

STANDARD UTILITY AGREEMENT

U-0012: Fort Bend County MUD No. 34
 County: Fort Bend
 Highway: FM 1093 Westpark Extension

This Agreement by and between the County of Fort Bend, Texas, ("**County**"), and Fort Bend County Municipal Utility District No. 34, ("**Utility**"), acting by and through its duly authorized representative, shall be effective on the date of approval and execution by and on behalf of the **County**.

WHEREAS, the **County** has deemed it necessary to make certain highway improvements as designated by the **County** and approved by the Federal Highway Administration within the limits of the highway as indicated above;

WHEREAS, the proposed highway improvements will necessitate the adjustment, removal, and/or relocation of certain facilities of **Utility** as indicated in the following statement of work: relocation of assets (12" Water Line) into a predesignated corridor according to the following schedule:

Bid Date:	February 15, 2016
FBCMUD No. 34 Board Approval:	February 23, 2016
Construction Start Date:	March 28, 2016
Construction Completion Date:	April 29, 2016

and more specifically shown in **Utility's** plans, specifications and estimated costs, which are attached hereto as Attachment "A" and Attachment "B".

WHEREAS, Subchapter E of Chapter 203 of the Texas Transportation Code regarding the relocation of utilities does not apply to this Project, but the County wishes to negotiate in good faith and enter into agreements with all affected utility companies for the participation in the costs of the adjustment, removal, and/or relocation of certain facilities as authorized under such subchapter.


WHEREAS, the **County**, upon receipt of evidence it deems sufficient, acknowledges **Utility's** interest in certain lands and/or facilities and determined it is appropriate to enter an agreement with **Utility** to govern the terms for participation in the costs of the adjustment, removal, and relocation of certain of its facilities located upon the lands as indicated in the statement of work above.


NOW, THEREFORE, BE IT AGREED:

The **County** will pay to **Utility** fifty percent (50%) of the documented actual costs incurred for relocation of **Utility** in right of way by permit and one hundred percent (100%) of the documented actual costs incurred for relocation of the utility in the easement as specifically documented in *Exhibit "B" Reimbursement Breakout* for adjustment, removal, and/or relocation of **Utility's** facilities up to the amount said costs may be eligible for **County** participation.

All conduct under this agreement, including but not limited to the adjustment, removal and relocation of the facility, the development and reimbursement of costs, any environmental requirements, and retention of records will be in accordance with all applicable federal and state laws, rules and regulations, including, without limitation, the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act, 42 U.S.C. §§ 4601, et seq., the National Environmental Policy Act, 42 U.S.C. §§ 4231, et seq., the Buy America provisions of 23 U.S.C. § 313 and 23 CFR 635.410, the Utility Relocations, Adjustments, and Reimbursements provisions of 23 CFR 645, Subpart A, and with the Utility Accommodation provisions of 23 CFR 645, Subpart B. **Utility** shall supply, upon request by the **County**, proof of compliance with the aforementioned laws, rules and regulations prior to the commencement of construction.

The **Utility** agrees to develop relocation or adjustment costs by accumulating actual direct and related indirect costs in accordance with a work order accounting procedure prescribed by **County**, or may, with the **County's** approval, accumulate actual direct and related indirect costs in accordance with an established accounting procedure developed by **Utility**. Bills for work hereunder will be submitted to **County** not later than 90 days after completion of the work.

 2/8/16
 Date
 Fort Bend County

 1/20/16
 Initial Date
 Fort Bend MUD No. 34

When requested, the **County** will make intermediate payments at not less than monthly intervals to **Utility** when properly billed and such payments will not exceed 90 percent (90%) of the eligible cost as shown in each such billing. Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

Upon execution of this agreement by both parties hereto, the **County** will, by written notice, authorize the **Utility** to perform such work diligently, and to conclude said adjustment, removal, or relocation by the stated completion date. The completion date shall be extended for delays caused by events outside **Utility's** control, including an event of Force Majeure, which shall include a strike, war or act of war (whether an actual declaration of war is made or not), insurrection, riot, act of public enemy, accident, fire, flood or other act of God, sabotage, or other events, interference by the **County** or any other party with **Utility's** ability to proceed with the relocation, or any other event in which **Utility** has exercised all due care in the prevention thereof so that the causes or other events are beyond the control and without the fault or negligence of **Utility**.

However, for any failure by **Utility** to conclude said adjustment, removal, or relocation by the stated completion date not caused by events outside **Utility's** control, the **County** may elect to: (1) reduce the reimbursement to **Utility** by one percent (1%) each day delayed; or (2) relocate the facility at the sole cost and expense of **Utility**.

The **County** will, upon satisfactory completion of the relocation or adjustment and upon receipt of final billing prepared in an approved form and manner, make payment in the amount of 90 percent (90%) of the eligible costs as shown in the final billing prior to audit and after such audit shall make an additional final payment totaling the reimbursement amount found eligible for **County** reimbursement.

Unless an item below is stricken and initialed by the **County and Utility**, this agreement in its entirety consists of the following:

1. Standard Utility Agreement;
2. Plans & Specifications (Attachment "A");
3. Utility Construction Cost Estimate (Attachment "B");
4. Utility's Schedule of Work and Estimated Date of Completion (Attachment "C").

All attachments are included herein as if fully set forth. In the event it is determined that a substantial change from the statement of work contained in this agreement is required, reimbursement therefore shall be limited to costs covered by a modification or amendment of this agreement or a written change or extra work order approved by the **County and Utility**.


This agreement is subject to cancellation by the **County** at any time up to the date that work under this agreement has been authorized and that such cancellation will not create any liability on the part of the **County**. However, the **County** will review and reimburse the **Utility** for eligible costs incurred by the **Utility** in preparation of this Agreement.

The **Utility** acknowledges to and for the benefit of the **County** and State of Texas that it understands the project under this Agreement is eligible for Federal-aid highway funds and as such, requires all of the iron, steel, and manufactured goods used in the project be produced in the United States ("Buy American Requirements") including iron, steel, and manufactured goods provided by the **Utility** pursuant to this Agreement.

The State Auditor may conduct an audit or investigation of any entity receiving funds from the **County** directly under this contract or indirectly through a subcontract under this contract. Acceptance of funds directly under this contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the State Auditor, under the direction of the Legislative Audit Committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

The **Utility** by execution of this agreement does not waive any of the rights which **Utility** may have within the limits of the law.

 2/8/16
Date
Fort Bend County

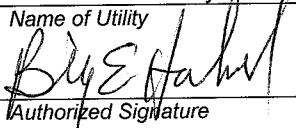
 1/26/16
Initial Date
Fort Bend MUD No. 34

It is expressly understood that the **Utility** conducts the adjustment, removal, or relocation at its own risk, and that Fort Bend County, Texas makes no warranties or representations regarding the existence or location of utilities currently within its right of way.

The signatories to this agreement warrant that each has the authority to enter into this agreement on behalf of the party represented.

