, documents, papers, and records of such Subcontractor, involving transactions to the subcontract, and further, that City shall have access during Regular Working Hours to all Subcontractor facilities, and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this Paragraph. The City shall give Subcontractor reasonable advance notice of intended audits.
- D. Contractor and Subcontractor agree to photocopy such documents as may be requested by the City. The City agrees to reimburse Contractor for the cost of the copies as follows at the rate published in the Texas Administrative Code in effect as of the time copying is performed.

5.21 *Nondiscrimination*

- A. The City is responsible for operating Public Transportation Programs and implementing transit-related projects, which are funded in part with Federal financial assistance awarded by the U.S. Department of Transportation and the Federal Transit Administration (FTA), without discriminating against any person in the United States on the basis of race, color, or national origin.
- B. *Title VI, Civil Rights Act of 1964 as amended:* Contractor shall comply with the requirements of the Act and the Regulations as further defined in the Supplementary Conditions for any project receiving Federal assistance.

## **ARTICLE 6 – OTHER WORK AT THE SITE**

### *6.01 Related Work at Site*

- A. City may perform other work related to the Project at the Site with City's employees, or other City contractors, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then written notice thereof will be given to Contractor prior to starting any such other work; and
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and City, if City is performing other work with City's employees or other City contractors, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. 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 City and the others whose work will be affected.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to City 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 in the work provided by others.

## **ARTICLE 7 – CITY'S RESPONSIBILITIES**

### *7.01 Inspections, Tests, and Approvals*

City's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 11.03.

### *7.02 Limitations on City's Responsibilities*

- A. The City 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. City will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- B. City will notify the Contractor of applicable safety plans pursuant to Paragraph 5.13.

### 7.03 *Compliance with Safety Program*

While at the Site, City's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which City has been informed pursuant to Paragraph 5.13.

## **ARTICLE 8 – CITY'S OBSERVATION STATUS DURING CONSTRUCTION**

### 8.01 *City's Project Representative*

City will provide one or more Project Representative(s) during the construction period. The duties and responsibilities and the limitations of authority of City's representative during construction are set forth in the Contract Documents.

- A. City's Project Representative will make visits to the Site at intervals appropriate to the various stages of construction as City deems necessary in order to observe 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, City's Project Representative will determine, in general, if the Work is proceeding in accordance with the Contract Documents. City's Project Representative will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. City's Project Representative's efforts will be directed toward providing City a greater degree of confidence that the completed Work will conform generally to the Contract Documents.
- B. City's Project Representative's visits and observations are subject to all the limitations on authority and responsibility in the Contract Documents.

### 8.02 *Authorized Variations in Work*

City's Project Representative may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on City Developer, and also on Contractor, who shall perform the Work involved promptly.

### 8.03 *Rejecting Defective Work*

City will have authority to reject Work which City's Project Representative believes to be defective, or will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. City will have authority to conduct special inspection or testing of the Work as provided in Article 11, whether or not the Work is fabricated, installed, or completed.

#### 8.04 *Determinations for Work Performed*

Contractor will determine the actual quantities and classifications of Work performed. City's Project Representative will review with Contractor the preliminary determinations on such matters before rendering a written recommendation. City's written decision will be final (except as modified to reflect changed factual conditions or more accurate data).

### **ARTICLE 9 – CHANGES IN THE WORK**

#### 9.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, City may, at any time or from time to time, order Extra Work. Upon notice of such Extra Work, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided). Extra Work shall be memorialized by a Participating Change Order which may or may not precede an order of Extra work.
- B. For minor changes of Work not requiring changes to Contract Time or Contract Price on a project with City participation, a Field Order may be issued by the City.

#### 9.02 *Notification to Surety*

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 Time), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted by the Contractor to reflect the effect of any such change.

### **ARTICLE 10 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIME**

#### 10.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Participating Change Order for projects with City participation.

#### 10.02 *Change of Contract Time*

- A. The Contract Time may only be changed by a Participating Change Order for projects with City participation.

#### 10.03 *Delays*

- A. If Contractor is delayed, City shall not be liable to Contractor for any claims, costs, losses, or 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) sustained by Contractor on or in connection with any other project or anticipated project.

## **ARTICLE 11 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

### *11.01 Notice of Defects*

Notice of all defective Work of which City has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

### *11.02 Access to Work*

City, independent testing laboratories, and governmental agencies with jurisdictional interests 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.

### *11.03 Tests and Inspections*

- A. Contractor shall give City timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. If Contract Documents, Laws or Regulations of any public body having jurisdiction require any of the Work (or part thereof) to be inspected, tested, or approved, Contractor shall assume full responsibility for arranging and obtaining such independent inspections, tests, retests or approvals, pay all costs in connection therewith, and furnish City the required certificates of inspection or approval; excepting, however, those fees specifically identified in the Supplementary Conditions or any Texas Department of Licensure and Regulation (TDLR) inspections, which shall be paid as described in the Supplementary Conditions.
- C. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, re-tests, or approvals required for City's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, re-tests, or approvals shall be performed by organizations approved by City.
- D. City may arrange for the services of an independent testing laboratory ("Testing Lab") to perform any inspections or tests ("Testing") for any part of the Work, as determined solely by City.
  - 1. City will coordinate such Testing to the extent possible, with Contractor;
  - 2. Should any Testing under this Section 11.03 D result in a "fail", "did not pass" or other similar negative result, the Contractor shall be responsible for paying for any and all retests. Contractor's cancellation without cause of City initiated Testing shall be deemed a negative result and require a retest.

3. Any amounts owed for any retest under this Section 11.03 D shall be paid directly to the Testing Lab by Contractor. City will forward all invoices for retests to Developer/Contractor.
  4. If Contractor fails to pay the Testing Lab, City will not issue a letter of Final Acceptance until the Testing Lab is Paid
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of City, Contractor shall, if requested by City, uncover such Work for observation.

#### 11.04 *Uncovering Work*

- A. If any Work is covered contrary to the Contract Documents or specific instructions by the City, it must, if requested by City, be uncovered for City's observation and replaced at Contractor's expense.

#### 11.05 *City May Stop the Work*

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, City may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of City to stop the Work shall not give rise to any duty on the part of City 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.

#### 11.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work pursuant to an acceptable schedule, whether or not fabricated, installed, or completed, or, if the Work has been rejected by City, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, additional testing, 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 removal (including but not limited to all costs of repair or replacement of work of others). Failure to require the removal of any defective Work shall not constitute acceptance of such Work.
- B. When correcting defective Work under the terms of this Paragraph 11.06 or Paragraph 11.07, Contractor shall take no action that would void or otherwise impair City's special warranty and guarantee, if any, on said Work.

#### 11.07 *Correction Period*

- A. If within two (2) years after the date of Final Acceptance (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract

Documents), any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by City or permitted by Laws and Regulations as contemplated in Paragraph 5.10.A is found to be defective, Contractor shall promptly, without cost to City and in accordance with City's written instructions:

1. repair such defective land or areas; or
  2. correct such defective Work; or
  3. if the defective Work has been rejected by City, 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 other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of City's written instructions, or in an emergency where delay would cause serious risk of loss or damage, City may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. 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 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) will be paid by Contractor.
- C. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 11.07, the correction period hereunder with respect to such Work may be required to be extended for an additional period of one year after the end of the initial correction period. City shall provide 30 days written notice to Contractor and Developer should such additional warranty coverage be required. Contractor's obligations under this Paragraph 11.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 11.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

#### 11.08 *City May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from City to correct defective Work, or to remove and replace rejected Work as required by City in accordance with Paragraph 11.06.A, 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, City may, after seven (7) days written notice to Contractor and the Developer, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 11.09, City shall proceed expeditiously. In connection with such corrective or remedial action, City 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 incorporated in the Work, stored at the Site or for which City has paid Contractor but which are

stored elsewhere. Contractor shall allow City, City's representatives, agents, consultants, employees, and City's other contractors, access to the Site to enable City to exercise the rights and remedies under this Paragraph.

- C. 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 other dispute resolution costs) incurred or sustained by City in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and City shall be entitled to an appropriate decrease in the Contract Price.
- D. Contractor shall not be allowed an extension of the Contract Time because of any delay in the performance of the Work attributable to the exercise of City's rights and remedies under this Paragraph 11.09.

## **ARTICLE 12 – COMPLETION**

### *12.01 Contractor's Warranty of Title*

Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment will pass to City no later than the time of Final Acceptance and shall be free and clear of all Liens.

### *12.02 Partial Utilization*

- A. Prior to Final Acceptance of all the Work, City may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which City determines constitutes a separately functioning and usable part of the Work that can be used by City for its intended purpose without significant interference with Contractor's performance of the remainder of the Work. City at any time may notify Contractor in writing to permit City to use or occupy any such part of the Work which City determines to be ready for its intended use, subject to the following conditions:
  - 1. Contractor at any time may notify City in writing that Contractor considers any such part of the Work ready for its intended use.
  - 2. Within a reasonable time after notification as enumerated in Paragraph 14.05.A.1, City and Contractor shall make an inspection of that part of the Work to determine its status of completion. If City does not consider that part of the Work to be substantially complete, City will notify Contractor in writing giving the reasons therefor.
  - 3. Partial Utilization will not constitute Final Acceptance by City.

### *12.03 Final Inspection*

- A. Upon written notice from Contractor that the entire Work is complete in accordance with the Contract Documents:

1. within 10 days, City will schedule a Final Inspection with Contractor.
2. City will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 12.04 *Final Acceptance*

- A. Upon completion by Contractor to City's satisfaction, of any additional Work identified in the Final Inspection, City will issue to Contractor a letter of Final Acceptance upon the satisfaction of the following:
1. All documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.03;
  2. consent of the surety, if any, to Final Acceptance;
  3. a list of all pending or released Damage Claims against City that Contractor believes are unsettled; and
  4. affidavits of payments and complete and legally effective releases or waivers (satisfactory to City) of all Lien rights arising out of or Liens filed in connection with the Work.
  5. after all Damage Claims have been resolved:
    - a. directly by the Contractor or;
    - b. Contractor provides evidence that the Damage Claim has been reported to Contractor's insurance provider for resolution.
  6. Issuing Final Acceptance by the City shall not relieve the Contractor of any guarantees or other requirements of the Contract Documents which specifically continue thereafter.

### **ARTICLE 13 – SUSPENSION OF WORK**

#### 13.01 *City May Suspend Work*

- A. At any time and without cause, City may suspend the Work or any portion thereof by written notice to Contractor and which may fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. During temporary suspension of the Work covered by these Contract Documents, for any reason, the City will stop contract time on City participation projects.
- B. Should the Contractor not be able to complete a portion of the Project due to causes beyond the control of and without the fault or negligence of the Contractor, and should it be determined by mutual consent of the Contractor and City that a solution to allow construction to proceed is not

available within a reasonable period of time, Contractor may request an extension in Contract Time, directly attributable to any such suspension.

- C. If it should become necessary to suspend the Work for an indefinite period, the Contractor shall store all materials in such a manner that they will not obstruct or impede the public unnecessarily nor become damaged in any way, and he shall take every precaution to prevent damage or deterioration of the work performed; he shall provide suitable drainage about the work, and erect temporary structures where necessary.

## **ARTICLE 14 – MISCELLANEOUS**

### *14.01 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 to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
  - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.
- B. Business address changes must be promptly made in writing to the other party.
- C. Whenever the Contract Documents specifies giving notice by electronic means such electronic notice shall be deemed sufficient upon confirmation of receipt by the receiving party.

### *14.02 Computation of Times*

When any period of time is referred to in the Contract Documents 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 the next Working Day shall become the last day of the period.

### *14.03 Cumulative Remedies*

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 Documents. 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.

#### 14.04 *Survival of Obligations*

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

#### 14.05 *Headings*

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







**SECTION 01 25 00**  
**SUBSTITUTION PROCEDURES**

**PART 1 - GENERAL**

**1.1 SUMMARY**

A. Section Includes:

1. The procedure for requesting the approval of substitution of a product that is not equivalent to a product which is specified by descriptive or performance criteria or defined by reference to 1 or more of the following:
  - a. Name of manufacturer
  - b. Name of vendor
  - c. Trade name
  - d. Catalog number
2. Substitutions are not "or-equals".

B. Deviations from this City of Fort Worth Standard Specification

1. None.

C. Related Specification Sections include, but are not necessarily limited to:

1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
2. Division 1 – General Requirements

**1.2 PRICE AND PAYMENT PROCEDURES**

A. Measurement and Payment

1. Work associated with this Item is considered subsidiary to the various items bid. No separate payment will be allowed for this Item.

**1.3 REFERENCES [NOT USED]**

**1.4 ADMINISTRATIVE REQUIREMENTS**

A. Request for Substitution - General

1. Within 30 days after award of Contract (unless noted otherwise), the City will consider formal requests from Contractor for substitution of products in place of those specified.
2. Certain types of equipment and kinds of material are described in Specifications by means of references to names of manufacturers and vendors, trade names, or catalog numbers.
  - a. When this method of specifying is used, it is not intended to exclude from consideration other products bearing other manufacturer's or vendor's names, trade names, or catalog numbers, provided said products are "or-equals," as determined by City.
3. Other types of equipment and kinds of material may be acceptable substitutions under the following conditions:
  - a. Or-equals are unavailable due to strike, discontinued production of products meeting specified requirements, or other factors beyond control of Contractor;  
or,

- b. Contractor proposes a cost and/or time reduction incentive to the City.

## 1.5 SUBMITTALS

- A. See Request for Substitution Form (attached)
- B. Procedure for Requesting Substitution
  - 1. Substitution shall be considered only:
    - a. After award of Contract
    - b. Under the conditions stated herein
  - 2. Submit **3** copies of each written request for substitution, including:
    - a. Documentation
      - 1) Complete data substantiating compliance of proposed substitution with Contract Documents
      - 2) Data relating to changes in construction schedule, when a reduction is proposed
      - 3) Data relating to changes in cost
    - b. For products
      - 1) Product identification
        - a) Manufacturer's name
        - b) Telephone number and representative contact name
        - c) Specification Section or Drawing reference of originally specified product, including discrete name or tag number assigned to original product in the Contract Documents
      - 2) Manufacturer's literature clearly marked to show compliance of proposed product with Contract Documents
      - 3) Itemized comparison of original and proposed product addressing product characteristics including, but not necessarily limited to:
        - a) Size
        - b) Composition or materials of construction
        - c) Weight
        - d) Electrical or mechanical requirements
      - 4) Product experience
        - a) Location of past projects utilizing product
        - b) Name and telephone number of persons associated with referenced projects knowledgeable concerning proposed product
        - c) Available field data and reports associated with proposed product
      - 5) Samples
        - a) Provide at request of City.
        - b) Samples become the property of the City.
    - c. For construction methods:
      - 1) Detailed description of proposed method
      - 2) Illustration drawings
- C. Approval or Rejection
  - 1. Written approval or rejection of substitution given by the City
  - 2. City reserves the right to require proposed product to comply with color and pattern of specified product if necessary to secure design intent.
  - 3. In the event the substitution is approved, if a reduction in cost or time results, it will be documented by Change Order.



**EXHIBIT A  
REQUEST FOR SUBSTITUTION FORM:**

TO: \_\_\_\_\_  
PROJECT: \_\_\_\_\_ DATE: \_\_\_\_\_

We hereby submit for your consideration the following product instead of the specified item for the above project:

SECTION	PARAGRAPH	SPECIFIED ITEM
---------	-----------	----------------

Proposed Substitution: \_\_\_\_\_

Reason for Substitution: \_\_\_\_\_

Include complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation.

Fill in Blanks Below:

A. Will the undersigned contractor pay for changes to the building design, including engineering and detailing costs caused by the requested substitution?

B. \_\_\_\_\_  
What effect does substitution have on other trades?

C. \_\_\_\_\_  
Differences between proposed substitution and specified item?

D. \_\_\_\_\_  
Differences in product cost or product delivery time?

E. \_\_\_\_\_  
Manufacturer's guarantees of the proposed and specified items are:

\_\_\_\_\_ Equal \_\_\_\_\_ Better (explain on attachment)

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

Submitted By: \_\_\_\_\_ For Use by City

Signature \_\_\_\_\_ as noted \_\_\_\_\_ Recommended \_\_\_\_\_ Recommended

Firm \_\_\_\_\_ \_\_\_\_\_ Not recommended \_\_\_\_\_ Received late

Address \_\_\_\_\_ By \_\_\_\_\_

Date \_\_\_\_\_

Telephone \_\_\_\_\_ Remarks \_\_\_\_\_

\_\_\_\_\_

For Use by City:

\_\_\_\_\_ Approved \_\_\_\_\_ Rejected

City \_\_\_\_\_ Date \_\_\_\_\_















2. The Project title and number
  3. Contractor identification
  4. The names of:
    - a. Contractor
    - b. Supplier
    - c. Manufacturer
  5. Identification of the product, with the Specification Section number, page and paragraph(s)
  6. Field dimensions, clearly identified as such
  7. Relation to adjacent or critical features of the Work or materials
  8. Applicable standards, such as ASTM or Federal Specification numbers
  9. Identification by highlighting of deviations from Contract Documents
  10. Identification by highlighting of revisions on resubmittals
  11. An 8-inch x 3-inch blank space for Contractor and City stamps
- F. Shop Drawings
1. As specified in individual Work Sections includes, but is not necessarily limited to:
    - a. Custom-prepared data such as fabrication and erection/installation (working) drawings
    - b. Scheduled information
    - c. Setting diagrams
    - d. Actual shopwork manufacturing instructions
    - e. Custom templates
    - f. Special wiring diagrams
    - g. Coordination drawings
    - h. Individual system or equipment inspection and test reports including:
      - 1) Performance curves and certifications
    - i. As applicable to the Work
  2. Details
    - a. Relation of the various parts to the main members and lines of the structure
    - b. Where correct fabrication of the Work depends upon field measurements
      - 1) Provide such measurements and note on the drawings prior to submitting for approval.
- G. Product Data
1. For submittals of product data for products included on the City's Standard Product List, clearly identify each item selected for use on the Project.
  2. For submittals of product data for products not included on the City's Standard Product List, submittal data may include, but is not necessarily limited to:
    - a. Standard prepared data for manufactured products (sometimes referred to as catalog data)
      - 1) Such as the manufacturer's product specification and installation instructions
      - 2) Availability of colors and patterns
      - 3) Manufacturer's printed statements of compliances and applicability
      - 4) Roughing-in diagrams and templates
      - 5) Catalog cuts
      - 6) Product photographs





- 1) "EXCEPTIONS NOTED". This code is assigned when a confirmation of the notations and comments IS NOT required by the Contractor.
    - a) The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.
  - c. Code 3
    - 1) "EXCEPTIONS NOTED/RESUBMIT". This combination of codes is assigned when notations and comments are extensive enough to require a resubmittal of the package.
      - a) The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.
      - b) This resubmittal is to address all comments, omissions and non-conforming items that were noted.
      - c) Resubmittal is to be received by the City within 15 Calendar Days of the date of the City's transmittal requiring the resubmittal.
  - d. Code 4
    - 1) "NOT APPROVED" is assigned when the submittal does not meet the intent of the Contract Documents.
      - a) The Contractor must resubmit the entire package revised to bring the submittal into conformance.
      - b) It may be necessary to resubmit using a different manufacturer/vendor to meet the Contract Documents.
6. Resubmittals
- a. Handled in the same manner as first submittals
    - 1) Corrections other than requested by the City
    - 2) Marked with revision triangle or other similar method
      - a) At Contractor's risk if not marked
  - b. Submittals for each item will be reviewed no more than twice at the City's expense.
    - 1) All subsequent reviews will be performed at times convenient to the City and at the Contractor's expense, based on the City's or City Representative's then prevailing rates.
    - 2) Provide Contractor reimbursement to the City within 30 Calendar Days for all such fees invoiced by the City.
  - c. The need for more than 1 resubmission or any other delay in obtaining City's review of submittals, will not entitle the Contractor to an extension of Contract Time.
7. Partial Submittals
- a. City reserves the right to not review submittals deemed partial, at the City's discretion.
  - b. Submittals deemed by the City to be not complete will be returned to the Contractor, and will be considered "Not Approved" until resubmitted.
  - c. The City may at its option provide a list or mark the submittal directing the Contractor to the areas that are incomplete.
8. If the Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, then written notice must be provided thereof to the Developer at least 7 Calendar Days prior to release for manufacture.









- 1 2. Coordinate any event that will require connecting to or the operation of an existing  
2 City water line system with the City's representative.
- 3 a. Coordination shall be in accordance with Section 33 12 25.
- 4 b. If needed, obtain a hydrant water meter from the Water Department for use  
5 during the life of named project.
- 6 c. In the event that a water valve on an existing live system be turned off and on  
7 to accommodate the construction of the project is required, coordinate this  
8 activity through the appropriate City representative.
- 9 1) Do not operate water line valves of existing water system.
- 10 a) Failure to comply will render the Contractor in violation of Texas Penal  
11 Code Title 7, Chapter 28.03 (Criminal Mischief) and the Contractor  
12 will be prosecuted to the full extent of the law.
- 13 b) In addition, the Contractor will assume all liabilities and  
14 responsibilities as a result of these actions.

