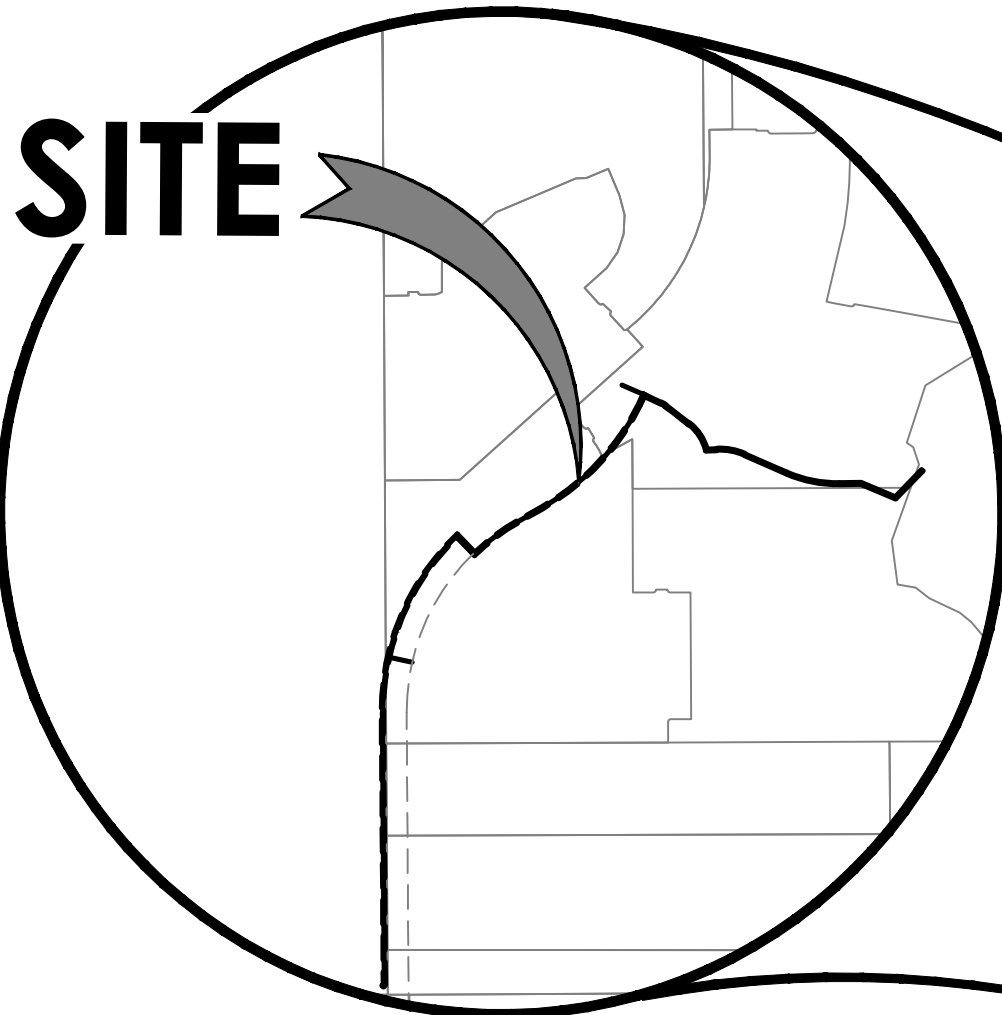


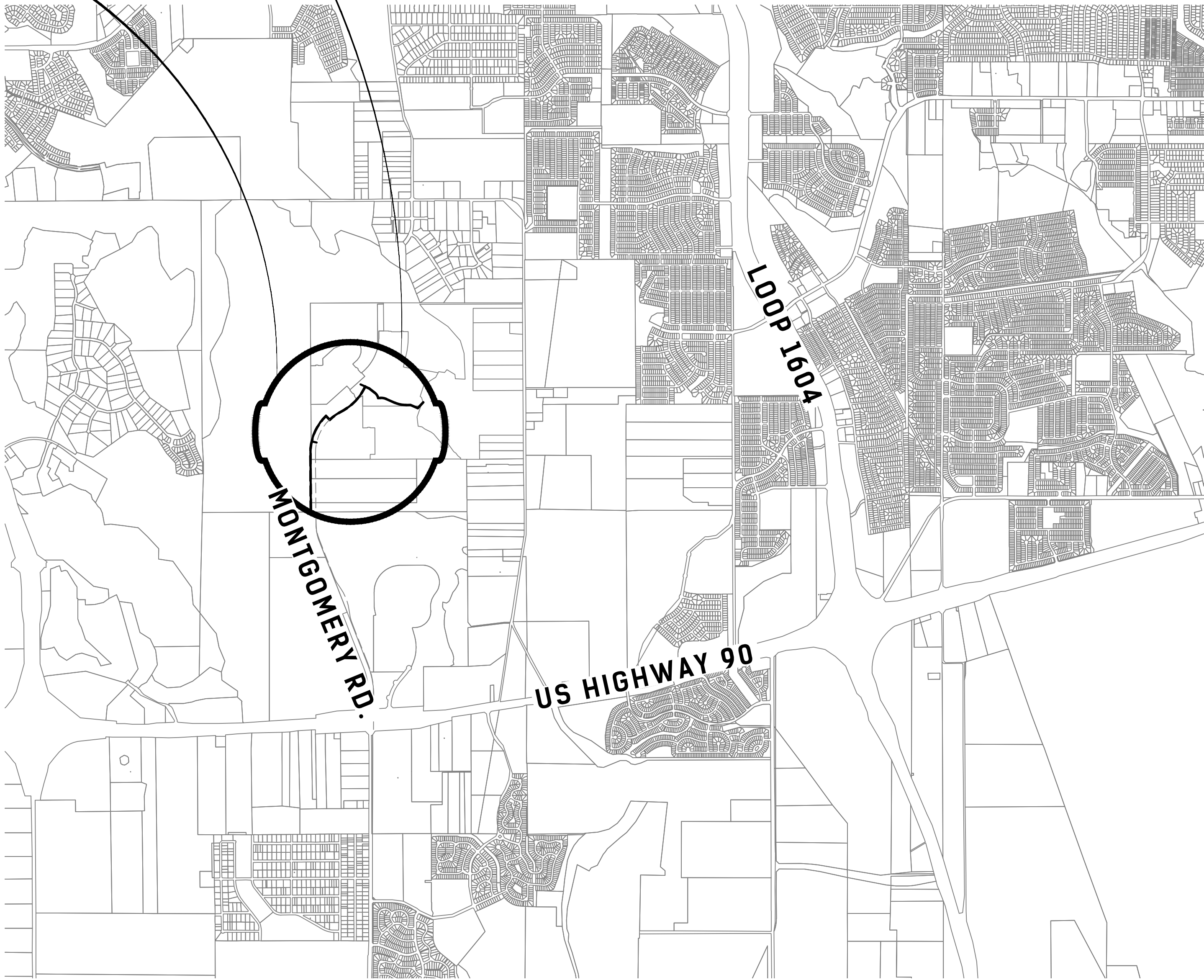
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MISCELLANEOUS CONSTRUCTION PLANS	
E1	STORM WATER POLLUTION PREVENTION PLAN

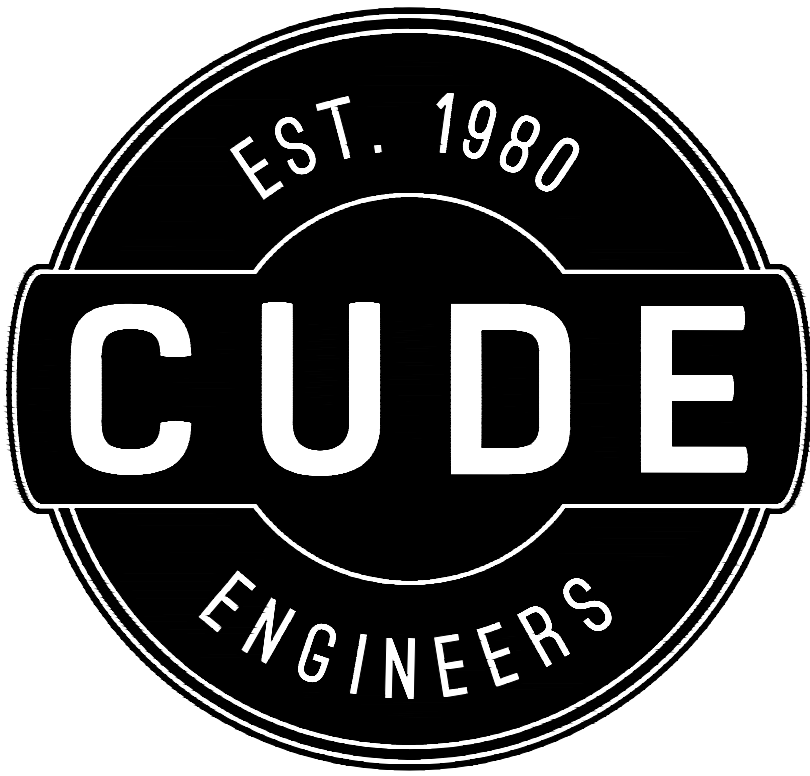
\* DENOTES STANDARD DETAILS ADOPTED FOR USE ON THIS PROJECT



LOCATION MAP



VICINITY MAP



TRES LAURELS  
16-INCH WATER MAIN EXTENSION  
WATER DISTRIBUTION  
CONSTRUCTION PLANS

PRESSURE ZONE 950W

Developer's Name		MOAIC LAND DEVELOPMENT	
Developer's Address		6812 WEST AVE. SUITE 100	
City	SAN ANTONIO	State	TEXAS
Zip	78213		
Phone #	(210) 247-8604	Fax #	
SAWS Block Map #	082546, 082570, 084570	Total EDU's	0
Total Linear Footage of Pipe	14" W - 5,542 L.F., 12" W - 30 L.F., 8" W - 125 L.F.	Plat No.	N/A
Number of Lots	0	SAWS Job No.	22-1102
Total Acreage		1.52	

OWNER / DEVELOPER  
MOAIC LAND DEVELOPMENT, L.L.C.  
CONTACT PERSON: BLAKE YANTIS  
6812 WEST AVE., SUITE 100  
TEL: (210) 247-8604

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

DRAWN BY  
S.P.M./I.R.V./D.A.F.

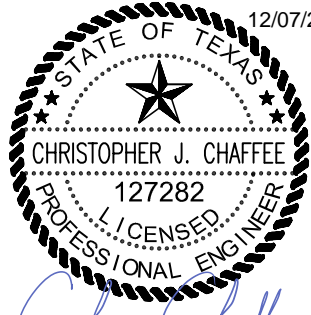
CHECKED BY  
Christopher J. Chaffee, P.E.

DATE  
2023-09-12

PROJECT NO.  
003050.009

PLAT NO.

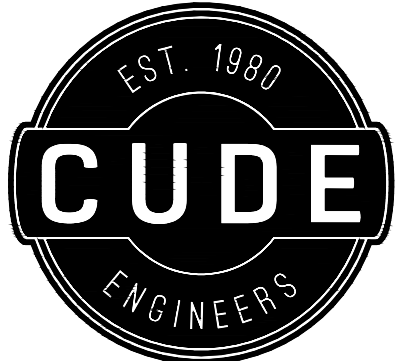
CUDE ENGINEERS  
TBPE No. 455  
TBPLS No. 10048500



I HAVE REVIEWED THIS PLAN SET FOR QUALITY ASSURANCE AND QUALITY CONTROL PURPOSES.

THIS PLAN SET HAS BEEN PREPARED, DESIGNED AND REVIEWED UNDER MY DIRECT SUPERVISION.





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

TRES LAURELS 16-INCH OVERSIZE (12" REQUIRED)  
WATER MAIN EXTENSION

CITY OF SAN ANTONIO GENERAL NOTES

GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION JUNE 2008, OR LATEST.
- NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS, BUT NOT INCLUDED IN THE BID PROPOSAL. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED IN THE PAY ITEM TO WHICH IT RELATES.
- THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DELIVERY OF MAIL BY THE U.S. POSTAL SERVICE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING FENCES, CONCRETE ISLANDS, STREET PAVING, CURBS, SHRUBS, BUSHES OR DRIVEWAYS. (NO SEPARATE PAY ITEM).
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL SIGNS AND BARRICADES ARE PROPERLY INSTALLED AND MAINTAINED. ALL LOCATIONS AND DISTANCES WILL BE DECIDED UPON IN THE FIELD BY THE CONTRACTOR, USING THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". THE CITY'S CONSTRUCTION INSPECTOR AND TRAFFIC ENGINEERING REPRESENTATIVE WILL ONLY BE RESPONSIBLE TO INSPECT BARRICADES AND SIGNS. IF, IN THE OPINION OF THE TRAFFIC ENGINEERING REPRESENTATIVE AND THE CONSTRUCTION INSPECTOR, THE BARRICADES AND SIGNS DO NOT CONFORM TO ESTABLISHED STANDARDS OR ARE INCORRECTLY PLACED OR ARE INSUFFICIENT IN QUANTITY TO PROTECT THE GENERAL PUBLIC, THE CONSTRUCTION INSPECTOR SHALL HAVE THE OPTION TO STOP OPERATIONS UNTIL SUCH TIME AS THE CONDITIONS ARE CORRECTED.
- IF THE NEED ARISES, ADDITIONAL BARRICADES AND DIRECTIONAL DEVICES MAY BE ORDERED BY THE TRAFFIC ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.171 C.P.S. MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES, THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
- CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR TWENTY FOUR (24) HOURS PRIOR TO BACKFILL OF ANY UTILITY TRENCHES TO SCHEDULE FOR DENSITY TEST AS REQUIRED.
- CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES, MARKS, ETC. IF ANY ARE DESTROYED OR REMOVED BY THE CONTRACTOR OR HIS EMPLOYEES, THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO EXCAVATION OPERATION:

SAN ANTONIO WATER SYSTEM (SAWS)	233-2010
BEXAR METROPOLITAN WATER DISTRICT (BEXAR MET)	354-6538 /357-5741
COSA DRAINAGE	207-8048
COSA SIGNAL OPERATIONS	207-7720 /207-7765
TEXAS STATE WIDE ONE CALL LOCATOR	1-800-344-8377
- CITY PUBLIC SERVICE ENERGY	
- TIME WARNER	
- AT&T	
- MCI	
- THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM AVAILABLE RECORDS AND ARE NOT GUARANTEED, BUT SHALL BE INVESTIGATED AND VERIFIED BY THE CONTRACTOR BEFORE STARTING WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR THE MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND HE SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION.
- ALL WASTE MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE HIS SOLE RESPONSIBILITY TO DISPOSE OF THIS MATERIAL OFF THE LIMITS OF THE PROJECT. NO WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING ARTIFICIAL OR NATURAL DRAINAGE.
- THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
- THE CONTRACTOR SHALL MAINTAIN ALL ADJOINING STREETS AND TRAVELED ROUTES FREE FROM SPILLED AND /OR TRACKED CONSTRUCTION MATERIALS AND /OR DEBRIS.
- IF THE CONTRACTOR ENCOUNTERS ANY ARCHAEOLOGICAL DEPOSITS DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR MUST STOP EXCAVATION IMMEDIATELY, CONTACT THE CITY INSPECTOR, AND CALL THE CITY HISTORIC PRESERVATION OFFICE AT 207-7306 OR 207-3327 FOR AN ARCHAEOLOGICAL INVESTIGATION. THE CONTRACTOR CANNOT BEGIN EXCAVATION AGAIN WITHOUT WRITTEN PERMISSION FROM THE CITY.

