

CONSTRUCTION PLANS FOR

LEGACY AT GREEN ENCLAVE, UNIT 1

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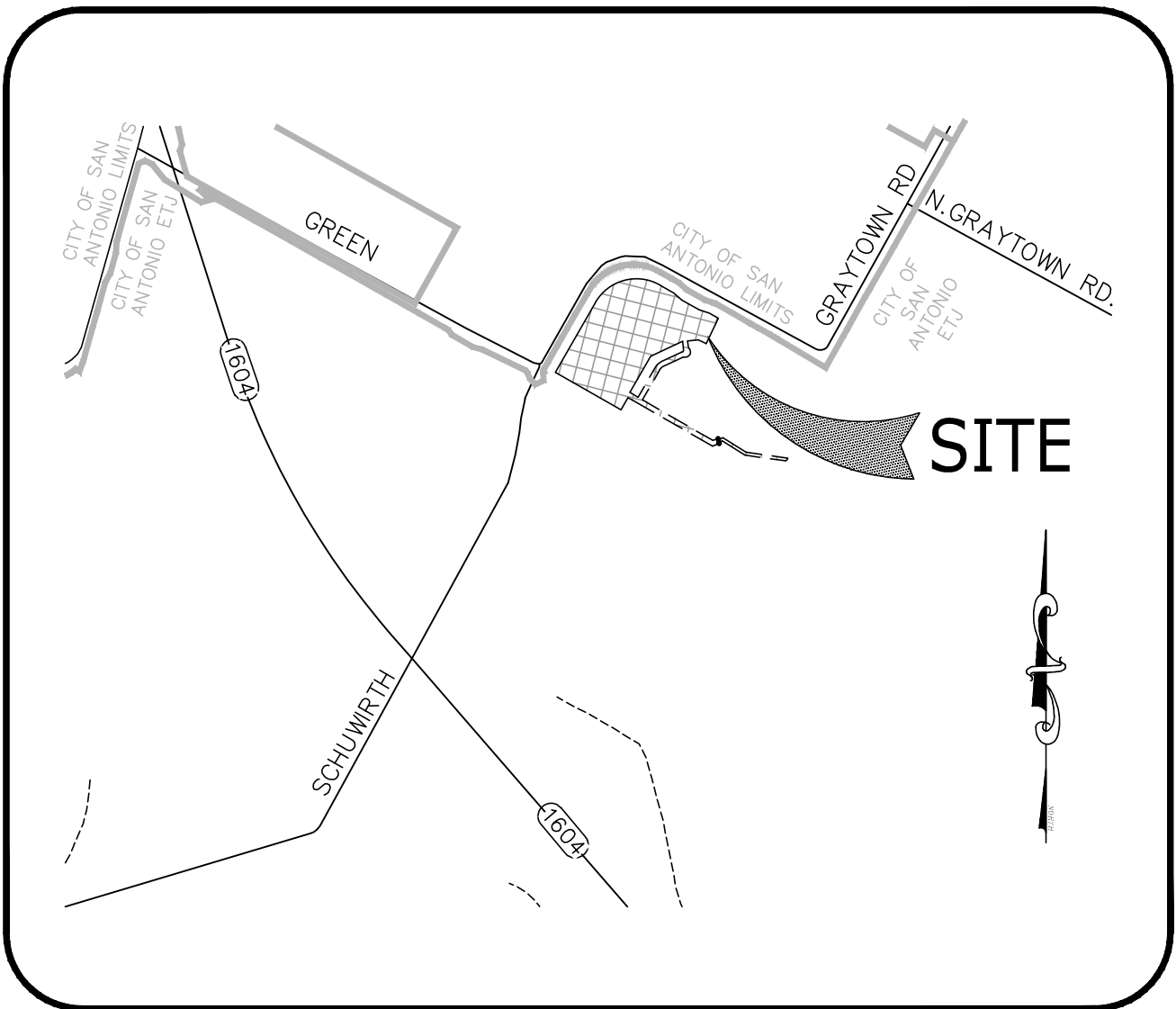
C6.2 SW3P DETAILS

SUBMITTED BY:

MOY TARIN RAMIREZ ENGINEERS, LLC.
12770 CIMARRON PATH, SUITE 100
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

OWNER/DEVELOPER

FOUR BROTHERS CAPITAL, LLC
85 N.E. LOOP 410, SUITE 203
SAN ANTONIO, TX 78216



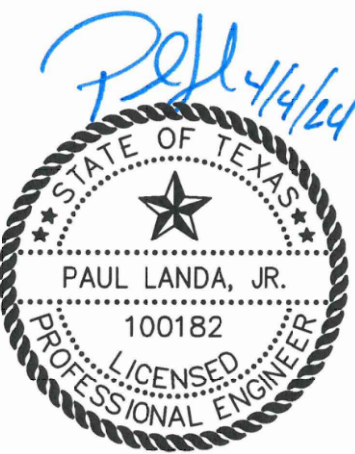
VICINITY MAP

N.T.S.

SUBMITTAL DATE:

LEGAL DESCRIPTION:

BEING A TOTAL OF 26.726 ACRE TRACT OF LAND PARTIALLY SITUATED IN THE ANDREW JF PHELAN SURVEY NO. 45, ABSTRACT NO. 580, COUNTY BLOCK 5107, AND PARTIALLY IN THE PI CO SURVEY NO. 4, ABSTRACT NO. 909, COUNTY BLOCK 5107, BOTH OF BEXAR COUNTY, TEXAS, BEING A PORTION OF A 125.588 ACRE TRACT AS CONVEYED TO HELEN RAKOWITZ BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN VOLUME 1741, PAGE 299, OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS.



• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC

FIRM TBPELS ENG F-5297 SVY F-10131500

12770 CIMARRON PATH, SUITE 100
SAN ANTONIO, TEXAS 78249

TEL: (210) 698-5051
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BEXAR COUNTY

SUBMITTAL SET

TEXAS C0.0

SUBMITTED BY:
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TRENCH EXCAVATION SAFETY PROTECTION
Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the 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

- 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.
- ALL EXCAVATION IS UNCLASSIFIED. THERE IS NO ADDITIONAL PAYMENT FOR ROCK EXCAVATION.
- ALL SPOIL AND UNUSABLE MATERIAL FROM THIS PROJECT SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THE PROJECT.
- CONSTRUCTION STAKING TO BE PROVIDED BY CONSULTANT IS AS FOLLOWS:
 - STREET CENTERLINE STAKING FOR CLEARING.
 - STREET STAKING (ONE SIDE) FOR STREET EXCAVATION AND WATER MAIN INSTALLATION.
 - SEWER STAKING AT 100-FT INTERVALS.
 - STAKING FOR WATER SERVICES.
 - STAKING FOR DRAINAGE CHANNELS.
 - FINAL STREET STAKING.
 - METER BOX STAKING.
 - CPS STAKING.
 - SETTING OF LOT CORNERS.

CPS NOTES:

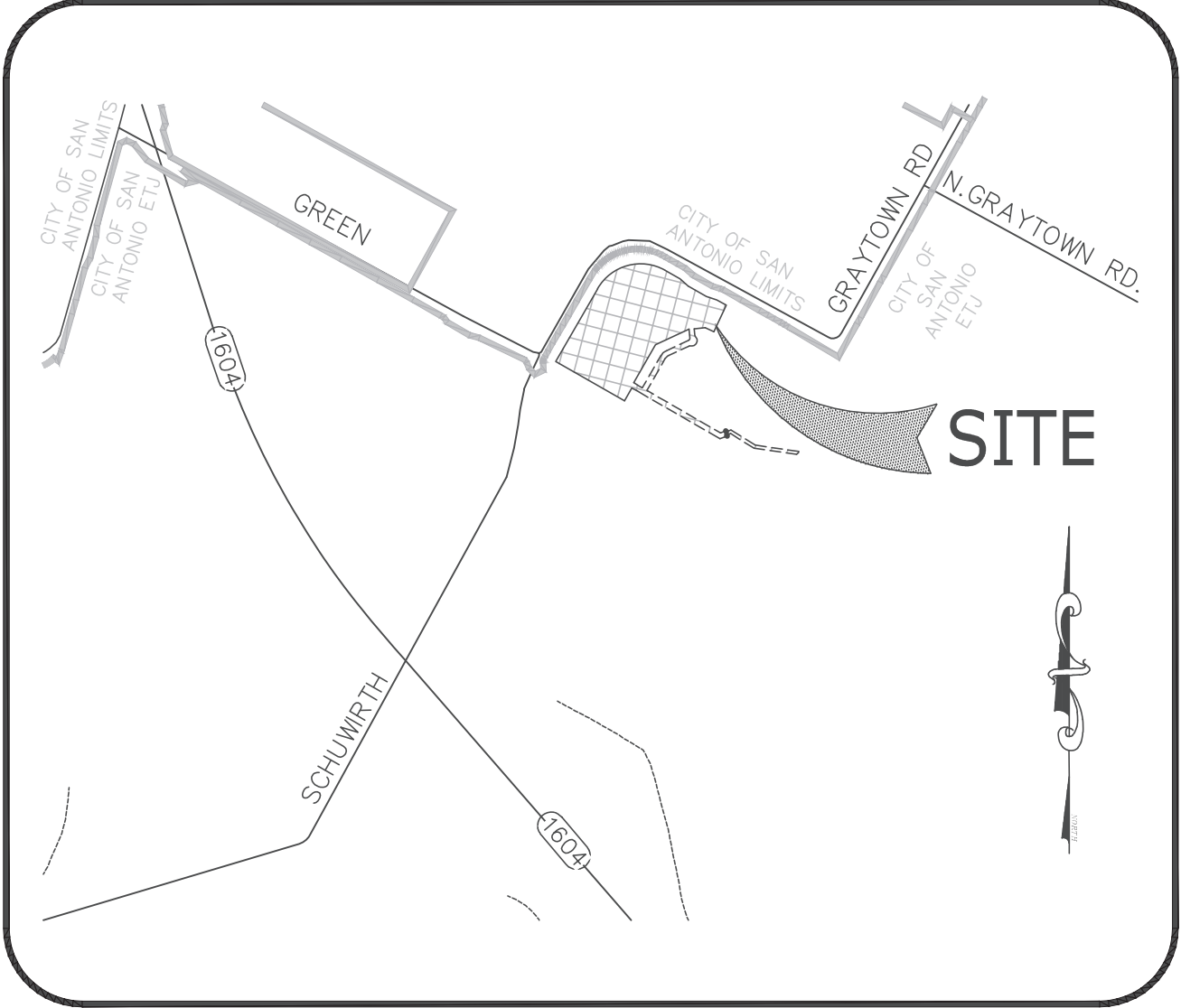
- CPS TO SUPPLY ALL ELECTRIC CONDUITS FOR TRENCH AS FOLLOWS:
PRIMARY - 2 1/2" HDPE SCHEDULE 40
SECONDARY - 3" PVC SCHEDULE 40
SERVICE STUBS - 2 1/2" PVC SCHEDULE 40
- 6" P.V.C. SCHEDULE 80 WILL BE REQUIRED FOR C.P.S. UTILITIES CROSSINGS WHEN DRAIN OR STREET CONSTRUCTION PRECEDES UTILITY INSTALLATION.
- 4" P.V.C. SCHEDULE 40 WILL BE REQUIRED FOR UNDERGROUND TELEPHONE AND CABLE T.V. IF ABOVE APPLIES.
- 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.

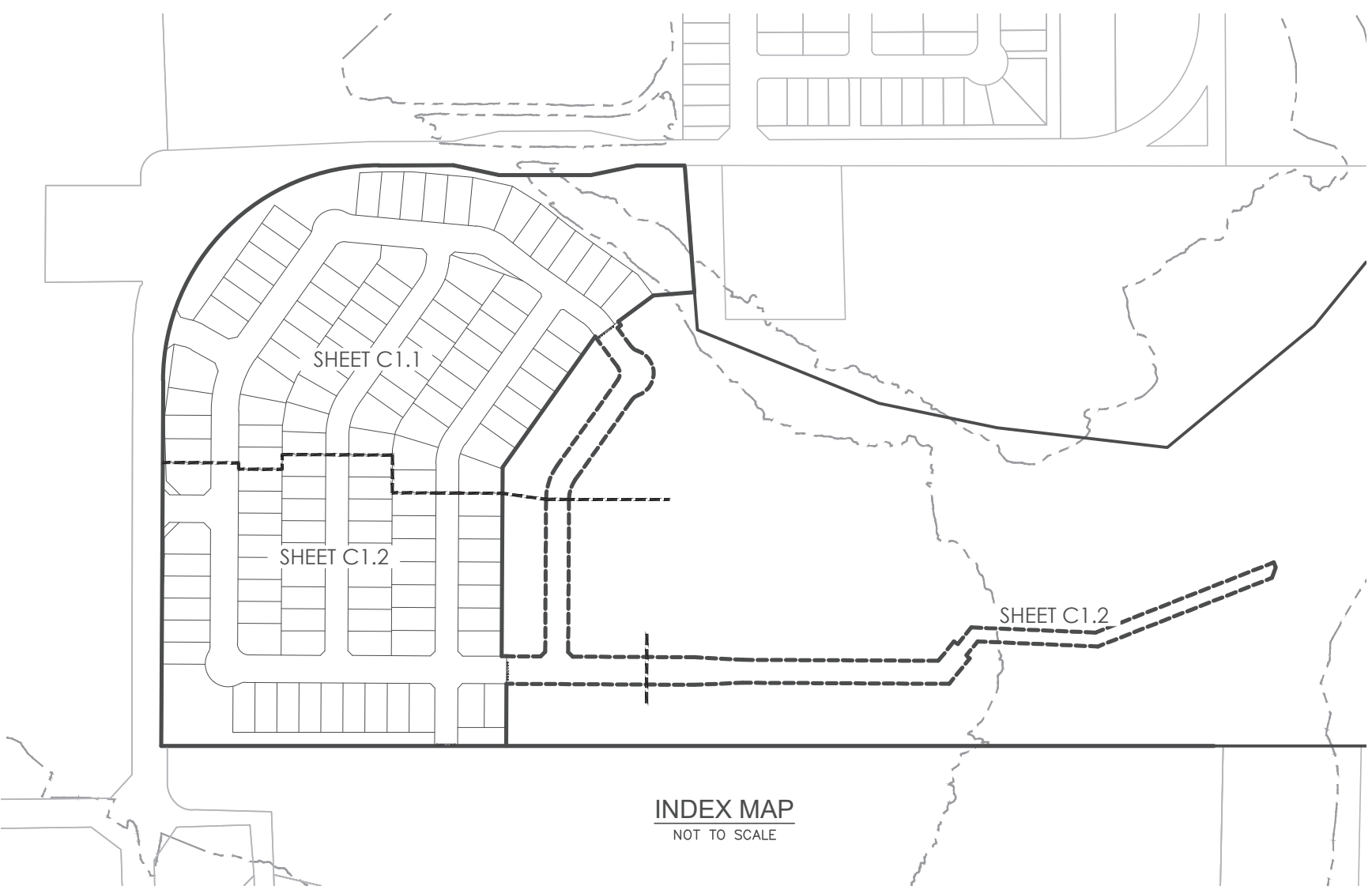
LEGEND

- EXISTING WATER MAIN
PROPOSED WATER MAIN
PROPOSED FIRE HYDRANT
EXISTING FIRE HYDRANT
PROPOSED GATE VALVE
EXISTING GATE VALVE
PROPOSED SANITARY SEWER MAIN
EXISTING SANITARY SEWER MAIN
EXISTING OVERHEAD ELECTRIC
EXISTING UNDERGROUND ELECTRIC
EXISTING UNDERGROUND TELEPHONE
EXISTING STREET LIGHT
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS
PROPOSED STREET LIGHT UG, 100W AND SINGLE ARM
PROPOSED STREET LIGHT UG, 250W AND SINGLE ARM
EXISTING POWER POLE
EXISTING SECONDARY ENCLOSURE
PROPOSED SECONDARY ENCLOSURE
PROPOSED POWER POLE
PROPOSED TRANSFORMER
PROPOSED WATER SERVICE
PROPOSED SERVICE LATERAL WITH ONE-WAY CLEANOUT
EXISTING TRANSFORMER
EXISTING IRRIGATION CONTROL VALVE
EXISTING WATER METER



SHEET INDEX

Sheet No.	Sheet Title
C1.0	UTILITY COVER
C1.1	UTILITY OVERALL
C1.2	UTILITY OVERALL



SUBMITTAL DATE:
SEPTEMBER 2023

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BEING A TOTAL OF 26.726 ACRE TRACT OF LAND PARTIALLY SITUATED IN THE ANDREW JF PHELAN SURVEY NO. 45, ABSTRACT NO. 580, COUNTY BLOCK 5107, AND PARTIALLY IN THE PI CO SURVEY NO. 4, ABSTRACT NO. 909, COUNTY BLOCK 5107, BOTH OF BEXAR COUNTY, TEXAS, BEING A PORTION OF A 125.588 ACRE TRACT AS CONVEYED TO HELEN RAKOWITZ BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN VOLUME 1741, PAGE 299, 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.



Moy Tarin Ramirez Engineers, LLC

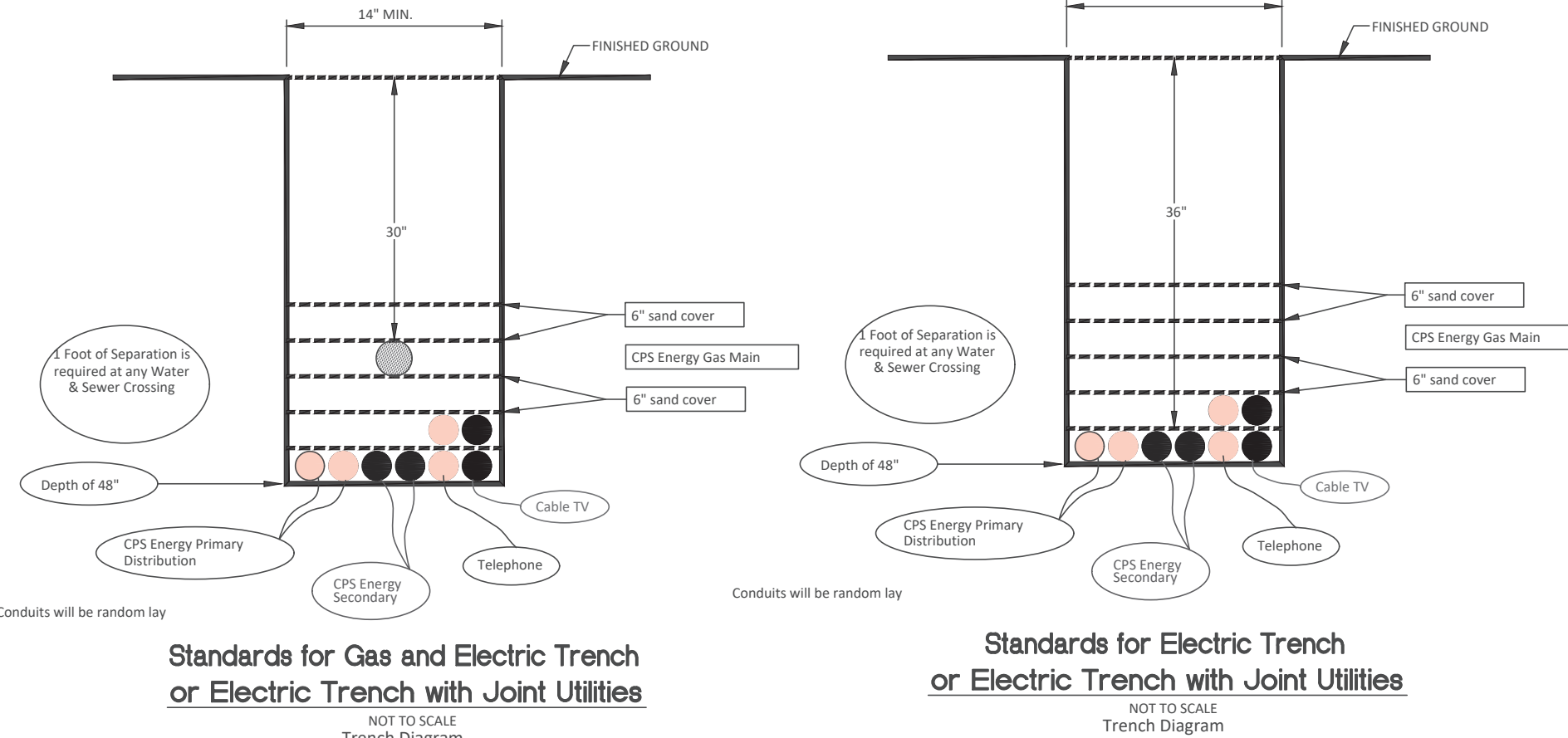
FIRM TBPELS ENG F-5297 SVY F-10131500

12770 CIMARRON PATH, SUITE 100
SAN ANTONIO, TEXAS 78249

- Engineers
- Surveyors
- Planners

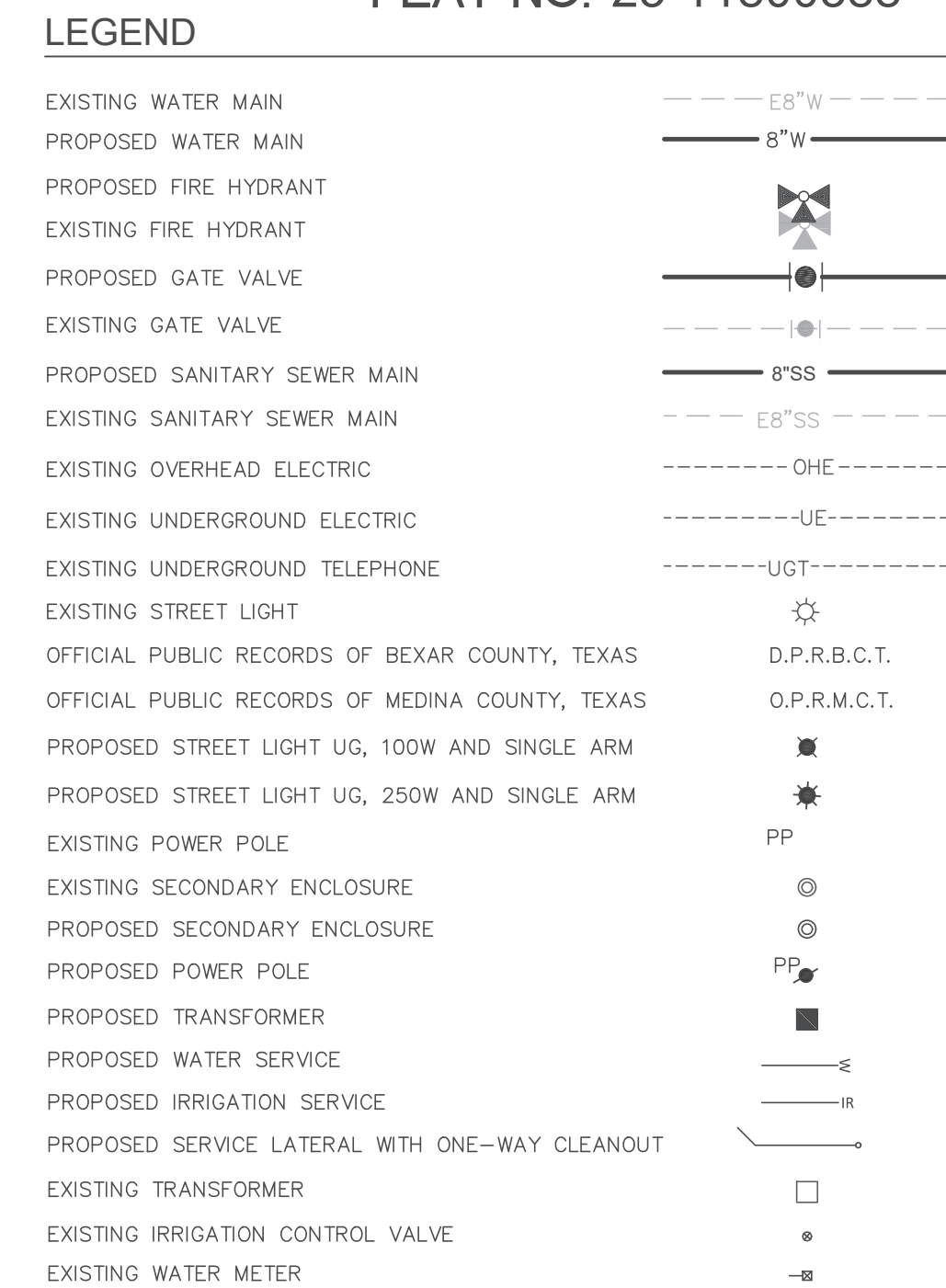
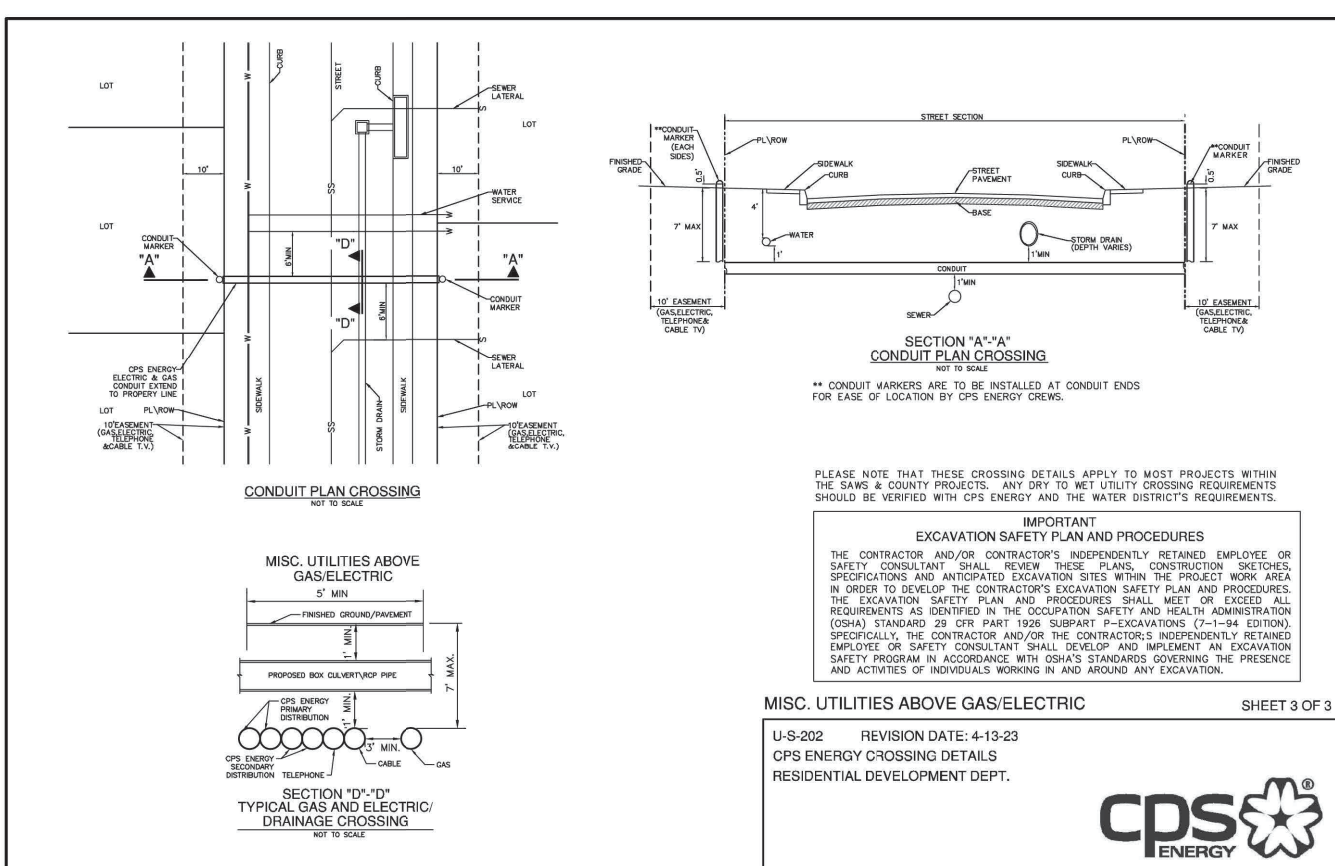
TEL: (210) 698-5051
FAX: (210) 698-5085

BEXAR COUNTY



TRENCH DETAILS

TEXAS C1.0



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 EXISTING UTILITIES AND DRAINAGE STRUCTURES 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 UNSUABLE 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. GPS STAKING.
 - I. SETTING OF LOT CORNERS.

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 9' SWEEPS TO 6" ABOVE GRADE WITH CAP.

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

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. Contractor shall ensure that these safety 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 that complies with OSHA standards. The presence and activities of individuals working in and around trench excavation.

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- I. SETTING OF LOT CORNERS.

PLAT NO. 23-11800388

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

- *Engineers*
- *Surveyors*
- *Planners*

MTR

- Engineers
- Surveyors
- Planners

Moy Tarin Ramirez Engineers, LLC

BBP&LS: ENGINEERING F-5287/SURVEYING: F-101315000
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085



LEGACY AT GREEN ENCLAVE, UNIT 1

OVERALL UTILITY IMPROVEMENTS PLAN

SHEET

C1.1

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.

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- | | |
|---|-----------------|
| 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 IRRIGATION SERVICE | |
| PROPOSED SERVICE LATERAL WITH ONE-WAY CLEANOUT | |
| EXISTING TRANSFORMER | |
| EXISTING IRRIGATION CONTROL VALVE | |
| EXISTING WATER METER | |

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

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 trench excavation safety protection. Contractor shall implement the trench excavation safety protection 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 excavation safety program in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

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 - H. GPS STAKING.
 - I. SETTING OF LOT CORNERS.

SUBMITTAL SE

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

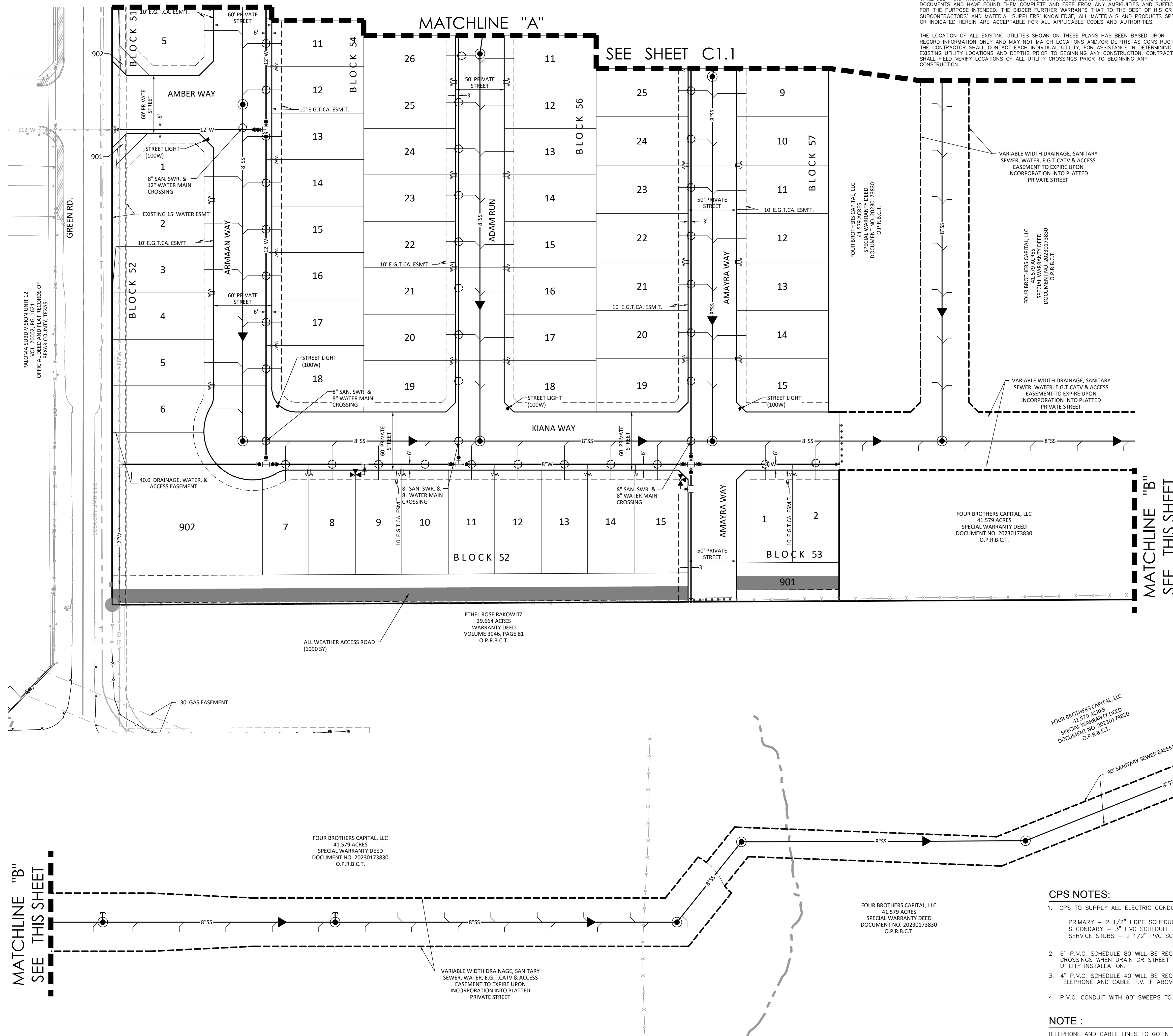
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TELEPHONE AND CABLE LINES TO GO IN JOINT TRENCH WITH CITY
PUBLIC SERVICE.

SUBMITTAL SET

Plot Date: April 9, 2021 User ID: Samuel Garcia
E:\Rokowitz D\Unit 1\Drawings\2314R C1.1-C1.2-Utility Overall.dwg



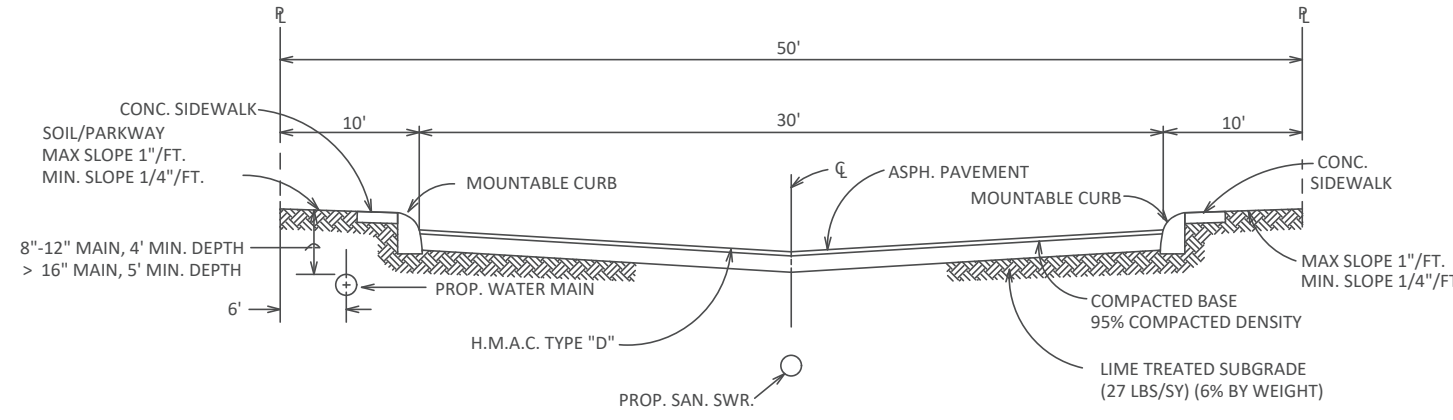
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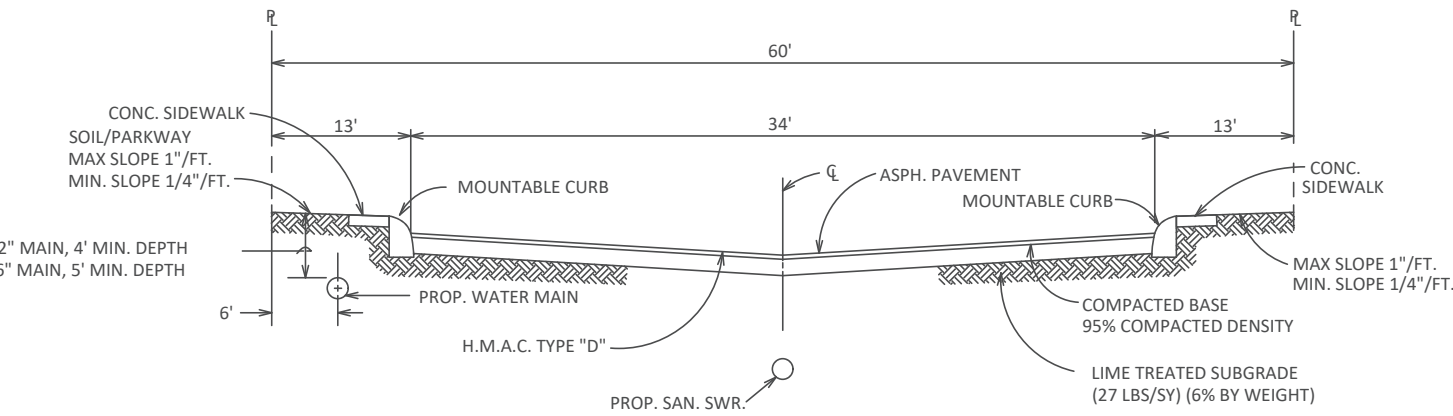
CONSTRUCTION PLANS FOR

LEGACY AT GREEN ENCLAVE, UNIT 1

SANITARY SEWER IMPROVEMENTS



TYPICAL STREET CROSS-SECTION (30' PAVEMENT)
N.T.S.



TYPICAL STREET CROSS-SECTION (34' PAVEMENT)
N.T.S.

CAUTION!
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCT BANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

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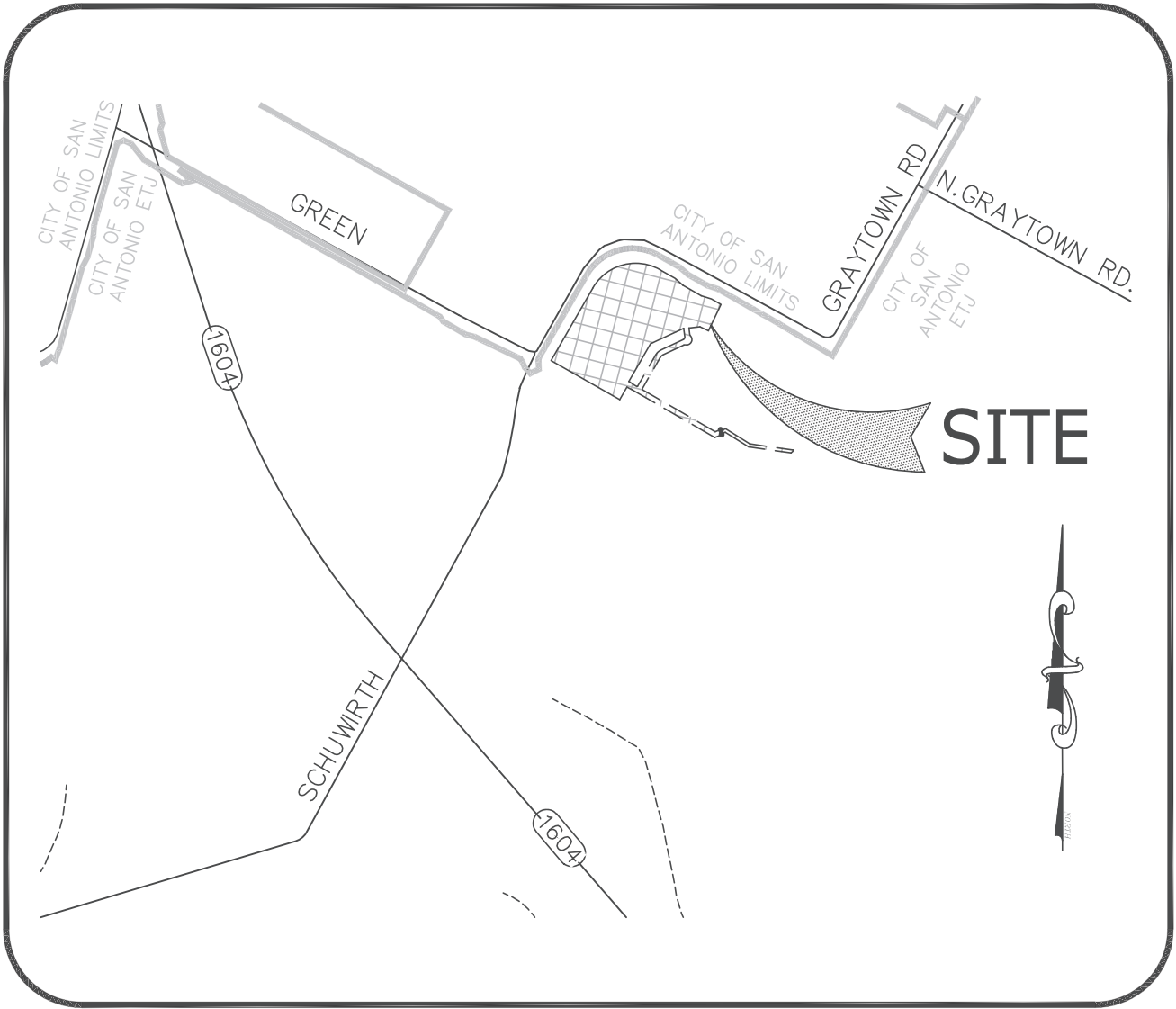
BY THE ACT OF SUBMITTING A BID FOR THIS PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS, SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM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

GENERAL SEWER NOTES

- ALL SEWER CONSTRUCTION IS WITHIN THE JURISDICTION OF THE SAN ANTONIO RIVER AUTHORITY (SARA).
- A PRECONSTRUCTION CONFERENCE WILL BE HELD WITH THE CONTRACTOR, CONSULTANT AND SARA STAFF PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN A COPY OF THE TECHNICAL SPECIFICATIONS FOR UTILITIES CONSTRUCTION, DATED APRIL, 2012, AS PUBLISHED BY THE SAN ANTONIO RIVER AUTHORITY. THESE SPECIFICATIONS AND THE GENERAL NOTES SHOWN ON THE PLANS WILL GOVERN ALL SEWER CONSTRUCTION IN THIS PROJECT.
- DENSITY TESTING OF SECONDARY BACKFILL MATERIAL IN SEWER TRENCHES WILL BE REQUIRED. SEE SECTION 400.4 OF THE SPECIFICATIONS FOR MORE INFORMATION.
- SEEPAGE RETAINERS WILL BE REQUIRED AT CERTAIN LOCATIONS. SEE SECTION 400.4(C) OF THE SPECIFICATIONS FOR MORE INFORMATION.
- COORDINATE ALL WORK WITH THE SARA INSPECTOR.
- 6" CLEANOUTS ARE NOT ALLOWED IN DRIVEWAY

BEXAR COUNTY



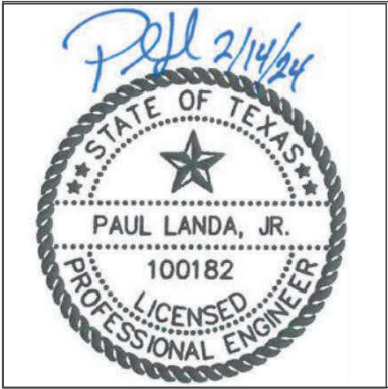
VICINITY MAP
N.T.S.

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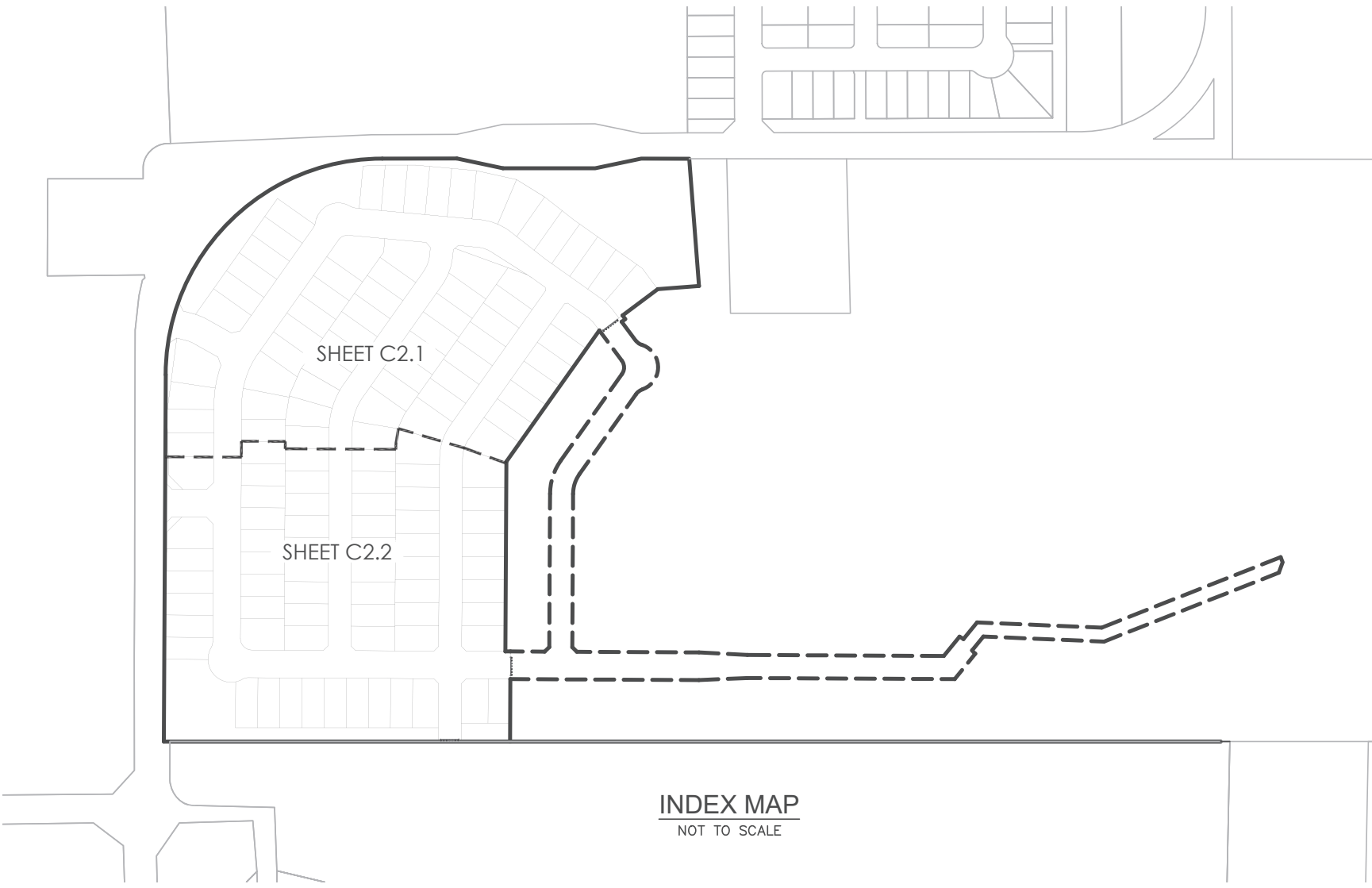
BEING A TOTAL OF 26.726 ACRE TRACT OF LAND PARTIALLY SITUATED IN THE ANDREW JF PHELAN SURVEY NO. 45, ABSTRACT NO. 580, COUNTY BLOCK 5107, AND PARTIALLY IN THE P. CO. SURVEY NO. 4, ABSTRACT NO. 909, COUNTY BLOCK 5107, BOTH OF BEXAR COUNTY, TEXAS, BEING A PORTION OF A 125.588 ACRE TRACT AS CONVEYED TO HELEN RAKOWITZ BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN VOLUME 1741, PAGE 299, OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS.



Moy Tarin Ramirez Engineers, LLC

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- Engineers
- Surveyors
- Planners



INDEX MAP
NOT TO SCALE

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SUBMITTAL SET

TEXAS C2.0

GENERAL NOTES:

- SAN ANTONIO RIVER AUTHORITY (RIVER AUTHORITY) STANDARD SPECIFICATIONS AND STANDARD DETAILS ARE PROVIDED FOR DESIGN AND CONSTRUCTION OF SEWER COLLECTION SYSTEMS MANAGED AND CONTRACTED BY THE RIVER AUTHORITY.
- AT ANY TIME, THESE STANDARD SPECIFICATIONS AND DETAILS MAY BE ALTERED OR SUPERSEDED BY THE GENERAL CONDITIONS, SUPPLEMENTAL CONDITIONS, PLANS OR PROJECT SPECIFICATIONS WITHIN THE CONTRACT DOCUMENT PER DIRECTION FROM THE RIVER AUTHORITY.
- ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE IN ACCORDANCE WITH RIVER AUTHORITY AND COMPLY WITH THE CONTRACT DOCUMENTS AND THE FOLLOWING AS APPLICABLE:
 - CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30, PART 1, CHAPTER 217.
 - CURRENT TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT), "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE".
 - CURRENT RIVER AUTHORITY "STANDARD SPECIFICATIONS FOR SANITARY SEWER CONSTRUCTION".
 - CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL".
- THE CONTRACTOR IS TO NOTIFY AND MAKE ARRANGEMENTS WITH THE RIVER AUTHORITY INSPECTIONS DIVISION AT (210) 302-4200 FORTY EIGHT (48) HOURS PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL ALSO PROVIDE PROCEDURES THAT WILL BE USED TO NOTIFY AFFECTED RESIDENTS AND/OR PROPERTY OWNERS 48 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD BEFORE ANY EXCAVATION OR START OF PROJECT.
- WORK SHALL NOT BE PERFORMED ON SATURDAYS, SUNDAYS, FEDERAL HOLIDAYS, RIVER AUTHORITY HOLIDAYS, BEFORE 7:30 AM, OR AFTER 4:30 PM, UNLESS PRIOR APPROVAL IS GRANTED BY THE RIVER AUTHORITY ENGINEER. REQUEST TO PERFORM WORK DURING THESE TIMES MUST BE EMAILED 48 HOURS IN ADVANCE TO UTILITIESDEVELOPMENT@SARIVERAUTHORITY.ORG.
- NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR IN THE PLANS BUT NOT INCLUDED IN THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM WHICH IT RELATES TO.
- WORK COMPLETED BY CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR THE CONSENT OF RIVER AUTHORITY WILL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE EXPENSE OF THE CONTRACTOR.
- LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 48 HOURS PRIOR TO CONSTRUCTION REGARDLESS OF ILLUSTRATION ON THE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND

TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO RIVER AUTHORITY. CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGES TO EXISTING UTILITIES AND REPAIRS WILL BE AT CONTRACTOR'S EXPENSE.

THE FOLLOWING CONTACT INFORMATION IS SUPPLIED FOR VERIFICATION PURPOSES:

EAST CENTRAL SPECIAL UTILITY DISTRICT
CITY OF SAN ANTONIO DRAINAGE
CITY PUBLIC SERVICE (CPS)
CITY OF CONVERSE (PUBLIC WORKS)
TIME WARNER
VALERO ENERGY CO.
RIVER AUTHORITY INSPECTIONS
TEXAS 811
SAN ANTONIO WATER SYSTEM (SAWS)

210-649-2383
210-207-5048
210-973-3500
210-659-9513
210-352-4872
210-349-7555
210-302-4200
800-344-8377
210-233-3500

- CERTAIN PORTIONS OF THE PROJECT MAY PARALLEL AND/OR CROSS EXISTING UTILITIES, AND CONTRACTOR IS REQUIRED TO PROTECT THESE UTILITIES. ADDITIONAL SUPPORTIVE SHORING MAY BE REQUIRED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT HIS WORKERS, EXISTING UTILITIES, AND FINISHED WORK THROUGHOUT THE PROJECT. CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGES AND REPAIRS WILL BE AT CONTRACTORS EXPENSE.

- WHERE WATER LINES AND NEW SEWER LINES ARE INSTALLED WITH A SEPARATION DISTANCE LESS THAN 9 FEET (I.E. WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES OR WATER LINES NEXT TO MANHOLES), THE INSTALLATION MUST MEET THE REQUIREMENTS OF 30 TAC 217 AND 30 TAC 290.

- DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.161, CPS MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND VALVES THAT ARE IN THE PROJECT AREAS.

- AN APPROPRIATELY SAFE OVERHEAD CLEARANCE MUST BE MAINTAINED BETWEEN ALL OVERHEAD EQUIPMENT AND PERSONNEL. THE CONTRACTOR SHALL NOTIFY CPS AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION IN THE VICINITY OF CPS OVERHEAD LINES. CONTRACTOR SHALL MAINTAIN CPS RECOMMENDED CLEARANCE REQUIREMENTS.

- ALL WORK IN THE TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) RIGHT-OF-WAY SHALL PROCEED DURING WORKING HOURS AGREED UPON BY RIVER AUTHORITY AND TXDOT INSPECTORS.

- BEFORE THE START OF ANY CONSTRUCTION, THE PROJECT SITE MUST BE VIDEO RECORDED BY THE CONTRACTOR WITH ONE COPY SUBMITTED TO RIVER AUTHORITY. THE PRE-CON SITE VIDEO WILL PROVIDE ACCURATE DOCUMENTATION OF EXISTING CONDITIONS.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ORIGINAL OR BETTER CONDITION AS A RESULT OF DAMAGE DONE DURING THE PROJECT CONSTRUCTION.

- ANY AND ALL FENCING, INCLUDING ELECTRIC FENCE, WHETHER OR NOT IDENTIFIED ON THE PLANS, MUST BE MAINTAINED AT ALL TIMES. ANY AND ALL DAMAGES DIRECTLY ATTRIBUTED TO THE CONTRACTOR MUST BE REPLACED TO EQUAL OR

BETTER CONDITIONS AT THE CONTRACTOR'S EXPENSE AND AS APPROVED BY THE RIVER AUTHORITY INSPECTOR. GAPS IN THE FENCING MUST BE PROVIDED AT ALL LOCATIONS WHERE THE SEWER LINE EASEMENT CROSSES FENCING. FENCING REQUIRED TO MAINTAIN LIVESTOCK MUST BE MAINTAINED AT ALL TIMES.

- CONTRACTOR MUST AVOID DAMAGE TO ADJACENT LAND OUTSIDE THE IDENTIFIED CONSTRUCTION LIMITS. ANY CLAIMS DIRECTLY ATTRIBUTED TO THE CONTRACTOR RESULTING FROM HIS STRAYING BEYOND THE CONSTRUCTION LIMITS MUST BE SETTLED BY THE CONTRACTOR TO THE SATISFACTION OF RIVER AUTHORITY AND THE APPROPRIATE LANDOWNER.

