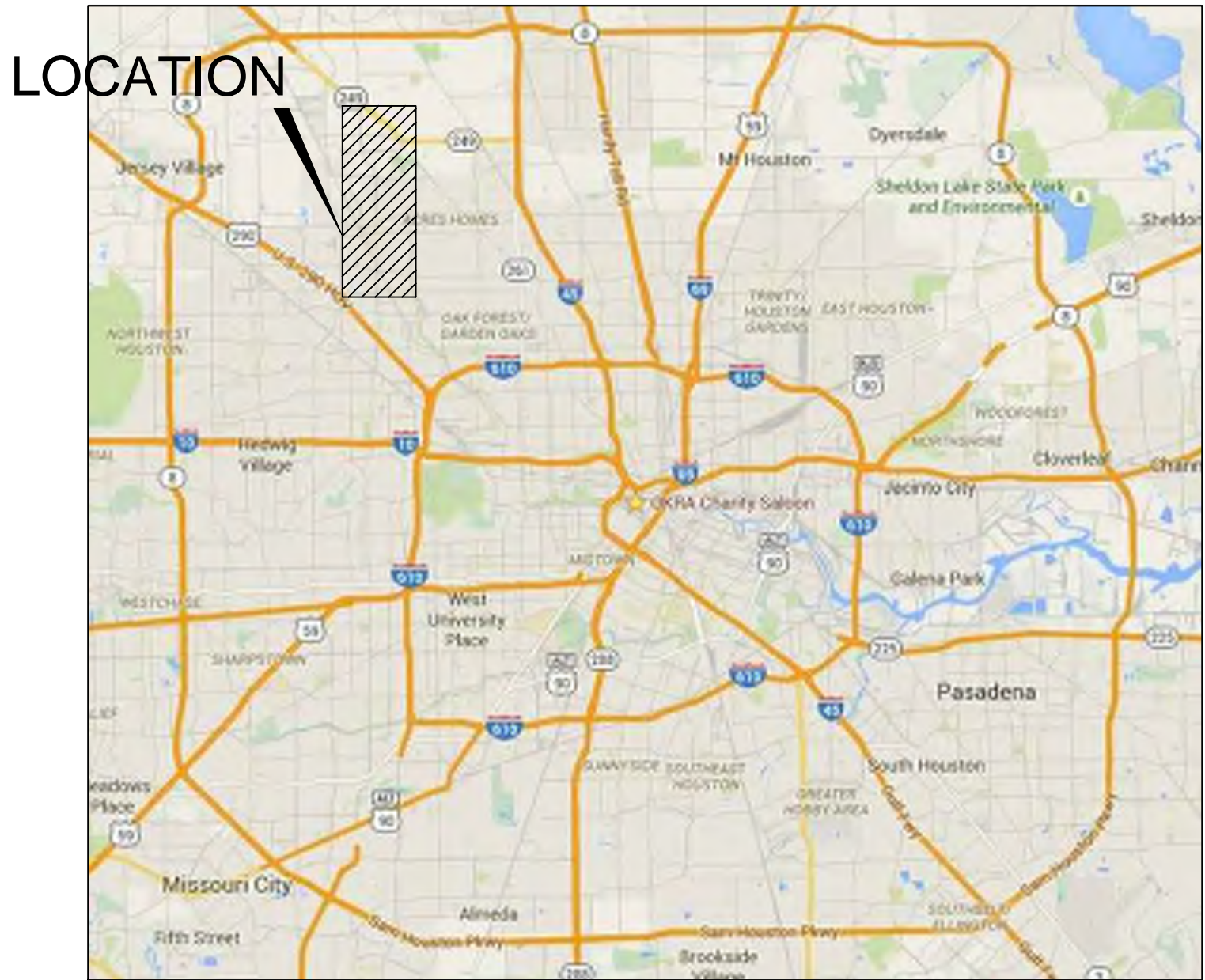


CONSTRUCTION PLANS  
FOR PROPOSED  
Sitework, Landscape & Irrigation  
FOR  
NEAR NORTHWEST MANAGEMENT DISTRICT (NNMD)  
DISTRICT MARKERS (PHASE 2)  
AT  
CITY OF HOUSTON, HARRIS COUNTY, TEXAS  
MAINTENANCE AGREEMENT ORD. #2009-401



LOCATION MAP

DRAWING INDEX

SHEET NO.	TITLE
01	COVER
02	GENERAL NOTES
03	SIGN LOCATIONS
04	SIGN LOCATIONS
05	SIGN LOCATIONS
06	SITWORK DETAILS
07	PLANTING PLAN
08	PLANTING PLAN
09	PLANTING PLAN & DETAILS
10	IRRIGATION PLAN
11	IRRIGATION PLAN
12	IRRIGATION PLAN
13	IRRIGATION NOTES AND DETAILS
14	DISTRICT MARKER PLAN & PROFILE DRAWINGS
15	DISTRICT MARKER PLAN & PROFILE DRAWINGS
16	DISTRICT MARKER PLAN & PROFILE DRAWINGS

APP.	REVISIONS
3	
2	
1	



VICINITY MAP

KEY MAP #: 450D, 410V, 411A, 451C, 411F, 411B, 411Y  
GIMS #: 5061D, 5061B, 5064D, 5063A, 5161A



APRIL 2018

TBG PROJECT No. H15375

According to Map No. (48201C0655M) of the Federal Emergency Management Agency's Flood Insurance Rate Maps for Harris County and Incorporated Areas, dated June 9, 2014 the subject tract is situated within: X & AE

ONE-CALL NOTIFICATION SYSTEM  
**CALL BEFORE YOU DIG!!!**  
(713) 223-4567 (In Houston)  
(New Statewide Number Outside Houston)  
1-800-545-6005

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. 832-394-9098

Ward, Getz & Associates, LLP.  
TX FIRM No. F-8756  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:

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 WATER	FACILITIES
STREET & BRIDGE	FOR CITY OF HOUSTON USE ONLY
CITY ENGINEER	DATE
DIRECTOR OF PUBLIC WORKS AND ENGINEERING	DATE
SHEET No. 1	OF 16



1. CONTRACTOR SHALL VERIFY ALL EXISTING BENCHMARKS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION. IF NO VERIFICATION IS CONDUCTED CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY.

2. WATER LINES, WASTEWATER COLLECTIONS SYSTEMS AND DRAINAGE SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S "STANDARD CONSTRUCTION SPECIFICATIONS" DATED JANUARY 2011, AND "STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING" DATED JANUARY 2011 WITH ALL SUBSEQUENT ADDENDUMS ADDRESSED HEREIN TO THE EXTENT OF CONFLICT WITH THESE PLANS. THE DESIGN MUST AGREE WITH THE MINIMUM STANDARDS ESTABLISHED IN THE "INFRASTRUCTURE DESIGN MANUAL" DATED JANUARY 2011. NOTE THAT PLAN SIGNATURES EXPIRE AFTER 1 YEAR AND THE LATEST EDITIONS OF DESIGN RULES, SPECIFICATIONS & MANUALS SHALL BE USED AS THE BASIS OF THE DESIGN.

3. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE EXISTING PUBLIC OR PRIVATE UTILITY LINES, INCLUDING BUT NOT LIMITED TO WATER LINES, WASTEWATER COLLECTION SYSTEMS AND STORM SEWERS, DURING CONSTRUCTION. ALL DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S "STANDARD CONSTRUCTION SPECIFICATIONS" WITH LATEST ADDENDUMS AND AMENDMENTS THERETO, WITH NO COST TO THE PUBLIC.

4. EXISTING UTILITY INFORMATION SHOWN IS NOT GUARANTEED TO BE ACCURATE AND ALL INCLUSIVE. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES AND OTHER FACILITIES AND EQUIPMENT. ANY DISCREPANCY OR DISCREPANCY DISCOVERED MUST BE IMMEDIATELY BROUGHT TO THE ENGINEER'S ATTENTION.

5. THE CONTRACTOR SHALL NOTIFY THE CITY OF HOUSTON, ENGINEERING DEPARTMENT HARRIS COUNTY ENGINEERING DEPARTMENT, CENTERPOINT ENERGY AND ALL OTHER APPLICABLE AGENCIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK. NOTIFICATIONS SHALL BE FOLLOWED WITH A LETTER. COPIES OF WHICH SHALL BE SENT TO THE ENGINEER.

6. THE CONTRACTOR, ON BEHALF OF THE OWNER, IS TO OBTAIN ALL NECESSARY PERMITS REQUIRED BY THE CITY OF HOUSTON OR HARRIS COUNTY, PRIOR TO STARTING CONSTRUCTION.

7. GUIDELINES SET FORTH IN THE TEXAS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", AS CURRENTLY BE AMENDED, SHALL BE USED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAG MEN, SIGNAGE, STRIPING, AND WARNING DEVICES, ETC., DURING CONSTRUCTION - BOTH DAY AND NIGHT.

8. THE LOADING AND UNLOADING OF ALL PIPE, VALVES, HYDRANTS, MANHOLES, AND OTHER ACCESSORIES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDED PRACTICES AND IN ALL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE MATERIALS. THE CONTRACTOR SHALL LOCATE AND PROVIDE THE NECESSARY STORAGE AREAS FOR THE MATERIALS AND EQUIPMENT.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SHIPPING AND STORING OF ALL MATERIALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE SUCH MATERIAL AT THE POINT OF DELIVERY TO REJECT ANY DEFECTIVE MATERIAL. ANY DEFECTIVE MATERIAL, INCORPORATED INTO THE WORK SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. THERE SHALL BE NO PAYMENT MADE FOR STORED MATERIAL.

- 1) GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
- 2) BEFORE STARTING CONSTRUCTION, CONTRACTOR SHALL VERIFY BENCHMARK ELEVATION AND NOTIFY ENGINEER IF ANY DISCREPANCY AND/OR CONFLICT IS FOUND.
- 3) CONTRACTOR SHALL ENSURE THERE IS POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS TO THE EXISTING OR PROPOSED DRAINAGE SYSTEMS. THERE SHALL BE NO POLES IN PAVED AREAS AND NO NOTED DISCREPANCIES BETWEEN ANY PROPOSED DISCREPANCIES ARE FOUND IN THE EXISTING AND PROPOSED GRADES PRIOR TO PLACEMENT OF PAVEMENT OR UTILITIES.
- 4) CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES THAT ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION.
- 5) ALL EXISTING CONCRETE PAVING, SIDEWALK, AND CURB DEMOLITION SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR. DEMOLITION SHALL BE AT AN APPROVED OFF-SITE, LAWFUL LOCATION, UNLESS DIRECTED OTHERWISE BY THE OWNER.

1. CONTRACTOR SHALL OBTAIN ENGINEERS OR OWNERS APPROVAL OF GRADES PRIOR TO PLACEMENT OF ANY PAVEMENT. IF APPROVAL IS NOT OBTAINED CONTRACTOR SHALL BE RESPONSIBLE FOR PAVEMENT PLACEMENT.
2. ALL TEMPORARY AND PERMANENT SIGNAGE MUST COMPLY WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, MOST RECENT EDITION WITH REVISIONS.
3. ALL PAVING WIDTHS, CURB RADI, AND CURB ALIGNMENT SHOWN INDICATE FACE OF CURB. T.C. INDICATES TOP OF CURB. T.P. INDICATES TOP OF PAVEMENT ELEVATIONS.
4. THE CONTRACTOR SHALL PROTECT ALL UTILITIES, SIDEWALKS, PAVEMENT, ETC. AND SHALL REPAIR OR REPLACE AT HIS EXPENSE ANY FACILITIES DAMAGED DURING PAVING OR GRADING OPERATIONS.
5. DRIVEWAY CONNECTIONS IN CITY OF HOUSTON STREET RIGHT-OF-WAY SHALL COMPLY WITH CITY OF HOUSTON DRIVING NO. 17201-1 AND DRIVEWAY DETAILS ON THESE PLANS.
6. AREAS TO BE FILLED SHALL BE SCARIFIED AND COMPACTED TO AT LEAST 95% OF MAXIMUM STANDARD PROCTOR DENSITY (3% OF OPTIMUM MOISTURE) PER ASTM D-698 TO A DEPTH OF 6" PRIOR TO FILL PLACEMENT. FILL MATERIAL SHALL BE PLACED IN MAXIMUM 8" THICK LIFTS (MEASURED LOOSE) AND COMPACTED TO AT LEAST 95% OF MAXIMUM STANDARD PROCTOR DENSITY (3% OF OPTIMUM MOISTURE) PER ASTM D-698. FILL SHALL BE CLEAN EARTH AND BE FREE FROM ROCKS, DEBRIS, OR OTHER LARGE STONES. TEST REPORTS SHALL BE SUBMITTED PRIOR TO PLACEMENT OF PAVEMENT.
7. NECESSARY TESTING OF SUBGRADE AND PAVEMENT TO PROVE THAT THESE ITEMS MEET REQUIREMENTS SHALL BE DONE BY A COMMERCIAL TESTING LABORATORY ENGAGED BY THE CONTRACTOR.

1. CONTRACTOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING IN ACCORDANCE WITH THE LATEST EDITION OF THE PUBLICATIONS STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING, AND STANDARD CONSTRUCTION DETAIL FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING PUBLISHED BY THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING.
2. THE GEOTECHNICAL INVESTIGATION FOR THIS PROJECT WAS CONDUCTED IN ACCORDANCE WITH CHAPTER 11 OF THE LATEST EDITION OF THE PUBLICATION INFRASTRUCTURE DESIGN MANUAL PUBLISHED BY THE CITY OF HOUSTON, DEPARTMENT OF THE PUBLIC WORKS AND ENGINEERING. SOILS REPORT WAS PREPARED BY [GEOTECHNICAL ENGINEERING FIRM] REPORT NO. [NO. OF REPORT], DATED [DATE OF REPORT].
3. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE LOCATION OF UTILITIES IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 713-223-4567/811 OR 800-344-8377 AND LONE STAR NOTIFICATION CENTER AT 800-669-4344 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
4. CONTRACTOR SHALL RESPOND TO ALL REQUESTS TO EXPOSE WATER, WASTEWATER, STORM WATER LINES AND TRAFFIC CONTROL DEVICES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING AND STANDARD CONSTRUCTION DETAIL FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
5. CONTRACTOR SHALL NOTIFY THE OFFICE OF THE CITY ENGINEER, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING AT 832-395-4234 OR FAX AT 832-395-4424 FOR INSPECTION AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
6. ADEQUATE DRAINAGE DITCH OR STRUCTURE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
7. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF TREES, PLANTS AND TREES ALONG THE EXCAVATION.
8. CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
9. CONTRACTOR SHALL MAINTAIN A SET OF REDLINE DRAWINGS AND RECORD AS-BUILT CONDITIONS DURING CONSTRUCTION, THESE REDLINE MARKED UP DRAWINGS WILL BE SUBMITTED TO THE DESIGN CONSULTANT WHO WILL MAKE THE CHANGES ON THE ORIGINAL DRAWINGS, LATEST EDITION OF THE SET AS "RECORD DRAWINGS", AND RETURN IT TO THE OFFICE OF THE CITY ENGINEER.

1. CONTRACTOR SHALL MAINTAIN AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART V OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. NO LANES SHALL BE CLOSED DURING THE HOURS OF 5:30 AM TO 7:00 PM MONDAY THRU FRIDAY IN THE CITY OF DALLAS AND TOWNSHIP OF DALLAS.
3. NO TRAFFIC LANES SHALL BE CLOSED DURING THE HOURS OF 5:00 AM TO 9:00 PM AND 4:00 PM TO 6:00 PM MONDAY THRU FRIDAY.
4. NO LANES SHALL BE CLOSED IN RESIDENTIAL AREA FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.
6. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND OPEN LANES FOR NORMAL TRAFFIC FLOW.
7. OFF DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) IS/ARE REQUIRED TO DIRECT TRAFFIC WHEN LANES ARE BLOCKED.
8. IN THE EVENT WHEN NO "TRAFFIC CONTROL PLANS" EXIST AS A PART OF CONTRACT DRAWINGS, CONTRACTOR MAY PREPARE PLANS AND SUBMIT TO PLAN REVIEW SECTION FOR APPROVAL TEN WORKING DAYS PRIOR TO IMPLEMENTATION.
9. 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.
9. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINES IN THE CONTRACT DRAWINGS, HE/SHE SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING AN ALTERNATE SET OF PLANS TO THE PLAN REVIEW SECTION FOR APPROVAL TEN WORKING DAYS PRIOR TO IMPLEMENTATION.
10. APPROVED COPIES OF "TRAFFIC CONTROL PLANS" AND LANE SIDEWALK CLOSURE PERMITS SHALL BE AVAILABLE FOR INSPECTION AT THE JOB SITE AT ALL TIMES. THE CONTRACTOR MUST SECURE "LANE/SIDEWALK CLOSURE PERMITS" FROM THE CITY'S TRAFFIC DIVISION BEFORE CLOSING SIDEWALK. THE REQUEST MUST BE MADE AT LEAST TEN BUSINESS DAYS PRIOR TO THE DATE FOR WHICH THE CLOSURE IS SOUGHT. NOTE THAT WORKING HOURS MAY BE RESTRICTED OR THE REQUEST MAY BE DENIED. CALL 832-395-3020 FOR AN APPLICATION.

1. DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S "STANDARD CONSTRUCTION SPECIFICATIONS" AND "STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING" UNLESS OTHERWISE NOTED AND REFERENCED ON THESE PLANS SHALL BE CONSISTENT WITH THE MINIMUM STANDARDS ESTABLISHED IN THE "INFRASTRUCTURE DESIGN MANUAL" REFERENCED AT [http://documents.pubworks.houston.gov/document-center/civil\\_view/88-engineering-and-construction/90-design-manual/364-city-of-houston-infrastructure-design-manual.html](http://documents.pubworks.houston.gov/document-center/civil_view/88-engineering-and-construction/90-design-manual/364-city-of-houston-infrastructure-design-manual.html)
2. FILL AREAS ON PLANS SHALL BE FILLED IN LAYERS NOT EXCEEDING 8" IN DEPTH AND EACH COMPACTED TO NOT LESS THAN 95% STANDARD PROCTOR DENSITY PRIOR TO INSTALLATION OF WATER LINE AND FILL AREA SHALL BE SEEDED AND FERTILIZED WITHIN 10 WORKING DAYS.
3. UTILITY CONTRACTOR SHALL PROVIDE TEMPORARY SILT BARRIER FENCE ON ALL NON-CURBED AREAS. SILT BARRIER WILL REMAIN IN PLACE AFTER UNDERGROUND CONTRACT IS COMPLETE.
4. CONTRACTOR SHALL PROVIDE SILT BARRIER FENCE ON ALL STAGE 1 CURB INLETS.
5. EXISTING PAVEMENTS, CURBS, DRIVEWAYS, AND SIDEWALKS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO CITY OF HOUSTON STANDARDS, WITH LATEST ADDENDA AND AMENDMENTS THERETO.
6. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY UPON COMPLETION OF JOB SHALL BE AS GOOD AS OR BETTER THAN PRIOR TO STARTING WORK.
7. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO SATISFACTION OF THE OWNING AUTHORITY.
8. EXPOSED 15' OF REINFORCING STEEL AT PROPOSED SAWED JOINT IF NO REINFORCING STEEL EXISTED PRIOR TO EXPOSURE. EXPOSED REINFORCING STEEL SHALL BE CAPPED WITH "C" DRILLED AND EMBEDDED 8" INTO THE CENTER OF THE EXISTING SLAB WITH "PO ROC" OR EQUAL.
9. CONTRACTOR TO TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG AREAS OF EXCAVATION.
10. CONTRACTOR SHALL COMPLY WITH OSHA REGULATIONS AND STATE OF TEXAS LAWS CONCERNING EXCAVATION, TRENCHING AND SHORING AS SPECIFIED IN CITY OF HOUSTON ORDINANCE 16145.
11. WHEEL CHAIR MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF HOUSTON STANDARDS AT ALL INTERSECTIONS WHERE SIDEWALKS EXIST AND THE EXISTING CURB OR SIDEWALK IS DAMAGED OR REMOVED DURING CONSTRUCTION.
12. WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S "STANDARD CONSTRUCTION SPECIFICATIONS" AND "STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING" UNLESS OTHERWISE NOTED AND APPROVED ON THESE PLANS. THE DESIGN SHOULD BE CONSISTENT WITH THE MINIMUM STANDARD ESTABLISHED IN THE "INFRASTRUCTURE DESIGN MANUAL" REFERENCED AT [http://documents.pubworks.houston.gov/document-center/civil\\_view/88-engineering-and-construction/90-design-manual/364-city-of-houston-infrastructure-design-manual.html](http://documents.pubworks.houston.gov/document-center/civil_view/88-engineering-and-construction/90-design-manual/364-city-of-houston-infrastructure-design-manual.html)
13. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGES TO EXISTING WATER, WASTEWATER, STORM SEWER AND TRAFFIC SIGNAL CONDUITS, ALL DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF HOUSTON, DEPT. OF PUBLIC WORKS AND ENGINEERING'S "STANDARD CONSTRUCTION SPECIFICATIONS" WITH LATEST ADDENDA AND AMENDMENTS THERETO, AT NO COST TO THE CITY OF HOUSTON.
14. PRIOR TO STREET CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE DEPARTMENT OF PUBLIC WORKS AND ENGINEERING AT (PHONE) 832-394-9098 OR 832-395-4424/(FAX) AND COMPLY WITH ALL REQUIREMENTS FOR THE ISSUANCE OF NECESSARY PERMITS/WORK ORDERS FOR STREET CONSTRUCTION.
15. DOUBLE REFLECTORIZED BLUE TRAFFIC MARKERS SHALL BE PLACED 6-INCHES OFFSET OF THE CENTERLINE OF ALL FIRE HYDRANT LOCATIONS BY THE PAVING CONTRACTOR. HYDRANTS LOCATED AT INTERSECTIONS SHALL HAVE A BUTTON PLACED ON EACH STREET.

OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE. BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE, FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:

- ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX(6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
- OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN TEN FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.

1. THE LOCATIONS OF TELEPHONE UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.

2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.

LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE LLC, WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINE FIELD LOCATED.