15 F. Public Notification Prior to Beginning Construction

- 16 1. Prior to beginning construction on any block in the project, on a block by block  
17 basis, prepare and deliver a notice or flyer of the pending construction to the front  
18 door of each residence or business that will be impacted by construction. The notice  
19 shall be prepared as follows:
- 20 a. Post notice or flyer 7 days prior to beginning any construction activity on each  
21 block in the project area.
- 22 1) Prepare flyer on the Contractor's letterhead and include the following  
23 information:
- 24 a) Name of Project
- 25 b) City Project No (CPN)
- 26 c) Scope of Project (i.e. type of construction activity)
- 27 d) Actual construction duration within the block
- 28 e) Name of the contractor's foreman and phone number
- 29 f) Name of the City's inspector and phone number
- 30 g) City's after-hours phone number
- 31 2) A sample of the 'pre-construction notification' flyer is attached as Exhibit  
32 A.
- 33 3) Submit schedule showing the construction start and finish time for each  
34 block of the project to the inspector.
- 35 4) Deliver flyer to the City Inspector for review prior to distribution.
- 36 b. No construction will be allowed to begin on any block until the flyer is  
37 delivered to all residents of the block.

38 G. Public Notification of Temporary Water Service Interruption during Construction

- 39 1. In the event it becomes necessary to temporarily shut down water service to  
40 residents or businesses during construction, prepare and deliver a notice or flyer of  
41 the pending interruption to the front door of each affected resident.
- 42 2. Prepared notice as follows:
- 43 a. The notification or flyer shall be posted 24 hours prior to the temporary  
44 interruption.
- 45 b. Prepare flyer on the contractor's letterhead and include the following  
46 information:
- 47 1) Name of the project
- 48 2) City Project Number





**EXHIBIT A**

(To be printed on Contractor's Letterhead)

Date: \_\_\_\_\_

CPN No.: \_\_\_\_\_

Project Name:

Mapsco Location:

Limits of Construction:

# NOTICE OF CONSTRUCTION

**THIS IS TO INFORM YOU THAT UNDER A CONTRACT WITH THE CITY OF FORT WORTH, OUR COMPANY WILL WORK ON UTILITY LINES ON OR AROUND YOUR PROPERTY.**

**CONSTRUCTION WILL BEGIN APPROXIMATELY SEVEN DAYS FROM THE DATE OF THIS NOTICE.**

**IF YOU HAVE QUESTIONS ABOUT ACCESS, SECURITY, SAFETY OR ANY OTHER ISSUE, PLEASE CALL:**

**Mr. <CONTRACTOR'S SUPERINTENDENT> AT <TELEPHONE NO.>**

**OR**

**Mr. <CITY INSPECTOR> AT < TELEPHONE NO.>**

**AFTER 4:30 PM OR ON WEEKENDS, PLEASE CALL (817) 392 8306**

**PLEASE KEEP THIS FLYER HANDY WHEN YOU CALL**

1  
2

EXHIBIT B



Date: \_\_\_\_\_

DOE NO. XXXX  
Project Name:

**NOTICE OF TEMPORARY WATER SERVICE  
INTERRUPTION**

DUE TO UTILITY IMPROVEMENTS IN YOUR NEIGHBORHOOD, YOUR  
WATER SERVICE WILL BE INTERRUPTED ON \_\_\_\_\_  
BETWEEN THE HOURS OF \_\_\_\_\_ AND \_\_\_\_\_.

IF YOU HAVE QUESTIONS ABOUT THIS SHUT-OUT, PLEASE CALL:

MR. \_\_\_\_\_ AT \_\_\_\_\_  
(CONTRACTORS SUPERINTENDENT) (TELEPHONE NUMBER)

OR

MR. \_\_\_\_\_ AT \_\_\_\_\_  
(CITY INSPECTOR) (TELEPHONE NUMBER)

THIS INCONVENIENCE WILL BE AS SHORT AS POSSIBLE.

THANK YOU,

\_\_\_\_\_, CONTRACTOR

3  
4





**SECTION 01 50 00**  
**TEMPORARY FACILITIES AND CONTROLS**

**PART 1 - GENERAL**

**1.1 SUMMARY**

A. Section Includes:

1. Provide temporary facilities and controls needed for the Work including, but not necessarily limited to:
  - a. Temporary utilities
  - b. Sanitary facilities
  - c. Storage Sheds and Buildings
  - d. Dust control
  - e. Temporary fencing of the construction site

B. Deviations from this City of Fort Worth Standard Specification

1. None.

C. Related Specification Sections include, but are not necessarily limited to:

1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
2. Division 1 – General Requirements

**1.2 PRICE AND PAYMENT PROCEDURES**

A. Measurement and Payment

1. Work associated with this Item is considered subsidiary to the various Items bid. No separate payment will be allowed for this Item.

**1.3 REFERENCES [NOT USED]**

**1.4 ADMINISTRATIVE REQUIREMENTS**

A. Temporary Utilities

1. Obtaining Temporary Service
  - a. Make arrangements with utility service companies for temporary services.
  - b. Abide by rules and regulations of utility service companies or authorities having jurisdiction.
  - c. Be responsible for utility service costs until Work is approved for Final Acceptance.
    - 1) Included are fuel, power, light, heat and other utility services necessary for execution, completion, testing and initial operation of Work.
2. Water
  - a. Contractor to provide water required for and in connection with Work to be performed and for specified tests of piping, equipment, devices or other use as required for the completion of the Work.
  - b. Provide and maintain adequate supply of potable water for domestic consumption by Contractor personnel and City's Project Representatives.
  - c. Coordination
    - 1) Contact City 1 week before water for construction is desired

- d. Contractor Payment for Construction Water
    - 1) Obtain construction water meter from City for payment as billed by City's established rates.
  3. Electricity and Lighting
    - a. Provide and pay for electric powered service as required for Work, including testing of Work.
      - 1) Provide power for lighting, operation of equipment, or other use.
    - b. Electric power service includes temporary power service or generator to maintain operations during scheduled shutdown.
  4. Telephone
    - a. Provide emergency telephone service at Site for use by Contractor personnel and others performing work or furnishing services at Site.
  5. Temporary Heat and Ventilation
    - a. Provide temporary heat as necessary for protection or completion of Work.
    - b. Provide temporary heat and ventilation to assure safe working conditions.
- B. Sanitary Facilities
1. Provide and maintain sanitary facilities for persons on Site.
    - a. Comply with regulations of State and local departments of health.
  2. Enforce use of sanitary facilities by construction personnel at job site.
    - a. Enclose and anchor sanitary facilities.
    - b. No discharge will be allowed from these facilities.
    - c. Collect and store sewage and waste so as not to cause nuisance or health problem.
    - d. Haul sewage and waste off-site at no less than weekly intervals and properly dispose in accordance with applicable regulation.
  3. Locate facilities near Work Site and keep clean and maintained throughout Project.
  4. Remove facilities at completion of Project
- C. Storage Sheds and Buildings
1. Provide adequately ventilated, watertight, weatherproof storage facilities with floor above ground level for materials and equipment susceptible to weather damage.
  2. Storage of materials not susceptible to weather damage may be on blocks off ground.
  3. Store materials in a neat and orderly manner.
    - a. Place materials and equipment to permit easy access for identification, inspection and inventory.
  4. Equip building with lockable doors and lighting, and provide electrical service for equipment space heaters and heating or ventilation as necessary to provide storage environments acceptable to specified manufacturers.
  5. Fill and grade site for temporary structures to provide drainage away from temporary and existing buildings.
  6. Remove building from site prior to Final Acceptance.
- D. Temporary Fencing
1. Provide and maintain for the duration or construction when required in contract documents
- E. Dust Control

1. Contractor is responsible for maintaining dust control through the duration of the project.
  - a. Contractor remains on-call at all times
  - b. Must respond in a timely manner
- F. Temporary Protection of Construction
  1. Contractor or subcontractors are responsible for protecting Work from damage due to weather.

**1.5 SUBMITTALS [NOT USED]**

**1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**

**1.7 CLOSEOUT SUBMITTALS [NOT USED]**

**1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**

**1.9 QUALITY ASSURANCE [NOT USED]**

**1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**

**1.11 FIELD [SITE] CONDITIONS [NOT USED]**

**1.12 WARRANTY [NOT USED]**

**PART 2 - PRODUCTS [NOT USED]**

**PART 3 - EXECUTION [NOT USED]**

**3.1 INSTALLERS [NOT USED]**

**3.2 EXAMINATION [NOT USED]**

**3.3 PREPARATION [NOT USED]**

**3.4 INSTALLATION**

A. Temporary Facilities

1. Maintain all temporary facilities for duration of construction activities as needed.

**3.5 [REPAIR] / [RESTORATION]**

**3.6 RE-INSTALLATION**

**3.7 FIELD [or] SITE QUALITY CONTROL [NOT USED]**

**3.8 SYSTEM STARTUP [NOT USED]**

**3.9 ADJUSTING [NOT USED]**

**3.10 CLEANING [NOT USED]**

**3.11 CLOSEOUT ACTIVITIES**

A. Temporary Facilities

1. Remove all temporary facilities and restore area after completion of the Work, to a condition equal to or better than prior to start of Work.

**3.12 PROTECTION [NOT USED]**

**3.13 MAINTENANCE [NOT USED]**

**3.14 ATTACHMENTS [NOT USED]**

**END OF SECTION**

Revision Log		
DATE	NAME	SUMMARY OF CHANGE

**SECTION 01 55 26**  
**STREET USE PERMIT AND MODIFICATIONS TO TRAFFIC CONTROL**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section Includes:
  - 1. Administrative procedures for:
    - a. Street Use Permit
    - b. Modification of approved traffic control
    - c. Removal of Street Signs
- B. Deviations from this City of Fort Worth Standard Specification
  - 1. None.
- C. Related Specification Sections include, but are not necessarily limited to:
  - 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
  - 2. Division 1 – General Requirements
  - 3. Section 34 71 13 – Traffic Control

**1.2 PRICE AND PAYMENT PROCEDURES**

- A. Measurement and Payment
  - 1. Work associated with this Item is considered subsidiary to the various Items bid. No separate payment will be allowed for this Item.

**1.3 REFERENCES**

- A. Reference Standards
  - 1. Reference standards cited in this specification refer to the current reference standard published at the time of the latest revision date logged at the end of this specification, unless a date is specifically cited.
  - 2. Texas Manual on Uniform Traffic Control Devices (TMUTCD).

**1.4 ADMINISTRATIVE REQUIREMENTS**

- A. Traffic Control
  - 1. General
    - a. When traffic control plans are included in the Drawings, provide Traffic Control in accordance with Drawings and Section 34 71 13.
    - b. When traffic control plans are not included in the Drawings, prepare traffic control plans in accordance with Section 34 71 13 and submit to City for review.
      - 1) Allow minimum 10 working days for review of proposed Traffic Control.
- B. Street Use Permit
  - 1. Prior to installation of Traffic Control, a City Street Use Permit is required.
    - a. To obtain Street Use Permit, submit Traffic Control Plans to City Transportation and Public Works Department.

- 1) Allow a minimum of 5 working days for permit review.
- 2) Contractor's responsibility to coordinate review of Traffic Control plans for Street Use Permit, such that construction is not delayed.

C. Modification to Approved Traffic Control

1. Prior to installation traffic control:
  - a. Submit revised traffic control plans to City Department Transportation and Public Works Department.
    - 1) Revise Traffic Control plans in accordance with Section 34 71 13.
    - 2) Allow minimum 5 working days for review of revised Traffic Control.
    - 3) It is the Contractor's responsibility to coordinate review of Traffic Control plans for Street Use Permit, such that construction is not delayed.

D. Removal of Street Sign

1. If it is determined that a street sign must be removed for construction, then contact City Transportation and Public Works Department, Signs and Markings Division to remove the sign.

E. Temporary Signage

1. In the case of regulatory signs, replace permanent sign with temporary sign meeting requirements of the latest edition of the Texas Manual on Uniform Traffic Control Devices (MUTCD).
2. Install temporary sign before the removal of permanent sign.
3. When construction is complete, to the extent that the permanent sign can be reinstalled, contact the City Transportation and Public Works Department, Signs and Markings Division, to reinstall the permanent sign.

F. Traffic Control Standards

1. Traffic Control Standards can be found on the City's Buzzsaw website.

**1.5 SUBMITTALS [NOT USED]**

**1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**

**1.7 CLOSEOUT SUBMITTALS [NOT USED]**

**1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**

**1.9 QUALITY ASSURANCE [NOT USED]**

**1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**

**1.11 FIELD [SITE] CONDITIONS [NOT USED]**

**1.12 WARRANTY [NOT USED]**

**PART 2 - PRODUCTS [NOT USED]**

**PART 3 - EXECUTION [NOT USED]**

**END OF SECTION**

Revision Log		
DATE	NAME	SUMMARY OF CHANGE

**SECTION 01 57 13**  
**STORM WATER POLLUTION PREVENTION**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section Includes:
  - 1. Procedures for Storm Water Pollution Prevention Plans
- B. Deviations from this City of Fort Worth Standard Specification
  - 1. None.
- C. Related Specification Sections include, but are not necessarily limited to:
  - 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
  - 2. Division 1 – General Requirements
  - 3. Section 31 25 00 – Erosion and Sediment Control

**1.2 PRICE AND PAYMENT PROCEDURES**

- A. Measurement and Payment
  - 1. Construction Activities resulting in less than 1 acre of disturbance
    - a. Work associated with this Item is considered subsidiary to the various Items bid. No separate payment will be allowed for this Item.
  - 2. Construction Activities resulting in greater than 1 acre of disturbance
    - a. Measurement and Payment shall be in accordance with Section 31 25 00.

**1.3 REFERENCES**

- A. Abbreviations and Acronyms
  - 1. Notice of Intent: NOI
  - 2. Notice of Termination: NOT
  - 3. Storm Water Pollution Prevention Plan: SWPPP
  - 4. Texas Commission on Environmental Quality: TCEQ
  - 5. Notice of Change: NOC
- A. Reference Standards
  - 1. Reference standards cited in this Specification refer to the current reference standard published at the time of the latest revision date logged at the end of this Specification, unless a date is specifically cited.
  - 2. Integrated Storm Management (iSWM) Technical Manual for Construction Controls

**1.4 ADMINISTRATIVE REQUIREMENTS**

- A. General
  - 1. Contractor is responsible for resolution and payment of any fines issued associated with compliance to Stormwater Pollution Prevention Plan.

- B. Construction Activities resulting in:
1. Less than 1 acre of disturbance
    - a. Provide erosion and sediment control in accordance with Section 31 25 00 and Drawings.
  2. 1 to less than 5 acres of disturbance
    - a. Texas Pollutant Discharge Elimination System (TPDES) General Construction Permit is required
    - b. Complete SWPPP in accordance with TCEQ requirements
      - 1) TCEQ Small Construction Site Notice Required under general permit TXR150000
        - a) Sign and post at job site
        - b) Prior to Preconstruction Meeting, send 1 copy to City Department of Transportation and Public Works, Environmental Division, (817) 392-6088.
      - 2) Provide erosion and sediment control in accordance with:
        - a) Section 31 25 00
        - b) The Drawings
        - c) TXR150000 General Permit
        - d) SWPPP
        - e) TCEQ requirements
  3. 5 acres or more of Disturbance
    - a. Texas Pollutant Discharge Elimination System (TPDES) General Construction Permit is required
    - b. Complete SWPPP in accordance with TCEQ requirements
      - 1) Prepare a TCEQ NOI form and submit to TCEQ along with required fee
        - a) Sign and post at job site
        - b) Send copy to City Department of Transportation and Public Works, Environmental Division, (817) 392-6088.
      - 2) TCEQ Notice of Change required if making changes or updates to NOI
      - 3) Provide erosion and sediment control in accordance with:
        - a) Section 31 25 00
        - b) The Drawings
        - c) TXR150000 General Permit
        - d) SWPPP
        - e) TCEQ requirements
      - 4) Once the project has been completed and all the closeout requirements of TCEQ have been met a TCEQ Notice of Termination can be submitted.
        - a) Send copy to City Department of Transportation and Public Works, Environmental Division, (817) 392-6088.

## 1.5 SUBMITTALS

### A. SWPPP

1. Submit in accordance with Section 01 33 00, except as stated herein.
  - a. Prior to the Preconstruction Meeting, submit a draft copy of SWPPP to the City as follows:
    - 1) 1 copy to the City Project Manager
      - a) City Project Manager will forward to the City Department of Transportation and Public Works, Environmental Division for review

**B. Modified SWPPP**

1. If the SWPPP is revised during construction, resubmit modified SWPPP to the City in accordance with Section 01 33 00.

**1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**

**1.7 CLOSEOUT SUBMITTALS [NOT USED]**

**1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**

**1.9 QUALITY ASSURANCE [NOT USED]**

**1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**

**1.11 FIELD [SITE] CONDITIONS [NOT USED]**

**1.12 WARRANTY [NOT USED]**

**PART 2 - PRODUCTS [NOT USED]**

**PART 3 - EXECUTION [NOT USED]**

**END OF SECTION**

Revision Log		
DATE	NAME	SUMMARY OF CHANGE





















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**SECTION 01 71 23**  
**CONSTRUCTION STAKING AND SURVEY**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section Includes:
  - 1. Requirements for construction staking and construction survey
- B. Deviations from this City of Fort Worth Standard Specification
  - 1. **See Changes (Highlighted in Yellow).**
- C. Related Specification Sections include, but are not necessarily limited to:
  - 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
  - 2. Division 1 – General Requirements

**1.2 PRICE AND PAYMENT PROCEDURES**

- A. Measurement and Payment
  - 1. Construction Staking
    - a. Measurement
      - 1) This Item is considered subsidiary to the various Items bid.
    - b. Payment
      - 1) The work performed and the materials furnished in accordance with this Item are subsidiary to the various Items bid and no other compensation will be allowed.
  - 2. Construction Survey
    - a. Measurement
      - 1) This Item is considered subsidiary to the various Items bid.
    - b. Payment
      - 1) The work performed and the materials furnished in accordance with this Item are subsidiary to the various Items bid and no other compensation will be allowed.
  - 3. As-Built Survey
    - a. Measurement
      - 1) This Item is considered subsidiary to the various Items bid.
    - b. Payment
      - 1) The work performed and the materials furnished in accordance with this Item are subsidiary to the various Items bid and no other compensation will be allowed.

1 **1.3 REFERENCES**

2 A. Definitions

- 3 1. Construction Survey - The survey measurements made prior to or while construction  
4 is in progress to control elevation, horizontal position, dimensions and configuration  
5 of structures/improvements included in the Project Drawings.
- 6 2. As-built Survey –The measurements made after the construction of the improvement  
7 features are complete to provide position coordinates for the features of a project.
- 8 3. Construction Staking – The placement of stakes and markings to provide offsets and  
9 elevations to cut and fill in order to locate on the ground the designed  
10 structures/improvements included in the Project Drawings. Construction staking shall  
11 include staking easements and/or right of way if indicated on the plans.
- 12 4. Survey “Field Checks” – Measurements made after construction staking is completed  
13 and before construction work begins to ensure that structures marked on the ground  
14 are accurately located per Project Drawings.

15 B. Technical References

- 16 1. City of Fort Worth – Construction Staking Standards (available on City’s Buzzsaw  
17 website) – 01 71 23.16.01\_ Attachment A\_ Survey Staking Standards
- 18 2. City of Fort Worth - Standard Survey Data Collector Library (fxl) files (available on  
19 City’s Buzzsaw website).
- 20 3. Texas Department of Transportation (TxDOT) Survey Manual, latest revision
- 21 4. Texas Society of Professional Land Surveyors (TSPS), Manual of Practice for Land  
22 Surveying in the State of Texas, Category 5

23  
24 **1.4 ADMINISTRATIVE REQUIREMENTS**

25 **A. The Contractor’s selection of a surveyor must comply with Texas Government Code**  
26 **2254 (qualifications based selection) for this project.**

27 **1.5 SUBMITTALS**

- 28 A. Submittals, if required, shall be in accordance with Section 01 33 00.
- 29 B. All submittals shall be received and reviewed by the City prior to delivery of work.

30 **1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS**

31 A. Field Quality Control Submittals

- 32 1. Documentation verifying accuracy of field engineering work, including coordinate  
33 conversions if plans do not indicate grid or ground coordinates.
- 34 2. Submit “Cut-Sheets” conforming to the standard template provided by the City (refer  
35 to 01 71 23.16.01 – Attachment A – Survey Staking Standards).

36  
37 **1.7 CLOSEOUT SUBMITTALS**

38 B. As-built Redline Drawing Submittal



- 6) The Contractor remains fully responsible for the accuracy of the work and correction of it, as required.
- 7) Monitor line and grade continuously during construction.
- 8) Record deviation with respect to design line and grade once at each pipe joint and submit daily records to the City.
- 9) If the installation does not meet the specified tolerances (as outlined in Sections 33 05 23 and/or 33 05 24), immediately notify the City and correct the installation in accordance with the Contract Documents.

