

Document 00910

ADDENDUM NO. 1

Date of Addendum: 8/5/11

PROJECT NAME: Proposed 48-inch / 42-inch Water Line along Existing Easements, West Orem, Chimney Rock, River Bluff Summit Ridge, Wood River, and Coachcreek from Sims Bayou Pump Station to Hillcroft and SWPS Chlorine Building Improvements

PROJECT NO: WBS No. S-000900-0109-4

BID DATE: August 11, 2011 (There is no change to the Bid Date.)

FROM: Carl W. Smitha, P.E., City Engineer
City of Houston, Department of Public Works and Engineering
611 Walker
Houston, Texas 77002
Attn: Arthur Morris, P.E., Project Manager

TO: Prospective Bidders

This Addendum forms a part of the Bidding Documents and will be incorporated into the Contract documents, as applicable. Insofar as the original Project Manual and Drawings are inconsistent, this Addendum governs.

This Addendum uses the change page method: remove and replace or add pages, or Drawing sheets, as directed in the change instructions below. Change bars (|) are provided in the outside margins of pages from the Project Manual to indicate where changes have been made; no change bars are provided in added Sections. Reissued Drawing Sheets show the Addendum number below the title block and changes in the Drawing are noted by a revision mark and enclosed in a revision cloud.

CHANGES TO PROJECT MANUAL

BIDDING REQUIREMENTS

1. Document 00010 – Table of Contents. Replace Entire Document.
2. Document 00410 – Bid Form. Replace Entire Document.

CONDITIONS OF THE CONTRACT

00910-1
08-04-11
Add No. 1

3. Document 00800 – Supplemental Conditions. Replace Entire Document.

SPECIFICATIONS

4. Document 01110 – Summary of Work. Replace Entire Document.
5. Document 01270S – Measurement and Payment. Replace Entire Document.
6. Section 02105 - Chemical Sampling and Analysis. Replace Section 1.02 Paragraph A.1.a. with the following: "a. Underground utility construction and appurtenances in areas identified within PPCA is on a linear foot basis, each basis, or lump sum basis, as shown in Document 00410 – Bid Form."
7. Section 02320S – Utility Backfill Materials. Add Supplement.
8. Section 02511S – Waterlines. Add Supplement.
9. Section 02521 – Gate Valves. Add Supplement.
10. Section 87100 – Door Hardware. Add Entire Document.

CHANGES TO DRAWINGS

11. Sheet 10 – Add the following call out, "Sta. 3+10 Flush Mounted Foreign Line Test Station See Detail 3, Sht 53."
12. Sheet 23 – Add the following Note, "Remove and Replace Wood Barricade."
13. Sheet 23 – Delete Butterfly Valve and operator manhole at Sta. 47+54.63, 36.97' Lt (BL Chimney Rock Rd.). Delete the following callout, "Sta. 47+54.63 1-48" BFV w/ Operator MH See Detail 1, Sht 44".
14. Sheet 23 – Delete the following call out, "Sta. 47+55.66, 27.63' Lt (BL Chimney Rock Rd.) 1 – 48" X 48" Tee, 1 - 48" Internal Elliptical Dished Head Plug, See Detail 5, Sht 42" Replace with the following call out, "Sta. 47+55.66, 27.63' Lt (BL Chimney Rock Rd.) 1 – 48" X 48" Tee, 1 - 48" Internal Elliptical Dished Head Plug, See Detail 5, Sht 42, 1 -48" Blind Flange."
15. Sheet 30 – Add the following Note, "7. Provide Protective Plastic Fencing along limits of construction from Sta. 56+00 to Sta. 70+65."
16. Sheet 31 - Add the following note, "4. Provide Protective Plastic Fencing along

limits of construction from Sta. 56+00 to Sta. 70+65.”

17. Sheet 31 – Add the following note, “5. US Army Corp Survey Monument to be reset by RPLS.”
18. Sheet 32 - Add the following note, “5. Provide Protective Plastic Fencing along limits of construction from Sta. 56+00 to Sta. 70+65.”
19. Sheet 33 – Delete the following callout, “Sta. 75+20, 79’ Lt 1-36” BFV w/ Operator MH See Note 3”. Replace with the following callout, “Sta. 75+20, 76’ Lt 1-36” Gate Valve with Box, See Note 3
20. Sheet 33 – Delete the following callout, “Sta. 75+22, 71’ Lt 1-36” BFV w/ Operator MH See Note 3”. Replace with the following callout, “Sta. 75+22, 71’ Lt 1-36” Gate Valve with Box, See Note 3
21. Sheet 34 – Delete the following callout, “Sta. 75+20 1 -36” BFV W Operator MH See Detail 1, Sht 44.” Replace with the following call out, “Sta. 75+20 1-36” Gate Valve with Box, See Detail 6, Sht 46
22. Sheet 37 – Delete detail 3 and replace with revised detail 3 shown in Exhibit A.
23. Sheet 37 – Add the following note to detail 4 and 5 “Drill & epoxy grout #5 reinforcing bars using Hilti HVA Capsule Adhesive Anchoring System or approved equal. Embedment shall be a minimum of 5” into existing concrete.”
24. Sheet 41 B – Delete the following note: “4. The Building is Not Fire Sprinkled”
25. Sheet 41 D – Replace Entire Sheet.
26. Sheet 41E- Replace Entire Sheet.
27. Sheet 41M - Delete General Note 1 and replace with “1. Where noted, remove all electrical equipment and associated wiring and conduit back to the panel serving this equipment.”
28. Sheet 41M – Add General Note 5, “5. Light switch South of Scrubber is to remain and be connected to new lights this area.”
29. Sheet 41M – Add General Note 6, “6. Existing heat detector in this room is to remain in service. When the new roof is installed, the heat detector shall be relocated to the proper spacing (12”) of the new roof.”
30. Sheet 41 O – Revise Keyed Note 1 as follows, “Electrical Contractor to

Provide 120 V, Single Pole Disconnect Switch for roll up door. Field Verify Exact Location and Requirement.

31. Sheet 41O – Add General Note 1. "1. All conduit on this project shall be PVC coated."
32. Sheet 41O – Add the following note to the Lighting Fixture Schedule, "Lights are to be mounted 12' AFF, clear of conduit and piping."
33. Sheet 41P – Delete Keyed Note 4.
34. Sheet 41P – Add the following to end of Keyed Note 7, "Contractor to verify exhaust duct diameter to assure correct fitting onto the existing exhaust duct."
35. Sheet 41P – Add the following to end of Keyed Note 8, "Temporary discharge duct to be in same diameter as existing duct connection in lieu of 18" as indicated."
36. Sheet 41R – Revise Key Note 1 to read "Existing Emergency Shower and 1 1/4" PVC Supply Piping to Remain in Service. Protect From Damage as Necessary During Construction."
37. Sheet 46 – Add Detail 6 – Horizontal Gate Valve with Concrete Saddle. See Attached Exhibit B for Detail.
38. Sheet 48 – Delete table titled "MINIMUM TUNNEL LINER/CASING SIZES AND THICKNESS" and replace with the following table:

MINIMUM TUNNEL LINER /CASING SIZES AND THICKNESS

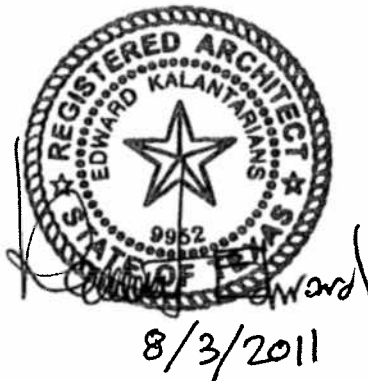
I	LOCATION	WATER MAIN DIA.	PIPE MATERIAL	NOMINAL DIAMETER (1) / WALL THICKNESS (IN.) / SQ. IN/FT		CASING I.D. WALL THICKNESS IN/IN
				2-FLANGE (2) LINER PLATE	4-FLANGE LINER PLATE	
	STA 47+47.75 TO STA 48+72.16	48"	Steel	—	—	66" / 0.375"
			DIP	—	—	72" / 0.375"
			PCCP	—	—	72" / 0.375"
	STA 52+10.24 TO STA 55+00.71	48"	Steel	66" / 0.075"	66" / 0.105"	66" / 0.375"
			DIP	76" / 0.105"	75" / 0.105"	72" / 0.375"
			PCCP	76" / 0.105"	75" / 0.105"	72" / 0.375"
	STA 66+22.00 TO STA 67+32.00	48"	Steel	66" / 0.075"	66" / 0.105"	66" / 0.375"
			DIP	76" / 0.075"	75" / 0.105"	72" / 0.375"
			PCCP	76" / 0.075"	75" / 0.105"	72" / 0.375"
	STA 69+79.87 TO STA 70+04.84	48"	Steel	66" / 0.075"	66" / 0.105"	66" / 0.750"
			DIP	76" / 0.105"	75" / 0.105"	72" / 0.8125"
			PCCP	76" / 0.105"	75" / 0.105"	72" / 0.8125"

NOTES:

1. DIAMETER OF LINER PLATE IS AT NEUTRAL AXIS.
2. LINER PLATE IS TWO FLANGE AND NOMINALLY 2-INCH CORRUGATION BY 6-INCH PROFILE.

END OF ADDENDUM NO. 1

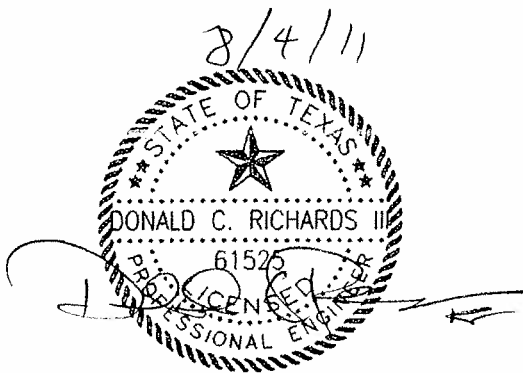
DATED: Ravi Kaleyatodi
Ravi Kaleyatodi, P.E., CFM
Senior Assistant Director
Engineering Branch
Engineering and Construction Division



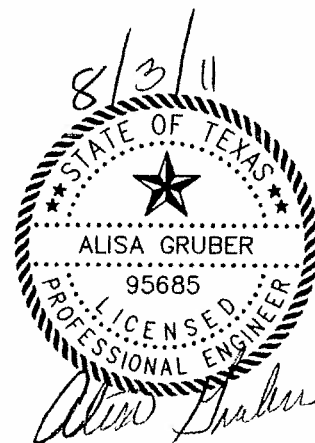
S&K Architects and Planners, Inc.
SWSP Chlorine Bldg Architectural



Lockwood, Andrews, & Newnam, Inc. (F-2614)
Sims Pump Station Structural



Lockwood, Andrews, & Newnam, Inc. (F-2614)
SWPS Chlorine Bldg MEP



Lockwood, Andrews, & Newnam, Inc. (F-2614)
Water Line Sections

END OF DOCUMENT

Document 00010
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NOTE: Bold capitalized Specification Sections are included in <http://documents.publicworks.houstontx.gov/document-center/specifications/index.htm>; and are incorporated in Project Manuals by reference as if copied verbatim. Documents listed "for filing" are to be provided by Bidder and are not included in this Project Manual unless indicated for example only. The Document numbers and titles hold places for actual documents to be submitted by Contractor during Bid, post-bid, or construction phase of the Project. Specification Sections marked with an asterisk (*) are amended by a supplemental specification, printed on blue paper and placed in front of the Specification it amends. Documents in the 200, 300 and 400 series of Division 00, except for Document 00410B – Bid Form, Part B, are not part of the Contract.

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42113	Brick Masonry for Buildings	03-07-2011
42200	Concrete Unit Masonry.....	03-07-2011
72100	Thermal Insulation.....	03-07-2011
74113	Metal Roof Panels	03-07-2011
76200	Sheet Metal Flashings and Trim.....	03-07-2011
83323	Overhead Coiling Doors	03-07-2011
87100	Door Hardware	08-04-2011
95113	Acoustical Panel Ceilings	03-07-2011
99123	Interior Painting	03-07-2011

APPENDIX A – STORM WATER POLLUTION PREVENTION PROGRAM.....	01-2011
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END OF DOCUMENT

Document 00410A

BID FORM – PART A

To: **The Honorable Mayor and City Council of the City of Houston
City Hall Annex
900 Bagby Street
Houston, Texas 77002**

Project: Proposed 48-inch / 42-inch Water Line along Existing Easements, West Orem, Chimney Rock, River Bluff, Summit Ridge, Wood River, and Coachcreek from Sims Bayou Pump Station (Sims) to Hillcroft and SWPS Chlorine Building Improvements

Project No.: WBS No. S-000900-0109-4

Bidder: _____
(Print or type full name of proprietorship, partnership, corporation, or joint venture.)

1.0 OFFER

- A. Total Bid Price:** Having examined the Project location and all matters referred to in Bid Documents for the Project, we, the undersigned, offer to enter into a Contract to perform the Work for the Total Bid Price shown on the signature page of this Document
- B. Security Deposit:** Included with the Bid is a Security Deposit in the amount of 10 percent of the Total Bid Price subject to terms described in Document 00200 – Instructions to Bidders.
- C. Period for Bid Acceptance:** This offer is open to acceptance and is irrevocable for 90 days from Bid Date. That period may be extended by mutual written agreement of the City and Bidder.
- D. Addenda:** All Addenda have been received. Modifications to Bid Documents have been considered and all related costs are included in the Total Bid Price.
- E. Bid Supplements:** The following documents are attached:
- ☒ Security Deposit *(as defined in Document 00200 – Instructions to Bidders)*
 - ☒ Document 00450 - Bidder's Statement of MWBE/PDBE/DBE/SBE Status
 - ☒ Document 00452 - Contractor's Submission List - Fair Campaign Ordinance Form A
 - ☐ Document 00453 – Bidder's Statement of Residency *(not required for AIP funded project)*
 - ☒ Document 00454 - Affidavit of Non-interest
 - ☒ Document 00455 - Affidavit of Ownership or Control
 - ☐ Document 00456 - Bidder's Certificate of Compliance with Buy American Program *(required for AIP funded project)*
 - ☒ Document 00457 – Conflicts of Interest Questionnaire (CIQ)
 - ☐ Document 00458 - Bidder's Certificate Regarding Foreign Trade Restriction *(required for AIP funded project)*
 - ☐ Document 00459 - Contractor's Statement Regarding Previous Contracts Subject to EEO *(required for AIP funded project)*
 - ☒ Document 00470 – Pay or Play Acknowledgement Form (POP 1-A)
 - ☐ Others as listed: _____

2.0 CONTRACT TIME

- A.** If offer is accepted, Contractor shall achieve Date of Substantial Completion within 270 days after Date of Commencement of the Work, subject to adjustments of Contract Time as provided in the Contract.