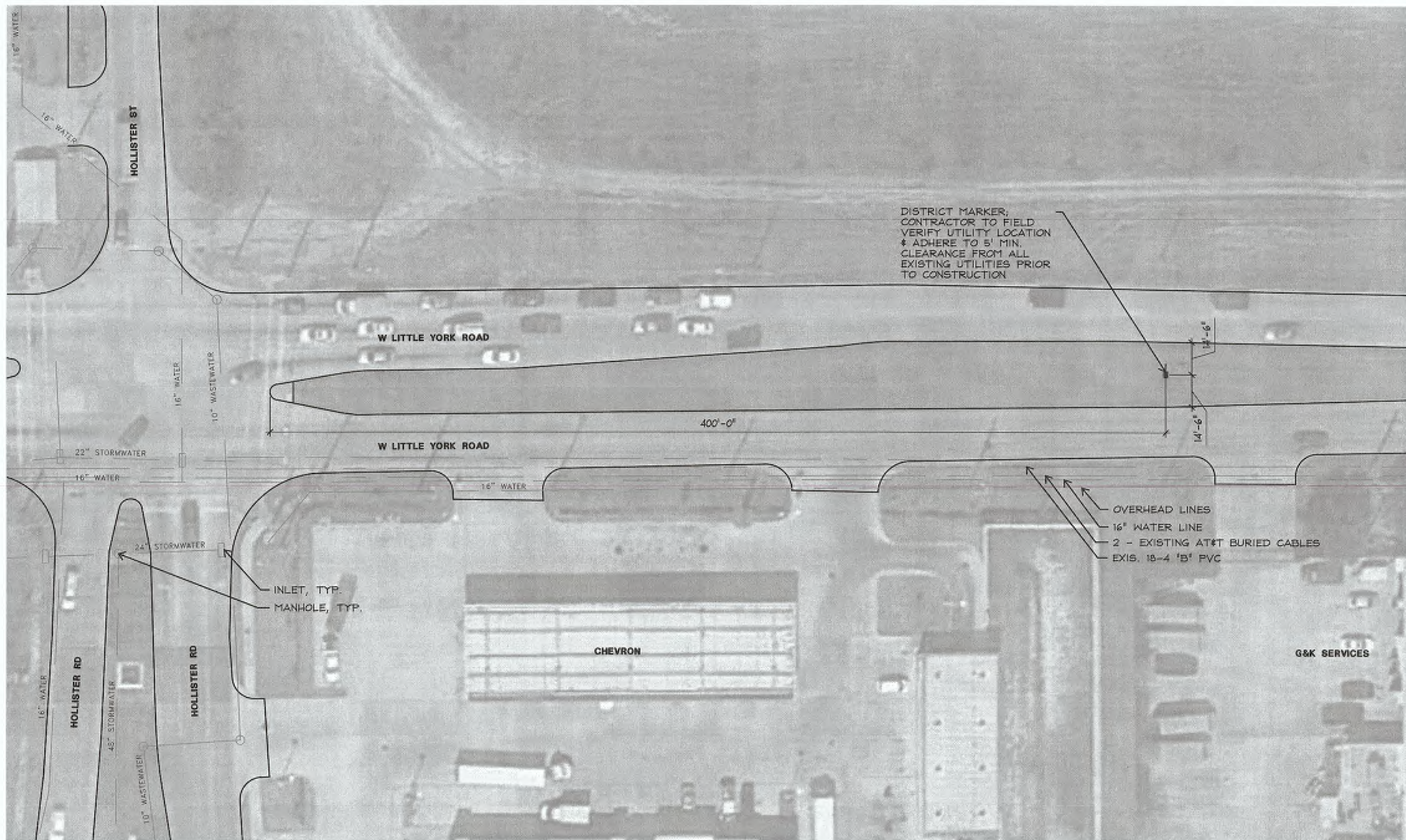
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

6). LAWN INSTALLATION: PRIOR TO APPLICATION OF HYDROMULCH, CONTRACTOR SHALL APPLY CONTACT HERBICIDE (RECOMMENDED MIXTURE OF IMAGE AND ROUNDUP) TO REMOVE ALL EXISTING WEEDS AS NECESSARY, SCARIFY EXISTING SOIL TO SPECIFIED DEPTHS. REMOVE ALL LUMPS, CLODS, TRASH AND STICKS GREATER THAN 1" FINE GRADE TO PROVIDE POSITIVE DRAINAGE AND SMOOTH LAWN AREAS AND CUT SWALES AS NECESSARY TO ENSURE NO PONDING OF WATER. LAWE BERMUDA SOG STRIP ALONG BACK OF CURB AND EDGE OF WALK IN TURF AREAS, AND WITHIN APPROXIMATE LIMITS SHOWN ON PLANS. FINISHED GRADE OF LAWN AND PLANTING BED AREAS TO BE MINIMUM 1/2" BELOW FINISHED GRADE OF ADJACENT PAVEMENT. NOTE: CONTRACTOR SHALL APPLY RECOMMENDED PRE-EMERGENT HERBICIDE FOR PREVENTION OF NUTGRASS AND WEEDS UPON ESTABLISHMENT OF BERMUDA LAWN. APPROXIMATELY ONE MONTH AFTER HYDROMULCH APPLICATION. FERTILIZE AT SPECIFIED RATES MONTHLY DURING 90 DAY MAINTENANCE PERIOD.

NOT ALLOWED

[illegible]





**2** LITTLE YORK & HOLLISTER  
PLAN  
SCALE: 1"=30'  
NORTH



**1** 290 AND HOLLISTER  
PLAN  
SCALE: 1"=30'  
NORTH



**CENTERPOINT ENERGY**  
TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED, CALL CENTERPOINT ENERGY AT 713-207-2223  
**NOTICE:**  
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 shift your obligation to call 811.  
**VERIFICATION OF PRIVATE UTILITY LINES**  
*Signature* Date: **2/20/18**  
CenterPoint Energy/Natural Gas Facilities Verification ONLY.  
(This Signature verifies that you have shown CNP Natural Gas lines ~~on-site~~ - not to be used for conflict verification.)  
(Gas service lines are not shown.)  
Signature Valid for six months.  
*Signature* Date: **2/20/18**  
CenterPoint Energy/Underground Electrical Facilities Verification ONLY.  
(This Signature verifies existing underground facilities - not to be used for conflict verification.)  
Signature Valid for six months.  
*Signature* Date: **2-27-18**  
**AT&T TEXAS/SWBUTILITY LINES SHOWN**  
Approved for AT&T Texas/SWBUTILITY underground conduit facilities only.  
Signature valid for one year.

REV	DESCRIPTION	DATE

Ward, Getz & Associates, LLP  
TX FIRM No. F-9756  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:

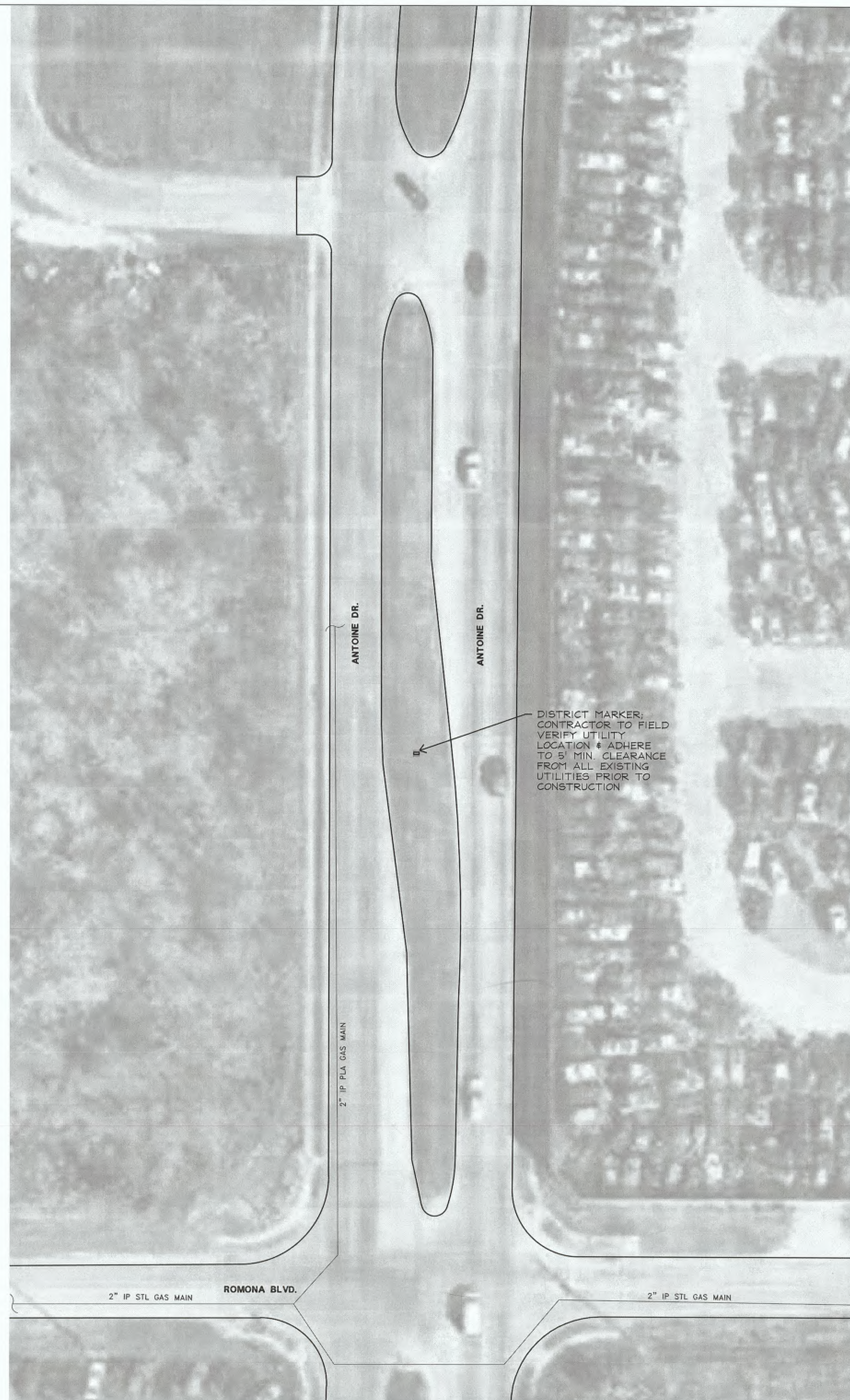
**NEAR NORTHWEST  
MANAGEMENT DISTRICT  
VERTICAL DISTRICT MARKERS**

**CITY OF HOUSTON**  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

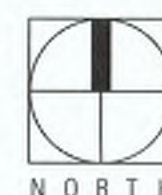
FILE NO:  
DRAWING SCALE:





4 249 & ANTOINE DRIVE  
PLAN

SCALE: 1"=30'



3 249 & N. HOUSTON ROSSLYN  
PLAN

SCALE: 1"=30'



CENTERPOINT ENERGY

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 lines can be marked. This Verification does not fulfill your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES

*Hammer* Date: 8/3/17  
CenterPoint Energy/Natural Gas Facilities Verification ONLY  
(This Signature verifies that you have shown CPEP Natural Gas lines correctly - not to be used for conflict verification.)  
(Gas service lines are not shown.)  
Signature valid for six months.

*Hammer* Date: 8/3/17  
CenterPoint Energy/Underground Electrical Facilities Verification ONLY  
(This Signature verifies existing underground facilities - not to be used for conflict verification.)  
Signature valid for six months.

*X. L. L.* Date: 8-17-17  
Approved for AT&T Texas/SWBT underground conduit facilities only.  
Signature valid for one year.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

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

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

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

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

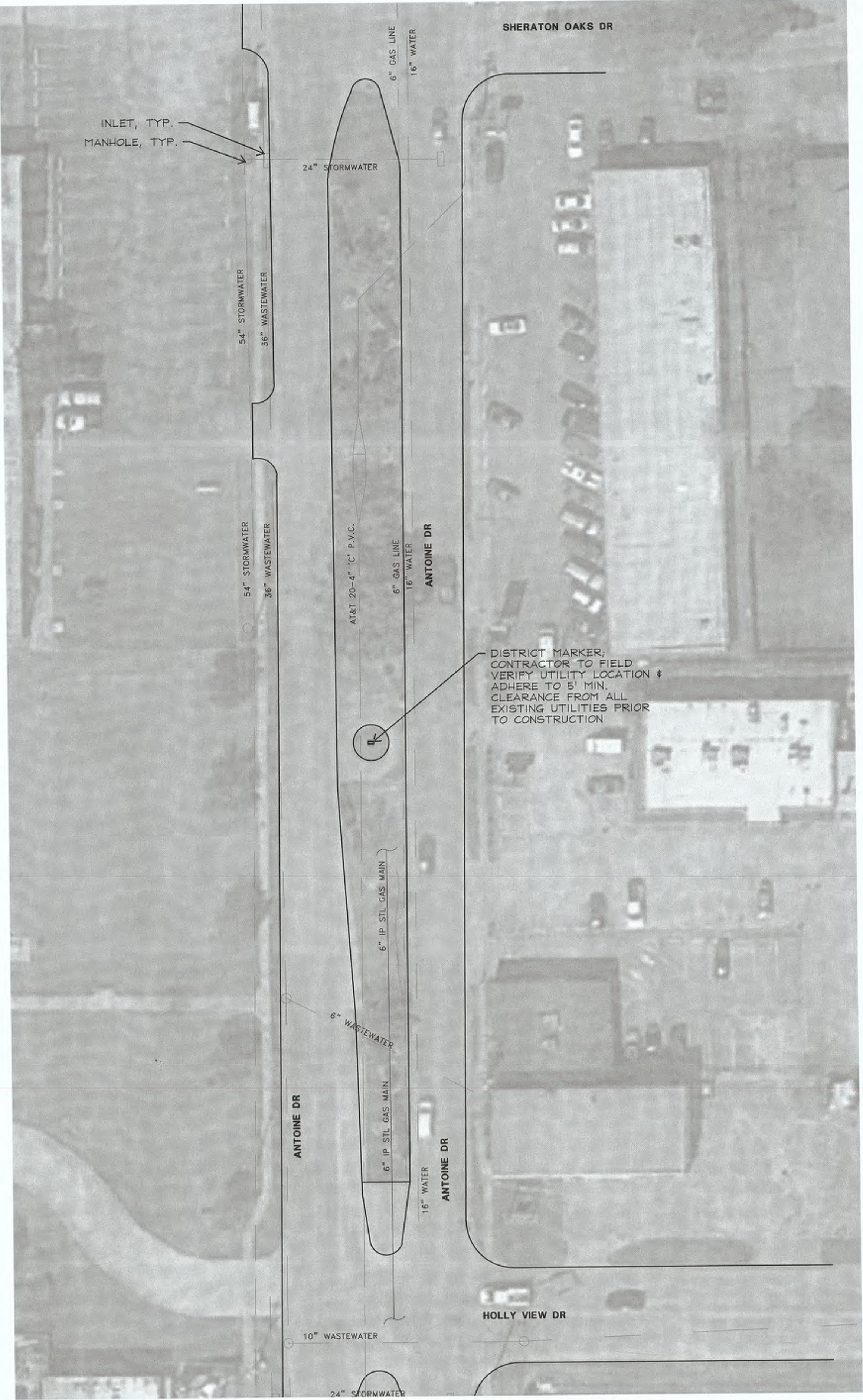
Approved for AT&T Texas/SWBT underground conduit facilities only.  
Signature valid for one year.

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

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

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





5 HOLLY VIEW AND ANTOINE DRIVE  
PLAN

SCALE: 1"=30'



CENTERPOINT ENERGY

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 lines can be marked. This verification does not fulfill your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES

*[Signature]* Date: 8/3/17  
CenterPoint Energy/Natural Gas Facilities Verification ONLY  
(This Signature verifies that you have shown CNP Natural Gas lines correctly - not to be used for conflict verification.)  
(See service lines you are not shown.)  
Signature Valid for six months.

*[Signature]* Date: 8/3/17  
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY  
(This Signature verifies existing underground facilities - not to be used for conflict verification.)  
Signature Valid for six months.

*[Signature]* 8-17-17  
AT&T TEXAS/SWBT UTILITY LINES SHOWN  
Approved for AT&T Texas/SWBT underground contact facilities only.  
Signature valid for one year.

REV	DESCRIPTION	DATE

Ward, Getz & Associates, LLP  
TX FIRM No. F-9756  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:

NEAR NORTHWEST  
MANAGEMENT DISTRICT  
VERTICAL DISTRICT MARKERS

CITY OF HOUSTON  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

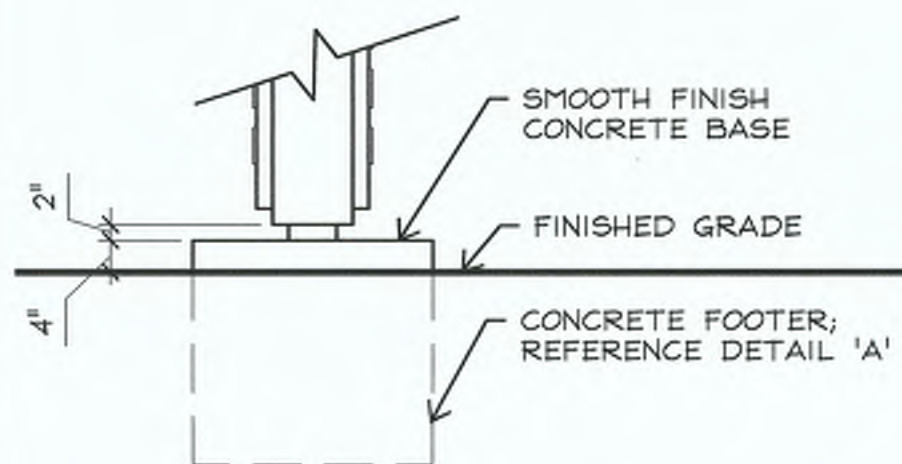
WATER	TRAFFIC & TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	

FILE NO:  
DRAWING SCALE:



**DRILLED PIER NOTES:**

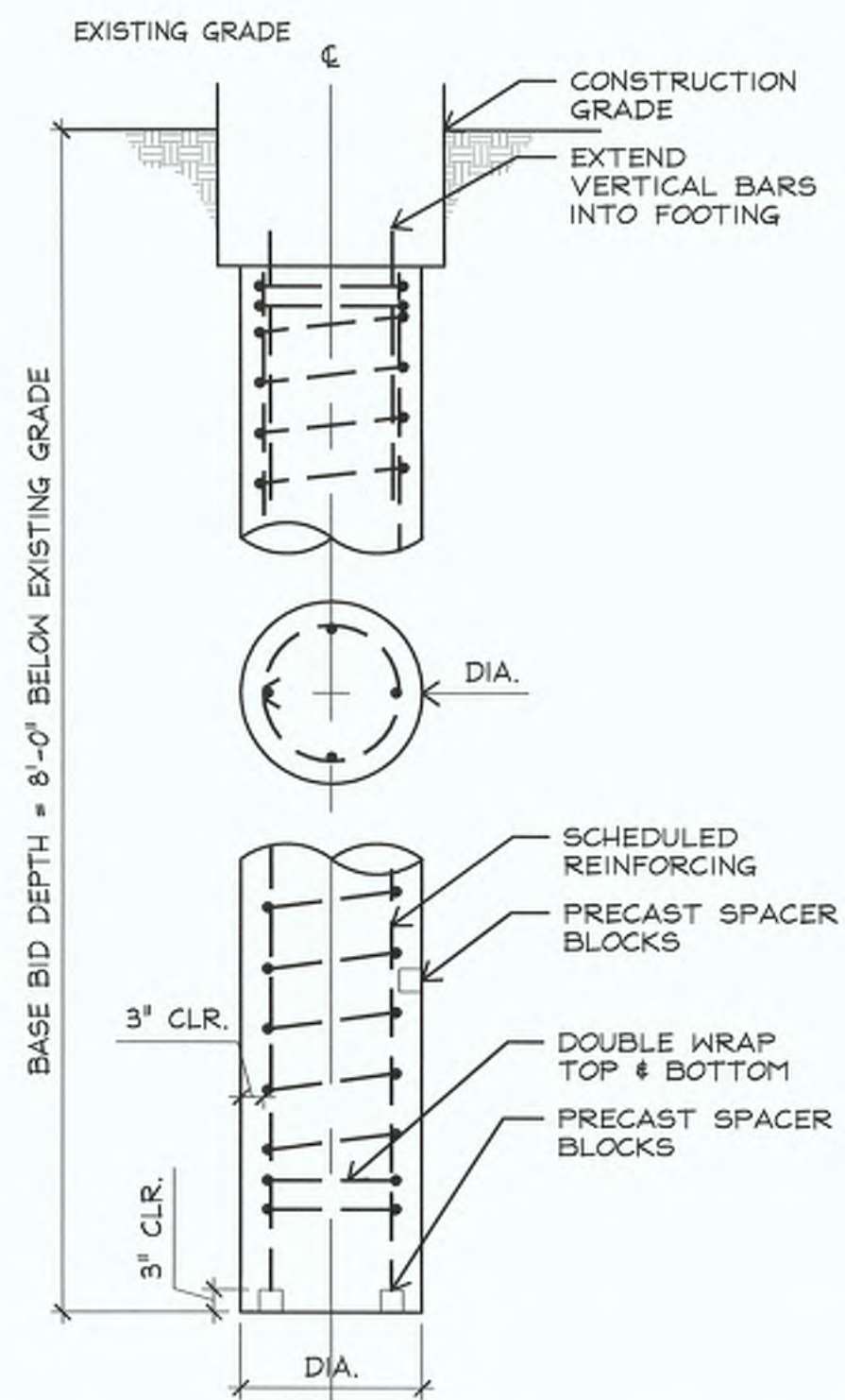
1. CENTER PIER UNDER BEAM'S UNLESS DIMENSIONED OTHERWISE ON PLANS.
2. PROVIDE 4-#6 DOWELS INTO FOOTING AND BEAM DEPTH DOES NOT ALLOW STRAIGHT BARS PROVIDE HOOKED BARS.
3. CENTER CAGE IN HOLE WITH 3 CONC. SPACER BLOCKS EVERY 6 FT. SUPPORT CAGE ON 3 CONCRETE SEAT BLOCKS.
4. DO NOT RAISE CAGE OFF FOOTING BOTTOM.
5. PLACEMENT OF CONCRETE IN SHAFT SHALL BE THE SAME DAY OF DRILLING.



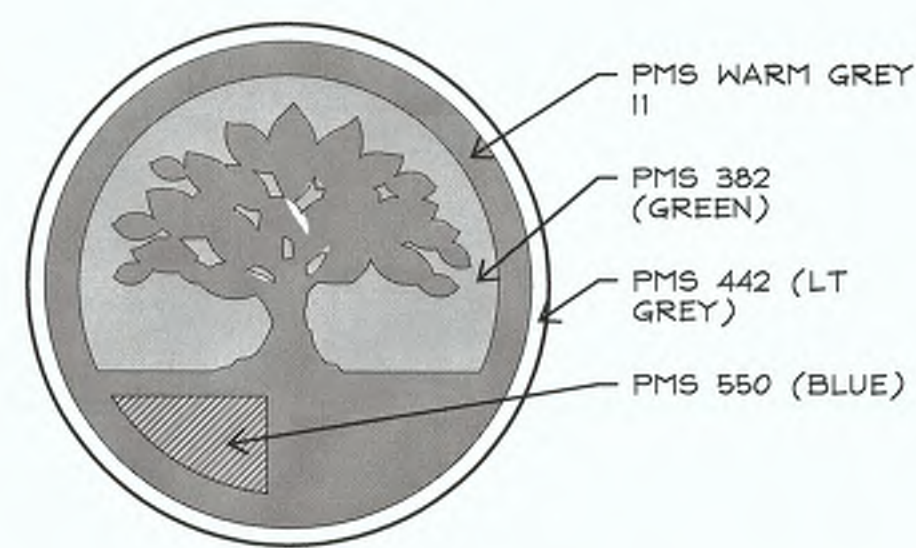
## 6 ALTERNATE BASE DETAIL

PIER SCHEDULE				
MK	SHAFT			REMARKS
	DIA	VERT BARS	TIES	
PI	12"	4-#5	#3 @ 12"O.C.	

