CIVIL CONSTRUCTION DOCUMENTS FOR

TIERRA LINDA - PHASE 1 SUBDIVISION

San Antonio, Texas

OWNER/DEVELOPER: YELLOWSTONE REAL ESTATE, INC.
12500 SAN PEDRO AVE., STE. 530
SAN ANTONIO, TX 78216

SURVEYOR: UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER ROAD, SUITE 102
SAN ANTONIO, TEXAS 78216
(210) 774-5504

ENGINEER: UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER ROAD, SUITE 102
SAN ANTONIO, TEXAS 78216
(210) 774-5504
CONTACT: NATASHA F. UHLRICH, P.E.

GEOTECHNICAL ENGINEER: InTEC OF SAN ANTONIO, L.P.
12028 RADIUM
SAN ANTONIO, TX 78216
(210) 525-9033

ADDRESS:

WATSON RD. AND SW VERANO PARKWAY, SAN ANTONIO, TEXAS, 78073

FLOODPLAIN INFORMATION:

FIRM #48029, PANEL 0565 F 09/29/2010.

WATERSHED:

THIS SITE IS LOCATED IN THE LOWER MEDINA RIVER WATERSHED.

BENCHMARKS:

TBM 1: "X" MARKED IN CONCRETE
NORTHING: 13653920.6700
EASTING: 2098954.2250
ELEVATION: 616.94

TBM 2: "X" MARKED IN CONCRETE
NORTHING: 13652618.4100
EASTING: 2097217.2950
ELEVATION: 616.63

SURVEY BASIS:

BEARINGS SHOWN HEREON ARE BASED ON ACTUAL GPS OBSERVATIONS, TEXAS STATE PLANE COORDINATES, SOUTH CENTRAL ZONE, GRID.

LEGAL DESCRIPTION:

TIERRA LINDA PHASE III SUBDIVISION, RECORDED IN VOLUME, PAGE, DEED AND PLAT RECORDS OF BEXAR COUNTY, TEXAS.

UTILITY PROVIDERS:

GAS: CPS ENERGY
145 NAVARRO
SAN ANTONIO, TX 78205
(210) 353-2376

CABLE: TIME WARNER CABLE
1900 BLUE CREST LANE
SAN ANTONIO, TX 78247
(210) 244-0500

ELECTRIC: CPS ENERGY
145 NAVARRO
SAN ANTONIO, TX 78205
(210) 353-2376

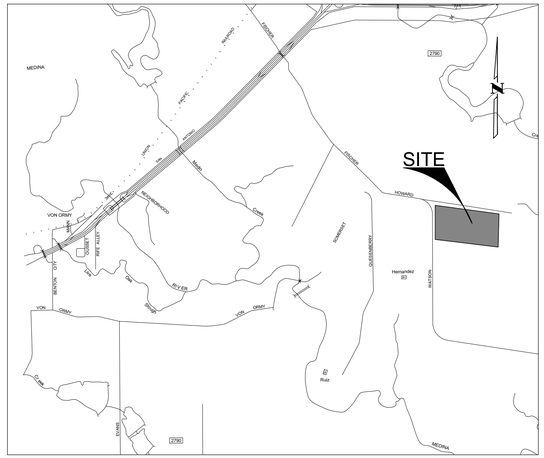
WATER & WASTEWATER: SAN ANTONIO WATER SYSTEM
2800 U.S HWY 281 NORTH
SAN ANTONIO, TX 78212
(210) 233-2010

LAND USE SUMMARY:

ZONING:	R-5
PROPOSED SITE USE:	SINGLE FAMILY
LOT SIZE:	26.05 ACRES

NOTES:

1. RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
2. BY THE ACT OF SUBMITTING A BID FOR THE PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM ANY AMBIGUITIES AND SUFFICIENT FOR THE PURPOSE INTENDED. THE BIDDER FURTHER WARRANTS THAT TO THE BEST OF HIS OR HIS SUBCONTRACTORS AND MATERIAL SUPPLIERS KNOWLEDGE ALL MATERIALS AND PRODUCTS SPECIFIED OR INDICATED HEREIN ARE ACCEPTABLE FOR ALL APPLICABLE CODES AND AUTHORITIES.
3. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION AND/OR A FIELD SURVEY, AND MAY NOT MATCH LOCATIONS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT THE "ONE CALL" SYSTEM @ 811, OR THE OWNER OF EACH INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF UTILITY CROSSING PRIOR TO BEGINNING CONSTRUCTION.
4. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, FOUNTAINHEAD TOWER, SUITE 605, 8200 W. INTERSTATE 10, SAN ANTONIO, TEXAS 78230).
5. CONTRACTOR SHALL RESTORE ALL SIGNS AND PAVEMENT MARKINGS TO EXISTING CONDITIONS FOLLOWING THE COMPLETION OF EACH PHASE OF CONSTRUCTION. CONTRACTORS SHALL REFER TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) FOR SIGN AND MARKING DIMENSIONS AND COLORS.



VICINITY MAP
NOT TO SCALE

SUBMITTAL DATE:
January 4, 2024

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SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPELS FIRM NO. 10194605

STATE OF TEXAS · RYAN R. PLAGENS · 111640 · LICENSED PROFESSIONAL ENGINEER
1/5/24

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

COVER SHEET

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C1.0

Date: Jan 04, 2024, 4:38pm User ID: J.J.Romanos
File: G:_Projects\272 - Watson (Von Ormy)\272.05 - TIERRA LINDA PHASE 1\ACAD\Sheets\C1.0-COVER SHEET.dwg

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION JUNE 2008, OR LATEST.
2. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS, BUT NOT INCLUDED IN THE BID PROPOSAL. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED IN THE PAY ITEM TO WHICH IT RELATES.
3. THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DELIVERY OF MAIL BY THE U.S. POSTAL SERVICE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING FENCES, CONCRETE ISLANDS, STREET PAVING, CURBS, SHRUBS, BUSHES OR DRIVEWAYS. (NO SEPARATE PAY ITEM).
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL SIGNS AND BARRICADES ARE PROPERLY INSTALLED AND MAINTAINED. ALL LOCATIONS AND DISTANCES WILL BE DECIDED UPON IN THE FIELD BY THE CONTRACTOR, USING THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". THE CITY'S CONSTRUCTION INSPECTOR AND TRAFFIC ENGINEERING REPRESENTATIVE WILL ONLY BE RESPONSIBLE TO INSPECT BARRICADES AND SIGNS. IF, IN THE OPINION OF THE TRAFFIC ENGINEERING REPRESENTATIVE AND THE CONSTRUCTION INSPECTOR, THE BARRICADES AND SIGNS DO NOT CONFORM TO ESTABLISHED STANDARDS OR ARE INCORRECTLY PLACED OR ARE INSUFFICIENT IN QUANTITY TO PROTECT THE GENERAL PUBLIC, THE CONSTRUCTION INSPECTOR SHALL HAVE THE OPTION TO STOP OPERATIONS UNTIL SUCH TIME AS THE CONDITIONS ARE CORRECTED.
6. IF THE NEED ARISES, ADDITIONAL BARRICADES AND DIRECTIONAL DEVICES MAY BE ORDERED BY THE TRAFFIC ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
7. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181 C.P.S. MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
8. CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR TWENTY FOUR (24) HOURS PRIOR TO BACKFILL OF ANY UTILITY TRENCHES TO SCHEDULE FOR DENSITY TEST AS REQUIRED.
9. CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES, MARKS, ETC. IF ANY ARE DESTROYED OR REMOVED BY THE CONTRACTOR OR HIS EMPLOYEES, THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
10. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO EXCAVATION OPERATION:

SAN ANTONIO WATER SYSTEM (SAWS)	210-233-2009
WATER & SEWER EMERGENCIES	210-704-7297
STORM DRAINAGE (CITY OF SAN ANTONIO)	210-207-8022
SIGNAL OPERATIONS (CITY OF SAN ANTONIO)	210-207-8022
TEXAS STATE WIDE ONE CALL LOCATOR	811
CPS ENERGY (GAS & ELECTRIC)	210-353-2000
CPS ELECTRIC/GAS ISSUES OR EMERGENCIES	210-353-4357
TIME WARNER	210-244-0500
AT&T	972-742-5892

11. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM AVAILABLE RECORDS AND ARE NOT GUARANTEED. SHALL BE INVESTIGATED AND VERIFIED BY THE CONTRACTOR BEFORE STARTING WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR THE MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND HE SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION.
12. ALL WASTE MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE HIS SOLE RESPONSIBILITY TO DISPOSE OF THIS MATERIAL OFF THE LIMITS OF THE PROJECT. NO WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING ARTIFICIAL OR NATURAL DRAINAGE.
13. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
14. THE CONTRACTOR SHALL MAINTAIN ALL ADJOINING STREETS AND TRAVELED ROUTES FREE FROM SPILLED AND / OR TRACKED CONSTRUCTION MATERIALS AND / OR DEBRIS.
15. IF THE CONTRACTOR ENCOUNTERS ANY ARCHAEOLOGICAL DEPOSITS DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR MUST STOP EXCAVATION IMMEDIATELY, CONTACT THE CITY INSPECTOR, AND CALL THE CITY HISTORIC PRESERVATION OFFICE AT 210-215-9274 FOR AN ARCHAEOLOGICAL INVESTIGATION. THE CONTRACTOR CANNOT BEGIN EXCAVATION AGAIN WITHOUT WRITTEN PERMISSION FROM THE CITY.

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

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

UTILITY GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL COMPLY TO ALL APPLICABLE CITY OF SAN ANTONIO RULES AND REQUIREMENTS FOR STREETS, SIDEWALKS, ALLEYS AND ROADWAY DESIGN (LATEST EDITIONS), THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (LATEST EDITIONS), THE SAN ANTONIO WATER SYSTEM (SAWS) SPECIFICATIONS FOR WATER WORKS CONSTRUCTION (LATEST EDITION).
2. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY CONFLICTS IMMEDIATELY. ANY DAMAGE BY THE CONTRACTOR TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OF NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
4. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WHETHER SHOWN ON PLANS OR NOT.
5. ALL UTILITIES SHALL BE INSTALLED PRIOR TO PAVEMENT CONSTRUCTION.
6. ALL UTILITY CONNECTIONS SHALL BE COORDINATED WITH THE MECHANICAL AND ELECTRICAL PLANS. NOTIFY ENGINEER OF ANY CONFLICTS PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL INSTALL ANY BENDS, FITTINGS, ETC. IN THE WATER & SEWER MAIN AS REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES. (NO SEPARATE PAY).
8. NO WATER JETTING TO BACKFILL TRENCHES WILL BE ALLOWED ON THIS PROJECT.
9. POLYVINYL CHLORIDE (PVC) SEWER PIPE SHALL BE SDR 26. FITTINGS AND JOINTS SHALL CONFORM TO COMPATIBLE SDR 26 PIPE. SOLVENT CEMENTS JOINTS SHALL NOT BE USED.
10. WHEN SEWER LINES ARE INSTALLED IN THE VICINITY OF WATER MAINS, SUCH INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).
11. ALL SPOIL AND OTHER UNSUITABLE MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT HIS EXPENSE.
12. ALL SERVICES ARE BROUGHT TO WITHIN 5 FEET OF THE BUILDING UNLESS OTHERWISE NOTED. REFERENCE MEP PLANS FOR UTILITY CONNECTIONS AT THE BUILDING.
13. WHETHER SHOWN ON THE PLANS OR NOT ALL CLEANOUT TOPS AND MANHOLES SHALL BE INSTALLED AT LEAST 3" ABOVE FINISHED GRADE OUTSIDE PAVEMENT AND FLUSH WITH FINISHED GRADE WITHIN THE PAVEMENT AREAS. TOPS WITHIN PAVEMENT SHALL BE TRAFFIC RATED.
14. SANITARY SEWER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE AND THE SAN ANTONIO WATER SYSTEM PLUMBING SPECIFICATIONS, AND AS DIRECTED BY THE PLUMBING INSPECTOR.
15. THRUST BLOCKING SHALL BE INSTALLED IN ACCORDANCE WITH SAN ANTONIO WATER SYSTEM SPECIFICATIONS.
16. UTILITY CONTRACTOR SHALL COORDINATE WITH CPS ENERGY FOR THE GAS AND ELECTRICAL SERVICE.
17. FIRE LINE SHALL BE INSTALLED BY A LICENSED FIRE SPRINKLER CONTRACTOR.
18. DOMESTIC WATER SHALL BE PVC C900 FOR PIPES < 12" OR C905 FOR PIPES ≥ 12" OR COPPER TUBING AS SPECIFIED IN THE SAWS STANDARD SPECIFICATIONS – ITEM #824.
19. CLEANOUTS SHALL BE TWO-WAYS AND INSTALLED IN ACCORDANCE WITH COSA PLUMBING CODE (EVERY 100') & AS DIRECTED BY PLUMBING INSPECTOR.
20. FIRE LINE SHALL BE PVC C900, CLASS 200 AND SHALL COMPLY WITH AWWA STANDARDS AND SHALL WITHSTAND A WORKING PRESSURE OF NOT LESS THAN 200 P.S.I.
21. CONTRACTOR SHALL MAINTAIN "AS-BUILT" DRAWINGS THROUGHOUT THE COURSE OF CONSTRUCTION & SHALL SUBMIT SAME TO THE ENGINEER FOR APPROVAL PRIOR TO FINAL ACCEPTANCE BY OWNER.
22. SAWS DOES NOT OWN OR KEEP RECORD OF ANY INFRASTRUCTURE ON PRIVATE PROPERTY UNLESS IT IS WITHIN A SAWS EASEMENT. ONCE THE SERVICE LINE (WATER OR SEWER) CROSSES THE PRIVATE PROPERTY LINE IT IS THE PROPERTY OWNER'S RESPONSIBILITY AND IS SUBJECT TO THE CITY OF SAN ANTONIO UNIFIED DEVELOPMENT CODE (OR APPLICABLE JURISDICTION) AND WILL REQUIRE A SEPARATE PERMIT AND INSPECTIONS.

GRADING AND DRAINAGE NOTES

1. CONTRACTOR TO VERIFY ELEVATIONS PRIOR TO CONSTRUCTION. EXISTING CONTOURS BASED ON SURVEY TOPOGRAPHIC DATA.
2. ALL GRADES AND CONTOURS SHOWN ARE FINAL, TOP OF FINISHED SURFACE ELEVATIONS, CONTRACTOR SHALL SUBTRACT PAVEMENT, BASE, TOPSOIL, MULCH, ...ETC. TO OBTAIN PROPER SUBGRADE ELEVATIONS.
3. POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL AREAS WITHIN THE SCOPE OF THIS PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS. CONTRACTOR SHOULD TAKE PRECAUTIONS NO TO ALLOW ANY PONDING OF WATER. MINIMUM SLOPE 0.50%.
4. NO ABRUPT CHANGE OF GRADE SHALL OCCUR.
5. ALL DISTURBED AREAS SHALL BE REVEGETATED, BY THE CONTRACTOR, IN ACCORDANCE WITH PROJECT SPECIFICATIONS, AND ARCHITECTURAL LANDSCAPING PLANS.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLAN OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
7. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL APPLICABLE CITY OF SAN ANTONIO SPECIFICATIONS FOR CONSTRUCTION, TXDOT STANDARD SPECIFICATIONS, AND BEXAR COUNTY PUBLIC WORKS STANDARD SPECIFICATIONS.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ORIGINAL, OR BETTER CONDITION ANY DAMAGES DONE TO EXISTING SIGNS, UTILITIES, PAVEMENT, CURBS, SIDEWALKS OR DRIVEWAYS (NO SEPARATE ITEM).
9. DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS ENERGY MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVE THAT ARE IN THE PROJECT AREA.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH NECESSARY UTILITY COMPANIES FOR PROVIDING TEMPORARY UTILITY SERVICES DURING CONSTRUCTION.
11. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS FOR UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WHETHER SHOWN ON PLANS OR NOT.
12. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS, OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
13. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT AT NEW PAVEMENT AND CURB JUNCTURES. NO JAGGED OR IRREGULAR CUTS IN PAVEMENT WILL BE ACCEPTED.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
15. ALL EXCAVATION IN UNCLASSIFIED.
16. ALL ON-SITE CURBS ARE 6" HIGH UNLESS OTHERWISE SPECIFIED.
17. SEE CIVIL COVER SHEET FOR PROJECT BENCHMARK.
18. CONTRACTOR TO RAISE/LOWER ALL UTILITY BOXES, COVERS, GRATES, VALVES BOXES, MANHOLES, CLEANOUTS, ETC., TO MATCH PROPOSED FINISHED GRADE ELEVATIONS.
19. ALL DISTURBED AREAS WHICH ARE NOT TO BE PAVED SHALL BE COVERED WITH 6" MIN. CLEAN TOPSOIL UNLESS OTHERWISE NOTED. CUT OR FILL SHALL BE ADJUSTED TO ALLOW FOR TOPSOIL IN ORDER TO MAINTAIN PROPOSED ELEVATIONS. AREAS FOR LANDSCAPING SHOULD BE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECTS PLANS.
20. PROVIDE THE REQUIRED MINIMUM DENSITY AND MOISTURE CONTENT OF COMPACTED FILL IN ACCORDANCE WITH THE SOILS REPORT AND THE REQUIREMENTS OF THE PROFESSIONAL ENGINEER (GEOTECH AND CIVIL).
21. A TESTING LABORATORY SHALL BE EMPLOYED BY THE CONTRACTOR TO CHECK THE SUITABILITY OF MATERIAL SELECTED FOR CONTROLLED FILLS, TO TEST AND DETERMINE IF THE REQUIRED IS BEING OBTAINED, AND TO TEST COMPACTION OF EXPOSED SUBGRADES, WHEN COMPACTION TESTS DOES NOT MEET GEOTECH REQUIREMENTS, FILL AND BACKFILL SHALL BE DRIED OUT OR MOISTENED AS NECESSARY, SCARIFIED, AND RECOMPACTED AT NO ADDITIONAL COSTS TO OWNER.
22. THE RESULTING ADVERSE IMPACT ANALYSIS, DRAINAGE PATTERNS, RUNOFF AND VOLUME CALCULATIONS ASSOCIATED WITH THIS PHASE OF DEVELOPMENT IS CONSISTENT WITH THE STORMWATER MANAGEMENT PLAN DEVELOPED FOR THE MASTER DEVELOPMENT PLAN NUMBER 21-11100071 SUBMITTED AND APPROVED ON AUGUST 15, 2022.

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 INSTALLATIONS 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 DESCIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATIONS SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

SAN ANTONIO WATER SYSTEM CRITERIA FOR SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER MAINS

1. WHERE A SEWER MAIN CROSSES OVER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN 9 FEET, ALL PORTIONS OF THE SEWER MAIN WITHIN NINE FEET OF THE WATER LINE SHALL BE CONSTRUCTED USING 150 PSI PRESSURE RATED DUCTILE IRON, CAST IRON OR PVC PIPE AND JOINED WITH EQUALLY PRESSURE RATED PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL. A SECTION OF 150 PSI PRESSURE RATED PIPE AT LEAST EIGHTEEN (18) FEET IN LENGTH MAY BE CENTERED ON THE WATER MAIN IN LIEU OF PIPE CONNECTION REQUIREMENTS. (NO SEPARATE PAY ITEM).
2. WHERE A SEMI-RIGID OR RIGID SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE FEET BUT GREATER THAN TWO FEET, THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTIONS OF THE SEWER WITHIN NINE FEET OF THE WATER MAIN.
3. WHERE A SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN TWO FEET, THE SEWER MAIN SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI WITHIN NINE FEET OF THE WATER MAIN, SHALL HAVE A SEGMENT OF SEWER PIPE CENTERED ON THE WATER MAIN, SHALL BE PLACED NO CLOSER THAN SIX INCHES BETWEEN OUTER DIAMETERS, AND SHALL BE JOINED WITH PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL. A SECTION OF 150 PSI PRESSURE RATED PIPE OF A LENGTH GREATER THAN EIGHTEEN (18) FEET MAY BE CENTERED ON THE WATER MAIN IN LIEU OF PIPE CONNECTION REQUIREMENTS. (NO SEPARATE PAY ITEM).
4. WHERE A SEWER MAIN PARALLELS A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE FEET, THE SEWER MAIN SHALL BE BELOW THE WATER MAIN, SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI FOR BOTH PIPE AND JOINTS FOR A DISTANCE OF NINE FEET BEYOND THE POINT OF CONFLICT, SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE BETWEEN OUTER DIAMETERS OF TWO FEET VERTICALLY AND FOUR FEET HORIZONTALLY, AND SHALL BE JOINED WITH PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL.
5. SANITARY SEWER MANHOLES SHALL NOT BE INSTALLED ANY CLOSER THAN NINE FEET TO WATER MAINS.
6. CORROSION PROTECTED MECHANICAL COUPLING DEVICES SHALL BE OF A CAST IRON MATERIAL.
7. PLAN & PROFILE MUST SHOW TYPE OF CROSSING AND MATERIAL TO USE.

DEMOLITION NOTES

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE CITY OF SAN ANTONIO STANDARDS AND SPECIFICATIONS.
2. ALL FILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD (ASTM D-698).
3. CURB RAMPS ARE TO BE CONSTRUCTED ON ALL PERMANENT CURB RETURNS AT THE INTERSECTION OF ALL STREETS OR AS DIRECTED BY THE CITY OF SAN ANTONIO INSPECTOR.
4. ALL CONSTRUCTION BARRICADING TO BE IN ACCORDANCE WITH CURRENT "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. **THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.** THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG TEST" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN PER THE APPROPRIATE REMEDIAL ACTION AGREED UPON BY THE ENGINEER.
6. DISPOSAL OF ALL DEMOLISHED MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL MUNICIPAL REQUIREMENTS.
7. WHERE A STATE OR LOCAL MUNICIPAL STANDARD DETAIL DUPLICATES A DETAIL SHOWN IN THE PLANS, THE MORE STRINGENT DETAIL, AS DETERMINED BY THE REVIEWING AGENCY, SHALL APPLY.
8. ALL ITEMS NOT SPECIFICALLY CALLED OUT TO BE REMOVED SHALL REMAIN. ANY ITEM TO REMAIN WHICH IS REMOVED SHALL BE REPLACED AT THE CONTRACTORS EXPENSE. (NO SEPARATE PAY).
9. CONTRACTOR WILL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY DEMOLITION PERMITS FOR THE PROJECT AND COORDINATION WITH THE RESPECTIVE UTILITY COMPANIES FOR REMOVAL OF THEIR INDIVIDUAL SERVICES.
10. CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER REGARDING QUESTIONS ON THE DEMOLITION PLAN.
11. DEMOLITION CONTRACTOR SHALL CLEARLY MARK ALL EXISTING UTILITY SERVICES WHERE THEY CROSS PROPERTY LINES. THIS INFORMATION WILL BE USED BY UTILITY COMPANIES AND CONTRACTORS TO TIE INTO FOR THE PROPOSED UTILITY SERVICES.
12. CONTRACTOR SHALL VERIFY WHICH TREES ARE TO BE SAVED & PROTECTED PRIOR TO COMMENCING CONSTRUCTION, DURABLE FENCE PROTECTION BARRIERS SHALL BE INSTALLED AROUND ALL TREES TO BE SAVED WITH FENCE PLACEMENT A MINIMUM OF 10 FEET FROM TREES TRUNKS. (IF APPLICABLE)
13. CONTRACTOR SHALL NOT DISTURB AREAS AROUND EXISTING TREES TO BE SAVED. (IF APPLICABLE)
14. CONTRACTOR SHALL COMPENSATE OWNER FOR DAMAGE OF TREES THAT WERE TO REMAIN. (IF APPLICABLE)

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WWW.UPENGINEERING.COM TBPE F-17992
TBPELS F-10194608

1/5/24

STATE OF TEXAS · RYAN R. PLAGENS · 111640 · LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

GENERAL NOTES

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

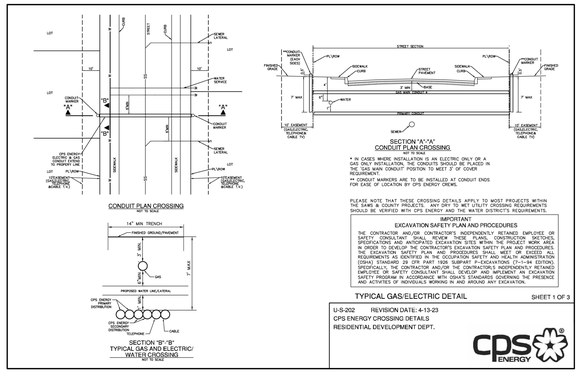
SHEET
C1.1

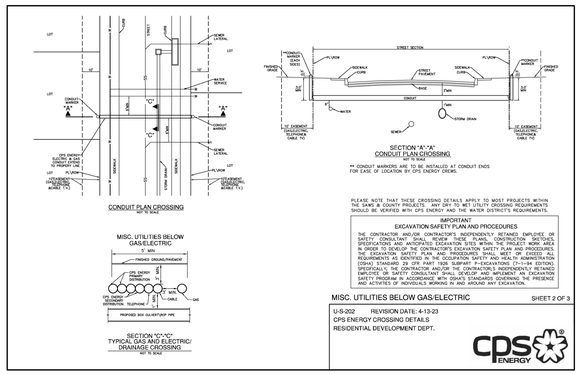
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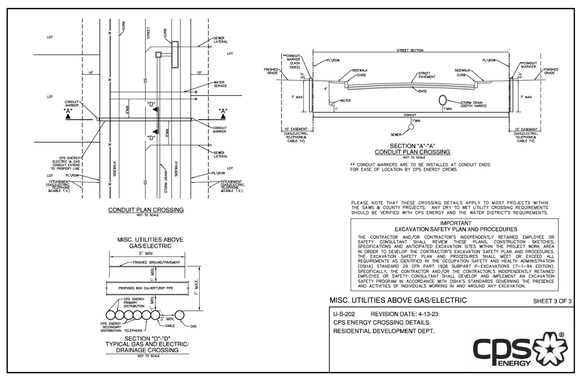
UTILITY CONSTRUCTION LAYOUT

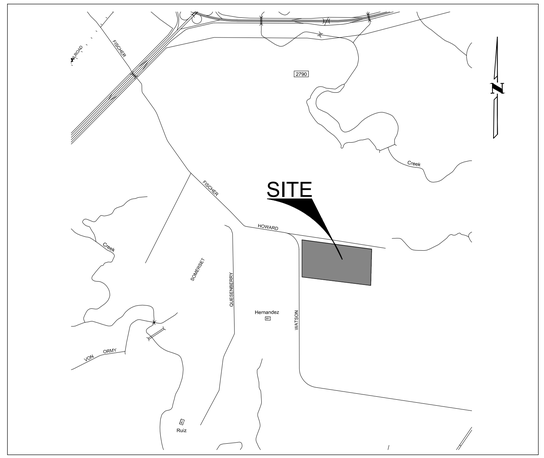
TIERRA LINDA - PHASE 1 SUBDIVISION

San Antonio, Texas









VICINITY MAP
NOT TO SCALE

SUBMITTAL DATE:
January 4, 2024

LEGEND

	FIRE HYDRANT
	EXISTING FIRE HYDRANT
—P8"W—	WATER MAIN
----E8"W----	EXISTING WATER MAIN
	DUAL WATER SERVICE
	SINGLE WATER SERVICE
—P8"SS—	SANITARY SEWER PIPE
---E8"SS---	EXISTING SANITARY SEWER PIPE
	EXISTING SANITARY SEWER MANHOLE
	PROPOSED SANITARY SEWER MANHOLE
	FLOW DIRECTION
	SANITARY SEWER LATERAL
	EXIST. SANITARY SEWER LATERAL
----OE----	EXIST. OVERHEAD ELECTRIC
E.G.T.C.	ELECTRIC, GAS, TELEPHONE AND CABLE TV
VNAE	VEHICLE NON-ACCESS EASEMENT
BSL	BUILDING SETBACK LINE
ESM'T.	EASEMENT
1937/550	VOLUME/PAGE
O.P.R.B.C.T.	OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY TEXAS
D.P.R.	DEED AND PLAT RECORDS OF BEXAR COUNTY TEXAS
	POWER POLE
	EXISTING POWER POLE
	ELECTRIC TRANSFORMER
T	TELEPHONE PEDESTAL
CTV	CABLE T.V. PEDESTAL
	ELECTRIC RISER POLE
	EXISTING STREET LIGHT
	PROPOSED STREET LIGHT (100 WATT UG)
250W	PROPOSED STREET LIGHT (250 WATT UG)
R.O.W.	RIGHT-OF-WAY
	BLOWOFF

GENERAL NOTES:
1. LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND DRAINAGE STRUCTURES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTHS OF ALL UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION WHETHER SHOWN ON THE PLANS OR NOT. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.

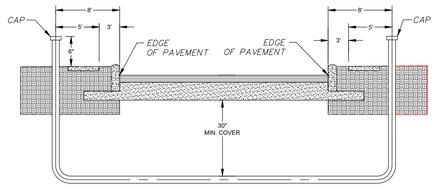
2. ALL SPOIL AND UNUSABLE MATERIAL FROM THIS PROJECT SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS., TESTS, APPROVALS REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.

4. 6" PVC SCHEDULE 80 WILL BE REQUIRED FOR CPS UTILITY CROSSINGS WHEN STREET OR DRAIN CONSTRUCTION PRECEDES DRY UTILITY INSTALLATION.

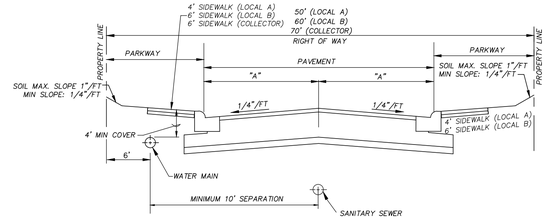
5. 4" PVC SCHEDULE 40 WILL BE REQUIRED FOR UNDERGROUND TELEPHONE AND CABLE TV IF NOTE 4 ABOVE APPLIES.

6. PVC CONDUIT WITH 90° SWEEPS TO 6" ABOVE GRADE WITH CAP.



TYPICAL OWNER CONDUIT DETAIL
UTILITIES

Sheet List Table	
Sheet Number	Sheet Title
C2.0	UTILITY COVER
C2.1	UTILITY OVERALL
C2.2	UTILITY OVERALL
C2.3	CPS UTILITY DESIGN

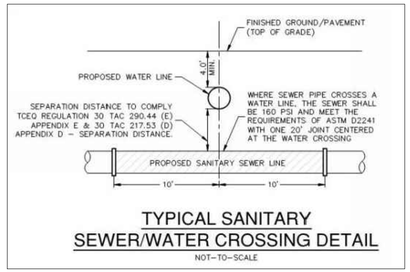


STANDARD STREET SECTION
UTILITIES NTS

STREET SECTION TABLE			
DESCRIPTION	LOCAL A	LOCAL B	COLLECTOR
RIGHT OF WAY WIDTH	50'	60'	70'
PAVEMENT WIDTH	28'	40'	44'
LENGTH - "A"	14'	20'	22'
PARKWAY WIDTH	11'	10'	13'

NOTE:

1. A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY ROW.



TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
NOT-TO-SCALE

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WWW.UPENGINEERING.COM TBPE F-17992
TBPELS F-10194605

1/5/24
STATE OF TEXAS
RYAN R. PLAGENS
111640
LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

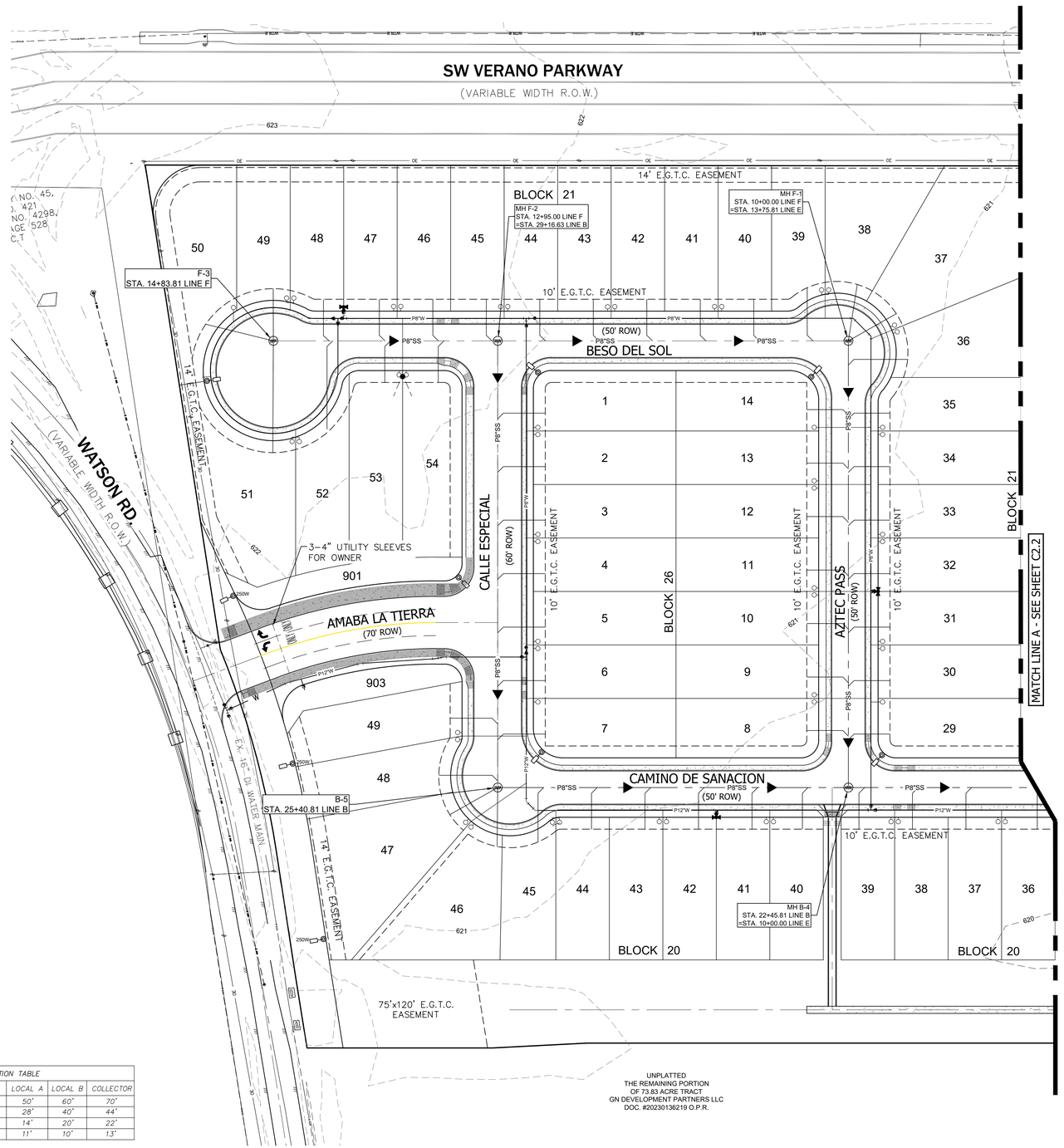
UTILITY COVER

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C2.0

Date: Jan 04, 2024, 4:19pm User ID: J.Reynolds
File: G:_Projects\372 - Watson (Von Ormy)\372.03 - TIERRA LINDA PHASE 1\ACAD\Sheets\C2.0-UTILITY LAYOUT.dwg



STREET SECTION TABLE			
DESCRIPTION	LOCAL A	LOCAL B	COLLECTOR
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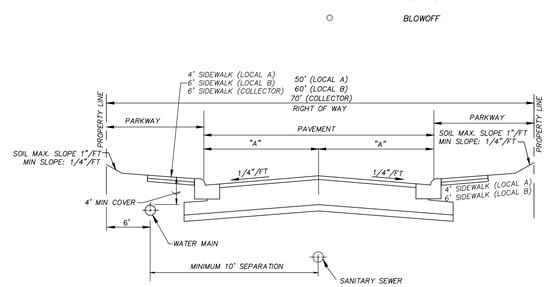
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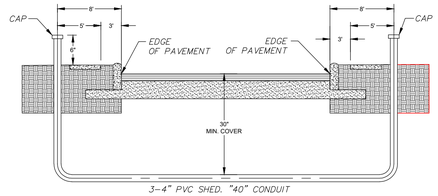
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SCALE: 1" = 50'

LEGEND

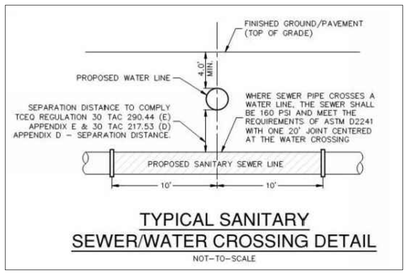
	FIRE HYDRANT
	EXISTING FIRE HYDRANT
P8"W	WATER MAIN
E8"W	EXISTING WATER MAIN
	DUAL WATER SERVICE
	SINGLE WATER SERVICE
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SA	EXISTING SANITARY SEWER MANHOLE
SM	PROPOSED SANITARY SEWER MANHOLE
	FLOW DIRECTION
	SANITARY SEWER LATERAL
	EXIST. SANITARY SEWER LATERAL
OE	EXIST. OVERHEAD ELECTRIC
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VNAE	VEHICLE NON-ACCESS EASEMENT
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ESM'T.	EASEMENT
1937/550	VOLUME/PAGE
O.P.R.B.C.T.	OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY TEXAS
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	POWER POLE
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	PROPOSED STREET LIGHT (100 WATT UG)
250W	PROPOSED STREET LIGHT (250 WATT UG)
R.O.W.	RIGHT-OF-WAY
	BLOWOFF



STANDARD STREET SECTION
UTILITIES NTS



TYPICAL OWNER CONDUIT DETAIL
UTILITIES



TYPICAL SANITARY
SEWER/WATER CROSSING DETAIL
NOT-TO-SCALE

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FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

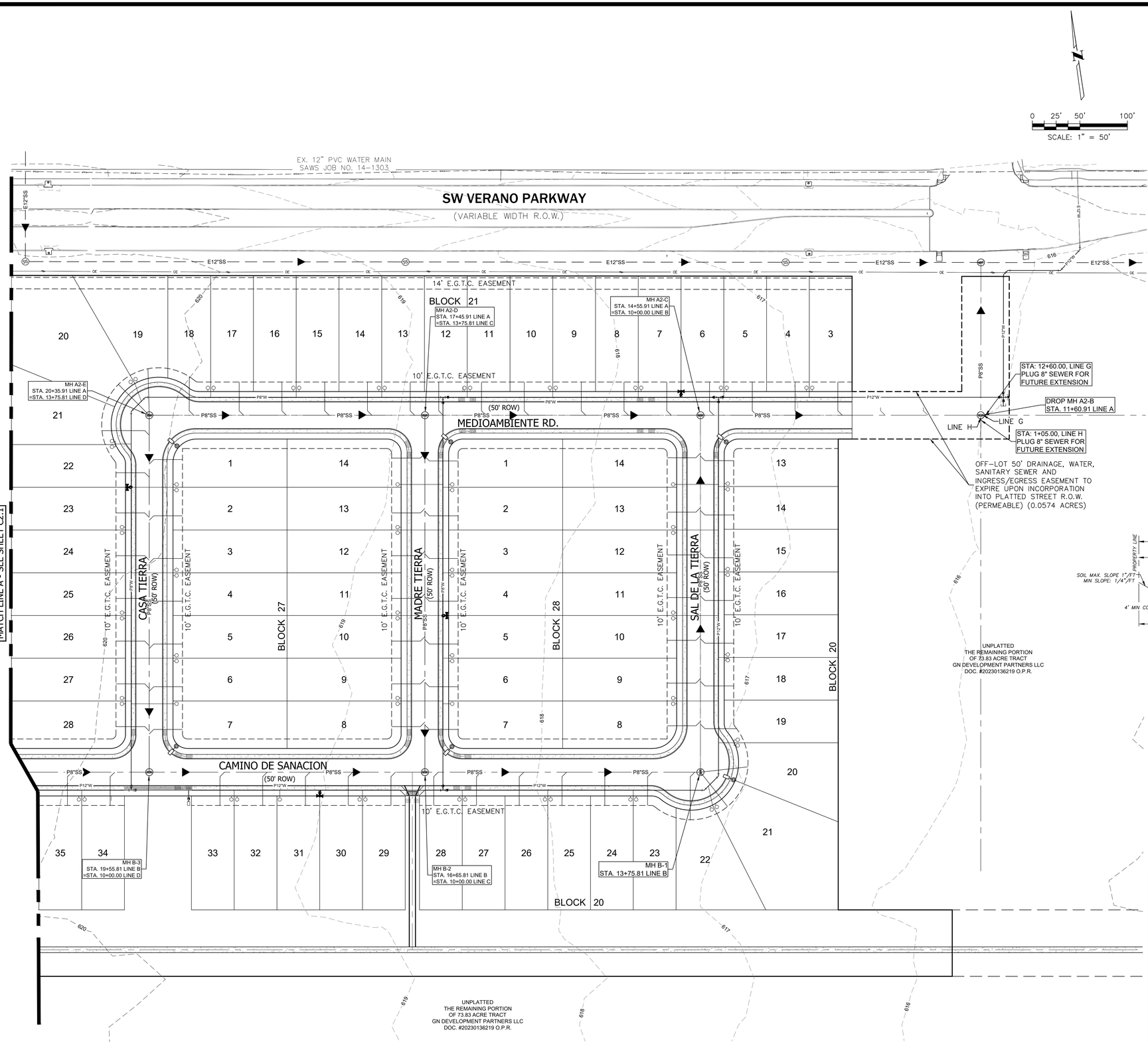
UTILITY OVERALL

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
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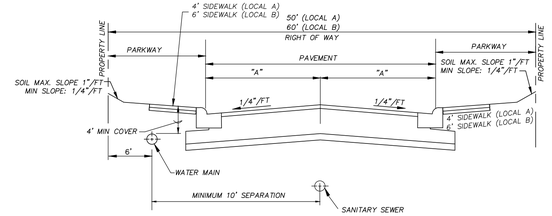
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LEGEND

	FIRE HYDRANT
	EXISTING FIRE HYDRANT
P8"W	WATER MAIN
E8"W	EXISTING WATER MAIN
	DUAL WATER SERVICE
	SINGLE WATER SERVICE
P8"SS	SANITARY SEWER PIPE
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	PROPOSED STREET LIGHT (100 WATT UG)
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R.O.W.	RIGHT-OF-WAY
	BLOWOFF

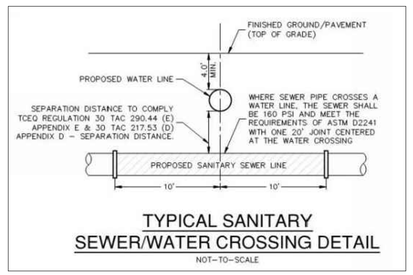


STANDARD STREET SECTION
UTILITIES NTS

STREET SECTION TABLE			
DESCRIPTION	LOCAL A	LOCAL B	COLLECTOR
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TYPICAL SANITARY
SEWER/WATER CROSSING DETAIL
NOT-TO-SCALE

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+ SURVEYING
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SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPELS F-10194606

1/5/24

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

UTILITY OVERALL

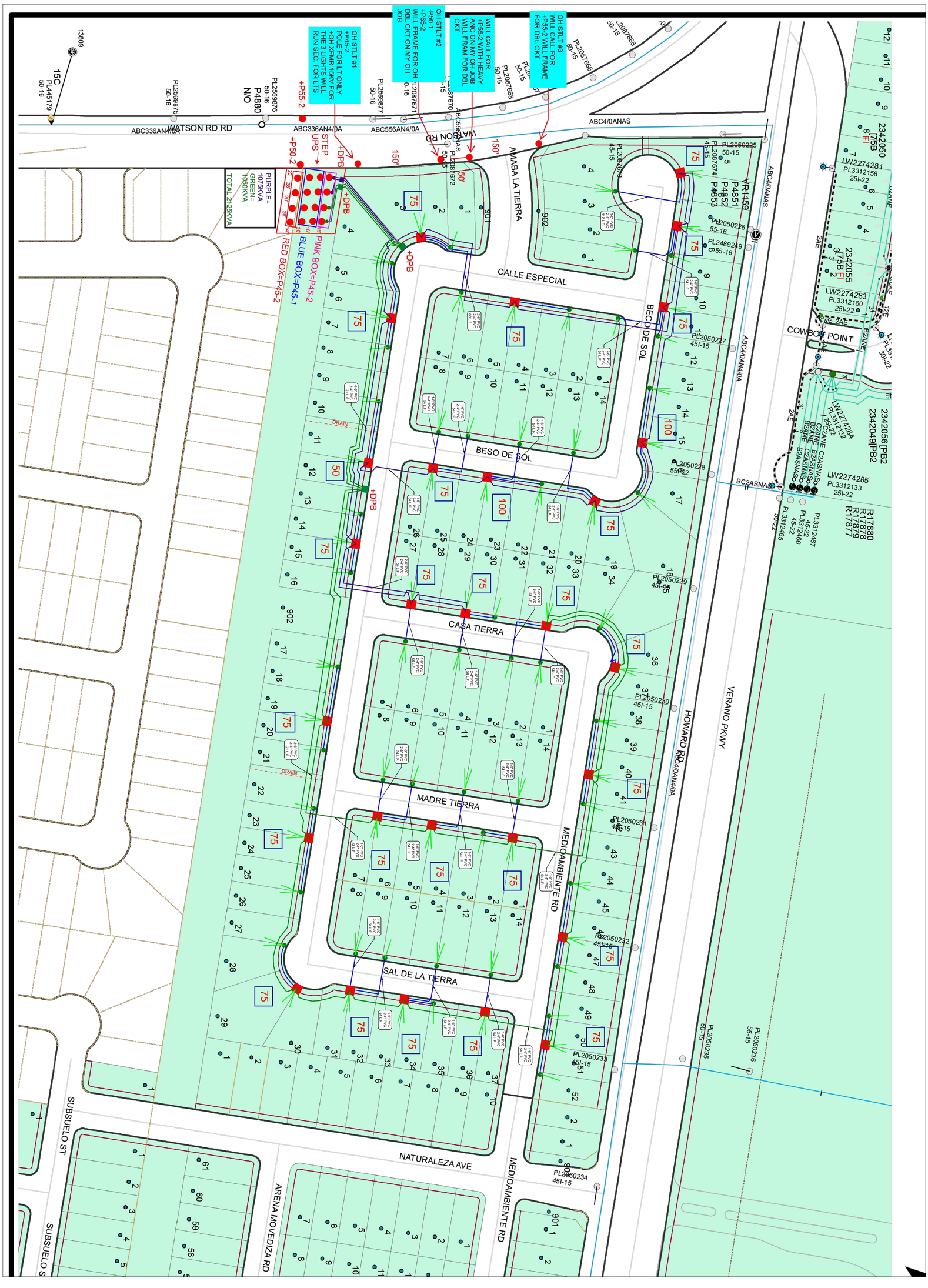
REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
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SHEET C2.3	TIERRA LINDA - PHASE 1 PLAT NO. 23-11800219 CPS UTILITY DESIGN	SAN ANTONIO LD, LLC 4048 NORTH COLLEGE STE. 300, BOX 9 FAYETTEVILLE, AR. 72703		UP ENGINEERING + SURVEYING 11903 JONES MALTSBERGER, SUITE 102 SAN ANTONIO, TX 78216 TEL 210-774-5504 WWW.UPENGINEERING.COM TBPE F-17992 TBPELS F-10194606

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

REV	DATE	DESCRIPTION	BY

SANITARY SEWER CONSTRUCTION DOCUMENTS FOR

TIERRA LINDA - PHASE 1 SUBDIVISION

San Antonio, Texas

JANUARY 2022

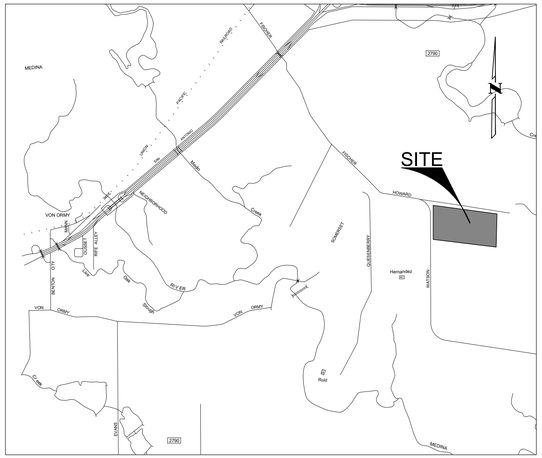
SAWS CONSTRUCTION NOTES
COUNTER PERMIT AND GENERAL CONSTRUCTION PERMIT

GENERAL SECTION

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:

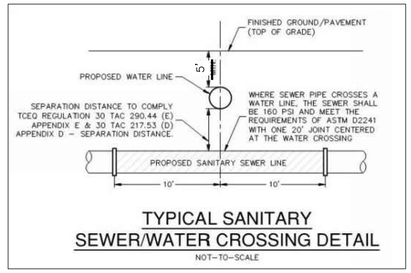
   A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290.
   B. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE".
   C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION".
   D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
   E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM).