Document 00410B

BID FORM – PART B

1.0 TOTAL BID PRICE HAS BEEN CALCULATED BY BIDDER, USING THE FOLLOWING COMPONENT PRICES AND PROCESS (PRINT OR TYPE NUMERICAL AMOUNTS):

A. STIPULATED PRICE:

\$N/A

(Total Bid Price; minus Base Unit Prices, Extra Unit Prices, Cash Allowances and All Alternates, if any)

B. BASE UNIT PRICE TABLE:

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
GENERAL						
1	01502	Mobilization	LS	1	\$200,000.00 ⁽¹⁾	\$200,000.00 ⁽¹⁾
2	01555	Traffic Control and Regulation	LS	1	\$48,000.00 ⁽²⁾	\$48,000.00 ⁽²⁾
3	01555	Flagmen	LS	1	\$20,000.00 ⁽²⁾	\$ 20,000.00 ⁽²⁾
4	01555	Install low profile concrete traffic barrier	LF	3,210		
5	01555	Relocate low profile concrete traffic barrier	LF	200		
6	01555	Remove low profile concrete traffic barrier	LF	3,210		
7	01562	Tree and Plant Protection	LS	1		
8	01570	Inlet Protection Barrier	LF	160		
9	01570	Inlet Protection Barrier - Gravel Bag	LF	110		
10	01562	Zero Curb Cutback	LF	80		
11	01570	Filter Fabric Fence	LF	1,595		
12	01570	Reinforced Filter Fabric Barrier	LF	330		
13	01575	Stabilized Construction Exit	SY	200		
14	01578	Groundwater control for Open-Cut Construction	LF	4,870	\$15.00 ⁽²⁾	\$73,050 ⁽²⁾

00410B-1
08-04-11
Add No. 1

Bidder's Initials []

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
15	01270	Site Restoration for small diameter water line	LF	3853		
16	02105	Preparatory Work for Sampling and Analysis in PPCA	LS	1		
17	02120	Transportation and Disposal of Category I Soil	CY	1,620		
18	02120	Transportation and Disposal of Contaminated Groundwater	GAL	15,000		
19	02233	Clearing and Grubbing	AC	3		
20	02260	Trench Safety System for Trench Construction	LF	6,485		
21	01270	Remove and Replace Wooden Barrier	EA	1		
22	01270	Protective Mesh Fencing	LF	2,930		
23	02921	Hydromulch Seeding	AC	4		
24	02922	Sodding	SY	3,530		
WATER						
25	02082	Water Main Access Manhole	EA	4		
26	02082	Extra Depth Manhole	VF	16		
27	02082	Service Manhole for Butterfly Valve	EA	3		
28	02082	Service Manhole for Air Valves	EA	7		
29	02511	6-inch Diameter Water Line by Open-Cut	LF	43		
30	02511	6-inch diameter water line by Open-Cut with restrained joints	LF	35		
31	02511	6-inch diameter water line by trenchless construction with restrained joints	LF	20		

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
32	02511	8-inch diameter water line by open-cut with restrained joints	LF	100		
33	02511	8-inch Diameter Water Line by Trenchless Construction	LF	2,410		
34	02511	8-inch diameter water line by trenchless construction with restrained joints	LF	155		
35	02511	8-inch Diameter DIP Water Line by Open-Cut	LF	75		
36	02511	12-inch Diameter Water Line by Open Cut	LF	100		
37	02511	12-inch diameter water line by open-cut with restrained joints	LF	195		
38	02511	12-inch Diameter Water Line by Trenchless Construction	LF	525		
39	02511	12-inch diameter water line by trenchless construction with restrained joints	LF	190		
40	02511	42-inch Diameter Water Line by Open Cut	LF	4,570		
41	02511	48-inch Diameter Water Line by Open Cut	LF	1,680		
42	02511	48-inch Diameter Water by Open Cut in PPCA	LF	245		
43	02516	Cut, Plug, and Abandon Existing 12-inch Diameter Water Line	EA	6		
44	02516	Cut, Plug, and Abandon Existing 8-inch Diameter Water Line	EA	3		
45	02516	Cut, Plug, and Abandon Existing 6-inch Diameter Water Line	EA	3		
46	02511	Remove 42-Inch Diameter Internal Elliptical Or Dished Head Plug	EA	1		
47	02511	Drainline Valve with Access Manhole and 18-inch RCP Connection	EA	3		

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
48	02512	3/4-inch to 1-inch Diameter Copper Service Line with Meter Box, Short Side	EA	38		
49	02512	3/4-inch to 1-inch Diameter Copper Service Line with Meter Box, Long Side	EA	38		
50	02513	12-inch Diameter Wet Connection	EA	6		
51	02513	8-inch Diameter Wet Connection	EA	3		
52	02513	6-inch Diameter Wet Connection	EA	2		
53	02517	48-inch diameter water line tunnel	LF	450		
54	01270	48-inch diameter water line tunnel in PPCA	LF	110		
55	02520	Fire Hydrant Assembly, All Depths, Including 6-Inch Diameter Gate Valve And Box	EA	7		
56	02520	6-Inch Diameter Fire Hydrant Branch By Open-Cut	LF	70		
57	02520	Remove And Salvage Existing Fire Hydrant	EA	7		
58	02522	42-inch Diameter Butterfly Valve	EA	3		
59	02524	3-inch Diameter Vacuum Relief Valve Assembly	EA	7		
60	02525	12-inch Diameter by 12-inch Diameter Tapping Sleeves and Valves	EA	1		
61	02525	12-inch Diameter by 8-inch Diameter Tapping Sleeves and Valves	EA	1		
62	16640	Cathodic Protection System	LS	1		

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
STORM						
63	02221	Remove and Dispose of 24-inch Diameter Storm Sewer	LF	315		
64	02221	Remove and Dispose of 36-inch Diameter Storm Sewer	LF	20		
65	02221	Remove and Dispose Of Existing Inlets, All Types	EA	13		
66	02631	18-inch Drain Line by Open-Cut	LF	62		
67	02631	24-inch Diameter Storm Sewer by Open-Cut	LF	380		
68	02631	36-inch Diameter Storm Sewer by Open-Cut	LF	20		
69	02082	Type C Manhole for 42-inch Diameter and Smaller Sewers	EA	5		
70	02633	Type BB Inlet	EA	14		
71	01270	Support 84-inch or 90-inch Storm Sewer	EA	2		
SANITARY						
72	02221	Remove and Dispose of Existing 8-inch Diameter Sanitary Sewer	LF	180		
73	02221	Remove and Dispose of Existing 18-inch Diameter Sanitary Sewer	LF	18		
74	02531	8-inch Sanitary Sewer (Pressure Rated) by Open-Cut	LF	180		
75	02531	18-inch Sanitary Sewer (Pressure Rated) by Open-Cut	LF	18		
PAVING						
76	01270	Remove Existing Gravel Road	SY	1240		
77	01270	Crushed Limestone Gravel Road	SY	1240		

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
78	02221	Remove and Dispose of Reinforced Concrete Pavement, with or without Asphalt Overlay, with or without Curbs	SY	8,960		
79	02221	Remove and Dispose of Concrete Sidewalks and Driveways, All Thicknesses	SY	1120		
80	02315	Regrade Existing Ditches	LF	610		
81	02336	Lime Stabilized Subgrade, 6-inch	SY	9,860		
82	02336	Lime for Lime Stabilized Subgrade	TON	100		
83	02741	Asphalt Speed Bump	LF	19		
84	02754	6-inch Concrete Driveway, including Excavation	SF	8630		
85	02751	7-inch Reinforced Concrete Pavement	SY	8,435		
86	02751	8-inch Reinforced Concrete Pavement	SY	530		
87	02752	Board Expansion Joint with Load Transfer Device	LF	830		
88	02752	Horizontal Dowels	EA	240		
89	02771	6-inch Concrete Curb	LF	4,235		
90	01270	Non Doweled Joints	LF	4,230		
91	02775	Wheelchair Ramp	SF	950		
92	02775	Concrete Sidewalk	SF	1,455		
93	02821	Remove Existing Chain Link Fence	LF	40		
94	02821	Chain Link Fencing and Gates with Barbed Wire	LF	40		

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
95	01270	Protective Mats	LF	1475	\$20.00 ⁽²⁾	\$29,500.00 ⁽²⁾
96	01270	Remove and Replace Concrete Support	LS	1		
97	01270	Remove and Relocate Air Valve with Concrete Vault	LS	1		

Sims Pump Station

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
98	02921	Hydromulch Seeding	AC	1		
99	02082	Water Main Access Manhole	EA	2		
100	02082	Low Profile Service Manhole for Air Valves	EA	1		
101	01270	36-inch Diameter Steel Water Line by Open-Cut inside Sims PS	LF	45		
102	01270	48-inch Diameter Steel Water Line by Open-Cut inside Sims PS	LF	470		
103	02516	Cut, Plug, and Abandon Existing 20-inch Diameter Water Line	EA	1		
104	01270	36-inch Diameter Wet Connection inside Sims PS	EA	1		
105	02521	36-inch Diameter Gate Valve with Box inside Sims PS	EA	2		
106	02524	3-inch Diameter Vacuum Relief Valve Assembly	EA	1		
107	16640	Cathodic Protection System inside Sims PS	LS	1		
108	01270	Cut in 36" Splitter Valve	EA	2		
109	01270	Remove and Replace 36" Butterfly Valve on Discharge Header	EA	2		
110	01270	36" Sims Connection	LS	1		

111	02221	Remove and Dispose of 24-inch Diameter Storm Sewer	LF	12		
112	02631	24-inch Diameter Storm Sewer by Open-Cut	LF	12		
113	01270	Remove Existing Gravel Road	SY	525		
114	01270	Crushed Limestone Gravel Road	SY	525		
115	02221	Remove and Dispose of Concrete Sidewalks and Driveways, All Thicknesses	SY	100		
116	02315	Regrade Existing Ditches	LF	240		
117	02754	6-inch Concrete Driveway, including Excavation	SF	900		
118	02821	Remove Existing Chain Link Fence	LF	40		
119	02821	Chain Link Fencing and Gates with Barbed Wire	LF	40		
120	01270	Protective Mats	LF	475	\$20.00 ⁽²⁾	\$9,500.00 ⁽²⁾
121	01270	Temporary Gravel Pavement	SY	400		

SWPS CHLORINE BUILDING

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
122	01502	Mobilization	LS	1	\$28,000.00 ⁽¹⁾	\$28,000.00 ⁽¹⁾
123	01270	Chlorine Building Modifications	LS	1		

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C. EXTRA UNIT PRICE TABLE:

No.	Spec Ref.	Extra Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
124	00800	Early Completion Bonus	DAY	30	\$1,500.00 ⁽¹⁾	\$45,000.00 ⁽¹⁾
125	02317	6" Overexcavate Trench Bottom	LF	1,635	\$4.00 ⁽²⁾	\$6,540.00 ⁽²⁾
126	02317	Excavation Around Obstructions	CY	400	\$30.00 ⁽²⁾	\$12,000.00 ⁽²⁾
127	02317	Extra Hand Excavation	CY	300	\$15.00 ⁽²⁾	\$4,500.00 ⁽²⁾
128	02317	Extra Machine Excavation	CY	100	\$20.00 ⁽²⁾	\$2,000.00 ⁽²⁾
129	02317	Extra Placement of Backfill Material	CY	200	\$6.00 ⁽²⁾	\$1,200.00 ⁽²⁾
130	02511	Extra 42-inch Diameter Cylinder Pipe Angle Adapters	EA	4	\$3,000.00 ⁽²⁾	\$12,000.00 ⁽²⁾
131	02511	Extra 42-inch Water fittings in Place	EA	4	\$3,000.00 ⁽²⁾	\$12,000.00 ⁽²⁾
132	02511	Extra 48-inch Diameter Cylinder Pipe Angle Adapters	EA	4	\$3,000.00 ⁽²⁾	\$12,000.00 ⁽²⁾
133	02511	Extra 48-inch Water fittings in Place	EA	4	\$3,000.00 ⁽²⁾	\$12,000.00 ⁽²⁾
134	02501	Extra ductile iron compact fittings in place	TON	1	\$2,000.00 ⁽²⁾	\$2,000.00 ⁽²⁾
135	02120	6" Overexcavate trench bottom in PPCA	LF	100	\$8.00 ⁽²⁾	\$800.00 ⁽²⁾
136	02120	Excavation around obstructions in PPCA	CY	400	\$60.00 ⁽²⁾	\$24,000.00 ⁽²⁾

Item No.	Spec Ref.	Extra Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
137	02120	Extra hand excavation in PPCA	CY	300	\$30.00 ⁽²⁾	\$9,000.00 ⁽²⁾
138	02120	Extra machine excavation in PPCA	CY	100	\$40.00 ⁽²⁾	\$4,000.00 ⁽²⁾
139	02120	Extra placement of backfill material in PPCA	CY	200	\$12.00 ⁽²⁾	\$2,400.00 ⁽²⁾
140	02511	Extra ductile Iron compact fittings in place in PPCA	TON	4	\$2,000.00 ⁽²⁾	\$8,000.00 ⁽²⁾
141	02511	Extra 48-inch diameter cylinder pipe angle adapters in PPCA	EA	4	\$3,500.00 ⁽²⁾	\$14,000.00 ⁽²⁾
142	02771	Concrete Header	LF	400	\$10.00 ⁽²⁾	\$4,000.00 ⁽²⁾
143	01270	Temporary 6" blow-off	EA	2	\$5,000.00 ⁽²⁾	\$10,000.00 ⁽²⁾
144	01270	Demobilize/Remobilize at Sims PS	LS	1	\$35,000.00 ⁽²⁾	\$35,000.00 ⁽²⁾
145	02525	36-inch Tapping Sleeve and Valve	EA	1	\$36,000.00 ⁽²⁾	\$36,000.00 ⁽²⁾
<u>TOTAL EXTRA UNIT PRICES</u>						\$ 268,440.00⁽²⁾

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D. CASH ALLOWANCE TABLE:

Item No.	Spec Ref.	Cash Allowance Short Title	Cash Allowance in figures (1)
146	01110	Street Cut Permit	\$2,500.00
147	01110	Building Permit - Floodplain Management Office	\$2,500.00
148	01110	Building Permit	\$3,100.00
149	01110	Street Lighting	\$16,286.00
<u>TOTAL CASH ALLOWANCES</u>			\$24,386.00

E. ALTERNATES TABLE:

Item No.	Spec Ref.	Alternate Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total Price for Alternate in figures
150		N/A				
<u>TOTAL ALTERNATES</u>						\$ _____

REST OF PAGE INTENTIONALLY LEFT BLANK

F. TOTAL BID PRICE:

(Add Totals for Items A., B., C., D., and E. above)

\$ _____

2.0 SIGNATURES: By signing this Document, I agree that I have received and reviewed all Addenda and considered all costs associated with the Addenda in calculating the Total Bid Price.

Bidder:

(Print or type full name of your proprietorship, partnership, corporation, or joint venture.*)

****By:**

Signature

Date

Name:

(Print or type name)

Title

Address:

(Mailing)

(Street, if different)

Telephone and Fax Number:

(Print or type numbers)

* If Bid is a joint venture, add additional Bid Form signature sheets for each member of the joint venture.

** Bidder certifies that the only person or parties interested in this offer as principals are those named above. Bidder has not directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding.

Note: This document constitutes a government record, as defined by § 37.01 of the Texas Penal Code. Submission of a false government record is punishable as provided in § 37.10 of the Texas Penal Code.

Footnotes for Tables B through E:

- (1) Fixed Unit Price determined prior to Bid. Cannot be adjusted by the Bidder.
- (2) Minimum Bid Price determined prior to Bid. Can be increased by the Bidder by crossing out the Minimum and noting revised price on the line above.
- (3) Maximum Bid Price determined prior to Bid. Can be decreased but not increased by Bidder by crossing out the Maximum and noting revised price on the line above. A Bid that increases the Maximum Bid Price may be found non-conforming and non-responsive.
- (4) Fixed Range Bid Price determined prior to Bid. Unit Price can be adjusted by Bidder to any amount within the range defined by crossing out prices noted and noting revised price on the line above.

Document 00800

SUPPLEMENTARY CONDITIONS

The following Paragraphs amend and supplement the July 1, 2010 edition of General Conditions. Unaltered portions of General Conditions remain in effect.

ARTICLE 1 - GENERAL PROVISIONS:

1.1 *DEFINITIONS: Insert the following Paragraph 1.1.9.1*

1.1.9.1 The firm of _____ has been employed by the City as Construction Manager for the Work.

ARTICLE 3 - THE CONTRACTOR

3.5 *LABOR: Insert the following Paragraph 3.5.3.1.1*

3.5.3.1.1 If the original contract price is greater than \$1 Million Dollars, the Contractor shall make good faith efforts to comply with the City ordinances regarding Minority Business Enterprises (MBE), Persons with Disabilities Business Enterprises (PDBE) and Small Business Enterprise (SBE) participation goals which are as follows:

- .1 the MBE goal is 10% percent,
- .2 the SBE goal is 8% percent, and
- .3 the PDBE goal is 0 percent

ARTICLE 4 – ADMINISTRATION OF THE CONTRACT

4.3 *CLAIMS AND DISPUTES: Insert the following Paragraph 4.3.3.1:*

4.3.3.1 Contractor waives any claim if contractor fails to submit the claim within 90 days of the date of the occurrence giving rise to the claim ("90 day time limit"). Contractor shall automatically release the city from any claim not submitted before the 90 day time limit when contractor submits an application for payment after the 90 day time limit.

ARTICLE 8 - TIME

8.2 *DELAYS AND EXTENSION OF TIME: Delete Paragraphs 8.2.2.1., and*
8.2.2.2

ARTICLE 9 - PAYMENTS AND COMPLETION

9.11 *FINAL COMPLETION AND FINAL PAYMENT delete Paragraph 9.11.4.5 and replace with the following Paragraph 9.11.4.5*

9.11.4.5 copies of maintenance manuals, tests, inspections, approvals, and consent from Project Manager that record documents meeting requirements of Section 01785 and 01110 have been submitted and approved.

9.12 *LIQUIDATED DAMAGES: Insert the following Paragraph 9.12.1.1., and 9.12.1.2*

9.12.1.1 The amount of liquidated damages payable by Contractor or Surety for each and every day of delay exceeding the March 31, 2012 interim completion date for the Sims Connection are \$2,200.00 per day.

9.12.1.2 The amount of liquidated damages payable by Contractor or Surety for each and every day of delay exceeding 120 days from Date of Commencement for SWPS Chlorine Building Modifications are \$2,200.00 per day.