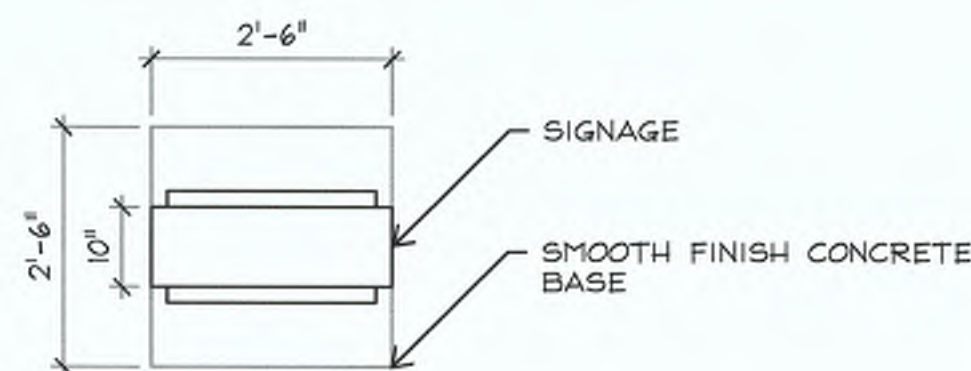
## 5 Typical Drilled Footing



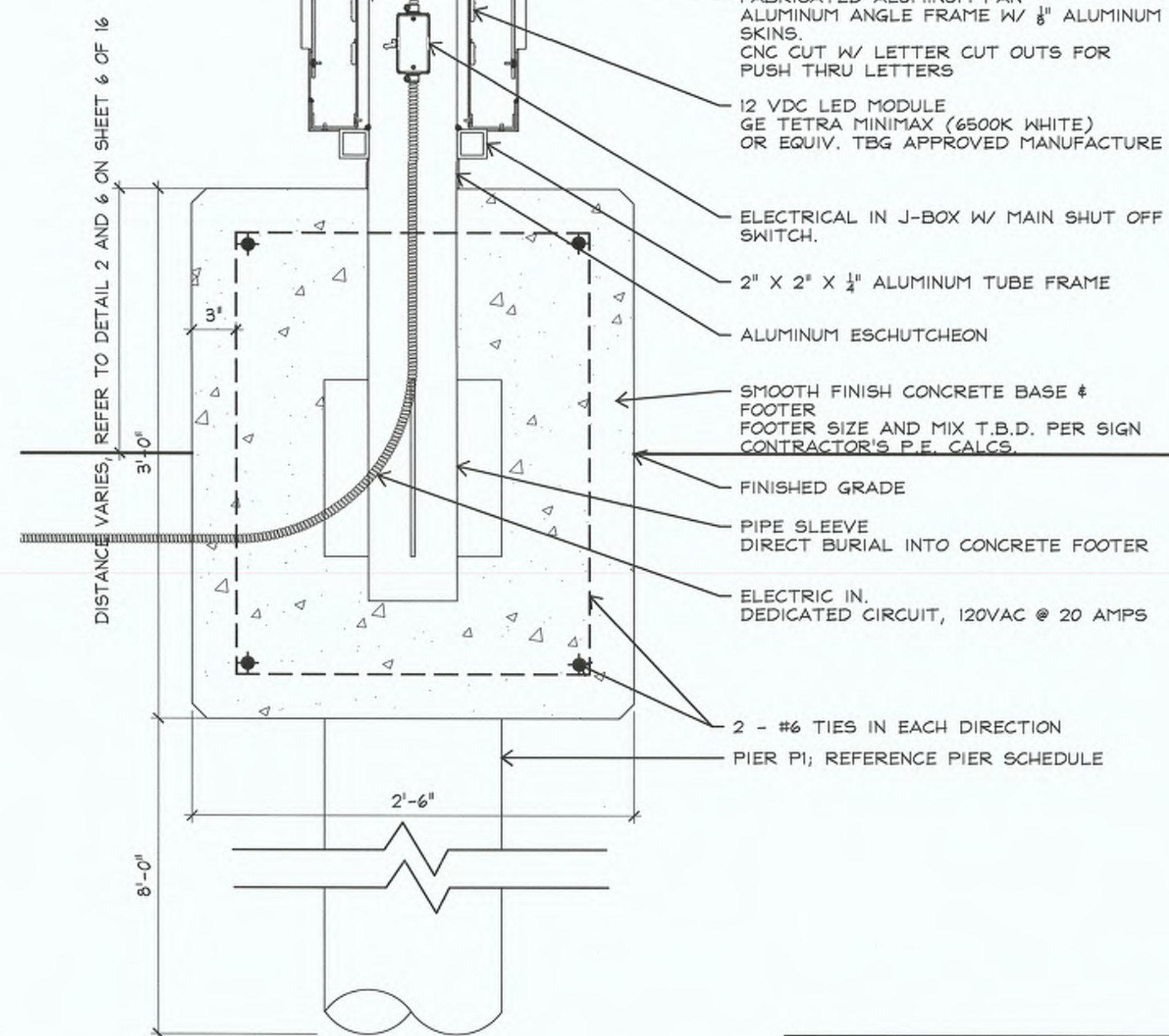
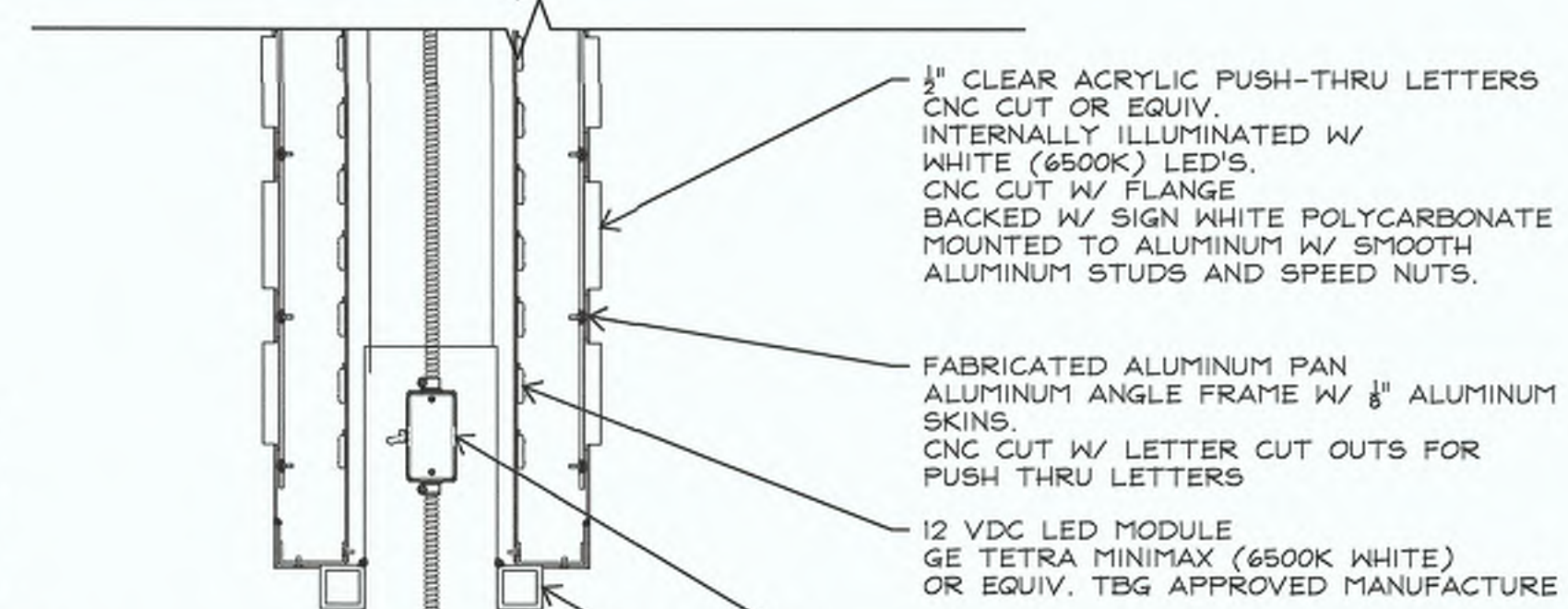
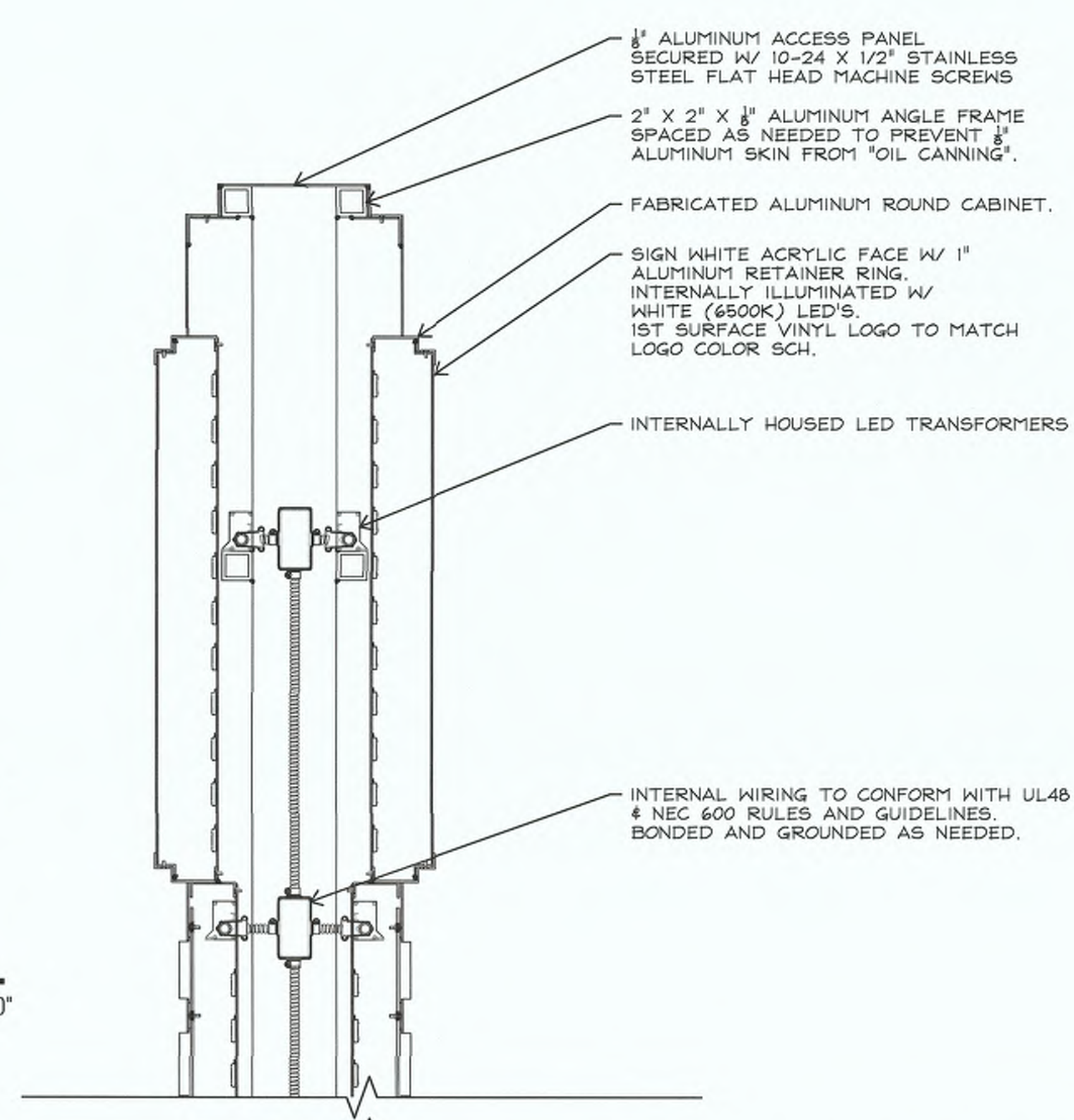
SCALE: 1/2"=1'-0"



## 4 Logo Color Schedule



### 3 Vertical District Marker

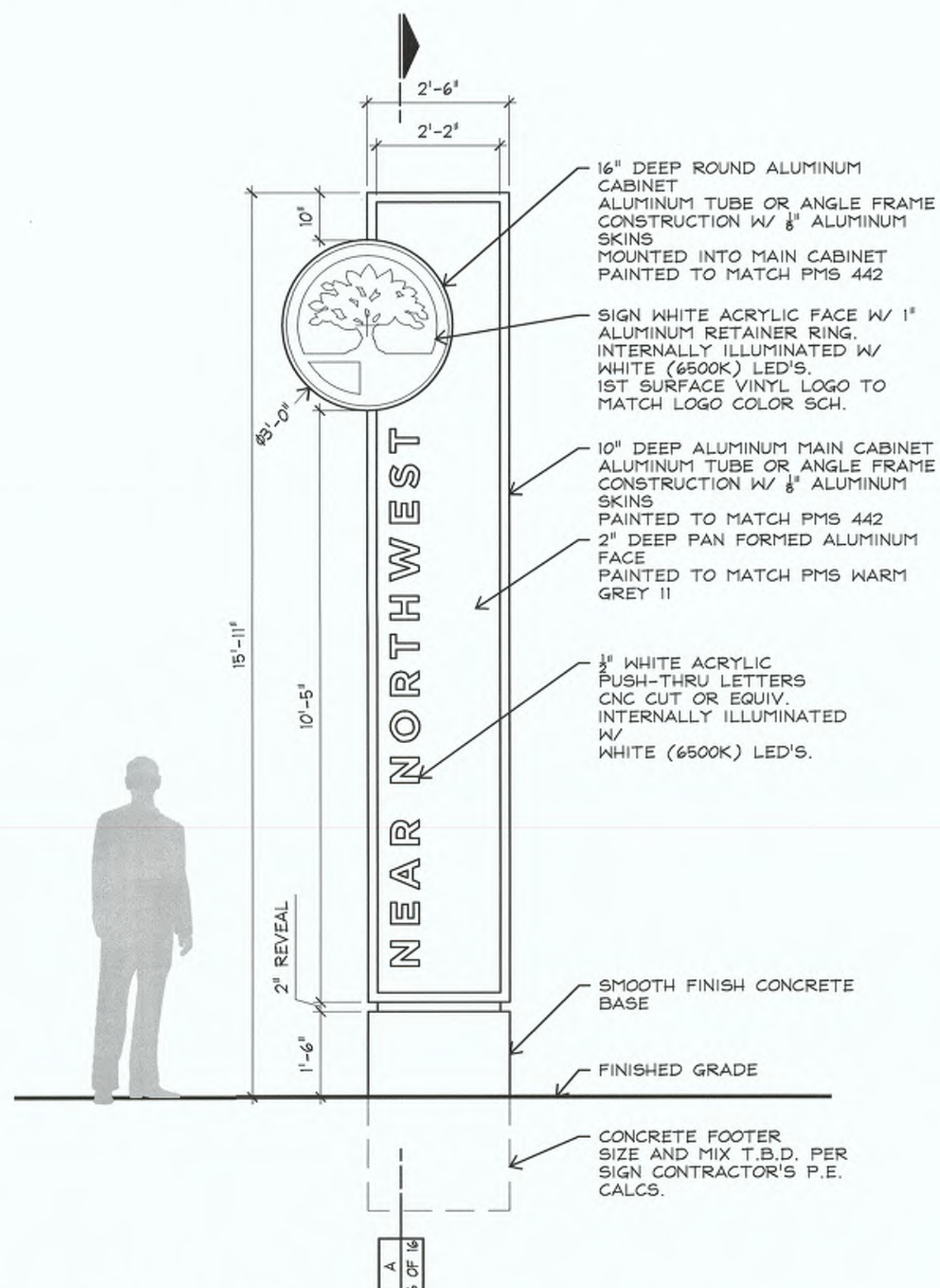


# A Vertical District Marker

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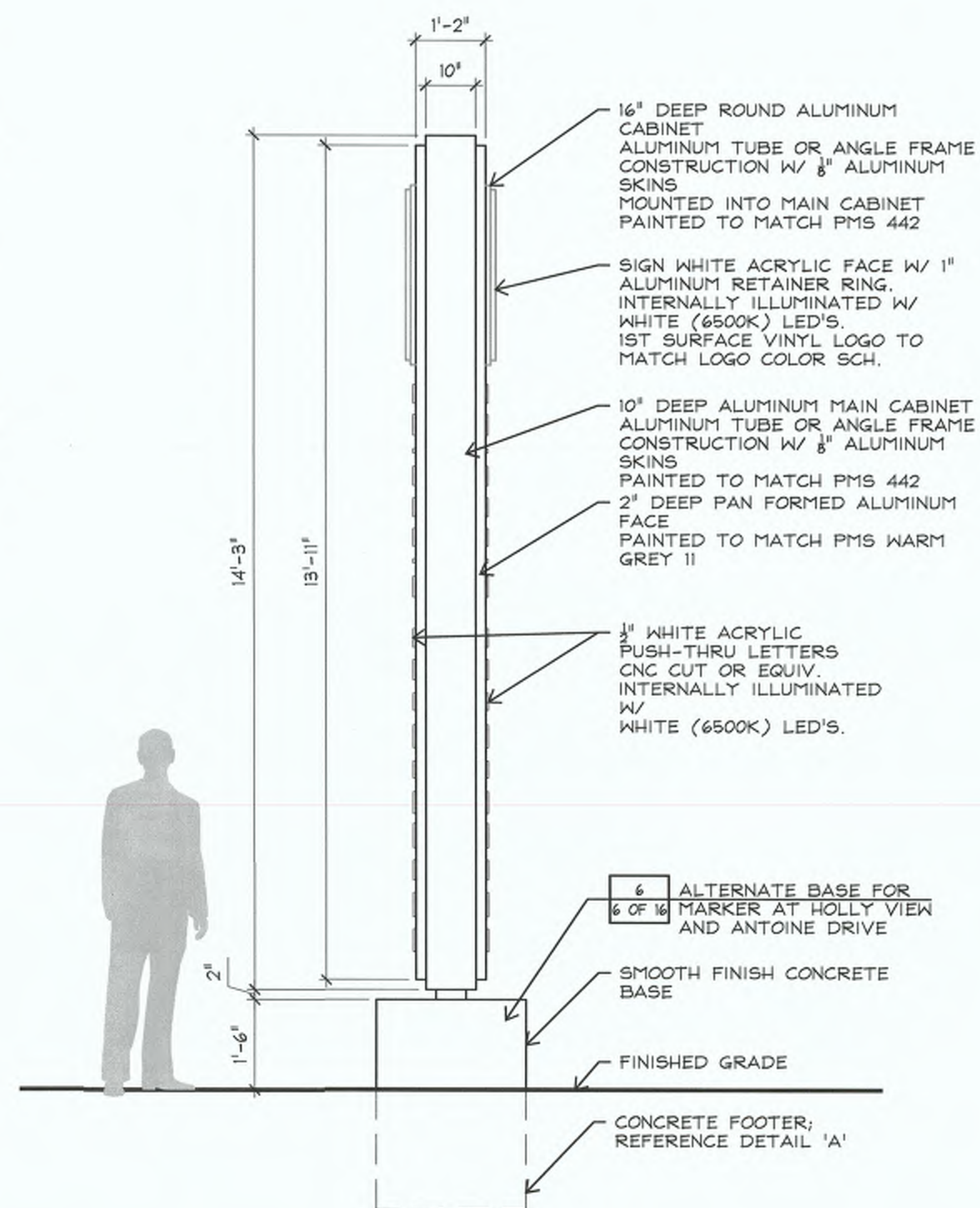
Section SCALE: 1-1/2"=1'-0"

NOTE: MARKERS DESIGNED TO WITHSTAND WINDS OF UP TO 120 MPH PLUS WIND GUSTS.



# 1 Vertical District Marker

Elevation SCALE: 1/2"=1'-0"



## 2 Vertical District Marker

Side View

SCALE: 1/2"=1'-0"

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VERIFICATION OF PRIVATE UTILITY LINES
---------------------------------------

W/A \_\_\_\_\_ 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 conflict verification.)  
(Gas service lines are not shown.)  
Signature Valid for six months.

N/A Date: \_\_\_\_\_

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

*n/a*  
AT&T TEXAS/SWBT UTILITY LINES SHOWN  
Approved for AT&T Texas/SWBT underground conduit facilities only.  
Signature valid for one year

[illegible]

Ward, Getz & Associates, LLP  
TX FIRM No. F-9756  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:



NEAR NORTHWEST  
MANAGEMENT DISTRICT  
VERTICAL DISTRICT MARKERS

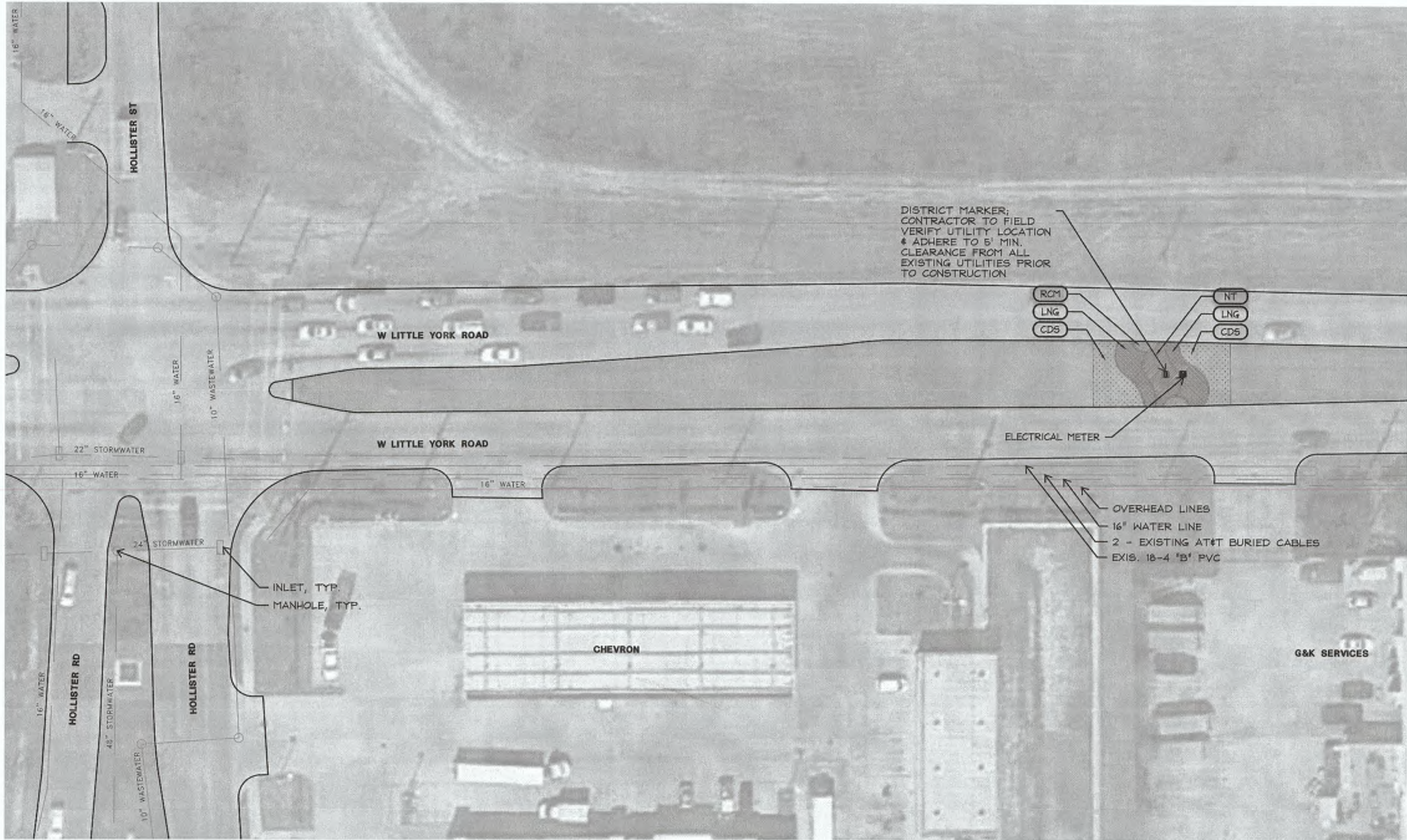
CITY OF HOUSTON  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

FILE NO:

DRAWING SCALE:





2 LITTLE YORK & HOLLISTER - PLANTING  
PLAN

SCALE: 1"=30'



1 290 AND HOLLISTER - PLANTING  
PLAN

SCALE: 1"=30'



CENTERPOINT ENERGY

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VERIFICATION OF PRIVATE UTILITY LINES

*Hammer* Date: 2/20/18  
CenterPoint Energy/Natural Gas Facilities Verification ONLY.  
(This Signature verifies that you have shown CPE Natural Gas lines correctly - not to be used for conflict verification.)  
(Gas service lines are not shown.)  
Signature valid for six months.