IF MORE THAN THREE (3) DAYS ARE REQUIRED FOR INVESTIGATION (NOT INCLUDING HOLIDAY AND WEEKENDS) AND IF THE CONTRACTOR IS UNABLE TO WORK IN OTHER AREAS, THEN THE CONTRACTOR WILL BE ALLOWED TO NEGOTIATE FOR ADDITIONAL CONSTRUCTION TIME UPON WRITTEN REQUEST WITHIN TEN (10) DAYS AFTER THE FIRST NOTICE TO THE CITY OF ARCHAEOLOGICAL INVESTIGATION FOR EACH EVENT.

IF THE TIME REQUIRED FOR INVESTIGATION IS LESS THAN OR EQUAL TO THREE (3) DAYS FOR EACH EVENT, CONTRACT DURATION WILL NOT BE EXTENDED.
- IF SUSPECTED CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION OPERATIONS, C.O.S.A. SHALL BE NOTIFIED IMMEDIATELY WHEN CONTAMINATED SOILS AND /OR GROUNDWATER ARE ENCOUNTERED AT LOCATIONS NOT IDENTIFIED IN THE PLANS. THE NOTIFICATION SHOULD INCLUDE THE STATION NUMBER, TYPE OF CONTAMINATED MEDIA, EVIDENCE OF CONTAMINATION AND MEASURES TAKEN TO CONTAIN THE CONTAMINATED MEDIA AND PREVENT PUBLIC ACCESS. THE CONTAMINATED SOIL AND /OR GROUNDWATER SHALL NOT BE REMOVED FROM THE LOCATION WITHOUT PRIOR C.O.S.A. APPROVAL.

THE CONTRACTOR MUST STOP THE EXCAVATION IMMEDIATELY AND CONTACT THE C.O.S.A. INSPECTOR. THE CONTRACTOR CANNOT BEGIN EXCAVATION ACTIVITIES WITHOUT WRITTEN PERMISSION FROM THE CITY.
- CONTRACTOR IS TO INCLUDE A MAILBOX POST BLOCKOUT FOR VACANT LOTS AND ALL RESIDENCES WHICH DO NOT HAVE MAILBOXES AT THE CURB. BLOCKOUTS ARE PROVIDED FOR FUTURE USE BY THE POST OFFICE.

- CONTRACTOR SHALL NOT REMOVE OR ADJUST ANY VIA FACILITIES. THE CONTRACTOR MUST CONTACT VIA FOURTEEN DAYS PRIOR, FOR THE REMOVAL OF BENCHES, STOP POLES OR ANY OTHER VIA FACILITIES THAT MAY BE PRESENT. PLEASE PROVIDE THIRTY DAYS PRIOR NOTICE FOR SHELTER REMOVAL (TELEPHONE NOS: (210) 362-2155 OR (210) 362-2096). THE CONTRACTOR WILL BE LIABLE FOR ANY DAMAGES TO VIA FACILITIES NOT REMOVED BY VIA. THE CONTRACTOR IS REQUIRED TO REPLACE ALL FLATWORK REMOVED OR DAMAGED IN THE COURSE OF EXECUTING THE CONTRACT UNLESS OTHERWISE NOTED BY VIA. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING VIA FACILITIES IF ADJACENT TO WORK AREA.

TREE PROTECTION AND PRESERVATION GENERAL NOTES

- NO UTILITY OR STREET EXCAVATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
- TREE PROTECTION FENCING SHALL BE REQUIRED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING SITE CONSTRUCTION. DURING CONSTRUCTION ACTIVITY, AT LEAST A SIX-INCH LAYER OF COARSE MULCH SHALL BE PLACED AND MAINTAINED OVER THE ROOT PROTECTION ZONE (NO SEPARATE PAY ITEM).
- THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN THE VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR FOR GUIDANCE.
- ROOTS WILL BE CUT WITH A ROCK SAW OR BY HAND, NOT BY AN EXCAVATOR OR OTHER ROAD CONSTRUCTION EQUIPMENT.
- ALL CURB AND SIDEWALK WORK SHALL USE ALTERNATIVE CONSTRUCTION METHODS TO MINIMIZE EXTENSIVE ROOT DAMAGE TO TREES (REFER TO DETAILS).
- EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH, OR WET BURLAP.
- NO EQUIPMENT, VEHICLES OR MATERIALS SHALL OPERATE OR BE STORED WITHIN THE ROOT PROTECTION ZONE OF ANY TREE NEAR THE PROJECT. ROOT PROTECTION ZONE IS 1 FOOT OF RADIUS PER INCH OF TREE'S DIAMETER. A 10-INCH DIAMETER TREE WOULD HAVE A 10 FOOT RADIUS ROOT PROTECTION ZONE AROUND THE TREE. ROOTS OR BRANCHES IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. OAK WOUNDS SHALL BE PAINTED OVER WITHIN 30 MINUTES TO PREVENT OAK WILT.
- SAPLINGS, SHRUBS OR BUSHES TO BE CLEARED FROM THE PROTECTED ROOT ZONE AREA OF A LARGE TREE SHALL BE REMOVED BY HAND AS DESIGNATED BY THE INSPECTOR.
- NO WIRES, NAILS OR OTHER MATERIAL MAY BE ATTACHED TO PROTECTED TREES.
- TREES, TREE LIMBS, BUSHES AND SHRUBS LOCATED IN THE CITY STREET OR ALLEY RIGHT-OF-WAY OR PERMANENT EASEMENTS WHICH INTERFERE WITH PROPOSED CONSTRUCTION ACTIVITIES SHALL BE PROPERLY PRUNED FOLLOWING THE ANSI A-300 STANDARDS FOR PRUNING. ALL TREE PRUNING SHALL BE COMPLETED BY A CITY OF SAN ANTONIO TREE MAINTENANCE LICENSED CONTRACTOR (ARTICLE 21-171, CITY CODE) ONLY AFTER APPROVAL FROM THE CAPITAL PROJECTS MANAGEMENT THROUGH THE INSPECTOR.
- NO EXCESSIVE TREE TRIMMING WILL BE PERMITTED.
- ALL DEBRIS GENERATED BY THE PRUNING AND TRIMMING OF THE TREES AND /OR BUSHES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY (NO SEPARATE PAY ITEM).
- TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE, BUT NOT LIMITED TO: WATERING THE ROOT PROTECTION ZONE, WASHING FOLIAGE, FERTILIZATION, PRUNING, ADDITIONAL MULCH APPLICATIONS AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT.
- ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST. (207-8053)
- TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE CITY'S SATISFACTION.
- TREE PLANTING FOR MITIGATION OR ENHANCEMENT: ALL PLANTED TREES SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. THIS INCLUDES IRRIGATION, FERTILIZING, PRUNING AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT. TREES THAT DIE WITHIN TWELVE (12) MONTHS SHALL BE REPLACED WITH A TREE OF EQUAL SIZE AND SPECIES.

ACCESSIBILITY REQUIREMENTS

- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN VEHICULAR AND PEDESTRIAN ACCESS AT ALL TIMES TO LOCAL RESIDENCES AND BUSINESSES.
- WHEN THE WORK REQUIRES THE EXCAVATION OF THE STREET AND THE REMOVAL OF THE EXISTING DRIVEWAY APPROACHES AND SIDEWALKS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY ALL-WEATHER ACCESS TO THE BUSINESSES AND RESIDENCES. THE TEMPORARY DRIVEWAY APPROACHES SHALL BE CONSTRUCTED WITH FLEXIBLE BASE OR GRAVEL MATERIAL AT NO SEPARATE COST TO THE CITY.
- PRIOR TO INITIATING THE CONSTRUCTION OF NEW DRIVEWAY APPROACHES, THE CONTRACTOR SHALL GIVE ADVANCE WARNING IN PERSON, OR IN WRITING, OF AT LEAST 48 HOURS TO EACH RESIDENCE THAT WILL BE IMMEDIATELY AFFECTED, SO THAT ALTERNATE PLANS MAY BE MADE BY THE RESIDENTS.
- FOR BUSINESSES WITH MORE THAN ONE DRIVEWAY, AT LEAST ONE DRIVEWAY SHALL REMAIN OPEN WHILE THE OTHER NEW DRIVEWAY APPROACHES ARE CONSTRUCTED. FOR BUSINESSES WITH ONLY ONE DRIVEWAY, THE NEW DRIVEWAY APPROACH SHALL BE CONSTRUCTED IN HALF WIDTHS, UNLESS A TEMPORARY ASPHALT DRIVEWAY IS FIRST INSTALLED AT NO SEPARATE COST TO THE CITY.

NOTE TO CONSULTANT

DO NOT MODIFY, DELETE OR ADD TO THE CITY OF SAN ANTONIO'S GENERAL NOTES STANDARD SHEET. IF MODIFICATIONS ARE REQUIRED, FOLLOW THE INSTRUCTIONS ON THE "SUPPLEMENTAL GENERAL NOTES" SHEET.

DECEMBER 2009

CITY OF SAN ANTONIO  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

CITY OF SAN ANTONIO  
GENERAL NOTES

DATE:	PROJECT NO.:	% SUBMITTAL:
SHEET NO.:	OF:	DRWN. BY:
CHKD. BY:	DSGN. BY:	

DATE	07/19/2022
PROJECT NO.	03050.009
DRAWN BY	IRV/DAF
CHECKED BY	SPM/CC

REVISIONS
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CUDE ENGINEERS  
TBPE No. 455  
TBPLS No. 10048500

G1



SAWS CONSTRUCTION NOTES  
COUNTER PERMIT AND GENERAL CONSTRUCTION  
PERMIT REVISED JULY 2017

GENERAL SECTION

1. All materials and construction procedures within the scope of this contract shall be approved by the San Antonio Water System (SAWS) and comply with the Plans, Specifications, General Conditions and with the following as applicable:
- A. Current Texas Commission on Environmental Quality (TCEQ) "Design Criteria for Domestic Wastewater System", Texas Administrative Code (TAC) Title 30 Part 1 Chapter 217 and "Public Drinking Water", TAC Title 30 Part 1 Chapter 290.
- B. Current TXDOT "Standard Specifications for Construction of Highways, Streets and Drainage".
- C. Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction".
- D. Current City of San Antonio "Standard Specifications for Public Works Construction".
- E. Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).
2. The contractor shall not proceed with any pipe installation work until they obtain a copy of the approved Counter Permit or General Construction Permit (GCP) 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. Work completed by the contractor without an approved Counter Permit and/or a GCP will be subject to removal and replacement at the expense of the contractors and/or the developer.
3. The Contractor shall obtain the SAWS Standard Details from the SAWS website, [http://www.saws.org/business\\_center/specs](http://www.saws.org/business_center/specs). Unless otherwise noted within the design plans.
4. The Contractor is to make arrangements with the SAWS Construction Inspection Division at 233-2973, on notification procedures that will be used to notify affected home residents and/or property owners 48 hours prior to beginning any work.
5. Location and depth of existing utilities and service laterals shown on the plans are understood to be approximate. Actual locations and depths must be field verified by the Contractor at least 1 week prior to construction. It shall be the Contractor's responsibility to locate utility service lines as required for construction and to protect them during construction at no cost to SAWS.
6. The Contractor shall verify the exact location of underground utilities and drainage structures at least 1-2 weeks prior to construction whether shown on plans or not. Please allow up to 7 business days for locates requesting pipe location markers on SAWS facilities. The following contact information are supplied for verification purposes:
- SAWS Utility Locates: <http://www.saws.org/Service/Locates>
  - COSA Drainage (210) 207-0724 or (210) 207-6026
  - COSA Traffic Signal Operations (210) 206-8480
  - COSA Traffic Signal Damages (210) 207-3951
- Texas State Wide One Call Locator 1-800-545-6005 or 811
7. The Contractor shall be responsible for restoring existing fences, curbs, streets, driveways, sidewalks, landscaping and structures to its original or better condition if damages are made as a result of the project's construction.
8. All work in Texas Department of Transportation (TXDOT) and/or Bexar County right-of-way shall be done in accordance with respective construction specifications and permit requirements.
9. The Contractor shall comply with City of San Antonio or other governing municipality's tree ordinances when excavating near trees.
10. The Contractor shall not place any waste materials in the 100-year Flood Plain without first obtaining an approved Flood Plain Permit.
11. Holiday Work: Contractors will not be allowed to perform SAWS work on SAWS recognized holidays. Request should be sent to [constworkreq@saws.org](mailto:constworkreq@saws.org).

Weekend Work: Contractors are required to notify the SAWS Inspection Construction Department 48 hours in advance to request weekend work. Request should be sent to [constworkreq@saws.org](mailto:constworkreq@saws.org).

Any and all SAWS utility work installed without holiday/weekend approval will be subject to be uncovered for proper inspection.

12. Compaction note (Item 804): The contractor shall be responsible for meeting the compaction requirements on all trench backfill and for paying for the tests performed by a third party. Compaction tests will be done at one location point randomly selected, or as indicated by the SAWS Inspector and/or the 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.

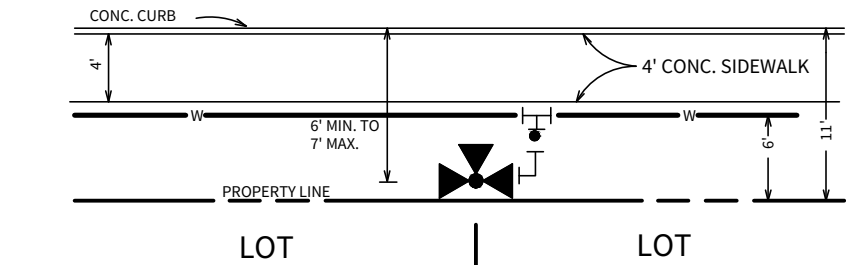
13. A copy of all testing reports shall be forwarded to SAWS Construction Inspection Division. Water Section

WATER SECTION

1. Prior to tie-ins, any shutdowns of existing mains of any size must be coordinated with the SAWS Construction Inspection Division at least one week in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins; this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor to sequence the work accordingly. For water mains 12" or higher: SAWS Emergency Operations Center (210) 233-2014
2. Asbestos Cement (AC) pipe, also known as transite pipe which is known to contain asbestoscontaining material (ACM), may be located within the project limits. Special waste management procedures and health and safety requirements will be applicable when removal and/or disturbance of this pipe occurs. Such work is to be made under Special Specification Item No. 3000, "Special Specification for Handling Asbestos Cement Pipe".
3. Valve removal: Where the contractor is to abandon a water main, the control valve located on the abandoning branch will be removed and replaced with a cap/plug. (NSPI)
4. Suitable anchorage/thrust blocking or joint restraint shall be provided at all of the following main locations: dead ends, plugs, caps, tees, crosses, valves, and bends, in accordance with the Standard Drawings DD-839 Series and Item No. 839, in the SAWS Standard Specifications for Construction.
5. All valves shall read "open right".
6. PRVs Required: Contractor to verify that no portion of the tract is below ground elevation of 800 feet where the static pressure will normally exceed 80 PSI. At all such locations where the ground level is below 800 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 lot(s) if \*PRV is/are required for such lot(s), only single service connections shall be allowed. \*Note: A pressure regulator is also known as a pressure reducing valve (PRV).
7. Pipe Disinfection with Dry HTH for Projects less than 800 linear feet. (Item No. 847.3): Mains shall be disinfected with dry HTH 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.
8. Backflow Prevention Devices:
- All irrigation services within residential areas are required to have backflow prevention devices.
  - All commercial backflow prevention devices must be approved by SAWS prior to installation.
9. Final connection to the existing water main shall not be made until the water main has been pressure tested, chlorinated, and SAWS has released the main for tie-in and use.
10. All meters shall be 5/8", unless otherwise noted.
11. All pipes shall be C-900 Class 150 DR 27.5, unless otherwise noted.