2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY OBTAIN A COPY OF THE APPROVED COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP) FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY SAWS CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS ARRANGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REQUIREMENTS. WORK COMPLETED BY THE CONTRACTOR WITHOUT AN APPROVED COUNTER PERMIT AND/OR A GCP WILL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE EXPENSE OF THE CONTRACTORS AND/OR THE DEVELOPER.
3. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS WEBSITE, HTTP://WWW.SAWS.ORG/BUSINESS_CENTER/SPECS. UNLESS OTHERWISE NOTED WITHIN THE DESIGN PLANS.
4. 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.
5. LOCATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.
6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES AT LEAST 1-2 WEEKS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS FACILITIES. THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:
   - SAWS UTILITY LOCATES: HTTP://WWW.SAWS.ORG/SERVICE/LOCATES
   - COSA DRAINAGE (210) 207-0724 OR (210) 207-6026
   - COSA TRAFFIC SIGNAL OPERATIONS (210) 206-8480
   - COSA TRAFFIC SIGNAL DAMAGES (210) 207-3951
   - TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005 OR 811
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION IF DAMAGES ARE MADE AS A RESULT OF THE PROJECT'S CONSTRUCTION.
8. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) AND/OR BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT REQUIREMENTS.
9. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.
10. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.
11. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG. 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.
12. COMPACTION NOTE (ITEM 804): THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE COMPACTION REQUIREMENTS ON ALL TRENCH BACKFILL AND FOR PAYING FOR THE TESTS PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE SAWS INSPECTOR AND/OR THE TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.
13. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION INSPECTION DIVISION.



VICINITY MAP
NOT TO SCALE

SUBMITTAL DATE:
September 6, 2023



TYPICAL SANITARY
SEWER/WATER CROSSING DETAIL
NOT-TO-SCALE

Sheet List Table	
Sheet Number	Sheet Title
C3.0	COVER SHEET
C3.1	SANITARY SEWER LAYOUT
C3.2	SANITARY SEWER LAYOUT
C3.3	SANITARY SEWER LINE A
C3.4	SANITARY SEWER LINE B
C3.5	SANITARY SEWER LINE B
C3.6	SANITARY SEWER LINE E&F
C3.7	SANITARY SEWER LINE C&D

SEWER NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SANITARY SEWER OVERFLOW (SSO) OCCURS AS A RESULT OF THEIR WORK. ALL CONTRACTOR PERSONNEL RESPONSIBLE FOR SSO PREVENTION AND CONTROL SHALL BE TRAINED ON PROPER RESPONSE. SHOULD AN SSO OCCUR, THE CONTRACTOR SHALL:

   A. IDENTIFY THE SOURCE OF THE SSO AND NOTIFY SAWS EMERGENCY OPERATIONS CENTER (EOC) IMMEDIATELY AT (210) 233-2014. PROVIDE THE ADDRESS OF THE SPILL AND AN ESTIMATED VOLUME OR FLOW.
   B. ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO.
   C. CONTAIN SEWAGE FROM THE SSO TO THE EXTENT OF PREVENTING A POSSIBLE CONTAMINATION OF WATERWAYS.
   D. CLEAN UP SPILL SITE (RETURN CONTAINED SEWAGE TO THE COLLECTION SYSTEM IF POSSIBLE) AND PROPERLY DISPOSE OF CONTAMINATED SOIL/MATERIALS.
   E. CLEAN THE AFFECTED SEWER MAINS AND REMOVE ANY DEBRIS.
   F. MEET ALL POST-SSO REQUIREMENTS AS PER THE EPA CONSENT DECREE, INCLUDING LINE CLEANING AND TELEVISING THE AFFECTED SEWER MAINS (AT SAWS DIRECTION) WITHIN 24 HOURS.

   SHOULD THE CONTRACTOR FAIL TO ADDRESS AN SSO IMMEDIATELY AND TO SAWS SATISFACTION, THEY WILL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SAWS, INCLUDING ANY FINES FROM EPA, TCEQ AND/OR ANY OTHER FEDERAL, STATE OR LOCAL AGENCIES.

   NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TCEQ AND SAWS.

2. IF BYPASS PUMPING IS REQUIRED, THE CONTRACTOR SHALL PERFORM SUCH WORK IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION FOR WATER AND SANITARY SEWER CONSTRUCTION, ITEM NO. 864, "BYPASS PUMPING".
3. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-2973 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.
4. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 PSI AND MEET THE REQUIREMENTS OF ASTM D2241, TAC 217.53 AND TCEQ 290.44(E)(4)(B). CONTRACTOR SHALL CENTER A 20' JOINT OF 160 PSI PRESSURE RATED PVC AT THE PROPOSED WATER CROSSING.
5. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ALLOWANCES AND ADJUSTMENTS FOR TOP OF MANHOLES TO MATCH THE FINISHED GRADE OF THE PROJECT'S IMPROVEMENTS. (NSPI)
6. SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER: ALL SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER, RECYCLED WATER, PETROLEUM PRODUCTS, OR CHEMICALS MUST BE REPORTED IMMEDIATELY TO THE SAWS INSPECTOR ASSIGNED TO THE COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP). THIS REQUIREMENT APPLIES TO EVERY SPILL, OVERFLOW, OR DISCHARGE REGARDLESS OF SIZE.
7. 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.
8. ALL PVC PIPE OVER 14 FEET OF COVER SHALL BE EXTRA STRENGTH WITH MINIMUM PIPE STIFFNESS OF 115 PSI.

BENCHMARKS

"X" ON CONCRETE: #10
NORTHING = 13653920.67
EASTING = 2098954.225
ELEVATION = 616.935

"X" ON CONCRETE: #11
NORTHING = 13652618.41
EASTING = 2097217295
ELEVATION = 616.625

LOWER MEDINA RIVER SOUTH SEWERSHED -
DOS RIOS/LEON CREEK W.R.C.

Developer: SAN ANTONIO LD, LLC
Address: 4048 NORTH COLLEGE STE. 300, BOX 9
City: FAYETTEVILLE State: AR. Zip: 72703
Phone: 479-455-9090 Fax:
SAWS Block Map: 128-528 Total EDUs: 131 Total Acreage: 26.714
Total Linear Footage of Pipe: 8"~4575 L.F. Plat No.: 23-11800219
Number of Lots: 131 SAWS Job No.: 23-1576

UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPELS F-10194605

STATE OF TEXAS · RYAN R. PLAGENS · 111640 · LICENSED PROFESSIONAL ENGINEER
1/4/24

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

SANITARY SEWER COVER SHEET

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

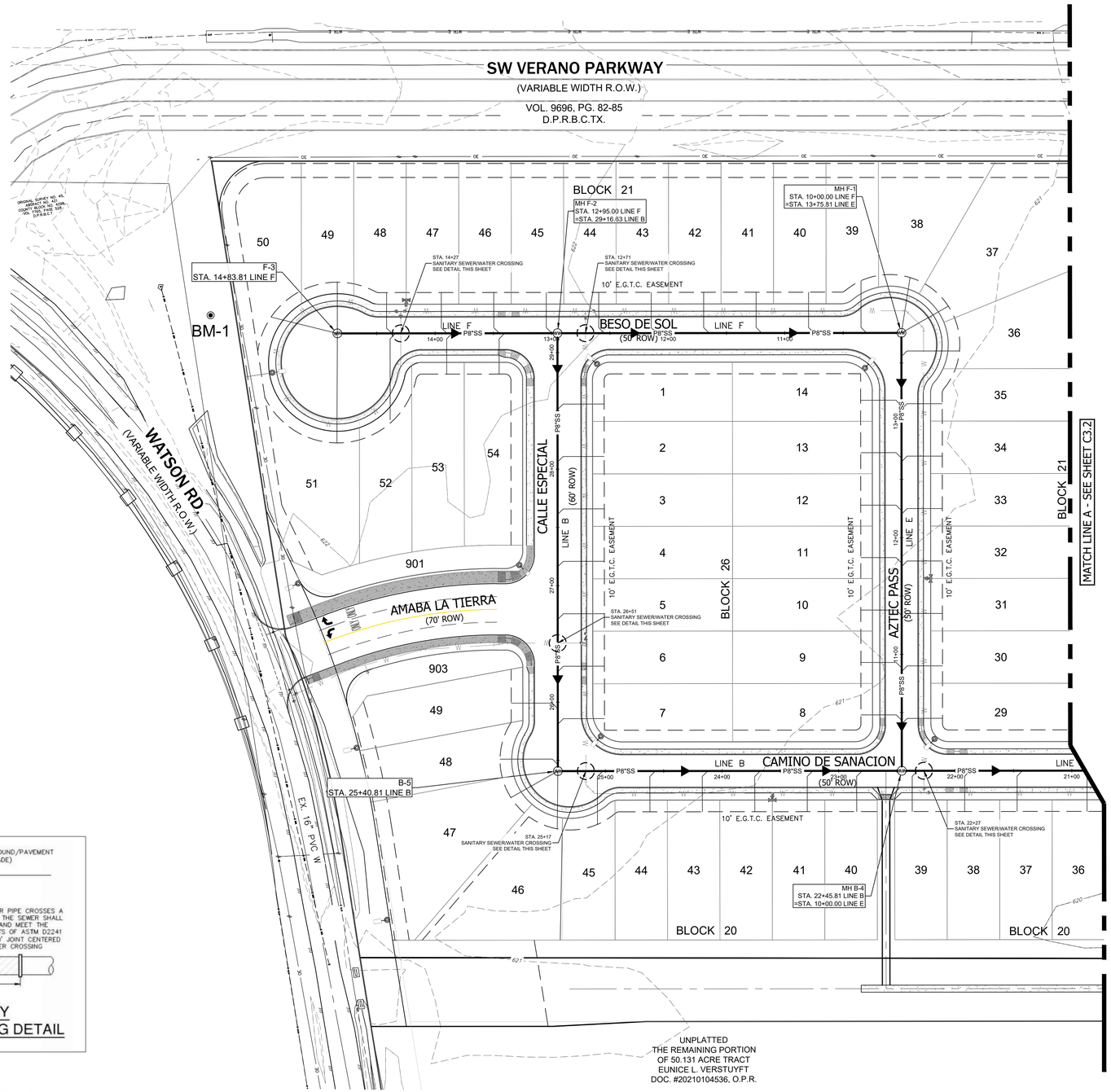
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BENCHMARKS

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NORTHING = 13653920.67
EASTING = 2098954.225
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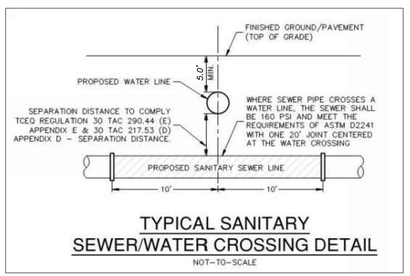
"X" ON CONCRETE: #11
NORTHING = 13652618.41
EASTING = 2097217295
ELEVATION = 616.625



0 25' 50' 100'
SCALE: 1" = 50'

LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- EXIST. GRADE ELEVATIONS
- PROP. GRADE ELEVATIONS
- BSL — BUILDING SETBACK LINE
- E8"W — EXISTING WATER LINE
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- EXISTING UTILITY POLE
- EXISTING SIGN
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED WATER METER
- EXISTING GUY WIRE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER LATERAL
- P8"SS — PROPOSED SANITARY SEWER LINE
- E12"SS — PROPOSED SANITARY SEWER LINE



TYPICAL SANITARY SEWER/WATER CROSSING DETAIL

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 ANTICIPATE INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS, SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

JOINT RESTRAINT NOTE:

CONTRACTOR SHALL INSTALL RETAINER GLANDS OR MEGALUGS AT ALL FITTINGS AND PROVIDE JOINT RESTRAINING HARNESS OR FIELD LOK GASKETS AT ALL JOINTS WITHIN THE LENGTH SHOWN. CONTRACTOR SHALL INSURE THAT ALL TEES, BENDS, VALVES, ETC. HAVE A MINIMUM OF 5 FT OF PIPE WITH NO JOINTS ON EACH SIDE OF THE FITTING. JOINT RESTRAINTS AND RETAINER GLANDS OR MEGALUGS SHALL BE CALCULATED BY SAWS APPROVED PROGRAMS AND VERIFIED BY SAWS INSPECTOR. CONTRACTOR SHALL INSTALL CONCRETE THRUST BLOCKING IN ACCORDANCE WITH SAWS STD. DRAWING 839 IN ADDITION TO JOINT RESTRAINS UNLESS OTHERWISE DIRECTED BY THE SAWS INSPECTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE JOINT RESTRAINTS AND THRUST BLOCKING WITH THE SAWS INSPECTOR.

CAUTION!!!
CONTRACTOR TO VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING ALL EXISTING UTILITIES BY CALLING DIGTESS @ 1-800-DIG-TESS FOR LOCATION OF ALL UTILITIES, AT LEAST 2 WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION.

LOWER MEDINA RIVER SOUTH SEWERSHED -
DOS RIOS/LEON CREEK W.R.C.

Developer: SAN ANTONIO LD, LLC
Address: 4048 NORTH COLLEGE STE. 300, BOX 9
City: FAYETTEVILLE State: AR. Zip: 72703
Phone: 479-455-9090 Fax:
SAWS Block Map: 128-528 Total EDUs: 131 Total Acreage: 26.714
Total Linear Footage of Pipe: 8"~4575 L.F. Plat No.: 23-11800219
Number of Lots: 131 SAWS Job No.: 23-1576

NOTES:

1. AFTER ALL SANITARY SEWER CONSTRUCTION HAS BEEN COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES SHALL BE COMPLETED BY EVENLY DISTRIBUTING SEEDING AND WATERING TO A MINIMUM OF 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER.
2. ALL WASTEWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FEBRUARY 2017 SAWS SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION.
3. ALL WASTEWATER PRECAST MANHOLES SHALL BE PROVIDED BY SUPPLIERS APPROVED BY SAWS.
4. CONTRACTOR SHALL PROVIDE MANUFACTURED STUB OUT CAP & PLUG TO MEET 30 TAC 213.5(3)(G) STANDARDS AND TO MEET ASTM D3034 SPECIFICATIONS UNLESS OTHERWISE NOTED.
5. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET IN LENGTH UNLESS NOTED OTHERWISE.
6. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE 10' G.E.T.TV.E. AND CAPPED AND SEALED.
7. LATERALS TO LOTS THAT SLOPE AWAY FROM STREET SHALL BE SLOPED FROM THE TEE OR STACK AT 2% TO THE PROPERTY LINE.
8. 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 ANTICIPATE INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS, SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.
9. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDON. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
10. CONTRACTORS TO CALL UTILITY COMPANIES AND VERIFY THE LOCATIONS OF UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION.
11. ALL PIPE TO BE SDR 26 PVC PER ASTM D3034 SPECIFICATIONS UNLESS OTHERWISE NOTED. PIPE JOINTS TO BE SDR 26 PER ASTM D3139 SPECIFICATIONS.
12. ALL SANITARY SEWER LINES WHICH CROSS WATERLINES ARE TO HAVE A MINIMUM OF A SINGLE LENGTH OF SDR 26 (ASTM D2241-09), PRESSURE RATED (150 PSI) PIPE, CENTERED ON THE WATERLINE SUCH THAT EACH SEWER LINE JOINT IS A MINIMUM OF NINE FEET FROM THE WATERLINE.
13. CONTRACTOR TO VERIFY TOP OF MANHOLE ELEVATION WITH FINISHED PAVEMENT ELEVATION AND ADJUST AS NECESSARY.
14. CONTRACTOR TO PROVIDE MANUFACTURED STUB OUT CAP & PLUG TO MEET 30 TAC 213.5(3)(G) STANDARDS AND TO MEET ASTM D3034 SPECIFICATION.
15. A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY ROW.
16. CONTRACTOR TO REFER TO SAWS STANDARD DETAILS FOR ALL SAWS APPURTENANCES AND STRUCTURES.

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1/4/24
STATE OF TEXAS
RYAN R. PLAGENS
111640
LICENSED PROFESSIONAL ENGINEER
RRP

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TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

SANITARY SEWER LAYOUT

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C3.1

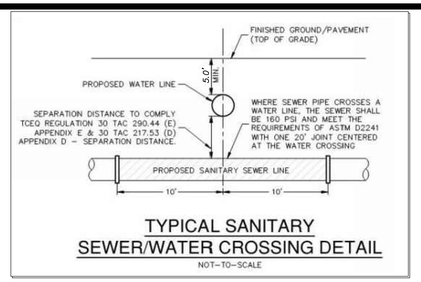
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TRENCH EXCAVATION SAFETY PROTECTION

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 ANTICIPATE INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS, SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

JOINT RESTRAINT NOTE:

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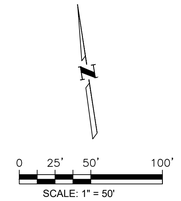


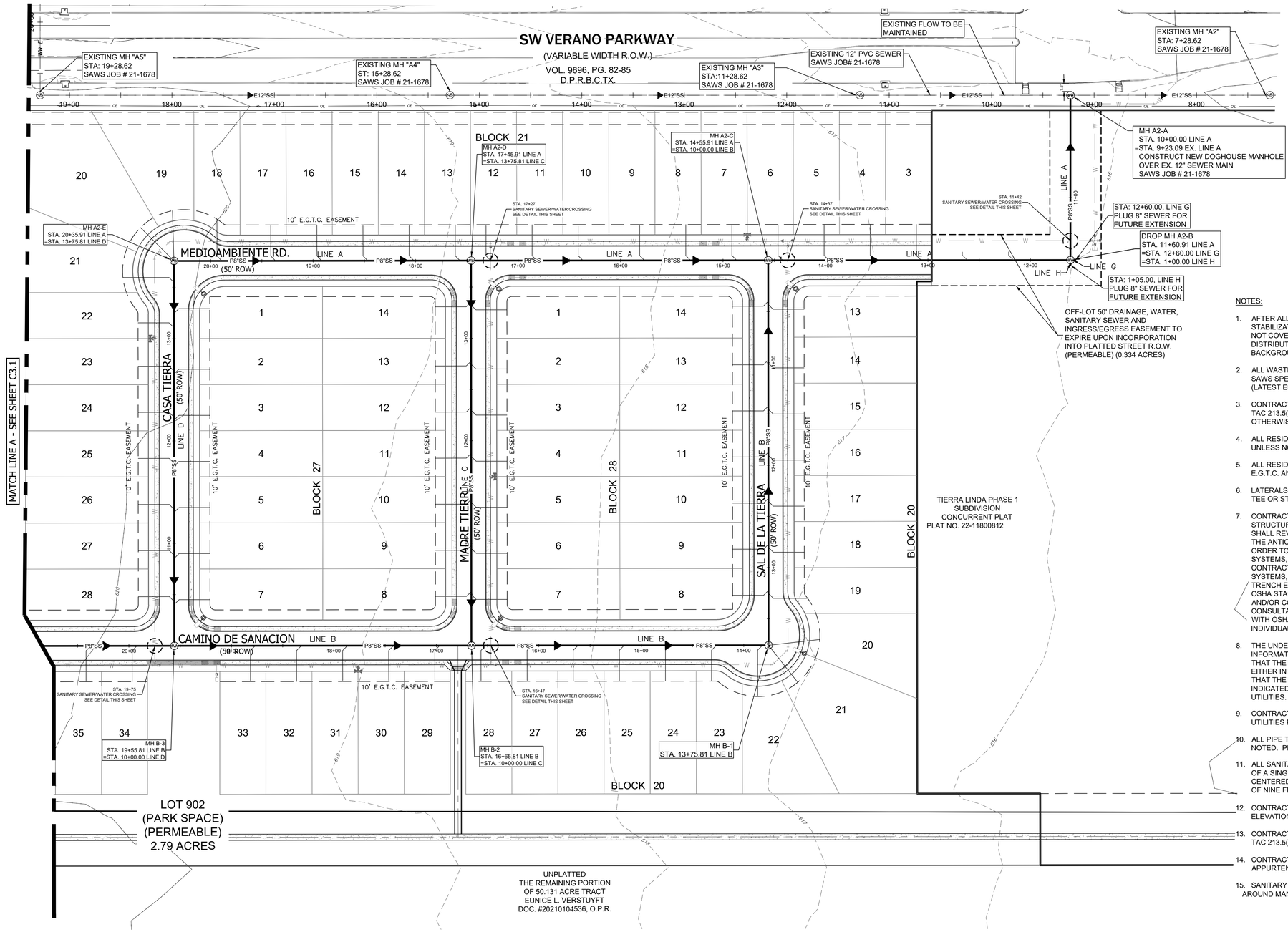
TYPICAL SANITARY SEWER/WATER CROSSING DETAIL

NOT-TO-SCALE

LOWER MEDINA RIVER SOUTH SEWERSHED -
DOS RIOS/LEON CREEK W.R.C.

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Address: 4048 NORTH COLLEGE STE. 300, BOX 9			
City: FAYETTEVILLE	State: AR.	Zip: 72703	
Phone: 479-455-9090		Fax:	
SAWS Block Map: 128-528	Total EDUs: 131	Total Acreage: 26.714	
Total Linear Footage of Pipe: 8"~4575 L.F.		Plat No.: 23-11800219	
Number of Lots: 131		SAWS Job No.: 23-1576	





LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- EXIST. GRADE ELEVATIONS
- PROP. GRADE ELEVATIONS
- BSL — BUILDING SETBACK LINE
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- EXISTING UTILITY POLE
- EXISTING SIGN
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED WATER METER
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- PROPOSED SANITARY SEWER MANHOLE
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- P8"SS — PROPOSED SANITARY SEWER LINE
- E12"SS — PROPOSED SANITARY SEWER LINE

NOTES:

1. AFTER ALL SANITARY SEWER CONSTRUCTION HAS BEEN COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES SHALL BE COMPLETED BY EVENLY DISTRIBUTING SEEDING AND WATERING TO A MINIMUM OF 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER.
2. ALL WASTEWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SAWS SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION (LATEST EDITION).
3. CONTRACTOR SHALL PROVIDE MANUFACTURED STUB OUT CAP & PLUG TO MEET 30 TAC 213.5(3)(G) STANDARDS AND TO MEET ASTM D3034 SPECIFICATIONS UNLESS OTHERWISE NOTED.
4. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET IN LENGTH UNLESS NOTED OTHERWISE.
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UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER, SUITE 102
SAN ANTONIO, TX. 78216 TEL. 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPELS F-10194608

1/5/24

STATE OF TEXAS — RYAN R. PLAGENS — 116140 — LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE. 300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

SANITARY SEWER LAYOUT

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C3.2

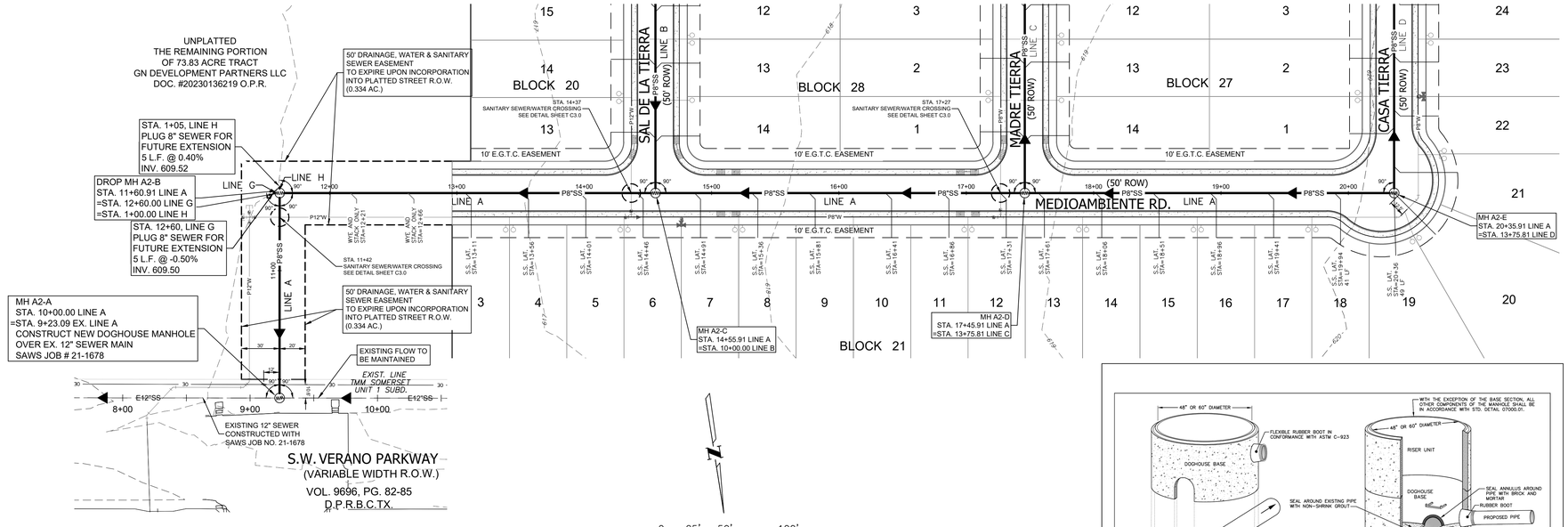
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File: G:_Projects\272 - Retzer (Von Ormy)\272.03 - TIERRA LINDA PHASE 1\ACAD\Sheets\C3.1 - 3.2 - SANITARY SEWER LAYOUT.dwg

LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- 102 — EXIST. GRADE ELEVATIONS
- (102) — PROP. GRADE ELEVATIONS
- BSL — BUILDING SETBACK LINE
- E8"W — EXISTING WATER LINE
- P8"W — PROPOSED WATER LINE
- OE — OE — EXISTING OVERHEAD UTILITIES
- UE — UE — EXISTING UNDERGROUND ELECTRIC
- G — G — EXISTING GAS LINE
- EXISTING UTILITY POLE
- EXISTING SIGN
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED WATER METER
- EXISTING GUY WIRE
- (WW) — PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER LATERAL
- P8"SS — PROPOSED SANITARY SEWER LINE
- E12"SS — PROPOSED SANITARY SEWER LINE

NOTES:

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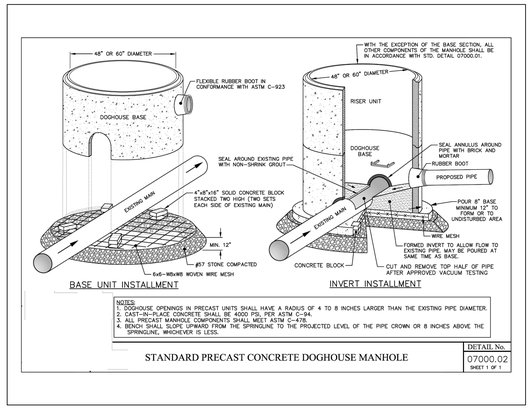


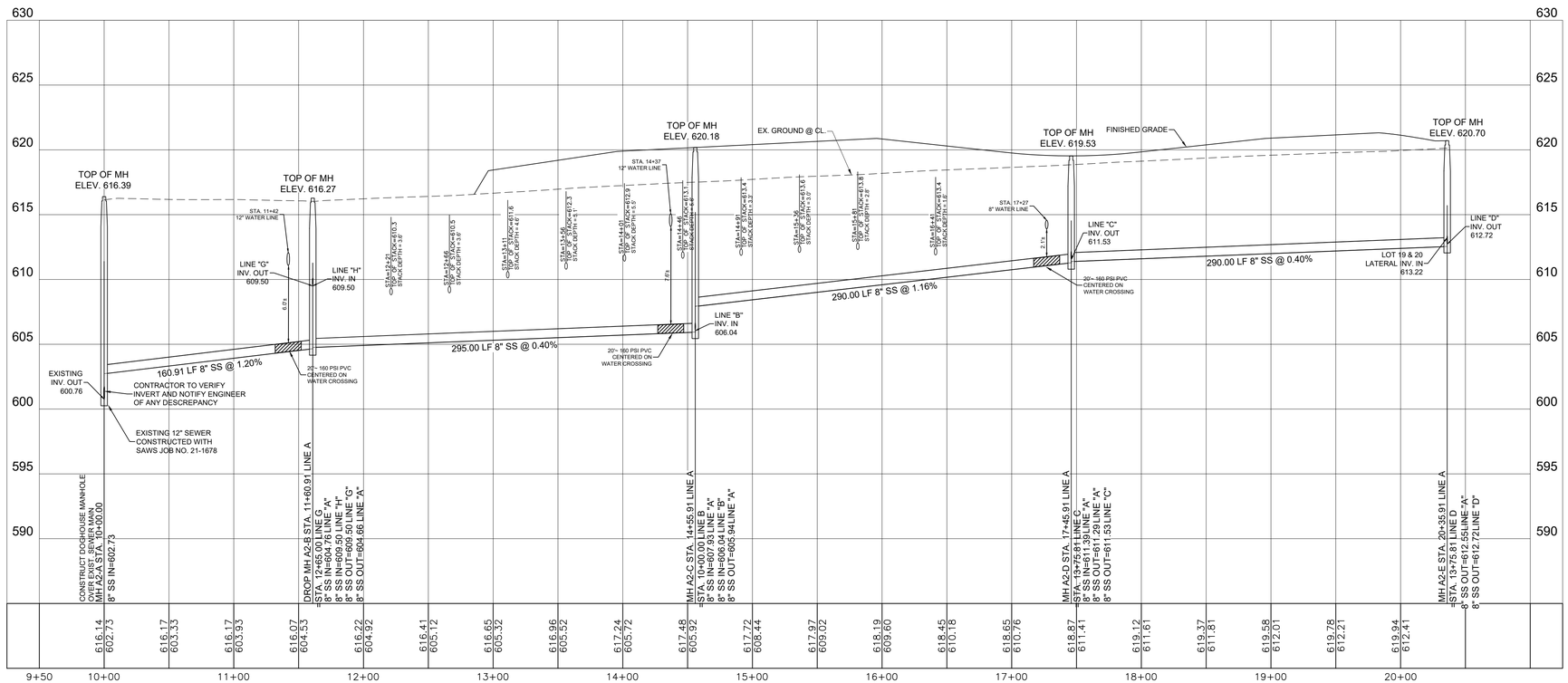
LOWER MEDINA RIVER SOUTH SEWERSHED -
DOS RIOS/LEON CREEK W.R.C.

Developer: SAN ANTONIO LD, LLC	
Address: 4048 NORTH COLLEGE STE. 300, BOX 9	
City: FAYETTEVILLE	State: AR. Zip: 72703
Phone: 479-455-9090	Fax:
SAWS Block Map: 128-528	Total EDUs: 131 Total Acreage: 26.714
Total Linear Footage of Pipe: 8"~4575 L.F.	Plat No.: 23-11800219
Number of Lots: 131	SAWS Job No.: 23-1576

LINE A STA 1+00 - END

SCALE:
1"=5' VERT.
1"=50' HORIZ.





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1/5/24

STATE OF TEXAS — 111640 — RYAN R. PLAGENS — LICENSED PROFESSIONAL ENGINEER

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300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

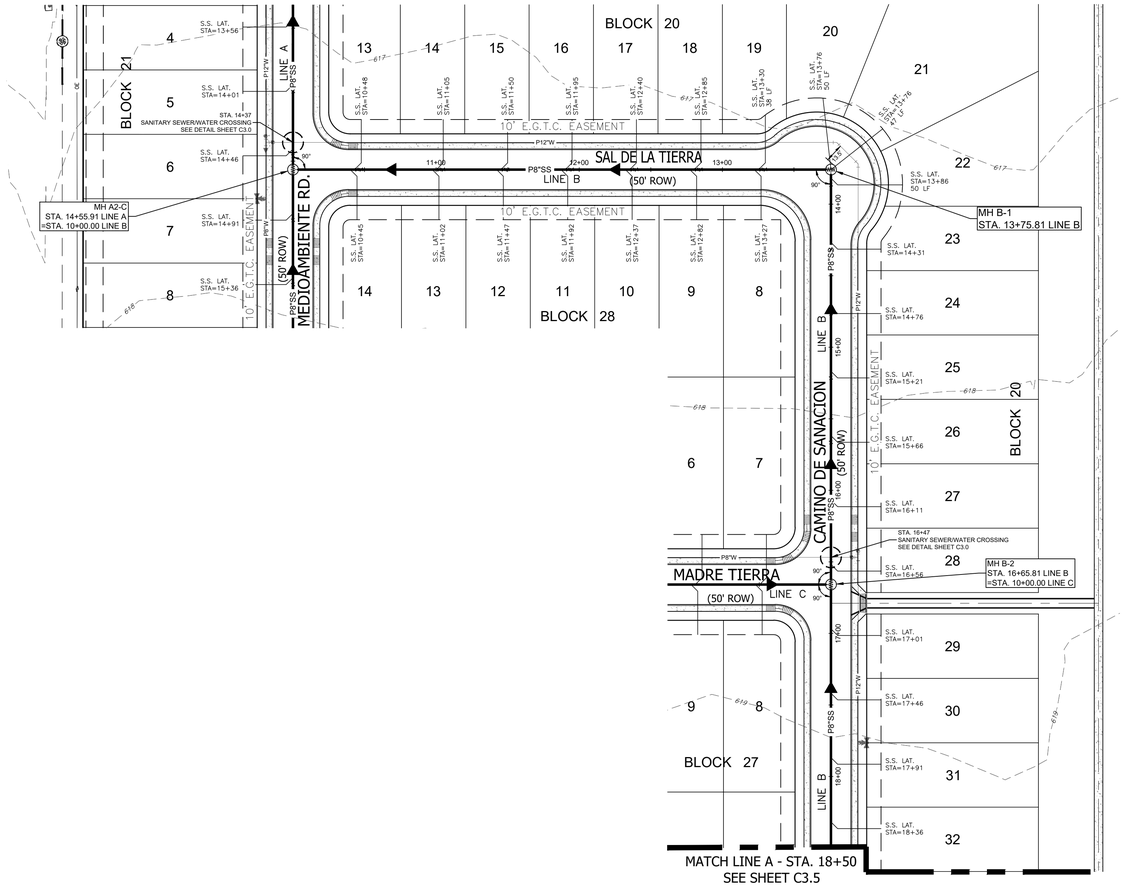
SANITARY SEWER LINE A

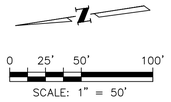
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DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C3.3

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LEGEND

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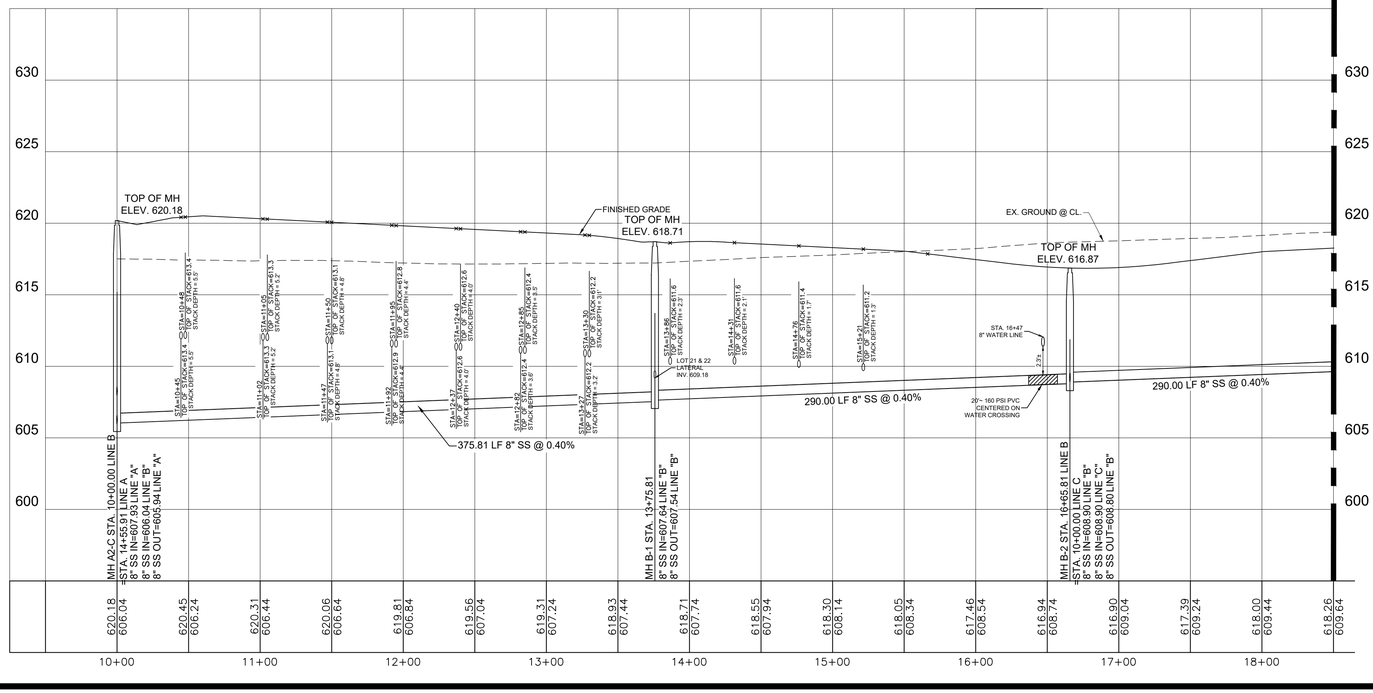
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LOWER MEDINA RIVER SOUTH SEWERSHED -
DOS RIOS/LEON CREEK W.R.C.

