

CONSTRUCTION OF BRABAND HAMMETT PHASE II UTILITY EXTENSIONS AND SANITARY SEWER PIPE REPLACEMENT FOR HARRIS COUNTY MUNICIPAL UTILITY DISTRICT No. 191 IN HARRIS COUNTY, TEXAS

INDEX OF DRAWINGS

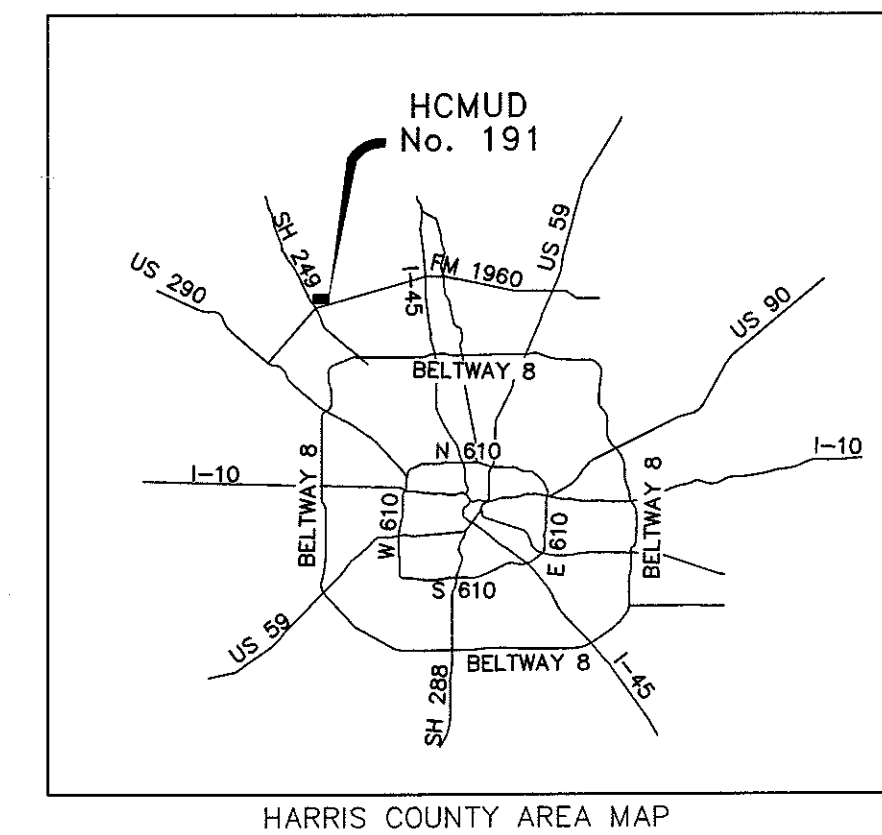
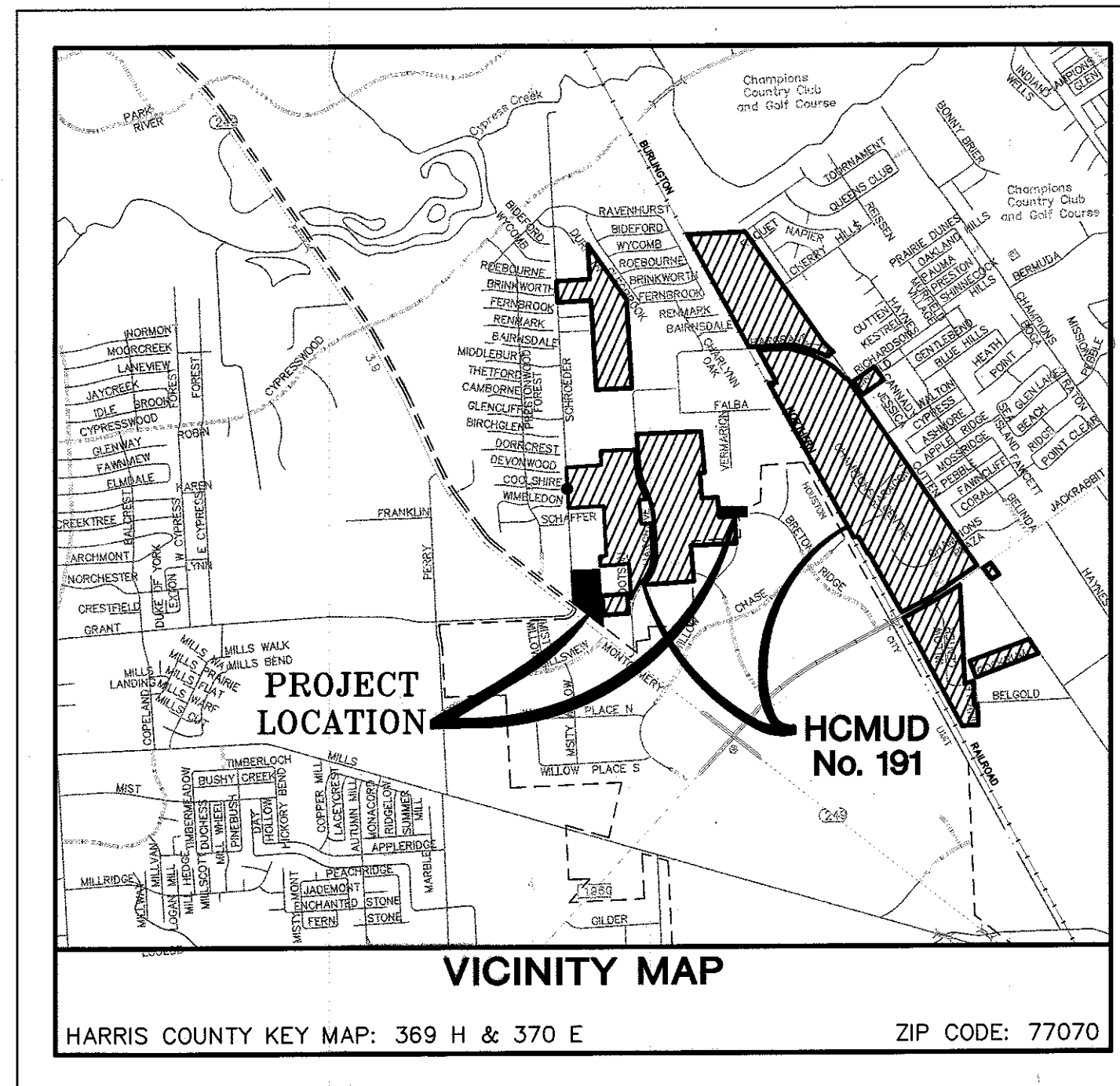
<u>SHEET No.</u>	<u>TITLE</u>
1	COVER SHEET & INDEX
2	EXPRESS REVIEW SHEET
3	GENERAL NOTES
4	OVERALL SITE PLAN & SWPPP PLAN (WL & SS EXTENSIONS)
5	OVERALL SITE PLAN & SWPPP PLAN (PIPE BURSTING) & TRAFFIC CONTROL PLAN

PLAN & PROFILE

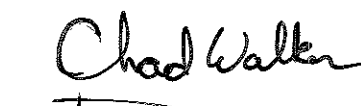

	<u>STREET NAME</u>	<u>STATION</u>
6	BASELINE "A"	0+50 TO 5+00
7	BASELINE "A"	5+00 TO 8+50
8	BRETON RIDGE ROAD (PIPE BURST)	0+00 TO 6+00

DETAILS

9	MISCELLANEOUS DETAILS
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HARRIS COUNTY AREA MAP



 Harris County Municipal Utility District No. 191 Engineer
 Ryan A. Ard, P.E.

4/18/16
 10.5.2015
 Date

NOTICE

CALL AT LEAST 2 WORKING DAYS (48 HOURS) BEFORE YOU DIG:
 TEXAS811 (DIG TESS) (1-800-344-8377)
 - OR -
 LONE STAR NOTIFICATION CENTER (1-800-669-8344)

HARRIS COUNTY ROW NOTICE:
 A NOTIFICATION ISSUED BY HC INFRASTRUCTURE DEPARTMENT-PERMITS OFFICE- IS REQUIRED FOR PROPOSED WORK WITHIN HARRIS COUNTY RIGHT-OF-WAY. THE PROJECT MUST BE APPROVED PRIOR TO OBTAINING THE REQUIRED NOTIFICATION. A NOTIFICATION MUST BE OBTAINED SEPARATELY FROM SITE DEVELOPMENT PERMIT PACKAGE. FOR ADDITIONAL INFORMATION PLEASE VISIT:
http://hcpid.org/permits/pr_notification_of_construction.html
 OR CONTACT PUBLIC REVIEW INSPECTIONS OF DEPARTMENT @ (713-956-3033)

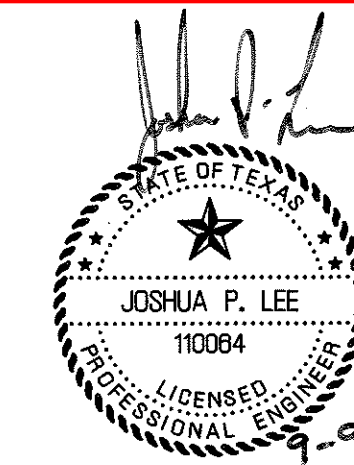
48 HOURS NOTICE:
 CONTRACTOR SHALL NOTIFY HARRIS COUNTY PRIOR TO COMMENCING CONSTRUCTION AND/OR BACKFILLING ANY UTILITIES. CONTRACTOR(S) TO CONTACT MARC BARBE WITH PUBLIC REVIEW DEPARTMENT @ (713-316-3562) OR (marc.barbe@hcpid.org)

Contractor shall notify the City of Houston, Department of Public Works and Engineering (713-837-7000) 48 hours before starting work on this project.

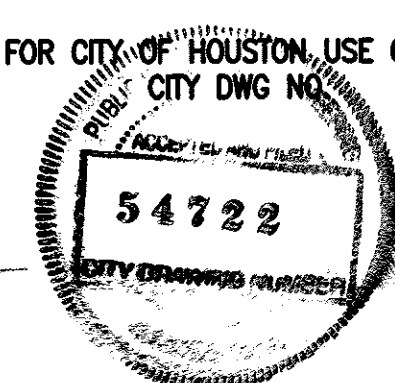
SEPTEMBER 2015


JONES CARTER
 Texas Board of Professional Engineers Registration No. F-439
 8701 New Trails Drive, Suite 200 The Woodlands, Texas 77385
 281.363.4039

AS-BUILTS
 10/18/2016



ILMS No. * 0015-1090
 C.O.H. LOG No. 1508-6272

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 <i>Daniel A. Moore</i> 9/16/15	TRAFFIC & TRANSPORTATION	STORM <i>[Signature]</i> 9/16/15	STORM WATER QUALITY
WASTEWATER	STORM	STREET & BRIDGE	FACILITIES
CITY ENGINEER	FOR CITY OF HOUSTON, USE ONLY		
			54722 CITY DWG NO.
DIRECTOR OF PUBLIC WORKS AND ENGINEERING <i>[Signature]</i> 9/19/15		SHEET No: 1 OF 9	

1. PAVING

- I. DESIGN THICKNESS OF PAVING
II. STABILIZED SUBGRADE TO A DEPTH OF
III. DESIGN STRENGTH OF CONCRETE
IV. TYPE AND PLACEMENT OF STEEL

FIRE APPARATUS ACCESS ROAD

- REQUIRED AND SHOWN ON SHEET(S)
NOT REQUIRED DUE TO

CURBINGS

- I. ISLANDS AND MEDIAN REQUIRE STANDARD CURBING
II. STANDARD CURBING PROPOSED
4' x 12' CURBING PROPOSED EXCEPT AT MEDIANS AND ISLANDS

TRAFFIC CONSIDERATIONS

- I. MEDIAN CUTS
II. LEFT / RIGHT TURN LANE
III. TRAFFIC CONTROL PLAN
IV. TRAFFIC SIGNAL
V. TRAFFIC IMPACT ANALYSIS

7. FLOOD CONTROL DISTRICT CRITERIA

Table with columns: DETENTION SUMMARY, RAINFALL EVENT PROBABILITY, PRE-DEVELOPED PEAK RUNOFF (CFS), POST-DEVELOPED PEAK RUNOFF (CFS), DETENTION BASIN SURFACE OUTFLOW (CFS), MAXIMUM WATER SURFACE ELEVATION, PEAK STORAGE VOLUME (AC-FEET), STORAGE RATE (AC-FEET PER AC)

STORMWATER DRAINAGE DESIGN REPORT
REPORT TITLE
REPORT DATE
DATE OF ACKNOWLEDGEMENT BY HCFCO OR FLOODPLAIN ADMINISTRATOR

STORMWATER DETENTION FOR THE PROPOSED WORK CONTAINED IN THESE PLANS IS PROVIDED BY OTHER PLANS:

- II. HCFCO STANDARD NOTES: SEE SHEET OF THESE PLANS.
III. HCFCO STANDARD DETAILS: SEE SHEET OF THESE PLANS.

IV. REFER TO PLAN SHEETS FOR EXISTING AND PROPOSED RIGHT OF WAY DELINEATION AND COMPLETE RECORDING INFORMATION TO INCLUDE CLERK'S FILE NUMBERS, TYPE OF ESTATE (E.G., DRAINAGE EASEMENT), FEE STRIP, ETC.) AND GRANTOR (E.G., COH, HCFCO, PUBLIC, TAXLOT, ETC.)

- NOTES:
I. COMPLETE ONLY IF PROJECT HAS WITHIN IT OR IS IMMEDIATELY ADJACENT TO AN EXISTING OR PROPOSED HCFCO MAINTAINED CHANNEL OR DETENTION BASIN.
II. COMPLETE ONLY IF PROJECT INCLUDES NEW OUTFALL, BACKSLOPE INTERCEPTOR OR OTHER RELATED WORK WITHIN AN EXISTING OR PROPOSED HCFCO MAINTAINED CHANNEL OR DETENTION BASIN.
III. COMPLETE ONLY IF PROJECT HAS WITHIN OR IMMEDIATELY ADJACENT TO AN EXISTING OR PROPOSED PUBLIC DRAINAGE CHANNEL OR DETENTION BASIN.

2. RESIDENTIAL / SUBDIVISION DRAINAGE

- I. DRAINAGE SYSTEM TYPE
II. DESIGN METHOD USED
III. DRAINAGE SYSTEM OUTFALL
IV. STORM SEWER OUTFALL
V. DRAINAGE SYSTEM FLOW RATE

3. COMMERCIAL / OTHER SITE DRAINAGE

- I. PROPOSED DRAINAGE AREA
II. DETENTION VOLUME
III. OUTFALL
IV. PUMPED DETENTION FACILITIES
V. FLOW RESTRICTOR SIZE

4. WATER AND WASTEWATER

- I. TYPE OF SERVICE PROPOSED
II. PROOF OF CAPACITY
III. AMOUNT OF FLOW
IV. UNOBSTRUCTED VISIBILITY EASEMENT (U.V.E.)