9.13 *CONTRACTOR BONUS:*

9.13.1 *BONUS FOR EARLY COMPLETION*

9.13.1.1 The City will pay Contractor a bonus of \$1,200.00 per day for each day earlier than March 31, 2012, that Contractor achieves substantial completion of the Sims Connection, for a maximum of 15 days.

9.13.1.2 The City will pay Contractor a bonus of \$1,200.00 per day for each day earlier than 120 calendar days after Date of Commencement of the Work that Contractor achieves substantial completion of the SWPS Chlorine Building Modifications, for a maximum of 15 days.

ARTICLE 11 - INSURANCE AND BONDS

11.2.1.2 Contractor shall purchase for the duration of the Contract the insurance set out in Table 2 in addition to the minimum insurance coverage set out in section 11.2.1.

TABLE 2
ADDITIONAL REQUIRED COVERAGE
DEFENSE COSTS EXCLUDED FROM FACE AMOUNT OF POLICY.

(Coverage)	(Limit of Liability)
Property and Casualty Coverage: "All Causes of Loss" Builder's Risk Form for directing physical change to building or plant construction on the Work site and/or all land improvements including all work. (Including but not limited to earthquake, flood, boiler, and machinery including testing, damage to existing or adjoining property, time element coverage, collapse, soft costs (management, architecture, financial costs, pre-opening costs, etc.), transit coverage, off-site storage).	100% of Contract Price, including change orders
<u>Contractor's Pollution Liability:</u> Including pollution coverage for Contractual Liability, Clean-up costs, Abatement, Transport, and Non-owned disposal sites. Including Bodily Injury Liability, Property Damage Liability, and environmental damage arising from pollution conditions caused in performance of operations. Including Asbestos and Lead if part of operations.	<u>\$1,000,000 each occurrence</u>
(MCS - 90 endorsement: to Auto Policy and removal of Pollution Exclusion)	\$1,000,000 CSL

11.5 *MAINTENANCE BONDS: Insert the following Paragraph 11.5.2.*

11.5.2 One-year Surface Correction Bond: Contractor shall provide, on the City standard form, an additional one year Bond in an amount equal to four percent of the Original Contract Price or cost of repair. Bond shall provide for Contractor's correction, replacement, or restoration of backfill or subsurface and surface work not in accordance with the Contract, within one year from the date the One-year Maintenance Bond has expired.

END OF DOCUMENT

Section 01110
SUMMARY OF WORK

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Summary of the Work including Work by the City, City-furnished Products, Work sequence, future Work, Contractor use of Premises.

1.02 PROJECT DESCRIPTION

- A. Surface Water Transmission Program (SWTP) consists of major improvements to transmission system to convert from primarily groundwater to surface water in order to comply with the Harris-Galveston Coastal Subsidence District's (HGCSD) regulatory plan. Program includes transmission and distribution of surface water and associated consolidation of groundwater plants in the City.
- B. The project is a combination of water line construction, public utility adjustments and paving which initiates at Sims Bayou Pump Station (Sims) and extends west along existing easements, W. Orem, Chimney Rock, River Bluff, Summit Ridge, Wood River, and Coachcreek to the intersection of Coachcreek and Hillcroft.

1.03 WORK COVERED BY CONTRACT DOCUMENTS

This work will include, but not be limited to, the following:

- A. Construction of approximately 7,055 linear feet of 48-inch and 42-inch water line by a combination of open cut and tunneling, valves, connections and appurtenances along the proposed alignment from Sims to Hillcroft.
- B. Construction of approximately 515 linear feet of 36-inch and 48-inch steel water line by open cut inside Sims including valves, appurtenances, connection to existing 36-inch discharge waterline, and connection to existing 36-inch discharge header, and associated work.
- C. Construction of approximately 2,740 linear feet of 8-inch water line, valves, connections, and appurtenances along River Bluff Dr. from approximately Sta. 13+25 to Sta. 40+00. Construction of this 8-inch water line will use a combination of open cut and trenchless construction. Existing 8-inch and 6-inch AC water lines along River Bluff to be abandoned.

- D. Construction of approximately 1010 linear feet of 12-inch water line, valves, connections and appurtenances along Chimney Rock from approximately Sta. 40+00 to 47+20. Existing 12-inch AC water line along Chimney Rock to be abandoned.
- E. Removal and replacement of storm sewer pipe, and sanitary sewer pipe impacted by the installation of the 48-inch/42-inch water line.
- F. Removal and replacement of two lanes of concrete pavement along water line alignment on Chimney Rock and one lane of concrete pavement along water line alignment on River Bluff, Summit Ridge, Wood River, and Coachcreek Dr.
- G. Removal and replacement of approximately 1,765 SY of existing gravel road from Well Site 2 to Sims (Sta. 57+80 to Sta. 74+50).
- H. Roof Replacement and Improvements for existing Chlorine Building at Southwest Pump Station:
 - i. Demolition of roofing, including entire roof tiles, insulation, underlayment, steel deck, downspouts, gutters, soffit and fascia panels, splash guards, flashing, etc, and dumping to an approved dumping site.
 - ii. Adding new roofing on existing building, including standing seam metal roof panels, rigid board insulation, underlayment, structural steel deck, downspouts, gutters, soffit and fascia panels, splash guards, all necessary flashings, etc.
 - iii. Replacing all the existing suspended acoustic ceiling with new acoustic ceiling panels, and dumping the removed materials to the approved dumping site.
 - iv. Cleaning, adjusting and repainting of the existing suspended ceiling metal grids. In case of damage or deformation they shall be replaced with new items.
 - v. Re-install existing scrubber discharge duct and cap on new roof, including roof curb and flashing.
 - vi. Install new steel structure as shown on plans, including painting.
 - vii. Install new electric motor powered steel roll-up door, portable fire extinguishers. Verify panic hardware on doors and install if existing panic hardware does not exist or does not meet requirements on sheet 41B and specifications.
 - viii. Adjust mechanical, electrical and plumbing systems as shown on plans.

- ix. Rebuild CMU Masonry and Brick Veneer around new steel columns as shown on plans.
- x. Replacing existing air conditioning ducts, lights, plumbing fixtures and all other equipment that may have been damaged because of construction activities, and re-installing of all the items that have been temporarily disconnected, or relocated for the purpose of construction.
- xi. Repair to any part of existing masonry or other building elements that may have been damaged in course of construction.
- xii. Repair/repaint steel structure that is scratched, pulled stained or lost paint integrity and sheen because of construction activities.

1.04 DEFINITION

- A. Large Diameter Water Lines: Water Lines 24-inches in diameter and larger. References to large diameter water lines shall apply to pipe, valves and appurtenances 24-inch and larger.
- B. Small Diameter Water Lines: Water Lines 20-inches in diameter and smaller. Unless otherwise noted in the Contract Documents, requirements pertaining to large diameter water lines do not apply to pipe, valves and appurtenances 20-inches in diameter and smaller.

1.05 SIMS BAYOU PUMP STATION (Sims) and Well Site #2

- A. Plant Connection. Connect proposed 36-inch water line to existing 36-inch discharge charge header, including removal of existing piping and valves, construction of wall penetration, and installation of new piping and valves.
- B. Regrade existing ditches to match existing flowlines. Remove any siltation from existing ditches.
- C. Removal and reinstallation of approximately 80 LF of existing 6-ft chain link security fencing along west pump station boundary and east well site boundary. Existing fencing shall be removed where necessary to provide room for construction of proposed 48-inch water line. Temporary chain link fence must be in place before removal of existing fence. Sims PS and Well Site #2 must remain secure through all phases of construction.
- D. Removal and replacement of approximately 1,765 SY of existing gravel road (Sta 57+80 to 74+50).

1.06 CASH ALLOWANCES

- A. Include the following specific Cash Allowances in the Contract Price under provision of Document 00700 - General Conditions, Paragraph 3.11.
1. Street Cut Permit. Allow stipulated sum of \$2,500.00 for Street Cut Permit Application Fee(s) as described in Paragraph 1.11.
 2. Building Permit – Floodplain Management Office. Allow stipulated sum of \$2,500.00 for the cost to obtain floodplain permits from City of Houston for the 48/42-inch Water Line.
 3. Building Permit. Allow stipulated sum of \$3,100.00 for the cost to obtain building permit from City of Houston for the connections to existing 36-inch discharge headers located in the pump discharge bay at the pump building at the Sims Bayou Pump Station.
 4. The street lighting (Re-Bore Circuit/pull box/light installation) up front cost of \$16,286.00 is to be provided to the Contractor. Contractor to pay CenterPoint Energy for street lighting installation.

1.07 INCENTIVE ALLOWANCES

A. Contract Incentives

1. Interim completion incentive allowance for Sims Connection will be paid for every day in advance of the March 31, 2012 completion date, that the Work is substantially complete, with a maximum incentive bonus payout of 15 days at \$1,200/day. Work also includes hydrostatic testing and disinfection of water line including all associated restoration. "In-service" date used to calculate incentive will be considered as the first day the Sims is returned to normal operation; however, Sims operation must be maintained, uninterrupted, and without leakage for three (3) consecutive days following "in-service" date. Refer to Document 00800 – Supplementary Conditions.
2. Interim completion incentive allowance for SWPS Chlorine Building Modifications will be paid for every day in advance of the 120 day completion date that the Work is substantially complete, with a maximum incentive bonus payout of 15 days at \$1,200/day. Work also includes testing and all associated restoration. "In-service" date used to calculate incentive will be considered as the first day the SWPS Chlorine building is returned to normal occupation. Refer to Document 00800 – Supplementary Conditions.

1.08 CITY FURNISHED PRODUCTS

- A. Item Furnished by City for Installation and Final Connection by Contractor:

1. None

1.09 WORK SEQUENCE

- A. Perform critical locates per Contract Drawings within 30 days from Notice to Proceed. Field verify dimensions and conditions before commencing work. Report any discrepancies to Project Manager before commencing work. Submit documentation of work completion to the Project Manager.
- B. Due to overall project complexity and numerous active utility interface requirements, submit a sequence of construction for review by Project Manager. Proposed sequence of construction shall address proposed method and timing of major construction activities. Refer to Section 01325 – Construction Schedule for specific details.
- C. Begin Work on the 48/42-inch water line from the east and work towards the west to Hillcroft Ave.
- D. Unless approved by Project Manager, work from Sta. 52+23 to Sta. 54+94 cannot begin until easements are acquired, which is anticipated by February 1, 2012. Coordinate with Project Manager and plan work accordingly.
- E. Due to the criticality of Sims to the City's system, all work required for installing the Splitter valves and Sims Connection is to be performed during the low-demand period from November through March unless otherwise approved by Project Manager. To avoid potential delays, submit information required by specifications within 14 days of receiving notice to proceed. Coordinate with Project Manager sufficiently in advance to obtain access and verify valve closures necessary to begin work.
 - a. The splitter valves and temporary water supply line shall be installed and placed in service prior to beginning any work associated with the Sims Connection. The work required for installing the splitter valves and temporary water supply line shall be completed within a 7 consecutive calendar day period.
 - b. The work required for installing the Sims Connection includes all work inside the discharge bay, wall penetration with structural modifications, installation of wall pipe, and connection to flange wall pipe outside of discharge bay, connection to existing 36" discharge line, returning existing 36" discharge line to service and returning Sims Bayou PS to normal operation. Sims Connection shall be completed no later than March 31, 2012 unless otherwise approved by Project Manager. Failure to complete these work items within the specified time periods noted above will result in liquidated damages in accordance with Document 00800 – Supplementary Conditions.

- F. Construction activities within the Sims property boundaries should only occur during winter months (November through March) unless otherwise approved by Project Manager.
- G. Incorporate Traffic Control Plan and Traffic Control General Notes as shown in the construction drawings in proposed sequence of work.
- H. Construction activities within SWPS property boundaries should occur within a 120 day period. Complete SWPS Chlorine Building Modification within 120 calendar days from notice to proceed.

1.10 COORDINATION OF WORK

- A. Schedule the Work with any other contractors of any trade of discipline working adjacent to the project site prior to and during construction. Schedule Work and connection with contractor performing Work for City of Houston Project WBS No. S-000900-0110-4 (74A-2: 42-inch Water Line along Hillcroft, Dublin, Dunlap, Easements, Haviland, Minetta, Canemont and Sandpiper from Coachcreek to W. Airport Blvd.) Other Contracts being performed concurrently at Sims site include WBS NO. S-001000-0027-4 (WATER PUMPING STATION UPGRADES AT SIMS BAYOU, ACRES HOMES, & WILLOWCHASE), WBS NO. S-000019-0048-4 (PUMP STATION ANALYZER ADDITIONS AND CHEMICAL INJECTION LINE MODIFICATIONS), and WBS NO. S-001000-0031-4 (GROUNDWATER TREATMENT PLANTS IMPROVEMENTS).
- B. If contractor constructing this project, WBS No. S-000900-0109-4 (74A-1) completes Work and is ready to chlorinate and test before contractor constructing 74A-2, then provide dished head plug. If contractor for 74A-2 has completed work and has already installed dished head plug, then remove dished head plug under appropriate bid item listed in Document 00410 – Bid Form.
- C. Schedule construction operations with City Project Manager, Traffic Management, Maintenance Division, and private utilities.
- D. Schedule construction operations in proximity of Sims Bayou Pump Station and City of Houston Well Site with City of Houston Drinking Water Operations.
- E. Contact Harris County Toll Road Authority (HCTRA) Project Manager, Mr. Christopher Carroll at 713.587.7936 prior to any construction activities near Fort Bend County Toll Road.
- F. Contact METRO regarding facilities and bus routes that may be affected during construction activities.
 - i. Coordinate work around METRO bus stops with Paul Weisser at METRO Bus operations, 713-615-7223 at least one month prior to beginning construction.

- ii. Provide a minimum of five (5) working days notice before construction begins in area.
- iii. Maintain access to all METRO bus stops. Replace METRO bus sign (stop) and temporary pedestrian pad/shelter along rerouted road for METRO passenger pick-up/drop-off.
- iv. METRO bus shelter to be temporarily relocated during construction activities.

- G. Contact HISD Manager – Routing and Scheduling Mr. Aric Taylor at 713.613.3040 regarding facilities and school bus routes that may be affected during construction activities.
- H. The following is a list of contacts for pipeline companies who are impacted by the Project:

1. TEPPCO

A minimum of 48 hours (excluding weekends and holidays), prior to commencing construction or boring operations of the water line around 24" TEPPCO (Enterprise) pipeline, call 1.800.344.8377 (1-800-DIG-TESS) so that a TEPPCO (Enterprise) employee can be present for observation and safety purposes.

2. KINDER MORGAN

- a. Contact Mr. Joseph Krametbauer at 713-369-9508 ext 233, at least 72 hours (excluding weekends and holidays) prior to commencing construction or boring operations of the water line within 25 feet of Kinder Morgan pipeline. In addition, Texas One Call notification center must be contacted at 1.800.344.8377 at least 72 hours (excluding weekends and holidays) prior to commencing construction.
- b. The elevation of Kinder Morgan's pipelines should be confirmed before construction begins to avoid construction delays. Contact Mr. Krametbauer for probing of Kinder Morgan pipelines

3. HOUSTON PIPE LINE CO.

Contact Mr. Johnny Martinez 281-652-2234 or 281.850.1462 forty eight (48) hours prior to any work (excavation or operation of heavy equipment) at or near the 6-inch Houston pipeline. In addition to contacting the HPL representative mentioned above, the Texas Excavation Safety System (TESS) notification center must be contacted at 811 or 1.800.344.8377 prior to any construction activity.

- I. Coordination of the Work: Refer to Section 01312 – Coordination and Meetings.

- J. Schedule testing and inspection of cathodic protection system and protective coatings for pipe, valves, and tanks with the City's independent consultant. Contact Wayne Dessens at 832-395-3833.
- K. Coordinate SWPS Chlorine Building Modifications with any other contractors of any trade of discipline working at SWPS prior to and during construction. Schedule work with contractor performing work for City of Houston Project WBS No. S-001000-0027-4 (Water Pump Station Upgrades). Contractor point of Contact is Kenny Nguyen at 713-396-5731 or 713-521-0174.

