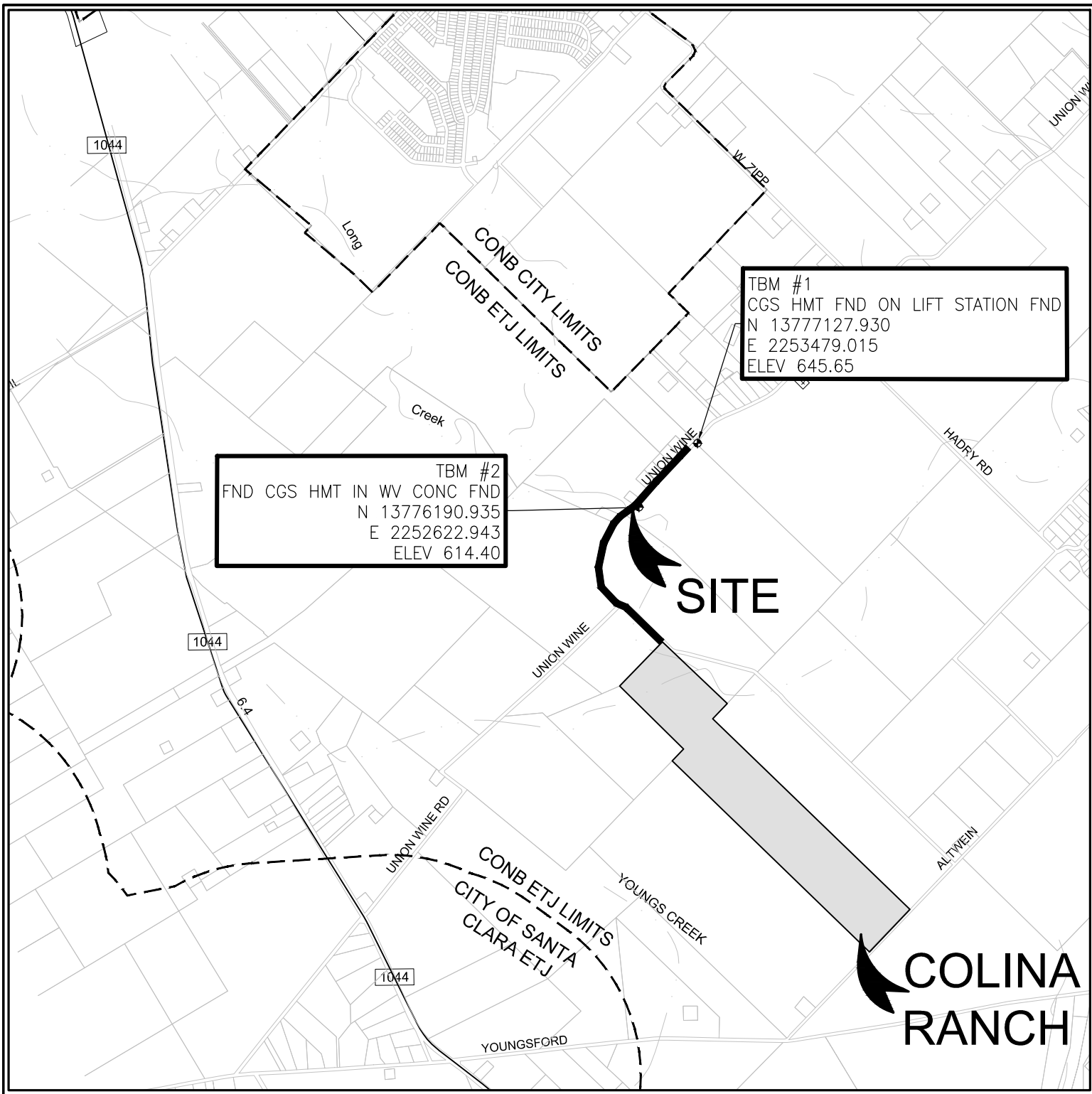


Drawing Name: N:\\_Projects\337 - Lennar\115 - Overall Improvements - Sewer, Water, Drainage, Permitting & Construction\City\City-Water\Union Wine\337.115\_C006 UNION WINE.dwg User: kolbyp Jan 06, 2026 - 10:37am



PROJECT LOCATION MAP

SCALE: N.T.S.

PROJECT BENCHMARK

SITE TBM #1  
SET HMT FND ON LIFTSTATION FND  
N: 13777127.930  
E: 2253479.015  
ELEV: 645.65'

SITE TBM #2  
SET FND CGS HMT IN WV CONC FND  
N: 13776190.935  
E: 2252622.943  
ELEV: 614.40'

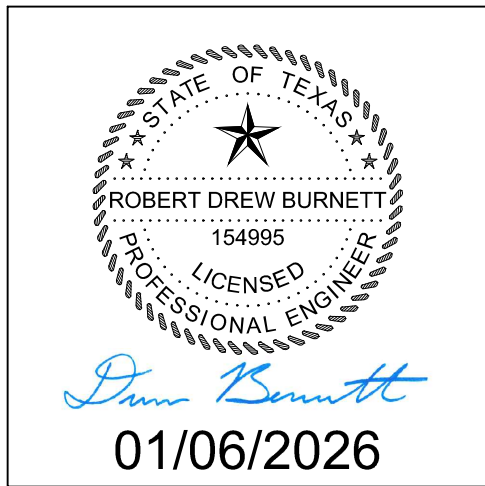
# COLINA RANCH WEST OFFSITE WATER IMPROVEMENTS NEW BRAUNFELS, TEXAS CIVIL SITE CONSTRUCTION PLANS

LENNAR HOMES OF TEXAS & CONSTRUCTION, LTD  
100 NE LOOP 410, SUITE 1155  
SAN ANTONIO, TEXAS 78216

REQUIRED PERMITS	NUMBER
1. GVSUD	#
2. GUADALUPE COUNTY	#

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JANUARY 2026



ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD. IN ACCEPTING THESE PLANS, THE CITY OF NEW BRAUNFELS MUST RELY UPON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD.

*Robert Drew Burnett*  
Robert Drew Burnett P.E.  
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GENERAL NOTES:

- IF CONSTRUCTION HAS NOT COMMENCED WITHIN ONE-YEAR OF CITY APPROVAL FOR CONSTRUCTION INSPECTION, THAT APPROVAL IS NO LONGER VALID. THE MOST CURRENT EDITIONS OF THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS AND THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES SHALL BE FOLLOWED FOR ALL CONSTRUCTION EXCEPT AS AMENDED BY THE CITY OF NEW BRAUNFELS STANDARD DETAILS.
- ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD. IN ACCEPTING THESE PLANS, THE CITY OF NEW BRAUNFELS MUST RELY UPON THE ADEQUACY OF THE WORK OF THE ENGINEER IN RECORD.
- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE CITY OF NEW BRAUNFELS TO SET A PRE-CONSTRUCTION MEETING. A 48-HOUR ADVANCED NOTIFICATION IS REQUIRED FOR ALL INSPECTION AND MEETING REQUESTS.
  - ALL INSPECTIONS ARE TO BE CALLED IN AT 830-221-4068 OR,
  - FAXED IN AT 830-608-2117 OR,
  - E-MAILED AT INSPECTIONS@NEWBRAUNFELS.GOV.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL TEMPORARY AND PERMANENT TRAFFIC CONTROL DEVICES ARE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PLANS AND LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. IF THE NEED ARISES, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES MAY BE ORDERED BY THE ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- DRAINAGE IMPROVEMENTS SUFFICIENT TO MITIGATE OFFSITE IMPACT OF CONSTRUCTION MUST BE COMPLETED AND IN PLACE PRIOR TO ADDING IMPERVIOUS COVER TO THE SITE.
- A PORTION OF THE SUBDIVISION IS LOCATED WITHIN ANY SPECIAL FLOOD HAZARD AREA (100 YR. FLOOD), AS DEFINED BY THE GUADALUPE COUNTY, TEXAS, FIRM PANEL NUMBER 48187C0115G EFFECTIVE DATE MARCH 27, 2024 AND 48187C0255F, EFFECTIVE DATE NOVEMBER 02, 2007, AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
- THIS PROJECT IS NOT LOCATED WITHIN THE EDWARDS AQUIFER RECHARGE, TRANSITION OR CONTRIBUTING ZONE.
- GAS UTILITIES ARE NOT INCLUDED IN THE CIVIL CONSTRUCTION PLANS. FINAL GAS UTILITY DESIGN SHALL BE APPROVED BY THE CITY FOR ANY WORK WITHIN PUBLIC RIGHT-OF-WAY, IF APPLICABLE.
- THE ENGINEER OF RECORD ACKNOWLEDGES THAT ALL PROPOSED WATER AND WASTEWATER IMPROVEMENTS MUST COMPLY WITH TCEQ, CITY OF NEW BRAUNFELS, SOUND ENGINEERING JUDGEMENT AND ANY OTHER GOVERNING ENTITY ORDINANCES OR CODES.

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 OF THE INDIVIDUAL UTILITIES 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.

ANY QUANTITIES PROVIDED BY HMT OR OWNER ON THE PLANS, OPINION OF PROBABLE COST, BID SUMMARIES, ETC. ARE FOR CURSORY USE ONLY. CONTRACTOR IS RESPONSIBLE FOR BIDDING SIGNED AND SEALED CONSTRUCTION PLANS. IF A DISCREPANCY EXIST, CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY.

CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATION AND ELEVATION OF ALL DOWNSTREAM CONNECTION POINTS PRIOR TO CONSTRUCTION. IF A DISCREPANCY EXIST, CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY.

CONTRACTOR SHALL INSTALL ALL GRAVITY SEWER, GRAVITY STORM SEWER, CURBS AND PAVEMENT FROM THE MOST DOWNSTREAM POINT OF CONNECTION. IF IMPROVEMENTS ARE CONSTRUCTED FROM UPSTREAM TO DOWNSTREAM, THEN THE CONTRACTOR WILL TAKE FULL RISK AND LIABILITY OF ANY ISSUES THAT MIGHT ARISE FROM FLOWLINE ELEVATION DISCREPANCIES, UTILITY CONFLICTS, ETC.

CONTRACTOR IS RESPONSIBLE FOR THE STOCKPILING OF ANY EXCESS DIRT. ALL BIDS FROM CONTRACTOR SHOULD ACCOUNT FOR THE REMOVAL AND PLACEMENT OF ALL EARTHWORK TO INCLUDE STOCKPILING, EXPORT, IMPORT, ETC. IF A LOCATION OF PLACEMENT OF EXCESS DIRT IS NOT SHOWN ON THE PLANS, THEN CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY TO DETERMINE THE MOST SUITABLE STOCKPILE LOCATION.

COLINA RANCH WEST OFFSITE WATER IMPROVEMENTS  
CIVIL SITE CONSTRUCTION PLANS

HMT # 337.115



CITY OF NEW BRAUNFELS GENERAL NOTES

ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL COMPLY WITH:

A. CURRENT CITY OF NEW BRAUNFELS CONSTRUCTION SPECIFICATIONS AND STANDARDS AS OF THE DATE OF THIS CONTRACT

B. THE MOST CURRENT EDITION OF TEXAS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES".

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MOST CURRENT TEXAS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES." ALONG WITH CURRENT CITY OF NEW BRAUNFELS AND GUADALUPE COUNTY SPECIFICATIONS. ANY DISCREPANCIES BETWEEN SPECIFICATIONS SHALL BE RESOLVED BY THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

CONTRACTOR SHALL PROCURE ALL PERMITS AND LICENSES, PAY ALL CHARGES, FEES, AND TAXES AREA AND GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.

ANY EXISTING OFF-SITE IMPROVEMENTS THAT ARE DAMAGED OR UNDERCUT BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AND APPROVED BY THE OWNER OF THE EXISTING IMPROVEMENT AT THE CONTRACTOR'S EXPENSE. (NO SEPARATE PAY ITEM)

WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR CONSENT OF THE OWNER OR ENGINEER WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.

CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100YR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.

BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND SHALL BE LOCATED TO PROVIDE MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT WHILE PROVIDING CONTINUOUS TRAFFIC FLOW AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL DEVICES DURING CONSTRUCTION.

CONTRACTOR IS REQUIRED TO VERIFY PROJECT ELEVATIONS. THE TERM "MATCH EXISTING" SHALL BE UNDERSTOOD TO SIGNIFY BOTH HORIZONTAL AND VERTICAL ALIGNMENT.

WHEN MATCHING EXISTING PAVEMENTS, CURBS, DRIVES, AND WALKS, THEY SHALL BE SAW CUT FULL DEPTH AND REMOVED TO ALLOW FOR PROPOSED CONSTRUCTION. IF ANY EXISTING JOINT IS ENCOUNTERED, PRECAUTION SHALL BE TAKEN DURING REMOVAL OF CONCRETE SO AS NOT TO DAMAGE EXISTING DOWELS. ALL EXISTING DOWELS SHALL BE EXPOSED AND CLEANED.

ITEM OF WORK DESIGNATED "BY OTHERS" SHALL NOT BE CONSIDERED PART OF THIS CONTRACT.

ALL "COMPACTED SUBGRADE" SHALL CONSIST OF NATIVE MATERIAL SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES AND COMPACTED TO 95% DENSITY ACCORDING TO DENSITY TEST METHOD TEX-115E OR ACCORDING TO ASTM D-698 AND TESTED BY ASTM D-2922.

ALL "FLEXIBLE BASE" SHALL BE TYPE "A", GRADE 4, ACCORDING TO TXDOT ITEM 247, COMPACTED TO 95% MODIFIED DENSITY AT A MOISTURE CONTENT BETWEEN -2 AND +3 OF OPTIMUM PERCENT MOISTURE ACCORDING TO ASTM D-1557 (MODIFIED PROCTOR) AND TESTED BY ASTM D-2922.

ASPHALT PAVEMENT SHALL BE THE TYPE SPECIFIED ON THE PLANS AND ACCORDING TO TXDOT ITEM 340 "HOT MIX ASPHALT CONCRETE PAVEMENT".

PRIME COAT USING MC-30 AT A RATE OF 0.2 GALLONS PER SQUARE YARD SHALL BE PLACED OVER PREPARED BASE AT LEAST ONE DAY PRIOR TO LAYING ASPHALTIC CONCRETE PAVEMENT. ANY NECESSARY TACK COAT SHALL BE MC-30 AT 0.05 GALLONS PER SQUARE YARD. IT IS REQUIRED THAT BOTH THE PRIME COAT AND THE TACK COAT BE APPLIED AT THE TEMPERATURE SPECIFIED UNDER TXDOT ITEM 300.3.

CONCRETE SHALL BE CLASS "A" ACCORDING TO TXDOT ITEM 421 UNLESS OTHERWISE ON PLANS.

REINFORCING STEEL SHALL BE FROM NEW BILLET AND SHALL CONFORM TO TXDOT ITEM 440. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS EXCEPT WHEN REFERRING TO CLEARANCE.

