



**PERMIT APPLICATION REVIEW FORM FOR
CABLE, CONDUIT, AND POLE LINE ACTIVITY
IN FORT BEND COUNTY**

**Fort Bend County
Engineering Department**
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytx.gov

- ☒ **Right of Way Permit**
☐ **Commercial Driveway Permit**

Permit No: 2018-20690

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

(1) COMPLETE APPLICATION FORM:

- ☒ a. Name of road, street, and/or drainage ditch affected.
☒ b. Vicinity map showing course of directions
☒ c. Plans and specifications

(2) BOND:

- ☐ County Attorney, approval when applicable.
- ☐ Perpetual bond currently posted. Bond No: _____ Amount: _____
- ☒ Performance bond submitted. Bond No: XXXXXXXXXX Amount: \$16,000.00
- ☐ Cashier's Check Check No: _____ Amount: _____

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Drainage District Approval

Date

We have reviewed this project and agree it meets minimum requirements.



Permit Administrator

5/24/2018

Date

**PERFORMANCE BOND COVERING ALL CABLE, CONDUIT AND/OR POLE LINE
ACTIVITY IN, UNDER, ACROSS OR ALONG FORT BEND COUNTY ROAD,
COMMERCIAL DRIVEWAY AND MEDIAN OPENINGS OR MODIFICATIONS
(AUTHORIZED)**

BOND NO [REDACTED]

THE STATE OF TEXAS §
COUNTY OF FORT BEND §

KNOW ALL MEN BY THESE PRESENTS:

THAT WE, Reddico Construction Co., Inc. whose (address, phone) is 10083 Airport Road, Conroe, Texas 77303 / 936-441-9500 , hereinafter called the Principal, and The Guarantee Company of North America USA, a Corporation existing under and by virtue of the laws of the state of Michigan and authorized to do an indemnifying business in the state of Texas, and whose principal office is located at (name/address/phone) One Towne Square, Suite 1470, Southfield, Michigan 48076 / 1-866-328-0567, whose officer residing in the State of Texas, authorized to accept service in all suits and actions brought whining said state is Richard Sauer and whose address is 350 Glenborough Dr., Suite 138, Houston, Texas 77067 / 832-446-3350, hereinafter called the Surety, and held and firmly bound unto , Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, in the full sum of Sixteen Thousand and No/100 Dollars (\$16,000.00) current, lawful money of the United States of America, to be paid to said Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, to which payment well and truly to be made and done, we, the undersigned, bind ourselves and each of us, our heirs, executors, administrators, successors, assigns, and legal representatives, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the above bounden principal contemplates laying, constructing, maintaining and/or repairing one or more cables, conduits, and/or pole lines in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend, and the State of Texas, under the jurisdiction of the Commissioners' Court of Fort Bend County, Texas, pursuant to the Commissioners' Court order adopted on the 1st day of December, A.D. 1980, recorded in Volume 13, of the Commissioners' Court Minutes of Fort Bend County, Texas, regulating same, which Commissioners' Court order is hereby referred to and made a part hereof for all purposes as though fully set out herein;

AND WHEREAS, the principal desires to provide Fort Bend County with a performance bond covering all such cable, conduit and/or pole line activity, commercial driveway and median openings or modifications;

NOW, THEREFORE, if the above bounden principal shall faithfully perform all its cable, conduit and/or pole line activity (including, but not limited to the laying, construction, maintenance and/or repair of cables, conduits and/or pole lines) in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend and State of Texas, under the jurisdiction of the Commissioners Court of Fort Bend County, Texas, pursuant to and in accordance with minimum requirements and conditions of the above mentioned Commissioners' Court order set forth and specified to be by said principal done and performed, at the time and in the manner therein specified, and shall pay over and make good and reimburse Fort Bend County, all loss and damages which Fort Bend County may sustain by reason of any failure or default on the part of said principal, then this obligation shall be null and void, otherwise to remain in full force and effect.

This bond is payable at the County Courthouse in the County of Fort Bend and State of Texas.

It is understood that at any time Fort Bend County deems itself insecure under this bond, it may require further and/or additional bonds of the principal.

EXECUTED this 9th day of May , 2018.

Reddico Construction Co., Inc.
PRINCIPAL


BY: Ryan Redd, Vice President

The Guarantee Compay of North America USA
SURETY


BY: Nancy T. Berry, Attorney-In-Fact



The Guarantee Company of North America USA
Southfield, Michigan

POWER OF ATTORNEY

NOW ALL BY THESE PRESENTS: That **THE GUARANTEE COMPANY OF NORTH AMERICA USA**, a corporation organized and existing under the laws of the State of Michigan, having its principal office in Southfield, Michigan, does hereby constitute and appoint

Richard D. Bright, Nancy T. Berry, Steven W Berry, Kimberly J. Smith, Marla Gentry
INSURICA TX Insurance Services, Inc.

its true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise.

The execution of such instrument(s) in pursuance of these presents, shall be as binding upon **THE GUARANTEE COMPANY OF NORTH AMERICA USA** as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at the principal office.

The Power of Attorney is executed and may be certified so, and may be revoked, pursuant to and by authority of Article IX, Section 9.03 of the By-Laws adopted by the Board of Directors of **THE GUARANTEE COMPANY OF NORTH AMERICA USA** at a meeting held on the 31st day of December, 2003. The President, or any Vice President, acting with any Secretary or Assistant Secretary, shall have power and authority:

1. To appoint Attorney(s)-in-fact, and to authorize them to execute on behalf of the Company, and attach the Seal of the Company thereto, bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof; and
2. To revoke, at any time, any such Attorney-in-fact and revoke the authority given, except as provided below
3. In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.
4. In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner - Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

Further, this Power of Attorney is signed and sealed by facsimile pursuant to resolution of the Board of Directors of the Company adopted at a meeting duly called and held on the 6th day of December 2011, of which the following is a true excerpt:

RESOLVED that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, contracts of indemnity and other writings obligatory in the nature thereof, and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, **THE GUARANTEE COMPANY OF NORTH AMERICA USA** has caused this instrument to be signed and its corporate seal to be affixed by its authorized officer, this 2nd day of October, 2015.



THE GUARANTEE COMPANY OF NORTH AMERICA USA

STATE OF MICHIGAN
County of Oakland

Stephen C. Ruschak, President & Chief Operating Officer

Randall Musselman, Secretary

On this 2nd day of October, 2015 before me came the individuals who executed the preceding instrument, to me personally known, and being by me duly sworn, said that each is the herein described and authorized officer of The Guarantee Company of North America USA; that the seal affixed to said instrument is the Corporate Seal of said Company; that the Corporate Seal and each signature were duly affixed by order of the Board of Directors of said Company.



Cynthia A. Takai
Notary Public, State of Michigan
County of Oakland
My Commission Expires February 27, 2024
Acting in Oakland County

IN WITNESS WHEREOF, I have hereunto set my hand at The Guarantee Company of North America USA offices the day and year above written.

I, Randall Musselman, Secretary of **THE GUARANTEE COMPANY OF NORTH AMERICA USA**, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by **THE GUARANTEE COMPANY OF NORTH AMERICA USA**, which is still in full force and effect.



IN WITNESS WHEREOF, I have thereunto set my hand and attached the seal of said Company this 9th day of May, 2018.

Randall Musselman, Secretary



TEXAS CONSUMER NOTICE

1. IMPORTANT NOTICE

To obtain information or make a complaint:

- You may contact your **agent** at:
- You may call The Guarantee Company of North America USA's toll-free telephone number for information or to make a complaint at: 1-866-328-0567

- You may also write to The Guarantee Company of North America USA at:

One Towne Square, Suite 1470
Southfield, Michigan 48076
Web: www.theguaranteeus.com
E-mail: Info@theguaranteeus.com
Fax: 248-750-0431

- You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at: 1-800-252-3439

- You may write the Texas Department of Insurance:
333 Guadalupe Street
P.O. Box 149104
Austin, TX 78701
Fax: (512) 490-1007
Web: <http://www.tdi.texas.gov>
E-mail: ConsumerProtection@tdi.texas.gov

7. PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim you should contact the (agent) (company) (agent or the company) first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

8. ATTACH THIS NOTICE TO YOUR POLICY:

This notice is for information only and does not become a part or condition of the attached document.

AVISO IMPORTANTE

Para obtener informacion o para someter una queja:

Puede comunicarse con su **agente** al

Usted puede llamar al numero de telefono gratis de The Guarantee Company of North America USA's para informacion o para someter una queja al: 1-866-328-0567

Usted tambien puede escribir a to The Guarantee Company of North America USA;

One Towne Square, Suite 1470
Southfield, Michigan 48076
Web: www.theguaranteeus.com
E-mail: Info@theguaranteeus.com
Fax: 248-750-0431

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de companies, coberturas, derechos o quejas al: 1-800-252-3439

Puede escribir al Departamento de Seguros de Texas:
333 Guadalupe Street
P.O. Box 149104
Austin, TX 78701
Fax: (512) 490-1007
Web: <http://www.tdi.texas.gov>
E-mail: ConsumerProtection@tdi.texas.gov

DISPUTAS SOBRE PRIMAS O RECLAMOS:

Si tiene una disputa concerniente a su prima o a un reclamo, debe comunicarse con el (agente) (la compania) agente o la compania) primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI).

UNA ESTE AVISO A SU POLIZA: Este aviso es solo para proposito de informacion y no se convierte en parte o condicion del document adj unto.

HARRIS-FORT BEND COUNTIES
MUNICIPAL UTILITY DISTRICT NO. 5
WESTHEIMER PARKWAY
WATER LINE EXTENSION

WITHIN FORT BEND COUNTY, TEXAS
CONSTRUCTION PLANS FOR PROPOSED
WATER DISTRIBUTION IMPROVEMENTS

INDEX OF DRAWINGS

SHEET NO. DESCRIPTION

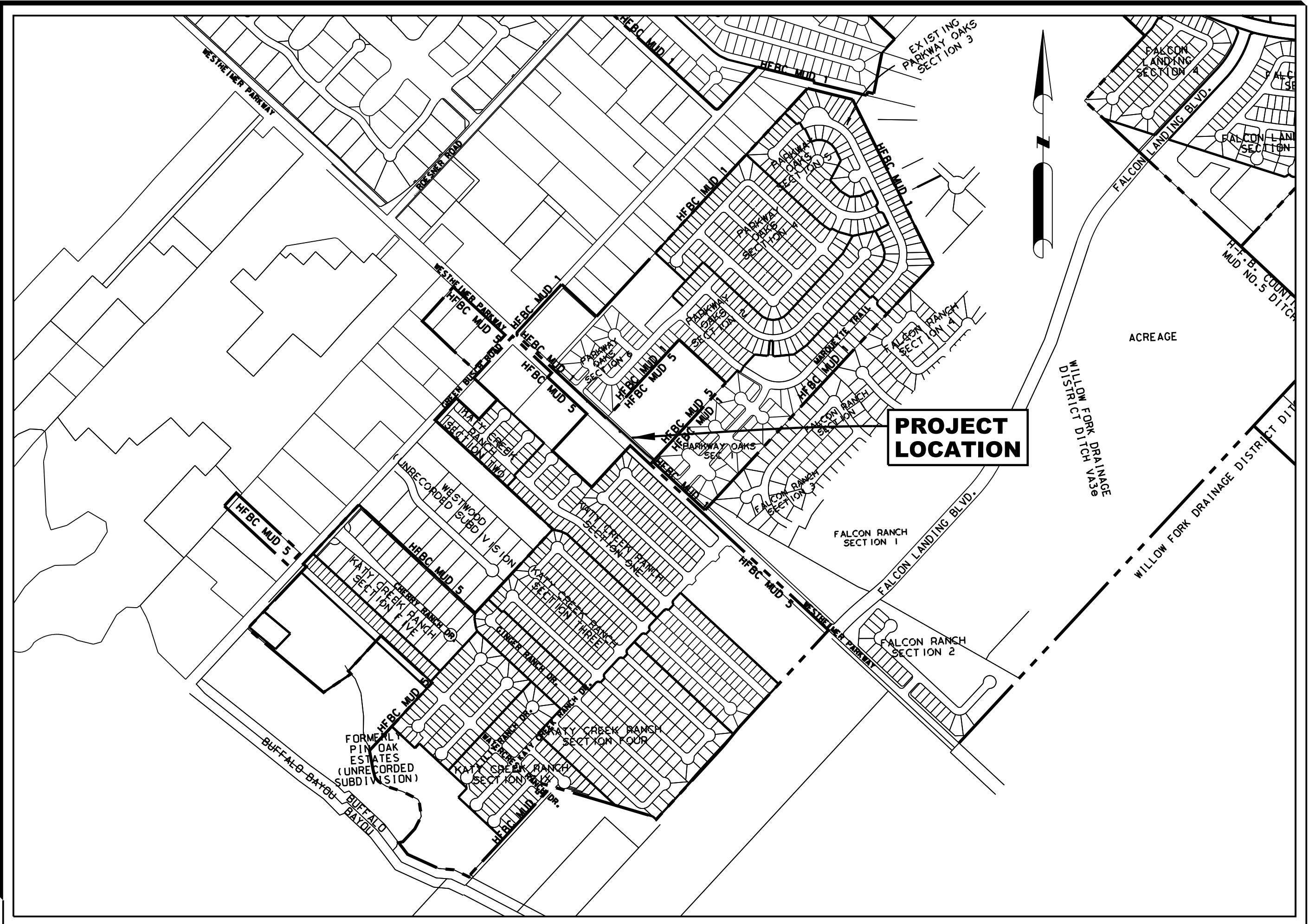
1. COVER SHEET
2. GENERAL NOTES
3. WATER LINE LAYOUT
4. SWPPP SITE PLAN

PLAN & PROFILES

5. WESTHEIMER PARKWAY STA. 0+00 TO STA. 5+00
6. WESTHEIMER PARKWAY STA. 5+00 TO STA. 10+00
7. WESTHEIMER PARKWAY STA. 10+00 TO STA. 15+00

