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EPC STORMWATER REVIEW COMMENTS
IN ORANGE BOXES WITH BLACK TEXT

GRANDWOOD RANCH

EL PASO COUNTY, CO

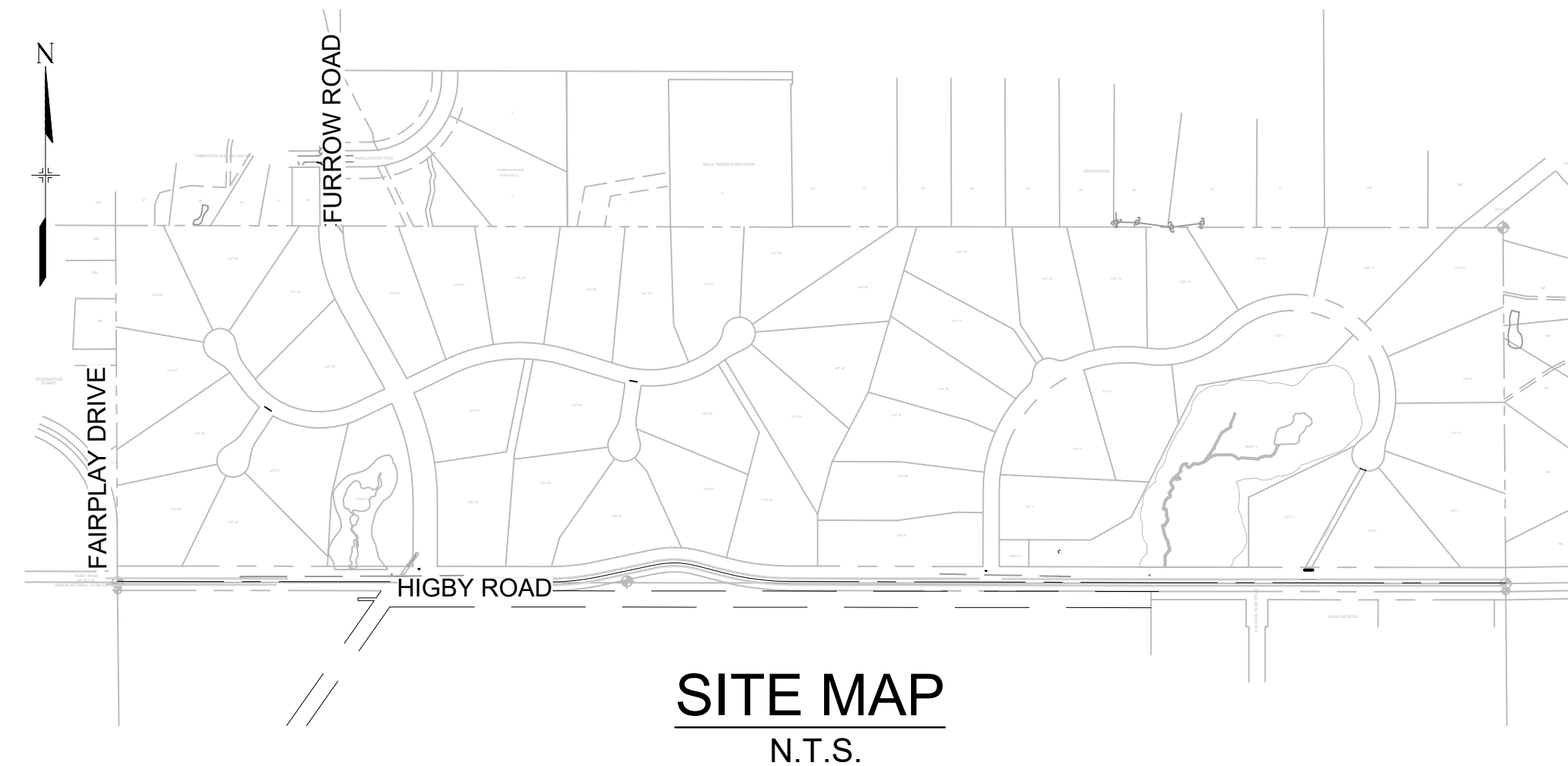
ROAD AND STORM PLANS

SEPTEMBER 2020

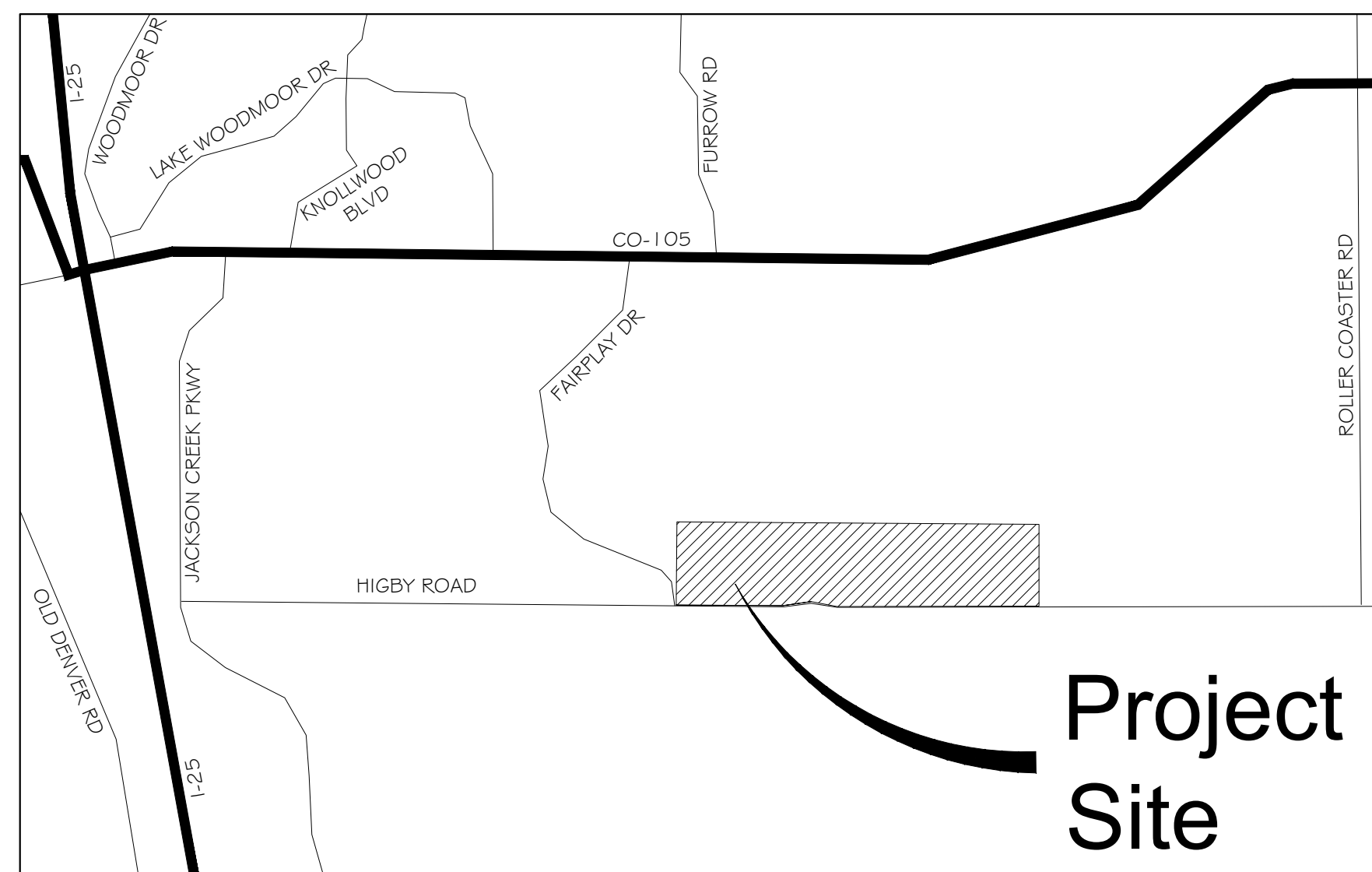
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Add governing agencies to title sheet.

Add a signage striping sheet or call out on the roadway plan and profile



Add north arrow to map.



OWNER/DEVELOPER STATEMENT:

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

WILLIAM F. HEREBIC II _____ DATE _____
 SYLVAN VISTA, INC.
 14160 GLENEAGLE DRIVE
 COLORADO SPRINGS, CO 80921

ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERION ESTABLISHED BY THE COUNTY FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DETAILED DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSE FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED DRAINAGE PLANS AND SPECIFICATIONS.

By: _____ Date: _____

NICOLE SCHANEL, PE #52434
 FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

EL PASO COUNTY:

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E. _____ DATE _____
 COUNTY ENGINEER / ECM ADMINISTRATOR

Add project number PUD #: SF 2026

REFERENCE DRAWINGS	No.	DATE	DESCRIPTION	BY
X-1105-PR-SITE	###	###	###	###
X-Title-Plan & Profile	###	###	###	###
	###	###	###	###
	###	###	###	###
	###	###	###	###
	###	###	###	###
COMPUTER FILE MANAGEMENT				
FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\TS01.dwg				
CTB FILE: _____				
PLOT DATE: October 2, 2020 9:05:52 AM				
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE				

BENCHMARK
 NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:

A LINE THAT IS 20' NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS *LWA PLS 28658"

OWNER:
 SYLVAN VISTA, INC.
 WILLIAM F. HEREBIC II, MANAGER
 14160 GLENEAGLE DRIVE,
 COLORADO SPRINGS, CO 80921

PREPARED BY:



SEAL
PRELIMINARY
 THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

GRANDWOOD RANCH			
EL PASO COUNTY ROAD AND STORM PLANS			
TITLE SHEET			
DESIGNED BY: CAP	SCALE	DATE ISSUED: SEPTEMBER 2020	DRAWING No. TS01
DRAWN BY: CAP	HORIZ. N/A		
CHECKED BY: NMS	VERT. N/A	SHEET 1 OF 38	



Know what's below. Call before you dig.

GENERAL NOTES:

- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL, REVISED 12-13-2016 AND CDOT STANDARD SPECIFICATIONS, LATEST REVISION.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE STANDARDS AND REGULATIONS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
3. NO FIELD CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE FIELD ENGINEER.
4. SUBMITTALS SHALL BE MADE FOR ALL MATERIALS TO BE INCORPORATED INTO THE PROJECT.
5. UTILITY LINES AS SHOWN ON THE PLAN SHEETS ARE PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION AND PROTECTION OF ALL UTILITIES IN PLACE.
6. THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 1-800-922-1987 TWO BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION OR GRADING.
7. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL UTILITY AND STRUCTURES AFFECTED BY THE WORK AND ANY DAMAGE SHALL BE REPAIRED AND RESTORED TO THE SATISFACTION OF THE RESPECTIVE UTILITY OWNER. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ALL UTILITY RELOCATIONS AS NECESSARY. THE COUNTY ENGINEERING INSPECTIONS, UTILITY DEPARTMENTS AND UTILITY OWNERS SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK WHERE THESE UTILITIES MAY BE AFFECTED.
8. IN SOME OF THE PROPOSED AREAS OF CONSTRUCTION EXISTING UNDERGROUND TELEPHONE, FIBER AND CABLE TELEVISION FACILITIES MAY BE LOCATED IN CLOSE PROXIMITY TO THE WORK. THE CONTRACTOR MAY, IF NECESSARY, TEMPORARILY DISPLACE THE CABLES DURING CONSTRUCTION AND REINSTALL THEM IN ACCORDANCE WITH THE APPROPRIATE TELEPHONE, FIBER OR CABLE COMPANY'S GUIDELINES. COORDINATION WITH BOTH THE TELEPHONE AND CABLE TELEVISION COMPANY IS REQUIRED TO BE DONE BY THE CONTRACTOR.
9. THE CONTRACTOR SHALL OBTAIN AN APPROVED TRAFFIC CONTROL PLAN PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
10. THE PHYSICAL FEATURES WITHIN THE LIMITS OF THE PROJECT HAVE BEEN SHOWN BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE FEATURES SHOWN. THE CONTRACTOR SHALL REVIEW AND VERIFY EXISTING PHYSICAL FEATURES AND ELEVATIONS THEMSELVES OF THE CONDITIONS TO BE ENCOUNTERED DURING THE CONSTRUCTION.
11. THE CONTRACTOR SHALL LIMIT ALL WORK AND STORAGE AREAS TO THE PUBLIC RIGHT-OF-WAYS AND EASEMENTS. USE OF ANY PRIVATE AREAS FOR THIS PROJECT BY THE CONTRACTOR MUST BE APPROVED IN WRITING BY THE PROPERTY OWNER WITH A COPY OF THIS APPROVAL PROVIDED TO THE FIELD ENGINEER PRIOR TO USAGE.
12. ALL CONSTRUCTION IS TO INCLUDE COMPACTION AND FINISH GRADING IN THE UNIT PRICE RELATED WORK ITEM.
13. ALL WORK SHALL BE DONE TO THE LINES, GRADES, SECTIONS, AND ELEVATIONS SHOWN ON THE PLANS UNLESS OTHERWISE NOTED OR APPROVED BY THE FIELD ENGINEER.
14. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY EL PASO COUNTY AND THE FIELD ENGINEER.
15. THE FIELD ENGINEER SHALL BE NOTIFIED WITHIN 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
16. PAYMENT, DIMENSIONS AND RADII ARE SHOWN TO THE LIP OF CURB UNLESS OTHERWISE NOTED.
17. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPE AS SHOWN ON THE PLANS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR AT HIS/HER OWN EXPENSE.
18. THE CONTRACTOR SHALL CLOSELY MONITOR ACCESS FOR HEAVY CONSTRUCTION EQUIPMENT THROUGH THE PROJECT AREAS.
19. WHERE PAVEMENT IS TO ABUT EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE REMOVED TO A NEAT VERTICAL LINE BY FULL DEPTH SAWING. SAWING WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO "REMOVAL OF ASPHALT PAVEMENT". THE CONTRACTOR WILL BE REQUIRED TO PAINT THE EDGE OF CUT PAVEMENT WITH DILUTED EMULSIFIED ASPHALT (SLOW SETTING) PRIOR TO PAVING OPERATIONS. VERTICAL EDGES SHALL NOT REMAIN OVERNIGHT. DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF ONE PART EMULSIFIED ASPHALT AND ONE PART WATER.
20. WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. LOCATIONS SHALL BE AS ORDERED. THE COST OF WATER SHALL BE INCIDENTAL TO OTHER BID ITEMS.
21. THE PHYSICAL FEATURES REQUIRING REMOVAL OR OBLITERATION WITHIN THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF OFF-SITE.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING ANY MONUMENT, RANGE POINTS, TIES, BENCHMARKS AND/OR SURVEY CONTROL POINTS WHICH MAY BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENT BY A REGISTERED PROFESSIONAL LAND SURVEYOR AUTHORIZED TO PRACTICE LAND SURVEYING IN THE STATE OF COLORADO.
23. THE CONTRACTOR SHALL HAVE A COPY OF ALL APPLICABLE STANDARDS AND PLANS ON SITE FOR THE DURATION OF THE PROJECT.
24. THE CONTRACTOR SHALL NOT STOCKPILE MATERIAL WITHIN 10 FEET OF THE EDGE OF TRAVELED WAY.
25. ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE SUCCEEDING LAYER IS PLACED.
26. BEFORE PLACEMENT OF THE TACK COAT, THE CONTRACTOR SHALL CLEAN THE PRESENT ROADWAY AS DIRECTED. CLEANING WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE PROJECT.
27. A TACK COAT OF EMULSIFIED ASPHALT (SLOW SETTING) IS TO BE APPLIED BETWEEN PAVEMENT COURSES TO IMPROVE BOND. DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF 1 PART EMULSIFIED ASPHALT AND 1 PART WATER.

GENERAL NOTES cont.:

- 28. THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN TEMPORARY TRAFFIC CONTROL DEVICES NECESSARY THROUGHOUT THE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL CONTACT TRAFFIC ENGINEERING FORTY-EIGHT (48) HOURS IN ADVANCE FOR ANY REQUIRED MODIFICATION OF TRAFFIC SIGNALS WITHIN CONSTRUCTION AREAS AS NECESSARY TO MAINTAIN SAFE OPERATIONS.
29. ANY DISCREPANCY WITHIN THESE PLANS SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND WORK SHALL STOP UNTIL THE DISCREPANCY IS DISCUSSED AND DECISIONS/AGREEMENTS HAVE BEEN MADE.

EARTHWORK:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LEGAL DISPOSAL OF ANY EXCESS SOIL, DEBRIS AND WASTE MATERIAL OFF OF THE PROJECT SITE.
2. ANY MATERIAL NOT SUITABLE FOR BACKFILL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF, BY AND AT THE EXPENSE OF THE CONTRACTOR.
3. ANY SOIL LYING BELOW THE SUBGRADE ELEVATION WHICH IS DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL IN ACCORDANCE WITH THE SPECIFICATION REQUIREMENTS.

BENCHMARK AND SURVEY CONTROL:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKING OF BOTH HORIZONTAL AND VERTICAL LAYOUT ON THIS PROJECT. COORDINATES ARE REFERENCED IN THE COORDINATE LIST SHOWN ON THESE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER FOR INTERPRETATION AND INFORMATION IN STAKING OF THE PROJECT FOR CONSTRUCTION.
2. PRIOR TO PROJECT COMPLETION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY PROPERTY MONUMENTATION DISTURBED OR REMOVED BY CONSTRUCTION OPERATIONS. THIS WORK SHALL BE PERFORMED BY A LAND SURVEYOR LICENSED IN THE STATE OF COLORADO. PROPERTY CORNERS WHICH FALL WITHIN NEW CONCRETE FLATWORK SHALL BE DURABLE AND SET FLUSH. THIS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

TRAFFIC GENERAL NOTES:

- 1. THE CONTRACTOR SHALL PREPARE A DETAILED TRAFFIC CONTROL PLAN, SUBMIT TO EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS FOR APPROVAL, AND OBTAIN APPROPRIATE PERMITS IN ACCORDANCE WITH THE M.U.T.C.D.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL, INCLUDING PEDESTRIAN DETOURS. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, AND MAINTAINING THE TEMPORARY TRAFFIC CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.
3. APPROVAL OF THESE PLANS BY THE COUNTY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A PERMIT HAS BEEN ISSUED.
4. THE APPROVAL OF THESE PLANS OR ISSUANCE OF A PERMIT BY EL PASO COUNTY DOES NOT AUTHORIZE THE OWNER OR CONTRACTOR TO VIOLATE ANY FEDERAL, STATE OR CITY LAWS, ORDINANCES, REGULATIONS, OR POLICIES.
5. ALL TRAFFIC SIGNS, PAVEMENT MARKINGS, AND TRAFFIC SIGNALS SHALL MEET OR EXCEED M.U.T.C.D. STANDARDS.
6. THE CONTRACTOR SHALL NOT REMOVE ANY EXISTING SIGNS, PAVEMENT MARKINGS, OR TRAFFIC SIGNALS DURING THE PROJECT WITHOUT SIGNED AUTHORIZATION OF THE EL PASO COUNTY INSPECTOR ASSIGNED TO THE PROJECT.

CONSTRUCTION NOTES:

- 1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
b. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
d. CDOT M & S STANDARDS
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.

CONSTRUCTION NOTES con't.:

- 6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

SIGNING & STRIPING NOTES :

- 1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL NOT BE VISIBLE UNDER DAY OR NIGHT CONDITIONS. AT NO TIME WILL IT BE ACCEPTABLE TO PAINT OVER EXISTING PAVEMENT MARKINGS.
3. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT.
4. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
5. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
6. ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
7. ALL STREET NAME SIGNS SHALL HAVE "D" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND NON-LOCAL ROADWAY SIGNS BEING 6" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH A WHITE BORDER THAT IS NOT RECESSED. MULTI-LANE ROADWAYS WITH SPEED LIMITS OF 40 MPH OR HIGHER SHALL HAVE 8" UPPER-LOWER CASE LETTERING ON 18" BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE 2012 MUTCD "STANDARD HIGHWAY SIGNS"
8. ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
9. ALL LOCAL RESIDENTIAL STREET SIGNS SHALL BE MOUNTED ON A 1.75" X 1.75" SQUARE TUBE SIGN POST AND STUB POST BASE. FOR OTHER APPLICATIONS, REFER TO THE CDOT STANDARD S-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SLIPBASE DESIGN.
10. ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
11. ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PREFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDOT STANDARD S-627-1. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDOT S-627-1.
12. ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15MIL THICKNESS EPOXY PAINT. ALL NON-LOCAL RESIDENTIAL ROADWAYS SHALL INCLUDE BOTH RIGHT AND LEFT EDGE LINE STRIPING AND ANY ADDITIONAL STRIPING AS REQUIRED BY CDOT S-627-1.
13. THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
14. THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS (DPW) PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.

ABBREVIATIONS:

Table listing abbreviations such as AD (ALGEBRAIC DIFFERENCE), ASSY (ASSEMBLY), ASTM (AMERICAN SOCIETY OF TESTING AND MATERIALS), etc.

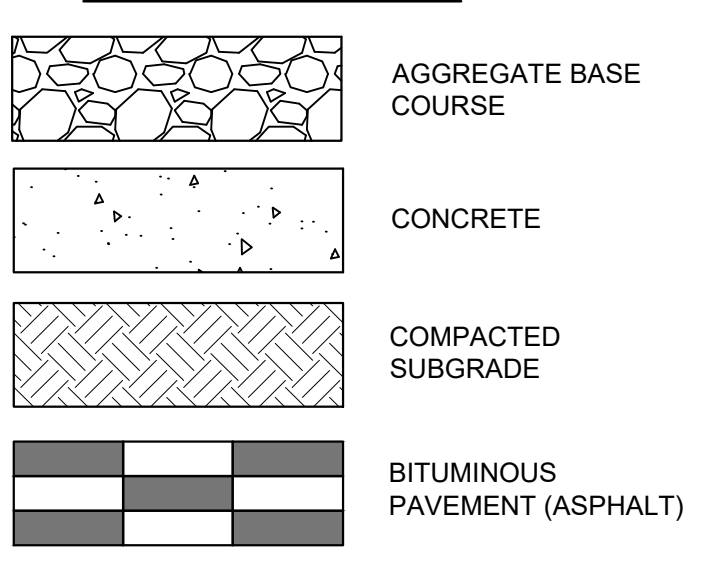
ABBREVIATIONS cont.:

Table listing abbreviations such as NC (NORMAL CROWN), NIC (NOT IN CONTRACT), NO (NUMBER), etc.

SYMBOLS

Table listing symbols for PROPOSED CENTERLINE, EXISTING PAVED ROAD, EXISTING UNDERGROUND UTILITY, etc.

MATERIALS LEGEND



REFERENCE DRAWINGS table with columns for No., DATE, DESCRIPTION, and BY. Includes COMPUTER FILE MANAGEMENT section with file name and plot date.

BENCHMARK table with columns for BENCHMARK, ELEVATION, and DATE.

OWNER and PREPARED BY information, including Sylvania Vista, Inc. and Matrix logo.

SEAL and PRELIMINARY stamp area with text: PRELIMINARY THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE.

Project title block: GRANDWOOD RANCH, EL PASO COUNTY ROAD AND STORM PLANS, ROADWAY GENERAL NOTES, and drawing details.



Know what's below.
Call before you dig.

STANDARD PERMANENT BEST MANAGEMENT PRACTICE (BMP) NOTES:

1. NO CLEARING, GRADING, EXCAVATION, FILLING, OR OTHER LAND DISTURBANCE ACTIVITIES SHALL BE PERMITTED PRIOR TO APPROVAL OF THE SITE GRADING AND EROSION CONTROL (GEC) PLAN. REFERENCE THE EL PASO COUNTY DRAINAGE CRITERIA MANUAL (DCM) VOLUME 2, CHAPTER 7 FOR MORE INFORMATION.
2. ANY LAND DISTURBANCE BY ANY OWNER, DEVELOPER, BUILDER, CONTRACTOR, OR OTHER PERSON SHALL COMPLY WITH THE POLICIES AND PROCEDURES OUTLINED IN THE COUNTY DCM, AND THE APPROVED PRELIMINARY AND FINAL GEC PLAN.
3. THIS PERMANENT BMP PLAN WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY EL PASO COUNTY IF WORK ON THE PERMANENT BMP DOES NOT COMMENCE WITHIN 12 MONTHS OF PLAN APPROVAL, OR SHOULD ANY OF THE FOLLOWING OCCUR: A CHANGE IN PROPERTY OWNERSHIP, A CHANGE IN THE PROPOSED DEVELOPMENT, OR CHANGES TO THE DESIGN OF THE BMP.
4. CONTACT CITY GEC INSPECTIONS, 719-385-5918, AND CITY ENGINEERING INSPECTIONS, 719-385-5977, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
5. ACCEPTANCE OF THIS PLAN DOES NOT CONSTITUTE APPROVAL TO GRADE OR CAUSE ANY DISTURBANCE WITHIN ANY UTILITY EASEMENT OR RIGHT-OF-WAY. APPROVALS TO WORK WITHIN UTILITY EASEMENTS MUST BE OBTAINED FROM THE APPROPRIATE UTILITY COMPANY. IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY UTILITY EASEMENT OF RIGHT-OF-WAY WITHOUT THE APPROPRIATE WRITTEN APPROVAL. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARD UTILITY FACILITIES. ANY CHANGES TO EXISTING UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE APPLICANT IS RESPONSIBLE FOR THE COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS.
6. A PROFESSIONAL ENGINEER (PE) CERTIFICATION THAT THE BMP HAS BEEN INSTALLED AND CONSTRUCTED IN GENERAL CONFORMANCE WITH THESE PLANS WILL BE REQUIRED ONCE THE BMP IS FULLY CONSTRUCTED. AN AS-CONSTRUCTED SURVEY MUST BE COMPLETED TO VERIFY FACILITY VOLUMES AND ELEVATIONS. THE AS-BUILT DRAWINGS MUST BE SUBMITTED ALONG WITH THE PE CERTIFICATION. A PE CERTIFICATION REQUIRES PERIODIC ON-SITE OBSERVATIONS BY THE ENGINEER OF RECORD OR A PERSON UNDER THEIR RESPONSIBLE CHARGE. COORDINATION WITH THE ENGINEER OF RECORD TO ENSURE THAT THE NECESSARY ON-SITE OBSERVATIONS ARE COMPLETED IS THE RESPONSIBILITY OF THE APPLICANT.
7. THE CONTRACTOR SHOULD CONTACT THE ENGINEER OF RECORD AND GEC INSPECTOR IMMEDIATELY SHOULD CONSTRUCTION OF THE BMP VARY IN ANY WAY FROM THE PLANS.

NRCS SOIL SURVEY FOR EL PASO COUNTY		
SOIL ID NO.	SOIL TYPE	HYDROLOGIC CLASSIFICATION
1	ALAMOSA LOAM (1%-3% SLOPES)	D
41	KETTLE GRAVELLY, LOAMY SAND (8%-40% SLOPES)	B
42	KETTLE-ROCK OUTCROP COMPLEX	B/D
71	PRING COARSE SANDY LOAM (3%-8% SLOPES)	B
93	TOMAH-CROWFOOT COMPLEX (8%-15% SLOPES)	B

PROJECT DATA

POND DF-1, POND DF-2, POND DF-3, POND DF-4

REPORT CONTAINING BMP DESIGN CALCULATIONS: PRELIMINARY DRAINAGE REPORT FOR GRANDWOOD RANCH (APPROVED XX/XX/XXXX)

PARCEL NUMBER: TAX SCHEDULE NUMBER 611900003

GEC/STORMWATER QC PLAN: SEE "GRANDWOOD RANCH FINAL GRADING & EROSION CONTROL PLANS", SEPTEMBER 2020, BY MATRIX GROUP, INC.

DESIGN

FUNCTIONAL MAINTENANCE OF BMP: GRANDWOOD RANCH HOMEOWNER ASSOCIATION, INC.

AESTHETIC MAINTENANCE OF BMP: GRANDWOOD RANCH HOMEOWNER ASSOCIATION, INC.

POND DF-1

WQCV WATER SURFACE ELEVATION: 7175.72
 EURV WATER SURFACE ELEVATION: 7176.20
 100-YR WATER SURFACE ELEVATION: 7177.86

POND DF-2

WQCV WATER SURFACE ELEVATION: 7162.84
 EURV WATER SURFACE ELEVATION: 7164.21
 100-YR WATER SURFACE ELEVATION: 7165.47

POND DF-3

WQCV WATER SURFACE ELEVATION: 7246.02
 EURV WATER SURFACE ELEVATION: 7246.53
 100-YR WATER SURFACE ELEVATION: 7248.14

POND DF-4

WQCV WATER SURFACE ELEVATION: 7296.44
 EURV WATER SURFACE ELEVATION: 7296.84
 100-YR WATER SURFACE ELEVATION: 7298.66

REFERENCE DRAWINGS	###	###	###	###
X-Title-Plan & Profile	###	###	###	###
	###	###	###	###
	###	###	###	###
	###	###	###	###
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No.	DATE	DESCRIPTION	BY	
REVISIONS				
COMPUTER FILE MANAGEMENT				
FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\DFGN01.dwg				
CTB FILE: ---				
PLOT DATE: October 2, 2020 9:06:10 AM				
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.				

BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88
BASIS OF BEARING:
A LINE THAT IS 20' NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658"

OWNER:
 SYLVAN VISTA, INC.
 WILLIAM F. HEREBIC II, MANAGER
 14160 GLENEAGLE DRIVE,
 COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

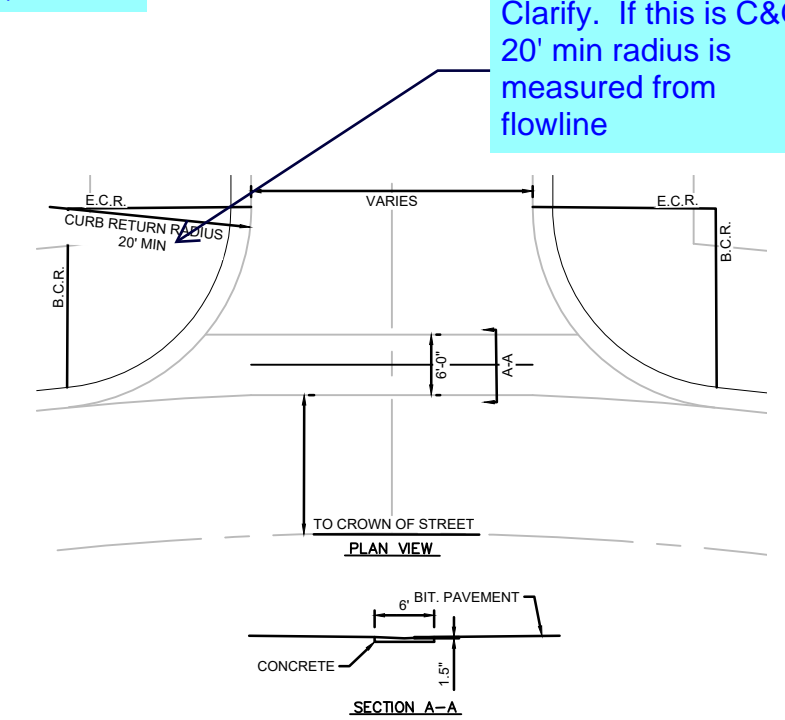
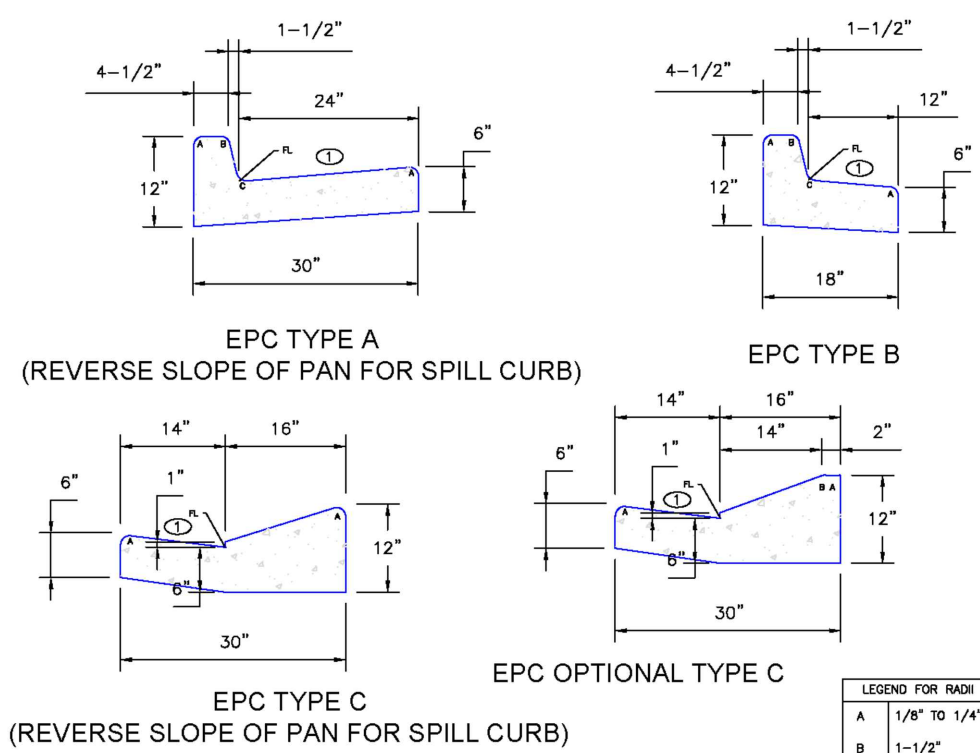
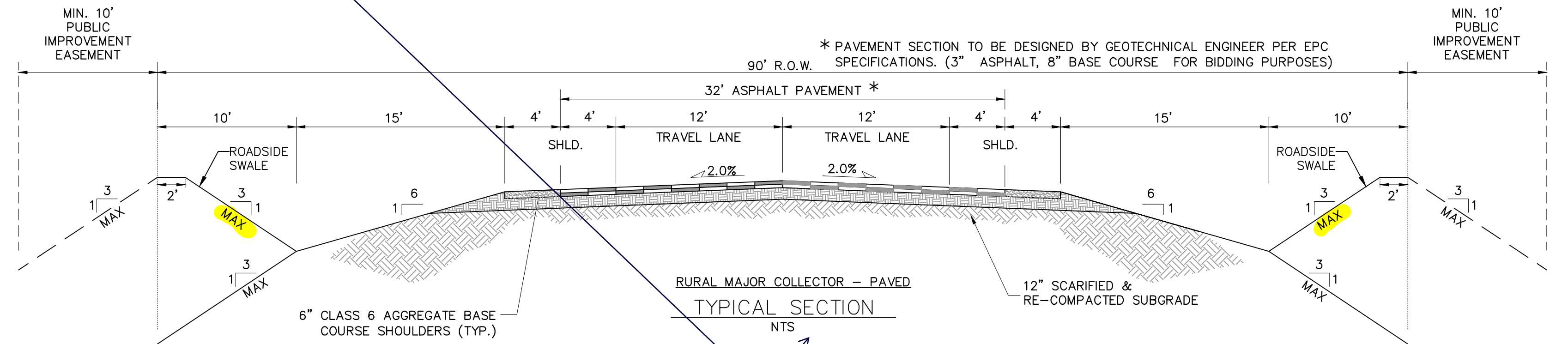
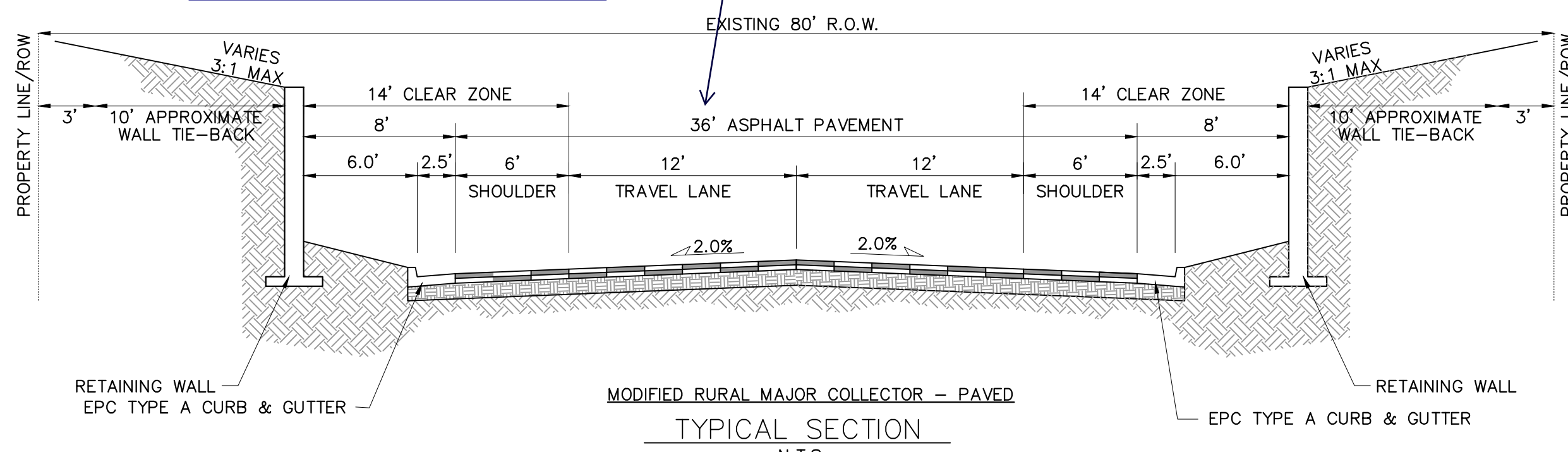
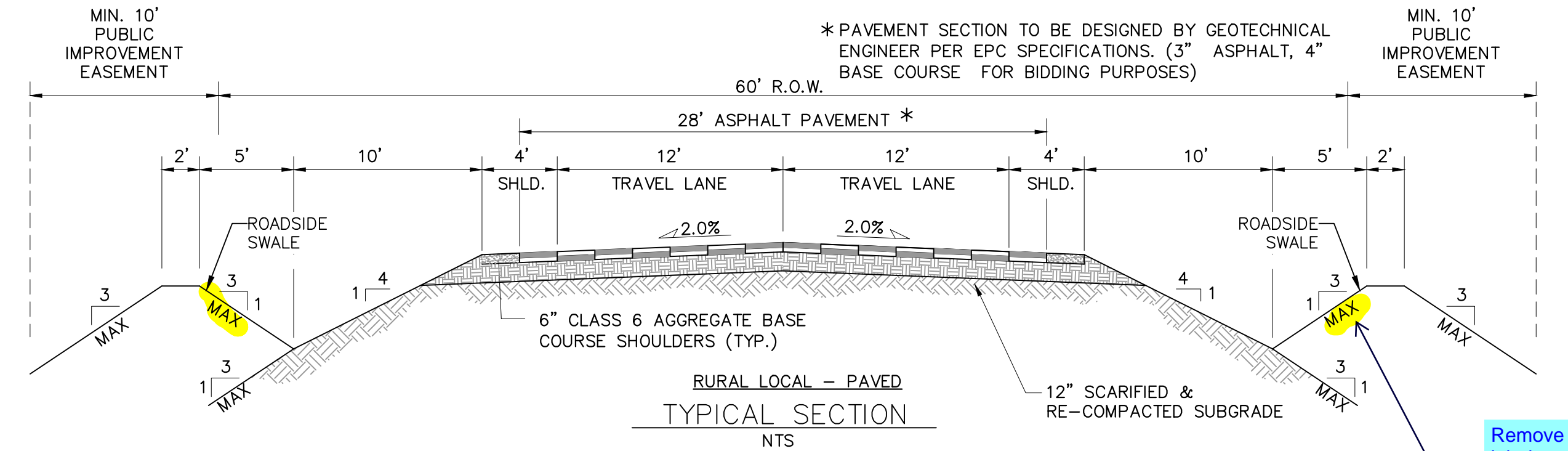
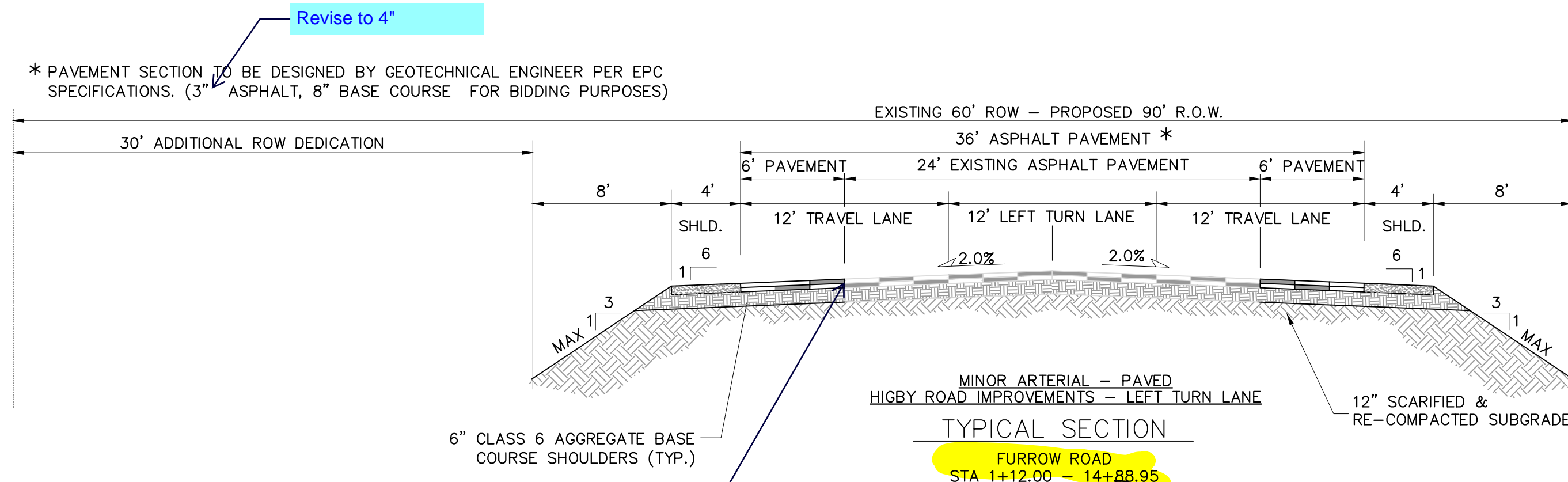
PRELIMINARY
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FOR AND ON BEHALF OF
 MATRIX DESIGN GROUP, INC.
 PROJECT No. 20.1120.003

GRANDWOOD RANCH				
EL PASO COUNTY ROAD AND STORM PLANS				
POND GENERAL NOTES				
DESIGNED BY:	CAP	SCALE	DATE ISSUED:	SEPTEMBER 2020
DRAWN BY:	CAP	HORIZ	N/A	DRAWING No.
CHECKED BY:	NMS	VERT.	N/A	3 OF 38
				GN02



Know what's below.
Call before you dig.



CD - GUTTER CROSS SLOPES SHALL BE 1/2\"/>

Revise to 4"

* PAVEMENT SECTION TO BE DESIGNED BY GEOTECHNICAL ENGINEER PER EPC SPECIFICATIONS. (3\"/>

* PAVEMENT SECTION TO BE DESIGNED BY GEOTECHNICAL ENGINEER PER EPC SPECIFICATIONS. (3\"/>

Final design is pending coordination between EPC DPW and the applicant.

Identify 4\"/>

Provide construction detail for the \"T-patch\" mill/overlay. See the Trails at Aspen Ridge Fil 1 construction plans sheet RM01-B

Move label to the Rural Major Cross section detail

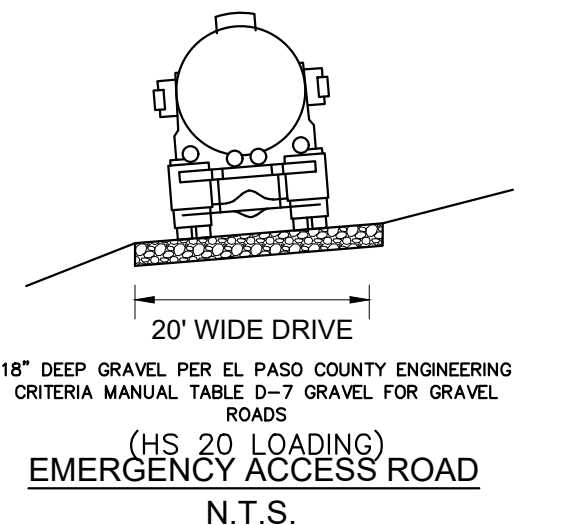
Remove the \"max\" label on the backslope (highlighted) or identify the minimum required roadside ditch depth.

Identify Furrow Road (Sta x - Sta y)

Clarify. If this is C&G, 20' min radius is measured from flowline

Reference the approved deviation request from the design standards for Rural Major Collector per the preliminary application (SP195) and list the approved design modification.

Under each road section list the street names the given cross section applies to.



No.	DATE	DESCRIPTION	BY
REVISIONS			
COMPUTER FILE MANAGEMENT			
FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\GN01.dwg			
CTB FILE: October 2, 2020 9:06:18 AM			
PLOT DATE: October 2, 2020 9:06:18 AM			
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BENCHMARK	NGS T 294 ELEVATION - 7247.10 NAVD 88
BASIS OF BEARING:	A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32\"/>

OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HERBIC II, MANAGER
14160 GLENAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

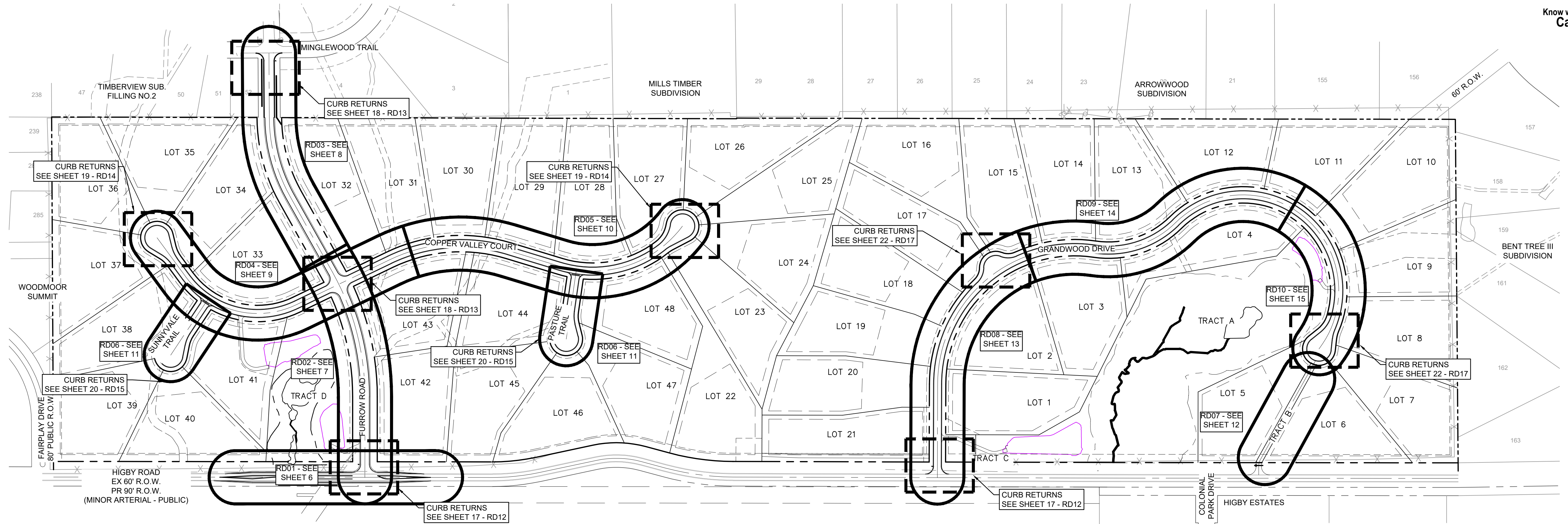
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH			
EL PASO COUNTY ROAD AND STORM PLANS			
ROADWAY GENERAL NOTES			
DESIGNED BY:	CAP	SCALE:	DATE ISSUED: SEPTEMBER 2020
DRAWN BY:	NMS	HORIZ.:	N/A
CHECKED BY:	NMS	VERT.:	N/A
			DRAWING No. TY01
			SHEET 4 OF 38



Know what's below.
Call before you dig.



Add scale block and north arrow.

REFERENCE DRAWINGS	No.	DATE	DESCRIPTION	BY
X-Title-Plan & Profile				
X-1105-PR-SITE				
COMPUTER FILE MANAGEMENT				
FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD01.dwg				
CTB FILE: ---				
PLOT DATE: October 2, 2020 9:07:09 AM				
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE				

BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

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OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

PRELIMINARY
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

EL PASO COUNTY
ROAD AND STORM PLANS

ROADWAY KEY MAP

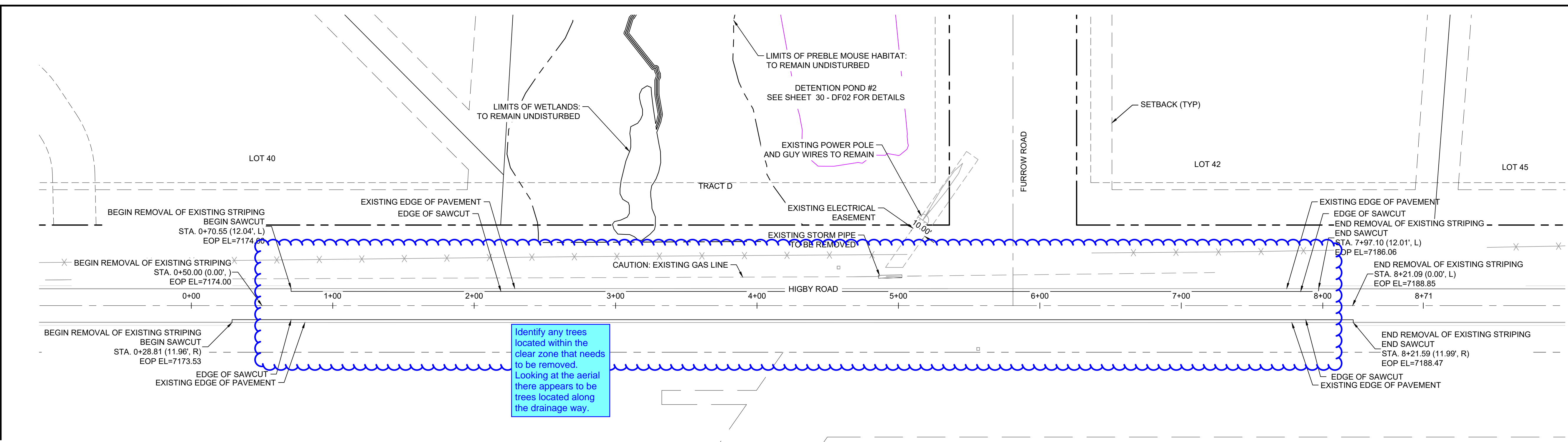
DESIGNED BY:	CAP	SCALE	DATE ISSUED:	SEPTEMBER 2020	DRAWING No.
DRAWN BY:	CAP	HORIZ.	N/A		
CHECKED BY:	NMS	VERT.	N/A	SHEET	5 OF 38

RD00



Know what's below. Call before you dig.

Please provide street classifications, design speed. Refer to ECM for all of these requirements.

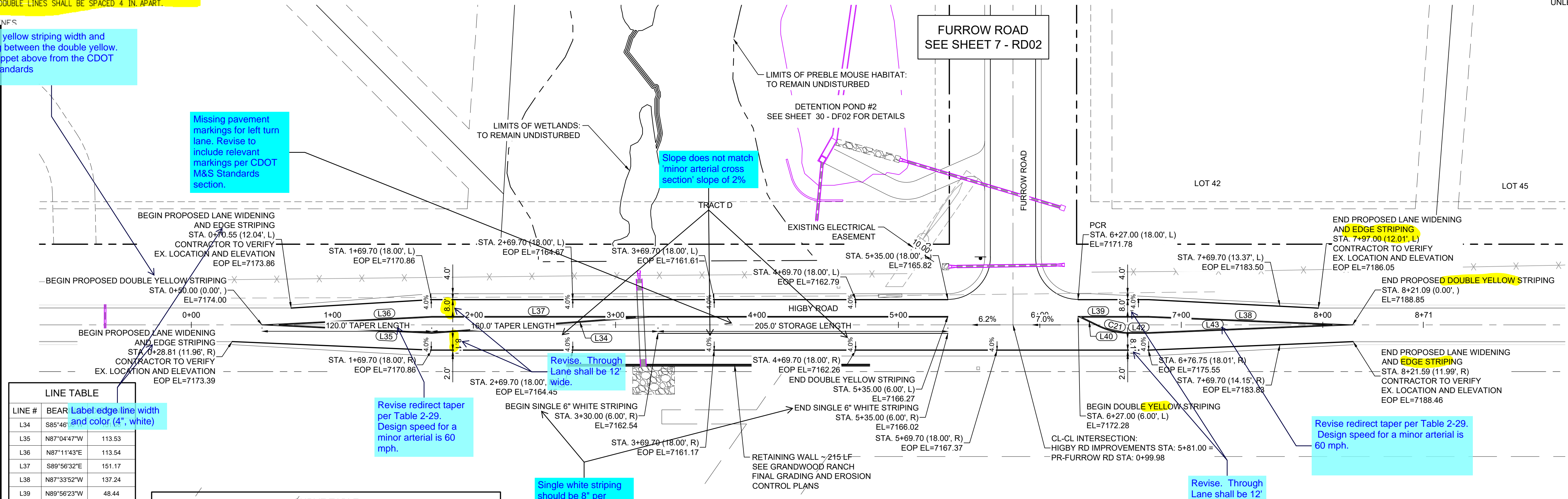


- 1. CENTER LINES
BROKEN YELLOW, 4 IN. WIDE - 10 FT. SEGMENTS WITH 30 FT. GAPS.
- SOLID YELLOW, 4 IN. WIDE.
THESE LINES SEPARATE ADJACENT-OPPOSITE DIRECTION TRAFFIC LANES. DOUBLE LINES SHALL BE SPACED 4 IN. APART.

HIGBY ROAD DEMOLITION PLAN

- NOTES:
- ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
 - SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

- 2. LANE LINES
Specify yellow striping width and spacing between the double yellow. See snippet above from the CDOT M&S standards



Missing pavement markings for left turn lane. Revise to include relevant markings per CDOT M&S Standards section.

Slope does not match 'minor arterial cross section' slope of 2%

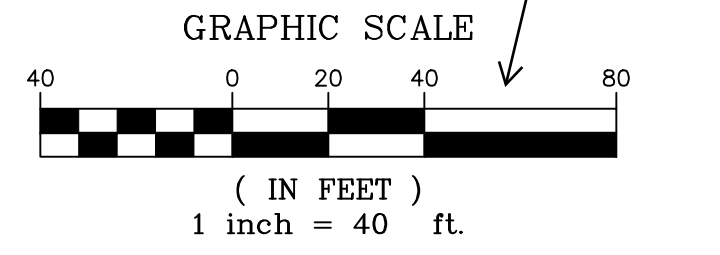
Revise all pavement markings per CDOT MS standards, pavement markings.

Scale should be minimum of 1 inch= 50 ft for subdivision work. Revise scale.

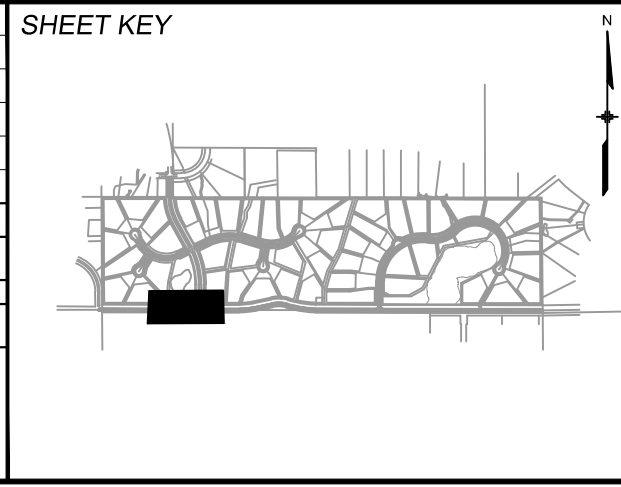
LINE #	BEAR	Label edge line width and color (4", white)
L34	S85°46'	113.53
L35	N87°0447'W	113.54
L36	N87°1143'E	151.17
L37	S89°56'32"E	137.24
L38	N87°33'52"W	48.44
L39	N89°56'23"W	14.72
L40	S64°04'28"E	13.26
L42	S89°56'23"E	137.49
L43	N87°40'45"E	

CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C21	22.44	49.70	25°51'55"	S77°00'28"E	22.25

HIGBY ROAD IMPROVEMENTS PLAN



REFERENCE DRAWINGS	NO.	DATE	DESCRIPTION	BY
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###	###	###		
###	###	###		
###	###	###		
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###	###	###		
###	###	###		



BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

BASIS OF BEARING:
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OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

GRANDWOOD RANCH
EL PASO COUNTY
ROAD AND STORM PLANS

ROADWAY PLAN AND PROFILE

DESIGNED BY:	CAP	SCALE	DATE ISSUED:	SEPTEMBER 2020	DRAWING No.
DRAWN BY:	CAP	HORIZ.	1" = 40'		
CHECKED BY:	NMS	VERT.	N/A	SHEET	6 OF 38

PROJECT No. 20.1120.003

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
RD01



Know what's below. Call before you dig.

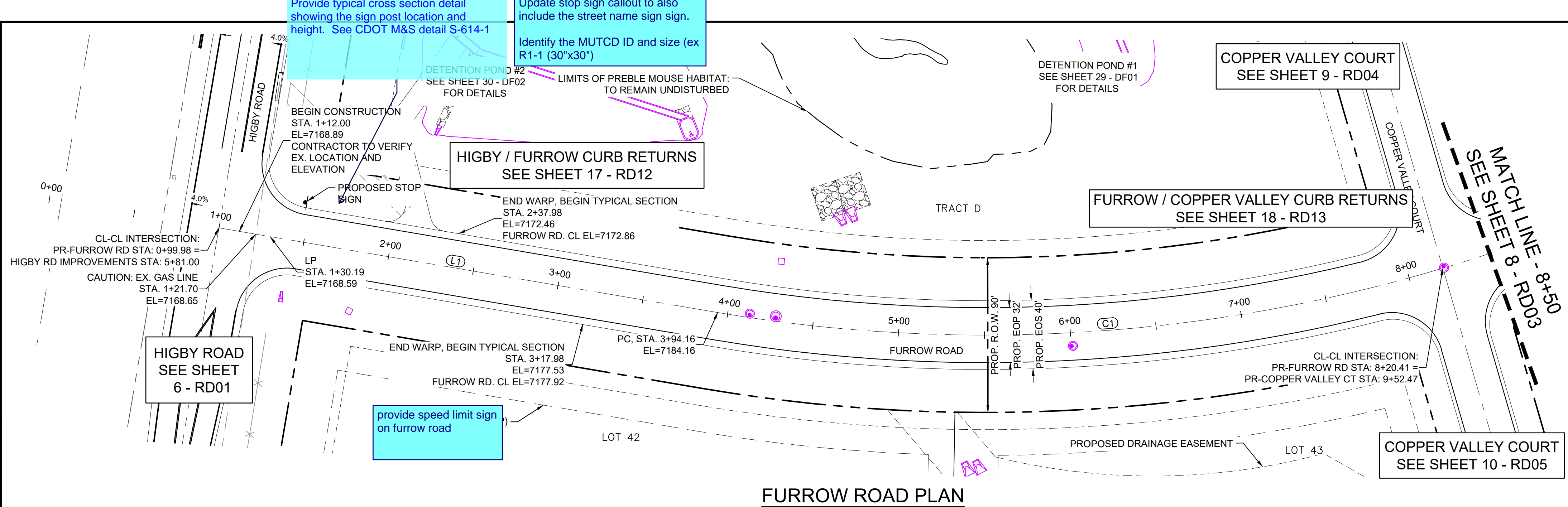
Please provide line of sight and sight distance should be marked on plans. Per ECM 2.3.7.C.5

5. Intersection Sight Distance. The sight distance at intersections shall be shown geographically on the construction plans. A note shall be added to each leg of the intersection stating that intersection sight distance exceeds the minimum sight distance for ___ mph design speed.

LINE TABLE		
LINE #	BEARING	DISTANCE
L1	N00°03'30"E	276.18

CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	476.11	930.00	29°19'57"	N14°36'30"W	470.93

NOTES:
 1. ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
 2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

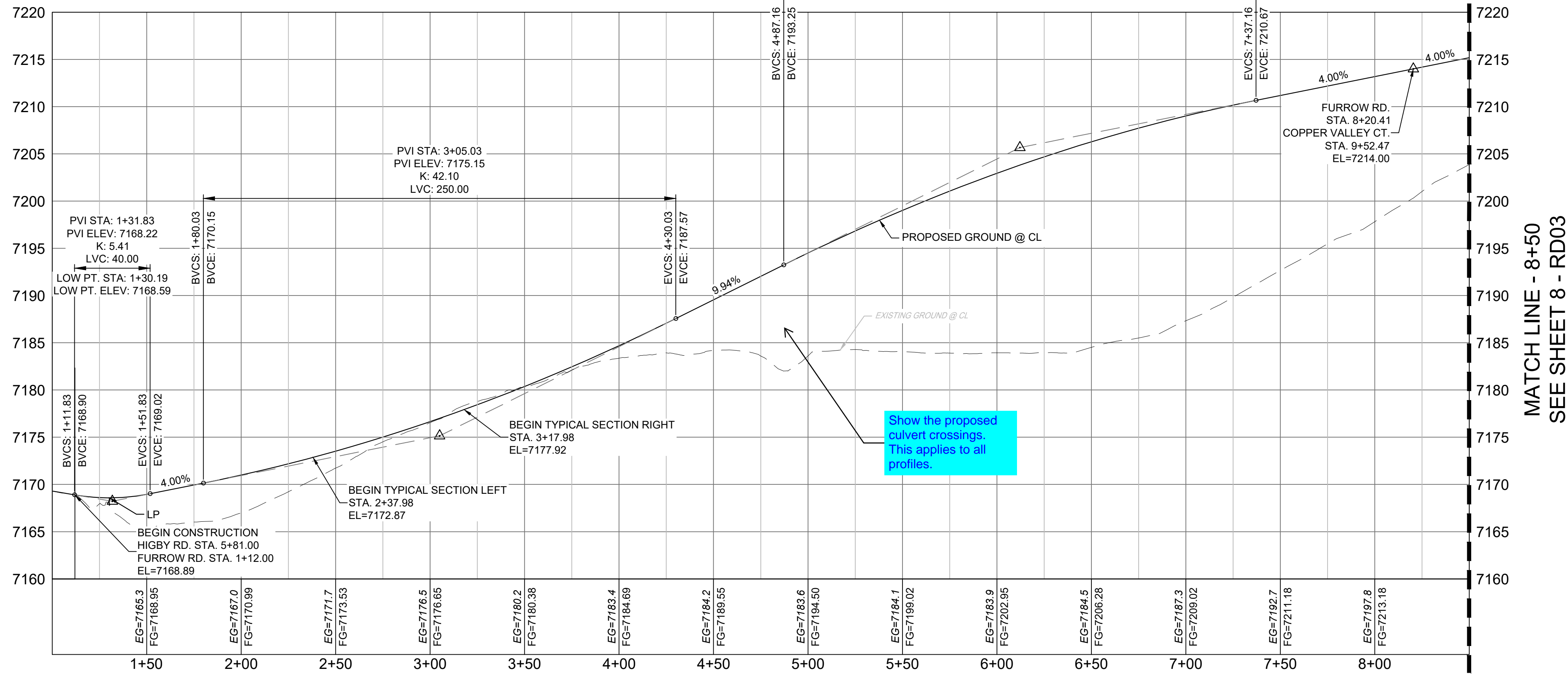


FURROW ROAD PLAN

- Posted speed limit on Furrow Road of 35 mph instead of 45 mph
- Minimum centerline curve radius of 600 feet instead of the prescribed 930 feet
- Minimum K-value for a collector with a design speed of 40 mph is 44 for crest curves and 64 for sag curves. The proposed K-values for both crest and sag curves along Furrow Road is 42 with stop conditions at the intersection of Higby Road/Furrow Road and Furrow Road/Miglewood Trail.
- Design elements/features often included along higher volume roadways can be incorporated into this design. Horizontal curve warning signs (where necessary), roadside markers for nighttime visibility, shoulder and centerline pavement

Min K does not meet the approved deviation request (K=44)

PVI STA: 6+12.16
 PVI ELEV: 7205.67
 K: 42.10
 LVC: 250.00

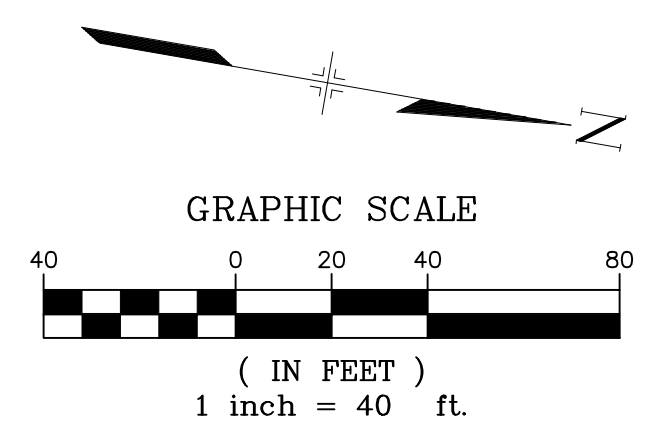


FURROW ROAD PROFILE

HORIZ: 1" = 40'
 VERT: 1" = 8'

MATCH LINE - 8+50
 SEE SHEET 8 - RD03

Show the proposed culvert crossings. This applies to all profiles.