ALL SAWED JOINTS SHALL BE SAWED WITHIN 24 HOURS OF POURING.

ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT THE SPECIFIC APPROVAL OF THE ENGINEER.

ORDINARY COMPACTION CONTROL IS REQUIRED ON THIS PROJECT.

ALL ROLLING FOR COMPACTION OF ASPHALTIC CONCRETE PAVEMENT SHALL BE COMPLETED BEFORE THE MIXTURE TEMPERATURE DROPS BELOW 175 DEG. (F).

ALL FILL MATERIAL SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL.

CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO THE NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNERS AND THE ENGINEER AND HIS EMPLOYEES, PARTNERS, OFFICES, DIRECTORS, OR CONSULTANTS, HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING FROM LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR ENGINEER, ENGINEER'S DIRECTORS, OFFICERS, EMPLOYEES, OR CONSULTANTS.

ALL CMP (CORRUGATED METAL PIPE) USED ON THIS PROJECT SHALL HAVE A MANNING'S "N" VALUE OF 0.024., UNLESS OTHERWISE SHOWN ON PLANS.

CONTRACTOR WILL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTING PER CURRENT CITY OF NEW BRAUNFELS REQUIREMENTS. ALL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. ENGINEER AND OWNER RESERVE THE RIGHT TO HAVE THE CONTRACTOR REMOVE AND REPLACE ANY MATERIAL THAT WAS NOT TESTED OR FAILED TESTING. ALL COST ASSOCIATED WITH THE REMOVAL, REPLACEMENT AND TESTING SHALL BE PAID BY THE CONTRACTOR.

ALL PVC SLEEVES SHALL BE INSTALLED 3 FEET BELOW FINISHED GRADE AND ENDS SHALL BE MARKED SO THAT LOCATIONS OF SLEEVES CAN BE EASILY IDENTIFIED.

PRE-CONSTRUCTION CONFERENCE IS REQUIRED, ENGINEER WILL ARRANGE SUCH CONFERENCE IN COORDINATION WITH CITY OF NEW BRAUNFELS STREET INSPECTOR & NEW BRAUNFELS UTILITIES INSPECTOR. NO CONSTRUCTION MAY BEGIN PRIOR TO THE PRE-CONSTRUCTION CONFERENCE.

CONTRACTOR SHALL COORDINATE WITH DRY UTILITY INSTALLERS AND SHARED TRENCHING SHALL BE UTILIZED. CUTTING THE STREETS AFTER COMPLETION BY DRY UTILITIES SHALL NOT BE ACCEPTABLE.

AS PER PLATTING ORDINANCE SECTION 118-38M.: WHEN ALL IMPROVEMENTS ARE FOUND TO BE CONSTRUCTED AND COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND WITH THE CITY'S STANDARDS, AND UPON RECEIPT OF ONE SET OF "RECORD DRAWINGS" PLANS, AND A DIGITAL COPY OF ALL PLANS (AUTOCAD 2000 MINIMUM) THE CITY ENGINEER SHALL ACCEPT SUCH IMPROVEMENTS FOR THE CITY OF NEW BRAUNFELS, SUBJECT TO THE GUARANTY OF MATERIAL AND WORKMANSHIP PROVISIONS IN THIS SECTION.

EROSION / SEDIMENTATION CONTROL

AT A MINIMUM, THESE CONTROLS SHALL CONSIST OF ROCK BERMS AND/OR SILT FENCES CONSTRUCTED PARALLEL TO AND DOWN GRADIENT FROM THE TRENCHES. THE ROCK BERM OR SILT FENCES SHALL BE INSTALLED IN A MANNER SUCH THAT ANY RAINFALL RUNOFF SHALL BE FILTERED. HAY BALES SHALL NOT BE USED FOR TEMPORARY EROSION AND SEDIMENTATION CONTROLS.

ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE MAINTAINED DURING CONSTRUCTION BY THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE CONTROLS WHEN VEGETATION IS ESTABLISHED AND THE CONSTRUCTION AREA IS STABILIZED {31 TAC 313.5 (C)(12)}. ADDITIONAL PROTECTION MAY BE REQUIRED IF EXCESSIVE SOLIDS ARE BEING DISCHARGED FROM THE SITE.

ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER/ENGINEER.

PLACEMENT OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION PLANS. ACTUAL LOCATIONS MAY VARY SLIGHTLY FROM THE PLANS, BUT WILL BE VERIFIED BY THE ENGINEER/INSPECTOR IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER EVERY SIGNIFICANT RAINFALL TO INSURE DISTURBANCE OF THE STRUCTURES HAS NOT OCCURRED. SEDIMENT DEPOSITED AFTER A RAINFALL SHALL BE REMOVED FROM THE SITE OR PLACED IN AN ENGINEER APPROVED DESIGNATED DISPOSAL AREA.

CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT NO EROSION CONTROL MEASURES BLOCK THE DRAINAGE SYSTEM FROM WORKING AS DESIGNED.

CITY OF NEW BRAUNFELS CONSTRUCTION NOTES

REVISED 03/2020

IF CONSTRUCTION HAS NOT COMMENCED WITHIN ONE-YEAR OF CITY APPROVAL FOR CONSTRUCTION INSPECTION, THAT APPROVAL IS NO LONGER VALID.

THE MOST CURRENT EDITIONS OF THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS AND THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES SHALL BE FOLLOWED FOR ALL CONSTRUCTION EXCEPT AS AMENDED BY THE CITY OF NEW BRAUNFELS STANDARD DETAILS.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD. IN ACCEPTING THESE PLANS, THE CITY OF NEW BRAUNFELS MUST RELY UPON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE CITY OF NEW BRAUNFELS TO SCHEDULE A PRECONSTRUCTION MEETING.

FOR PUBLIC INFRASTRUCTURE PERMIT OR GRADING PERMIT PROJECTS:

- FOR INSPECTIONS, YOU MUST CALL BEFORE 12:00 P.M., 48 HOURS PRIOR TO YOUR INSPECTION REQUEST.
- EACH INSPECTION WILL BE ALLOTTED 1 HOUR UNLESS YOU REQUEST FOR MORE TIME.
- ONCE YOUR REQUEST HAS BEEN ACCEPTED, YOU WILL RECEIVE A CALL FROM THE CITY OF NEW BRAUNFELS INSPECTOR.

FOR COMMERCIAL PERMIT (CP) PROJECTS:

- ALL INSPECTIONS ARE TO BE CALLED IN AT 830-221-4068 OR,
- FAXED IN AT 830-608-2117 OR,
- E-MAILED AT INSPECTIONS@NBTEXAS.ORG.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL TEMPORARY AND PERMANENT TRAFFIC CONTROL DEVICES ARE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PLANS AND LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. IF, IN THE OPINION OF THE ENGINEERING REPRESENTATIVE AND THE CONSTRUCTION INSPECTOR, THE BARRICADES AND SIGNS DO NOT CONFORM TO ESTABLISHED STANDARDS OR ARE INCORRECTLY PLACED OR ARE INSUFFICIENT IN QUANTITY TO PROTECT THE GENERAL PUBLIC, THE CONSTRUCTION INSPECTOR SHALL HAVE THE OPTION TO STOP OPERATIONS UNTIL SUCH TIME AS THE CONDITIONS ARE CORRECTED. IF THE NEED ARISES, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES MAY BE ORDERED BY THE ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.

A TXDOT TYPE II B-B BLUE REFLECTIVE RAISED PAVEMENT MARKER SHALL BE INSTALLED IN THE CENTER OF THE ROADWAY ADJACENT TO ALL FIRE HYDRANTS. IN LOCATIONS WHERE HYDRANTS ARE SITUATED ON CORNERS, BLUE REFLECTIVE RAISED PAVEMENT MARKERS SHALL BE INSTALLED ON BOTH APPROACHES WHICH FRONT THE HYDRANT. THE RAISED PAVEMENT MARKER SHALL MEET TXDOT MATERIAL, EPOXY AND ADHESIVE SPECIFICATIONS.

GROUNDWATER

IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, CONTRACTOR, SUBCONTRACTORS, BUILDERS, GEO-TECHNICAL ENGINEER, AND PROJECT ENGINEER TO IMMEDIATELY NOTIFY THE OFFICE OF THE CITY ENGINEER AND PROJECT ENGINEER IF THE PRESENCE OF GROUNDWATER WITHIN THE SITE IS EVIDENT. UPON NOTIFICATION THE PROJECT ENGINEER SHALL RESPOND WITH PLAN REVISIONS FOR THE MITIGATION OF THE GROUNDWATER ISSUE. THE CITY ENGINEER SHALL RESPOND WITHIN TWO (2) BUSINESS DAYS UPON RECEIPT OF THE MITIGATION PLAN. ALL CONSTRUCTION ACTIVITY, IMPACTED BY THE DISCOVERY OF GROUNDWATER, SHALL BE SUSPENDED UNTIL THE CITY ENGINEER GRANTS A WRITTEN APPROVAL OF THE GROUNDWATER MITIGATION PLAN.

RECORD DRAWINGS

AS PER PLATTING ORDINANCE SECTION 118-38M.: WHEN ALL OF THE IMPROVEMENTS ARE FOUND TO BE CONSTRUCTED AND COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND WITH THE CITY'S STANDARDS, AND UPON RECEIPT OF ONE SET OF "RECORD DRAWING" PLANS, AND A DIGITAL COPY OF ALL PLANS (PDF COPY) THE CITY ENGINEER SHALL ACCEPT SUCH IMPROVEMENTS FOR THE CITY OF NEW BRAUNFELS, SUBJECT TO THE GUARANTY OF MATERIAL AND WORKMANSHIP PROVISIONS IN THIS SECTION.

CONSTRUCTION NOTE

ENGINEER OF RECORD IS RESPONSIBLE TO ENSURE THAT EROSION CONTROL MEASURES AND STORMWATER CONTROL SUFFICIENT TO MITIGATE OFF SITE IMPACTS ARE IN PLACE AT ALL STAGES OF CONSTRUCTION.

DRAINAGE NOTE

DRAINAGE IMPROVEMENTS SUFFICIENT TO MITIGATE THE IMPACT OF CONSTRUCTION SHALL BE INSTALLED PRIOR TO ADDING IMPERVIOUS COVER.

FINISHED FLOOR ELEVATIONS

THE ELEVATION OF THE LOWEST FLOOR SHALL BE AT LEAST 10 INCHES ABOVE THE FINISHED GRADE OF THE SURROUNDING GROUND, WHICH SHALL BE SLOPED IN A FASHION SO AS TO DIRECT STORMWATER AWAY FROM THE STRUCTURE. PROPERTIES ADJACENT TO STORMWATER CONVEYANCE STRUCTURES MUST HAVE FLOOR SLAB ELEVATION OR BOTTOM OF FLOOR JOISTS A MINIMUM OF ONE FOOT ABOVE THE 100-YEAR WATER FLOW ELEVATION IN THE STRUCTURE. DRIVEWAYS SERVING HOUSES ON THE DOWNHILL SIDE OF THE STREET SHALL HAVE A PROPERLY SIZED CROSS SWALE PREVENTING RUNOFF FROM ENTERING THE GARAGE.

SOILS TESTING

PROCTORS SHALL BE SAMPLED FROM ON-SITE MATERIAL (ON-SITE IS DEFINED AS LIMITS OF CONSTRUCTION FOR THIS-PLAN SET) AND A COPY OF THE PROCTOR RESULTS SHALL BE DELIVERED TO THE CITY OF NEW BRAUNFELS STREET INSPECTOR PRIOR TO ANY DENSITY TESTS.

ROADWAY

ALL ROADWAY COMPACTION TESTS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEOTECHNICAL ENGINEER. FLEXIBLE BASE OR FILL/EMBANKMENT MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED EIGHT INCHES (8") LOOSE. THE REQUIRED DENSITY FOR THE FILL/EMBANKMENT MATERIAL SHALL MEET THE REQUIREMENTS OF TXDOTS SPECIFICATION ITEM 132. THE REQUIRED DENSITY FOR THE FLEXIBLE BASE MATERIAL SHALL MEET THE REQUIREMENTS OF TXDOTS SPECIFICATION ITEM 247. EACH LAYER OF MATERIAL, INCLUSIVE OF SUBGRADE, SHALL BE COMPACTED AS SPECIFIED AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN EVERY 200 LF FOR EACH LIFT. UPON COMPLETION OF TESTING, THE GEOTECHNICAL ENGINEER WILL PROVIDE THE CITY OF NEW BRAUNFELS STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FLEXIBLE BASE, AND FILL MATERIAL, AND SUBGRADE, HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. ADDITIONAL DENSITY TESTS MAY BE REQUESTED BY THE CITY OF NEW BRAUNFELS INSPECTOR.

ITEM 340

ASPHALTIC CONCRETE PAVEMENT SHALL BE THE TYPE OF HOT MIX ASPHALT AS DEFINED IN TXDOTS STANDARD SPECIFICATIONS FOR CURRENT TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREET AND BRIDGES.

THE CITY OF NEW BRAUNFELS WILL NOT ACCEPT THE USE OF RECYCLED ASPHALT PAVEMENT (RAP) OR RECYCLED ASPHALT SHINGLES (RAS) IN ASPHALT MIXTURES FOR NEW ROADWAYS. ANY DEBRIS INCLUSIONS WITHIN NEW ASPHALT PAVEMENTS WILL RESULT IN ASPHALT REMOVAL AND REPLACEMENT FROM CURB TO CURB FOR LIMITS TO BE DETERMINED BY THE CITY OF NEW BRAUNFELS.

THE ASPHALTIC CONCRETE PAVEMENT SURFACE COURSE SHALL BE PLANT MIXED, HOT LAID TYPE "D" MEETING THE SPECIFICATION REQUIREMENTS OF TXDOT ITEM 340. THE ASPHALTIC CONCRETE PAVEMENT SUB-SURFACE COURSES SHALL BE PLANT MIXED, HOT LAID TYPE "B" MEETING THE SPECIFICATION REQUIREMENTS OF TXDOT ITEM 340. THE MIXTURE SHALL BE DESIGNED PER THE DESIGN REQUIREMENTS SPECIFIED IN TXDOT ITEM 340 AND SHALL BE COMPACTED TO BETWEEN 91 AND 95 PERCENT OF THE MAXIMUM THEORETICAL DENSITY AS DETERMINED BY TXDOT TEST METHOD TEX-227-F. PLACE THE MIXTURE WHEN THE ROADWAY SURFACE TEMPERATURE IS AT OR ABOVE 60°F. COMPLETE ALL COMPACTION OPERATIONS BEFORE THE PAVEMENT TEMPERATURE DROPS BELOW 160°F. THE ASPHALT CEMENT CONTENT BY PERCENT OF TOTAL MIXTURE WEIGHT SHALL FALL WITHIN A TOLERANCE OF +0.5 PERCENT FROM A SPECIFIC MIX DESIGN.