- CONTRACTOR MUST MAINTAIN ACCESS FOR PRIVATE INDIVIDUALS AND BUSINESSES AT ALL TIMES. IF NORMAL ACCESS IS DAMAGED DURING CONSTRUCTION, THE CONTRACTOR MUST REPLACE THE ACCESS TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE AND AS APPROVED BY RIVER AUTHORITY.

- CONTRACTOR MUST COMPLY WITH TEXAS GOVERNMENT CODE SECTION 2166.303 UNIFORM TRENCH SAFETY CONDITIONS.

- CONTRACTOR SHALL BACKFILL ALL OPEN TRENCHES AT THE END OF THE DAY. CONTRACTOR SHALL NOT INSTALL MORE PIPE THAN CAN BE COVERED. NO OPEN TRENCHES WILL BE PERMITTED OVERNIGHT. ALL ENDS OF OPEN PIPE SHALL BE PLUGGED OVERNIGHT.

- NO TREES SHALL BE REMOVED AS PART OF THIS PROJECT UNLESS OTHERWISE SPECIFIED IN THE PLANS.

- FOR PORTIONS OF THE CONSTRUCTION THAT ARE WITHIN THE LIMITS OF THE 100-YEAR FLOODPLAIN, THE CONTRACTOR IS REQUIRED TO KEEP THE CHANNEL CLEAR OF POTENTIAL OBSTRUCTIONS TO FLOOD FLOWS. POTENTIAL OBSTRUCTIONS INCLUDE HEAVY CONSTRUCTION EQUIPMENT, TEMPORARY ROADS ACROSS CHANNEL, EXCAVATED MATERIAL, STOCKPILED DEBRIS, AND ALL OTHER ITEMS DEEMED UNACCEPTABLE BY RIVER AUTHORITY. UNDER THREATENING WEATHER CONDITIONS AND WHERE FLOODING IS LIKELY, OBSTRUCTIONS SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR AT NO ADDITIONAL COST TO RIVER AUTHORITY. THE CONTRACTOR ASSUMES ALL RISK FOR UNFINISHED WORK. NO EQUIPMENT OR MATERIALS SHALL BE STOCKPILED IN THE 100-YEAR FLOODPLAIN.

- NO WASTE MATERIAL SHALL BE PLACED IN EXISTING DRAINAGE LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS, NATURAL DRAINAGE, OR PLACED WITHIN THE LIMITS OF EXISTING FLOODPLAIN.

- A THREATENED OR ENDANGERED PLANT OR ANIMAL SPECIES AND/OR CULTURAL/ARCHAEOLOGICAL RESOURCES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY THE APPROPRIATE PERSONNEL.

- UPON REQUEST FROM THE SAN ANTONIO RIVER AUTHORITY, CONTRACTOR SHALL PROVIDE SAMPLE VERIFYING PROPER INSTALLATION OF FLOWABLE BACKFILL, INCLUDING, BUT NOT LIMITED TO CORE SAMPLES.

SANITARY SEWER PIPING:

- THE TYPE AND DESCRIPTION OF THE PIPE CONDUIT IS SHOWN ON THE PLANS. REFER TO RIVER AUTHORITY SPECIFICATIONS FOR MATERIALS, STIFFNESS, AND TYPE.

- THE USE OF ASBESTOS CEMENT PIPE WILL BE PROHIBITED UNDER THIS CONTRACT.

- ALL DUCTILE IRON PIPE USED IN THIS SYSTEM SHALL BE CORROSION PROTECTED ON BOTH THE INTERIOR AND EXTERIOR SURFACES. ALL CORROSION PROTECTION SHALL BE APPLIED AND INSTALLED IN SUCH A MANNER AS TO MAINTAIN A CONTINUOUSLY PROTECTED SURFACE AFTER FINAL PIPE INSTALLATION.

- SPECIFICATIONS FOR PVC SEWER PIPE WITH OVER 14 FEET OF COVER.

- ALL SEWER PIPES SHALL HAVE COMPRESSION OR MECHANICAL JOINTS.

- SAND MIGRATION PREVENTION COLLAR WHEN CHANGING THE INITIAL BACKFILL FROM SELECT INITIAL BACKFILL TO OPTIONAL SELECT INITIAL BACKFILL. A TWO (2) FOOT LONG CLASS B CONCRETE ENCASEMENT OR FIRMLY COMPACTED, CONSOLIDATED CLAY ENCASEMENT BETWEEN THE TWO SHALL BE PROVIDED FOR THE ENTIRE HEIGHT OF THE INITIAL BACKFILL, EVERY 180 FEET ALONG PIPE AND 20 FEET FROM WALL OF MANHOLE IN EACH DIRECTION.

SEWER LINE LOCATION:

- SEWER LINES SHALL BE SIZED AND EXTENDED THROUGH THE LIMITS OF A DEVELOPMENT TO SERVE ADJACENT PROPERTY, WITH MANHOLE AND STUB-OUT AT END OF SEWER LINE.

- IN PHASED CONSTRUCTION OF THOROUGFARES, THE SEWER LINE SHALL BE EXTENDED THE ENTIRE LENGTH OF PROPOSED THOROUGFARE.

- ALL SANITARY SEWER LINES SHALL BE LOCATED A MINIMUM OF FIVE (5) FEET FROM ANY TREE.

- SIZES AND GRADES FOR SANITARY SEWER SHALL BE AS REQUIRED BY THE RIVER AUTHORITY ENGINEER AND CONSIDERATION SHALL BE GIVEN AS TO POSSIBLE EXTENSIONS FOR FUTURE DEVELOPMENT. NO SANITARY SEWERS, OTHER THAN LATERALS AND FORCE MAINS, SHALL BE LESS THAN EIGHT (8) INCH IN DIAMETER.

SEWER SERVICE LATERALS

- WHEN SEWER LATERALS ARE TO BE CONNECTED TO EXISTING SEWER MAINS AND NO STUB-OUT HAS BEEN EARLIER PROVIDED, THE CONNECTION MUST BE CONDUCTED PER THE RIVER AUTHORITY STANDARD DETAILS AND APPROVED PRODUCT LIST.

- REFER TO THE RIVER AUTHORITY APPROVED PRODUCTS LIST FOR ACCEPTABLE FITTINGS AND CONNECTIONS.

- ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE SDR 26 PVC WITH RATING OF 115 PSI OR 180 PSI, DETERMINED BY RIVER AUTHORITY SPECIFICATION. LINE SHALL BE EXTENDED TO THE PROPERTY LINE AT (6 x 6) CAPPED AND SEALED. ATTACH SEWER BURIAL TAPE TO THE END OF ALL SEWER LATERALS AND BRING UP TO THE GROUND LEVEL FOR MARKER (GREEN). (SEE HOUSE LATERALS DETAILS).

- THE SIZES AND LOCATIONS OF LATERALS SHALL BE DESIGNATED AS FOLLOWS UNLESS OTHERWISE DIRECTED BY THE RIVER AUTHORITY ENGINEER:

- IN GENERAL, FOR SINGLE FAMILY DWELLING, THE LATERAL SIZE SHALL BE SIX (6) INCH MINIMUM. HOUSE LATERALS SHALL BE INSTALLED SO THAT CLEANOUTS SHALL HAVE A TWO (2) FOOT SEPARATION FROM DRIVEWAYS, AND SHALL HAVE A NINE (9) FOOT SEPARATION FROM THE WATER SERVICE. THE SERVICE SHALL THEN BE EXTENDED AT A FORTY-FIVE (45) DEGREE ANGLE TO FOUR (4) FEET ABOVE THE FINISHED GRADE AND CAPPED, USE SEWER BURIAL TAPE TO MARK ALL SEWER SERVICE LATERALS.

- MULTIPLE UNITS, APARTMENTS, LOCAL RETAIL AND COMMERCIAL SIX (6) INCH MINIMUM, MANUFACTURING AND INDUSTRIAL - EIGHT (8) INCH MINIMUM, OR LARGER AS REQUIRED.

TRAPS AND INTERCEPTORS (FOG - TCOQ)

- UNIFORM PLUMBING CODE, CITY OF SAN ANTONIO BUILDING INSPECTIONS DEPARTMENT. ALL COMMERCIAL BUILDINGS WILL HAVE TRAPS (FOG - TCOQ).

OIL SEPARATORS

- WHICH INCLUDE OIL SEPARATOR- GASOLINE SERVICE STATIONS, CAR WASHES, GARAGES, DRY CLEANERS, CHEMICAL PLANTS, GAS PLANTS, HIDE PROCESSORS, TESTING LABORATORIES, OR ANY PLACE WHERE OIL OR SOLVENTS MAY BE INTRODUCED INTO THE SANITARY SEWER SYSTEM. THE SIZING CRITERIA FOR OIL SEPARATORS SHALL BE BASED ON THE G.P.M. RATE OF ALL FIXTURES, APPLIANCE OR APPURTENANCE, DRAINING INTO SEWER SYSTEM.

SAND INTERCEPTORS

- SAND INTERCEPTORS SHALL BE INSTALLED IN THE SEWER SYSTEM OF THE FOLLOWING ESTABLISHMENTS: GARAGES, CAR WASHES, SERVICE STATIONS, OR ANY PLACE OF BUSINESS WHERE HEAVY SOLIDS MAY BE INTRODUCED INTO THE SANITARY SEWER SYSTEM. THE SIZING CRITERIA FOR A SAND INTERCEPTOR SHALL BE BASED ON THE REQUIRED G.P.M. x 12 MINUTE RETENTION TIMES TO OBTAIN THE TANK SIZE IN GALLONS CAPACITY.

AUTOMATIC CAR WASHES

- WITH HIGH PRESSURE SPRAYS AND /OR BRUSHES INSTALL A 5" O.P.M. INTERCEPTOR MINIMUM. FOR A 6" O.P.M. WASH, THE SIZE OF THE INTERCEPTOR SHALL INCREASE TO G.P.M. FOR EACH ADDITIONAL WASH BAY OVER 4. SINGLE BAY OR PORTABLE WASH TYPE VEHICLE WASHES SHALL INSTALL A 20 GPM INTERCEPTOR MINIMUM.

NEUTRALIZING DEVICES

- IN NO CASE SHALL CORROSIVE LIQUIDS, SPENT ACIDS, OR OTHER HARMFUL CHEMICALS WHICH MIGHT DESTROY OR INJURE A DRAIN, SEWER, SOIL, OR WASTE PIPE, OR WHICH MIGHT CREATE NOXIOUS OR TOXIC FUMES, DISCHARGE INTO THE SANITARY SEWER SYSTEM WITHOUT BEING THOROUGHLY NEUTRALIZED BY PASSING THROUGH A PROPERLY CONSTRUCTED AND ACCEPTABLE NEUTRALIZING DEVICE. SUCH DEVICE SHALL BE PROVIDED WITH A SUFFICIENT INTAKE OF NEUTRALIZING MEDIUM, CONSISTING OF LIMESTONE OR MARBLE CHIPS, SO AS TO MAKE ITS CONTENTS NON-INJURIOUS BEFORE BEING DISCHARGED INTO THE SANITARY SEWER SYSTEM.

LINT TRAPS

- PUBLIC AND PRIVATE LAUNDROMATS AND COMMERCIAL LAUNDRIES SHALL INSTALL A LINT TRAP EQUIPPED WITH A REMOVABLY LOCATED AND EASILY REMOVABLE WIRE BASKET OR OTHER SIMILAR DEVICE THAT WILL PREVENT THE STRINGS, RAGS, BUTTONS, OR OTHER PROHIBITED MATERIAL FROM ENTERING THE SANITARY SEWER SYSTEM. THE BASKET OR OTHER SIMILAR DEVICE SHALL PREVENT PASSAGE TO THE SANITARY SEWER SYSTEM OF SOLIDS GREATER THAN 1/2" INCH IN DIAMETER. THE LINT TRAP SIZE SHALL BE BASED ON THE TOTAL G.P.M. OF ALL FIXTURES, APPLIANCES AND APPURTENANCES DRAINING TO IT IN LIEU OF A LINT TRAP. A LINT INTERCEPTOR MAY BE INSTALLED THE INTERCEPTOR SHALL BE SIZED AND DESIGNED BY A TEXAS REGISTERED ENGINEER WITH HIS SEAL AND SIGNATURE ON THE DRAWINGS.

SILVER RECOVERY UNITS

- SILVER RECOVERY UNITS SHALL BE INSTALLED IN WASTE LINE(S) LEADING FROM X- RAY PROCESSING, PHOTOGRAPHIC PROCESSING, AND /OR ANY PROCEDURES IN ESTABLISHMENT SUCH AS MEDICAL LABS, DENTAL LABS, PHOTO FINISHERS, PRINTERS, GRAPHIC ARTS PRODUCTION FACILITIES, HOSPITAL, FACILITIES, VETERINARY HOSPITALS, OR OTHER ESTABLISHMENTS WHERE SILVER MAY BE INTRODUCED INTO THE SANITARY SEWER SYSTEM.

SOLIDS INTERCEPTORS

- SOLIDS INTERCEPTORS SHALL BE INSTALLED WHEN PRE-TREATMENT OF WASTE STREAMS IS NECESSARY TO PREVENT SOLIDS GREATER THAN 3/8" IN DIAMETER, WHICH MAY CAUSE LINE STOPPAGE FROM ENTERING THE SANITARY SEWER SYSTEM.

INTERCEPTORS

- INTERCEPTORS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN APPROVED BY THE SAN ANTONIO RIVER AUTHORITY CONSISTING OF A MINIMUM OF TWO COMPARTMENTS WITH FITTINGS DESIGNED FOR GREASE RETENTION AND PROVIDE FOR A MINIMUM OF TWELVE (12) MINUTES RETENTION.

- THERE SHALL BE AN ADEQUATE NUMBER OF MANHOLES TO PROVIDE ACCESS FOR CLEANING ALL AREAS OF AN INTERCEPTOR, ONE MANHOLE PER TRAP COMPARTMENT. MANHOLE COVERS SHALL BE GAS TIGHT IN CONSTRUCTION. HAVING A MINIMUM OPENING DIMENSION OF 20 INCH INCHES (0.5 M).

- IN AREAS WHERE TRAFFIC MAY EXIST THE INTERCEPTOR SHALL BE DESIGNED TO HAVE ADEQUATE REINFORCEMENT AND COVER.
- ALL INTERCEPTORS SHALL HAVE THE SIZE OF THE INTERCEPTOR (IN GALLON PER MINUTE OR GALLON CAPACITY) PERMANENTLY AFFIXED TO THE DEVICE.

- ALL CONCRETE UTILIZED IN THE CONSTRUCTION OF INTERCEPTOR SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI.

- AN EFFLUENT SAMPLING WELL ON ALL INTERCEPTORS SHALL BE REQUIRED. THE SAMPLE WELL SHALL HAVE A RISER A MINIMUM OF 6" INCHES IN DIAMETER AND SHALL BE INSTALLED AFTER THE CONFLUENCE OF ALL WASTE STREAMS FROM THE FACILITY AND PRIOR TO DISCHARGING INTO SANITARY SEWER COLLECTION SYSTEM. THE WELL SHALL BE PERPENDICULAR TO THE EFFLUENT LATERAL TO ALLOW VISUAL OBSERVATION OF THE FLOW STREAM AND PROVIDE FOR SAMPLING OF WASTEWATER.

WATERTIGHT TESTING (24 HOURS):

- ALL INTERCEPTORS SHALL BE WATER TESTED OUT AT JOB SITE AFTER BEING INSTALLED (PLUG BOTH ENDS AND FILL TO TOP OF INTERCEPTOR). INTERCEPTOR SHALL SHOW NO LEAKAGE FROM SECTION, SEAMS, PINHOLES, OR OTHER IMPERFECTIONS. ANY LEAKAGE IS CAUSE FOR REJECTION. WHEN LEAKAGE OCCURS, ADDITIONAL WATER TESTING SHALL BE MADE. AFTER CORRECTING MEASURE TEST, REPORTS SHALL SHOW TOTAL NUMBER OF INTERCEPTORS TESTED, WHEN LEAKAGE OCCURS, CORRECTIVE MEASURES TAKEN SHALL BE REPORTED BY THE RIVER AUTHORITY INSPECTORS. SEWER AUTHORITY INSPECTORS SHALL RECORD IN DAILY LOG WITH PROJECT NAME, DATE IT WAS TESTED AND COMPLETED.

- MANHOLES WILL BE REQUIRED ON SIX (6) INCH AND LARGER LATERALS WHERE THEY CONNECT TO THE MAIN.
- LATERALS WILL NOT BE ATTACHED TO SEWER MAINS THAT ARE DEEPER THAN TWELVE (12) FEET.
- FITTINGS ARE NOT PERMITTED ON LATERALS BETWEEN THE WYE AND THE PROPERTY LINE.
- DEEP CUT OR DROP CONNECTIONS SHALL NOT BE PERMITTED.

- A MINIMUM OF ONE (1) LATERAL PER BUILDING SHALL BE REQUIRED. ALSO, A MINIMUM OF ONE (1) LATERAL PER RESIDENTIAL LOT SHALL BE REQUIRED. DUPLEXES SHALL HAVE TWO (2) LATERALS THAT SHALL BE INDEPENDENTLY ATTACHED TO THE MAIN.
- ALL SEWER LATERAL CROSSING WATER MAINS OR WATER SERVICE LINES SHALL CONFORM TO THE SAME REQUIREMENTS OF TAC CHAPTER 217.53, LATEST REVISION, SDR 26 150 PSI, OR DUCT IRON PIPE, CONCRETE ENCASMENT.

- WHERE REQUIRED CONCRETE ENCASEMENT SHALL BE PLACED FOR FULL WIDTH OF THE TRENCH TO A PLAIN SIX (6) INCHES ABOVE THE TOP OF THE PIPE WITH PAY UNITS AS SHOWN ON THE STANDARD DETAIL SHEET.
- A MINIMUM OF FOUR (4) FEET OF COVER IS TO BE MAINTAINED OVER THE SANITARY SEWER MAIN AND LATERALS AT GRADE, OTHERWISE CONCRETE ENCASMENT IS REQUIRED.
- WHERE POROUS MATERIAL INCLUDING "SUBGRADE FILLER" IS USED FOR BACKFILL IN THE BEDDING AND INITIAL BACKFILL ZONES, REFER TO SPECIFICATIONS SEC. 33-05-05 FOR SPACING OF SEEPAGE RETAINERS. RETAINERS SHALL CONSIST OF CLASS "D" CONCRETE ENCASMENT OR FIRMLY COMPACTED, CONSOLIDATED CLAY ENCASMENT. THE RETAINERS SHALL EXTEND FROM THE BOTTOM OF THE TRENCH TO THE TOP OF THE GRANULAR MATERIAL FOR THE ENTIRE TRENCH WIDTH. ENCASMENT SHALL BE 24 INCHES LONG. NO EXTRA PAY ITEM.

- BLASTING

- BLASTING SHALL NOT BE ACCEPTABLE.

- TESTING
- TESTING SHALL NOT BE CONDUCTED UNTIL ALL OTHER UTILITIES WITHIN THE VICINITY OF THE SANITARY SEWER ARE FULLY INSTALLED.

THE FOLLOWING SEQUENCE WILL BE STRICTLY ADHERED TO:

- PLUG MANHOLE AFTER 30 DAYS OF INSTALLATION
- PERFORM AIR TEST
- CALL WRITER (AFTER STREET HAS BEEN ASPHALTED), AS APPLICABLE
- VACUUM TEST ALL MANHOLES WITHIN THE PROJECT
- CTV/V- ALL OF THE NEW LINES AND PAN/TILT ALL SERVICE LATERALS TO 6" INCH CLEAN OUT. CONTRACTOR SHALL FLOOD ALL LINES BEFORE CTV.

- AT END OF PROJECT, CONTRACTOR SHALL SUBMIT FIELD COPY PLAN AND PROFILES SHOWING AS-BUILT WORK, CTV DVD, AND COMPACTION DENSITY REPORTS FOR MAIN SEWER LINES AND ALL SERVICE LATERALS. CONTRACTOR SHALL ALSO ISSUE WARRANTY LETTERS FOR MATERIAL AND WORKMANSHIP FOR 12 MONTHS AFTER FINAL ACCEPTANCE.

- ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH THE FOLLOWING:

- 217.57, DEFLECTION TEST FOR FLEXIBLE AND SEMI-RIGID PIPE CONDUCTED AFTER FINAL BACKFILL HAS BEEN IN PLACED AT LEAST 30 DAYS.
- 217.57, OR RIVER AUTHORITY SPECIFICATIONS INFILTRATION AND OR EXFILTRATION AND OR LOW-PRESSURE AIR TEST.
- 217.58 OR RIVER AUTHORITY SPECIFICATIONS: ALL MANHOLES AND WET WELLS MUST BE TESTED SEPARATELY AND INDEPENDENTLY OF THE COLLECTION LINES.

- IN THE EVENT THAT TESTING REQUIREMENTS CONFLICT, THE LATEST TCEQ DESIGN CRITERIA SHALL BE USED.

- SEWER LINES SHALL BE TESTED FROM MANHOLE TO MANHOLE.

- SANITARY SEWER CONNECTIONS MADE DIRECTLY TO EXISTING MANHOLES WHICH REQUIRE PENETRATION INTO THE MANHOLE WILL BE CORE DRILLED. ANY DAMAGE TO EXISTING MANHOLE WILL BE REPLACED AT CONTRACTOR'S EXPENSE AND WILL REQUIRE SUCCESSFUL TESTING OF THE EXISTING MANHOLE IN ACCORDANCE WITH THE RIVER AUTHORITY SPECIFICATIONS. THEY MUST HAVE A PROTECTIVE COATING SPECIFIED IN THE RIVER AUTHORITY APPROVED PRODUCTS LIST. COATING WILL BE MINIMUM OF 200 MILS THICKNESS DEPENDING ON EXISTING CONDITIONS. FOR THE PURPOSE OF THE RETAINERS, FOLLOW MANUFACTURER'S RECOMMENDATION ON PROTECTIVE COATING.

- AFTER CONSTRUCTION, TESTING WILL BE DONE BY PAN/TILT TV CAMERA BY THE CONTRACTOR AND OBSERVED BY THE INSPECTOR. WASTEWATER ENGINEERING PERSONNEL AND CONTRACTOR AS CAMERA IS RUN THROUGH THE LINES. PAN/TILT ALL 6" SERVICE LATERALS TO 6" INCH STUB-OUT. VIDEOS MUST INCLUDE SUBDIVISION NAME, MANHOLE NUMBER, SERVICE LATERAL, STATION NUMBER, FLOW DIRECTION, LOCATION OF ANY ABNORMALITIES, SUCH AS BROKEN PIPE OR MISALIGNED, JOINT, GRAVEL, DIRT, MUST BE CLEANED OUT, REPLACE AT CONTRACTOR'S EXPENSE. NEW SEWER SYSTEM WILL BE FLOODED WITH H2O BEFORE BEING TV. ALL SEWER LINES MUST BE PRESSURE CLEANED. ALL SERVICE LATERALS 6" INCH TO STUB-OUT, ALL VIDEOS SHALL BE SUBMITTED IN DVD FORMAT WITH WRITTEN REPGRTS.

SEWER NOTES:

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

- IDENTIFY THE SOURCE OF THE SSO AND ATTEMPT TO ELIMINATE ANY ADDITIONAL SPILLAGE.
- NOTIFY RIVER AUTHORITY CONSTRUCTION INSPECTIONS DIVISION AT 210-302-4216 OR 210-219-0130.
- ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO.
- CONTAIN SEWAGE FROM THE SSO TO PREVENT CONTAMINATION OF WATERWAYS.
- CLEAN UP THE SPILL SITE AND REMOVE CONTAMINATED MATERIALS.
- DISINFECT THE AREA OF THE SPILL WITH A MIXTURE OF HTH CHLORINE AND WATER.
- CLEAN THE AFFECTED SEWER LINE AND REMOVE ANY DEBRIS.
- NOTIFY RIVER AUTHORITY INSPECTIONS DIVISION FOR SPILLAGE PREVENTION AND CONTROL.
- NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TCEQ AND RIVER AUTHORITY.

- TE-INS OR SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE RIVER AUTHORITY INSPECTOR AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. CONTRACTOR SHALL PROVIDE A SEQUENCE OF WORK AS RELATED TO TE-INS AT NO ADDITIONAL COST TO RIVER AUTHORITY OR THE PROJECT.

- ELEVATIONS OF THE TOP OF MANHOLES AND INVERTS ARE FOR REFERENCE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ALLOWANCES AND ADJUSTMENTS FOR THE TOPS OF MANHOLES AND INVERTS TO MATCH THE FINISHED GRADE OF THE PROJECT IMPROVEMENTS (NSP).

- THE CONTRACTOR SHALL PROVIDE BYPASS PUMPING OF SEWAGE AROUND EACH SEGMENT OF PIPE TO BE REPLACED. CONTRACTOR SHALL HAVE STANDBY PUMPS AVAILABLE TO BYPASS FLOW IN CASE PRIMARY PUMP FAILS. THE CONTRACTOR SHALL PROVIDE A SEQUENCE OF BYPASS PUMPING FOR REVIEW AND APPROVAL BY RIVER AUTHORITY. THE CONTRACTOR SHALL ALSO PROVIDE A DETAILED SKETCH SHOWING THE LOCATION OF BYPASS PUMPING; SPECIFICATIONS FOR THE PUMPING EQUIPMENT; AND TYPE, SIZE, CAPACITY AND NUMBER OF PUMPS REQUIRED TO HANDLE THE PEAK WET WEATHER FLOW.

- CONTRACTOR WILL MAINTAIN SERVICE TO ALL EXISTING SANITARY SEWERS AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR WILL CLEAN ALL DEBRIS, GRAVEL, DIRT, ETC. OUT OF MANHOLES AND FIX ANY STOPPAGES CAUSED BY DEBRIS DURING CONSTRUCTION AT CONTRACTOR'S EXPENSE. ANY DAMAGE TO EXISTING MANHOLES OR SEWER MAIN WILL BE CORRECTED AT CONTRACTOR'S EXPENSE. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT DAMAGE TO EXISTING OR NEW RINGS, COVERS, OR CONES FROM EQUIPMENT AND MATERIALS USED OR TAKEN THROUGH THE WORK AREA. IF AN EXISTING OR NEW MANHOLE COVER, RING, OR CONE IS DAMAGED BY THE CONTRACTOR, IT SHALL BE REPLACED AS DIRECTED BY THE RIVER AUTHORITY INSPECTOR. MANHOLES WILL NEED TO BE RESEALED WITH RIVER AUTHORITY APPROVED SEALANT IF SEAL COATING IS COMPROMISED. CONTRACTOR WILL HAVE MANHOLE RECOATED. CONTRACTOR SHALL RESEAL ALL LEAKS AT CONTRACTOR EXPENSE.

- CONTRACTOR TO ENSURE ALL PLUGS USED TO PLUG SEWER LINES WHILE TESTING THE PROJECT (SUCH AS AIR PLUGS, SCREW TYPE PLUGS, ETC.) ARE LABELED, MARKED OR TAGGED. THE CONTRACTOR SHALL RECORD HOW MANY PLUGS ARE BEING USED, AS WELL AS THE LOCATION AND IDENTIFICATION OF EACH PLUG. CONTRACTOR WILL REPORT TO PROJECT INSPECTOR OF ANY LOST OR UNRESTRAINED PLUGS.

- CONTRACTOR WILL BE HELD LIABLE FOR ANY DAMAGE TO SEWER COLLECTION SYSTEM, STOPPAGES, OVER-FLOWS, OR BACKUPS INTO HOMES CAUSED BY LOSS OR RUNAWAY SEWER PLUGS.

- CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO WASTEWATER TREATMENT EQUIPMENT CAUSED BY LOST OR RUNAWAY SEWER PLUGS. CONTRACTOR WILL BE HELD LIABLE FOR REPAIRS.

- RIVER AUTHORITY IS NOT RESPONSIBLE FOR ANY ABNORMALITIES OR STUB OUT, INVERT, GRADE OR PIPE FOR ANY EXISTING MANHOLE TIE-IN OR SERVICE LATERAL

MANHOLE NOTES:

- THERE SHALL BE 400 FEET MAXIMUM SPACE BETWEEN MANHOLES TO PROVIDE ACCESS FOR CLEANING. A 16-FOOT WIDE GATE WITH A LOCK SHALL ALSO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR FOR ACCESSING THE SANITARY SEWER LINE IN EASEMENTS.

- ALL MANHOLES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE RING IS AT LEAST FOUR (4) INCHES ABOVE THE FINISHED GRADE OF THE SURROUNDING CONCRETE IN UNPAVED AREAS. IN PAVED AREAS, THE MANHOLE RING SHALL BE FLUSH WITH THE PAVEMENT.

- EVERY THIRD MANHOLE COVER WILL HAVE A 1" HOLE FOR A VENT. VENTING SHALL COMPLY WITH TAC 217.55.

- EACH MANHOLE SHALL HAVE TWO LOCKS INSTALLED TO PREVENT REMOVAL.

- ALL MANHOLES SHALL HAVE A 30" OPENING, WATERTIGHT RINGS AND COVERS, WITH THE RIVER AUTHORITY LOGO AND I/I BARRIER.

- NEW MANHOLE PROTECTIVE COATING LINER MUST BE APPLIED TO ALL MANHOLES. APPLICATION PROCEDURES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION AND PER THE FOLLOWING SPECIFICATIONS:

- CONTRACTOR WILL BE RESPONSIBLE FOR MANHOLE SAFETY AND CONFINED SPACE ENTRY SET BY OCCUPATIONAL SAFETY AND HEALTH STANDARDS, 29 CFR 1910.148 APP. E.
- THE CONTRACTOR SHALL NOTIFY RIVER AUTHORITY INSPECTIONS DEPARTMENT A MINIMUM OF 48 HOURS IN ADVANCE OF THE START OF ANY FIELD SURFACE PREPARATION WORK FOR MANHOLES.
- ALL NEW MANHOLES AND THE EXISTING MANHOLE THAT THE PROPOSED SEWER LINE WILL TIE-IN TO SHALL HAVE THE INTERIOR WALL PREPARED AS PER MANUFACTURER'S RECOMMENDATION AND COATED WITH A RIVER AUTHORITY APPROVED PRODUCT.

- FOR ALL MANHOLES, APPLY THE CEMENTITIOUS COATING FIRST, FOLLOWED BY THE EPOXY COATING. LAFARGE SEWERPROAT 200 HR PRODUCT IS THE ONLY APPROVED PRODUCT WHICH COMBINES THE CEMENTITIOUS AND EPOXY COATINGS, UNLESS OTHERWISE USED IN THE APPROVED PRODUCT LIST.

- CEMENTITIOUS COATING WITH REQUIRED ONE-INCH-THICK APPLICATION: SEE RIVER AUTHORITY APPROVED PRODUCT SHEET.
- EPOXY COATING: WITH SPECIFIED THICKNESS APPLICATION: SEE RIVER AUTHORITY APPROVED PRODUCT SHEET.
- SPRAY WALL POLYURETHANE SYSTEM REQUIRED THICKNESS 150 MILS.
- CONTRACTOR SHALL SUBMIT WARRANTY LETTER ON MANHOLE PROTECTIVE COATING FOR 10 YEARS AFTER FINAL ACCEPTANCE OF PROTECTIVE COATINGS.

- ANY CONNECTIONS TO EXISTING MANHOLES WILL REQUIRE A CRADLE TO SUPPORT THE INCOMING PIPE. A RUBBER GASKET WILL ALSO BE REQUIRED (CENTERED AT MANHOLE WALL) WITH GROUTING AT INTERIOR AND EXTERIOR PENETRATIONS.

- PENETRATION INTO THE MANHOLE WILL BE CORE DRILLED. ANY DAMAGE TO EXISTING MANHOLE WILL BE REPAIRED AT CONTRACTOR'S EXPENSE. IF EXISTING SEWER MANHOLE SEAL COATING IS COMPROMISED, ALL OF THE MANHOLE WILL BE RESEALED.

- IF ANY EXISTING MANHOLES CONNECTED WITH THIS PROJECT ARE FOUND TO HAVE INFILTRATION, THE MANHOLES SHALL BE SEALED AND TESTED AT CONTRACTORS EXPENSE.

- MANHOLES WITH STUB-OUTS 8-INCH OR LARGER MUST BE LOCATED AT THE END OF ALL SEWER LINES THAT MAY BE EXTENDED IN THE FUTURE. STUB-OUTS SHALL BE PLUGGED.

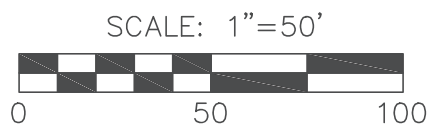
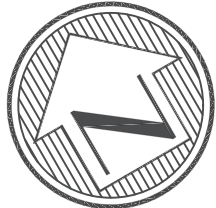
- MANHOLE COVER INSERTS ARE SHOWN IN RIVER AUTHORITY APPROVED PRODUCT SHEET. INSERTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THE NECESSARY FIELD MEASUREMENTS FOR THE MANUFACTURER PRIOR TO PRODUCTION.

- BEFORE BACK FILLING/COMPACTION/CONCRETE ENCASEMENT, ALL MANHOLE JOINT SECTION RISERS, CONE SECTIONS AND GRADE RING SHALL BE WRAPPED WITH INF-1 SHIELD GATOR WRAP SEALING SYSTEMS, BUTYL ADHESIVE SEALANT WITH A MINIMUM THICKNESS OF 30 MILS. JOINT SEALANT MUST MEET ASTM C923. MASTIC MUST MEETS ASTM C 990 OR BE APPROVED BY THE RIVER AUTHORITY ENGINEER.

- IF CONCRETE THROAT RINGS ARE TO BE INSTALLED THEY MUST BE USED IN CONJUNCTION WITH A UV STABILIZED POLYETHYLENE LINER AND I/I BARRIER. I/I BARRIER MUST MEET THE FOLLOWING ASTM STANDARDS: ASTM D-790/1505 DENSITY OF POLYETHYLENE MATERIALS, ASTM D-1238 MELT FLOW INDEX, ASTM 638 TENSILE STRENGTH YIELD (50 mm/mm), ASTM 790 FLEXURAL MODULUS, ASTM 648 HEAT DEFLECTION TEMPERATURE @GEPAL, ASTM 1693 ESCR, 100% IGEPAI /1CK IGEPAI.

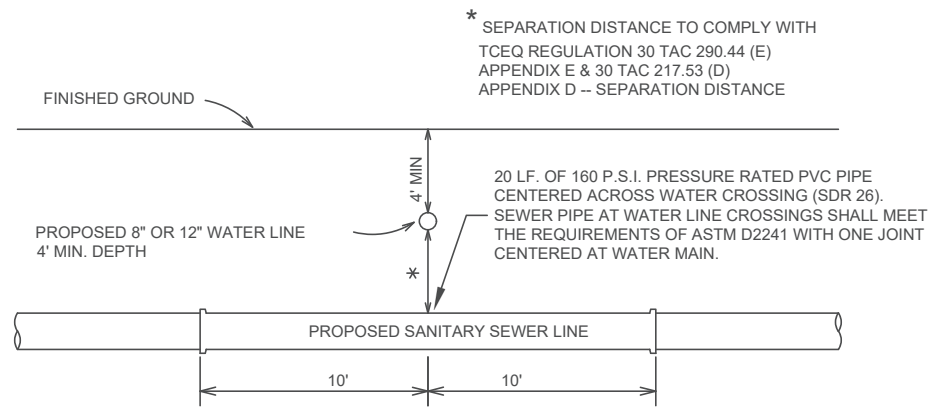
- A MINIMUM OF TWO AND A MAXIMUM OF FOUR THROAT RINGS WILL BE USED AT EACH MANHOLE FOR ADJUSTMENT.

- DROP MANHO



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	---	VS
VERTICAL STACK	+	
ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT	---	E.G.T.C.A.E.
TEMPORARY BENCHMARK	+	
SANITARY SEWER/WATER CROSSING LOCATION	+	
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	---	O.P.R.B.C.T.



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.
 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.

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.

TRENCH EXCAVATION SAFETY PROTECTION

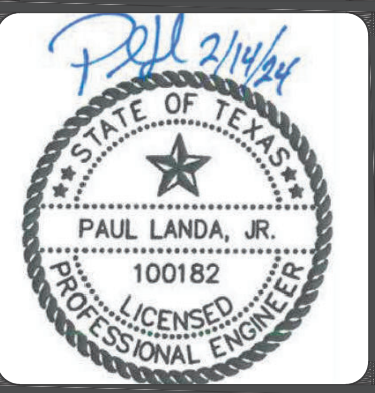
Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation site(s) within the project work area in order to implement Contractor's 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.

NO.	DATE	DESCRIPTION	BY

PROJ. #	CHK. BY	DATE	CHKD. BY	DATE

Engineers
Surveyors
Planners

Moy Tarin Ramirez Engineers, LLC
TBEPLS: ENGINEERING F-5297/SURVEYING: F-10131500
12770 CIARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055



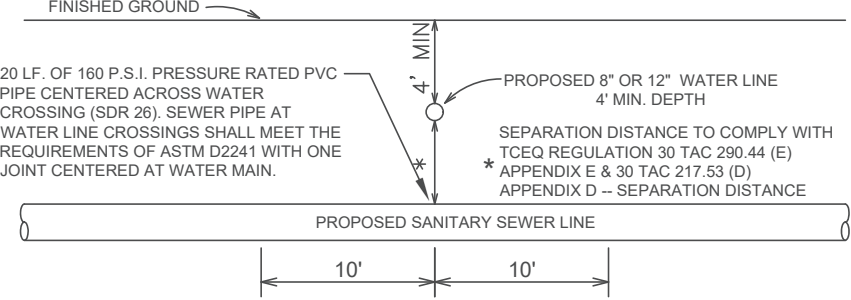
LEGACY AT GREEN ENCLAVE UNIT 1
SANITARY SEWER OVERALL PLAN

Plot Date: March 13, 2024 User: ID: Samuel Garcia
R:\Volante\DWG\13\Legacy\33146_25-4-C2-5-1.dwg "C" RSG.dwg

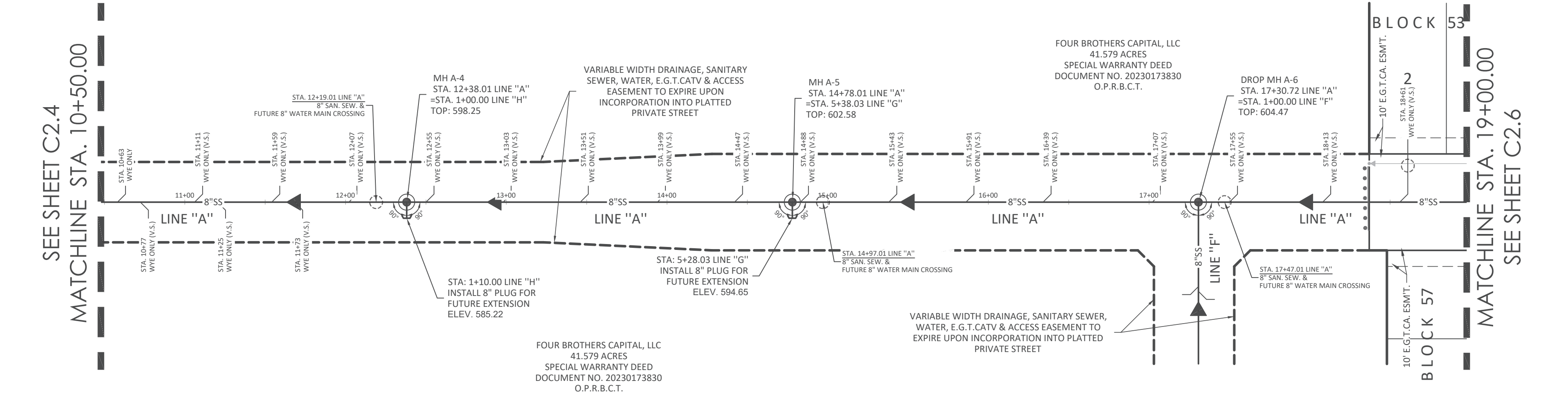
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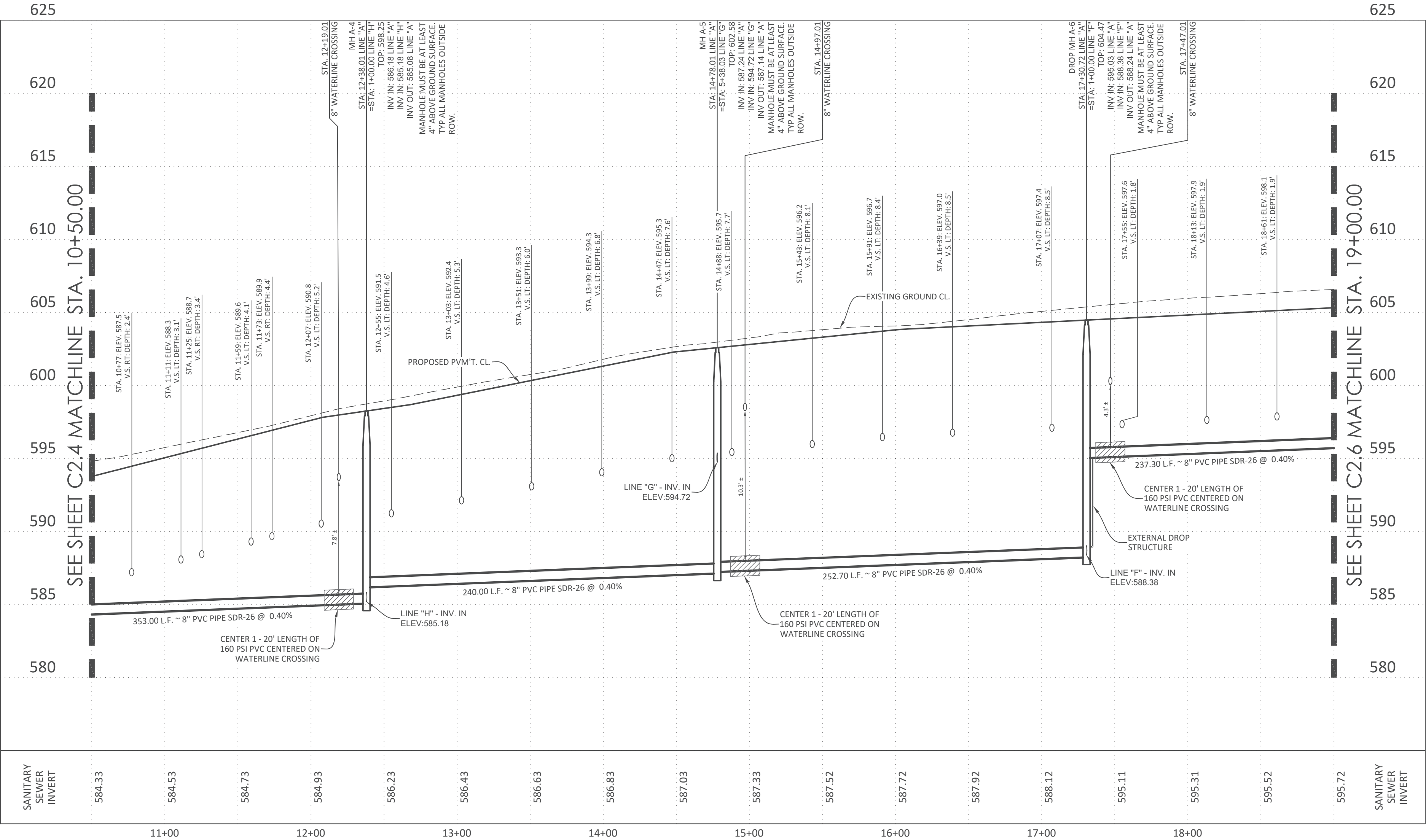
TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL
N.T.S.



LINE "A"

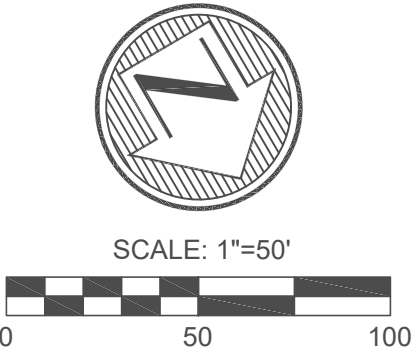
STA. 10+50.00 TO STA. 19+00.00

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



LEGEND

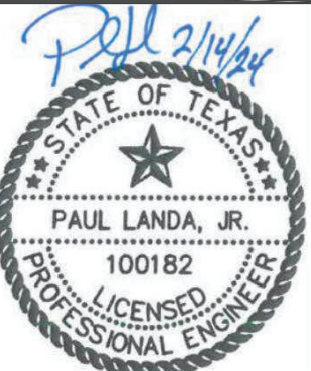
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- PROPOSED FIRE HYDRANT
- EXISTING FIRE HYDRANT
- PROPOSED GATE VALVE
- EXISTING GATE VALVE
- PROPOSED SANITARY SEWER MAIN & MANHOLE
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- TEMPORARY BENCHMARK
- PROPOSED MINIMUM FINISH FLOOR ELEVATION
- SANITARY SEWER/WATER CROSSING LOCATION
- OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS
- OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS



NOTE:
LATERALS TO BE LOCATED
OUTSIDE OF DRIVEWAY LOCATIONS.
CONTRACTOR TO PRE-DETERMINE
DRIVEWAY LOCATIONS FOR EACH
LOT.

• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC
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LEGACY AT GREEN ENCLAVE UNIT 1

SANITARY SEWER PLAN & PROFILE
LINE "A"

STA. 10+50.00 TO STA. 19+00.00

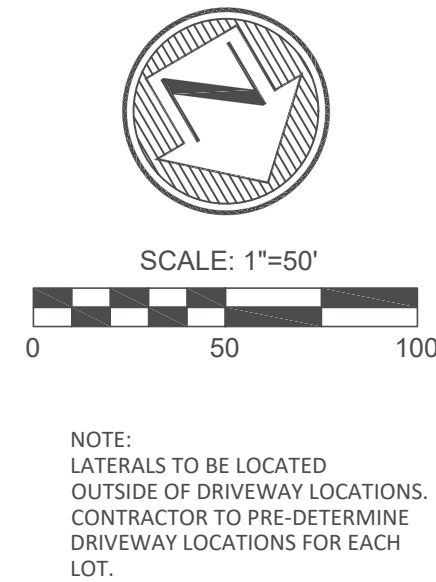
SHEET

C2.5

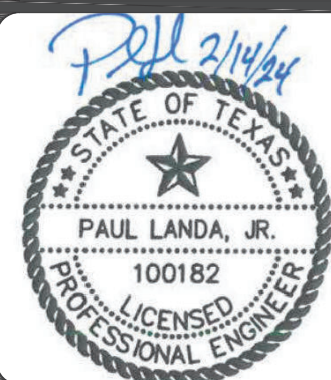
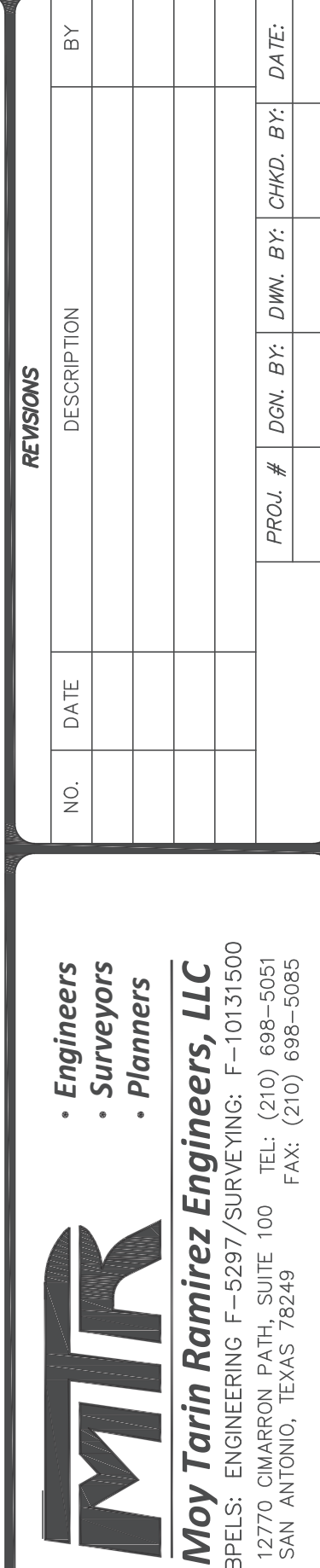
SUBMITTAL SET

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 specifications for technical accuracy and the safety of the installation and design 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.



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



LEGACY AT GREEN ENCLAVE UNIT 1

SANITARY SEWER PLAN & PROFILE

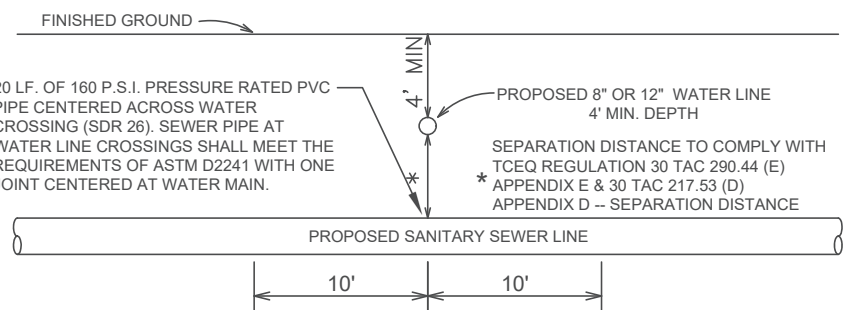
LINE "A"

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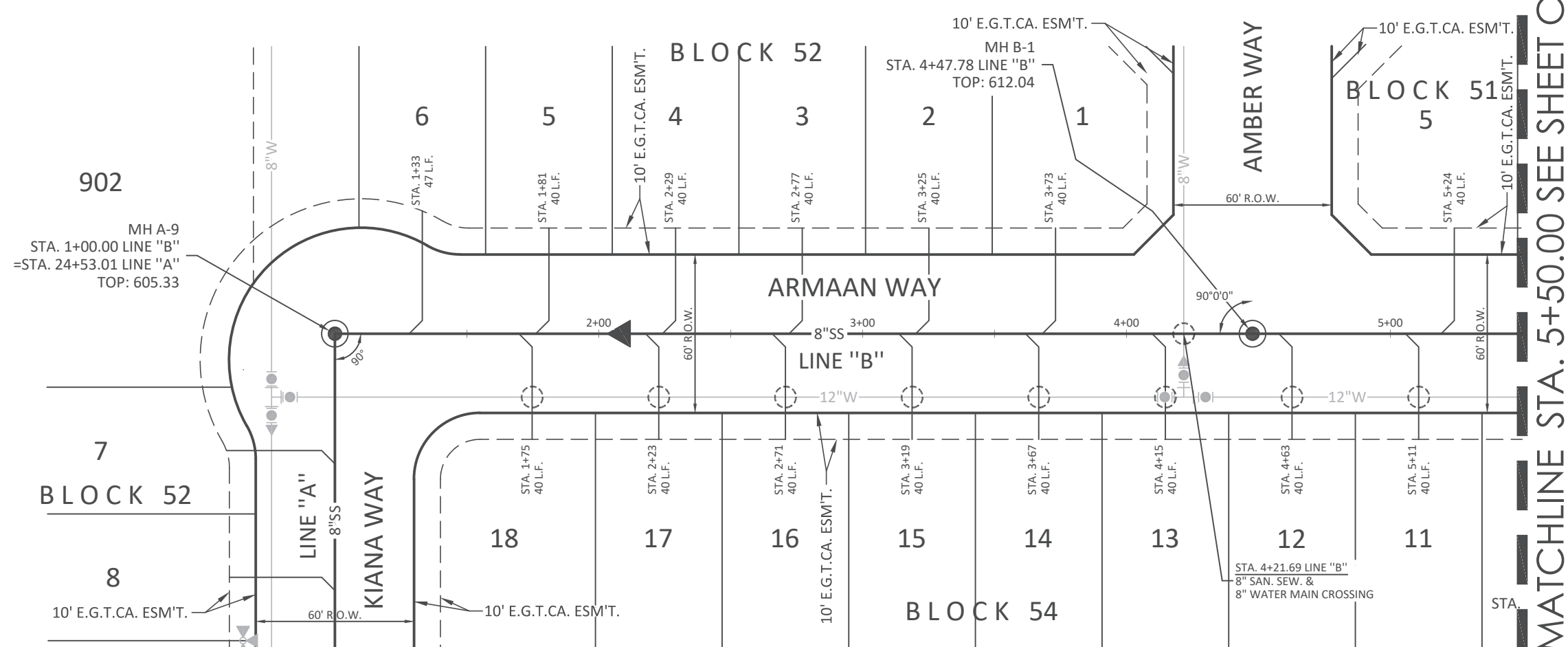
C2.6

SUBMITTAL SET

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 complies with the OSHA standards for trench excavation safety protection. The 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.

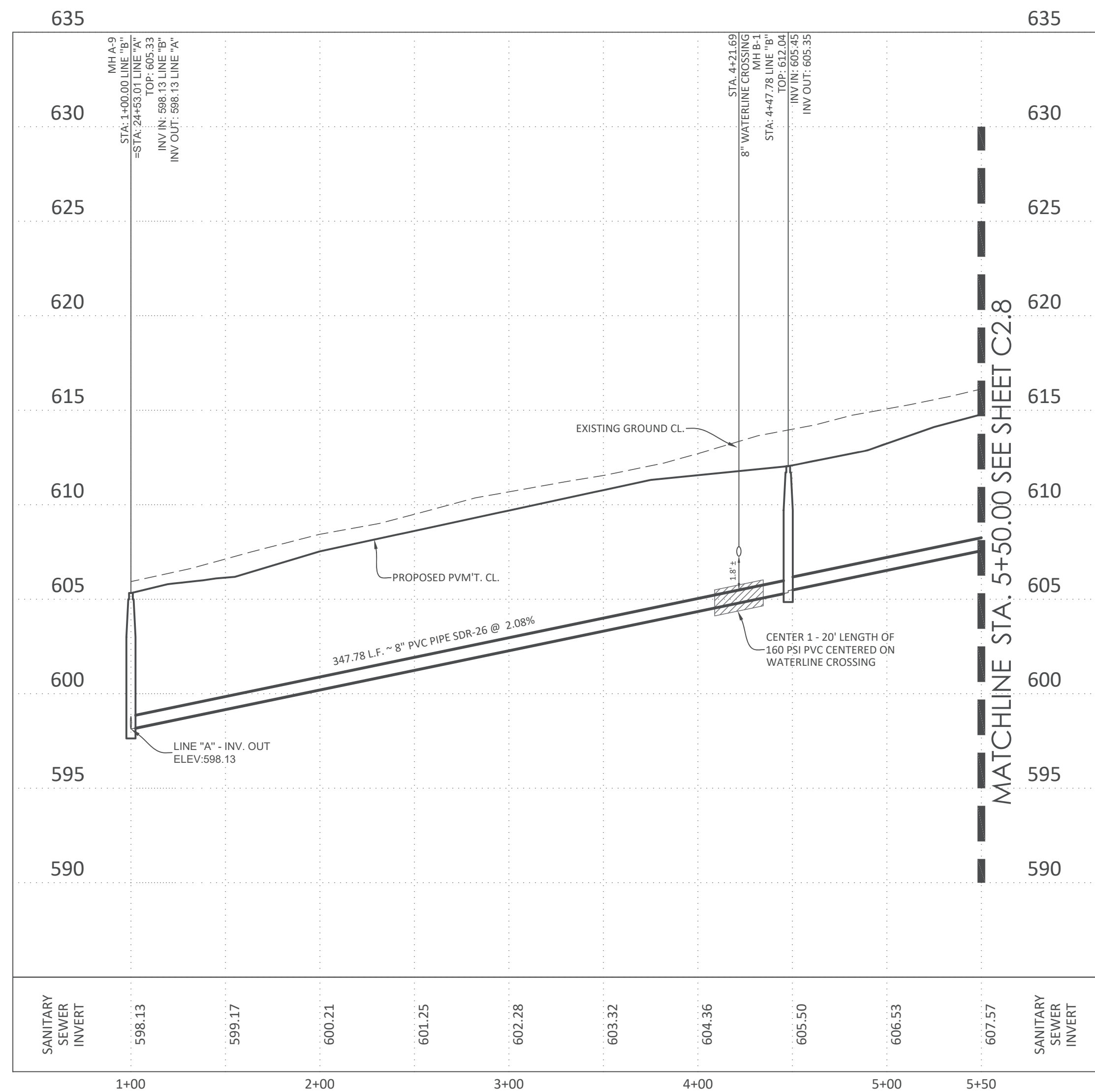


TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL
N.T.S.