LINE B STA 10+00 - 18+50

SCALE:
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1/4/24

STATE OF TEXAS
RYAN R. PLAGENS
111640
LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

SANITARY SEWER LINE B

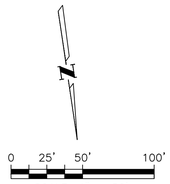
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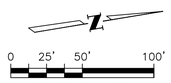
DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C3.4

Developer: SAN ANTONIO LD, LLC
Address: 4048 NORTH COLLEGE STE. 300, BOX 9
City: FAYETTEVILLE State: AR. Zip: 72703
Phone: 479-455-9090 Fax:
SAWS Block Map: 128-528 Total EDUs: 131 Total Acreage: 26.714
Total Linear Footage of Pipe: 8"~4575 L.F. Plat No.: 23-11800219
Number of Lots: 131 SAWS Job No.: 23-1576

Date: Jan 04, 2024, 8:50am User ID: LJ Romanos
File: G:_Projects\272 - Watson (Von Ormy)\272.05 - TIERRA LINDA PHASE 1\ACAD\Sheets\C3.4-3.5-SANITARY SEWER LINE B.dwg



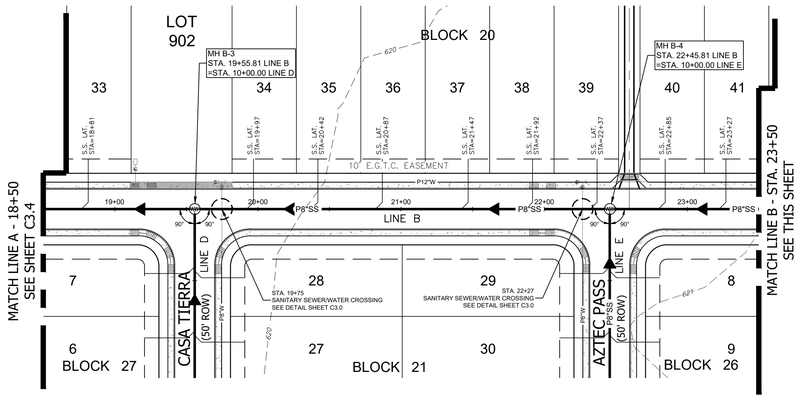


LOWER MEDINA RIVER SOUTH SEWERSHED -
DOS RIOS/LEON CREEK W.R.C.

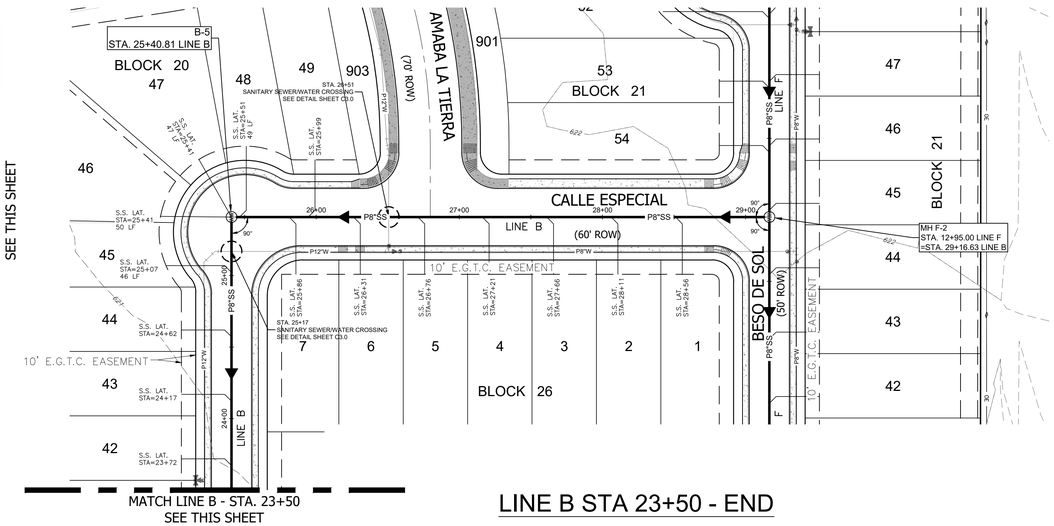
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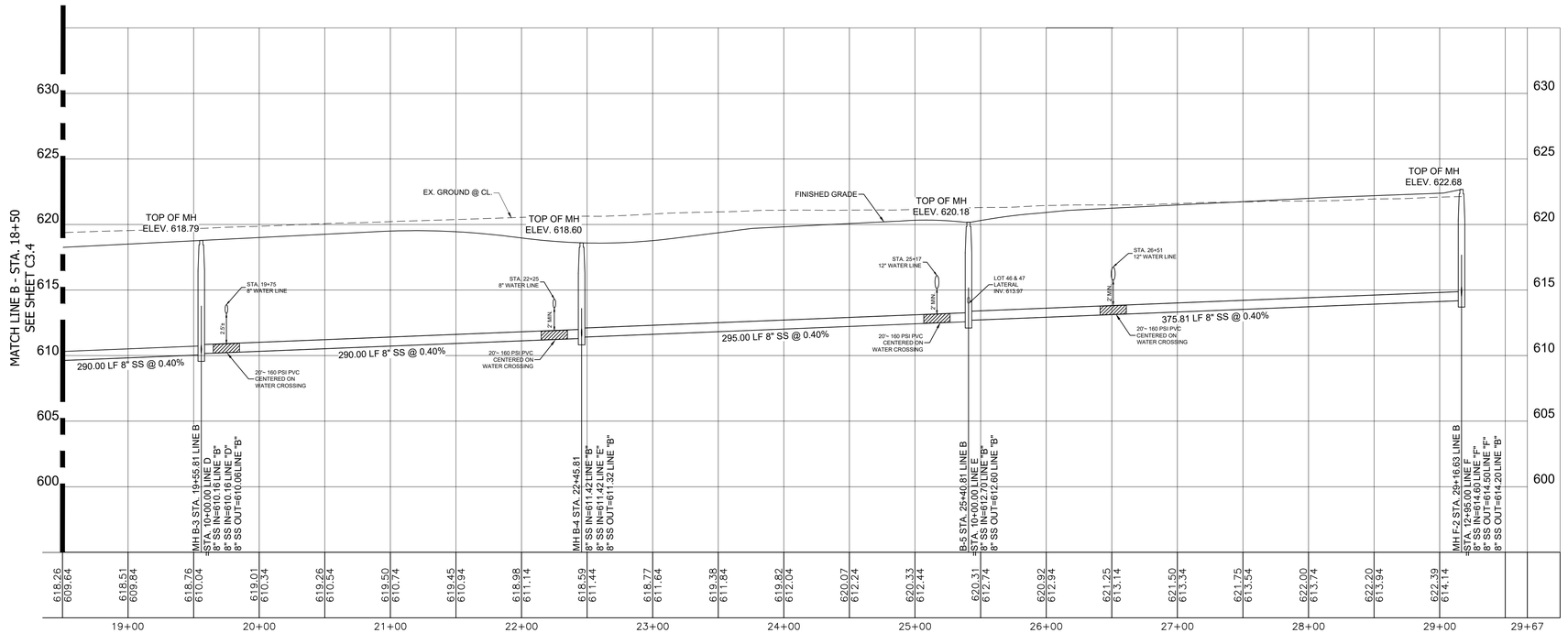


LINE B STA 18+50 - 23+50



LINE B STA 23+50 - END

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11903 JONES MALTSBERGER, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPELS F-10194605

1/4/24

STATE OF TEXAS
REGISTERED
PROFESSIONAL
ENGINEER
RYAN R. PLAGENS
111640
12/31/24

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

SANITARY SEWER LINE B

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C3.5

Date: Jan 04, 2024, 8:50am User ID: LJ Romanos
File: G:_Projects\272.05 - TIERRA LINDA PHASE 1\CAD\Sheets\C3.4-3.5-SANITARY SEWER LINE B.dwg

NOTES:

1. AFTER ALL SANITARY SEWER CONSTRUCTION HAS BEEN COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES SHALL BE COMPLETED BY EVENLY DISTRIBUTING SEEDING AND WATERING TO A MINIMUM OF 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER.
2. ALL WASTEWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SAWS SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION (LATEST EDITION).
3. CONTRACTOR SHALL PROVIDE MANUFACTURED STUB OUT CAP & PLUG TO MEET 30 TAC 213.5(3)(G) STANDARDS AND TO MEET ASTM D3034 SPECIFICATIONS UNLESS OTHERWISE NOTED.
4. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET IN LENGTH UNLESS NOTED OTHERWISE.
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7. 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 CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS, SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

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LOWER MEDINA RIVER SOUTH SEWERSHED -
DOS RIOS/LEON CREEK W.R.C.

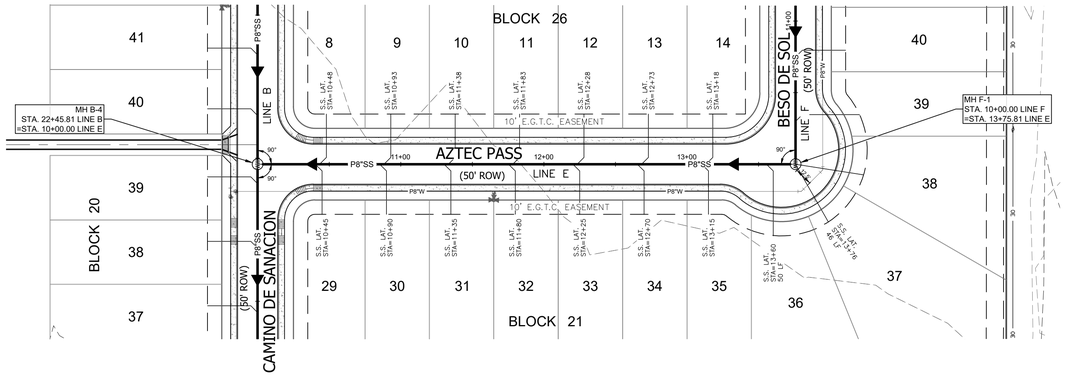
Developer: SAN ANTONIO LD, LLC
Address: 4048 NORTH COLLEGE STE. 300, BOX 9
City: FAYETTEVILLE State: AR. Zip: 72703
Phone: 479-455-9090 Fax:
SAWS Block Map: 128-528 Total EDUs: 131 Total Acreage: 26.714
Total Linear Footage of Pipe: 8"=4575 L.F. Plat No.: 23-11800219
Number of Lots: 131 SAWS Job No.: 23-1576

NOTE:

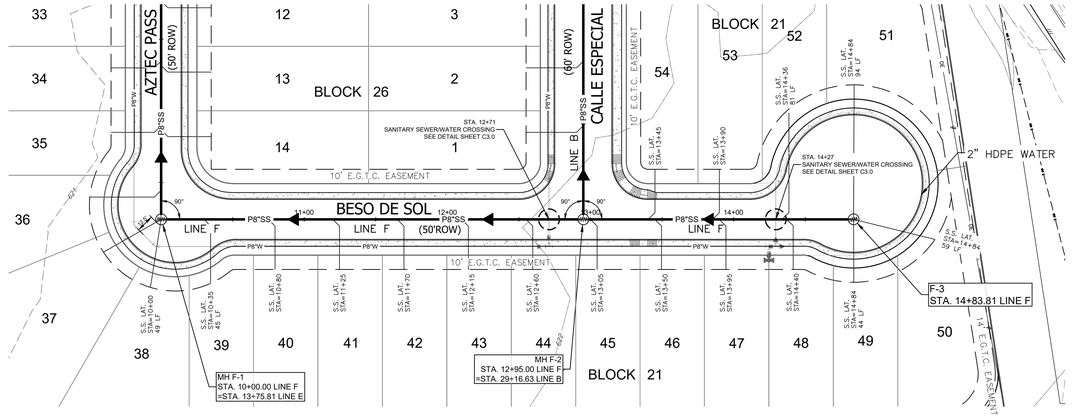
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LEGEND

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- EASEMENT / SETBACK
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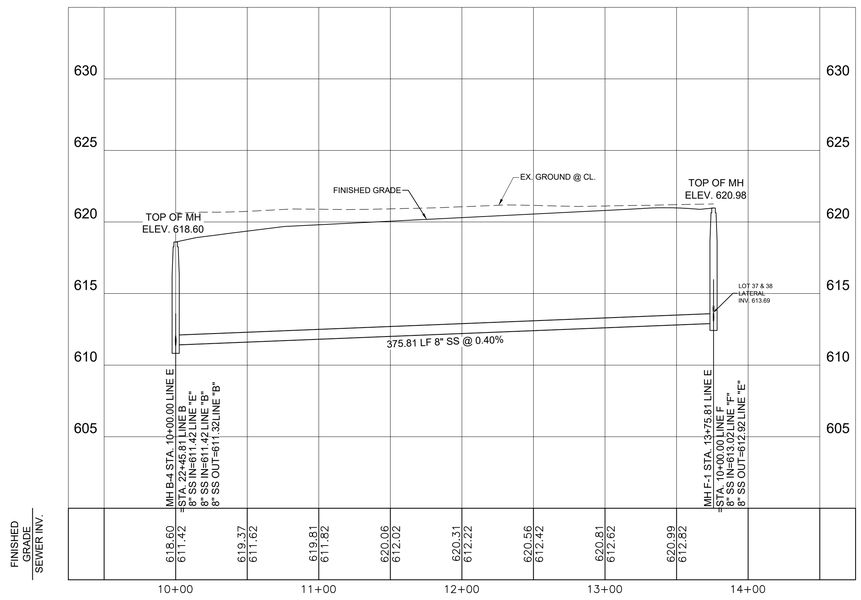
SCALE: 1" = 50'



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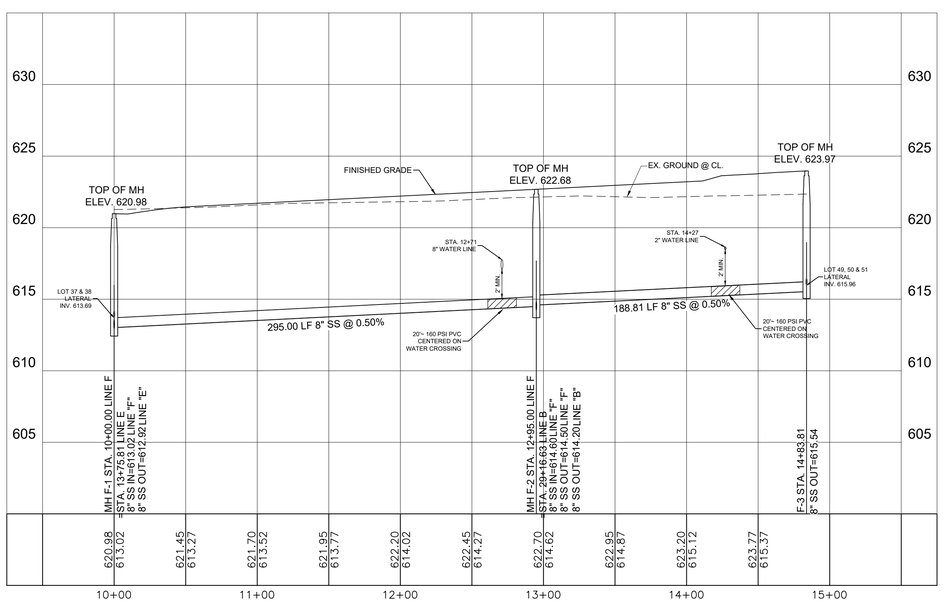
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SANITARY SEWER LINE E&F

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DESIGNED BY:
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Date: Jan 04, 2024, 9:50am User ID: J.Flamenco
File: G:\...\Projects\272 – Watson (Von Ormy)\272.05 – TIERRA LINDA PHASE 1\ACAD\Sheets\C3.6–SANITARY SEWER LINE E&F.dwg

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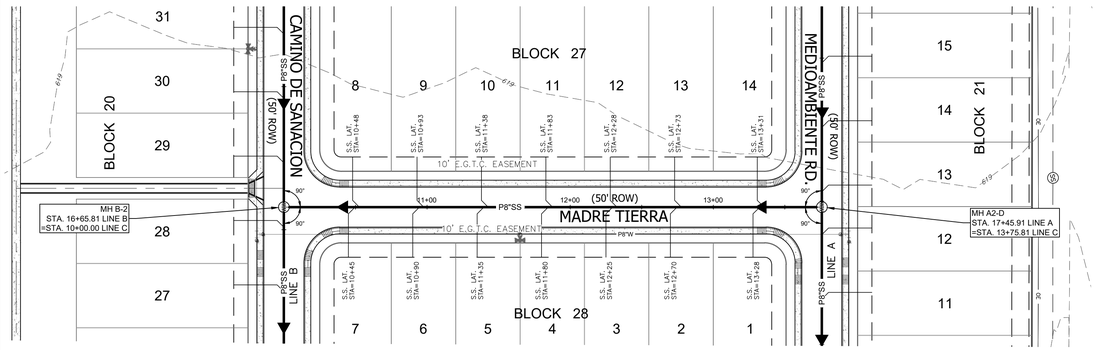
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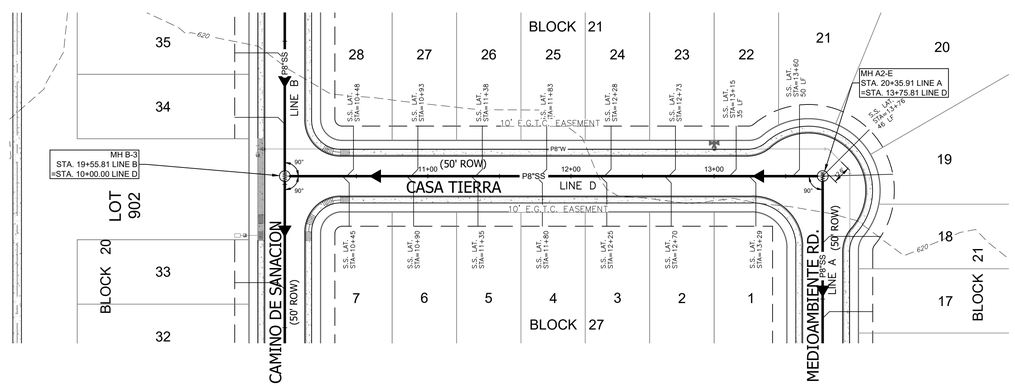
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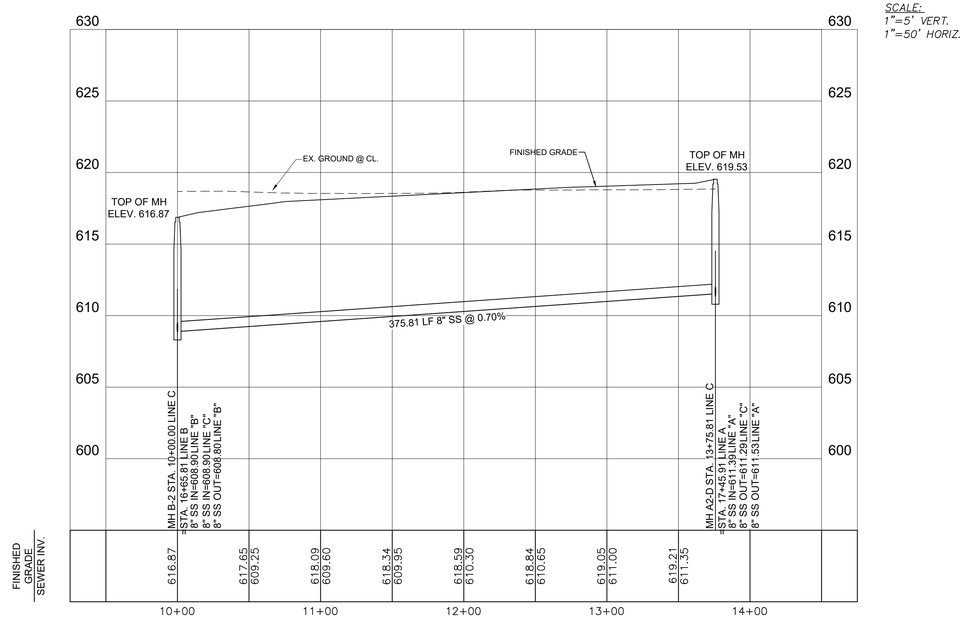
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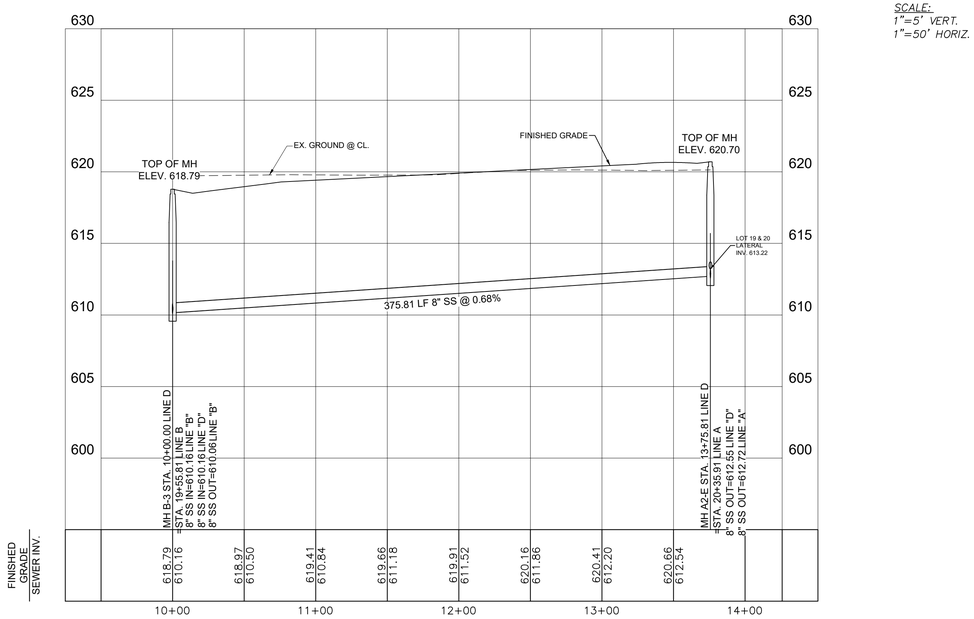
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SANITARY SEWER LINE C&D

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DESIGNED BY:
DRAFTED BY:
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SHEET
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Date: Jan 04, 2024, 9:50am User ID: Li Parsons
File: G:_Projects\372 – Winton (Von Ormy)\372.05 – TIERRA LINDA PHASE 1\ACAD\Sheets\C3.7– SANITARY SEWER LINE C&D.dwg

WATER CONSTRUCTION DOCUMENTS FOR

TIERRA LINDA - PHASE 1 SUBDIVISION

San Antonio, Texas

SAWS CONSTRUCTION NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:

   A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM"; TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER"; TAC TITLE 30 PART 1 CHAPTER 290.
   B. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE".
   C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION".
   D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
   E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM).

2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY OBTAIN A COPY OF THE APPROVED COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP) FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY SAWS CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS ARRANGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REQUIREMENTS. WORK COMPLETED BY THE CONTRACTOR WITHOUT AN APPROVED COUNTER PERMIT AND/OR A GCP WILL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE EXPENSE OF THE CONTRACTORS AND/OR THE DEVELOPER.

3. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS WEBSITE, HTTP://WWW.SAWS.ORG/BUSINESS_CENTER/SPECS. UNLESS OTHERWISE NOTED WITHIN THE DESIGN PLANS.

4. 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.

5. LOCATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.

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

   - SAWS UTILITY LOCATES: HTTP://WWW.SAWS.ORG/SERVICE/LOCATES
   - COSA DRAINAGE (210) 207-0724 OR (210) 207-6026
   - COSA TRAFFIC SIGNAL OPERATIONS (210) 206-8480
   - COSA TRAFFIC SIGNAL DAMAGES (210) 207-3951
   - TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005 OR 811

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION IF DAMAGES ARE MADE AS A RESULT OF THE PROJECT'S CONSTRUCTION.

8. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) AND/OR BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT REQUIREMENTS.

9. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.

10. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.

11. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.

    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.

12. COMPACTION NOTE (ITEM 804): THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE COMPACTION REQUIREMENTS ON ALL TRENCH BACKFILL AND FOR PAYING FOR THE TESTS PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE SAWS INSPECTOR AND/OR THE TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.

13. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION INSPECTION DIVISION.

WATER SECTION

1. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.

   •FOR WATER MAINS 12" OR HIGHER: SAWS EMERGENCY OPERATIONS CENTER (210) 233-2014

2. ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE WHICH IS KNOWN TO CONTAIN 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".

3. VALVE REMOVAL: WHERE THE CONTRACTOR IS TO ABANDON A WATER MAIN, THE CONTROL VALVE LOCATED ON THE ABANDONING BRANCH WILL BE REMOVED AND REPLACED WITH A CAP/PLUG. (NSPI)

4. SUITABLE ANCHORAGE/THRUST BLOCKING OR JOINT RESTRAINT SHALL BE PROVIDED AT ALL OF THE FOLLOWING MAIN LOCATIONS: DEAD ENDS, PLUGS, CAPS, TEES, CROSSES, VALVES, AND BENDS, IN ACCORDANCE WITH THE STANDARD DRAWINGS DD-839 SERIES AND ITEM NO. 839, IN THE SAWS STANDARD SPECIFICATIONS FOR CONSTRUCTION.

5. ALL VALVES SHALL READ "OPEN RIGHT".

6. PRVS REQUIRED: CONTRACTOR TO VERIFY THAT NO PORTION OF THE TRACT IS BELOW GROUND ELEVATION OF 605 FEET WHERE THE STATIC PRESSURE WILL NORMALLY EXCEED 80 PSI. AT ALL SUCH LOCATIONS WHERE THE GROUND LEVEL IS BELOW 605 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 PRSV IS/ARE REQUIRED FOR SUCH LOT(S), ONLY SINGLE SERVICE CONNECTIONS SHALL BE ALLOWED.•NOTE: A PRESSURE REGULATOR IS ALSO KNOWN AS A PRESSURE REDUCING VALVE (PRV).

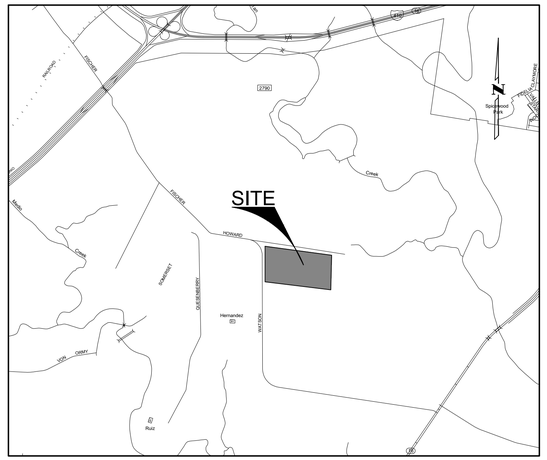
7. PIPE DISINFECTION WITH DRY HTH FOR PROJECTS LESS THAN 800 LINEAR FEET. (ITEM NO. 847.3): MAINS SHALL BE DISINFECTED WITH DRY HTH WHERE SHOWN IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE INSPECTOR, AND SHALL NOT EXCEED A TOTAL LENGTH OF 800 FEET. THIS METHOD OF DISINFECTION WILL ALSO BE FOLLOWED FOR MAIN REPAIRS. THE CONTRACTOR SHALL UTILIZE ALL APPROPRIATE SAFETY MEASURE TO PROTECT HIS PERSONNEL DURING DISINFECTION OPERATIONS.

8. BACKFLOW PREVENTION DEVICES:

   •ALL IRRIGATION SERVICES WITHIN RESIDENTIAL AREAS ARE REQUIRED TO HAVE BACKFLOW PREVENTION DEVICES.
   •ALL COMMERCIAL BACKFLOW PREVENTION DEVICES MUST BE APPROVED BY SAWS PRIOR TO INSTALLATION.

9. FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL THE WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED, AND SAWS HAS RELEASED THE MAIN FOR TIE-IN AND USE.

10. 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 INSTALLED WITH A KEY. THE LOCK AND KEY MECHANISM WILL BE PAID FOR BY THE CONTRACTOR BUT WILL BE INSTALLED BY SAWS DISTRIBUTION AND COLLECTION STAFF.



VICINITY MAP
NOT TO SCALE

SUBMITTAL DATE:
September 6, 2023

Sheet List Table	
Sheet Number	Sheet Title
C4.0	WATER COVER SHEET
C4.1	WATER LAYOUT
C4.2	WATER LAYOUT
C4.3	WATER DETAILS

SAWS PRESSURE ZONE 790

Developer: SAN ANTONIO LD, LLC
Address: 4048 NORTH COLLEGE STE. 300, BOX 9
City: Fayetteville State: Arkansas Zip: 72703
Phone: Fax:
SAWS Block Map: 128-528 Total EDUs: 134 Total Acreage: 26.06
Total Linear Footage of Pipe: 8": 2,465 12": 2,576 Plat No.: 23-11800219
Number of Lots: 131 SAWS Job No.: 23-1096

UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPELS F-10194605

9/6/23
STATE OF TEXAS RYAN R. PLAGENS 111640 LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE
STE. 300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

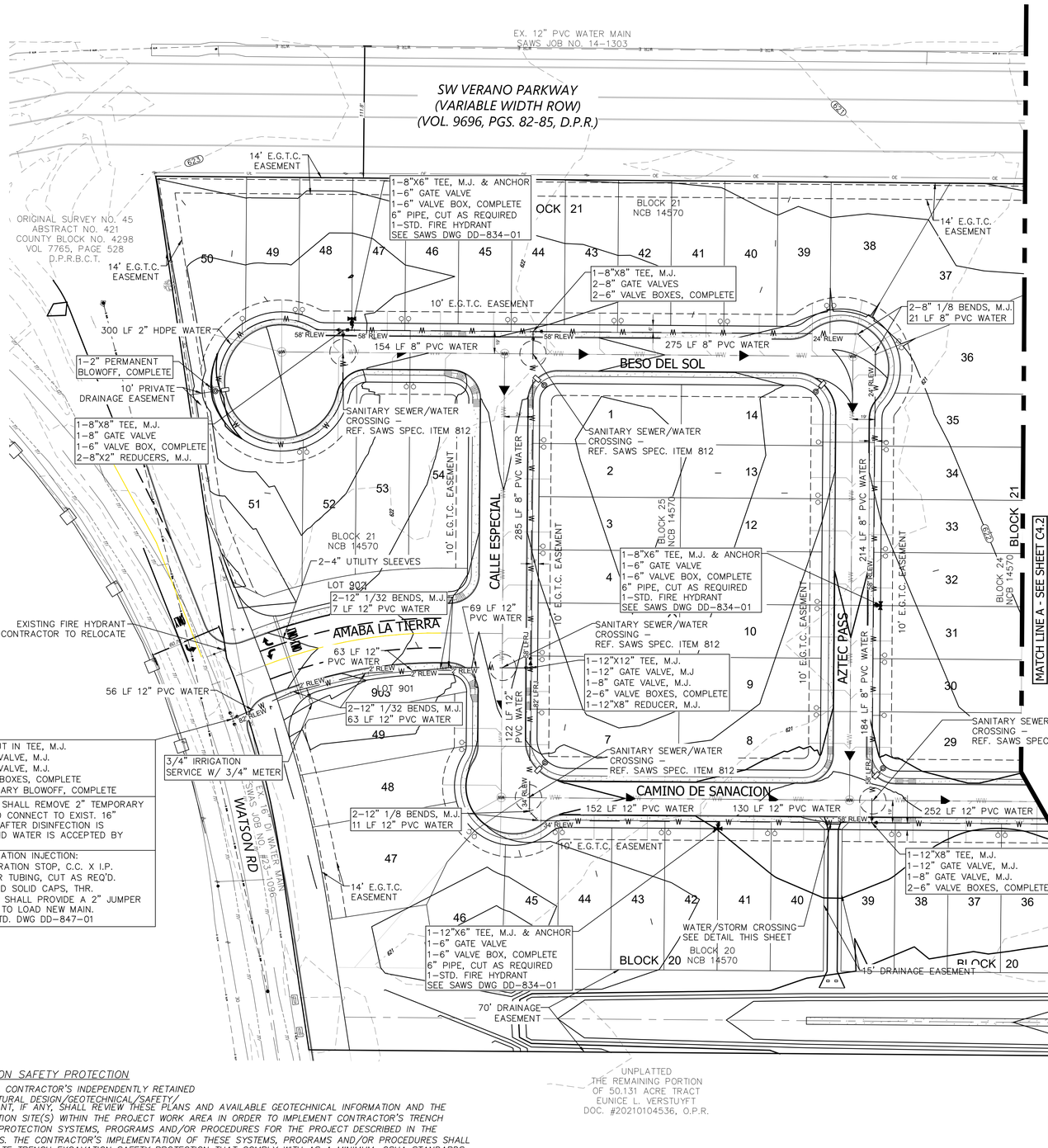
WATER COVER SHEET

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C4.0
15

Date: Sep 06, 2023, 2:54pm User ID: rpm
File: U:_Projects\272 - Watson (Tom Gray)\272.05 - TIERRA LINDA PHASE 1\ACAD\Sheets\WATER COVER SHEET.dwg



0 25' 50' 100'

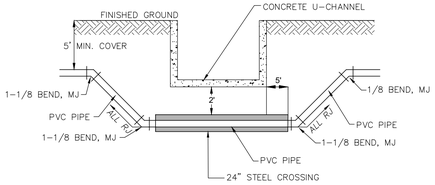
SCALE: 1" = 50'

LEGEND

	FIRE HYDRANT
	EXISTING FIRE HYDRANT
8"W	WATER MAIN
WTR E	EXISTING WATER MAIN
	DUAL WATER SERVICE
	SINGLE WATER SERVICE
WW	SANITARY SEWER PIPE
WW E	EXISTING SANITARY SEWER PIPE
(36)	EXISTING SANITARY SEWER MANHOLE
	PROPOSED SANITARY SEWER MANHOLE
	FLOW DIRECTION
	SANITARY SEWER LATERAL
	EXIST. SANITARY SEWER LATERAL
E.G.T.C.	ELECTRIC, GAS, TELEPHONE AND CABLE TV
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BSL	BUILDING SETBACK LINE
ESM'T.	EASEMENT
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O.P.R.B.C.T.	OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY TEXAS
D.P.R.	DEED AND PLAT RECORDS OF BEXAR COUNTY TEXAS
	POWER POLE
	EXISTING POWER POLE
	ELECTRIC TRANSFORMER
T	TELEPHONE PEDESTAL
CTV	CABLE T.V. PEDESTAL
	ELECTRIC RISER POLE
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	PROPOSED STREET LIGHT (100 WATT UG)
R.O.W.	RIGHT-OF-WAY
RLEW	RESTRAINED LENGTH EACH WAY
LFRJ	LINEAR FEET RESTRAINED JOINT
	BLOWOFF

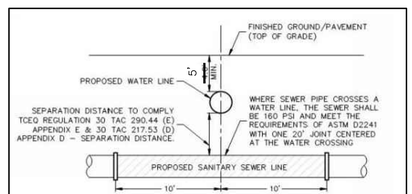
NOTES:

1. PROPOSED STREET LIGHTS SHALL BE LOCATED BETWEEN THE BACK OF CURB AND STREET R.O.W. AND INSTALLED PER THE CPS DESIGN.
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4. ALL PAVEMENT AND CURB REPAIR IS CONSIDERED INCIDENTAL AND SHOULD BE RESTORED TO PREVIOUS CONDITION IF NOT BETTER.
5. CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE RESPECTIVE CITY/COUNTY ROW PERMIT IS REQUIRED BEFORE PERFORMING WORK IN THE ROW.
6. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS WEBSITE, http://www.saws.org/business_center/specs.
7. ALL WATER LINE JOINTS ARE TO BE RESTRAINED PER MANUFACTURERS RECOMMENDATIONS.
8. THE SIZE AND LOCATION OF UTILITY STRUCTURES (IF SHOWN) MAY BE EXAGGERATED FOR GRAPHICAL CLARITY. THE SURVEY SHOWS FIELD MEASURED SIZES AND DEPTHS AS OBSERVED FROM GROUND LEVEL OPENINGS.
9. CONTRACTOR SHALL OBTAIN RIGHT OF WAY PERMITS AND COORDINATE ALL REQUIRED INSPECTIONS FOR ALL WORK TO BE CONDUCTED IN THE CITY OF SAN ANTONIO RIGHT OF WAY



TYPICAL WATER/STORM DRAIN CROSSING DETAIL

NTS



TYPICAL SANITARY
SEWER/WATER CROSSING DETAIL

NOT-TO-SCALE

SAWS PRESSURE ZONE 790

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Phone: Fax:
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Number of Lots: 131 SAWS Job No.: 23-1096

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 ANTICIPATE INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS, SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

JOINT RESTRAINT NOTE:

CONTRACTOR SHALL INSTALL RETAINER GLANDS OR MEGALUGS AT ALL FITTINGS AND PROVIDE JOINT RESTRAINING HARNESS OR FIELD LOK GASKETS AT ALL JOINTS WITHIN THE LENGTH SHOWN. CONTRACTOR SHALL INSURE THAT ALL TEES, BENDS, VALVES, ETC. HAVE A MINIMUM OF 5 FT OF PIPE WITH NO JOINTS ON EACH SIDE OF THE FITTING. JOINT RESTRAINTS AND RETAINER GLANDS OR MEGALUGS SHALL BE CALCULATED BY SAWS APPROVED PROGRAMS AND VERIFIED BY SAWS INSPECTOR. CONTRACTOR SHALL INSTALL CONCRETE THRUST BLOCKING IN ACCORDANCE WITH SAWS STD. DRAWING 839 IN ADDITION TO JOINT RESTRAINS UNLESS OTHERWISE DIRECTED BY THE SAWS INSPECTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE JOINT RESTRAINTS AND THRUST BLOCKING WITH THE SAWS INSPECTOR.

Date: Sep 06, 2023, 2:54pm User ID: rjm
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TBPELS F-10194608

9/6/23

STATE OF TEXAS
RYAN R. PLAGENS
111640
LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE
STE. 300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

WATER LAYOUT

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C4.1

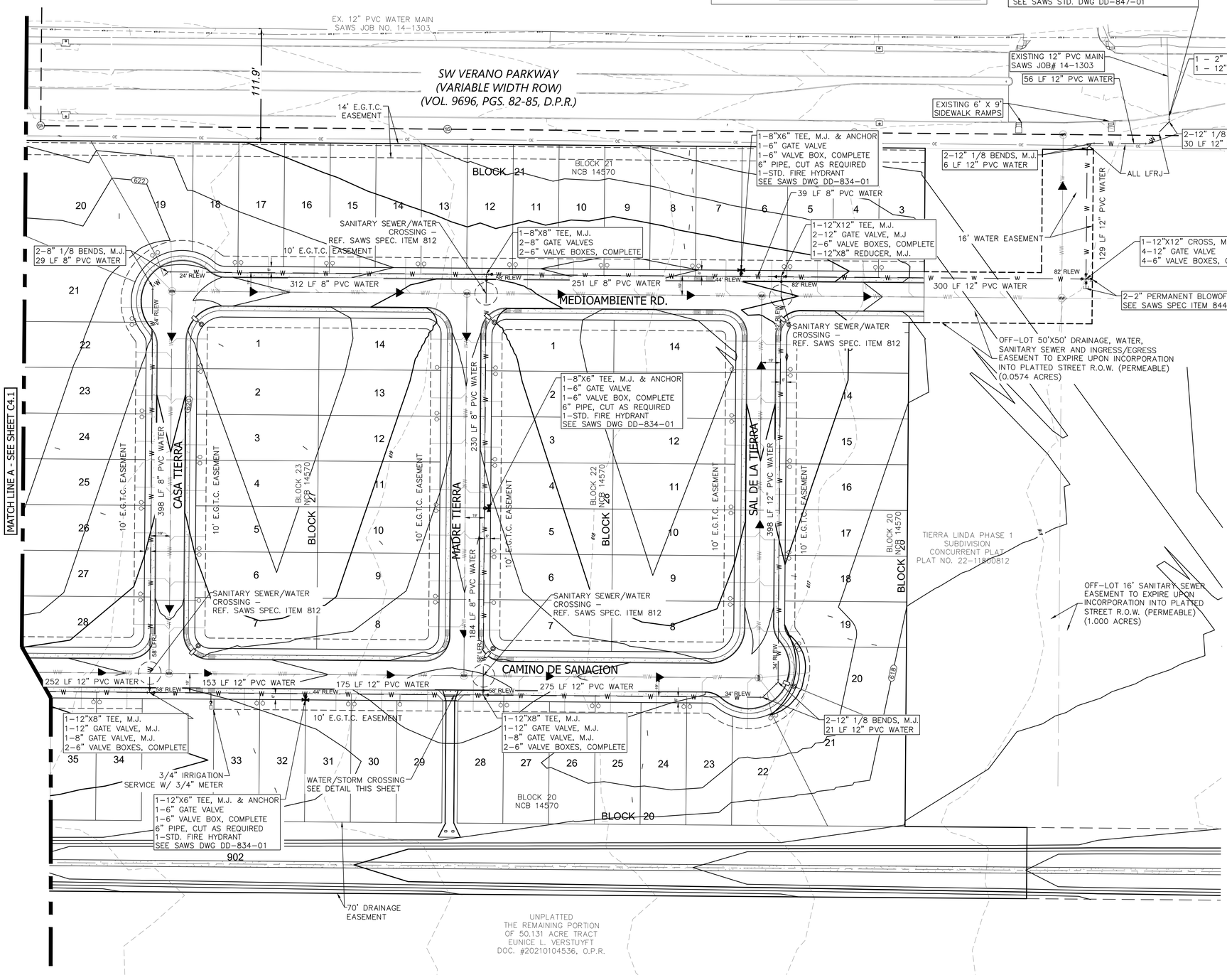
16

SAWS PRESSURE ZONE 790

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Address: 4048 NORTH COLLEGE STE. 300, BOX 9
City: Fayetteville State: Arkansas Zip: 72703
Phone: Fax:
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Total Linear Footage of Pipe: 8": 2,465 12": 2,576 Plat No.: 23–11800219
Number of Lots: 131 SAWS Job No.: 23–1096

CONTRACTOR SHALL REMOVE 2" TEMPORARY BLOWOFF AND CONNECT TO EXIST. 12" WATER MAIN AFTER DISINFECTION IS COMPLETE AND WATER IS ACCEPTED BY SAWS.