CITY OF NEW BRAUNFELS CONSTRUCTION NOTES (CONTINUED)

REVISED 03/2020

UTILITY TRENCH COMPACTION

ALL UTILITY TRENCH COMPACTION TESTS WITHIN THE STREET PAVEMENT/SIDEWALK SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEOTECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE INCHES (12") LOOSE. DETERMINE THE MAXIMUM LIFT THICKNESS BASED ON THE ABILITY OF THE COMPACTING OPERATION AND EQUIPMENT USED TO MEET THE REQUIRED DENSITY. EACH LAYER OF MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN EVERY 200 LF FOR EACH LIFT AND EVERY OTHER SERVICE LINE. UPON COMPLETION OF TESTING THE GEOTECHNICAL ENGINEER SHALL PROVIDE THE CITY OF NEW BRAUNFELS STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. ADDITIONAL DENSITY TESTS MAY BE REQUESTED BY THE CITY OF NEW BRAUNFELS INSPECTOR.

CURB CUT DUE TO CONSTRUCTION OF NEW RIGHT-OF-WAY CONSTRUCTION

(INDICATE THE 2 OPTIONS ON THE CONSTRUCTION PLANS).

- SAWCUT EXISTING STREET AND MATCH TO NEW CONSTRUCTION.
- SAWCUT EXISTING CURB TO TIE INTO EXISTING CONSTRUCTION.

CONSTRUCTION STABILIZED ENTRANCE

SAWCUT CURB FOR CONSTRUCTION ENTRANCE.

STABILIZED CONSTRUCTION AREA SHALL BE CONSTRUCTED OF 3'X5' ROCK TO BE PLACED A MINIMUM LENGTH OF 25'-FT. AND MAINTAINED SO THAT CONSTRUCTION DEBRIS DOES NOT FALL WITHIN THE CITY RIGHT-OF-WAY. RIGHT-OF-WAY MUST BE CLEARED FROM MUD, ROCKS, ETC. AT ALL TIMES.

SIGNING AND PAVEMENT MARKING PLAN NOTES

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL REGULATORY AND WARNING SIGNS, STREETS NAME SIGNS AND SIGN MOUNTS IN ACCORDANCE WITH APPROVED ENGINEERING PLANS. THE CITY WILL INSPECT ALL SIGNS AT FINAL INSPECTION.

THE CONTRACTOR SHALL INSTALL ALL PAVEMENT MARKINGS IN ACCORDANCE WITH APPROVED ENGINEERING PLANS. THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST TWENTY-FOUR (24 HOURS PRIOR TO THE INSTALLATION OF ALL SEALER AND FINAL MARKINGS. THE CITY WILL INSPECT ALL MARKINGS AT FINAL APPLICATION.

SEEDING AND ESTABLISHMENT OF VEGETATION WITHIN EARTHEN CHANNELS, STORMWATER BASINS AND DISTURBED AREAS

SEEDING FOR THE PURPOSE OF ESTABLISHING VEGETATION WITHIN CONSTRUCTED EARTHEN CHANNELS, BASINS AND DISTURBED AREAS SHALL BE CONDUCTED IN ACCORDANCE WITH ITEM 164 (SEEDING FOR EROSION CONTROL OF TXDOTS STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES MANUAL. ONLY SEED TYPES AND MIXES SPECIFIED FOR THE SAN ANTONIO DISTRICT (DISTRICT 15 IN TABLES 1 AND 2 UNDER ITEM 164 SHALL BE UTILIZED. DURING THE COOL SEASON (SEPT 1-NOV 30, CEREAL RYE AND SEED SPECIES SPECIFIED FOR THE SAN ANTONIO DISTRICT IN TABLE 3 MAY BE USED. FOR COOL SEASON SEEDING APPLICATIONS, COOL SEASON SEED MIXES SHALL BE USED IN CONJUNCTION WITH SEED MIXES FOR THE SAN ANTONIO DISTRICT AS SPECIFIED IN TABLE 1 AND 2 UNDER ITEM 164.

IT MAY BE DEEMED NECESSARY TO INCORPORATE TOPSOIL AND SOIL AMENDMENTS (I.E. COMPOST/ FERTILIZER INTO EXISTING SOIL IN ORDER TO FACILITATE VEGETATION GROWTH. TOPSOIL, COMPOST AND FERTILIZER ADDITIONS SHALL BE CONDUCTED ACCORDING TO ITEMS 160, 161 AND 166 OF TXDOTS STANDARD SPECIFICATIONS MANUAL, RESPECTIVELY.

AREAS REQUIRING PERMANENT VEGETATION (EARTHEN CHANNELS, PONDS, ETC.) ARE REQUIRED TO MEET TXDOT SPECIFICATIONS FOR ITEM 160 TOPSOIL. TESTING PER TEX-128-E WILL BE REQUIRED AT THE CITY'S REQUEST.

WATERING MAY ALSO BE NECESSARY TO FACILITATE AND EXPEDITE THE SPROUTING AND GROWTH OF VEGETATION. ITEM 168 OF TXDOTS STANDARD SPECIFICATIONS MANUAL SHALL BE ADHERED TO FOR VEGETATIVE WATERING.

IF EXTENDED DROUGHT CONDITIONS EXIST THAT HINDER OR PROHIBIT THE GROWTH AND ESTABLISHMENT OF VEGETATION, THE CONTRACTOR/ DEVELOPER SHALL PROVIDE A PLAN TO THE CITY OF NEW BRAUNFELS DESCRIBING THE MEASURES THAT WILL BE TAKEN TO STABILIZE EARTHEN DRAINAGE INFRASTRUCTURE UNTIL A TIME WHEN GROWING CONDITIONS BECOME MORE FAVORABLE.

SEQUENCE OF CONSTRUCTION

- INSTALL EROSION CONTROLS PER APPROVED PLAN.
- TEMPORARY SEDIMENT CONTROLS TO BE INSPECTED WEEKLY. TEMPORARY SEDIMENT CONTROLS SHOULD BE MAINTAINED WEEKLY, PRIOR TO ANTICIPATED RAINFALL EVENTS, AND AFTER RAINFALL EVENTS, AS NEEDED. CONTRACTOR/OWNER SHALL PROVIDE A CONTACT NAME AND NUMBER FOR SEDIMENT AND EROSION CONTROL ISSUES.
- CONDUCT SELECT DEMOLITION ACTIVITIES, AS NECESSARY
- CONSTRUCT DRAINAGE IMPROVEMENTS, IF APPLICABLE.
- CONSTRUCT CURB INLET PROTECTION AT THE TIME OF CURB INLET INSTALLATION.
- CONSTRUCT DEVELOPMENT PER APPROVED PLANS.
- INSTALL STREETScape AND/OR LANDSCAPING IMPROVEMENTS.
- CONTRACTOR TO VEGETATE ANY ADDITIONAL DISTURBED AREAS ONCE FINAL GRADING IS COMPLETE AND ESTABLISH A MINIMUM OF 70% VEGETATION PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO SUBMISSION OF THE GC'S TCEQ NOTICE OF TERMINATION (NOT).
- REMOVE ALL TEMPORARY SEDIMENT CONTROL MEASURES PRIOR TO SUBMISSION OF THE GC'S TCEQ NOTICE OF TERMINATION (NOT).
- PER TPDES REQUIREMENTS, EROSION CONTROL AND STABILIZATION MEASURES MUST BE INITIATED IMMEDIATELY IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING FOURTEEN (14) CALENDAR DAYS. STABILIZATION MEASURES THAT PROVIDE A PROTECTIVE COVER MUST BE INITIATED IMMEDIATELY IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED. THE TERM "IMMEDIATELY" IS USED TO DEFINE THE DEADLINE FOR INITIATING STABILIZATION MEASURES. IN THE CONTEXT OF THIS REQUIREMENT, "IMMEDIATELY" MEANS AS SOON AS PRACTICABLE, BUT NO LATER THAN THE END OF THE NEXT WORKDAY, FOLLOWING THE DAY WHEN THE EARTH-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. SUBMIT TCEQ NOTICE OF TERMINATION (NOT) TO THE TCEQ AND SUBMIT A COPY TO THE LOCAL CITY/MUNICIPALITY AND/OR MS4.

UTILITIES

LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION, INCLUDING THOSE NOT SHOWN ON THE DRAWINGS.

ANY EXISTING UTILITIES, ON OR OFF THE SITE, THAT ARE DAMAGED OR UNDERCUT BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AND APPROVED BY THE RESPECTIVE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

CONTRACTOR SHALL NOTIFY APPROPRIATE UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION AT:

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION

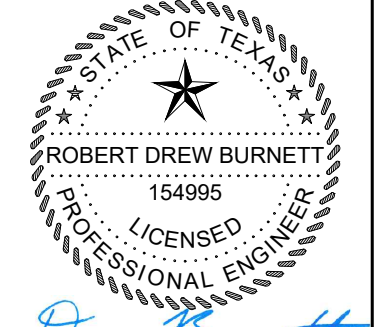
GUADALUPE-BLANCO RIVER AUTHORITY (SEWER)	(830) 379-5822
GREEN VALLEY ELECTRIC COMPANY (ELECTRIC)	(830) 223-4832
GREEN VALLEY SPECIAL UTILITY DISTRICT (WATER)	(830) 914-2330
TIME WARNER CABLE	(830) 625-3408
CENTERPOINT ENERGY (GAS)	(830) 643-6434
AT&T	(830) 303-1333
TEXAS ONE CALL SYSTEM	(800) 245-4545
ENERGY TRANSFER (PETROLEUM PIPELINE)	(210) 262-2486

CONTRACTOR SHALL REFERENCE GREEN VALLEY ELECTRIC COMPANY PLANS FOR FINAL ELECTRICAL LINE DESIGNS AND LAYOUT.

DISTRICT ENGINEER NOTES

THE DISTRICT ENGINEER, JONES-HEROY & ASSOCIATES, INC. (KEN HEROY, PH. 512-989-2200) SHALL BE CONTACTED 48 HOURS PRIOR TO:  
I) PRE-CONSTRUCTION MEETINGS  
II) BEGINNING EACH PHASE OF CONSTRUCTION  
III) TESTING OF THE WATER AND/OR WASTEWATER LINES; AND,  
IV) FINAL WALK-THROUGH OF FACILITIES

290 S. CASTELL AVE., STE. 100  
NEW BRAUNFELS, TX 78130  
TBPBELS FIRM F-10961  
TBPBELS FIRM 10153600



Drew Burnett

01/02/2026

GENERAL NOTES  
(1 OF 2)  
COLINA RANCH WEST WATER IMPROVEMENTS  
NEW BRAUNFELS, TEXAS

NO.	REVISION	DESCRIPTION	DATE

DATE: DECEMBER 2025

DRAWN BY: LB

DESIGNED BY: RDB

REVIEWED BY: CVH

HMT PROJECT NO.: 337.115

SHEET  
C0.01





GVSUD WATER NOTES

General:

- PVC mains 12-inches and below shall conform to AWWA C-909 pressure class 235 or above. PVC main greater than 12-inches shall conform to AWWA C-900 DR 18 or above. Water mains shall have an absolute minimum depth of 48-inches in all areas.
- All water pipe shall be installed minimum 4-feet beyond back of curb.
- All water mains to be installed 4-feet minimum behind back of curb.
- No pressurized fittings under roadways, pavement, or sidewalks.
- All water main ductile iron fittings shall be mechanical joint and conform to ANSI/AWWA C-153 or C-110. All bolts shall have copper anti-seize corrosion resistant coating. Valves shall be attached to tees by foster adaptor or anchor nipple. Foster adapter, anchor nipple, or Ford Uni-Flange retainer glands and thrust blocks shall be used on all fittings and valves.
- Tracer wire shall be installed on all pipelines including service lines and brought into valve and meter boxes for locating purposes. Insulated water proof connectors shall be used to splice wires together. A 6-inch or 12-inch-wide detectable metal tape shall be placed above bedding initial backfill.
- Over inserting bell joints and passing the insertion reference mark is prohibited and will require removal and reinstallation.
- Standard fire hydrant shall include hydrant, 6-inch resilient wedge gate valve and box, anchor fittings, ductile iron pipe, and all appurtenances. Hydrants shall be limited to those manufactured by Mueller, AVK, American Flow, Clow, Or East Jordan. Only Mueller hydrants and EJ shall be used in City of Cibolo's jurisdiction. Hydrant upper barrel shall be factory painted red. Hydrants shall have a Stortz connection on steamer nozzle. Fittings for plug shall be fully restrained and tied to valve.
- All fire hydrant assemblies shall have an in-line upstream and downstream valve.
- All tees shall include three (3) valves.
- Valves shall be AWWA approved resilient wedge seated gate valve, open left, and limited to those manufactured by Mueller, AVK, American Flow, Clow, Or East Jordan.
- Valves are prohibited in ADA ramps, curbs, and roadways. Valves are prohibited in sidewalks in City of New Braunfels.
- Meter boxes are prohibited in any sidewalks, driveways, or roadways.
- Small service taps shall be 1-inch Rehau Municipex with CTS 200 PSI plastic insert or 2-inch Yelomine PVC ASTM D1784 with Harco fittings or approved equivalent.
- Small service taps to be made with single brass strap tapping saddle or dual banded stainless-steel flat-strap epoxy saddle with iron pipe threads.
- Casing required for all long small services. 1-inch service requires 3-inch casing and 2-inch service requires 4-inch casing. Casing shall be white color PVC schedule 40 or approved equal.
- 5/8" & ¾" meter boxes shall be DFW36C 16" x 11". All meter boxes shall be plastic with lids and knockout.
- Dual services are not permitted.
- Tapping machines must retain coupon.
- Contractor to curb cut v/s for valves and x's for meters and paint blue.
- Water lines crossing cul-de-sacs shall be fully restrained under pavement and cased.
- All street crossings are to be cased from edge of impermeable cover to edge of impermeable cover.
- All bends, fittings, and valves shall have one (1) restraint upstream and downstream regardless of length.



GVSUD WATER NOTES

- Contractor shall perform spike test at 200 PSI for 15 minutes then reduce pressure to 150 PSI for 2 hours.
- Contractor shall perform pre-testing to verify passing results prior to requesting GVSUD inspection. Provide connection point for GVSUD digital test gauge (quick connect).
- Perform trench backfill density testing at intervals specified by the design engineer, exact locations to be designated by inspector. Schedule with GVSUD to witness 48 hours prior to test. Provide copies of reports to GVSUD.
- Hydrostatic pressure testing shall be every 1200 LF (max) of water line or as approved by the engineer. All errors of workmanship shall be corrected immediately. All parts of the pipeline shall be backfilled and braced sufficiently to prevent movement under pressure.