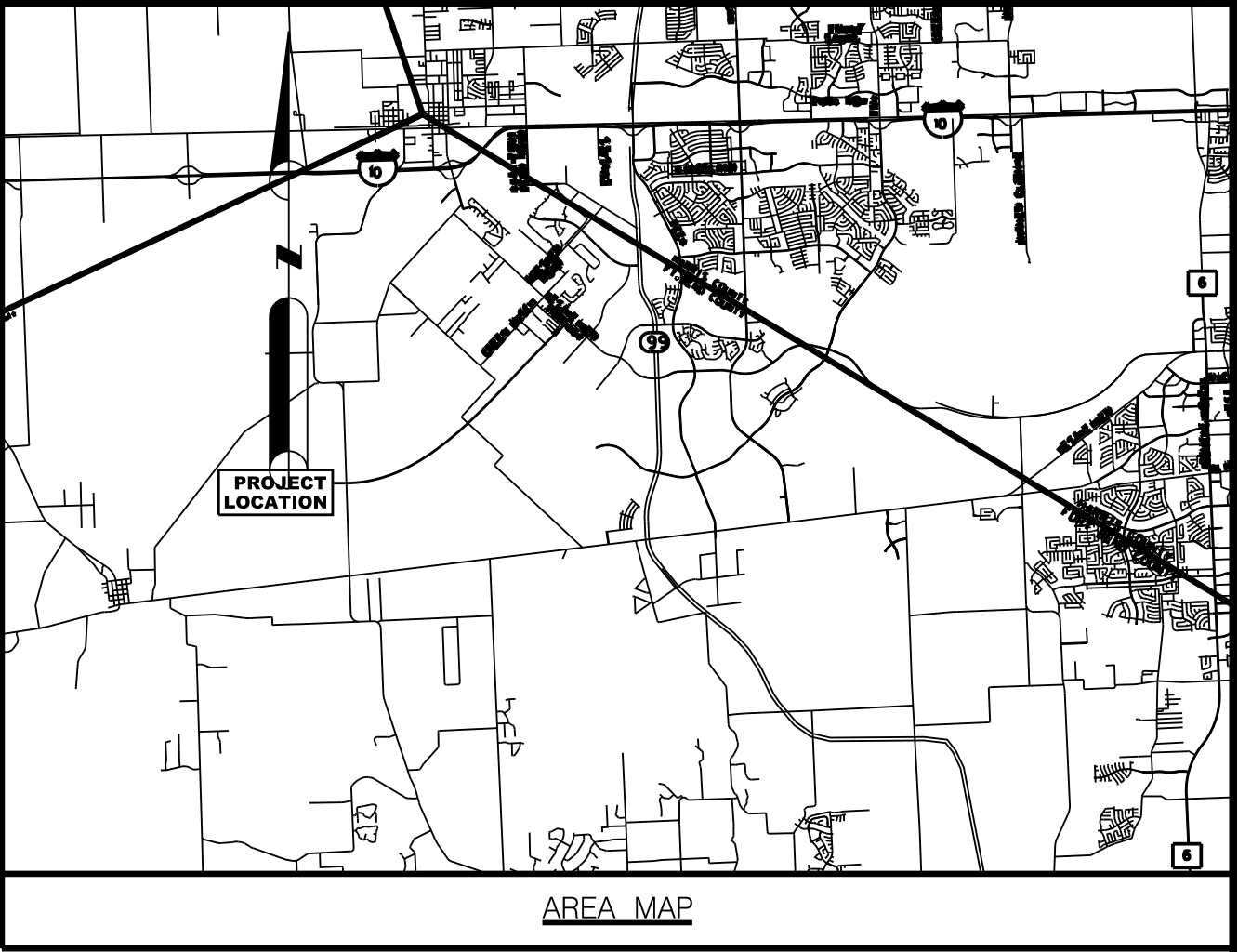
DETAILS

8. WATER DETAILS, RAMP DETAILS
9. SWPPP DETAILS
10. TRAFFIC CONTROL PLAN DETAILS



KEY MAP: 485 N
GMS: X
COUNTY: FORT BEND
ZIP CODE: 77494

VICINITY MAP



AREA MAP

FORT BEND COUNTY ENGINEER

ENGINEER: *Richard Stolletsky, P.E.*
FOR RICHARD STOLLETSKY P.E.

DATE: 5/2/18

THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN (1) YEAR FROM DATE OF APPROVAL.

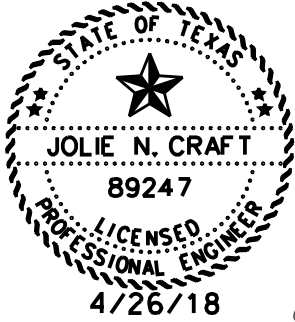
APPROVAL IS IMPLIED FOR IMPROVEMENTS WITHIN FORT BEND COUNTY RIGHTS OF WAY ONLY. UTILITY LINES APPROVED AS TO LOCATION ONLY. AUTHORIZATION IS VALID FOR 1 YEAR.

APPROVED: *[Signature]*
DEVELOPMENT COORDINATOR

DATE: 4/30/18



VanDeWiele & Vogler Incorporated
Consulting Engineers
2925 Briarpark, Suite 275
Houston, Texas 77042
713/782-0042
www.vandewiele-eng.com



SURVEYED BY: FB NO.:
NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	
CITY ENGINEER	FOR CITY OF HOUSTON USE ONLY CITY DWG NO.:
DIRECTOR OF PUBLIC WORKS AND ENGINEERING	PUBLIC WORKS AND ENGINEERING ACCEPTED AND FILED 60314 CITY DRAWING NUMBER Approval Date 4/23/2018 HOUSTON TX
SHEET No: 1	OF 10

ILMS NO: 17144984

H-FBC MUD NO 5
WESTHEIMER PRKWAY WATER LINE

Job: Jolice
Date: 5/8/2018
Time: 9:26 AM
Project: 281-633-7514
Drawing: 60314-001
General Notes.dgn

CITY OF HOUSTON GENERAL NOTES – OUTSIDE CITY LIMITS

1. WATERLINES, WASTEWATER COLLECTION SYSTEM, AND DRAINAGE SYSTEMS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING 5/32 S "STANDARD CONSTRUCTION SPECIFICATIONS", DATED OCTOBER 2002, AND "STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING", DATED OCTOBER 2002 UNLESS OTHERWISE NOTED ON THESE PLANS. THE DESIGN IS CONSISTENT WITH THE MINIMUM STANDARDS ESTABLISHED IN THE 7/32 INFRASTRUCTURE DESIGN MANUAL 9/32 , DATED OCTOBER 2002.
2. 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 713-223-4567/800-245-4545 AND LONE STAR ONE CALL AT 800-669-8344 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER AND STORM WATER LINES. 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.
4. CONTRACTOR SHALL NOTIFY THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING, OFFICE OF THE CITY ENGINEER, 48 HOURS BEFORE STARTING WORK ON THIS PROJECT. TELEPHONE NO. 832-394-9093.
5. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO PRE-EXISTING CONDITIONS OR BETTER.
6. CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.

FORT BEND COUNTY CONSTRUCTION-GENERAL NOTES

1. FORT BEND COUNTY MUST BE INVITED TO THE PRE-CONSTRUCTION MEETING.
2. CONTRACTOR SHALL NOTIFY FORT BEND COUNTY ENGINEERING DEPARTMENT 48 HOURS PRIOR TO COMMENCING CONSTRUCTION AND 48 HOUR NOTICE TO ANY CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF THE PAVING AT CONSTRUCTION@FORTBENDCOUNTYTX.GOV
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FROM FORT BEND COUNTY PRIOR TO COMMENCING CONSTRUCTION OF ANY IMPROVEMENTS WITHIN COUNTY ROAD RIGHT OF WAYS.
4. ALL PAVING IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FORT BEND COUNTY "RULES, REGULATIONS AND REQUIREMENTS" RELATING TO THE APPROVAL AND ACCEPTANCE OF IMPROVEMENTS IN SUBDIVISIONS AS CURRENTLY AMENDED.
5. ALL ROAD WIDTHS, CURB RADIUS AND CURB ALIGNMENT SHOWN INDICATES BACK OF CURB.
6. A CONTINUOUS LONGITUDINAL REINFORCING BAR SHALL BE USED IN THE CURBS.
7. ALL CONCRETE PAVEMENT SHALL BE 5 1/2 SACK CEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT EACH CURB RETURN AND AT A MAXIMUM SPACING OF 60 FEET.
8. ALL WEATHER ACCESS TO ALL EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
9. 4"x 12" REINFORCED CONCRETE CURB SHALL BE PLACED IN FRONT OF SINGLE FAMILY LOTS ONLY. ALL OTHER AREAS SHALL BE 6" REINFORCED CONCRETE CURB.
10. AT ALL INTERSECTION LOCATIONS, TYPE 7 RAMPS SHALL BE PLACE IN ACCORDANCE WITH TXDOT PED-12A STANDARD DETAIL SHEET. A.D.A. HANDICAP RAMPS SHALL BE INSTALLED WITH STREET PAVING AT ALL INTERSECTIONS AND COMPLY WITH CURRENT A.D.A. REGULATIONS.
11. CURB HEADERS ARE REQUIRED AT CURB CONNECTIONS TO HANDICAP RAMPS, WITH NO CONSTRUCTION JOINT WITHIN 5' OF RAMPS.
12. ALL INTERSECTIONS UTILIZING TRAFFIC CONTROL MEASURES SHALL HAVE A.D.A. WHEEL CHAIR RAMPS INSTALLED.
13. GUIDELINES ARE SET FORTH IN THE TEXAS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". AS CURRENTLY AMENDED, SHALL BE OBSERVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION BOTH DAY AND NIGHT.
14. ALL R-1 STOP SIGNS SHALL BE 30"x30" WITH DIAMOND GRADE SHEETING PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
15. STREET NAME SIGNAGE SHALL BE ON A 9" HIGH SIGN FLAT BLADE w/REFLECTIVE GREEN BACKGROUND. STREET NAMES SHALL BE UPPER AND LOWER CASE LETTERING WITH UPPER CASE. LETTERS OF 6" MINIMUM AND LOWERCASE LETTERS OF 4.5" MINIMUM. THE LETTERS SHALL BE REFLECTIVE WHITE. STREET NAME SIGNS SHALL BE MOUNTED ON STOP SIGN POST.
16. A BLUE DOUBLE REFLECTORIZED BUTTON SHALL BE PLACED AT ALL FIRE HYDRANT LOCATIONS. THE BUTTON SHALL BE PLACED 12 INCHES OFF OF THE CENTERLINE OF THE STREET ON THE SAME SIDE AS THE HYDRANT.
17. THE PROJECT AND ALL PARTS THEREOF SHALL BE SUBJECT TO INSPECTION FROM TIME TO TIME BY INSPECTORS DESIGNATED BY FORT BEND COUNTY. NO SUCH INSPECTIONS SHALL RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER. NEITHER FAILURE TO INSPECT NOR FAILURE TO DISCOVER OR REJECT ANY OF THE WORK AS NOT IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS, REQUIREMENTS AND SPECIFICATIONS OF FORT BEND COUNTY OR ANY PROVISION OF THIS PROJECT SHALL BE CONSTRUED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR TO RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER.

SUPERSEDE ANY CONFLICTING NOTES. NOTE: FORT BEND COUNTY NOTES

WATER LINE CONSTRUCTION NOTES:

