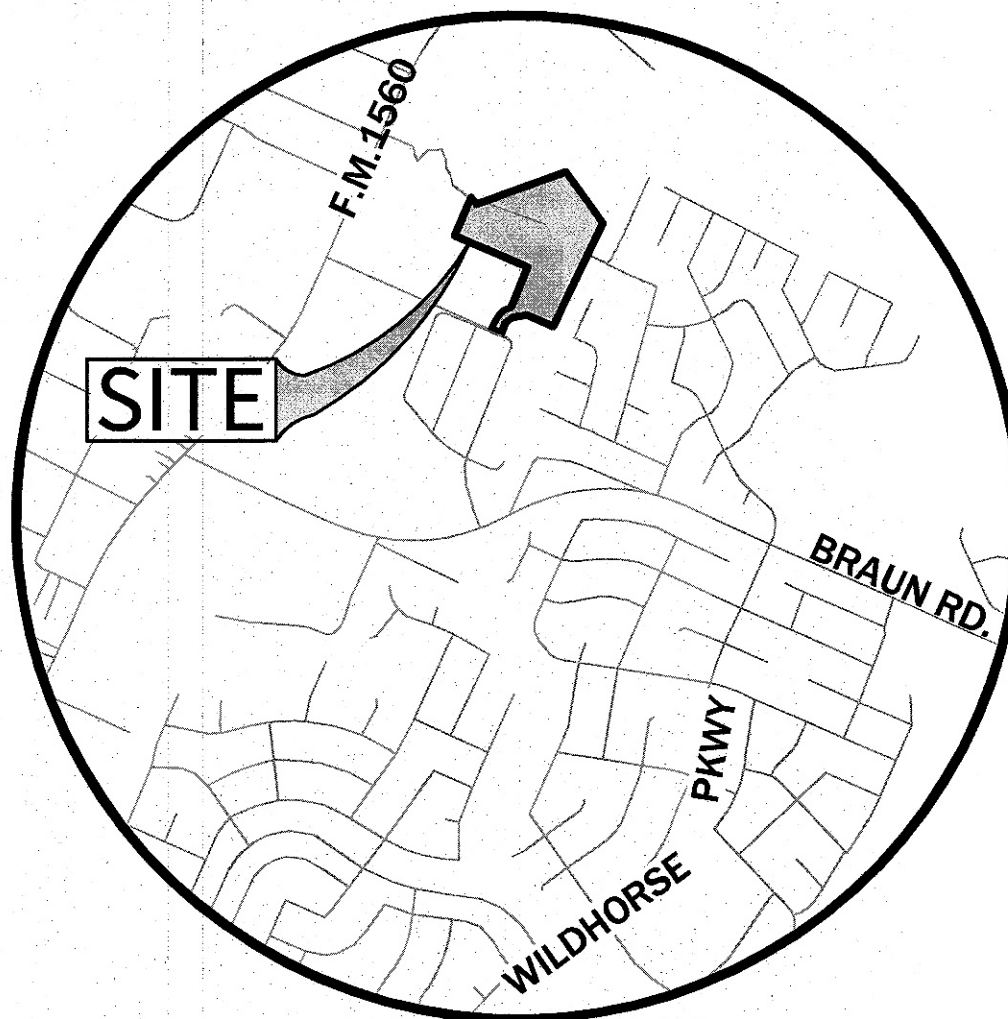
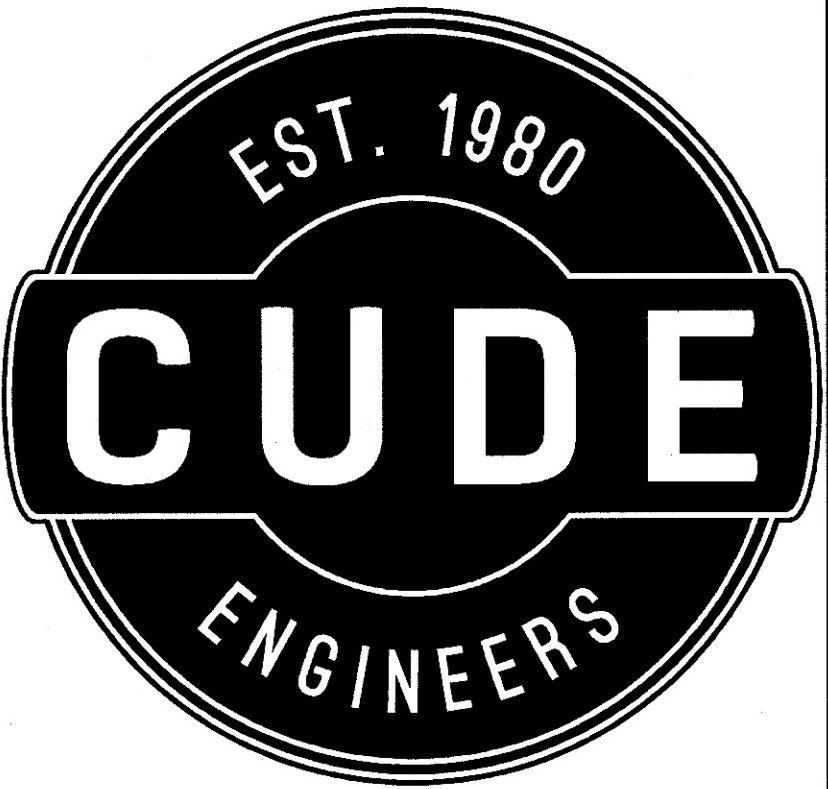


CONSTRUCTION PLANS

WATER DISTRIBUTION CONSTRUCTION PLANS

- C30 WATER DISTRIBUTION PLAN
- C31 WATER DISTRIBUTION STANDARD DETAILS

CUDEENGINEERS.COM



LOCATION MAP



VICINITY MAP

LANTANA II EXTENSION

WATER DISTRIBUTION
CONSTRUCTION PLANS

PLAN OF RECORD

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND ASSUMES NO LIABILITY FOR ANY ERRORS AND OMISSIONS CAUSED AS A RESULT.

[Signature] 9/25/2017

NOTE:
SAWS PRESSURE ZONE 8

Developer's Name	PULTE HOMES OF TEXAS, L.P.				
Developer's Address	1718 DRY CREEK WAY, SUITE 120				
City	SAN ANTONIO	State	TEXAS	Zip	78259
Phone #	(210) 496-1985	Fax #	(210) 496-0449		
SAWS Block Map #	094622	Total EDU's	56.5	Total Acreage	17.592
Total Linear Footage of Pipe	8" - 2,266.5 L.F.		Plat No.	CP201603	
Number of Lots	95 RES 7 1 NR		SAWS Job No.	16-1020	



DEVELOPER:

PULTE HOMES OF TEXAS, L.P.
CONTACT PERSON: EMILIANO GUERRERO, P.E.
1718 DRY CREEK WAY, SUITE 120
SAN ANTONIO, TX 78259
TEL: (210) 496-1985
FAX: (210) 496-0449

4122 Pond Hill Road, Suite 101

San Antonio, Texas 78231

P:(210) 681.2951 F: (210) 523.7112

DRAWN BY
BMO/SMR/TCD/BAS

CHECKED BY
W. PATRICK MURPHY, P.E.

