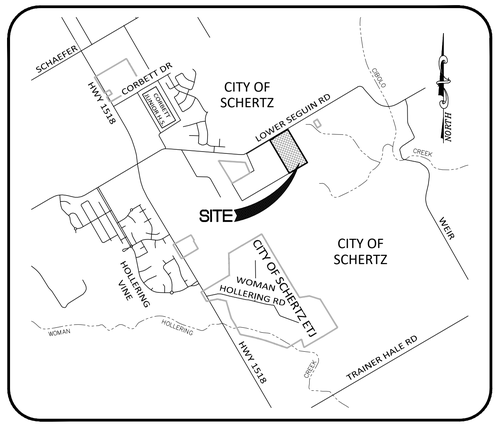
CONSTRUCTION PLANS FOR

TRAILS AT LOWER SEGUIN

SUBMITTED BY:
MOY TARIN RAMIREZ ENGINEERS, LLC.
5723 UNIVERSITY HEIGHTS BLVD., STE. 103
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

OWNER/DEVELOPER
YANTIS LAND, LLC
2806 W. BITTERS RD STE. 227
SAN ANTONIO, TX 78248
(210) 831-1563



VICINITY MAP
N.T.S.

SUBMITTAL DATE:
MARCH 2026

LEGAL DESCRIPTION:

A 19.936 ACRE (868,391.88 SQUARE FEET) TRACT OF LAND, SITUATED IN THE JULIAN DIAZ SURVEY, ABSTRACT NUMBER 187, BEXAR COUNTY, TEXAS, BEING ALL OF THE REMAINING PORTION OF A 2.005 ACRE TRACT AS CONVEYED TO CARLOS GARZA, JR. AND WIFE, MARGRET L. CARTY, BY WARRANTY DEED AS RECORDED IN VOLUME 6541, PAGE 807, BEING ALL OF A 2.003 ACRE TRACT AS CONVEYED TO JAMES B. CARTY, BY WARRANTY DEED AS RECORDED IN VOLUME 6541, PAGE 812, AND BEING ALL OF A 15.977 ACRE TRACT AS CONVEYED TO JANICE S. LINDORFER AND ROBERT C. LINDORFER, JR., BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN VOLUME 8177, PAGE 1250, ALL OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS.

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STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED
PROFESSIONAL ENGINEER
5/19/26

• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
FIRM TBPELS ENG F-5297 SVY F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

CITY OF SCHERTZ

SUBMITTAL SET

TEXAS C0.0

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GENERAL NOTES

1. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING FROM LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
2. CONTRACTOR SHALL NOTIFY THE ENGINEER AND ALL RESPECTIVE GOVERNMENTAL OR UTILITY AGENCIES AFFECTED BY CONSTRUCTION 72 HOURS PRIOR TO STARTING CONSTRUCTION. ANY TIE-IN SHALL BE COORDINATED BY THE CONTRACTOR WITH THE PUBLIC WORKS DEPARTMENT, AT LEAST 48 HOURS IN ADVANCE.
3. CONTRACTOR IS REQUIRED TO VERIFY PROJECT ELEVATIONS. "MATCH EXISTING" SHALL BE UNDERSTOOD TO SIGNIFY VERTICAL AND HORIZONTAL ALIGNMENT.
4. ANY DISCREPANCY OR CONFLICT WITHIN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE CITY. DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ENGINEERS ATTENTION AND CLARIFIED DURING BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF THE WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH ENGINEERS INTERPRETATION. ALL ITEMS, WORK, AND IMPROVEMENTS SHOWN OR INDICATED IN THE CONSTRUCTION DOCUMENTS SHALL BE COMPLETED FOR THE PRICES BID, WHETHER OR NOT A SEPARATE PAY ITEM IS INCLUDED IN THE CONTRACT.
5. THE CONTRACTOR SHALL MAINTAIN "AS-BUILT" DRAWINGS THROUGH THE COURSE OF CONSTRUCTION AND SHALL SUBMIT SAME TO THE ENGINEER FOR APPROVAL PRIOR TO FINAL ACCEPTANCE OF THE WORK BY OWNER.
6. THE CONTRACTOR WILL SELECT, EMPLOY, AND PAY FOR SERVICES OF AN INDEPENDENT TESTING LABORATORY TO PERFORM INSPECTION AND TESTING IDENTIFIED IN THE PUBLIC WORKS TECHNICAL SPECIFICATION SECTION 01452. EMPLOYMENT OF A TESTING LABORATORY BY THE CONTRACTOR SHALL NOT RELIEVE CONTRACTOR OF ITS OBLIGATION TO PERFORM WORK IN ACCORDANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS. COPIES OF REPORTS TO BE SUBMITTED TO THE CITY FOR REVIEW.
7. THE CONTRACTOR SHALL FURNISH ALL ASSISTANCE REQUIRED OF HIM BY ALL INSPECTORS IN OBTAINING SAMPLES AT THE EXPENSE OF THE CONTRACTOR.
8. IF IN THE OPINION OF THE INSPECTOR, BASED ON TESTING SERVICE REPORTS AND INSPECTION, MATERIALS, COMPACTION OR ANY OTHER SPECIFICATIONS ARE BELOW THE SPECIFIED REQUIREMENTS THE CONTRACTOR SHALL CORRECT THE DEFICIENCY AND RE-TEST TO OBTAIN THE SPECIFIED PARAMETERS AT NO ADDITIONAL EXPENSE.
9. FOR ALL PAVEMENT LAYERS, A PASSING TEST RESULT IS REQUIRED WITHIN 48 HOURS OF PLACING THE NEXT LAYER OR RETESTING WILL BE REQUIRED.
10. DESIGN AND CONSTRUCTION STANDARDS REQUIRED:
    A. PROJECT CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS, & DESIGN REPORTS.
    B. CITY OF SCHERTZ PUBLIC WORKS SPECIFICATION MANUAL.
       1. PUBLIC WORKS DESIGN GUIDE.
       2. PUBLIC WORKS TECHNICAL SPECIFICATIONS.
       3. STANDARD DETAILS.
11. UNLESS OTHERWISE SHOWN IN THESE PLANS, SIDEWALKS WILL BE CONSTRUCTED CONCURRENT WITH MAIN LOT STRUCTURE.
12. ROUGH GRADING MUST BE DONE ON ALL LOTS PRIOR TO SUBDIVISION PRELIMINARY ACCEPTANCE.
13. ALL PAVEMENTS, DRIVEWAYS, SIDEWALKS, CURBING, GUTTERS, FENCES, POLES, MAILBOXES, SIGNS, TREES, SHRUBBERY, LAWNS, SOD OR OTHER PROPERTY AND SURFACE STRUCTURES ON OR ADJACENT TO THE PROJECT SITE NOT SHOWN TO BE REMOVED IN PLANS, THAT ARE DAMAGED, DISTURBED, REMOVED OR DESTROYED BY THE CONTRACTOR DURING THE WORK SHALL BE REPLACED OR RETURNED TO A CONDITION EQUAL TO THAT BEFORE THE WORK BEGAN. CONTRACTOR TO SUPPORT AND KEEP INTACT STORM DRAINS AND INLET STRUCTURES. ANY DAMAGES INCURRED WILL BE AT CONTRACTOR'S EXPENSE.

UTILITIES

14. 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.
15. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED IN THESE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE 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 MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. CONTRACTOR SHALL CONTACT ANY UTILITIES ENCOUNTERED FORTY-EIGHT HOURS (48) HOURS PRIOR TO EXCAVATION OPERATION.
16. THE FOLLOWING IS A LIST OF TELEPHONE NUMBERS OF THE UTILITY LOCATORS FOR THE VARIOUS UTILITIES THAT MAY BE ENCOUNTERED:

TEXAS ONE CALL	1-800-245-4545 (1-800-DIG-TESS)
C.C.MA	210-658-6241
CITY PUBLIC SERVICE	1-800-545-6005
CENTERPOINT ENERGY ENTEX	(210)-659-6788
G.V.E.C	(210)-672-2871
NEW BRAUNFELS UTILITY	(830)-629-8400
TIME WARNER CABLE	(210)-352-4472
AT&T	1-800-828-5127
TxDOT NEW BRAUNFELS	1-800-644-4773
CITY OF SCHERTZ PUBLIC WORKS DEPT	(210)-619-1800
GREEN VALLEY WATER DISTRICT	(830)-914-2330
SCHERTZ SEGUIN LOCAL GOV'T CORP	(830)-401-2409
GREEN VALLEY TELEPHONE COMPANY	(830)-885-8277
GREEN VALLEY SPECIAL UTILITY DISTRICT	(831)-914-2330

17. NO VALVES IN THE OWNER'S WATER DISTRIBUTION SYSTEM SHALL BE OPERATED BY THE CONTRACTOR WITHOUT PRIOR PERMISSION OF THE OWNER. THE CONTRACTOR SHALL NOTIFY THE OWNER WHEN A VALVE IS TO BE OPERATED AND SHALL ONLY OPERATE THE VALVE IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. COORDINATE ALL SHUTDOWN OF MAINS FOR TIE-INS WITH OWNER 72 HOURS PRIOR TO WORK BEING COMPLETED. THE CONTRACTOR SHALL INSPECT THE MATERIALS FOR DEFECTS AT THE TIME THEY ARE UNLOADED, AND ANY MATERIALS FOUND DEFECTIVE SHALL BE REMOVED FROM THE SITE. ALL WATER WORKS MATERIAL OR SCRAP OF WHATEVER NATURE REMOVED BY THE CONTRACTOR IN THE COURSE OF THE WORK SHALL REMAIN THE PROPERTY OF THE OWNER. SALVAGED MATERIALS SHALL BE DELIVERED TO AND UNLOADED AT THE CITY PUBLIC WORKS DEPARTMENT BY THE CONTRACTOR UNDER OBSERVATION OF AND AT THE DIRECTION OF THE OWNER. ITEMS TOO HEAVY TO BE HANDLED MANUALLY WILL BE UNLOADED BY EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS UNTIL THEY HAVE BEEN TURNED IN TO THE OWNER AND UNTIL A RECEIPT FOR THEM HAS BEEN ISSUED BY THE OWNER.
18. NO TIE-IN SHALL BE MADE TO THE EXISTING UTILITY SYSTEM UNTIL ALL TEST RESULTS HAVE BEEN PROVIDED TO THE CITY AND ARE VERIFIED.
19. PRIOR TO TESTING, ANY CONNECTION TO THE CITY'S WATER SUPPLY SHALL BE THROUGH AN APPROVED AND TESTED BACKFLOW DEVICE.
20. PLUG EXISTING SEWER BEFORE INSTALLING ANY NEW SEWER MAIN.
21. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT EXISTING SANITARY SEWER LATERALS AND WATER SERVICES SHOWN IN PLANS. ANY REPAIRS TO BE MADE AT CONTRACTORS EXPENSE.
22. PROVIDE BLUE PANTED "V" ETCHED IN CURB TO IDENTIFY VALVES.
    PROVIDE BLUE PANTED "X" ETCHED IN CURB TO IDENTIFY METER BOXES.
23. NEW WATER MAINS TO BE PVC C900 DR14, UNLESS OTHERWISE SHOWN IN PLANS AND APPROVED BY PUBLIC WORKS OR ENGINEERING. HYDROSTATIC TESTING WILL BE PERFORMED UNDER THE SUPERVISION OF THE CITY INSPECTOR, PER STANDARD SPECIFICATION 02515 AT 200 PSI FOR 4 HOURS.
24. CONTRACTORS SHOULD USE HTH FOR DISINFECTION OF WATER LINES (NOT CHLORINE INJECTION) UNLESS APPROVED OTHERWISE PRIOR TO ISSUANCE OF PERMIT.
25. NEW WATERLINES SHALL BE TIED INTO EXISTING WATER SYSTEM UNDER THE SUPERVISION OF CITY PERSONNEL NO LATER THAN 14 DAYS AFTER PASSING BACTERIOLOGICAL TESTS.
26. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT NO OVERFLOWS OR SPILLAGE OF SEWER OCCURS. SHOULD THIS OCCUR, THE CONTRACTOR SHALL:
    A. IDENTIFY THE SOURCE OF THE SPILL AND ATTEMPT TO ELIMINATE ANY ADDITIONAL SPILLAGE.
    B. NOTIFY THE CITY OF SCHERTZ PUBLIC WORKS.
    C. CONTAIN THE SPILL IN PLACE AND AVOID CONTAMINATION OF STREAMS.
    D. DISINFECT THE AREA OF THE SPILL WITH A MIXTURE OF HTH CHLORINE AND WATER.
    E. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND THE CITY OF SCHERTZ.
27. CONTRACTOR TO PROVIDE NOTICE TO RESIDENTS OF SHUTDOWN OF MAIN. CONTRACTOR TO NOTIFY RESIDENTS OF WORK WITHIN THEIR PROPERTY AND OF THE RELOCATION OF METERS. ANY COMPLAINTS BY RESIDENTS ARE TO BE PASSED IMMEDIATELY TO THE CITY INSPECTOR OR TO THE MAIN PUBLIC WORKS OFFICE. TAKE APPROPRIATE MEASURES TO PROTECT EXISTING SANITARY SEWER LATERALS SHOWN IN PLANS. ANY REPAIRS TO BE MADE AT CONTRACTORS EXPENSE.
28. ABANDONED CUSTOMER LINES SHALL BE CAPPED OR PLUGGED AT THE PROPERTY LINE.
29. ASBESTOS PIPE REMOVAL AND DISPOSAL IS THE CONTRACTORS RESPONSIBILITY.

TREES & VEGETATION

30. THE CONTRACTOR SHALL VERIFY WHICH TREES ARE TO BE SAVED AND PROTECTED PRIOR TO COMMENCING CONSTRUCTION. DURABLE FENCE PROTECTION BARRIERS SHALL BE INSTALLED ABOUND ALL TREES TO BE SAVED WITH FENCE PLACEMENT A MINIMUM OF 10 FEET FROM TREE CANOPY OR THE DRIP LINE, WHICHEVER IS GREATER.
31. THE CONTRACTOR SHALL NOT DISTURB AREAS AROUND EXISTING TREES TO BE SAVED.
32. THE CONTRACTOR SHALL PROTECT EXISTING GRASS, LANDSCAPING AND TREES NOT IN DIRECT CONFLICT WITH PROPOSED IMPROVEMENTS DURING CONSTRUCTION. GRASSED AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR WITH TOPSOIL AND SODDED.
33. THE CONTRACTOR SHALL REMOVE ALL VEGETATION, TREES, STUMPS, GRASSES, ORGANIC SOIL, DEBRIS, AND DELETERIOUS MATERIALS IN CONFLICT WITH IMPROVEMENTS.
34. AFTER THE CONTRACTOR HAS REMOVED MATERIALS AS DESCRIBED ABOVE, HE SHALL STRIP SUITABLE TOPSOIL AND STOCKPILE FOR LANDSCAPING USE.
35. THE CONTRACTOR SHALL EXERCISE EXTRA CARE TO AVOID DAMAGE TO TREES AND ORNAMENTAL SHRUBS PLANTED AND MAINTAINED BY PROPERTY OWNERS IN THE TERRACES FRONTING THEIR PROPERTY.
36. CONTRACTOR SHALL COMPENSATE OWNER FOR DAMAGE TO TREES NOT SHOWN TO BE REMOVED IN PLANS.
37. OAK TREES DAMAGED DURING CONSTRUCTION SHALL BE SEALED WITHIN SIX HOURS OF DAMAGE TO PREVENT INFECTION BY OAK WILT.

NPDES

38. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), INCLUDING COMPLYING WITH ALL APPLICABLE REGULATIONS RELATED TO NPDES & TPDES, AND SUBMITTING REQUIRED NOTIFICATION OF INTENT AND TERMINATION. THIS IS TO BE PAID FOR UNDER "STORM WATER POLLUTION PREVENTION PLAN" ITEM.
39. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITE CONDITIONS DURING CONSTRUCTION AND UNTIL THE PROJECT IS ACCEPTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE STORMWATER POLLUTION PREVENTION PLAN, UNDERSTAND THE REQUIREMENTS FOR THE PLAN, AND SHALL BE RESPONSIBLE FOR IMPLEMENTING THE PLAN. THIS IS TO BE INCLUDED UNDER SECTION 01410 "STORM WATER POLLUTION PREVENTION PLAN". ALL FINES IMPOSED FOR NOT IMPLEMENTING OR MAINTAINING SWPPP MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

SITE RESTORATION:

40. RESTORATION OF PROJECT AREA AFFECTED BY CONSTRUCTION ACTIVITIES IN PUBLIC AND PRIVATE PROPERTY, INCLUDING RIGHT-OF-WAYS AND EASEMENTS (TOPSOIL AND HYDROMULCH), PAVEMENT, DRIVEWAYS, DRAINAGE STRUCTURES, FENCES, LAWNS (TOPSOIL AND BLOCK SODDING), AND LANDSCAPING WILL BE COVERED BY SPECIFICATION AND BID ITEM "SITE RESTORATION" AND SPECIFICATION 01740 .
41. PAYMENT FOR RESTORATION OF PROJECT SITE DISTURBED BY UTILITY CONSTRUCTION OPERATIONS IS ON A LINEAR FOOT.
42. MEASUREMENT WILL BE AS PROVIDED FOR CORRESPONDING UTILITY IN EACH SPECIFICATION SECTION. NO SEPARATE PAYMENT MADE FOR BRANCH PIPE, VALVES, SERVICES, YARD PIPING AND OTHER ASSOCIATED WORK FOR UTILITIES. MEASUREMENT FOR RESTORATION WITH MULTIPLE UTILITIES WITHIN THE SAME RIGHT-OF-WAY WILL BE ON A LINEAR FOOT BASIS FOR ONLY ONE UTILITY.
43. PAYMENT INCLUDES REQUIRED SITE RESTORATION WITHIN THE RIGHT-OF-WAY OR EASEMENT REGARDLESS OF SIZE OR TYPE OF PIPE, METHOD OF CONSTRUCTION, PAVED OR UNPAVED AREAS OR THICKNESS AND WIDTH OF PAVEMENT.
44. NO SEPARATE PAYMENT MADE FOR SITE RESTORATION FOR SERVICE CONNECTIONS OR YARD PIPING UNDER THIS SECTION. INCLUDE COST IN APPROPRIATE ITEM.
45. ALL DISTURBED AREAS TO BE RE-VEGETATED TO 85% OF APPROVED GRASSES ACCORDING TO THE UDC PRIOR TO THE ACCEPTANCE OF PERMIT CLOSEOUT.
46. ROUGH GRADING, INCLUDING TREE REMOVAL MUST BE DONE ON ALL LOTS PRIOR TO SUBDIVISION PRELIMINARY ACCEPTANCE.

TRAFFIC

47. THE CONTRACTOR SHALL PROVIDE ACCESS FOR RESIDENCES AND BUSINESSES.
48. THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DELIVERY OF MAIL BY THE U.S. POSTAL SERVICE.
49. THE CONTRACTOR WILL BE REQUIRED TO FURNISH BARRICADES, WARNING SIGNS, LIGHTS, FLARES, FLAGS, FLAGMEN, ETC. WHERE NECESSARY AND AS DIRECTED BY THE ENGINEER, PARTICULARLY IN THOSE AREAS OF IMMEDIATE WORK.
50. BATTERY FLASHERS SHALL BE USED AND NUMBER SHALL BE EQUAL OR GREATER THAN INDICATED ON BARRICADING STANDARDS. WHEN A CLASS I BARRICADE PANEL OR CLASS II BARRICADE IS USED, EACH SHOULD BE EQUIPPED WITH A MINIMUM OF TWO (2) LIGHTS. ALL WARNING SIGNS NOT MOUNTED ON BARRICADES SHALL HAVE ONE (1) LIGHT.
51. BATTERY FLASHERS SHALL CONFORM TO PART V, SECTION D, LIGHTING DEVICES, TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
52. CONTRACTOR RESPONSIBLE FOR SUBMITTING A TRAFFIC CONTROL PLAN, PREPARED BY A REGISTERED PROFESSIONAL ENGINEER, TO THE CITY FOR APPROVAL 5 WORKING DAYS PRIOR TO COMMENCING WORK. PLAN SHOULD FOLLOW REQUIREMENTS OF TMUTCD, LATEST EDITION.
53. ALL TRENCHING AND CUT PAVEMENT SHALL BE RESTORED SUCH THAT LOCAL ACCESS MAY BE RESUMED AS SOON AS POSSIBLE.
54. RESTRICT TOTAL LENGTH OF DISTRIBUTED MATERIALS ALONG THE ROUTE OF CONSTRUCTION TO 1,000 LINEAR FEET UNLESS OTHERWISE APPROVED IN WRITING BY PUBLIC WORKS.
55. MAINTAIN THROUGH TRAFFIC ALONG ALONG ANY PUBLIC ROADWAYS FOR THE DURATION OF THE PROJECT.
56. COORDINATE SHUT DOWN ROAD WITH CITY OF SCHERTZ 5 DAYS PRIOR TO SHUTDOWN. SEE SPEC 01555.

TxDOT NOTE:

57. NO WORK AND NO STORAGE OF MATERIALS WILL BE PERFORMED IN TxDOT RIGHT-OF-WAY, UNLESS THE APPROPRIATE DENSITIES HAVE BEEN OBTAINED.
58. ALL TxDOT REQUIRED PERMITS MUST BE OBTAINED AND PROVIDED BY THE CITY BY THE CONTRACTOR. ALL PERMITS FOR UTILITY WORK WITHIN THE TxDOT R.O.W. WILL BE OBTAINED AND PROVIDED TO THE CITY. ALL PLANS AND REQUIRED SUBMITTALS WILL BE PROVIDED BY THE CONTRACTOR AT REQUEST OF THE CITY.

CONTRACTOR REQUIREMENTS FOR SITE CLEARING, GRADING, AND EROSION CONTROL DESIGN AND CONSTRUCTION NOTES

THE FOLLOWING MEASURES REPRESENT MINIMUM STANDARDS TO BE ADHERED TO BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION OF A PROJECT. THE CITY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO BE EMPLOYED WHEN WARRANTED BY EXTREME CONDITIONS AND/OR THE FAILURE OF THE CONTRACTOR TO EMPLOY THE APPROPRIATE EROSION CONTROL BEST MANAGEMENT PRACTICES. FAILURE TO COMPLY WITH THESE PROVISIONS SHALL RESULT IN THE ISSUANCE OF A "STOP WORK ORDER".

59. NO DISTURBANCE OF PROPOSED CONSERVATION EASEMENTS, NATURAL BUFFERS, OR WATER BODIES IS PERMITTED. THE CONTRACTOR SHALL LOCATE THESE AREAS ON SITE AND BARRICADE THEM TO AVOID ANY UNAUTHORIZED CLEARING. BARRICADES AND OTHER PROTECTIVE FENCING ARE TO BE LOCATED AT THE DRIP LINE OF EXISTING NATIVE TREES OR A MINIMUM OF 10 FEET FROM TREE CANOPY OR THE DRIP LINE, WHICHEVER IS GREATER.
60. SPECIMEN AND HISTORIC TREES, CONSERVATION EASEMENTS, NATURAL VEGETATION BUFFERS, AND SIMILAR AREAS MUST BE PROTECTED BY BARRICADES OR FENCING PRIOR TO CLEARING. BARRICADES ARE TO BE SET AT THE DRIP LINE OF THE TREES AND MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. BARBED WIRE IS NOT PERMITTED AS A PROTECTIVE BARRIER.
61. WHERE A CHANGE OF GRADE OCCURS AT THE DRIP LINE OF A SPECIMEN TREE, SILT FENCES WILL BE REQUIRED DURING CONSTRUCTION AND RETAINING WALLS MUST BE INSTALLED PRIOR TO FINAL ACCEPTANCE BY THE CITY.
62. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL PROTECTIVE VEGETATION BARRICADES AND EROSION CONTROL STRUCTURES AND MEASURES IN PLACE PRIOR TO THE COMMENCEMENT OF ANY EARTHWORK, INCLUDING PRELIMINARY GRUBBING. THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, TEMPORARY CONSTRUCTION FENCES, SYNTHETIC JUTE BALES, WATTLES, &/OR HAVE BEST MANAGEMENT PRACTICES (BMP'S) AS REQUIRED, SILT FENCES, AND FLOATING TURBIDITY BARRIERS. FURTHER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF THE ENTIRE PROJECT. MAINTENANCE SHALL INCLUDE PERIODIC INSPECTION AND REMOVAL OF DEBRIS ABUTTING EROSION CONTROL DEVICES.
63. PRIOR TO THE INSTALLATION OF ANY FILL MATERIALS ON SUBJECT SITE, SILT FENCES SHALL BE INSTALLED (1) ALONG SUBJECT SITE BOUNDARY AND PROPERTY LINES, (2) AT THE EDGE OF CONSERVATION EASEMENTS AND WETLANDS, (3) ADJACENT TO NATURAL LANDSCAPE BUFFERS, (4) AROUND THE PERIMETER OF EXISTING STORM WATER TREATMENT FACILITIES, AND (5) AT ANY ADDITIONAL AREAS THAT THE CITY DEEMS NECESSARY TO BE PROTECTED FROM POTENTIAL EROSION IMPACTS DURING CONSTRUCTION. THESE CONDITIONS SHALL APPLY IN ALL INSTANCES WHERE FILL MATERIAL IS BEING INSTALLED WITHIN 20 FEET OF ANY OF THE AFOREMENTIONED LOCATIONS. WHILE THESE ITEMS REPRESENT THE MINIMUM REQUIREMENTS, THE CITY RESERVES THE RIGHT TO IMPOSE ADDITIONAL PROTECTIVE MEASURES, AS DETERMINED DURING ACTUAL SITE VISITS CONDUCTED AS PART OF THE STANDARD REVIEW OF THE SITE THROUGHOUT PROJECT CONSTRUCTION.
64. AT A MINIMUM, THE CONTRACTOR SHALL SEED AND/OR MULCH ALL DISTURBED AREAS. **85% SUFFICIENT GRASS** COVERAGE IS TO BE ESTABLISHED BEFORE PERMIT EXPIRATION.
65. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGH SCHEDULING, TO MINIMIZE THE DISTURBANCE OF SITE AREAS THAT HAVE BEEN BROUGHT TO THEIR PROPOSED FINAL GRADE. WITHIN SEVEN (7) DAYS OF BRINGING A SUBJECT AREA TO ITS FINAL GRADE OR INACTIVITY IN CONSTRUCTION, THE CONTRACTOR SHALL INSTALL SEED AND MULCH OR SOD, AS REQUIRED. ANY PROJECT THAT IS INACTIVE FOR A PERIOD OF 30 DAYS OR MORE SHALL BE STABILIZED TO THE SATISFACTION OF THE CITY OF SCHERTZ.
66. ONCE AN AREA IS SEEDED OR SODDED, IT MUST BE MAINTAINED BY THE CONTRACTOR TO ALLOW THE GRASS TO BECOME ESTABLISHED. IF THE GRASS IS NOT ESTABLISHED WITHIN **TWO WEEKS** THE CITY MAY REQUIRE THE CONTRACTOR TO RE-SEED OR A NON-VEGETATIVE OPTION MAY BE EMPLOYED.
67. ABSOLUTELY NO BURYING OF CLEARED MATERIALS IS PERMITTED.
68. THE REMOVAL OF ALL VEGETATION AND TOPSOIL ON THE FUTURE ROADWAY, PARKING AND BUILDING LOT AREAS IS REQUIRED TO BE COMPLETED PRIOR TO THE PLACEMENT OF FILL ON THOSE AREAS. THE TOPSOIL MAY BE TEMPORARILY STOCKPILED AND USED AS TOPSOIL OVER OVER PROPOSED GREEN AREAS SUCH AS PLANT BEDS, SODDED AREAS, AND WHERE TREES ARE TO BE INSTALLED OR RELOCATED.
69. FILL MATERIAL IS TO BE PLACED IN ONE FOOT LIFTS AND COMPACTED TO THE APPROPRIATE DENSITY (95% FOR PAVED AREAS AND 95% FOR BUILDING PADS AND ALL OTHER AREAS AS PER ASTM D-698).
70. DURING SUBDIVISION DEVELOPMENT WHEN FUTURE BUILDING LOTS ARE FILLED AS PART OF THE OVERALL SUBDIVISION IMPROVEMENTS, COMPACTION TEST REPORTS MUST BE PERFORMED ON THE BUILDING LOTS AT 300 FOOT INTERVALS. THESE TESTS ARE TO BE PERFORMED IN ONE-FOOT VERTICAL INCREMENTS. THE RESULTS OF THESE TESTS ARE TO BE SUBMITTED TO THE CITY UPON COMPLETION OF THE TESTS.
71. IF ANY MUCK MATERIAL IS DISCOVERED, IT SHALL BE REQUIRED TO BE REMOVED AND REPLACED WITH A SUITABLE MATERIAL THAT IS PROPERLY BACKFILLED, COMPACTED AND TESTED USING AASHTO T-180 MODIFIED PROCTOR METHOD.
72. STOCKPILING IS NOT GENERALLY PERMITTED BY THE CITY. WHEN ALLOWED, **STOCKPILES SHALL NOT EXCEED SIX FEET IN HEIGHT** MEASURED FROM THE ORIGINAL GRADE. AT A MINIMUM, STOCK PILES THAT WILL REMAIN IN PLACE IN EXCESS OF TWENTY DAYS SHOULD BE SEEDED AND MULCHED IMMEDIATELY UPON PLACEMENT OF THE FINAL LIFT.
73. SOILS ARE TO BE STABILIZED BY WATER OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION AND THE IMPACT TO NEIGHBORING COMMUNITIES. ADEQUATE WATERING METHODS SHOULD BE EMPLOYED TO ALLOW DAILY COVERAGE OF THE ENTIRE LIMITS OF ALL AREAS THAT DO NOT HAVE AN ESTABLISHED VEGETATIVE COVER. METHODS TO BE EMPLOYED INCLUDE, BUT ARE NOT LIMITED TO, WATER TRUCKS, PERMANENT IRRIGATION SYSTEMS, TEMPORARY SPRINKLER SYSTEMS OPERATED BY PUMPING UNITS CONNECTED TO WET RETENTION PONDS, WATER CANNONS, TEMPORARY IRRIGATION SYSTEMS MOUNTED ATOP STOCKPILE AREAS, AND OTHER METHODS AS DEEMED NECESSARY BY THE CITY.

CONTRACTOR REQUIREMENTS FOR SITE CLEARING, GRADING, AND EROSION CONTROL DESIGN AND CONSTRUCTION NOTES

THE FOLLOWING MEASURES REPRESENT MINIMUM STANDARDS TO BE ADHERED TO BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION OF A PROJECT. THE CITY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO BE EMPLOYED WHEN WARRANTED BY EXTREME CONDITIONS AND/OR THE FAILURE OF THE CONTRACTOR TO EMPLOY THE APPROPRIATE EROSION CONTROL BEST MANAGEMENT PRACTICES. FAILURE TO COMPLY WITH THESE PROVISIONS SHALL RESULT IN THE ISSUANCE OF A "STOP WORK ORDER".

74. ALL FILL MATERIALS LOCATED BENEATH STRUCTURES AND PAVEMENT SHALL CONSIST OF CLEAN GRANULAR SAND FREE FROM ORGANICS AND SIMILAR MATERIAL THAT COULD DECOMPOSE.
75. ALL FILL TO BE PLACED IN LANDSCAPED AREAS SHALL HAVE A Ph RANGE BETWEEN 5.5 AND 6.5, BE ORGANIC IN NATURE, FREE OF ROCKS AND DEBRIS, OR MATCH NATIVE EXISTING SOILS.
76. OWNER/CONTRACTOR SHALL FILE A **"NOTICE OF INTENT"** TO USE GENERAL PERMIT FOR STORM WATER DISCHARGE FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES" WITH THE TEXAS POLLUTION DISCHARGE ELIMINATION SYSTEM" IN COORDINATION WITH THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY. CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH ALL PROVISIONS OF THE GENERIC PERMIT INCLUDING BUT NOT LIMITED TO:
    A. PROVIDE SUCH EROSION AND SEDIMENT CONTROL MEASURES AS MAY BE NECESSARY TO PREVENT DISCHARGE OF POLLUTANTS FROM THE SITE FROM THE START OF CONSTRUCTION UNTIL THE FINAL GROUND COVER HAS BEEN ESTABLISHED.
    B. WORK WITH CITY INSPECTORS TO MAKE WEEKLY INSPECTIONS/REPORTS OF THE CONDITION OF EROSION AND SEDIMENT CONTROL MEASURES.
    C. WORK WITH CITY INSPECTORS TO MAKE INSPECTIONS/REPORTS OF THE CONDITION OF EROSION AND SEDIMENT CONTROL MEASURES WITHIN 24 HOURS OF EVERY RAINFALL EVENT EXCEEDING ONE-HALF INCH.
    D. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT CONSTRUCTION.
    E. ADD EROSION AND SEDIMENT CONTROL MEASURES AS SITE CONDITIONS CHANGE.
    F. REMOVE TEMPORARY EROSION/SEDIMENT CONTROL MEASURES AFTER SUBSTANTIAL RE-VEGETATION AND/OR PRIOR TO THE END OF THE PERMIT EXPIRATION.

SUBMITTAL SET

REVISIONS						
NO.	DATE	DESCRIPTION	DGN. BY:	DWN. BY:	CHKD. BY:	DATE:
PROJ. #			PL	BDL	PL	5/2025
25044						

• Engineers • Surveyors • Planners
MTR
Moy Torin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-529 / SURVEYING F-10131500
5726 CULEBRA ROAD, STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5065

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
5/14/25

TRAILS AT LOWER SEGUIN

GENERAL NOTES

SHEET
C0.1

Plot Date: May 20, 2026 User ID: Dafne Gordes
P:\Lower Seguin Road\Unit 1\Drawings\25044_C01 General Notes.dwg

CONSTRUCTION PLANS FOR

TRAILS AT LOWER SEGUIN

UTILITY IMPROVEMENTS

TRENCH EXCAVATION SAFETY PROTECTION

Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation 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.

UTILITY 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 EXCAVATION IS UNCLASSIFIED. THERE IS NO ADDITIONAL PAYMENT FOR ROCK EXCAVATION.
3. ALL SPOIL AND UNUSABLE MATERIAL FROM THIS PROJECT SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THE PROJECT.
5. CONSTRUCTION STAKING TO BE PROVIDED BY CONSULTANT IS AS FOLLOWS:

A. STREET CENTERLINE STAKING FOR CLEARING.
B. STREET STAKING (ONE SIDE) FOR STREET EXCAVATION AND WATER MAIN INSTALLATION.
C. SEWER STAKING AT 100-FT INTERVALS.
D. STAKING FOR WATER SERVICES.
E. STAKING FOR DRAINAGE CHANNELS.
F. FINAL STREET STAKING.
G. METER BOX STAKING.
H. CPS STAKING.
I. SETTING OF LOT CORNERS.

CPS NOTES:

1. CPS TO SUPPLY ALL ELECTRIC CONDUITS FOR TRENCH AS FOLLOW:

   PRIMARY - 2 1/2" HDPE SCHEDULE 40
   SECONDARY - 3" PVC SCHEDULE 40
   SERVICE STUBS - 2 1/2" PVC SCHEDULE 40

2. 6" P.V.C. SCHEDULE 80 WILL BE REQUIRED FOR C.P.S. UTILITIES CROSSINGS WHEN DRAIN OR STREET CONSTRUCTION PRECEDES UTILITY INSTALLATION.

3. 4" P.V.C. SCHEDULE 40 WILL BE REQUIRED FOR UNDERGROUND TELEPHONE AND CABLE T.V. IF ABOVE APPLIES.

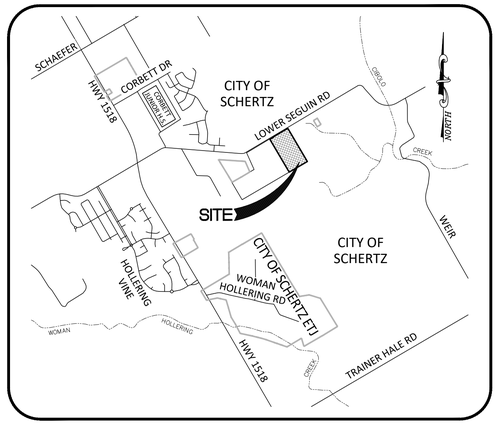
4. P.V.C. CONDUIT WITH 90° SWEEPS TO 6" ABOVE GRADE WITH CAP.

NOTE :

TELEPHONE AND CABLE LINES TO GO IN JOINT TRENCH WITH CITY PUBLIC SERVICE.

LEGEND

EXISTING WATER MAIN	E8"W
PROPOSED WATER MAIN	8"W
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	
PROPOSED SANITARY SEWER MAIN	8"SS
EXISTING SANITARY SEWER MAIN	E8"SS
EXISTING OVERHEAD ELECTRIC	OHE
EXISTING UNDERGROUND ELECTRIC	UE
EXISTING UNDERGROUND TELEPHONE	UGT
EXISTING STREET LIGHT	
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	D.P.R.B.C.T.
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS	O.P.R.M.C.T.
PROPOSED STREET LIGHT UG, 100W AND SINGLE ARM	
PROPOSED STREET LIGHT UG, 250W AND SINGLE ARM	
EXISTING POWER POLE	PP
EXISTING SECONDARY ENCLOSURE	
PROPOSED SECONDARY ENCLOSURE	
PROPOSED POWER POLE	PP
PROPOSED TRANSFORMER	
PROPOSED WATER SERVICE	
PROPOSED SERVICE LATERAL WITH ONE-WAY CLEANOUT	
EXISTING TRANSFORMER	
EXISTING IRRIGATION CONTROL VALVE	
EXISTING WATER METER	



VICINITY MAP

N.T.S.

Sheet List Table

Sheet Number	Sheet Title
C1.0	UTILITY COVER
C1.1	OVERALL UTILITY
C1.2	UTILITY DETAILS

SUBMITTAL DATE:

MARCH 2026

SUBMITTED BY:

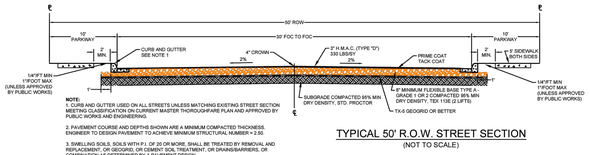
MOY TARIN RAMIREZ ENGINEERS, LLC.
5723 UNIVERSITY HEIGHTS BLVD., STE. 103
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

OWNER/DEVELOPER

CARLOS GARZA JR.
109 COLETTE LN.,
MARION, TX 78124

ROBERT C. LINDORFE JR.
12816 LOWER SEGUIN RD,
SCHERTZ, TX 78154

TANYA CARTY
5622 CASTLE KNIGHT,
SAN ANTONIO, TX 78218

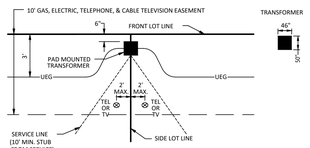


NOTE:
1. CURB AND GUTTER USED ON ALL STREETS UNLESS MATCHING EXISTING STREET SECTION MEETING CLASSIFICATION ON CURRENT MASTER THOROUGHFARE PLAN AND APPROVED BY PUBLIC WORKS AND ENGINEERING.

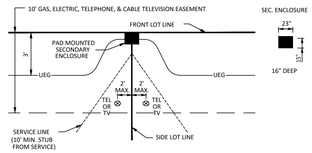
2. PAVEMENT COURSE AND DEPTHS SHOWN ARE A MINIMUM COMPACTED THICKNESS. ENGINEER TO DESIGN PAVEMENT TO ACHIEVE MINIMUM STRUCTURAL NUMBER = 2.50.

3. SWELLING SOILS, SOILS WITH P.I. OF 20 OR MORE, SHALL BE TREATED BY REMOVAL AND REPLACEMENT, OR GEOGRID, OR CEMENT/ SOIL TREATMENT, OR DRAINS/BARRIERS, OR COMBINATION AS DETERMINED BY A PAVEMENT DESIGN.

TYPICAL 50' R.O.W. STREET SECTION
(NOT TO SCALE)



TRANSFORMER



SECONDARY ENCLOSURE
FRONT LOADED

LEGAL DESCRIPTION:

A 19.936 ACRE (868,391.88 SQUARE FEET) TRACT OF LAND, SITUATED IN THE JULIAN DIAZ SURVEY, ABSTRACT NUMBER 187, BEXAR COUNTY, TEXAS, BEING ALL OF THE REMAINING PORTION OF A 2.005 ACRE TRACT AS CONVEYED TO CARLOS GARZA, JR. AND WIFE, MARGRET L. CARTY, BY WARRANTY DEED AS RECORDED IN VOLUME 6541, PAGE 807, BEING ALL OF A 2.003 ACRE TRACT AS CONVEYED TO JAMES B. CARTY, BY WARRANTY DEED AS RECORDED IN VOLUME 6541, PAGE 812, AND BEING ALL OF A 15.977 ACRE TRACT AS CONVEYED TO JANICE S. LINDORFER AND ROBERT C. LINDORFER, JR., BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN VOLUME 8177, PAGE 1250, ALL OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS.

NOTE TO CONTRACTOR:

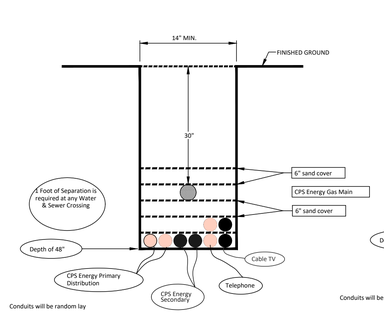
BY THE ACT OF SUBMITTING A BID FOR THIS PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS, SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM 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.

THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AND/OR DEPTHS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT EACH INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS AND DEPTHS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITY CROSSINGS PRIOR TO BEGINNING ANY CONSTRUCTION.

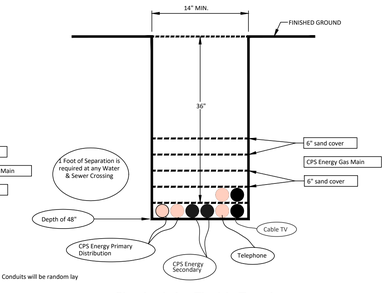


• *Engineers*
• *Surveyors*
• *Planners*

Moy Tarin Ramirez Engineers, LLC
FIRM TBPELS ENG F-5297 SVY F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085



Standards for Gas and Electric Trench or Electric Trench with Joint Utilities
NOT TO SCALE
Trench Diagram



Standards for Electric Trench or Electric Trench with Joint Utilities
NOT TO SCALE
Trench Diagram

TRENCH DETAILS

CITY OF SCHERTZ

SUBMITTAL SET ***TEXAS*** C1.0

R:\Lower Seguin Road\Unit 1\Drawings\25044_C1.0 Utility Cover.dwg
Plot Date: May 20, 2026 User ID: Dallas Gardea

NOTE TO CONTRACTOR:

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4. P.V.C. CONDUIT WITH 90° SWEEPS TO 6" ABOVE GRADE WITH CAP.

NOTE :

TELEPHONE AND CABLE LINES TO GO IN JOINT TRENCH WITH CITY PUBLIC SERVICE.

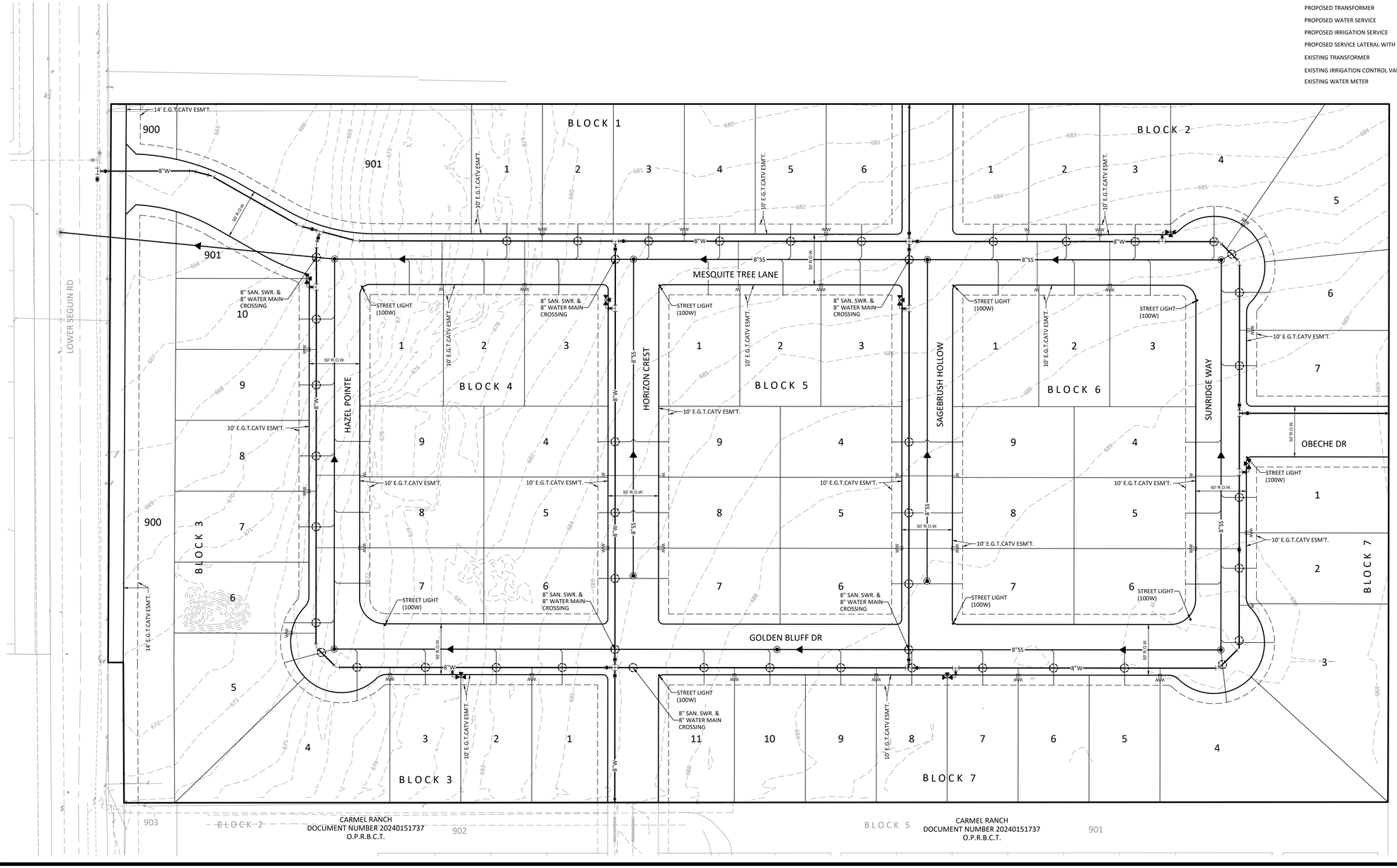
CAUTION: EXISTING UNDERGROUND UTILITIES, CONTRACTOR TO VERIFY PRIOR TO START OF ANY CONSTRUCTION.

SCALE: 1"=50'

0 50 100

LEGEND

EXISTING WATER MAIN	E8"W
PROPOSED WATER MAIN	8"W
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	
PROPOSED SANITARY SEWER MAIN	8"SS
EXISTING SANITARY SEWER MAIN	E8"SS
EXISTING OVERHEAD ELECTRIC	OHE
EXISTING UNDERGROUND ELECTRIC	UE
EXISTING UNDERGROUND TELEPHONE	UGT
EXISTING STREET LIGHT	
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	O.P.R.B.C.T.
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS	O.P.R.M.C.T.
PROPOSED STREET LIGHT UG, 100W AND SINGLE ARM	
PROPOSED STREET LIGHT UG, 250W AND SINGLE ARM	
EXISTING POWER POLE	PP
EXISTING SECONDARY ENCLOSURE	
PROPOSED SECONDARY ENCLOSURE	
PROPOSED POWER POLE	PP
PROPOSED TRANSFORMER	
PROPOSED WATER SERVICE	W
PROPOSED IRRIGATION SERVICE	IR
PROPOSED SERVICE LATERAL WITH ONE-WAY CLEANOUT	
EXISTING TRANSFORMER	
EXISTING IRRIGATION CONTROL VALVE	
EXISTING WATER METER	



Plot Date: May 20, 2026 User ID: Dolina Santos
File Name: Project Files\Civil\20044 C3-1 UTIL.dwg

MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
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STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

REVISIONS

NO.	DATE	DESCRIPTION	BY:	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

TRAILS AT LOWER SEGUIN

OVERALL UTILITY IMPROVEMENTS PLAN

SHEET
C1.1

SUBMITTAL SET

CONDUIT PLAN CROSSING
NOT TO SCALE

SECTION "A"-"A"
CONDUIT PLAN CROSSING
NOT TO SCALE

* IN CASES WHERE INSTALLATION IS AN ELECTRIC ONLY OR A GAS ONLY INSTALLATION, THE CONDUITS SHOULD BE PLACED IN THE SAWS MAIN CONDUIT POSITION TO MEET 3' OF COVER REQUIREMENT.

** CONDUIT MARKERS ARE TO BE INSTALLED AT CONDUIT ENDS FOR EASE OF LOCATION BY CPS ENERGY CREWS.

PLEASE NOTE THAT THESE CROSSING DETAILS APPLY TO MOST PROJECTS WITHIN THE SAWS & COUNTY PROJECTS. ANY DRY TO WET UTILITY CROSSING REQUIREMENTS SHOULD BE VERIFIED WITH CPS ENERGY AND THE WATER DISTRICT'S REQUIREMENTS.

IMPORTANT
EXCAVATION SAFETY PLAN AND PROCEDURES

THE CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT AN EXCAVATION SAFETY PROGRAM IN ACCORDANCE WITH OSHA'S STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND ANY EXCAVATION. SPECIFICALLY, THE CONTRACTOR AND/OR THE CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT AN EXCAVATION SAFETY PROGRAM THAT COMPLIES WITH THE OCCUPATION SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARD 29 CFR PART 1926 SUBPART P–EXCAVATIONS (7–1–94 EDITION). THE EXCAVATION SAFETY PLAN AND PROCEDURES SHALL MEET OR EXCEED ALL REQUIREMENTS AS IDENTIFIED IN THE OCCUPATION SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARD 29 CFR PART 1926 SUBPART P–EXCAVATIONS (7–1–94 EDITION). SPECIFICALLY, THE CONTRACTOR AND/OR THE CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT AN EXCAVATION SAFETY PROGRAM IN ACCORDANCE WITH OSHA'S STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND ANY EXCAVATION. IN ORDER TO DEVELOP THE CONTRACTOR'S EXCAVATION SAFETY PLAN AND PROCEDURES, THE EXCAVATION SAFETY PLAN AND PROCEDURES SHALL MEET OR EXCEED ALL REQUIREMENTS AS IDENTIFIED IN THE OCCUPATION SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARD 29 CFR PART 1926 SUBPART P–EXCAVATIONS (7–1–94 EDITION). SPECIFICALLY, THE CONTRACTOR AND/OR THE CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT AN EXCAVATION SAFETY PROGRAM IN ACCORDANCE WITH OSHA'S STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND ANY EXCAVATION.

SECTION "B"-"B"
TYPICAL GAS AND ELECTRIC/
WATER CROSSING
NOT TO SCALE

TYPICAL GAS/ELECTRIC DETAIL

SHEET 1 OF 3

U-S-202 REVISION DATE: 4-13-23
CPS ENERGY CROSSING DETAILS
RESIDENTIAL DEVELOPMENT DEPT.

CONDUIT PLAN CROSSING
NOT TO SCALE

SECTION "A"-"A"
CONDUIT PLAN CROSSING
NOT TO SCALE

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IMPORTANT
EXCAVATION SAFETY PLAN AND PROCEDURES

THE CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT AN EXCAVATION SAFETY PROGRAM IN ACCORDANCE WITH OSHA'S STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND ANY EXCAVATION. SPECIFICALLY, THE CONTRACTOR AND/OR THE CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT AN EXCAVATION SAFETY PROGRAM THAT COMPLIES WITH THE OCCUPATION SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARD 29 CFR PART 1926 SUBPART P–EXCAVATIONS (7–1–94 EDITION). IN ORDER TO DEVELOP THE CONTRACTOR'S EXCAVATION SAFETY PLAN AND PROCEDURES, THE EXCAVATION SAFETY PLAN AND PROCEDURES SHALL MEET OR EXCEED ALL REQUIREMENTS AS IDENTIFIED IN THE OCCUPATION SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARD 29 CFR PART 1926 SUBPART P–EXCAVATIONS (7–1–94 EDITION). SPECIFICALLY, THE CONTRACTOR AND/OR THE CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT AN EXCAVATION SAFETY PROGRAM IN ACCORDANCE WITH OSHA'S STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND ANY EXCAVATION.