1. ALL WATER MAINS FOUR (4) INCHES THRU TWELVE (12) INCHES IN DIAMETER, IF NOT SPECIFIED OTHERWISE, SHALL BE AWWA C-900 PVC PIPE, CLASS 150, DR18, WITH RUBBER GASKETED BELL AND SPIGOT PUSH ON JOINTS.
2. ALL VALVES SHALL BE RESILIENT SEAT GATE VALVES UNLESS OTHERWISE NOTED AND SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C-509.
3. ALL WATER LINES SHALL BE ENCASED IN BANK SAND, AND BEDDED AND BACKFILLED IN ACCORDANCE WITH CITY OF HOUSTON STANDARD CONSTRUCTION DETAIL NO. 02317-04. COST OF BANK SAND TO BE INCLUDED IN UNIT COST FOR WATERLINE AND SHALL NOT BE PAID FOR DIRECTLY.
4. WHEN WATER LINES AND SANITARY SEWER LINES ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET (9') IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES, WHERE THE NINE FOOT (9') SEPARATION DISTANCE CANNOT BE ACHIEVED, THE GUIDELINES SET FORTH IN THE CITY OF HOUSTON "INFRASTRUCTURE DESIGN MANUAL" (OCTOBER 2002) CHAPTER 7.03J AS CURRENTLY AMENDED SHALL GOVERN.
5. ALL WATER LINE TRENCHES LOCATED UNDER OR WITHIN ONE FOOT (1') OF PROPOSED OR FUTURE PAVEMENT SHALL BE BACKFILLED WITH BANK SAND TO WITHIN ONE FOOT (1') OF SUBGRADE. NO SEPARATE PAY. (LAB DENSITY TEST REPORTS ARE REQUIRED PRIOR TO PLACEMENT OF PAVEMENT.)
6. WATER LINE SHALL BE CONSTRUCTED SUCH THAT ALL CROSSES AND TEES WILL NOT BE LOCATED UNDER PROPOSED OR FUTURE PAVING.
7. WHERE A WATER LINE OR LEAD CROSSES OR COMES WITHIN 9 FEET OF AN EXISTING SANITARY SEWER OR SANITARY SEWER LEAD AND THAT SANITARY SEWER IS FOUND TO BE LEAKING, REPLACE A 20 FOOT SECTION OF THE SEWER WITH C900 DR 18 PVC OR DUCTILE IRON PIPE CENTERED ON THE CLOSEST POINT.
8. PROPOSED WATER LINES CROSSING OVER EXISTING SANITARY SEWER LINES MUST HAVE A FULL LENGTH JOINT (20' NOMINAL) CENTERED AT THE CROSSING WITH A MINIMUM SEPARATION DISTANCE OF ONE FOOT (1'). PROPOSED WATER LINES CROSSING UNDER EXISTING SANITARY SEWER LINES MUST HAVE A FULL LENGTH JOINT (20' NOMINAL) CENTERED AT THE CROSSING WITH A MINIMUM SEPARATION DISTANCE OF TWO FEET (2') AND RESTRAINED JOINTS AT EACH END OF PIPE SECTION.
9. ALL FIRE HYDRANTS SHALL BE LOCATED AS SHOWN ON THE PLANS AND SET THREE FEET (3') BEHIND BACK OF CURB (EXCEPT WITHIN ESPLANADES; WHERE FIRE HYDRANTS SHALL BE SEVEN FEET (7') BEHIND BACK OF CURB) AND WITH STREAMER NOZZLE 22 INCHES ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON PLANS.
10. UTILITY CONTRACTOR TO TURN FIRE HYDRANTS AND MAKE ALL FINAL ADJUSTMENTS AFTER COMPLETION OF PAVING. (NO SEPARATE PAY)
11. SANITARY PRECAUTIONS MUST BE TAKEN DURING WATERLINE CONSTRUCTION AND APPROVED BY THE CONTRACTOR AND CITY OF HOUSTON STANDARD CONSTRUCTION SPECIFICATION NO.02514.
12. NEW MAINS SHALL BE THOROUGHLY DISINFECTED IN ACCORDANCE WITH AWWA SPECIFICATIONS C-651 AND THEN FLUSHED AND SAMPLED BEFORE BEING PLACED IN SERVICE. SAMPLES SHALL BE COLLECTED FOR BACTERIOLOGICAL ANALYSIS TO CHECK THE EFFICIENCY OF THE DISINFECTING PROCEDURE, WHICH SHALL BE REPEATED IF CONTAMINATION PERSISTS. A MINIMUM ONE SAMPLE FOR EACH 1,000 FEET OF COMPLETED WATER MAIN WILL BE REQUIRED. WATER SAMPLES MUST MEET TEXAS STATE DEPARTMENT OF HEALTH AND CITY OF HOUSTON REQUIREMENTS PRIOR TO PLACING THE LINES INTO SERVICE.
13. ALL WATER LINES TO BE HYDROSTATICALLY TESTED BY CONTRACTOR AT 125 PSI IN ACCORDANCE WITH CITY OF HOUSTON STANDARD CONSTRUCTION SPECIFICATION NO. 02515 AS CURRENTLY AMENDED.

PROTECTION REQUIREMENTS AT WATER LINE (WL) - SANITARY SEWER (SS) CROSSINGS									
PROPOSED WATERLINE					PROPOSED SANITARY SEWER				
COVER		UNDER			COVER		UNDER		
EXISTING SS	PROP SS	EXISTING WL	PROP WL	PROP SS	EXISTING WL	PROP WL	EXISTING WL	PROP WL	
Minimum 2 feet vertical clearance	✓	✓	✓	✓	✓	✓	✓	✓	✓
Place 1 full section (min 18 ft) of WL centered at SS Crossing. Provide restrained joints on WL, spaced at least 9 ft horizontally from centerline of SS	✓	✓	✓	✓	✓	✓	✓	✓	✓
Place 1 full section (min 18 ft) of SS centered at WL Crossing. Provide restrained joints on SS, spaced at least 9 ft horizontally from centerline of WL		✓					✓	✓	✓
Replace 1 full section of existing SS with pressure-rated DWP or pressure-rated PVC pipe with adapters and restrained joints centered at WL crossing	✓	✓							
Provide DIP for small diameter WL (less than 24 inches). PVC pipe is only allowed if encased in per I.M.C. § 200-44, and use restrained joints for both DIP and PVC pipe			✓	✓		✓			
Embed SS with CSS for the total length of 1 pipe segment plus 1 foot beyond the joints on each end	✓	✓	✓	✓		✓	✓	✓	✓
Place 1 full section (min 18 ft) of min 150 psi SS centered at WL crossing. Provide restrained joints on SS, spaced at least 9 ft horizontally from centerline of WL or encase in a joint of 150 psi pressure pipe (min 18 ft) two nominal sizes larger with spacers at 5 ft interval	✓	✓	✓	✓		✓			

1. Minimum clearance is 2 feet for non-pressure rated SS and 1 foot for pressure rated SS
2. Required if existing SS is disturbed and/or there is evidence of leakage
3. Not required for augered WL unless there is evidence of leakage; completely fill augered hole with bentonite-clay mixture
4. Not required for augered SS; completely fill augered hole with bentonite-clay mixture

Notes:

a. Both water lines and wastewater main or lateral must pass a pressure and leakage test as specified in AWWA C900 standards

b. Sanitary sewers (SS) is applicable to both gravity sanitary sewers and force mains.

GENERAL CONSTRUCTION NOTES:

1. CONTRACTOR SHALL OBTAIN ALL DEVELOPMENT, RIGHT-OF-WAY AND CONSTRUCTION PERMITS REQUIRED BY THE REGULATIONS OF FORT BEND COUNTY, TEXAS AT HIS EXPENSE PRIOR TO COMMENCEMENT OF WORK. THE ENGINEER WILL ASSIST THE CONTRACTOR IN COMPLETING THE PERMIT APPLICATION.
2. CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES OR RAILROADS AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK. REQUIRED PERMITS THAT CAN BE ISSUED TO CONTRACTOR WILL BE OBTAINED AT HIS EXPENSE.
3. CONTRACTOR SHALL NOTIFY FORT BEND COUNTY ENGINEERING DEPARTMENT IN WRITING FORTY EIGHT (48) HOURS IN ADVANCE OF COMMENCING CONSTRUCTION, 24 HRS IN ADVANCE AT TELEPHONE NUMBER (281-633-7514).
4. ALL TEMPORARY AND PERMANENT SIGNAGE MUST COMPLY WITH THE MOST CURRENT EDITION OF THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AS CURRENTLY AMENDED. GUIDELINES SET FORTH IN THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" SHALL BE OBSERVED.
5. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF JOB, SHALL BE AS GOOD OR BETTER THAN THE CONDITION PRIOR TO STARTING WORK.
6. EXISTING PAVEMENTS, CURBS, SIDEWALKS, AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPAIRED TO HARVEST COUNTY DESIGN AND CONSTRUCTION STANDARDS AS CURRENTLY AMENDED AT CONTRACTOR'S EXPENSE.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING THE MUD AND/OR DIRT DEPOSITED ON EXISTING PAVEMENT DUE TO HIS CONSTRUCTION ACTIVITY ON A DAILY BASIS. NO SEPARATE PAY.
8. SEWER MATERIALS, CONSTRUCTION AND TESTING SHALL BE IN COMPLIANCE WITH THE CITY OF HOUSTON "STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING" (OCTOBER 2002) INCLUDING ALL REVISIONS AND AMENDMENTS THERETO. CONTRACTOR SHALL PROVIDE ALL NECESSARY TEST EQUIPMENT AT NO SEPARATE PAY.
9. CONTRACTOR SHALL REMOVE EXISTING PLUGS AND CONNECT TO EXISTING UTILITY LINES AS INDICATED ON PLANS. NO SEPARATE PAY.
10. MANHOLE RIM ELEVATIONS SHALL BE TWO (2) INCHES ABOVE A STRAIGHT LINE FROM TOP OF CURB TO FINISHED GRADE ELEVATION AT RIGHT-OF-WAY LINE, UNLESS OTHERWISE NOTED ON THESE PLANS.
11. NO MANHOLES SHALL BE LOCATED WITHIN PAVING LIMITS, UNLESS OTHERWISE NOTED ON THESE PLANS.
12. WHEN TRENCH CONDITIONS REQUIRE THE USE OF WELL POINTS, THIS SHALL BE CALLED FOR BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. MEASUREMENT AND PAYMENT OF THESE ITEMS SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION NO. 1 TO SPECIFICATIONS FOR SEWER CONSTRUCTION.
13. ALL AREAS AFFECTED BY CONTRACTOR'S OPERATIONS, INCLUDING BUT NOT LIMITED TO ACCESS ROADS, AREAS OF MATERIAL AND EQUIPMENT STORAGE, AND ALL CONSTRUCTION AREAS, SHALL BE STRIPPED OF ALL VEGETATION PRIOR TO COMMENCEMENT OF WORK. STRIPPINGS SHALL BE DISPOSED OF OFFSITE BY THE CONTRACTOR. NO SEPARATE PAY.
14. ALL EXISTING SWALES TO BE CLEANED AND MUCKED FREE FROM ANY VEGETATION PRIOR TO PLACEMENT OF FILL MATERIAL.
15. FINAL ACCEPTANCE OF THE UTILITIES WILL NOT BE GIVEN TO THE CONTRACTOR UNTIL THEY ARE INSPECTED AND APPROVED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY.
16. ALL TRENCH BACKFILL FOR UTILITIES SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY PER ASTM D-998. MOISTURE CONTENTS SHALL BE WITHIN 2% OF OPTIMUM. ALL TRENCH BACKFILL SHALL BE CONSIDERED INCIDENTAL TO UTILITY CONSTRUCTION.
17. ALIGNMENT, CENTERLINE CURVE DATA AND STATIONING TO BE VERIFIED FROM APPROVED SUBDIVISION PLAT OR APPROVED PLAT OR RECORDED INSTRUMENT FOR OFFSITE EASEMENTS.

NOTE: "AUTHORIZATION NOTICE ISSUED BY FORT BEND COUNTY ENGINEERING DEPARTMENT REQUIRED PRIOR TO CONSTRUCTION OF UTILITIES OR LEFT TURN LANES WITHIN FORT BEND COUNTY RIGHT-OF-WAY." CONTACT FORT BEND COUNTY ENGINEERING DEPARTMENT AT TELEPHONE NUMBER 281-633-7500 OR 281-633-7514.

ENERGY TRANSFER COMPANY:

1. NOTIFICATION
- A. THE PARTY REQUESTING SUCH CROSSING SHALL USE ITS BEST EFFORTS TO PROVIDE, ETC WITH ITS FINALIZED PLANS AND PROFILE DRAWINGS AT LEAST THIRTY (30) DAYS PRIOR TO ANY RELATED CONSTRUCTION OR MAINTENANCE ACTIVITY. THE PIPELINE FACILITY SHALL INCLUDE, BUT IS NOT LIMITED TO, RIGHTS-OF-WAY, FEE PROPERTIES, EASEMENTS, PIPELINES, METER AND REGULATOR BUILDINGS, AND VALVE SITES ("ETC PIPELINE FACILITY" OR "FACILITIES") UNLESS OTHERWISE AGREED TO BY ETC IN WRITING. NO EQUIPMENT SHALL BE ONTO ETC'S PIPELINE FACILITY UNLESS AN ETC REPRESENTATIVE IS ON LOCATION.
- B. NO EXCAVATION SHALL OCCUR IN THE VICINITY OF ETC'S PIPELINE FACILITY UNTIL:
- 1) IN ACCORDANCE WITH THE TEXAS ADMINISTRATIVE CODE CHAPTER 18 AND STATE APPROVED NOTIFICATION CENTERS, ETC SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF ANY CONSTRUCTION OR MAINTENANCE ACTIVITY. ETC CURRENTLY UTILIZES THE TEXAS811.ORG (TEXAS811) AS ITS NOTIFICATION CENTER. YOU MUST CONTACT THE TEXAS811 NOTIFICATION CENTER AT 811. IN ADDITION TO CONTACTING ETC'S FIELD REPRESENTATIVE KORY PATRON AT (281) 850-1417, BEFORE COMMENCING ANY CROSSING AT OR NEAR ETC'S PIPELINE FACILITY; AND
- 2) UNLESS OTHERWISE AGREED TO BY ETC IN WRITING, AN ETC INSPECTOR'S ON SITE TO MONITOR THE EXCAVATION ACTIVITIES.

UTILITY NOTES:

- CENTERPOINT ENERGY
WARNING: OVERHEAD ELECTRICAL FACILITIES
- OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH AND SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE 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 713-207-7777.
- CENTERPOINT ENERGY
CAUTION: UNDERGROUND GAS FACILITIES
- LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE UNIT GAS TRANSMISSION AND/OR INDUSTRIAL GAS SUPPLY CORPORATION 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 713-223-4567 OR 1-800-669-8344 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
- * WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL 713-967-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
- * WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
- * WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENTED EXCESSIVE STRESS ON THE PIPING.
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.
- AT&T TRANSMISSION
THE CONTRACTOR SHALL CALL ABRAHAM MONTEMAYOR TWO(2) HOURS PRIOR TO EXCAVATION IN ROESNER ROAD: 832-520-6756

KINDER MORGAN
THE CONTRACTOR SHALL CALL KINDER MORGAN MISSOURI CITY TEXAS OPERATIONS OFFICE AT 281-866-1802 AND ISSUE A TEXAS ONE CALL PHONE NO.811 PRIOR TO CONSTRUCTION TO SCHEDULE A KINDER MORGAN DAMAGE PREVENTION INSPECTOR TO BE ON LOCATION WHEN WORK IS BEING CONDUCTED WITHIN 25 FEET OF THE HIGH PRESSURE NATURAL GAS PIPELINE.