FOR CHLORINATION INJECTION:
2–1" CORPORATION STOP, C.C. X I.P.
2–1" COPPER TUBING, CUT AS REQ'D.
2–1 1/4" THD SOLID CAPS, THR.
CONTRACTOR SHALL PROVIDE A 2" JUMPER CONNECTION TO LOAD NEW MAIN.
SEE SAWS STD. DWG DD–847–01

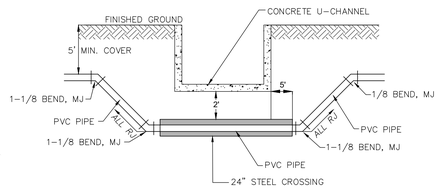


LEGEND

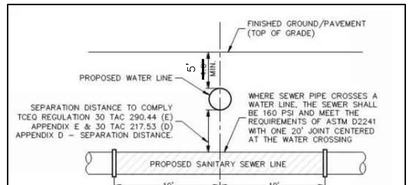
- FIRE HYDRANT
- EXISTING FIRE HYDRANT
- 8"W — WATER MAIN
- WTR E — EXISTING WATER MAIN
- DUAL WATER SERVICE
- SINGLE WATER SERVICE
- WW — SANITARY SEWER PIPE
- WW E — EXISTING SANITARY SEWER PIPE
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- O.P.R.B.C.T. — OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY TEXAS
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- ELECTRIC RISER POLE
- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT (100 WATT UG)
- R.O.W. — RIGHT–OF–WAY
- RLEW — RESTRAINED LENGTH EACH WAY
- LFRJ — LINEAR FEET RESTRAINED JOINT
- BLOWOFF

NOTES:

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TYPICAL WATER/STORM DRAIN CROSSING DETAIL
NTS



TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
NOT–TO–SCALE

UP ENGINEERING + SURVEYING
1903 JONES MALTSBERGER, SUITE 102
SAN ANTONIO, TEXAS 78265 TEL: 210.714.9504
WWW.UPENGINEERING.COM TBPE F–17992
TBPELS F–10194606

RYAN R. PLAGENS
111640
LICENSED PROFESSIONAL ENGINEER
9/6/23

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE
STE. 300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

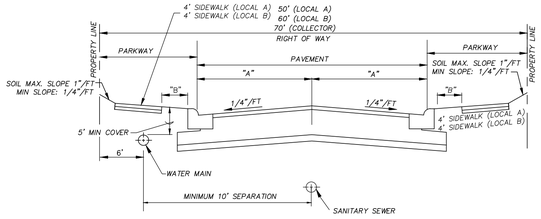
WATER LAYOUT

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

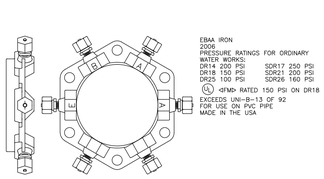
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Date: Sep 06, 2023, 2:53pm User ID: ryan
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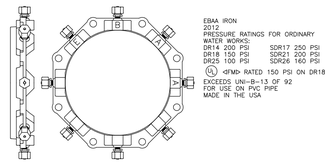
STREET SECTION TABLE			
DESCRIPTION	LOCAL A	LOCAL B	COLLECTOR
RIGHT OF WAY WIDTH	50'	60'	70'
PAVEMENT WIDTH	28'	40'	44'
LENGTH – "A"	14'	20'	22'
PARKWAY WIDTH	11'	10'	13'
LENGTH – "B"	3'	3'	3'

TYPICAL STREET SECTION - UTILITIES
NTS



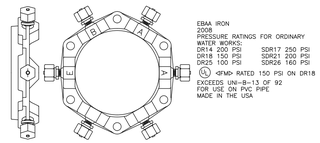
EBAA IRON
2008
PRESSURE RATINGS FOR ORDINARY WATER WORKS:
DR14 200 PSI SDR17 250 PSI
DR18 150 PSI SDR21 200 PSI
DR25 100 PSI SDR26 160 PSI
<FM> RATED 150 PSI ON DR18
EXCEEDS UNI-B-13 OF 92
FOR USE ON PVC PIPE
MADE IN THE USA

6" PIPE



EBAA IRON
2012
PRESSURE RATINGS FOR ORDINARY WATER WORKS:
DR14 200 PSI SDR17 250 PSI
DR18 150 PSI SDR21 200 PSI
DR25 100 PSI SDR26 160 PSI
<FM> RATED 150 PSI ON DR18
EXCEEDS UNI-B-13 OF 92
FOR USE ON PVC PIPE
MADE IN THE USA

12" PIPE



EBAA IRON
2008
PRESSURE RATINGS FOR ORDINARY WATER WORKS:
DR14 200 PSI SDR17 250 PSI
DR18 150 PSI SDR21 200 PSI
DR25 100 PSI SDR26 160 PSI
<FM> RATED 150 PSI ON DR18
EXCEEDS UNI-B-13 OF 92
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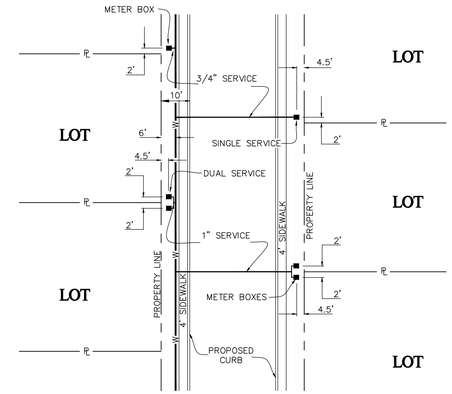
8" PIPE

MEGALUG JOINT RESTRAINTS
NTS

THE CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.

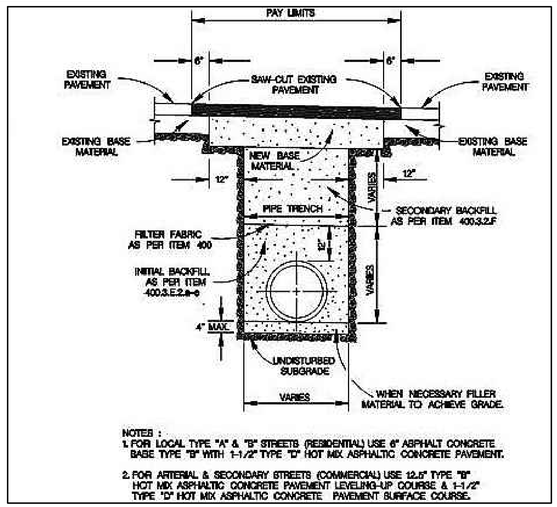
NO METER BOXES TO BE SET IN DRIVEWAYS. ANY METER BOXES SET IN DRIVEWAYS WILL BE RELOCATED AT CONTRACTOR'S EXPENSE.

CONTRACTOR TO REFER TO SAWS.ORG FOR CURRENT SAWS STANDARD DETAILS.

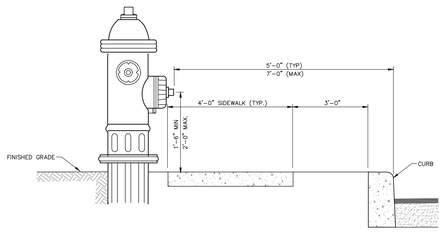


*REFERENCE SAWS SPECIFICATIONS & DETAILS FOR SPECIFIC DETAILED INFORMATION

TYPICAL WATER METER BOX LOCATION
NTS

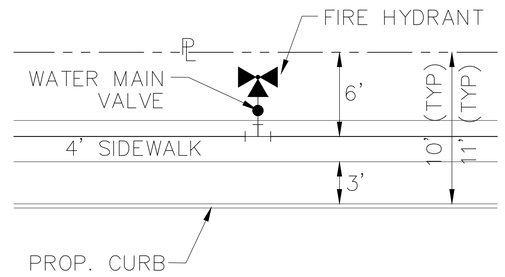


TYPICAL PAVEMENT REPLACEMENT
NTS



*REFERENCE SAWS SPECIFICATIONS & DETAILS FOR SPECIFIC DETAILED INFORMATION

FIRE HYDRANT LOCATION(WITH SIDEWALK)
(NOT TO SCALE)



*REFERENCE SAWS SPECIFICATIONS & DETAILS FOR SPECIFIC DETAILED INFORMATION

TYPICAL FIRE HYDRANT
ASSEMBLY DETAIL

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TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

WATER DETAILS

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

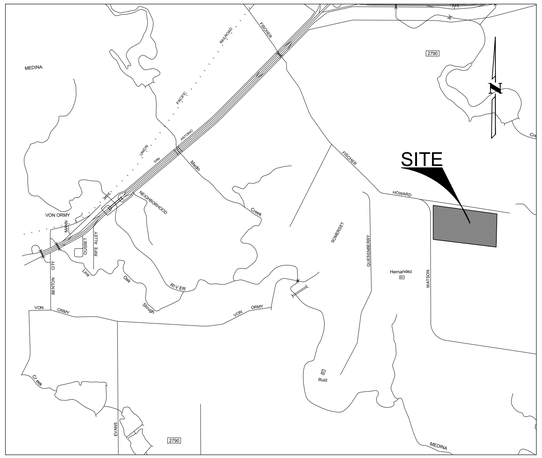
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C4.3
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File: o:_Projects\272 – Watson (Von Ormy)\272.05 – TIERRA LINDA PHASE 1\4540\Sheets\WATER NOTES.dwg

STREET & DRAIN CONSTRUCTION DOCUMENTS FOR

TIERRA LINDA - PHASE 1 SUBDIVISION

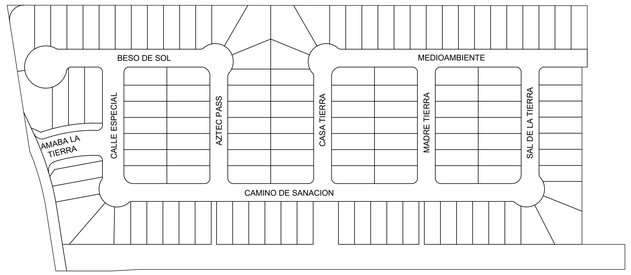
San Antonio, Texas



VICINITY MAP
NOT TO SCALE

SUBMITTAL DATE:
September 15, 2023

Sheet List Table	
Sheet Number	Sheet Title
C5.0	STREET & DRAIN COVER SHEET
C5.1	TRAFFIC SIGN PLAN
C5.2	TRAFFIC SIGN DETAILS
C5.3	MEDIOAMBIENTE RD. PLAN & PROFILE
C5.4	CAMINO DE SANACION PLAN & PROFILE
C5.5	SAL DE LA TIERRA PLAN & PROFILE
C5.6	MADRE TIERRA PLAN & PROFILE
C5.7	AZTEC PASS PLAN & PROFILE
C5.8	CASA TIERRA PLAN & PROFILE
C5.9	BESO DE SOL PLAN & PROFILE
C5.10	CALLE ESPECIAL PLAN & PROFILE
C5.11	AMABA TIERRA PLAN & PROFILE
C5.12	STANDARD DETAILS
C5.13	TYPICAL STREET SECTIONS
C5.14	DRAIN A PLAN & PROFILE
C5.15	DRAIN A PLAN & PROFILE
C5.16	DRAIN A PLAN & PROFILE
C5.17	DRAIN B PLAN & PROFILE
C5.18	DRAIN C PLAN & PROFILE
C5.19	EXISTING DRAINAGE AREA MAP
C5.20	PROPOSED DRAINAGE AREA MAP
C5.21	ULTIMATE DRAINAGE AREA MAP



INDEX MAP

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION JUNE 2008, OR LATEST.
2. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS, BUT NOT INCLUDED IN THE BID PROPOSAL. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED IN THE PAY ITEM TO WHICH IT RELATES.
3. THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DELIVERY OF MAIL BY THE U.S. POSTAL SERVICE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING FENCES, CONCRETE ISLANDS, STREET PAVING, CURBS, SHRUBS, BUSHES OR DRIVEWAYS. (NO SEPARATE PAY ITEM).
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL SIGNS AND BARRICADES ARE PROPERLY INSTALLED AND MAINTAINED. ALL LOCATIONS AND DISTANCES WILL BE DECIDED UPON IN THE FIELD BY THE CONTRACTOR, USING THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". THE CITY'S CONSTRUCTION INSPECTOR AND TRAFFIC ENGINEERING REPRESENTATIVE WILL ONLY BE RESPONSIBLE TO INSPECT BARRICADES AND SIGNS. IF, IN THE OPINION OF THE TRAFFIC ENGINEERING REPRESENTATIVE AND THE CONSTRUCTION INSPECTOR, THE BARRICADES AND SIGNS DO NOT CONFORM TO ESTABLISHED STANDARDS OR ARE INCORRECTLY PLACED OR ARE INSUFFICIENT IN QUANTITY TO PROTECT THE GENERAL PUBLIC, THE CONSTRUCTION INSPECTOR SHALL HAVE THE OPTION TO STOP OPERATIONS UNTIL SUCH TIME AS THE CONDITIONS ARE CORRECTED.
6. IF THE NEED ARISES, ADDITIONAL BARRICADES AND DIRECTIONAL DEVICES MAY BE ORDERED BY THE TRAFFIC ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
7. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181 C.P.S. MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
8. CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR TWENTY FOUR (24) HOURS PRIOR TO BACKFILL OF ANY UTILITY TRENCHES TO SCHEDULE FOR DENSITY TEST AS REQUIRED.
9. CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES, MARKS, ETC. IF ANY ARE DESTROYED OR REMOVED BY THE CONTRACTOR OR HIS EMPLOYEES, THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
10. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO EXCAVATION OPERATION:

SAN ANTONIO WATER SYSTEM (SAWS)	210-233-2009
WATER & SEWER EMERGENCIES	210-704-7297
STORM DRAINAGE (CITY OF SAN ANTONIO)	210-207-8022
SIGNAL OPERATIONS (CITY OF SAN ANTONIO)	210-207-8022
TEXAS STATE WIDE ONE CALL LOCATOR	811
CPS ENERGY (GAS & ELECTRIC)	210-353-2000
CPS ELECTRIC/GAS ISSUES OR EMERGENCIES	210-353-4357
TIME WARNER	210-244-0500
AT&T	972-742-5892

11. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM AVAILABLE RECORDS AND ARE NOT GUARANTEED, BUT SHALL BE INVESTIGATED AND VERIFIED BY THE CONTRACTOR BEFORE STARTING WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR THE MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND HE SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION.
12. ALL WASTE MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE HIS SOLE RESPONSIBILITY TO DISPOSE OF THIS MATERIAL OFF THE LIMITS OF THE PROJECT. NO WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING ARTIFICIAL OR NATURAL DRAINAGE.
13. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
14. THE CONTRACTOR SHALL MAINTAIN ALL ADJOINING STREETS AND TRAVELED ROUTES FREE FROM SPILLED AND / OR TRACKED CONSTRUCTION MATERIALS AND / OR DEBRIS.
15. IF THE CONTRACTOR ENCOUNTERS ANY ARCHAEOLOGICAL DEPOSITS DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR MUST STOP EXCAVATION IMMEDIATELY, CONTACT THE CITY INSPECTOR, AND CALL THE CITY HISTORIC PRESERVATION OFFICE AT 210-215-9274 FOR AN ARCHAEOLOGICAL INVESTIGATION. THE CONTRACTOR CANNOT BEGIN EXCAVATION AGAIN WITHOUT WRITTEN PERMISSION FROM THE CITY.

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

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

BENCHMARK:

1/2" IRON ROD WITH RED PLACTIC CAP ON THE EAST ROW LINE OF WASTON RD. ADJACENT TO LOT 50, BLOCK 21. ELEVATION 622.77

OWNER/DEVELOPER: SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE. 300, BOX 9
FAYETTEVILLE, AR. 72703

ENGINEER: UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER ROAD, SUITE 102
SAN ANTONIO, TEXAS 78216
(210) 774-5504
CONTACT: NATASHA F. UHLRICH, P.E.

SURVEYOR: UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER ROAD, SUITE 102
SAN ANTONIO, TEXAS 78216
(210) 774-5504
CONTACT: RICHARD L. NEUBAUER, RPLS

GEOTECHNICAL ENGINEER: InTEC OF SAN ANTONIO, L.P.
12028 RADIUM
SAN ANTONIO, TX 78216
(210) 525-9033

UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPELS T-0019460

11/10/23

STATE OF TEXAS
RYAN R. PLAGENS
111640
LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

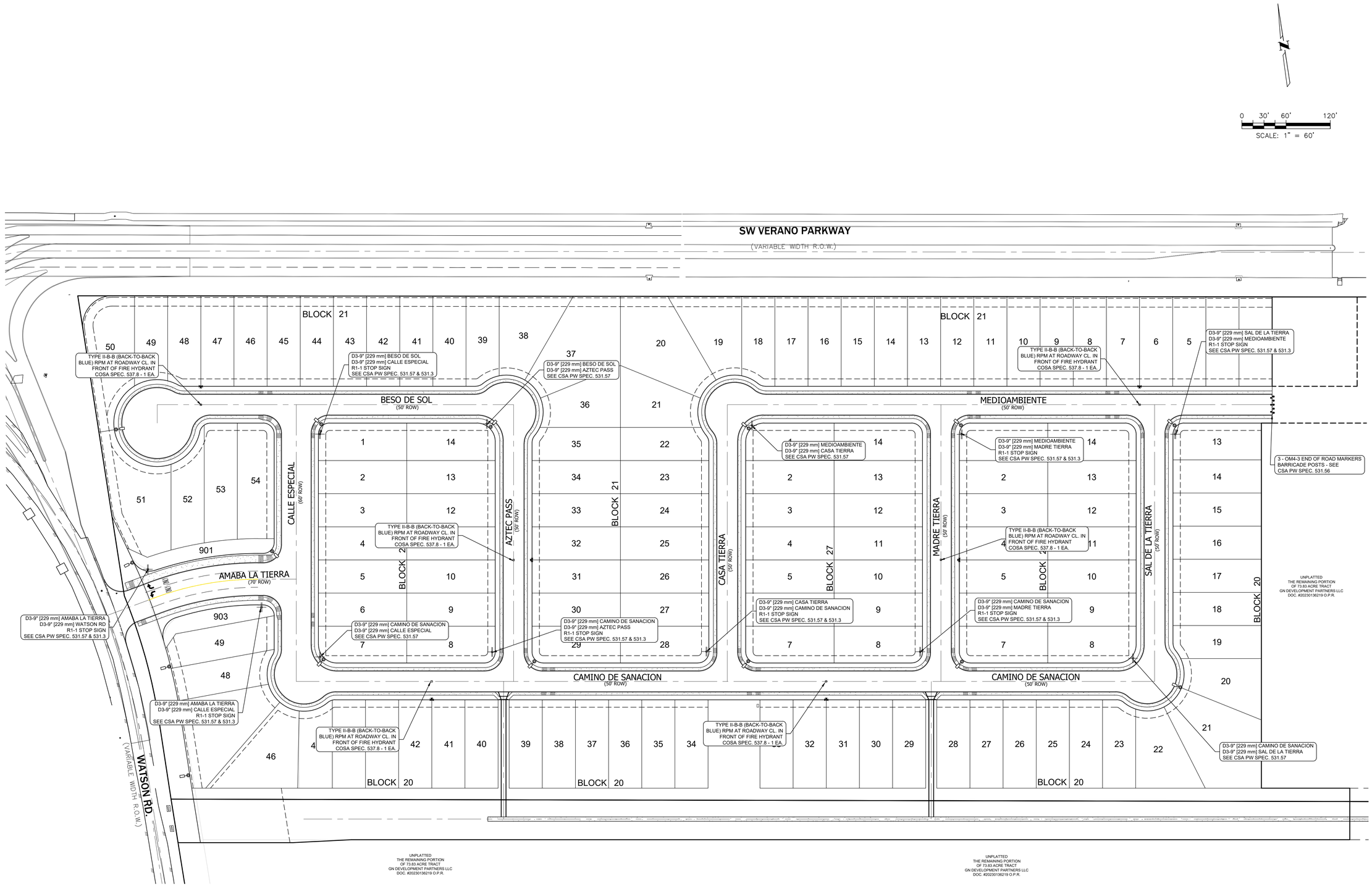
STREET & DRAIN COVER SHEET

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C5.0

Date: Nov 10, 2023, 8:16am User ID: rpm
File: U:_Projects\22 - Watson (Von Ormy)\22.05 - TIERRA LINDA PHASE 1\ACAD\Sheets\C5.0-STREET COVER SHEET.dwg



UP
ENGINEERING
+ SURVEYING
11903 JONES MALTSBERGER, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPELS F-10194608

11/10/23

STATE OF TEXAS
RYAN R. PLAGENS
111640
LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

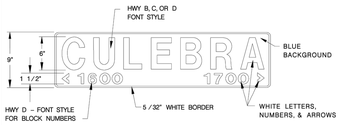
TRAFFIC SIGN PLAN

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

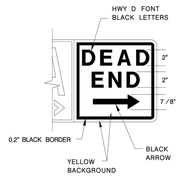
SHEET
C5.1

Date: Nov 10, 2023, 9:16am User ID: cpm
File: G:\...\Projects\372 – Watson (Von Ormy)\372.05 – TIERRA LINDA PHASE 1\ACAD\Sheets\C5.1 – TRAFFIC SIGN PLAN.dwg



9" D3 – STREET NAME SIGN





NEW 9" D3 W / DEAD END OR NO OUTLET SIGNAGE

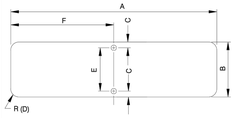
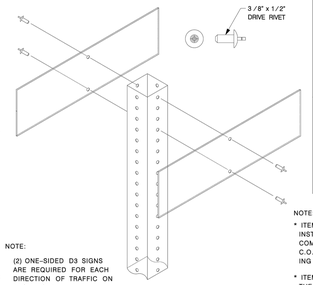


TABLE – D3 SIGNS

A	B	C	D	E	F	T
24"	9"	1/2"	3/4"	8"	12"	0.125"
30"	9"	1/2"	3/4"	8"	15"	0.125"
36"	9"	1/2"	3/4"	8"	18"	0.125"
42"	9"	1/2"	3/4"	8"	21"	0.125"
48"	9"	1/2"	3/4"	8"	24"	0.125"
54"	9"	1/2"	3/4"	8"	27"	0.125"

NOTE: A 30" LONG OR GREATER PLATE SHALL BE USED WHEN A "DEAD END" OR "NO OUTLET" SUPPLEMENT IS REQUIRED.



D3 SIGN TO POLE INSTALLATION

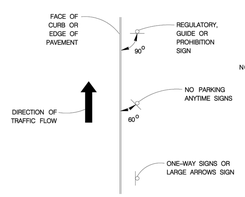
STREET SIGN ASSEMBLY EXAMPLES	ITEM	UNIT	DESCRIPTION	QUANTITY
STOP SIGN WITH 2 STREET NAMES	531.3	EA.	R1-1 STOP	1
	531.57-P	EA.	9-IN STREET NAME PLATE (4 PLATES)	2
YIELD SIGN WITH 1 STREET NAME	531.4	EA.	R1-2 YIELD	1
	531.57-P	EA.	9-IN STREET NAME PLATE (2 PLATES)	1
2 STREET SIGNS	531.57	EA.	9-IN STREET NAME SIGN (2 PLATES)	1
	531.57-P	EA.	9-IN STREET NAME PLATE (2 PLATES)	1

NOTE:

* ITEM 531.57 "9-INCH STREET NAME" SIGN (1-EA.) INCLUDES THE INSTALLATION OF (2) ONE-SIDED D3 SIGNS. THIS SHALL BE FULL COMPENSATION FOR MATERIALS AND LABOR AS DESCRIBED IN C.O.S.A. STANDARD SPECIFICATIONS AND GROUND SIGN MOUNTING STANDARD DETAIL.

* ITEM 531.57-P "9-INCH STREET NAME PLATE" (1-EA.) INCLUDES THE INSTALLATION OF (2) ONE-SIDED D3 SIGNS ON TOP OF EXISTING SIGN (I.E., STOP SIGN OR YIELD SIGN), EXTRA LENGTH POLE AND APPURTENANCES REQUIRED TO MEET SPECIFICATIONS.

HEIGHT	9" (228 mm)
LENGTH	24" (600 MM) MIN. 54 (1350 MM) MAX. 6" (150 MM) INCREMENTS OF LENGTH
THICKNESS	0.125" (3MM)
SUBSTRATE	ALUMINUM ALLOY, 5052-H38 (ASTM B-209) GOLD CHROMATE FINISH
SIGN FACE MATERIALS	BLUE FILM OVER HIGH INTENSITY FP-85, SECTION 718 AND L-S-300C
LEGENDS AND SYMBOLS	SERIES D (USUAL) SERIES C OR B FOR MAXIMUM LENGTH SIGN BLANK, IF NECESSARY
COLOR	WHITE LEGEND ON BLUE BACKGROUND
LETTER TRACKING	10%

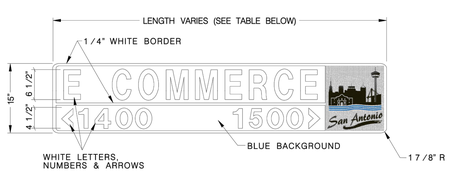


TYPICAL GROUND MOUNTED SIGN PLACEMENT

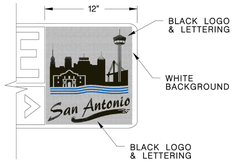
NOTE:
(2) ONE-SIDED D3 SIGNS ARE REQUIRED FOR EACH DIRECTION OF TRAFFIC ON EACH POLE.

THE ORIGINAL OF THIS DRAWING WAS SIGNED AND SEALED BY EDWARD N. MERY, P.E., #58698 ON 02.06.06 AND IS ON FILE WITH THE TRAFFIC ENGINEERING DIVISION OF THE PUBLIC WORKS DEPARTMENT, CITY OF SAN ANTONIO.

JULY 2010
CITY OF SAN ANTONIO
DEPARTMENT OF PUBLIC WORKS
TRAFFIC SIGN STANDARDS
D3 STREET NAME SIGN AND SIGN MOUNTING
SHEET 2 OF 4
% SUBMITTAL PROJECT NO.: DATE:
DRAWN BY: A.F.G. DSGN BY: E.N.M. CHKD BY: J.D.F./E.N.M. SHEET NO.: OF



15" METRO – STREET NAME SIGNS

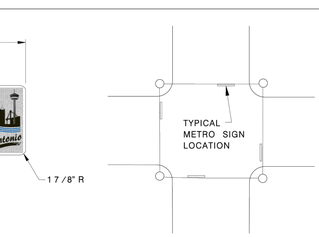


15" METRO w/CITY SKY LINE

HEIGHT	15" (381 MM)
LENGTH	48" (1200 MM) MIN. 72" (1800 MM) MAX.** 1' (300 MM) INCREMENTS OF LENGTH
THICKNESS	0.125" (3 MM)
SUBSTRATE	ALUMINUM ALLOY, 5052-H38 (ASTM B-209) GOLD CHROMATE FINISH
SIGN FACE MATERIALS	BLUE FILM OVER DIAMOND GRADE FP-85, SECTION 718 AND L-S-300C
LEGENDS AND SYMBOLS	SERIES D (USUAL) SERIES C OR B FOR MAXIMUM LENGTH SIGN BLANK, IF NECESSARY
COLOR	WHITE LEGEND ON BLUE BACKGROUND
LETTER TRACKING	17% (USUAL) 10% (MIN.)

** SIGN PLATE LONGER THAN 72" MUST BE APPROVED BY THE CITY TRAFFIC ENGINEER

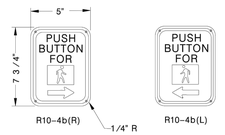
* DIAMOND GRADE SHEETING 5052-H38 ALUMINUM SUBSTRATE



TYPICAL METRO SIGN PLACEMENT

SPAN WIRE INSTALLATION

MAST ARM INSTALLATION



PEDESTRIAN PUSHBUTTON SIGNS



R10-10 *(30" X 36")
R3-5L *(30" X 36")
R10-9 *(30" X 24")
R10-12 *(30" X 36")

LEFT TURN SIGNS

THE ORIGINAL OF THIS DRAWING WAS SIGNED AND SEALED BY EDWARD N. MERY, P.E., #58698 ON 02.06.06 AND IS ON FILE WITH THE TRAFFIC ENGINEERING DIVISION OF THE PUBLIC WORKS DEPARTMENT, CITY OF SAN ANTONIO.

FEBRUARY 2006
CITY OF SAN ANTONIO
DEPARTMENT OF PUBLIC WORKS
TRAFFIC SIGN STANDARDS
METRO STREET NAME SIGN AND SIGN PLACEMENT
SHEET 4 OF 4
% SUBMITTAL PROJECT NO.: DATE:
DRAWN BY: A.F.G. DSGN BY: E.N.M. CHKD BY: J.D.F./E.N.M. SHEET NO.: OF

GENERAL NOTES

1.) THE EXISTING SIGNS LOCATED ON THE JOBSITE ARE THE PROPERTY OF THE CITY OF SAN ANTONIO. THROUGHOUT THE PERIOD OF THE CONTRACT, THE CONTRACTOR SHALL PROTECT THESE SIGNS SUCH THAT THEY ARE NOT DAMAGED IN THE COURSE OF CONSTRUCTION ACTIVITY. SUCH PROTECTION SHALL INCLUDE THE PERIOD AFTER SIGNS ARE REMOVED FROM INSTALLATION AND STORED BY THE CONTRACTOR OR DELIVERED TO TRAFFIC OPERATIONS. THE ASSISTANT TRAFFIC SUPERINTENDENT (207-7765) MUST BE NOTIFIED 48 HOURS IN ADVANCE PRIOR TO DELIVERY.

2.) AFTER SIGNS ARE REMOVED FROM INSTALLATION AND ARE BEING STORED BY THE CONTRACTOR, THE CONTRACTOR SHALL CONTACT THE TRAFFIC OPERATIONS SECTION OF THE PUBLIC WORKS DEPARTMENT (207-7765) AND ARRANGE FOR A CONVENIENT TIME TO DELIVER CITY SIGNS AND POLES.

3.) PRIOR TO THE START OF CONSTRUCTION, ALL EXISTING SIGNS WITHIN THE AREA OF CONSTRUCTION WILL BE INVENTORIED AND DOCUMENTED JOINTLY BY THE TRAFFIC ENGINEERING (207-7720) CONSTRUCTION INSPECTION AND THE CONTRACTOR. THIS DOCUMENT WILL BE JOINTLY SIGNED BY BOTH PARTIES REFLECTING THE SIGN TYPE, SIGN SIZE, SIGN CONDITION, SIGN LOCATION, REFLECTIVITY ADEQUACY, ETC. THE CONTRACTOR IS HELD ACCOUNTABLE FOR THESE SIGNS THROUGHOUT THE PROJECT AND AT THE PROJECTS COMPLETION.

4.) ALL GROUND MOUNTED SIGNS SHALL USE HIGH INTENSITY REFLECTIVE SHEETING.

5.) ALL OVERHEAD SIGNS SHALL USE DIAMOND GRADE REFLECTIVE SHEETING.

6.) ALL BLANKS TO BE ALUMINUM ALLOY NO. 5052-H38.

7.) "T" DENOTES THICKNESS OF SIGN BLANKS.

8.) ALL HOLES SHALL BE 3/8" DIAMETER DRILLED OR PUNCHED AS SHOWN ON EACH BLANK DETAIL AND SHALL BE FREE OF BURRS AND/OR ROUGH EDGES.

9.) SIGN BLANK CORNERS TO BE ROUNDED AS SHOWN ON EACH DETAIL.

10.) ALL SIGN BLANK TO BE ETCHED, DEGREASED, AND HAVE AN ALODINE FINISH PRIOR TO APPLICATION OF LEGENDS.

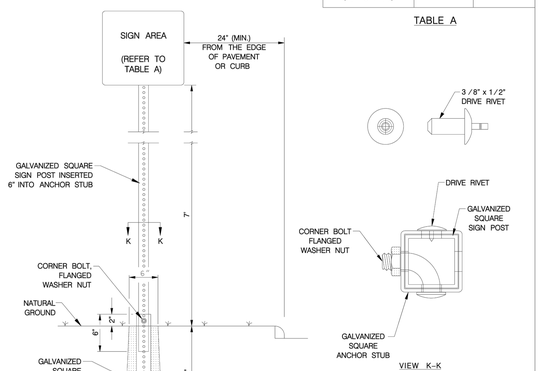
11.) ALL DETAILS ARE NOT TO SCALE.

12.) ALL DIMENSIONS ARE IN INCHES.

13.) ALL SIGNS SHALL BE MANUFACTURED AND INSTALLED IN CONFORMANCE TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND STANDARD HIGHWAY SIGNS (FHWA) LATEST EDITION.

14.) REINSTALLATION OF PREVIOUSLY EXISTING SIGNS, WHERE REQUIRED BY THE CITY TRAFFIC ENGINEER, SHALL BE AT THE CONTRACTOR'S EXPENSE.

TYPICAL GROUND SIGN INSTALLATION

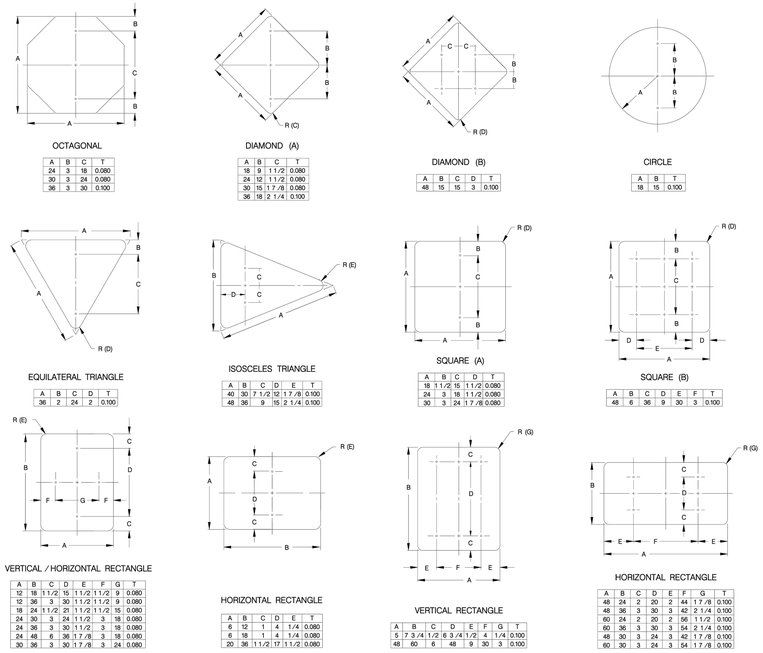


METAL TUBING	SIGN AREA	
	≤ 10 SQ. FT.	> 10 SQ. FT.
GALVANIZED SQUARE SIGN POST (PERFORATED)	1-3/4" x 1-3/4" (14 GAUGE)	2" x 2" (12 GAUGE)
GALVANIZED SQUARE ANCHOR STUB (PERFORATED)	2" X 2" (14 GAUGE)	2-1/4" x 2-1/4" (14 GAUGE)

TABLE A

THE ORIGINAL OF THIS DRAWING WAS SIGNED AND SEALED BY EDWARD N. MERY, P.E., #58698 ON 02.06.06 AND IS ON FILE WITH THE TRAFFIC ENGINEERING DIVISION OF THE PUBLIC WORKS DEPARTMENT, CITY OF SAN ANTONIO.

FEBRUARY 2006
CITY OF SAN ANTONIO
DEPARTMENT OF PUBLIC WORKS
TRAFFIC SIGN STANDARDS
GENERAL NOTES AND GROUND SIGN MOUNTING
SHEET 1 OF 4
% SUBMITTAL PROJECT NO.: DATE:
DRAWN BY: A.F.G. DSGN BY: E.N.M. CHKD BY: J.D.F./E.N.M. SHEET NO.: OF



A	B	C	T
24	3	18	0.080
30	3	24	0.080
36	3	30	0.100

A	B	C	T
18	9	1 1/2	0.080
24	12	1 1/2	0.080
30	15	1 7/8	0.080
36	18	2 1/4	0.100

A	B	C	D	T
48	15	15	3	0.100

A	B	T
18	15	0.100

A	B	C	D	T
36	24	3	2 1/4	0.100

A	B	C	T
36	2	24	0.100

A	B	C	D	E	T
40	30	7 1/2	12	1 7/8	0.100
48	36	9	15	2 1/4	0.100

A	B	C	D	E	F	T
18	1 1/2	15	1 1/2	1 1/2	0.080
24	3	18	1 1/2	1 1/2	0.080
30	3	24	1 7/8	1 1/2	0.080

A	B	C	D	E	F	T
48	6	36	9	30	3	0.100

A	B	C	D	E	F	G	T
12	18	1 1/2	15	1 1/2	1 1/2	9	0.080
12	36	3	30	1 1/2	1 1/2	9	0.080
18	24	1 1/2	21	1 1/2	1 1/2	15	0.080
24	30	3	24	1 1/2	3	18	0.080
24	36	3	30	1 1/2	3	18	0.080
24	48	6	36	1 7/8	3	18	0.080
30	36	3	30	1 7/8	3	24	0.080

A	B	C	D	E	T
6	12	1	4	1/4	0.080
6	18	1	4	1/4	0.080
20	36	1 1/2	17	1 1/2	0.080

A	B	C	D	E	F	G	T
5	7 3/4	1/2	6	3/4	1/2	4	1/4	0.100
48	60	6	48	9	30	3	0.100

A	B	C	D	E	F	G	T
48	24	2	20	2	44	1 7/8	0.100
48	36	3	30	3	42	2 1/4	0.100
60	24	2	20	2	56	1 1/2	0.100
60	36	3	30	3	54	2 1/4	0.100
48	30	3	24	3	42	1 7/8	0.100
60	30	3	24	3	54	1 7/8	0.100

THE ORIGINAL OF THIS DRAWING WAS SIGNED AND SEALED BY EDWARD N. MERY, P.E., #58698 ON 02.06.06 AND IS ON FILE WITH THE TRAFFIC ENGINEERING DIVISION OF THE PUBLIC WORKS DEPARTMENT, CITY OF SAN ANTONIO.

FEBRUARY 2006
CITY OF SAN ANTONIO
DEPARTMENT OF PUBLIC WORKS
TRAFFIC SIGN STANDARDS
GROUND MOUNTED SIGN SIZES
SHEET 3 OF 4
% SUBMITTAL PROJECT NO.: DATE:
DRAWN BY: A.F.G. DSGN BY: E.N.M. CHKD BY: J.D.F./E.N.M. SHEET NO.: OF

UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPELS F-10194608

11/10/23

STATE OF TEXAS
RYAN R. PLAGENS
111640
LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

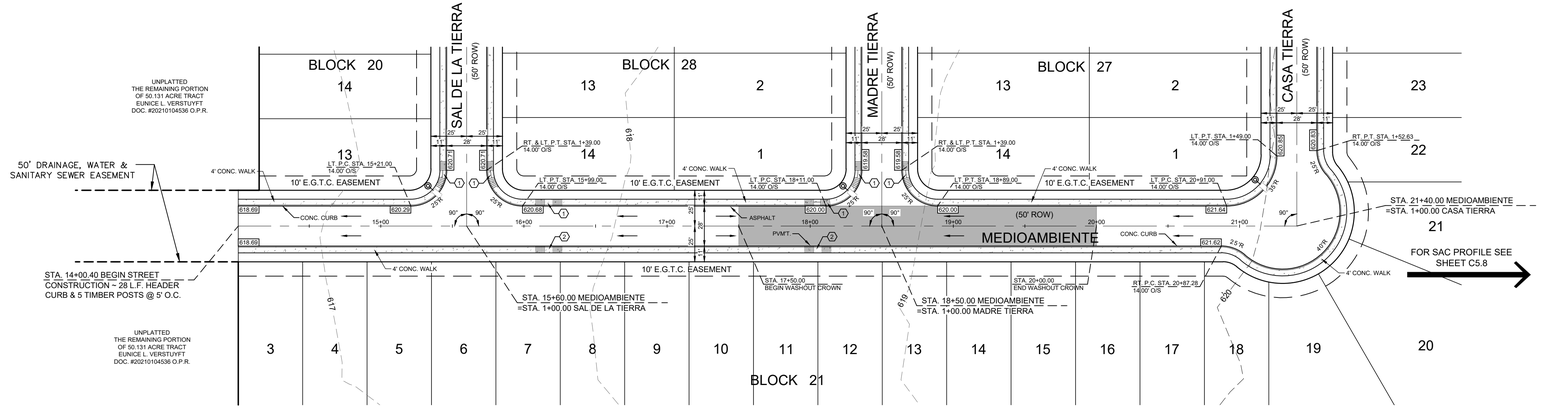
TRAFFIC SIGN DETAILS

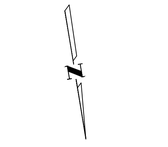
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DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C5.2

Date: Nov 10, 2023, 9:16am User ID: rplagens
File: U:_Projects\J72 - Watson (Tom Gray)\J72.05 - TIERRA LINDA PHASE 1\ACAD\Sheets\C5.2- TRAFFIC SIGN DETAILS.dwg





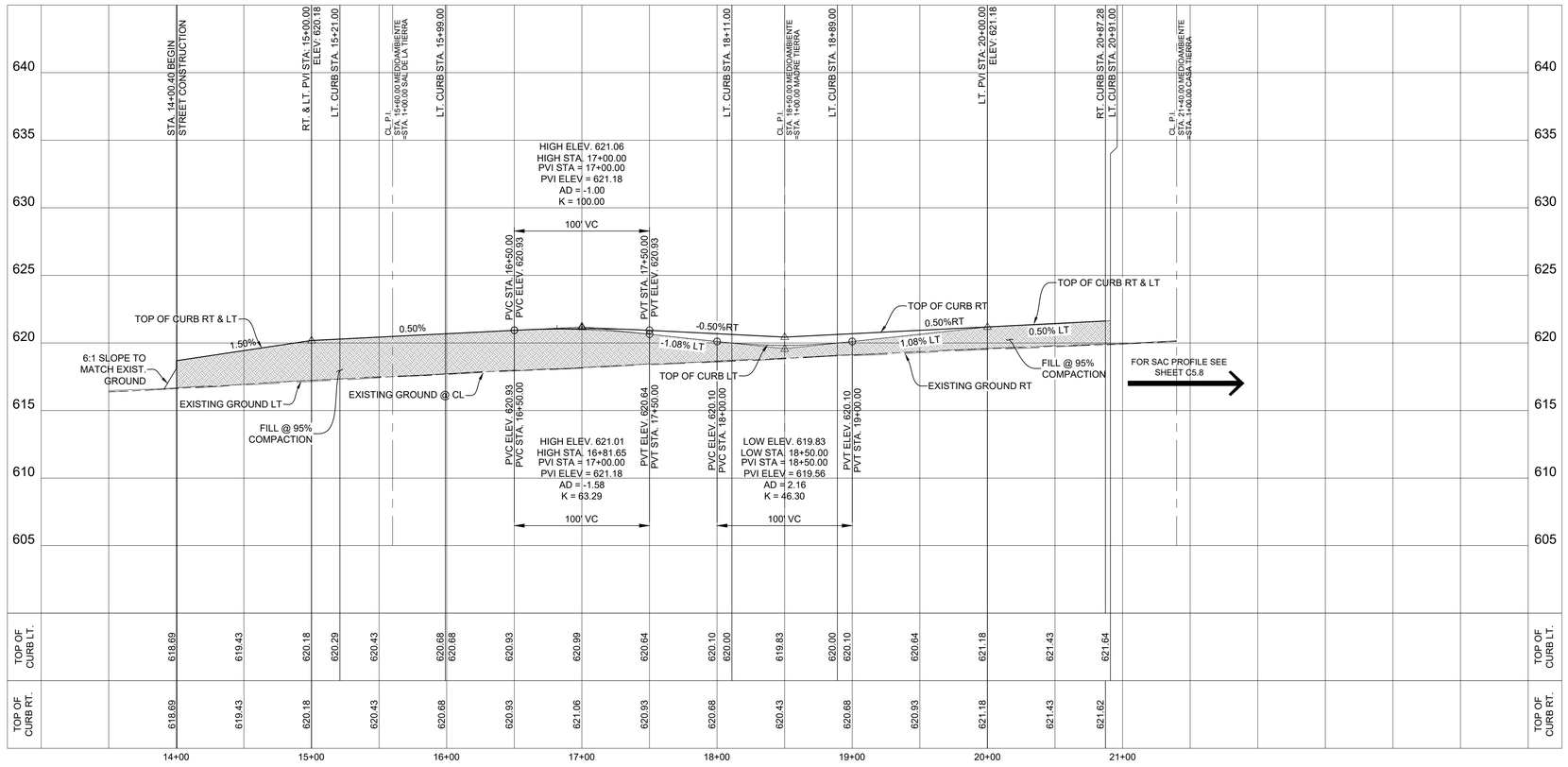
LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- 102 EXIST. GRADE ELEVATIONS
- (102) PROP. GRADE ELEVATIONS
- DIRECTION OF FLOW
- TC TOP OF CURB ELEVATION
- G GUTTER ELEVATION
- FL FLOW LINE ELEVATION
- HP HIGH POINT ELEVATION
- LP LOW POINT ELEVATION
- ME MATCH EXISTING ELEVATION
- ROW RIGHT OF WAY
- BSL BUILDING SETBACK LINE
- FC FACE OF CURB
- LT LEFT
- RT RIGHT
- WASHOUT CROWN
- HANDICAP RAMP
- CROSSWALK STRIPING
- SIDEWALK (HOME BUILDER'S RESPONSIBILITY)
- SIDEWALK (DEVELOPER'S RESPONSIBILITY)
- 1 COSA TYPE III SIDEWALK RAMP
- 2 COSA TYPE IV SIDEWALK RAMP
- 3 TxDOT TYPE 7 SIDEWALK RAMP
- 4 SIDEWALK RESPONSIBILITY DIVISION LINE

MEDIOAMBIENTE RD.

