

WOODMONT HELOTES RESIDENTIAL DEVELOPMENT

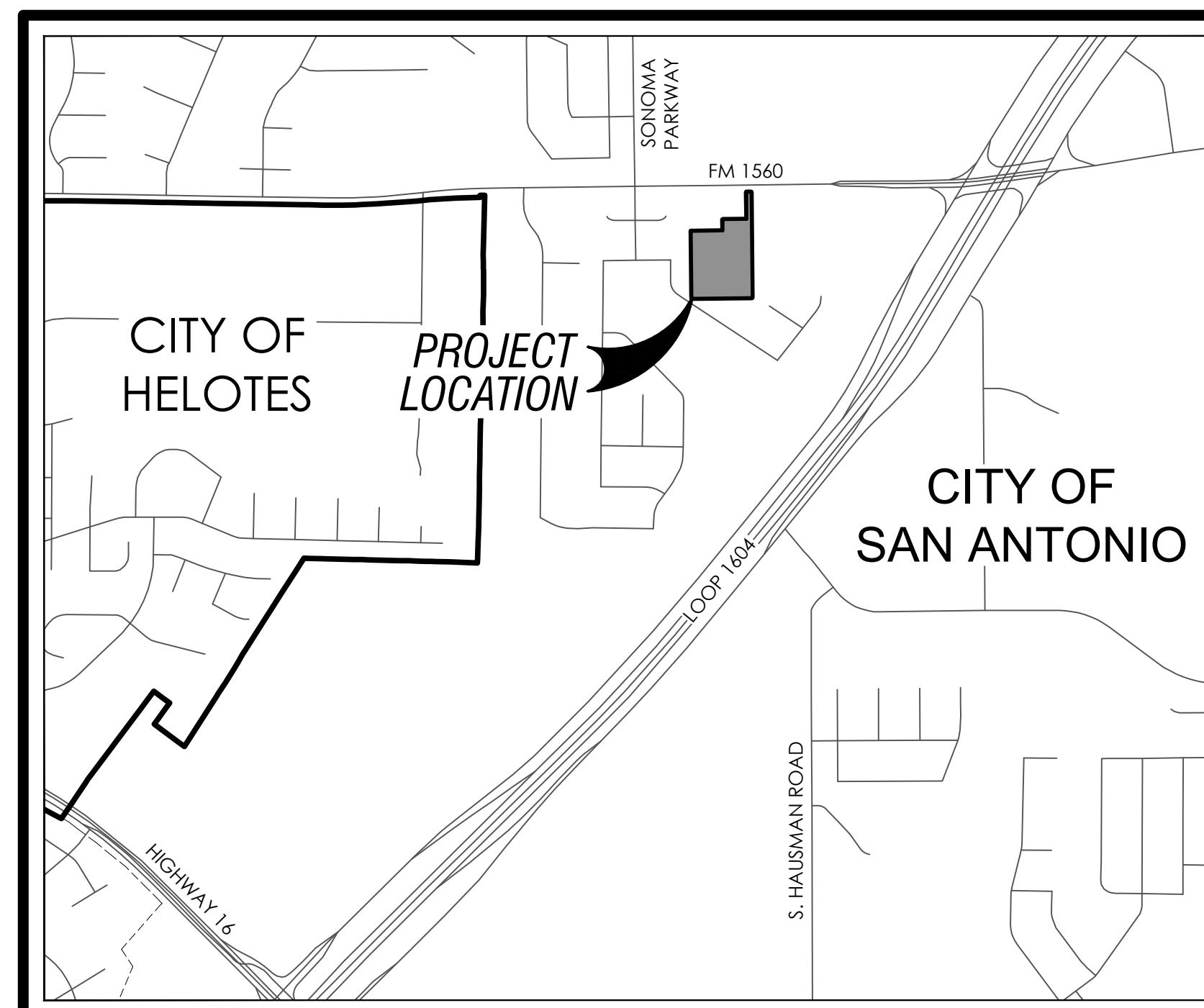
SAN ANTONIO, TEXAS

CIVIL DRAWINGS

DRAWING INDEX

CIVIL DRAWINGS

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SITE LOCATION MAP

N.T.S

PARCEL:
LOT 1, BLOCK 3, NCB 14867
(VOL. 20003, PG. 1628)

FOR

WOODMONT HELOTES ACADEMY, LLC
2100 W. 7TH STREET
SAN ANTONIO, TX 78107

REV	DATE	DESCRIPTION	BY

WATER:

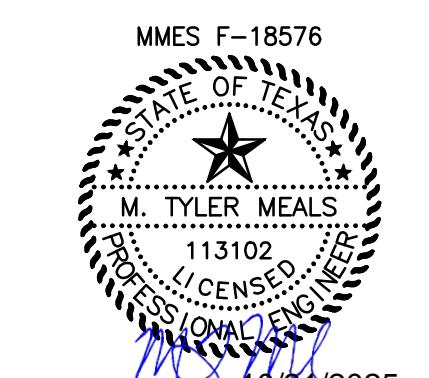
PRESSURE ZONE 1170

Developer's Name	WOODMONT HELOTES ACADEMY, LLC				
Developer's Address	2100 WEST 7TH STREET				
City	FORT WORTH	State	TEXAS	Zip	76107
Phone #	(817) 732-4000	Fax #			
SAWS Block Maps	108630	Total EDU's	40	Total Acreage	5.113
Total Linear Footage of Pipe	743 LF 12" PVC	Plat No.	22-11800588		
Number of Lots	1	SAWS Job No.	24-1180		

SEWER:

EDWARDS AQUIFER RECHARGE ZONE (EARZ)
UPPER WEST SEWERSHED - LEON CREEK WRC

Developer's Name	WOODMONT HELOTES ACADEMY, LLC				
Developer's Address	2100 WEST 7TH STREET				
City	FORT WORTH	State	TEXAS	Zip	76107
Phone #	(817) 732-4000	Fax #			
SAWS Block Maps	108630	Total EDU's	64	Total Acreage	5.113
Total Linear Footage of Pipe	801 LF 8" PVC	Plat No.	22-11800588		
Number of Lots	1	SAWS Job No.	24-1652		



MM MEALS★MYERS
ENGINEERING & SURVEYING LLC
10102 HUEBNER ROAD, SAN ANTONIO, TX 78240
PHONE: (210) 740-2483 | (830) 931-1269
TBPE No. F-18576 | TBPLS No. 101942291

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
 2. CONTRACTOR WILL BE PROVIDED WITH GROUND CONTROL POINTS AS SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL OTHER LAYOUT AND GRADE CONTROL SURVEYING FOR CONSTRUCTION OF THE PROJECT.
 3. EXISTING UNDERGROUND UTILITIES ARE SHOWN FROM AVAILABLE UTILITY RECORDS AND OBSERVABLE SURFACE FEATURES. ACTUAL LOCATIONS MAY VARY AND UTILITIES NOT SHOWN ON THESE PLANS MAY EXIST. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES AND CITY OF SAN ANTONIO PERSONNEL FOR ASSISTANCE IN LOCATING ALL UNDERGROUND FACILITIES IN THE PROJECT AREA PRIOR TO CONSTRUCTION.
 4. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND GRADE OF UNDERGROUND FACILITIES WELL AHEAD OF CONSTRUCTION OPERATIONS AND SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND REPLACEMENT OF ALL DAMAGED UTILITIES AND FOR DAMAGES CAUSED TO OWNER OR OTHER PARTIES ARISING FROM SERVICE INTERRUPTION OR LOSS OF USE.
 5. CONTRACTOR SHALL NOTIFY OWNER/ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE ACTUAL DEPTH AND LOCATION OF THE EXISTING UTILITIES AND THE ASSUMED LOCATION OF THE EXISTING UTILITIES SHOWN HEREIN.
 6. THE UTILITY GRADES AND ELEVATIONS ARE CRITICAL. CONTRACTOR SHALL CONFIRM EXISTING UTILITY GRADES AND ELEVATIONS AND CONFIRM ALL PROPOSED UTILITY CROSSINGS AND IMPACTS ON BUILDING/MEP CONNECTIVITY. THIS CONFIRMATION SHALL BE PRESENTED FOR REVIEW AND DISCUSSION PRIOR TO THE START OF ANY WORK.
 7. CONTRACTOR SHALL BE RESPONSIBLE FOR PERMANENT SERVICE TERMINATION ASSOCIATED WITH UTILITY LINES TO BE REMOVED OR ABANDONED.
 8. CONTRACTOR SHALL MAINTAIN A COPY OF ALL NECESSARY PERMITS ON THE JOBSITE.
 9. WHERE NECESSARY, CONTRACTOR SHALL PROVIDE FOR BARRICADES AND TRAFFIC CONTROL DEVICES AS PER THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
 10. AS APPLICABLE, TREES ON SITE ARE TO REMAIN IN UNDAMAGED CONDITION UNLESS REMOVAL OR TRIMMING IS IDENTIFIED ON THE PLANS OR IS NECESSARY FOR CONSTRUCTION OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION OF OWNER IF UNIDENTIFIED REMOVAL OR TRIMMING BECOMES NECESSARY. RESPONSE TO SUCH NOTIFICATION IS REQUIRED BEFORE TREE REMOVAL OR TRIMMING MAY PROCEED.
 11. UNLESS OTHERWISE SPECIFIED IN THE LANDSCAPE PLANS/SPECIFICATIONS THE FOLLOWING STATEMENT SHALL APPLY TO TOPSOIL SALVAGE, PLACEMENT AND SUPPLY: TOPSOIL SHALL BE STRIPPED AND STOCKPILED SEPARATELY FROM ALL OTHER MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS. STOCKPILED TOPSOIL MATERIAL SHALL BE SPREAD AND COMPAKTED TO A DEPTH OF 6" TO ESTABLISH FINISHED GRADE IN ALL AREAS THAT ARE NOT TO BE PAVED. SHOULD STOCKPILED TOPSOIL FAIL TO COVER ALL AREAS TO A COMPAKTED DEPTH OF 6", CONTRACTOR SHALL SUPPLY ADDITIONAL TOPSOIL FROM APPROVED OFF SITE SOURCES TO ESTABLISH FINISHED GRADE WITHOUT ADDITIONAL COMPENSATION.
 12. ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ROCK AND ALL OTHER MATERIALS ENCOUNTERED REGARDLESS OF THEIR NATURE OR THE MANNER IN WHICH THEY ARE REMOVED.
 13. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO PREVENT PONDING OR BLOCKAGE OF SURFACE DRAINAGE.
 14. CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES AS NECESSARY TO PREVENT DAMAGE TO ADJACENT PROPERTIES AND TO CONFORM WITH LOCAL JURISDICTIONAL AUTHORITY REQUIREMENTS.
 15. WHERE FINISHED CONTOURS ARE SHOWN TO MATCH EXISTING CONTOURS ON THE GRADING PLANS, NO GRADE SEPARATION IS ALLOWABLE. CONTRACTOR SHALL ADJUST FINISHED CONTOURS AS NECESSARY TO ACCOMPLISH THIS REQUIREMENT.
 16. 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 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 CONTRACTORS 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 ACTIVITY OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.
 17. ALL HANDICAPPED SIGNAGE AND SYMBOLS SHALL CONFORM TO THE LATEST EDITION OF THE TEXAS ACCESSIBILITY STANDARDS PREPARED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION.
 18. CONTRACTOR SHALL FURNISH THE ARCHITECT/ENGINEER WITH AN AS-BUILT PLAN INDICATING THE ACTUAL MEASUREMENT AND LOCATIONS OF UTILITY LINES AND SITE IMPROVEMENTS INSTALLED.
 19. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON COMPLETION.

SITE DEMOLITION NOTES

1. REMOVE PAVING, CURBS, SIDEWALKS, AND STRUCTURES WITHIN THE DEMOLITION LIMITS UNLESS OTHERWISE DESIGNATED TO REMAIN. NEATLY SAW-CUT PAVEMENT EDGES AT ALL TIE-IN LOCATIONS.
 2. REMOVE EXISTING ABOVE-GRADE AND BELOW-GRADE IMPROVEMENTS, AS NECESSARY, TO FACILITATE NEW CONSTRUCTION. THE PROJECT DRAWINGS DO NOT PURPORT TO SHOW ALL OBJECTS EXISTING ON THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL OBJECTS TO BE REMOVED, ADJUSTED, OR PRESERVED BEFORE HIS START OF WORK.
 3. REMOVE TREES, SHRUBS, GRASS, AND OTHER VEGETATION LOCATED WITHIN THE DEMOLITION LIMITS UNLESS OTHERWISE DESIGNATED TO REMAIN. REMOVAL INCLUDES DIGGING OUT AND OFF-SITE DISPOSAL OF STUMPS AND ROOTS.
 4. USE NECESSARY MEANS TO PREVENT SPREAD OF DUST DURING THE DURATION OF THE PROJECT CONSTRUCTION. MOISTEN SURFACES AS REQUIRED TO PREVENT DUST FROM BEING A NUISANCE TO THE SCHOOL POPULATION, PUBLIC, NEIGHBORS, AND CONCURRENT PERFORMANCE OF OTHER WORK ON SITE.
 5. DO NOT BURN OR BURY MATERIALS ON SITE. LEAVE SITE IN CLEAN CONDITION.
 6. THE CONTRACTOR SHALL REMOVE AND LEGALLY DISPOSE OF ALL BUILDING STRUCTURES AND FOUNDATIONS FOUND ON THE SITE. EXTREME CARE SHALL BE EXERCISED WHEN PERFORMING THIS WORK TO INSURE THAT THOSE TREES INDICATED TO REMAIN ARE NOT DAMAGED.
 7. THE CONTRACTOR SHALL, AT HIS EXPENSE, REPAIR OR REPLACE ANY ITEM DAMAGED BY THE CONTRACTOR THAT ARE OUTSIDE THE SCOPE OF THIS PROJECT. THE ITEMS SHALL BE REPAIRED OR REPLACED TO THE OWNER'S SATISFACTION.

UTILITY DEMOLITION NOTES

1. CONTRACTOR SHALL VERIFY LOCATION AND GRADE OF ALL AFFECTED UTILITY LINES WITHIN AND ADJACENT TO THE DEMOLITION LIMITS PRIOR TO UTILITY TERMINATION AND REMOVAL.
 2. CONTRACTOR SHALL CUT AND CAP UTILITY LINES TO BE TERMINATED AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL PROVIDE NECESSARY MEANS AND METHODS FOR PERMANENT TERMINATION OF EACH TYPE OF UTILITY.
 3. TERMINATED UTILITY LINES WITHIN THE DEMOLITION LIMITS SHALL BE COMPLETELY DUG OUT AND REMOVED FROM THE SITE.
 4. UNDERGROUND VALVE BOXES, VAULTS, AND STRUCTURES ASSOCIATED WITH THE TERMINATED UTILITY LINES SHALL BE DUG OUT AND REMOVED.
 5. WHEN APPLICABLE, UTILITY REMOVAL SHALL NOT COMMENCE UNTIL NEW SERVICE OR RE-ROUTED CONNECTIONS HAVE BEEN INSTALLED AND CONNECTED TO THE REMAINING FACILITIES.
 6. CONTRACTOR SHALL PROTECT AND MAINTAIN UTILITY LINES THAT ARE DESIGNATED TO REMAIN IN SERVICE.
 7. CONTRACTOR SHALL PROVIDE RECORD DOCUMENTS OF ALL TERMINATION POINT LOCATIONS, PIPE MATERIALS, AND PIPE SIZES.
 8. CONTRACTOR SHALL CLEAN-UP AND REMOVE ALL WASTE MATERIALS FROM SITE.

CURB NOTES

1. REINFORCING STEEL SHALL BE DEFORMED STEEL BARS, GRADE 60.
 2. CONTRACTION JOINTS SHALL BE TOOLED OR SAWED 1/2" MINIMUM DEPTH LOCATED 10 FEET ON CENTER.
 3. EXPANSION JOINTS SHALL BE CONSTRUCTED WITH 1/2" THICK APPROVED EXPANSION JOINT MATERIAL LOCATED AT 120-FOOT INTERVALS. EXPANSION JOINTS SHALL BE REINFORCED WITH 1/2" DIAMETER X 18" SMOOTH STEEL DOWELS, GRADE 40 OR 60. DOWELS SHALL BE GREASED 9" ON ONE END AND HAVE EXPANSION CAPS PLACED ON THE GREASED END.
 4. CONTRACTION OR EXPANSION JOINTS SHALL BE LOCATED AT CURB CHANGES IN DIRECTION, I.E. PI'S, PC'S, PT'S.
 5. CURBS SHALL HAVE A SMOOTH SURFACE FINISH BY DRAWING A FINE – HAIR BROOM ACROSS THE CONCRETE SURFACE IN THE LONGITUDINAL DIRECTION OF THE CURB. CURB FINISH TEXTURE SHALL BE APPROVED BY THE ARCHITECT/ENGINEER PRIOR TO CURB CONSTRUCTION.

SANITARY SEWER NOTES (ONSITE)

1. SANITARY SEWER LINES 6" AND LARGER SHALL BE PVC, ASTM D3034, SDR 35 WITH GASKETED JOINTS.
 2. SANITARY SEWER LINES 4" AND SMALLER SHALL BE PVC, DWV SCHEDULE 40 WITH SOLVENT WELD JOINTS.
 3. SEWER SERVICE LINES SHALL HAVE A MINIMUM SLOPE OF TWO (2) PERCENT. UNLESS SHOWN OTHERWISE.

WATER NOTES (ONSITE)

1. CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITTING ALL WATER SERVICES WITH THE SAN ANTONIO WATER SYSTEM (SAWS). ALL SERVICE WORK SHALL BE IN ACCORDANCE WITH SAWs MATERIAL AND INSTALLATION STANDARD SPECIFICATIONS AND DETAIL DRAWINGS. THESE REQUIREMENTS INCLUDE THE MAIN CONNECTION, VALVES, METERS, BACKFLOW PREVENTORS, PIPING, FITTINGS, AND APPURTENANCES.
 2. WATER MAINS 4" TO 12" SHALL BE POLYVINYL CHLORIDE (PVC) AWWA C900, CLASS 150 OR DUCTILE IRON (DI) AWWA C151, CLASS 350, UNLESS OTHERWISE NOTED. DUCTILE IRON (DI) PIPING SHALL BE USED FROM THE TAPPING SLEEVE TEE TO THE BACKFLOW PREVENTOR. RESTRAINED JOINTS SHALL BE USED FOR VERTICAL GRADE ADJUSTMENTS UNDER OTHER UTILITIES AND DRAINAGE FEATURES.

WATER MAINS 4" AND LARGER SHALL BE 36" MINIMUM BURY. (MAY ADJUST DEPTH AT UTILITY CONFLICTS).
 3. WATER LINES SMALLER THAN 4" SHALL BE PVC, ASTM D1785, SCHEDULE 40 WITH SOLVENT WELD JOINTS.

WATER LINES SMALLER THAN 4" SHALL BE 30" MINIMUM BURY. (MAY ADJUST DEPTH AT UTILITY CONFLICTS).
 4. WATER VALVES 4" AND LARGER SHALL BE NON-RISING STEM GATE VALVES, AWWA C509, RESILIENT WEDGE, BRONZE STEM, CAST IRON OR DUCTILE IRON BODY AND BONNET, STEM NUT, 250 PSIG WORKING PRESSURE, MECHANICAL JOINTS.
 5. WATER VALVES 2" AND 3" SHALL BE RISING STEM GATE VALVES, UL 262, FM APPROVED, BRONZE BODY AND BONNET, BRONZE STEM, 175 PSIG WORKING PRESSURE, THREADED ENDS.
 6. WATER VALVES 1 1/2" AND SMALLER SHALL BE BALL VALVES, BRONZE BODY, STAINLESS STEEL BALL AND STEM, 175 PSIG MINIMUM WORKING PRESSURE, THREADED ENDS.
 7. VALVE BOXES FOR 4" VALVES AND LARGER: VALVE BOXES SHALL BE BARREL TYPE CAST-IRON HAVING TOP SECTION AND COVER WITH LETTERING "WATER," BOTTOM SECTION WITH BASE OF SIZE TO FIT OVER VALVE AND BARREL APPROXIMATELY 5" IN DIAMETER, AND ADJUSTABLE CAST-IRON EXTENSION OF LENGTH REQUIRED FOR DEPTH OF BURY OF VALVE. PROVIDE A STEEL TEE-HANDLE OPERATING WRENCH WITH EACH VALVE BOX. WRENCH SHALL HAVE TEE HANDLE WITH ONE POINTED END, STEM OF LENGTH TO OPERATE VALVE, AND SOCKET-FITTING VALVE-OPERATING NUT.
 8. VALVE BOXES FOR 3" VALVES AND SMALLER: (1) IN LANDSCAPE AREAS: HIGH-DENSITY POLYPROPYLENE, 10" ROUND VALVE BOX DFW/HPI MODEL D-1100" OR EQUAL. (2) IN PAVEMENTS: CAST IRON OR STEEL OPEN BOTTOM BASE SECTION, SLOTTED TO FIT OVER SERVICE PIPING, WITH CAST IRON OR STEEL LOCKING LID. BOX DEPTH SHALL BE CONSISTENT WITH VALVE INSTALLATION. BOX AND LID ASSEMBLY SHALL BE MANUFACTURED FOR H-20 TRAFFIC LOADINGS.
 9. ALL WATER LINES SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED BY THE CONTRACTOR.
 10. WATER SERVICE TO BUILDINGS SHALL BE THE SAME SIZE AS DESIGNATED ON THE MEP DRAWINGS.

PAVEMENT NOTES

1. ALL WORK WITHIN STATE, COUNTY, AND/OR CITY RIGHT-OF-WAYS SHALL BE PERFORMED IN ACCORDANCE WITH EACH ENTITIES GOVERNING RULES AND STANDARDS. CONTRACTOR SHALL MAINTAIN A COPY OF ALL NECESSARY PERMITS ON THE JOBSITE WHEN WORKING IN PUBLIC RIGHT-OF-WAYS.
 2. UTILITY TRENCHING AND BACKFILL WITHIN ROADWAYS AND PARKING AREAS SHALL BE PERFORMED PRIOR TO PLACEMENT OF FLEXIBLE BASE MATERIAL. FAILURE TO COMPLY WILL REQUIRE ALL TRENCH BACKFILL TO BE FLOWABLE FILL OR OTHER APPROVED METHOD AS PER THE ENGINEER.
 3. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK SHALL COMPLY WITH THE PROJECT GEOTECHNICAL REPORT AND THE PROJECT SPECIFICATIONS.
 4. ALL RIGID CONCRETE PAVEMENT JOINTS WITHIN THIS SCOPE OF WORK SHALL COMPLY WITH THE PROJECT GEOTECHNICAL REPORT AND THE PROJECT SPECIFICATIONS.
 5. CONTRACTOR SHALL SAWCUT A STRAIGHT, NEAT EDGE AT ALL TIE-INS TO EXISTING PAVEMENTS.
 6. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION.

STORM DRAIN NOTES

1. STORM SEWER PIPING SHALL BE OF THE SIZE AND TYPE INDICATED ON THE DRAWINGS. WHERE MATERIAL TYPE IS NOT INDICATED ON THE DRAWINGS, IT IS THE CONTRACTOR'S OPTION TO USE ONE OF THE TYPES OUTLINED HEREIN. PIPE MATERIAL AND INSTALLATION SHALL BE PROVIDED AS SPECIFIED BELOW:
 - A. REINFORCED CONCRETE SEWER PIPE AND FITTINGS (RCP): 18" AND LARGER – ASTM C 76, CLASS III/IV (SEE PLAN), WALL B, FOR TONGUE AND GROOVE JOINTS UNLESS OTHER STATED ON THE PLANS OR RECOMMENDED BY THE MANUFACTURER. RCP JOINTS SHALL BE SEALED WITH MASTIC SEALANT MEETING FEDERAL SPECIFICATION SS-S-210A. A SUFFICIENT AMOUNT OF SEALANT SHALL BE USED TO FILL THE ANNULAR JOINT SPACE WITH SOME SQUEEZE OUT.
 2. CONTRACTOR SHALL PROVIDE ALL PIPING, FITTINGS, AND APPURTENANCES, AS NECESSARY, TO ACCOMPLISH TIE-INS, GRADE, AND ALIGNMENT CHANGES.
 3. SITE DRAINAGE INLETS/BASINS SHALL BE OF THE SIZE AND TYPE INDICATED ON THE DRAWINGS.
 4. ROCK RUBBLE RIP-RAP: STONE FOR RIP-RAP SHALL CONSIST OF CRUSHED FIELD STONE OR ROUGH UNHEWN QUARRY STONE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. THE RIPRAP MATERIAL SHALL CONSIST OF A GRADED MIXTURE OF LARGE AND SMALL STONES. LARGE STONES SHALL CONSTITUTE 60 TO 70% OF THE TOTAL MIXTURE BY VOLUME, SHALL BE BETWEEN 4" AND 8" MEASURED ALONG THE LONG AXIS, AND WEIGH BETWEEN 1 AND 10 POUNDS EACH. SMALL STONES SHALL CONSTITUTE 30 TO 40% OF THE GRADED MIXTURE BY VOLUME AND SHALL CONSIST OF STONE MATERIAL 1" TO 3" MEASURED ALONG THE AXIS. STONE MATERIAL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO USE.

CLEARING/STRIPPING NOTES

1. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE LIMITS AND EXTENT OF THE CLEARING/STRIPPING EFFORT.
 2. CONTRACTOR SHALL MINIMIZE THE DISTURBED AREA AS MUCH AS PRACTICAL.
 3. BURNING WILL NOT BE ALLOWED ON SITE.
 4. TREE ROOT AND STUMP REMOVAL SHALL BE ACCOMPLISHED BY ROOT PLOWING TO A MINIMUM DEPTH OF 18" BELOW GROUND SURFACE OR TO TOP OF NATURAL ROCK SUBGRADE. ALL LOOSE ROOT AND LIMB MATERIAL SHALL BE RAKED AND REMOVED FROM THESE AREAS.
 5. CONTRACTOR SHALL STRIP THE SITE OF HEAVY GROWTHS OF GRASS AND WEEDS. STRIPPINGS MAY BE SPREAD OVER AREAS TO BE RE-TOPSOILED OR LANDSCAPE AREAS.
 6. CONTRACTOR SHALL USE NECESSARY MEANS TO PREVENT SPREAD OF DUST FOR DURATION OF THE PROJECT CONSTRUCTION.

TOPSOIL NOTES

1. CONTRACTOR SHALL BE REQUIRED TO STRIP, STOCKPILE, AND RE-SPREAD TOPSOIL OVER AREAS OF CUT AND FILL DISTURBED BY PERFORMANCE OF THE WORK.
 2. AREAS TO RECEIVE TOPSOIL WILL INCLUDE CUT SLOPES AND FILL SLOPES THAT ARE NOT STABILIZED BY ROCK RUBBLE RIPRAP OR ANY OTHER MEANS. CONTRACTOR SHALL STRIP ENOUGH TOPSOIL TO COVER THESE AREAS. EXCESS TOPSOIL MAY BE USED AS FILL MATERIAL FOR EARTHWORK.
 3. TOPSOIL SHALL BE STRIPPED FROM THE EXISTING SURFACE SOIL AFTER VEGETATION AND TREES HAVE BEEN REMOVED.
 4. TOPSOIL IS DEFINED AS BEING SOIL REASONABLY FREE OF SUBSOIL, CLAY LUMPS, OR STONES LARGER THAN 2", WEEDS, ROOTS AND OTHER OBJECTIONABLE MATERIAL, AND PROMOTES THE GROWTH OF VEGETATION.
 5. STRIPPING OF TOPSOIL SHALL BE ACCOMPLISHED BY THE FOLLOWING PROCEDURE: IN AREAS REQUIRING LESS THAN 6" OF CUT OR FILL, STRIPPING OF TOPSOIL SHALL NOT BE DONE. IN AREAS OF MORE THAN 6" OF CUT OR FILL, TOPSOIL MAY BE STRIPPED TO WHATEVER DEPTHS IT IS ENCOUNTERED, BUT NOT TO EXCEED 12", IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER OBJECTIONABLE MATERIAL. AREAS WITH MORE THAN 6" OF CUT, THE CONTRACTOR SHALL "OVER EXCAVATE" 6" BELOW FINISH GRADE AND REPLACE WITH 6" OF TOPSOIL. IN AREAS REQUIRING MORE THAN 6" OF FILL, THE TOP 6" SHALL BE TOPSOIL.
 6. STOCKPILE TOPSOIL IN STORAGE PILES IN AREAS INDICATED OR AS DIRECTED BY THE ENGINEER OR TCR. CONSTRUCT STORAGE PILES TO PROVIDE FREE DRAINAGE OF SURFACE WATER.
 7. THE PROJECT PROPERTY HAS ENOUGH TOPSOIL ON-SITE TO MEET THE PROJECT REQUIREMENTS. TOPSOIL SHALL BE PLACED AND SPREAD IN THE AREAS REQUIRED WITH A DEPTH OF NOT LESS THAN 6". ONCE THE TOPSOIL HAS BEEN PLACED AND SPREAD, IT SHALL BE COMPACTION TO 98% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698. FINAL GRADING OF TOPSOIL