BENCH MARK

REFERENCE BENCHMARK IS FLOODPLAIN REFERENCE MARK NO. 8000202, BEING A 15" x 15" x 15" CONCRETE BENCHMARK LOCATED AT MASON RD AND UPPER BUFFALO BAYOU LOCATED ON DOWNSTREAM CONCRETE WALL ON NORTHEAST CORNER OF BRIDGE IN KEMAP AREA. WATER WASHED NEAR STREAM 1700-00-001. ELEV.=+103.51' NAVD83.2001 ADJ.

TEMPORARY BENCHMARKS:
TEMPORARY BENCHMARK "a" BEING A CUT BOX ON INLET LOCATED ON THE NORTH ROW LINE OF WESTHEIMER PARKWAY. (SHOWN HEREON) ELEV.=+120.21'
TEMPORARY BENCHMARK "b" BEING A CUT BOX LOCATED ON THE MEDIAN OF WESTHEIMER PARKWAY. (SHOWN HEREON) ELEV.=+122.36'

NOTES

1. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
2. THIS PROJECT LIES WITHIN ZONE-X (UNSHADED) AS PER TEXAS ONE CALL (R.M. PANEL NO.48157C0045L & 48157C010L REVISED APRIL 2, 2014).
4. ALL PAVING DIMENSIONS ARE BACK OF CURB, UNLESS OTHERWISE NOTED.
5. ALL WATER LINE AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED PER CITY OF HOUSTON AND TCEQ REGULATIONS. SEE TABLE TITLED "PROTECTION REQUIREMENTS AT WATER LINE WL - SANITARY SEWER (SS) CROSSINGS" ON GENERAL NOTES SHEET.
6. THIS PROJECT REQUIRES A RIGHT-OF-WAY PERMIT FROM FORT BEND COUNTY.



APPROVAL IS IMPLIED FOR IMPROVEMENTS WITHIN FORT BEND COUNTY RIGHTS-OF-WAY ONLY. AUTHORIZATION IS VALID FOR 1 YEAR.

APPROVED: _____ DEVELOPMENT COORDINATOR
DATE: _____

TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED, CALL CENTERPOINT ENERGY AT 713-207-7777.
NOTE: For your safety, you are required by Texas law to call 811 at least 48 hours before you dig so that underground lines can be marked. This verification does not fulfil your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES

DATE: _____
CenterPoint Energy/Natural Gas Facilities Verification ONLY.
(This signature verifies that you have shown CPE Natural Gas lines correctly - not to be used for contact verification.) (Gas service lines are not shown.)
Signature valid for six months.

DATE: _____
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
(This signature verifies existing underground facilities - not to be used for contact verification.)
Signature valid for six months

DATE: _____
Approved for AT&T Texas/SWBFT underground conduit facilities only.
Signature valid for one year.

REVISION BLOCK

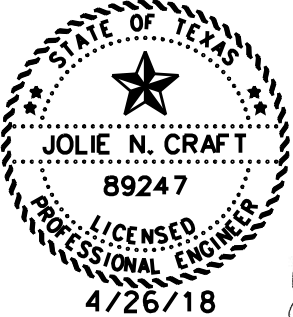
NO.	DATE	DESCRIPTION

VanDeWiele & Vogler Incorporated

Texas Professional Engineering Firm
Registration No.148

Consulting Engineers

2925 Briarpark, Suite 275
Houston, Texas 77042
713/782-0042
www.vandewiele-eng.com



HARRIS-FORT BEND COUNTIES
MUNICIPAL UTILITY DISTRICT No.5

WESTHEIMER PARKWAY
WATER LINE EXTENSION

GENERAL NOTES

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC AND TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

FILE NO: _____ FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE

HORZ : N.T.S.

VERT : _____

SHEET No: 2 OF 10

PUBLIC WORKS AND ENGINEERING
ACCEPTED AND FILED

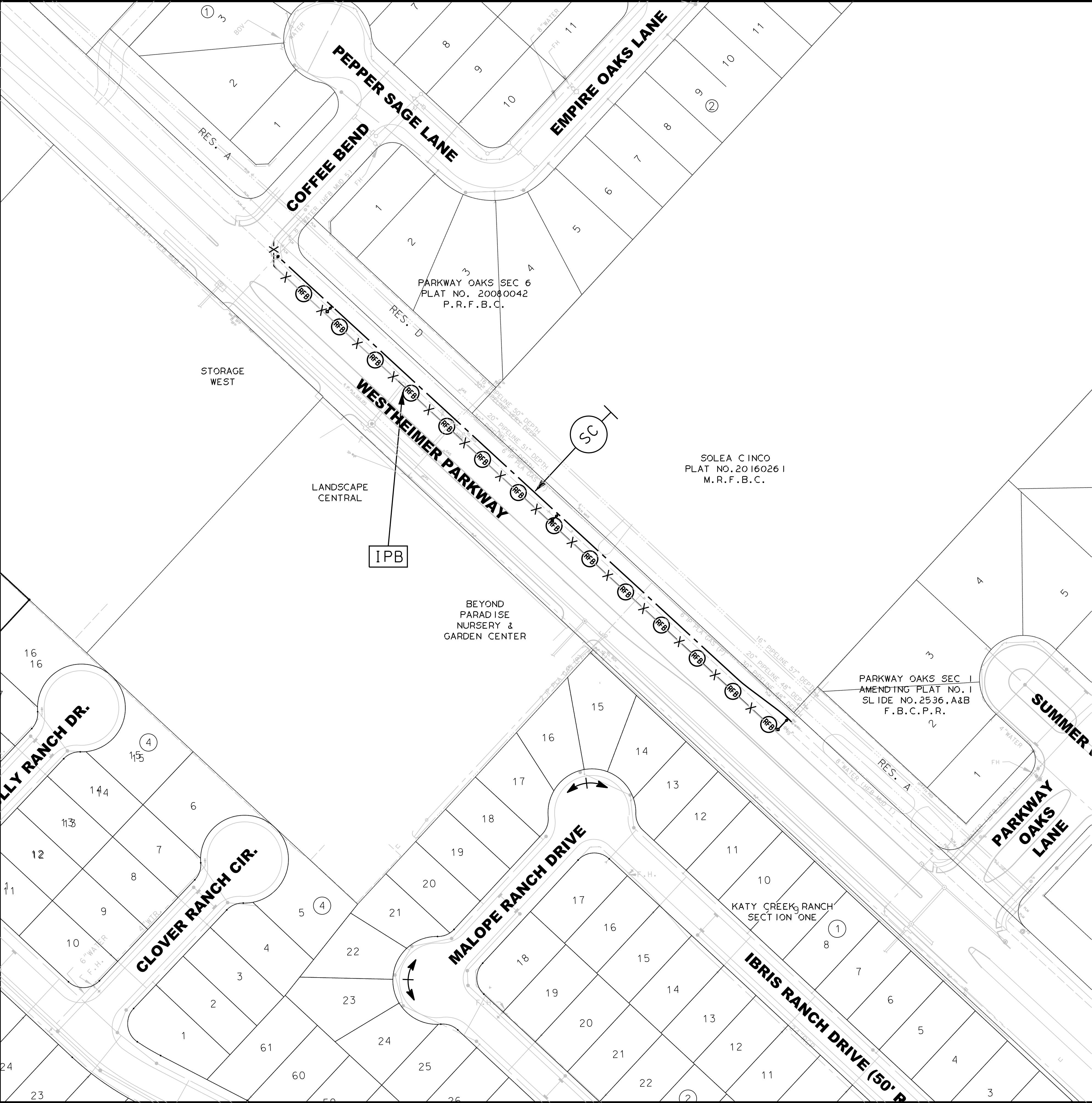
60314
CITY DRAWING NUMBER
Approval Date 4/23/2018

HOUSTON TX



P-2162

JolieC
8/3/2018 8:33:29 AM
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NOTES:

- 1.UNLESS OTHERWISE NOTED ALL INLET PROTECTION BARRIERS REQUIRE STAGE I AND STAGE II PROTECTION SEE STORMWATER POLLUTION PREVENTION DETAILS.
- 2.CONTRACTOR MAY DE-WATER THE SITE BY CONSTRUCTING A SEDIMENT SUMP PIT AS SHOWN ON THE SWPPP DETAILS AND DISCHARGING TO AN AREA PROTECTED BY A SEDIMENT TRAPPING DEVICE.
- 3.THE CONTRACTOR MUST ESTABLISH AN APPROPRIATE CONCRETE TRUCK WASHOUT AREA.

STORM WATER QUALITY PRE-CONSTRUCTION INSPECTION REQUIREMENTS

THE PROPERTY OWNER OR THE CONTRACTOR SHALL CONTACT THE HARRIS COUNTY STORM WATER QUALITY PERMITTING SECTION AT 713-316-3000 FOR A PRE-CONSTRUCTION INSPECTION PRIOR TO COMMENCING ANY CLEARING OR CONSTRUCTION ACTIVITIES ON THE SITE.

LEGEND

- PROP.STORM SEWER, MANHOLE & INLETS
- EXIST.STORM SEWER, MANHOLE & INLETS
- EXIST.CONTOUR LINE
- MIN. 2' BEHIND BACK OF CURB
- FILTER FABRIC FENCE
- REINFORCED FILTER FABRIC FENCE
- STRAW BALE FENCE
- VEGETATED SEDIMENT FILTER STRIP
- INLET PROTECTION BARRIERS FOR STAGE I INLETS
- INLET PROTECTION BARRIERS FOR STAGE II INLETS
- STABILIZED CONSTRUCTION ACCESS
- FD-TYPE
- ABOVE GROUND TEMP. VEHICLE & EQUIPMENT FUELING AREA OPTION 1 & 2
- BARREL STORAGE AREA
- CONCRETE TRUCK WASHOUT AREA
- DIVERSION DIKE
- INTERCEPTOR DIKE
- DIVERSION DIKE AND SWALE
- DIVERSION SWALE
- INTERCEPTOR SWALE

BENCH MARK

REFERENCE BENCHMARK IS FLOODPLAIN REFERENCE MARK NO. 480022 BEING BRASS BOLT 5" DIAMETER LOCATED ON BRIDGE AT MASQUED BEING UPPER BUFFALO BAYOU LOCATED ON DOWNEAST CONCRETE WALL ON NORTHEAST CORNER OF BRIDGE IN KEYMAP 4882 IN THE BAKER WATERSHED NEAR STREAM 1100-00-00. ELEV.=103.51' NAVD88.2001 ADJ.

TEMPORARY BENCHMARKS:

TEMPORARY BENCHMARK "A" BEING A CUT BOX ON INLET LOCATED ON THE NORTH ROW LINE OF WESTHEIMER PARKWAY. (SHOWN HEREON) ELEV.=120.21'

TEMPORARY BENCHMARK "B" BEING A CUT BOX LOCATED ON THE MEDIAN OF WESTHEIMER PARKWAY. (SHOWN HEREON) ELEV.=122.36'

NOTES

1. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. REPORT ANY DISCREPANCIES TO ENGINEER IMMEDIATELY.
2. THIS PROJECT LIES WITHIN ZONE-X (UNSHADED) AS PER REVISION APRIL 2, 2014.
3. ALL PAVING DIMENSIONS ARE BACK OF CURB, UNLESS OTHERWISE NOTED.
4. ALL WATER LINE AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED PER CITY OF HOUSTON AND TSD REGULATIONS. SEE TABLE TITLED "PROTECTION REQUIREMENTS AT WATER LINE AND SANITARY SEWER (SS) CROSSINGS" ON GENERAL NOTES SHEET.
5. THIS PROJECT REQUIRES A RIGHT-OF-WAY PERMIT FROM FORT BEND COUNTY.

APPROVED

APR 30 2018

Valid One Year From Date

ENGINEERING DEPARTMENT

APPROVAL IS IMPLIED FOR IMPROVEMENTS WITHIN FORT BEND COUNTY RIGHTS OF WAY ONLY. UTILITY LINES APPROVED AS TO LOCATION ONLY. AUTHORIZATION IS VALID FOR 1 YEAR.

APPROVED: DEVELOPMENT COORDINATOR

DATE:

TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED, CALL CENTERPOINT ENERGY AT 713-207-2222.

NOTICE:

For your safety, you are required by Texas law to call 811 at least 48 hours before you dig so that underground line can be marked. This verification does not fulfill your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES

DATE:

CenterPoint Energy/Natural Gas Facilities Verification ONLY. (This signature verifies that you have shown CNP Natural Gas lines correctly - not to be used for contact verification.) (Gas service lines are not shown) Signature valid for six months.

DATE:

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities - not to be used for contact verification) Signature valid for six months.

DATE:

Approved for AT&T Texas/SWB/T underground conduit facilities only. Signature valid for one year.