REFERENCE DRAWINGS	NO.	DATE	DESCRIPTION	BY
X-Title-Plan & Profile				
X-1105-PR-SITE				

COMPUTER FILE MANAGEMENT	
FILE NAME:	S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD01.dwg
CTB FILE:	
PLOT DATE:	October 2, 2020 9:07:19 AM
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SHEET KEY

BENCHMARK
 NGS T 294 ELEVATION - 7247.10' NAVD 88

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OWNER:
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 COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

PRELIMINARY
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FOR AND ON BEHALF OF
 MATRIX DESIGN GROUP, INC.
 PROJECT No. 20.1120.003

GRANDWOOD RANCH

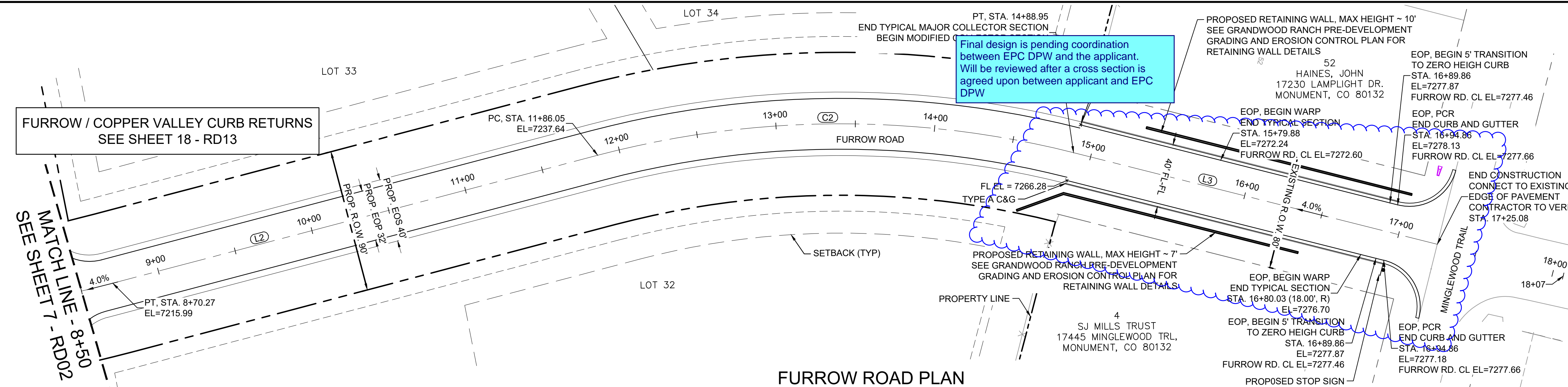
EL PASO COUNTY
 ROAD AND STORM PLANS

ROADWAY PLAN AND PROFILE

DESIGNED BY:	CAP	SCALE:	DATE ISSUED:	SEPTEMBER 2020	DRAWING No.:
CHECKED BY:	NMS	HORIZ: 1" = 40'	SHEET:	7 OF 38	RD02
		VERT: 1" = 8'			

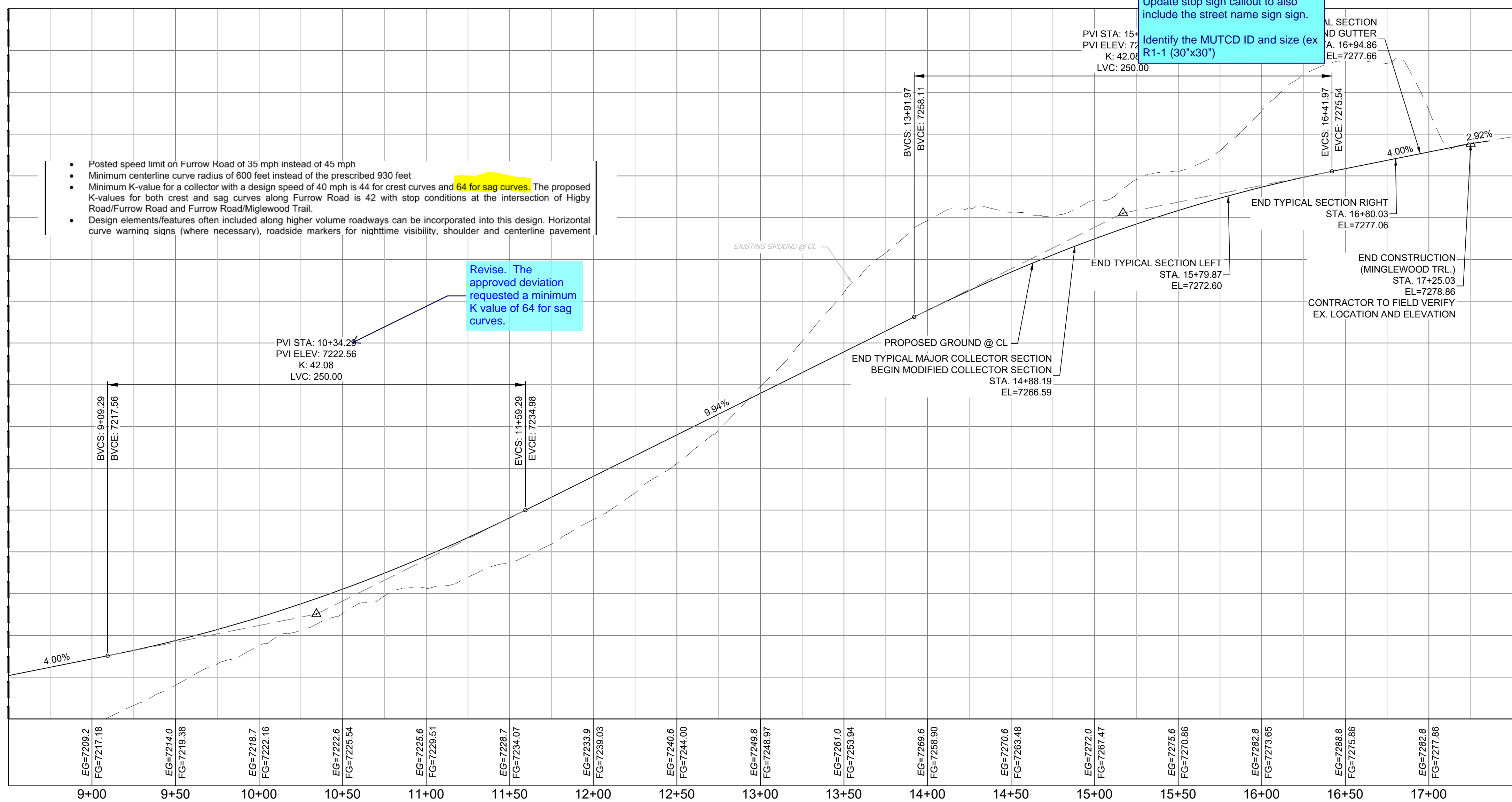


Know what's below. Call before you dig.



FURROW / COPPER VALLEY CURB RETURNS SEE SHEET 18 - RD13

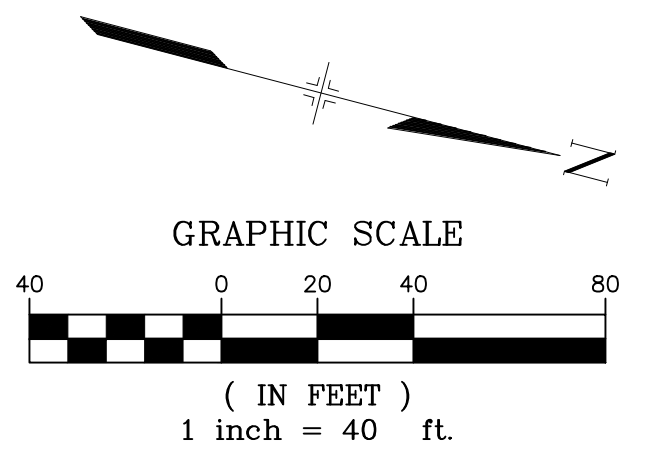
MATCH LINE 7 - RD02 SEE SHEET 7 - RD02



LINE TABLE		
LINE #	BEARING	DISTANCE
L2	N29°16'28"W	315.78
L3	N00°21'00"W	236.08

CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C2	302.90	600.00	28°55'28"	N14°48'44"W	299.69

- NOTES:
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 - SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

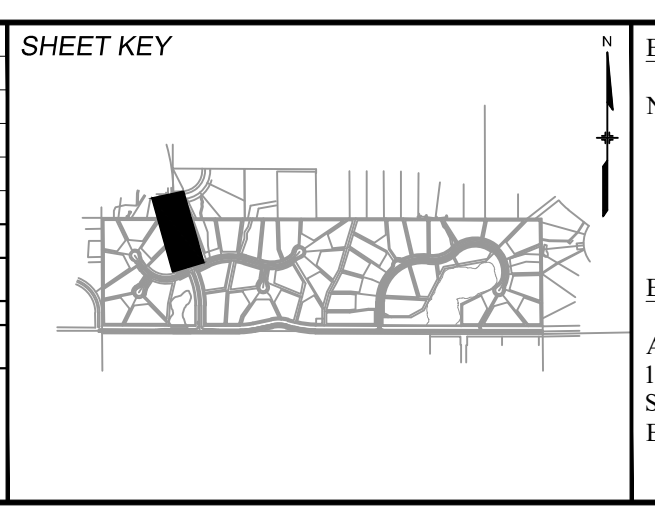


FURROW ROAD PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'

No.	DATE	DESCRIPTION	BY

COMPUTER FILE MANAGEMENT

FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD01.dwg
CTB FILE:
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BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

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COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

PRELIMINARY
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

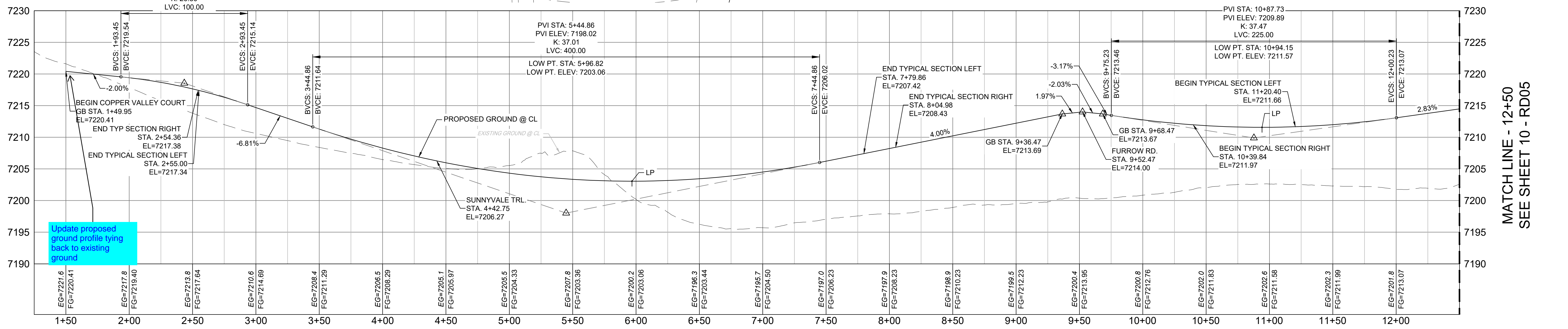
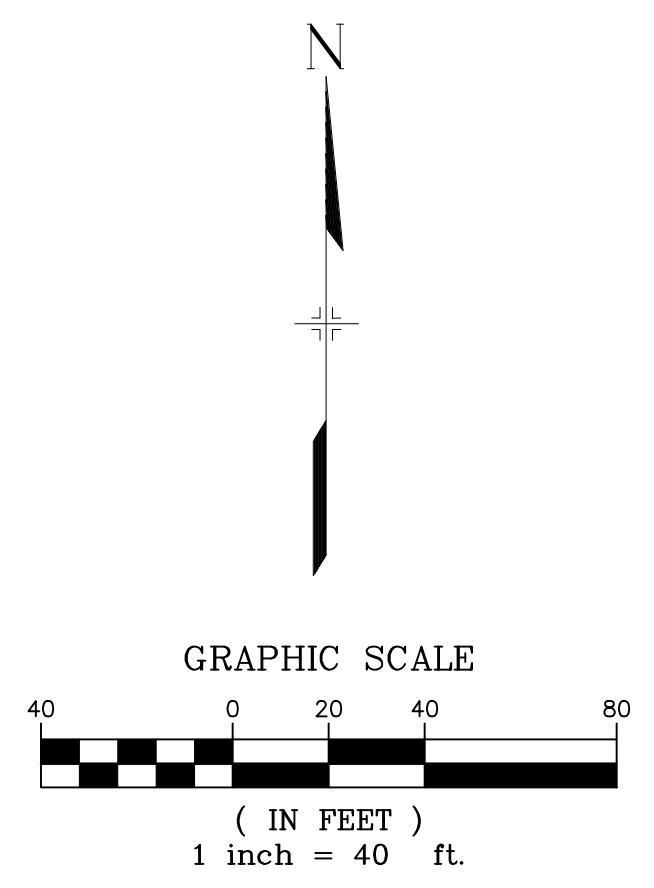
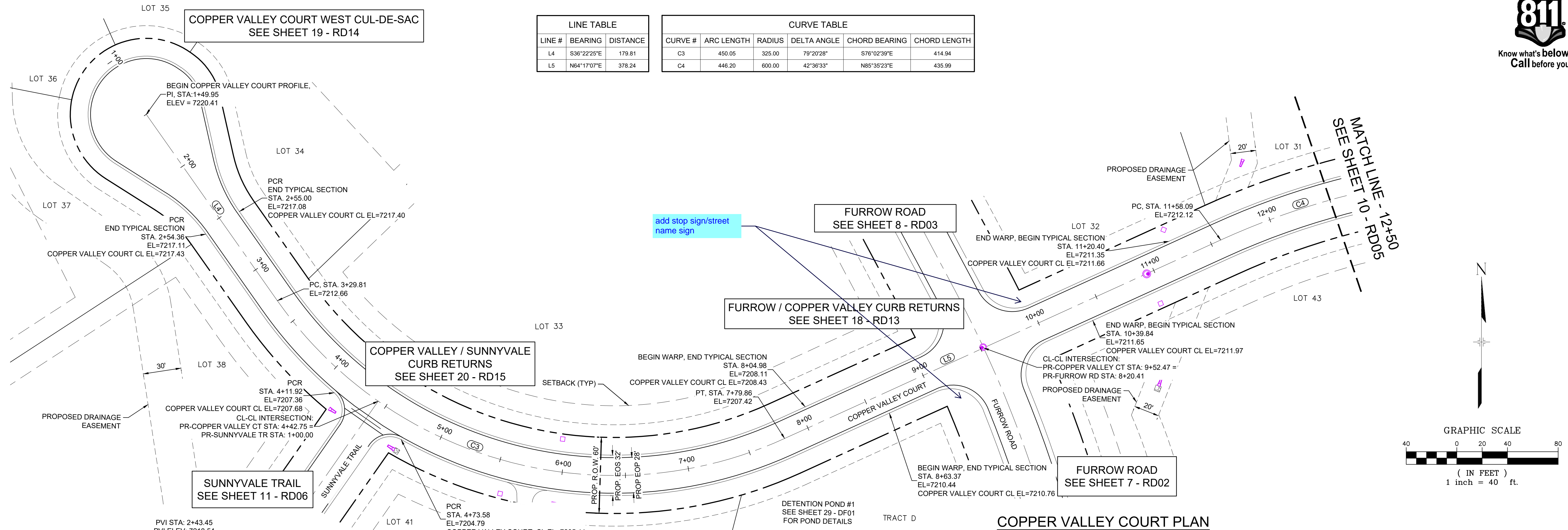
GRANDWOOD RANCH			
EL PASO COUNTY ROAD AND STORM PLANS			
ROADWAY PLAN AND PROFILE			
DESIGNED BY: CAP	SCALE: 1" = 40'	DATE ISSUED: SEPTEMBER 2020	DRAWING No. RD03
CHECKED BY: NMS	VERT. 1" = 8'	SHEET 8 OF 38	



Know what's below.
Call before you dig.

LINE TABLE		
LINE #	BEARING	DISTANCE
L4	S36°22'25"E	179.81
L5	N64°17'07"E	378.24

CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C3	450.05	325.00	79°20'28"	S76°02'39"E	414.94
C4	446.20	600.00	42°36'33"	N85°35'23"E	435.99

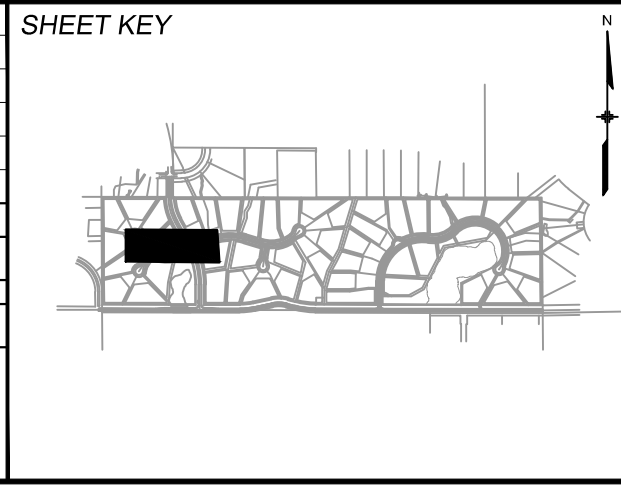


COPPER VALLEY COURT PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'

- NOTES:
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 - SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

No.	DATE	DESCRIPTION	BY
REVISIONS			



BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

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OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

PRELIMINARY
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GRANDWOOD RANCH

EL PASO COUNTY
ROAD AND STORM PLANS

ROADWAY PLAN AND PROFILE

DESIGNED BY: CAP
DRAWN BY: CAP
CHECKED BY: NMS

SCALE
HORIZ: 1" = 40'
VERT: 1" = 8'

DATE ISSUED: SEPTEMBER 2020
SHEET 9 OF 38

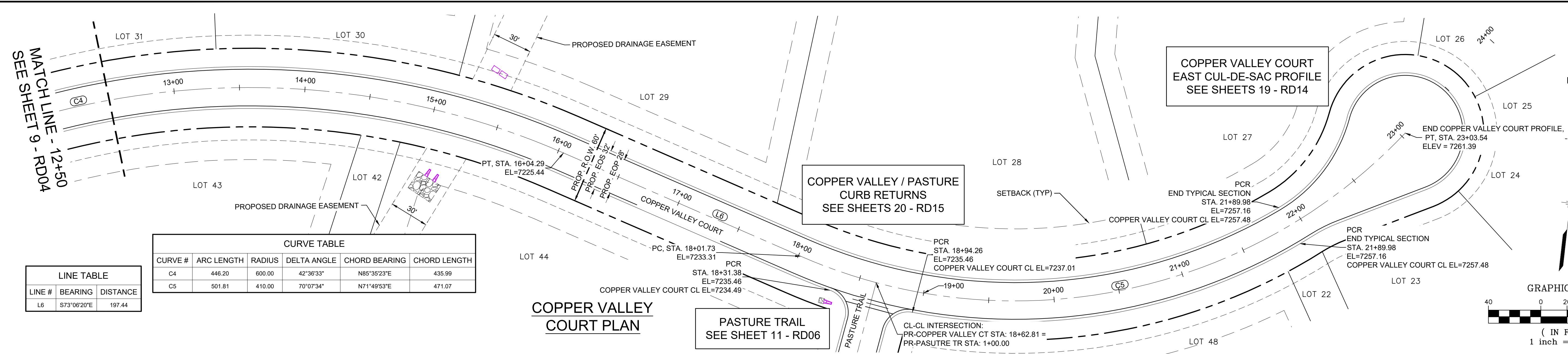
DRAWING No. RD04



FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

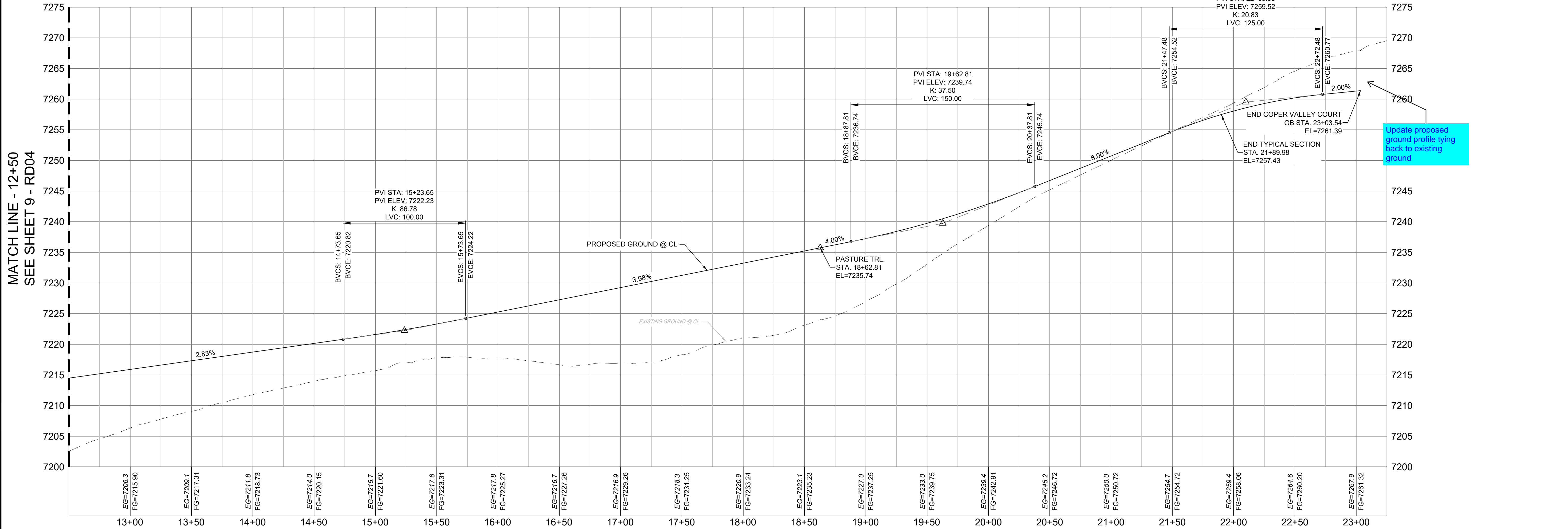
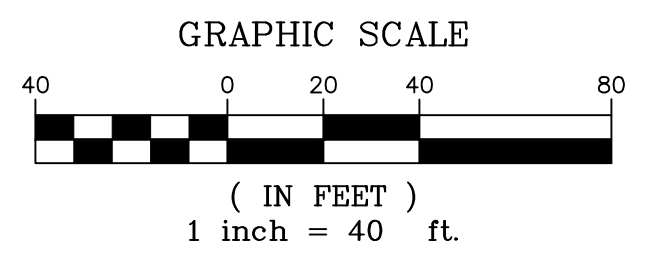


Know what's below.
Call before you dig.



LINE #	BEARING	DISTANCE
L6	S73°06'20"E	197.44

CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C4	446.20	600.00	42°36'33"	N85°35'23"E	435.99
C5	501.81	410.00	70°07'34"	N71°49'53"E	471.07



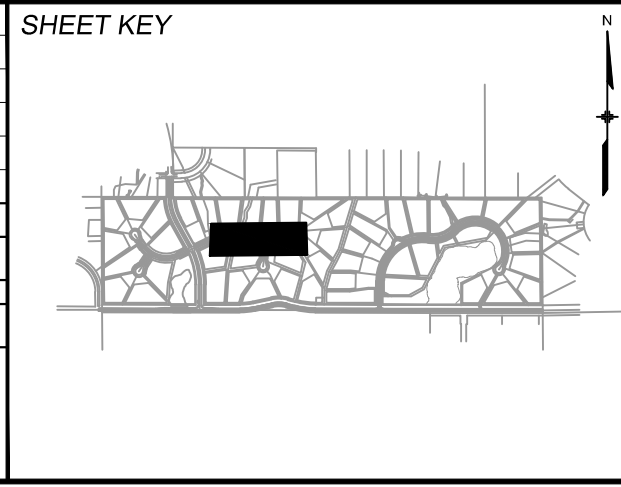
COPPER VALLEY COURT PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'

- NOTES:
1. ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
 2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

REFERENCE DRAWINGS	NO.	DATE	DESCRIPTION	BY
X-Title-Plan & Profile				
X-1105-PR-SITE				

COMPUTER FILE MANAGEMENT	
FILE NAME:	S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD02.dwg
CTB FILE:	
PLOT DATE:	October 2, 2020 9:08:20 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE	



BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20' NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS *LWA PLS 28658"

OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL

PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

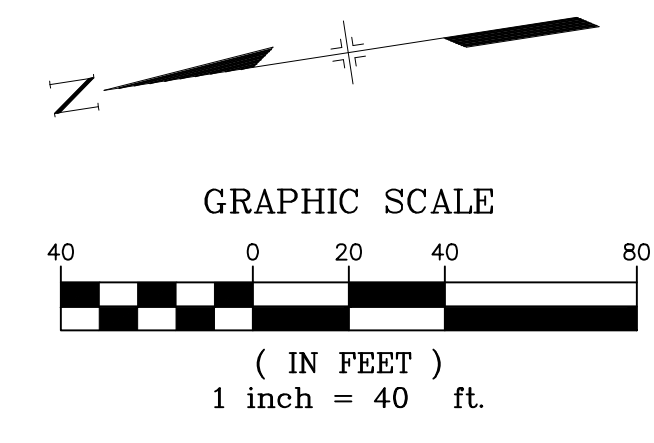
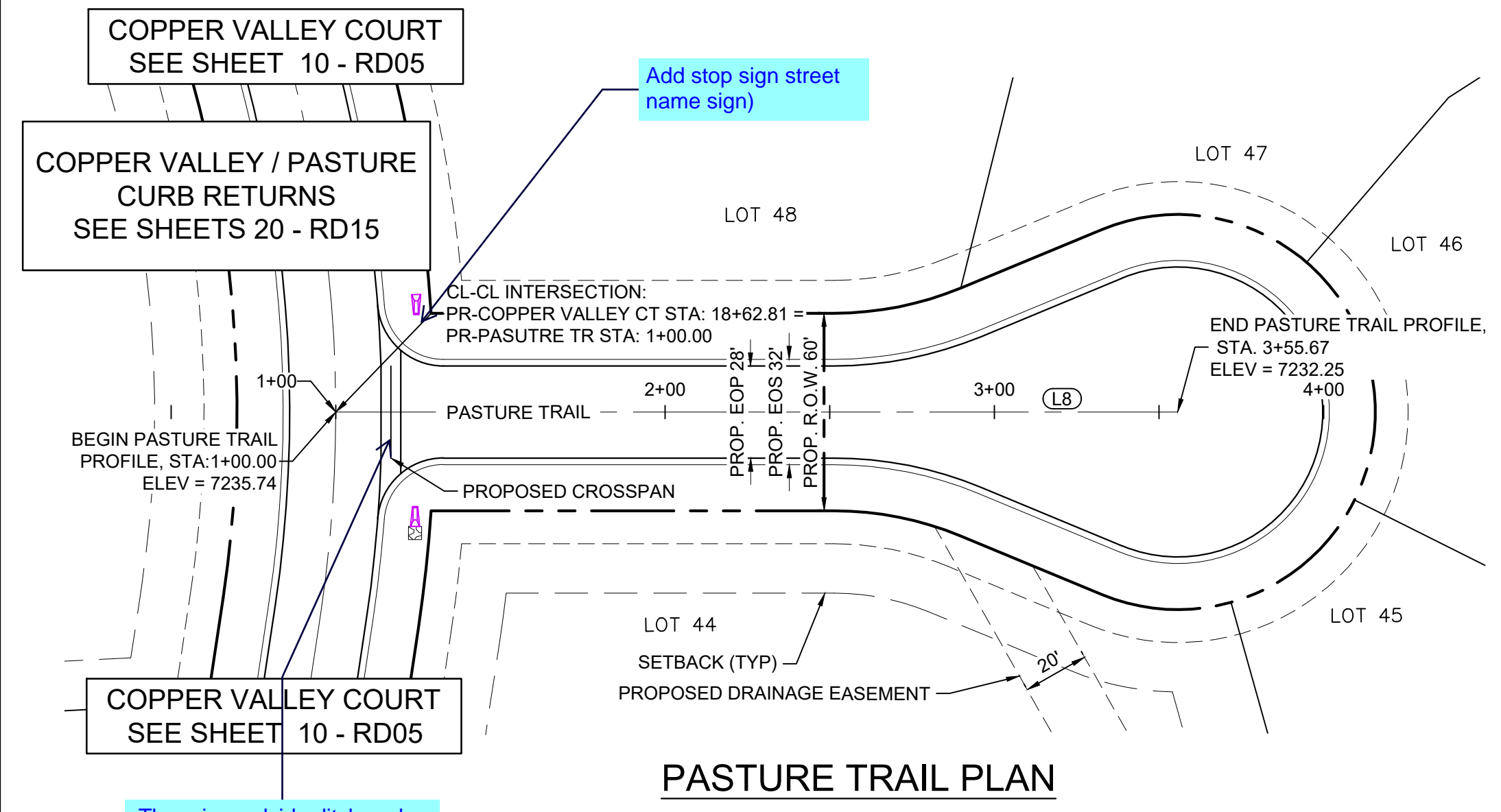
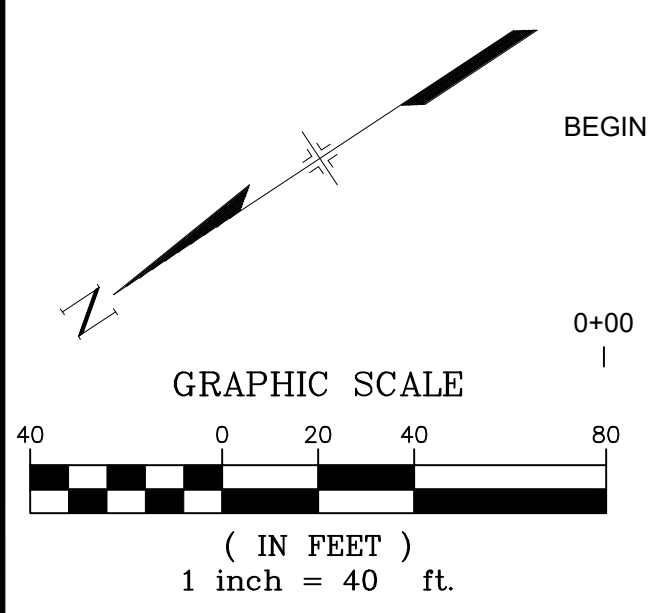
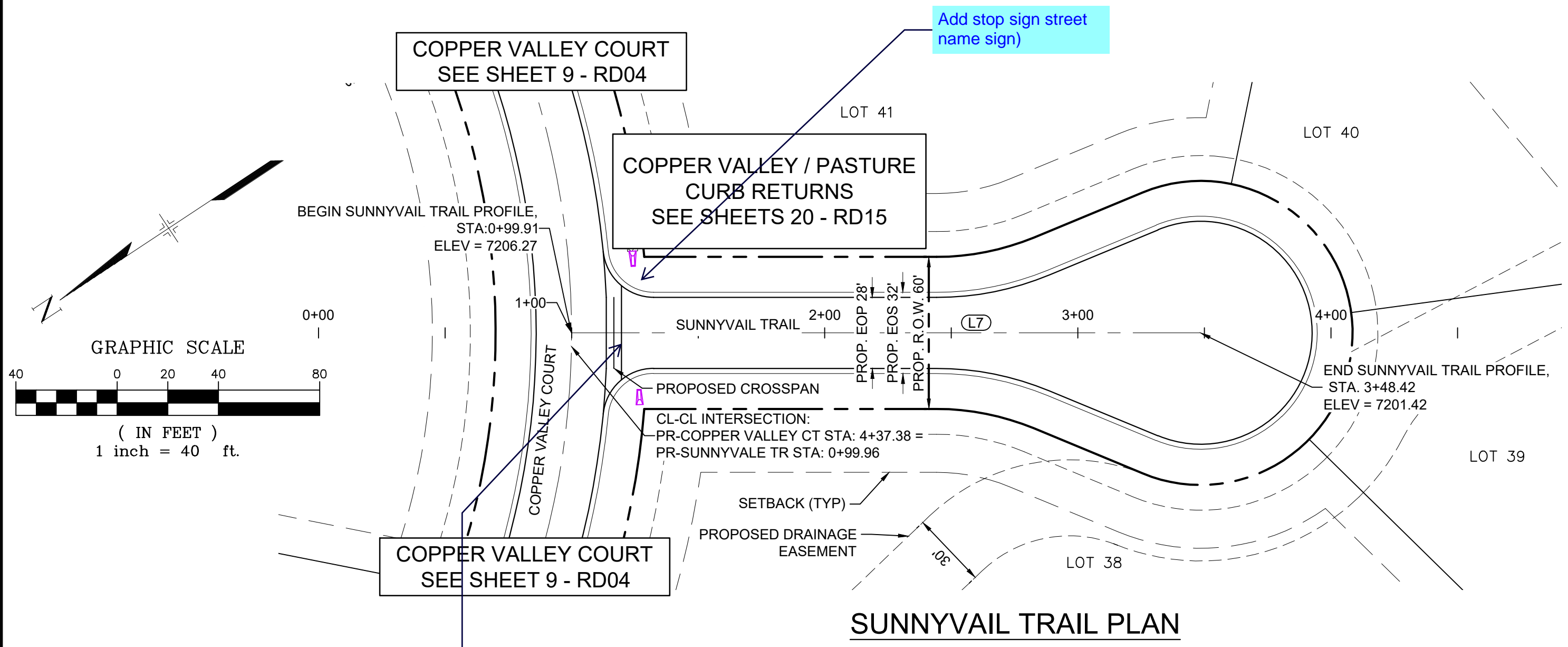
EL PASO COUNTY
ROAD AND STORM PLANS

ROADWAY PLAN AND PROFILE

DESIGNED BY:	CAP	SCALE	DATE ISSUED:	SEPTEMBER 2020	DRAWING No.
DRAWN BY:	CAP	HORIZ. 1" = 40'	SHEET	10 OF 38	RD05
CHECKED BY:	NMS	VERT. 1" = 8'			



Know what's below. Call before you dig.

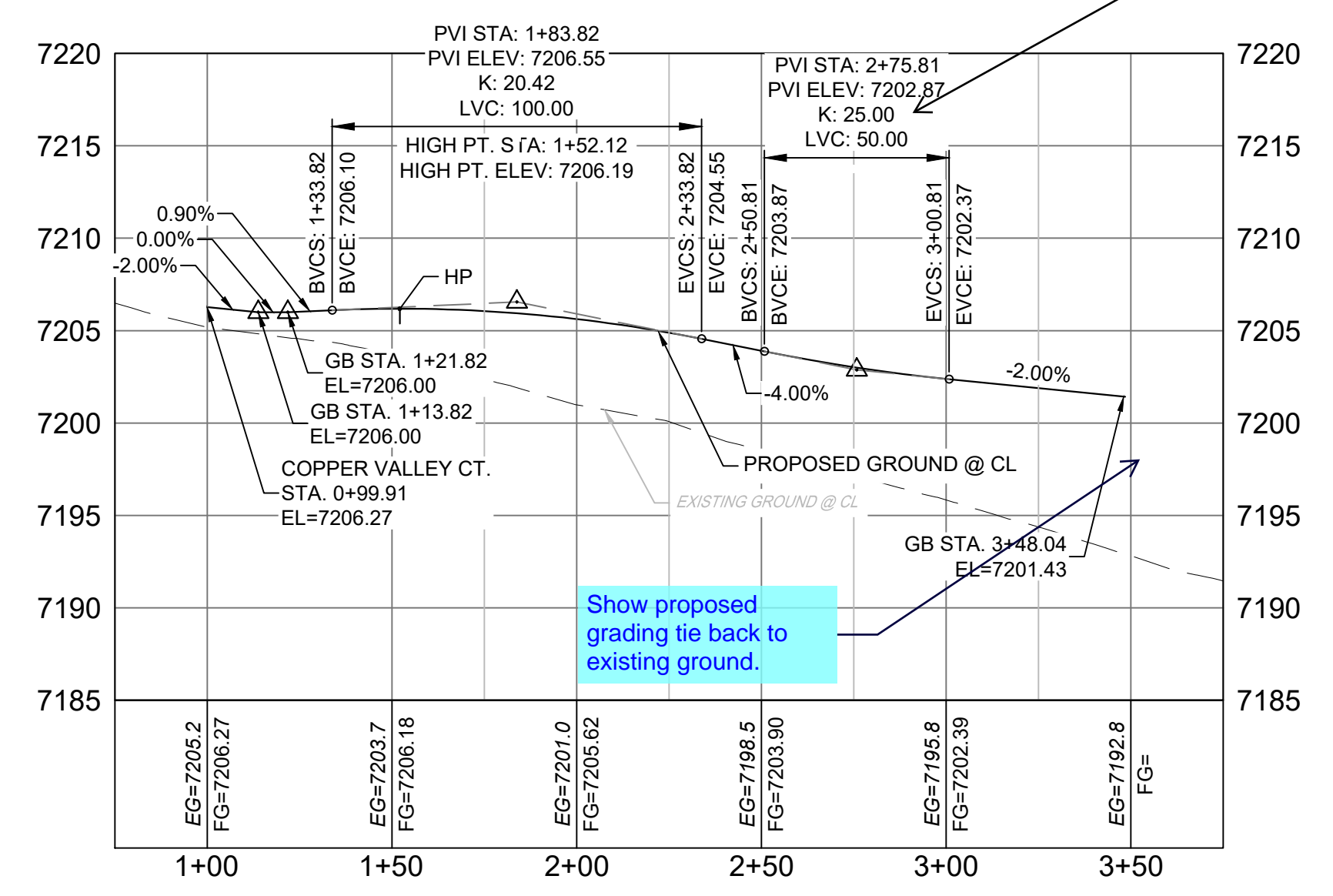


There is roadside ditch and culvert. Double check intersection design. The cross pan does not seem necessary. Call the review engineer to explain why it needs to remain.

There is roadside ditch and culvert. Double check intersection design. The cross pan does not seem necessary.

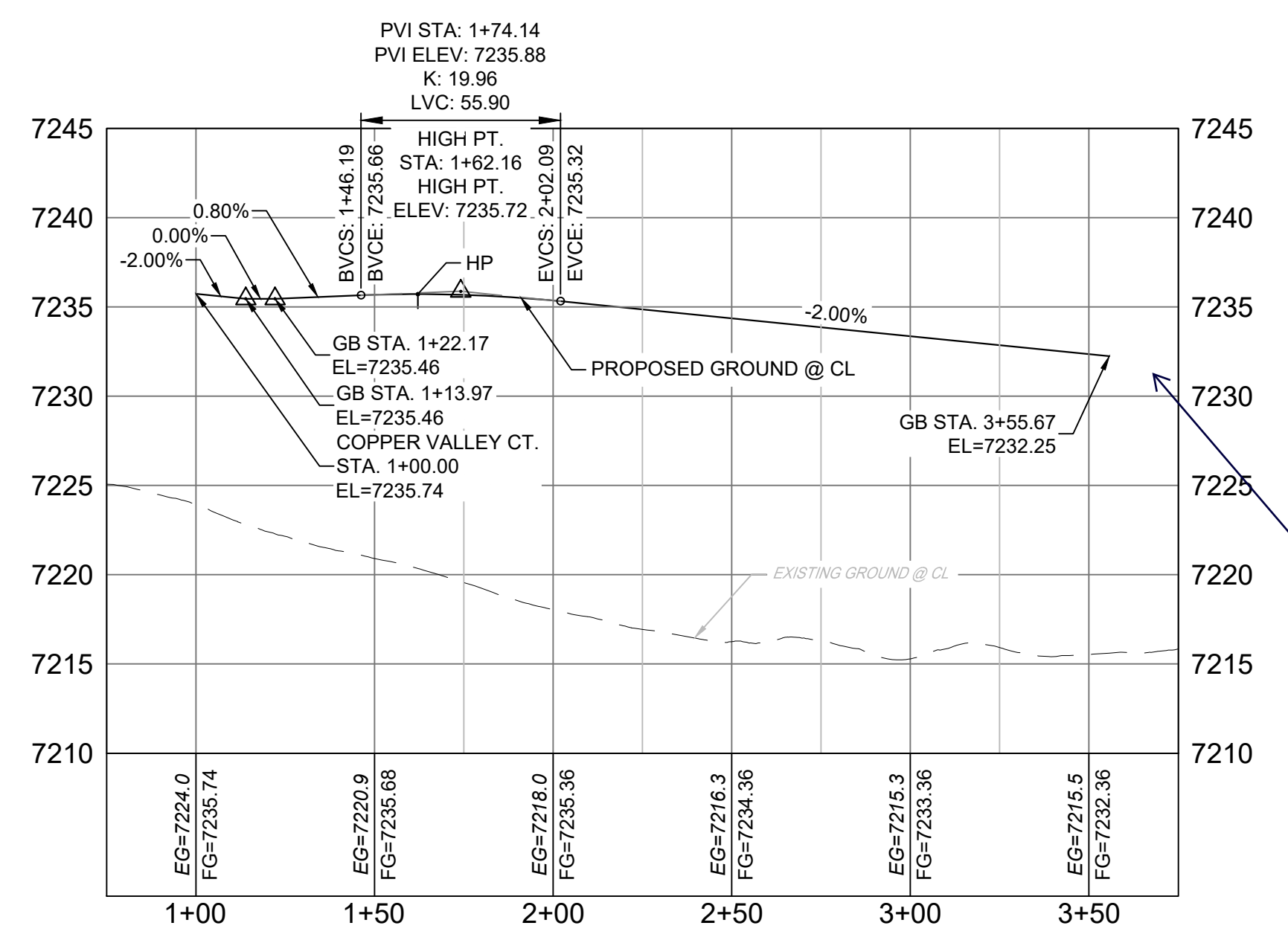
Revise K value per ECM 2.3.4

LINE #	BEARING	DISTANCE
L7	S33°42'56"W	248.50



SUNNYVAIL TRAIL PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'

LINE #	BEARING	DISTANCE
L8	S08°21'30"W	255.67



PASTURE TRAIL PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'

Show proposed grading tie back to existing ground.

- NOTES:
1. ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
 2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

No.	DATE	DESCRIPTION	BY
REVISIONS			

FILE NAME:	S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD02.dwg
CTB FILE:	---
PLOT DATE:	October 2, 2020 9:13:47 AM
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SHEET KEY

BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

BASIS OF BEARING:
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OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HERBERIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

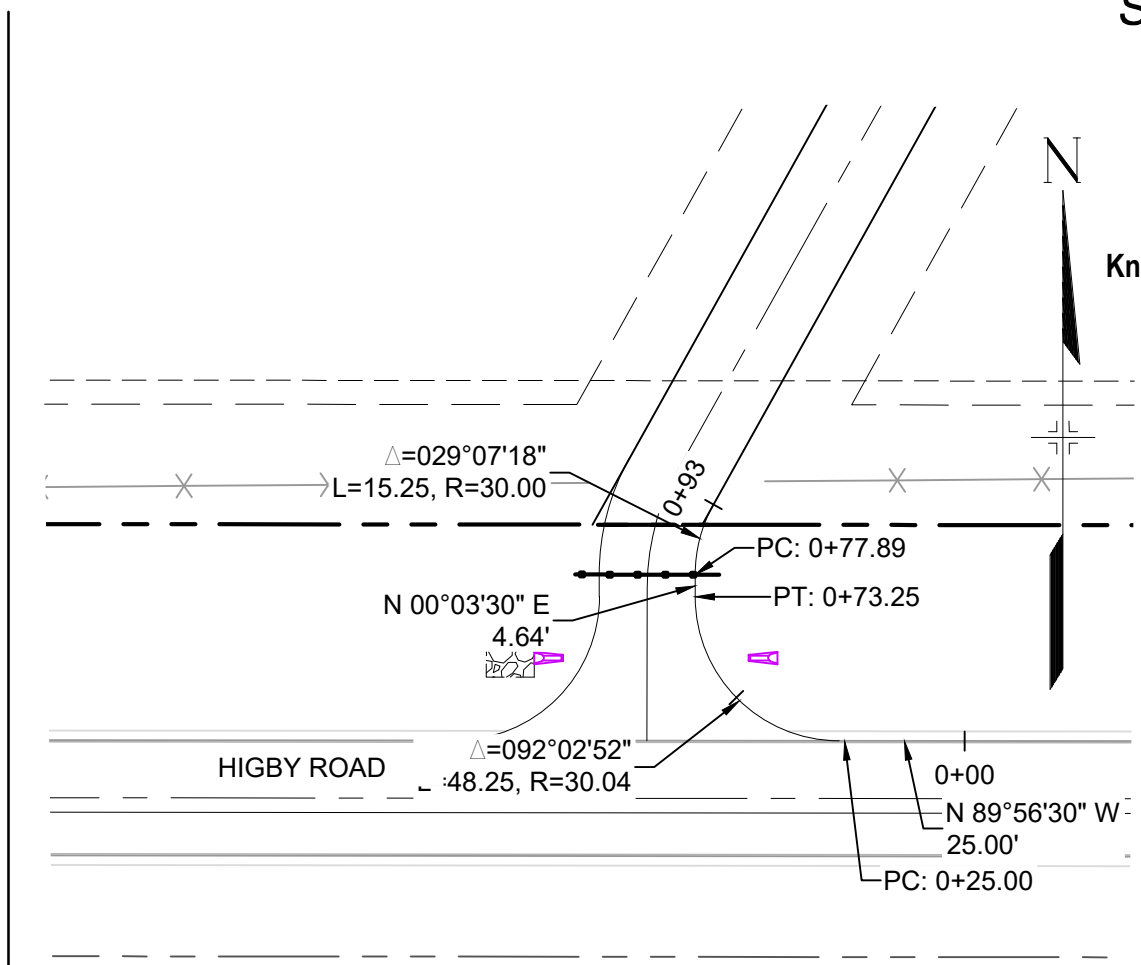
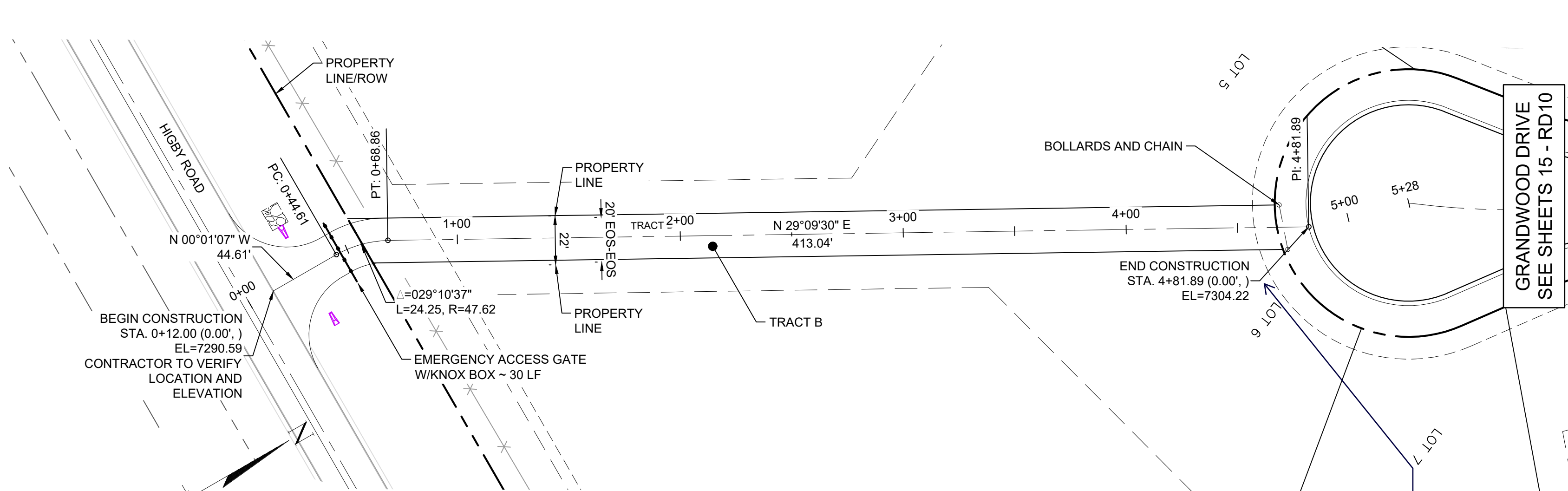
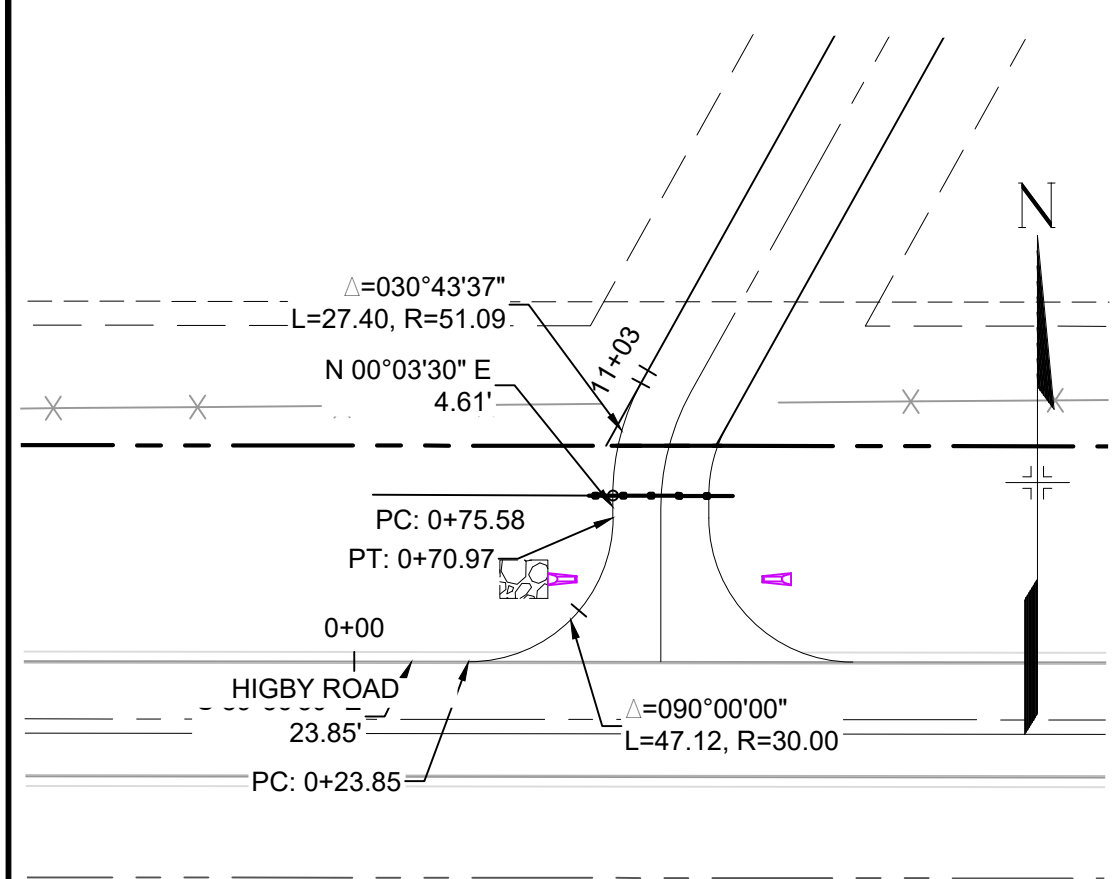
EL PASO COUNTY
ROAD AND STORM PLANS

ROADWAY PLAN AND PROFILE

DESIGNED BY:	CAP	SCALE:	DATE ISSUED:	SEPTMBER 2020	DRAWING No.:
CHECKED BY:	NMS	HORIZ.:	1" = 40'	SHEET:	11 OF 38
		VERT.:	1" = 8'		RD06

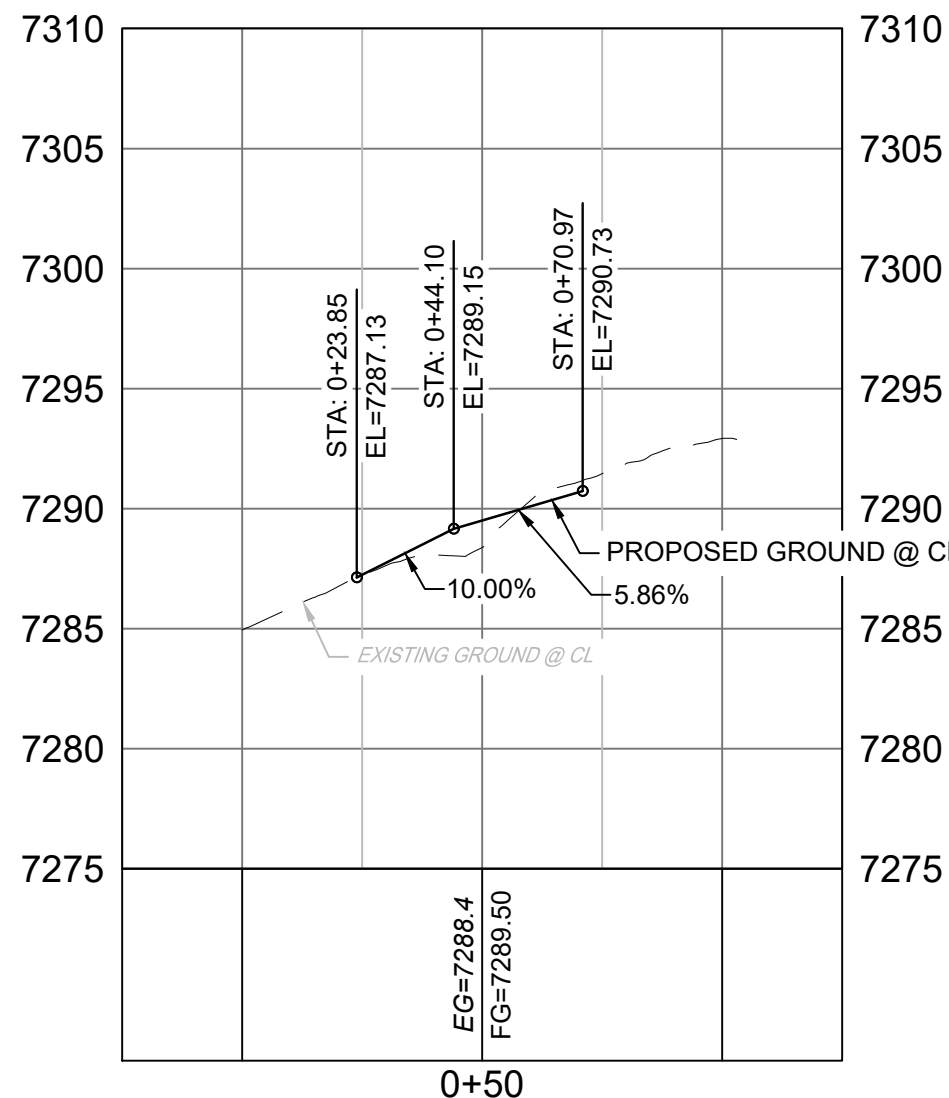
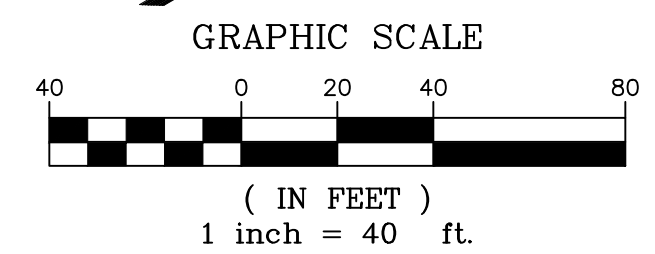


Know what's below.
Call before you dig.

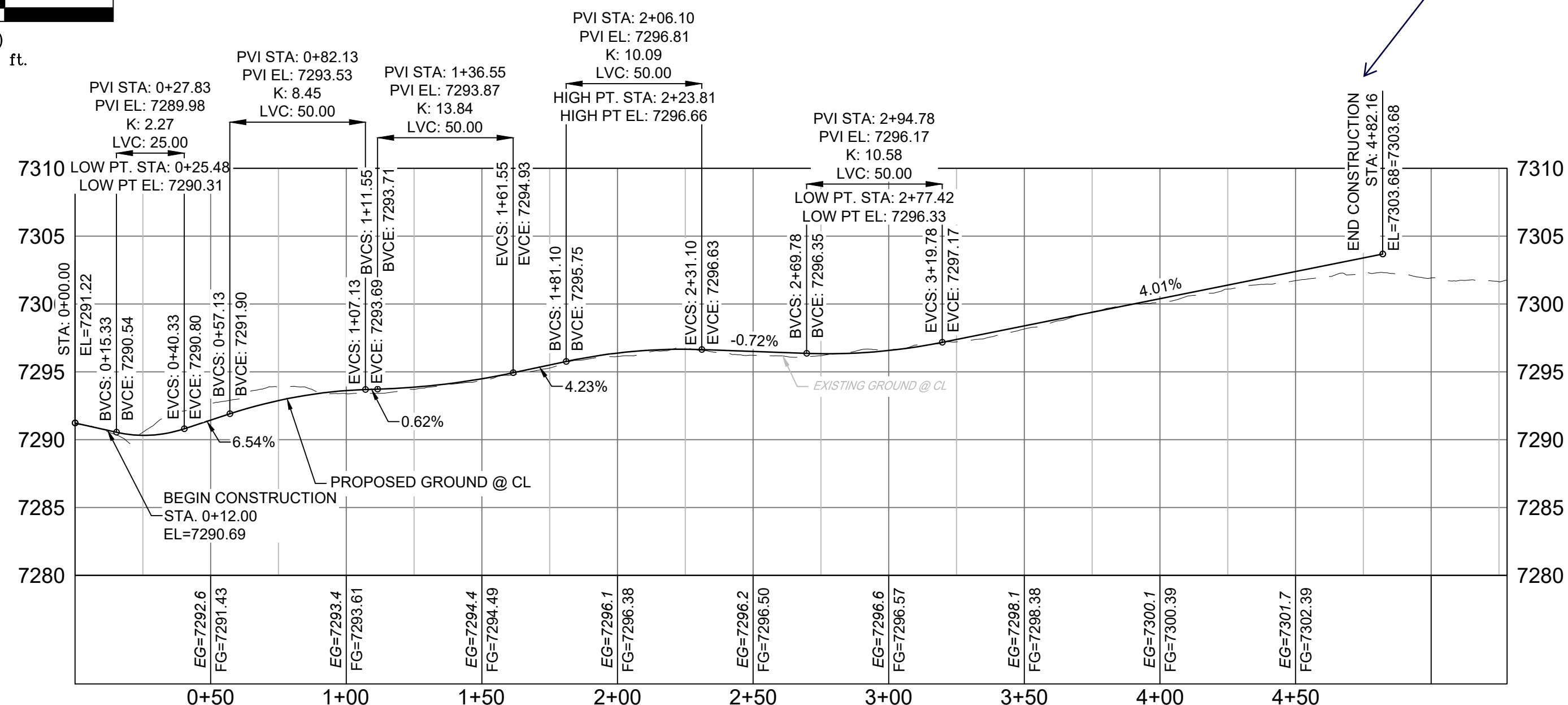


EMERGENCY ACCESS ROAD PLAN

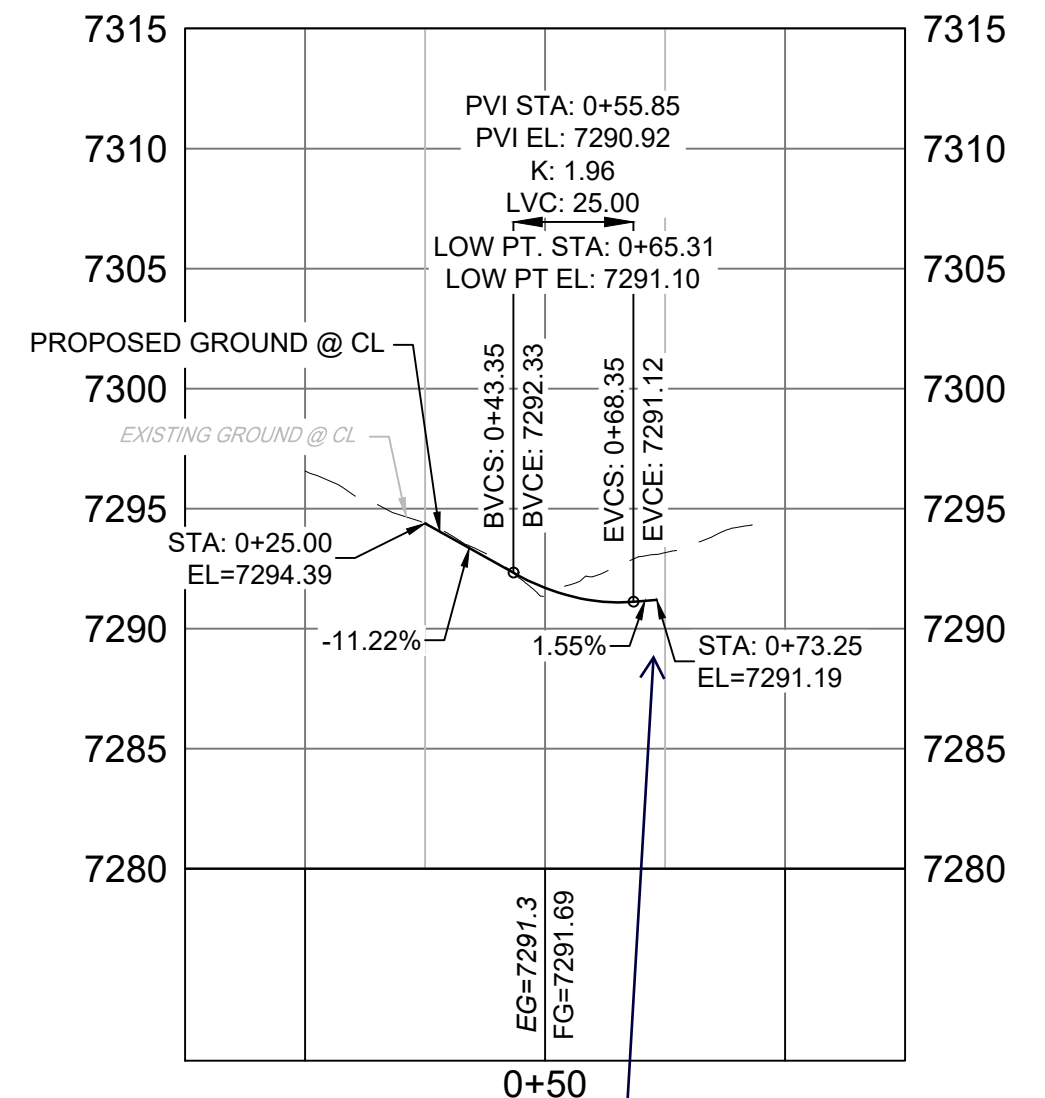
Revise plan and profile end construction to match



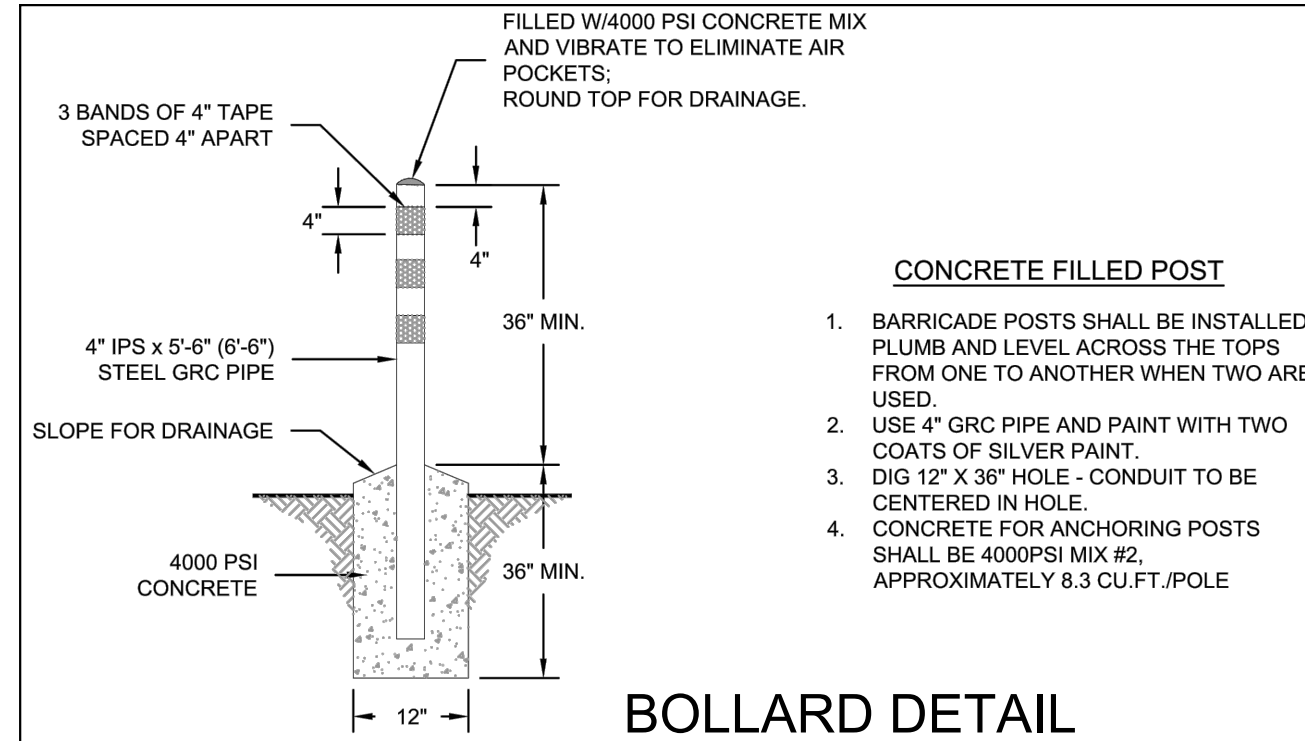
PR-EMERGENCY ACCESS - FL WEST PROFILE
SCALE: (H) 1" = 40' (V) 1" = 8'
START STA: -0+25.00, END STA: 1+25.00



PR-EMERGENCY ACCESS PROFILE
SCALE: (H) 1" = 40' (V) 1" = 8'
START STA: 0+00.00, END STA: 5+28.02



PR-EMERGENCY ACCESS - FL EAST PROFILE
SCALE: (H) 1" = 40' (V) 1" = 8'
START STA: -0+25.00, END STA: 1+25.00



BOLLARD DETAIL
(CSU WATERLESS A5-4)
SCALE: NTS

EMERGENCY ACCESS ROAD PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'

Label as private

Reminder. Show culvert crossings on road profiles. Per ECM Chapter 4 Section 4.3.6.A.3 minimum cover is 2' from finished grade to top of pipe.