ADDITIONAL NOTES

1. All pipes shall be C900 Class 235 DR-18, unless otherwise noted.
2. All meters shall be 3/4", unless otherwise noted.



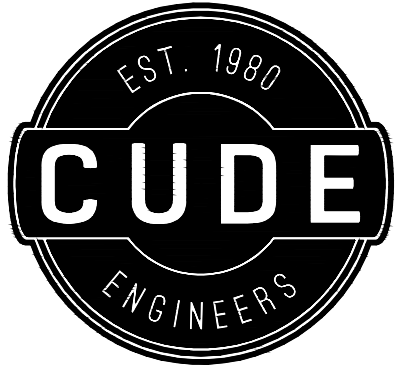
- NOTE:
1. EXCLUSIVE OF THE TEE, PAYMENT FOR THE FIRE HYDRANT SHALL INCLUDE ALL FITTINGS, 6" D.I. PIPE AND 6" GATE VALVE & BOX.
2. FIRE HYDRANT TO BE INSTALLED OUTSIDE OF THE LIMITS OF ALL PROPOSED SIDEWALKS.

PRESSURE ZONE 950W

Developer's Name	MOSAIC LAND DEVELOPMENT		
Developer's Address	6812 WEST AVE. SUITE 100		
City	SAN ANTONIO	State	TEXAS
		Zip	78213
Phone #	(210) 247-8604	Fax #	
SAWS Block Map #	08264 08264	Total EDU's	0
Total Linear Footage of Pipe	12' W - 3542 L.F. 12' W - 30 L.F. 8' W - 125 L.F.	Plat No.	N/A
Number of Lots	0	SAWS Job No.	22-1102

TRENCH EXCAVATION PROTECTION

CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) 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 COMPLY WITH AS 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.



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

TRES LAURELS 16-INCH OVERSIZE (12" REQUIRED)  
WATER MAIN EXTENSION

WATER DISTRIBUTION GENERAL NOTES

DATE

01/03/2024

PROJECT NO.