5. DESCRIPTION OF PROPERTY

- I. LEGAL DESCRIPTION
II. PLATTING
III. JURISDICTIONS
IV. HCAD ACCOUNT NOS. (ALL)

6. STORM WATER QUALITY

- I. CONSTRUCTION PROTECTIVE MEASURES
II. APPLICABILITY FOR PERMANENT FEATURES
III. PERMANENT STORM WATER QUALITY FEATURES

8. FLOOD PLAIN STATUS

- I. GENERAL INFORMATION
II. FLOOD PLAIN DETERMINATION BASED ON GROUND ELEVATION
III. FLOODPLAIN STORAGE SUMMARY

9. WORK IN HCFCO RIGHT-OF-WAY

- I. TYPE OF WORK TO BE PERFORMED IN CHANNEL
II. PERMIT
III. REFERENCE BASIS OF DETERMINATION

10. PERMITS REQUIRED

- TOTAL ESTIMATED SITE CONSTRUCTION COST, (EXCLUDING ENCLOSED BUILDINGS/STRUCTURES) \$208,000
I. STORM WATER QUALITY
II. CURB RAMPS / SIDEWALK

12. LANDSCAPING

- REQUIRED AND SHOWN ON SHEET(S)
NOT REQUIRED

HCPID SIGNATURE BLOCK

PROJECT NAME:
BRABAND HAMMETT PHASE II UTILITY EXTENSIONS AND SANITARY SEWER PIPE REPLACEMENT
ADDRESS: 18530 SH 249, HOUSTON, TX 77070

WAS ACCEPTED BY THE FOLLOWING GROUPS FOR THE PURPOSES LISTED BELOW:
ENGINEERING DIVISION

Table with columns: BY, INTERPOSE NO OBJECTION, DATE, AS TO PAVING AND/OR DRAINAGE ONLY, DATE, AS TO LOCATION OF ITEMS IN COUNTY RIGHT OF WAY, DATE, AS TO STORM WATER QUALITY, DATE

HARRIS COUNTY FLOOD CONTROL DISTRICT
Dennis Todd Miller
2015.09.22
15:06:02 -05'00'

INTERPOSE NO OBJECTION
APPROVED: [Signature]
DATE: 2015.09.22
15:06:02 -05'00'

THE PROJECT WAS REVIEWED, HOWEVER, THIS DOES NOT MEAN THE ENTIRE PROJECT, INCLUDING ALL SUPPORTING DATA AND CALCULATIONS HAVE BEEN COMPLETELY CHECKED AND VERIFIED. THESE DRAWINGS ARE SIGNED, DATED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS, WHICH THEREFORE CONVEYS THE ENGINEER'S RESPONSIBILITY AND ACCOUNTABILITY. THIS DOES NOT RELIEVE ANY PARTY FROM COMPLYING WITH APPROPRIATE FEDERAL, STATE AND LOCAL ENVIRONMENTAL RULES, LAWS, AND REGULATIONS AND ANY OTHER LEGALLY ADOPTED REGULATION OR ORDINANCE RELATED TO LAND DEVELOPMENT. IF THE CITY SIGNATURES ARE REQUIRED BY ORDINANCE, COUNTY PERMITS WILL NOT BE ISSUED UNTIL SUCH SIGNATURES ARE OBTAINED. THESE SIGNATURES ARE VALID FOR A MAXIMUM OF TWO YEARS.

ENGINEER'S CERTIFICATION

I, JOSHUA P. LEE, A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THE INFORMATION PRESENTED ON THIS SHEET IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I AM NOT VIOLATING ANY PROVISION OF THE CURRENT TEXAS ENGINEERING PRACTICE ACT AND RULES CONCERNING THE PRACTICE OF ENGINEERING AND PROFESSIONAL ENGINEERING LICENSURE.

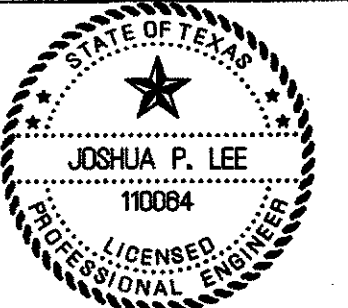
ANY VIOLATIONS WILL BE FORWARDED TO THE HARRIS COUNTY DISTRICT ATTORNEY'S OFFICE FOR PROSECUTION.

THE COMPLETED PROJECT CONSISTS OF DRAWING SHEETS 1 THRU 9
DATE: 9-9-15

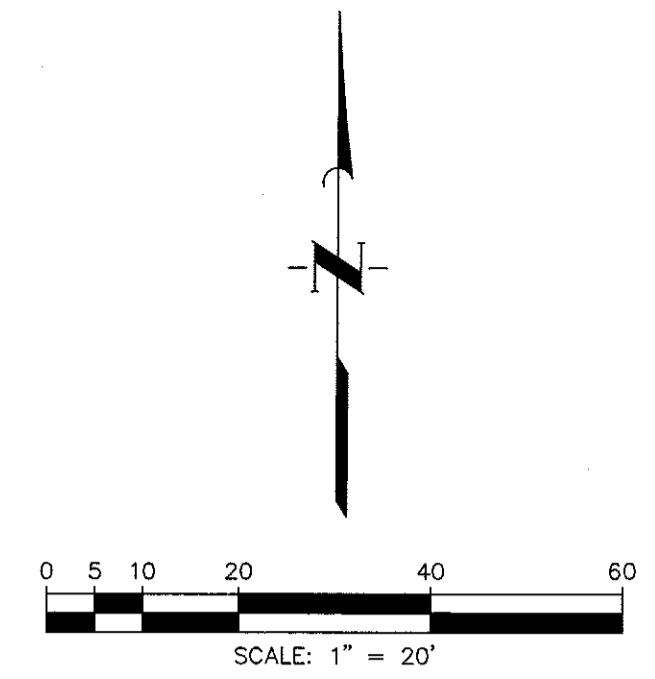
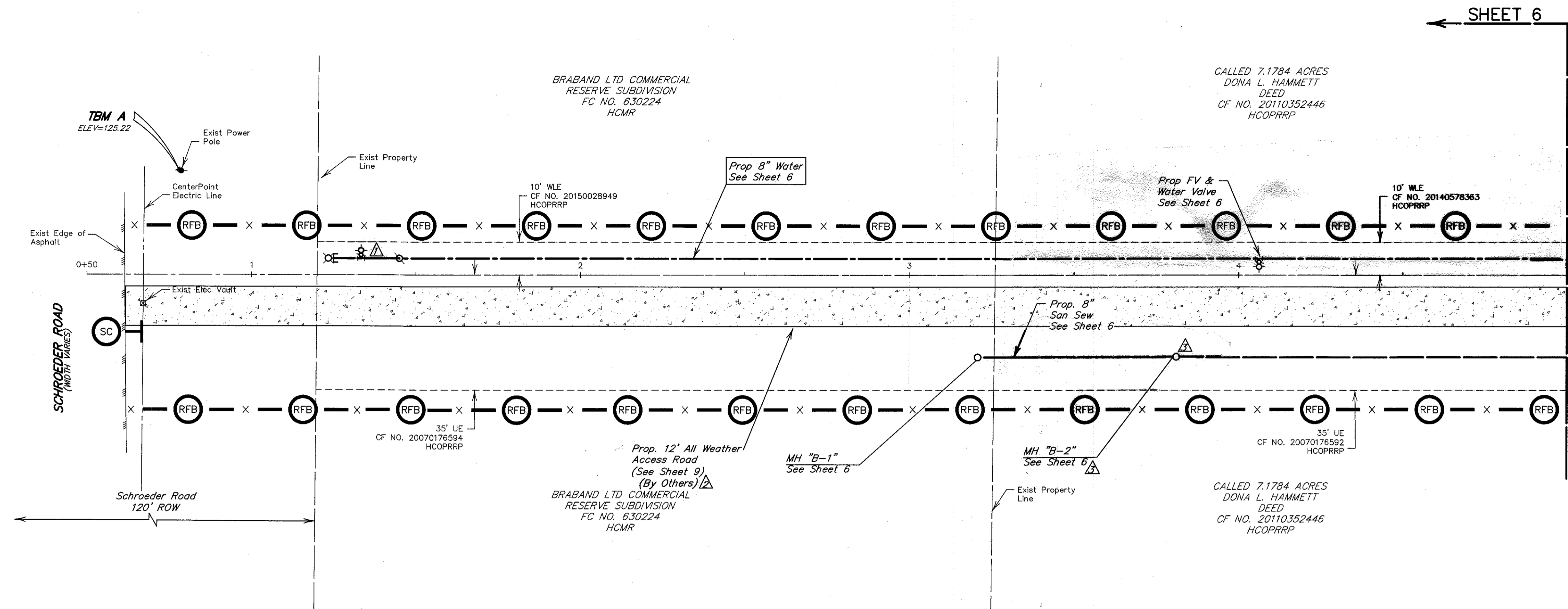
REVISIONS

Table with columns: DATE, SHEET NO., DESCRIPTION, P.E. INITIAL, H.C. APPROVED DATE

JONES & CARTER
Texas Board of Professional Engineers Registration No. F-439
8701 New Trails Drive, Suite 200 - The Woodlands, Texas 77381
281.363.4039



HARRIS COUNTY PUBLIC INFRASTRUCTURE DEPARTMENT EXPRESS REVIEW SHEET



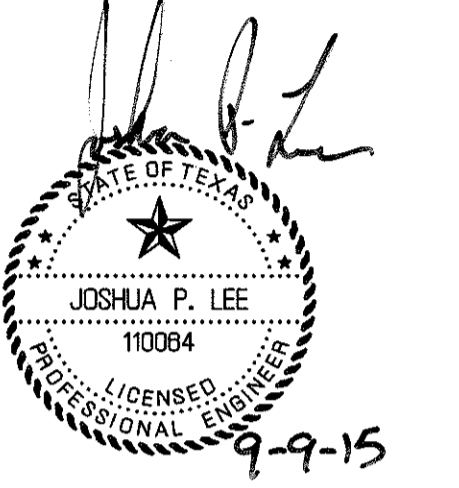
BENCH MARK
ELEVATIONS SHOWN HEREON ARE BASED ON HARRIS COUNTY FLOODPLAIN REFERENCE MARK NO. 150770 LOCATED AT THE NORTHEAST INTERSECTION OF FM 1960 AND BRETON RIDGE STREET WITH A PUBLISHED ELEVATION OF 120.92 FEET, NAVD 88, 2001 ADJUSTMENT.

TBM A
TEMPORARY BENCHMARK A BEING A RAILROAD SPIKE SET IN A POWER POLE ALONG THE EAST RIGHT-OF-WAY OF SCHROEDER ROAD AND FURTHER SHOWN HEREON.
ELEVATION = 125.22 FEET, NAVD 88, 2001 ADJUSTMENT.

TBM B
TEMPORARY BENCHMARK B BEING A SQUARE CUT IN THE CONCRETE BASE OF A LIGHT POLE AND FURTHER SHOWN HEREON.
ELEVATION = 128.02 FEET, NAVD 88, 2001 ADJUSTMENT.

100-YR FLOOD PLAIN
ACCORDING TO MAP NO. 48201C0435M OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR HARRIS COUNTY, TEXAS AND INCORPORATED AREAS, DATED OCTOBER 16, 2013, THE SUBJECT TRACT IS SITUATED WITHIN UNSHADED ZONE X DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN (500-YEAR FLOOD).

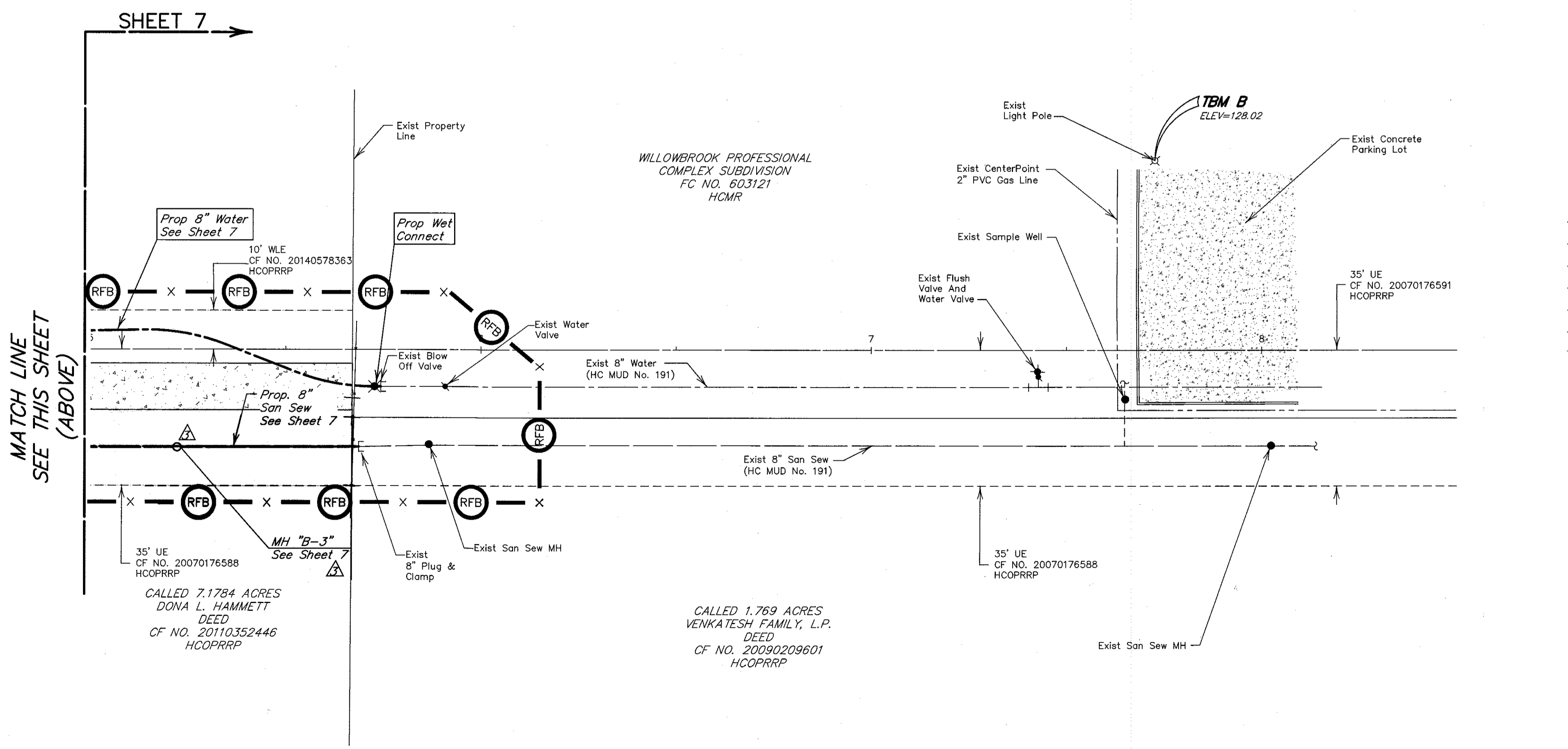
AS-BUILTS
10/18/2016



NOTICE
CALL AT LEAST 2 WORKING DAYS (48 HOURS) BEFORE YOU DIG: TEXAS811 (DIG TESS) (1-800-344-8377) OR LONE STAR NOTIFICATION CENTER (1-800-669-8344)

NOTICE
TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED, CALL CENTERPOINT ENERGY AT 713-207-2222. 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 FULFILL YOUR OBLIGATION TO CALL 811

PRIVATE UTILITY LINES SHOWN
AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4567.



LEGEND

EXISTING	PROPOSED	DESCRIPTION
		WATERLINE w/ GATE VALVE
		FLUSH VALVE w/ GATE VALVE
		PLUG & CLAMP w/ BLOW OFF
		SANITARY SEWER w/ MANHOLE
		SANITARY STACK
		SANITARY LEAD
		NATURAL GROUND CONTOUR
		UTILITY EASEMENT
		WATERLINE EASEMENT
		SANITARY SEWER EASEMENT
		STORM SEWER EASEMENT
		DRAINAGE EASEMENT
		AERIAL EASEMENT
		REINFORCED FILTER FABRIC BARRIER
		STABILIZED CONSTRUCTION ACCESS
		FUTURE ALL WEATHER ACCESS ROAD

SEE SHEET 9 FOR SWPPP DETAILS

DATE: 9/30/15

Signature: [Signature]
CenterPoint Energy/Electric Facilities
Approved only for crossing under utility lines.
Valid at time of review only. SIGNATURE VALID FOR 12 MONTHS

DATE: 9/30/15

Signature: [Signature]
AT&T TEXAS/SWBT Facilities
Approved for AT&T Texas/SBC underground conduit facilities only.
Signature valid for one year.