C. As-Built Survey

1. Required As-Built Survey will be performed by the Contractor.
2. Coordination
  - a. Contractor is to coordinate with City to confirm which features require as-built surveying.
  - b. It is the Contractor's responsibility to coordinate the as-built survey and required measurements for items that are to be buried such that construction activities are not delayed or negatively impacted.
  - c. For sewer mains and water mains 12" and under in diameter, it is acceptable to physically measure depth and mark the location during the progress of construction and take as-built survey after the facility has been buried. The Contractor is responsible for the quality control needed to ensure accuracy.
3. General
  - a. The Contractor shall provide as-built survey including the elevation and location (and provide written documentation to the City) of construction features **during the progress of the construction** including the following:
    - 1) Water Lines
      - a) Top of pipe elevations and coordinates for waterlines at the following locations:
        - (1) Minimum every 250 linear feet, including
        - (2) Horizontal and vertical points of inflection, curvature, etc.
        - (3) Fire line tee
        - (4) Plugs, stub-outs, dead-end lines
        - (5) Casing pipe (each end) and all buried fittings
    - 2) Sanitary Sewer
      - a) Top of pipe elevations and coordinates for force mains and siphon sanitary sewer lines (non-gravity facilities) at the following locations:
        - (1) Minimum every 250 linear feet and any buried fittings
        - (2) Horizontal and vertical points of inflection, curvature, etc.
    - 3) Stormwater – Not Applicable
  - b. The Contractor shall provide as-built survey including the elevation and location (and provide written documentation to the City) of construction features **after the construction is completed** including the following:
    - 1) Manholes
      - a) Rim and flowline elevations and coordinates for each manhole
    - 2) Water Lines
      - a) Cathodic protection test stations
      - b) Sampling stations
      - c) Meter boxes/vaults (All sizes)

- d) Fire hydrants
- e) Valves (gate, butterfly, etc.)
- f) Air Release valves (Manhole rim and vent pipe)
- g) Blow off valves (Manhole rim and valve lid)
- h) Pressure plane valves
- i) Underground Vaults
  - (1) Rim and flowline elevations and coordinates for each Underground Vault.
- 3) Sanitary Sewer
  - a) Cleanouts
    - (1) Rim and flowline elevations and coordinates for each
  - b) Manholes and Junction Structures
    - (1) Rim and flowline elevations and coordinates for each manhole and junction structure.
- 4) Stormwater – Not Applicable

## 1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]

## 1.11 FIELD [SITE] CONDITIONS [NOT USED]

## 1.12 WARRANTY

## PART 2 - PRODUCTS

- A. A construction survey will produce, but will not be limited to:
  - 1. Recovery of relevant control points, points of curvature and points of intersection.
  - 2. Establish temporary horizontal and vertical control elevations (benchmarks) sufficiently permanent and located in a manner to be used throughout construction.
  - 3. The location of planned facilities, easements and improvements.
    - a. Establishing final line and grade stakes for piers, floors, grade beams, parking areas, utilities, streets, highways, tunnels, and other construction.
    - b. A record of revisions or corrections noted in an orderly manner for reference.
    - c. A drawing, when required by the client, indicating the horizontal and vertical location of facilities, easements and improvements, as built.
  - 4. Cut sheets shall be provided to the City inspector and Survey Superintendent for all construction staking projects. These cut sheets shall be on the standard city template which can be obtained from the Survey Superintendent (817-392-7925).
  - 5. Digital survey files in the following formats shall be acceptable:
    - a. AutoCAD (.dwg)
    - b. ESRI Shapefile (.shp)
    - c. CSV file (.csv), formatted with X and Y coordinates in separate columns (use standard templates, if available)
  - 6. Survey files shall include vertical and horizontal data tied to original project control and benchmarks, and shall include feature descriptions

## PART 3 - EXECUTION

### 3.1 INSTALLERS

1 A. Tolerances:

- 2 1. The staked location of any improvement or facility should be as accurate as practical  
3 and necessary. The degree of precision required is dependent on many factors all of  
4 which must remain judgmental. The tolerances listed hereafter are based on  
5 generalities and, under certain circumstances, shall yield to specific requirements.  
6 The surveyor shall assess any situation by review of the overall plans and through  
7 consultation with responsible parties as to the need for specific tolerances.  
8 a. Earthwork: Grades for earthwork or rough cut should not exceed 0.1 ft. vertical  
9 tolerance. Horizontal alignment for earthwork and rough cut should not exceed  
10 1.0 ft. tolerance.  
11 b. Horizontal alignment on a structure shall be within .0.1 ft tolerance.  
12 c. Paving or concrete for streets, curbs, gutters, parking areas, drives, alleys and  
13 walkways shall be located within the confines of the site boundaries and,  
14 occasionally, along a boundary or any other restrictive line. Away from any  
15 restrictive line, these facilities should be staked with an accuracy producing no  
16 more than 0.05ft. tolerance from their specified locations.  
17 d. Underground and overhead utilities, such as sewers, gas, water, telephone and  
18 electric lines, shall be located horizontally within their prescribed areas or  
19 easements. Within assigned areas, these utilities should be staked with an  
20 accuracy producing no more than 0.1 ft tolerance from a specified location.  
21 e. The accuracy required for the vertical location of utilities varies widely. Many  
22 underground utilities require only a minimum cover and a tolerance of 0.1 ft.  
23 should be maintained. Underground and overhead utilities on planned profile, but  
24 not depending on gravity flow for performance, should not exceed 0.1 ft.  
25 tolerance.

26 B. Surveying instruments shall be kept in close adjustment according to manufacturer's  
27 specifications or in compliance to standards. The City reserves the right to request a  
28 calibration report at any time and recommends regular maintenance schedule be performed  
29 by a certified technician every 6 months.

- 30 1. Field measurements of angles and distances shall be done in such fashion as to satisfy  
31 the closures and tolerances expressed in Part 3.1.A.  
32 2. Vertical locations shall be established from a pre-established benchmark and checked  
33 by closing to a different bench mark on the same datum.  
34 3. Construction survey field work shall correspond to the client's plans. Irregularities or  
35 conflicts found shall be reported promptly to the City.  
36 4. Revisions, corrections and other pertinent data shall be logged for future reference.

37  
38 **3.2 EXAMINATION [NOT USED]**

39 **3.3 PREPARATION [NOT USED]**

40 **3.4 APPLICATION**

41 **3.5 REPAIR / RESTORATION**

- 42 A. If the Contractor's work damages or destroys one or more of the control  
43 monuments/points set by the **City or Developer's Project Representative**, the monuments  
44 shall be adequately referenced for expedient restoration.

1. Notify **City or Developer's Project Representative** if any control data needs to be restored or replaced due to damage caused during construction operations.
  - a. Contractor shall perform replacements and/or restorations.
  - b. The **City or Developer's Project Representative** may require at any time a survey "Field Check" of any monument or benchmarks that are set be verified by the **City surveyors or Developer's Project Representative** before further associated work can move forward.

**3.6 RE-INSTALLATION [NOT USED]**

**3.7 FIELD [OR] SITE QUALITY CONTROL**

- A. It is the Contractor's responsibility to maintain all stakes and control data placed by the **City or Developer's Project Representative** in accordance with this Specification. This includes easements and right of way, if noted on the plans.
- B. Do not change or relocate stakes or control data without approval from the City.

**3.8 SYSTEM STARTUP**

- A. Survey Checks
  1. The City reserves the right to perform a Survey Check at any time deemed necessary.
  2. Checks by City personnel or 3<sup>rd</sup> party contracted surveyor are not intended to relieve the contractor of his/her responsibility for accuracy.

**3.9 ADJUSTING [NOT USED]**

**3.10 CLEANING [NOT USED]**

**3.11 CLOSEOUT ACTIVITIES [NOT USED]**

**3.12 PROTECTION [NOT USED]**

**3.13 MAINTENANCE [NOT USED]**

**3.14 ATTACHMENTS [NOT USED]**

**END OF SECTION**

Revision Log		
DATE	NAME	SUMMARY OF CHANGE
8/31/2012	D. Johnson	
8/31/2017	M. Owen	Added instruction and modified measurement & payment under 1.2; added definitions and references under 1.3; modified 1.6; added 1.7 closeout submittal requirements; modified 1.9 Quality Assurance; added PART 2 – PRODUCTS ; Added 3.1 Installers; added 3.5 Repair/Restoration; and added 3.8 System Startup.
2/14/2018	M Owen	Removed "blue text"; revised measurement and payment sections for Construction Staking and As-Built Survey; added reference to selection compliance with TGC 2254; revised action and Closeout submittal requirements; added acceptable depth measurement criteria; revised list of items requiring as-built survey "during" and

		"after" construction; and revised acceptable digital survey file format
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2. Preservation
  - a. Considering the Contract completion time, the probable number of occasions upon which the job set must be taken out for new entries and for examination, and the conditions under which these activities will be performed, devise a suitable method for protecting the job set.
  - b. Do not use the job set for any purpose except entry of new data and for review by the City, until start of transfer of data to final Project Record Documents.
  - c. Maintain the job set at the site of work.
3. Coordination with Construction Survey
  - a. At a minimum clearly mark any deviations from Contract Documents associated with installation of the infrastructure.
4. Making entries on Drawings
  - a. Record any deviations from Contract Documents.
  - b. Use an erasable colored pencil (not ink or indelible pencil), clearly describe the change by graphic line and note as required.
  - c. Date all entries.
  - d. Call attention to the entry by a "cloud" drawn around the area or areas affected.
  - e. In the event of overlapping changes, use different colors for the overlapping changes.
5. Conversion of schematic layouts
  - a. In some cases on the Drawings, arrangements of conduits, circuits, piping, ducts, and similar items, are shown schematically and are not intended to portray precise physical layout.
    - 1) Final physical arrangement is determined by the Contractor, subject to the City's approval.
    - 2) However, design of future modifications of the facility may require accurate information as to the final physical layout of items which are shown only schematically on the Drawings.
  - b. Show on the job set of Record Drawings, by dimension accurate to within 1 inch, the centerline of each run of items.
    - 1) Final physical arrangement is determined by the Contractor, subject to the City's approval.
    - 2) Show, by symbol or note, the vertical location of the Item ("under slab", "in ceiling plenum", "exposed", and the like).
    - 3) Make all identification sufficiently descriptive that it may be related reliably to the Specifications.
  - c. The City may waive the requirements for conversion of schematic layouts where, in the City's judgment, conversion serves no useful purpose. However, do not rely upon waivers being issued except as specifically issued in writing by the City.

## B. Final Project Record Documents

1. Transfer of data to Drawings
  - a. Carefully transfer change data shown on the job set of Record Drawings to the corresponding final documents, coordinating the changes as required.
  - b. Clearly indicate at each affected detail and other Drawing a full description of changes made during construction, and the actual location of items.
  - c. Call attention to each entry by drawing a "cloud" around the area or areas affected.



## **APPENDIX**

GC-4.02 Subsurface and Physical Conditions

GR-01 60 00 Product Requirements

## **GC-4.02 Subsurface and Physical Conditions**

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LINestyle LEGEND

ELECTRIC - E1 - ONCOR	OVERHEAD ELECTRIC - OHE1 (C) - ONCOR
ELECTRIC - E1 (C) - ONCOR	OVERHEAD CABLE TV - OHCATV1 (C) - SPECTRUM
ELECTRIC - E1 (D) - ONCOR	OVERHEAD TELEPHONE - OHT1 (C) - AT&T
ELECTRIC - E2 - CITY OF FORT WORTH	OVERHEAD FIBER OPTIC - OHFO1 (C) - AT&T
ELECTRIC - E2 (C) - CITY OF FORT WORTH	GAS - G1 - ATMOS
ELECTRIC - E2 (D) - CITY OF FORT WORTH	GAS - G1 (C) - ATMOS
ELECTRIC - E3 - PRIVATE	GAS - G1 (D) - ATMOS
ELECTRIC - E3 (C) - PRIVATE	WATER - W1 - CITY OF FORT WORTH
ELECTRIC - E3 (D) - PRIVATE	WATER - W1 (C) - CITY OF FORT WORTH
CABLE TV - CATV1 - SPECTRUM	WATER - W1 (D) - CITY OF FORT WORTH
CABLE TV - CATV1 (C) - SPECTRUM	WATER - W2 - PRIVATE
CABLE TV - CATV1 (D) - SPECTRUM	WATER - W2 (C) - PRIVATE
FIBER OPTIC - F01 - AT&T	WATER - W2 (D) - PRIVATE
FIBER OPTIC - F01 (C) - AT&T	WASTEWATER - WW1 - CITY OF FORT WORTH
FIBER OPTIC - F01 (D) - AT&T	WASTEWATER - WW1 (C) - CITY OF FORT WORTH
FIBER OPTIC - F02 - CENTURYLINK	WASTEWATER - WW1 (D) - CITY OF FORT WORTH
FIBER OPTIC - F02 (C) - CENTURYLINK	WASTEWATER - WW2 - PRIVATE
FIBER OPTIC - F02 (D) - CENTURYLINK	WASTEWATER - WW2 (C) - PRIVATE
FIBER OPTIC - F03 - SPECTRUM	WASTEWATER - WW2 (D) - PRIVATE
FIBER OPTIC - F03 (C) - SPECTRUM	STORMWATER - STM1 - CITY OF FORT WORTH
FIBER OPTIC - F03 (D) - SPECTRUM	STORMWATER - STM1 (C) - CITY OF FORT WORTH
FIBER OPTIC - F04 - PRIVATE	STORMWATER - STM1 (D) - CITY OF FORT WORTH
FIBER OPTIC - F04 (C) - PRIVATE	STORMWATER - STM2 - PRIVATE
FIBER OPTIC - F04 (D) - PRIVATE	STORMWATER - STM2 (C) - PRIVATE
TELEPHONE - T1 - AT&T	STORMWATER - STM2 (D) - PRIVATE
TELEPHONE - T1 (C) - AT&T	IRRIGATION - PRIVATE
TELEPHONE - T1 (D) - AT&T	

SYMBOL LEGEND

W	GENERIC WATER FEATURE	□	AIR RELEASE VALVE
○	WATER VENT PIPE	⊗	WATER MANHOLE
⊙	FIRE HYDRANT	⊗	WATER METER
WB	WATER VALVE BOX	⊗	WATER VALVE
WTS	CATHODIC PROTECTION	⊗	FIRE ALARM SPRINKLER
⊙	PHOTO TAKEN HERE	J	F.D.C. CONNECTIONS
⊗	WASTEWATER MANHOLE	E	ELECTRIC PEDESTAL
○	SEWER CLEAN OUT	⊗	ELECTRIC MANHOLE
⊗	STORM MANHOLE	⊗	ELECTRIC METER
⊗	STORM SEWER INLET	E	ELECTRIC JUNCTION BOX
○	STORM CLEAN OUT	J	MOUNTED JUNCTION BOX
J	ROOF DRAIN	PBX	ELECTRIC PULLBOX
⊗	GAS MANHOLE	⊗	HIGH MAST LIGHTING TOWER
⊗	GAS METER	T	ELECTRIC TRANSFORMER
⊗	GAS VALVE	⊙	TRAFFIC CAMERA
GTS	GAS TEST STATION	⊙	LUMINAIRE STANDARD
CTV	CATV PEDESTAL	⊙	SIGNAL CONTROL PANEL
TV	CATV SERVICE BOX	⊙	POWER POLE
⊙	TELEPHONE MANHOLE	⊙	POWER POLE WITH RISER
T	TELEPHONE PEDESTAL	⊙	ILLUMINATION POLE
TH	TELEPHONE HAND HOLE	→	GUY ANCHOR
J	JUNCTION BOX	○	GUY POLE DEADMAN
TRP	TELEPHONE REPEATER	⊙	SOLAR PANEL
Foh	FIBER OPTIC HAND HOLE	⊗	TRAFFIC SIGNAL BOX
FJ	FIBER OPTIC JUNCTION BOX	⊗	STREET SIGN
⊗	FIBER OPTIC MANHOLE	⊙	TRAFFIC SIGNAL POLE
⊗	COMMUNICATION BOX	⊙	GENERIC MANHOLE
⊙	UTILITY MARKER POST	⊙	LEVEL 'A' TEST HOLE
⊙	RAILROAD SIGNAL	⊙	CONTROL POINT
⊙	TOWER	⊙	TRAFFIC SIGNAL PEDESTAL
⊙	LINES ON BUILDING EXTERIOR		

GENERAL NOTES

SIZE INFORMATION SHOWN IS TAKEN FROM AVAILABLE UTILITY RECORDS.

UTILITY QUALITY LEVEL A:  
PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATION OF PREVIOUSLY EXPOSED AND SURVEYED UTILITIES) AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT.

UTILITY QUALITY LEVEL B:  
INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. QUALITY LEVEL B DATA SHOULD BE REPRODUCIBLE BY SURFACE GEOPHYSICS AT ANY POINT OF THEIR DEPICTION. THIS INFORMATION IS SURVEYED TO APPLICABLE TOLERANCES DEFINED BY THE PROJECT AND REDUCED ONTO PLAN DOCUMENTS.

UTILITY QUALITY LEVEL C:  
INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGEMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION

UTILITY QUALITY LEVEL D:  
INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS.

QUALITY LEVEL LEGEND

---	WW1	---	QUALITY LEVEL B
---	WW1 (C)	---	QUALITY LEVEL C
---	WW1 (D)	---	QUALITY LEVEL D

ABANDONED LINES

---	///	---	WW1	---	///	---
-----	-----	-----	-----	-----	-----	-----

UTILITY CONTACT LIST

COMPANY	UTILITY COORDINATOR	PHONE	E-MAIL	ADDRESS
ONCOR	DEIDRA MCMINN	817-980-6928	DEIDRA.MCMINN@ONCOR.COM	777 MAIN STREET, SUITE 1017 FORT WORTH, TX 76102
SPECTRUM			FORCERELOS@KINETIC-ENG.COM	
CENTURYLINK	JORDAN ADAMS		JORDAN.ADAMS@LUMEN.COM	
AT&T	MICHELLE BELL		MB1712@ATT.COM	
ATMOS	BOB DAVISON	817-988-8079	BOB.DAVISON@ATMOSENERGY.COM	100 W. MORNINGSIDE DRIVE FORT WORTH, TEXAS 76110
CITY OF FORT WORTH		817-392-1234		200 TEXAS STREET FORT WORTH, TX 76102
ZAYO				

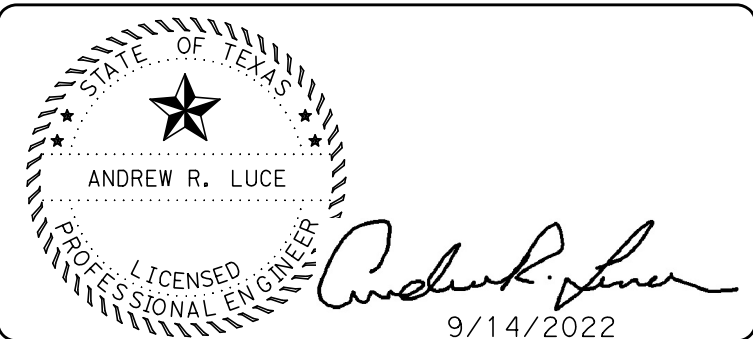
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no.	revision	by	date

teague nall and perkins, inc  
 5237 N. Riverside Drive, Suite 100  
 Fort Worth, Texas 76137  
 817.336.5773 ph 817.336.2813 fx  
 www.tnpsc.com  
 TBPE: F-230; TBPLS: 10011600, 10011601, 10194381



scale  
 when bar is  
 1 inch long  
 horiz  
 N/A  
 vert  
 N/A  
 AUGUST 2022