STA. 14+00.40 TO STA. 21+40.00

SCALE:
HORIZ 1"=50'
VERT. 1"=5'



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11/10/23

STATE OF TEXAS RYAN R. PLAGENS 111640 LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

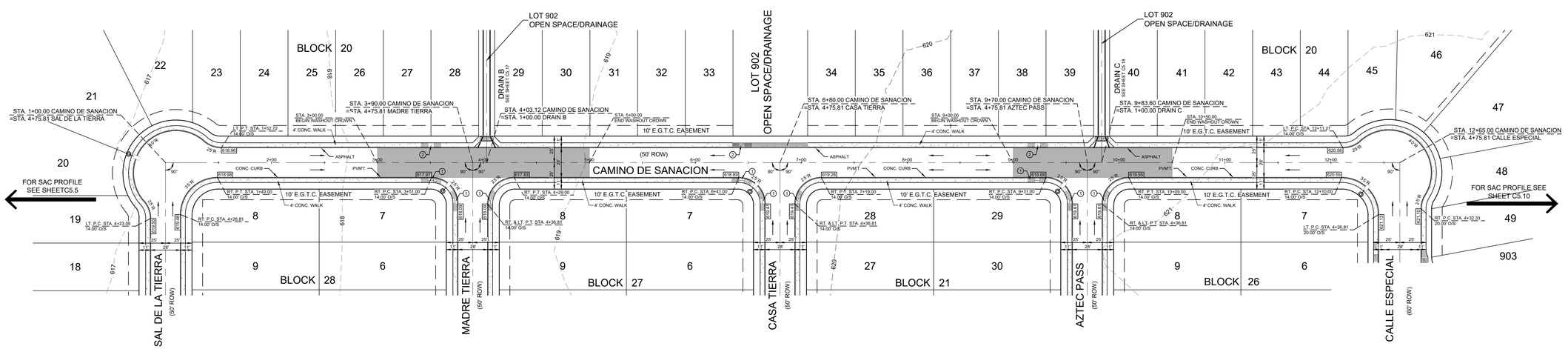
MEDIOAMBIENTE RD. PLAN & PROFILE

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
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SHEET
C5.3

Date: Nov 10, 2023, 8:17pm User ID: rpm
File: c:_Projects\372 – Watson (Von Dmu)\372.05 – TIERRA LINDA PHASE 1\ACAD\Sheets\C5.3–MEDIOAMBIENTE RD.dwg



LEGEND

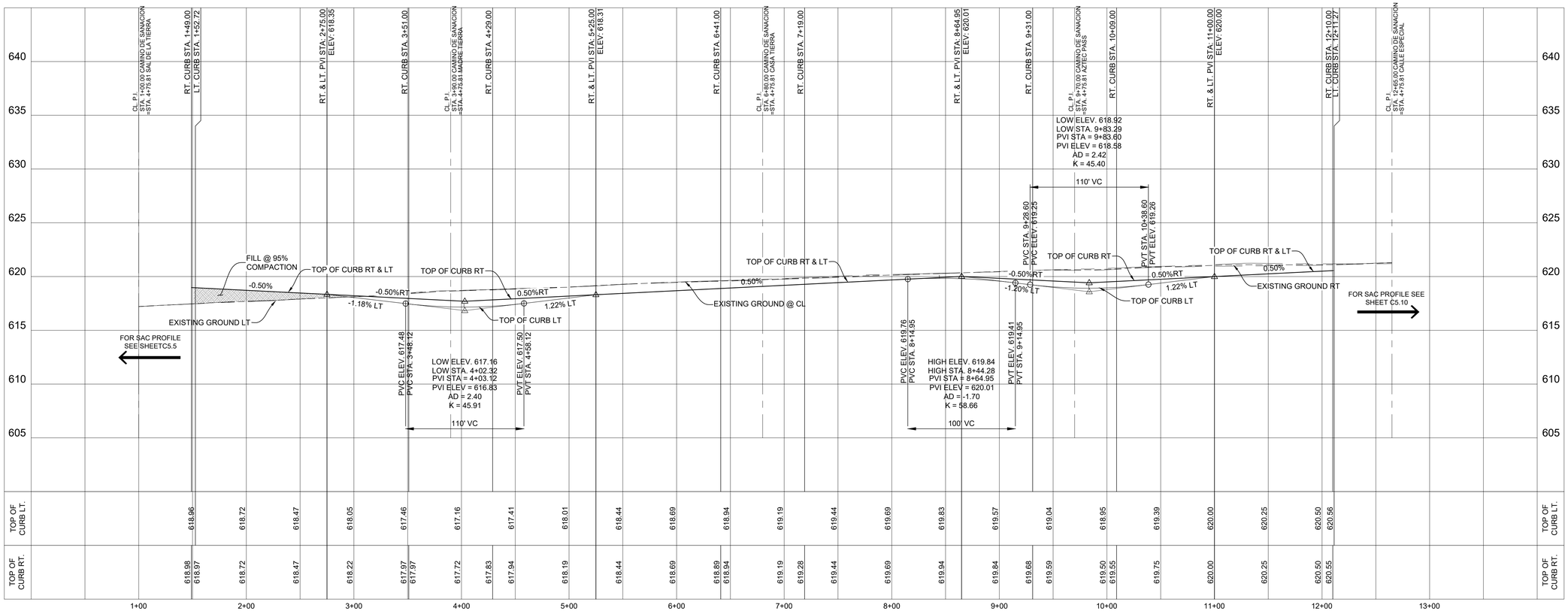
	BOUNDARY / RIGHT OF WAY	LT	LEFT
	EASEMENT / SETBACK	RT	RIGHT
	CURB / EDGE OF PAVEMENT		WASHOUT CROWN
102	EXIST. GRADE ELEVATIONS		HANDICAP RAMP
102	PROP. GRADE ELEVATIONS		CROSSWALK STRIPING
	DIRECTION OF FLOW		SIDEWALK (HOME BUILDER'S RESPONSIBILITY)
TC	TOP OF CURB ELEVATION		SIDEWALK (DEVELOPER'S RESPONSIBILITY)
G	GUTTER ELEVATION	1	COSA TYPE III SIDEWALK RAMP
FL	FLOW LINE ELEVATION	2	COSA TYPE IV SIDEWALK RAMP
HP	HIGH POINT ELEVATION	3	TxDOT TYPE 7 SIDEWALK RAMP
LP	LOW POINT ELEVATION	4	SIDEWALK RESPONSIBILITY DIVISION LINE
ME	MATCH EXISTING ELEVATION		
ROW	RIGHT OF WAY		
BSL	BUILDING SETBACK LINE		
FC	FACE OF CURB		

CAMINO DE SANACION

STA. 1+00.00 TO STA. 12+65.00

0 25' 50' 100'
SCALE: 1" = 50'

SCALE:
HORIZ.1"=50'
VERT. 1"=5'



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11/10/23
STATE OF TEXAS · RYAN R. PLAGENS · 111640 · LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
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300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

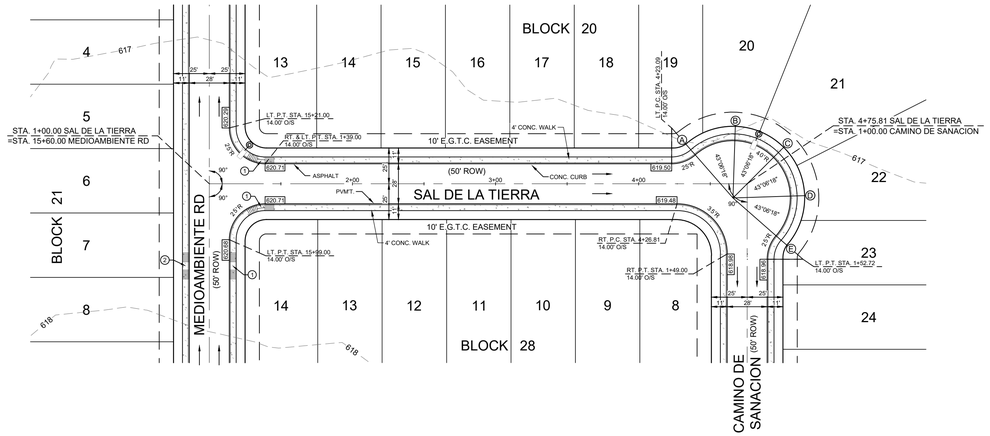
CAMINO DE SANACION PLAN & PROFILE

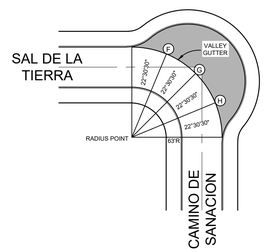
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DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C5.4

Date: Nov 10, 2023, 8:17am User ID: rplagens
File: U:_Projects\JOBS - TIERRA LINDA PHASE 1\CAD\Sheets\C5.4 - CAMINO DE SANACION.dwg





VALLEY GUTTER DETAIL

KNUCKLE SAC TABLE		
POINT	TOP OF CURB	GUTTER
P.C. STA. 4+23.09	619.50	618.92
A	619.49	618.91
B	619.59	619.01
C	619.55	618.97
D	619.39	618.81
E	619.11	618.53
F	-	618.77
G	-	618.65
H	-	618.52
P.T. STA. 1+52.72	618.96	618.38



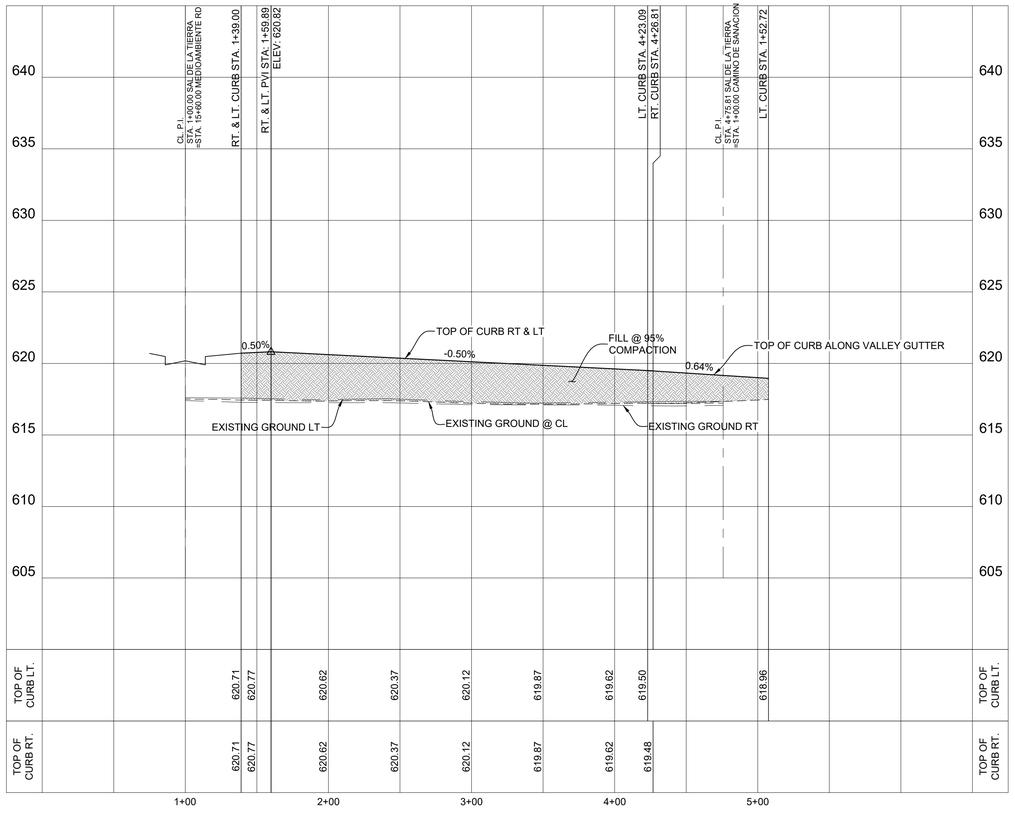
LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- 102 EXIST. GRADE ELEVATIONS
- 102 PROP. GRADE ELEVATIONS
- DIRECTION OF FLOW
- TC TOP OF CURB ELEVATION
- G GUTTER ELEVATION
- FL FLOW LINE ELEVATION
- HP HIGH POINT ELEVATION
- LP LOW POINT ELEVATION
- ME MATCH EXISTING ELEVATION
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- BSL BUILDING SETBACK LINE
- FC FACE OF CURB
- LT LEFT
- RT RIGHT
- WASHOUT CROWN
- HANDICAP RAMP
- CROSSWALK STRIPING
- SIDEWALK (HOME BUILDER'S RESPONSIBILITY)
- SIDEWALK (DEVELOPER'S RESPONSIBILITY)
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- 2 COSA TYPE IV SIDEWALK RAMP
- 3 TxDOT TYPE 7 SIDEWALK RAMP
- 4 SIDEWALK RESPONSIBILITY DIVISION LINE

SAL DE LA TIERRA

STA. 1+00.00 TO STA. 4+75.81

SCALE:
HORIZ.1"=50'
VERT. 1"=5'



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11/10/23

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TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

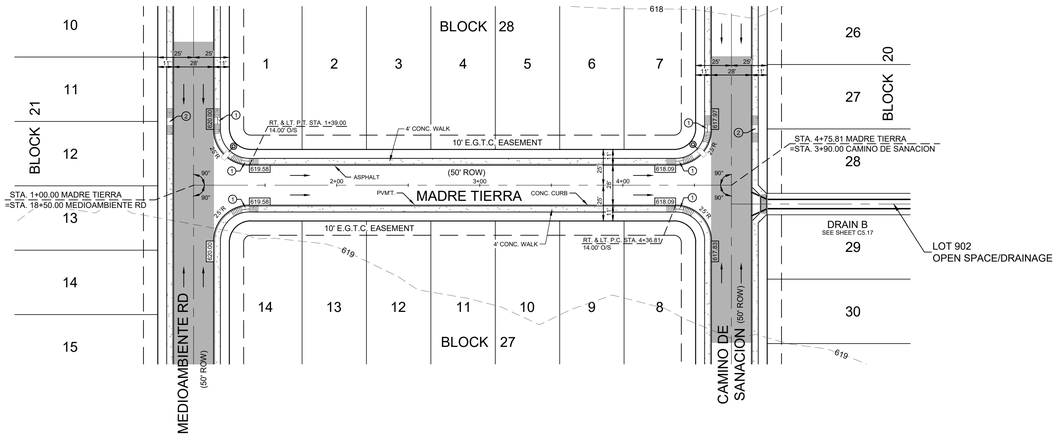
SAL DE LA TIERRA PLAN & PROFILE

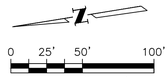
REV	DATE	DESCRIPTION	BY

DESIGNED BY:
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Date: Nov 10, 2023, 8:17pm User ID: rpm
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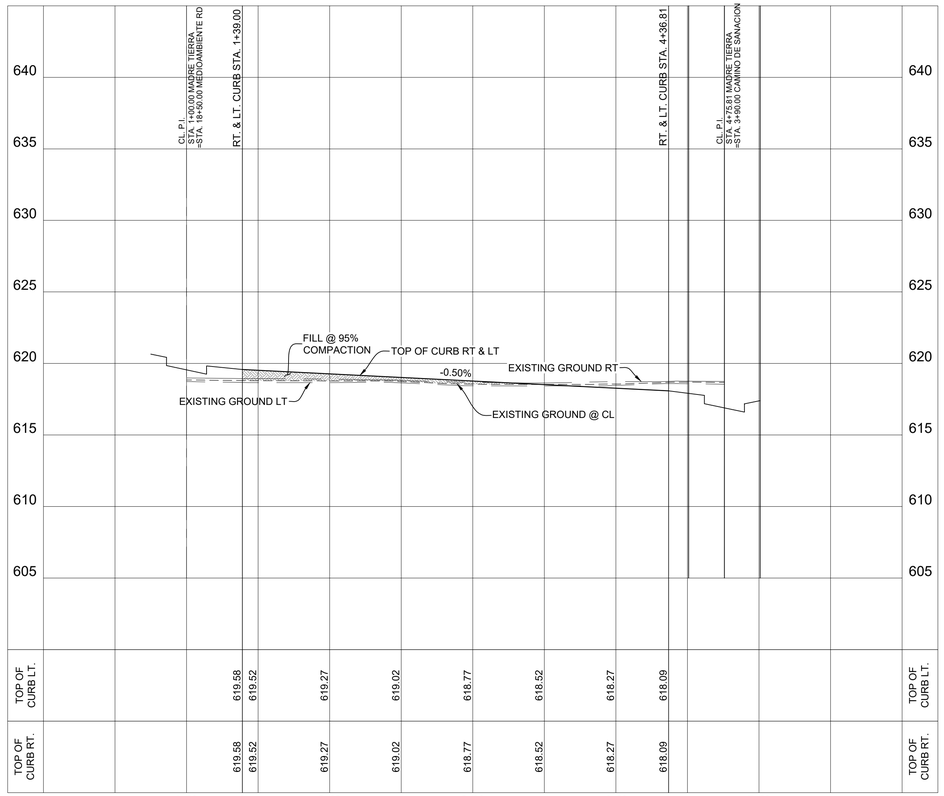
LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- 102 EXIST. GRADE ELEVATIONS
- (102) PROP. GRADE ELEVATIONS
- DIRECTION OF FLOW
- TC TOP OF CURB ELEVATION
- G GUTTER ELEVATION
- FL FLOW LINE ELEVATION
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- SIDEWALK (DEVELOPER'S RESPONSIBILITY)
- (1) COSA TYPE III SIDEWALK RAMP
- (2) COSA TYPE IV SIDEWALK RAMP
- (3) TxDOT TYPE 7 SIDEWALK RAMP
- (4) SIDEWALK RESPONSIBILITY DIVISION LINE

MADRE TIERRA

STA. 1+00.00 TO STA. 4+75.81

SCALE:
HORIZ.1"=50'
VERT. 1"=5'



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11/10/23

STATE OF TEXAS — RYAN R. PLAGENS — 111640 — LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE. 300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

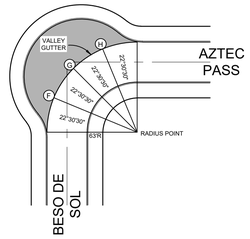
MADRE TIERRA PLAN & PROFILE

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

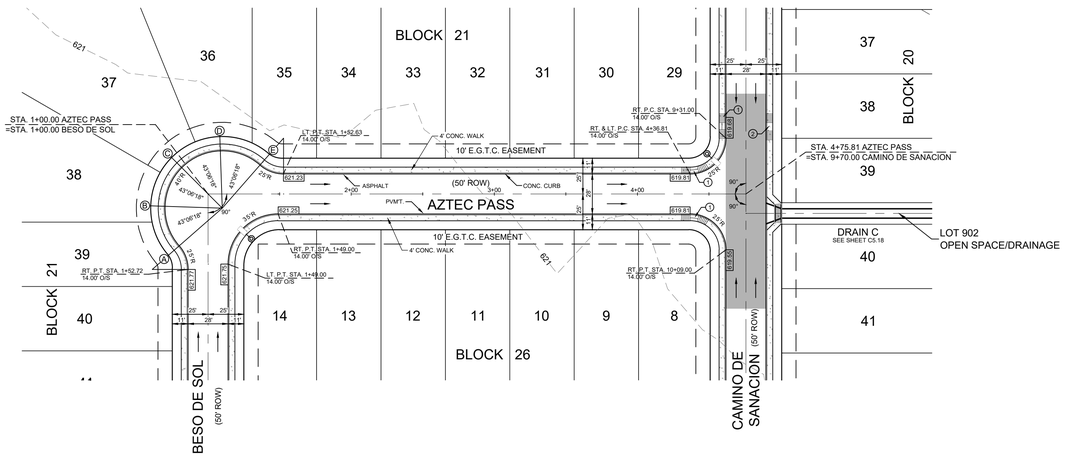
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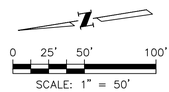
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VALLEY GUTTER DETAIL

KNUCKLE SAC TABLE		
POINT	TOP OF CURB	GUTTER
P.T. STA. 1+52.72	621.77	621.19
A	621.76	621.18
B	621.86	621.28
C	621.82	621.24
D	621.66	621.08
E	621.38	620.80
F	–	621.6200
G	–	620.9200
H	–	620.8000
P.T. STA. 1+52.63	621.23	620.65





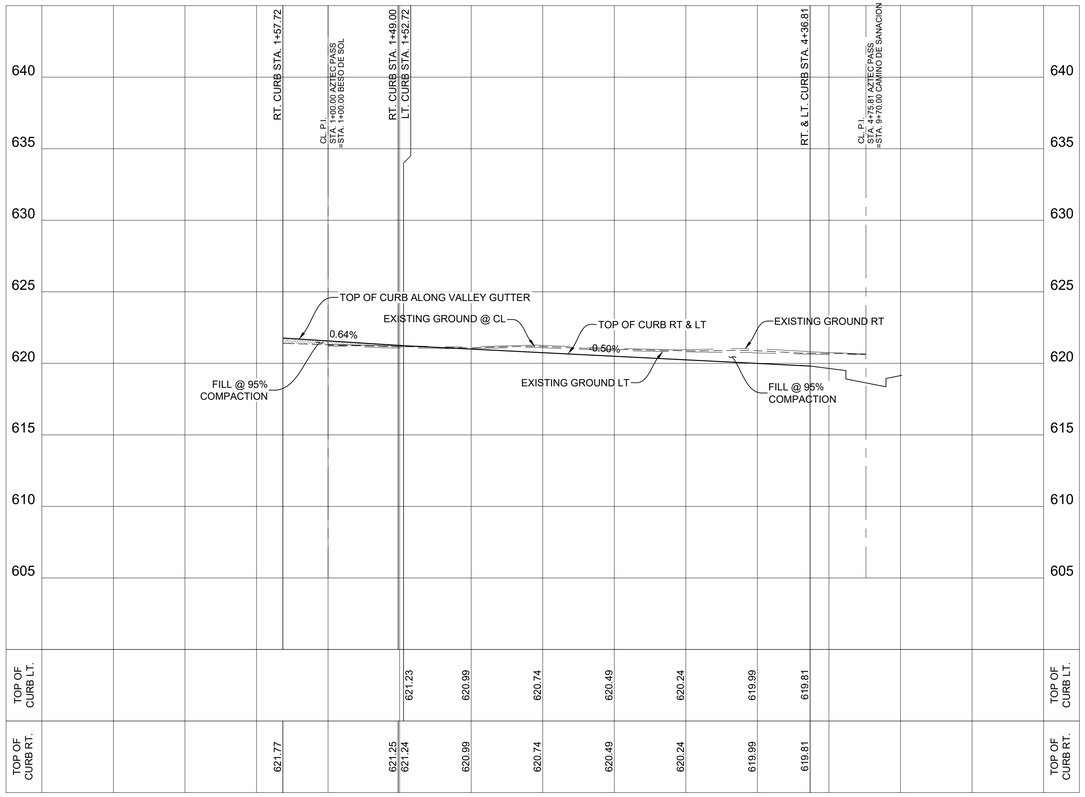
LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- 102 EXIST. GRADE ELEVATIONS
- (102) PROP. GRADE ELEVATIONS
- DIRECTION OF FLOW
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- (3) TxDOT TYPE 7 SIDEWALK RAMP
- (4) SIDEWALK RESPONSIBILITY DIVISION LINE

AZTEC PASS

STA. 1+00.00 TO STA. 4+75.81

SCALE:
HORIZ.1"=50'
VERT. 1"=5'



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11/10/23

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STATE OF TEXAS

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TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

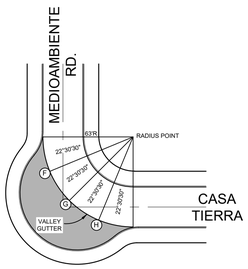
AZTEC PASS PLAN & PROFILE

REV	DATE	DESCRIPTION	BY

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DRAFTED BY:
CHECKED BY:

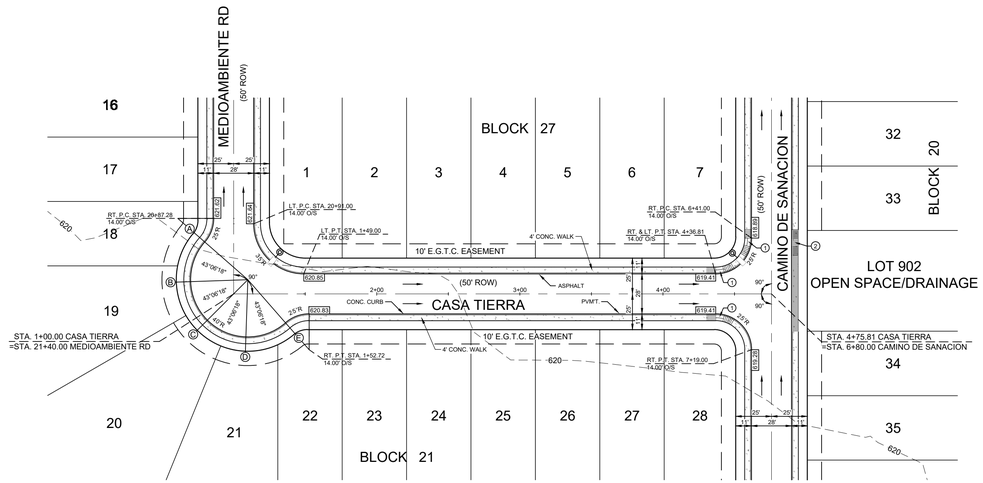
SHEET
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VALLEY GUTTER DETAIL

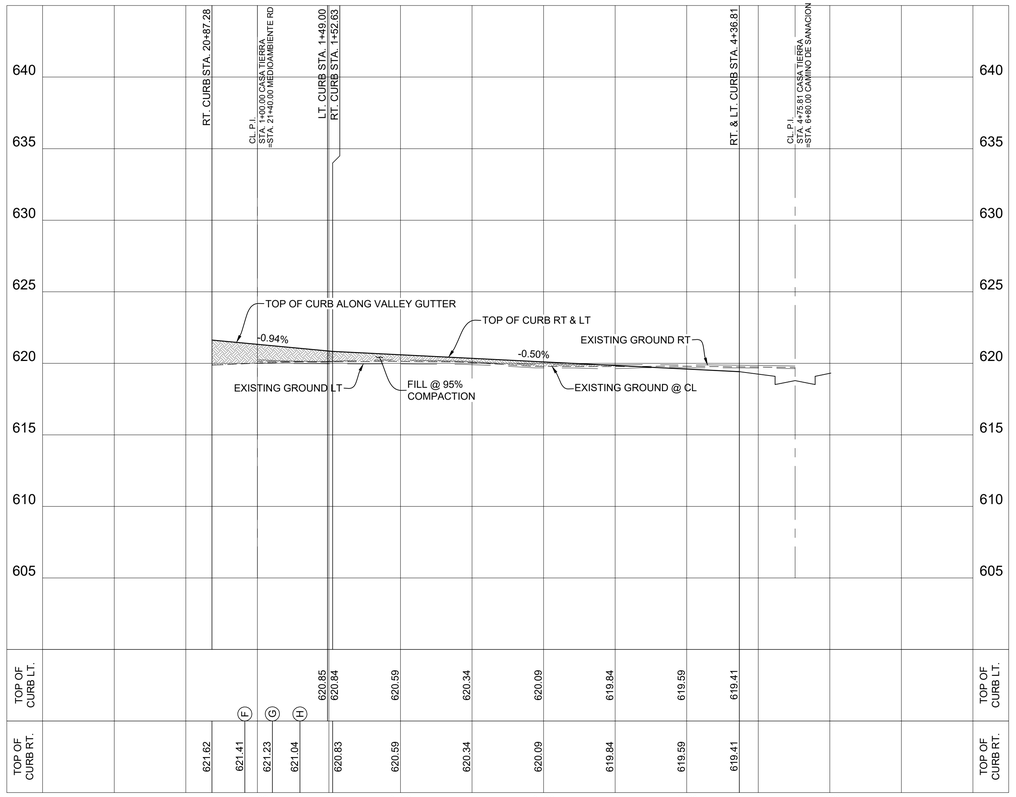
KNUCKLE SAC TABLE		
POINT	TOP OF CURB	GUTTER
P.C. STA. 20+87.28	621.62	621.04
A	621.58	621.00
B	621.63	621.05
C	621.55	620.97
D	621.34	620.76
E	621.02	620.44
F	–	620.83
G	–	620.65
H	–	620.46
P.T. STA. 1+52.72	620.83	620.25

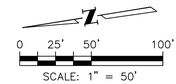


CASA TIERRA

STA. 1+00.00 TO STA. 4+75.81

SCALE:
HORIZ. 1"=50'
VERT. 1"=5'





LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
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TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

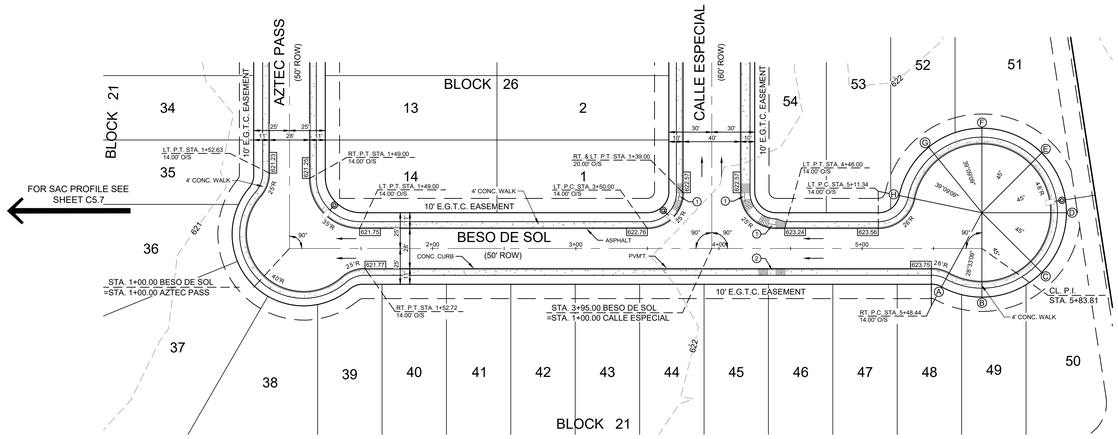
CASA TIERRA PLAN & PROFILE

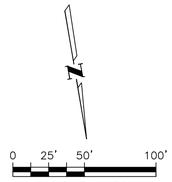
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DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
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Date: Nov 10, 2023, 9:18am User ID: rpm
File: U:_Projects\272 – Watson (Von Ormy)\272.05 – TIERRA LINDA PHASE 1\ACAD\Sheets\C5.8 CASA TIERRA.dwg





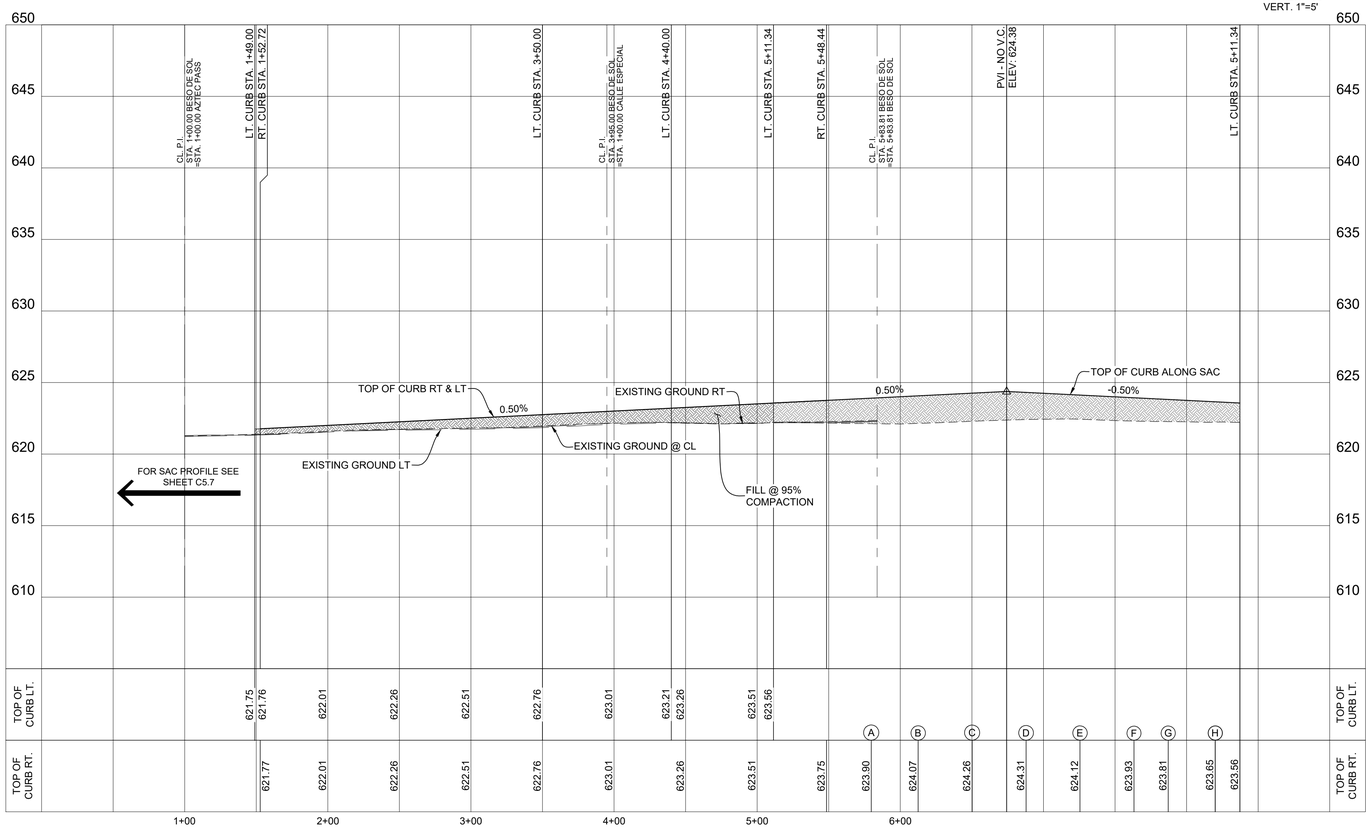
LEGEND

- BOUNDARY / RIGHT OF WAY
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- CROSSWALK STRIPING
- SIDEWALK (HOME BUILDER'S RESPONSIBILITY)
- SIDEWALK (DEVELOPER'S RESPONSIBILITY)
- (1) COSA TYPE III SIDEWALK RAMP
- (2) COSA TYPE IV SIDEWALK RAMP
- (3) TxDOT TYPE 7 SIDEWALK RAMP
- (4) SIDEWALK RESPONSIBILITY DIVISION LINE

BESO DE SOL

STA. 1+00.00 TO STA. 5+83.81

SCALE:
HORIZ. 1"=50'
VERT. 1"=5'



UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPELS F-10194608

11/10/23

STATE OF TEXAS · RYAN R. PLAGENS · 111640 · LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE. 300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

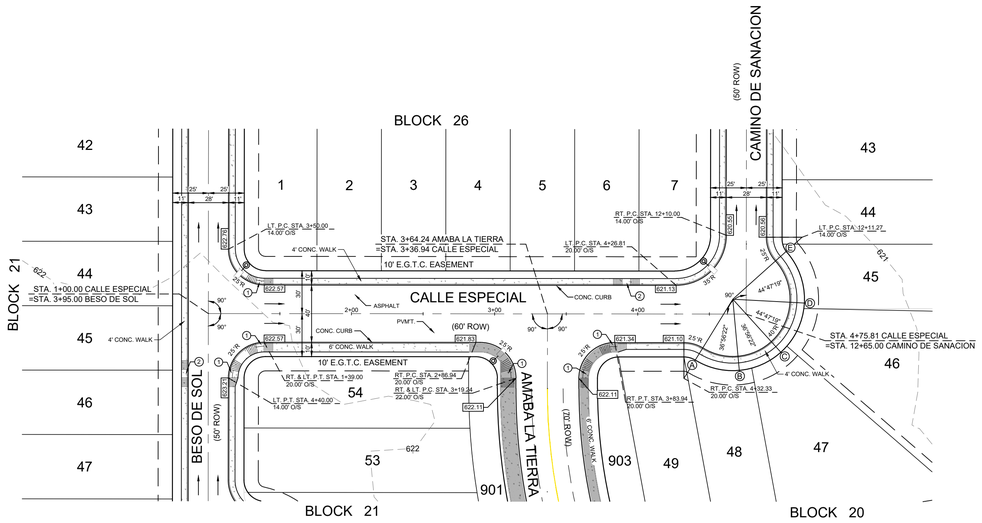
BESO DE SOL PLAN & PROFILE

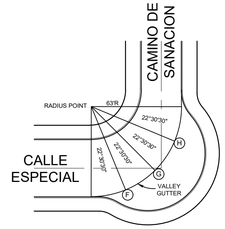
REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C5.9

Date: Nov 10, 2023, 8:18am User ID: rplagens
File: U:_Projects\272 — Watson (Tom Grimy)\272.05 — TIERRA LINDA PHASE 1\ACAD\Sheets\C5.9 BESO DE SOL.dwg





VALLEY GUTTER DETAIL

KNUCKLE SAC TABLE		
POINT	TOP OF CURB	GUTTER
P.C. STA. 4+26.81	621.13	620.55
A	620.97	620.39
B	621.04	620.46
C	621.03	620.45
D	620.91	620.33
E	620.69	620.11
F	-	620.42
G	-	620.30
H	-	620.17
P.C. STA. 12+10.00	620.55	619.97