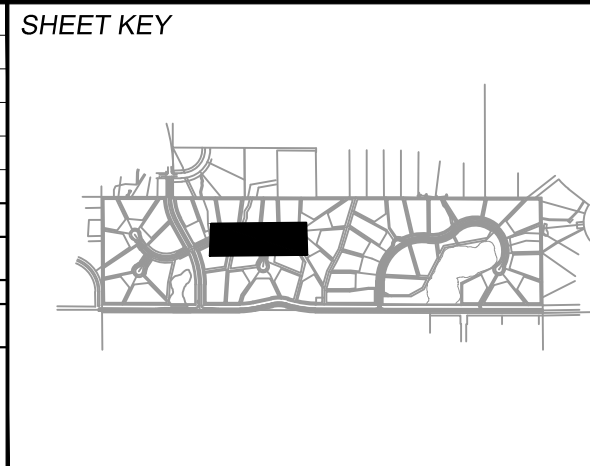
- NOTES:
- ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
 - SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

REF. NO.	DATE	DESCRIPTION	BY

No.	DATE	DESCRIPTION	BY

COMPUTER FILE MANAGEMENT

FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD02.dwg
 CTB FILE: ---
 PLOT DATE: October 2, 2020 9:13:55 AM
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BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

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OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

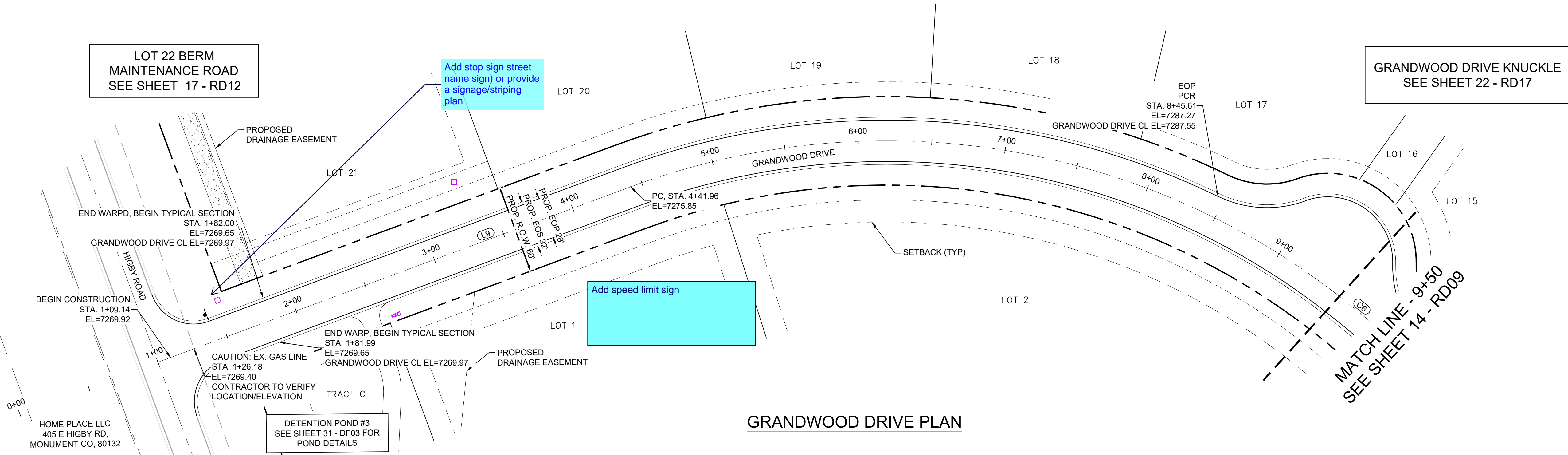
PRELIMINARY
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH			
EL PASO COUNTY ROAD AND STORM PLANS			
ROADWAY PLAN AND PROFILE			
DESIGNED BY:	CAP	SCALE	DATE ISSUED:
DRAWN BY:	CAP	HORIZ. 1" = 40'	SEPTEMBER 2020
CHECKED BY:	NMS	VERT. 1" = 8'	SHEET 12 OF 38
			DRAWING No. RD07



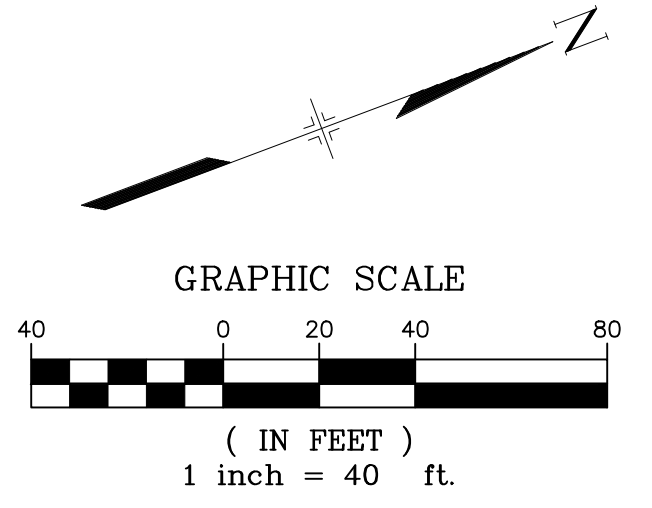
Know what's below.
Call before you dig.



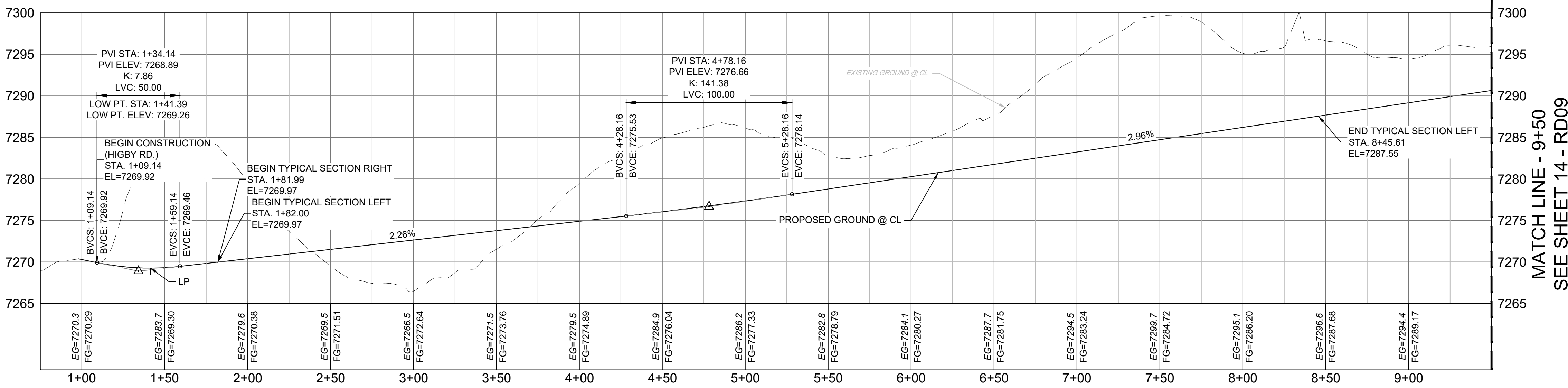
GRANDWOOD DRIVE PLAN

LINE #	BEARING	DISTANCE
L9	N00°09'43"E	329.96

CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C6	857.56	500.00	98°16'08"	N49°17'47"E	756.25



- NOTES:
1. ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

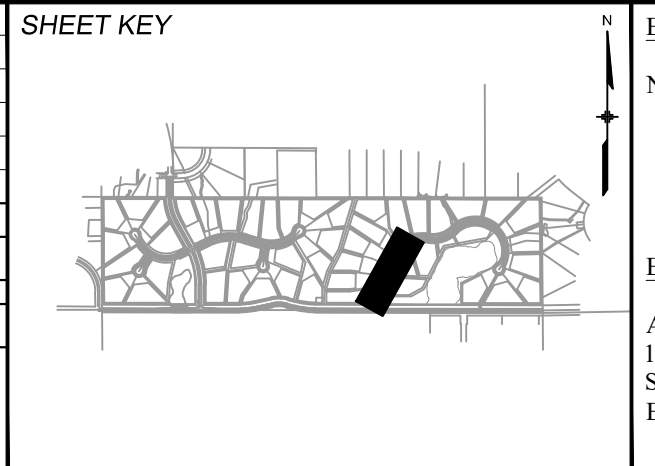


GRANDWOOD DRIVE PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'

REFERENCE DRAWINGS	NO.	DATE	DESCRIPTION	BY
X-Title-Plan & Profile				
X-1105-PR-SITE				

COMPUTER FILE MANAGEMENT
FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD03.dwg
CTB FILE:
PLOT DATE: October 2, 2020 9:14:34 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE



BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

BASIS OF BEARING:
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OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL

PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

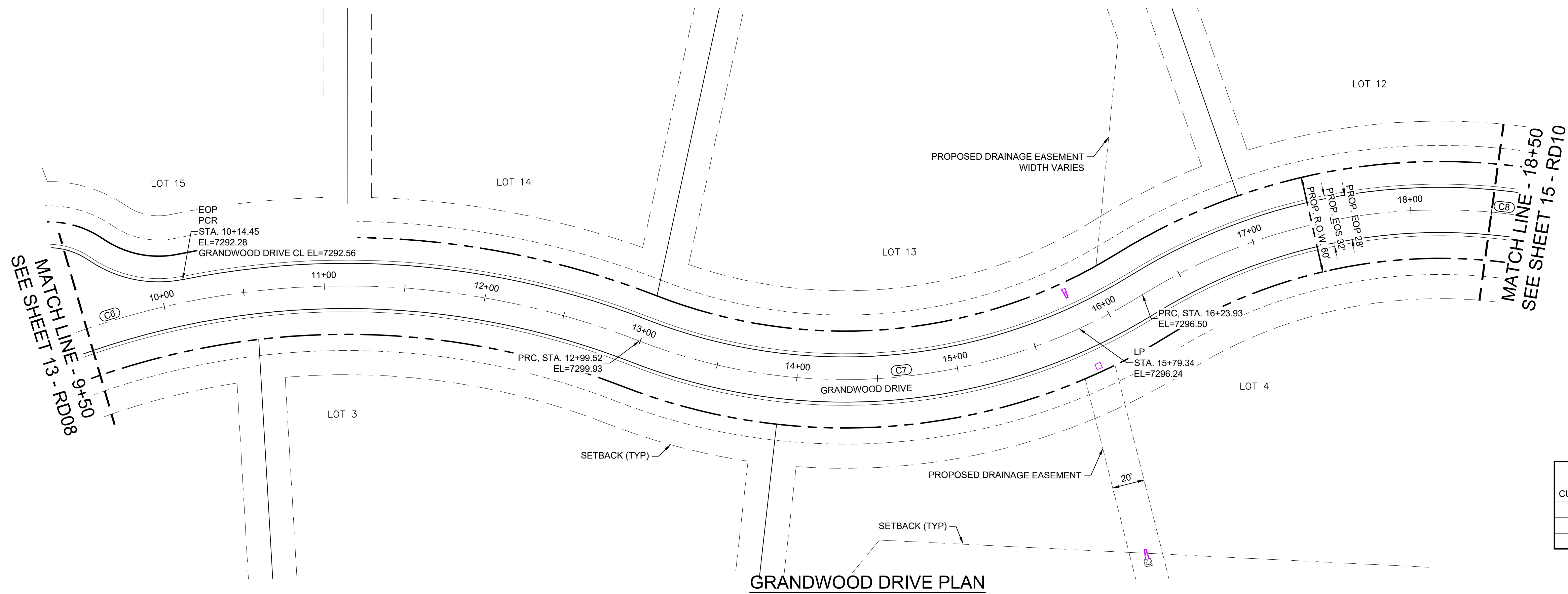
EL PASO COUNTY
ROAD AND STORM PLANS

ROADWAY PLAN AND PROFILE

DESIGNED BY: CAP	SCALE: 1" = 40'	DATE ISSUED: SEPTEMBER 2020	DRAWING No.:
DRAWN BY: CAP	HORIZ: 1" = 40'	SHEET: 13 OF 38	RD08
CHECKED BY: NMS	VERT: 1" = 8'		

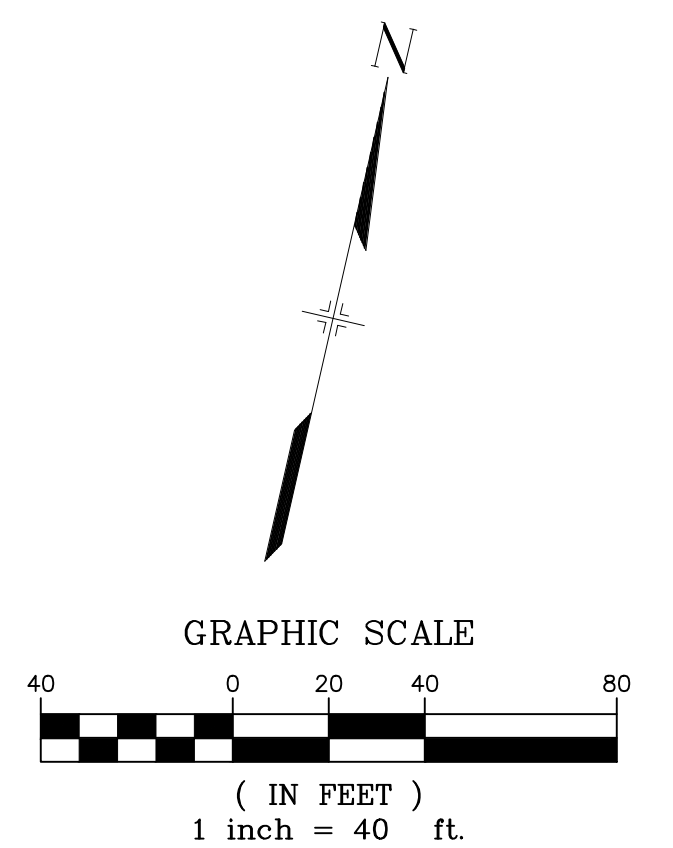
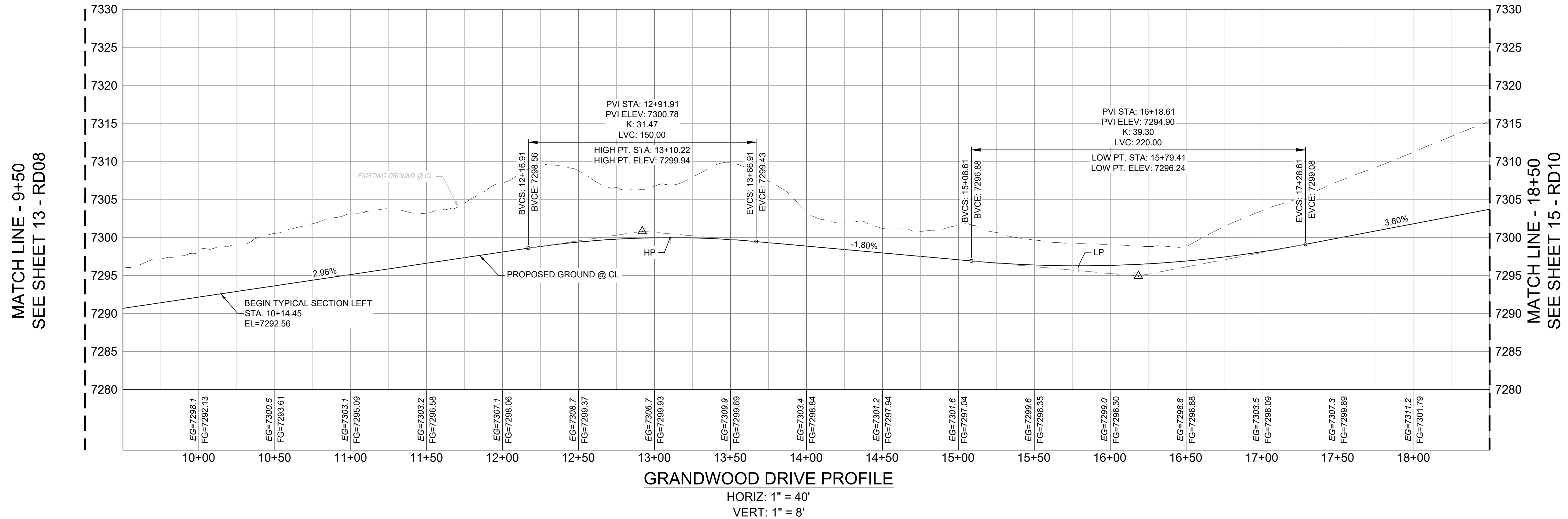


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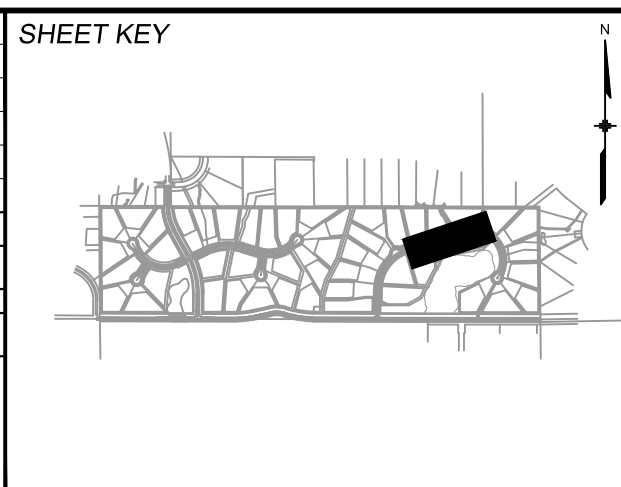


CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C6	857.56	500.00	98°16'08"	N49°17'47"E	756.25
C7	324.41	350.00	53°06'22"	N71°52'40"E	312.92
C8	1048.99	350.00	171°43'21"	S48°48'49"E	698.18

- NOTES:
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 2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.



REFERENCE DRAWINGS	NO.	DATE	DESCRIPTION	BY
X-Title-Plan & Profile				
X-1105-PR-SITE				
COMPUTER FILE MANAGEMENT				
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PLOT DATE: October 2, 2020 9:14:38 AM				
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BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88

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A LINE THAT IS 20' NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658"

OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

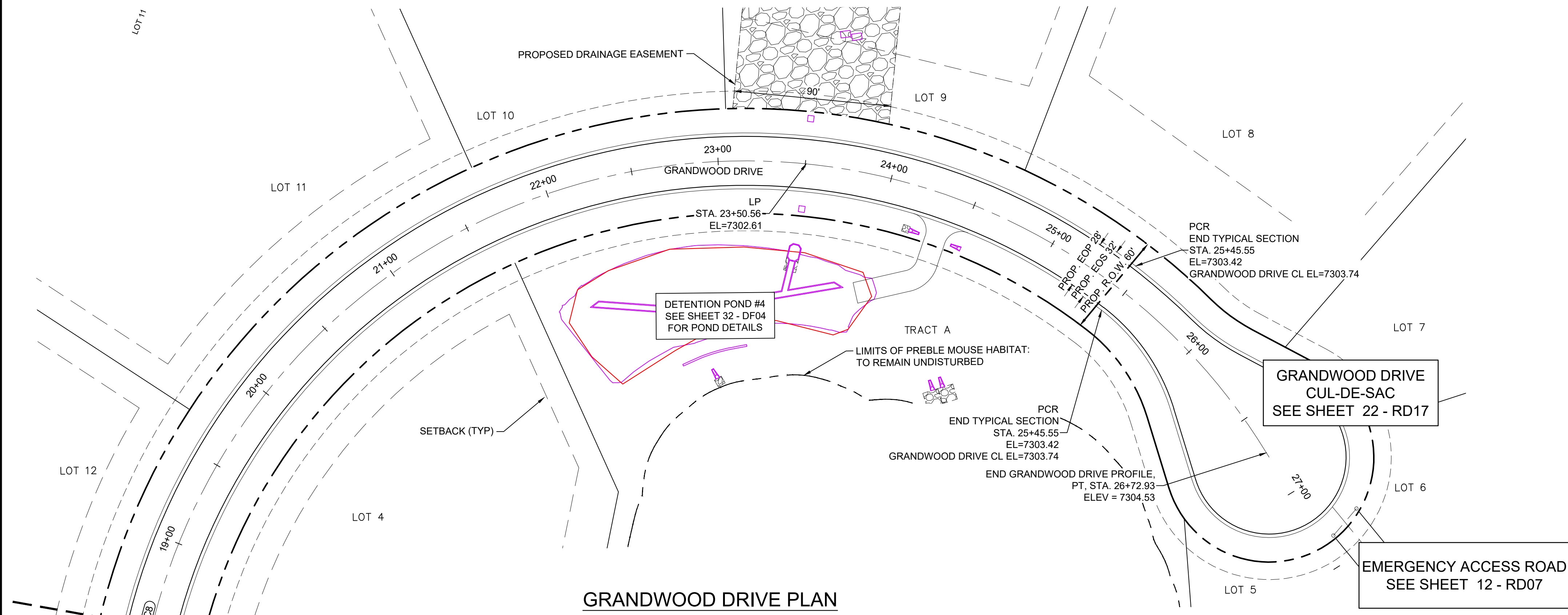
PRELIMINARY
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH			
EL PASO COUNTY ROAD AND STORM PLANS			
ROADWAY PLAN AND PROFILE			
DESIGNED BY:	CAP	SCALE	DATE ISSUED:
DRAWN BY:	CAP	HORIZ. 1" = 40'	SEPTEMBER 2020
CHECKED BY:	NMS	VERT. 1" = 8'	SHEET
			14 OF 38
			DRAWING No. RD09



Know what's below.
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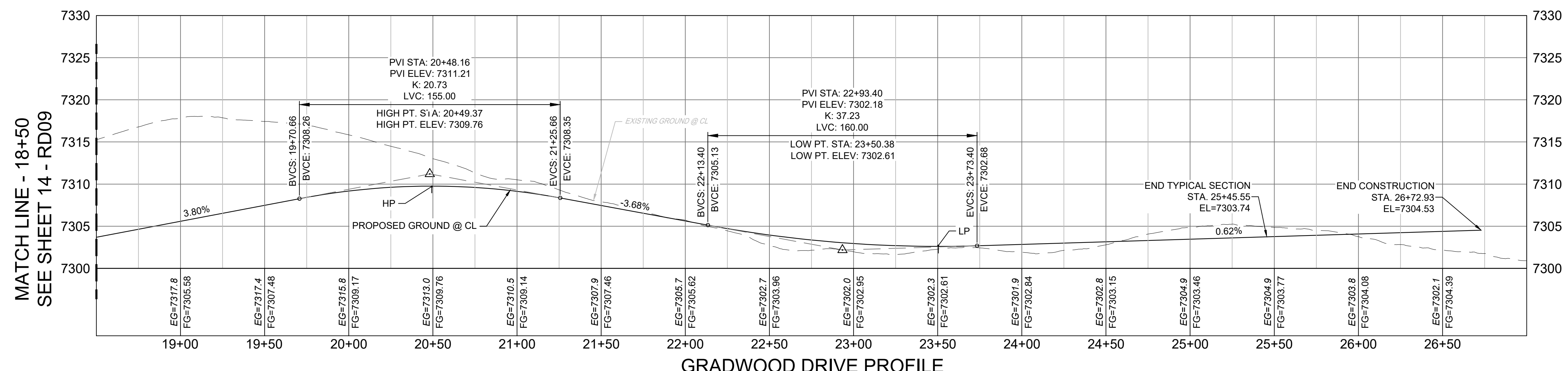


GRANDWOOD DRIVE PLAN

CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C8	1048.99	350.00	171°43'21"	S48°48'49"E	698.18

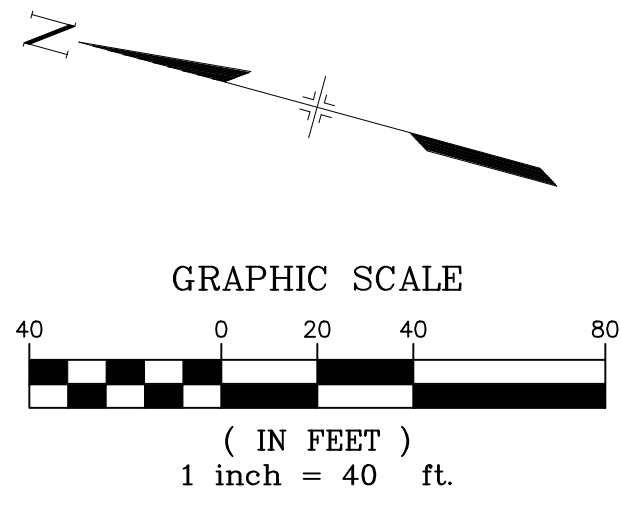
- NOTES:
1. ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
 2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

MATCH LINE - 18+50
SEE SHEET 14 - RD09



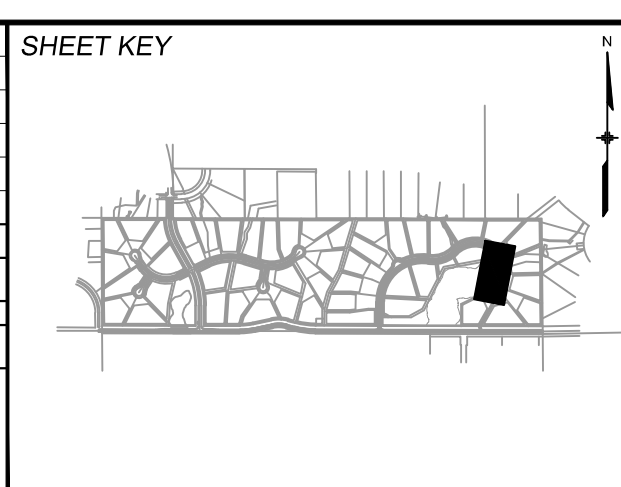
GRADWOOD DRIVE PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'



REFERENCE DRAWINGS	NO.	DATE	DESCRIPTION	BY
X-Title-Plan & Profile				
X-1105-PR-SITE				

COMPUTER FILE MANAGEMENT	
FILE NAME:	S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD03.dwg
CTB FILE:	
PLOT DATE:	October 2, 2020 9:14:44 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE	



BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

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OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL

PRELIMINARY
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

EL PASO COUNTY
ROAD AND STORM PLANS

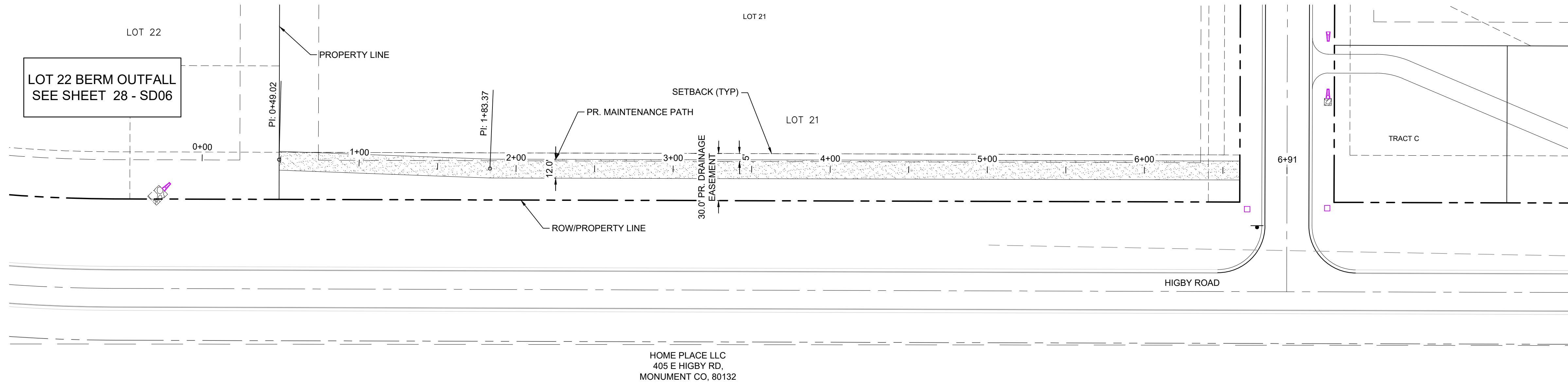
ROADWAY PLAN AND PROFILE

DESIGNED BY:	CAP	SCALE	DATE ISSUED:	SEPTEMBER 2020	DRAWING No.
DRAWN BY:	CAP	HORIZ. 1" = 40'			
CHECKED BY:	NMS	VERT. 1" = 8'	SHEET	15 OF 38	RD10



Know what's below.
Call before you dig.

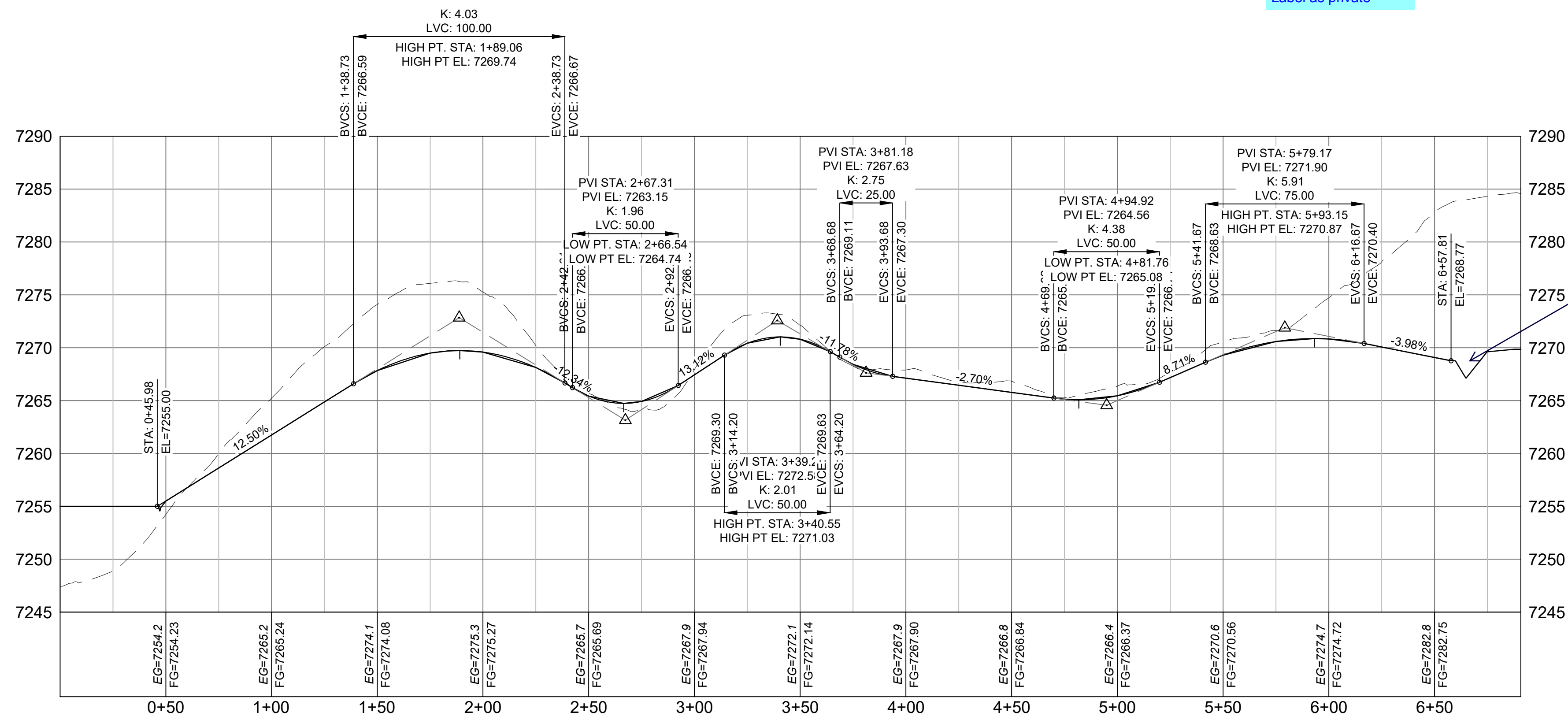
GRANDWOOD DRIVE
SEE SHEET 13 - RD08



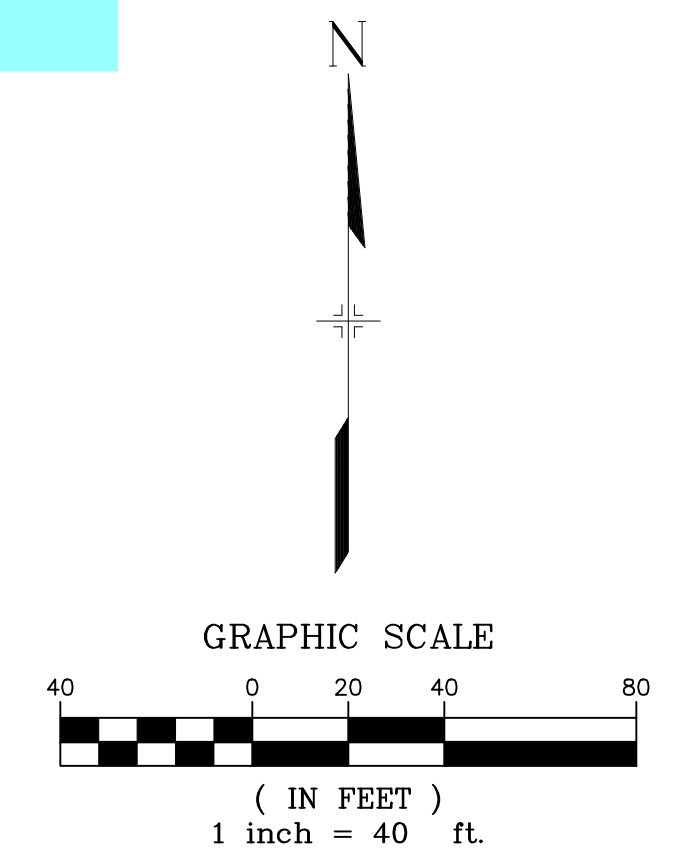
LOT 22 MAINTENANCE ACCESS ROAD PLAN

Label as private

- NOTES:
1. ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
 2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.



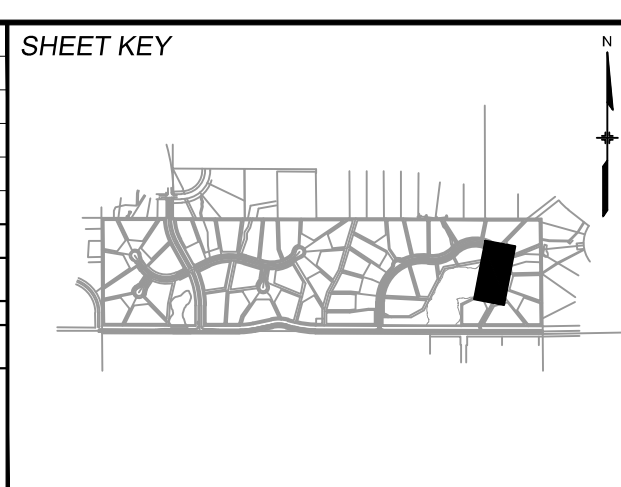
appears culvert crossing is required.
The path is located within private lot. Update the plat to add a note if this access is intended to be a shared driveway access with the lot owner or not.



No.	DATE	DESCRIPTION	BY

COMPUTER FILE MANAGEMENT

FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD03.dwg
PLOT DATE: October 2, 2020 9:14:48 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE



BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

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OWNER:
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WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

PRELIMINARY
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

EL PASO COUNTY
ROAD AND STORM PLANS

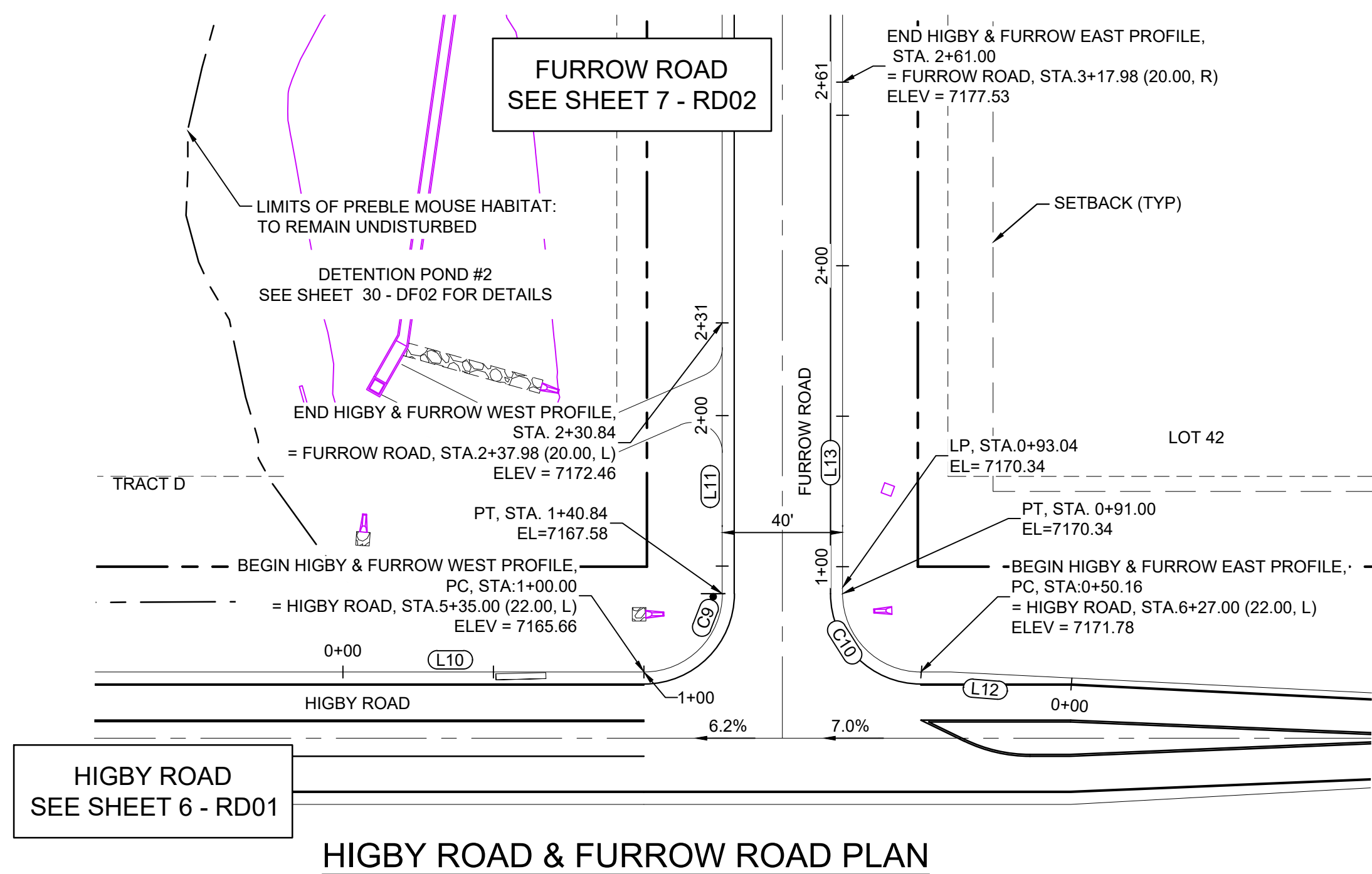
ROADWAY PLAN AND PROFILE

DESIGNED BY:	CAP	SCALE	DATE ISSUED:	SEPTEMBER 2020	DRAWING No.
DRAWN BY:	JA	HORIZ.	N/A		
CHECKED BY:	JA	VERT.	N/A	SHEET	16 OF 38

RD11

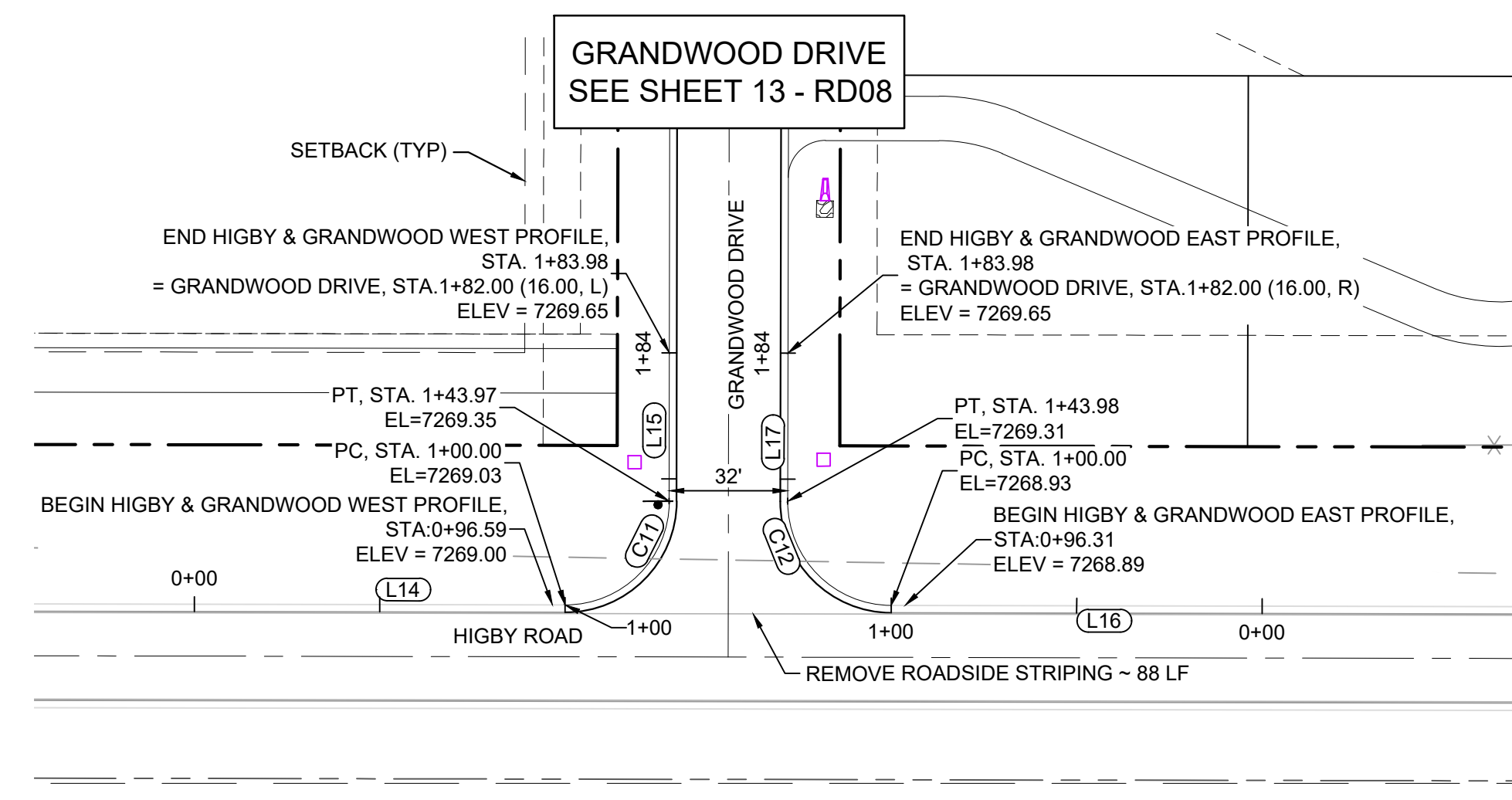


Know what's below.
Call before you dig.

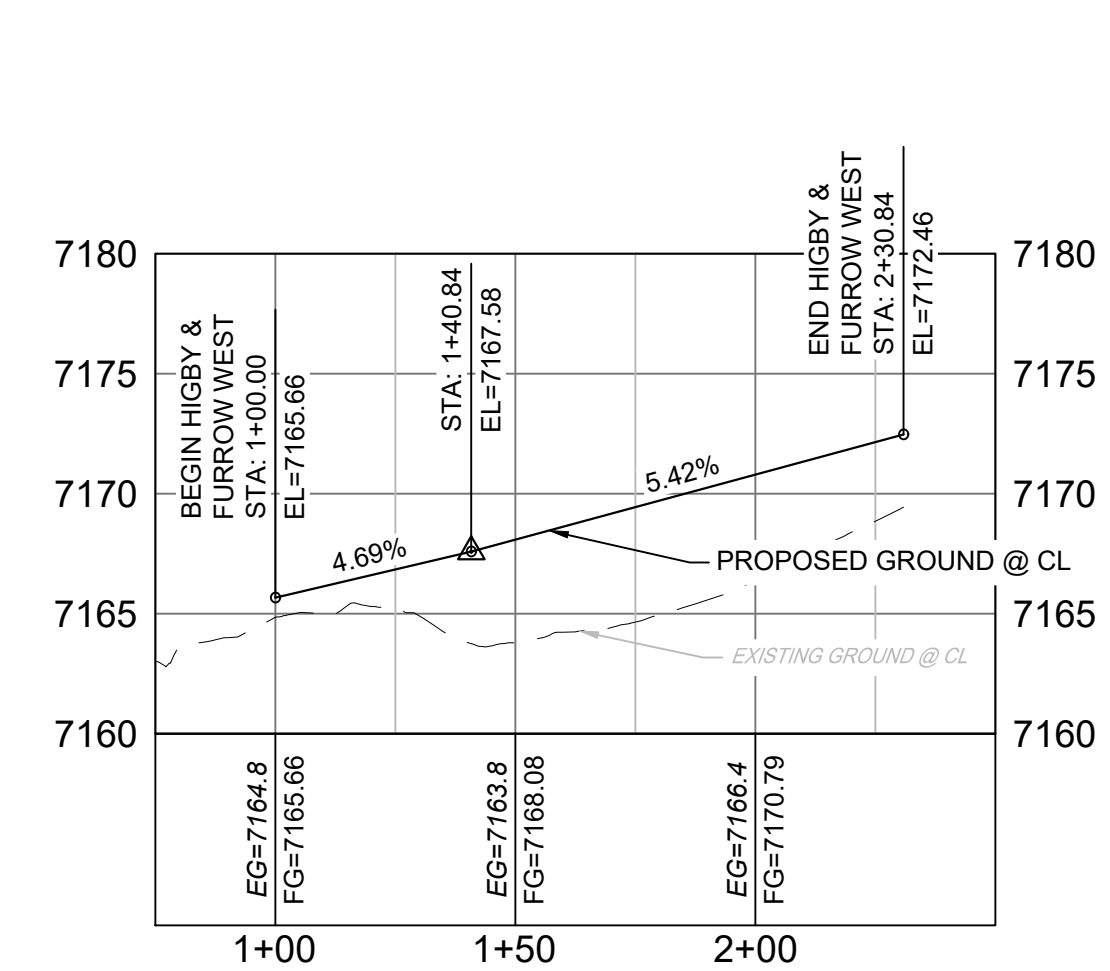


HIGBY ROAD
SEE SHEET 6 - RD01

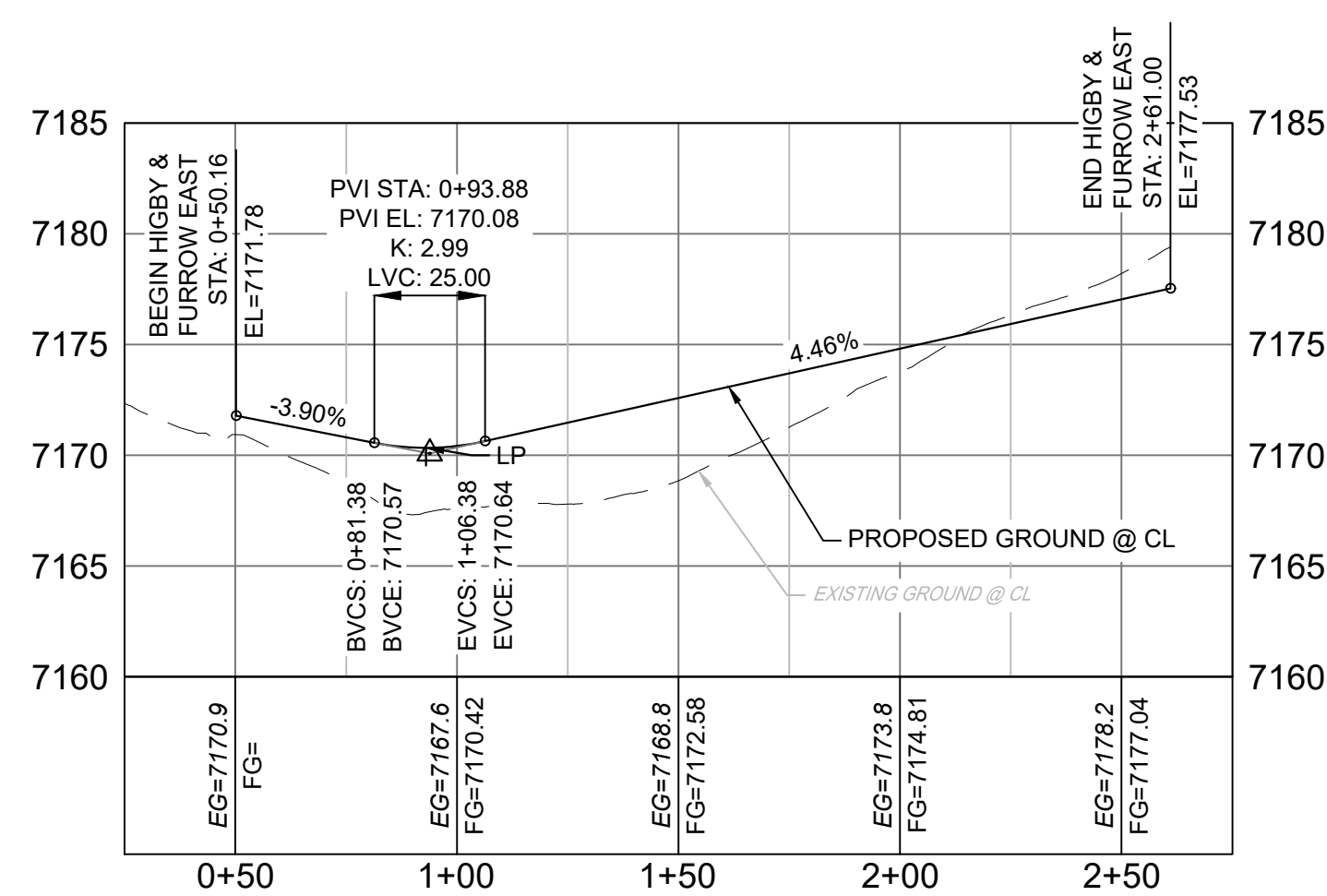
HIGBY ROAD & FURROW ROAD PLAN



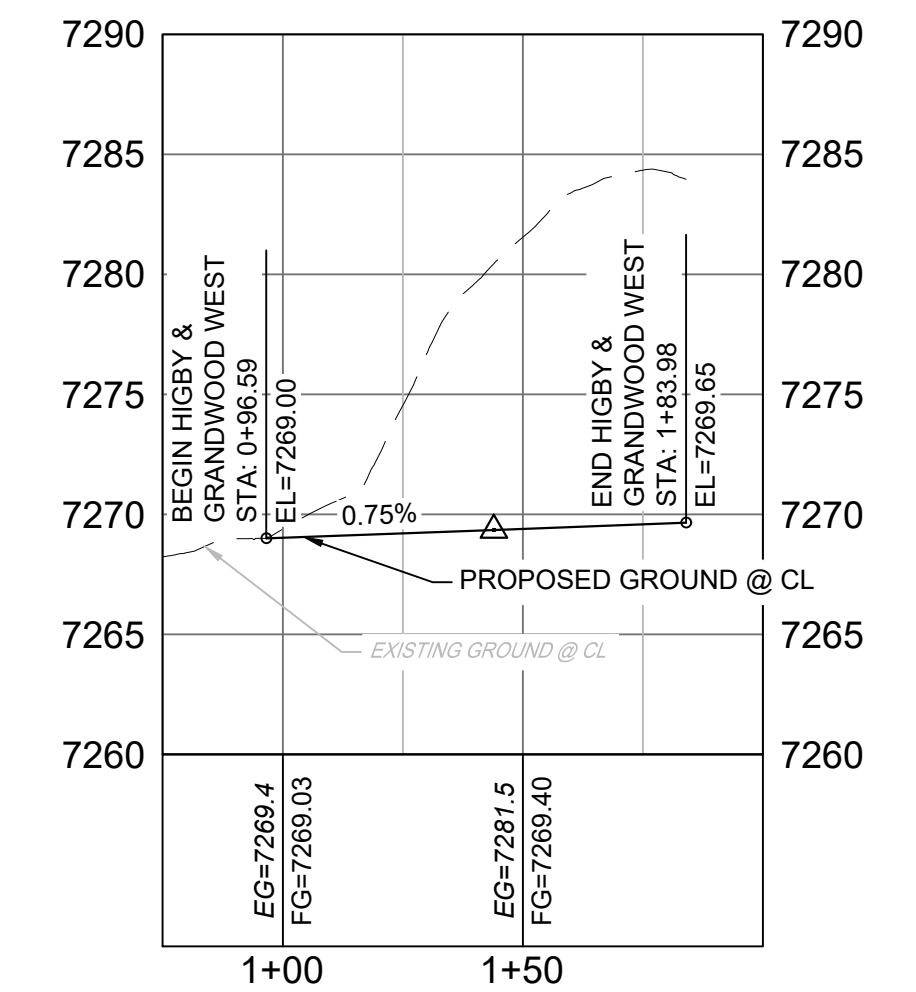
HIGBY ROAD & GRANDWOOD DRIVE PLAN



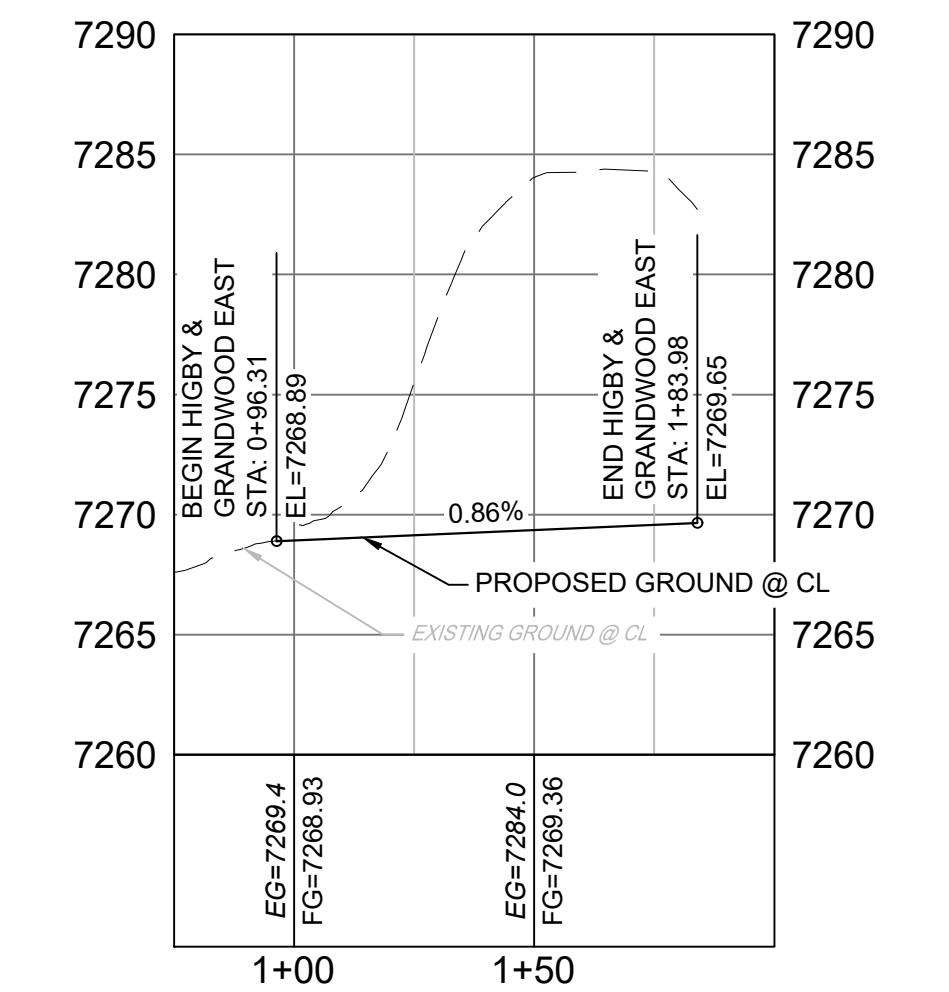
HIGBY ROAD & FURROW ROAD
WEST PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'



HIGBY ROAD & FURROW ROAD
EAST PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'



HIGBY ROAD & GRANDWOOD DRIVE
WEST PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'



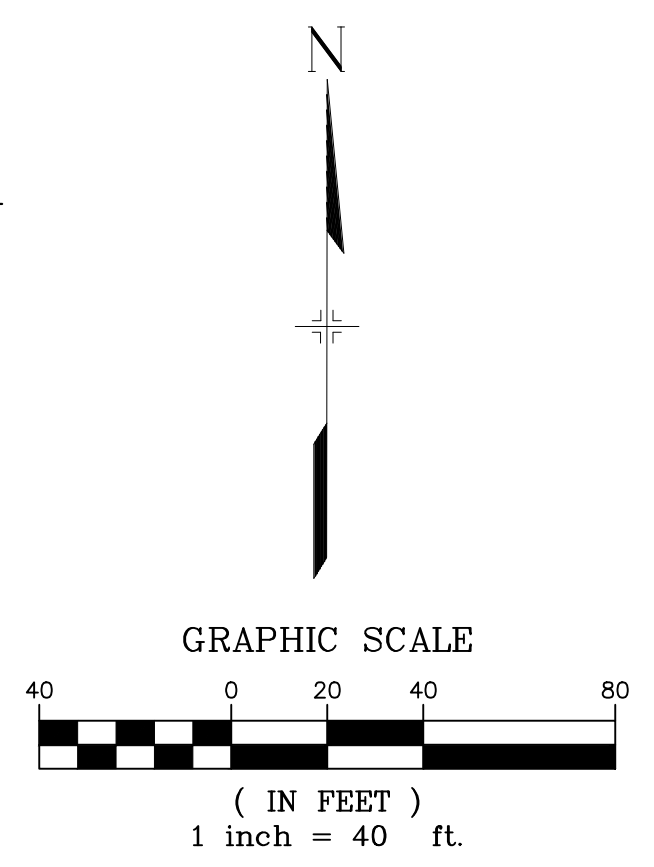
HIGBY ROAD & GRANDWOOD DRIVE
EAST PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'

LINE #	BEARING	DISTANCE
L10	S89°56'32"E	100.00
L11	N00°03'29"E	90.00
L12	N85°21'04"W	49.84
L13	N00°03'28"E	170.00
L14	S89°50'17"E	100.00
L15	N00°09'43"E	40.00
L16	N89°50'17"W	99.99
L17	N00°09'43"E	40.01

CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C9	40.84	26.00	89°59'55"	N45°03'35"E	36.77
C10	41.00	26.02	90°17'39"	N45°06'06"W	36.89
C11	43.97	28.00	89°58'48"	N45°10'19"E	39.59
C12	43.99	28.00	90°00'41"	N44°50'38"W	39.60

Clarify if this is for the edge of gravel shoulder or edge of pavement. Comment applies to RD12, & RD14

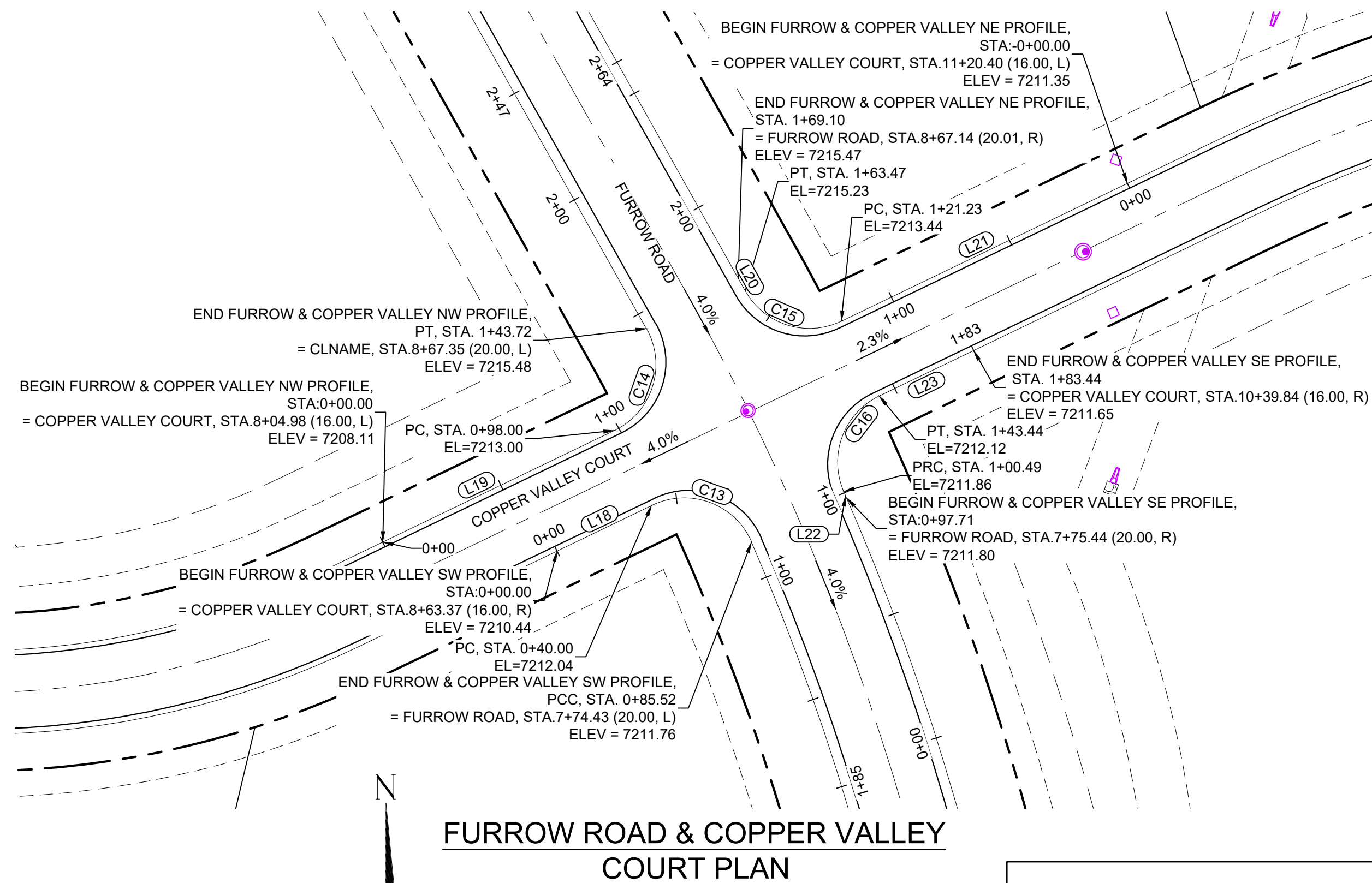
- NOTES:
1. ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.



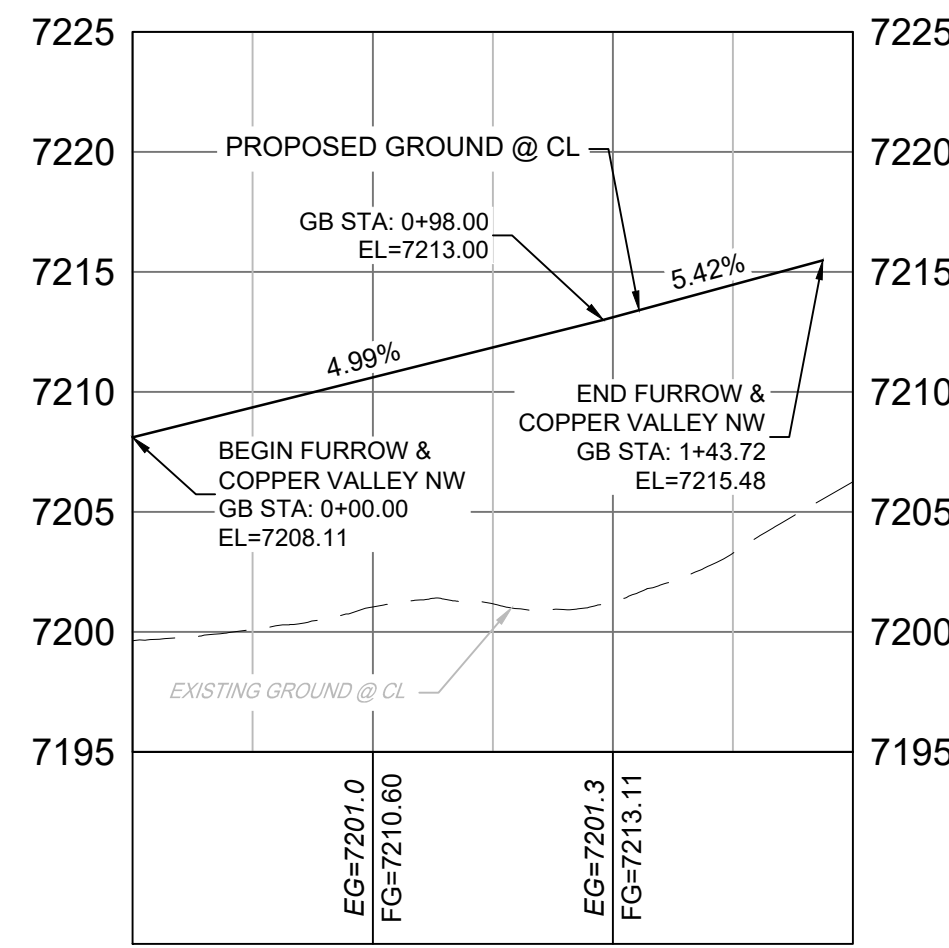
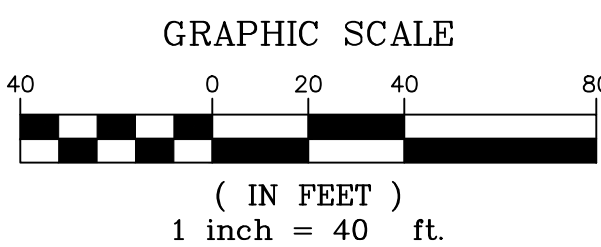
<p>REFERENCE DRAWINGS</p> <p>X-Title-Plan & Profile X-1105-PR-SITE</p>	<table border="1"> <thead> <tr> <th>No.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	No.	DATE	DESCRIPTION	BY																					<p>SHEET KEY</p>	<p>BENCHMARK</p> <p>NGS T 294 ELEVATION - 7247.10 NAVD 88</p> <p>BASIS OF BEARING:</p> <p>A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS *LWA PLS 28658"</p>	<p>OWNER:</p> <p>SYLVAN VISTA, INC. WILLIAM F. HEREBIC II, MANAGER 14160 GLENEAGLE DRIVE, COLORADO SPRINGS, CO 80921</p> <p>PREPARED BY:</p>	<p>SEAL</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>PRELIMINARY</p> <p>THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE</p> </div>	<p>GRANDWOOD RANCH</p> <p>EL PASO COUNTY</p> <p>ROAD AND STORM PLANS</p> <p>ROADWAY PLAN AND PROFILE</p>
No.	DATE	DESCRIPTION	BY																											
<p>COMPUTER FILE MANAGEMENT</p> <p>FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD01.dwg</p> <p>CTB FILE:</p> <p>PLOT DATE: October 2, 2020 9:15:42 AM</p> <p>THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE</p>		<p>DESIGNED BY: CAP</p> <p>CHECKED BY: NMS</p>		<p>SCALE</p> <p>HORIZ: 1" = 40'</p> <p>VERT: 1" = 8'</p>		<p>DATE ISSUED: SEPTEMBER 2020</p> <p>DRAWING No. 17 OF 38</p>		<p>RD12</p>																						



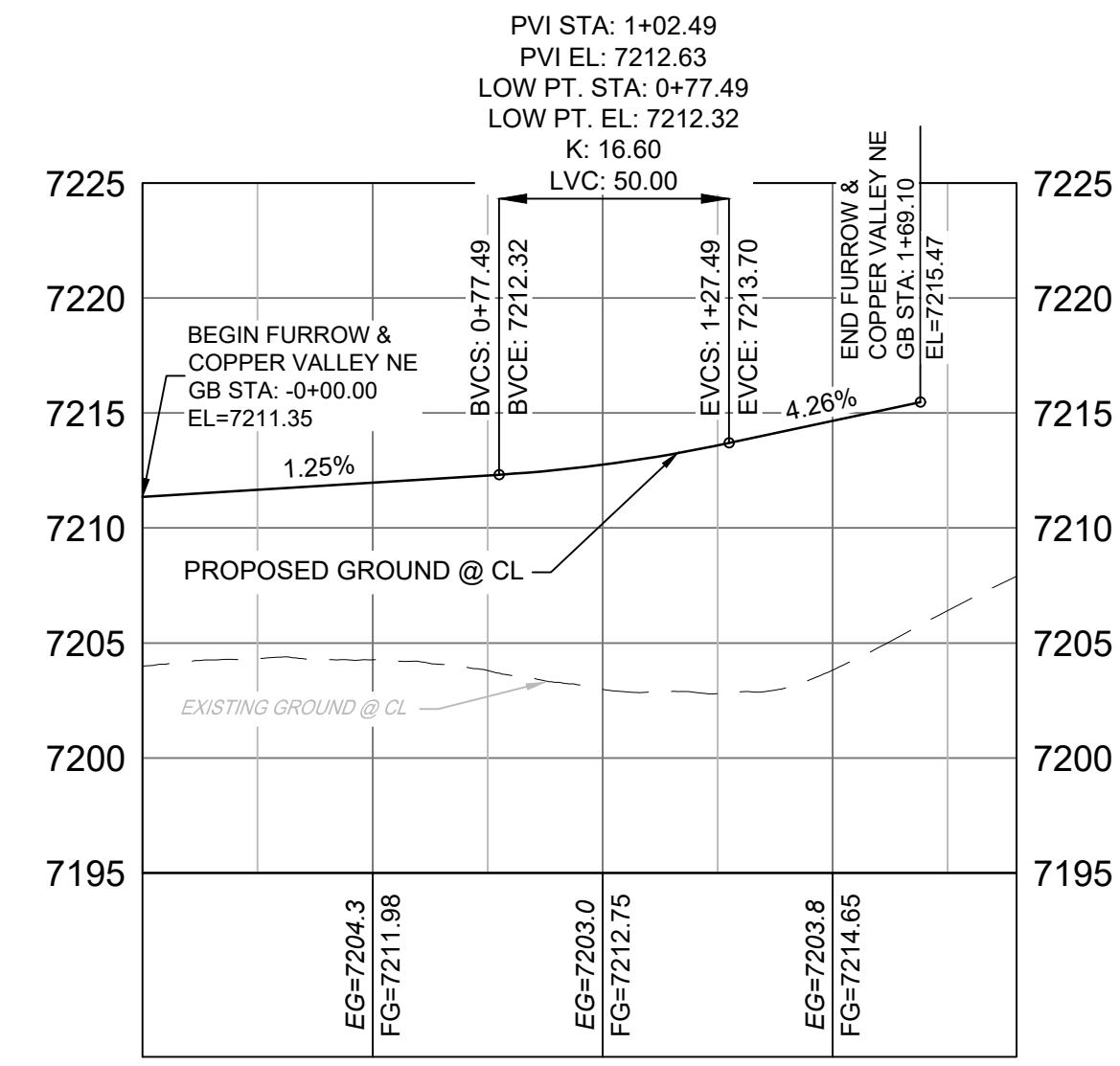
Know what's below.
Call before you dig.