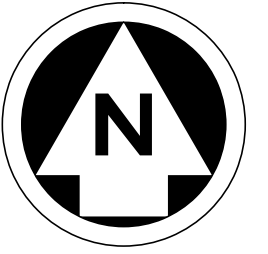
JPS HOSPITAL  
 UTILITY LEGEND  
 JPS PEC BUILDING

tnp project  
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 01

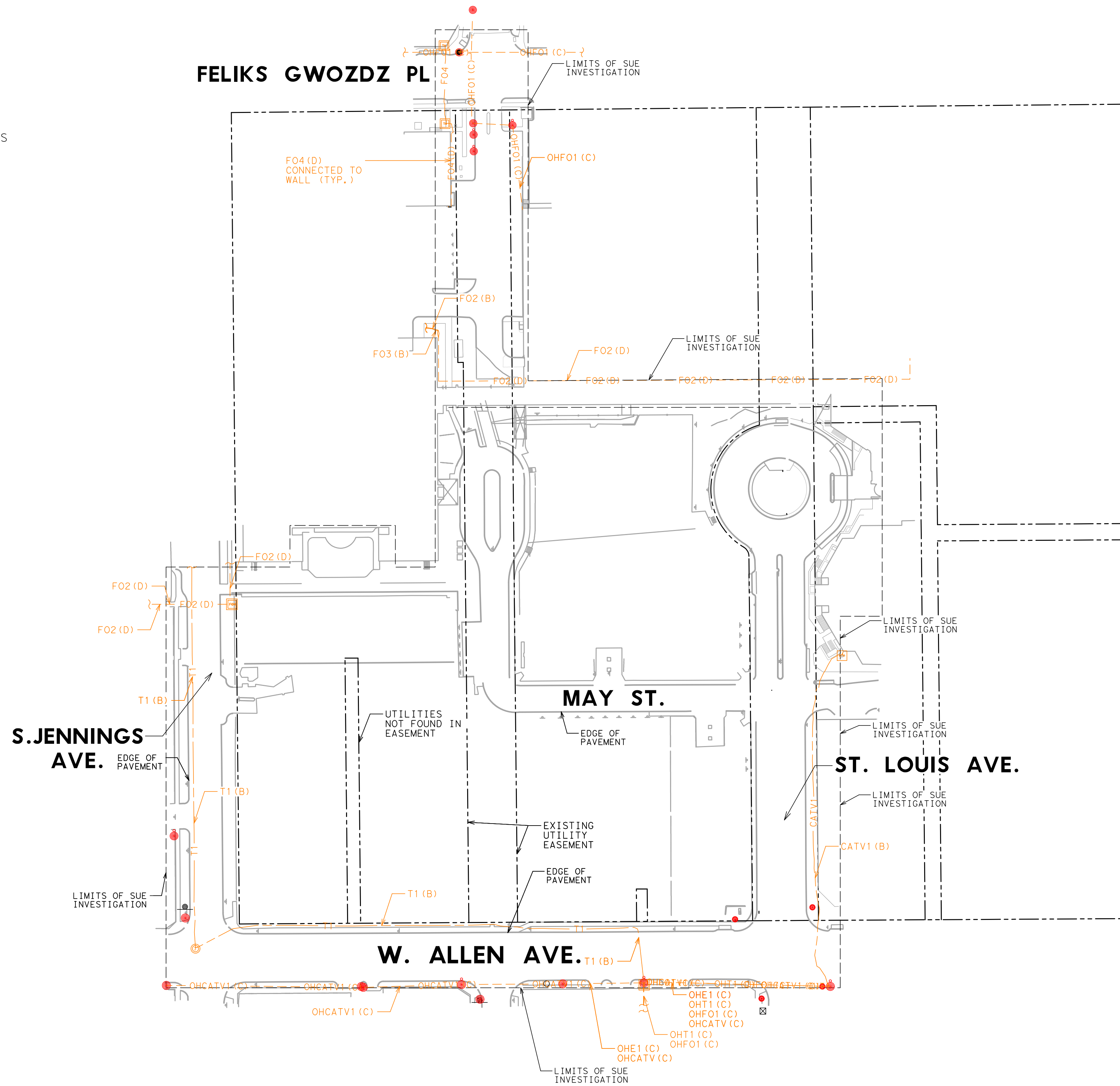


NOTES:

- 1) ABANDONED 18" GAS LINE NOT FOUND IN ATMOS MAPS, DRAWN IN PER ASBUILT X-10600.
- 2) ABANDONED WASTEWATER LINES DRAWN IN PER CITY MAPS AND ASBUILT X-17241.
- 3) PRIVATE IRRIGATION AND STORM DRAIN SYSTEM DRAWN IN PER MP-1, AND P-2 JPS PSYCHIATRIC FACILITY, 1987.
- 4) ABANDONED 8" WATER LINE DRAWN PER ASBUILT K-1023
- 5) ABANDONED 4" SANITARY SEWER LINE DRAWN PER ASBUILT JPS EP-1- SITE PLAN



0 15 30 60  
SCALE: 1" = 60' HOR.



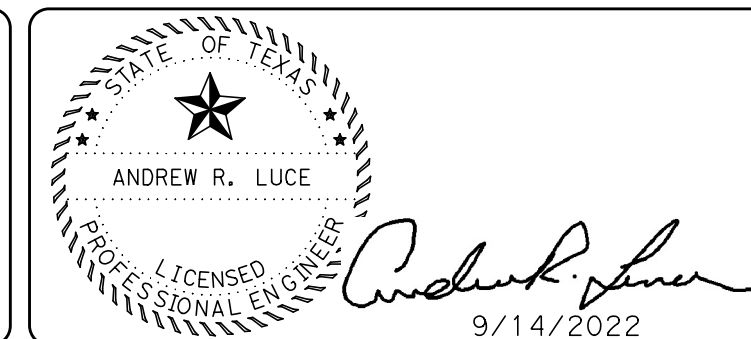
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scale  
when bar is  
1 inch long  
horiz  
1"=60'  
vert  
N/A  
AUGUST 2022

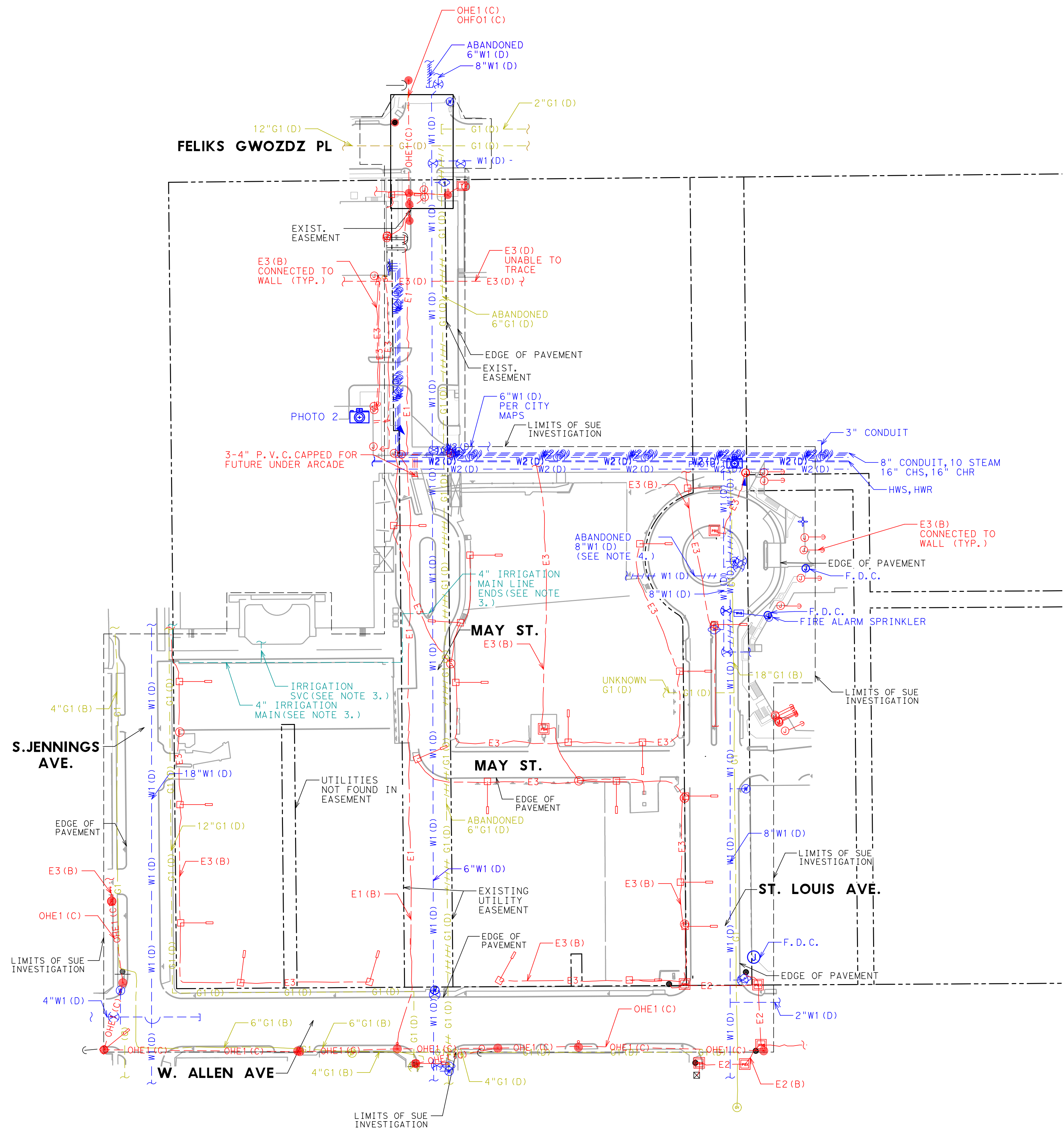
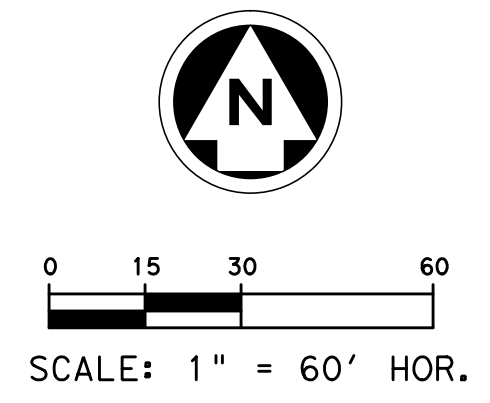


JPS HOSPITAL  
EXISTING COMMUNICATION UTILITIES  
JPS PEC BUILDING

tnp project  
BKA 21233  
sheet  
03

NOTES:

- 1) ABANDONED 18" GAS LINE NOT FOUND IN ATMOS MAPS, DRAWN IN PER ASBUILT X-10600.
- 2) ABANDONED WASTEWATER LINES DRAWN IN PER CITY MAPS AND ASBUILT X-17241.
- 3) PRIVATE IRRIGATION AND STORM DRAIN SYSTEM DRAW IN PER MP-1, AND P-2 JPS PSYCHIATRIC FACILITY, 1987.
- 4) ABANDONED 8" WATER LINE DRAWN PER ASBUILT K-1023
- 5) ABANDONED 4" SANITARY SEWER LINE DRAWN PER ASBUILT JPS EP-1- SITE PLAN



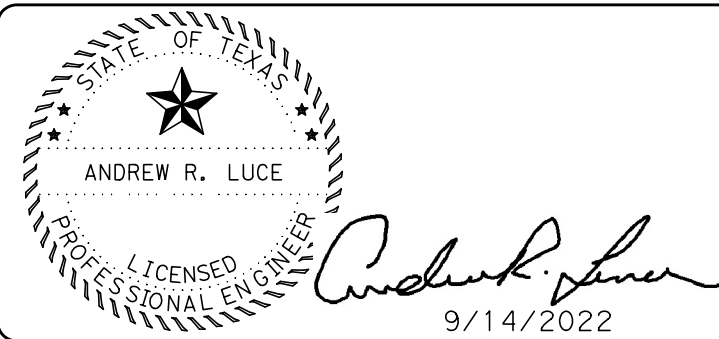
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no.	revision	by	date

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 www.tnpsc.com  
 TBPE: F-230; TBPLS: 10011600, 10011601, 10194381



scale  
 when bar is  
 1 inch long  
 horiz  
 1"=60'  
 vert  
 N/A  
 AUGUST 2022

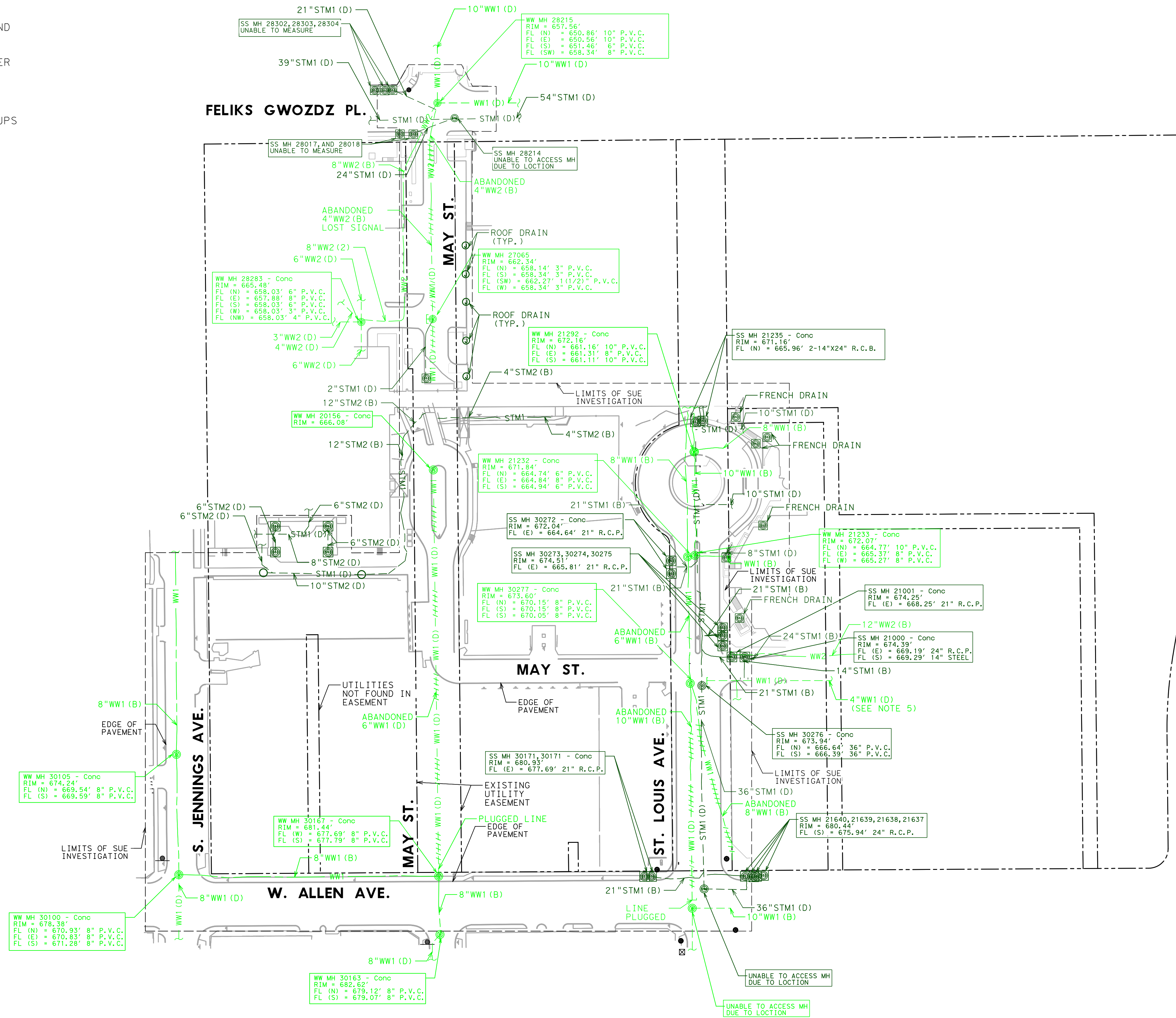
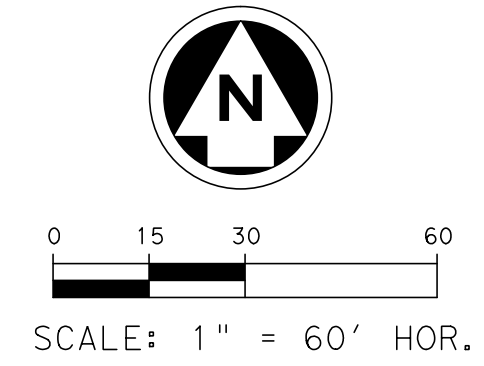


**JPS HOSPITAL**  
**WATER, GAS, AND ELECTRIC UTILITIES**  
**JPS PEC BUILDING**

tnp project  
 BKA 21233  
 sheet  
**04**

NOTES:

- 1) ABANDONED 18" GAS LINE NOT FOUND IN ATMOS MAPS, DRAWN IN PER ASBUILT X-10600.
- 2) ABANDONED WASTEWATER LINES DRAWN IN PER CITY MAPS AND ASBUILT X-17241.
- 3) PRIVATE IRRIGATION AND STORM DRAIN SYSTEM DRAWN IN PER MP-1, AND P-2 JPS PSYCHIATRIC FACILITY, 1987.
- 4) ABANDONED 8" WATER LINE DRAWN PER ASBUILT K-1023
- 5) ABANDONED 4" SANITARY SEWER LINE DRAWN PER ASBUILT JPS EP-1- SITE PLAN



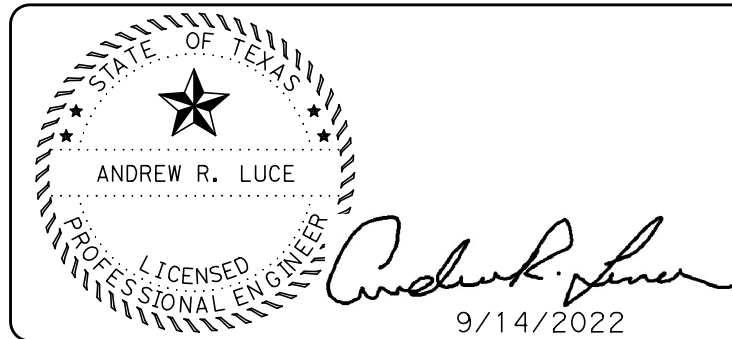
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no.	revision	by	date

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 www.tnppinc.com  
 TBPE: F-230; TBPLS: 10011600, 10011601, 10194381



scale  
 when bar is  
 1 inch long  
 horiz  
 1"=60'  
 vert  
 N/A  
 AUGUST 2022