No.	DATE	DESCRIPTION

VanDeWiele & Vogler Incorporated

Consulting Engineers

Texas Professional Engineering Firm Registration No.F148

2925 Briarpark, Suite 275 Houston, Texas 77042 713/782-0042 www.vandewiele-eng.com

STATE OF TEXAS

JOLIE N. CRAFT

89247

PROFESSIONAL ENGINEER

4/26/18

HARRIS-FORT BEND COUNTIES MUNICIPAL UTILITY DISTRICT No.5

WESTHEIMER PARKWAY WATER LINE EXTENSION

SWPPP SITE PLAN

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON

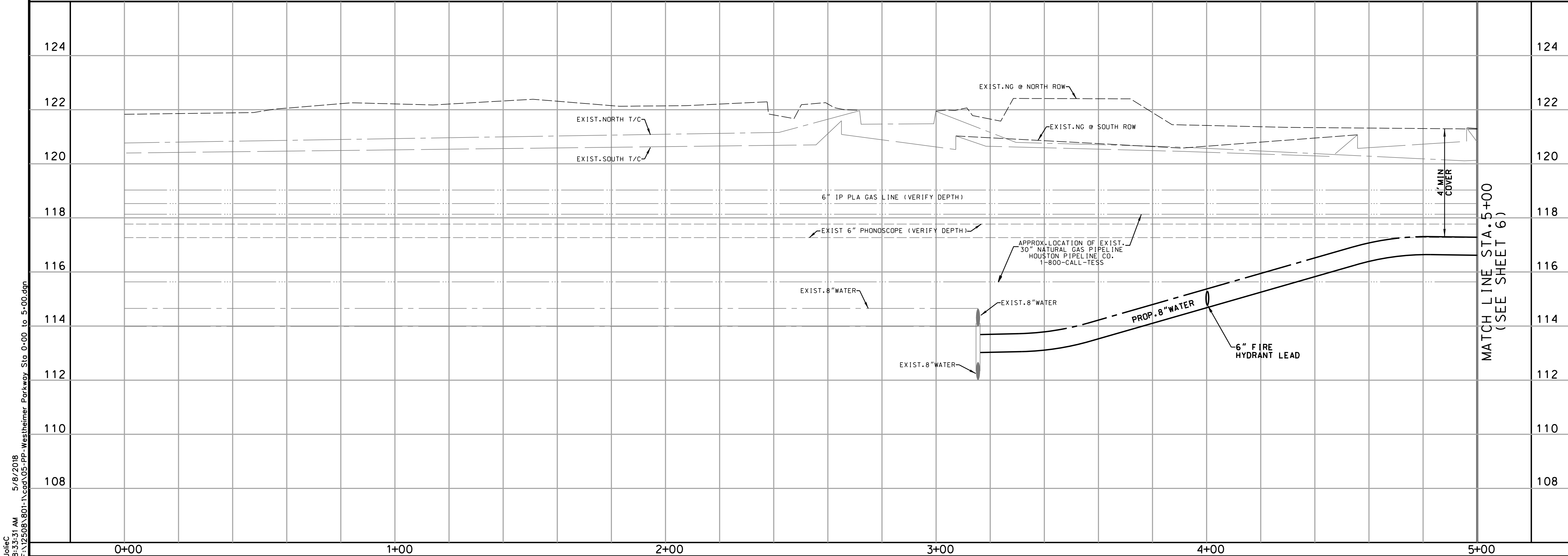
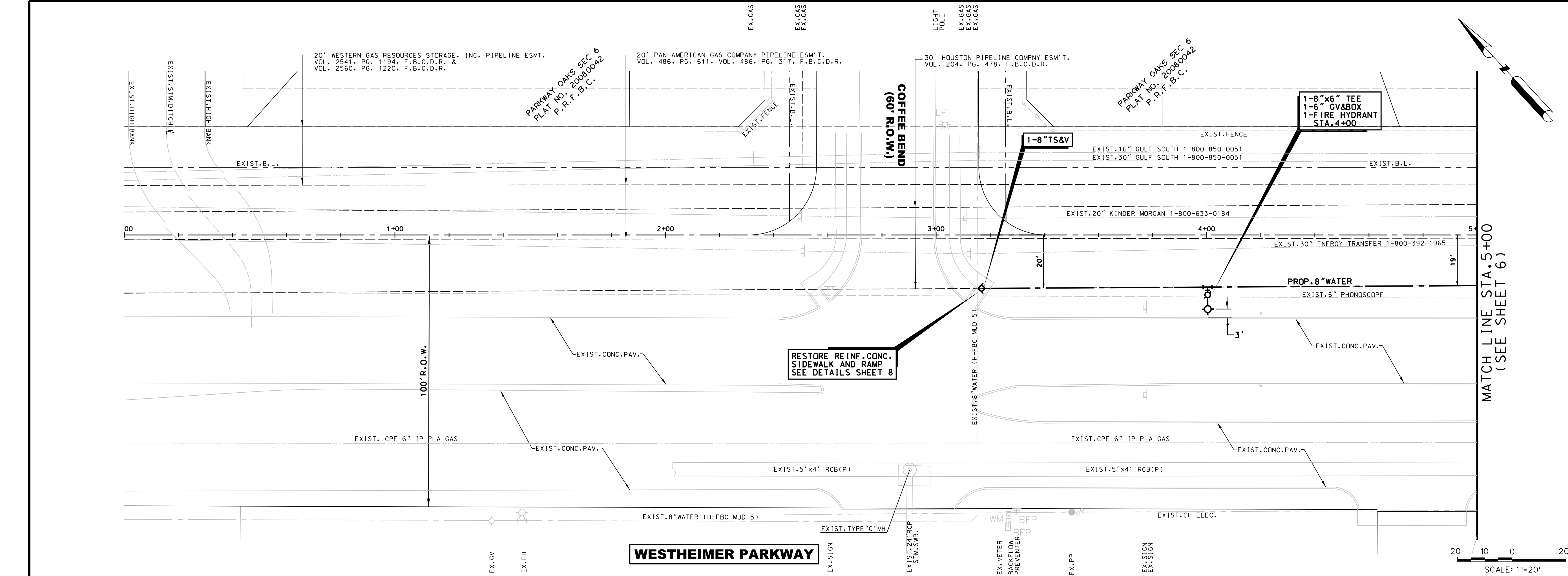
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC AND TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

FILE NO:	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	PUBLIC WORKS AND ENGINEERING ACCEPTED AND FILED
HORZ : 1"=60'	60314
VERT :	CITY DRAWING NUMBER
SHEET No: 4 OF 10	Approval Date 4/23/2018
	HOUSTON TX

P-2162

PRELIM BY: J.C. ON
JOB NO: 12508-801-1
FINAL BY:



BENCH MARK

REFERENCE BENCHMARK IS FLOODPLAIN REFERENCE MARK NO. 1500025 BEING BRASS DISK 5" DIAMETER LOCATED ON BRIDGE AT WASHO RD. BEING UPPER BUFFALO BAYOU LOCATED ON DOWNSIDE CONCRETE WALL ON NORTHEAST CORNER OF BRIDGE IN KEAMAP 4852 IN THE BAKER WATERSHED NEAR STREAM 1100-00-00. ELEV.=103.51' NAVD88.2001 ADJ.

TEMPORARY BENCHMARKS:

TEMPORARY BENCHMARK "A" BEING A CUT BOX ON INLET LOCATED ON THE NORTH ROW LINE OF WESTHEIMER PARKWAY. (SHOWN HEREON) ELEV.=120.21'

TEMPORARY BENCHMARK "B" BEING A CUT BOX LOCATED ON THE MEDIAN OF WESTHEIMER PARKWAY. (SHOWN HEREON) ELEV.=120.36'

NOTES

- CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. REPORT ANY DISCREPANCIES TO ENGINEER IMMEDIATELY.
- THIS PROJECT LIES WITHIN ZONE-X (UNSHADED) AS PER REVISED APRIL 2, 2014.
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- THIS PROJECT REQUIRES A RIGHT-OF-WAY PERMIT FROM FORT BEND COUNTY.

APPROVED:

DATE: _____

TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED, CALL CENTERPOINT ENERGY AT 713-207-2222.

NOTICE:

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VERIFICATION OF PRIVATE UTILITY LINES

DATE: _____

CenterPoint Energy/Natural Gas Facilities Verification ONLY.
(This signature verifies that you have shown CPE Natural Gas lines correctly - not to be used for contact verification.) (Gas service lines are not shown)
Signature valid for six months.

DATE: _____

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
(This signature verifies existing underground facilities - not to be used for contact verification)
Signature valid for six months.

DATE: _____

Approved for AT&T Texas/SWB/T underground conduit facilities only.
Signature valid for one year.

REVISION BLOCK		
No.	DATE	DESCRIPTION

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STATE OF TEXAS

JOLIE N. CRAFT
89247
LICENSED PROFESSIONAL ENGINEER
4/26/18

HARRIS-FORT BEND COUNTIES MUNICIPAL UTILITY DISTRICT No.5

WESTHEIMER PARKWAY WATER LINE EXTENSION

PLAN & PROFILE WESTHEIMER PARKWAY STA. 0+00 TO STA. 5+00

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC AND TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

FILE NO: _____

DRAWING SCALE _____

HORIZ : _____

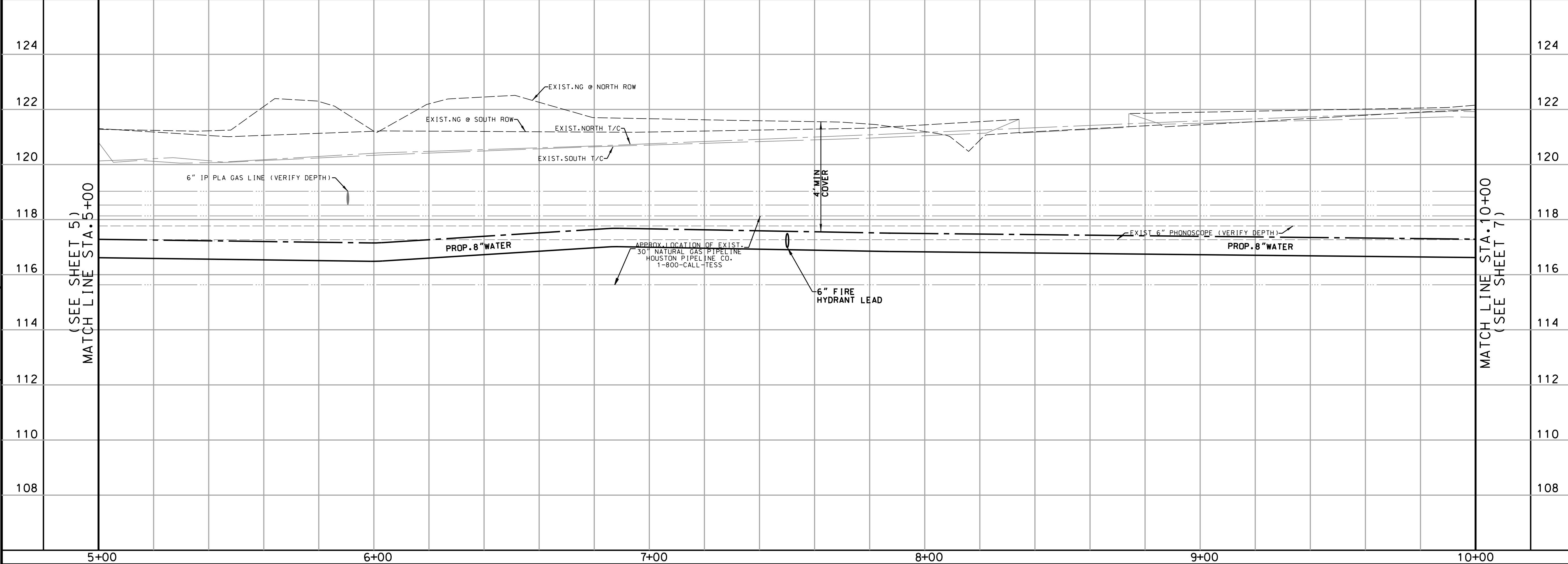
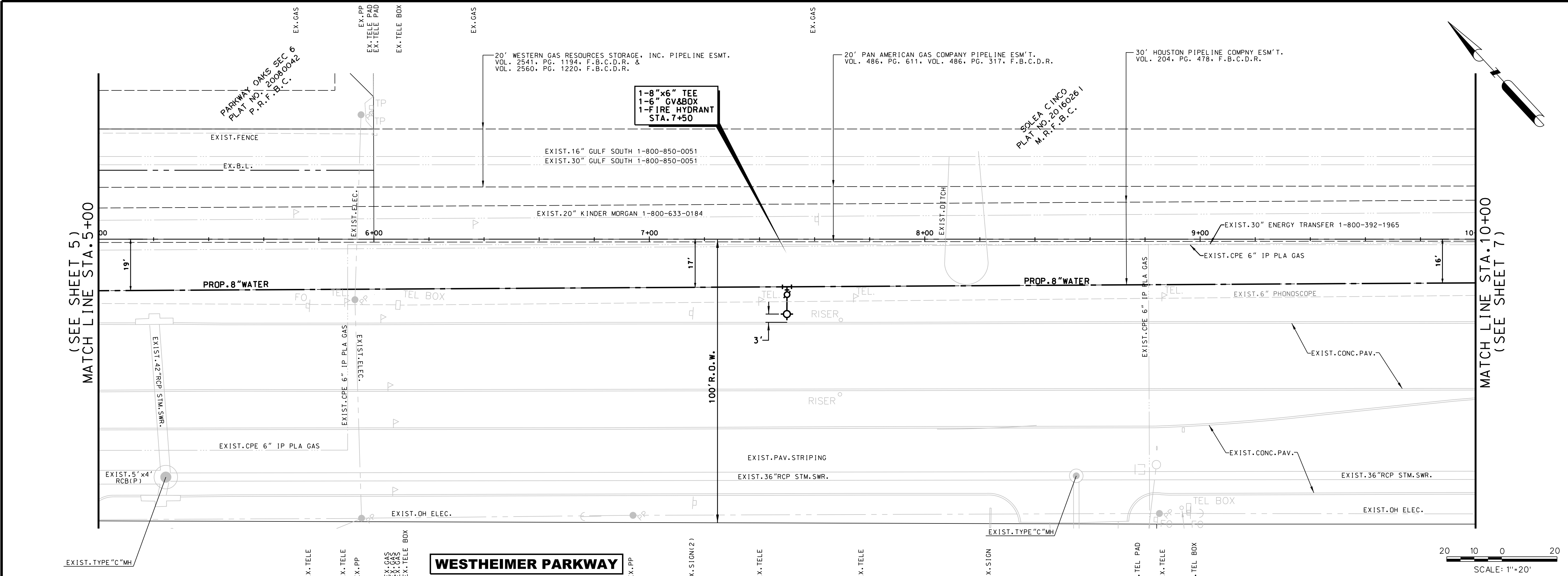
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SHEET No: **5** OF 10

FOR CITY OF HOUSTON USE ONLY

PUBLIC WORKS AND ENGINEERING
ACCEPTED AND FILED

60314
CITY DRAWING NUMBER
Approval Date 4/23/2018
HOUSTON TX



BENCH MARK

REFERENCE BENCHMARK IS FLOODPLAIN REFERENCE MARK NO. 14500220, BEING A BRASS DISH 5' 4" HIGH LOCATED AT WAGON ROAD AND UPPER BUFFALO BAYOU LOCATED ON DOWNTOWN CONCRETE WALL ON NORTHEAST CORNER OF BRIDGE IN KEMAP AREA IN THE BARBER WATERSHED NEAR STREAM 1100-00-00. ELEV.=103.51' NAVD88.2001 ADJ.