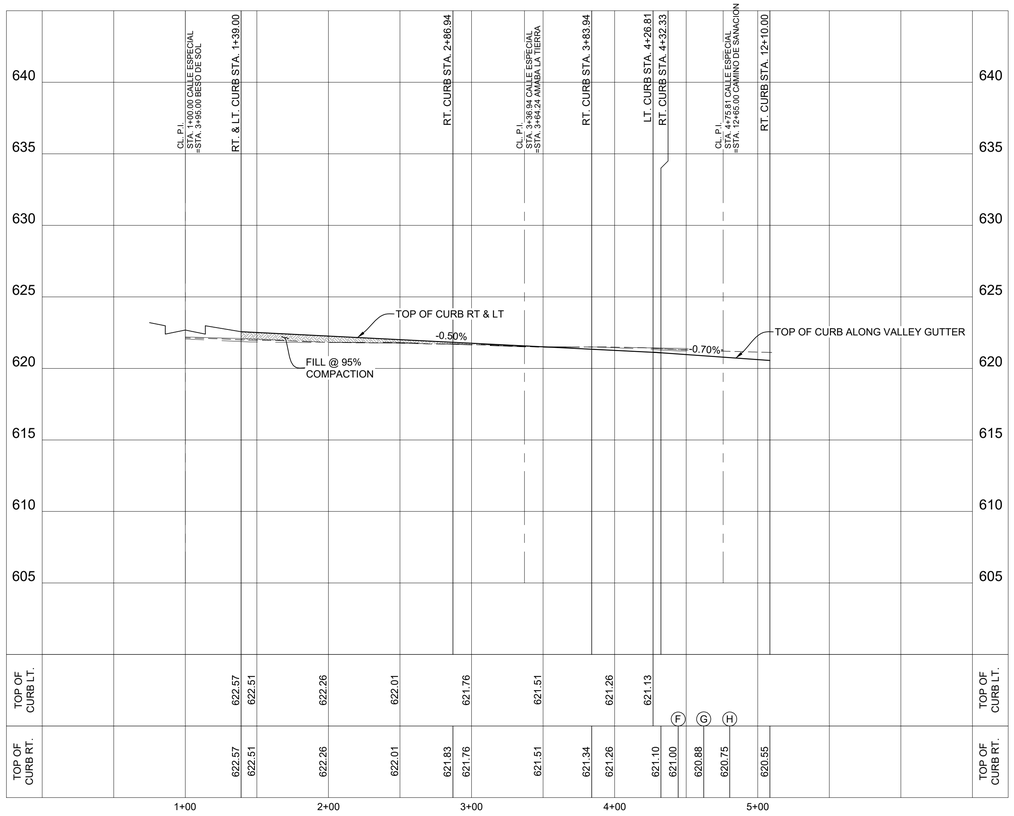
LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- 102 EXIST. GRADE ELEVATIONS
- (102) PROP. GRADE ELEVATIONS
- DIRECTION OF FLOW
- TC TOP OF CURB ELEVATION
- G GUTTER ELEVATION
- FL FLOW LINE ELEVATION
- HP HIGH POINT ELEVATION
- LP LOW POINT ELEVATION
- ME MATCH EXISTING ELEVATION
- ROW RIGHT OF WAY
- BSL BUILDING SETBACK LINE
- FC FACE OF CURB
- LT LEFT
- RT RIGHT
- WASHOUT CROWN
- HANDICAP RAMP
- CROSSWALK STRIPING
- SIDEWALK (HOME BUILDER'S RESPONSIBILITY)
- SIDEWALK (DEVELOPER'S RESPONSIBILITY)
- (1) COSA TYPE III SIDEWALK RAMP
- (2) COSA TYPE IV SIDEWALK RAMP
- (3) TxDOT TYPE 7 SIDEWALK RAMP
- (4) SIDEWALK RESPONSIBILITY DIVISION LINE

CALLE ESPECIAL

STA. 1+00.00 TO STA. 4+75.81

SCALE:
HORIZ. 1"=50'
VERT. 1"=5'



UP
ENGINEERING
+ SURVEYING
11903 JONES MALTSBERGER, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
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TBPELS F-10194605

11/10/23

STATE OF TEXAS
RYAN R. PLAGENS
111640
LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

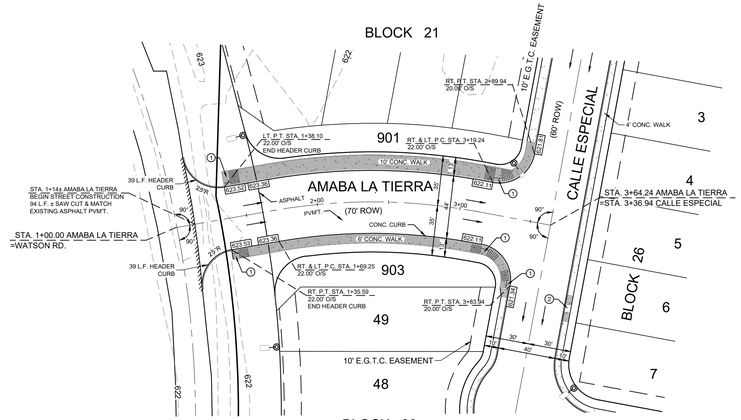
CALLE ESPECIAL PLAN & PROFILE

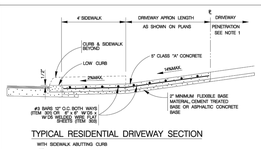
REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C5.10

Date: Nov 10, 2023, 9:19am User ID: rpm
File: U:_Projects\272 - Watson (Van Dorn)\272.05 - TIERRA LINDA PHASE 1\ACAD\Sheets\C5.10 CALLE ESPECIAL.dwg

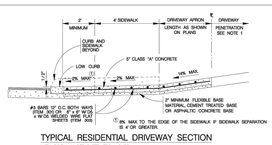

BLOCK 21
BLOCK 20
AMABA LA TIERRA
(70' ROW)
CALLE ESPECIAL
(60' ROW)
BLOCK 26
901
902
903
49
48
3
4
5
6
7
10' CONC. WALK
4' CONC. WALK
6' CONC. WALK
ASPHALT PVMT.
CONC. CURB
10' E.G.T.C. EASEMENT
W/ E.G.T.C. EASEMENT
LT. P.T. STA. 1+98.10
22.00' O/S
END HEADER CURB
RT. &L.T. P.C. STA. 3+19.24
22.00' O/S
RT. &L.T. P.C. STA. 1+69.25
22.00' O/S
RT. P.T. STA. 1+35.59
22.00' O/S
END HEADER CURB
RT. P.T. STA. 3+83.54
20.00' O/S
RT. P.T. STA. 2+69.94
20.00' O/S
39 L.F. HEADER CURB
STA. 1+14± AMABA LA TIERRA
BEGIN STREET CONSTRUCTION
94 L.F. ± SAW CUT & MATCH
EXISTING ASPHALT PVMT.
STA. 1+00.00 AMABA LA TIERRA
=WATSON RD.
STA. 3+64.24 AMABA LA TIERRA
=STA. 3+36.94 CALLE ESPECIAL
623.53
623.30
623.18
623.19
623.36
623.21
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623.60



TYPICAL RESIDENTIAL DRIVEWAY SECTION

WITH SIDEWALK ABUTTING CURB

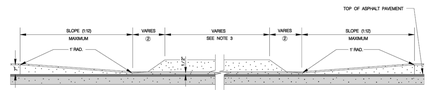
ITEM 500.1



TYPICAL RESIDENTIAL DRIVEWAY SECTION

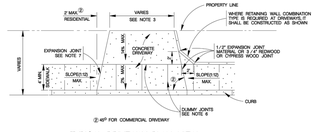
WITH SIDEWALK SEPARATED FROM CURB

ITEM 500.1



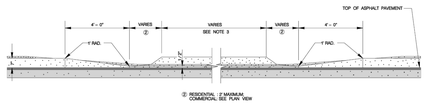
CURB PROFILE AT DRIVEWAY

WITH SIDEWALK ABUTTING CURB



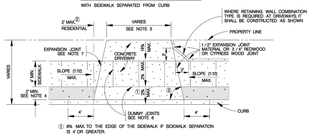
TYPICAL DRIVEWAY PLAN VIEW

WITH SIDEWALK ABUTTING CURB



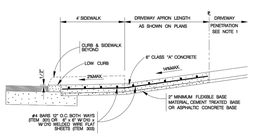
CURB PROFILE AT DRIVEWAY

WITH SIDEWALK SEPARATED FROM CURB



TYPICAL DRIVEWAY PLAN VIEW

WITH SIDEWALK SEPARATED FROM CURB



TYPICAL COMMERCIAL DRIVEWAY SECTION

WITH SIDEWALK ABUTTING CURB

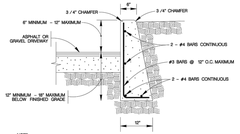
ITEM 500.2

CONCRETE DRIVEWAY NOTES

1. DRIVEWAY PENETRATION REFERS TO A PORTION OF THE DRIVEWAY THAT MAY BE NECESSARY TO RECONSTRUCT WITHIN PRIVATE PROPERTY TO COMPLY WITH A MAXIMUM DRIVEWAY SLOPE. THIS PORTION OF THE DRIVEWAY SHALL BE PAID FOR UNDER THE FOLLOWING ITEMS AS MAY APPLY:
   A.) CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO 503.1 OR 503.2.
   B.) ASPHALTIC CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO 503.4 AND SHALL INCLUDE A MINIMUM OF 7" ASPHALT TYPE "D" & 6" FLEXIBLE BASE
   C.) GRAVEL DRIVEWAY PAID FOR UNDER ITEM NO 503.5 AND SHALL INCLUDE A MINIMUM OF 6" FLEXIBLE BASE.
2. 7" MINIMUM HEIGHT WILL NOT NECESSARILY OCCUR AT THE PROPERTY LINE, IT MAY OCCUR WITHIN THE RIGHT OF WAY OR WITHIN THE DRIVEWAY PENETRATION ON PRIVATE PROPERTY.
3. THE PROPOSED DRIVEWAY SHOULD MATCH THE EXISTING WIDTH AT THE PROPERTY LINE BUT UNLESS AUTHORIZED BY THE CITY TRAFFIC ENGINEER, THE WIDTH SHALL BE WITHIN THE FOLLOWING VALUES:

TYPE	MINIMUM	MAXIMUM
RESIDENTIAL	10'	20'
COMMERCIAL - ONE WAY	12'	20'
COMMERCIAL - TWO WAY	24'	30'

4. FOR LOCAL TYPE "A" STREETS,SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND 3' SEPARATED FROM THE CURB.THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
5. FOR OTHER THAN LOCAL TYPE "A" STREETS,THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4'AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB OR,AS AN OPTION,THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.
6. DUMMY JOINTS PARALLEL TO THE CURB SHALL BE PLACED WHERE THE SIDEWALK MEETS THE DRIVEWAY. DUMMY JOINTS PERPENDICULAR TO THE CURB,AND WITHIN THE BOUNDARIES OF THE PARALLEL DUMMY JOINTS,SHALL BE PLACED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK.
7. A MINIMUM OF TWO ROUND AND SMOOTH DOWEL BARS 0.48" IN DIAMETER AND 18"IN LENGTH SHALL BE SPACED 18" APART AT EACH EXPANSION JOINT.
8. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE, WHERE SIDEWALKS CROSS DRIVEWAYS, SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
9. SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.



NOTE:
1. COST OF REINFORCEMENT TO BE INCLUDED IN UNIT COST OF ITEM 307.1.
2. CONCRETE RETAINING WALL COMBINATION TYPE SHALL BE USED FOR CONCRETE DRIVEWAYS.

DRIVEWAY – CONCRETE RETAINING WALL

ON COMPACTED SUBGRADE

ITEM 307.1

MAY 2009

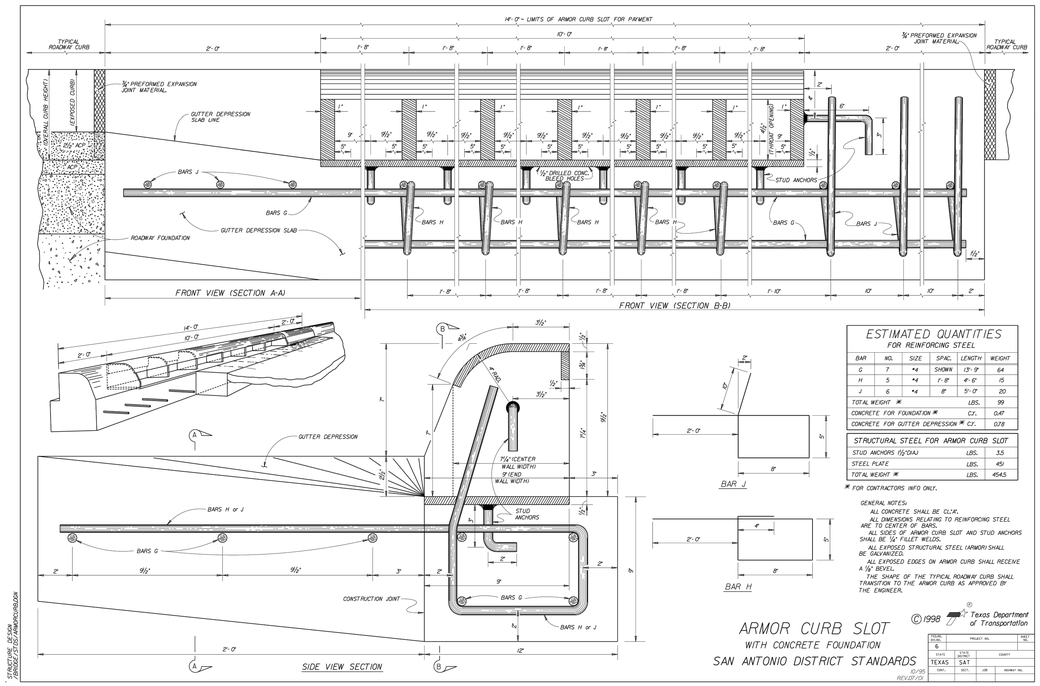
CITY OF SAN ANTONIO

CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

CONCRETE DRIVEWAY STANDARDS

_____% SUBMITTAL PROJECT NO.:_____ DATE:_____

DRWN. BY: V. VASQUEZ DSGN. BY:_____ CHKD. BY: R.S. HOSSEINI, P.E. SHEET NO.:___OF___



ESTIMATED QUANTITIES FOR REINFORCING STEEL					
BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT
G	7	#4	SHOWN	13'-3"	64
H	5	#4	1'-8"	4'-6"	15
J	6	#4	8"	5'-0"	20
TOTAL WEIGHT ✱				LBS.	99
CONCRETE FOR FOUNDATION ✱				CY.	0.47
CONCRETE FOR GUTTER DEPRESSION ✱				CY.	0.78

STRUCTURAL STEEL FOR ARMOR CURB SLOT		
STUD ANCHORS ⅝"ØX4"	LBS.	3.5
STEEL PLATE	LBS.	45
TOTAL WEIGHT ✱	LBS.	45±5

✱ FOR CONTRACTORS INFO ONLY.

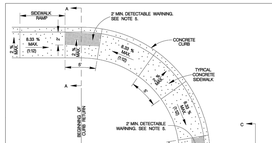
GENERAL NOTES:
ALL CONCRETE SHALL BE CL'A'.
ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
ALL SIDES OF ARMOR CURB SLOT AND STUD ANCHORS SHALL BE ¼" FILLET WELDS.
ALL EXPOSED STRUCTURAL STEEL (ARMOR) SHALL BE GALVANIZED.
ALL EXPOSED EDGES ON ARMOR CURB SHALL RECEIVE A ¼" BEVEL.
THE SHAPE OF THE TYPICAL ROADWAY CURB SHALL TRANSITION TO THE ARMOR CURB AS APPROVED BY THE ENGINEER.

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ARMOR CURB SLOT

WITH CONCRETE FOUNDATION

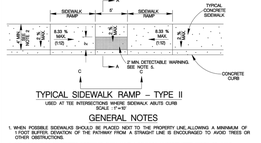
SAN ANTONIO DISTRICT STANDARDS



TYPICAL SIDEWALK RAMP – TYPE I

SIDEWALK ABUTS THE CURB

SCALE: 1"=10'



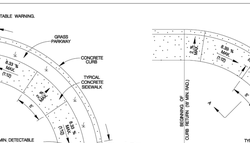
TYPICAL SIDEWALK RAMP – TYPE II

USED AT TEE INTERSECTIONS WHERE SIDEWALK ABUTS CURB

SCALE: 1"=10'

GENERAL NOTES

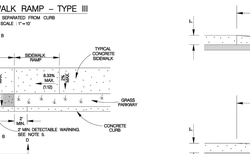
1. WHEN POSSIBLE SIDEWALKS SHOULD BE PLACED NEXT TO THE PROPERTY LINE,ALLOWING A MINIMUM OF 1-FOOT BUFFER, DEVIATION OF THE ALIGNMENT FROM A STRAIGHT LINE IS ENCOURAGED TO AVOID TREES OR OTHER OBSTRUCTIONS.
2. FOR LOCAL TYPE "A" STREETS, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4' AND 3' SEPARATED FROM THE CURB.THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
3. FOR OTHER THAN LOCAL TYPE "A" STREETS, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 6' AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB.IN ADDITION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.
4. SIDEWALK RAMP LENGTHS PRESENTED IN TABLE 1 ARE GUIDELINES ONLY. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE.
5. ALL CURB-RAMPS OR LANDINGS ABUTTING THE CROSSWALK SHALL HAVE A DETECTABLE WARNING 24 INCHES DEEP (IN THE DIRECTION OF PEDESTRIAN TRAVEL AND EXTENDING THE FULL WIDTH OF THE CURB, RAMP OR LANDING. THE DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES ALIGNED IN A GRID PATTERN AND HAVING A BASE DIAMETER OF 0.9 INCHES (23 MM), A TOP DIAMETER OF 0.45 INCHES (11 MM) AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES (60 MM). THE DETECTABLE WARNING SURFACE SHALL BE A CONTRAST-PLACE TILE CONFORMING TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS OR PAVERS CONFORMING TO TXDOT STANDARD PEDICAB PEDESTRIAN FACILITIES.
6. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.
7. SIDEWALK RAMP TYPE V SHALL BE USED ONLY WHERE THERE IS SIGNIFICANT RESTRICTION WITHIN THE RIGHTWAY TO CONSTRUCT TYPE I OR TYPE II RAMPS.
8. CONSTRUCTION OF ALL WHEELCHAIR RAMPS TO BE INCLUDED UNDER ITEMS "666 – CONCRETE CURB,GUTTER, AND CONCRETE CURB AND GUTTER" AND "ITEM "668 – CONCRETE SIDEWALKS". RAMP SURFACE SHALL BE BRUSH FINISHED.
9. THESE DETAILS ARE FOR REFERENCE ONLY. ACTUAL LOCATIONS OF WHEELCHAIR RAMPS TO BE SHOWN ON CONSTRUCTION PLANS. CITY CONSTRUCTION INSPECTOR CAN ADJUST LOCATIONS FOR SAFETY OR UTILITY CLEARANCE.
10. SIDEWALKS LESS THAN 5 FEET IN WIDTH SHALL BE PROVIDED WITH A PASSING SPACE AT A MAXIMUM SPACING OF 200 FEET.
11. WHEELCHAIR RAMP SHALL BE CONSTRUCTED WITH 4" CLASS "A" CONCRETE AND 2" MINIMUM GRAVEL, CRUSHED ROCK OR FLEXIBLE BASE MATERIAL.
12. REINFORCING STEEL SHALL BE #3 BARS AT 18" O.C.E.W.OR 6" X 6" – W2.9 x W2.9 WIRE MESH.
13. SIDEWALK GRADES SHALL NOT EXCEED THE GRADE ESTABLISHED FOR THE ADJACENT ROADWAY. ANY SIDEWALK CONSTRUCTION THAT DEVIATES FROM THE NATURAL GRADE OF THE ROADWAY TO CREATE A GRADE STEEPER THAN THE EXISTING ROADWAY WILL REQUIRE RAMPS, HANDRAILS AND RESTING PLATFORMS TO BE CONSTRUCTED IN ACCORDANCE WITH CITY, AND THE STANDARDS.
14. ALL SIDEWALK CROSS SLOPES SHALL HAVE A MAXIMUM SLOPE OF 2%. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
15. TO THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES SHALL BE LESS THAN 11%. THE CHANGE OF GRADE SHALL BE DEFINED AS THE ALGEBRAIC DIFFERENCE OF THE ADJACENT SURFACE SLOPES. IN THE CASE OF A STREET ACCESS RAMP DESIGNED AT THE 8.33% MAXIMUM SLOPE THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN OR EQUAL TO 4.5%(1:22) . IN ADDITION,THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN 5% (1:20).
16. IF THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES IS GREATER THAN OR EQUAL TO 11%,A LEVELING STRIP,2 FEET IN LENGTH,SHALL BE PROVIDED TO TRANSITION THE ADJACENT SURFACES.
17. ADA COMPLIANCE IN ALTERNATIONS INCLUDE ONLY THAT WORK WITHIN THE LIMITS,BOUNDARIES OR SCOPE OF A PLANNED PROJECT.



TYPICAL SIDEWALK RAMP – TYPE III

SIDEWALK SEPARATED FROM CURB

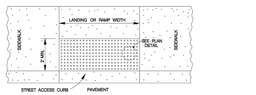
SCALE: 1"=10'



TYPICAL SIDEWALK RAMP – TYPE IV

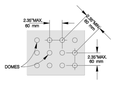
USED AT TEE INTERSECTIONS WHERE SIDEWALK IS SEPARATED FROM CURB

SCALE: 1"=10'



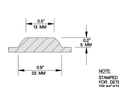
DETECTABLE WARNING SURFACE

SCALE: 1"=4'



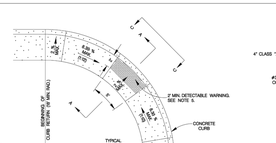
PLAN DETAIL

NO SCALE



DOME SECTION

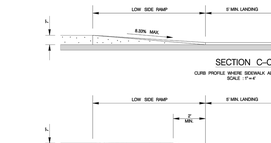
NO SCALE



SIDEWALK PASSING SPACE

SCALE: 1"=10'

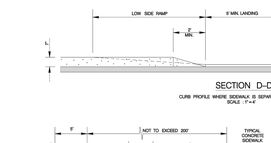
TABLE 1 (SEE NOTE 4)		
CUTTER SLOPE	SIDEWALK RAMP LENGTH (1:12)	
	LOW SIDE	HIGH SIDE
1%	5'-6"	7'-3"
2%	5'-0"	6'-4"
3%	4'-6"	10'-0"
4%	4'-0"	12'-4"
5%	3'-10"	16'-8"



SECTION C–C

CURB PROFILE WHERE SIDEWALK ABUTS CURB

SCALE: 1"=4'



SECTION D–D

CURB PROFILE WHERE SIDEWALK IS SEPARATED FROM CURB

SCALE: 1"=4'

MAY 2009

CITY OF SAN ANTONIO

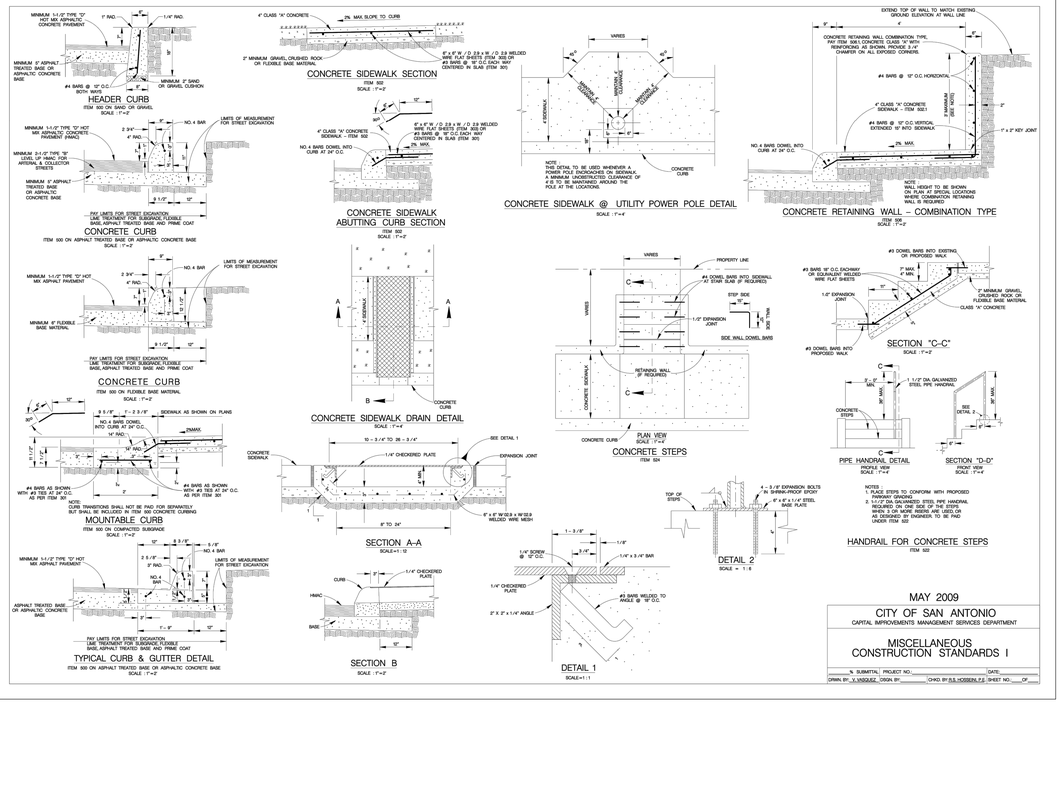
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

WHEELCHAIR RAMP STANDARDS

_____% SUBMITTAL PROJECT NO.:_____ DATE:_____

DRWN. BY: V. VASQUEZ DSGN. BY:_____ CHKD. BY: R.S. HOSSEINI, P.E. SHEET NO.:___OF___

STAMPED CONCRETE TRUNCATED DOMES WILL NOT BE ALLOWED. TO BE USED FOR DETECTABLE WARNING ON WHEELCHAIR RAMPS, CONTRACTOR MUST SUBMIT TRUNCATED DOME INFORMATION THAT IS TO BE USED ON WHEELCHAIR RAMPS TO THE PROJECT MANAGER FOR APPROVAL AT LEAST 30 DAYS PRIOR TO INSTALLATION.



MAY 2009

CITY OF SAN ANTONIO

CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

MISCELLANEOUS CONSTRUCTION STANDARDS I

_____% SUBMITTAL PROJECT NO.:_____ DATE:_____

DRWN. BY: V. VASQUEZ DSGN. BY:_____ CHKD. BY: R.S. HOSSEINI, P.E. SHEET NO.:___OF___

UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992

11/10/23



SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

STANDARD DETAILS

REV	DATE	DESCRIPTION	BY

DESIGNED BY:

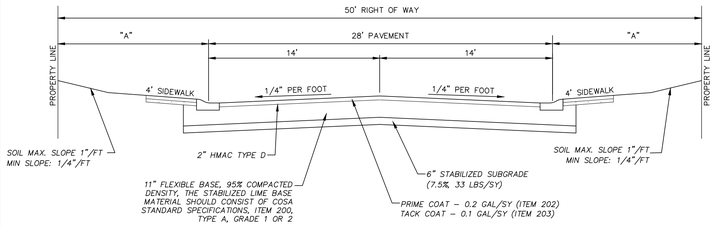
DRAFTED BY:

CHECKED BY:

SHEET

C5.12

Date: Nov 10, 2023, 8:19am User ID: rplagens
File: G:_Projects\272 – Watson (Von Ormy)\272.05 – TIERRA LINDA PHASE 1\ACAD\Sheets\CS.12–STANDARD DETAILS.dwg



TYPICAL STREET SECTION (LOCAL A)

NTS

STREET SECTION TABLE			
DESCRIPTION	LOCAL A	LOCAL B	COLLECTOR
RIGHT OF WAY WIDTH	50'	60'	70'
PAVEMENT WIDTH	28'	40'	44'
LENGTH - "A"	11'	10'	13'
PAVEMENT SECTION	SEE STREET SECTION	SEE STREET SECTION	SEE STREET SECTION
STRUCTURAL NUMBER	2.90	4.99	5.34
HOT MIX ASPHALT CONCRETE TYPE "D" DEPTH	2"	1.5"	1.5"
HOT MIX ASPHALT CONCRETE TYPE "C" DEPTH	–	2.5"	2.5"
AGGREGATE BASE DEPTH	11"	18.5"	21"
BASE DEPTH UNDER CURB	–	–	–
GEOGRID TENSAR TRIAX TX5	NO	NO	NO
LIME STABILIZED SUBGRADE	6*	8*	8*

*REFERENCE GEOTECHNICAL REPORT FOR SUBGRADE REQUIREMENTS

GENERAL NOTES:
1. CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT PREPARED BY INTEGRATED TESTING AND ENGINEERING COMPANY OF SAN ANTONIO, L.P., PROJECT NO. S221318, DATED AUGUST 27, 2022 FOR PAVEMENT RECOMMENDATIONS.

2. SELECT FILL USED FOR STREET SUBGRADE SHALL HAVE A MINIMUM CBR VALUE OF 5.0 AND A MAXIMUM PLASTICITY INDEX (P.I.) OF 55 AND BE NATIVE FILL OR SELECT FILL. CONTRACTOR SHALL CONTACT GEOTECHNICAL ENGINEER TO VERIFY CBR VALUE PRIOR TO PLACEMENT OF SELECT FILL MATERIAL.

3. IF P.I. IS GREATER THAN 20, THE CLAY SHALL BE REMOVED AND REPLACED WITH FILL AS DESCRIBED IN THE GEOTECHNICAL REPORT.

4. THE FILL MATERIAL SHOULD (A) BE APPROVED BY THE GEOTECHNICAL ENGINEER, (B) BE FREE OF DELETERIOUS MATERIAL, AND (C) THE MAXIMUM GRAVEL SIZE NOT TO EXCEED 3 INCHES IN SIZE. THE MATERIAL SHOULD BE PLACED AND COMPACTED AS PER APPLICABLE CITY/COUNTY GUIDELINES.

5. IF THE FILL DEPTH EXCEEDS 4-FT, THE FILL SHOULD BE COMPACTED IN 6 INCH THICK LIFTS AND COMPACTED TO A MINIMUM OF 98 PERCENT OF THE MAXIMUM DRY DENSITY AT A MOISTURE CONTENT BETWEEN OPTIMUM AND OPTIMUM PLUS 4 PERCENT OF THE OPTIMUM MOISTURE CONTENT.

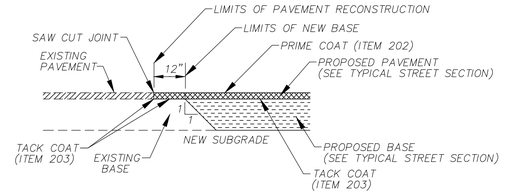
NOTES:
1. SYMBOL DESIGNATION IS FROM 2011 TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. STREETS AND DRAINS SHALL BE CONSTRUCTED ACCORDING TO CITY OF SAN ANTONIO AND BEXAR COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION.
3. SEE THIS SHEET FOR STANDARD DETAILS AND PAVEMENT SECTIONS.
4. A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY ROW.
5. ALL SIGNS CALLED OUT WITHIN BEXAR COUNTY RIGHT OF WAY ARE EXISTING UNLESS OTHERWISE NOTED.
6. ALL SIGNS, EXISTING OR PROPOSED, ARE TO BE RELOCATED IF IN THE SIDEWALK RECONSTRUCTION AREA.

STREET SECTION TABLE

NTS

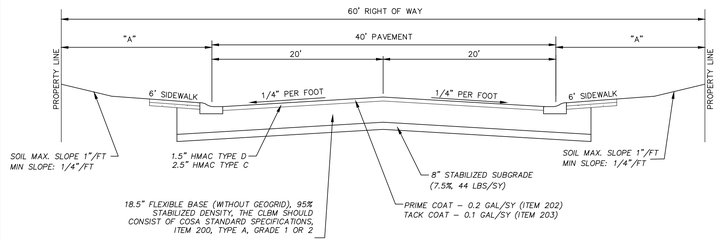
NOTE:

1. A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY ROW.



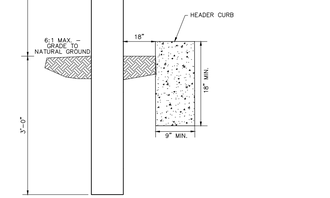
TYPICAL PAVEMENT JUNCTION DETAIL

NTS



TYPICAL STREET SECTION (LOCAL B)

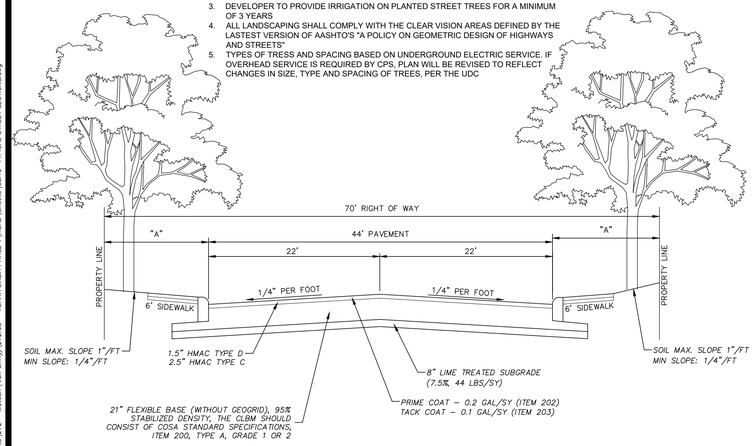
NTS



TYPICAL END OF STREET DETAIL

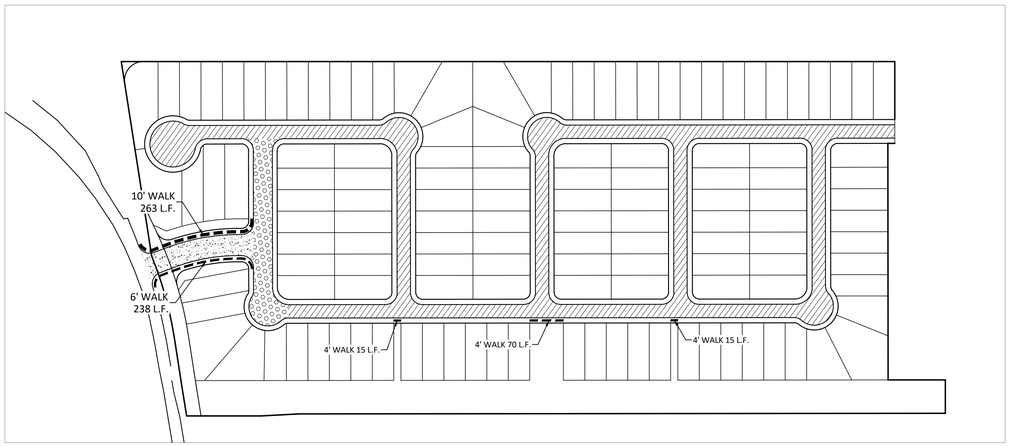
NTS

STREETSCAPE TREE PLANTING NOTES
1. LARGE TREE SPECIES TO BE PLANTED EVERY 50 FEET ALONG AMABA LA TIERRA
2. SPECIES OF TREES TO BE DETERMINED BY DEVELOPER'S PROJECT LANDSCAPE ARCHITECT TO CONFORM WITH THE STREETSCAPE PLANTING STANDARDS AS OUTLINE IN UDC SECTION 35-512
3. DEVELOPER TO PROVIDE IRRIGATION ON PLANTED STREET TREES FOR A MINIMUM OF 3 YEARS
4. ALL LANDSCAPING SHALL COMPLY WITH THE CLEAR VISION AREAS DEFINED BY THE LASTEST VERSION OF AASHTO'S "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS"
5. TYPES OF TRESS AND SPACING BASED ON UNDERGROUND ELECTRIC SERVICE. IF OVERHEAD SERVICE IS REQUIRED BY CPS, PLAN WILL BE REVISED TO REFLECT CHANGES IN SIZE, TYPE AND SPACING OF TREES, PER THE UDC



TYPICAL STREET SECTION (COLLECTOR)

NTS



PAVEMENT LEGEND

- LOCAL "A"
- LOCAL "B"
- COLLECTOR

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11/5/24

RYAN R. PLAGENS 111640 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

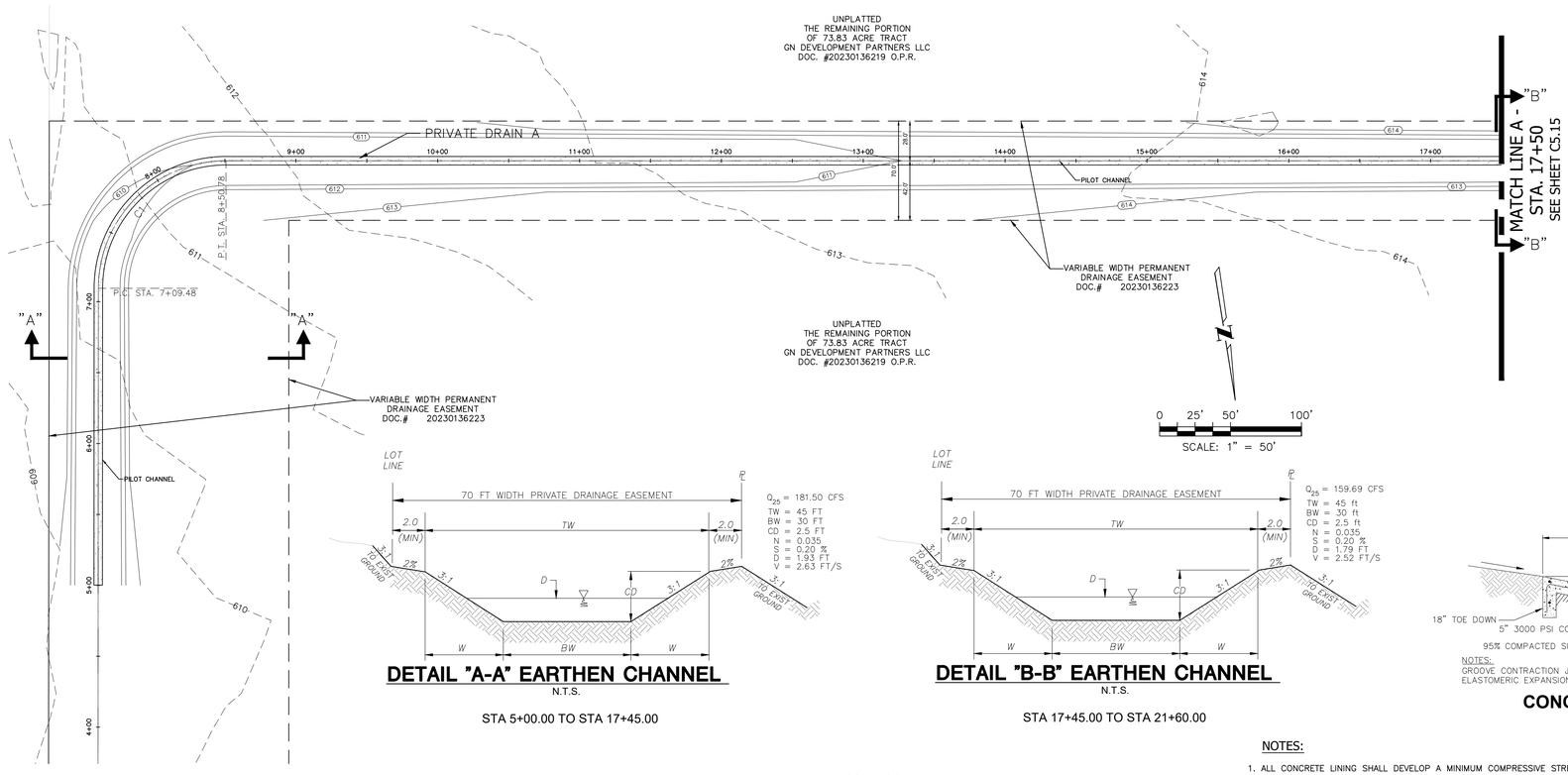
TYPICAL STREET SECTIONS

REV/	DATE	DESCRIPTION	BY

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DRAFTED BY:
CHECKED BY:

SHEET
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DETAIL "A-A" EARTHEN CHANNEL

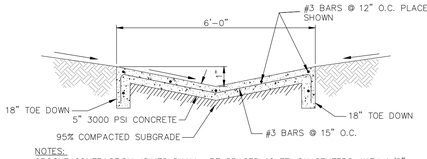
N.T.S.

STA 5+00.00 TO STA 17+45.00

DETAIL "B-B" EARTHEN CHANNEL

N.T.S.

STA 17+45.00 TO STA 21+60.00



NOTES:
GROOVE CONTRACTION JOINTS SHALL BE SPACED 10 FT. ON CENTERS, WITH 1/2" ELASTOMERIC EXPANSION JOINTS AT EVERY 50 FT.

CONCRETE PILOT CHANNEL

NOT TO SCALE

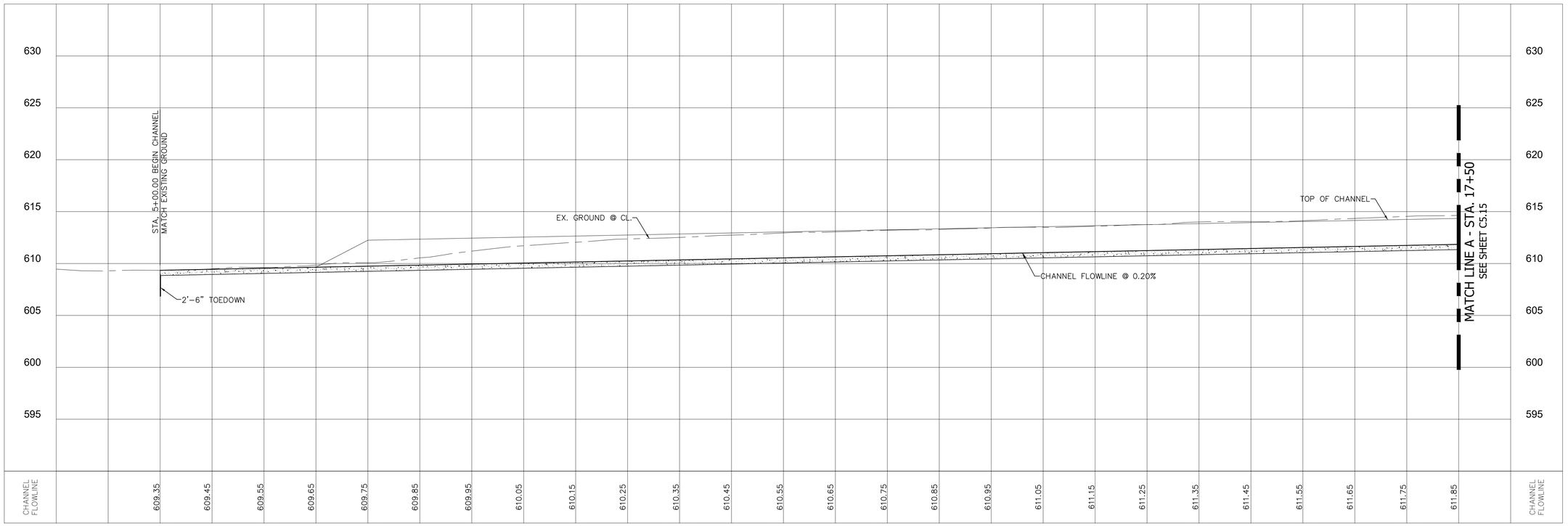
CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	CHORD	CHORD BEARING
C1	90.00'	141.30'	89°57'26"	127.23'	N54°07'00"E

DRAIN "A"

STA. 5+00 TO STA. 17+50

NOTES:

1. ALL CONCRETE LINING SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3,00 PSI IN 28 DAYS.
2. IMPROVED EARTHEN CHANNELS AND DETENTION PONDS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY FIVE PERCENT (85%) OF THE CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CHANNEL FOR MAINTENANCE



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12/19/23

STATE OF TEXAS — RYAN R. PLAGENS — 111640 — LICENSED PROFESSIONAL ENGINEER

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FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

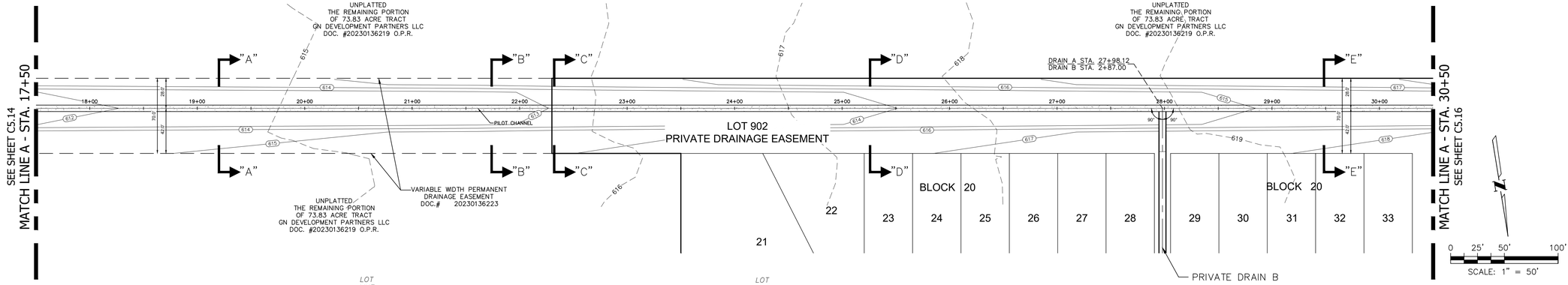
DRAIN A PLAN & PROFILE

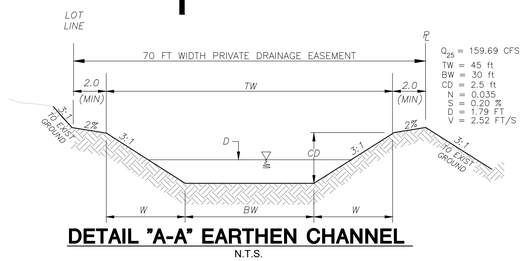
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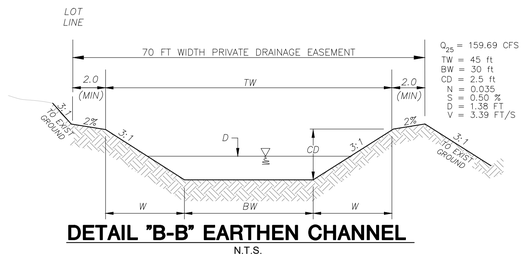
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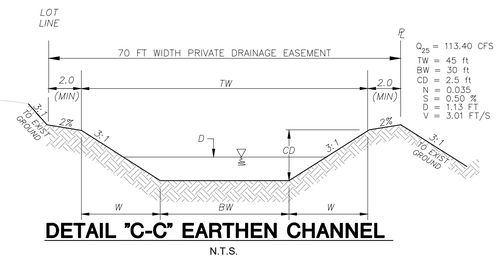
DETAIL "A-A" EARTHEN CHANNEL
N.T.S.