UTILITY

Utility: Fort Bend County Municipal Utility District No. 34
Name of Utility

By: 
Authorized Signature

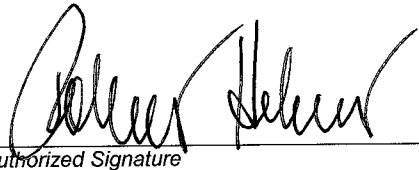
Billy E. HAEHNEL
Print or Type Name

Title: President, Board of Directors

Date: 1/26/2016

EXECUTION RECOMMENDED:

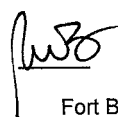
Fort Bend
COUNTY

By: 
Authorized Signature

Robert Hebert
Print or Type Name

Title: County Judge

Date: 2-9-16

 2/8/16
Date
Fort Bend County



 1/26/16
Initial Date
Fort Bend MUD No. 34


Exhibit A

Fort Bend County Municipal Utility District No. 34

Plans & Specifications

(12 Pages that Follow)


Date 2/8/16
Fort Bend County

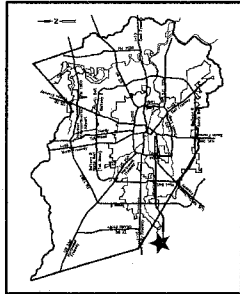

Initial BEA
Date 1/26/16
Fort Bend MUD No. 34

FORT BEND COUNTY M.U.D. NO. 34

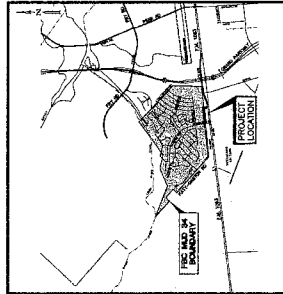
F.M. 1093 12" WATER LINE RELOCATION

CONSTRUCTION PLANS OF PROPOSED WATER DISTRIBUTION SYSTEM FORT BEND COUNTY, TEXAS

FEBRUARY 2016



LOCATION MAP



VICINITY MAP

FORT BEND COUNTY KEY MAP 625 EAF
N.T.S.
LAMBERT: 4254 & 4454

PRIOR TO THE CONSTRUCTION OF THESE FACILITIES WITHIN OR OUTSIDE THE CITY OF FORT BEND COUNTY, TEXAS, THE USER SHALL NOTIFY THE REGISTERED PROFESSIONAL ENGINEER AND THE CITY OF FORT BEND COUNTY, TEXAS, IN WRITING, AND SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE CITY OF FORT BEND COUNTY, TEXAS, PRIOR TO COMMENCING CONSTRUCTION. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF FORT BEND COUNTY, TEXAS, PRIOR TO COMMENCING CONSTRUCTION. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF FORT BEND COUNTY, TEXAS, PRIOR TO COMMENCING CONSTRUCTION.

SHEET INDEX

NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL CONSTRUCTION NOTES
3.	UTILITY OVERALL AND STORM WATER POLLUTION PREVENTION PLAN
4.	PLAN AND PROFILE - BASELINE A (STA 4+00 TO 13+80)
5.	PLAN AND PROFILE - BASELINE B (STA 10+00 TO 13+80)
6.	WATER LINE DETAILS AND BASELINE B (STA 1+00 TO 2+00)
7.	STORM WATER POLLUTION PREVENTION PLAN DETAILS
8.	TODOT PEDESTRIAN FACILITIES CURB RAMPS (PED-12A)
9.	TODOT PEDESTRIAN FACILITIES SLOTTED CURBS (PED-12B)
10.	TODOT PEDESTRIAN FACILITIES SLOTTED CURBS (PED-12C)
11.	TODOT PEDESTRIAN FACILITIES SLOTTED CURBS (PED-12D)
12.	TODOT PEDESTRIAN FACILITIES INTERSECTION LAYOUTS (PED-12A)

ONE-CALL NOTIFICATION SYSTEM:
CALL BEFORE YOU DIG!!!
(713) 223-4587 (IN HOUSTON)
(NEW STATEWIDE NUMBER OUTSIDE HOUSTON)
1-800-546-5005

FORT BEND COUNTY ENGINEER

ENGINEER: RICHARD W. STOLLEIS, P.E.
FORT BEND COUNTY ENGINEER

DATE: _____

FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED: _____ DEVELOPMENT COORDINATOR

DATE: _____

FORT BEND COUNTY MUST BE INVITED TO THE PRE-CONSTRUCTION MEETING AND THE USER SHALL CONTACT BY EMAIL AT: subcontractor@fortbendcountytx.gov

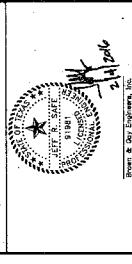
NOTES:
1. CONSTRUCTION WILL BE MONITORED BY A REGISTERED PROFESSIONAL ENGINEER TO INSURE COMPLIANCE WITH THE CONSTRUCTION PLANS AND THESE PLANS WERE PREPARED TO MEET OR EXCEED TEXAS COMMISSION COUNTY REGULATIONS AS CURRENTLY AMENDED. AND FORT BEND COUNTY REGULATIONS AS CURRENTLY AMENDED.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF FORT BEND COUNTY OF APPROVAL. ALL CONSTRUCTION SHALL BE COMPLETED WITHIN THE TIME FRAME OF APPROVAL. ALL CONSTRUCTION SHALL BE COMPLETED WITHIN THE TIME FRAME OF APPROVAL. ALL CONSTRUCTION SHALL BE COMPLETED WITHIN THE TIME FRAME OF APPROVAL.
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LMS # 1057854
LIC NO. 15-0736

REV	DATE	DESCRIPTION
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2		
3		

FIRM FLOOD INSURANCE RATE MAP PANEL: 17093-12-001
DATE OF FIRM FLOOD INSURANCE RATE MAP: 10/8/91
SITE ELEVATION 105.6 - 106.9
THIS SITE IS IN UNSHADDED ZONE X

Boyer & Gray Engineers, Inc.
10777-0888750 • www.boyergray.com
10777 Regeneration, Ft. Worth



Boyer & Gray Engineers, Inc.
BOYER & GRAY ENGINEERS, INC.
10777-0888750 • www.boyergray.com

ORDERED BY: Boyer & Gray Eng., Inc. (FB NO.)
DATE OF CONTRACT: 02/16/16
PROJECT NO.: 1093-12-001

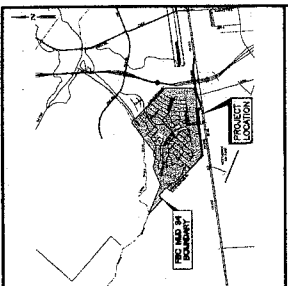
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND MAINTENANCE

PROJECT NO.: _____
SHEET NO.: _____

CITY ENGINEER: _____
DIRECTOR OF PUBLIC WORKS AND MAINTENANCE: _____

FOR CITY OF HOUSTON USE ONLY
DATE: _____

SHEET NO. 1 of 12



VICINITY MAP
 N.T.S.
 FORT BEND COUNTY KEY MAP 925 CBF
 LAMBERT: 4354 & 4454

NO.	DATE	DESCRIPTION	BY	CHK
1				
2				
3				



BCE
 Bruce & Gay Engineers, Inc.
 1400 West Loop South, Suite 1000
 Houston, Texas 77027
 Tel: 713-865-1100
 Fax: 713-865-1101