LINE "B"
STA. 1+00.00 TO STA. 5+50.00

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



LEGEND

EXISTING WATER MAIN		EX 8"W
PROPOSED WATER MAIN		8"W
PROPOSED FIRE HYDRANT		8"W
EXISTING FIRE HYDRANT		8"W
PROPOSED GATE VALVE		8"SS
EXISTING GATE VALVE		8"SS
PROPOSED SANITARY SEWER MAIN & MANHOLE		8"SS
EXISTING SANITARY SEWER MAIN & MANHOLE		8"SS
PROPOSED SERVICE LATERAL WITH ONE-WAY CLEAN-OUT		8"SS
VERTICAL STACK	VS	
ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT	E.G.T.C.A.E.	
TEMPORARY BENCHMARK		
PROPOSED MINIMUM FINISH FLOOR ELEVATION	MIN. F.F. = <u>795.5</u>	
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'



NOTE:
 LATERALS TO BE LOCATED
 OUTSIDE OF DRIVEWAY LOCATIONS.
 CONTRACTOR TO PRE-DETERMINE
 DRIVEWAY LOCATIONS FOR EACH
 LOT.

PLAT NO. 23-11800388

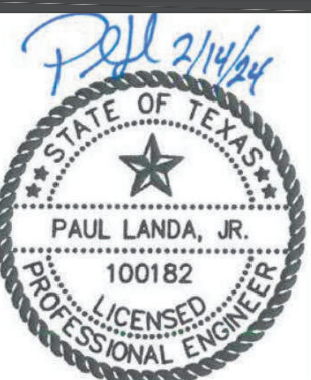
[illegible]

- *Engineers*
- *Surveyors*
- *Planners*



- Engineers
- Surveyors
- Planners

Moy Tarin Ramirez Engineers, LLC



LEGACY AT GREEN ENCLAVE UNIT 1

SANITARY SEWER PLAN & PROFILE

LINE "B"

STA. 1+00.00 TO STA. 5+50.00

SHEET

C2.7

SUBMITTAL SET

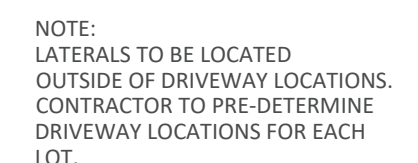
TRENCH EXCAVATION SAFETY PROTECTION

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. Contractor shall implement the trench excavation safety protection 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 trench excavation safety protection systems, programs and/or procedures that shall protect the presence and activities of individuals working in and around trench excavation.

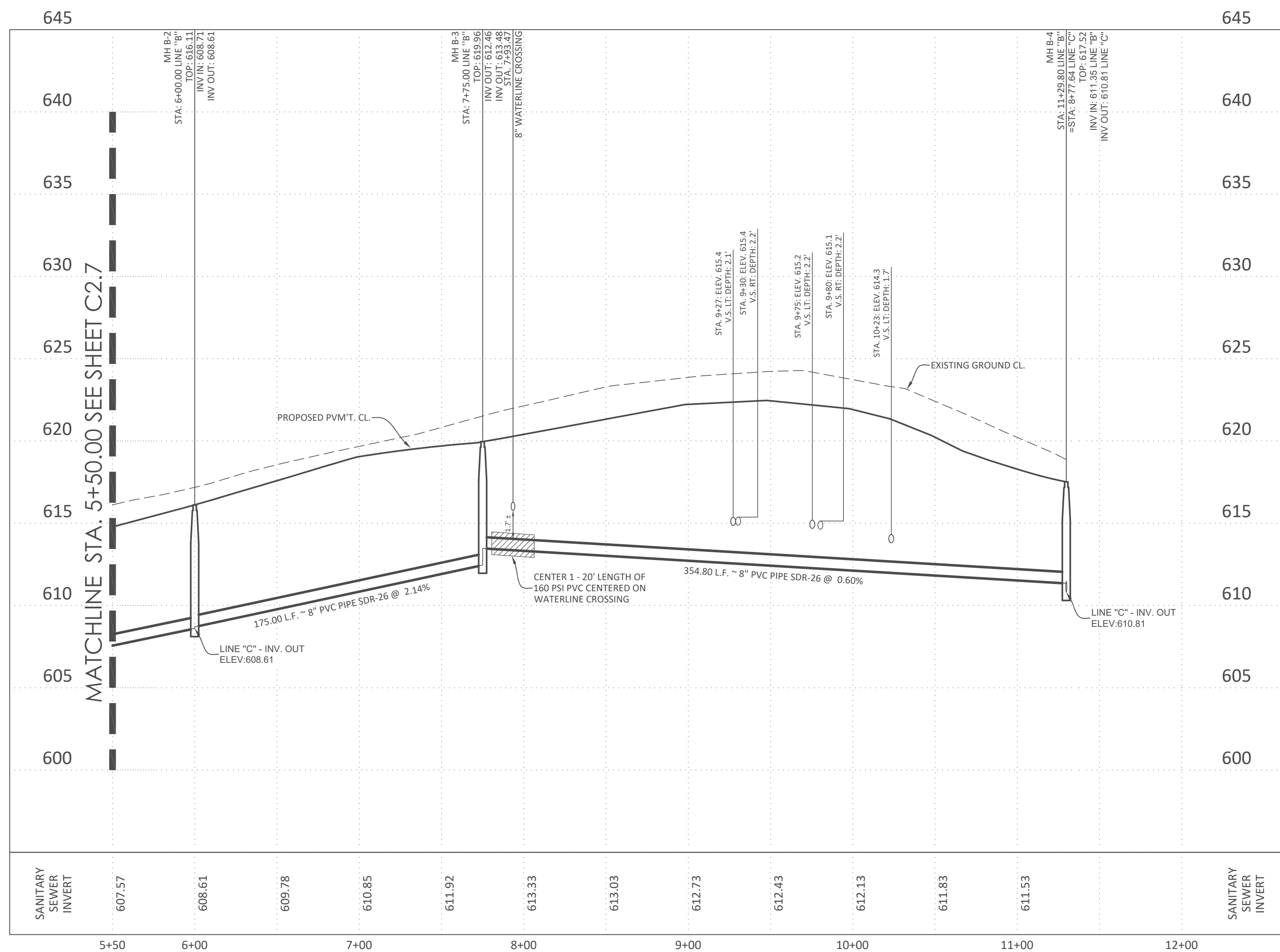


LEGEND

EXISTING WATER MAIN	
PROPOSED WATER MAIN	
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	
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ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT	
TEMPORARY BENCHMARK	
PROPOSED MINIMUM FINISH FLOOR ELEVATION	
SANITARY SEWER/WATER CROSSING LOCATION	
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS	



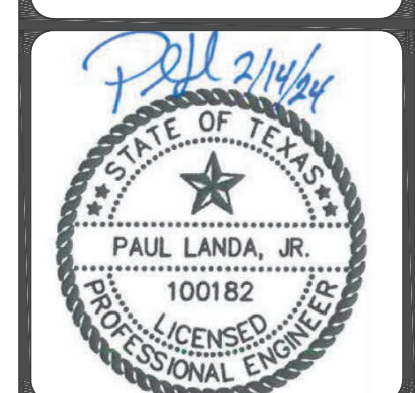
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

[illegible]

MTR

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

Moy Tarin Ramirez Engineers, LLC
APPLS: ENGINEERING F-5297/SURVEYING: F-1013/15000
12770 CRAWFORD PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085



LEGACY AT GREEN ENCLAVE UNIT 1

SANITARY SEWER PLAN & PROFILE

LINE "B"

STA. 5+50.00 TO STA. 11+29.80

STA. 5+50.00 TO STA. 11+29.80

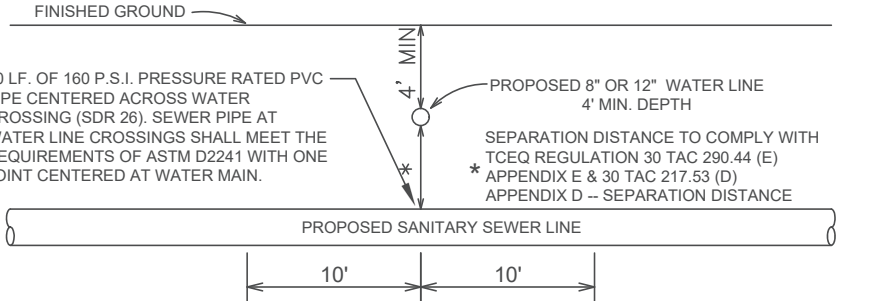
SHEET

C2.8

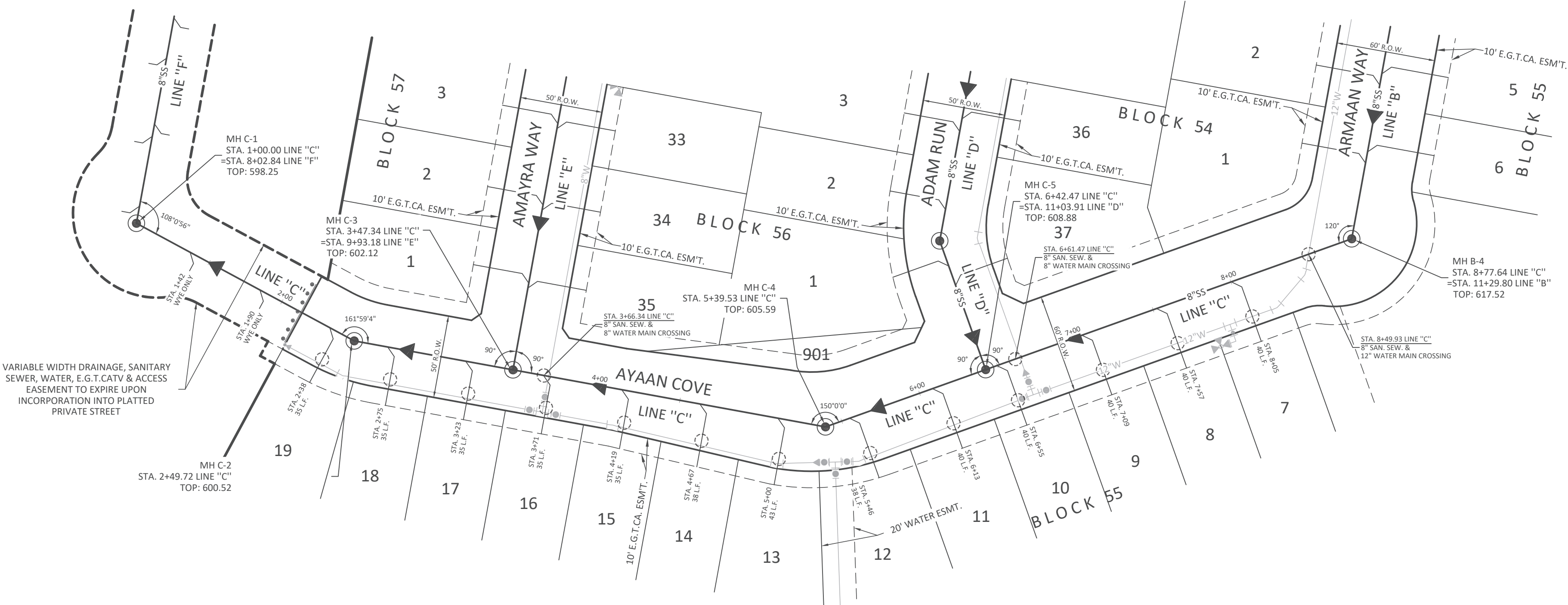
SUBMITTAL SET

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.
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.

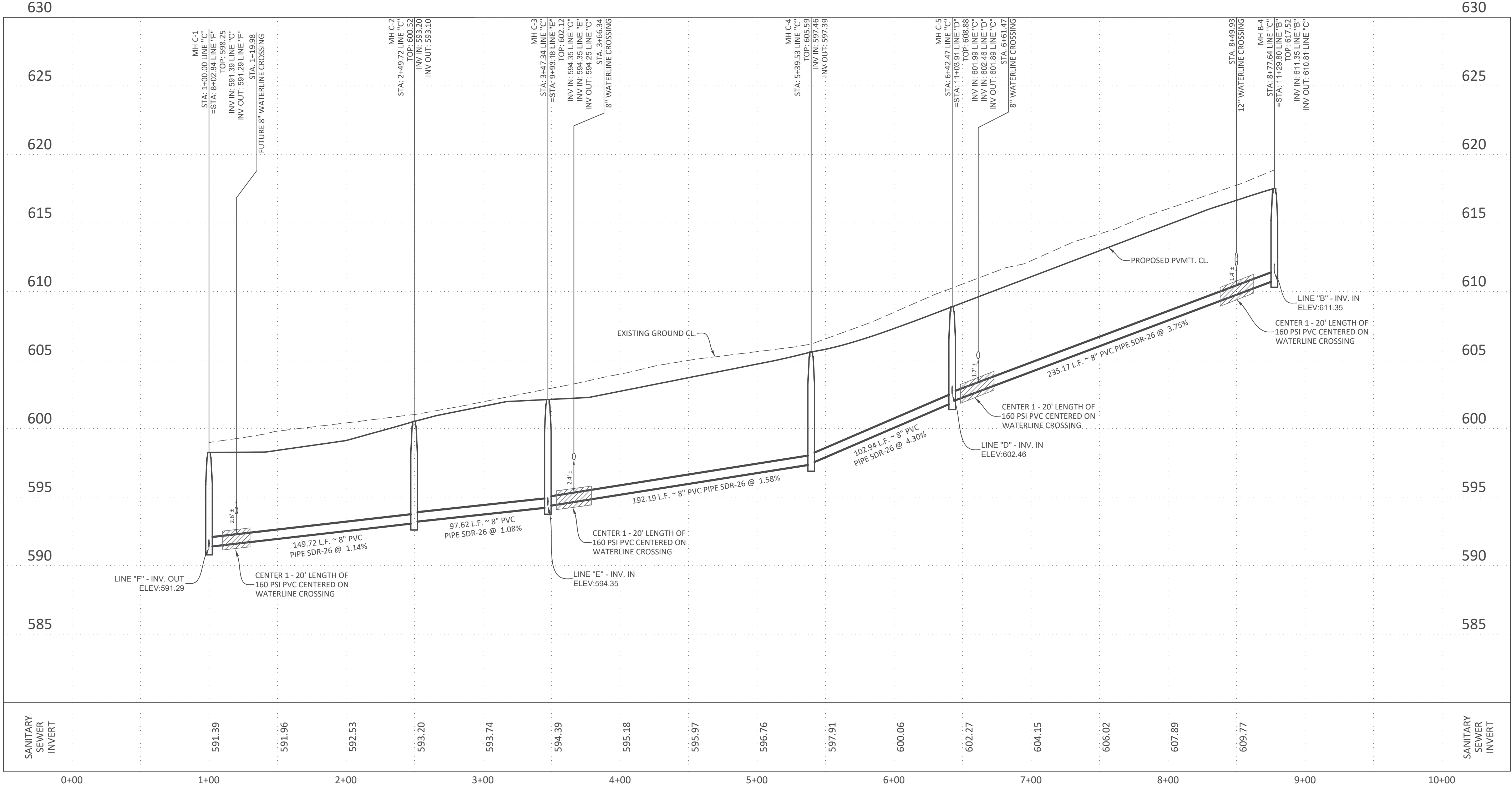


TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL
N.T.S.



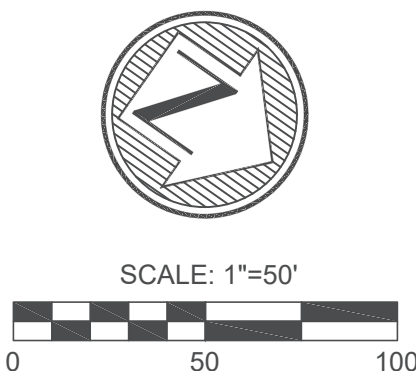
LINE 'C'
STA. 1+00.00 TO STA. 9+94.61

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



LEGEND

- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- PROPOSED FIRE HYDRANT
- EXISTING FIRE HYDRANT
- PROPOSED GATE VALVE
- EXISTING GATE VALVE
- PROPOSED SANITARY SEWER MAIN & MANHOLE
- EXISTING SANITARY SEWER MAIN & MANHOLE
- PROPOSED SERVICE LATERAL WITH ONE-WAY CLEAN-OUT
- VERTICAL STACK
- ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT
- TEMPORARY BENCHMARK
- PROPOSED MINIMUM FINISH FLOOR ELEVATION
- SANITARY SEWER/WATER CROSSING LOCATION
- OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS
- OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS



NOTE:
LATERALS TO BE LOCATED
OUTSIDE OF DRIVEWAY LOCATIONS.
CONTRACTOR TO PRE-DETERMINE
DRIVEWAY LOCATIONS FOR EACH
LOT.

**Engineers
Surveyors
Planners**

Moy Tarin Ramirez Engineers, LLC
TBEPLS: ENGINEERING F-5297 / SURVEYING: F-10131500
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5065



LEGACY AT GREEN ENCLAVE UNIT 1
SANITARY SEWER PLAN & PROFILE
LINE 'C'
STA. 1+00.00 TO STA. 9+94.61

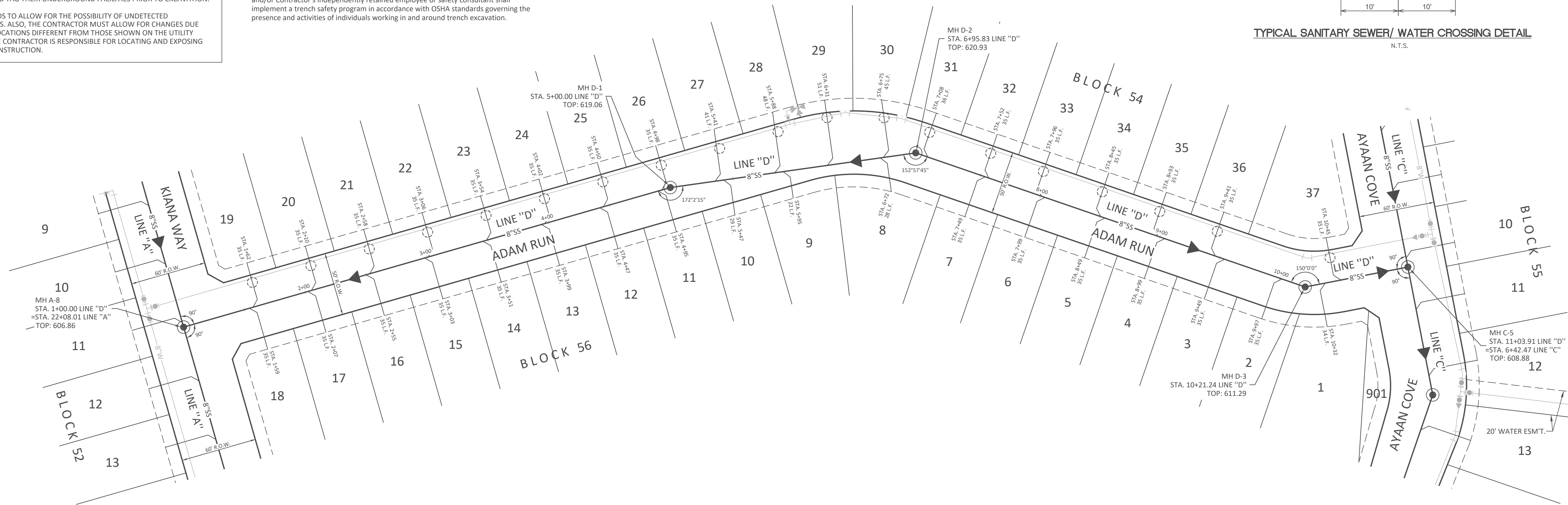
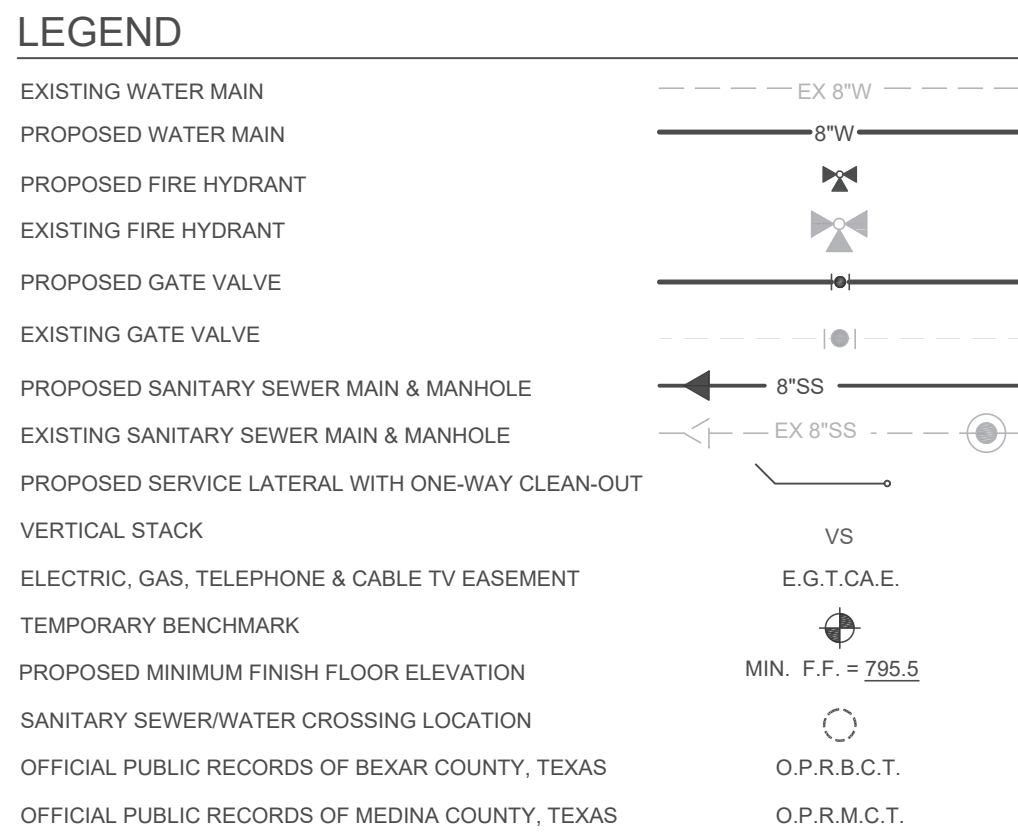
SHEET

C2.9

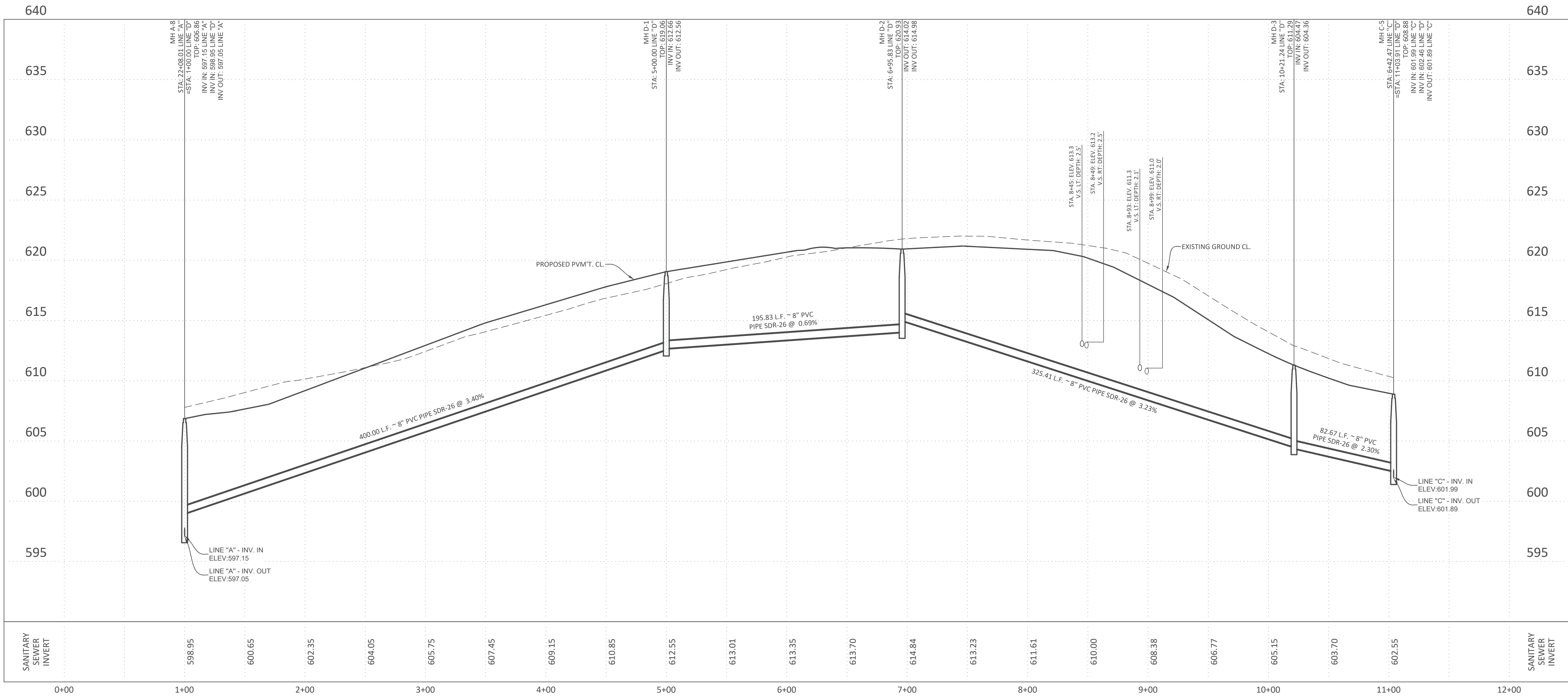
SUBMITTAL SET

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 technical information and the articulated shoring, trench shoring system 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.



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

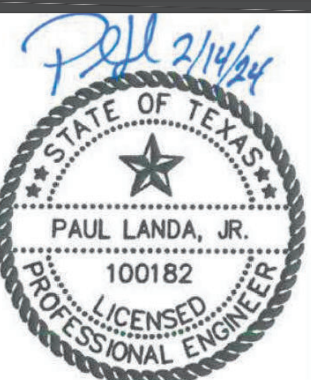


MTR

- Engineers
- Surveyors
- Planners

Moy Tarin Ramirez Engineers, LLC

OFFICES: ENGINEERING F-5297/SURVEYING: F-10131/5001
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085



LEGACY AT GREEN ENCLAVE UNIT 1

SANITARY SEWER PLAN & PROFILE

LINE "D"

STA. 1+00.00 TO STA. 11+05.26

SHEET

C2.10

SUBMITTAL SET

REMISIONS				
NO.	DATE	DESCRIPTION	BY	
			PROJ. #	DATE:
			DON. BY:	CHGD. BY:
			DWN. BY:	

PAUL LANDA, JR.
100182
LICENSED PROFESSIONAL ENGINEER

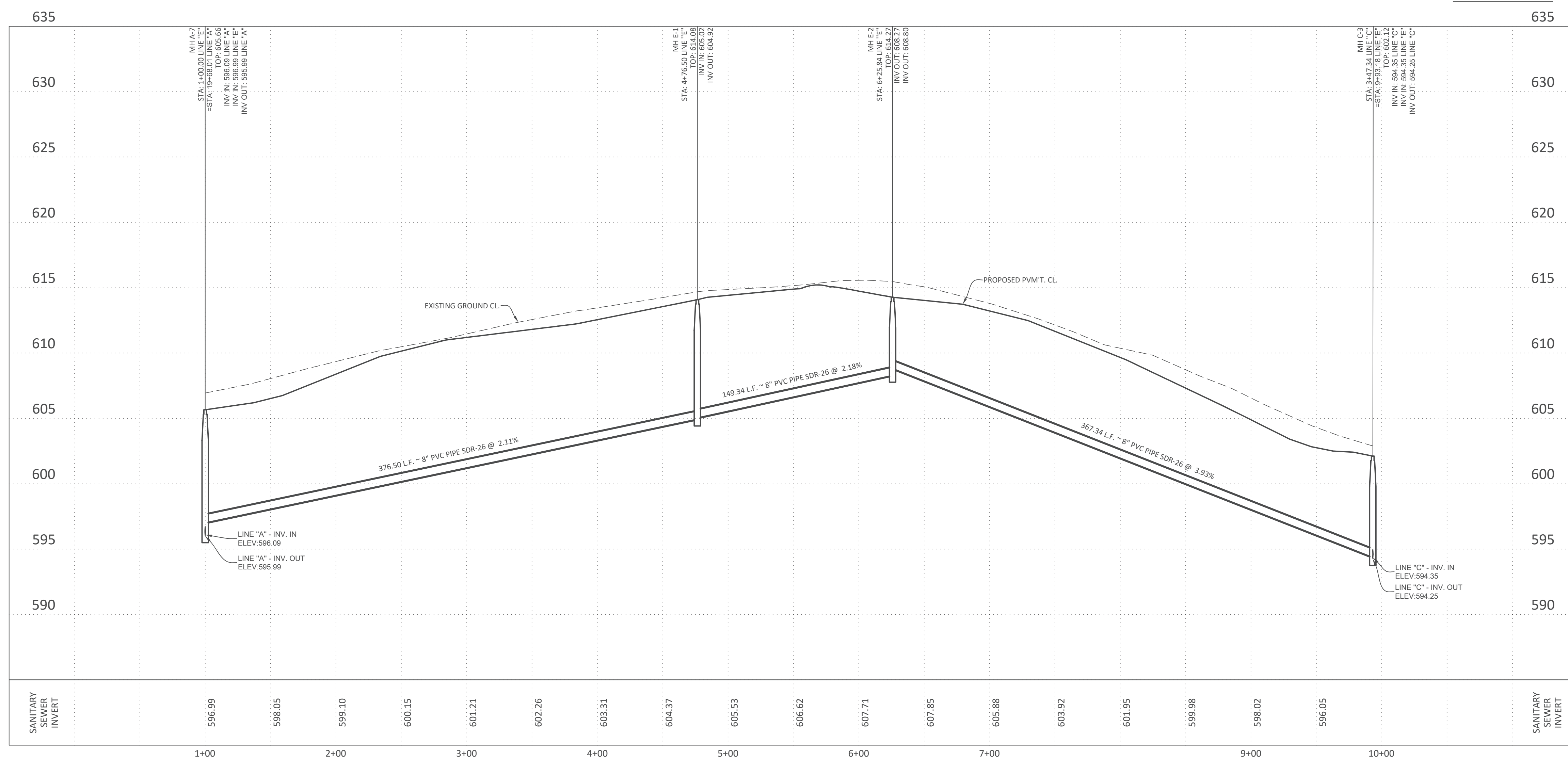
SHEET

STA. 1+00.00 TO STA. 9+99.62

SUBMITTAL SET

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 complies with OSHA standards. OSHA standards shall be implemented by the 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.




Dial Dates: March 13, 2024 Home ID: 000001 Carolina

[illegible][illegible]

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 the applicable OSHA standards. The Contractor's independent retained employee 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.



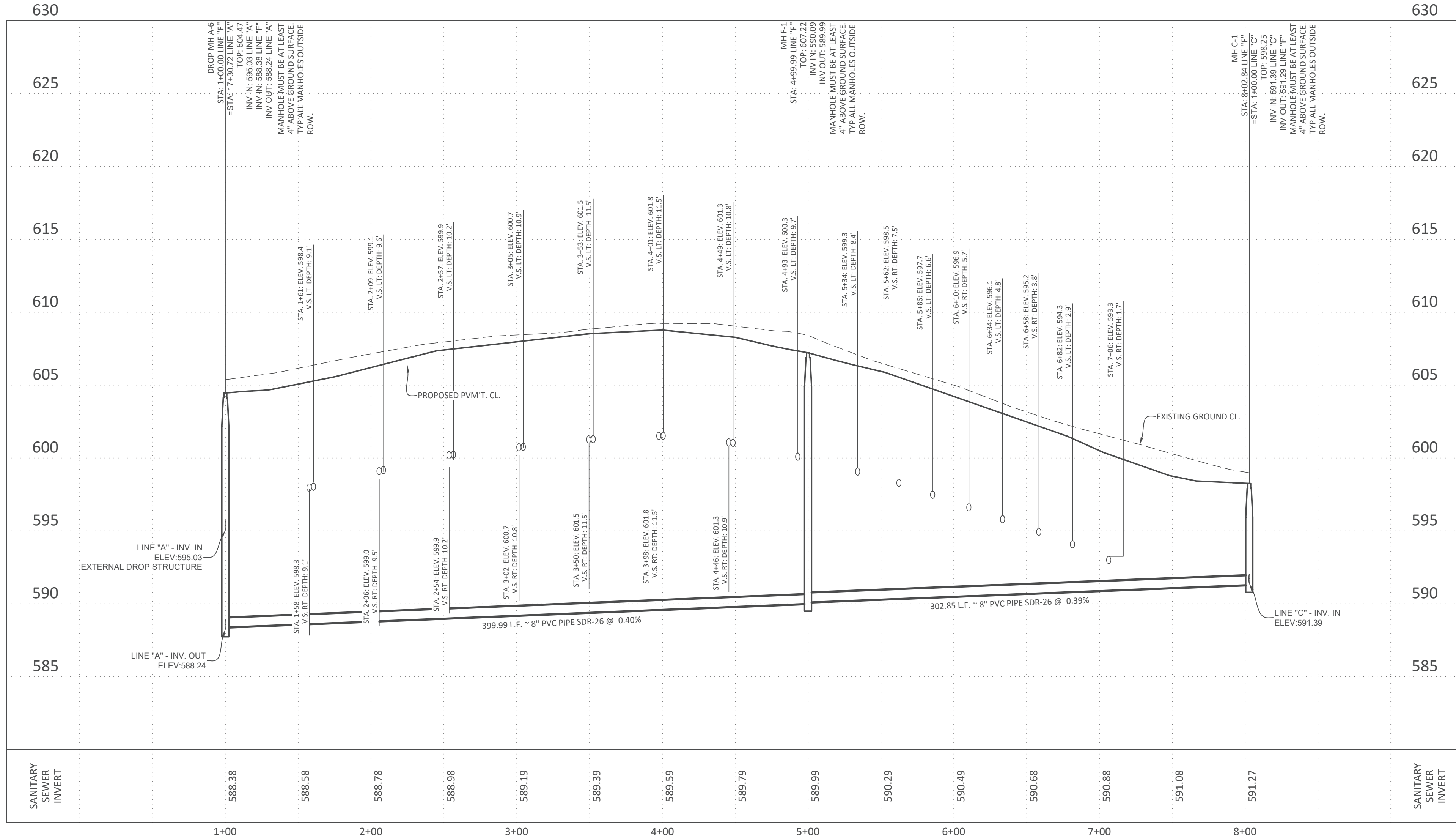


SCALE: 1"=50'

NOTE:
 LATERALS TO BE LOCATED
 OUTSIDE OF DRIVEWAY LOCATIONS.
 CONTRACTOR TO PRE-DETERMINE
 DRIVEWAY LOCATIONS FOR EACH
 LOT.

STA. 1+00.00 TO STA. 8+11.48

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

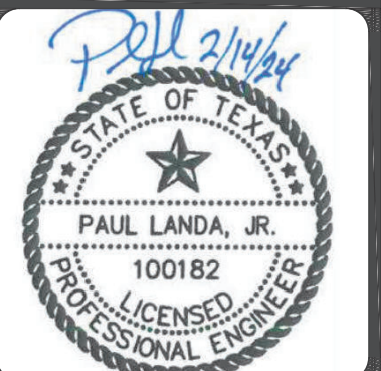


MTR

Moy Tarin Ramirez Engineers, LLC

• Engineers
• Surveyors
• Planners

SPLEAS: ENGINEERING F-5297/SURVEYING: F-1013/15000
67770 CIMARRON PARK, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055



LEGACY AT GREEN ENCLAVE UNIT 1
SANITARY SEWER PLAN & PROFILE
LINE "F"
STA. 1+00.00 TO STA. 8+11.48

C2.12

SUBMITTAL SET



DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
APPROVED BY: _____
DATE: _____

NO.	REVISION	DATE	BY

REVIS
10/2/2023

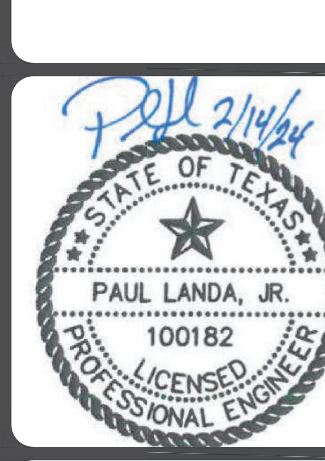
STANDARD
SANITARY
SEWER DETAILS

SHEET
5 OF 5

NO.	REVISION	DATE	BY

Engineers
Surveyors
Planners

Moy Tarin Ramirez Engineers, LLC
TBEPLS: ENGINEERING F-5297/SURVEYING: F-10131500
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055