DATE: 9/30/15

Signature: [Signature]
CenterPoint Energy/Gas Facilities
(Gas service lines are not shown).
Valid at time of review only. SIGNATURE VALID FOR 12 MONTHS

NO.	DATE	REVISIONS	APP.
1	4/8/16	ADDITION OF TWO S.S. MANHOLES	JPL
2	9/29/15	IDENTIFY ACCESS RD. BY OTHERS	JPL
3	9/29/15	ADD FLUSHING VALVE PER COH	JPL

HC MUD NO. 191
HARRIS COUNTY, TEXAS

JONES CARTER
Texas Board of Professional Engineers Registration No. F-4391
8701 New Trails Drive, Suite 200 • The Woodlands, Texas 77381
281.363.4039

BRABAND HAMMETT PHASE II UTILITY EXTENSIONS AND SANITARY SEWER PIPE REPLACEMENT OVERALL SITE PLAN & SWPPP PLAN (WL & SS EXTENSIONS)

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

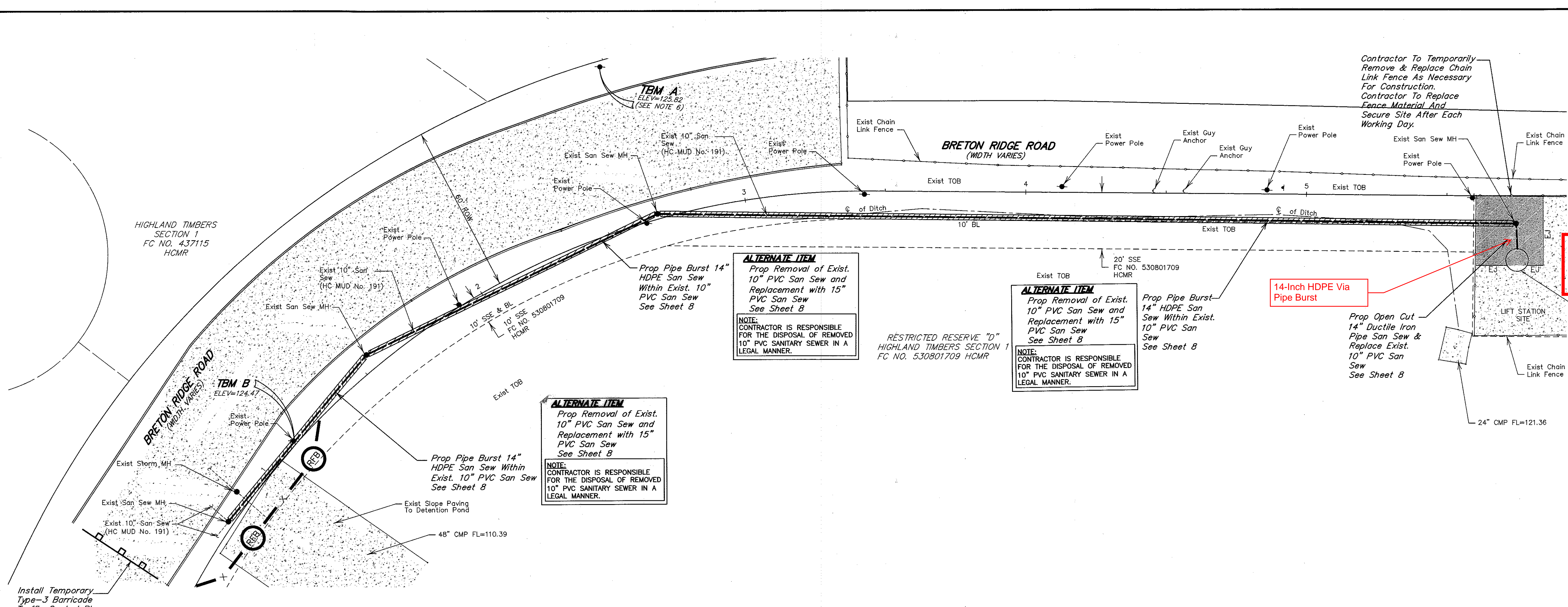
JOB NO: 05340-0031
DWG. NO: --

DATE: SEPTEMBER 2015
DGN. By: JB2
DWG. By: LTN

SCALE: 1" = 20'

SHEET No. 4 OF 9

FOR CITY OF HOUSTON USE ONLY
CITY DRAWING NUMBER
54722



BENCH MARK
 ELEVATIONS SHOWN HEREON ARE BASED ON HARRIS COUNTY FLOODPLAIN REFERENCE MARK NO. 150770 LOCATED AT THE NORTHEAST INTERSECTION OF FM 1960 AND BRETON RIDGE STREET WITH A PUBLISHED ELEVATION OF 120.92 FEET, NAVD 88, 2001 ADJUSTMENT.

TBM A
 TEMPORARY BENCHMARK A BEING A RAILROAD SPIKE SET IN A POWER POLE ALONG THE NORTH RIGHT-OF-WAY OF BRETON RIDGE STREET AND FURTHER SHOWN HEREON. ELEVATION = 125.82 FEET, NAVD 88, 2001 ADJUSTMENT.

TBM B
 TEMPORARY BENCHMARK B BEING A RAILROAD SPIKE SET IN A POWER POLE ALONG THE SOUTHEAST RIGHT-OF-WAY OF BRETON RIDGE STREET AND FURTHER SHOWN HEREON. ELEVATION = 124.47 FEET, NAVD 88, 2001 ADJUSTMENT.

100-YR FLOOD PLAIN
 ACCORDING TO MAP NO. 48201C0435M OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR HARRIS COUNTY, TEXAS AND INCORPORATED AREAS, DATED OCTOBER 16, 2013, THE SUBJECT TRACT IS SITUATED WITHIN UNSHADED ZONE X DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN (500-YEAR FLOOD).

AS-BUILTS
10/18/2016

Professional Engineer Seal for Joshua P. Lee, License No. 110084, State of Texas. Date: 9-9-15.

ALTERNATE ITEM
 Prop Removal of Exist. 10" PVC San Sew and Replacement with 15" PVC San Sew
 See Sheet 8

NOTE:
 CONTRACTOR IS RESPONSIBLE FOR THE DISPOSAL OF REMOVED 10" PVC SANITARY SEWER IN A LEGAL MANNER.

ALTERNATE ITEM
 Prop Removal of Exist. 10" PVC San Sew and Replacement with 15" PVC San Sew
 See Sheet 8

NOTE:
 CONTRACTOR IS RESPONSIBLE FOR THE DISPOSAL OF REMOVED 10" PVC SANITARY SEWER IN A LEGAL MANNER.

14-Inch HDPE Via Pipe Burst

Prop Open Cut 14" Ductile Iron Pipe San Sew & Replace Exist. 10" PVC San Sew
 See Sheet 8

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 - OR -
 LONE STAR NOTIFICATION CENTER (1-800-669-8344)

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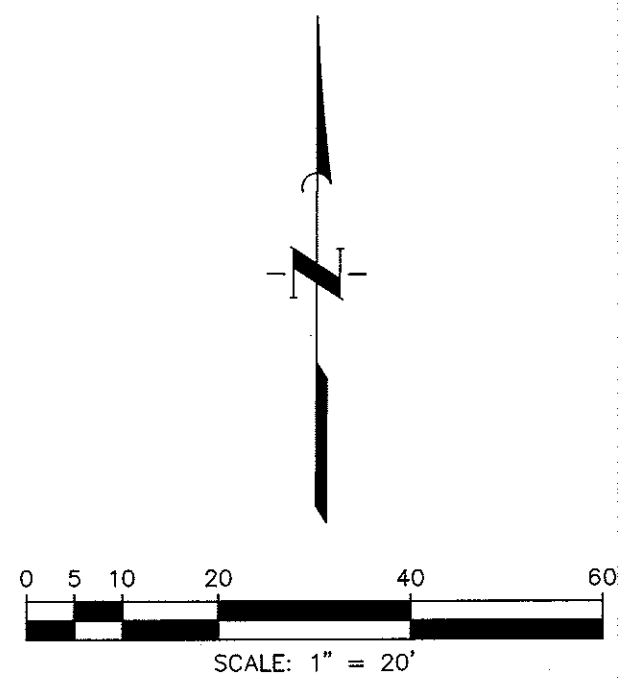
CenterPoint Energy/Electric Facilities
 Approved only for existing underground facilities (see other notes)
 Valid at time of review only. SIGNATURE VALID FOR 6 MONTHS
 Date: 9/30/15

CenterPoint Energy/Gas Facilities
 Approved only for existing underground conduit facilities only.
 Signature valid for one year.
 Valid at time of review only. SIGNATURE VALID FOR 6 MONTHS
 Date: 9/30/15

11/2/15 ADD PVC ALTERNATE ITEM JPL

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		WATERLINE w/ GATE VALVE
		FLUSH VALVE w/ GATE VALVE
		PLUG & CLAMP w/ BLOW OFF
		SANITARY SEWER w/ MANHOLE
		SANITARY STACK
		SANITARY LEAD
		NATURAL GROUND CONTOUR
		UTILITY EASEMENT
		WATERLINE EASEMENT
		SANITARY SEWER EASEMENT
		REINFORCED FILTER FABRIC BARRIER
		EXIST. EXPANSION JOINT
		PROPOSED PIPE BURSTING



TRAFFIC CONTROL NOTES

- 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.
- DO NOT BLOCK SIDE STREETS OR DRIVEWAYS. ACCESS TO EXISTING RESIDENCES SHALL BE MAINTAINED AT ALL TIMES.
- APPROVED COPIES OF "TRAFFIC CONTROL PLANS" SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES.
- IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF TRAFFIC CONTROL PLAN DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS (S)HE SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT ALTERNATE PLANS* TO TRAFFIC SECTION OF HCPID FOR APPROVAL THEN WORKING DAYS PRIOR TO IMPLEMENTATION.
 *THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLARS AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME A PART OF THE CONTRACT DRAWINGS.
- IF THE PROJECT IS WITHIN 400 FEET FROM A SIGNALIZED INTERSECTION, THE CONTRACTOR SHALL CONTACT HARRIS COUNTY PUBLIC INFRASTRUCTURE DEPARTMENT, SIGNAL DIVISION, AT 713-881-3210 FIVE WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
- DISTANCE ALONG CURVE OR AREA OF OBSTRUCTION SHOULD BE LONG ENOUGH TO DEVELOP ENOUGH TIME FOR A MOTORIST TO IDENTIFY AND REACT TO SIGNAGE.
- ALL PORTABLE SIGNING, DRUMS AND CONES SHALL BE REMOVED AT THE END OF EACH DAY.

HC MUD NO. 191
 HARRIS COUNTY, TEXAS

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 Texas Board of Professional Engineers Registration No. F-439
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 281.363.4039

BRABAND HAMMETT PHASE II UTILITY EXTENSIONS AND SANITARY SEWER PIPE REPLACEMENT OVERALL SITE PLAN & SWPPP PLAN (PIPE BURSTING) & TRAFFIC CONTROL PLAN

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	

JOB NO: 05340-0031 FOR CITY OF HOUSTON USE ONLY
 DWG. NO: ---
 DATE: SEPTEMBER 2015
 DGN. BY: JB2
 DWG. BY: LTN
 SCALE: 1" = 20'
 SHEET No. 5 OF 9

Professional Engineer Seal for Joshua P. Lee, License No. 110084, State of Texas. Date: 9-9-15.

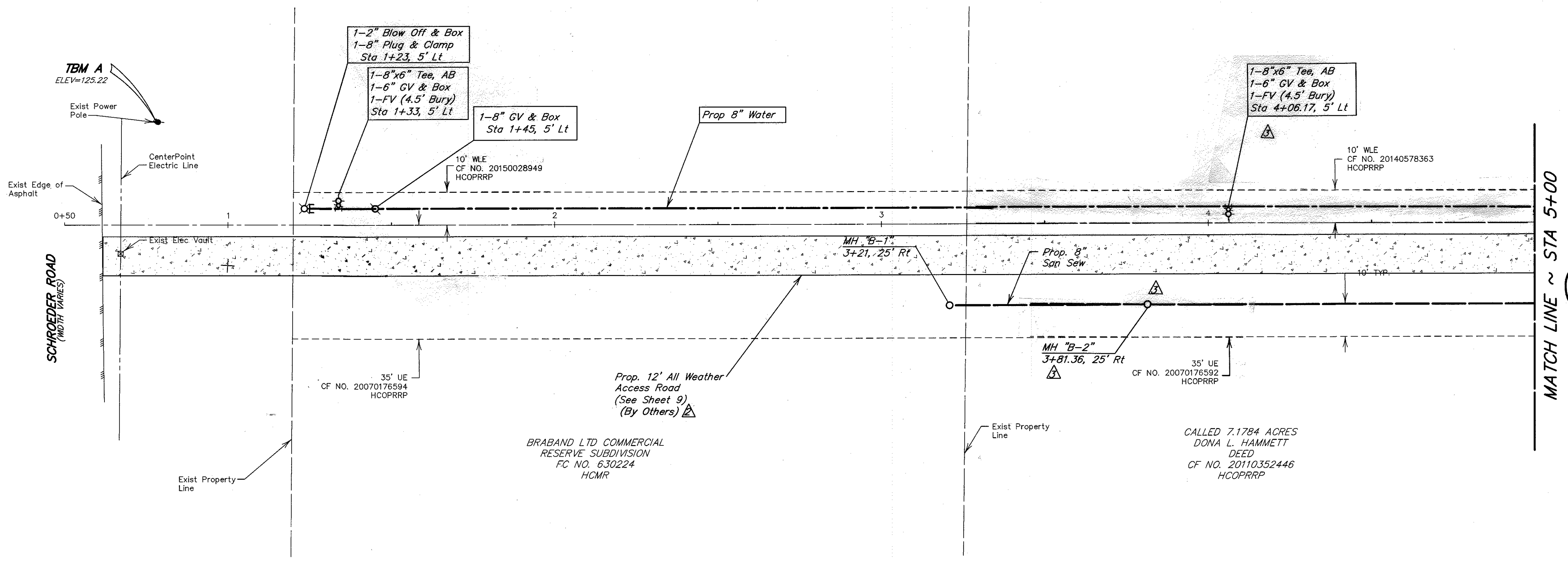
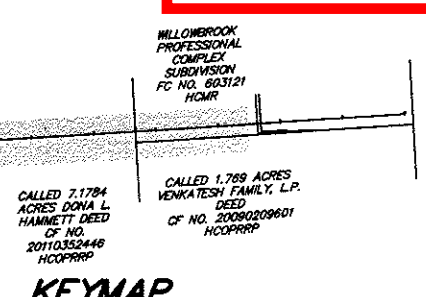
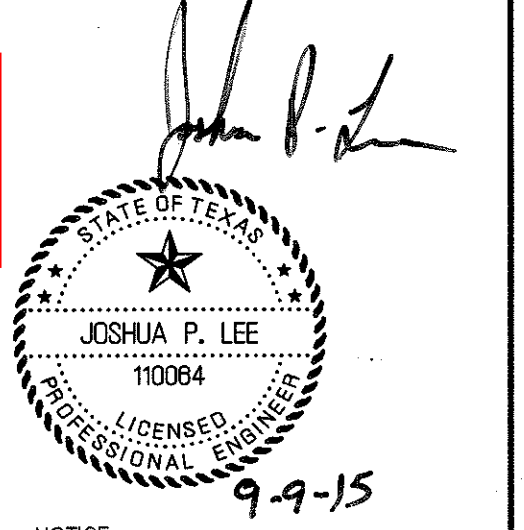
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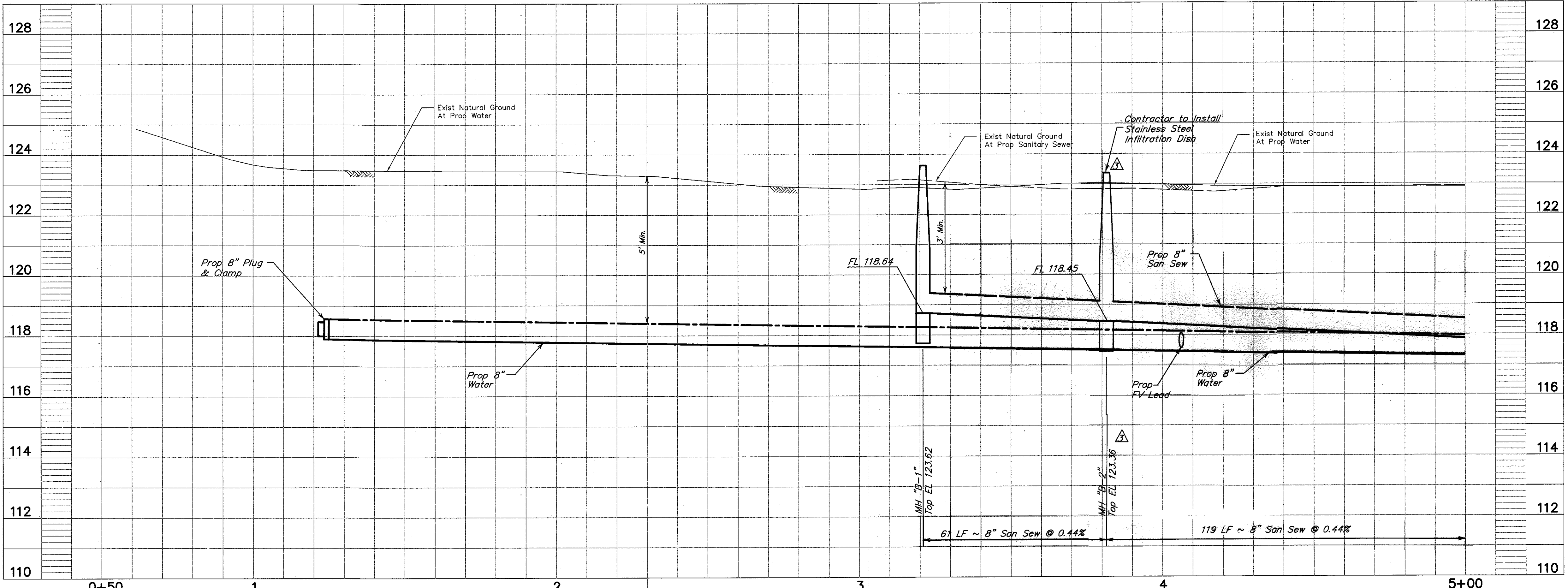
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AS-BUILTS
10/18/2016



BASELINE "A"



NOTICE
 CALL AT LEAST 2 WORKING DAYS (48 HOURS) BEFORE YOU DIG: TEXAS811 (DIG TESS) (1-800-344-8377) - OR - LONE STAR NOTIFICATION CENTER (1-800-669-8344)

NOTICE
 TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED, CALL CENTERPOINT ENERGY AT 713-207-2222. 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 FULFILL YOUR OBLIGATION TO CALL 811

PRIVATE UTILITY LINES SHOWN
 AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4567.