FURROW ROAD & COPPER VALLEY COURT PLAN



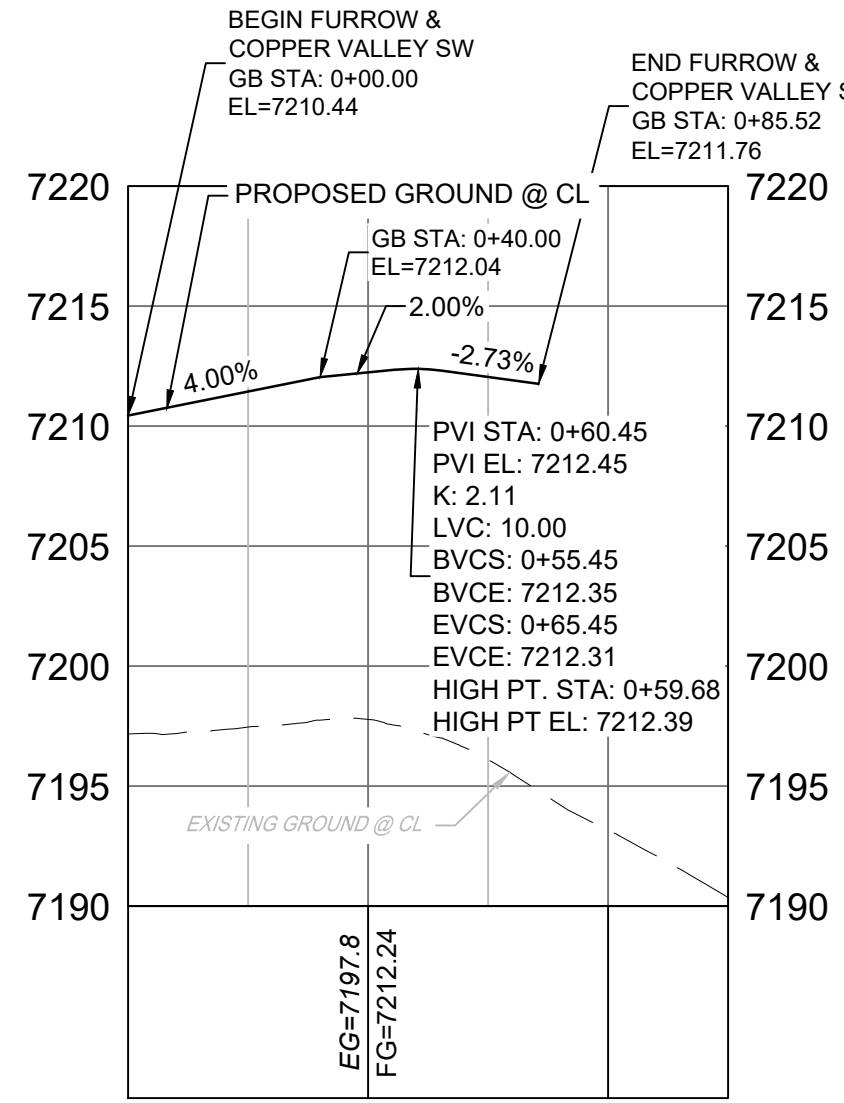
FURROW ROAD & COPPER VALLEY COURT NW PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'



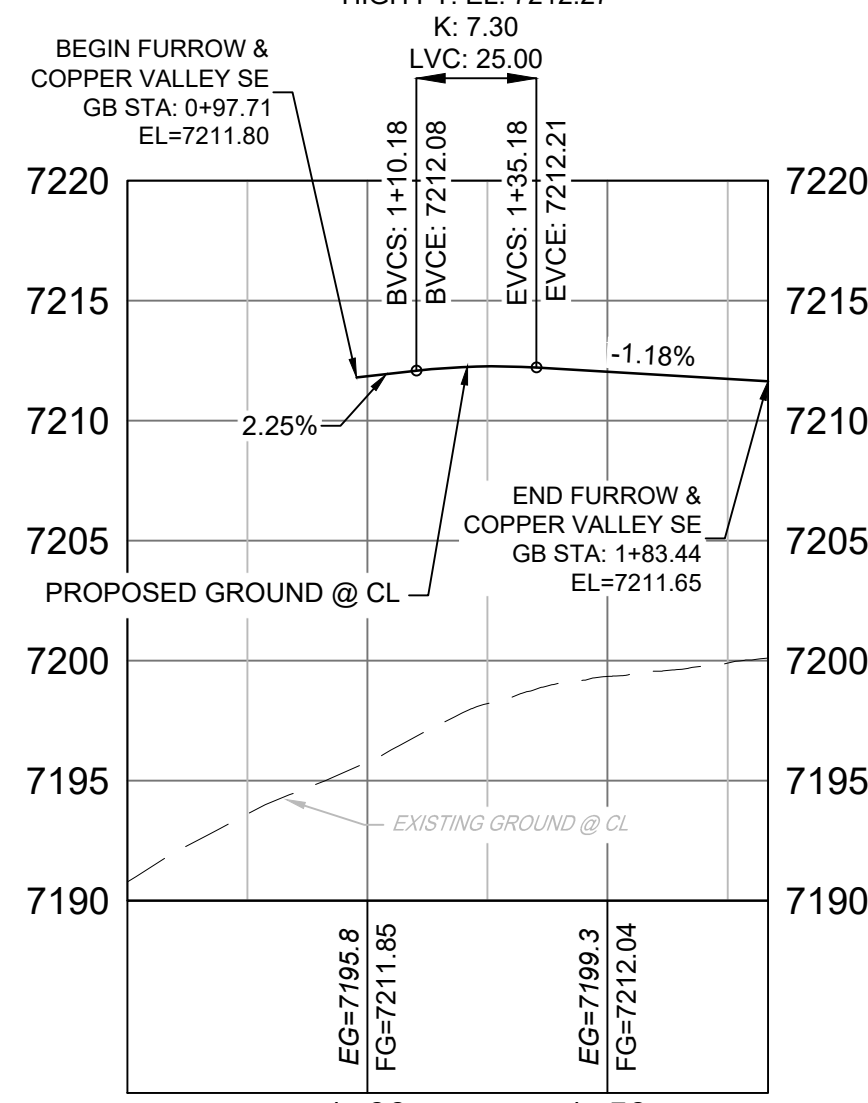
FURROW ROAD & COPPER VALLEY COURT NE PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'

LINE #	BEARING	DISTANCE
L18	N64°17'07"E	40.00
L19	N64°17'07"E	98.00
L20	S29°16'28"E	5.63
L21	N64°17'08"E	121.23
L22	S23°30'58"E	2.79
L23	S64°17'07"W	40.00

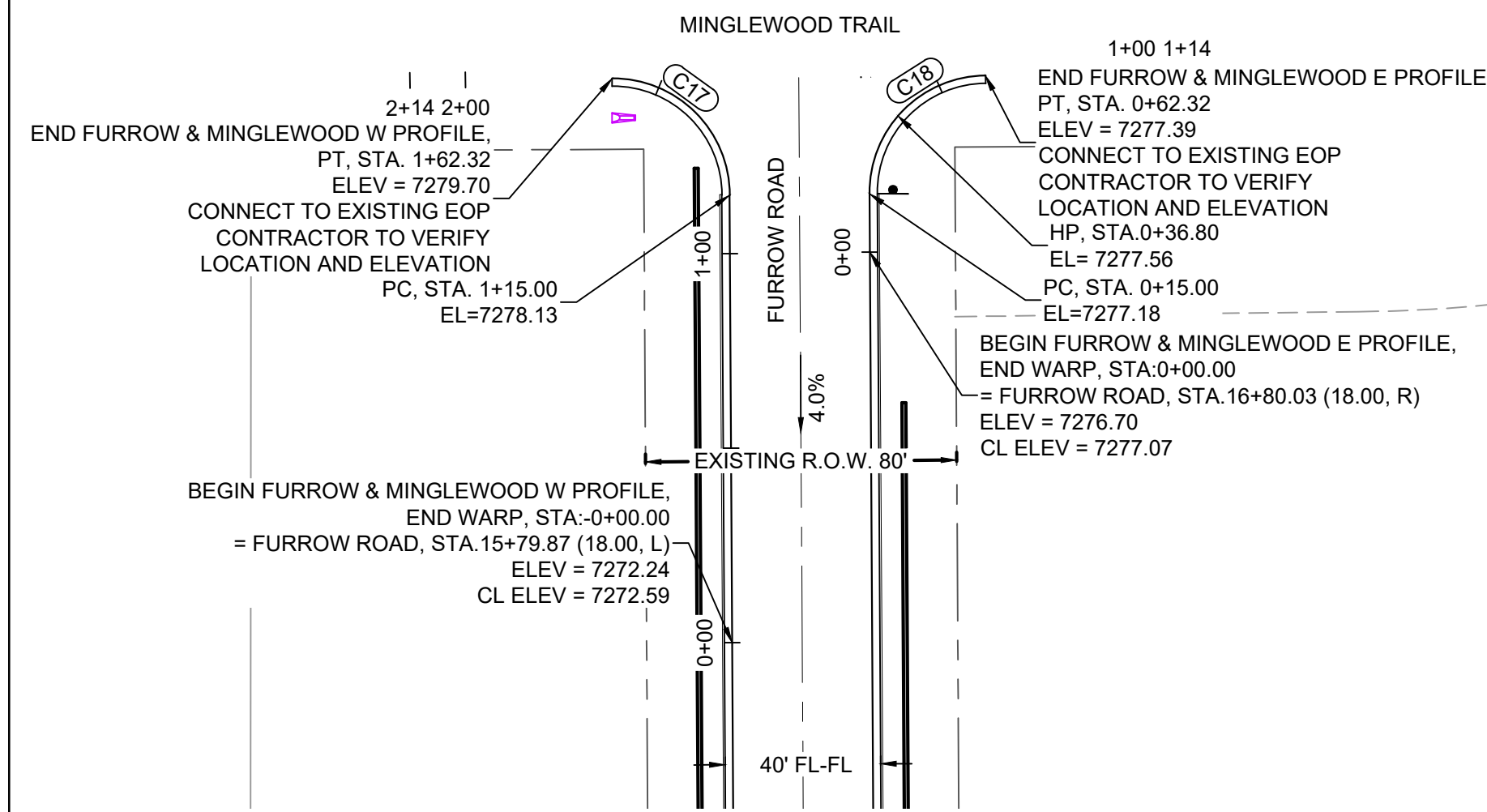
CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C13	45.52	28.00	93°08'09"	S69°56'30"E	40.67
C14	45.72	28.00	93°33'35"	N17°30'20"E	40.81
C15	42.24	28.00	86°26'24"	S72°29'40"E	38.35
C16	42.95	28.00	87°53'06"	S20°20'34"W	38.86



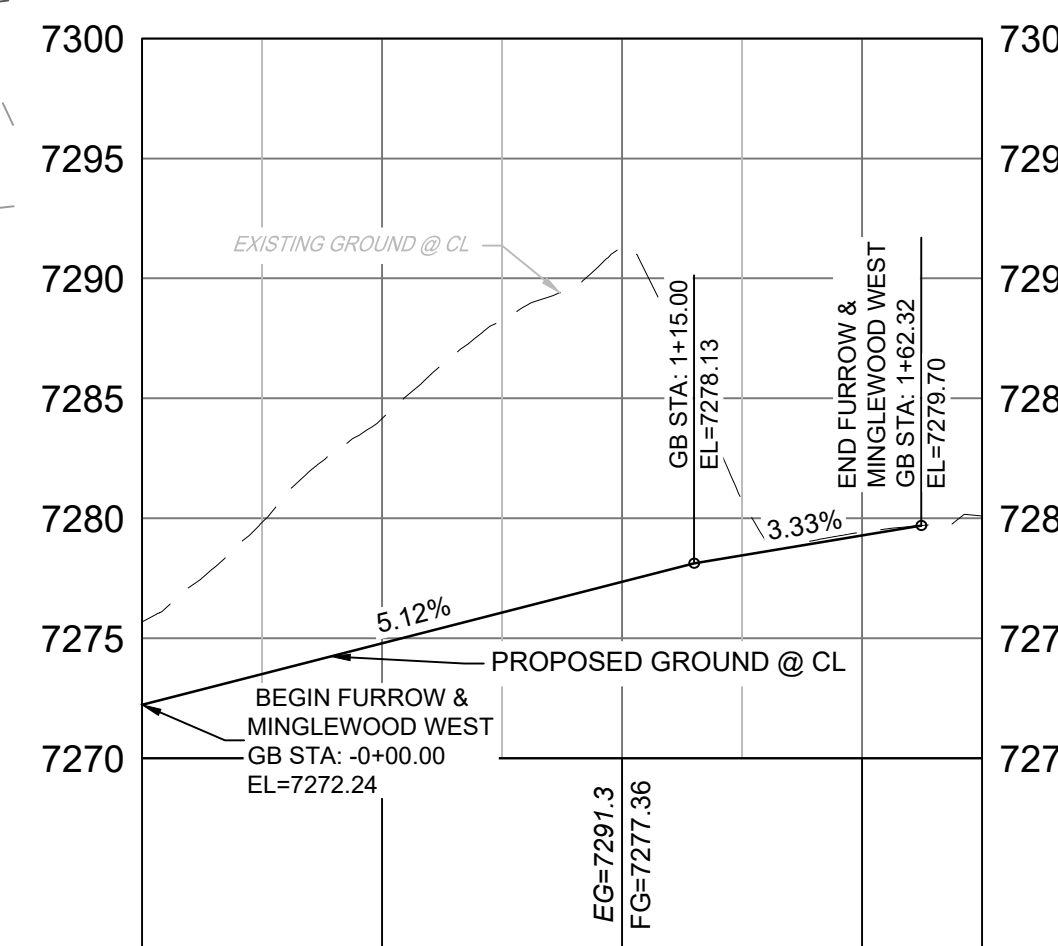
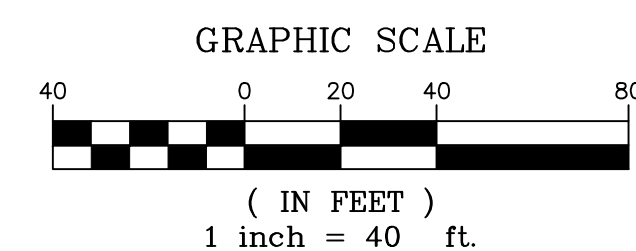
FURROW ROAD & COPPER VALLEY COURT SW PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'



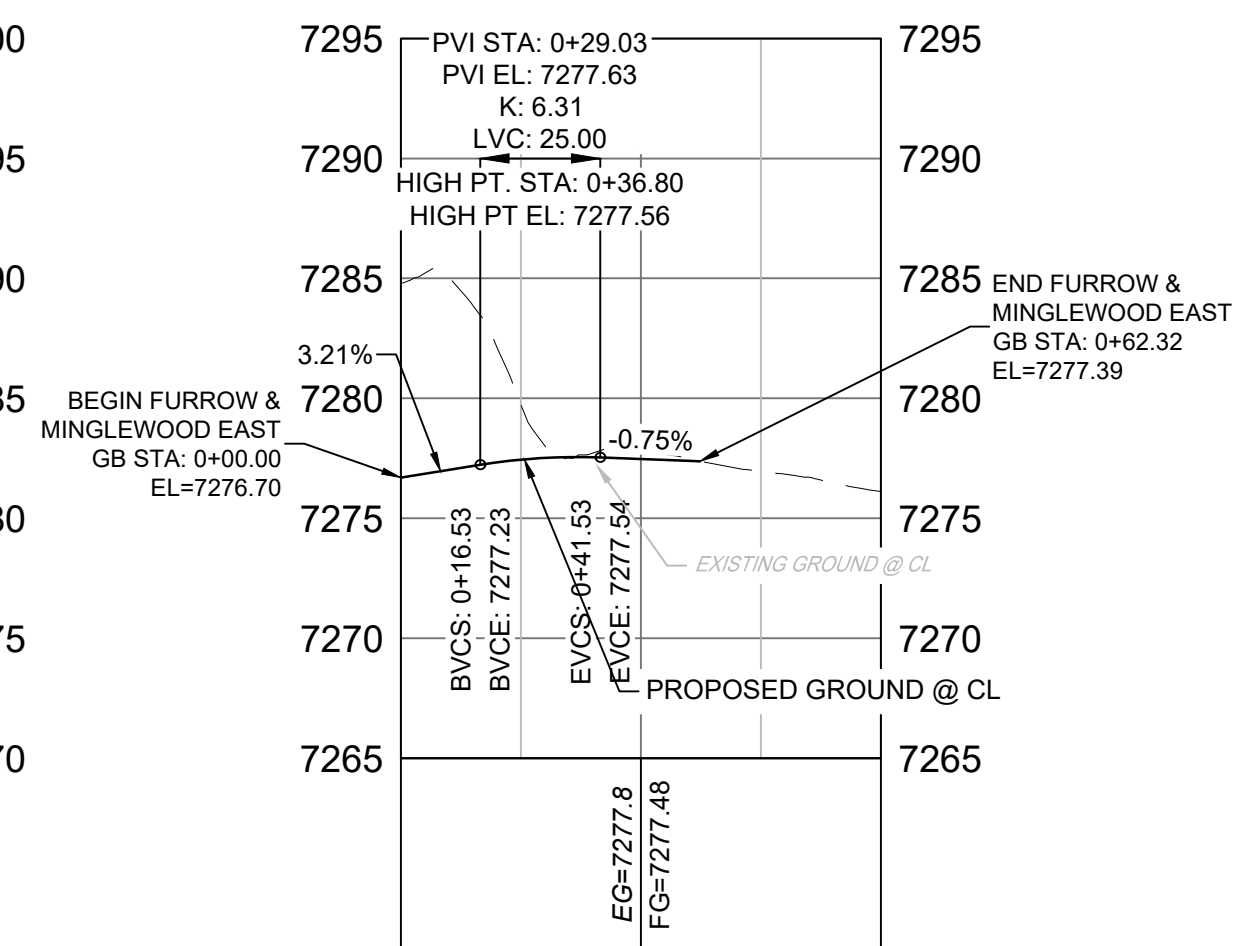
FURROW ROAD & COPPER VALLEY COURT SE PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'



CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C17	47.32	30.01	90°21'21"	S45°11'01"E	42.57
C18	47.49	30.00	90°41'10"	N44°20'00"E	42.68



FURROW ROAD & MINGLEWOOD TRAIL W PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'



FURROW ROAD & MINGLEWOOD TRAIL E PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'

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REF. NO.	DATE	DESCRIPTION	BY

COMPUTER FILE MANAGEMENT

FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD01.dwg
 CFB FILE:
 PLOT DATE: October 2, 2020 9:15:56 AM
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SHEET KEY

BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS *LWA PLS 28658"

OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HERBERIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL
PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

DESIGNED BY: CAP
DRAWN BY: CAP
CHECKED BY: NMS

SCALE
HORIZ: 1" = 40'
VERT: 1" = 8'

DATE ISSUED: SEPTEMBER 2020
SHEET: 18 OF 38

DRAWING No.: RD13

GRANDWOOD RANCH
EL PASO COUNTY
ROAD AND STORM PLANS
ROADWAY PLAN AND PROFILE

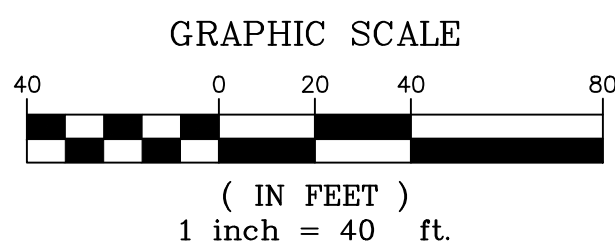
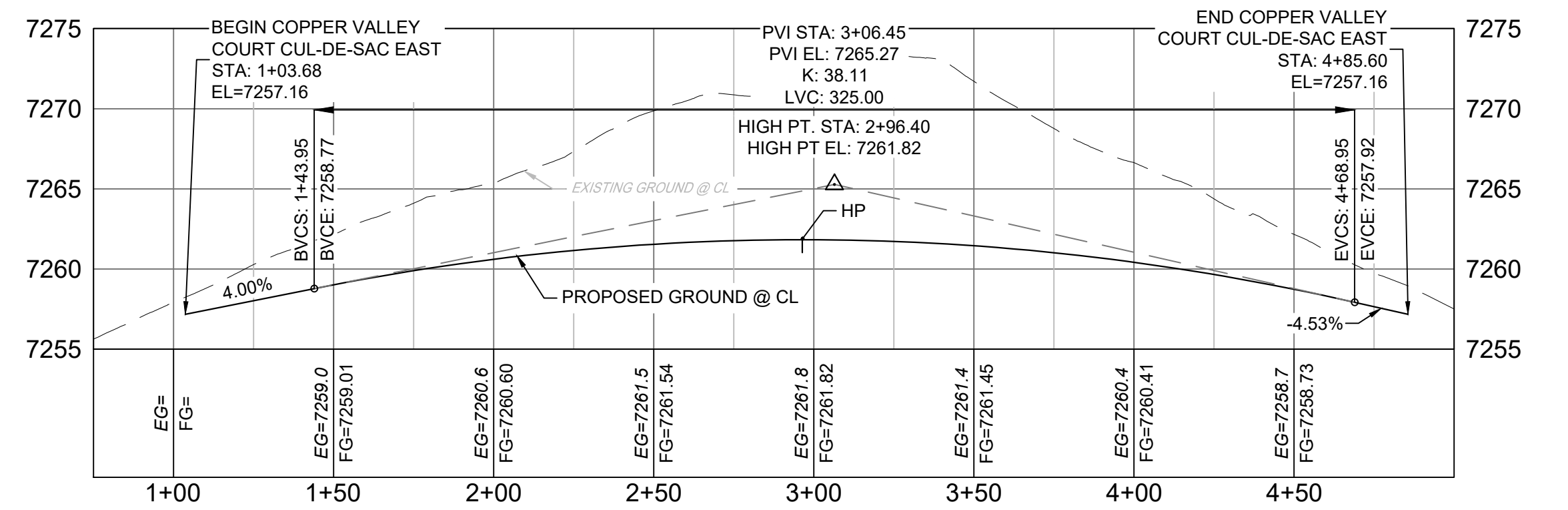
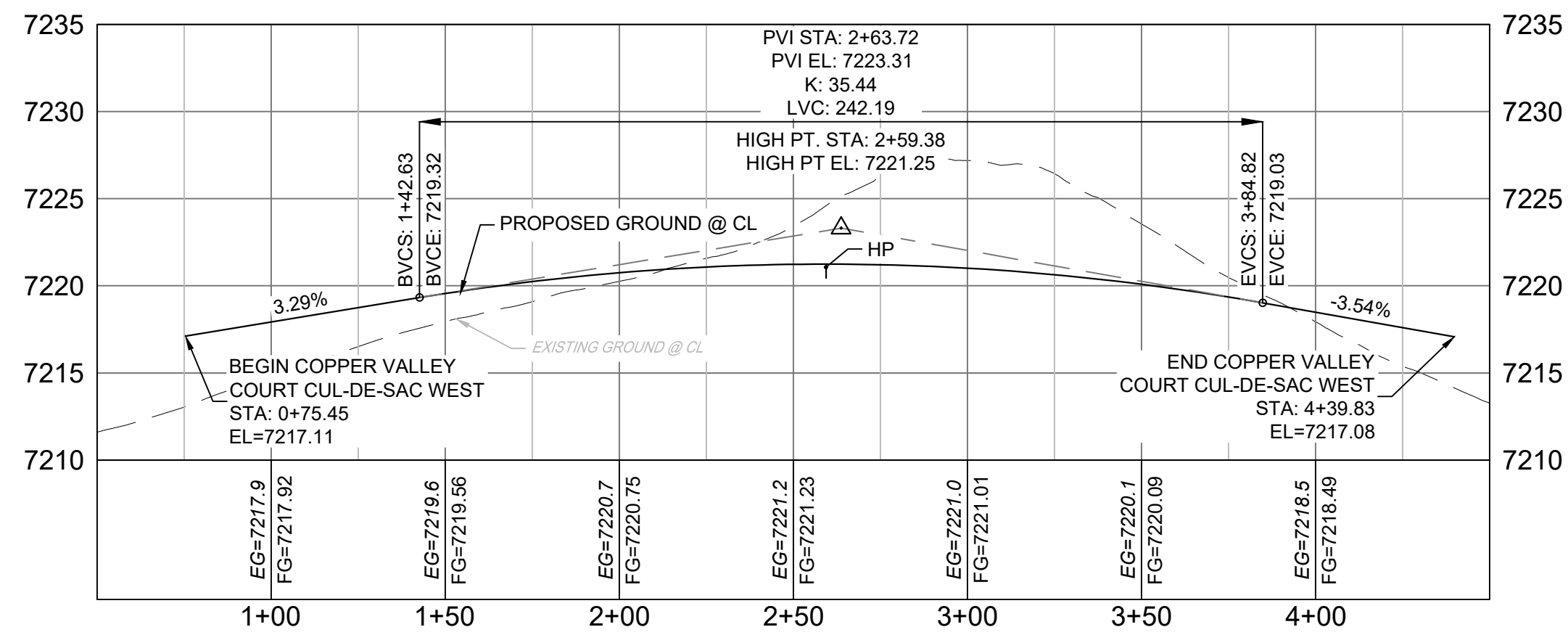
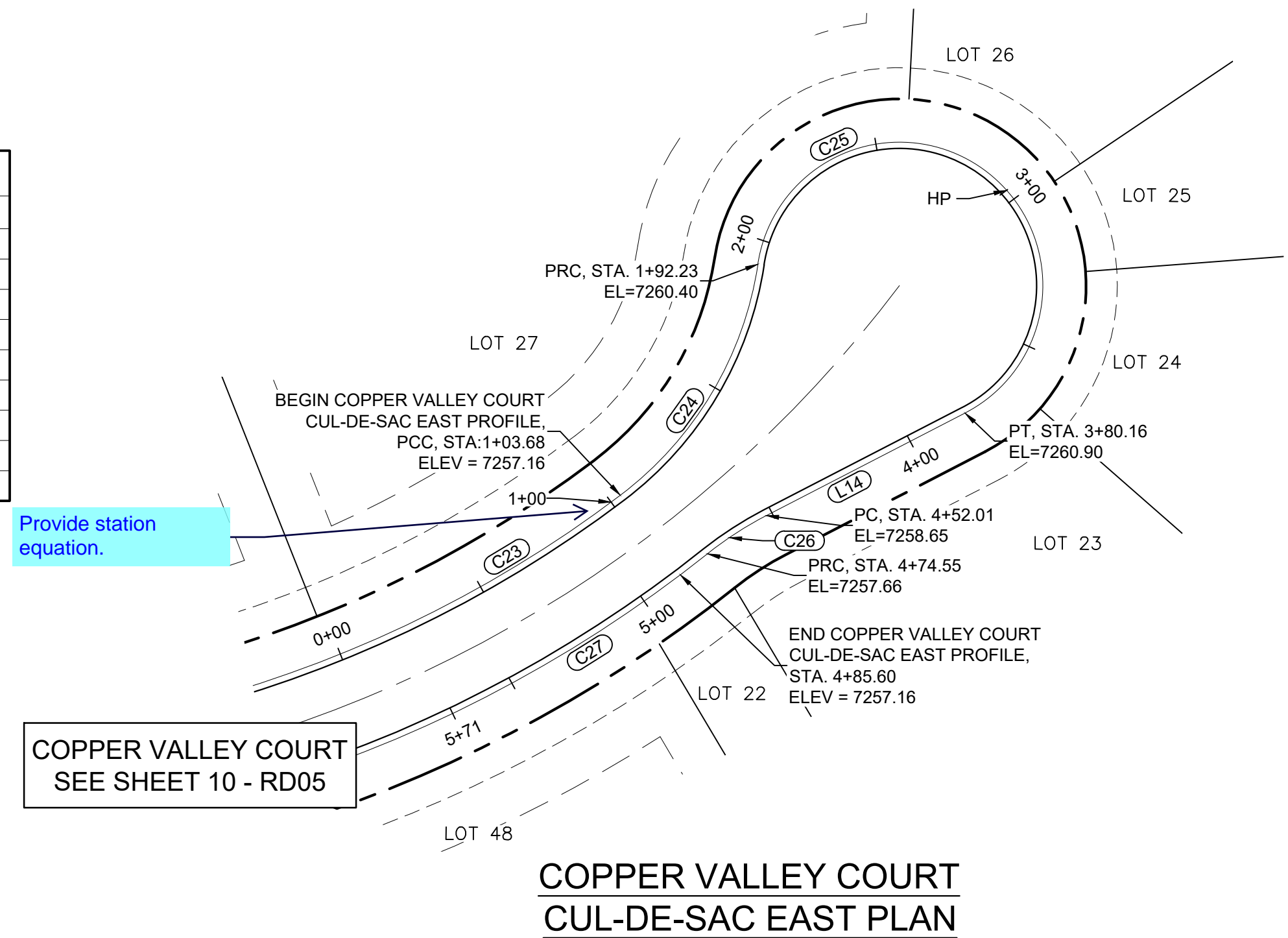
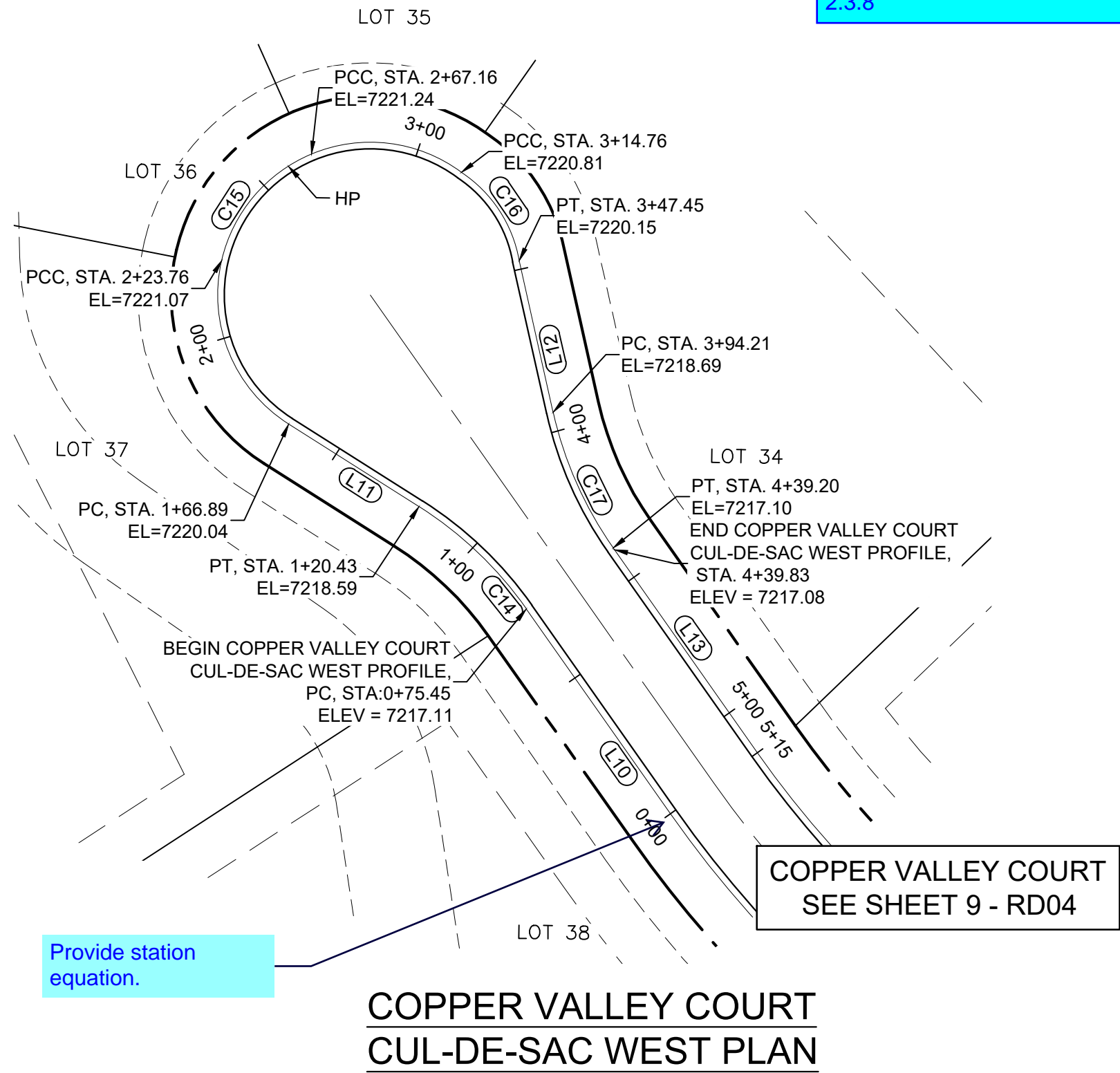


Know what's below.
Call before you dig.

Minimum radius for rural
cul-de-sacs is 50 ft to edge of
pavement. Revise per ECM
2.3.8

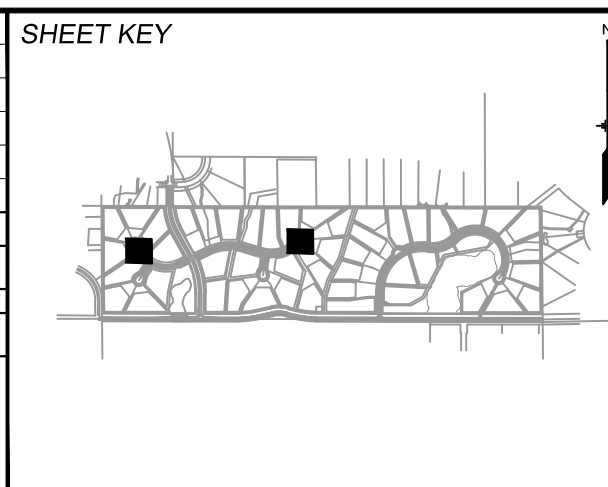
LINE #	BEARING	DISTANCE
L10	N36°22'25"W	75.45
L11	N58°52'25"W	46.46
L12	S13°52'25"E	46.76
L13	S36°22'25"E	75.45
L14	S62°25'41"W	71.89

CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C14	44.98	114.55	22°30'00"	N47°37'25"W	44.70
C15	147.87	46.00	184°10'58"	N33°13'04"E	91.94
C16	32.69	40.23	46°33'35"	S34°28'22"E	31.80
C17	44.98	114.55	22°30'00"	S25°07'25"E	44.70
C23	103.68	394.00	15°04'40"	N60°10'34"E	103.39
C24	88.55	114.55	44°17'23"	N30°29'33"E	86.36
C25	187.93	46.00	234°04'50"	S54°36'44"E	81.94
C26	22.50	114.55	11°15'19"	S56°46'48"W	22.47
C27	96.82	426.00	13°01'18"	S57°39'48"W	96.61



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REFERENCE DRAWINGS	NO.	DATE	DESCRIPTION	BY
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X-1105-PR-SITE				
COMPUTER FILE MANAGEMENT				
FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD05.dwg				
PLOT DATE: October 2, 2020 9:16:40 AM				
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BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

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OWNER:
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WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL

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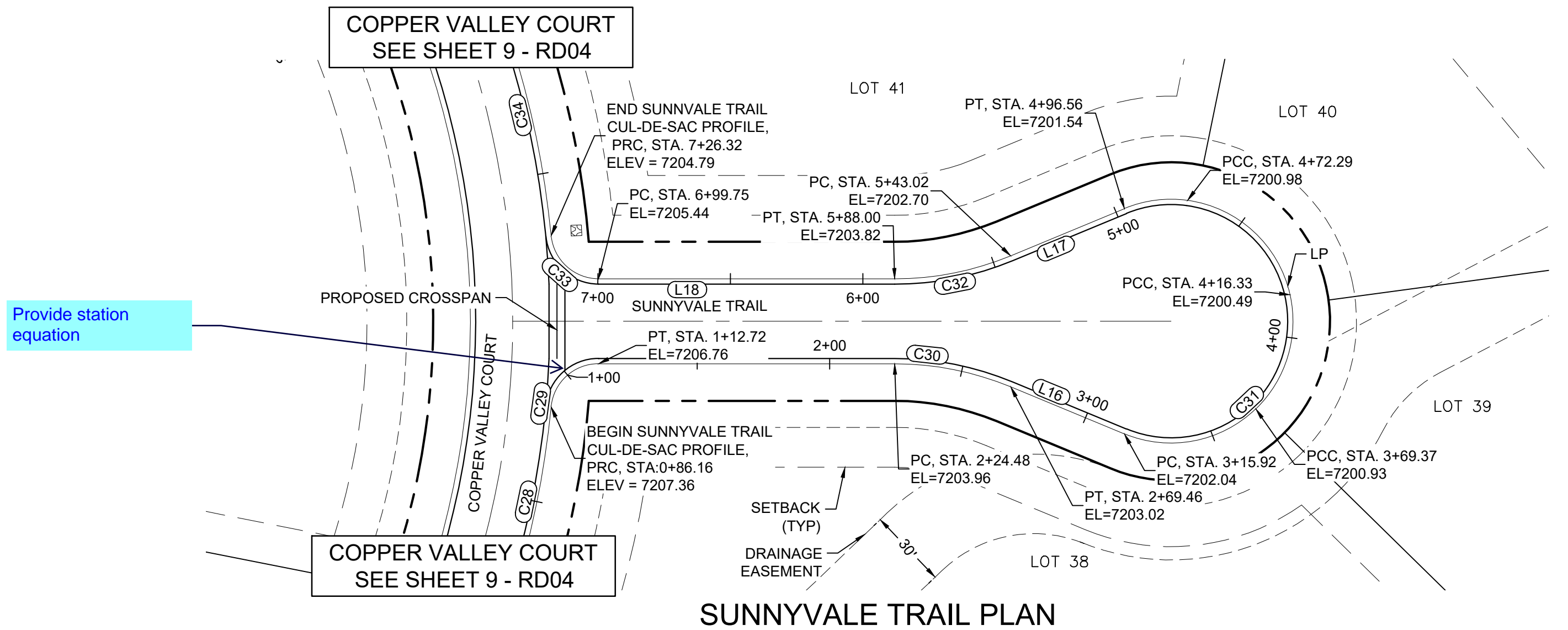
FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH			
EL PASO COUNTY ROAD AND STORM PLANS			
ROADWAY PLAN AND PROFILE			
DESIGNED BY: CAP	SCALE: N/A	DATE ISSUED: SEPTEMBER 2020	DRAWING No. RD14
CHECKED BY: JJA	HORIZ. VERT. N/A	SHEET 19 OF 38	

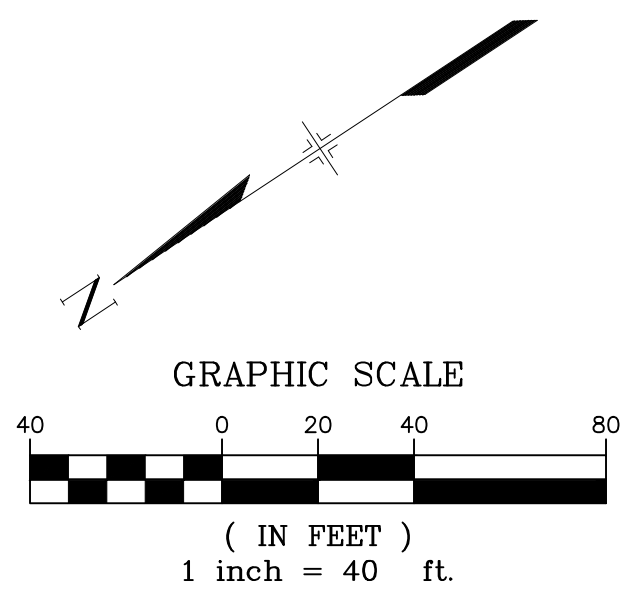


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2.3.8

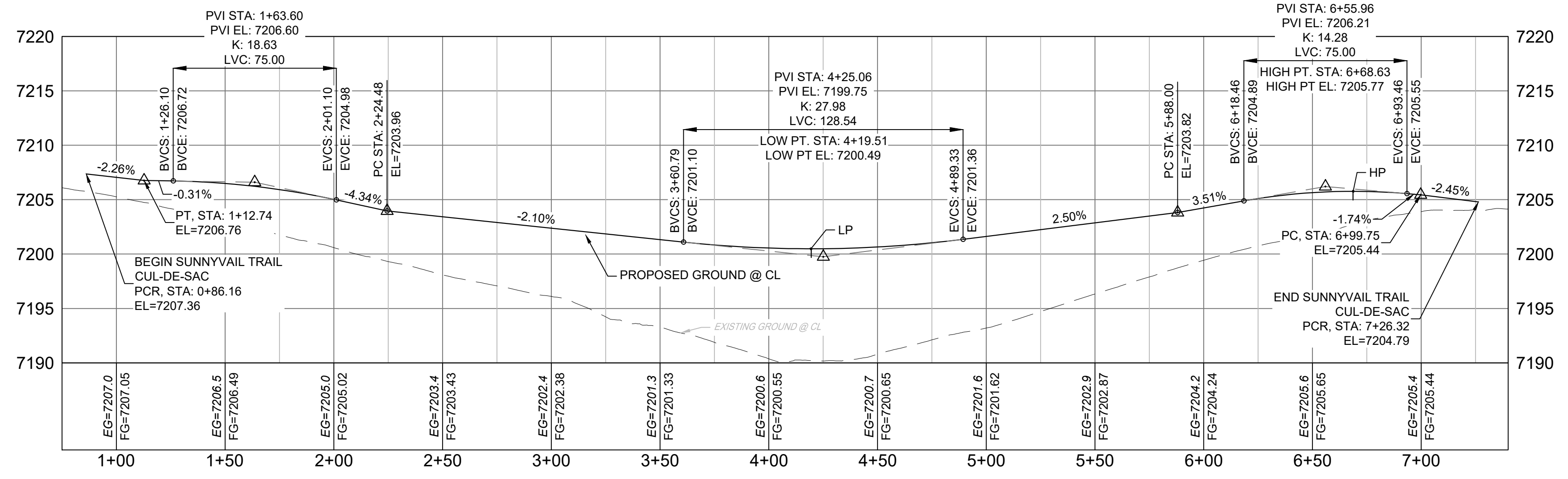


SUNNYVALE TRAIL PLAN



LINE #	BEARING	DISTANCE
L15	S33°42'56"W	111.75
L16	S56°12'56"W	46.46
L17	N11°12'56"E	46.46
L18	N33°42'56"E	110.64

CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C28	86.16	341.00	14°28'35"	S43°36'43"E	85.93
C29	26.57	18.00	84°33'56"	S08°34'02"E	24.22
C30	44.98	114.55	22°30'00"	S44°57'56"W	44.70
C31	180.64	46.00	225°00'00"	S56°17'04"E	85.00
C32	44.98	114.55	22°30'00"	N22°27'56"E	44.70
C33	27.68	18.08	87°43'15"	N74°16'50"E	25.06
C34	92.56	341.00	15°33'10"	S69°29'44"E	92.28



SUNNYVALE TRAIL
CUL-DE-SAC PROFILE

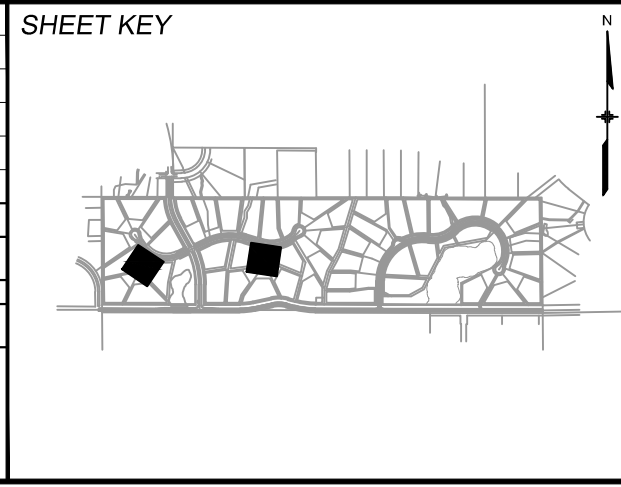
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COMPUTER FILE MANAGEMENT

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BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

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PREPARED BY:

SEAL

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GRANDWOOD RANCH

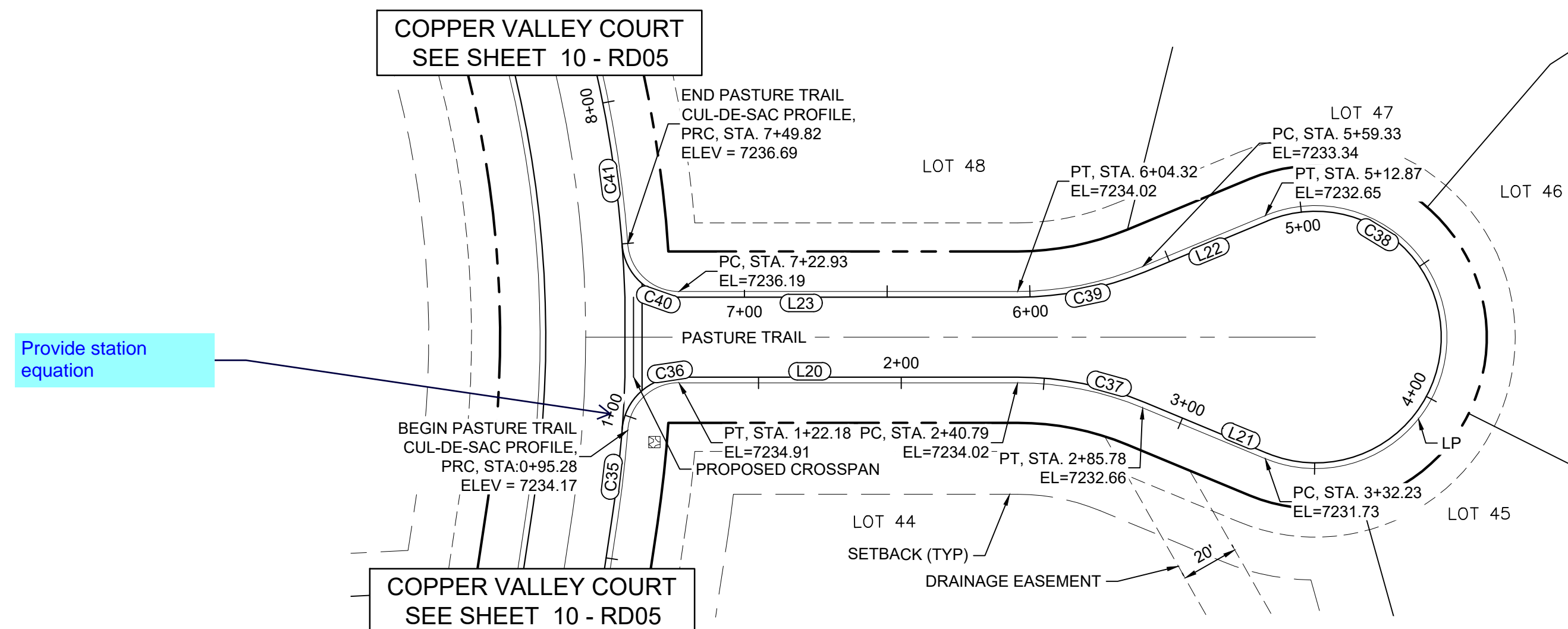
EL PASO COUNTY
ROAD AND STORM PLANS

ROADWAY PLAN AND PROFILE

DESIGNED BY:	CAP	SCALE	DATE ISSUED:	SEPTEMBER 2020	DRAWING No.
DRAWN BY:	JA	HORIZ.	N/A	SHEET	20 OF 38
CHECKED BY:	JA	VERT.	N/A		RD15



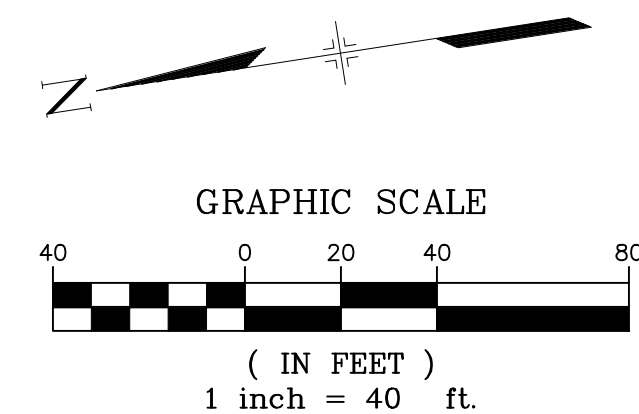
Know what's below. Call before you dig.



Minimum radius for rural cul-de-sacs is 50 ft to edge of pavement. Revise per ECM 2.3.8

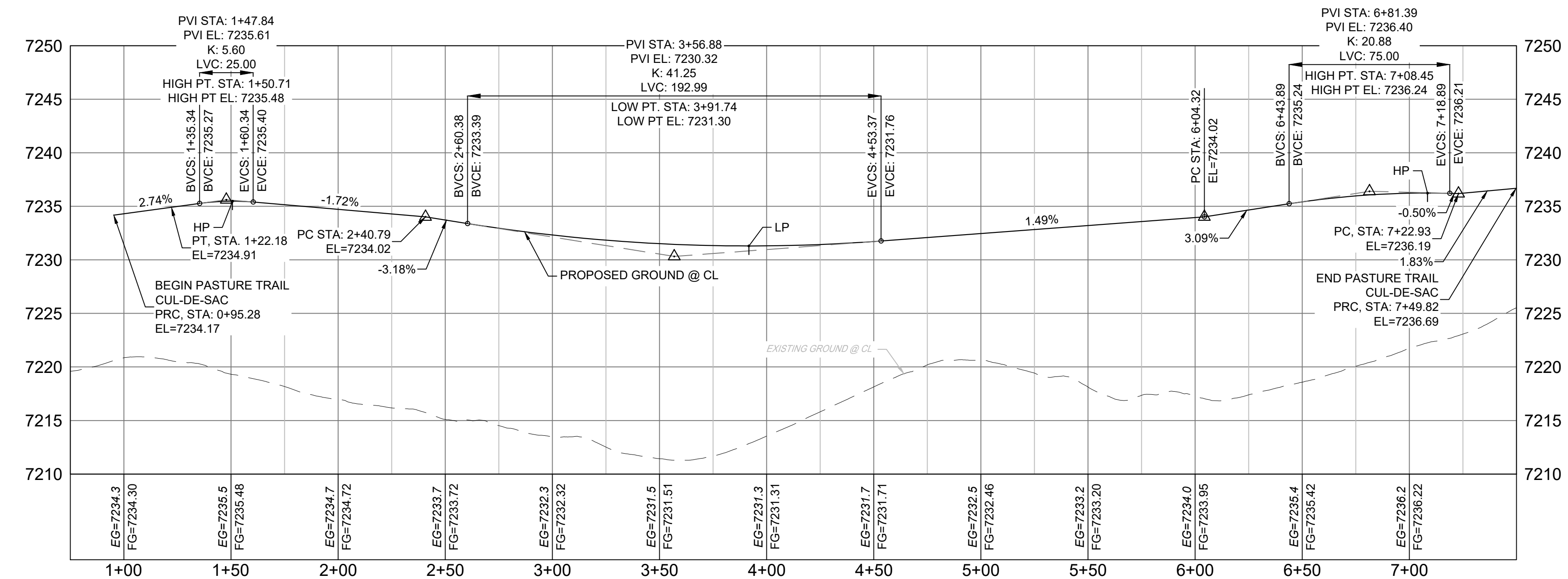
Provide station equation

PASTURE TRAIL PLAN



LINE #	BEARING	DISTANCE
L19	S73°06'20"E	64.47
L20	S08°21'30"W	118.61
L21	S30°51'31"W	46.46
L22	N14°08'32"W	46.46
L23	N08°21'30"E	118.61

CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C35	30.81	426.00	4°08'39"	S75°10'40"E	30.81
C36	26.89	18.00	85°36'29"	S34°26'45"E	24.46
C37	44.98	114.55	22°30'01"	S19°36'30"W	44.70
C38	180.64	46.00	225°00'03"	S81°38'30"E	85.00
C39	44.98	114.55	22°30'01"	N02°53'31"W	44.70
C40	26.89	18.00	85°36'29"	N51°09'44"E	24.46
C41	93.23	426.00	12°32'22"	N87°41'48"E	93.05



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COMPUTER FILE MANAGEMENT

FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD05.dwg

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SHEET KEY

BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

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WILLIAM F. HERBERIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

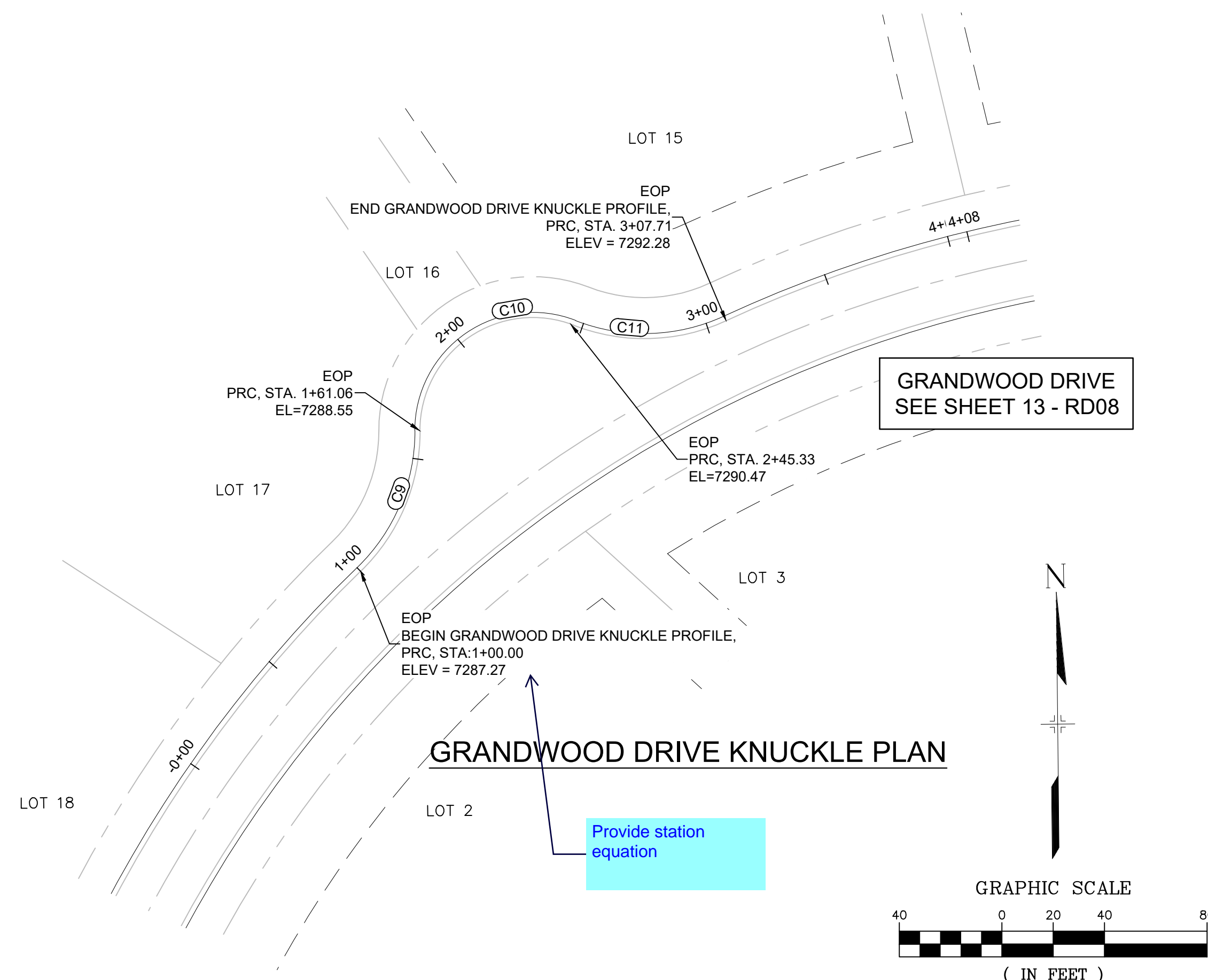
EL PASO COUNTY
ROAD AND STORM PLANS

ROADWAY PLAN AND PROFILE

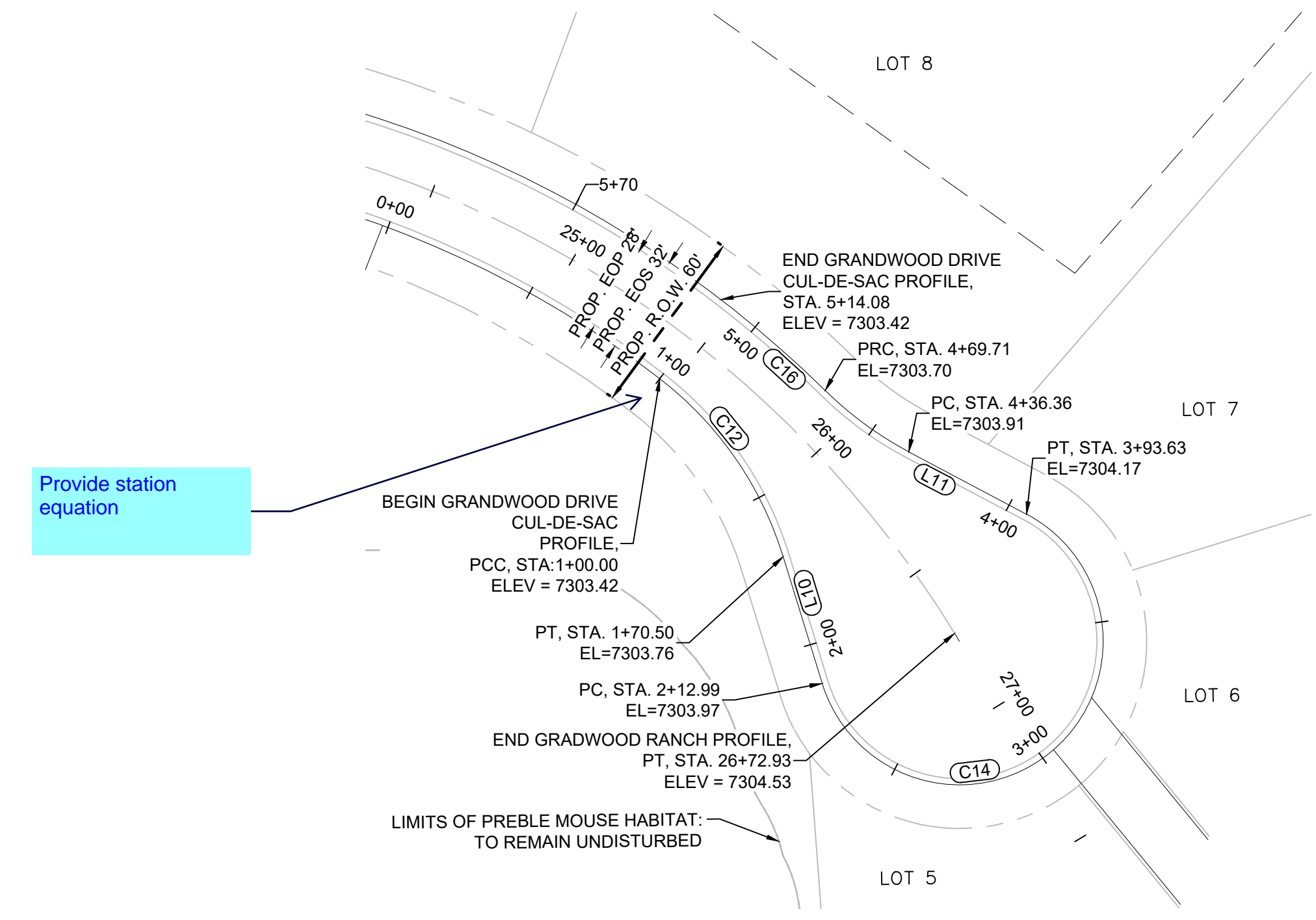
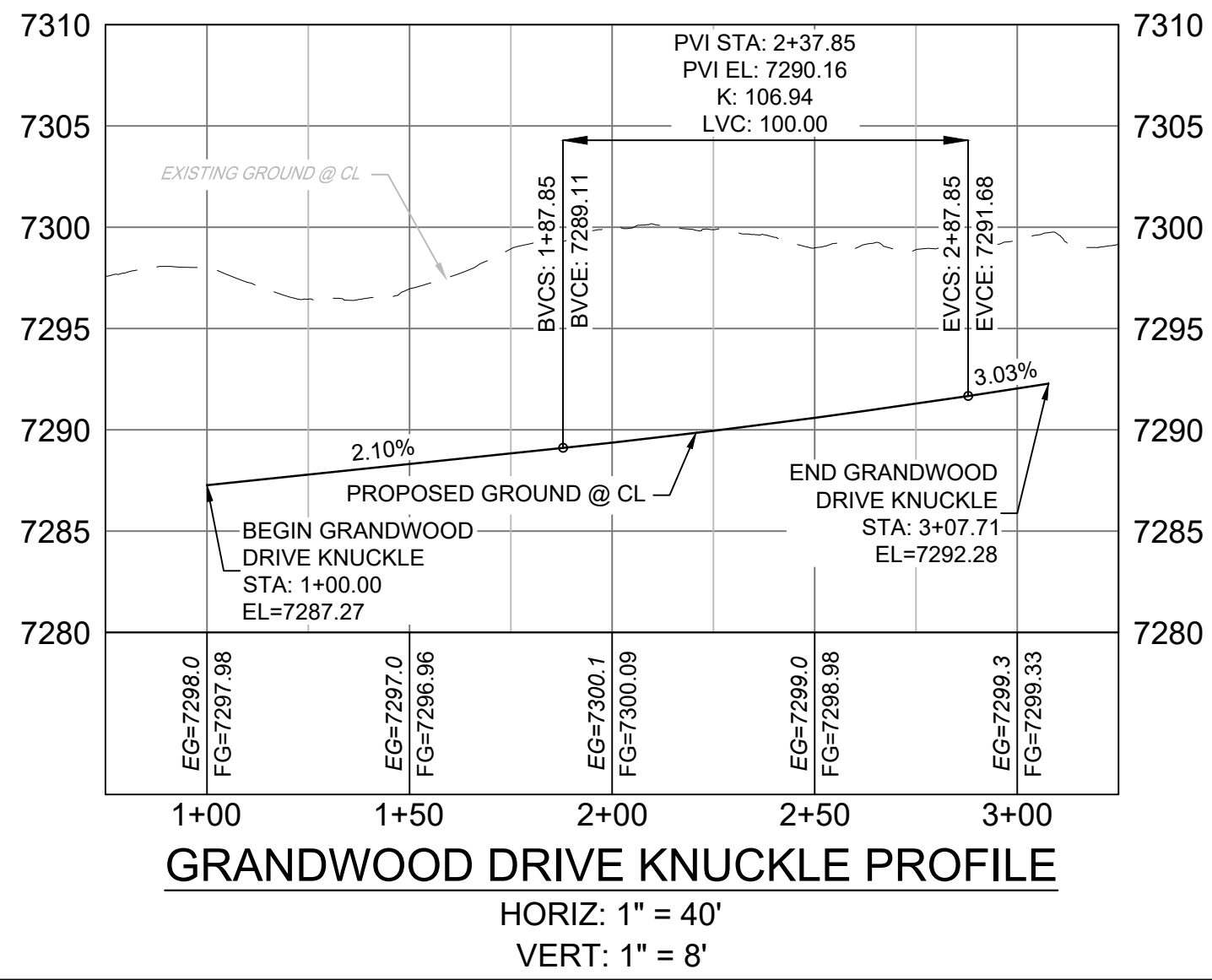
DESIGNED BY: CAP	SCALE	DATE ISSUED: SEPTEMBER 2020	DRAWING No. RD16
DRAWN BY: CAP	HORIZ. N/A	SHEET 21 OF 38	
CHECKED BY: JA	VERT. N/A		



Know what's below.
Call before you dig.



CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C9	61.06	76.00	46°02'01"	N23°24'00"E	59.43
C10	84.24	44.14	109°20'57"	N55°11'27"E	72.03
C11	62.37	75.67	47°13'42"	N89°19'46"E	60.62



LINE TABLE		
LINE #	BEARING	DISTANCE
L10	S51°27'37"W	42.48
L11	N06°27'37"E	42.73

CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C12	70.50	114.55	35°15'51"	S33°49'41"W	69.40
C14	180.64	46.00	225°00'02"	S61°02'22"E	85.00
C16	80.29	366.00	12°34'09"	N16°51'28"E	80.13

- NOTES:
- ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
 - SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

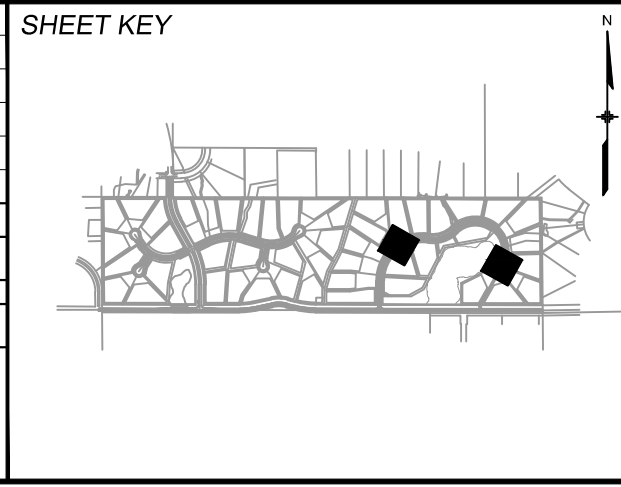
Minimum radius for rural cul-de-sacs is 50 ft to edge of pavement. Revise per ECM 2.3.8

Provide station equation

Provide station equation

REFERENCE DRAWINGS	NO.	DATE	DESCRIPTION	BY
X-1105-EX SITE DESIGN				
X-Title-Plan & Profile				

COMPUTER FILE MANAGEMENT	
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CTB FILE:	
PLOT DATE:	October 2, 2020 9:17:21 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE	



BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS *LWA PLS 28658"

OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL

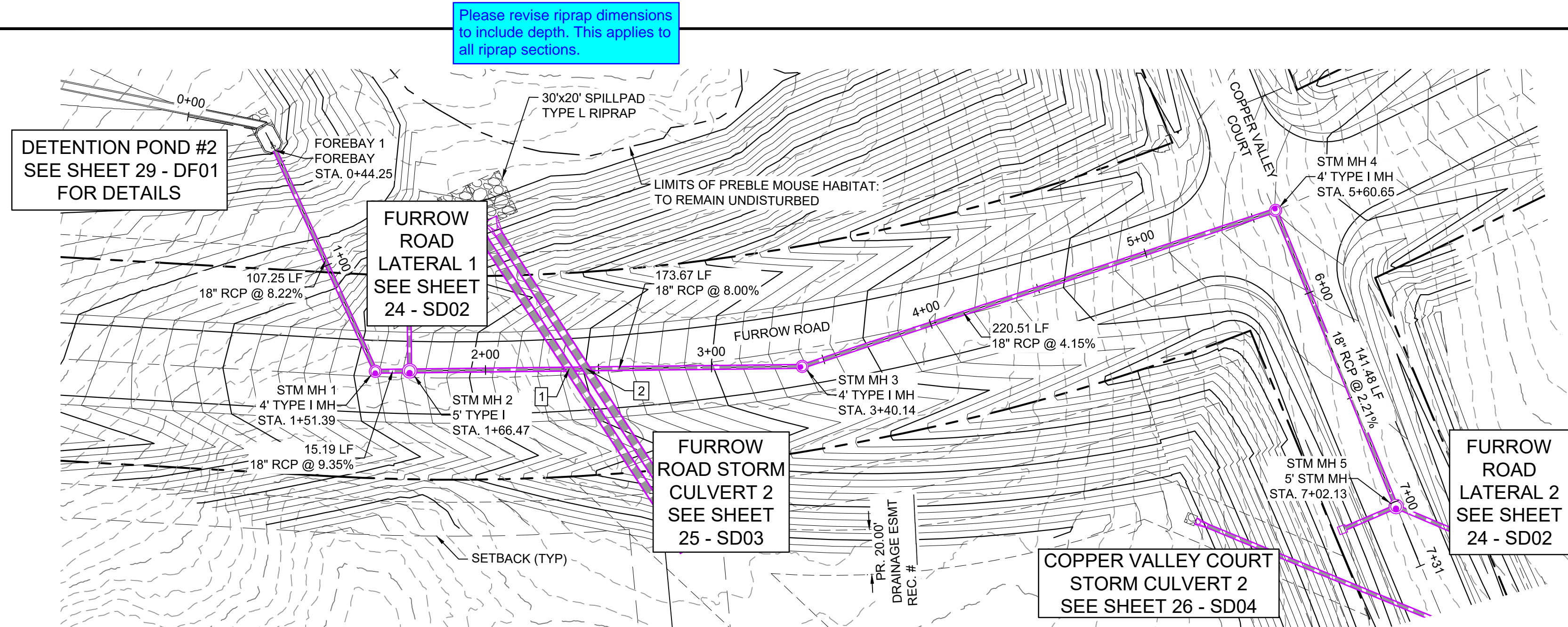
PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH			
EL PASO COUNTY ROAD AND STORM PLANS			
ROADWAY PLAN AND PROFILE			
DESIGNED BY:	CAP	SCALE:	DATE ISSUED:
CHECKED BY:	JA	HORIZ. VERT.	SEPTEMBER 2020
		N/A	22 OF 38
			DRAWING No. RD17



Know what's below.
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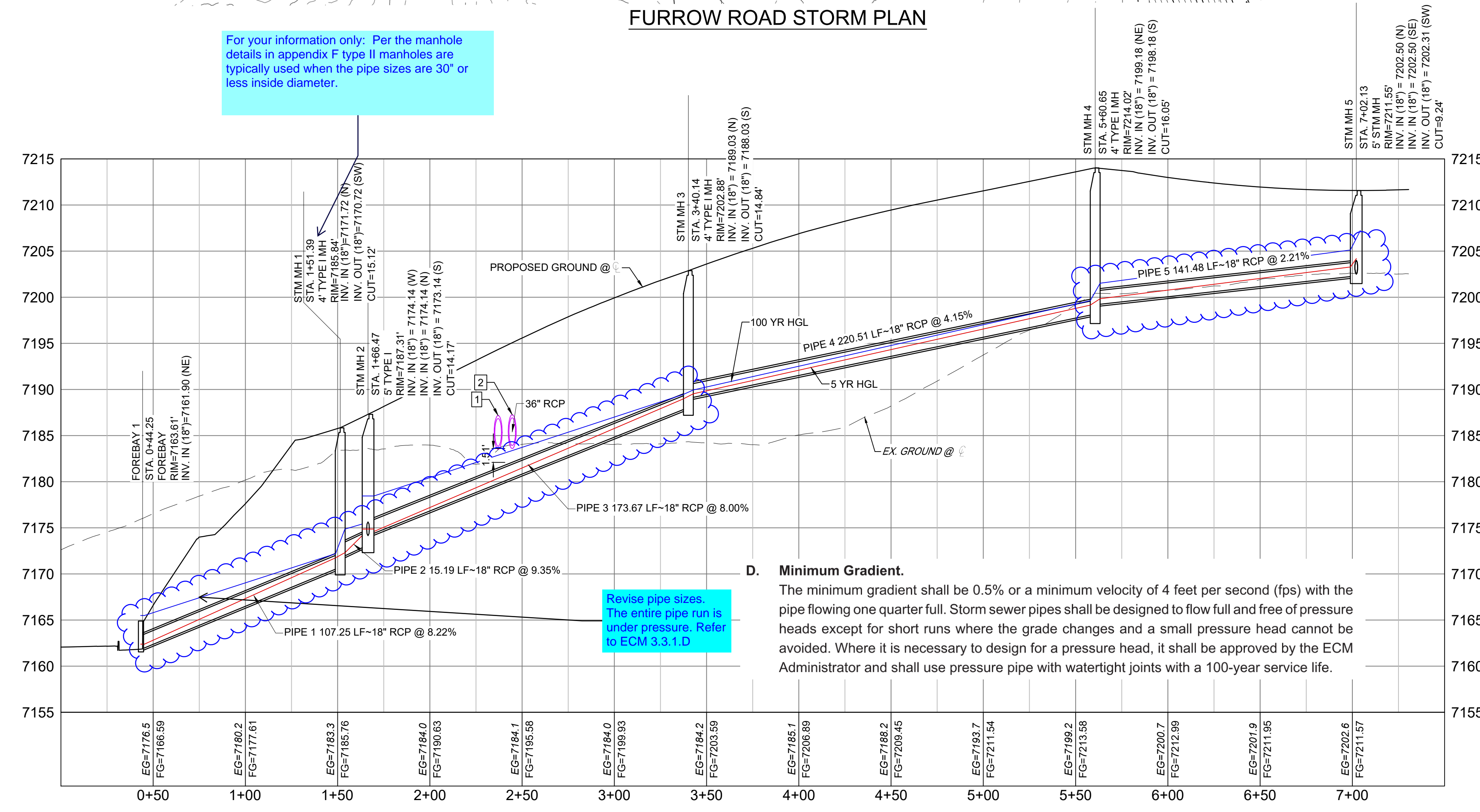
FURROW ROAD STORM PLAN

For your information only: Per the manhole details in appendix F type II manholes are typically used when the pipe sizes are 30" or less inside diameter.

UTILITY CROSSING DETAILS				
CROSSING #	N & E	TOP OF PIPE	BTM OF PIPE	SEPARATION
1	N 1,454,528.27 E 3,191,074.79	18" RCP STM EL=7181.49	36" RCP STM EL=7183.52	2.03'
2	N 1,454,535.93 E 3,191,074.27	18" RCP STM EL=7182.10	36" RCP STM EL=7183.60	1.50'

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 1	18" RCP	107.25	8.22%	S62°23'11"W
PIPE 2	18" RCP	15.19	9.35%	S03°53'02"E
PIPE 3	18" RCP	173.67	8.00%	S03°53'02"E
PIPE 4	18" RCP	220.51	4.15%	S21°28'15"E
PIPE 5	18" RCP	141.48	2.21%	S64°37'53"W

STRUCTURE TABLE			
NAME	TYPE	DETAILS	N&E
FOREBAY 1	FOREBAY	RIM=7163.61 PIPE 1 INV IN=7161.90	N: 1454393.08 E: 3190985.55
STM MH 1	4' TYPE I MH	RIM=7185.84 PIPE 2 INV IN=7171.72 PIPE 1 INV OUT=7170.72	N: 1454442.79 E: 3191080.59
STM MH 2	5' TYPE I	RIM=7187.31 PIPE 12 INV IN=7174.14 PIPE 3 INV IN=7174.14 PIPE 2 INV OUT=7173.14	N: 1454457.95 E: 3191079.56
STM MH 3	4' TYPE I MH	RIM=7202.88 PIPE 4 INV IN=7189.03 PIPE 3 INV OUT=7188.03	N: 1454631.22 E: 3191067.80
STM MH 4	4' TYPE I MH	RIM=7214.02 PIPE 5 INV IN=7199.18 PIPE 4 INV OUT=7198.18	N: 1454836.42 E: 3190987.09
STM MH 5	5' STM MH	RIM=7211.55 PIPE 15 INV IN=7202.50 PIPE 16 INV IN=7202.50 PIPE 5 INV OUT=7202.31	N: 1454897.04 E: 3191114.93

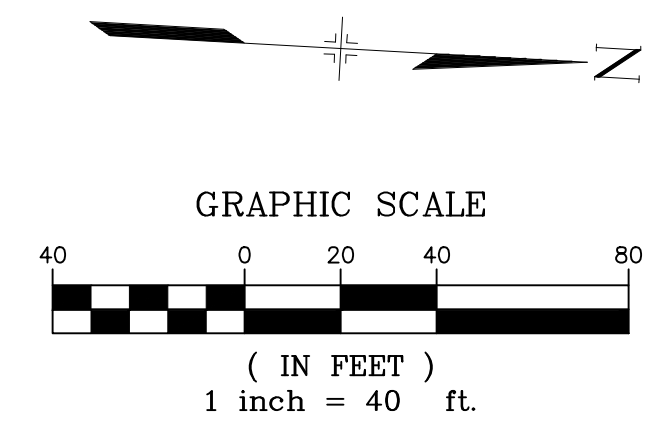


FURROW ROAD STORM PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'

Revise pipe sizes. The entire pipe run is under pressure. Refer to ECM 3.3.1.D

D. Minimum Gradient.
The minimum gradient shall be 0.5% or a minimum velocity of 4 feet per second (fps) with the pipe flowing one quarter full. Storm sewer pipes shall be designed to flow full and free of pressure heads except for short runs where the grade changes and a small pressure head cannot be avoided. Where it is necessary to design for a pressure head, it shall be approved by the ECM Administrator and shall use pressure pipe with watertight joints with a 100-year service life.



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 - PIPE LENGTHS ARE MEASURED FROM CENTER TO CENTER OF ALL STRUCTURES.
 - ALL PIPE BENDS ANGLES ARE MEASURED FROM THE CENTER OF PIPE.
 - CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING STRUCTURES.
 - ALL TYPE C AND TYPE D INLETS SHALL BE CONSTRUCTED AND INSTALLED PER CDOT M&S STANDARD DETAILS. ELEVATIONS PROVIDED REFER TO TOP OF GRATE/STRUCTURE ELEVATION.
 - ALL RCP PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.
 - PIPES OF DIFFERENT SIZES ARE TO BE MATCHED TO THE CROWN OF THE INSIDE WALL OF PIPE.
 - PER THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL, MANHOLES SHALL BE INSTALLED 1/8" BELOW THE SURFACE OF THE PAVEMENT ON THE LOWEST SIDE OF THE MANHOLE.
 - SECTIONS OF STORM PIPE WITH PRESSURE HEAD DURING THE 100 YR STORM SHALL USE WATERTIGHT JOINTS WITH A 100 YR SERVICE LIFE PER ECM 3.3.1.B.2.
 - ALL STORM SEWER IS PUBLIC UNLESS OTHERWISE NOTED. ALL DETENTION PONDS ARE PRIVATE AND SHALL BE OWNED AND MAINTAINED BY THE GRANDWOOD RANCH HOMEOWNERS ASSOCIATION, INC.

NO.	DATE	DESCRIPTION	BY

COMPUTER FILE MANAGEMENT
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CTB FILE:
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SHEET KEY

BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

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MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

EL PASO COUNTY
ROAD AND STORM PLANS

STORM PLAN AND PROFILE

DESIGNED BY: CAP
DRAWN BY: CAP
CHECKED BY: NMS

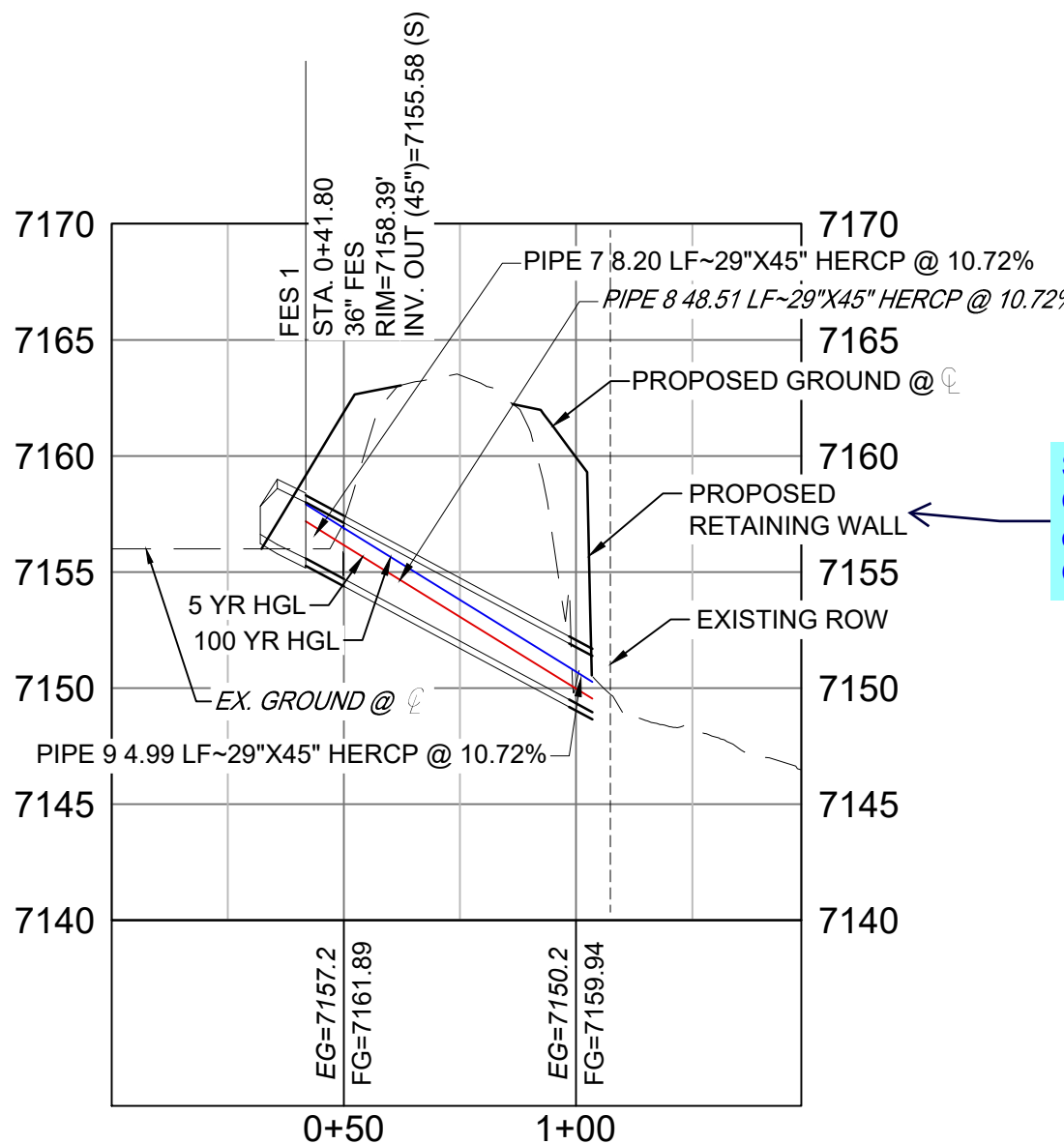
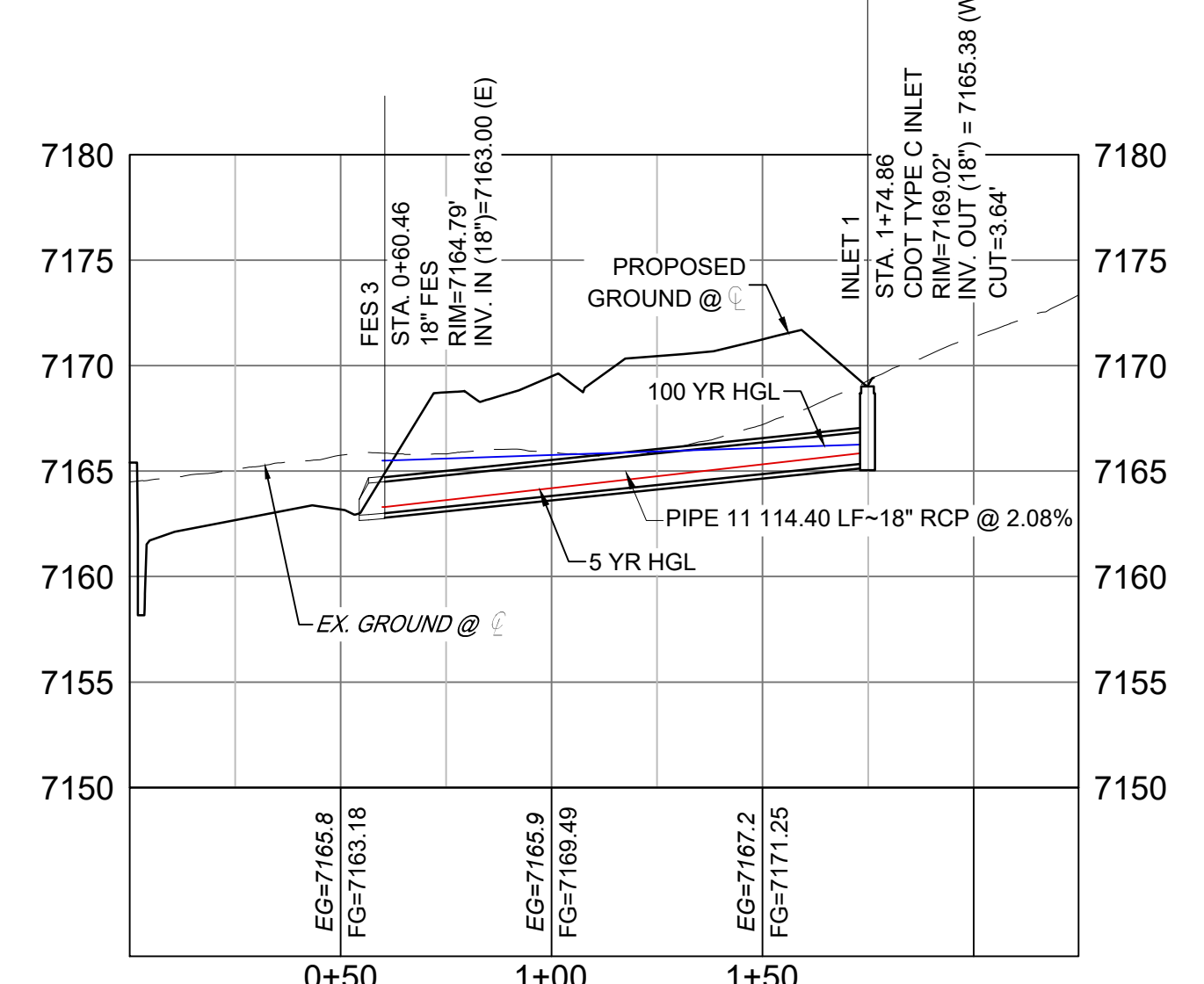
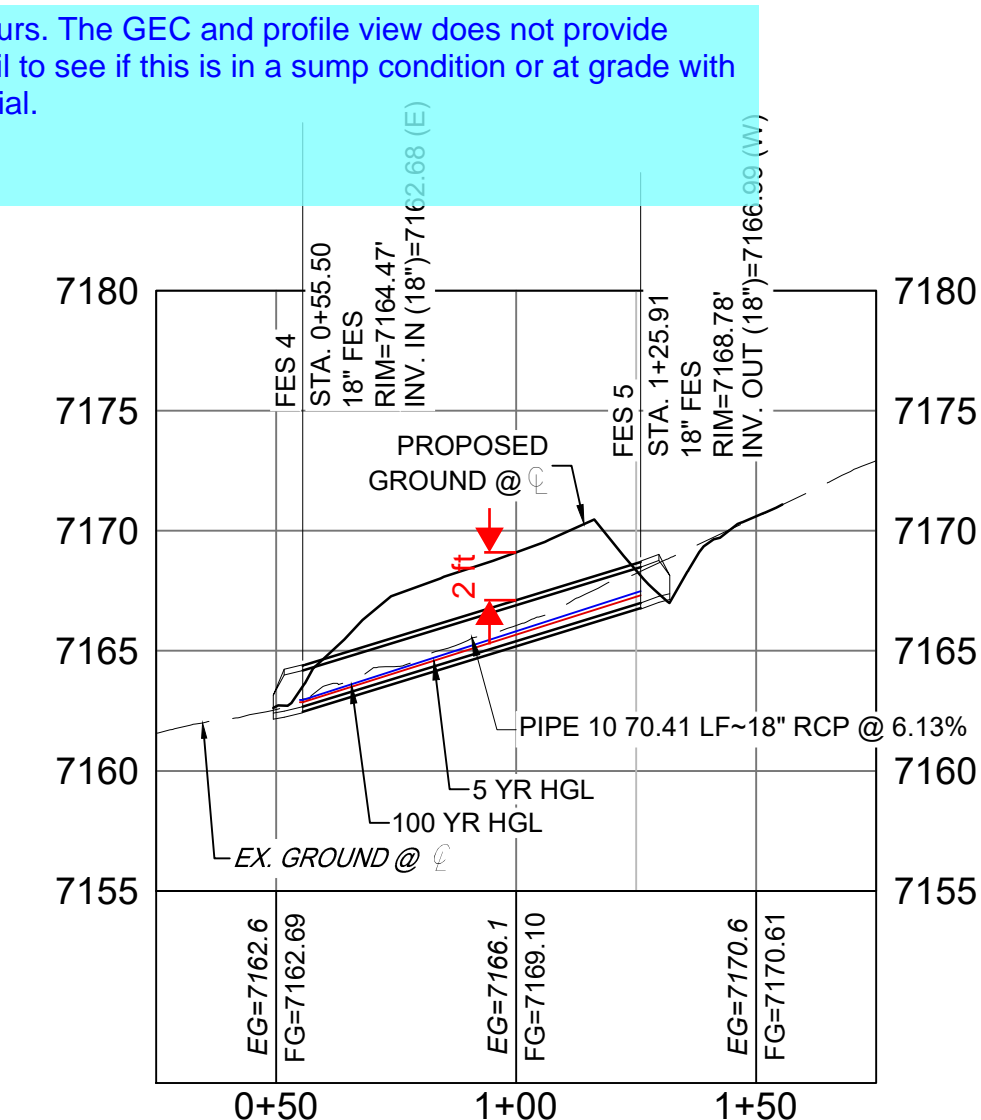
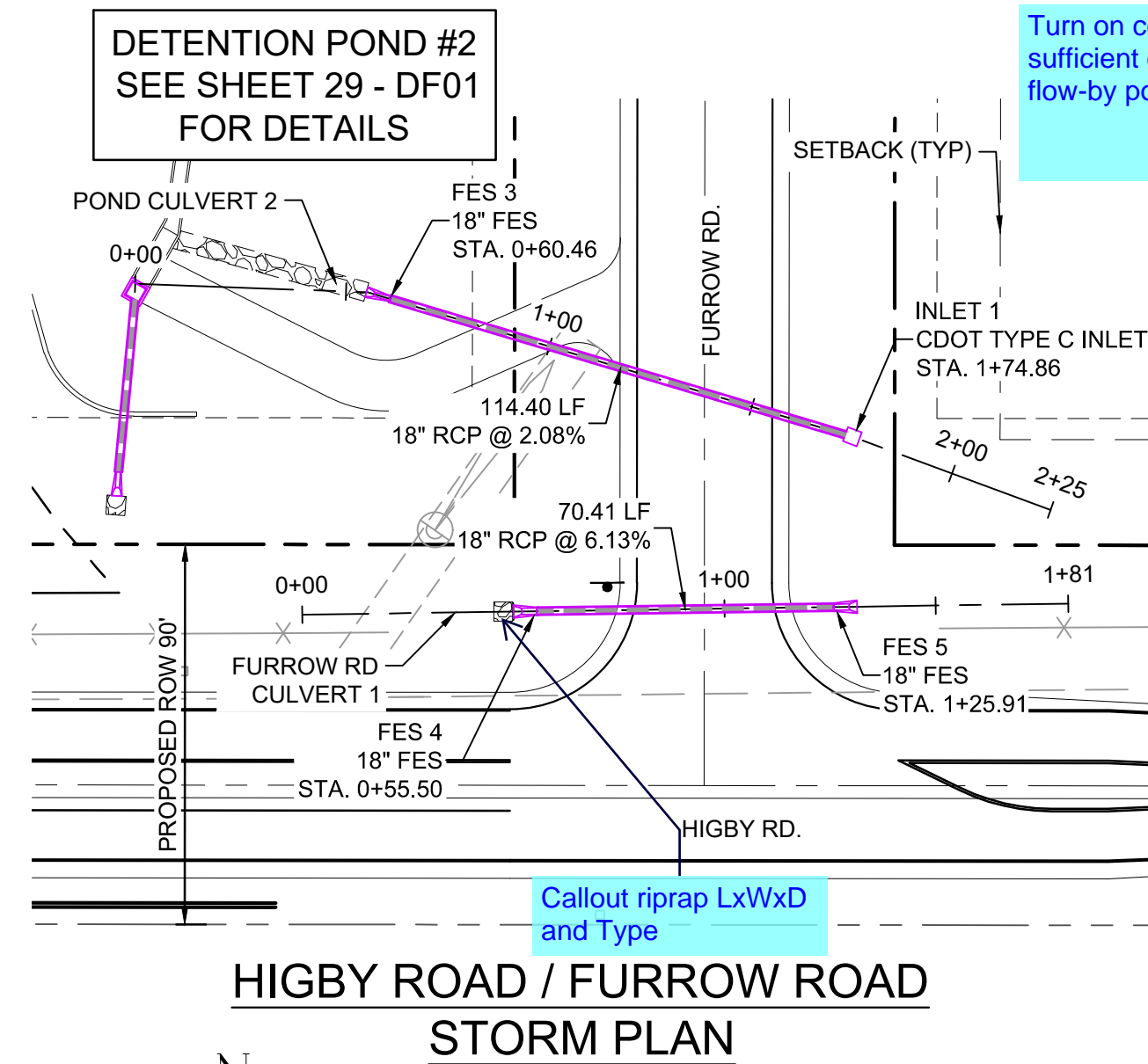
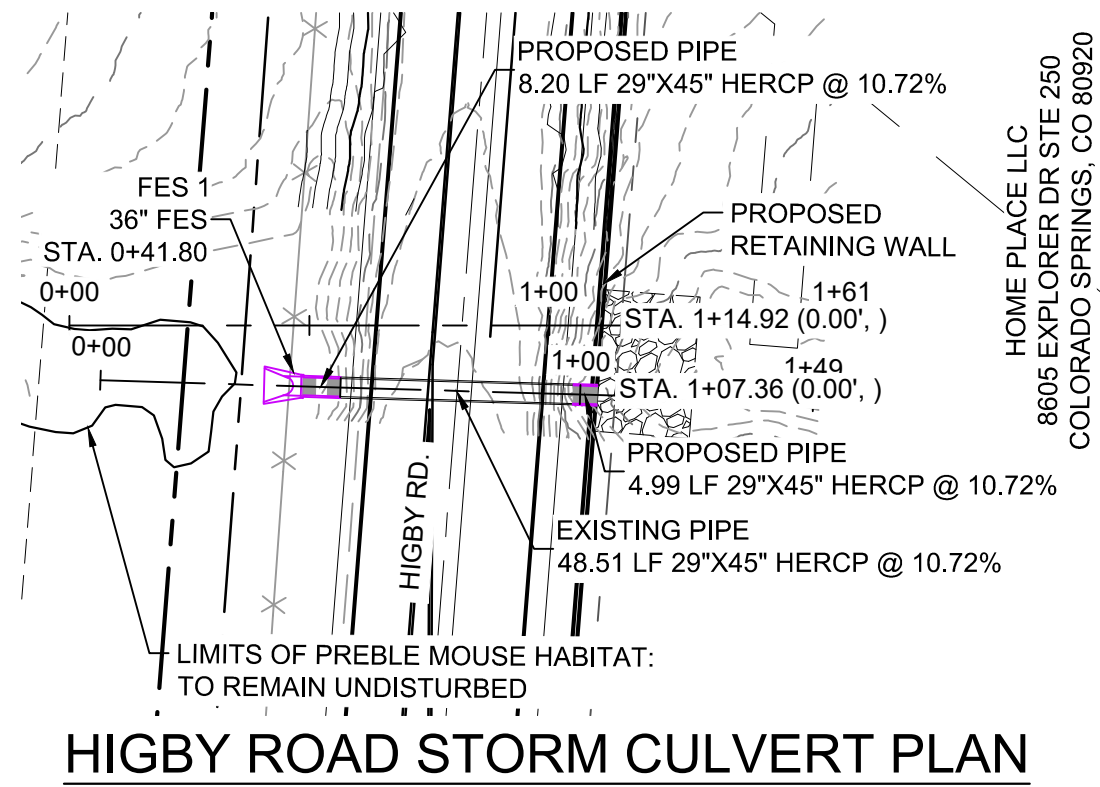
SCALE
HORIZ: 1" = 40'
VERT: 1" = 8'

DATE ISSUED: SEPTEMBER 2020
SHEET 23 OF 38

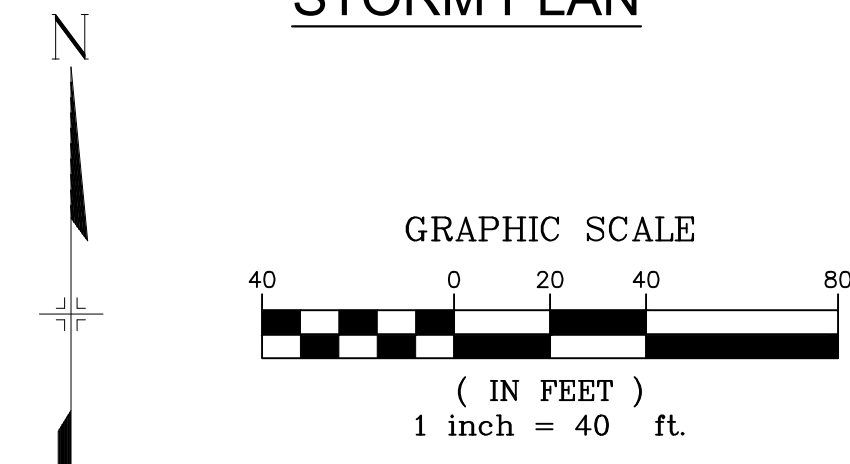
DRAWING No. SD01



Know what's below. Call before you dig.



See comment on the Grading and Erosion control Plan Sheet GEC01



PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 10	18" RCP	70.41	6.13%	S89°13'48"W

STRUCTURE TABLE

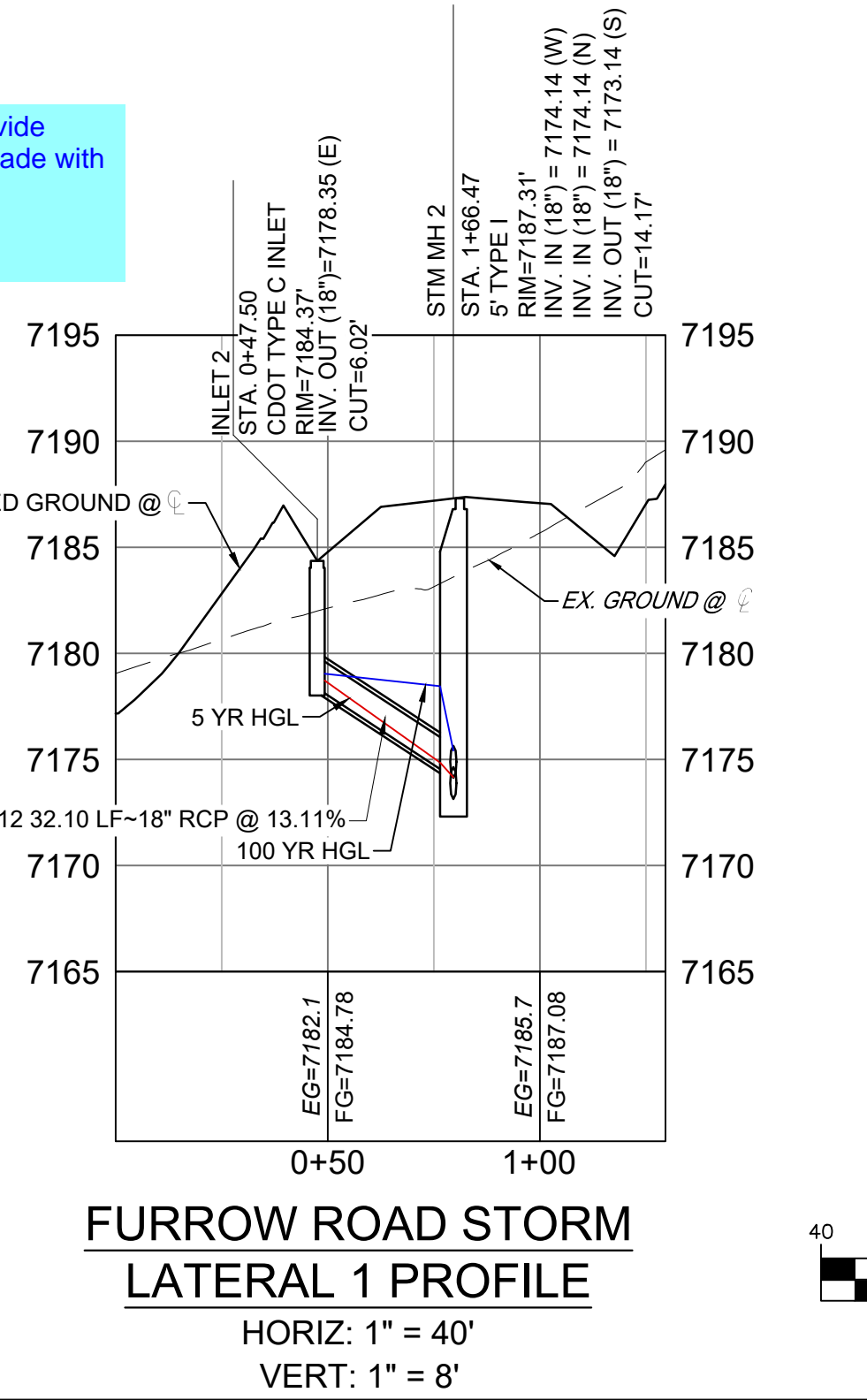
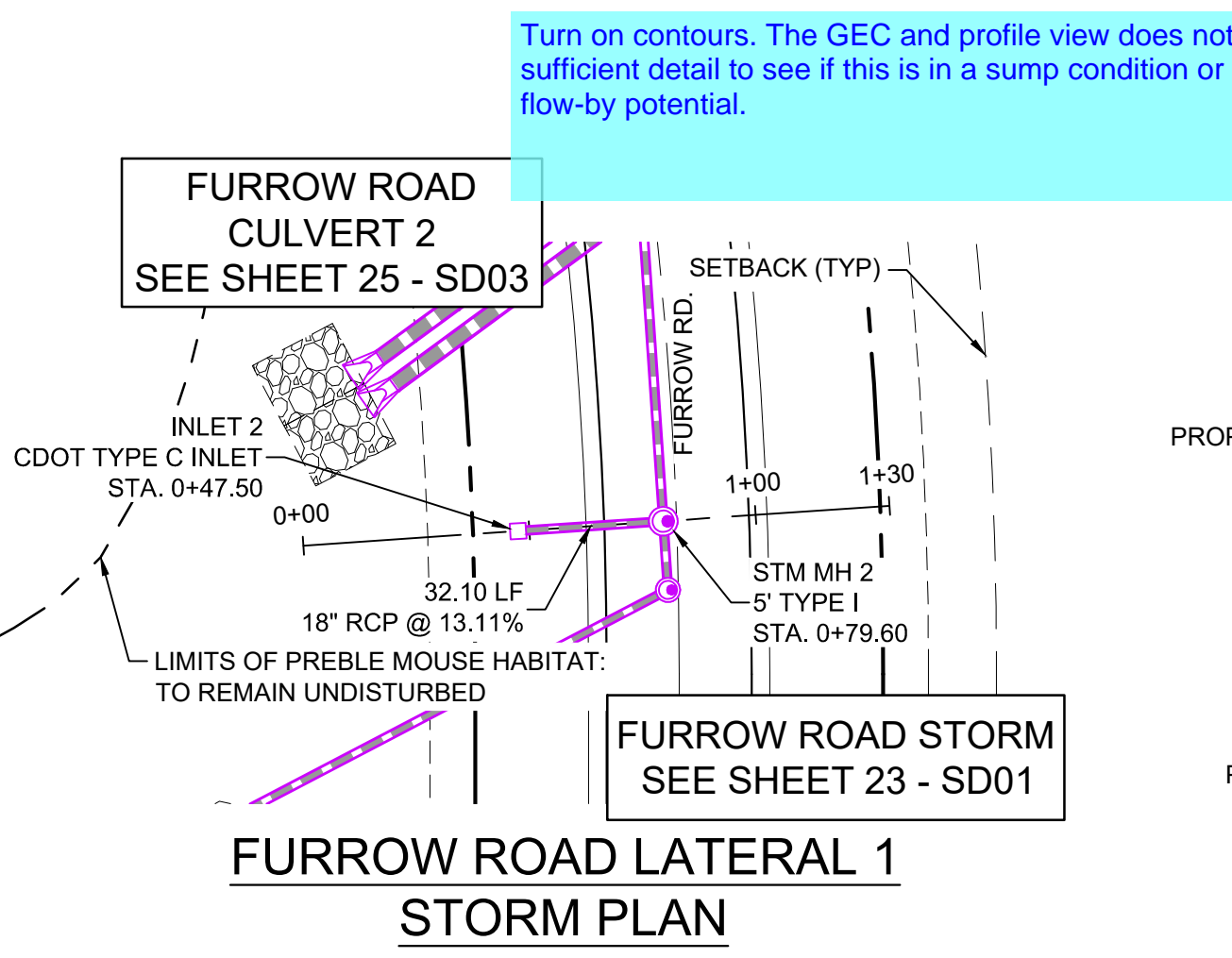
NAME	TYPE	DETAILS	N&E
FES 4	18" FES	RIM=7164.47 PIPE 10 INV IN=7162.68	N: 1454171.36 E: 3191043.14
FES 5	18" FES	RIM=7168.78 PIPE 10 INV OUT=7166.99	N: 1454172.30 E: 3191113.54

PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 11	18" RCP	114.40	2.08%	N73°21'39"W

STRUCTURE TABLE

NAME	TYPE	DETAILS	N&E
FES 3	18" FES	RIM=7164.79 PIPE 11 INV IN=7163.00	N: 1454245.42 E: 3191008.27
INLET 1	CDOT TYPE C INLET	RIM=7169.02 PIPE 11 INV OUT=7165.38	N: 1454212.67 E: 3191117.88



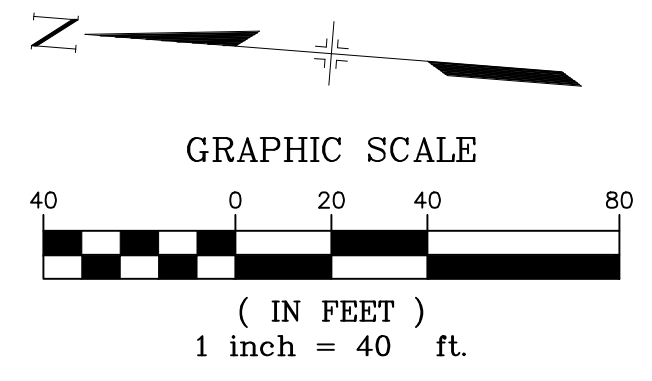
PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 12	18" RCP	32.10	13.11%	N86°06'58"E

STRUCTURE TABLE

NAME	TYPE	DETAILS	N&E
INLET 2	CDOT TYPE C INLET	RIM=7184.37 PIPE 12 INV OUT=7178.35	N: 1454455.77 E: 3191047.53
STM MH 2	5' TYPE I	RIM=7187.31 PIPE 12 INV IN=7174.14 PIPE 3 INV IN=7174.14 PIPE 2 INV OUT=7173.14	N: 1454457.95 E: 3191079.56

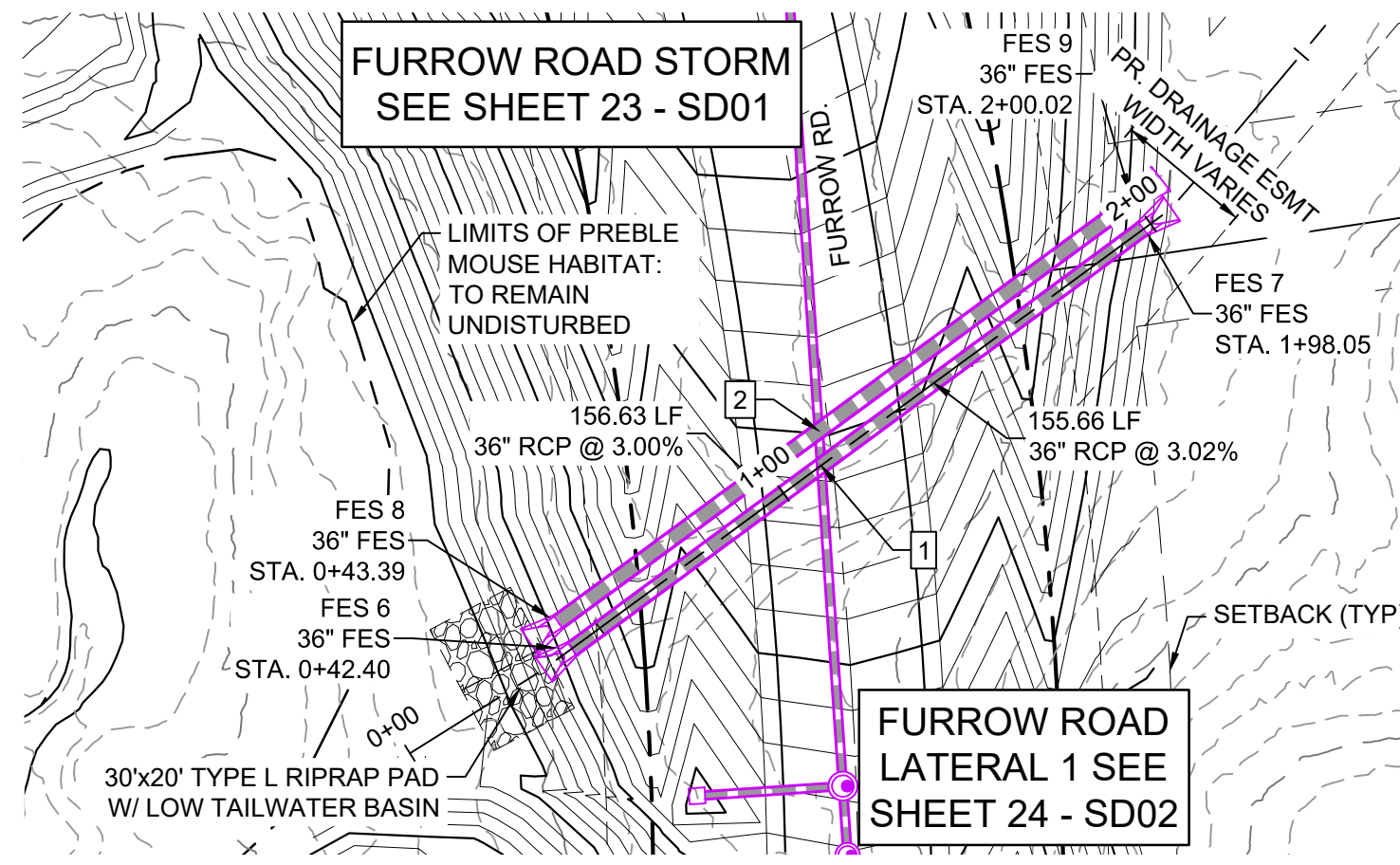
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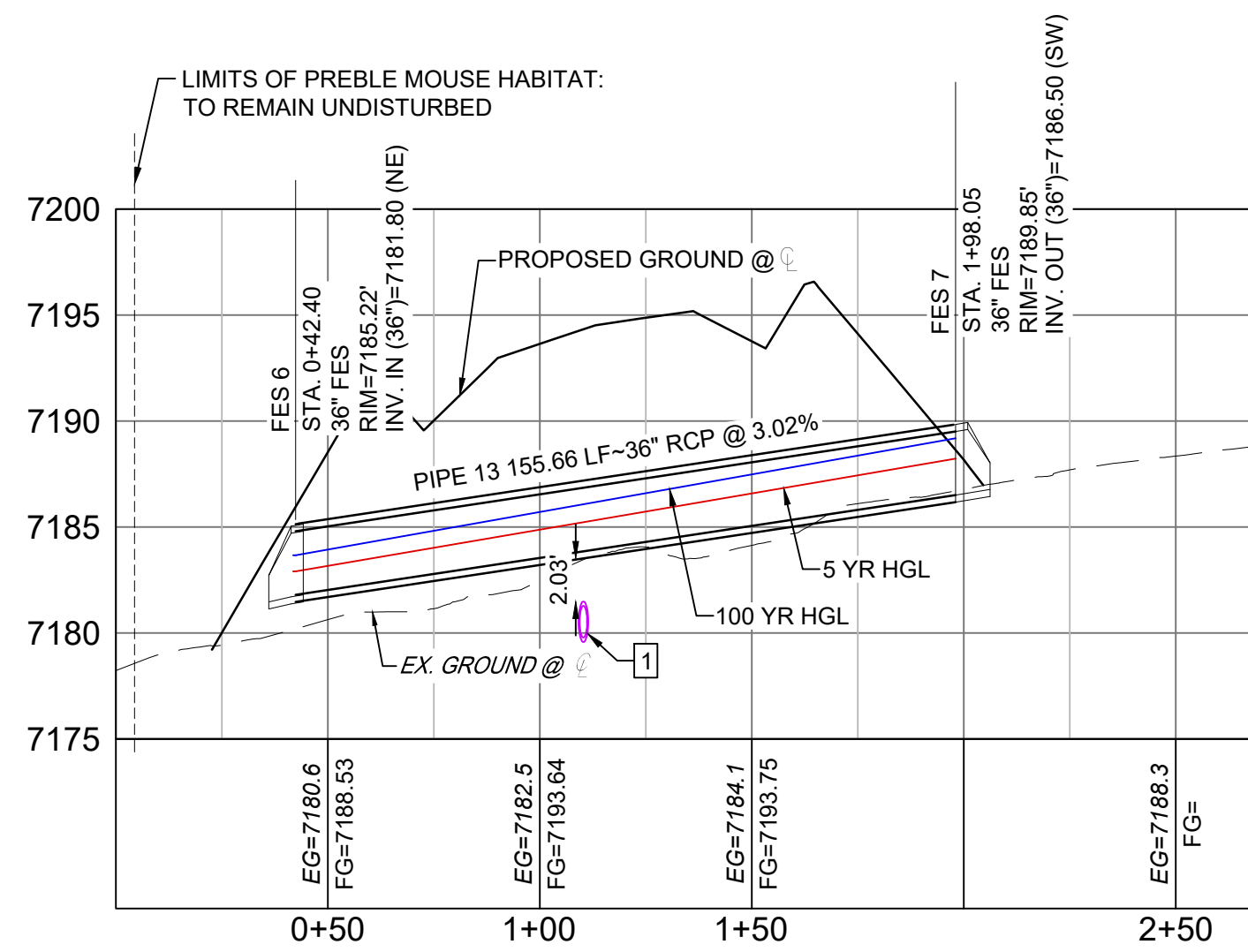
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No.	DATE	DESCRIPTION	BY												



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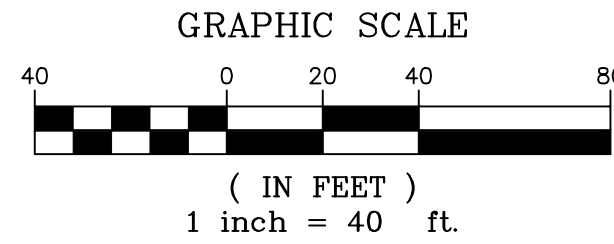


FURROW ROAD STORM
CULVERT 2 PLAN



FURROW ROAD STORM
CULVERT 2 PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'



STRUCTURE TABLE			
NAME	TYPE	DETAILS	N&E
FES 6	36" FES	RIM=7185.22 PIPE 13 INV IN=7181.80	N: 1454488.06 E: 3191020.12
FES 7	36" FES	RIM=7189.85 PIPE 13 INV OUT=7186.50	N: 1454580.35 E: 3191145.46
FES 8	36" FES	RIM=7185.22 PIPE 14 INV IN=7181.80	N: 1454493.95 E: 3191017.02
FES 9	36" FES	RIM=7189.92 PIPE 14 INV OUT=7186.50	N: 1454586.57 E: 3191143.34

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 13	36" RCP	155.66	3.02%	S53°38'04"W
PIPE 14	36" RCP	156.63	3.00%	S53°45'03"W

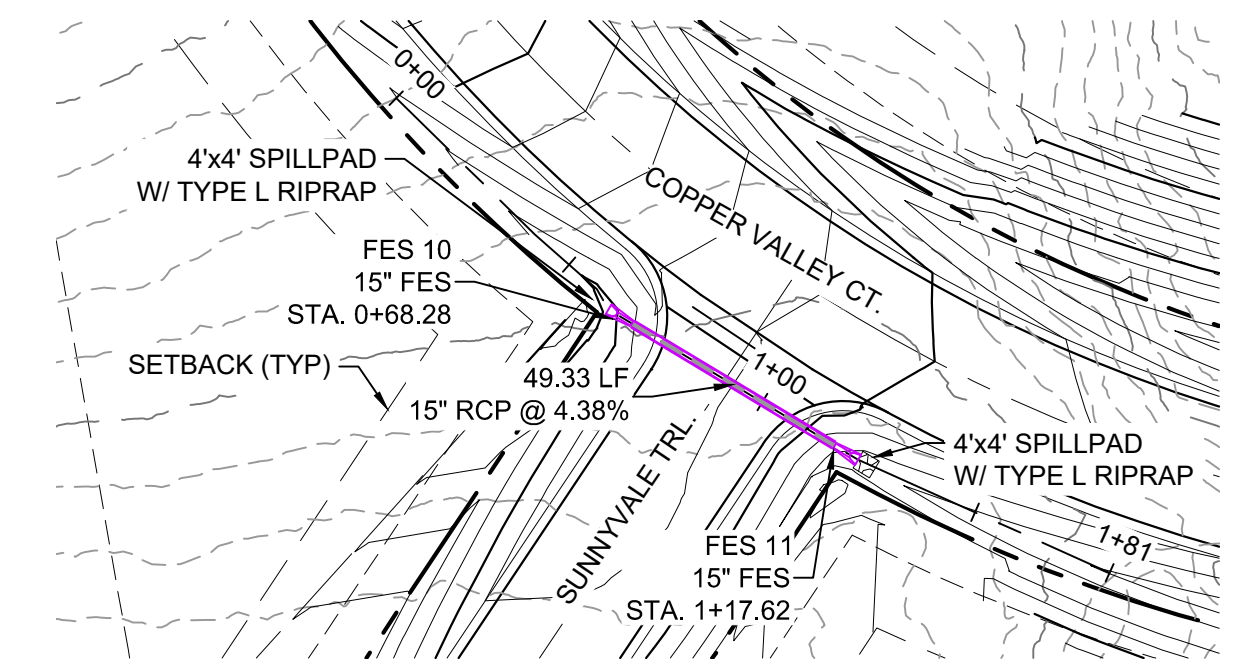
c. Minimum Pipe Size.

The minimum allowable culvert size shall follow the minimum size criteria for storm sewer systems in Section 3.3.1C. The minimum culvert size shall have a cross-sectional area equivalent to an 18-inch circular pipe.

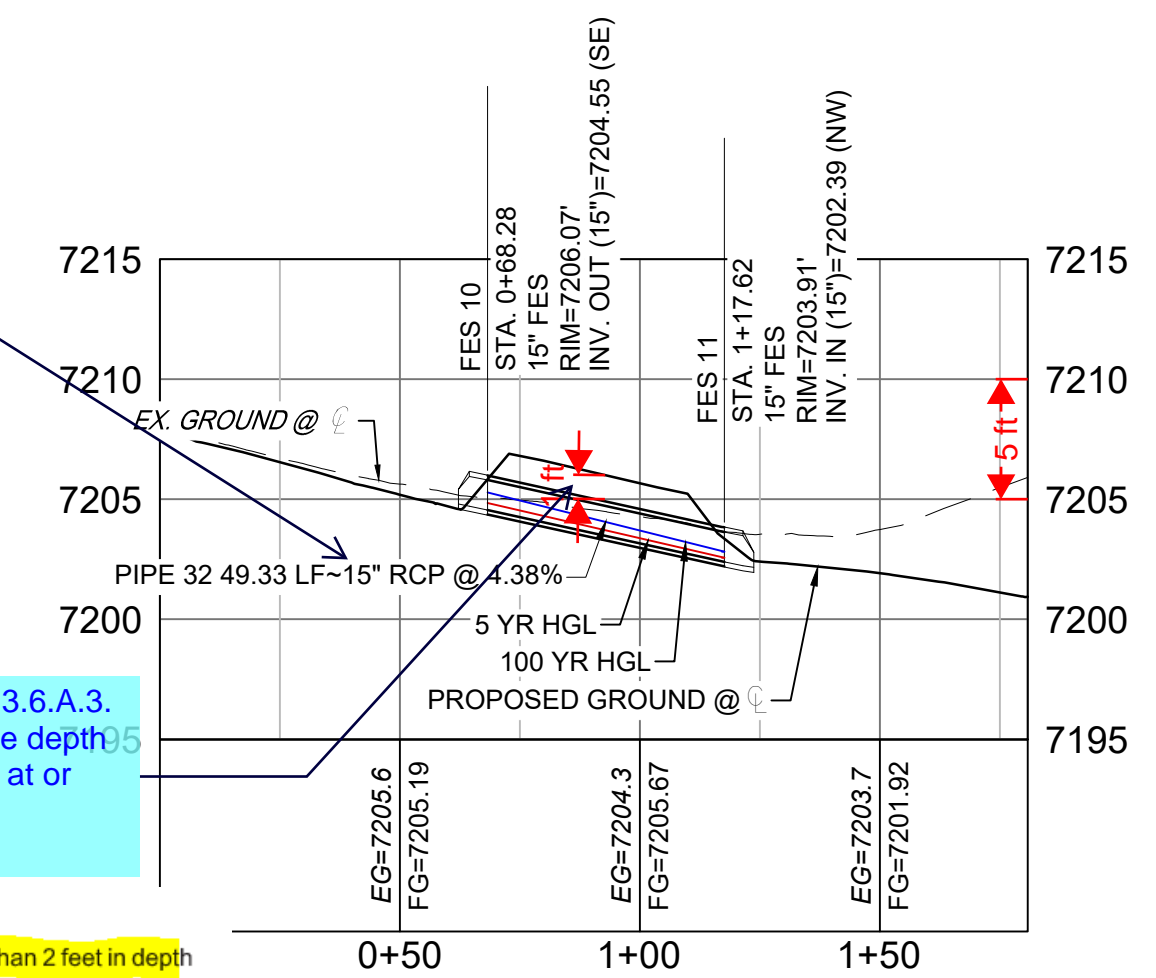
UTILITY CROSSING DETAILS				
CROSSING #	N & E	TOP OF PIPE	BTM OF PIPE	SEPARATION
1	N 1,454,528.27 E 3,191,074.79	18" RCP STM EL=7181.49	36" RCP STM EL=7183.52	2.03'
2	N 1,454,535.93 E 3,191,074.27	18" RCP STM EL=7182.10	36" RCP STM EL=7183.60	2.03'

Revise pipe size to 18" per ECM Chapter 3 Section 3.3.2.C

Revise per chapter 4 section 4.3.6.A.3. Check all other pipes. Label the depth of cover when design results is at or near 2'.