CONDUIT PLAN CROSSING
NOT TO SCALE

SECTION "C"-"C"
TYPICAL GAS AND ELECTRIC/
DRAINAGE CROSSING
NOT TO SCALE

MISC. UTILITIES BELOW GAS/ELECTRIC

SHEET 2 OF 3

U-S-202 REVISION DATE: 4-13-23
CPS ENERGY CROSSING DETAILS
RESIDENTIAL DEVELOPMENT DEPT.

CONDUIT PLAN CROSSING
NOT TO SCALE

SECTION "A"-"A"
CONDUIT PLAN CROSSING
NOT TO SCALE

** CONDUIT MARKERS ARE TO BE INSTALLED AT CONDUIT ENDS FOR EASE OF LOCATION BY CPS ENERGY CREWS.

PLEASE NOTE THAT THESE CROSSING DETAILS APPLY TO MOST PROJECTS WITHIN THE SAWS & COUNTY PROJECTS. ANY DRY TO WET UTILITY CROSSING REQUIREMENTS SHOULD BE VERIFIED WITH CPS ENERGY AND THE WATER DISTRICT'S REQUIREMENTS.

IMPORTANT
EXCAVATION SAFETY PLAN AND PROCEDURES

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CONDUIT PLAN CROSSING
NOT TO SCALE

SECTION "D"-"D"
TYPICAL GAS AND ELECTRIC/
DRAINAGE CROSSING
NOT TO SCALE

MISC. UTILITIES ABOVE GAS/ELECTRIC

SHEET 3 OF 3

U-S-202 REVISION DATE: 4-13-23
CPS ENERGY CROSSING DETAILS
RESIDENTIAL DEVELOPMENT DEPT.

REVISIONS

NO.	DATE	DESCRIPTION	BY

PROJ. #	DGN. BY:	DWN. BY:	CHK'D. BY:	DATE:

MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297/SURVEYING: F-10131500
5726 DUBLIN TRAIL, BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5065

PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
5/14/24

TRAILS AT LOWER SEGUIN

UTILITY DETAILS

SHEET
C1.2

SUBMITTAL SET

Plot Date: May 20, 2024 User ID: Dallas Gonley
R:\Lower Seguin Road\Unit 1\Drawings\25044_01.0 Utility Cover.dwg

CONSTRUCTION PLANS FOR

TRAILS AT LOWER SEGUIN

SANITARY SEWER IMPROVEMENTS

SUBMITTED BY:

MOY TARIN RAMIREZ ENGINEERS, LLC.
5723 UNIVERSITY HEIGHTS BLVD., STE. 103
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

OWNER/DEVELOPER

YANTIS LAND, LLC
2806 W. BITTERS RD STE. 227
SAN ANTONIO, TX 78248
(210) 831-1563

Sheet List Table

Sheet Number	Sheet Title
C2.0	SEWER COVER
C2.1	SEWER OVERALL
C2.2	SANITARY SEWER PLAN & PROFILE LINE "A"
C2.3	SANITARY SEWER PLAN & PROFILE LINE "B"
C2.4	SANITARY SEWER PLAN & PROFILE LINE "C"
C2.5	SANITARY SEWER PLAN & PROFILE LINE "D"
C2.6	SANITARY SEWER PLAN & PROFILE LINE "D"
C2.7	SANITARY SEWER PLAN & PROFILE LINE "E"
C2.8	SANITARY SEWER DETAILS

NOTE TO CONTRACTOR:

1. ALL SANITARY SEWER LATERALS TO BE 2% TO END OF LINE AS PER SCHERTZ DETAIL.
2. PAY CUTS ARE TO PROPOSED SUBGRADE ELEVATION IN STREETS.
3. ALL SANITARY SEWER MAINS AND LATERALS ARE SDR-26.
4. ALL SANITARY SEWER LATERAL MUST HAVE A MINIMUM OF 3 FEET TO TOP OF PIPE AT TOP OF CURB TO AVOID CONFLICTS WITH CPS UTILITY CONSTRUCTION.

NOTE TO CONTRACTOR:

BY THE ACT OF SUBMITTING A BID FOR THIS 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, SPECIFICATIONS AND ALL 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.

THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AND/OR DEPTHS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT EACH INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS AND DEPTHS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITY CROSSINGS PRIOR TO BEGINNING ANY CONSTRUCTION.

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING CONDUIT SLEEVES FOR EACH CPS FACILITY AT ALL STREETS AND DRAIN CROSSING IF BUILT AHEAD OF CPS CONSTRUCTION. SLEEVES MUST ALSO BE LOCATED FOR CPS CREWS DURING CONSTRUCTION. (SEPARATE ITEM)

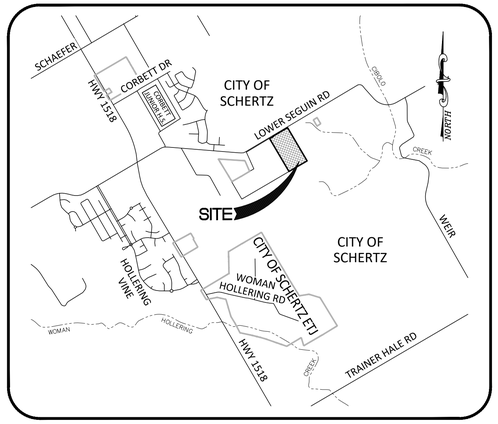
CAUTION!!!

EXISTING UTILITIES:

1. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY CONTRACTOR PRIOR TO THE CONSTRUCTION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF SAME DURING CONSTRUCTION. IF ANY DISCREPANCY NOTIFY ENGINEER.
2. IT IS ESSENTIAL THAT 48 HOURS PRIOR TO CONSTRUCTION ALL UTILITY COMPANIES BE NOTIFIED TO LOCATE AND TAG THEIR UNDERGROUND FACILITIES PRIOR TO EXCAVATION.
3. THE CONTRACTOR NEEDS TO ALLOW FOR THE POSSIBILITY OF UNDETECTED UNDERGROUND UTILITIES. ALSO, THE CONTRACTOR MUST ALLOW FOR CHANGES DUE TO UTILITIES BEING IN LOCATIONS DIFFERENT FROM THOSE SHOWN ON THE UTILITY RECORD DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND EXPOSING CONFLICTS PRIOR TO CONSTRUCTION.

TRENCH EXCAVATION SAFETY PROTECTION

Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation 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.



VICINITY MAP
N.T.S.

SUBMITTAL DATE:
MARCH 2026

LEGAL DESCRIPTION:

A 19.936 ACRE (868,391.88 SQUARE FEET) TRACT OF LAND, SITUATED IN THE JULIAN DIAZ SURVEY, ABSTRACT NUMBER 187, BEXAR COUNTY, TEXAS, BEING ALL OF THE REMAINING PORTION OF A 2.005 ACRE TRACT AS CONVEYED TO CARLOS GARZA, JR. AND WIFE, MARGRET L. CARTY, BY WARRANTY DEED AS RECORDED IN VOLUME 6541, PAGE 807, BEING ALL OF A 2.003 ACRE TRACT AS CONVEYED TO JAMES B. CARTY, BY WARRANTY DEED AS RECORDED IN VOLUME 6541, PAGE 812, AND BEING ALL OF A 15.977 ACRE TRACT AS CONVEYED TO JANICE S. LINDORFER AND ROBERT C. LINDORFER, JR., BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN VOLUME 8177, PAGE 1250, ALL OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS.

ESTIMATED SEWER QUANTITIES

ITEM	DESCRIPTION	UNIT	EST/QTY
1	TIE INTO EXISTING SANITARY SEWER MAIN	E.A.	1
2	TRENCH EXCAVATION SAFETY PROTECTION	L.F.	3,439
3	8" SANITARY SEWER PIPE, SDR-26 (0'-6')	L.F.	48
4	8" SANITARY SEWER PIPE, SDR-26 (6'-10')	L.F.	3,238
5	8" SANITARY SEWER PIPE, SDR-26 (10'-14')	L.F.	57
6	8" SANITARY SEWER PIPE, SDR-26 (14'-18')	L.F.	96
7	STANDARD SANITARY SEWER MANHOLE	EA.	8
8	INTERNAL DROP MANHOLE	EA.	1
9	EXTRA DEPTH MANHOLE	V.F.	27.0
10	SANITARY SEWER LATERALS, SDR-26	L.F.	2,265
11	SEWER MAIN TELEVISION INSPECTION	L.F.	3,439
12	REMOVE/REPLACE ASHPALT/BASE	S.F.	113

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC
FIRM TBPELS ENG F-5297 SVY F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

R:\Lower Seguin Road\Unit 1\Drawings\25044_C2.0 Sanitary Sewer Cover.dwg
Plot Date: May 20, 2026 User ID: Dallas Gardea

TCEQ RULES AND REGULATIONS, TAC TITLE 30 PART I CHAPTER 217.53.D, "SEPARATION DISTANCES".

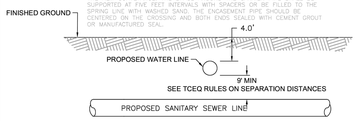
WHEN NEW SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO WATERLINES THAN NINE FEET IN ALL DIRECTIONS. SEWERS THAT PARALLEL WATERLINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES WILL APPLY:

(A) WHERE A SANITARY SEWER PARALLELS A WATERLINE, THE SEWER SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC METING ASTM SPECIFICATIONS WITH A PRESSURE RATING FOR BOTH THE PIPE AND JOINTS OF 150 PSI. THE VERTICAL SEPARATION SHALL BE A MINIMUM OF TWO FEET BETWEEN OUTSIDE DIAMETERS AND THE HORIZONTAL SEPARATION SHALL BE A MINIMUM OF FOUR FEET BETWEEN OUTSIDE DIAMETERS. THE SEWER SHALL BE LOCATED BELOW THE WATERLINE.

(B) WHERE A SANITARY SEWER CROSSES A WATERLINE AND THE SEWER IS CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI, AN ABSOLUTE MINIMUM DISTANCE OF SIX INCHES BETWEEN OUTSIDE DIAMETERS SHALL BE MAINTAINED. IN ADDITION, THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.

(C) WHERE A SEWER CROSSES UNDER A WATERLINE AND THE SEWER IS CONSTRUCTED OF ABS TRUSS PIPE, SIMILAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE, OR CONCRETE PIPE WITH GASKETED JOINTS, A MINIMUM TWO-FOOT SEPARATION DISTANCE SHALL BE MAINTAINED. THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTIONS OF SEWER WITHIN NINE FEET OF THE WATERLINE. THIS INITIAL BACKFILL SHALL BE FROM ONE QUARTER DIAMETER BELOW THE CENTERLINE OF THE PIPE TO ONE PIPE DIAMETER (BUT NOT LESS THAN 12 INCHES) ABOVE THE TOP OF THE PIPE.

(D) WHERE A SEWER CROSSES OVER A WATERLINE, ALL PORTIONS OF THE SEWER WITHIN NINE FEET OF THE WATERLINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC PIPE WITH A PRESSURE RATING OF AT LEAST 150 PSI USING APPROPRIATE ADAPTERS. IN LIEU OF THIS PROCEDURE THE NEW CONVEYANCE MAY BE ENCASED IN A JOINT OF 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE CARRIER PIPE. THE CARRIER PIPE SHALL BE CENTERED AND SUPPORTED AT FIVE FEET INTERVALS WITH SPACERS OR BE PULLED IN. THE SPRING LINE WITH WASHED SAND. THE ENCASEMENT PIPE SHOULD BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEAL.



SCHERTZ COMMUNITY★SERVICE★OPPORTUNITY

OSHA TRENCH SAFETY

TECHNICAL SPECIFICATION SECTION 02260

ENGINEERING AND PUBLIC WORKS

OSHA TRENCH SAFETY

1. TRENCH EXCAVATION SHALL COMPLY WITH MINIMUM STANDARDS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, REGULATIONS STANDARDS – 29 CFR – "EXCAVATION" – 1926 SUBPART P.

2. TRENCH SAFETY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHOP DRAWINGS FOR DETAIL PLANS AND SPECIFICATIONS TO PROVIDE ADEQUATE SHORING AND SHEETING STANDARDS THAT MEET THE OSHA STANDARDS AS SET OUT BY STANDARDS – 29 CFR – EXCAVATION" – 1926 SUBPART P FOR TRENCH SAFETY.

3. CONTINUOUS INSPECTION OF ALL TRENCH EXCAVATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR JOB SUPERINTENDENT. THE CONTRACTOR CONTROLS THE SIZE, WEIGHT, AND SPEED OF OPERATION OF EQUIPMENT AND PIPE INSTALLATION, WHICH DIRECTLY AFFECTS ALL SAFETY MEASURES IN A TRENCH. IF PROBABLE CAUSE OF UNSAFE TRENCH CONDITIONS EXIST, ALL WORK SHALL CEASE IMMEDIATELY UNTIL NECESSARY PRECAUTIONS TO SAFEGUARD EMPLOYEES ARE TAKEN.

SCHERTZ COMMUNITY★SERVICE★OPPORTUNITY

OSHA TRENCH SAFETY

TECHNICAL SPECIFICATION SECTION 02260

ENGINEERING AND PUBLIC WORKS

NOTE:
CONTRACTOR TO COORDINATE REMOVAL OR RELOCATION OF EXISTING UTILITIES

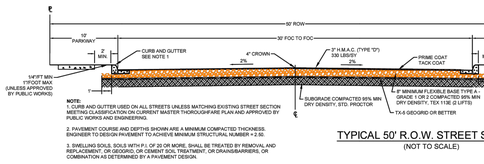
CAUTION!!!

EXISTING UTILITIES:

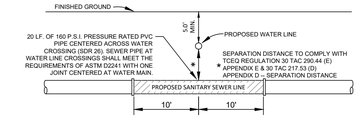
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2. IT IS ESSENTIAL THAT 48 HOURS PRIOR TO CONSTRUCTION ALL UTILITY COMPANIES BE NOTIFIED TO LOCATE AND TAG THEIR UNDERGROUND FACILITIES PRIOR TO EXCAVATION.
3. THE CONTRACTOR NEEDS TO ALLOW FOR THE POSSIBILITY OF UNDETECTED UNDERGROUND UTILITIES. ALSO, THE CONTRACTOR MUST ALLOW FOR CHANGES DUE TO UTILITIES BEING IN LOCATIONS DIFFERENT FROM THOSE SHOWN ON THE UTILITY RECORD DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND EXPOSING CONFLICTS PRIOR TO CONSTRUCTION.

TRENCH EXCAVATION SAFETY PROTECTION

Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation 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.



TYPICAL 50' R.O.W. STREET SECTION
(NOT TO SCALE)

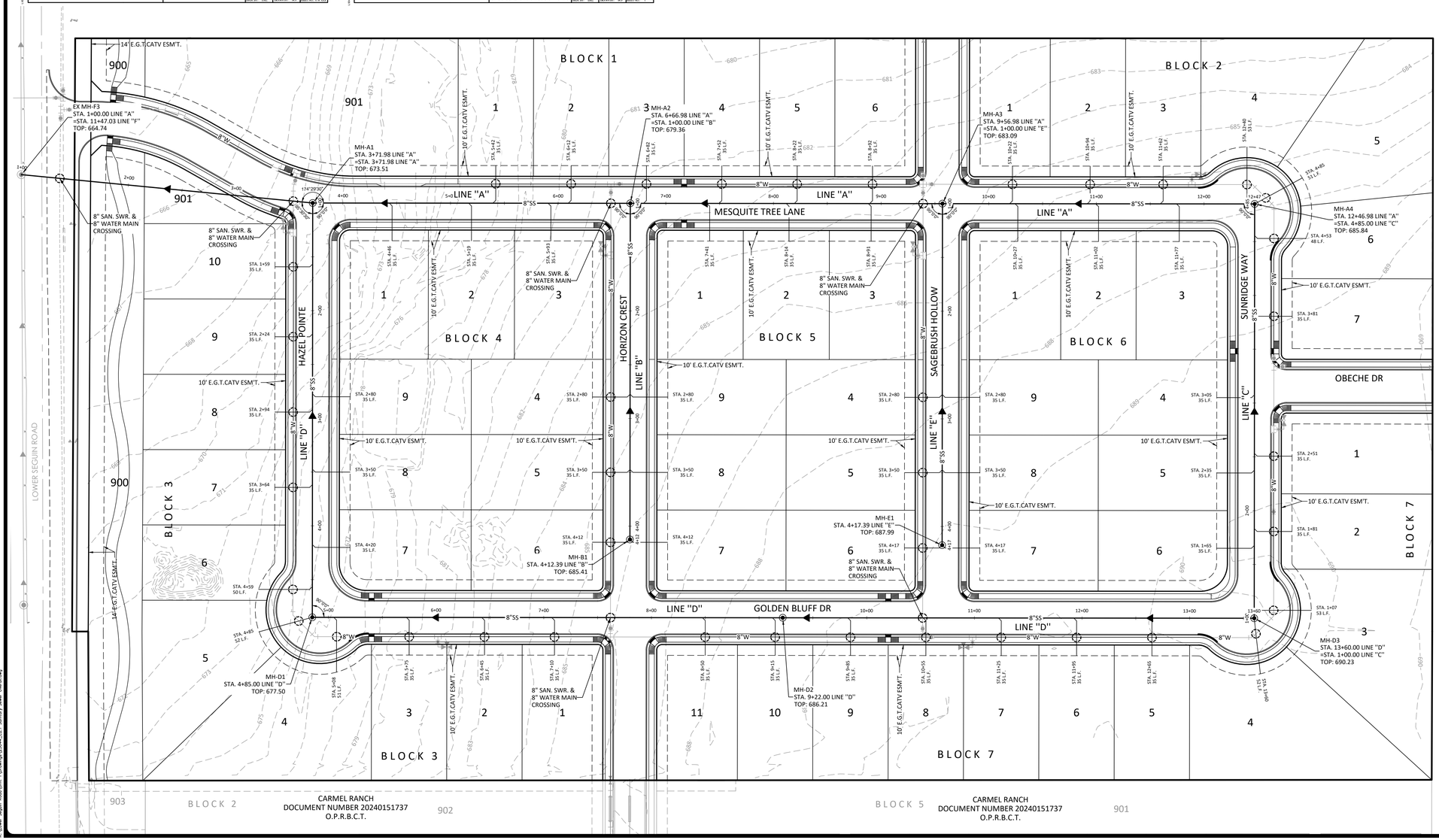


TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL
N.T.S.

LEGEND

EXISTING WATER MAIN	EX 8"W
PROPOSED WATER MAIN	8"W
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	EX 8"SS
PROPOSED SANITARY SEWER MAIN & MANHOLE	8"SS
EXISTING SANITARY SEWER MAIN & MANHOLE	EX 8"SS
PROPOSED SERVICE LATERAL WITH ONE-WAY CLEAN-OUT	
VERTICAL STACK	VS
ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT	E.G.T.CA.E.
TEMPORARY BENCHMARK	
PROPOSED MINIMUM FINISH FLOOR ELEVATION	MIN. F.F. = 795.5
SANITARY SEWER/WATER CROSSING LOCATION	
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	O.P.R.B.C.T.
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS	O.P.R.M.C.T.

SCALE: 1"=50'
0 50 100



NO.	DATE	REVISIONS DESCRIPTION	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:
		BY:					

MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
5/14/26

TRAILS AT LOWER SEGUIN

SANITARY SEWER OVERALL PLAN

SUBMITTAL SET

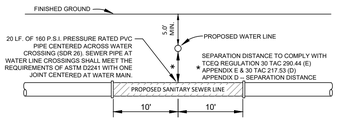
SHEET
C2.1

Plot Date: May 05, 2026 User ID: Edna Gaytan
File Name: J:\Projects\2024\24-221 Sanitary Sewer Overall.dwg

CAUTION:
EXISTING UTILITIES:
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TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL
N.T.S.

TRENCH EXCAVATION SAFETY PROTECTION

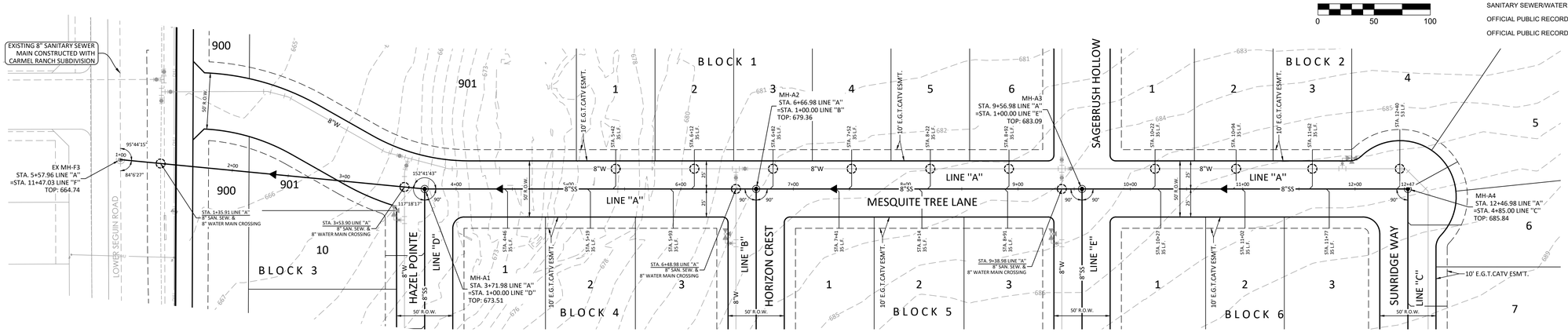
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Developer's Name	YANTIS LAND, LLC		
Developer's Address	2806 W. BITTERS RD STE. 227		
City	SAN ANTONIO	State TX	Zip 78248
Phone #	(210) 831-1563	Fax #	
SAWS Block Map #		Total EDU's 62	Total Acreage 19.983
Total Linear Footage of Pipe	3,439	Plat No.	
Number of Lots	61	SAWS Job No.	

LEGEND

EXISTING WATER MAIN	EX 8"W
PROPOSED WATER MAIN	8"W
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	
PROPOSED SANITARY SEWER MAIN & MANHOLE	8"SS
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TEMPORARY BENCHMARK	
PROPOSED MINIMUM FINISH FLOOR ELEVATION	MIN. F.F. = 795.5
SANITARY SEWER/WATER CROSSING LOCATION	
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	O.P.R.B.C.T.
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS	O.P.R.M.C.T.

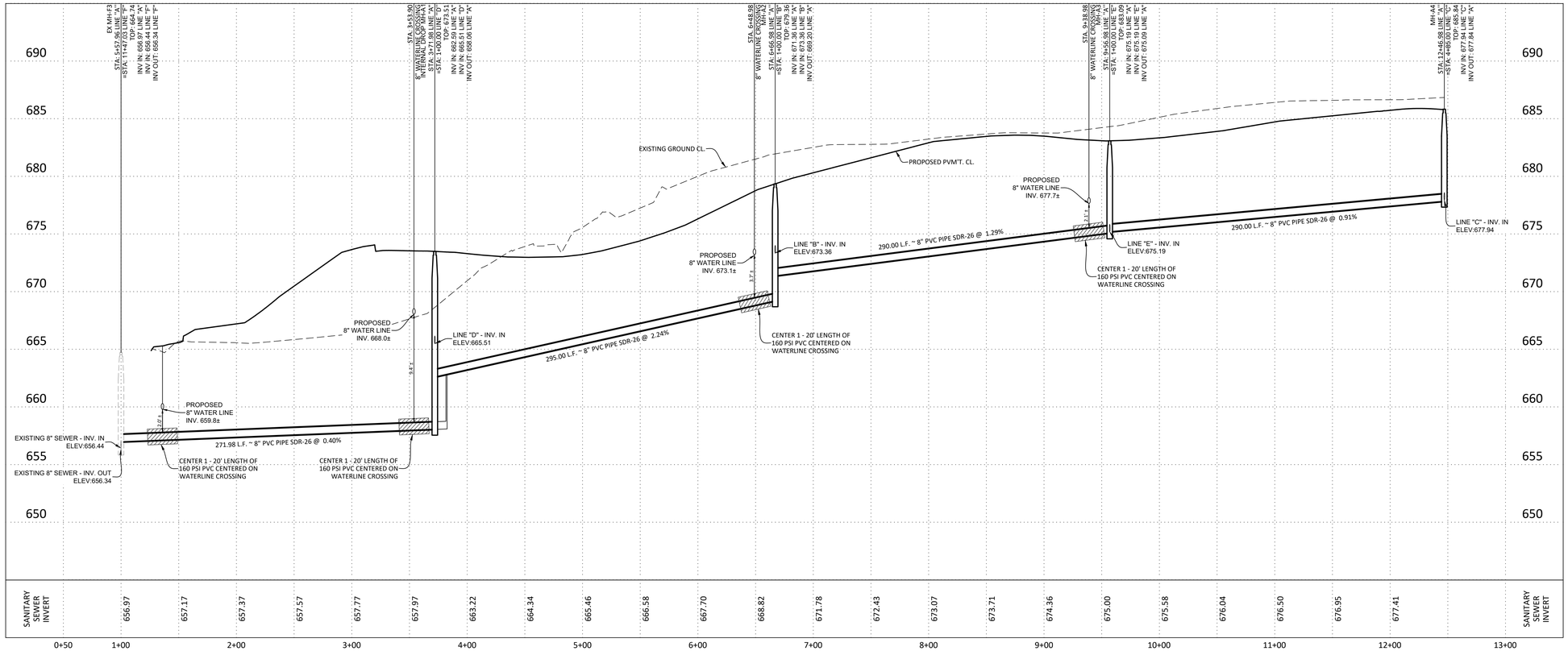
SCALE: 1"=50'
0 50 100



LINE "A"

STA. 1+00.00 TO STA. 12+65.07

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



SUBMITTAL SET

NO.	DATE	DESCRIPTION	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:
		REVISIONS					

• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F--10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
5/19/26

TRAILS AT LOWER SEGUIN

SANITARY SEWER PLAN & PROFILE
LINE "A"
STA. 1+00.00 TO STA. 12+65.07

SHEET
C2.2

Plot Date: May 05, 2026 User: JD Gonzalez
P:\Lower Segin Road\Civil\Drawings\2026\4.C2.2 Sanitary Sewer Line "A".dwg

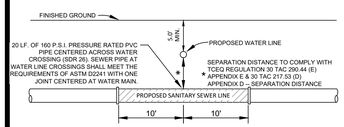
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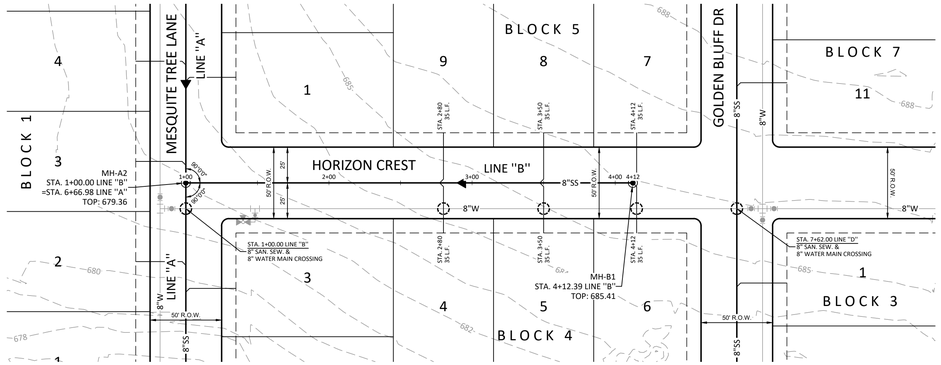
TRENCH EXCAVATION SAFETY PROTECTION

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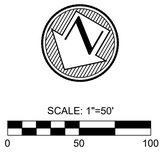
TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL

N.T.S.



LEGEND

EXISTING WATER MAIN	EX 8"W
PROPOSED WATER MAIN	8"W
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	
PROPOSED SANITARY SEWER MAIN & MANHOLE	8"SS
EXISTING SANITARY SEWER MAIN & MANHOLE	EX 8"SS
PROPOSED SERVICE LATERAL WITH ONE-WAY CLEAN-OUT	
VERTICAL STACK	VS
ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT	E.G.T.CA.
TEMPORARY BENCHMARK	
PROPOSED MINIMUM FINISH FLOOR ELEVATION	MIN. F.F. = 795.5
SANITARY SEWER/WATER CROSSING LOCATION	
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	O.P.R.B.C.T.
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS	O.P.R.M.C.T.

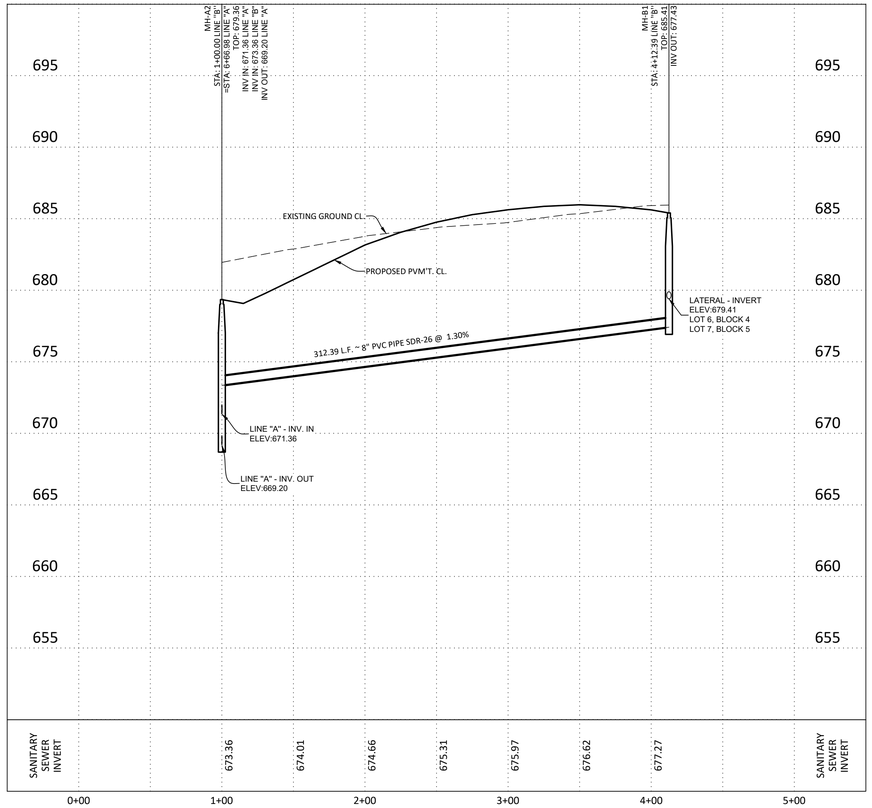


Developer's Name YANTIS LAND, LLC
Developer's Address 2806 W. BITTERS RD STE. 227
City SAN ANTONIO State TX Zip 78248
Phone # (210) 831-1563 Fax #
SAWS Block Map # Total EDU's 62 Total Acreage 19.983
Total Linear Footage of Pipe 3,439 Plat No.
Number of Lots 61 SAWS Job No.

LINE ''B''

STA. 1+00.00 TO STA. 4+12.39

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



SUBMITTAL SET

REVISIONS

NO.	DATE	DESCRIPTION	BY:

PROJ. #: DSN. BY: DWN. BY: CHKD. BY: DATE:

• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

TRAILS AT LOWER SEGUIN

SANITARY SEWER PLAN & PROFILE
LINE ''B''
STA. 1+00.00 TO STA. 4+12.39

SHEET
C2.3

Plot Date: May 05, 2026 User ID: Erika Gordea
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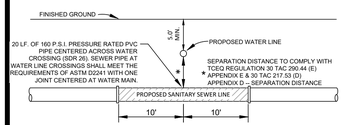
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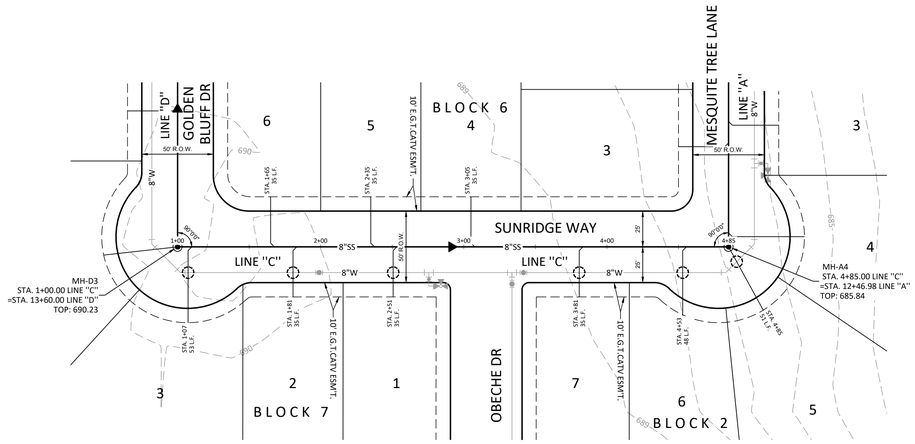
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TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL

N.T.S.



LEGEND

EXISTING WATER MAIN	EX 8"W
PROPOSED WATER MAIN	8"W
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	
PROPOSED SANITARY SEWER MAIN & MANHOLE	8"SS
EXISTING SANITARY SEWER MAIN & MANHOLE	EX 8"SS
PROPOSED SERVICE LATERAL WITH ONE-WAY CLEAN-OUT	
VERTICAL STACK	VS
ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT	E.G.T.CA.
TEMPORARY BENCHMARK	
PROPOSED MINIMUM FINISH FLOOR ELEVATION	MIN. F.F. = 795.5
SANITARY SEWER/WATER CROSSING LOCATION	
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	O.P.R.B.C.T.
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS	O.P.R.M.C.T.

SCALE: 1"=50'

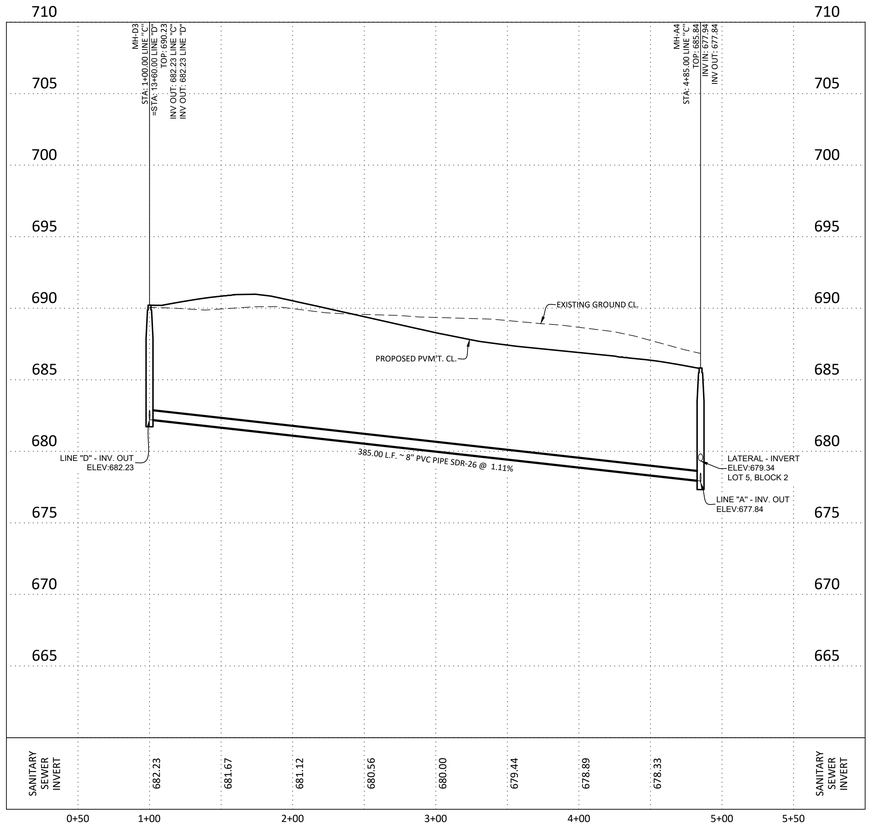
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Developer's Name	YANTIS LAND, LLC
Developer's Address	2806 W. BITTERS RD STE. 227
City	SAN ANTONIO State TX Zip 78248
Phone #	(210) 831-1563 Fax #
SAWS Block Map #	Total EDU's 62 Total Acreage 19.983
Total Linear Footage of Pipe	3,439 Plat No.
Number of Lots	61 SAWS Job No.

LINE ''C''

STA. 1+00.00 TO STA. 4+85.00

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



SUBMITTAL SET

NO.	DATE	DESCRIPTION	BY:
		REVISIONS	

PROJ. #: DSN. BY: DWN. BY: CHKD. BY: DATE:

• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
5/19/26

TRAILS AT LOWER SEGUIN

SANITARY SEWER PLAN & PROFILE
LINE ''C''
STA. 1+00.00 TO STA. 4+85.00

SHEET
C2.4

Plot Date: May 20, 2026 User ID: Sophia Gordea
K:\Land Projects\Trails at Lower Seguin\Civil\Sheets\C2.4 Sanitary Sewer Line "C".dwg

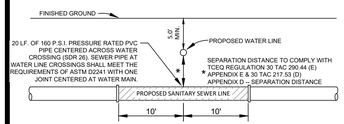
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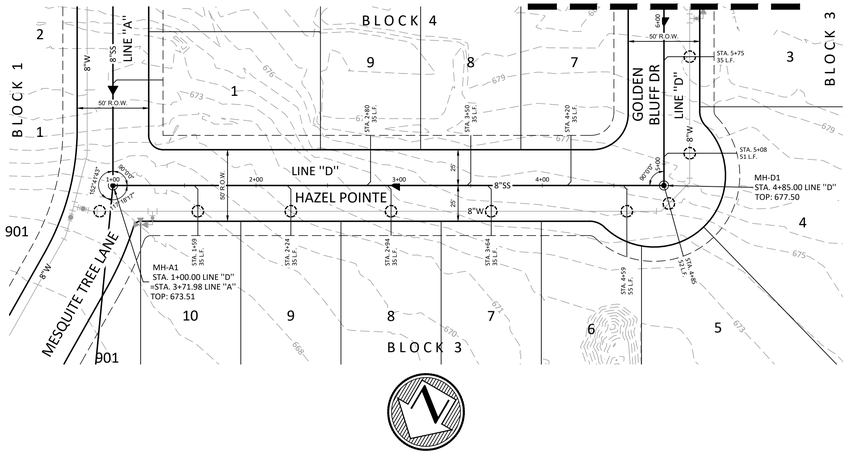
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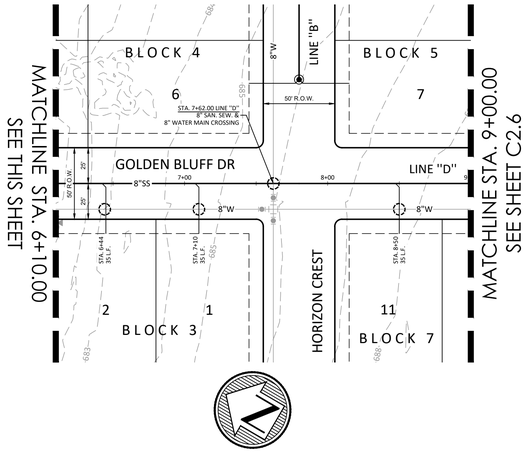
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TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL
N.T.S.





PLAT NO.

LEGEND

EXISTING WATER MAIN	EX 8"W
PROPOSED WATER MAIN	8"W
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	
PROPOSED SANITARY SEWER MAIN & MANHOLE	8"SS
EXISTING SANITARY SEWER MAIN & MANHOLE	EX 8"SS
PROPOSED SERVICE LATERAL WITH ONE-WAY CLEAN-OUT	
VERTICAL STACK	VS
ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT	E.G.T.CA.
TEMPORARY BENCHMARK	
PROPOSED MINIMUM FINISH FLOOR ELEVATION	MIN. F.F. = 795.5
SANITARY SEWER/WATER CROSSING LOCATION	
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	O.P.R.B.C.T.
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS	O.P.R.M.C.T.

SCALE: 1"=50'
0 50 100

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Phone #	(210) 831-1563 Fax #
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NO.	DESCRIPTION	DATE	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

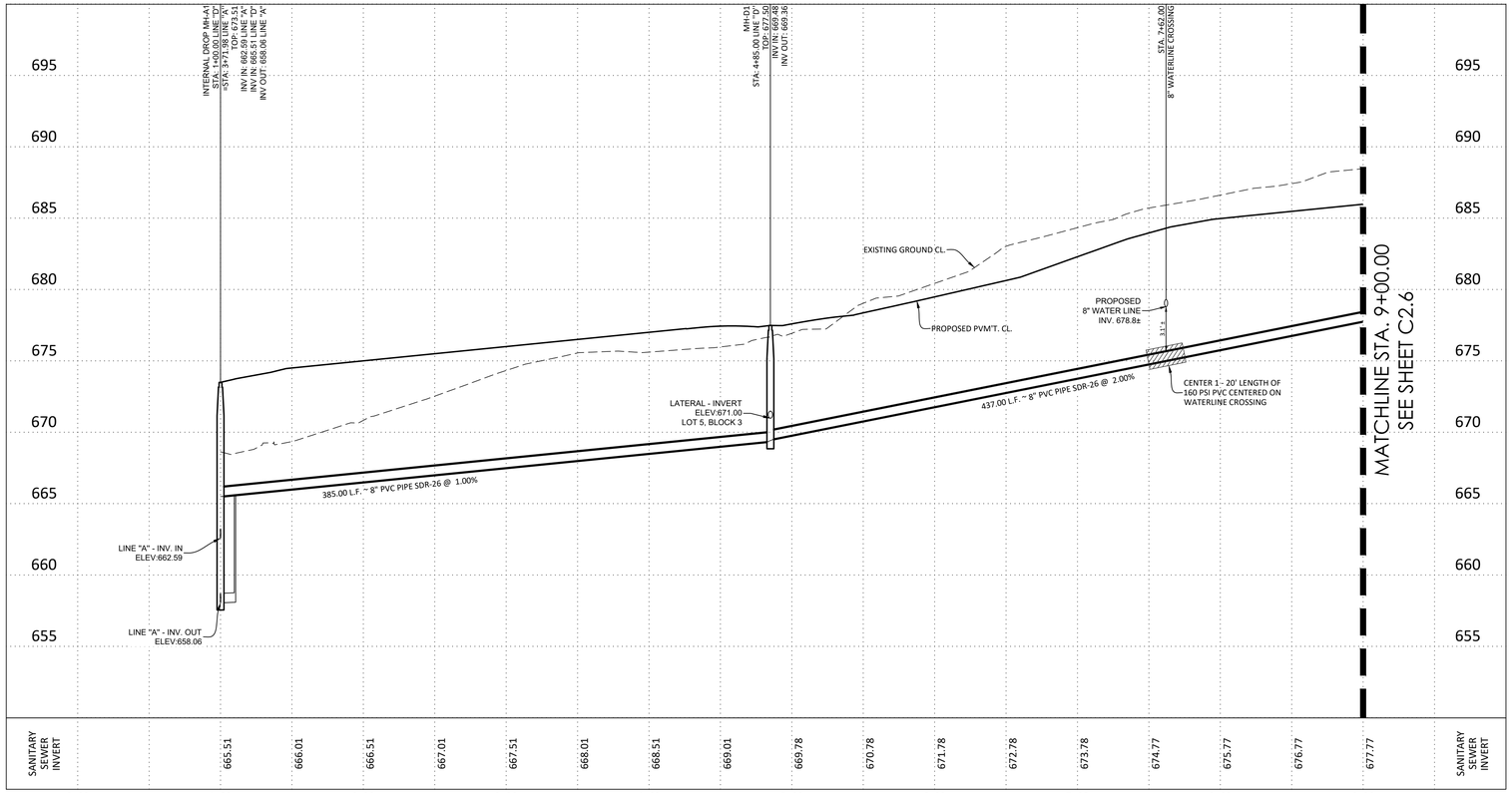
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MTR
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PAUL LANDA, JR
100182
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
5/10/24

LINE "D"

STA. 1+00.00 TO STA. 9+00.00

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



TRAILS AT LOWER SEGUIN

SANITARY SEWER PLAN & PROFILE
LINE "D"
STA. 1+00.00 TO STA. 9+00.00

SHEET
C2.5

SUBMITTAL SET

Plot Date: May 20, 2024 User ID: Edna Gonzalez
File Name: J:\Projects\2024\24-2.2.1 Sanitary Sewer\24-2.2.1_Sanitary Sewer.dwg, "P" Tab

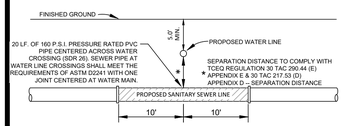
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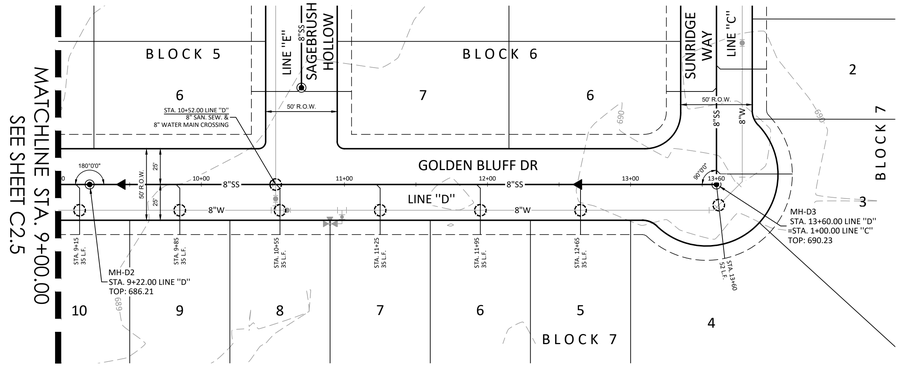
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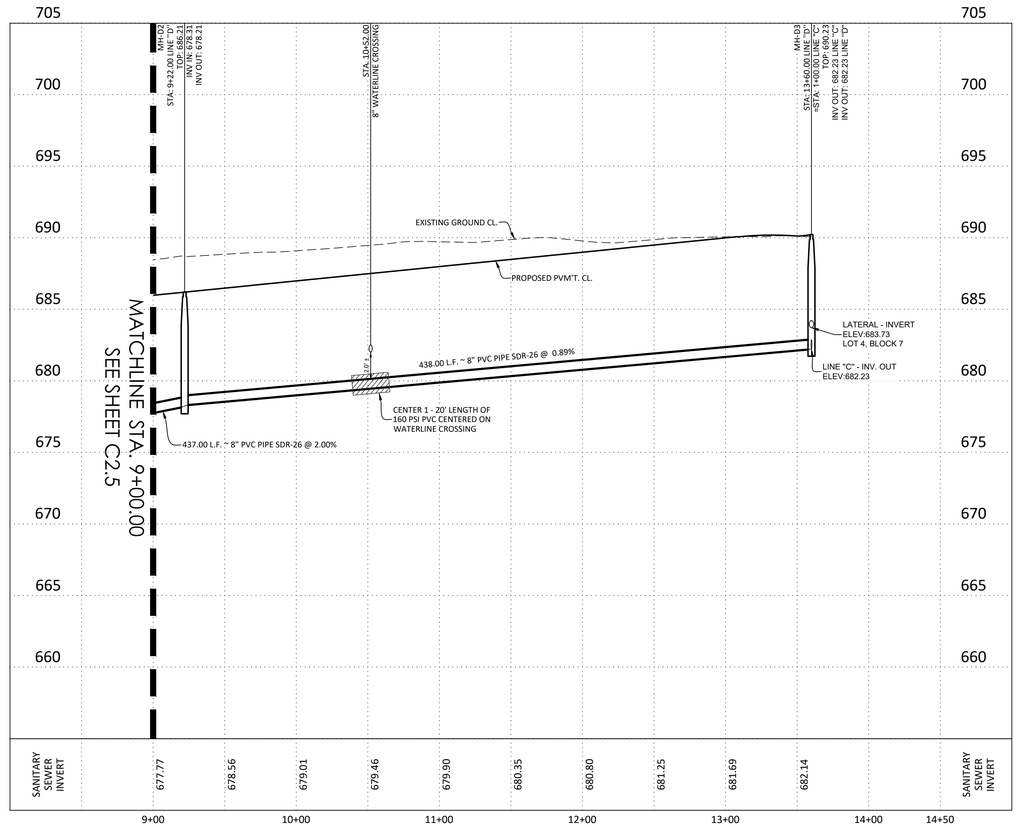
TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL
N.T.S.



LINE ''D''

STA. 1+00.00 TO STA. 9+00.00

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



LEGEND

EXISTING WATER MAIN	EX 8"W
PROPOSED WATER MAIN	8"W
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	
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EXISTING SANITARY SEWER MAIN & MANHOLE	EX 8"SS
PROPOSED SERVICE LATERAL WITH ONE-WAY CLEAN-OUT	
VERTICAL STACK	VS
ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT	E.G.T.CA.
TEMPORARY BENCHMARK	
PROPOSED MINIMUM FINISH FLOOR ELEVATION	MIN. F.F. = 795.5
SANITARY SEWER/WATER CROSSING LOCATION	
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	O.P.R.B.C.T.
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5/19/26

TRAILS AT LOWER SEGUIN

SANITARY SEWER PLAN & PROFILE
LINE "D"
STA. 1+00.00 TO STA. 9+00.00

SHEET
C2.6

SUBMITTAL SET

Plot Date: May 20, 2026 User ID: Dalina Grajeda
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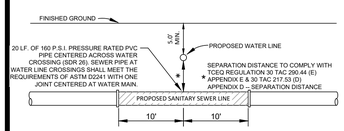
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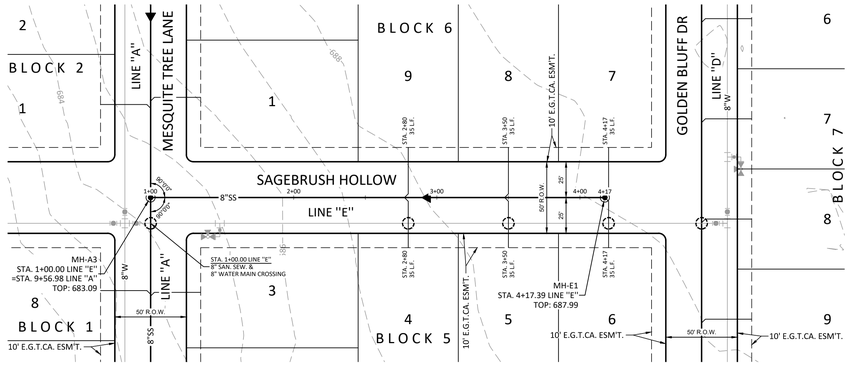
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TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL

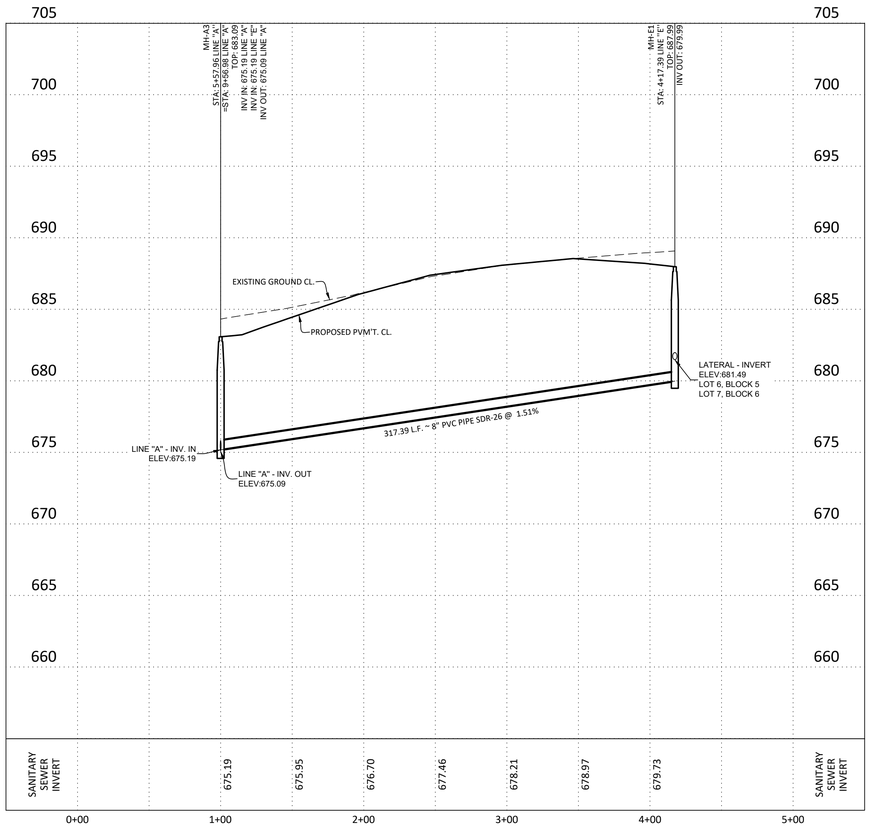
N.T.S.