CenterPoint Energy/Electric Facilities
 Approved only for closing underground facilities (unless otherwise noted).
 Valid at time of review only. SIGNATURE VALID FOR 6 MONTHS
 Date: 9/30/15
 AT&T TEXAS/SWB/T Facilities Approved for AT&T Texas/SBC underground conduit facilities only.
 Signature valid for one year.
 Date: 9/30/15
 CenterPoint Energy/Gas Facilities
 (Gas service lines are not shown)
 Valid at time of review only. SIGNATURE VALID FOR 6 MONTHS

NO.	DATE	REVISIONS	APP.
1	4/8/16	ADDITION OF TWO S.S. MANHOLES	JPL
2	9/29/15	IDENTIFY ACCESS RD. BY OTHERS	JPL
3	9/29/15	ADD FLUSHING VALVE PER COH	JPL

HC MUD NO. 191
 HARRIS COUNTY, TEXAS

JONES CARTER
 Texas Board of Professional Engineers Registration No. F-439
 8701 New Trails Drive, Suite 200 • The Woodlands, Texas 77381
 281.263.4039

BRABAND HAMMETT PHASE II UTILITY EXTENSIONS AND SANITARY SEWER PIPE REPLACEMENT

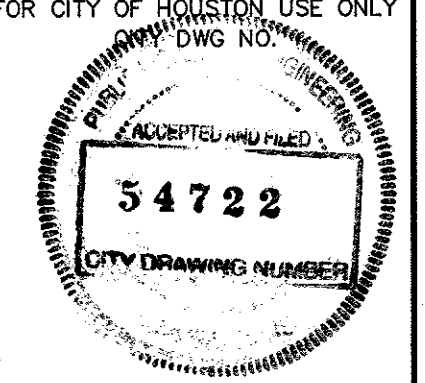
BASELINE "A"
0+50 TO 5+00

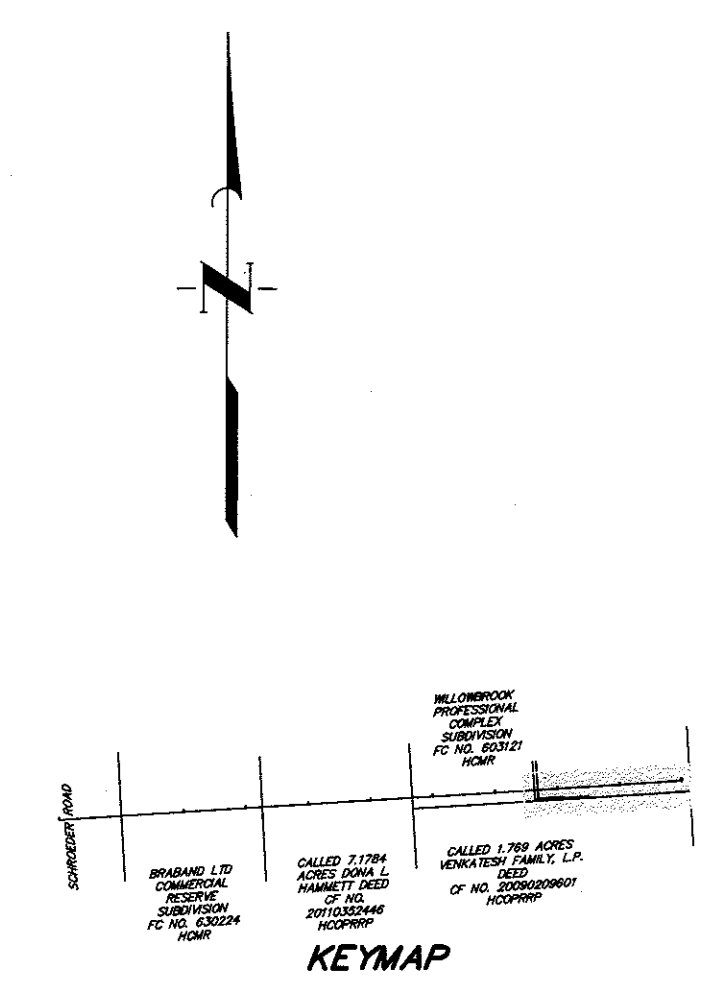
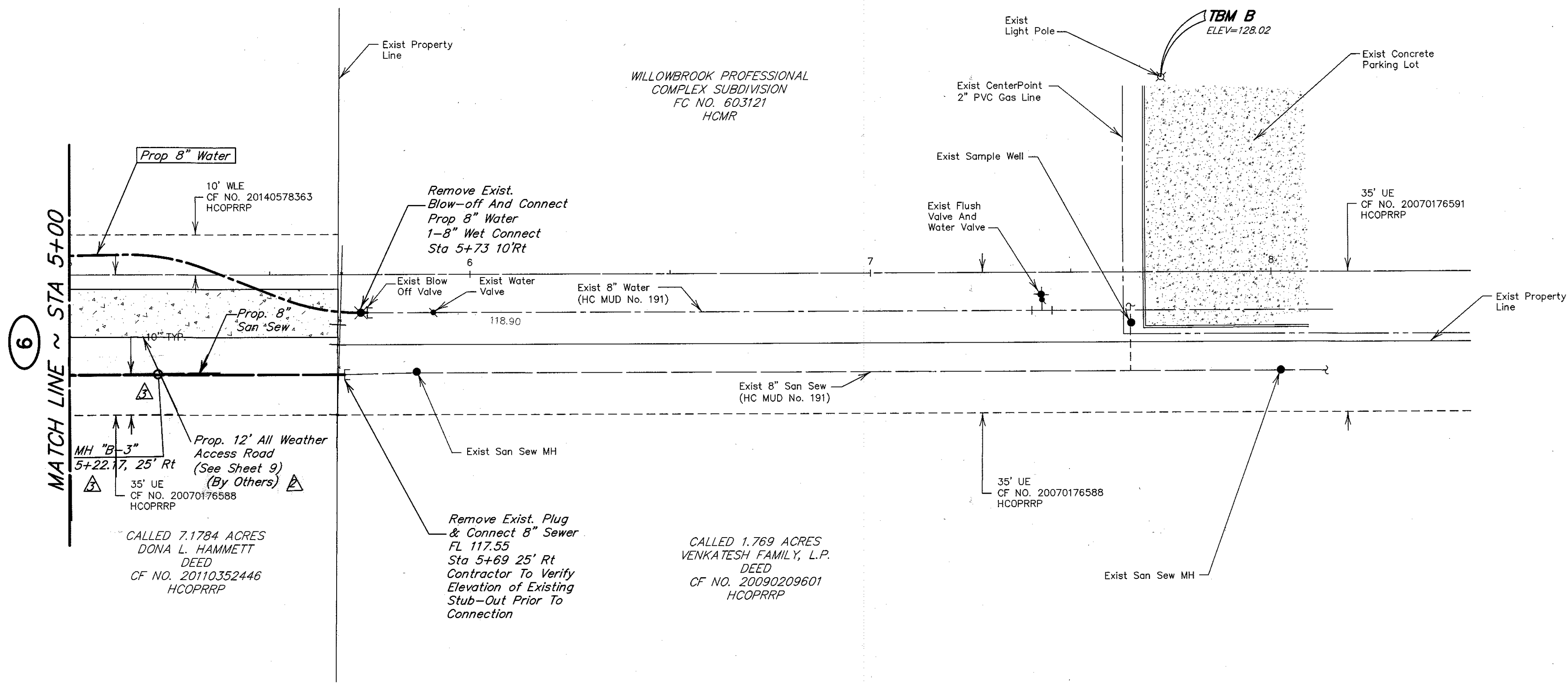
NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	2/10/15	TRAFFIC & TRANSPORTATION
WASTEWATER	8/10/14	STORM WATER QUALITY
STORM		FACILITIES
STREET & BRIDGE		

JOB NO: 05340-0031 FOR CITY OF HOUSTON USE ONLY
 DWG. NO: ---
 DATE: SEPTEMBER 2015
 DGN. By: JB2
 DWG. By: LTN
 SCALE: 1" = 20' H.
 1" = 2' V.
 SHEET No. 6 OF 9





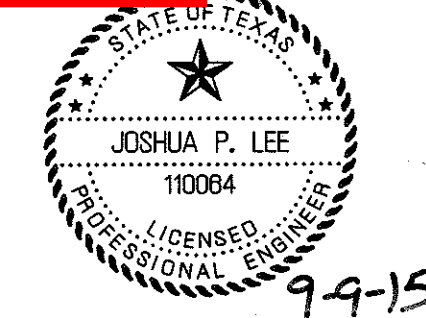
BENCH MARK
ELEVATIONS SHOWN HEREON ARE BASED ON HARRIS COUNTY FLOODPLAIN REFERENCE MARK NO. 150770 LOCATED AT THE NORTHEAST INTERSECTION OF FM 1960 AND BRETON RIDGE STREET WITH A PUBLISHED ELEVATION OF 120.92 FEET, NAVD 88, 2001 ADJUSTMENT.

TBM A
TEMPORARY BENCHMARK A BEING A RAILROAD SPIKE SET IN A POWER POLE ALONG THE EAST RIGHT-OF-WAY OF SCHROEDER ROAD AND FURTHER SHOWN HEREON.
ELEVATION = 125.22 FEET, NAVD 88, 2001 ADJUSTMENT.

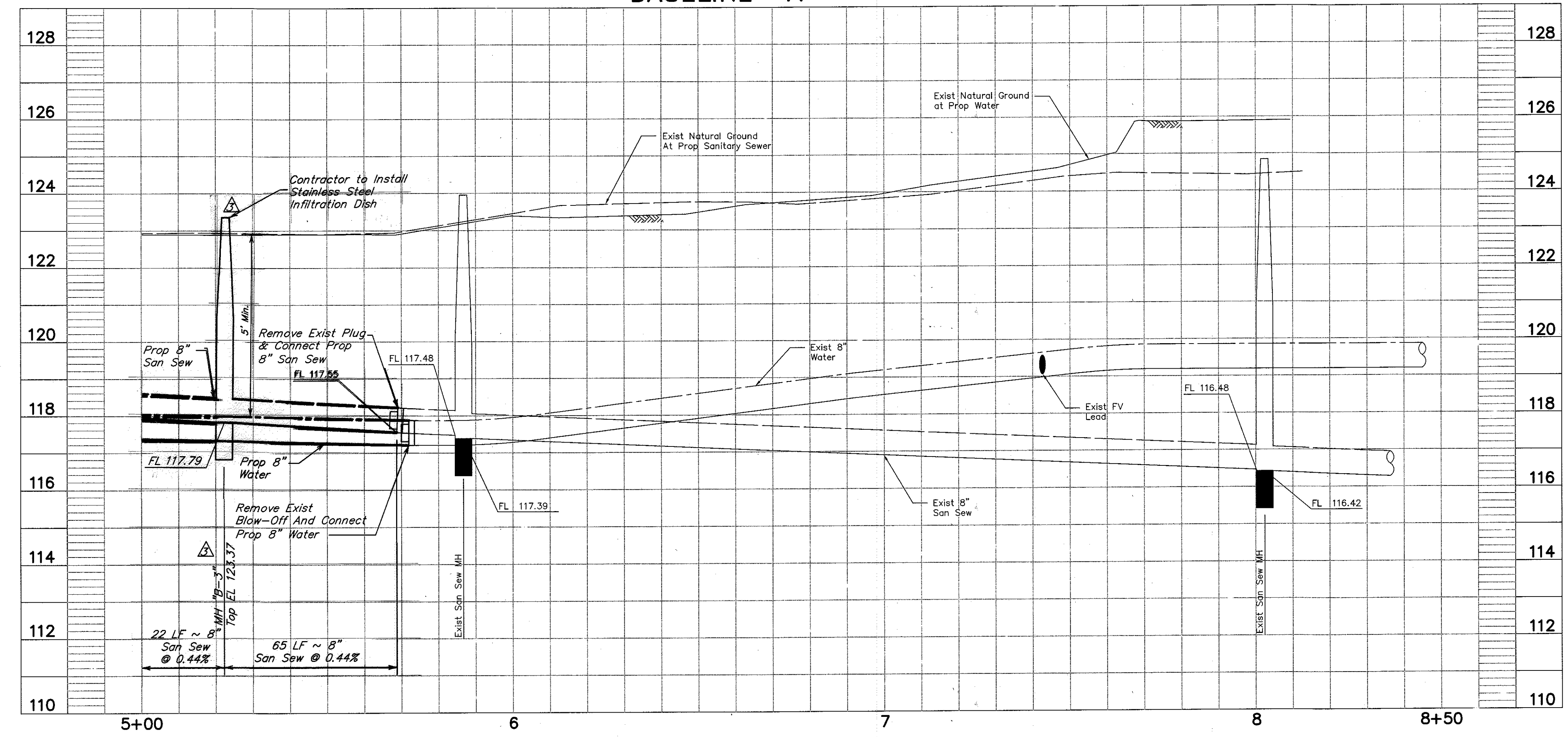
TBM B
TEMPORARY BENCHMARK B BEING A SQUARE CUT IN THE CONCRETE BASE OF A LIGHT POLE AND FURTHER SHOWN HEREON.
ELEVATION = 128.02 FEET, NAVD 88, 2001 ADJUSTMENT.

100-YR FLOOD PLAIN
ACCORDING TO MAP NO. 48201C0435M OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR HARRIS COUNTY, TEXAS AND INCORPORATED AREAS, DATED OCTOBER 16, 2013, THE SUBJECT TRACT IS SITUATED WITHIN UNSHADED ZONE X DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN (500-YEAR FLOOD).

AS-BUILTS
10/18/2016



BASELINE "A"



NOTICE
CALL AT LEAST 2 WORKING DAYS (48 HOURS) BEFORE YOU DIG: TEXAS811 (DIG TESS) (1-800-344-8377) - OR - LONE STAR NOTIFICATION CENTER (1-800-669-8344)

NOTICE
TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED, CALL CENTERPOINT ENERGY AT 713-207-2222. 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 FULFILL YOUR OBLIGATION TO CALL 811.