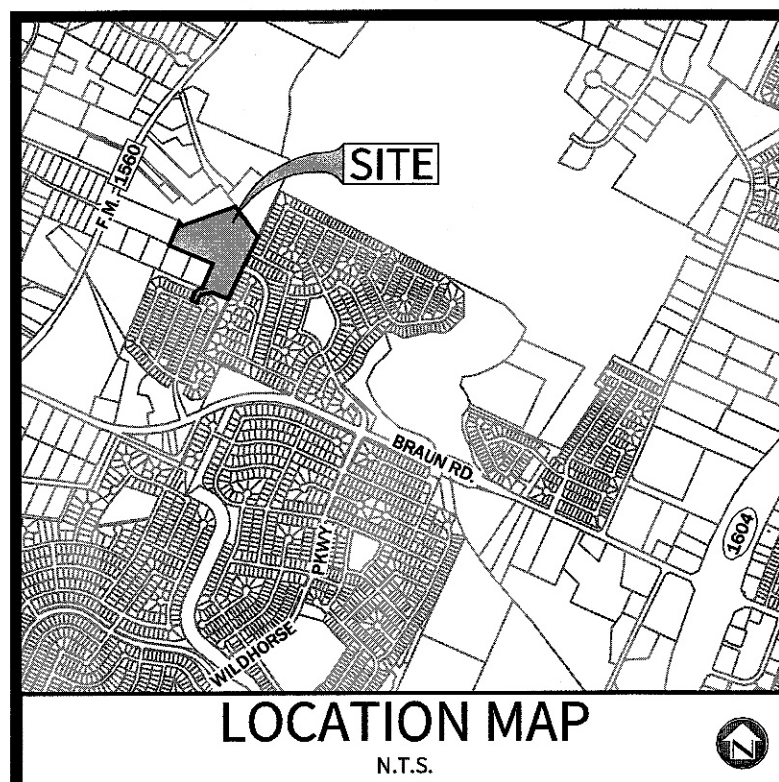
DATE
12/23/2015

PROJECT NO.
02975.010

PLAT NO.
CP 201603

SAWS JOB NO.
16-1020

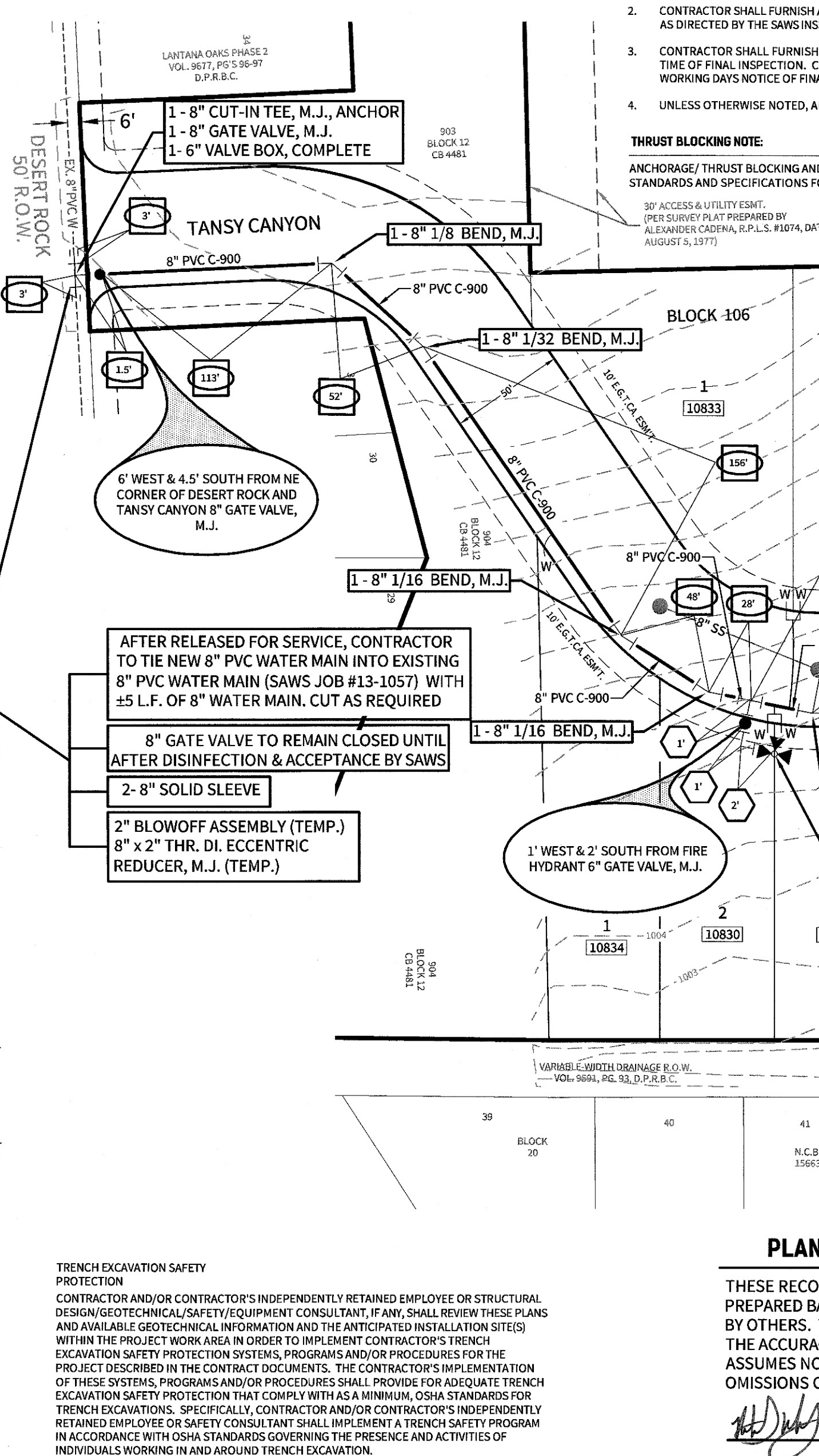
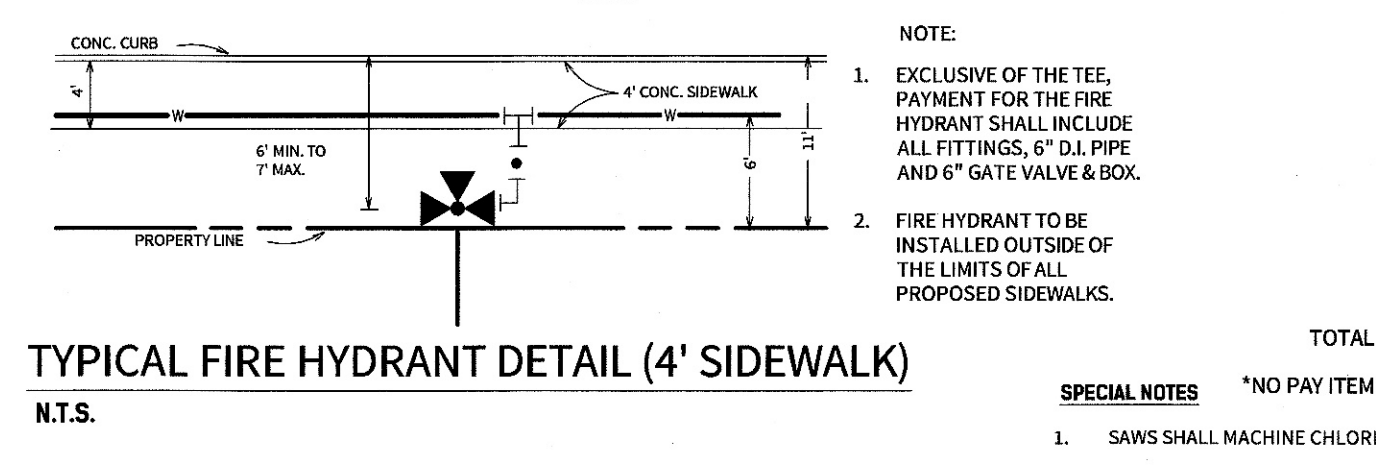
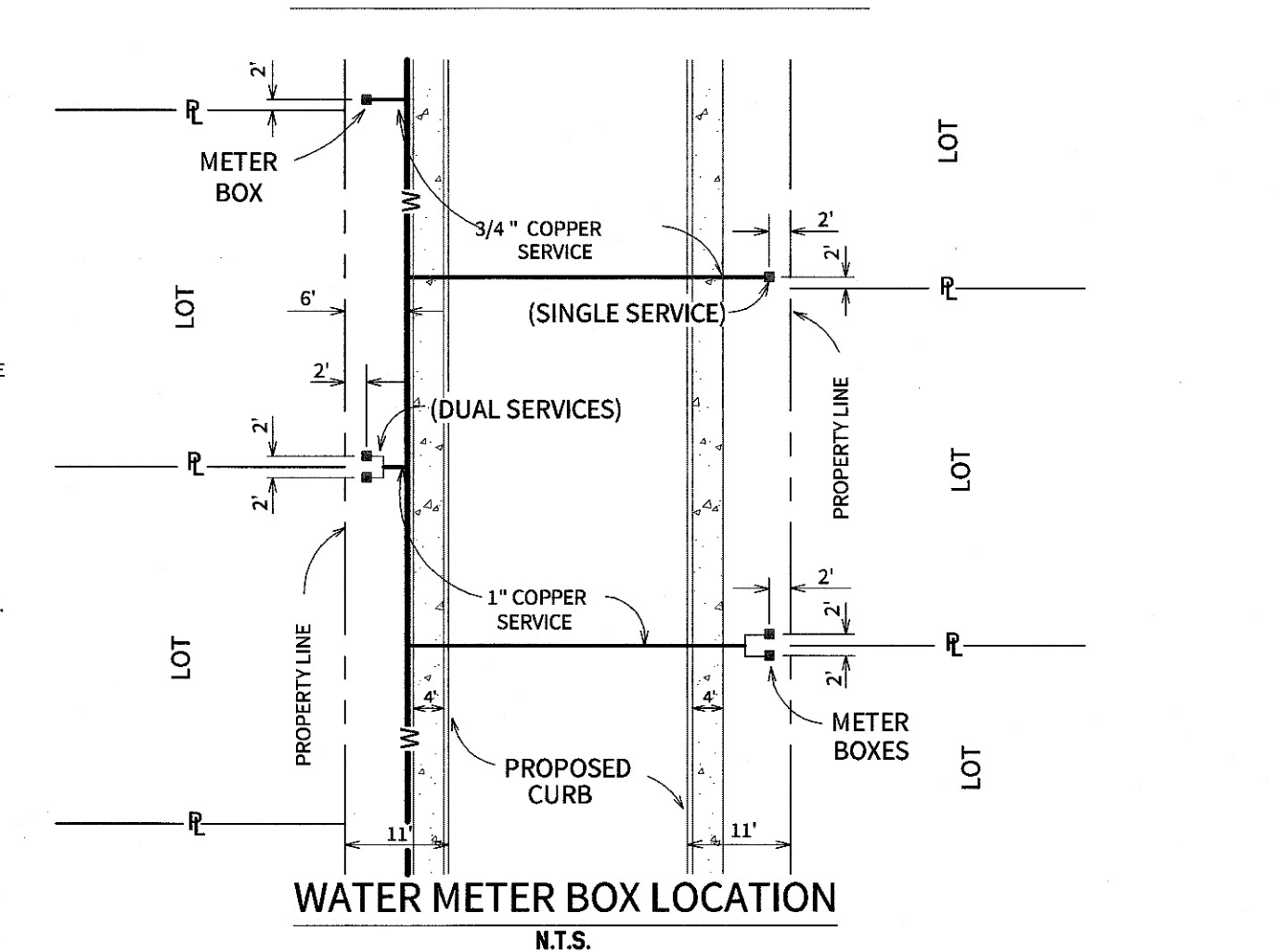
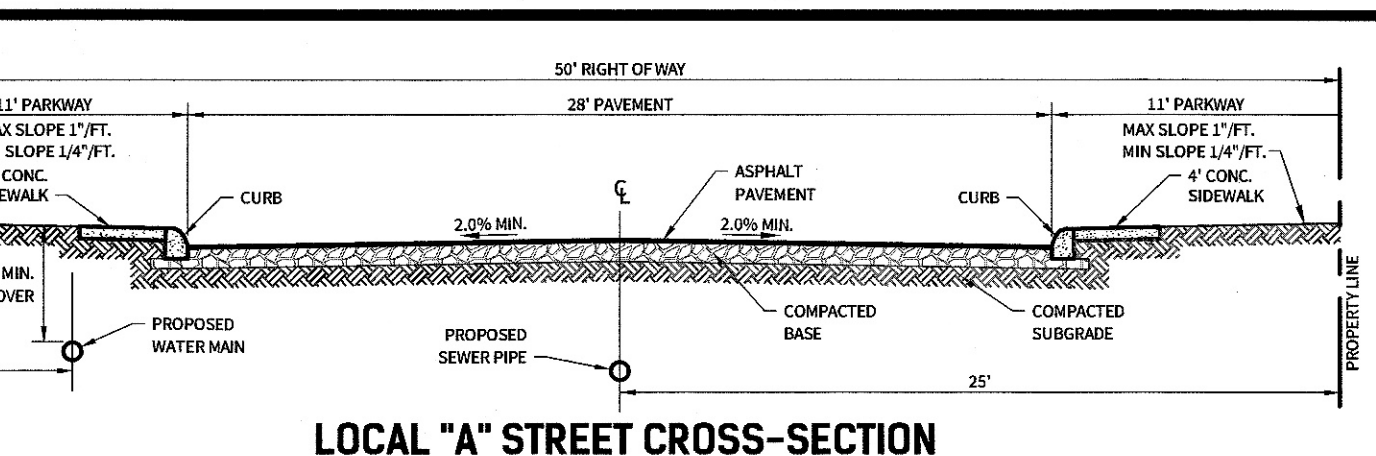
CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500



- SAWS GENERAL WATER NOTES**
- ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PROJECT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE FOLLOWING AS APPLICABLE:
 - CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR CONSTRUCTION"
 - CURRENT "SAN ANTONIO WATER SYSTEM UTILITY SERVICE REGULATIONS"
 - CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION"
 - CURRENT TxDOT "STANDARD SPECIFICATION FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE"
 - CURRENT CITY OF SAN ANTONIO "RIGHT-OF-WAY ORDINANCE AND CRITERIA MANUAL"
 - THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY OBTAIN A COPY OF THE APPROVED G.C.P. FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY SAWS CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS ARRANGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REQUIREMENTS.
 - THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES, INCLUDING SERVICE LATERALS, AND DRAINAGE STRUCTURES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTHS OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT AND TO PROTECT THE SAME DURING CONSTRUCTION.
SAN ANTONIO WATER SYSTEM (WATER, SEWER & RECYCLE WATER) 210-233-2010
COSA DRAINAGE 210-4077-9515
CITY SIDEWALK AND TRENCHING DIVISION 210-821-3240
COSA TRAFFIC SIGNAL OPERATIONS 210-207-7765
TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005
CITY PUBLIC SERVICE AT & 1
TIME WARNER VALERO ENERGY CO.
 - NO METER BOXES TO BE SET IN DRIVEWAYS, ANY METER BOXES SET IN DRIVEWAYS WILL BE RELOCATED AT CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION FROM DAMAGE DUE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES.
 - THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY ARBORIST AT 207-8053 AND THE SAWS CONSTRUCTION INSPECTOR FOR GUIDANCE.
 - NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCLUDES WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.
 - THE DEVELOPER DEDICATES THE WATER MAINS UPON COMPLETION BY THE DEVELOPER AND ACCEPTANCE BY THE SAN ANTONIO WATER SYSTEM. THE SAN ANTONIO WATER SYSTEM WILL OWN AND MAINTAIN SAID WATER MAINS WHICH ARE LOCATED WITHIN THIS PARTICULAR SUBDIVISION. (AS APPLICABLE)
 - CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN (GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.
 - WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR THE NOTICE TO PROCEED WITH THE SAN ANTONIO WATER SYSTEM CONSTRUCTION INSPECTION DIVISION WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.
 - THE CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
 - WATER SYSTEM TO BE COMPLETELY RESTRAINED. RESTRAINED LENGTH CALCULATIONS ARE FOR P.V.C. PIPE BEDDED IN COMPACTED GRANULAR MATERIAL, EXTENDING TO THE TOP OF THE PIPE. THE NATIVE SOIL MATERIAL IS ASSUMED TO BE INDIAN CLAY OF HIGH PLASTICITY. DEPTH OF BURY IS ASSUMED TO BE 4 FEET.
*NOTE: THESE CALCULATIONS ARE PROVIDED FOR REFERENCE. THE RESTRAINED LENGTHS SHALL BE DESIGNED BASED UPON THE CONDITIONS ENCOUNTERED DURING THE INSTALLATION. SEE SAWS SPECIFICATION BOOK.

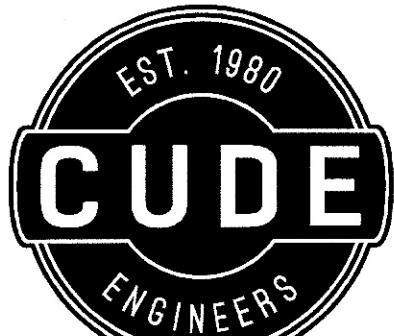
- ADDITIONAL WATER NOTES**
- ALL VALVES SHALL READ "OPEN RIGHT"
 - LEAD FREE FIRE HYDRANTS:
"SAWS REQUIRES GCPS AND COUNTER PERMITS TO USE LEAD FREE (0.25% LEAD) FIRE HYDRANTS"
 - PRVS REQUIRED:
CONTRACTOR TO VERIFY THAT NO PORTION OF THE TRACT IS BELOW GROUND ELEVATION OF 985 FEET WHERE THE STATIC PRESSURE WILL NORMALLY EXCEED 98 PSI. AT ALL SUCH LOCATIONS WHERE THE GROUND LEVEL IS BELOW 985 FEET, THE DEVELOPER OR BUILDER SHALL INSTALL AT EACH LOT, ON THE CUSTOMER'S SIDE OF THE METER, AN APPROVED TYPE PRESSURE REGULATOR IN CONFORMANCE WITH THE PLUMBING CODE OF THE CITY OF SAN ANTONIO. NO DUAL SERVICES ALLOWED FOR ANY LOTS IF "PRV" IS REQUIRED FOR SUCH LOTS, ONLY SINGLE SERVICE CONNECTIONS SHALL BE ALLOWED. *NOTE: A PRESSURE REGULATOR IS ALSO KNOWN AS A PRESSURE REDUCING VALVE (PRV).
 - 98% COMPACTION NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND FOR PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE SAWS INSPECTOR TEST ADMINISTRATOR, PER EACH 12 INCH DEEP LIFT PER 40 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.
 - PIPE DISINFECTION WITH DRY HYD FOR PROJECTS LESS THAN 800 LINEAR FEET. ITEM #8476: MAINS SHALL BE DISINFECTED WITH DRY HYD WITH WHERE SHOWN IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE INSPECTOR, AND SHALL NOT EXCEED A TOTAL LENGTH OF 800 FEET. THIS METHOD OF DISINFECTION WILL ALSO BE FOLLOWED FOR MAIN REPAIRS. THE CONTRACTOR SHALL UTILIZE ALL APPROPRIATE SAFETY MEASURE TO PROTECT HIS PERSONNEL DURING DISINFECTION OPERATIONS.
 - SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER:
ATTENTION CONTRACTORS: ALL SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER, RECYCLED WATER, PETROLEUM PRODUCTS, OR CHEMICALS MUST BE REPORTED IMMEDIATELY TO THE SAWS INSPECTOR ASSIGNED TO YOUR COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (G.C.P.). THIS REQUIREMENT APPLIES TO EVERY SPILL, OVERFLOW, OR DISCHARGE, REGARDLESS OF SIZE. YOUR COMPLIANCE WILL ENABLE SAWS TO FULFILL REGULATORY REPORTING REQUIREMENTS.