DB NUMBER:	23101.03	DATE:	10/31/20
ED BY:	MTM	DRAWN BY:	MMES

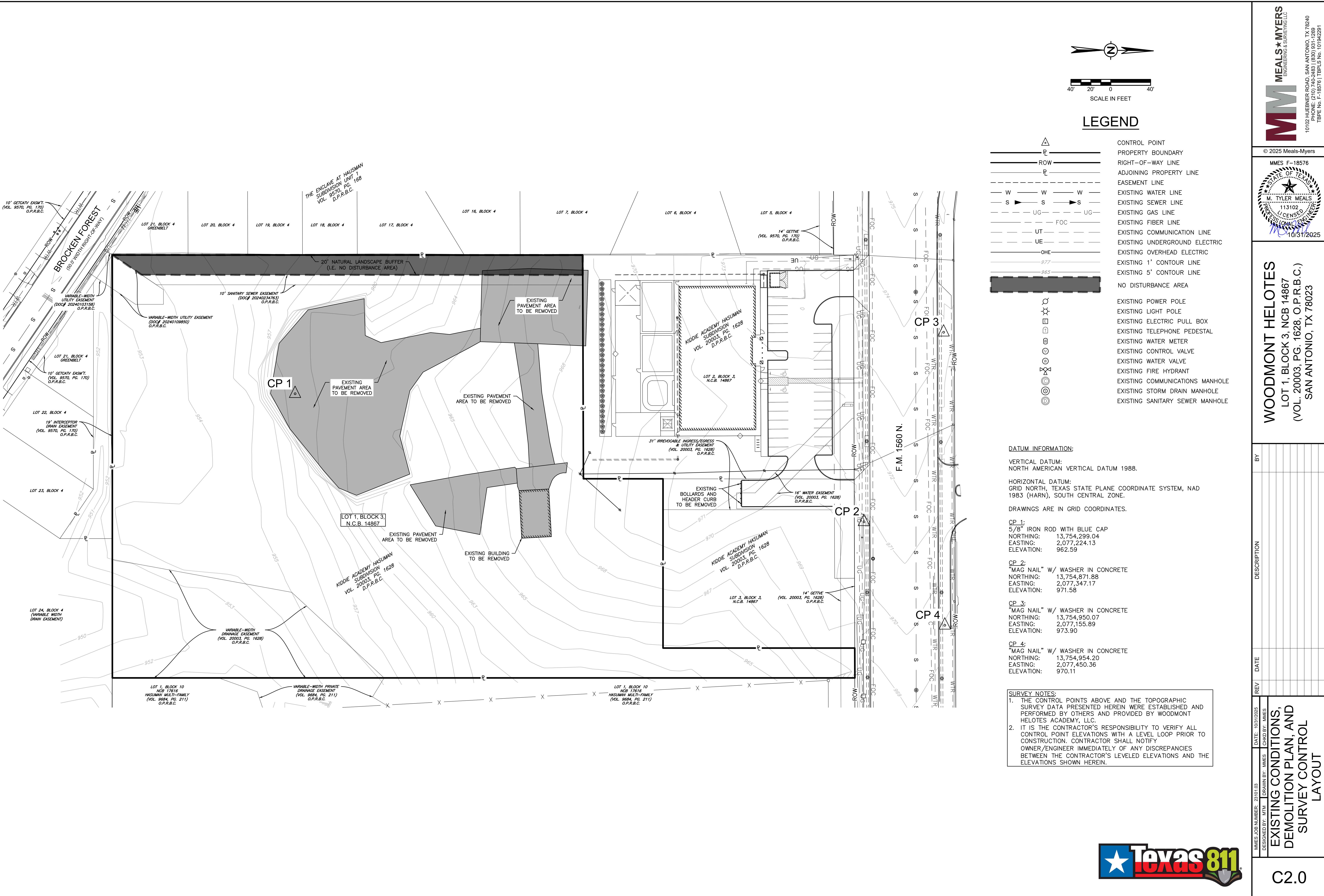
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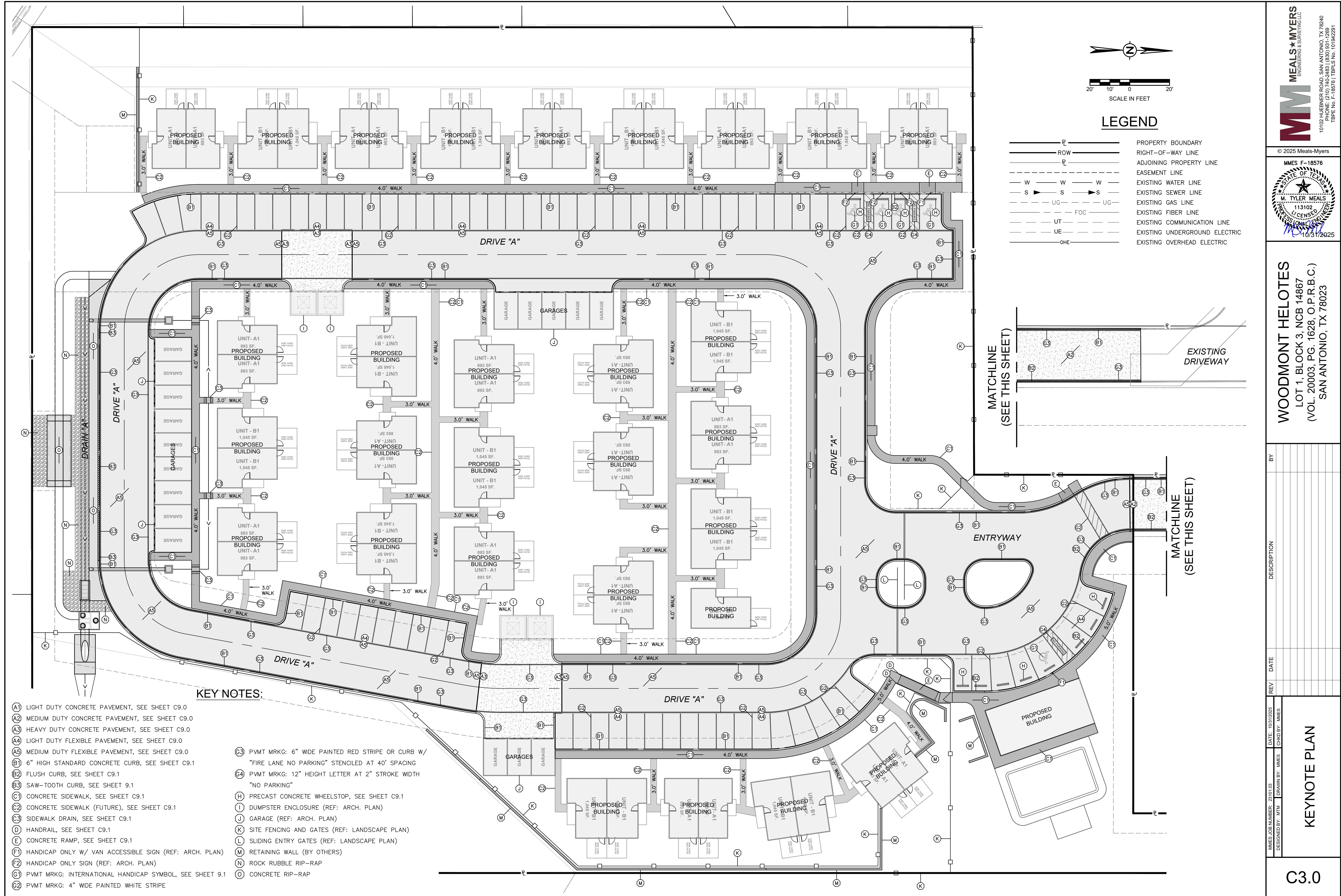


<p>Texas Commission on Environmental Quality Water Pollution Abatement Plan General Construction Notes</p> <p>Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer</p> <p>The following listed "construction notes" are intended to be advisory in nature only and do not constitute an approval or conditional approval by the Executive Director (ED), nor do they constitute a comprehensive listing of rules or conditions to be followed during construction. Further actions may be required to achieve compliance with TCEQ regulations found in Title 30, Texas Administrative Code (TAC), Chapters 213 and 217, as well as local ordinances and regulations providing for the protection of water quality. Additionally, nothing contained in the following listed "construction notes" restricts the powers of the ED, the commission or any other governmental entity to prevent, correct, or curtail activities that result or may result in pollution of the Edwards Aquifer or hydrologically connected surface waters. The holder of any Edwards Aquifer Protection Plan containing "construction notes" is still responsible for compliance with Title 30, TAC, Chapters 213 or any other applicable TCEQ regulation, as well as all conditions of an Edwards Aquifer Protection Plan through all phases of plan implementation. Failure to comply with any condition of the ED's approval, whether or not in contradiction of any "construction notes", is a violation of TCEQ regulations and any violation is subject to administrative rules, orders, and penalties as provided under Title 30, TAC, § 213.10 (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. The following listed "construction notes" in no way represent an approved exception by the ED to any part of Title 30 TAC, Chapters 213 and 217, or any other TCEQ applicable regulation.</p>	
<p>1. A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:</p> <ul style="list-style-type: none"> - the name of the approved project; - the activity start date; and - the contact information of the prime contractor. <p>2. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan (WPAP) and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.</p> <p>3. If any sensitive feature(s) (caves, solution cavity, sink hole, etc.) is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. Construction activities may not be resumed until the TCEQ has reviewed and approved the appropriate protective measures in order to protect any sensitive feature and the Edwards Aquifer from potentially adverse impacts to water quality.</p> <p>4. No temporary or permanent hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.</p> <p>5. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the approved plans and manufacturers specifications. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.</p> <p>6. Any sediment that escapes the construction site must be collected and properly disposed of before the next rain event to ensure it is not washed into surface streams, sensitive features, etc.</p> <p>7. Sediment must be removed from the sediment traps or sedimentation basins not later than</p>	
<p>TCEQ-0592 (Rev. July 15, 2015) Page 1 of 2</p>	

<p>when it occupies 50% of the basin's design capacity.</p> <p>8. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.</p> <p>9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.</p> <p>10. If portions of the site will have a temporary or permanent cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14th day of inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.</p> <p>11. The following records shall be maintained and made available to the TCEQ upon request:</p> <ul style="list-style-type: none"> - the dates when major grading activities occur; - the dates when construction activities temporarily or permanently cease on a portion of the site; and - the dates when stabilization measures are initiated. <p>12. The holder of any approved Edwards Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:</p> <ul style="list-style-type: none"> A. any physical or operational modification of any water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures; B. any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer; C. any development of land previously identified as undeveloped in the original water pollution abatement plan. 			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Austin Regional Office 12100 Park 35 Circle, Building A Austin, Texas 78753-1808 Phone (512) 339-2929 Fax (512) 339-3795</td> <td style="width: 50%;">San Antonio Regional Office 14250 Judson Road San Antonio, Texas 78233-4480 Phone (210) 490-3096 Fax (210) 545-4329</td> </tr> </table>		Austin Regional Office 12100 Park 35 Circle, Building A Austin, Texas 78753-1808 Phone (512) 339-2929 Fax (512) 339-3795	San Antonio Regional Office 14250 Judson Road San Antonio, Texas 78233-4480 Phone (210) 490-3096 Fax (210) 545-4329
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<p>THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.</p>			
<p>TCEQ-0592 (Rev. July 15, 2015) Page 2 of 2</p>			

<p>MMES JOB NUMBER: 23101.03</p> <p>DESIGNED BY: MTM DRAWN BY: MMES</p> <p>CHD BY: MMES</p> <p>WATER POLLUTION ABATEMENT PLAN GENERAL CONSTRUCTION NOTES</p>
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C3.0

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ENGINEERING & SURVEYING LLC

10102 HUEBNER ROAD, SAN ANTONIO, TX 78240
PHONE: (210) 740-2483 | (830) 931-1269
TBPE No. F-18576 | TBPLS No. 101942291

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MMES F-18576

STATE OF TEXAS

M. TYLER MEALS

113102

LICENSED PROFESSIONAL ENGINEER

MEALS MYERS

10/31/2025

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STATE OF TEXAS

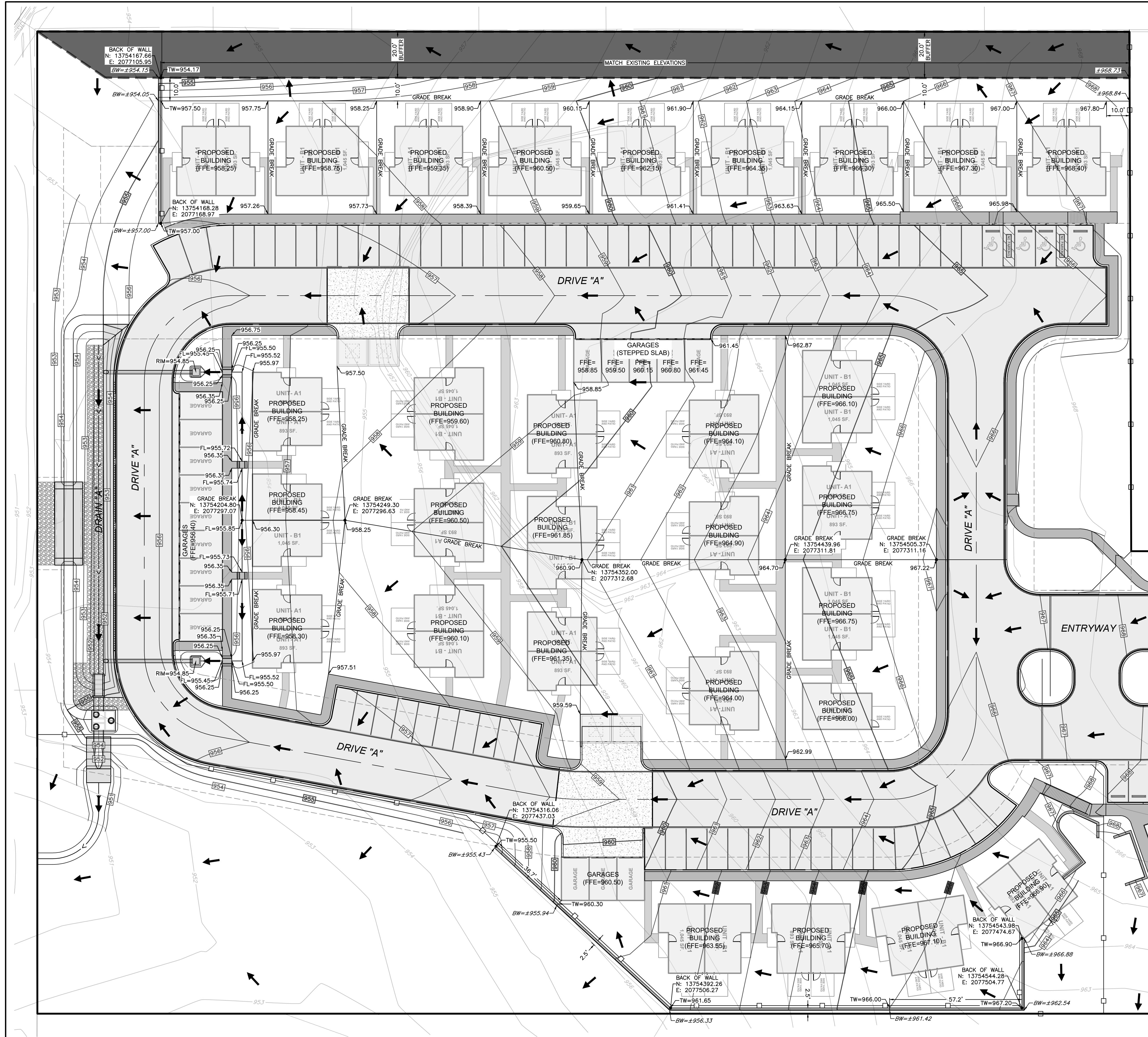
M. TYLER MEALS

113102

LICENSED PROFESSIONAL ENGINEER

MEALS MYERS

10/31/2025



SITE GRADING NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK WHERE NOT SPECIFICALLY COVERED IN THE SPECIFICATIONS OR GEOTECHNICAL REPORT SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY AND TXDOT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).
 2. SITE PREPARATION, GRADING, EXCAVATION AND FILL SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT AND SPECIFICATIONS.
 3. ALL SELECT FILL MATERIAL PROVIDED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING AND COMPACTING.
 4. ALL ELEVATIONS AND PROPOSED CONTOURS SHOWN ON THIS GRADING PLAN REFLECT FINISHED GRADES. THE THICKNESS OF PAVING, BASE, GRASS, TOPSOIL, AND MULCH MUST BE SUBTRACTED TO OBTAIN SUBGRADE ELEVATIONS.
 5. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
 6. THE CONTRACTOR SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
 8. THE CONTRACTOR SHALL REMOVE TOP SOIL, GRASS, ROOTS, DEBRIS, ETC. AND DISPOSE OFF SITE THOSE MATERIALS NOT SUITABLE FOR EMBANKMENT AND TOPSOIL. CLEAN STRIPPINGS AND TOPSOIL MAY BE STOCKPILED ON SITE FOR REUSE IN A LOCATION SPECIFIED BY THE OWNER.
 11. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE STABILIZATION. ALL DISTURBED AREAS SHALL BE RE-VEGETATED IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND TPDES/SWPPP REQUIREMENTS.
 14. CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES AS NECESSARY TO PREVENT DAMAGE TO ADJACENT PROPERTIES AND TO CONFORM WITH LOCAL JURISDICTIONAL AUTHORITY REQUIREMENTS.
 15. THE CONTRACTOR SHALL OBTAIN GRADES SHOWN HEREON WITHIN ONE TENTH (± 0.10) OF A FOOT.
 16. ALL EARTHEN SLOPES SHALL BE A MAXIMUM OF 3:1 (H:V) AND A MINIMUM OF 1.0% UNLESS OTHERWISE SHOWN.
 17. WHERE FINISHED CONTOURS ARE SHOWN TO MATCH EXISTING CONTOURS ON THE GRADING PLANS, NO GRADE SEPARATION IS ALLOWABLE. THE CONTRACTOR SHALL ADJUST FINISHED CONTOURS AS NECESSARY TO ACCOMPLISH THIS REQUIREMENT.
 13. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO PREVENT PONDING OR BLOCKAGE OF SURFACE DRAINAGE. POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE SCOPE OF THE PROJECT.

ADA NOTES

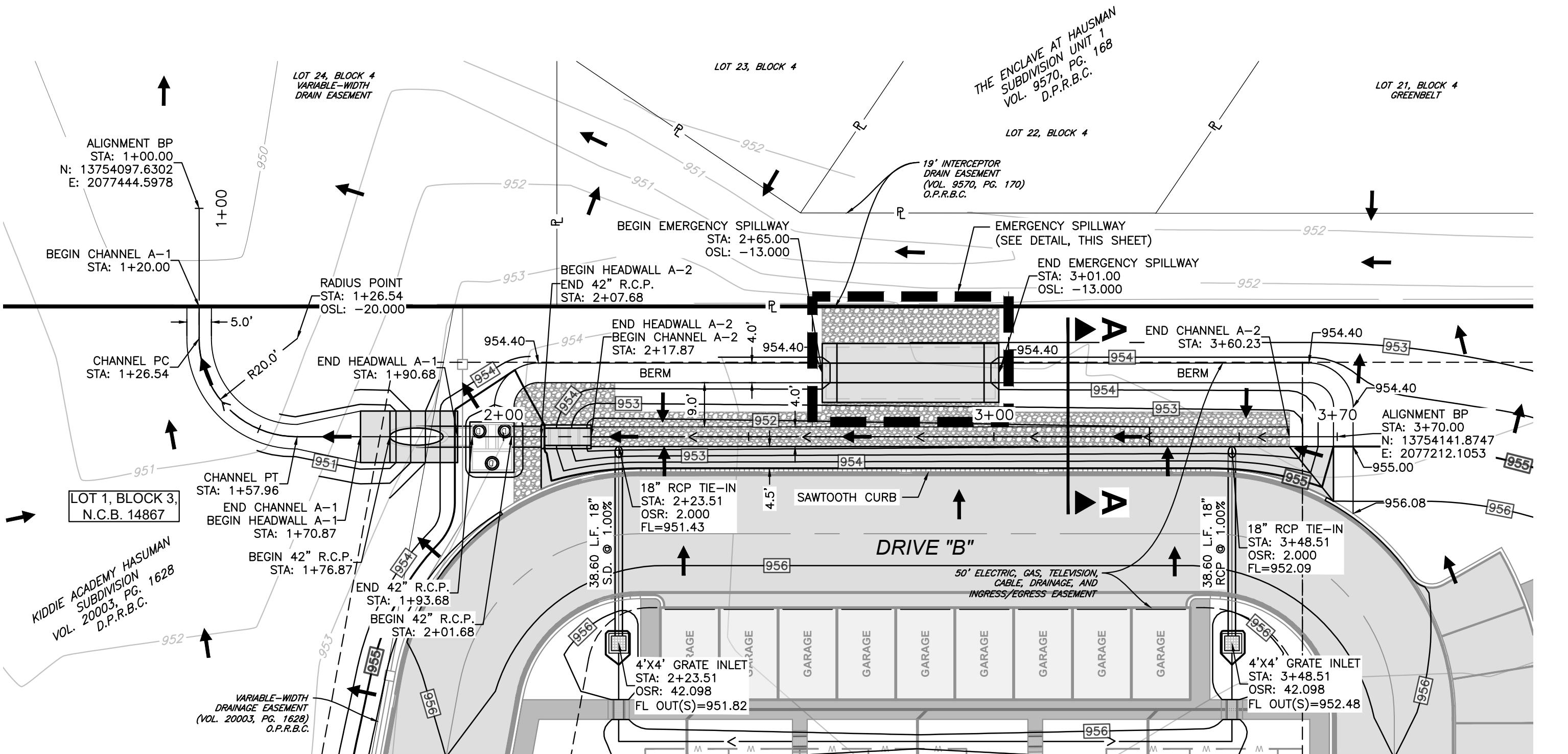
- ADDITIONS**

 1. THE VERTICAL DIFFERENCE BETWEEN THE PROPOSED SIDEWALK TIE-IN AND THE FINISHED FLOOR ELEVATION AT EACH BUILDING SHALL NOT EXCEED 1/4".
 2. ALL SIDEWALKS, RAMPS, FLATWORK, ETC., IMMEDIATELY ADJACENT TO BUILDINGS SHALL BE SLOPED TO DRAIN AWAY FROM THE STRUCTURE.
 3. THE CROSS SLOPE OF THE PROPOSED SIDEWALKS AND LANDINGS SHALL NOT EXCEED 2.0%.
 4. THE RUNNING SLOPE OF THE RAMPS SHALL NOT EXCEED 8.0%.

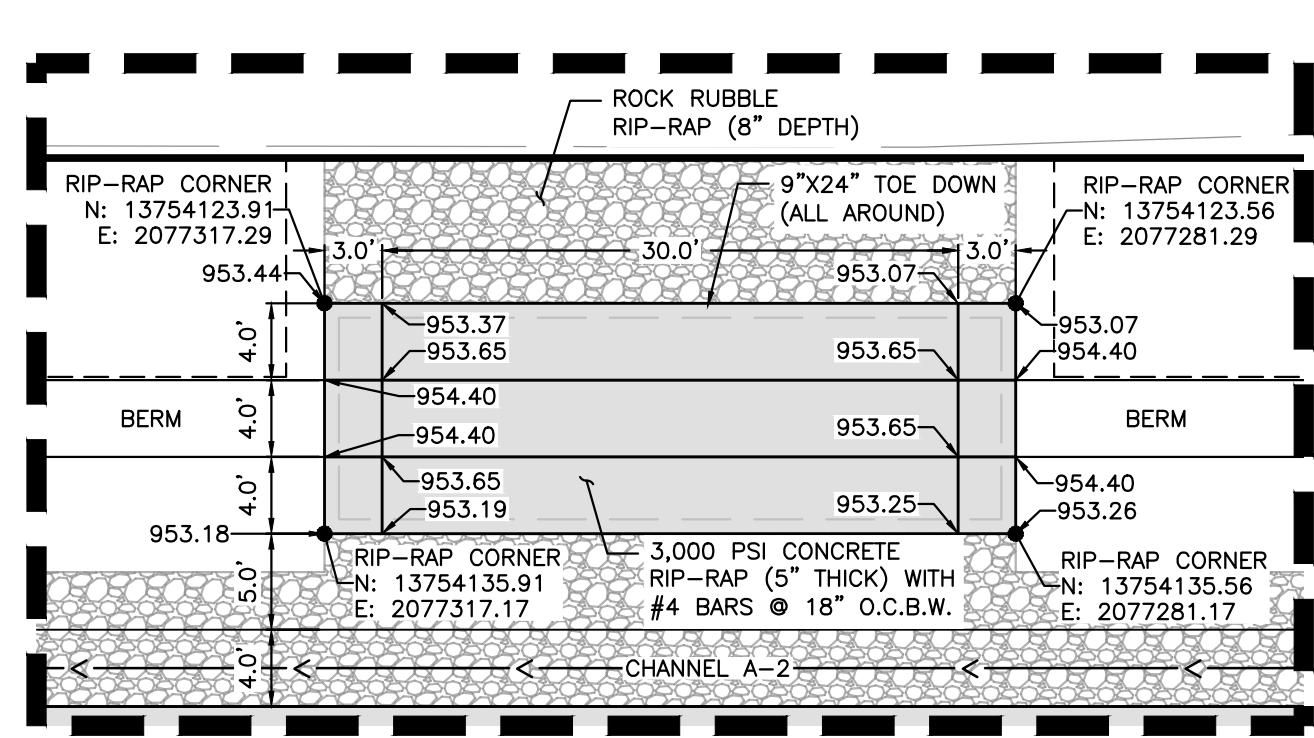
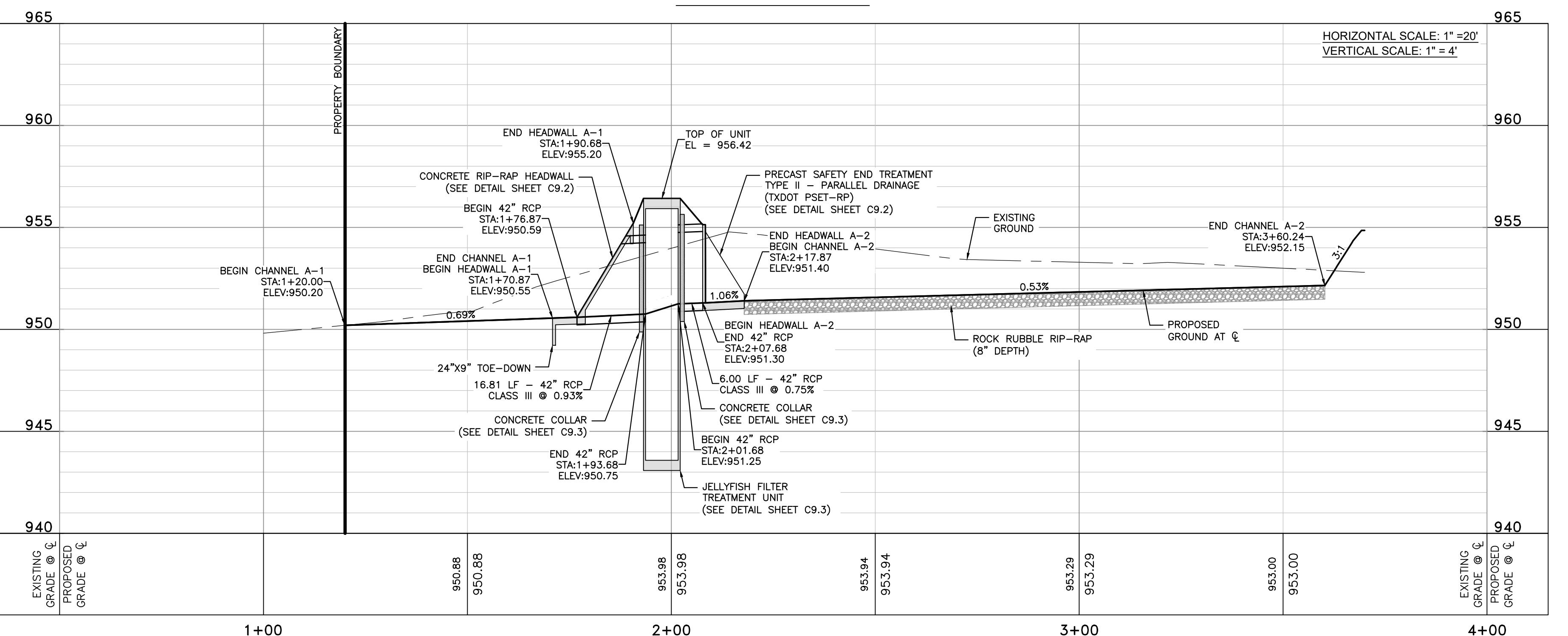
SITE GRADING BY AN

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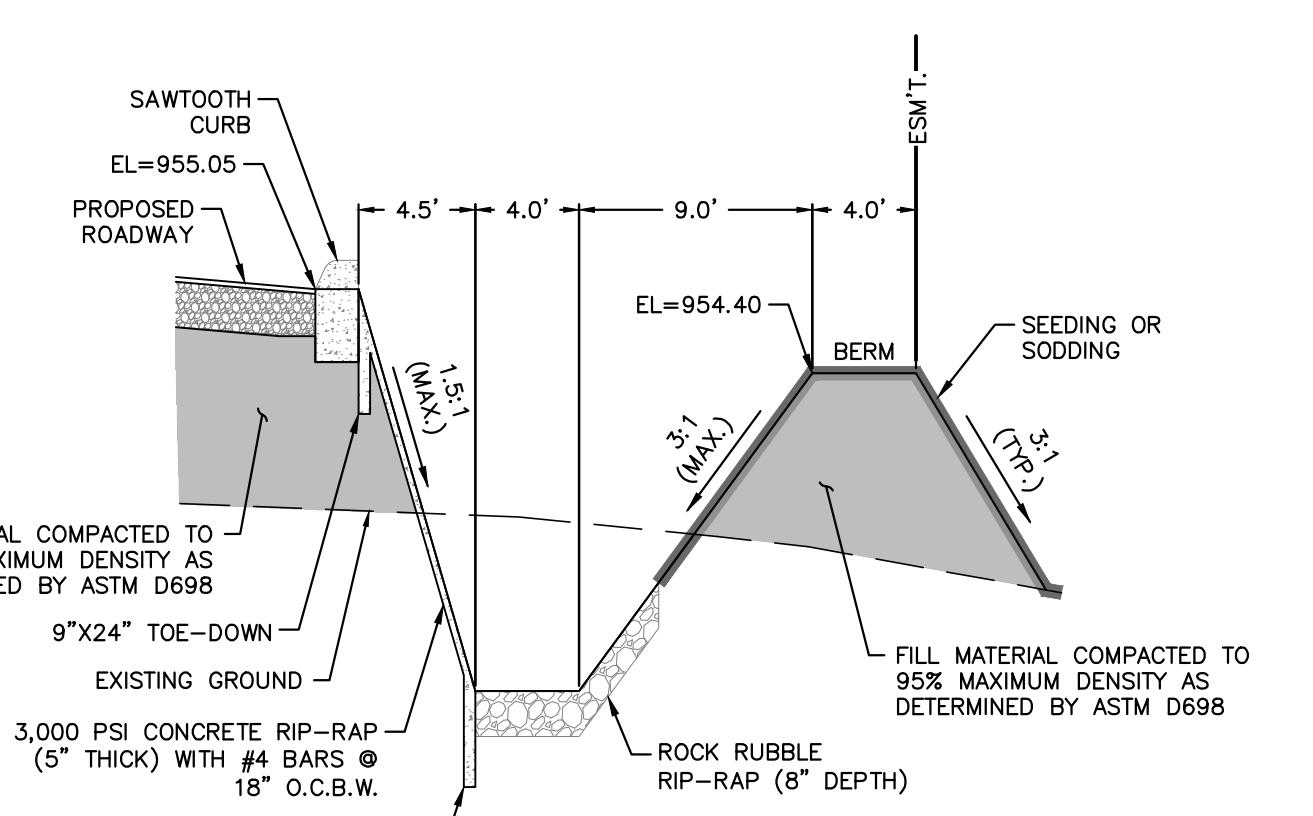




DRAIN "A-1"



EMERGENCY SPILLWAY



SECTION "A - A"

H EXCAVATION SAFETY PROTECTION

CTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR
RAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL
THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE
TED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO
NT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS,
IS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THESE
PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH
ON SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA
DS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR
TOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL
NT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS
NG THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND
EXCAVATION.

G UTILITIES - ONE CALL NOTICE

ITION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND HS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR 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 SAWZ.

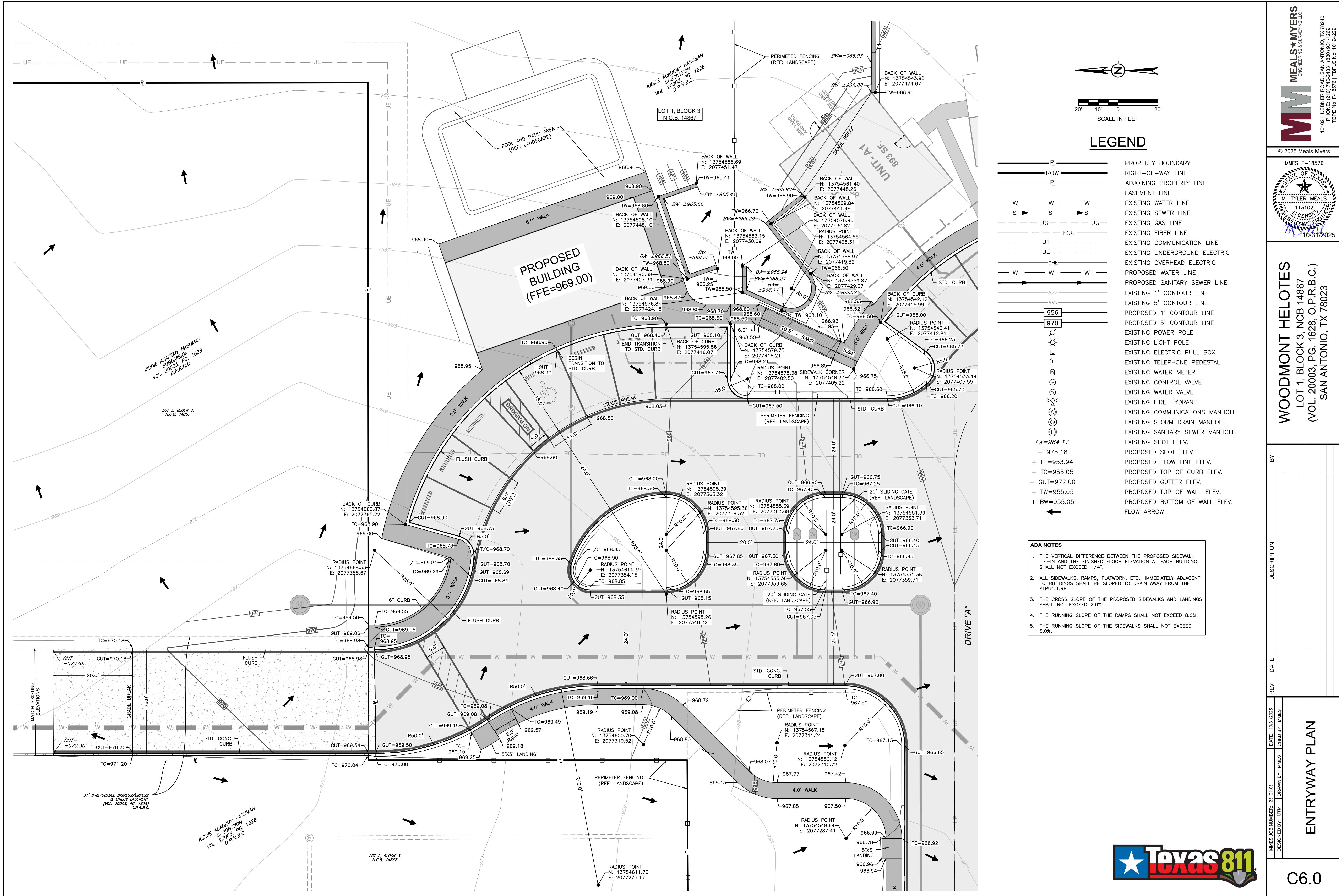
CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES DRAINAGE STRUCTURES AT LEAST 1-2 WEEKS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. PLEASE ALLOW UP TO 7 BUSINESS DAYS LOCATES REQUESTING PIPE LOCATION MARKERS ON SAW'S FACILITIES. THE SWING-CONNECT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES.