PRIVATE UTILITY LINES SHOWN
AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4567.

CenterPoint Energy/Electric Facilities (Approved only for siting underground facilities, unless otherwise noted.) Valid at time of review only. SIGNATURE VALID FOR 6 MONTHS	Date: 9/30/15		
AT&T TEXAS/SWB/T Facilities (Approved for AT&T Texas/SBC underground conduit facilities only.) Signature valid for one year.	Date: 9/30/15		
CenterPoint Energy/Gas Facilities (Gas service lines are not shown.) Valid at time of review only. SIGNATURE VALID FOR 6 MONTHS	Date: 9/30/15		
4/8/16 ADDITION OF TWO S.S. MANHOLES	JPL		
9/29/15 IDENTIFY ACCESS RD. BY OTHERS	JPL		
NO.	DATE	REVISIONS	APP.

HC MUD NO. 191
HARRIS COUNTY, TEXAS

JONES CARTER
Texas Board of Professional Engineers Registration No. F-439
8701 New Trails Drive, Suite 200 • The Woodlands, Texas 77381
281.263.4039

BRABAND HAMMETT PHASE II UTILITY EXTENSIONS AND SANITARY SEWER PIPE REPLACEMENT

BASELINE "A"
5+00 TO 8+50

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

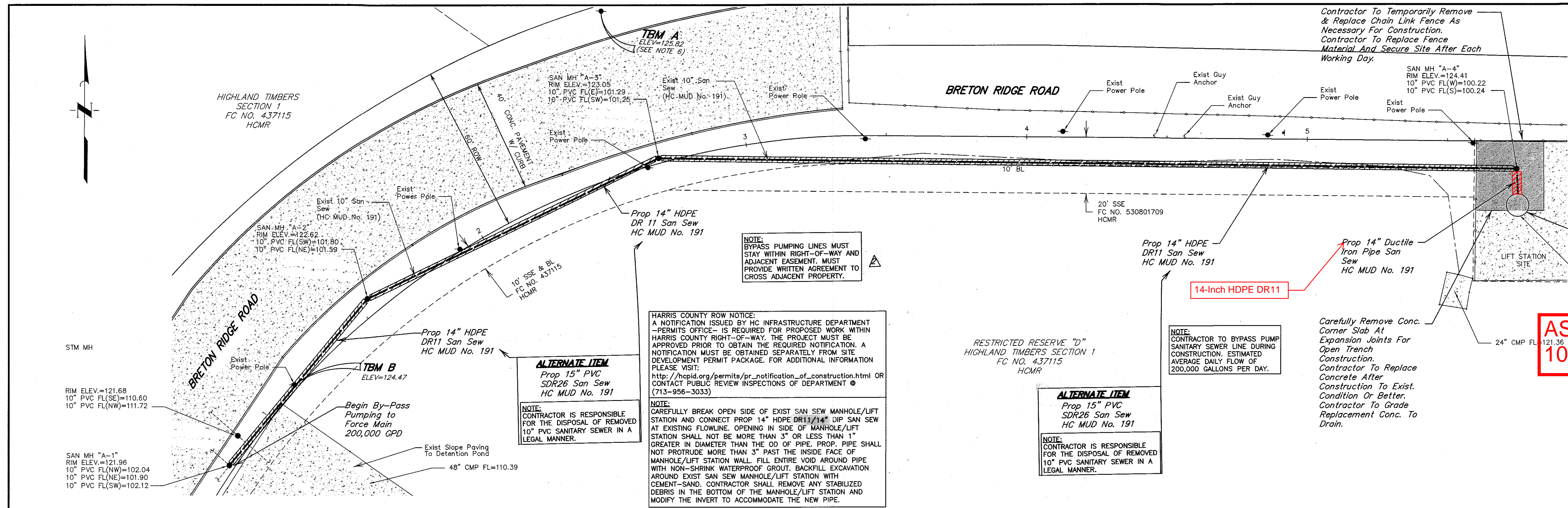
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

JOB NO: 05340-0031 FOR CITY OF HOUSTON USE ONLY
DWG. NO: ---
DATE: SEPTEMBER 2015
DGN. BY: JLB2
DWG. BY: LTN
SCALE: 1" = 20' H.
1" = 2' V.

SHEET No. 7 OF 9

54722
CITY DRAWING NUMBER



BENCH MARK
ELEVATIONS SHOWN HEREON ARE BASED ON HARRIS COUNTY FLOODPLAIN REFERENCE MARK NO. 150770 LOCATED AT THE NORTHEAST INTERSECTION OF FM 1960 AND BRETON RIDGE STREET WITH A PUBLISHED ELEVATION OF 120.92 FEET, NAVD 88, 2001 ADJUSTMENT.

TBM A
TEMPORARY BENCHMARK A BEING A RAILROAD SPIKE SET IN A POWER POLE ALONG THE NORTH RIGHT-OF-WAY OF BRETON RIDGE STREET AND FURTHER SHOWN HEREON. ELEVATION = 124.47 FEET, NAVD 88, 2001 ADJUSTMENT.

TBM B
TEMPORARY BENCHMARK B BEING A RAILROAD SPIKE SET IN A POWER POLE ALONG THE SOUTHEAST RIGHT-OF-WAY OF BRETON RIDGE STREET AND FURTHER SHOWN HEREON. ELEVATION = 124.47 FEET, NAVD 88, 2001 ADJUSTMENT.

100-YR FLOOD PLAIN
ACCORDING TO MAP NO. 48201C0435M OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR HARRIS COUNTY, TEXAS AND INCORPORATED AREAS, DATED OCTOBER 16, 2013, THE SUBJECT TRACT IS SITUATED WITHIN UNSHADED ZONE X DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN (500-YEAR FLOOD).

100-YR FLOOD PLAIN
CONTRACTOR TO TEMPORARILY REMOVE & REPLACE CHAIN LINK FENCE AS NECESSARY FOR CONSTRUCTION. CONTRACTOR TO REPLACE FENCE MATERIAL AND SECURE SITE AFTER EACH WORKING DAY.

Contractor To Temporarily Remove & Replace Chain Link Fence As Necessary For Construction. Contractor To Replace Fence Material And Secure Site After Each Working Day.

Connect Bypass Pumping to Force Main See Sheet 9

Exist Wet Well Detail & Profile See Sheet 9

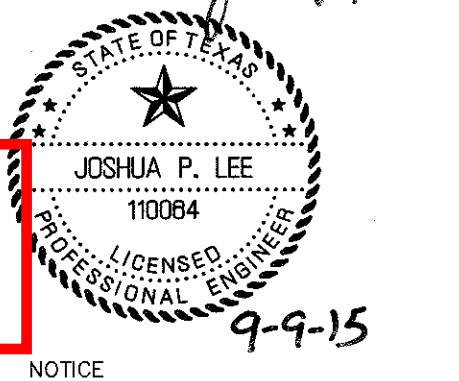
24" CMP FL=121.36

Prop 14" HDPE DR11 San Sew HC MUD No. 191

Prop 14" Ductile Iron Pipe San Sew HC MUD No. 191

Carefully Remove Conc. Corner Slab At Expansion Joints For Open Trench Construction. Contractor To Replace Concrete After Construction To Exist. Condition Or Better. Contractor To Grade Replacement Conc. To Drain.

AS-BUILTS
10/18/2016



HARRIS COUNTY ROW NOTICE:
A NOTIFICATION ISSUED BY HC INFRASTRUCTURE DEPARTMENT - PERMITS OFFICE - IS REQUIRED FOR PROPOSED WORK WITHIN HARRIS COUNTY RIGHT-OF-WAY. THE PROJECT MUST BE APPROVED PRIOR TO OBTAINING THE REQUIRED NOTIFICATION. A NOTIFICATION MUST BE OBTAINED SEPARATELY FROM SITE DEVELOPMENT PERMIT PACKAGE. FOR ADDITIONAL INFORMATION PLEASE VISIT:
http://hcpid.org/permits/pr_notification_of_construction.html OR CONTACT PUBLIC REVIEW INSPECTIONS OF DEPARTMENT @ (713-956-3033)

NOTE:
BYPASS PUMPING LINES MUST STAY WITHIN RIGHT-OF-WAY AND ADJACENT EASEMENT. MUST PROVIDE WRITTEN AGREEMENT TO CROSS ADJACENT PROPERTY.

NOTE:
CONTRACTOR TO BYPASS PUMP SANITARY SEWER LINE DURING CONSTRUCTION. ESTIMATED AVERAGE DAILY FLOW OF 200,000 GALLONS PER DAY.

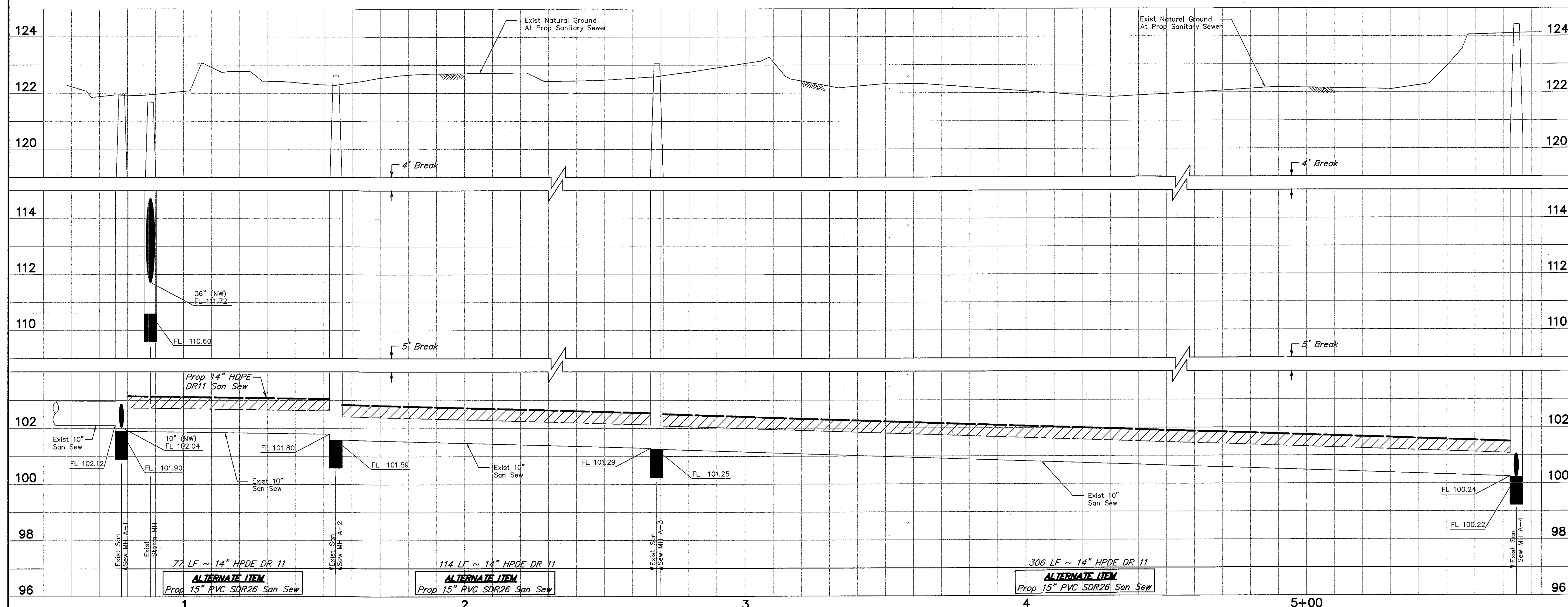
NOTE:
CONTRACTOR IS RESPONSIBLE FOR THE DISPOSAL OF REMOVED 10" PVC SANITARY SEWER IN A LEGAL MANNER.

NOTE:
CONTRACTOR IS RESPONSIBLE FOR THE DISPOSAL OF REMOVED 10" PVC SANITARY SEWER IN A LEGAL MANNER.

ALTERNATE ITEM
Prop 15" PVC SDR26 San Sew HC MUD No. 191

NOTE:
CONTRACTOR IS RESPONSIBLE FOR THE DISPOSAL OF REMOVED 10" PVC SANITARY SEWER IN A LEGAL MANNER.

BRETON RIDGE ROAD



CALL AT LEAST 2 WORKING DAYS (48 HOURS) BEFORE YOU DIG:
TEXAS811 (DIG TESS) (1-800-344-8377)
OR
LONE STAR NOTIFICATION CENTER (1-800-669-8344)

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PRIVATE UTILITY LINES SHOWN
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NO.	DATE	REVISIONS	APP.
11/2/15		ADD PVC ALTERNATE ITEM	JPL
9/29/15		ADD BY-PASS PUMP COMMENTS	JPL

HC MUD NO. 191
HARRIS COUNTY, TEXAS

JONES CARTER
Texas Board of Professional Engineers Registration No. F-439
8701 New Trails Drive, Suite 200 - The Woodlands, Texas 77381
281.363.4039

BRABAND HAMMETT PHASE II UTILITY EXTENSIONS AND SANITARY SEWER PIPE REPLACEMENT BRETON RIDGE ROAD (PIPE BURST) 0+00 TO 6+00