JPS HOSPITAL  
 EXISTING SANITARY SEWER AND STORM  
 JPS PEC BUILDING

tnp project  
 BKA 21233  
 sheet  
**05**

# **GR-01 60 00 Product Requirements**

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**CITY OF FORT WORTH  
WATER DEPARTMENT  
STANDARD PRODUCT LIST**

Updated: 11-6-24

Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
<b>Water &amp; Sewer - Manholes &amp; Bases/Components 33-39-10 (Rev 2/3/16)</b>						
07/23/97	33 05 13	Urethane Hydrophilic Waterstop	Asahi Kogyo K.K.	Adeka Ultra-Seal P-201	ASTM D2240/D412/D792	
04/26/00	33 05 13	Offset Joint for 4' Diam. MH	Hanson Concrete Products	Drawing No. 35-0048-001		
04/26/00	33 05 13	Profile Gasket for 4' Diam. MH.	Press-Seal Gasket Corp.	250-4G Gasket	ASTM C-443/C-361	SS MH
1/26/99	33 05 13	HDPE Manhole Adjustment Rings	Ladtech, Inc	HDPE Adjustment Ring		Traffic and Non-traffic area
5/13/05	33 05 13	Manhole External Wrap	Canusa - CPS	WrapidSeal Manhole Encapsulation System		
<b>Water &amp; Sewer - Manholes &amp; Bases/Fiberglass 33-39-13 (1/8/13)</b>						
1/26/99	33 39 13	Fiberglass Manhole	Fluid Containment, Inc.	Flowtite	ASTM 3753	Non-traffic area
08/30/06	33 39 13	Fiberglass Manhole	L.F. Manufacturing			Non-traffic area
<b>Water &amp; Sewer - Manholes &amp; Bases/Frames &amp; Covers/Rectangular 33-05-13 (Rev 2/3/16)</b>						
*	33 05 13	Manhole Frames and Covers	Western Iron Works, Bass & Hays Foundry	1001		24"x40" WD
<b>Water &amp; Sewer - Manholes &amp; Bases/Frames &amp; Covers/Standard (Round) 33-05-13 (Rev 2/3/16)</b>						
*	33 05 13	Manhole Frames and Covers	Western Iron Works, Bass & Hays Foundry	30024		24" Dia.
*	33 05 13	Manhole Frames and Covers	McKinley Iron Works Inc.	A 24 AM		24" Dia.
08/24/18	33 05 13	Manhole Frames and Covers	Neenah Foundry	R-1272	ASTM A48 & AASHTO M306	24" Dia.
08/24/18	33 05 13	Manhole Frames and Covers	Neenah Foundry	NF 1274	ASTM A48 & AASHTO M306	30" Dia.
	33 05 13	Manhole Frames and Covers	Sigma Corporation	MH-144N		
	33 05 13	Manhole Frames and Covers	Sigma Corporation	MH-143N		
	33 05 13	Manhole Frames and Covers	Pont-A-Mousson	GTS-STD		24" dia.
	33 05 13	Manhole Frames and Covers	Neenah Casting			24" dia.
10/31/06	33 05 13	Manhole Frames and Covers (Hinged)	Powersal	Hinged Ductile Iron Manhole	ASTM A536	24" Dia.
7/25/03	33 05 13	Manhole Frames and Covers	Saint-Gobain Pipelines (Pamrex/rexus)	RE32-R8FS		30" Dia.
01/31/06	33 05 13	30" Dia. MH Ring and Cover	East Jordan Iron Works	V1432-2 and V1483 Designs	AASHTO M306-04	30" Dia.
11/02/10	33 05 13	30" Dia. MH Ring and Cover	Sigma Corporation	MH1651FWN & MH16502		30" Dia.
07/19/11	33 05 13	30" Dia. MH Ring and Cover	Star Pipe Products	MH32FTWSS-DC		30" Dia.
08/10/11	33 05 13	30" Dia. MH Ring and Cover	Accucast	220700 Heavy Duty with Gasket Ring		30" Dia.
10/14/13	33 05 13	30" Dia. MH Ring and Cover (Hinged & Lockable)	East Jordan Iron Works	30" ERGO XL Assembly with Cam Lock/MPIC/T-Gasket	ASSHTO M105 & ASTM A536	30" Dia.
06/01/17	34 05 13	30" Dia. MH Ring and Cover (Lockable) CI	SIP Industries	2280 (32")	ASTM A 48	30" Dia.
12/05/23	34 05 13	30" Dia. MH Ring and Cover (Hinged & Lockable) CI	SIP Industries	4267WT - Hinged (32")	ASTM A 48	30" Dia.
09/16/19	33 05 13	30" Dia. MH Ring and Cover	Composite Access Products, L.P.	CAP-ONE-30-FTW, Composite, w/ Lock w/o Hing		30" Dia.
10/07/21	34 05 13	30" Dia. MH Ring and Cover	Trumbull Manufacturing	32"(30") Frame and Cover		30" Dia.
<b>Water &amp; Sewer - Manholes &amp; Bases/Frames &amp; Covers/Water Tight &amp; Pressure Tight 33-05-13 (Rev 2/3/16)</b>						
*	33 05 13	Manhole Frames and Covers	Pont-A-Mousson	Pamtight		24" Dia.
*	33 05 13	Manhole Frames and Covers	Neenah Casting			24" Dia.
*	33 05 13	Manhole Frames and Covers	Western Iron Works, Bass & Hays Foundry	300-24P		24" Dia.
*	33 05 13	Manhole Frames and Covers	McKinley Iron Works Inc.	WPA24AM		24" Dia.
03/08/00	33 05 13	Manhole Frames and Covers	Accucast	RC-2100	ASTM A 48	24" Dia.
04/20/01	33 05 13	Manhole Frames and Covers	(SIP)Serampore Industries Private Ltd.	300-24-23.75 Ring and Cover	ASTM A 48	24" Dia.
<b>Water &amp; Sewer - Manholes &amp; Bases/Precast Concrete (Rev 1/8/13)</b>						
*	33 39 10	Manhole, Precast Concrete	Hydro Conduit Corp	SPL Item #49	ASTM C 478	48"
*	33 39 10	Manhole, Precast Concrete	Wall Concrete Pipe Co. Inc.		ASTM C-443	48"
09/23/96	33 39 10	Manhole, Precast Concrete	Concrete Product Inc.	48" I.D. Manhole w/ 32" Cone	ASTM C 478	48" w/32" cone
12/05/23	33 39 10	Manhole, Precast Concrete	The Turner Company	72" I.D. Manhole w/ 32" Cone	ASTM C 478	72"
05/08/18	33 39 10	Manhole, Precast Concrete	The Turner Company	48", 60" I.D. Manhole w/ 32" Cone Manhole, 32" Opening and Flat top, (No Transition Cones)	ASTM C 478	48", 60"
09/03/24	33 39 10	Manhole, Precast Concrete	Oldcastle Precast Inc.		ASTM C 478	48" to 84" I.D.
06/09/10	33 39 10	Manhole, Precast (Reinforced Polymer)Concrete	US Composite Pipe	Reinforced Polymer Concrete	ASTM C-76	48" to 72"
09/06/19	33 39 20	Manhole, Precast Concrete	Forterra Pipe and Precast	60" & 72" I.D. Manhole w/32" Cone	ASTM C-76	60" & 72"
10/07/21	32 39 20	Manhole, Precast Concrete	Forterra Pipe and Precast	48" I.D. Manhole w/32" Cone	ASTM C-77	48"
10/07/21	33 39 20	Manhole, Precast (Reinforced Polymer) Concrete	Armorock	48" & 60" I.D. Manhole w/32" Cone		48" & 60"
10/07/21	33 39 20	Manhole, Precast (Hybrid) Polymer & PVC	Geneva Pipe and Precast (Predl Systems)	48" & 60" I.D. Manhole w/32" Cone		48" & 60" Non Traffic Areas
03/07/23	33 39 20	Manhole, Precast Concrete	AmeriTex Pipe and Products, LLC	48" & 60" I.D. Manhole w/32" Cone	ASTM C-478; ASTM C-923; ASTM C-443	
03/07/23	33 39 20	Manhole, Precast (Reinforced Polymer) Concrete	P3 Polymers, RockHardsep	48" & 60" I.D. Manhole w/32" Cone		
04/28/07		Manhole, Precast (Reinforced Polymer) Concrete	Amitech USA	Meyer Polycrrete Pipe		
<b>Sewer -(WAC) Wastewater Access Chamber 33 39 40</b>						
12/29/23	33 39 20	Wastewater Access Chamber	Quickstream Solutions, Inc.	Type 8 Maintenance Shaft (Poopit)		For use when Std. MH cannot be installed due to depth
<b>Water &amp; Sewer - Manholes &amp; Bases/Rehab Systems/Cementitious</b>						
*	E1-14	Manhole Rehab Systems	Quadex			
04/23/01	E1-14	Manhole Rehab Systems	Standard Cement Materials, Inc.	Reliner MSP		
	E1-14	Manhole Rehab Systems	AP/M Permaform			
4/20/01	E1-14	Manhole Rehab System	Strong Company	Strong Seal MS2A Rehab System		
5/12/03	E1-14	Manhole Rehab System (Liner)	Triplex Lining System	MH repair product to stop infiltration	ASTM D5813	
08/30/06		General Concrete Repair	FlexKrete Technologies	Vinyl Polyester Repair Product		Misc. Use

\* From Original Standard Products List



**CITY OF FORT WORTH  
WATER DEPARTMENT  
STANDARD PRODUCT LIST**

Updated: 11-6-24

Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
<b><u>Water &amp; Sewer - Manholes &amp; Bases/Rehab Systems/NonCementitious</u></b>						
05/20/96	E1-14	Manhole Rehab Systems	Spraycoq.	Spray Wall Polyurethane Coating	ASTM D639/D790	
12/14/01		Coating for Corrosion protection(Exterior)	ERTECH	Series 20230 and 2100 (Asphatic Emulsion)		Structures Only
01/31/06		Coatings for Corrosion Protection	Chesterton	Arc 791, S1HB, S1, S2	Acid Resistance Test	Sewer Applications
8/28/2006		Coatings for Corrosion Protection	Warren Environmental	S-301 and M-301		Sewer Applications
03/19/18	33 05 16, 33 39 10, 33 39 20	Coating for Corrosion protection(Exterior)	Sherwin Williams	RR&C Dampproofing Non-Fibered Spray Grade (Asphatic Emulsion)		For Exterior Coating of Concrete Structures Only
<b><u>Water &amp; Sewer - Manhole Inserts - Field Operations Use Only (Rev 2/3/16)</u></b>						
*	33 05 13	Manhole Insert	Knutson Enterprises	Made to Order - Plastic	ASTM D 1248	For 24" dia.
*	33 05 13	Manhole Insert	South Western Packaging	Made to Order - Plastic	ASTM D 1248	For 24" dia.
*	33 05 13	Manhole Insert	Noflow-Inflow	Made to Order - Plastic	ASTM D 1248	For 24" dia.
09/23/96	33 05 13	Manhole Insert	Southwestern Packing & Seals, Inc.	LifeSaver - Stainless Steel		For 24" dia.
09/23/96	33 05 13	Manhole Insert	Southwestern Packing & Seals, Inc.	TetherLok - Stainless Steel		For 24" dia
<b><u>Water &amp; Sewer - Pipe Casing Spacers 33-05-24 (07/01/13)</u></b>						
11/04/02		Steel Band Casing Spacers	Advanced Products and Systems, Inc.	Carbon Steel Spacers, Model SI		
02/02/93		Stainless Steel Casing Spacer	Advanced Products and Systems, Inc.	Stainless Steel Spacer, Model SSI		
04/22/87		Casing Spacers	Cascade Waterworks Manufacturing	Casing Spacers		
09/14/10		Stainless Steel Casing Spacer	Pipeline Seal and Insulator	Stainless Steel Casing Spacer		Up to 48"
09/14/10		Coated Steel Casin Spacers	Pipeline Seal and Insulator	Coated Steel Casing Spacers		Up to 48"
05/10/11		Stainless Steel Casing Spacer	Powerseal	4810 Powerchock		Up to 48"
03/19/18		Casing Spacers	BWM	SS-12 Casing Spacer(Stainless Steel)		
03/19/18		Casing Spacers	BWM	FB-12 Casing Spacer (Coated Carbon Steel) for Non_pressure Pipe and Grouted Casing		
03/29/22	33 05 13	Casing Spacers	CCI Pipeline Systems	CSC12, CSS12		
09/03/24	33 05 13	Casing Spacers	Raci (Completely HDPE)	Per Manufacturers Requirements (Sewer Applications Only)		8" - 12" (Sewer Only)
<b><u>Water &amp; Sewer - Pipes/Ductile Iron 33-11-10(1/8/13)</u></b>						
*	33 11 10	Ductile Iron Pipe	Griffin Pipe Products, Co.	Super Bell-Tite Ductile Iron Pressure Pipe,	AWWA C150, C151	3" thru 24"
08/24/18	33 11 10	Ductile Iron Pipe	American Ductile Iron Pipe Co.	American Fastite Pipe (Bell Spigot)	AWWA C150, C151	4" thru 30"
08/24/18	33 11 10	Ductile Iron Pipe	American Ductile Iron Pipe Co.	American Flex Ring (Restrained Joint)	AWWA C150, C151	4" thru 30"
*	33 11 10	Ductile Iron Pipe	U.S. Pipe and Foundry Co.		AWWA C150, C151	
*	33 11 10	Ductile Iron Pipe	McWane Cast Iron Pipe Co.		AWWA C150, C151	
<b><u>Water &amp; Sewer - Utility Line Marker (08/24/2018)</u></b>						
<b><u>Sewer - Coatings/Epoxy 33-39-60 (01/08/13)</u></b>						
02/25/02		Epoxy Lining System	Sauereisen, Inc	SewerGard 210RS	LA County #210-1.33	
12/14/01		Epoxy Lining System	Ertech Technical Coatings	Ertech 2030 and 2100 Series		
04/14/05		Interior Ductile Iron Pipe Coating	Induron	Protecto 401	ASTM B-117	Ductile Iron Pipe Only
01/31/06		Coatings for Corrosion Protection	Chesterton	Arc 791, S1HB, S1, S2	Acid Resistance Test	Sewer Applications
8/28/2006		Coatings for Corrosion Protection	Warren Environmental	S-301 and M-301		Sewer Applications
<b><u>Sewer - Coatings/Polyurethane</u></b>						
<b><u>Sewer - Combination Air Valves</u></b>						
05/25/18	33-31-70	Air Release Valve	A.R.I. USA, Inc.	D025LTP02(Composite Body)		2"
<b><u>Sewer - Pipes/Concrete</u></b>						
*	E1-04	Conc. Pipe, Reinforced	Wall Concrete Pipe Co. Inc.		ASTM C 76	
*	E1-04	Conc. Pipe, Reinforced	Hydro Conduit Corporation	Class III T&G, SPL Item #77	ASTM C 76	
*	E1-04	Conc. Pipe, Reinforced	Hanson Concrete Products	<del>SPL Item #95 Manhole, #98 Pipe</del>	ASTM C 76	
*	E1-04	Conc. Pipe, Reinforced	Concrete Pipe & Products Co. Inc.		ASTM C 76	
<b><u>Sewer - Pipe Enlargment System (Method)33-31-23 (01/18/13)</u></b>						
		PIM System	PIM Corporation	Polyethylene	PIM Corp., Piscata Way, N.J.	Approved Previously
		McConnell Systems	McLat Construction	Polyethylene	Houston, Texas	Approved Previously
		TRS Systems	Trenchless Replacement System	Polyethylene	Calgary, Canada	Approved Previously
<b><u>Sewer - Pipe/Fiberglass Reinforced/ 33-31-13(1/8/13)</u></b>						
7/21/97	33 31 13	Cent. Cast Fiberglass (FRP)	Hobas Pipe USA, Inc.	Hobas Pipe (Non-Pressure)	ASTM D3262/D3754	
03/22/10	33 31 13	Fiberglass Pipe (FRP)	Ameron	Bondstrand RPMP Pipe	ASTM D3262/D3754	
04/09/21	33 31 13	Glass-Fiber Reinforced Polymer Pipe (FRP)	Thompson Pipe Group	Thompson Pipe (Flowtite)	ASTM D3262/D3754	
03/07/23	33 31 13	Fiberglass Pipe (FRP)	Future Pipe Industries	Fiberstrong FRP	ASTM D3262, ASTM D3681, ASTM D4161, AWWA M45	
09/03/24	33 31 13	Fiberglass Pipe (FRP)	Superlit Boru Sanayi A.S.	Superlit FRP	ASTM D3262, ASTM D3517, ASTM 3754, AWWA C950	

\* From Original Standard Products List



**CITY OF FORT WORTH  
WATER DEPARTMENT  
STANDARD PRODUCT LIST**

Updated: 11-6-24

Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
	<b>Sewer - Pipe/Polymer Pipe</b>					
4/14/05		Polymer Modified Concrete Pipe	Amitech USA	Meyer Polycrrete Pipe	ASTM C33, A276, F477	8" to 102", Class V
06/09/10	E1-9	Reinforced Polymer Concrete Pipe	US Composite Pipe	Reinforced Polymer Concrete Pipe	ASTM C-76	
	<b>Sewer - Pipes/HDPE 33-31-23(1/8/13)</b>					
*		High-density polyethylene pipe	Phillips Driscopipe, Inc.	Opticore Ductile Polyethylene Pipe	ASTM D 1248	8"
*		High-density polyethylene pipe	Plexco Inc.		ASTM D 1248	8"
*		High-density polyethylene pipe	Polly Pipe, Inc.		ASTM D 1248	8"
		High-density polyethylene pipe	CSR Hydro Conduit/Pipeline Systems	McConnell Pipe Enlargement	ASTM D 1248	
	<b>Sewer - Pipes/PVC (Pressure Sewer) 33-11-12 (4/1/13)</b>					
12/02/11	33-11-12	DR-14 PVC Pressure Pipe	Pipelife Jetstream	PVC Pressure Pipe	AWWA C900	4" thru 12"
10/22/14	33-11-12	DR-14 PVC Pressure Pipe	Royal Building Products	Royal Seal PVC Pressure Pipe	AWWA C900	4" thru 12"
	<b>Sewer - Pipes/PVC* 33-31-20 (7/1/13)</b>					
*	33-31-20	PVC Sewer Pipe	J-M Manufacturing Co., Inc. (JM Eagle)	SDR-26 (PS115)	ASTM D 3034	4" - 15"
12/23/97*	33-31-20	PVC Sewer Pipe	Diamond Plastics Corporation	SDR-26 (PS115)	ASTM D 3034	4" thru 15"
*	33-31-20	PVC Sewer Pipe	Lamson Vylon Pipe	SDR-26 (PS115)	ASTM D 3034	4" thru 15"
12/05/23	33-31-20	PVC Sewer Pipe	Vinyltech PVC Pipe	SDR-26 (PS115)	ASTM D3034	4" thru 15"
12/05/23	33-31-20	PVC Sewer Pipe	Vinyltech PVC Pipe	Gravity Sewer PS 115	ASTM F 679	18"
*	33-31-20	PVC Sewer Pipe	J-M Manufacturing Co, Inc. (JM Eagle)	PS 115	ASTM F 679	18" - 28"
05/06/05	33-31-20	PVC Solid Wall Pipe	Diamond Plastics Corporation	PS 115	ASTM F-679	18" to 48"
04/27/06	33-31-20	PVC Sewer Fittings	Harco	SDR-26 (PS 115) Gasket Fittings	ASTM D-3034, D-1784, etc	4" - 15"
*	33-31-20	PVC Sewer Fittings	Plastic Trends, Inc.(Westlake)	Gasketed PVC Sewer Main Fittings	ASTM D 3034	
3/19/2018	33 31 20	PVC Sewer Pipe	Pipelife Jet Stream	SDR 26 (PS 115)	ASTM F679	18"- 24"
3/19/2018	33 31 20	PVC Sewer Pipe	Pipelife Jet Stream	SDR 26	ASTM D3034	4"- 15"
3/29/2019	33 31 20	Gasketed Fittings (PVC)	GPK Products, Inc.	SDR 26	ASTM D3034	4"- 15"
10/21/2020	33 31 20	PVC Sewer Pipe	NAPCO(Westlake)	SDR 26	ASTM D3034	4" - 15"
10/22/2020	33 31 20	PVC Sewer Pipe	Sanderson Pipe Corp.	SDR 26	ASTM D3034	4"- 15"
10/21/2020	33 31 20	PVC Sewer Pipe	NAPCO(Westlake)	SDR 26 PS 115	ASTM F-679	18"- 36"

\* From Original Standard Products List



**CITY OF FORT WORTH  
WATER DEPARTMENT  
STANDARD PRODUCT LIST**

Updated: 11-6-24

Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
<b>Water - Appurtenances 33-12-10 (07/01/13)</b>						
09/03/24	33-12-10	Double Strap Saddle	Ford Meter Box Co., Inc.	202B		1"-2" SVC, up to 16" Pipe
01/18/18	33-12-10	Double Strap Saddle	Romac	202NS Nylon Coated	AWWA C800	1"-2" SVC, up to 24" Pipe
08/28/02		Double Strap Saddle	Smith Blair	#317 Nylon Coated Double Strap Saddle		
07/23/12	33-12-10	Double Strap Service Saddle	Mueller Company	DR2S Double (SS) Strap DI Saddle	AWWA C800	1"-2" SVC, up to 24" Pipe
03/07/23	33-12-10	Double Strap Service Saddle	Powerseal	3450AS, Incl. Corp. Stop, Dbl Strap, Stainless	NSF ANSI 372	1"-2" SVC, up to 24" Pipe
10/27/87		Curb Stops-Ball Meter Valves	McDonald	6100M,6100MT & 610MT		3/4" and 1"
10/27/87		Curb Stops-Ball Meter Valves	McDonald	4603B, 4604B, 6100M, 6100TM and 6101M		1½" and 2"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Ford Meter Box Co., Inc.	FB600-7NL, FB1600-7-NL, FV23-777-W-NL, L22-77NL	AWWA C800	2"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Ford Meter Box Co., Inc.	FB600-6-NL, FB1600-6-NL, FV23-666-W-NL, L22-66NL	AWWA C800	1-1/2"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Ford Meter Box Co., Inc.	FB600-4-NL, FB1600-4-NL, B11-444-WR-NL, B22444-WR-NL, L28-44NL	AWWA C800	1"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Mueller Co., Ltd.	B-25000N, B-24277N-3, B-20200N-3, H-15000N, , H-1552N, H142276N	AWWA C800, ANSF 61, ANSI/NSF 372	2"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Mueller Co., Ltd.	B-25000N, B-20200N-3, B-24277N-3,H-15000N, H-14276N, H-15525N	AWWA C800, ANSF 61, ANSI/NSF 372	1-1/2"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Mueller Co., Ltd.	B-25000N, B-20200N-3,H-15000N, H-15530N	AWWA C800, ANSF 61, ANSI/NSF 372	1"
01/26/00		Coated Tapping Saddle with Double SS Straps	JCM Industries, Inc.	#406 Double Band SS Saddle		1"-2" Taps on up to 12"
0/5/21/12	33-12-25	Tapping Sleeve (Coated Steel)	JCM Industries, Inc.	412 Tapping Sleeve ESS	AWWA C-223	Up to 30" w/12" Out
03/29/22	33-12-25	Tapping Sleeve (Coated or Stainless Steel)	JCM Industries, Inc.	415 Tapping Sleeve	AWWA C-223	Concrete Pipe Only
05/10/11		Tapping Sleeve (Stainless Steel)	Powerseal	3490AS (Flange) & 3490MJ		4"-8" and 16"
02/29/12	33-12-25	Tapping Sleeve (Coated Steel)	Romac	FTS 420	AWWA C-223	Up to 42" w/24" Out
02/29/12	33-12-25	Tapping Sleeve (Stainless Steel)	Romac	SST Stainless Steel	AWWA C-223	Up to 24" w/12" Out
02/29/12	33-12-25	Tapping Sleeve (Stainless Steel)	Romac	SST III Stainless Steel	AWWA C-223	Up to 30" w/12" Out
05/10/11		Joint Repair Clamp	Powerseal	3232 Bell Joint Repair Clamp		4" to 30"
		Plastic Meter Box w/Composite Lid	DFW Plastics Inc.	DFW37C-12-1EPAF FTW		
		Plastic Meter Box w/Composite Lid	DFW Plastics Inc.	DFW39C-12-1EPAF FTW		
08/30/06		Plastic Meter Box w/Composite Lid	DFW Plastics Inc.	DFW65C-14-1EPAF FTW		Class "A"
		Concrete Meter Box	Bass & Hays	CMB37-B12 1118 LID-9		
		Concrete Meter Box	Bass & Hays	CMB-18-Dual 1416 LID-9		
		Concrete Meter Box	Bass & Hays	CMB65-B65 1527 LID-9		
<b>Water - Bolts, Nuts, and Gaskets 33-11-05 (01/08/13)</b>						
	None					
<b>Water - Combination Air Release 33-31-70 (01/08/13)</b>						
*	E1-11	Combination Air Release Valve	GA Industries, Inc.	Empire Air and Vacuum Valve, Model 935	ASTM A 126 Class B, ASTM A	1" & 2"
*	E1-11	Combination Air Release Valve	Multiplex Manufacturing Co.	Crispin Air and Vacuum Valves, Model No.		1/2", 1" & 2"
*	E1-11	Combination Air Release Valve	Valve and Primer Corp.	APCO #143C, #145C and #147C		1", 2" & 3"
<b>Water - Dry Barrel Fire Hydrants 33-12-40 (01/15/14)</b>						
10/01/87	E-1-12	Dry Barrel Fire Hydrant	American-Darling Valve	Drawing Nos. 90-18608, 94-18560	AWWA C-502	
03/31/88	E-1-12	Dry Barrel Fire Hydrant	American Darling Valve	Shop Drawing No. 94-18791	AWWA C-502	
09/30/87	E-1-12	Dry Barrel Fire Hydrant	Clow Corporation	Shop Drawing No. D-19895	AWWA C-502	
01/12/93	E-1-12	Dry Barrel Fire Hydrant	American AVK Company	Model 2700	AWWA C-502	
08/24/88	E-1-12	Dry Barrel Fire Hydrant	Clow Corporation	Drawings D20435, D20436, B20506	AWWA C-502	
	E-1-12	Dry Barrel Fire Hydrant	ITT Kennedy Valve	Shop Drawing No. D-80783FW	AWWA C-502	
09/24/87	E-1-12	Dry Barrel Fire Hydrant	M&H Valve Company	Shop Drawing No. 13476	AWWA C-502	
10/14/87	E-1-12	Dry Barrel Fire Hydrant	Mueller Company	Shop Drawings No. 6461 A-423 Centurion	AWWA C-502	
01/15/88	E1-12	Dry Barrel Fire Hydrant	Mueller Company	Shop Drawing FH-12 A-423 Super Centurion 200	AWWA C-502	
10/09/87	E-1-12	Dry Barrel Fire Hydrant	U.S. Pipe & Foundry	Shop Drawing No. 960250	AWWA C-502	
09/16/87	E-1-12	Dry Barrel Fire Hydrant	American Flow Control (AFC)	Waterous Pacer WB67	AWWA C-502	
08/12/16	33-12-40	Dry Barrel Fire Hydrant	EJ (East Jordan Iron Works)	WaterMaster 5CD250		
<b>Water - Meters</b>						
02/05/93	E101-5	Detector Check Meter	Ames Company	Model 1000 Detector Check Valve	AWWA C550	4" - 10"
08/05/04		Magnetic Drive Vertical Turbine	Hersey	Magnetic Drive Vertical	AWWA C701, Class 1	3/4" - 6"