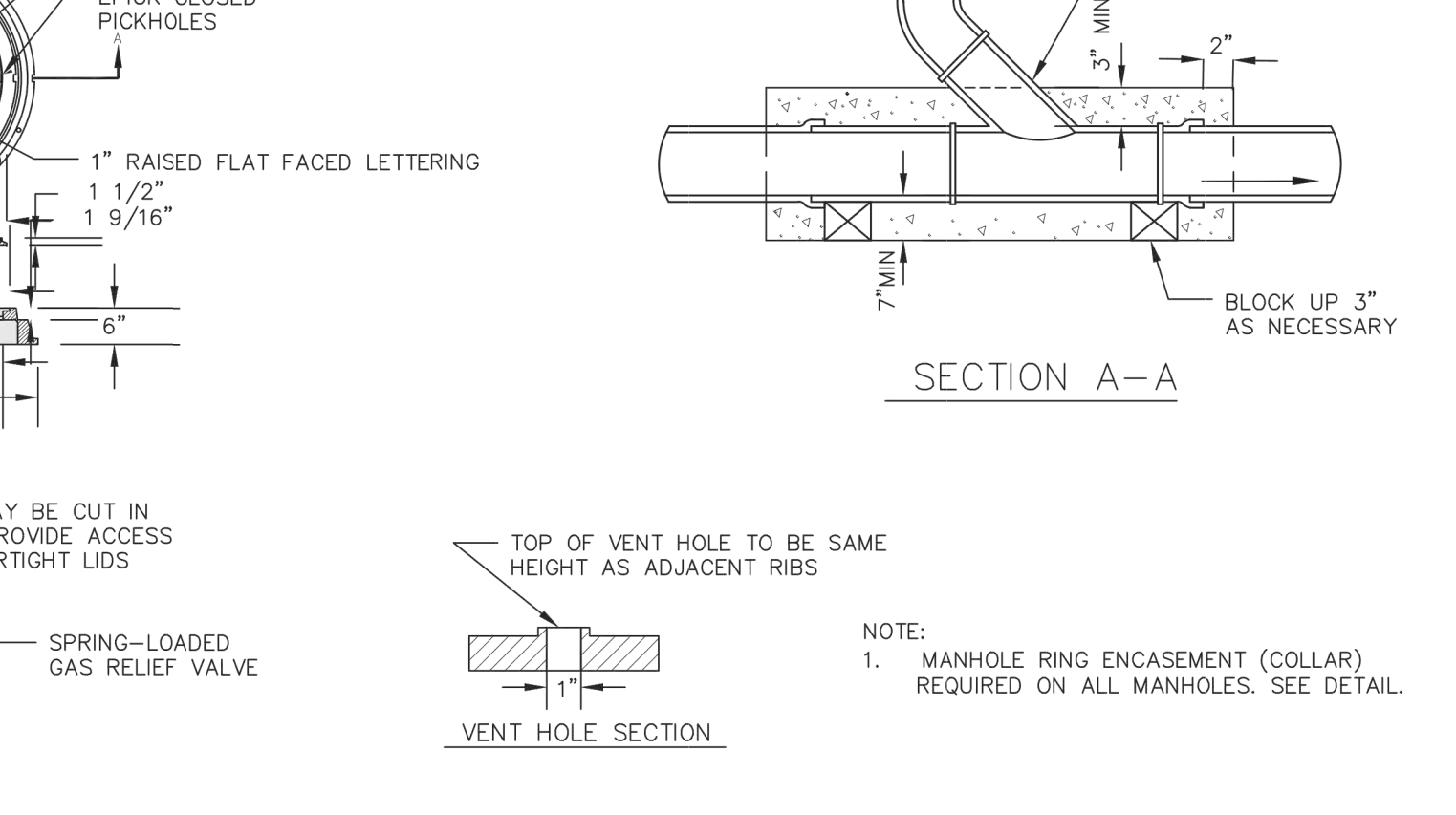
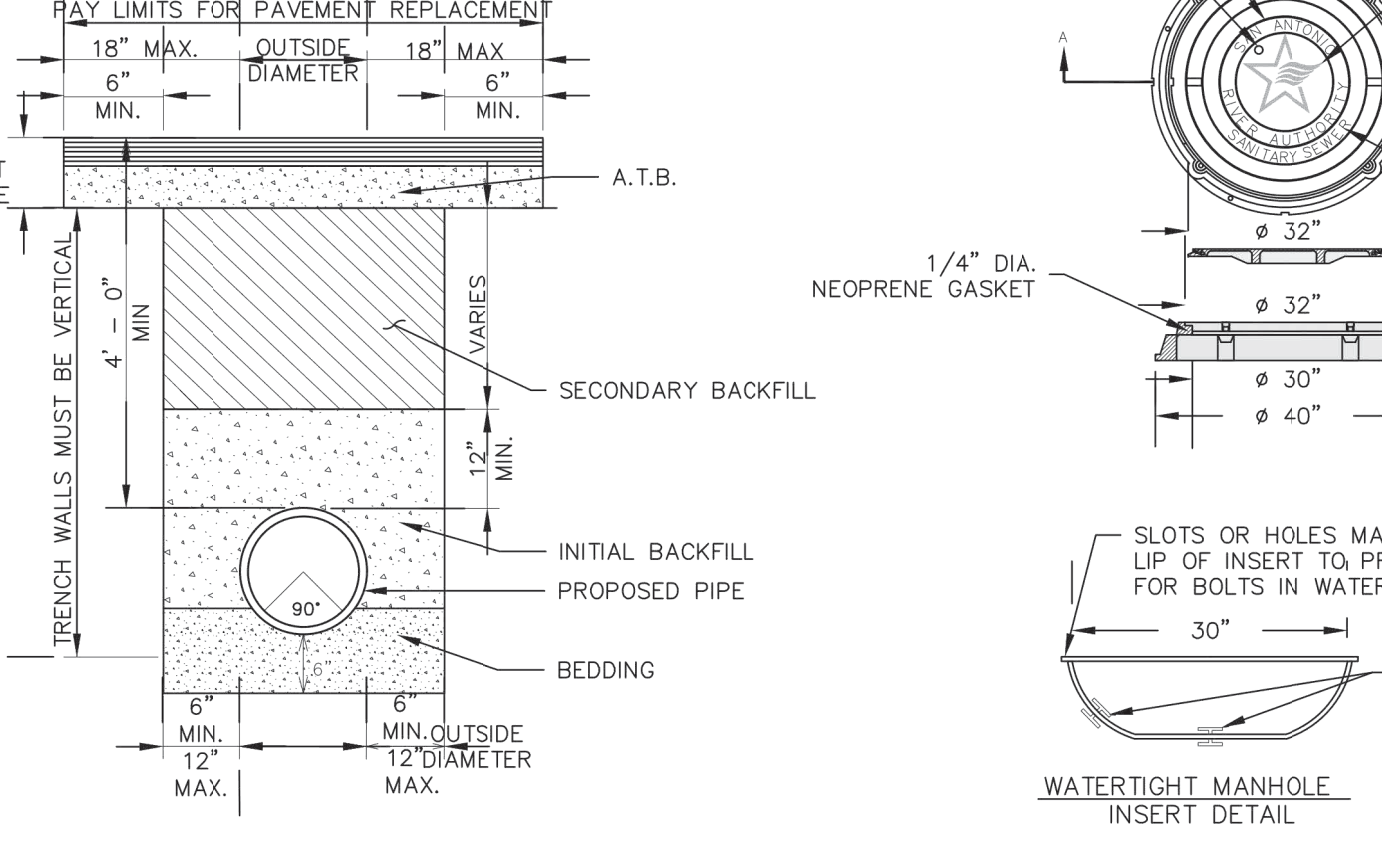
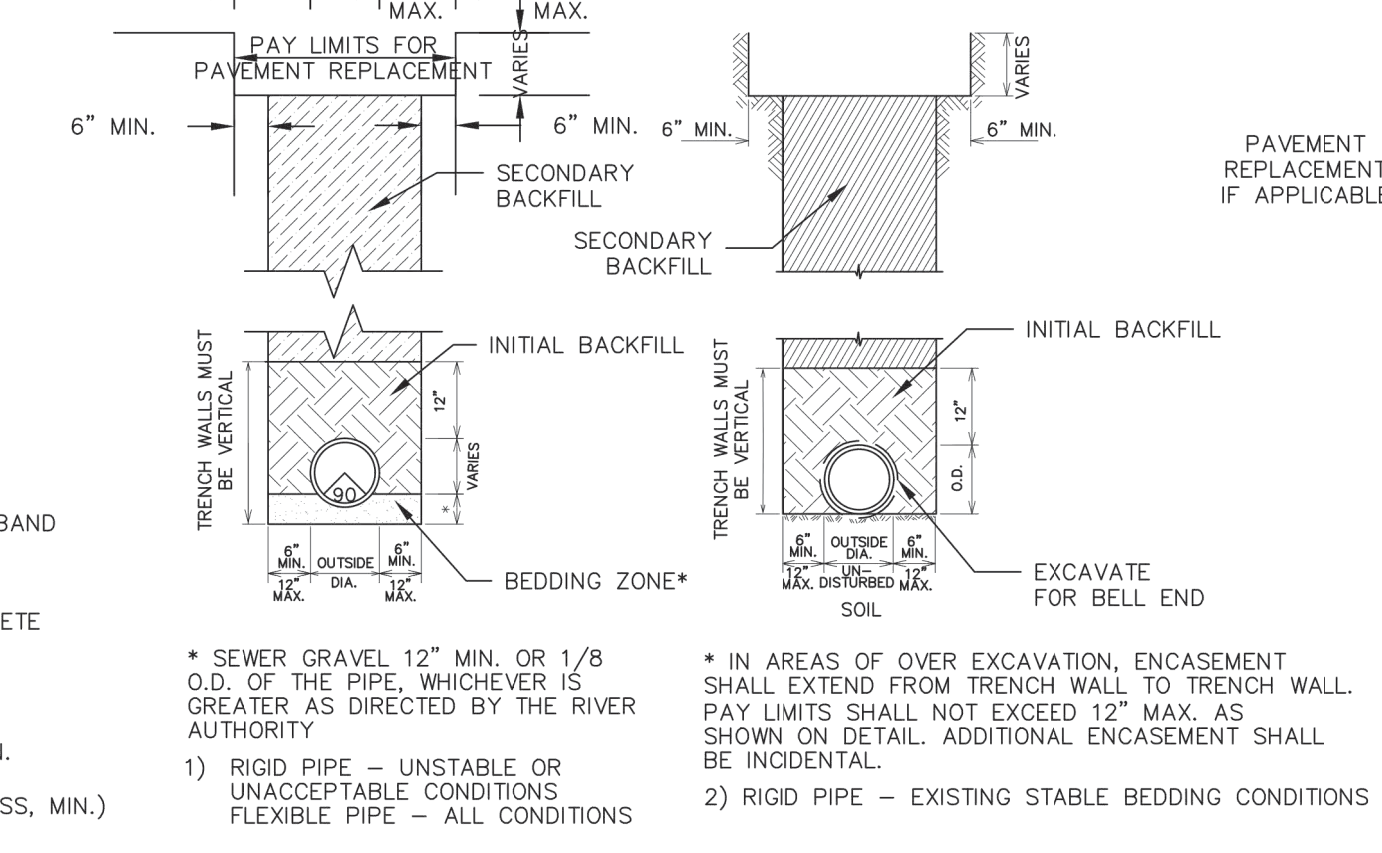
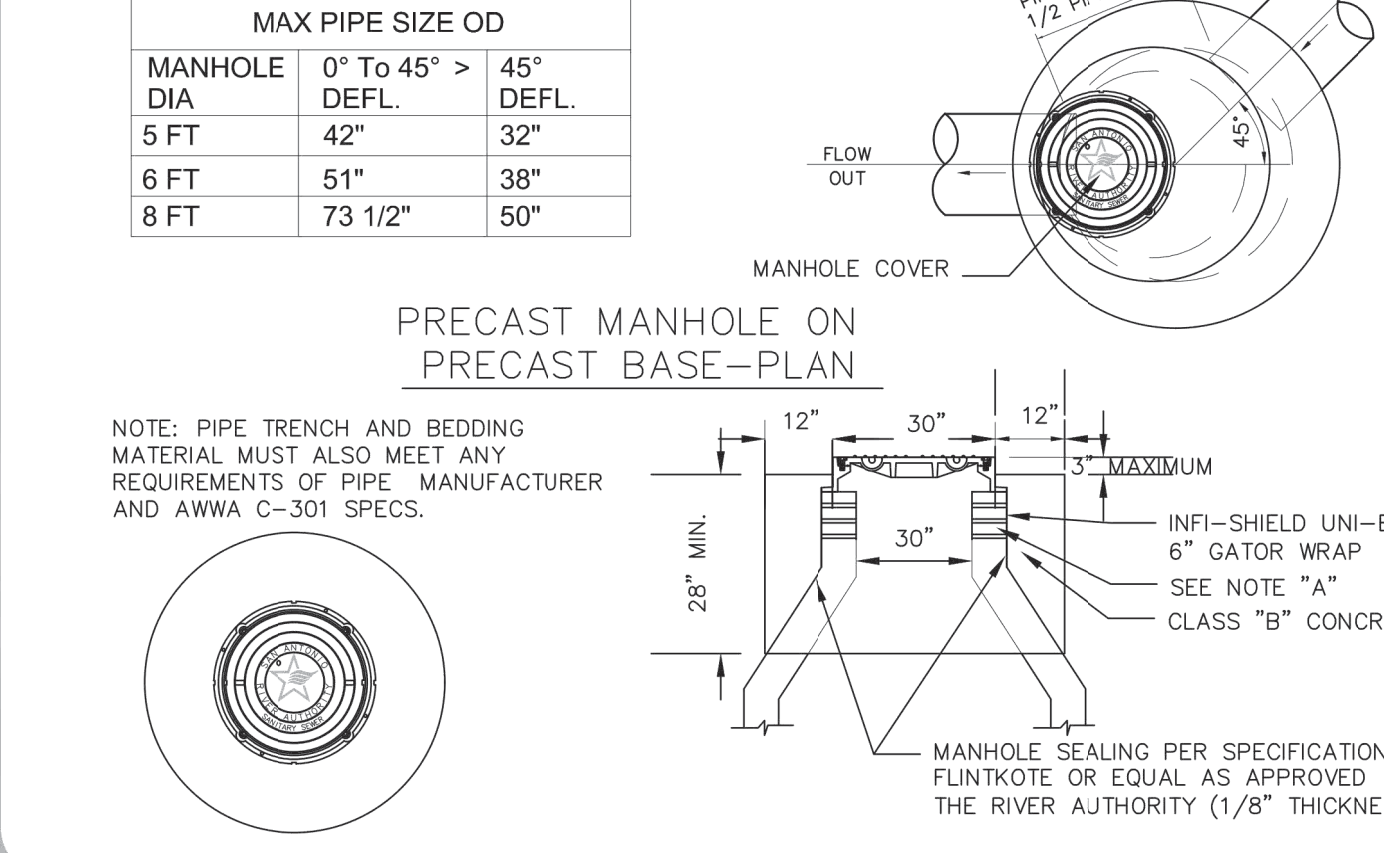
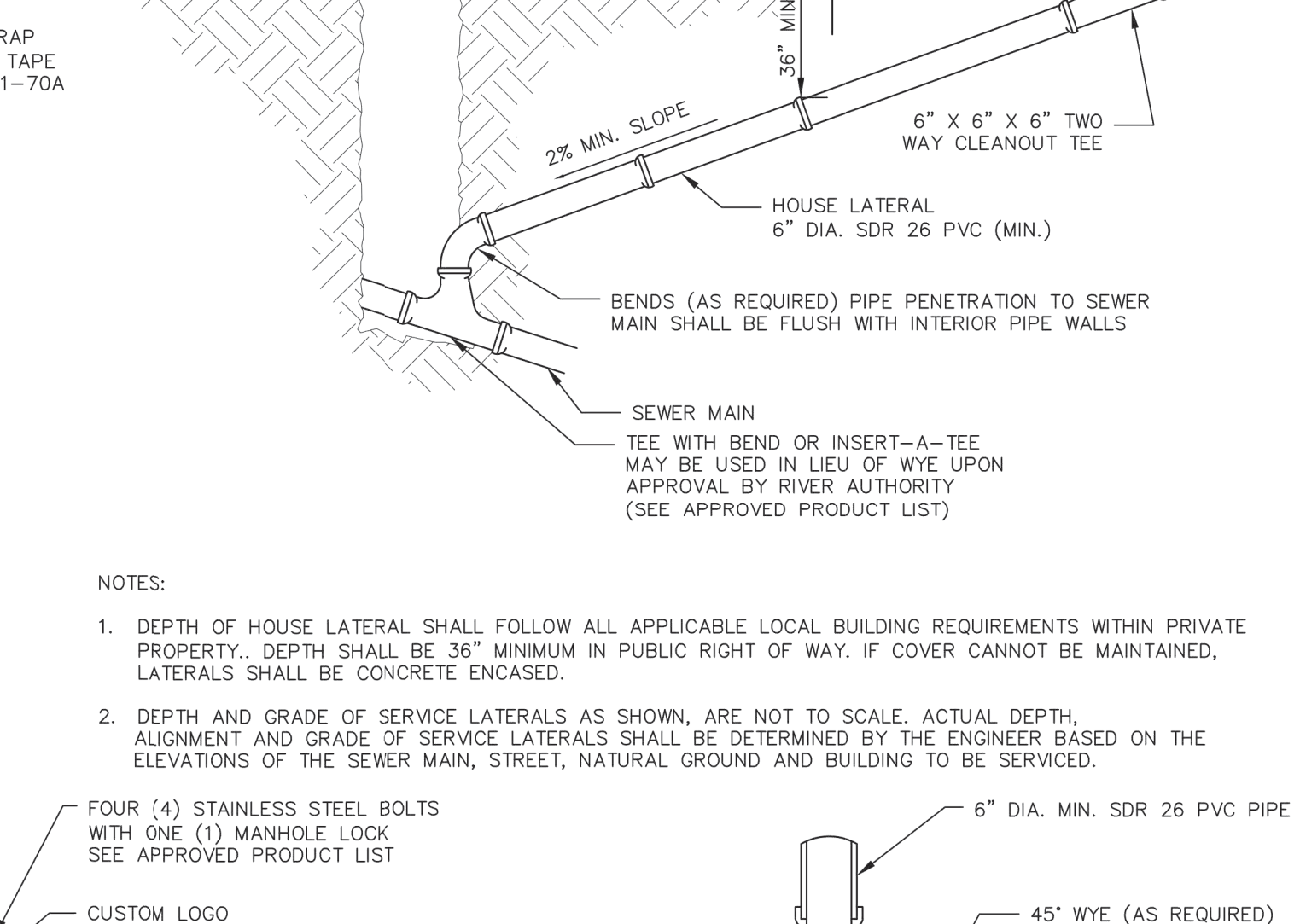
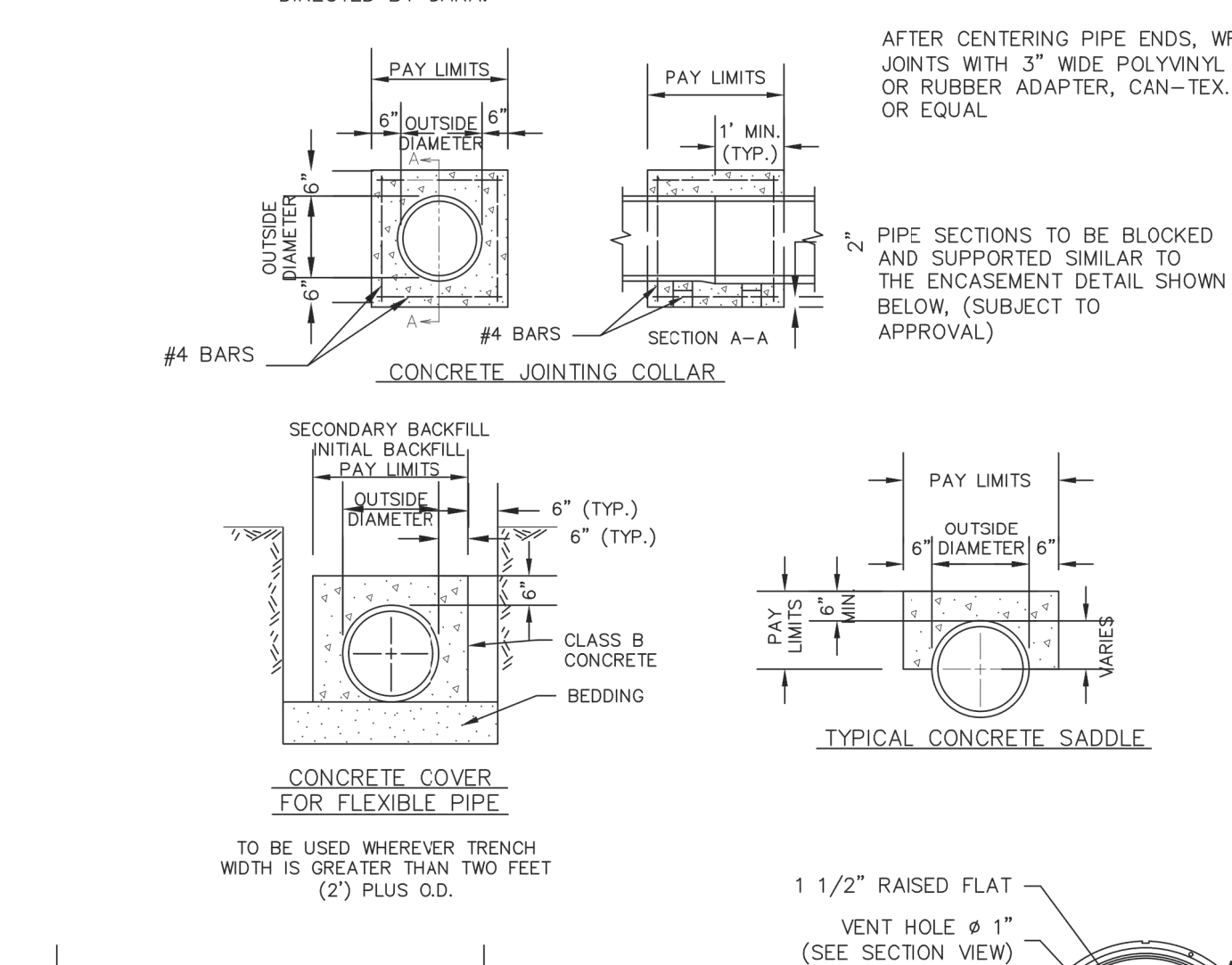
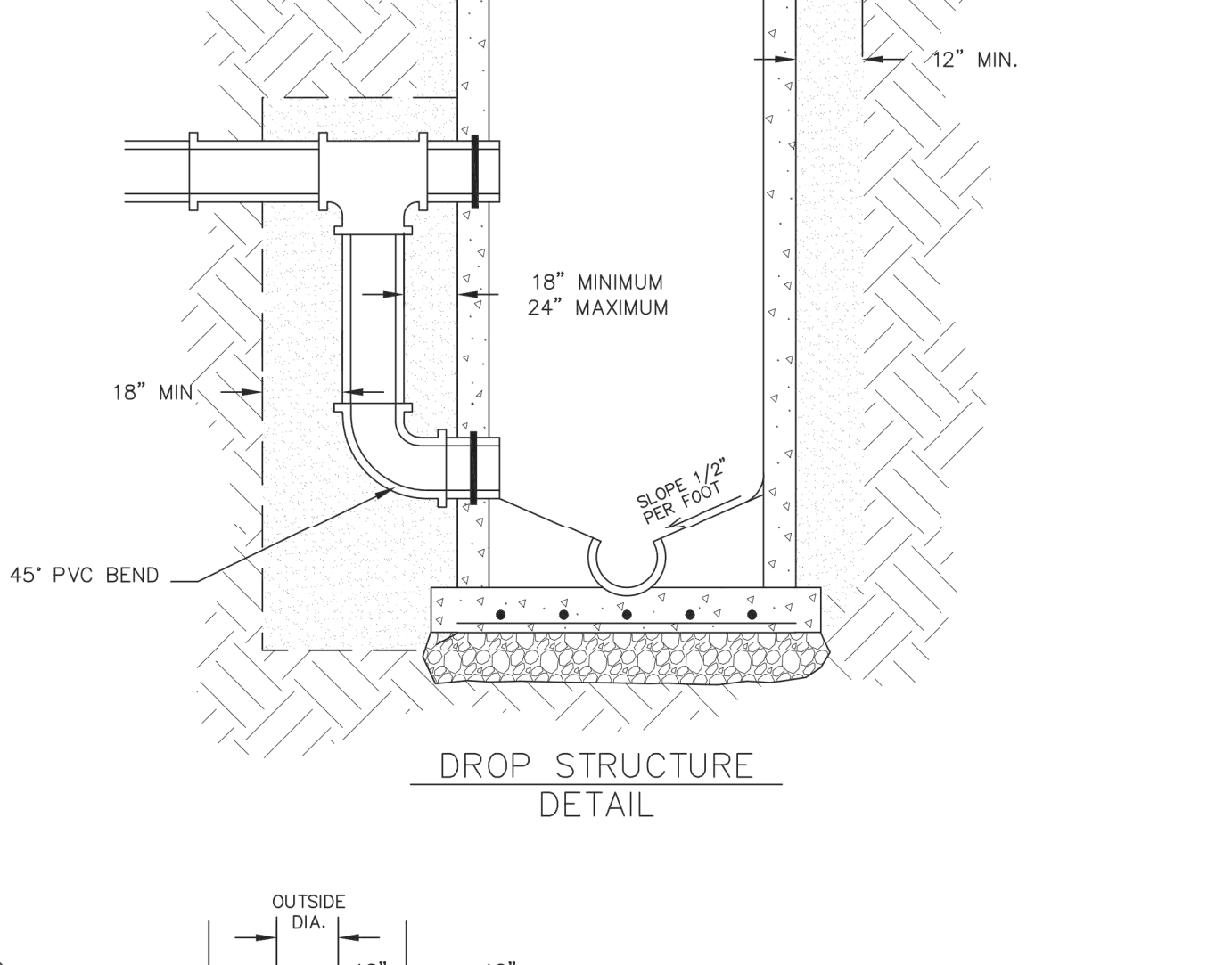
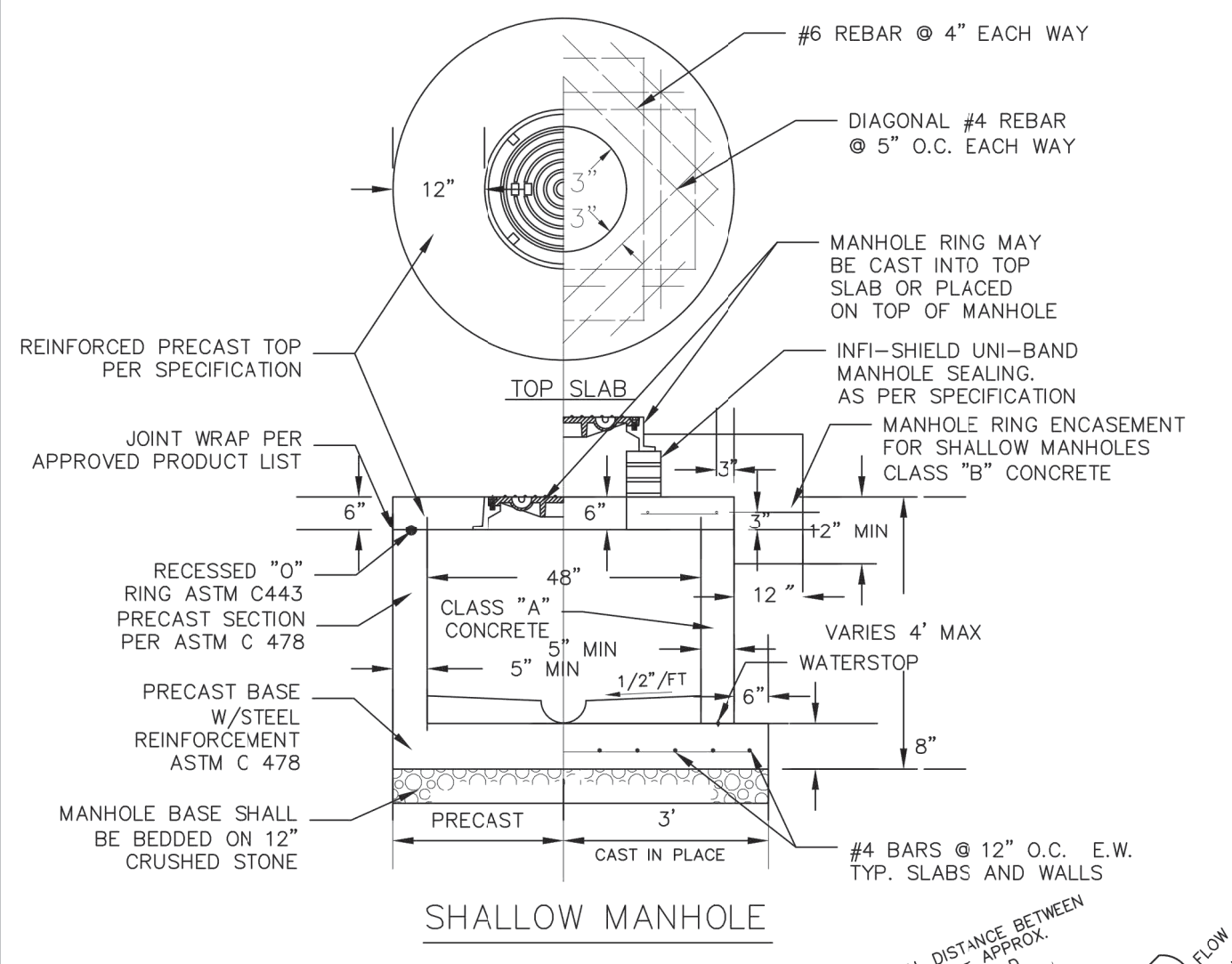
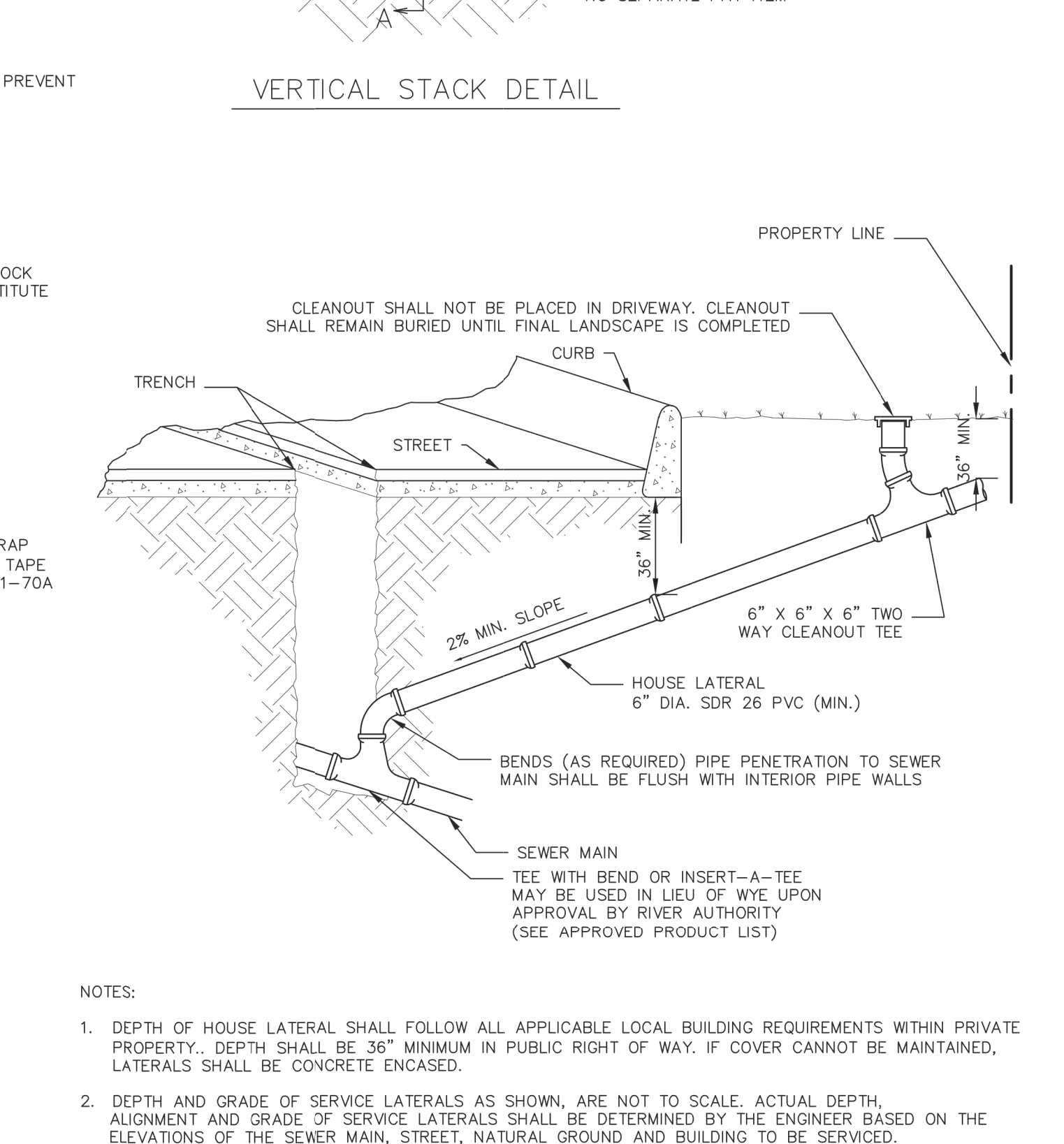
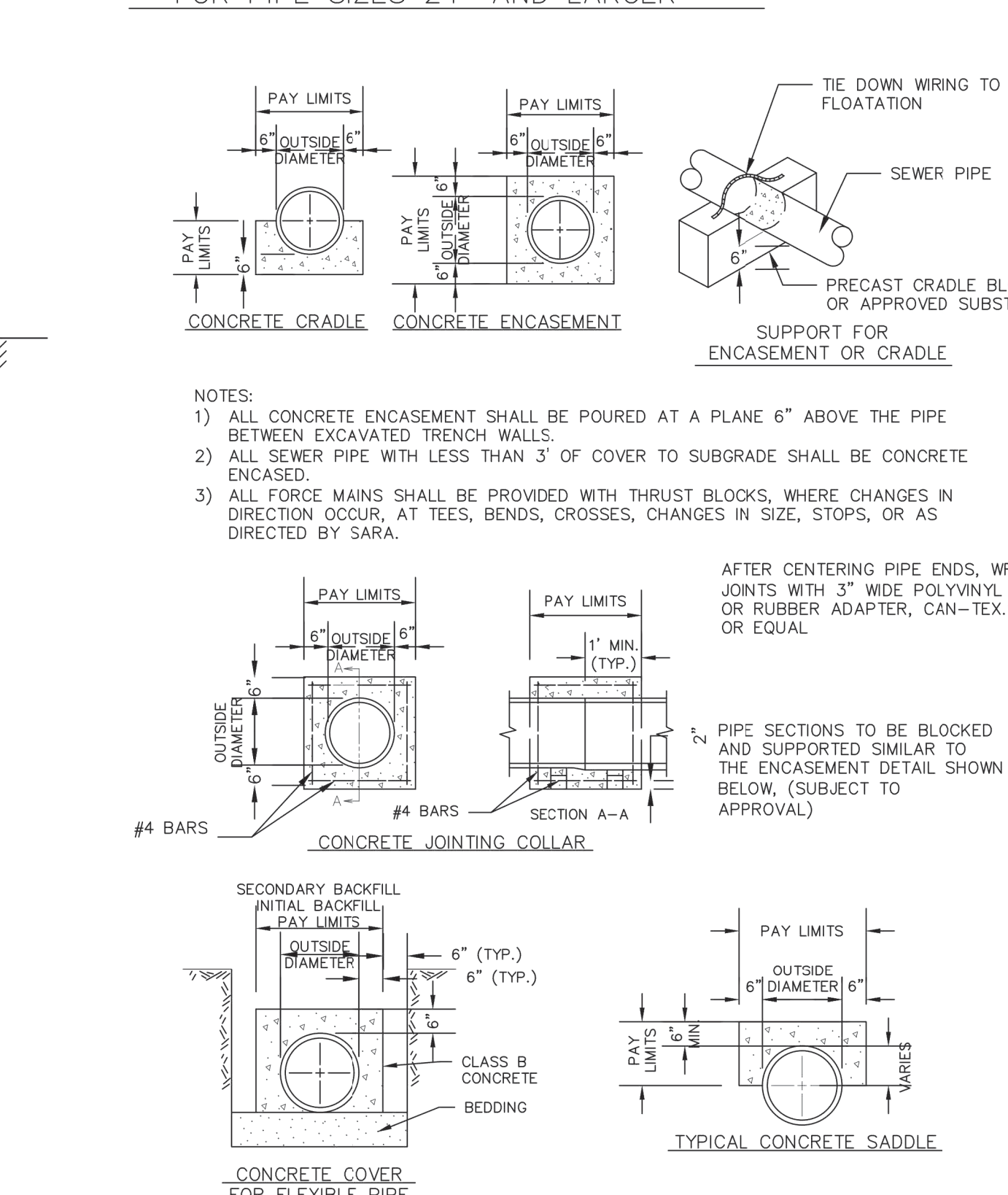
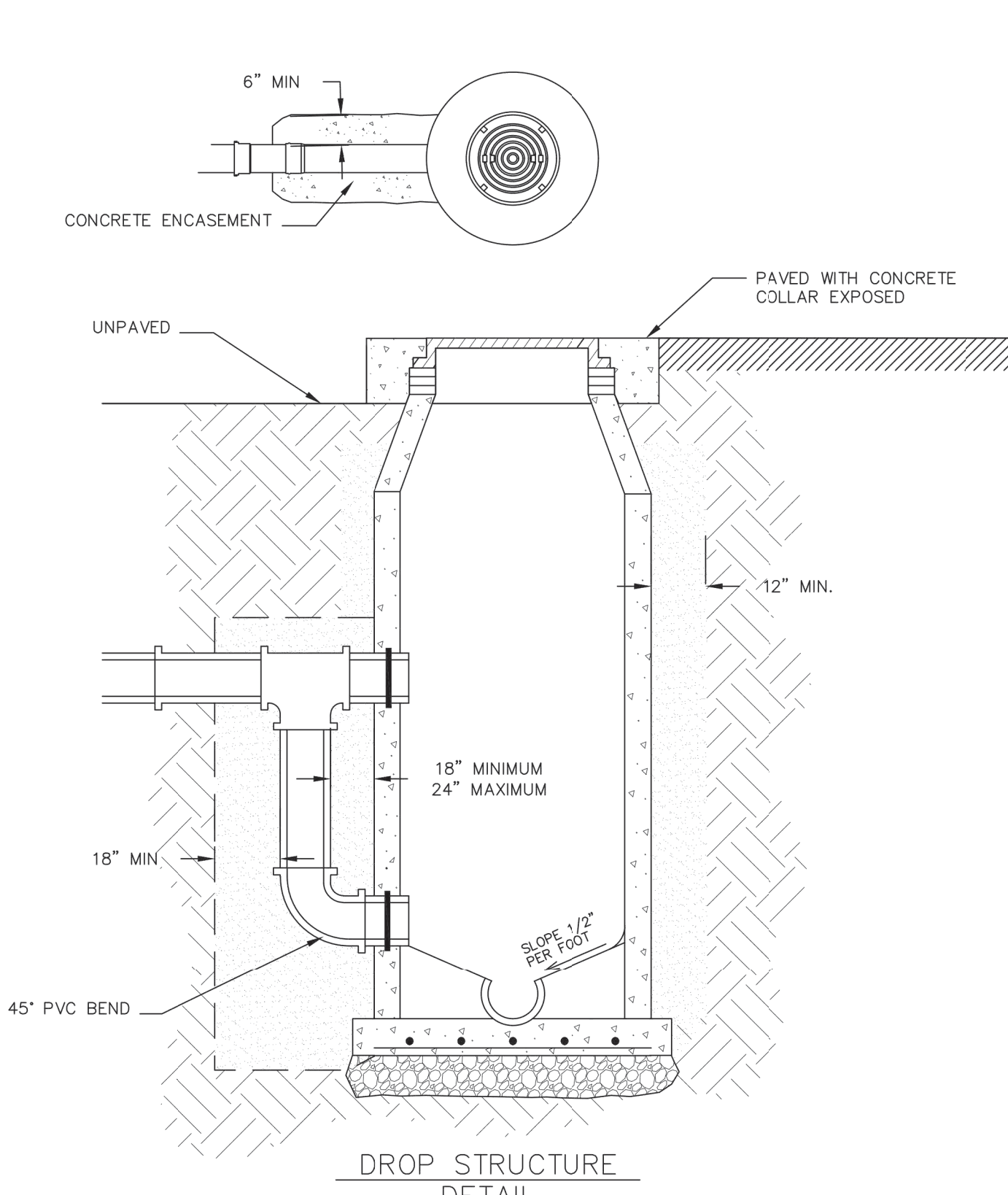
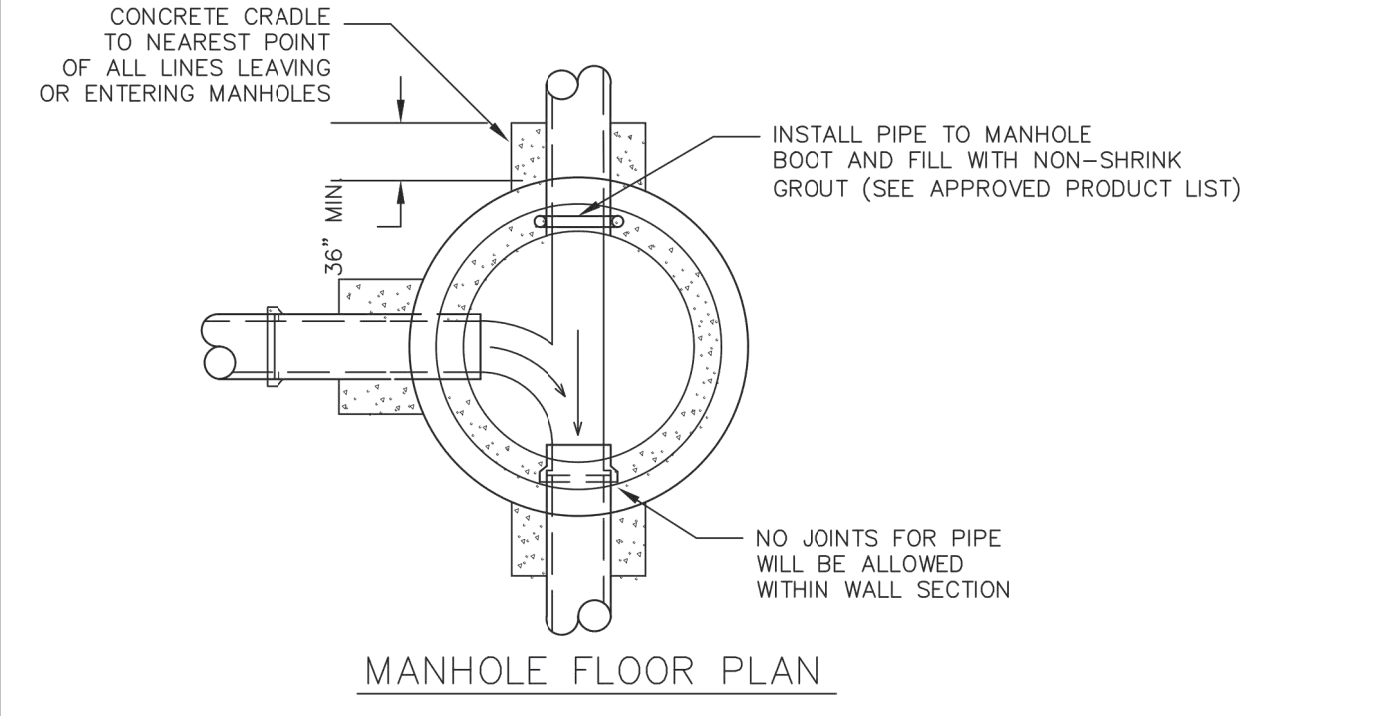
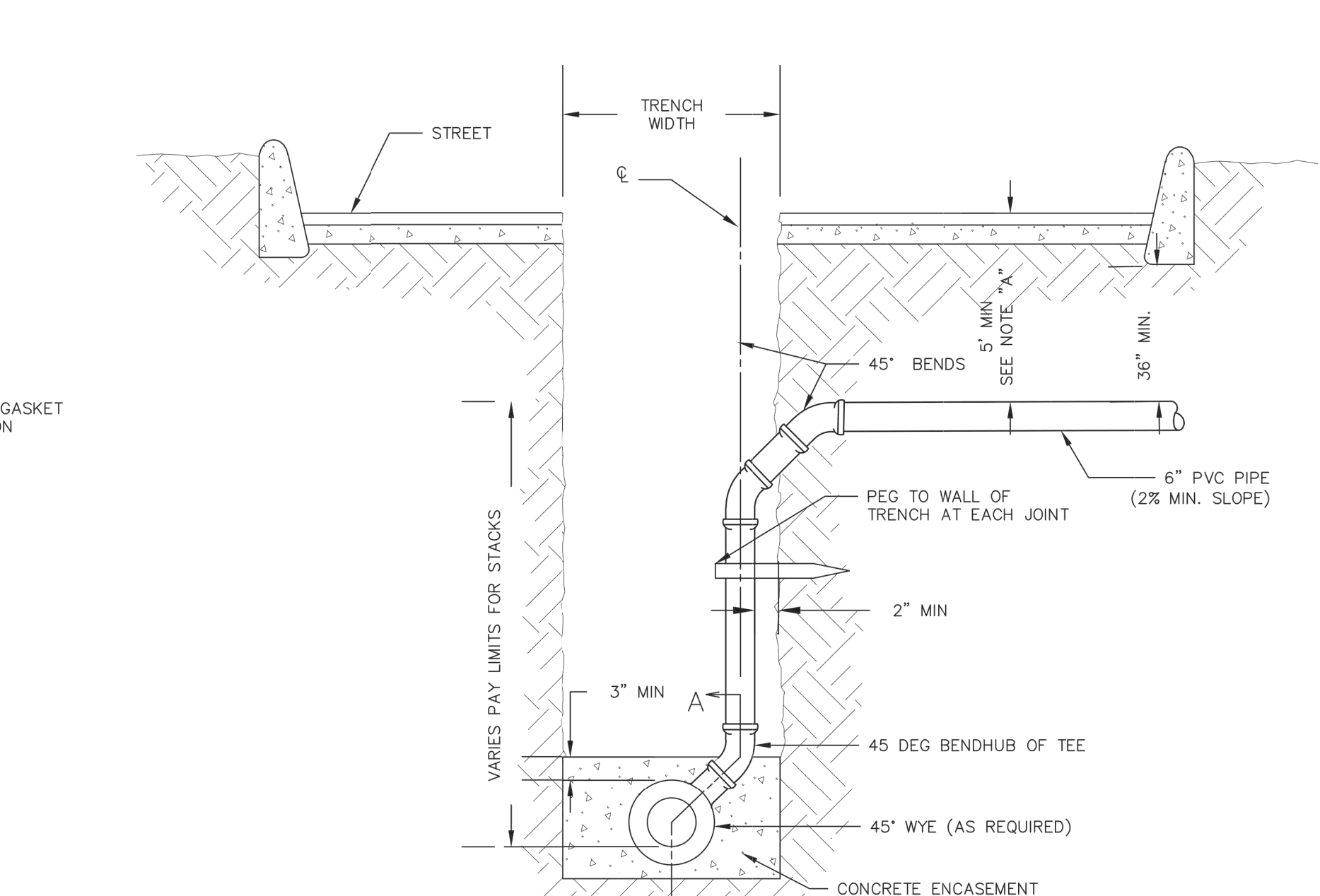
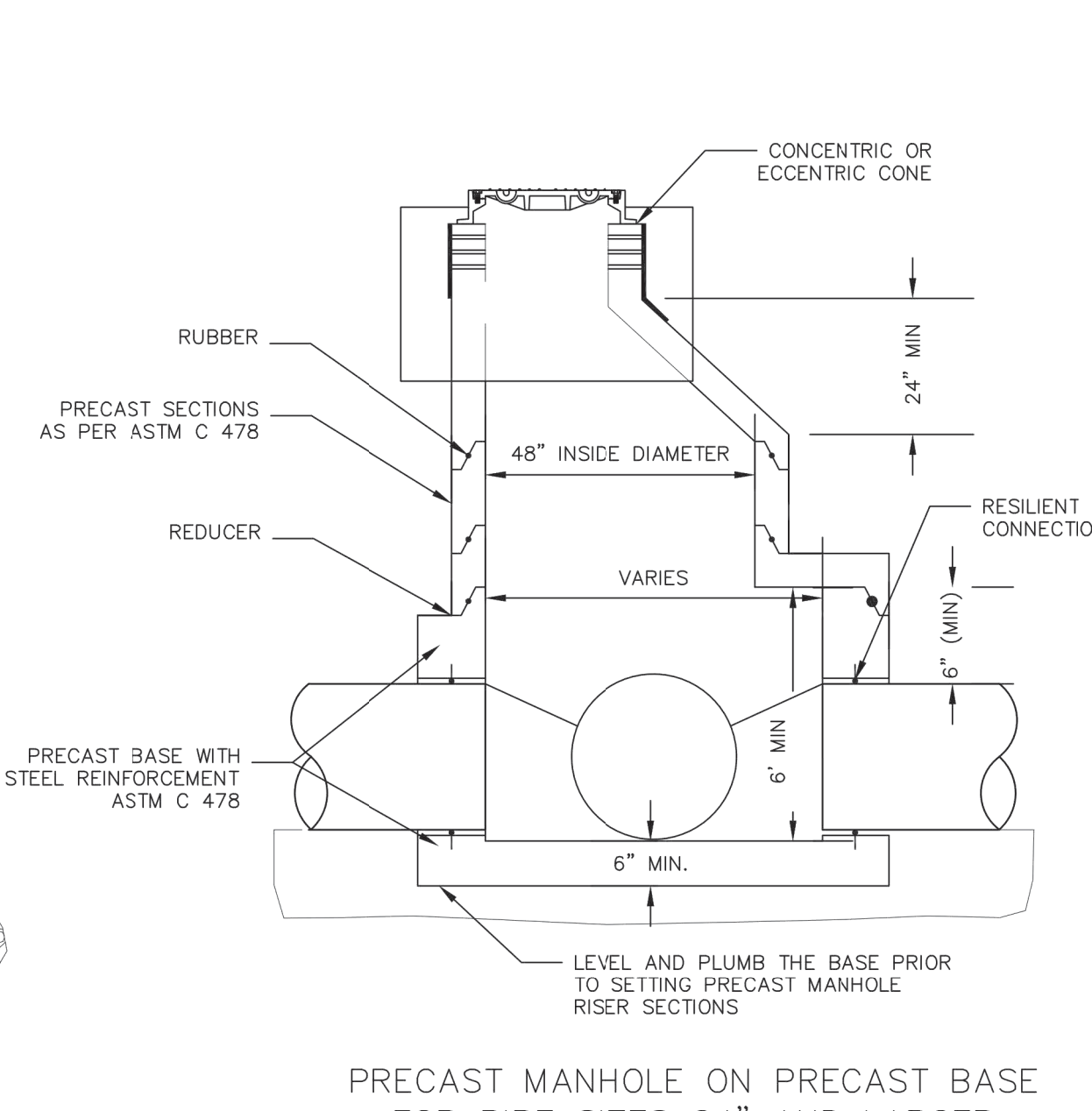
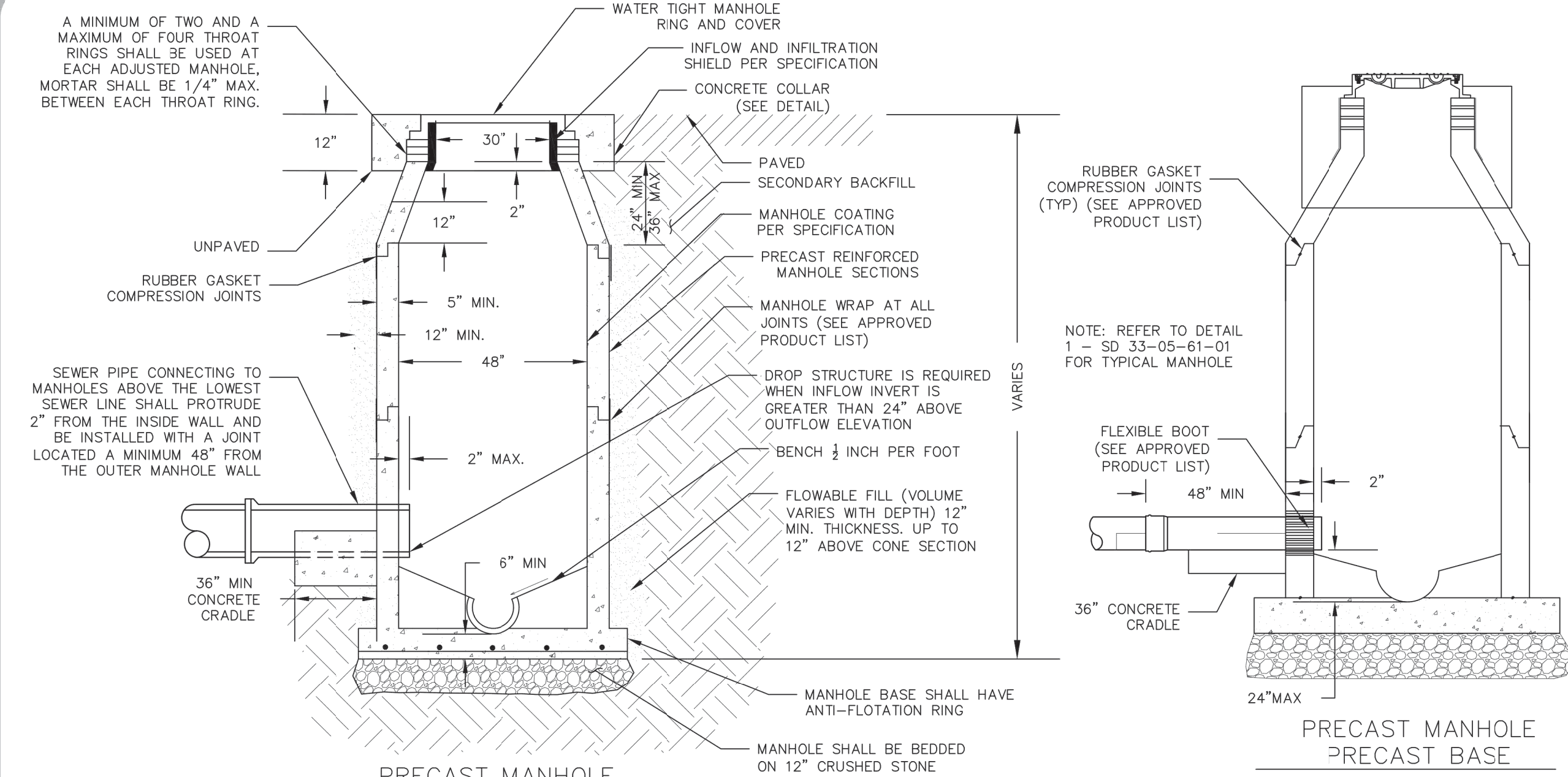


LEGACY AT GREEN ENCLAVE UNIT 1

SANITARY SEWER DETAILS

SHEET

C2.13



NOTES:

1. ALL CONCRETE ENCASEMENT SHALL BE POURED AT A PLANE 6" ABOVE THE PIPE BETWEEN EXCAVATED TRENCH WALLS.

2. ALL SEWER PIPE WITH LESS THAN 3' OF COVER TO SUBGRADE SHALL BE CONCRETE ENCASED.

3. ALL FORCE MAINS SHALL BE PROVIDED WITH THRUST BLOCKS, WHERE CHANGES IN DIRECTION OCCUR, AT TEES, BENDS, CROSSES, CHANGES IN SIZE, STOPS, OR AS DIRECTED BY SARA.

AFTER CENTERING PIPE ENDS, WRAP JOINTS WITH 3" WIDE POLYVINYL TAPE OR RUBBER ADAPTER, CAN-TEX-1-70A OR EQUAL.

PIPE SECTIONS TO BE BLOCKED AND SUPPORTED SIMILAR TO THE ENCASEMENT DETAIL SHOWN BELOW, (SUBJECT TO APPROVAL)

NOTES:

1. DEPTH OF HOUSE LATERAL SHALL FOLLOW ALL APPLICABLE LOCAL BUILDING REQUIREMENTS WITHIN PRIVATE PROPERTY. DEPTH SHALL BE 36" MINIMUM IN PUBLIC RIGHT OF WAY. IF COVER CANNOT BE MAINTAINED, LATERALS SHALL BE CONCRETE ENCASED.

2. DEPTH AND GRADE OF SERVICE LATERALS AS SHOWN, ARE NOT TO SCALE. ACTUAL DEPTH, ALIGNMENT AND GRADE OF SERVICE LATERALS SHALL BE DETERMINED BY THE ENGINEER BASED ON THE ELEVATIONS OF THE SEWER MAIN, STREET, NATURAL GROUND AND BUILDING TO BE SERVICED.

FOUR (4) STAINLESS STEEL BOLTS WITH ONE (1) MANHOLE LOCK SEE APPROVED PRODUCT LIST

CUSTOM LOGO EPICK CLOSED PICKHOLES

1" RAISED FLAT FACED LETTERING

1 1/2" DIA. NEOPRENE GASKET

1/4" DIA. NEOPRENE GASKET

SLOTS OR HOLES MAY BE CUT IN LIP OF INSERT TO PROVIDE ACCESS FOR BOLTS IN WATERTIGHT LIDS

SPRING-LOADED GAS RELIEF VALVE

TOP OF VENT HOLE TO BE SAME HEIGHT AS ADJACENT RIBS

NOTE:

1. MANHOLE RING ENCASMENT (COLLAR) REQUIRED ON ALL MANHOLES. SEE DETAIL.



SAN ANTONIO RIVER AUTHORITY

100 E. GUENTHER STREET
P.O. BOX 839980
SAN ANTONIO, TEXAS 78283-9980

SUBMITTAL SET

SUBMITTED BY:
MOY TARIN RAMIREZ ENGINEERS, LLC.
12770 CIMARRON PATH, SUITE 100
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

OWNER/DEVELOPER
FOUR BROTHERS CAPITAL, LLC
85 N.E. LOOP 410, SUITE 203
SAN ANTONIO, TX 78216

LEGEND

- EXISTING WATER MAIN

PROPOSED WATER MAIN

EXISTING FIRE HYDRANT

PROPOSED FIRE HYDRANT

EXISTING GATE VALVE

PROPOSED GATE VALVE

3/4" SINGLE SERVICE

RESTRAINT/RESTRAINT LENGTH (FT.)

ELEC, GAS, TELE, CABLE TV ESMT.

EXISTING IRRIGATION CONTROL VALVE

EXISTING WATER METER

DEED & PLAT RECORDS OF BEXAR COUNTY, TEXAS

OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS
- E8"W -----

----- 8" PVC -----

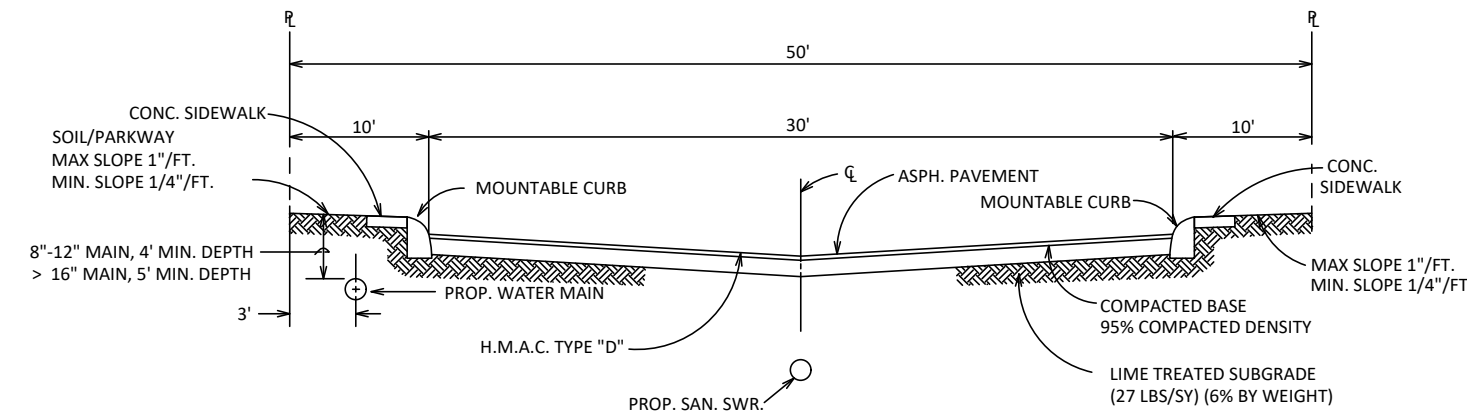
E.G.T.T.V.E.

D.P.R.B.C.T.

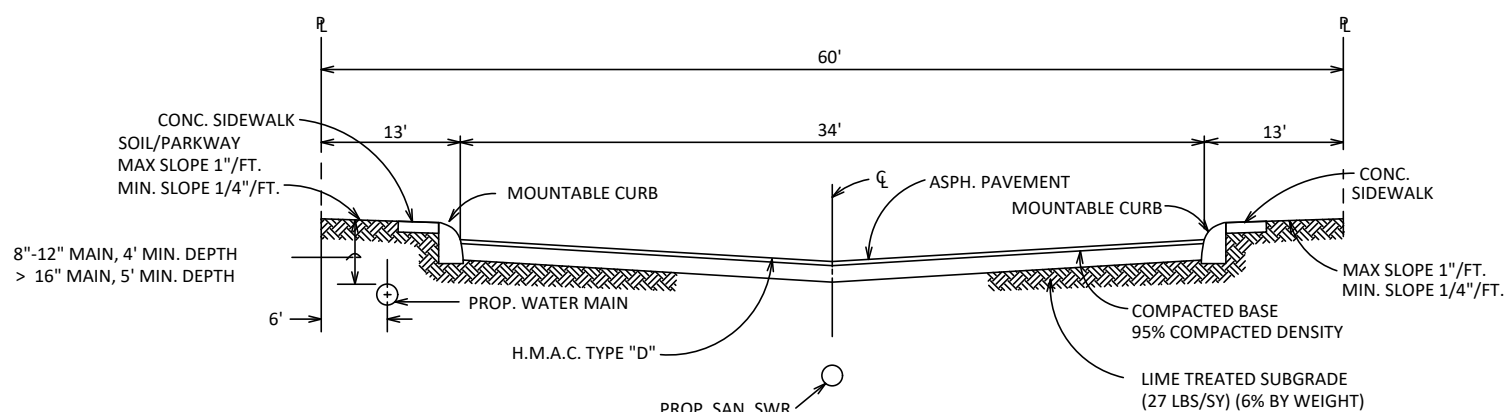
O.P.R.M.C.T.

CONSTRUCTION PLANS FOR

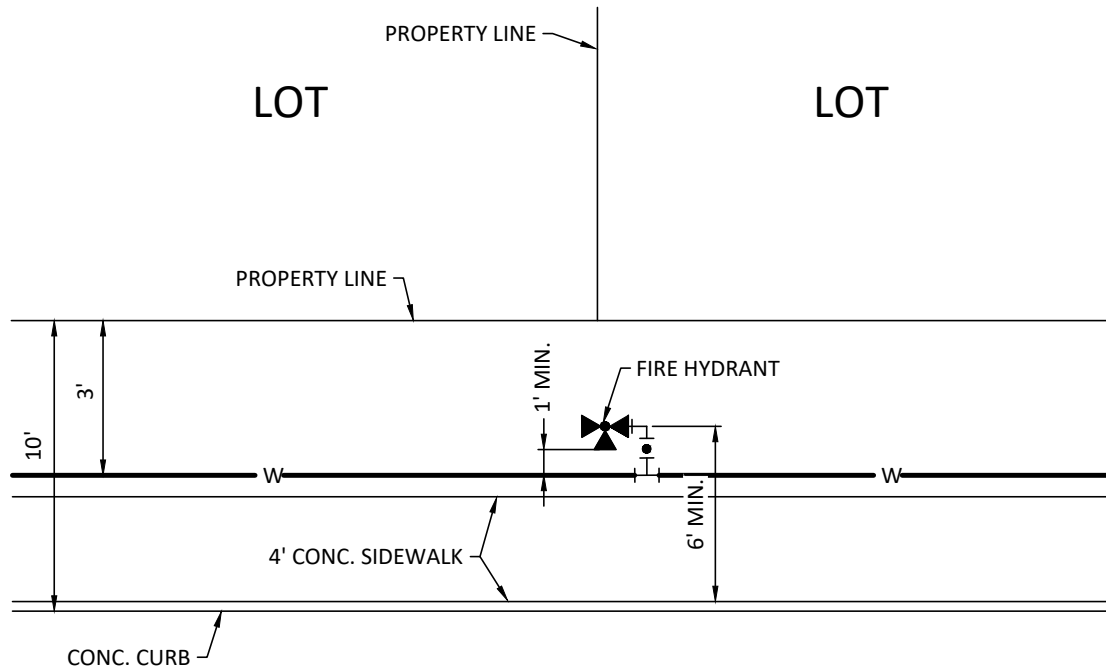
LEGACY AT GREEN ENCLAVE, UNIT 1
WATER IMPROVEMENTS



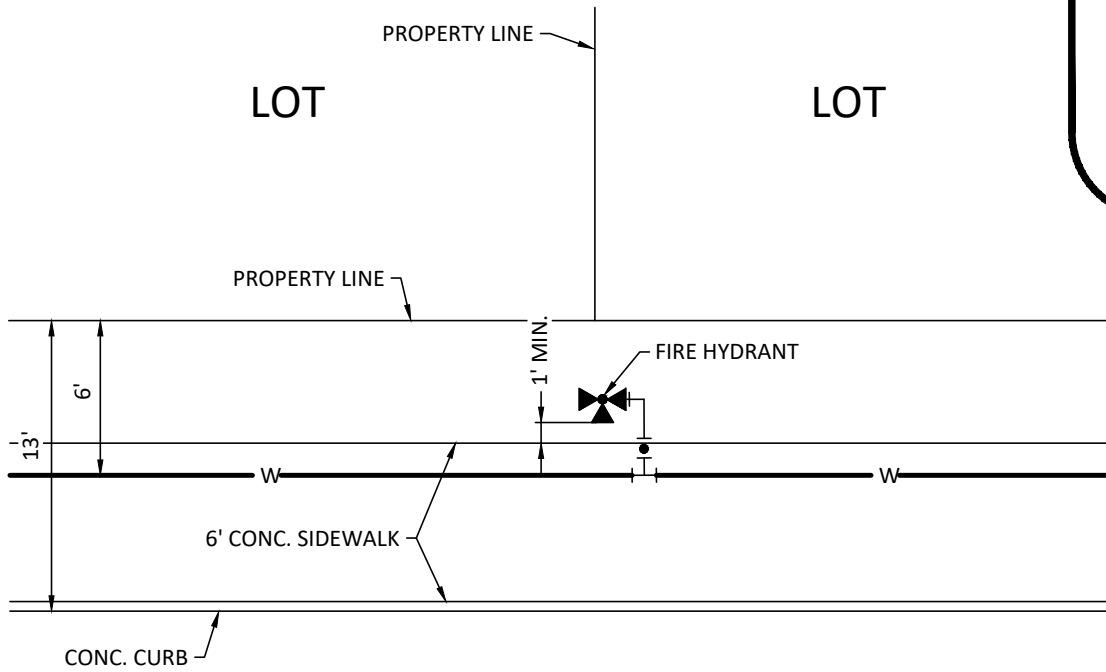
TYPICAL STREET CROSS-SECTION (30' PAVEMENT)



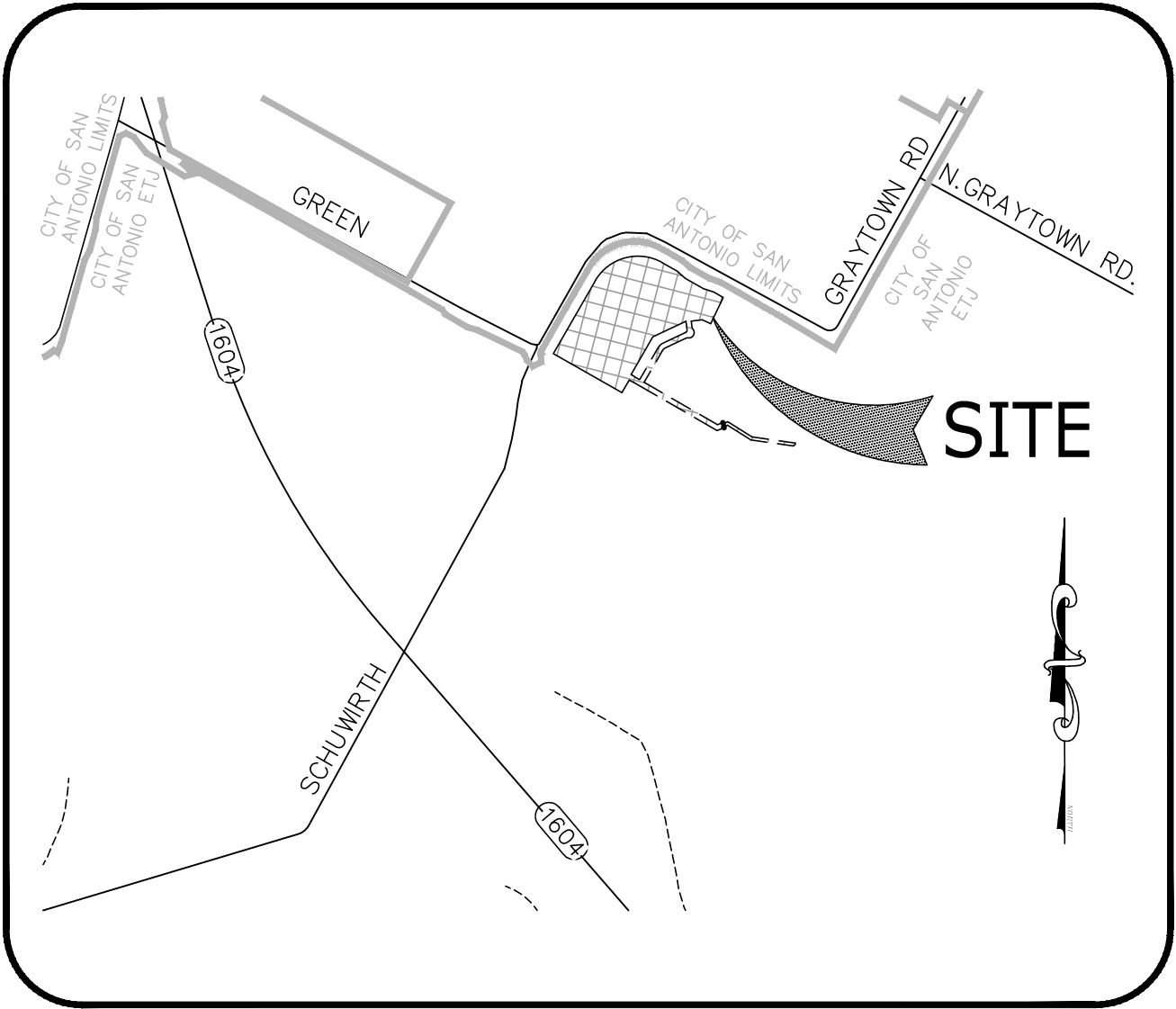
TYPICAL STREET CROSS-SECTION (34' PAVEMENT)



TYPICAL FIRE HYDRANT DETAIL FOR LOCAL A



TYPICAL FIRE HYDRANT DETAIL FOR LOCAL B



VICINITY MAP

SUBMITTAL DATE:

LEGAL DESCRIPTION:

BEING A TOTAL OF 26.726 ACRE TRACT OF LAND PARTIALLY SITUATED IN THE ANDREW JF PHELAN SURVEY NO. 45, ABSTRACT NO. 580, COUNTY BLOCK 5107, AND PARTIALLY IN THE PI CO SURVEY NO. 4, ABSTRACT NO. 909, COUNTY BLOCK 5107, BOTH OF BEXAR COUNTY, TEXAS, BEING A PORTION OF A 125.588 ACRE TRACT AS CONVEYED TO HELEN RAKOWITZ BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN VOLUME 1741, PAGE 299, OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS.