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

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

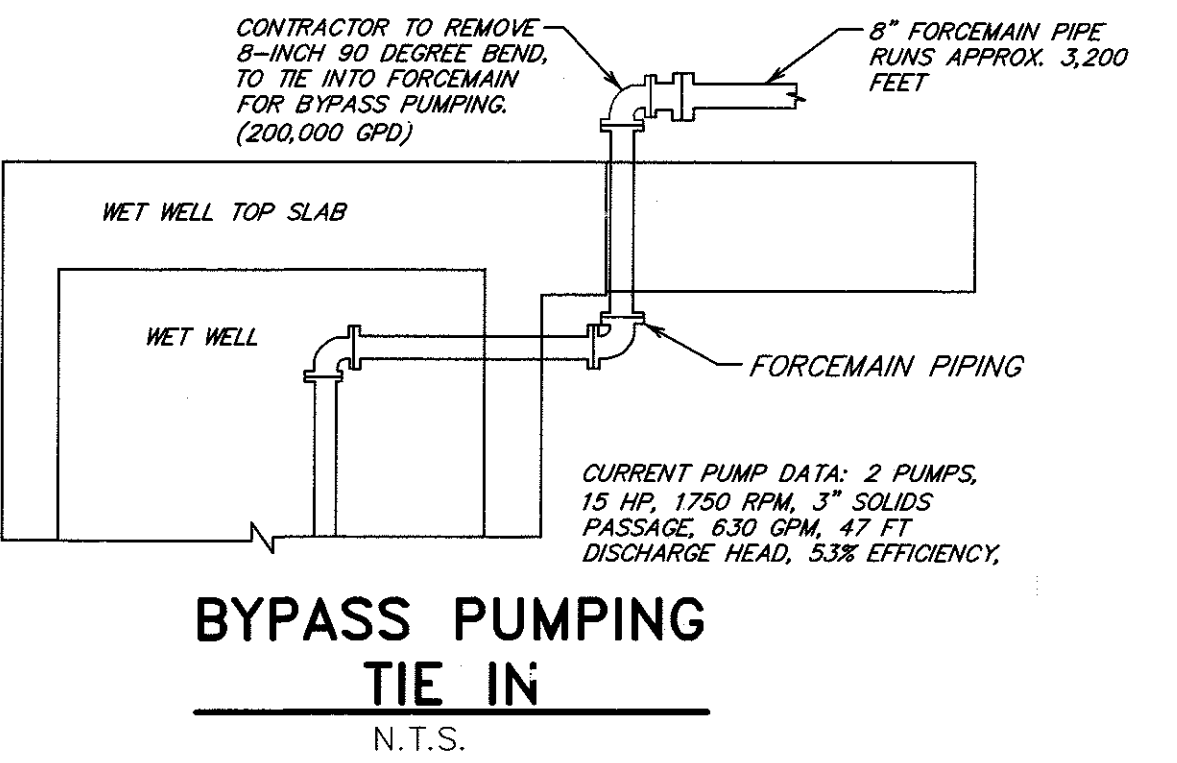
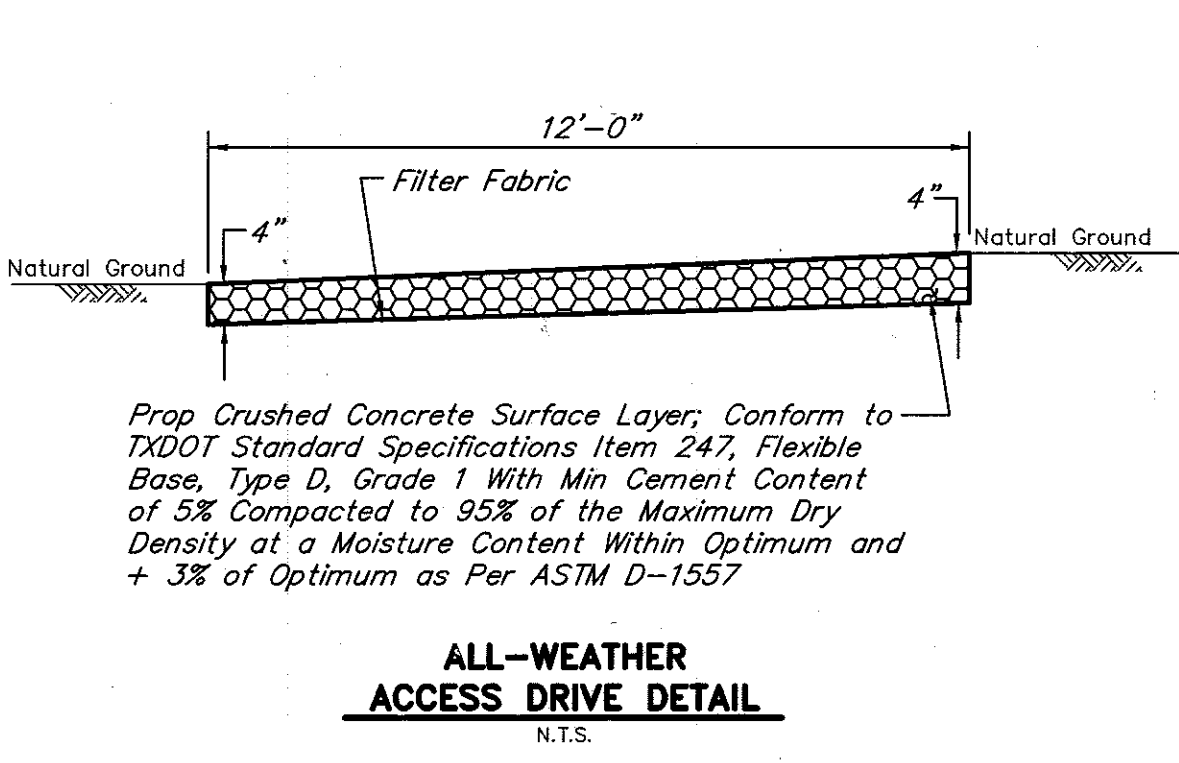
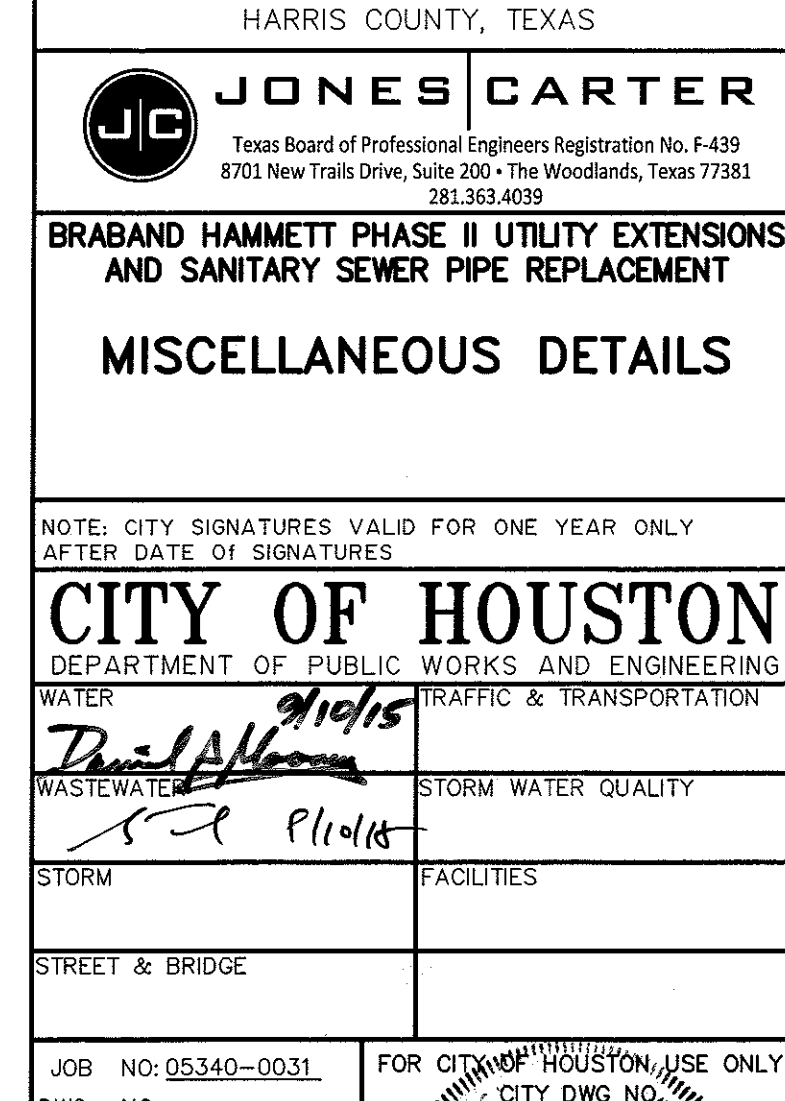
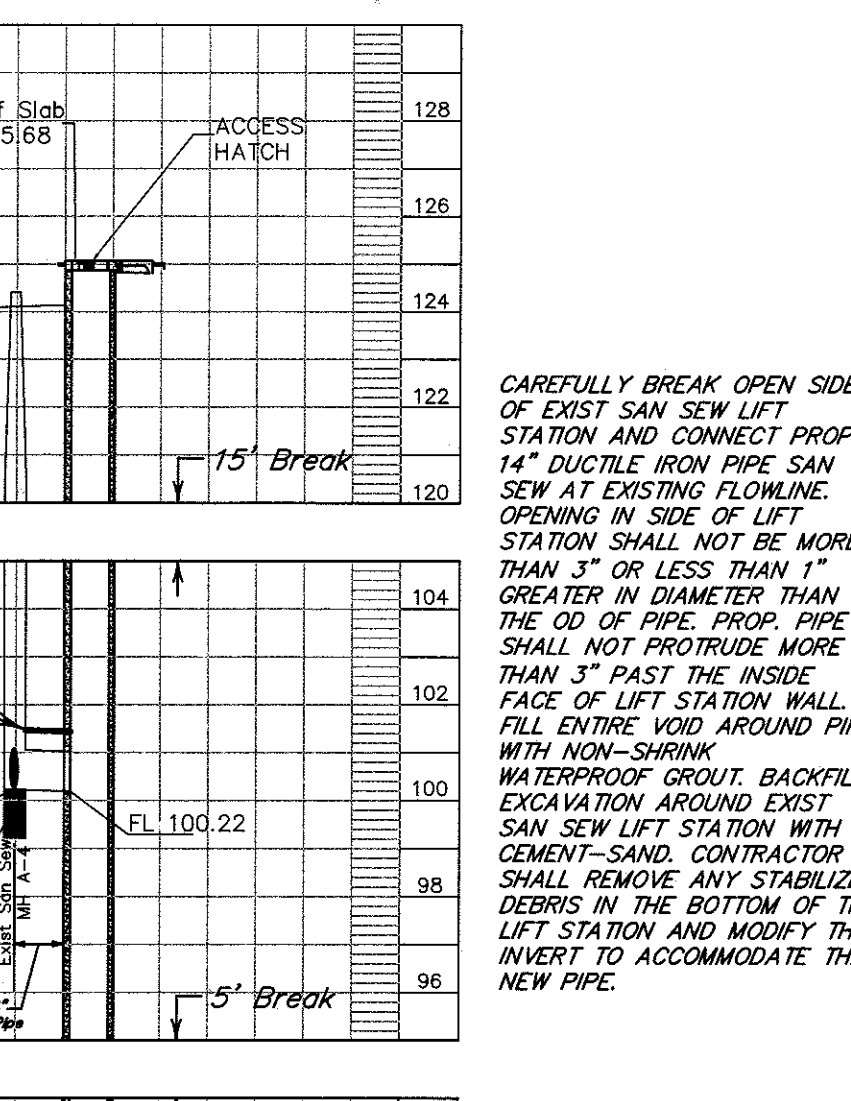
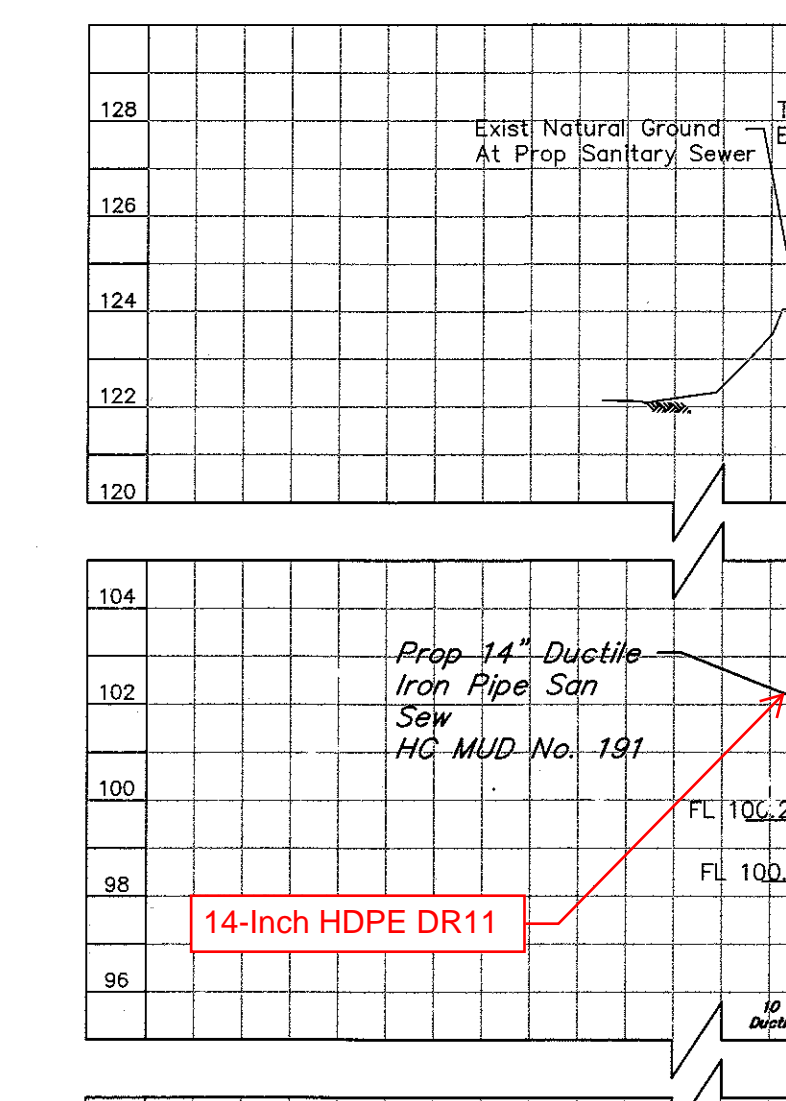
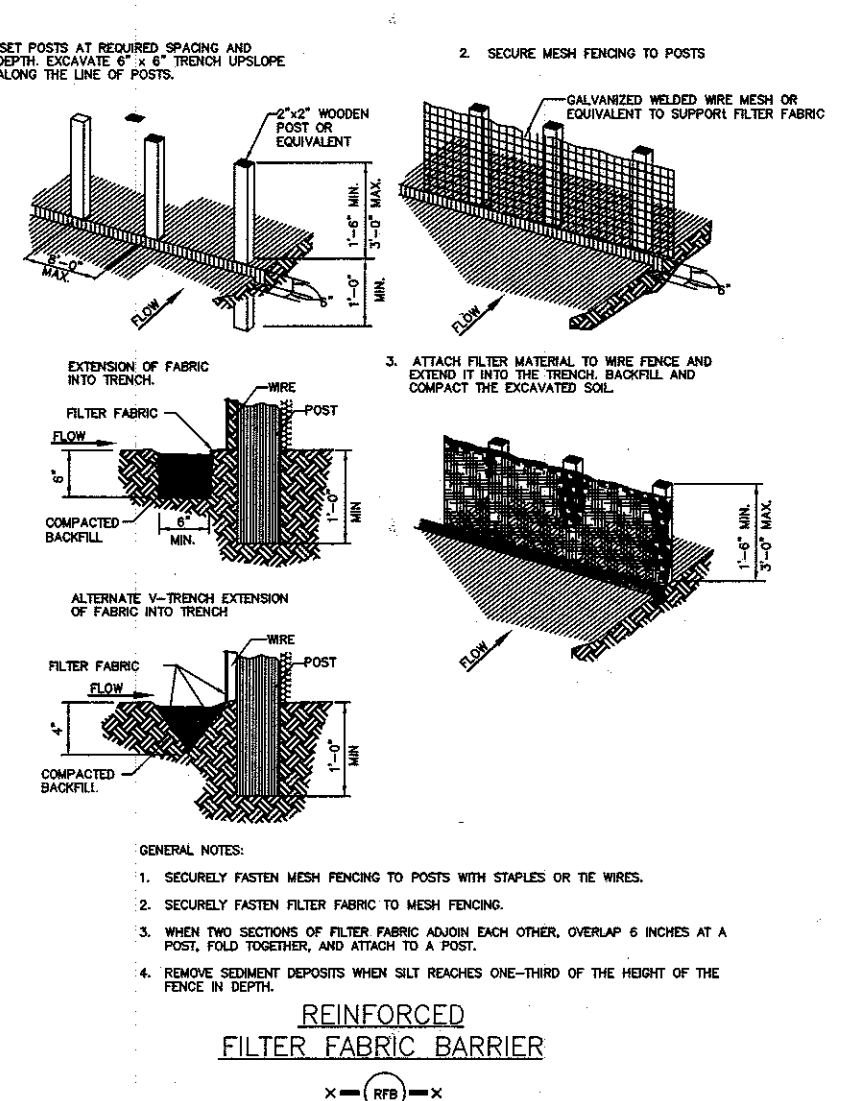
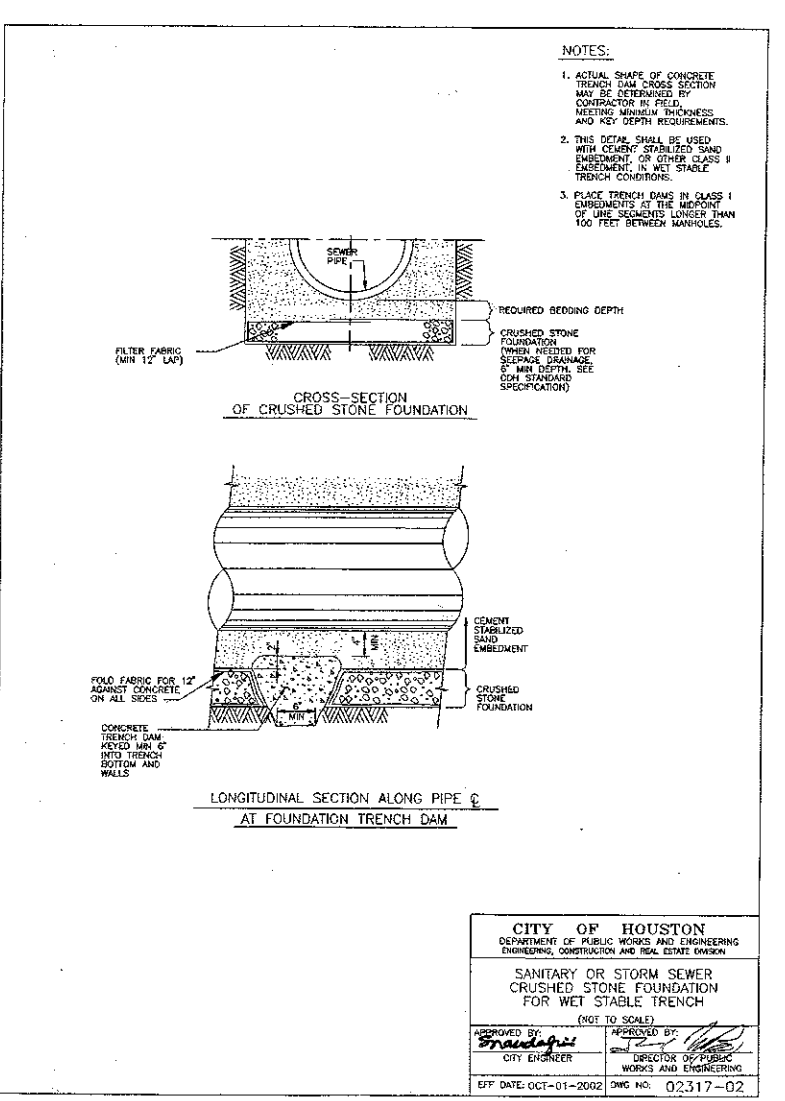