*Hammer* Date: 2/20/18  
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.  
(This Signature verifies existing underground facilities - not to be used for conflict verification.)  
Signature valid for six months.

*X. Lopez* Date: 2-27-18  
AT&T TEXAS/SWBT UTILITY LINES SHOWN  
Approved for AT&T Texas/SWBT underground conduit facilities only.  
Signature valid for one year.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

REV	DESCRIPTION	DATE

Word, Catz & Associates, LLP  
TX FIRM No. F-9756  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:

NEAR NORTHWEST  
MANAGEMENT DISTRICT  
VERTICAL DISTRICT MARKERS

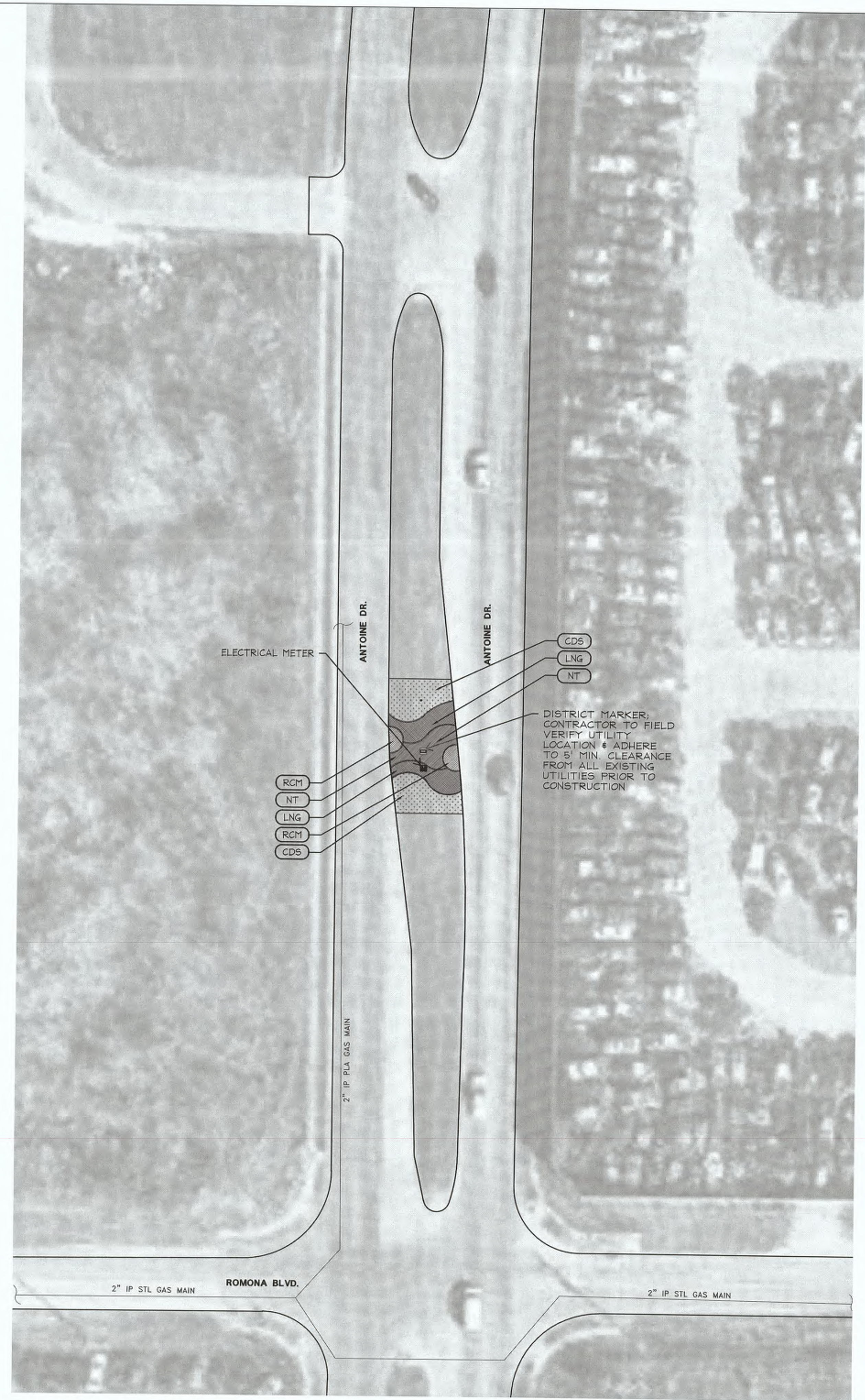
CITY OF HOUSTON  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

FILE NO:

DRAWING SCALE:





**4** 249 & ANTOINE DRIVE - PLANTING  
PLAN

SCALE: 1"=30'



**3** 249 & N. HOUSTON ROSSLYN - PLANTING  
PLAN

SCALE: 1"=30'



**CENTERPOINT ENERGY**

TO APPEAR FOR LINES TO BE TURNED OFF OR MOVED, CALL CENTERPOINT ENERGY AT 713-227-2222

**NOTICE:**

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.

**VERIFICATION OF PRIVATE UTILITY LINES**

*Hammer* Date: 8/3/17  
Centerpoint Energy Natural Gas Facilities Verification ONLY.  
(This Signature verifies that you have shown CNP Natural Gas lines correctly - not to be used for conflict verification.)  
(Gas service lines are not shown.)  
Signature valid for six months.

*Hammer* Date: 8/3/17  
Centerpoint Energy Underground Electrical Facilities Verification ONLY.  
(This Signature verifies existing underground facilities - not to be used for conflict verification.)  
Signature valid for six months.

*X. Lopez* 8-17-17  
Approved for AT&T Texas/SWBT underground conduit facilities only.  
Signature valid for one year.

**AT&T TEXAS/SWBT UTILITY LINES SHOWN**

REV	DESCRIPTION	DATE

Ward, Getz & Associates, LLP  
TX FIRM No. F-9756  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:

**NEAR NORTHWEST  
MANAGEMENT DISTRICT  
VERTICAL DISTRICT MARKERS**

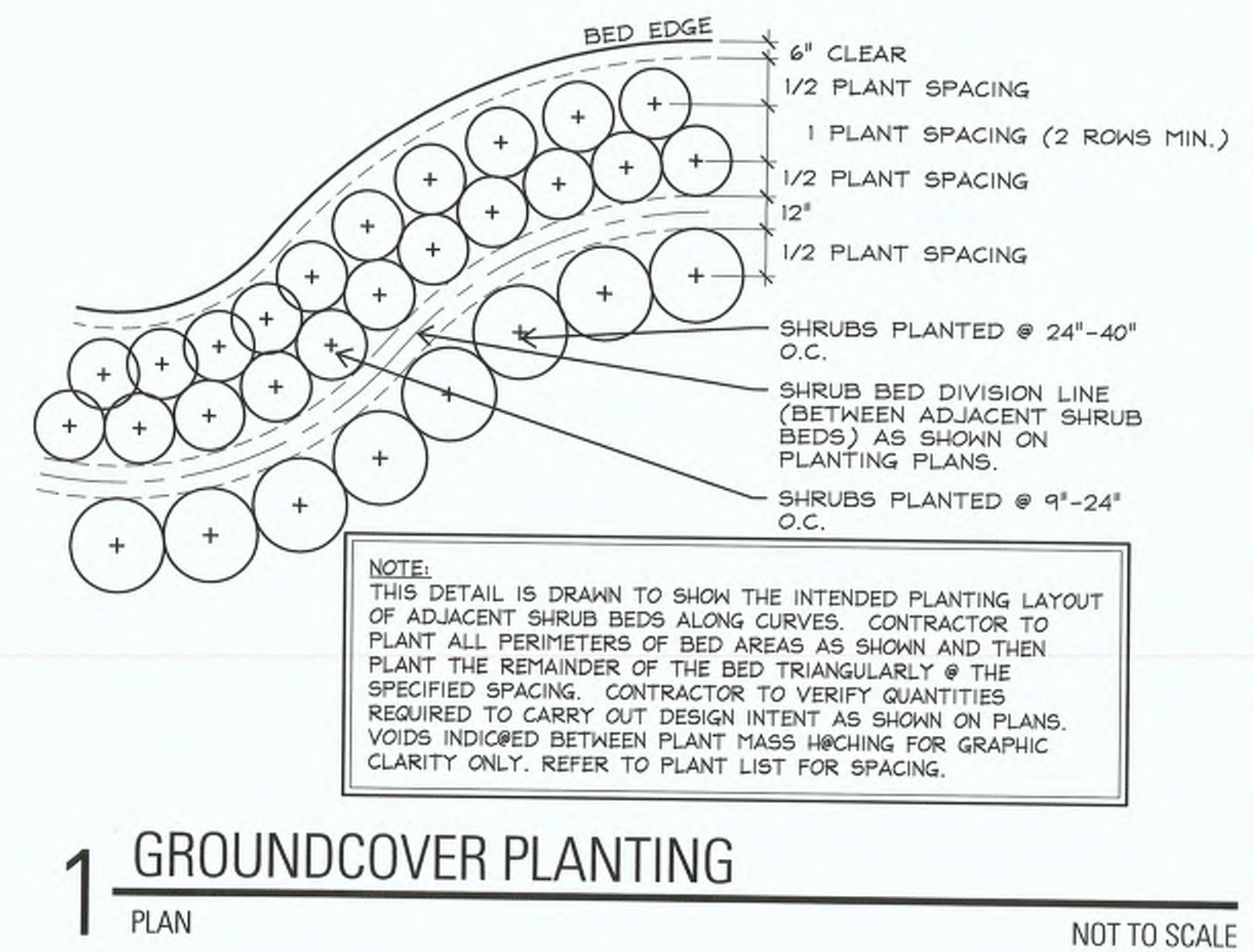
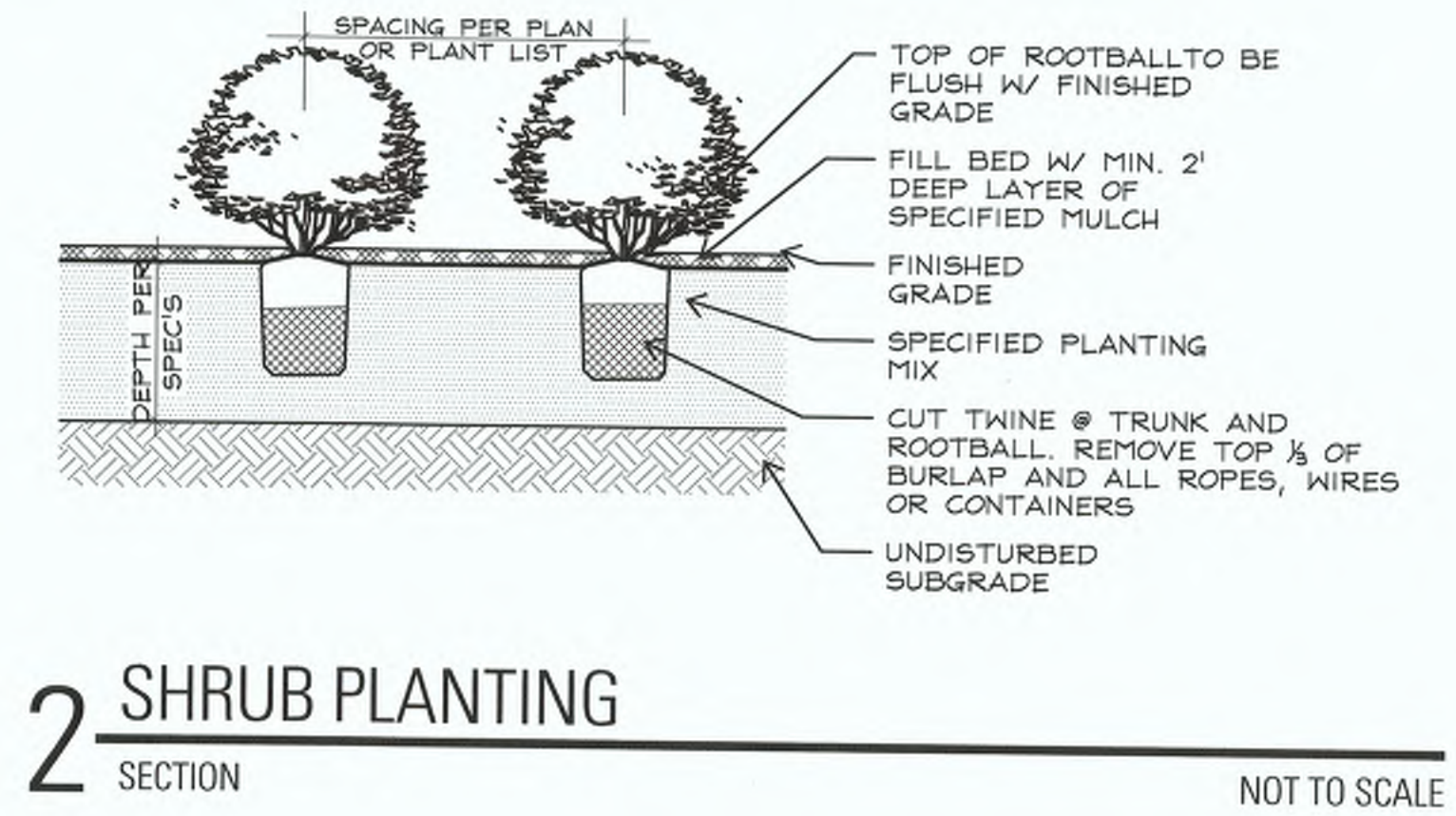
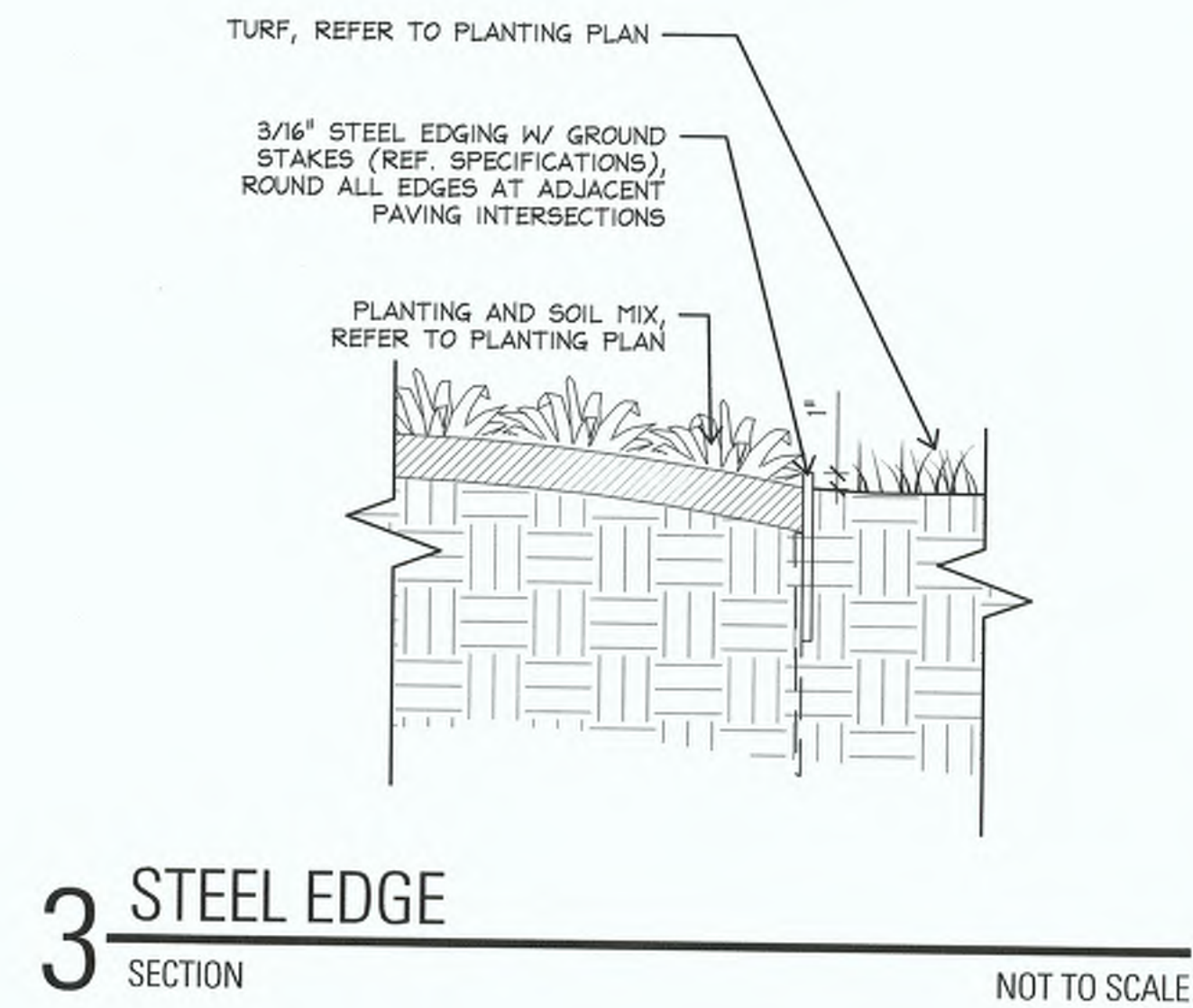
**CITY OF HOUSTON**  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

FILE NO:

DRAWING SCALE:





PLANT LIST					
PERENNIALS, GROUNDCOVERS, AND ANNUALS					
GRAPHIC	KEY	COMMON NAME	SCIENTIFIC NAME	SIZE	REMARKS
	CDS	COMMON BERMUDA	CYNODON DACTYLON	SOLID SOD	CONTRACTOR TO FIELD VERIFY QUANTITIT OF SOD REQUIRED.
	LNG	NEW GOLD LANTANA	LANTANA X 'NEW GOLD'	5 GAL., 12" HT. & SPRD. MIN.	PLANT 24" O.C., FULL POT, GREEN
	NT	MEXICAN FEATHER GRASS	NASSELLA TENUISSIMA	5 GAL., 18" HT. & SPRD. MIN.	FULL POT, GREEN, PLANT 24" O.C.
	RCM	CINCO DE MAYO ROSE	ROSA CINCO DE MAYO	5 GAL., 24" HT. & SPRD. MIN.	PLANT 36" O.C., FULL POT, DARK GREEN FOLIAGE



### 5 HOLLY VIEW AND ANTOINE DRIVE

PLAN

SCALE: 1"=30'



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**VERIFICATION OF PRIVATE UTILITY LINES**

*N/A* 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 conflict verification.)  
(Gas service lines are not shown.)  
Signature Valid for six months.