Construction Notes:

- All work shall be in accordance with GVSUD standards as published at the following website: <http://www.gvsud.org/>
- Material submittals shall be provided for GVSUD review and approval. Allow 21 calendar days for review.
- All water installations must be inspected and approved by GVSUD prior to backfilling or otherwise covering the work. GVSUD will reject anything backfilled prior to GVSUD approval. This includes crossings of water and wastewater by other utilities. GVSUD will perform a maximum of one (1) inspection daily for one (1) hour duration between 7:30am and 4:00pm excluding weekends and holidays. Call to schedule inspections (48-hours advance notice is required for all inspections).
- Trench excavation and pipe installation will not be permitted until subgrade has been established. Survey staking must be installed prior to and maintained during trench excavation and pipe installation. Survey staking shall include horizontal and vertical control at a minimum of 50-foot station intervals. Survey staking shall be performed by the contractor.
- Proper shoring and/or benching must be present at all times for anything 4-feet in depth or deeper. GVSUD will stop work until proper safety protocols have been established.
- Backflow prevention in the form of a reduced pressure zone backflow prevention assembly must be provided for temporary connections to existing water lines. Backflow prevention assemblies shall be tested by a licensed backflow prevention assembly tester.
- All piping shall be installed in straight alignment. Pipe deflection is not allowed.
- Install concrete thrust blocking and mechanical restraints for pressurized piping systems.
- Water pipe shall be installed above wastewater and all pipe joints shall be centered at crossings with all other utilities. Both pipe joints shall be centered where water crosses wastewater mains and laterals 10-feet in either direction.
- Maintain a minimum of 10-feet horizontal and 24-inch vertical clearance between water and wastewater and other utilities. Shared trenches are not allowed.
- Water piping shall be sleeved if located under box culverts, single barrel, or multiple barrel storm sewer crossings regardless of size.
- Valve boxes and appurtenances shall be painted. Provide painted curb cut markings at valves and services.
- All exposed vertical and horizontal concrete edges shall be formed with ¾" chamfer strips. Concrete in unpaved areas shall be 2" above finish grade.



GVSUD WATER NOTES

- Contractor shall chlorinate new mains per TCEQ and ANSI/AWWA C651 and dechlorinate during flushing per ANSI/AWWA C655; the contractor shall coordinate with the GVSUD inspector to witness chlorinating and pressure testing of new mains. All test results must be provided to GVSUD.
- Operation of existing valves in the GVSUD water distribution system shall be operated by GVSUD personnel only, unless approved by GVSUD inspector.
- New water mains and appurtenances shall pass pressure testing and pass the minimum public health standards for bacteriological quality testing prior to any tie in to the existing GVSUD water system as required by TCEQ and ANSI/AWWA.
- Hydrostatic pressure testing shall be every 1200 LF (max) of water line or as approved by the engineer. All errors of workmanship shall be corrected immediately. All parts of the pipeline shall be backfilled and braced sufficiently to prevent movement under pressure.
- The contractor shall provide the engineer with all the information as required so that the engineer can supply GVSUD the GIS package for approval.
- A final walk through for field acceptance will be scheduled with the contractor after the preliminary walk-through punch list items have been completed.
- Provide restraint lengths at all bends, valves, tees, and all other fittings.
- All master metered distribution lines shall be protected by an RPZ backflow preventer.
- All non-chemical fire lines shall be protected by a DCDA backflow preventer.
- All chemically injected fire lines shall be protected by an RPZ backflow preventer.

Materials:

- PVC mains 12 inches and below shall conform to AWWA C-909 pressure class 235 or above. PVC main greater than 12 inches shall conform to AWWA C-900 DR 18 or above. Water mains shall have an absolute minimum depth of 48 inches in all areas.
- 2-inch service crossings shall be Yelomine ASTM D2241 or approved equivalent.
- Tapping saddles shall be single brass strap or dual banded stainless-steel flat-strap epoxy saddle with iron pipe threads.
- All fasteners shall be 304 stainless-steel (e.g. hardware, screws, anchor bolts, rods, flange bolts and nuts, etc.). All bolts and nuts shall be heavy hex. Field-apply nickel anti-seize compound prior to assembly. Bolts and nuts shall not be painted.
- All buried metal pipe, fittings, and valves shall be wrapped with 8mil poly.
- Paint shall be high-build epoxy with topcoat of polyurethane.
- All fire hydrant leads shall be ductile iron C151 or approved equivalent.

Testing:

- All testing shall be arranged and paid for by the contractor and witnessed by GVSUD.
- All testing must be complete prior to paving streets.
- The Contractor shall provide GVSUD copies of all test results prior to acceptance of the project.
- All testing must be complete prior to performing tie-ins to existing water systems.
- All other utilities must be complete and offsite prior to performing hydrostatic pressure testing.

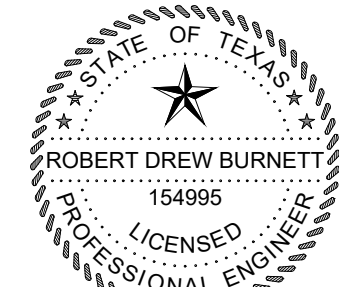


TCEQ WATER DISTRIBUTION SYSTEM  
GENERAL CONSTRUCTION NOTES

- THIS WATER DISTRIBUTION SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS 30 TEXAS ADMINISTRATIVE CODE (TAC) CHAPTER 290 SUBCHAPTER D. WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS, THE MORE STRINGENT REQUIREMENT SHALL BE APPLIED. AT A MINIMUM, CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS MEET TCEQ'S "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS."
- ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)/NSF INTERNATIONAL STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI [§290.44(A)(1)].
- PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NSF INTERNATIONAL SEAL OF APPROVAL (NSF-PW) AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 150 PSI OR A STANDARD DIMENSION RATIO OF 26 OR LESS [§290.44(A)(2)].
- NO PIPE WHICH HAS BEEN USED FOR ANY PURPOSE OTHER THAN THE CONVEYANCE OF DRINKING WATER SHALL BE ACCEPTED OR RELOCATED FOR USE IN ANY PUBLIC DRINKING WATER SUPPLY [§290.44(A)(3)].
- ALL WATER LINE CROSSINGS OF WASTEWATER MAINS SHALL BE PERPENDICULAR [§290.44(E)(4)(B)].
- WATER TRANSMISSION AND DISTRIBUTION LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. HOWEVER, THE TOP OF THE WATER LINE MUST BE LOCATED BELOW THE FROST LINE AND IN NO CASE SHALL THE TOP OF THE WATER LINE BE LESS THAN 24 INCHES BELOW GROUND SURFACE [§290.44(A)(4)].
- THE MAXIMUM ALLOWABLE LEAD CONTENT OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES IS 0.25 PERCENT [§290.44(B)].
- THE CONTRACTOR SHALL INSTALL APPROPRIATE AIR RELEASE DEVICES WITH VENT OPENINGS TO THE ATMOSPHERE COVERED WITH 16-MESH OR FINER, CORROSION RESISTANT SCREENING MATERIAL OR AN ACCEPTABLE EQUIVALENT [§290.44(D)(1)].
- THE CONTRACTOR SHALL NOT PLACE THE PIPE IN WATER OR WHERE IT CAN BE FLOODED WITH WATER OR SEWAGE DURING ITS STORAGE OR INSTALLATION [§290.44(F)(1)].
- WHEN WATERLINES ARE LAID UNDER ANY FLOWING OR INTERMITTENT STREAM OR SEMI-PERMANENT BODY OF WATER THE WATERLINE SHALL BE INSTALLED IN A SEPARATE WATERTIGHT PIPE ENCASEMENT. VALVES MUST BE PROVIDED ON EACH SIDE OF THE CROSSING WITH FACILITIES TO ALLOW THE UNDERWATER PORTION OF THE SYSTEM TO BE ISOLATED AND TESTED [§290.44(F)(2)].
- PURSUANT TO 30 TAC §290.44(A)(5), THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY THE MOST CURRENT AWWA FORMULAS FOR PVC PIPE, CAST IRON AND DUCTILE IRON PIPE. INCLUDE THE FORMULAS IN THE NOTES ON THE PLANS.
  - THE HYDROSTATIC LEAKAGE RATE FOR POLYVINYL CHLORIDE (PVC) PIPE AND APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-605 AS REQUIRED IN 30 TAC §290.44(A)(5). PLEASE ENSURE THAT THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;
$$Q = \frac{L \cdot P}{148,000}$$
WHERE:
    - Q = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR,
    - L = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET,
    - D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND
    - P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH (PSI).
  - THE HYDROSTATIC LEAKAGE RATE FOR DUCTILE IRON (DI) PIPE AND APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-605 AS REQUIRED IN 30 TAC §290.44(A)(5). PLEASE ENSURE THAT THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;
$$Q = \frac{SD \cdot P}{148,000}$$
WHERE:
    - L = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR,
    - S = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET,
    - D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND
    - P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH (PSI).

- THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE IN ALL DIRECTIONS OF NINE FEET BETWEEN THE PROPOSED WATERLINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES. IF THIS DISTANCE CANNOT BE MAINTAINED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT ENGINEER FOR FURTHER DIRECTION. SEPARATION DISTANCES, INSTALLATION METHODS, AND MATERIALS UTILIZED MUST MEET §290.44(E)(1)-(4).
- THE SEPARATION DISTANCE FROM A POTABLE WATERLINE TO A WASTEWATER MAIN OR LATERAL MANHOLE OR CLEANOUT SHALL BE A MINIMUM OF NINE FEET, WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE POTABLE WATERLINE SHALL BE ENCASED IN A JOINT OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEALANT [§290.44(E)(5)].
- FIRE HYDRANTS SHALL NOT BE INSTALLED WITHIN NINE FEET VERTICALLY OR HORIZONTALLY OF ANY WASTEWATER LINE, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE REGARDLESS OF CONSTRUCTION [§290.44(E)(6)].
- SUCTION MAINS TO PUMPING EQUIPMENT SHALL NOT CROSS WASTEWATER MAINS, WASTEWATER LATERALS, OR WASTEWATER SERVICE LINES. RAW WATER SUPPLY LINES SHALL NOT BE INSTALLED WITHIN FIVE FEET OF ANY TILE OR CONCRETE WASTEWATER MAIN, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE [§290.44(E)(7)].
- WATERLINES SHALL NOT BE INSTALLED CLOSER THAN TEN FEET TO SEPTIC TANK DRAINFIELDS [§290.44(E)(8)].
- THE CONTRACTOR SHALL DISINFECT THE NEW WATERLINES IN ACCORDANCE WITH AWWA STANDARD C-651-14 OR MOST RECENT, THEN FLUSH AND SAMPLE THE LINES BEFORE BEING PLACED INTO SERVICE. SAMPLES SHALL BE COLLECTED FOR MICROBIOLOGICAL ANALYSIS TO CHECK THE EFFECTIVENESS OF THE DISINFECTION PROCEDURE WHICH SHALL BE REPEATED IF CONTAMINATION PERSISTS. A MINIMUM OF ONE SAMPLE FOR EACH 1,000 FEET OF COMPLETED WATERLINE WILL BE REQUIRED OR AT THE NEXT AVAILABLE SAMPLING POINT BEYOND 1,000 FEET AS DESIGNATED BY THE DESIGN ENGINEER [§290.44(F)(3)].
- DECHLORINATION OF DISINFECTING WATER SHALL BE IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARD C655-09 OR MOST RECENT.

290 S. CASTELL AVE., STE. 100  
NEW BRAUNFELS, TX 78130  
TBPBLS FIRM F-10961  
TBPBLS FIRM 10153600



01/02/2026

GENERAL NOTES  
(2 OF 2)  
COLINA RANCH WEST WATER IMPROVEMENTS  
NEW BRAUNFELS, TEXAS

NO.	REVISION	DESCRIPTION	REVISION DATE

DATE: DECEMBER 2025

DRAWN BY: LB

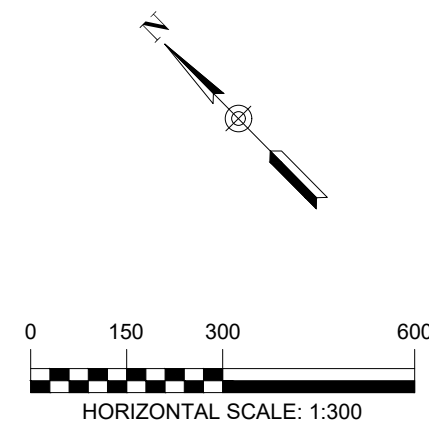
DESIGNED BY: RDB

REVIEWED BY: CVH

HMT PROJECT NO.:  
337.115

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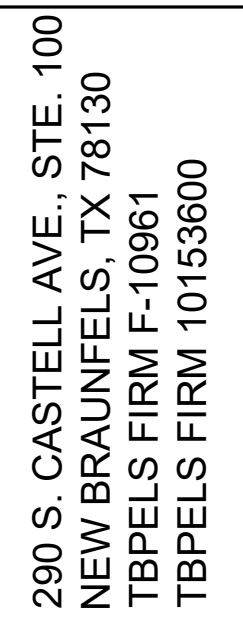




XING	UTILITY	COMPANY	CONTACT	SHEET NO.	DATA SOURCE	PERMISSION
(A)	SEWER	GBRA	NAME: SIDNEY MELTON TEL: 830-560-3968 EMAIL: smelton@gbra.org	SHEET C2.03	ASBUILTS	ENCROACHMENT AGREEMENT
(B)	ELECTRIC	LCRA	NAME: JEFF MAYRONNE TEL: 512-578-2515 EMAIL: jeff.mayronne@lcra.org	SHEET C2.04	SURVEY	LONO
(C)	WATER	GBRA	NAME: SIDNEY MELTON TEL: 830-560-3968 EMAIL: smelton@gbra.org	SHEET C2.04	ASBUILTS	ENCROACHMENT AGREEMENT
(D)	WATER	CTRWSC	NAME: JOSE RENDON TEL: 737-888-4057 EMAIL: jrendon@epcor.com	SHEET C2.04	ASBUILTS	ENCROACHMENT AGREEMENT