TEMPORARY BENCHMARKS:

TEMPORARY BENCHMARK "A" BEING A CUT BOX ON INLET LOCATED ON THE NORTH ROW LINE OF WESTHEIMER PARKWAY. (SHOWN HEREON) ELEV.=120.21'

TEMPORARY BENCHMARK "B" BEING A CUT BOX LOCATED ON THE MEDIAN OF WESTHEIMER PARKWAY. (SHOWN HEREON) ELEV.=122.36'

NOTES

1. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. REPORT ANY DISCREPANCIES TO ENGINEER IMMEDIATELY.
2. THIS PROJECT LIES WITHIN ZONE-X (UNSHADED) AS PER F.E.M.A. PANEL NO. 48157C0045L & 48157C010L REVISED APRIL 2, 2014.
4. ALL PAVING DIMENSIONS ARE BACK OF CURB, UNLESS OTHERWISE NOTED.
5. ALL WATER LINE AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED PER CITY OF HOUSTON AND TSD REGULATIONS. SEE TABLE TITLED "PROTECTION REQUIREMENTS AT WATER LINE AND SANITARY SEWER (SS) CROSSINGS" ON GENERAL NOTES SHEET.
6. THIS PROJECT REQUIRES A RIGHT-OF-WAY PERMIT FROM FORT BEND COUNTY.

APPROVED: DEVELOPMENT COORDINATOR

DATE: _____

TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED, CALL CENTERPOINT ENERGY AT 713-207-2222.

NOTICE:
For your safety, you are required by Texas law to call 811 at least 48 hours before you dig so that underground line can be marked. This verification does not fulfill your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES

DATE: _____

CenterPoint Energy/Natural Gas Facilities Verification ONLY.
(This signature verifies that you have shown CNP Natural Gas lines correctly - not to be used for contact verification.) (Gas service lines are not shown)
Signature valid for six months.

DATE: _____

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.
(This signature verifies existing underground facilities - not to be used for contact verification)
Signature valid for six months.

DATE: _____

Approved for AT&T Texas/SWB/T underground conduit facilities only.
Signature valid for one year.

REVISION BLOCK		
NO.	DATE	DESCRIPTION

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STATE OF TEXAS
JOLIE N. CRAFT
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LICENSED PROFESSIONAL ENGINEER
4/26/18

HARRIS-FORT BEND COUNTIES MUNICIPAL UTILITY DISTRICT No.5
WESTHEIMER PARKWAY WATER LINE EXTENSION

PLAN & PROFILE WESTHEIMER PARKWAY STA. 5+00 TO STA. 10+00

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

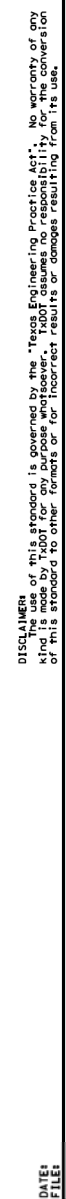
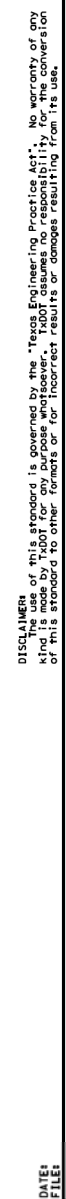
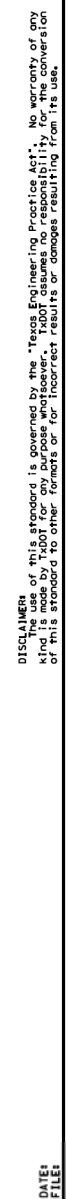
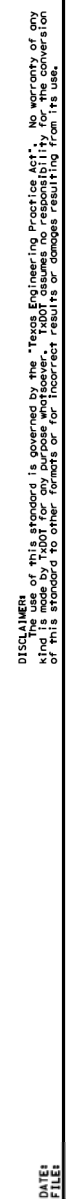
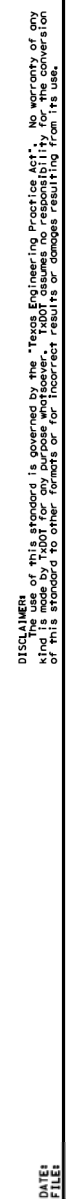
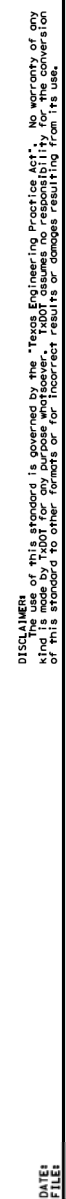
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WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

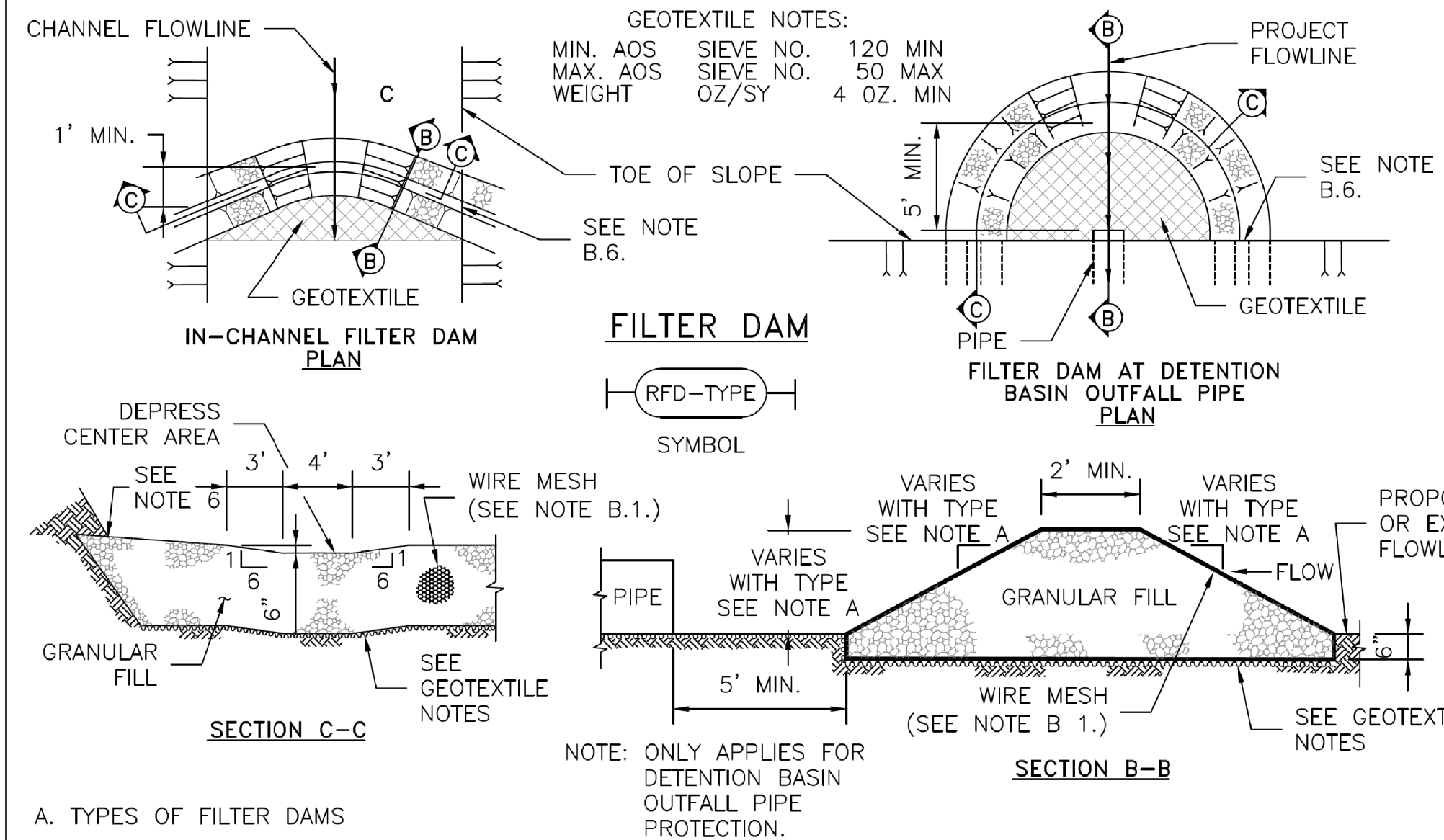
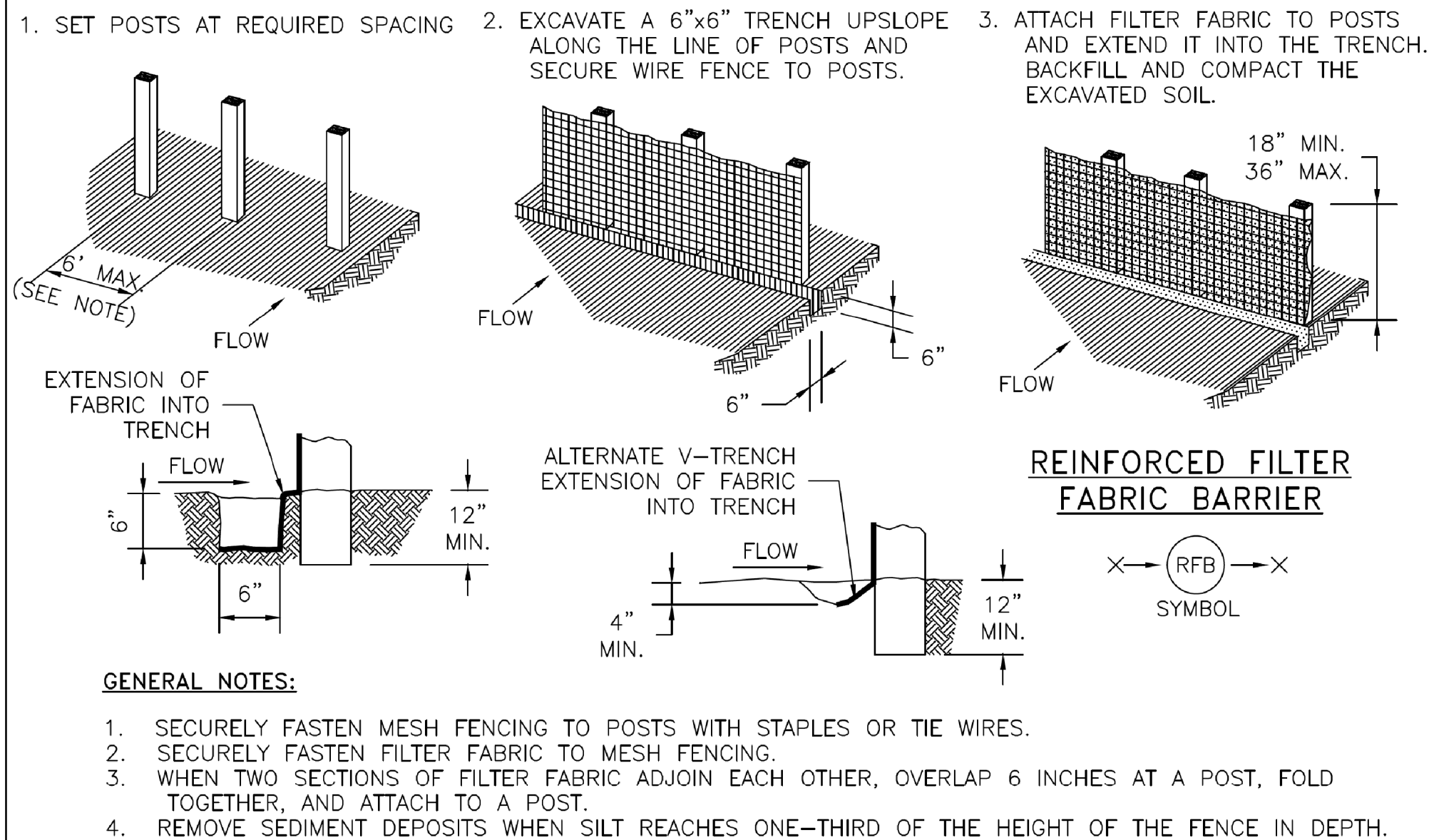
FILE NO:	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
HORZ : VERT :	
SHEET No: 6 OF 10	