*N/A* Date: \_\_\_\_\_

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

*n/a*

**AT&T TEXAS/SWBT UTILITY LINES SHOWN**

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

REV	DESCRIPTION	DATE

Ward, Getz & Associates, LLP  
TX FIRM No. F-9756  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact: \_\_\_\_\_

### NEAR NORTHWEST MANAGEMENT DISTRICT VERTICAL DISTRICT MARKERS

### CITY OF HOUSTON

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

FILE NO: \_\_\_\_\_

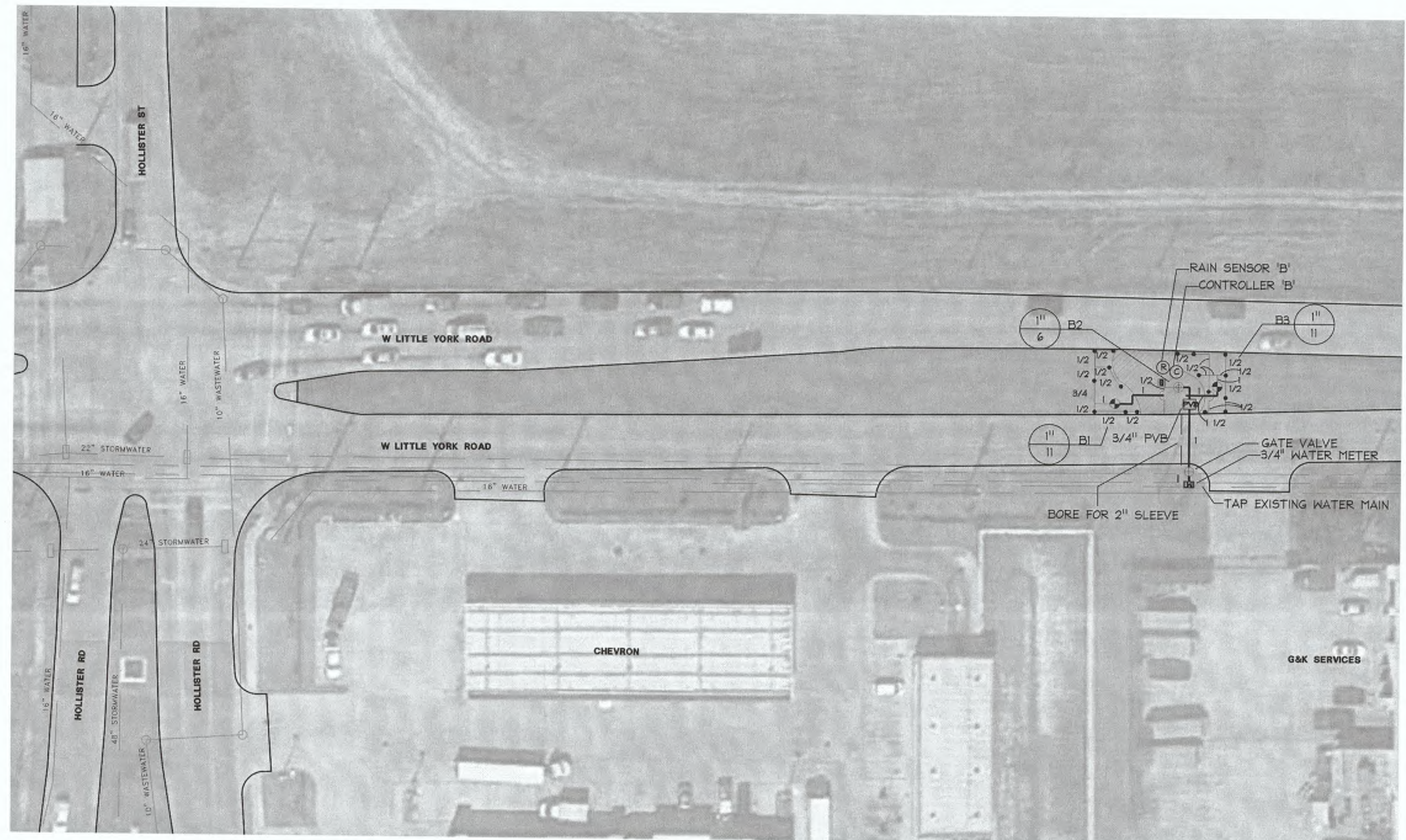
DRAWING SCALE: \_\_\_\_\_





1 290 AND HOLLISTER - IRRIGATION  
PLAN

SCALE: 1"=30'



2 LITTLE YORK & HOLLISTER - IRRIGATION  
PLAN

SCALE: 1"=30'



- LEGEND
- NETAFIM TECHLINE TLHCVR5-12 SERIES DRIP TUBE IN SHRUB BED INSTALLED AT 2" DEPTH  
SEE INSTALLATION NOTE #6 REGARDING DRIP TUBE LAYOUT IN SHRUB BEDS.
  - HUNTER PRO5-04-PR530 SERIES POP UP SPRAY HEAD WITH PRO SPRAY SERIES NOZZLE AS NOTED BELOW
  - NETAFIM LVZ SERIES DRIP VALVE ASSEMBLY WITH 42 PSI REGULATOR AND 140 MESH FILTER  
USE MODEL LVZS8010075-HF FOR DRIP ZONES WITH 5 TO 12 GPM FLOW RATE
  - GATE VALVE
  - WILKINS PRESSURE VACUUM BREAKER TYPE BACKFLOW  
PREVENTOR WITH ENCLOSURE, INSTALLED PER CITY CODE
  - PROPOSED 3/4" WATER METER
  - HUNTER-IC-600M AUTOMATIC CONTROLLER
  - MINI-CLIK HARD-WIRED RAIN SENSOR
  - SCHEDULE 40 PVC MAINLINE PIPE
  - CLASS 200 ( EXCEPT 1/2 INCH #315 ) PVC LATERAL PIPE
  - BORE WITH SLEEVE BY L.I.C.



**James Pole**  
IRRIGATION CONSULTANTS  
IRRIGATION DESIGN, CONSULTING, AND  
LANDSCAPE WATER MANAGEMENT  
TEXAS L.I.C. #658 PHONE: 940.248.2864  
100 N. LOCUST ST., SUITE B FAX: 940.382.2475  
DENTON, TEXAS 76201 james@jamespoleirrigation.com



IRRIGATION IN TEXAS IS REGULATED BY  
THE TEXAS COMMISSION ON ENVIRONMENTAL  
QUALITY (TCEQ) ( MC-17B ) P.O. BOX 13087  
T.C.E.Q.'S WEB SITE IS: WWW.TCEQ.STATE.TX.US

**CENTERPOINT ENERGY**  
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**VERIFICATION OF PRIVATE UTILITY LINES**

*[Signature]* Date: 2/20/18  
Centerpoint Energy/Underground Gas Facilities Verification ONLY.  
(This Signature verifies that you have shown CHP Natural Gas lines - not to be used for conflict verification.)  
(Gas service lines are not shown.)  
Signature Valid for six months.

*[Signature]* Date: 2/20/18  
Centerpoint Energy/Underground Electrical Facilities Verification ONLY.  
(This Signature verifies existing underground facilities - not to be used for conflict verification.)  
(Gas service lines are not shown.)  
Signature Valid for six months.

*[Signature]* 2-27-18  
AT&T TEXAS/SWB UTILITY LINES SHOWN  
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Signature valid for one year.

REV	DESCRIPTION	DATE

Ward, Getz & Associates, LLP  
TX FIRM No. E-9756  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:

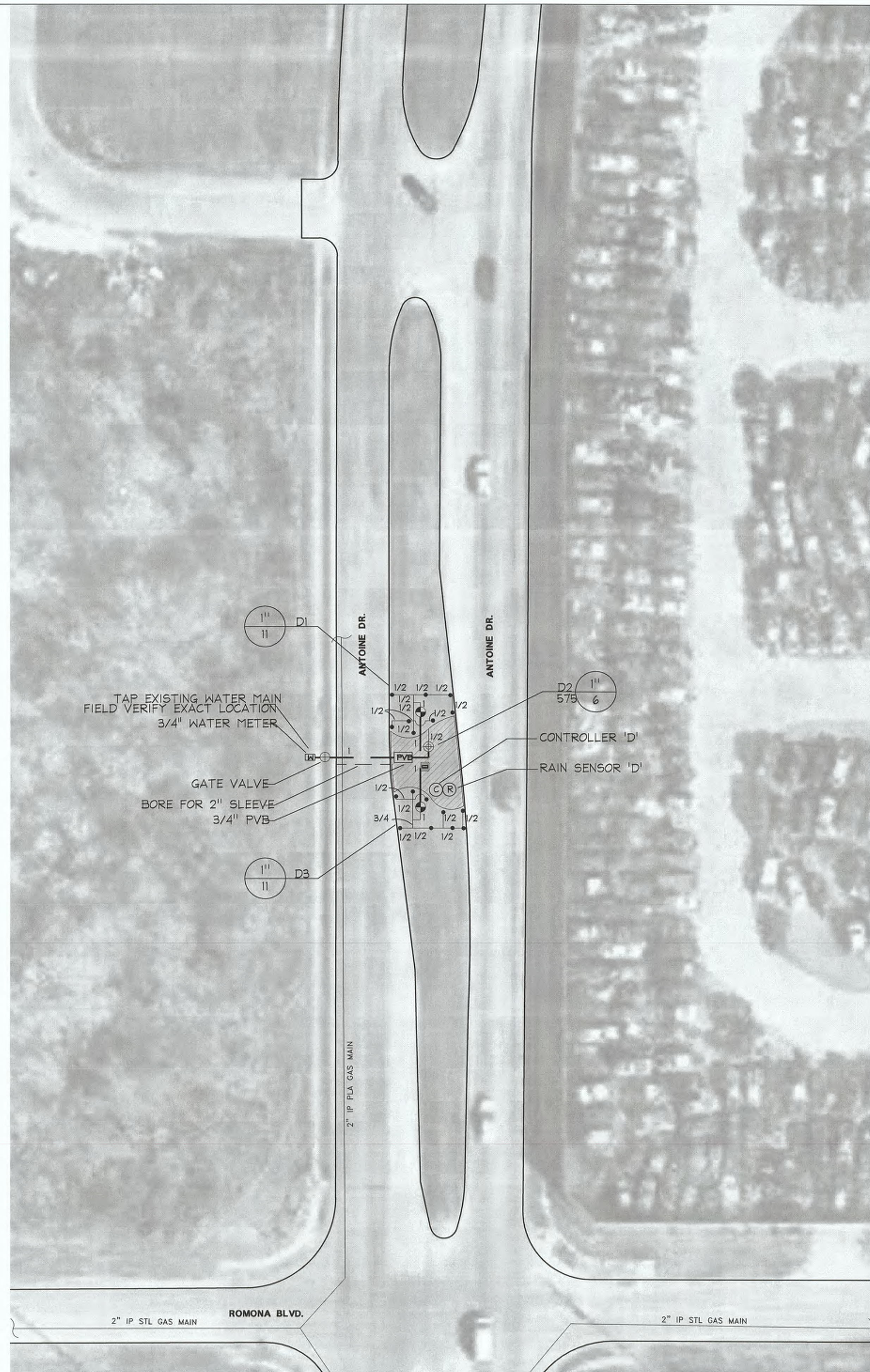
**NEAR NORTHWEST  
MANAGEMENT DISTRICT  
VERTICAL DISTRICT MARKERS**

**CITY OF HOUSTON**  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

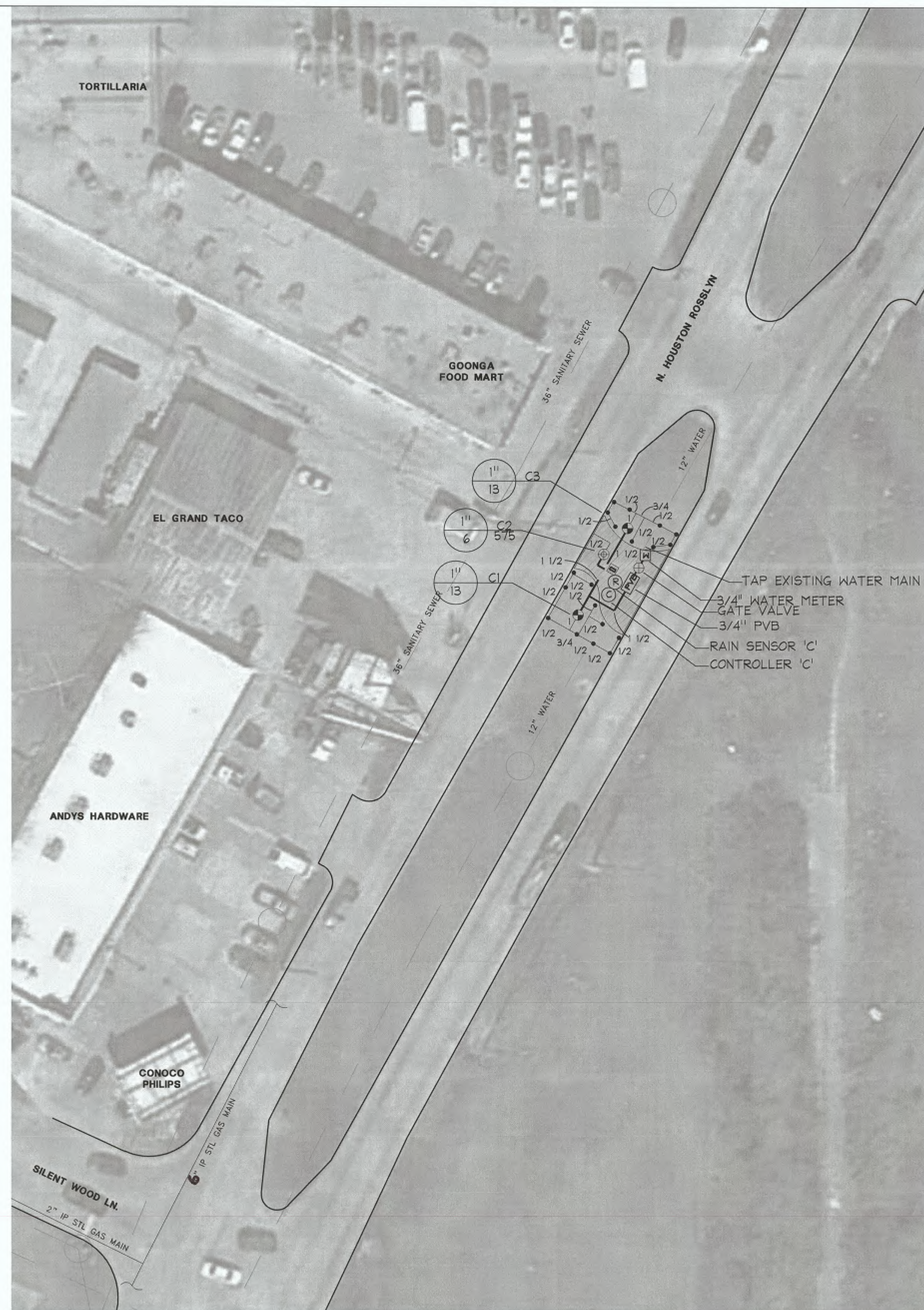
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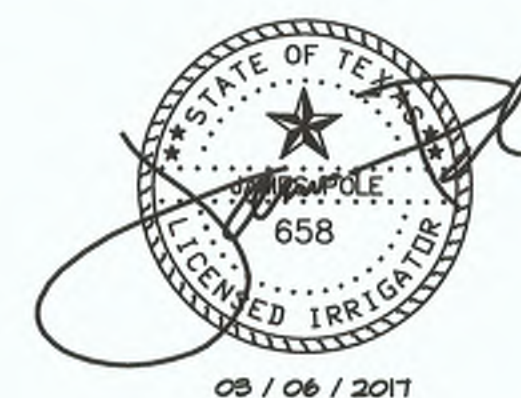
4 249 & ANTOINE DRIVE - IRRIGATION

SCALE: 1"=30'



3 249 & N. HOUSTON ROSSLYN - IRRIGATION

SCALE: 1"=30'



James Pole  
IRRIGATION CONSULTANTS

IRRIGATION DESIGN, CONSULTING, AND  
LANDSCAPE WATER MANAGEMENT

TEXAS L.I.C. #658 PHONE: 440.248.2864  
100 N. LOCUST ST., SUITE 5 FAX: 440.382.2475  
DENTON, TEXAS 76201 james@jamespoleirrigation.com



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T.C.E.Q.'S WEB SITE IS: WWW.TCEQ.STATE.TX.US

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VERIFICATION OF PRIVATE UTILITY LINES  
Signature: [Signature] Date: 8/3/17  
Signature: [Signature] Date: 8/3/17  
Signature: [Signature] Date: 8-17-17  
AT&T TEXAS/SWBT UTILITY LINES SHOWN  
Approved for AT&T Texas/SWBT underground conduit facilities only.  
Signature valid for one year.

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Ward, Getz & Associates, LLP  
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2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:

NEAR NORTHWEST  
MANAGEMENT DISTRICT  
VERTICAL DISTRICT MARKERS

CITY OF HOUSTON  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

FILE NO:  
DRAWING SCALE:





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VERIFICATION OF PRIVATE UTILITY LINES

N/A

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 conflict verification.)  
(See service lines are not shown.)  
Signature valid for six months.

N/A

Date:

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

n/a

AT&T TEXAS/SWBT UTILITY LINES SHOWN

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

REV	DESCRIPTION	DATE

Ward, Getz & Associates, LLP  
TX FIRM No. F-9750  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:

NEAR NORTHWEST  
MANAGEMENT DISTRICT  
VERTICAL DISTRICT MARKERS

CITY OF HOUSTON  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

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

FILE NO:

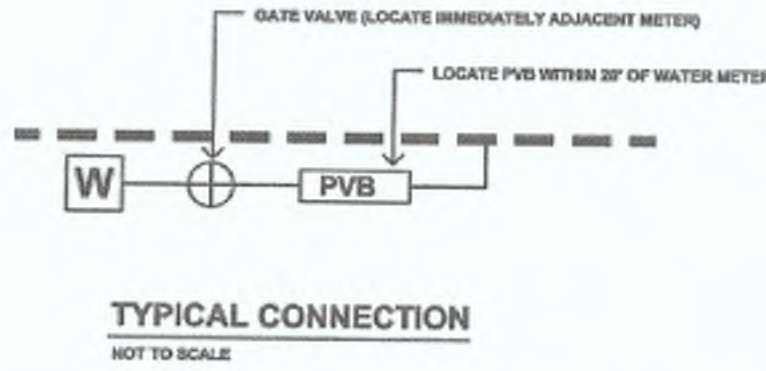
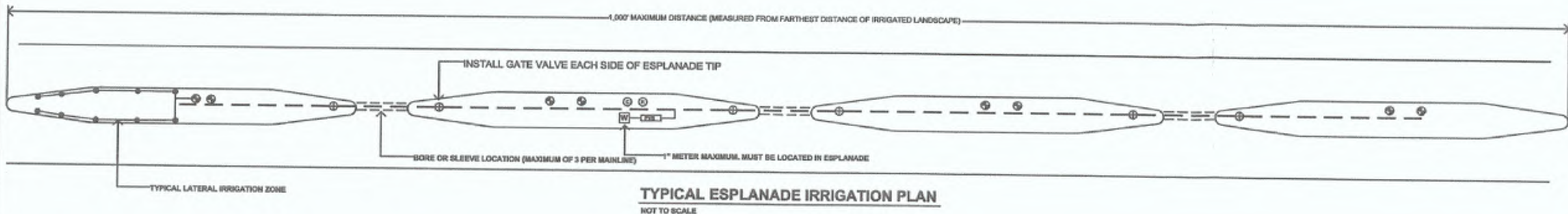
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SHEET No. 12 OF 16

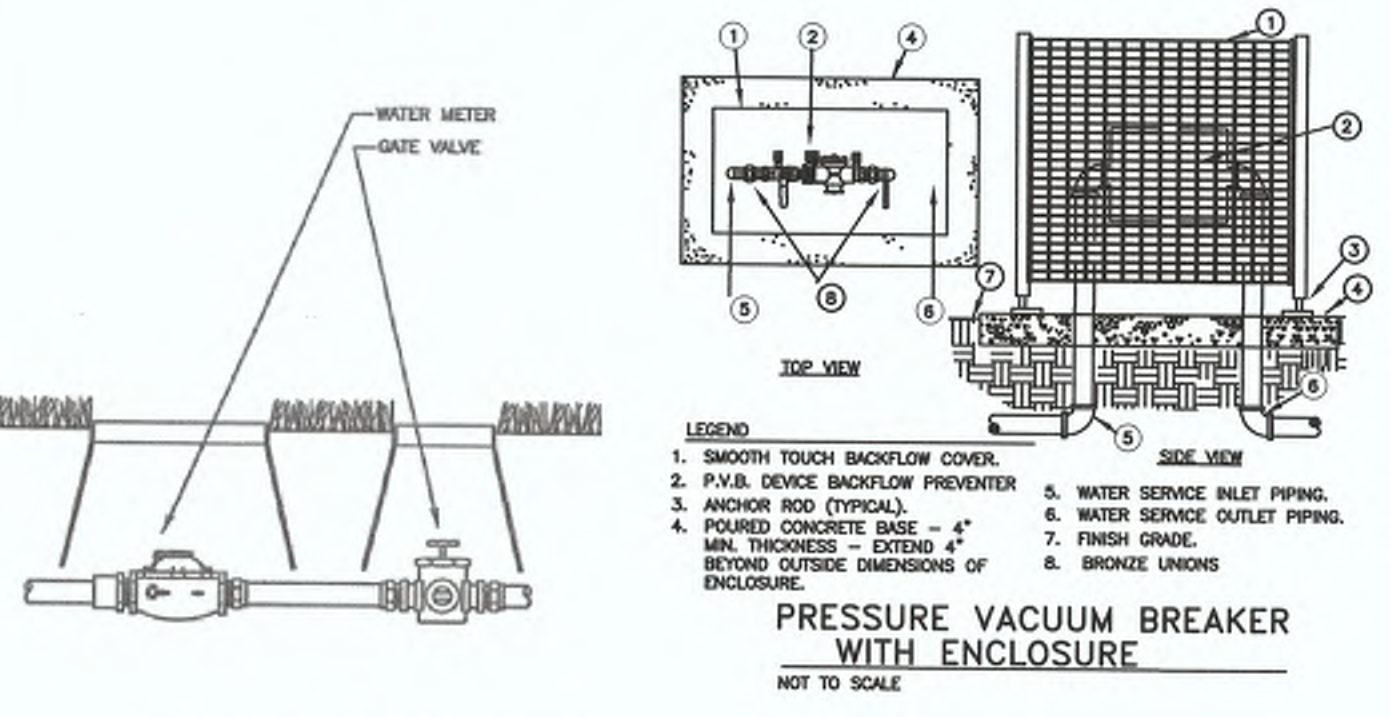


# IRRIGATION GUIDELINES

- COORDINATE IRRIGATION INSTALLATION WITH PLANTING PLAN AND SITE CONDITIONS TO PROVIDE COMPLETE COVERAGE WITH MINIMUM OVERSPRAY. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE MANDATED IRRIGATION ORDINANCES AND CODES, AND WILL SECURE ALL REQUIRED PERMITS. L.I.C. SHALL PAY ANY ASSOCIATED FEES UNLESS OTHERWISE NOTED. ALL LOCAL CODES SHALL PREVAIL OVER ANY DISCREPANCIES HEREIN AND SHALL BE ADDRESSED BEFORE ANY CONSTRUCTION BEGINS.
- CONFIRM MINIMUM STATIC WATER PRESSURE OF 60 PSI AT THE HIGHEST ELEVATION OF THE SYSTEM LIMITS, AND MAXIMUM STATIC WATER PRESSURE OF 90 P.S.I. AT THE LOWEST ELEVATION OF THE SYSTEM LIMITS AT LEAST 7 DAYS BEFORE BEGINNING WORK. IF STATIC WATER PRESSURE IS OUTSIDE THE RANGE STATED ABOVE, DO NOT PROCEED UNTIL DIRECTED BY THE LANDSCAPE ARCHITECT.
- LATERAL PIPE SHALL BE INSTALLED AT A MINIMUM DEPTH OF 12 INCHES. MAINLINE PIPE AND WIRES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 18 INCHES. NO MACHINE TRENCHING SHALL BE PERMITTED WITHIN EXISTING TREE ROOT ZONES. WHEN HAND - TRENCHING WITHIN EXISTING TREE ROOT ZONES, NO ROOTS LARGER THAN 1" DIAMETER SHALL BE CUT.
- CONTRACTOR IS TO CONTACT APPROPRIATE AUTHORITIES AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.
- THE PROPOSED LOCATIONS OF ALL ABOVE- GROUND EQUIPMENT INCLUDING BACKFLOW PREVENTORS, CONTROLLERS AND WEATHER SENSORS SHALL BE STAKED BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE BEFORE THESE ITEMS ARE INSTALLED.
- WHERE SHOWN ON THE PLANS, MASS SHRUB / GROUND COVER BEDS SHALL INCLUDE NETAFIM TECHLINE TLHCVXR SERIES DRIP TUBE WITH PRE-INSTALLED .55 GPH DRIP EMITTERS AT 12" INTERVALS ( TLHCVXR5-12 ), INSTALLED IN CENTER-FED GRIDS WITH ROWS SPACED 18" APART. INDIVIDUAL DRIP TUBE RUNS SHALL NOT EXCEED 150 L.F. PVC LATERAL "TRUNK" LINES SHALL BE INSTALLED 10" DEEP. DRIP TUBE SHALL BE SET 2" BELOW FINISHED SOIL GRADE ( NOT INCLUDING MULCH LAYER ), SECURELY STAKED EVERY 18". NETAFIM #TL050MFV-1 FLUSH VALVES SHALL BE INSTALLED AT THE FARTHEST POINTS FROM THE ZONE VALVE. USE 17 MM BARBED FITTINGS FOR DRIP LINE CONNECTIONS, SET THE MAXIMUM OPERATING PRESSURE AT 30 PSI. TECHLINE CV SHALL BE INSTALLED PERPENDICULAR TO SLOPE FACE. INSTALL TLCV IN-LINE CHECK VALVES FOR EVERY 4.5 FEET OF DRIP LINE ELEVATION CHANGE WITHIN THE ZONE. USE NETAFIM STAPLES ( #TL96 ) TO SECURE TUBING EVERY 18" EACH DRIP ZONE SHALL INCLUDE ONE MAINTENANCE "FLAG" WHICH SHALL CONSIST OF A 12" POP-UP SPRAY HEAD AND COMPLETELY CLOSED SPRAY NOZZLE. THE POP-UP HEAD SHALL BE CONNECTED TO THE DRIP ZONE PIPE, SET FLUSH WITH GRADE, AND LOCATED AT THE FARTHEST DISTANCE FROM THE DRIP VALVE ASSEMBLY. INSTALL THE "FLAG" HEAD ADJACENT TO EDGING OR IN LOW PLANTINGS FOR EASE OF VIEWING.
- ELECTRIC POWER SHALL BE PROVIDED AT THE CONTROLLER LOCATION BY GENERAL CONTRACTOR. L.I.C. TO PROVIDE FINAL HARD-WIRE CONNECTION TO THE CONTROLLER.
- ALL SPRAY HEADS SHALL BE CONNECTED WITH A 12" MINIMUM LENGTH OF 1/2" FLEX PVC. THE FLEX PVC SHALL BE SOLVENT WELDED TO SCHEDULE 40 PVC FITTINGS WITH WELD-ON #795 SOLVENT AND #P-70 PRIMER.
- ALL HEADS SHALL BE INSTALLED A MINIMUM OF 12" FROM PAVEMENT EDGES. FINAL HEAD ADJUSTMENTS BY THE CONTRACTOR SHALL INCLUDE THE ADDITION OF CHECK VALVES WHERE NEEDED TO PREVENT EXCESSIVE LOW HEAD DRAINAGE. THE CONTRACTOR SHALL BUDGET FOR, AND INSTALL CHECK VALVES FOR UP TO 10% OF THE TOTAL NUMBER OF HEADS WHEN NEEDED, WITH NO ADDITIONAL COST TO THE OWNER.