1.11 CONTRACTOR USE OF PREMISES

- A. Comply with procedures for access to site and Contractor's use of rights-of-way as specified in Section 01145 - Use of Premises
- B. Construction Operations: City's rights-of-way, easements and proposed easements south of W. Orem.
- C. Utility Outages and Shutdown: Provide notification to City and private utility companies (when applicable) a minimum of 48 hours, excluding weekends and holidays, in advance of required utility shutdown. Schedule all work as required.
- D. Work to be done to lines, grades, elevations, and locations as shown on Drawings.
- E. Based on record drawings, existing AC water lines along W. Orem, Chimney Rock, River Bluff, Summit Ridge, Wood River, and Coach Creek Dr. are in close proximity to the proposed 42-inch water line construction. Critical locate existing AC water lines linearly and parallel to 42-inch water line construction per Section 02317 – Excavation and Backfill for Utilities. It is Contractor's responsibility to protect existing AC water line.
- F. Prevent overstress of any structure, and any part or member of it, during construction. This applies to existing work and structures affected by operations. Check effect of operations in this regard, and provide temporary supports and connections required to assure safety and stability of both new and existing work and to prevent overstress of any part.
- G. Coordinate activity schedule and extend full cooperation to other contractors who have responsibilities either concurrent with, proceeding or following this Contractor's time along work site. Ensure availability of access, availability of selected portions of this area to others and provide appropriate information for planning purposes to other contractors
- H. Maintain access route from Sims to City of Houston Well Site #2 for City Operations. Existing 36" water line and 36" well collection between Sims to

City of Houston Well Site #2 are located within limits of construction and anticipated to have 5 feet of cover or less. Provide mats or other means to protect existing water lines from loads from construction vehicles and City of Houston maintenance vehicles. Repair damage to existing 36" water line or 36" well collection line due to vehicular traffic at no separate pay.

I. Traffic Control:

1. Traffic control plan responsive to Texas Manual on Uniform Traffic Control Devices (TMUTCD) and sealed by a Registered Professional Engineer is incorporated into Drawings. If traffic control will be implemented without modification to plan provided, submit letter confirming that decision. If traffic control will be modified from what is shown, submit traffic control plan in conformance with TMUTCD and sealed by Registered Professional Engineer.
2. Traffic Control Plan is provided for installation of water lines only. Specific traffic control plan required for pavement restoration must be provided by Contractor, sealed by a Registered Professional Engineer and conforming to TMUTCD. Submit traffic control plan to Project Manager for approval.
3. Traffic control provided is based on the assumption there is no conflict with traffic control from separate projects within construction limits. Adjust work sequence as necessary to prevent traffic control conflicts, or submit revised traffic control plans sealed by Registered Professional Engineer and conform to TMUTCD at no additional cost. Submit traffic control plan to Project Manager for approval.
4. For temporary pavement provide necessary backfill, subgrade, base and surface in accordance with the Traffic Control Plan and continuously maintain, as directed by Project Manager.

J. Work will be allowed which pertains to any tunneling operation 24 hours per day, provided above ground activities do not conflict with provisions of City of Houston Code of Ordinances, Section No. 40-28 and work does not occur on a Sunday or holiday without prior written approval. No night work shall occur in residential areas. A non-inclusive list of work pertaining to tunneling operation is as follows:

1. Tunnel Excavation and incidental work such as muck removal and hauling, ventilation, lighting, survey control of tunnel line and grade, etc.
2. Tunnel Primary Liner.
3. Ground Water Control and Ground Stabilization.
4. Pipe Installation.
5. Tunnel Grouting.

Project Manager will answer all questions where confusion may exist as to whether any such work pertains to tunneling operation.

- K. Maintain storm drainage during tunnel activities near Sta. 48+00. Provide bypass pumping as required. No separate pay.
- L. Implement groundwater control methods, while maintaining accessibility to driveways and cross streets.
- M. Maintain local driveway access to residential and commercial properties adjacent to work areas. Provide temporary driveway access to driveways in accordance with Section 01555 – Traffic Control and Regulation and Section 01145 – Use of Premises. Coordinate with business owners and residents.
- N. City's Utility Maintenance Division is not bound to assist the Contractor in locating existing utilities during construction. Contractor must verify location of existing utility lines prior to commencement of pipe laying operations.
- O. Working multiple and separate crews during construction is allowed, as approved by Project Manager.
- P. Field Office:
 - 1. A Field Office is required on this project. See Section 01520 – Temporary Field Office.
- Q. Sims Bayou Pump Station (Sims) and Well Site #2:
 - 1. Construction within the pump station site: Contractor's activities are limited to actual work on site. Field offices will not be permitted within the Sims site. Contractor will not be permitted to begin Construction work inside Sims site until appropriate materials are secured or readily available unless otherwise approved by Project Manager. Submit necessary security requirements per Document 01110 - Attachment A at pre-construction meeting.
 - 2. Materials and equipment may not be stored on site unless they are to be used immediately, and as approved by Project Manager. Do not block access drives with material.
 - 3. Maintain access to the site for City of Houston Operations & Maintenance personnel at all times. Contractor must relocate materials and equipment, and if needed, provide access across work area(s) at the request of City personnel without notice and at no additional cost.
 - 4. Maintain access to discharge bay for City of Houston Operations & Maintenance personnel at all times. While stairs into discharge bay are

removed, coordinate with City of Houston Operations & Maintenance personnel to provide temporary access at all times.

5. Driveways, Walkways and Entrances: Keep driveways, parking and loading areas, and entrances serving premises clear and available to City, City's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
6. Critical Stages of Work requiring shut down or limited operation of Sims facilities to be performed during low water demand months (November through March). Minimize impact time to facility. Contractor may be required to work at night and in continuous shifts in order to minimize the shut down impact. Obtain approval of Project Manager a minimum of 48 hours in advance before performing night work. Comply with provisions of City of Houston Code of Ordinances, Section No. 40-28. A minimum of two weeks of written notification is required before shutting down plants. Critical Stages of Work must be performed in presence of Project Manager and Drinking Water Operation Division's project manager. Critical Stages of work include at a minimum:
 - a. Installation of splitter valves on existing discharge headers. Installation of splitter valves may require the shut down of Sims on consecutive nights for a limited time frame. Duration of shut down to be coordinated with City Drinking Water Operations personnel.
 - b. Wet connection to existing 36-inch discharge water line.
 - c. Connection to existing 36-inch discharge headers located at end of pump discharge bay at Sims PS.
7. Entrance gates shall remain locked at all times. Prevent access by unauthorized personnel. City of Houston reserves the right to request background information on any and all workers present on site.
8. Submit proposed Site Utilization Plan for designated construction parking, lay down area, SWPPP, and temporary fences. No separate pay.
9. Coordinate with Mr. Sidney Valmain at City of Houston Drinking Water Operations at 713-560-8714 a minimum of 72 hours prior to beginning construction within Sims and Well Site #2 property limits.
10. Contact Mr. Sidney Valmain at City of Houston Drinking Water Operations at 713-560-8714 to access plant site and Well Site #2.

11. If unable to begin work inside Sims by February 6, 2012 due to failure to coordinate work and have materials and equipment on site or readily available, Contractor will be required, at no cost to City, to demobilize at Sims and remobilize the following low demand period (November 2012 through March 2013) to complete work inside Sims, unless otherwise approved by Project Manager.
12. If Contractor has coordinated work, has materials and equipment on site or readily available and is unable to begin work by February 6, 2012 due to City's inability to isolate work area, Project Manager may direct Contractor to Demobilize at Sims for up to 275 days and remobilize the following low demand period (November 2012 through March 2013) to complete work. Demobilization will include restoring any disturbed areas inside Sims to preconstruction conditions. Demobilization/Remobilization will be paid for per extra unit price bid item.
13. Well Site #2 will be in operation during construction activities. Anticipate periodic discharge of water from well by City. Protect work from overland flow of water due to discharge. Include cost in dewatering.

R. Southwest Pump Station (SWPS)

1. Construction within the pump station site: Contractor's activities are limited to actual work on site. Field offices will not be allowed within the SWPS site. Contractor is not allowed on SWPS site despite obtaining permitted documents, until appropriate materials are secured or readily available unless otherwise approved by Project Manager. Submit necessary security requirements per Document 01110 - Attachment A.
2. Materials and equipment for SWPS work only may be stored on site in accordance with site lay out plan, and as approved by Project Manager. Material and equipment for non-SWPS work may not be stored on site. Do not block access drives with material.
3. Maintain access to City of Houston Operations & Maintenance personnel at all times. Contractor must relocate materials and equipment at the request of City personnel without notice and at no additional cost.
4. Driveways, Walkways and Entrances: Keep driveways parking, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.

- b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- 5. Condition of Existing Building: Prior to beginning work, document condition of equipment and materials to remain. Maintain portions of existing building affected by construction operations in a weather tight condition throughout construction period. Repair damage caused by construction operations.
 - a. Protect all the equipment, machinery, supplies, etc. enclosed in the buildings under construction activities.
 - b. Protect all the existing electrical, plumbing, and air conditioning equipment in the building undergoing construction activities.
 - c. Protect all the existing suspended ceiling grids.
 - d. Protect all the equipment outside and surrounding the buildings.
- 6. City of Houston and Owner's representative reserves the right to request background information on any and all workers present on site.
- 7. Submit proposed Site Utilization Plan for designated construction parking, lay down area, SWPPP (if required), and temporary fences. No separate pay.
- 8. There are no records of the existing fascia brick or fascia concrete tiles on the exterior walls of the building. Contractor shall research and find close matching materials and submit for initial approval 5 different samples of each, thereafter contractor needs to build a 3 feet x 3 feet or 4 feet wide x 2 feet high mock up of the initially approved samples at a place near existing building, such that it can be compared with the existing wall. (Location will be directed on due time) for Project Manager approval. The City reserves the right to approve the mock-up, or reject and request for new mock up. This mockup cannot be integrated into the construction.
- 9. Coordinate with Mr. Sidney Valmain at City of Houston Drinking Water Operations at 713-560-8714 a minimum of 72 hours prior to beginning construction within SWPS property limits.
- 10. Contact Mr. Sidney Valmain at City of Houston Drinking Water Operations at 713-560-8714 to access plant site and Well Site #2.
- S. Document pre-construction condition of property within limits of construction and adjacent to limits of construction between Sta. 48+00 and 70+65. Provide photographs as required by Section 01321.
- T. Fort Bend Toll Road is considered a critical structure. Provide specific instrumentation monitoring plan, in accordance with Section 02425. Plan shall include, monitoring of both horizontal and vertical movement. At a minimum,

anticipate placing instrumentation at each column north and south of tunnel alignment. Submit to Project Manager for approval of monitoring plan and locations of instrumentation.

1.12 STREET CUT ORDINANCE

- A. Excavations on or under pavement in the City's right-of-way must have a permit. Comply with City of Houston, Texas Ordinance No. 2000-1115, an ordinance amending Chapter 40 of the Code of Ordinances, Houston, Texas, relating to excavating in the Public right-of-way and comply with amendments provided by Texas Ordinance No. 2006-0595 including the following fee schedule:

Schedule of Permit Application Fees*

Initial Application Fee:

Tunneling, Jacking and Boring only	\$150.00
All other Methods of Excavation	\$200.00

Permit Extension Application Fee:

Other Than Steel Plate Temporary Surface	\$ 25.00
Steel Plate Temporary Surface	\$ 50.00
Data Entry Fee for Non-Electronic Submission (per application):	\$ 50.00

* All fees/charges are non-refundable

Comply with the latest edition of street cut "New Pavement Repair and Pavement Replacement details".

Contractor shall comply with requirements from Chapter 12 of the City of Houston's Infrastructure Design Manual (dated October, 2002), entitled Street Cut Requirements".

- B. The bid items for the cost of street cut pavement repair and replacement identified on the drawings are included in the Bid Form Part B (Document 00410 B).
- C. Obtain all required permits and signs prior to performing any methods of construction involving street excavation in the existing pavement.

1.13 WARRANTY

- A. Comply with warranty requirements in accordance with Document 00700 General Conditions.

1.14 INTERPRETATION OF CONFLICTS

- A. Should conflicts occur in Contract Documents, request interpretation before proceeding with Work. Such requests shall first be preceded by a diligent investigation into Contract Documents. Contain evidence of such investigation in requests for interpretation.

1.15 GENERAL CONSTRUCTION NOTES

- A. Notify the Utility Coordinating Committee at 1-800-669-8344 or (713) 223-4567, and the City of Houston Department of Public Works and Engineering, Civil Construction at (713) 837-7196, at least 48 hours prior to commencement of work.
- B. Field verify existing facilities shown on the drawings by whatever means necessary (metal detection, probes, excavation, survey, others) prior to excavation for proposed utilities. Field verification work and utility adjustments shall be completed prior to excavation for proposed utilities. No separate pay item.
- C. Call the Traffic Management and Maintenance Division of the City of Houston Public Works and Engineering Department when work is scheduled near signal conduits within the City of Houston (713) 837-7280. Call at least five working days in advance.
- D. These plans and the surveys upon which they are based are tied into the official City of Houston survey system in compliance with ordinance No. 69-1978. City of Houston survey markers and monuments referenced have been included in this plan set.
- E. Comply with OSHA Regulations and State of Texas laws concerning excavation, trenching and shoring as specified in City of Houston Ordinance No. 87-1457.
- F. Conduct construction operation under this contract in conformance with the erosion control practices described in Document 01410 "TPDES Requirements" and Document 01570 "Storm Water Pollution Control" and the Storm Water Pollution Prevention Plans included in the construction drawings. Work identified in this project falls under Large Construction Activity with area disturbed to be one or more acres but less than five acres. TPDES requirements applicable to Large Construction Activity will apply.
- G. Any pavement (such as wheel chair ramps, pavement curbs, sidewalks, driveways, bikeways, etc.), fences, gates, lawns, irrigation utilities, landscapes, culverts, inlets, manholes, signs or mail boxes and other improvements that have been disturbed due to utility construction shall be replaced with same quality material or better, according to City of Houston standard specifications. Contractors are required to bid accordingly.

1.16 EXISTING UTILITIES

- A. Underground utilities exist in the vicinity of this project. While every effort has been made to show locations for existing utilities, they are approximate and other utilities may exist in the vicinity of this project, which are not shown on these plans. The location and grades of existing utilities are based on as-built information.
- B. Public and private utility lines and customer service lines may exist that are not shown on the construction drawings. Locate, maintain and protect the integrity of these lines. Hand excavation may be required.
- C. Coordinate with the proper utility company to relocate or divert any utility in conflict with proposed construction so as not to disrupt service of same. Restore relocated or diverted utility to its original condition and location upon completion of construction.
- D. Do not interrupt existing water service. Proposed water lines shall be constructed and service transferred per City of Houston requirements prior to the commencement of any underground construction that may interfere with existing water service.
- E. Maintain existing water service and sanitary sewer service within construction area until construction of the new system is complete.
- F. Determine the sizes of water meters that are found in field.

1.17 WATER LINES

- A. This project shall be built by means of open-cut and tunneling as noted on the drawings.
- B. Water lines shall be constructed in accordance with current City of Houston specifications for large diameter water lines.
- C. All utilities present on these drawings are shown at approximate locations based on the best available information. The contractor shall field determine the exact locations prior to commencing construction. Protect and support existing utilities and structures along the alignment as necessary for construction. He or she shall be fully responsible for any and all damages caused by his or her failure to exactly locate and maintain these underground utilities, at no additional cost to the City of Houston.
- D. Small Diameter Water Lines

- i. The trenchless construction method will be used for water line construction unless otherwise shown on the construction drawings and project manual or otherwise instructed by the City Engineer. Whenever possible, the contractor shall make an effort to locate pits away from existing concrete or asphalt pavement, sidewalks, driveways, fences, culverts, inlets, manholes, power poles, light poles, trees, lawns, landscapes, existing structures and other improvements. No pits are allowed within driveways, canopy of 6-inch or larger trees or landscapes unless otherwise instructed by the City Engineer.
- ii. Conduct all construction operation under this contract in conformance with the erosion control practices described in Document 01410 "TPDES Requirements" and Document 01570 "Storm Water Pollution Control" and the Storm Water Pollution Prevention Plans included in the construction drawings. Work identified in this project falls under Small Construction Activity with area disturbed to be one or more acres but less than five acres. TPDES requirements applicable to Small Construction Activity will apply.
- iii. Any pavement (including wheel chair ramps, pavement curbs, sidewalks, driveways, bikeways, etc.), fences, gates, lawns, irrigation utilities, landscapes, ditches, culverts, inlets, manholes, signs or mail boxes and other improvements that have been disturbed due to utility construction shall be replaced with same quality material or better, according to City of Houston standard specifications. Contractors are required to bid accordingly.
- iv. After abandoning the existing water line and transferring services to the proposed water line, the Contractor shall contact City of Houston, Drinking Water Operations Branch at 832-395-3800 for retrieving the automatic blow off valve assembly.