PUBLIC WORKS AND ENGINEERING
ACCEPTED AND FILED

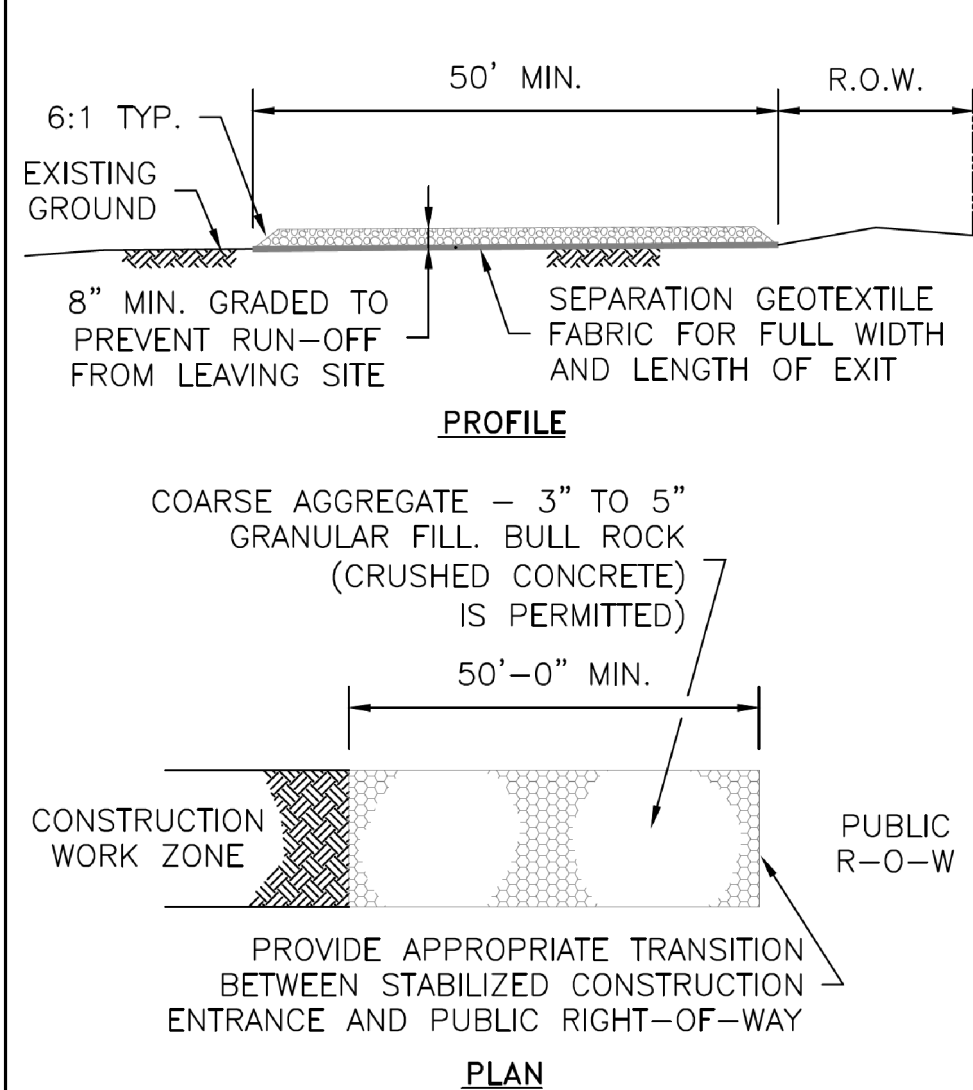
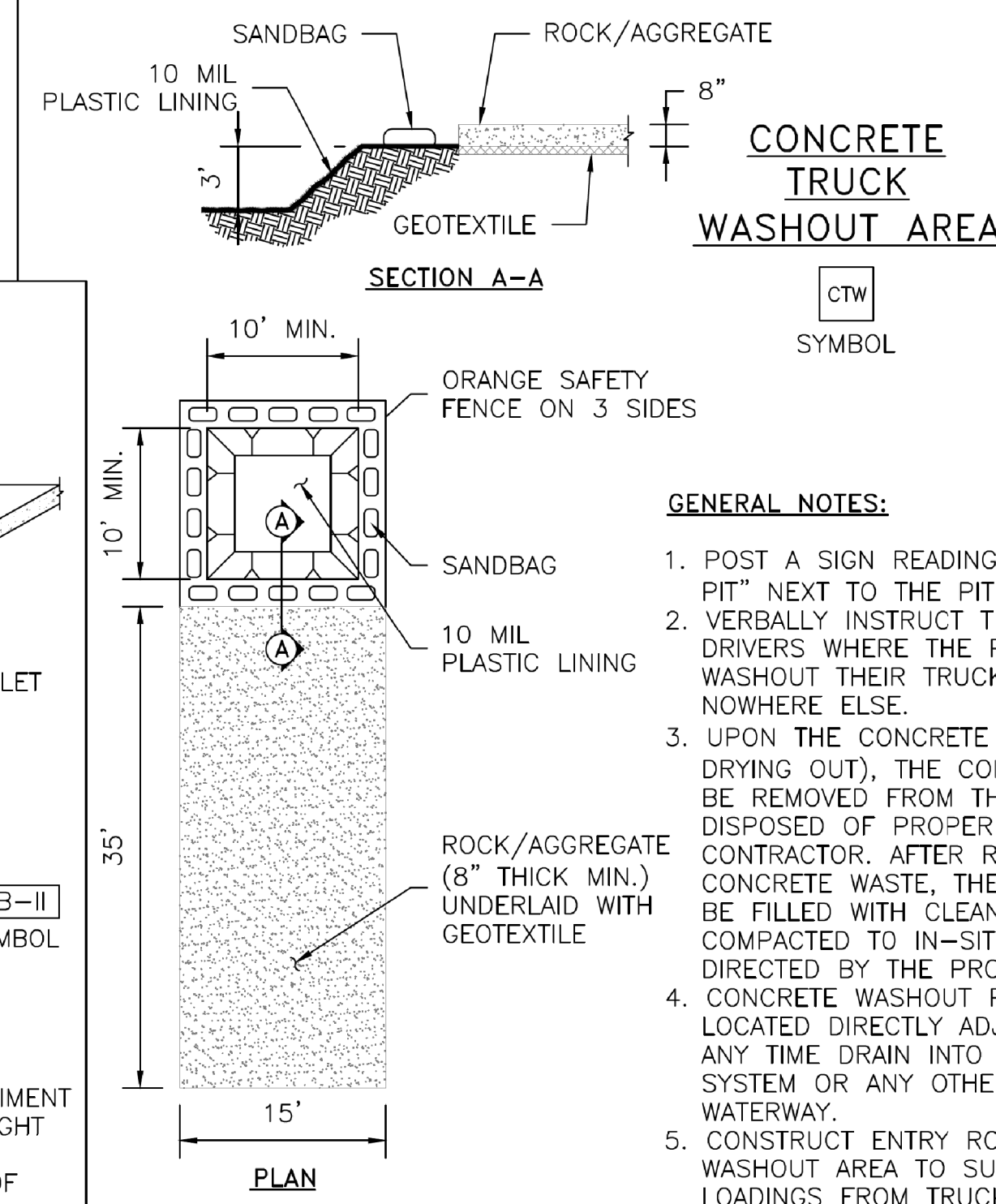
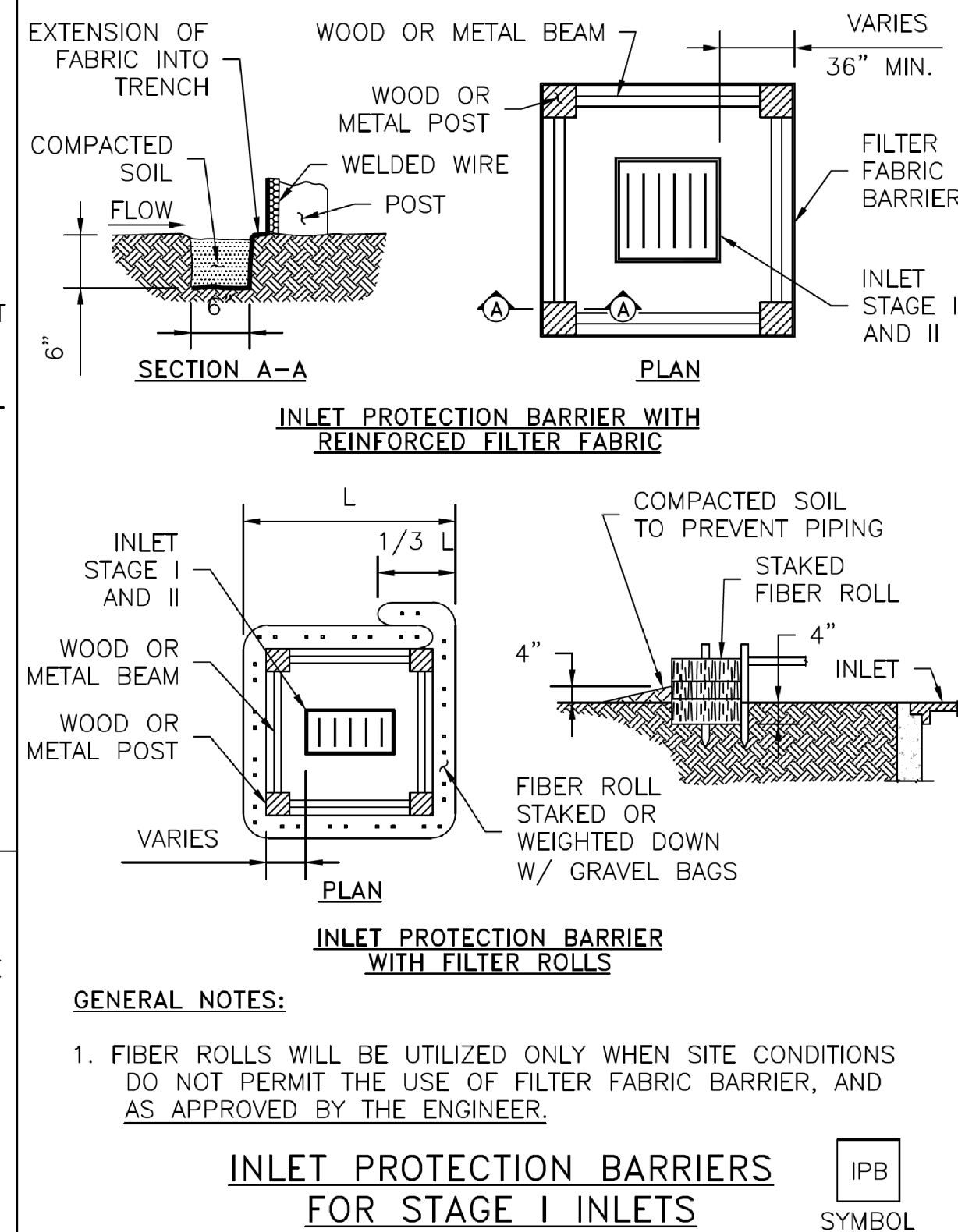
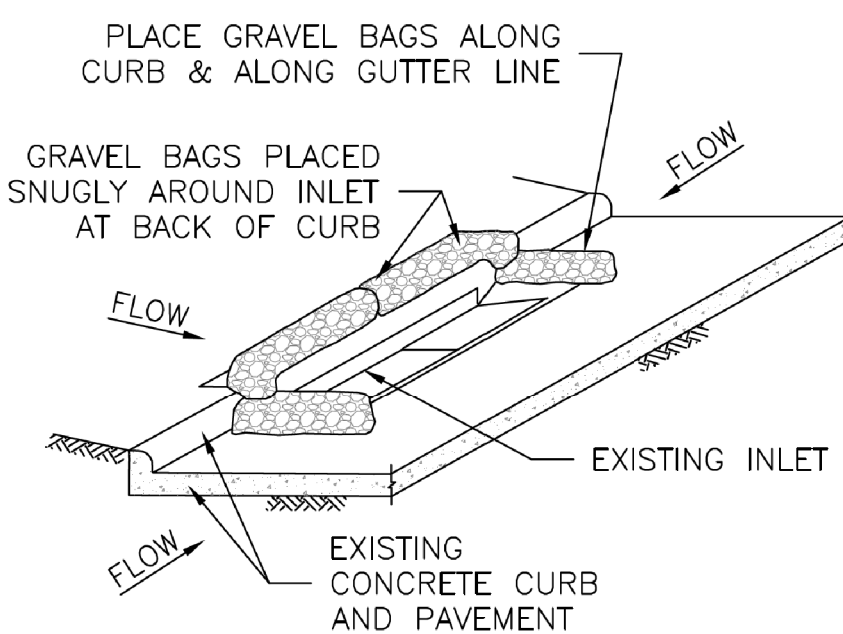
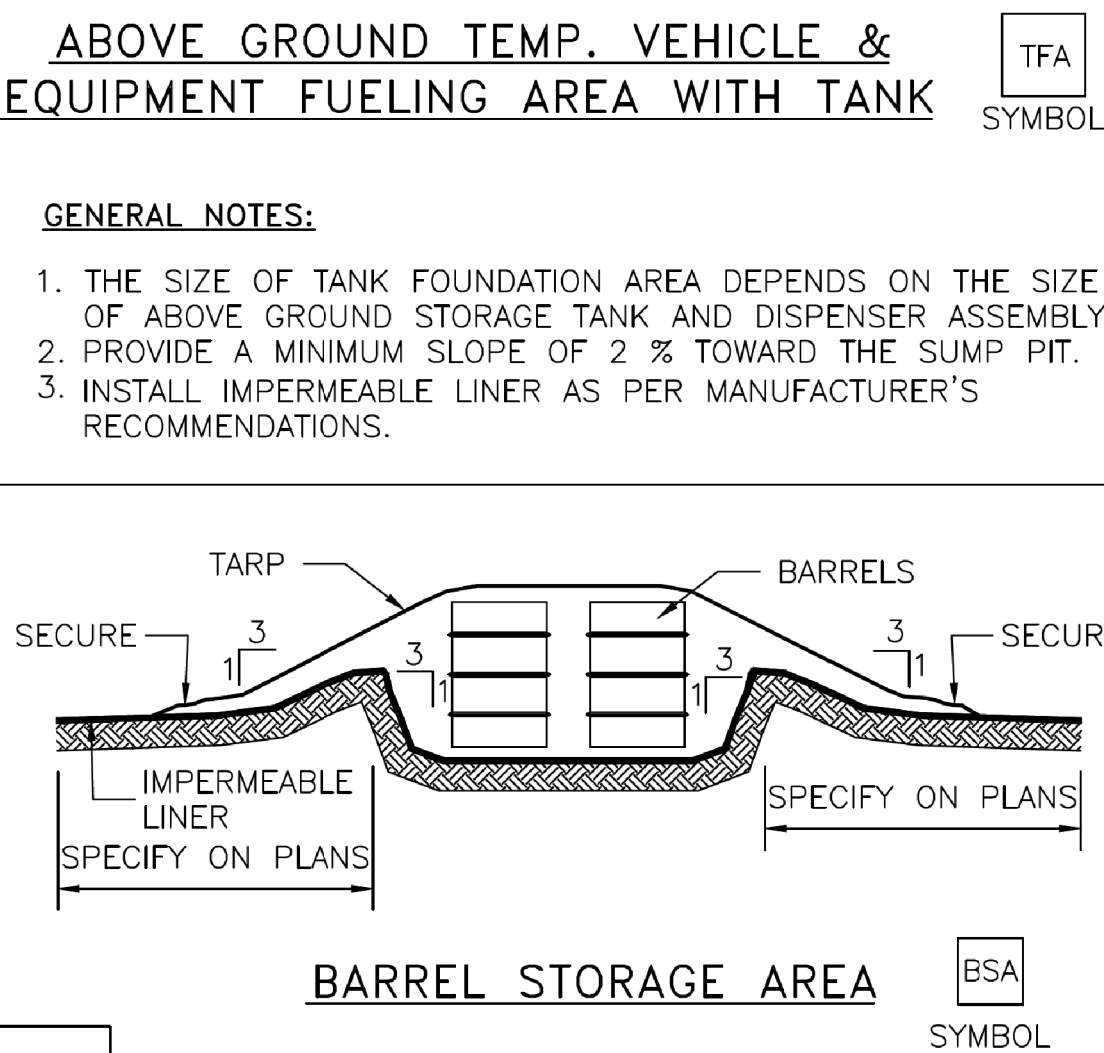
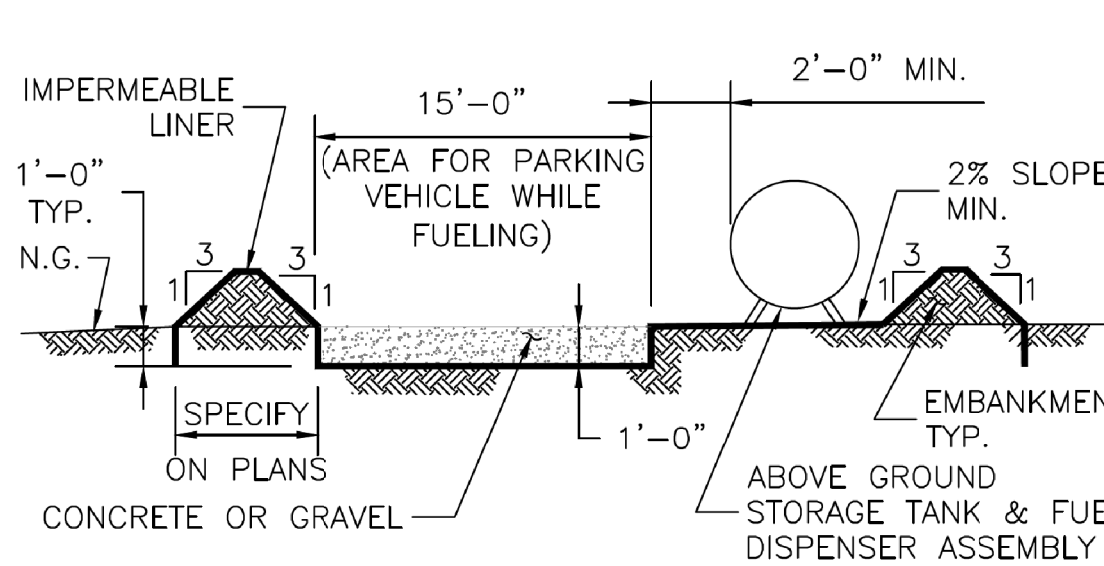
60314
CITY DRAWING NUMBER
Approval Date 4/23/2018
HOUSTON TX

