

Document 00911

NOTICE OF
ADDENDUM NO. 1

Date of Addendum: 5/18/15

PROJECT NAME: Lift Station Renewal / Replacement Project – Consolidation of Buckingham, N. Post Oak Lane, & Stablewood Lift Stations

PROJECT NO: R-000267-109A-4

BID DATE: May 21, 2015 (There is no change to the Bid Date.)

FROM: J. Timothy Lincoln, P.E., City Engineer
City of Houston, Department of Public Works and Engineering
611 Walker Street
Houston, Texas 77002
Attn: Akhter Hussain, P.E., Project Manager

TO: Prospective Bidders

The referenced Addendum forms a part of the Bidding Documents and will be incorporated into the Contract documents, as applicable.

Written questions regarding this Addendum may be submitted to the Project Manager following the procedures specified in Document 00200 – Instructions to Bidders. Immediately notify the City Engineer through the named Project Manager upon finding discrepancies or omissions in the Bid Documents.

This Addendum includes:

ADDENDUM SYNOPSIS

Changes to Project Manual
Bidding Requirements
Specifications
Changes to Drawings
Clarifications

DATED: Ravi Kaleyatodi

Ravi Kaleyatodi, P.E.
Senior Assistant Director
Engineering & Construction Division
Department of Public Works and
Engineering

END OF DOCUMENT

00911-1
02-01-2004

Document 00910

ADDENDUM NO. 1

Date of Addendum: 5/18/15

PROJECT NAME: Lift Station Renewal/Replacement Project Consolidation of
Buckingham, N. Post Oak Lane, & Stablewood Lift Stations

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FROM: J. Timothy Lincoln, P.E., City Engineer
City of Houston, Department of Public Works and Engineering
611 Walker Street
Houston, Texas 77002
Attn: Akhter Hussain, 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

2. Document 00010 – Table of Contents – Remove and replace document in its entirety with attached 00010 from Addendum No. 1.
3. Document 00042 – List of Designated Subcontractors and Suppliers – Remove document in its entirety.
4. Document 00410A – Bid Form Part A – Remove and replace document in its entirety with attached 00410A from Addendum No. 1.
5. Document 00410B – Bid Form Part B – Remove and replace document in its entirety with attached 00410B from Addendum No. 1.

SPECIFICATIONS

6. Section 01110 – Summary of Work. Remove and replace document in its entirety with attached 01110 from Addendum No. 1.

CHANGES TO DRAWINGS

7. Plan Sheet G1 - "Cover Sheet" – Remove and replace this sheet in its entirety with attached Sheet G1 from Addendum No.1. Added HCFCF approval stamp.
8. Plan Sheet G5 - "General Notes" – Remove and replace this sheet in its entirety with attached Sheet G5 from Addendum No.1. Added HCFCF Notes and removed reference to night work.
9. Plan Sheet C5 – "Buckingham Sta. 0+00 to Sta. 4+00" – Remove and replace this sheet in its entirety with attached Sheet C5 from Addendum No. 1. Utility Signatures added to sheet.
10. Plan Sheet C15 – "E. Friar Tuck Sta. 0+00 to Sta. 4+00" – Remove and replace this sheet in its entirety with attached Sheet C15 from Addendum No.1. Utility Signatures added to sheet.
11. Plan Sheet C21 – "Memorial Sta. 5+00 to Sta. 10+00" – Remove and replace this sheet in its entirety with attached Sheet C21 from Addendum No. 1. Utility Signatures added to sheet.

12. Plan Sheet C98 – “Woodway Sta. 29+40 to Sta. 34+40” – Remove and replace this sheet in its entirety with attached Sheet C98 from Addendum No. 1. Utility Signatures added to sheet.
13. Plan Sheet C101 – “Woodway Sta. 34+40 to Sta. 39+00” – Remove and replace this sheet in its entirety with attached Sheet C101 from Addendum No. 1. Utility Signatures added to sheet.
14. Delete Sheet TCP-3, “Traffic Control Plan Memorial Drive at N. Post Oak Lane” and replace with Plan Sheet TCP-3A from Addendum No. 1. References to Night work removed, two way traffic control for North Post Oak Lane added to this sheet, and traffic control for Memorial Drive added to this sheet.

CLARIFICATIONS

15. Question from Contractor: Can we change the OBO requirements for the project based on the degree of specialized work?

Response: No.

16. Question from Contractor: Can we extend the bid date?

Response: No.

17. Question from Contractor: If based on the contractor’s means and methods, additional pits or shafts are required at locations other than proposed manhole locations as shown on the plans, will the contractor be required to install an additional manhole at his own expense?

Response: No. For intermediate shaft or pit locations, the Contractor will not require to install a manhole, provided the CONTRACTOR completes the sewer installation with the appropriate pipe fitting and/or couplings as needed to provide a continuous segment of sewer.

18. Question from Contractor: Clarify how bid item no. 10 will be paid? Will this be paid based on the total length of sewer installed or will this be paid based on some other practice?

Response: Refer to Specification 01740 Paragraph 1.02 A. 1. for payment of bid item no. 10.

19. Question from Contractor: Clarify how bid item No. 64 will be paid and when this item is applicable? Our understanding is that street repairs for shafts/pits are

considered incidental to the sewer construction based on the specifications.
Please clarify.

Response: Item 64 has been removed from both 00410 B and 01110. The description requirements for high early strength concrete with "C-sand" subgrade for concrete pavement repairs have been incorporated in bid item 10 in section 01110 – Summary of Work.

20. Question from Contractor: Along N. Post Oak Lane, the geotechnical data is limited to the upper 30 feet, ideally geotechnical data is preferred at deep depths?

Response: The Contractor has the option to not submit a bid for this work should he feel existing geotechnical data is inadequate; similarly, per section 00320 that Contractor has the option to conduct additional soil investigations as the bidder deems appropriate.

21. Question from Contractor: Can bid item 34 be converted to a lump sum basis?

Response: Yes.

22. Question from Contractor: Spec section 01110-1.10B states that "This package of plans and specifications were formerly submitted as a comprehensive multi-lift station package." Was this project already Bid and is this a Re-Bid?

Response: No. This portion of the project has not been bid. Original Project was split up into three different projects. Contractor for this project is responsible for the demolition of the three existing lift stations at the Buckingham, North Post Oak Lane, and Stablewood Lift Station locations as well as the installation of the relief sewer coming from those lift stations going to Woodway #1 Lift Station.

23. Question from Contractor: There appears to be no Traffic Control Plan for Memorial Drive similar to what is shown on Woodway and North Post Oak. There are typical details on TCP7-TCP9 that show Memorial Drive speed limit signs along with Note 4a, that restricts lane closures from 9:00 am to 4:00 pm. The 4400 LF of 15" – 12" S.sewer along Memorial with 13 manholes cannot be constructed under these conditions without adding approximately \$10,000,000.00 to the cost of the project. The need to dewater continuously during shaft and tunnel construction and the need for the shafts to project above the street level requires that detours be constructed around the shafts and the work progressed continuously. Will this be allowed?

Response: The restriction on lane closures has been eliminated. Furthermore, the Contractor will be required to obtain street cut and lane closure permits from the Street Cut Permit Section (SCPS); as such, the exact details of the Contractor's means and methods are addressed during this process. It should be noted, the Contractor's application is subject to approval by the SCPS. Likewise the

Contractor's approach for opened excavation (i.e., shafts, trench boxes, and/or access pits) and whether to plate over or leave items in-place (stick-up) during off hours is part of the Contractor's means and methods. Regardless of the approach used to complete the work, the Contractor is bound by his bid item cost for the applicable item. During construction, the Contractor is free to submit alternatives to the construction that could lead the cost savings to the CITY; however, such items are subject to approval by the CITY and/or EOR. The Bidder's cost at submittal should be reflective of the work as currently shown on the bid documents and appropriate addendum.

24. Question from Contractor: You have the Building Construction Wage Scale in the Documents and there are no buildings. Also, the first paragraph (1.1) of the Wage Scale for Engineering Construction (00820-1) says to use the Building Construction Rates. Looks like the title was changed without actually correcting the wording.

Response: Document 00821 – Wage Scale from Building Construction will remain in Document 00010 – Table of Contents.

25. Question from Contractor: The Contract allows 420 Calendar days to achieve substantial completion on this project. Since this is a gravity sewer line the contractor has to start from the downstream end and work upstream. The nature of the work performed is sequential i.e. the contractor has to excavate the shafts first and then dig the tunnel. Also the contractor cannot work on multiple line segments at a time because in case of some conflict in one of the line segments the grade/elevation on the other segment is set and working on multiple line segments at a time will lead to more complex issues. Also most of the contractors bidding this project do not have multiple tunnel rigs to work on two different locations at a time. Because of all the above issues and the production rate for this type of tunnel work I would request the project Manager to add 150 calendar days to achieve substantial completion increasing the total duration to 570 Calendar days.

Response: The total number of days to complete the project and has revised the total number of days to 495 calendar days.

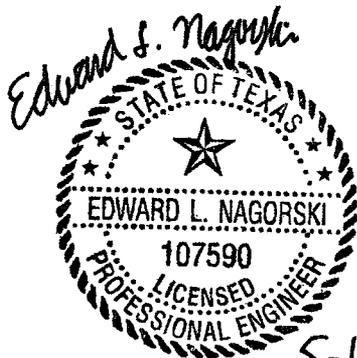
26. Question from Contractor: Sheet G28 of the drawings refers to Sheet G 29. Sheet G29 is missing in the drawings. Also sheets C 83 to C 94 are missing in the drawings. Please provide the missing drawings or provide an explanation why the drawings are missing.

Response: Refer to the index of drawings showing G29 as not applicable. Also C83 to C94 was intentionally removed as these sheets are not part of the WBS No. R-000267-109A-4 contract.

27. Question from Contractor: We cannot possibly complete this project on time if we are allowed only have 3 unrestored pits at a time. The deep shafts on this project are the critical path. We will spend more time constructing shafts, building manholes in them, pulling the shafts and restoring the pavement than we will spend installing the sewer. For example, all of the shafts on N. Post Oak will be in some phase of construction, tunneling or restoration while we are installing the sewer. Three shafts means you would be tunneling out of one shaft(1) to the come out shaft(2), while the manhole is being built in the shaft(3) downstream of the first shaft.. We would then have to shut down the tunneling operation while the next shaft was being constructed. A delay of about 3 weeks for the 40' deep shafts between tunnel drives. And this allows only one tunnel operation. The 14,000 feet of sewer in tunnel will require a minimum of 2 tunneling operations going on at the same time, and possibly a 3rd tunneling operation if it is to be completed in 420 days.

Response: See response to Question 26.

END OF ADDENDUM NO. 1



5-15-2015

DATED: Ravi Kaleyatodi
Ravi Kaleyatodi, P.E.
Senior Assistant Director
Department of Public Works
and Engineering

END OF DOCUMENT

Document 00010

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NOTE: Bold capitalized Specification Sections are included in http://documents.publicworks.houstontx.gov/document-center/cat_view/88-engineering-and-construction/92-specifications.html; 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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DIVISION 16 – ELECTRICAL

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: Lift Station Renewal/Replacement Project

Project No.: WBS R-000267-109A-4

Bidder: _____

(Print or type full name of business entity, such as corporation, LLC, etc)

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 MWSBE 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 00460 – (POP 1) Pay or Play Acknowledgement Form
- Document 00470 – Bidder's MWSBE Participation Plan *(required unless no MWSBE participation goal is provided in Document 00800 (the "Goal"))*.
- Document 00471 – Pre-bid Good Faith Efforts *(required if the goal in Bidder's Participation Plan–Document 00470 is lower than the Goal)*.
- Document 00472 – Bidder's Goal Deviation Request *(required if the goal in Bidder's Participation Plan–Document 00470 is lower than the Goal)*.
- Others as listed: _____

CONTRACT TIME

- A. If offer is accepted, Contractor shall achieve Date of Substantial Completion within **495 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
1	01502	Mobilization	LS	1	\$200,000.00 ₍₁₎	\$200,000.00 ₍₁₎
2	01506	Diversion/Bypass Pumping (All Locations as Needed)	LS	1	\$ <u> </u> (20,000.00) ⁽²⁾	\$ <u> </u> (20,000.00) ⁽²⁾
3	01555	Traffic Control and Regulation, Includes Installation & Removal of Concrete Traffic Barriers	LS	1	\$ <u> </u> (30,000.00) ⁽²⁾	\$ <u> </u> (30,000.00) ⁽²⁾
4	01555	Flagmen	LS	1	\$ <u> </u> (8,000.00) ⁽²⁾	\$ <u> </u> (8,000.00) ⁽²⁾
5	01562	Tree Protection Plan	LS	1	\$ <u> </u> (15,000.00) ⁽²⁾	\$ <u> </u> (15,000.00) ⁽²⁾
6	01570	Inlet Protection Barrier	LF	436		
7	01570	Gravel Bag Barrier	LF	3,100		
8	01570	Filter Fabric Fence	LF	8,922		
9	01575	Stabilized Construction Exit	SY	50		
10	01740	Site Restoration	LF	14,677		