1.18 STORM SEWER

- A. Adequate drainage shall be maintained at all times during construction and any drainage ditch or structure disturbed during construction shall be restored to the satisfaction of the owning authority. All construction storm runoff shall comply with the final draft of the Storm Water Management Handbook for construction activities, as prepared by Harris County, HCFCD and the City of Houston in compliance with NPDES requirements.
- B. During any storm sewer and/or lead replacement, pull to the last full joint.
- C. Contractor shall be responsible for removal of siltation in existing and proposed storm sewer systems (if necessary) that result from construction activities associated with this project.

1.19 SANITARY SEWER

- A. The contractor is fully responsible for damages to the existing sanitary sewer facilities as a result of this project. Sanitary sewers shall be constructed in compliance with the latest city specifications for sewer construction, and tested as specified in the city test procedure for either liquid or air, including all amendments and revisions thereto. Embedment and backfill for sanitary sewers shall be placed in accordance with City of Houston standard drawing unless otherwise noted.
- B. Maintain service to all sewers during construction. Contractor is responsible for locating all sanitary sewer service laterals affected by construction. The city does not warranty the location or number or any sanitary leads shown in plans.
- C. If a damaged sanitary sewer line is being replaced as a result of this construction, the transfer of service stubs from the existing to the proposed sanitary sewer must be included. Any stubs that are determined to be damaged by the project inspector shall be removed and replaced to the right-of-way line.

1.20 CONCRETE PAVEMENT REPLACEMENT

- A. The Contract Drawings identify pavement that will remain immediately adjacent to lanes that will be removed and replaced to install proposed new utilities.
- B. Contractor's Trench Safety System (reference Section 02260), special shoring (reference Section 02317, 1.08, 3.04D, 3.05F, H & I), and means and methods shall protect adjacent lanes of pavement that are not scheduled for removal and replacement. Contractor assumes the risk for damaged pavement and, unless otherwise directed by the City, the Contractor shall remove and replace the damaged pavement in accordance with Section 02951 and the Street Cut Ordinance at no additional cost to the City. Damage includes but is not limited to pavement cracks, chipped or broken pavement, and voids under adjacent pavement that is to remain. City may also assess additional costs to the Contractor related to the damaged pavement such as City laboratory testing and inspection.
- C. Where work requires cutting existing pavement, provide positive shoring extending a minimum of 6-inches above pavement surface.
- D. Unless otherwise directed by the City, provide full-depth saw-cut 2-inch maximum away from pavement construction joints (ex., deformed metal joints, tooled joints, partially sawcut joints, etc.). Saw cut distance from joint shall be minimum necessary for a clean straight edge, and if the joint is at the crown the saw cut shall be as close to the crown as possible.
- E. Dowels at existing expansion joints shall be saw cut to eliminate possible damage to adjacent pavement that is scheduled to remain. The cost for this

saw cut is incidental to the pavement removal and disposal pay item(s).

- F. If existing pavement thickness is less than 7-inches thick, then dowels will be deleted and the Non Doweled Joint detail will be used instead, unless directed otherwise by the City.
- G. Pavement that is scheduled to be removed and replaced shall be removed no earlier than fourteen (14) days prior to excavating to install new utilities and/or pavement.

1.21 STORM WATER POLLUTION PREVENTION PLAN

- A. The Storm Water Pollution Prevention Plan for this project is governed by Section 01410 TPDES Requirements and the layouts provided in the construction drawings. Comply with Storm Water Pollution Prevention Plan as detailed in the construction documents.

1.22 ALTERNATE CONSTRUCTION METHODS

- A. Alternate construction methods will be allowed in accordance with applicable details and specifications in Contract Documents at no additional cost to City of Houston provided City will receive substantial benefit from alternate construction method(s). Contractor accepts responsibility for all additional cost of geotechnical investigations and incidental items, including any re-design that may be necessary. Submit following for review by City Engineer prior to commencement of any construction activity if such alternate construction methods are to be considered. All modifications as listed below must be signed and sealed by a Licensed Professional Engineer registered in State of Texas prior to submittal to City Engineer.

1. Revisions to horizontal or vertical alignment.
2. Revisions to access manhole details, if applicable.
3. Revisions to line valve and operator manhole details, if applicable.
4. Revisions to vacuum relief valve vault details, if applicable.
5. Revisions to cathodic protection system, if applicable.
6. Proposed construction method and detailed plan of approach.
7. Location of access shafts, if applicable.
8. Proposed traffic control plan.
9. Revisions to material specifications.
10. Impact of revised alignment on hydraulic surge potential on line segment in question and all adjacent line segments, existing or proposed.

Failure of agreement between Contractor and Project Manager over proposed alternate construction methods would require construction to vertical and horizontal alignment, and details as per original contract documents.

1.23 ADDITIONAL CONDITIONS FOR SUBSTANTIAL COMPLETION

- A. In addition to requirements outlined in Document 00700 – General Conditions, for Contractor to be substantially complete with the Work and call for inspection, the Project Manager to confirm the following conditions have been met or completed:
1. Draft O&M manuals shall be delivered to Project Manager.
 2. Training shall be conducted utilizing draft O&M manuals.
 3. All safety-related systems and equipment shall be installed, accepted by manufacturer's representative and approved for use.
 4. All pay items shall be complete.
 5. All safety related work including pavement striping, signing, and signalization to be complete.
 6. After satisfactory completion of disinfection and hydrostatic testing, risers are removed and capped directly at water line. No portion of riser is extending from water line.

1.24 PIPELINES

- A. Refer to Specification Section 02317- Excavation and Backfill for Utilities for specific requirements on excavating near pipelines.

1.25 SOIL CONDITIONS & ENVIRONMENTAL SITE ASSESSMENTS (ESA)

- A. Bidder(s) must consider the soil conditions and ESA findings provided in the Geotechnical Report and ESA Phase I & II Reports, respectively. These reports have been provided with the bid documents.

1.26 POTENTIALLY PETROLEUM CONTAMINATED AREAS

- A. Provide Preparatory Work in PPCA as required in Specification Section 02105- Chemical Sampling and Analysis, and Document 00410 – Bid Form. In the event that soil or groundwater contamination is found that exceeds the minimum limits given in Section 02105, comply with the requirements of Section 02120 – Transportation and Disposal. Transportation and Disposal of Contaminated Soils and/or groundwater will be paid under Extra Unit Price Work. Extra machine excavation, extra hand excavation, extra placement of backfill, extra 48-inch cylinder pipe angle adaptors in PPCA will be paid under Extra Unit Price Work.
- B. During proposed Work, the Contractor is responsible to inform the Project Manager of any observed soil contaminations. Where soil contamination exists, test the soil needs and take proper action as described in Section 02105 and Section 02120.

1.27 SAFETY SYSTEMS

- A. The plans and any attendant drawings (including shop drawings, as built

drawings or record drawings), addenda, change orders and specifications, prepared by Lockwood, Andrews & Newnam, Inc., do not extend to or include designs or systems pertaining to the safety of the construction contractor or its employees, agents, or representatives in their performance of the work. The seal of Lockwood, Andrews and Newnam's registered/licensed professional engineers hereon does not extend to any such safety systems that may now or hereafter be incorporated in these plans. The construction contractor shall prepare or obtain the appropriate safety systems, including the plans and specifications required by House Bill 662 and 665 enacted by the Texas Legislature.

1.28 UTILITY SERVICE LINES

- A. Public utility service lines (water and sanitary sewer) are not shown on the drawings. Contractor shall anticipate that such service lines exist and repair them if damaged during construction. No separate pay will be made for repairs. The cost shall be incidental to the work.

1.29 CENTERPOINT ENERGY ELECTRICAL FACILITIES

- A. Overhead lines may exist on property. We have not attempted to mark those lines since they are clearly visible. All lines should be located prior to construction. Texas law, section 752, health & safety code, forbids all activities in which persons or things may come within six (6) feet of live overhead high voltage lines. Parties responsible for work, including contractors, are legally responsible for safety of construction workers under this law. This law carries both criminal and civil liability. To arrange for lines to be turned off or removed call Centerpoint Energy at (713) 207-2222.
- B. Location of CenterPoint Energy electrical facilities, are approximate and have not been verified by actual field check
- C. Hand dig with in one (1) foot of CenterPoint Energy underground electrical facilities.
- D. Overhead lines exist on and adjacent to the project site, which may be live during the construction period. Facilitate work so as not to interrupt services unless permitted by CenterPoint Energy.
- E. Exercise caution when working in the vicinity of CenterPoint Energy electrical cable, underground wiring and overhead lines.
- F. When excavation within 5 feet and beneath a depth of 3 feet below existing grade of a utility pole or anchor to which CenterPoint Energy facilities are attached, CenterPoint Energy will secure or brace these poles and anchor prior to excavation. The cost of CenterPoint Energy's efforts is incidental. "No separate pay item"

1.30 CENTERPOINT ENERGY UNDERGROUND GAS FACILITIES

- A. Locations of Center Point Energy main lines (to include United Gas Transmission and/or Industrial Gas Supply Corporation where applicable) are shown in an approximate location only. Service lines are not usually shown. The contractor shall contact the Utility Coordinating Committee at (713) 223-4567 or 1-800-669-8344 a minimum of 48 hours prior to construction to have main and service lines field located.
- B. When Center Point Energy pipeline markings are not visible, call (713)967-8037 (7:00 am to 4:30 pm) for status of line location request before excavation begins.
- C. When excavating within eighteen inches (18") of the indicated location of CenterPoint Energy facilities, all excavation must be accomplished using non-mechanized excavation procedures.
- D. When Center Point Energy facilities are exposed, sufficient support must be provided to the facilities to prevent excessive stress on the piping.
- E. The contractor is fully responsible for any damages caused by his failure to exactly locate and preserve these underground facilities.
- F. All gas facilities are the property of CenterPoint Energy, unless otherwise noted.

1.31 SBC (Telephone Facilities)

- A. The locations of SBC utilities are shown in an approximate way only. The contractor shall determine the exact location before commencing work. He agrees to be fully responsible for any damages and all damages, which might be occasioned by his failure to exactly locate and preserve these underground utilities.
- B. Call 1-800-344-8377 a minimum of 48 hours prior to construction to have underground lines field located.
- C. When excavation within eighteen inches (18") of an indicated location of SBC facilities, all excavations must be accomplished by using non-mechanized excavation procedures. When boring, the contractor shall expose SBC facilities.
- D. When SBC facilities are exposed, the contractor will provide support to prevent damage to the conduit ducts or cables. When excavating near telephone poles, the contractor shall brace the pole for support.

1.32 TREE PROTECTION

- A. Notify City of Houston Parks and Recreation Department representative Mr. Victor Cordova, City Forester, at (713) 867-0378, at least two (2) weeks in

advance of clearing cutting or pruning any tree.

- B. Adhere to the requirements of Specification Section 01562 - Tree and Plant Protection, Section 02915 – Tree Planting, and Tree Protection Plan provided in Contract Drawings. Protect existing trees, landscaping, and sprinkler systems. Repair damaged sprinkler systems and replace damaged landscaping to original condition or better. No separate payment.
- C. Live trees removed must be replaced with equivalent size in inches or with multiple trees whose cumulative size equates to the size of the tree being replaced. Tree replacement includes cost of new tree, installation, watering and warranty per Specification Section 02915, at no additional cost.

1.33 RECORD DRAWINGS

- A. In addition to requirements of Section 01785, provide the following information inside Sims PS on the record drawings:
 - 1. Utility Crossing:
 - a. Location and elevation referenced to City of Houston Bench Mark Utilized for work.
 - b. Utility size, type and material.
 - 2. Valves:
 - a. Number of turns to open
 - b. Direction to open

PART 2 PRODUCTS

2.01 TYPE OF PIPE FOR CONSTRUCTION OF WATER LINE

- A. Drawings have been prepared on basis of Prestressed Concrete Cylinder Pipe (PCCP) except where specific pipe material is identified. Certain details pertaining to all types of pipe have been included when a specific difference exists. Include costs associated with changes in installation and construction, tie-ins, valves, vaults, and other appurtenances to accommodate alternate pipe in unit cost of water line construction.
- B. Only one type of pipe material may be used where material alternates are allowed. When adjoining proposed large diameter water line to existing large diameter water line of different pipe material and/or coating, provide a flanged connection insulating kit, and isolation test station, unless otherwise approved by Project Manager. Specifications and design criteria have been provided for these types of pipe. It is Contractor's responsibility to ensure that type of pipe selected and resulting methods and means complies with requirements and limitations set forth herein and on Drawings including traffic control.
- D. Unless specifically identified on Drawings, types of materials used are

SUMMARY OF WORK

Contractor's option. Manufacturer and subcontractor selection are within Contractor's control and will not warrant time extensions due to failure to produce required deliverables within Contract Time. Extension of Contract Time due to non-delivery of Contractor's choice of pipe material, which affects Contractor's schedule, will not be allowed. Contractor to submit pipe material and other critical submittals in a timely manner to allow sufficient review time by Project Manager and to maintain construction schedule.

- E. Provide bends and fittings as required to comply with invert elevations shown in profile view of Drawings. Call outs for bends and fittings are not identified on Drawings in profile view.
- F. Clearly identify different pipe classes of the same pipe material using colored concrete or similar marking as approved by Project Manager.
- G. Provide electrical isolation when adjoining to pipe with different material or coating. Coating on the welded restrained portions of the piping shall be identical to the coating on the adjoining pipe sections.
- I. No separate payment for restrained or welded joints

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01270S

MEASUREMENT AND PAYMENT

The following supplement modifies Section 01270 – Measurement and Payment. Where a portion of the Specification is modified or deleted by this Supplementary Specification, the unaltered portions of the Specification shall remain in effect.

Insert the following paragraph:

1.08 MEASUREMENT AND PAYMENT FOR PROJECT SPECIFIC ITEMS.

A. 48/42-INCH WATER LINE

1. Bid Item 15 – “Site Restoration for Small Diameter Water Line.” Payment will be on a linear foot basis. Payment includes labor, equipment, and materials necessary to restore site due to work associated with the small diameter water line installation only. Site Restoration is to be in accordance with specification section 01740 and in accordance with drawings.
2. Bid Item 21 – “Remove and Replace Wooden Barrier.” Payment will be on a unit price basis for each barrier installed. Payment includes labor, equipment, and materials necessary to restore existing barrier as shown on drawings.
3. Bid Item 22 – “Protective Mesh Fencing.” Payment will be on a linear foot basis. Payment includes labor, equipment, and materials necessary to install and remove 4-foot orange plastic mesh fencing on tee post in accordance with drawings.
4. Bid Item 54 – “48-inch diameter water line tunnel in PPCA.” Payment will be on a linear foot along center line of completed water line. Payment includes handling and disposal of contaminated groundwater encountered during dewatering activities associated with tunneling operation.
5. Bid Item 71 – “Support 84-inch or 90-inch Storm Sewer.” Payment will be for each 84-inch or 90” storm sewer support. Payment includes labor, equipment, and materials necessary to support existing 84-inch or 90-inch storm sewer as required to construct 42-inch or 48-inch water line crossing in accordance with drawings.
6. Bid Item 76 – “Remove Existing Gravel Road.” Payment will be on a square yard basis. Payment includes labor, equipment and materials necessary to remove and dispose of existing gravel pavement in accordance with drawings and specifications.

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7. Bid Item 77 – “Crushed Limestone Gravel Road.” Payment will be on a square yard basis. Payment includes labor, equipment and materials necessary to install gravel pavement in accordance with drawings and specifications.
8. Bid Item 90 – “Non Doweled Joint”. This item will be paid on a linear foot basis. Payment includes labor, materials and equipment to furnish and install non doweled joint in accordance with Non Doweled Joint Detail.
9. Bid Item 95 – “Protective Mats.” Payment will be on a linear foot basis. Payment includes labor, equipment and materials necessary to provide mats or other means to protect existing 36” water line and 36” well collection line from loads from construction vehicles and City of Houston maintenance vehicles and repair damage to existing 36” water line or 36” well collection line due to vehicular traffic.
10. Bid Item 96 – “Remove and Replace Concrete Support.” Payment will be on a lump sum basis. Payment includes labor, equipment, and materials necessary to remove existing above ground water line concrete support as required for construction, temporary support of existing water line and appurtenances and replacement of concrete support in accordance with drawings and specifications.
11. Bid Item 97 – “Remove and Relocate Air Valve with Concrete Vault.” Payment will be on a lump sum basis. Payment includes labor, equipment, and materials necessary to field verify existing air valve connection, remove existing concrete vault with air valve and vent piping as required for construction, relocate concrete vault, air valve and vent piping away from proposed 48-inch water line, and reconnect air valve to existing 36” water line , in accordance with drawings and specifications.