\* From Original Standard Products List



**CITY OF FORT WORTH  
WATER DEPARTMENT  
STANDARD PRODUCT LIST**

Updated: 11-6-24

Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
<b>Water - Pipes/PVC (Pressure Water) 33-31-70 (01/08/13)</b>						
12/05/23	33-11-12	PVC Pressure Pipe	Vinyltech PVC Pipe	DR14	AWWA C900, AWWA C605, ASTM D1784	4"-16"
12/05/23	33-11-12	PVC Pressure Pipe	Vinyltech PVC Pipe	DR18	AWWA C900, AWWA C605, ASTM D1784	16"-18"
09/03/24	33-11-12	PVC Pressure Pipe	Northern Pipe Products	DR14	AWWA C900, AWWA C605, ASTM D1784	4"-16"
09/03/24	33-11-12	PVC Pressure Pipe	Northern Pipe Products	DR18	AWWA C900, AWWA C605, ASTM D1784	16"-18"
3/19/2018	33 11 12	PVC Pressure Pipe	Pipelife Jet Stream	DR14	AWWA C900	4"-12"
3/19/2018	33 11 12	PVC Pressure Pipe	Pipelife Jet Stream	DR18	AWWA C900	16"-24"
5/25/2018	33 11 12	PVC Pressure Pipe	Diamond Plastics Corporation	DR 14	AWWA C900	4"-12"
5/25/2018	33 11 12	PVC Pressure Pipe	Diamond Plastics Corporation	DR 18	AWWA C900	16"-24"
12/6/2018	33 11 12	PVC Pressure Pipe	J-M Manufacturing Co., Inc d/b/a JM Eagle	DR 14	AWWA C900-16 UL 1285 ANSI/NSF 61 FM 1612	4"-28"
12/6/2018	33 11 12	PVC Pressure Pipe	J-M Manufacturing Co., Inc d/b/a JM Eagle	DR 18	AWWA C900-16 UL 1285 ANSI/NSF 61 FM 1612	16"-24"
9/6/2019	33 11 12	PVC Pressure Pipe	Underground Solutions Inc.	DR14 Fusible PVC	AWWA C900	4" - 8"
9/6/2019	33 11 12	PVC Pressure Pipe	NAPCO(Westlake)	DR18	AWWA C900	16" - 24"
9/6/2019	33 11 12	PVC Pressure Pipe	NAPCO(Westlake)	DR14	AWWA C900	4" - 12"
9/6/2019	33 11 12	PVC Pressure Pipe	Sanderson Pipe Corp.	DR14	AWWA C900	4" - 12"
<b>Water - Pipes/Valves &amp; Fittings/Ductile Iron Fittings 33-11-11 (01/08/13)</b>						
07/23/92	E1-07	Ductile Iron Fittings	Star Pipe Products, Inc.	Mechanical Joint Fittings	AWWA C153 & C110	
*	E1-07	Ductile Iron Fittings	Griffin Pipe Products, Co.	Mechanical Joint Fittings	AWWA C 110	
*	E1-07	Ductile Iron Fittings	McWane/Tyler Pipe/ Union Utilities Division	Mechanical Joint Fittings, SSB Class 350	AWWA C 153, C 110, C 111	
08/11/98	E1-07	Ductile Iron Fittings	Sigma, Co.	Mechanical Joint Fittings, SSB Class 351	AWWA C 153, C 110, C 112	
02/26/14	E1-07	MJ Fittings	Accucast	Class 350 C-153 MJ Fittings	AWWA C153	4"-12"
05/14/98	E1-07	Ductile Iron Joint Restraints	Ford Meter Box Co./Uni-Flange	Uni-Flange Series 1400	AWWA C111/C153	4" to 36"
05/14/98	E1-24	PVC Joint Restraints	Ford Meter Box Co./Uni-Flange	Uni-Flange Series 1500 Circle-Lock	AWWA C111/C153	4" to 24"
11/09/04	E1-07	Ductile Iron Joint Restraints	One Bolt, Inc.	One Bolt Restrained Joint Fitting	AWWA C111/C116/C153	4" to 12"
02/29/12	33-11-11	Ductile Iron Pipe Mechanical Joint Restraint	EBAA Iron, Inc.	Megalug Series 1100 (for DI Pipe)	AWWA C111/C116/C153	4" to 42"
02/29/12	33-11-11	PVC Pipe Mechanical Joint Restraint	EBAA Iron, Inc.	Megalug Series 2000 (for PVC Pipe)	AWWA C111/C116/C153	4" to 24"
08/05/04	E1-07	Mechanical Joint Retainer Glands(PVC)	Sigma, Co.	Sigma One-Lok SLC4 - SLC10	AWWA C111/C153	4" to 10"
03/06/19	33-11-11	Mechanical Joint Retainer Glands(PVC)	Sigma, Co.	Sigma One-Lok SLCS4 - SLCS12	AWWA C111/C153	4" to 12"
08/05/04	E1-07	Mechanical Joint Retainer Glands(PVC)	Sigma, Co.	Sigma One-Lok SLCE	AWWA C111/C153	12" to 24"
08/10/98	E1-07	MJ Fittings(DIP)	Sigma, Co.	Sigma One-Lok SLDE	AWWA C153	4" - 24"
10/12/10	E1-24	Interior Restrained Joint System	S & B Technicial Products	Bulldog System ( Diamond Lok 21 & JM	ASTM F-1624	4" to 12"
08/16/06	E1-07	Mechanical Joint Fittings	SIP Industries(Serampore)	Mechanical Joint Fittings	AWWA C153	4" to 24"
11/07/16	33-11-11	Mechanical Joint Retainer Glands	Star Pipe Products, Inc.	PVC Stargrip Series 4000	ASTM A536 AWWA C111	
11/07/16	33-11-11	Mechanical Joint Retainer Glands	Star Pipe Products, Inc.	DIP Stargrip Series 3000	ASTM A536 AWWA C111	
03/19/18	33-11-11	Mechanical Joint Retainer Glands	SIP Industries(Serampore)	EZ Grip Joint Restraint (EZD) Black For DIP	ASTM A536 AWWA C111	3"-48"
03/19/18	33-11-11	Mechanical Joint Retainer Glands	SIP Industries(Serampore)	EZ Grip Joint Restraint (EZD) Red for C900 DR14 PVC Pipe	ASTM A536 AWWA C111	4"-12"
03/19/18	33-11-11	Mechanical Joint Retainer Glands	SIP Industries(Serampore)	EZ Grip Joint Restraint (EZD) Red for C900 DR18 PVC Pipe	ASTM A536 AWWA C111	16"-24"

\* From Original Standard Products List



**CITY OF FORT WORTH  
WATER DEPARTMENT  
STANDARD PRODUCT LIST**

Updated: 11-6-24

Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
<b><u>Water - Pipes/Valves &amp; Fittings/Resilient Seated Gate Valve* 33-12-20 (05/13/15)</u></b>						
		Resilient Wedged Gate Valve w/no Gears	American Flow Control	Series 2500 Drawing # 94-20247		16"
12/13/02		Resilient Wedge Gate Valve	American Flow Control	Series 2530 and Series 2536	AWWA C515	30" and 36"
08/31/99		Resilient Wedge Gate Valve	American Flow Control	Series 2520 & 2524 (SD 94-20255)	AWWA C515	20" and 24"
05/18/99		Resilient Wedge Gate Valve	American Flow Control	Series 2516 (SD 94-20247)	AWWA C515	16"
10/24/00	E1-26	Resilient Wedge Gate Valve	American Flow Control	Series 2500 (Ductile Iron)	AWWA C515	4" to 12"
08/05/04		Resilient Wedge Gate Valve	American Flow Control	42" and 48" AFC 2500	AWWA C515	42" and 48"
05/23/91	E1-26	Resilient Wedge Gate Valve	American AVK Company	American AVK Resilient Seaded GV	AWWA C509	4" to 12"
01/24/02	E1-26	Resilient Wedge Gate Valve	American AVK Company			20" and smaller
*	E1-26	Resilient Seated Gate Valve	Kennedy			4" - 12"
*	E1-26	Resilient Seated Gate Valve	M&H			4" - 12"
*	E1-26	Resilient Seated Gate Valve	Mueller Co.			4" - 12"
11/08/99		Resilient Wedge Gate Valve	Mueller Co.	Series A2361 (SD 6647)	AWWA C515	16"
01/23/03		Resilient Wedge Gate Valve	Mueller Co.	Series A2360 for 18"-24" (SD 6709)	AWWA C515	24" and smaller
05/13/05		Resilient Wedge Gate Valve	Mueller Co.	Mueller 30" & 36", C-515	AWWA C515	30" and 36"
01/31/06		Resilient Wedge Gate Valve	Mueller Co.	Mueller 42" & 48", C-515	AWWA C515	42" and 48"
01/28/88	E1-26	Resilient Wedge Gate Valve	Clow Valve Co.		AWWA C509	4" - 12"
10/04/94		Resilient Wedge Gate Valve	Clow Valve Co.	16" RS GV (SD D-20995)	AWWA C515	16"
11/08/99	E1-26	Resilient Wedge Gate Valve	Clow Valve Co.	Clow RW Valve (SD D-21652)	AWWA C515	24" and smaller
11/29/04		Resilient Wedge Gate Valve	Clow Valve Co.	Clow 30" & 36" C-515	AWWA C515	30" and 36" (Note 3)
11/30/12		Resilient Wedge Gate Valve	Clow Valve Co.	Clow Valve Model 2638	AWWA C515	24" to 48" (Note 3)
05/08/91	E1-26	Resilient Seated Gate Valve	Stockham Valves & Fittings		AWWA C 509, ANSI 420 - stem,	4" - 12"
*	E1-26	Resilient Seated Gate Valve	U.S. Pipe and Foundry Co.	Metroseal 250, requirements SPL #74		3" to 16"
10/26/16	33-12-20	Resilient Seated Gate Valve	EJ (East Jordan Iron Works)	EJ FlowMaster Gate Valve & Boxes		
08/24/18		Matco Gate Valve	Matco-Norca	225 MR	AWWA/ANSI C115/An21.15	4" to 16"
<b><u>Water - Pipes/Valves &amp; Fittings/Rubber Seated Butterfly Valve 33-12-21 (07/10/14)</u></b>						
*	E1-30	Rubber Seated Butterfly Valve	Henry Pratt Co.		AWWA C-504	24"
*	E1-30	Rubber Seated Butterfly Valve	Mueller Co.		AWWA C-504	24"and smaller
1/11/99	E1-30	Rubber Seated Butterfly Valve	Dezurik Valves Co.		AWWA C-504	24" and larger
06/12/03	E1-30	Valmatic American Butterfly Valve	Valmatic Valve and Manufacturing Corp.	Valmatic American Butterfly Valve.	AWWA C-504	Up to 84" diameter
04/06/07	E1-30	Rubber Seated Butterfly Valve	M&H Valve	M&H Style 4500 & 1450	AWWA C-504	24" to 48"
03/19/18	33 12 21	Rubber Seated Butterfly Valve	G. A. Industries (Golden Anderson)	AWWA C504 Butterfly Valve	AWWA C-504	30"-54"
09/03/24	33 12 21	Rubber Seated Butterfly Valve	American AVK Company	AWWA C504 Butterfly Valve Class 250B	AWWA C-504	24" - 48"
<b><u>Water - Polyethylene Encasement 33-11-10 (01/08/13)</u></b>						
05/12/05	E1-13	Polyethylene Encasment	Flexsol Packaging	Fulton Enterprises	AWWA C105	8 mil LLD
05/12/05	E1-13	Polyethylene Encasment	Mountain States Plastics (MSP) and AEP Ind.	Standard Hardware	AWWA C105	8 mil LLD
05/12/05	E1-13	Polyethylene Encasment	AEP Industries	Bullstrong by Cowtown Bolt & Gasket	AWWA C105	8 mil LLD
09/06/19	33-11-11	Polyethylene Encasment	Northtown Products Inc.	PE Encasement for DIP	AWWA C105	8 mil LLD
<b><u>Water - Sampling Station</u></b>						
03/07/23	33 12 50	Water Sampling Station	Kupferle Foundry Company	Eclipse, Number 88 , 12-inch Depth of Bury		As shown in spec. 33 12 50
09/02/24	33-12-50	Water Sampling Station	Mueller Water Products, Inc.	Model BSS01-36-MUDG2-CSD-NL, Freeze-Proof, Hasp for Locking Access Hatch	<b>This product removed</b>	
<b><u>Water - Automatic Flusher</u></b>						
10/21/20		Automated Flushing System	Mueller Hydroguard	HG6-A-IN-2-BRN-LPRR(Portable) HG2-A-IN--2-PVC-018-LPLG(Permanent)		
04/09/21		Automated Flushing System	Kupferle Foundry Company	Eclipse #9800wc		
04/09/21		Automated Flushing System	Kupferle Foundry Company	Eclipse #9700 (Portable)		

The Fort Worth Water Department's Standard Products List has been developed to minimize the submittal review of products which meet the Fort Worth Water Department's Standard Specifications during utility construction projects. When Technical Specifications for specific products, are included as part of the Construction Contract Documents, the requirements of the Technical Specification will override the Fort Worth Water Department's Standard Specifications and the Fort Worth Water Department's Standard Products List and approval of the specific products will be based on the requirements of the Technical Specification whether or not the specific product meets the Fort Worth Water Department's Standard Specifications or is on the Fort Worth Water Standard Products List.