NOTE TO CONTRACTOR:

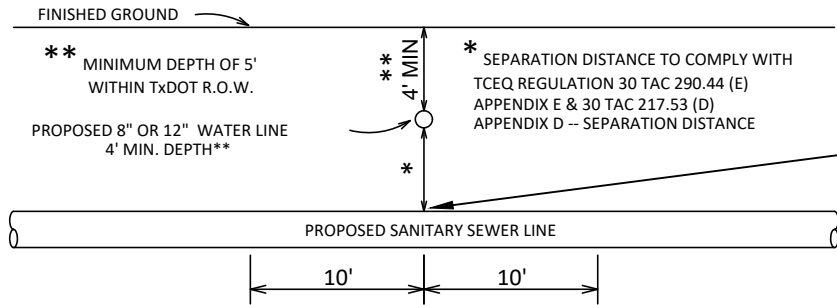
BY THE ACT OF SUBMITTING A BID FOR THIS PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS, SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM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

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.

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



TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL

20 LF. OF 160 P.S.I. PRESSURE RATED PVC PIPE CENTERED ACROSS WATER CROSSING (SDR 26). SEWER PIPE AT WATER LINE CROSSINGS SHALL MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE JOINT CENTERED AT WATER MAIN.

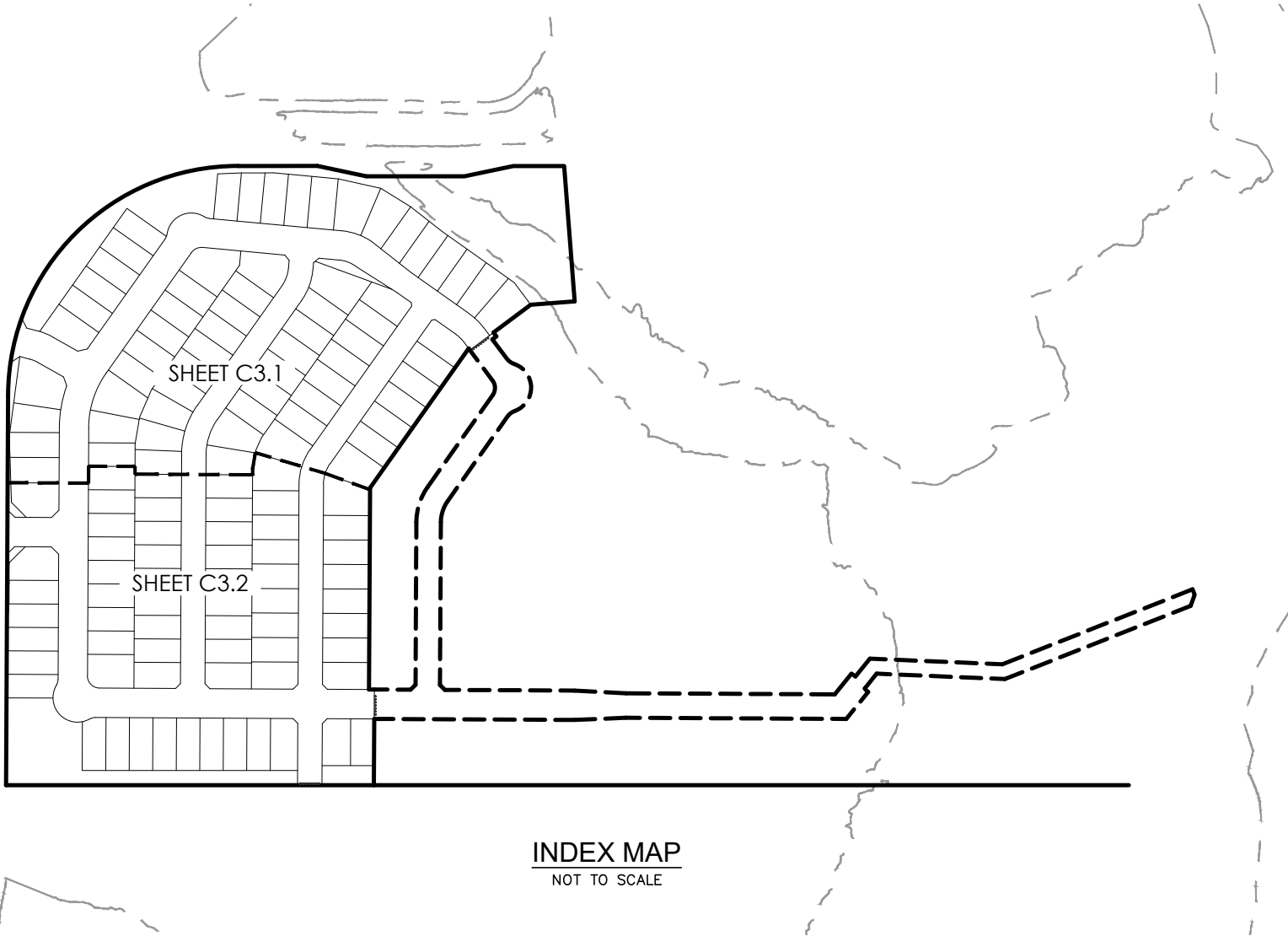


Moy Tarin Ramirez Engineers, LLC

FIRM TBPELS ENG F-5297 SVY F-10131500

12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

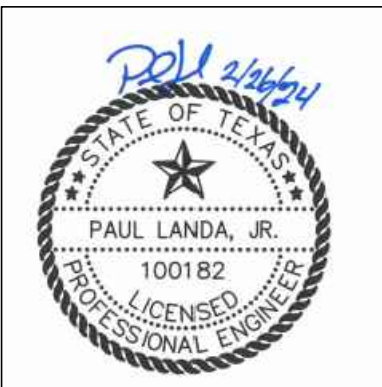
- Engineers
- Surveyors
- Planners



INDEX MAP

SHEET INDEX

Sheet No.	Sheet Title
C3.0	WATER COVER
C3.1	WATER OVERALL
C3.2	WATER OVERALL
C3.3	C3.3 - WATER DETAILS



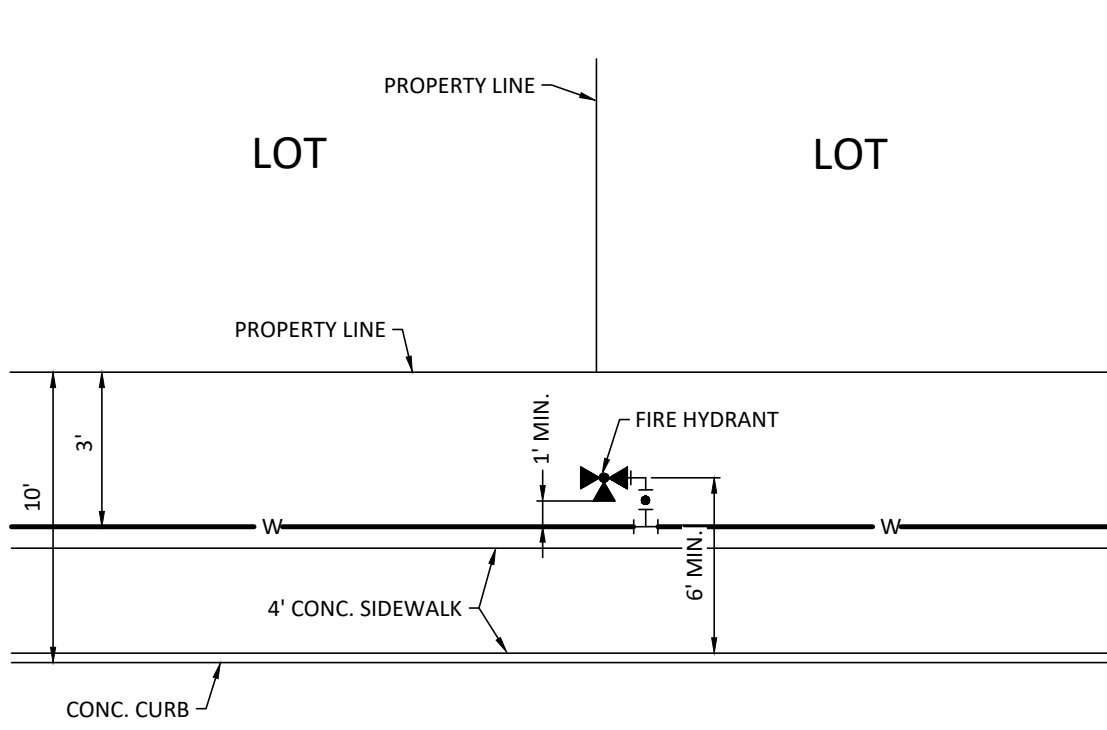
BEXAR COUNTY

SUBMITTAL SET

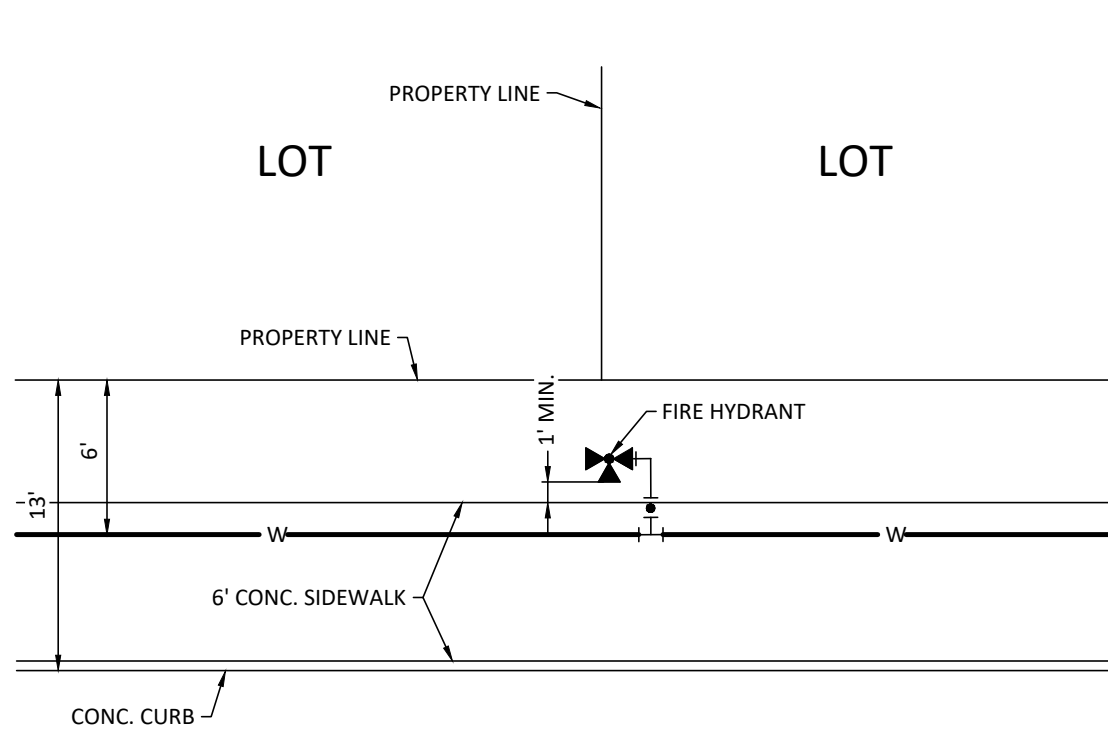
TEXAS C3.0

CAUTION!
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

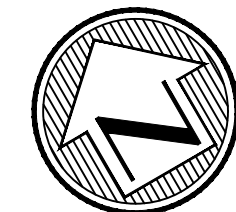
TRENCH EXCAVATION SAFETY PROTECTION
Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation site(s) within the project work area 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.



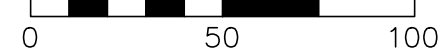
TYPICAL FIRE HYDRANT DETAIL FOR LOCAL A
N.T.S.



TYPICAL FIRE HYDRANT DETAIL FOR LOCAL B
N.T.S.



SCALE: 1"=50'



EAST CENTRAL SPECIAL UTILITY DISTRICT NOTES:

ALL LONG SERVICES SHALL BE SLEEVED WITH 2" PVC, SCHEDULE 40.

RESTRAINT JOINTS

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

LEGEND

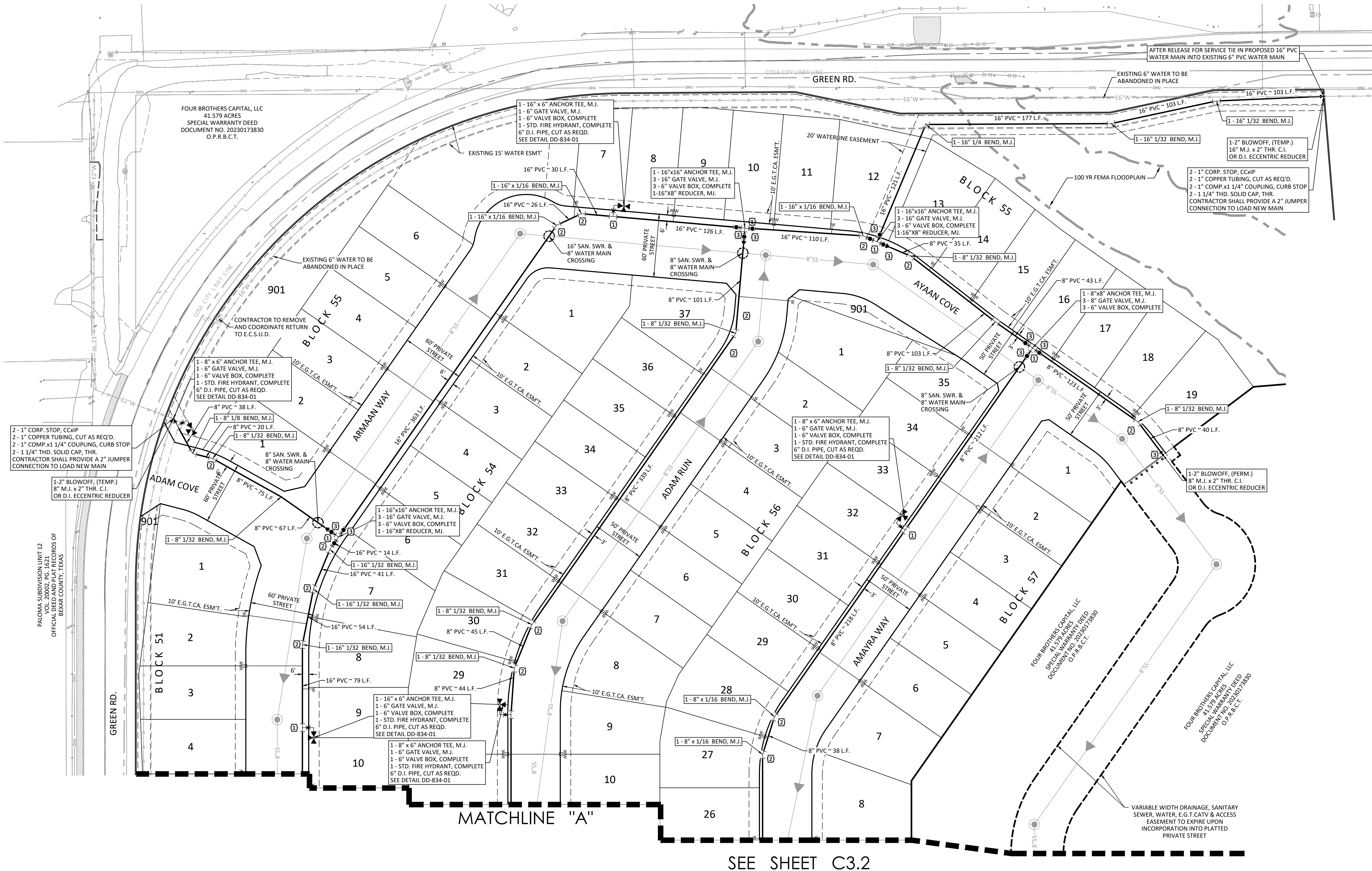
EXISTING WATER MAIN
PROPOSED WATER MAIN
EXISTING FIRE HYDRANT
PROPOSED FIRE HYDRANT
EXISTING GATE VALVE
PROPOSED GATE VALVE
3/4" SINGLE SERVICE
ELEC. GAS, TELE. CABLE TV ESMT.
EXISTING IRRIGATION CONTROL VALVE
EXISTING WATER METER

8" PVC
E.G.T.V.E.
D.E.D. TV.E.
D.E.D. TV.E.

DEED & PLAT RECORDS OF BEXAR COUNTY, TEXAS
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS

D.P.R.B.C.T.
O.P.R.M.C.T.

NOTE: ONE 3/4" SINGLE SERVICE LINE TO EACH LOT, UNLESS OTHERWISE NOTED. PER DET-824-05 ON SHEET C3.3



SEE SHEET C3.2

SUBMITTAL SET

REVISIONS	DESCRIPTION	DATE	NO.
BY			
CHKD. BY			
DATE			
NO.			

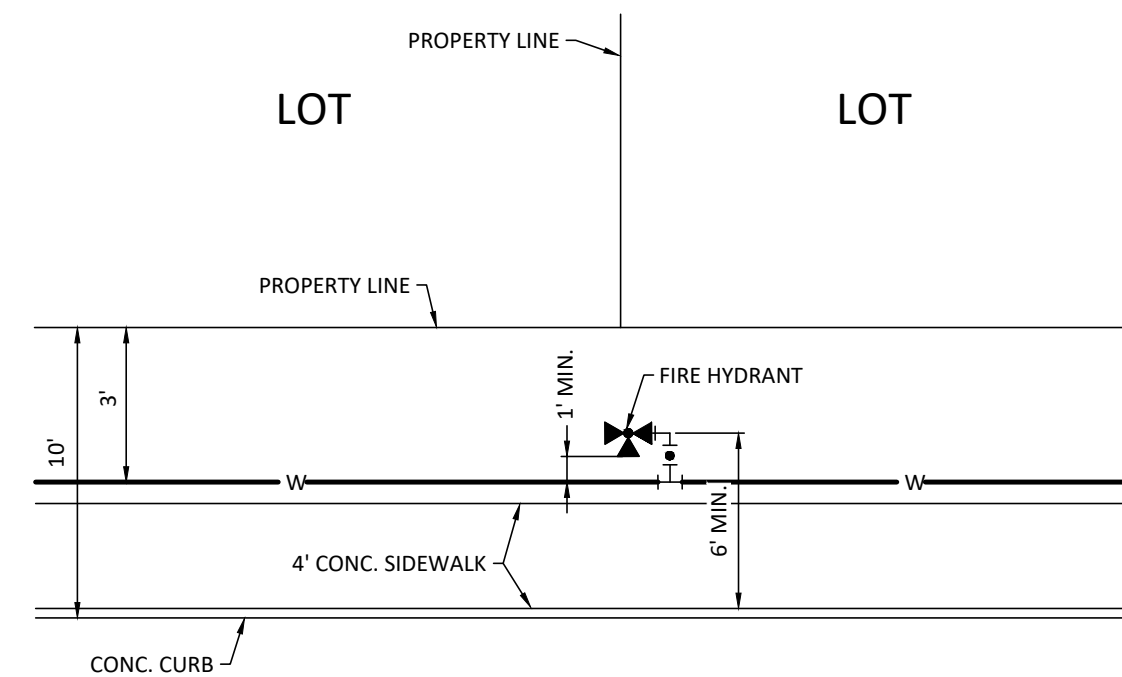
Engineers
Surveyors
Planners
Moy Tarin Ramirez Engineers, LLC
TBEPLS: ENGINEERING F-5297 / SURVEYING: F-10131500
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055



LEGACY AT GREEN ENCLAVE, UNIT 1
WATER OVERALL DISTRIBUTION PLAN


SHEET


C3.1



The diagram illustrates a street layout with a 13' wide sidewalk. A 6' concrete sidewalk is shown, with a 1' minimum clearance from the property line. A fire hydrant is located within this clearance. The diagram is labeled with 'LOT', 'PROPERTY LINE', 'FIRE HYDRANT', '6' CONC. SIDEWALK', and 'CONC. CURB'.


Plot Date: April 9, 2024 User ID: Samuel Garcia
 PR: \\rokowitz-d\\unit 1\\Drawings\\23148-C3.1-C3.2-Water Overall.dwg

 <p>East Central SCD OUR QUALITY IS CLEAR</p>	<p>TESTING FOR PRESSURE PIPELINES</p>	APPROVED	REVISED
		JANUARY 2020	
		DET-100-01	SHEET 1 OF 1


	SERVICE INSTALLATION TAPPING SCHEDULE	APPROVED	REVISED
		JANUARY 2020	
		DET-824-Ø1	SHEET 1 OF 1

 <p>East Central STATE UNIVERSITY OUR COMMITMENT IS OUR CARE</p>	<p align="center">TYPICAL SERVICE ARRANGEMENT</p>	APPROVED	REVISED
		JANUARY 2020	
		DET-824-05	SHEET 1 OF 4


	<p align="center">TYPICAL RURAL SERVICE ARRANGEMENT</p>	APPROVED	REVISED
		JANUARY 2020	
		DET-824-05	SHEET 2 OF 2


	TYPICAL HIGH DENSITY RESIDENTIAL SERVICE ARRANGEMENT	APPROVED	REVISED
		JANUARY 2020	
		DET-824-05	SHEET 3 OF 3

 East Central SCD <small>OUR SOUTHERN WAY</small>	TYPICAL SERVICE ARRANGEMENT	APPROVED	REVISED
		JANUARY 2020	
		DET-824-Ø5	


	INSTALLATION OF NON-GEARED GATE VALVE WITH VALVE BOX AND EXTENSION	APPROVED	REVISED
		JANUARY 2020	
		DET-828-01	SHEET 1

	<p style="text-align: center;">FIRE HYDRANT INSTALLATION</p>	APPROVED	REVISED
		JANUARY 2020	
		DET-834-01	SHEET

	<p>THRUST BLOCKS FOR FITTINGS (WATER ONLY)</p>	APPROVED	REVISED
		JANUARY 2020	
		DET-839-01	SHEET

	RESTRAINED LENGTHS 500-7500	APPROVED	REVISED
		MARCH 2020	
		DET 820.04	SHEET


	<p>RESTRAINED LENGTHS</p> <p>500-7550</p>	APPROVED	REVISED
		MARCH 2020	
		DET 830.04	SHEET


	RESTRAINED LENGTHS FOR BEAR ENDS (LINE VALUES)	APPROVED	REVISED
		MARCH 2020	
	DET 820.05	SHEET	

	RESTRAINED LENGTHS	APPROVED	REVISED
		MARCH 2020	
		DET 000 00	SHEET

	<h1 style="text-align: center;">RESTRAINED LENGTHS</h1>	APPROVED	REVISED
		MARCH 2020	
		DET 000 07	SHEET

	RESTRAINED LENGTHS	APPROVED	REVISED
		MARCH 2020	
		DET 200-00	SHEET

	<p align="center">2" PERMANENT BLOW-OFF ASSEMBLY</p>	APPROVED	REVISED
		MARCH 2020	
		DET 044 00	SHEET

	<p align="center">2* PERMANENT BLOW-OFF ASSEMBLY</p>	APPROVED	REVISED
		MARCH 2020	
		DET 244 GS	SHEET

SUBMITTED BY:
MOY TARIN RAMIREZ ENGINEERS, LLC.
12770 CIMARRON PATH, SUITE 100
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

OWNER/DEVELOPER

FOUR BROTHERS CAPITAL, LLC
85 N.E. LOOP 410, SUITE 203
SAN ANTONIO, TX 78216

NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE TO THE CITY OF SAN ANTONIO SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- ALL CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF SAN ANTONIO.
- 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
TEXAS STATE WIDE ONE CALL LOCATOR
CITY PUBLIC SERVICE
AT&T
TIME WARNER CABLE

TELE. NO.: 210-704-7109
TELE. NO.: 800-545-6005
- 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.
- THE CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT THE TELEPHONE COMPANY DURING CONSTRUCTION.
- 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).
- MATERIAL SPECIFICATIONS:

CONCRETE/CONCRETE RIPRAP: CLASS A 3000 PSI IN 28 DAYS UNLESS OTHERWISE NOTED ON PLANS

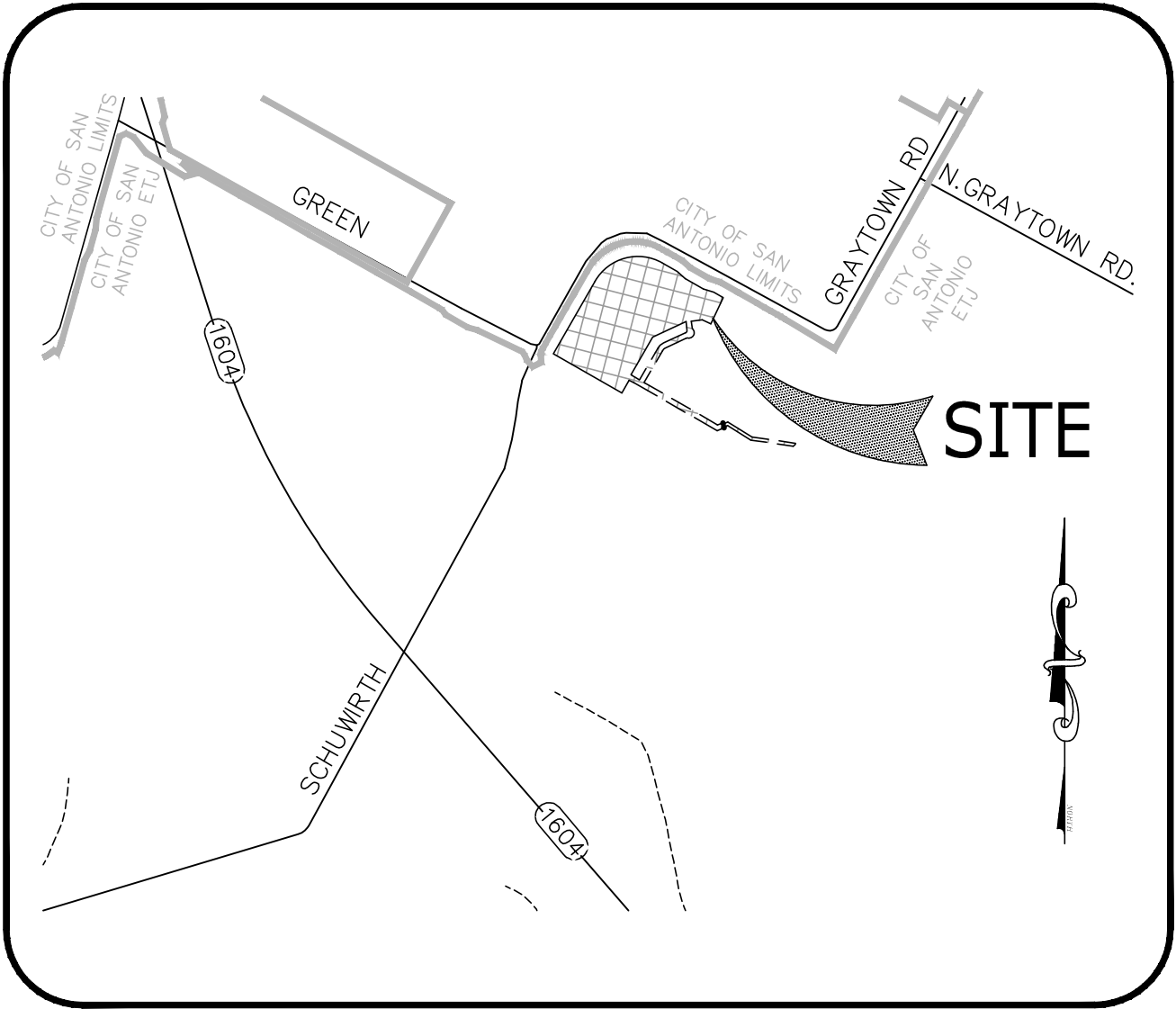
REINFORCING STEEL: CONFORM TO A.S.T.M. A-615, GRADE 60
(2" COVER UNLESS OTHERWISE NOTED ON PLANS)

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
- CONTRACTOR TO COORDINATE CONCRETE CURB DEPRESSIONS WITH THE DEVELOPER (NO SEPARATE PAY ITEM).
- TRANSITION TO/FROM WASHOUT CROWNS IN TWENTY-FIVE FEET (25').
- IMPROVED EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SUBGRADE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CHANNEL IS ACCEPTED FOR MAINTENANCE. REFER TO APPENDIX H, CHAPTER 16, SECTION C2.1 - GRASSES OF THE CITY OF SAN ANTONIO. NO EXTRA PAY ITEM.

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



VICINITY MAP

N.T.S.

SUBMITTAL DATE:

LEGAL DESCRIPTION:

BEING A TOTAL OF 26.726 ACRE TRACT OF LAND PARTIALLY SITUATED IN THE ANDREW JF PHELAN SURVEY NO. 45, ABSTRACT NO. 580, COUNTY BLOCK 5107, AND PARTIALLY IN THE PI CO SURVEY NO. 4, ABSTRACT NO. 909, COUNTY BLOCK 5107, BOTH OF BEXAR COUNTY, TEXAS, BEING A PORTION OF A 125.588 ACRE TRACT AS CONVEYED TO HELEN RAKOWITZ BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN VOLUME 1741, PAGE 299, OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS.

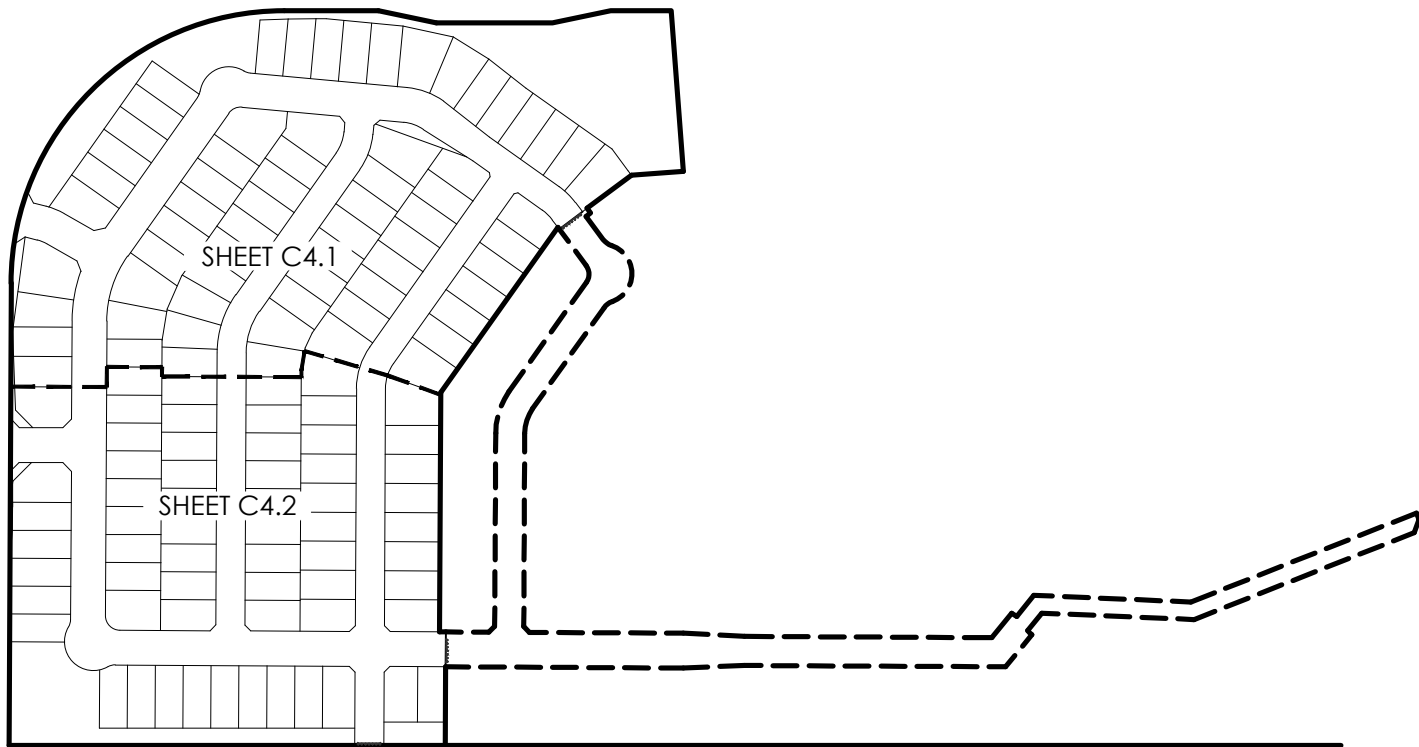


Moy Tarin Ramirez Engineers, LLC

FIRM TBPELS ENG F-5297 SVY F-10131500

12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

- Engineers
- Surveyors
- Planners



INDEX MAP
NOT TO SCALE

SHEET INDEX

Sheet No. Sheet Title

STREET & DRAIN PLANS

C4.0	STREET COVER
C4.1	TRAFFIC PLAN
C4.2	TRAFFIC PLAN
C4.3	TRAFFIC DETAILS
C4.4	TRAFFIC DETAILS
C4.5	ADAM COVE & AMBER WAY (PRIVATE STREETS) PLAN & PROFILE
C4.6	AMAYRA WAY (PRIVATE STREET) PLAN & PROFILE
C4.7	AMAYRA WAY (PRIVATE STREET) PLAN & PROFILE
C4.8	ARMAAN WAY (PRIVATE STREET) PLAN & PROFILE
C4.9	ARMAAN WAY (PRIVATE STREET) PLAN & PROFILE
C4.10	ADAM RUN (PRIVATE STREET) PLAN & PROFILE
C4.11	ADAM RUN (PRIVATE STREET) PLAN & PROFILE
C4.12	KIANA WAY (PRIVATE STREET) PLAN & PROFILE
C4.13	AYAAN COVE (PRIVATE STREET) PLAN & PROFILE
C4.14	GREEN ROAD STREET WIDEN
C4.15	GREEN ROAD STREET WIDEN
C4.16	GREEN ROAD STREET WIDEN
C4.17A	STANDARD DETAILS
C4.17B	STANDARD DETAILS
C4.18	STANDARD DETAILS
C4.19	TYPICAL STREET SECTIONS
C4.20	DRAIN "A"
C4.21	DRAIN "B"
C4.22	DRAINAGE DETAILS
C4.23	DRAINAGE DETAILS
C4.24	DRAINAGE DETAILS
C4.25	DRAINAGE DETAILS

GRADING PLANS

C5.0	GRADING PLAN
C5.1	GRADING PLAN

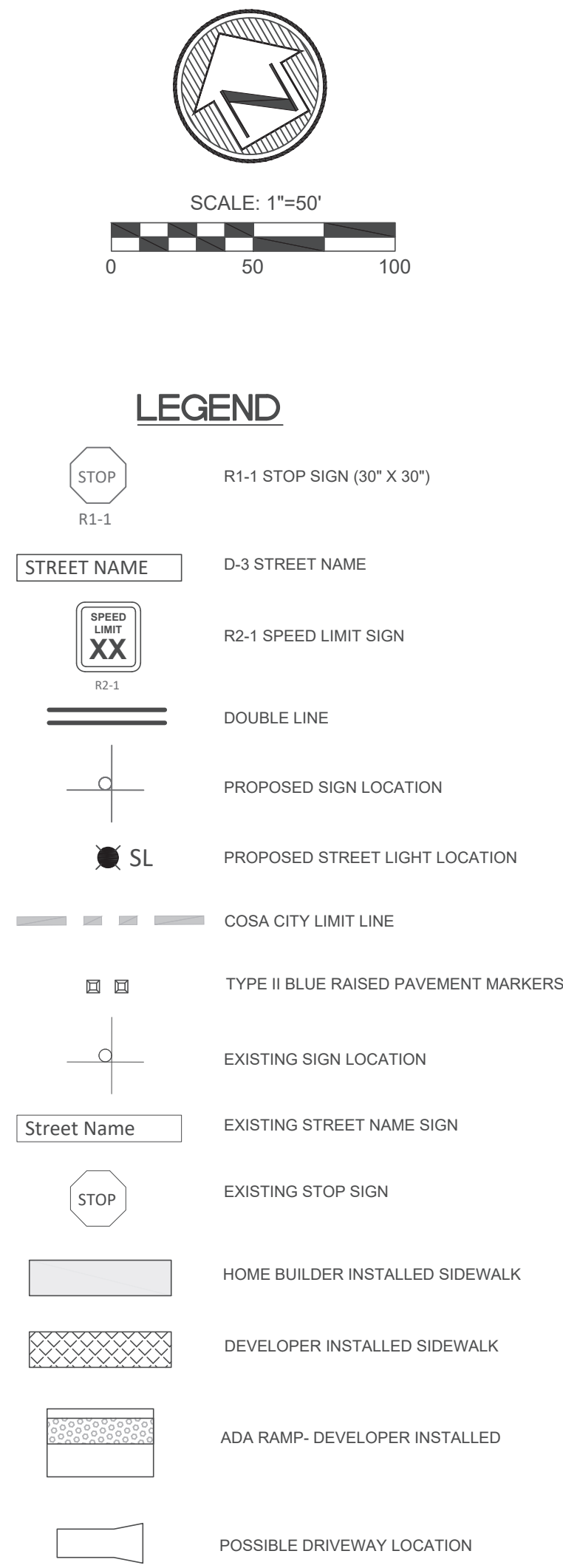
SW3P PLANS

C6.0	SW3P PLAN
C6.1	SW3P PLAN
C6.2	SW3P DETAILS

BEXAR COUNTY

SUBMITTAL SET

TEXAS C4.0

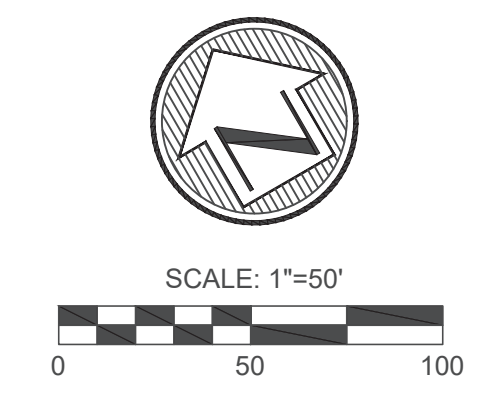


NOTE:

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 DEVICES (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 MUST 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). CONTRACTOR TO COORDINATE WITH SAME. PROPOSED SIGN LOCATIONS ARE FOR REFERENCE ONLY.



	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
	COSA CITY LIMIT 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

NOTE:

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GENERAL NOTES

1. The Engineer may require that a Schedule 80 post be used in place of a 10 BW where a sign height is greater than 10 ft. The sign height shall be determined by the sign height of the sign.
2. Sign supports shall not be spliced except where shown. Sign supports shall not be spliced except where shown.
3. Aluminum sign blanks shall conform to Departmental Material Specifications (MS-110) 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.
4. Signs that require specific supports due to reasons in addition to windloading are indicated on the plans.
5. Signs that require specific supports due to reasons in addition to windloading are indicated on the plans.
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 the 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 event vehicle.
8. Wing channel shall meet ASTM A1011 55 or 50 and be galvanized per ASTM A123.
9. Excess pipe, wing channel, or window 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 of 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 high 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
48-inch STOP sign (R1-1)	TY 10BW(1)XX(2)-P-80
60-inch YIELD sign (R1-2)	TY 10BW(1)XX(2)-P-80
48x16-inch ONE-WAY sign (R6-1)	TY 10BW(1)XX(2)-P-80
36x48, 48x36, and 48x48-inch signs	TY 10BW(1)XX(2)-P-80
48x60-inch signs	TY 10BW(1)XX(2)-P-80
48x48-inch signs (diamond or square)	TY 10BW(1)XX(2)-P-80
48x60-inch signs	TY 10BW(1)XX(2)-P-80
48-inch Advance School X-ing sign (S1-1)	TY 10BW(1)XX(2)-P-80
48-inch School X-ing sign (S2-1)	TY 10BW(1)XX(2)-P-80
Large Arrow sign (W1-6 & W1-7)	TY 10BW(1)XX(2)-P-80

TEXAS Department of Transportation
Traffic Operations Division

**SIGN MOUNTING DETAILS
SMALL ROADSIDE SIGNS
TRIANGULAR SLIPBASE SYSTEM**

SMD (SLIP-3) -08

DATE	REVISION	BY	CHKD	APP'D
9-08				

2010

GENERAL NOTES

1. The Engineer may require that a Schedule 80 post be used in place of a 10 BW where a sign height is greater than 10 ft. The sign height shall be determined by the sign height of the sign.
2. Sign supports shall not be spliced except where shown. Sign supports shall not be spliced except where shown.
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9. Excess pipe, wing channel, or window 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 of cut support ends per Item 445, "Galvanizing."
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12. Post open ends shall be fitted with Friction Caps.

REQUIRED SUPPORT	
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60-inch YIELD sign (R1-2)	TY 10BW(1)XX(2)-P-80
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36x48, 48x36, and 48x48-inch signs	TY 10BW(1)XX(2)-P-80
48x60-inch signs	TY 10BW(1)XX(2)-P-80
48x48-inch signs (diamond or square)	TY 10BW(1)XX(2)-P-80
48x60-inch signs	TY 10BW(1)XX(2)-P-80
48-inch Advance School X-ing sign (S1-1)	TY 10BW(1)XX(2)-P-80
48-inch School X-ing sign (S2-1)	TY 10BW(1)XX(2)-P-80
Large Arrow sign (W1-6 & W1-7)	TY 10BW(1)XX(2)-P-80

TEXAS Department of Transportation
Traffic Operations Division

**SIGN MOUNTING DETAILS
SMALL ROADSIDE SIGNS
TRIANGULAR SLIPBASE SYSTEM**

SMD (SLIP-2) -08

DATE	REVISION	BY	CHKD	APP'D
9-08				

2010

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REVISION	DESCRIPTION	DATE	NO.

Engineers

Surveyors

Planners

May Tarin Ramirez Engineers, LLC

TBPELS: ENGINEERING F-5297/SURVEYING: F-10131500

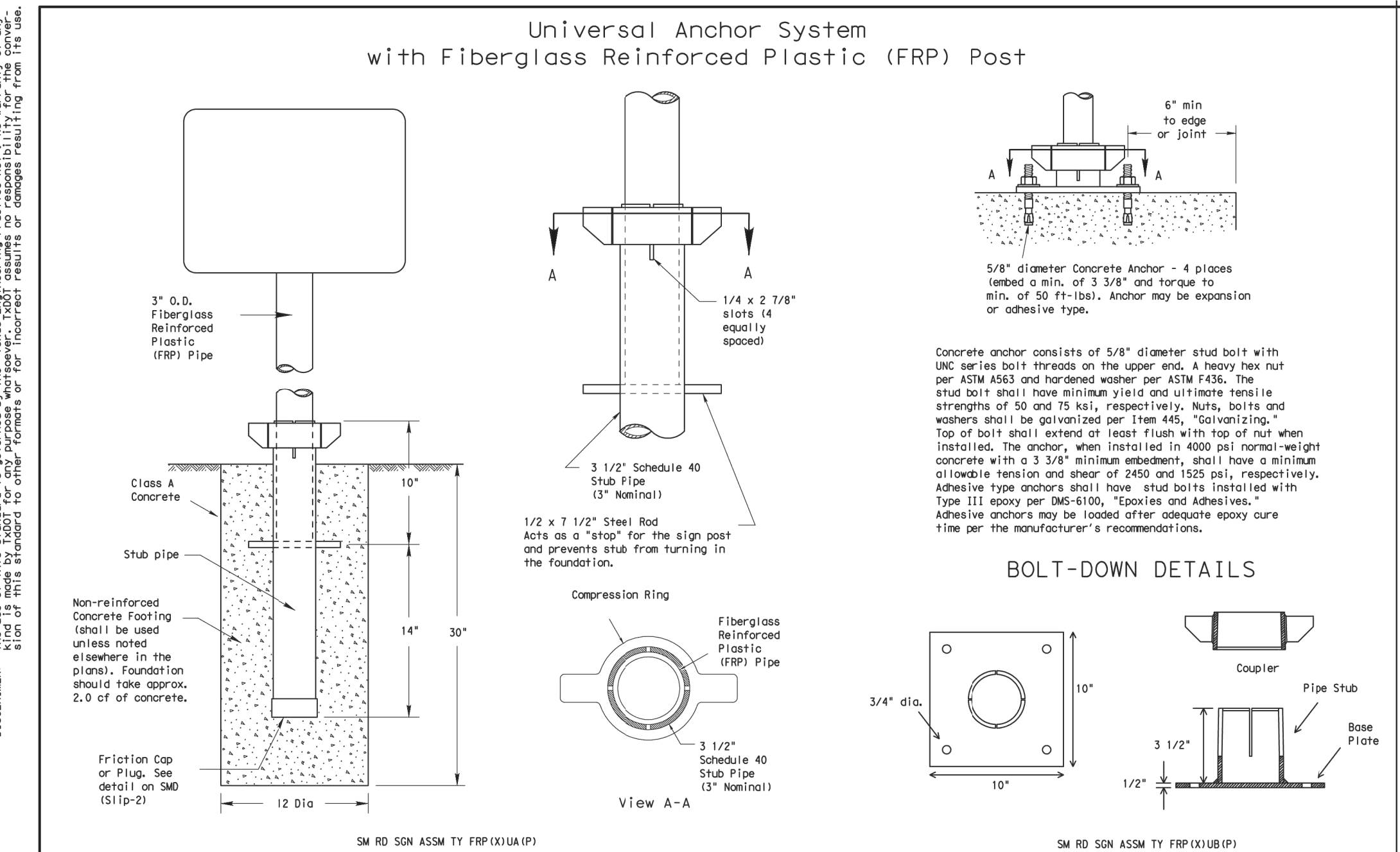
12770 CHARRON PATH, SUITE 100 SAN ANTONIO, TEXAS 78249

TEL: (210) 698-5051 FAX: (210) 698-5055



LEGACY AT GREEN ENCLAVE, UNIT 1

TRAFFIC PLAN DETAILS

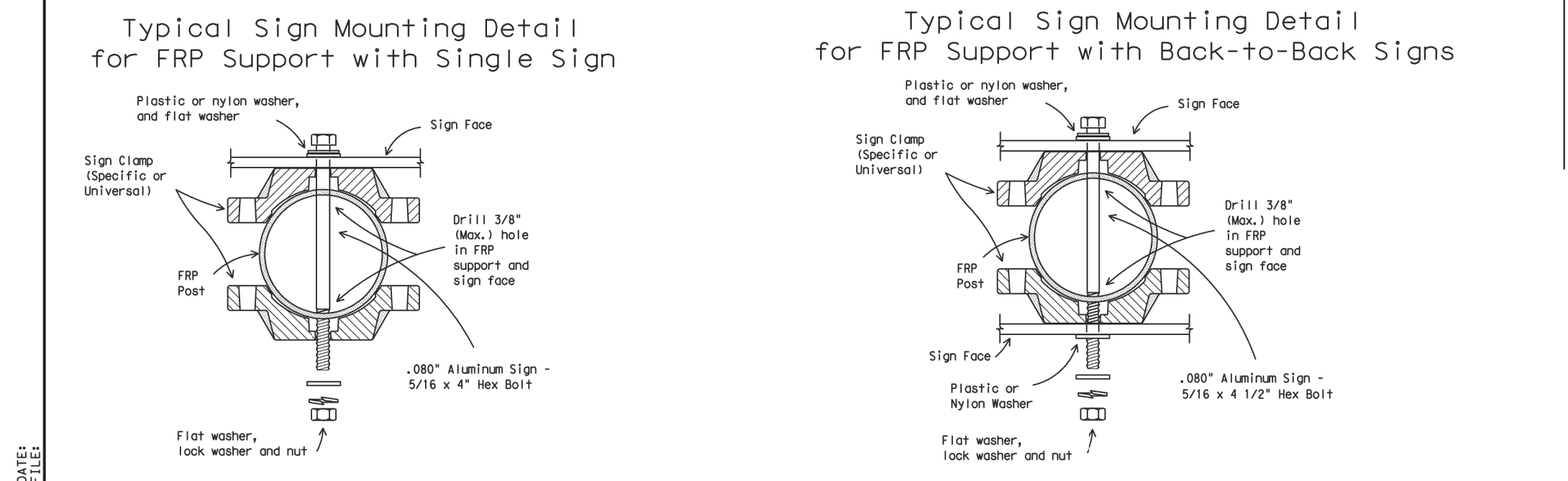


- GENERAL NOTES:
- FRP sign supports for a single type sign support may be used for signs up to and including 16 square feet. Dual post installation may be used for signs up to and including 32 square feet.
 - All nuts, bolts and washers shall be galvanized per Item 445, "Galvanizing."
 - See the Traffic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

- FRP POST REQUIREMENTS
- 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.
 - Thickness of FRP sign support is 0.125" ± 0.031", ± 0.01".
 - 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
- 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.
 - 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.
 - 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.
 - 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.
 - Attach sign to FRP post.
 - Insert sign post into base post. Lower until the post comes to rest on the steel rod.
 - Use hammer to ensure the coupler is firmly seated. Top of coupler should be level with top of base post in most instances.
 - Check sign to ensure there is no twist. If loose, increase the tightening of coupler.

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

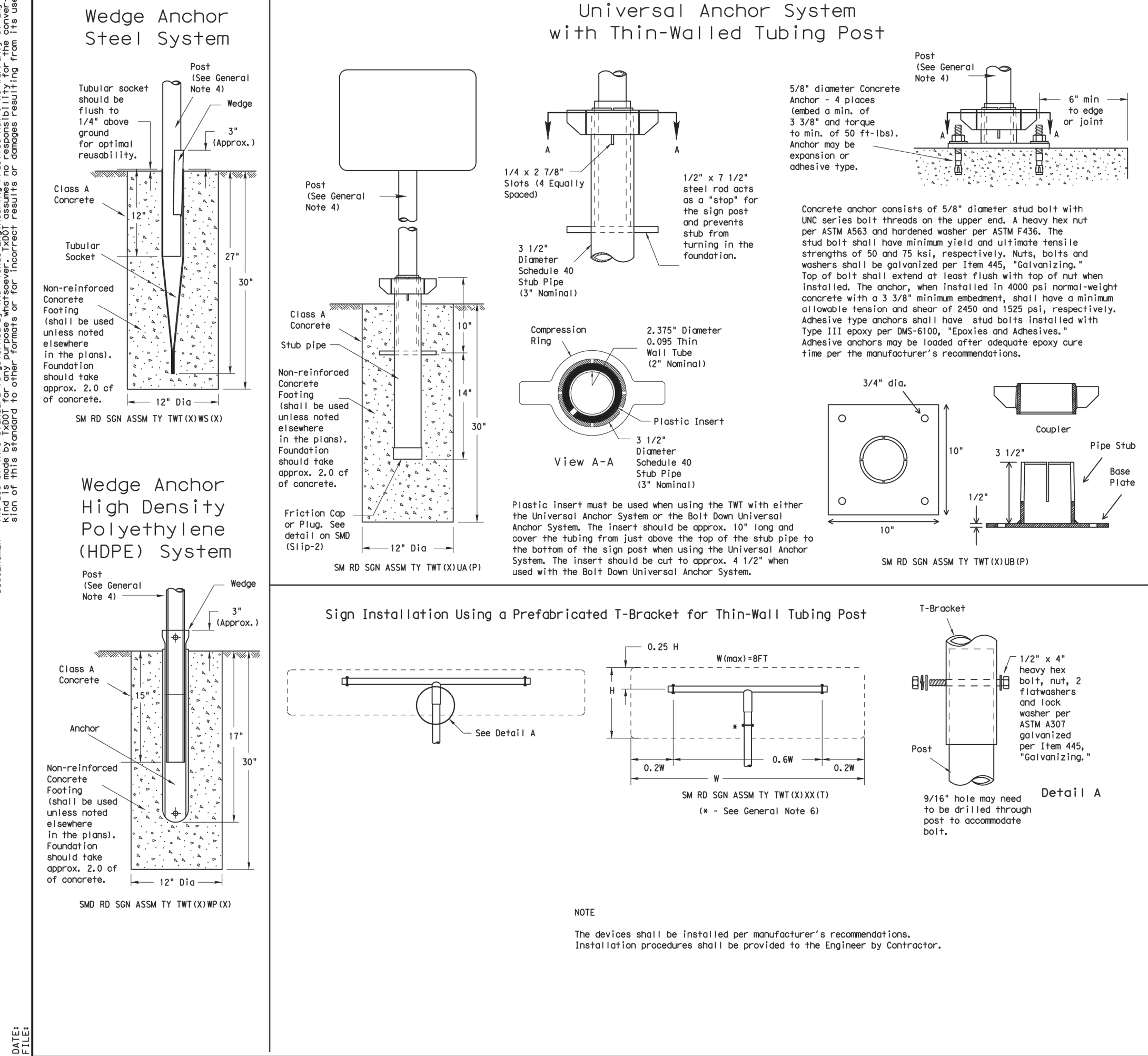


Texas Department of Transportation Traffic Operations Division

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

SMD (FRP) -08

DATE	REVISION	DATE	REVISION	DATE	REVISION
9-08	REVISED	04/11	REVISED	04/11	REVISED



- GENERAL NOTES:
- 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.
 - 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.
 - Except for posts (13 BW 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: https://www.txdot.gov/business/producer_list.htm
 - Material used as post with this system shall conform to the following specifications: 13 BW tubing (2.375" outside diameter) (TWT) 0.095" nominal wall thickness Seamless or electric-resistance welded steel tubing Steel shall be HSLA 55 or 55 per ASTM A1011 or ASTM A1008 Other steels may be used if they meet the following: 70,000 PSI minimum yield strength 185 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 (G10). For pre-coated steel tubing (ASTM A653), recast tube outside diameter weld seam by metalizing with zinc wire per ASTM B633.
 - Sign blanks shall be the sizes and shapes shown on the plans.
 - Additional sign clamps required on the "T-bracket" post for 24" high signs. Place clamp at least 3" above bottom of sign when possible.
 - Sign supports shall not be spliced except where shown. Sign support posts shall not be spliced.
 - See the Traffic Operations Division website for detailed drawings of sign clamps and Wedge Anchor System components. The website address is: <https://www.txdot.gov/publications/traffic.htm>

- WEDGE ANCHOR SYSTEM INSTALLATION PROCEDURES
- 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.
 - 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.
 - Insert tubular socket into concrete until top of socket is approximately 1/4" above the concrete footing.
 - Plumb the socket. Allow a minimum 4 days for concrete to set, unless otherwise directed by Engineer.
 - Attach the sign to the sign post.
 - Insert the sign post into socket and align sign face with roadway.
 - Drive the wedge into the socket to secure post. This will leave approximately 1/2" of the wedge exposed.