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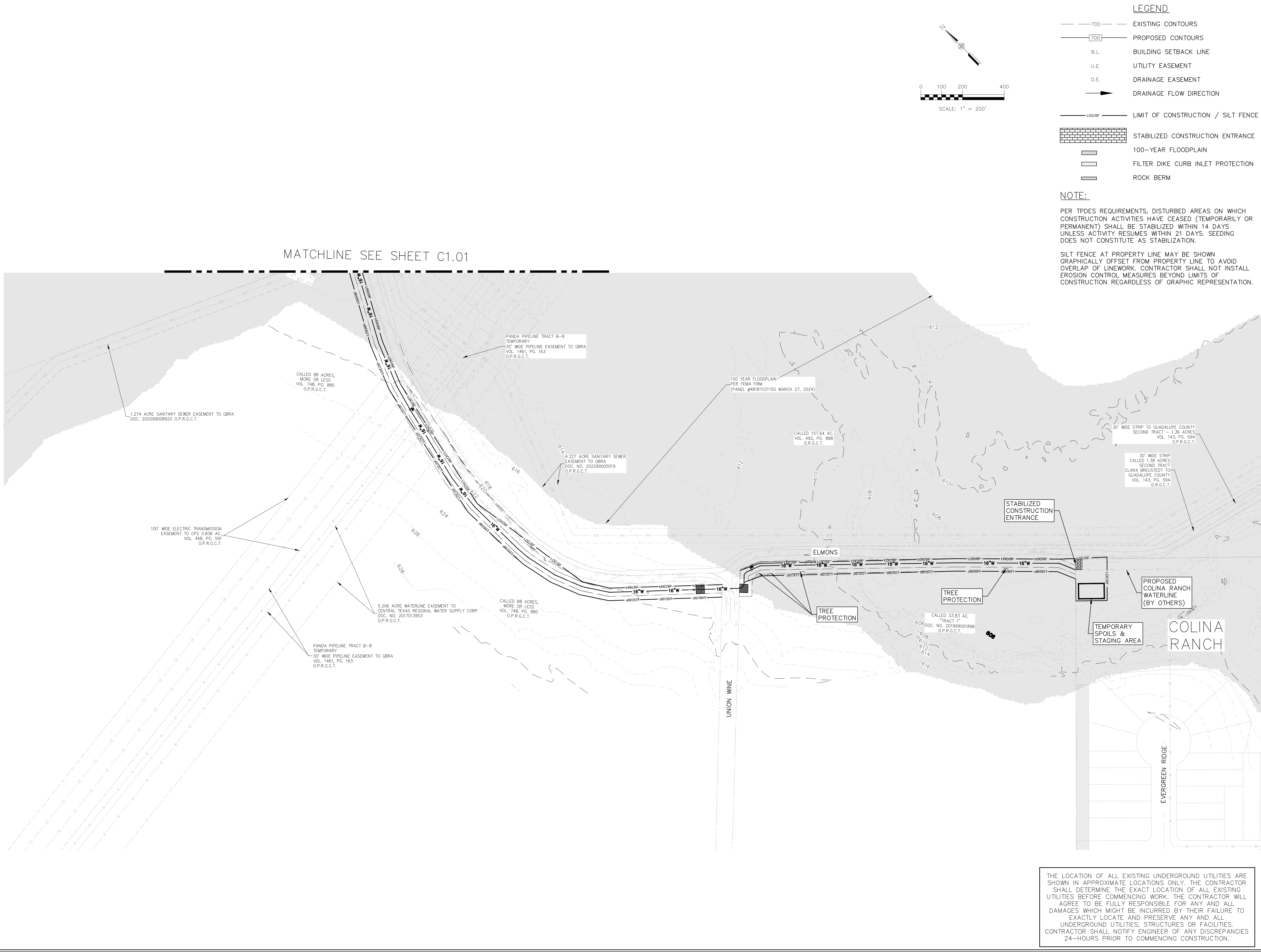
**SHEET**  
**C0.03**











290 S. CASTELL AVE., STE. 100  
NEW BRAUNFELS, TX 78130  
TBPELS FIRM F-10961  
TBPELS FIRM 10153600

**HMT**  
ENGINEERING & SURVEYING

ROBERT DREW BURNETT  
154995  
LICENSED PROFESSIONAL ENGINEER  
*Dr. Robert Burnett*

01/02/2026

**EROSION CONTROL PLAN  
SHEET ( 2 OF 2 )**

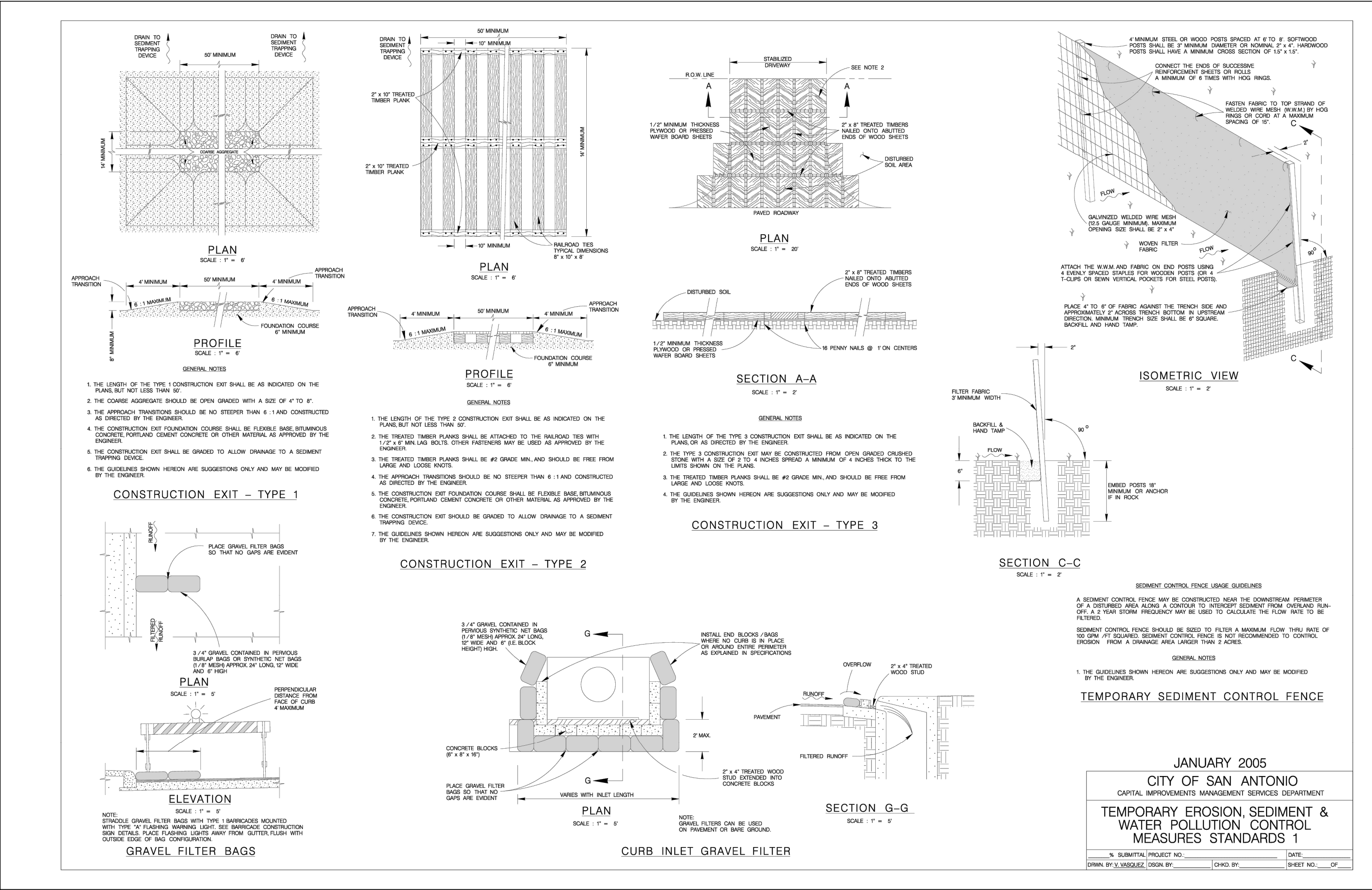
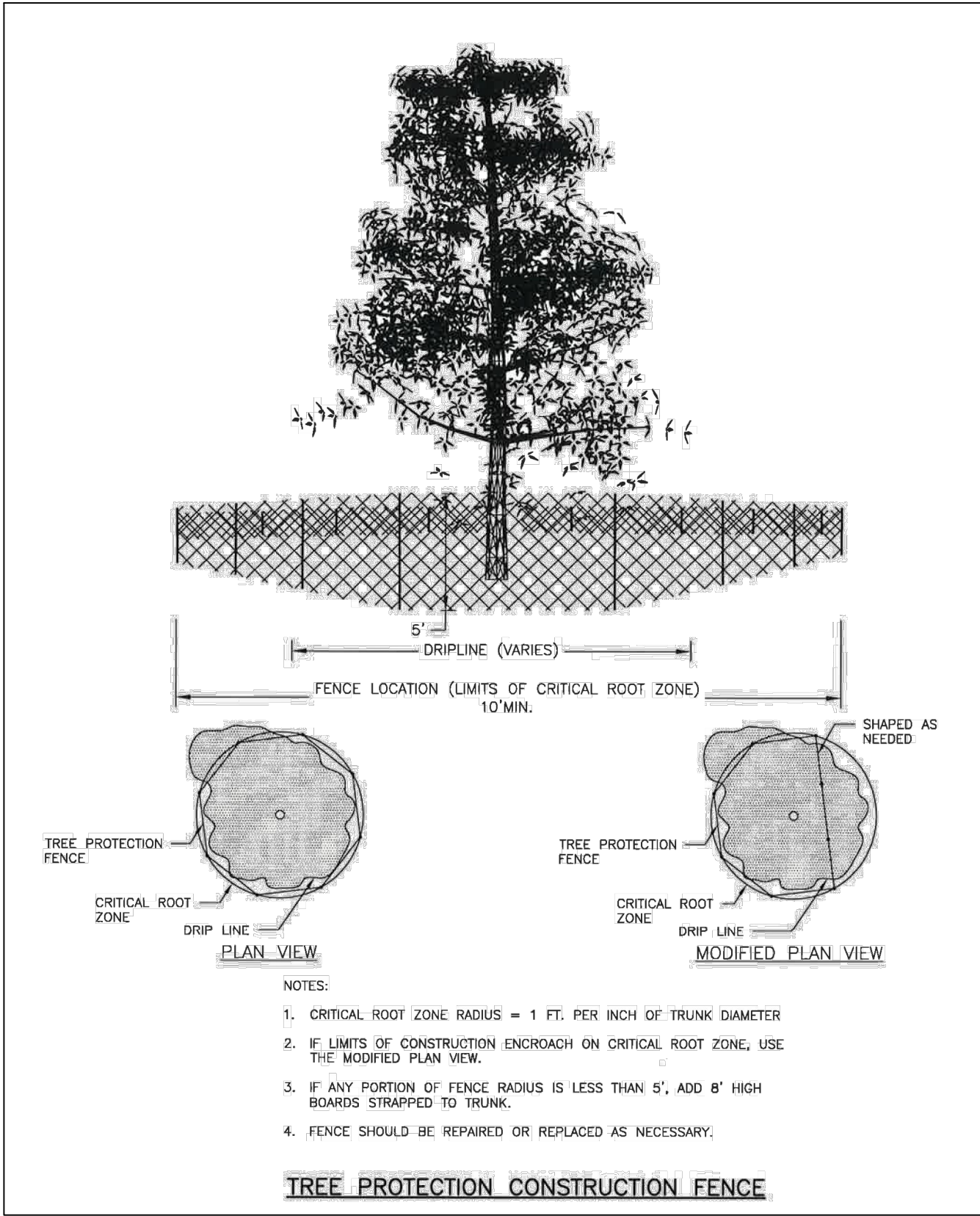
COLINA RANCH WEST WATER IMPROVEMENTS  
NEW BRAUNFELS, TEXAS

NO.	REVISION DESCRIPTION	REVISION DATE

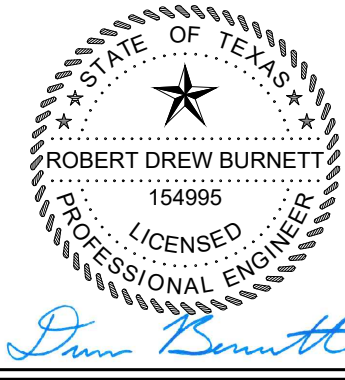
DATE: **DECEMBER 2025**  
DRAWN BY: **LB**  
DESIGNED BY: **RDB**  
REVIEWED BY: **CVH**  
HMT PROJECT NO.: **337.115**

**SHEET  
C1.02**





290 S. CASTELL AVE., STE. 100  
NEW BRAUNFELS, TX 78130  
TBPELS FIRM F-10961  
TBPELS FIRM 10153600



01/02/2026

**EROSION DETAILS**

**COLINA RANCH WEST WATER IMPROVEMENTS  
NEW BRAUNFELS, TEXAS**

NO.	REVISION	DESCRIPTION	DATE

DATE: **DECEMBER 2025**

DRAWN BY: **LB**

DESIGNED BY: **RDB**

REVIEWED BY: **CWH**

HMT PROJECT NO.:  
**337.115**

**SHEET**

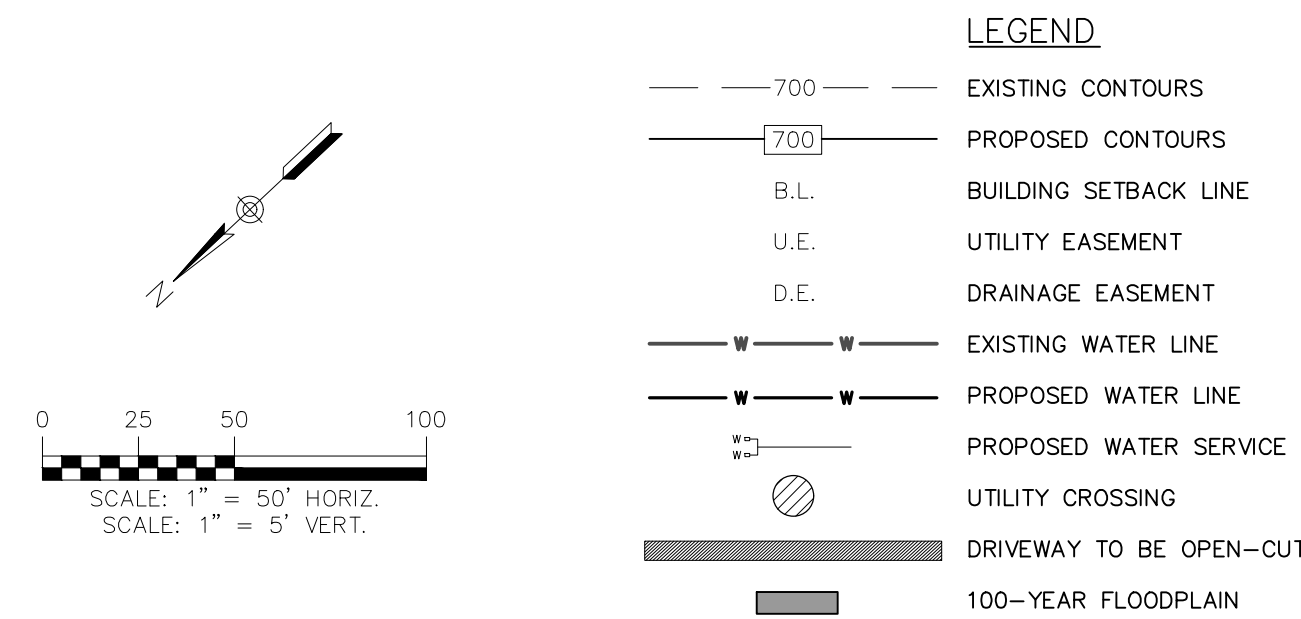
**C1.03**

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.