FORT BEND COUNTY M.U.D. NO. 34
F.M. 1093
12" WATER LINE RELOCATION

UTILITY OVERALL AND STORM WATER POLLUTION PREVENTION PLAN

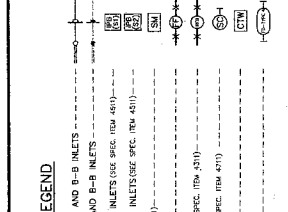
DATE: FEBRUARY 2008	PROJECT NO: 2088-08
DRAWN BY: [Name]	CHECKED BY: [Name]
SCALE: AS SHOWN	DATE: 02/08
FOR CITY OF HOUSTON USE ONLY	

GENERAL NOTES:

- "U.L." INDICATES "UTILITY EASEMENT".
- "M.L.E." INDICATES "MIDDLE LINE EASEMENT".
- "S.M.S.E." INDICATES "SIDE MIDDLE LINE EASEMENT".
- "S.W.S.E." INDICATES "SIDE WEST MIDDLE LINE EASEMENT".
- "D.E." INDICATES "DRAINAGE EASEMENT".
- "TEMP. D.E." INDICATES "TEMPORARY DRAINAGE EASEMENT".
- ALL 14 FOOT UTILITY EASEMENTS SHOWN EXTEND 7 FEET ON EACH SIDE OF A COMMON LOT LINE UNLESS OTHERWISE INDICATED.
- ALL SANITARY SERVICES ARE 8" UNLESS OTHERWISE INDICATED.
- ALL WATER LINES ARE 12" UNLESS OTHERWISE INDICATED.

GENERAL NOTES (continued):

- ALL 14 FOOT UTILITY EASEMENTS SHOWN EXTEND 7 FEET ON EACH SIDE OF A COMMON LOT LINE UNLESS OTHERWISE INDICATED.
- ALL SANITARY SERVICES ARE 8" UNLESS OTHERWISE INDICATED.
- ALL WATER LINES ARE 12" UNLESS OTHERWISE INDICATED.



LEGEND

PROPOSED STORM SEWER LINE, MANHOLE AND B-B INLETS
 EXISTING STORM SEWER LINE, MANHOLE AND B-B INLETS
 INLET PROTECTION BARRIER FOR STAGE 1 INLETS (SEE SPEC. ITEM 4510)
 INLET PROTECTION BARRIER FOR STAGE 2 INLETS (SEE SPEC. ITEM 4510)
 HYDRO-MULCH SEEDING (SEE SPEC. ITEM 4510)
 FILTER FABRIC BARRIER (SEE SPEC. ITEM 4510)
 REINFORCED FILTER FABRIC BARRIER (SEE SPEC. ITEM 4510)
 STABILIZED CONSTRUCTION ACCESS (SEE SPEC. ITEM 4510)
 CONCRETE TRUCK WASHOUT AREA
 FILTER DAM

LEGEND (continued):

PROPOSED WATER LINE, CV & BOX WITH FIRE HYDRANT
 EXISTING WATER LINE, CV & BOX WITH FIRE HYDRANT
 PROPOSED SANITARY SEWER LINE, MANHOLE AND STACK
 EXISTING SANITARY SEWER LINE, MANHOLE AND STACK
 PROPOSED STORM SEWER LINE, MANHOLE AND B-B INLETS
 EXISTING STORM SEWER LINE, MANHOLE AND B-B INLETS
 PROPOSED FORCE MAIN
 EXISTING FORCE MAIN
 EXISTING CENTERPOINT ENERGY HILAP OVERHEAD LINE
 EXISTING CENTERPOINT ENERGY GAS LINE
 EXISTING CENTERPOINT ENERGY COAXIAL CABLES
 SANITARY SEWER MANHOLE
 SHEET REFERENCE NUMBER

LEGEND (continued):

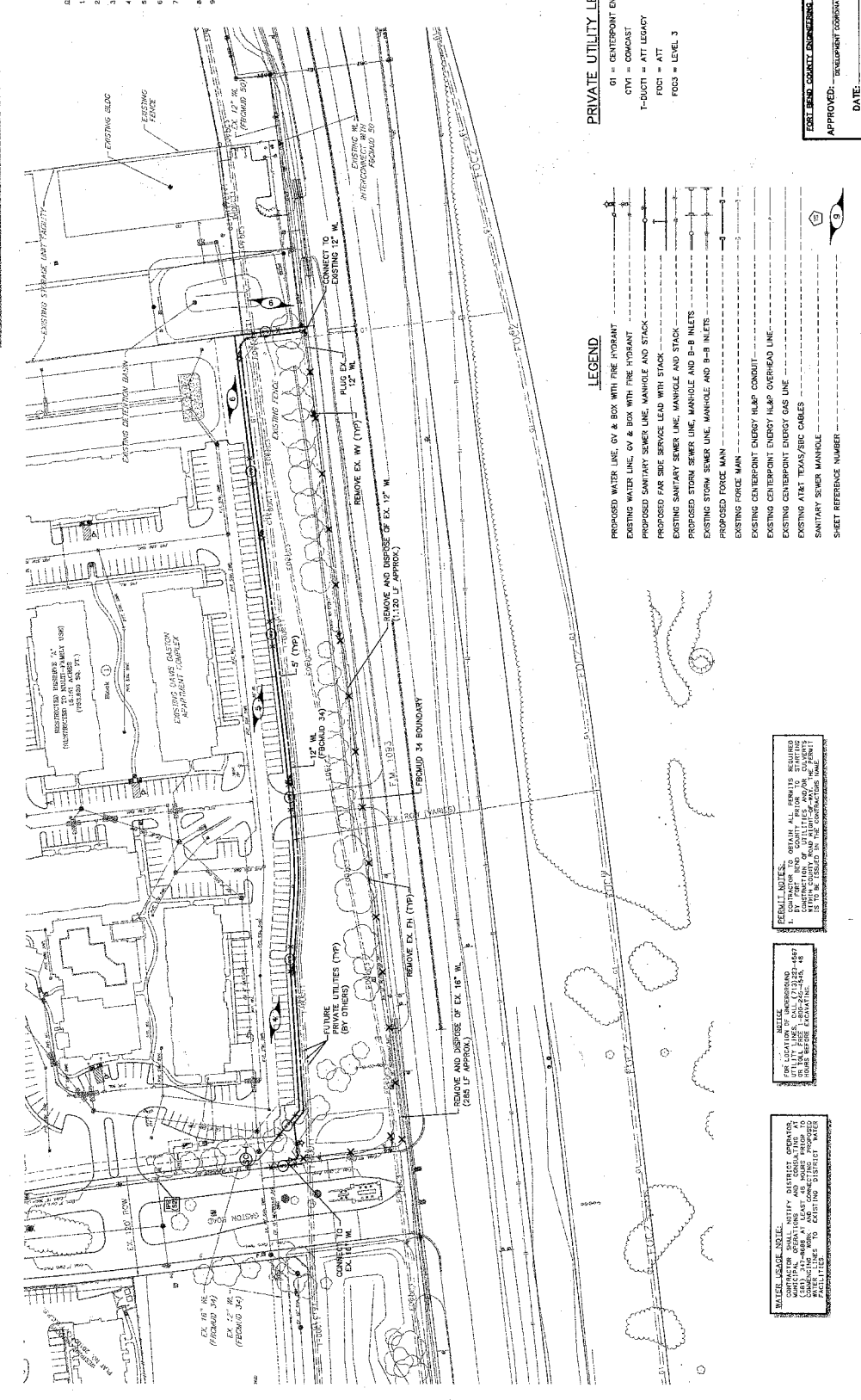
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LEGEND (continued):

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LEGEND (continued):

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 SHEET REFERENCE NUMBER



LEGEND (continued):

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 EXISTING CENTERPOINT ENERGY GAS LINE
 EXISTING CENTERPOINT ENERGY COAXIAL CABLES
 SANITARY SEWER MANHOLE
 SHEET REFERENCE NUMBER

REMARKS:

- CONTRACTOR TO OBTAIN ALL PERMITS REQUIRED FOR UTILITY LINES. CALL (713) 237-4597 FOR INFORMATION ON PERMITS AND/OR CHECK FOR ANY EXISTING UTILITIES AND/OR CATCH BASINS BEFORE BEGINNING WORK.