STA 17+45.00 TO STA 21+60.00



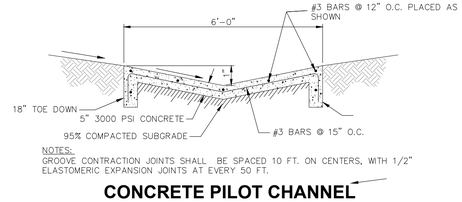
DETAIL "B-B" EARTHEN CHANNEL
N.T.S.

STA 21+60.00 TO STA 22+30.00



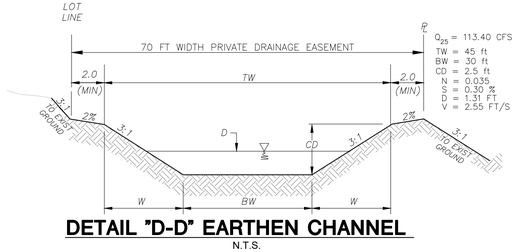
DETAIL "C-C" EARTHEN CHANNEL
N.T.S.

STA 22+30.00 TO STA 22+40.00



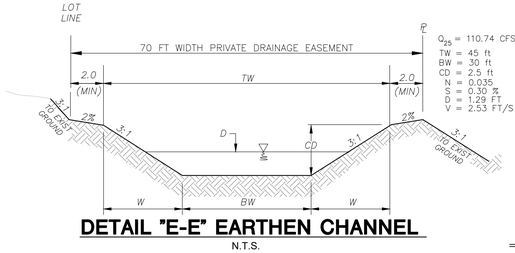
NOTES:
GROOVE CONTRACTION JOINTS SHALL BE SPACED 10 FT. ON CENTERS, WITH 1/2" ELASTOMERIC EXPANSION JOINTS AT EVERY 50 FT.

CONCRETE PILOT CHANNEL
NOT TO SCALE



DETAIL "D-D" EARTHEN CHANNEL
N.T.S.

STA 22+40.00 TO STA 26+55.62



DETAIL "E-E" EARTHEN CHANNEL
N.T.S.

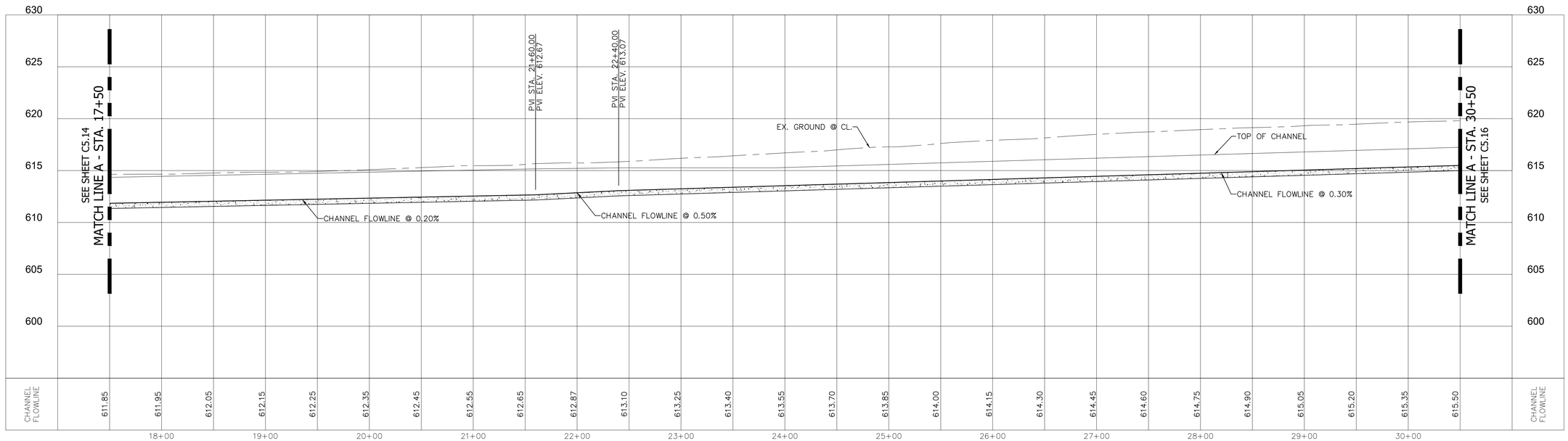
STA 26+55.62 TO STA 32+09.86

DRAIN "A"

STA. 17+50 TO STA. 30+50

NOTES:

1. ALL CONCRETE LINING SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3,00 PSI IN 28 DAYS.
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12/19/23

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FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

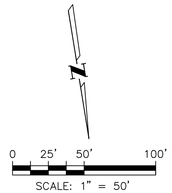
DRAIN A PLAN & PROFILE

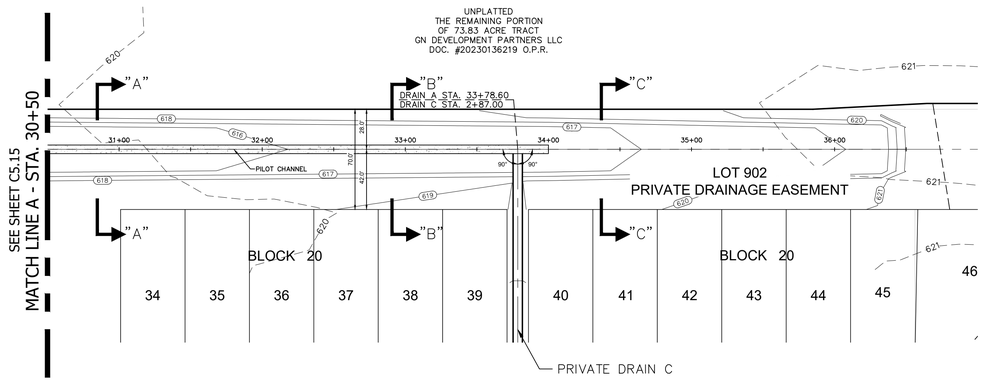
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DRAFTED BY:
CHECKED BY:

SHEET
C5.15

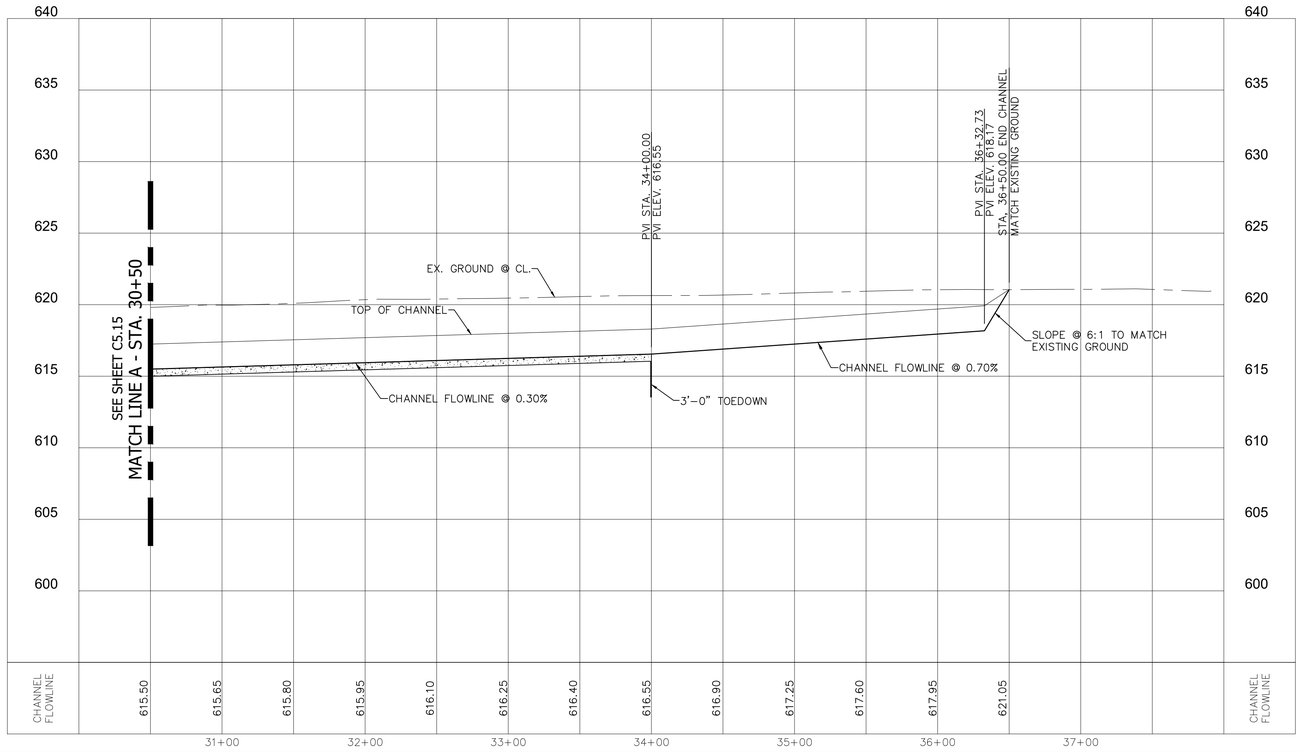
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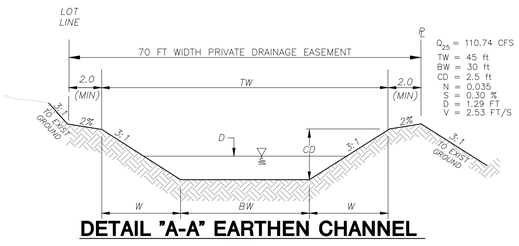




DRAIN "A"

STA. 30+50 TO STA. 36+50

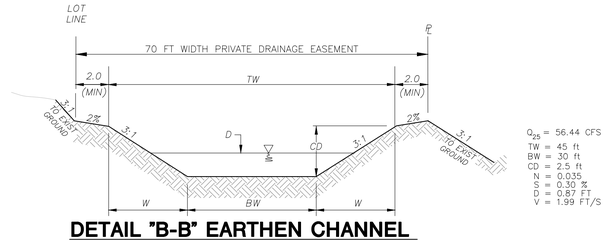




DETAIL "A-A" EARTHEN CHANNEL

N.T.S.

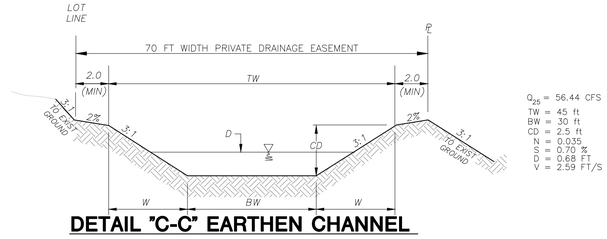
STA 26+55.62 TO STA 32+09.86



DETAIL "B-B" EARTHEN CHANNEL

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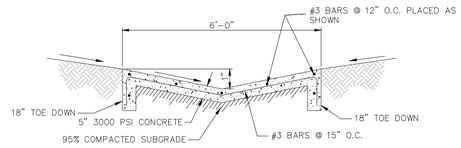
STA 32+09.86 TO STA 34+00.00



DETAIL "C-C" EARTHEN CHANNEL

N.T.S.

STA 34+00.00 TO STA 36+32.73



NOTES:
GROOVE CONTRACTION JOINTS SHALL BE SPACED 10 FT. ON CENTERS, WITH 1/2" ELASTOMERIC EXPANSION JOINTS AT EVERY 50 FT.

CONCRETE PILOT CHANNEL

NOT TO SCALE

NOTES:

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PLAT NO. 23-11800219

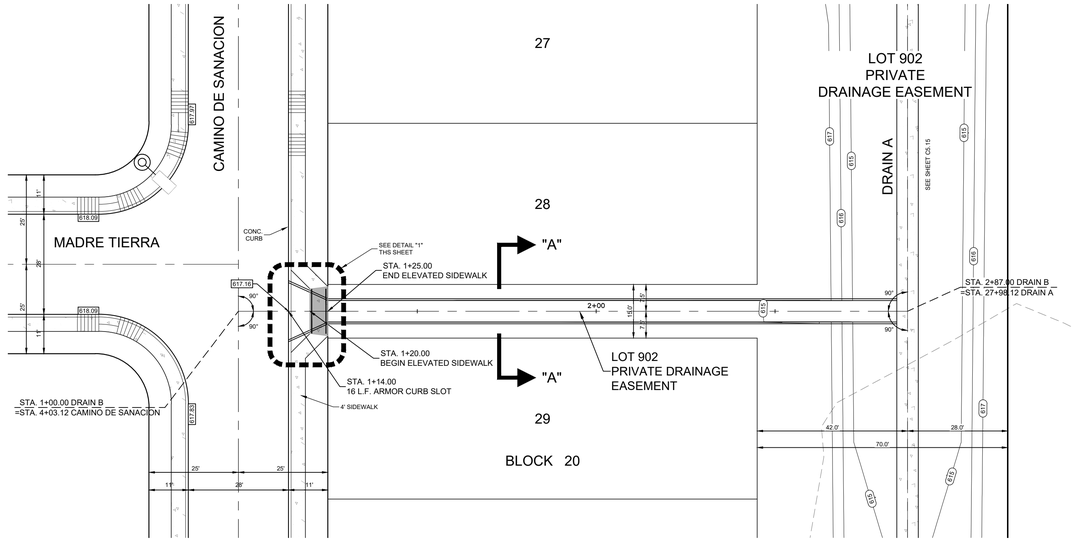
DRAIN A PLAN & PROFILE

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

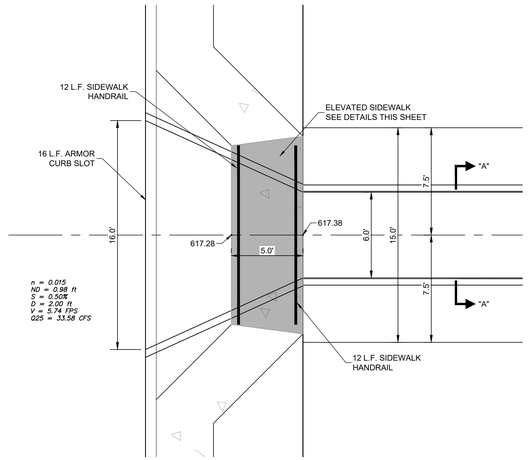
SHEET
C5.16

Date: Dec 11, 2023, 8:58am User ID: #Stamhat
File: c:_Projects\272 - Watson (Tom Gray)\272.05 - TIERRA LINDA PHASE 1\CAD\Sheets\C5.14-C5.16-DRAIN A.dwg



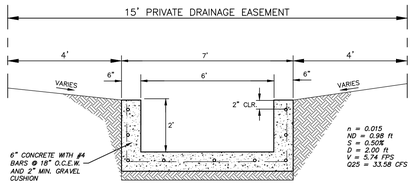
0 25' 50' 100'

SCALE: 1" = 50'



DETAIL "1"

N.T.S.



SECTION "A-A" CONCRETE 'U' CHANNEL

N.T.S.

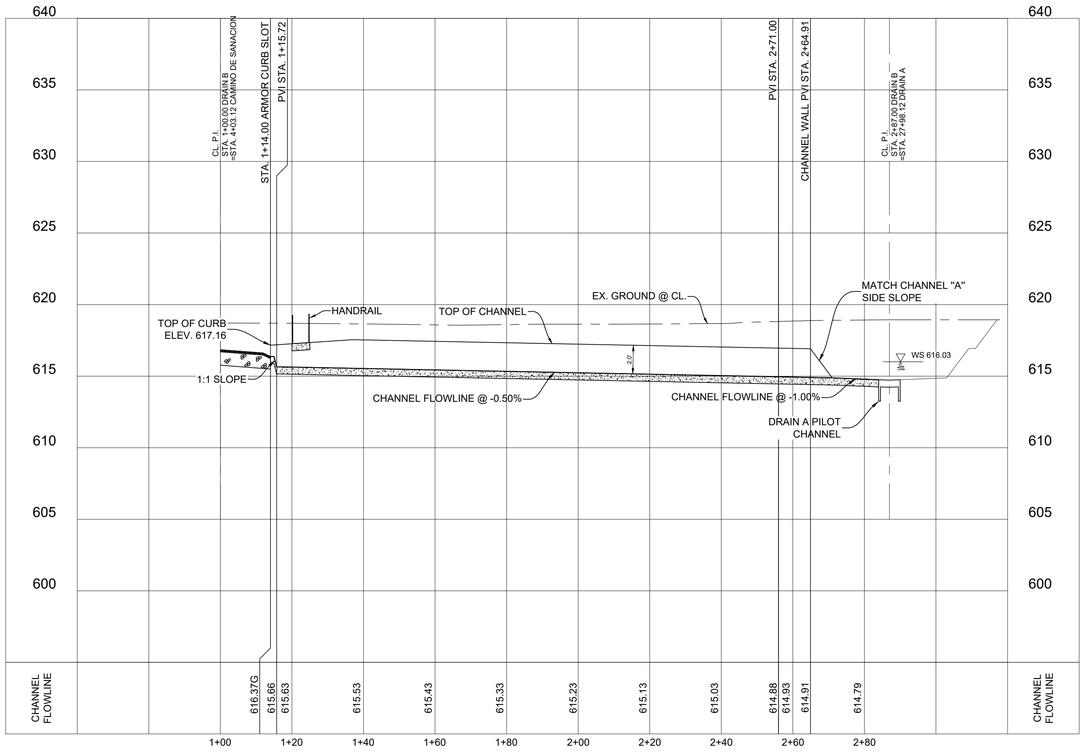
**ALL CONCRETE LINING SHALL DEVELOP A MINIMUM COMPRESSIVE STRENTH OF 3,000 PSI IN 28 DAYS*

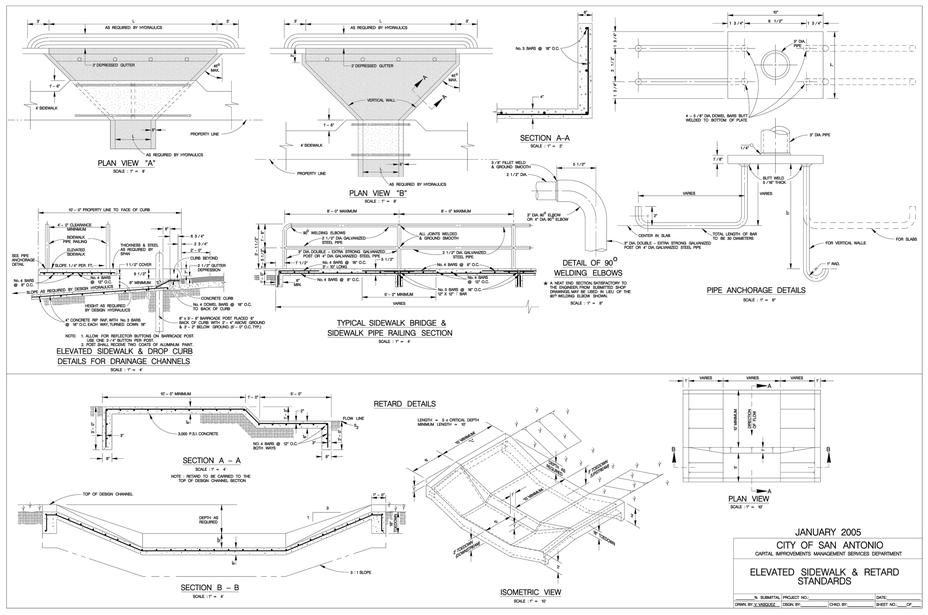
NOTES:

1. IMPROVED EARTHEN CHANNELS AND DETENTION PONDS SHALL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL OR POND SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE FINAL ACCEPTANCE.
2. ALL ITEMS ARE TO BE FURNISHED & INSTALLED BY CONTRACTOR. REFERENCE CONSTRUCTION DETAILS SHEETS FOR ADDITIONAL INFORMATION.
3. ALL STORM DRAINAGE PIPE WITHIN PUBLIC ROW SHALL BE MIN RCP (REINFORCED CONCRETE PIPE)
4. REFERENCE CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.
5. CONCRETE SHALL BE A MINIMUM OF 3000 PSI IN 28 DAYS WITH #4 BARS @ 12" O.C.E.W. UNLESS OTHERWISE SPECIFIED.
6. CONTRACTOR SHALL GROUT TO DRAIN AT ALL CURB INLETS AND JUNCTION BOXES. REFERENCE CONCRETE COLLAR DETAIL SHEET C603.

DRAIN "B"

STA. 1+00.00 TO STA. 2+87.00





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TBPELS F-10194608

11/10/23

STATE OF TEXAS — RYAN R. PLAGENS — 111640 — LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

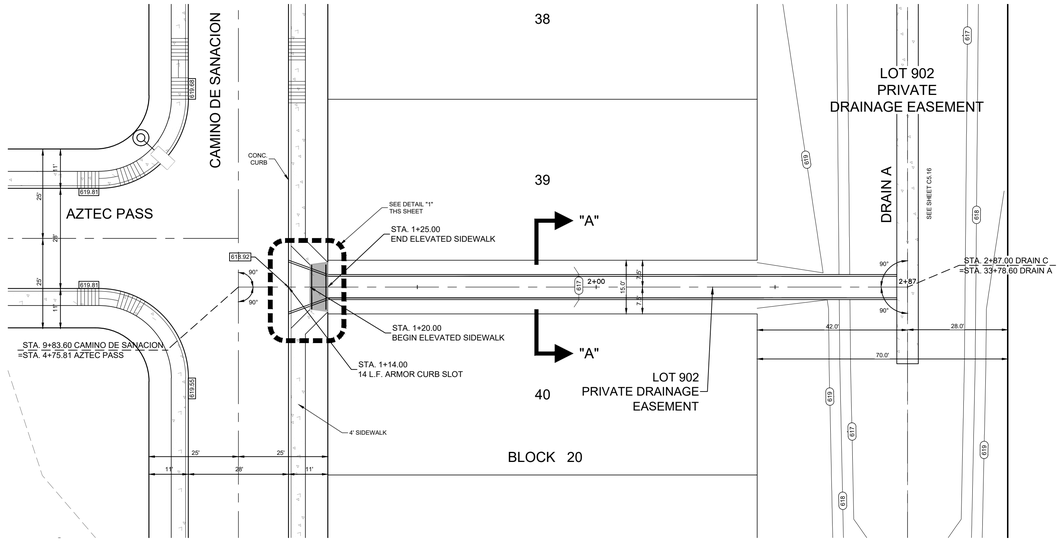
DRAIN B PLAN & PROFILE

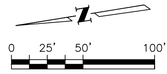
REV	DATE	DESCRIPTION	BY

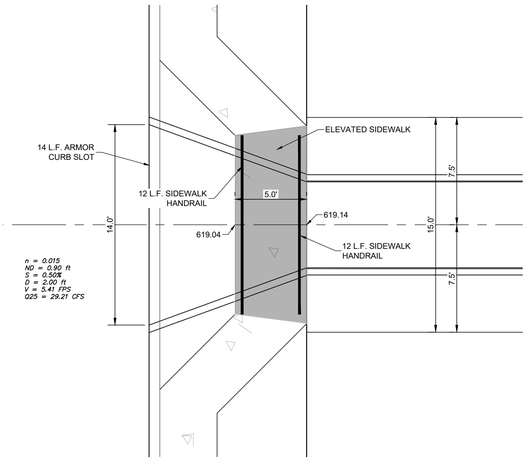
DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C5.17

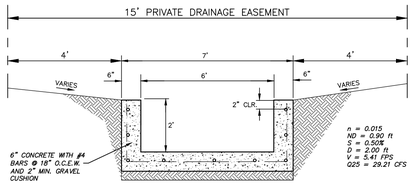
Date: Nov 10, 2023, 8:20am User ID: rgp
File: U:_Projects\272 – Watson (Tom Grey)\272.05 – TIERRA LINDA PHASE 1\ACAD\Sheets\C5.17–DRAIN B.dwg







DETAIL "1"
N.T.S.



SECTION "A-A" CONCRETE 'U' CHANNEL
N.T.S.

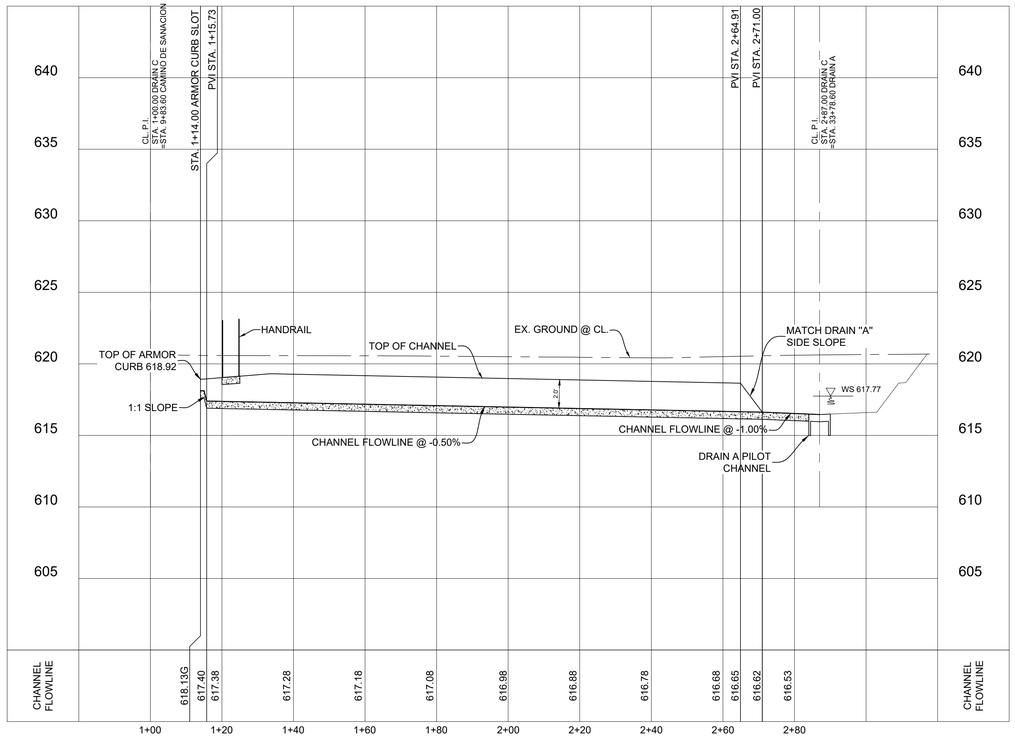
**ALL CONCRETE LINING SHALL DEVELOP A MINIMUM COMPRESSIVE STRENTH OF 3,000 PSI IN 28 DAYS*

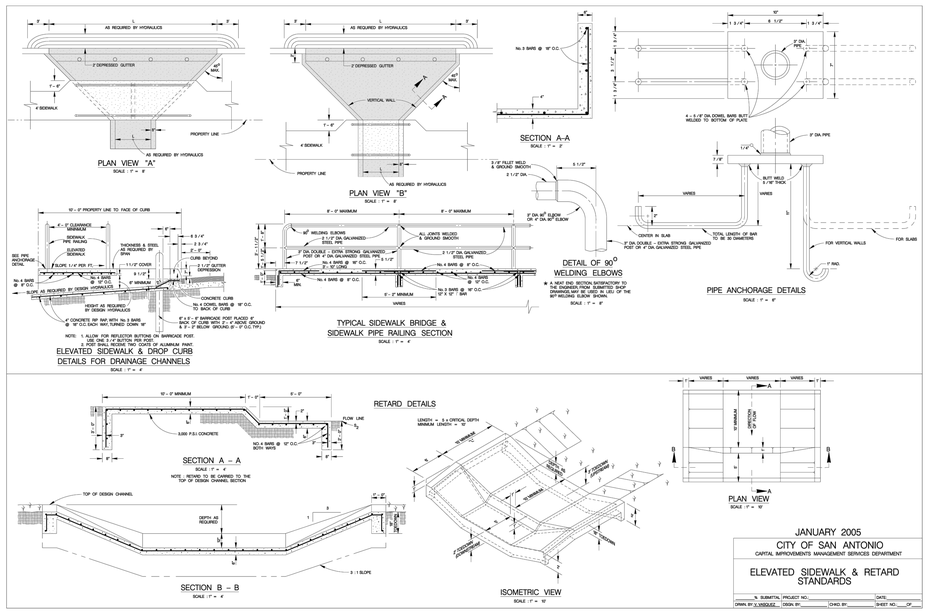
DRAIN "C"

STA. 1+00.00 TO STA. 2+87.00

NOTES:

1. IMPROVED EARTHEN CHANNELS AND DETENTION PONDS SHALL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL OR POND SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE FINAL ACCEPTANCE.
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4. REFERENCE CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.
5. CONCRETE SHALL BE A MINIMUM OF 3000 PSI IN 28 DAYS WITH #4 BARS @ 12" O.C.E.W. UNLESS OTHERWISE SPECIFIED.
6. CONTRACTOR SHALL GROUT TO DRAIN AT ALL CURB INLETS AND JUNCTION BOXES. REFERENCE CONCRETE COLLAR DETAIL SHEET C603.





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11/10/23

STATE OF TEXAS — RYAN R. PLAGENS — 111640 — LICENSED PROFESSIONAL ENGINEER

SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE.
300, BOX 9
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TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

DRAIN C PLAN & PROFILE

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C5.18

Date: Nov 10, 2023, 8:20am User ID: rplagens
File: U:_Projects\272 – Watson (Tom Gray)\272.05 – TIERRA LINDA PHASE 1\ACAD\Sheets\C5.18–DRAIN C.dwg

Tierra Linde Phase 1 Atlas14 Existing Time of Concentration Table PA_4

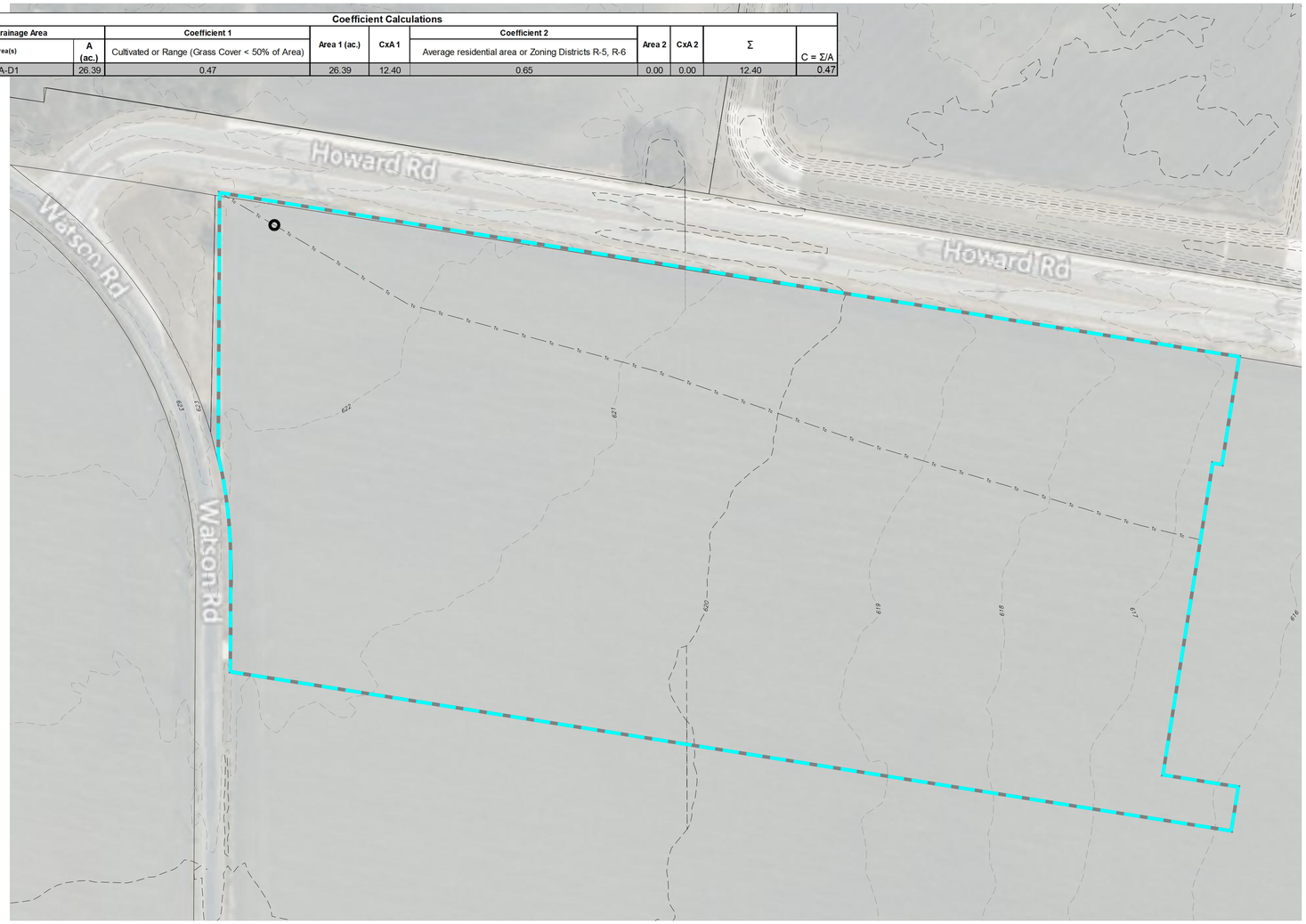
Drainage Basin(s)/ Analysis Points	Sheet Flow (max length = 150')					Sheet Flow (max length = 150')					Shallow Concentrated Flow 1					Shallow Concentrated Flow 2					Channel Flow				Total
	n	L_t (ft)	P_2 (in)	S_t%	T_t (min)	n	L_t (ft)	P_2 (in)	S_t%	T_t (min)	Paved/ Unpaved	L_{sc} (ft)	S_{sc}%	k	T_{sc} (min)	Paved/ Unpaved	L_{sc} (ft)	S_{sc}%	k	T_{sc} (min)	L (ft)	V (ft/sec)	T_{ch} (min)	T_c (min)
DA-D1	0.24	100	3.91	1.0	17.0	-	-	-	-	-	Unpaved	1542	0.4	16.13	26.1	Paved	-	-	-	-	-	-	-	**43.1**

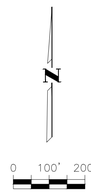
Tierra Linde Phase 1 Atlas14 Existing Q Flow Table PA_4

Drainage Area		Coefficient	Intensity			Q FLOW		
Area(s)	A (ac.)	C	I5 (in/hr)	I_{25} (In/hr)	I_{100} (in/hr)	Q5 (ft^3/s)	Q_{25} (ft^3/s)	Q_{100} (ft^3/s)
DA-D1	26.39	0.47	3.02	4.15	5.15	**37.44**	**51.42**	**63.86**

Coefficient Calculations

Drainage Area		Coefficient 1			Coefficient 2				
Area(s)	A (ac.)	Cultivated or Range (Grass Cover < 50% of Area)	Area 1 (ac.)	CxA 1	Average residential area or Zoning Districts R-5, R-6	Area 2	CxA 2	Σ	C = Σ/A
DA-D1	26.39	0.47	26.39	12.40	0.65	0.00	0.00	12.40	0.47





DRAINAGE AREA BOUNDARY

Tc — TIME OF CONCENTRATION FLOW LINE

FLOW TYPE CHANGE LOCATION

920 — EXIST. 1' CONTOUR

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300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

EXISTING DRAINAGE AREA MAP

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C5.19

Date: Nov 10, 2023, 8:21am User ID: rgill
File: U:_Projects\272 - Watson (Van Dyke)\272.05 - TIERRA LINDA PHASE 1\ACAD\Sheets\DRAINAGE AREA MAPS.dwg

Project	Tierra Linde Phase 1
Conditions	Proposed
Date	11/2/2023
Precipitaion Area	PA_4

Tierra Linde Phase 1 Atlas14 Proposed Time of Concentration Table PA_4

Drainage Basin(s)/ Analysis Points	Sheet Flow (max length = 150')					Sheet Flow (max length = 150')					Shallow Concentrated Flow 1					Shallow Concentrated Flow 2					Channel Flow			Total
	n	L_t (ft)	P_2 (in)	S_t%	T_t (min)	n	L_t (ft)	P_2 (in)	S_t%	T_t (min)	Paved/ Unpaved	L_{sc} (ft)	S_{sc}%	k	T_{sc} (min)	Paved/ Unpaved	L_{sc} (ft)	S_{sc}%	k	T_{sc} (min)	L (ft)	V (ft/sec)	T_{ch} (min)	T_c (min)
1 (DA-S1 AND DA-S2)	0.41	100	3.91	2.1	19.4	-	-	-	-	-	Unpaved	0	2.0	16.13	0.0	Paved	587	0.5	20.32	6.8	72	4	0.3	**26.5**
2 (DA-S3, DA-S4, AND DA-S5)	0.41	100	3.91	1.4	20.0	-	-	-	-	-	Unpaved	0	2.0	16.13	0.0	Paved	587	0.5	20.32	6.8	79	4	0.3	**27.1**
DA-S1	0.41	100	3.91	2.1	19.4	-	-	-	-	-	Unpaved	0	2.0	16.13	0.0	Paved	587	0.5	20.32	6.8	72	4	0.3	**26.5**
DA-S2	0.41	100	3.91	2.0	19.8	-	-	-	-	-	Unpaved	0	2.0	16.13	0.0	Paved	342	0.5	20.32	4.0	60.5	4	0.3	**24.0**
DA-S3	0.41	100	3.91	2.0	19.8	-	-	-	-	-	Unpaved	0	2.0	16.13	0.0	Paved	621	0.5	20.32	7.2	79	4	0.3	**27.3**
DA-S4	0.41	100	3.91	2.0	19.8	-	-	-	-	-	Unpaved	0	2.0	16.13	0.0	Paved	330	0.5	20.32	3.8	0	4	0.0	**23.6**
DA-S5	0.41	100	3.91	1.4	20.0	-	-	-	-	-	Unpaved	0	2.0	16.13	0.0	Paved	587	0.5	20.32	6.8	75	4	0.3	**27.1**
DA-O1	0.24	100	3.91	2.0	12.9	-	-	-	-	-	Unpaved	22	4.0	16.13	0.1	Paved	-	-	-	-	-	-	-	**13.0**
DA-O2	0.24	100	3.91	3.0	11.0	-	-	-	-	-	Unpaved	73	2.0	16.13	0.5	Paved	-	-	-	-	-	-	-	**11.5**
DA-O3	0.24	100	3.91	4.0	9.8	-	-	-	-	-	Unpaved	73	2.0	16.13	0.5	Paved	-	-	-	-	-	-	-	**10.3**
DA-C1	0.24	98	3.91	4.0	9.6	-	-	-	-	-	Unpaved	73	2.0	16.13	0.5	Paved	-	-	-	-	1344	4	5.6	**15.8**
Analysis Point 3	0.24	100	3.91	2.1	12.7	-	-	-	-	-	Unpaved	0	2.0	16.13	0.0	Paved	511.5	0.5	20.32	5.9	1315	4	5.5	**24.1**
	$T_t=\frac{0.007(nL_t)^{0.8}}{(P_2)^{0.5}S_t^{0.4}}$					$T_t=\frac{0.007(nL_t)^{0.8}}{(P_2)^{0.5}S_t^{0.4}}$					$T_{sc}=\frac{L_{sc}}{3600KS_{sc}^{0.5}}$										$T_{ch}=\frac{L_{ch}}{3600*V}$			$T_t+T_{sc}+T_{ch}$