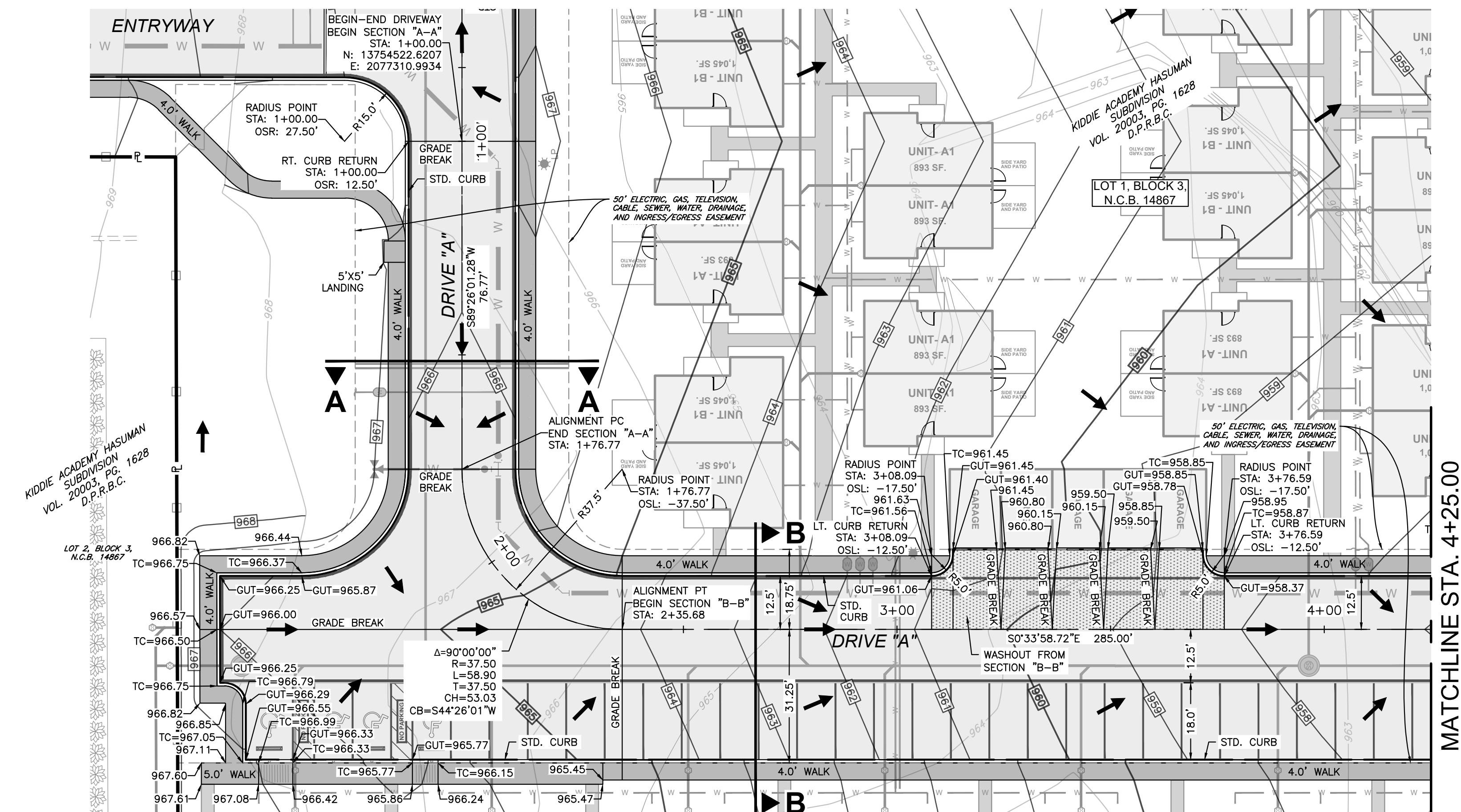
OWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:
SAWS UTILITY LOCATES: [HTTP://WWW.SAWS.ORG/SERVICE/LOCATES](http://WWW.SAWS.ORG/SERVICE/LOCATES)
COSA DRAINAGE (210) 207-0724 OR (210) 207-6026
COSA TRAFFIC SIGNAL OPERATIONS (210) 206-8480
COSA TRAFFIC SIGNAL DAMAGES (210) 207-3951
TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-2005 OR 211 DIVISION

DRAIN "A-1"
LAN AND PROFILE
(STA. 1+00 - END)



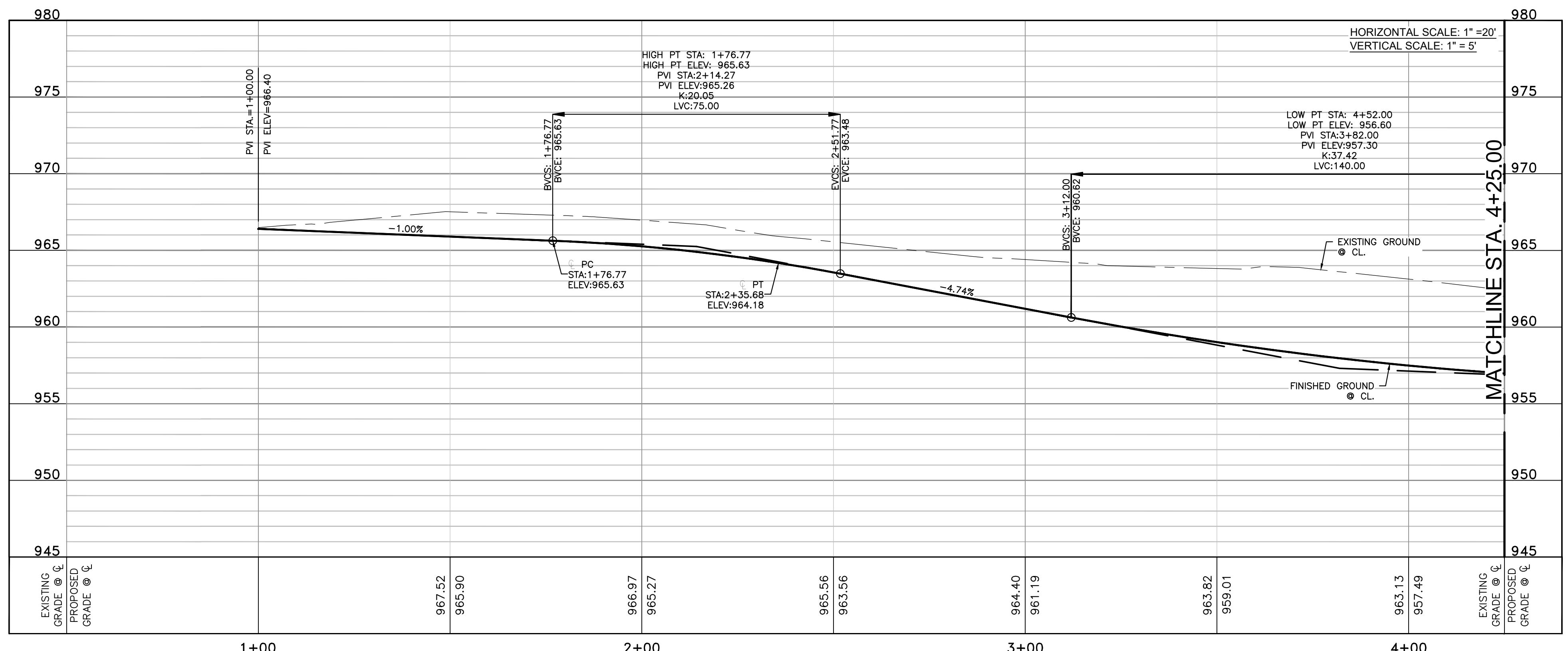
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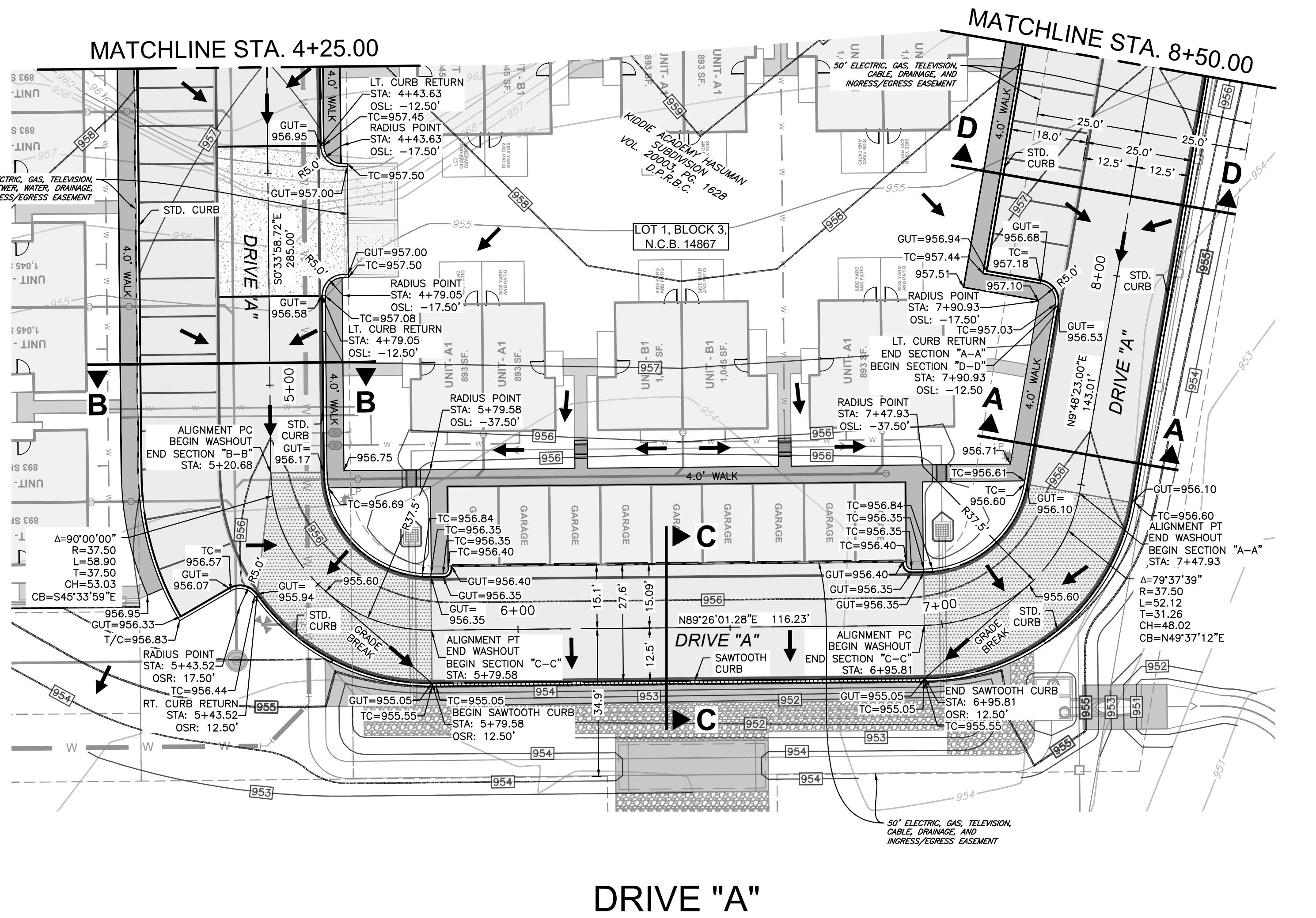




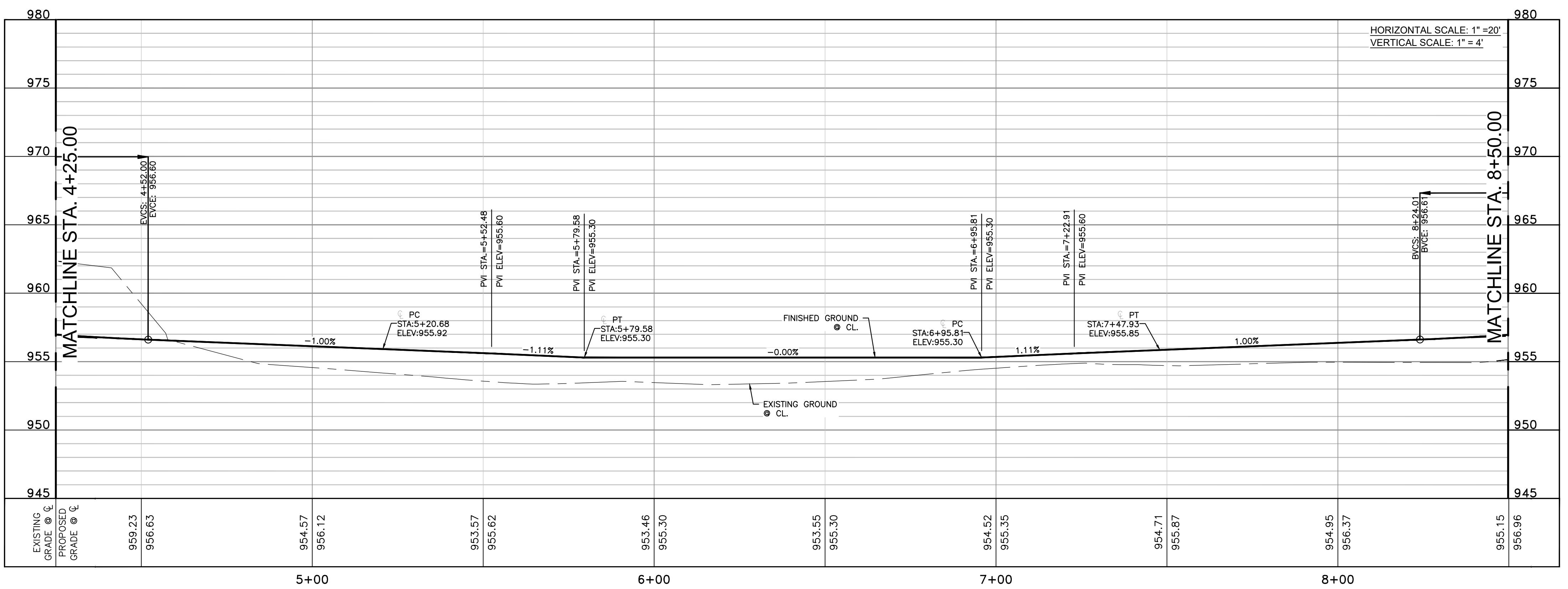
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MATCHLINE STA. 4+25.00

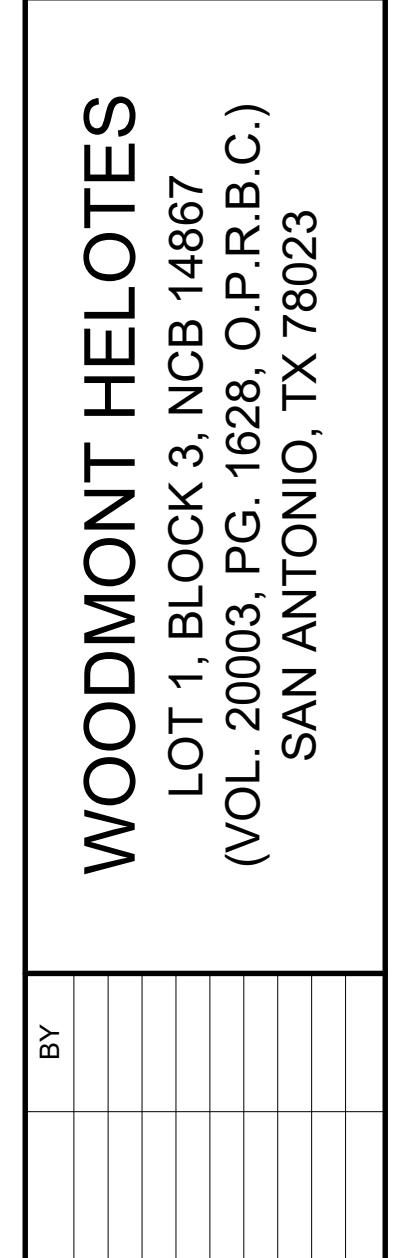
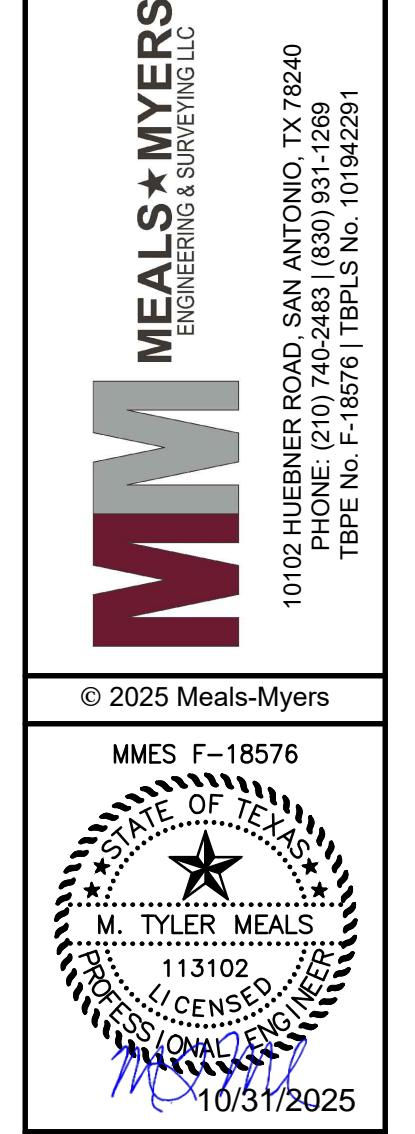




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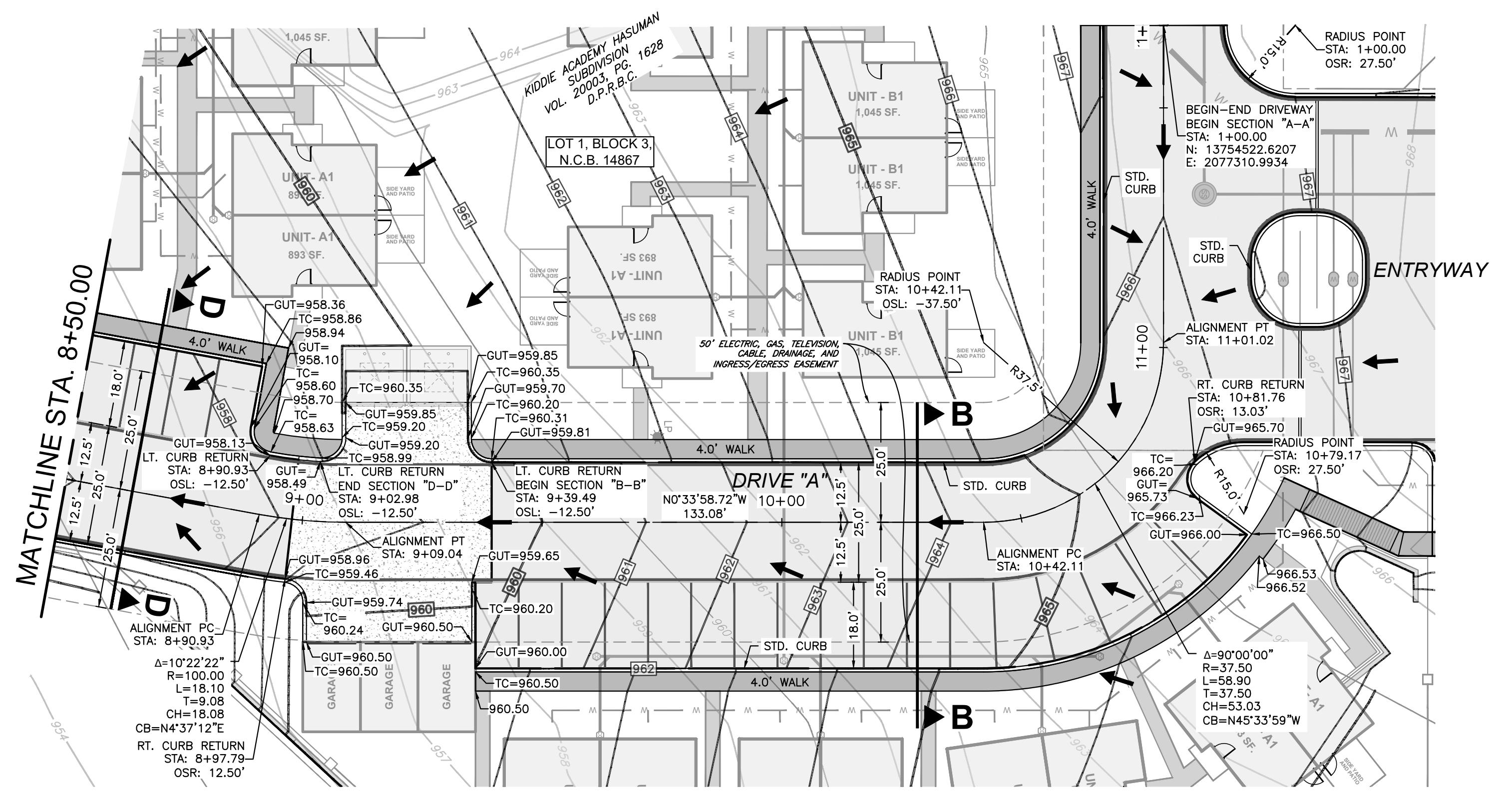


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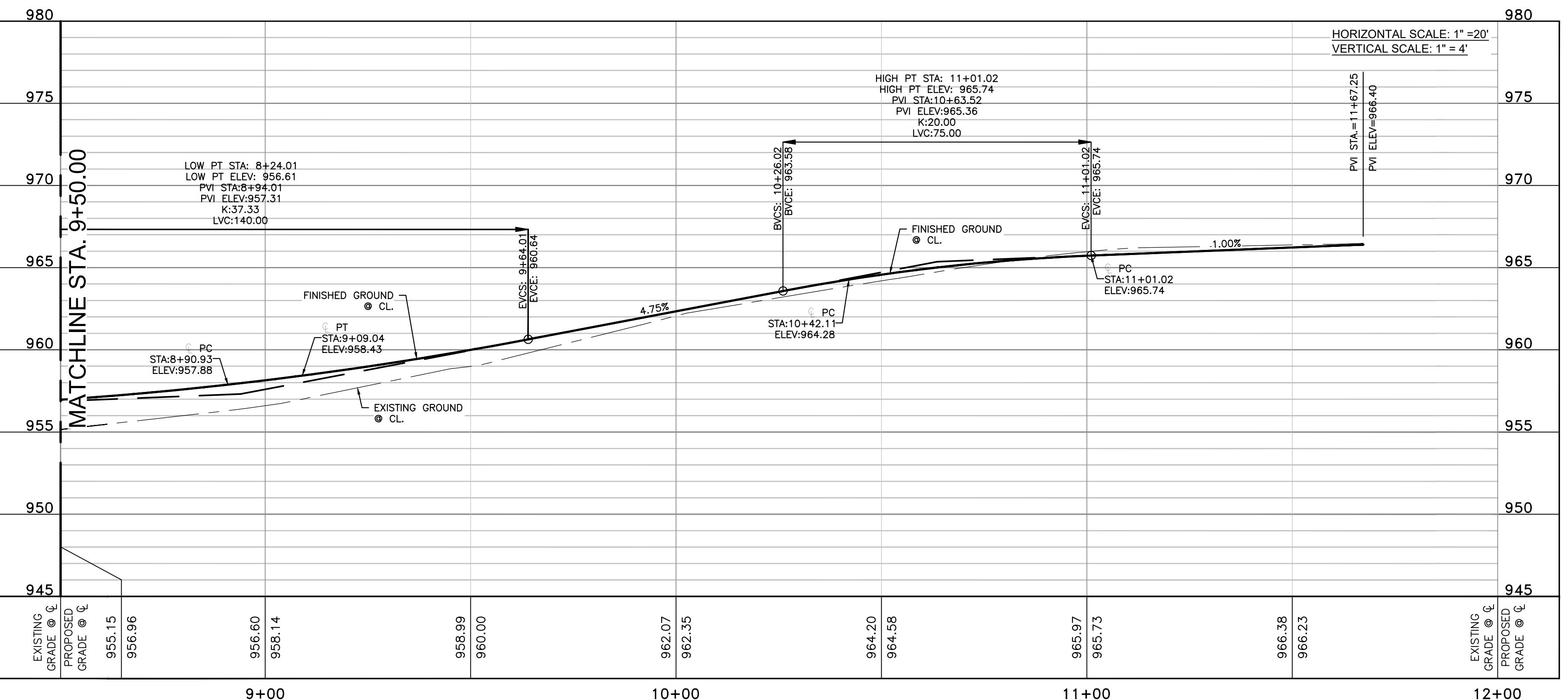


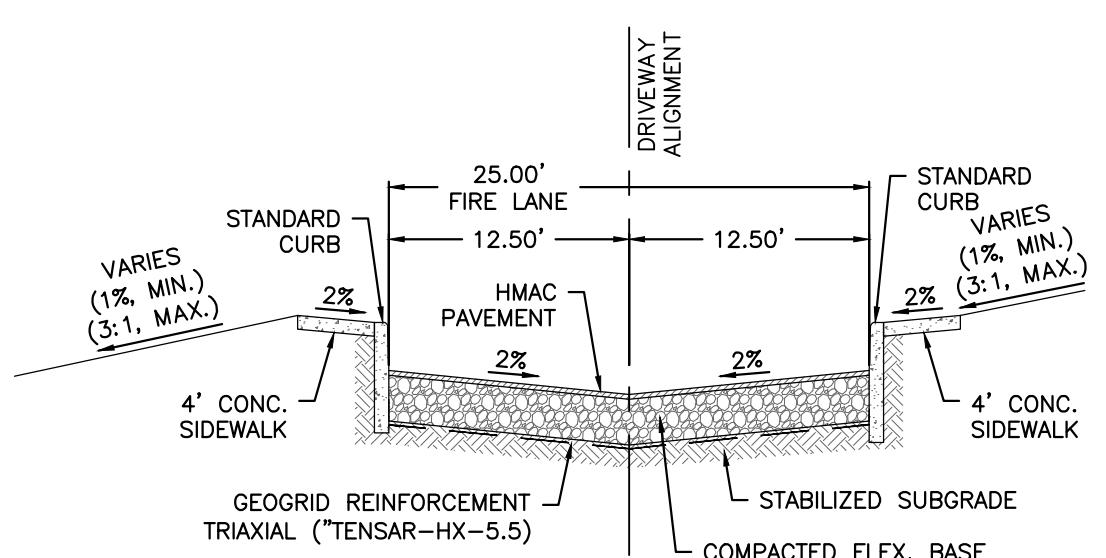
DESIGNED BY: MTM		DATE: 10/31/	MSES JOB NUMBER: 23101.03	
DRAWN BY: MMES		CHKD BY: MN		
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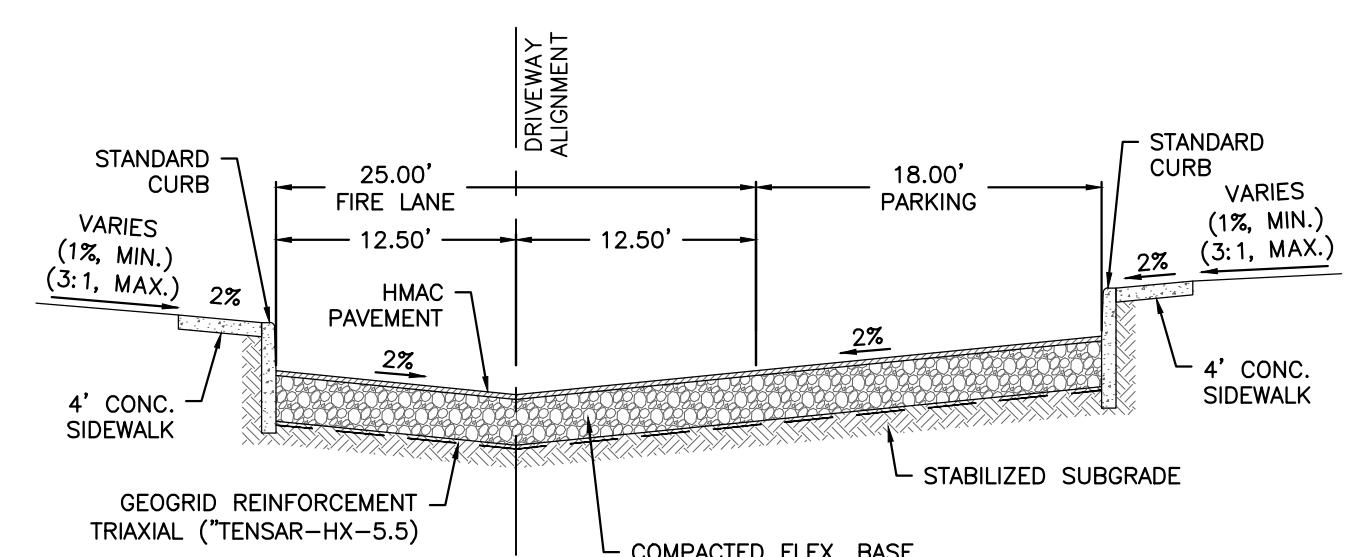
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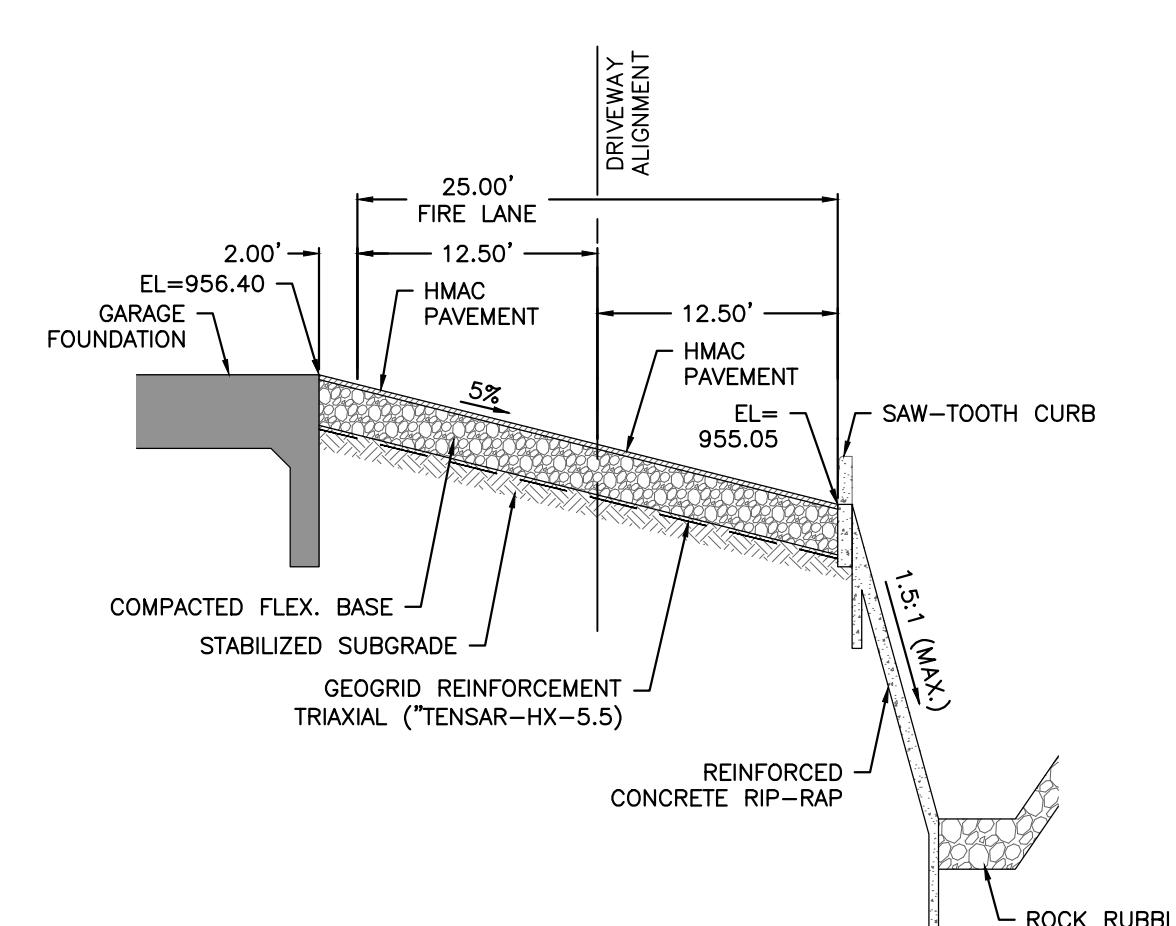
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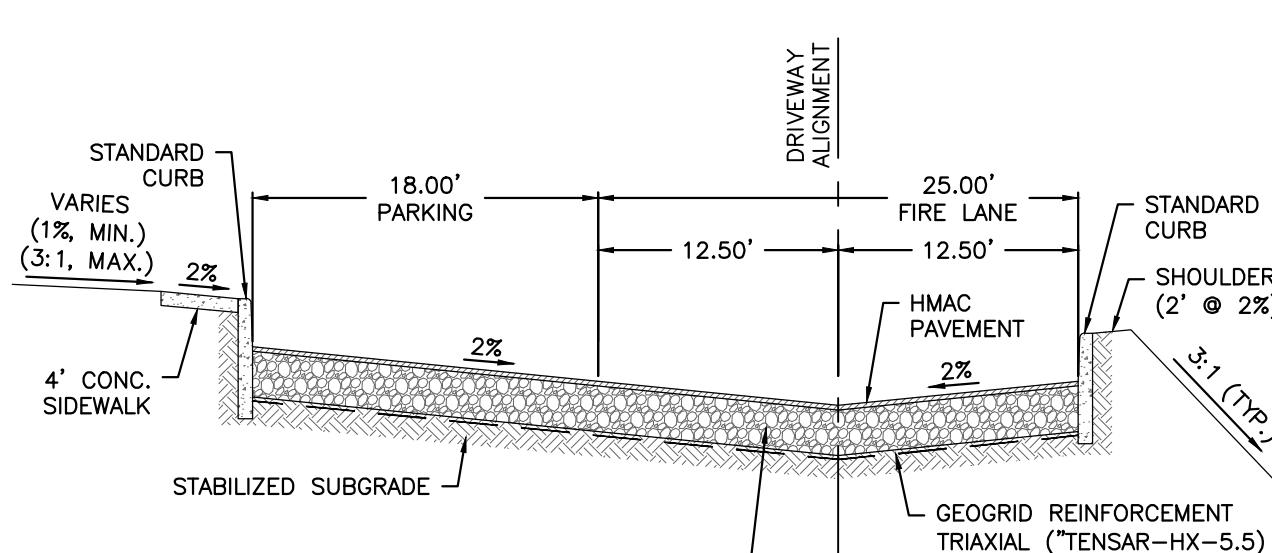
SECTION "B-B"

N.T.S.