REMARKS (continued):

- CONTRACTOR TO OBTAIN ALL PERMITS REQUIRED FOR UTILITY LINES. CALL (713) 237-4597 FOR INFORMATION ON PERMITS AND/OR CHECK FOR ANY EXISTING UTILITIES AND/OR CATCH BASINS BEFORE BEGINNING WORK.

REMARKS (continued):

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REMARKS (continued):

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REVISIONS

REVISIONS
REVISION NO. 1: 1" HIGH DIMENSION LINE TO BE PLACED AT THE CENTER OF THE LINE. ALL DIMENSIONS TO BE PLACED TO THE CENTER OF THE LINE. ALL DIMENSIONS TO BE PLACED TO THE CENTER OF THE LINE. ALL DIMENSIONS TO BE PLACED TO THE CENTER OF THE LINE.

REVISIONS
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FUTURE PRIVATE UTILITY LEGEND

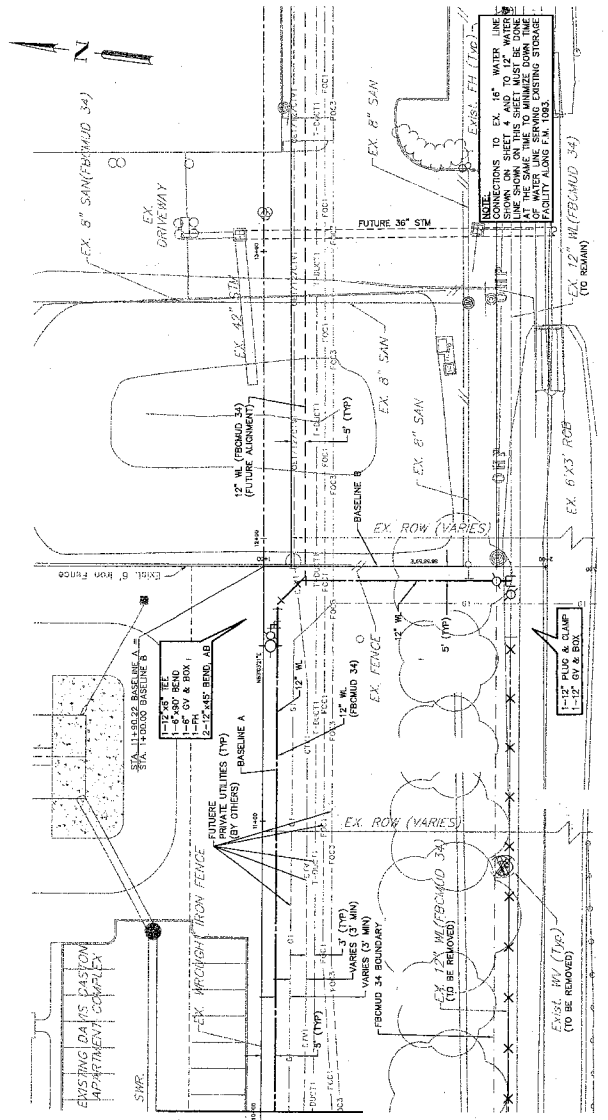
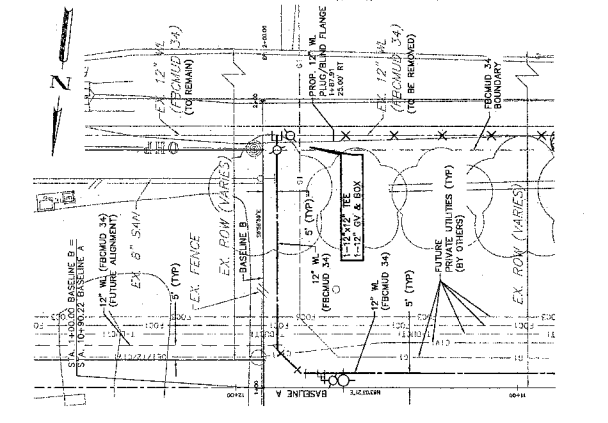
- GI = CENTERPOINT ENERGY
- CTM = COMCAST
- T-DUCTS = AT LEGACY
- FOCI = ATT
- FOCS = LEVEL 3

1. ALL WATER LINES TO BE PROPOSED P.W. CLASS 150 (150 PSI MIN.) CENTERED ON CROSSING

2. ALL WATER LINES TO BE PROPOSED P.W. CLASS 150 (150 PSI MIN.) CENTERED ON CROSSING

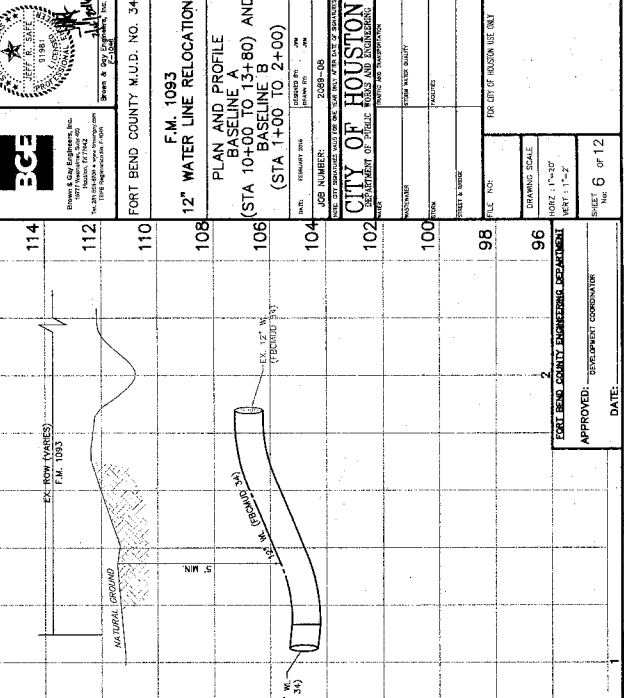
3. ALL WATER LINES TO BE PROPOSED P.W. CLASS 150 (150 PSI MIN.) CENTERED ON CROSSING

LEGEND:
 ○ INDICATES 1'-30" JT. OF C-900 PVC (150 PSI MIN.) CENTERED ON CROSSING
 ○ INDICATES 12" MINIMUM CLEARANCE
 ○ INDICATES 12" MINIMUM CLEARANCE
 ○ SANITARY MANHOLE NUMBER
 ○ STORM MANHOLE NUMBER