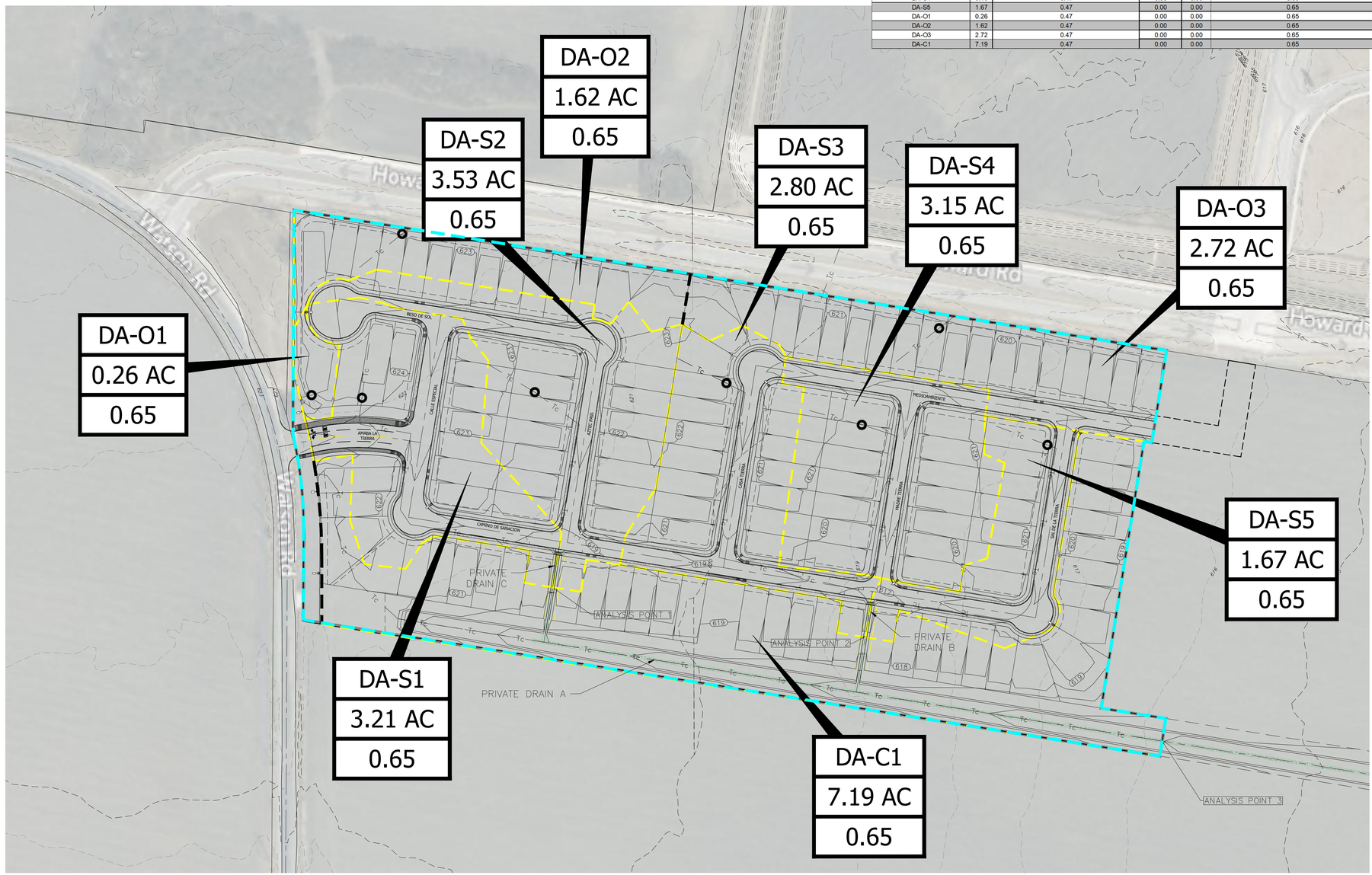
Tierra Linde Phase 1 Atlas14 Proposed Q Flow Table PA_4

Drainage Area		Coefficient	Intensity			Q FLOW		
Area(s)	A (ac.)	C	I5 (in/hr)	I_{25} (In/hr)	I_{100} (in/hr)	Q5 (ft^3/s)	Q_{25} (ft^3/s)	Q_{100} (ft^3/s)
1 (DA-S1 AND DA-S2)	6.74	0.65	3.92	5.37	6.66	**17.16**	**23.51**	**29.17**
2 (DA-S3, DA-S4, AND DA-S5)	7.62	0.65	3.87	5.31	6.58	**19.18**	**26.28**	**32.60**
DA-S1	3.21	0.65	3.92	5.37	6.66	**8.17**	**11.20**	**13.89**
DA-S2	3.53	0.65	4.12	5.65	7.01	**9.44**	**12.95**	**16.08**
DA-S3	2.80	0.65	3.86	5.29	6.56	**7.02**	**9.62**	**11.93**
DA-S4	3.15	0.65	4.15	5.69	7.07	**8.50**	**11.66**	**14.47**
DA-S5	1.67	0.65	3.87	5.31	6.58	**4.21**	**5.76**	**7.15**
DA-O1	0.26	0.65	5.61	7.81	9.75	**0.95**	**1.32**	**1.65**
DA-O2	1.62	0.65	5.91	8.27	10.33	**6.22**	**8.71**	**10.88**
DA-O3	2.72	0.65	6.17	8.66	10.82	**10.91**	**15.30**	**19.13**
DA-C1	7.19	0.65	5.11	7.05	8.78	**23.86**	**32.94**	**41.05**
Analysis Point 3	21.55	0.65	4.11	5.64	7.00	**57.61**	**79.01**	**98.06**

Q = CIA

Coefficient Calculations

Drainage Area		Coefficient 1	Area 1 (ac.)	CxA 1	Coefficient 2	Area 2	CxA 2	Σ	C = Σ/A
Area(s)	A (ac.)	Cultivated or Range (Grass Cover < 50% of Area)			Average residential area or Zoning Districts R-5, R-6				
DA-S1	3.21	0.47	0.00	0.00	0.65	3.21	2.09	2.09	0.65
DA-S2	3.53	0.47	0.00	0.00	0.65	3.53	2.29	2.29	0.65
DA-S3	2.80	0.47	0.00	0.00	0.65	2.80	1.82	1.82	0.65
DA-S4	3.15	0.47	0.00	0.00	0.65	3.15	2.05	2.05	0.65
DA-S5	1.67	0.47	0.00	0.00	0.65	1.67	1.09	1.09	0.65
DA-O1	0.26	0.47	0.00	0.00	0.65	0.26	0.17	0.17	0.65
DA-O2	1.62	0.47	0.00	0.00	0.65	1.62	1.05	1.05	0.65
DA-O3	2.72	0.47	0.00	0.00	0.65	2.72	1.77	1.77	0.65
DA-C1	7.19	0.47	0.00	0.00	0.65	7.19	4.67	4.67	0.65



DRAINAGE AREA BOUNDARIES

TIME OF CONCENTRATION FLOW LINE

FLOW TYPE CHANGE LOCATION

EXIST. 1' CONTOUR

PROP. 5' CONTOUR

PROP. 1' CONTOUR

0 100' 200'

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300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

PROPOSED DRAINAGE AREA MAP

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C5.20

Date: Nov 10, 2023, 9:21am User ID: rgp
File: U:_Projects\272 - Watson (Tom Gray)\272.05 - TIERRA LINDA PHASE 1\ACAD\Sheets\DRAINAGE AREA MAPS.dwg

T_C Calculations - ON-SITE

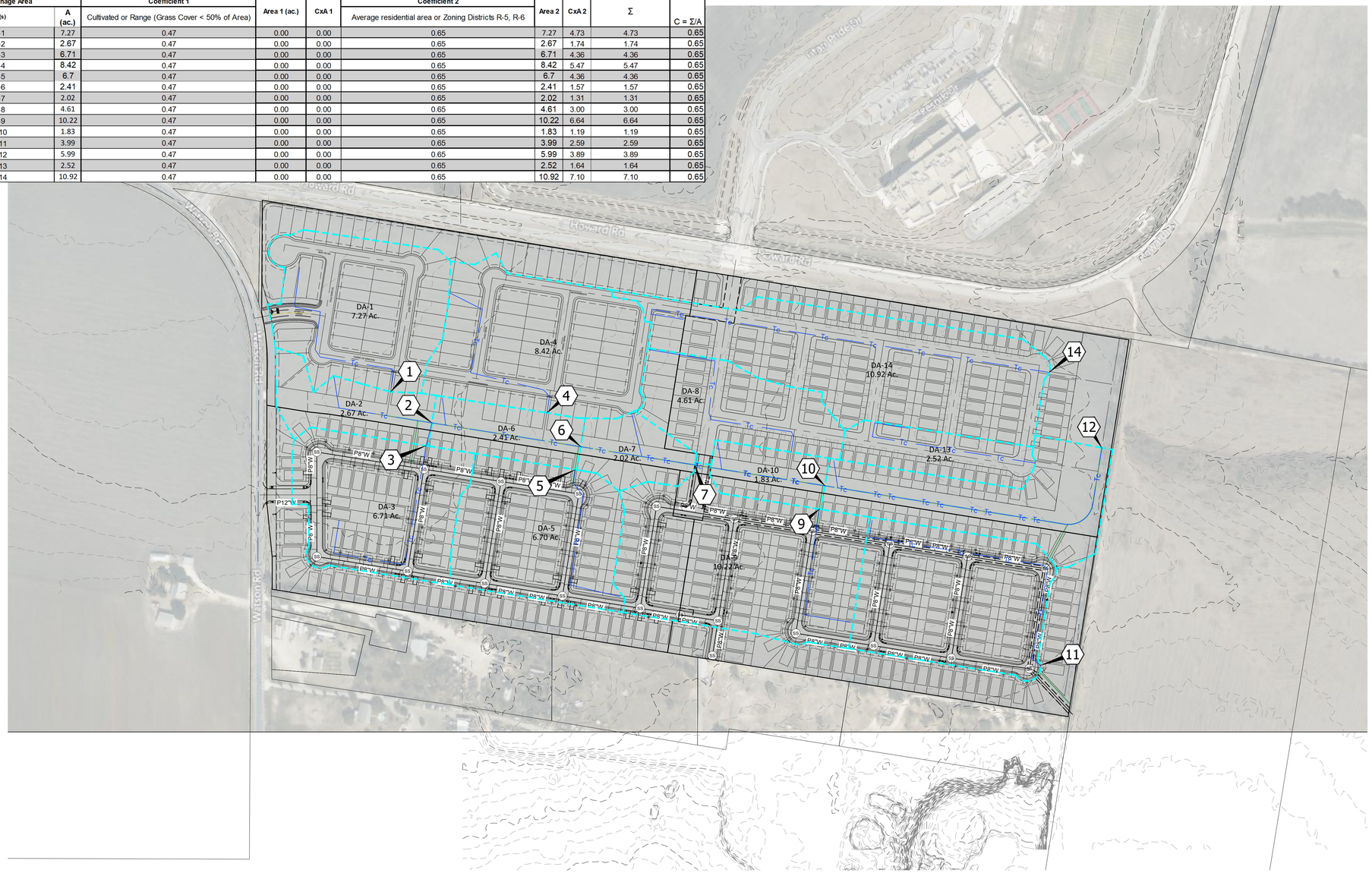
		POINT	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE	ULTIMATE
		AREAS	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE	SITE
		CALLOUT	DA-1	DA-2	2	DA-3	DA-4	DA-5	DA-6	6	DA-7	7	DA-8	DA-9	DA-10	10	DA-11	DA-12	12	DA-13	DA-14		
Time of Concentration	Variable	Units																					
Overland (1st Area) Sheet Flow which is usually 300 ft in length, developed 150ft	L	ft	100	98	100	100	100	100	100	100	100	100	100	100	56	100	63	56	100	100	100		
	n		0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410		
	s	ft/ft	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020		
	T_c	min	19.81	19.50	19.81	19.81	19.81	19.81	19.81	19.81	19.81	19.81	19.81	19.81	12.46	19.81	13.69	12.46	19.81	19.81	19.81		
	T_c	hr	0.33	0.32	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.21	0.33	0.23	0.21	0.33	0.33	0.33		
Concentrated (Unpaved) braided creek	L	ft	0	0	0	0	253	244		0	0	0	147	70		0			0				
	s	ft/ft	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005		0.005			0.005				
	T_t	min					3.70	3.57					2.15	1.02									
	T_t	hr					0.06	0.06					0.04	0.02									
Concentrated (Paved) Gutter, Inlet, roadway	L	ft	587	0	650	650	562	392	0	650	0	650	536	333		650	1005		650	685	1521		
	s	ft/ft	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005		0.005	0.005		0.005	0.005	0.005		
	T_t	min	6.81		7.54	7.54	6.51	4.55		7.54		7.54	6.22	3.86		7.54	11.66		7.54	7.95	17.64		
	T_t	hr	0.11		0.13	0.13	0.11	0.08		0.13		0.13	0.10	0.06		0.13	0.19		0.13	0.13	0.29		
Channel (stream/creekPipe, River) standard 6fps	L	ft		364	148	62		49	503	702	256	1128	59	60	429	1613		1241	2858				
	V	ft/sec		3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5				
	T_t	min		1.73	0.70	0.30		0.23	2.40	3.34	1.22	5.37	0.28	0.29	2.04	7.68		5.91	13.61				
	T_t	hr		0.03	0.01	0.00		0.00	0.04	0.06	0.02	0.09	0.00	0.00	0.03	0.13		0.10	0.23				
Total Time of Concentration	**Tc**	**min**	**26.6**	**21.2**	**28.1**	**27.6**	**30.0**	**28.2**	**22.2**	**30.7**	**21.0**	**32.7**	**28.5**	**25.0**	**14.5**	**35.0**	**25.3**	**18.4**	**41.0**	**27.8**	**37.5**		
	Tc	**hr**	**0.44**	**0.35**	**0.47**	**0.46**	**0.50**	**0.47**	**0.37**	**0.51**	**0.35**	**0.55**	**0.47**	**0.42**	**0.24**	**0.58**	**0.42**	**0.31**	**0.68**	**0.46**	**0.62**		

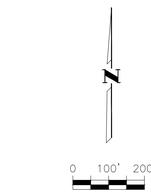
Ultimate Runoff Flow Rates

Ref Point	Drainage Areas	C	Drainage Area (ac)	Tc (min)	I_5 (in/hr)	I_{25} (in/hr)	I_{100} (in/hr)	Q_5 (cfs)	Q_{25} (cfs)	Q_{100} (cfs)
1	DA-1	0.65	7.27	26.6	3.91	5.36	6.65	18.48	25.32	31.42
	DA-2	0.65	2.67	21.2	4.38	6.02	7.48	7.60	10.44	12.98
2	DA-1, DA-2, and DA-3	0.65	16.65	28.1	3.81	5.21	6.47	41.19	56.44	70.05
3	DA-3	0.65	6.71	27.6	3.83	5.26	6.52	16.72	22.92	28.45
4	DA-4	0.65	8.42	30.0	3.68	5.04	6.25	20.13	27.57	34.19
5	DA-5	0.65	6.70	28.2	3.80	5.21	6.46	16.54	22.67	28.14
	DA-6	0.65	2.41	22.2	4.28	5.88	7.30	6.71	9.21	11.44
6	DA-1, DA-2, DA-3, DA-4, DA-5, and DA-6	0.65	34.18	30.7	3.64	4.98	6.17	80.83	110.74	137.15
	DA-7	0.65	2.02	30.7	3.64	4.98	6.17	4.78	6.54	8.11
7	DA-1, DA-2, DA-3, DA-4, DA-5, DA-6, and DA-7	0.65	36.20	32.7	3.52	4.82	5.97	82.74	113.40	140.59
8	DA-8	0.65	4.61	28.5	3.78	5.18	6.42	11.32	15.52	19.25
9	DA-9	0.65	10.22	25.0	4.04	5.53	6.86	26.85	36.75	45.59
	DA-10	0.65	1.83	14.5	5.33	7.38	9.21	6.34	8.78	10.95
10	DA-1, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9, and DA-10	0.65	52.86	35.0	3.39	4.65	5.77	116.42	159.69	198.14
11	DA-11	0.65	3.99	25.3	4.01	5.49	6.81	10.41	14.24	17.67
	DA-12	0.65	5.99	18.4	4.71	6.49	8.07	18.35	25.27	31.44
12	DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9, DA-10, DA-11, DA-12, and	0.65	65.36	41.0	3.11	4.27	5.30	132.19	181.50	225.27
13	DA-13	0.65	2.52	27.8	3.83	5.24	6.51	6.27	8.59	10.66
14	DA-14	0.65	10.92	37.5	3.27	4.48	5.56	23.22	31.82	39.49

Coefficient Calculations

Drainage Area		Coefficient 1			Coefficient 2				
Area(s)	A (ac.)	Cultivated or Range (Grass Cover < 50% of Area)	Area 1 (ac.)	CxA 1	Average residential area or Zoning Districts R-5, R-6	Area 2	CxA 2	Σ	C = Σ/A
DA-1	7.27	0.47	0.00	0.00	0.65	7.27	4.73	4.73	0.65
DA-2	2.67	0.47	0.00	0.00	0.65	2.67	1.74	1.74	0.65
DA-3	6.71	0.47	0.00	0.00	0.65	6.71	4.36	4.36	0.65
DA-4	8.42	0.47	0.00	0.00	0.65	8.42	5.47	5.47	0.65
DA-5	6.7	0.47	0.00	0.00	0.65	6.7	4.36	4.36	0.65
DA-6	2.41	0.47	0.00	0.00	0.65	2.41	1.57	1.57	0.65
DA-7	2.02	0.47	0.00	0.00	0.65	2.02	1.31	1.31	0.65
DA-8	4.61	0.47	0.00	0.00	0.65	4.61	3.00	3.00	0.65
DA-9	10.22	0.47	0.00	0.00	0.65	10.22	6.64	6.64	0.65
DA-10	1.83	0.47	0.00	0.00	0.65	1.83	1.19	1.19	0.65
DA-11	3.99	0.47	0.00	0.00	0.65	3.99	2.59	2.59	0.65
DA-12	5.99	0.47	0.00	0.00	0.65	5.99	3.89	3.89	0.65
DA-13	2.52	0.47	0.00	0.00	0.65	2.52	1.64	1.64	0.65
DA-14	10.92	0.47	0.00	0.00	0.65	10.92	7.10	7.10	0.65





DRAINAGE AREA BOUNDARIES

Tc — TIME OF CONCENTRATION FLOW LINE

FLOW TYPE CHANGE LOCATION

920 — EXIST. 1' CONTOUR

PROP. 5' CONTOUR

PROP. 1' CONTOUR

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SAN ANTONIO LD, LLC
4048 NORTH COLLEGE STE. 300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

ULTIMATE DRAINAGE AREA MAP

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C5.21

Date: Nov 10, 2023, 8:21am User ID: rgm
File: U:_Projects\1272 - Watson (Van Gimp)\1272.05 - TIERRA LINDA PHASE 1\CAD\Sheets\DRAINAGE AREA MAPS.dwg



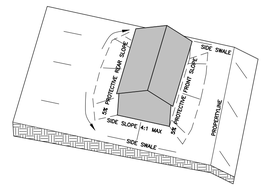
0 25' 50' 100'

SCALE: 1" = 50'

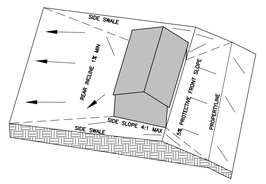
LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- EXIST. GRADE ELEVATIONS
- (102) PROP. GRADE ELEVATIONS

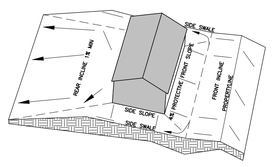
A	DRAINS TO FRONT
B	DRAINS TO FRONT & TO REAR
C	DRAINS TO REAR
(622.78)	LOT PAD ELEVATION
622.69	PROPOSED FINISHED ELEVATION
621.07E	EXISTING GROUND ELEVATION
E.G.T.C.	ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT



TYPE 'A' LOT GRADING



TYPE 'B' LOT GRADING



TYPE 'C' LOT GRADING

NOTE:
RESIDENTIAL FINISHED FLOOR ELEVATIONS MUST BE A MINIMUM OF EIGHT (8) INCHES ABOVE FINAL ADJACENT GRADE.

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1/5/24

STATE OF TEXAS
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111640
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300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

GRADING PLAN

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C6.0

Date: Jan 04, 2024, 4:43pm User ID: J.Espinoza
File: G:\...\Projects\22 - Watson (Von Ormy)\22.03 - TIERRA LINDA PHASE 1\CAD\Sheets\C6.0-C6.1-GRADING PLAN.dwg

NOTE:
RESIDENTIAL FINISHED FLOOR ELEVATIONS MUST BE A MINIMUM OF EIGHT (8) INCHES ABOVE FINAL ADJACENT GRADE.

0 25' 50' 100'
SCALE: 1" = 50'

LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- 102 EXIST. GRADE ELEVATIONS
- (102) PROP. GRADE ELEVATIONS
- A DRAINS TO FRONT
- B DRAINS TO FRONT & TO REAR
- C DRAINS TO REAR
- (622.78) LOT PAD ELEVATION
- 622.69 PROPOSED FINISHED ELEVATION
- 621.07E EXISTING GROUND ELEVATION
- E.G.T.C. ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT

SW VERANO PARKWAY
(VARIABLE WIDTH R.O.W.)

1' VECHICULAR NON-ACCESS EASEMENT

14' E.G.T.C. EASEMENT

BLOCK 21

10' E.G.T.C. EASEMENT

MEDIOAMBIENTE
(50' ROW)

OFF-LOT 50' DRAINAGE, WATER, SANITARY SEWER AND INGRESS/EGRESS EASEMENT TO EXPIRE UPON INCORPORATION INTO PLATTED STREET R.O.W. (PERMEABLE) (0.0574 ACRES)

MATCH LINE A - SEE SHEET C6.0

BLOCK 21

CASA TIERRA
(50' ROW)

BLOCK 27

MADRE TIERRA
(50' ROW)

BLOCK 28

SAL DE LA TIERRA
(50' ROW)

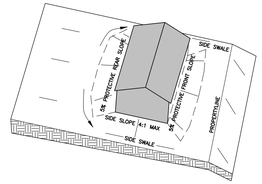
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CAMINO DE SANACION
(50' ROW)

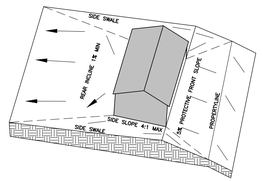
BLOCK 20

TIERRA LINDA PHASE 1
SUBDIVISION
CONCURRENT PLAT
PLAT NO. 22-11800812

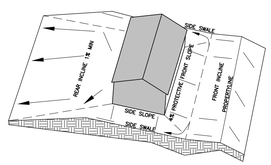
UNPLATTED
THE REMAINING PORTION
OF 50.131 ACRE TRACT
EUNICE L. VERSTUYFT
DOC. #20210104536,
O.P.R.



TYPE 'A' LOT GRADING



TYPE 'B' LOT GRADING



TYPE 'C' LOT GRADING

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1/5/24

STATE OF TEXAS · RYAN R. PLAGENS · 111640 · LICENSED PROFESSIONAL ENGINEER

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4048 NORTH COLLEGE STE.
300, BOX 9
FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

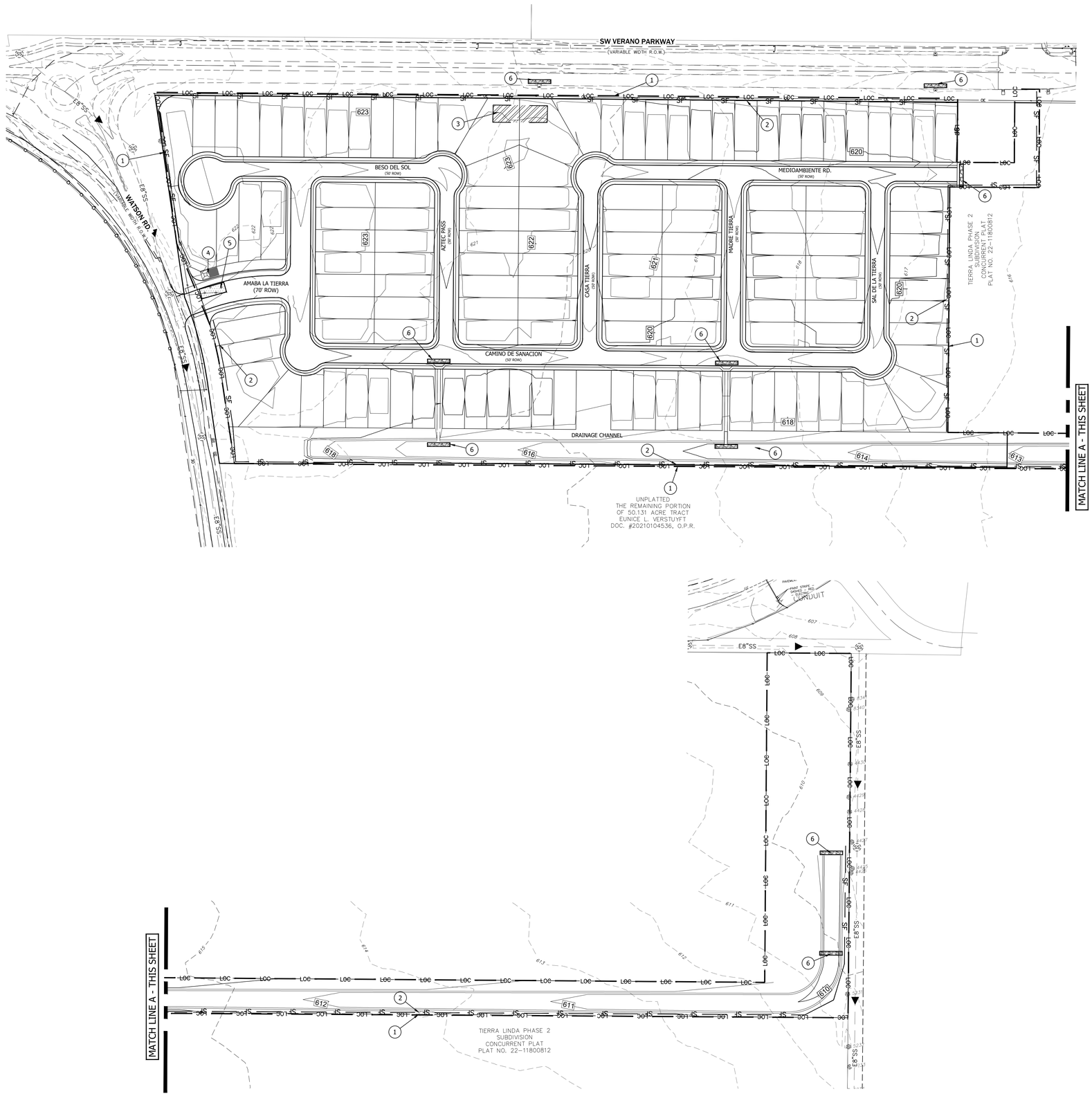
GRADING PLAN

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C6.1

Date: Jan 04, 2024, 4:43pm User ID: LJ Barrones
File: U:_Projects\272 - Watson (Toll Only)\272.05 - TIERRA LINDA PHASE 1\ACAD\Sheets\C6.0-C6.1-GRADING PLAN.dwg



0 50' 100' 200'

SCALE: 1" = 100'

LEGEND

- BOUNDARY / RIGHT OF WAY
- XXXX EXIST. GRADE ELEVATIONS
- SF SF TEMPORARY SILT FENCE
- LOC LOC LIMITS OF CONSTRUCTION / DISTURBANCE
- LIMITS OF TEMPORARY PARKING, STORAGE, SPOILS, AND STAGING AREA.
- STABILIZED CONSTRUCTION ENTRANCE
- ROCK FILTER DAM
- CONCRETE WASHOUT

EROSION CONTROL MEASURES	
1	LIMITS OF CONSTRUCTION
2	INSTALL SILT FENCE (2' FROM PROPERTY LINE, REFERENCE SHEET C7.1)
3	STAGING AREA
4	CONCRETE WASHOUT PIT (REFERENCE SHEET C7.1)
5	STABILIZED CONSTRUCTION ENTRANCE (REFERENCE SHEET C7.1)
6	ROCK FILTER DAM (REFERENCE SHEET C7.1)

NOTES:

1. FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION LINE WILL BE PERMITTED (SEE NOTE #6).
2. INSPECTOR HAS THE AUTHORITY TO ADD AND OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH CITY RULES AND REGULATIONS.
3. THE CONTRACTOR MAY NOT BLOCK, DIRECT, IMPEDE, OR REROUTE PEDESTRIAN AND VEHICULAR TRAFFIC, NOR PLACE A BARRICADE OR OTHER TRAFFIC CONTROL DEVICE IN A RIGHT-OF-WAY, WITHOUT FIRST OBTAINING A TEMPORARY USE OF RIGHT-OF-WAY PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS THAT ARE REQUIRED TO COMPLY WITH THE CITY CODE REGARDING EXCAVATION IN PUBLIC RIGHT-OF-WAY.
5. CONTRACTOR SHALL CLEAN UP SPOILS THAT MIGRATE INTO EXISTING RIGHT-OF-WAY A MINIMUM OF ONCE PER DAY.
6. CONTRACTOR TO INSTALL CHAIN LINK FENCE AT ALL POINTS WHERE LIMITS OF CONSTRUCTION IS SHOWN.
7. ALL STORM WATER LEAVING THE SITE DURING CONSTRUCTION ACTIVITIES MUST PASS THROUGH THE SILT FENCE OR ROCK BERMS.
8. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING.
9. CONTRACTOR IS RESPONSIBLE FOR THE TIMELY REMOVAL OF TEMPORARY BMP'S ONCE CONSTRUCTION IS COMPLETE.
10. NO MORE THAN 10 ACRES SHALL BE DISTURBED AT ONCE UNLESS PROPER MEASURES ARE TAKEN TO MEET TCEQ NPDES REQUIREMENTS.
11. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND INSPECTION OF ALL BMPs. CONTRACTOR SHALL REFERENCE THE SWPPP BOOKLET AND RESPECTIVE NOI PERMIT FOR FURTHER DETAILS.

AREA DISTURBED (ACRES)	AREA UNDISTURBED (ACRES)	TOTAL AREA (ACRES)
31.70	0.00	31.70

SEQUENCE OF CONSTRUCTION ACTIVITIES

* INSTALLATION OF TEMPORARY BEST MANAGEMENT PRACTICES (28.95 ACRES)
* SITE CLEARING (31.70 ACRES)
* MASS GRADING (31.70 ACRES)
* FINAL SITE GRADING (31.70 ACRES)
* FINAL PAVING OF DRIVE LANES (3.33 ACRES)

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TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

STORM WATER POLLUTION PREVENTION PLAN

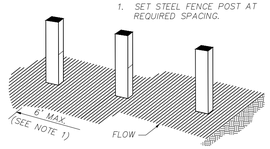
REV	DATE	DESCRIPTION	BY

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DRAFTED BY:
CHECKED BY:

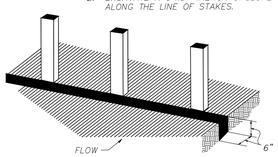
SHEET
C7.0

Date: Jan 04, 2024, 4:43pm User ID: LJ Ramones
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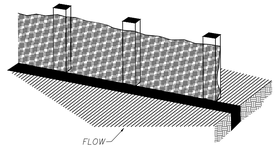
1. SET STEEL FENCE POST AT REQUIRED SPACING.



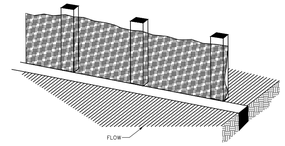
2. EXCAVATE A 6"x6" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



3. STAKE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.

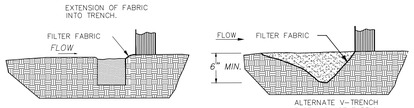


4. BACKFILL AND COMPACT THE EXCAVATED SOIL INTO TRENCH.

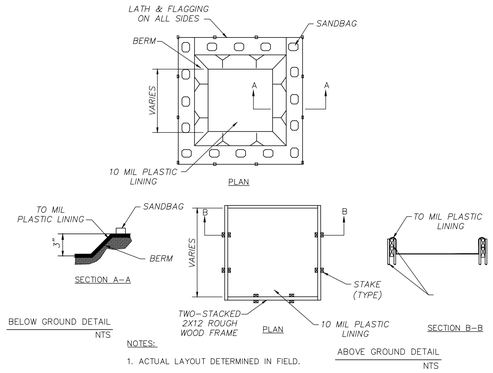


GENERAL NOTES:

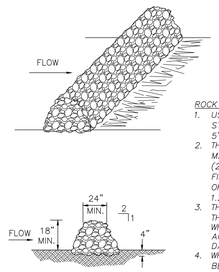
1. STEEL POSTS TO BE SET AT 3-FOOT MAXIMUM SPACING WITH MINIMUM EMBEDMENT OF 1-FOOT. IF FACTORY PREASSEMBLE FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAXIMUM.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 3 FEET AND SECURELY FASTENED WHEN ENDS OF FABRIC MEET.



1 SILT FENCE
N.T.S.



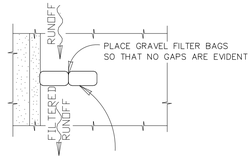
4 CONCRETE WASHOUT AREA



5 ROCK FILTER DAM
NTS

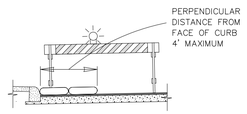
ROCK BERM NOTES:

1. USE ONLY OPEN GRADED ROCK 100 to 200 mm (4 to 8") DIAMETER FOR STREAM FLOW CONDITIONS. USE OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR OTHER CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE). ROCK BERMS IN CHANNEL APPLICATIONS SHALL BE ANCHORED FIRMLY INTO THE SUBSTRATE A MINIMUM OF 150 mm (6 ") WITH T-POSTS OR WITH 15M OR 20M (#5 OR #6) REBAR, WITH MAXIMUM SPACING APART OF 1.2 m (48") ON CENTER.
3. THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC COVER-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SILTATION PROBLEM.
5. DAILY INSPECTION SHALL BE MADE ON SEVERE-SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 150 mm (6").
6. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.



3 / 4" GRAVEL CONTAINED IN PERVIOUS BURLAP BAGS OR SYNTHETIC NET BAGS (1 / 8" MESH) APPROX. 24" LONG, 12" WIDE AND 6" HIGH

PLAN
SCALE : 1" = 5'

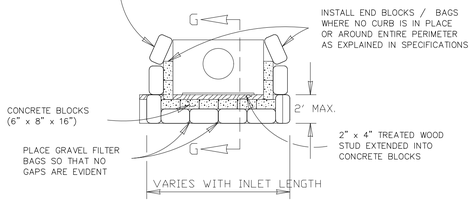


ELEVATION
SCALE : 1" = 5'

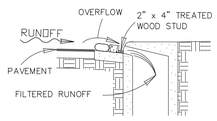
NOTE:
STRADDLE GRAVEL FILTER BAGS WITH TYPE 1 BARRICADES MOUNTED WITH TYPE "A" FLASHING WARNING LIGHT. SEE BARRICADE CONSTRUCTION SIGN DETAILS. PLACE FLASHING LIGHTS AWAY FROM GUTTER, FLUSH WITH OUTSIDE EDGE OF BAG CONFIGURATION.

GRAVEL FILTER BAGS

3 / 4" GRAVEL CONTAINED IN PERVIOUS SYNTHETIC NET BAGS (1 / 8" MESH) APPROX. 24" LONG, 12" WIDE AND 6" (I.E. BLOCK HEIGHT) HIGH.



PLAN
SCALE : 1" = 5'

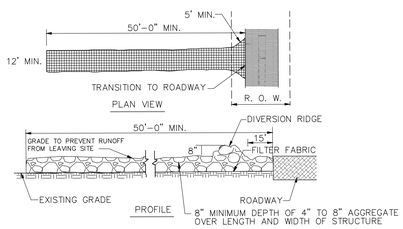


SECTION G-G
SCALE : 1" = 5'

NOTE:
GRAVEL FILTERS CAN BE USED ON PAVEMENT OR BARE GROUND.

CURB INLET GRAVEL FILTER

2 CURB INLET PROTECTION
N.T.S.



2 STABILIZED CONSTRUCTION EXIT
N.T.S.

SEDIMENTATION AND EROSION CONTROLS

A. DESIGN CRITERIA

(1) Fences are to be constructed along level contours.

(2) The ends of the fence shall be turned upstream to prevent bypass of stormwater.

(3) Steel posts which support the silt fence shall be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of one foot.

(4) The toe of the silt fence shall be trenched in with a spade or mechanical trencher, so that the downslope face of the trench is flat and perpendicular to the line of flow. Where fence cannot be trenched in (e.g. pavement), weight fabric flap with washed gravel on uphill side to prevent flow under fence.

(5) The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.

(6) Silt fence should be securely fastened to each steel support post or to woven wire. Which is in turn attached to the steel fence post. There shall be a 6" double overlap, securely fastened where ends of fabric meet.

(7) Inspection shall be made weekly or after each rainfall. Repair or replacement shall be made promptly as needed.

(8) Accumulated silt shall be removed when it reaches a depth of 6 inches. The silt shall be disposed of in an approved site and in such a manner as to not contribute to the additional siltation.

B. TEMPORARY DIVERSION DIKE

(1) Maximum depth of flow at the dike shall be 1 foot.

(2) Side slopes of the diversion dike shall be 3:1 or flatter.

(3) Minimum width of the embankment at the top shall be 2 feet.

(4) Minimum embankment height shall be 18 inches as measured from the toe of slope on the upgrade side of the berm.

(5) The dikes shall remain in place until all disturbed areas which are protected by the dike are permanently stabilized unless other controls are put into place to protect the site.

(6) Compacted earth dikes require stabilization immediately upon placement so as not to contribute to the problem they are addressing.

(7) All diversion dikes shall have positive drainage to an outlet.

(8) Dikes must be inspected on a regular basis to determine if silt is building up behind the dike, or if erosion is occurring on the face of the dike. Silt shall be removed in a timely manner. If erosion is occurring on the face of the dike, the slopes of the face shall be stabilized.

C. INTERCEPTOR SWALE

(1) Maximum depth of flow in the swale shall be 1 foot.

(2) The minimum bottom width of the swale shall be 2 feet.

(3) Side slopes of the swale shall be 3:1 or flatter.

(4) Minimum design channel freeboard shall be 6 inches.

(5) Swales must maintain positive grade to an acceptable outlet.

(6) Interceptor swales must be stabilized immediately upon excavation so as not to contribute to the erosion problem they are addressing.

(7) All trees, brush, stumps, obstructions and other material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.

(8) All earth removed and not needed in construction shall be disposed of in an approved spoils site.

(9) Inspection must be made after each rain event to locate and repair any damage to the channel or to clear debris or other obstructions so as not to diminish flow capacity. Damages which result from normal construction activities shall be repaired at the end of each work day.

D. HAY BALE DIKE

(1) Each hay bale shall be placed into an excavated trench having a depth of 4 inches and a width just wide enough to accommodate the bales themselves.

(2) Hay bales shall be installed in such a way that there is no space between to allow for any kind of seepage.

(3) Individual bales shall be held in place by no less than two wood or steel stakes driven a minimum distance of 6 inches into undisturbed ground, with the first stake driven at an angle toward the previously installed bale.

(4) The ends of the dike shall be turned upgrade to prevent bypass of stormwater.

(5) Inspection shall be weekly or after each rainfall event and repair or replacement shall be made promptly as needed by the contractor.

(6) When silt reaches a depth of 6 inches, it shall be removed and disposed of in an approved sit.

(7) Hay bales shall be replaced if there are signs of degradation such as straw located downstream from the bales, structural deficiencies due to rotting straw in the bale or other signs of deterioration. Sediment should be removed from behind the bales when it reaches a depth of approximately 6 inches. If the bales become clogged, they should be replaced immediately.

E. SANDBAG BERM

(1) Minimum height shall be 18 inches.

(2) Minimum width of the berm shall be 18 inches at the top and 48 inches measured at the bottom.

(3) Maximum side slopes shall be 2:1.

(4) The ends of the berm shall be turned upgrade or shall tie into natural grades to prevent bypass of stormwater.

(5) Sandbags should be stacked in at least three rows abutting each other, and in staggered arrangement.

(6) Inspections should be made on a daily basis and after each rain event. The sandbags shall be reshaped or replaced as needed during the inspection. Silt should be removed when it reaches a depth of six (6) inches.

F. STONE OUTLET SEDIMENT TRAP

(1) Minimum width of the embankment at the top shall be 3 feet perpendicular to the flow.

(2) Minimum embankment slope shall be 3:1.

(3) Maximum embankment height shall be 2 feet as measured from the toe of slope to the crest of the stone outlet. The height of the compacted earth embankment shall be one foot higher than the crest of the outlet.

(4) Sediment shall be removed and the area directly behind the berm shall be regraded to its original dimensions at such point when the capacity of impoundment has been reduced to one-half of its original storage capacity.

(5) The stone outlet structure should be inspected frequently and after each major rain event to check for clogging of the void spaces between stones. If the aggregate appears to be silted in such that efficiency is diminished, the stone should be replaced.

G. SEDIMENT BASIN

(1) Maximum drainage area contributing to the basin shall be 100 acres.

(2) Deposited sediment shall be removed when the storage capacity of the basin has been depleted by one-half.

(3) Minimum width of the embankment at the top shall be 8 feet.

(4) Minimum embankment slope shall be 3:1.

(5) Sediment shall be removed and the basin shall be regraded to its original dimensions. The removed sediment shall be stockpiled or redistributed in areas which are protected from erosion.

(6) The basin outlet structure and emergency spillway (if present) should be checked frequently and after each major rain event to check for damage.

H. STABILIZED CONSTRUCTION EXIT

(1) Stone size – 3 to 5 inches crushed rock.

(2) Length – as effective, but not less than 50 feet, unless depth of lot is less than 150 feet from edge of pavement where length must only be 30 feet.

(3) Thickness – not less than 8 inches.

(4) Width – not less than full width of all points of ingress or egress.

(5) Washing – when necessary, wheels shall be cleaned to remove sediment prior to entrance onto public roadway. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch or watercourse using approved methods.

(6) Maintenance – the entrance shall be maintained in condition which will prevent tracking or flowing of sediment onto public roadways. This may require periodic top dressing with additional stone as conditions demand, and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public roadway, must be removed immediately.

(7) Drainage – entrance must be properly graded or incorporate a drainage swale to prevent runoff from leaving the construction site.

ADDITIONAL NOTES:

(1) Upon completion of construction all disturbed areas shall be revegetated to 70% of existing conditions in accordance with the SWPPP and TPDES requirements.

(2) This project will not use any off-site material, waste/borrow/fill, or equipment storage areas.

(3) This site is not located adjacent to any surface waters.

(4) This site will not have any locations where storm water discharges directly to a surface water body.

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1/5/24

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FAYETTEVILLE, AR. 72703

TIERRA LINDA - PHASE 1
PLAT NO. 23-11800219

STORM WATER POLLUTION PREVENTION PLAN DETAILS

REV	DATE	DESCRIPTION	BY

DESIGNED BY:
DRAFTED BY:
CHECKED BY:

SHEET
C7.1

Date: Jan 04, 2024, 4:43pm User ID: LJ Ramones
File: G:\Projects\472 - Retail Pad Only\125.05 - TIERRA LINDA PHASE 1\ACAD\Sheets\SWPPP.dwg