SECTION "C-C"

N.T.S.



SECTION "D-D"

N.T.S.

GENERAL NOTES

- SEE GEOTECHNICAL ENGINEERING REPORT PREPARED BY UES, PROJECT NO. A252533, DATED JUNE 30, 2025 FOR PAVEMENT MATERIALS AND CONSTRUCTION REQUIREMENTS. CONTRACTOR SHALL MEET OR EXCEED ALL PAVEMENT RECOMMENDATIONS SET FORTH BY THE GEOTECHNICAL ENGINEERING REPORT.
- GEOTECHNICAL ENGINEER SHOULD VERIFY THE STREET SUBGRADE AT THE TIME OF CONSTRUCTION PRIOR TO PLACEMENT OF AGGREGATE BASE.
- IN THE EVENT THE FILL MATERIAL IS IMPORTED AND DIFFERENT THAN THE EXISTING SUBGRADE, THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT COULD BE INVALIDATED AND THE ENGINEER MUST BE CONSULTED TO DETERMINE IF ADDITIONAL CBR TESTING AND THICKER PAVEMENT SECTION(S) ARE REQUIRED.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL MATERIAL TESTING WITH THE PROJECT GEOTECHNICAL ENGINEER. TESTING SHALL BE PAID FOR BY THE OWNER.

STREET SUBGRADE NOTES

- IF THE STREET SUBGRADE PLASTICITY INDEX VALUE IS GREATER THAN 20, SUBGRADE STABILIZATION IS NEEDED AS PER CITY OF SAN ANTONIO REQUIREMENTS.
- IF THE SUBGRADE PLASTICITY INDEX VALUE IS 20 OR LESS, SUBGRADE STABILIZATION IS NOT NEEDED. THE SUBGRADE SHALL BE MOISTURE CONDITIONED AND COMPAKTED PER THE RECOMMENDATIONS SET FORTH IN THE PROJECT GEOTECHNICAL ENGINEERING REPORT.
- THE SUBGRADE SOILS SHOULD BE TESTED FOR SOIL SULFATE CONTENT PRIOR TO STABILIZATION. IF THE SOIL SULFATE CONTENT IS HIGHER THAN 3,000 PPM, AN ALTERNATE PROCEDURE/RECOMMENDATION WILL BE NEEDED.
- THE SUBGRADE SHOULD BE PROOF ROLLED TO IDENTIFY SOFT AREAS BEFORE STABILIZATION.

LIME NOTES

FOR LIME TREATMENT CONSTRUCTION VERIFICATION THE FOLLOWING SHALL BE CONDUCTED IN THE FIELD:

- AFTER INITIAL MIXING THE SOIL-LIME MIXTURE SHALL MELLOW FOR A PERIOD OF TWO TO THREE (2-3) DAYS. MAINTAIN MOISTURE DURING MELLLOWING.
- AFTER MELLLOWING AND FINAL MIXING, THE PULVERIZATION SHALL BE CHECKED USING THE FOLLOWING CRITERIA (REMOVE NON-SLAKING AGGREGATES RETAINED ON THE 3/4" SIEVE FROM THE SAMPLE):

MINIMUM PASSING 1-3/4" SIEVE	100%
MINIMUM PASSING 3/4" SIEVE	85%
MINIMUM PASSING NO. 4 SIEVE	60%
- SAMPLE SOIL-LIME MIXTURE FOR DETERMINATION OF MAXIMUM DRY DENSITY (MDD). IN THE LABORATORY, MOULD SPECIMENS TO 95% OF MDD AT OPTIMUM MOISTURE CONTENT AND VERIFY UCS TO BE AT LEAST 160 PSI IN ACCORDANCE WITH PROCEDURE OUTLINED ABOVE FOR MIXTURE DESIGN.
- COMPACT AND CHECK FIELD DENSITY (MINIMUM OF 95% MDD REQUIRED).
- CURE FOR AN ADDITIONAL 2 TO 5 DAYS (TOTAL MELLLOWING AND CURING TIME SHOULD TOTAL AT LEAST 5 DAYS).
- VERIFY DEPTH OF LIME TREATED LAYER TO DEPTH AS NOTED ON PLAN TO WITHIN +/- 1.0 INCH.

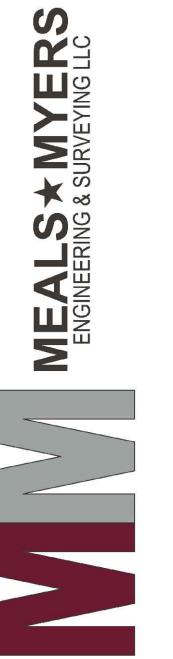


MMES F-18576
WOODMONT HELOTES
LOT 1, BLOCK 3, NCB 14867
(VOL. 20003, PG. 1628, O.P.R.B.C.)
SAN ANTONIO, TX 78023

MMES JOB NUMBER: 23101.03 DATE: 10/31/2025 REV: DATE
DESIGNED BY: MTM DRAWN BY: MMES CHD BY: MMES

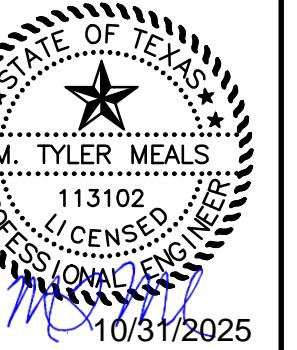
TYICAL STREET
SECTIONS

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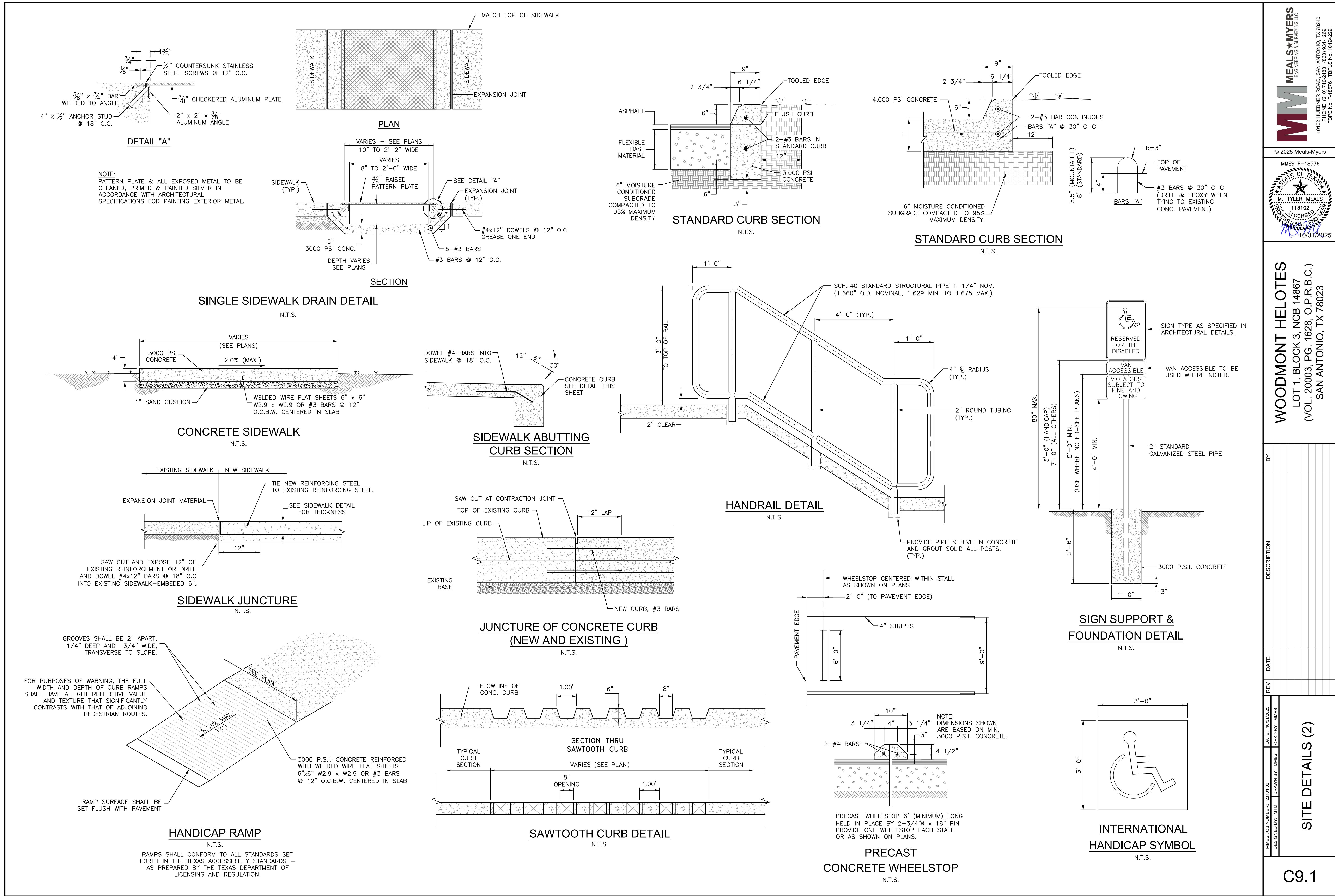
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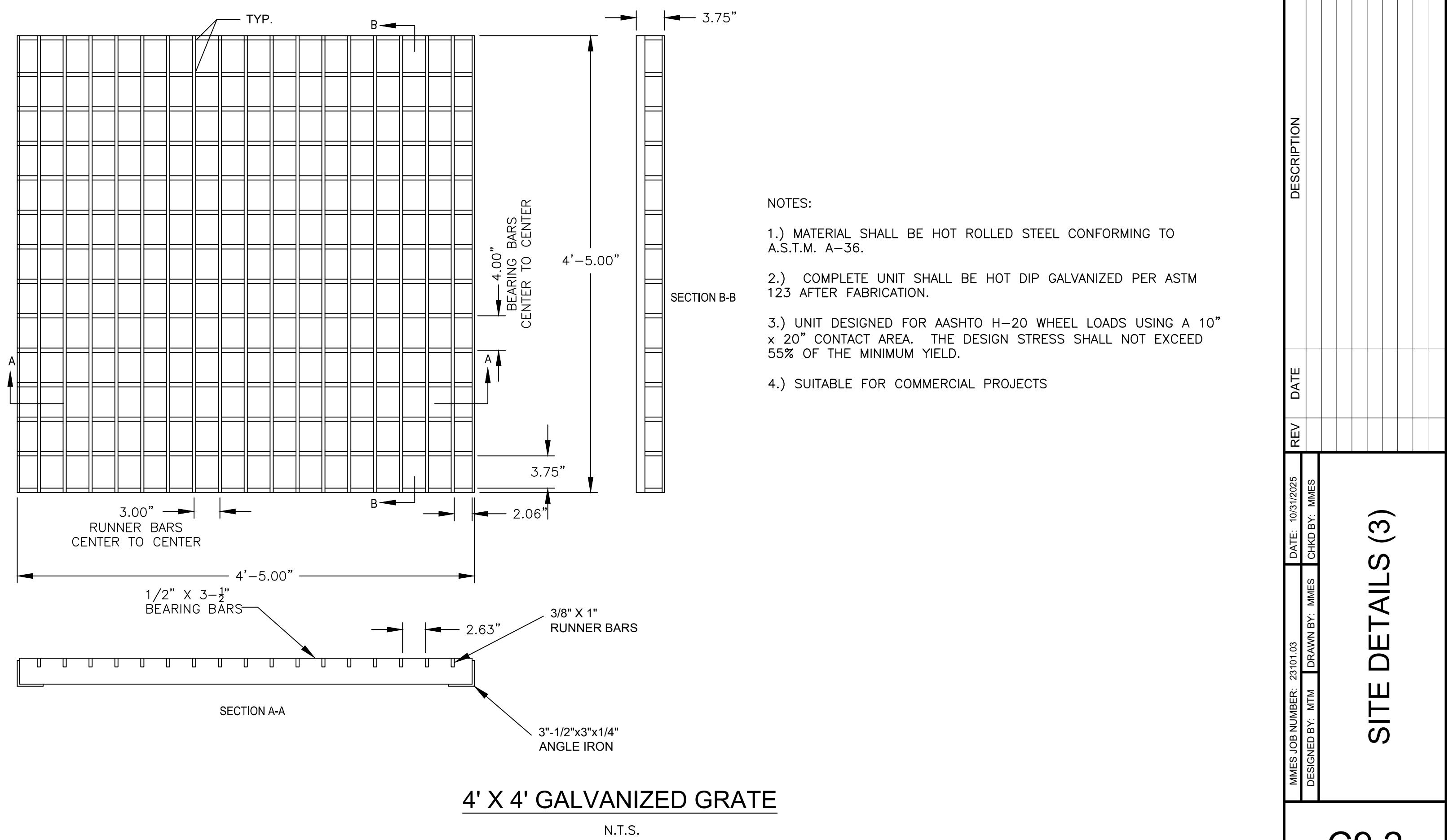
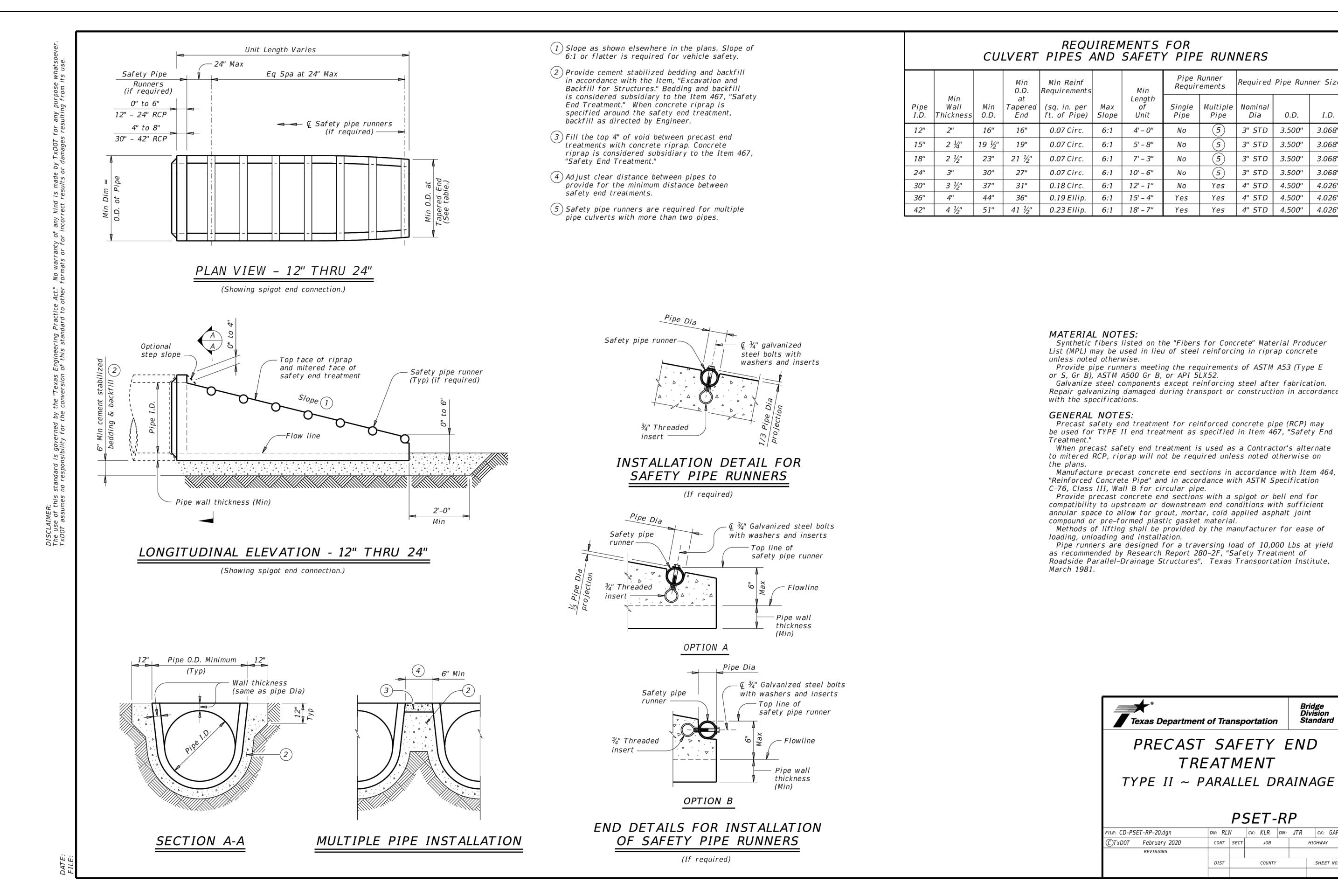
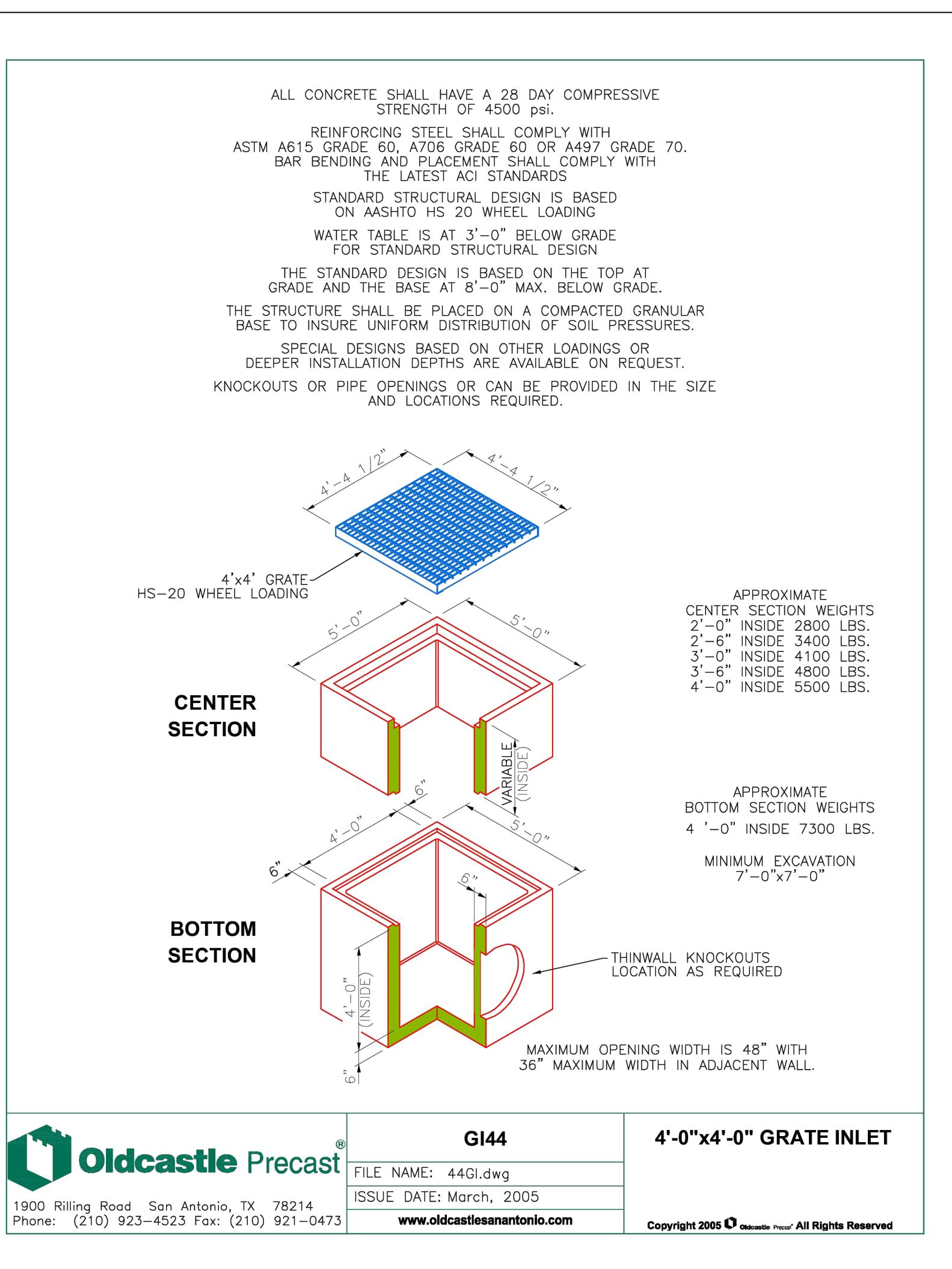
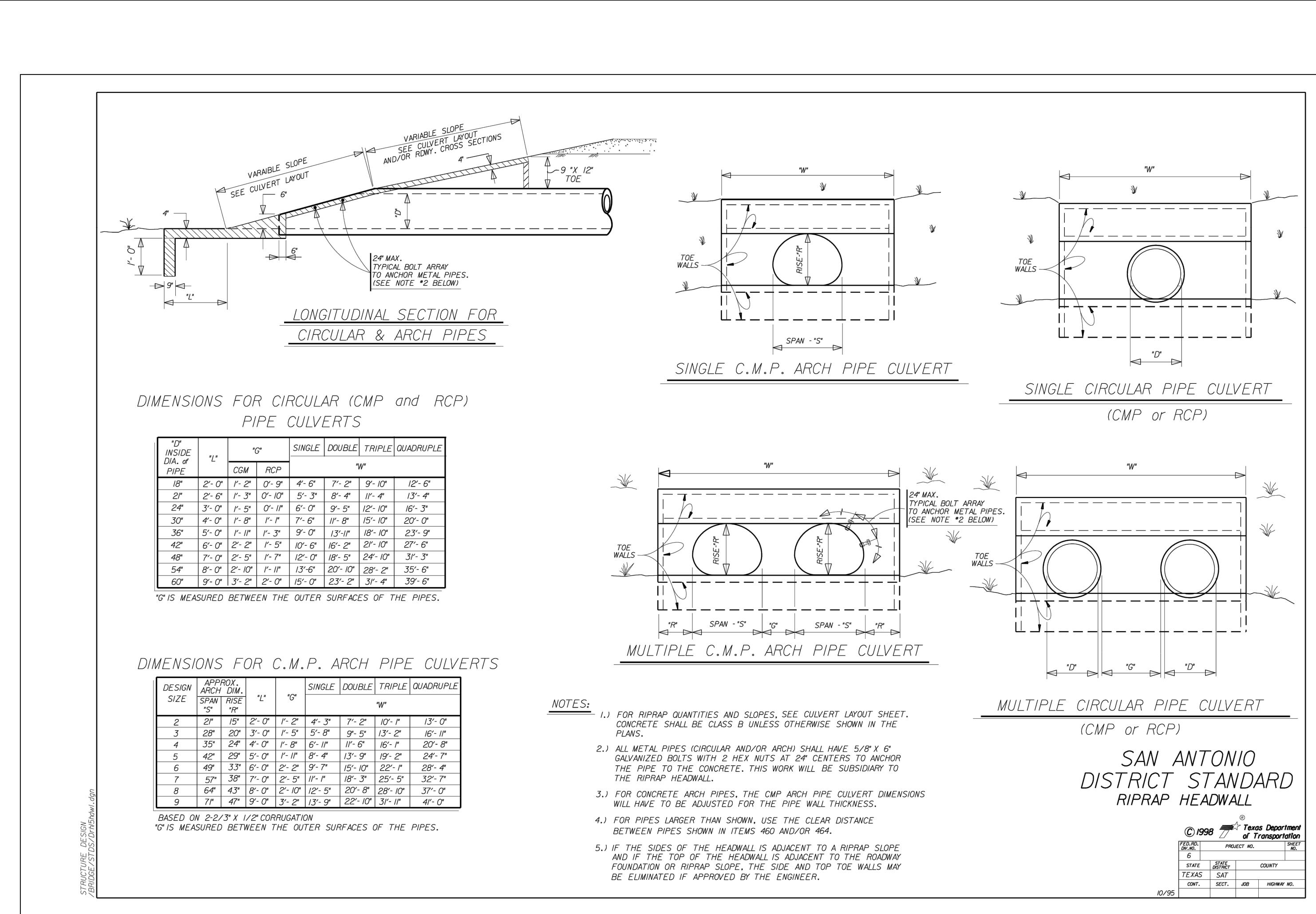