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTROL SEWER FLOWS SO THAT A SPILL, OVERFLOW, OR DISCHARGE DOES NOT OCCUR. IN THE EVENT THAT A SPILL, OVERFLOW, OR DISCHARGE OCCURS, THE CONTRACTOR MAY BE LIABLE FOR:
- ALL FINES, PENALTIES, OR OTHER COSTS ASSESSED TO OR AGAINST SAWS BY ANY STATE, FEDERAL, OR OTHER GOVERNMENTAL AGENCY.
 - SAWS STAFF AND MATERIAL COSTS TO RESPOND TO THE SPILL, OVERFLOW, OR DISCHARGE, OR TO MITIGATE THE EFFECTS OF THE SPILL, OVERFLOW, OR DISCHARGE, OR TO SUPPORT THE CLEANUP EFFORT.
 - ALL DAMAGES CAUSED TO SAWS, OR ANY OTHER PERSONS OR ENTITIES THAT RESULT FROM THE SPILL, OVERFLOW OR DISCHARGE.
- BACK FLOW PREVENTION DEVICES FOR RESIDENTIAL SUBDIVISIONS**
ALL IRRIGATION SERVICES WITHIN RESIDENTIAL AREAS ARE REQUIRED TO HAVE BACK FLOW PREVENTION DEVICES.
- TRENCH EXCAVATION SAFETY PROTECTION**
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.



8" PVC	8" DI	6" FH*
3	4	2
3	4	1
1.5		2
113		2
52		1
156		2
48		2
28		1
18		2
321		
3		
1.5		
97		
9		
6		
44		
6		
10		
26		
14		
62		
11		
2.5		
37		
20		
58		
37		
19		
17		
304		
33		
20		
113		
48		
58		
9		
TOTAL	2258.5 LF	15 LP*

- SPECIAL NOTES**
- SAWS SHALL MACHINE CHLORINATE NEW WATER MAINS.
 - CONTRACTOR SHALL FURNISH AND INSTALL JUMPER CONNECTION AS REQUIRED OR AS DIRECTED BY THE SAWS INSPECTOR.
 - CONTRACTOR SHALL FURNISH A SET OF "AS-BUILT" DRAWINGS TO THE ENGINEER AT TIME OF FINAL INSPECTION. CONTRACTOR SHALL GIVE ENGINEER AT LEAST TWO WORKING DAYS NOTICE OF FINAL INSPECTION.
 - UNLESS OTHERWISE NOTED, ALL 8" AND 12" PIPE USED SHALL BE AWWA C300 PVC CLASS 150 OR 18.
- THRUST BLOCKING NOTE:**
ANCHORAGE/THRUST BLOCKING AND JOINT RESTRAINTS SHALL BE DONE IN ACCORDANCE WITH SAWS STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION (ITEM NO. 839).
30' ACCESS & UTILITY ESMIT.
PER SUBURBY PLAT PREPARED BY ALEXANDER CADENA, R.P.L.S. #1874, DATED AUGUST 5, 1977
- FOR CHLORINATION INJECTION:**
2 - 1" CORPORATION STOP, C.C. x I.P.
2 - 1" COPPER TUBING, CUT AS REQ'D.
2 - 1 1/4" THD SOLID CAPS, THR.
2 - 1" COMP. x 1 1/2" COUPLING, CURB STOP
CONTRACTOR SHALL PROVIDE A 2" JUMPER CONNECTION TO LOAD NEW MAIN.
- AFTER RELEASED FOR SERVICE, CONTRACTOR TO TIE NEW 8" PVC WATER MAIN INTO EXISTING 8" PVC WATER MAIN (SAWS JOB #13-1057) WITH ±5 L.F. OF 8" WATER MAIN, CUT AS REQUIRED**
- 8" GATE VALVE TO REMAIN CLOSED UNTIL AFTER DISINFECTION & ACCEPTANCE BY SAWS**
- 2-8" SOLID SLEEVE**
- 2" BLOWOFF ASSEMBLY (TEMP.) 8" x 2" THR. DI. ECCENTRIC REDUCER, M.J. (TEMP.)**
- 1-8" x 6" TEE, M.J., ANCHOR**
1-6" x 1/4 BEND, M.J.
1-6" GATE VALVE, M.J.
1-6" VALVE BOX, COMPLETE
1-STD. FIRE HYDRANT
1-6" D.I. PIPE, CUT AS REQ'D.
SEE S.A.W.S STD. DWG DD-834-01
- 1-8" x 8" TEE, M.J., ANCHOR**
1-6" x 1/4 BEND, M.J.
1-6" GATE VALVE, M.J.
1-6" VALVE BOX, COMPLETE
- 1-8" x 1/16 BEND, M.J.**
- 1-8" x 1/32 BEND, M.J.**
- 1-8" x 1/8 BEND, M.J.**
- 1-8" x 1/4 BEND, M.J.**
- 1-8" x 1/2 BEND, M.J.**
- 1-8" x 3/4 BEND, M.J.**
- 1-8" x 1 BEND, M.J.**
- 1-8" x 1 1/4 BEND, M.J.**
- 1-8" x 1 1/2 BEND, M.J.**
- 1-8" x 1 3/4 BEND, M.J.**
- 1-8" x 2 BEND, M.J.**
- 1-8" x 2 1/2 BEND, M.J.**
- 1-8" x 3 BEND, M.J.**
- 1-8" x 3 1/2 BEND, M.J.**
- 1-8" x 4 BEND, M.J.**
- 1-8" x 4 1/2 BEND, M.J.**
- 1-8" x 5 BEND, M.J.**
- 1-8" x 5 1/2 BEND, M.J.**
- 1-8" x 6 BEND, M.J.**
- 1-8" x 6 1/2 BEND, M.J.**
- 1-8" x 7 BEND, M.J.**
- 1-8" x 7 1/2 BEND, M.J.**
- 1-8" x 8 BEND, M.J.**
- 1-8" x 8 1/2 BEND, M.J.**
- 1-8" x 9 BEND, M.J.**
- 1-8" x 9 1/2 BEND, M.J.**
- 1-8" x 10 BEND, M.J.**
- 1-8" x 10 1/2 BEND, M.J.**
- 1-8" x 11 BEND, M.J.**
- 1-8" x 11 1/2 BEND, M.J.**
- 1-8" x 12 BEND, M.J.**
- 1-8" x 12 1/2 BEND, M.J.**
- 1-8" x 13 BEND, M.J.**
- 1-8" x 13 1/2 BEND, M.J.**
- 1-8" x 14 BEND, M.J.**
- 1-8" x 14 1/2 BEND, M.J.**
- 1-8" x 15 BEND, M.J.**
- 1-8" x 15 1/2 BEND, M.J.**
- 1-8" x 16 BEND, M.J.**
- 1-8" x 16 1/2 BEND, M.J.**
- 1-8" x 17 BEND, M.J.**
- 1-8" x 17 1/2 BEND, M.J.**
- 1-8" x 18 BEND, M.J.**
- 1-8" x 18 1/2 BEND, M.J.**
- 1-8" x 19 BEND, M.J.**
- 1-8" x 19 1/2 BEND, M.J.**
- 1-8" x 20 BEND, M.J.**
- 1-8" x 20 1/2 BEND, M.J.**
- 1-8" x 21 BEND, M.J.**
- 1-8" x 21 1/2 BEND, M.J.**
- 1-8" x 22 BEND, M.J.**
- 1-8" x 22 1/2 BEND, M.J.**
- 1-8" x 23 BEND, M.J.**
- 1-8" x 23 1/2 BEND, M.J.**
- 1-8" x 24 BEND, M.J.**
- 1-8" x 24 1/2 BEND, M.J.**
- 1-8" x 25 BEND, M.J.**
- 1-8" x 25 1/2 BEND, M.J.**
- 1-8" x 26 BEND, M.J.**
- 1-8" x 26 1/2 BEND, M.J.**
- 1-8" x 27 BEND, M.J.**
- 1-8" x 27 1/2 BEND, M.J.**
- 1-8" x 28 BEND, M.J.**
- 1-8" x 28 1/2 BEND, M.J.**
- 1-8" x 29 BEND, M.J.**
- 1-8" x 29 1/2 BEND, M.J.**
- 1-8" x 30 BEND, M.J.**
- 1-8" x 30 1/2 BEND, M.J.**
- 1-8" x 31 BEND, M.J.**
- 1-8" x 31 1/2 BEND, M.J.**
- 1-8" x 32 BEND, M.J.**
- 1-8" x 32 1/2 BEND, M.J.**
- 1-8" x 33 BEND, M.J.**
- 1-8" x 33 1/2 BEND, M.J.**
- 1-8" x 34 BEND, M.J.**
- 1-8" x 34 1/2 BEND, M.J.**
- 1-8" x 35 BEND, M.J.**
- 1-8" x 35 1/2 BEND, M.J.**
- 1-8" x 36 BEND, M.J.**
- 1-8" x 36 1/2 BEND, M.J.**
- 1-8" x 37 BEND, M.J.**
- 1-8" x 37 1/2 BEND, M.J.**
- 1-8" x 38 BEND, M.J.**
- 1-8" x 38 1/2 BEND, M.J.**
- 1-8" x 39 BEND, M.J.**
- 1-8" x 39 1/2 BEND, M.J.**
- 1-8" x 40 BEND, M.J.**
- 1-8" x 40 1/2 BEND, M.J.**
- 1-8" x 41 BEND, M.J.**
- 1-8" x 41 1/2 BEND, M.J.**
- 1-8" x 42 BEND, M.J.**
- 1-8" x 42 1/2 BEND, M.J.**
- 1-8" x 43 BEND, M.J.**
- 1-8" x 43 1/2 BEND, M.J.**
- 1-8" x 44 BEND, M.J.**
- 1-8" x 44 1/2 BEND, M.J.**
- 1-8" x 45 BEND, M.J.**
- 1-8" x 45 1/2 BEND, M.J.**
- 1-8" x 46 BEND, M.J.**
- 1-8" x 46 1/2 BEND, M.J.**
- 1-8" x 47 BEND, M.J.**
- 1-8" x 47 1/2 BEND, M.J.**
- 1-8" x 48 BEND, M.J.**
- 1-8" x 48 1/2 BEND, M.J.**
- 1-8" x 49 BEND, M.J.**
- 1-8" x 49 1/2 BEND, M.J.**
- 1-8" x 50 BEND, M.J.**
- 1-8" x 50 1/2 BEND, M.J.**
- 1-8" x 51 BEND, M.J.**
- 1-8" x 51 1/2 BEND, M.J.**
- 1-8" x 52 BEND, M.J.**
- 1-8" x 52 1/2 BEND, M.J.**
- 1-8" x 53 BEND, M.J.**
- 1-8" x 53 1/2 BEND, M.J.**
- 1-8" x 54 BEND, M.J.**
- 1-8" x 54 1/2 BEND, M.J.**
- 1-8" x 55 BEND, M.J.**
- 1-8" x 55 1/2 BEND, M.J.**
- 1-8" x 56 BEND, M.J.**
- 1-8" x 56 1/2 BEND, M.J.**
- 1-8" x 57 BEND, M.J.**
- 1-8" x 57 1/2 BEND, M.J.**
- 1-8" x 58 BEND, M.J.**
- 1-8" x 58 1/2 BEND, M.J.**
- 1-8" x 59 BEND, M.J.**
- 1-8" x 59 1/2 BEND, M.J.**
- 1-8" x 60 BEND, M.J.**
- 1-8" x 60 1/2 BEND, M.J.**
- 1-8" x 61 BEND, M.J.**
- 1-8" x 61 1/2 BEND, M.J.**
- 1-8" x 62 BEND, M.J.**
- 1-8" x 62 1/2 BEND, M.J.**
- 1-8" x 63 BEND, M.J.**
- 1-8" x 63 1/2 BEND, M.J.**
- 1-8" x 64 BEND, M.J.**
- 1-8" x 64 1/2 BEND, M.J.**
- 1-8" x 65 BEND, M.J.**
- 1-8" x 65 1/2 BEND, M.J.**
- 1-8" x 66 BEND, M.J.**
- 1-8" x 66 1/2 BEND, M.J.**
- 1-8" x 67 BEND, M.J.**
- 1-8" x 67 1/2 BEND, M.J.**
- 1-8" x 68 BEND, M.J.**
- 1-8" x 68 1/2 BEND, M.J.**
- 1-8" x 69 BEND, M.J.**
- 1-8" x 69 1/2 BEND, M.J.**
- 1-8" x 70 BEND, M.J.**
- 1-8" x 70 1/2 BEND, M.J.**
- 1-8" x 71 BEND, M.J.**
- 1-8" x 71 1/2 BEND, M.J.**
- 1-8" x 72 BEND, M.J.**
- 1-8" x 72 1/2 BEND, M.J.**
- 1-8" x 73 BEND, M.J.**
- 1-8" x 73 1/2 BEND, M.J.**
- 1-8" x 74 BEND, M.J.**
- 1-8" x 74 1/2 BEND, M.J.**
- 1-8" x 75 BEND, M.J.**
- 1-8" x 75 1/2 BEND, M.J.**
- 1-8" x 76 BEND, M.J.**
- 1-8" x 76 1/2 BEND, M.J.**
- 1-8" x 77 BEND, M.J.**
- 1-8" x 77 1/2 BEND, M.J.**
- 1-8" x 78 BEND, M.J.**
- 1-8" x 78 1/2 BEND, M.J.**
- 1-8" x 79 BEND, M.J.**
- 1-8" x 79 1/2 BEND, M.J.**
- 1-8" x 80 BEND, M.J.**
- 1-8" x 80 1/2 BEND, M.J.**
- 1-8" x 81 BEND, M.J.**
- 1-8" x 81 1/2 BEND, M.J.**
- 1-8" x 82 BEND, M.J.**
- 1-8" x 82 1/2 BEND, M.J.**
- 1-8" x 83 BEND, M.J.**
- 1-8" x 83 1/2 BEND, M.J.**
- 1-8" x 84 BEND, M.J.**
- 1-8" x 84 1/2 BEND, M.J.**
- 1-8" x 85 BEND, M.J.**
- 1-8" x 85 1/2 BEND, M.J.**
- 1-8" x 86 BEND, M.J.**
- 1-8" x 86 1/2 BEND, M.J.**
- 1-8" x 87 BEND, M.J.**
- 1-8" x 87 1/2 BEND, M.J.**
- 1-8" x 88 BEND, M.J.**
- 1-8" x 88 1/2 BEND, M.J.**
- 1-8" x 89 BEND, M.J.**
- 1-8" x 89 1/2 BEND, M.J.**
- 1-8" x 90 BEND, M.J.**
- 1-8" x 90 1/2 BEND, M.J.**
- 1-8" x 91 BEND, M.J.**
- 1-8" x 91 1/2 BEND, M.J.**
- 1-8" x 92 BEND, M.J.**
- 1-8" x 92 1/2 BEND, M.J.**
- 1-8" x 93 BEND, M.J.**
- 1-8" x 93 1/2 BEND, M.J.**
- 1-8" x 94 BEND, M.J.**
- 1-8" x 94 1/2 BEND, M.J.**
- 1-8" x 95 BEND, M.J.**
- 1-8" x 95 1/2 BEND, M.J.**
- 1-8" x 96 BEND, M.J.**
- 1-8" x 96 1/2 BEND, M.J.**
- 1-8" x 97 BEND, M.J.**
- 1-8" x 97 1/2 BEND, M.J.**
- 1-8" x 98 BEND, M.J.**
- 1-8" x 98 1/2 BEND, M.J.**
- 1-8" x 99 BEND, M.J.**
- 1-8" x 99 1/2 BEND, M.J.**
- 1-8" x 100 BEND, M.J.**
- 1-8" x 100 1/2 BEND, M.J.**
- 1-8" x 101 BEND, M.J.**
- 1-8" x 101 1/2 BEND, M.J.**
- 1-8" x 102 BEND, M.J.**
- 1-8" x 102 1/2 BEND, M.J.**
- 1-8" x 103 BEND, M.J.**
- 1-8" x 103 1/2 BEND, M.J.**
- 1-8" x 104 BEND, M.J.**
- 1-8" x 104 1/2 BEND, M.J.**
- 1-8" x 105 BEND, M.J.**
- 1-8" x 105 1/2 BEND, M.J.**
- 1-8" x 106 BEND, M.J.**
- 1-8" x 106 1/2 BEND, M.J.**
- 1-8" x 107 BEND, M.J.**
- 1-8" x 107 1/2 BEND, M.J.**
- 1-8" x 108 BEND, M.J.**
- 1-8" x 108 1/2 BEND, M.J.**
- 1-8" x 109 BEND, M.J.**
- 1-8" x 109 1/2 BEND, M.J.**
- 1-8" x 110 BEND, M.J.**
- 1-8" x 110 1/2 BEND, M.J.**
- 1-8" x 111 BEND, M.J.**
- 1-8" x 111 1/2 BEND, M.J.**
- 1-8" x 112 BEND, M.J.**
- 1-8" x 112 1/2 BEND, M.J.**
- 1-8" x 113 BEND, M.J.**
- 1-8" x 113 1/2 BEND, M.J.**
- 1-8" x 114 BEND, M.J.**
- 1-8" x 114 1/2 BEND, M.J.**
- 1-8" x 115 BEND, M.J.**
- 1-8" x 115 1/2 BEND, M.J.**
- 1-8" x 116 BEND, M.J.**
- 1-8" x 116 1/2 BEND, M.J.**
- 1-8" x 117 BEND, M.J.**
- 1-8" x 117 1/2 BEND, M.J.**
- 1-8" x 118 BEND, M.J.**
- 1-8" x 118 1/2 BEND, M.J.**
- 1-8" x 119 BEND, M.J.**
- 1-8" x 119 1/2 BEND, M.J.**
- 1-8" x 120 BEND, M.J.**
- 1-8" x 120 1/2 BEND, M.J.**
- 1-8" x 121 BEND, M.J.**
- 1-8" x 121 1/2 BEND, M.J.**
- 1-8" x 122 BEND, M.J.**
- 1-8" x 122 1/2 BEND, M.J.**
- 1-8" x 123 BEND, M.J.**
- 1-8" x 123 1/2 BEND, M.J.**
- 1-8" x 124 BEND, M.J.**
- 1-8" x 124 1/2 BEND, M.J.**
- 1-8" x 125 BEND, M.J.**
- 1-8" x 125 1/2 BEND, M.J.**
- 1-8" x 126 BEND, M.J.**
- 1-8" x 126 1/2 BEND, M.J.**
- 1-8" x 127 BEND, M.J.**
- 1-8" x 127 1/2 BEND, M.J.**
- 1-8" x 128 BEND, M.J.**
- 1-8" x 128 1/2 BEND, M.J.**
- 1-8" x 129 BEND, M.J.**
- 1-8" x 129 1/2 BEND, M.J.**
- 1-8" x 130 BEND, M.J.**
- 1-8" x 130 1/2 BEND, M.J.**
- 1-8" x 131 BEND, M.J.**
- 1-8" x 131 1/2 BEND, M.J.**
- 1-8" x 132 BEND, M.J.**
- 1-8" x 132 1/2 BEND, M.J.**
- 1-8" x 133 BEND, M.J.**
- 1-8" x 133 1/2 BEND, M.J.**
- 1-8" x 134 BEND, M.J.**
- 1-8" x 134 1/2 BEND, M.J.**
- 1-8" x 135 BEND, M.J.**
- 1-8" x 135 1/2 BEND, M.J.**
- 1-8" x 136 BEND, M.J.**
- 1-8" x 136 1/2 BEND, M.J.**
- 1-8" x 137 BEND, M.J.**
- 1-8" x 137 1/2 BEND, M.J.**
- 1-8" x 138 BEND, M.J.**
- 1-8" x 138 1/2 BEND, M.J.**
- 1-8" x 139 BEND, M.J.**
- 1-8" x 139 1/2 BEND, M.J.**
- 1-8" x 140 BEND, M.J.**
- 1-8" x 140 1/2 BEND, M.J.**
- 1-8" x 141 BEND, M.J.**
- 1-8" x 141 1/2 BEND, M.J.**
- 1-8" x 142 BEND, M.J.**
- 1-8" x 142 1/2 BEND, M.J.**
- 1-8" x 143 BEND, M.J.**
- 1-8" x 143 1/2 BEND, M.J.**
- 1-8" x 144 BEND, M.J.**
- 1-8" x 144 1/2 BEND, M.J.**
- 1-8" x 145 BEND, M.J.**
- 1-8" x 145 1/2 BEND, M.J.**
- 1-8" x 146 BEND, M.J.**
- 1-8" x 146 1/2 BEND, M.J.**
- 1-8" x 147 BEND, M.J.**
- 1-8" x 147 1/2 BEND, M.J.**
- 1-8" x 148 BEND, M.J.**
- 1-8" x 148 1/2 BEND, M.J.**
- 1-8" x 149 BEND, M.J.**
- 1-8" x 149 1/2 BEND, M.J.**
- 1-8" x 150 BEND, M.J.**
- 1-8" x 150 1/2 BEND, M.J.**
- 1-8" x 151 BEND, M.J.**
- 1-8" x 151 1/2 BEND, M.J.**
- 1-8" x 152 BEND, M.J.**
- 1-8" x 152 1/2 BEND, M.J.**
- 1-8" x 153 BEND, M.J.**
- 1-8" x 153 1/2 BEND, M.J.**
- 1-8" x 154 BEND, M.J.**
- 1-8" x 154 1/2 BEND, M.J.**
- 1-8" x 155 BEND, M.J.**
- 1-8" x 155 1/2 BEND, M.J.**
- 1-8" x 156 BEND, M.J.**
- 1-8" x 156 1/2 BEND, M.J.**
- 1-8" x 157 BEND, M.J.**
- 1-8" x 157 1/2 BEND, M.J.**
- 1-8" x 158 BEND, M.J.**
- 1-8" x 158 1/2 BEND, M.J.**
- 1-8" x 159 BEND, M.J.**
- 1-8" x 159 1/2 BEND**