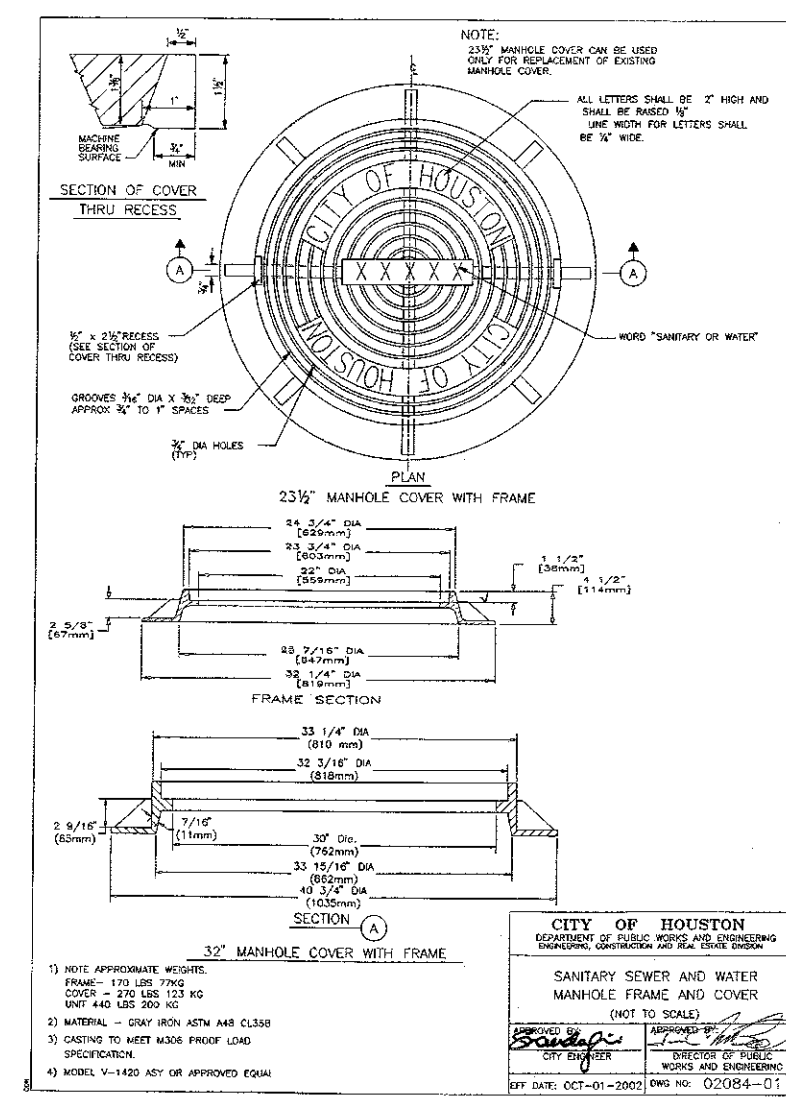
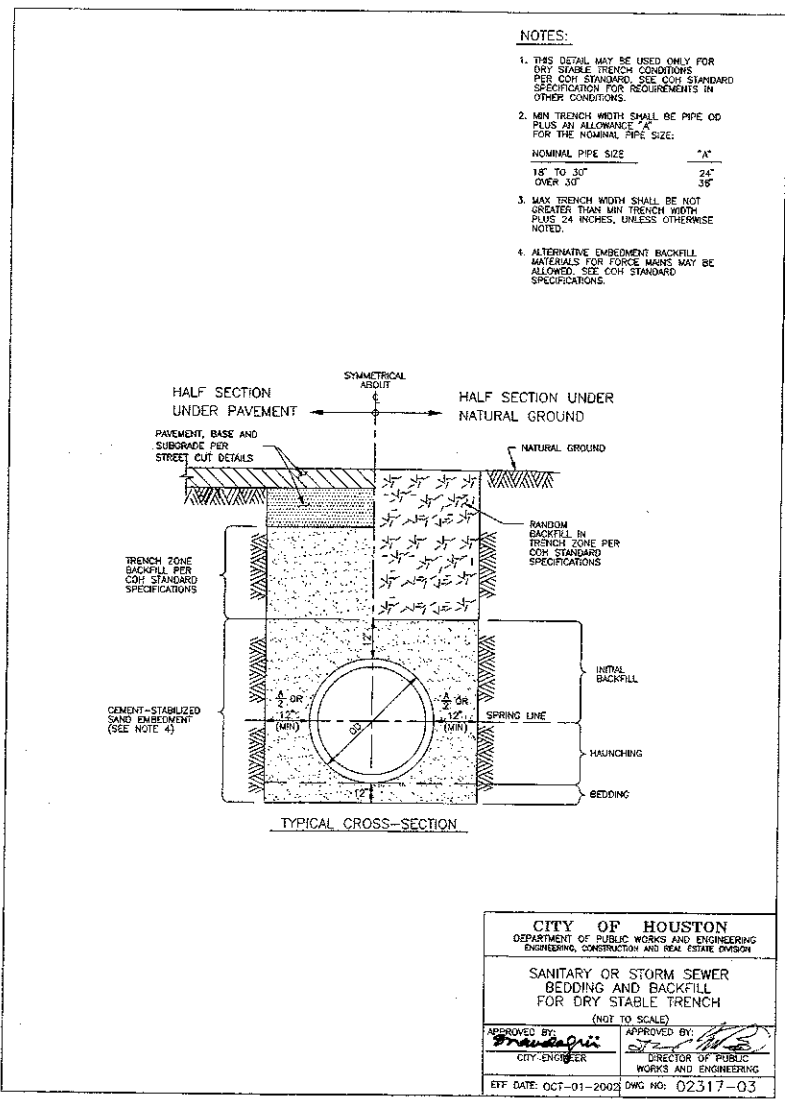
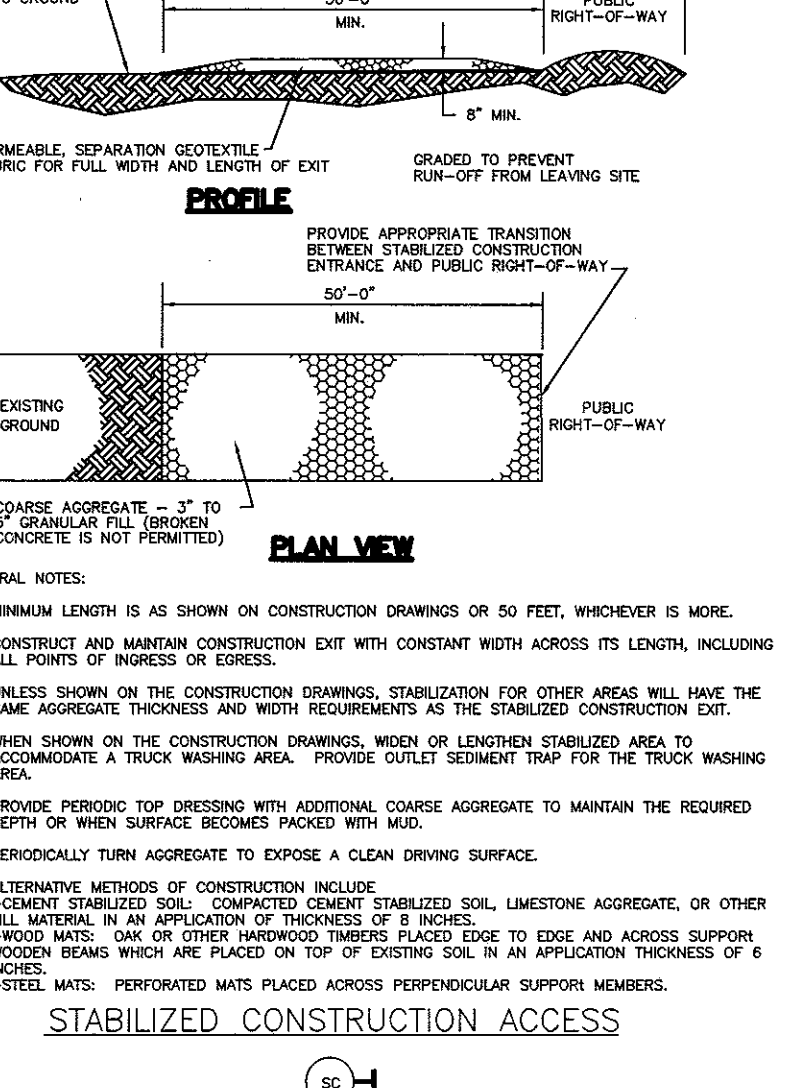
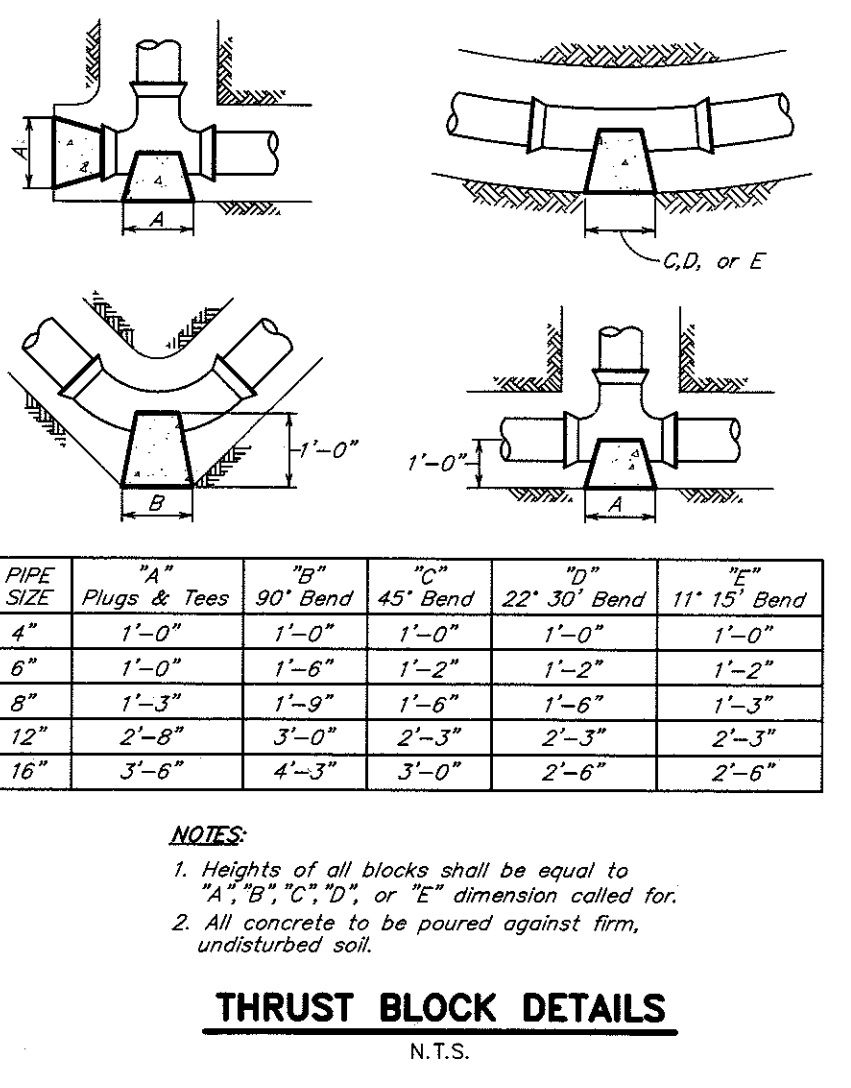
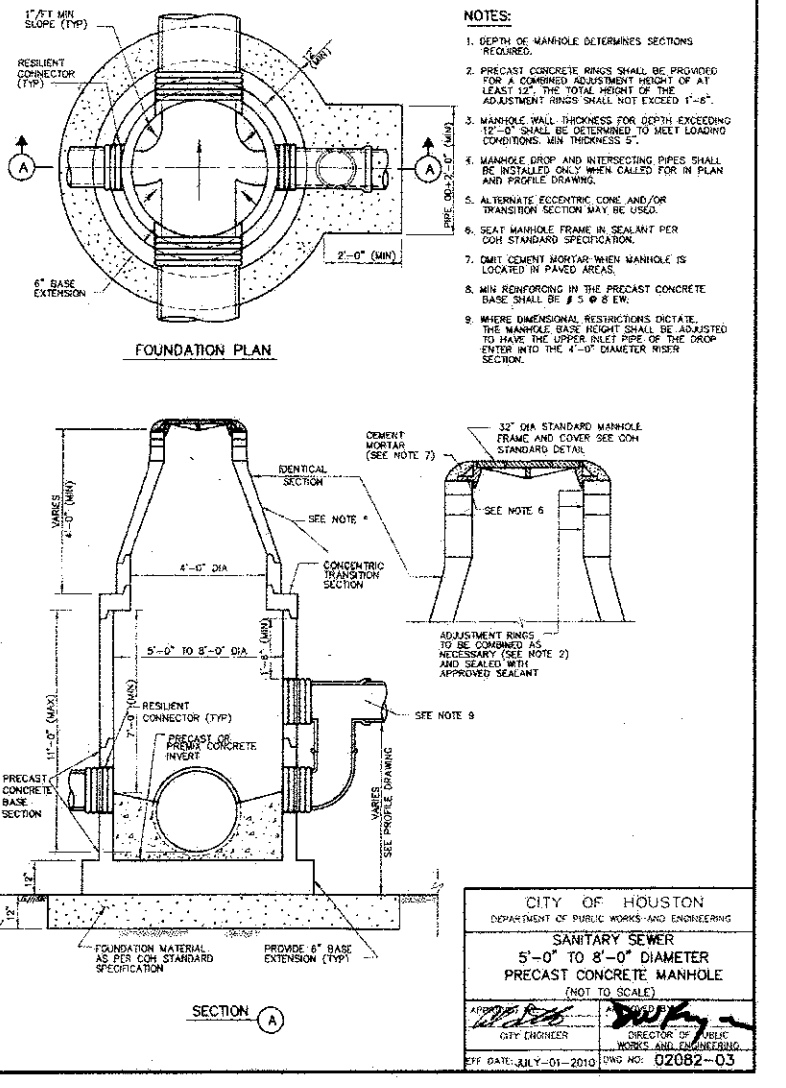
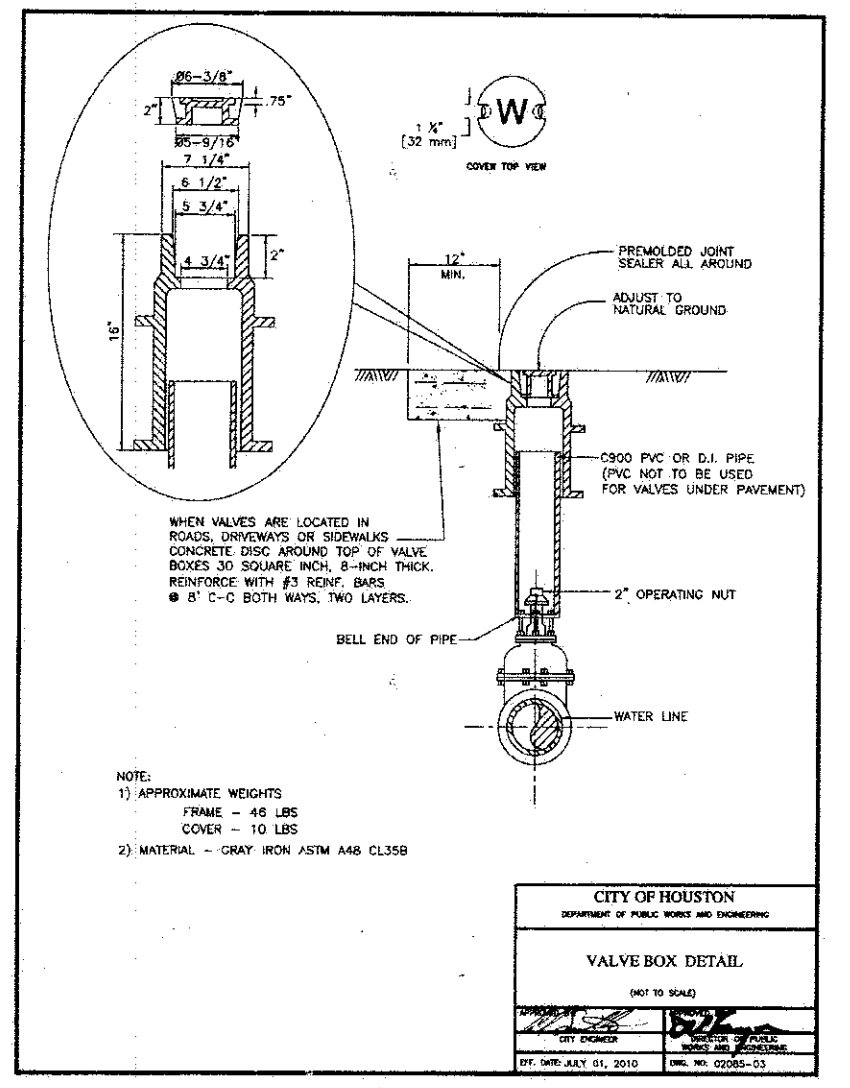
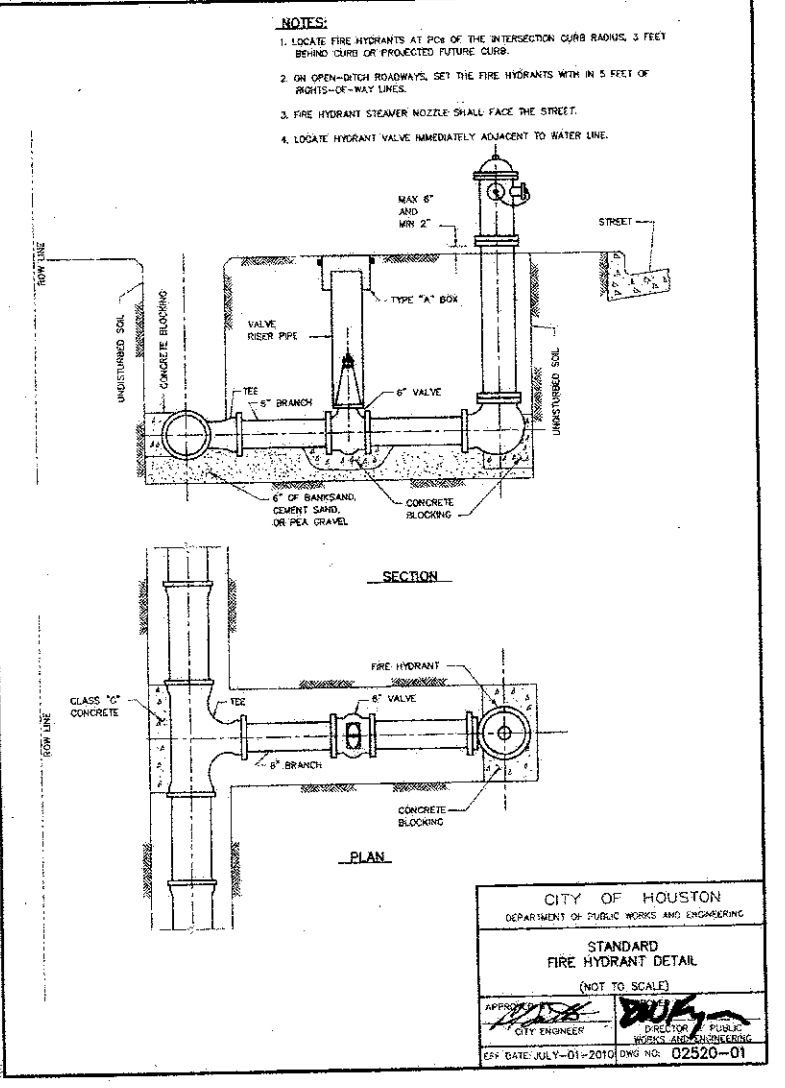
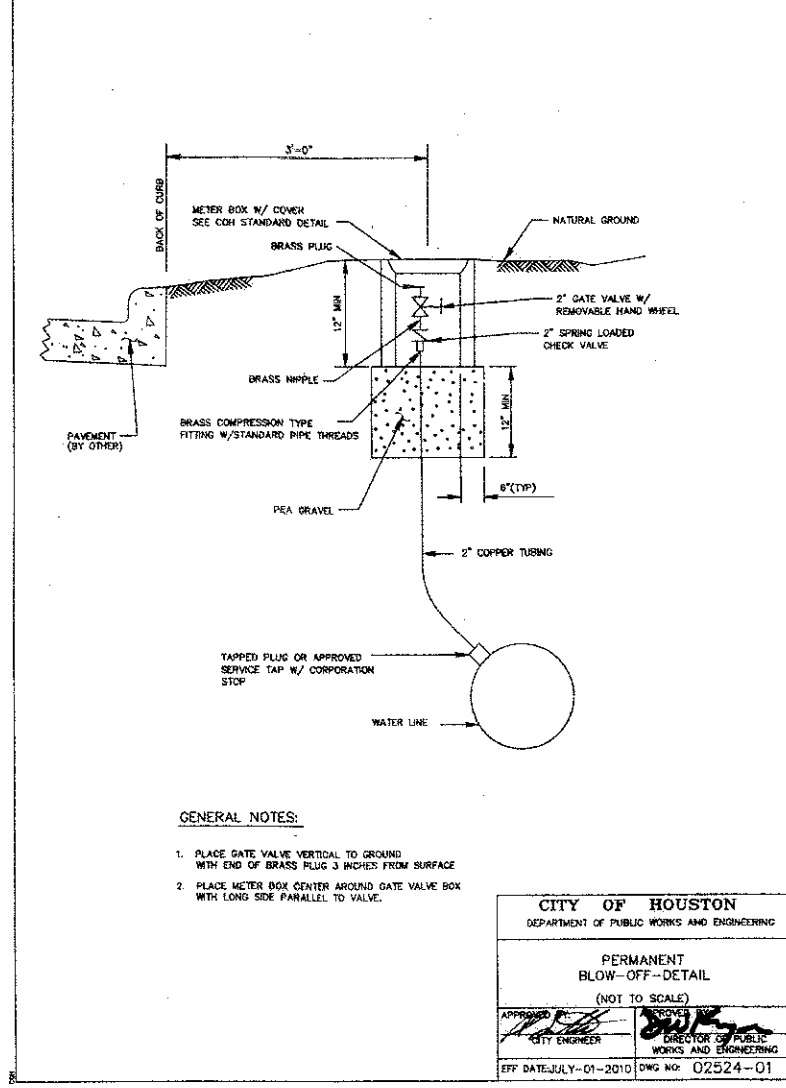
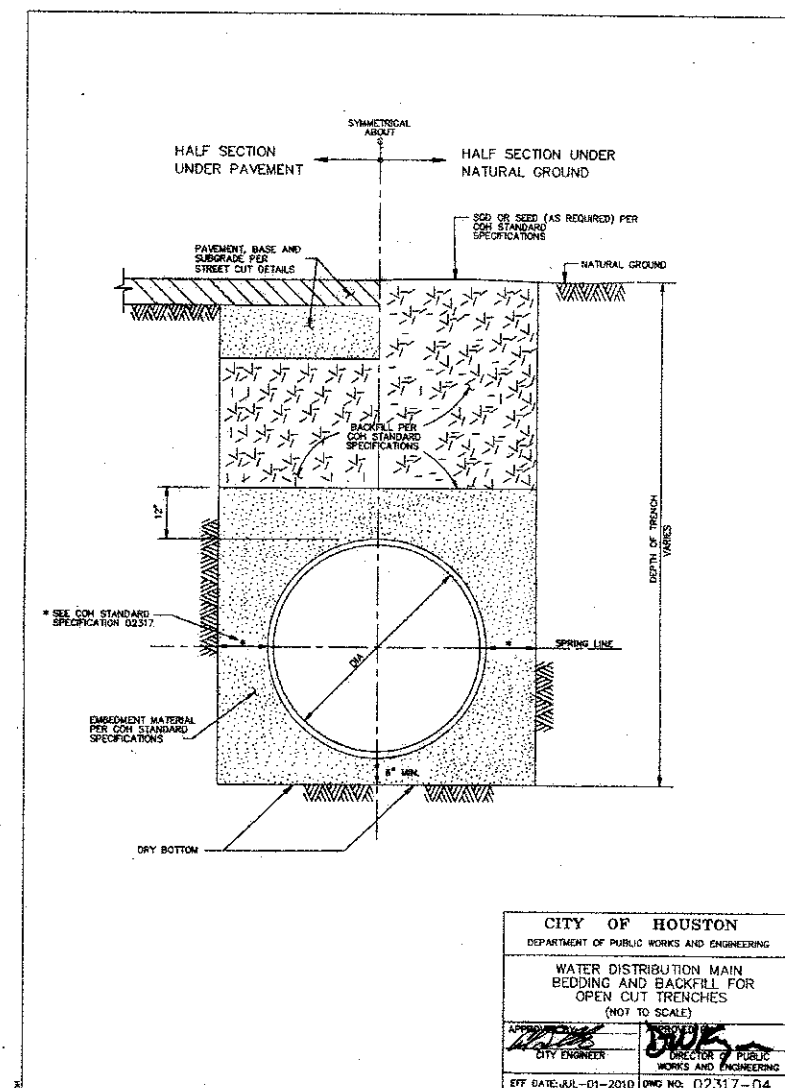
WATER: 9/16/15
WASTEWATER: 9/16/15
STORM: 9/16/15