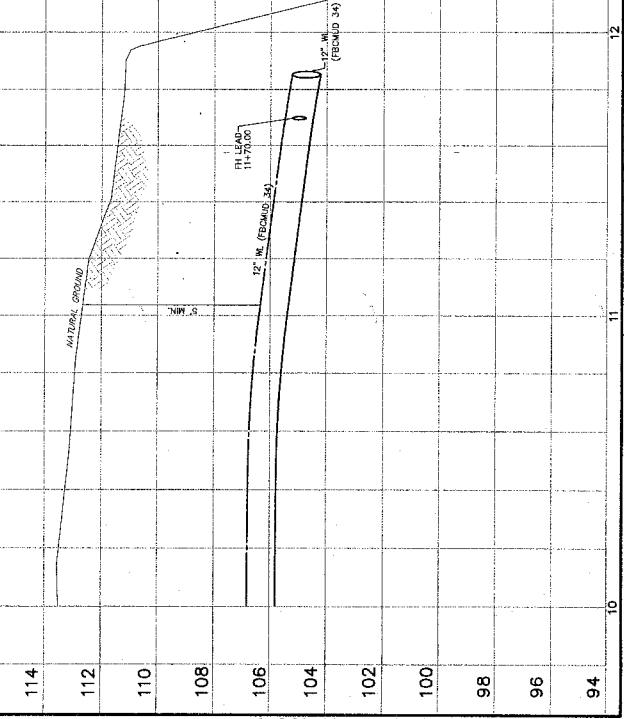


MATCH LINE STA. 10+00
See Sheet 5

BASELINE B



BASELINE A



STATION	DESCRIPTION
114	
112	
110	
108	
106	
104	
102	
100	
98	
96	
94	

DATE: _____
 APPROVED: _____
 DEPARTMENT COORDINATOR



ENGINEERING & CONSTRUCTION, INC.
 10000 WEST 24TH STREET, SUITE 100
 FORT BEND COUNTY, TEXAS 78429
 PHONE: 281-340-1000
 FAX: 281-340-1001
 WWW.ECE-INC.COM

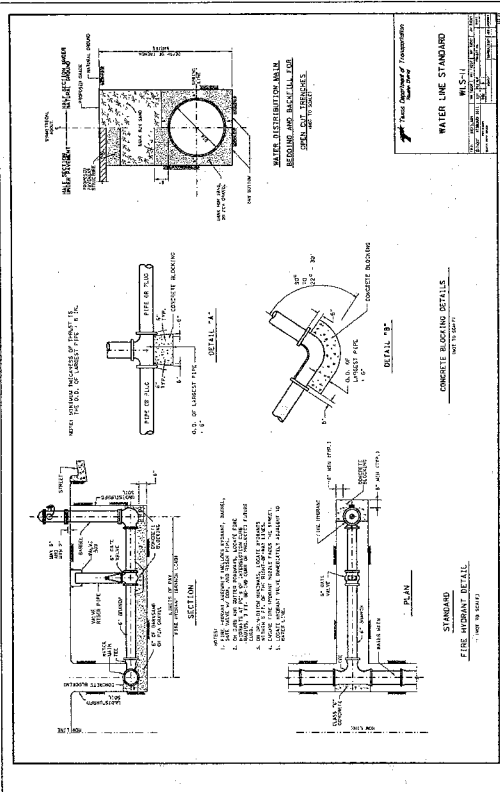
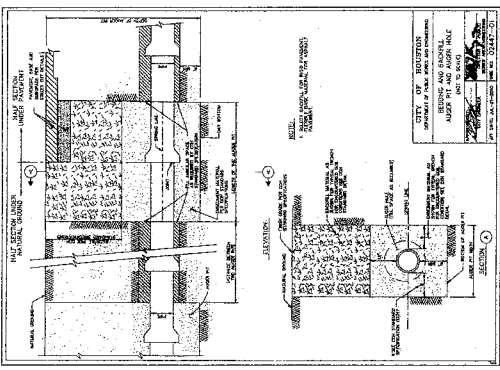
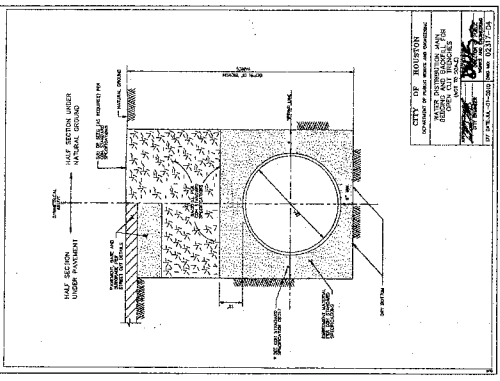
PROJECT NO. 2008-08
 SHEET NO. 6 OF 12

F.M. 1093
 12" WATER LINE RELOCATION

PLAN AND PROFILE
 BASELINE A
 (STA 10+00 TO 13+80) AND
 BASELINE B
 (STA 1+00 TO 2+00)

CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

DESIGNED BY: _____
 CHECKED BY: _____
 DRAWING SCALE:
 HORIZ: 1"=20'
 VERT: 1"=2'
 SHEET NO. 6 OF 12



REV.	DATE	DESCRIPTION
1		
2		
3		

BCE
Brown & Calhoun Engineers, Inc.
10000 Katy Road, Suite 100
Houston, Texas 77024
Professional Seal: State of Texas, No. 12872

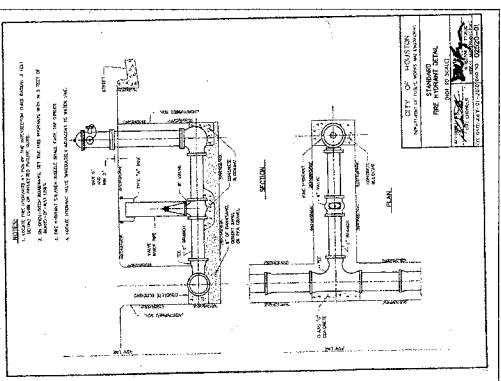
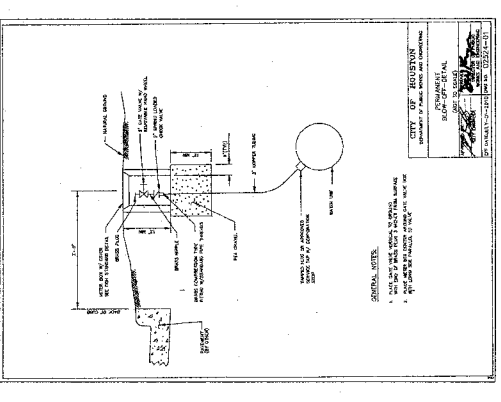
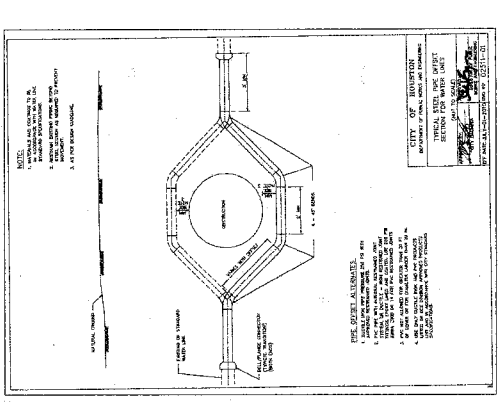
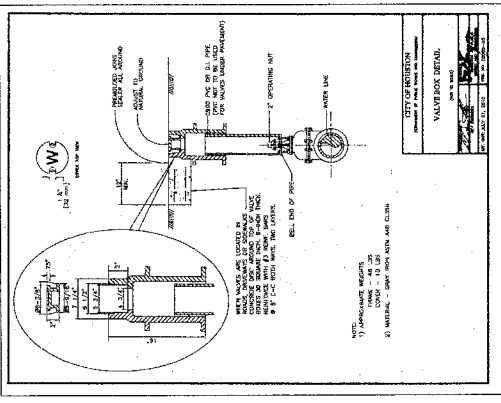
FORT BEND COUNTY M.U.D. NO. 34