4122 Pond Hill Road, Suite 101
San Antonio, Texas 78231
P:(210) 681.2951 F: (210) 523.7112

LANTANA II EXTENSION

WATER DISTRIBUTION STANDARD DETAILS

DATE
12/23/15

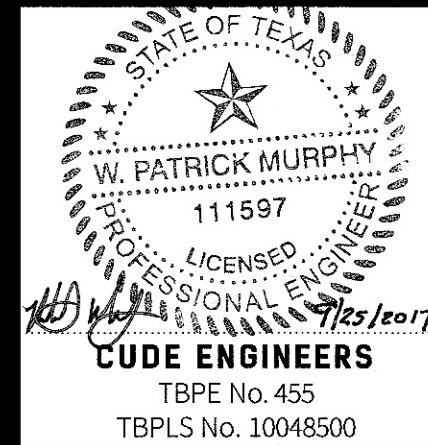
PROJECT NO.
02975.010

DRAWN BY
BMO/SMR/TC/D/BAS

CHECKED BY
WPM

REVISIONS

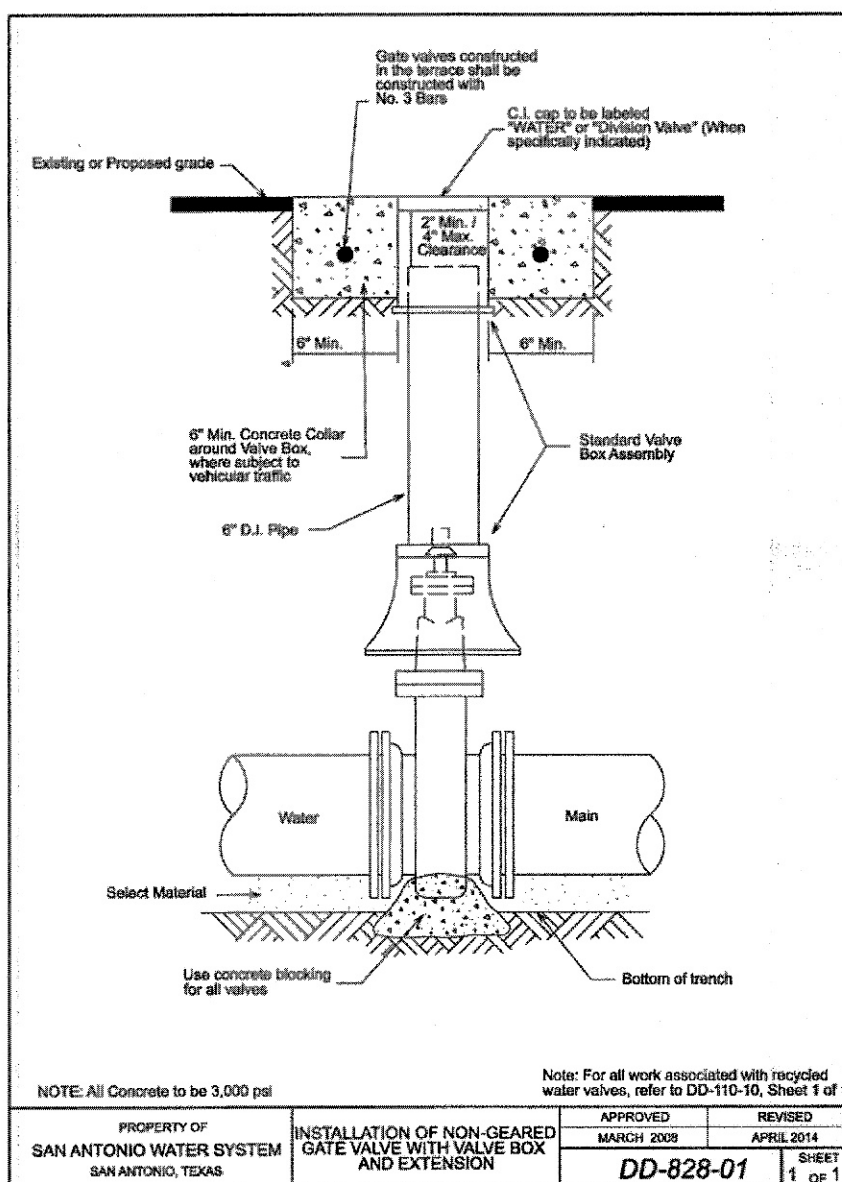
- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.