LINE "E"

STA. 1+00.00 TO STA. 4+17.39

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



LEGEND

EXISTING WATER MAIN	EX 8"W
PROPOSED WATER MAIN	8"W
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	
PROPOSED SANITARY SEWER MAIN & MANHOLE	8"SS
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VERTICAL STACK	VS
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SANITARY SEWER/WATER CROSSING LOCATION	
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	O.P.R.B.C.T.
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS	O.P.R.M.C.T.

SCALE: 1"=50'

0 50 100

Developer's Name YANTIS LAND, LLC
Developer's Address 2806 W. BITTERS RD STE. 227
City SAN ANTONIO State TX Zip 78248
Phone # (210) 831-1563 Fax #
SAWS Block Map # Total EDU's 62 Total Acreage 19.983
Total Linear Footage of Pipe 3,439 Plat No.
Number of Lots 61 SAWS Job No.

REVISIONS

NO.	DATE	DESCRIPTION	BY:	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

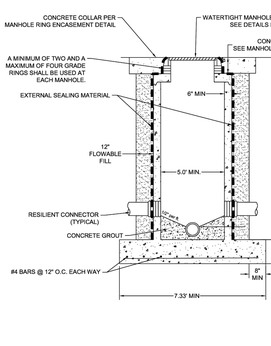
TRAILS AT LOWER SEGUIN

SANITARY SEWER PLAN & PROFILE
LINE "E"
STA. 1+00.00 TO STA. 4+17.39

SHEET
C2.7

SUBMITTAL SET

Plot Date: May 20, 2026 User ID: Erika Gordea
K:\Land Projects\Yantis Land, LLC\Trails\2024-123 Sanitary Sewer Use "E".dwg



GENERAL NOTES

1. THE CONTRACTOR SHALL PLACE FLOWABLE FILL A MINIMUM OF 1-FT. AROUND WALLS, FROM THE BOTTOM OF BASE UP TO THE BOTTOM OF CONCRETE COLLAR. PER SPEC. 02081 AND 02082.
2. TOP SECTION SHALL BE FLAT TOP WITH CONCENTRIC HOLE.
3. WALL REINFORCEMENT SHALL BE DESIGNED BY ENGINEER FOR CAST-IN-PLACE MANHOLES.
4. PROVIDE WATERTIGHT SEAL BETWEEN PRECAST CONCRETE ADJUSTMENT RINGS AND MANHOLE COVER FRAME, AROUND MANHOLE, HDPE RINGS, AND MANHOLE RISER JOINTS PER SPEC 02081, 02082, AND 02083 (GATORWRAP OR APPROVED EQUAL).
5. INTERIOR MANHOLE WALLS SHALL BE COATED WITH AN APPROVED LINER PER SPEC 02081 AND 02082 IN AREAS WHICH EXPERIENCE CORROSION. .

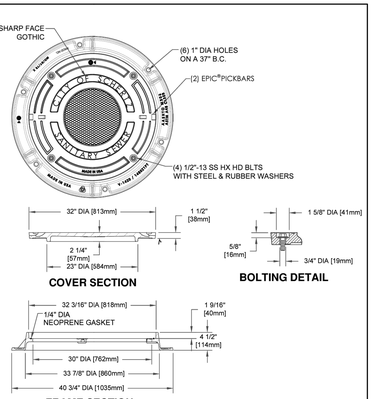
SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

STANDARD DETAIL 02081.1

MANHOLES

TECHNICAL SPECIFICATION SECTIONS 02081, 02082, & 02083

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 1 of 3



GENERAL NOTES

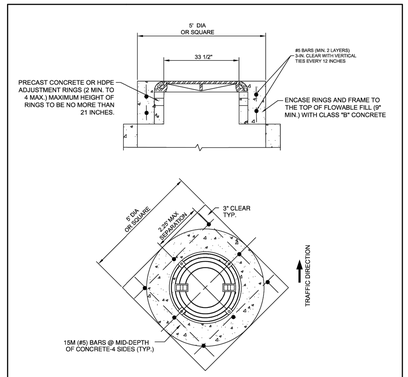
1. MANHOLE RING ENCASEMENT IS REQUIRED ON ALL MANHOLES.
2. PAYMENT FOR MANHOLE RING ENCASEMENT SHALL BE INCLUDED IN THE COST OF THE MANHOLE

SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

MANHOLE RING & COVER

TECHNICAL SPECIFICATION SECTION 02084

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 2 of 3



GENERAL NOTES

1. MANHOLE RING ENCASEMENT IS REQUIRED ON ALL MANHOLES.
2. PAYMENT FOR MANHOLE RING ENCASEMENT SHALL BE INCLUDED IN THE COST OF THE MANHOLE

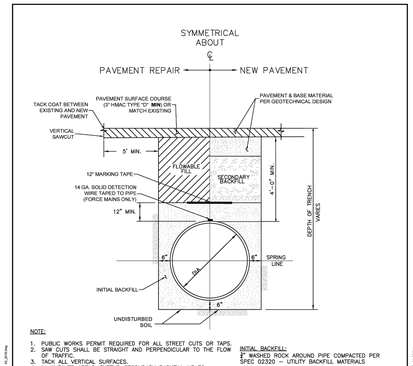
SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

STANDARD DETAIL 02081.2

MANHOLE RING ENCASEMENT

TECHNICAL SPECIFICATION SECTIONS 02081, 02082, & 02083

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 3 of 3



NOTE:

1. PUBLIC WORKS PERMIT REQUIRED FOR ALL STREET CUTS OR TAPS.
2. SAW CUTS SHALL BE STRAIGHT AND PERPENDICULAR TO THE FLOW OF TRAFFIC.
3. TACK ALL VERTICAL SURFACES.
4. SAW CUT, EXCAVATE, EXTEND SECONDARY BACKFILL UP TO REQUIRED TOP SOIL.
5. SUBMITTALS—PROVIDE DELIVERY TICKETS INCLUDING SOURCE LOCATION FOR EACH DELIVERY OF MATERIAL.

INITIAL BACKFILL:
#1 WASHED ROCK AROUND PIPE COMPACTED PER SPEC 02320 – UTILITY BACKFILL MATERIALS

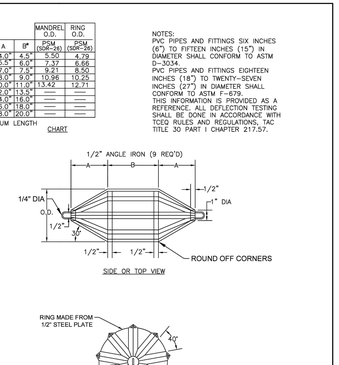
SECONDARY BACKFILL:
NATIVE MATERIAL FROM TRENCH PLACED IN MAXIMUM 8" LOOSE LIFTS, FREE OF DEBRIS AND STONES LARGER THAN 4". COMPACTION TO 95% STD PROCTOR DENSITY (ASTM D 698). PER SPEC 02317

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MAIN IN TRENCH

TECHNICAL SPECIFICATION SECTION 02531 & 02532

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 1 of 1



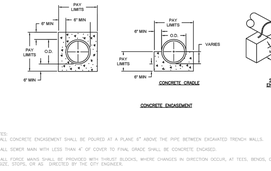
NOTE:
ALL MANDRELS MUST BE APPROVED BY CONSTRUCTION INSPECTIONS AND STAMPED BEFORE USE.

SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

DEFLECTION TESTING MANDREL

TECHNICAL SPECIFICATION SECTION 02260

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 1 of 1



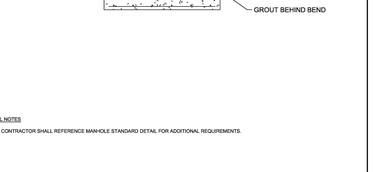
NOTES:
1) ALL CONCRETE ENCASEMENT SHALL BE POURED AT A PLANE 6" ABOVE THE PIPE BETWEEN EXCAVATED TRENCH WALLS.
2) ALL SEWER MAIN WITH LESS THAN 4' OF COVER TO FINAL GRADE SHALL BE CONCRETE ENCASED.
3) ALL FORCE MAINS SHALL BE PROVIDED WITH THRUST BLOCKS, WHERE CHANGES IN DIRECTION OCCUR, AT TEES, BENDS, CROSSOCS, CHANGES IN SIZE, STOPS, OR AS DIRECTED BY THE CITY ENGINEER.

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CONCRETE ENCASEMENT

TECHNICAL SPECIFICATION SECTION 02511

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 1 of 1



GENERAL NOTES

1. THE CONTRACTOR SHALL REFERENCE MANHOLE STANDARD DETAIL FOR ADDITIONAL REQUIREMENTS.

SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

STANDARD DETAIL 02081.3

INTERNAL DROP MANHOLE

TECHNICAL SPECIFICATION SECTIONS 02081, 02082, & 02083

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 1 of 1

OSHA TRENCH SAFETY

1. TRENCH EXCAVATION SHALL COMPLY WITH MINIMUM STANDARDS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, REGULATIONS STANDARDS – 29 CFR – "EXCAVATION" – 1926 SUBPART P.

2. TRENCH SAFETY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHOP DRAWINGS FOR DETAIL PLANS AND SPECIFICATIONS TO PROVIDE ADEQUATE SHORING AND SHEETING STANDARDS THAT MEET THE OSHA STANDARDS AS SET OUT BY STANDARDS – 29 CFR – EXCAVATION" – 1926 SUBPART P FOR TRENCH SAFETY.

3. CONTINUOUS INSPECTION OF ALL TRENCH EXCAVATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR JOB SUPERINTENDENT. THE CONTRACTOR CONTROLS THE SIZE, WEIGHT, AND SPEED OF OPERATION OF EQUIPMENT AND PIPE INSTALLATION, WHICH DIRECTLY AFFECTS ALL SAFETY MEASURES IN A TRENCH. IF PROBABLE CAUSE OF UNSAFE TRENCH CONDITIONS EXIST, ALL WORK SHALL CEASE IMMEDIATELY UNTIL NECESSARY PRECAUTIONS TO SAFEGUARD EMPLOYEES ARE TAKEN.

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OSHA TRENCH SAFETY

TECHNICAL SPECIFICATION SECTION 02260

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 1 of 1

TCEQ RULES AND REGULATIONS, TAC TITLE 30 PART I CHAPTER 217.53.D, "SEPARATION DISTANCES":

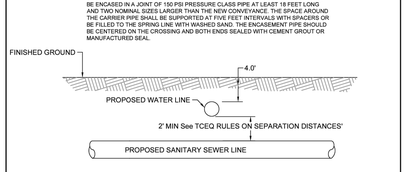
WHEN NEW SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO WATERLINES THAN NINE FEET IN ALL DIRECTIONS. SEWERS THAT PARALLEL WATERLINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES WILL APPLY.

(A) WHERE A SANITARY SEWER PARALLELS A WATERLINE, THE SEWER SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC MEETING ASTM SPECIFICATIONS WITH A PRESSURE RATING FOR BOTH THE PIPE AND JOINTS OF 150 PSI. THE VERTICAL SEPARATION SHALL BE A MINIMUM OF TWO FEET BETWEEN OUTSIDE DIAMETERS AND THE HORIZONTAL SEPARATION SHALL BE A MINIMUM OF FOUR FEET BETWEEN OUTSIDE DIAMETERS. THE SEWER SHALL BE LOCATED BELOW THE WATERLINE.

(B) WHERE A SANITARY SEWER CROSSES A WATERLINE AND THE SEWER IS CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI, AN ABSOLUTE MINIMUM DISTANCE OF SIX INCHES BETWEEN OUTSIDE DIAMETERS SHALL BE MAINTAINED. IN ADDITION, THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.

(C) WHERE A SEWER CROSSES UNDER A WATERLINE AND THE SEWER IS CONSTRUCTED OF ABS TRUSS PIPE, SIMILAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE, OR CONCRETE PIPE WITH GASKETED JOINTS, A MINIMUM TWO-FOOT SEPARATION DISTANCE SHALL BE MAINTAINED. THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTIONS OF SEWER WITHIN NINE FEET OF THE WATERLINE. THIS INITIAL BACKFILL SHALL BE FROM ONE QUARTER DIAMETER BELOW THE CENTERLINE OF THE PIPE TO ONE PIPE DIAMETER (BUT NOT LESS THAN 12 INCHES) ABOVE THE TOP OF THE PIPE.

(D) WHERE A SEWER CROSSES OVER A WATERLINE, ALL PORTIONS OF THE SEWER WITHIN NINE FEET OF THE WATERLINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC PIPE WITH A PRESSURE RATING OF AT LEAST 150 PSI USING APPROPRIATE ADAPTERS. IN LIEU OF THIS PROCEDURE THE NEW CONVEYANCE MAY BE ENCASED IN A JOINT OF 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE FEET INTERVALS WITH SPACERS OR BE FILLED TO THE SPRING LINE WITH WASHED SAND. THE ENCASEMENT PIPE SHOULD BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEAL.

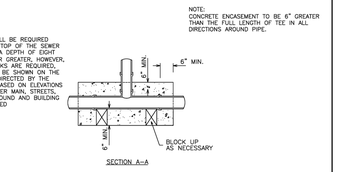


SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

STANDARD DETAIL 2511.1

TCEQ SEWER/WATER CROSSINGS TECHNICAL SPECIFICATION SECTIONS

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 05/2019 | Sheet No.: 1 of 1



NOTE:
CONCRETE ENCASEMENT TO BE 6" GREATER THAN THE FULL LENGTH OF TEE IN ALL DIRECTIONS AROUND PIPE.

STACKS SHALL BE REQUIRED WHERE THE TOP OF THE SEWER MAIN IS AT A DEPTH OF EIGHT FEET (8') OR GREATER, HOWEVER, WHERE STACKS ARE REQUIRED THEY SHALL BE SHOWN ON THE PLANS, AS DIRECTED BY THE ENGINEER, BASED ON ELEVATIONS OF THE SEWER MAIN, STREETS, NATURAL GROUND AND BUILDING TO BE SERVED



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VERTICAL STACK

TECHNICAL SPECIFICATION SECTION 02534

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 1 of 1

NOTE:
CONCRETE ENCASEMENT TO BE 6" GREATER THAN THE FULL LENGTH OF TEE IN ALL DIRECTIONS AROUND PIPE.

NOTE:
INSERTA TEE SHOULD BE INSTALLED USING PROPER SIZED HOLE SAW TO CORE INTO MAIN.

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LATERAL CONNECTION TO MAIN

TECHNICAL SPECIFICATION SECTION 02531 & 02532

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 1 of 1

SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

RESTRAINTS FOR FITTINGS

TECHNICAL SPECIFICATION SECTION 02511

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 1 of 1

NOTES:

1. A HOLE SAW OF THE DIAMETER SPECIFIED BY THE MANUFACTURER SHALL BE USED FOR ALL INSERTA TEE INSTALLATIONS. THE TEE AND BEND SHALL BE CONCRETE ENCASED AS PER THE SANITARY SEWER ENCASEMENT DETAIL. THE BOTTOM OF THE TRENCH FOR DITCH SHALL BE FILLED IN 8-INCH LIFTS USING MECHANICAL COMPACTION EQUIPMENT. PIPE SHALL BE BEDDED IN WASHED ROCK PER SECTION 02320.
2. ALL SEWER MAINS WITH LESS THAN 4' OR COVER TO FINAL GRADE SHALL BE CONCRETE ENCASED.
3. SEWER CLEANOUT MUST BE INSTALLED INSIDE A VALVE BOX WITH COVER LABELED "SEWER."
4. SEWER LATERAL PIPE SHALL BE 6" MINIMUM SDR 26 PVC PIPE.
5. CONCRETE ENCASEMENT TO BE 6" GREATER THAN THE FULL LENGTH OF TEE IN ALL DIRECTIONS AROUND PIPE.

SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

STANDARD DETAIL 2534.1

SANITARY SEWER LATERAL

TECHNICAL SPECIFICATION SECTIONS 02534

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 05/2019 | Sheet No.: 1 of 1

NOTES:

1. SUBGRADE SHALL BE COMPACTED AS PER SPECIFICATIONS.
2. VALVE BOX SHALL BE ADJUSTED TO GRADE AFTER FINAL LIFT OR FINAL GRADE IS IN PLACE.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE BOTTOM OF BOX.
4. REINFORCING STEEL SHALL MEET SPECIFICATIONS.
5. CONCRETE COLLAR MUST BE ROUND OR SQUARE.

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LATERAL VALVE BOX

ENGINEERING AND PUBLIC WORKS | Scale: NTS | Drawn By: MR | Reviewed By: MJR | Date: 5/2019 | Sheet No.: 1 of 1

TRENCH EXCAVATION SAFETY PROTECTION

Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation 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.

SUBMITTAL SET

NO.	DATE	DESCRIPTION	BY:

REVISIONS

PROJ. #: | DSN. BY: | DWN. BY: | CHKD. BY: | DATE:

MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F–5297 /SURVEYING: F–10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698–5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698–5085

PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS

TRAILS AT LOWER SEGUIN

SANITARY SEWER DETAILS

SHEET

C2.8

Plot Date: May 20, 2026 User ID: Dana Gonzalez
P:\Lower Segun Road\Civil 1\Drawings\2504-C2.8 Sanitary Sewer Details.dwg

CONSTRUCTION PLANS FOR

TRAILS AT LOWER SEGUIN
WATER IMPROVEMENTS

SUBMITTED BY:
MOY TARIN RAMIREZ ENGINEERS, LLC.
5723 UNIVERSITY HEIGHTS BLVD., STE. 103
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

OWNER/DEVELOPER
YANTIS LAND, LLC
2806 W. BITTERS RD STE. 227
FAYETTEVILLE, AR 72703
(210) 831-1563

GENERAL WATER NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PROJECT SHALL BE APPROVED BY THE CITY OF SCHERTZ AND COMPLY WITH THE FOLLOWING AS APPLICABLE:
   a. CURRENT CITY OF SCHERTZ "UNIFIED DEVELOPMENT CODE"
   b. CURRENT CITY OF SCHERTZ "PUBLIC WORKS SPECIFICATION MANUAL"
   c. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND DRAINAGE."
2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY HAVE NOTIFIED CITY OF SCHERTZ PUBLIC WORKS WITH AT LEAST **3 WORKING DAYS (72 HOURS) NOTICE**. ANY TIE-IN SHALL BE COORDINATED BY THE CONTRACTOR WITH PUBLIC WORKS.
3. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES, INCLUDING SERVICE LATERALS, AND DRAINAGE STRUCTURES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTHS OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT, AND TO PROTECT THE SAME DURING CONSTRUCTION.
   a. CITY OF SCHERTZ PUBLIC WORKS (210) 619-1800
   b. TEXAS STATE WIDE ONE CALL 1-800-245-4545
   c. CITY PUBLIC SERVICE 210-353-5952
   d. SPECTRUM 866-874-2389
   e. GUADALUPE VALLEY ELECTRIC CO. 210-658-7033
   f. GREEN VALLEY WATER SUPPLY CORP. (830-914-2330)
   g. SSLGC 830-401-2409
   h. NEW BRAUNFELS UTILITY 830-606-2074
   i. CANYON LAKE REGIONAL WATER AUTHORITY 830-609-0543
   j. CENTER POINT 888-876-5786
   k. SAN ANTONIO RIVER AUTHORITY (866-345-7272)
   l. CCMA 210-658-6241
4. **NO METER BOXES TO BE SET IN DRIVEWAYS. ANY METER BOXES SET IN DRIVEWAYS WILL BE RELOCATED AT THE CONTRACTOR'S AND / OR DEVELOPER'S EXPENSE.**
5. 2", SCHEDULE 40, PVC CASING TO BE USED FOR ALL WATER SERVICE LINES BENEATH ROADWAYS.
6. CONTRACTORS SHOULD USE HTH GRANULAR FOR DISINFECTION OF WATER LINES (NOT CHLORINE INJECTION).
7. NEW WATERLINES SHALL BE TIED INTO EXISTING WATER SYSTEM UNDER THE SUPERVISION OF CITY PERSONNEL NO LATER THAN 14 DAYS AFTER PASSING BACTERIOLOGICAL TESTS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION FROM DAMAGE DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES PER SPECIFICATION 01740.
9. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY ARBORIST AND THE CITY OF SCHERTZ CONSTRUCTION INSPECTOR FOR GUIDANCE.
10. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.
11. THE DEVELOPER DEDICATES THE WATERMAINS UPON COMPLETION BY THE DEVELOPER AND ACCEPTANCE BY THE CITY OF SCHERTZ. THE CITY OF SCHERTZ WILL OWN AND MAINTAIN SAID WATER MAINS WHICH ARE LOCATED WITHIN THIS PARTICULAR SUBDIVISION (AS APPLICABLE).
12. THE CONTRACTOR AND/OR THE 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. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATIONS.
13. WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR THE NOTICE TO PROCEED WITH THE CITY OF SCHERTZ CONSTRUCTION INSPECTOR WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.
14. THE CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE METER BOX FREE OF ALL OBJECTS AND DEBRIS

OSHA TRENCH SAFETY

1. TRENCH EXCAVATION SHALL COMPLY WITH MINIMUM STANDARDS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, REGULATIONS STANDARDS - 29 CFR - "EXCAVATION" - 1926 SUBPART P.
2. TRENCH SAFETY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHOP DRAWINGS FOR DETAIL PLANS AND SPECIFICATIONS TO PROVIDE ADEQUATE SHORING AND SHEETING STANDARDS THAT MEET THE OSHA STANDARDS AS SET OUT BY STANDARDS - 29 CFR - EXCAVATION" - 1926 SUBPART P FOR TRENCH SAFETY.
3. CONTINUOUS INSPECTION OF ALL TRENCH EXCAVATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR JOB SUPERINTENDENT. THE CONTRACTOR CONTROLS THE SIZE, WEIGHT, AND SPEED OF OPERATION OF EQUIPMENT AND PIPE INSTALLATION, WHICH DIRECTLY AFFECTS ALL SAFETY MEASURES IN A TRENCH. IF PROBABLE CAUSE OF UNSAFE TRENCH CONDITIONS EXIST, ALL WORK SHALL CEASE IMMEDIATELY UNTIL NECESSARY PRECAUTIONS TO SAFEGUARD EMPLOYEES ARE TAKEN.

CAUTION:!!!

EXISTING UTILITIES:

1. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY CONTRACTOR PRIOR TO THE CONSTRUCTION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF SAME DURING CONSTRUCTION. IF DISCREPANCY IS FOUND, NOTIFY ENGINEER.
2. IT IS ESSENTIAL THAT 48 HOURS PRIOR TO CONSTRUCTION ALL UTILITY COMPANIES BE NOTIFIED TO LOCATE AND TAG THEIR UNDERGROUND FACILITIES PRIOR TO EXCAVATION.
3. THE CONTRACTOR NEEDS TO ALLOW FOR THE POSSIBILITY OF UNDETECTED UNDERGROUND UTILITIES. ALSO, THE CONTRACTOR MUST ALLOW FOR CHANGES DUE TO UTILITIES BEING IN LOCATIONS DIFFERENT FROM THOSE SHOWN ON THE UTILITY RECORD DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND EXPOSING CONFLICTS PRIOR TO CONSTRUCTION.

TRENCH EXCAVATION SAFETY PROTECTION

Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation 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.

ESTIMATED WATER QUANTITIES

ITEM	DESCRIPTION	UNIT	EST/QTY
1	WATER MAIN TIE-IN	EA.	**2**
2	TRENCH EXCAVATION PROTECTION	L.F.	**4,128**
3	8" PIPE, C900 DR 18 PVC CLASS 235 (Includes Joint Restraints)	L.F.	**4,128**
4	8" GATE VALVE, M.J.	EA.	**16**
5	STANDARD FIRE HYDRANT	EA.	**7**
6	1" SINGLE SERVICE with 5/8" METER : SHORT	EA.	**40**
7	1" SINGLE SERVICE with 5/8" METER : LONG	EA.	**21**
8	D.I. FITTINGS	TON	**1.5**
9	HYDROSTATIC TESTING	EA.	**1**
10	METER BOXES	EA.	**62**
11	2" PERMANENT BLOW-OFF	EA.	**2**
12	2" TEMPORARY BLOW-OFF	EA.	**2**
13	1" IRRIGATION SERVICE	EA.	**1**

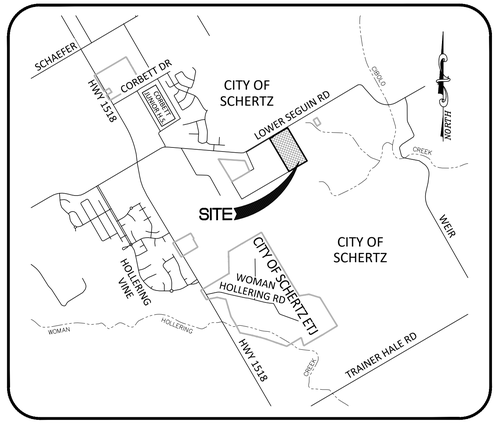
NOTE TO CONTRACTOR:

BY THE ACT OF SUBMITTING A BID FOR THIS 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, SPECIFICATIONS AND ALL 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.

THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AND/OR DEPTHS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT EACH INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS AND DEPTHS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITY CROSSINGS PRIOR TO BEGINNING ANY CONSTRUCTION.

NOTE:

CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING CONDUIT SLEEVES FOR EACH CPS FACILITY AT ALL STREETS AND DRAIN CROSSING IF BUILT AHEAD OF CPS CONSTRUCTION. SLEEVES MUST ALSO BE LOCATED FOR CPS CREWS DURING CONSTRUCTION. (SEPARATE ITEM)



VICINITY MAP
N.T.S.

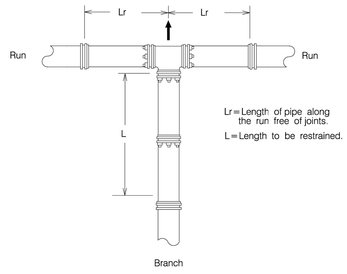
Sheet List Table

Sheet Number	Sheet Title
C3.0	WATER COVER
C3.1	WATER OVERALL
C3.2	WATER DETAILS

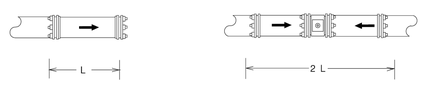
SUBMITTAL DATE:
MARCH 2026

LEGAL DESCRIPTION:

A 19.936 ACRE (868,391.88 SQUARE FEET) TRACT OF LAND, SITUATED IN THE JULIAN DIAZ SURVEY, ABSTRACT NUMBER 187, BEXAR COUNTY, TEXAS, BEING ALL OF THE REMAINING PORTION OF A 2.005 ACRE TRACT AS CONVEYED TO CARLOS GARZA, JR. AND WIFE, MARGRET L. CARTY, BY WARRANTY DEED AS RECORDED IN VOLUME 6541, PAGE 807, BEING ALL OF A 2.003 ACRE TRACT AS CONVEYED TO JAMES B. CARTY, BY WARRANTY DEED AS RECORDED IN VOLUME 6541, PAGE 812, AND BEING ALL OF A 15.977 ACRE TRACT AS CONVEYED TO JANICE S. LINDORFER AND ROBERT C. LINDORFER, JR., BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN VOLUME 8177, PAGE 1250, ALL OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS.

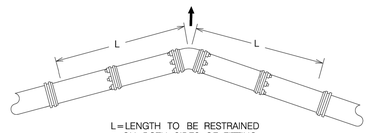


RESTRAINED LENGTH FOR TEES
(SEE PLANS FOR LENGTHS)



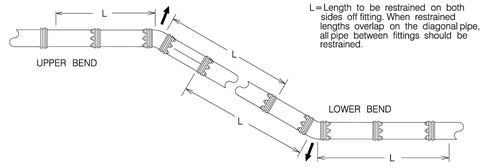
L = LENGTH TO BE RESTRAINED

RESTRAINED LENGTH FOR DEAD ENDS AND VALVES
(SEE PLANS FOR LENGTHS)



L = LENGTH TO BE RESTRAINED ON BOTH SIDES OF FITTING

RESTRAINED LENGTH FOR BENDS
(SEE PLANS FOR LENGTHS)



L = Length to be restrained on both sides off fitting. When restrained lengths overlap on the diagonal pipe, all pipe between fittings should be restrained.

RESTRAINED LENGTH FOR VERTICAL OFFSETS

• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC
FIRM TBPELS ENG F-5297 SVY F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

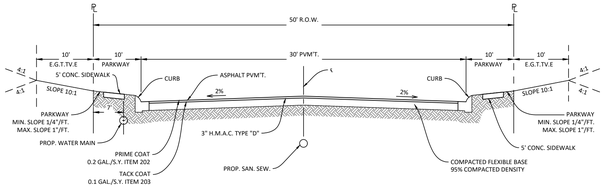
STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

CITY OF SCHERTZ

SUBMITTAL SET

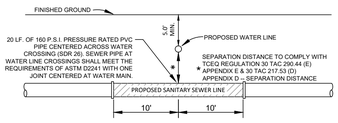
TEXAS C3.0

R:\Lower Seguin Road\Unit 1\Drawings\25044_C3.0 Water Cover.dwg
Plot Date: May 20, 2026 User ID: Dallas Gardea



TYPICAL STREET CROSS-SECTION (30' PAVEMENT)

N.T.S.



TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL

N.T.S.

RESTRAINT JOINTS

1. ALL TEES RESTRAINT JOINT AS REQUIRED PER SAWS DD-839-04
2. ALL BENDS RESTRAINT JOINT AS REQUIRED PER SAWS DD-839-08
3. ALL VALVES/DEAD ENDS RESTRAINT JOINT AS REQUIRED PER SAWS DD839-05
4. ALL VERTICAL BENDS RESTRAINT JOINT AS REQUIRED PER SAWS DD-839-06

NOTES:

1. CONTRACTOR TO COORDINATE REMOVAL OR RELOCATION OF EXISTING UTILITIES.
2. WATER PIPE TO BE C-900 DR-14 CLASS 200 PRESSURE PIPE.
3. ALL MAINS TO BE HYDROSTATIC TESTED AT 200 PSI FOR 4 HOURS
4. CONTRACTOR TO COORDINATE WITH ENGINEER AND DEVELOPER ON WEEK PRIOR TO BEGINNING WATER MAIN CONNECTION.

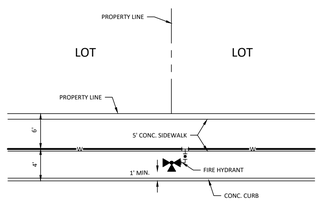
LEGEND

- EXISTING 8" WATER MAIN — E8"W
- PROPOSED 8" WATER MAIN — 8" PVC
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING GATE VALVE
- PROPOSED GATE VALVE
- PROPOSED WATER SERVICE — 1"W
- RESTRAINT/RESTRAINT LENGTH (FT.) — 25
- ELEC, GAS, TELE, CABLE TV ESM'T. — E.G.T.TV.
- OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS — O.P.R.B.C.T.
- PROPOSED SANITARY SEWER MAIN & MANHOLE — 8"SS
- EXISTING SANITARY SEWER MAIN & MANHOLE — E8"SS

CAUTION!!!

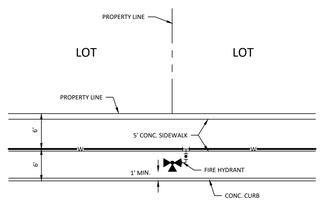
EXISTING UTILITIES:

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TYPICAL FIRE HYDRANT DETAIL LOCAL 'A'

N.T.S.

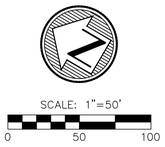


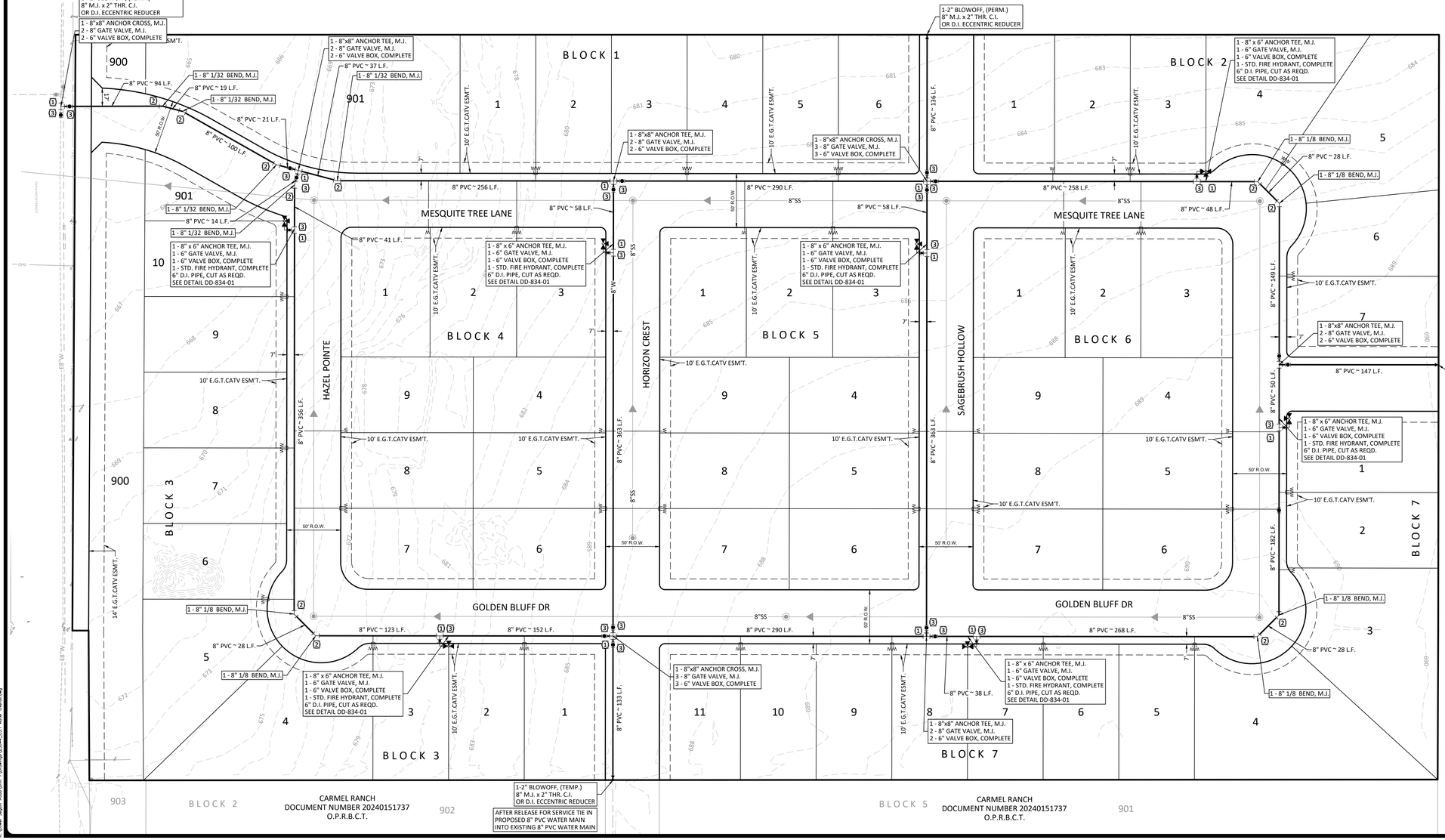
TYPICAL FIRE HYDRANT DETAIL LOCAL 'B'

N.T.S.

TRENCH EXCAVATION SAFETY PROTECTION

Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation 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.





MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F--10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

REVISIONS

NO.	DATE	DESCRIPTION	BY:

DATE:
CHKD. BY:
DWN. BY:
DSN. BY:
PROJ. #

TRAILS AT LOWER SEGUIN

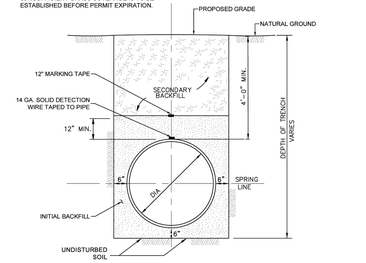
WATER OVERALL DISTRIBUTION PLAN

SHEET

C3.1

SUBMITTAL SET

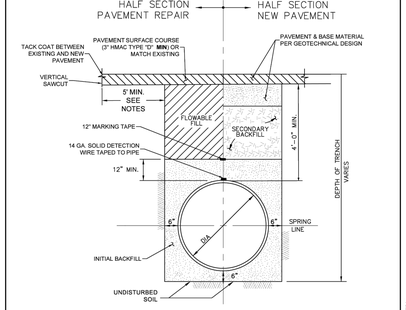
Plot Date: May 20, 2026 User ID: Dolina Gordea
S:\User Files\Dolina Gordea\Desktop\250442.01\1 Water Overall.dwg



INITIAL BACKFILL:
SAND AROUND PIPE COMPACTED PER SPEC 02320 - UTILITY BACKFILL MATERIALS

SECONDARY BACKFILL:
NATIVE MATERIAL FROM TRENCH PLACED IN MAXIMUM 8" LOOSE LIFTS, FREE OF DEBRIS AND STONES LARGER THAN 4". COMPACTION TO 95% STD PROCTOR DENSITY (ASTM D 698). PER SPEC 02317

CITY OF SCHERTZ TEXAS ENGINEERING AND PUBLIC WORKS	WATER MAIN TRENCH IN UNPAVED AREA
STANDARD DETAIL	PW SPECIFICATION SECTION 02311

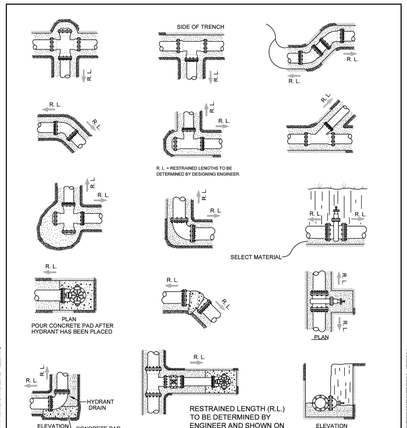


NOTE:
1. PUBLIC WORKS PERMIT REQUIRED FOR ALL STREET CUTS OR TAPS.
2. SAW CUTS SHALL BE STRAIGHT AND PERPENDICULAR TO THE FLOW OF TRAFFIC.
3. TACK ALL VERTICAL SURFACES.

INITIAL BACKFILL:
SAND AROUND PIPE COMPACTED PER SPEC 02320 - UTILITY BACKFILL MATERIALS

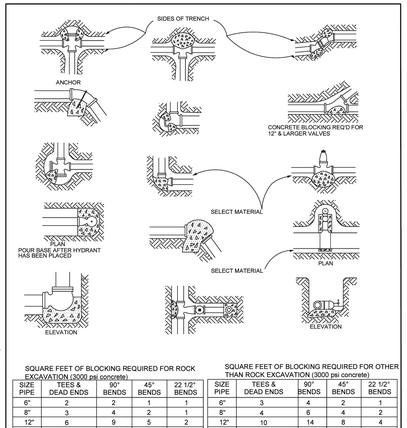
SECONDARY BACKFILL:
NATIVE MATERIAL FROM TRENCH PLACED IN MAXIMUM 8" LOOSE LIFTS, FREE OF DEBRIS AND STONES LARGER THAN 4". COMPACTION TO 95% STD PROCTOR DENSITY (ASTM D 698). PER SPEC 02317

CITY OF SCHERTZ TEXAS ENGINEERING AND PUBLIC WORKS	WATER MAIN TRENCH IN STREET
STANDARD DETAIL	PW TECH. SPEC. SECTION 02311



RESTRAINTS FOR FITTING
(NOT TO SCALE)

CITY OF SCHERTZ TEXAS ENGINEERING AND PUBLIC WORKS	RESTRAINTS FOR FITTINGS
STANDARD DETAIL	PW TECH. SPEC. SECTION 02311



SQUARE FEET OF BLOCKING REQUIRED FOR ROCK EXCAVATION (3000 psi concrete)

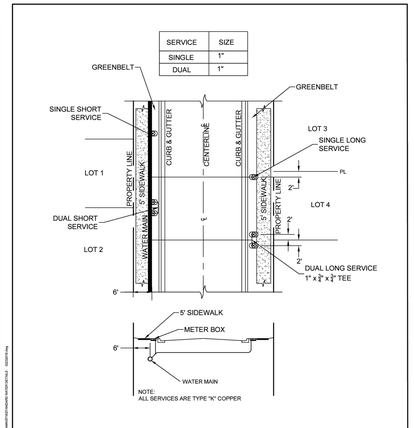
SIZE PIPE	TEES & DEAD ENDS	90° BENDS	45° BENDS	22 1/2° BENDS
6"	2	2	1	1
8"	3	4	2	1
12"	6	9	5	2
16"	11	15	8	4
18"	14	20	10	5

SQUARE FEET OF BLOCKING REQUIRED FOR OTHER THAN ROCK EXCAVATION (3000 psi concrete)

SIZE PIPE	TEES & DEAD ENDS	90° BENDS	45° BENDS	22 1/2° BENDS
6"	3	4	2	1
8"	4	6	4	2
12"	10	14	8	4
16"	18	25	14	7
18"	21	31	17	10

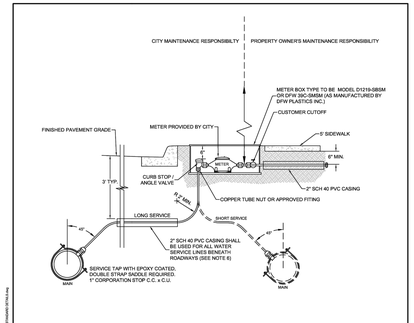
THRUST BLOCKING FOR FITTINGS
(NOT TO SCALE)

CITY OF SCHERTZ TEXAS ENGINEERING AND PUBLIC WORKS	THRUST BLOCKING FOR FITTINGS
STANDARD DETAIL	PW TECH. SPEC. SECTION 02511



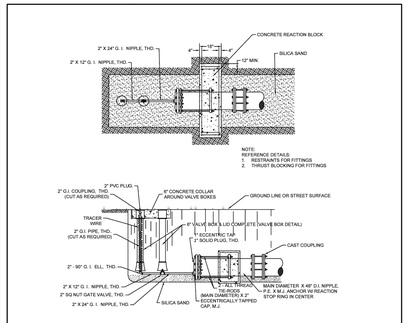
NOTE:
ALL SERVICES ARE TYPE "K" COPPER

CITY OF SCHERTZ TEXAS ENGINEERING AND PUBLIC WORKS	METER BOX LOCATION
STANDARD DETAIL	PW TECH. SPEC. SECTION 02085



NOTES:
1. CONTRACTORS SHOULD USE HTH FOR DISINFECTION OF WATER LINES (NOT CHLORINE INJECTION) UNLESS APPROVED OTHERWISE PRIOR TO ISSUANCE OF PERMIT.
2. NEW WATERLINES SHALL BE TIED INTO EXISTING WATER SYSTEM UNDER THE SUPERVISION OF CITY PERSONNEL NO LATER THAN 14 DAYS AFTER PASSING BACTERIOLOGICAL TESTS.
3. ALL SERVICES ARE TYPE "K" COPPER OR BLUE HDPE.
4. METER BOXES WILL BE ACCOMPANIED BY AN "X" ETCHED INTO CURB FACE PAINTED BLUE.
5. NO METER BOXES TO BE SET IN DRIVEWAYS. METER BOXES SET IN DRIVEWAYS SHALL BE RELOCATED AT THE CONTRACTORS AND/OR DEVELOPER'S EXPENSE.
6. PVC CASING IS NOT REQUIRED FOR HDPE WATER SERVICE PIPE.

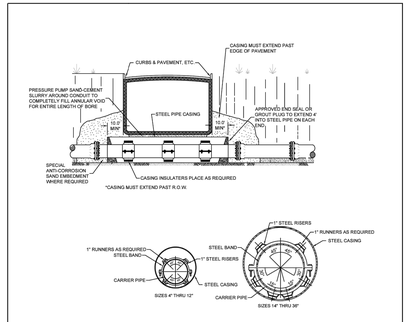
SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY	STANDARD DETAIL 2512 WATER TAP & SERVICE TECHNICAL SPECIFICATION SECTIONS 02512
	ENGINEERING AND PUBLIC WORKS



NOTE:
1. EMBED ALL EXTERIOR METAL SURFACES IN SILICA SAND
2. ALL REINFORCE BARS IN THE CONCRETE REACTION BLOCK SHALL BE #4.
3. ALL FERROUS METAL SURFACES TO BE IN ACCORDANCE WITH CITY OF SCHERTZ STANDARDS.
4. ALL BURIED METAL SURFACES, INCLUDING GALVANIZED PIPE AND STEEL RODS, ARE TO BE PROTECTED FROM SOIL EXPOSURE BY POLYBAGGING AND POLYTAPING (SPEC. 02535).

PERMANENT 2" BLOW-OFF ASSEMBLY

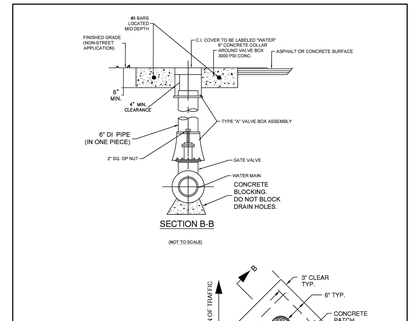
CITY OF SCHERTZ TEXAS ENGINEERING AND PUBLIC WORKS	BLOW-OFF ASSEMBLY
STANDARD DETAIL	PW TECH. SPEC. SECTION 02085



BORE AND CASE
(NOT TO SCALE)

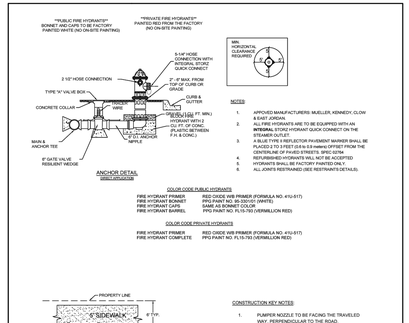
SIZE	CASING	NO. RUNNERS
6"	8"	2 TOP, 2 BOTTOM
12"	8"	2 TOP, 2 BOTTOM
16"	12"	2 TOP, 4 BOTTOM
20"	12"	2 TOP, 4 BOTTOM
24"	12"	2 TOP, 4 BOTTOM
30"	12"	2 TOP, 4 BOTTOM
36"	12"	2 TOP, 4 BOTTOM

CITY OF SCHERTZ TEXAS ENGINEERING AND PUBLIC WORKS	BORE AND CASE
STANDARD DETAIL	PW SPECIFICATION SECTION 02447



NOTES:
1. SUBGRADE SHALL BE COMPACTED AS PER SPECIFICATIONS.
2. VALVE CASTINGS SHALL BE ADJUSTED TO GRADE AFTER FINAL LIFT OR FINAL GRADE IS IN PLACE.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE BASE OF THE VALVE.
4. EXISTING RISER PIPE SHALL BE REPLACED WITH DUCTILE IRON ELEVATION USING NEW PIPE AND A COLLAR CASTING.
5. REINFORCING STEEL SHALL MEET SPECIFICATIONS.
6. VALVES WILL BE ACCOMPANIED BY A "V" ETCHED INTO CURB FACE PAINTED BLUE

CITY OF SCHERTZ TEXAS ENGINEERING AND PUBLIC WORKS	VALVE BOX
STANDARD DETAIL	PW SPECIFICATION SECTION 02085



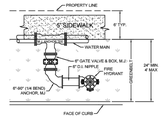
NOTES:
1. APPROVED MANUFACTURERS: MUELLER, KENNEDY, CLOW & U.S.P. DARLING.
2. ALL PUBLIC HYDRANTS ARE TO BE EQUIPPED WITH AN INTEGRAL STORZ HYDRANT QUICK CONNECT ON THE STEAMER OUTLET.
3. A BLUE TYPE II REFLECTOR PAVEMENT MARKER SHALL BE PLACED 2 TO 3 FEET (0.6 to 0.9 meters) OFFSET FROM THE HYDRANT ON THE NEAREST ROADWAY EDGE.
4. REFURBISHED HYDRANTS WILL NOT BE ACCEPTED
5. HYDRANTS SHALL BE FACTORY PAINTED ONLY.
6. ALL JOINTS RESTRAINED (SEE RESTRAINTS DETAILS).

COLOR CODE PUBLIC HYDRANTS

FIRE HYDRANT PRIMER	RED OXIDE WB PRIMER (FORMULA NO. 412-517)
FIRE HYDRANT COMPLETE	PPG PAINT NO. 85-200 DT (WHITE)
FIRE HYDRANT BONNET	PPG PAINT NO. 85-200 DT COLOR
FIRE HYDRANT BARREL	PPG PAINT NO. FL15-750 (VERMILLION RED)

COLOR CODE PRIVATE HYDRANTS

FIRE HYDRANT PRIMER	RED OXIDE WB PRIMER (FORMULA NO. 412-517)
FIRE HYDRANT COMPLETE	PPG PAINT NO. FL15-750 (VERMILLION RED)



FIRE HYDRANT INSTALLATION
ANGLED APPLICATION
WITH BAND

CONSTRUCTION KEY NOTES:
1. PUMPER NOZZLE TO BE FACING THE TRAVELED WAY, PERPENDICULAR TO THE ROAD.
2. NO HYDRANT SHALL PROTRUDE PAST BACK OF CURB.
3. DO NOT CUT TRACER WIRE IN VALVE BOX.
4. POLYETHYLENE WRAP BETWEEN ALL CONCRETE AND MECHANICAL BENDS (SPEC. 02535).
5. ANY TIE-IN SHALL BE COORDINATED BY THE CONTRACTOR WITH THE PUBLIC WORKS DEPT.
6. HYDRANTS SHALL BE LOCATED WITHIN 5 FT. IN ALL DIRECTIONS OF FIRE HYDRANT. (PER PW DESIGN GUIDE & TECH. SPECIFICATIONS).
7. PRESSURE TEST OF ALL WATER LINES SHALL BE AT 200 PSI FOR A DURATION OF 4 HOURS.
8. LOCATE PUMPER NOZZLE CENTER LINE MINIMUM OF 18" ABOVE GRADE, MAXIMUM 24".

CITY OF SCHERTZ TEXAS ENGINEERING AND PUBLIC WORKS	FIRE HYDRANT
STANDARD DETAIL	PW TECH. SPEC. SECTION 02520

OSHA TRENCH SAFETY

1. TRENCH EXCAVATION SHALL COMPLY WITH MINIMUM STANDARDS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, REGULATIONS STANDARDS - 29 CFR - "EXCAVATION" - 1926 SUBPART P.

2. TRENCH SAFETY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHOP DRAWINGS FOR DETAIL PLANS AND SPECIFICATIONS TO PROVIDE ADEQUATE SHORING AND SHEETING STANDARDS THAT MEET THE OSHA STANDARDS AS SET OUT BY STANDARDS - 29 CFR - EXCAVATION" - 1926 SUBPART P FOR TRENCH SAFETY.'

3. CONTINUOUS INSPECTION OF ALL TRENCH EXCAVATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR JOB SUPERINTENDENT. THE CONTRACTOR CONTROLS THE SIZE, WEIGHT, AND SPEED OF OPERATION OF EQUIPMENT AND PIPE INSTALLATION, WHICH DIRECTLY AFFECTS ALL SAFETY MEASURES IN A TRENCH. IF PROBABLE CAUSE OF UNSAFE TRENCH CONDITIONS EXIST, ALL WORK SHALL CEASE IMMEDIATELY UNTIL NECESSARY PRECAUTIONS TO SAFEGUARD EMPLOYEES ARE TAKEN.