03050.009

DRAWN BY

IRV/DAF

CHECKED BY

SPM/CC

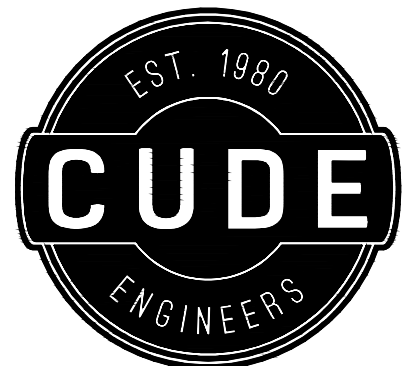
REVISIONS

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CUDE ENGINEERS

TBPE No. 455  
TBPLS No. 10048500

W1



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

TRES LAURELS 16-INCH OVERSIZE (12" REQUIRED)  
WATER MAIN EXTENSION

WATER DISTRIBUTION SYSTEM DETAILS

DATE  
01/03/2024

PROJECT NO.  
03050.009

DRAWN BY  
IRV/DAF

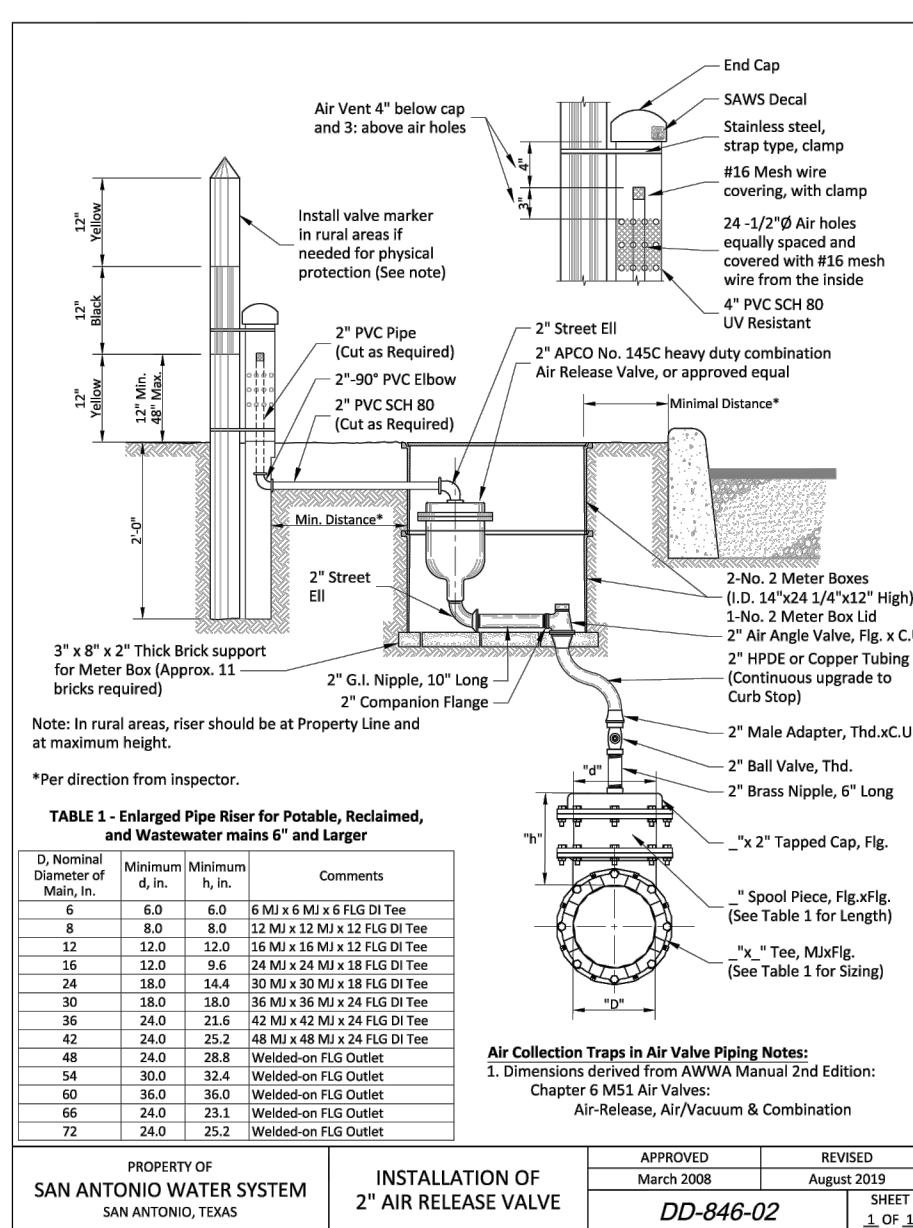
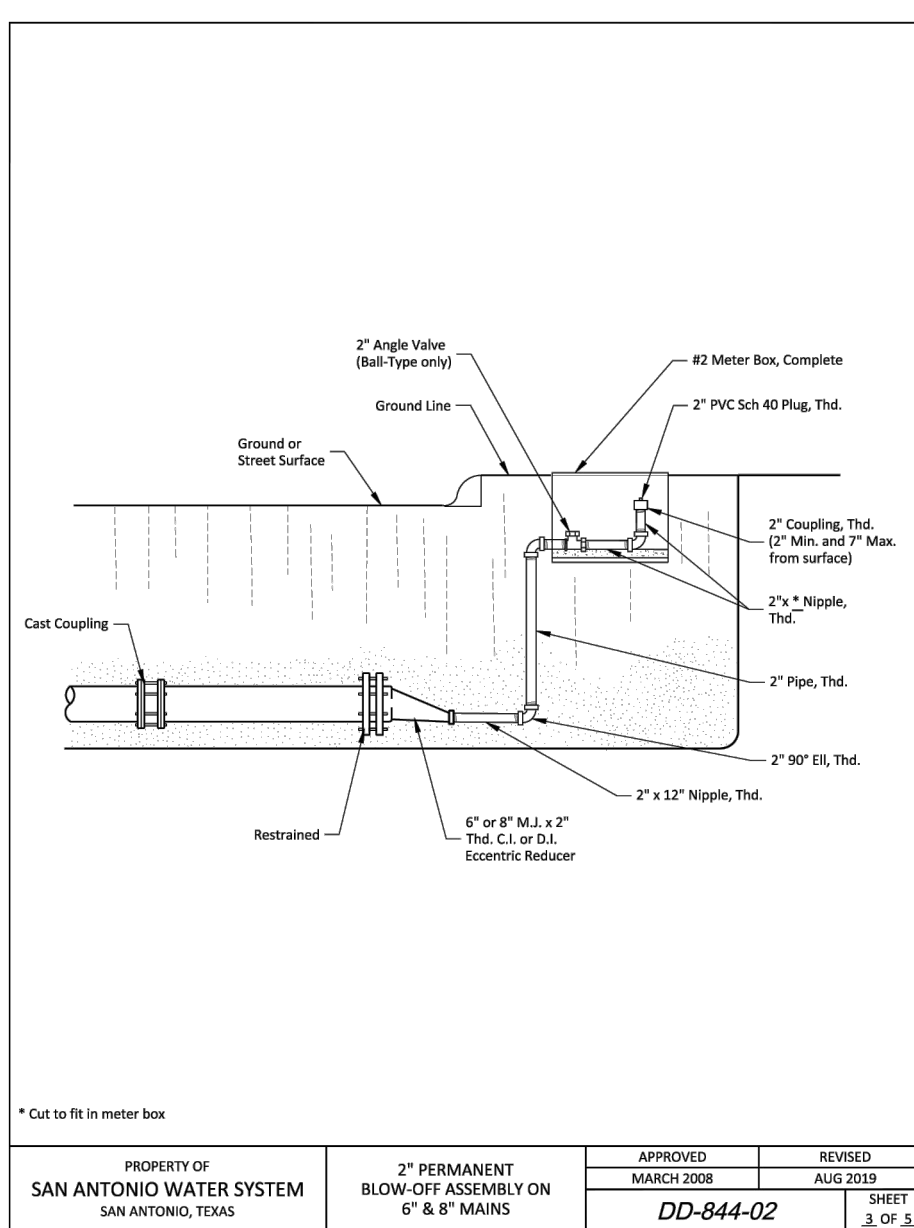
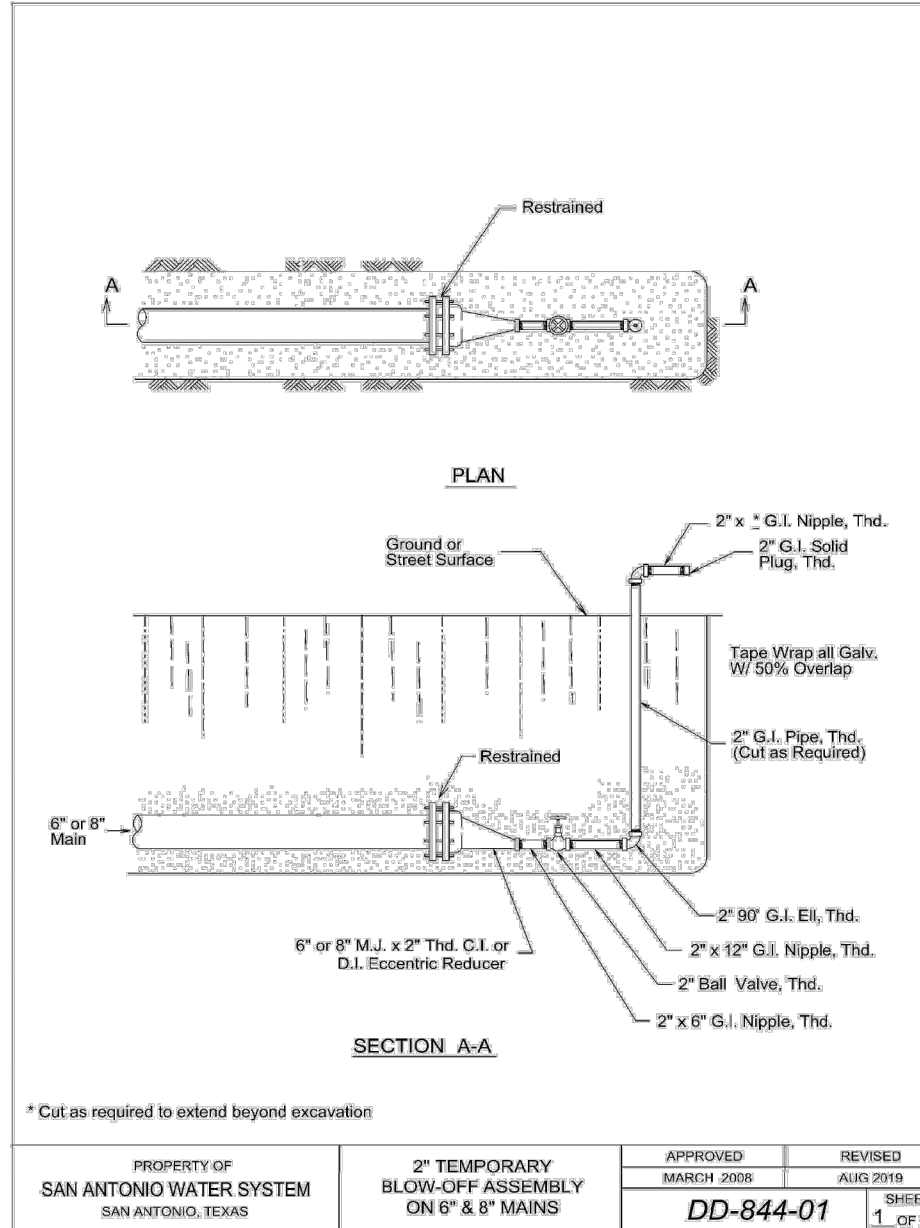
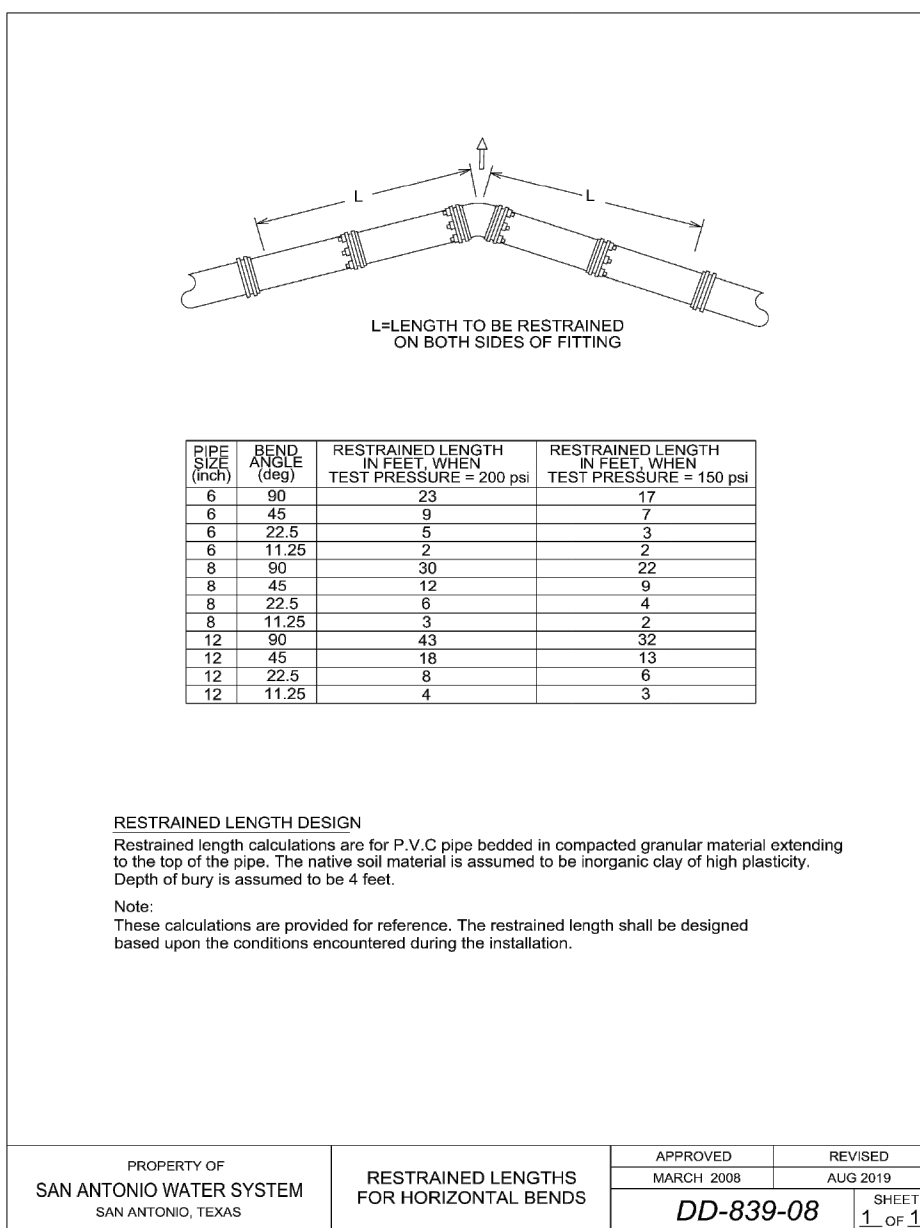
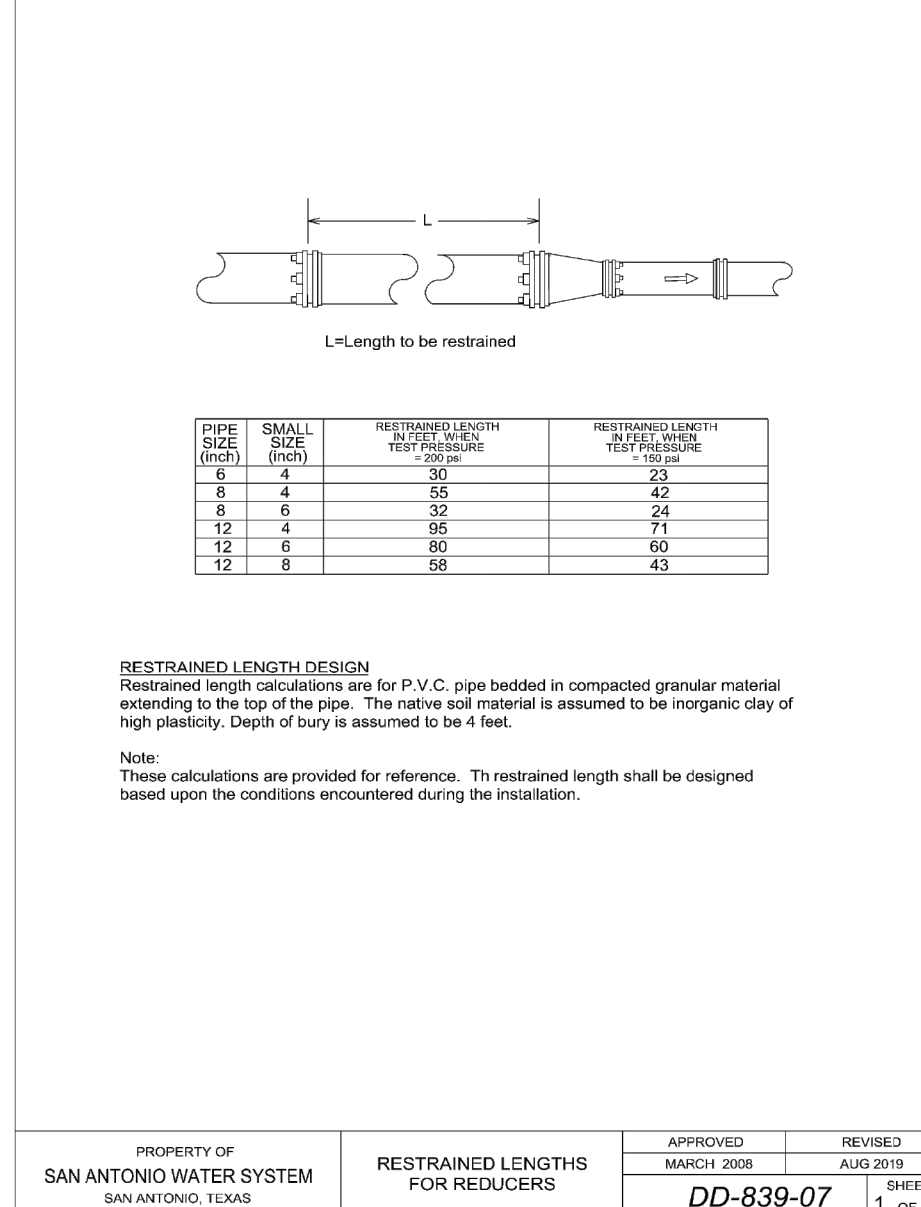
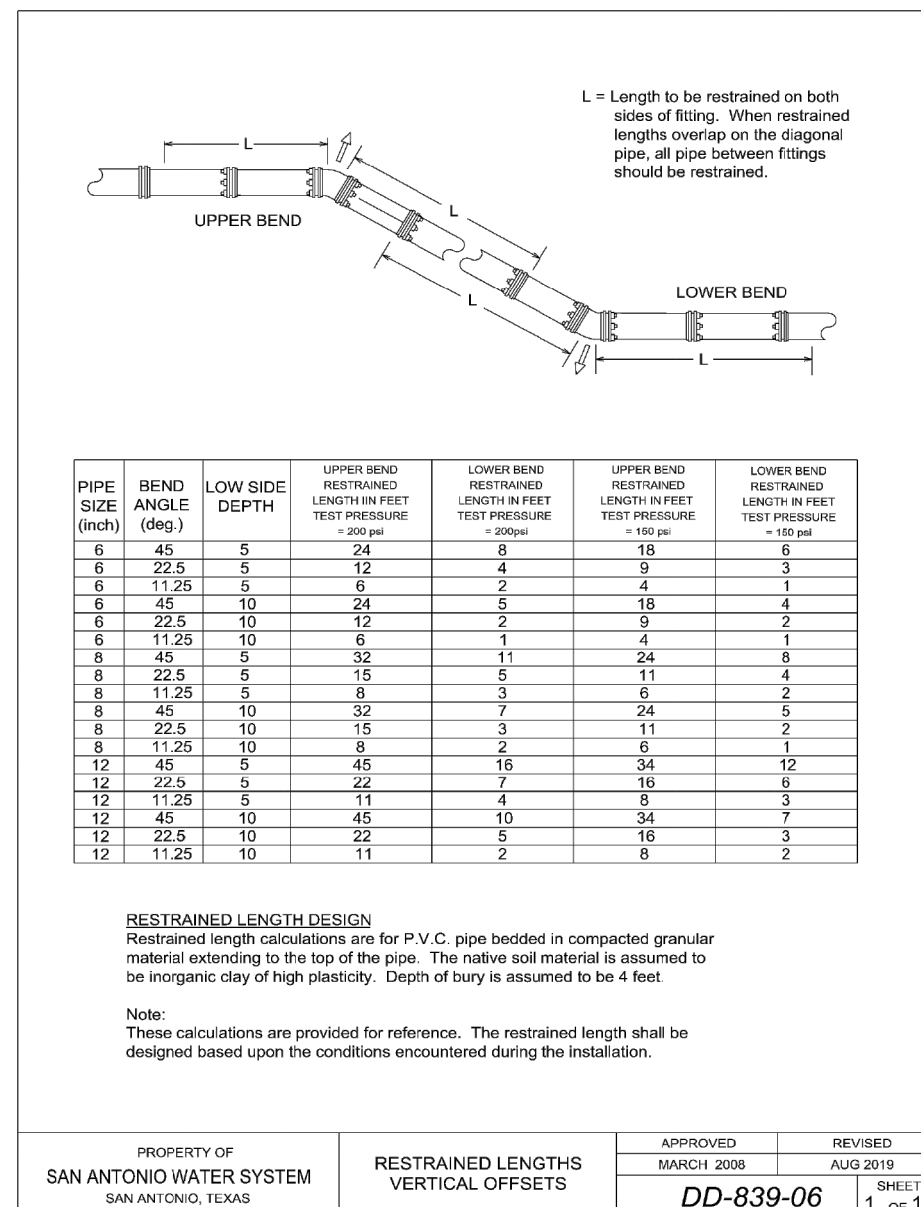
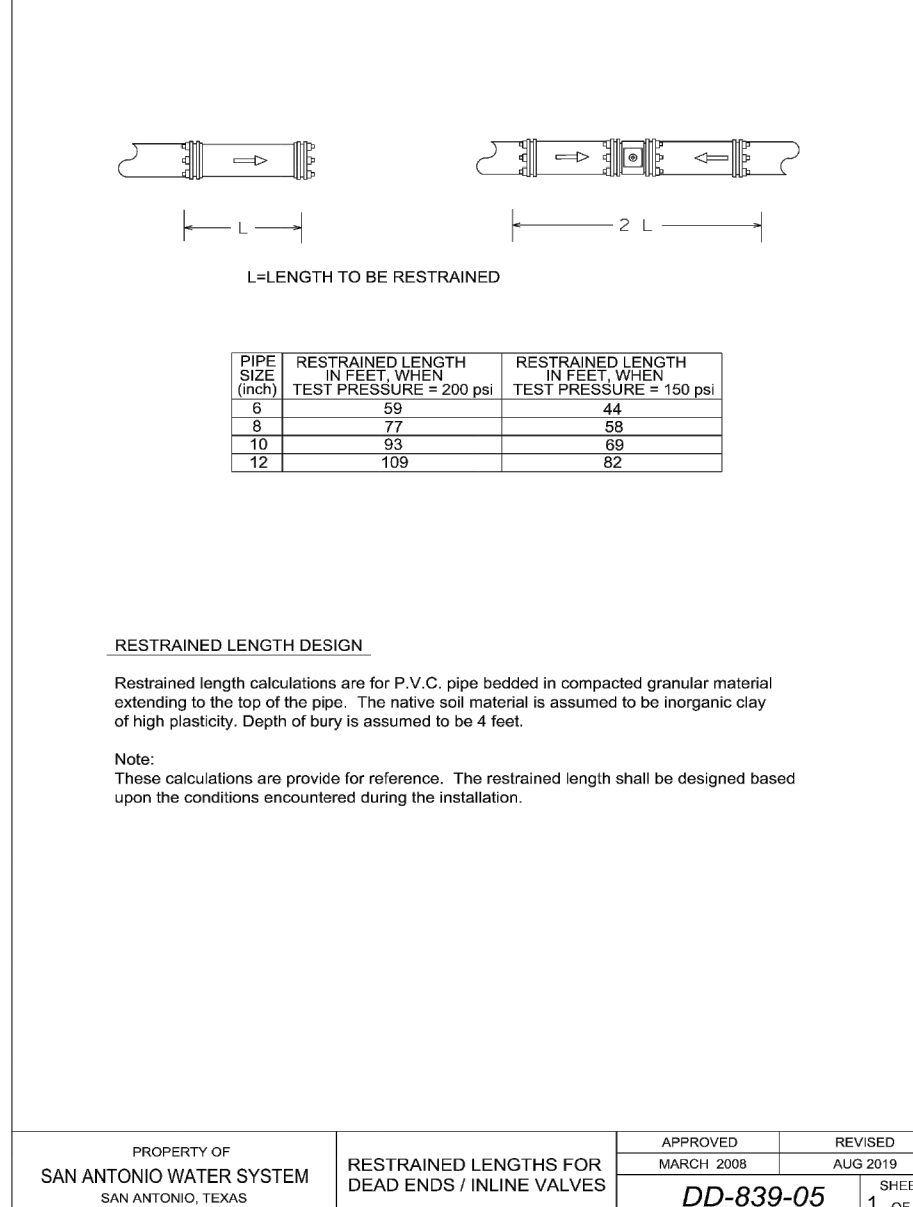