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
11	02082	4-ft. diameter Precast Concrete Manhole	EA	16		
12	02082	Extra depth, 4-foot diameter precast concrete manhole	VF	149		
13	02082	6-ft. diameter Precast Concrete Manhole	EA	30		
14	02082	Extra depth, 6-foot diameter precast concrete manhole	VF	685		
15	02082	4-ft. diameter corrosion resistant manhole	EA	1		
16	02082	Extra depth, 4-ft. diameter corrosion resistant manhole	VF	6		
17	02082	4-ft. diameter water tight precast concrete manhole	EA	1		
18	02082	6-ft. diameter corrosion resistant precast concrete manhole	EA	2		
19	02082	Extra depth, 6-foot diameter Corrosion resistant precast concrete manhole	VF	137		
20	02082	6-ft. diameter sealed water tight precast concrete manhole with external vent pipe	EA	2		
21	02082	6-ft. diameter corrosion resistant water tight precast concrete manhole	EA	2		
22	02082	6-ft. diameter precast concrete manhole within, PPCA	EA	1		

Revised by ARCADIS
05-13-2015

00410B-2
08-01-2013

Addendum 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
23	02082	Extra depth, 6-ft. diameter precast concrete manhole, within PPCA	VF	28		
24	02082	6-ft. diameter corrosion resistant precast concrete manhole within, PPCA	EA	2		
25	02082	Extra depth, 6-ft. diameter precast concrete manhole, within PPCA	VF	60		
26	02082	Manhole drops, 8-inch, all depths	EA	3		
27	02082	Manhole drops, 10-inch, all depths	EA	2		
28	02082	Manhole drops, 12-inch, all depths	EA	1		
29	02082	Manhole drops, 15-inch, all depths	EA	1		
30	02082	Manhole drops, 18-inch, all depths	EA	1		
31	02082	Manhole drops, 12-inch, all depths, within PPCA	EA	1		
32	02082	Manhole drops, 18-inch, all depths, within PPCA	EA	1		
33	02105	Preparatory work for Sampling and Analysis in PPCA	LS	1		
34	02120	Transportation and Disposal of Contaminated Ground Water From PPCA	LS	1		

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
35	02120	Transportation and Disposal of soil in PPCA, Class I and Class II Soils,	CY	2,000		
36	02220, Div 01, 02, 16	Buckingham LS – Salvage & Demolition of Existing Lift Station. Salvage Pumps, Piping, Valves, Electrical and Instrumentation Devices; Demolition for all site structures, and backfill site to grade including existing Wet Well and Valve Vault structures; cut, plug, and abandon or grout (as applicable) existing 8" Force Main; and Demolish existing 4' Wrought Iron Fence and Gate	LS	1		
37	02220, Div 01, 02, 16	N. Post Oak Lane LS – Salvage & Demolition of Existing Lift Station. Salvage Pumps, Piping, Valves, Electrical and Instrumentation Devices; Demolition of all site structures and back fill site to grade including existing Wet Well and Valve Vault structures, cut , plug & abandon existing 8" force main. Cut & remove above-ground segment of 8" force main from bridge @ Buffalo Bayou.	LS	1		

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
38	02220, Div 01, 02, 16	Stablewood LS – Salvage & Demolition of Existing Lift Station. Salvage Pumps, Piping, Valves, Electrical and Instrumentation Devices; Abandonment and grout fill of existing Wet Well and Valve Vault; cut, plug & abandon or grout (as applicable) existing 6" and 8" force mains, and demolish interior 6' chain-link fence and gates. Install three steel pipe bollards at site entrance.	LS	1		
39	02221	Remove and dispose of concrete surfacing (all thicknesses, including base & subgrade, w/ or w/o curb, all depth)	SY	4,010		
40	02222	Grout fill & abandon 10-inch diameter sanitary sewer	LF	899		
41	02222	Grout fill & abandon 12-inch diameter sanitary sewer	LF	1297		
42	02222	Grout fill & abandon 18-inch diameter sanitary sewer	LF	90		
43	02222	Grout fill & abandon 4-ft diameter sanitary sewer Manhole	EA	6		
44	02260	Trench Safety System for trench excavation	LF	5,140		
45	02400	Tunnel Shaft, (all shafts, all dimensions)	LS	1		

Item No.	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
46	02441	18-inch diameter sanitary sewer, by microtunneling method	LF	875		
47	02448 02441	8-inch diameter sanitary sewer, by trenchless construction method	LF	91		
48	02441, 02448	10-inch diameter sanitary sewer, by trenchless construction method	LF	2,956		
49	02441, 02448	12-inch diameter sanitary sewer, by trenchless construction method	LF	7,108		
50	02441, 02448	15-inch diameter sanitary sewer, by trenchless construction method	LF	540		
51	02441 02448	15-inch diameter sanitary sewer, by trenchless method in PPCA,	LF	263		
52	02441, 02448	18-inch diameter sanitary sewer, by trenchless construction method	LF	2830		
53	02441, 02448	18-inch diameter sanitary sewer, by trenchless construction method, within PPCA area	LF	14		
54	02534	Transferring Existing Sanitary Sewer Service Connections to new sewer includes service stubs or reconnections including construction of stack on sanitary sewer	EA	14		
55	02534	Install sanitary sewer cleanouts	EA	14		

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Addendum 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
56	02534	6-inch diameter sanitary sewer service lines	LF	585		
57	02558	CCTV -Television inspection 10" sanitary sewer mains for pre-work inspection and sewer abandonment	LF	1,678		
58	02558	CCTV - Television inspection 12" sanitary sewer mains for pre-work inspection and sewer abandonment	LF	2,551		
59	02558	Clean 10-inch Sanitary Sewer	LF	899		
60	02558	Clean 12-inch Sanitary Sewer	LF	1297		
61	02771	6-inch monolithic concrete curb and gutter	LF	595		
62	02772	6-inch concrete median or directional island	SY	191		
63	02922	Sodding for Lift Station Sites	SY	499		
<u>TOTAL BASE UNIT PRICES</u>						\$ _____

C. EXTRA UNIT PRICE TABLE:

Item No.	Spec Ref.	Extra Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
64	02318	Extra Ductile Iron Compact Fittings In place	TON	1	\$ (1,700.00) ⁽²⁾	\$ (1,700.00) ⁽²⁾
65	02318	Extra cement stabilized sand backfill	CY	50	\$ (28.00) ⁽²⁾	\$ (1,400.00) ⁽²⁾
66	02318	Extra excavations around obstructions	CY	100	\$ (30.00) ⁽²⁾	\$ (3,000.00) ⁽²⁾
67	02318	Extra machine excavation	CY	50	\$ (30.00) ⁽²⁾	\$ (1,500.00) ⁽²⁾
68	02318	Extra replacement of backfill material	CY	50	\$ (6.00) ⁽²⁾	\$ (300.00) ⁽²⁾
69	02318	Extra hand excavation around obstructions	CY	50	\$ (17.00) ⁽²⁾	\$ (850.00) ⁽²⁾
70	02318	Extra Class "A" Concrete installed in place for structures	CY	5	\$ (400.00) ⁽²⁾	\$ (2,000.00) ⁽²⁾
71	02318	Extra Grade 60 reinforcing steel in place	LB	2,000	\$ (1.00) ⁽²⁾	\$ (2,000.00) ⁽²⁾
72	02741	Extra Temporary asphalt concrete pavement for detour/roadway and shoulder	SY	200	\$ (35.00) ⁽²⁾	\$ (7,000.00) ⁽²⁾
<u>TOTAL EXTRA UNIT PRICES</u>						\$ 19,750.00

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D. CASH ALLOWANCE TABLE:

Item No.	Spec Ref.	Cash Allowance Short Title	Cash Allowance in figures (1)
73	01110	Building Permit	\$35,000.00
74	01110	Lane Closure Permit	\$600.00
75	01110	Street Cut Permit	\$15,000.00
76	01110	Demolition Permit	\$5,000.00
77	01110	Flood Plain Permit	\$3,500.00
78	01110	Harris County Flood District Permit	\$500.00
<u>TOTAL CASH ALLOWANCES</u>			\$59,600.00

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
N/A	N/A	N/A	N/A	N/A	N/A	N/A
<u>TOTAL ALTERNATES</u>						\$ <u>N/A</u>

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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.

Section 01110

SUMMARY OF WORK

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Summary of the Work including broad scope of work by Contractor, work by the City, City furnished Products, Work sequence, Contractor use of Premises and special conditions for substantial completion and City occupancy.
- B. **THIS PACKAGE OF PLANS AND SPECIFICATIONS WERE FORMERLY SUBMITTED AS A COMPREHENSIVE MULTI-LIFT STATION (5 FACILITIES) PACKAGE; THEREFORE, ANY REFERENCES AND/OR NOTATIONS RELATED TO BAYOU TIMBER (FN 010) AND WOODWAY #1 (FN 153) ARE NO LONGER APPLICABLE TO THIS CURRENT PROJECT.**

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work of the Contract is for the consolidation of the service areas of the North Post Oak Lane, Stable Wood, and Buckingham Lift Stations by construction of gravity sanitary sewers and demolition of the North Post Oak Lane, Stable Wood, and Buckingham Lift Stations, work. The work covered by contract documents includes the following items:
 - 1. Bid Item No. 1 includes but is not limited to the following work: Mobilize sufficient workforce, equipment, and supervision to complete work for the consolidation of North Post Oak Lane, Stable Wood, and Buckingham Lift Stations. The project consists of installing approximately 875 linear feet of 18-inch diameter sanitary sewer pipe by micro tunneling method and another 1,969 linear feet of 18-inch diameter sanitary sewer pipe by trenchless construction, approximately 91 linear feet of 8 inch diameter sanitary sewer pipe by trenchless construction, approximately 2,956 linear feet of 10 inch sanitary sewer pipe by trenchless construction, approximately 7,108 linear feet of 12 inch sanitary sewer pipe by trenchless construction, approximately 803 linear feet of 15 inch sanitary sewer pipe by trenchless construction. The work includes installing 57 manholes and associated pavement repairs and restoration of work areas. The work also includes the demolition of North Post Oak Lane, Stable Wood, and Buckingham Lift Stations.
 - 2. Bid Item No. 2 includes but is not limited to the following work: Furnish, install, and maintain during construction, and remove after construction diversion pumps with associating controls, power, and necessary temporary force main capable of pumping approximately 600 GPM at the Buckingham

- lift station, approximately 600 GPM at the Stablewood lift station, and approximately 1,470 GPM at the Post Oak lift station during transfer service from the lift stations to the proposed sanitary sewer lines.
3. Bid Item No. 3 includes but is not limited to the following work: Provide all traffic control and regulation for the Traffic Control Plan as shown for duration of the project, including but not limited to barricades, signage, and channeling devices for the duration of the project in compliance with COH specification 01555. Concrete Traffic Barriers (CTBs) will be required on the approach side of all open shafts and construction pits. The cost for the installation and removal of CTBs is to be included this line item. All items under this line item are to be installed and removed in compliance with COH specification 01555.
 4. Bid Item No. 4 includes but is not limited to the following work: Provide flagmen and uniformed police officers for traffic control for the duration of the project in compliance with COH specifications 01555.
 5. Bid Item No. 5 includes but is not limited to the following work: Furnish, install, maintain during construction, and remove after construction tree and plant protection per the Tree Protection Plan in accordance with COH specification 01562.
 6. Bid Item No. 6 includes but is not limited to the following work: Furnish, install, maintain during construction and remove after construction, approximately 436 linear feet of inlet protection barrier per the Storm Water Pollution Prevention Plan in accordance with COH specification 01570.
 7. Bid Item No. 7 includes but is not limited to the following work: Furnish, install, maintain during construction and remove after construction, approximately 3,100 linear feet of bagged gravel barrier per the Storm Water Pollution Prevention Plan in accordance with COH specification 01570.
 8. Bid Item No. 8 includes but is not limited to the following work: Furnish, install, maintain during construction and remove after construction, approximately 8,922 linear feet of filter fabric fence per the Storm Water Pollution Prevention Plan in accordance with COH specification 01570.
 9. Bid Item No. 9 includes but is not limited to the following work: Furnish, install, maintain during construction and remove after construction, approximately 50 square yard of stabilized construction exit per the Storm Water Pollution Prevention Plan in accordance with COH specification 01575.
 10. Bid Item No. 10 includes but is not limited to the following work: Furnish all materials, labor and equipment necessary to restore approximately 14,677 linear feet of the sanitary sewer alignment to its preconstruction condition

- including but not limited to asphalt and concrete pavement with high-early strength concrete with "C-sand" subgrade for concrete pavement repairs, pavement markings, traffic signage, sprinkler systems, fences, landscaping and sodding, and any other necessary items per COH specification 01740.
11. Bid Item No. 11 includes but is not limited to the following work: Furnish and install approximately sixteen (16 qty) 4-foot diameter precast concrete manholes in accordance with COH specification 02082. This bid item includes but not limited to all items such as fittings, coatings, and connections associated with the installation of the 4-foot diameter precast concrete manhole.
 12. Bid Item No. 12 includes but is not limited to the following work: Furnish and install approximately 149 extra vertical feet of 4-foot diameter precast manholes in accordance with COA specification 02082.
 13. Bid Item No. 13 includes but is not limited to the following work: Furnish and install approximately thirty (30 qty) 6-foot diameter precast concrete manholes in accordance with COH specification 02082. This bid item includes but not limited to all items such as fittings, coatings, and connections associated with the installation of the 6-foot diameter precast concrete manhole.
 14. Bid Item No. 14 includes but is not limited to the following work: Furnish and install approximately 685 extra vertical feet of 6-foot diameter precast manholes in accordance with COH specification 02082.
 15. Bid Item No. 15 includes but is not limited to the following work: Furnish and install one 4-foot corrosion resistant manhole in accordance with COH specification 02082. This bid item includes but not limited to all items such as fittings, coatings, and connections associated with the installation of the 4-foot diameter corrosion resistant manhole.
 16. Bid Item No. 16 includes but is not limited to the following work: Furnish and install approximately 6 extra vertical feet of 4-foot corrosion resistant manhole in accordance with COH specification 02082.
 17. Bid Item No. 17 includes but is not limited to the following work: Furnish and install one 4-foot water tight manhole in accordance with COH specification 02082. This bid item includes but not limited to all items such as fittings, coatings, and connections associated with the installation of the 4-foot diameter water tight manhole.
 18. Bid Item No. 18 includes but is not limited to the following work: Furnish and install two 6-foot diameter corrosion resistant precast concrete manhole in accordance with COH specification 02082. This bid item includes but not limited to all items such as fittings, coatings, and connections associated