TRENCH SAFETY SYSTEM

CITY OF SCHERTZ TEXAS ENGINEERING AND PUBLIC WORKS	OSHA TRENCH SAFETY NOTES
STANDARD DETAIL	PW TECH. SPEC. SECTION 02260

GENERAL WATER NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PROJECT SHALL BE APPROVED BY THE CITY OF SCHERTZ AND COMPLY WITH THE FOLLOWING AS APPLICABLE:
   a. CURRENT CITY OF SCHERTZ "UNIFIED DEVELOPMENT CODE"
   b. CURRENT CITY OF SCHERTZ "PUBLIC WORKS SPECIFICATION MANUAL"
   c. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND DRAINAGE."
2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY HAVE NOTIFIED CITY OF SCHERTZ PUBLIC WORKS WITH AT LEAST **3 WORKING DAYS (72 HOURS) NOTICE**. ANY TIE-IN SHALL BE COORDINATED BY THE CONTRACTOR WITH PUBLIC WORKS.
3. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES, INCLUDING SERVICE LATERALS, AND DRAINAGE STRUCTURES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTHS OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT, AND TO PROTECT THE SAME DURING CONSTRUCTION.
   a. CITY OF SCHERTZ PUBLIC WORKS (210) 619-1800
   b. TEXAS STATE WIDE ONE CALL 1-800-245-4545
   c. CITY PUBLIC SERVICE 210-353-5952
   d. SPECTRUM 866-874-2389
   e. GUADALUPE VALLEY ELECTRIC CO. 210-658-7033
   f. GREEN VALLEY WATER SUPPLY CORP. (830-914-2330)
   g. SSLGC 830-401-2409
   h. NEW BRAUNFELS UTILITY 830-606-2074
   i. CANYON LAKE REGIONAL WATER AUTHORITY 830-609-0543
   j. CENTER POINT 888-876-5786
   k. SAN ANTONIO RIVER AUTHORITY (866-345-7272)
   l. CCMA 210-658-6241
4. **NO METER BOXES TO BE SET IN DRIVEWAYS. ANY METER BOXES SET IN DRIVEWAYS WILL BE RELOCATED AT THE CONTRACTOR'S AND / OR DEVELOPER'S EXPENSE.**
5. 2" SCHEDULE 40, PVC CASING TO BE USED FOR ALL WATER SERVICE LINES BENEATH ROADWAYS.
6. CONTRACTORS SHOULD USE HTH GRANULAR FOR DISINFECTION OF WATER LINES (NOT CHLORINE INJECTION).

CITY OF SCHERTZ TEXAS ENGINEERING AND PUBLIC WORKS	CONSTRUCTION PLAN NOTES
STANDARD DETAIL	PW TECH. SPEC. SECTION 01145

REVISIONS						
NO.	DATE	DESCRIPTION	BY:	PROJ. #:	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F–5297 /SURVEYING: F–10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL.: (210) 698–5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698–5085

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
7/14/26

TRAILS AT LOWER SEGUIN
WATER DETAILS

SHEET
C3.2

SUBMITTAL SET

Plot Date: May 29, 2026 User ID: Dorina Gordon
X:\Current Projects\Trails at Lower Seguin\Drawings\Water\Water Details.dwg

CONSTRUCTION PLANS FOR

TRAILS AT LOWER SEGUIN

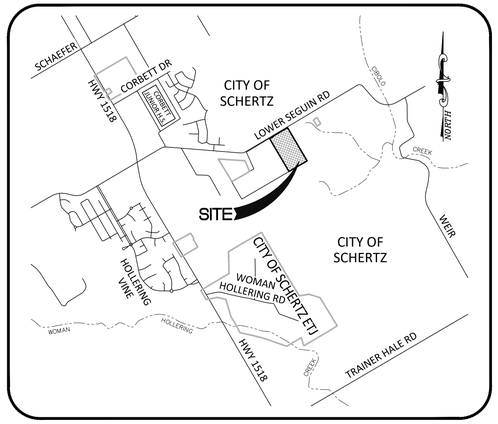
STREET AND DRAINAGE IMPROVEMENTS

NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE TO THE CITY OF SAN ANTONIO SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. ALL CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF SAN ANTONIO.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES DURING CONSTRUCTION. THE LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION:

SAN ANTONIO WATER SYSTEM	TELE. NO.: 210-704-7109
TEXAS STATE WIDE ONE CALL LOCATOR	TELE. NO.: 800-545-6005
CITY PUBLIC SERVICE	
AT&T	
TIME WARNER CABLE	

4. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CPS 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.
5. THE CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT THE TELEPHONE COMPANY DURING CONSTRUCTION.
6. THE CONTRACTOR HAS THE RESPONSIBILITY OF RESTORING TO ITS ORIGINAL OR BETTER CONDITION, ANY DAMAGE DONE TO THE EXISTING PAVEMENT, STRUCTURES OR FENCES (NO SEPARATE PAY ITEM).
7. MATERIAL SPECIFICATIONS:
   - CONCRETE/CONCRETE RIPRAP: CLASS A 3000 PSI IN 28 DAYS UNLESS OTHERWISE NOTED ON PLANS
   - REINFORCING STEEL: CONFORM TO A.S.T.M. A-615, GRADE 60 (2" COVER UNLESS OTHERWISE NOTED ON PLANS)
   - PIPE RAILING: CONFORM TO A.S.T.M. A-53, GRADE B, OR A-501
   - STRUCTURAL STEEL: CONFORM TO A.S.T.M. A-36
8. CONTRACTOR TO COORDINATE CONCRETE CURB DEPRESSIONS WITH THE DEVELOPER (NO SEPARATE PAY ITEM).
9. TRANSITION TO/FROM WASHOUT CROWNS IN TWENTY-FIVE FEET (25').
10. IMPROVED EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SUBGRADE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CANNEL FOR MAINTENANCE. REFER TO 16.2.1 OF THE CITY OF SAN ANTONIO STORM WATER DESIGN CRITERIA MANUAL. NO EXTRA PAY ITEM.



VICINITY MAP

N.T.S.

SUBMITTAL DATE:

MARCH 2026

LEGAL DESCRIPTION:

A 19.936 ACRE (868,391.88 SQUARE FEET) TRACT OF LAND, SITUATED IN THE JULIAN DIAZ SURVEY, ABSTRACT NUMBER 187, BEXAR COUNTY, TEXAS, BEING ALL OF THE REMAINING PORTION OF A 2.005 ACRE TRACT AS CONVEYED TO CARLOS GARZA, JR. AND WIFE, MARGRET L. CARTY, BY WARRANTY DEED AS RECORDED IN VOLUME 6541, PAGE 807, BEING ALL OF A 2.003 ACRE TRACT AS CONVEYED TO JAMES B. CARTY, BY WARRANTY DEED AS RECORDED IN VOLUME 6541, PAGE 812, AND BEING ALL OF A 15.977 ACRE TRACT AS CONVEYED TO JANICE S. LINDORFER AND ROBERT C. LINDORFER, JR., BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN VOLUME 8177, PAGE 1250, ALL OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS.

Sheet List Table

Sheet Number	Sheet Title
C4.0	STREET COVER
C4.1	OVERALL TRAFFIC
C4.2	TRAFFIC DETAILS
C4.3	TRAFFIC DETAILS
C4.4	MESQUITE TREE LANE PLAN & PROFILE
C4.5	GOLDEN BLUFF PLAN & PROFILE
C4.6	SAGEBRUSH HOLLOW PLAN & PROFILE
C4.7	HORIZON CREST & OBECHE DR PLAN & PROFILE
C4.8	HAZEL POINTE PLAN & PROFILE
C4.9	SUNRIDGE WAY PLAN & PROFILE
C4.9A	LOWER SEGUIN RD WIDENING
C4.10	STANDARD DETAILS
C4.11	STANDARD DETAILS
C4.12	STANDARD DETAILS
C4.13	STANDARD DETAILS
C4.14	STREET SECTION DETAILS
C4.15	DRAIN "A" PLAN & PROFILE
C4.16	DRAIN "A" PLAN & PROFILE
C4.17	DRAIN "A" PLAN & PROFILE
C4.18	DRAIN "B" PLAN & PROFILE
C4.19	DRAIN "C" PLAN & PROFILE
C4.20	DRAIN "D" PLAN & PROFILE
C4.21	DRAIN "E" PLAN & PROFILE

SUBMITTED BY:

MOY TARIN RAMIREZ ENGINEERS, LLC.
5723 UNIVERSITY HEIGHTS BLVD., STE. 103
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

OWNER/DEVELOPER

YANTIS LAND, LLC
2806 W. BITTERS RD STE. 227
SAN ANTONIO, TX 78248
(210) 831-1563

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC
FIRM TBPELS ENG F-5297 SVY F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051 FAX: (210) 698-5085

CITY OF SCHERTZ

SUBMITTAL SET *TEXAS* C4.0

R:\Lower Seguin Road\Unit 1\Drawings\125044_C4.0 Sheet Cover.dwg

NOTE:

ALL PERMANENT REGULATORY, WARNING, AND STREET NAME SIGNS ARE TO BE PROVIDED AND INSTALLED BY THE DEVELOPER TO COUNTY SPECIFICATIONS.

GENERAL NOTES:

1. ALL TRAFFIC SIGNS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICE (T.M.U.T.C.D.).
2. INSTALL SIGNS SUCH THAT THEIR VIEW IS NOT BLOCKED BY LOW HANGING VEGETATION, UTILITY POLES, OTHER TRAFFIC SIGNS, ETC... REFER TO CITY OF SAN ANTONIO TRAFFIC SIGNAL DETAILS.
3. ALL PAVEMENT MARKINGS SHALL COMPLY WITH THE T.M.U.T.C.D. REFER TO CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION.
4. "DEAD END" WITH ARROW AND "NO OUTLET" WITH ARROW SHALL BE ON BOTH SIDES OF SIGN WHICH IS MOUNTED ABOVE STREET NAMES.
5. FINAL SIGN INSTALLATION LOCATIONS TO BE DETERMINED BY CITY OF SAN ANTONIO (INSIDE CITY LIMITS) AND/OR BEXAR COUNTY. CONTRACTOR TO COORDINATE WITH SAME. PROPOSED SIGN LOCATIONS ARE FOR REFERENCE ONLY.



SCALE: 1"=50'

0 50 100

LEGEND

- R1-1 STOP SIGN (30" X 30")
- D-3 STREET NAME
- R2-1 SPEED LIMIT SIGN
- DOUBLE LINE
- PROPOSED SIGN LOCATION
- PROPOSED STREET LIGHT LOCATION
- PROPERTY LINE
- TYPE II BLUE RAISED PAVEMENT MARKERS
- EXISTING SIGN LOCATION
- EXISTING STREET NAME SIGN
- EXISTING STOP SIGN
- HOME BUILDER INSTALLED SIDEWALK
- DEVELOPER INSTALLED SIDEWALK
- ADA RAMP- DEVELOPER INSTALLED
- POSSIBLE DRIVEWAY LOCATION
- W14-2 NO OUTLET SIGN (30"X30")

REVISIONS							
NO.	DATE	DESCRIPTION	BY:	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
5/14/26

TRAILS AT LOWER SEGUIN

OVERALL TRAFFIC PLAN

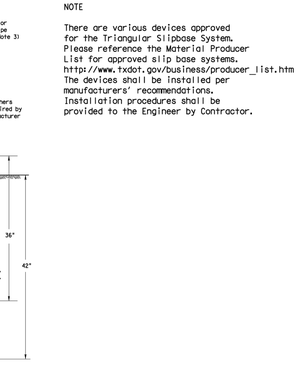
SUBMITTAL SET

SHEET
C4.1

Plot Date: May 20, 2026 User ID: Donna Gomez
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DISCLAIMER: The use of this standard is governed by the Texas Engineering Practice Act. No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the accuracy or suitability of this standard for use in connection with any conditions other than those existing at the time this standard was published by TxDOT. Persons using this standard are responsible for assessing its suitability for their use in each case.

TRIANGULAR SLIPBASE INSTALLATION GENERAL REQUIREMENTS



SM RD SGN ASSM TY XXXXX(X)SA(X-XXXX)

NOTE

There are various devices approved for the Triangular Slipbase System. Please reference the Material Producer List for approved slip base systems. http://www.txdot.gov/business/producer_list.htm The devices shall be installed per manufacturers' recommendations. Installation procedures shall be provided to the Engineer by Contractor.

GENERAL NOTES:

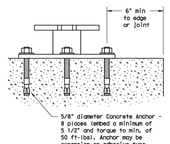
1. Slip base shall be permanently marked to indicate manufacturer, Method, design, and location of marking are subject to approval of the TxDOT Traffic Standards Engineer.
2. Material used as post with this system shall conform to the following specifications:
   10 BWG Tubing (2.875" outside diameter)
   0.134" nominal wall thickness
   Seamless or electric-resistance welded steel tubing or pipe
   Steel shall be HSLAS Gr 55 per ASTM A1011 or ASTM A1008
   Other steels may be used if they meet the followings
   55,000 PSI minimum yield strength
   70,000 PSI minimum tensile strength
   20% minimum elongation in 2"
   Wall thickness (uncoated) shall be within the range of 0.122" to 0.138"
   Outside diameter (uncoated) shall be within the range of 2.861" to 2.883"
   Galvanization per ASTM A123 or ASTM A653 G210. For precoated steel tubing (ASTM A653), recoat tube outside diameter weld seam by metallizing with zinc wire per ASTM B833.
   Schedule 80 Pipe (2.875" outside diameter)
   0.276" nominal wall thickness
   Steel tubing per ASTM A500 Gr C
   Other seamless or electric-resistance welded steel tubing or pipe with equivalent outside diameter and wall thickness may be used if they meet the followings
   46,000 PSI minimum yield strength
   62,000 PSI minimum tensile strength
   21% minimum elongation in 2"
   Wall thickness (uncoated) shall be within the range of 0.248" to 0.304"
   Outside diameter (uncoated) shall be within the range of 2.855" to 2.895"
   Galvanization per ASTM A123
3. See the Traffic Operations Division website for detailed drawings of sign clamps and Texas Universal Triangular Slipbase System components. The website address is: http://www.txdot.gov/publications/traffic.htm
4. Sign supports shall not be spliced except where shown. Sign support posts shall not be spliced.

ASSEMBLY PROCEDURE

Foundation
1. Prepare 12-inch diameter by 42-inch deep hole. If solid rock is encountered, the depth of the foundation may be reduced such that it is embedded a minimum of 18 inches into the solid rock.
2. The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, mortar-mixed concrete mixer. For small placements less than 0.5 cubic yards, hand mixing in a suitable container may be allowed by Engineer. Concrete shall be Class A.
3. Push the plow end of the slip base stub into the center of the concrete. Rotate the stub back and forth while pushing it down into the concrete to assure good contact between the concrete and stub. Continue to work the stub into the concrete until it is between 2 to 4 inches above the ground.
4. Plumb the stub. Allow a minimum of 4 days to set, unless otherwise directed by the Engineer.
5. The triangular slipbase system is multidirectional and is designed to release when struck from any direction.

Support
1. Cut support so that the bottom of the sign will be 7 to 7.5 feet above the edge of the travelway (i.e., edge of the closest lane) when slip plate is below the edge of pavement or 7 to 7.5 feet above slip plate when the slip plate is above the edge of the travelway. The cut shall be plumb and straight.
2. Attach sign to support using connections shown. When multiple signs are installed on the same support, ensure the minimum clearance between each sign is maintained. See SMD(SLIP-2) for clearances based on sign types.

CONCRETE ANCHOR



SM RD SGN ASSM TY XXXXX(X)SA(X-XXXX)

Concrete anchor consists of 5/8" diameter stud bolt with UNC series bolt threads on the upper end. Heavy hex nut per ASTM A563, and hardened washer per ASTM F436. The stud bolt shall have a minimum yield and ultimate tensile strength of 50 and 75 KSI, respectively. Nuts, bolts and washers shall be galvanized per Item 445, "Galvanizing." Adhesive type anchors shall have stud bolts installed with Type III epoxy per DMS-6100, "Epoxies and Adhesives." Adhesive anchors may be loaded after adequate epoxy cure time per the manufacturer's recommendations. Top of bolt shall extend at least flush with top of the nut when installed. The anchor, when installed in 4000 psi normal-weight concrete with a 5 1/2" minimum embedment, shall have a minimum allowable tension and shear of 3900 and 3100 psi, respectively.

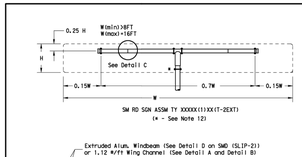
Texas Department of Transportation
Traffic Operations Division

SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

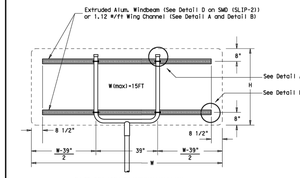
SMD(SLIP-1)-08

©TxDOT July 2002	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
9-08 REVISIONS	CONT	SECT	JOB	HIGHWAY
	DIST	COUNTY		SHEET NO.

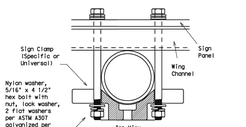
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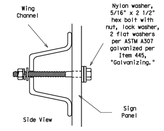
SM RD SGN ASSM TY XXXXX(1)XX(T-2EXT)
(+ - See Note 12)



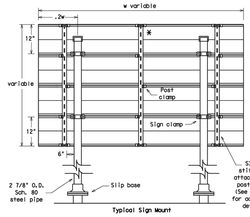
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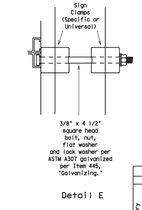
Top View
Detail A



Detail B



Typical Sign Mount
SM RD SGN ASSM TY S80(2)XX(P-EXAL)
W Additional stiffener placed at approximate center of signs when sign width is greater than 10'.



Detail C

Splices shall only be allowed behind the sign substrate.

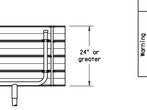
Detail E

GENERAL NOTES:

SIGN SUPPORT	# OF POSTS	MAX. SIGN AREA
10 BWG	1	16 SF
10 BWG	2	32 SF
Sch 80	1	32 SF
Sch 80	2	64 SF

2. The Engineer may require that a Schedule 80 post be used in place of a 10 BWG where a sign height is abnormally high due to a fill slope.
3. Sign supports shall not be spliced except where shown. Sign support posts shall not be spliced.
4. Aluminum sign blanks shall conform to Departmental Material Specifications DMS-7110 and shall have the following minimum thicknesses: 0.080 for signs less than 7.5 sq. ft., 0.100 for signs 7.5 to 15 sq. ft., and 0.125 for signs greater than 15 sq. ft.
5. Signs that require specific supports due to reasons in addition to windloading are indicated on the "REQUIRED SUPPORT" table on this sheet.
6. For horizontal rectangular signs fabricated from flat aluminum, T-brackets are used for signs 24 inches or less in height. U-brackets are used for signs of greater height.
7. When two triangular slipbase supports are used to support a single sign, they shall not be "rigidly" connected to each other except through the sign panel. This will allow each support to act independently when impacted by an errant vehicle.
8. Wing channel shall meet ASTM A 1011 SS Gr 50 and be galvanized per ASTM A 123.
9. Excess pipe, wing channel, or windbeam shall be cut off so that it does not extend beyond the sign panel (i.e., excess support shall not be visible when the sign is viewed from the front.) Repair galvanized coating on cut support ends per Item 445, "Galvanizing."
10. Sign blanks shall be the sizes and shapes shown on the plans.
11. Additional sign clamp required on the "T-bracket" post for 24 inch height signs. Place the clamp 3 inches above bottom of sign when possible.
12. Post open ends shall be fitted with friction Caps.

REQUIRED SUPPORT		
SIGN DESCRIPTION		SUPPORT
Regulatory	48-inch STOP sign (R1-1)	TY 10BWG(1)XX(T) TY 10BWG(1)XX(P-BM)
	60-inch YIELD sign (R1-2)	TY 10BWG(1)XX(T) TY 10BWG(1)XX(P-BM)
	48x16-inch ONE-WAY sign (R6-1)	TY 10BWG(1)XX(T) TY 10BWG(1)XX(P-BM)
	36x48, 48x36, and 48x48-inch signs	TY 10BWG(1)XX(T)
	48x60-inch signs	TY S80(1)XX(T)
Warning	48x48-inch signs (diamond or square)	TY 10BWG(1)XX(T)
	48x60-inch signs	TY S80(1)XX(T)
	48-inch Advance School X-ing sign (S1-1)	TY 10BWG(1)XX(T)
	48-inch School X-ing sign (S2-1)	TY 10BWG(1)XX(T)
	Large Arrow sign (W1-6 & W1-7)	TY 10BWG(1)XX(T)



Use Extruded Alum. Windbeam as stiffeners
See SMD (2-1) for additional details
See Detail E
for clamp installation

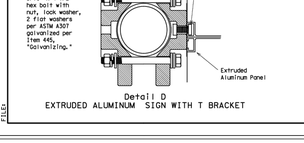
Texas Department of Transportation
Traffic Operations Division

SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

SMD(SLIP-3)-08

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Extruded Aluminum Sign
With T Bracket

Detail D
EXTRUDED ALUMINUM SIGN WITH T BRACKET

MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297/SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

PAUL LANDA, JR.
100182
LICENSED
PROFESSIONAL ENGINEER
5/16/26

REVISIONS

NO.	DATE	DESCRIPTION	BY:	PROJ. #:	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

TRAILS AT LOWER SEGUIN

TRAFFIC PLAN DETAILS

SHEET
C4.2

SUBMITTAL SET

SIGN SUPPORT DESCRIPTIVE CODES

(Descriptive Codes correspond to project estimate and quantities sheets)

SM RD SGN ASSM TY XXXXX(X)XX(X-XXXX)

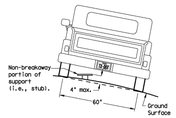
Post Type
FRP = Fiberglass Reinforced Plastic Pipe (see SMD(FRP))
TWT = Thin-Walled Tubing (see SMD(TWT))
10BWG = 10 BWG Tubing (see SMD(SLIP-1) to (SLIP-3))
S80 = Schedule 80 Pipe (see SMD(SLIP-1) to (SLIP-3))

Number of Posts (1 or 2)

Anchor Type
UA = Universal Anchor - Concreted (see SMD(FRP) and (TWT))
UB = Universal Anchor - Bolted Down (see SMD(FRP) and (TWT))
WS = Wedge Anchor Steel - (see SMD(TWT))
WP = Wedge Anchor Plastic (see SMD(TWT))
SA = Slipbase - Concreted (see SMD(SLIP-1) to (SLIP-3))
SB = Slipbase - Bolted Down (see SMD(SLIP-1) to (SLIP-3))

Sign Mounting Designation
P = Prefab. "Plain" (see SMD(SLIP-1) to (SLIP-3), (TWT), (FRP))
T = Prefab. "T" (see SMD(SLIP-1) to (SLIP-3), (TWT))
U = Prefab. "U" (see SMD(SLIP-1) to (SLIP-3))
IF REQUIRED:
IEXT or 2EXT = Number of Extensions (see SMD(SLIP-1) to (SLIP-3), (TWT))
BM = Extruded Wind Beam (see SMD(SLIP-1) to (SLIP-3))
WC = 1.12 #/ft Wing Channel (see SMD(SLIP-1) to (SLIP-3))
EXAL = Extruded Aluminum Sign Panels (see SMD(SLIP-3))

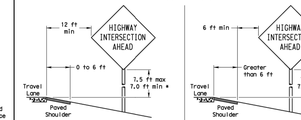
REQUIRED CLEARANCE FOR BREAKAWAY SUPPORT



To avoid vehicle undercarriage snagging, any substantial remains of a breakaway support, when it is broken away, should not project more than 4 inches above a 60-inch chord (i.e., typical space between wheel pathsl.

SIGN LOCATION

PAVED SHOULDERS



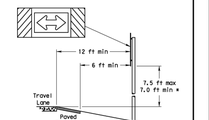
LESS THAN 6 FT. WIDE

When the shoulder is 6 ft. or less in width, the sign must be placed at least 12 ft. from the edge of the travel lane.

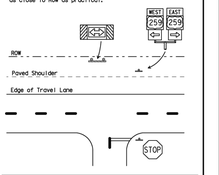
GREATER THAN 6 FT. WIDE

When the shoulder is greater than 6 ft in width, the sign must be placed at least 6 ft. from the edge of the shoulder.

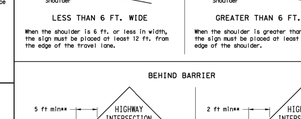
T-INTERSECTION



When this sign is needed at the end of a two-lane, two way roadway, the right edge of the sign should be in line with the centerline of the roadway. Place as close to ROW as practical.



BEHIND BARRIER



BEHIND GUARDRAIL

BEHIND CONCRETE BARRIER

**Sign clearance based on distance required for proper guard rail or concrete barrier performance.

* Signs shall be mounted using the following condition that results in the greatest sign elevations

(1) a minimum of 7 ft to a maximum of 7.5 feet above the edge of the travel lane or

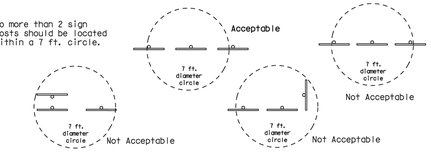
(2) a minimum of 7 to a maximum of 7.5 feet above the grade at the base of the support when sign is installed on the backslope.

The maximum values may be increased when directed by the Engineer.

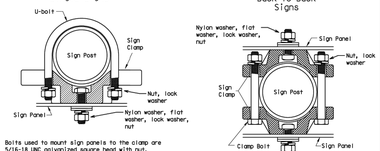
See the Traffic Operations Division website for detailed drawings of sign clamps, Triangular Slipbase System components and Wedge Anchor System components.

The website address is: http://www.txdot.gov/publications/traffic.htm

No more than 2 sign posts should be located within a 7 ft. circle.



TYPICAL SIGN ATTACHMENT DETAIL



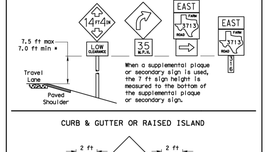
Bolts used to mount sign panels to the clamp are 5/16-18 UNC galvanized square head with nut, nylon washer, flat washer and lock washer. The bolt length is 1 inch for aluminum.

When two sign clamps are used to mount signs back-to-back, use a 5/16-18 UNC galvanized hex head per ASTM A307 with nut and helical-spring lock washer. The approximate bolt lengths for various post sizes and sign clamp types are given in the table at right. The bolt length may need to be adjusted depending upon field conditions.

Sign clamps may be either the specific size clamp or the universal clamp.

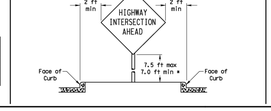
Pipe Diameter	Approximate Bolt Length	
	Specific Clamp	Universal Clamp
2" nominal	3"	3 or 3 1/2"
2 1/2" nominal	3 or 3 1/2"	3 1/2 or 4"
3" nominal	3 1/2 or 4"	4 1/2"

SIGNS WITH PLAQUES



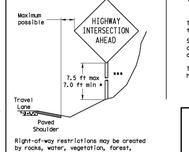
When a supplemental plaque or secondary sign is used, the 7 ft sign height is measured to the bottom of the supplemental plaque or secondary sign.

CURB & GUTTER OR RAISED ISLAND



RESTRICTED RIGHT-OF-WAY

(When 6 ft min. is not possible.)



Right-of-way restrictions may be created by rocks, water, vegetation, forest, buildings, a narrow island, or other factors.

In situations where a lateral restriction prevents the minimum horizontal clearance from the edge of the travel lane, signs should be placed as far from the travel lane as practical.

*** Post may be shorter if protected by guardrail or if Engineer determines the post could not be hit due to extreme slope.

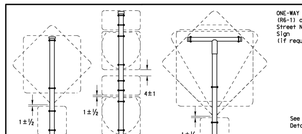
Texas Department of Transportation
Traffic Operations Division

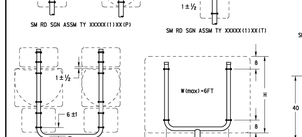
SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS GENERAL NOTES & DETAILS

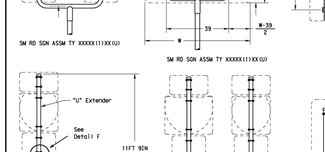
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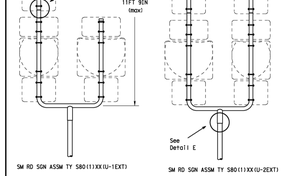




SM RD SGN ASSM TY S80(1)XX(U-1EXT)

SM RD SGN ASSM TY S80(1)XX(U-2EXT)

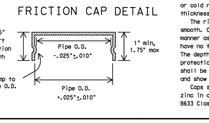
SM RD SGN ASSTM TY XXXXX(2)XX(P)



SM RD SGN ASSM TY XXXXX(1)XX(T)
(+ - See Note 12)

All dimensions are in english unless detailed otherwise.

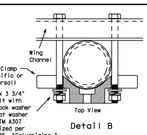
FRICTION CAP DETAIL

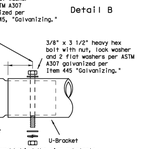


Friction caps may be manufactured from hot rolled or cold rolled steel sheets. The minimum sheet metal thickness shall be 24 gauge for all cap sizes.

The rim edges shall be reasonably straight and smooth. Caps shall be sized and formed in such a manner as to produce a drive-on friction fit and have no tendency to rock when seated on the pipe. The depth shall be sufficient to give positive protection against entrance of rainwater. They shall be free of sharp crosses or indentations and show no evidence of metal fracture.

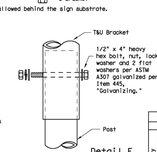
Caps shall have an electrodeposited coating of zinc in accordance with the requirements of ASTM B633 Class FE/ZN 8.



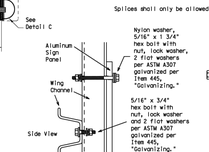


Detail F

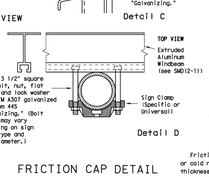
Splices shall only be allowed behind the sign substrate.



Detail E



Detail C



Detail D

REQUIRED SUPPORT		
SIGN DESCRIPTION		SUPPORT
Regulatory	48-inch STOP sign (R1-1)	TY 10BWG(1)XX(T) TY 10BWG(1)XX(P-BM)
	60-inch YIELD sign (R1-2)	TY 10BWG(1)XX(T) TY 10BWG(1)XX(P-BM)
	48x16-inch ONE-WAY sign (R6-1)	TY 10BWG(1)XX(T) TY 10BWG(1)XX(P-BM)
	36x48, 48x36, and 48x48-inch signs	TY 10BWG(1)XX(T)
	48x60-inch signs	TY S80(1)XX(T)
Warning	48x48-inch signs (diamond or square)	TY 10BWG(1)XX(T)
	48x60-inch signs	TY S80(1)XX(T)
	48-inch Advance School X-ing sign (S1-1)	TY 10BWG(1)XX(T)
	48-inch School X-ing sign (S2-1)	TY 10BWG(1)XX(T)
	Large Arrow sign (W1-6 & W1-7)	TY 10BWG(1)XX(T)

GENERAL NOTES:

SIGN SUPPORT	# OF POSTS	MAX. SIGN AREA
10 BWG	1	16 SF
10 BWG	2	32 SF
Sch 80	1	32 SF
Sch 80	2	64 SF

2. The Engineer may require that a Schedule 80 post be used in place of a 10 BWG where a sign height is abnormally high due to a fill slope.
3. Sign supports shall not be spliced except where shown. Sign support posts shall not be spliced.
4. Aluminum sign blanks shall conform to Departmental Material Specifications DMS-7110 and shall have the following minimum thicknesses: 0.080 for signs less than 7.5 sq. ft., 0.100 for signs 7.5 to 15 sq. ft., and 0.125 for signs greater than 15 sq. ft.
5. Signs that require specific supports due to reasons in addition to windloading are indicated on the "REQUIRED SUPPORT" table on this sheet.
6. For horizontal rectangular signs fabricated from flat aluminum, T-brackets are used for signs 24 inches or less in height. U-brackets are used for signs of greater height.
7. When two triangular slipbase supports are used to support a single sign, they shall not be "rigidly" connected to each other except through the sign panel. This will allow each support to act independently when impacted by an errant vehicle.
8. Wing channel shall meet ASTM A 1011 SS Gr 50 and be galvanized per ASTM A 123.
9. Excess pipe, wing channel, or windbeam shall be cut off so that it does not extend beyond the sign panel (i.e., excess support shall not be visible when the sign is viewed from the front.) Repair galvanized coating on cut support ends per Item 445, "Galvanizing."
10. Sign blanks shall be the sizes and shapes shown on the plans.
11. Additional sign clamp required on the "T-bracket" post for 24 inch height signs. Place the clamp 3 inches above bottom of sign when possible.
12. Post open ends shall be fitted with Friction Caps.
13. Sign blanks shall be the sizes and shapes shown on the plans.

Texas Department of Transportation
Traffic Operations Division

SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

SMD(SLIP-2)-08

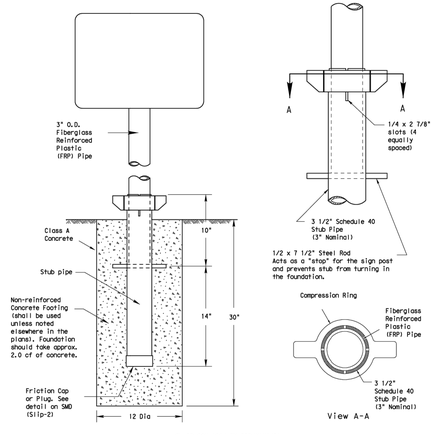
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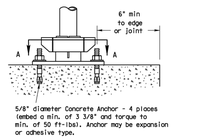
Plot Date: May 29, 2008 User ID: Edna Gaytan
P:\User Input Required\Drawings\SMD-Last 1 Yrs\ Pre Panel Corrections

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Universal Anchor System with Fiberglass Reinforced Plastic (FRP) Post



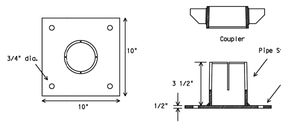
SM RD SGN ASSM TY FRP(X)UA(P)



5/8" diameter Concrete Anchor - 4 places (embed a min. of 3 3/8" and torque to min. of 50 ft-lbs). Anchor may be expansion or adhesive type.

Concrete anchor consists of 5/8" diameter stud bolt with UNC series bolt threads on the upper end. A heavy hex nut per ASTM A563 and hardened washer per ASTM F436. The stud bolt shall have minimum yield and ultimate tensile strengths of 50 and 75 ksi, respectively. Nuts, bolts and washers shall be galvanized per Item 445, "Galvanizing." Top of bolt shall extend at least flush with top of nut when installed. The anchor, when installed in 4000 psi normal-weight concrete with a 3 3/8" minimum embedment, shall have a minimum allowable tension and shear of 2450 and 1525 psi, respectively. Adhesive type anchors shall have stud bolts installed with Type III epoxy per DMS-6100, "Epoxies and Adhesives." Adhesive anchors may be loaded after adequate epoxy cure time per the manufacturer's recommendations.

BOLT-DOWN DETAILS



SM RD SGN ASSM TY FRP(X)UB(P)

GENERAL NOTES:

1. FRP sign supports for a single type sign support may be used for signs up to and including 16 square feet. Dual post installation may be used for signs up to and including 32 square feet.
2. All nuts, bolts and washers shall be galvanized per Item 445, "Galvanizing."
3. See the Traffic Operations Division website for detailed drawings of sign clamps. The website address is: http://www.txdot.gov/publications/traffic.htm

FRP POST REQUIREMENTS

1. Materials shall conform to the requirements of Departmental Material Specification DMS-4410 and will be furnished in a yellow or gray color as specified elsewhere in the plans.
2. Thickness of FRP sign support is 0.125" + 0.031", - 0.0".
3. FRP sign supports are prequalified by the Traffic Operations Division. Prequalification procedures are obtained by writing:
   Texas Department of Transportation
   Traffic Operations Division
   125 East 11th Street
   Austin, Texas 78701-2483

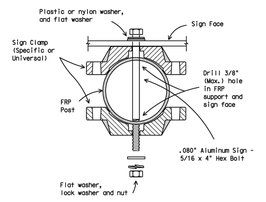
UNIVERSAL ANCHOR SYSTEM INSTALLATION PROCEDURES

1. Dig foundation hole. Where solid rock is encountered at ground level, the foundation shall be a minimum depth of 18". When solid rock is encountered below ground level, the foundation shall extend in the solid rock a minimum depth of 18" or provide a minimum foundation depth of 30". If solid rock is encountered, the socket/stub may be reduced in length as required to a minimum length of 18". Any material removed from the socket/stub shall be from the bottom and the clearance requirements given on SMD(GEN) must be followed. The inner surfaces of the socket/stub must remain free of concrete or other debris.
2. The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, motor driven concrete mixer. For small placements less than 0.5 cubic yards, hand mixing in a suitable container may be allowed by Engineer. Concrete shall be Class A.
3. Insert base post in foundation hole to depths shown and fill hole with concrete. Cut base post from bottom and ensure a minimum of 18" embedment if installed in solid rock.
4. Level and plumb the base post with coupler using a torpedo level and let concrete set a minimum of 4 days, unless otherwise directed by Engineer. Bottom of base post slots shall be above the concrete footing.
5. Attach sign to FRP post.
6. Insert sign post into base post. Lower until the post comes to rest on the steel rod.
7. Use hammer to ensure the coupler is firmly seated. Top of coupler should be level with top of base post in most instances.
8. Check sign to ensure there is no twist. If loose, increase the tightening of coupler.

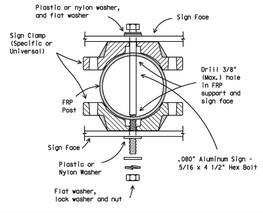
BOLT DOWN SIGN SUPPORT

1. Position base plate with coupler on existing concrete.
2. Drill holes into concrete and insert the 5/8" diameter bolts with wedge anchors, and tighten nuts.
3. Attach sign to FRP post.
4. Insert bottom of sign post into pipe stub.
5. Use hammer to ensure the coupler is firmly seated. Top of coupler should be level with top of base post in most instances.
6. Check sign to ensure there is no twist. If loose, increase the tightening of coupler.

Typical Sign Mounting Detail for FRP Support with Single Sign



Typical Sign Mounting Detail for FRP Support with Back-to-Back Signs



Texas Department of Transportation
Traffic Operations Division

SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS UNIVERSAL ANCHOR SYSTEM WITH FRP POST

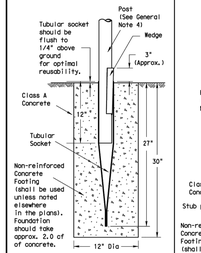
SMD(FRP)-08

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	DIST	COUNTY	SHEET No.	

2GF

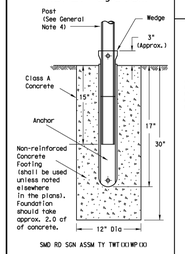
DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by the Texas Department of Transportation for any particular use or application of this standard or for any adaptation of this standard to other formats or for incorrect results or damages resulting from its use.

Wedge Anchor Steel System



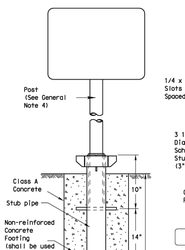
SM RD SGN ASSM TY TWT(X)WS(X)

Wedge Anchor High Density Polyethylene (HDPE) System

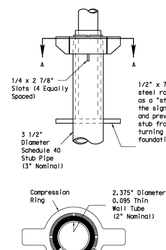


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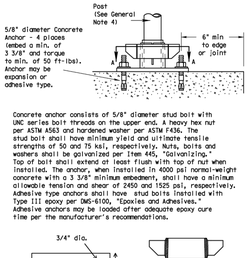
Universal Anchor System with Thin-Walled Tubing Post



SM RD SGN ASSM TY TWT(X)UA(P)

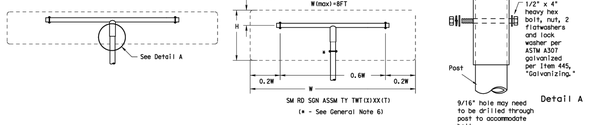


Plastic insert must be used when using the TWT with either the Universal Anchor System or the Bolt Down Universal Anchor System. The insert should be approx. 10" long and cover the tubing from just above the top of the stub pipe to the bottom of the sign post when using the Universal Anchor System. The insert should be cut to approx. 4 1/2" when used with the Bolt Down Universal Anchor System.



SM RD SGN ASSM TY TWT(X)UB(P)

Sign Installation Using a Prefabricated T-Bracket for Thin-Wall Tubing Post



SM RD SGN ASSM TY TWT(X)XX(T)
(* - See General Note 6)

NOTE

The devices shall be installed per manufacturer's recommendations. Installation procedures shall be provided to the Engineer by Contractor.

GENERAL NOTES:

1. The Wedge Anchor System and the Universal Anchor System with thin wall tubing post may be used to support up to 10 square feet of sign area.
2. The tubular socket, wedge and prefabricated T-bracket shall be permanently marked to indicate manufacturer. Method, design, and location of marking are subject to the approval of the TxDOT Traffic Standards Engineer.
3. Except for posts (13 BWG Tubing), clamps, nuts and bolts, all components shall be prequalified. A list of prequalified vendors may be obtained from the Material Producer List web page. The website address is: http://www.txdot.gov/business/producer list.htm
4. Material used as post with this system shall conform to the following specifications:
   13 BWG Tubing (2.375" outside diameter) (TWT)
   0.095" nominal wall thickness
   Seamless or electric-resistance welded steel tubing
   Steel shall be HSLAS Gr 55 per ASTM A1011 or ASTM A1008
   Other steels may be used if they meet the following:
   55,000 PSI minimum yield strength
   70,000 PSI minimum tensile strength
   18% minimum elongation in 2"
   Wall thickness (uncoated) shall be within the range of .083" to .099"
   Outside diameter (uncoated) shall be within the range of 2.369" to 2.381"
   Galvanization per ASTM 123 or ASTM A653 G210. For precoated steel tubing (ASTM A653), recoat tube outside diameter weld seam by painting with zinc wire per ASTM B833.
5. Sign blanks shall be the sizes and shapes shown on the plans.
6. Additional sign clamp required on the "T-bracket" post for 24" high signs. Place clamp at least 3" above bottom of sign when possible.
7. Sign supports shall not be spliced except where shown. Sign support posts shall not be spliced.
8. See the Traffic Operations Division website for detailed drawings of sign clamps and Wedge Anchor System components. The website address is: http://www.txdot.gov/publications/traffic.htm

WEDGE ANCHOR SYSTEM INSTALLATION PROCEDURE

1. Dig foundation hole. Where solid rock is encountered at ground level, the foundation shall be a minimum depth of 18". When solid rock is encountered below ground level, the foundation shall extend in the solid rock a minimum depth of 18" or provide a minimum foundation depth of 30". If solid rock is encountered, the socket/stub may be reduced in length as required to a minimum length of 18". Any material removed from the socket/stub shall be from the bottom and the clearance requirements given on SMD(GEN) must be followed. The inner surfaces of the socket/stub must remain free of concrete or other debris.
2. The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, motor driven concrete mixer. For small placements less than 0.5 cubic yards, hand mixing in a suitable container may be allowed by Engineer. Place concrete into hole until it is approximately flush with the ground. Concrete shall be Class A.
3. Insert tubular socket into concrete until top of socket is approximately 1/4 " above the concrete footing.
4. Plumb the socket. Allow a minimum 4 days for concrete to set, unless otherwise directed by Engineer.
5. Attach the sign to the sign post.
6. Insert the sign post into socket and align sign face with roadway.
7. Drive the wedge into the socket to secure post. This will leave approximately 3 inches of the wedge exposed.

UNIVERSAL ANCHOR SYSTEM INSTALLATION PROCEDURE

1. Dig foundation hole. Where solid rock is encountered at ground level, the foundation shall be a minimum depth of 18". When solid rock is encountered below ground level, the foundation shall extend in the solid rock a minimum depth of 18" or provide a minimum foundation depth of 30". If solid rock is encountered, the socket/stub may be reduced in length as required to a minimum length of 18". Any material removed from the socket/stub shall be from the bottom and the clearance requirements given on SMD(GEN) must be followed. The inner surfaces of the socket/stub must remain free of concrete or other debris.
2. Insert base post in hole to depths shown and backfill hole with concrete.
3. Level and plumb the base post using a torpedo level and allow concrete adequate time to set. The bottom of the slots provided in the stub pipe shall remain above the top of the concrete foundation.
4. Attach the sign to the sign post.
5. Install plastic insert around bottom of post.
6. Insert sign post into base post. Lower until the post comes to rest on steel rod.
7. Seat compression ring using a hammer. Typically, the top of compression ring will be approximately level with top of stub post when optimally installed.
8. Check sign post by hand to ensure it is unable to turn. If loose, increase the tightening of the compression ring.

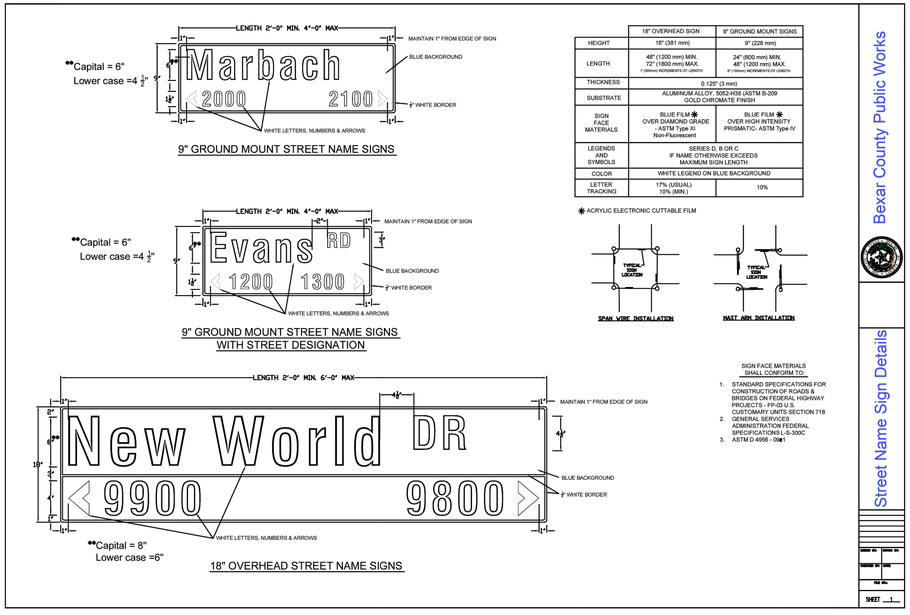
Texas Department of Transportation
Traffic Operations Division

SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS WEDGE & UNIVERSAL ANCHOR WITH THIN WALL TUBING POST

SMD(TWT)-08

© TxDOT July 2002	Tw TXDOT	Dn: TXDOT	Ck: TXDOT	Dw: TXDOT
9-08 REVISIONS	DATE	JOB	HIGHWAY	
	DIST	COUNTY	SHEET No.	