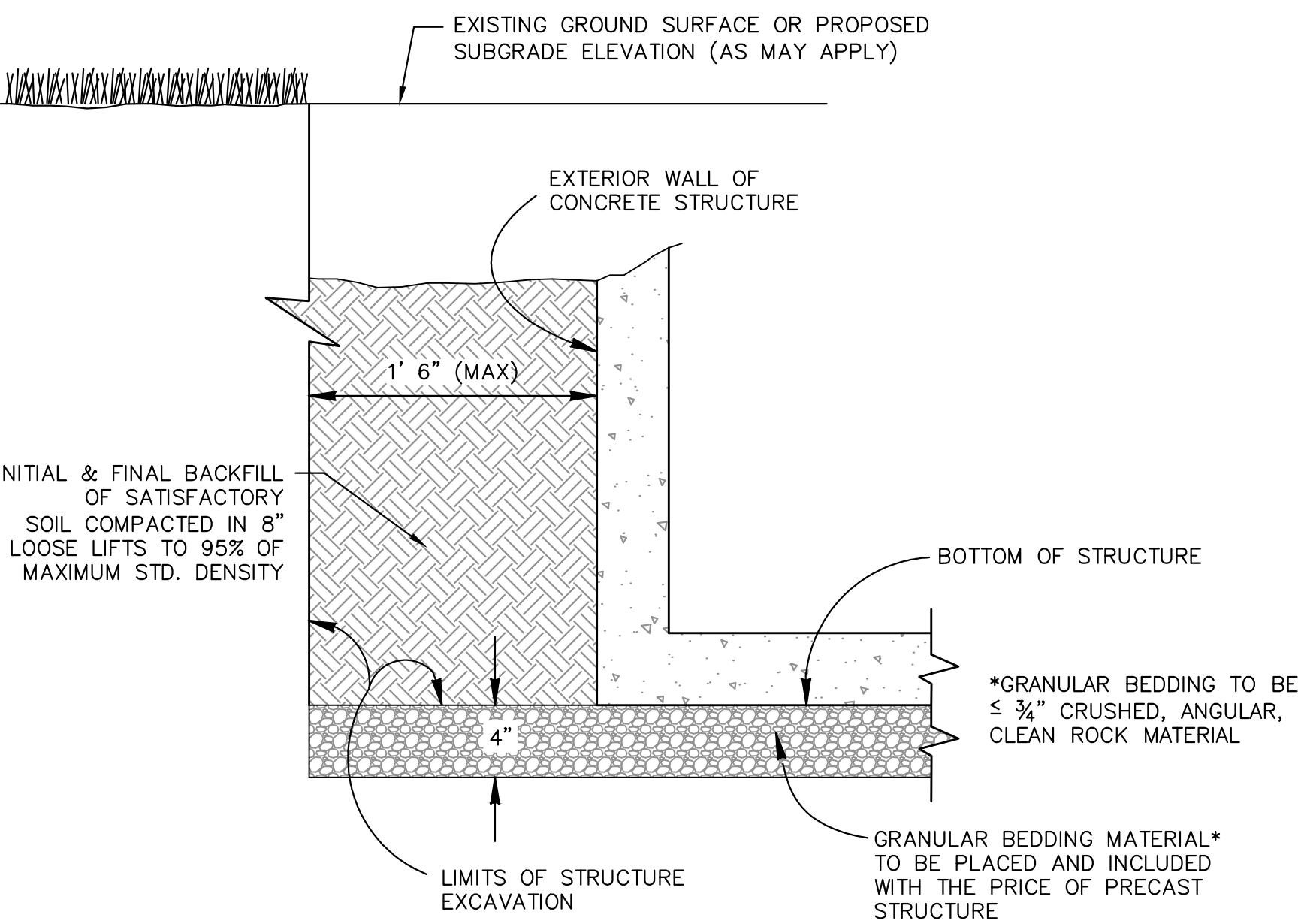
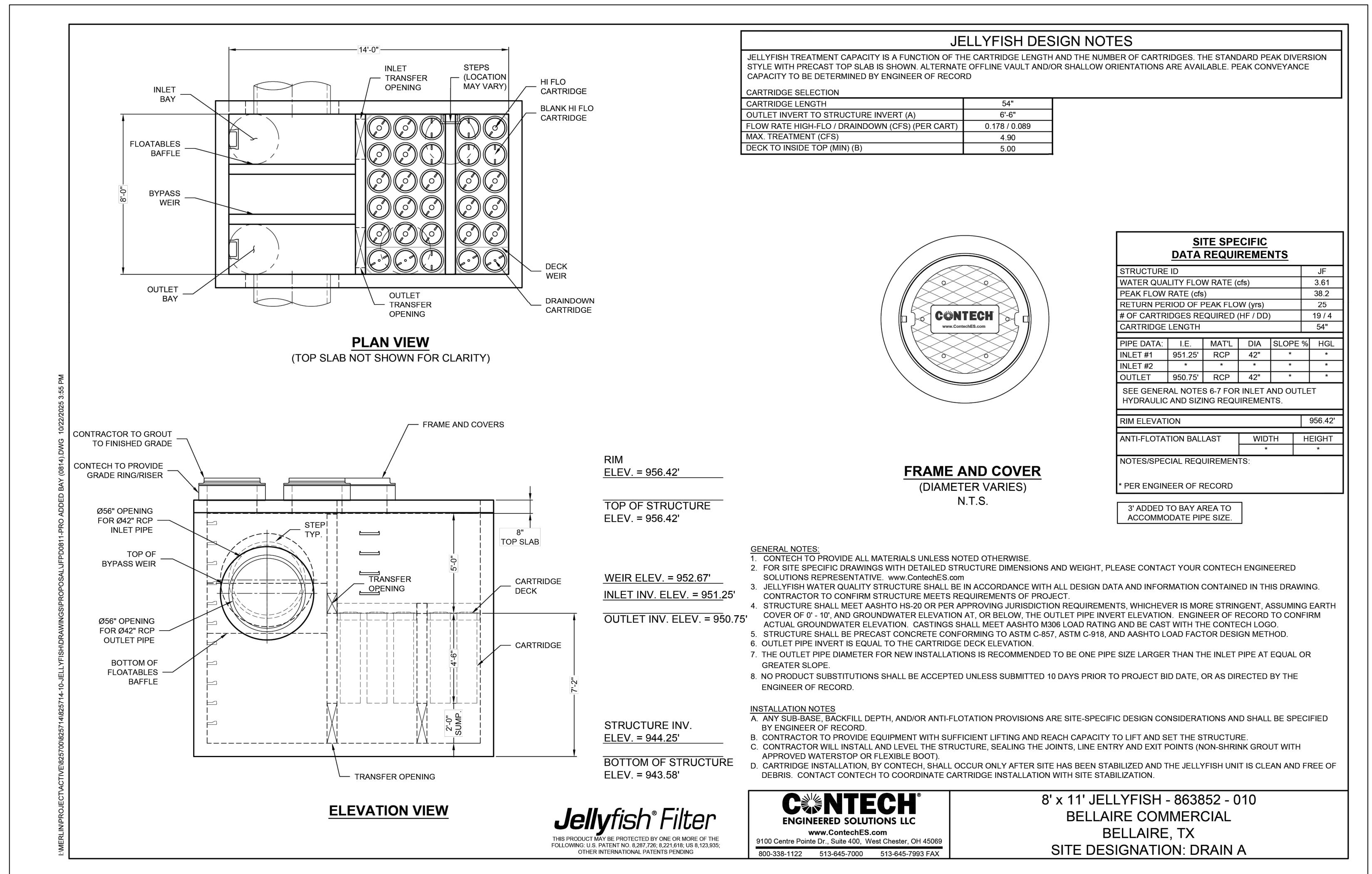
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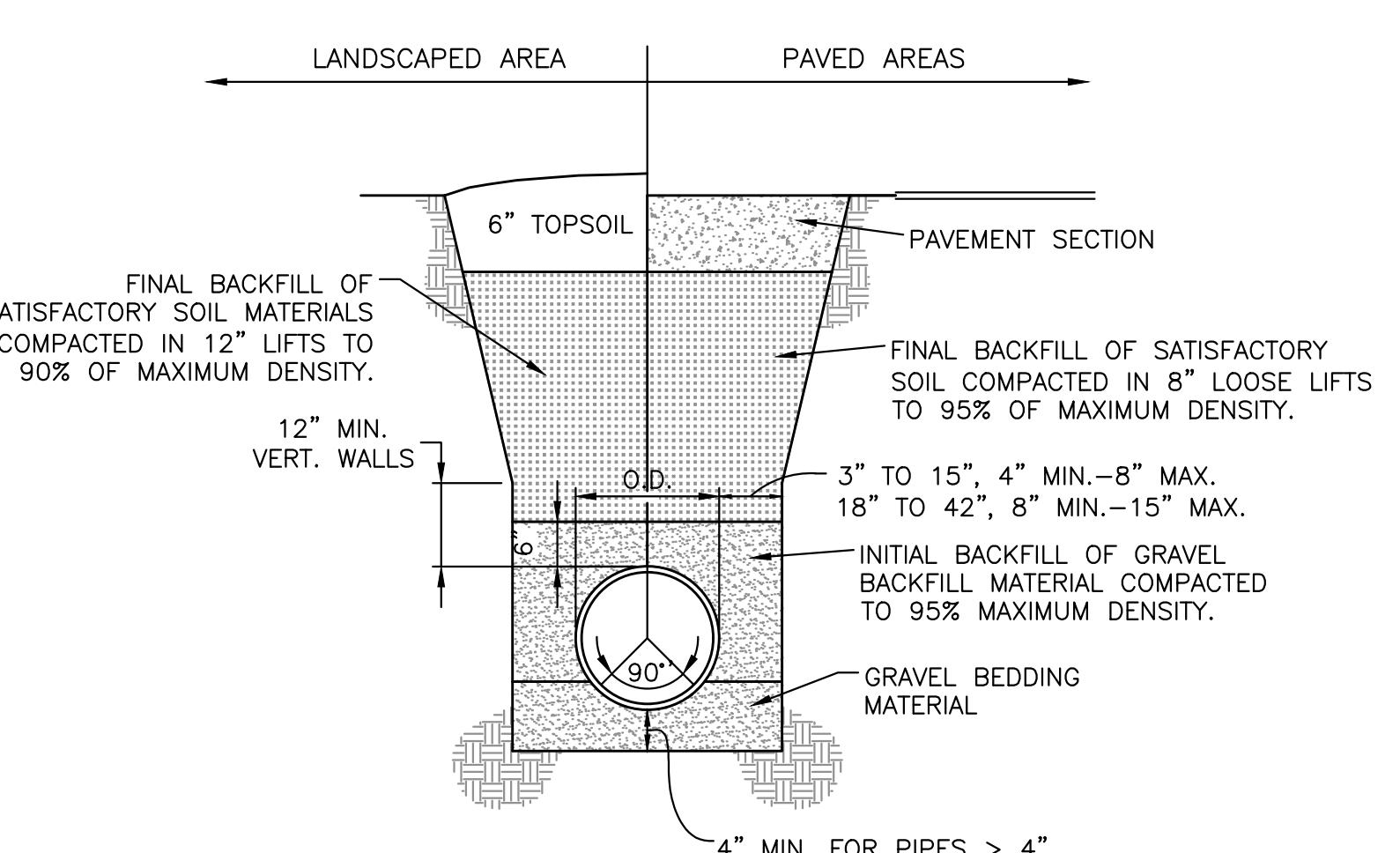
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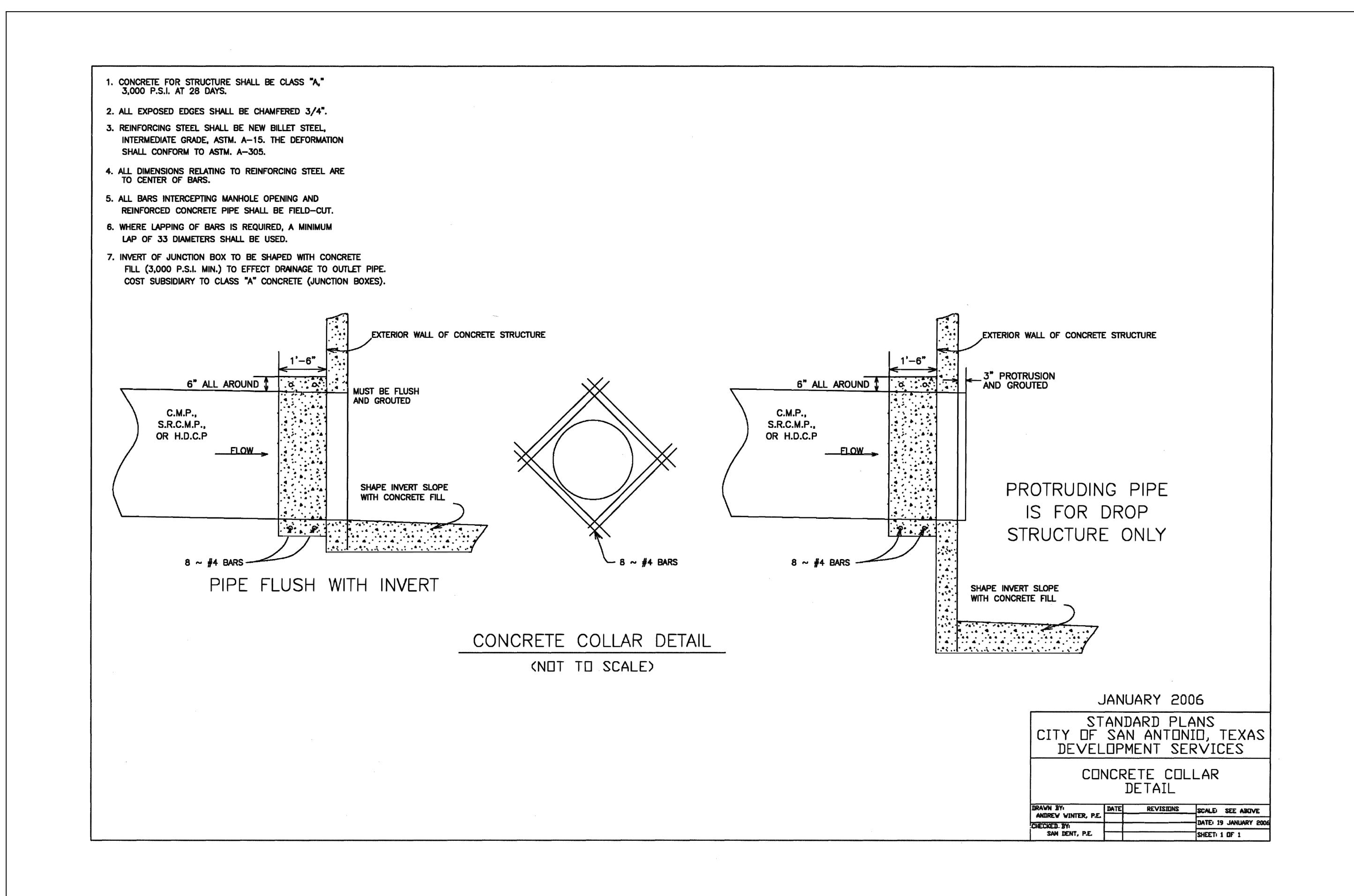




PRECAST STRUCTURES (BOX CULVERTS, INLETS, J-BOXES) BEDDING & BACKFILL

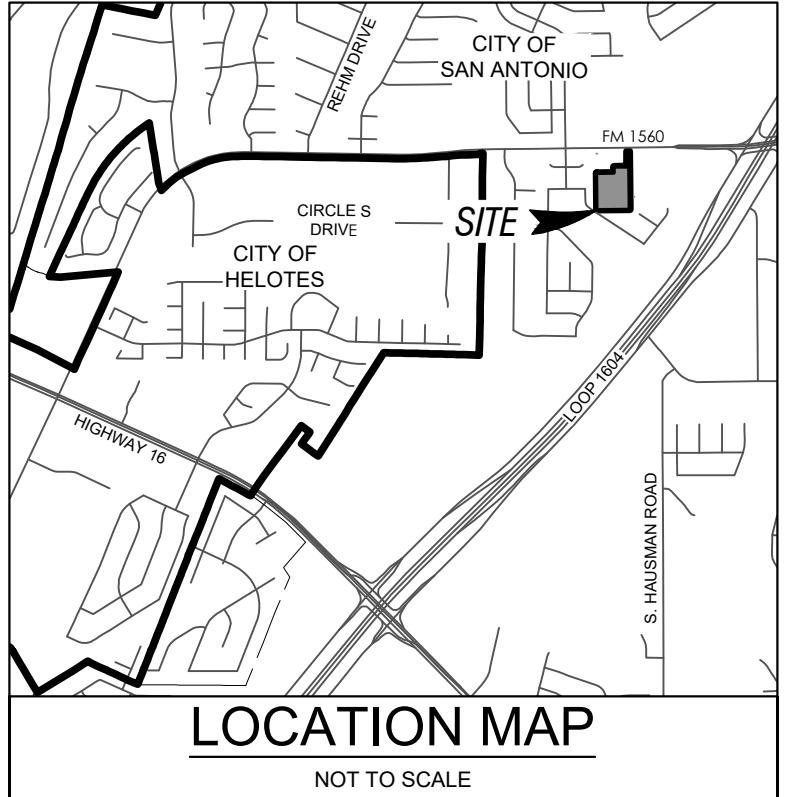


STORM SEWER TRENCH DETAIL



SITE DETAILS (4)

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LOCATION MAP

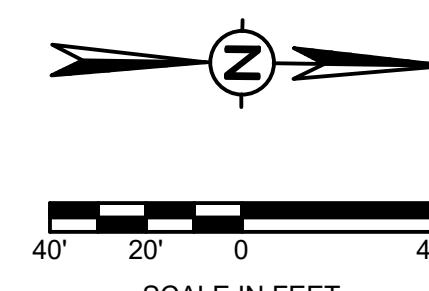
NOT TO SCALE

TRENCH EXCAVATION SAFETY PROTECTION

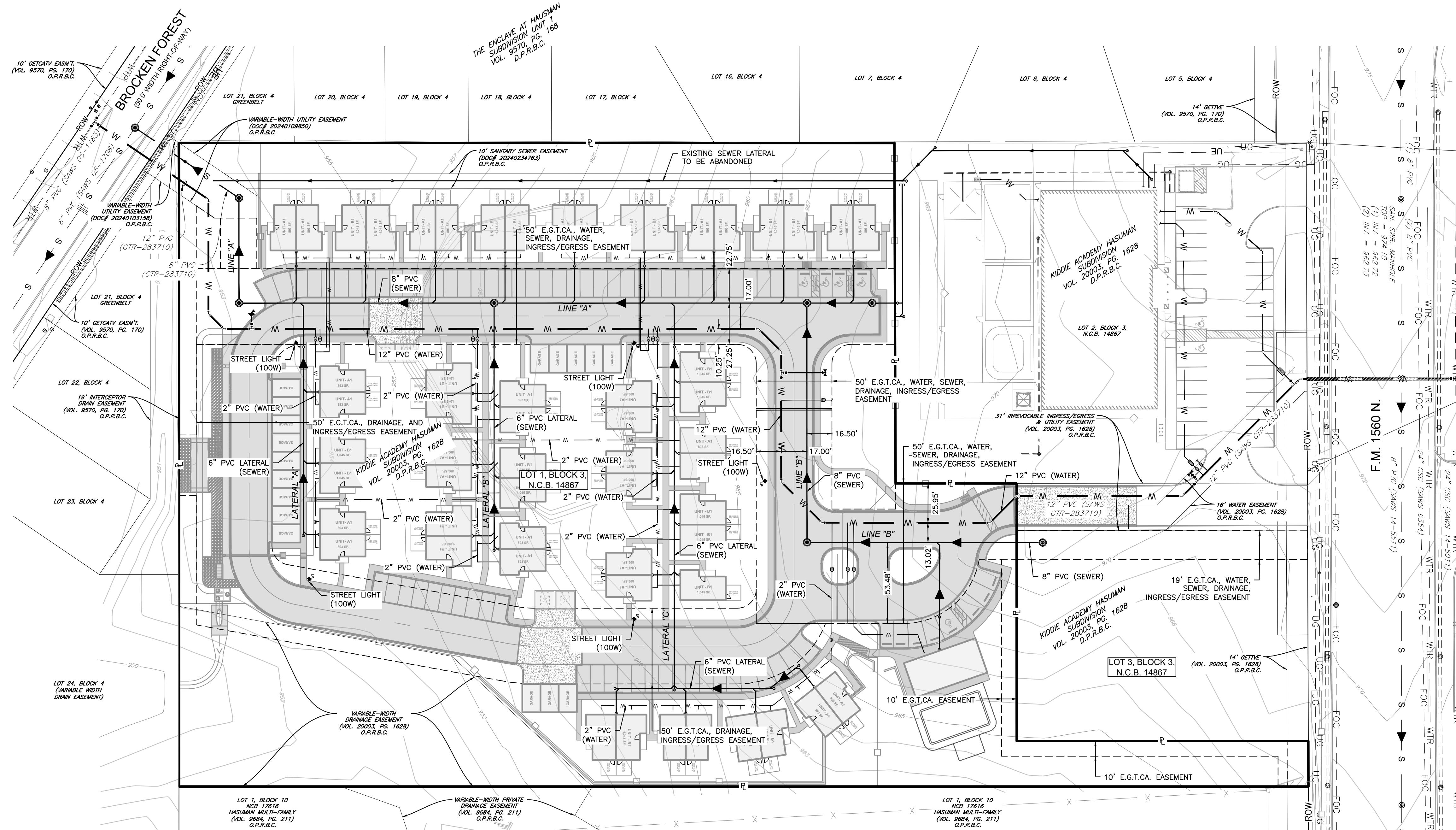
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES 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.

EXISTING UTILITIES - ONE CALL NOTICE

1. 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.
 2. 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](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 DIVISION.



I FGFND



OVERALL UTILITY



C10.0

January 2022

SAWS CONSTRUCTION NOTES
COUNTER PERMIT AND GENERAL CONSTRUCTION PERMIT

General Section

- 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:
 - 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.
 - Current TXDOT "Standard Specifications for Construction of Highways, Streets and Drainage".
 - Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction".
 - Current City of San Antonio "Standard Specifications for Public Works Construction".
 - Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).
- 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.
- The Contractor shall obtain the SAWS Standard Details from the SAWS website, http://www.saws.org/business_center/specs. Unless otherwise noted within the design plans.
- The Contractor is to make arrangements with the SAWS Construction Inspection Division at (210) 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.
- 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.
- 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

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- 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.
- 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.
- The Contractor shall comply with City of San Antonio or other governing municipality's tree ordinances when excavating near trees.
- The Contractor shall not place any waste materials in the 100-year Flood Plain without first obtaining an approved Flood Plain Permit.
- Holiday Work: Contractors will not be allowed to perform SAWS work on SAWS recognized holidays. Request should be sent to 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.
- Any and all SAWS utility work installed without holiday/weekend approval will be subject to be uncovered for proper inspection.
- 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.
- A copy of all testing reports shall be forwarded to SAWS Construction Inspection Division.

Water Section

- 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
- Asbestos Cement (AC) pipe, also known as transite pipe which is known to contain asbestos-containing 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".

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- 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)
- 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.
- All valves shall read "open right".
- PRVs Required: Contractor to verify that no portion of the tract is below ground elevation of _____ feet where the static pressure will normally exceed 80 PSI. At all such locations where the ground level is below _____ 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).
- 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.
- 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.
- 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.
- Division Valves: Division Valves shown on plans or not shown on plans but found in the field shall only be operated by SAWS Distribution and Collection staff and only with prior written approval of the SAWS Director of Production and Operations and proper coordination with all SAWS departments. Contractor shall provide written notification to the inspector a minimum of two weeks in advance to start the coordination process and will be informed by the Inspector when the division valve will be operated by the SAWS Distribution and Collection staff. The Division Valve can only be operated by SAWS Distribution and Collection staff member not the inspector or the contractor. Operation of a Division Valve without the express prior written approval of the SAWS Distribution and Collection staff will constitute a material breach of any written SAWS contract or permit in addition to subjecting the Contractor to liability for any and all fines, fees, or other damages, direct or consequential, that may arise from or be caused by the operation of the valve without prior written permission. Please be informed that the approval of the operation or opening or closing of a division valve can take several weeks for approval. Division Valves will also have a valve lid labeled Division Valve and a locking mechanism

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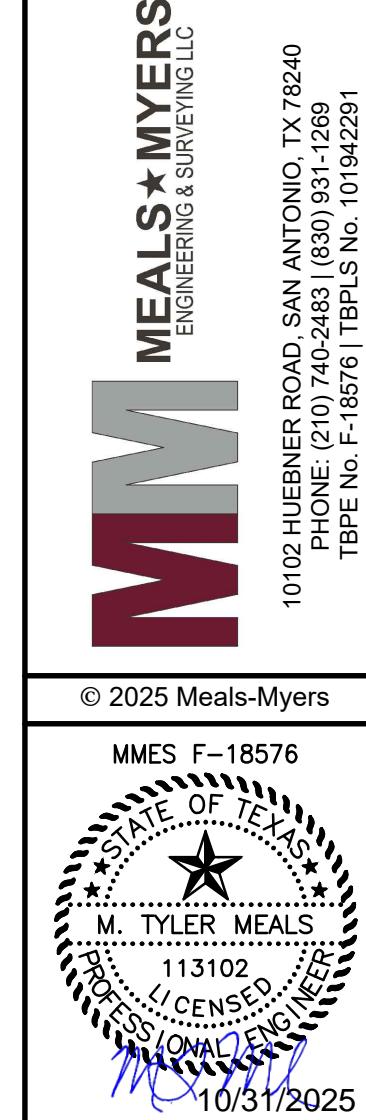
- Manhole and all pipe testing (including the TV inspection) must be performed and passed prior to Final Field Acceptance by SAWS Construction Inspection Division, as per the SAWS Specifications For Water and Sanitary Sewer Construction.
- All PVC pipe over 14 feet of cover shall be extra strength with minimum pipe stiffness of 115 psi.

WOODMONT HELOTES
LOT 1, BLOCK 3, NCB 14867
(VOL. 20003, PG. 1628, O.P.R.B.C.)
SAN ANTONIO, TX 78023

DESCRIPTION	BY	DATE	REV	DATE

SEWER:
EDWARDS AQUIFER RECHARGE ZONE (EARZ)
UPPER WEST SEWERSHED - LEON CREEK WRC
**SAINTARY SEWER
GENERAL NOTES**

C11.0



10102 HUEBNER ROAD SAN ANTONIO, TX 78240
PHONE: (210) 740-2433 (800) 931-269
TBPLS No. 101942291

Page 4 of 4

Developer's Name	WOODMONT HELOTES ACADEMY, LLC
Developer's Address	2100 WEST 7TH STREET
City	FORT WORTH
State	TEXAS
Zip	76107
Phone #	(817) 732-4000
Fax #	*
SAWS Block Maps	108630
Total EDUs	64
Total Acreage	5.113
Total Linear Footage of Pipe	801 LF 8" PVC
Plat No	22-11800588
Number of Lots	1
SAWS Job No.	24-1652

Texas Commission on Environmental Quality
Organized Sewage Collection System
General Construction Notes

Edwards Aquifer Protection Program Construction Notes - Legal Disclaimer

The following listed construction notes are intended to be advisory in nature only and do not constitute an approval or conditional approval by the Executive Director, nor do they constitute a comprehensive listing of rules or conditions to be followed during construction. Further actions may be required to achieve compliance with TCEQ regulations found in Title 30, Texas Administrative Code, Chapters 213 and 217, as well as local ordinances and regulations providing for the protection of water quality. Additionally, nothing contained in the following listed "construction notes" restricts the powers of the Executive Director, the commission or any other governmental entity to prevent, correct, or curtail activities that result or may result in the violation of the Edwards Aquifer or hydrologically connected surface waters. The holder of any Edwards Aquifer Protection Plan containing "construction notes" is still responsible for compliance with Title 30, Texas Administrative Code, Chapters 213 or any other applicable TCEQ regulation, as well as all conditions of an Edwards Aquifer Protection Plan through all phases of plan implementation. Failure to comply with any condition of the Executive Director's approval, whether or not in contradiction of any "construction notes," is a violation of TCEQ regulations and any violation is subject to administrative rules, orders, and penalties as provided under Title 30, Texas Administrative Code § 213.10 (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. The following listed "construction notes" in no way represent an approved exception by the Executive Director to any part of Title 30 Texas Administrative Code, Chapters 213 and 217, or any other TCEQ applicable regulation.

- This Organized Sewage Collection System (SCS) must be constructed in accordance with 30 Texas Administrative Code (TAC) §213.5(c), the Texas Commission on Environmental Quality's (TCEQ) Edwards Aquifer Rules and any local government standard specifications.
- All contractors conducting regulated activities associated with this proposed regulated project must be provided with copies of the SCS plan and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors must be required to keep on-site copies of the plan and the approval letter.
- A written notice of construction must be submitted to the presiding TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:
 - the name of the approved project;
 - the activity start date; and
 - the contact information of the prime contractor.
- Any modification to the activities described in the referenced SCS application following the date of approval may require the submittal of an SCS application to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval.
- Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the manufacturers specifications. These controls must remain in place until the disturbed areas have been permanently stabilized.
- If any sensitive features are discovered during the wastewater line trenching activities, all regulated activities near the sensitive feature must be suspended immediately. The applicant must immediately notify the appropriate regional office of the TCEQ of the feature discovered. A geologist's assessment of the location and extent of the feature discovered must be reported to that regional office in writing and the applicant must submit a plan for ensuring the structural integrity of the sewer line or for modifying the proposed collection system alignment around the feature. The regulated activities near the sensitive feature may not proceed until the feature is addressed.

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- If no stub-out is present an alternate method of joining laterals is shown in the detail on Plan Sheet ____ of _____. (For potential future laterals).
- The private service lateral stub-outs must be installed as shown on the plan and profile sheets on Plan Sheet ____ of ____ and marked after backfilling as shown in the detail on Plan Sheet ____ of _____. (For potential future laterals).
- Trenching, bedding and backfill must conform with 30 TAC §217.54. The bedding and backfill for flexible pipe must comply with the standards of ASTM D-2321, Classes IA, IB, II or III. Rigid pipe bedding must comply with the requirements of ASTM C 12 (ANSI A 106.2) classes A, B or C.
 - Sewer lines must be tested from manhole to manhole. When a new sewer line is connected to an existing stub or clean-out, it must be tested from existing manhole to new manhole. If a stub or clean-out is at the end of the proposed sewer line, no private service attachments may be connected between the last manhole and the cleanout unless it can be certified as conforming with the provisions of 30 TAC §213.5(c)(3)(E).
 - All sewer lines must be tested in accordance with 30 TAC §217.57. The engineer must retain copies of all test results which must be made available to the executive director upon request. The engineer must certify in writing that all wastewater lines have passed all required testing to the appropriate regional office within 30 days of test completion and prior to use of the new collection system. Testing method will be:
 - For a collection system pipe that will transport wastewater by gravity flow, the design must specify an infiltration and exfiltration test or a low-pressure air test. A test must conform to the following requirements:
 - Low Pressure Air Test.**
 - A low pressure air test must follow the procedures described in American Society for Testing And Materials (ASTM) C-828, ASTM C-924, or ASTM F-1417 or other procedure approved by the executive director, except as to testing times as required in Table C.3 in subparagraph (C) of this paragraph or Equation C.3 in subparagraph (B)(ii) of this paragraph.
 - For sections of collection system pipe less than 36 inch average inside diameter, the following procedure must apply, unless a pipe is to be tested as required by paragraph (2) of this subsection:
 - A pipe must be pressurized to 3.5 pounds per square inch (psi) greater than the pressure exerted by groundwater above the pipe.
 - Once the pressure is stabilized, the minimum time allowable for the pressure to drop from 3.5 psi gauge to 2.5 psi gauge is computed from the following equation:

$$\text{Equation C.3} \quad T = \frac{0.085 \times D \times K}{Q}$$

Where:

T = time for pressure to drop 1.0 pound per square inch gauge in seconds
K = 0.000419 X D X L, but not less than 1.0
D = average inside pipe diameter in inches

- All manholes must be tested to meet or exceed the requirements of 30 TAC §217.58.
 - All manholes must pass a leakage test.
 - An owner shall test each manhole (after assembly and backfilling) for leakage, separate and independent of the collection system pipes, by hydrostatic exfiltration testing, vacuum testing, or other method approved by the executive director.
 - Hydrostatic Testing.**

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executive director has reviewed and approved the methods proposed to protect the sensitive feature and the Edwards Aquifer from any potentially adverse impacts to water quality while maintaining the structural integrity of the line.

- Sewer lines located within or crossing the 5-year floodplain of a drainage way will be protected from inundation and stream velocities which could cause erosion and scouring of backfill. The trench must be capped with concrete to prevent scouring of backfill, or the sewer lines must be encased in concrete. All concrete shall have a minimum thickness of 6 inches.
- Blasting procedures for protection of existing sewer lines and other utilities will be in accordance with the National Fire Protection Association criteria. Sand is not allowed as bedding or backfill in trenches that have been blasted. If any existing sewer lines are damaged, the lines must be repaired and retested.
- All manholes constructed or rehabilitated on this project must have watertight size on size resilient connectors allowing for differential settlement. If manholes are constructed within the 100-year floodplain, the cover must have a gasket and be bolted to the ring. Where gasketed manhole covers are required for more than three manholes in sequence or for more than 1500 feet, alternate means of venting will be provided. Bricks are not an acceptable construction material for any portion of the manhole.

The diameter of the manholes must be a minimum of four feet and the manhole for entry must have a minimum clear opening diameter of 30 inches. These dimensions and other details showing compliance with the commission's rules concerning manholes and sewer line/manhole inverts described in 30 TAC §217.55 are included on Plan Sheet ____ of _____. It is suggested that entrance into manholes in excess of four feet deep be accomplished by means of a portable ladder. The inclusion of steps in a manhole is prohibited.

- Where water lines and new sewer line are installed with a separation distance closer than nine feet (i.e., water lines crossing wastewater lines, water lines paralleling wastewater lines, or water lines next to manholes) the installation must meet the requirements of 30 TAC §217.53(d) (Pipe Design) and 30 TAC §290.44(e) (Water Distribution).
- Where sewers lines deviate from straight alignment and uniform grade all curvature of sewer pipe must be achieved by the following procedure which is recommended by the pipe manufacturer: _____.

If pipe flexure is proposed, the following method of preventing deflection of the joint must be used: _____.

Specific care must be taken to ensure that the joint is placed in the center of the trench and properly bedded in accordance with 30 TAC §217.54.

- New sewage collection system lines must be constructed with stub outs for the connection of anticipated extensions. The location of such stub outs must be marked on the ground such that their location can be easily determined at the time of connection of the extensions. Such stub outs must be manufactured wyes or tees that are compatible in size and material with both the sewer line and the extension. At the time of original construction, new stub-outs must be constructed sufficiently to extend beyond the end of the street pavement. All stub-outs must be sealed with a manufactured cap to prevent leakage. Extensions that were not anticipated at the time of original construction or that are to be connected to an existing sewer line not furnished with stub outs must be connected using a manufactured saddle and in accordance with accepted plumbing techniques.