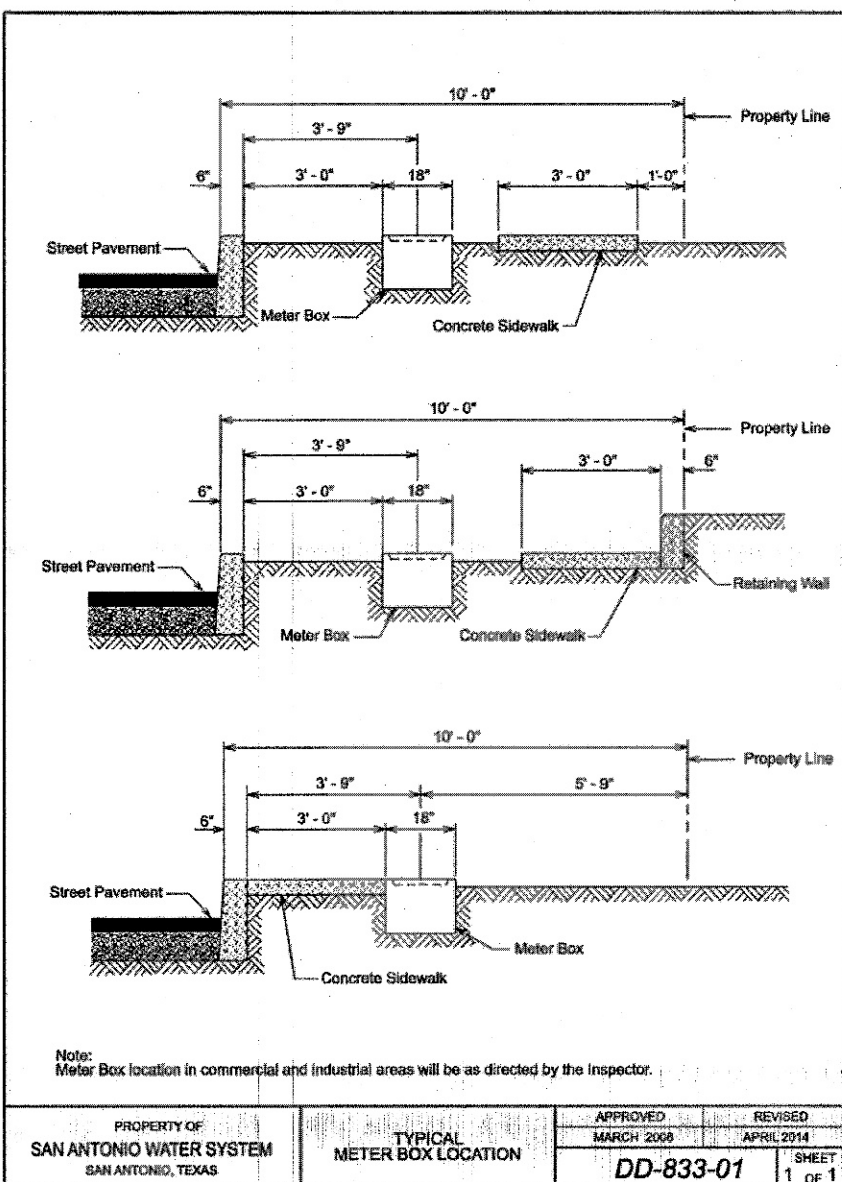
PLAT NO.
CP201603

SAWS JOB NO.
16-1020

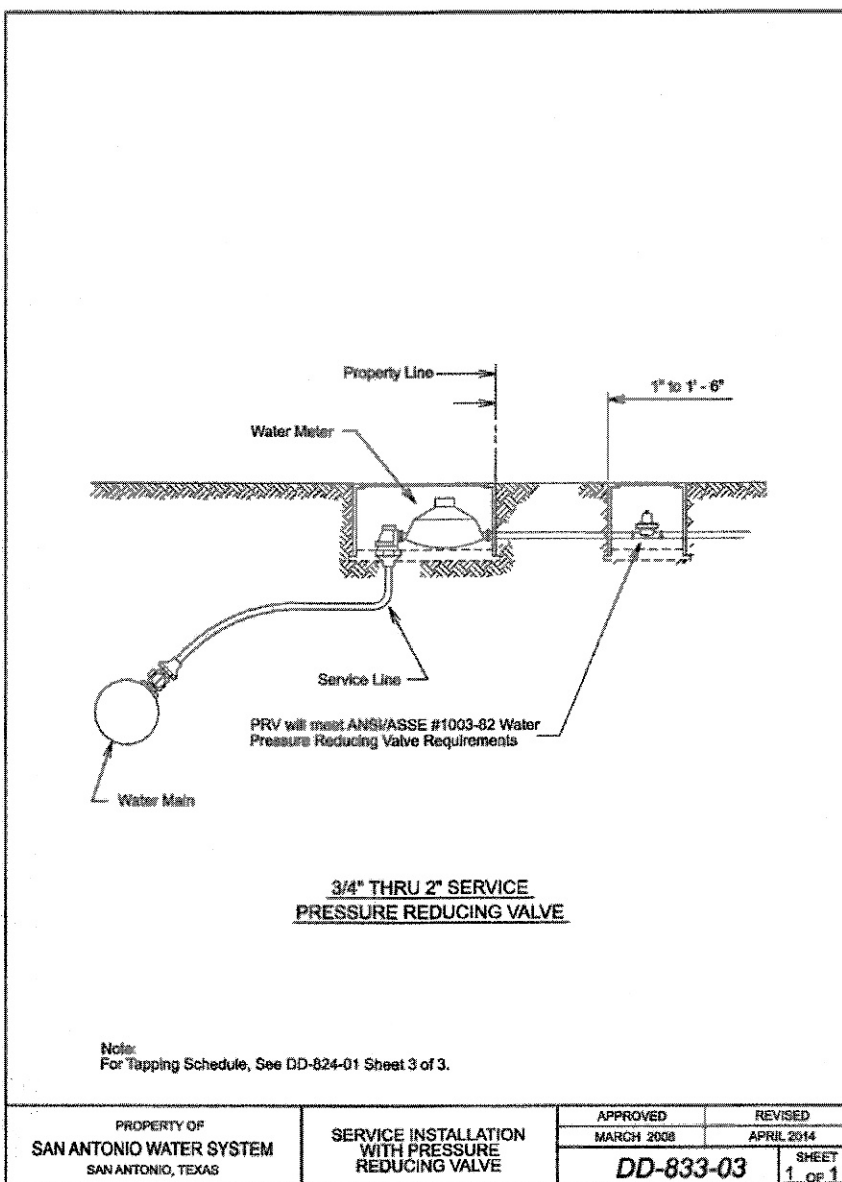
C31



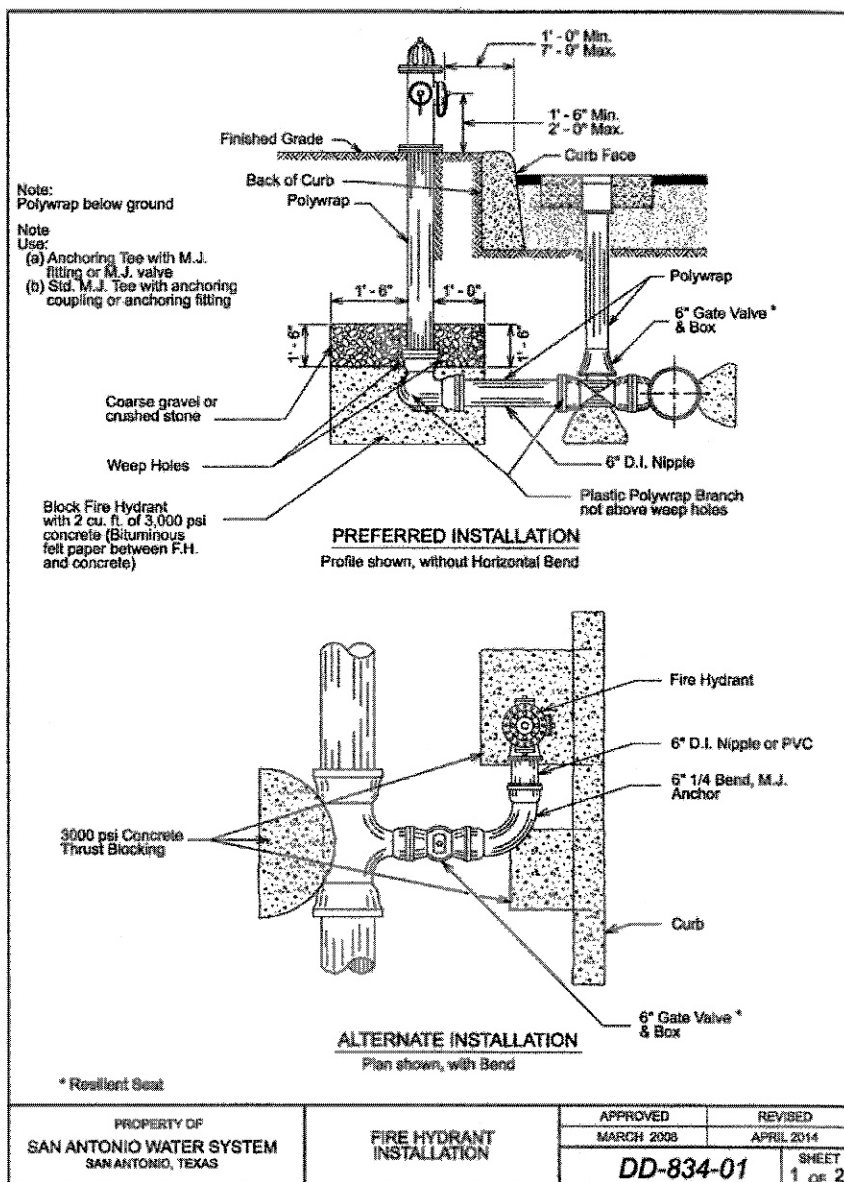
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-828-01	1 OF 1



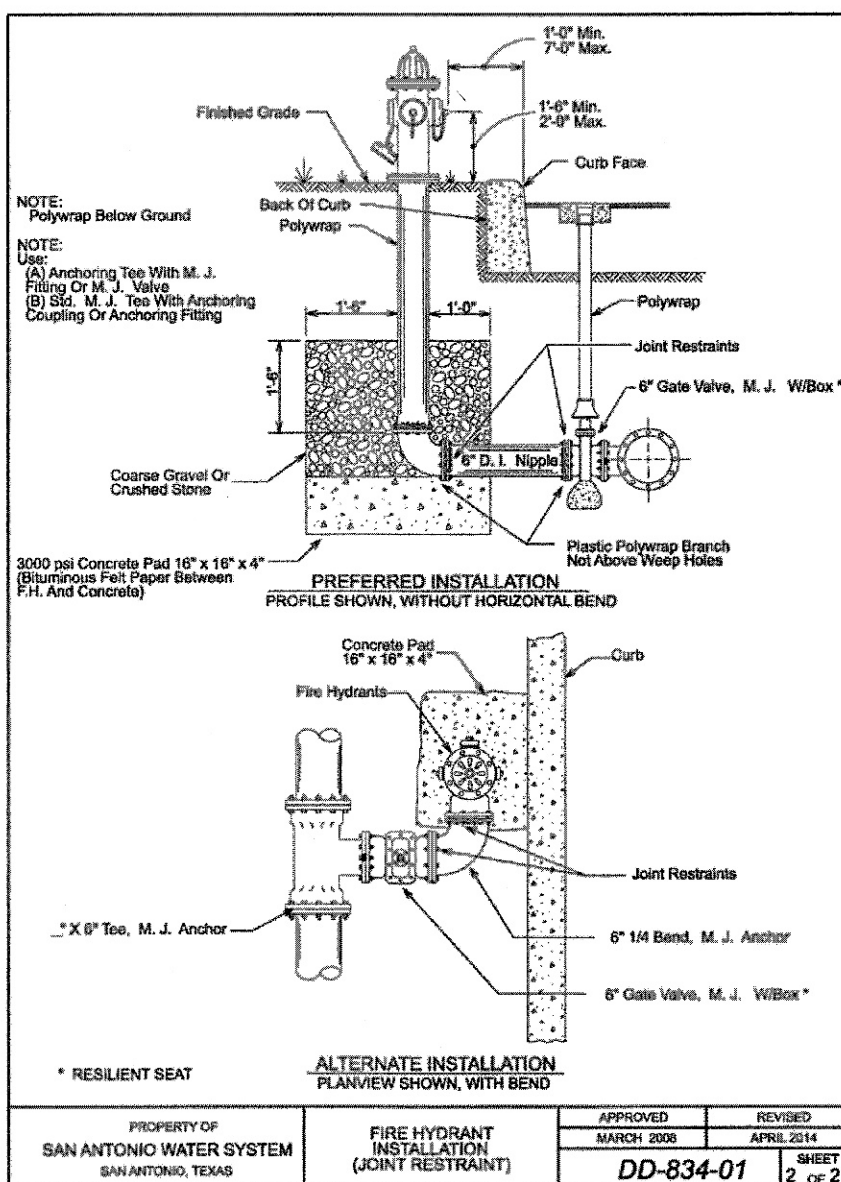
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-833-01	1 OF 1



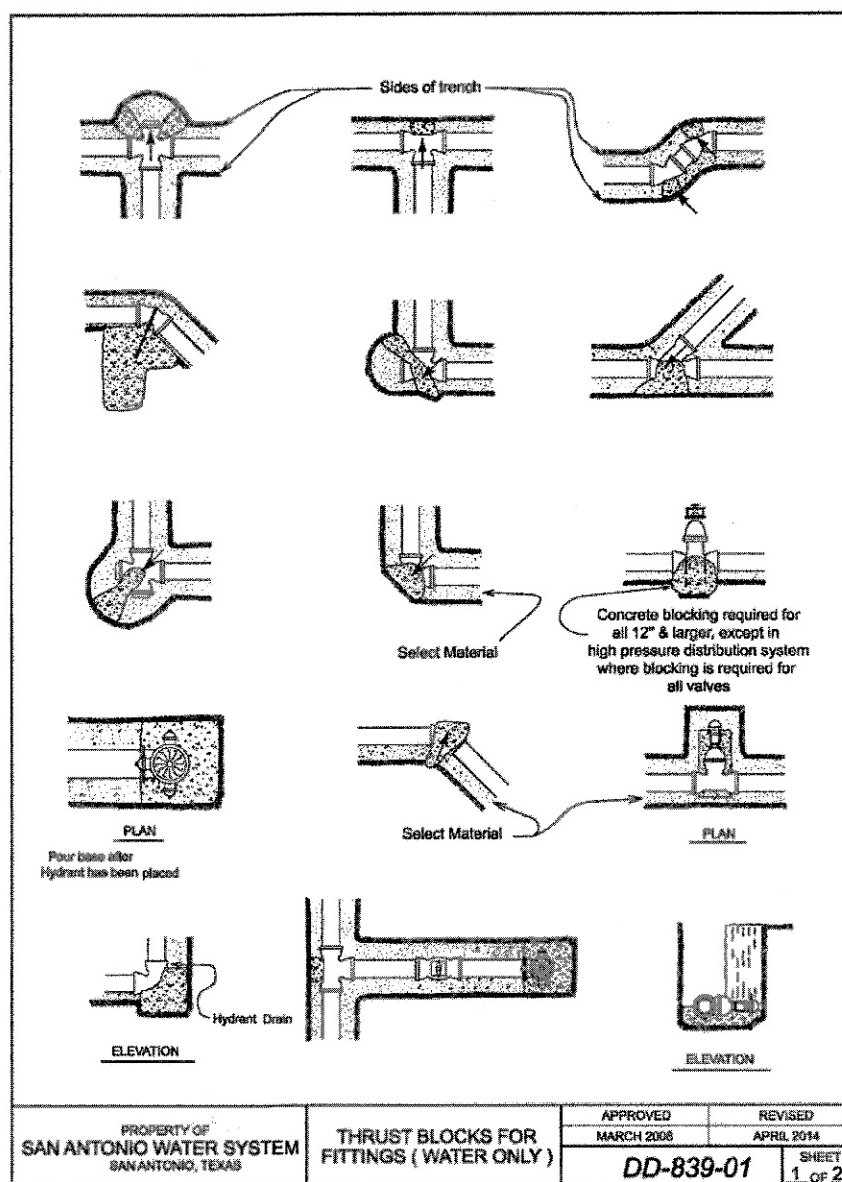
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-833-03	1 OF 1