- UNIVERSAL ANCHOR SYSTEM INSTALLATION PROCEDURE
- 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.
 - Insert base post in hole to depths shown and fill hole with concrete. The bottom of the slots provided in the stub pipe shall remain above the top of the concrete foundation.
 - Level and plumb the base post using a torpedo level and allow concrete adequate time to set.
 - Attach the sign to the sign post.
 - Insert sign post into base post. Lower until the post comes to rest on steel rod.
 - Set compression ring using a hammer. Typically, the top of compression ring will be approximately level with top of stub post when optimally installed.
 - Check sign post by hand to ensure it is unable to turn. If loose, increase the tightening of the compression ring.

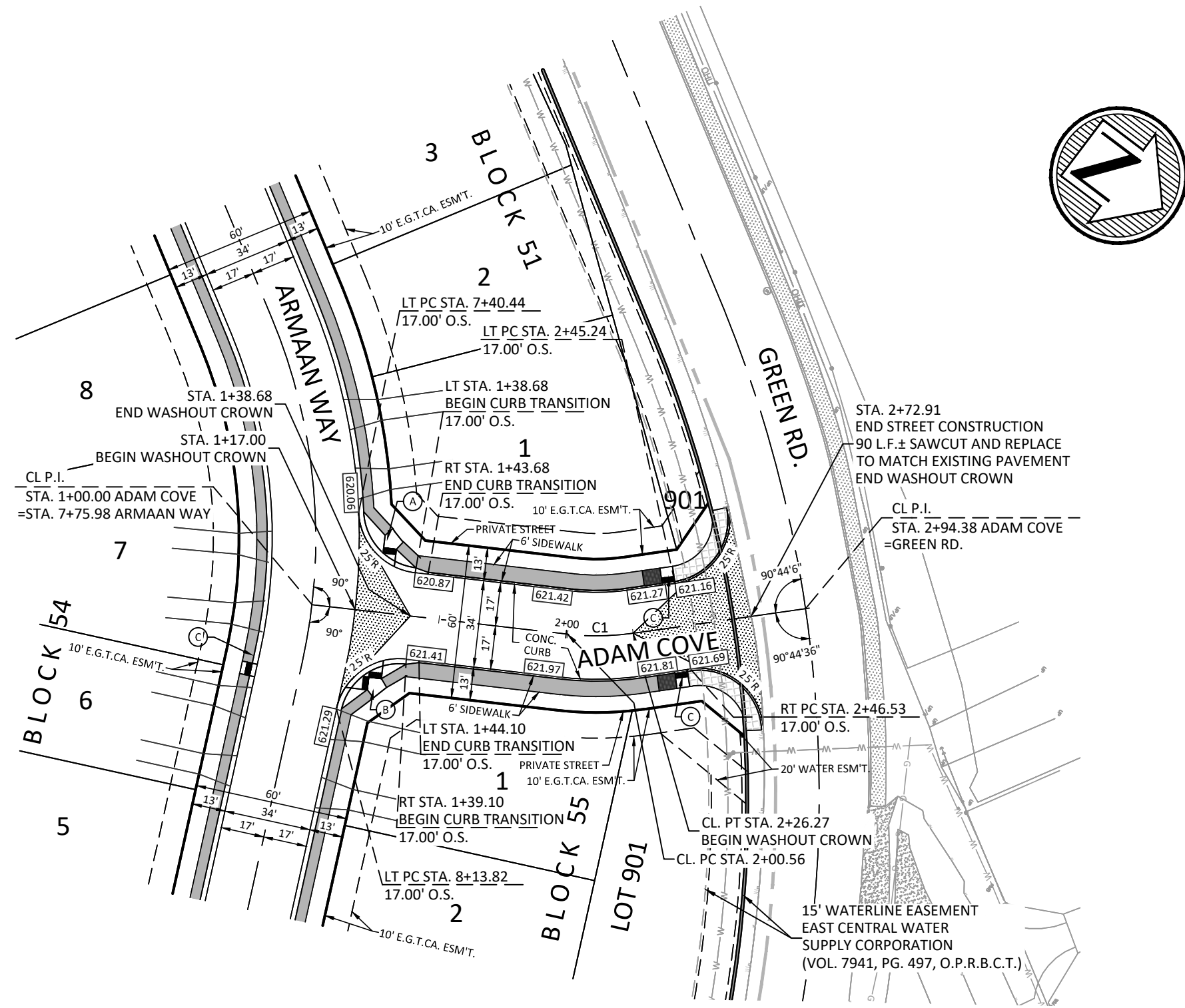
Texas Department of Transportation Traffic Operations Division

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

SMD (TWT) -08

DATE	REVISION	DATE	REVISION	DATE	REVISION
9-08	REVISED	04/11	REVISED	04/11	REVISED

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

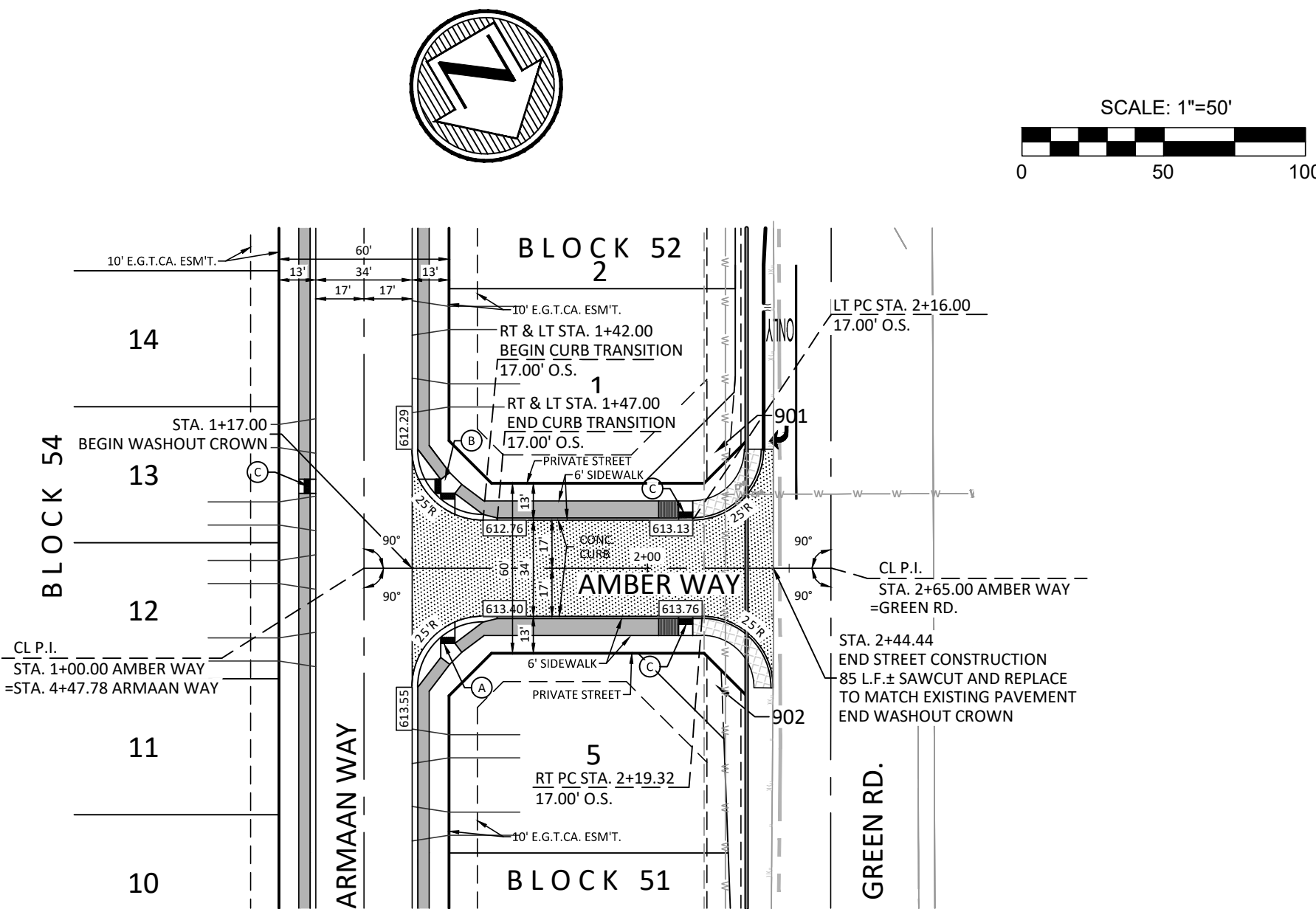
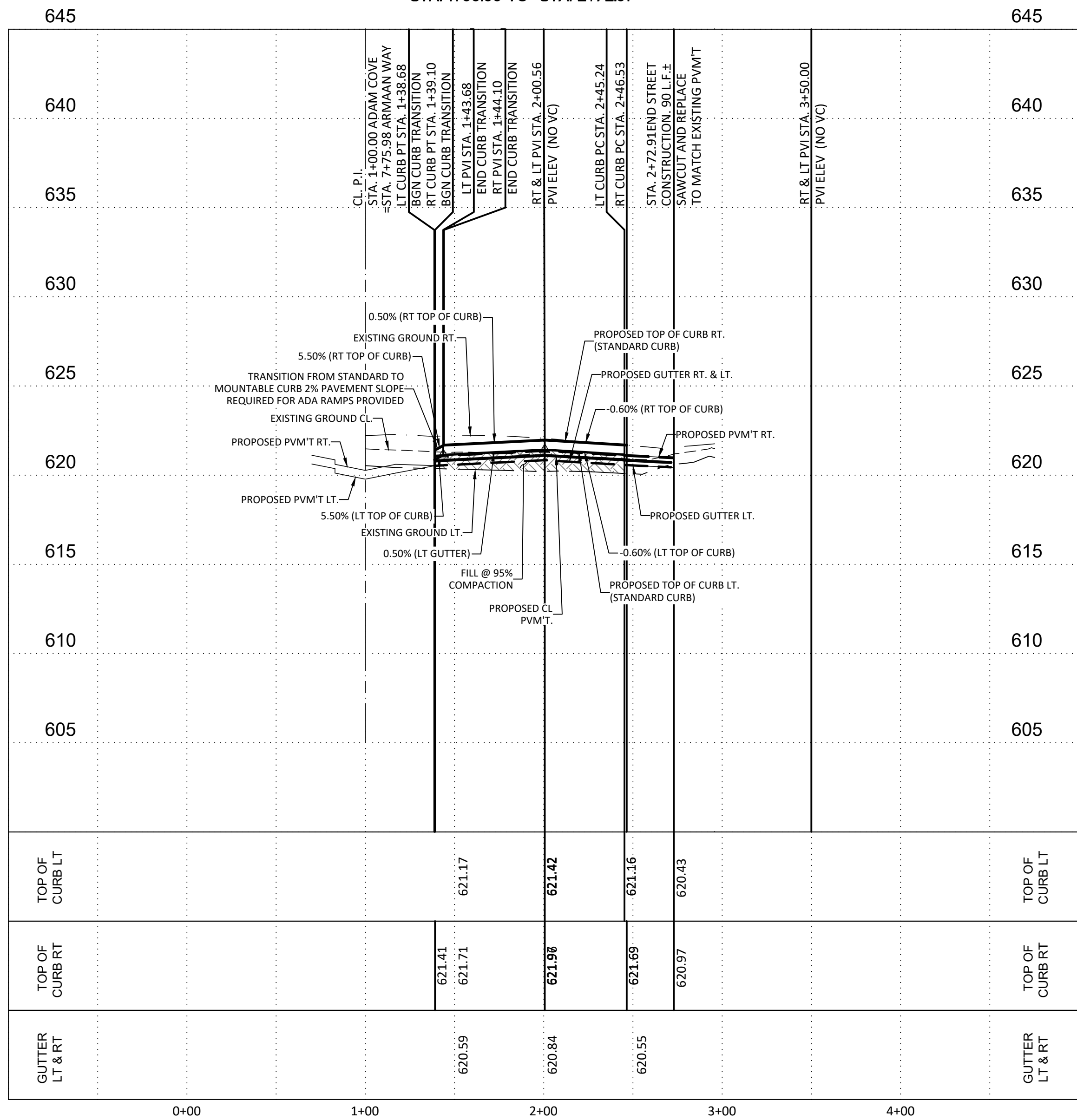


ADAM COVE (PRIVATE STREET)

STA. 1+00.00 TO STA. 2+72.91

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

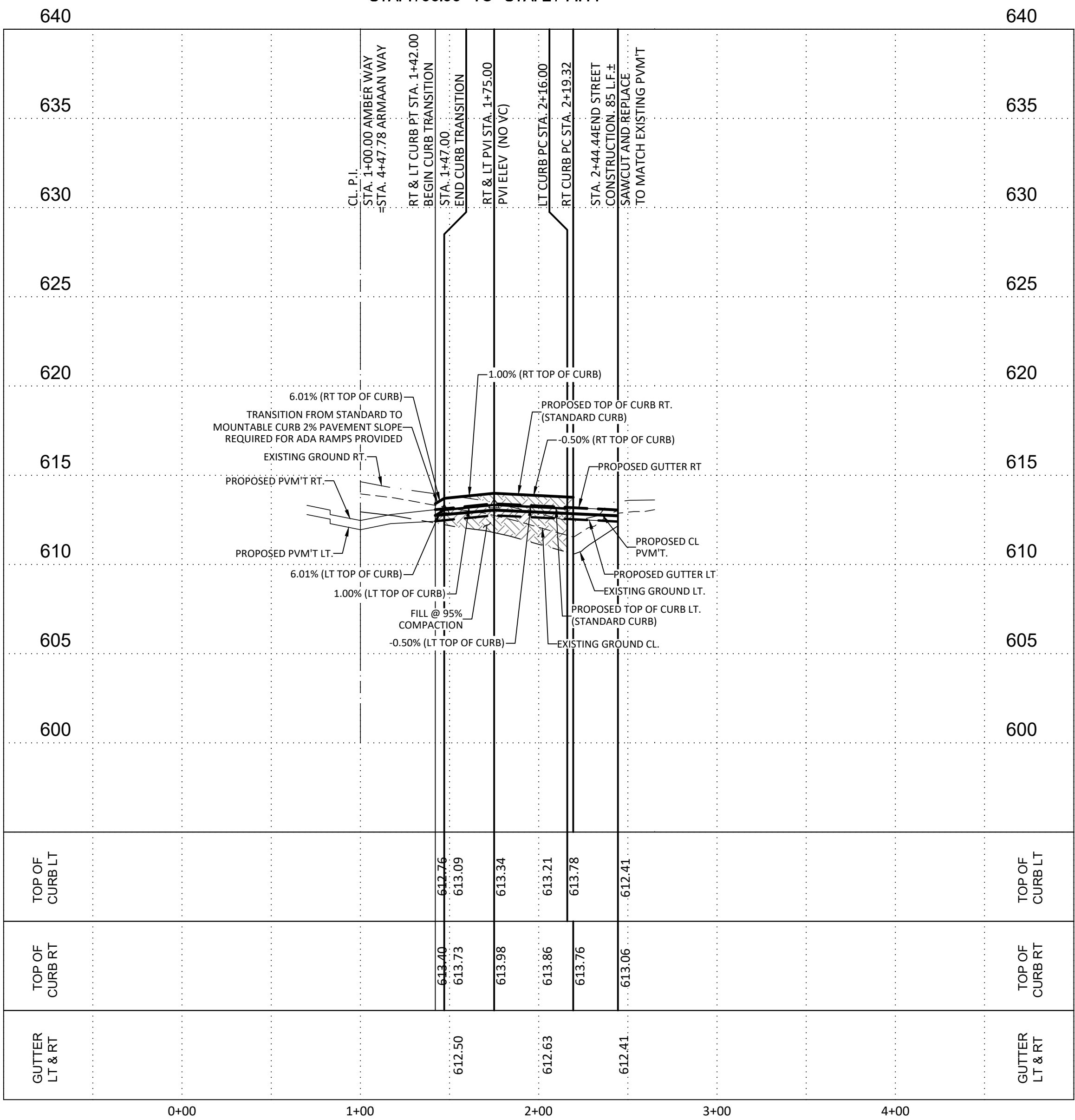
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CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD
C1	25.72'	100.00'	14°44'07"	12.93'	25.65'



AMBER WAY (PRIVATE STREET)

STA. 1+00.00 TO STA. 2+44.44

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



LEGEND

CONTRACTOR TO TIE EXISTING AND PROPOSED
CURB/SIDEWALK. PRIOR TO CONSTRUCTION CONTRACTOR
SHALL VERIFY ELEVATIONS.

SIDEWALK WHEELCHAIR RAMP - TYPE 10
DIRECTIONAL RAMPS (SINGLE)

SIDEWALK WHEELCHAIR RAMP - TYPE 10
DIRECTIONAL RAMPS (DUAL)

SIDEWALK WHEELCHAIR RAMP - TYPE II
(DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR RAMP - TYPE I
(DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR RAMP - TYPE 11
(DEVELOPER INSTALLED) OFFSET PARALLEL RAMP

SIDEWALK PASSING SPACE

EXISTING TOP OF CURB ELEVATION

PROPOSED TOP OF CURB ELEVATION

HOME BUILDER INSTALLED SIDEWALK

DEVELOPER INSTALLED SIDEWALK

SIDEWALK WHEEL CHAIR RAMP (DEVELOPER INSTALLED)

WASH-OUT CROWN

POSSIBLE DRIVEWAY LOCATION

PROPERTY LINE

EXISTING CONTOUR

PROPOSED CONTOUR

PROPOSED CONCRETE CURB

FLOW ARROW

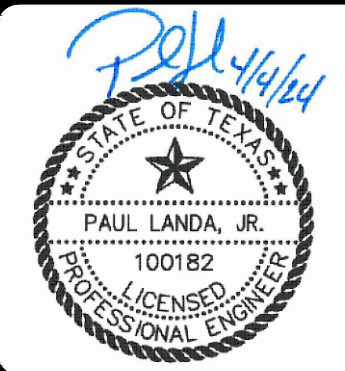
COSA CITY LIMIT LINE

REVISIONS

NO.	DATE	DESCRIPTION	BY

Engineers
Surveyors
Planners

Moy Tarin Ramirez Engineers, LLC
TBEPLS: ENGINEERING F-5297 / SURVEYING: F-10131500
12770 CHARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055



LEGACY AT GREEN ENCLAVE UNIT 1
STREET PLAN & PROFILE
ADAM COVE & AMBER WAY (PRIVATE STREETS)
STA. 1+00.00 TO STA. 2+72.91
& STA. 1+00.00 TO STA. 2+44.44

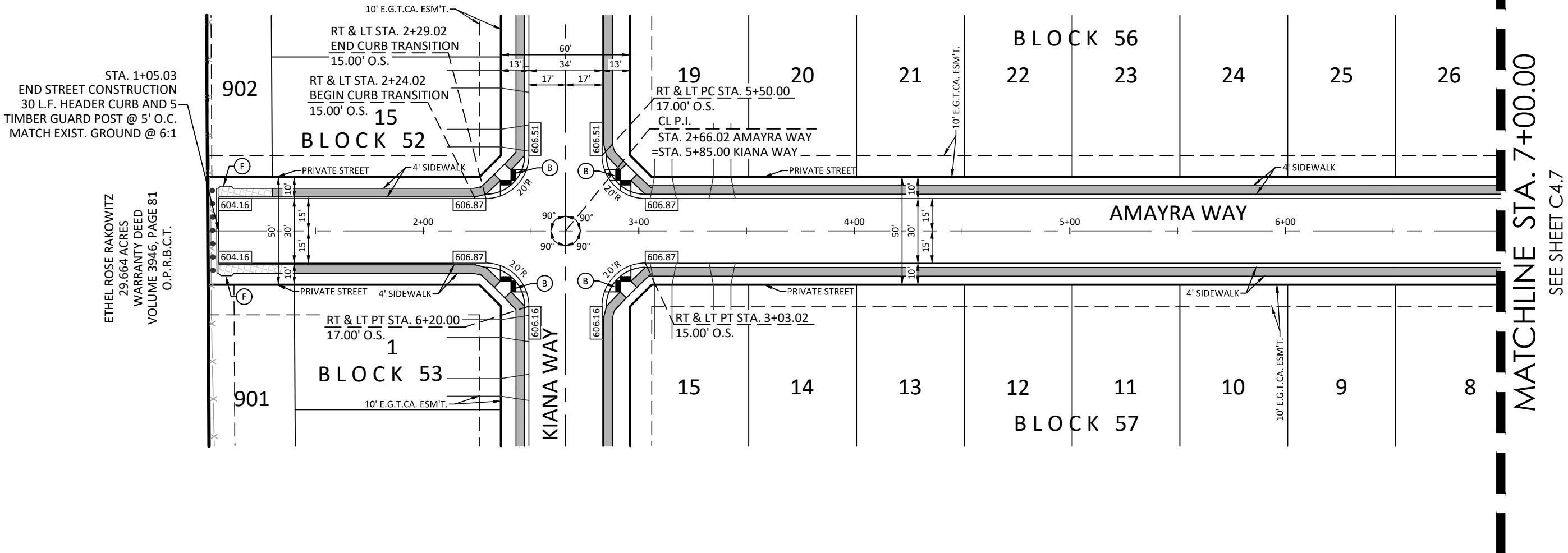
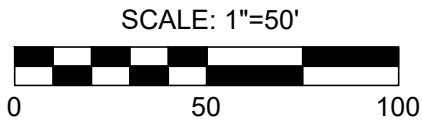
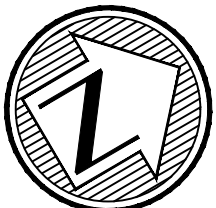
SHEET

C4.5

SUBMITTAL SET

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

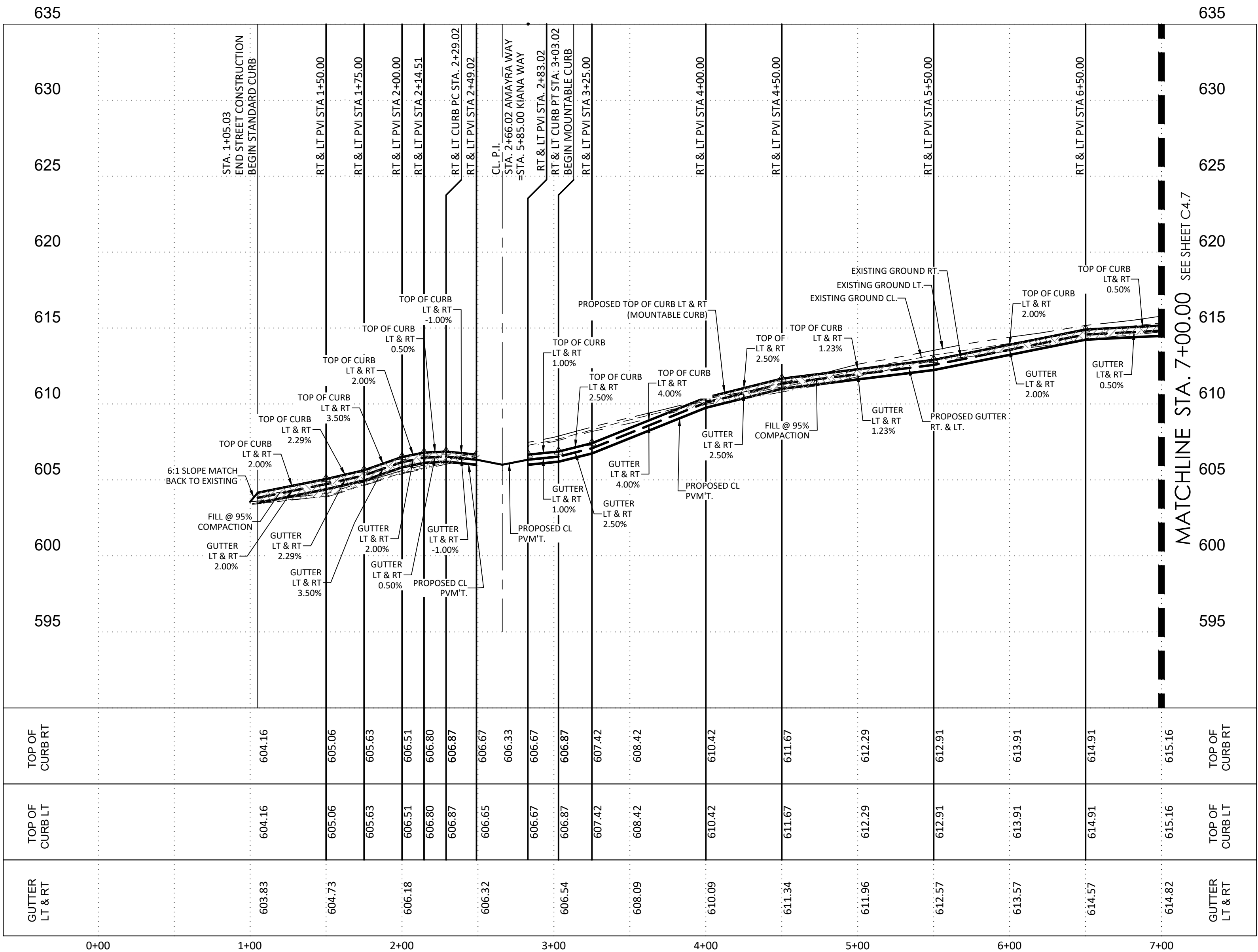
PLAT NO. 23-11800388



AMAYRA WAY
(PRIVATE STREET)

STA. 1+00.00 TO STA. 7+00.00

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



LEGEND

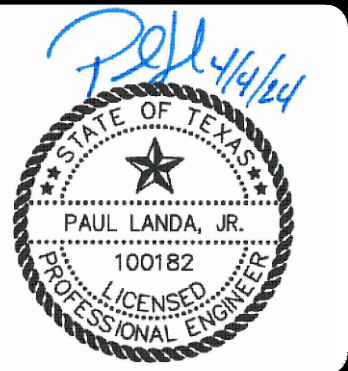
- CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.
- SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE)
- SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL)
- SIDEWALK WHEELCHAIR RAMP - TYPE II (DEVELOPER INSTALLED)
-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

REVISIONS		NO.	DATE	DESCRIPTION
BY				
CHKD.				
DATE				

Engineers
Surveyors
Planners

MTR

Moy Tarin Ramirez Engineers, LLC
TPELS: ENGINEERING F-5297/SURVEYING: F-10131500
12770 CHARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5065



LEGACY AT GREEN ENCLAVE UNIT 1
STREET PLAN & PROFILE
AMAYRA WAY (PRIVATE STREET)

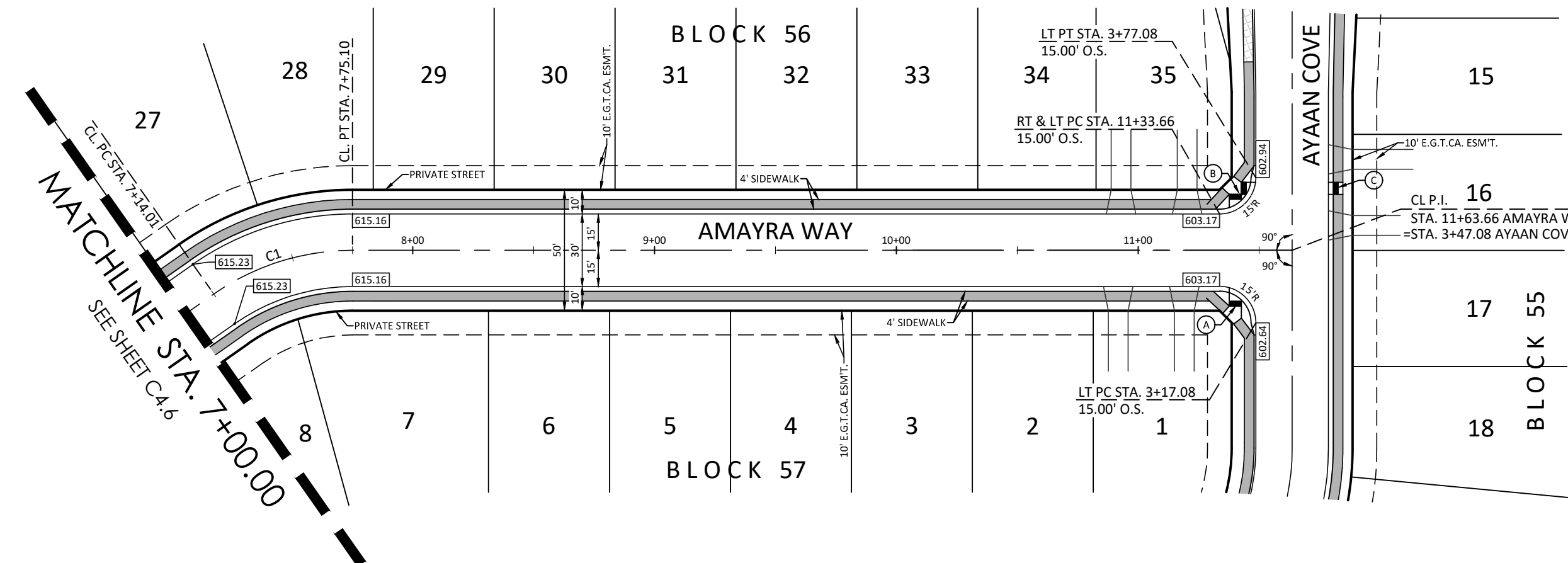
STA. 1+00.00 TO STA. 7+00.00

SHEET

C4.6

SUBMITTAL SET

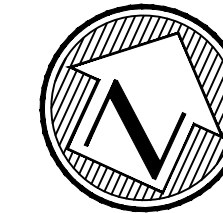
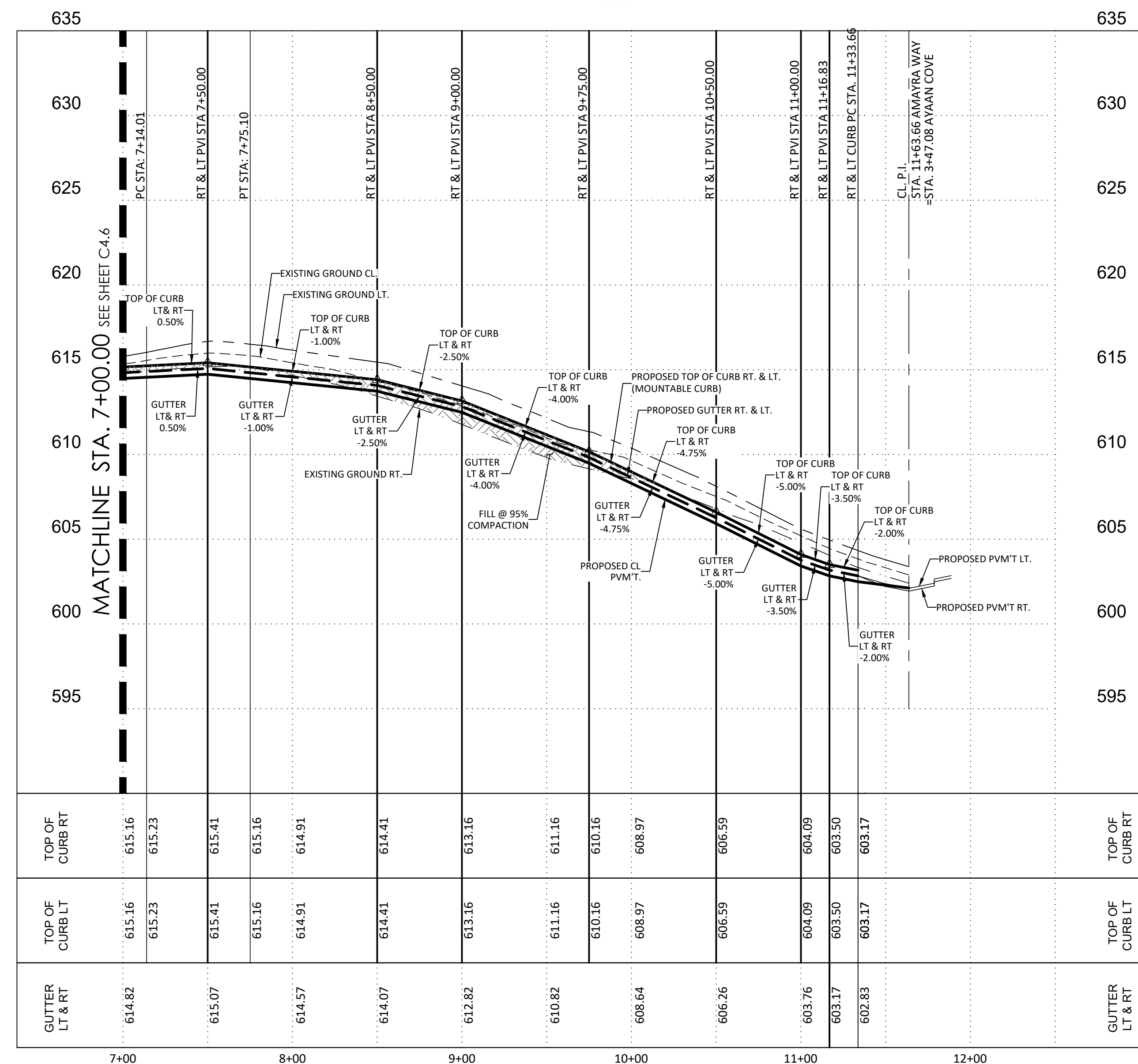
CAUTION!!!
CONTRACTOR TO VERIFY EXISTING
CONDITIONS BEFORE CONSTRUCTION.
IF ANY DISCREPANCIES NOTIFY
ENGINEER



AMAYRA WAY
(PRIVATE STREET)

STA. 7+00.00 TO STA. 11+63.66

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



SCALE: 1"=50'



CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD
C1	61.09'	100.00'	35°00'00"	31.53'	60.14'

LEGEND

CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK. PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.

SIDEWALK WHEELCHAIR RAMP - TYPE 10
DIRECTIONAL RAMPS (SINGLE)

SIDEWALK WHEELCHAIR RAMP - TYPE 10
DIRECTIONAL RAMPS (DUAL)

SIDEWALK WHEELCHAIR
(DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR
(DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR RAMP - TYPE 11
(DEVELOPER INSTALLED) OFFSET PARALLEL RAMP

SIDEWALK PASSING SPACE

EXISTING TOP OF CURB ELEVATION

PROPOSED TOP OF CURB ELEVATION

HOME BUILDER INSTALLED SIDEWALK

DEVELOPER INSTALLED SIDEWALK

SIDEWALK WHEEL

WASH-OUT CROWN

POSSIBLE DRIVEWAY LOCATION

PROPERTY LINE

EXISTING CONTOUR

PROPOSED CONTOUR

PROPOSED CONCRETE CURE

FLOW ARROW

COSA CITY LIM

PLAT NO. 23-11800388

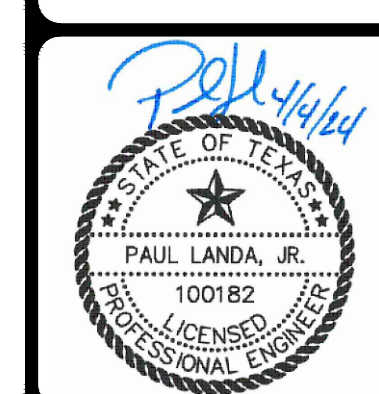
REVISIONS									
NO.		DATE	DESCRIPTION				BY		

MTR

- *Engineers*
- *Surveyors*
- *Planners*

Moy Tarin Ramirez Engineering, LLC

TBPELs: ENGINEERING F-5297/SURVEYING: F-10131500
12770 CMARRON PATH, SUITE 00 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085



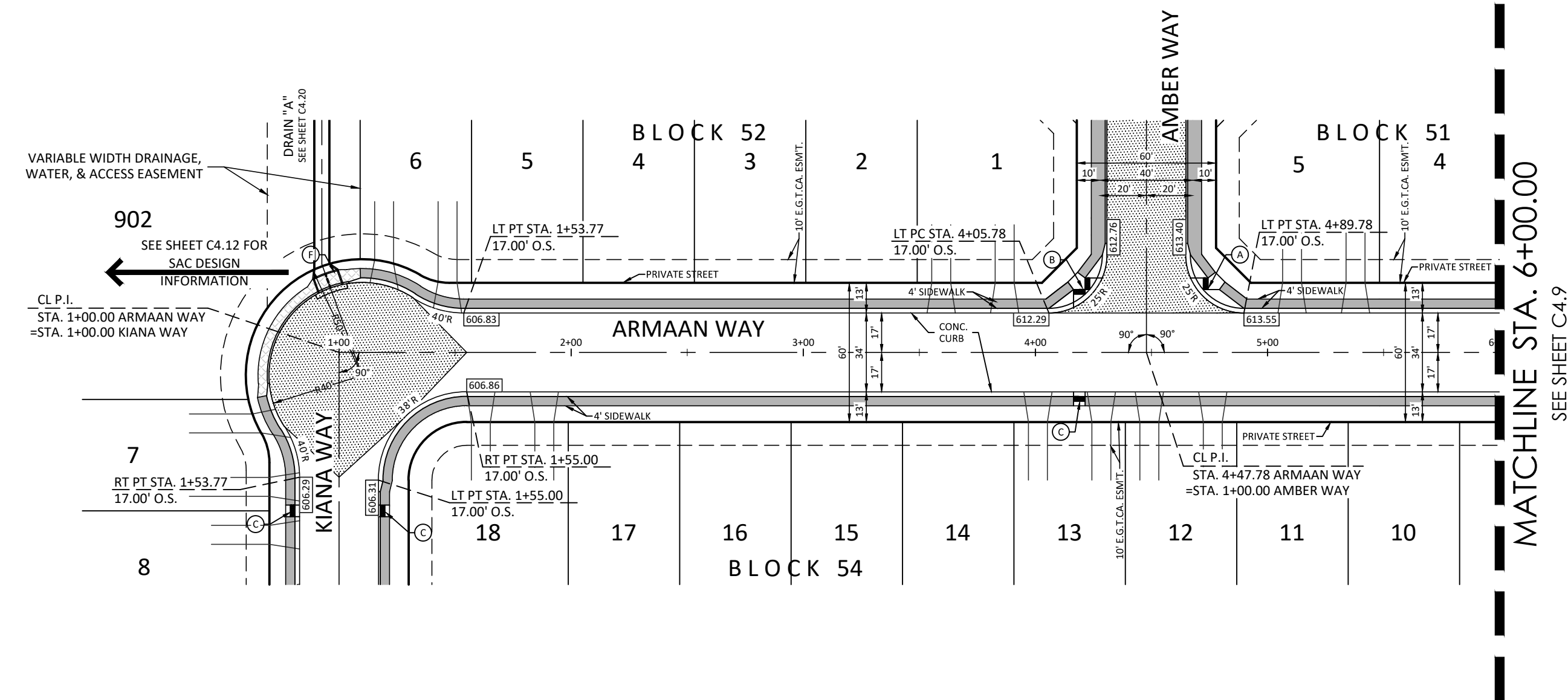
LEGACY AT GREEN ENCLAVE UNIT 1
STREET PLAN & PROFILE
AMAYRA WAY (PRIVATE STREET)
STA. 7+00.00 TO STA. 11+63.66

SHEET

C4.7

SUBMITTAL SET

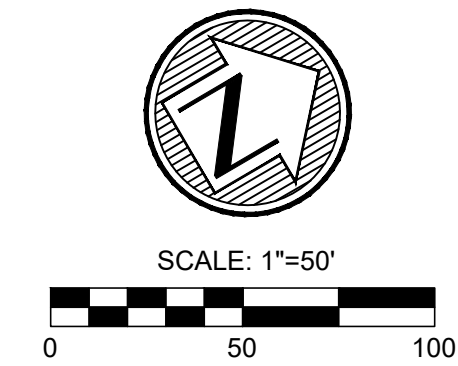
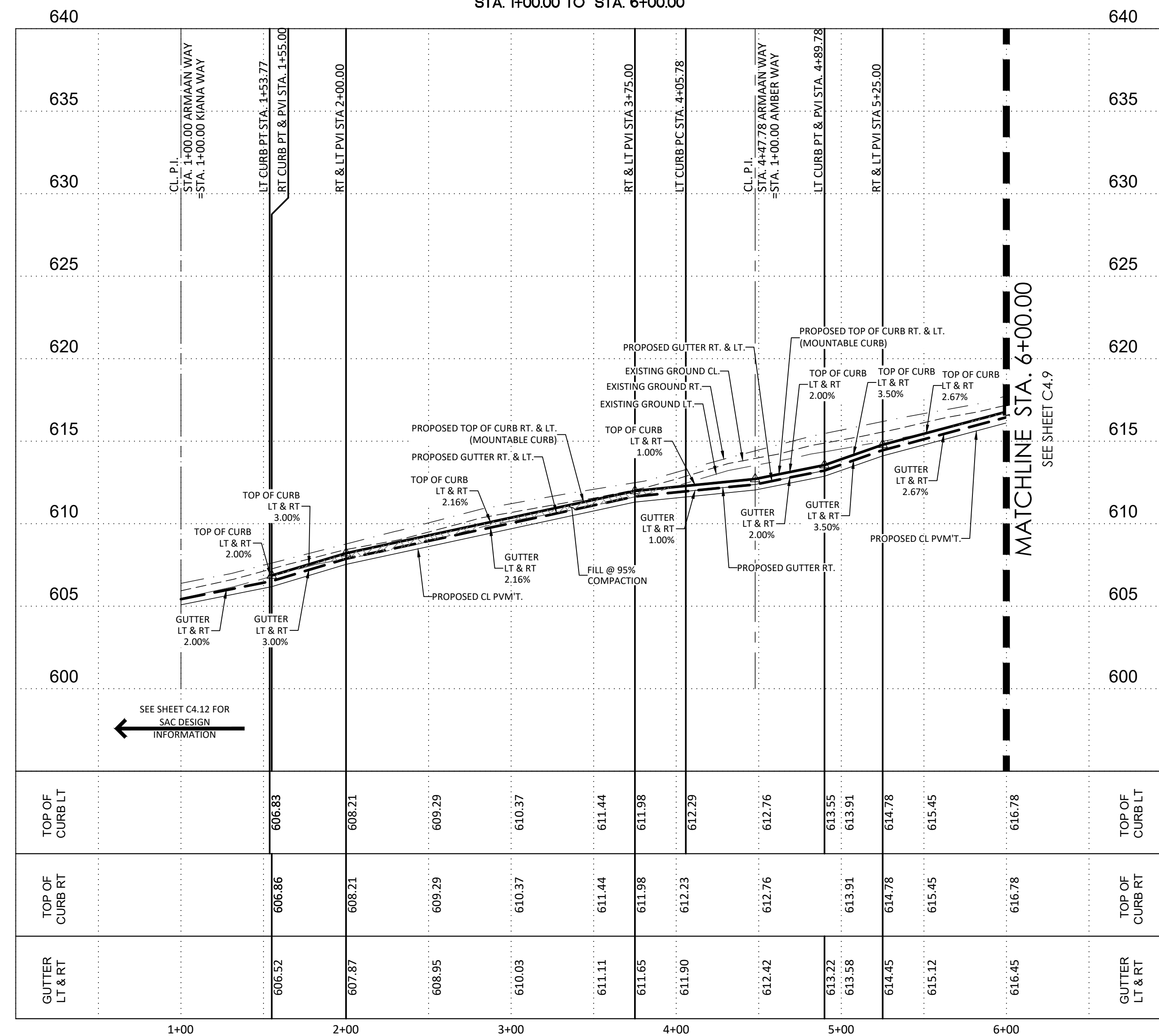
CAUTION!!!
CONTRACTOR TO VERIFY EXISTING
CONDITIONS BEFORE CONSTRUCTION.
IF ANY DISCREPANCIES NOTIFY
ENGINEER



ARMAAN WAY
(PRIVATE STREET)

STA. 1+00.00 TO STA. 6+00.00

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



LEGEND

CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK. PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.

SIDEWALK WHEELCHAIR RAMP - TYPE 10
DIRECTIONAL RAMPS (SINGLE)

SIDEWALK WHEELCHAIR RAMP - TYPE 10
DIRECTIONAL RAMPS (DUAL)

SIDEWALK WHEELCHAIR R.
(DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR R
(DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR RAMP - TYPE 11
(DEVELOPER INSTALLED) OFFSET PARALLEL RAMP

SIDEWALK PASSING SPACE

EXISTING TOP OF CURB ELEVATION

PROPOSED TOP OF CURB ELEVATION

HOME BUILDER INSTALLED SIDEWALK

DEVELOPER INSTALLED SIDEWALK

WASH-OUT CROWN

POSSIBLE DRIVEWAY

PROPERTY LINE

EXISTING CONTOUR

PROPOSED CONTOUR

FLORIAN ARON

COSA CITY LIMIT LINE

PLAT NO. 23-11800388

	NO.	DATE	DESCRIPTION	B.Y.
			PROL # DGN. BY:	DWN. BY:
			CHECKED BY:	DATE:

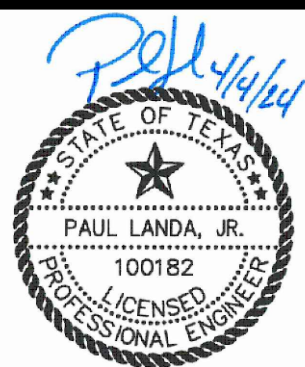
- **Engineers**
- **Surveyors**
- **Planners**

MTR

- Engineers
- Surveyors
- Planners

Moy Tarin Ramirez Engineers, LLC

TELEPHONE: ENGINEERING F-5297/SURVEYING: F-101315000
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085



LEGACY AT GREEN ENCLAVE UNIT 1
STREET PLAN & PROFILE
ARMAAN WAY (PRIVATE STREET)

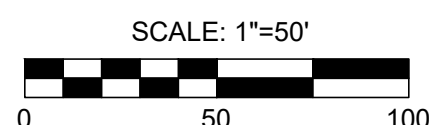
SIA. 1+00.00 TO SIA. 6+00.00

SHEET

C4.8

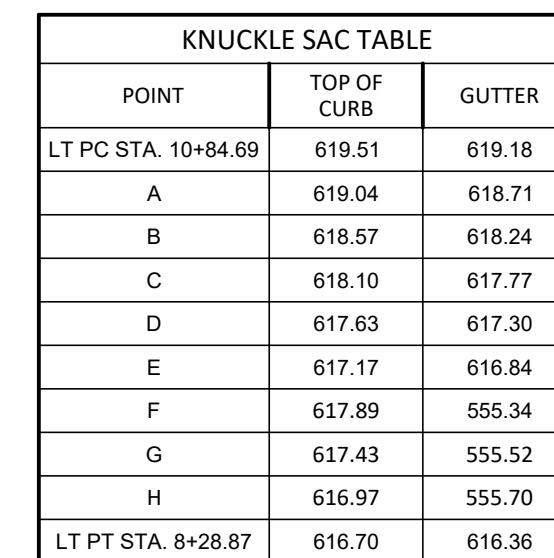
SUBMITTAL SET

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD
C1	137.44'	225.00'	35°00'00"	70.94'	135.32'



STA. 6+00.00 TO STA. 11+73.32

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



CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK. PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.

SIDEWALK WHEELCHAIR RAMP - TYPE 10
DIRECTIONAL RAMPS (SINGLE)

SIDEWALK WHEELCHAIR RAMP - TYPE 10
DIRECTIONAL RAMPS (DUAL)

SIDEWALK WHEELCHAIR
(DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR RAMP - TYPE I
(DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR RAMP - TYPE 11
(DEVELOPER INSTALLED) OFFSET PARALLEL RAMP

SIDEWALK PASSING SPACE

EXISTING TOP OF CURB ELEVATION

PROPOSED TOP OF CURB ELEVATION

HOME BUILDER INSTALLED SIDEWALK

DEVELOPER INSTALLED SIDEWALK

SIDEWALK WHEEL

WASH OUT CROWN

POSSIBLE DRIVEW

PROPERTY LINE

EXISTING CONTOUR

PROPOSED CONTOUR

PROPOSED CONCRETE CURB

2004 CIRCULAR

MTR

- Engineers
- Surveyors
- Planners

Moy Tarin Ramirez Engineers, LLC
BELL: ENGINEERING F-5297/SURVEYING: F-1013715000
12770 CAMARON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249



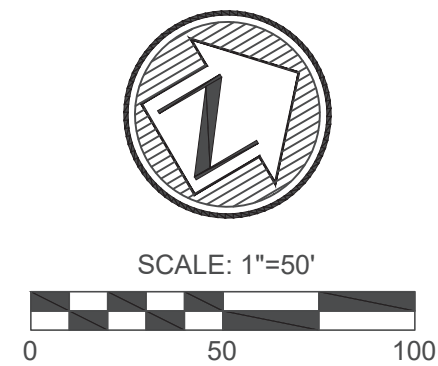
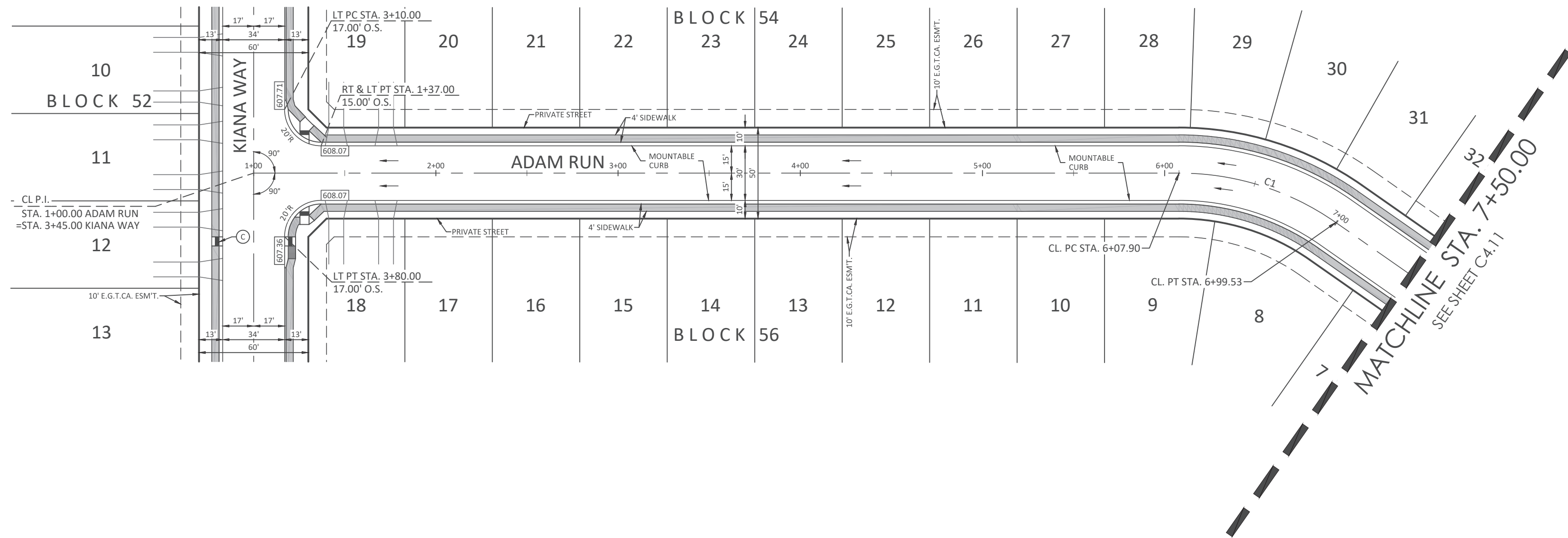
LEGACY AT GREEN ENCLAVE UNIT 1
STREET PLAN & PROFILE
ARMAAN WAY (PRIVATE STREET)

STA. 6+00.00 TO STA. 11+73.32

SHEET

C4.9

Plot Date: March 12, 2024 User: ID: User: Pwng
R:\Volume1\0\Unit 1\Drawings\3104_24\10-C4.10-Adam Run.rvt



LEGEND

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

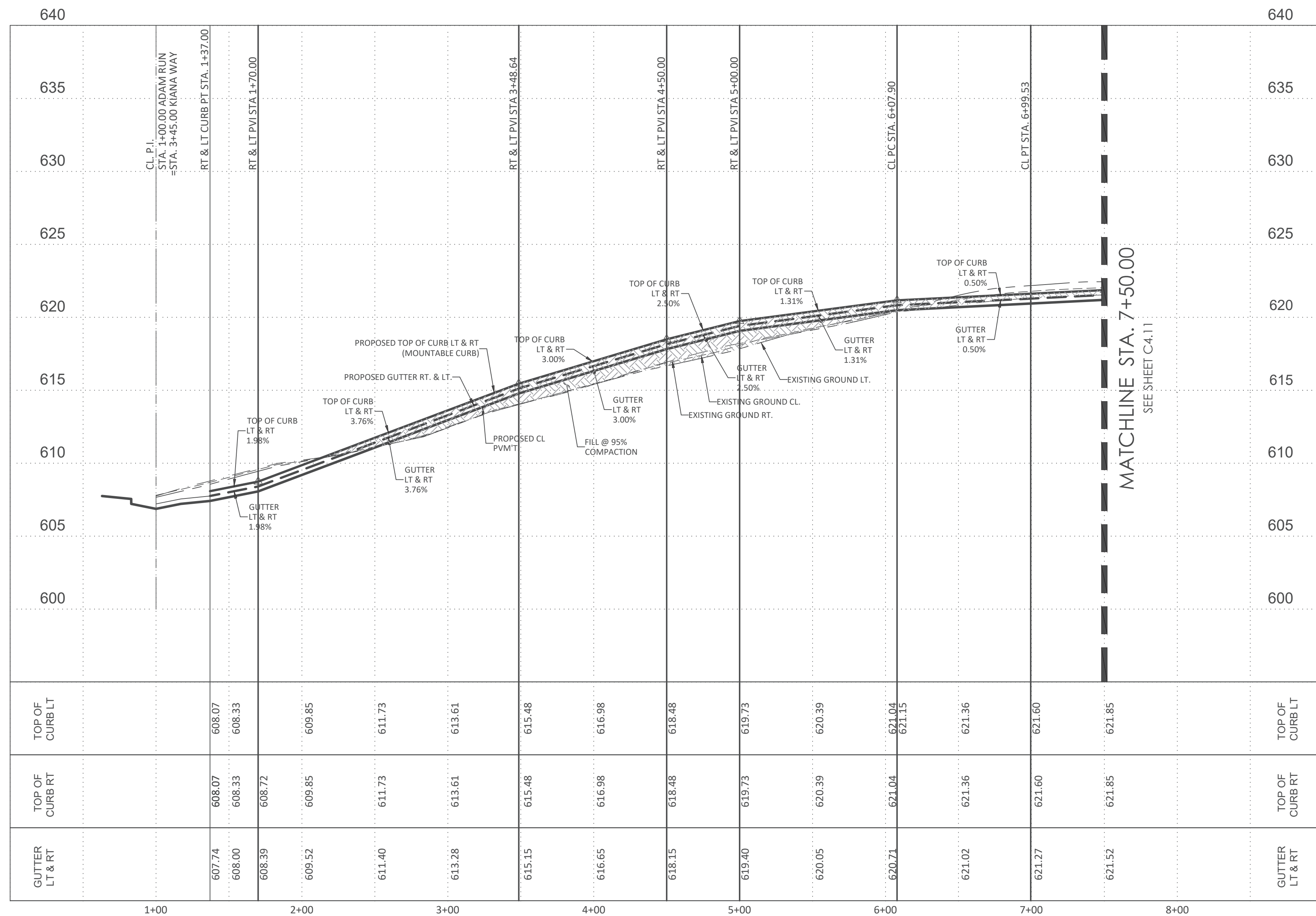
CAUTION!!!
CONTRACTOR TO VERIFY EXISTING CONDITIONS BEFORE CONSTRUCTION. IF ANY DISCREPANCIES NOTIFY ENGINEER

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD
C1	91.63'	150.00'	35°00'00"	47.29'	90.21'

ADAM RUN (PRIVATE STREET)

STA. 1+00.00 TO STA. 7+50.00

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



PLAT NO. 23-11800388

LEGEND

CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK. PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.

SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE)

SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL)

SIDEWALK WHEELCHAIR RAMP - TYPE II (DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR RAMP - TYPE I (DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR RAMP - TYPE 11 (DEVELOPER INSTALLED) OFFSET PARALLEL RAMP

SIDEWALK PASSING SPACE

EXISTING TOP OF CURB ELEVATION

PROPOSED TOP OF CURB ELEVATION

HOME BUILDER INSTALLED SIDEWALK

DEVELOPER INSTALLED SIDEWALK

SIDEWALK WHEEL CHAIR RAMP (DEVELOPER INSTALLED)

WASH-OUT CROWN

POSSIBLE DRIVEWAY LOCATION

PROPERTY LINE

EXISTING CONTOUR

PROPOSED CONTOUR

PROPOSED CONCRETE CURB

FLOW ARROW

COSA CITY LIMIT LINE

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

Engineers
Surveyors
Planners

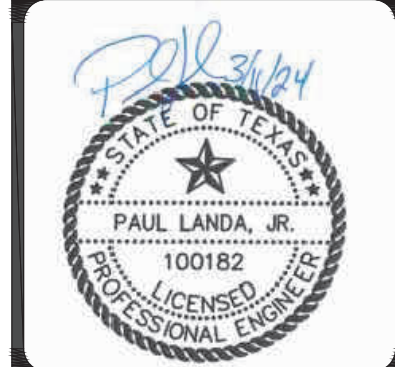
MTR

Moy Tarin Ramirez Engineers, LLC

TBPELS: ENGINEERING F-5297 / SURVEYING: F-10131500

12770 CHARRON PATH, SUITE 100 TEL: (210) 698-5051

SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5065



LEGACY AT GREEN ENCLAVE UNIT 1

STREET PLAN & PROFILE

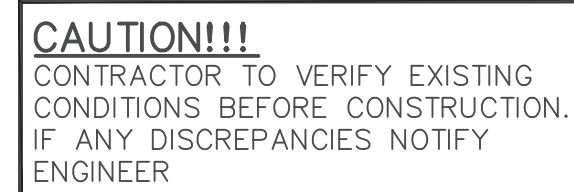
ADAM RUN (PRIVATE STREET)

STA. 1+00.00 TO STA. 7+50.00

SHEET

C4.10

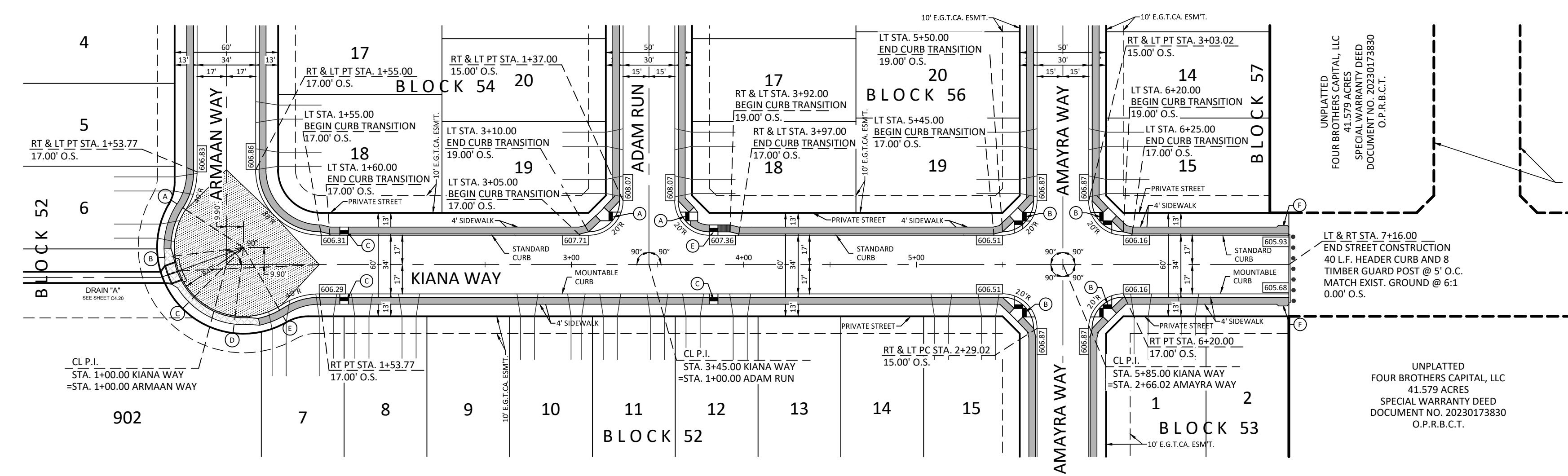
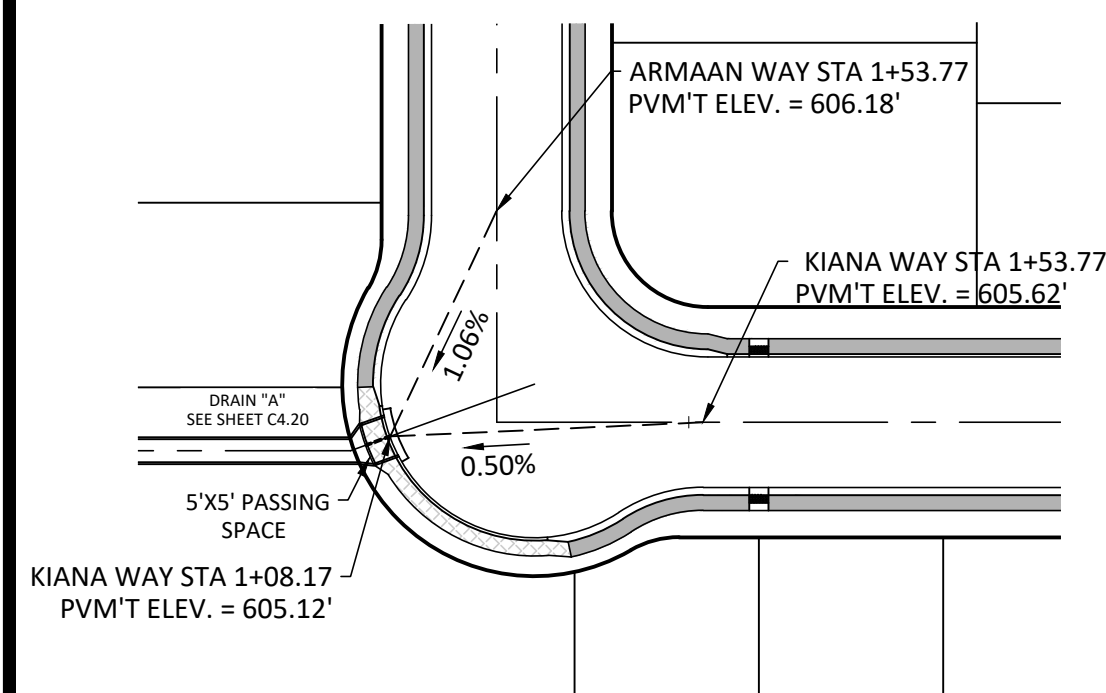
SUBMITTAL SET



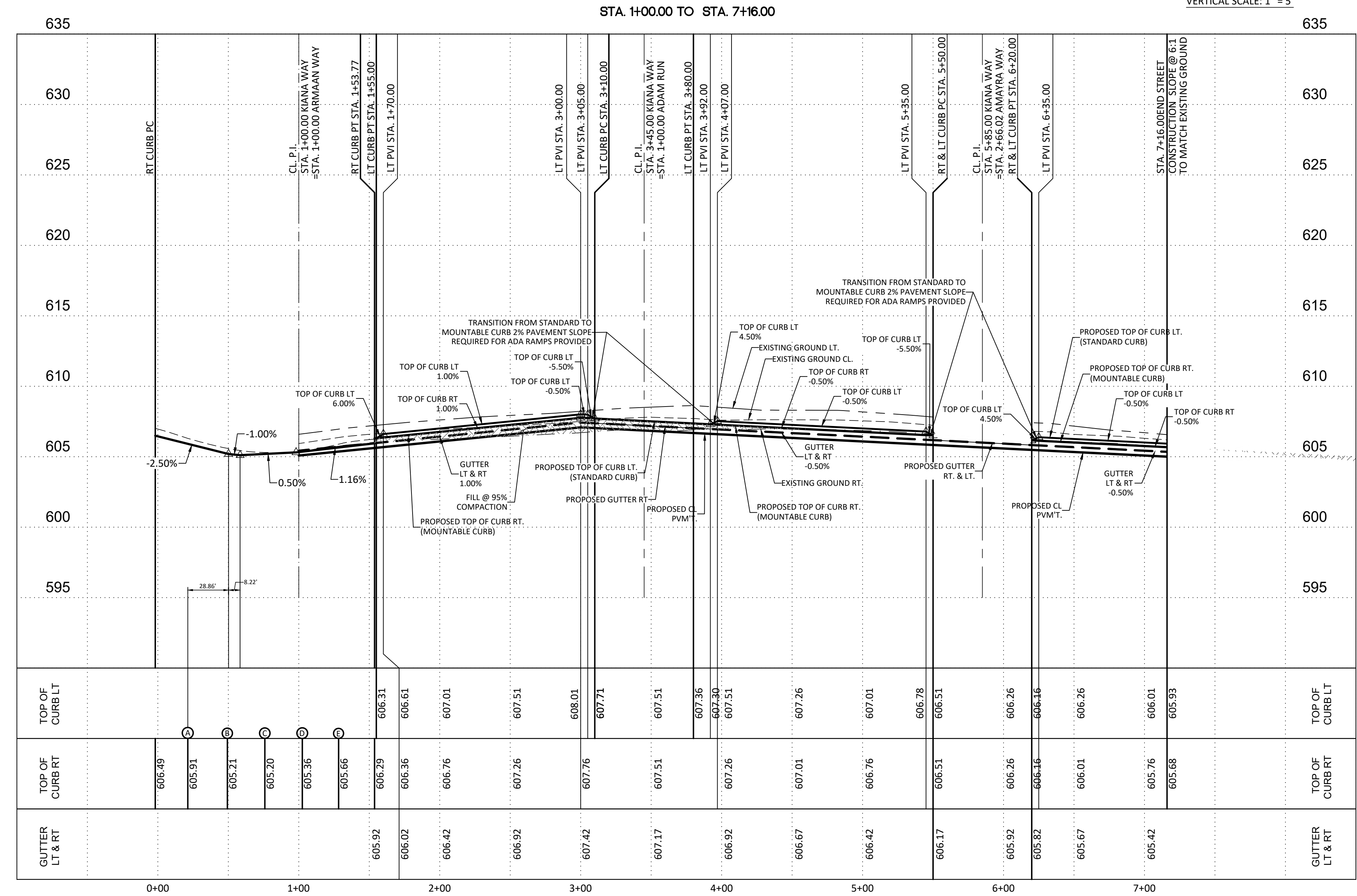
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



SCALE: 1"=50'



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



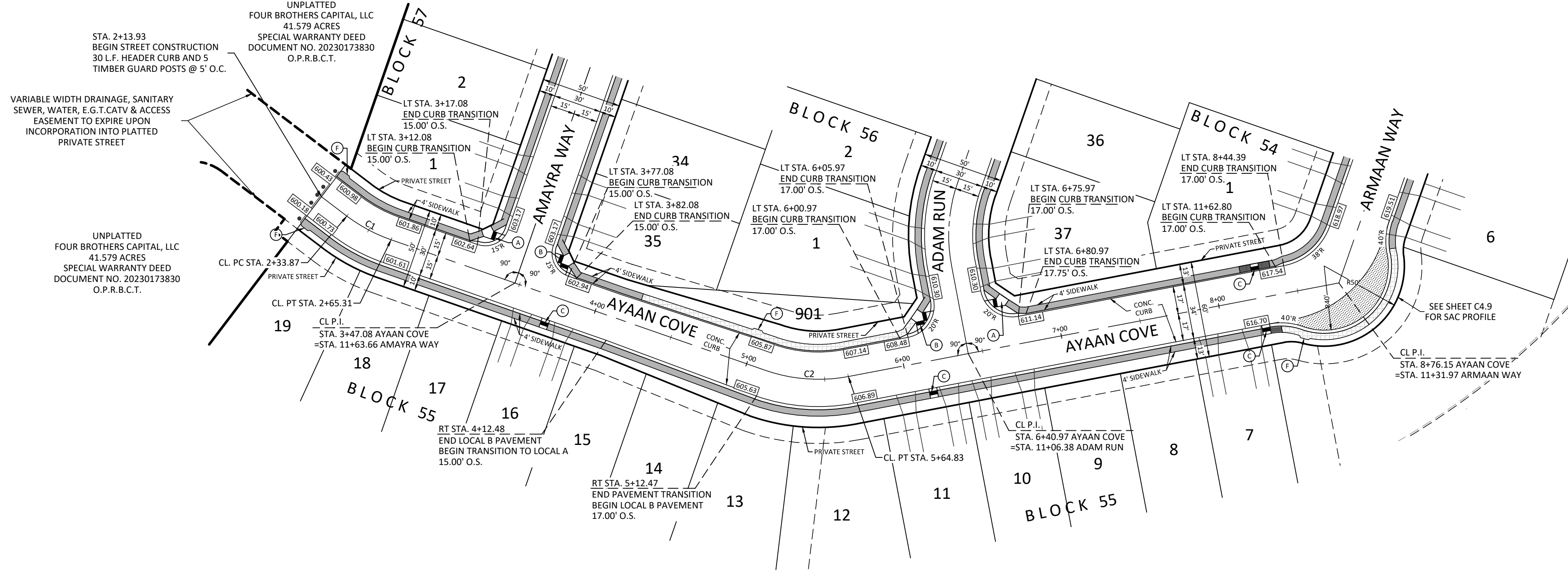
CAUTION!!!
 CONTRACTOR TO VERIFY EXISTING
 CONDITIONS BEFORE CONSTRUCTION.
 IF ANY DISCREPANCIES NOTIFY
 ENGINEER

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

STA. 2+13.93
BEGIN STREET CONSTRUCTION
30 L.F. HEADER CURB AND 5
TIMBER GUARD POSTS @ 5' O.C.

UNPLATTED
FOUR BROTHERS CAPITAL, LLC
41.579 ACRES
SPECIAL WARRANTY DEED
DOCUMENT NO. 20230173830
O.P.R.B.C.T.

UNPLATTED
FOUR BROTHERS CAPITAL, LLC
41.579 ACRES
SPECIAL WARRANTY DEED
DOCUMENT NO. 20230173830
O.P.R.B.C.T.



SCALE: 1"=50'

A horizontal scale bar with alternating black and white segments. Below the bar are numerical markers for 0, 50, and 100 feet.

LEGEND

CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK. PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.

SIDEWALK WHEELCHAIR RAMP - TYPE 10
DIRECTIONAL RAMPS (SINGLE)

SIDEWALK WHEELCHAIR RAMP - TYPE 10
DIRECTIONAL RAMPS (DUAL)

SIDEWALK WHEELCHAIR
(DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR
(DEVELOPER INSTALLED)

SIDEWALK WHEELCHAIR RAMP - TYPE 11
(DEVELOPER INSTALLED) OFFSET PARALLEL RAMP

SIDEWALK PASSING SPACE

EXISTING TOP OF CURB ELEVATION

HOME BUILDER INSTALLED SIDEWALK

DEVELOPER INSTALLED SIDEWALK

SIDEWALK WHEEL CHAIR RAMP (DEVELOPER INSTALLED)

WASH-OUT CROWN

POSSIBLE DRIVEWAY LOCATION

PROPERTY LINE

EXISTING CONTOUR

PROPOSED CONTOUR

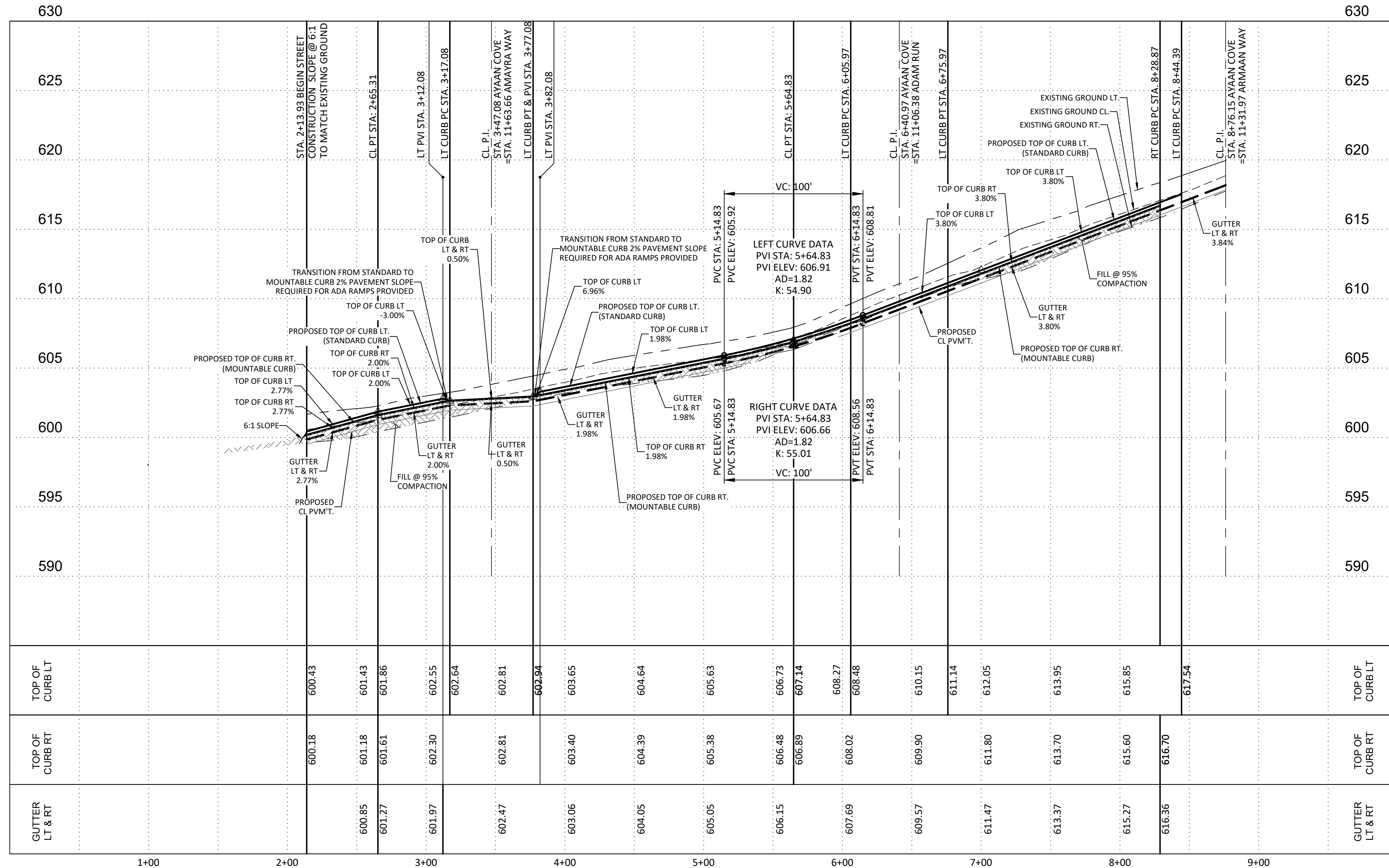
PROPOSED CONCRETE CURB

FLOW ARROW

COSA CITY LIMIT LINE

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD
C1	31.44'	100.00'	18°00'56"	15.85'	31.31'
C2	52.36'	100.00'	30°00'00"	26.79'	51.76'

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



PLAT NO. 23-11800388

REVISIONS				
NO.	DATE	DESCRIPTION	BY	
		PROJ. #	DGN. BY:	CHKD. BY:
			DATE:	

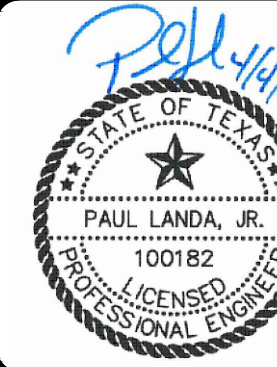
- *Engineers*
- *Surveyors*
- *Planners*



• Engineers
 • Surveyors
 • Planners

Moy Tarin Ramirez Engineers, LLC

TEL: 508-548-7700 FAX: 508-548-7701
 BP&LS: ENGINEERING F-5297/SURVEYING: F-1013150



LEGACY AT GREEN ENCLAVE UNIT 1
STREET PLAN & PROFILE
AYAAN COVE (PRIVATE STREET)

STA. 2+13.93 TO STA. 8+76.15

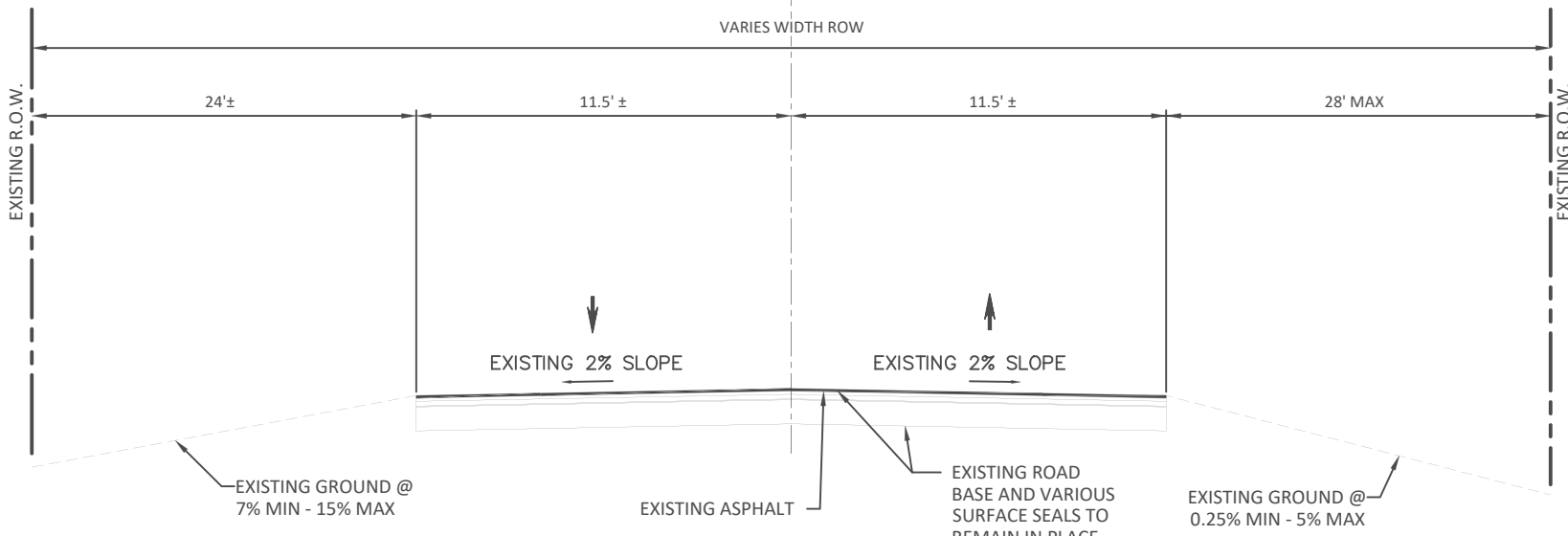
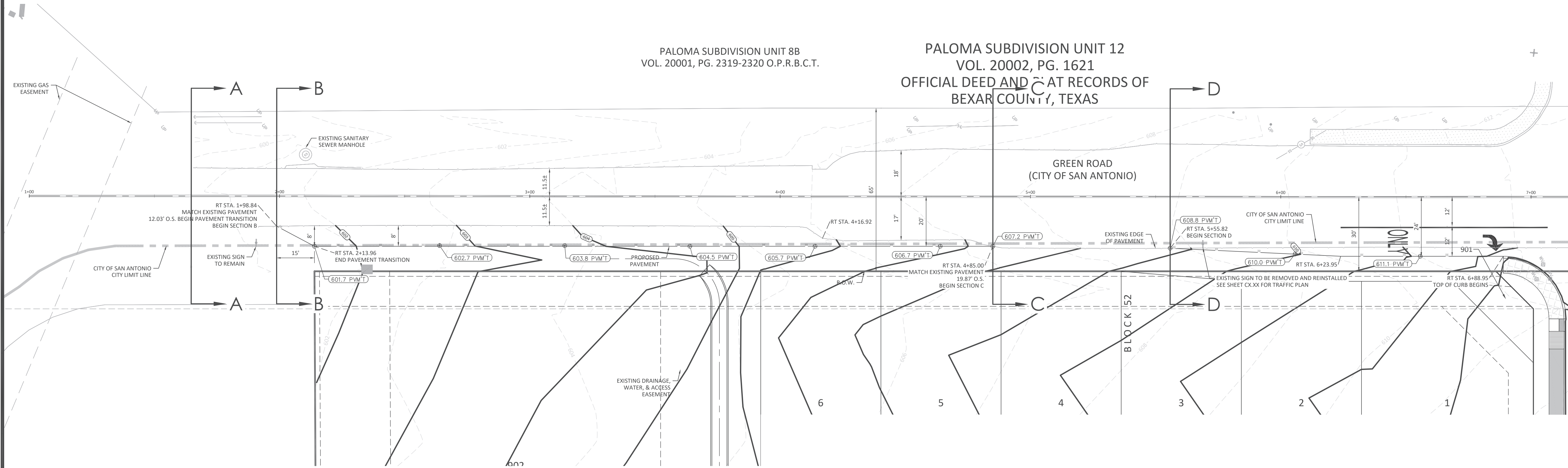
SHEET

C4.13

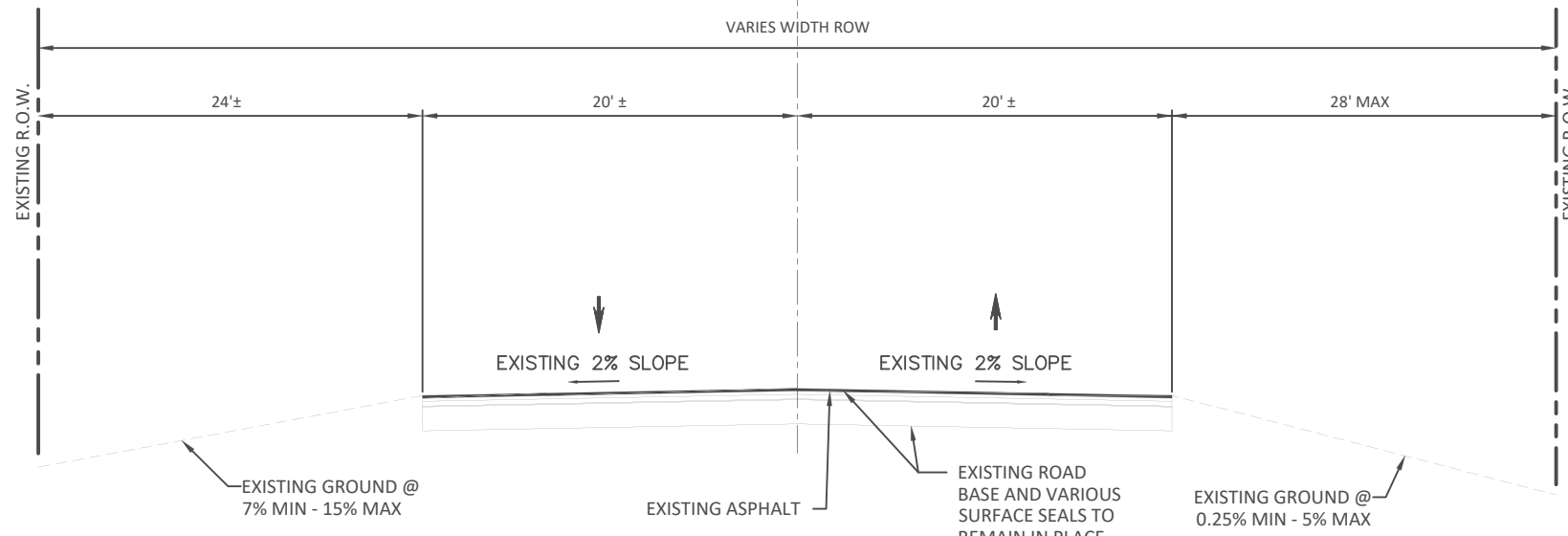
SUBMITTAL SET

PALOMA SUBDIVISION UNIT 8B
VOL. 20001, PG. 2319-2320 O.P.R.B.C.T.

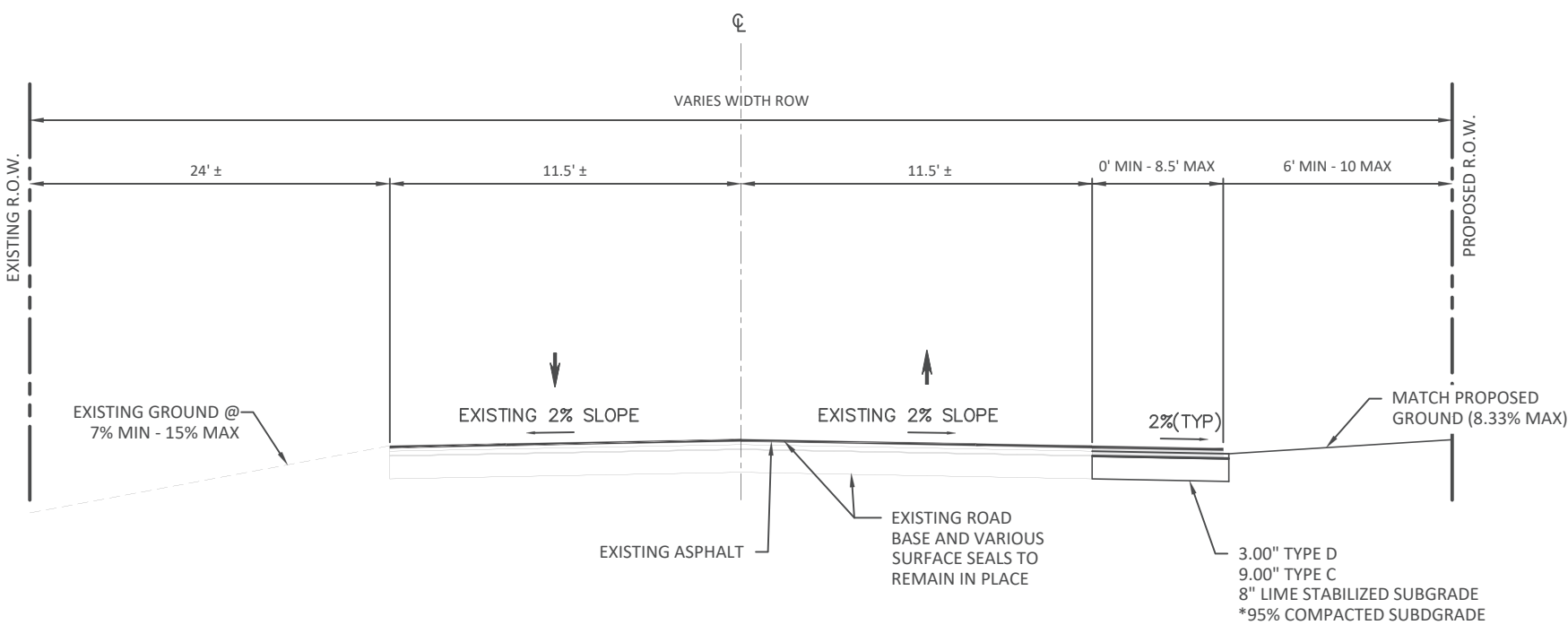
PALOMA SUBDIVISION UNIT 12
VOL. 20002, PG. 1621
OFFICIAL DEED AND C-AT RECORDS OF
BEXAR COUNTY, TEXAS



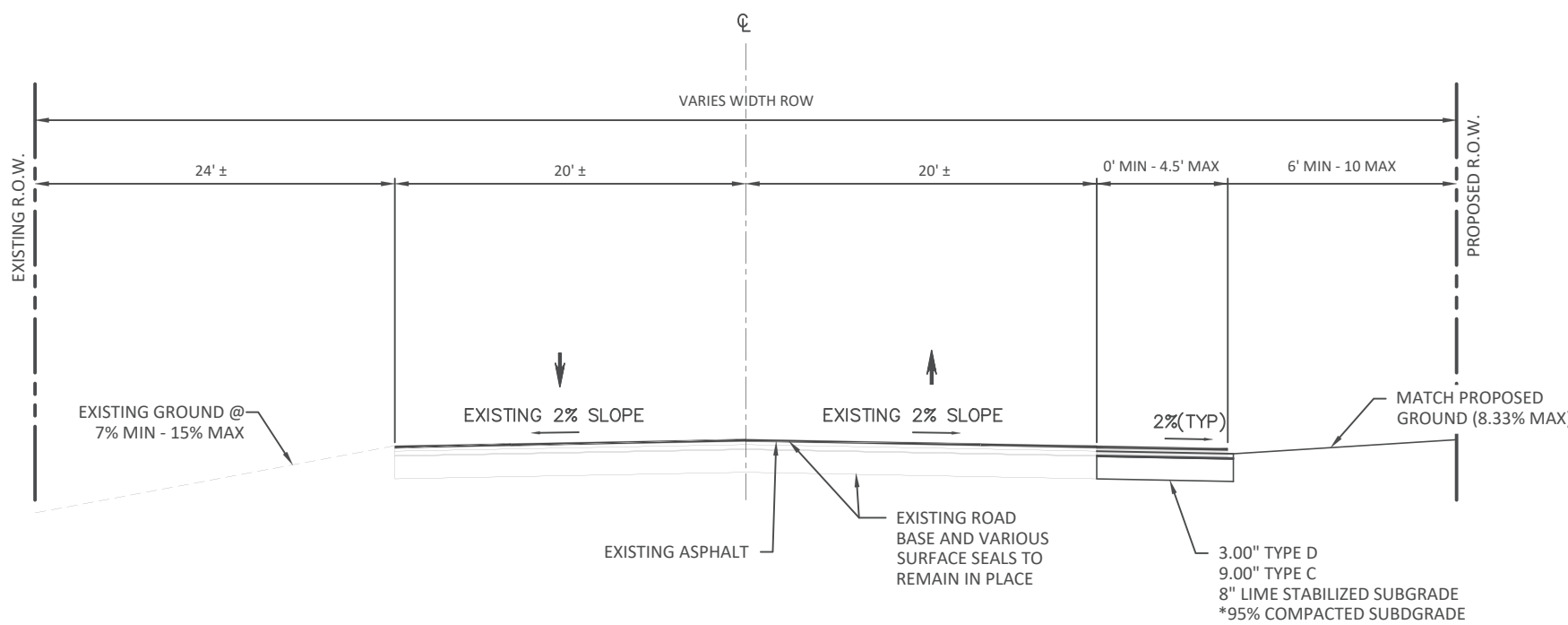
A NTS
GREEN ROAD - EXISTING CROSS SECTION
(CITY OF SAN ANTONIO)



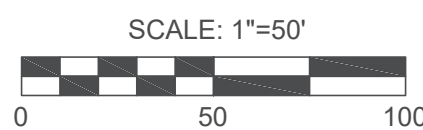
C NTS
GREEN ROAD - EXISTING CROSS SECTION
(CITY OF SAN ANTONIO)



B NTS
GREEN ROAD - WIDENING CROSS SECTION
STA. 4+65.83 TO STA. 7+08.56
(CITY OF SAN ANTONIO)



D NTS
GREEN ROAD - WIDENING CROSS SECTION
STA. 4+65.83 TO STA. 7+08.56
(CITY OF SAN ANTONIO)



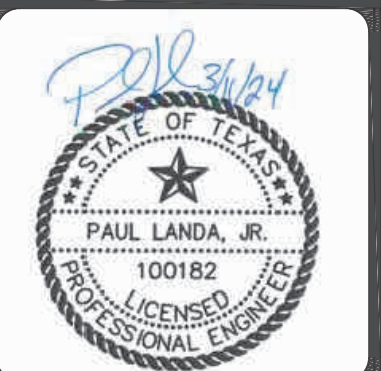
SUBGRADE NOTE
MOISTURE CONDITIONING OF THE SUBGRADE
SOILS TO BE COMPACTED TO A MINIMUM
95% OF THE MAXIMUM DRY DENSITY AT A
MOISTURE CONTENT BETWEEN OPTIMUM PLUS
4% OF THE OPTIMUM MOISTURE CONTENT.

NO.	DATE	DESCRIPTION	BY

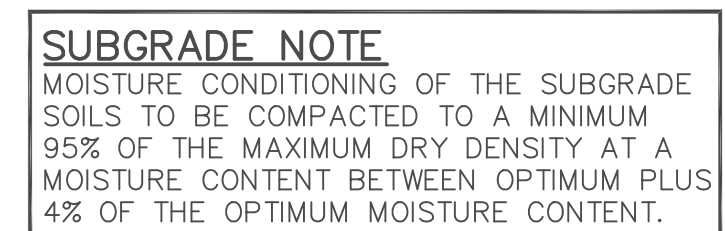
Engineers
Surveyors
Planners

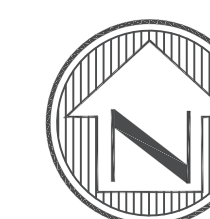
MTR

Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 / SURVEYING: F-10131500
12770 CHARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5065



LEGACY AT GREEN ENCLAVE UNIT 1
STREET PLAN & PROFILE
GREEN ROAD
FOR CITY OF SAN ANTONIO REVIEW AND PERMIT ONLY

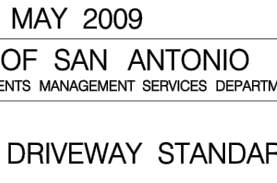
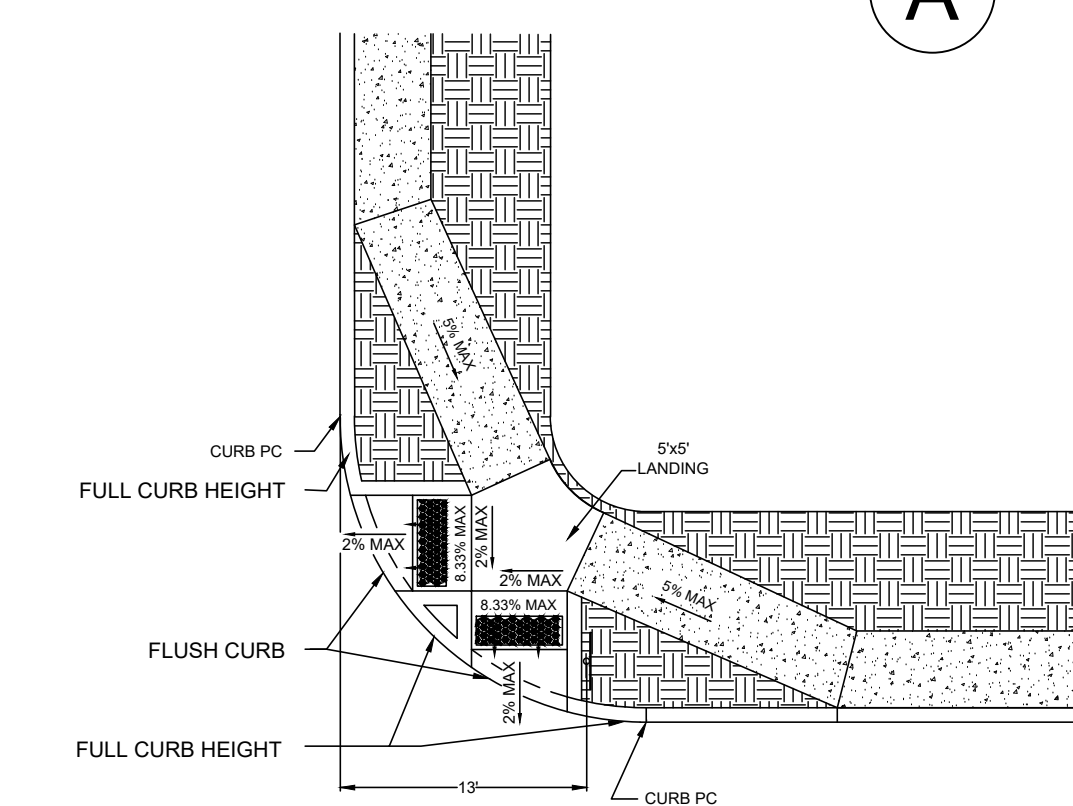


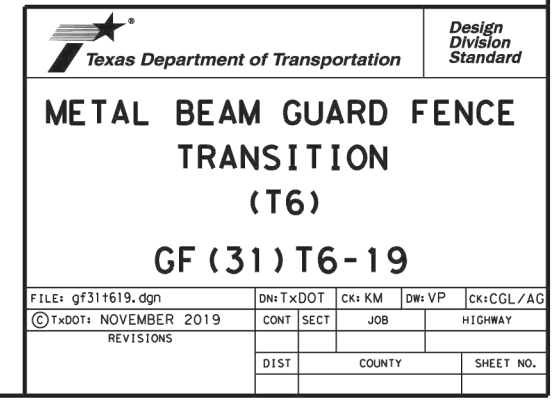
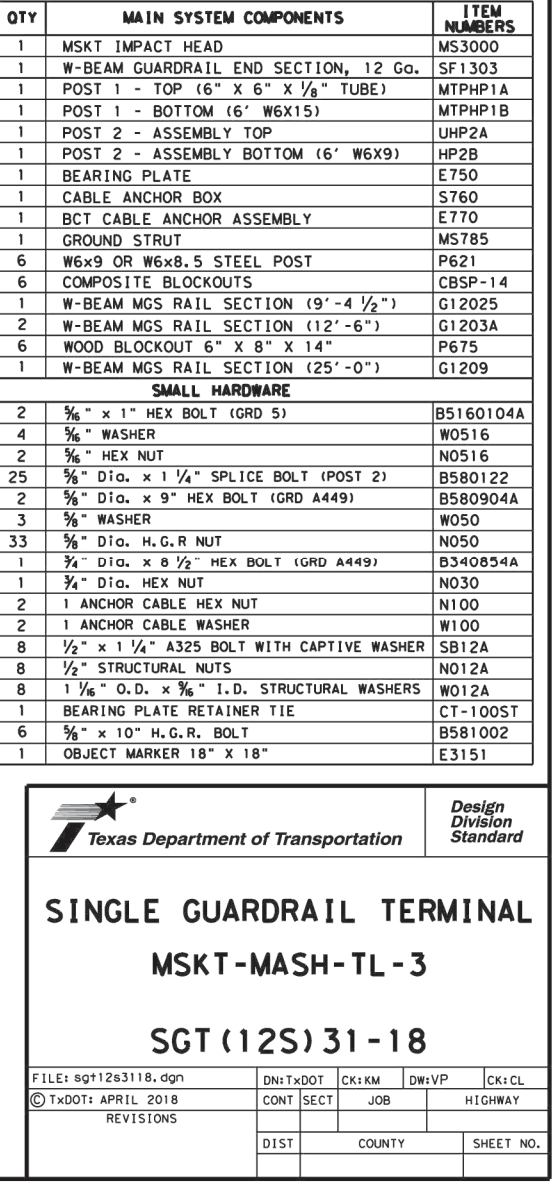
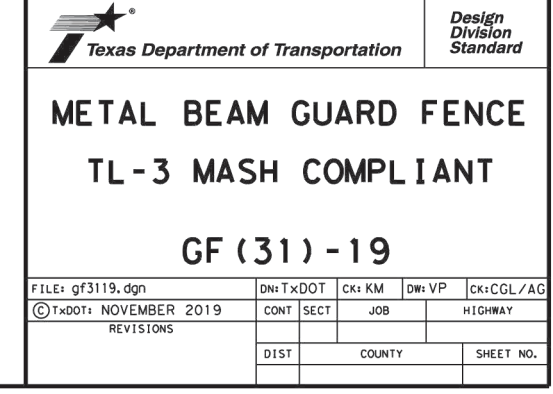


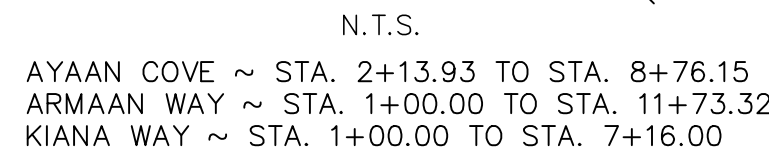
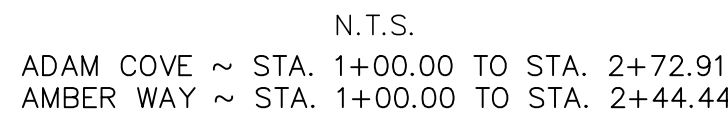
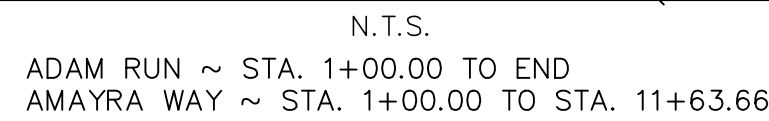
SCALE: 1"=5'



SUBGRADE NOTE
MOISTURE CONDITIONING OF THE SUBGRADE
SOILS TO BE COMPACTED TO A MINIMUM
95% OF THE MAXIMUM DRY DENSITY AT A
MOISTURE CONTENT BETWEEN OPTIMUM PLUS
4% OF THE OPTIMUM MOISTURE CONTENT.







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

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

GEOTECHNICAL REPORT:..
INTEGRATED TESTING AND ENGINEERING COMPANY OF SAN ANTONIO, L.P.
SUBSURFACE EXPLORATION AND PAVEMENT ANALYSIS
PROPOSED NEW STREETS D. RAKOWITZ SUBDIVISION, UNITS 1 & 2
INTEC PROJECT NO. S231217 (SEPTEMBER 12, 2023)



- AFTER INITIAL MIXING THE SOIL-LIME MIXTURE SHALL MELLOW FOR A PERIOD OF TWO TO THREE (2-3) DAYS. MAINTAIN MOISTURE DURING MELLOWING;
- AFTER MELLOWING AND FINAL MIXING, THE PULVERIZATION SHALL BE CHECKED USING THE FOLLOWING CRITERIA (REMOVE NON-SLAKING AGGREGATES RETAINED ON THE ¾ INCH SIEVE FROM THE SAMPLE):

•• MINIMUM PASSING 1¾ SIEVE	100
•• MINIMUM PASSING ¾ SIEVE	85
•• MINIMUM PASSING NO. 4 SIEVE	60
- SAMPLE SOIL-LIME MIXTURE FOR DETERMINATION OF MAXIMUM DRY DENSITY (MDD). IN THE LABORATORY, MOLD SPECIMENS TO 95% OF MDD AT OPTIMUM MOISTURE CONTENT AND VERIFY UCS TO BE AT LEAST 160 PSI IN ACCORDANCE WITH PROCEDURE OUTLINED ABOVE FOR MIXTURE DESIGN.
- COMPACT AND CHECK FIELD DENSITY (MINIMUM OF 95% OF MDD REQUIRED);
- CURE FOR AN ADDITIONAL 2 TO 5 DAYS (TOTAL MELLOWING AND CURING TIME SHOULD TOTAL AT LEAST 5 DAYS).
- VERIFY DEPTH OF LIME STABILIZED LAYER TO DEPTH AS NOTED ON PLAN TO WITHIN ±1.0 INCH.

1. APPLICABLE SPECIFICATIONS FROM "CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION"- JUNE 2008
200 – FLEXIBLE BASE
202 – PRIME COAT
203 – TACK COAT
205 – HOT MIX ASPHALT CONCRETE PAVEMENT
2. REFER TO INTEC GEOTECHNICAL REPORTS FOR ADDITIONAL PAVEMENT CONSTRUCTION INFORMATION
"SYNTHESIS OF SURVEY, EXPLORATION AND PAVEMENT ANALYSIS PROPOSED NEW STREETS D. RAKOWITZ' SUBDIVISION, UNITS 1 & 2 SAN ANTONIO, TEXAS INTEC PROJECT NO. S231217 DATE SEPT. 12, 2023.
3. CONTRACTOR TO COORDINATE ALL MATERIAL TESTING

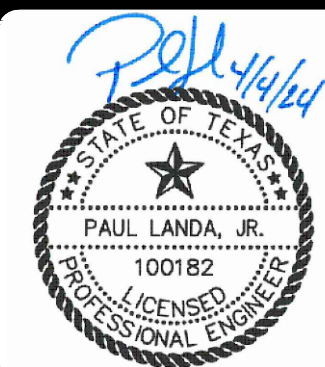
LOCAL "A"

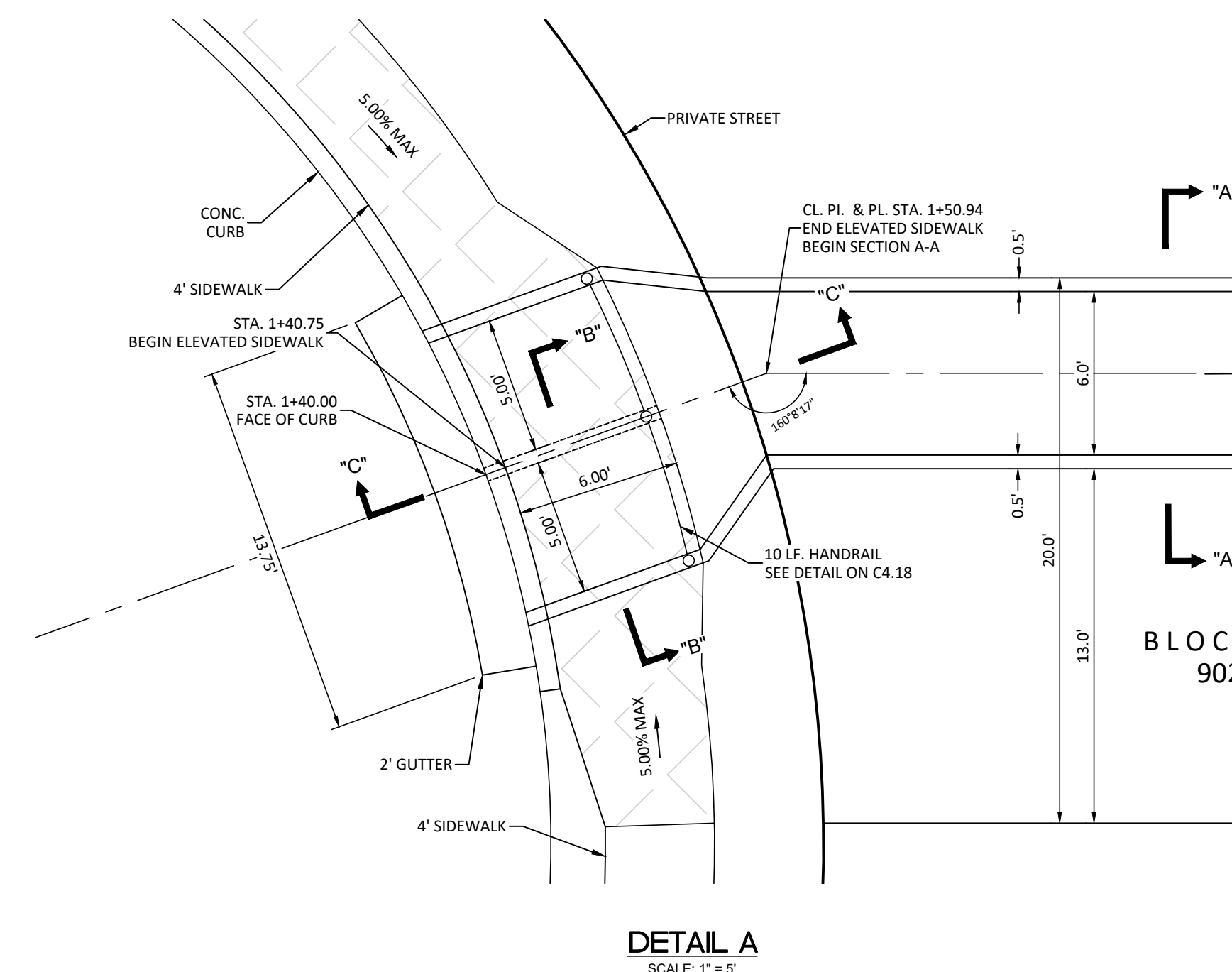
LOCAL "B"

- Subgrade Notes:**
- Based on the thickness of the clays encountered in the borings, we anticipate the final pavement subgrade Plasticity Index value to be greater than 20. Subgrade stabilization is recommended.
 - The subgrade soils should be tested for soil sulfate content prior to stabilization. If the soil sulfate content is higher than 3000 ppm an alternate / modified procedure will be needed.
 - Lime or cement may be used to stabilize the subgrade.
 - An application rate of 8 percent lime content. Application rate for cement, if needed, should be determined at the time construction.
 - Lime application rate of **34.0 lbs per sq yard for 6-inch depth** of stabilization is recommended.
 - Lime application rate of **45.0 lbs per sq yard for 8-inch depth** of stabilization is recommended.
 - Fill used to raise the grade:
 - approved fill material free should have a minimum CBR value of 2.0 and a maximum Plasticity Index value of 60. Lime application rates should be re-evaluated and tested for sulfate content prior to use of the fill material.
 - The fill material should be approved by the geotechnical engineer, free of deleterious material, and the gravel size should not exceed 3 inches in size. The material should be placed and compacted as per applicable city / county guidelines.
 - The subgrade, prior to placement of fill, should be proof rolled to identify weak areas. Any identified weak areas should be recomacted.
 - The results of our laboratory testing and engineering evaluation indicate that the underlying shallow clays are **highly plastic in character**. Potential vertical movement on the order of **4 ½ to 5 ½ inches** is estimated at existing grade elevation.
 - Potential vertical movement on the order of **4 ½ inches** is anticipated at the subgrade elevation. If the soils underlying the stabilized subgrade is moisture conditioned to a depth of 18 inches potential vertical movement on the order of 3 inches is anticipated.