COPPER VALLEY COURT
STORM CULVERT 1 PLAN

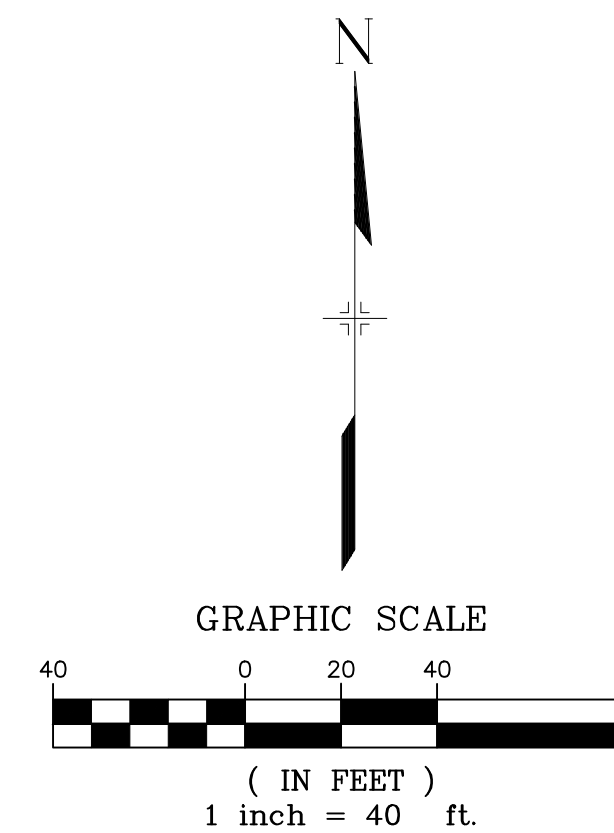


COPPER VALLEY COURT
STORM CULVERT 1 PROFILE

HORIZ: 1" = 40'
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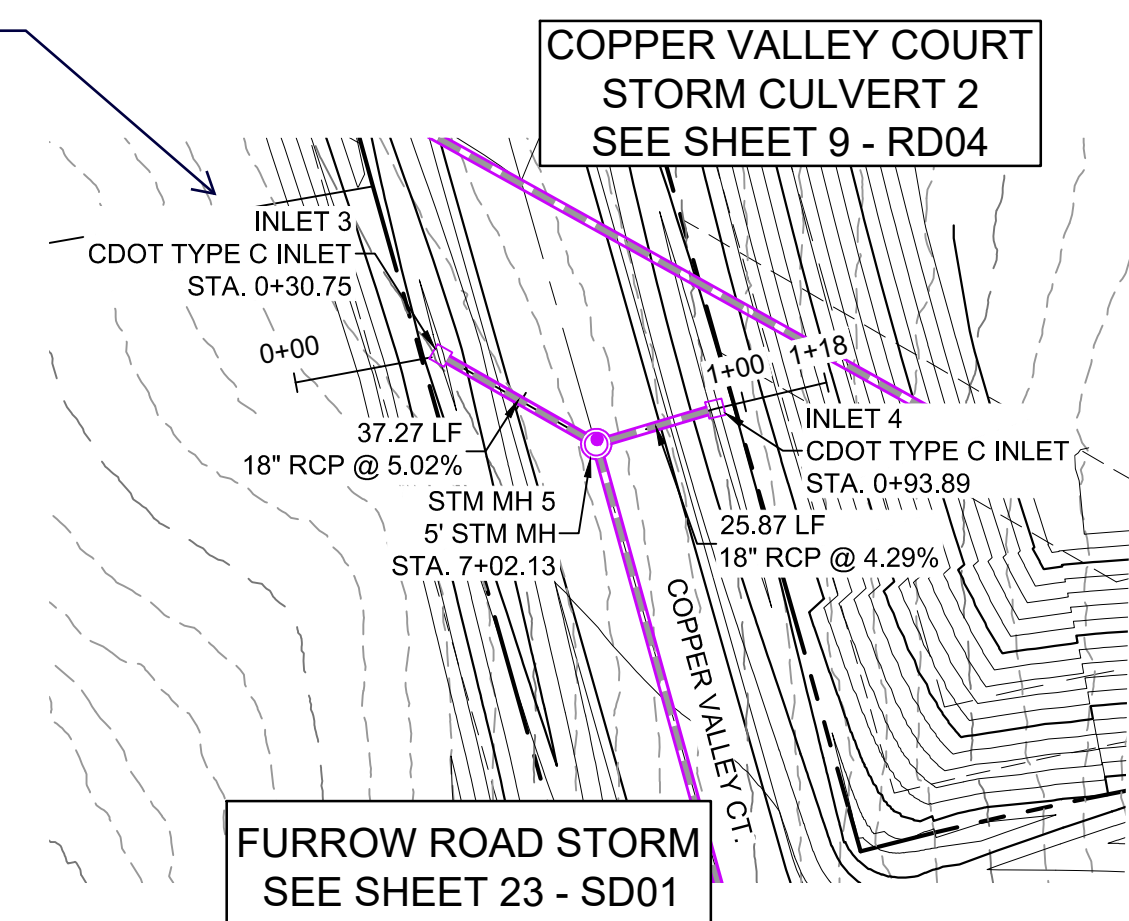
STRUCTURE TABLE			
NAME	TYPE	DETAILS	N&E
FES 10	15" FES	RIM=7206.07 PIPE 32 INV OUT=7204.55	N: 1454773.81 E: 3190476.96
FES 11	15" FES	RIM=7203.91 PIPE 32 INV IN=7202.39	N: 1454748.38 E: 3190519.23

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 15	18" RCP	37.27	5.02%	S19°46'04"W
PIPE 16	18" RCP	25.87	4.29%	N26°26'33"W
PIPE 32	15" RCP	49.33	4.38%	S58°58'29"E

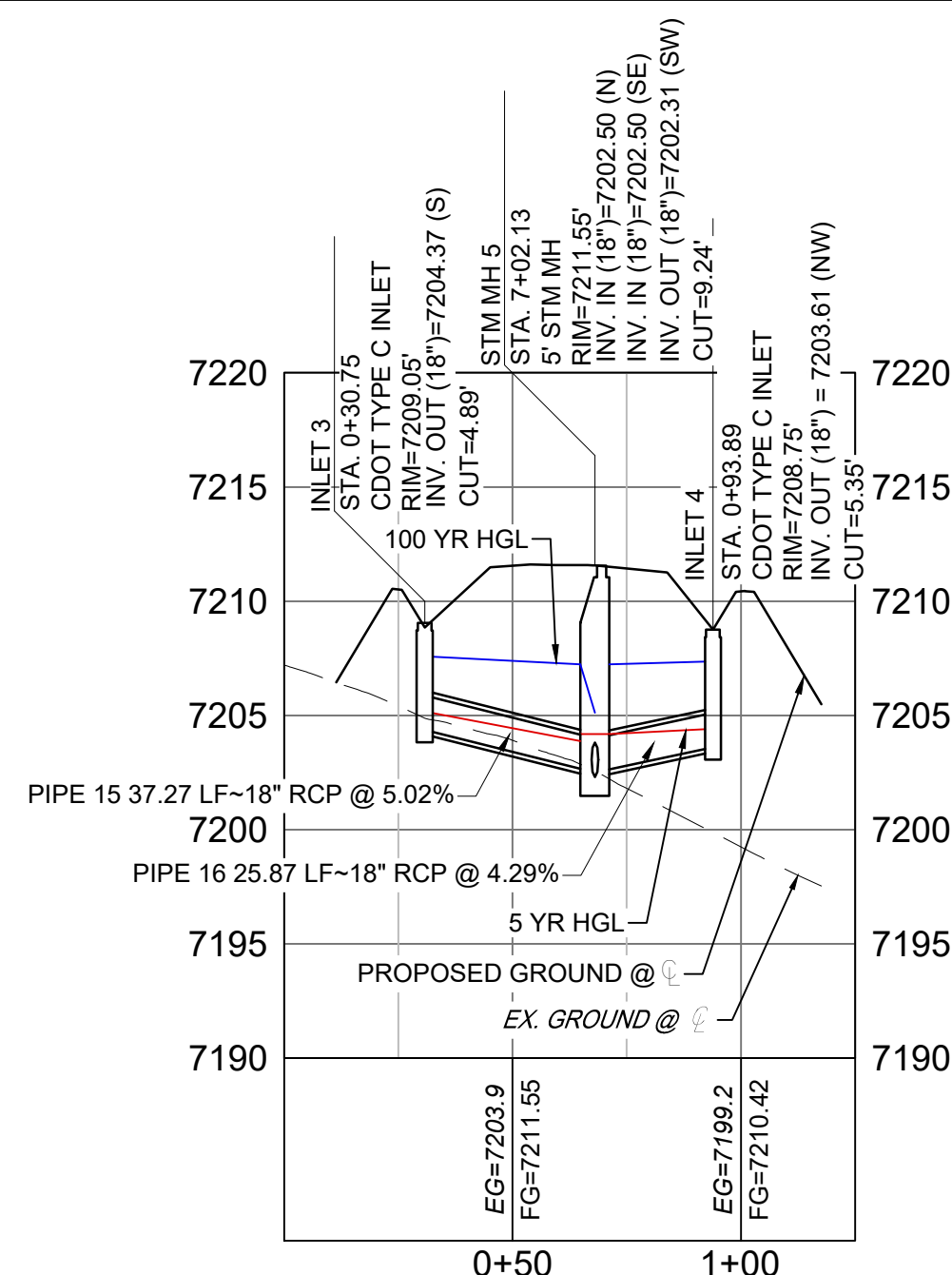


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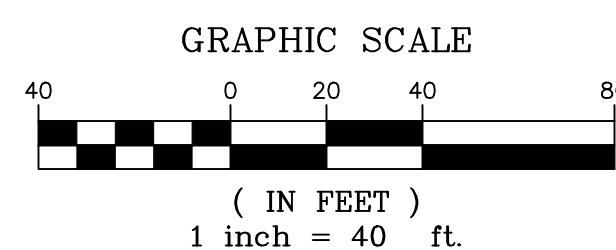


FURROW ROAD STORM
LATERAL 2 PLAN



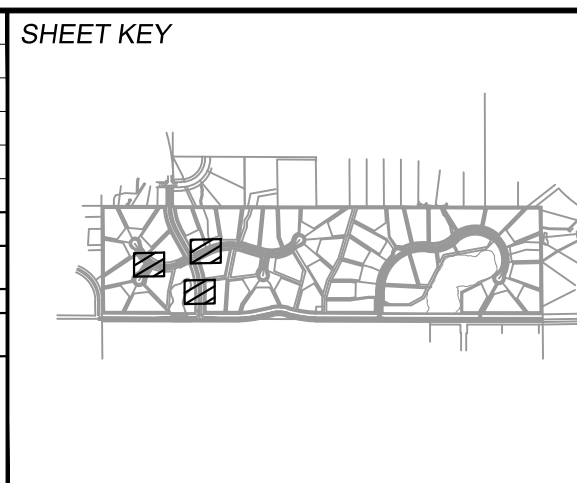
FURROW ROAD STORM
LATERAL 2 PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'



No.	DATE	DESCRIPTION	BY

COMPUTER FILE MANAGEMENT
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CTB FILE: ---
PLOT DATE: October 2, 2020 9:38:22 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE



BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS *LWA PLS 28658"

OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

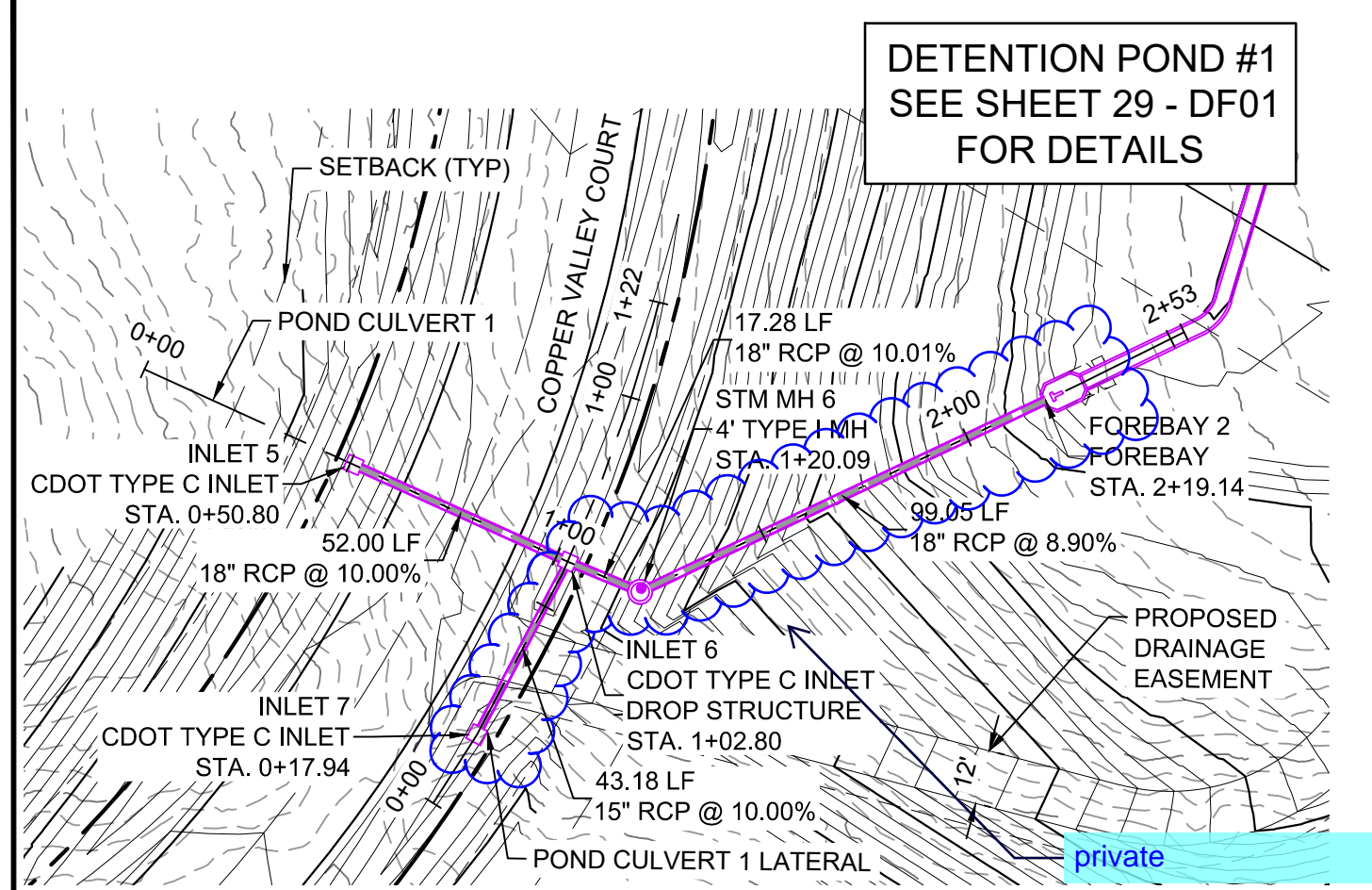
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FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

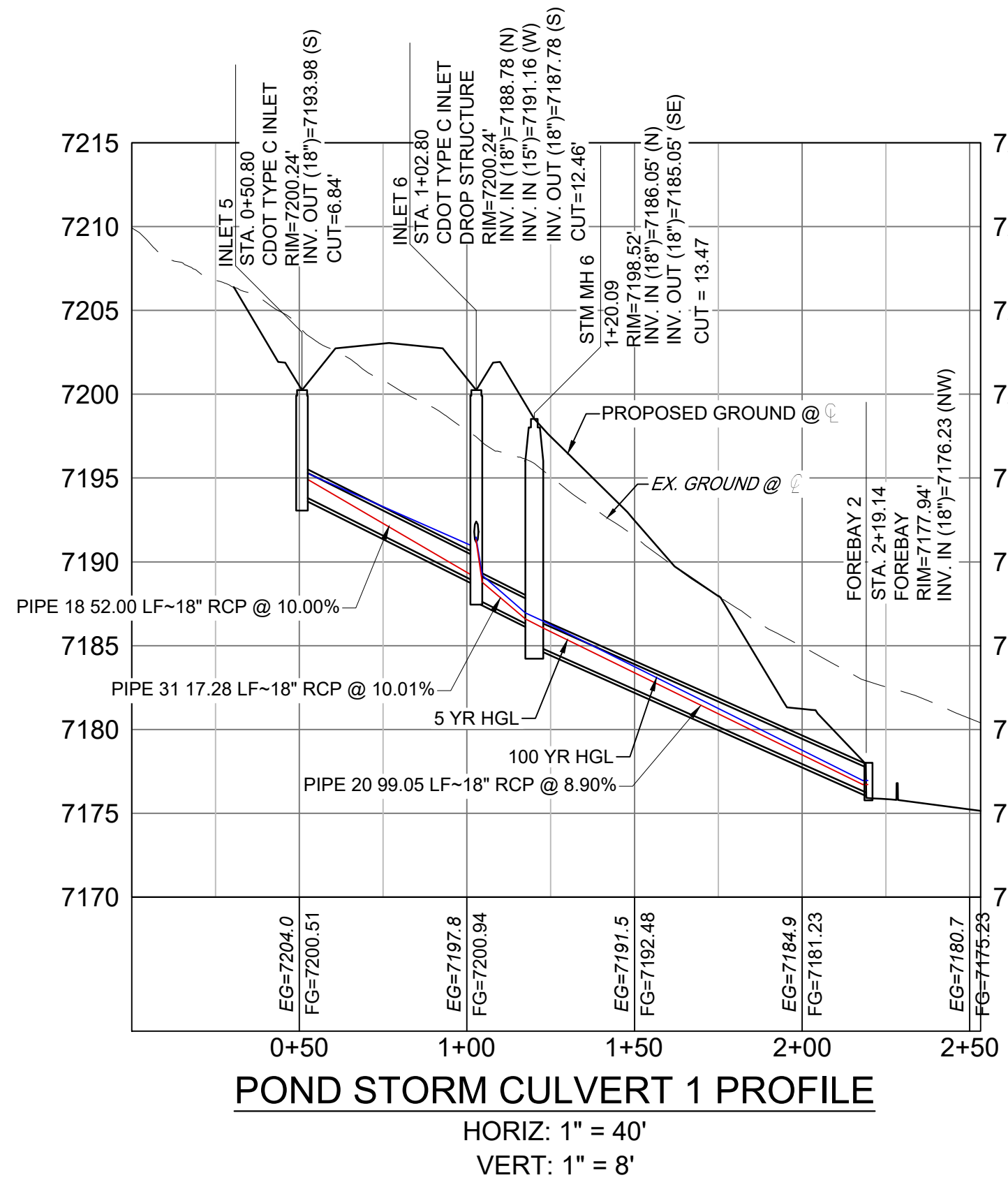
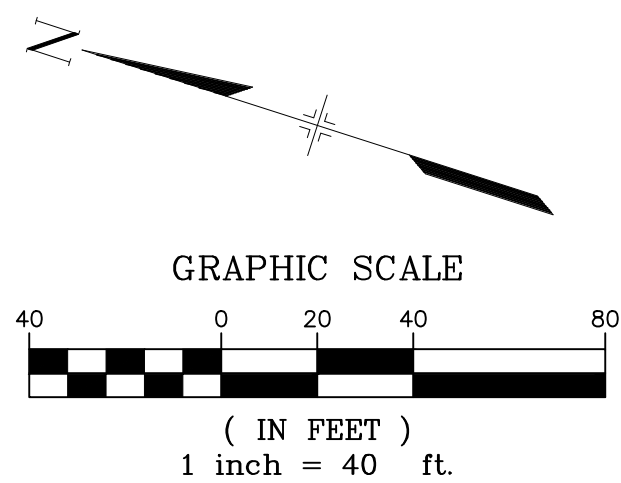
GRANDWOOD RANCH			
EL PASO COUNTY ROAD AND STORM PLANS			
STORM PLAN AND PROFILE			
DESIGNED BY: CAP	SCALE	DATE ISSUED: SEPTEMBER 2020	DRAWING No. SD03
DRAWN BY: CAP	HORIZ. 1" = 100'	SHEET 25 OF 38	
CHECKED BY: NMS	VERT. 1" = 8'		



Know what's below. Call before you dig.



POND STORM CULVERT 1 PLAN



POND STORM CULVERT 1 PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'

Revise pipe size to 18" per ECM Chapter 3 Section 3.3.1.C

The minimum allowable pipe size for storm sewers is dependent upon the estimated flows and a practical diameter from a maintenance standpoint. The minimum pipe size shall have a cross sectional area equivalent to an 18" circular pipe.

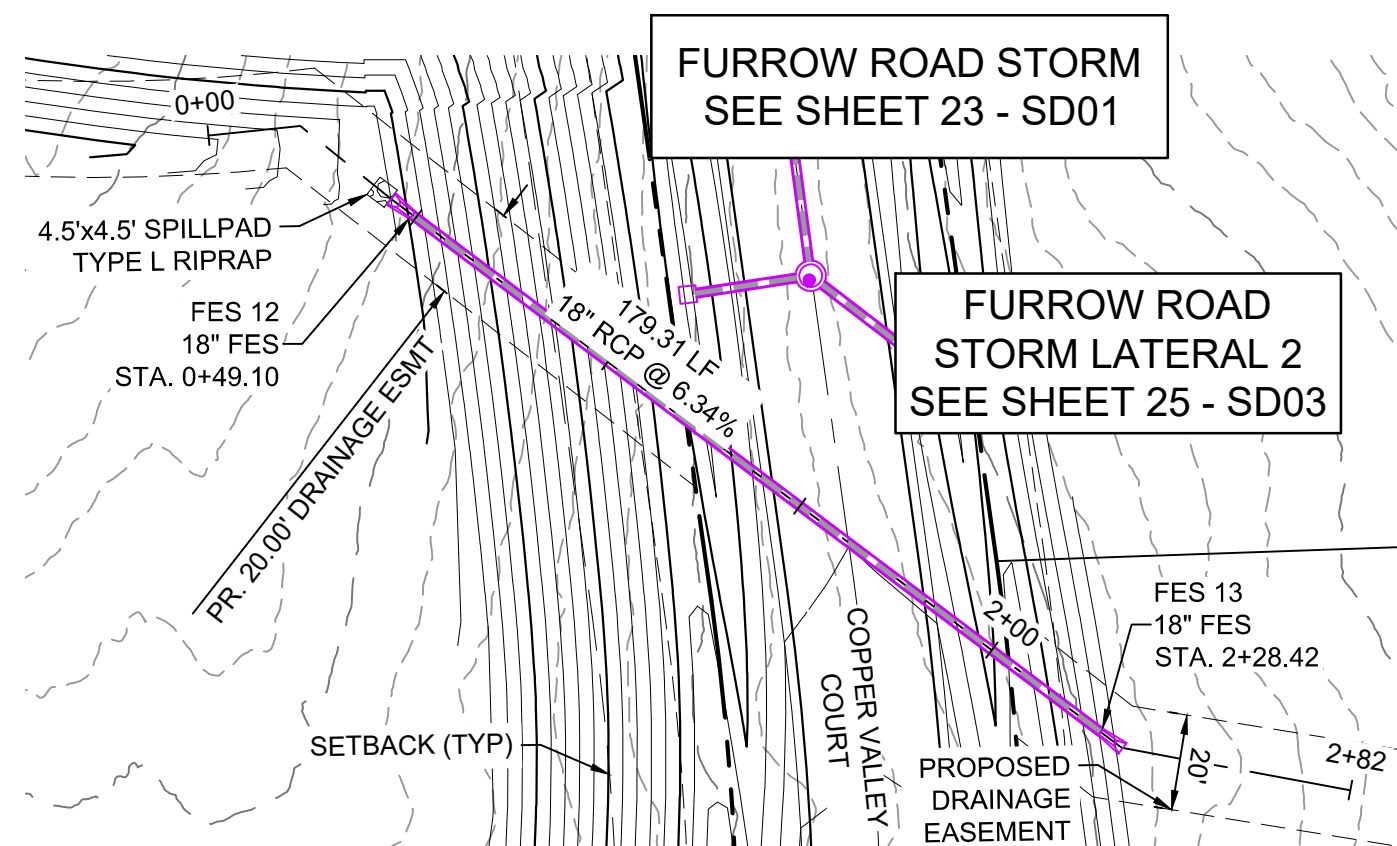
D. Minimum Gradient.

POND STORM CULVERT 1 ATRAI PROFILE

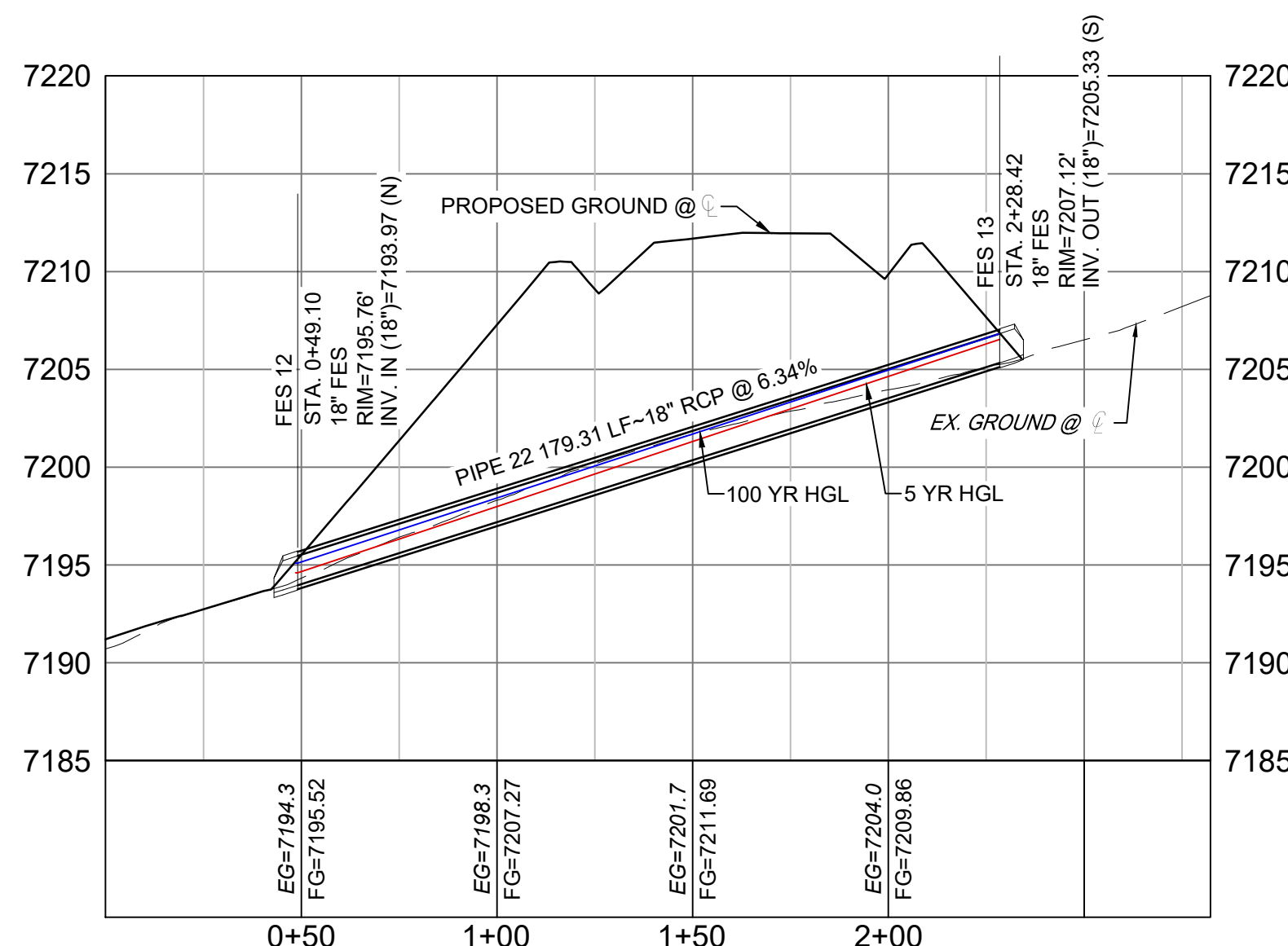
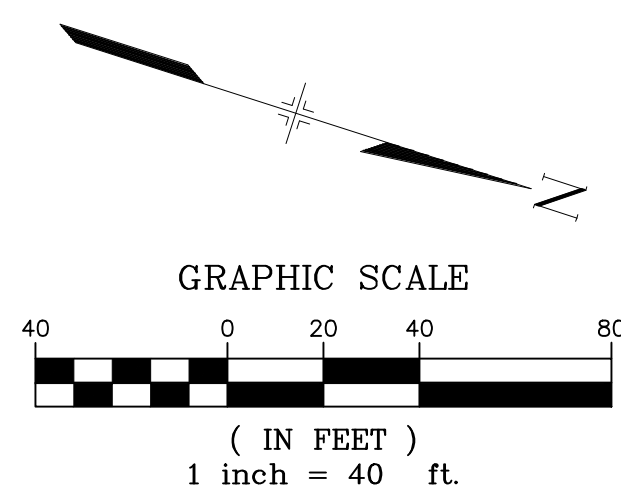
PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 18	18" RCP	52.00	10.00%	S06°33'23"W
PIPE 20	18" RCP	99.05	8.90%	S43°01'59"E
PIPE 21	15" RCP	43.18	10.00%	S79°58'47"E
PIPE 31	18" RCP	17.28	10.01%	S04°55'04"W

STRUCTURE TABLE			
NAME	TYPE	DETAILS	N&E
FOREBAY 2	FOREBAY	RIM = 7177.94 PIPE 20 INV IN = 7176.23	N: 1454615.42 E: 3190717.02
INLET 5	CDOT TYPE C INLET	RIM = 7200.24 PIPE 18 INV OUT = 7193.98	N: 1454756.70 E: 3190656.84
INLET 6	CDOT TYPE C INLET DROP STRUCTURE	RIM = 7200.24 PIPE 18 INV IN = 7188.78 PIPE 21 INV IN = 7191.16 PIPE 31 INV OUT = 7187.78	N: 1454705.04 E: 3190650.91
INLET 7	CDOT TYPE C INLET	RIM = 7200.56 PIPE 21 INV OUT = 7195.48	N: 1454712.56 E: 3190608.38
STM MH 6	4' TYPE I MH	RIM = 7198.52 PIPE 31 INV IN = 7186.05 PIPE 20 INV OUT = 7185.05	N: 1454687.82 E: 3190649.43

- NOTES:
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 - PIPE LENGTHS ARE MEASURED FROM CENTER TO CENTER OF ALL STRUCTURES.
 - ALL PIPE BENDS ANGLES ARE MEASURED FROM THE CENTER OF PIPE.
 - CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING STRUCTURES.
 - ALL TYPE C AND TYPE D INLETS SHALL BE CONSTRUCTED AND INSTALLED PER CDOT M&S STANDARD DETAILS. ELEVATIONS PROVIDED REFER TO TOP OF GRATE/STRUCTURE ELEVATION.
 - ALL RCP PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.
 - PIPES OF DIFFERENT SIZES ARE TO BE MATCHED TO THE CROWN OF THE INSIDE WALL OF PIPE.
 - PER THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL, MANHOLES SHALL BE INSTALLED 1/8" BELOW THE SURFACE OF THE PAVEMENT ON THE LOWEST SIDE OF THE MANHOLE.
 - SECTIONS OF STORM PIPE WITH PRESSURE HEAD DURING THE 100 YR STORM SHALL USE WATERTIGHT JOINTS WITH A 100 YR SERVICE LIFE PER ECM 3.3.1.B.2.
 - ALL STORM SEWER IS PUBLIC UNLESS OTHERWISE NOTED. STORM SEWER SHALL BE OWNED AND MAINTAINED BY THE GRANDWOOD RANCH HOMEOWNER ASSOCIATION, INC.

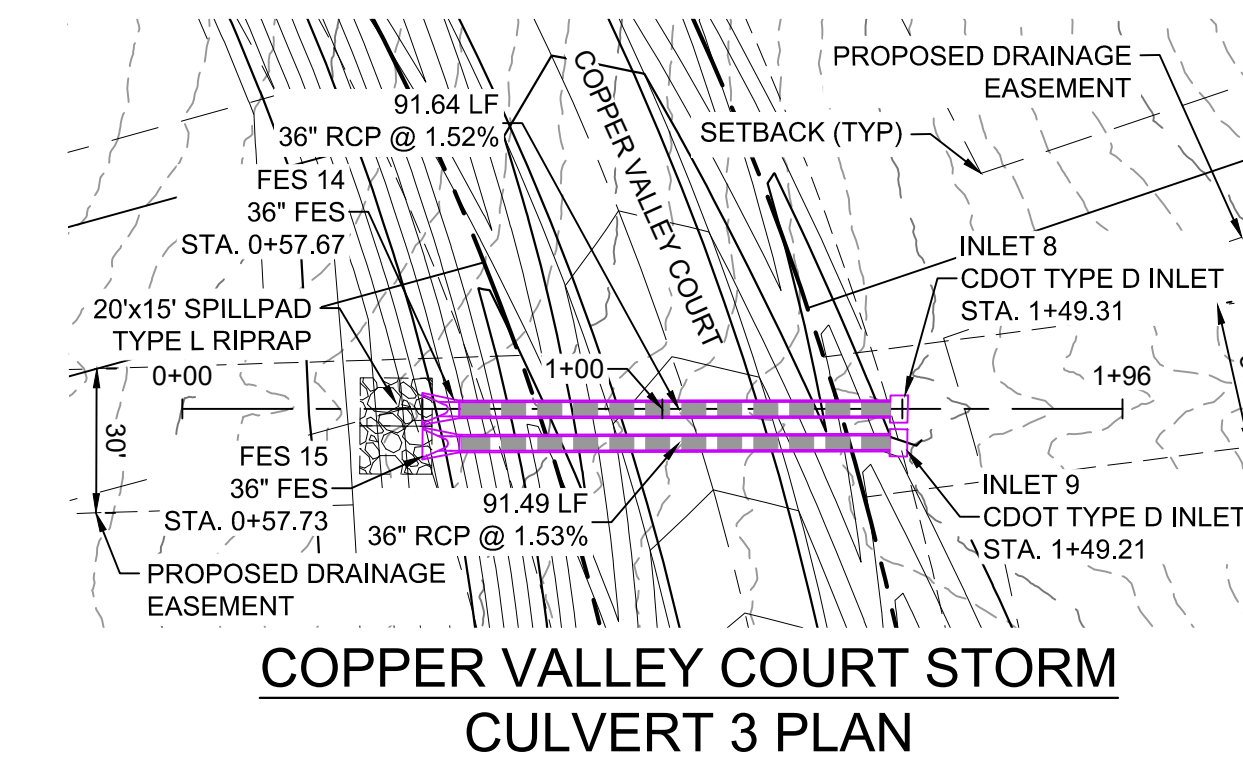


COPPER VALLEY COURT STORM CULVERT 2 PLAN

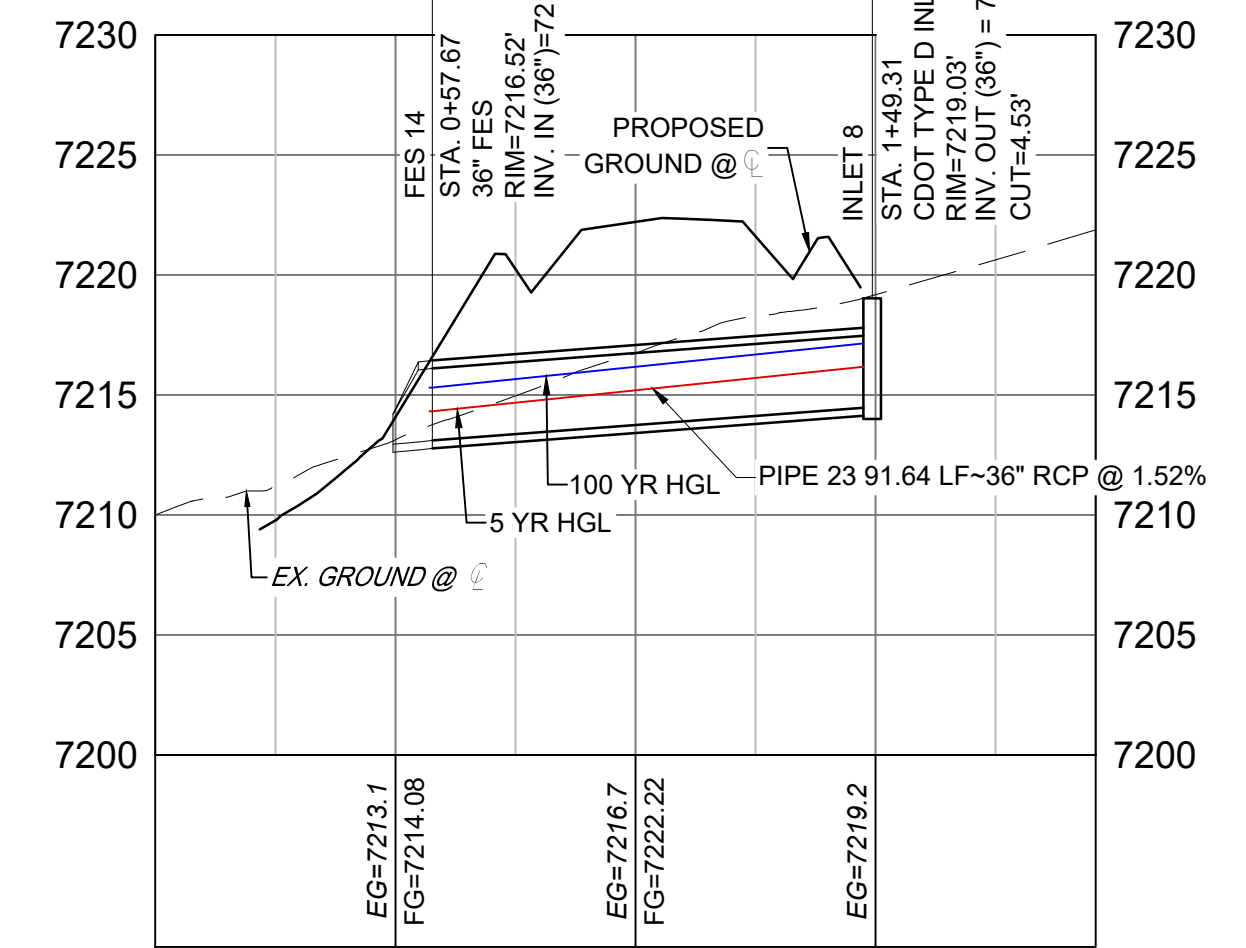
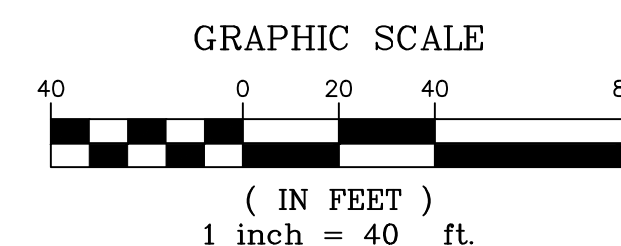


COPPER VALLEY COURT STORM CULVERT 2 PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'



COPPER VALLEY COURT STORM CULVERT 3 PLAN



COPPER VALLEY COURT STORM CULVERT 3 PROFILE

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 22	18" RCP	179.31	6.34%	S19°09'22"W

STRUCTURE TABLE			
NAME	TYPE	DETAILS	N&E
FES 12	18" FES	RIM = 7195.76 PIPE 22 INV IN = 7193.97	N: 1454814.21 E: 3191128.19
FES 13	18" FES	RIM = 7207.12 PIPE 22 INV OUT = 7205.33	N: 1454983.59 E: 3191187.03

STRUCTURE TABLE			
NAME	TYPE	DETAILS	N&E
FES 14	36" FES	RIM = 7216.52 PIPE 23 INV IN = 7213.10	N: 1454933.90 E: 3191507.68
FES 15	36" FES	RIM = 7217.42 PIPE 24 INV IN = 7213.10	N: 1454930.75 E: 3191514.09
INLET 8	CDOT TYPE D INLET	RIM = 7219.03 PIPE 23 INV OUT = 7214.50	N: 1455015.80 E: 3191548.81
INLET 9	CDOT TYPE D INLET	RIM = 7221.63 PIPE 24 INV OUT = 7214.50	N: 1455012.56 E: 3191555.03

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 23	36" RCP	91.64	1.52%	S26°40'11"W
PIPE 24	36" RCP	91.49	1.53%	S26°35'02"W

REFERENCE DRAWINGS

No.	DATE	DESCRIPTION	BY

COMPUTER FILE MANAGEMENT

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 CTB FILE:
 PLOT DATE: October 2, 2020 9:39:05 AM
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SHEET KEY

BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS *LWA PLS 28658"

OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

GRANDWOOD RANCH

EL PASO COUNTY
ROAD AND STORM PLANS

STORM PLAN AND PROFILE

DESIGNED BY: CAP SCALE: 1" = 40'
 DRAWN BY: CAP HORIZ: 1" = 40'
 CHECKED BY: NMS VERT: 1" = 8'

DATE ISSUED: SEPTEMBER 2020
 SHEET: 26 OF 38

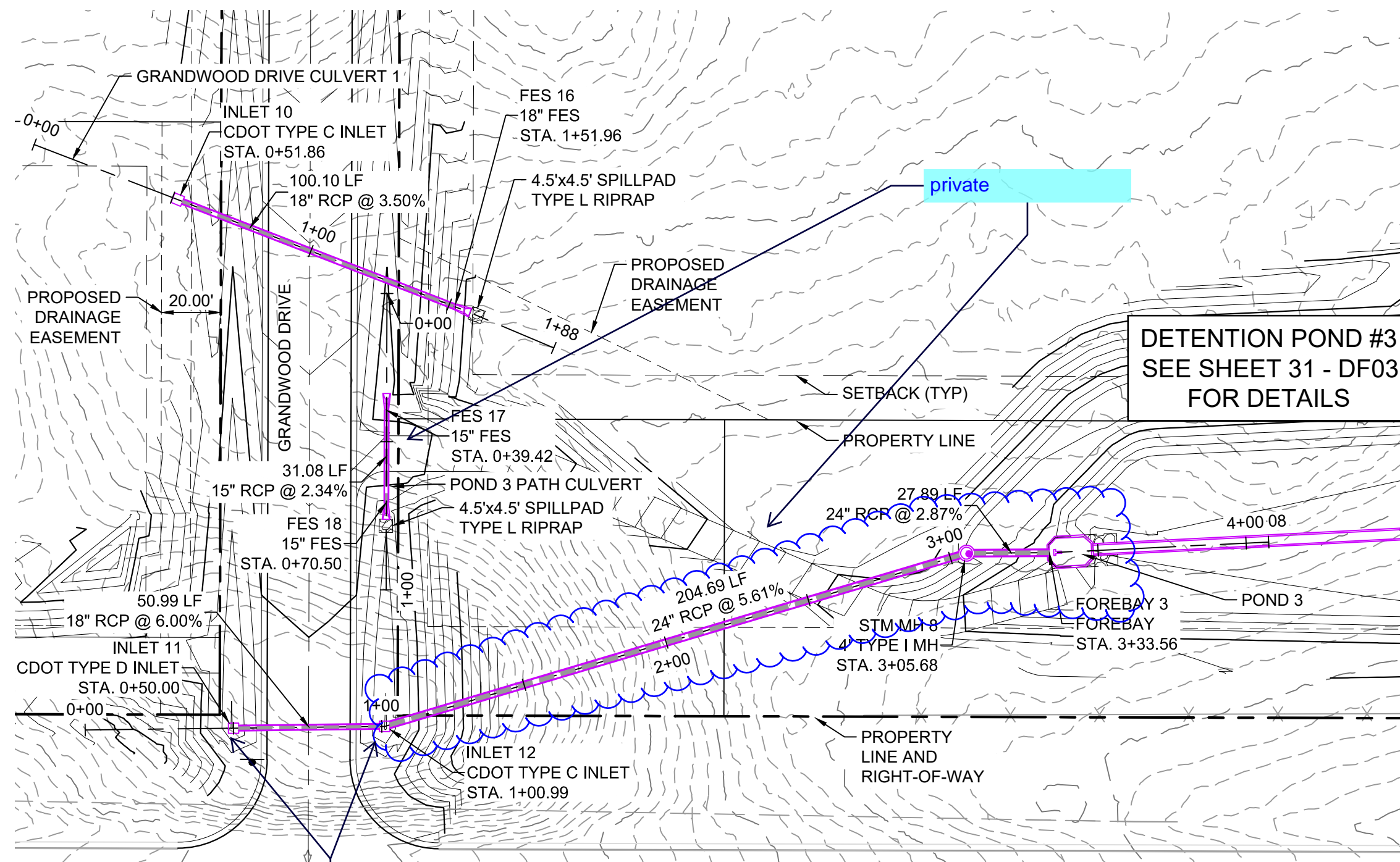
DRAWING No. SD04



Know what's below.
Call before you dig.

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 25	18" RCP	50.99	6.00%	N89°17'24"E
PIPE 26	24" RCP	204.69	5.61%	N73°25'22"E
PIPE 27	24" RCP	27.89	2.87%	N89°39'27"E

STRUCTURE TABLE			
NAME	TYPE	DETAILS	N&E
FOREBAY 3	FOREBAY	RIM = 7248.16 PIPE 27 INV IN = 7246.00	N: 1454240.80 E: 3193425.69
INLET 11	CDOT TYPE D INLET	RIM = 7267.10 PIPE 25 INV OUT = 7263.34	N: 1454181.61 E: 3193150.64
INLET 12	CDOT TYPE C INLET	RIM = 7266.98 PIPE 25 INV IN = 7260.28 PIPE 26 INV OUT = 7259.28	N: 1454182.24 E: 3193201.62
STM MH 8	4' TYPE I MH	RIM = 7251.79 PIPE 26 INV IN = 7247.80 PIPE 27 INV OUT = 7246.80	N: 1454240.64 E: 3193397.80



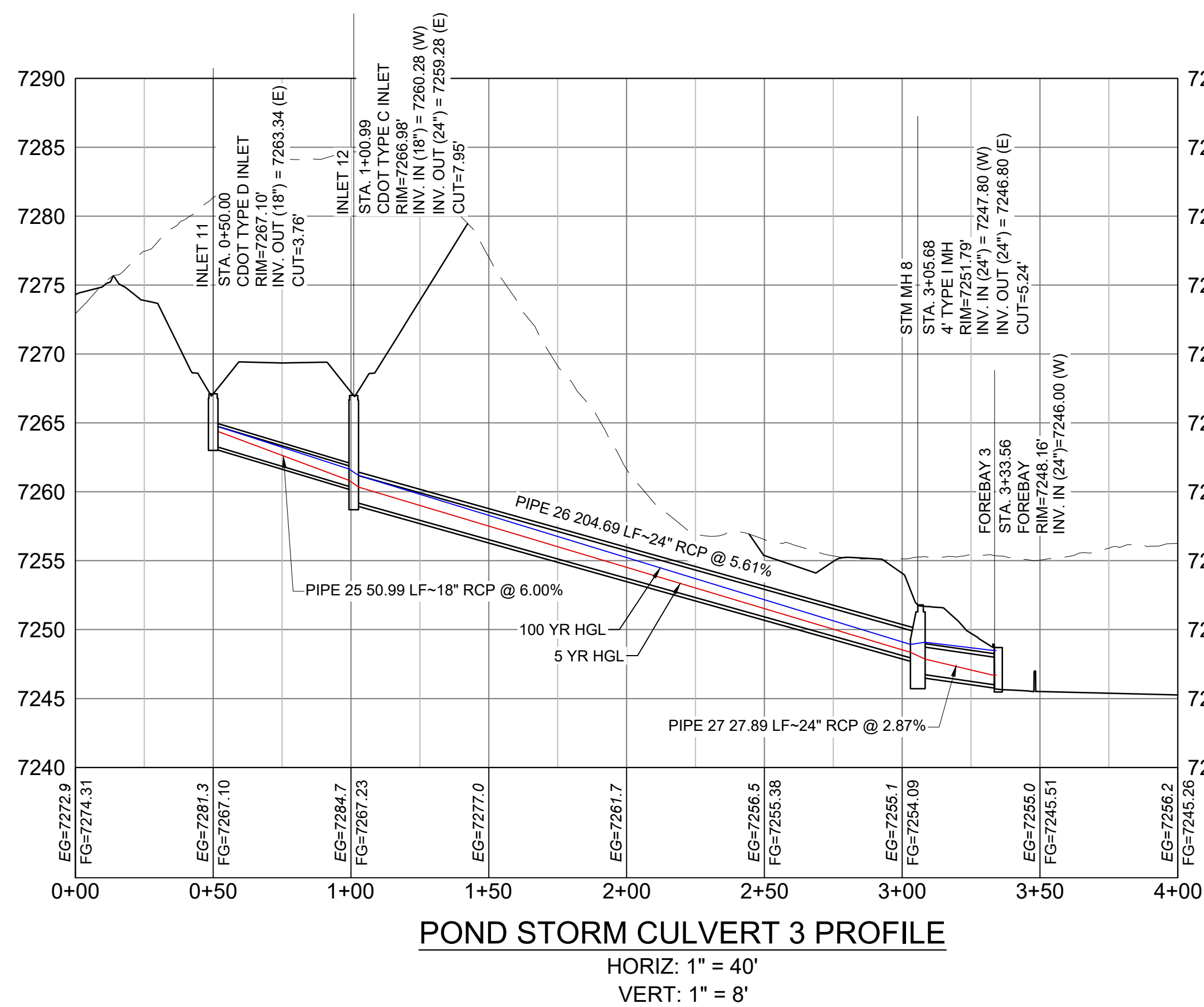
ok. Sump condition GRANDWOOD DRIVE STORM PLAN

STRUCTURE TABLE			
NAME	TYPE	DETAILS	N&E
FES 16	18" FES	RIM = 7265.10 PIPE 28 INV IN = 7263.31	N: 1454323.80 E: 3193225.19
INLET 10	CDOT TYPE C INLET	RIM = 7270.31 PIPE 28 INV OUT = 7266.81	N: 1454359.90 E: 3193131.83

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 28	18" RCP	100.10	3.50%	S68°51'39"E

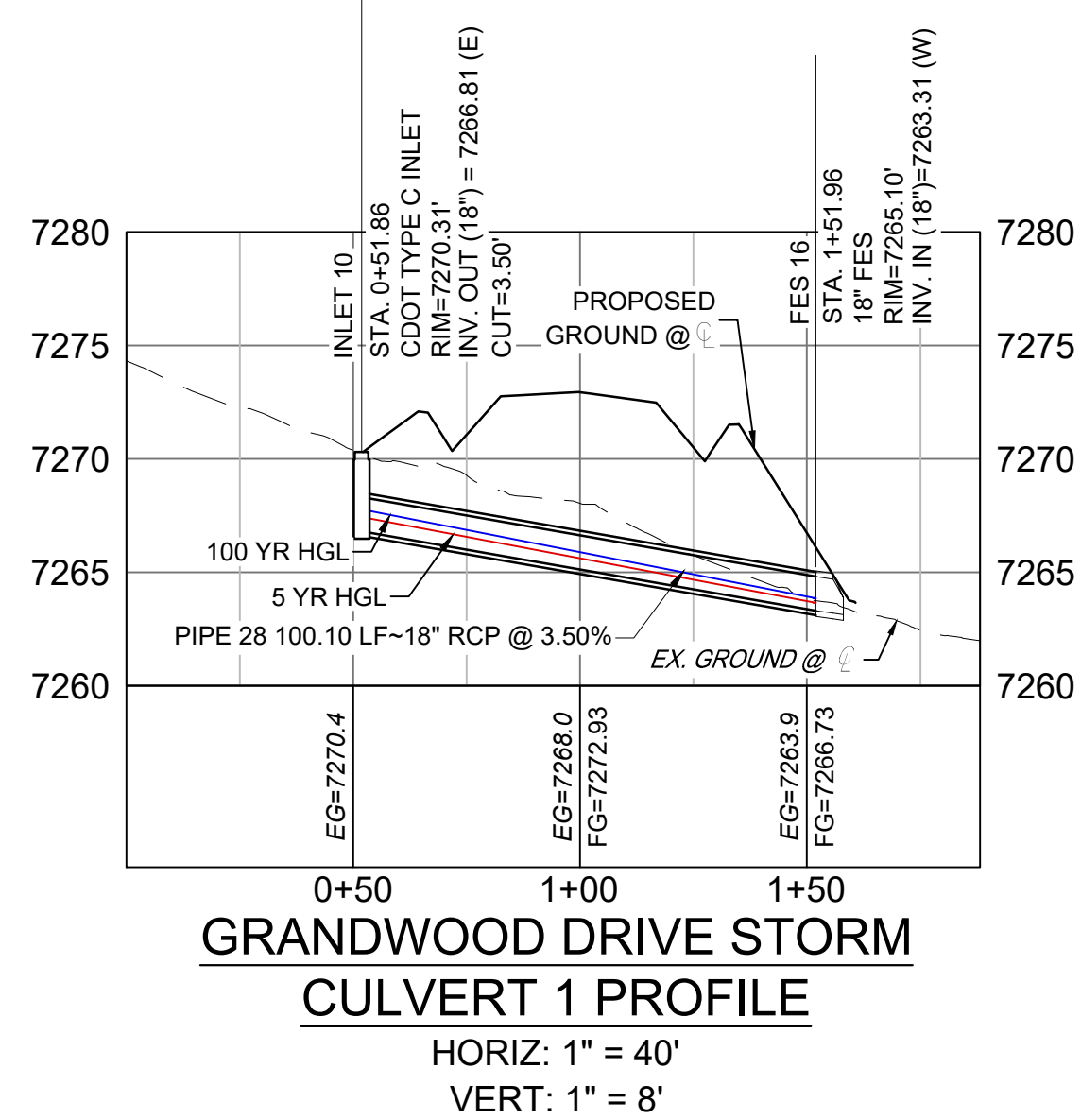
STRUCTURE TABLE			
NAME	TYPE	DETAILS	N&E
FES 17	15" FES	RIM = 7270.37 PIPE 29 INV OUT = 7268.85	N: 1454288.84 E: 3193202.25
FES 18	15" FES	RIM = 7269.64 PIPE 29 INV IN = 7268.12	N: 1454257.76 E: 3193202.16

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 29	15" RCP	31.08	2.34%	S00°09'43"W



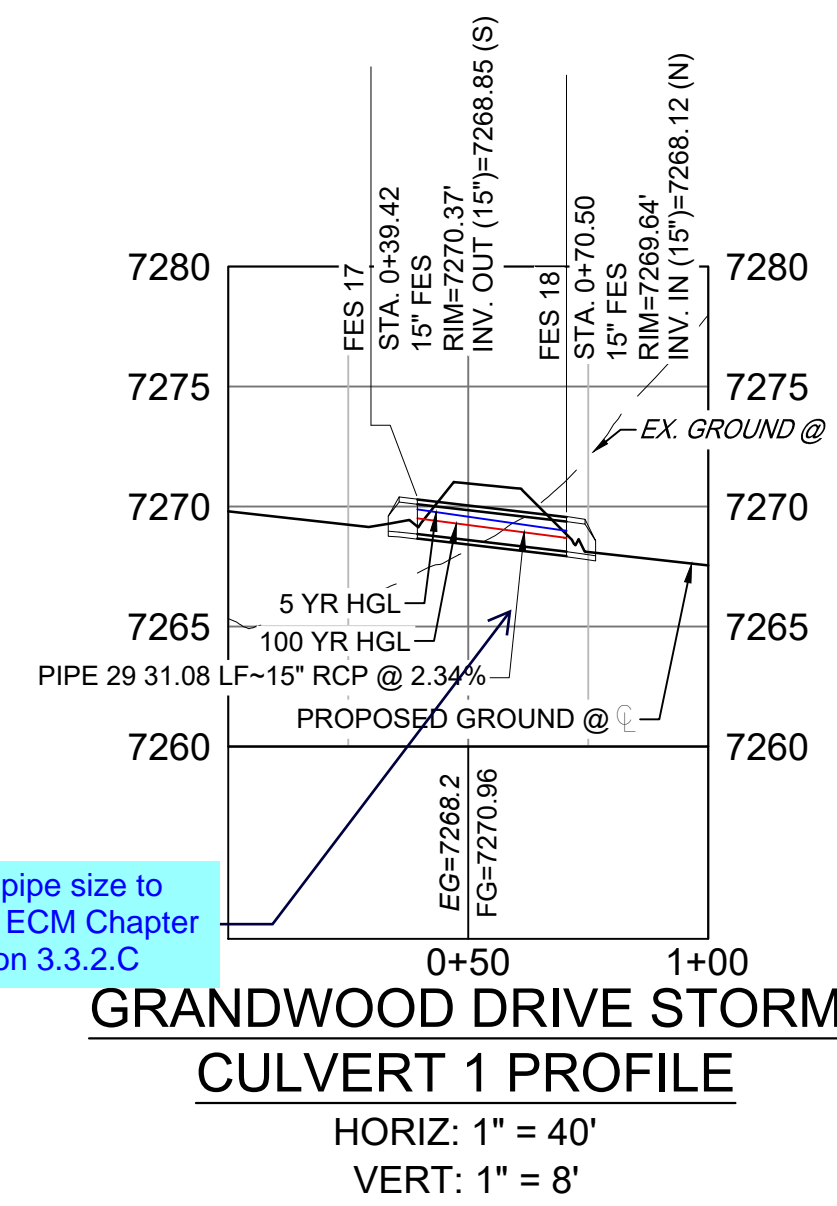
POND STORM CULVERT 3 PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'



GRANDWOOD DRIVE STORM CULVERT 1 PROFILE

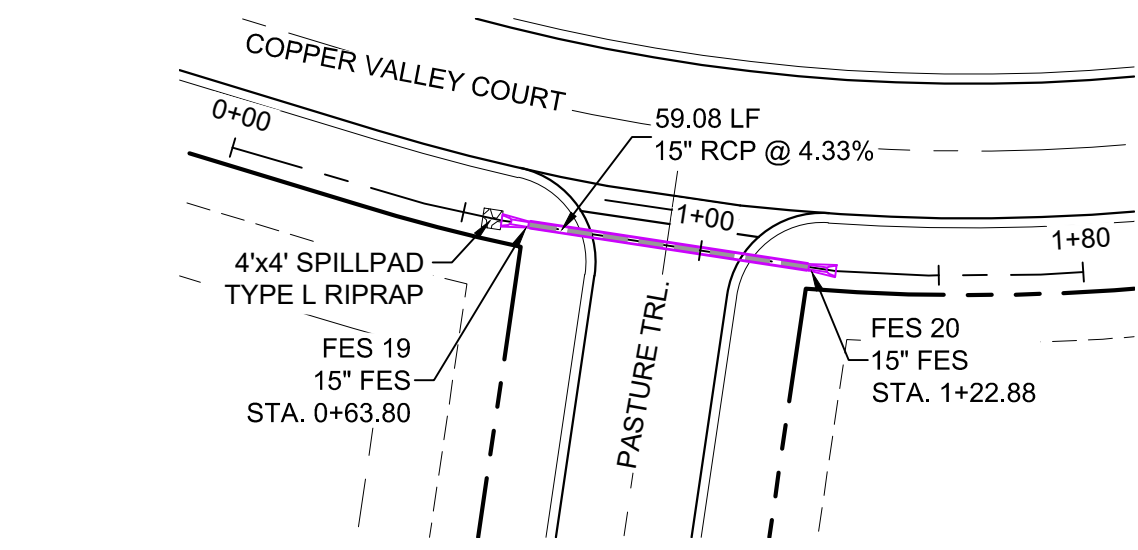
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VERT: 1" = 8'



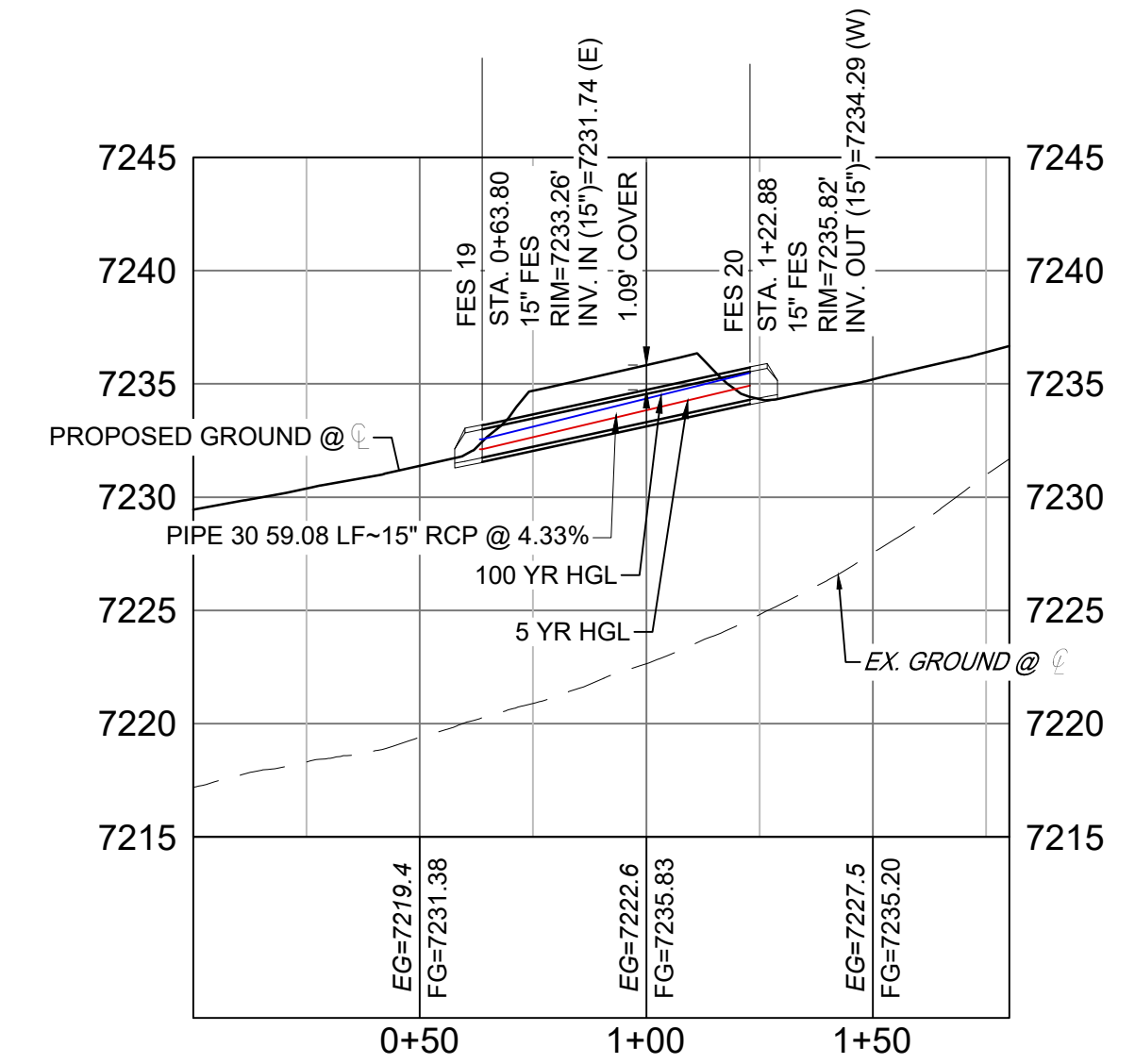
GRANDWOOD DRIVE STORM CULVERT 2 PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'

Revise pipe size to 18" per ECM Chapter 3 Section 3.3.2.C



COPPER VALLEY COURT STORM CULVERT 4 PLAN



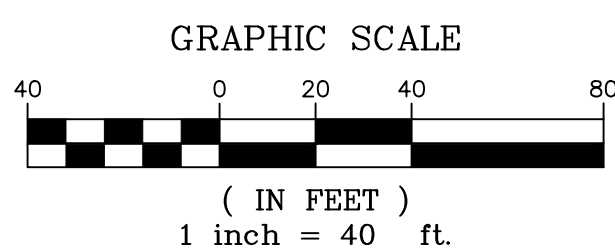
COPPER VALLEY COURT STORM CULVERT 4 PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'

STRUCTURE TABLE			
NAME	TYPE	DETAILS	N&E
FES 19	15" FES	RIM = 7233.26 PIPE 30 INV IN = 7231.74	N: 1454868.21 E: 3191823.67
FES 20	15" FES	RIM = 7235.82 PIPE 30 INV OUT = 7234.29	N: 1454859.33 E: 3191882.08

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 30	15" RCP	59.08	4.33%	N81°21'15"W

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NO.	DATE	DESCRIPTION	BY

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CTB FILE: ...
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SHEET KEY

BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

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OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL

PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

GRANDWOOD RANCH

EL PASO COUNTY
ROAD AND STORM PLANS

STORM PLAN AND PROFILE

DESIGNED BY: CAP
DRAWN BY: CAP
CHECKED BY: NMS

SCALE
HORIZ: 1" = 40'
VERT: 1" = 8'

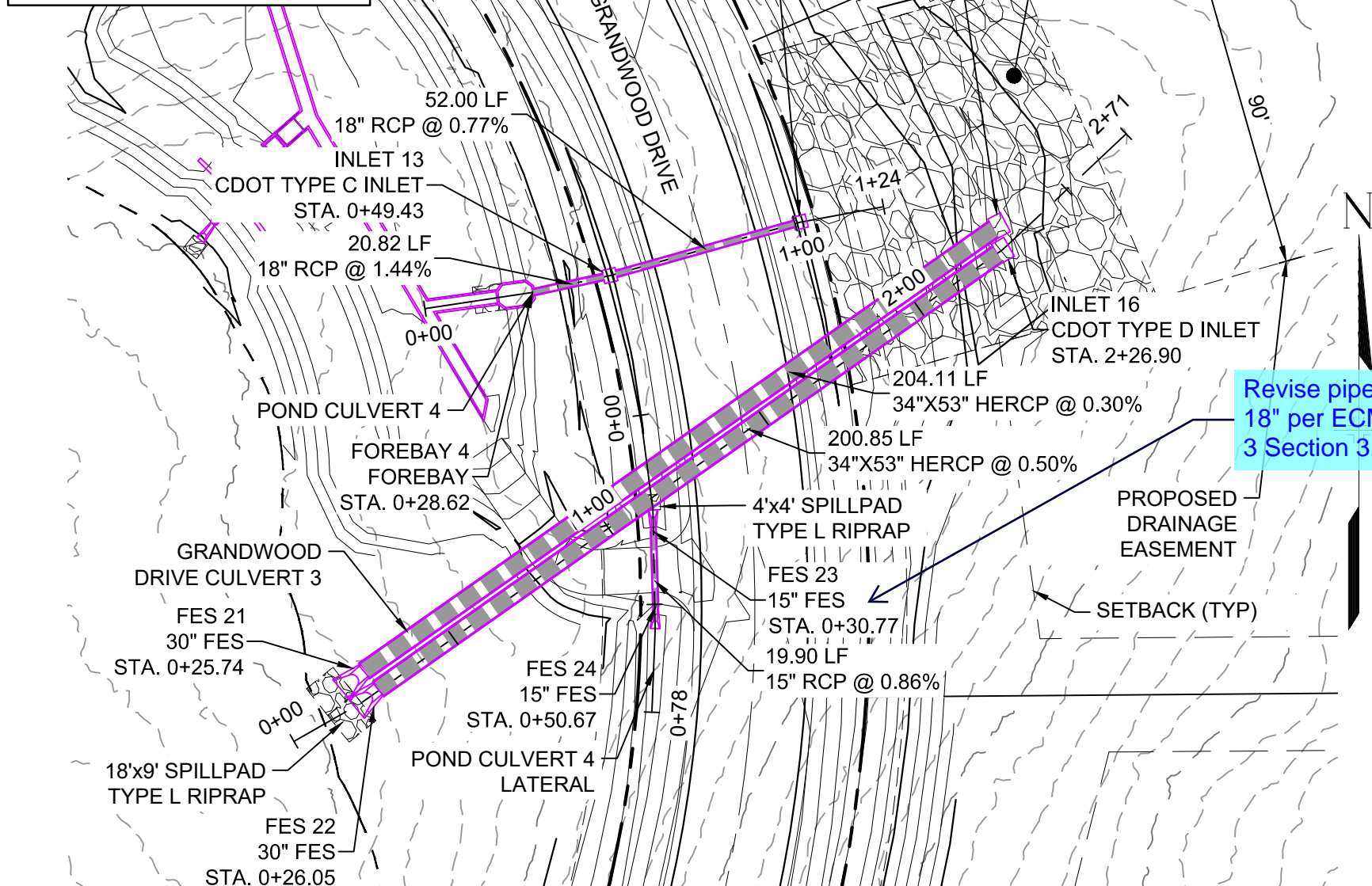
DATE ISSUED: SEPTEMBER 2020
SHEET 27 OF 38

DRAWING No. SD05

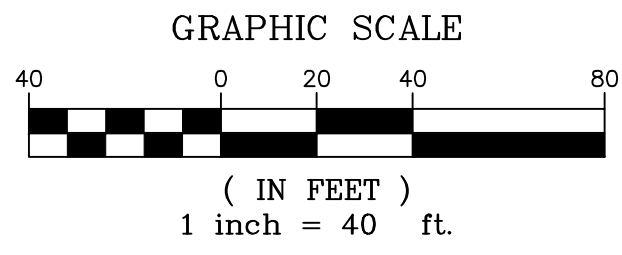


Know what's below. Call before you dig.

DETENTION POND #4
SEE SHEET 32 - DF04
FOR DETAILS



GRANDWOOD DRIVE STORM PLAN



Identify length, width, and depth for riprap. This applies to all riprap sections.

Revise pipe size to 18" per ECM Chapter 3 Section 3.3.2.C

Revise per chapter 4 section 4.3.6.A.3. Check all other pipes.

Volume of riprap missing. What is the D50?