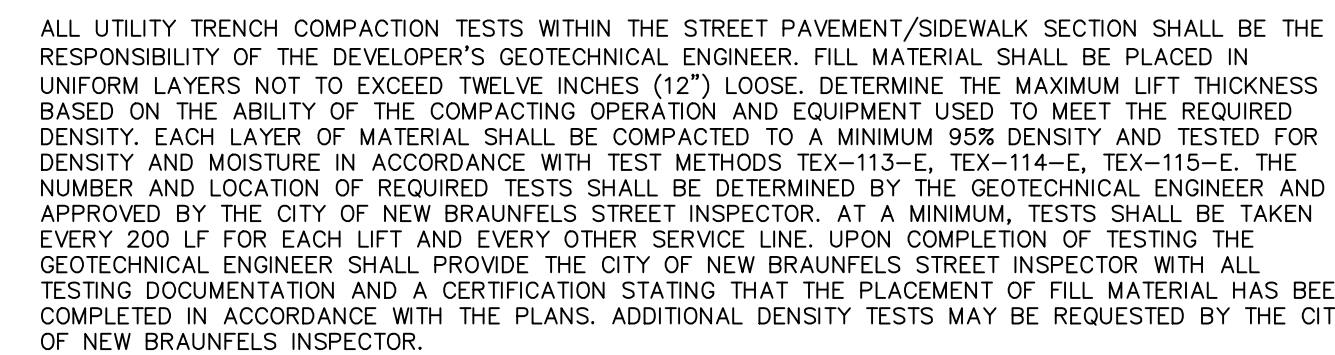






1. ALL UTILITIES TO BE CONSTRUCTED PRIOR TO THE STREETS.
2. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS OR DRIVEWAYS.
3. ALL WATER SERVICES TO BE 12-INCH SERVICES AND METERS LOCATED 2- FEET FROM THE PROPERTY LINE.
4. ALL DIMENSIONS ARE FROM FACE OF CURB.
5. REFER TO COVER SHEET FOR MARKING INFORMATION.
6. FIRE HYDRANTS ARE TO BE INSTALLED OUTSIDE OF THE SIDEWALK AND NO GREATER THAN 9 FEET FROM THE BACK OF CURB.
7. CONTRACTOR TO COORDINATE WITH GVSUD ON TIMING OF THE TIE-INS AND ABANDONMENT.
8. CONTRACTOR TO CURB CUT V/S FOR ADJACENT VALVES AND X'S FOR ADJACENT METER BOXES.
9. CONTRACTOR TO VERIFY LOCATION OF EXISTING WATER MAIN A MINIMUM OF 300' LOU AHEAD OF NEW MAIN INSTALLATION AT ALL TIE-IN LOCATIONS OR CROSSINGS, AND NOTIFY GVSUD INSPECTOR.
10. CONTRACTOR MUST PROTECT ALL UNATTENDED TRENCHES AND EXPOSURES WITH BARRIERS AND APPROPRIATE MEANS.
11. CONTRACTOR TO UTILIZE APPROVED WATER LINE STOPS AND/OR MUELLER INSERTION-VALVES TO MINIMIZE WATER OUTAGES AS REQUIRED BY GVSUD DURING CONSTRUCTION.
12. DISINFECTION SHALL BE BY MACHINE CHLORINATION.
13. MOISTURE DENSITY COMPACTION TESTING FREQUENCY- WATER MAIN TRENCHES REQUIRED EVERY 300' LOU FOR EACH VERTICAL FOOT OF COMPACTION BACKFILL. SERVICES RANDOMLY SELECTED AS REQUIRED BY GVSUD INSPECTOR.
14. ALL TESTING AND TEST REPORTS SHALL BE COORDINATED WITH GVSUD INSPECTOR BY THE CONTRACTOR.
15. ALL CASTLE IRON PIPE TO BE AMERICAN, ZINC COATED, AWWA/ANSI C-151.

AS PART OF THE EASEMENT COORDINATION, PROPERTY OWNERS WERE NOTIFIED REGARDING OPEN CUT THROUGH PRIVATE DRIVEWAYS.



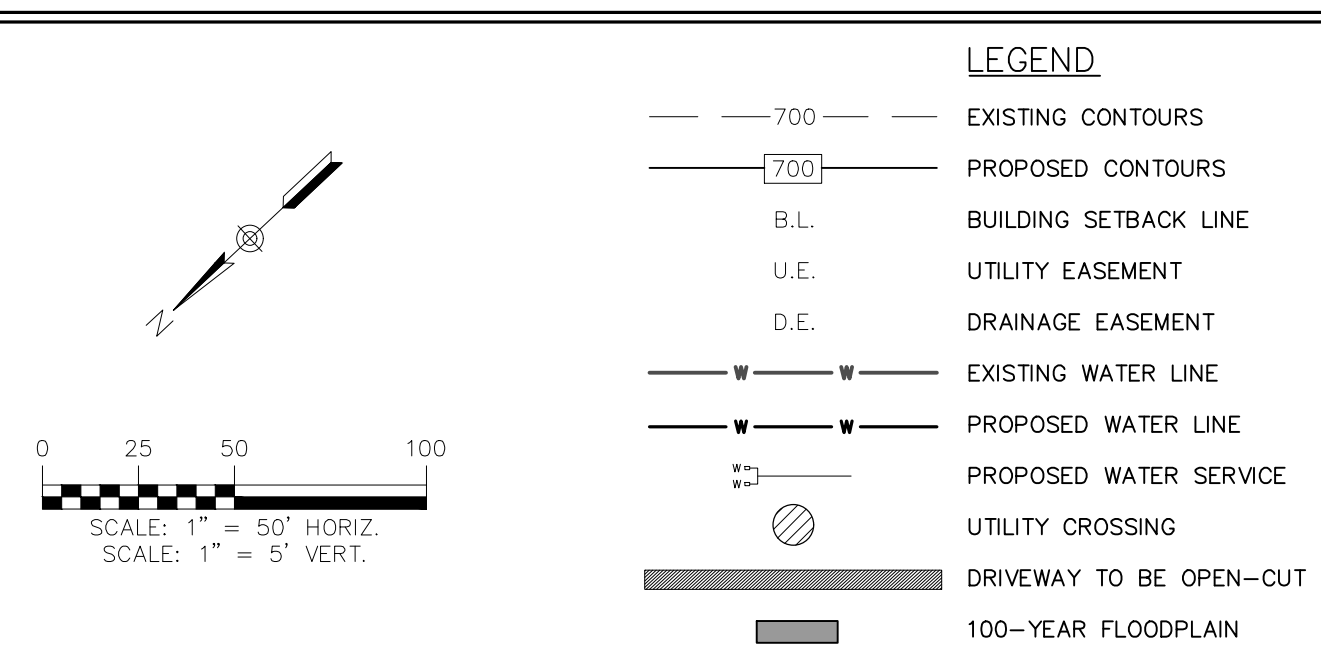
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COLINA RANCH WEST WATER IMPROVEMENT PROJECT  
NEW BRAUNFELS, TEXAS

DATE:	DECEMBER 2025
DRAWN BY:	LB
DESIGNED BY:	RDB
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.115

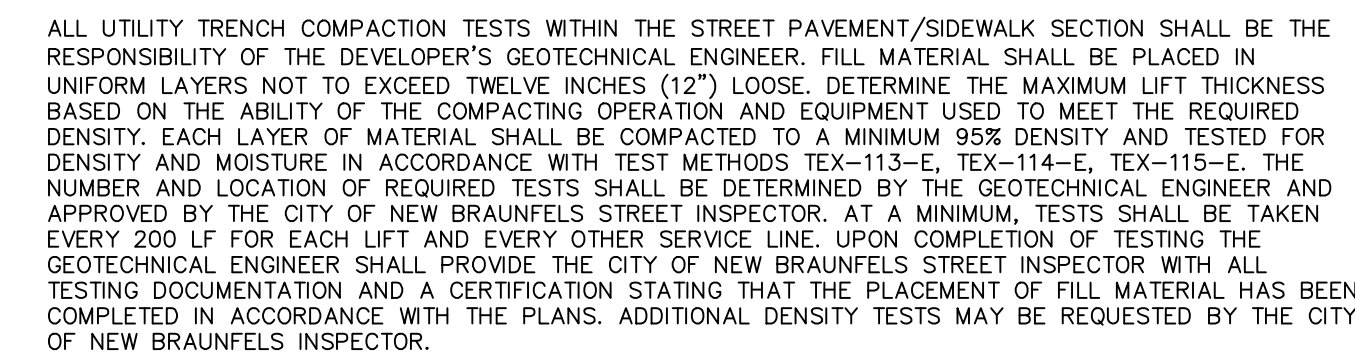
**SHEET**  
**C2.02**





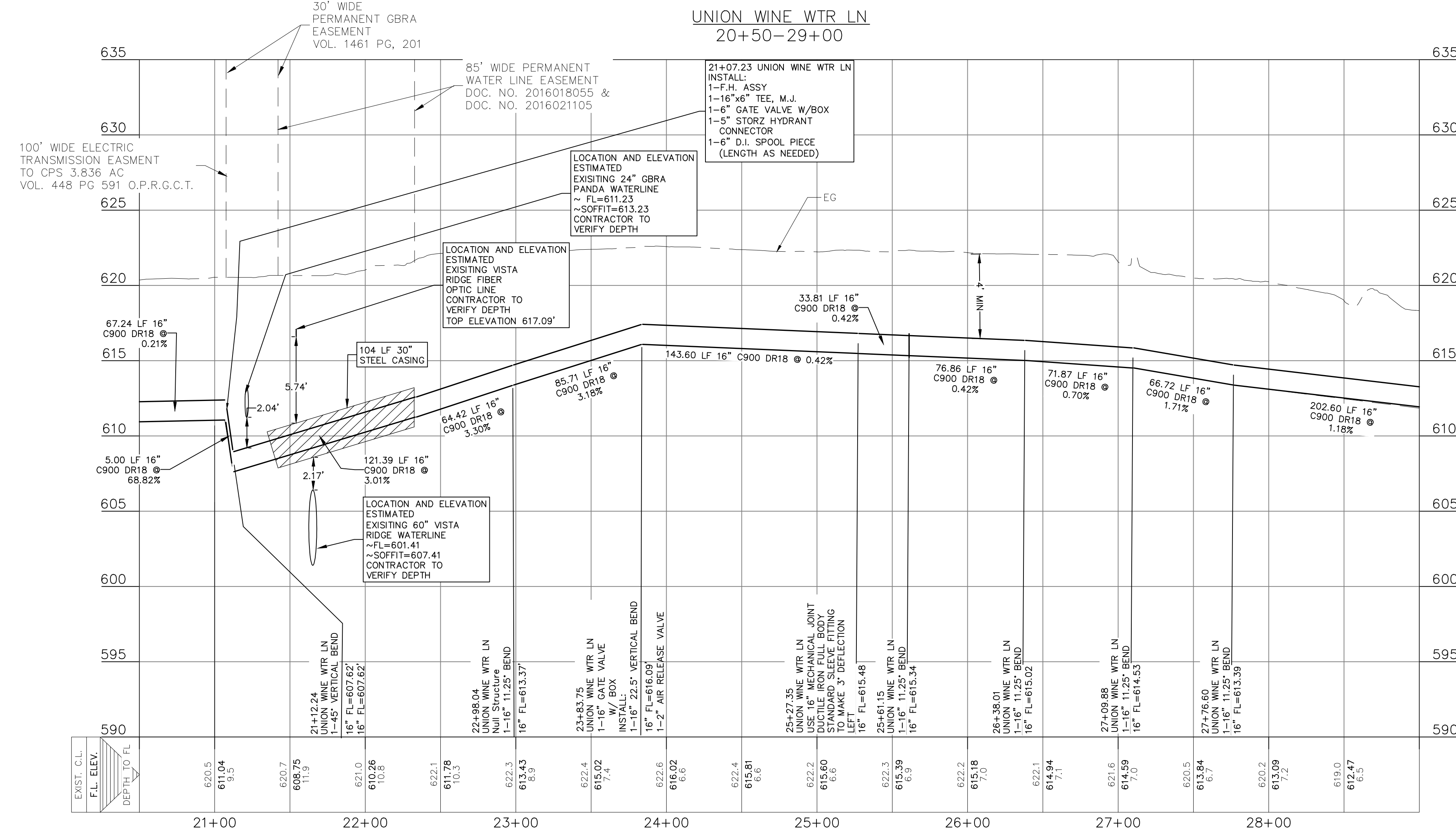
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3. ALL WATER SERVICES ARE TO BE 1-INCH SERVICES AND METERS LOCATED 2- FEET FROM THE PROPERTY LINE.
4. ALL DIMENSIONS ARE FROM FACE OF CURB.
5. REFER TO COVER SHEET FOR GENERAL INFORMATION.
6. FIRE HYDRANTS ARE TO BE INSTALLED OUTSIDE OF THE SIDEWALK AND NO GREATER THAN 9 FEET FROM THE BACK OF CURB.
7. CONTRACTOR TO COORDINATE WITH GVSUD ON TIMING OF THE IN-S AND ABANDONMENT.
8. CONTRACTOR TO CURB CUT V/S FOR ADJACENT VALVES AND V/S FOR ADJACENT METER BOXES.
9. CONTRACTOR TO VERIFY LOCATION OF EXISTING WATER MAIN A MINIMUM OF 300' AHEAD OF NEW LINE INSTALLATION AT ALL TE-IN LOCATIONS OR CROSSINGS, AND NOTIFY GVSUD INSPECTOR.
10. CONTRACTOR MUST PROTECT ALL UNATTENDED TRENCHES AND EXCAVATIONS WITH APPROVED WARNING DEVICES APPROXIMATE MEANS.
11. CONTRACTOR TO UTILIZE APPROVED WATER LINE STOPS AND/OR MUELLER INSERTION-VALVES TO MINIMIZE WATER OUTAGES AS REQUIRED BY GVSUD DURING CONSTRUCTION.
12. DISINFECTION SHALL BE BY MACHINE CHLORINATION.
13. MOISTURE DENSITY COMPACTION TESTING FREQUENCY- WATER MAIN TRENCHES REQUIRED EVERY 300 LF FOR EACH VERTICAL FOOT OF UNCOMPACTED BACKFILL. SERVICES RANDOMLY SELECTED AS REQUIRED BY GVSUD INSPECTOR.
14. ALL TESTING AND TEST REPORTS SHALL BE COORDINATED WITH GVSUD INSPECTOR BY THE CONTRACTOR.
15. ALL DUCTILE IRON PIPE TO BE AMERICAN, ZINC COATED, AWWA/ANSI C-151.

AS PART OF THE EASEMENT COORDINATION, PROPERTY OWNERS WERE NOTIFIED REGARDING OPEN CUT THROUGH PRIVATE DRIVEWAYS.



THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.