Yellow Highlight indicates recent changes



**CITY OF FORT WORTH TRANSPORTATION/PUBLIC WORKS DEPARTMENT**  
**STANDARD PRODUCTS LIST AS OF 2/4/2025**

Approval	Spec No.	Classification	Manufacturer	Mix ID	Mix Description	Design Requirements	National Spec
<b>Concrete</b>							
<b>Class A (Sidewalk, ADA Ramps, Driveways, Curb/Gutter, Median Pavement)</b>							
9/9/2022	03 30 00	Mix Design	American Concrete Company	30CAF029	3000 psi Concrete for Sidewalks & ADA Ramps	3-5" Slump; 3-6% Air	
6/24/2024	03 30 00	Mix Design	Big Town Concrete	302050-1	3000 psi Concrete for Curbs and Sidewalks	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Burnco Texas	30U101AG	3000 psi Concrete Mix for Flatwork	3-5" Slump; 3-6% Air	
4/1/2024	03 30 00	Mix Design	Burnco Texas	30U500BG	3000psi Concrete Mix for Sidewalks	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Carder Concrete	FWCC502001	3000 psi for Sidewalks, Driveways, Ramps, Curb & Gutter, Flatwork	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Carder Concrete	FWCC502021	3500 psi concrete for Sidewalks, Driveways, Ramps, Curb & Gutter	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Chisholm Trail Redi Mix	C13020AE	3000 psi Concrete for Driveways, Curb & Gutter	3-5" Slump; 4.5-7.5% Air	
9/9/2022	03 30 00	Mix Design	City Concrete Company	30HA20II	3000 psi Concrete Mix for Blocking, Sidewalks, Flatwork, Pads	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	253-W	3000 psi Concrete Mix for Sidewalks, ADA Ramps, Driveways, Curb & Gutter, Safety End Treatments, Non-TxDOT Retaining Walls	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	250	3000 psi Concrete Mix for Sidewalks, Driveways, ADA Ramps	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	350	3000 psi Concrete Mix for Sidewalks, Driveways, ADA Ramps	3-5" Slump; 3-6% Air	
1/29/2024	03 30 00	Mix Design	Eastmra Ready Mix	R3050AEWR	5,000 Sacks / 3,000 psi Concrete for Sidewalks, Ramps, Inlets, and Manholes	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	GCH Concrete Services	GCH44000	4000 psi Concrete for Sidewalks, Ramps, Headwalls, Inlets, and Storm Drain Structures	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Holcim - SOR, Inc.	1261	3000 psi Concrete Mix for Sidewalks	3-5" Slump; 3-6% Air	
9/23/2024	03 30 00	Mix Design	Holcim - SOR, Inc.	5177	3000 psi Concrete Mix for Sidewalks, Curbs and Gutters	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Holcim - SOR, Inc.	5409	4000 psi Concrete Mix for Sidewalks, Inlets	3-5" Slump; 3-6% Air	
4/7/2023	03 30 00	Mix Design	Liquid Stone	C301D	3,000 psi Concrete for Sidewalks, Approaches, and Driveways.	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Martin Marietta	R2136214	3,000 psi Concrete for Sidewalks & Ramps	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Martin Marietta	R2136014	3,000 psi Concrete for Sidewalks & Ramps	3-5" Slump; 3-6% Air	
4/1/2023	03 30 00	Mix Design	Martin Marietta	R2136N14	5,000 sacks / 3,000 psi concrete for Sidewalks	3-5" Slump; 3-6% Air	
6/1/2023	03 30 00	Mix Design	Martin Marietta	R2136R20	3,000 psi Concrete for Sidewalks and Ramps	3-5" Slump; 3-6% Air	
6/1/2023	03 30 00	Mix Design	Martin Marietta	R2136N20	3,000 psi Concrete for Sidewalks and Ramps	3-5" Slump; 3-6% Air	
11/2/2022	03 30 00	Mix Design	Martin Marietta	R2141K24	4,000 psi Concrete for Junction Boxes, Sidewalks and Ramps	3-5" Slump; 3-6% Air	
4/7/2023	03 30 00	Mix Design	Martin Marietta	R2136K14	3,000 psi concrete for sidewalks and ramps	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Martin Marietta	R2131314	3,000 psi Concrete for Sidewalks & Ramps	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Martin Marietta	R2132214	3,000 psi Concrete for Sidewalks & Ramps	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Martin Marietta	DP94905C	3,000 psi Concrete for Sidewalks & Ramps	3-5" Slump; 4.5-7.5% Air	
9/9/2022	03 30 00	Mix Design	NBR Ready Mix	CLS A-Y-Y	5,000 Sacks / 3,000 psi Concrete for Sidewalks & Ramps, and Curb & Gutter	3-5" Slump; 3-6% Air	
10/4/2023	03 30 00	Mix Design	NBR Ready Mix	CLS A-N-Y	5,000 Sacks / 3,000 psi Concrete for Sidewalks & Ramps, and Curb & Gutter	3-5" Slump; 3-6% Air	
7/10/2023	03 30 00	Mix Design	Oshum	30A50MR	5 SK / 3,000 psi Concrete for Sidewalks	3-5" Slump; 3-6% Air	
1/18/2023	03 30 00	Mix Design	Rapid Redi Mix	RRM5020A	3000 psi Concrete for Curb, Gutter, Driveways, Sidewalk, Ramps	3-5" Slump; 3-6% Air	
1/24/2023	03 30 00	Mix Design	Rapid Redi Mix	RRM5525A	3600 psi Concrete for Sidewalks, Approaches, ADA Ramps	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Redi-Mix	10L11504	6,000 Sacks / 4,000 psi Concrete Mix for Sidewalks, Curb & Gutter, Sewer Manhole, Inlets, & Junction Boxes	3-5" Slump; 3-6% Air	
10/24/2024	03 30 00	Mix Design	SRM Concrete	30850	3000 psi Concrete for Sidewalks & ADA Ramps	3-5" Slump; 3-6% Air	
10/24/2024	03 30 00	Mix Design	SRM Concrete	30350	3000 psi Concrete for Sidewalks & ADA Ramps	3-5" Slump; 3-6% Air	
10/18/2024	03 30 00	Mix Design	SRM Concrete	30050	3000 psi Concrete for Sidewalks, Ramps, Inlets, Junction Boxes, Thrust Blocks, Curb and Gutter, Driveways, Barrier Ramp	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Tarrant Concrete	FW5025A	3000 psi Concrete Mix for Curb & Gutter, Driveways, Sidewalks, ADA Ramps	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Tarrant Concrete	CP5020A	3000 psi Concrete Mix for Curb and Gutter	3-5" Slump; 3-6% Air	
10/10/2022	03 30 00	Mix Design	Tarrant Concrete	TCFW5020A	3000 psi Concrete for Sidewalks	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Tarrant Concrete	FW5525A2	3600 psi Concrete Mix for Sidewalks, Drive Approaches, ADA Ramp, Curb and Gutter	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Titan Ready Mix	3020AE	3000 psi Concrete for Sidewalks	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	True Grit Redi Mix	0250_230	3000 psi Concrete Mix for Flatwork, Curb & Gutter, Driveways, Sidewalks, ADA Ramps	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	True Grit Redi Mix	0250_2301	3000 psi Concrete Mix for Curb & Gutter, Driveways, Sidewalks, ADA Ramps	3-5" Slump; 3-6% Air	
<b>Class CIP (Inlets, Manholes, Junction Boxes, Encasement, Blocking, Collars, Lightpole Foundations)</b>							
9/9/2022	03 30 00	Mix Design	American Concrete Company	40CNF065	4000 psi Concrete for Manholes & Utility Structures	3-5" Slump; 0-3% Air	
9/9/2022	03 30 00	Mix Design	Burnco Texas	40U500BG	4000 psi Concrete Mix for Storm Drain Structures, Driveways, Screen Walls, Collars	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	255-2	3000 psi Concrete Mix for Inlets, Thrust Blocking, Concrete Encasement	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	355	3000 psi Concrete Mix for Inlets, Thrust Blocking, Concrete Encasement	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	255	3500 psi Concrete Mix for Flatwork, Inlets, Thrust Blocking Concrete Encasement	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	270	5000 psi Concrete Mix for Cast-in-Place Box Culverts	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	370	5000 psi Concrete Mix for Cast-in-Place Box Culverts	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	353	3000 psi Concrete Mix for Sidewalks, ADA Ramps, Driveways, Curb & Gutter, Safety End Treatments, Non-TxDOT Retaining Walls	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	257	3600 psi Concrete mix for Valley Gutters, Lightpole Foundations	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	357	3600 psi Concrete Mix for Valley Gutters, Lightpole Foundations	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Holcim - SOR, Inc.	1701	4000 psi Concrete Mix for Storm Drain Structures, Sanitary Sewer Manholes, Junction Box	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Holcim - SOR, Inc.	1551	3000 psi Concrete Mix for Blocking	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Holcim - SOR, Inc.	5409	4000 psi Concrete Mix for Sidewalks, Inlets	3-5" Slump; 3-6% Air	
4/27/2023	03 30 00	Mix Design	Liquid Stone	C361DNFA	3,600 psi Concrete for Retaining wall, driveway, junction box apron, approach	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Martin Marietta	R2141230	4,000 psi Concrete for Manholes, Inlets & Headwalls, Valve Pads	3-5" Slump; 3-6% Air	
8/4/2023	03 30 00	Mix Design	Martin Marietta	R2141R24	5.53 Sacks / 4,000 psi Concrete for Junction Box, Box Culvert, Sidewalks and Ramps.	3-5" Slump; 3-6% Air	
11/20/2023	03 30 00	Mix Design	Martin Marietta	R2146R33	6.01 Sacks / 4,000 psi Concrete Mix for CIP Sewer Manholes	3-5" Slump; 3-6% Air	
11/20/2023	03 30 00	Mix Design	Martin Marietta	R2146K33	6.01 Sacks / 4,000 psi Concrete Mix for CIP Sewer Manholes.	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Martin Marietta	R2142233	3,600 psi Concrete for Manholes, Inlets & Headwalls	3-5" Slump; 4.5-7.5% Air	
9/9/2022	03 30 00	Mix Design	Martin Marietta	R2136224	3,600 psi Concrete for Curb Inlets	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Martin Marietta	R2141233	3,600 psi Concrete for Storm Structures, Inlets, Blocking & Encasement	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Martin Marietta	R2146038	4,500 psi Concrete for Inlets, Storm Drain Structures	3-5" Slump; 3-6% Air	
10/24/2024	03 30 00	Mix Design	Martin Marietta	R2146K34	4000 psi Concrete for Inlets, Manholes, Headwalls, Thrust Blocks, Collars	3-5" Slump; 3-6% Air	
9/12/2023	03 30 00	Mix Design	NBR Ready Mix	CLS P1-YY	6,000 Sacks / 4,000 psi Concrete for Collars, Manholes, Box Culverts	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	NBR Ready Mix	TX C-YY	3000 psi Concrete Mix for Curb Inlets	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	NBR Ready Mix	TX C-NY	3000 psi Concrete Mix for Curb Inlets	3-5" Slump; 3-6% Air	
1/18/2023	03 30 00	Mix Design	Rapid Redi Mix	RRM5320A	3000 psi Concrete for Blocking	3-5" Slump; 3-6% Air	
1/18/2023	03 30 00	Mix Design	Rapid Redi Mix	RRM6020ASS	4000 psi Concrete for Storm Drain Structures	3-5" Slump; 3-6% Air	



CITY OF FORT WORTH TRANSPORTATION/PUBLIC WORKS DEPARTMENT  
STANDARD PRODUCTS LIST AS OF 2/4/2025

Approval	Spec No.	Classification	Manufacturer	Mix ID	Mix Description	Design Requirements	National Spec
<b>Concrete (Continued)</b>							
10/24/2024	03 30 00	Mix Design	SRM Concrete	40350	4000 psi Concrete for Inlets, Manholes, Headwalls, Thrust Blocks, Collars	3-5" Slump; 3-6% Air	
10/24/2024	03 30 00	Mix Design	SRM Concrete	40850	4000 psi Concrete for Inlets, Manholes, Headwalls, Thrust Blocks, Collars	3-5" Slump; 3-6% Air	
9/16/2024	03 30 00	Mix Design	SRM Concrete	35050	3500 psi Concrete for Thrust Blocks and Collars	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Tarrant Concrete	FW5320A	3000 psi Concrete Mix for Blocking	3-5" Slump; 3-6% Air	
10/10/2022	03 30 00	Mix Design	Tarrant Concrete	TCFW6025A2	4000 psi Concrete for Manholes	3-5" Slump; 3-6% Air	
<b>Class C (Headwalls, Wingwalls, Culverts, Drilled Shafts)</b>							
<b>Drilled Shafts</b>							
9/9/2022	03 30 00	Mix Design	Burnco Texas	36U500BG	3600 psi Concrete Mix for Lighting and Traffic Signal Foundations <b>(Drilled Shafts)</b>	5.5-7.5" Slump; 3-6% Air	
6/21/2023	03 30 00	Mix Design	Cow Town Redi Mix	360-DS	3600 psi Concrete for Drilled Shaft/Lighting and Traffic Signal Foundation <b>(Drilled Shafts)</b>	5.5-7.5" Slump; 3-6% Air	
10/30/2024	03 30 00	Mix Design	Estrada Ready Mix	R36575AEWR	3600 psi Concrete for Drilled Shaft/Lighting and Traffic Signal Foundation <b>(Drilled Shafts)</b>	5.5-7.5" Slump; 3-6% Air	
12/5/2022	03 30 00	Mix Design	Holcim - SOR, Inc.	1822	3600 psi Concrete for <b>(Drilled Shafts)</b> /Lighting and Traffic Signal Foundations	5.5-7.5" Slump; 0-3% Air	
9/9/2022	03 30 00	Mix Design	Holcim - SOR, Inc.	1859	4000 psi Concrete for <b>(Drilled Shafts)</b> /Lighting and Traffic Signal Foundations	5.5-7.5" Slump; 3-6% Air	
4/7/2023	03 30 00	Mix Design	Liquid Stone	C361DHR	3,600 psi Concrete for <b>(Drilled Shaft)</b> Lighting and Traffic Signal Foundations	5.5-7.5" Slump; 3-6% Air	
6/27/2023	03 30 00	Mix Design	Martin Marietta	U2146N41	6.44sacks / 3,600 psi Concrete for <b>(Drilled Shafts)</b> / Lighting and Traffic Signal Foundations	5-7" Slump; 3-6% Air	
6/27/2023	03 30 00	Mix Design	Martin Marietta	U2146K45	6.65 sacks / 3,600 psi Concrete for <b>(Drilled Shafts)</b> / Lighting and Traffic Signal Foundations	5-7" Slump; 3-6% Air	
8/22/2024	03 30 00	Mix Design	NBR Ready Mix	135K2524	3500 psi Concrete for <b>(Drilled Shaft)</b> Lightpole Foundations	5.5" Slump; 3-6% Air	
8/22/2024	03 30 00	Mix Design	NBR Ready Mix	135K0524	3500 psi Concrete for <b>(Drilled Shaft)</b> Lightpole Foundations	5.5" Slump; 3-6% Air	
<b>Other Applications</b>							
9/9/2022	03 30 00	Mix Design	Carder Concrete	FWCC602001	4000 psi Concrete for Storm Drain Structures, Manholes, Headwalls, Retaining Walls, Valley Gutters, Drive Approaches	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	City Concrete Company	40LA2011	4000 psi Concrete Mix for Storm Drain Structures	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	260-2	3600 psi Concrete Mix for Box Culverts, Headwalls	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	360-1	3600 psi Concrete Mix for Box Culverts, Headwalls, Wingwalls	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Cow Town Redi Mix	260-1	3600 psi Concrete Mix for Headwalls	3-5" Slump; 3-6% Air	
1/29/2024	03 30 00	Mix Design	Estrada Ready Mix	R3655AEWR	5.50 Sacks / 3,600 psi Concrete for Headwalls, Wingwalls, and Culverts	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	GCH Concrete Services	GCH4000	4000 psi Concrete for Sidewalks, Ramps, Headwalls, Inlets, and Storm Drain Structures	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Holcim - SOR, Inc.	1851	4500 psi Concrete for Storm Drain Structures, Hand Placed Paving	3-5" Slump; 3-6% Air	
4/1/2023	03 30 00	Mix Design	Martin Marietta	310LBP	3,600 psi Concrete for Retaining Walls	3-5" Slump; 4-7% Air	
8/30/2023	03 30 00	Mix Design	Martin Marietta	R2141R30	5.85 SK / 4,000 psi Concrete for Box Culverts & Headwalls	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Martin Marietta	R2146035	4,000 psi Concrete for Manholes, Inlets & Headwalls, Valve Pads	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	SRM Concrete	40050	4,000 psi Concrete for Headwalls, Retaining Wall, Collars	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	SRM Concrete	35022	3,600 psi Concrete for Junction Box, Retaining Walls	3-5" Slump; 3-6% Air	
4/1/2024	03 30 00	Mix Design	SRM Concrete	45050	4500 psi Concrete for Storm Structures	3-5" Slump; 3-6% Air	
9/9/2022	03 30 00	Mix Design	Tarrant Concrete	FW6020A2	4000 psi Concrete Mix for Storm Drain Structures	3-5" Slump; 3-6% Air	
<b>Class P (Machine Placed Paving)</b>							
6/24/2024	32 13 13	Mix Design	Big Town Concrete	360060-1	3600 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
6/24/2024	32 13 13	Mix Design	Big Town Concrete	362060-1	3600 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Carder Concrete	FWCC552091	3600 psi for Machine Placed Paving	1-3" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Carder Concrete	FWCC602091	4000 psi for Machine Placed Paving	1-3" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	City Concrete Company	36LA2011	3600 psi Concrete Mix for Machine Placed Paving	1-3" Slump; 3-6% Air	
9/9/2022	33 13 13	Mix Design	Cow Town Redi Mix	257-M	3600 psi Concrete Mix for Machine Placed Paving	1-3" Slump; 3-6% Air	
11/14/2022	32 13 13	Mix Design	Cow Town Redi Mix	357-M	3600 psi Concrete Mix for Machine Placed Paving	1-3" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Cow Town Redi Mix	260-M	4000 psi Concrete Mix for Machine Placed Paving	1-3" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Cow Town Redi Mix	360-M	4000 psi Concrete Mix for Machine Placed Paving	1-3" Slump; 3-6% Air	
2/6/2024	32 13 13	Mix Design	Estrada Ready Mix	TD3655AEWR	5.50 Sacks / 3,600 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
8/4/2023	32 13 13	Mix Design	Martin Marietta	Q2141R27	5.69 sacks / 4,000 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
11/2/2022	32 13 13	Mix Design	Martin Marietta	Q2141K30	4,000 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
10/4/2023	32 13 13	Mix Design	NBR Ready Mix	TX C SF-YY	5.50 Sacks / 3,600 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
10/4/2023	32 13 13	Mix Design	NBR Ready Mix	TX C SF-NY	5.50 Sacks / 3,600 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
10/24/2024	32 13 13	Mix Design	SRM Concrete	40068	4000 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
10/24/2024	32 13 13	Mix Design	SRM Concrete	40825	4000 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
9/16/2024	32 13 13	Mix Design	SRM Concrete	40025	4000 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
10/18/2024	32 13 13	Mix Design	SRM Concrete	35023	3600 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Tarrant Concrete	FW5520AMP	3600 psi Concrete for Machine Placed Paving	1-3" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	True Grit Redi Mix	0255.2301	3600 psi Concrete Mix for Machine Placed Paving	1-3" Slump; 3.5-6.5% Air	
9/9/2022	32 13 13	Mix Design	True Grit Redi Mix	0260.2302	4000 psi Concrete Mix for Machine Placed Paving	1-3" Slump; 3.5-6.5% Air	
<b>Class H (Hand Placed Paving)</b>							
9/9/2022	32 13 13	Mix Design	American Concrete Company	45CAF076	4500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
5/2/2023	32 13 13	Mix Design	Big D Concrete	CM14520AE	4500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Big Town Concrete	452065-1	4500 psi hand placed paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Big Town Concrete	450065-1	4500 psi hand placed paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Burnco Texas	45U500BG	4500 psi Concrete Mix for Hand Placed Paving, Storm Structures	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Carder Concrete	FWCC602021	4500 psi concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	City Concrete Company	45NA20II	4500 psi Concrete Mix for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Cow Town Redi Mix	265	4500 psi Concrete Mix for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Cow Town Redi Mix	365	4500 psi Concrete Mix for Hand Placed Paving	3-5" Slump; 3-6% Air	
1/29/2024	32 13 13	Mix Design	Estrada Ready Mix	R4560AEWR/	6.00 Sacks / 4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 4-6% Air	
9/9/2022	32 13 13	Mix Design	GCH Concrete Services	GCH4500	4500 psi Concrete Hand Placed Paving	3-5" Slump; 3-6% Air	
10/4/2024	32 13 13	Mix Design	Holcim - SOR, Inc.	5507	4500 psi Concrete Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Holcim - SOR, Inc.	1851	4500 psi Concrete for Storm Drain Structures, Hand Placed Paving	3-5" Slump; 3-6% Air	
11/2/2022	32 13 13	Mix Design	Martin Marietta	R2146N35	6.11 sacks / 4,500 psi concrete for Hand Placed Paving, Inlets, Manholes, Headwalls	3-5" Slump; 3-6% Air	