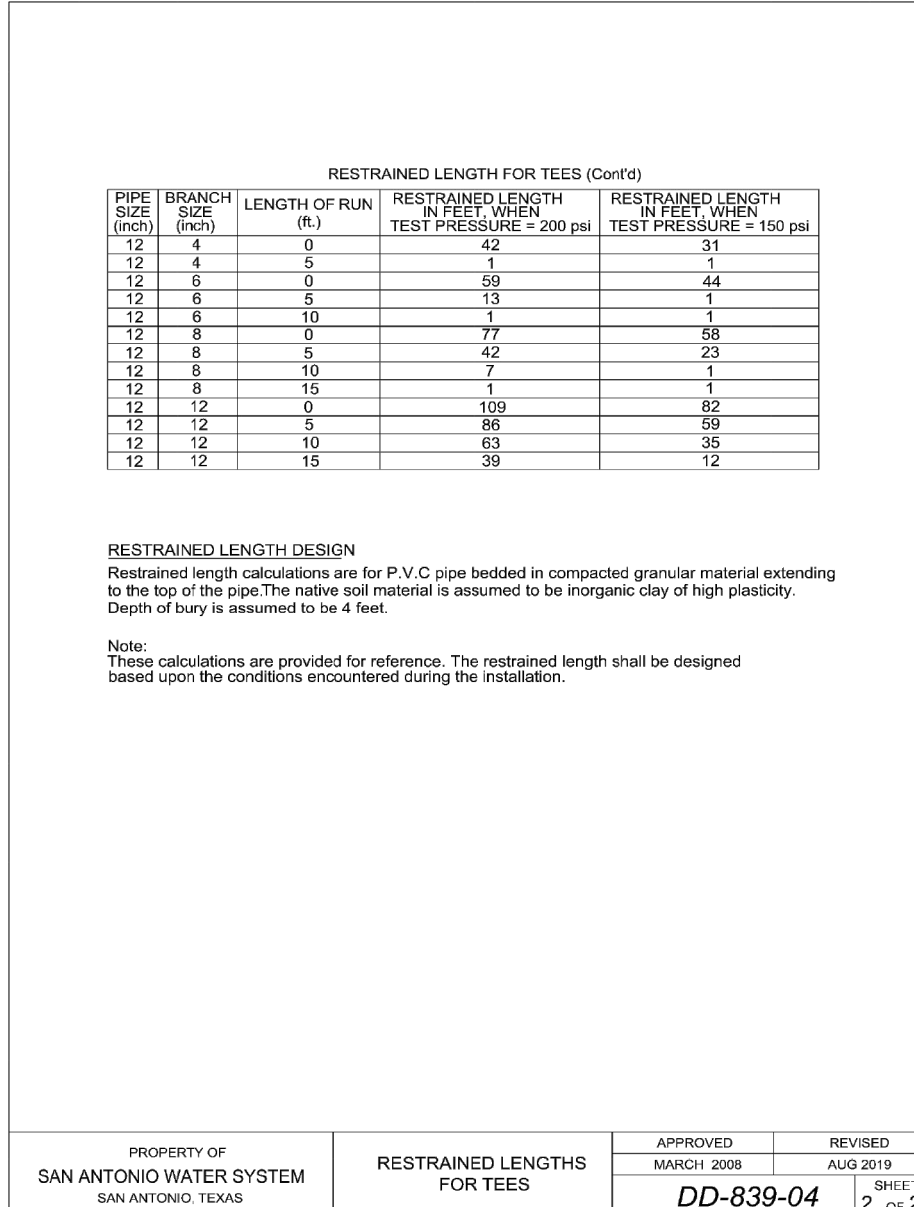
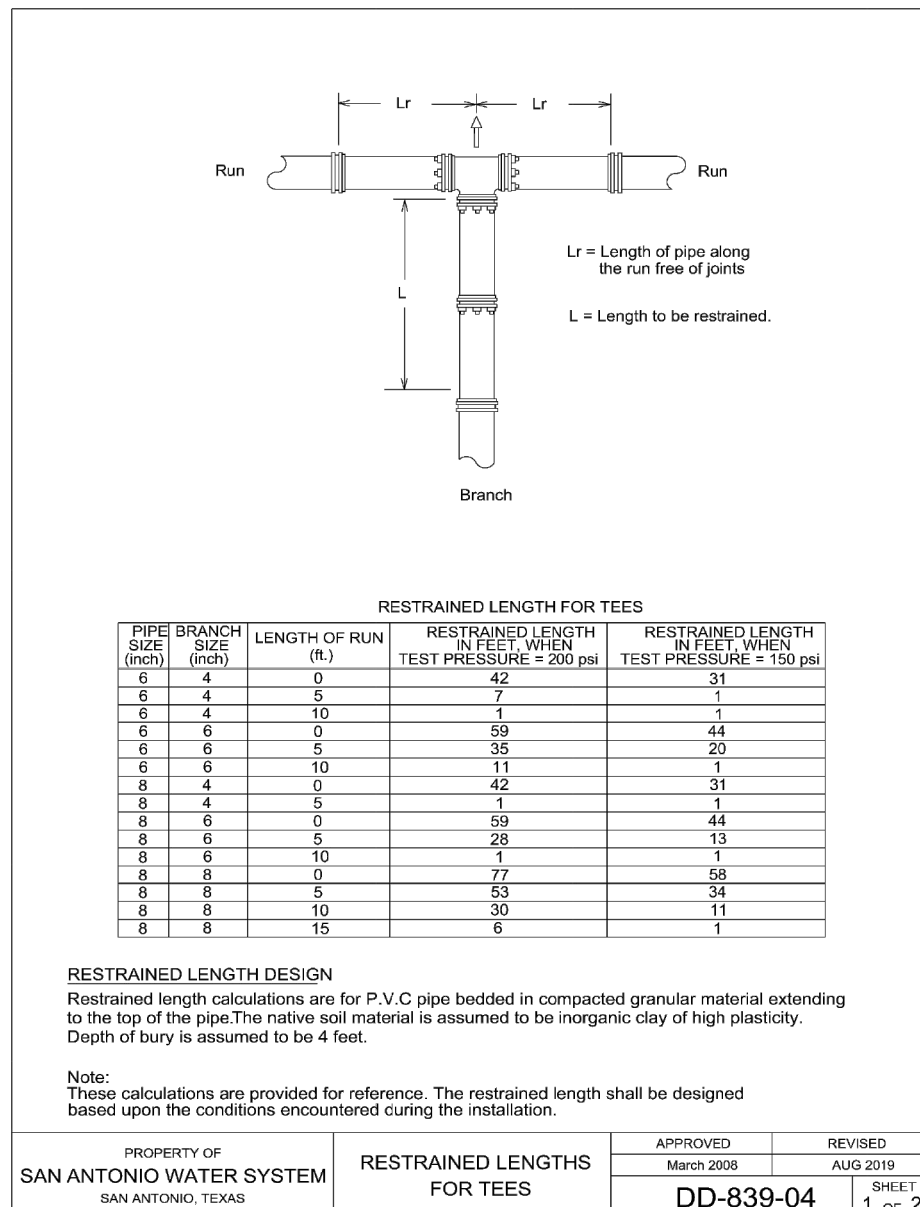
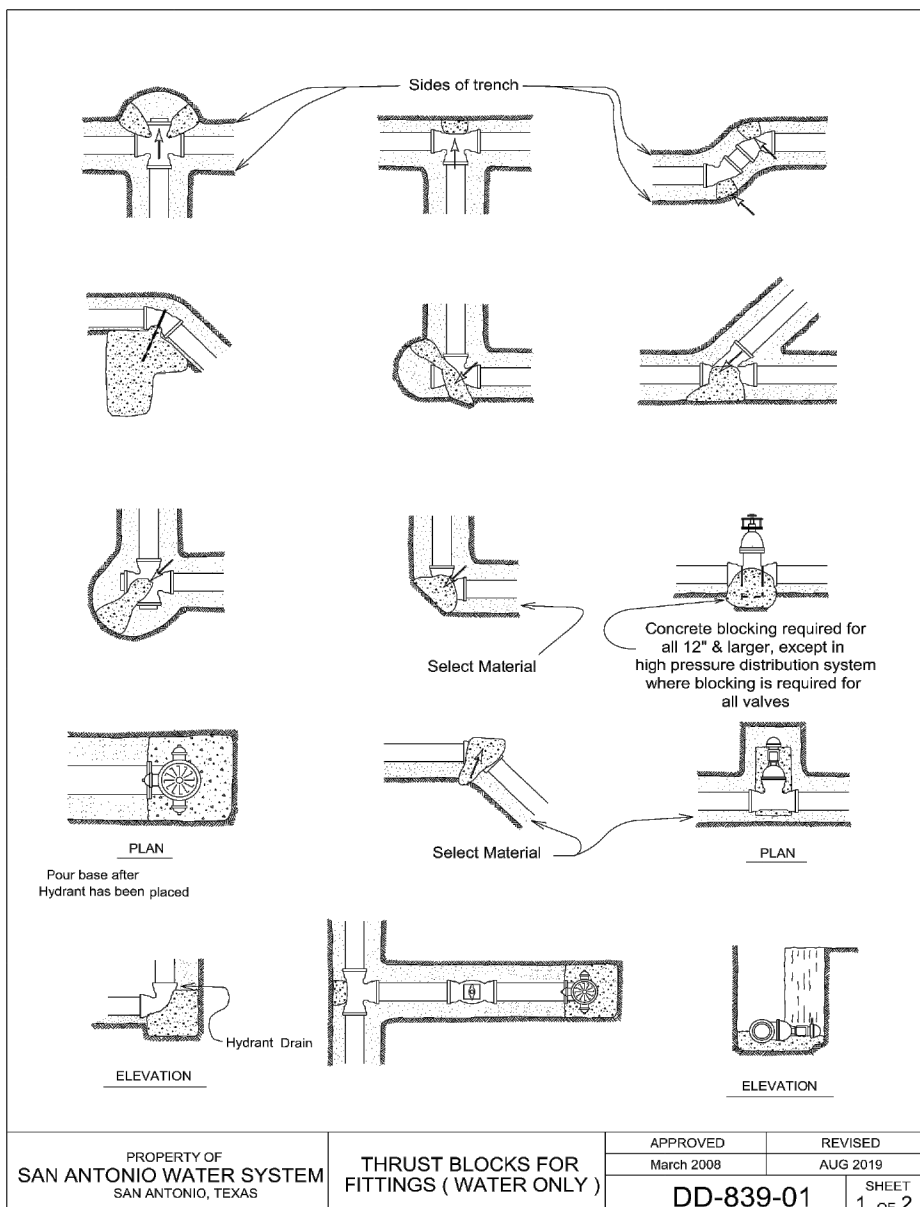
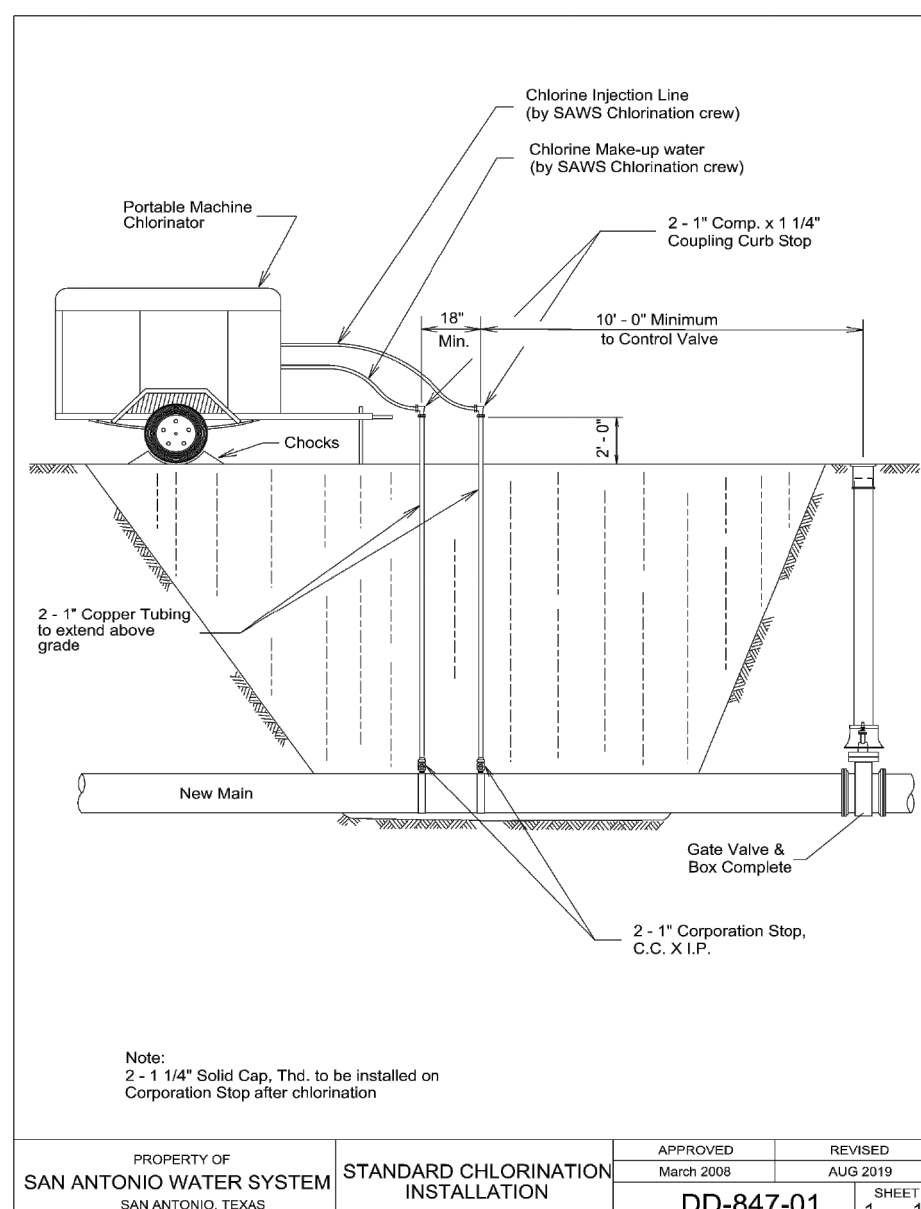
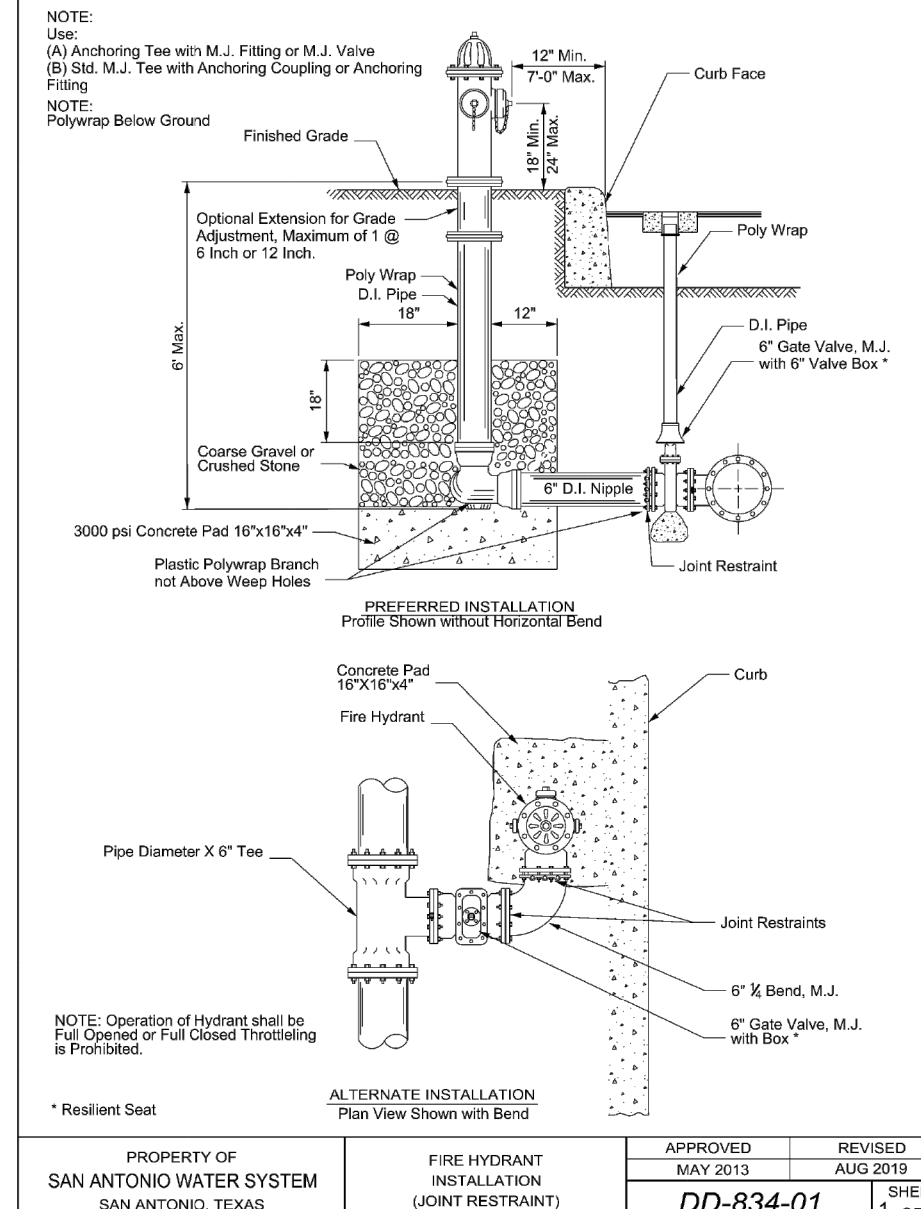
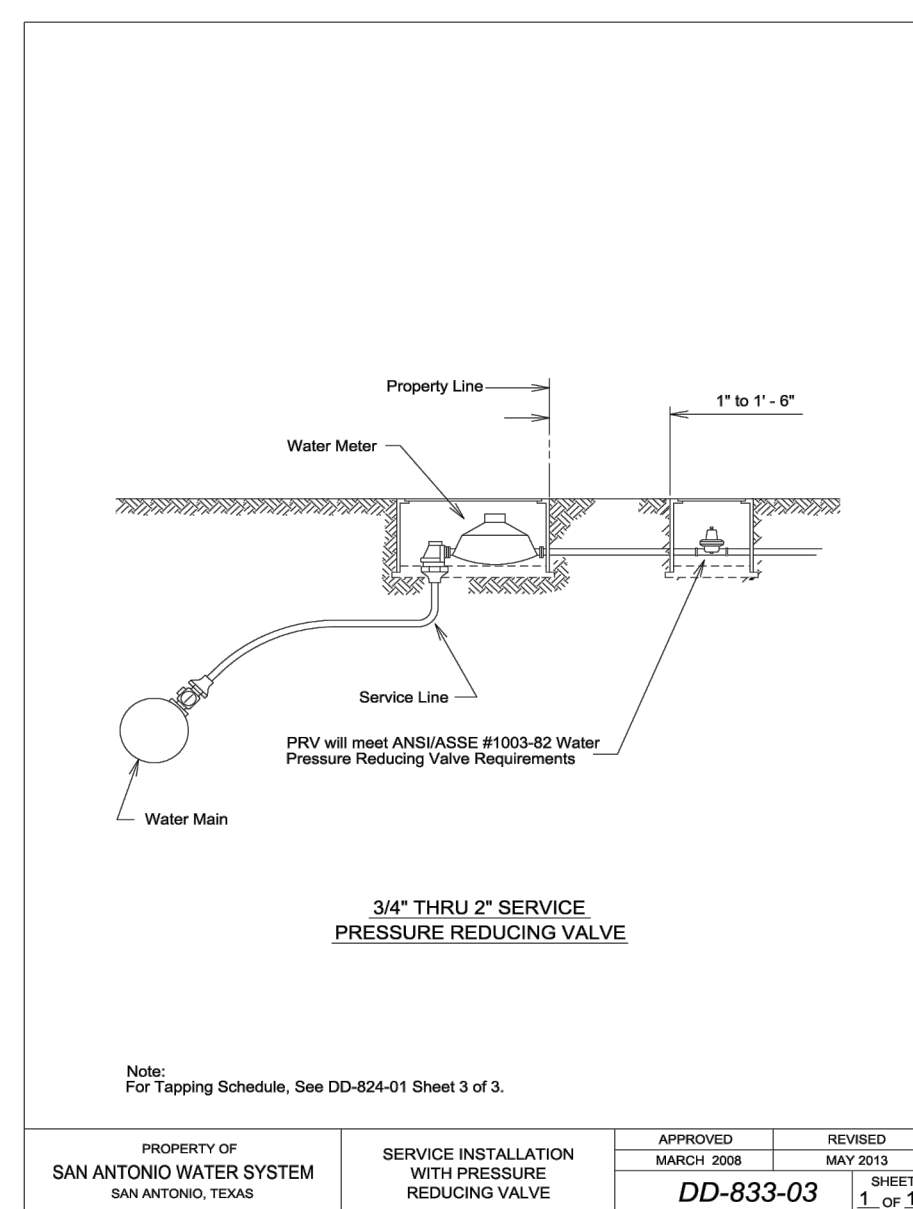
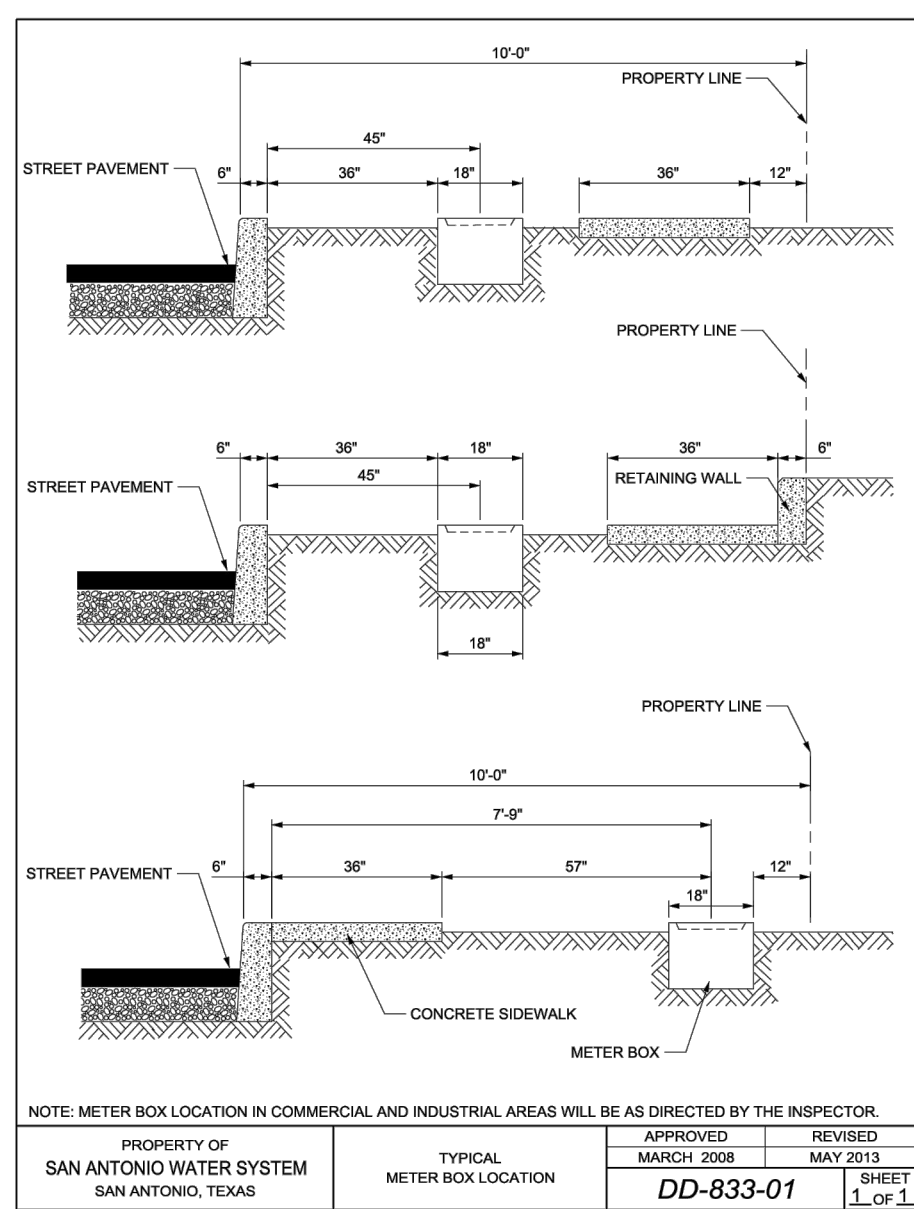
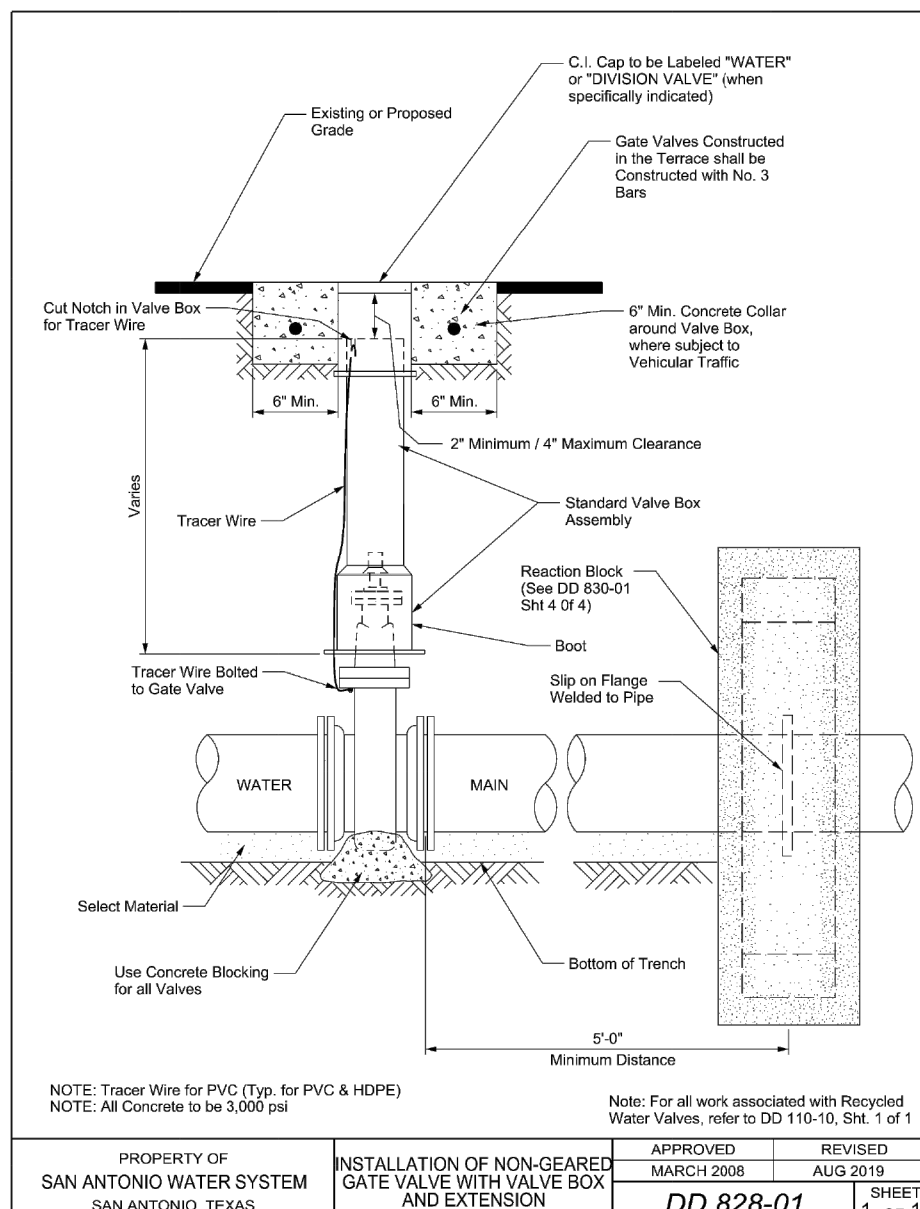
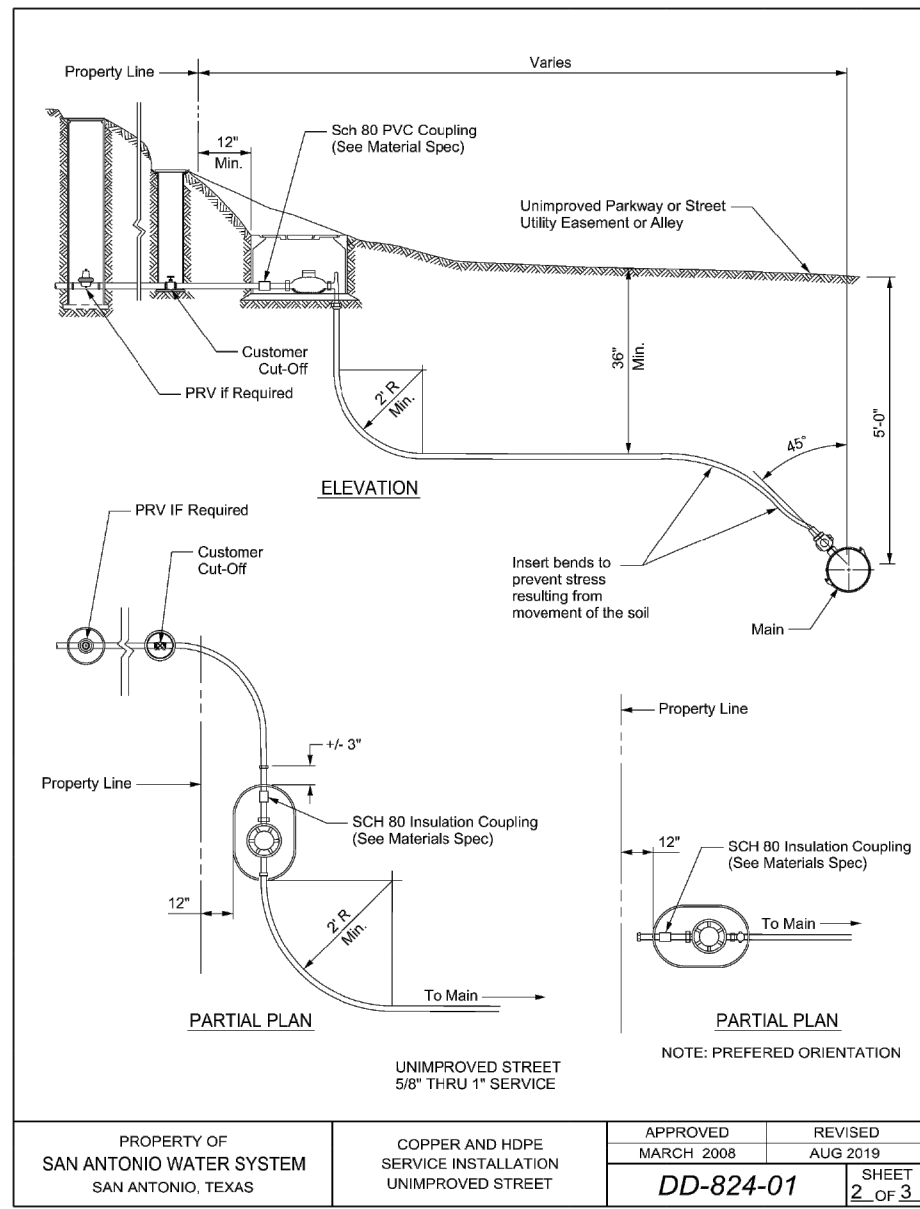
CHECKED BY  
SPM/CC