STORM WATER QUALITY FACILITIES

STREET & BRIDGE

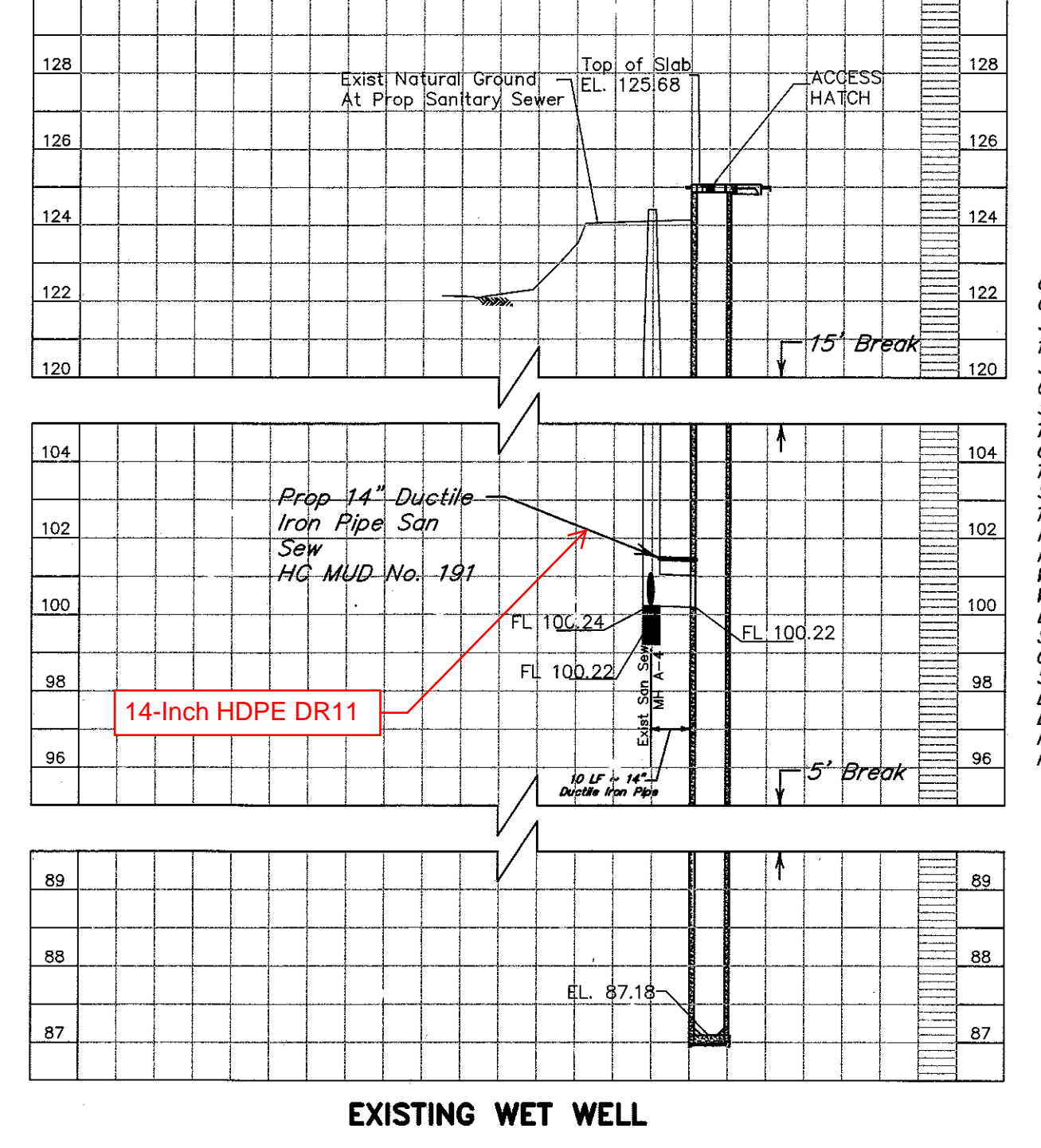
JOB NO: 95340-0031
DWG. NO: ---
DATE: SEPTEMBER 2015
DGN. By: JB2
DWG. By: LTN
SCALE: 1" = 20' H.
1" = 2' V.
SHEET No. 8 OF 9

FOR CITY OF HOUSTON USE ONLY
CITY DWG NO. 54722
CITY DRAWING NUMBER



AS-BUILTS
10/18/2016

STATE OF TEXAS
JOSHUA P. LEE
110084
LICENSED PROFESSIONAL ENGINEER
9-9-15



NO.	DATE	REVISIONS	APP.

HC MUD NO. 191
HARRIS COUNTY, TEXAS

JONES CARTER
Texas Board of Professional Engineers Registration No. F-439
8701 New Trails Drive, Suite 200 • The Woodlands, Texas 77381
281.363.4039

BRABAND HAMMETT PHASE II UTILITY EXTENSIONS AND SANITARY SEWER PIPE REPLACEMENT

MISCELLANEOUS DETAILS

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

JOB NO: 05340-0031
DWG. NO: ---

DATE: SEPTEMBER 2015
DGN. By: JB2

DWG. By: LTN

SCALE: N.T.S.

SHEET No. 9 OF 9

FOR CITY OF HOUSTON, USE ONLY
CITY DWG NO. 54722
CITY DRAWING NUMBER