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L = length of line of same size being tested, in feet
Q = rate of loss, 0.0015 cubic feet per minute per square foot internal surface
(C) Since a K value of less than 1.0 may not be used, the minimum testing time for each pipe diameter is shown in the following Table C.3:

Pipe Diameter (inches)	Minimum Time (seconds)	Maximum Length for Minimum Time (feet)	Time for Longer Length (seconds/foot)
6	340	398	0.855
8	454	298	1.520
10	567	239	2.374
12	680	199	3.419
15	850	159	5.342
18	1020	133	7.693
21	1190	114	10.471
24	1360	100	13.676
27	1530	88	17.309
30	1700	80	21.369
33	1870	72	25.856

- (D) An owner may stop a test if no pressure loss has occurred during the first 25% of the calculated testing time.
 (E) If any pressure loss or leakage has occurred during the first 25% of a testing period, then the test must continue for the entire test duration as outlined above or until failure.
 (F) Wastewater collection system pipes with a 27 inch or larger average inside diameter may be air tested at each joint instead of following the procedure outlined in this section.
 (G) A testing procedure for pipe with an inside diameter greater than 33 inches must be approved by the executive director.
- (2) **Infiltration/Exfiltration Test.**
 (A) The total exfiltration, as determined by a hydrostatic head test, must not exceed 50 gallons per inch of diameter per mile of pipe per 24 hours at a minimum test head of 2.0 feet above the crown of a pipe at an upstream manhole.
 (B) An owner shall use an infiltration test in lieu of an exfiltration test when pipes are installed below the groundwater level.
 (C) The total exfiltration, as determined by a hydrostatic head test, must not exceed 50 gallons per inch diameter per mile of pipe per 24 hours at a minimum test head of two feet above the crown of a pipe at an upstream manhole, or at least two feet above existing groundwater level, whichever is greater.
 (D) For construction within a 25-year flood plain, the infiltration or exfiltration must not exceed 10 gallons per inch diameter per mile of pipe per 24 hours at the same minimum test head as in subparagraph (C) of this paragraph.
 (E) If the quantity of infiltration or exfiltration exceeds the maximum quantity specified, an owner shall undertake remedial action in order to reduce

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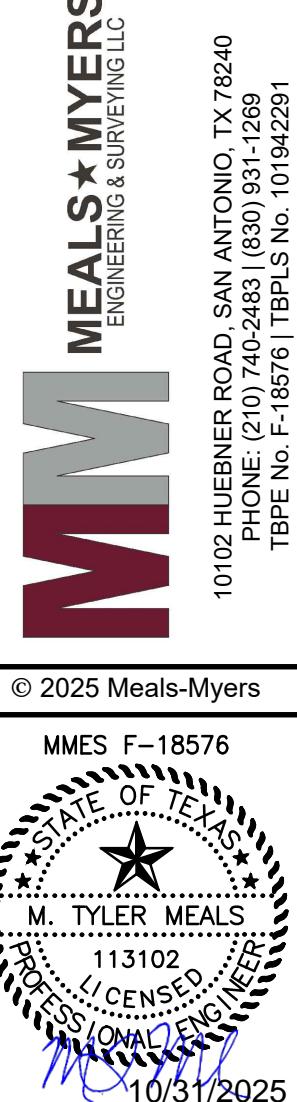
- (A) The maximum leakage for hydrostatic testing or any alternative test methods is 0.025 gallons per foot diameter per foot of manhole depth per hour.
 (B) To perform a hydrostatic exfiltration test, an owner shall seal all wastewater pipes coming into a manhole with an internal pipe plug, fill the manhole with water, and maintain the test for at least one hour.
 (C) A test for concrete manholes may use a 24-hour wetting period before testing to allow saturation of the concrete.
 (2) **Vacuum Testing.**
 (A) To perform a vacuum test, an owner shall plug all lift holes and exterior joints with a non-shrink grout and plug all pipes entering a manhole.
 (B) No grout must be placed in horizontal joints before testing.
 (C) Stub-outs, manhole boots, and pipe plugs must be secured to prevent movement while a vacuum is drawn.
 (D) An owner shall use a minimum 60 inch/lb torque wrench to tighten the external clamps that secure a test cover to the top of a manhole.
 (E) A test head must be placed at the inside of the top of a cone section, and the seal inflated in accordance with the manufacturer's recommendations.
 (F) There must be a vacuum of 10 inches of mercury inside a manhole to perform a valid test.
 (G) A test does not begin until after the vacuum pump is off.
 (H) A manhole passes the test if after 2.0 minutes and with all valves closed, the vacuum is at least 9.0 inches of mercury.
- (17) All private service laterals must be inspected and certified in accordance with 30 TAC §213.5(c)(3)(I). After installation of and, prior to covering and connecting a private service lateral to an existing organized sewage collection system, a Texas Licensed Professional Engineer, Texas Registered Sanitarian, or appropriate city inspector must visually inspect the private service lateral and the connection to the sewage collection system, and certify that it is constructed in conformity with the applicable provisions of this section. The owner of the collection system must maintain such certifications for five years and forward copies to the appropriate regional office upon request. Connections may only be made to an approved sewage collection system.

Austin Regional Office 12100 Park 35 Circle, Building A Austin, Texas 78753-1808 Phone (512) 339-2929 Fax (512) 339-3795	San Antonio Regional Office 14250 Judson Road San Antonio, Texas 78233-4480 Phone (210) 490-3096 Fax (210) 545-4329
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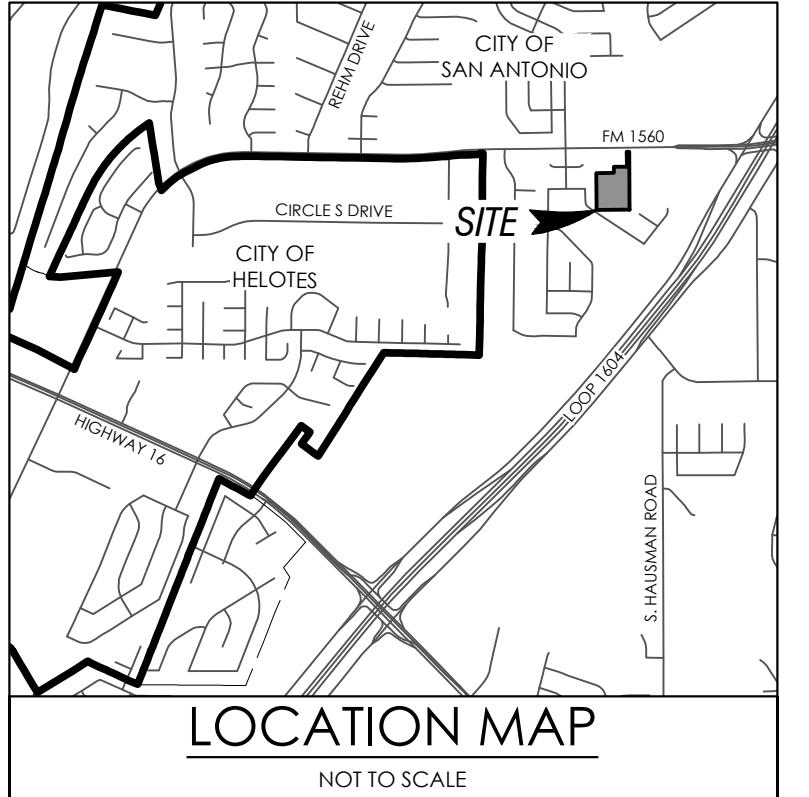
THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

SEWER: EDWARDS AQUIFER RECHARGE ZONE (EARZ) UPPER WEST SEWERED - LEON CREEK WRC	DESIGNED BY: MM	DRAWN BY: MMES	REV: 10/31/03	DATE: 10/31/2025
Developer's Name: WOODMONT HELOTES ACADEMY, LLC				
Developer's Address: 2100 WEST 7TH STREET				
City: FORT WORTH State: TEXAS Zip: 76107				
Phone # (817) 732-4000 Fax # _____				
SAWS Block Maps: 108630 Total EDU's: 64 Total Acreage: 5.113				
Total Linear Footage of Pipe: 801 LF 8" PVC Plat No. 22-1100588				
Number of Lots: 1 SAWs Job No.: 24-1652				

C11.1



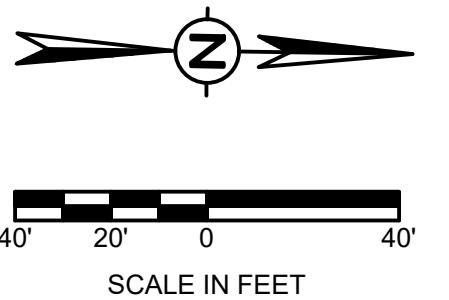
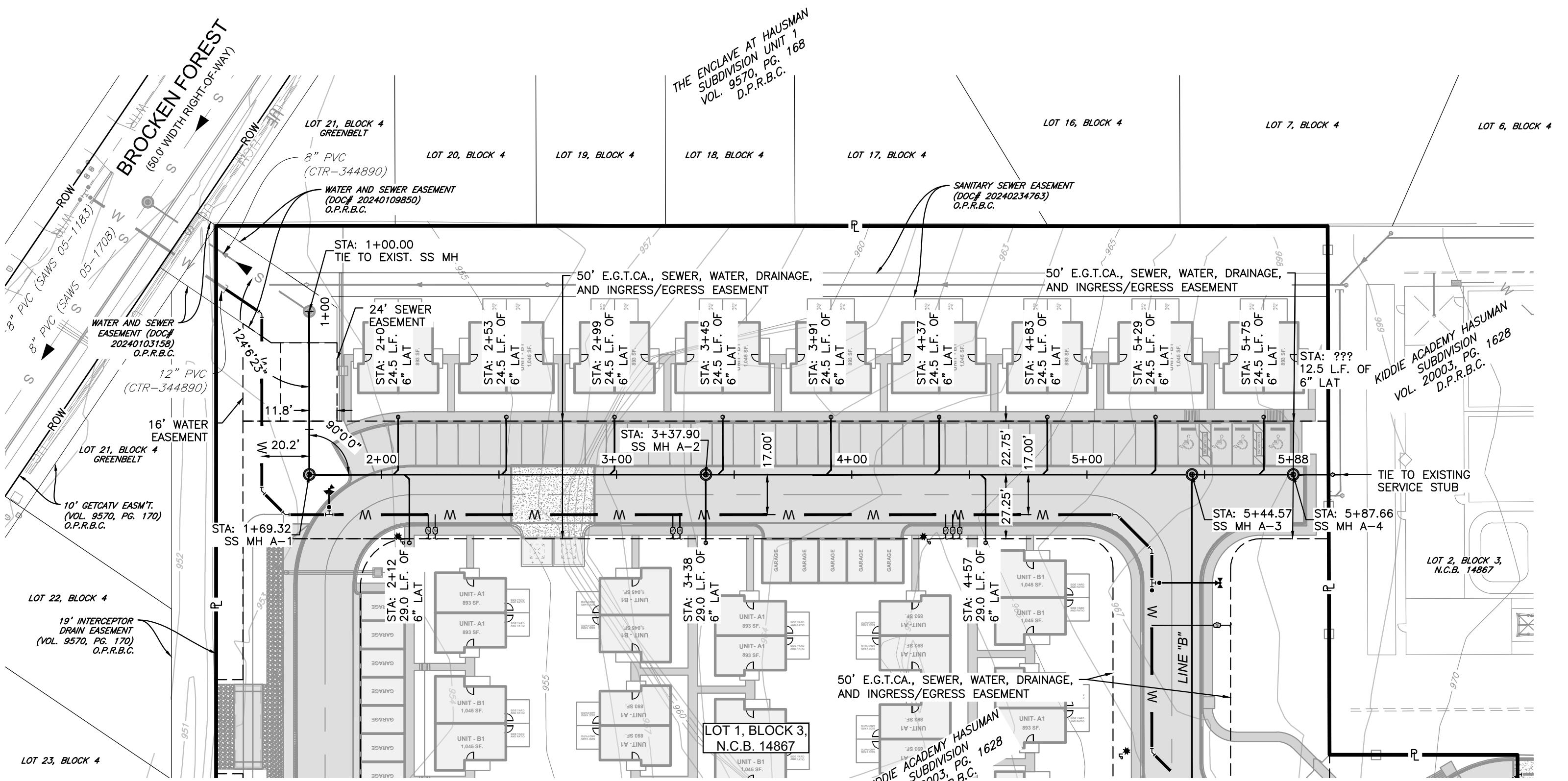
SANITARY SEWER SCS
GENERAL NOTES



TRENCH EXCAVATION SAFETY 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 SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. 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 STRUCTURAL 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.

EXISTING UTILITIES - ONE CALL NOTICE

- LOCATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MAY VARY. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES 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 SAW'S.
- 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 SAW'S TO PROCESS THE REQUEST. THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:
 - SAWS UTILITY LOCATES: [HTTP://WWW.SAWS.ORG/SERVICE/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 DIMSON.

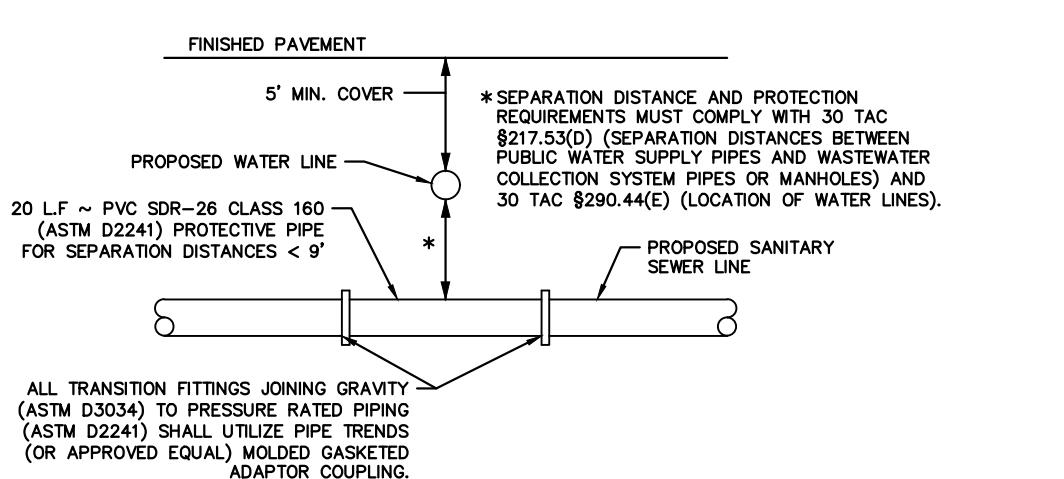
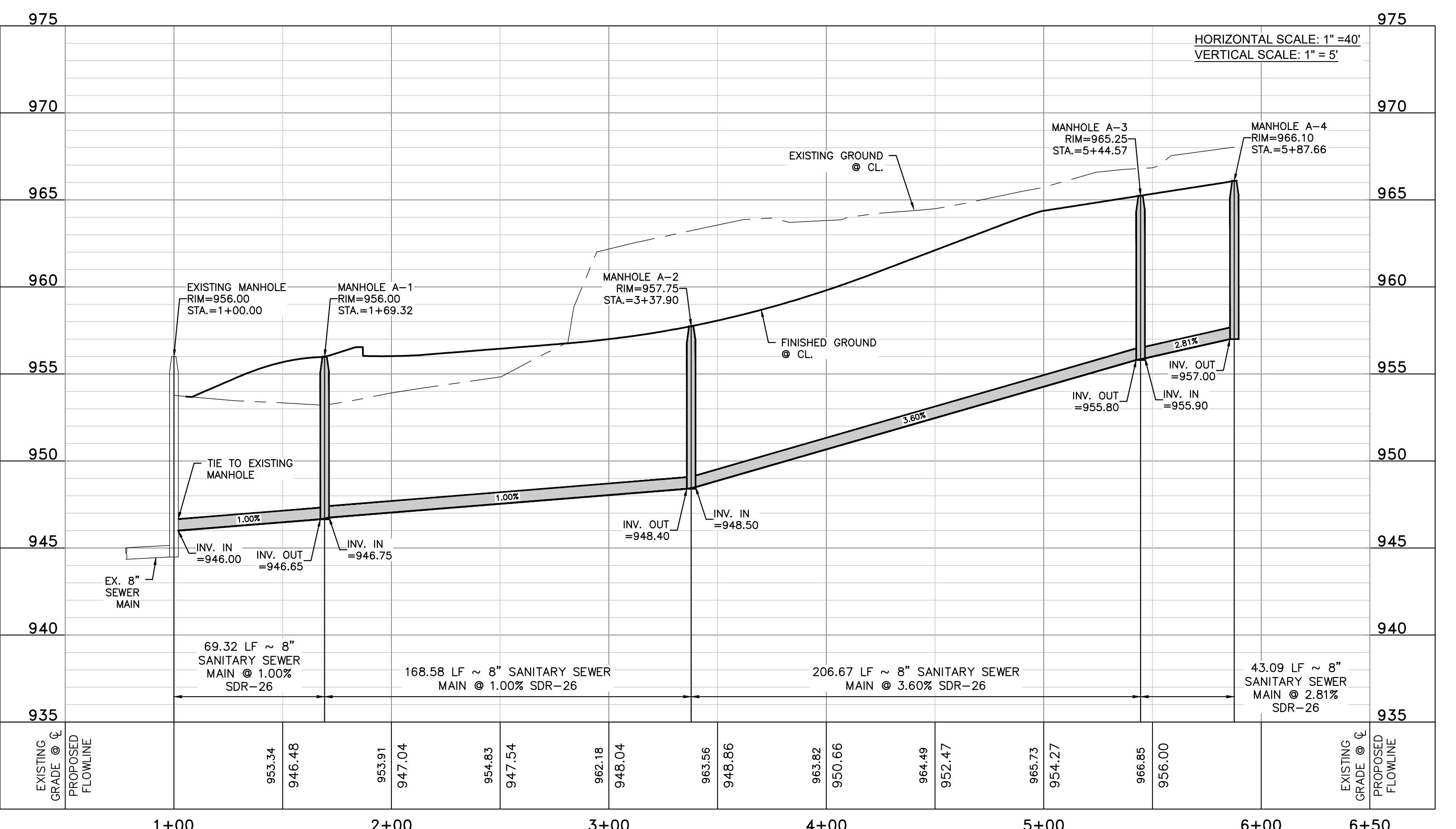


SCALE IN FEET

LEGEND

	PROPERTY BOUNDARY
	RIGHT-OF-WAY LINE
	ADJOINING PROPERTY LINE
	EASEMENT LINE
	EXISTING WATER LINE
	EXISTING SEWER LINE
	EXISTING GAS LINE
	EXISTING FIBER LINE
	EXISTING COMMUNICATION LINE
	EXISTING UNDERGROUND ELECTRIC
	EXISTING OVERHEAD ELECTRIC
	PROPOSED WATER LINE
	PROPOSED SANITARY SEWER LINE
	EXISTING 1' CONTOUR LINE
	EXISTING 5' CONTOUR LINE
	EXISTING POWER POLE
	EXISTING LIGHT POLE
	EXISTING ELECTRIC PULL BOX
	EXISTING TELEPHONE PEDESTAL
	EXISTING WATER METER
	EXISTING CONTROL VALVE
	EXISTING WATER VALVE
	EXISTING COMMUNICATIONS MANHOLE
	EXISTING STORM DRAIN MANHOLE
	EXISTING SANITARY SEWER MANHOLE

LINE "A"



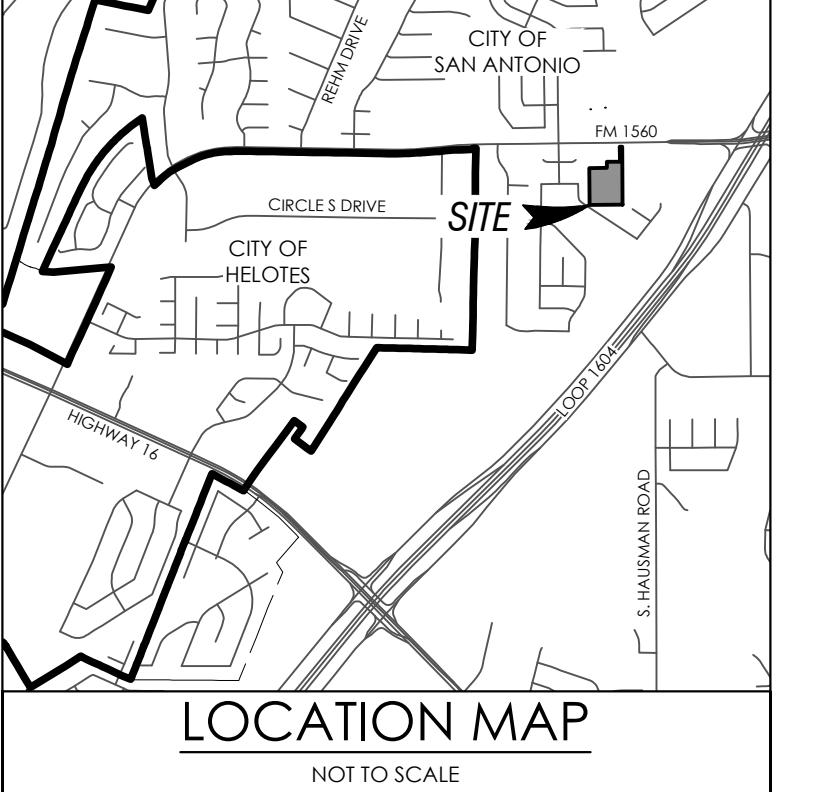
DETAIL 1
TYPICAL SANITARY SEWER / WATER CROSSING DETAIL
N.T.S.

WOODMONT HELOTES
LOT 1, BLOCK 3, NCB 14867
(VOL. 20003, PG. 1628, O.P.R.B.C.)
SAN ANTONIO, TX 78023

MEALS MYERS
ENGINEERING & SURVEYING LLC
10102 HUEBNER ROAD SAN ANTONIO, TX 78240
PHONE: (210) 740-2431 (800) 931-1269
TBPLS No. F-18576 TBPLS No. 101942291

Texas 811
C11.2

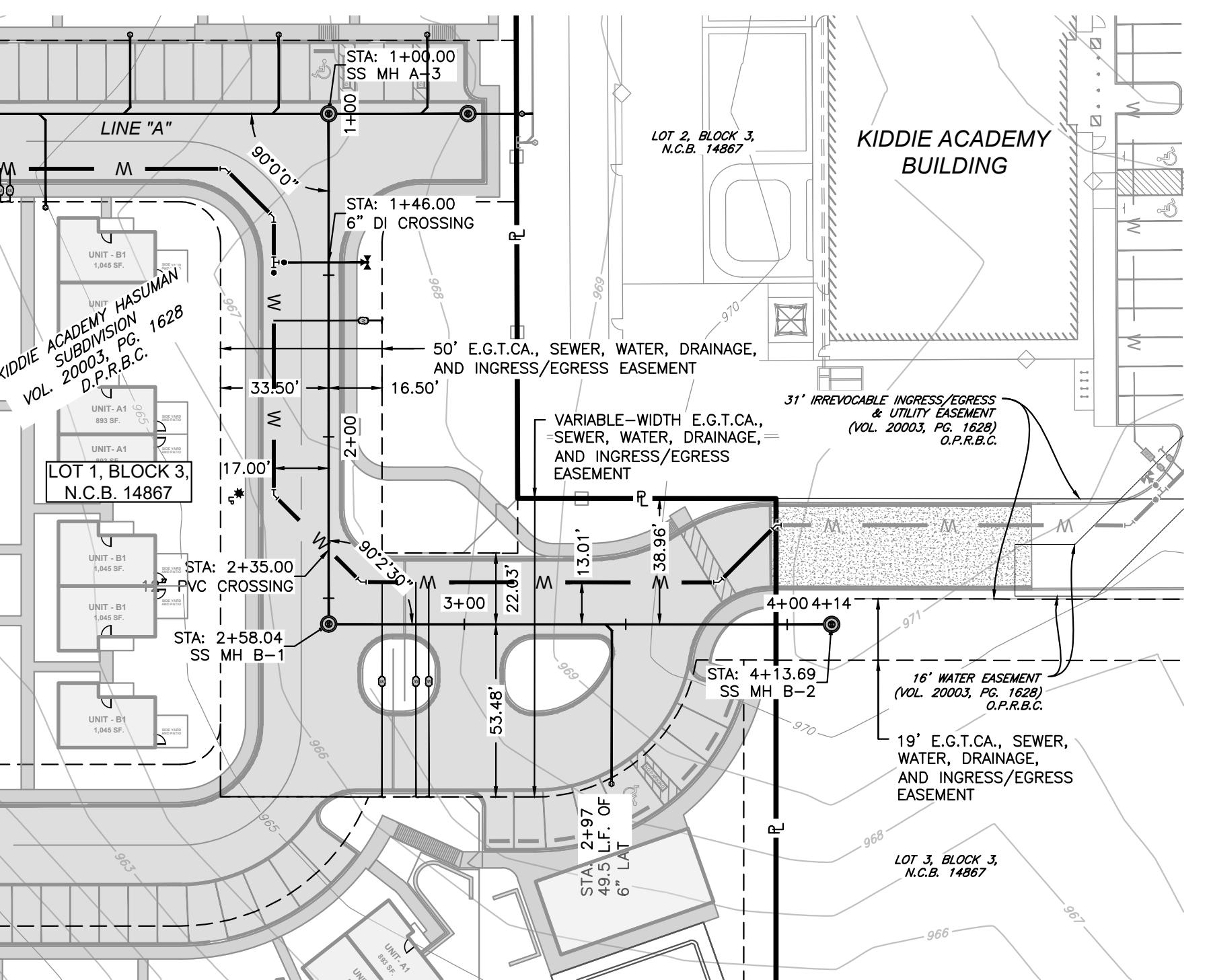
MMES JOB NUMBER: 2310103	DATE: 10/31/2025	REV:	DATE:
DESIGNED BY: MTM	DRAWN BY: MMES	CHD01: MMES	
SEWER: EDWARDS AQUIFER RECHARGE ZONE (EARZ) UPPER WEST SEWERSHED - LEON CREEK WRC			
Developer's Name: WOODMONT HELOTES ACADEMY, LLC			
Developer's Address: 2100 WEST 7TH STREET			
City: FORT WORTH State: TEXAS Zip: 76107			
Phone #: (817) 732-4000 Fax #: *			
SAWS Block Map #: 108630 Total EDU's: 64 Total Acreage: 5.113			
Total Linear Footage of Pipe: 801 LF 8" PVC Plat No.: 22-11800588			
Number of Lots: 1 SAWS Job No.: 24-1652			



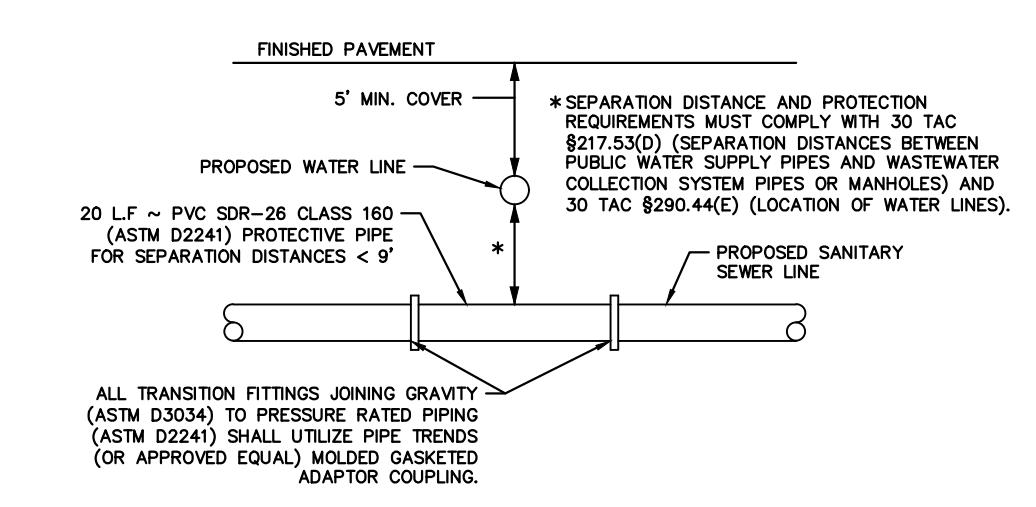
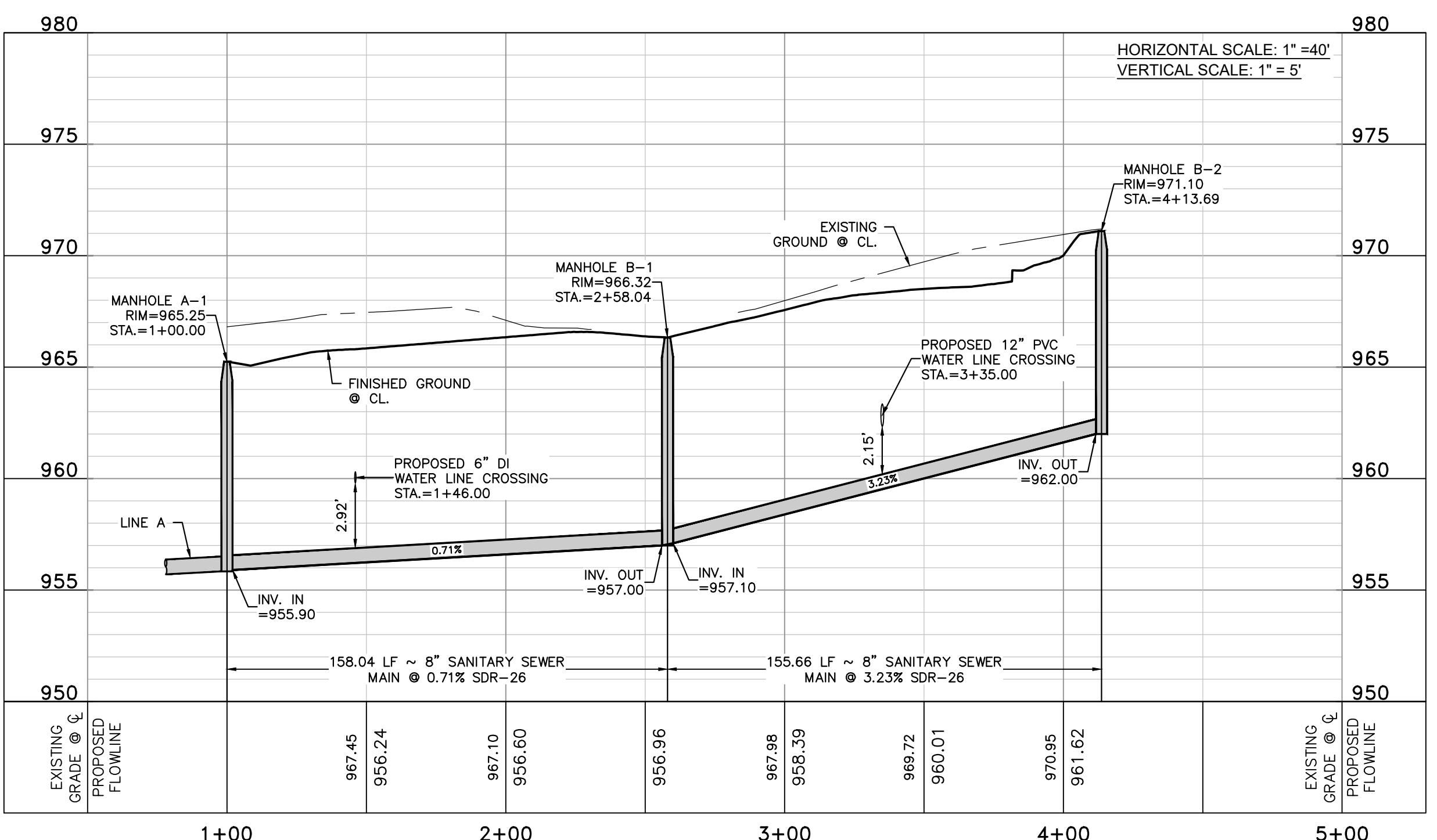
TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL 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.