- with the installation of the 6-foot diameter corrosion resistant precast concrete manhole.
19. Bid Item No. 19 includes but is not limited to the following work: Furnish and install 137 extra vertical feet of 6-foot diameter corrosion resistant precast manhole in accordance with COH specification 02082.
 20. Bid Item No. 20 includes but is not limited to the following work: Furnish and install approximately two 6-foot diameter water tight precast concrete manholes with external vent pipe in accordance with COH specification 02082. This bid item includes but not limited to all items such as fittings, coatings, and connections associated with the installation of the 6-foot diameter precast concrete manhole.
 21. Bid Item No. 21 includes but is not limited to the following work: Furnish and install two 6-foot diameter water tight corrosion resistant precast concrete manholes in accordance with COH specification 02082. This bid item includes but not limited to all items such as fittings, coatings, and connections associated with the installation of the 6-foot diameter water tight corrosion resistant precast concrete manhole.
 22. Bid Item No. 22 includes but is not limited to the following work: Furnish and install approximately one 6-foot diameter precast concrete manholes within PPCA area in accordance with COH specification 02082. This bid item includes but not limited to all items such as fittings, coatings, and connections associated with the installation of the 6-foot diameter corrosion resistant precast concrete manhole within PPCA area.
 23. Bid Item No. 23 includes but is not limited to the following work: Furnish and install 28 extra vertical feet of 6-foot diameter precast manhole within PPCA in accordance with COH specification 02082.
 24. Bid Item No. 24 includes but is not limited to the following work: Furnish and install approximately two 6-foot diameter corrosion resistant precast concrete manholes within PPCA area in accordance with COH specification 02082. This bid item includes but not limited to all items such as fittings, coatings, and connections associated with the installation of the 6-foot diameter corrosion resistant precast concrete manhole within PPCA area.
 25. Bid Item No. 25 includes but is not limited to the following work: Furnish and install 60 extra vertical feet of 6-foot diameter corrosion resistant precast manhole within PPCA in accordance with COH specification 02082.
 26. Bid Item No. 26 includes but is not limited to the following work: Furnish and install three 8-inch diameter manhole drops, all depths, in accordance with COH specification 02082.

27. Bid Item No. 27 includes but is not limited to the following work: Furnish and install two 10- inch diameter manhole drops, all depths, in accordance with COH specification 02082.
28. Bid Item No. 28 includes but is not limited to the following work: Furnish and install one 12-inch diameter manhole drops, all depths, in accordance with COH specification 02082.
29. Bid Item No. 29 includes but is not limited to the following work: Furnish and install one 15-inch diameter manhole drop, all depths, in accordance with COH specification 02082.
30. Bid Item No. 30 includes but is not limited to the following work: Furnish and install one 18-inch diameter manhole drops, all depths, in accordance with COH specification 02082.
31. Bid Item No. 31 includes but is not limited to the following work: Furnish and install one 12-inch diameter manhole drop within PPCA Area, all depths, in accordance with COH specification 02082.
32. Bid Item No. 32 includes but is not limited to the following work: Furnish and install one 18-inch diameter manhole drop within PPCA Area, all depths, in accordance with COH specification 02082.
33. Bid Item No. 33 includes but is not limited to the following work: Furnish all labor, equipment, and supervision necessary for the preparation work for the sampling and analysis within the PPCA area, paid for as lump sum in accordance with COH specification 02105.
34. Bid Item No. 34 includes but is not limited to the following work: Transportation and disposal of contaminated ground water from PPCA on a lump sum basis as required for the duration of the project in accordance with COH specification 02120.
35. Bid Item No. 35 includes but is not limited to the following work: Transportation and disposal of 2,000 cubic yards of soil in PPCA including Class I and Class II soils in accordance with COH specification 02120.
36. Bid Item No. 36 includes but is not limited to the following work: Furnish all labor and equipment necessary to demolish the existing Buckingham Lift Station and transfer sanitary flows to the proposed relief sewer. Demolition includes the salvage of existing pumps, piping, valves, electrical and instrumentation devices and motors deemed salvable by the City of Houston. Contractor to coordinate with City of Houston Wastewater Operations to identify equipment and/or material to be salvaged and course of action of staging these items during demolition. Works also includes excavation / removal of all improvements, including structures, wet well and dry pit, and pavement to three feet below existing grade and hauling off and

legal disposal of debris. Work includes removal of sludge from the wet well and boring the wet well structure and back filling in accordance to COH Specification 02220. The existing 4-ft high wrought iron fence and gate is to be removed. Access to the site is through the existing easements and is very narrow and limited. All equipment, tools, materials, and debris will have to be hand carried to and from the site. Work also includes cut, plugging and abandoning and grouting, as applicable, of the existing force mains servicing the lift station. Contractor to provide uniform police officer on-site present at all times contractor employees and workers are working at the lift station site and either of two adjacent residential properties. Concrete debris from lift station demolition (upper 3 feet) can be used as backfill material for lift station structure. Backfill station with compacted sand as needed and provide minimum 6-inches of topsoil. Grade area to drain and match surrounding areas. Picture ID badges with Employee Name and Company will be required for all workers on-site. Sodding of the site is included in a separate line item.

37. Bid Item No. 37 includes but is not limited to the following work: Furnish all labor and equipment necessary to demolish the existing N. Post Oak Lane Lift Station and transfer sanitary flows to the proposed relief sewer. Demolition includes the salvage of existing pumps, piping, valves, electrical and instrumentation devices and motors deemed salvable by the City of Houston. Contractor to coordinate with City of Houston Wastewater Operations to identify equipment and/or material to be salvaged and course of action of staging these items during demolition. Work also includes excavation/removal of all improvements, including structures, wet well, and valve vault to three feet below existing grade and hauling off and legal disposal of debris. Work includes removal of sludge from the wet well and boring the wet well structure and back filling in accordance to COH Specification 02220. The existing storm water inlets and piping are to be protected with inlet barriers and filter fabric during demolition of the lift station and will remain in place. The entire lift station will be paved with concrete. Concrete pavement to be restored and/or added as needed to provide concrete pavement throughout site. Any existing concrete curbing is to be removed and surface repair with cement grout. Backfill and grade subgrade materials as needed and form new top of concrete pavement to match existing grade of undisturbed areas. The existing chain link fence and gates around the perimeter of the site are to remain in place and should be protected. Work also includes cutting, plugging and abandon the existing force main from the lift station; as well as, the cutting and removal of the above-ground segments of the force main at the bridge crossing over Buffalo Bayou.
38. Bid Item No. 38 includes but is not limited to the following work: Furnish all labor and equipment necessary to demolish the existing Stablewood Lift Station and transfer sanitary flows to the proposed relief sewer. Demolition includes the salvage of existing pumps, piping, valves, electrical and instrumentation devices and motors deemed salvable by the City of

Houston. Contractor to coordinate with City of Houston Wastewater Operations to identify equipment and/or material to be salvaged and course of action of staging these items during demolition. Work also includes excavation/removal of wet well, valve vault, and existing bollards to three feet below existing grade and hauling off and legal disposal of debris. Work includes removal of sludge from the wet well and boring the wet well structure and back filling in accordance to COH Specification 02220. The existing chain link fence and gates enclosing the former odor control equipment area is to be removed. The perimeter chain link fence and gates are to remain in place and are to be protected. The existing storm water inlets and piping will remain and are to be protected with appropriate inlet barriers and filter fabric during demolition of the lift station. Work also includes cut, plug and abandon or grout, as applicable, the existing 6-inch force main; as well as, the dual 8-inch force mains at Carnarvon Drive. Backfill site to match existing grade of undisturbed areas and perimeter to be consistent with the adjacent topography and to drain as applicable to the existing storm water inlets. Site access is limited and contractor to protect all adjacent structures and fencing located along perimeter. Picture ID badges with Employee Name and Company will be required for all workers on-site.

39. Bid Item No. 39 includes but is not limited to the following work: Remove and will legally disposing of approximately 4,010 SY of all pavements, including concrete and asphalt, all thickness, including base and subgrade. Cost to include saw cutting, removal, and legally disposing of existing concrete pavement curbs. All work to be performed in accordance with COH specification 02221.
40. Bid Item No. 40 includes but is not limited to the following work: Grout fill and abandon in place approximately 899 linear feet of 10 inch diameter sanitary sewer in accordance with COH specification 02222.
41. Bid Item No. 41 includes but is not limited to the following work: Grout fill and abandon in place approximately 1,297 linear feet of 12 inch diameter sanitary sewer in accordance with COH specification 02222.
42. Bid Item No. 42 includes but is not limited to the following work: Grout fill and abandon in place approximately 90 linear feet of 18 inch diameter sanitary sewer in accordance with COH specification 02222.
43. Bid Item No. 43 includes but is not limited to the following work: Demolish, grout fill and abandon in place six (6 qty) 4-foot diameter sanitary sewer manholes in accordance with COH specification 02222
44. Bid Item No. 44 includes but is not limited to the following work: Provide a trench safety system for approximately 5,140 linear feet of excavation and for the excavation of shafts and structures in accordance with COH specification 02260.

45. Bid Item No. 45 includes but is not limited to the following work: Provide design, labor, and equipment necessary for the construction of all access shafts and pits for sewer construction, all dimensions, and all locations for trenchless sewer installation, as needed in accordance with COH specification 02400. Some of the shaft areas along N. Post Oak Lane are within the PPCA area and as such work should be coordinated as needed.
46. Bid Item No. 46 includes but is not limited to the following work: Furnish and install approximately 875 linear feet of 18-inch diameter sanitary sewer pipe by micro tunneling sewer construction methods in accordance with COH specification 02441.
47. Bid Item No. 47 includes but is not limited to the following work: Furnish and install approximately 91 linear feet of 8-inch diameter sanitary sewer by trenchless methods in accordance with COH specification 02441 or 02448.
48. Bid Item No. 48 includes but is not limited to the following work: Furnish and install approximately 2,956 linear feet 10-inch diameter sanitary sewer pipe by trenchless methods in accordance with COH specification 02441 or 02448. The trenchless method chosen by the Contractor for any given segment will be based on minimum distance required between excavations to keep traffic open in both directions at all times.
49. Bid Item No. 49 includes but is not limited to the following work: Furnish and install approximately 7,108 linear feet of 12-inch diameter sanitary sewer by trenchless methods in accordance with COH specification 02441 or 02448. The trenchless method chosen by the contractor for any given segment will be based on minimum distance required between excavations to keep traffic open in both directions at all times.
50. Bid Item No. 50 includes but is not limited to the following work: Furnish and install approximately 540 linear feet of 15-inch diameter sanitary sewer pipe by trenchless methods in accordance with COH specification 02441 or 02448. The trenchless method chosen by the contractor for any given segment will be based on minimum distance required between excavations to keep traffic open in both directions at all times.
51. Bid Item No. 51 includes but is not limited to the following work: Furnish and install approximately 263 linear feet of 15-inch diameter sanitary sewer pipe by trenchless methods in accordance with COH specification 02441 or 02448 within the PPCA area. The trenchless method chosen by the contractor for any given segment will be based on minimum distance required between excavations to keep traffic open in both directions at all times.

52. Bid Item No. 52 includes but is not limited to the following work: Furnish and install approximately 2,830 linear feet of 18 inch diameter sanitary sewer pipe by trenchless methods in accordance with COH specification 02441 or 02448. The trenchless method chosen by the contractor for any given segment will be based on minimum distance required between excavations to keep traffic open in both directions at all times. For the portion of the 18 inch diameter sanitary sewer along North Post Oak Road the Contractor shall adjust the alignment of the sanitary sewer and associated shafts locations and size to the east to allow two 10-foot wide lanes of traffic at all times. When the Contractor develops the final alignment of the sanitary sewer line and the associated shafts locations, the Contractor shall submit a Bore Plan to the City of Houston Construction Project Manager a minimum of 90 days prior to commencing work.
53. Bid Item No. 53 includes but is not limited to the following work: Furnish and install approximately 14 linear feet of 18 inch diameter sanitary sewer pipe by trenchless methods in accordance with COH specification 02441 or 02448 within the PPCA. This work must be completed during off peak traffic hours and is to include the cost of all items associated with performing work during off peak hours. The Traffic Control Plan for this work is on Sheet TCP3.
54. Bid Item No. 54 includes but is not limited to the following work: Furnish and install fourteen service stubs or reconnections as needed to transfer existing sanitary sewer service to new sewer. This work includes construction of stack on sanitary sewer in accordance with COH specification 02534.
55. Bid Item No. 55 includes but is not limited to the following work: Furnish and install fourteen (14) sanitary sewer cleanouts in accordance with COH specification 02534.
56. Bid Item No. 56 includes but is not limited to the following work: Furnish and install 585 linear feet of 6-inch diameter sanitary sewer service line in accordance with COH specification 02534.
57. Bid Item No. 57 includes but is not limited to the following work: Provide all equipment, labor, and supervision for the CCTV inspection of approximately 1,678 linear feet of 10-inch diameter gravity sanitary sewers. The portion of work on Sheets C7 and C9 will be CCTV inspected twice, once to establish the locations of the existing service connections and the second time prior to grout filling per COH Specification 02558.
58. Bid Item No. 58 includes but is not limited to the following work: Provide all equipment, labor, and supervision for the CCTV inspection of approximately 2,551 linear feet of 12 inch diameter gravity sanitary sewers. The portion of work on Sheets C5, C7 and C15 will be CCTV inspected twice, once to

establish the locations of the existing service connections and the second time prior to grout filling per COH Specification 02558.