2GE



	18" OVERHEAD SIGN	9" GROUND MOUNT SIGNS
HEIGHT	18" (381 mm)	9" (228 mm)
LENGTH	48" (1200 mm) MIN. 72" (1800 mm) MAX. 6" (150mm) INCREMENTS OF LENGTH	24" (600 mm) MIN. 48" (1200 mm) MAX. 6" (150mm) 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 - ASTM Type XI Non-Fluorescent	BLUE FILM ✱ OVER HIGH INTENSITY PRISMATIC- ASTM Type IV
LEGENDS AND SYMBOLS	SERIES D, B OR C IF NAME OTHERWISE EXCEEDS MAXIMUM SIGN LENGTH	
COLOR	WHITE LEGEND ON BLUE BACKGROUND	
LETTER TRACKING	17% (USUAL) 10% (MIN.)	10%

✱ ACRYLIC ELECTRONIC CUTTABLE FILM

SIGN FACE MATERIALS SHALL CONFORM TO

1. STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS & BRIDGES ON FEDERAL HIGHWAY PROJECTS - FP-03 U.S. CUSTOMARY UNITS SECTION 718
2. GENERAL SERVICES ADMINISTRATION FEDERAL SPECIFICATIONS L-S-300C
3. ASTM D 4956 - 06e1

SUBMITTAL SET

NO.	DATE	DESCRIPTION	BY

REVISIONS

PROJ. # | DSN. BY: | DWN. BY: | CHKD. BY: | DATE:

MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297/SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
5/14/26

Bexar County Public Works

TRAILS AT LOWER SEGUIN

TRAFFIC PLAN DETAILS

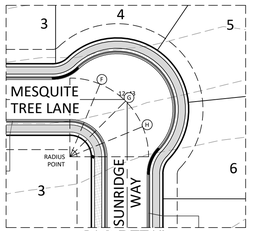
Street Name Sign Details

SHEET 1

SHEET
C4.3

Plot Date: May 20, 2026 User ID: Edna Gaytan
File Name: Project Sheets\Sheets\SD&S-Det 1 Traffic Plan Detail Sheets.dwg

CAUTION!!!
CONTRACTOR TO VERIFY EXISTING CONDITIONS BEFORE CONSTRUCTION. IF ANY DISCREPANCIES NOTIFY ENGINEER



SAC DETAIL

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD
C1	103.66'	200.00'	29°41'45"	53.02'	102.50'
C2	102.92'	200.00'	29°29'09"	52.63'	101.79'

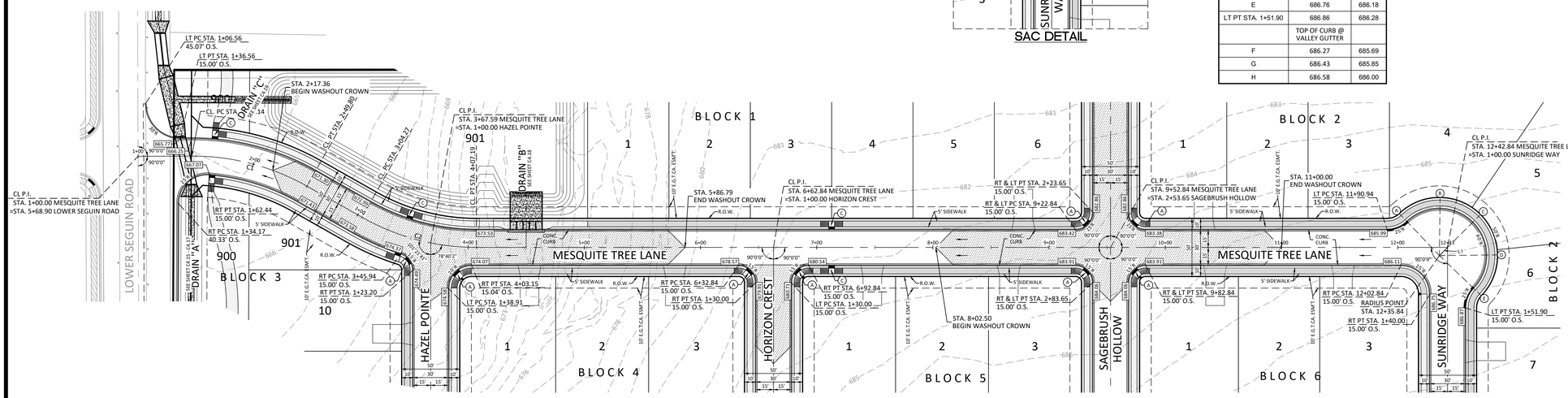
KNUCKLE SAC TABLE		
POINT	TOP OF CURB	GUTTER
LT PC STA. 11+90.94	685.99	685.41
A	686.20	685.62
B	686.52	685.94
C	686.72	686.14
D	686.80	686.22
E	686.76	686.18
LT PT STA. 1+51.90	686.86	686.28
	TOP OF CURB @ VALLEY GUTTER	
F	686.27	685.69
G	686.43	685.85
H	686.58	686.00

LINE TABLE		
LINE	LENGTH	BEARING
L1	9.90'	S75°26'15"E

SCALE: 1"=50'
0 50 100

LEGEND

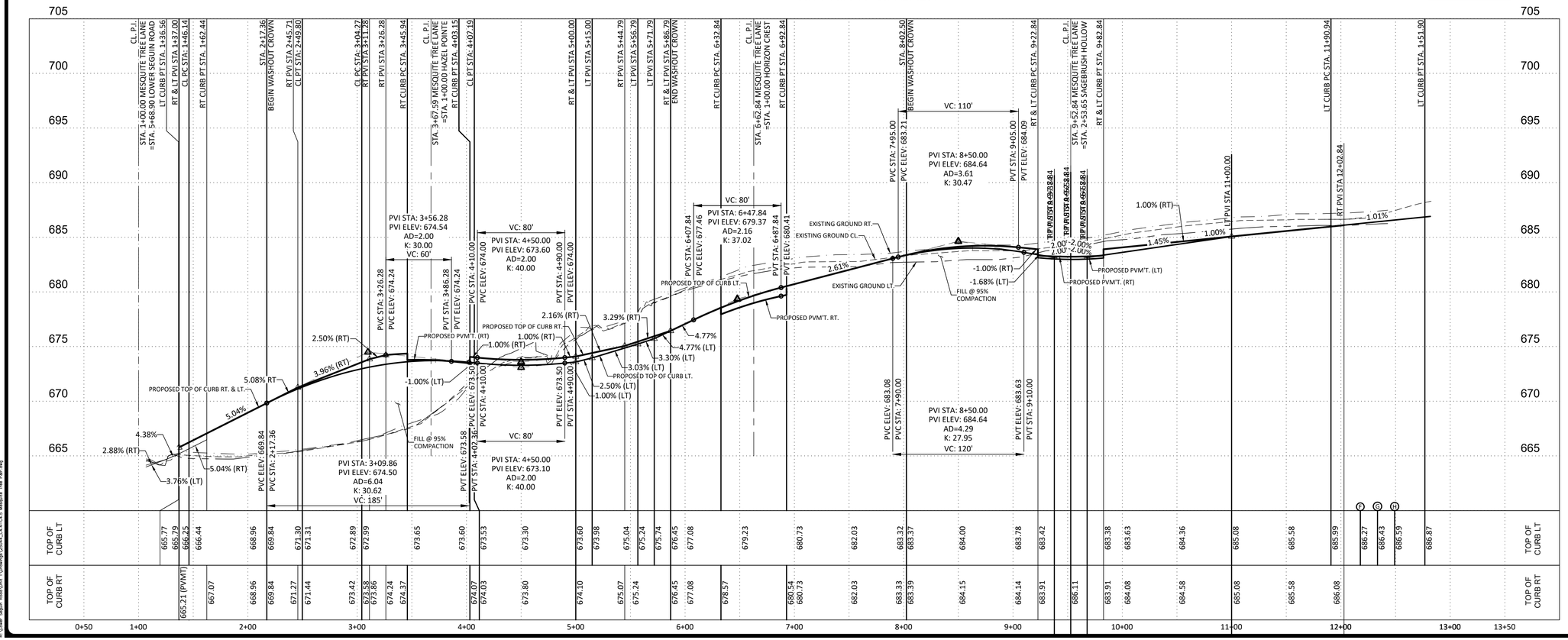
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- SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE) (A)
- SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL) (B)
- SIDEWALK WHEELCHAIR RAMP - TYPE II (DEVELOPER INSTALLED) (C)
- SIDEWALK WHEELCHAIR RAMP - TYPE I (DEVELOPER INSTALLED) (D)
- SIDEWALK WHEELCHAIR RAMP - TYPE 11 (DEVELOPER INSTALLED) OFFSET PARALLEL RAMP (E)
- SIDEWALK PASSING SPACE (F)
- EXISTING TOP OF CURB ELEVATION 805.81TC
- PROPOSED TOP OF CURB ELEVATION 805.81
- HOME BUILDER INSTALLED SIDEWALK
- DEVELOPER INSTALLED SIDEWALK
- EXISTING HOME BUILDER INSTALLED SIDEWALK
- EXISTING DEVELOPER INSTALLED SIDEWALK
- SIDEWALK WHEEL CHAIR RAMP
- WASH-OUT CROWN
- POSSIBLE DRIVEWAY LOCATION
- PROPERTY LINE
- EXISTING CONTOUR 1120
- PROPOSED CONTOUR 1120
- PROPOSED CONCRETE CURB
- FLOW ARROW



MESQUITE TREE LANE

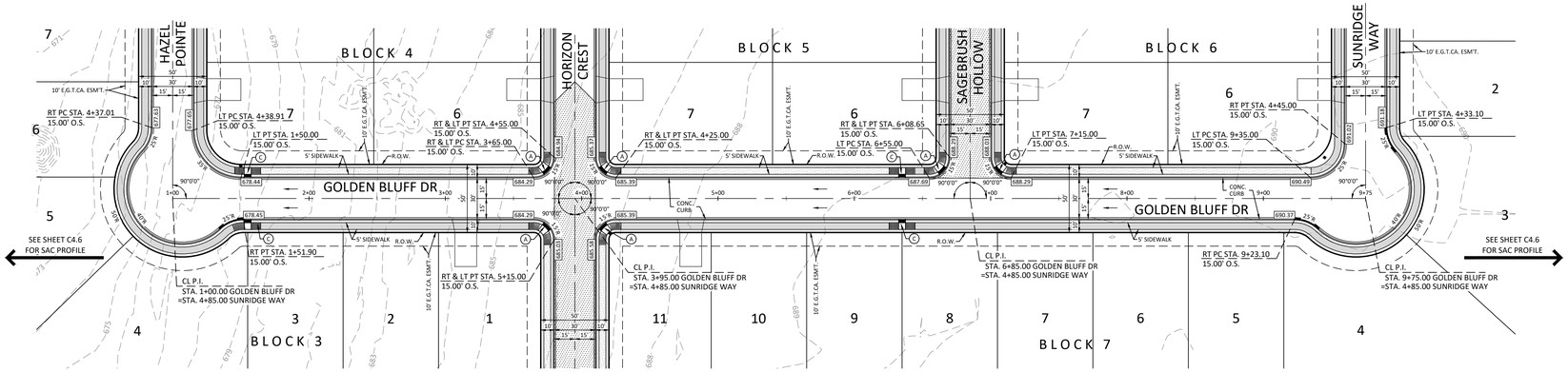
STA. 1+00.00 TO STA. 12+42.84

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



| | | | | |

CAUTION!!!
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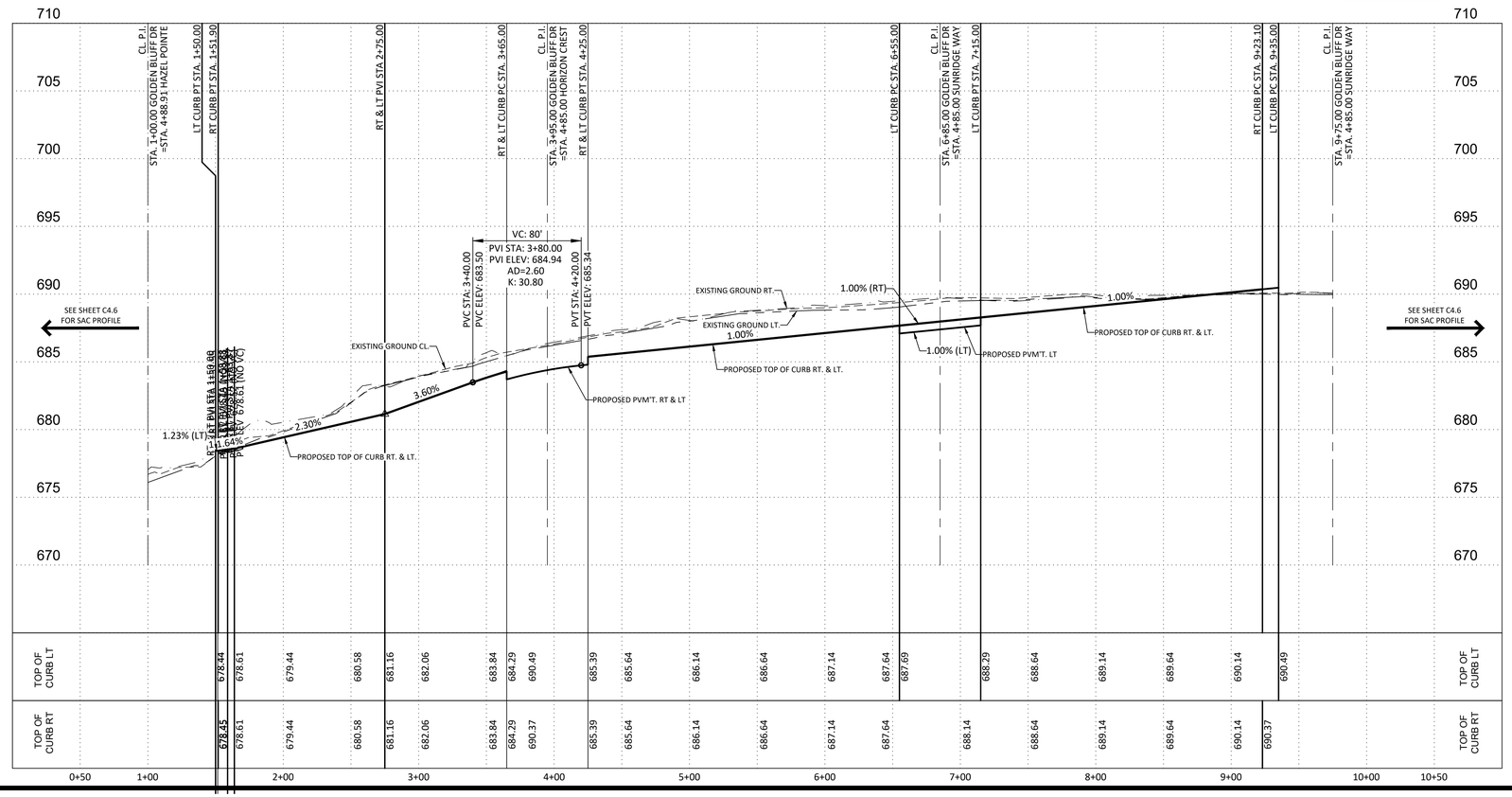
LEGEND

CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.	1
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE)	A
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL)	B
SIDEWALK WHEELCHAIR RAMP - TYPE II (DEVELOPER INSTALLED)	C
SIDEWALK WHEELCHAIR RAMP - TYPE I (DEVELOPER INSTALLED)	D
SIDEWALK WHEELCHAIR RAMP - TYPE 11 (DEVELOPER INSTALLED) OFFSET PARALLEL RAMP	E
SIDEWALK PASSING SPACE	F
EXISTING TOP OF CURB ELEVATION	805.81TC
PROPOSED TOP OF CURB ELEVATION	805.81
HOME BUILDER INSTALLED SIDEWALK	
DEVELOPER INSTALLED SIDEWALK	
EXISTING HOME BUILDER INSTALLED SIDEWALK	
EXISTING DEVELOPER INSTALLED SIDEWALK	
SIDEWALK WHEEL CHAIR RAMP	
WASH-OUT CROWN	
POSSIBLE DRIVEWAY LOCATION	
PROPERTY LINE	
EXISTING CONTOUR	1120
PROPOSED CONTOUR	1120
PROPOSED CONCRETE CURB	
FLOW ARROW	

GOLDEN BLUFF DR

STA. 1+00.00 TO STA. 9+75.00

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F--10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL.: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
5/9/26

REVISIONS

NO.	DATE	DESCRIPTION	BY:

PROJ. #: DSN. BY: DWN. BY: CHKD. BY: DATE:

TRAILS AT LOWER SEGUIN

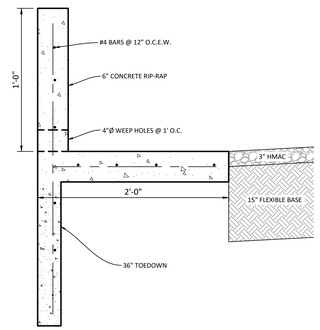
STREET PLAN & PROFILE
GOLDEN BLUFF DR
STA. 1+00.00 TO STA. 9+75.00

SHEET
C4.5

SUBMITTAL SET

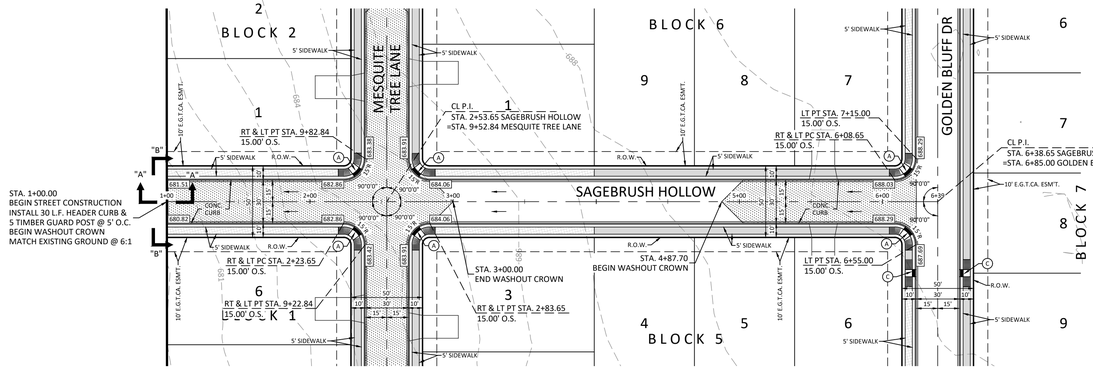
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CAUTION!!!
CONTRACTOR TO VERIFY EXISTING CONDITIONS BEFORE CONSTRUCTION. IF ANY DISCREPANCIES NOTIFY ENGINEER



SECTION A-A
SCALE: NTS

SECTION B-B
SCALE: NTS



SCALE: 1"=50'
0 50 100

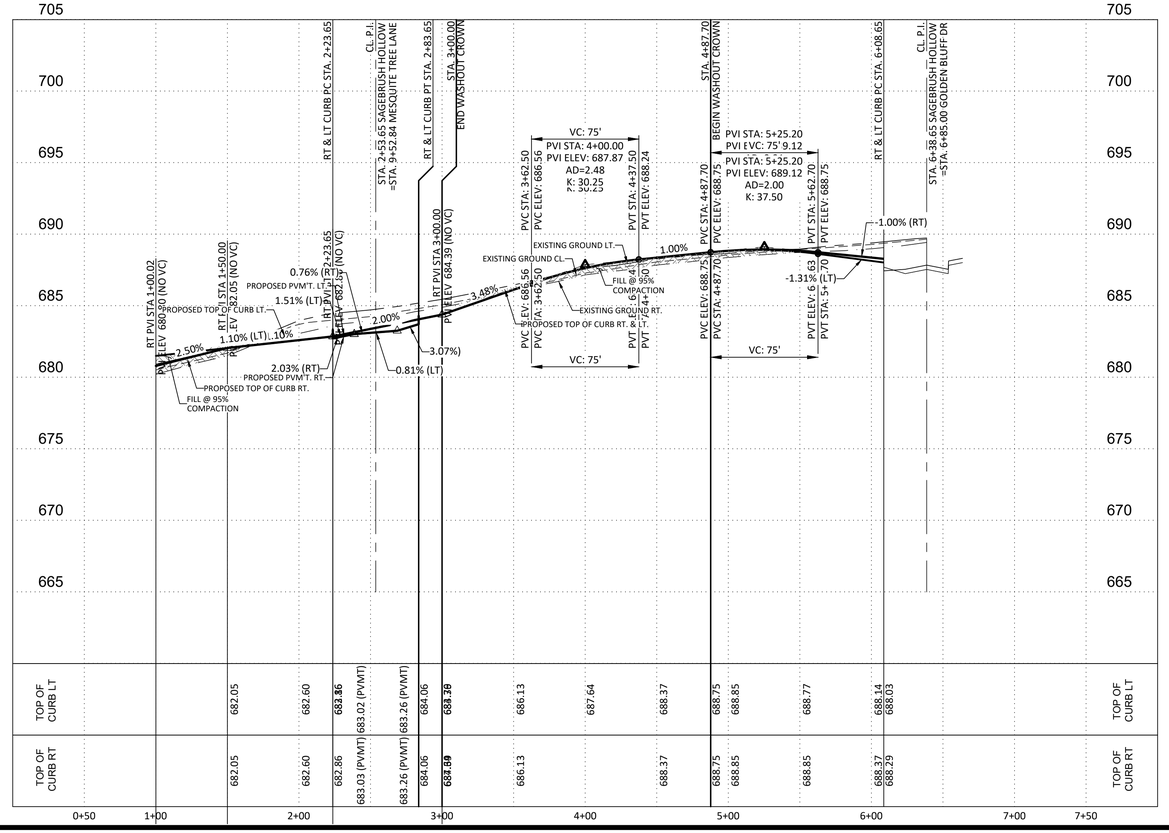
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CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.	1
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE)	A
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL)	B
SIDEWALK WHEELCHAIR RAMP - TYPE II (DEVELOPER INSTALLED)	C
SIDEWALK WHEELCHAIR RAMP - TYPE I (DEVELOPER INSTALLED)	D
SIDEWALK WHEELCHAIR RAMP - TYPE 11 (DEVELOPER INSTALLED) OFFSET PARALLEL RAMP	E
SIDEWALK PASSING SPACE	F
EXISTING TOP OF CURB ELEVATION	805.81TC
PROPOSED TOP OF CURB ELEVATION	805.81
HOME BUILDER INSTALLED SIDEWALK	
DEVELOPER INSTALLED SIDEWALK	
EXISTING HOME BUILDER INSTALLED SIDEWALK	
EXISTING DEVELOPER INSTALLED SIDEWALK	
SIDEWALK WHEEL CHAIR RAMP	
WASH-OUT CROWN	
POSSIBLE DRIVEWAY LOCATION	
PROPERTY LINE	
EXISTING CONTOUR	1120
PROPOSED CONTOUR	1120
PROPOSED CONCRETE CURB	
FLOW ARROW	

SAGEBRUSH HOLLOW

STA. 1+00.00 TO STA. 6+38.65

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



Plot Date: May 20, 2026 User ID: Sophia Gomez
File Name: J:\Projects\2024\24-14 Sagebrush Hollow PMP.dwg

REVISIONS

NO.	DATE	DESCRIPTION	BY:

PROJ. #: | DSN. BY: | DWN. BY: | CHKD. BY: | DATE:

• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL.: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

5/19/26
STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

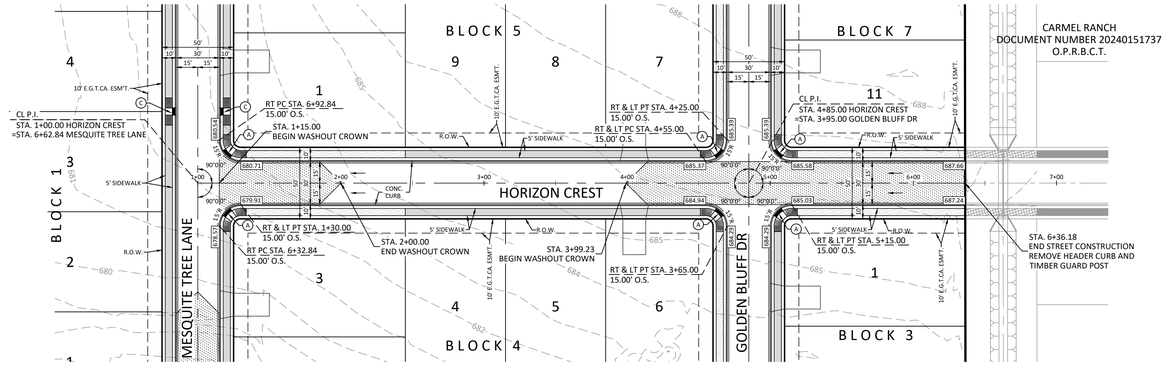
TRAILS AT LOWER SEGUIN

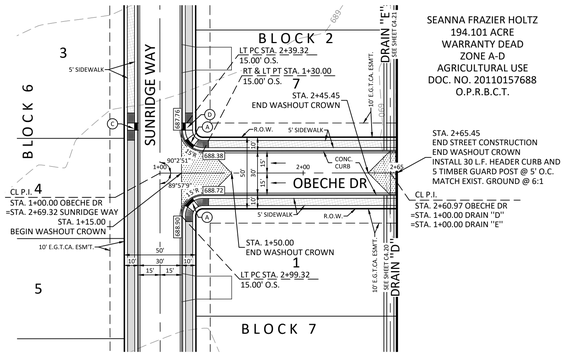
STREET PLAN & PROFILE
SAGEBRUSH HOLLOW
STA. 1+00.00 TO STA. 6+38.65

SHEET
C4.6

SUBMITTAL SET

CAUTION!!!
CONTRACTOR TO VERIFY EXISTING CONDITIONS BEFORE CONSTRUCTION. IF ANY DISCREPANCIES NOTIFY ENGINEER





SCALE: 1"=50'
0 50 100

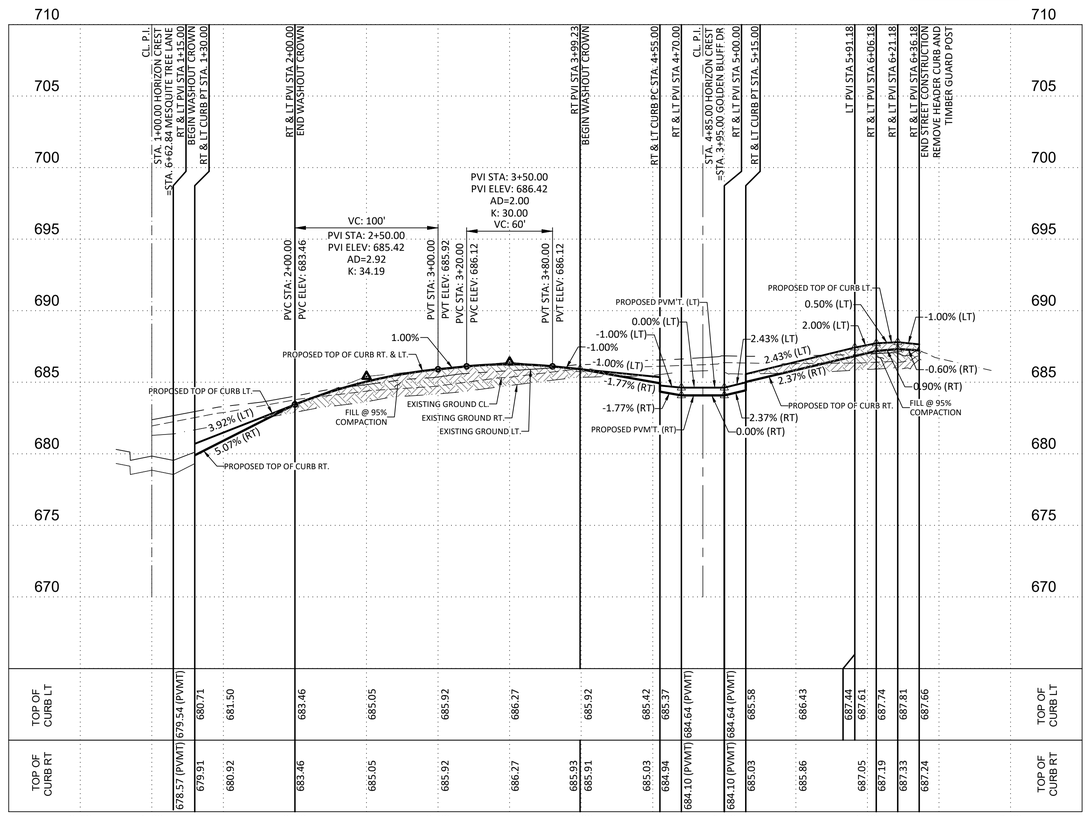
LEGEND

CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK. PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.	1
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE)	A
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL)	B
SIDEWALK WHEELCHAIR RAMP - TYPE II (DEVELOPER INSTALLED)	C
SIDEWALK WHEELCHAIR RAMP - TYPE I (DEVELOPER INSTALLED)	D
SIDEWALK WHEELCHAIR RAMP - TYPE 11 (DEVELOPER INSTALLED) OFFSET PARALLEL RAMP	E
SIDEWALK PASSING SPACE	F
EXISTING TOP OF CURB ELEVATION	805.81TC
PROPOSED TOP OF CURB ELEVATION	805.81
HOME BUILDER INSTALLED SIDEWALK	
DEVELOPER INSTALLED SIDEWALK	
EXISTING HOME BUILDER INSTALLED SIDEWALK	
EXISTING DEVELOPER INSTALLED SIDEWALK	
SIDEWALK WHEEL CHAIR RAMP	
WASH-OUT CROWN	
POSSIBLE DRIVEWAY LOCATION	
PROPERTY LINE	
EXISTING CONTOUR	1120
PROPOSED CONTOUR	1120
PROPOSED CONCRETE CURB	
FLOW ARROW	

HORIZON CREST

STA. 1+00.00 TO STA. 6+36.18

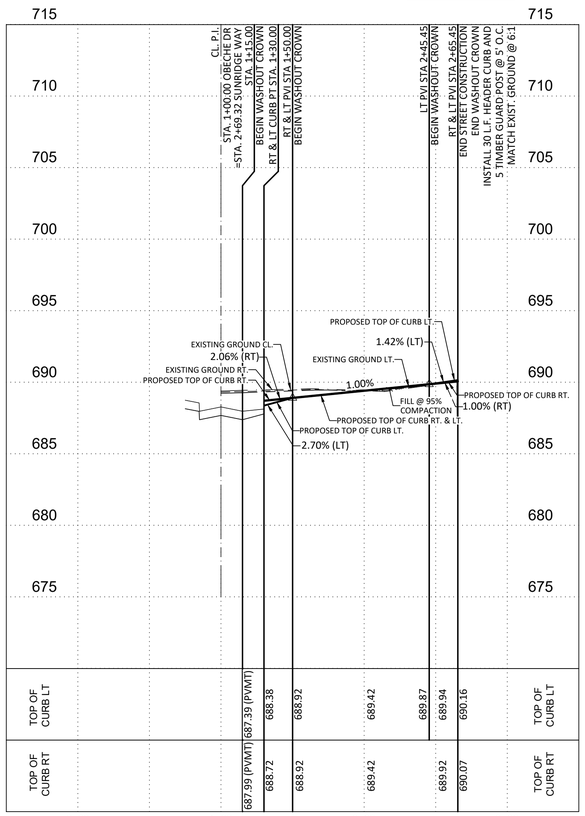
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



OBECHE DR

STA. 1+00.00 TO STA. 2+65.45

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



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STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED
PROFESSIONAL ENGINEER
5/10/26

TRAILS AT LOWER SEGUIN

STREET PLAN & PROFILE
HORIZON CREST & OBECHE DR

STA. 1+00.00 TO STA. 6+36.18 & STA. 1+00.00 TO STA. 2+65.45

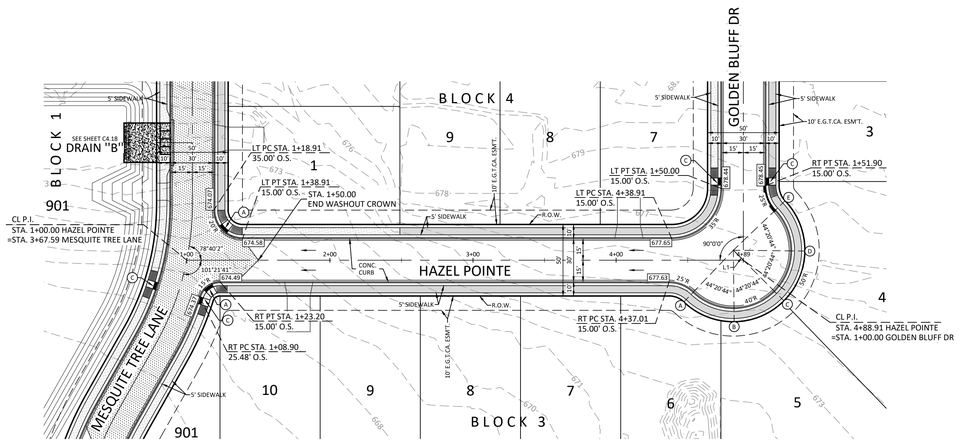
SUBMITTAL SET

SHEET
C4.7

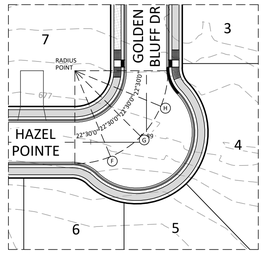
REVISIONS						
NO.	DATE	DESCRIPTION	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:	BY:

Plot Date: May 05, 2026 User ID: Dalisa Gaytan
S:\Lower Segun Road\civil 3d\Design\2304-2.4 Horizon Crest P&P.dwg

CAUTION!!!
CONTRACTOR TO VERIFY EXISTING CONDITIONS BEFORE CONSTRUCTION. IF ANY DISCREPANCIES NOTIFY ENGINEER



KNUCKLE SAC TABLE		
POINT	TOP OF CURB	GUTTER
RT PC STA. 4+37.01	677.63	677.05
A	677.82	677.24
B	678.16	677.58
C	678.38	677.80
D	678.46	677.88
E	678.40	677.82
RT PT STA. 1+51.90	678.45	677.87
	TOP OF CURB @ VALLEY GUTTER	
F	677.85	677.27
G	678.04	677.46
H	678.24	677.66



SAC DETAIL



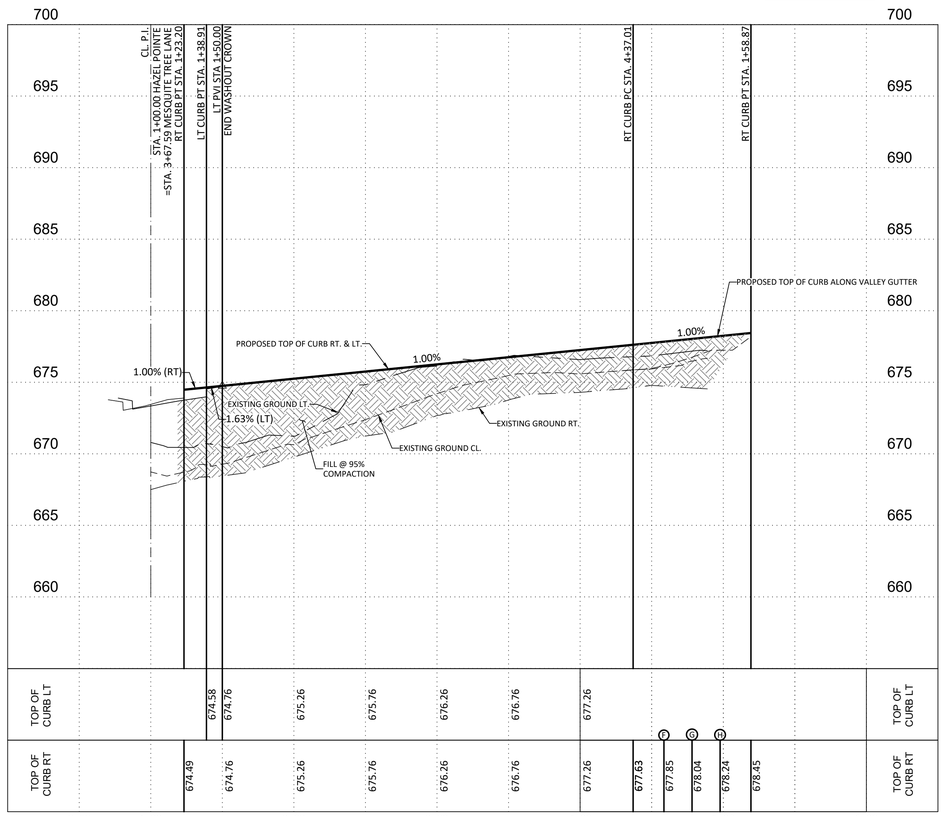
LEGEND

CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK. PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.	1
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE)	A
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL)	B
SIDEWALK WHEELCHAIR RAMP - TYPE II (DEVELOPER INSTALLED)	C
SIDEWALK WHEELCHAIR RAMP - TYPE I (DEVELOPER INSTALLED)	D
SIDEWALK WHEELCHAIR RAMP - TYPE 11 (DEVELOPER INSTALLED) OFFSET PARALLEL RAMP	E
SIDEWALK PASSING SPACE	F
EXISTING TOP OF CURB ELEVATION	805.81TC
PROPOSED TOP OF CURB ELEVATION	805.81
HOME BUILDER INSTALLED SIDEWALK	
DEVELOPER INSTALLED SIDEWALK	
EXISTING HOME BUILDER INSTALLED SIDEWALK	
EXISTING DEVELOPER INSTALLED SIDEWALK	
SIDEWALK WHEEL CHAIR RAMP	
WASH-OUT CROWN	
POSSIBLE DRIVEWAY LOCATION	
PROPERTY LINE	
EXISTING CONTOUR	1120
PROPOSED CONTOUR	1120
PROPOSED CONCRETE CURB	
FLOW ARROW	

HAZEL POINTE

STA. 1+00.00 TO STA. 4+88.91

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



REVISIONS						
NO.	DATE	DESCRIPTION	BY:	PROJ. #:	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

5/9/26
STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

TRAILS AT LOWER SEGUIN
STREET PLAN & PROFILE
HAZEL POINTE
STA. 1+00.00 TO STA. 4+88.91

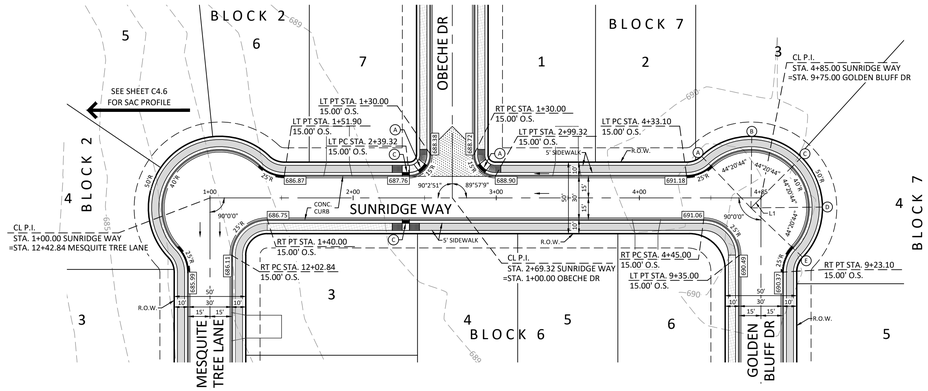
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C4.8

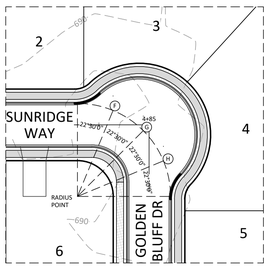
SUBMITTAL SET

Plot Date: May 05, 2026 User ID: Dalisa Gaytan
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CAUTION!!!
CONTRACTOR TO VERIFY EXISTING CONDITIONS BEFORE CONSTRUCTION. IF ANY DISCREPANCIES NOTIFY ENGINEER

LINE TABLE		
LINE	LENGTH	BEARING
L1	9.90'	N14°33'45"E





SAC DETAIL

KNUCKLE SAC TABLE		
POINT	TOP OF CURB	GUTTER
LT PC STA. 4+33.10	691.18	690.60
A	691.12	690.54
B	691.19	690.61
C	691.11	690.53
D	690.89	690.31
E	690.56	689.98
RT PT STA. 9+23.10	690.37	689.79
	TOP OF CURB @ VALLEY GUTTER	
F	690.97	690.39
G	690.77	690.19
H	690.58	690.00

SCALE: 1"=50'
0 50 100

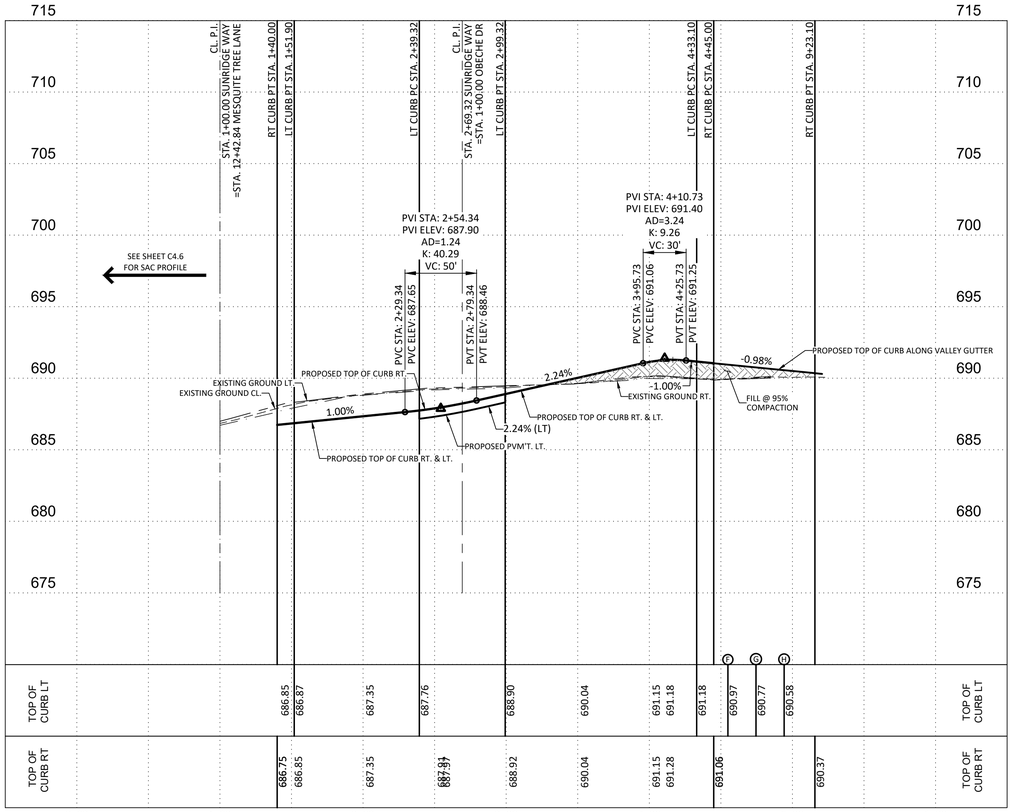
LEGEND

CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK. PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.	(1)
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE)	(A)
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL)	(B)
SIDEWALK WHEELCHAIR RAMP - TYPE II (DEVELOPER INSTALLED)	(C)
SIDEWALK WHEELCHAIR RAMP - TYPE I (DEVELOPER INSTALLED)	(D)
SIDEWALK WHEELCHAIR RAMP - TYPE 11 (DEVELOPER INSTALLED) OFFSET PARALLEL RAMP	(E)
SIDEWALK PASSING SPACE	(F)
EXISTING TOP OF CURB ELEVATION	805.81TC
PROPOSED TOP OF CURB ELEVATION	805.81
HOME BUILDER INSTALLED SIDEWALK	
DEVELOPER INSTALLED SIDEWALK	
EXISTING HOME BUILDER INSTALLED SIDEWALK	
EXISTING DEVELOPER INSTALLED SIDEWALK	
SIDEWALK WHEEL CHAIR RAMP	
WASH-OUT CROWN	
POSSIBLE DRIVEWAY LOCATION	
PROPERTY LINE	
EXISTING CONTOUR	1120
PROPOSED CONTOUR	1120
PROPOSED CONCRETE CURB	
FLOW ARROW	

SUNRIDGE WAY

STA. 1+00.00 TO STA. 4+85.00

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
5/10/26

TRAILS AT LOWER SEGUIN
STREET PLAN & PROFILE
SUNRIDGE WAY
STA. 1+00.00 TO STA. 4+85.00

SHEET
C4.9

SUBMITTAL SET

REVISIONS							
NO.	DATE	DESCRIPTION	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

Plot Date: May 20, 2026 User ID: Dalia Godea
S:\Lower Segun Road\civil 3\Design\C3d\C4_2.4.3 Sunridge Rev PAP.dwg

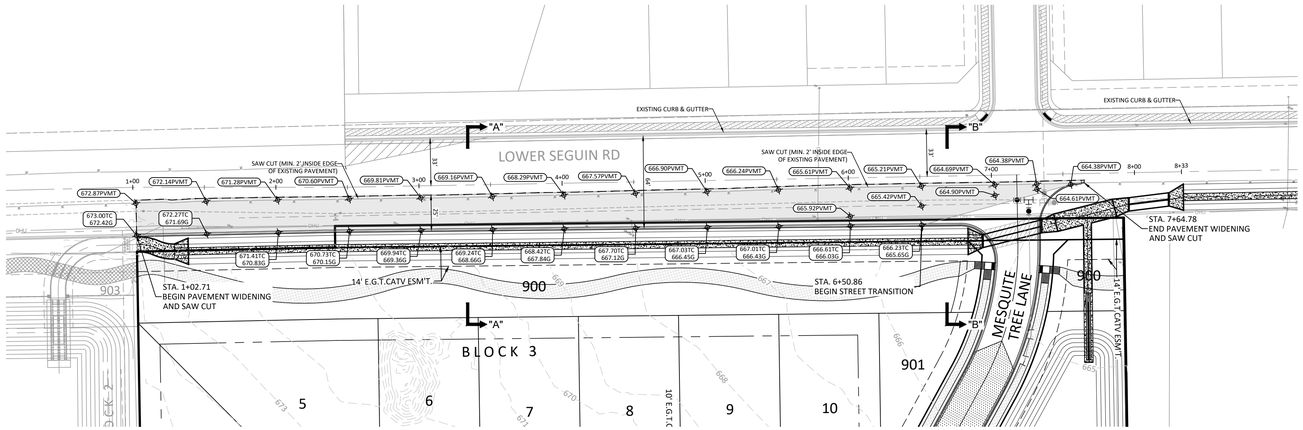
CAUTION!!!
CONTRACTOR TO VERIFY EXISTING CONDITIONS BEFORE CONSTRUCTION. IF ANY DISCREPANCIES NOTIFY ENGINEER

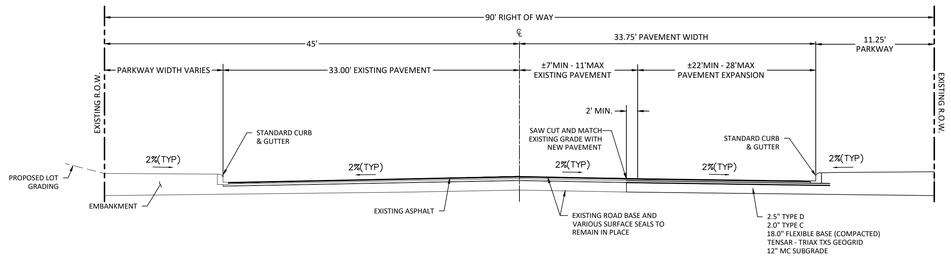
NOTE:
CONTRACTOR TO COORDINATE REMOVAL OR RELOCATION OF EXISTING UTILITIES

CAUTION:!!!

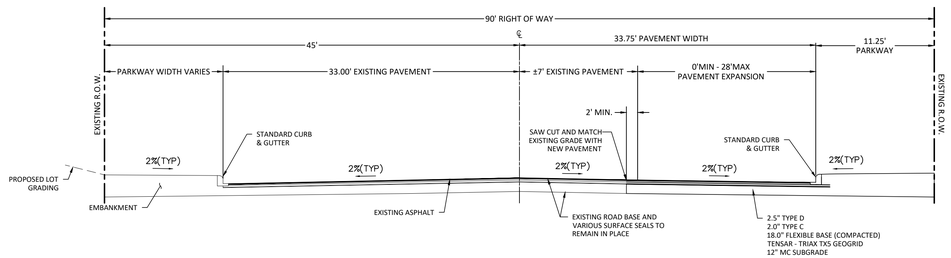
EXISTING UTILITIES:

1. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY CONTRACTOR PRIOR TO THE CONSTRUCTION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF SAME DURING CONSTRUCTION. IF DISCREPANCY IS FOUND, NOTIFY ENGINEER.
2. IT IS ESSENTIAL THAT 48 HOURS PRIOR TO CONSTRUCTION ALL UTILITY COMPANIES BE NOTIFIED TO LOCATE AND TAG THEIR UNDERGROUND FACILITIES PRIOR TO EXCAVATION.
3. THE CONTRACTOR NEEDS TO ALLOW FOR THE POSSIBILITY OF UNDETECTED UNDERGROUND UTILITIES. ALSO, THE CONTRACTOR MUST ALLOW FOR CHANGES DUE TO UTILITIES BEING IN LOCATIONS DIFFERENT FROM THOSE SHOWN ON THE UTILITY RECORD DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND EXPOSING CONFLICTS PRIOR TO CONSTRUCTION.





A PROPOSED LOWER SEGUIN ROAD - TYPICAL CROSS SECTION
STA: 1+02.71 TO STA: 6+50.86
NTS



B PROPOSED LOWER SEGUIN ROAD - TYPICAL CROSS SECTION
STA: 6+50.86 TO STA: 7+64.78
NTS

SCALE: 1"=50'
0 50 100

LEGEND

- PROPERTY LINE
- HOME BUILDER INSTALLED 4' SIDEWALK
- EXISTING SIDEWALK
- EXISTING DRIVEWAY LOCATION
- LOWER SEGUIN RD PAVEMENT WIDENING AREA
- 805.81TC — EXISTING TOP OF CURB ELEVATION
- 806.81 — PROPOSED TOP OF CURB ELEVATION
- 1120 — EXISTING CONTOUR
- 1120 — PROPOSED CONTOUR
- PROPOSED CONCRETE CURB
- EXISTING POWER POLE

REVISIONS						
NO.	DATE	DESCRIPTION	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:	BY:

• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
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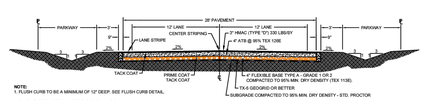
5/9/26
STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

TRAILS AT LOWER SEGUIN
STREET PLAN & PROFILE LOWER SEGUIN RD WIDENING
STA. 1+02.71 TO STA. 7+64.78

SHEET
C4.9A

SUBMITTAL SET

Plot Date: May 05, 2026 User ID: Dalia Gaytan
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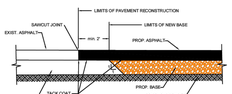


NOTE:
1. FLUSH CURB TO BE A MINIMUM OF 12" DEEP. SEE FLUSH CURB DETAIL.

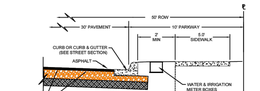
2. PAVEMENT COURSE AND DEPTHS SHOWN ARE A MINIMUM COMPACTED THICKNESS. ENGINEER TO DESIGN PAVEMENT TO ACHIEVE MINIMUM STRUCTURAL NUMBER 3.15.

3. SWELLING SOILS : SOILS WITH P.I. OF 20 OR MORE, SHALL BE TREATED BY REMOVAL AND REPLACEMENT, OR GEOGRID, OR CEMENT SOIL TREATMENT, OR DRAINS/BARRIERS, OR COMBINATION AS DETERMINED BY A PAVEMENT DESIGN.

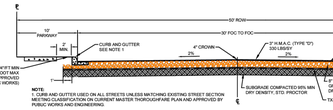
TYPICAL RURAL STREET PAVEMENT SECTION
(NOT TO SCALE)



PAVEMENT JUNCTION
(NOT TO SCALE)



TYPICAL PARKWAY LAYOUT FOR 50' R.O.W.
(NOT TO SCALE)

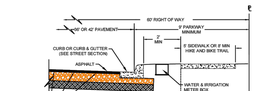


NOTE:
1. CURB AND GUTTER USED ON ALL STREETS UNLESS MATCHING EXISTING STREET SECTION MEETING CLASSIFICATION ON CURRENT MASTER THOROUGHFARE PLAN AND APPROVED BY PUBLIC WORKS AND ENGINEERING.

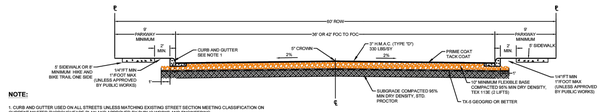
2. PAVEMENT COURSE AND DEPTHS SHOWN ARE A MINIMUM COMPACTED THICKNESS. ENGINEER TO DESIGN PAVEMENT TO ACHIEVE MINIMUM STRUCTURAL NUMBER = 2.50.

3. SWELLING SOILS: SOILS WITH P.I. OF 20 OR MORE, SHALL BE TREATED BY REMOVAL AND REPLACEMENT, OR GEOGRID, OR CEMENT SOIL TREATMENT, OR DRAINS/BARRIERS, OR COMBINATION AS DETERMINED BY A PAVEMENT DESIGN.

TYPICAL 50' R.O.W. STREET SECTION
(NOT TO SCALE)



TYPICAL PARKWAY LAYOUT FOR 60' R.O.W.
(NOT TO SCALE)

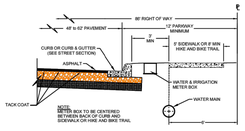


NOTE:
1. CURB AND GUTTER USED ON ALL STREETS UNLESS MATCHING EXISTING STREET SECTION MEETING CLASSIFICATION ON CURRENT MASTER THOROUGHFARE PLAN AND APPROVED BY PUBLIC WORKS AND ENGINEERING.

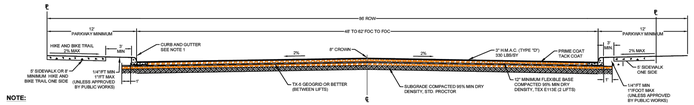
2. PAVEMENT COURSE AND DEPTHS SHOWN ARE A MINIMUM COMPACTED THICKNESS. ENGINEER TO DESIGN PAVEMENT TO ACHIEVE MINIMUM STRUCTURAL NUMBER = 2.90.

3. SWELLING SOILS, SOILS WITH P.I. OF 20 OR MORE, SHALL BE TREATED BY REMOVAL AND REPLACEMENT, OR GEOGRID, OR CEMENT SOIL TREATMENT, OR DRAINS/BARRIERS, OR COMBINATION AS DETERMINED BY A PAVEMENT DESIGN.

TYPICAL 60' R.O.W. STREET SECTION
(NOT TO SCALE)



TYPICAL PARKWAY LAYOUT FOR 86' R.O.W.
(NOT TO SCALE)



NOTE:
1. CURB AND GUTTER USED ON ALL STREETS UNLESS MATCHING EXISTING STREET SECTION MEETING CLASSIFICATION ON CURRENT MASTER THOROUGHFARE PLAN AND APPROVED BY PUBLIC WORKS AND ENGINEERING.

2. PAVEMENT COURSE AND DEPTHS SHOWN ARE A MINIMUM COMPACTED THICKNESS. ENGINEER TO DESIGN PAVEMENT TO ACHIEVE MINIMUM STRUCTURAL NUMBER= 3.25.

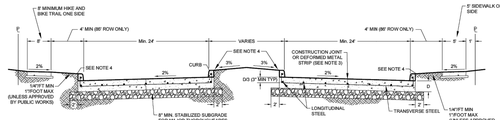
3. SWELLING SOILS, SOILS WITH P.I. OF 20 OR MORE, SHALL BE TREATED BY REMOVAL AND REPLACEMENT, OR GEOGRID, OR CEMENT SOIL TREATMENT, OR DRAINS/BARRIERS, OR COMBINATION AS DETERMINED BY A PAVEMENT DESIGN.

TYPICAL 86' R.O.W. STREET SECTION
(NOT TO SCALE)

CITY OF SCHERTZ TEXAS
ENGINEERING AND PUBLIC WORKS

STREET SECTIONS

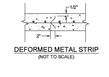
DRAWN BY: BCP,LM	PROJECT NO.:	DATE: 2015
	CHKD. BY: JOL	SHEET NO.: 1 of 2



TYPICAL DIVIDED ROADWAY SECTION FOR CONCRETE PAVEMENT WITH CURBS
(NOT TO SCALE)



CONSTRUCTION JOINT
(NOT TO SCALE)



DEFORMED METAL STRIP
(NOT TO SCALE)

CONCRETE PAVEMENT NOTE:

1. THE MAXIMUM WIDTH BETWEEN LONGITUDINAL JOINTS SHALL NOT EXCEED 15'-0".

2. ALL EARTHEN AREAS ARE TO BE HYDROMULCHED UNLESS OTHERWISE SHOWN ON DRAWINGS.

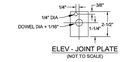
3. CONTRACTOR MAY SAWCUT IN LIEU OF DEFORMED METAL STRIP.