### LEGEND

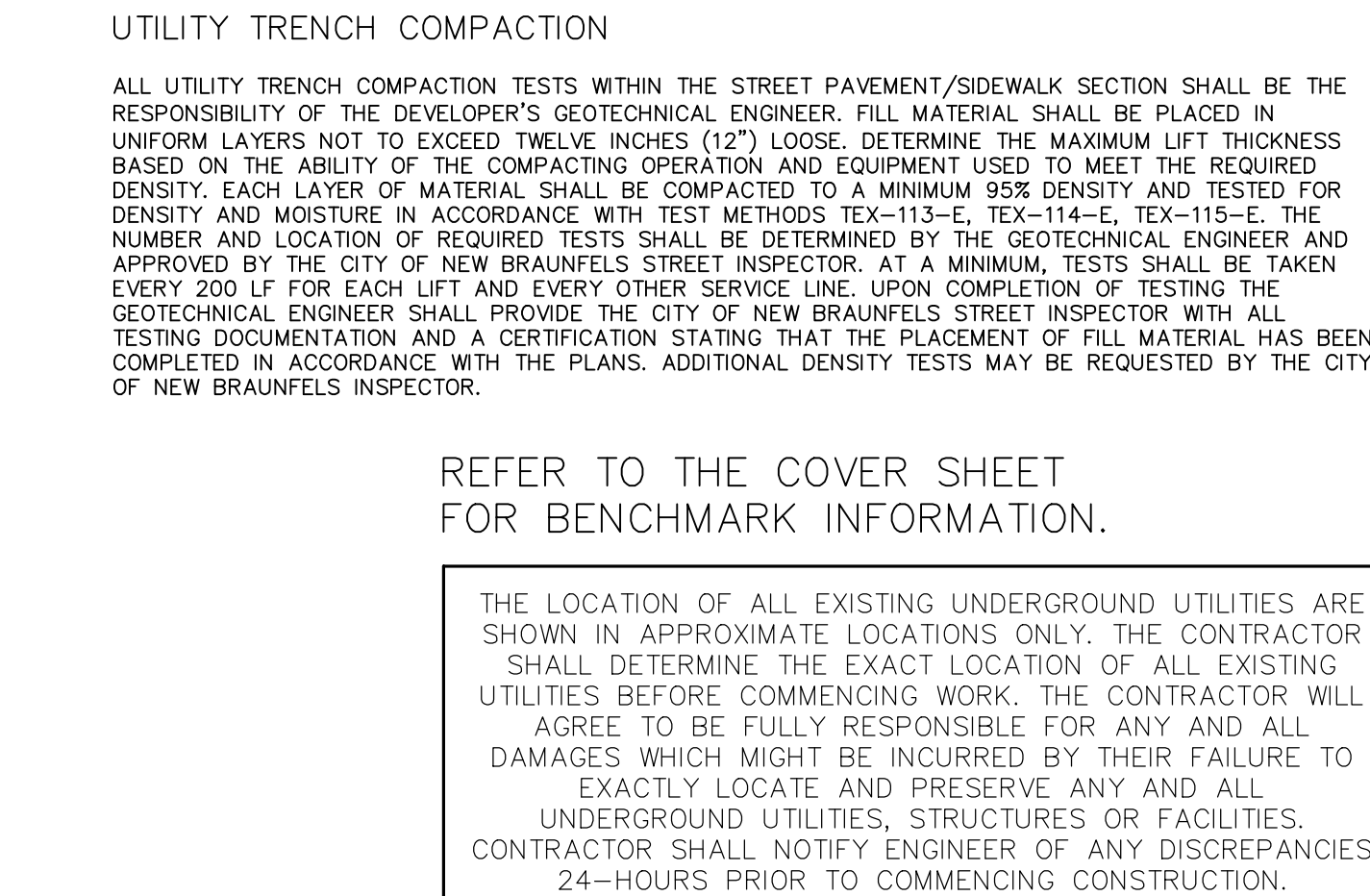
— 700 —	EXISTING CONTOURS
— 700 —	PROPOSED CONTOURS
B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
— W —	EXISTING WATER LINE
— W —	PROPOSED WATER LINE
W —	PROPOSED WATER SERVICE
	UTILITY CROSSING
	DRIVEWAY TO BE OPEN-CUT
	100-YEAR FLOODPLAIN

AS PART OF THE EASEMENT COORDINATION, PROPERTY OWNERS WERE NOTIFIED REGARDING OPEN CUT THROUGH PRIVATE DRIVEWAYS.

ALL UTILITY TRENCH COMPACTION TESTS WITHIN THE STREET PAVEMENT/SIDEWALK SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEOTECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE INCHES (12") THICK. DETERMINE THE MAXIMUM FILL THICKNESS BASED ON THE ABILITY OF THE COMPACTING OPERATOR AND EQUIPMENT USED TO MEET THE REQUIRED DENSITY. EACH LAYER SHALL BE COMPACTED TO THE REQUIRED DENSITY. THE REQUIRED DENSITY SHALL BE FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS T-153-E, T-154-E, T-155-E. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRUNSWICK. TESTING SHALL BE CONDUCTED AT A MINIMUM OF ONE TAKEN EVERY 200 LF FOR EACH LOT AND EVERY OTHER SERVICE LINE. UPON COMPLETION OF TESTING THE GEOTECHNICAL ENGINEER SHALL PROVIDE THE CITY OF NEW BRUNSWICK STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN PROPERLY ACQUIRED AND COMPLETED. THE PLANS, ADDITIONAL DENSITY TESTS WILL BE REQUESTED BY THE CITY OF NEW BRUNSWICK INSPECTOR.

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.

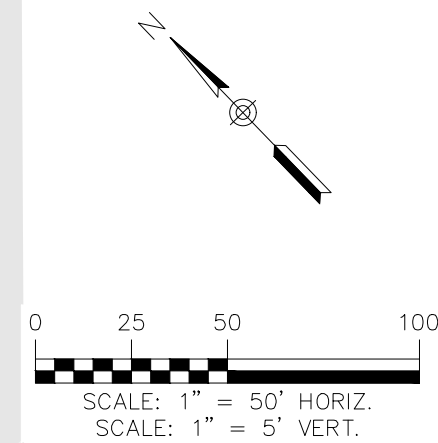















THIS PROJECT INCLUDES UTILITY INSTALLATIONS GREATER THAN FIVE FEET IN DEPTH LOCATED IN PUBLIC RIGHT-OF-WAY OR EASEMENTS. DEEP TRENCHES POSE COMPACTION TESTING AND CONSTRUCTION CHALLENGES FOR TESTING AND COMPACTION. A UTILITY COMPACTION PLAN WILL BE REQUIRED AND MUST BE SUBMITTED FOR APPROVAL PRIOR TO UTILITY INSTALLATION.

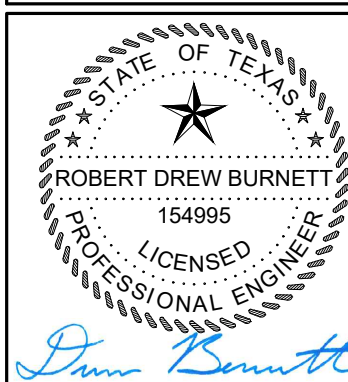
AS PART OF THE EASEMENT COORDINATION, PROPERTY OWNERS WERE NOTIFIED REGARDING OPEN CUT THROUGH PRIVATE DRIVWAYS.

- 1. ALL UTILITIES TO BE CONSTRUCTED PRIOR TO THE STREETS.
- 2. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS OR DRIVEWAYS.
- 3. ALL WATER SERVICES ARE TO BE 1-INCH SERVICES AND METERS LOCATED 2-FEET FROM THE PROPERTY LINE.
- 4. ALL DIMENSIONS ARE FROM FACE OF CURB.
- 5. REFER TO COVER SHEET FOR BENCHMARK INFORMATION.
- 6. FIRE HYDRANTS ARE TO BE INSTALLED OUTSIDE OF THE SIDEWALK AND NO GREATER THAN 9 FEET FROM THE BACK OF CURB.
- 7. CONTRACTOR TO COORDINATE WITH GVSUD ON TIMING OF TIE-INS AND ABANDONMENT.
- 8. CONTRACTOR TO CURB CUT Y/S FOR ADJACENT VALVES AND Y/S FOR ADJACENT METER BOXES.
- 9. CONTRACTOR TO NOTIFY LOCATION OF EXISTING WATER MAIN A MINIMUM OF 300 LF AHEAD OF NEW MAIN INSTALLATION AT ALL TIE-IN LOCATIONS OR CROSSINGS, AND NOTIFY GVSUD INSPECTOR.
- 10. CONTRACTOR MUST PROTECT ALL UNATTENDED TRENCHES AND EXCAVATIONS WITH TEMPORARY OR OTHER APPROVED MEANS.
- 11. CONTRACTOR TO UTILITY APPROVED WATER LINE STOPS AND/OR MUELLER INSERTION-VALVES TO MINIMIZE WATER OUTAGES AS REQUIRED BY GVSUD DURING CONSTRUCTION.
- 12. DISINFECTION SHALL BE BY MACHINE CHLORINATION.
- 13. MOISTURE DENSITY COMPACTION TESTING FREQUENCY- WATER MAIN TRENCHES REQUIRED EVERY 300 LF FOR EACH VERTICAL FOOT OF COMPLETED BACKFILL. SERVICES RANDOMLY SELECTED AS REQUIRED BY GVSUD INSPECTOR.
- 14. ALL TESTING AND TEST REPORTS SHALL BE COORDINATED WITH GVSUD INSPECTOR BY THE CONTRACTOR.
- 15. ALL DUCTILE IRON PIPE TO BE AMERICAN, ZINC COATED, ANNE/ANSI C-151.



- |   | <u>LEGEND</u>                 |
|---|-------------------------------|
|    | EXISTING CONTOURS             |
|  | PROPOSED CONTOURS             |
|  | B.L.<br>BUILDING SETBACK LINE |
|  | U.E.<br>UTILITY EASEMENT      |
|  | D.E.<br>DRAINAGE EASEMENT     |
|  | EXISTING WATER LINE           |
|  | PROPOSED WATER LINE           |
|  | PROPOSED WATER SERVICE        |
|  | UTILITY CROSSING              |
|  | DRIVEWAY TO BE OPEN-CUT       |
|  | 100-YEAR FLOODPLAIN           |

290 S. CASTELL AVE., STE. 100  
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TBPELS FIRM F-10961  
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01/02/2026 00

**UNION WINE WATER LINE  
PLAN & PROFILE (4 OF 4)**

COLINA RANCH WEST WATER IMPROVEMENT  
NEW BRAUNFELS, TEXAS

[illegible]

DATE: DECEMBER 2025

DRAWN BY: LB

DESIGNED BY: **RDB**

REVIEWED BY:

HMT PROJECT NO.:

337.115

SHEET

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## C2.05







NATURAL GROUND

TRENCH WIDTH

TOP SOIL SEE NOTE 3

EXCAVATION MAY BE WIDENED ABOVE PIPE ZONE AT CONTRACTOR'S OPTION

ORDINARY BACKFILL COMPACTED TO 90% STANDARD PROCTOR DENSITY

EXISTING VISTA RIDGE LINE

VARIES

2'-0" MIN.

PIPE O.D.

PIPE 0.7

PROPOSED UTILITY

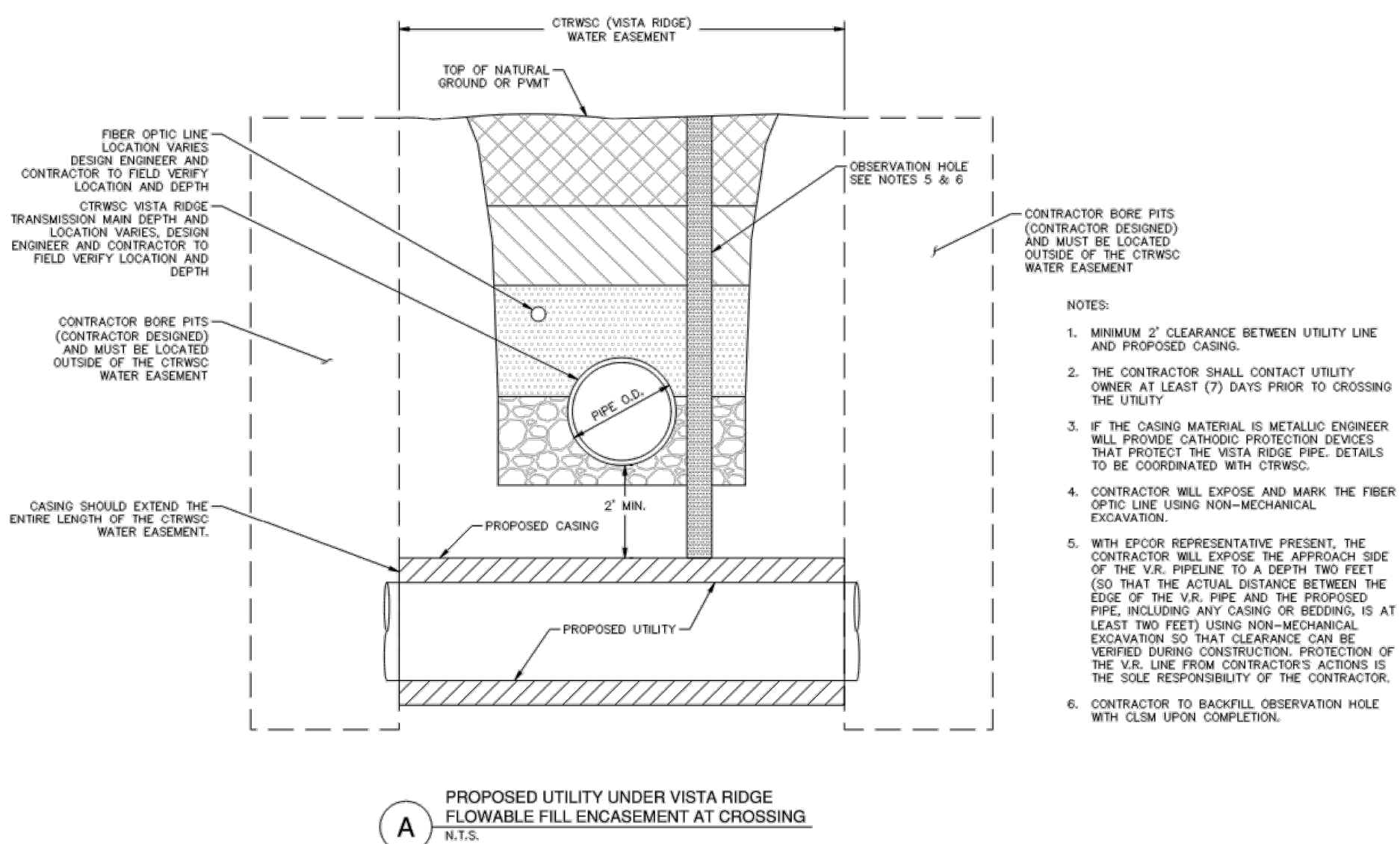
FLOWABLE FILL BACKFILL UP TO SPRINGLINE OF VISTA RIDGE LINE

1.5'

1.5'

NOTES:

1. MINIMUM 2' CLEARANCE BETWEEN UTILITY LINE AND PROPOSED PIPELINE.
2. THE CONTRACTOR SHALL CONTACT UTILITY OWNER AT LEAST (7) DAYS PRIOR TO CROSSING THE UTILITY.
3. RESTORE TOP SOIL TO EXISTING DEPTH.