59. Bid Item No. 59 includes but is not limited to the following work: Clean 899 linear feet of 10-inch sanitary sewers as specified in COH Specification 02558.
60. Bid Item No. 60 includes but is not limited to the following work: Clean 1297 linear feet of 12-inch sanitary sewers as specified in COH Specification 02558.
61. Bid Item No. 61 includes but is not limited to the following work: Furnish and install approximately 595 linear feet of 6-inch monolithic curb and gutter in accordance with COH specification 02771.
62. Bid Item No. 62 includes but is not limited to the following work: Furnish and install approximately 191 square yards of 6-inch concrete median or directional traffic island in accordance with COH specification 02772.
63. Bid Item No. 63 includes but is not limited to the following work: Furnish and install approximately 499 square yards of sodding in accordance with COH specifications 02922.

1.03 CASH ALLOWANCES

- A. Include the following specific Cash Allowances in Contract Price under provision of General Conditions Paragraph 3.11:
 1. Building Permit Fee Allowance – This allowance to be used only for reimbursement of actual Building Permit cost and associated fees.
 2. Lane Closure Permit Fee Allowance – This allowance to be used only for reimbursement of actual Lane Closure Permit cost and associated fees.
 3. Street Cut Permit Fee Allowance – This allowance to be used only for reimbursement of actual Street Cut Permit cost and associated fees.
 4. Demolition Permit Fee Allowance – This allowance to be used only for reimbursement of actual Demolition Permit cost and associated fees.
 5. Flood Plain Permit Fee Allowance – This allowance to be used only for reimbursement of actual Flood Plain Permit cost and associated fees.
 6. Harris County Flood Control District Permit Fee Allowance – This allowance to be used only for reimbursement of actual HCFCD Permit cost and associated fees.

1.04 ALTERNATE-Not Used

1.05 CITY-FURNISHED PRODUCTS

- A. Items Furnished by the City for Installation and final connection by Contractor:
Not Applicable.

B. Contractor's Responsibilities:

1. Arrange and pay for Product delivery to the site.
2. Receive and unload Products at the site; jointly with the City, inspect for completeness or damage.
3. Handle, store, install, and finish Products.
4. Repair or replace damaged items.

1.06 WORK SEQUENCE

- A. Construct the Work in Phases during the construction period, coordinate construction schedule and operations with the COH Project Manager:
1. Phase 1: Complete Manholes and Sewer Sections from Station 25+00 to 34+40 prior to beginning all other work. These manholes include Manholes #66, #48, and #48A. Work for this phase includes cleaning, TV Videoing, and testing of manholes and line prior to starting phase 2.
 2. Phase 2: Complete all other manholes and sewer sections including testing as needed to place sewers into service as designated by this contract.
 3. Phase 3: Transfer sanitary sewer flows to relief sewers and demolish the following Lift Stations: Buckingham Lift Station, North Post Oak Lane Lift Station, and Stablewood Lift Station.
- B. Contractor must restore pavement and surrounding area in accordance with 01740-Site Restoration, as work progresses. Contractor can have no more than three unrestored pits on the project at any one time.
- C. Coordination of the Work: Refer to Section 01312 - Coordination and Meetings.
1. All personnel performing work within the **Stablewood** subdivision will be required to carry approved badges and check-in at the security gate. Vendors and/or suppliers will be required to coordinate with the Contractor in order to gain access. The approved Stablewood personnel listing is required to be delivered to the HOA no less than 2 weeks prior to working in this area.
 2. Contractor work crews performing work within the **Buckingham Lift Station** area defined, as the area inside a private property owner fence line and back lot, must be accompanied by a Uniformed Peace Officer while on site. All personnel performing work within these areas will be required to carry approved badges. Access to the site is very narrow; expect all equipment, tools, materials, and debris will have to be hand carried to and from the site.

- D. Contractor shall coordinate work with the Home Owners Associations of each subdivision.
- E. The recommended sequence of construction is to first construct the gravity sanitary sewers, from downstream to upstream. Starting at approximately STA 27+84 on Woodway Drive and working upstream. The Contractor should coordinate schedules with the Proposed Woodway Lift Station Contractor (WBS No. R-000267-109B-4). Once the gravity lines and proposed Woodway lift station have been tested and approved by the City of Houston, the existing lift stations at Buckingham, Stablewood, and North Post Oak Lane may be demolished and abandoned.
- F. Coordination of the Work: Refer to Section 01312 - Coordination and Meetings.
 - 1. Contractor shall coordinate work with the "*Pine Hollow Home Owners Association*" as follows:

HOA Contact
Jack Lee, President
Oakmont Group, Inc.
109 North Post Oak Lane
Suite 525
Houston, Texas 77024
Office: 713-681-5566
Cell: 713-628-4640
Fax: 713-681-7774
jacklee@oakmontgrp.com

Contractor shall coordinate work with the "Stablewood Home Owners Association" as follows:

HOA Contact
John Lodge, Property Manager
Lodge Lumber
5001 Oates Road
P.O. Box 96589
Houston, TX 77213-6589
Office: 713-672-6679
Cell: 281-831-5612
Fax: 713-672-5135
john.lodge@lodgelumber.com

Contractor shall coordinate work with COH PM and applicable Contractor for:

"Water Line Replacement in Sherwood Forest Area" Project
WBS No. S-000035-0184-4.
Contact COH PM: Mumtaz Baig - PWE
Email: mumtaz.baig@houstontx.gov
Telephone (832) 395-2309.

2. Contractor shall coordinate work with COH PM and applicable Contractor for:

"Lift Station Renewal/Replacement Project –Woodway #1 Lift Station Replacement (FN 153)" Project
WBS No. R-000267-109B-4.
Contact COH PM: Akhter Hussain - PWE
Email: Akhter.Hussain@houstontx.gov
Telephone (832) 395-2294.

3. Contractor shall coordinate work with COH PM and applicable Contractor for:

"Lift Station Renewal/Replacement Project - Consolidation of Bayou Timber Lift Station (FN 010)" Project
WBS No. R-000267-109C-4.
Contact COH PM: Akhter Hussain - PWE
Email: Akhter.Hussain@houstontx.gov
Telephone (832) 395-2294.

- G. Coordination of Plug/Connection on 18" sanitary sewer between Manhole #66 and Woodway #1 Lift Station:

1. The Contractors for contracts WBS:R-000267-109A-4 and WBS:R-000267-109B-4 have 420 days and 301 days respectively to finish their scope of work. The contractors shall work closely together to insure that the influent line from Manhole No. 66 to the proposed wet well is installed as early as possible in both projects.
2. Contractor responsible for this contract shall provide an 18" plug & stub out coming from Manhole #66 if the 18" influent line to wet well (i.e. wet well stub out supplied by others) has not yet been constructed. If however, the 18" influent to wet well is in-place, the contractor will be responsible for removing the existing plug and tie onto the influent line to allow wastewater flow into the lift station wet well.

3. Contractor responsible for the WBS. R-000267-109B-4 contract shall provide an 18" plug for the influent stub-out from the lift station wet well if Manhole #66 has not been installed under this contract; if however Manhole #66 is in service, the WBS No. R-000267-109B-4 contractor shall be responsible for removing the existing plug and tie onto the influent line to allow the lift station wet well to receive wastewater flow.

H. Coordination of Relocation of Utilities:

1. Currently Centerpoint Energy is in the process of relocating a 2-inch Centerpoint Energy gas line located from Sta 28+90 to 29+30 on North Post Oak Lane. This work is expected to be completed no later than July 01, 2015. The Contractor should verify that the gas line has been relocated, please contact Matt Warakomski of Centerpoint Energy.
2. Early submission of the boring plan 90 days prior to construction shall allow Centerpoint Energy notification of any necessary relocations of the 2-inch gas line along N. Post Oak Lane.

Contact Mr. Matt Warakomski at 713-207-4620 or email:
Matt.Warakomski@centerpointenergy.com

1.07 CONTRACTOR USE OF PREMISES

- A. Comply with procedures for access to the site and Contractor's use of rights-of-way as specified in Section 01145 - Use of Premises.
- B. Construction Operations: Limited to the City's rights-of-way, utility easements, and inside the wastewater treatment plant site.
- C. Utility Outages and Shutdown: Provide notification to the City and private utility companies (when applicable) a minimum of 48 hours, excluding weekends and holidays, in advance of required utility shutdown. Coordinate all work with the City as required.

1.08 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.
- B. Comply with the latest edition of street cut "New Pavement Repair and Pavement Replacement details".

- C. Quantities are included for street cut pavement and replacement in applicable Specification sections for Unit Price contracts.
- D. Include Payment for street cut pavement repair and replacement in lump sum bid for Stipulated Price contracts.

1.09 WARRANTY

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

1.10 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 the inspection by the Project Manager to confirm, the following conditions must be met or completed:

1. All testing shall be completed and accepted by Project manager.
2. All residential sanitary services connections have been transfer and accepted.
3. All lift stations influent sanitary flows transfer to relief sewers.
4. All Safety related work including pavement stripping, signing and signalization. 6. (b) all safety-related systems and equipment shall be installed, accepted by manufacturer's representative and approved for use.
5. All pay items complete report.
6. Complete removal of temporary diversion pumping systems.
7. Completed demolition at the existing lift station facility.
8. Abandonment and/or grout fill of noted force main, gravity sewer sections and wet well as applicable.
9. Completion of site restoration and pavement restoration.
10. Accepted Methods of sanitary sewer line testing passed.
11. Approval of any warranty documents (as applicable).

- B. No additional construction as described in Paragraph 1.10 may be included in the Contractor's punch list. Final acceptance shall require completion of all punch list items. This completion shall be approved by the Project Manager. Final acceptance shall require delivery, to Wastewater Operations Branch, the final sewer inspection and testing reports.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

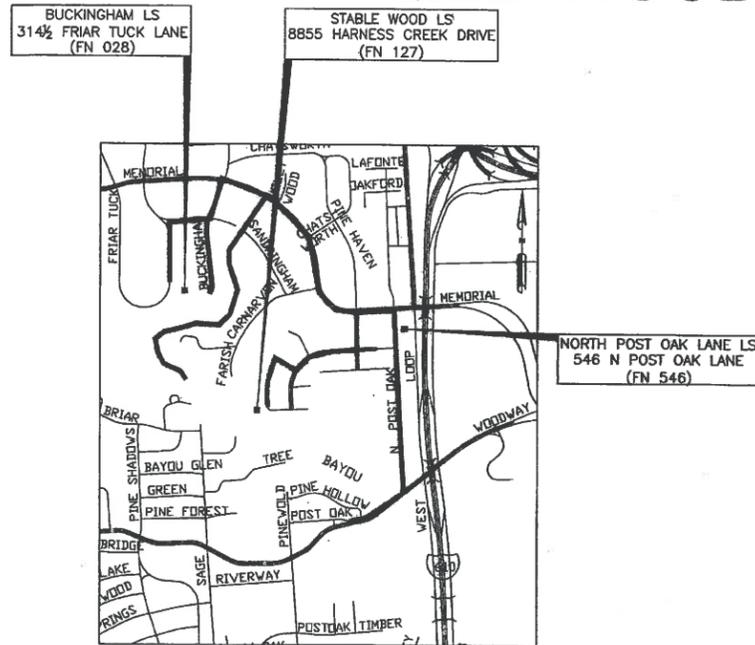
CITY OF HOUSTON

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

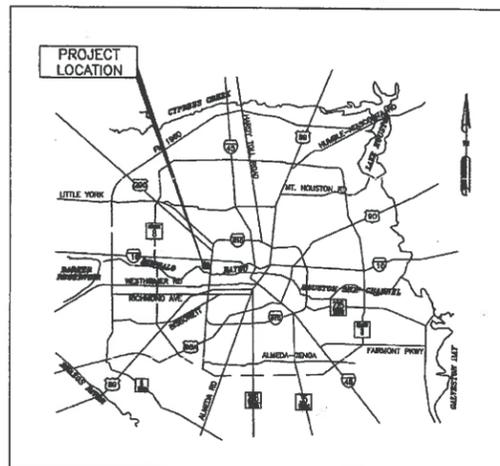
ENGINEERING AND CONSTRUCTION DIVISION

LIFT STATION RENEWAL / REPLACEMENT PROJECT CONSOLIDATION OF NORTH POST OAK LANE (FN 546), STABLE WOOD (FN 127), AND BUCKINGHAM (FN 028) LIFT STATIONS

WBS NO. R-000267-109A-4



VICINITY MAP
KEY MAP NOS 491G, 491M
N.T.S.



LOCATION MAP
GIMS MAP NOS 5157B, 5158B
N.T.S.