4. USE STRIP OF SOD GRASS TO PREVENT EROSION UNTIL STAND OF GRASS IS ESTABLISHED.

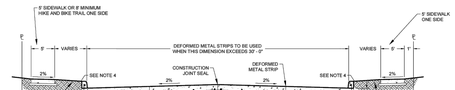
5. AN EQUAL OR LARGER AREA OF WELDED REINFORCEMENT WITH THE SAME NUMBER OF SYSTEM 4 MET MAY BE SUBSTITUTED FOR REBARS LISTED **TABLE 1**.



PLAN - JOINT PLATE
(NOT TO SCALE)



ELEV - JOINT PLATE
(NOT TO SCALE)



TYPICAL UNDIVIDED ROADWAY SECTION FOR CONCRETE PAVEMENT WITH CURBS
(NOT TO SCALE)

TABLE 1
REINFORCING STEEL SIZES AND SPACINGS FOR VARIOUS PAVEMENT THICKNESSES (D) WITH MAXIMUM EXPANSIONS JOINT SPACING = 80'.
f_s = 3500 PSI(35 DAYS AND f'_s = 60,000 PSI

PAVEMENT THICKNESS, D (IN)	PAVEMENT WIDTH (FT)	LONGITUDINAL STEEL								TRANSVERSE STEEL		
		#4 BARS			#8 BARS			#8 BARS		#4 BARS	#5 BARS	#6 BARS
		NUMBER OF BARS	END BAR SPACING (IN)	NUMBER OF BARS	END BAR SPACING (IN)	NUMBER OF BARS	END BAR SPACING (IN)			SPACING (IN)	SPACING (IN)	SPACING (IN)
6	28	17	20.50	4.00	-	-	-	-	-	36	-	-
7	25	17	18.25	4.00	-	-	-	-	-	36	-	-
7	26	24	18.00	3.00	-	-	-	-	-	36	-	-
7	38	26	17.75	3.00	-	-	-	-	-	36	-	-
7	37	25	18.25	3.00	-	-	-	-	-	36	-	-
7	41	28	18.00	3.00	-	-	-	-	-	36	-	-
7	45	31	17.75	3.75	-	-	-	-	-	36	-	-
8	25	20	15.50	2.75	13	24.50	3.00	-	-	36	36	-
8	34	27	15.50	2.50	17	25.00	4.00	-	-	36	36	-
8	35	27	16.00	2.00	18	24.25	4.00	-	-	36	36	-
8	38	28	15.75	3.25	18	25.00	3.00	-	-	30	36	-
8	44	34	15.75	4.00	22	24.75	4.00	-	-	30	36	-
8	45	35	15.75	2.25	23	24.25	3.00	-	-	30	36	-
9	25	22	14.00	3.00	14	22.50	4.00	-	-	36	36	-
9	24	31	13.50	2.00	19	22.25	3.50	-	-	30	36	-
9	35	31	13.75	3.75	20	21.75	3.50	-	-	30	36	-
9	38	32	13.75	3.00	21	21.25	3.50	-	-	30	36	-
9	44	35	13.75	2.75	25	21.75	3.00	-	-	24	36	-
9	45	39	14.00	4.00	26	21.25	4.50	-	-	24	36	-
10	25	24	12.75	3.50	17	19.25	4.00	-	-	30	36	36
10	34	33	12.50	4.00	21	20.00	4.00	-	-	30	36	36
10	35	34	12.50	3.75	23	19.75	4.00	-	-	30	36	36
10	38	38	12.50	3.50	24	18.50	3.00	-	-	30	36	36
10	44	44	12.00	4.00	25	18.50	4.50	-	-	24	36	36
10	45	44	12.50	3.00	28	19.00	3.00	-	-	24	36	36
11	25	27	11.25	3.00	17	18.25	4.00	4.0	12	3	36	36
11	34	38	11.00	2.75	24	17.00	2.00	2.5	17	4	24	36
11	35	37	11.50	3.00	24	18.00	3.00	3.0	17	4	24	36
11	38	40	11.00	2.00	25	17.75	3.00	3.0	17	4	24	36
11	44	46	11.125	2.50	30	18.00	3.00	3.0	21	4	24	36
11	45	49	11.125	3.00	31	17.75	4.00	4.0	22	3	24	36
12	25	-	-	-	19	19.25	4.00	4.0	13	3	30	36
12	34	-	-	-	25	18.00	4.00	4.0	18	4	24	36
12	35	-	-	-	26	18.50	4.00	4.0	19	3	24	36
12	38	-	-	-	27	18.25	4.50	4.5	20	4.5	24	36
12	44	-	-	-	33	18.25	4.00	4.0	24	5	24	30
12	45	-	-	-	35	18.75	3.00	3.0	25	3	24	30

MINIMUM LAP LENGTHS (L):
A: #4 BARS L = 22 INCHES
B: #5 BARS L = 27 INCHES
C: #6 BARS L = 32 INCHES

TABLE 2

PAVEMENT THICKNESS (IN)	DOWEL SIZES AND SPACINGS		
	DIAMETER (IN)	LENGTH (IN)	SPACING (IN)
4 1/2	1/2	18	12
5	1/2	18	12
6	3/4	18	12
7	1	18	12
8	1	18	12
9	1 1/4	18	12
10	1 1/4	18	12
11	1 1/4	18	12
12	1 1/4	18	12

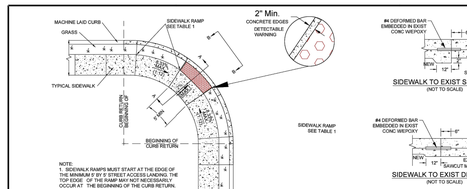
PAVEMENT EXPANSION JOINT NOTES:
1. STEEL TO MEET ASTM STD SPECIFICATIONS FOR CONC. REINF. BARS. LIMITS TO BE SPACED ON 12" CENTERS
2. EXPANSION JOINT TO BE PLACED AT THE END OF EACH DAY'S POUR.
3. CENTER DOWEL, HORIZONTALLY ON JOINT
4. CENTER DOWEL, VERTICALLY IN CONCRETE AS NEEDED TO MAINTAIN 3" MIN. COVER.
5. CITY OF SCHERTZ MAY APPROVE JOINT PLATE ALTERNATE

01-OCTOBER-2015

CITY OF SCHERTZ TEXAS
ENGINEERING AND PUBLIC WORKS

STANDARD CONCRETE PAVEMENT SECTION DETAILS

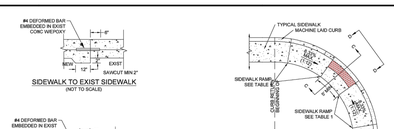
DRAWN BY: LSU	PROJECT NO.:	DATE: 2015
	CHKD. BY: LBR	SHEET NO.: 2 of 4



NOTE:
1. SIDEWALK RAMPS MUST START AT THE EDGE OF THE MINIMUM 8' BY 5' STREET ACCESS LANDING. THE TOP EDGE OF THE RAMP MAY NOT NECESSARILY OCCUR AT THE BEGINNING OF THE CURB RETURN.

2. SEE NOTE FOR DETECTABLE WARNING DIMENSIONS

TYPICAL SIDEWALK RAMP
SIDEWALK SEPARATED FROM CURB
(NOT TO SCALE)



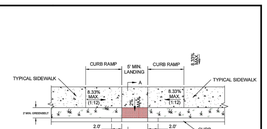
SIDEWALK TO EXIST SIDEWALK
(NOT TO SCALE)

SIDEWALK TO EXIST DRIVEWAY
(NOT TO SCALE)

CONCRETE SIDEWALK NOTES

1. SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 8' AND SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
2. DUMMY JOINTS PARALLEL TO THE CURB SHALL BE PLACED WHERE THE SIDEWALK MEETS THE DRIVEWAY.
3. 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.
4. A MINIMUM OF TWO ROUND AND SMOOTH DOWEL BARS 3/8" IN DIAMETER AND 18" IN LENGTH SHALL BE SPACED 18" APART AT EACH EXPANSION JOINT.
5. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE WHERE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%. SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
6. SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.
7. CURB SHALL BE TAPERED TO FINISH FLUSH WITH SIDEWALK.
8. SIDEWALK SECTION SHALL BE REQUIRED ALONG ALL STREETS.

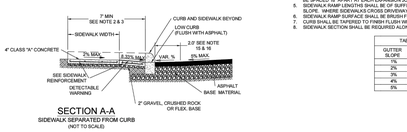
ALTERNATIVE SIDEWALK RAMP
SIDEWALK ABUTS CURB
(NOT TO SCALE)



NOTE:
1. SIDEWALK RAMPS MUST START AT THE EDGE OF THE MINIMUM 8' BY 5' STREET ACCESS LANDING. THE TOP EDGE OF THE RAMP MAY NOT NECESSARILY OCCUR AT THE BEGINNING OF THE CURB RETURN.

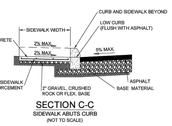
2. SEE NOTE FOR DETECTABLE WARNING DIMENSIONS

TYPICAL SIDEWALK RAMP - TYPE IV
USED AT TEE INTERSECTIONS WHERE SIDEWALK IS SEPARATED FROM CURB
(NOT TO SCALE)



SECTION A-A
SIDEWALK SEPARATED FROM CURB
(NOT TO SCALE)

TABLE 1 - (SEE NOTE 4)	
GUTTER SLOPE	SIDEWALK RAMP LENGTH (1:12)
1%	6'-6"
2%	5'-0"
3%	4'-6"
4%	10'-0"
5%	12'-6"
6%	15'-0"



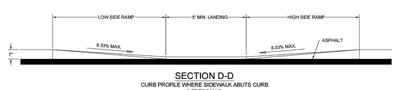
SECTION C-C
SIDEWALK ABUTS CURB
(NOT TO SCALE)



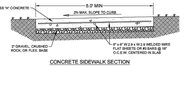
TYPICAL SIDEWALK RAMP - TYPE II
USED AT TEE INTERSECTIONS WHERE SIDEWALK ABUTS CURB
(NOT TO SCALE)



SECTION B-B
CURB PROFILE WHERE SIDEWALK SEPARATED FROM CURB
(NOT TO SCALE)

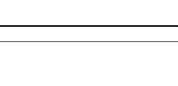


SECTION D-D
CURB PROFILE WHERE SIDEWALK ABUTS CURB
(NOT TO SCALE)

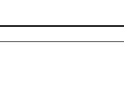


CONCRETE SIDEWALK SECTION

GENERAL NOTES
1. DEVIATION OF THE PATHWAY FROM A STRAIGHT LINE IS ENCOURAGED TO AVOID TREES OR OTHER OBSTRUCTIONS.
2. FOR LOCAL STREETS, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 5' AND 8' SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
3. FOR COLLECTOR STREETS, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 8' AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB OR AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 9' 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 WITH A DIAMETER OF A NOMINAL 0.9 INCHES (23 MM), A HEIGHT OF NOMINAL 0.2 INCHES (5 MM) AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES (60 MM).
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. TYPICAL SIDEWALK RAMP TO BE USED IN ALL NEW CONSTRUCTION
8. CONSTRUCTION OF ALL WHEELCHAIR RAMPS TO BE INCLUDED UNDER ITEMS FOR "CONCRETE CURBING", "MACHINE LAID CURB" AND/OR "CONCRETE SIDEWALKS". RAMP SURFACE SHALL BE BRUSH FINISHED.
9. TYPICAL LAYOUTS ARE FOR GUIDANCY. 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" GRAVEL, CRUSHED ROCK OR FLEXIBLE BASE MATERIAL.
12. REINFORCING STEEL SHALL BE #3 BARS AT 18" O.C.E.W. OR 6"x6" - W2.9 x W2.9 WIRE MESH.
13. THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES SHALL BE LESS THAN 11%. WHENEVER POSSIBLE, ANY SIDEWALK CONSTRUCTION THAT DEVIATES FROM THE NATURAL GRADE OF THE ROADWAY TO CREATE A GRADE STEEPER THAN THE EXISTING ROADWAY HILL REQUIRE RAMPS, HANDRAILS AND RESTING PLATFORMS TO BE CONSTRUCTED IN ACCORDANCE WITH ADA AND TAS STANDARDS.
14. SIDEWALK CROSS GRADE SHALL HAVE A MAXIMUM SLOPE OF 2%. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
15. 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 SLOPES OF THE ADJACENT SURFACES. WHERE A SIDEWALK RAMP DESIGNED AT THE 8.33% MAXIMUM SLOPE, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN 2.67% (I.E. 8.33-2.67=11). IN ADDITION, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN OR EQUAL TO 2%.
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 ALTERATIONS INCLUDE ONLY THAT WORK WITHIN THE LIMITS, BOUNDARIES OR SCOPE OF A PLANNED PROJECT.



DETECTABLE WARNING AREA
(NOT TO SCALE)



PLAN DETAIL
(NOT TO SCALE)



DOME SECTION
(NOT TO SCALE)

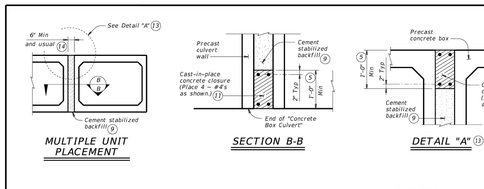
APPROVED CAST-IN-PLACE DETECTABLE WARNINGS

1. CAST-IN-PLACE DETECTABLE WARNING SYSTEMS MUST BE POLYMER COMPOSITE
2. MATERIAL MUST BE "HOT SET" INTO FRESH PLY POURED CONCRETE.
3. PROTECT PRODUCT FROM DAMAGE UNTIL MATERIAL IS FULLY SET OR CURED.
4. PRODUCT MUST BE APPROVED BY THE ENGINEERING DEPARTMENT.

CITY OF SCHERTZ TEXAS
ENGINEERING AND PUBLIC WORKS

SIDEWALK DETAILS

DRAWN BY: LSU	PROJECT NO.:	DATE: FEBRUARY, 2 2015
	CHKD. BY: LBR	SHEET NO.: 1 of 2

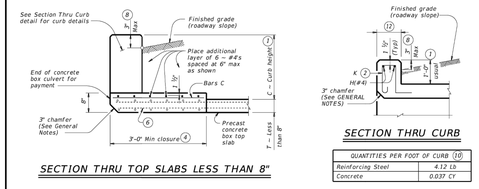


MULTIPLE UNIT PLACEMENT

SECTION B-B

DETAIL "A" (13)

WINGWALL CONNECTION
(Also applies to safety end treatment.)

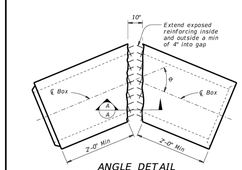


SECTION THRU TOP SLABS LESS THAN 8"

SECTION THRU CURB

QUANTITIES PER FOOT OF CURB (10)	
Reinforcing Steel	4.12 Lb
Concrete	0.037 CY





ANGLE DETAIL

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the accuracy or suitability of this information for use in any other circumstances or on any other projects.

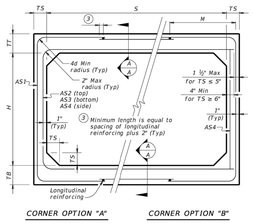
DATE:
FILE:

BOX DATA

SECTION DIMENSIONS					Fill Height	M (Min)	REINFORCING (sq. in. / ft.) ②							① Lift Weight
S (ft.)	H (ft.)	TT (in.)	TB (in.)	TS (in.)	(ft.)	(in.)	AS1	AS2	AS3	AS4	AS5	AS7	AS8	(tons)
4	2	7.5	6	5	< 2	–	0.18	0.27	0.15	0.12	0.18	0.18	0.14	4.5
4	2	5	5	5	2 < 3	38	0.18	0.19	0.17	0.12	–	–	–	3.6
4	2	5	5	5	3 - 5	38	0.13	0.13	0.13	0.12	–	–	–	3.6
4	2	5	5	5	10	38	0.12	0.12	0.12	0.12	–	–	–	3.6
4	2	5	5	5	15	38	0.14	0.16	0.16	0.12	–	–	–	3.6
4	2	5	5	5	20	38	0.18	0.20	0.21	0.12	–	–	–	3.6
4	2	5	5	5	25	38	0.23	0.25	0.25	0.12	–	–	–	3.6
4	2	5	5	5	30	38	0.28	0.30	0.30	0.12	–	–	–	3.6
4	3	7.5	6	5	< 2	–	0.18	0.31	0.18	0.12	0.18	0.18	0.14	5.0
4	3	5	5	5	2 < 3	38	0.15	0.23	0.20	0.12	–	–	–	4.1
4	3	5	5	5	3 - 5	38	0.12	0.16	0.16	0.12	–	–	–	4.1
4	3	5	5	5	10	38	0.12	0.14	0.14	0.12	–	–	–	4.1
4	3	5	5	5	15	38	0.12	0.18	0.18	0.12	–	–	–	4.1
4	3	5	5	5	20	38	0.14	0.23	0.24	0.12	–	–	–	4.1
4	3	5	5	5	25	38	0.17	0.29	0.29	0.12	–	–	–	4.1
4	3	5	5	5	30	38	0.21	0.35	0.35	0.12	–	–	–	4.1
4	4	7.5	6	5	< 2	–	0.18	0.33	0.20	0.12	0.18	0.18	0.14	5.5
4	4	5	5	5	2 < 3	38	0.12	0.26	0.23	0.12	–	–	–	4.6
4	4	5	5	5	3 - 5	38	0.12	0.18	0.18	0.12	–	–	–	4.6
4	4	5	5	5	10	38	0.12	0.15	0.15	0.12	–	–	–	4.6
4	4	5	5	5	15	38	0.12	0.19	0.20	0.12	–	–	–	4.6
4	4	5	5	5	20	38	0.12	0.25	0.25	0.12	–	–	–	4.6
4	4	5	5	5	25	38	0.14	0.31	0.31	0.12	–	–	–	4.6
4	4	5	5	5	30	38	0.17	0.37	0.37	0.12	–	–	–	4.6

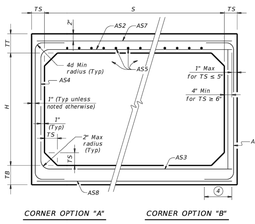
① For box length = 8'-0"

② AS3 thru AS6, AS7 and AS8 are minimum required areas of reinforcement per linear foot of box length. AS5 is minimum required area of reinforcement per linear foot of box width.



CORNER OPTION "A" CORNER OPTION "B"

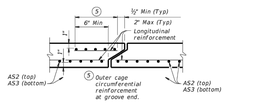
FILL HEIGHT 2 FT AND GREATER



CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT LESS THAN 2 FT

④ Length is equal to spacing of longitudinal reinforcing plus 2". (10" Min) (Typ)



SECTION A-A

(Showing top and bottom slab joint reinforcement.)

MATERIAL NOTES:
Provide 0.03 sq. in./ft. minimum longitudinal reinforcement at each face in slabs and walls. This minimum requirement may be met by the transverse wires when wire mesh reinforcement is specified.
Provide Class H concrete (f'c = 5,000 psi).

GENERAL NOTES:
Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.
See Box Culverts Precast Miscellaneous Details (SCP-MD) standard sheet for details and notes not shown.
In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Submit shop plans for alternate designs in accordance with Item "Precast Concrete Structural Members (Fabrications)."

HL93 LOADING

Texas Department of Transportation — Bridge Division Standard

SINGLE BOX CULVERTS PRECAST

4'-0" SPAN

SCP-4

FILE: CD-SCP04-20.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY		SHEET NO.

TABLE OF DIMENSIONS AND REINFORCING STEEL

(Wings for one structure end)

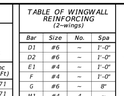
Dimensions					Variable Reinforcing				Estimated Quantities per ft. of wing ④ (2–wings)		Estimated Quantities per ft. of Toewall (1–toewall)	
					Bars J1		Bars J2					
Maximum Wingwall Height Hw	W	X	Y	Z	Size	Spa	Size	Spa	Reinf (Lb/Ft)	Conc (CY/Ft)	Reinf (Lb/Ft)	Conc (CY/Ft)
2'-6"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	48.64	0.406	6.85	0.071
2'-9"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	49.31	0.424	6.85	0.071
3'-0"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	49.98	0.444	6.85	0.071
3'-3"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	53.32	0.462	6.85	0.071
3'-6"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	53.98	0.480	6.85	0.071
4'-0"	3'-2"	1'-2"	1'-0"	7"	#4	1'-0"	#4	1'-0"	55.77	0.532	6.85	0.071
4'-6"	3'-2"	1'-2"	1'-0"	7"	#4	1'-0"	#4	1'-0"	59.77	0.568	6.85	0.071
5'-0"	3'-9"	1'-7"	1'-2"	7"	#4	1'-0"	#4	1'-0"	63.45	0.632	6.96	0.075
5'-6"	3'-9"	1'-7"	1'-2"	7"	#4	1'-0"	#4	1'-0"	67.46	0.668	6.96	0.075
6'-0"	4'-4"	2'-0"	1'-4"	7"	#5	1'-0"	#5	1'-0"	80.67	0.730	7.07	0.078
6'-6"	4'-4"	2'-0"	1'-4"	7"	#5	1'-0"	#5	1'-0"	85.05	0.768	7.07	0.078
7'-0"	5'-0"	2'-3"	1'-9"	8"	#5	1'-0"	#5	1'-0"	92.15	0.864	8.07	0.093
7'-6"	5'-0"	2'-3"	1'-9"	8"	#5	1'-0"	#5	1'-0"	96.54	0.902	8.07	0.093
8'-0"	5'-6"	2'-8"	1'-10"	8"	#5	6"	#5	6"	139.04	0.962	8.13	0.095
8'-6"	5'-6"	2'-8"	1'-10"	8"	#5	6"	#5	6"	144.47	1.000	8.13	0.095
9'-0"	6'-0"	2'-10"	2'-2"	9"	#5	6"	#5	6"	156.93	1.136	8.41	0.110
10'-6"	6'-5"	3'-0"	2'-5"	9"	#6	6"	#5	6"	196.27	1.234	8.57	0.117
11'-6"	7'-2"	3'-6"	2'-8"	11"	#6	6"	#6	6"	230.13	1.438	9.52	0.140
12'-6"	7'-8"	3'-9"	2'-11"	1'-0"	#7	6"	#6	6"	283.41	1.592	9.74	0.157
13'-6"	8'-2"	4'-0"	3'-2"	1'-2"	#8	6"	#6	6"	348.72	1.804	10.02	0.186
14'-6"	8'-10"	4'-5"	3'-5"	1'-4"	#9	6"	#6	6"	432.94	2.046	10.30	0.218
15'-6"	9'-6"	4'-10"	3'-8"	1'-6"	#9	6"	#7	6"	489.52	2.302	11.24	0.253
16'-0"	9'-11"	5'-0"	3'-11"	1'-7"	#9	6"	#7	6"	503.22	2.448	11.47	0.279

TABLE OF WINGWALL REINFORCING (2–wings)

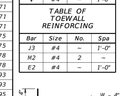
Bar	Size	No.	Spa
D1	#6	–	1'-0"
D2	#6	–	1'-0"
E1	#4	–	1'-0"
F	#4	–	1'-0"
G	#6	–	8"
M1	#4	4	–
P	#4	–	1'-0"
V	#4	–	1'-0"

TABLE OF TOEWALL REINFORCING

Bar	Size	No.	Spa
J3	#4	–	1'-0"
M2	#4	2	–
E2	#4	–	1'-0"



BARS D1



BARS D2

WING DIMENSION FORMULAS:

(All values are in feet.)

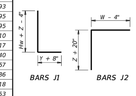
Hw = H + T + C
Lw = (Hw) (SL) + cosine (θ) for Type PW-1
= (Hw – 1) (SL) + cosine (θ) for Type PW-2 and Hw ≥ 4'
= (Hw – 0.5) (SL) + cosine (θ) for Type PW-2 and Hw < 4'

For cast–in–place culverts:
Ltw = [(N) (S) + (N + 1) (U)] + cosine (θ)

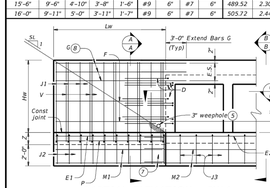
For precast culverts:
Ltw = [(N) (2 U + S) + (N – 1) (0.5)] + cosine (θ)
Total Wingwall Area (two wings – SF)
= (2)(Hw)(Lw) for Type PW-1
= (2)(Hw)(Lw) – 6 SF for Type PW-2 and Hw ≥ 4'
= (2)(Hw)(Lw) – 1.5 SF for Type PW-2 and Hw < 4'

Hw = Height of wingwall
Lw = Length of wingwall
Ltw = Culvert toewall length
N = Number of culvert spans
SL() = Channel slope ratio (horizontal: 1 vertical, usual value is 2:1)
θ = Culvert skew

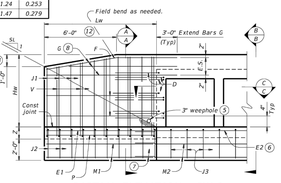
See applicable box culvert standard sheet for S, H, T, and U values.



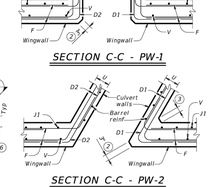
BARS J1 BARS J2 BARS J3 BARS V



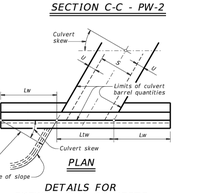
PARTIAL ELEVATION - PW-1



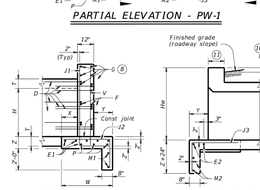
PARTIAL ELEVATION - PW-2



SECTION C-C - PW-1

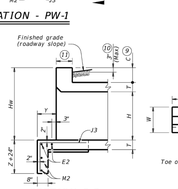


SECTION C-C - PW-2



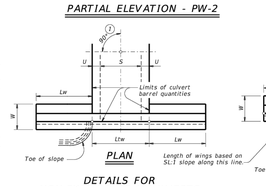
SECTION A-A

(Showing wing reinforcement.)



SECTION B-B

(Showing wing reinforcement.)



PLAN

DETAILS FOR NON-SKEWED BOX CULVERTS

Length of wings based on SL:1 slope along this line.

PLAN

DETAILS FOR SKEWED BOX CULVERTS

(Showing 30° skew.)

① Skew = 0°

② At discharge end, chamfer may be ¾" minimum.

③ For 15° skew – 1"
For 30° skew – 2"
For 45° skew – 3"

④ Quantities shown are for two Type PW–1 wings. Adjust concrete volume for Type PW–2 wings. To determine estimated quantities for two wings, multiply the tabulated values by Lw. Quantities shown do not include weight of Bars D.

⑤ Provide weepholes for Hw = 5'-0" and greater. Fill around weepholes with coarse gravel.

⑥ Extend Bars E2 1'-6" minimum into the wingwall footing.

⑦ Lap Bars M1 1'-0" minimum with Bars M2.

⑧ Place Bars G as shown, equally spaced at 8" maximum. Provide at least two pairs of Bars G per wing.

⑨ 0° Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail or curbs taller than 1'-0, refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631-CM) standard sheet. Refer to the Box Culvert Rail Mounting Details (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.

⑩ For vehicle safety, the following requirements must be met:
- For structures without bridge rail, construct curbs no more than 3" above finished grade.
- For structures with bridge rail, construct curbs flush with finished grade.

Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.

⑪ 1'-0" typical. 2'-3" when the Box Culvert Rail Mounting Details (RAC) standard sheet is referred to elsewhere in the plans.

⑫ 3'-0" for Hw < 4'.

⑬ 0" for Hw < 4'.

DESIGNER NOTES:
Type PW–1 can be used for all applications and must be used if railing is to be mounted to the wingwall.
Type PW–2 can only be used for applications without a railing mounted to the wingwall.

MATERIAL NOTES:
Provide Class C concrete (f'c=3,600 psi).
Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans.

GENERAL NOTES:
Designed in accordance with AASHTO LRFD Bridge Design Specifications.
Depth of toewalls for wingwalls and culverts may be reduced or eliminated when founded on solid rock, when directed by the Engineer.
See Box Culvert Supplement (BCS) standard sheet for wingwall type and additional dimensions and information.
Quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for the Contractor's information only.

Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing dimensions are out-to-out of bars.

Texas Department of Transportation — Bridge Division Standard

CONCRETE WINGWALLS WITH PARALLEL WINGS FOR BOX CULVERTS TYPES PW-1 AND PW-2

PW

FILE: CD-PW-20.dgn	DN: GAF	CK: CAT	DW: TxDOT	CK: TxDOT
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY		SHEET NO.

NO.	DATE	DESCRIPTION	BY:

REVISIONS

PROJ. # | DSN. BY: | DWN. BY: | CHKD. BY: | DATE:

• Engineers • Surveyors • Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F–5297 /SURVEYING: F—10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL.: (210) 698–5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698–5085

STATE OF TEXAS — PAUL LANDA, JR. — 100182 — LICENSED PROFESSIONAL ENGINEER — 5/14/26

TRAILS AT LOWER SEGUIN

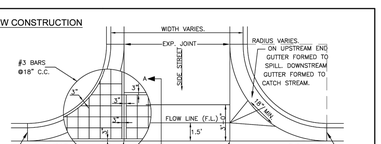
STANDARD DETAILS

SUBMITTAL SET

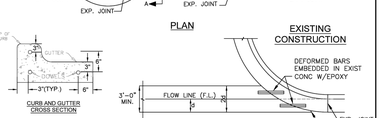
SHEET C4.11

Plot Date: May 20, 2026 User ID: Dalia Gomez
P:\User Data\Revit Models\Detailing\C4.11 Standard Sheet Details.dwg

NEW CONSTRUCTION

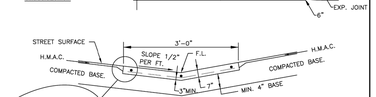


PLAN



EXISTING CONSTRUCTION

DEFORMED BARS EMBEDDED IN EXIST CONC W/EPOXY



SECTION A-A

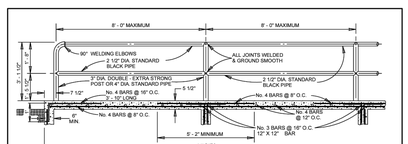
NOTES:
1. MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF SCHERTZ STANDARD SPECIFICATIONS.
2. CONCRETE SHALL BE CLASS "A".
3. THE UPSTREAM CURB MID POINT MUST BE AT OR LOWER THAN THE BEGINNING P.C. AND .5% (MIN.) HIGHER THAN THE OPPOSING MID POINT.
4. PROVIDE CONSTRUCTION AND EXPANSION JOINTS AS PER CITY CURB AND GUTTER DETAILS.
5. ALL REBAR MUST HAVE A MINIMUM OF 3" OF COVER.

SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

VALLEY GUTTER DETAIL

TECHNICAL SPECIFICATION SECTION 02752 & 02771

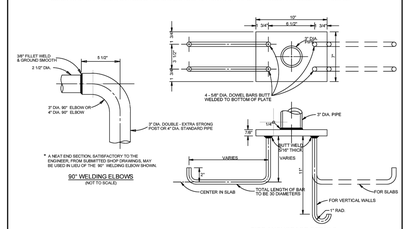
ENGINEERING AND PUBLIC WORKS | SCALE: NONE SCALE | DATE: 3/3/15 | DRAWN BY: DMG | REVIEWED BY: MCP | SHEET NO.: 1



TYPICAL SIDEWALK BRIDGE & SIDEWALK PIPE RAILING SECTION

(NOT TO SCALE)

NOTES
1. COLOR TO BE DETERMINED ON A JOB SPECIFIC BASIS TO BE APPROVED BY THE CITY THROUGH THE SUBMITTAL PROCESS.



PIPE ANCHORAGE DETAILS

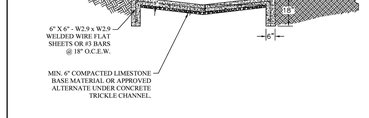
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SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

PIPE RAILING

TECHNICAL SPECIFICATION SECTION 03291

ENGINEERING AND PUBLIC WORKS | SCALE: NONE SCALE | DATE: 3/3/15 | DRAWN BY: MCP | SHEET NO.: 1

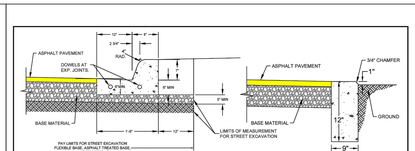


NOTES:
1. ALL GRASS–LINED CHANNELS AND DETENTION BASINS WITH A BOTTOM WIDTH OF EIGHT (8') FEET OR GREATER MUST HAVE A TRICKLE CHANNEL WITH A MINIMUM WIDTH OF 5 FEET.
2. CLASS "A" CONCRETE TO BE USED.
3. JOINTS: (SPEC 02752)
   a. PROVIDE TOOLED OR SAWCUT CONTRACTION JOINTS AT A MAXIMUM OF 20 FEET.
   b. PLACE EXPANSION JOINTS WITH A ½" EXPANSION MATERIAL IN CONCRETE LOW–FLOW AND TRAPEZOIDAL BOTTOM SECTIONS AT 40 FEET MAXIMUM SPACING CONTINUOUSLY THROUGH CHANNEL LINING.
4. CONTRACTOR SHALL BACKFILL ADJACENT TO CONCRETE EDGES TO A MINIMUM OF 90% STANDARD PROCTOR (ASTM D–698) IN 6" LIFTS.

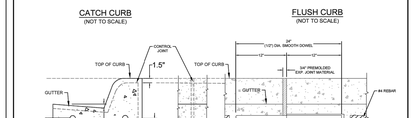
SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

CONCRETE TRICKLE CHANNEL

ENGINEERING AND PUBLIC WORKS | SCALE: NONE SCALE | DATE: 3/3/15 | DRAWN BY: MCP | SHEET NO.: 1



CATCH CURB (NOT TO SCALE) FLUSH CURB (NOT TO SCALE)



CROSS SECTION FRONT VIEW



SEE CURB DETAIL FOR ADDITIONAL DETAILS

SAWTOOTH CURB & GUTTER

NOTES:
1. STEEL TO MEET ASTM 615 SPECIFICATIONS AND CITY STANDARD SPECIFICATION 02771 FOR CONCRETE REINFORCING BARS.
2. JOINTS TO BE PREFORMED BITUMINOUS EXPANSION JOINTS INSTALLED AT LOCATIONS OF EXPANSION AND CONTRACTION JOINTS IN PAVEMENT, AT END OF RADIUS RETURNS AT STREET INTERSECTIONS AND DRIVEWAYS, AND AT CURB INLETS. MAXIMUM SPACING SHALL BE 120 FEET.
3. MAXIMUM SPACING FOR CONTROL JOINTS 10 FEET.
4. CENTER DOWEL HORIZONTALLY ON JOINT.
5. REINFORCING STEEL SHALL BE CONTINUOUS AS NEEDED TO MAINTAIN 2" MIN. COVER.
6. REINFORCING STEEL SHALL BE #4 BARS (INLINE WITH DOWELS).
7. CONTROL JOINTS TO HAVE A DEPTH OF 1.5" INCLUDING DOWN BACK OF CURB.
8. CONCRETE SHALL BE CLASS "A".

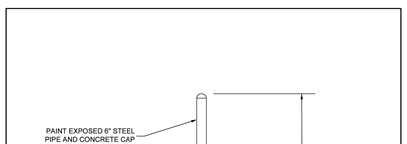
SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

STANDARD DETAIL 2771.1

CURB AND GUTTER DETAIL

TECHNICAL SPECIFICATION SECTIONS 02771

ENGINEERING AND PUBLIC WORKS | SCALE: NONE SCALE | DATE: 3/3/15 | DRAWN BY: MCP | SHEET NO.: 1



PIPE BOLLARD

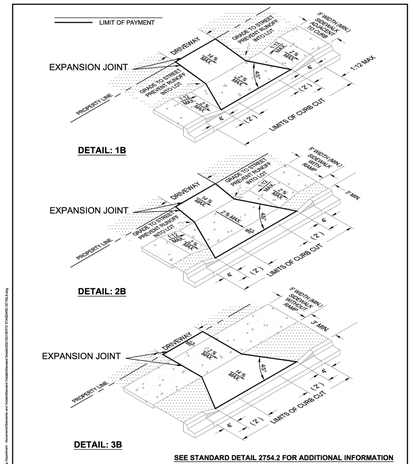
(NOT TO SCALE)

NOTES
1. COLOR TO BE DETERMINED ON A JOB SPECIFIC BASIS TO BE APPROVED BY THE CITY THROUGH THE SUBMITTAL PROCESS.

SCHERTZ COMMUNITY • SERVICE • OPPORTUNITY

PIPE BOLLARD

ENGINEERING AND PUBLIC WORKS | SCALE: NONE SCALE | DATE: 3/3/15 | DRAWN BY: MCP | SHEET NO.: 1



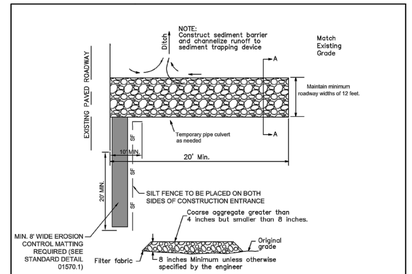
SEE STANDARD DETAIL 2754.2 FOR ADDITIONAL INFORMATION

SCHERTZ COMMUNITY★SERVICE★OPPORTUNITY

STANDARD DETAIL 2754.1

CONCRETE DRIVEWAY ENTRANCE
TECHNICAL SPECIFICATIONS SECTIONS 02754

ENGINEERING AND PUBLIC WORKS



SECTION A–A

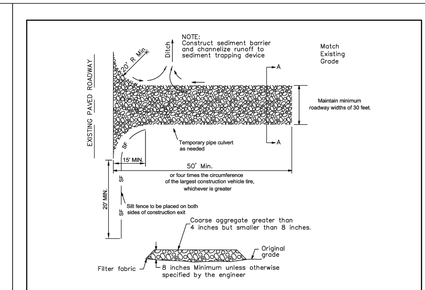
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
3. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAY.
4. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN A STABILIZED AREA THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
5. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.
6. PLACE GEOTEXTILE FABRIC AS A PERMEABLE SEPERATOR TO PREVENT MIXING OF COARSE AGGREGATE AND UNDERLYING SOIL.
7. REUSABLE TRACKOUT CONTROL SYSTEMS ARE ENCOURAGED. INCLUDE TRACKOUT CONTROL SYSTEMS WITH CLEARING AND GRADING PERMIT SUBMITTAL.
8. THE CONTRACTOR SHALL MAINTAIN SILT FENCE AND MATTING PER RESIDENTIAL LOT GRADING PLAN.
9. THE CONTRACTOR SHALL PREVENT WATER PONDING BEHIND EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION AND AFTER REMOVAL.

SCHERTZ COMMUNITY★SERVICE★OPPORTUNITY

STANDARD DETAIL 01575.2

STABILIZED CONSTRUCTION EXIT
ALTERNATIVE FOR 1/2 ACRE OR SMALLER RESIDENTIAL LOTS
TECHNICAL SPECIFICATION SECTION 01575

ENGINEERING AND PUBLIC WORKS



SECTION A–A

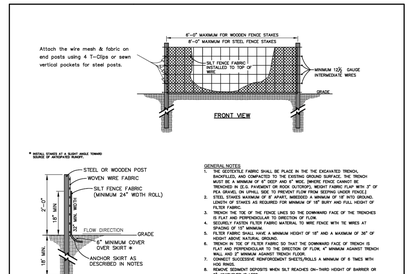
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
3. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAY.
4. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN A STABILIZED AREA THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
5. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.
6. PLACE GEOTEXTILE FABRIC AS A PERMEABLE SEPERATOR TO PREVENT MIXING OF COARSE AGGREGATE AND UNDERLYING SOIL.
7. REUSABLE TRACKOUT CONTROL SYSTEMS ARE ENCOURAGED. INCLUDE TRACKOUT CONTROL SYSTEMS WITH CLEARING AND GRADING PERMIT SUBMITTAL.

SCHERTZ COMMUNITY★SERVICE★OPPORTUNITY

STANDARD DETAIL 01575.1

STABILIZED CONSTRUCTION EXIT
TECHNICAL SPECIFICATION SECTION 01575

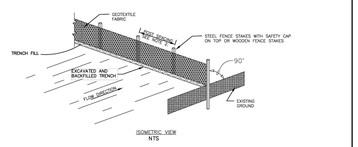
ENGINEERING AND PUBLIC WORKS



* METAL STAKES AT A MAXIMUM SPACING TOWARDS BEING OF IMPLANTED RADIUS

GENERAL NOTES

1. THE GEOTEXTILE FABRIC SHALL BE PLACE IN THE THE EXCAVATED TRENCH, BACKFILLED, AND COMPACTED TO THE EXISTING GROUND SURFACE. THE TRENCH MUST BE A MINIMUM OF 6" DEEP AND 6" WIDE. (WHERE FENCE CANNOT BE PLACED IN A TRENCH, THE BOTTOM OF THE FABRIC SHALL BE BURIED WITH 3" OF PEA GRAVEL OR APPLY SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.)
2. STEEL STAKES MAXIMUM OF 8' APART, EMBEDDED A MINIMUM OF 12" INTO GROUND. LENGTH OF STAKES AS REQUIRED FOR MINIMUM OF 16" BURY AND FULL HEIGHT OF FABRIC.
3. TRENCH THE TOE OF THE FENCE LINES SO THE DOWNWARD FACE OF THE TRENCHES IS FLAT AND PERPENDICULAR TO DIRECTION OF FLOW.
4. SECURELY FASTEN FILTER FABRIC MATERIAL TO WIRE FENCE WITH 16" WIDES AT MAXIMUM 24" SPACING.
5. FILTER FABRIC SHALL HAVE A MINIMUM HEIGHT OF 16" AND A MAXIMUM OF 36" OF HEIGHT ABOVE NATURAL GROUND.
6. FILTER FABRIC SHALL BE PLACED SO THAT THE DOWNWARD FACE OF TRENCH IS FLAT AND PERPENDICULAR TO THE DIRECTION OF FLOW, 4" MINIMUM AGAINST TRENCH WALL AND 2" MINIMUM AGAINST TRENCH FLOOR.
7. CONNECT SUCCESSIVE REINFORCEMENT SHEETS/ROLLS A MINIMUM OF 6 TIMES WITH ONE BEND.
8. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ON–THIRD HEIGHT OF BARRIER OR 6", WHICHEVER IS LESS.
9. REMOVE SILT FENCING ONCE FINAL STABILIZATION IS ESTABLISHED.

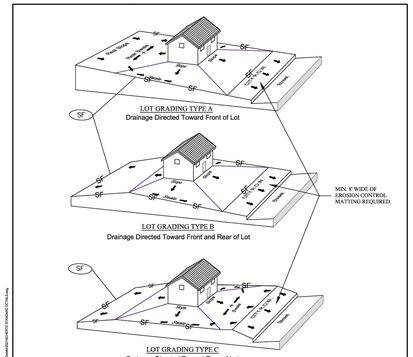


SCHERTZ COMMUNITY★SERVICE★OPPORTUNITY

STANDARD DETAIL 01570.2

SILT FENCE
TECHNICAL SPECIFICATION SECTION 01570

ENGINEERING AND PUBLIC WORKS



GENERAL NOTES

1. ENGINEER SHALL IDENTIFY SUBDIVISION LOT NUMBERS ASSOCIATED WITH EACH LOT GRADING TYPE.
2. ALL GRADED LOT SURFACES AND SWALES SHALL HAVE MINIMUM 0.5% SLOPE.
3. ROUGH GRADING OF LOTS SHALL MATCH ULTIMATE LOT GRADING TYPE: A,B, OR C, AT THE TIME OF PUBLIC INFRASTRUCTURE ACCEPTANCE.
4. SWPPP REQUIRED ON ALL LOTS, (EROSION CONTROL, WATTLES, ETC. AS APPROPRIATE).
5. CONSTRUCTION ENTRANCE REQUIRED ON ALL RESIDENTIAL LOTS TO PREVENT SEDIMENT FROM BEING DEPOSITED AFTER EQUIPMENT LEAVES THE SITE. THE CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE LOCATION OF THE PROPOSED PERMANENT DRIVEWAY.

SCHERTZ COMMUNITY★SERVICE★OPPORTUNITY

STANDARD DETAIL 01570.1

RESIDENTIAL LOT GRADING
TECHNICAL SPECIFICATION SECTION 01570

ENGINEERING AND PUBLIC WORKS

ADDITIONAL REQUIREMENTS FOR WORK WITHIN THE CRITICAL ROOT ZONE

- ESTABLISH FENCE PROTECTION A MINIMUM OF 5' FROM TRUNK
- PROVIDE 4" DEEP WOOD CHIP MULCH OVER CRITICAL ROOT ZONE INSIDE FENCE PROTECTION
- PROVIDE 8" DEEP WOOD CHIP MULCH OVER DRIP LINE OUTSIDE OF FENCE PROTECTION.
- MAKE CLEAN CUTS ON ROOTS EXPOSED BY GRADING AND BACKFILL IMMEDIATELY.
- PROVIDE TEMPORARY IRRIGATION WHERE REQUIRED BY THE CITY

GENERAL NOTES

1. A TREE PRESERVATION/REMOVAL PERMIT APPLICATION MUST BE SUBMITTED AND APPROVED.
2. A LANDSCAPING PLAN SHALL BE SUBMITTED TO THE CITY FOR APPROVAL.
3. PROVIDE TIMBER WRAP PROTECTION FOR TREES WHEN WORK IS REQUIRED WITHIN CONSTRUCTION FENCING. INSTALL VERTICAL 5 TO 6 FOOT LONG 2 BY 4's OR 2 BY 6's, SPACED 3 TO 5 INCHES APART, AROUND CIRCUMFERENCE OF TREE TRUNK.
4. FOR TREES OR SHRUBS IN PAVED AREAS, USE MOVABLE POSTS CONSISTING OF 2½" MINIMUM DIAMETER CONCRETE FILLED STEEL PIPE MOUNTED IN RUBBER AUTOMOBILE TIRES WITH CONCRETE.

SCHERTZ COMMUNITY★SERVICE★OPPORTUNITY

STANDARD DETAIL 01562

TREE AND PLANT PROTECTION
TECHNICAL SPECIFICATION SECTION 01562

ENGINEERING AND PUBLIC WORKS

GENERAL NOTES

1. ALL DEAD END STREETS MUST HAVE APPROPRIATE BARRICADE AND HEADER CURB.
2. THE POSTS SHALL BE SET IN A MINIMUM OF 1' DEEP CLASS "A" CONCRETE (UNLESS OTHERWISE SHOWN ON PLANS) IN ACCORDANCE WITH ITEM, "PORTLAND CEMENT CONCRETE". CONCRETE SHALL BE SUBSIDIARY TO THE BID ITEM.
3. WHERE SOLID ROCK IS ENCOUNTERED OR WHERE SHOWN ON THE PLANS, THE DIAMETER OF THE HOLES SHALL BE APPROXIMATELY 12 INCHES; THE BACKFILLING SHALL BE WITH A COHESIONLESS MATERIAL, AND EMBEDMENT DEPTH SHALL BE 1'-6" OR MORE AS DIRECTED BY THE CITY ENGINEER.

STANDARD DETAIL 01504

END OF STREET BARRICADE - TYPE 1
TECHNICAL SPECIFICATION SECTION 01504

ENGINEERING AND PUBLIC WORKS

TYPE		WIDTHS MEASURED AT PROPERTY LINE MIN.	WIDTHS MEASURED AT PROPERTY LINE MAX.	MINIMUM CONCRETE THICKNESS	REINFORCEMENT	DRIVEWAY BASE
RESIDENTIAL	SINGLE	10'	12'	5" CLASS A 4,000 PSI	#3 BARS 12" O.C. BOTH WAYS OR 6" x 6" W/ D4.7 x W/ D4.7 WELDED WIRE FLAT SHEETS	2" GRAVEL, CRUSHED ROCK OR FLEX BASE
	DOUBLE	10'	24'			
COMMERCIAL		24'	40'	6" CLASS C 4,000 PSI	#4 BARS 12" O.C. BOTH WAYS OR 6" x 6" W/ D7.5 x W/ D7.5 WELDED WIRE FLAT SHEETS	2" GRAVEL, CRUSHED ROCK OR FLEX BASE

DRIVEWAY AND CURB 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
2. 7" CURB MINIMUM HEIGHT WILL NOT NECESSARILY OCCUR AT THE PROPERTY LINE. IT MAY OCCUR WITHIN THE RIGHT OF WAY.
3. CURB SHALL BE TAPERED TO FINISH FLUSH WITH SIDEWALK.
4. BEGINNING RADIUS SHALL NOT ENCROACH ON ADJACENT PROPERTIES BASED ON A PROJECTION OF THE PROPERTY LINE FROM THE RIGHT OF WAY TO THE CURB LINE.

SCHERTZ COMMUNITY★SERVICE★OPPORTUNITY

DRIVEWAY

TECHNICAL SPECIFICATION SECTION 02775

ENGINEERING AND PUBLIC WORKS

LEGEND	
◄►	Sign
———	Traffic Flow
L	Lane line (Emphasis, Short broken on the skipping side)
LW	Lane Width

SCHERTZ COMMUNITY★SERVICE★OPPORTUNITY

CROSSWALK PAVEMENT MARKINGS

TECHNICAL SPECIFICATION SECTION 02767

ENGINEERING AND PUBLIC WORKS

GENERAL NOTES

1. All bicycle lane pavement markings shall be white unless otherwise noted and approved by the City Staff.
2. All pavement marking materials shall meet the required Public Works Technical Specifications.
3. Exact sign placement and details are shown elsewhere inthe plans.
4. The current edition of AASHTO'S Guide for the Development of Bicycle Facilities should be referenced.
5. The "BIKE LANE" (R3–17) sign with the "AHEAD" (R3–17a)sign mounted directly below should be installed in advance of the beginning of a marked bike lane.
6. The "BIKE LANE" (R3–17) sign with the "END" (R3–17b)sign mounted directly below should be installed at the end of marked bicycle lanes.
7. Shared–Lane Markings to be placed at least 4' from the face or edge of traveled way where there is no curb.

SCHERTZ COMMUNITY★SERVICE★OPPORTUNITY

BICYCLE PAVEMENT MARKINGS

TECHNICAL SPECIFICATION SECTION 02761

ENGINEERING AND PUBLIC WORKS

REVISIONS

NO.	DATE	DESCRIPTION	BY:	PROJ. #:	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F–5297 / SURVEYING: F–10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698–5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698–5085

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
4/16/26

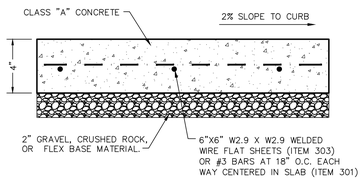
TRAILS AT LOWER SEGUIN

STANDARD DETAILS

SHEET
C4.12

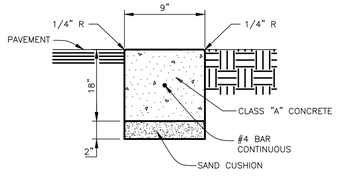
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Plot Date: May 20, 2026 User ID: Sohna Gordea
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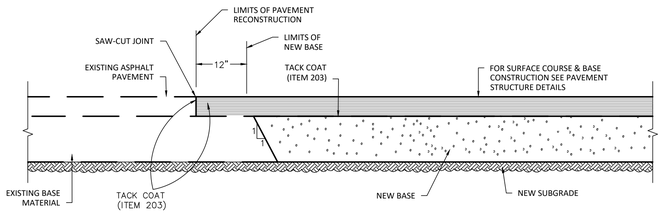
CONCRETE SIDEWALK DETAIL

N.T.S.



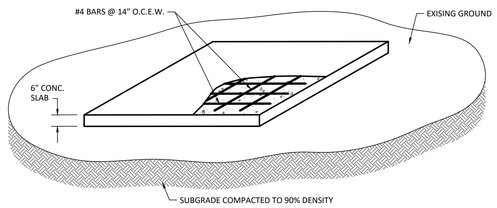
HEADER CURB

N.T.S.



PAVEMENT JUNCTION DETAILS

N.T.S.



NOTES:

1) THE CONTRACTOR WILL CONSTRUCT CONCRETE SLABS FOR "TEMPORARY MAIL BOX COLLECTION PAD" FOR THE UNITED STATES POSTAL SERVICE AT THE LOCATIONS AND SIZES SPECIFIED BY THE CITY ENGINEER DURING CONSTRUCTION.

2) THE CONSTRUCTION OF SLABS SHALL CONFORM TO ITEM NO. 502 "CONCRETE SIDEWALKS AND DRIVEWAYS"

3) PAYMENT WILL BE MADE UNDER ITEM NO. 502-2 DRIVEWAYS - PER SQUARE YARD.