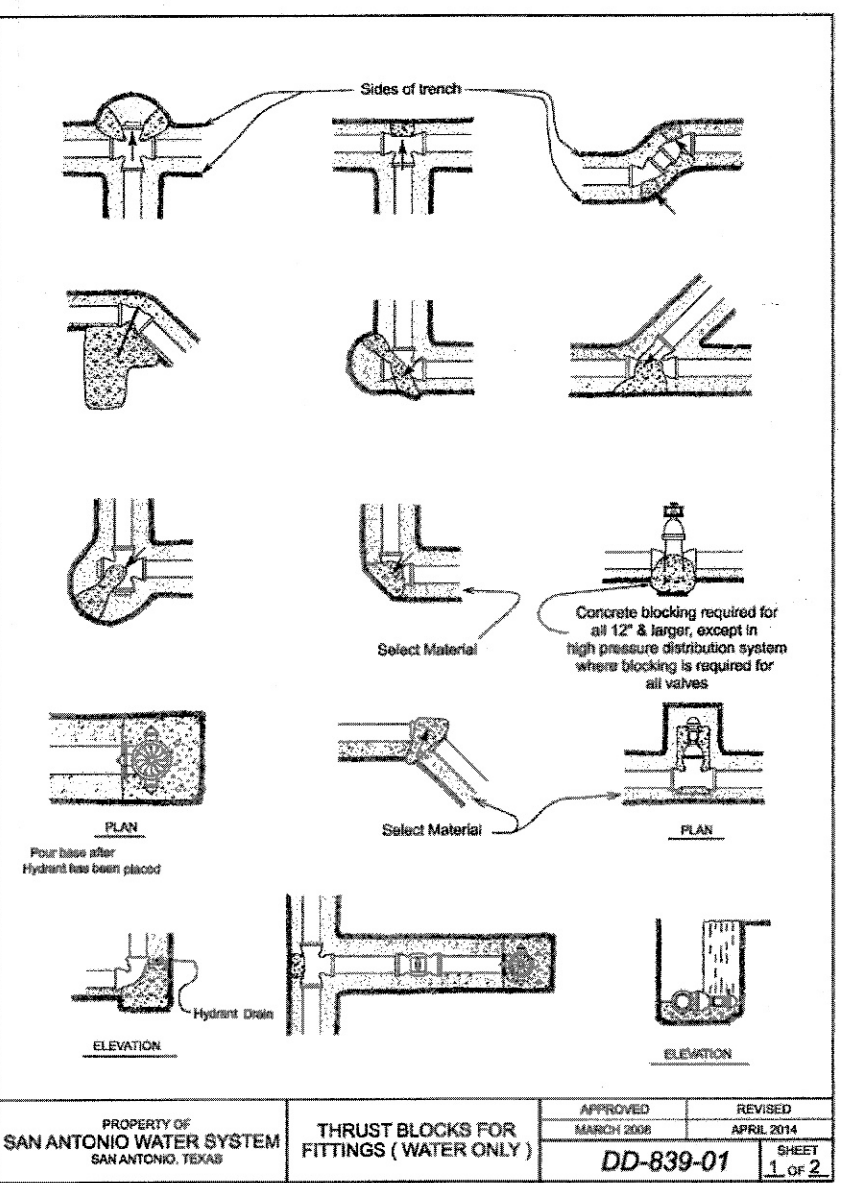
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-834-01	1 OF 2



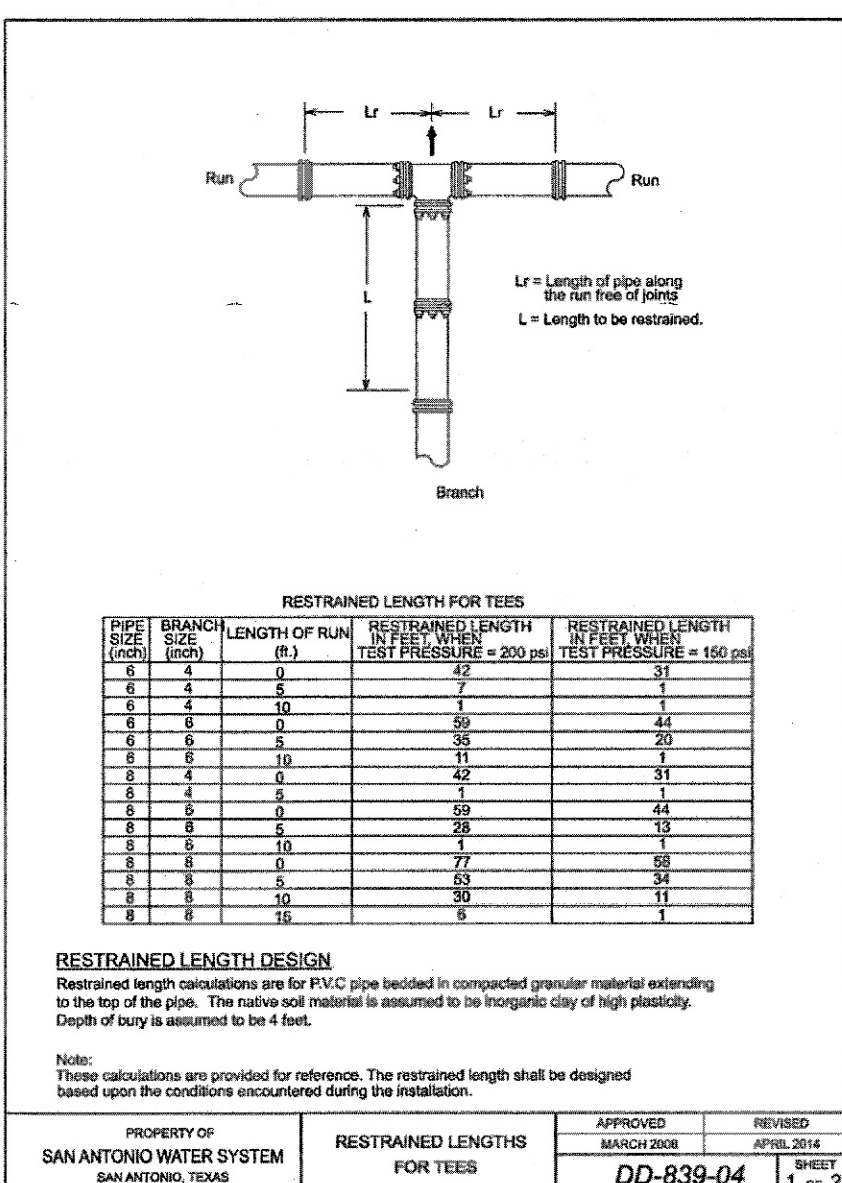
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-834-01	2 OF 2



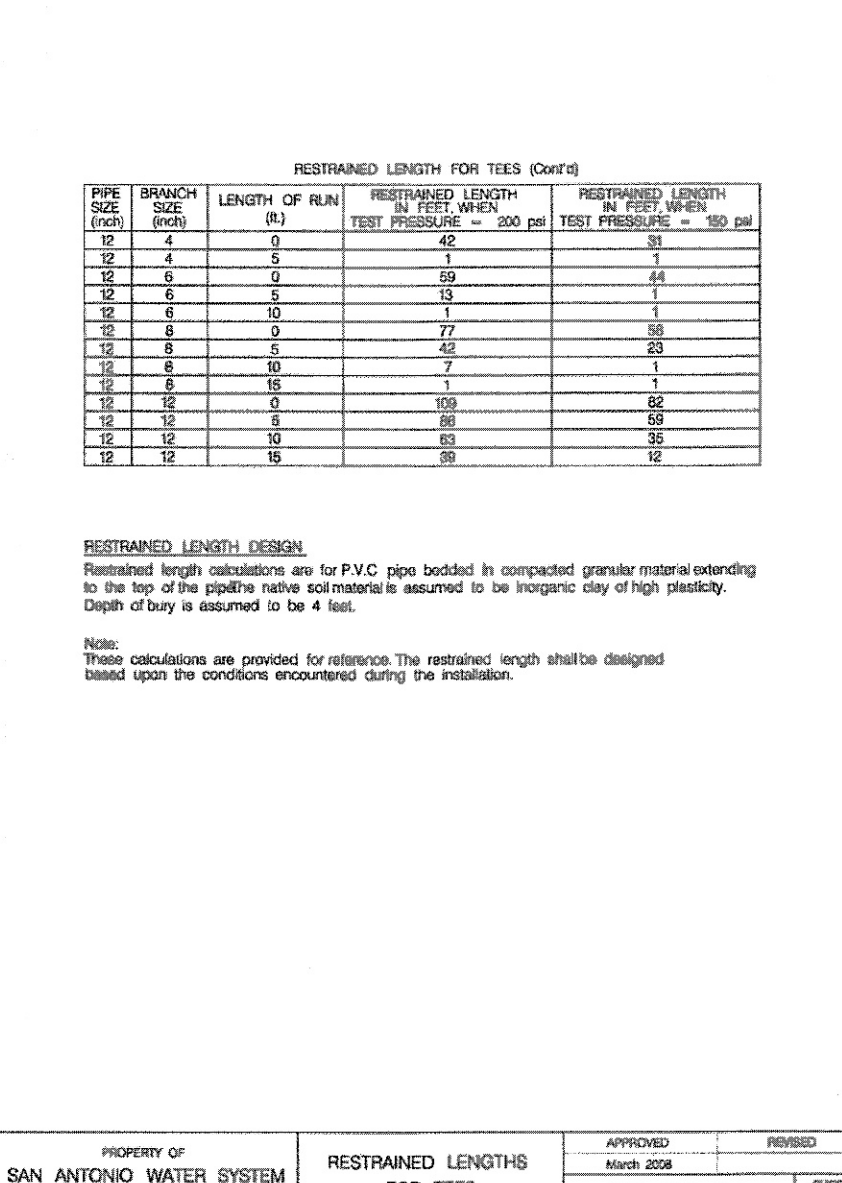
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-839-01	1 OF 2



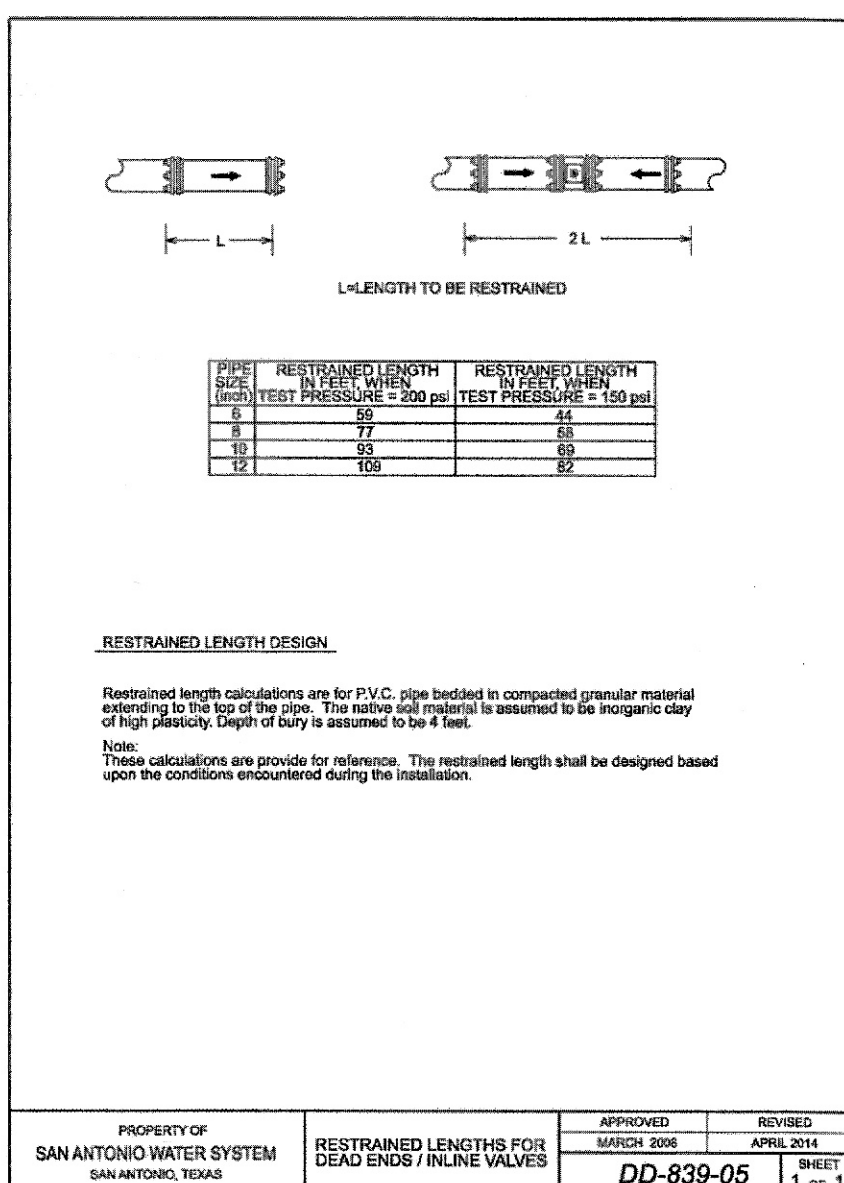
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-839-01	1 OF 2