EXISTING UTILITIES - ONE CALL NOTICE

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 - SAWS UTILITY LOCATES: [HTTP://WWW.SAWS.ORG/SERVICE/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 DIMSON.



LINE "B"



DETAIL 1
TYPICAL SANITARY SEWER / WATER CROSSING DETAIL
N.T.S.

SEWER:
EDWARDS AQUIFER RECHARGE ZONE (EARZ)
UPPER WEST SEWERSHED - LEON CREEK WRC

SANITARY SEWER	
LINE "B" PLAN AND PROFILE (STA. 1+00 - END)	
MMES JOB NUMBER:	23101.03
DESIGNED BY:	MMES
DRAWN BY:	MMES
REV:	
DATE:	10/31/2025
DATE:	

Developer's Name: WOODMONT HELOTES ACADEMY, LLC

Developer's Address: 2100 WEST 7TH STREET

City: FORT WORTH State: TEXAS Zip: 76107

Phone #: (817) 732-4000 Fax #:

SAWS Block Map #: 108630 Total EDU's: 64 Total Acreage: 5.113

Total Linear Footage of Pipe: 801 LF 8" PVC Plat No.: 22-11800588

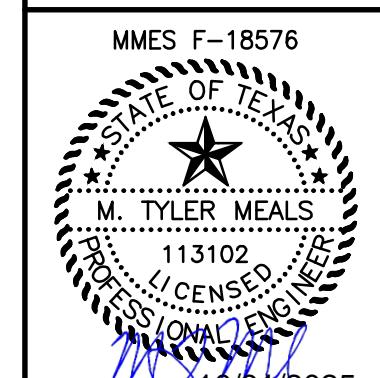
Number of Lots: 1 SAWS Job No.: 24-1652



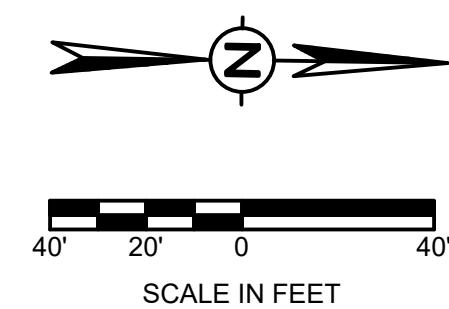
C11.3

MEALS MYERS
ENGINEERING & SURVEYING LLC
10102 HUEBNER ROAD SAN ANTONIO, TX 78240
PHONE: (210) 740-2431 (830) 931-1269
TBPLS No. F-18576 TBPLS No. 101942291

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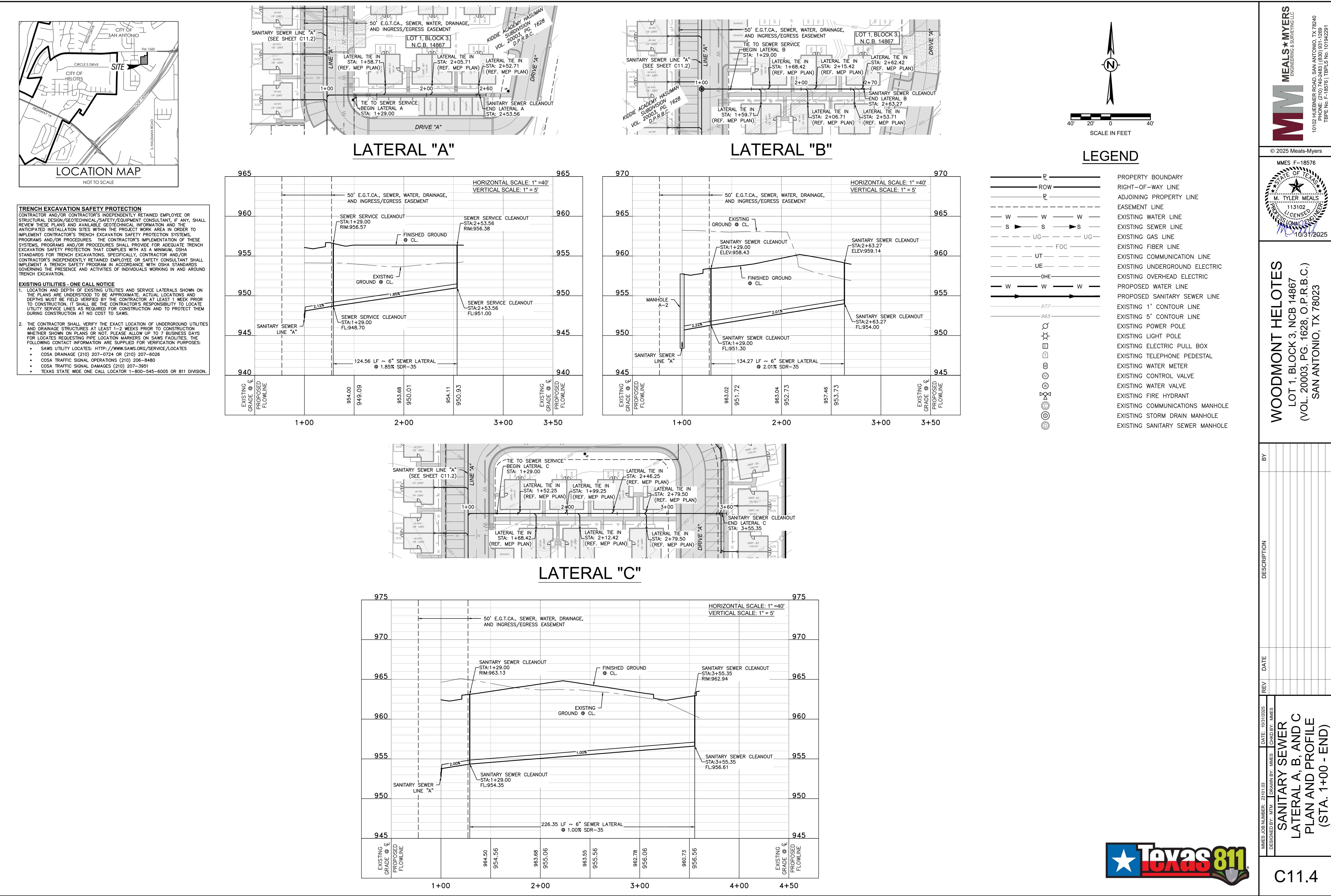
WOODMONT HELOTES
LOT 1, BLOCK 3, N.C.B. 14867
(VOL. 20003, PG. 1628, O.P.R.B.C.)
SAN ANTONIO, TX 78023



SCALE IN FEET

LEGEND

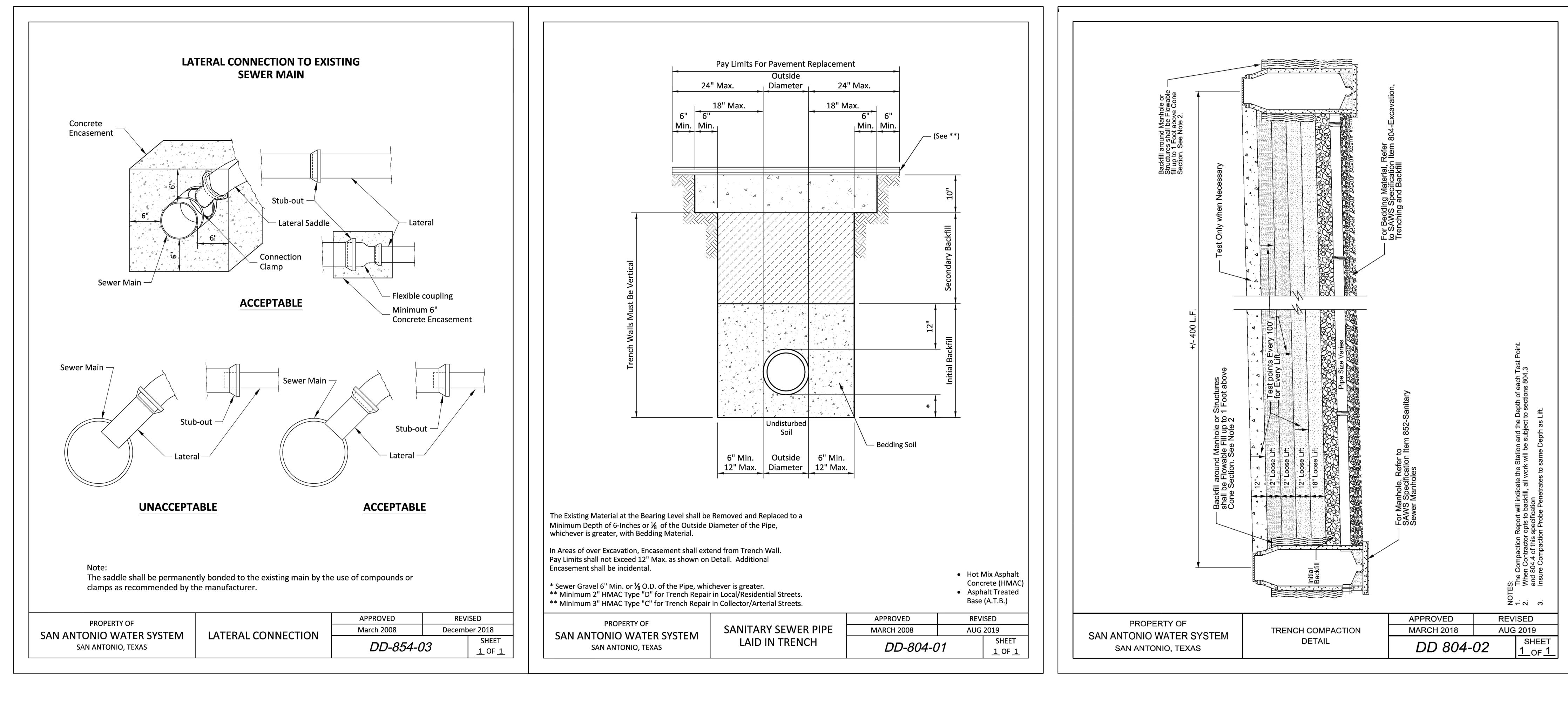
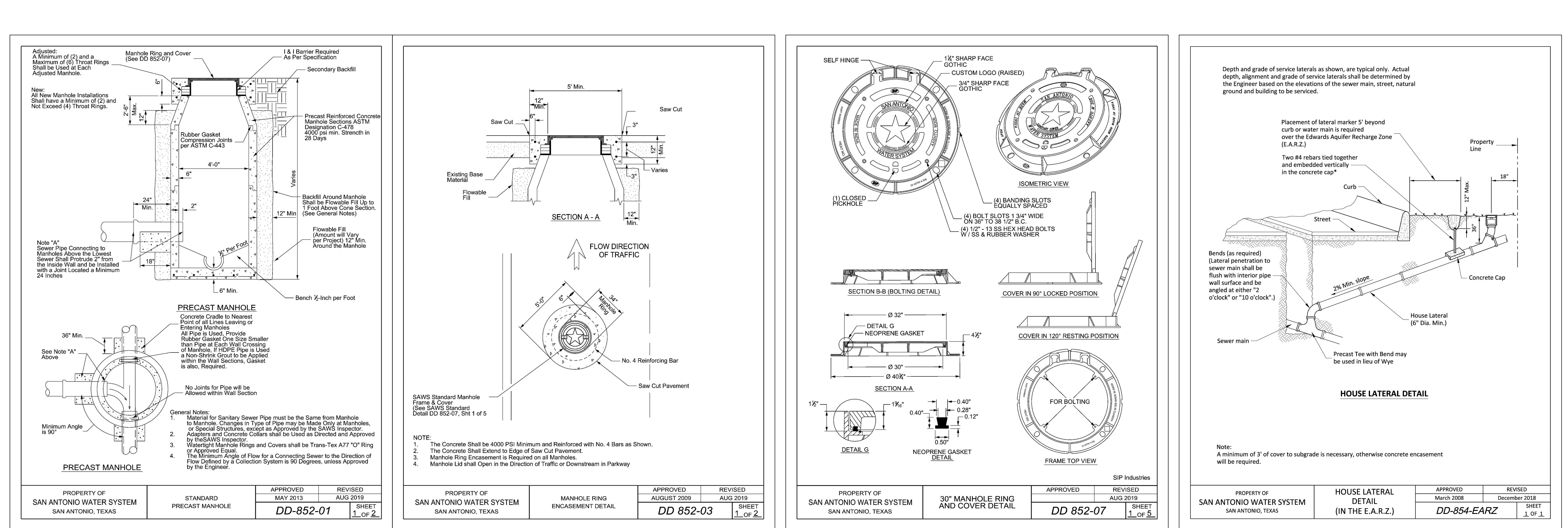
	PROPERTY BOUNDARY
	RIGHT-OF-WAY LINE
	ADJOINING PROPERTY LINE
	EASEMENT LINE
	EXISTING WATER LINE
	EXISTING SEWER LINE
	EXISTING GAS LINE
	EXISTING FIBER LINE
	EXISTING COMMUNICATION LINE
	EXISTING UNDERGROUND ELECTRIC
	EXISTING OVERHEAD ELECTRIC
	PROPOSED WATER LINE
	PROPOSED SANITARY SEWER LINE
	EXISTING 1' CONTOUR LINE
	EXISTING 5' CONTOUR LINE
	EXISTING POWER POLE
	EXISTING LIGHT POLE
	EXISTING ELECTRIC PULL BOX
	EXISTING TELEPHONE PEDESTAL
	EXISTING WATER METER
	EXISTING CONTROL VALVE
	EXISTING WATER VALVE
	EXISTING COMMUNICATIONS MANHOLE
	EXISTING STORM DRAIN MANHOLE
	EXISTING SANITARY SEWER MANHOLE



SANITARY SEWER DETAILS

WOODMONT HELOTES
LOT 1, BLOCK 3, NCB 14867
(VOL. 20003, PG. 1628, O.P.R.B.C.)
SAN ANTONIO, TX 78023

C11.5



SEWER:
EDWARDS AQUIFER RECHARGE ZONE (EARZ)
UPPER WEST SEWERED - LEON CREEK WRC
Developer's Name: WOODMONT HELOTES ACADEMY, LLC
Developer's Address: 2100 WEST 7TH STREET
City: FORT WORTH State: TEXAS Zip: 76107
Phone #: (817) 732-4000 Fax #: _____
SAWS Block Maps: 108630 Total EDU's: 64 Total Acreage: 5.113
Total Linear Footage of Pipe: 801 LF 8" PVC Plat No.: 22-1100588
Number of Lots: 1 SAWS Job No.: 24-1652

January 2022

SAWS CONSTRUCTION NOTES
COUNTER PERMIT AND GENERAL CONSTRUCTION PERMIT

General Section

- 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:
 - 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.
 - Current TXDOT "Standard Specifications for Construction of Highways, Streets and Drainage".
 - Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction".
 - Current City of San Antonio "Standard Specifications for Public Works Construction".
 - Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).
- 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.
- The Contractor shall obtain the SAWS Standard Details from the SAWS website, http://www.saws.org/business_center/specs. Unless otherwise noted within the design plans.
- The Contractor is to make arrangements with the SAWS Construction Inspection Division at (210) 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.
- 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.
- 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

Page 1 of 4

January 2022

- 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.
- 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.
- The Contractor shall comply with City of San Antonio or other governing municipality's tree ordinances when excavating near trees.
- The Contractor shall not place any waste materials in the 100-year Flood Plain without first obtaining an approved Flood Plain Permit.
- Holiday Work: Contractors will not be allowed to perform SAWS work on SAWS recognized holidays. Request should be sent to 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.
- Any and all SAWS utility work installed without holiday/weekend approval will be subject to be uncovered for proper inspection.
- 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.
- A copy of all testing reports shall be forwarded to SAWS Construction Inspection Division.

Water Section

- 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
- Asbestos Cement (AC) pipe, also known as transite pipe which is known to contain asbestos-containing 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".

Page 2 of 4

January 2022

- 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)
- 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.
- All valves shall read "open right".
- PRVs Required: Contractor to verify that no portion of the tract is below ground elevation of _____ feet where the static pressure will normally exceed 80 PSI. At all such locations where the ground level is below _____ 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).
- 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.
- 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.
- 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.
- Division Valves: Division Valves shown on plans or not shown on plans but found in the field shall only be operated by SAWS Distribution and Collection staff and only with prior written approval of the SAWS Director of Production and Operations and proper coordination with all SAWS departments. Contractor shall provide written notification to the inspector a minimum of two weeks in advance to start the coordination process and will be informed by the Inspector when the division valve will be operated by the SAWS Distribution and Collection staff. The Division Valve can only be operated by SAWS Distribution and Collection staff member not the inspector or the contractor. Operation of a Division Valve without the express prior written approval of the SAWS Distribution and Collection staff will constitute a material breach of any written SAWS contract or permit in addition to subjecting the Contractor to liability for any and all fines, fees, or other damages, direct or consequential, that may arise from or be caused by the operation of the valve without prior written permission. Please be informed that the approval of the operation or opening or closing of a division valve can take several weeks for approval. Division Valves will also have a valve lid labeled Division Valve and a locking mechanism

Page 3 of 4

January 2022

- Manhole and all pipe testing (including the TV inspection) must be performed and passed prior to Final Field Acceptance by SAWS Construction Inspection Division, as per the SAWS Specifications For Water and Sanitary Sewer Construction.
- All PVC pipe over 14 feet of cover shall be extra strength with minimum pipe stiffness of 115 psi.

Page 5 of 4

WOODMONT HELOTES
 LOT 1, BLOCK 3, NCB 14867
 (VOL. 20003, PG. 1628, O.P.R.B.C.)
 SAN ANTONIO, TX 78023

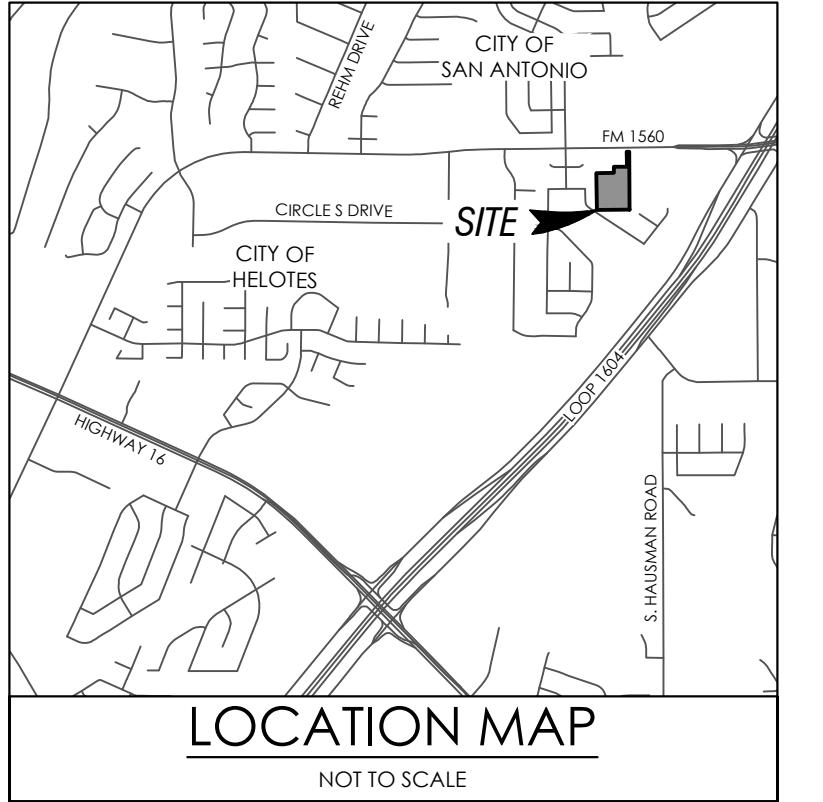
MEALS-MYERS
 ENGINEERING & SURVEYING LLC
 10102 HUEBNER ROAD, SAN ANTONIO, TX 78240
 PHONE: (210) 740-2431 (800) 931-1269
 TBPLS No. F-18576
 © 2025 Meals-Myers
 MMES F-18576
 M. TYLER MEALS
 13102
 LICENSED PROFESSIONAL ENGINEER
 10/31/2025

WATER DISTRIBUTION NOTES

WATER:
 PRESSURE ZONE 1170

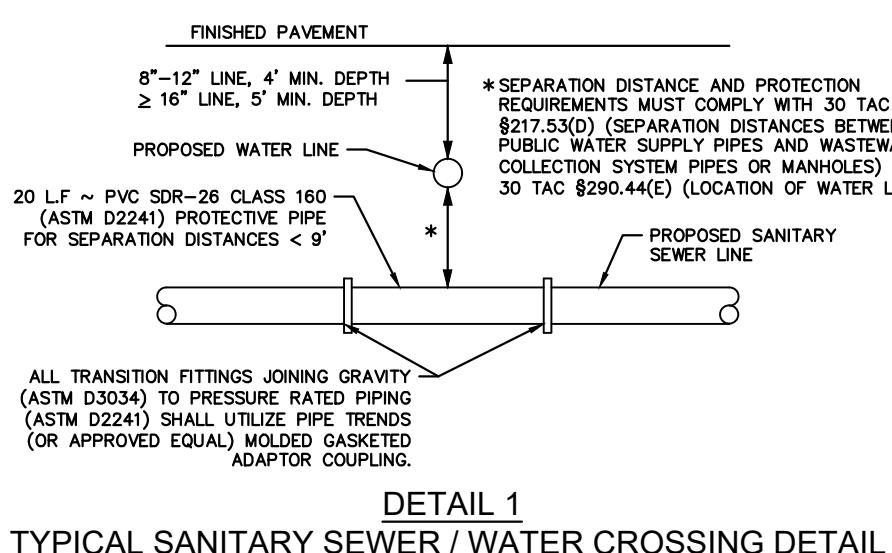
Developer's Name	WOODMONT HELOTES ACADEMY, LLC
Developer's Address	2100 WEST 7TH STREET
City	FORT WORTH
State	TEXAS
Zip	76107
Phone #	(817) 732-4000
Fax #	*
SAWS Block Maps	108630
Total EDU's	40
Total Acreage	5.113
Total Linear Footage of Pipe	743 LF 12" PVC
Plat No.	22-11800588
Number of Lots	1
SAWS Job No.	24-1180

C12.0



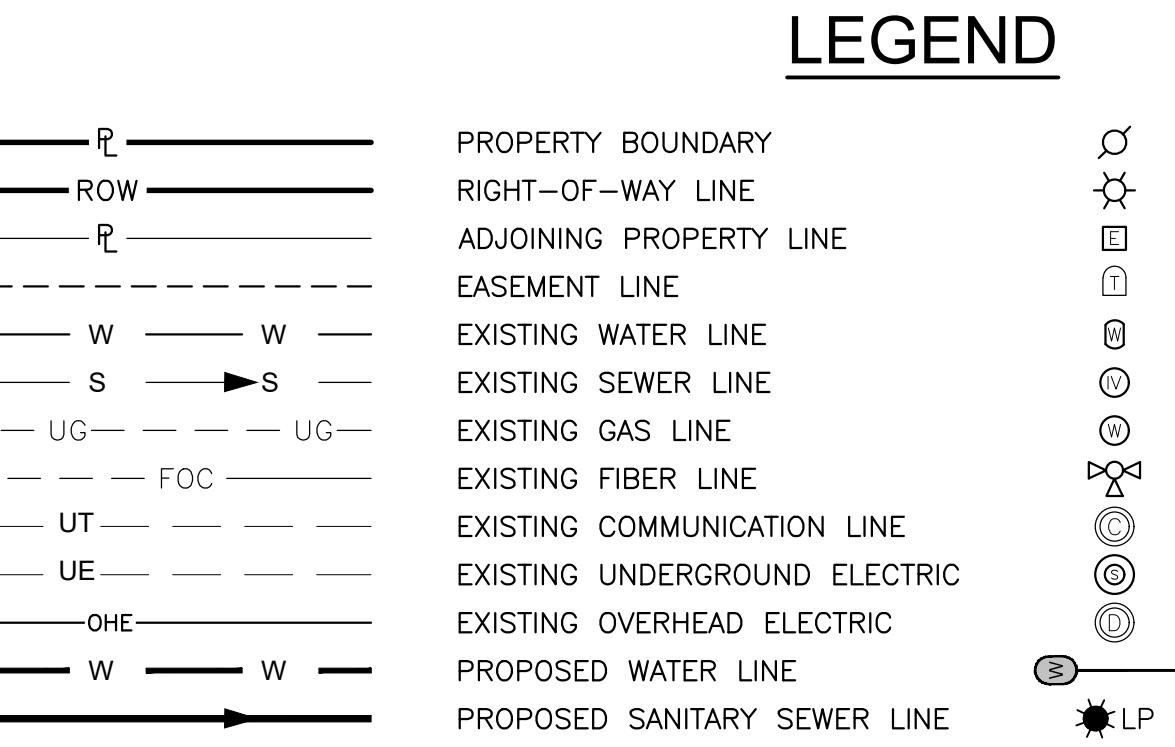
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• COSA TRAFFIC SIGNAL DAMAGES (210) 207-3951
• TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005 OR 811 DIVISION.



DETAIL 1
TYPICAL SANITARY SEWER / WATER CROSSING DETAIL
N.T.S.

RESTRAINT JOINTS	
①	ALL TEES RESTRAINT JOINT AS REQUIRED PER SAWs DD-B39-04
②	ALL BENDS RESTRAINT JOINT AS REQUIRED PER SAWs DD-B39-08



EXISTING POWER POLE
EXISTING LIGHT POLE
EXISTING ELECTRIC PULL BOX
EXISTING TELEPHONE PEDESTAL
EXISTING WATER METER
EXISTING CONTROL VALVE
EXISTING WATER VALVE
EXISTING FIRE HYDRANT
EXISTING COMMUNICATIONS MANHOLE
EXISTING STORM DRAIN MANHOLE
EXISTING SANITARY SEWER MANHOLE
PROP. WATER SERVICE
PROP. STREET LIGHT



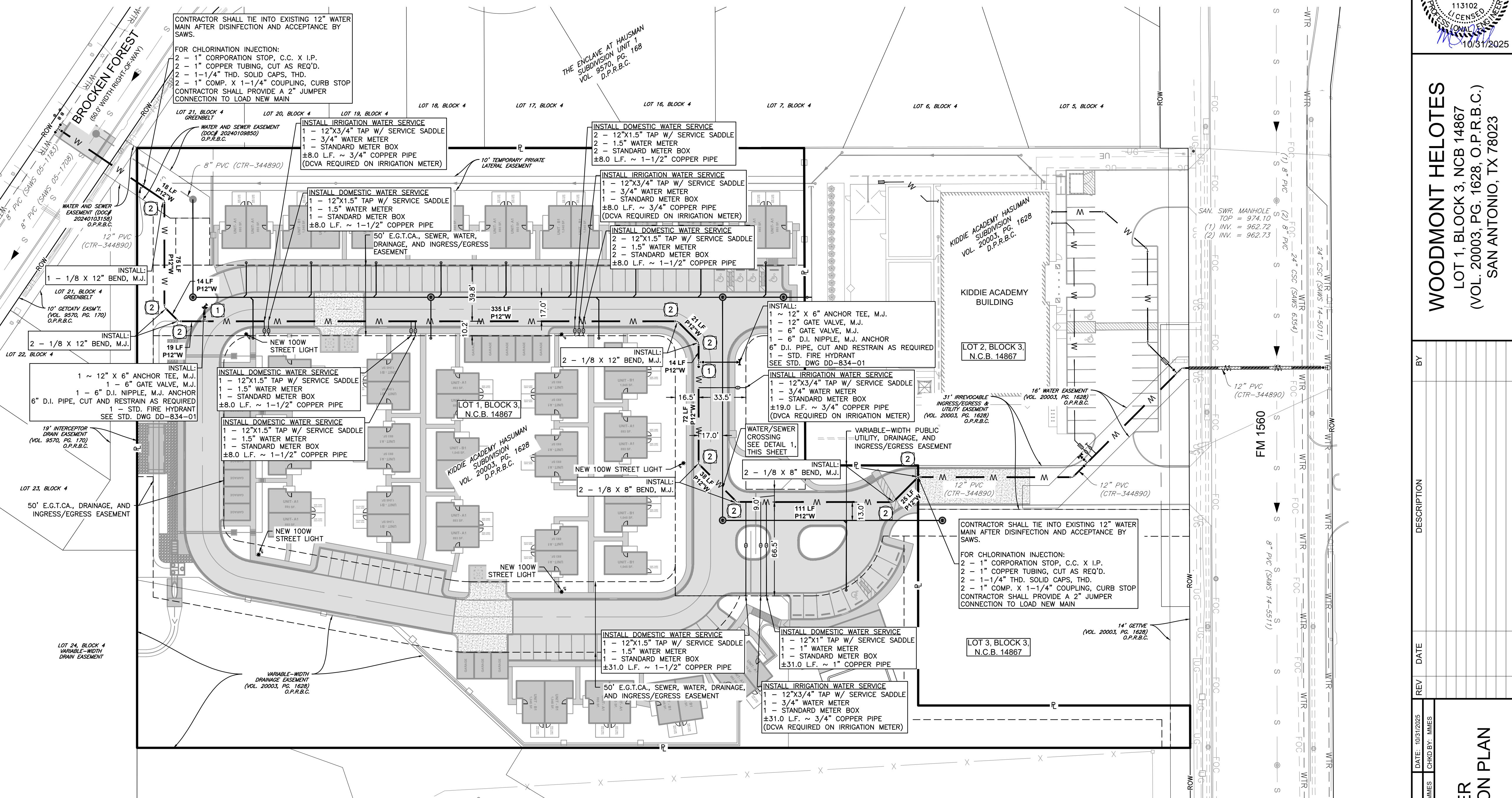
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M. TYLER MEALS

LICENSING BOARD OF SURVEYORS

10/31/2025



WATER:
PRESSURE ZONE 1170

Developer's Name	WOODMONT HELOTES ACADEMY, LLC
Developer's Address	2100 WEST 7TH STREET
City	FORT WORTH
State	TEXAS
Zip	76107
Phone #	(817) 732-4000
Fax #	*
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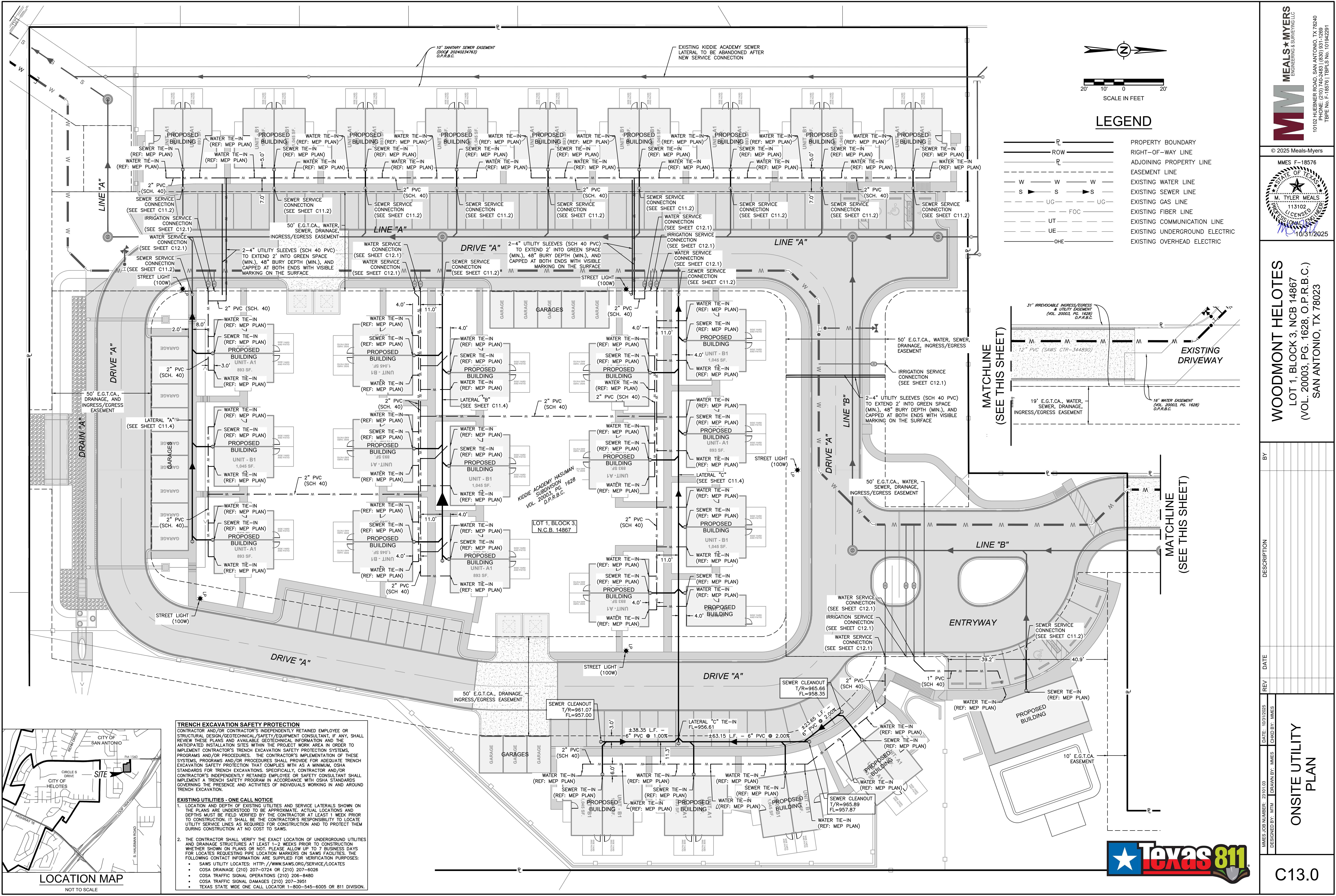