MAYOR
ANNISE D. PARKER
CONTROLLER
RONALD C. GREEN

DISTRICT
COUNCIL MEMBERS

- | | | |
|---------------------------------|-------------------------------|-------------------------------|
| BRENDA STARDIG
DISTRICT A | JERRY DAVIS
DISTRICT B | ELLEN R. COHEN
DISTRICT C |
| DWIGHT BOYKINS
DISTRICT D | DAVE MARTIN
DISTRICT E | RICHARD NGUYEN
DISTRICT F |
| OLIVER PENNINGTON
DISTRICT G | EDWARD GONZALEZ
DISTRICT H | ROBERT GALLEGOS
DISTRICT I |
| MIKE LASTER
DISTRICT J | LARRY V. GREEN
DISTRICT K | |

COUNCIL MEMBERS
AT-LARGE

- | | |
|-----------------------------------|------------------------------------|
| STEPHEN C. COSTELLO
POSITION 1 | DAVID ROBINSON
POSITION 2 |
| MICHAEL KUBOSH
POSITION 3 | C.O. "BRAD" BRADFORD
POSITION 4 |
| JACK CHRISTIE, D.C.
POSITION 5 | |

APPROVED
For Plans Located Within existing HCFCD R.O.W.
Beate de Beaulieu
Harris County Flood Control District
APR-09-2015
PK
THE SIGNATURE ABOVE VALID
FOR TWO (2) YEARS ONLY
FINAL PERMITTING BY OTHERS
PK 2076191

2929 Briarpark Dr Suite 300 Houston, TX 77042 Tel: 713-953-4800 Fax: 713-977-4620 www.arcadis-us.com Texas Registered Engineering Firm F-533		03/10/15	
SURVEYED BY: AMANI AND ASSOCIATES, INC FB NO. P-5684		3/20/15 WATER	
Akht Hussain 03/18/15 WASTEWATER		3/25/15 TRAFFIC AND TRANSPORTATION	
Ellen S. Maas 3/30/15 STORM WATER		3/18/2015 PARKS & RECREATION	
3/19/15 STREET & BRIDGE		4/20/15 WASTEWATER OPERATIONS	
4/20/15 CONSTRUCTION		ASSISTANT DIRECTOR	
CITY ENGINEER		DATE	
4/20/15 DIRECTOR OF PUBLIC WORKS AND ENGINEERING		DATE	
ADDENDUM No.1		SHEET NO. 1 OF 155 SHEETS	

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GENERAL NOTES:

- 1. THE SITE LIES WITHIN ZONE "X" AS DEFINE BY FIRM (FLOOD INSURANCE RATE MAP) PANEL FOR HARRIS COUNTY, PANEL 1005 OF 1150 (48201C1005L), REVISED JUNE 18, 2007. ZONE "X" STATES THAT THE AREA HAS BEEN DETERMINED TO BE OUTSIDE OF THE 500-YEAR FLOOD PLAIN.
2. EXCEPT FOR EMERGENCY REPAIRS AND MAINTENANCE TO BY-PASS PUMPING OPERATIONS, NO WORK WILL BE CONDUCTED BETWEEN THE HOURS OF 6:00 PM AND 6:00 AM OF THE FOLLOWING MORNING OR DURING WEEKENDS (SATURDAY AND SUNDAY)
3. ALL UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN AT THE APPROXIMATE LOCATIONS BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL FIELD DETERMINE THE EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION. HE SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND MAINTAIN THESE UNDERGROUND UTILITIES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES AND TRAFFIC CONTROL DEVICES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
5. WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S STANDARD CONSTRUCTION SPECIFICATIONS DATED OCTOBER 2002 AND STANDARD CONSTRUCTION DETAILS.

6. NIGHT WORK - WORK ON THE SEWER SEGMENT FROM MEMORIAL STA 38+00 TO N POST OAK STA 1+00 TO STA 36+00 TO BE LIMITED BETWEEN 7 PM AND 5 AM.

CENTERPOINT ENERGY - ELECTRICAL:

- 1. WARNING: OVERHEAD ELECTRICAL FACILITIES
OVERHEAD LINES MAY EXIST ON PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH AND SAFETY CODE, FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
- ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
- OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 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.

- 2. HAND DIG WITHIN ONE (1) FOOT OF CENTERPOINT ENERGY UNDERGROUND CONDUIT OR CABLE SYSTEMS.

CENTERPOINT ENERGY - GAS:

- 1. CAUTION: UNDERGROUND GAS FACILITIES
LOCATION OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, LLC, WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 233-4567 OR 1-800-669-8344 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
A. WHEN CENTERPOINT ENERGY PIPELINE MARKINGS ARE NOT VISIBLE, CALL (713) 697-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
B. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
C. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.

- 2. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

- 3. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3552 OR (713) 207-4200.

GENERAL NOTES (INSIDE CITY LIMITS):

- 1. CONSTRUCT WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING IN ACCORDANCE WITH THE LATEST EDITION OF THE PUBLICATIONS STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING PUBLISHED BY THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING.
2. THE GEOTECHNICAL INVESTIGATION FOR THIS PROJECT WAS CONDUCTED IN ACCORDANCE WITH CHAPTER 11 OF THE LATEST EDITION OF THE PUBLICATION INFRASTRUCTURE DESIGN MANUAL, PUBLISHED BY THE CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING. THE SOILS REPORT WAS PREPARED BY GEOTECH ENGINEERING & TESTING, REPORT No. 1 DATED SEPTEMBER 06, 2013.
3. THE PHASE 1 ENVIRONMENTAL SITE ASSESSMENT (ESA 1) FOR THIS PROJECT WAS CONDUCTED IN ACCORDANCE WITH CHAPTER 11 OF THE LATEST EDITION OF THE PUBLICATION INFRASTRUCTURE DESIGN MANUAL, PUBLISHED BY THE CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING. THE PHASE 1 ESA REPORT WAS PREPARED BY GEOTECH ENGINEERING, REPORT No. 1130016801, DATED MAY 07, 2013.
4. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 713-223-4567 AND LONE STAR ONE CALL AT 800-669-8344 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION. UTILITIES MARKED WITHIN THE PUBLIC RIGHT OF WAY OR IN EASEMENTS SHALL COMPLY WITH TAC TITLE 16, PART 1, CHAPTER 18, RULE §18.6 AND THE AMERICAN PUBLIC WORKS ADMINISTRATION (APWA) UNIFORM COLOR CODE.

AT&T TEXAS/SWBT FACILITIES:

- 1. THE LOCATIONS OF AT&T TEXAS/SWBT FACILITIES 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 AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SWBT FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON MECHANIZED EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE AT&T TEXAS/SWBT FACILITIES.
4. WHEN AT&T TEXAS/SWBT FACILITIES ARE EXPOSED, THE CONTRACTOR SHOULD PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES, THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SWBT UNDERGROUND CONDUIT FACILITIES DOES NOT MEAN THAT THERE ARE NO DIRECT BURIED CABLES IN THE AREA.
6. PLEASE CONTACT THE AT&T/SWBT DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE, JR., AT (713) 567-4552 OR E-MAIL HIM AT RL7259@ATT.COM IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR OUR AT&T TEXAS/SWBT FACILITIES.

STANDARD HCFCD NOTES FOR CONSTRUCTION DRAWINGS

- 1. OBTAIN AND COMPLY WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL PERMITS AND APPROVALS, WITH ASSISTANCE FROM ENGINEER, IF NECESSARY, OBTAIN PERMIT (CERTIFICATION) FROM HARRIS COUNTY ENGINEER TO ENTER HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT-OF-WAY.
2. NOTIFY THE HARRIS COUNTY FLOOD CONTROL DISTRICT S PROPERTY MANAGEMENT DEPARTMENT IN WRITING AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. SUBMIT THE HCFCD 48 HOUR PRE-CONSTRUCTION NOTIFICATION FORM, A COPY OF THE APPROVED CONSTRUCTION DRAWINGS, AND A COPY OF THE CORPS OF ENGINEERS INDIVIDUAL SECTION 404 PERMIT, IF APPLICABLE, TO HCFCD, 9900 NORTHWEST FREEWAY, HOUSTON, TEXAS 77092, ATTN: PROPERTY MANAGEMENT DEPT. BY HAND DELIVERY, OR FAX TO 713-684-4129 (FAX NUMBER).
3. ENGINEER SHALL SUBMIT CERTIFICATION LETTER AND RECORD DRAWINGS TO THE HARRIS COUNTY FLOOD CONTROL DISTRICT S PROPERTY MANAGEMENT DEPARTMENT REQUESTING INSPECTION OF ITEMS CONSTRUCTED IN HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT-OF-WAY. PRIOR TO REQUESTING INSPECTION, THE DRAINAGE RIGHT-OF-WAY AND/OR EASEMENTS SHALL BE STAKED AND FLAGGED.
4. PROTECT, MAINTAIN, AND RESTORE EXISTING BACKSLOPE DRAINAGE SYSTEMS.
5. BACKSLOPE SWALE AND INTERCEPTOR STRUCTURE ELEVATIONS AND LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. FINAL ELEVATIONS AND LOCATIONS SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
6. ESTABLISH TURF GRASS ON ALL DISTURBED AREAS WITHIN THE CHANNEL OR DETENTION RIGHT-OF-WAY, EXCEPT THE CHANNEL BOTTOM AND WHERE STRUCTURAL EROSION MEASURES ARE USED. MINIMUM ACCEPTANCE CRITERIA ARE 75% COVERAGE OF LIVE BERMUDA GRASS AND NO EROSION OR RILLS DEEPER THAN 4".
7. BACKFILL IN ACCORDANCE WITH THE HARRIS COUNTY FLOOD CONTROL DISTRICT STANDARD SPECIFICATION, SECTION 02315 - EXCAVATING AND BACKFILLING, OR EQUIVALENT.
8. EXCAVATE CHANNEL FLOWLINE TO DESIGN ELEVATION AS SHOWN ON PLANS AND DOWNSTREAM, AS NECESSARY, TO ENSURE NO WATER REMAINS IN THE FACILITY (STORM SEWER, LATERAL CHANNEL, OR DRY BOTTOM DETENTION BASIN) DURING NORMAL WATER SURFACE CONDITIONS IN THE CHANNEL, SO THE FACILITY WILL FUNCTION AS INTENDED. FOR WET BOTTOM DETENTION BASINS, ENSURE NO WATER IS ABOVE THE DESIGN LEVEL IN THE WET BOTTOM DURING NORMAL WATER SURFACE CONDITIONS IN THE CHANNEL.
9. MAINTAIN FLOW IN CHANNEL DURING CONSTRUCTION AND RESTORE CHANNEL TO ORIGINAL CONDITION.
10. REMOVE ALL EXCAVATED MATERIAL FROM THE HARRIS COUNTY FLOOD CONTROL DISTRICT OR DRAINAGE RIGHT-OF-WAY. NO FILL IS TO BE PLACED WITHIN A DESIGNATED FLOOD PLAIN AREA WITHOUT FIRST OBTAINING A FILL PERMIT FROM THE APPROPRIATE JURISDICTIONAL AUTHORITY.