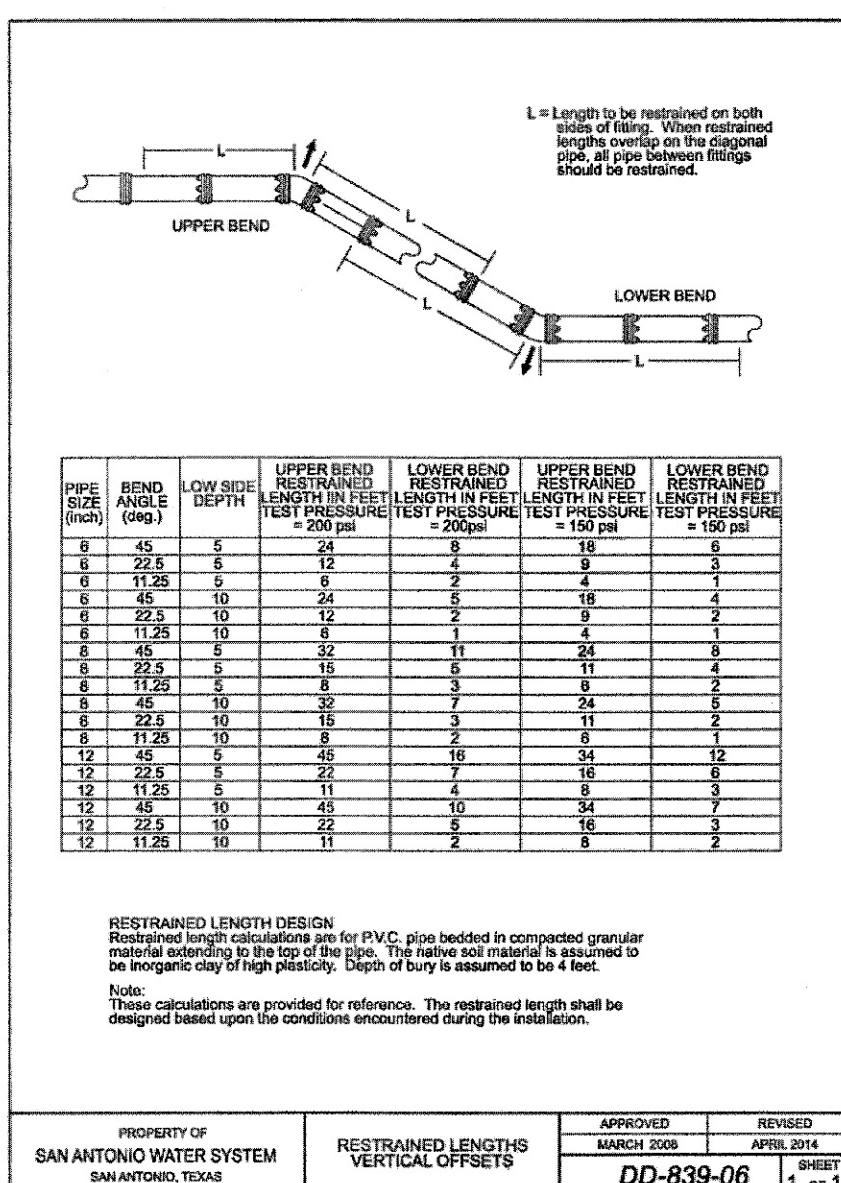
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-839-04	1 OF 2



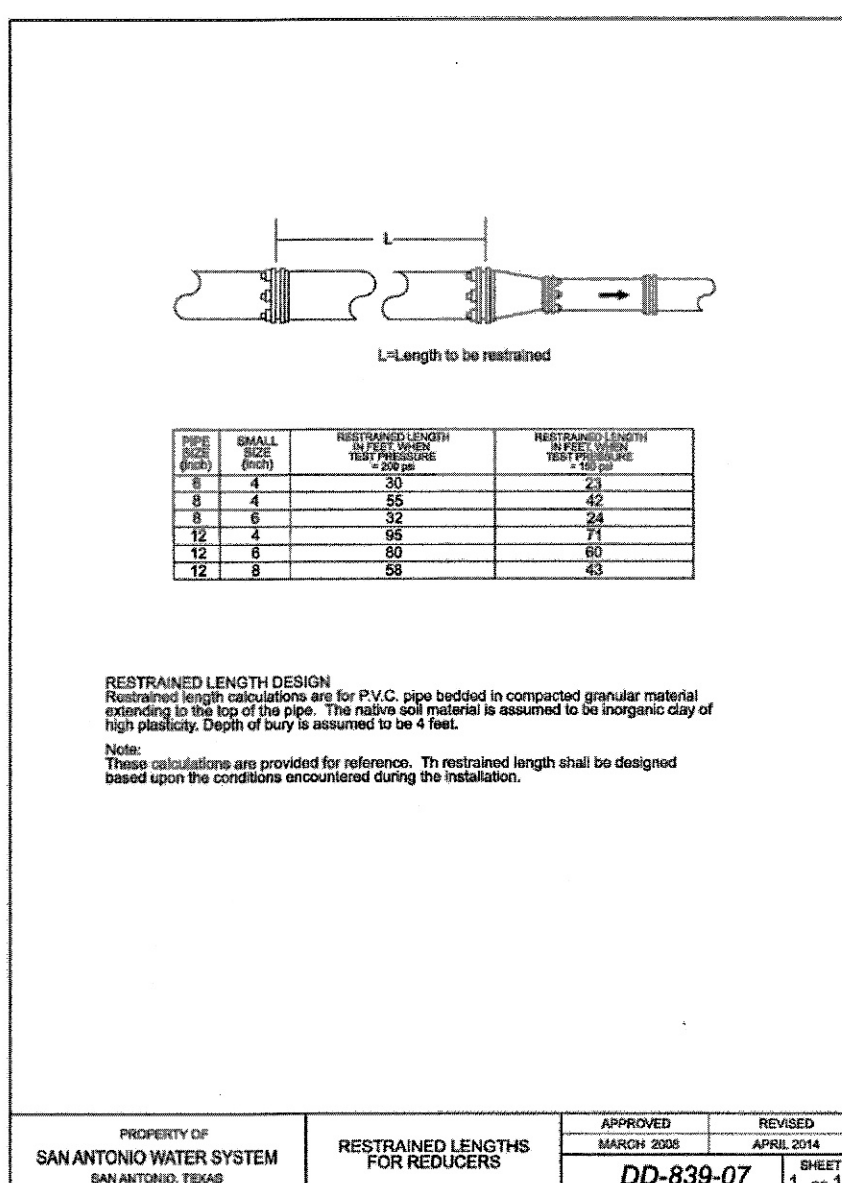
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-839-04	2 OF 2



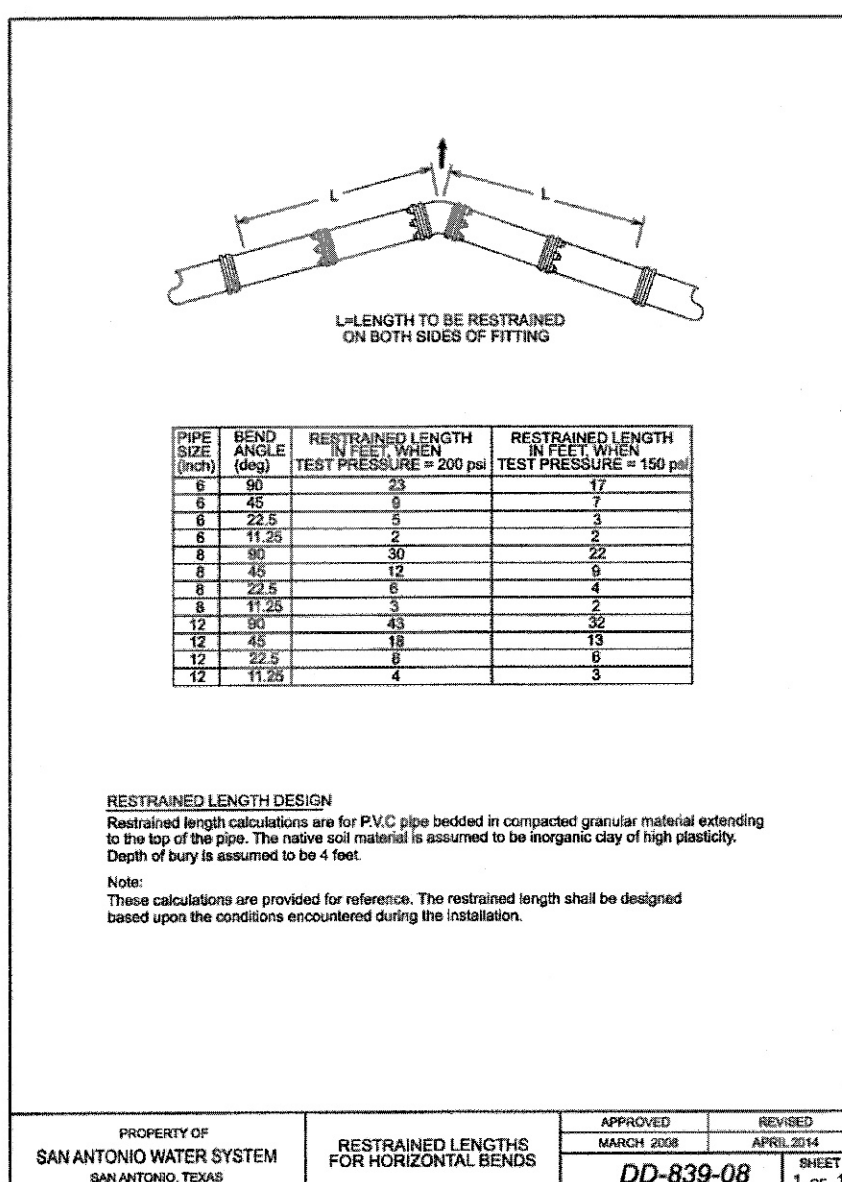
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-839-05	1 OF 1



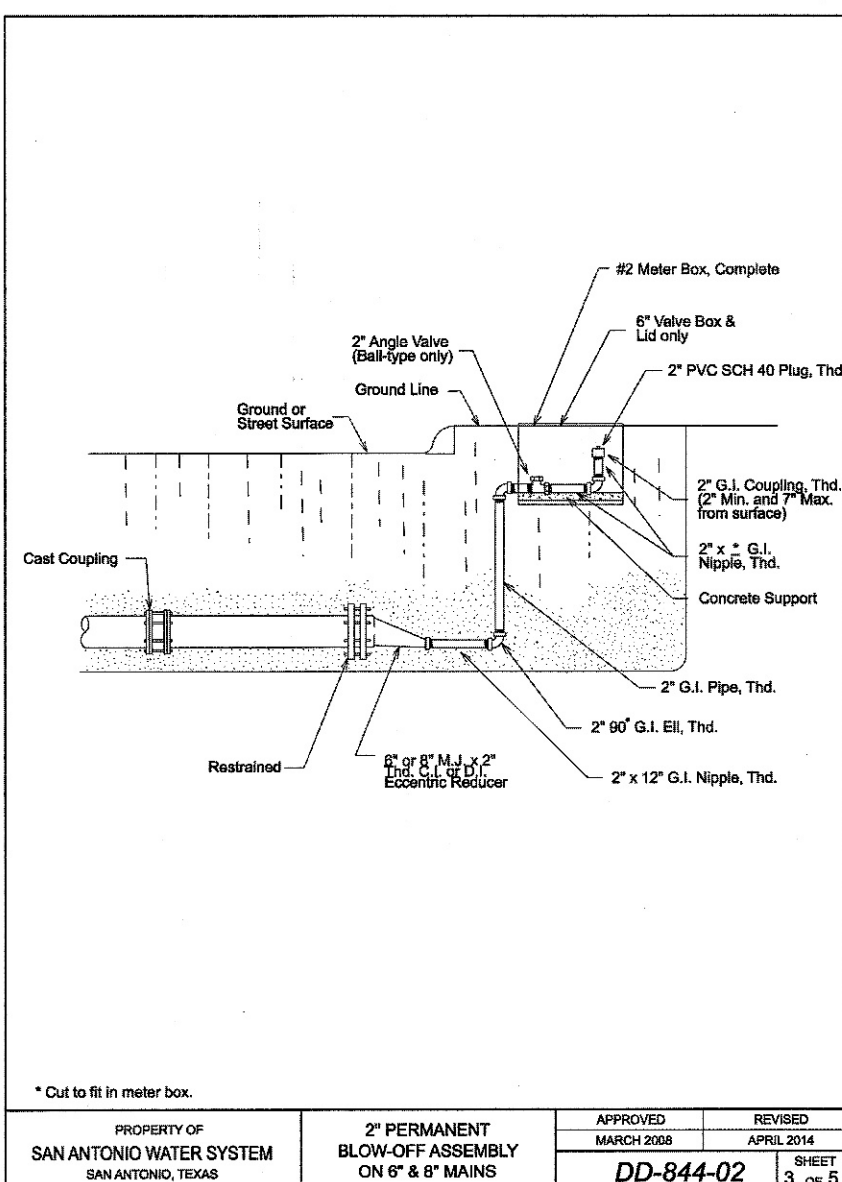
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-839-06	1 OF 1