REVISIONS

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CUDE ENGINEERS  
TBPE No. 455  
TBPLS No. 10048500

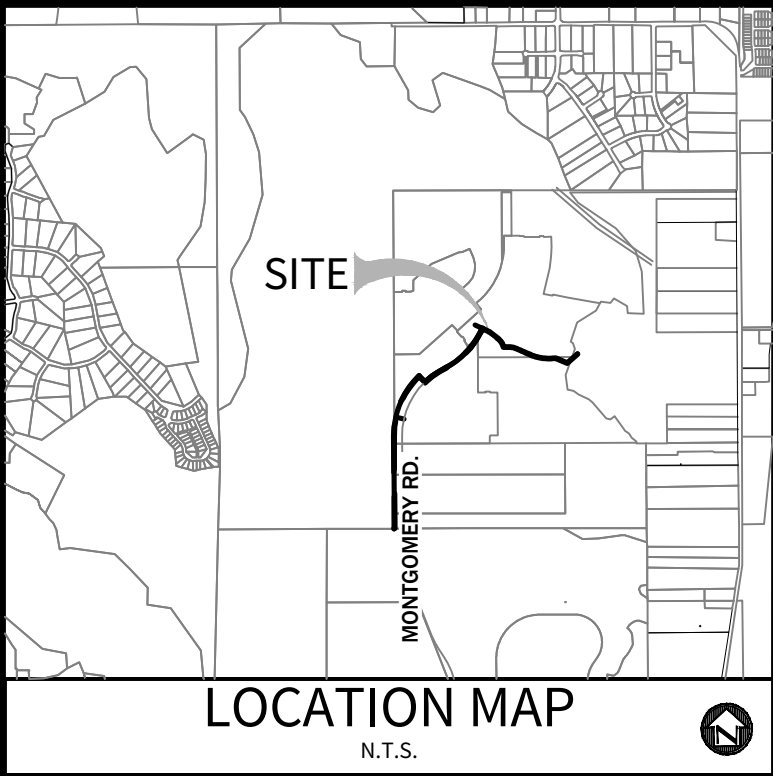
W2



FITTING TYPE	PIPE MATERIAL	SOIL TYPE	SAFETY FACTOR	TRENCH TYPE	DEPTH OF BURY (FT)	TEST PRESSURE (PSI)	NOMINAL SIZE (IN)	BEND ANGLE (DEGREES)	REDUCED SIZE (IN)	BRANCH SIZE (IN)	LENGTH ALONG RUN (FT)	RESTRAINT LENGTH (FT)
HORIZONTAL BEND	PVC	CH. GRAN. FILL	1.5	5	5	200	16	45				18
HORIZONTAL BEND	PVC	CH. GRAN. FILL	1.5	5	5	200	16	22.5				9
HORIZONTAL BEND	PVC	CH. GRAN. FILL	1.5	5	5	200	16	11.25				5
VERTICAL OFFSET (UPPER)	PVC	CH. GRAN. FILL	1.5	5	5	200	16	45				48
VERTICAL OFFSET (LOWER)	PVC	CH. GRAN. FILL	1.5	5	10	200	16	45				10
TEE	PVC	CH. GRAN. FILL	1.5	5	5	200	16			16	0	115
TEE	PVC	CH. GRAN. FILL	1.5	5	5	200	16			12	0	89
TEE	PVC	CH. GRAN. FILL	1.5	5	5	200	16			8	0	63
REDUCER	PVC	CH. GRAN. FILL	1.5	5	5	200	16		12			49
REDUCER	PVC	CH. GRAN. FILL	1.5	5	5	200	16		8			84
DEAD END	PVC	CH. GRAN. FILL	1.5	5	5	200	12					89
DEAD END	PVC	CH. GRAN. FILL	1.5	5	5	200	8					63

PRESSURE ZONE 950W	
Developer's Name	MOSAIC LAND DEVELOPMENT
Developer's Address	6812 WEST AVE, SUITE 300
City	SAN ANTONIO
State	TEXAS
Zip	78213
Phone #	(210) 247-8604
Fax #	
SAWS Block Map #	08554.08554
Total EDP's	0
Total Acreage	1.52
Total Linear Footage of Pipe	142' W - 5342' L.F., 12' W - 30' L.F., 8' W - 125' L.F.
Plat No.	N/A
Number of Lots	0
SAWS Job No.	22-1102





LEGEND

- PROPOSED WATER MAIN  
PROPOSED STANDARD FIRE HYDRANT  
PROPOSED STANDARD GATE VALVE  
PROPOSED PERMANENT BLOWOFF  
PROPOSED ROW  
PROPOSED WATER EASEMENT  
FEMA 100-YR FLOOD ZONE

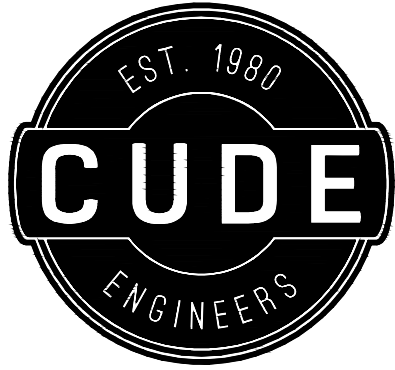
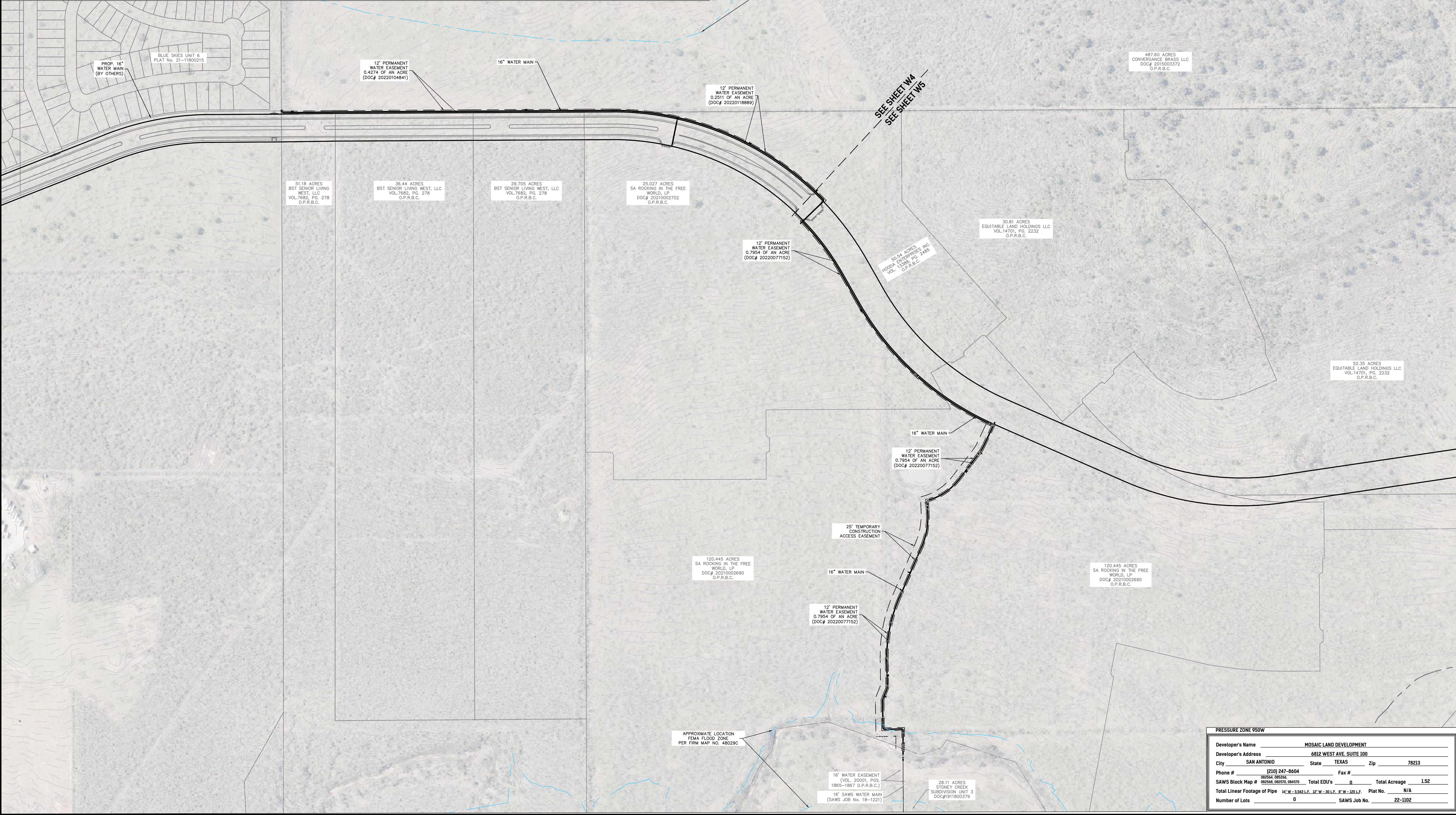
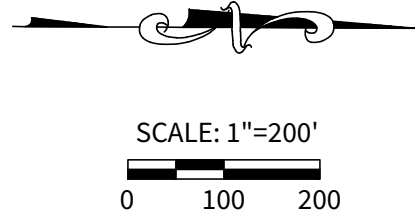
**BENCHMARK BM-1**  
BENCHMARK TO BE SET BY ENGINEER PRIOR TO CONSTRUCTION.  
**TOTAL PIPE FOOTAGE**

16" WATER MAIN ~ 5,509 L.F.  
12" WATER MAIN ~ 30 L.F.  
8" WATER MAIN ~ 125 L.F.

NOTES:

- ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UPGRADIENT SIDE OF THE WATER TRENCH THUS ALLOWING THE TRENCH TO INTERCEPT ANY SILT CONTAMINATED RUNOFF.
- THE LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES AND INFRASTRUCTURE 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 210-233-2010  
CoSA DRAINAGE 210-207-2800  
CITY SIDEWALK 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&T  
SPECTRUM  
VALERO ENERGY CO.



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

TRES LAURELS 16-INCH OVERSIZE (12" REQUIRED)  
WATER MAIN EXTENSION

WATER DISTRIBUTION MASTER PLAN

DATE

01/03/2024

PROJECT NO.

03050.009

DRAWN BY

IRV/DAF

CHECKED BY

SPM/CC

REVISIONS

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CUDE ENGINEERS

TBPE No. 455  
TBPLS No. 10048500

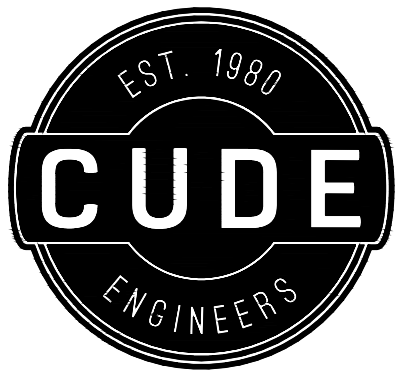
SAWS JOB NO.

W3









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

TRES LAURELS 16-INCH OVERSIZE (12" REQUIRED)  
WATER MAIN EXTENSION

WATER DISTRIBUTION PLAN

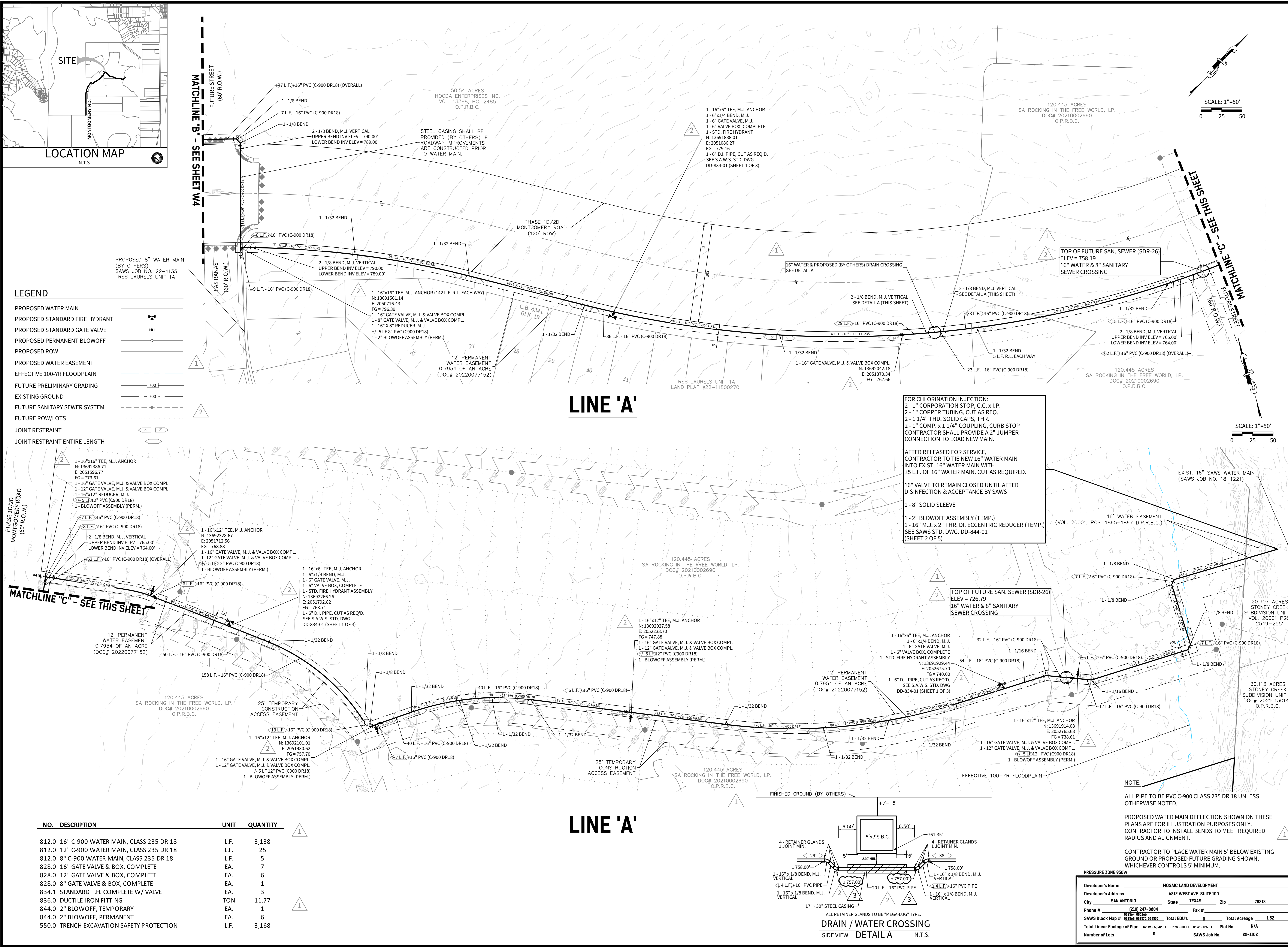
DATE  
06/13/2024  
PROJECT NO.  
03050.009  
DRAWN BY  
IRV/DAF  
CHECKED BY  
SPM/CC