B. SIMS PUMP STATION

1. Bid Item 101 – “36-inch Diameter Steel Water Line by Open Cut inside Sims PS.” Payment for 36” Water line by open cut is on a linear foot basis. Payment includes labor, equipment and materials necessary to install 36-inch water line accordance with drawings and specifications. Payment includes repair or replacement of existing utility services damaged by work and repair or replacement of existing PVC drain lines encountered or disturbed by work. Measurement is in accordance with Specification Section 02511.
2. Bid Item 102 – “48-inch Diameter Steel Water Line by Open Cut inside Sims PS.” Payment for 48” Water line by open cut is on a linear foot basis. Payment includes labor, equipment and materials necessary to install 48-inch water line accordance with drawings and specifications. Payment includes repair or replacement of existing utility services

damaged by work and repair or replacement of existing PVC drain lines encountered or disturbed by work. Measurement is in accordance with Specification Section 02511.

3. Bid Item 104 – “36” Diameter Wet Connection inside Sims PS.” Payment will be on a unit price for each 36” wet connection. Payment includes labor, equipment and materials necessary to complete wet connection in accordance with drawings and specifications. Payment includes providing temporary asphalt pavement in areas that will be disturbed to perform wet connection. No compensation will be given for extra work or for damages occurring as a result of incomplete shut off.
4. Bid Item 108 – “Cut in 36” Splitter Valve.” Payment will be on a unit price basis for each valve installed. Payment includes labor, materials and equipment necessary for complete installation of 36-inch butterfly valve on existing 36-inch discharge header. Payment includes pipe cutting, removal and disposal of existing water line, pipe dewatering, 36-inch butterfly valve, flange adapters, couplings, closure pieces, fitting for 3-inch temporary water line, pipe supports, valve actuator extension and support, 3-inch temporary water line with supports, pipe supports, and any other associated pipe and fittings. Payment includes coatings, coating application and coating repairs as necessary.
5. Bid Item 109 – “Remove and Replace 36” Butterfly Valve on Discharge header.” Payment will be on a unit price basis for each valve installed. Payment includes labor, materials and equipment necessary for complete installation of 36-inch butterfly valve on 36-inch discharge header. Payment includes removal and disposal of existing valves, removal and re-installation of existing valve bonnet extensions, and new 36-inch butterfly valve with handwheel actuator. Payment includes coatings, coating application and coating repairs as necessary.
6. Bid Item 111 – “36” Sims Connection.” Payment will be on a lump sum basis. Payment includes labor, equipment, and materials necessary for complete installation of the connections to the existing dual 36-inch headers at the pump discharge bay at Sims pump building. Payment also includes removal of existing piping, valves and actuators, control boxes, and electrical conduit; structural modifications at discharge bay wall for new discharge header connection; removal and re-installation of existing metal stairs and grating, existing 36-inch couplings, and existing concrete steps outside of discharge bay; new 3-inch water piping with insulation and pipe supports, new 1” pressure sensing piping, water with insulation and pipe supports, new pipe insulation on existing 3-inch and 1-inch water piping, new gaskets for existing 36-inch couplings, new 36-inch steel pipe with new fittings for 3-inch waterline and 1-inch pressure sensing line and 4-inch drains, new 4-inch drains with fittings and valves, new isolation

flanges, new 36-inch wall pipe, and connections to new piping. Payment includes coatings, coating application and coating repairs as necessary.

7. Bid Item 113 – “Remove Existing Gravel Road.” Payment will be on a square yard basis. Payment includes labor, equipment and materials necessary to remove and dispose of existing gravel pavement in accordance with drawings and specifications.
8. Bid Item 114 – “Crushed Limestone Gravel Road.” Payment will be on a square yard basis. Payment includes labor, equipment and materials necessary to install gravel pavement in accordance with drawings and specifications.
9. Bid Item 120 – “Protective Mats.” Payment will be on a linear foot basis. Payment includes labor, equipment and materials necessary to provide mats or other means to protect existing 36” water line and 36” well collection line from loads from construction vehicles and City of Houston maintenance vehicles and repair damage to existing 36” water line or 36” well collection line due to vehicular traffic.
10. Bid Item 121 – “Temporary Gravel Pavement.” Payment will be on a square yard basis. Payment includes labor, equipment and materials necessary to install gravel pavement in accordance with drawings and specifications.

C. SWPS CHLORINE BUILDING

1. Bid Item 124 – “Chlorine Building Modifications.” Payment will be on a lump sum basis. Payment includes all labor, equipment, and materials necessary for the demolition, roof replacement, electrical, mechanical and structural modifications, protection of existing equipment not being modified, access and temporary systems required to keep building in service during work, in accordance with the drawings and specifications.


D. EXTRA UNIT PRICE ITEMS FOR 48/42-INCH WATER LINE. Extra unit price items are given to provide for additional work outside the original scope that may be necessary as a result of the water line construction. These items are not to compensate for the original scope of work. Extra Unit Price items are only to be used for additional work required that is outside the original scope of work. Obtain approval from Project Manager prior to utilizing Extra Unit Price Items.

1. Bid Item 144 – “6” Temporary Blow Off” Payment will be on a unit price basis for each blow off installed. Payment includes labor, materials and equipment necessary for complete installation and removal of blow off on water line in accordance with specifications.

2. Bid Item 145 – “Demobilization/Remobilization at Sims PS” - Payment will be on a lump sum basis. Payment is for demobilization and remobilization at request of Project Manager due to no fault of Contractor. Payment includes all labor, equipment, and materials necessary to demobilize work side Sims PS, temporarily restore any disturbed areas, and remobilize up to 275 days later and complete work inside Sims PS in accordance with drawings and specifications.

END OF SECTION

Approved by:

ACM 

Hamlet Hovsepian, P.E.
Assistant Director
Water Engineering Section
Engineering and Construction Division

Date 8/5/11

Section 02320 S

UTILITY BACKFILL MATERIAL


The following supplements modify Section 02320 – Utility Backfill Material Standard Specification. Where a portion of the Specification is modified or deleted by this Supplementary Specification, the unaltered portions of the Specification shall remain in effect.

2.02 PRODUCT DESCRIPTIONS: Delete paragraph I and replace with the following:

- I. Select Backfill: Class IV lean clay with plasticity index between 10 and 20 and more than 50 percent passing a no. 200 sieve or clayey soils treated with lime in accordance with section 02951 – Pavement repair and Restoration to meet plasticity criteria.

END OF SUPPLEMENT

Approved by:

ACM 

Hamlet Hovsepian, P.E.
Assistant Director
Water Engineering Section
Engineering and Construction Division

Date 8/5/11

Section 02511S

WATER LINES

The following supplements modify Section 02511 - Water Lines Standard Specification. Where a portion of the Specification is modified or deleted by this Supplementary Specification, the unaltered portions of the Specification shall remain in effect.

1.02 MEASUREMEN AND PAYMENT: delete Paragraph 1.02 A. 1 and replace with the following:

1. Payment for water lines installed by open cut, trenchless construction with or with casing, aerial crossing and pipe offset section or within limits of Potentially Petroleum Contaminated Area (PPCA) is on a linear foot basis for each size of pipe installed. For Large Diameter Water Lines, payment will include welded and restrained joints. Separate pay items are used for each type of installation:
 - a. Mains: Mains Measure along axis of pipe and include fittings and valves.
 - b. Branch Pipe: Measure from axis of water line to end of branch.

END OF SUPPLEMENT

Approved by:



Hamlet Hovsepyan, P.E.

Assistant Director
Water Engineering Section
Engineering and Construction Division

Date 8/5/11

Section 02521 S

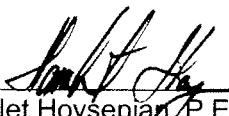
GATE VALVES

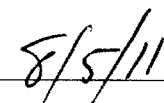
The following supplements modify Section 02521 – Gate Valves Standard Specification. Where a portion of the Specification is modified or deleted by this Supplementary Specification, the unaltered portions of the Specification shall remain in effect.

- 1.02 MEASUREMENT AND PAYMENT: Delete paragraph A. 2. and replace with the following:
2. Payment for gate valves for 24 inches to 48 inches in diameter is on a unit price basis. Unit price includes cost of required box for gate valves.
- 2.01 MATERIALS: Add the following paragraph O.
- O. Provide fusion-bonded –epoxy coating on all internal and external surfaces of valves in accordance with AWWA C550.

END OF SUPPLEMENT

Approved by:


ACM Hamlet Hovsepian, P.E.
Assistant Director
Water Engineering Section
Engineering and Construction Division


Date

Section 16640 S

CATHODIC PROTECTION FOR PIPELINES

The following supplements modify Section 16640 – Cathodic Protection for Pipelines Standard Specification. Where a portion of the Specification is modified or deleted by this Supplementary Specification, the unaltered portions of the Specification shall remain in effect.

1.03 UNIT PRICES: Add the following paragraph C.

- C. Payment for installation of cathodic protection system will be authorized by Project Manager in two parts. Pay estimates for partial payment will be made as measured above according to following schedule:

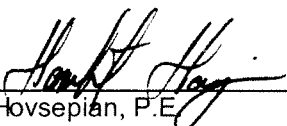
1. 50 percent of installation will be authorized when installation of system is complete.
2. 100 percent of installation will be authorized when reports required in paragraph 1.05 F. are submitted and accepted.

1.06 QUALITY CONTROL: Replace paragraph C. with the following


- C. Inspection:
1. All materials, fabrication and installations are subject to inspection and testing by the City of Houston or its designated representative.
 2. Provide NACE certified independent inspector to inspect and test cathodic protection system to verify installation in accordance with plans and specification as construction progresses.

END OF SUPPLEMENT

Approved by:

ACM 

Hamlet Hovsepian, P.E.
Assistant Director
Water Engineering Section
Engineering and Construction Division

Date 

SECTION 87100

DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. New mechanical door hardware for the existing double, swing doors at east side of the building exterior wall, including the following:
 - a. New panic bar including cylinder lock, latch and lock, strike, lever handle, and other relevant items for existing swinging doors on exterior east wall of building.
2. Existing single swing and double swing doors with existing panic hardware, as per floor plan, where it calls 'Panic Bar on Doors'
 - a. Perform necessary repairs and adjustment on existing hardware for proper and smooth function and for full compliance of existing panic hardware with the Accessibility code (TDLR).
 - b. Add missing parts on existing door hardware, replace bad operating parts, adjust force of door opening to comply with accessibility standards (TDLR).

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Details of electrified door hardware.
- C. Samples: For each exposed product and for each color and texture specified.
- D. Other Action Submittals:
 1. Door Hardware Schedule: Prepared by or under the supervision of Installer, detailing fabrication and assembly of door hardware, as well as installation procedures and diagrams. Coordinate final door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 - a. Format: Use same scheduling sequence and format and with reference to door location on floor plan.
 - b. Content: Include the following information:
 - 1) Identification number, location, hand, size, and material of each door and frame.

- 2) Locations of each door hardware set, cross-referenced to Drawings on floor plan and to door and frame schedule.
 - 3) Complete designations, including name and manufacturer, type, style, function, size, quantity, function, and finish of each door hardware product.
2. Keying Schedule: Prepared by or under the supervision of Installer, detailing Owner's final keying instructions for locks.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Supplier of products and an employer of workers trained and approved by product manufacturers and an Architectural Hardware Consultant who is available during the course of the Work to consult with Contractor, Architect, and Owner about door hardware and keying.
- B. Architectural Hardware Consultant Qualifications: A person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and who is currently certified by DHI as follows:
- C. Means of Egress Doors: Latches do not require more than 15 lbf (67 N) to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.
- D. Accessibility Requirements: For door hardware on doors in an accessible route, comply with Texas Department of Licensing and Regulations TDLR)
1. Provide operating devices that do not require tight grasping, pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf (22.2 N).
 2. Comply with the following maximum opening-force requirements:
 - a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf (22.2 N) applied perpendicular to door.
 3. Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than **1/2 inch (13 mm) high**.
 4. Adjust door closer sweep periods so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches (75 mm) from the latch, measured to the leading edge of the door.
- E. Keying Conference: Consult with the owner."

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver keys and permanent cores to Owner at the time of final completion.

1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fails in materials or workmanship within specified warranty period.
1. Warranty Period: [5] Five years from date of Substantial Completion, unless otherwise indicated.
 - a. Exit Devices: [5] Five years from date of Substantial Completion.
 - b. Manual Closers: [10] Ten years from date of Substantial Completion.

PART 2 - PRODUCTS**2.1 SCHEDULED DOOR HARDWARE**

- A. Provide door hardware for each door as scheduled in the Addendum to comply with requirements in this Section.
1. Door Hardware Sets: Provide quantity, item, size, finish or color indicated, and **named manufacturers' products**
 - a. For doors with existing hardware schedule is not necessary..

2.2 MECHANICAL LOCKS AND LATCHES

- A. Strikes: Provide manufacturer's standard strike for each lock bolt or latchbolt complying with requirements indicated for applicable lock or latch and with strike box and curved lip extended to protect frame; finished to match lock or latch.
1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
 2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
 3. Aluminum-Frame Strike Box: Manufacturer's special strike box fabricated for aluminum framing.
 4. Rabbet Front and Strike: Provide on locksets for rabbeted meeting stiles.
- B. Bored Locks: BHMA A156.2; Grade [1]; Series 4000.
1. Manufacturers: Subject to compliance with requirements, **[provide products by one of the following]**
 2. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on **schedule** or comparable product by one of the following:
 - a. Arrow USA; an ASSA ABLOY Group company.
 - b. Best Access Systems; Div. of Stanley Security Solutions, Inc.
 - c. Cal-Royal Products, Inc.
 - d. Corbin Russwin Architectural Hardware; n ASSA ABLOY Group Company.
 - e. Falcon Lock; An Ingersoll-Rand Company.
 - f. K2 Commercial Hardware; a Black & Decker Corp. company.

- g. Marks USA.
- h. Medeco Security Locks, Inc.; an ASSA ABLOY Group company.
- i. PDQ Manufacturing.
- j. SARGENT Manufacturing Company; an ASSA ABLOY Group company.
- k. Schlage Commercial Lock Division; an Ingersoll-Rand company.
- l. Weiser Lock Corp.; a Black & Decker Corp. company.
- m. Yale Security Inc.; an ASSA ABLOY Group company.

2.3 EXIT DEVICES AND AUXILIARY ITEMS

A. Exit Devices and Auxiliary Items: BHMA A156.3.

- 1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on **schedule** or comparable product by one of the following:
 - a. Adams Rite Manufacturing Co.; an ASSA ABLOY Group company.
 - b. Arrow USA; an ASSA ABLOY Group company.
 - c. Cal-Royal Products, Inc.
 - d. Corbin Russwin Architectural Hardware; an ASSA ABLOY Group company.
 - e. Detex Corporation.
 - f. Door Controls International, Inc.
 - g. DORMA Architectural Hardware; Member of The DORMA Group North America.
 - h. Dor-O-Matic; an Ingersoll-Rand company.
 - i. K2 Commercial Hardware; a Black & Decker Corp. company.
 - j. Monarch Exit Devices & Panic Hardware; an Ingersoll-Rand company.
 - k. Precision Hardware, Inc.; Division of Stanley Security Solutions, Inc.
 - l. Rutherford Controls Int'l. Corp.
 - m. SARGENT Manufacturing Company; an ASSA ABLOY Group company.
 - n. Von Duprin; an Ingersoll-Rand company.
 - o. Yale Security Inc.; an ASSA ABLOY Group company.

2.4 LOCK CYLINDERS

- A. Lock Cylinders: Tumbler type, constructed from brass or bronze, stainless steel, or nickel silver.
 - 1. Manufacturer: Same manufacturer as for locking and Exit Devices.
- B. Construction Master Keys: Provide cylinders with feature that permits voiding of construction keys without cylinder removal. Provide 10 construction master keys.

2.5 KEYING

- A. Keying System: Factory registered, complying with guidelines in BHMA A156.28, Appendix A. Incorporate decisions made in keying conference.
 - 1. Grand Master Key System: Change keys, a master key, and a grand master key operate cylinders.
 - 2. Existing System:

- a. Master key or grand master key locks to Owner's existing system.

B. Keys: **Nickel silver or Brass.**

1. Quantity: In addition to one extra key blank for each lock, provide the following:

- a. Cylinder Change Keys: Three.

2.6 KEY CONTROL SYSTEM

- A. Key Control Cabinet: BHMA A156.5; metal cabinet with baked-enamel finish; containing key-holding hooks, labels, 2 sets of key tags with self-locking key holders, key-gathering envelopes, and temporary and permanent markers; with key capacity of **[150]** percent of the number of locks.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

- a. American Key Boxes and Cabinets.
- b. GE Security, Inc.
- c. HPC, Inc.
- d. Lund Equipment Co., Inc.
- e. MMF Industries.
- f. Tri Palm International.