- Significant pavement distress has been observed during construction phase with the combination of construction traffic and irrigation water / rain water getting underneath the asphalt.
- If water is allowed to get underneath the asphalt or if moisture content of the base or subgrade soils changes significantly, then pavement distress will occur.
 - Minimizing moisture penetration underneath the asphalt will lower the chances of pavement distress.
 - Significant pavement distress, more often caused by water getting underneath the asphalt, is noted during home construction.
 - Aggregate base extending beyond the back of the curb increases the likelihood of water getting underneath the asphalt. Moisture penetration may be reduced by using a deeper curb, such as curb extending a minimum of 6 inches into subgrade or compacted clays backfilled against the curbs.
 - In addition, water should not be allowed to get underneath the pavement section at the time of home construction.

- Cut and fill information (street profile) is not available at this time. In addition, information on any structures crossing the street (such as a culvert), is not available at this time. Please contact InTEC to review the proposed street profiles and recommend details for such crossings.

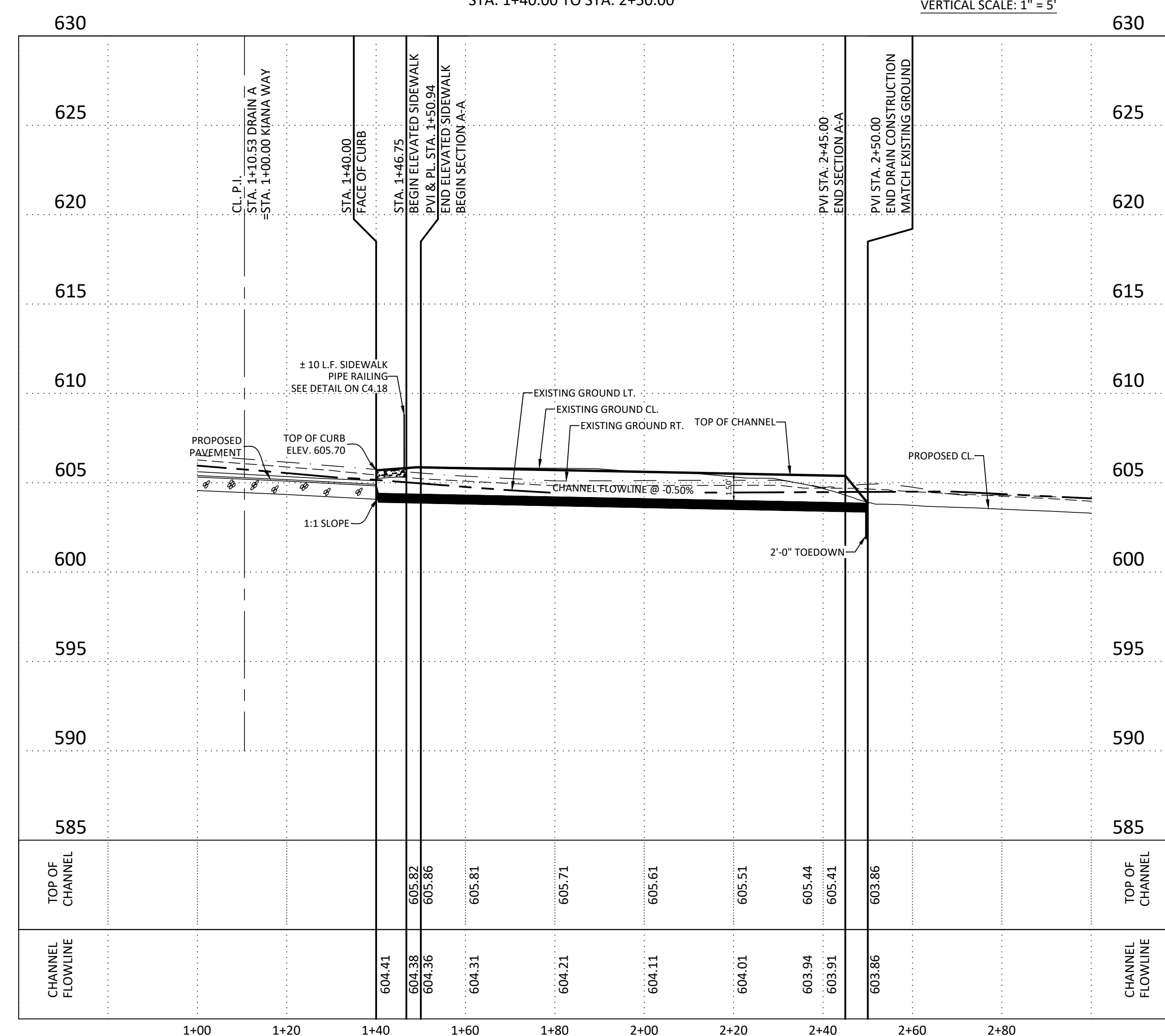




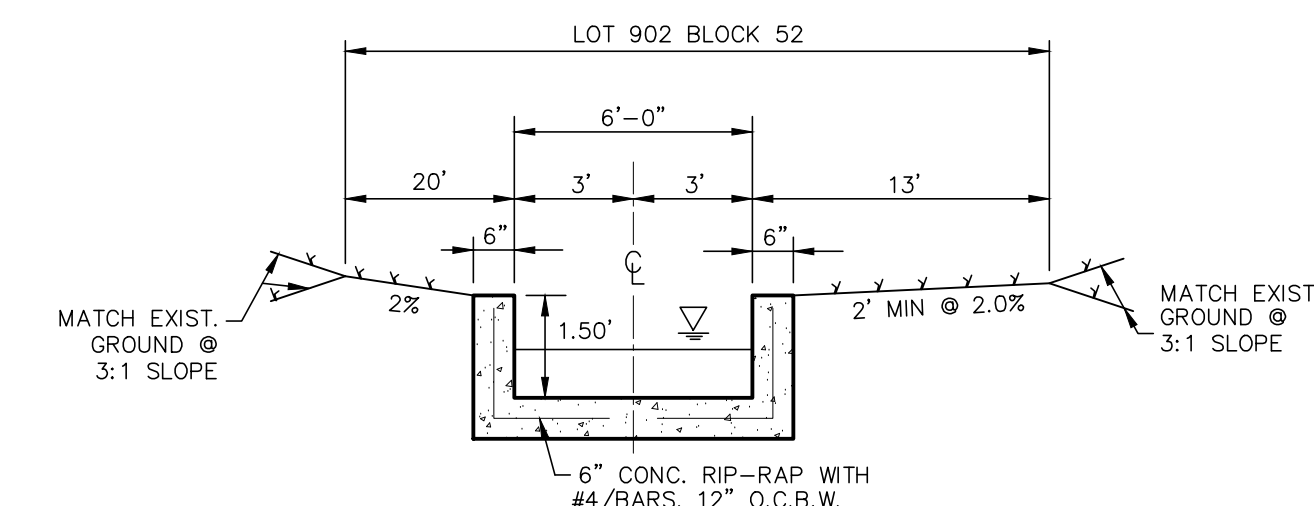
DETAIL A
SCALE: 1" = 5'

STA. 1+40.00 TO STA. 2+50.00

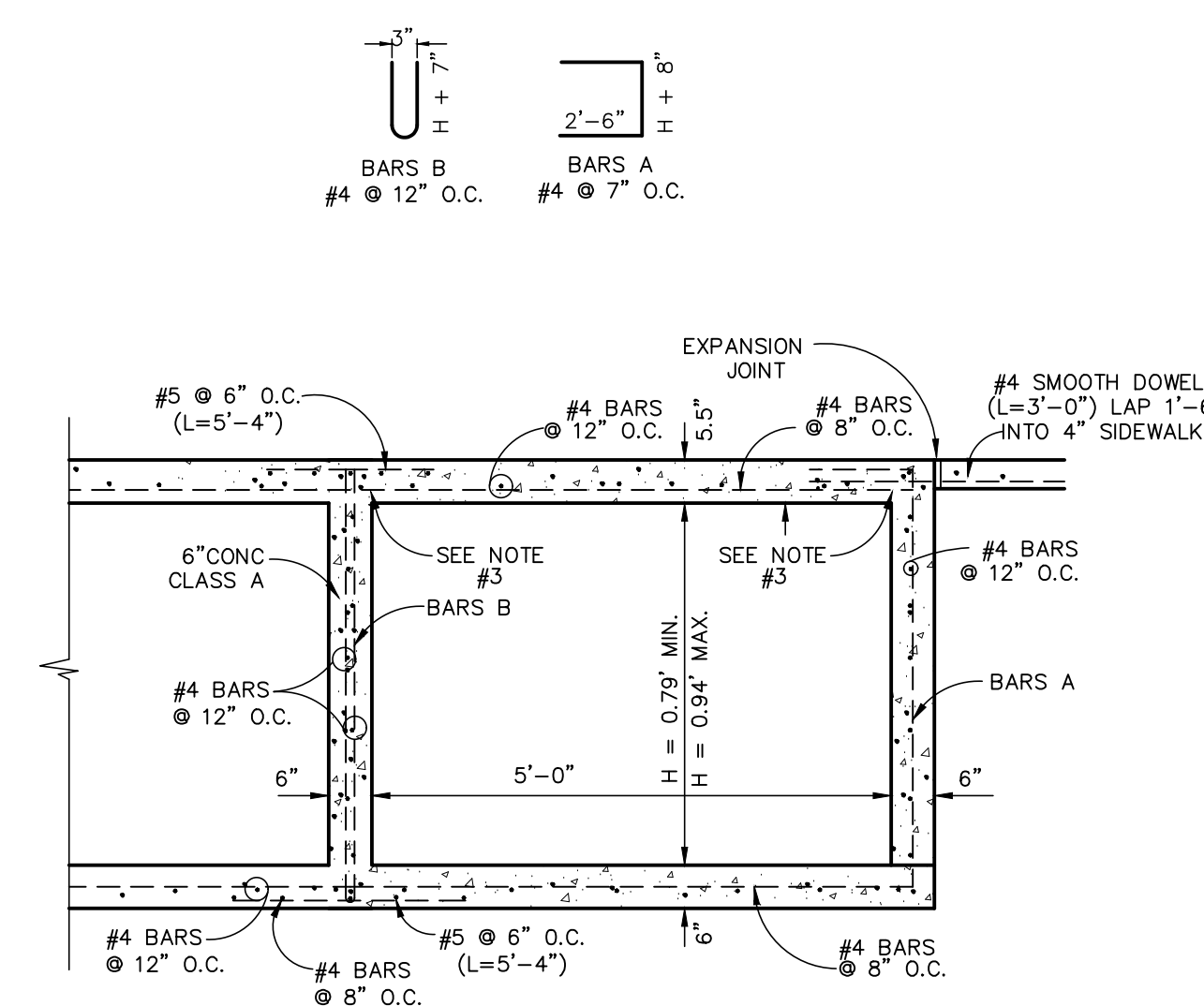
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



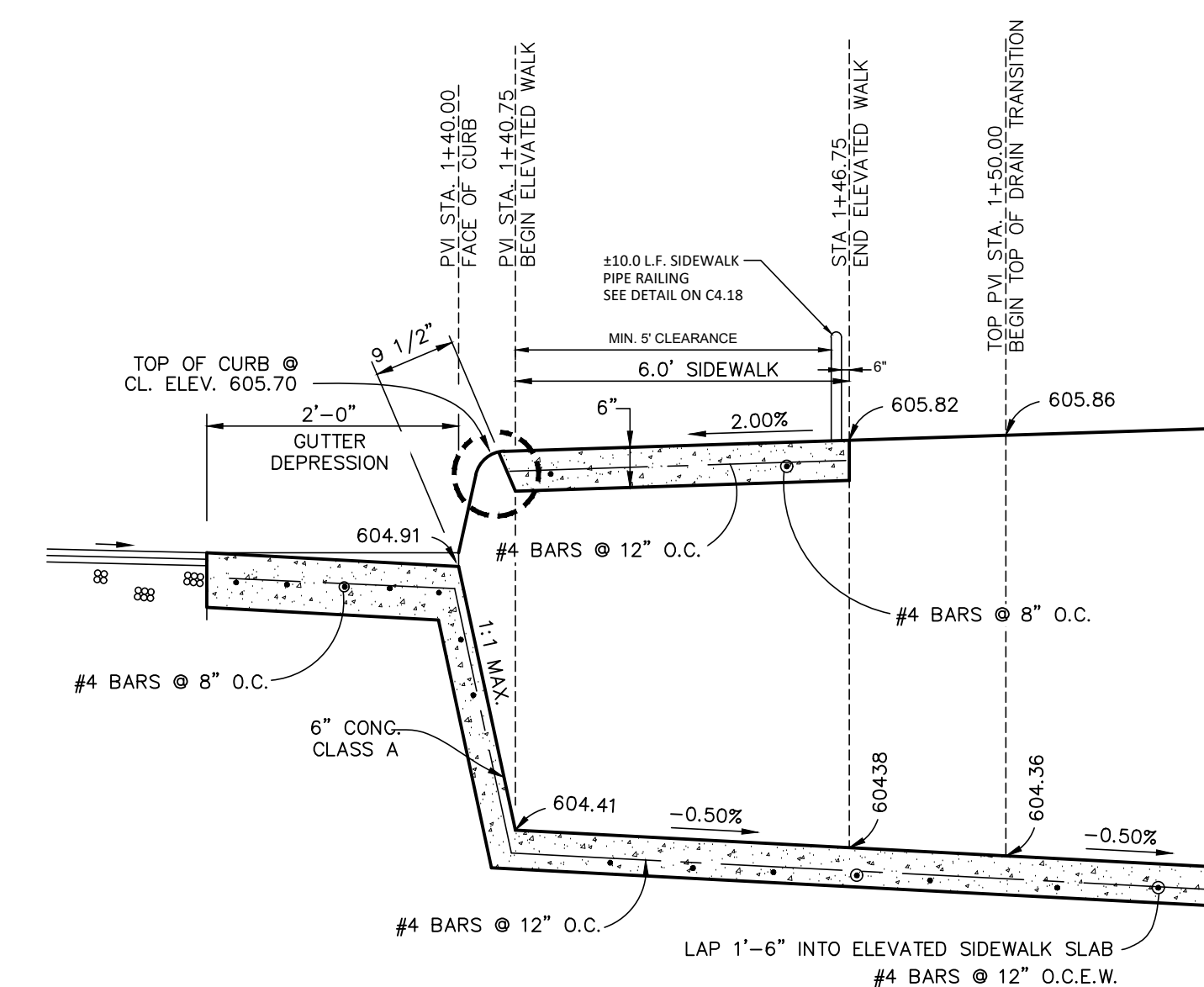
- NOTES:**
1. COVER FOR REINFORCING STEEL IS 2" UNLESS OTHERWISE NOTED.
 2. SEE GENERAL NOTES ON SHEET C4.0 FOR MATERIAL SPECIFICATIONS.
 3. MINIMUM BAR DEVELOPMENT LENGTH FOR SPLICE AND BENDS AT WALL AND FLOOR CONNECTIONS SHALL BE 30 INCHES.
 4. ALL CONCRETE SHALL RESIST A MINIMUM 3000 PSI 28 DAY BREAK, UNLESS OTHERWISE NOTED.
 5. PROVIDE CONCRETE APRONS ON ALL INLETS, REFERENCE DETAILS FOR CONSTRUCTION REQUIREMENTS.
 6. 3/4" CHAMFER ON ALL EXPOSED CONCRETE EDGES.
 7. ALL STORM PIPE MATERIAL IS CONCRETE REINFORCEMENT PIPE, UNLESS NOTED OTHERWISE.
 8. IMPROVED EARTHEN CHANNELS AND DETENTION PONDS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SURFACE AREA WILL HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CHANNEL FOR MAINTENANCE. REFER TO SECTION 16.2.1 OF THE STORM WATER DESIGN CRITERIA MANUAL.



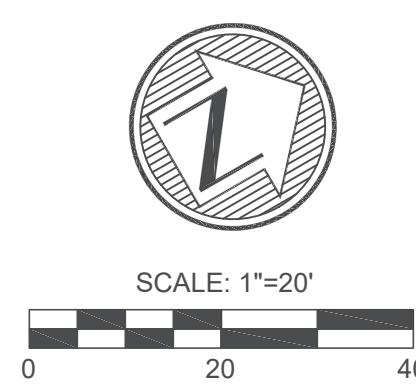
SECTION "A-A"
(N.T.S.)



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



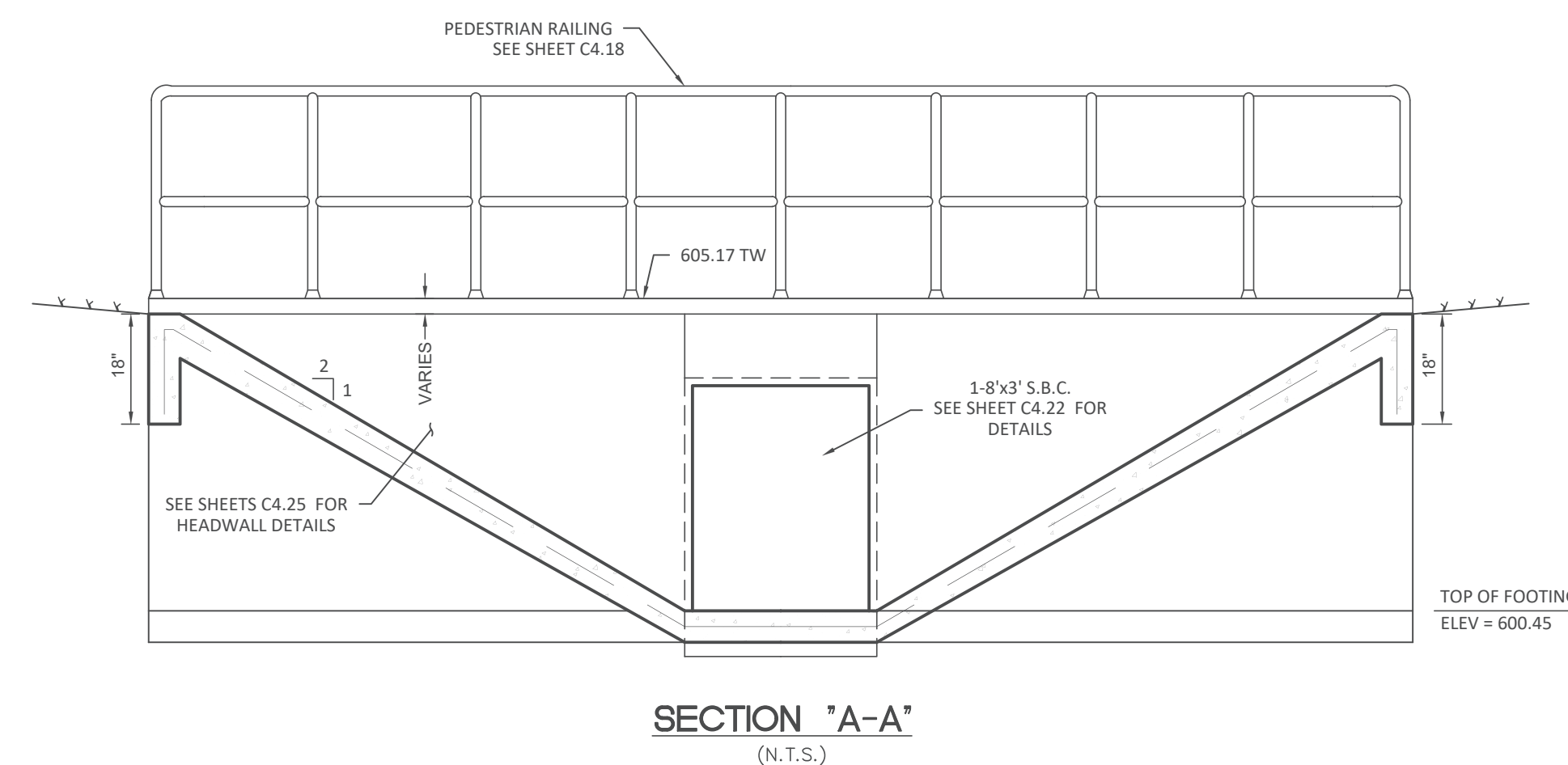
SECTION "C-C"
(N.T.S.)



CITY OF SAN ANTONIO



- NOTES:**
1. COVER FOR REINFORCING STEEL IS 2" UNLESS OTHERWISE NOTED.
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PIPE BEDDING & BACKFILL DETAILS



CONCRETE BOX CULVERT



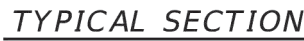
NO SCALE

MAY 2009

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

PIPE BEDDING & MISCELLANEOUS
DRAINAGE DETAILS

PROJECT NO.:		DATE:	
DRAWN BY:	DESIGN BY:	CHECKED BY:	SHEET NO. OF



- ① **D** Min to 5'-**M** 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 and Rail (ECR) standard sheet for structures with pedestrian rail or curbs. Refer to the Movable Details for T331 & T331S Rails (T331-C) standard sheet. Refer to the Movable Details for RAC1 standard sheet for structures with bridge rail other than T331 or T331S.
- ② 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.
 - For curbs less than 1'-0" high, tie Box C to reduce bar height as necessary to maintain cover over reinforcement. See Anchorage & Bar Details for details.
 - If 0'-typical, 2'-2" when the Rail Anchorage Curbs (RAC) standard sheet is referred to elsewhere in the plans.

The Contractor may replace Bars B, C, D, E, F1, F2, M, Y, and Z with 2' deformed welded wire reinforcement (WWR) meeting the requirements of ASTM A1064. The area of required reinforcement may be reduced by the ratio of 60 ksi / 70 ksi. The required length of the longitudinal bars may be reduced by the ratio of 60 ksi / 70 ksi. The WWR of the same length required for the equivalent bar size, rounded up for bar sizes between conventional bar sizes. The length required for WWR is the required length for the equivalent bar size.

Example conversion: Replacing No. 6 @ 60" at 8" Spacing with WWR.
Required WWR = (0.44 sq. in. per 0.75 sq. ft.) (60 ksi / 70 ksi) = 0.755 sq. in. per ft.
If D306 wire is used to meet the 0.75 sq. in. per ft. requirement in this example, the required spacing = (0.306 sq. ft.) (0.755 sq. in. per ft.) x 12 in. ft. = 4.86" minimum lap length required for uncoated #5 bars, as listed under MATERIAL NOTES

CONSTRUCTION NOTES:
Do not use permanent forms.
Chamfer the bottom edge of the top slab 3" at the entrance.
Optionally, raise construction joints shown at the flow line by a maximum of 6". If this option is taken, Bars M may be cut off or raised, Bars C and D may be reversed.

MATERIAL NOTES:

Provide Grade 60 reinforcing steel.

Provide galvanized reinforcing steel if required elsewhere in the plans.

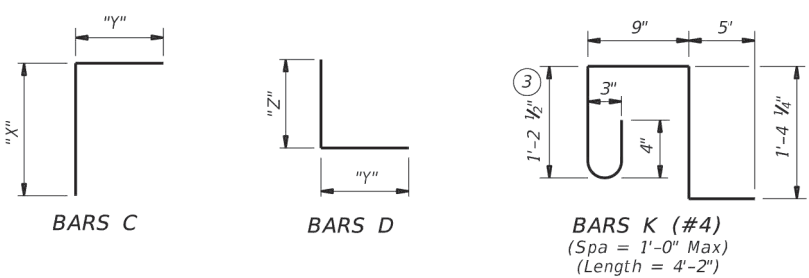
Provide Class C concrete ($f'c = 3,600$ psi) for culvert barrel and curb, with the following exceptions:


- Provide Class C concrete ($f'c = 4,000$ psi) for top slabs of:
 - culverts with overlay;
 - culverts with 1-to-2 course surface treatment; or
 - culverts with the top slab as the final riding surface.

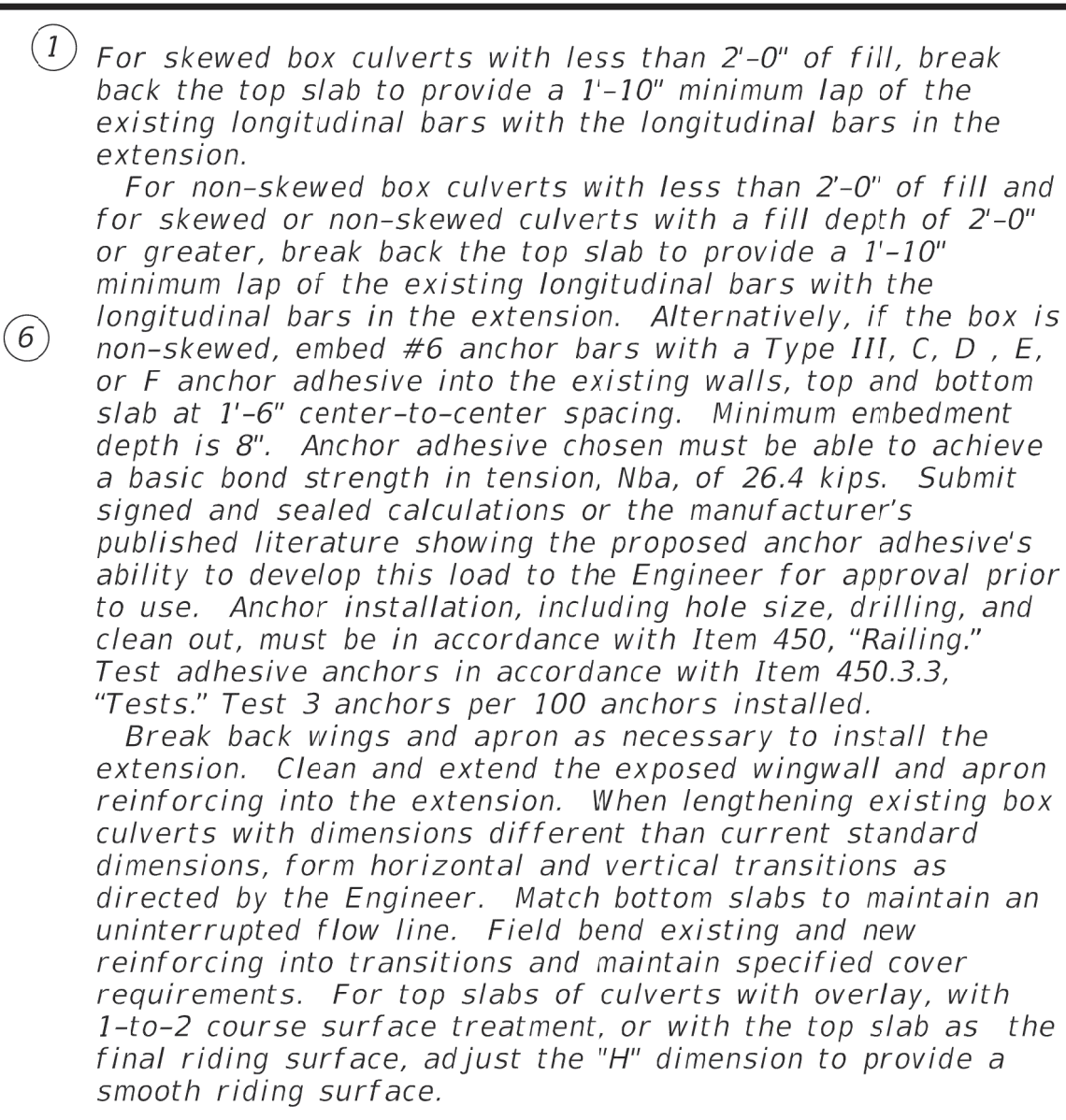
Provide bar laps, where required, as follows:

- Uncoated or galvanized – #4 = 1'-8" Min
- Uncoated or galvanized – #5 = 7'-1" Min
- Uncoated or galvanized – #6 = 7'-6" Min

GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications for the range of fill heights shown.
See the Single Box Culverts Cast-In-Place Miscellaneous Detail (SCC-MD) standard sheet for details pertaining to skewed ends, angle sections, and lengthening.
Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bar dimensions shown are out-to-out of bar.



HL93 LOADING	SHEET 1 OF 2	
 Texas Department of Transportation		Bridge Division Standard
<h1 style="margin: 0;">SINGLE BOX CULVERTS</h1> <h2 style="margin: 0;">CAST-IN-PLACE</h2> <h3 style="margin: 0;">0' TO 30' FILL</h3>		
<h1 style="margin: 0;">SCC-5 & 6</h1>		
FILE: sc05sc56-21.dgn		
CDAY07 February 2020 REVISIONS	DWT TBE EXST SECT	CK BWP JOB HIGHWAY
PROJECT NUMBER & NAME	DIST COUNTY	CK DAYDOT SHEET NO.



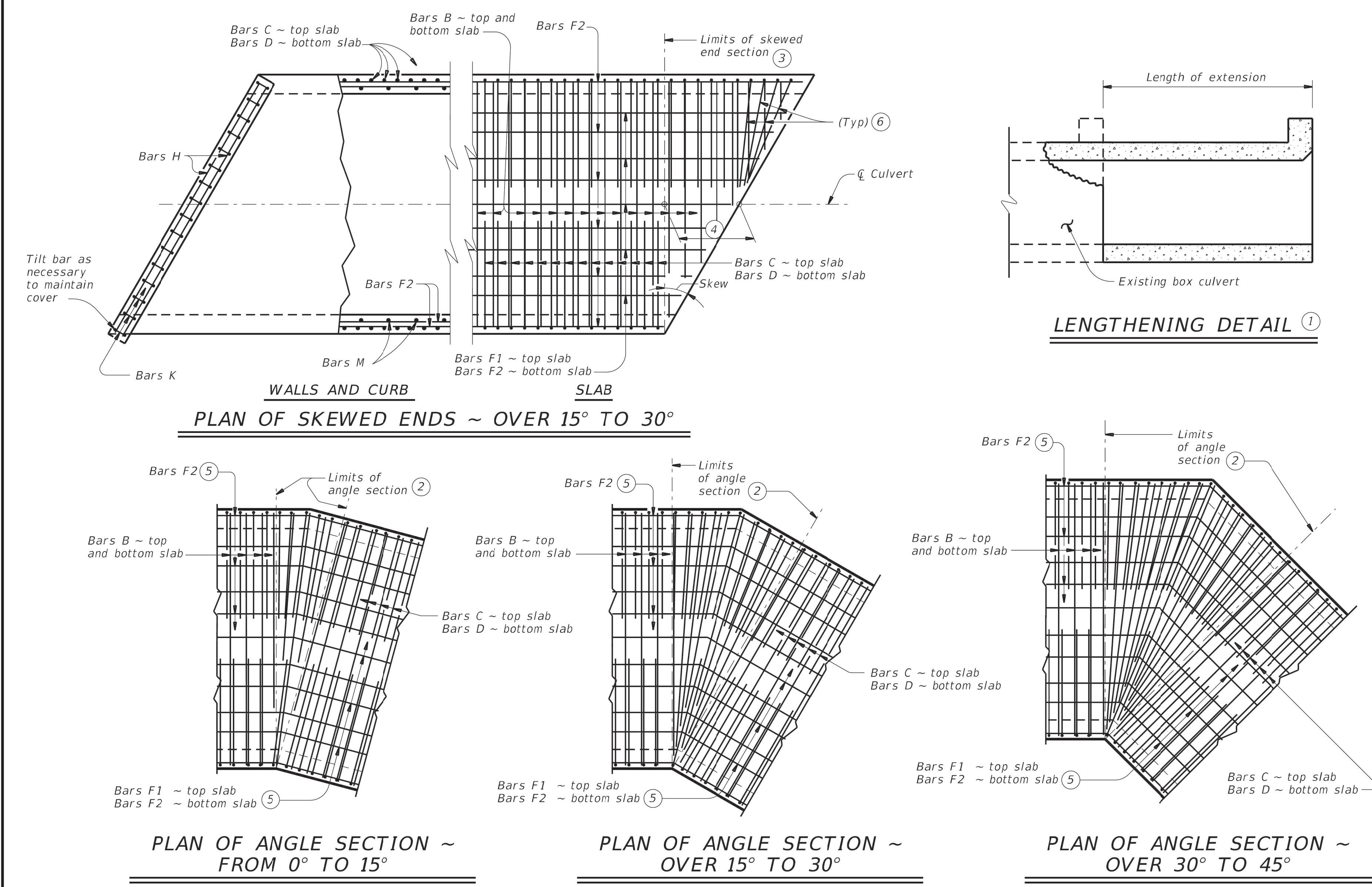
- ② When the spacing between Bars B becomes less than half of the normal spacing, cut bars to avoid conflict.
- ③ The length of Bars B vary in the skewed end sections.
- ④ $[One\ half\ of\ overall\ width] \times [tangent\ of\ the\ skew\ angle]$
- ⑤ Place Bars F1 and F2 continuously through the angle section. Bend Bars F1 and F2 to remain parallel to the walls of the box culvert.
- ⑥ When necessary to avoid conflict in acute corners, shorten the slab extension leg of Bars C and Bars D to a minimum of 1'-6" for skews of 30° thru 45°.
- ⑦ At the Contractor's option, for skews of 15° or less, place Bars B, C, and D parallel to the skewed end while maintaining spacing along centerline of box. Increase lengths of Bars B shown on the Single Box Culverts Cast-In-Place (SCC) standards sheets to accommodate the skew.

CONSTRUCTION NOTES:
Do not use permanent forms.
When required, lap Bars H 1'-8" for uncoated or galvanized bars.
Provide a minimum of 1 1/2" clear cover.





Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel, if required elsewhere in the plans.
Provide Class C concrete ($f'c = 3,600$ psi) with these exceptions:
provide Class S concrete ($f'c = 4,000$ psi) for top slabs of culverts with overlay,
with 1-to-2 course surface treatment, or with the top slab as the final riding
surface.

Designed according to AASHTO LRFD Bridge Design Specifications.
Refer to Single Box Culverts Cast-in-Place (SCC) standard sheets for details of straight sections of culvert.
For skewed sections and angle sections, refer to Single Box Culverts Cast-in-Place (SCC) standard sheets for slab and wall dimensions, bar sizes, maximum bar spacing, and any other details not shown.
For skewed ends with curbs, adjust length of Bars H, number of Bars K, curb concrete volume, and reinforcing steel weight by dividing the values shown on the culvert Single Box Culverts Cast-In-Place (SCC) standard sheets by the cosine of the skew angle.

Cover dimensions are clear dimensions, unless noted otherwise.



HL93 LOADING

 <div style="display: inline-block; vertical-align: middle;">Texas Department of Transportation</div>	Bridge Division Standard																							
<h1 style="margin: 0;">SINGLE BOX CULVERTS</h1> <h2 style="margin: 0;">CAST-IN-PLACE</h2> <h3 style="margin: 0;">MISCELLANEOUS DETAILS</h3>																								
<h2 style="margin: 0;">SCC-MD</h2>																								
<table style="width: 100%; border-collapse: collapse;"><tr><td style="width: 33%;">FILE: sccmdste-20.dgn</td><td style="width: 16%;">DN: TxDOT</td><td style="width: 16%;">CK: TxDOT</td><td style="width: 16%;">DW: TxDOT</td><td style="width: 19%;">CR: TxDOT</td></tr><tr><td rowspan="3" style="text-align: center; vertical-align: middle;"> TxDOT February 2020</td><td style="text-align: center;">CONF</td><td style="text-align: center;">SECT</td><td style="text-align: center;">JOB</td><td style="text-align: center;">HIGHWAY</td></tr><tr><td colspan="4" style="height: 20px;"></td></tr><tr><td colspan="4" style="text-align: center;">REVISIONS</td></tr><tr><td colspan="2" style="text-align: center;">DIST</td><td colspan="2" style="text-align: center;">COUNTRY</td><td style="text-align: center;">SHEET NO.</td></tr></table>		FILE: sccmdste-20.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CR: TxDOT	 TxDOT February 2020	CONF	SECT	JOB	HIGHWAY					REVISIONS				DIST		COUNTRY		SHEET NO.
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DIST		COUNTRY		SHEET NO.																				

⑤ For direct traffic culverts (fill height ≤ 2 ft.), identify the required box size and select the option with the minimum fill height.

DISCLAIMER:
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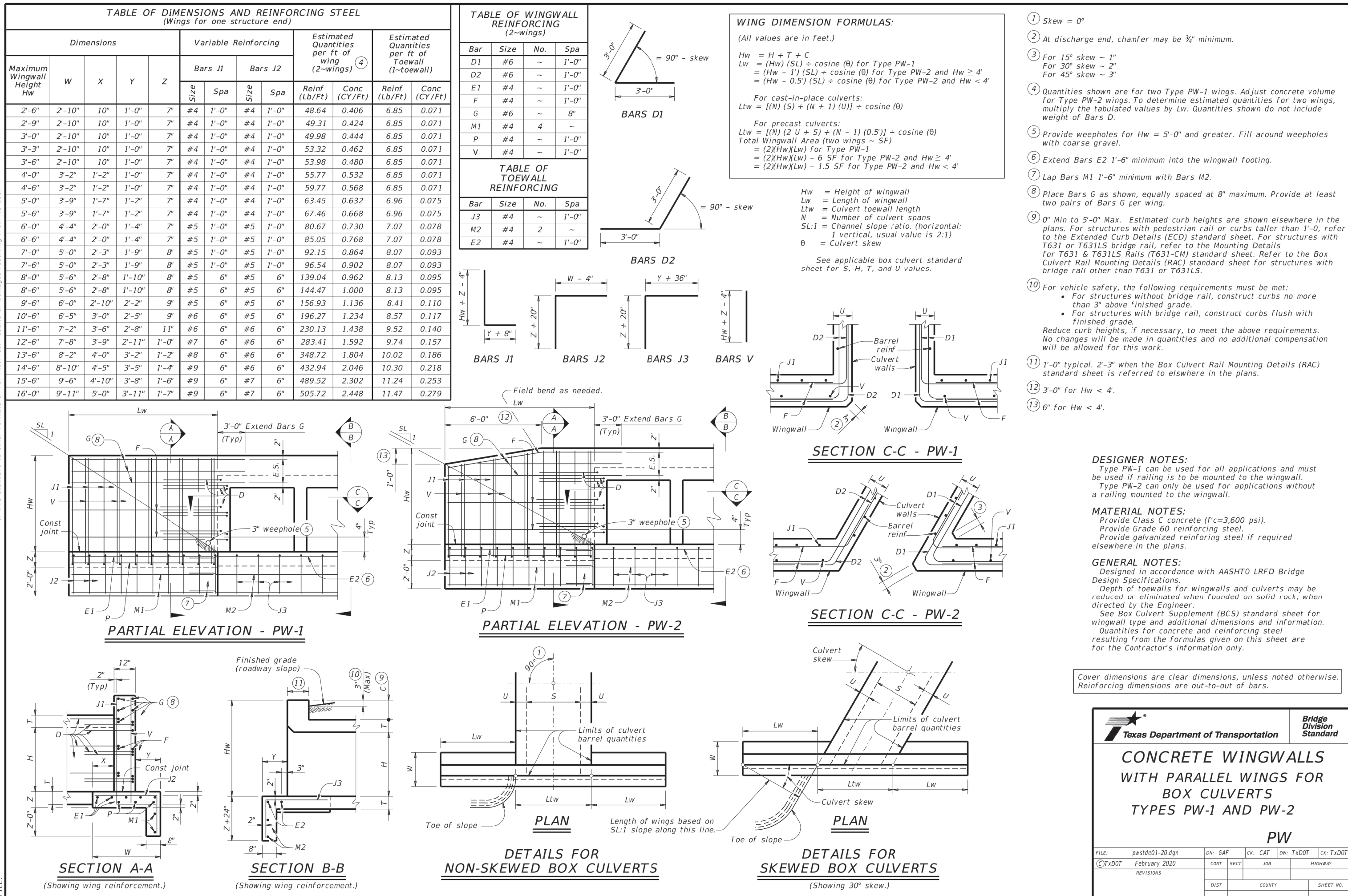
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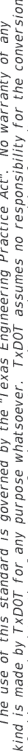
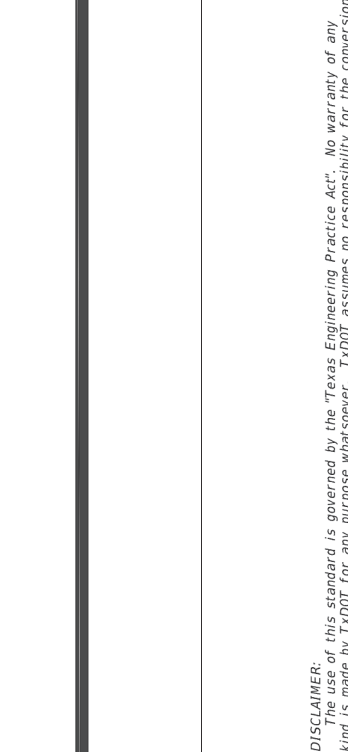
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Plot Date: March 12, 2024 User ID: Lisa Perez
 C:\Bokoultte\N\11011 1\Demolition\23148 C4 24-04-25 Online Details.htm



[illegible]

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 AREA 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. COMPACTION 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 TxDOT--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 COMPACTING EQUIPMENT 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

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9. COMPACTION OF SLOPES

THE FACES OF FILL SLOPES SHALL BE COMPACTED. COMPACTION 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. 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.
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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.

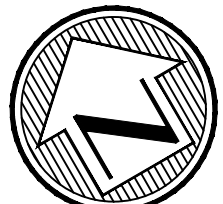
NOTES:

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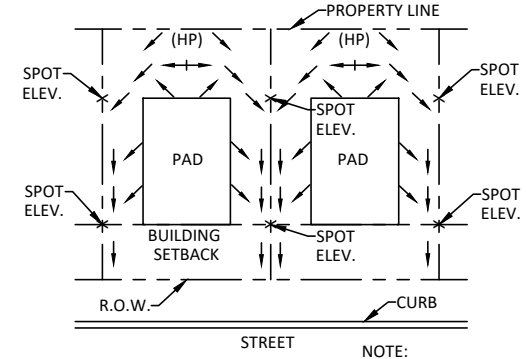
CONTRACTOR TO VERIFY 1.5% MINIMUM SLOPE ON LOTS AND REGRADE TO MEET MINIMUM PROPOSED ELEVATIONS IF NECESSARY.

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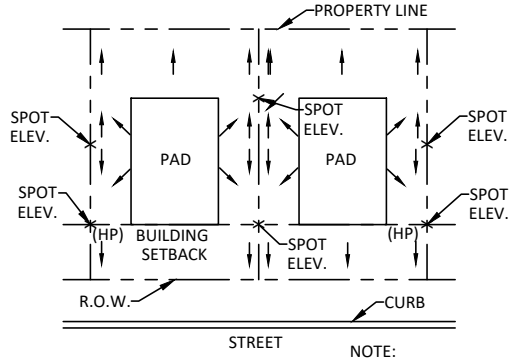


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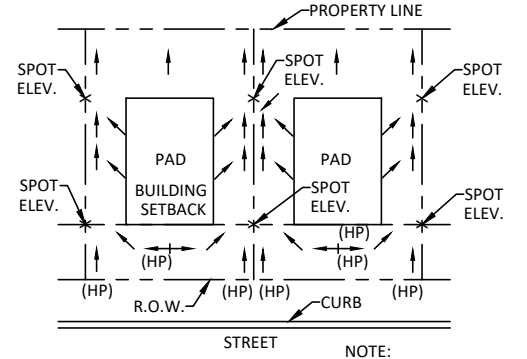
SUBMITTAL SET



TYPICAL "A" LOT GRADING
N.T.S.



TYPICAL "B" LOT GRADING
N.T.S.



TYPICAL "C" LOT GRADING
N.T.S.

LEGEND

A
B
C

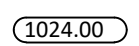
= DRAINAGE TO FRONT OF LOT

= DRAINAGE TO BOTH FRONT AND REAR LOT

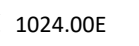
= DRAINAGE TO REAR OF LOT



= CLEARING AND/OR GRADING OF UTILITY EASEMENTS



= PROPOSED ELEVATION



= EXISTING ELEVATION



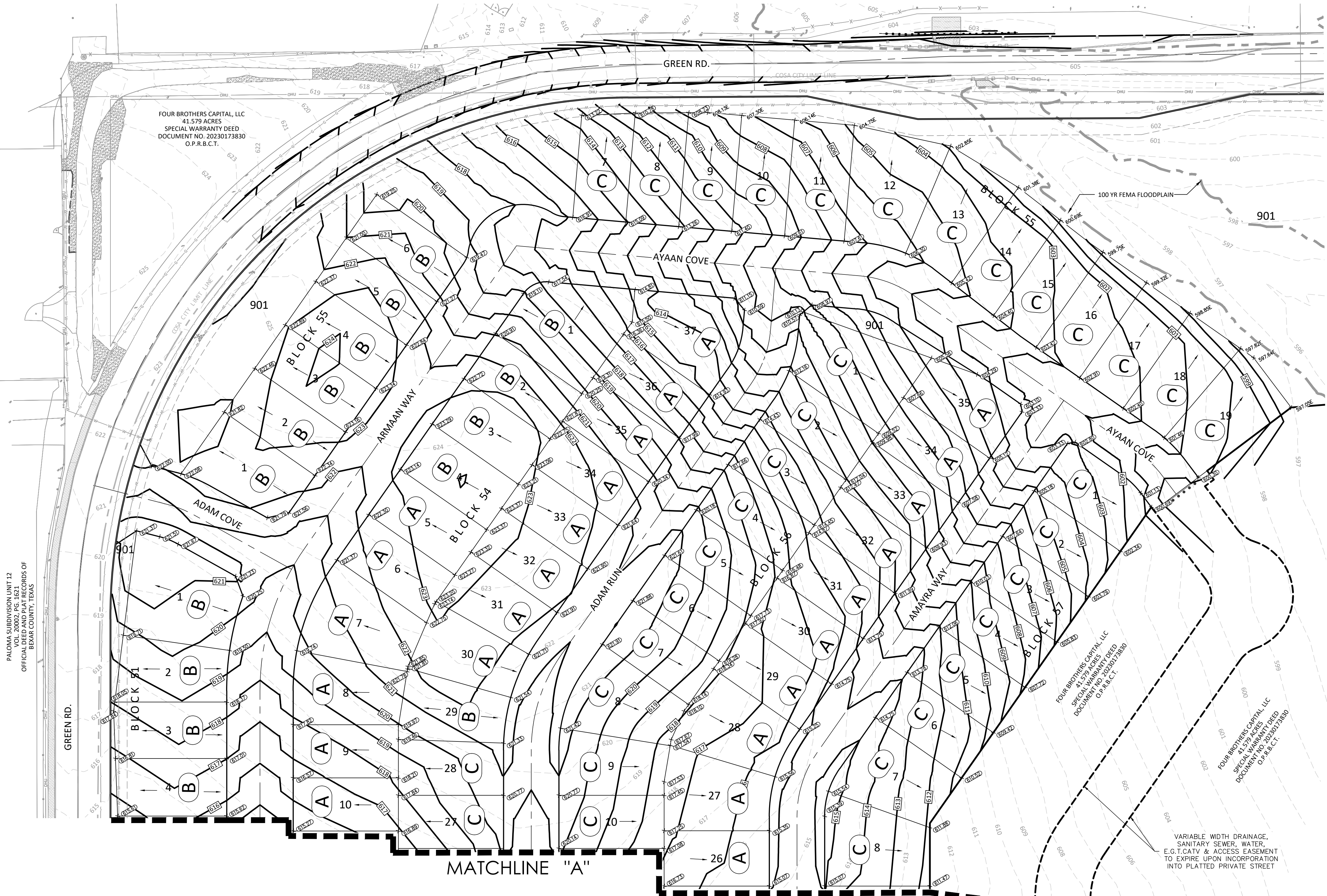
= EXISTING CONTOUR



= PROPOSED CONTOUR



= PROPERTY LINE



SEE SHEET C5.1

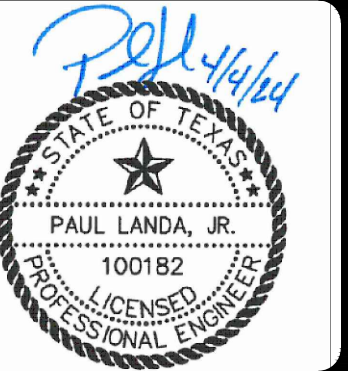
REVISIONS	DESCRIPTION	DATE	NO.

Engineers
Surveyors
Planners

MIR

Moy Tarin Ramirez Engineers, LLC

ENGINEERING F-5297/SURVEYING F-0131500
12770 CHARNON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055



LEGACY AT GREEN ENCLAVE, UNIT 1

GRADING PLAN

SHEET

C5.0

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 AREA TO BE FILLED TO CONFORM WITH THE LINES, GRADES AND SLOPES AS SHOWN ON THE APPROVED PLANS.

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NOTES:

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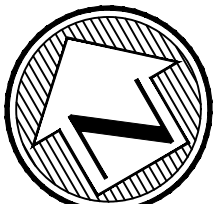
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CONTRACTOR TO CLEAR ALL RIGHT OF WAY, EASEMENTS AND PRESERVE ANY TREE 10" AND LARGER OUTSIDE OF THESE AREAS.

LEGEND

- A = DRAINAGE TO FRONT OF LOT
- B = DRAINAGE TO BOTH FRONT AND REAR LOT
- C = DRAINAGE TO REAR OF LOT
- [Pattern] = CLEARING AND/OR GRADING OF UTILITY EASEMENTS
- X 1024.00 = PROPOSED ELEVATION
- 1024.00E = EXISTING ELEVATION
- 1024 = EXISTING CONTOUR
- 1024 = PROPOSED CONTOUR
- = PROPERTY LINE



SCALE: 1"=50'

0 50 100

SUBMITTAL SET

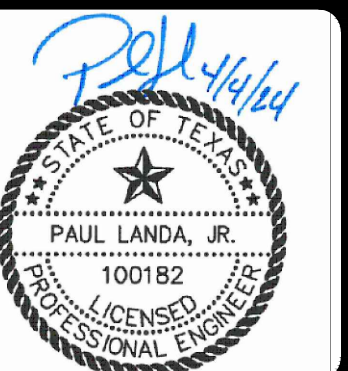
REVISIONS	DESCRIPTION	DATE	NO.

Engineers
Surveyors
Planners

MIR

Moy Tarin Ramirez Engineers, LLC

TBPELS: ENGINEERING F-5297/SURVEYING: F-10131500
12770 CIARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055

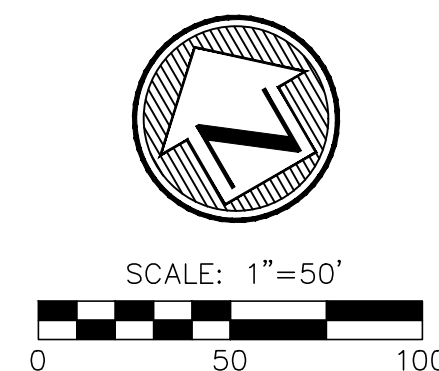


LEGACY AT GREEN ENCLAVE, UNIT 1

GRADING PLAN

SHEET

C5.1



PROPERTY BOUNDARY

EXISTING CONTOUR

PROPOSED CONTOUR

SILT FENCE

ROCK BERM

CONSTRUCTION STAGING AREA

STABILIZED CONSTRUCTION ENTRANCE/EXIT

CONCRETE WASHOUT PIT

BAGGED GRAVEL INLET FILTER

AREA OF DISTURBANCE

The legend defines the symbols used in the plan:

- PROPERTY BOUNDARY:** A solid blue line.
- EXISTING CONTOUR:** A dashed line.
- PROPOSED CONTOUR:** A solid black line, with an example showing a contour line labeled '804'.
- SILT FENCE:** A thick black line with three vertical bars.
- ROCK BERM:** A circular symbol with a cross-hatched pattern.
- CONSTRUCTION STAGING AREA:** A circular symbol with a pattern of irregular shapes.
- STABILIZED CONSTRUCTION ENTRANCE/EXIT:** A circular symbol with a pattern of small circles.
- CONCRETE WASHOUT PIT:** A circular symbol with a solid black fill.
- BAGGED GRAVEL INLET FILTER:** A circular symbol with a pattern of three overlapping circles.
- AREA OF DISTURBANCE:** A rectangular symbol with a solid grey fill.

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.



PROPERTY BOUNDARY

EXISTING CONTOUR

PROPOSED CONTOUR

SILT FENCE

ROCK BERM

CONSTRUCTION STAGING AREA

STABILIZED CONSTRUCTION ENTRANCE/EXIT

CONCRETE WASHOUT PIT

BAGGED GRAVEL INLET FILTER

AREA OF DISTURBANCE

The legend includes the following items:

- A blue line representing the PROPERTY BOUNDARY.
- A dashed line representing the EXISTING CONTOUR.
- A solid line with a dashed line above it representing the PROPOSED CONTOUR, with a callout box labeled '604'.
- A black line with three vertical tick marks representing the SILT FENCE.
- A circular symbol with a number '1' inside, next to a cross-section diagram of a rock berm.
- A circular symbol with a number '2' inside, next to a cross-section diagram of a construction staging area.
- A circular symbol with a number '3' inside, next to a cross-section diagram of a stabilized construction entrance/exit.
- A circular symbol with a number '4' inside, next to a solid black rectangle representing a concrete washout pit.
- A series of three overlapping circles representing a bagged gravel inlet filter.
- A solid grey rectangle representing an area of disturbance.

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.

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MATCH LINE "B" SHEET C6.0

MATCH LINE "A" SHEET
C6.0

UNPLATTED
FOUR BROTHERS CAPITAL, LLO
41.579 ACRES
SPECIAL WARRANTY DEED
DOCUMENT NO. 20230173830
O.P.R.B.C.T.

VARIABLE WIDTH DRAINAGE,
SANITARY SEWER, WATER,
E.G.T.CATV & ACCESS EASEMENT
TO EXPIRE UPON INCORPORATION
INTO PLATTED PRIVATE STREET

UNPLATTED
FOUR BROTHERS CAPITAL, LLC
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SUBMITTAL SET

LEGACY AT GREEN ENCLAVE, UNIT 1

OVERALL STORM WATER POLLUTION PREVENTION PLAN

SHEET

C6.1

Plot Date: April 9, 2021 User ID: Samuel Garcia
\\Rokowitz D\Unit 1\Drawings\Xref_-Tbik-SW3P.dwg