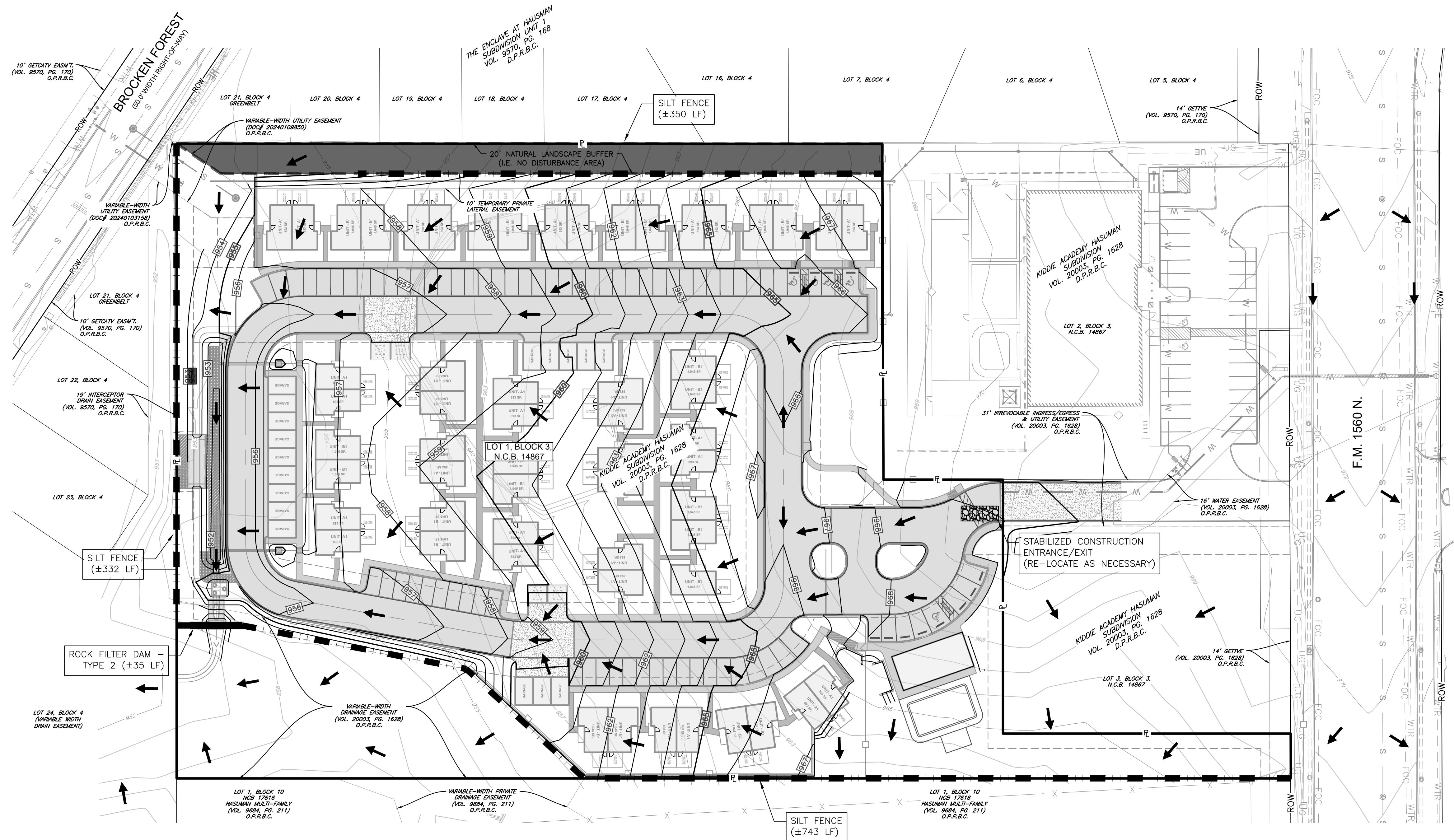
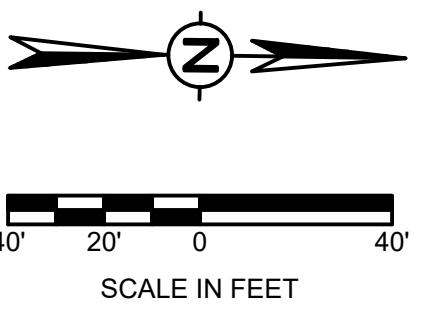
WATER
DISTRIBUTION PLAN

C12.1

40° 20° 0° 40°

SCALE IN FEET





LEGEND

DESCRIPTION	DATE	REV	BY
PROPERTY BOUNDARY			
RIGHT-OF-WAY LINE			
ADJOINING PROPERTY LINE			
EASEMENT LINE			
EXISTING WATER LINE			
EXISTING SEWER LINE			
EXISTING GAS LINE			
EXISTING FIBER LINE			
EXISTING COMMUNICATION LINE			
EXISTING UNDERGROUND ELECTRIC			
PROPOSED WATER LINE			
PROPOSED SANITARY SEWER LINE			
EXISTING 1' CONTOUR LINE			
EXISTING 5' CONTOUR LINE			
PROPOSED 1' CONTOUR LINE			
PROPOSED 5' CONTOUR LINE			
SILT FENCE			
ROCK FILTER DAM			
NO DISTURBANCE AREA			
EXISTING POWER POLE			
EXISTING LIGHT POLE			
EXISTING ELECTRIC PULL BOX			
EXISTING TELEPHONE PEDESTAL			
EXISTING WATER METER			
EXISTING CONTROL VALVE			
EXISTING WATER VALVE			
EXISTING FIRE HYDRANT			
EXISTING COMMUNICATIONS MANHOLE			
EXISTING STORM DRAIN MANHOLE			
EXISTING SANITARY SEWER MANHOLE			



C14.0

WOODMONT HELOTES
LOT 1, BLOCK 3, NCB 14867
(VOL. 20003, PG. 1628, O.P.R.B.C.)
SAN ANTONIO, TX 78023

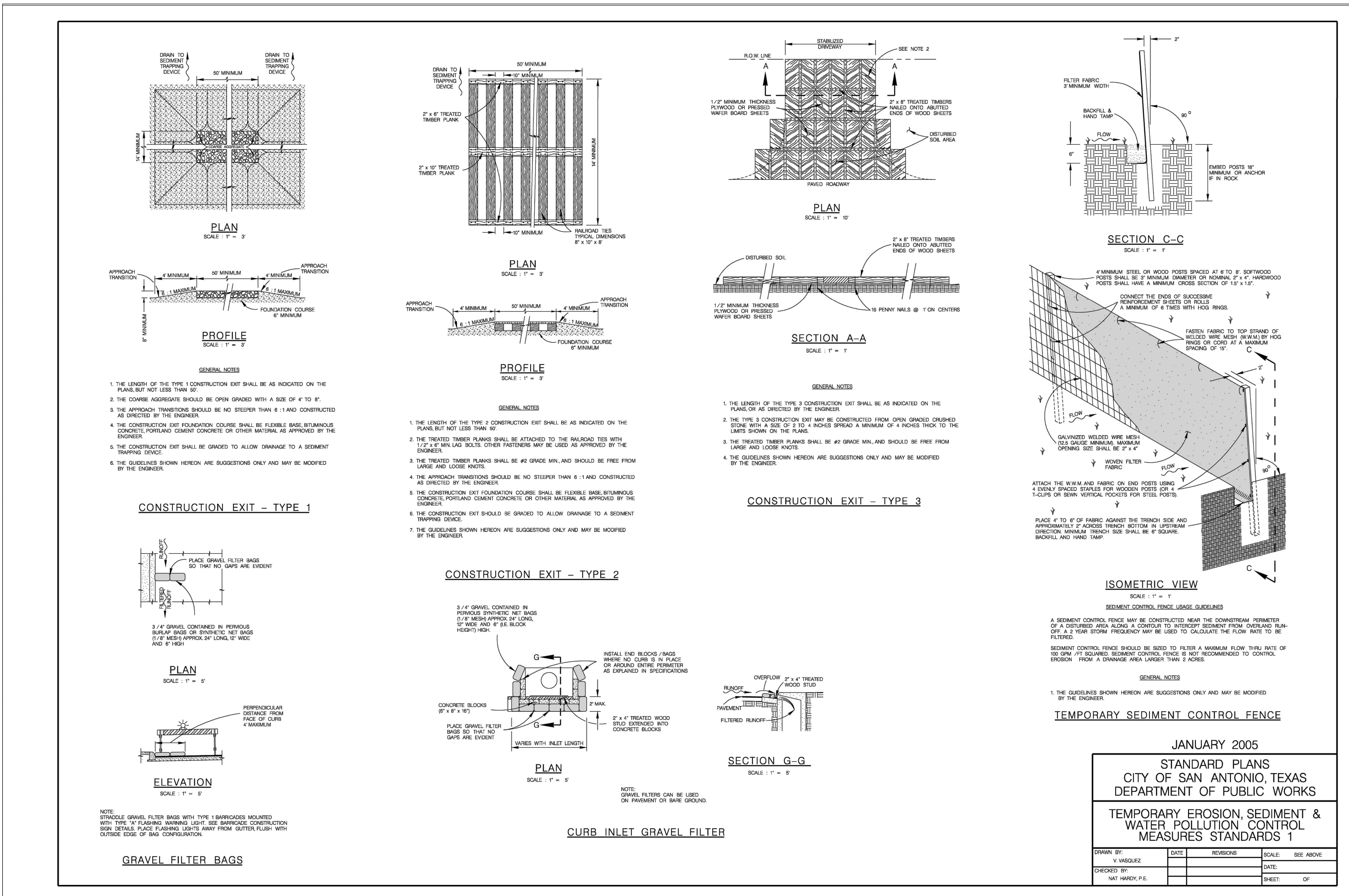
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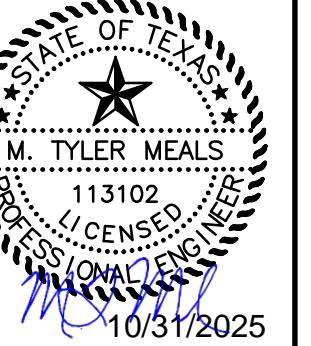
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MMES F-18576

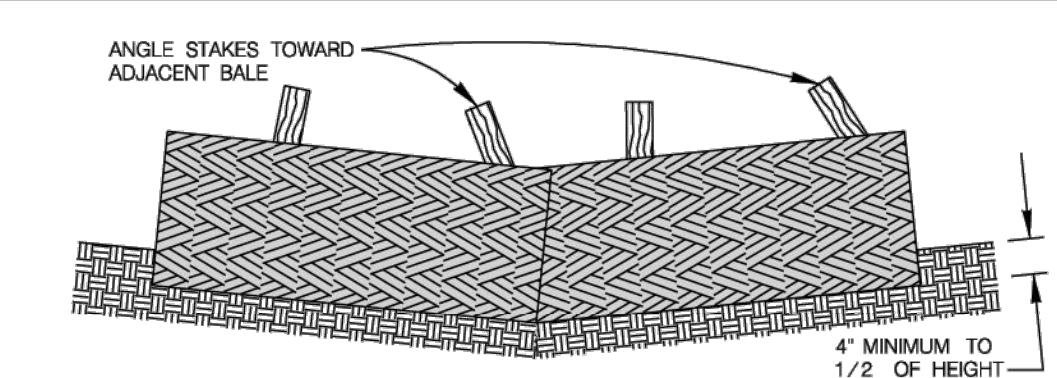
M. TYLER MEALS
LIC# 13102
LICENSING STATE OF TEXAS
10/31/2025

MEALS- MYERS



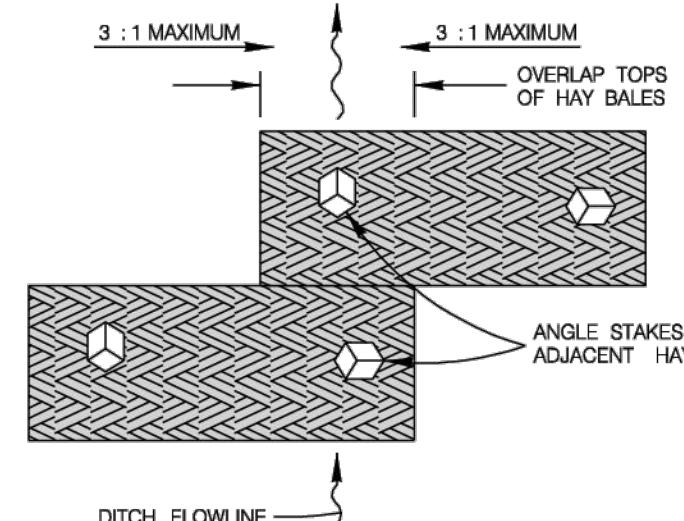


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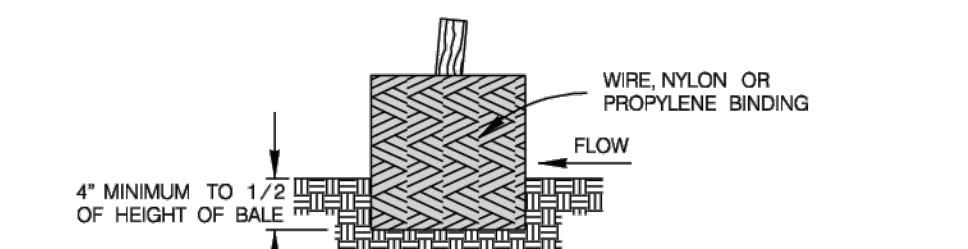
PROFILE VIEW

SCALE : 1" = 1'



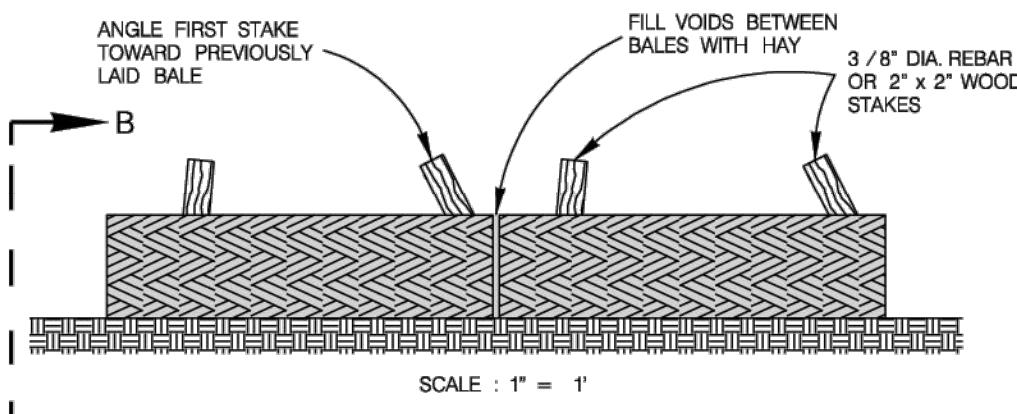
PLAN VIEW

SCALE : 1" = 1'



SECTION B-B

SCALE : 1" = 1'



BALED HAY USAGE GUIDELINES

A BALED HAY INSTALLATION MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A TWO YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO DETERMINE FILTER DAM DIMENSIONS. A BALED HAY FILTER DAM SHOULD BE USED TO FILTER A MAXIMUM FLOW THRU RATE OF 5 GPM / FT SQUARED OF CROSS SECTIONAL AREA. BALED HAY MAY BE USED AT THE FOLLOWING LOCATIONS:

1. WHERE THE RUNOFF APPROACHING THE BALED HAY FLOWS OVER DISTURBED SOIL FOR LESS THAN 100'. IF THE SLOPE OF THE DISTURBED SOIL EXCEEDS 10%, THE LENGTH OF SLOPE UPSTREAM OF THE BALED HAY SHOULD BE LESS THAN 50'.
2. WHERE THE INSTALLATION WILL BE REQUIRED FOR LESS THAN 3 MONTHS.
3. WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1/2 ACRE.

FOR BALED HAY INSTALLATIONS IN SMALL DITCHES, THE FOLLOWING ADDITIONAL CONDITIONAL CONSIDERATIONS APPLY:

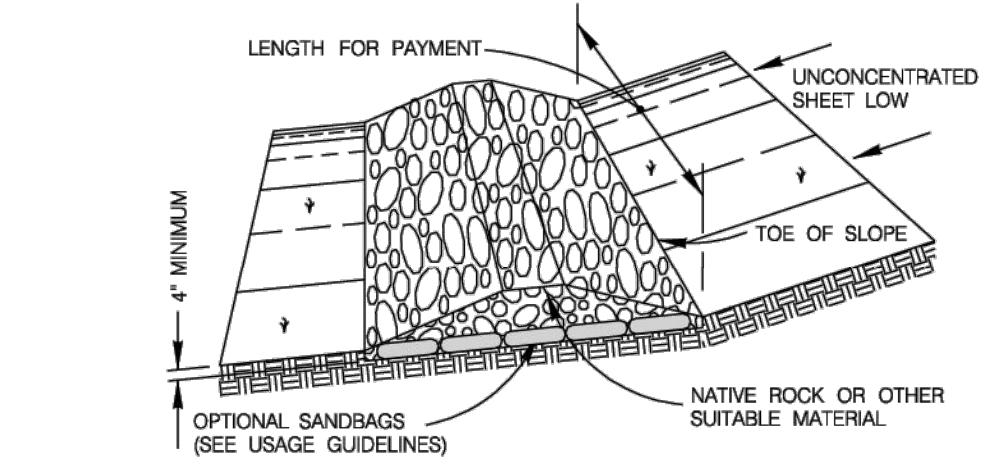
1. THE DITCH SIDESLOPES SHOULD BE GRADED AS FLAT AS POSSIBLE TO MAXIMIZE THE DRAINAGE FLOW RATE THRU THE HAY.
2. THE DITCH SHOULD BE GRADED LARGE ENOUGH TO CONTAIN THE OVERLAPPING DRAINAGE WHEN SEDIMENT HAS FILLED TO THE TOP OF THE BALED HAY.

BALES SHOULD BE REPLACED USUALLY EVERY 2 MONTHS OR MORE OFTEN DURING WET WEATHER WHEN LOSS OF STRUCTURAL INTEGRITY IS ACCELERATED.

GENERAL NOTES

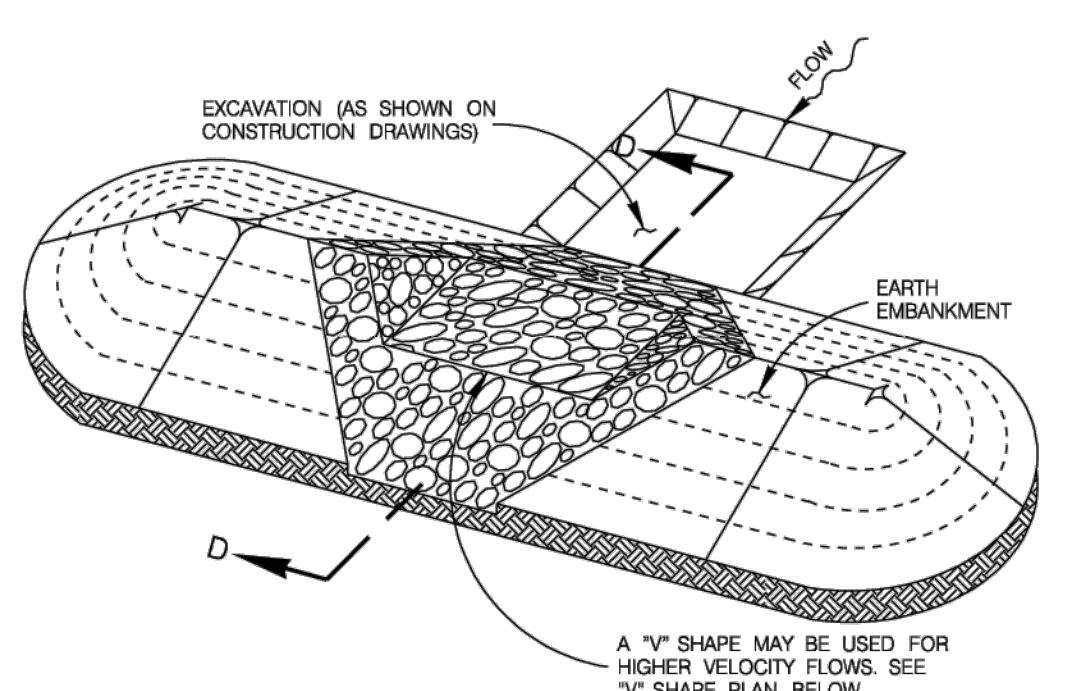
1. HAY BALES SHALL BE A MINIMUM OF 30" IN LENGTH AND WEIGH A MINIMUM OF 50 LBS.
2. HAY BALES SHALL BE BOUND BY EITHER WIRE OR NYLON OR POLYPROPYLENE STRING. THE BALES SHALL BE COMPOSED ENTIRELY OF VEGETABLE MATTER.
3. HAY BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4" AND, WHERE POSSIBLE, ONE-HALF THE HEIGHT OF THE BALE.
4. HAY BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
5. HAY BALES SHALL BE SECURELY ANCHORED IN PLACE WITH 3/8" DIA REBAR OR 2" X 2" WOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE SHALL BE ANGLED TOWARDS THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

BALED HAY FOR EROSION CONTROL



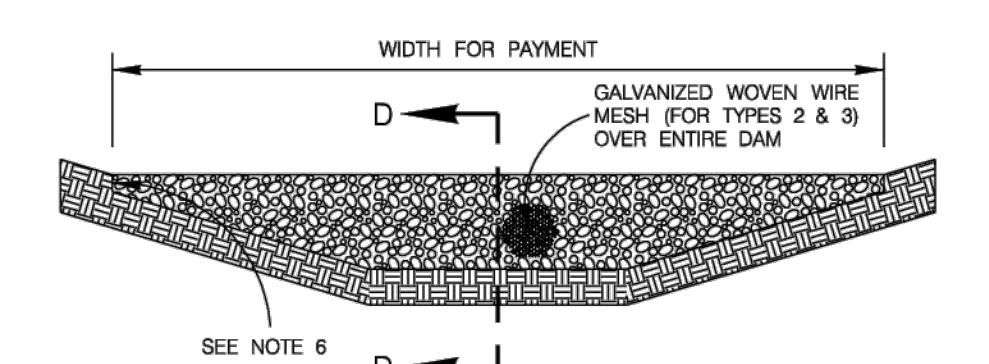
TYPE 1 FILTER DAM AT
TOE OF SLOPE

SCALE : 1" = 5'



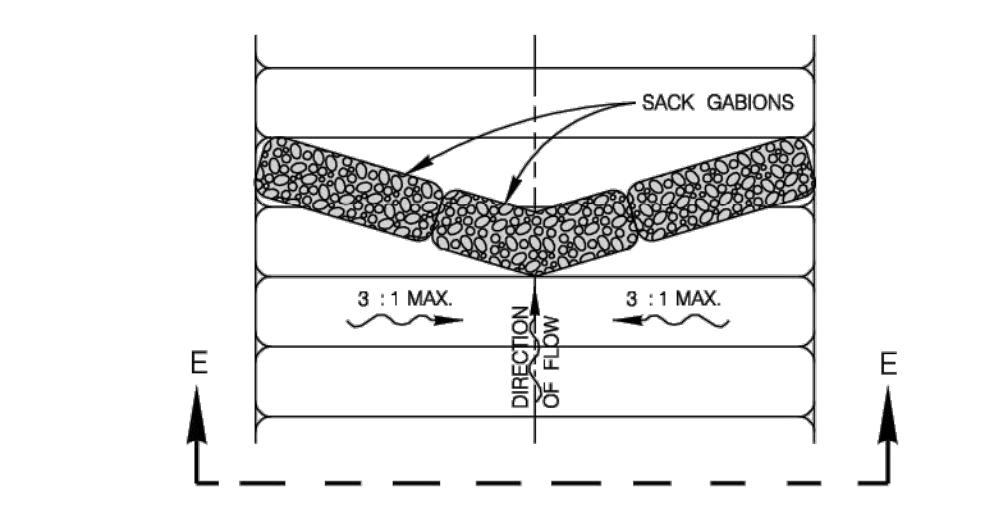
TYPE 1 & 2 FILTER DAM AT
SEDIMENT TRAP

SCALE : 1" = 5'



TYPE 1, 2 & 3 FILTER DAM
AT CHANNEL SECTIONS

SCALE : 1" = 3'



TYPE 4 FILTER DAM AT DITCHES
& SMALLER CHANNELS PLAN VIEW

PLAN VIEW

SCALE : 1" = 5'

ROCK FILTER DAM USAGE GUIDELINES

ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLOAD RUNOFF AND/OR CONCENTRATED FLOW. THE DAMS SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 60 GPM / FT SQUARED OF CROSS SECTIONAL AREA. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

TYPE 1 (8" HIGH WITH WIRE MESH):

TYPE 1 MAY BE USED AT THE TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROXIMATELY 8 FT/SEC OR MORE), WHICH AGGREGATE WASHES OUT YOUR SACK GABION. USE 20 GAUGE GALVANIZED WIRE MESH (2" X 2" OPENINGS) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

TYPE 2 (8" HIGH WITH WIRE MESH):

TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

TYPE 3 (8" HIGH WITH WIRE MESH):

TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

TYPE 4 (SACK GABIONS):

TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.

GENERAL NOTES

1. IF SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND / OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.

2. MATERIALS (AGGREGATE, WIRE MESH, SANDBAGS, ETC.) SHALL BE AS INDICATED BY THE SPECIFICATION FOR ROCK FILTER DAMS FOR EROSION AND SEDIMENTATION CONTROL.

3. THE ROCK FILTER DAM DIMENSIONS SHALL BE AS INDICATED ON THE STORM WATER POLLUTION PREVENTION PLANS.

4. SIDE SLOPES SHOULD BE 2:1 OR FLATTER. DAMS WITHIN THE SAFETY ZONE SHALL HAVE SIDE SLOPES OF 6:1 OR FLATTER.

5. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.

6. FILTER DAMS SHOULD BE EMBEDDED A MINIMUM OF 4" INTO THE EXISTING GROUND.

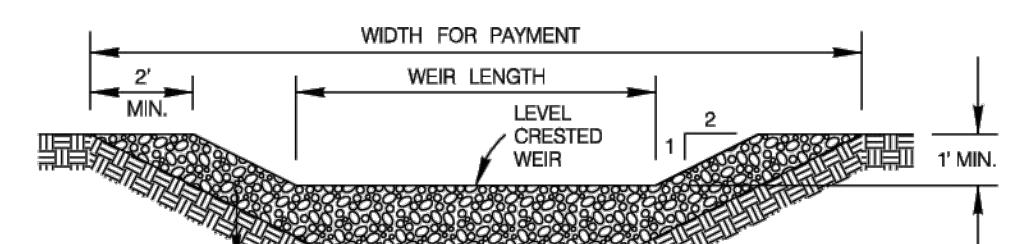
7. THE SEDIMENT TRAP FOR PONDING OF SEDIMENT-LADEN RUNOFF SHALL BE OF THE DIMENSIONS SHOWN ON THE PLANS.

8. ROCK FILTER DAM TYPES 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT AND SLOPES SPECIFIED. THE MESH SHALL BE PLACED ON THE DRAINAGE AREA UPSTREAM OF THE FILTER DAM AND SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOS RINGS. IN STREAM USE THE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.

9. SACK GABIONS SHOULD BE STAKED DOWN WITH 3/4" DIA. REBAR STAKES.

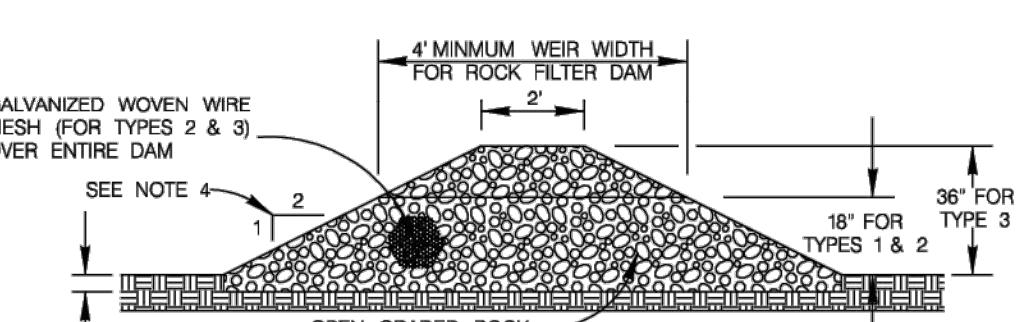
10. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.).

11. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.



PROFILE OF TYPE 1 & 2 FILTER
DAM AT SEDIMENT TRAP

SCALE : 1" = 3'



SECTION D-D

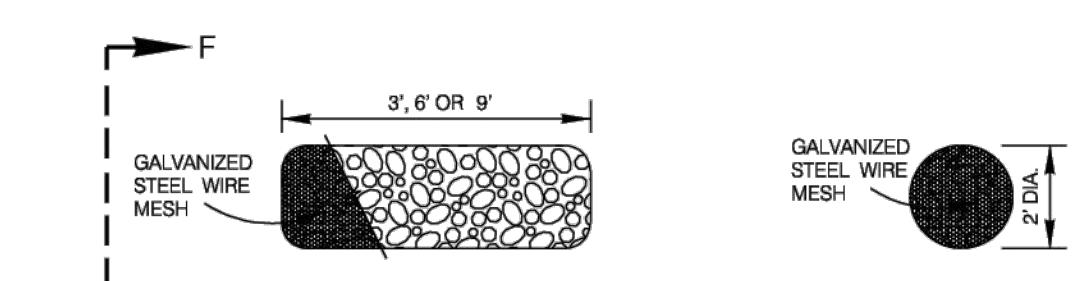
SCALE : 1" = 3'



SECTION E-E

SCALE : 1" = 5'

ROCK FILTER DAMS



TYPE 4 SACK GABION DETAIL

SECTION F-F

SCALE : 1" = 3'

JANUARY 2005

STANDARD PLANS CITY OF SAN ANTONIO, TEXAS DEPARTMENT OF PUBLIC WORKS			
TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 2			
DRAWN BY:	DATE:	REVISIONS:	SCALE: SEE ABOVE
V. VASQUEZ			
DESIGNED BY: MMES			
CHKD BY: MMES			
CHECKED BY: NAT HARDY, P.E.			
DATE: SHEET: OF			