2.7 OPERATING TRIM

2.8 ACCESSORIES FOR PAIRS OF DOORS

- A. Coordinators: BHMA A156.3; consisting of active-leaf, hold-open lever and inactive-leaf release trigger; fabricated from steel with nylon-coated strike plates; with built-in, adjustable safety release.
- B. Carry-Open Bars: BHMA A156.3; prevent the inactive leaf from opening before the active leaf; provide polished brass or bronze carry-open bars with strike plate for inactive leaves of pairs of doors unless automatic or self-latching bolts are used.

2.9 THRESHOLDS

- A. Thresholds: BHMA A156.21; fabricated to full width of opening indicated.
1. Manufacturers: Subject to compliance with requirements, **provide products by one of the following.**
 2. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on **[Drawings]** **[schedule]** or comparable product by one of the following:

- a. Hager Companies.
- b. M-D Building Products, Inc.
- c. National Guard Products.
- d. Pemko Manufacturing Co.; an ASSA ABLOY Group company.
- e. Reese Enterprises, Inc.
- f. Rixson Specialty Door Controls; an ASSA ABLOY Group company.
- g. Sealeze; a unit of Jason Incorporated.
- h. Zero International.

2.10 FABRICATION

- A. Fasteners: Provide door hardware manufactured to comply with published templates prepared for machine, wood, and sheet metal screws. Provide screws that comply with commercially recognized industry standards for application intended, except aluminum fasteners are not permitted. Provide Phillips flat-head screws with finished heads to match surface of door hardware, unless otherwise indicated.

2.11 FINISHES

- A. Provide finishes complying with BHMA A156.18 as indicated in door hardware schedule.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
- B. Mounting Heights: Mount door hardware units at heights indicated on Drawings and to comply with the following] unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 - 2. Custom Steel Doors and Frames: HMMA 831.
 - 3. All operating hardware, including panic bars and lever handles to comply with TDLR standards
- C. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
 2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- D. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
- E. Thresholds: Set thresholds for exterior doors and other doors indicated in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- F. Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements. Non-active leaf has tower bolts on top and bottom which have to be adjusted.

3.2 FIELD QUALITY CONTROL

- A. Independent Architectural Hardware Consultant: contractor will engage a qualified independent Architectural Hardware Consultant to perform inspections and to prepare inspection reports.

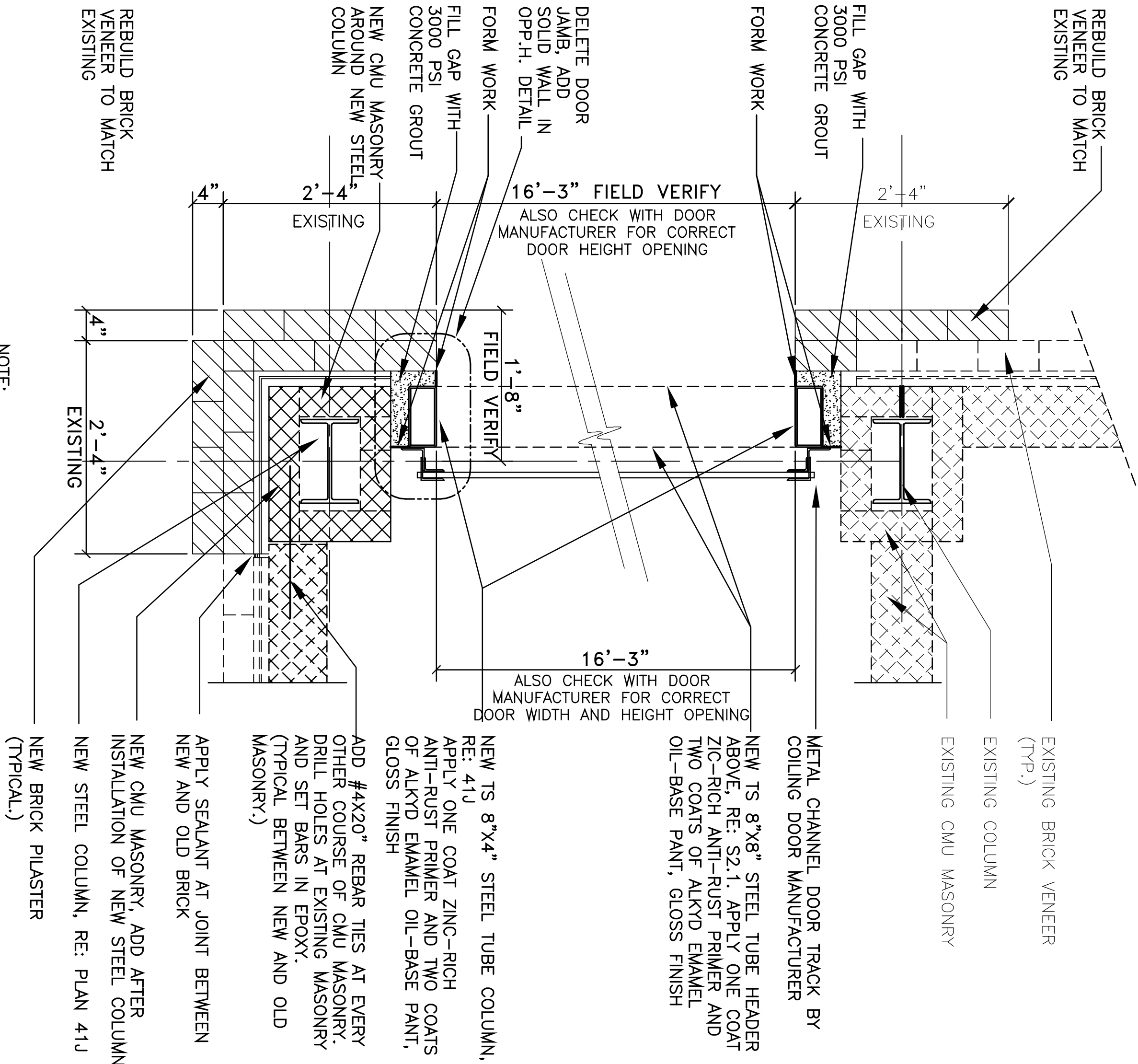
3.3 DOOR HARDWARE SCHEDULE

Door Hardware Set No. 1

Location: Double, swing doors, on exterior east wall of building.

<u>Qty.</u>	<u>Item</u>	<u>Manufacturer</u>	<u>Product</u>	<u>Finish</u>
[1]	Rim panic bar with key cylinder, lever handle and escutcheon	Sargent	8888 Reversible Rim exit device ETLx32Dx4FT	32 D.

END OF SECTION



NOTE:
THE BUILDING CONTRACTOR SHOULD
CHECK THE CLEAR OPENING
REQUIRED FOR THE INSTALLATION OF
COLLING DOOR WITH THE DOOR
MANUFACTURER.

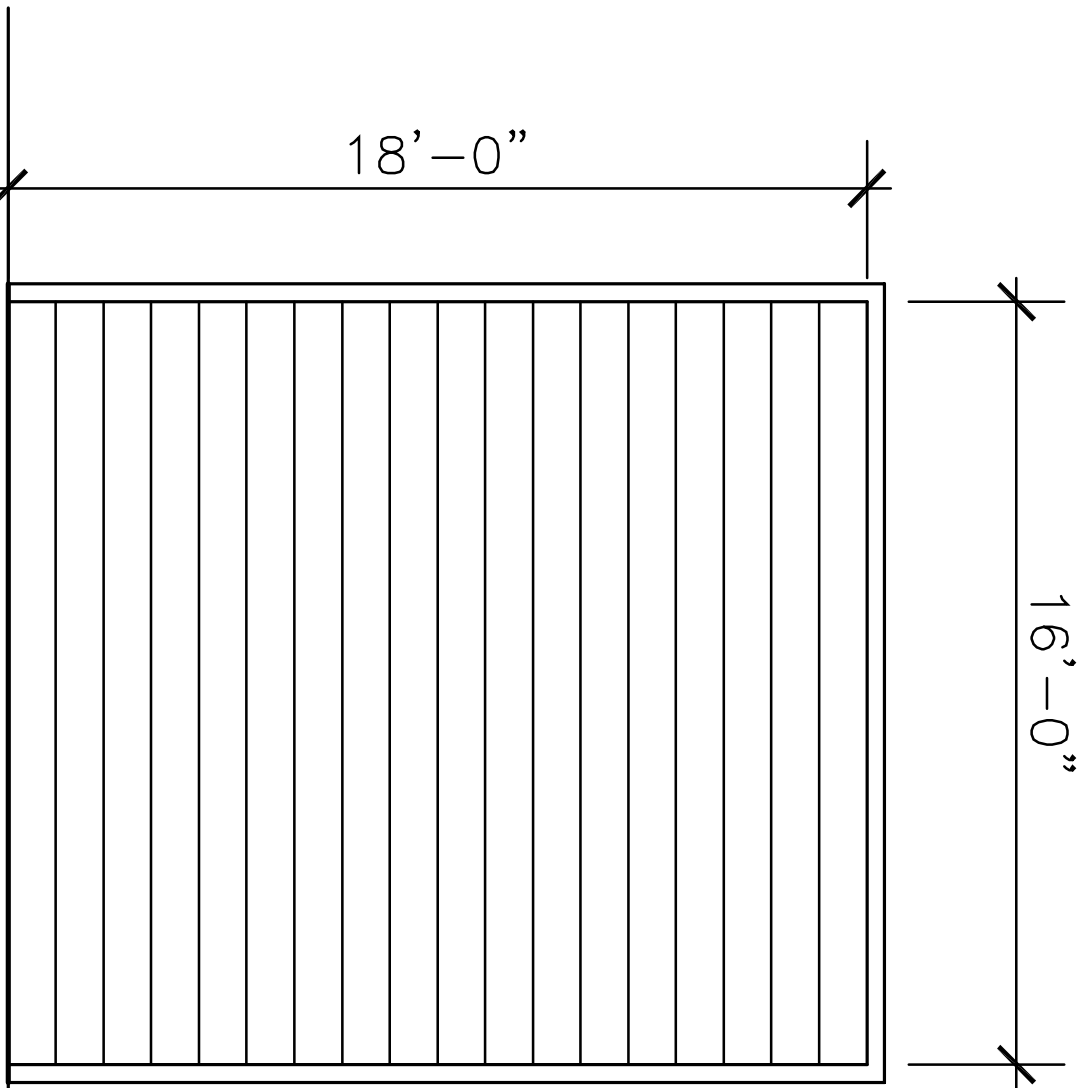
3 NEW COLLING DOOR-JAMB DETAIL

41E SCALE 1" = 1'-0"

3 NO DOOR AT OPP. H., ADD SOLID WALL INSTEAD

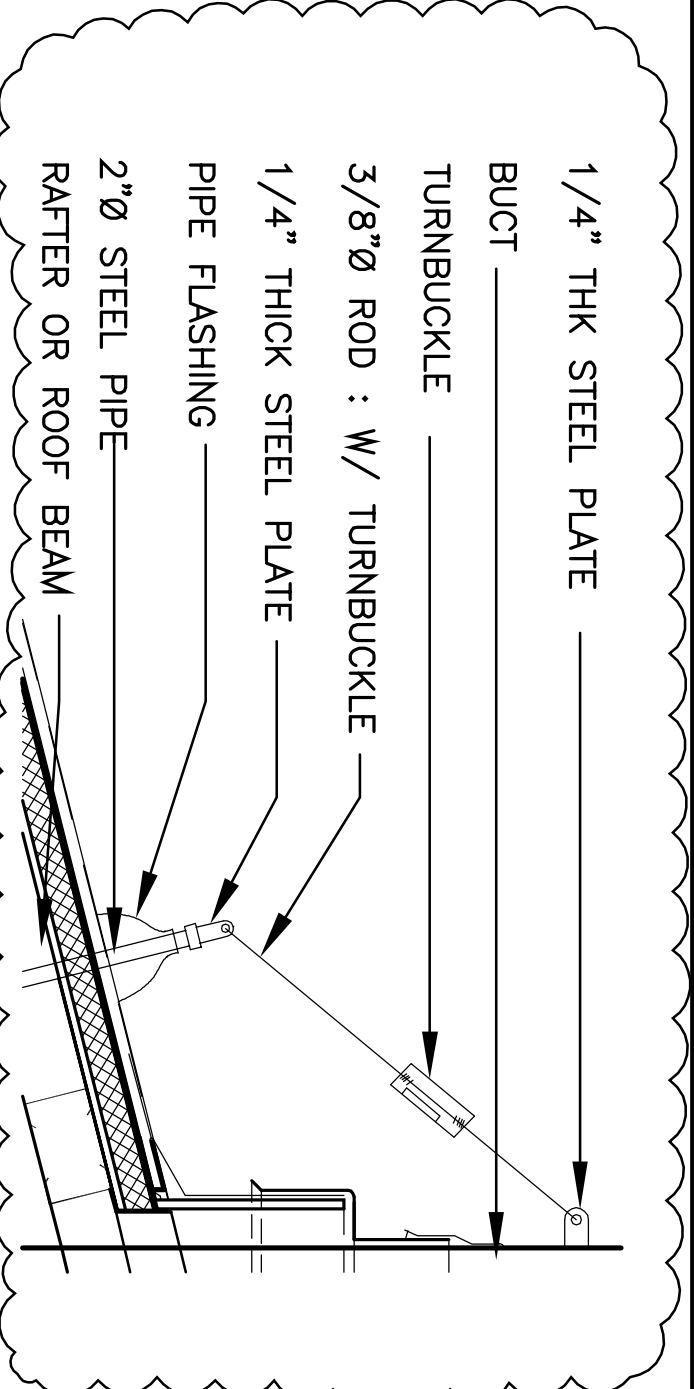
41E SCALE 1" = 1'-0"

GENERAL SPECIFICATION OF THE DOOR
-OPERATION: ELECTRIC MOTOR 1/2 HP,
GEARHEAD-HORIZONTAL, INSULATED STEEL SLATS
COLLING DOOR, AND WITH EMERGENCY CHAIN
OPERATION SYSTEM.
-TYPE OF INSTALLATION: FACE OF THE WALL
MOUNTED, INSIDE
-FINISH: COLOR COIT (POWDER COATED BAKED
ENAMEL).
-COLOR: WILL BE SELECTED FROM MANUFACTURER'S
STANDARD COLOR CHART.
-NOMINAL SIZE: 16 FT WIDE BY 18 FT HIGH
-ACTUAL SIZE: TO BE FIELD MEASURED FROM
CONSTRUCTED OPENING.
NOTE:
PROVIDE SHOP DRAWING FOR APPROVAL.