4) UNIT PRICE WILL INCLUDE REMOVAL OF "TEMPORARY MAIL BOX COLLECTION PAD" SLABS AT THE END OF THE PROJECT. NO SEPARATE PAY ITEM.

TEMPORARY MAIL BOX COLLECTION PAD

CONCRETE DRIVEWAY NOTES:

1. 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'

2. FOR LOCAL TYPE "A" STREETS, SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

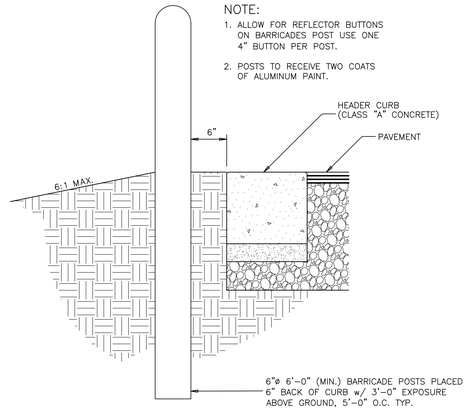
3. FOR OTHER THAN LOCAL TYPE "A" STREETS, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH 4' AND SEPARATED A MINIMUM OF 3' FROM THE BACK OF CURB OR, AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.

4. 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.

5. A MINIMUM OF TWO ROUND AND SMOOTH DOWEL BARS 3/8" IN DIAMETER AND 18" IN LENGTH SHALL BE SPACED 18" APART AT EACH EXPANSION JOINT.

6. 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%.

7. SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.



GUARD POST

N.T.S.

SUBMITTAL SET

REVISIONS						
NO.	DATE	DESCRIPTION	BY:	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

• Engineers
• Surveyors
• Planners

MTR

Moy Tarin Ramirez Engineers, LLC

TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

5/14/26

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

TRAILS AT LOWER SEGUIN

STREET PLAN & PROFILE

STANDARD DETAILS

SHEET

C4.13

Plot Date: May 05, 2026 User ID: Dana Davies
R:\User Data Folder\Dana\Projects\2024\24-013 Standard Street Details.dwg

NOTES (*):

1. MOISTURE CONDITIONED SUBGRADE. THE SUBGRADE SHOULD BE SCARIFIED TO A MIMIMUM DEPTH OF 12 INCHES. THE SCARIFIED SUBGRADE SHOULD BE COMPACTED TO A MINIMUM OF 92 PERCENT OF THE MAXIMUM DRY DENSITY AND AT A MOISTURE CONTENT BETWEEN OPTIMUM PLUS 2 AND OPTIMUM PLUS 6 OF THE OPTIMUM MOISTURE CONTENT (TEX 114E).

2. IF NEEDED, LIME OR CEMENT MAY BE USED TO DRY THE MOIST SUBGRADE SOILS A ND/OR TO PROVIDE A WORKING PLATFORM FOR CONSTRUCTION.

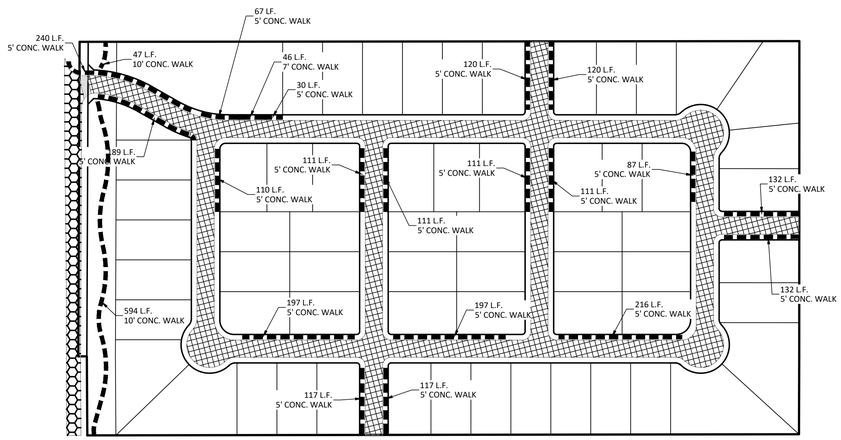
NOTE:
THE SUBGRADE SOILS SHOULD BE TESTED FOR SOLUBLE SULPHATE CONTENT PRIOR TO INSTALLATION OF LIME OR CEMENT

NOTE:
SELECT FILL MATERIAL SHALL HAVE A MAXIMUM PLASTICITY INDEX OF 55 AND A CALIFORNIA BEARING RATIO (CBR) OF AT LEAST 2.0

GEOTECHNICAL REPORT::
20 ACRE TRACT AT LOWER SEGUIN ROAD IN SCHERTZ, TEXAS
PAVEMENT ANALYSIS
INTEC PROJECT NO. S251168 (JUNE 26, 2025)

* PAVEMENT SECTIONS

PAVEMENT MATERIAL	CLAY SUBGRADE (CBR 2.0)	
	LOCAL A	ARTERIAL (LOWER SEGUIN ROAD)
TYPE C ASPHALTIC CONCRETE	–	2.0 IN.
TYPE D ASPHALTIC CONCRETE	3.0 IN.	2.5 IN.
FLEXIBLE BASE (TxDOT ITEM 247 TYPE A GRADE 2)	15 IN.	18 IN.
CEMENT TREATED SUBGRADE (40.0 LBS/SY)	8.0 IN.	8.0 IN.
TENSAR Tx5 TRIAXIAL GEOGRID	YES	YES



DEVELOPER INSTALLED SIDEWALK

LOCAL "A"

ARTERIAL

PAVEMENT INDEX MAP

REVISIONS

NO.	DATE	DESCRIPTION	BY:

PROJ. #: | DSN. BY: | DWN. BY: | CHKD. BY: | DATE:

• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297/SURVEYING: F--10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

5/9/26

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED
PROFESSIONAL ENGINEER

TRAILS AT LOWER SEGUIN

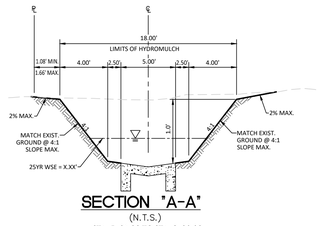
STANDARD STREET DETAILS

SHEET

C4.14

SUBMITTAL SET

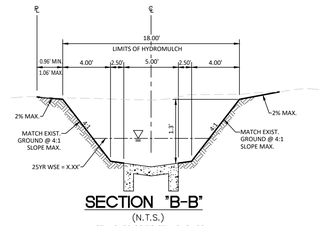
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SECTION "A-A"

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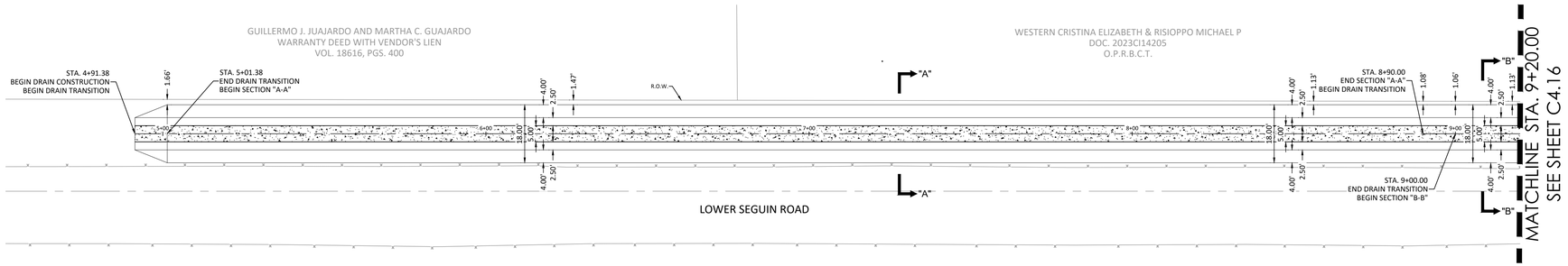
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SECTION "B-B"

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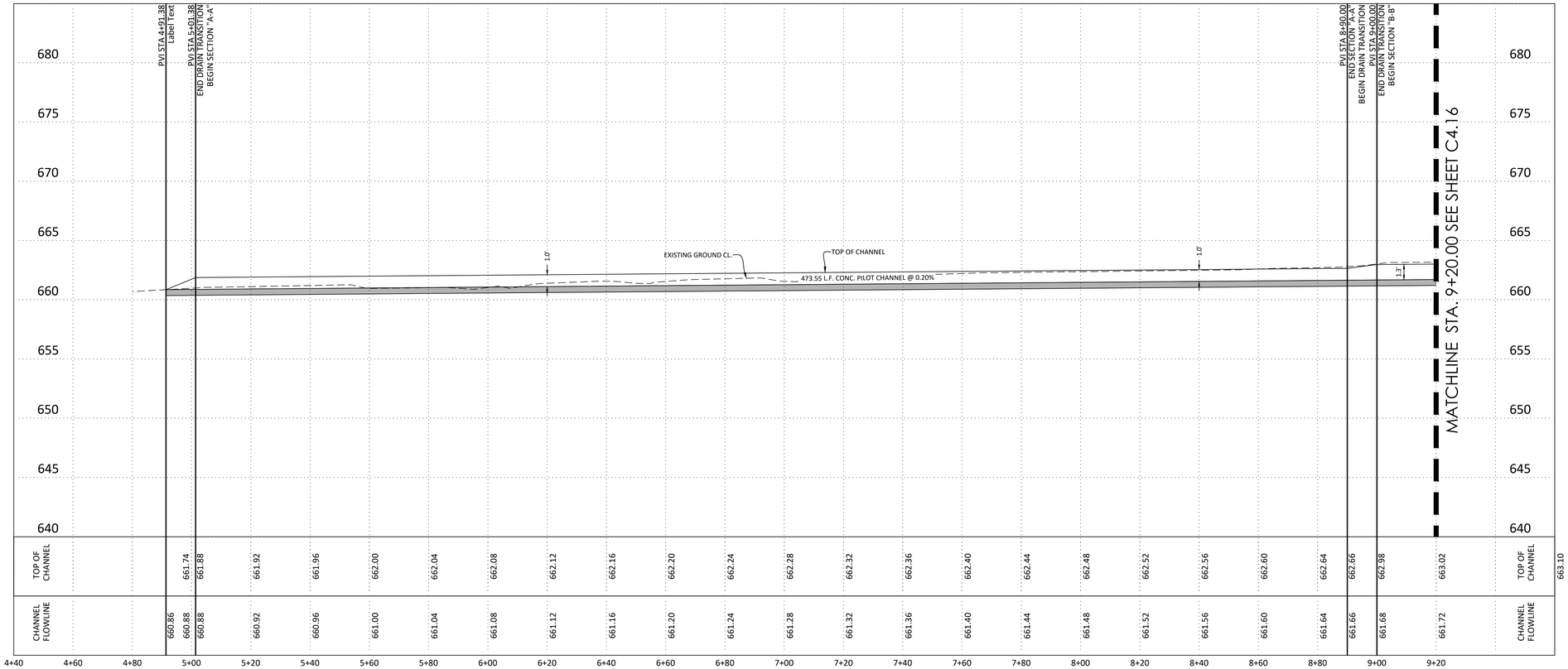
STA. 9+00.00 TO STA. 9+64.93



DRAIN "A"

STA. 4+91.38 TO STA. 9+20.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



SUBMITTAL SET

NO.	DATE	DESCRIPTION	BY:

REVISIONS

PROJ. #: | DSN. BY: | DWN. BY: | CHKD. BY: | DATE:

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Moy Tarin Ramirez Engineers, LLC
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5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

5/19/26

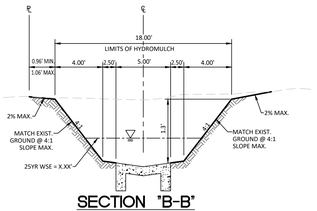
STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

TRAILS AT LOWER SEGUIN

DRAIN PLAN & PROFILE
DRAIN "A"
STA. 4+91.38 TO STA. 9+20.00

SHEET
C4.15

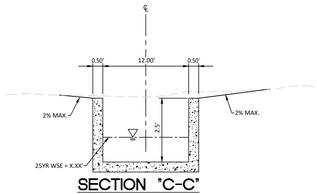
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SECTION "B-B"

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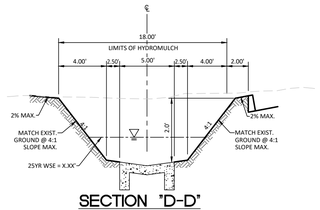
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SECTION "C-C"

(N.T.S.)

STA. 10+14.21 TO STA. 10+56.09

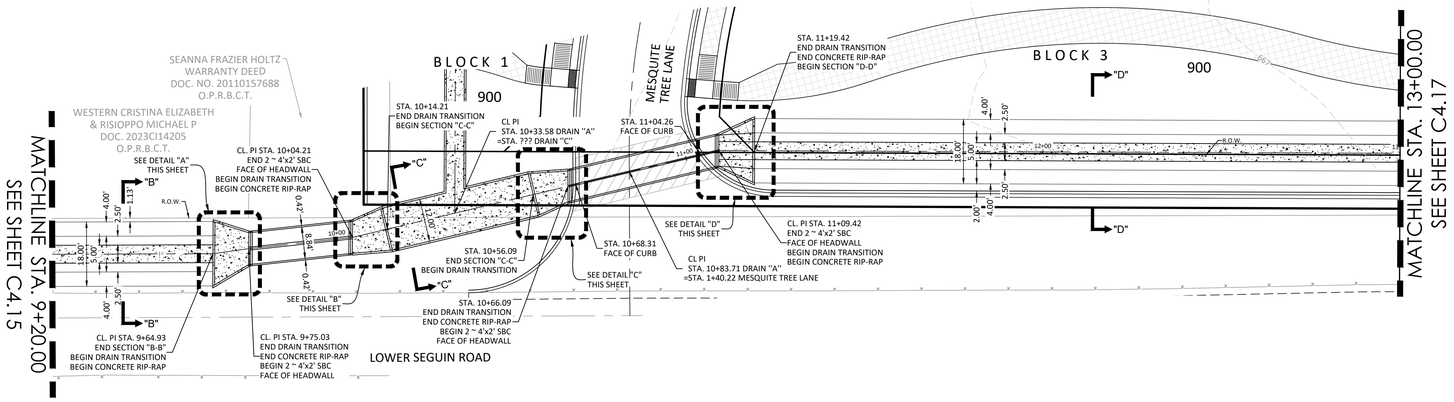


SECTION "D-D"

(N.T.S.)

STA. 11+19.42 TO STA. 16+63.85

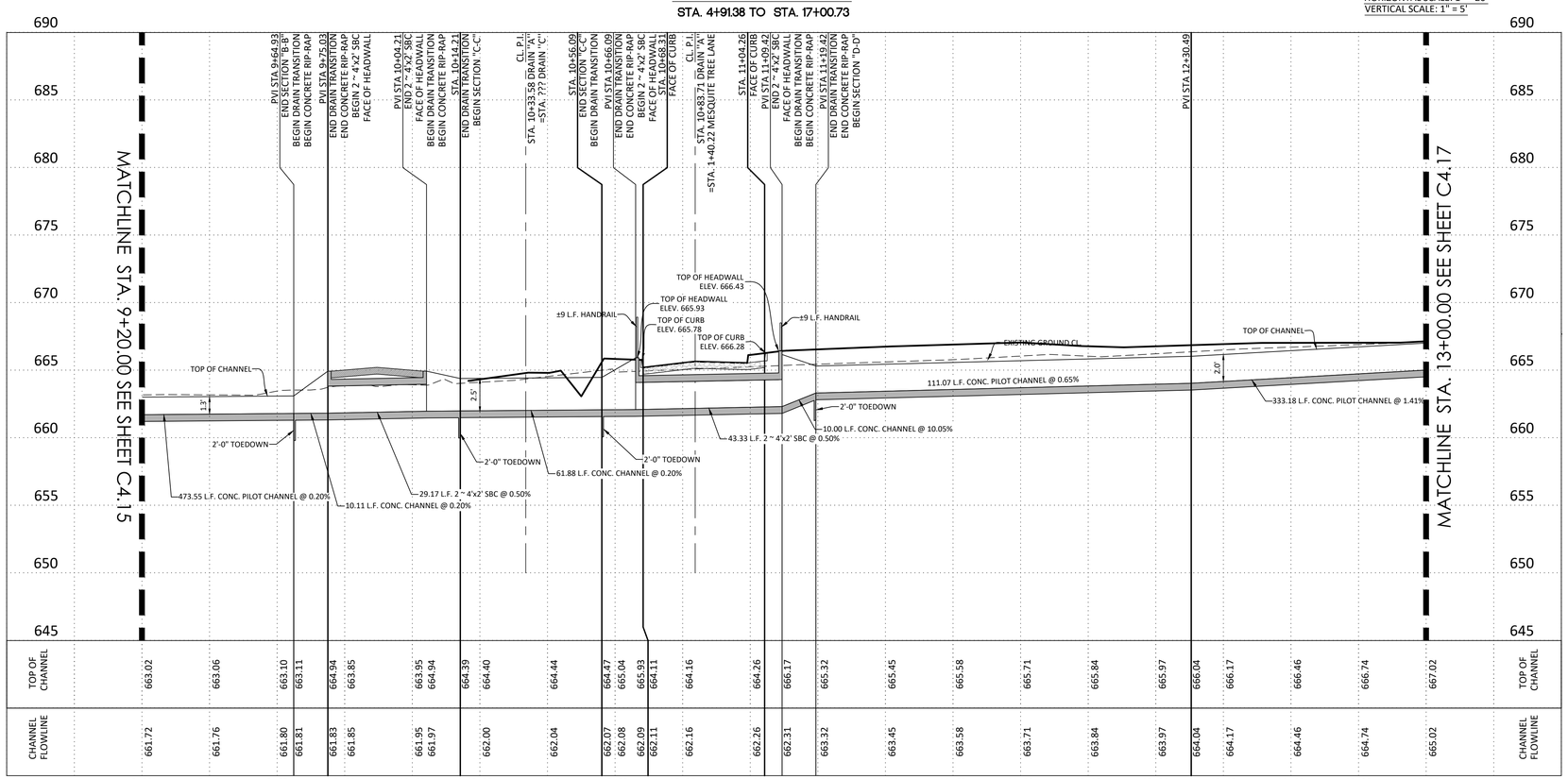


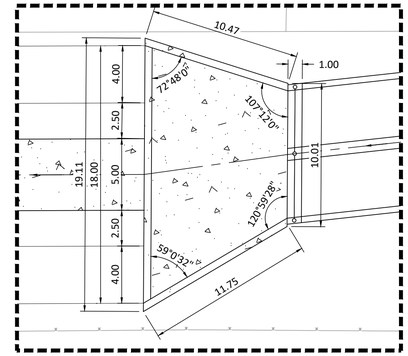


DRAIN "A"

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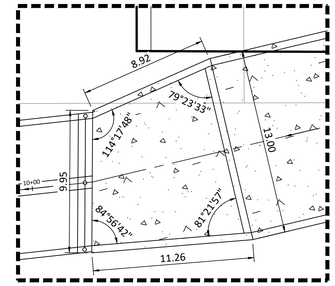
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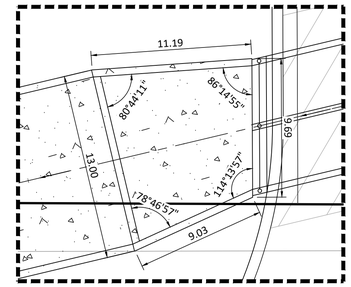
DETAIL A

SCALE: 1" = 5'



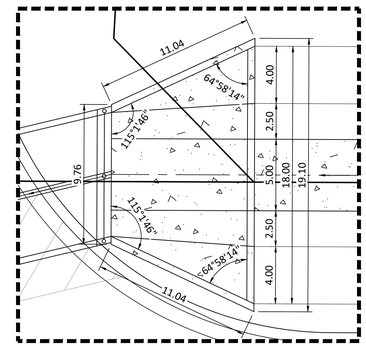
DETAIL B

SCALE: 1" = 5'



DETAIL C

SCALE: 1" = 5'



DETAIL D

SCALE: 1" = 5'

NO.	DATE	DESCRIPTION	BY:

REVISIONS

PROJ. #: | DSN. BY: | DWN. BY: | CHKD. BY: | DATE:

• Engineers
• Surveyors
• Planners

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5/19/26

STATE OF TEXAS
PAUL LANDA, JR.
100182
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TRAILS AT LOWER SEGUIN

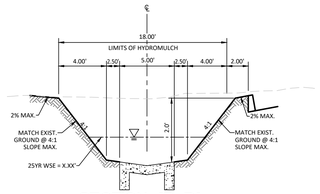
DRAIN PLAN & PROFILE
DRAIN "A"
STA. 9+20.00 TO STA. 13+00.00

SHEET

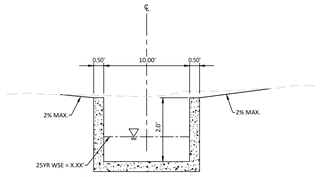
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SUBMITTAL SET

Plot Date: May 20, 2026 User ID: Dalina Gordea
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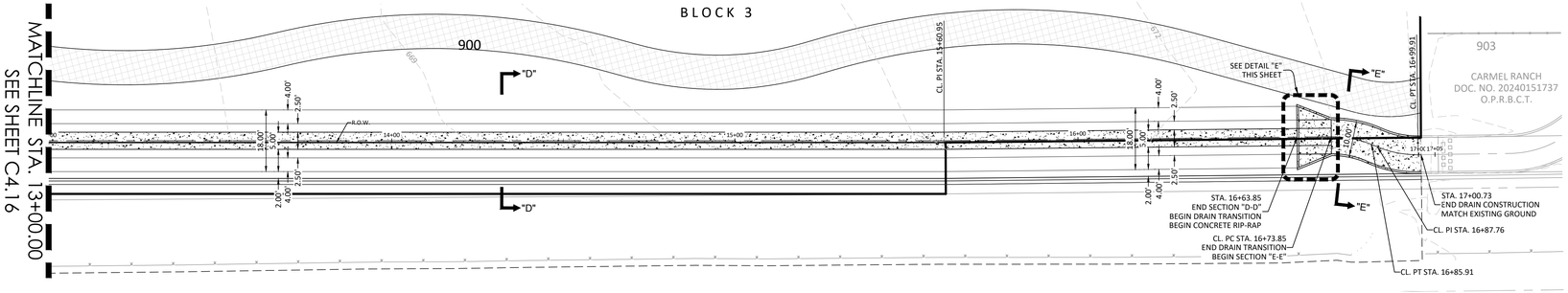


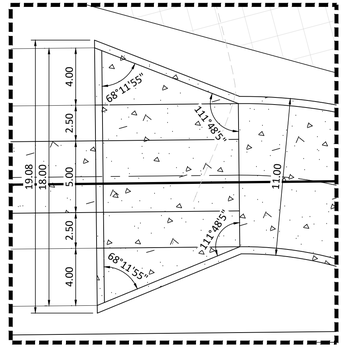
SECTION "D-D"
(N.T.S.)
STA. 11+19.42 TO STA. 16+63.85



SECTION "E-E"
(N.T.S.)
STA. 16+73.85 TO STA. 17+00.73





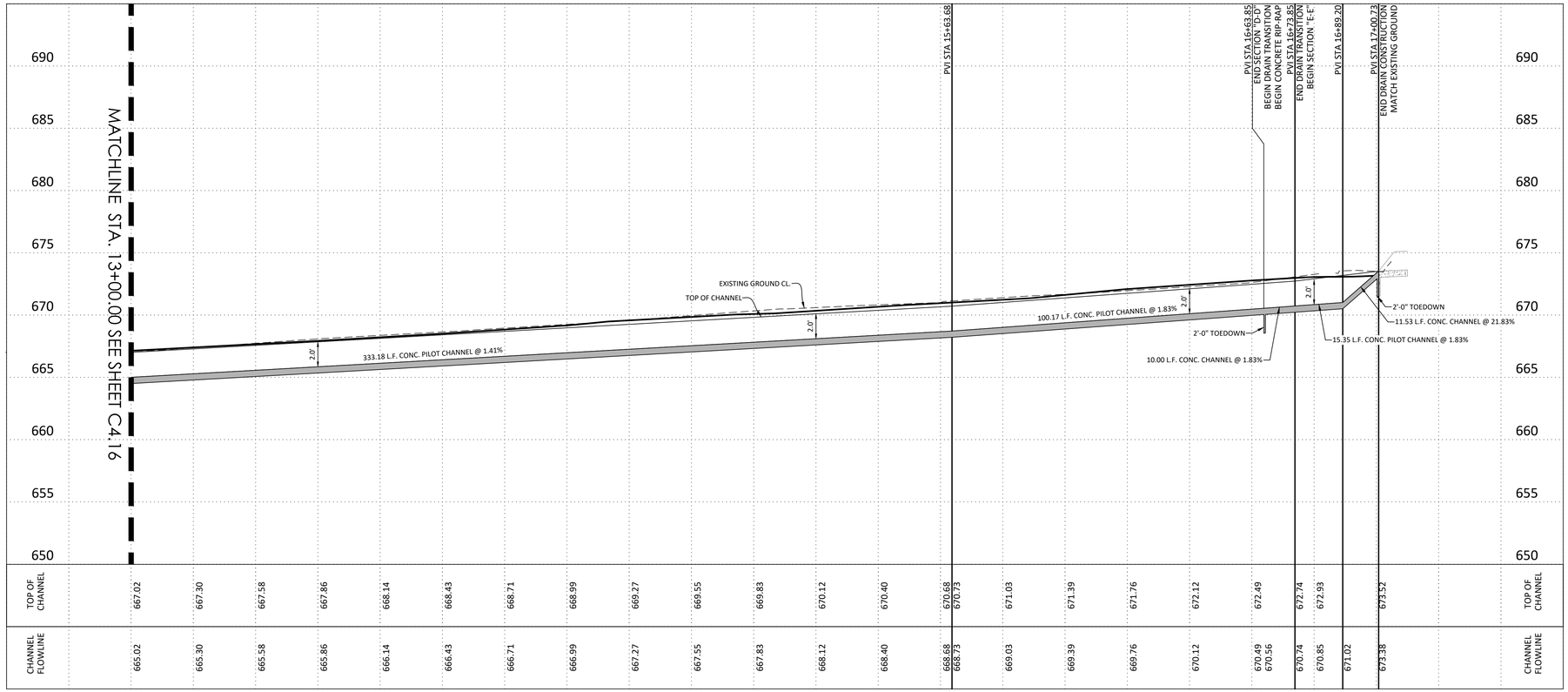


DETAIL E
SCALE: 1" = 5'

DRAIN "A"

STA. 13+00.00 TO STA. 17+00.73

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



SUBMITTAL SET

REVISIONS

NO.	DESCRIPTION	BY:	DATE:

PROJ. #: | DSN. BY: | DWN. BY: | CHKD. BY: | DATE:

MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

5/19/26
STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

TRAILS AT LOWER SEGUIN

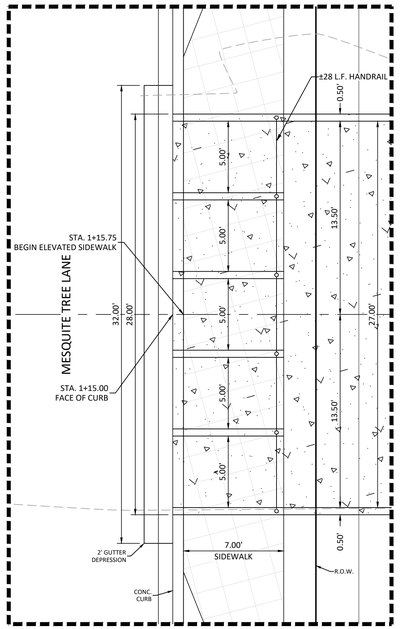
DRAIN PLAN & PROFILE
DRAIN "A"
STA. 13+00.00 TO STA. 17+00.73

SHEET
C4.17

Plot Date: May 20, 2026 User ID: Dalina Gaytes
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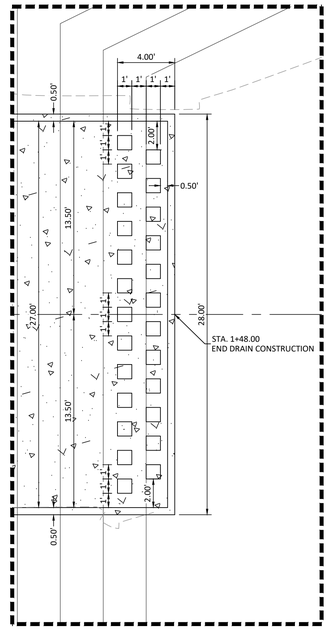
SCALE: 1"=20'

0 20 40



DETAIL A

SCALE: 1" = 5'

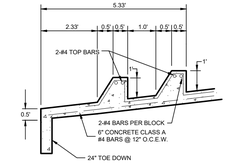


DETAIL B

SCALE: 1" = 5'

NOTES:

1. COVER FOR REINFORCING STEEL IS 2" UNLESS OTHERWISE NOTED.
2. SEE GENERAL NOTES ON SHEET C4.0 FOR MATERIAL SPECIFICATIONS.
3. MINIMUM BAR DEVELOPMENT LENGTH FOR SPLICE AND BENDS AT WALL AND FLOOR CONNECTIONS SHALL BE 30 INCHES.
4. ALL CONCRETE SHALL RESIST A MINIMUM 3000 PSI 28 DAY BREAK, UNLESS OTHERWISE NOTED.
5. PROVIDE CONCRETE APRONS ON ALL INLETS, REFERENCE DETAILS FOR CONSTRUCTION REQUIREMENTS.
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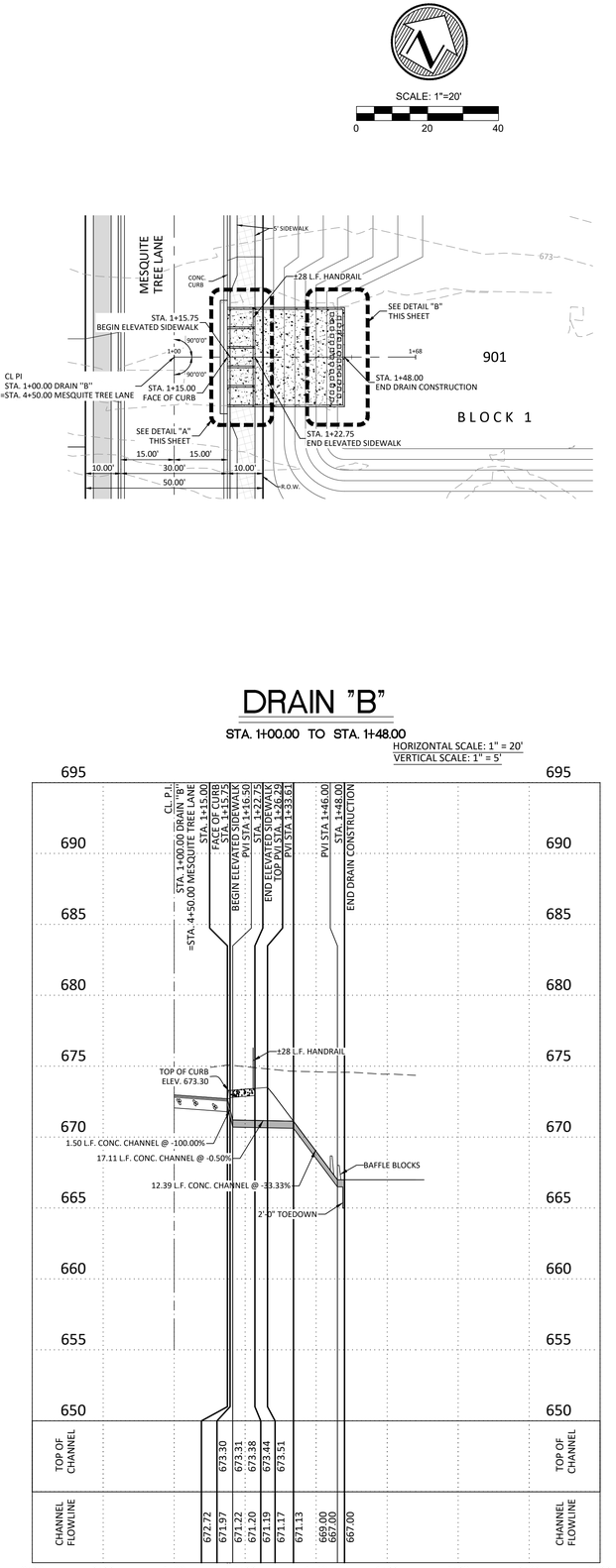
BAFFLE BLOCK DETAIL

(N.T.S.)

DRAIN "B"

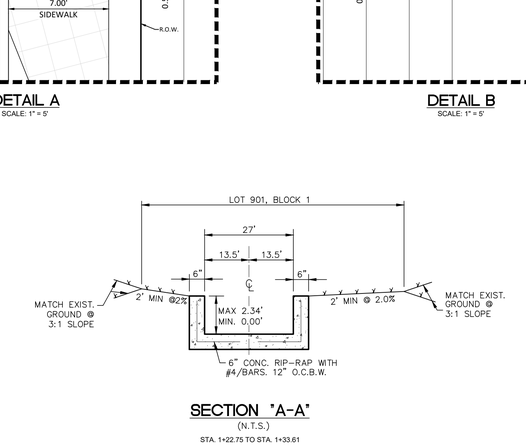
STA. 1+00.00 TO STA. 1+48.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



CURB ARMOR DETAIL

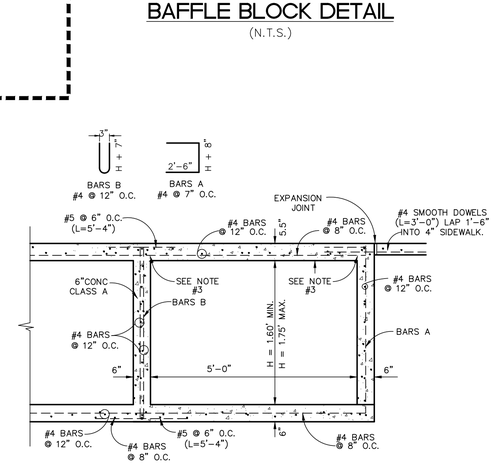
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SECTION "A-A"

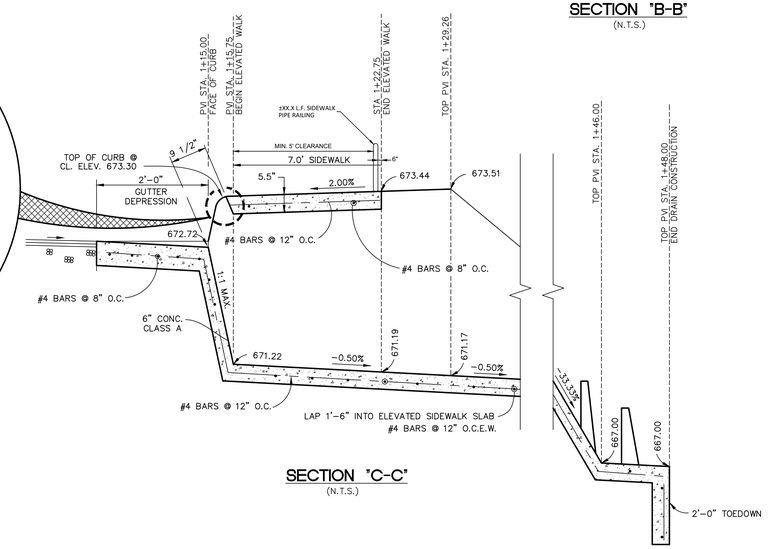
(N.T.S.)

STA. 1+22.75 TO STA. 1+33.61



SECTION "B-B"

(N.T.S.)



SECTION "C-C"

(N.T.S.)

SUBMITTAL SET

REVISIONS						
NO.	DATE	DESCRIPTION	BY:	PROJ. #:	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

• Engineers
• Surveyors
• Planners

MTR

Moy Tarin Ramirez Engineers, LLC

TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
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STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
5/14/26

TRAILS AT LOWER SEGUIN

DRAIN PLAN & PROFILE

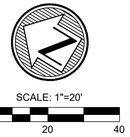
DRAIN "B"

STA. 1+00.00 TO STA. 1+48.00

SHEET

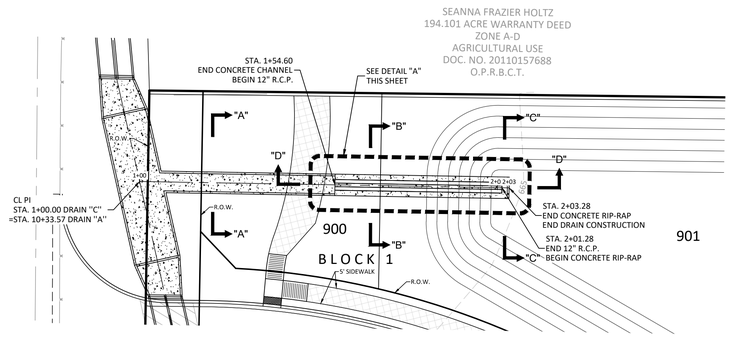
C4.18

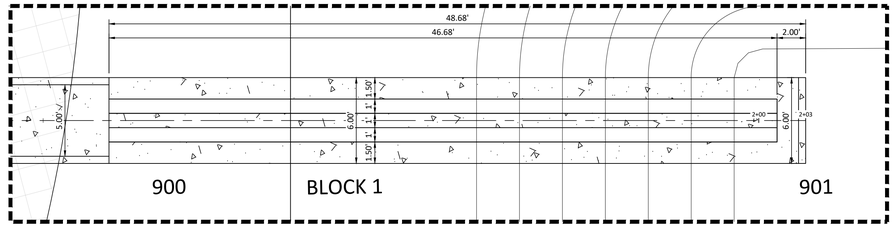
Plot Date: May 20, 2026 User: Dr. Dalia Gomez
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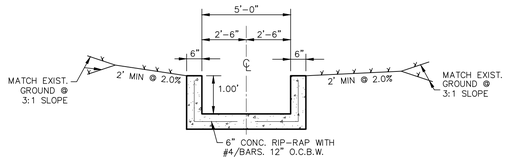
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DETAIL A
SCALE: 1" = 5'

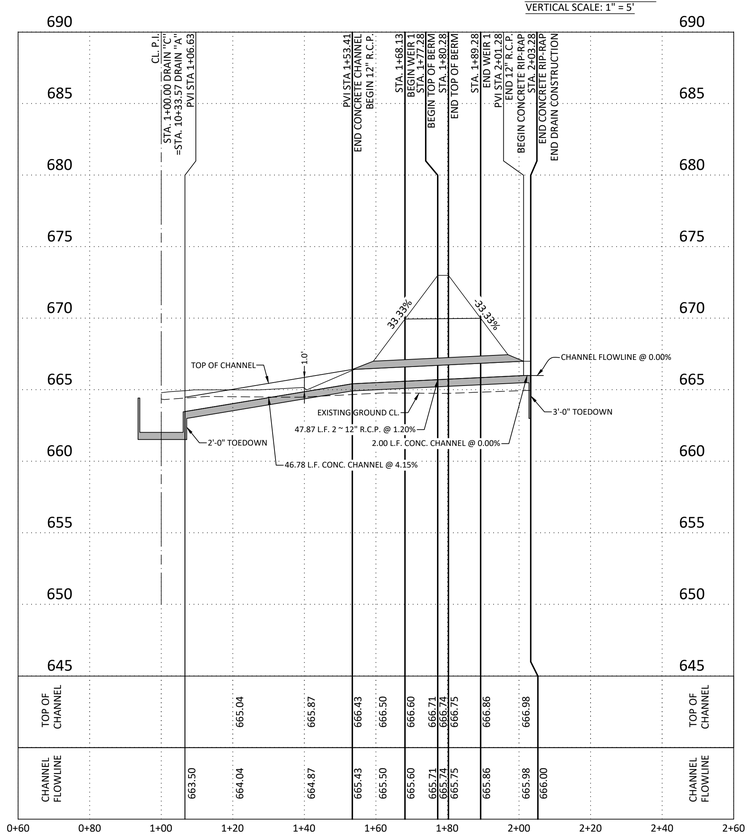


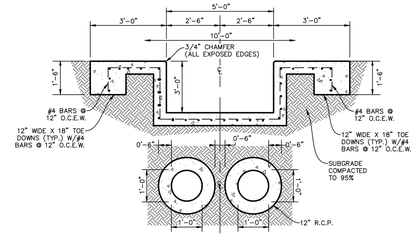
SECTION "A-A"
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STA. 1+06.94 TO STA. 1+58.14

DRAIN "C"

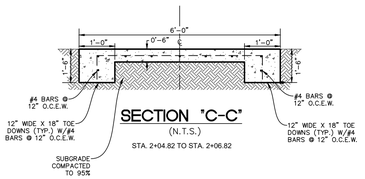
STA. 1+00.00 TO STA. 2+03.82

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'

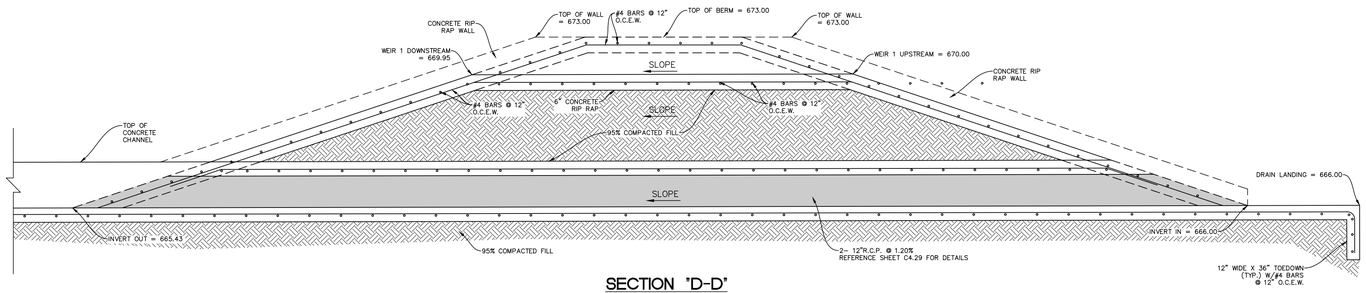




SECTION "B-B"
(N.T.S.)
STA. 1+71.82 TO STA. 1+92.75



SECTION "C-C"
(N.T.S.)
STA. 2+04.82 TO STA. 2+06.82



SECTION "D-D"
(N.T.S.)

SUBMITTAL SET

REVISIONS

NO.	DATE	DESCRIPTION	BY:

PROJ. #: | DSN. BY: | DWN. BY: | CHKD. BY: | DATE:

• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F--10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
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5/9/26
STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

TRAILS AT LOWER SEGUIN

DRAIN PLAN & PROFILE
DRAIN "C"
STA. 1+00.00 TO STA. 2+03.82

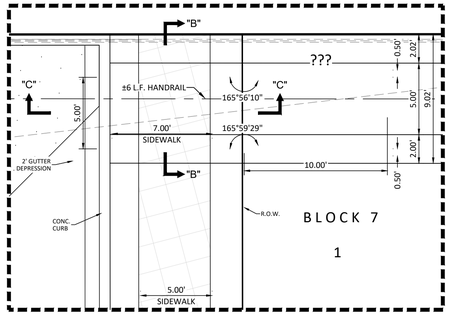
SHEET
C4.19

Plot Date: May 05, 2026 User: Dr. Dalia Gomez
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PLAT NO.

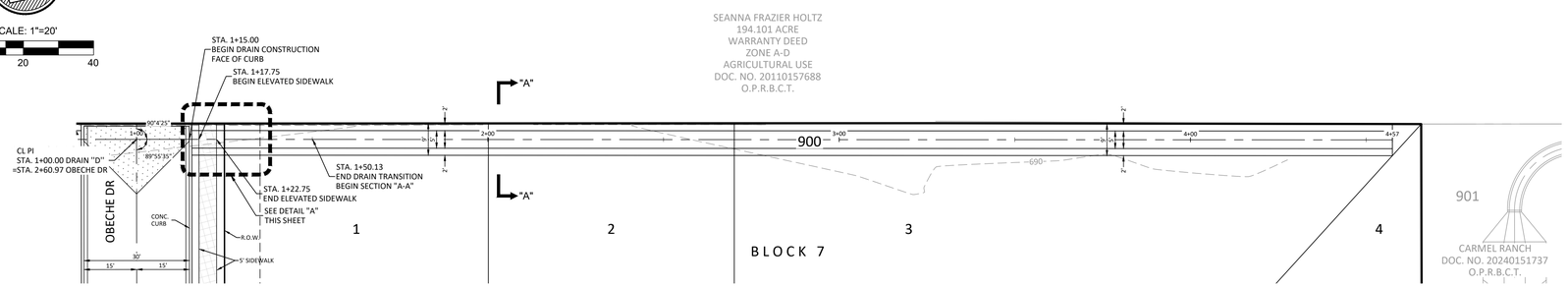
NOTES:

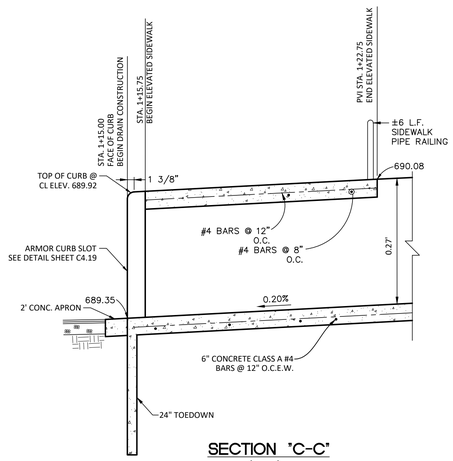
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DETAIL A
SCALE: 1"= 5'





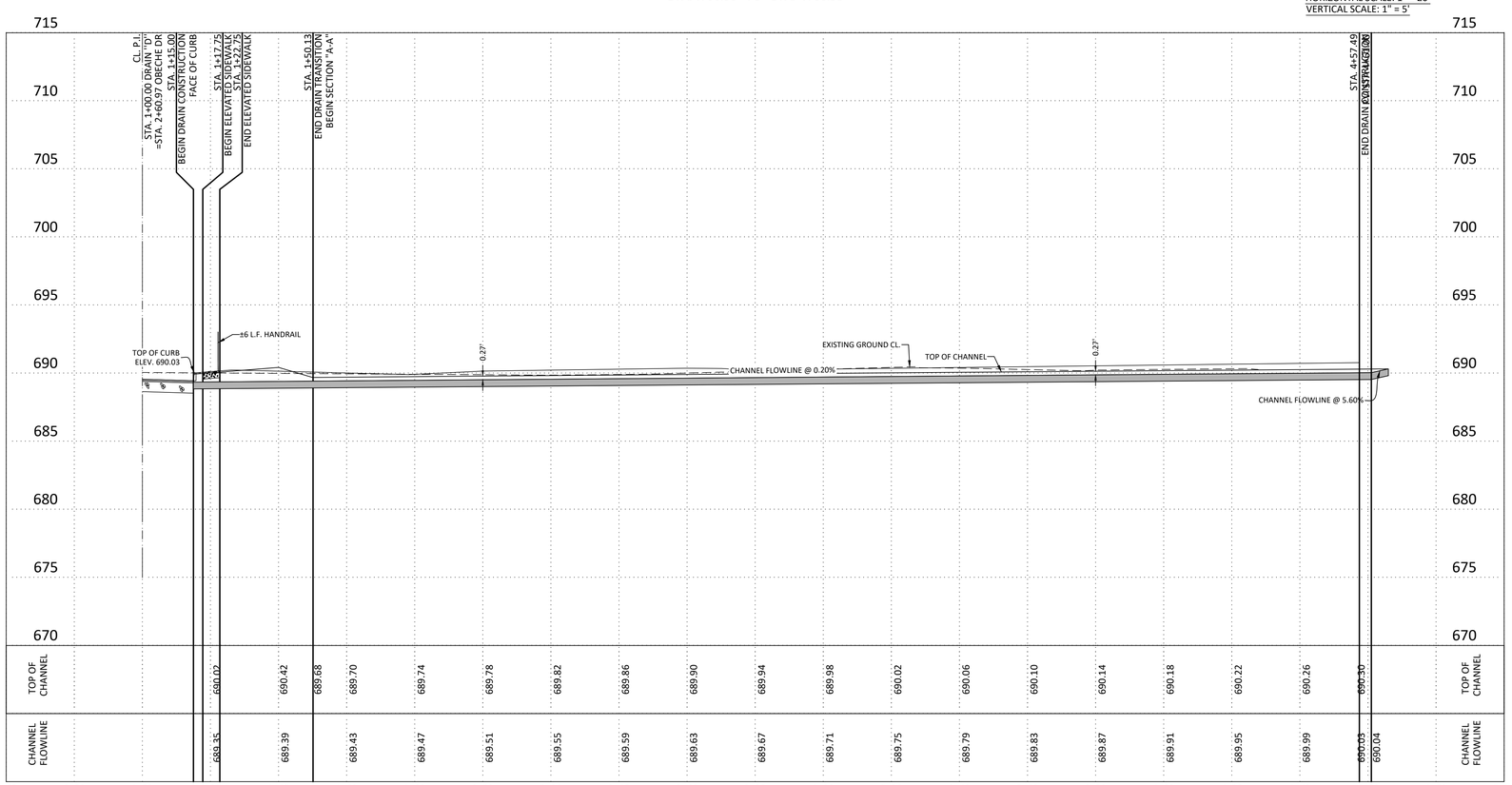


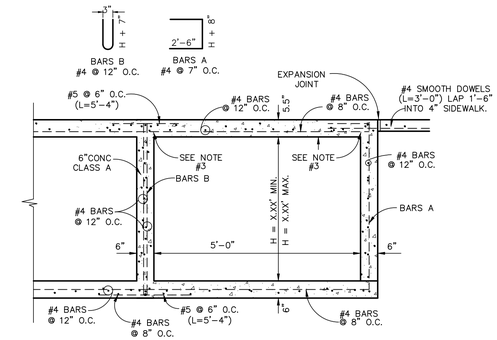
SECTION "C-C"
(N.T.S.)

DRAIN "D"

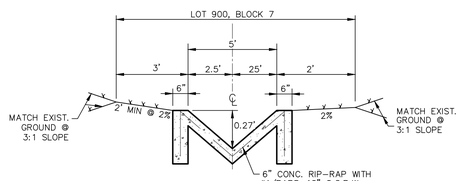
STA. 1+00.00 TO STA. 4+65.56

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'





SECTION "B-B"
(N.T.S.)



SECTION "A-A"
(N.T.S.)
STA. 1+50.00 TO STA. 4+61.00

SUBMITTAL SET

REVISIONS

NO.	DATE	DESCRIPTION	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:
							BY:

MTR
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5/9/26
STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED
PROFESSIONAL ENGINEER

TRAILS AT LOWER SEGUIN

DRAIN PLAN & PROFILE
DRAIN "D"
STA. 1+00.00 TO STA. 4+65.56

SHEET
C4.20

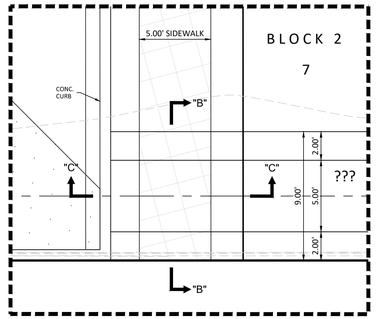
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PLAT NO.