SANITARY SEWER NOTES

- 1. ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HOUSTON STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, STREET PAVING, AND TRAFFIC AND ALL CURRENT AMENDMENTS THERETO AND BE SUBJECT TO A STANDARD EXFILTRATION TEST. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF SEWER LINE INCLUDED IN THE PROJECT. REQUIREMENTS OF TEXAS ADMINISTRATIVE CODE, TITLE 30 CHAPTER 317 "DESIGN CRITERIA FOR SEWERAGE SYSTEMS" SHALL GOVERN WHERE CONFLICTS EXIST EXCEPT WHERE CITY REQUIREMENTS ARE MORE STRINGENT.
2. ALL MANHOLES ARE TO BE PER CITY OF HOUSTON DRAWING NUMBERS 02082-01, 02082-02, 02082N-02, 02082-03, AND 02082N-03 UNLESS OTHERWISE NOTED. USE 2010 VERSION AS APPLICABLE.
3. SANITARY SEWERS MANHOLES WILL HAVE BEDDING AND BACKFILL PER CITY OF HOUSTON DRAWING NO. 02317-08 UNLESS OTHERWISE NOTED.
4. SANITARY SEWER PIPE 6" AND SMALLER SHALL BE SCHEDULE 40 PVC. SANITARY SEWER PIPE 8" AND LARGER SHALL BE SDR-26 PVC.
5. ALL SDR-26 PVC PIPE SHALL MEET ASTM SPECIFICATION D3034 AND USE "FULL BODIED" SDR-26 PVC FITTINGS WITH APPROPRIATE ADAPTERS AND SHALL HAVE A CELL CLASSIFICATION OF 12364-B AS DEFINED IN ASTM D-1784 AND SHALL HAVE DIP SIZE OD AND RUBBER GASKET BELL-AND-SPOT TYPE JOINT ENDS, UNLESS OTHERWISE NOTED.
6. AWWA C-900 DR-18 PVC PIPE USES EITHER AWWA C900 DR-18 PVC FITTINGS OR DIP FITTINGS.
7. ALL SANITARY SEWER LINES UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL HAVE BEDDING PER CITY OF HOUSTON DRAWING NUMBERS 02317-01, 02317-02, OR 02317-03 AS APPLICABLE, WITH 1 1/2 SACK CEMENT/CY STABILIZED SAND BACKFILL UP TO THE BOTTOM OF THE PAVEMENT SUBGRADE. 100 PSI PERFORMANCE RESULTS ARE STILL REQUIRED.
8. ALL SANITARY SEWERS CROSSING WATER LINES WITH A CLEARANCE BETWEEN 12 INCHES AND 9 FEET SHALL HAVE A MINIMUM OF ONE 18" JOINT OF 150 PSI DUCTILE IRON OR (GREEN) C900 PVC PIPE MEETING ASTM SPECIFICATION D2241 CENTERED ON WATER LINE. WHEN WATER LINE IS BELOW SANITARY SEWER PROVIDE MINIMUM 2 FOOT SEPARATION.
9. CONTRACTOR SHALL PROVIDE FOR A MINIMUM HORIZONTAL CLEARANCE OF 9' FEET BETWEEN WATER LINES AND SANITARY SEWER MANHOLES AND LINES.
10. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM MANHOLE RIM.
11. IN WET STABLE TRENCH AREAS USE BEDDING PER CITY OF HOUSTON DRAWING NUMBER 02317-02 (2002).
12. DEFLECTION TEST: DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID SEWER PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5% IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID MANDREL. IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED AS PER 30 TAC 317.2 LATEST AMENDMENT AND WITHOUT MECHANICAL PULLING DEVICES. NO BALL-TYPE MANDRELS ALLOWED.
13. INFILTRATION, EXFILTRATION OR LOW-PRESSURE AIR TEST: EITHER OF THE FOLLOWING TESTS SHALL BE PERFORMED AS PER TAC, TITLE 30 317.2 WITHIN THE SPECIFIED TOLERANCES ON ALL GRAVITY SEWERS.
A. INFILTRATION OR EXFILTRATION TEST: TOTAL LEAKAGE AS DETERMINED BY A HYDROSTATIC HEAD TEST SHALL NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO (2) FEET.
B. LOW-PRESSURE AIR TEST: PERFORM TEST ACCORDING TO UNI-6-6-90 OR OTHER APPROPRIATE PROCEDURES. FOR SECTIONS OF PIPE LESS THAN 36" (INCH) AVERAGE INSIDE DIAMETER, THE MINIMUM ALLOWABLE TIME FOR PRESSURE DROP FROM 3.5 P.S.I.G. TO 2.5 P.S.I.G. SHALL BE AS FOLLOWS:
6" 340 SECONDS OR 0.855(L) FOR TEST LENGTHS GREATER THAN 398'
8" 454 SECONDS OR 1.520(L) FOR TEST LENGTHS GREATER THAN 298'
10" 567 SECONDS OR 2.374(L) FOR TEST LENGTHS GREATER THAN 239'
15" 850 SECONDS OR 5.342(L) FOR TEST LENGTHS GREATER THAN 159'
18" 1020 SECONDS OR 7.693(L) FOR TEST LENGTHS GREATER THAN 133'
WHERE L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET.
14. "SAN. S. E." INDICATES "SANITARY SEWER EASEMENT"
15. FOR SANITARY MANHOLES (MH) RIMS SET INSIDE OF OR @ CURB & GUTTER PAVEMENT AND/OR BELOW T.C., MH RIMS WILL BE SET FLUSHED WITH AN ABUTTING/CONTAINING PAVED SURFACE. THE (VALCUN, NEENAH OR EQUAL) HEAVY DUTY BOLTED SOLID MH COVER WILL BE PROPERLY (AND SECURELY) ATTACHED AND SEALED TO ITS COMPATIBLE GASKETED FRAME BY USING BOTH: A NEOPRENE GASKET; AND (AT LEAST) 4 COUNTER-SUNK HEX-HEAD COARSE THREADED 1/2"-13 UNC STAINLESS STEEL BOLTS. THE HEAVY DUTY FRAME MH COVER WILL BE SOLID (NO AIR HOLES). SAID FRAME SHALL BE BOTH EMBEDDED INTO THE MH'S TOP ALSO SECURELY ANCHORED TO THE UNDERLYING MH STRUCTURE WITH: EITHER SECURELY ATTACHED EMBEDDED ANCHOR BOLTS; OR THE CONCRETE MH'S EXPOSED REBARS WELDED TO THE FRAME; OR OTHER EQUALLY SECURED METHODS TO PREVENT MH COVER/FRAME BLOW-OFFS/EJECTIONS.
16. ALL SANITARY SEWER MANHOLES WITH DROP PIPE CONNECTIONS SHALL BE CORROSION RESISTANT MANHOLES.
17. ALL SANITARY SEWER MANHOLES TO BE PROVIDED WITH AN ACCESS SHAFT AS REQUIRED PER COH SPEC 02400.

Table with 2 columns: NO, DATE, REVISIONS, APP. Row 1: 2, 2/11/2015, REMOVE NIGHTWORK REFERENCE, EQ. Row 2: 1, 2/11/2015, HCFCD NOTES, EQ.

PRIVATE UTILITY LINES SHOWN
Signature: [Signature] DATE: 3/18/15
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
Signature: [Signature] DATE: 3/19/15
AT&T TEXAS/SWBT UTILITY LINES SHOWN
Signature: [Signature] DATE: 3/18/15

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Texas Registered Engineering Firm F-533

DATE: FEBRUARY 2015
JOB NO. TX000941.0002
DESIGNED BY: EN
DRAWN BY: WW
SURVEYED BY: AMANI
FB NO.: P-5654
EDUARDO GURROZ
Professional Engineer
03/10/15

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
LIFT STATION
RENEWAL / REPLACEMENT
PROJECT

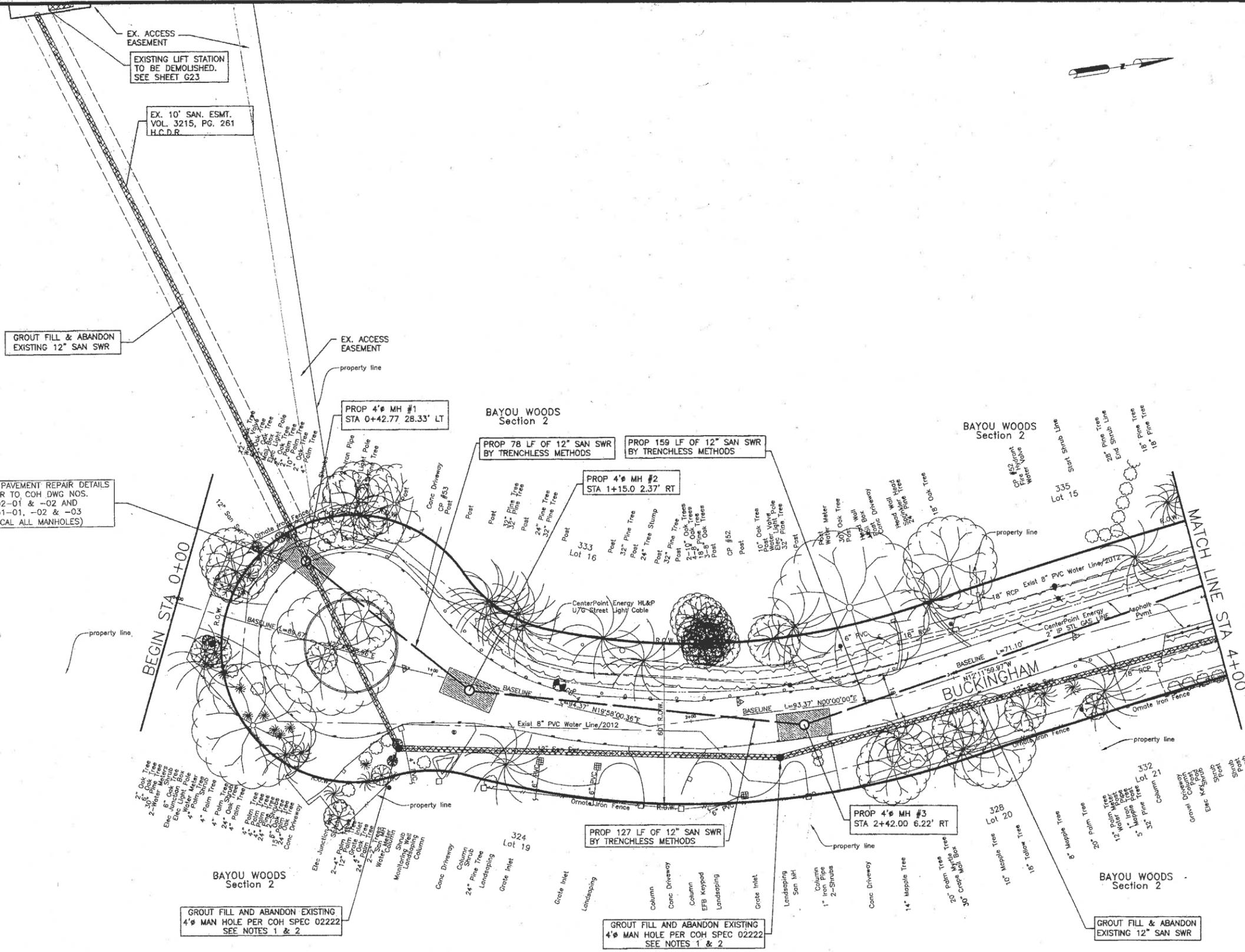
GENERAL NOTES
G5

WBS#: R-000267-109A-4
DRAWING SCALE:
CITY OF HOUSTON PM
AKHTER HUSSAIN, P.E.
SHEET NO. 5 OF 155
54049

ADDENDUM No.1

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FOR PAVEMENT REPAIR DETAILS REFER TO COH DWG NOS. 02902-01 & -02 AND 02951-01, -02 & -03 (TYPICAL ALL MANHOLES)

GROUT FILL AND ABANDON EXISTING 4" MAN HOLE PER COH SPEC 02222 SEE NOTES 1 & 2

GROUT FILL AND ABANDON EXISTING 4" MAN HOLE PER COH SPEC 02222 SEE NOTES 1 & 2

GROUT FILL & ABANDON EXISTING 12" SAN SWR

BUCKINGHAM
(SEE SHEET C6 FOR PROFILE)

BENCHMARK:
 CITY OF HOUSTON MARKER
 5158-8202 LOCATED IN
 SOUTHSIDE OF THE INTERSECTION OF
 CARNARVON DR. & SANDRINGHAM DR.
 EL = 60.88 (NAVD 88, GPS
 OBSERVATION MADE IN JULY 2012)

IBM:
 CP-53, SET MAG NAIL AT
 STA 0+89.63
 EL. 61.70
 CP-52, SET MAG NAIL AT
 STA 3+48.50
 EL. 62.14

- NOTES:**
- CONTRACTOR TO TRANSFER SERVICE CONNECTIONS FROM 10" & 12" SAN SWR ALONG BUCKINGHAM DR FROM STA 0+00 TO SOUTHSIDE OF SANDRINGHAM DR.
 - CONTRACTOR SHALL USE CCTV TO LOCATE SANITARY SEWER CONNECTIONS PRIOR TO ABANDONMENT OF EXISTING SEWERS AND TRANSFER TO NEW SEWER.
 - CONTRACTOR TO USE EXISTING 10' AND 15' EASEMENTS TO ACCESS SITE.

NO	DATE	REVISIONS	APP
1	5/14/2015	UTILITY SIGNATURES	EQ

PRIVATE UTILITY LINES SHOWN

Ymalon DATE: 5-5-15
 CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY
 (This signature certifies existing underground facilities - not to be used for credit verification)
 Signature Valid for twelve months

Cawa DATE: 5-5-15
 AT&T TEXAS/SWBT UTILITY LINES SHOWN
 APPROVED AT&T TEXAS/SWBT FOR UNDERGROUND CONDUIT FACILITIES ONLY
 SIGNATURE VALID FOR ONE YEAR

Ymalon DATE: 5-5-15
 CenterPoint Energy/Natural Gas Facilities Verification ONLY
 (This signature certifies that you have shown GP Natural Gas lines correctly - not to be used for credit verification) (See service lines on site plan.) Signature Valid for twelve months

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 Houston, TX 77042
 Tel: 713-953-4800 Fax: 713-977-4620
 www.arcadis-us.com
 Texas Registered Engineering Firm F-533