**CITY OF FORT WORTH TRANSPORTATION/PUBLIC WORKS DEPARTMENT**  
**STANDARD PRODUCTS LIST AS OF 2/4/2025**

Approval	Spec No.	Classification	Manufacturer	Mix ID	Mix Description	Design Requirements	National Spec
<b>Concrete(Continued)</b>							
8/4/2023	32 13 13	Mix Design	Martin Marietta	R2146R36	6.17 / 4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
11/2/2022	32 13 13	Mix Design	Martin Marietta	R2146N36	4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
11/2/2022	32 13 13	Mix Design	Martin Marietta	R2146K36	4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
5/22/2023	32 13 13	Mix Design	Martin Marietta	R2146K37	6.22 sack / 4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
12/22/2023	32 13 13	Mix Design	Martin Marietta	R2146R44	6.60 Sacks / 4,500 psi Concrete Mix for Hand Placed Paving	3-5" Slump; 3-6% Air	
12/22/2023	32 13 13	Mix Design	Martin Marietta	R2146K44	6.60 Sacks / 4,500 psi Concrete Mix for Hand Placed Paving	3-5" Slump; 3-6% Air	
11/15/2022	32 13 13	Mix Design	Martin Marietta	R2146P36	4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
11/15/2022	32 13 13	Mix Design	Martin Marietta	R2146K36	4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Martin Marietta	R2147241	4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 4.5-7.5% Air	
9/9/2022	32 13 13	Mix Design	Martin Marietta	R2146236	4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Martin Marietta	R2146036	4,500 psi Concrete for Hand Placed Paving, Inlets	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Martin Marietta	R2146242	4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Martin Marietta	R2146042	4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	NBR Ready Mix	CLS P2-YY	6.50 Sacks / 4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
10/4/2023	32 13 13	Mix Design	NBR Ready Mix	CLS P2-NY	6.50 Sacks / 4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
7/10/2023	32 13 13	Mix Design	Osburn	45A60MR	6 SK / 4,500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
1/24/2023	32 13 13	Mix Design	Rapid Redi Mix	RRM6320AHP	4500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
1/13/2023	32 13 13	Mix Design	SRM Concrete	45023	4500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	SRM Concrete	45000	4500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
10/24/2024	32 13 13	Mix Design	SRM Concrete	45350	4500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
10/24/2024	32 13 13	Mix Design	SRM Concrete	45850	4500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
10/18/2024	32 13 13	Mix Design	SRM Concrete	45050	4500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Tarrant Concrete	FW6020AHP	4500 psi Concrete Mix for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Tarrant Concrete	FW60AHP	4500 psi Concrete Mix for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Tarrant Concrete	TCFW6020AHP	4500 psi Concrete Mix for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Titan Ready Mix	TRC4520	4500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	True Grit Redi Mix	0260.2301	4500 psi Concrete Mix for Hand Placed Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	True Grit Redi Mix	0265.2301	4500 psi Concrete Mix for Valley Gutters, Hand Placed Paving	3-5" Slump; 3.5-6.5% Air	
9/9/2022	32 13 13	Mix Design	True Grit Redi Mix	270.230	5000 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
10/9/2024	32 13 13	Mix Design	Wildcatter	4520AT	4500 psi Concrete for Hand Placed Paving	3-5" Slump; 3-6% Air	
<b>Class HES (High Early Strength Paving)</b>							
9/9/2022	32 13 13	Mix Design	Big D Concrete	14500AE	4500 psi Concrete for High Early Strength Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Burnco Texas	53U120AG	4000 psi Concrete Mix for High Early Strength Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Cow Town Redi Mix	370-INC	4500 psi Concrete for HES Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Cow Town Redi Mix	375-NC	5000 psi Concrete for HES Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Cow Town Redi Mix	370-NC	4500 psi Concrete for HES Paving	3-5" Slump; 3-6% Air	
1/18/2023	32 13 13	Mix Design	Cow Town Redi Mix	380-NC	4500 psi Concrete for HES Paving	3-5" Slump; 3-6% Air	
1/29/2024	32 13 13	Mix Design	Estrada Ready Mix	4575AE5C	7.50 Sacks / 4,500 psi (3,000 psi @ 3-day) Concrete for HES Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Holcim - SOR, Inc.	2125	5000 psi Concrete for HES Paving	3-5" Slump; 3-6% Air	
1/24/2023	32 13 13	Mix Design	Liquid Stone	C451DHR-A	4500psi Concrete for HES Paving	3-5" Slump; 3-6% Air	
4/7/2023	32 13 13	Mix Design	Martin Marietta	R2161K70	6,000 psi (3,000 psi @ 24 hrs.) for HES Paving	3-5" Slump; 3-6% Air	
2/10/2023	32 13 13	Mix Design	SRM Concrete	50310	5,000 psi Concrete for HES Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	SRM Concrete	40326	4,500 (3,000 @ 3-days) psi Concrete for HES Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Tarrant Concrete	FW6520AMR	4500 (3000 psi @ 3-days) psi HES Paving	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Tarrant Concrete	FW7520AMR	4500 (3000 psi @ 3-days) psi Concrete HES Paving	3-5" Slump; 3-6% Air	
<b>Class S (Bridge Slabs, Top Slabs of Direct Traffic Culverts, Approach Slabs)</b>							
9/9/2022	32 13 13	Mix Design	Cow Town Redi Mix	260	4000 psi Concrete Mix for Bridge Slabs, Box Culverts, Headwalls	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Cow Town Redi Mix	360	4000 psi Concrete Mix for Bridge Slabs, Box Culverts, Headwalls	3-5" Slump; 3-6% Air	
9/9/2022	32 13 13	Mix Design	Cow Town Redi Mix	365-STX	4000 psi Concrete for Bridge slabs, top slabs of direct traffic culverts, approach slabs-TXDOT Class S-No Fly Ash	3-5" Slump; 3-6% Air	
1/29/2024	32 13 13	Mix Design	Estrada Ready Mix	R4060AEWR	6,000 Sacks / 4,000 psi Concrete for Bridge Slabs, Top Slabs, and Approach Slabs	4-6" Slump; 3-6% Air	
5/3/2023	32 13 13	Mix Design	Martin Marietta	M7842344	4,000 psi Concrete for Bridge Deck	3-5" Slump; 4.5-7.5% Air	
4/1/2023	32 13 13	Mix Design	Martin Marietta	R2146P33	6.01 sacks / 4,000 psi concrete for Bridge Deck	3-5" Slump; 3-6% Air	
4/15/2024	32 13 13	Mix Design	NBR Ready Mix	TX S-NY	5.50 Sacks / 4000psi Concrete Mix for Class S Slab Paving - No Fly Ash	3-5" Slump; 3-6% Air	
4/15/2024	32 13 13	Mix Design	NBR Ready Mix	TX S-YY	4.50 Sacks / 4000psi Concrete Mix for Class S Slab Paving	3-5" Slump; 3-6% Air	
5/5/2023	32 13 13	Mix Design	SRM Concrete	D100008553CB	4,000 psi Concrete for Bdridge Approach Slab, Deck Slab	3-5" Slump; 3-6% Air	
<b>Concrete Base Trench Repair</b>							
4/1/2023	03 34 16	Mix Design	Burnco Texas	10YH50BF	1000 psi Concrete Base Material for Trench Repair	Flowable; 8.5-11.5% Air	
9/9/2022	03 34 16	Mix Design	Burnco Texas	08Y450BA	800 psi Concrete Mix for Base for Trench Repair	5-7" Slump; 3-6% Air	
<b>Controlled Low Strength Material</b>							
9/9/2022	03 34 13	Mix Design	Burnco Texas	01Y690BF	100 psi Concrete Mix for Flowable Fill	Flowable; 8.5-11.5% Air	
9/9/2022	03 34 13	Mix Design	Carder Concrete	FWCC359101	50-150 psi Flowable Fill - CLSM	3-5" Slump; 8-12% Air	
9/9/2022	03 34 13	Mix Design	Carder Concrete	FWFF237501	50-150 psi Flowable Fill - CLSM	Flowable; 8.5-11.5% Air	
9/9/2022	03 34 13	Mix Design	City Concrete Company	11-350-FF	50-150 psi Concrete for Flowable Fill-CLSM	Flowable; 8-12% Air	
9/9/2022	03 34 13	Mix Design	Cow Town Redi Mix	Mix# 9	70 psi Flowable Fill - CLSM	7-9" Slump; 8-11% Air	
10/4/2023	03 34 13	Mix Design	NBR Ready Mix	FTW FLOW FILL	150 psi concrete for Flowable	7-10" Slump; 8-12% Air	
9/9/2022	03 34 13	Mix Design	Tarrant Concrete	FWFF150CLSM	50-150 psi Flowable Fill - CLSM	Flowable; 8-12% Air	
<b>Concrete Rip Rap</b>							
4/1/2023	31 37 00	Mix Design	Martin Marietta	R2141030	4,000 psi Concrete for Riprap	3-5" Slump; 3-6% Air	
4/1/2023	31 37 00	Mix Design	Martin Marietta	R2146033	4,000 psi Concrete for Riprap	3-5" Slump; 3-6% Air	
<b>Asphalt Paving</b>							
9/9/2022	32 12 16	Mix Design	Austin Asphalt	FT5B117965	FT5B117965 PG64-22 Type B Fine Base		
9/9/2022	32 12 16	Mix Design	Austin Asphalt	FT1B139965	FT1B139965 PG64-22 Type B Fine Base		
9/9/2022	32 12 16	Mix Design	Austin Asphalt	FT1B117.2	FT1B117.2 PG64-22 Type B Fine Base		
5/1/2024	32 12 16	Mix Design	Reynolds Asphalt	340-DG-B P	340-DG-B PG64-22 Type B Base Course		
9/9/2022	32 12 16	Mix Design	Reynolds Asphalt	1112B	1112B PG64-22 Type B Fine Base		
9/9/2022	32 12 16	Mix Design	Reynolds Asphalt	1612B	1612B PG64-22 Type B Fine Base		
12/5/2022	32 12 16	Mix Design	Sunmount Paving	3076BV6422	3076BV6422 PG64-22 Type B Fine Base		
9/9/2022	32 12 16	Mix Design	Sunmount Paving	341-BRAP6422ERG	341-BRAP6422ERG PG64-22 Type B Fine Base		
9/9/2022	32 12 16	Mix Design	TXBIT	37-211305-20	37-211305-20 PG64-22 Type B Fine Base		
9/9/2022	32 12 16	Mix Design	TXBIT	44-211305-17	44-211305-17 PG64-22 Type B Fine Base		
9/9/2022	32 12 16	Mix Design	TXBIT	211305 (1757)	211305 (1757) PG64-22 Type B Fine Base		



**CITY OF FORT WORTH TRANSPORTATION/PUBLIC WORKS DEPARTMENT**  
**STANDARD PRODUCTS LIST AS OF 2/4/2025**

Approval	Spec No.	Classification	Manufacturer	Mix ID	Mix Description	Design Requirements	National Spec
<b>Asphalt(Continued)</b>							
9/9/2022	32 12 16	Mix Design	TXBIT	64-224125-18 PG	64-224125-18 PG70-22 Type D Fine Surface		
4/1/2024	32 12 16	Mix Design	TXBIT	344 MAC-SP-D 70-22XR	344 MAC-SP-D 70-22XR SAC A-R Type D Fine Surface		
<b>Detectable Warning Surface</b>							
9/9/2022	32 13 20	DWS - Pavers	Pine Hall Brick (Winston Salem, NC)		Tactile Pavers		
9/9/2022	32 13 20	DWS - Pavers	Western Brick Co. (Houston, TX)		Detectable Warning Pavers		
9/9/2022	32 13 20	DWS - Composite			Armor Tile		
9/9/2022	32 13 20	DWS - Composite	ADA Solutions (Wilmington, MA)		Heritage Brick CIP Composite Paver		
4/7/2023	32 13 20	DWS - Pavers	ADA Solutions (Wilmington, MA)		Detectable Warning Pavers		
<b>Silicone Joint Sealant</b>							
9/9/2022	32 13 73	Joint Sealant	Dow	890SL	890SL - Cold Applied, Single Component, Silicone Joint Sealant		ASTM D5893
9/9/2022	32 13 73	Joint Sealant	Tremco	900SL	900SL - Cold Applied, Single Component, Silicone Joint Sealant		ASTM D5893
9/9/2022	32 13 73	Joint Sealant	Pecora	300SL	300SL - Cold Applied, Single Component, Silicone Joint Sealant		ASTM D5893
9/9/2022	32 13 73	Joint Sealant	Crafcro	RoadSaver Silicone	RoadSaver Silicone - Cold Applied, Single Component, Silicone Joint Sealant		ASTM D5893
<b>Utility Trench Embedment Sand</b>							
9/9/2022	33 05 10	Embedment Sand	Silver Creek Materials		Utility Embedment Sand		ASTM C33
9/9/2022	33 05 10	Embedment Sand	Crouch Materials		Utility Embedment Sand		ASTM C33
9/9/2022	33 05 10	Embedment Sand	F and L Dirt Movers		Utility Embedment Sand		ASTM C33
9/9/2022	33 05 10	Embedment Sand	F and L Dirt Movers		Utility Embedment Sand		ASTM C33
9/9/2022	33 05 10	Embedment Sand	Tin Top Martin Marietta		Utility Embedment Sand		ASTM C33
<b>Storm Sewer - Manholes &amp; Bases/Frames &amp; Covers/Standard (Round) 33-05-13</b>							
9/28/2018	33 05 13	Manhole Frames and Covers	AccuCast (Govind Steel Company, LTD)	MHRC #220605	MHRC #220605 (Size - **24" Dia.)		ASTM A48 AASHTO M306
9/28/2018	33 05 13	Manhole Cover	Neneah Foundry	NF-1274-T91	NF-1274-T91 (Size - 32" Dia.)		ASTM A48 AASHTO M306
9/28/2018	33 05 13	Manhole Frames and Covers	Neneah Foundry	NF-1743-LM (Hinged)	NF-1743-LM (Hinged) (Size - 32" Dia.)		ASTM A48 AASHTO M306
9/28/2018	33 05 13	Manhole Frame	Neneah Foundry	NF-1930-30	NF-1930-30 (Size - 32.25" Dia.)		ASTM A48 AASHTO M306
9/28/2018	33 05 13	Manhole Frames and Covers	Neneah Foundry	R-1743-HV	R-1743-HV (Size - 32" Dia.)		ASTM A48 AASHTO M306
4/3/2019	33 05 13	Manhole Frames and Covers	SIP Industries ++	2279ST	2279ST (Size - 24" Dia.)		ASTM A48 AASHTO M306
4/3/2019	33 05 13	Manhole Frames and Covers	SIP Industries ++	2280ST	2280ST (Size - 32" Dia.)		ASTM A48 AASHTO M306
10/8/2020	33 05 13	Manhole Frames and Covers	EJ ( Formerly East Jordan Iron Works)	EJ1033 Z2/A	EJ1033 Z2/A (Size - 32.25" Dia.)		ASTM A536 AASHTO M306
3/8/2024	33 05 13	Curb Inlet Covers	SIP Industries ++	2296T	2296T (Size - **24" Dia.)		ASTM A48 AASHTO M306
6/18/2024	33 05 13	Curb Inlet Covers	SIP Industries ++	2279STN	2279STN (Size - 24" Dia.)		ASTM A48 AASHTO M306
<i>*Note: All new development and new installation manhole lids shall meet the minimum 30-inch opening requirement as specified in City Specification 33 05 13. Any smaller opening sizes will only be allowed for existing manholes that require replacement frames and covers.</i>							
<b>Storm Sewer - Inlet &amp; Structures 33-05-13</b>							
10/8/2020	33 49 20	Curb Inlets	Forterra		FRT-10x3-405-PRECAST** (Size - 10' X 3')		ASTM C913
10/8/2020	33 49 20	Curb Inlets	Forterra		FRT-10x3-406-PRECAST** (Size - 10' X 3')		ASTM C913
10/8/2020	33 49 20	Curb Inlets	Forterra		FRT-10x4.5-407-PRECAST** (Size - 10' X 4.5')		ASTM C913
10/8/2020	33 49 20	Curb Inlets	Forterra		FRT-10x4.5-420-PRECAST** (Size - 10' X 4.5')		ASTM C913
10/8/2020	33 39 20	Manhole	Forterra		FRT-4X4-409-PRECAST-TOP (Size - 4' X 4')		ASTM C913
10/8/2020	33 39 20	Manhole	Forterra		FRT-4X4-409-PRECAST-BASE (Size - 4' X 4')		ASTM C913
10/8/2020	33 39 20	Manhole	Forterra		FRT-5X5-410-PRECAST-TOP (Size - 5' X 5')		ASTM C913
10/8/2020	33 39 20	Manhole	Forterra		FRT-5X5-410-PRECAST-BASE (Size - 5' X 5')		ASTM C913
10/8/2020	33 39 20	Manhole	Forterra		FRT-6X6-411-PRECAST-TOP (Size - 6' X 6')		ASTM C913
10/8/2020	33 39 20	Manhole	Forterra		FRT-6X6-411-PRECAST-BASE (Size - 6' X 6')		ASTM C913
3/19/2021	33 49 20	Curb Inlets	Thompson Pipe Group		TPG-10X3-405-PRECAST INLET** (Size - 10' X 3')		ASTM 615
3/19/2021	33 49 20	Curb Inlets	Thompson Pipe Group		TPG-15X3-405-PRECAST INLET** (Size - 15' X 3')		ASTM 615
3/19/2021	33 49 20	Curb Inlets	Thompson Pipe Group		TPG-20X3-405-PRECAST INLET** (Size - 20' X 7')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-4X4-409-PRECAST TOP (Size - 4' X 4')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-4X4-409-PRECAST BASE (Size - 4' X 4')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-4X4-412-PRECAST 4-FT RISER (Size - 4' X 4')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-5X5-410-PRECAST TOP (Size - 5' X 5')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-5X5-410-PRECAST BASE (Size - 5' X 5')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-5X5-412-PRECAST 5-FT RISER (Size - 5' X 5')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-6X6-411-PRECAST TOP (Size - 6' X 6')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-6X6-411-PRECAST BASE (Size - 6' X 6')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-6X6-412-PRECAST 6-FT RISER (Size - 6' X 6')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-7X7-411-PRECAST TOP (Size - 7' X 7')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-7X7-411-PRECAST BASE (Size - 7' X 7')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-7X7-412-PRECAST 4-FT RISER (Size - 7' X 7')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-8X8-411-PRECAST TOP (Size - 8' X 8')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-8X8-411-PRECAST BASE (Size - 8' X 8')		ASTM 615
3/19/2021	33 39 20	Manhole	Thompson Pipe Group		TPG-8X8-412-PRECAST 5-FT RISER (Size - 8' X 8')		ASTM 615
3/19/2021	33 49 20	Drop Inlet	Thompson Pipe Group		TPG-4X4-408-PRECAST INLET (Size - 4' X 4')		ASTM 615
3/19/2021	33 49 20	Drop Inlet	Thompson Pipe Group		TPG-5X5-408-PRECAST INLET (Size - 5' X 5')		ASTM 615
3/19/2021	33 49 20	Drop Inlet	Thompson Pipe Group		TPG-6X6-408-PRECAST INLET (Size - 6' X 6')		ASTM 615
8/28/2023	33 49 10	Manhole	Oldcastle		Precast 4' x 4' Stacked Manhole (Size - 4' X 4')		ASTM C478
8/28/2023	33 49 10	Manhole	Oldcastle		Precast 5' x 8' Storm Junction Box (Size - 5' X 8')		ASTM C478
8/28/2023	33 49 10	Manhole	Oldcastle		Precast 4' x 4' Storm Junction Box (Size - 4' X 4')		ASTM C478
8/28/2023	33 49 10	Manhole	Oldcastle		Precast 5' x 5' Storm Junction Box (Size - 5' X 5')		ASTM C478
8/28/2023	33 49 10	Manhole	Oldcastle		Precast 6' x 6' Storm Junction Box (Size - 6' X 6')		ASTM C478
8/28/2023	33 49 10	Manhole	Oldcastle		Precast 8' x 8' Storm Junction Box Base (Size - 8' X 8')		ASTM C478
8/28/2023	33 49 10	Manhole	Oldcastle		Precast 5' x 8' Storm Junction Box Base (Size - 5' X 8')		ASTM C478
8/28/2023	33 49 10	Manhole	Rinker Materials		Reinforced 48" Diameter Spread Footing Manhole (Size - 4' X 4')		ASTM C433
8/28/2023	33 39 20	Curb Inlet 10' x 3' Riser	Thompson Pipe Group		Inlet Riser (Size - 3 FT)		ASTM C913-16
8/28/2023	33 39 20	Curb Inlet 15' x 3' Riser	Thompson Pipe Group		Inlet Riser (Size - 3 FT)		ASTM C913-16
8/28/2023	33 39 20	Curb Inlet 20' x 3' Riser	Thompson Pipe Group		Inlet Riser (Size - 3 FT)		ASTM C913-16
1/12/2024	33 49 20	Drop Inlet	AmeriTex Pipe & Products		Drop Inlet (4' X 4')		ASTM C913
1/12/2024	33 49 20	Drop Inlet	AmeriTex Pipe & Products		Drop Inlet (5' X 5')		ASTM C913
1/19/2024	33 49 20	Manhole	AmeriTex Pipe & Products		Precast 4x4' Storm Junction Box		ASTM C913
1/19/2024	33 49 20	Manhole	AmeriTex Pipe & Products		Precast 5x5' Storm Junction Box		ASTM C913
1/19/2024	33 49 20	Manhole	AmeriTex Pipe & Products		5' Precast Transition MH (4' MH on the top of 5' JB)		ASTM C913
1/19/2024	33 49 20	Manhole	AmeriTex Pipe & Products		Precast 6x6' Storm Junction Box		ASTM C913
1/19/2024	33 49 20	Manhole	AmeriTex Pipe & Products		6' Precast Transition MH (4' MH on the top of 6' JB)		ASTM C913
1/19/2024	33 49 20	Manhole	AmeriTex Pipe & Products		Precast 8x8' Storm Junction Box		ASTM C913
1/19/2024	33 49 20	Manhole	AmeriTex Pipe & Products		8' Precast Transition MH (4' MH on the top of 8' JB)		ASTM C913
1/19/2024	33 49 20	Manhole	AmeriTex Pipe & Products		Type C Storm Drain Manhole on Box (4' MH on the top of RCB)		ASTM C913
7/16/2024	33 49 20	Curb Inlets	AmeriTex Pipe & Products		10x3 Precast** (Size 10' x 3')		ASTM C913
7/16/2024	33 49 20	Curb Inlets	AmeriTex Pipe & Products		15x3 Precast** (Size 15' x 3')		ASTM C913

*\*Note: Precast inlets are approved for the stage 1 portion of the structure (basin) only. Stage 11 portion of the structure are required to be cast in-place. No exceptions to this requirement shall be allowed.*



CITY OF FORT WORTH TRANSPORTATION/PUBLIC WORKS DEPARTMENT  
 STANDARD PRODUCTS LIST AS OF 2/4/2025

Approval	Spec No.	Classification	Manufacturer	Mix ID	Mix Description	Design Requirements	National Spec
<b>Storm Sewer - Pipes &amp; Boxes 33-05-13</b>							
4/9/2021	33 41 13	Storm Drain Pipes	Advanced Drainage Systems, Inc. (ADS)		ADS HP Storm Polypropylene (PP) Pipe (Size - 12" - 60")		ASTM F2881 & AASHTO M330
8/28/2023	33 41 10	Storm Drain Pipes	Rinker Materials		Reinforced Concrete Pipe Tongue and Groove Joint Pipe (Size - 21" or larger)		ASTM C76, C655
8/28/2023	33 41 10	Culvert Box	Rinker Materials		Reinforced Concrete Box Culvert (Size - Various)		ASTM C789, C850
10/12/2023	33 41 10	Storm Drain Pipes	AmeriTex Pipe & Products		Reinforced Concrete Pipe Tongue and Groove Joint Pipe* (Size - 15" or larger)		ASTM C76, C506
10/12/2023	34 41 10	Culvert Box	AmeriTex Pipe & Products		Reinforced Concrete Box Culvert (size - Various))		ASTM C1433, C1577
10/18/2023	35 41 10	Storm Drain Pipes	The Turner Co.		Reinforced Concrete Pipe Tongue and Groove Joint Pipe* (Size - 15" or larger)		ASTM C76, C506
10/18/2023	33 41 10	Culvert Box	The Turner Co.		Reinforced Concrete Box Culvert (size - Various)		ASTM C1433, C1577
4/12/2024	33 41 10	Storm Drain Pipes	Thompson Pipe Group		Reinforced Concrete Pipe Tongue and Groove Joint Pipe* (Size Various)		ASTM C76, C506
6/25/2024	33 41 10	Culvert Box	Oldcastle		Reinforced Concrete Box Culvert		ASTM C1433, C1577
6/25/2024	33 41 10	Storm Drain Pipes	Oldcastle		Reinforced Concrete Pipe Tongue and Groove Joint Pipe* (Size Various)		ASTM C76, C506

Revision: Removed Argos, Ingram, Redi-Mix, Charley's DW (1-29-2025)