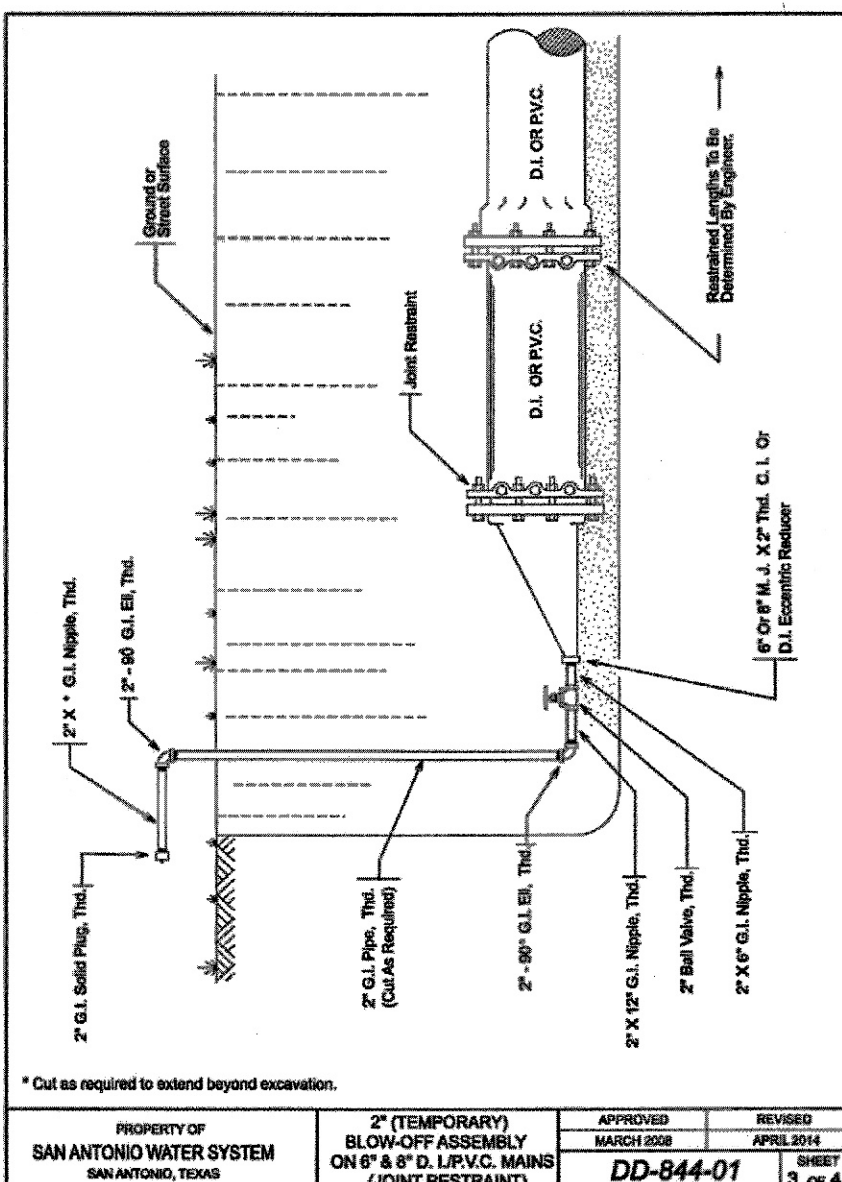
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-839-07	1 OF 1



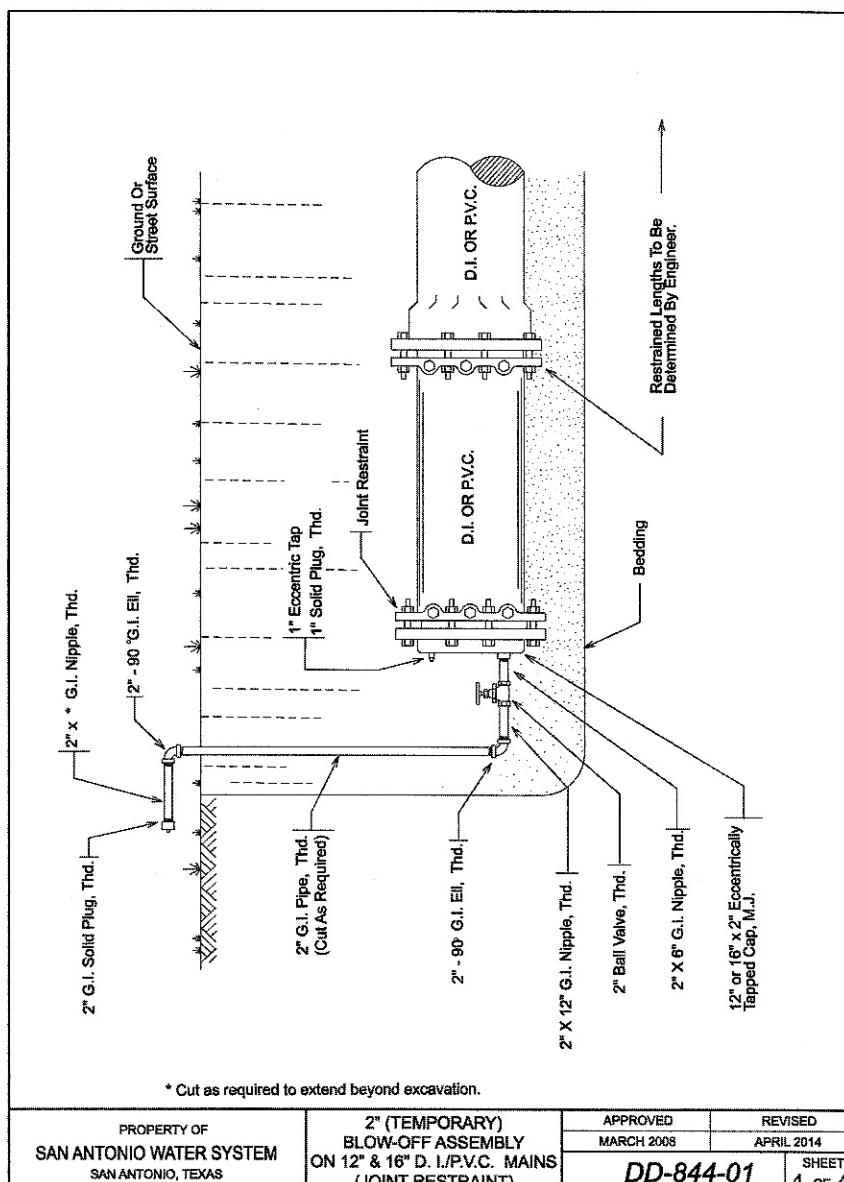
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-839-08	1 OF 1



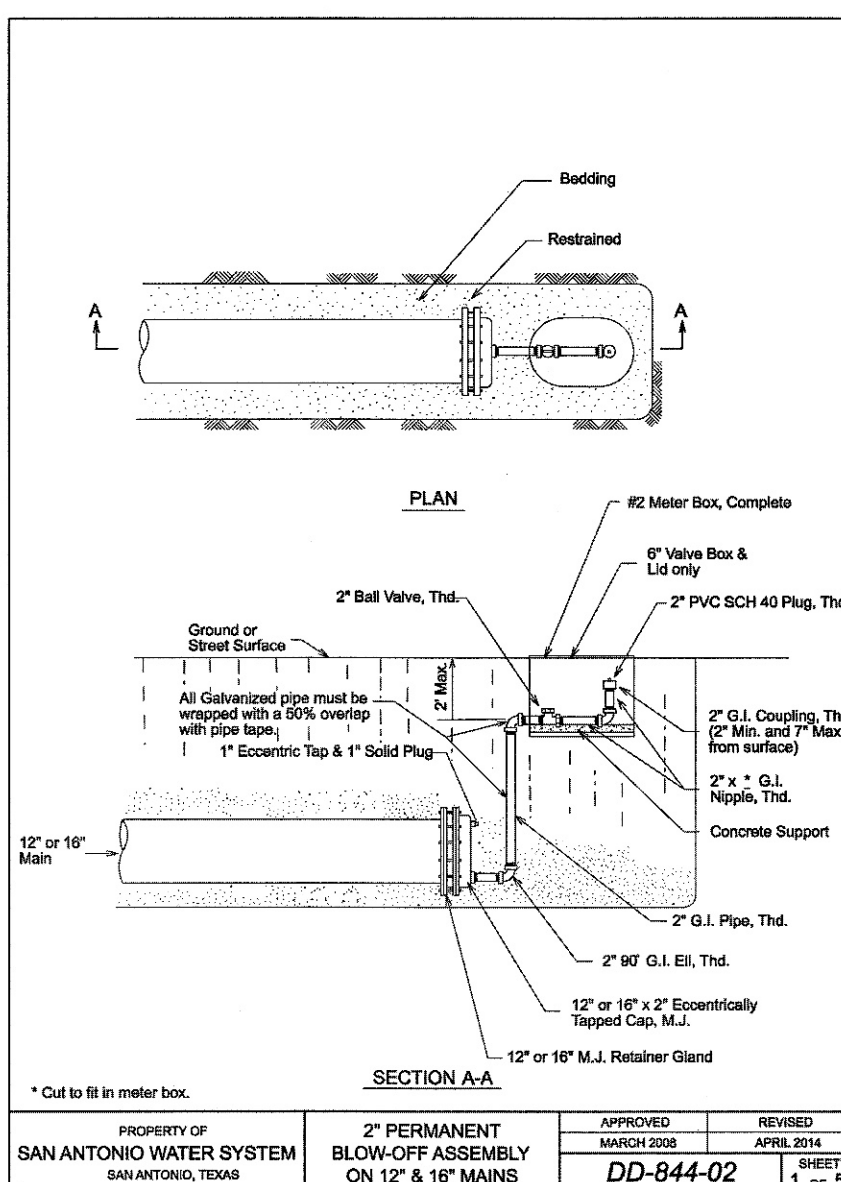
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-844-02	3 OF 3



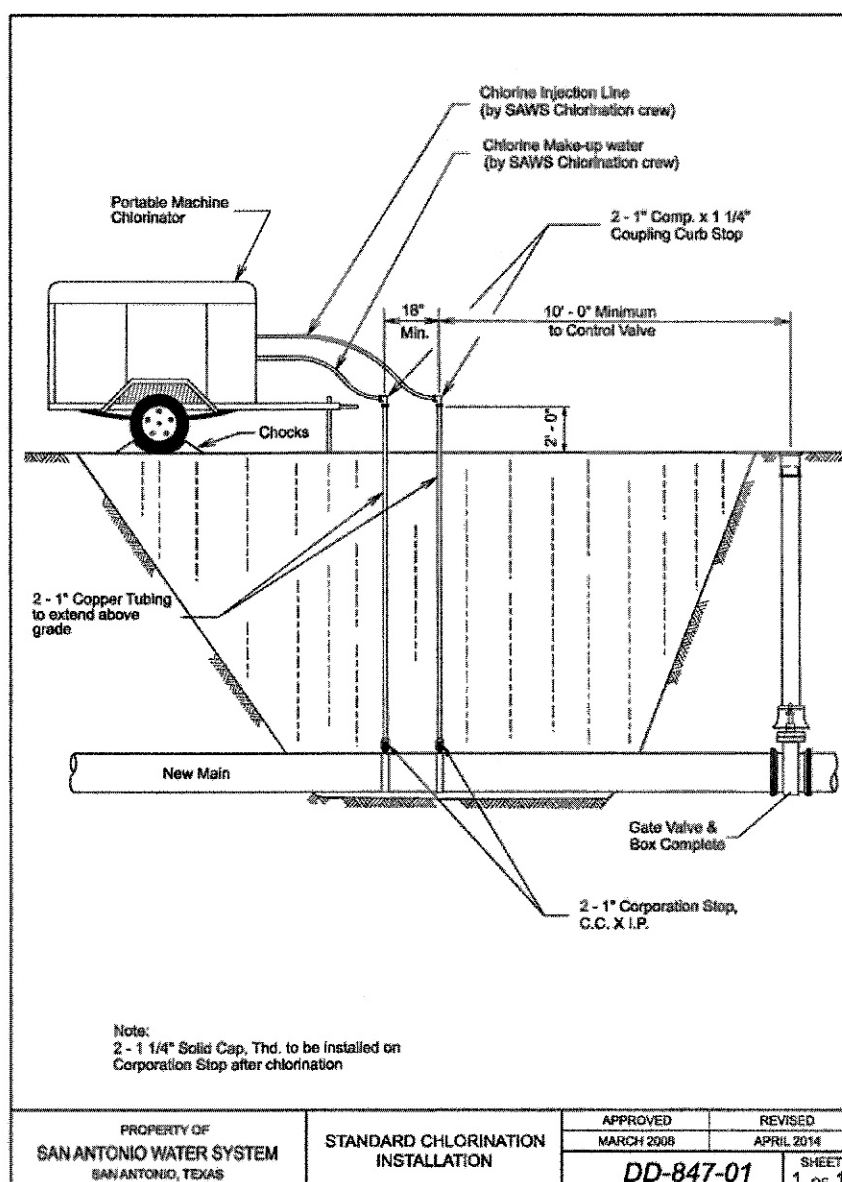
PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-844-01	3 OF 3



PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-844-01	3 OF 3



PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-844-02	1 OF 1



PROPERTY OF	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM	MARCH 2008	APRIL 2014
SAN ANTONIO, TEXAS	DD-847-01	1 OF 1

PLAN OF RECORD

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND ASSUMES NO LIABILITY FOR ANY ERRORS AND OMISSIONS CAUSED AS A RESULT.

[Signature] 9/25/2017

NOTE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TEST WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE SAWS INSPECTOR/TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.

NOTE:
PRESSURE ZONE 8

Developer's Name	PULTE HOME OF TEXAS, L.P.		
Developer's Address	1718 DRY CREEK WAY, SUITE 120		
City	SAN ANTONIO	State	TEXAS
Zip	78259	Phone #	(210) 496-1985
Fax #	(210) 496-0449	SAWS Block Map #	094622
Total EOU's	56.5	Total Acreage	17.592
Total Linear Footage of Pipe	8" - 2,266.5 L.F.	Plat No.	CP201603
Number of Lots	55 RES / 1 NR	SAWS Job No.	16-1020