PRELIM BY: J.C. ON
JOB NO: 12508-801-1
P-2162





- A. TYPES OF FILTER DAMS
1. TYPE 1 (NON-REINFORCED)
 - a. HEIGHT - 18-24 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM)
 - c. SLOPES - 2:1 (MAXIMUM).
 2. TYPE 2 (REINFORCED).
 - a. HEIGHT - 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM).
 - c. SLOPES - 2:1 (MAXIMUM).
 3. TYPE 3 (REINFORCED)
 - a. HEIGHT - 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM).
 - c. SLOPES - 3:1 (MAXIMUM).
 4. TYPE 4 (GABION)
 - a. HEIGHT - 30 INCHES (MINIMUM). MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM).
 5. TYPE 5. AS SHOWN ON THE PLANS.
- B. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.
1. TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS.
 2. PLACE GRANULAR FILL ON THE WIRE MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.
 - a. 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2 AND 4.
 - b. 4-8 INCHES FOR ROCK FILTER DAM TYPE REFER TO GRANULAR FILL IN SPECIFICATION SECTION No. 02378 RIPRAP AND GRANULAR FILL.
 3. FOLD WIRE MESH AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
 4. IN STREAMS: SECURE OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.
 5. SEE HCFCD SPECIFICATION SECTION NO. 02364-FILTER DAMS.
 6. EMBED ONE FOOT MINIMUM INTO SLOPE AND RAISE ONE FOOT HIGHER THAN CENTER OF DEPRESSED AREA AT SLOPE.



NOTES

PORT BEND COUNTY
APPROVED
APR 30 2018
Valid One Year
From Date
ENGINEERING DEPARTMENT

REVISION BLOCK		
No.	DATE	DESCRIPTION

VanDeWiele & Vogler
Incorporated
Consulting Engineers
Texas Professional Engineering Firm
Registration No. F148
2925 Briarpark, Suite 275
Houston, Texas 77042
713/782-0042
www.vandewiele-eng.com

STATE OF TEXAS
JOLIE N. CRAFT
89247
LICENSED PROFESSIONAL ENGINEER
4/26/18
Jolie Craft

HARRIS-FORT BEND COUNTIES
MUNICIPAL UTILITY DISTRICT No. 5
WESTHEIMER PARKWAY
WATER LINE EXTENSION

SWPPP
DETAILS

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY
AFTER DATE OF SIGNATURES

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC AND TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

FILE No:

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE

HORIZ :

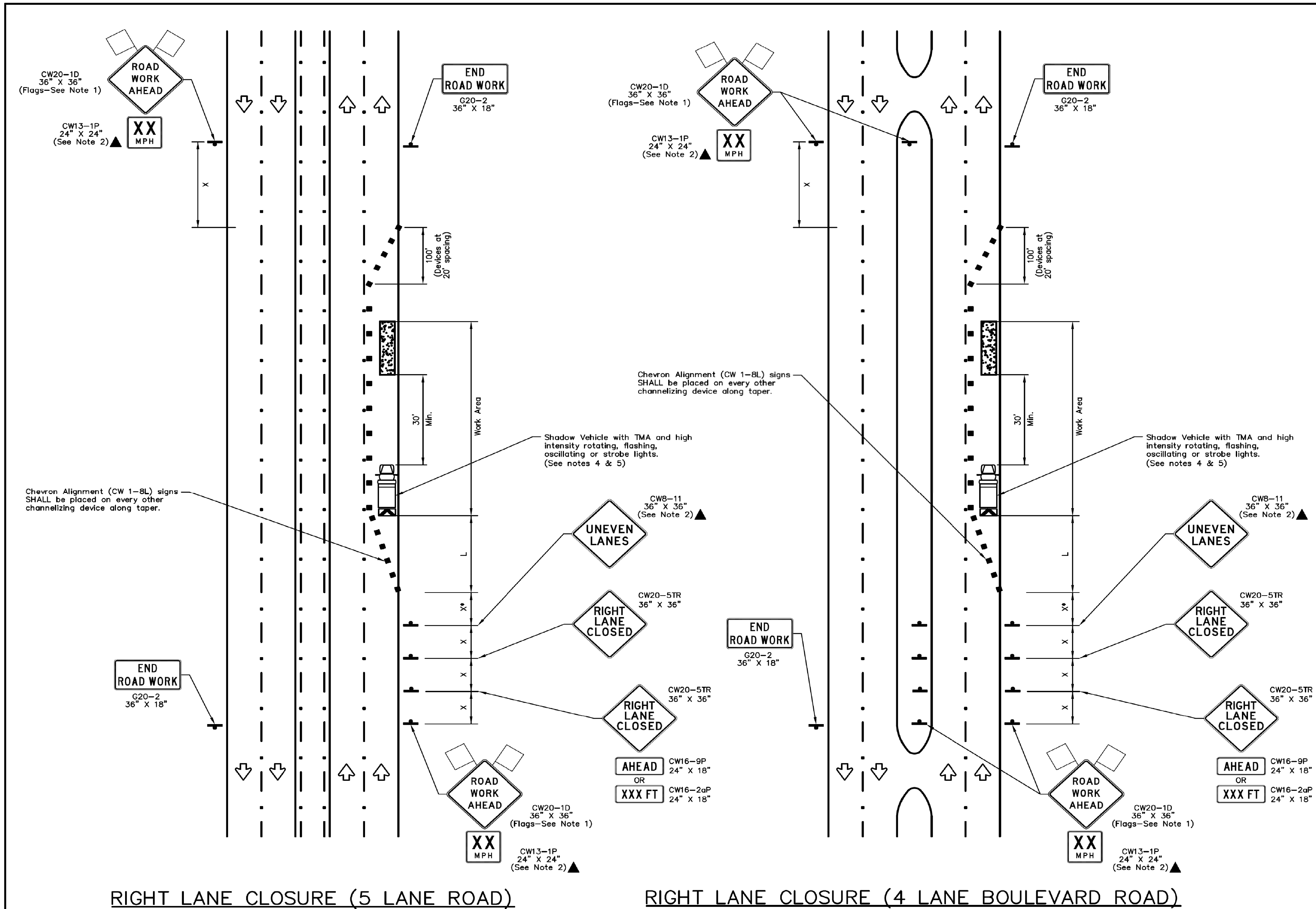
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SHEET No: 9 OF 10

PUBLIC WORKS AND ENGINEERING
ACCEPTED AND FILED
60314
CITY DRAWING NUMBER
Approval Date 4/23/2018
HOUSTON TX

PRELIM BY: JJC, JON
JOB No: 12508-801-1
FINAL BY:

P-2162



NO.	REVISIONS	DATE	NAME

HARRIS COUNTY
PUBLIC INFRASTRUCTURE DEPARTMENT
ARCHITECTURE & ENGINEERING DIVISION



FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION,
BIDDING, OR PERMIT PURPOSES
ENGINEER: NAME
P.E. SERIAL No. NUMBER
DATE: / /

PROJECT TITLE:	
DRAWN BY:	
CR'D BY:	SHEET DESCRIPTION:
SCALE:	TRAFFIC CONTROL PLAN (RIGHT LANE CLOSURE)
DATE:	APPROVED BY:
6/26/14	
	SHEET NO:
	/

TRAFFIC CONTROL PLAN SECTION SHALL BE
COMPLETED BY ENGINEER

ROADWAY	POSTED SPEED	TAPER LENGTH	SPACING CHANNELIZING DEVICES	SIGN SPACING	BUFFER SPACE

LEGEND					
	Type 3 Barricade		Channelizing Devices		Truck Mounted Attenuator (TMA)
	Heavy Work Vehicle		Portable Changeable Message Sign (PCMS)		Traffic Flow
	Trailer Mounted Flashing Arrow Board		Flagger		
	Sign				
	Flag				

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x" Distance	Suggested Longitudinal Buffer Space "b"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	L= WS ² 60	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45		450'	495'	540'	45'	90'	320'	195'
50		550'	550'	600'	50'	100'	400'	240'
55	L=WS	550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

GENERAL NOTES

- Flags attached to signs where shown are OPTIONAL.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol are OPTIONAL.
- Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- Contractor shall provide and install traffic control devices in conformance with part VI of Texas Manual on Uniform Traffic Control Devices (TMUTCD - Latest edition with revisions) during construction.

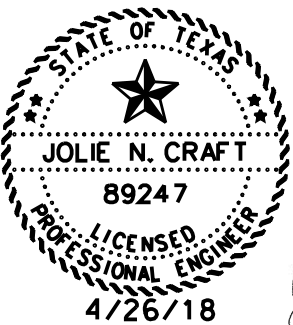
NOTES

- SHADOW VEHICLE NOT REQUIRED.
- NO LANE CLOSURE BETWEEN
7-9 AM AND 4-6 PM.



REVISION BLOCK		
NO.	DATE	DESCRIPTION

VanDeWiele & Vogler
Consulting Engineers
2925 Briarpark, Suite 275
Houston, Texas 77042
713/782-0042
www.vandewiele-eng.com



HARRIS-FORT BEND COUNTIES
MUNICIPAL UTILITY DISTRICT No.5
WESTHEIMER PARKWAY
WATER LINE EXTENSION

TCP-2 (RIGHT LANE CLOSURE)

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY
AFTER DATE OF SIGNATURES

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
WATER	TRAFFIC AND TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
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STREET & BRIDGE	

FILE NO:	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	PUBLIC WORKS AND ENGINEERING ACCEPTED AND FILED
HORZ : VERT :	60314 CITY DRAWING NUMBER Approval Date 4/23/2018
SHEET No: 10 OF 10	HOUSTON TX