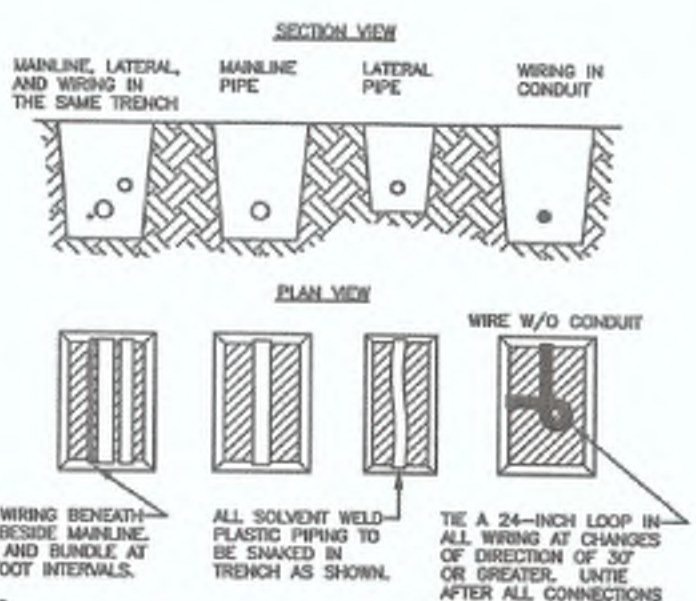


TYPICAL CONNECTION  
NOT TO SCALE

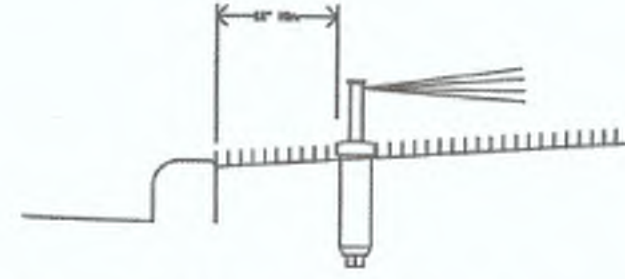


PRESSURE VACUUM BREAKER  
WITH ENCLOSURE  
NOT TO SCALE

METER/PVB CONNECTION  
NOT TO SCALE



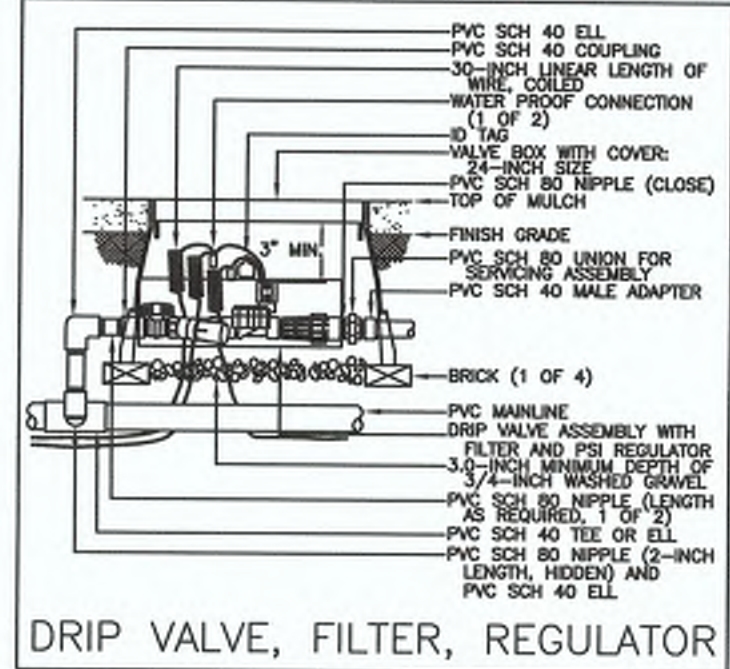
PIPE & WIRE TRENCHING  
NOT TO SCALE



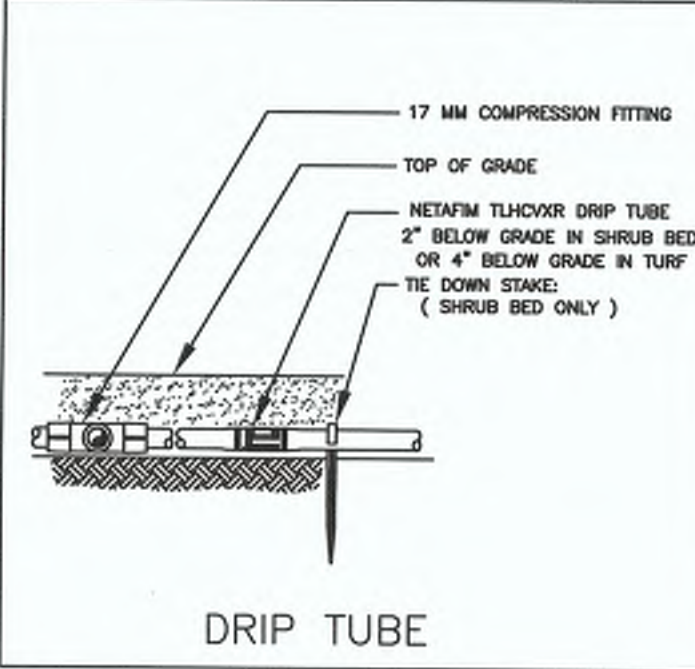
SPRINKLER HEAD ADJACENT CURB  
NOT TO SCALE

- IRRIGATION SYSTEM NOTES:**
- IRRIGATION SYSTEM MUST BE "CLOSED LOOP" AND MAY NOT INCLUDE QUICK-COUPERS, HOSE BIBS OR ANY OTHER DEVICE THAT WOULD ALLOW EXTRACTION OF WATER THROUGH THE SYSTEM OTHER THAN A SPRINKLER HEAD OR EMITTER.
  - WATERING IS PROHIBITED BETWEEN THE HOURS OF 10:00 AM & 7:00 PM.
  - ABOVE-GROUND SPRINKLERS ARE NOT PERMITTED ON ESPLANADES LESS THAN 12" WIDE.
  - CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION & STAKING OF ALL UNDERGROUND UTILITIES.
  - SYSTEM MUST BE OPERATED BY AN AUTOMATIC CONTROLLER UTILIZING A RAIN SHUT-OFF SENSOR DEVICE.
  - THE WATER METER, CONTROLLER AND RAIN SENSOR MUST BE LOCATED WITHIN THE ESPLANADE.
  - ONE METER PER 1,000 FEET CONTINUOUS RUN OF ESPLANADES. NO INTERSECTIONS.

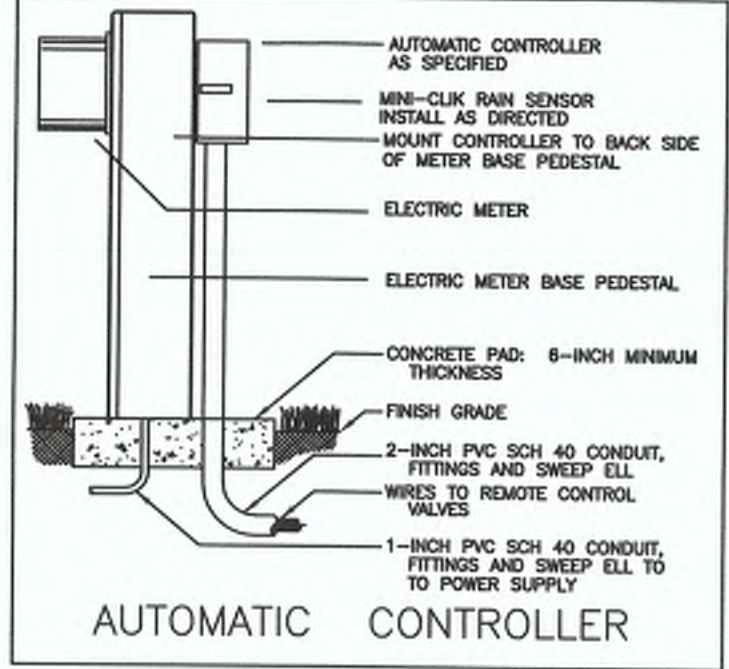
- LEGEND**
- NETAFIM TECHLINE TLHCVXR5-12 SERIES DRIP TUBE IN SHRUB BED INSTALLED AT 2" DEPTH SEE INSTALLATION NOTE #6 REGARDING DRIP TUBE LAYOUT IN SHRUB BEDS.
  - HUNTER PROS-04-PRS30 SERIES POP UP SPRAY HEAD WITH PRO SPRAY SERIES NOZZLE AS NOTED BELOW
  - NETAFIM LVCZ SERIES DRIP VALVE ASSEMBLY WITH 42 PSI REGULATOR AND 140 MESH FILTER USE MODEL LVCZ58010075-HF FOR DRIP ZONES WITH 5 TO 12 GPM FLOW RATE
  - GATE VALVE
  - WILKINS PRESSURE VACUUM BREAKER TYPE BACKFLOW PREVENTOR WITH ENCLOSURE, INSTALLED PER CITY CODE
  - PROPOSED 3/4" WATER METER
  - HUNTER-IC-600M AUTOMATIC CONTROLLER
  - MINI-CLICK HARD-WIRED RAIN SENSOR
  - SCHEDULE 40 PVC MAINLINE PIPE
  - CLASS 200 ( EXCEPT 1/2 INCH #315 ) PVC LATERAL PIPE
  - BORE WITH SLEEVE BY L.I.C.



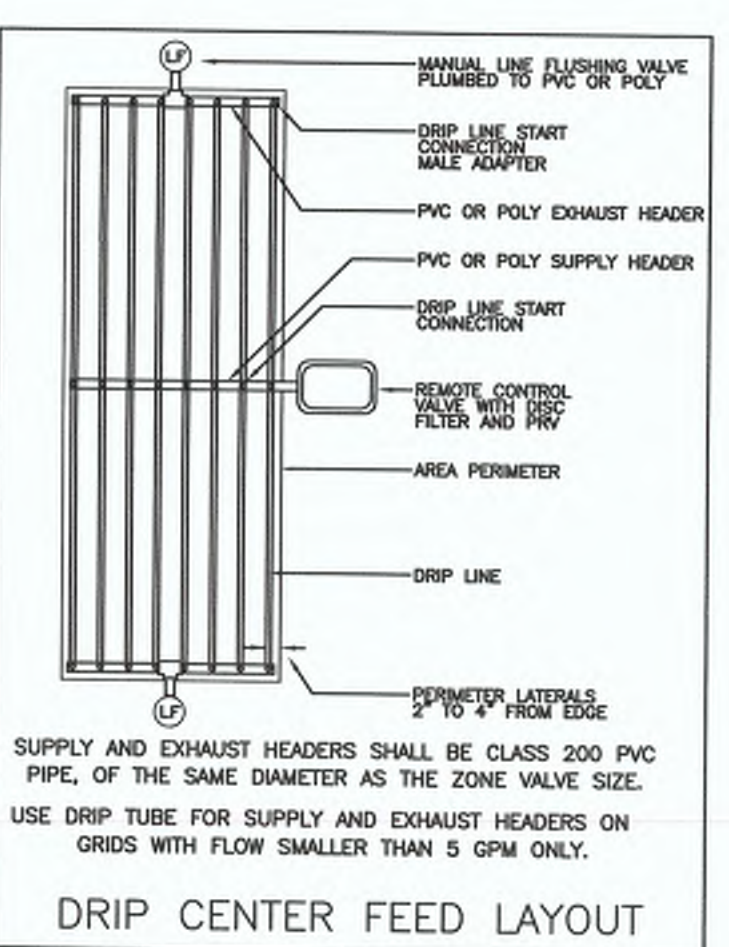
DRIP VALVE, FILTER, REGULATOR



DRIP TUBE

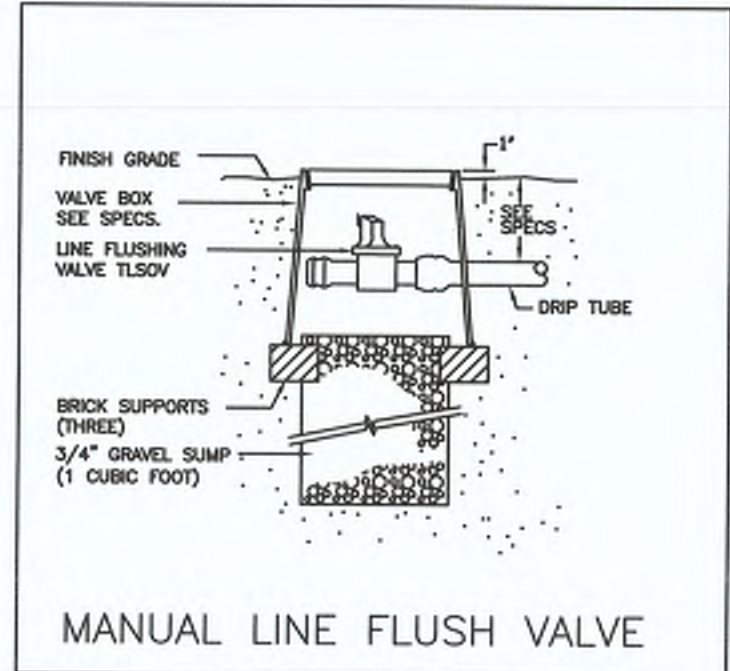


AUTOMATIC CONTROLLER

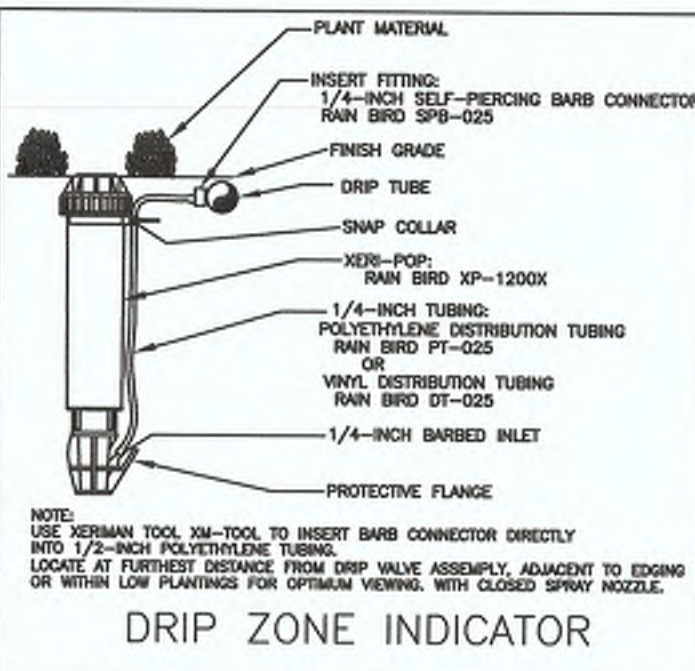


DRIP CENTER FEED LAYOUT

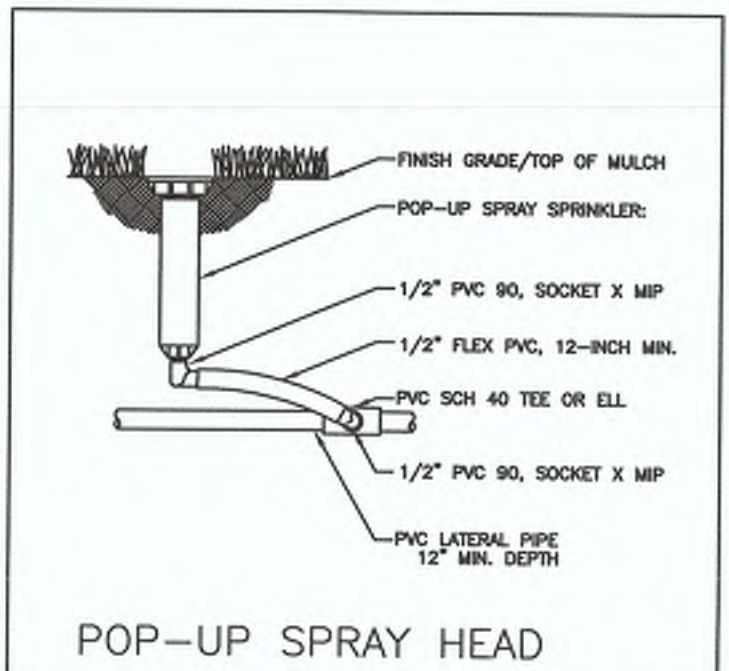
MINIMUM STATIC PRESSURE = 60 PSI  
DESIGN PRESSURE = 59 PSI



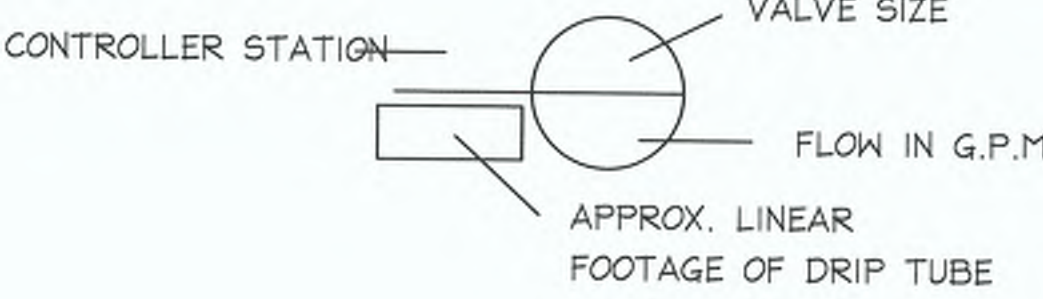
MANUAL LINE FLUSH VALVE



DRIP ZONE INDICATOR



POP-UP SPRAY HEAD



**James Pole**  
IRRIGATION CONSULTANTS  
IRRIGATION DESIGN, CONSULTING, AND  
LANDSCAPE WATER MANAGEMENT  
TEXAS L.I.C. #658  
100 N. LOCUST ST., SUITE 9  
DENTON, TEXAS 76201  
PHONE: 940.249.2364  
FAX: 940.382.2475  
james@jamespoleirrigation.com

IRRIGATION IN TEXAS IS REGULATED BY  
THE TEXAS COMMISSION ON ENVIRONMENTAL  
QUALITY (TCEQ) (MC-178) P.O. BOX 13087  
T.C.E.Q.'S WEB SITE IS: WWW.TCEQ.STATE.TX.US

**CENTERPOINT ENERGY**  
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 lines can be marked. This Verification does not fulfill your obligation to call 811.  
**VERIFICATION OF PRIVATE UTILITY LINES**  
N/A Date:  
CenterPoint Energy/Residential Gas Facilities Verification ONLY.  
(This Signature verifies that you have shown CPEP Natural Gas lines correctly - not to be used for contract verification.)  
(Gas service lines are not shown.)  
Signature valid for six months.

N/A Date:  
CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY.  
(This Signature verifies that you have shown CPEP Electrical lines correctly - not to be used for contract verification.)  
(Electrical service lines are not shown.)  
Signature valid for six months.