F.M. 1093

12" WATER LINE RELOCATION

WATER LINE DETAILS

DATE: FEBRUARY 2018
DRAWING NO.: 2018-08
JOB NUMBER: 2018-08
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
PROJECT: WATER MAIN RELOCATION
SHEET: 7 OF 12



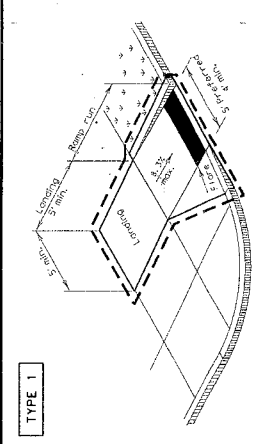
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

APPROVED: _____
DEVELOPMENT COORDINATOR

DATE: _____

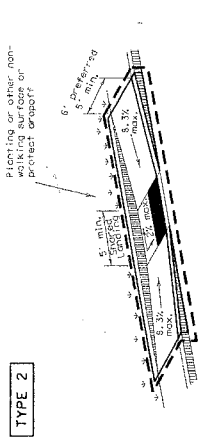
FILE NO.: _____
DRAWING SCALE: _____
SHEET 7 OF 12

DISCLAIMER: The use of this standard is governed by the Texas Engineering Practice Act. No warranty of any kind is made by TREC or any person who makes no reference to TREC or any person who makes no reference to TREC or any person who makes no reference to TREC.



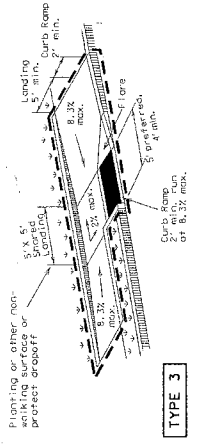
TYPE 1

PERPENDICULAR CURB RAMP



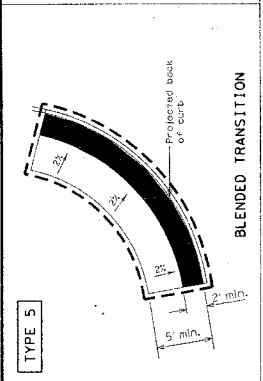
TYPE 2

PARALLEL CURB RAMP
(Use only where water will not pond in the landing.)



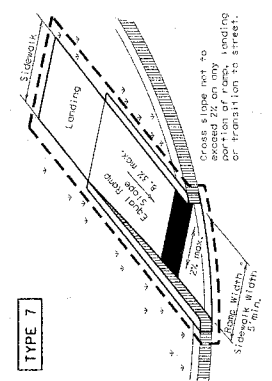
TYPE 3

COMBINATION CURB RAMP



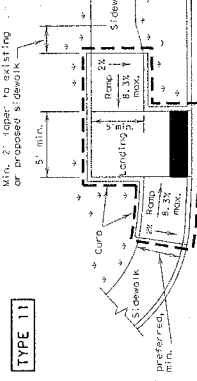
TYPE 5

BLENDED TRANSITION



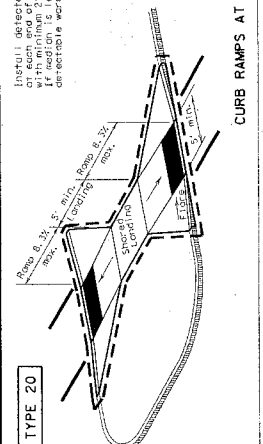
TYPE 7

DIRECTIONAL RAMP WITHIN RADIUS
(Sidewalk set back from curb)



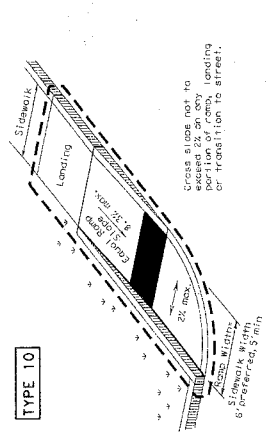
TYPE 11

OFFSET PARALLEL CURB RAMP



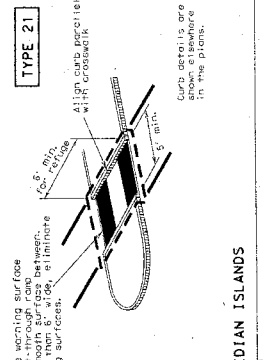
TYPE 20

CURB RAMP AT MEDIAN ISLANDS



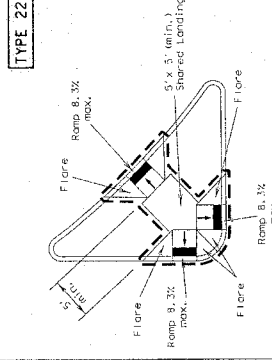
TYPE 22

COMBINATION ISLAND RAMP



TYPE 21

CURB RAMP AT MEDIAN ISLANDS



TYPE 22

COMBINATION ISLAND RAMP

TEXAS Department of Transportation
Design Division
Standard

PEDESTRIAN FACILITIES
CURB RAMP

PED-12A

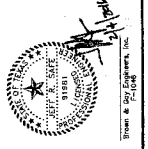
FILE NO. 2002-09
DATE 07/001
REVISED 08/02
BY 2002
DATE 07/001
REVISED 08/02
BY 2002

DATE 07/001
REVISED 08/02
BY 2002

DATE 07/001
REVISED 08/02
BY 2002

SHEET 1 OF 4

- NOTES / LEGEND:
- See General Notes on sheet 2 of 4 for more information.
 - N.W. denotes planting or non-walking surface
 - N.W. denotes part of pedestrian circulation path.
 - Ramp Limits of Payment
 - Detectable Warning Surface

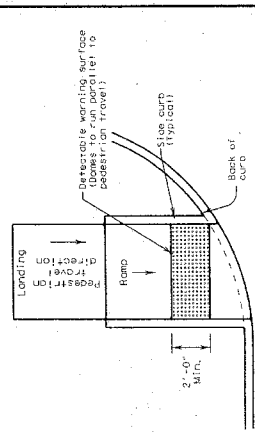


General Notes

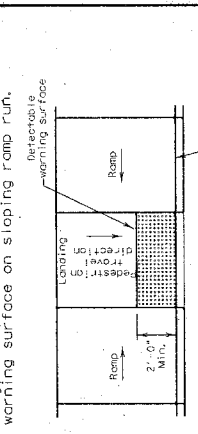
1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade or approach sidewalks as directed.
3. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6" sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site conditions, 5' x 5' paving areas at intervals not to exceed 200' are required.
4. Landings shall be 5' x 5' minimum with a maximum 2% slope in any direction.
5. Maneuvering space at the bottom of curb ramps shall be a minimum of 4' x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
6. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
7. Provide flared sides where the pedestrian circulation both crosses the curb ramp. Curb ramps shall be sloped at 2% maximum, measured parallel to the curb. Returned sidewalks shall be sloped at 2% maximum, measured perpendicular to the curb, either because the adjacent surface is planned, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 66.061.
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5' x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and slope bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Handrails are not required on curb ramps. Provide curb ramps wherever an accessible route crosses (permeates) a curb.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 Sidewalks.
14. Place concrete of a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Provide a smooth transition where the curb ramps connect to the street.
16. Curb shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
17. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.