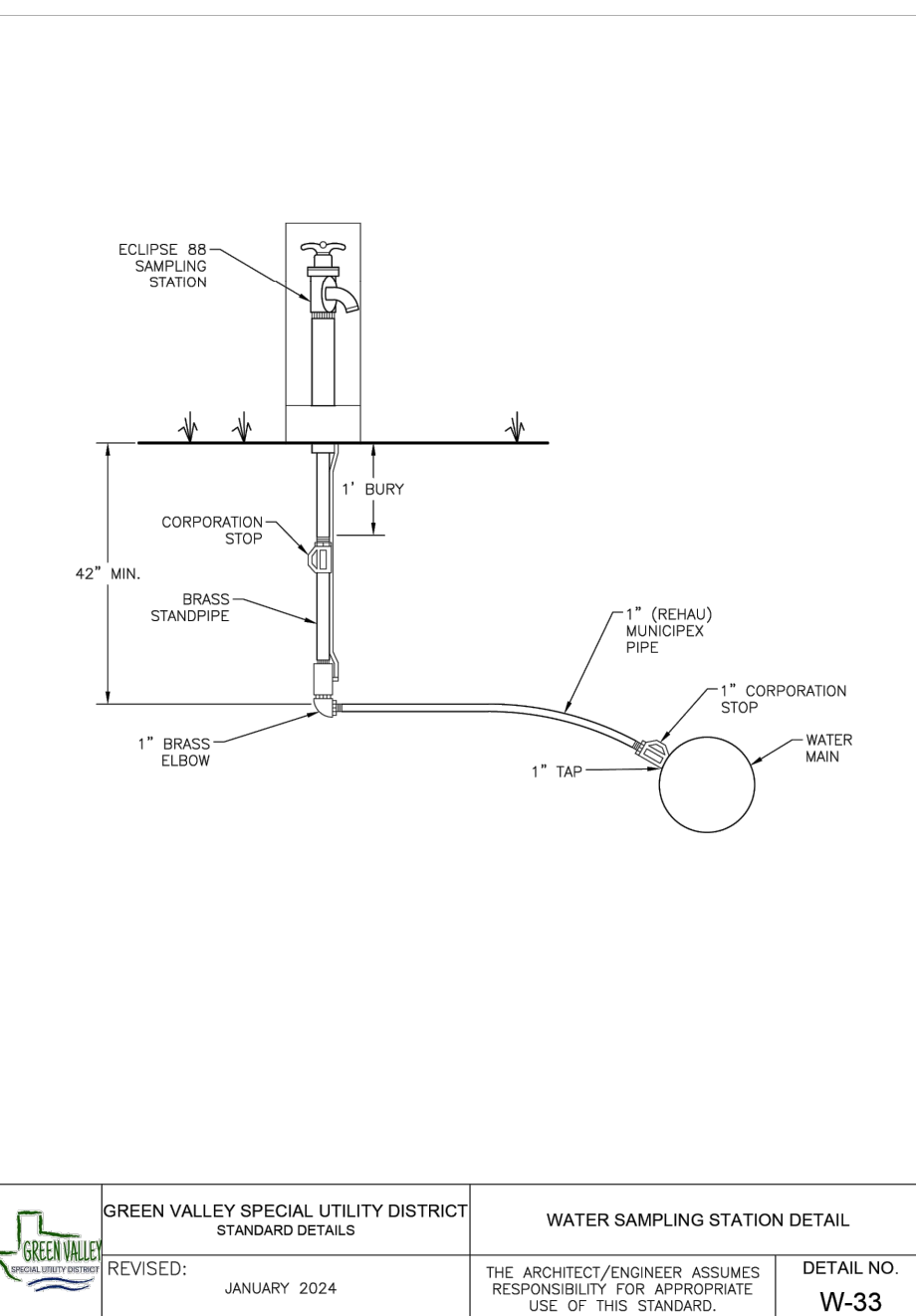
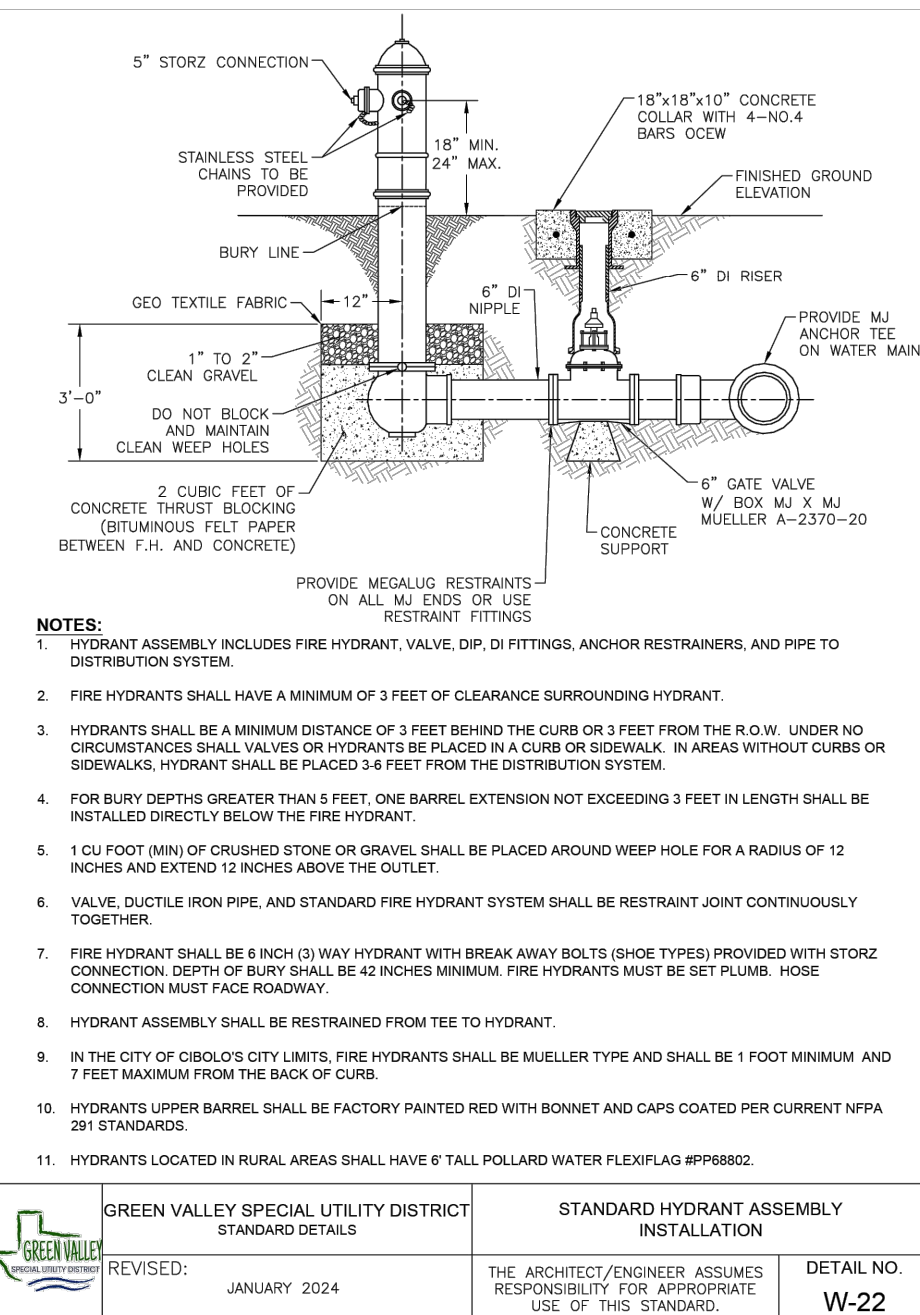


• THE CONTRACTOR IS TO SUPPLY WORK PLAN FOR CROSSING UNDER VISTA RIDGE PIPE AND NOTIFICATION PER ENCROACHMENT AGREEMENT BEFORE COMMENCING WORK WITHIN OR OVER VISTA RIDGE EASEMENT.

- THE DESIGN ENGINEER IS TO FIELD VERIFY FIBER OPTIC AND WATER LINE AT LOCATIONS WHERE PROPOSED INFRASTRUCTURE CROSSES THE VR EASEMENT.
- NO MECHANICAL EXCAVATION WITHIN 10' OF THE VR WATERLINE AND FIBER OPTIC LINE.
- PROVIDE PLAN AND PROFILE FOR ALL UTILITIES (DRY AND WET), ROADWAYS, DRAINAGE SWALES, OR OTHER IMPROVEMENTS ENCRoACHING WITHIN THE VISTA RIDGE EASEMENT.
- FOR CROSSING UNDER THE VR PIPELINE, TRENCHLESS METHODS (WITH CASING) WILL BE REQUIRED.
- FOR CROSSING OVER THE VR PIPELINE, THE CROSSING SHALL BE 10 FEET ABOVE OR BELOW THE VR PIPELINE. THE PROPOSED UTILITY WILL MAINTAIN A MINIMUM 2-FOOT CLEARANCE.
- SEE EXHIBIT A FOR EXAMPLES OF CROSSING BY OPEN-CUT METHODS OVER AND UNDER THE VISTA RIDGE LINE.
- NO STRUCTURES ARE ALLOWED WITHIN THE VR EASEMENT.
- ALL GRADE CHANGES WITHIN EASEMENT MUST BE SHOWN ON PLAN AND PROFILE. THIS INCLUDES CHANGES TO THE GRADE FROM ROADS, SIDEWALKS, DITCHES, ETC. TRAFFIC LOADS MAY REQUIRE DESIGN ENGINEER'S CALCULATIONS THAT VERIFY LOADS WILL NOT ADVERSELY AFFECT THE VR PIPELINE. THE VR PIPELINE IS DESIGNED TO HANDLE HS-20 LOADING WITH UP TO 10 FEET OF COVER. A MINIMUM OF 5 FEET OF COVER IS REQUIRED OVER THE VR PIPE INCLUSIVE OF PAVEMENT THICKNESS.
- MUST OBSERVE ALL TERMS AND CONDITIONS OF THE CTRWSC EASEMENT. PLEASE CONTACT EPOR FOR EASEMENT INFORMATION.

1. THE CONTRACTOR TO SUBMIT A WORK PLAN FOR CROSSING THE VISTA RIDGE PIPELINE AND NOTIFICATION PER ENCROACHMENT AGREEMENT BEFORE COMMENCING WORK WITHIN OR OVER VISTA RIDGE EASEMENT. THE WORK PLAN WILL PROVIDE DETAILS ON CONSTRUCTION METHODS, PIPE PROTECTION, RESTORATION, AND COORDINATION WITH CTRWSC. THE WORK PLAN REQUIRE WRITTEN APPROVAL BY CTRWSC 14 DAYS BEFORE WORKING WITHIN OR CROSSING THE VISTA RIDGE EASEMENT.
2. THE WORK PLAN MUST PROVIDE A CROSSING PLAN THAT CLEARLY SHOWS DESIGNATED AREAS WHERE HEAVY EQUIPMENT WILL CROSS OVER THE VISTA RIDGE EASEMENT AND PROVIDE DETAILS FOR PIPELINE PROTECTION INCLUDING THE ASSOCIATED FIBER OPTIC AND CATHODIC PROTECTION INFRASTRUCTURE. THE CONTRACTOR SHALL PROVIDE CLEARLY MARKED CROSSING LOCATIONS IN THE FIELD USING CONSTRUCTION FENCE OR SIMILAR MATERIALS.
3. NO MECHANICAL EXCAVATION WITHIN TEN FEET (10') OF THE CENTERLINE OF THE VISTA RIDGE PIPELINE UNLESS APPROVED IN WRITING BY CTRWSC. ANY AGREEMENT SHOULD BE PART OF THE WORK PLAN PROVIDED BY THE CONTRACTOR.
4. CTRWSC WILL DESIGNATE A REPRESENTATIVE FOR FIELD OBSERVATION DURING ANY CROSSING OF THE VR LINE. THE CONTRACTOR WILL COORDINATE WITH CTRWSC'S DESIGNATED REPRESENTATIVE 3 BUSINESS DAYS BEFORE CROSSING THE VR PIPELINE. THE CONTRACTOR WILL MAKE ARRANGEMENTS WITH CTRWSC

1. NO TEMPORARY STOCKPILING OR STATIONING OF MATERIALS, EQUIPMENT OR FACILITIES WITHIN EASEMENT.
2. IF CROSSING OVER THE VR PIPELINE, THE CONTRACTOR WILL HAVE FIELD VERIFIED BOTH THE FIBER OPTIC LINE AND THE WATER LINE.
3. THE CONTRACTOR IS TO PROVIDE PROTECTION FROM EQUIPMENT AND TRUCKS TRAVELING OVER VISTA RIDGE PIPE WHICH MEETS OR EXCEED HS-20 LOADING CRITERIA.
4. FOR CROSSING UNDER THE VR PIPELINE, A TRENCHLESS METHOD IS REQUIRED. TRENCHLESS METHODS STILL REQUIRE AN OBSERVER TO BE ONSITE. ADDITIONALLY, CONTRACTOR WILL USE A HYDROVAC OR SIMILAR PIECE OF EQUIPMENT TO CREATE A HOLE ALONGSIDE OF THE VR PIPELINE SO THAT THE OBSERVER AND CONTRACTOR CAN WITNESS THE AUGER OR DRILL PASSING UNDER THE BOTTOM OF THE VR PIPELINE AT THE APPROPRIATE SPACING.
5. IF METALLIC PIPE SUCH AS DUCTILE IRON CROSSES THE VISTA RIDGE EASEMENT, ENGINEER WILL PROVIDE CATHODIC PROTECTION DEVICES THAT PROTECT THE VISTA RIDGE PIPE. DETAILS TO BE COORDINATED WITH CTRWSC.
6. CONTRACTOR SHALL TAKE NECESSARY PRECAUTION TO PROTECT VISTA RIDGE CATHODIC PROTECTION SYSTEM COMPONENTS AND PIPE PROTECTIVE COATING.
7. BACKFILL ACCORDING TO DETAIL XX (REFER TO AUGER FOR DETAILED XX IS THE REFERENCE NUMBER IN THE PLAN SET).



COLINA RANCH WEST WATER IMPROVEMENTS  
NEW BRAUNFELS, TEXAS

[illegible]

HMT PROJECT NO.:

**SHEET**

## C2.07