REV	DESCRIPTION	DATE

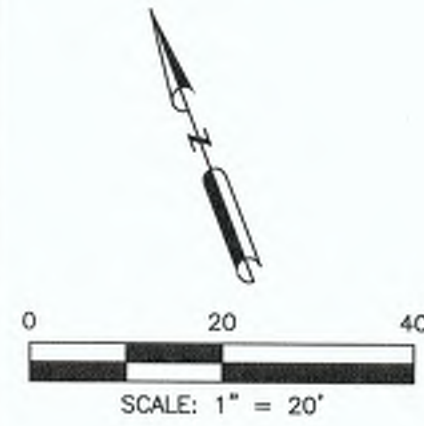
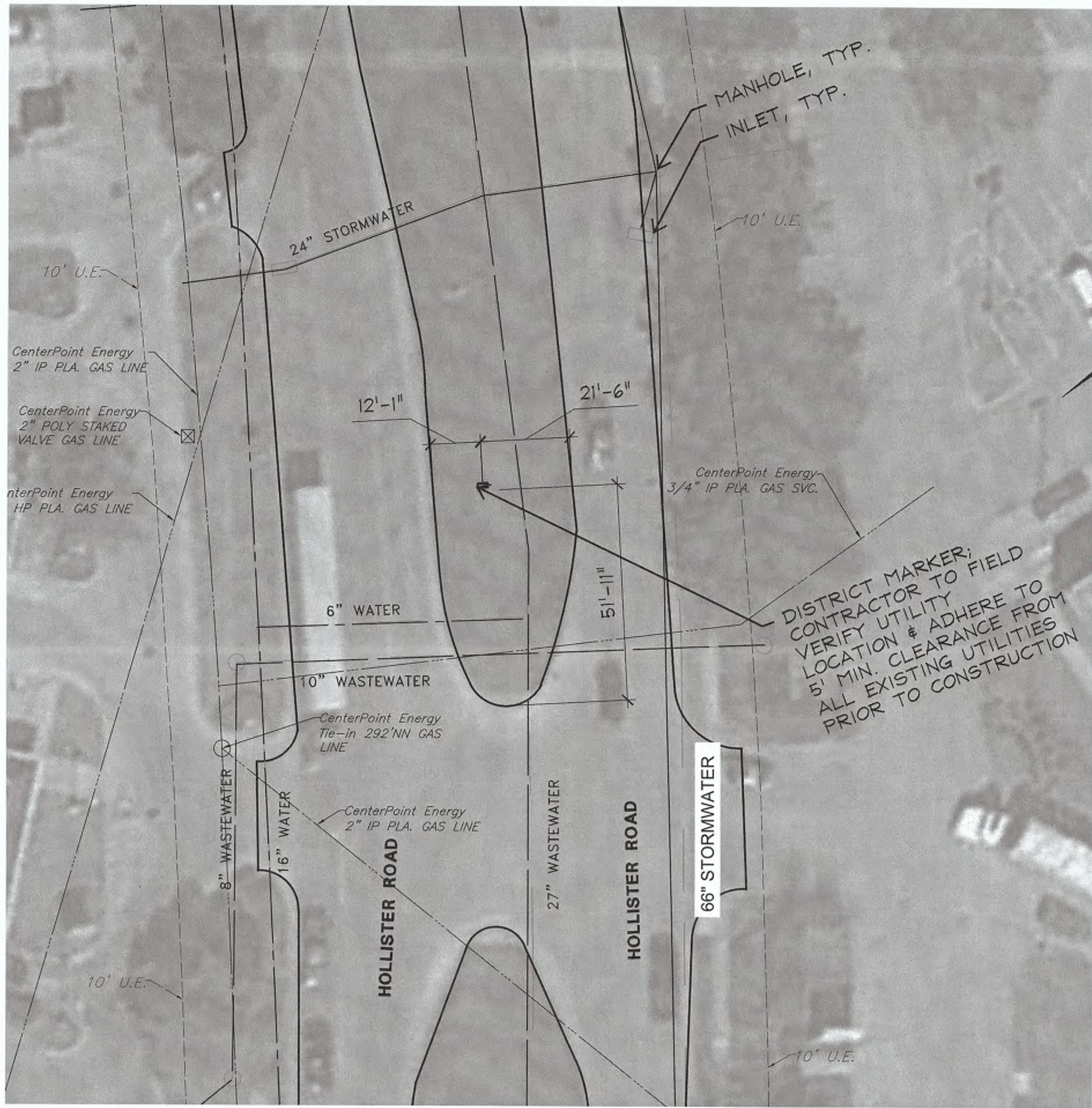
Word, Getz & Associates, LLP  
TX FIRM No. E-9756  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:

**NEAR NORTHWEST  
MANAGEMENT DISTRICT  
VERTICAL DISTRICT MARKERS**

**CITY OF HOUSTON**  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	TRAFFIC & TRANSPORTATION
WASTEWATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	
FILE NO:	
DRAWING SCALE:	





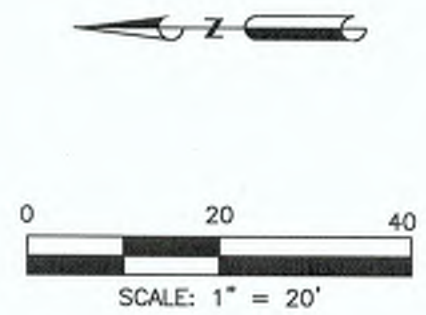
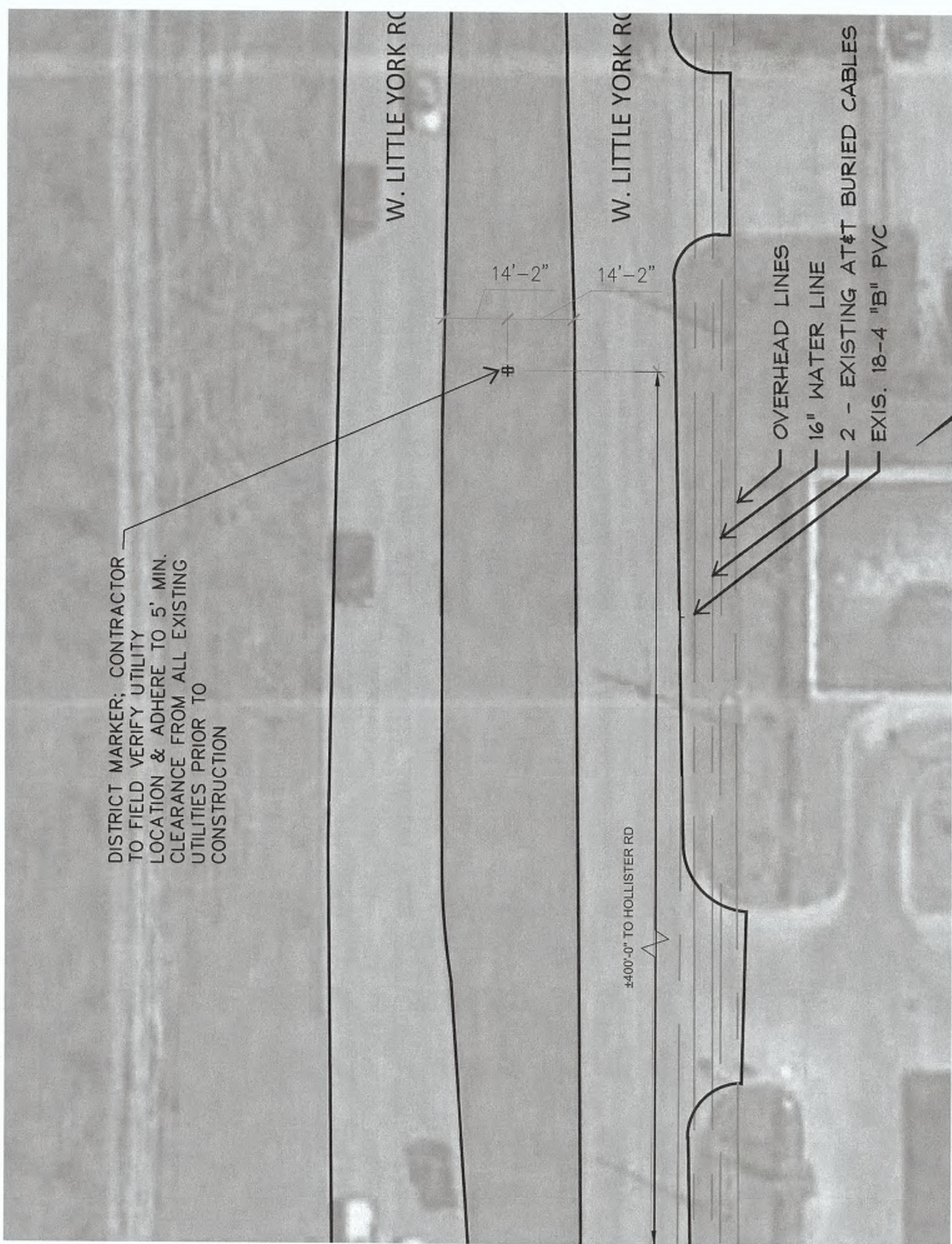
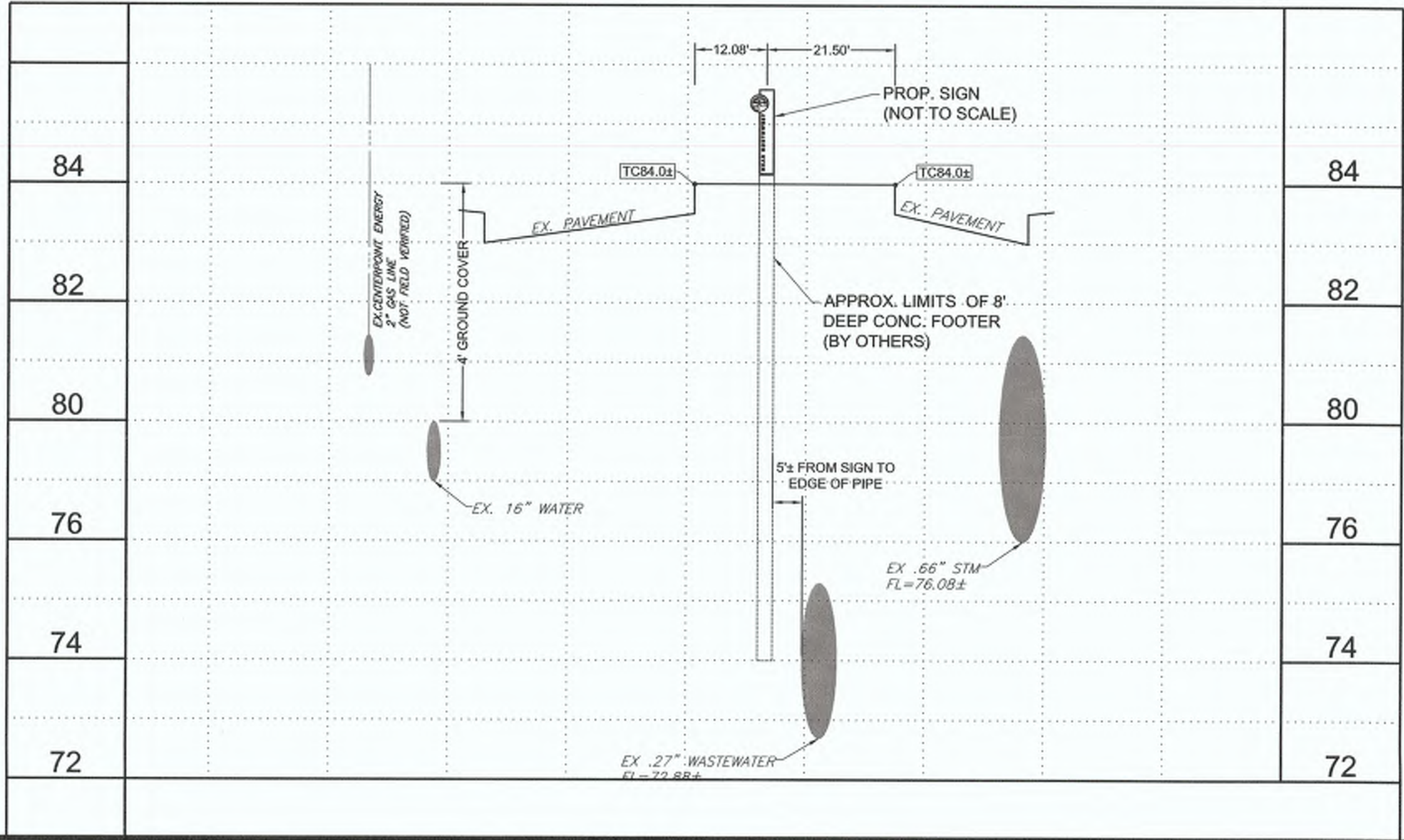
CAUTION!  
UNDERGROUND  
CENTERPOINT  
GAS LINE

FLOODPLAIN NOTE:  
THIS SUBJECT TRACT LIES WITHIN SHADED ZONE "AE". AREAS DETERMINED TO BE INSIDE THE 100-YR FLOODPLAIN (0.1% ANNUAL CHANCE) AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR HARRIS COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO. 48201C0635 M, REVISED JUNE 9, 2014. THE NEAREST AND HIGHEST MOST CURRENTLY KNOWN AND RELEVANT 1% ANNUAL CHANCE FLOOD ELEVATION APPEARS TO BE 84 PER FIRM PANEL 48201C0635M.

F31050748

CONTRACTOR TO FIELD VERIFY  
EXISTING UTILITIES BASE ON  
AS-BUILT DRAWINGS AND GIMS.

1 - HOLLISTER ROAD & HWY 290



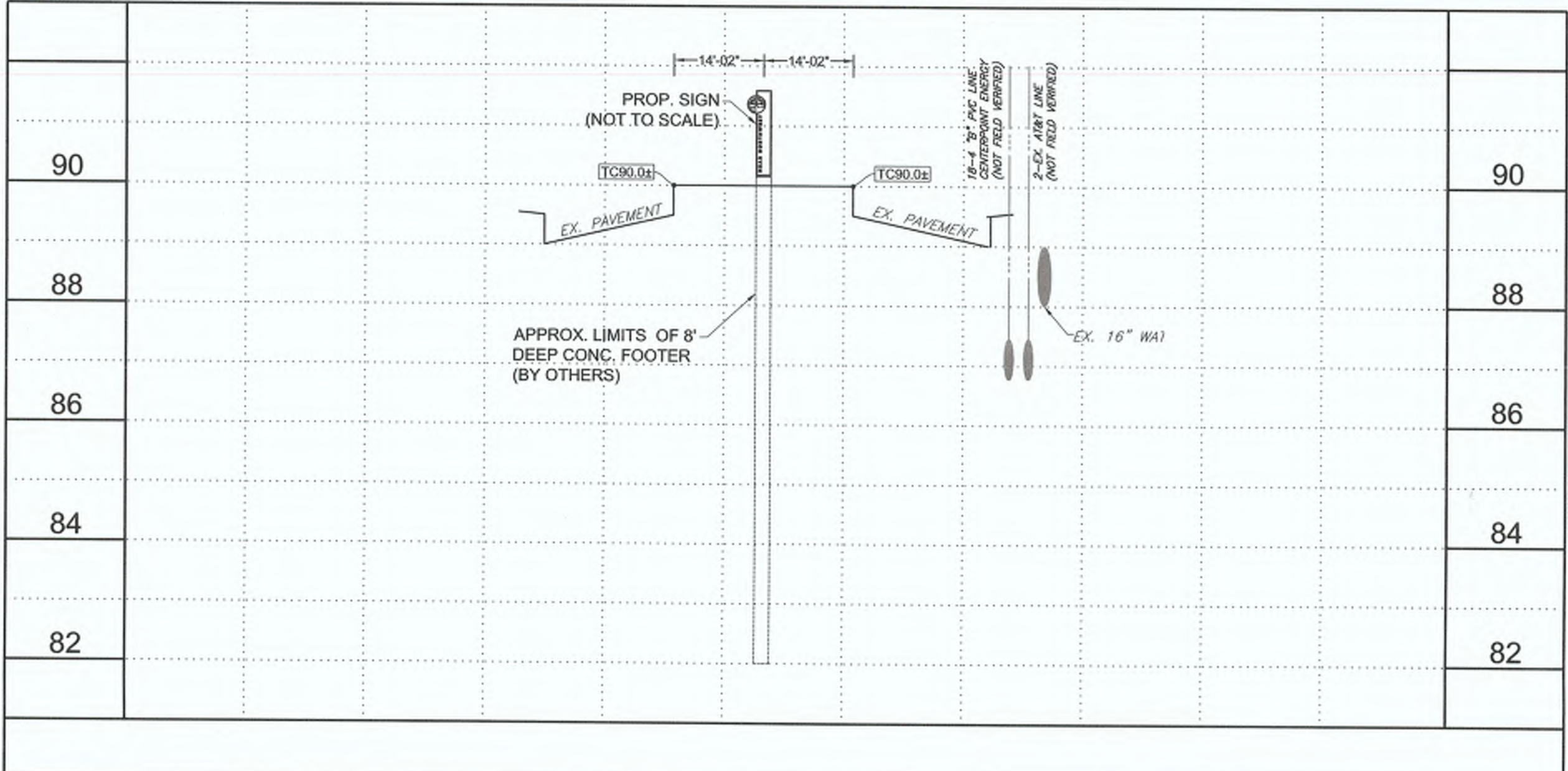
CAUTION!  
UNDERGROUND  
CENTERPOINT  
GAS LINE

FLOODPLAIN NOTE:  
THIS SUBJECT TRACT LIES WITHIN SHADED ZONE "X". AREAS DETERMINED TO BE INSIDE THE 500-YR FLOODPLAIN (0.2% ANNUAL CHANCE) AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR HARRIS COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO. 48201C0635 M, REVISED JUNE 9, 2014. THE NEAREST AND HIGHEST MOST CURRENTLY KNOWN AND RELEVANT 1% ANNUAL CHANCE FLOOD ELEVATION APPEARS TO BE 87 PER FIRM PANEL 48201C0635M.

NO GAS  
F31050754

CONTRACTOR TO FIELD VERIFY  
EXISTING UTILITIES BASE ON  
AS-BUILT DRAWINGS AND GIMS.

2 - HOLLISTER ROAD & LITTLE YORK ROAD



CENTERPOINT ENERGY

TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED, CALL CENTERPOINT ENERGY AT 713-207-2022

NOTICE:  
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.

VERIFICATION OF PRIVATE UTILITY LINES

Signature: [Signature] Date: 2/20/18

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

Signature: [Signature] Date: 2/20/18

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

Signature: [Signature] Date: 2-27-18

AT&T TEXAS/SWBUT UTILITY LINES SHOWN

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

Signature: [Signature]

Signature: [Signature]

Signature: [Signature]

Signature: [Signature]

Signature: [Signature]

Signature: [Signature]