REVISIONS	
1.	2023-09-19 - SHOW FUTURE GRADING/SEWER, UPDATED QUANTITIES
2.	2024-04-23 - POST BID REVISION
3.	2024-06-12 - POST BID REVISION 2
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CUDE ENGINEERS  
TBPE No. 455  
TBPLS No. 10048500

W5



**LEGEND**

PROPOSED WATER MAIN

PROPOSED STANDARD FIRE HYDRANT

PROPOSED STANDARD GATE VALVE

PROPOSED PERMANENT BLOWOFF

PROPOSED ROW

PROPOSED WATER EASEMENT

EFFECTIVE 100-YR FLOODPLAIN

FUTURE PRELIMINARY GRADING

EXISTING GROUND

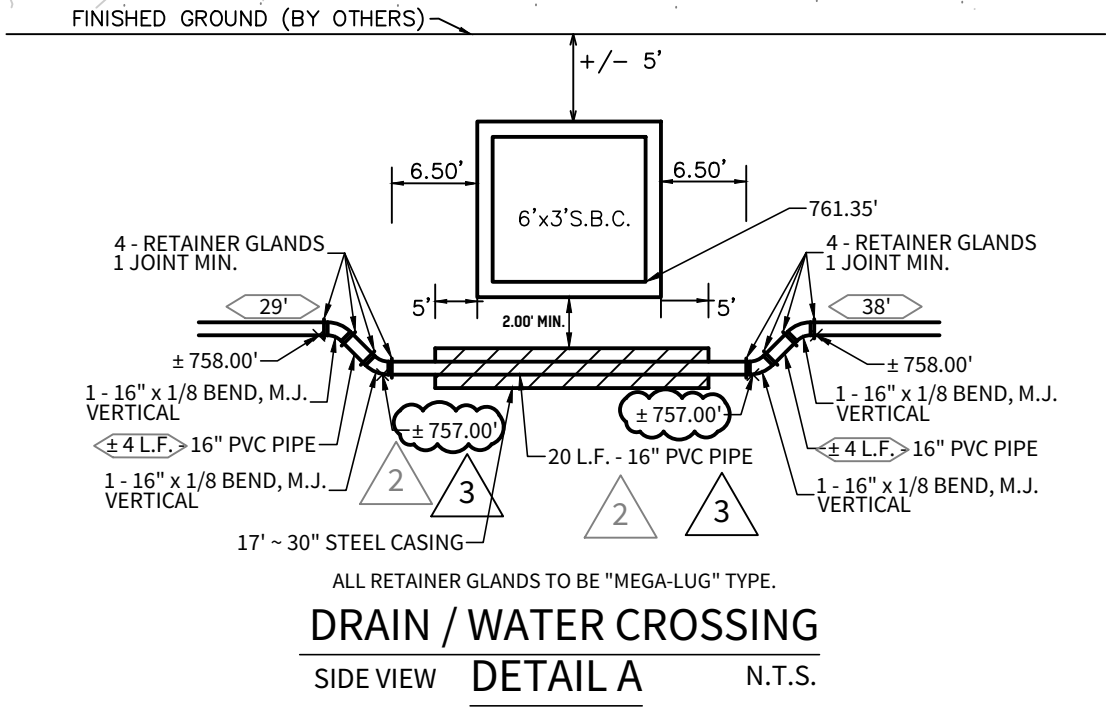
FUTURE SANITARY SEWER SYSTEM

FUTURE ROW/LOTS

JOINT RESTRAINT

JOINT RESTRAINT ENTIRE LENGTH

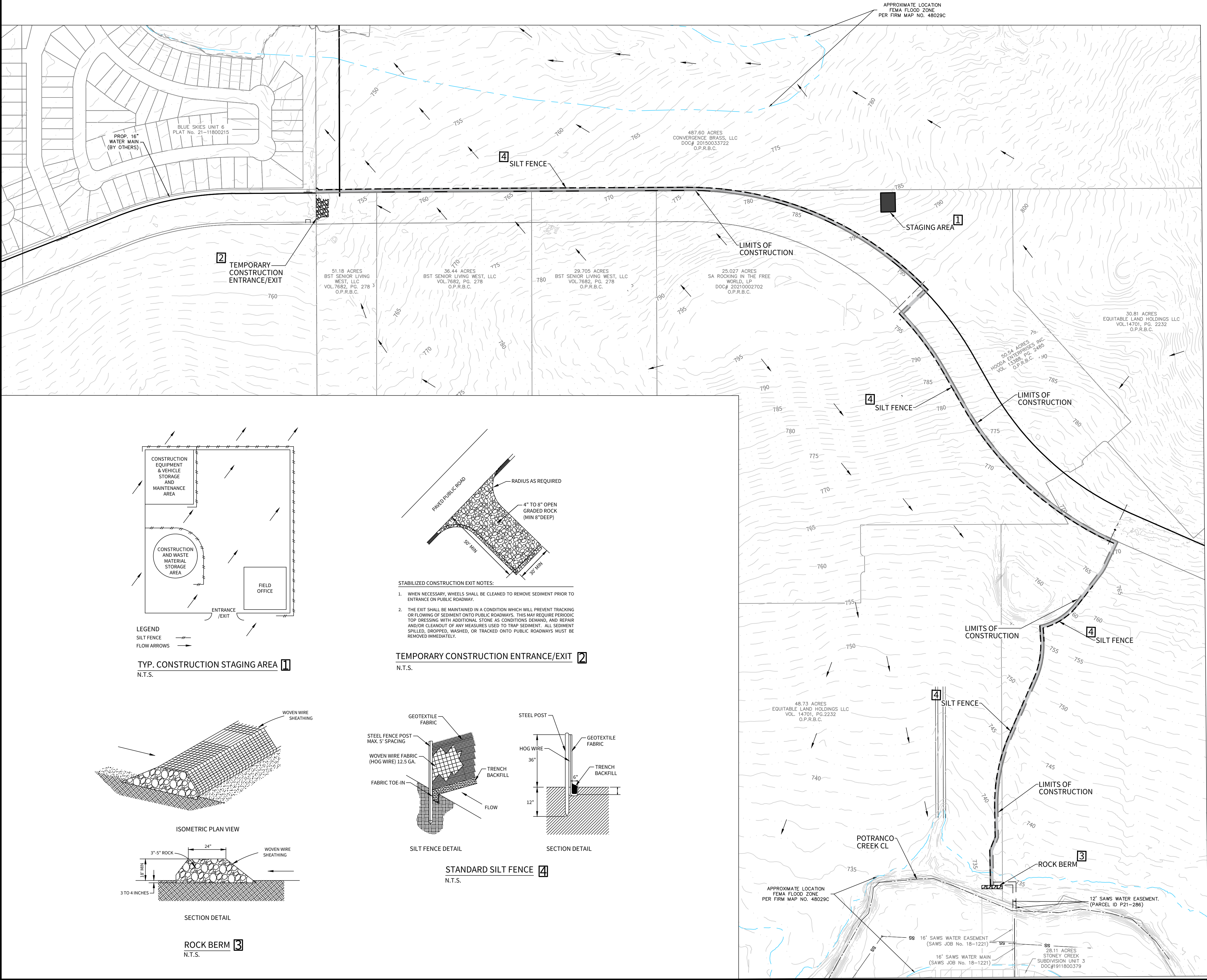
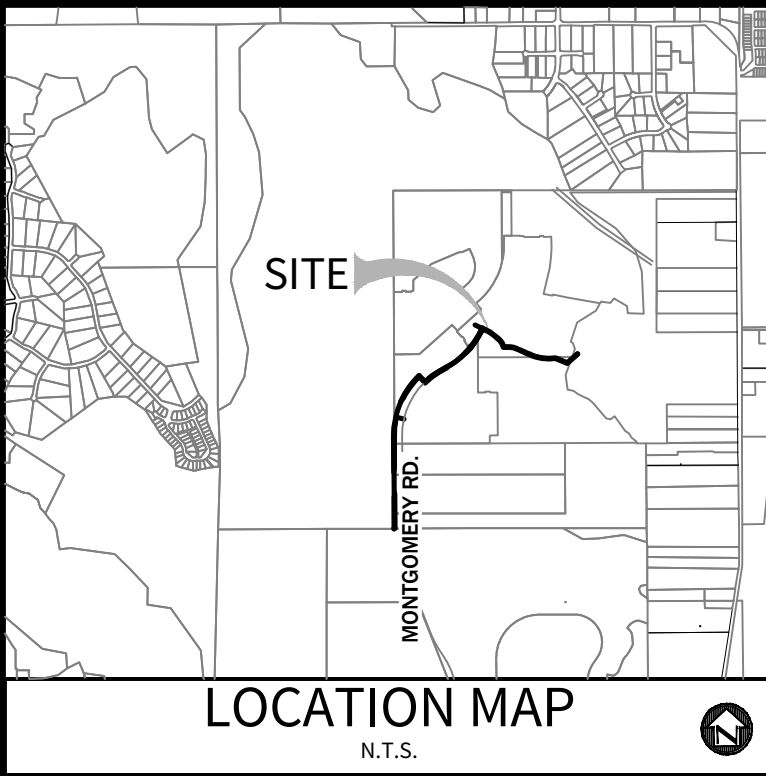
NO.	DESCRIPTION	UNIT	QUANTITY
812.0	16" C-900 WATER MAIN, CLASS 235 DR 18	L.F.	3,138
812.0	12" C-900 WATER MAIN, CLASS 235 DR 18	L.F.	25
812.0	8" C-900 WATER MAIN, CLASS 235 DR 18	L.F.	5
828.0	16" GATE VALVE & BOX, COMPLETE	EA.	7
828.0	12" GATE VALVE & BOX, COMPLETE	EA.	6
828.0	8" GATE VALVE & BOX, COMPLETE	EA.	1
834.1	STANDARD F.H. COMPLETE W/ VALVE	EA.	3
836.0	DUCTILE IRON FITTING	TON	11.77
844.0	2" BLOWOFF, TEMPORARY	EA.	1
844.0	2" BLOWOFF, PERMANENT	EA.	6
550.0	TRENCH EXCAVATION SAFETY PROTECTION	L.F.	3,168



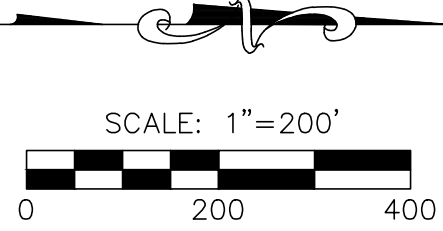
PRESSURE ZONE 950W

Developer's Name	MOSAIC LAND DEVELOPMENT
Developer's Address	6812 WEST AVE. SUITE 100
City	SAN ANTONIO
State	TEXAS
Zip	78213
Phone #	(210) 247-8604
Fax #	
SAWYER Block Map #	0656A, 0657A, 0657B, 0657C, 0657D, 0657E, 0657F, 0657G, 0657H, 0657I, 0657J, 0657K, 0657L, 0657M, 0657N, 0657O, 0657P, 0657Q, 0657R, 0657S, 0657T, 0657U, 0657V, 0657W, 0657X, 0657Y, 0657Z
Total EDU's	0
Total Acreage	1.52
Total Linear Footage of Pipe	14" W - 5542 L.F., 12" W - 30 L.F., 8" W - 102 L.F.
Plat No.	N/A
Number of Lots	0
SAWYER Job No.	22-1102





- NOTE:
1. ALL SILT FENCES AND TEMPORARY CONSTRUCTION ENTRANCES/EXITS SHALL BE PLACED AT THE MOST DOWN-GRADIENT POINT OF CONSTRUCTION AS SHOWN ON THIS SITE PLAN. CONTRACTOR SHALL TAKE INTO CONSIDERATION ANY PROPOSED CONSTRUCTION THAT MAY TAKE PLACE AT THESE LOCATIONS. ANY RELOCATION OF SILT FENCE, ROCK BERMS AND/OR TEMPORARY CONSTRUCTION ENTRANCES/EXITS SHALL BE AT THE CONTRACTOR'S EXPENSE.
  2. AREA OF SOIL DISTURBANCES INCLUDE STREET RIGHT-OF-WAYS, UTILITY EASEMENTS & LOTS.
  3. THERE WILL NOT BE STORMWATER DISCHARGES INTO THE FEMA FLOOD PLAIN.
  4. THE CONTRACTOR IS REQUIRED TO MAINTAIN EROSION CONTROLS THROUGHOUT THE DURATION OF THE PROJECT.
  5. THE CITY INSPECTOR HAS THE AUTHORITY TO HAVE THE CONTRACTOR MODIFY THE EROSION CONTROLS AT THE DEVELOPER'S EXPENSE. THE DEVELOPER SHALL BE NOTIFIED OF THESE MODIFICATIONS PRIOR TO COMMENCEMENT OF MODIFICATIONS.
  6. NO CONSTRUCTION AND/OR WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING NATURAL DRAINAGE OR PLACED WITHIN THE LIMITS OF EXISTING FLOODPLAIN.



- LEGEND
- PROPERTY LINE
  - EXISTING CONTOURS
  - BMP ITEM NUMBER
  - TEMPORARY CONSTRUCTION ENTRANCE/EXIT
  - SILT FENCE
  - FLOW ARROW
  - STAGING AREA
  - CONCRETE WASHOUT PIT
  - ROCK BERM
  - LIMITS OF CONSTRUCTION

**TRES LAURELS 16-INCH OVERSIZE (12" REQUIRED)  
WATER MAIN EXTENSION**

STORM WATER POLLUTION PREVENTION PLAN

DATE  
08/15/2022

PROJECT NO.  
03050.009

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SPM/CC

REVISIONS	
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08/15/2022

STATE OF TEXAS  
SEAN P. McFARLAND  
138893  
LICENSED PROFESSIONAL ENGINEER

**CUDE ENGINEERS**  
TBPE No. 455  
TBPLS No. 10048500

**SAWS JOB NO.**