Curb Ramps

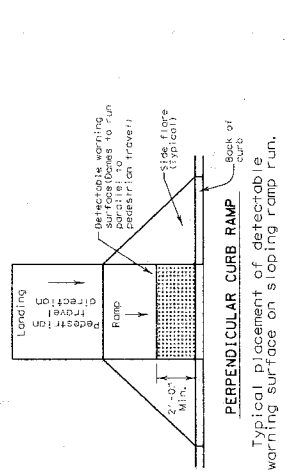
DISCLAIMER: The use of this standard is governed by the Texas Engineering Practice Act. No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the construction of this standard or other forms or for incorrect results or damages resulting from its use.



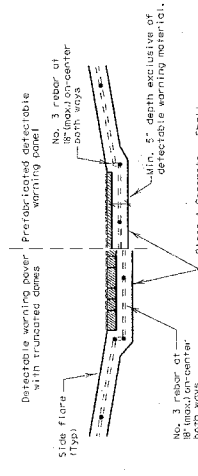
DIRECTIONAL CURB RAMP
Typical placement of detectable warning surface on sloping ramp run.



PARALLEL CURB RAMP
Typical placement of detectable warning surface on landing at street edge.



PERPENDICULAR CURB RAMP
Typical placement of detectable warning surface on sloping ramp run.



SECTION: CURB RAMP AT DETECTABLE WARNING

DETECTABLE WARNINGS

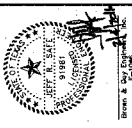
24. Furnish detectable warning power units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
 25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit, but detectable warning power units using a power saw.
- Sidewalks**
26. Provide clear ground space at approach points, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 308.
 27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage racks and other items so as not to obstruct the pedestrian access route or clear ground space.
 28. Street grades and cross slopes shall be as shown elsewhere in the plans.
 29. Changes in level greater than 1/4 inch are not permitted.
 30. The least possible grade should be used to maximize accessibility. The existing slope or the proposed slope within the travel path may follow the grade of the parallel roadway, where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions, if provided, handrails shall comply with TAS 305.
 31. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
 32. Driveways and turnouts shall be constructed and paid for in accordance with Item 531 Sidewalks. Handrails shall be constructed and paid for in accordance with Item 531 Sidewalks.
 33. Sidewalk curbs are shown elsewhere in the plans.

Detectable Warning Powers

24. Furnish detectable warning power units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit, but detectable warning power units using a power saw.

Sidewalks

26. Provide clear ground space at approach points, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 308.
27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage racks and other items so as not to obstruct the pedestrian access route or clear ground space.
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32. Driveways and turnouts shall be constructed and paid for in accordance with Item 531 Sidewalks. Handrails shall be constructed and paid for in accordance with Item 531 Sidewalks.
33. Sidewalk curbs are shown elsewhere in the plans.

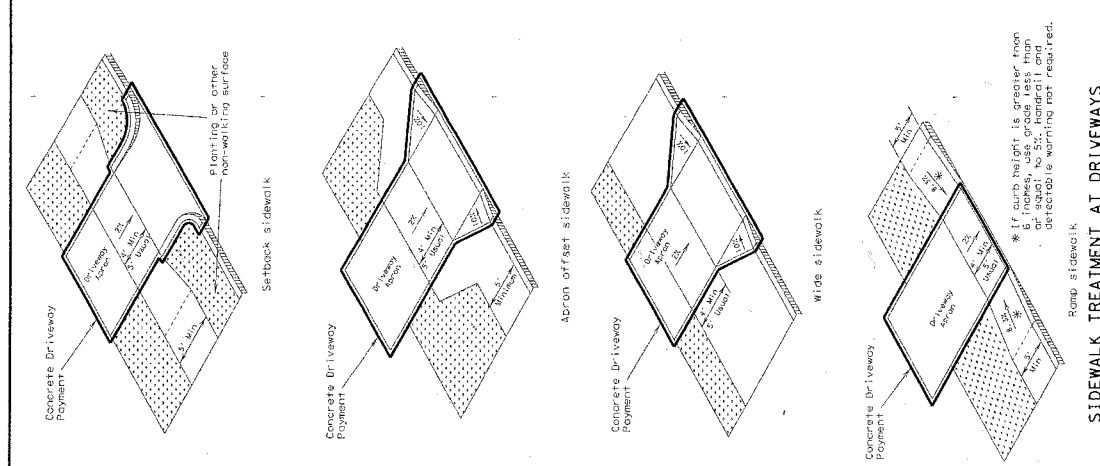


SHEET 2 OF 4

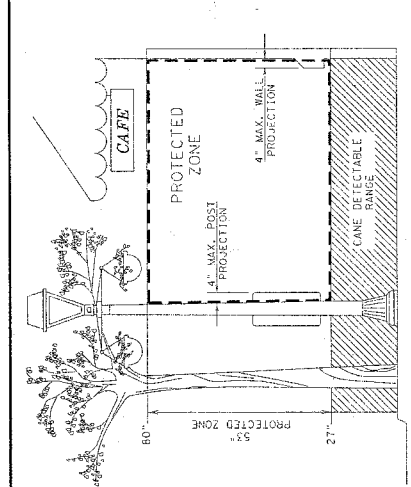
PEDESTRIAN FACILITIES
CURB RAMP

PED-12A

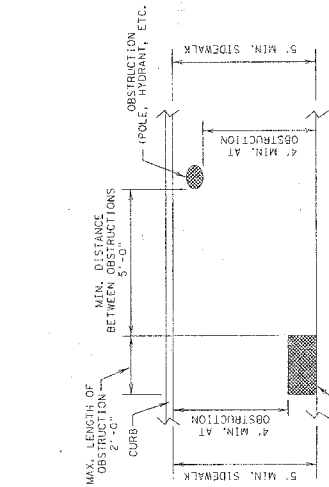
FILED	PROJECT NO.	CONTRACT NO.	DATE
10/12/12	1000000000	1000000000	10/12/12
DATE	BY	CHECKED	DATE
10/12/12	1000000000	1000000000	10/12/12



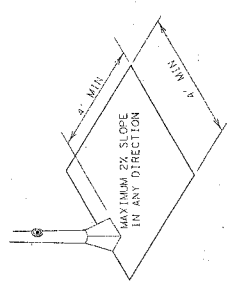
SIDEWALK TREATMENT AT DRIVEWAYS



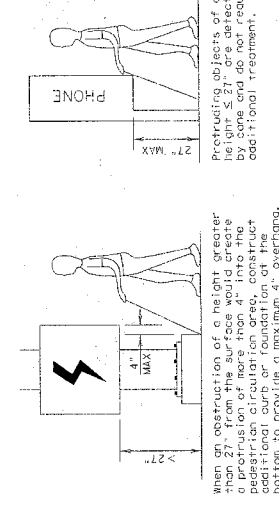
PROTECTED ZONE
In pedestrian circulation area, maximum 4" projection of mounted objects between 27" and 60"



PLAN VIEW
PLACEMENT OF STREET FIXTURES
ITEMS NOT INTENDED FOR PUBLIC USE. ITEMS NOT INTENDED FOR PUBLIC USE. REQUIRED AT PUBLIC USE FIXTURES.