2 ROLL-UP DOOR ELEVATION

41E SCALE 1/4" = 1'-0"



5 GUYING ROD DETAIL

41E SCALE: N/A

FOR DETAIL REFER TO: 3/411
EXHAUST DUCT CAP, RE: MECHANICAL PLANS
ADDITIONAL PURINS TO FRAME OPENING FOR
SCATTING EXHAUST DUCT CURB
NEW STANDING SEAM METAL ROOF
WITH "KYNAR 500\"/>

1/4\"/>

NEW ROOF RIGID INSULATION TYPE 1
REFER TO DETAILS SHEETS 41F
THROUGH 41I
NEW STRUCTURAL STEEL BEAM,
REFER TO: 3/41I
NEW 7/8\"/>

NEW EAVE STRUT
NEW FOLLOW THE
SAME GUTTER
LEVEL AS THE
EXISTING
NEW DOOR COIL
BOX REFER TO
4/41E
NEW DOOR
OPERATING ELECTRIC
MOTOR, FOR ELECTRIC
CONNECTION SEE
KEYED NOTES
NUMBERS 1 AND 3
ON ELECTRICAL
SHEETS
NEW PORTAL FRAME AND
PURINS, REFER TO
STRUCTURAL DRAWINGS
NEW 8\"/>

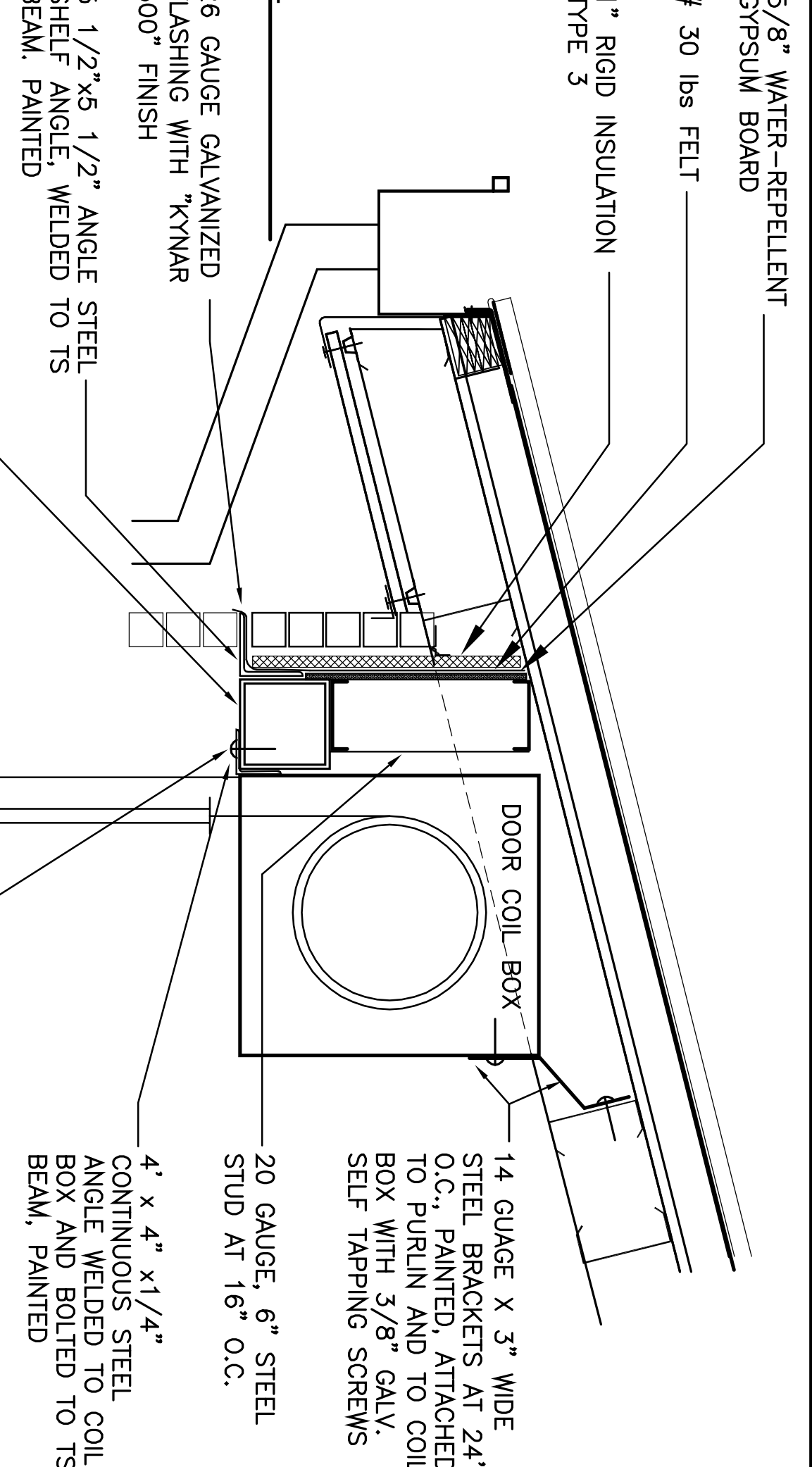
19'-4\"/>

18'-0\"/>

EXISTING RIGID FRAME COLUMN
EXISTING JOINT REINFORCING
@ 16\"/>

EXISTING 1\"/>

NOTE:
FOR CONNECTION DOOR COIL BOX TO
STRUCTURAL TS 8X8, FOLLOW
INSTRUCTION OF DOOR MANUFACTURER.
ADDITIONAL SUPPORT BRACKETS MAY
BE REQUIRED FOR SUPPORT OF
MOTOR PER DOOR MANUFACTURER.



4 NEW DOOR COIL DETAIL

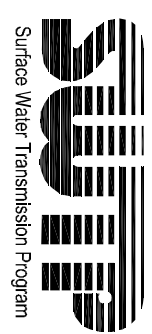
41E SCALE: N/A

ATTACH COIL BOX TO TS
BEAM WITH 3/8\"/>

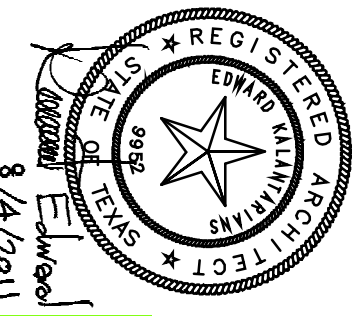
SCOPE OF THIS PROJECT DOES
NOT INCLUDE ANY ADDITION OR
CHANGES IN THE BUILDING AREA
AND IN THE NATURE OF THE
BUILDING AND IT DOES NOT
EFFECT ANY REQUIREMENTS OF
EXISTING "H\"/>

NOTES:

- ALL ROOF PANEL, GUTTERS,
DOWNSPOUTS, FASCIA AND SOFFIT
PANELS, EXPOSED FLASHING AND
TRIMS TO HAVE "KYNAR 500\"/>
- FOR CURB DETAIL SEE SHEET 41I
- FOR NEW ROOFING, GUTTER
AND DOWNSPOUT DETAILS
REFER TO ALL DETAILS ON
SHEETS 41F THRU 41I



**Lockwood, Andrews
& Newberry, Inc.**
A LDD IN TEXAS COMPANY
2000 Westpark Drive, Houston, TX 77056

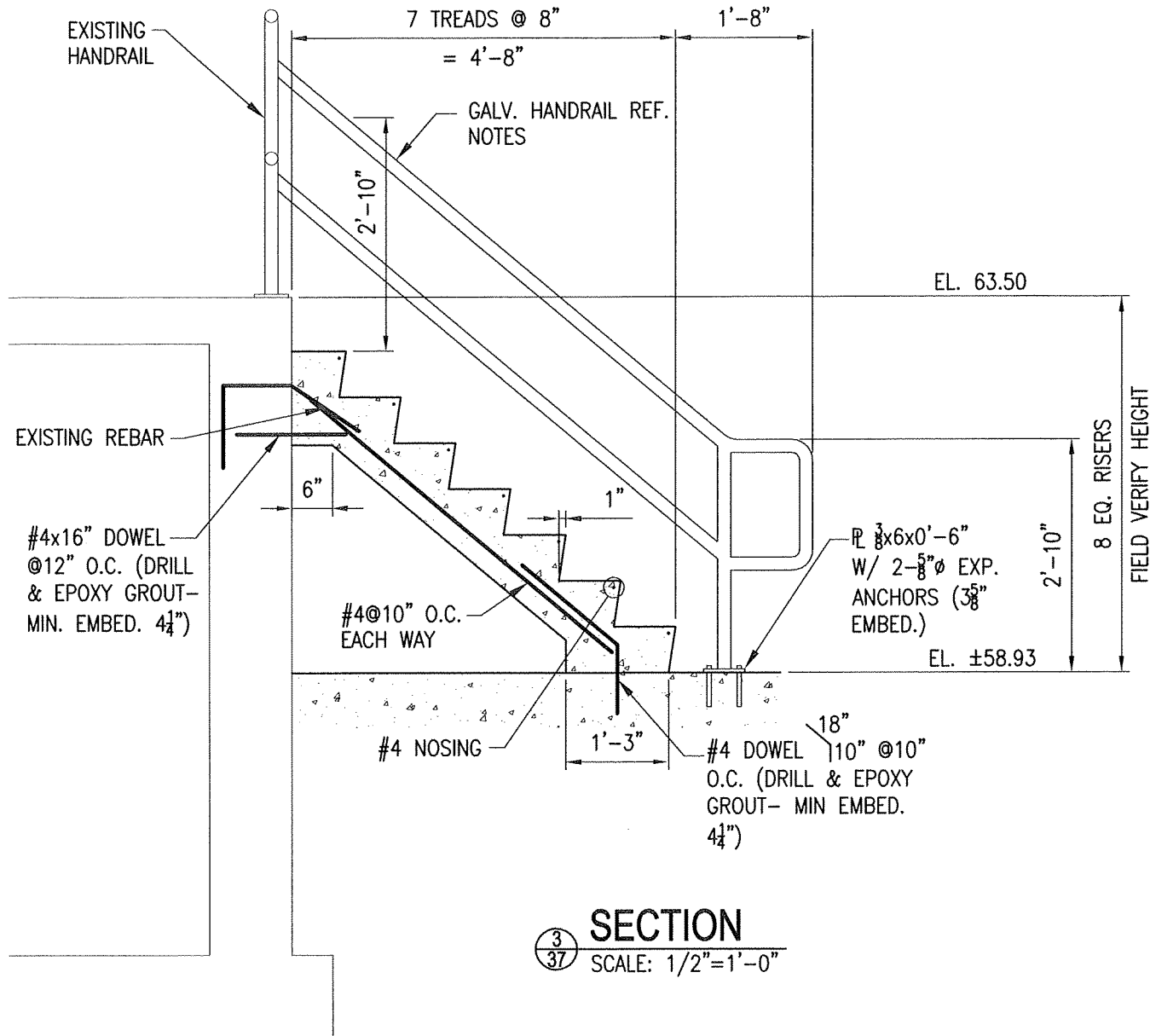


CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
SWP CONTRACT 74A-1

CHLORINE BUILDING
SCRUBBER WING SECTION 2 OF 2

WBS NO. S-000900-109-4	
DRAWING SCALE	
CITY OF HOUSTON PM ARTHUR MORRIS, P.E.	
SHEET NO. 41E OF 208	

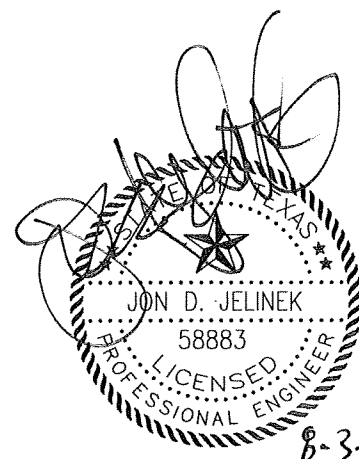
APP.	REVISIONS	DATE	No.
	ADD GUY WIRES ON EXHAUST DUCT	8-4-11	1



SECTION
 3/37 SCALE: 1/2"=1'-0"

HANDRAIL NOTES:

1. HANDRAIL SHALL BE GALVANIZED.
2. ALL WELDED STEEL SHALL BE GROUND SMOOTH AND SHOP PRIMED FOR SHIPMENT TO THE SITE. HANDRAIL ASSEMBLIES SHALL BE FIELD PAINTED TO MATCH EXISTING CONDITIONS.
3. THE HANDRAIL ASSEMBLY SHALL CONSIST OF THE FOLLOWING COMPONENTS:
 - A. POSTS: 1 1/2" DIA. (1.900" O.D.) EXTRA STRONG PIPE AT 6'-0" MAXIMUM SPACING.
 - B. TOP AND INTERMEDIATE RAILS: 1 1/2" DIA. (1.900" O.D.) STANDARD PIPE.
4. THE RAILING AND HANDRAIL SHALL WITHSTAND A FORCE OF 200 POUNDS APPLIED AT ANY LOCATION IN ANY DIRECTION WITHOUT PERMANENT DEFORMATION. THE ANCHORAGE SHALL HAVE A MINIMUM LOAD CAPACITY OF 400 POUNDS AT FAILURE. FOR RAILING POSTS, THE LOAD SHALL BE APPLIED AT THE TOP RAIL.
5. THE HANDRAIL AND RAILING SHALL MEET OR EXCEED ALL APPLICABLE OSHA REQUIREMENTS, LOCAL BUILDING CODE REQUIREMENTS AND THE REQUIREMENTS OF THIS SPECIFICATION. THE MOST STRINGENT REQUIREMENTS SHALL CONTROL.



Lockwood, Andrews & Newnam, Inc.
 Firm No. 2614

**SIMS PS CONNECTION STRUCTURAL DETAILS
 STAIR DETAIL**

**EXHIBIT A
 ADDENDUM NO. 1**



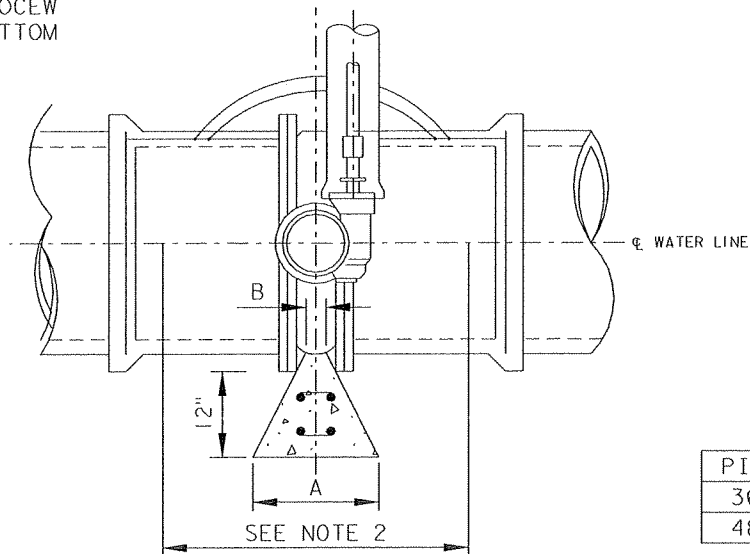
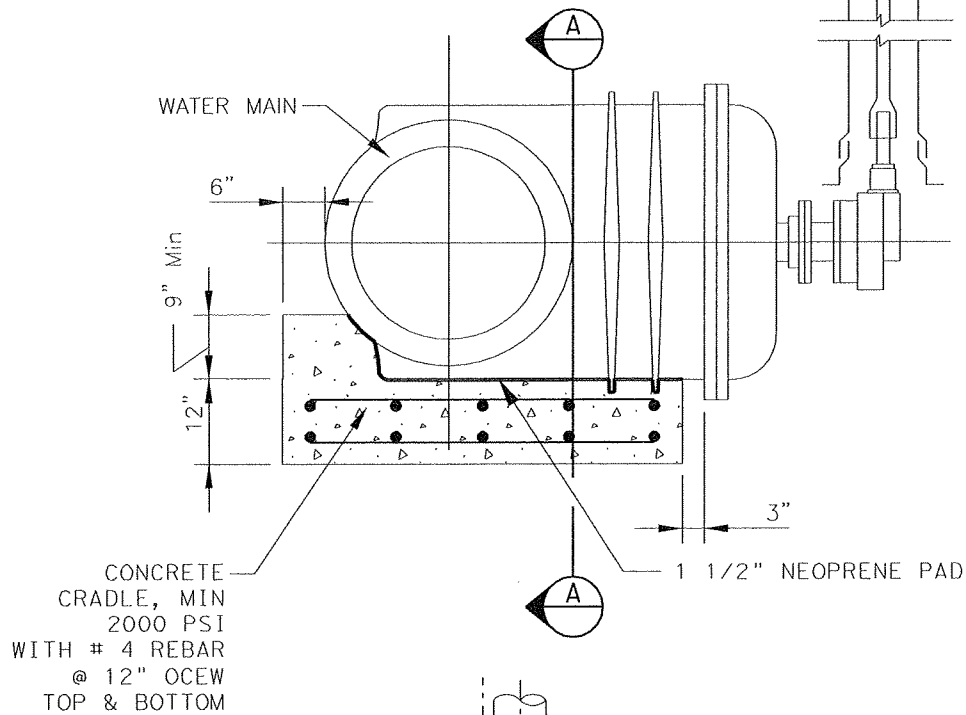
**Lockwood, Andrews
 & Newnam, Inc.**
 A LEO A DALY COMPANY

L:\130-10337-00A\4-D-Drawings\Civil\Standard Details\XXX-D11-Gate Valve.dgn

U:herrero

8/4/2011

SEE VALVE BOX DETAIL



PIPE	A	B
36"	36"	24"
48"	48"	36"

SECTION A-A
N.T.S.

NOTES:

1. PROTECT FLANGE BOLTS FROM CONCRETE ENCASEMENT.
2. BACKFILL WITH FLOWABLE FILL FROM BEDDING TO SPRING LINE EXTENDING 2 FEET BEYOND GATE VALVE EACH SIDE.

6 46 HORIZONTAL GATE VALVE WITH CONCRETE SADDLE
N.T.S.

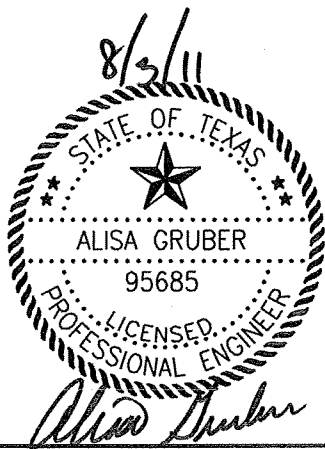


EXHIBIT B
ADDENDUM NO. 1



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