DATE: FEBRUARY 2015 JOB NO. TX000941.0002	DESIGNED BY: EN DRAWN BY: WW
SURVEYED BY: AMAN FB NO.: F-5684	

CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

LIFT STATION
 RENEWAL / REPLACEMENT
 PROJECT

PLAN
 BUCKINGHAM
 STA 0+00 TO STA 4+00
C5

WBS#: R-000267-109A-4	
DRAWING SCALE: 1"=20'	
CITY OF HOUSTON PM AKHTER HUSSAIN, P.E.	
SHEET NO. 28 OF 155	

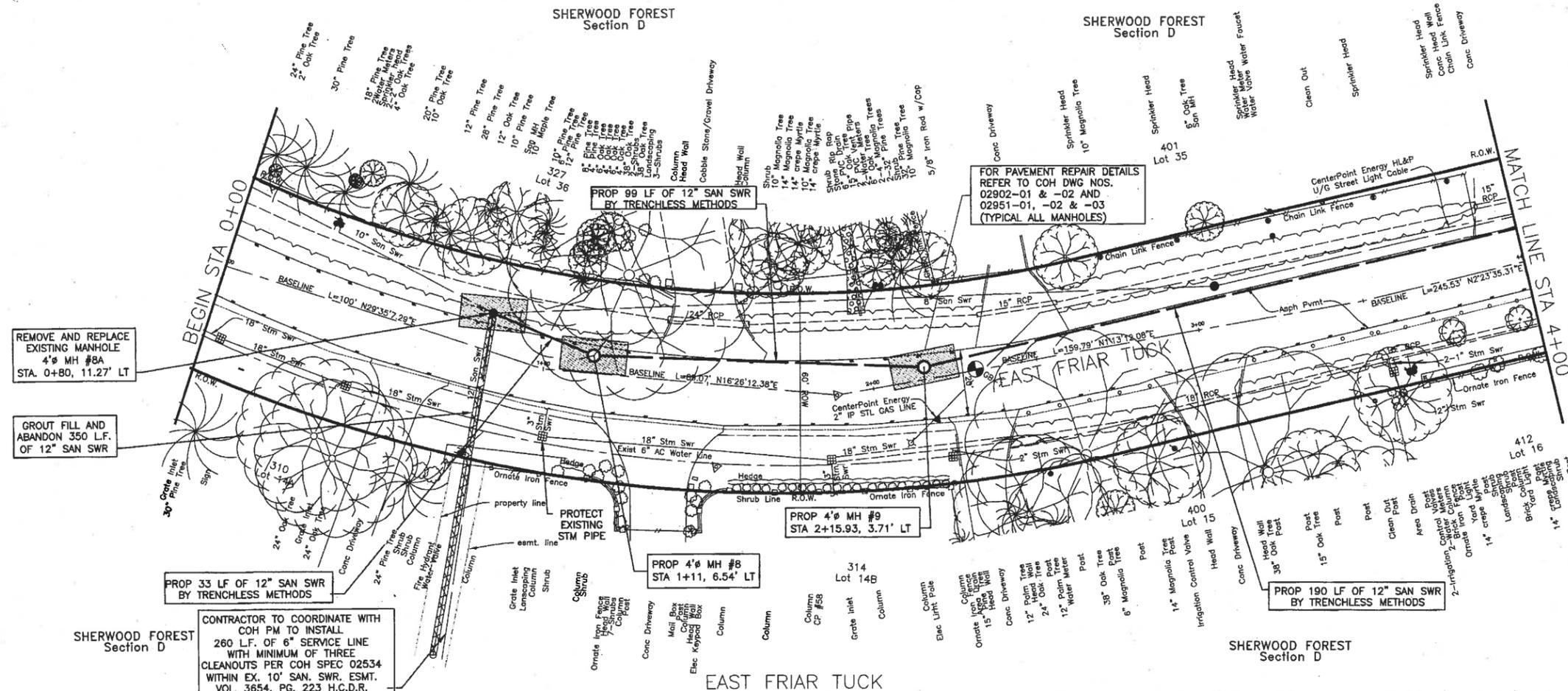
ADDENDUM No. 1

SHERWOOD FOREST Section D

SHERWOOD FOREST Section D

BENCHMARK:
CITY OF HOUSTON MARKER
5158-8202 LOCATED IN
SOUTHSIDE OF THE INTERSECTION OF
CARNARVON DR. & SANDRINGHAM DR.
EL. = 60.88 (NAVD 88, GPS
OBSERVATION MADE IN JULY 2012)

TBM:
CP-58, SET MAG NAIL AT
STA 1+89.07
EL. 61.13



REMOVE AND REPLACE
EXISTING MANHOLE
4" MH #8A
STA. 0+80, 11.27' LT

GROUT FILL AND
ABANDON 350 L.F.
OF 12" SAN SWR

PROP 33 LF OF 12" SAN SWR
BY TRENCHLESS METHODS

CONTRACTOR TO COORDINATE WITH
COH PM TO INSTALL
260 L.F. OF 6" SERVICE LINE
WITH MINIMUM OF THREE
CLEANOUTS PER COH SPEC 02534
WITHIN EX. 10' SAN. SWR. ESM.T.
VOL. 3654, PG. 223 H.C.D.R.

PROP 99 LF OF 12" SAN SWR
BY TRENCHLESS METHODS

FOR PAVEMENT REPAIR DETAILS
REFER TO COH DWG NOS.
02902-01 & -02 AND
02951-01, -02 & -03
(TYPICAL ALL MANHOLES)

PROP 4" MH #9
STA 2+15.93, 3.71' LT

PROP 4" MH #8
STA 1+11, 6.54' LT

PROP 190 LF OF 12" SAN SWR
BY TRENCHLESS METHODS

SHERWOOD FOREST
Section D

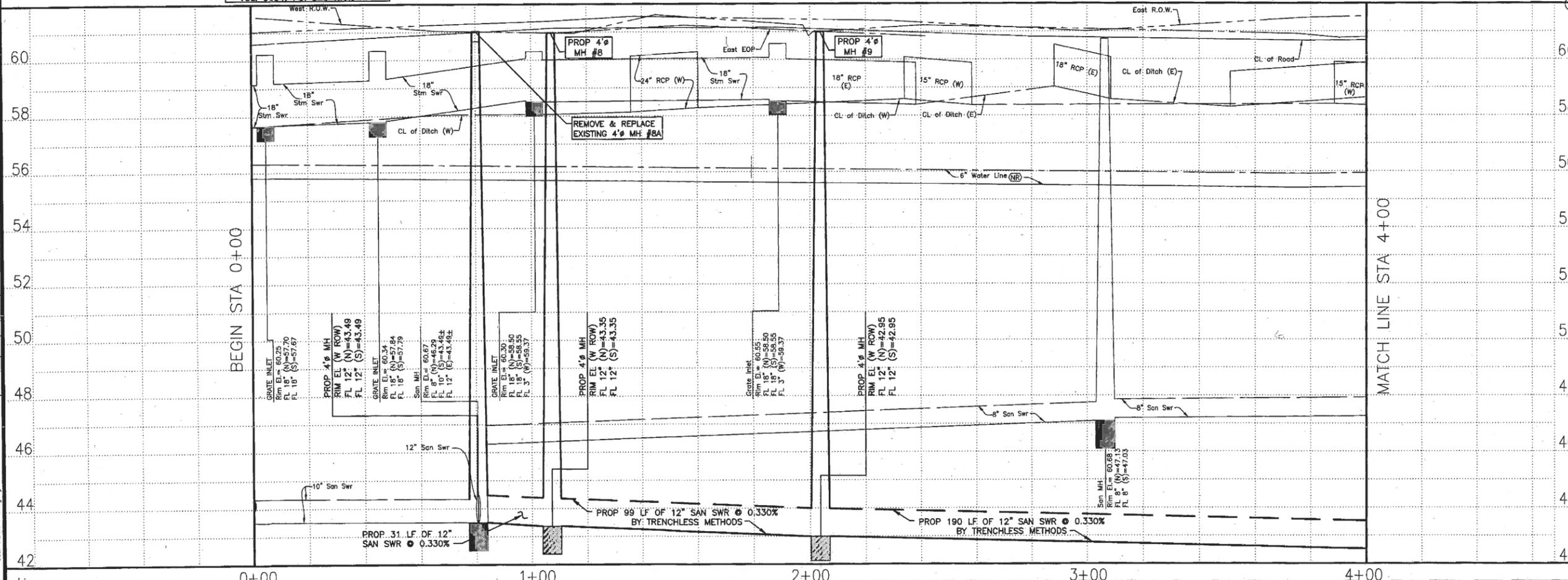
EAST FRIAR TUCK

SHERWOOD FOREST
Section D

ADDENDUM No. 1

1	5/14/2015	UTILITY SIGNATURES	EQ
NO	DATE	REVISIONS	APP
PRIVATE UTILITY LINES SHOWN			
H. Malone		DATE: 5-5-15	
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY (This signature verifies existing underground facilities - not to be used for contact verification.) Signature Valid for twelve months.			
D. Cantwell		DATE: 5-5-15	
AT&T TEXAS/SWBT UTILITY LINES SHOWN			
APPROVED AT&T TEXAS/SWBT FOR UNDERGROUND CONDUIT FACILITIES ONLY SIGNATURE VALID FOR ONE YEAR.			
H. Malone		DATE: 5-5-15	
CenterPoint Gas/Natural Gas Facilities Verification ONLY (This signature verifies that the line shown did indeed exist in the vicinity - not to be used for contact verification.) (Gas service lines are not shown.) Signature Valid for twelve months.			

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BEGIN STA 0+00

MATCH LINE STA 4+00

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Houston, TX 77042
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Texas Registered Engineering Firm F-533

DATE: FEBRUARY 2015
JOB NO. TX000941.0002
DESIGNED BY: EN
DRAWN BY: WW

SURVEYED BY: AMANI
FB NO.: P-5884

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

LIFT STATION
RENEWAL / REPLACEMENT
PROJECT

PLAN & PROFILE
E FRIAR TUCK
STA 0+00 TO STA 4+00
C15

WBS#: R-000267-109A-4

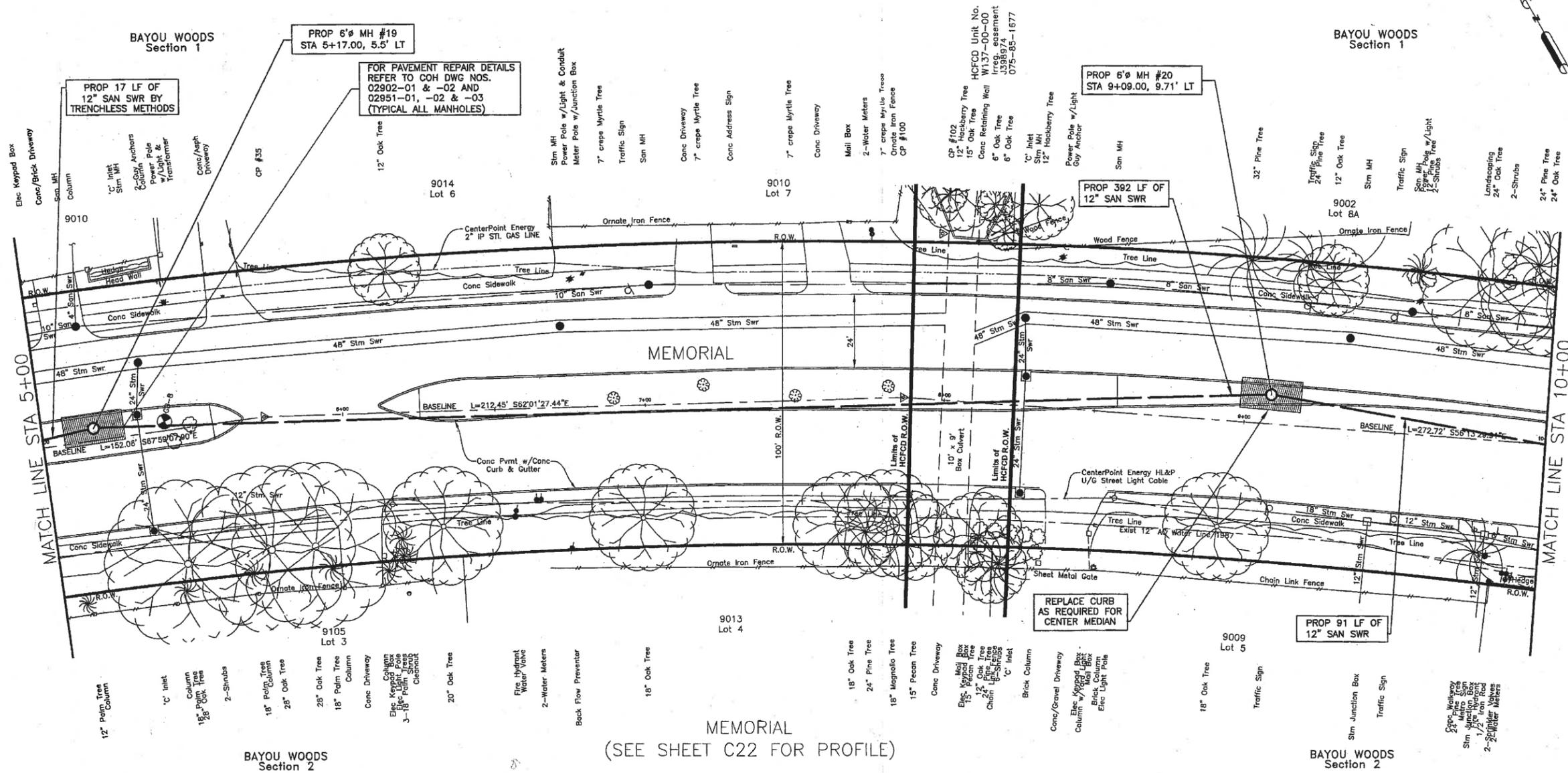
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CITY OF HOUSTON PM
AKHTER HUSSAIN, P.E.