CLEAR GROUND SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

TEXAS Department of Transportation
PEDESTRIAN FACILITIES CURB RAMPS
PED-12A

FILE: 048176.001
DATE: 07/2007
BY: JAMES L. 2012

DESIGN: 1001
DATE: 08/08
BY: JAMES L. 2012

REVISION: 01
DATE: 08/08
BY: JAMES L. 2012

PROJECT: 11/12



Exhibit B

Fort Bend County Municipal Utility District No. 34

Construction Cost Estimate

(3 Pages that Follow)


Date
Fort Bend County

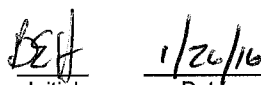

Initial Date
Fort Bend MUD No. 34

EXHIBIT B

Fort Bend County Municipal Utility District No. 34

F.M. 1093 12 Inch Water Line Relocation

Phase 1

Preliminary Construction Cost Estimate

February 2, 2016

ITEM	QUANTITY & UNIT	UNIT COST	ITEM TOTAL
<u>UNIT A: WATER DISTRIBUTION SYSTEM</u>			
1. C900-DR18 (class 150) P.V.C. Waterline (all depths) (including bends, wyes, crosses, plugs and clamps, reducers and tees):			
a. 12" Pipe	1,000 LF	\$ 80.00	\$ 80,000.00
b. 16" Pipe	10 LF	\$ 100.00	\$ 1,000.00
2. Gate Valve and Box:			
a. 12" Pipe	2 EA	\$ 3,250.00	\$ 6,500.00
3. Fire Hydrants (including leads, tee (mechanical joint) & 6" GV; all depths):	5 EA	\$ 3,675.00	\$ 18,375.00
4. Trenchless Waterline Installation (Includes 12" Water Pipe, Excavation, Backfill and Compaction of Bore and Receiving Pits)	100 LF	\$ 125.00	\$ 12,500.00
5. Miscellaneous Items:			
a. 2" Blow Off Valve with Box	1 EA	\$ 1,000.00	\$ 1,000.00
b. 16" Wet Connect (including cutting of existing waterline and connection of proposed water line)	2 EA	\$ 1,500.00	\$ 3,000.00
6. Trench Safety System	1,010 LF	\$ 1.00	\$ 1,010.00
7. Existing Water Line Removal, Including all Related Water Line Appurtenances, Off-Site Disposal and Backfilling of Trench			
a. 12" Pipe	1,270 LF	\$ 15.00	\$ 19,050.00
b. 16" Pipe	155 LF	\$ 20.00	\$ 3,100.00
8. Off-site Disposal of Excess Utility Excavation (includes disposal of said material at a location which the Contractor has a legal right and permission to dispose of said material)	1 LS	\$ 5,000.00	\$ 5,000.00
TOTAL, UNIT A			\$ 150,535.00

Fort Bend County Municipal Utility District No. 34

F.M. 1093 12 Inch Water Line Relocation

Phase 1

Preliminary Construction Cost Estimate

February 2, 2016

ITEM	QUANTITY & UNIT	UNIT COST	ITEM TOTAL
<u>UNIT B: STORM WATER POLLUTION CONTROL</u>			
1. Enforcement and Maintenance of TPDES Requirements for Duration of Contract	1 LS	\$ 2,500.00	\$ 2,500.00
2. Stabilized Construction Access (Spec. Item 4711)	1 EA	\$ 2,500.00	\$ 2,500.00
3. Reinforced Filter Fabric Fence (Spec. Item 4311)	1,500 LF	\$ 2.00	\$ 3,000.00
4. Solid sodding of Disturbed Area within Gaston Road Right-of-Way (final quantity to be determined by engineer as per field conditions)	250 SY	\$ 7.50	\$ 1,875.00
5. Hydro-mulch Seeding of disturbed areas (final quantity to be determined by engineer as per field conditions) (Spec. Item 4241)	1.0 AC	\$ 2,500.00	\$ 2,500.00
TOTAL, UNIT B			\$ 12,375.00
<u>UNIT C: TRENCH SAFETY PLAN</u>			
1. Design and submittal of Trench Safety plan for underground utilities; prepared and sealed by an engineer licensed by the State of Texas in accordance with the contract documents.	1 LS	\$ 2,000.00	\$ 2,000.00
TOTAL, UNIT C			\$ 2,000.00
<u>UNIT D: EXTRA PAY ITEMS</u>			
The following are to be used only when directed by the Engineer and approved by the Owner. Methods will be approved by the Engineer and will be paid for at the prescribed unit prices. Utilization of these items will depend on site conditions at the time of construction.			
1. Orange Protective Safety Fence (\$1.00 per LF minimum)	200 LF	\$ 2.00	\$ 400.00
2. Extra Clearing	1 AC	\$ 2,500.00	\$ 2,500.00
3. Containers to Haul and Dispose Off-Site Miscellaneous Debris and Trash (Containers shall have a minimum of 40 CY)	1 EA	\$ 1,000.00	\$ 1,000.00
TOTAL, UNIT D			\$ 3,900.00

Fort Bend County Municipal Utility District No. 34

F.M. 1093 12 Inch Water Line Relocation

Phase 1

Preliminary Construction Cost Estimate

February 2, 2016

ITEM	QUANTITY & UNIT	UNIT COST	ITEM TOTAL
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SUMMARY - F.M. 1093 12 INCH WATER LINE RELOCATION PHASE 1

UNIT A: WATER DISTRIBUTION SYSTEM			\$ 150,535.00
UNIT B: STORM WATER POLLUTION CONTROL			\$ 12,375.00
UNIT C: TRENCH SAFETY PLAN			\$ 2,000.00
UNIT D: EXTRA PAY ITEMS			\$ 3,900.00
TOTAL			\$ 168,810.00

ALTERNATE BID ITEMS

1. On-site Disposal of Excess Utility Excavation (includes disposal of said material at a location which the Contractor has a legal right and permission to dispose of said material)	1 LS	\$	\$
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Exhibit C


Fort Bend County Municipal Utility District No. 34

Schedules of Work and Estimated Date of Completion

(As Shown Below)

Bid Date:	February 15, 2016
FBCMUD No. 34 Board Approval:	February 23, 2016
Construction Start Date:	March 28, 2016
Construction Completion Date:	April 29, 2016

 2/8/16
Date
Fort Bend County

 1/26/16
Initial Date
Fort Bend MUD No. 34