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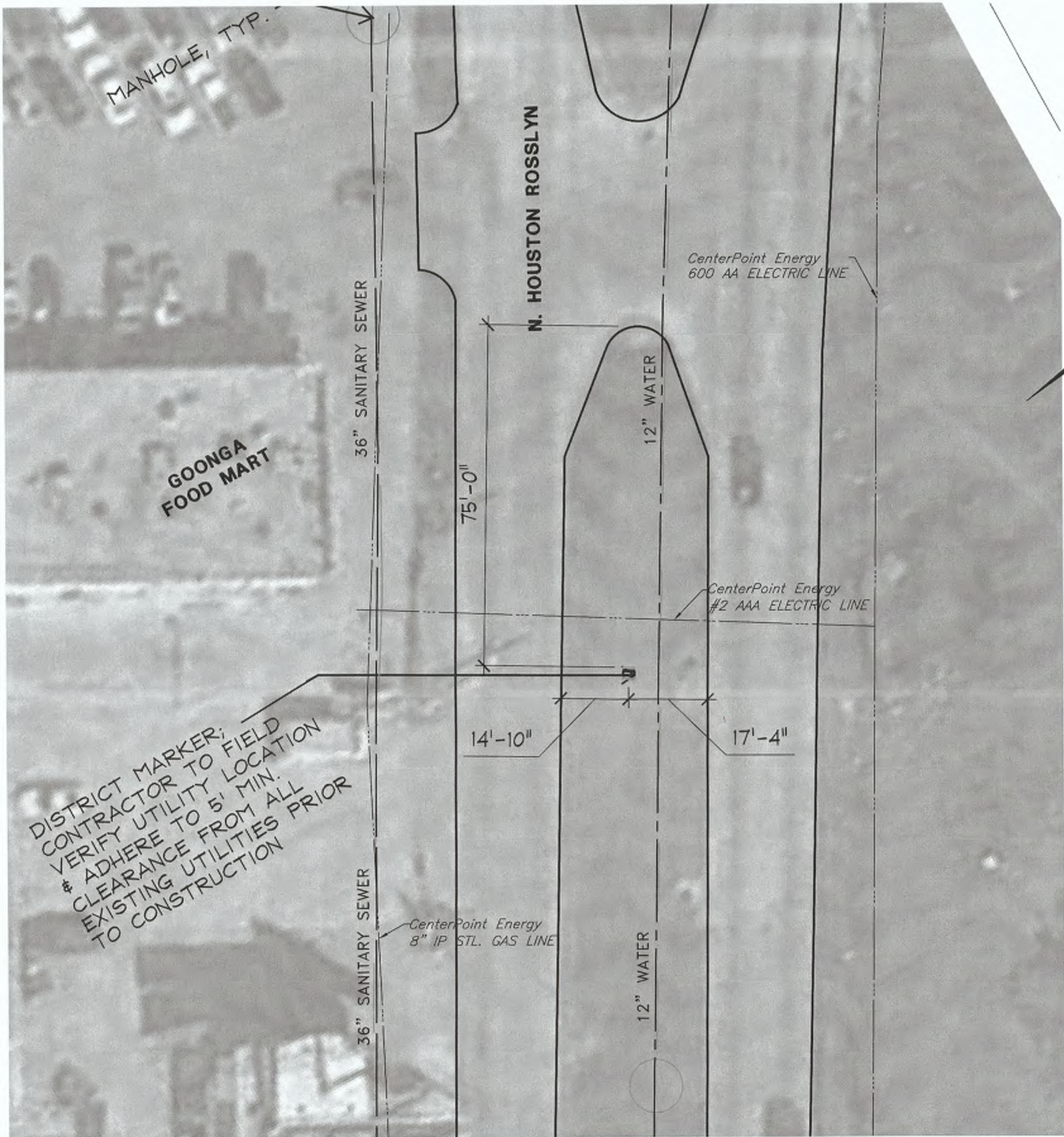
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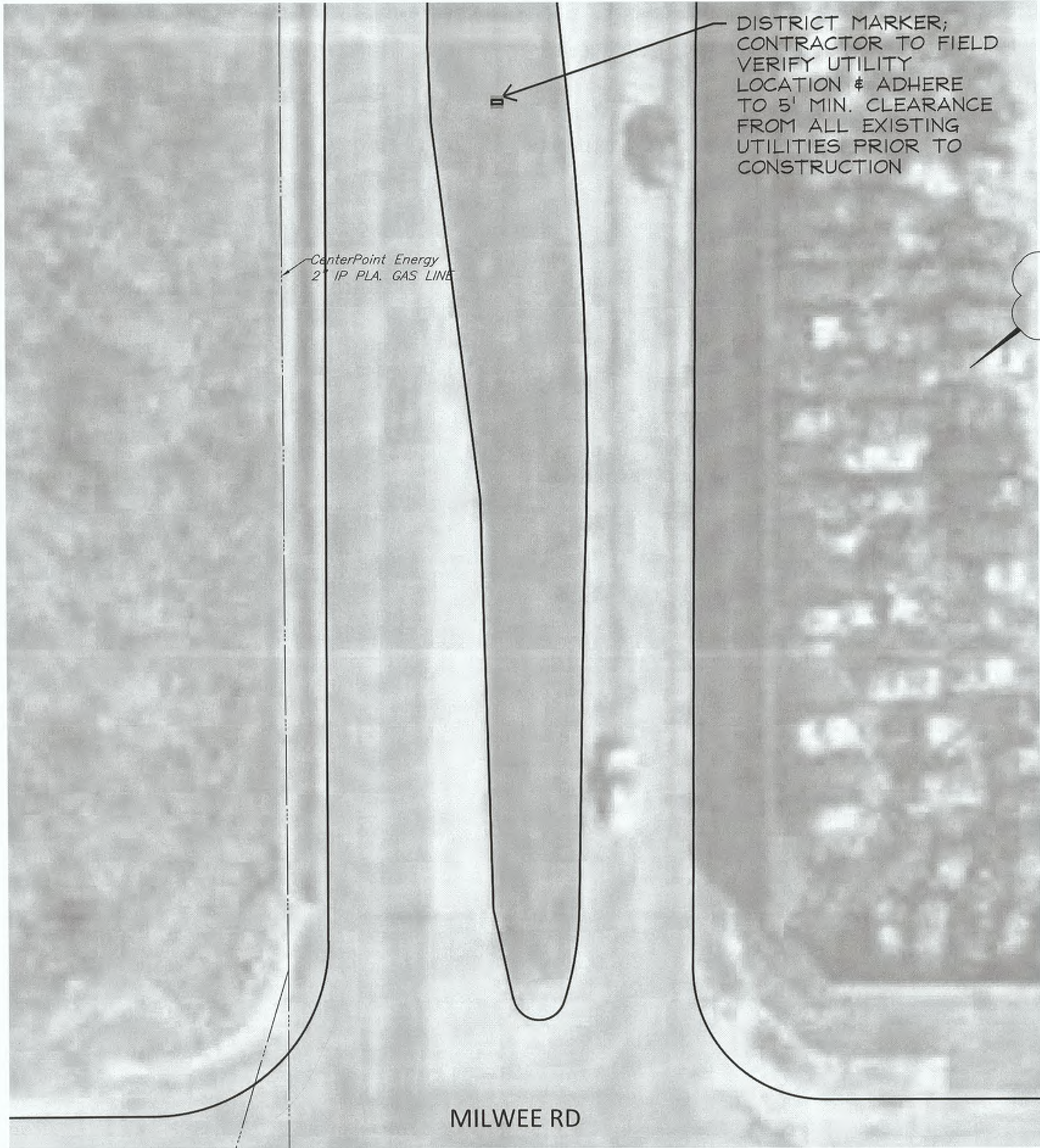
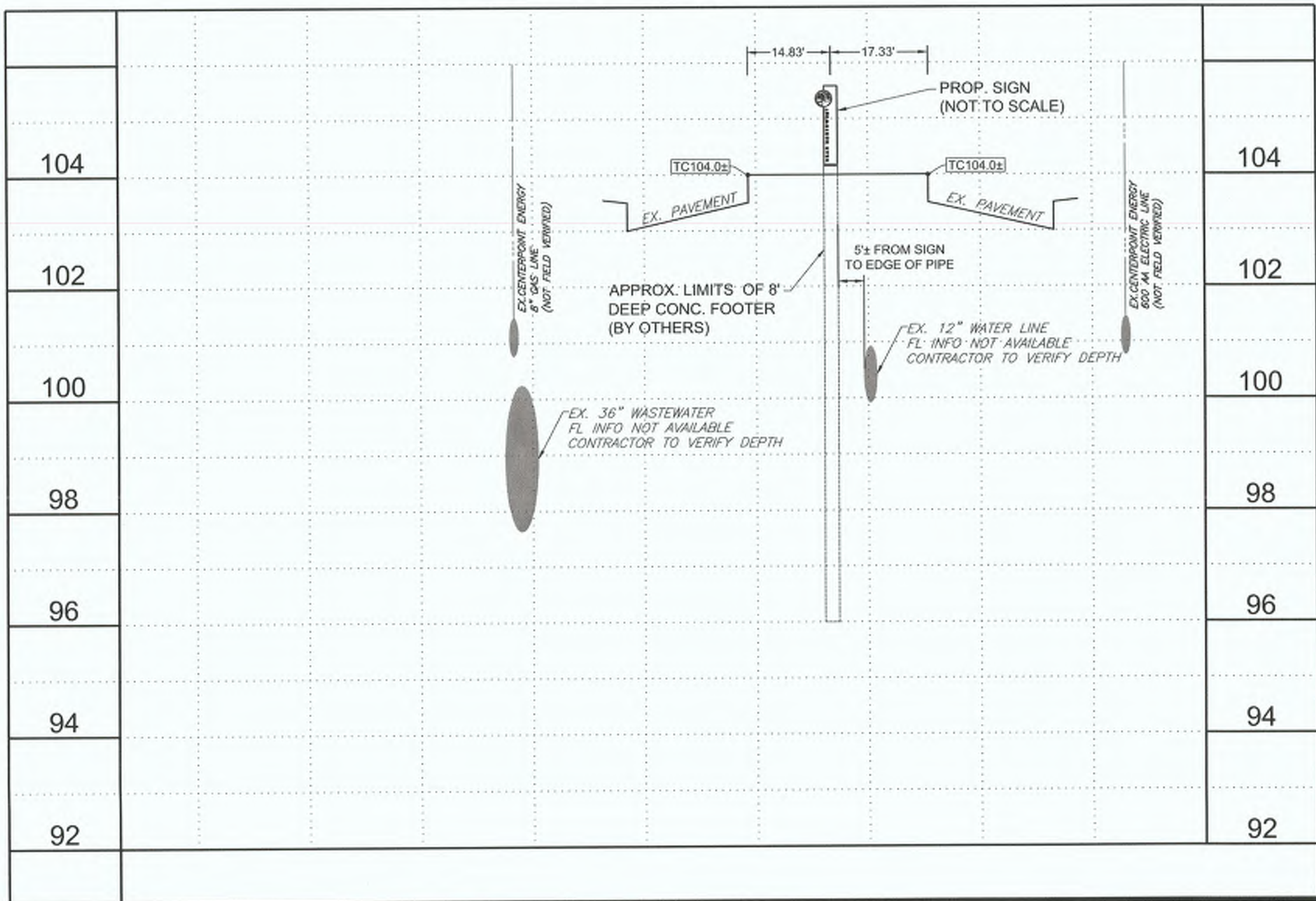




FLOODPLAIN NOTE:  
THIS SUBJECT TRACT LIES WITHIN SHADED ZONE "X". AREAS DETERMINED TO BE IN THE 100 YEAR FLOOD PLAIN (1% ANNUAL CHANCE) AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR HARRIS COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO. 48201C0485 M, REVISED JUNE 9, 2014.

CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES BASE ON AS-BUILT DRAWINGS AND GIMS.

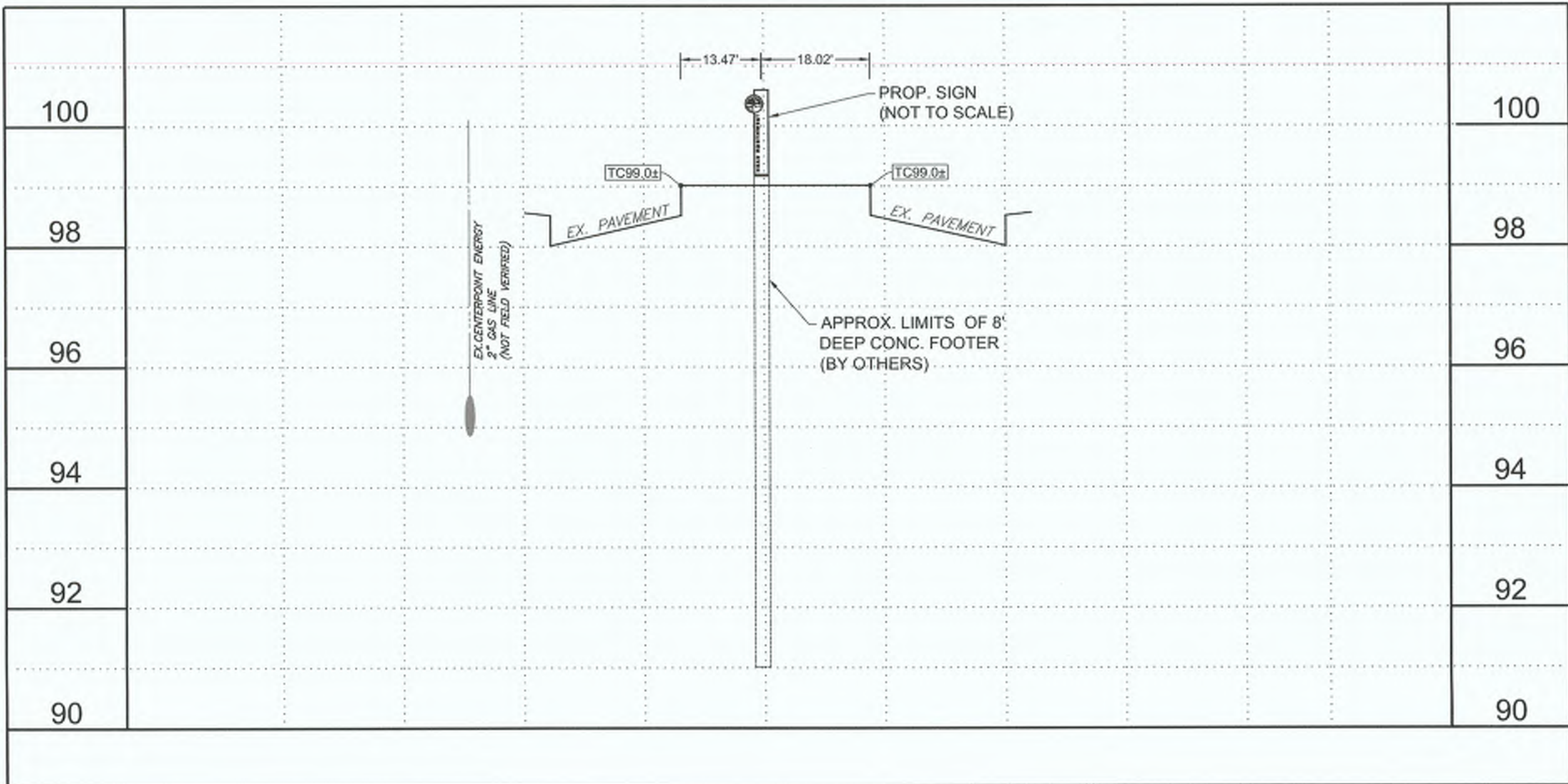
3 - N. HOUSTON ROSSLYN & HWY 249



FLOODPLAIN NOTE:  
THIS SUBJECT TRACT LIES WITHIN SHADED ZONE "X". AREAS DETERMINED TO BE INSIDE THE 500-YR FLOODPLAIN (0.2% ANNUAL CHANCE) AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR HARRIS COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO. 48201C0655 M, REVISED JUNE 9, 2014.  
THE NEAREST AND HIGHEST MOST CURRENTLY KNOWN AND RELEVANT 1% ANNUAL CHANCE FLOOD ELEVATION APPEARS TO BE 66 PER FIRM PANEL 48201C0655M.

CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES BASE ON AS-BUILT DRAWINGS AND GIMS.

4 - ANTOINE ROAD & HWY 249



CENTERPOINT ENERGY

TO ARRANGE FOR LINES TO BE TURNED OFF OR MOVED, CALL CENTERPOINT ENERGY AT 713-297-2222  
NOTICE:  
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.

VERIFICATION OF PRIVATE UTILITY LINES

*Hammer* Date: 8/3/17  
CenterPoint Energy/Natural Gas Facilities Verification ONLY.  
(This Signature verifies that you have shown CPE Natural Gas lines correctly - not to be used for conflict verification.)  
(Gas service lines are not shown.)  
Signature Valid for six months.

*Hammer* Date: 8/3/17  
CenterPoint Energy/Electrical Facilities Verification ONLY.  
(This Signature verifies existing underground facilities - not to be used for conflict verification.)  
Signature Valid for six months.

*L. Yuen* 8-17-17  
AT&T TEXAS/SWBT UTILITY LINES SHOWN  
Approved for AT&T Texas/SWBT underground conduit facilities only.  
Signature valid for one year.

DESCRIPTION	DATE

Ward, Getz & Associates, LLP  
TX FIRM No. F-9756  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:  
*J. Tyler Munson*  
J. TYLER MUNSON  
122052  
LICENSED PROFESSIONAL ENGINEER  
7/24/17

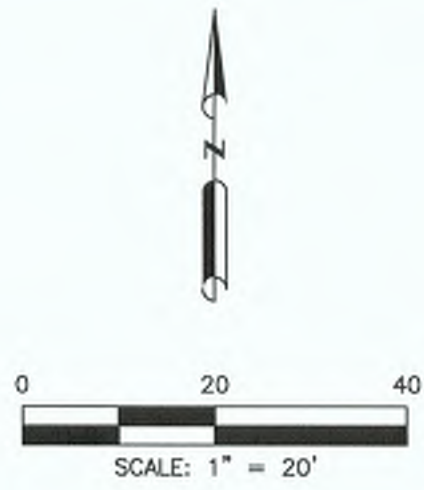
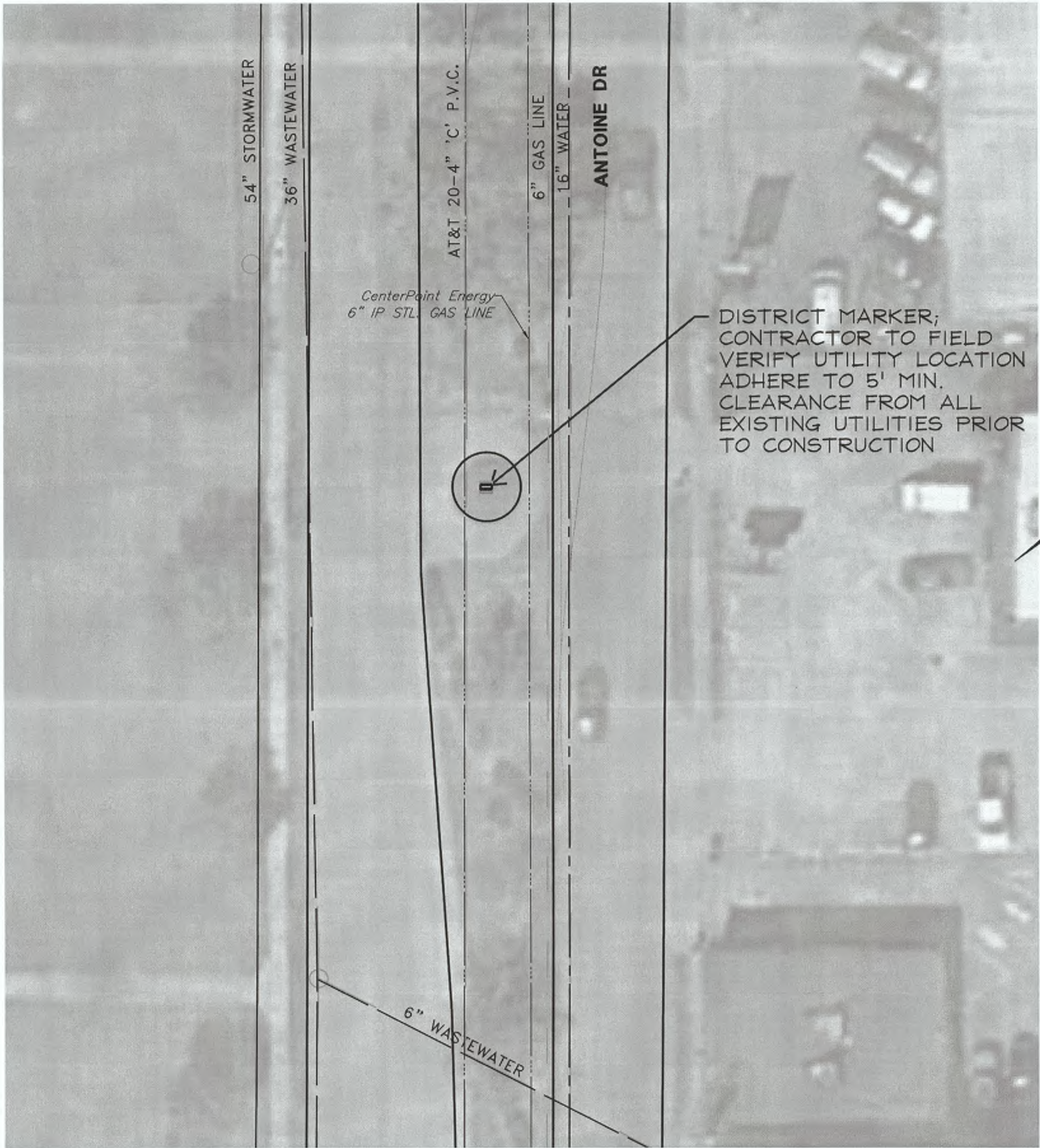
NEAR NORTHWEST  
MANAGEMENT DISTRICT  
VERTICAL DISTRICT MARKERS  
PHASE II  
MARKERS 3 & 4

CITY OF HOUSTON  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

	TRAFFIC & TRANSPORTATION
	STORM WATER QUALITY
	FACILITIES

DRAWING SCALE:  
PLAN:  
1"=20'  
PROFILE:  
HORIZ: 1"=20'  
VERT: 1"=2'





DISTRICT MARKER;  
CONTRACTOR TO FIELD  
VERIFY UTILITY LOCATION  
ADHERE TO 5' MIN.  
CLEARANCE FROM ALL  
EXISTING UTILITIES PRIOR  
TO CONSTRUCTION

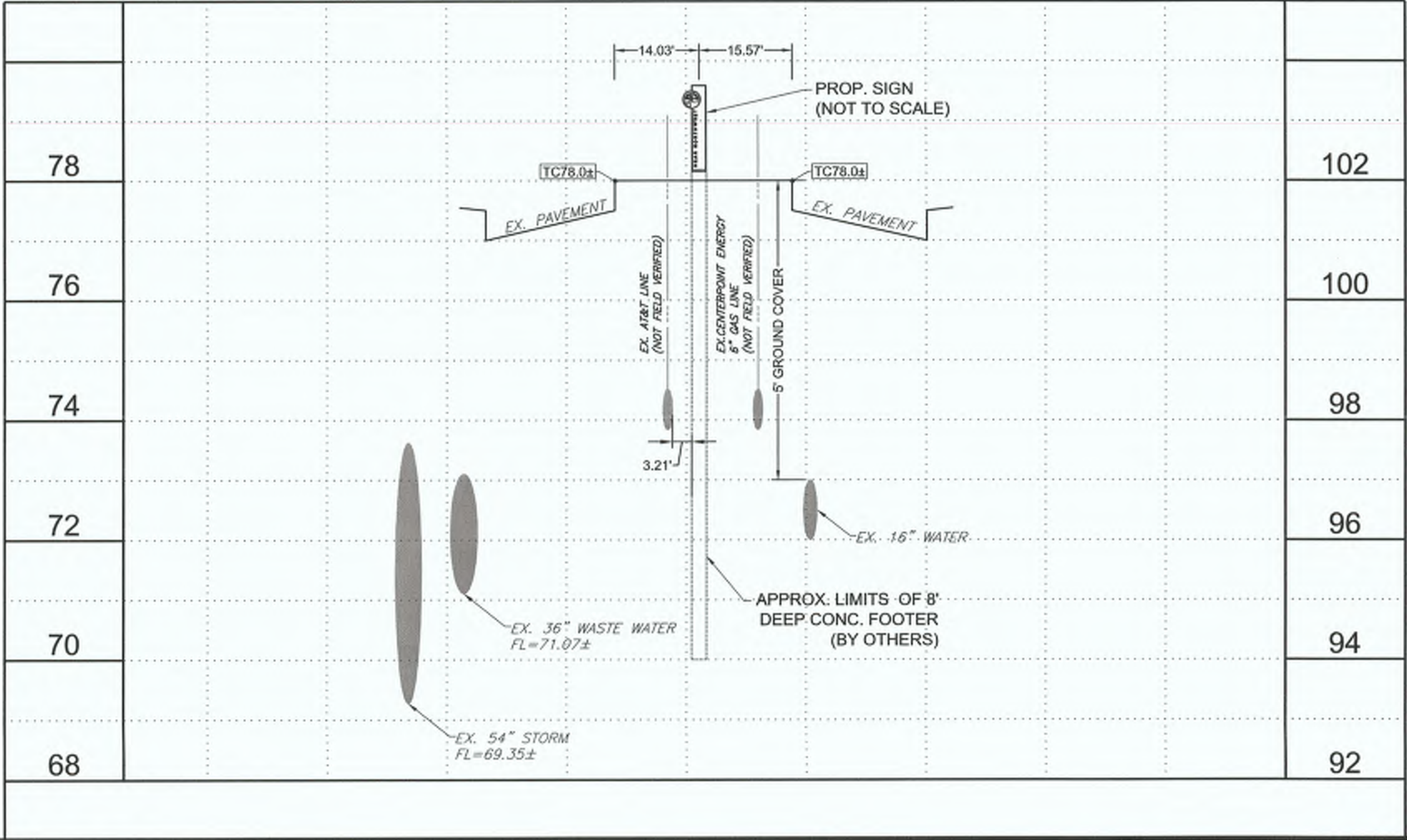
CAUTION!  
UNDERGROUND  
CENTERPOINT  
GAS LINE

FLOODPLAIN NOTE:  
THIS SUBJECT TRACT LIES WITHIN UNSHADED ZONE "X". AREAS  
DETERMINED TO BE OUTSIDE THE 500-YR FLOODPLAIN (0.2%  
ANNUAL CHANCE) AS DELINEATED ON THE FLOOD INSURANCE  
RATE MAP FOR HARRIS COUNTY, TEXAS AND INCORPORATED  
AREAS, MAP NO. 48201C0655 M, REVISED JUNE 9, 2014.

F31170752

CONTRACTOR TO FIELD VERIFY  
EXISTING UTILITIES BASE ON  
AS-BUILT DRAWINGS AND GIMS.

5 - ANTOINE DR & HOLLY VIEW DR



CENTERPOINT ENERGY

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 lines can be marked. This Verification does not fulfill your obligation to call 811.

VERIFICATION OF PRIVATE UTILITY LINES

Date: 8/3/17

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

Date: 8/3/17

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

8-17-17

AT&T TEXAS/SWBT UTILITY LINES SHOWN  
Approved for AT&T Texas/SWBT underground conduit facilities only.  
Signature valid for one year.

DESCRIPTION	DATE

Ward, Getz & Associates, LLP  
TX FIRM No. F-5756  
2500 Tanglewilde, Ste 120  
Houston, Texas 77063  
Voice: 713.789.1900  
Contact:

NEAR NORTHWEST  
MANAGEMENT DISTRICT  
VERTICAL DISTRICT MARKERS  
PHASE II

**MARKER 5**

CITY OF HOUSTON  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

TRAFFIC & TRANSPORTATION
STORM WATER QUALITY
FACILITIES

DRAWING SCALE:

PLAN:  
1"=20'

PROFILE:  
HORIZ: 1"=20'  
VERT: 1"=2'

SHEET NO. 16 OF 16