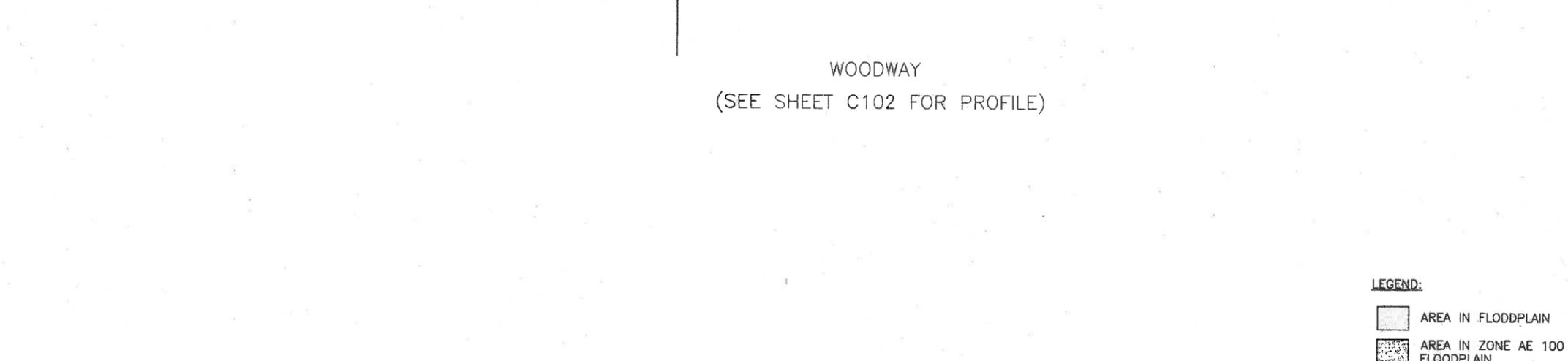
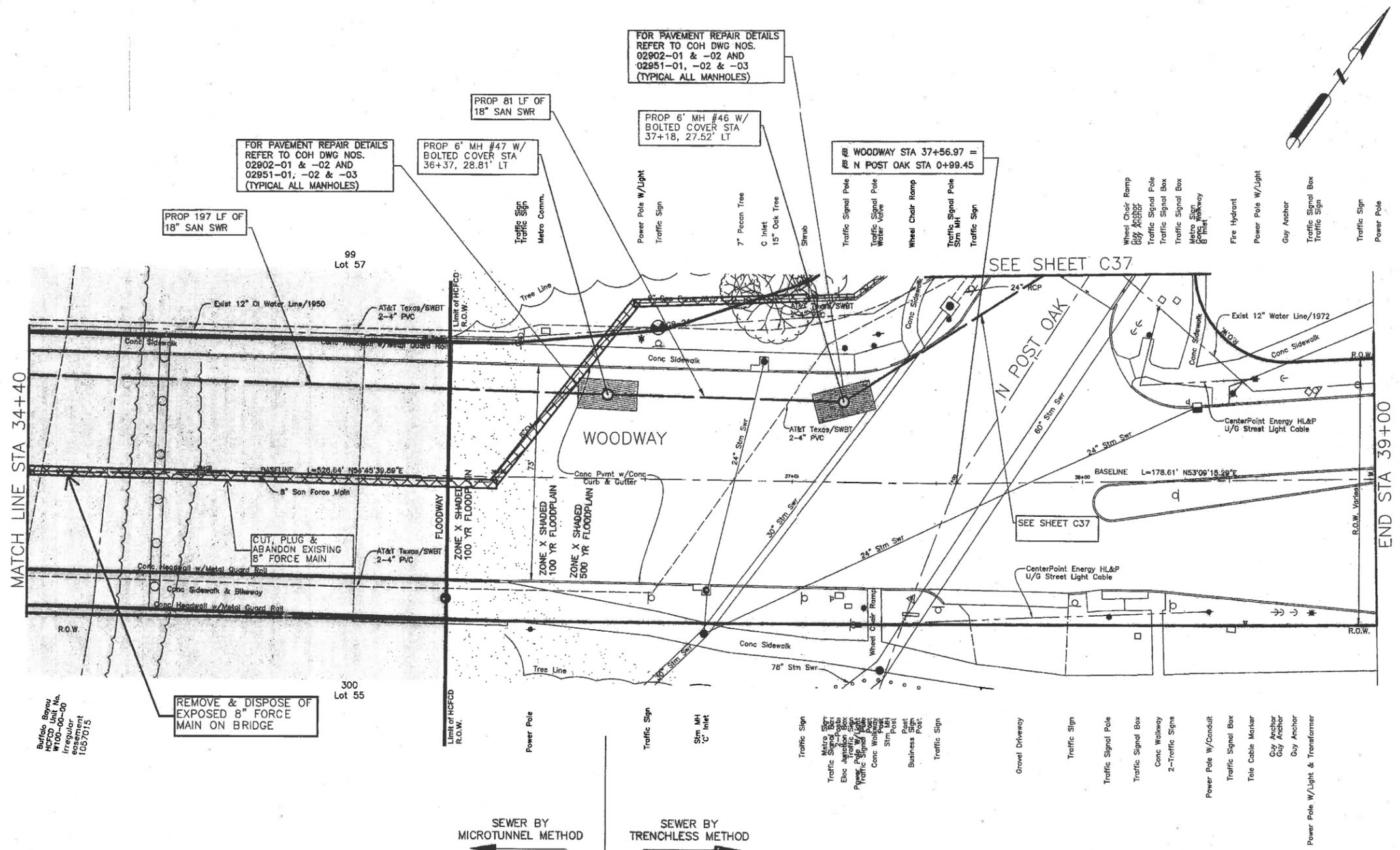
SHEET NO. 38 OF 155

54049

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FOR PAVEMENT REPAIR DETAILS
 REFER TO COH DWG NOS.
 02902-01 & -02 AND
 02951-01, -02 & -03
 (TYPICAL ALL MANHOLES)

FOR PAVEMENT REPAIR DETAILS
 REFER TO COH DWG NOS.
 02902-01 & -02 AND
 02951-01, -02 & -03
 (TYPICAL ALL MANHOLES)

PROP 6' MH #47 W/
 BOLTED COVER STA
 36+37, 28.81' LT

PROP 6' MH #46 W/
 BOLTED COVER STA
 37+18, 27.52' LT

WOODWAY STA 37+56.97 =
 N POST OAK STA 0+99.45

PROP 197 LF OF
 18" SAN SWR

PROP 81 LF OF
 18" SAN SWR

REMOVE & DISPOSE OF
 EXPOSED 8" FORCE
 MAIN ON BRIDGE

BENCHMARK:
 CITY OF HOUSTON MARKER
 5158-8202 LOCATED IN
 SOUTHSIDE OF THE INTERSECTION OF
 CARNARVON DR. & SANDRINGHAM DR.
 EL = 60.88 (NAVD 88, GPS
 OBSERVATION MADE IN JULY 2012)

IBM:
 CP-10, SET 5/8" IRON ROD AT
 STA 37+42.19, 39.52' RT.,
 EL. 44.37

NOTES:
 1. FOR WORK AREA WITHIN THE
 FLOODPLAIN CONTRACTOR TO HAVE
 CUTTINGS OFF SITE AND OUT OF
 FLOODPLAIN CALL CITY OF HOUSTON
 FMO AT (832) 394-8854 FOR
 FLOODPLAIN/DISPOSAL INFORMATION.

NO	DATE	REVISIONS	APP
1	5/14/2015	UTILITY SIGNATURES	EO

PRIVATE UTILITY LINES SHOWN

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY
 DATE: 5-5-15

AT&T TEXAS/SWBT UTILITY LINES SHOWN
 APPROVED AT&T TEXAS/SWBT FOR UNDERGROUND CONDUIT FACILITIES ONLY
 SIGNATURE VALID FOR ONE YEAR
 DATE: 5-5-15

CenterPoint Energy/Natural Gas Facilities Verification ONLY
 DATE: 5-5-15

ARCADIS
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 www.arcadis-us.com
 Texas Registered Engineering Firm F-533

DATE: FEBRUARY 2015 JOB NO. TX000941.0002	DESIGNED BY: EN DRAWN BY: WW
--	---------------------------------

CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

LIFT STATION
 RENEWAL / REPLACEMENT
 PROJECT

PLAN WOODWAY
 STA 34+40 TO STA 39+00

C101

WBS#: R-000267-109A-4	DRAWING SCALE: 1"=20'
CITY OF HOUSTON PM AKHTER HUSSAIN, P.E.	
SHEET NO. 104 OF 155	

LEGEND:
 [Hatched Box] AREA IN FLOODPLAIN
 [Dotted Box] AREA IN ZONE AE 100 YR FLOODPLAIN

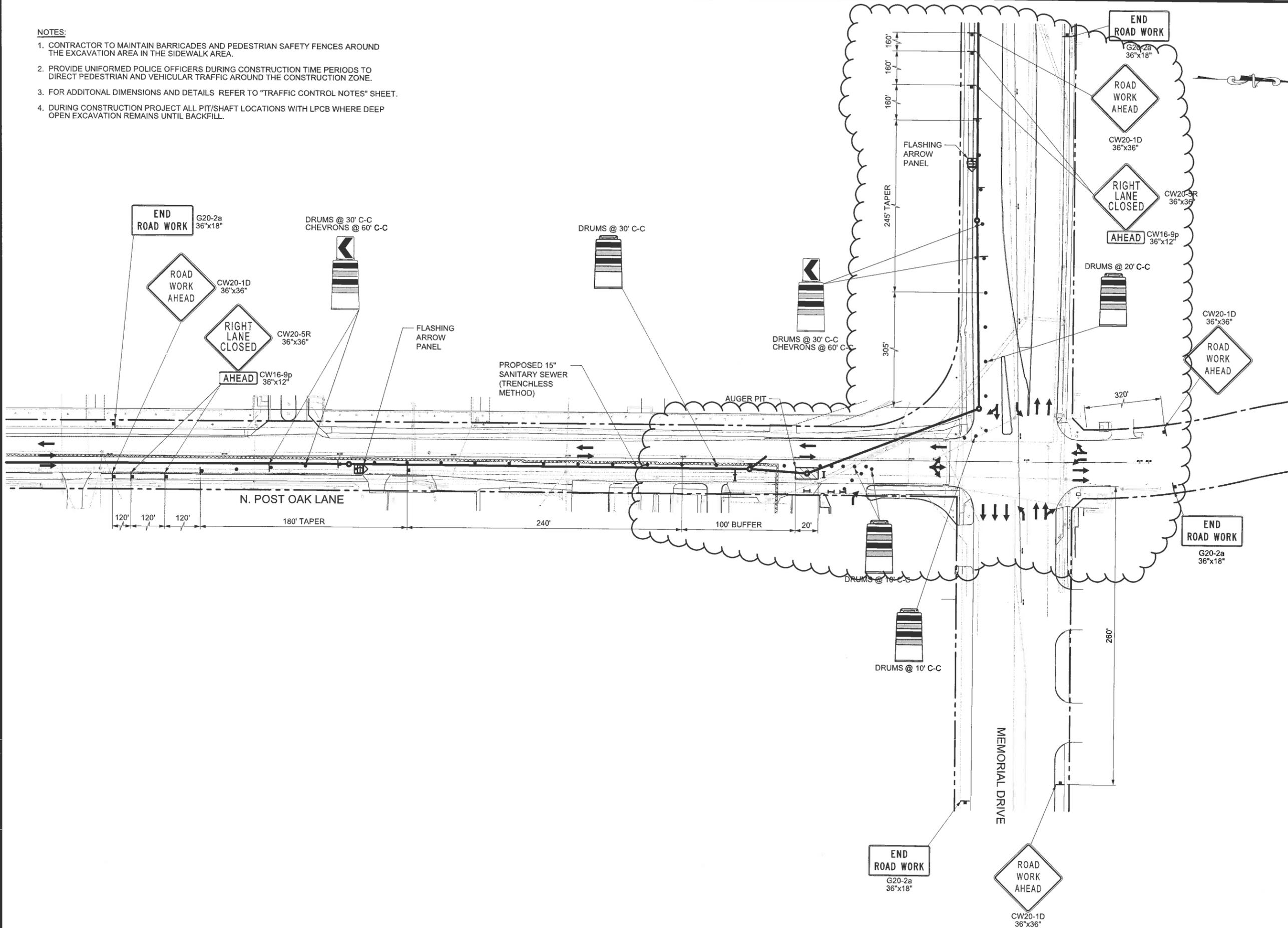
ADDENDUM No. 1

NOTES:

1. CONTRACTOR TO MAINTAIN BARRICADES AND PEDESTRIAN SAFETY FENCES AROUND THE EXCAVATION AREA IN THE SIDEWALK AREA.
2. PROVIDE UNIFORMED POLICE OFFICERS DURING CONSTRUCTION TIME PERIODS TO DIRECT PEDESTRIAN AND VEHICULAR TRAFFIC AROUND THE CONSTRUCTION ZONE.
3. FOR ADDITIONAL DIMENSIONS AND DETAILS REFER TO "TRAFFIC CONTROL NOTES" SHEET.
4. DURING CONSTRUCTION PROJECT ALL PIT/SHAFT LOCATIONS WITH LPCB WHERE DEEP OPEN EXCAVATION REMAINS UNTIL BACKFILL.

LEGEND

-  CONSTRUCTION AREA
-  SIGN ON POST
-  DRUMS WITH CHEVRONS (UNLESS OTHERWISE NOTED)
-  DRUMS WITH VERTICAL PANELS (UNLESS OTHERWISE NOTED)
-  TYPE III BARRICADE WITH TWO TYPE A WARNING LIGHTS
-  FLASHING ARROW PANEL
-  DIRECTION OF TRAFFIC FLOW



TYPE FIRM F-15000
ETG EPIC TRANSPORTATION GROUP, LP
 Engineering • Planning • Infrastructure • Construction
 805 Wilcrest Drive, Suite 240, Houston, TX 77042 Ph: (713) 639-9416

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 www.arcadis-us.com
 Texas Registered Engineering Firm F-533

DATE: AUGUST 2014
 JOB NO. TX000941.0002
 DESIGNED BY: ETG
 DRAWN BY: ETG



SURVEYED BY: AMAN
 FB NO.: P-3884
 5-12-15

CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

LIFT STATION
 RENEWAL / REPLACEMENT
 PROJECT

TRAFFIC CONTROL PLAN
 MEMORIAL DRIVE
 AT N POST OAK LANE
 TCP3-A

WBS#: R-000267-109A-4
DRAWING SCALE: 1"=40'
CITY OF HOUSTON PM
AKHTER HUSSAIN, P.E.
SHEET NO. 110 OF 155

ADDENDUM No. 1

5/12/2015 ... \CADD\TCP-SITE SPECIFIC.dgn