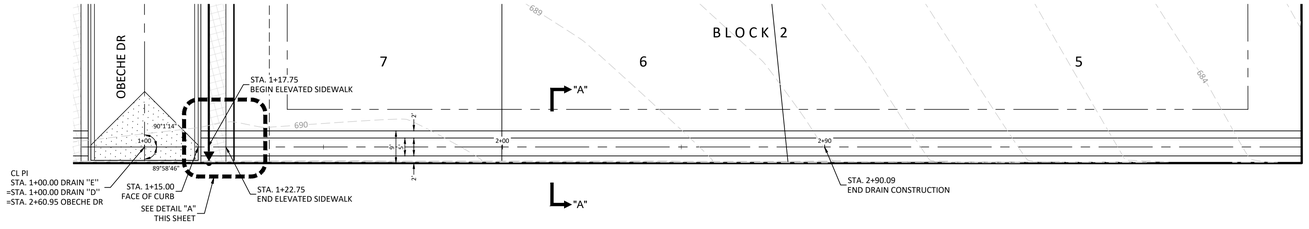
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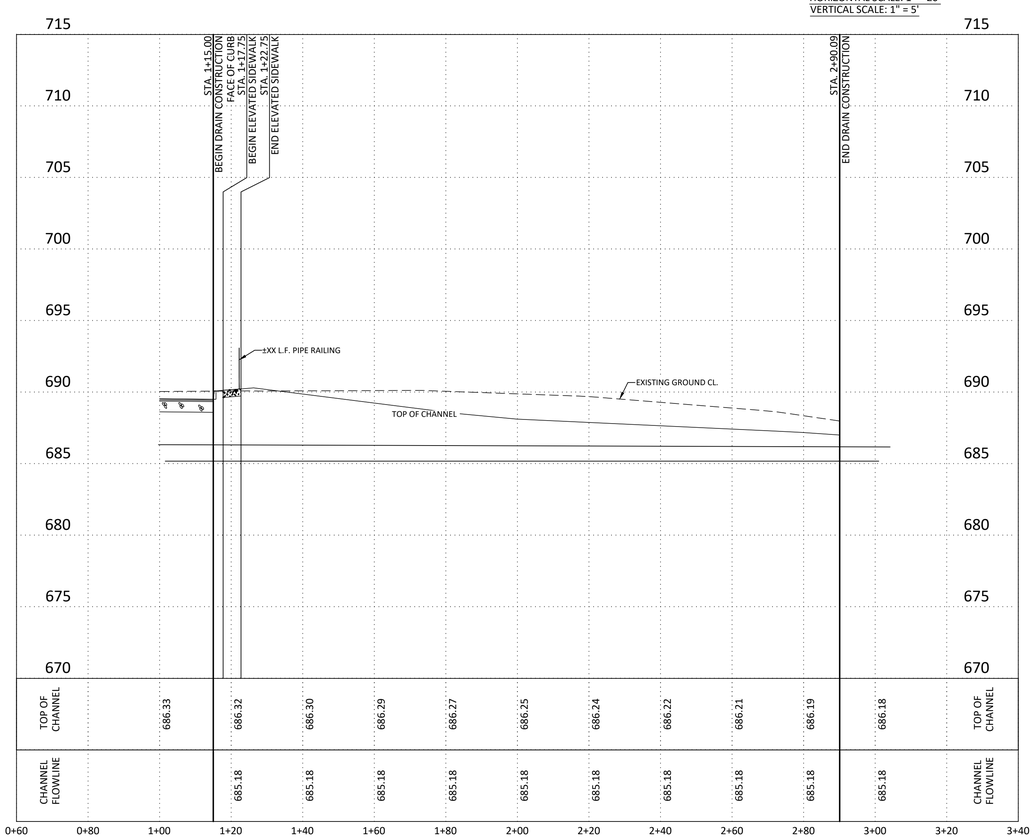
DETAIL A
SCALE: 1" = 5'

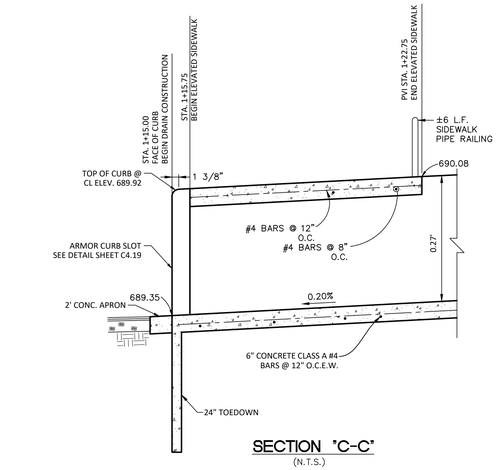


DRAIN "E"

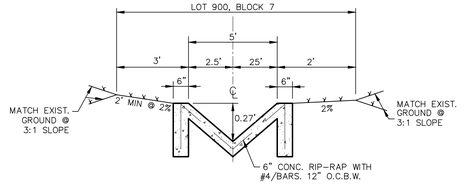
STA. 1+00.00 TO STA. 2+90.09

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'

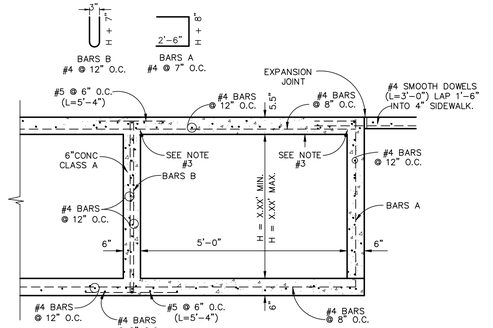




SECTION "C-C"
(N.T.S.)



SECTION "A-A"
(N.T.S.)
STA. 1+50.00 TO STA. 4+61.00



SECTION "B-B"
(N.T.S.)

SUBMITTAL SET

NO.	DATE	DESCRIPTION	BY

REVISIONS

PROJ. #: | DSN. BY: | DWN. BY: | CHKD. BY: | DATE:

MTR
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STATE OF TEXAS
PAUL LANDA, JR.
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LICENSED PROFESSIONAL ENGINEER
5/9/26

TRAILS AT LOWER SEGUIN

DRAIN PLAN & PROFILE
DRAIN "E"
STA. 1+00.00 TO STA. 2+90.09

SHEET
C4.21

Plot Date: May 20, 2026 User ID: Dalina Gaytan
S:\Lower Segun Road\Civil 3 Drawings\25044_Sht 21 Drain "E" Map.dwg

GENERAL SPECIFICATIONS FOR SITE PREPARATION

1. GENERAL DESCRIPTION

THIS ITEM SHALL CONSIST OF ALL CLEARING AND GRUBBING, DEMOLITION, PREPARATION OF LAND TO BE FILLED, FILLING OF THE LAND, SPREADING, COMPACTION TESTING AND INSPECTION OF THE FILL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING OF THE CUT AND FILL AREAS TO CONFORM WITH THE LINES, GRADES AND SLOPES AS SHOWN ON THE APPROVED PLANS.

ALL LOT GRADING MUST MEET REQUIREMENTS OF FHA/HUD HANDBOOK 4140.3, SPECIFICATIONS FOR LAND DEVELOPMENTS ON CONTROLLED EARTHWORK, DATASHEET 79g. HUD 79g REQUIREMENTS FOR FILL MATERIAL OF 6 INCHES AND MORE WILL BE CONDUCTED. ALL CUT AREAS WILL ALSO MEET THE REQUIREMENTS FOR HUD 79g COMPACTION TESTING. IN ADDITION, ENGINEERS MUST PROVIDED VERIFICATION OF ALL AREAS WHICH DO NOT REQUIRE HUD 79g.

2. CLEARING THE AREA TO BE FILLED

ALL TIMBER, LOGS, TREES, BRUSH AND RUBBISH SHALL BE REMOVED FROM THE SITE.

3. SCARIFYING THE AREA TO BE FILLED

ALL ORGANIC MATTER SHALL BE REMOVED FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED, AND THE SURFACE SHALL THEN BE DISKED OR SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES (6"). ALL SURFACE RUTS OR OTHER UNEVEN FEATURES WILL BE LEVELED PRIOR TO FIELD DENSITY TESTING.

WHERE FILLS ARE MADE ON HILLSIDES OR SLOPES, THE SLOPE OF THE ORIGINAL GROUND UPON WHICH THE FILL IS TO BE PLACED SHALL BE DISKED OR SCARIFIED. WHERE THE SLOPE RATIO OF THE ORIGINAL GROUND IS STEEPER THAN 5 HORIZONTAL TO 1 VERTICAL, THE BANK SHALL BE STEPPED OR BENCHED. GROUND SLOPES WHICH ARE FLATTER THAN 5 TO 1 SHALL BE BENCHED WHEN CONSIDERED NECESSARY BY THE GEOTECHNICAL ENGINEER.

4. COMPACTING THE AREA TO BE FILLED

FOLLOWING THE CLEARING AND DISKING OR SCARIFYING OF THE FILL AREA, IT SHALL BE BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS. THE AREA SHALL BE BROUGHT TO THE ADEQUATE MOISTURE CONTENT AND COMPACTED (TYPICALLY) TO NOT LESS THAN NINETY PERCENT (90%) OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT ASTM D 1557 COMPACTION PROCEDURE, OR 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT THD--TEX--113--E COMPACTION PROCEDURE.

5. FILL MATERIALS

THE MATERIALS USED SHALL BE FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES, SUCH AS TREES, BRUSH AND RUBBISH, AND SHALL NOT CONTAIN ROCKS OR LUMPS HAVING A DIAMETER OF MORE THAN SIX INCHES (6").

6. DEPTH AND MIXING OF FILL LAYERS

THE SELECTED FILL MATERIAL SHALL BE PLACED IN LEVEL, UNIFORM LAYERS WHICH, WHEN COMPACTED, SHALL HAVE A DENSITY CONFORMING TO THAT STIPULATED ABOVE. EACH LAYER SHALL BE THOROUGHLY MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. COMPACTED LAYER THICKNESS MAY VARY DEPENDING ON THE COMPACTION EQUIPMENT OF DEMONSTRATED CAPABILITY. THE MAXIMUM LOOSE DEPTH FOR ANY MATERIAL SHALL NOT EXCEED TWELVE INCHES (12"). FOR TESTING REQUIREMENTS OF FILL MATERIAL, SEE DENSITY TESTING.

7. ROCK

WHEN FILL MATERIAL INCLUDES ROCK, THE MAXIMUM ROCK SIZE SHALL BE AS APPROVED BY THE GEOTECHNICAL ENGINEER. NO LARGE ROCKS SHALL BE ALLOWED TO NEST AND ALL VOIDS MUST BE FILLED WITH SMALL STONES OR SOIL AND ADEQUATELY COMPACTED. NO LARGE ROCKS WILL BE PERMITTED WITHIN EIGHTEEN INCHES (18") OF THE FINISHED GRADE.

8. COMPACTION OF FILL LAYER

COMPACTION EQUIPMENT SHALL BE CAPABLE OF COMPACTING THE FILL TO THE SPECIFIED DENSITY. COMPACTION SHALL BE ACCOMPLISHED WHILE THE FILL MATERIAL IS AT OR NEAR THE APPROPRIATE MOISTURE CONTENT. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER THE ENTIRE STRUCTURAL AREA (BENEATH PROPOSED STRUCTURES).

9. COMPACTION OF SLOPES

THE FACES OF FILL SLOPES SHALL BE COMPACTED. COMPACTING OPERATIONS SHALL BE CONTINUED UNTIL THE SLOPE FACES ARE STABLE BUT NOT TOO DENSE FOR PLANTING ON THE SLOPES. COMPACTION OF THE SLOPE FACES MAY BE DONE PROGRESSIVELY IN INCREMENTS OF THREE TO FIVE FEET (3' TO 5') IN FILL HEIGHT AS THIS FILL PROGRESSES OR AFTER THE FILL HAS BEEN BROUGHT TO ITS TOTAL HEIGHT.

10. MOISTURE CONTENT

THE FILL MATERIAL SHALL BE COMPACTED AT THE APPROPRIATE MOISTURE CONTENT SPECIFIED FOR THE SOILS BEING USED. APPROPRIATE MOISTURE CONTENT IS DEFINED, TYPICALLY, AS OPTIMUM MOISTURE CONTENT; HOWEVER, FOR EXPANSIVE SOILS IT MAY BE GREATER THAN OPTIMUM MOISTURE CONTENT, AND OTHER MOISTURE CONTENTS MAY BE NECESSARY TO PRODUCE THE DESIRED RESULTS WITH CERTAIN SOILS.

11. DENSITY TESTS

FIELD DENSITY TESTS SHALL BE PERFORMED ON LAYERS OF FILL WHEN THE FILL IS BEING PLACED AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE MAXIMUM FILL HEIGHT BETWEEN DENSITY TESTING SHALL BE TWELVE INCHES (12") AND AS SPECIFIED BY GEOTECHNICAL ENGINEER. ALL TESTING SHALL BE REQUESTED BY THE CONTRACTOR TO MEET THE CONTRACTOR'S CONSTRUCTION SCHEDULE. NOTIFICATION BY THE CONTRACTOR FOR GEOTECHNICAL ENGINEER TO CONDUCT TESTS SHALL BE AT LEAST THE DAY BEFORE. THIS NOTIFICATION SHALL INCLUDE THE FILL AREA LOCATION (LOT AND BLOCK), THE LIFT OR HEIGHT OF FILL AND APPROXIMATE DESIRED TIME OF TESTING. WHEN THESE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE REQUIRED DENSITY, THE PARTICULAR LAYER OR PORTION SHALL BE REWORKED AND RETESTED AT THE EXPENSE OF THE CONTRACTOR UNLESS THE CONTRACTOR CAN SHOW EVIDENCE THAT CIRCUMSTANCES BEYOND HIS CONTROL REQUIRED THE RETESTING. GENERALLY, THE SPECIFIC TESTING WILL BE AS FOLLOWS AND CONDUCTED BY GEOTECHNICAL ENGINEER.

1. THE LAND TO BE FILLED (PREPARED SUBGRADE) SHALL BE PREPARED AND TESTED AT A FREQUENCY AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
2. THE FIRST LIFT OF COMPACTED FILL (GENERALLY 8 TO 12--IN.) SHALL BE TESTED AS DETERMINED BY THE GEOTECHNICAL ENGINEER. ANY AREAS SUPPORTING THE PROPOSED STRUCTURES REQUIRING FILL SHALL BE TESTED FOR DENSITY COMPLIANCE.
3. FILLS SHALL BE TESTED A MAXIMUM OF EACH TWELVE INCHES (12") AND AS SPECIFIED BY GEOTECHNICAL ENGINEER, OF FILL.
4. TEST RESULTS WILL BE PROVIDED BY THE FIELD TECHNICIAN TO THE CONTRACTOR WHEN POSSIBLE; HOWEVER, ALL TEST RESULTS ARE TO BE REVIEWED BY THE GEOTECHNICAL ENGINEER FOR COMPLIANCE. THE ENGINEER WILL NOTIFY THE CONTRACTOR OF ALL TEST RESULTS.

12. CUT/FILL LOTS

AREAS INVOLVING CUT ON ONE PORTION AND FILL ON ANOTHER PORTION OF A SPECIFIC LOT SHALL BE PREPARED TO A MINIMUM DEPTH OF 6--IN. AND WILL BE THE SAME MATERIAL CLASSIFICATION AT THE SAME COMPACTION AND MOISTURE CONTENT. A MINIMUM OF TWO (2) FIELD DENSITY TESTS SHALL BE REQUIRED ON EACH CUT/FILL LOT FOR THE PURPOSE OF DETERMINING UNIFORMITY OF THE AREA SUPPORTING THE PROPOSED STRUCTURES.

NOTES:

MINIMUM SLAB EXPOSURE IS 1.0'.

ALL ELEVATIONS AT FRONT PROPERTY LINE ARE 0.18' ABOVE CURB ELEVATION.

CONTRACTOR TO VERIFY 1.5% MINIMUM SLOPE ON LOTS AND REGRADE TO MEET MINIMUM PROPOSED ELEVATIONS IF NECESSARY.

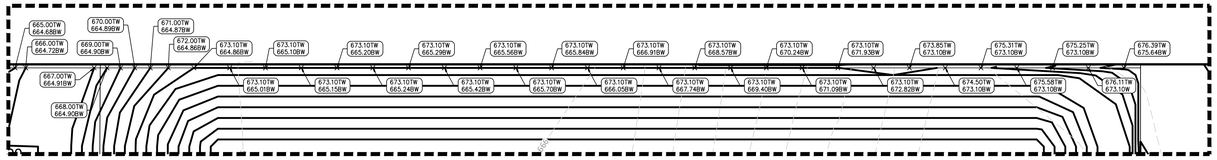
CONTRACTOR TO CLEAR ALL RIGHT OF WAY, EASEMENTS AND PRESERVE ANY TREE 10" AND LARGER OUTSIDE OF THESE AREAS.

SCALE: 1"=50'

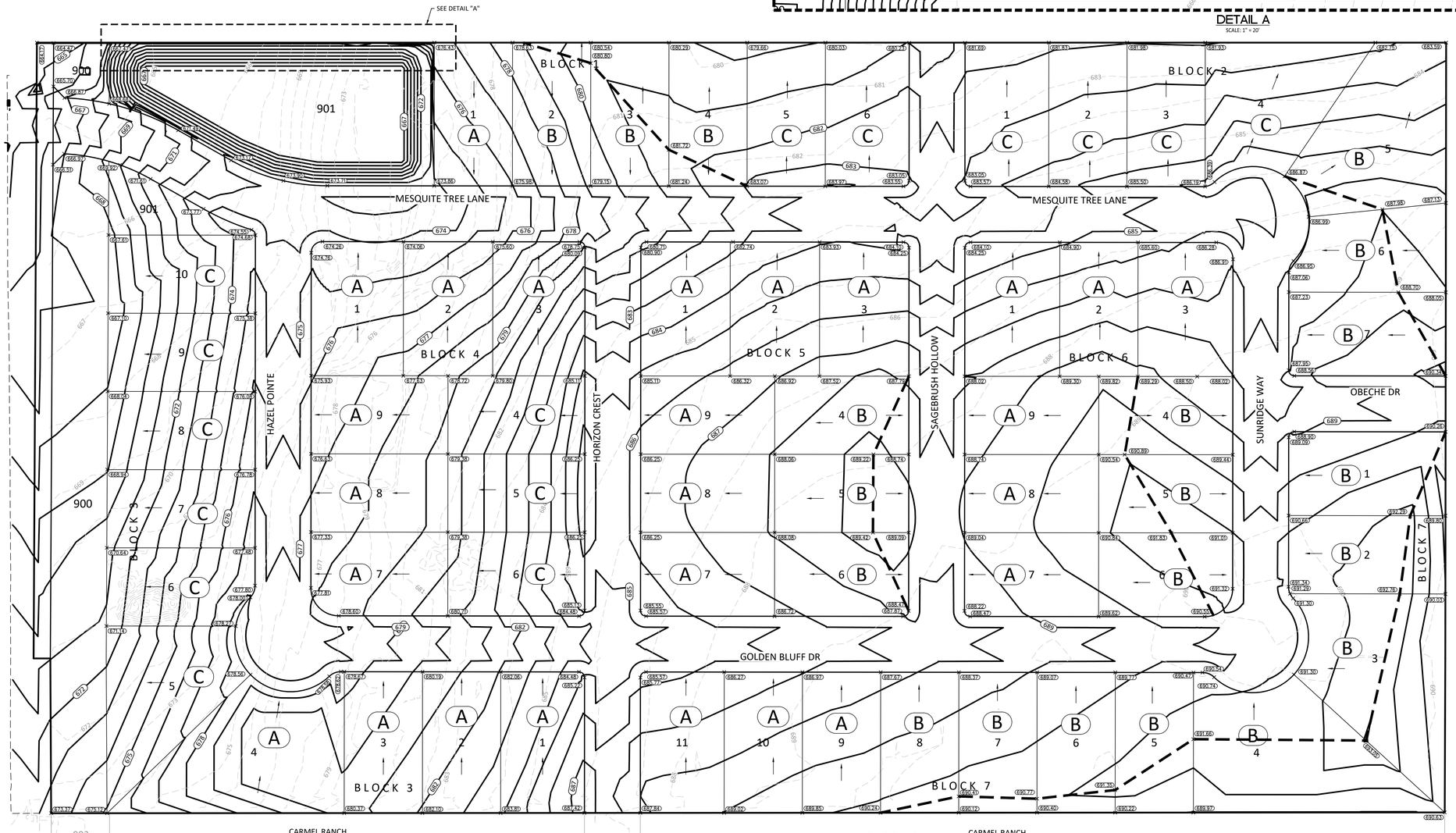
0 50 100

LEGEND

- A = DRAINAGE TO FRONT OF LOT
- B = DRAINAGE TO BOTH FRONT AND REAR LOT
- C = DRAINAGE TO REAR OF LOT
- = CLEARING AND/OR GRADING OF UTILITY EASEMENTS
- × 1024.00 = PROPOSED ELEVATION
- ⊠ 1024.00E = EXISTING ELEVATION
- 1024 = EXISTING CONTOUR
- 1024 = PROPOSED CONTOUR
- = PROPERTY LINE
- = FLOW DIRECTION



DETAIL A
SCALE: 1" = 20'



NO.	DATE	DESCRIPTION	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:	BY:
		REVISIONS						

MTR
• Engineers
• Surveyors
• Planners
Moy Torin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-529 / SURVEYING: F-10131500
5726 UNIVERSAL CROSS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5065

PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS

TRAILS AT LOWER SEGUIN

GRADING PLAN

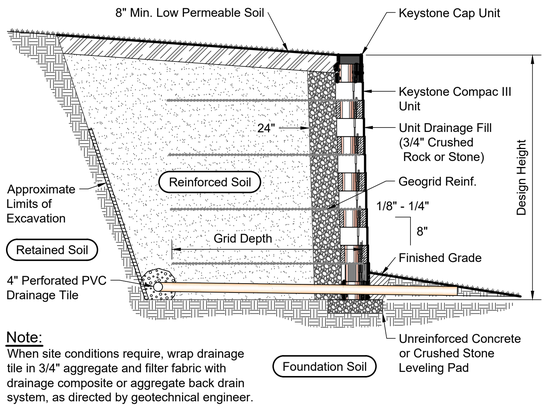
SUBMITTAL SET

SHEET
C5.0

Plot Date: May 20, 2026 User ID: Dallas Gorlew
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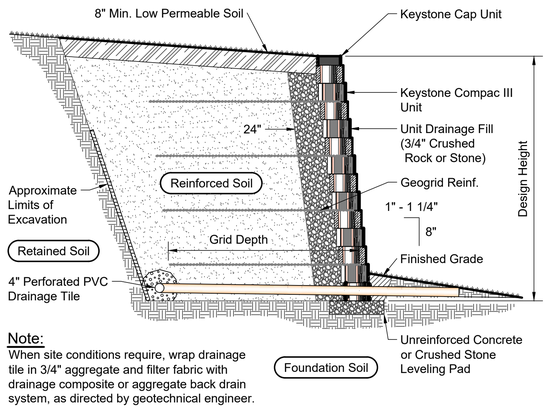
PLAT NO.

NOTE:
MODULAR RETAINING WALL DETAILS SHOWN ON THIS DRAWING ARE FOR REFERENCE PURPOSES ONLY. MODULAR BLOCK MANUFACTURER WILL BE REQUIRED TO SUBMIT SHOP DRAWINGS AND ENGINEERED PLAN.



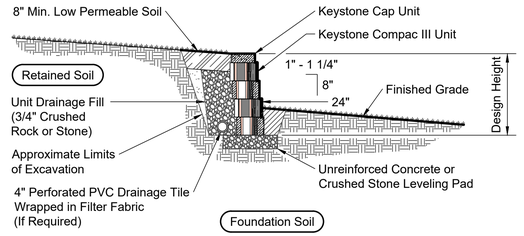
Note:
When site conditions require, wrap drainage tile in 3/4" aggregate and filter fabric with drainage composite or aggregate back drain system, as directed by geotechnical engineer.

Typical Reinforced Wall Section
Compac III Unit - Near Vertical Setback



Note:
When site conditions require, wrap drainage tile in 3/4" aggregate and filter fabric with drainage composite or aggregate back drain system, as directed by geotechnical engineer.

Typical Reinforced Wall Section
Compac III Unit - 1" Setback



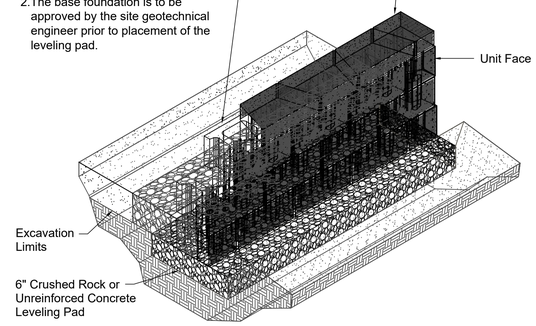
Typical Gravity Wall Section
Compac III Unit - 1" Setback

Base Leveling Pad Notes:

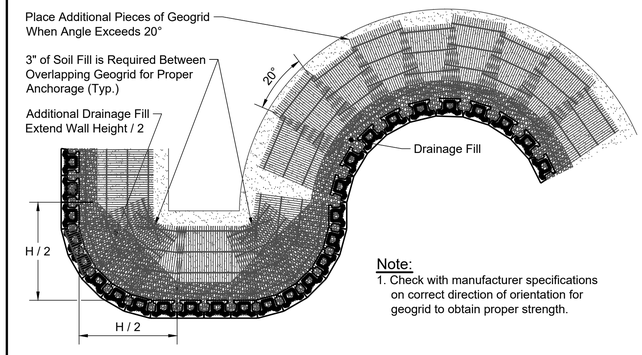
1. The leveling pad is to be constructed of crushed stone or 2,000 psi± unreinforced concrete
2. The base foundation is to be approved by the site geotechnical engineer prior to placement of the leveling pad.

Compac III Unit	
Width:	18"
*Depth:	12"
Height:	8"
*Weight:	75 lbs

Universal Cap Unit	
Width:	18"/12"
*Depth:	10 1/2"
Height:	4"
*Weight:	49 lbs

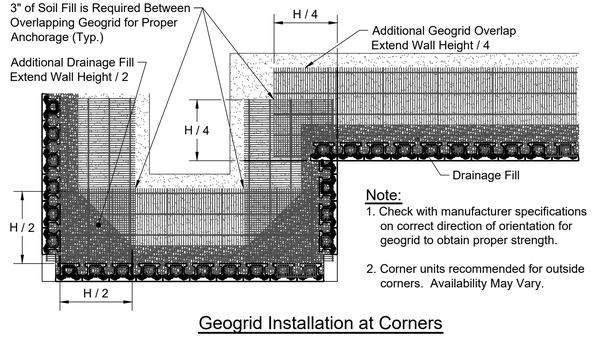


Compac III Unit/Base Pad Isometric Section View
* Dimensions & Weight May Vary by Region



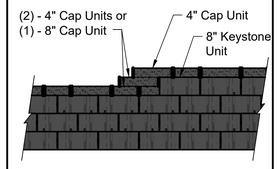
Note:
1. Check with manufacturer specifications on correct direction of orientation for geogrid to obtain proper strength.

Geogrid Installation on Curves



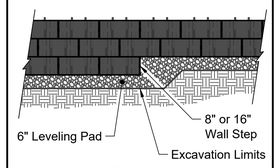
Note:
1. Check with manufacturer specifications on correct direction of orientation for geogrid to obtain proper strength.
2. Corner units recommended for outside corners. Availability May Vary.

Geogrid Installation at Corners



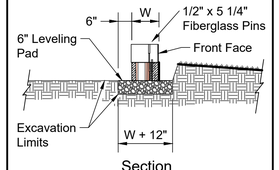
Note:
1. Secure all cap units with Keystone Kapseal or equal.

Top of Wall Steps

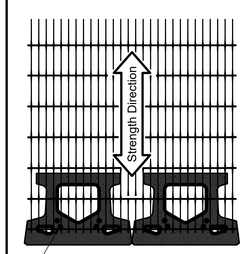


Elevation

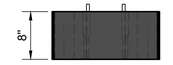
Note:
1. The leveling pad is to be constructed of crushed stone or 2000 psi ± unreinforced concrete.



Section
Leveling Pad Detail

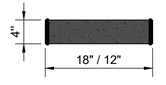


Grid & Pin Connection

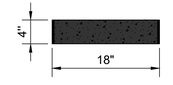


Compac III Elevation

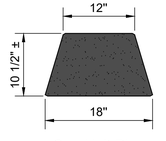
Compac III Plan
Compac III Unit
* Dimensions May Vary by Region



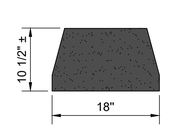
Cap Unit Elevation



Cap Unit Elevation

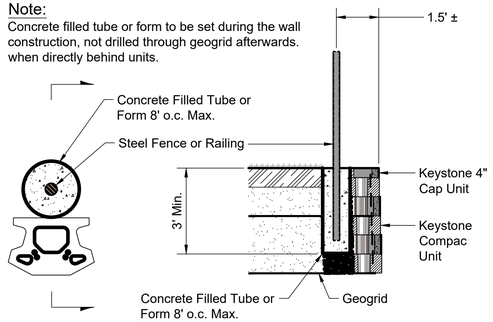


Cap Unit Plan
Universal Cap Unit Option
* Dimensions & Availability Will Vary by Region



Cap Unit Plan
Straight Split Cap Unit Option
* Dimensions & Availability Will Vary by Region

Note:
Concrete filled tube or form to be set during the wall construction, not drilled through geogrid afterwards. when directly behind units.



Fence Plan Detail
Fence Section & Plan Detail
CompacII Unit - Near Vertical Setback

NO.	DATE	DESCRIPTION	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

REVISIONS

MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

5/19/26
STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

TRAILS AT LOWER SEGUIN

RETAINING WALL DETAILS

SHEET
C5.1

SUBMITTAL SET

Plot Date: May 20, 2026 User ID: Dalma Gordea
R:\Land Projects\Trails at Lower Seguin\Drawings\Civil\C5.1 Grading Plan.dwg

GENERAL NOTES:

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 STRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE USING APPROVED METHODS.

MAINTENANCE - THE ENTRANCE/EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. THIS MAY REQUIRE PERIODIC 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.

DRAINAGE - ENTRANCE/EXIT MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

ALL CITY PUBLIC SERVICE WORK IS INCLUDED AS PART OF THE CONSTRUCTION OF THE SUBDIVISION AND HAS BEEN CONSIDERED IN THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP).

CONTRACTOR TO INSTALL AND MAINTAIN THE EROSION AND SEDIMENTATION CONTROLS AS DESIGNED AND SHALL INSPECT THE CONTROLS BI-WEEKLY (14 DAYS) AND AFTER EVERY SIGNIFICANT RAINFALL (0.5 INCHES OR GREATER) TO ENSURE SIGNIFICANT DISTURBANCE HAS NOT OCCURRED. SEDIMENT DEPOSITED AFTER A SIGNIFICANT RAINFALL SHALL BE REMOVED AND PLACED IN A DESIGNATED SOIL DISPOSAL AREA. CONTRACTOR TO ENGAGE A THIRD PARTY FIRM TO PROVIDE A DETAILED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) WHICH INCLUDES INSPECTION AND REPORTING PROCEDURES.

CONTRACTOR WILL INSPECT BMP'S AT LEAST TWICE A WEEK (EVERY 14 DAYS) AS WELL AS AFTER EVERY HALF INCH OR MORE OF RAINFALL. CONTROLS WILL BE REPAIRED, REPLACED, AND/OR REVISED AS NECESSARY.

CONTRACTOR TO PLACE TRENCH EXCAVATION MATERIAL ON THE UPGRADIENT (HIGH) SIDE OF THE TRENCH.

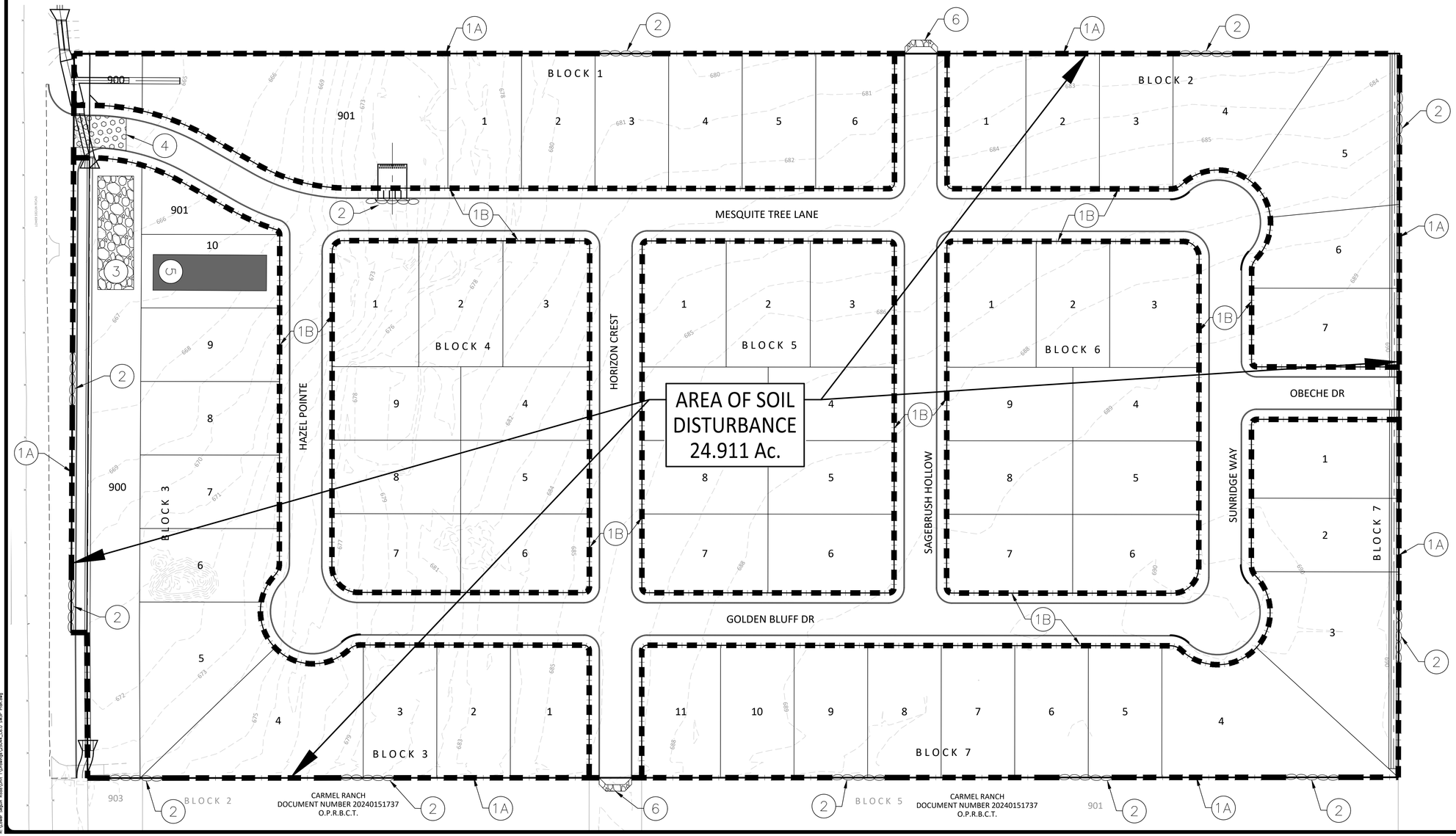
ALL SOIL, SAND, GRAVEL, AND EXCAVATED MATERIALS STOCKPILED ON-SITE WILL HAVE APPROPRIATELY SIZED SILT FENCE PLACED UPGRADIENT AND DOWN GRADIENT.

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY
1	STABILIZED CONSTRUCTION ENT./EXIT	L.S.	**1**
2	SILT FENCE (SITE WORK PHASE)	L.F.	**3,261**
3	SILT FENCE (POST SITE WORK PHASE)	L.F.	**7,210**
4	SILT FENCE (HOMEBUILDER PHASE)	L.F.	**8,935**
5	ROCK BERM – TYPE II	L.F.	**100**
6	BAGGED GRAVEL INLET FILTER AND/OR APPROPRIATE SUBSTITUTE	L.F.	**600**
7	CONSTRUCTION STAGING AREA	L.S.	**1**
8	CONCRETE WASHOUT PIT	L.S.	**1**

LEGEND

- EXISTING CONTOUR — 100 —
- PROPOSED CONTOUR — 100 —
- SILT FENCE (SITE WORK PHASE) (1A)
- SILT FENCE (POST SITE WORK PHASE) (1B)
- SILT FENCE (HOMEBUILDER PHASE) (1C)
- BAGGED GRAVEL INLET FILTER (2)
- CONSTRUCTION STAGING AREA (3)
- STABILIZED CONSTRUCTION ENTRANCE/EXIT (4)
- CONCRETE WASHOUT PIT (5)
- ROCK BERM (6)



SCALE: 1"=50'
0 50 100

REVISIONS							
NO.	DATE	DESCRIPTION	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

• Engineers
• Surveyors
• Planners

MTR

Moy Tarin Ramirez Engineers, LLC

TBPELS: ENGINEERING F-5297 /SURVEYING: F--10131500
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STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

TRAILS AT LOWER SEGUIN

OVERALL STORM WATER POLLUTION PREVENTION PLAN SITE WORK CONSTRUCTION PHASE

SHEET
C6.0

SUBMITTAL SET

Plot Date: May 20, 2026 User ID: Dolina Gordea
S:\User Input Required \Drawings\Civil\Lot_Grad_SWPP Plan.dwg

GENERAL NOTES:

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CONTRACTOR WILL INSPECT BMP'S AT LEAST TWICE A WEEK (EVERY 14 DAYS) AS WELL AS AFTER EVERY HALF INCH OR MORE OF RAINFALL. CONTROLS WILL BE REPAIRED, REPLACED, AND/OR REVISED AS NECESSARY.

CONTRACTOR TO PLACE TRENCH EXCAVATION MATERIAL ON THE UPGRADIENT (HIGH) SIDE OF THE TRENCH.

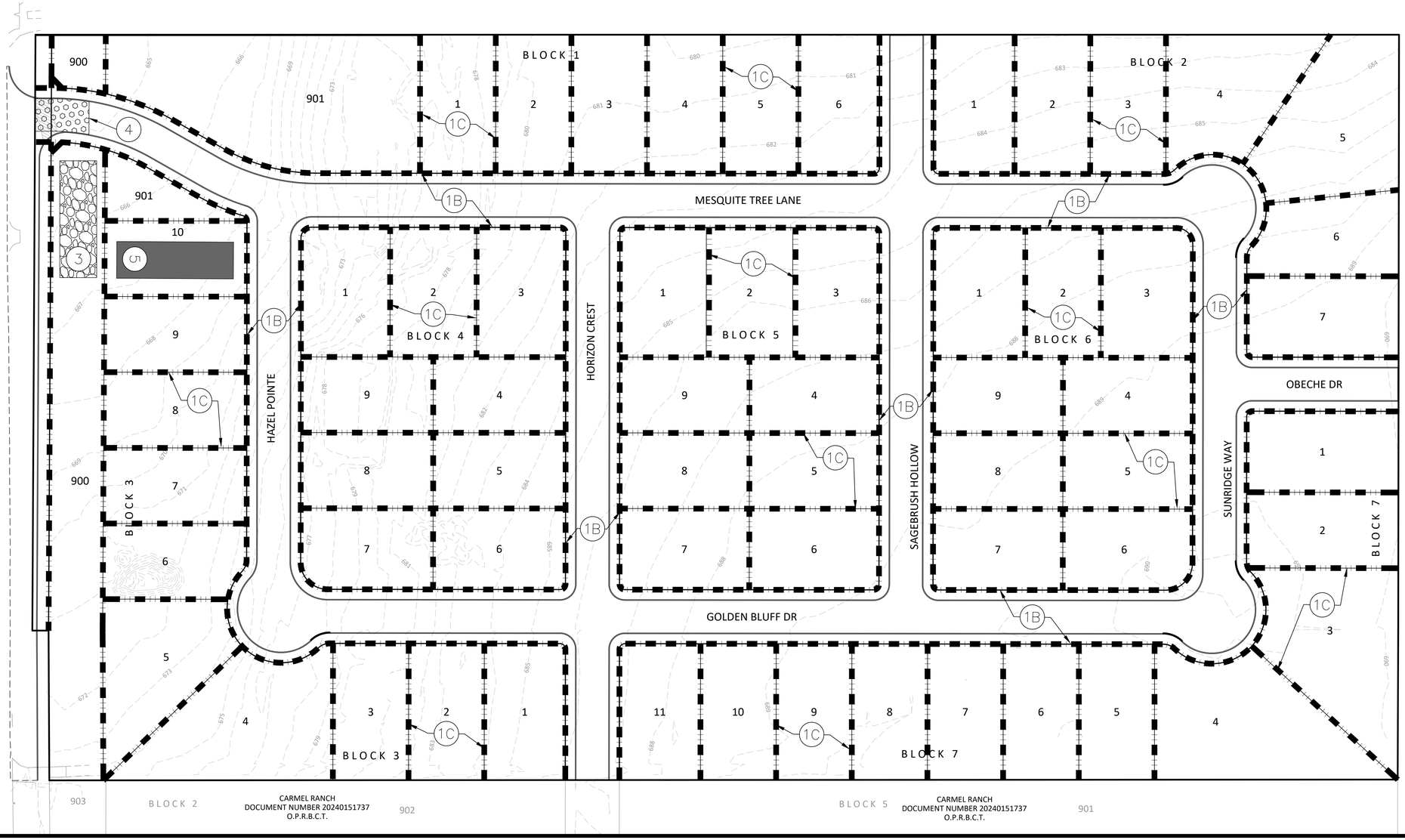
ALL SOIL, SAND, GRAVEL, AND EXCAVATED MATERIALS STOCKPILED ON-SITE WILL HAVE APPROPRIATELY SIZED SILT FENCE PLACED UPGRADIENT AND DOWN GRADIENT.

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY
1	STABILIZED CONSTRUCTION ENT./EXIT	L.S.	**1**
2	SILT FENCE (SITE WORK PHASE)	L.F.	**3,261**
3	SILT FENCE (POST SITE WORK PHASE)	L.F.	**7,210**
4	SILT FENCE (HOMEBUILDER PHASE)	L.F.	**8,935**
5	ROCK BERM – TYPE II	L.F.	**100**
6	BAGGED GRAVEL INLET FILTER AND/OR APPROPRIATE SUBSTITUTE	L.F.	**600**
7	CONSTRUCTION STAGING AREA	L.S.	**1**
8	CONCRETE WASHOUT PIT	L.S.	**1**

LEGEND

- EXISTING CONTOUR — 100 —
- PROPOSED CONTOUR — 100 —
- SILT FENCE (SITE WORK PHASE) (1A)
- SILT FENCE (POST SITE WORK PHASE) (1B)
- SILT FENCE (HOMEBUILDER PHASE) (1C)
- BAGGED GRAVEL INLET FILTER (2)
- CONSTRUCTION STAGING AREA (3)
- STABILIZED CONSTRUCTION ENTRANCE/EXIT (4)
- CONCRETE WASHOUT PIT (5)
- ROCK BERM (6)



SCALE: 1"=50'
0 50 100

REVISIONS						
NO.	DATE	DESCRIPTION	PROJ. #	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:	BY:

• Engineers
• Surveyors
• Planners

MTR

Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
5/14/26

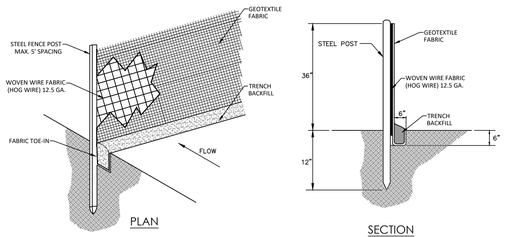
TRAILS AT LOWER SEGUIN

OVERALL STORM WATER POLLUTION PREVENTION PLAN HOMEBUILDER CONSTRUCTION PHASE

SHEET
C6.1

SUBMITTAL SET

Plot Date: May 20, 2026 User ID: Dalia Gordea
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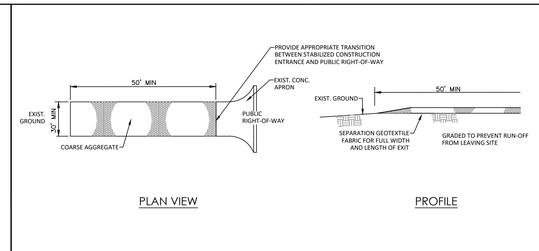


PLAN SECTION

SILT FENCE NOTES

1. SILT FENCE MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE WOVEN OR NONWOVEN FABRIC. THE FABRIC WIDTH SHOULD BE 36 INCHES, WITH A MINIMUM UNIT WEIGHT OF 4.5 OZ/YD, MULLEN BURST STRENGTH EXCEEDING 190 LB/IN 2 , ULTRAVIOLET STABILITY EXCEEDING 70%, AND MINIMUM APPARENT OPENING SIZE OF U.S. SIEVE NO. 30.
2. FENCE POSTS SHOULD BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FEET LONG WITH TEE OR Y-BAR CROSS SECTION, SURFACE PAINTED OR GALVANIZED, MINIMUM NOMINAL WEIGHT 1.25 LB/FT 2 , AND BRINDELL HARDNESS EXCEEDING 140.
3. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2" X 4" WELDED WIRE, 12.5 GAUGE MINIMUM.
4. STEEL POSTS, WHICH SUPPORT THE SILT FENCE, SHOULD BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 1 FOOT DEEP AND SPACED NOT MORE THAN 5 FEET ON CENTER.
5. LAY OUT FENCING DOWN-SLOPE OF DISTURBED AREA, FOLLOWING THE CONTOUR AS CLOSELY AS POSSIBLE. THE FENCE SHOULD BE SITED SO THAT THE MAXIMUM DRAINAGE AREA IS ¼ ACRE/100 FEET OF FENCE.
6. THE TOE OF THE SILT FENCE SHOULD BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN-SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G., PAVEMENT OR ROCK OUTCROP), WEIGHT FABRIC FLAP WITH 3 INCHES OF PEA GRAVEL ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.
7. 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.
8. 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 SHOULD BE A 3-FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
9. SILT FENCE SHOULD BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
10. REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES, OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE OLD FENCE.
11. REPLACE ANY TORN FABRIC OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE TORN SECTION.
12. REPLACE OR REPAIR ANY SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY. IF A SECTION OF FENCE IS OBSTRUCTING VEHICULAR ACCESS, CONSIDER RELOCATING IT TO A SPOT WHERE IT WILL PROVIDE EQUAL PROTECTION, BUT WILL NOT OBSTRUCT VEHICLES. A TRIANGULAR FILTER DIKE MAY BE PREFERABLE TO A SILT FENCE AT COMMON VEHICLE ACCESS POINTS.

1 **SILT FENCE DETAIL**
SCALE: NONE

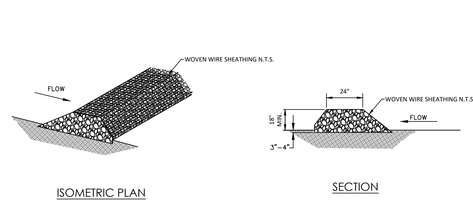


PLAN VIEW PROFILE

TEMPORARY CONSTRUCTION ENTRANCE/EXIT NOTES

1. THE AGGREGATE SHOULD CONSIST OF 4 TO 8 INCH WASHED STONE OVER A STABLE FOUNDATION.
2. THE AGGREGATE SHOULD BE PLACED WITH A MINIMUM THICKNESS OF 8 INCHES.
3. THE GEOTEXTILE FABRIC SHOULD BE DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6 OZ/YD 2 , A MULLEN BURST RATING OF 140 LB/IN 2 , AND AN EQUIVALENT OPENING SIZE GREATER THAN A NUMBER 50 SIEVE.
4. AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.
5. THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12 FEET OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.
6. THE CONSTRUCTION ENTRANCE SHOULD BE AT LEAST 50 FEET LONG.
7. PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.
8. PLACE STONE TO DIMENSIONS AND GRADE SHOWN. LEAVE SURFACE SMOOTH AND SLOPE FOR DRAINAGE.
9. THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
10. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHTS-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.
11. WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
12. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
13. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE.

2 **STABILIZED CONSTRUCTION ENTRANCE / EXIT**
SCALE: NONE

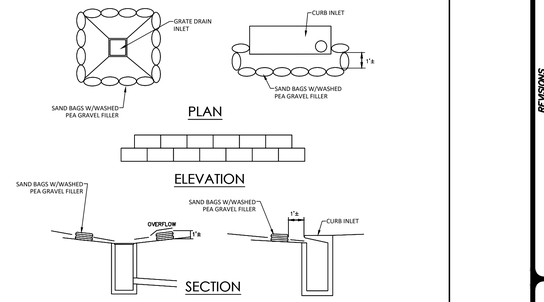


ISOMETRIC PLAN SECTION

ROCK BERM NOTES

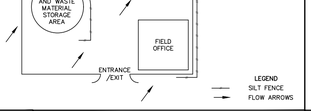
1. THE BERM STRUCTURE SHOULD BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE DIAMETER OF 20 GAUGE GALVANIZED AND SHOULD BE SECURED WITH SHOAT RINGS.
2. CLEAN, OPEN GRADED 3-TO 5-INCH DIAMETER ROCK SHOULD BE USED, EXCEPT IN AREAS WHERE HIGH VELOCITIES OR LARGE VOLUMES OF FLOW ARE EXPECTED, WHERE 5-TO 8-INCH DIAMETER ROCKS MAY BE USED.
3. LAY OUT THE WOVEN WIRE SHEATHING PERPENDICULAR TO THE FLOW LINE.
4. BERM SHOULD HAVE A TOP WIDTH OF 2 FEET MINIMUM WITH SIDE SLOPES BEING 2:1 (H:V) OR FLATTER.
5. PLACE THE ROCK ALONG THE SHEATHING TO A HEIGHT NOT LESS THAN 18".
6. WRAP THE WIRE SHEATHING AROUND THE ROCK AND SECURE WITH TIE WIRE SO THAT THE ENDS OF THE SHEATHING OVERLAP AT LEAST 2 INCHES, AND THE BERM RETAINS ITS SHAPE WHEN WALKED UPON.
7. BERM SHOULD BE BUILT ALONG THE CONTOUR AT ZERO PERCENT GRADE OR AS NEAR AS POSSIBLE.
8. THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL.
9. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL BY THE RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE. THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION.
10. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT OF IN AN APPROVED MANNER AND REPAIR ANY LOOSE WIRE SHEATHING.
11. THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
12. THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

3 **ROCK BERM**
SCALE: NONE

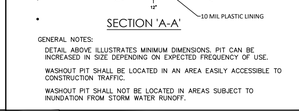


1. THE GRAVEL BAG MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE, POLYAMIDE OR COTTON BURLAP WOVEN FABRIC, MINIMUM UNIT WEIGHT 4 OZ/YD 2 , MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70 PERCENT.
2. THE BAG LENGTH SHOULD BE 24 INCHES, WIDTH SHOULD BE 18 INCHES AND THICKNESS SHOULD BE 6 INCHES.
3. THE GRAVEL BAGS SHOULD BE FILLED WITH ¾" GRAVEL .
4. WHEN A GRAVEL BAG IS FILLED WITH GRAVEL, THE OPEN END OF THE GRAVEL BAG SHOULD BE STAPLED OR TIED WITH NYLON OR POLY CORD.
5. THE GRAVEL BAGS SHOULD BE PLACED AS SHOWN ON THE DETAIL. THE GRAVEL BAGS SHALL BE STACKED TO FORM A CONTINUOUS BARRIER AROUND THE INLETS. THE BAGS SHOULD BE TIGHTLY ABUTTED AGAINST EACH OTHER TO PREVENT RUNOFF FROM FLOWING BETWEEN THE BAGS.
6. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
7. CHECK PLACEMENT OF DEVICE TO PREVENT GAPS BETWEEN DEVICE AND CURB.
8. REMOVE SEDIMENT WHEN BUILDUP REACHES A DEPTH OF 3 INCHES. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
9. STRUCTURES SHOULD BE REMOVED AND THE AREA STABILIZED ONLY AFTER THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

4 **BAGGED GRAVEL INLET FILTER**
SCALE: NONE



5 **CONSTRUCTION STAGING AREA**
SCALE: NONE



SECTION 'A-A'

GENERAL NOTES:

DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.

WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.

WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF.

6 **CONCRETE TRUCK WASHOUT PIT**
SCALE: NONE

REVISIONS						
NO.	DATE	DESCRIPTION	BY:	PROJ. #:	DSN. BY:	DWN. BY:	CHKD. BY:	DATE:

MTR
• Engineers
• Surveyors
• Planners
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 /SURVEYING: F-10131500
5723 UNIVERSITY HEIGHTS BLVD., STE. 103 TEL.: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

STATE OF TEXAS
PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER
5/16/26

TRAILS AT LOWER SEGUIN

STORM WATER POLLUTION PREVENTION PLAN
DETAILS

SHEET
C6.2

SUBMITTAL SET

Plot Date: May 25, 2026 User ID: Dalia Davila
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