POND STORM CULVERT 4 PROFILE

HORIZ: 1" = 40' VERT: 1" = 8'

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 40	18" RCP	20.82	1.44%	S77°48'44"W
PIPE 41	18" RCP	52.00	0.77%	S74°16'29"W

STRUCTURE TABLE				
NAME	TYPE	DETAILS	N&E	
FOREBAY 4	FOREBAY	RIM = 7297.71 PIPE 40 INV IN = 7296.00	N: 1454896.05 E: 3194585.07	
INLET 13	CDOT TYPE C INLET	RIM = 7299.74 PIPE 41 INV IN = 7296.40 PIPE 40 INV OUT = 7296.30	N: 1454900.44 E: 3194605.42	
INLET 14	CDOT TYPE C INLET	RIM = 7300.42 PIPE 41 INV OUT = 7296.80	N: 1454914.53 E: 3194655.47	

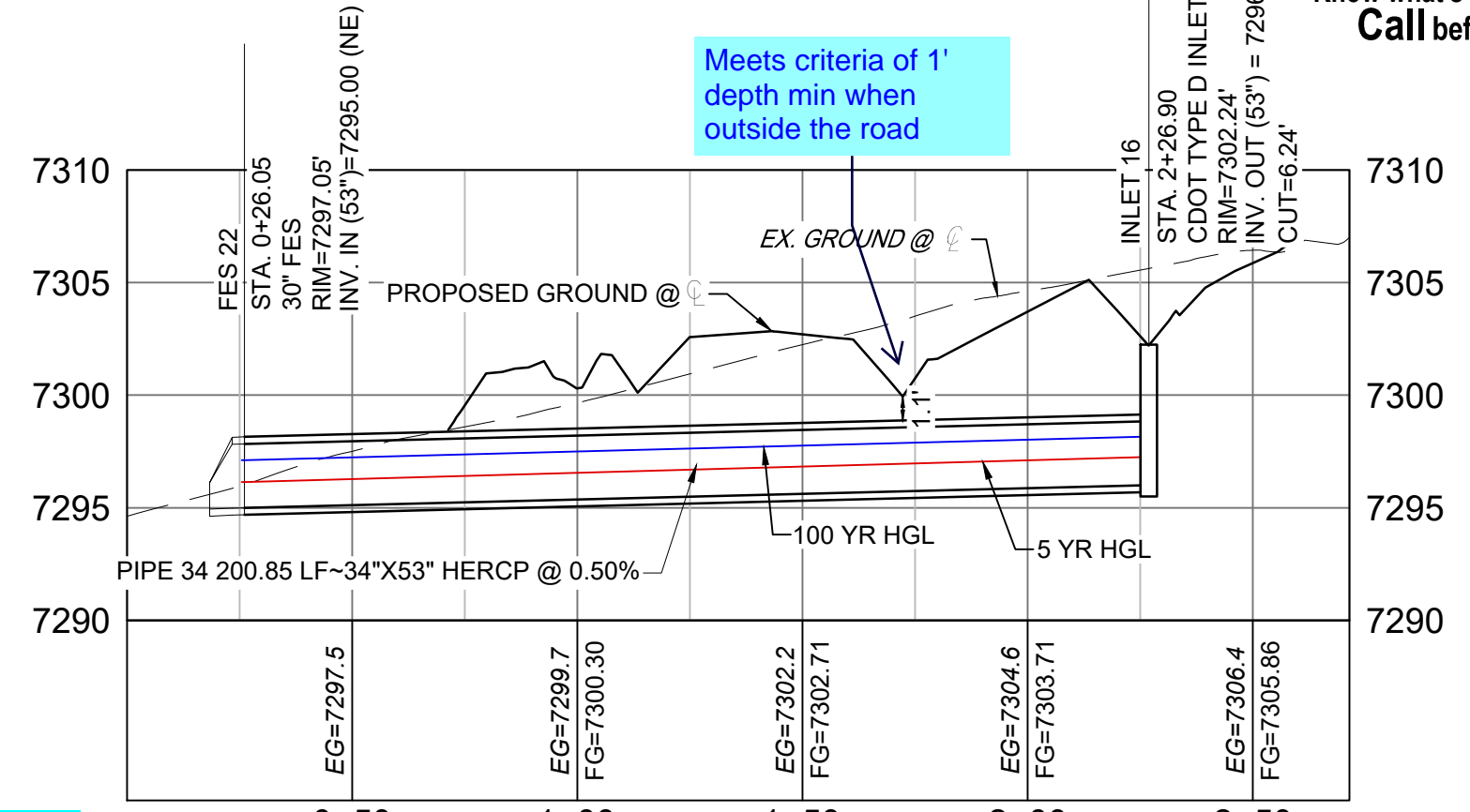
POND STORM CULVERT 4 LATERAL PROFILE

HORIZ: 1" = 40' VERT: 1" = 8'

STRUCTURE TABLE				
NAME	TYPE	DETAILS	N&E	
FES 23	15" FES	RIM = 7301.71 PIPE 33 INV IN = 7300.19	N: 1454833.14 E: 3194616.86	
FES 24	15" FES	RIM = 7301.88 PIPE 33 INV OUT = 7300.36	N: 1454813.25 E: 3194617.46	

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 33	15" RCP	19.90	0.86%	N01°42'59"W

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 34	34"x53" HERCP	200.85	0.50%	S54°54'16"W
PIPE 35	34"x53" HERCP	204.11	0.30%	S54°55'17"W



GRANDWOOD DRIVE STORM CULVERT 3 PROFILE

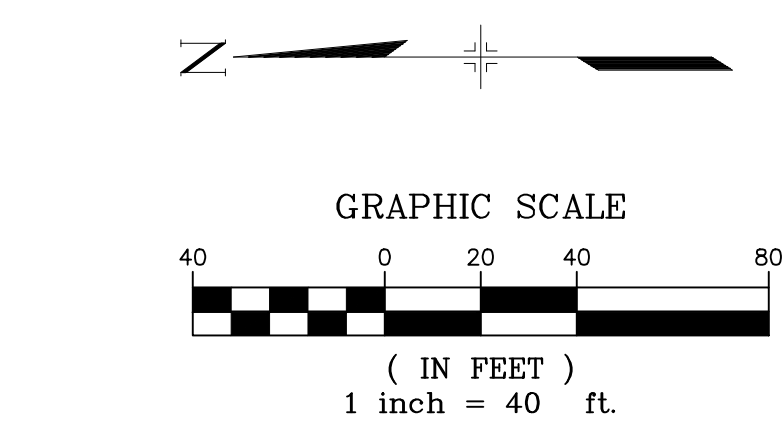
HORIZ: 1" = 40' VERT: 1" = 8'

STRUCTURE TABLE				
NAME	TYPE	DETAILS	N&E	
FES 21	30" FES	RIM = 7298.93 PIPE 35 INV IN = 7295.00	N: 1454796.38 E: 3194540.72	
FES 22	30" FES	RIM = 7297.05 PIPE 34 INV IN = 7295.00	N: 1454791.65 E: 3194544.45	
INLET 15	CDOT TYPE D INLET	RIM = 7302.24 PIPE 35 INV OUT = 7295.61	N: 1454913.68 E: 3194707.76	
INLET 16	CDOT TYPE D INLET	RIM = 7302.24 PIPE 34 INV OUT = 7296.00	N: 1454907.12 E: 3194708.79	

GRANDWOOD DRIVE STORM CULVERT 2 PLAN

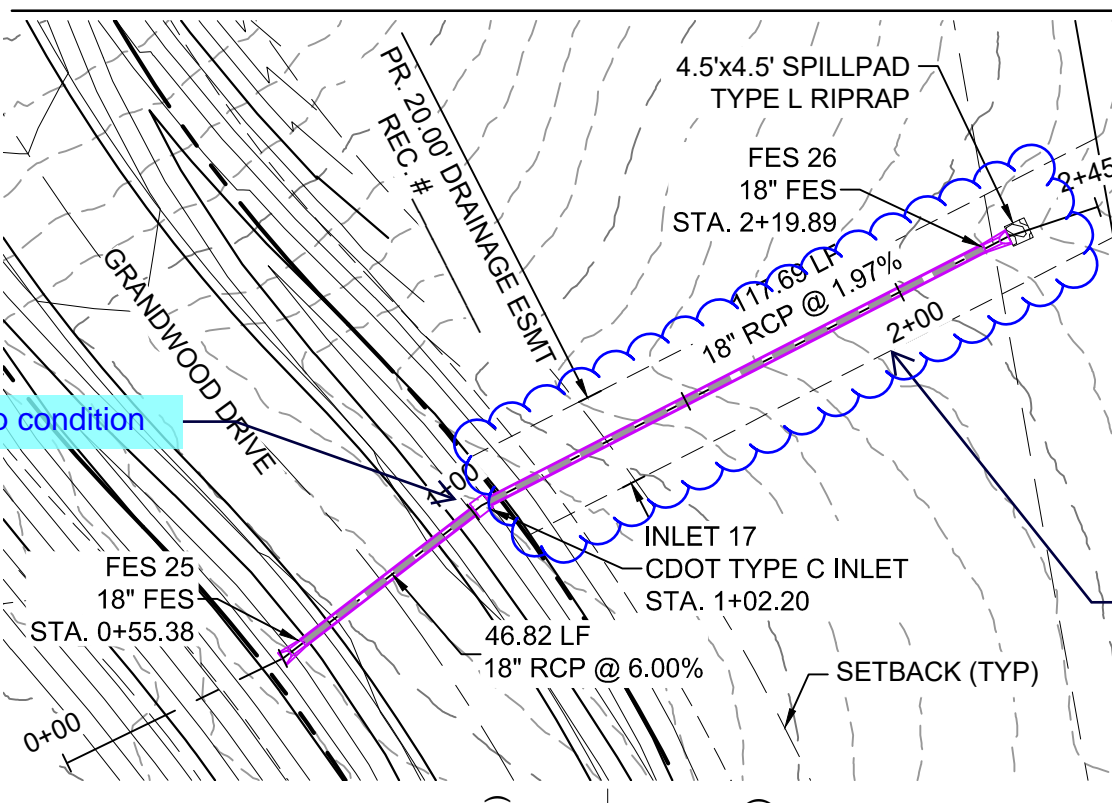
STRUCTURE TABLE				
NAME	TYPE	DETAILS	N&E	
FES 25	18" FES	RIM = 7294.29 PIPE 36 INV OUT = 7292.95	N: 1455049.48 E: 3194002.25	
FES 26	18" FES	RIM = 7289.41 PIPE 37 INV IN = 7287.62	N: 1454907.63 E: 3194084.45	
INLET 17	CDOT TYPE C INLET	RIM = 7293.67 PIPE 36 INV IN = 7290.14 PIPE 37 INV OUT = 7289.94	N: 1455012.38 E: 3194030.81	

PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 36	18" RCP	46.82	6.00%	S37°35'29"E
PIPE 37	18" RCP	117.69	1.97%	S27°06'51"E



GRANDWOOD DRIVE STORM CULVERT 2 PROFILE

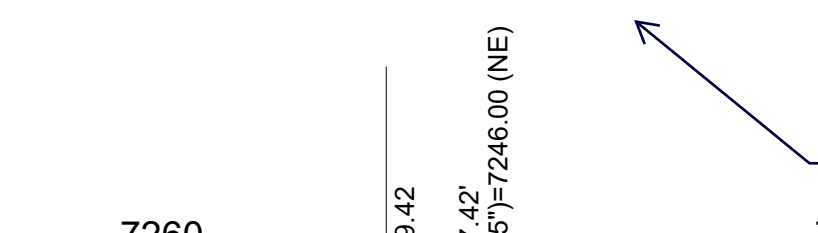
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Ok. Sump condition

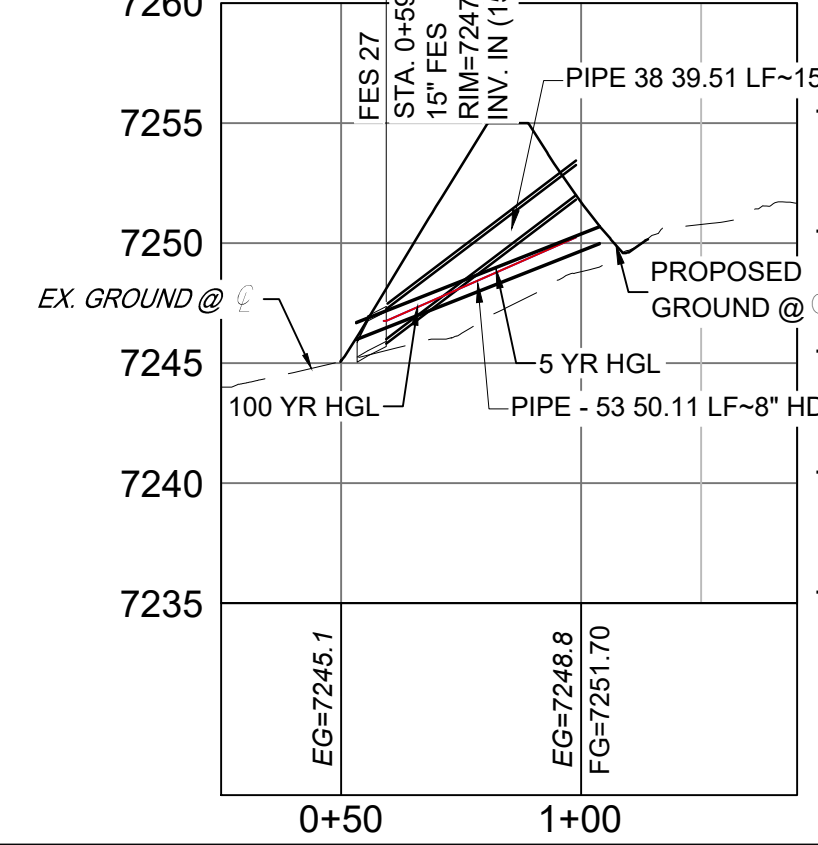
Identify as private

LOT 22 BERM OUTFALL PLAN



STRUCTURE TABLE				
NAME	TYPE	DETAILS	N&E	
FES 27	15" FES	RIM = 7247.421 PIPE 38 INV IN = 7246.000	N: 1454197.94 E: 3192464.63	

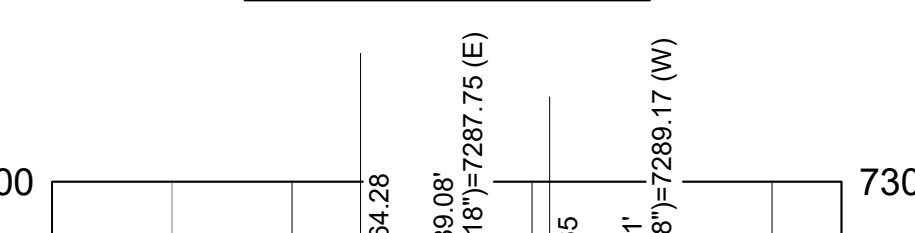
PIPE TABLE				
NAME	SIZE	LENGTH	SLOPE	BEARING
PIPE 38	15" RCP	39.51	15.18%	S45°47'15"W



LOT 22 DETENTION OUTFALL PROFILE

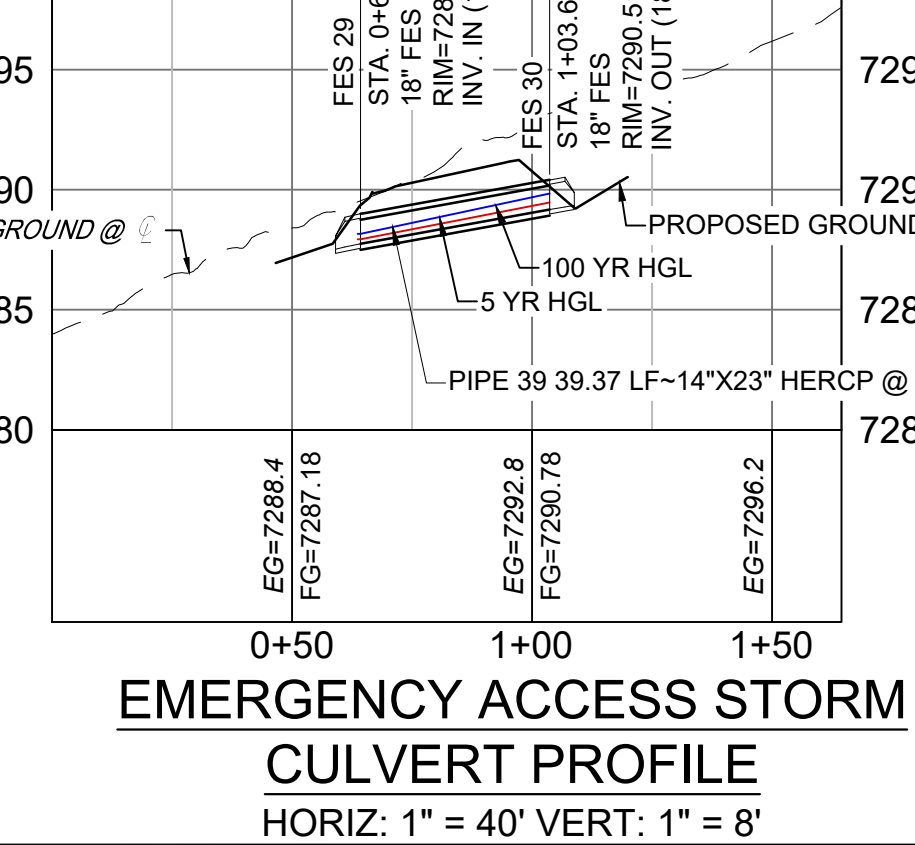
HORIZ: 1" = 40' VERT: 1" = 8'

EMERGENCY ACCESS STORM CULVERT PLAN



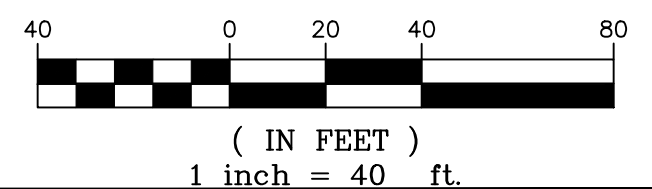
STRUCTURE TABLE				
NAME	TYPE	DETAILS	N&E	
FES 29	18" FES	RIM = 7289.084 PIPE 39 INV IN = 7287.750	N: 1454156.01 E: 3194332.82	
FES 30	18" FES	RIM = 7290.505 PIPE 39 INV OUT = 7289.172	N: 1454156.01 E: 3194372.19	

- NOTES:
- ALL STATION, OFFSET, AND NORTHING/EASTING VALUES ARE TO THE CENTER OF ALL STRUCTURES UNLESS OTHERWISE NOTED.
 - PIPE LENGTHS ARE MEASURED FROM CENTER TO CENTER OF ALL STRUCTURES.
 - ALL PIPE BENDS ANGLES ARE MEASURED FROM THE CENTER OF PIPE.
 - CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING STRUCTURES.
 - ALL TYPE C AND TYPE D INLETS SHALL BE CONSTRUCTED AND INSTALLED PER CDOT M&S STANDARD DETAILS. ELEVATIONS PROVIDED REFER TO TOP OF GRATE/STRUCTURE ELEVATION.
 - ALL RCP PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.
 - PIPES OF DIFFERENT SIZES ARE TO BE MATCHED TO THE CROWN OF THE INSIDE WALL OF PIPE.
 - PER THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL, MANHOLES SHALL BE INSTALLED 1/8" BELOW THE SURFACE OF THE PAVEMENT ON THE LOWEST SIDE OF THE MANHOLE.
 - SECTIONS OF STORM PIPE WITH PRESSURE HEAD DURING THE 100 YR STORM SHALL USE WATER TIGHT JOINTS WITH A 100 YR SERVICE LIFE PER ECM 3.3.1.B.2.
 - ALL STORM SEWER IS PUBLIC UNLESS OTHERWISE NOTED. STORM SEWER SHALL BE OWNED AND MAINTAINED BY THE GRANDWOOD RANCH HOMEOWNER ASSOCIATION, INC.



EMERGENCY ACCESS STORM CULVERT PROFILE

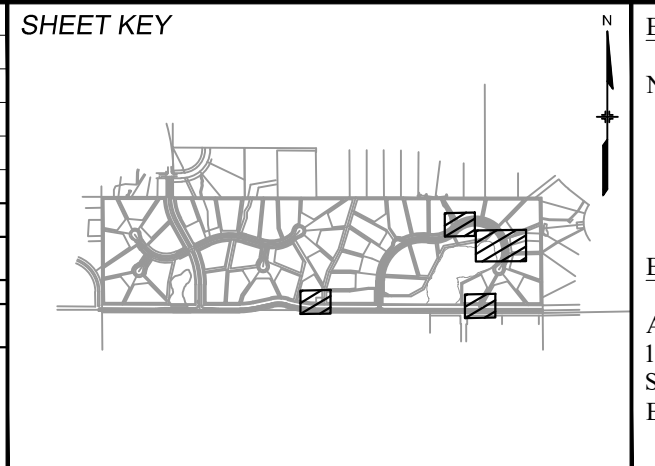
HORIZ: 1" = 40' VERT: 1" = 8'



NO.	DATE	DESCRIPTION	BY

COMPUTER FILE MANAGEMENT

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 PLOT DATE: October 2, 2020 9:39:55 AM
 THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE



BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS *LWA PLS 28658"

OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

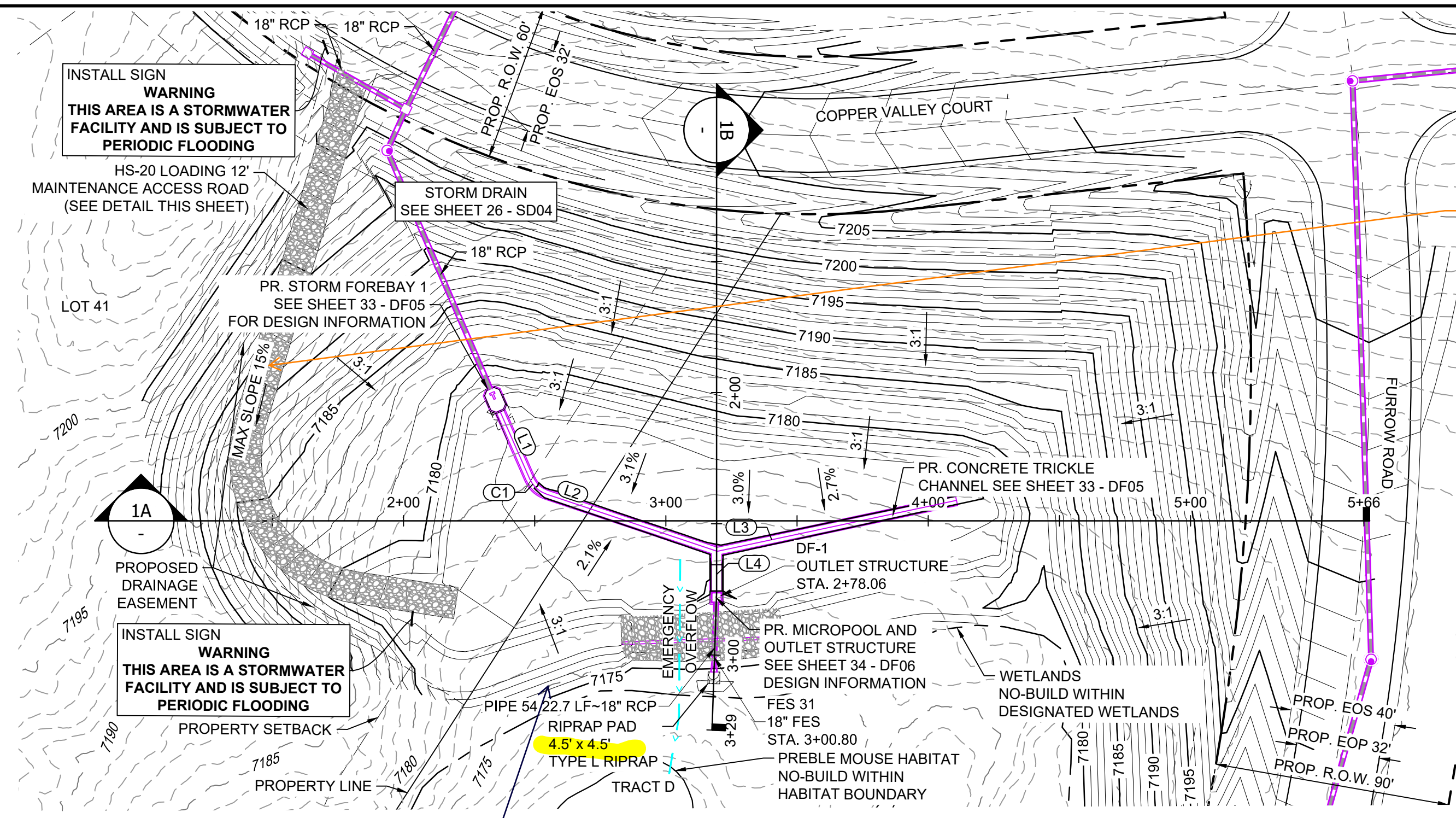
DESIGNED BY: CAP
DRAWN BY: CAP
CHECKED BY: NMS

SCALE
HORIZ: 1" = 40'
VERT: 1" = 8'

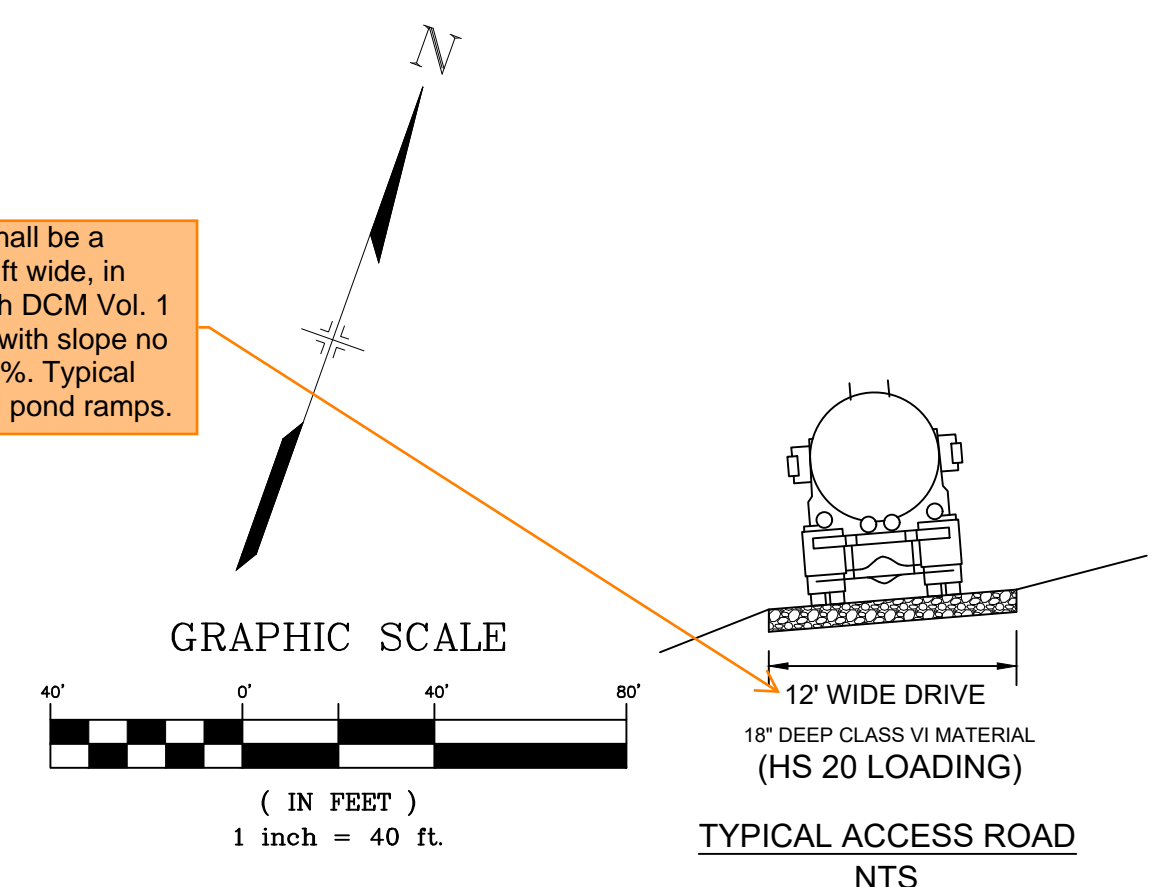
DATE ISSUED: SEPTEMBER 2020
SHEET 28 OF 38

DRAWING No. SD06

GRANDWOOD RANCH
EL PASO COUNTY
ROAD AND STORM PLANS
STORM PLAN AND PROFILE



Access ramp shall be a minimum of 15 ft wide, in accordance with DCM Vol. 1 Section 11.2.2 with slope no greater than 12%. Typical comment for all pond ramps.



- NOTES:**
1. ALL STATION, OFFSET, AND NORTHING/EASTING VALUES ARE TO THE CENTER ALL STRUCTURES UNLESS OTHERWISE NOTED.
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 4. ALL PIPE BEND ANGLES ARE MEASURED FROM THE CENTER OF PIPE.
 5. CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING STRUCTURES.
 6. REFER TO LANDSCAPE PLAN OR GRADING EROSION CONTROL FOR FINAL LANDSCAPE AND FINAL STABILIZATION.
 7. REFER TO POND DETAIL SHEETS FOR POND STRUCTURE/INFRASTRUCTURE DETAILS.
 8. DETENTION / WATER QUALITY PONDS ARE PRICATE AND ARE TO BE OWNED AND MAINTAINED BY GRANDWOOD RANCH HOMEOWNER'S ASSOCIATION.

POND DF-1 LAYOUT

Provide a copy of the receipt when you submit the Non-Jurisdictional Water Impoundment Structure application form to the State for all detention ponds with an embankment. In the interim, upload a copy of the application form submitted to the State.

LINE TABLE

LINE #	BEARING	DISTANCE
L1	S43°20'59"E	28.14
L2	N88°54'09"E	68.68
L3	N58°21'24"E	93.50
L4	S19°37'57"E	15.16

CURVE TABLE

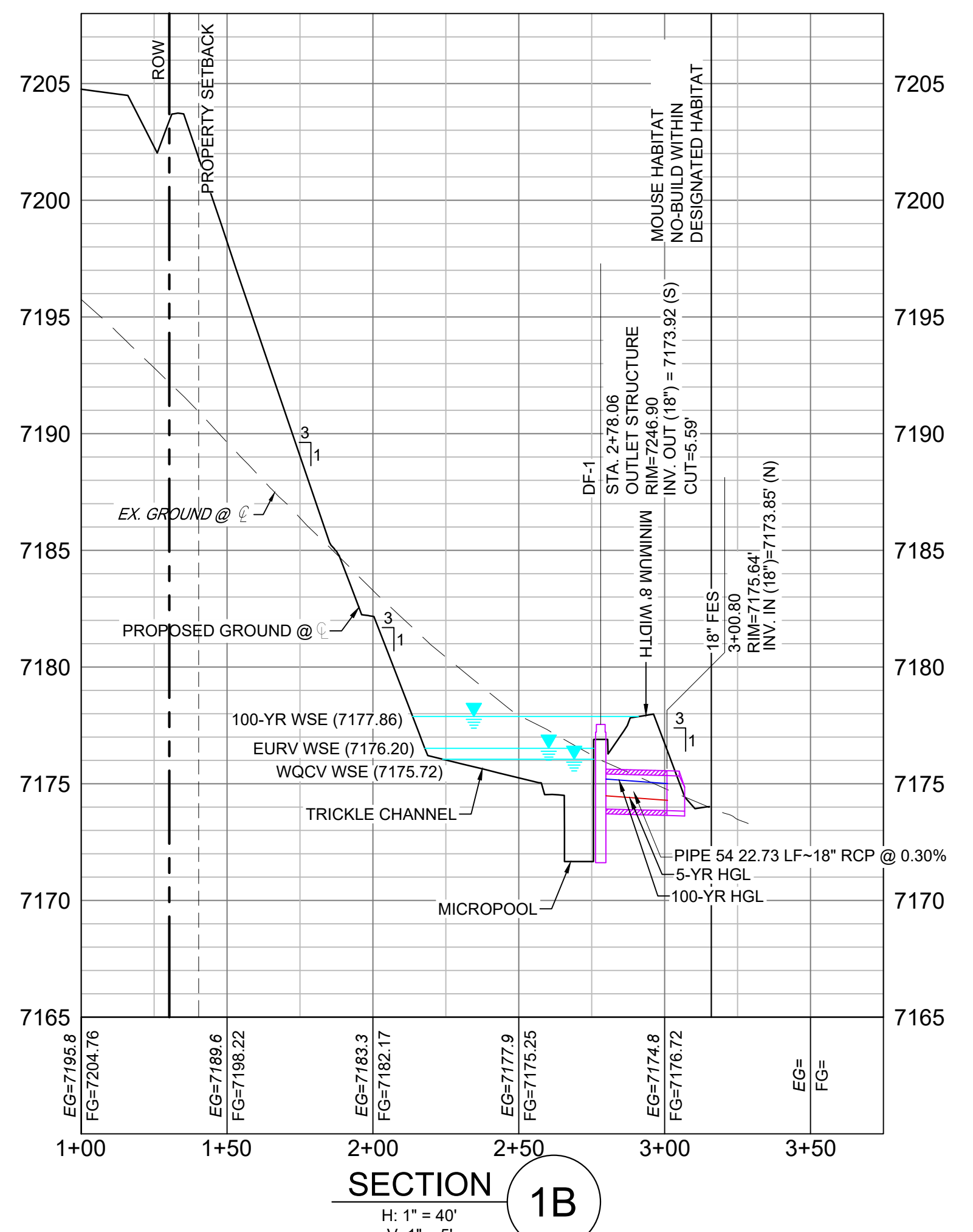
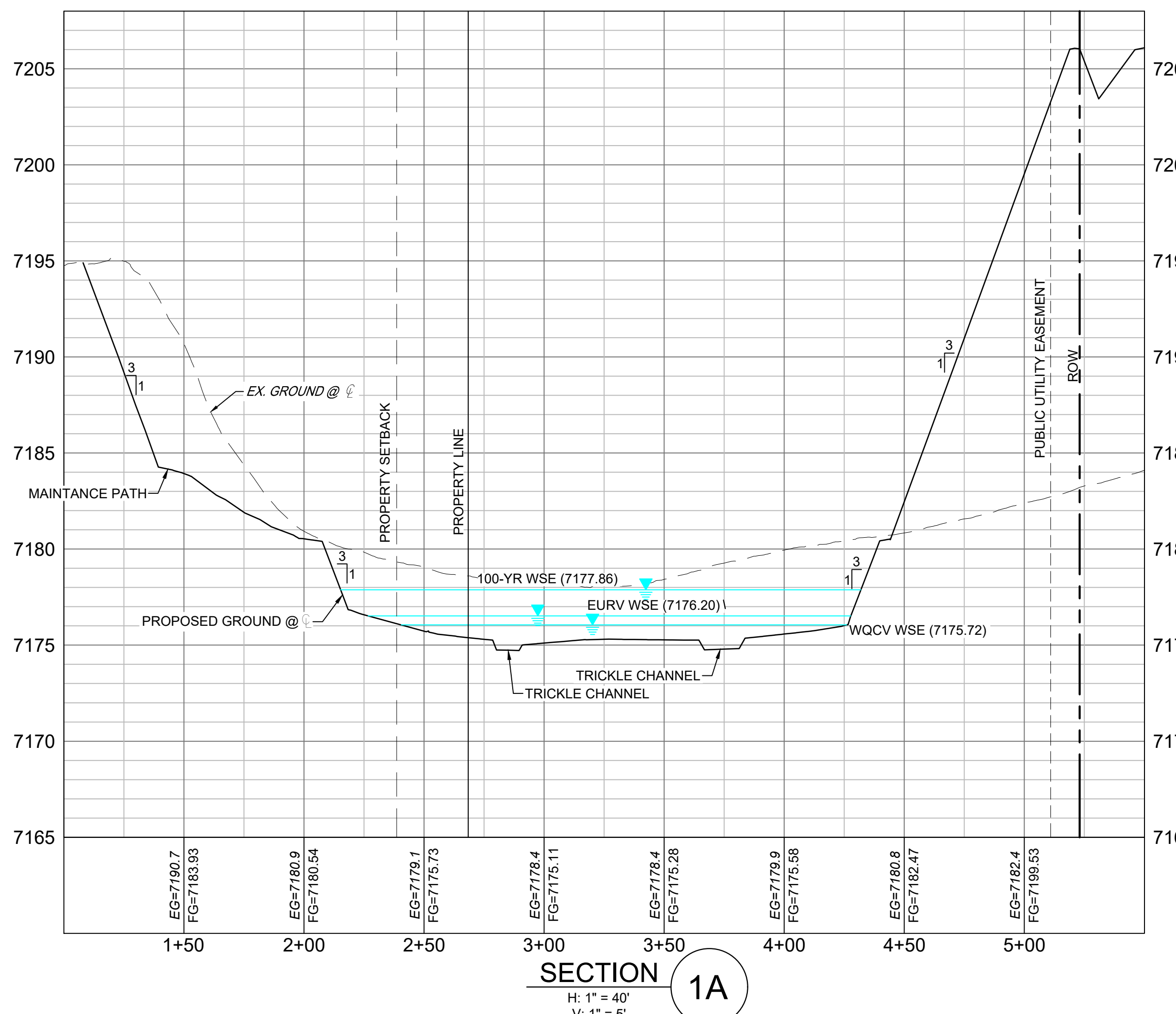
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	8.33	10.00	47°44'53"	S67°13'25"E	8.09

STRUCTURE TABLE

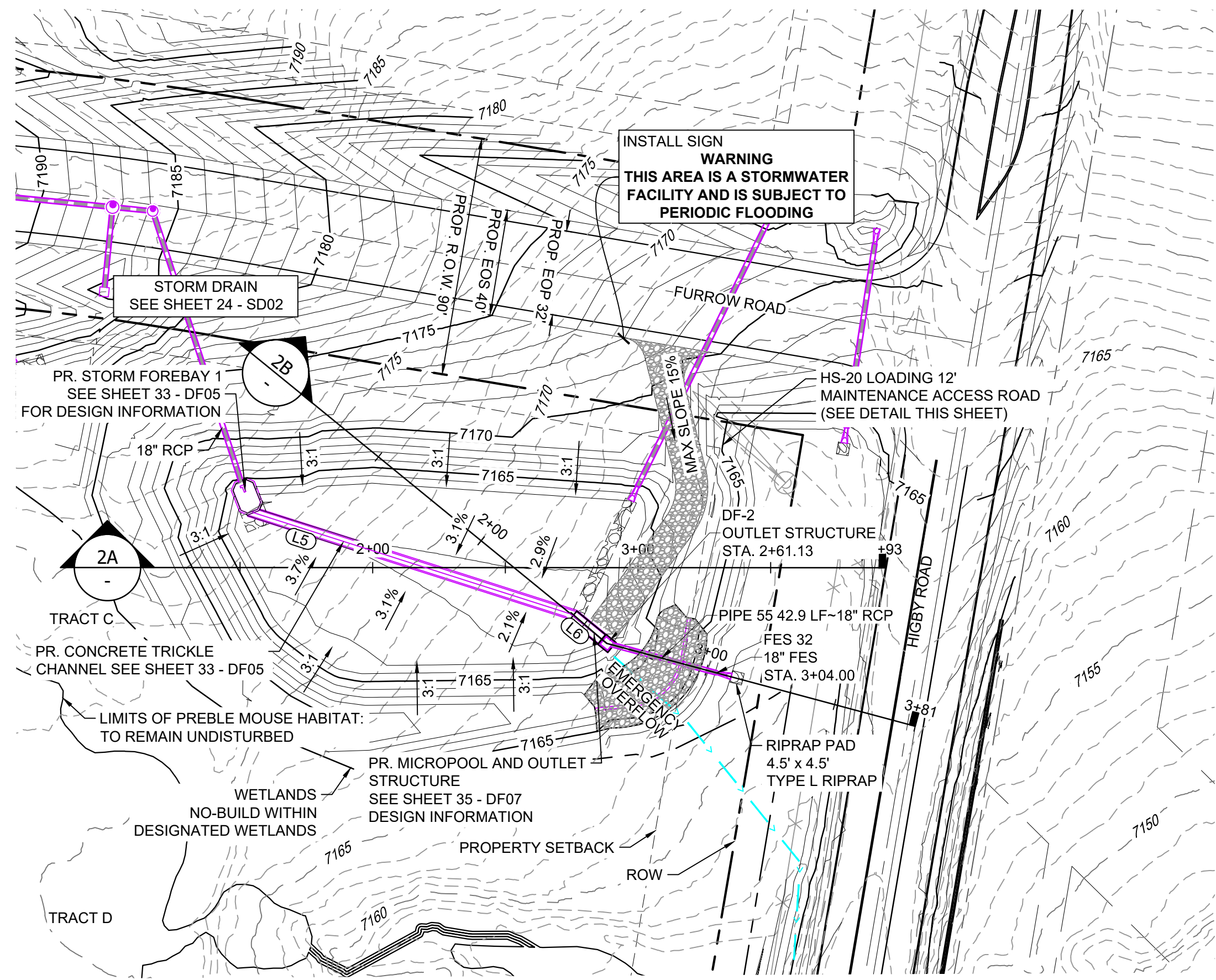
STRUCTURE NAME	STRUCTURE STATION	STRUCTURE DETAILS	STRUCTURE TYPE	NORTHING & EASTING	CUT
DF-1	2+78.06	RIM = 7246.90' SUMP = 7171.95 PIPE 54 INV OUT (18") = 7173.92	OUTLET STRUCTURE	N: 1454569.59 E: 3190824.90	5.59
FES 31	3+00.80	RIM = 7175.64 PIPE 54 INV IN (18") = 7173.85	18" FES	N: 1454547.90 E: 3190831.69	

PIPE SUMMARY TABLE

PIPE NAME	PIPE DESCRIPTION	PIPE SLOPE	PIPE LENGTH	PIPE BEARING	CHORD LENGTH	RADIUS
PIPE 54	18" RCP	0.30%	22.73	S17°22'42"E	22.73	0.00



<p>REFERENCE DRAWINGS</p> <table border="1"> <tr><td>##</td><td>##</td><td>##</td></tr> <tr><td>##</td><td>##</td><td>##</td></tr> <tr><td>##</td><td>##</td><td>##</td></tr> <tr><td>##</td><td>##</td><td>##</td></tr> <tr><td>##</td><td>##</td><td>##</td></tr> <tr><td>##</td><td>##</td><td>##</td></tr> </table> <p>COMPUTER FILE MANAGEMENT</p> <p>FILE NAME: s:\20.1105.004 grandwood ranch\100 Dwg\104 plan sets\construction plans\road & storm plans\DF01.dwg CTB FILE: Matrix(black).ctb PLOT DATE: October 1, 2020 4:16:19 PM THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.</p>	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	<p>SHEET KEY</p>	<p>BENCHMARK</p> <p>NGS T 294 ELEVATION - 7247.10' NAVD 88</p> <p>BASIS OF BEARING:</p> <p>A LINE THAT IS 20' NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'; THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS 'LWA PLS 28658"</p>	<p>OWNER:</p> <p>GRANDWOOD ENTERPRISES, LLC WILLIAM F. HERBIC II, MANAGER 14160 GLENEAGLE DRIVE COLORADO SPRINGS, CO 80921</p> <p>PREPARED BY:</p>	<p>SEAL</p> <p>FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 20.1120.003</p>	<p>DESIGNED BY: CP DRAWN BY: CRD CHECKED BY: CP</p> <p>SCALE HORIZ. 1" = 40' VERT. 1" = 5'</p> <p>DATE ISSUED: SEPTEMBER 2020 SHEET 29 OF 38</p>	<p>GRANDWOOD RANCH</p> <p>EL PASO COUNTY ROAD AND STORM PLANS</p> <p>DF-1 POND PLAN & PROFILE</p> <p>DRAWING No. DF01</p>
	##	##	##																					
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<p>DESCRIPTION REVISIONS</p> <table border="1"> <thead> <tr> <th>No.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	No.	DATE	DESCRIPTION	BY																				
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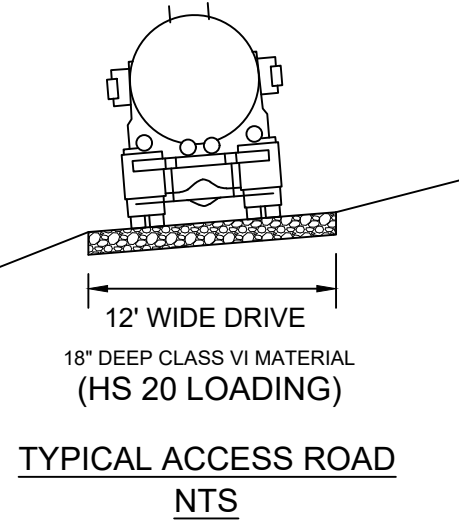
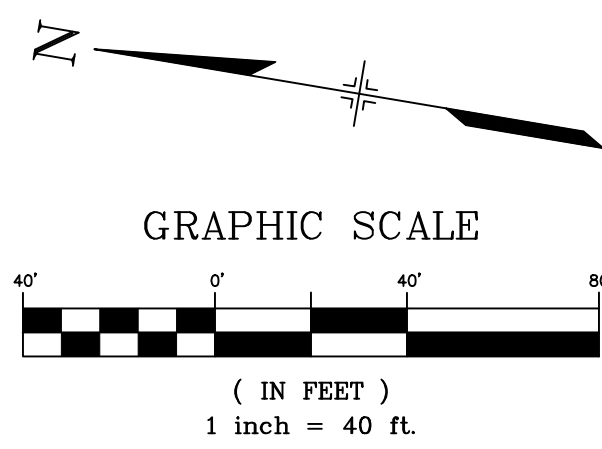


POND DF-2 LAYOUT

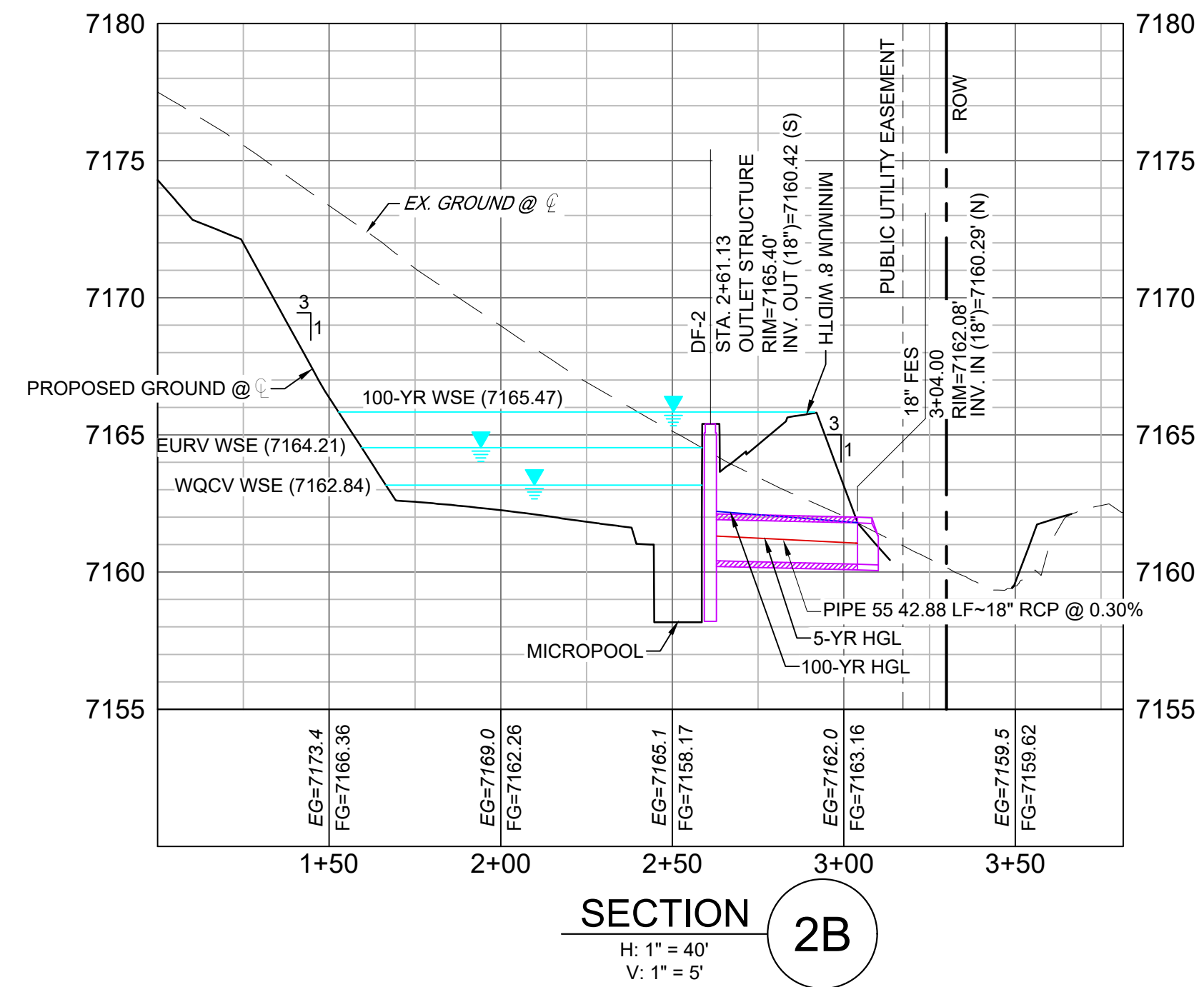
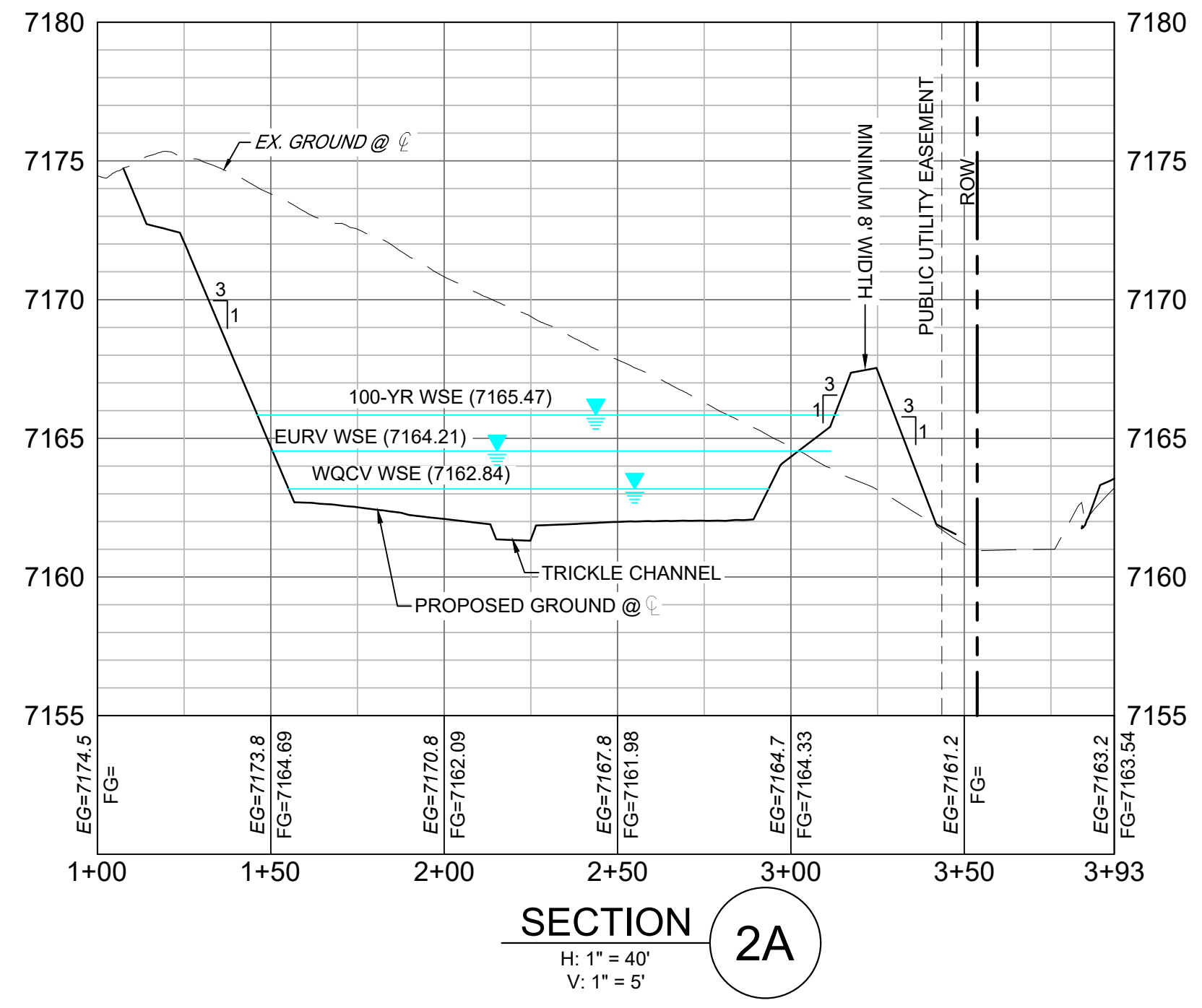
LINE #	BEARING	DISTANCE
L5	N08°11'42"E	125.54
L6	N29°42'25"E	14.98

STRUCTURE NAME	STRUCTURE STATION	STRUCTURE DETAILS	STRUCTURE TYPE	NORTHING & EASTING	CUT
DF-2	2+61.13	RIM = 7165.40 SUMP = 7158.54 PIPE 55 INV OUT (18") = 7160.42	OUTLET STRUCTURE	N: 1454247.01 E: 3190948.19	6.86
FES 32	3+04.00	RIM = 7162.08 PIPE 55 INV IN (18") = 7160.29	18" FES	N: 1454204.33 E: 3190944.09	

PIPE NAME	PIPE DESCRIPTION	PIPE SLOPE	PIPE LENGTH	PIPE BEARING	CHORD LENGTH	RADIUS
PIPE 55	18" RCP	0.30%	42.88	S05°29'55"W	42.88	0.00



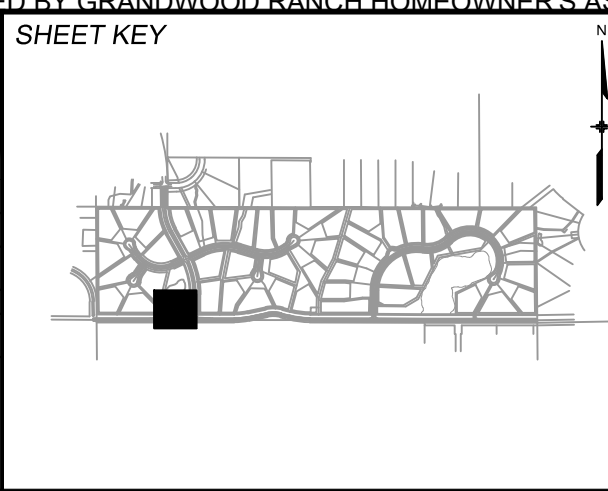
- NOTES:**
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REFERENCE DRAWINGS	No.	DATE	DESCRIPTION REVISIONS	BY
X-1105-PR-SITE				
X-Title-W-R&S				

COMPUTER FILE MANAGEMENT

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 THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.



BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658"

OWNER:
GRANDWOOD ENTERPRISES, LLC
WILLIAM F. HERBIC II, MANAGER
14160 GLENEAGLE DRIVE
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL

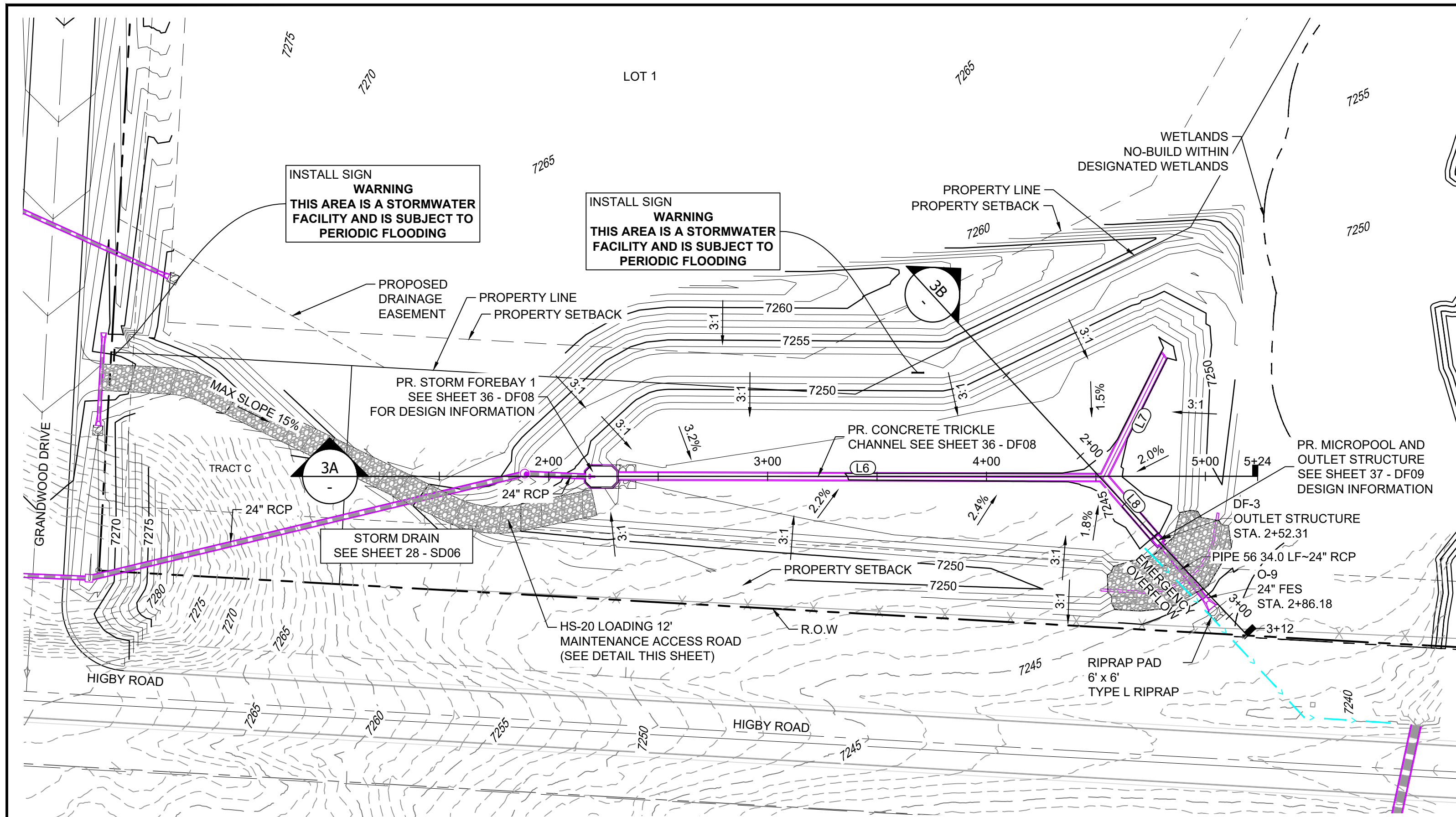
FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

EL PASO COUNTY
ROAD AND STORM PLANS

DF-2 POND PLAN & PROFILE

DESIGNED BY: CP	SCALE: 1"=40'	DATE ISSUED: SEPTEMBER 2020	DRAWING No. DF02
DRAWN BY: CRD	HORIZ. 1"=40'		
CHECKED BY: CP	VERT. 1"=5'	SHEET 30 OF 38	

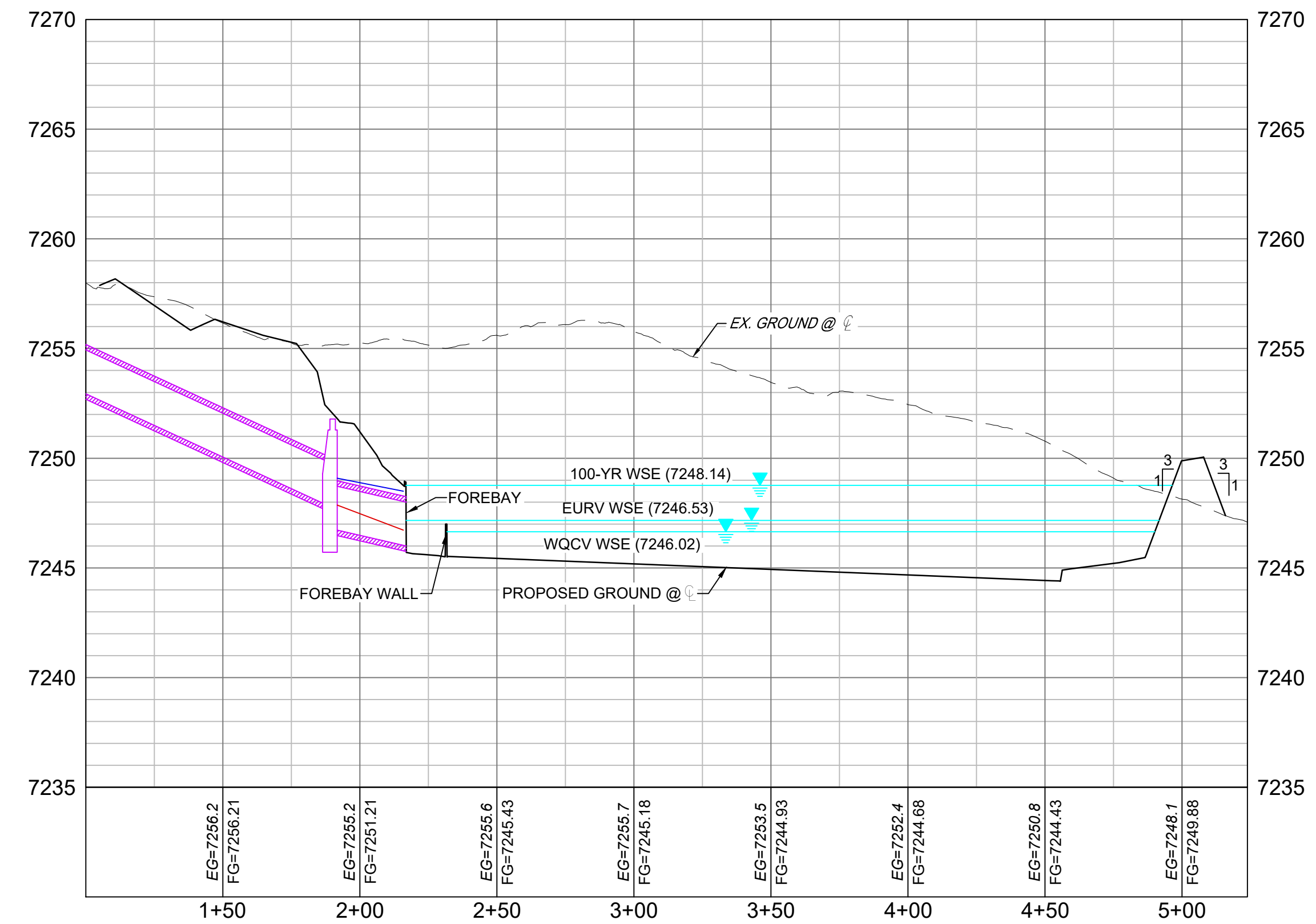


POND DF-3 LAYOUT

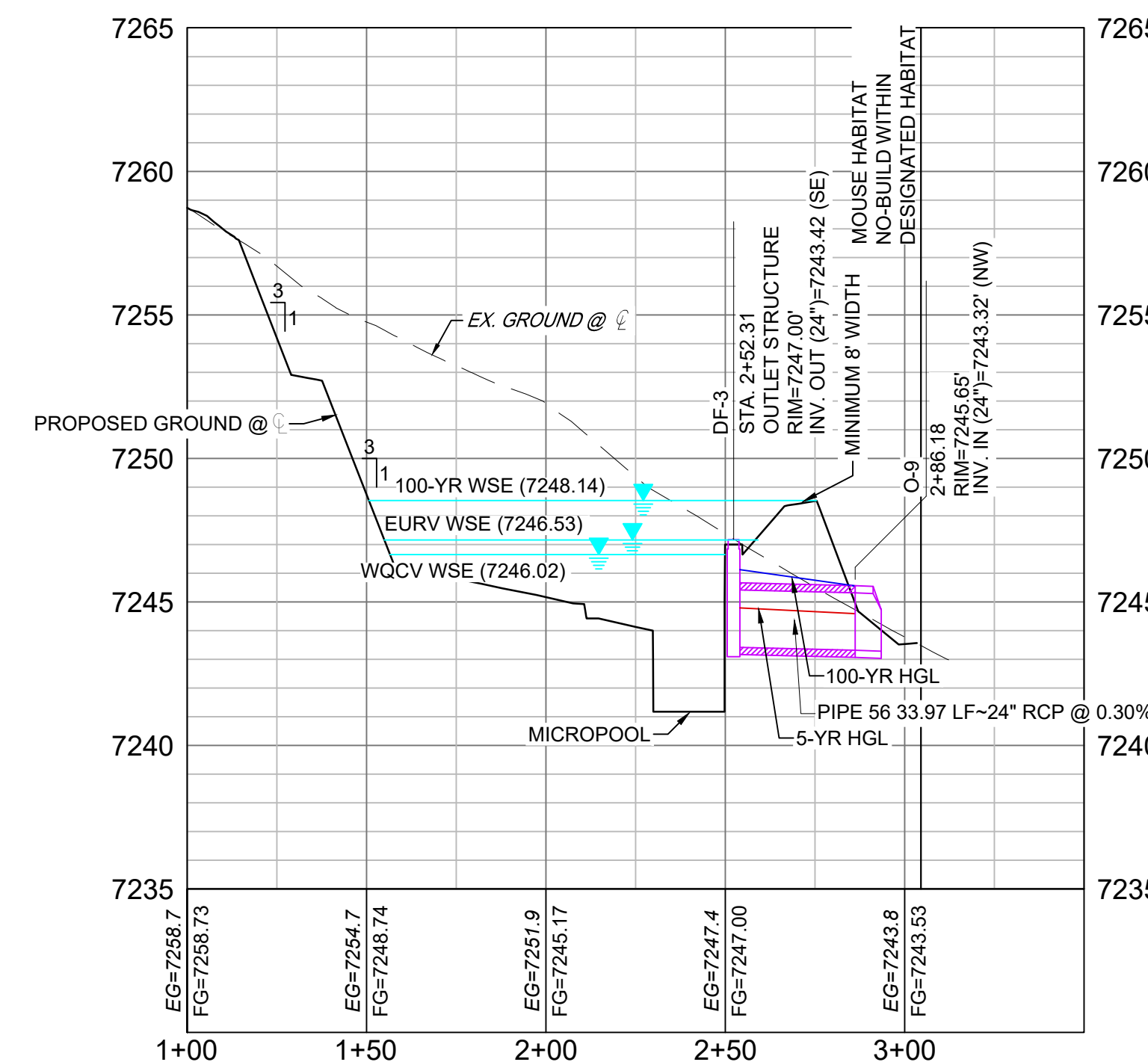
LINE TABLE		
LINE #	BEARING	DISTANCE
L6	N87°06'48"E	220.78
L7	S23°22'43"W	63.33
L8	S43°55'53"E	35.98

STRUCTURE TABLE					
STRUCTURE NAME	STRUCTURE STATION	STRUCTURE DETAILS	STRUCTURE TYPE	NORTHING & EASTING	CUT
DF-3	2+52.31	RIM = 7247 SUMP = 7243.42 PIPE 56 INV OUT (24") = 7243.42	OUTLET STRUCTURE	N: 1454225.72 E: 3193688.25	3.75
O-9	2+86.18	RIM = 7245.65 PIPE 56 INV IN (24") = 7243.32	24" FES	N: 1454200.47 E: 3193710.97	6.90

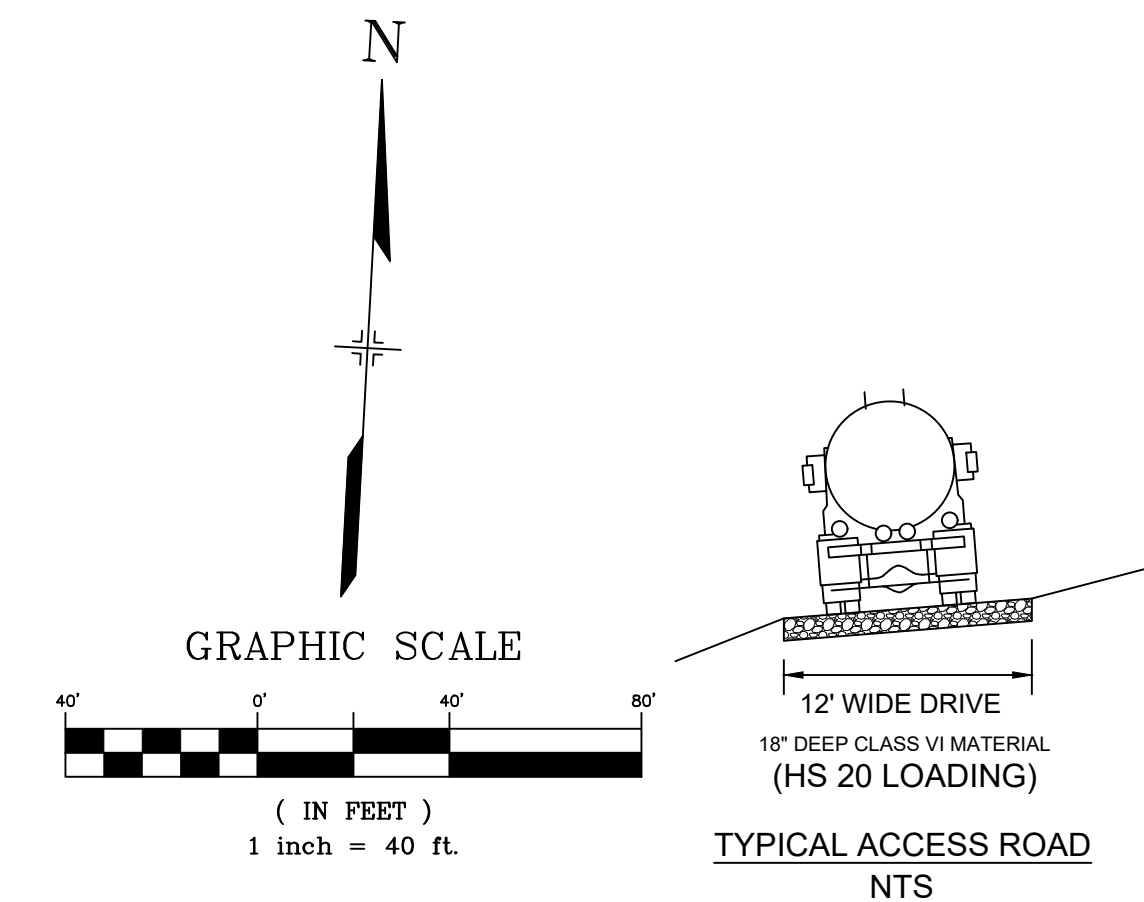
PIPE SUMMARY TABLE						
PIPE NAME	PIPE DESCRIPTION	PIPE SLOPE	PIPE LENGTH	PIPE BEARING	CHORD LENGTH	RADIUS
PIPE 56	24" RCP	0.30%	33.97	S41°58'44"E	33.97	0.00



SECTION 3A
H: 1" = 40'
V: 1" = 5'



SECTION 3B
H: 1" = 40'
V: 1" = 5'



- NOTES:**
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REFERENCE DRAWINGS	No.	DATE	DESCRIPTION REVISIONS	BY
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X-Title-W-RAS				

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SHEET KEY

BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20' NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MOUNTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS L/WA PLS 28658"

OWNER:
GRANDWOOD ENTERPRISES, LLC
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL

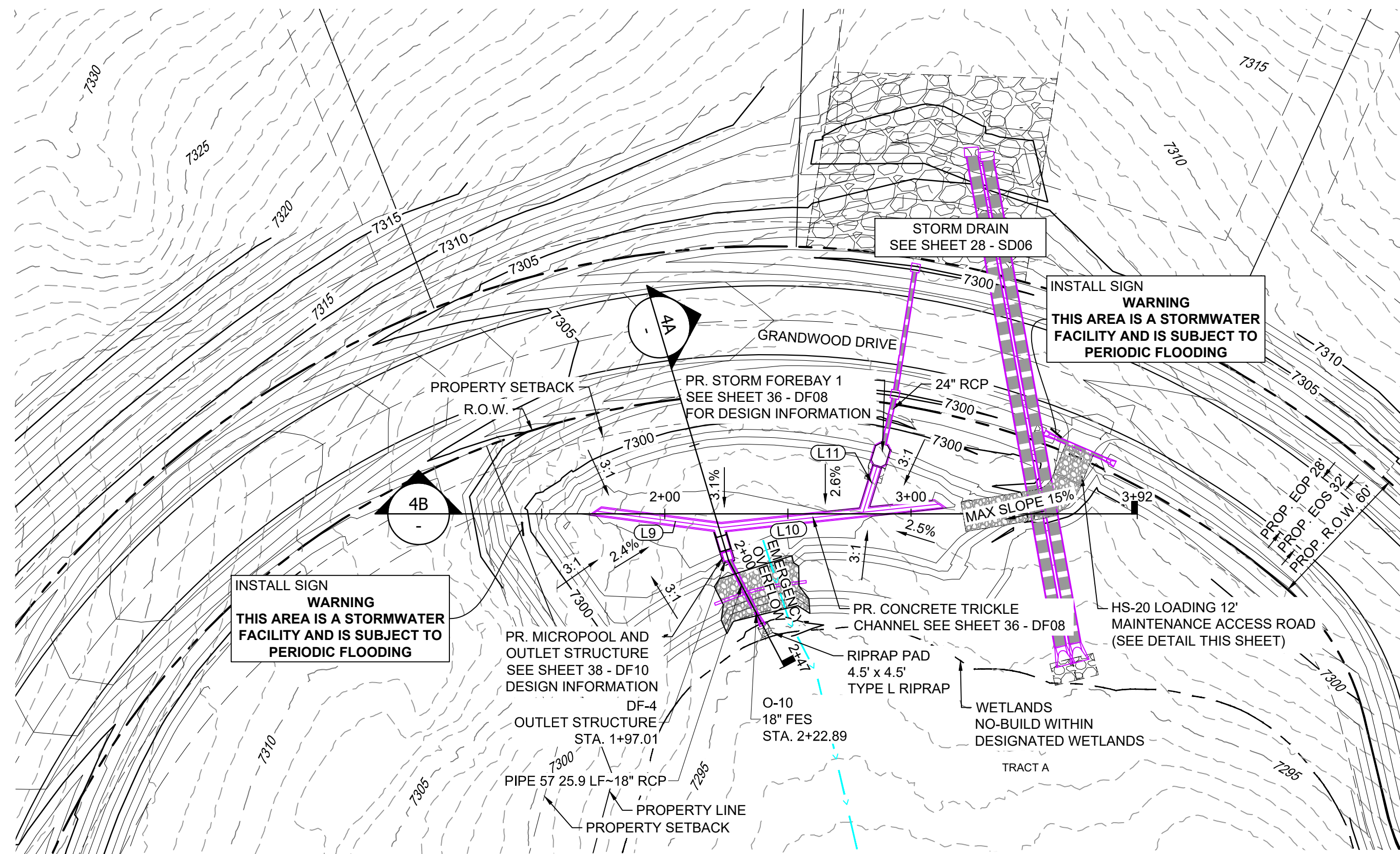
FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

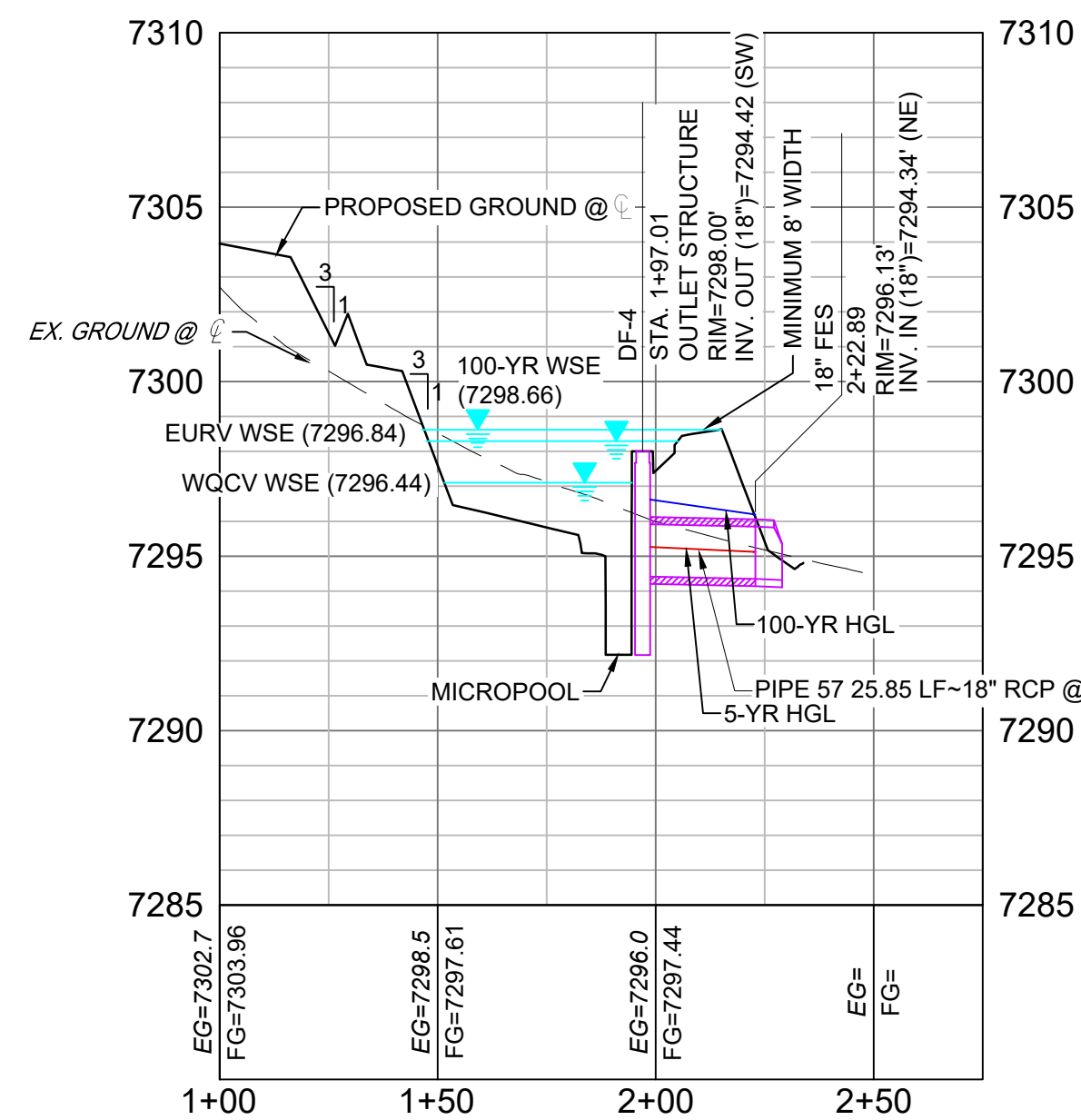
EL PASO COUNTY
ROAD AND STORM PLANS

DF-3 POND PLAN & PROFILE

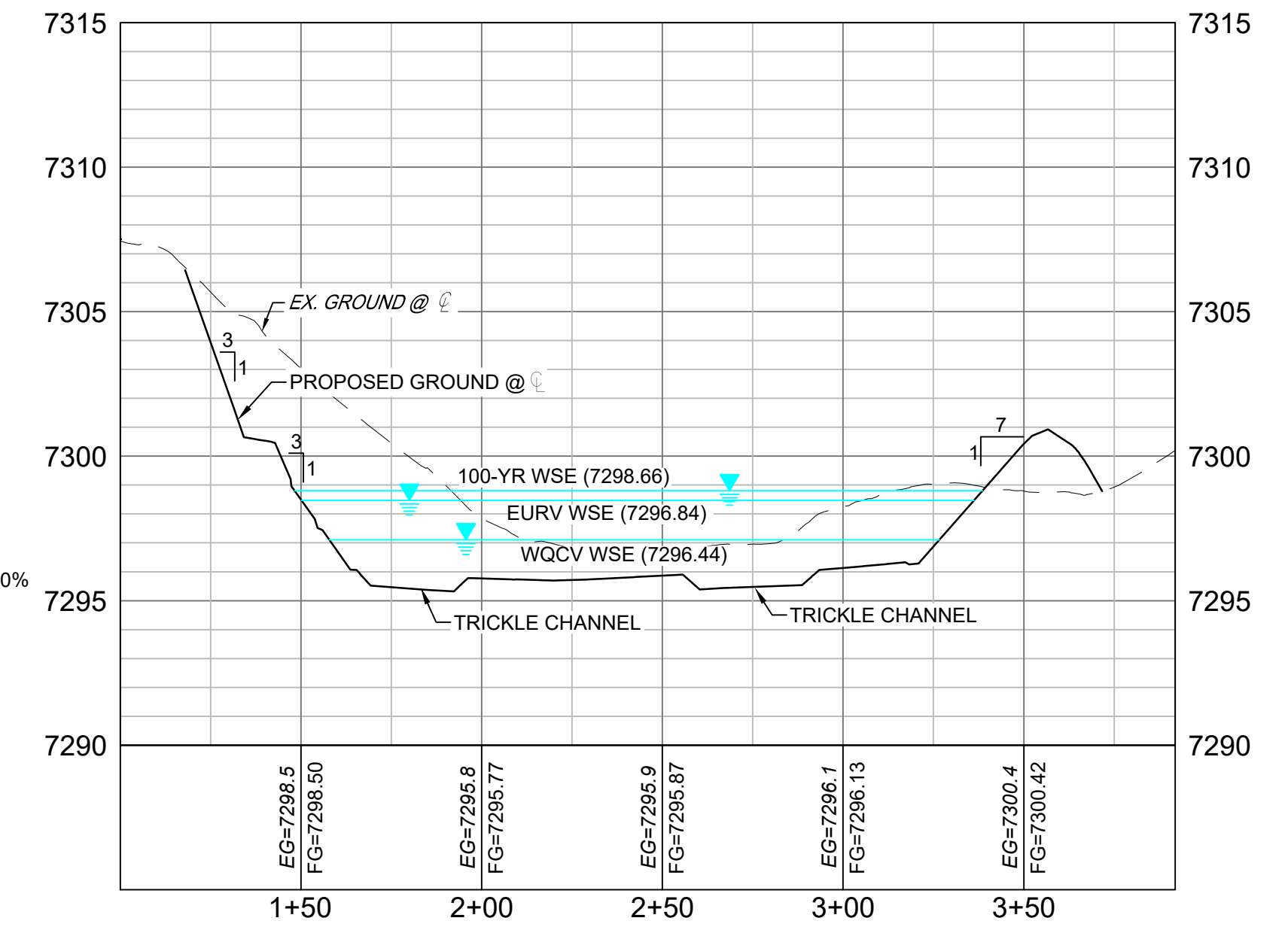
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DRAWN BY:	GRD	HORIZ. 1" = 40'	SHEET	31 OF 38	DF03
CHECKED BY:	CP	VERT. 1" = 5'			



POND DF-4 LAYOUT



SECTION 4A
H: 1" = 40'
V: 1" = 5'

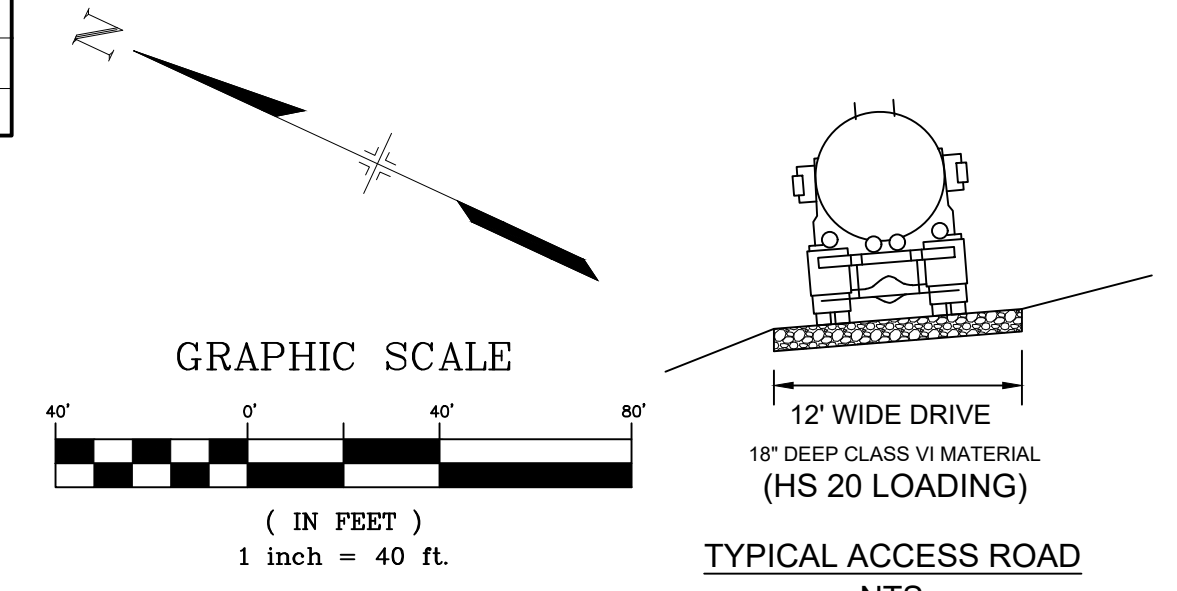


SECTION 4B
H: 1" = 40'
V: 1" = 5'

LINE #	BEARING	DISTANCE
L9	S17°24'05"E	50.79
L10	N30°56'48"W	88.95
L11	S82°14'39"W	19.31

STRUCTURE NAME	STRUCTURE STATION	STRUCTURE DETAILS	STRUCTURE TYPE	NORTHING & EASTING	CUT
DF-4	1+97.01	RIM = 7298.00 SUMP = 7292.50 PIPE 57 INV OUT (18") = 7294.42	OUTLET STRUCTURE	N: 1454934.62 E: 3194517.20	5.50
O-10	2+22.89	RIM = 7296.13 PIPE 57 INV IN (18") = 7294.34	18" FES	N: 1454914.28 E: 3194501.24	7.35

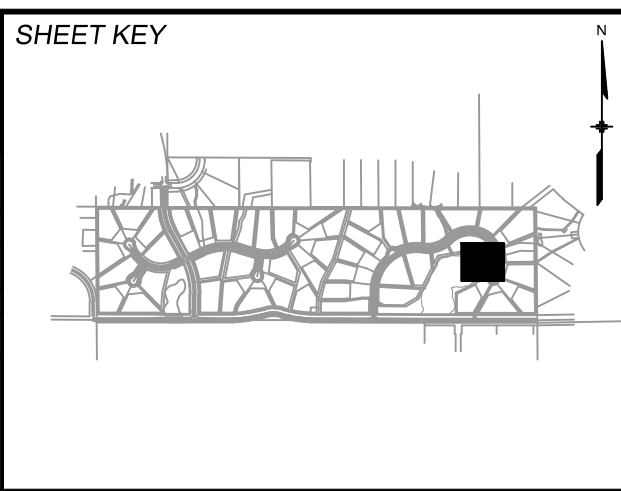
PIPE NAME	PIPE DESCRIPTION	PIPE SLOPE	PIPE LENGTH	PIPE BEARING	CHORD LENGTH	RADIUS
PIPE 57	18" RCP	0.30%	25.85	S38°05'55"W	25.85	0.00



- NOTES:**
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X-Title-W-RAS				

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BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:
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OWNER:
GRANDWOOD ENTERPRISES, LLC
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL

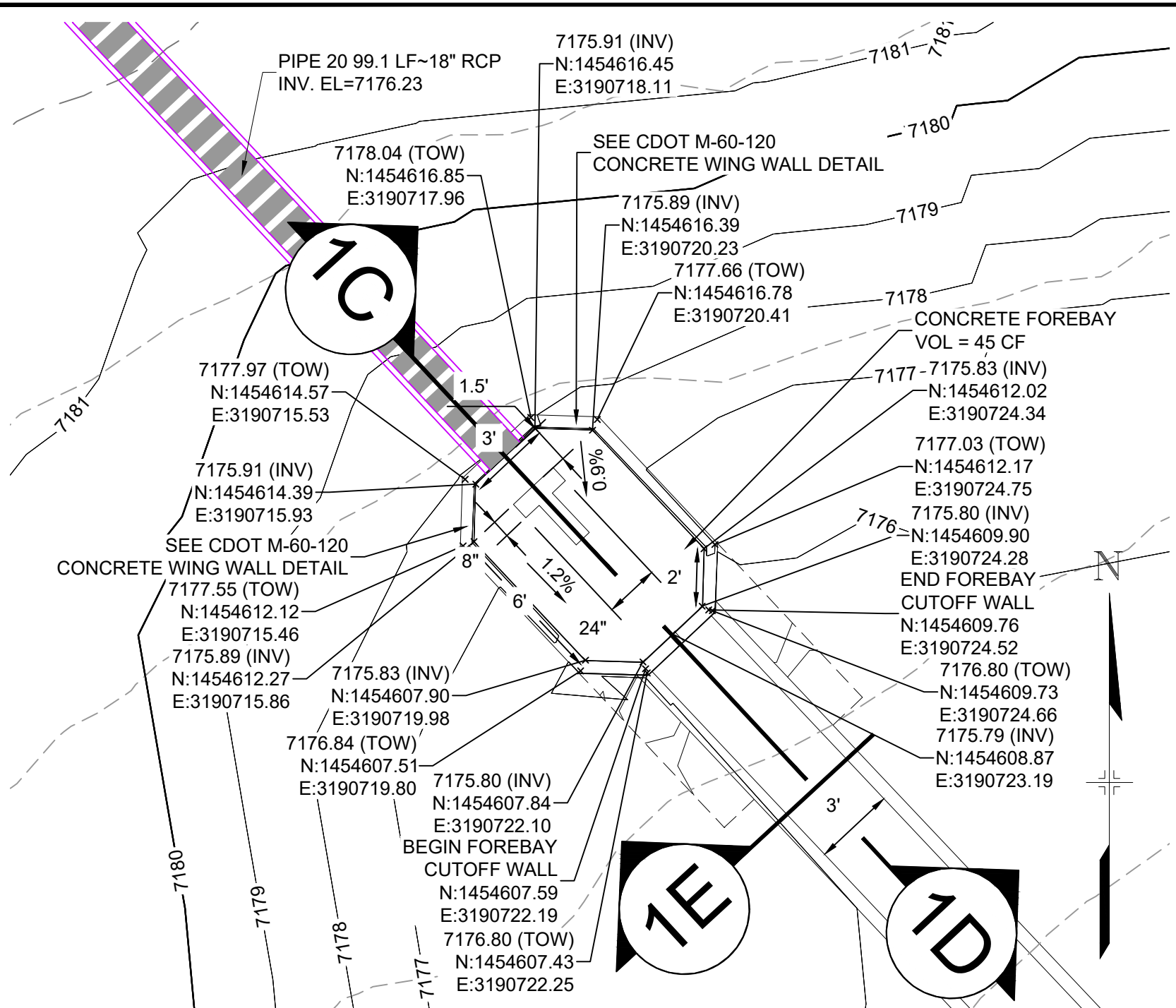
FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

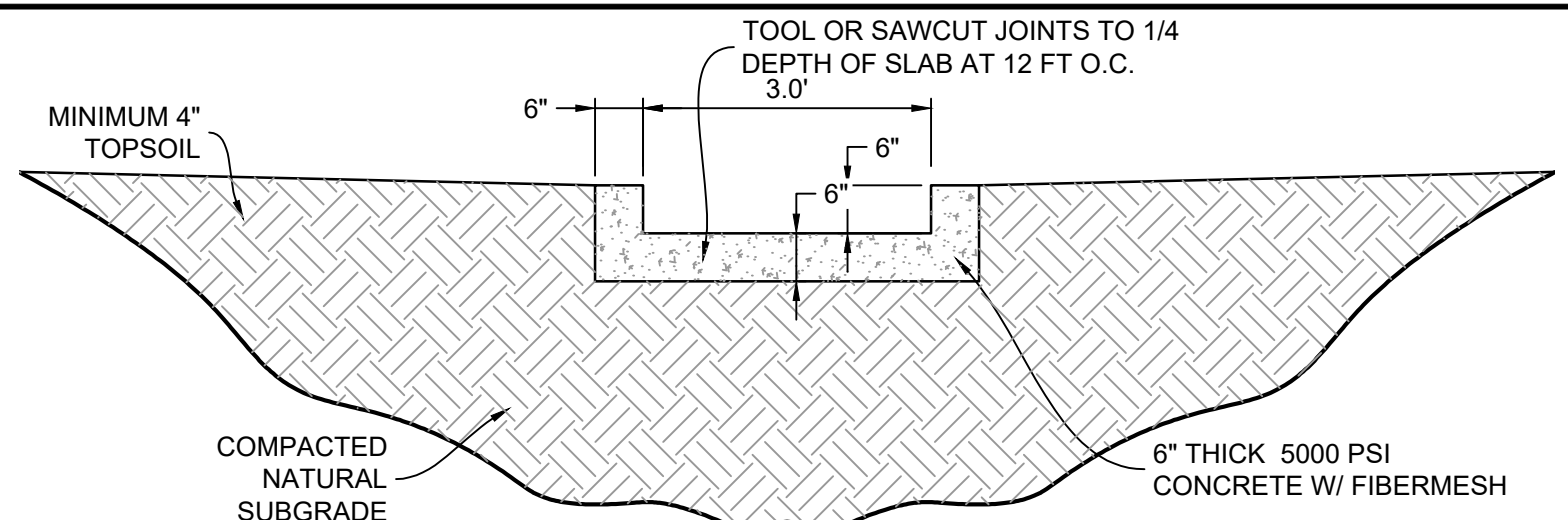
EL PASO COUNTY
ROAD AND STORM PLANS

DF-4 POND PLAN & PROFILE

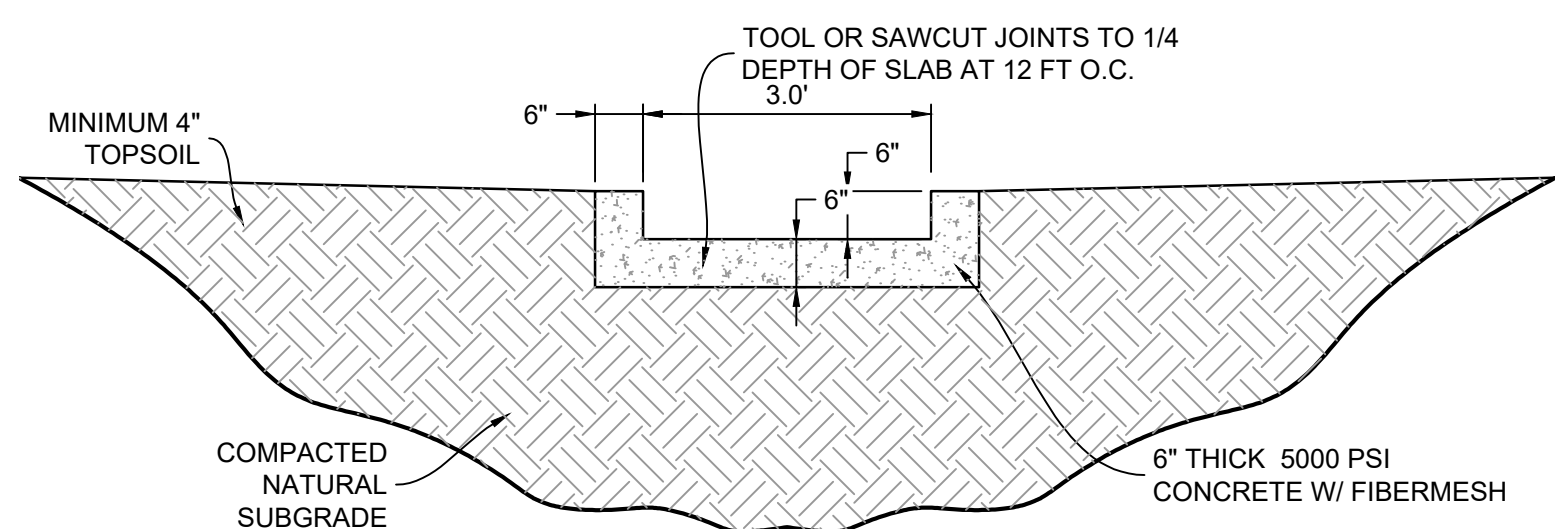
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DRAWN BY:	CRD	HORIZ. 1" = 40'	SHEET	32 OF 38	DF04
CHECKED BY:	CP	VERT. 1" = 5'			



STORM FOREBAY - 1
HORIZ: 1" = 5'

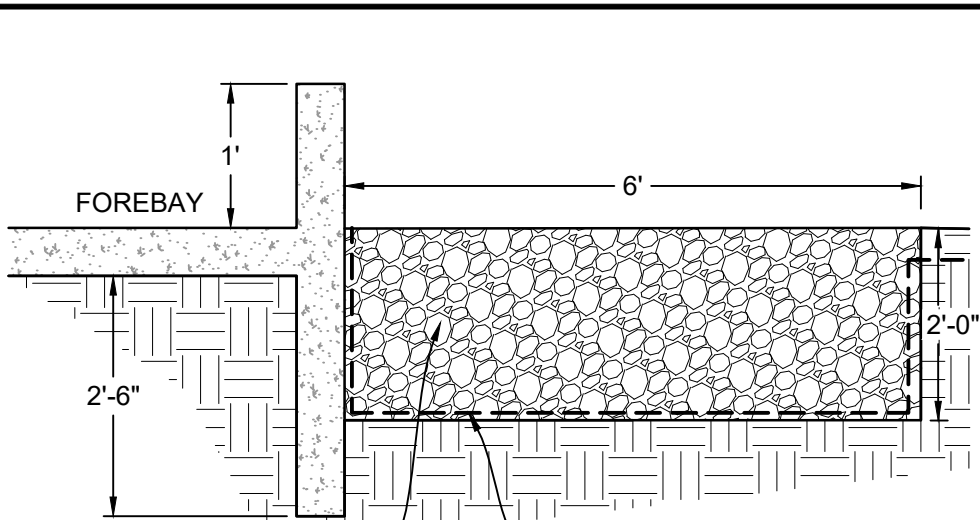


SECTION 2E
H: 1"=2'

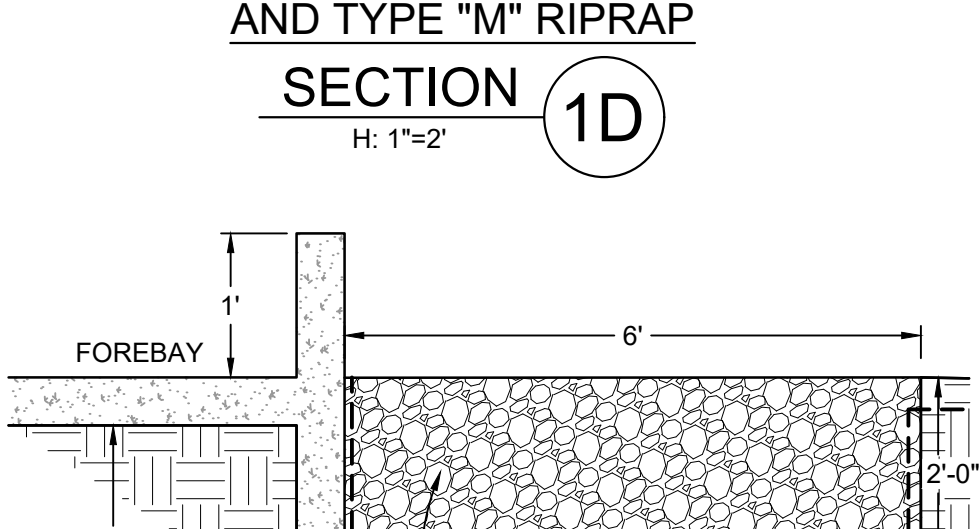


SECTION 1E
H: 1"=2'

DETENTION BASIN TRICKLE CHANNELS

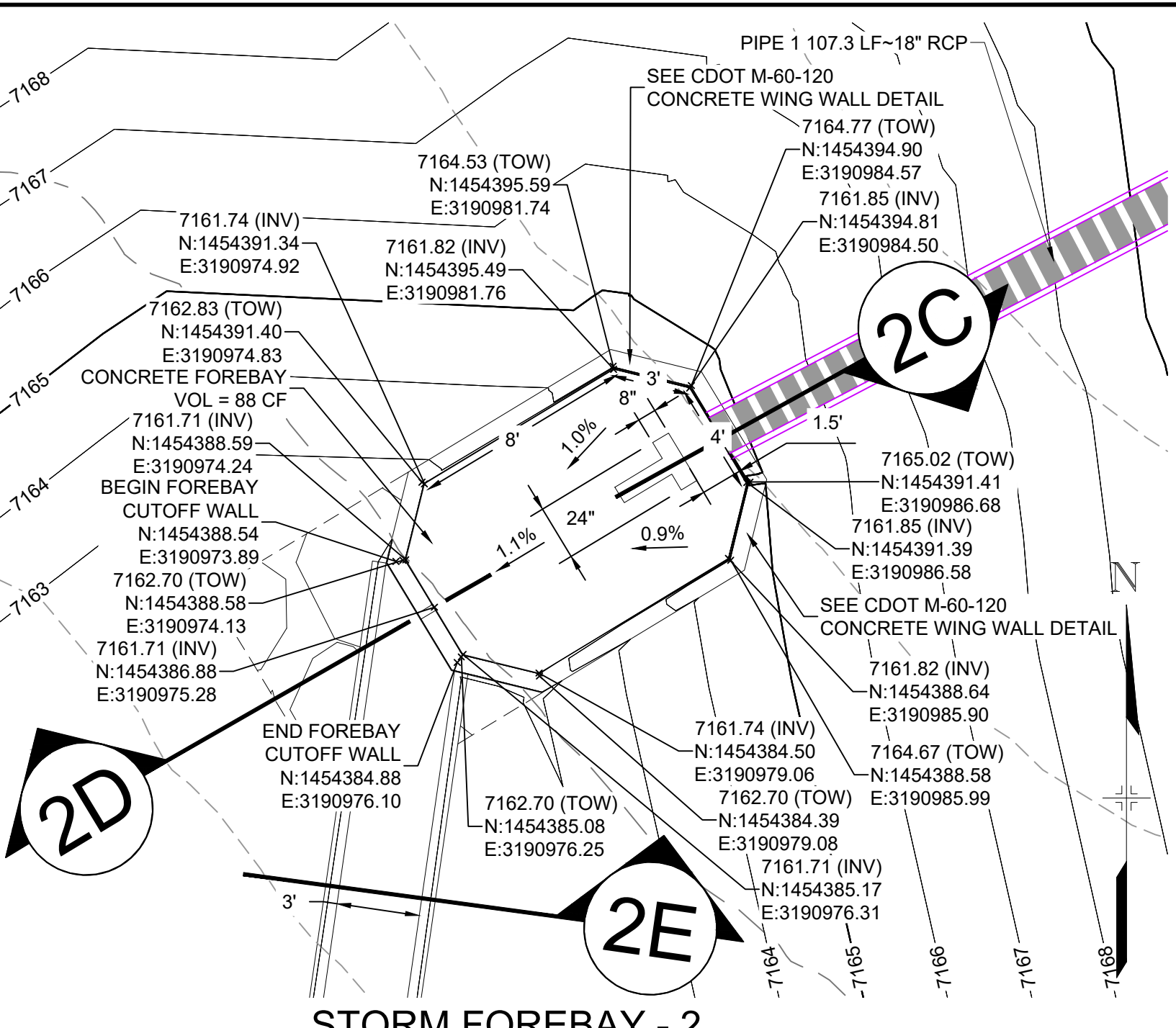


SECTION 1D
H: 1"=2'

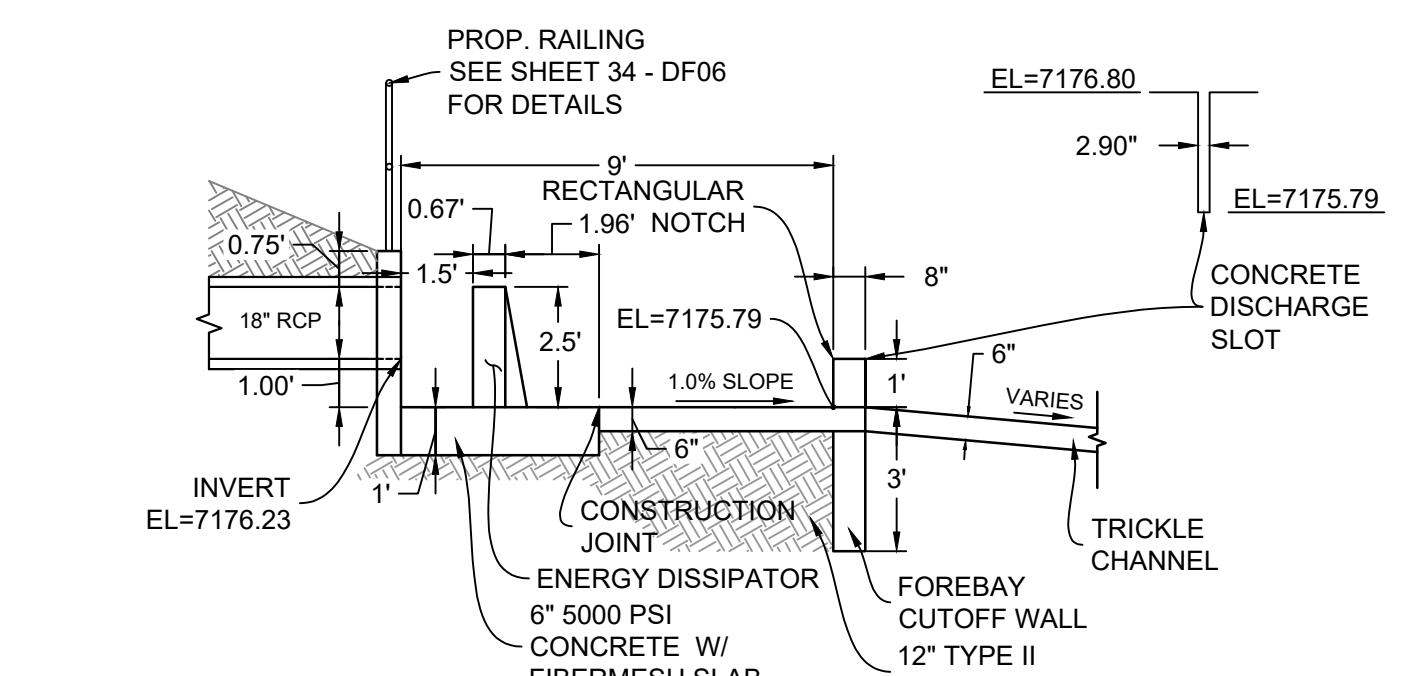


SECTION 2D
H: 1"=2'

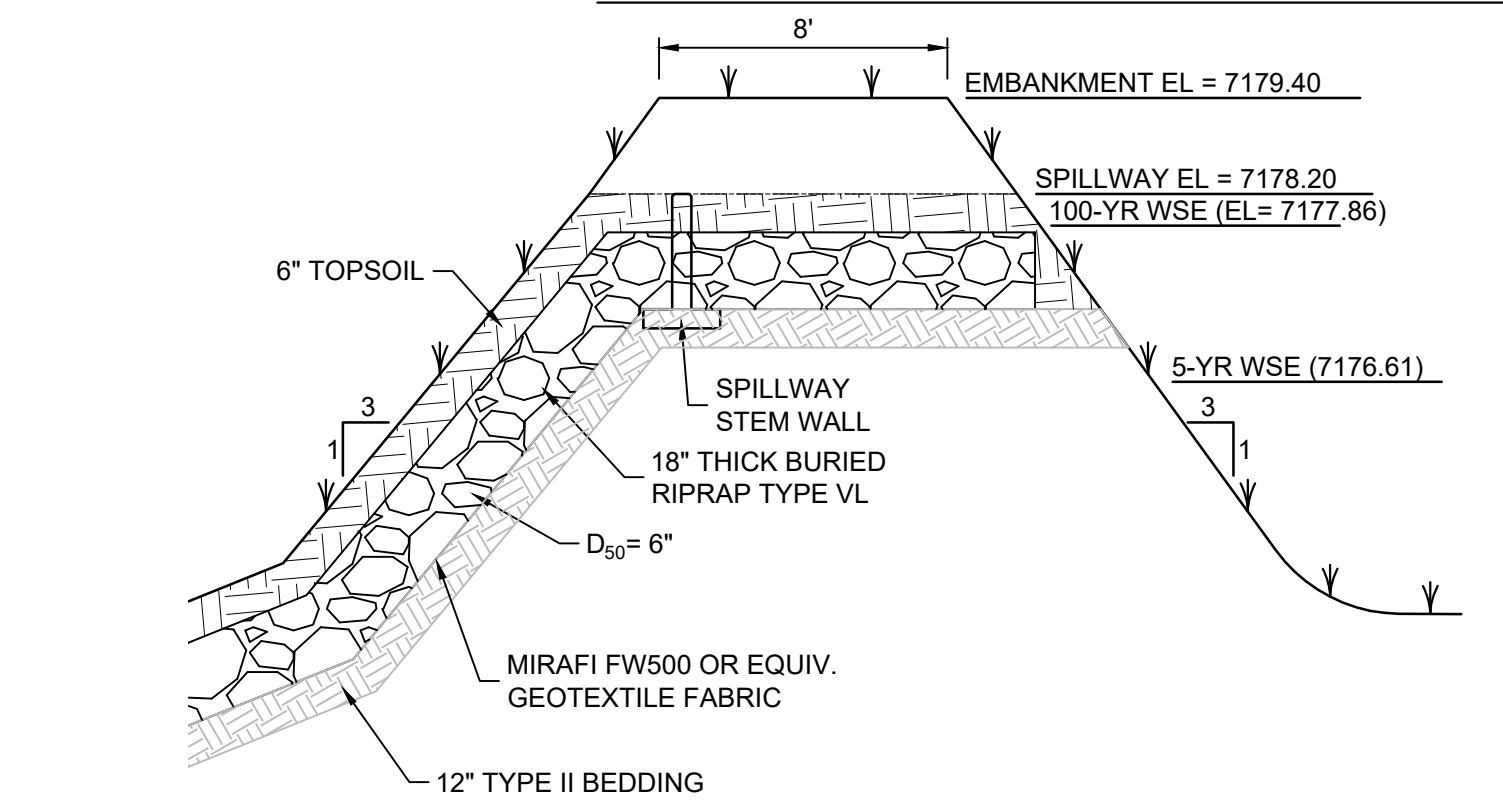
FORBAY CUTOFF WALL AND TYPE \"M\" RIPRAP



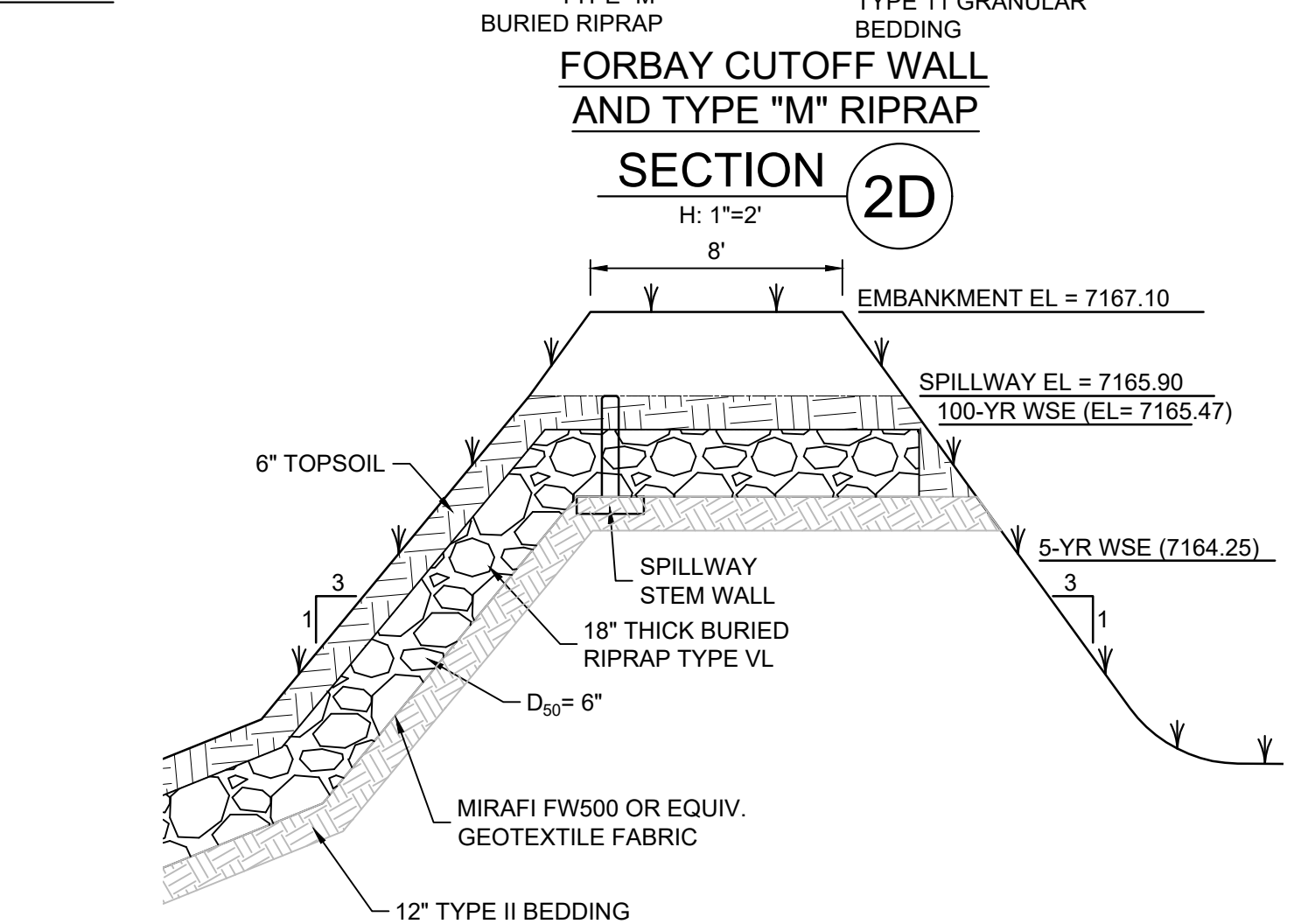
STORM FOREBAY - 2
HORIZ: 1" = 10'



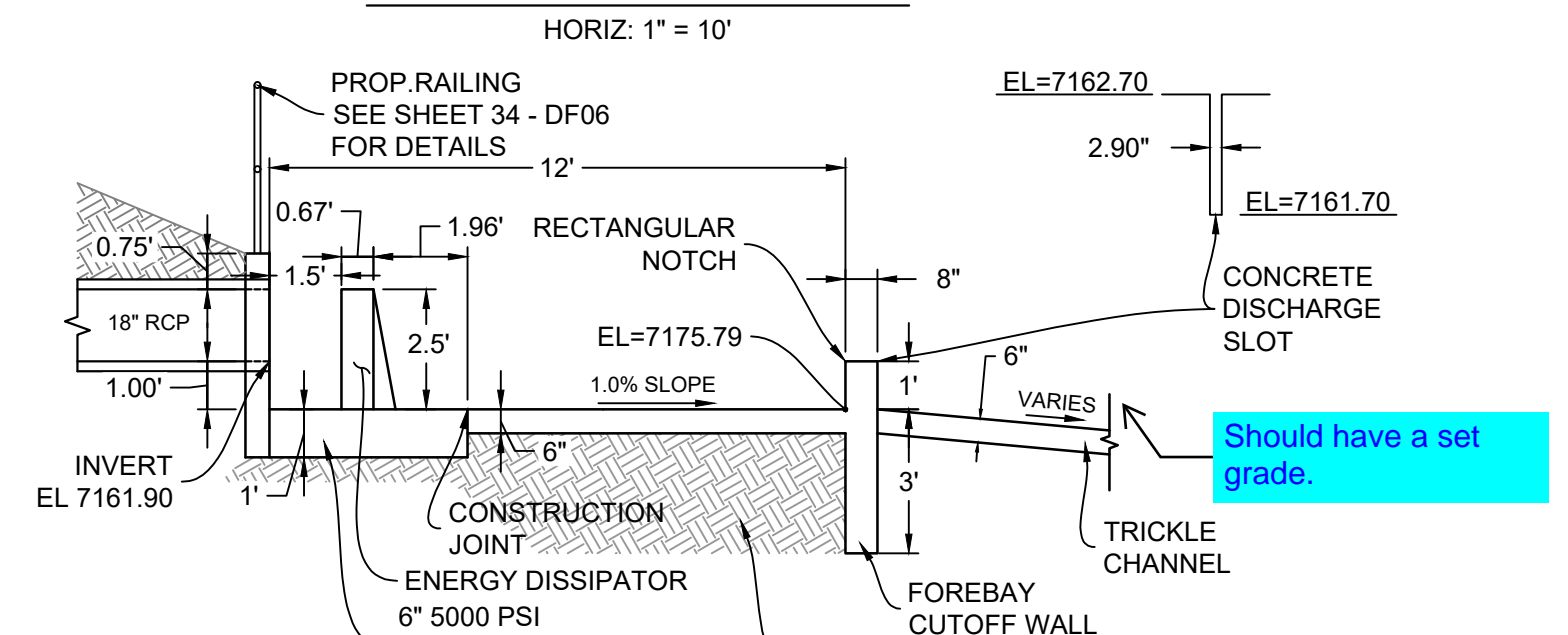
SECTION 1C
H: 1"=4'
(FOREBAY THIS SHEET)



SPILLWAY CROSS SECTION DF-1

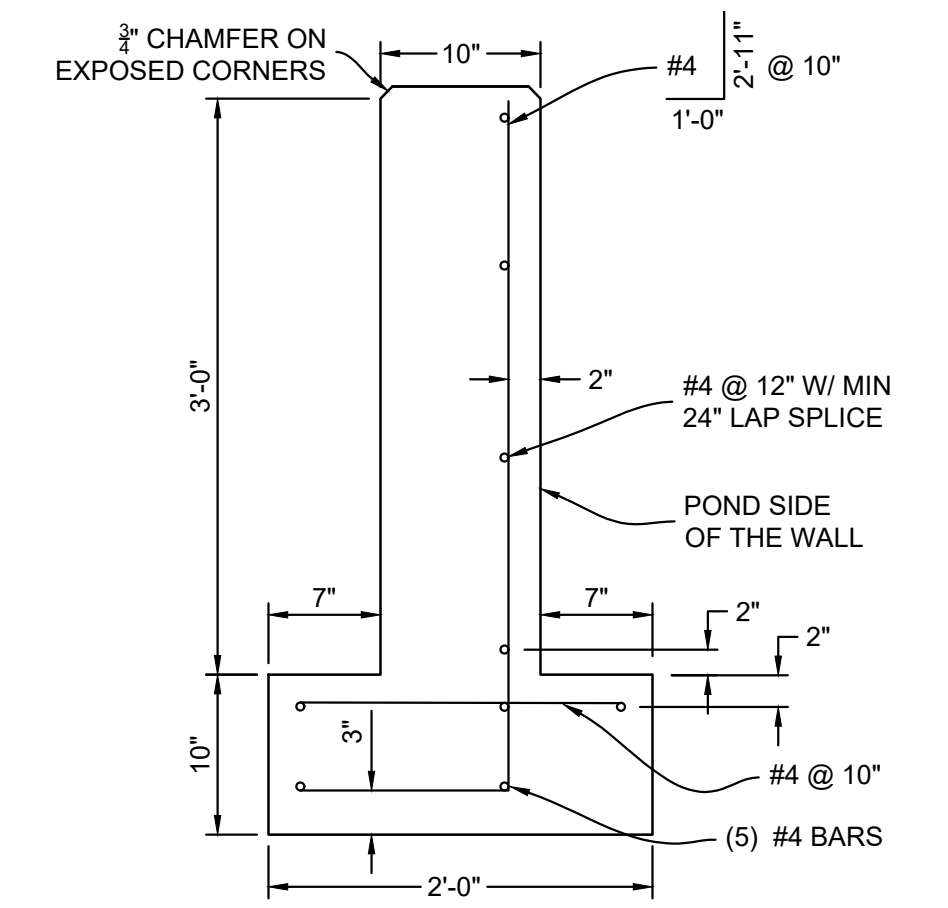


SPILLWAY CROSS SECTION DF-2

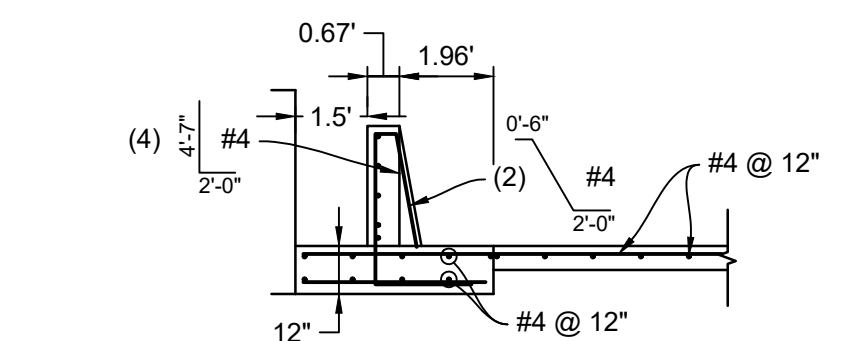


SECTION 2C
H: 1"=4'
(FOREBAY THIS SHEET)

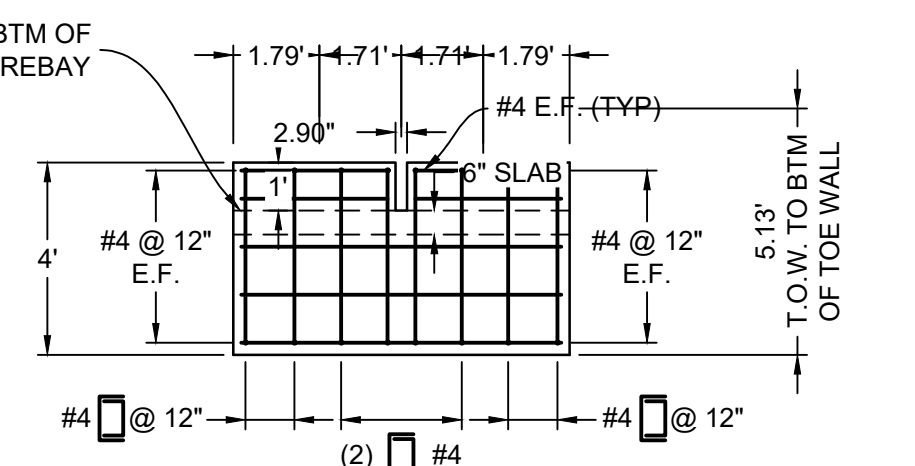
FOREBAY 2 REINFORCING



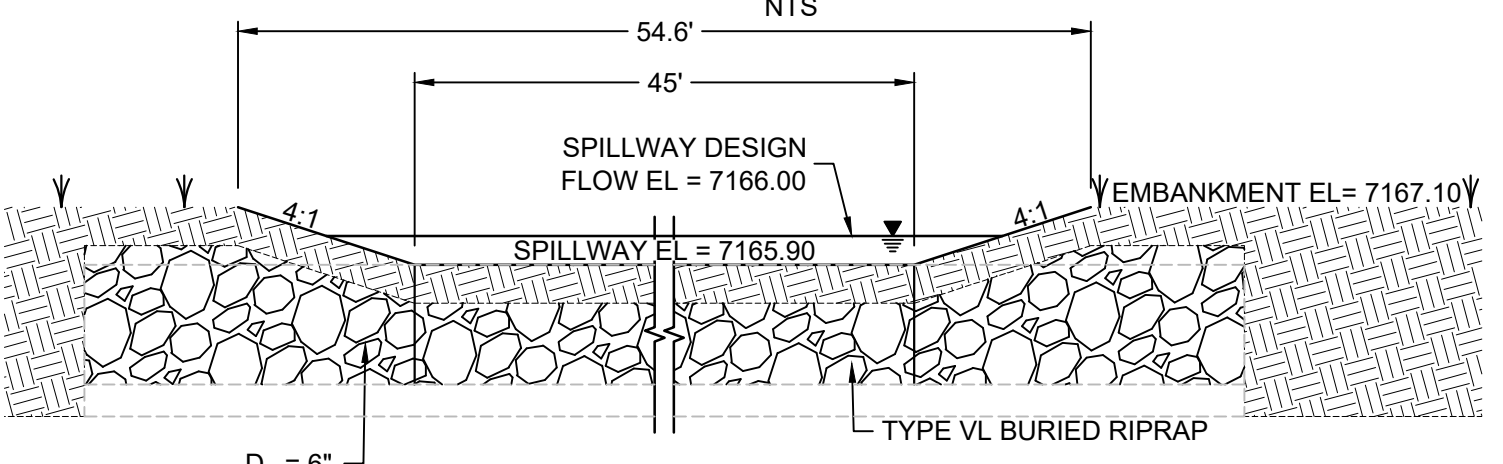
EMERGENCY OVERFLOW SPILLWAY STEM WALL DETAIL (SECTION)



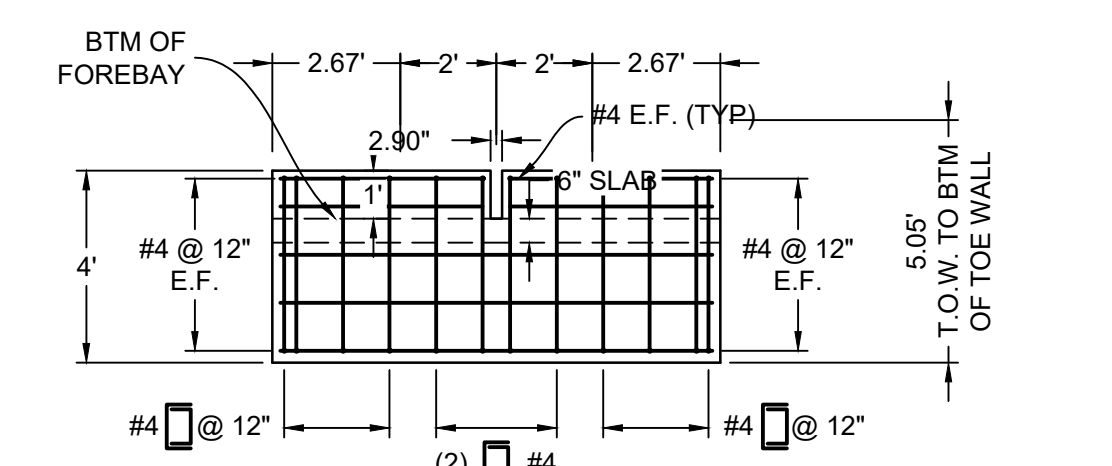
FOREBAY 1 REINFORCING



FOREBAY 1 WALL PROFILE



SPILLWAY DETAILS DF-2



FOREBAY 2 WALL PROFILE

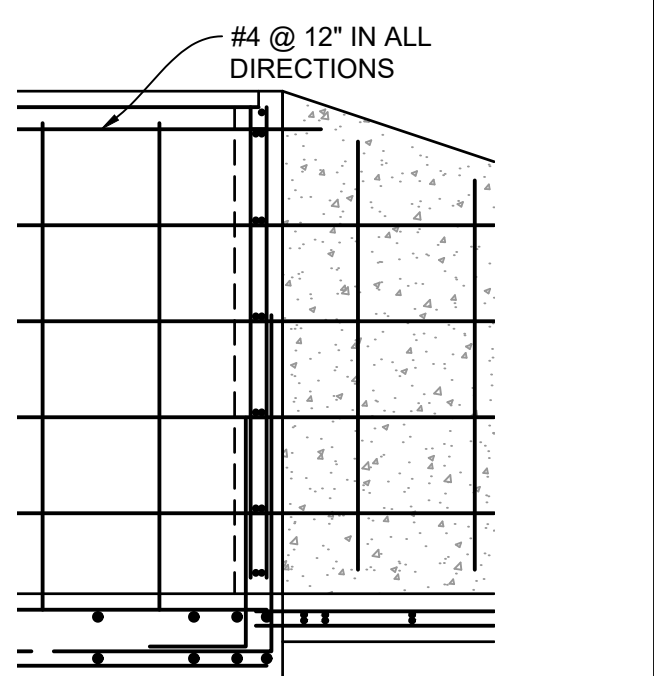
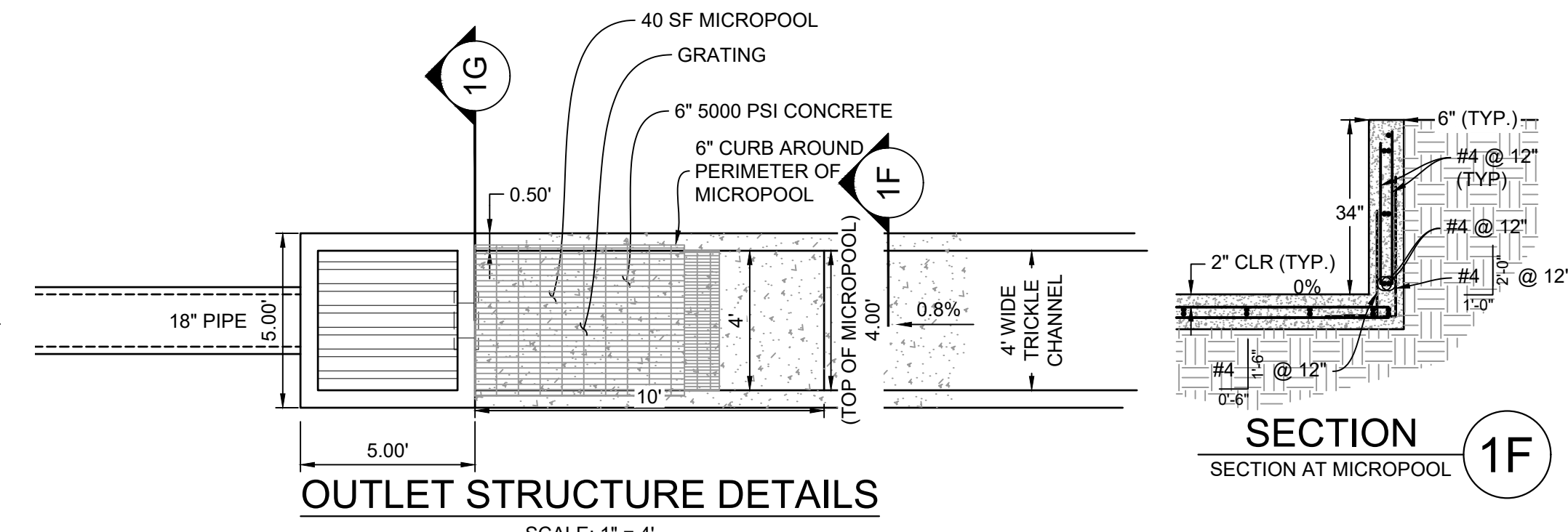
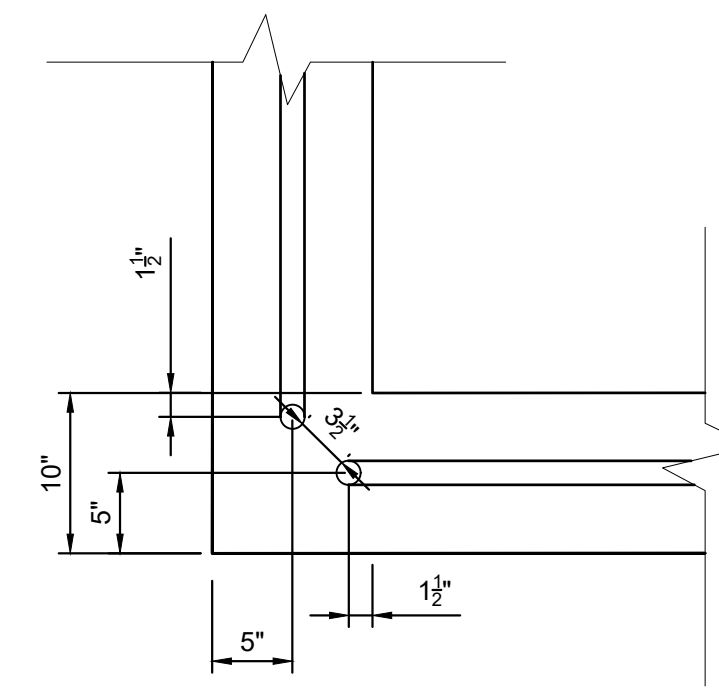
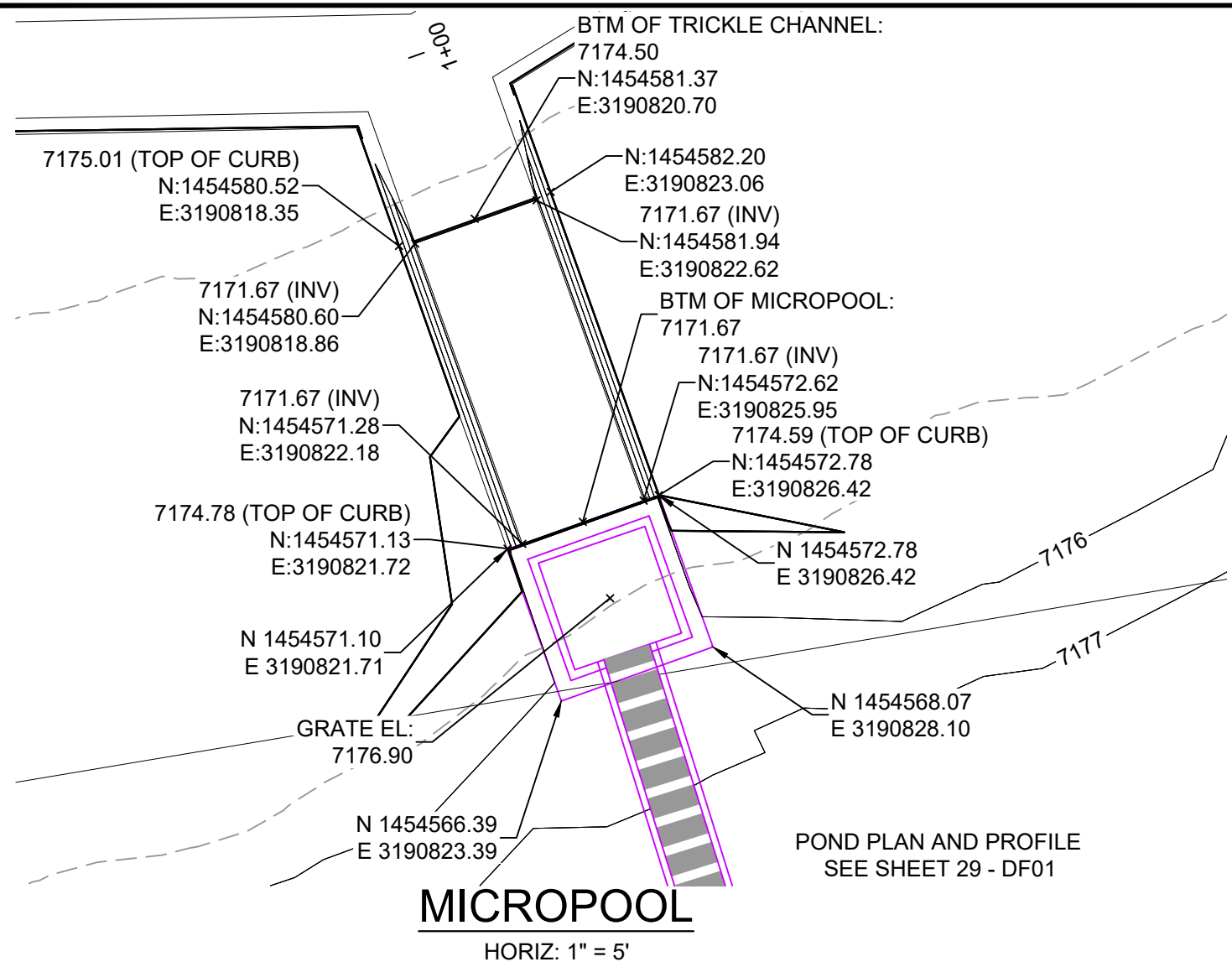
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X-1105-PR-SITE				
X-1105-W-R&S				

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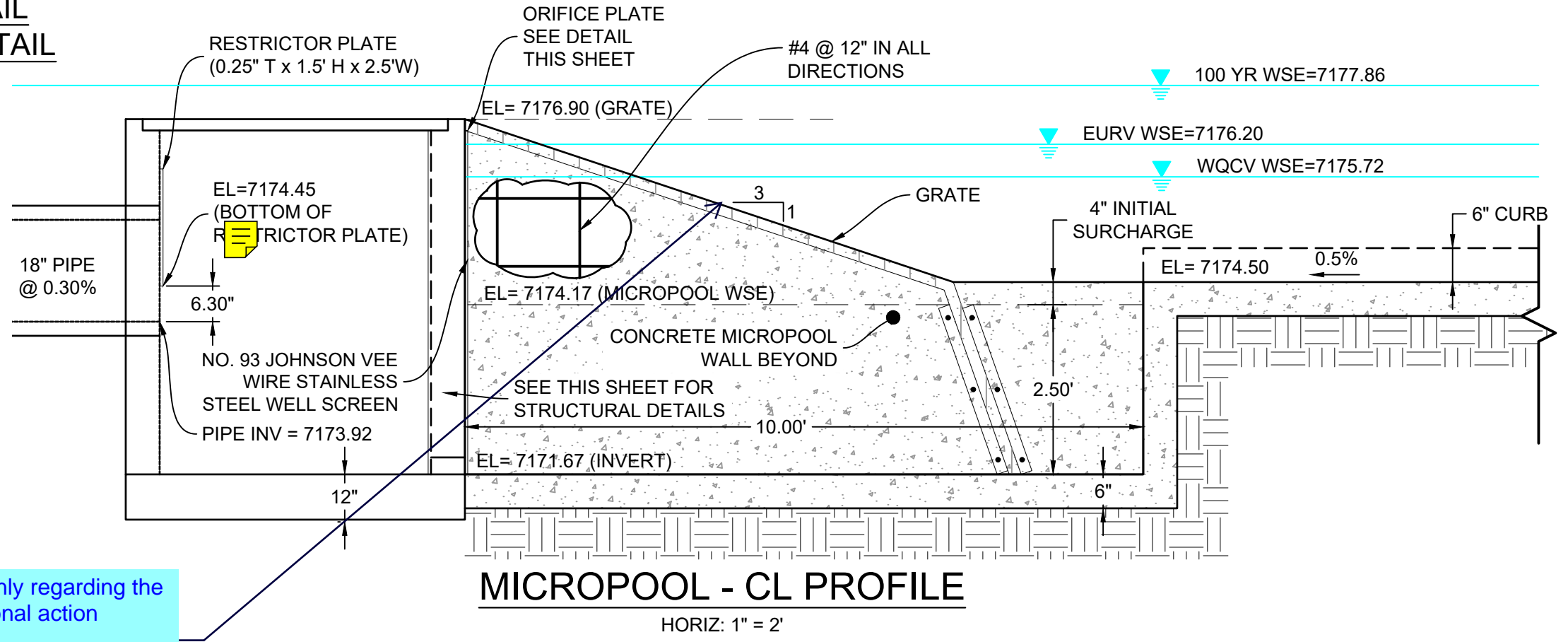
SHEET KEY	BENCHMARK	BASIS OF BEARING:
	NGS T 294 ELEVATION - 7247.10' NAVD 88	A LINE THAT IS 20' NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32\"/>

OWNER:	PREPARED BY:
GRANDWOOD ENTERPRISES, LLC WILLIAM F. HEREBIC II, MANAGER 14160 GLENEAGLE DRIVE COLORADO SPRINGS, CO 80921	

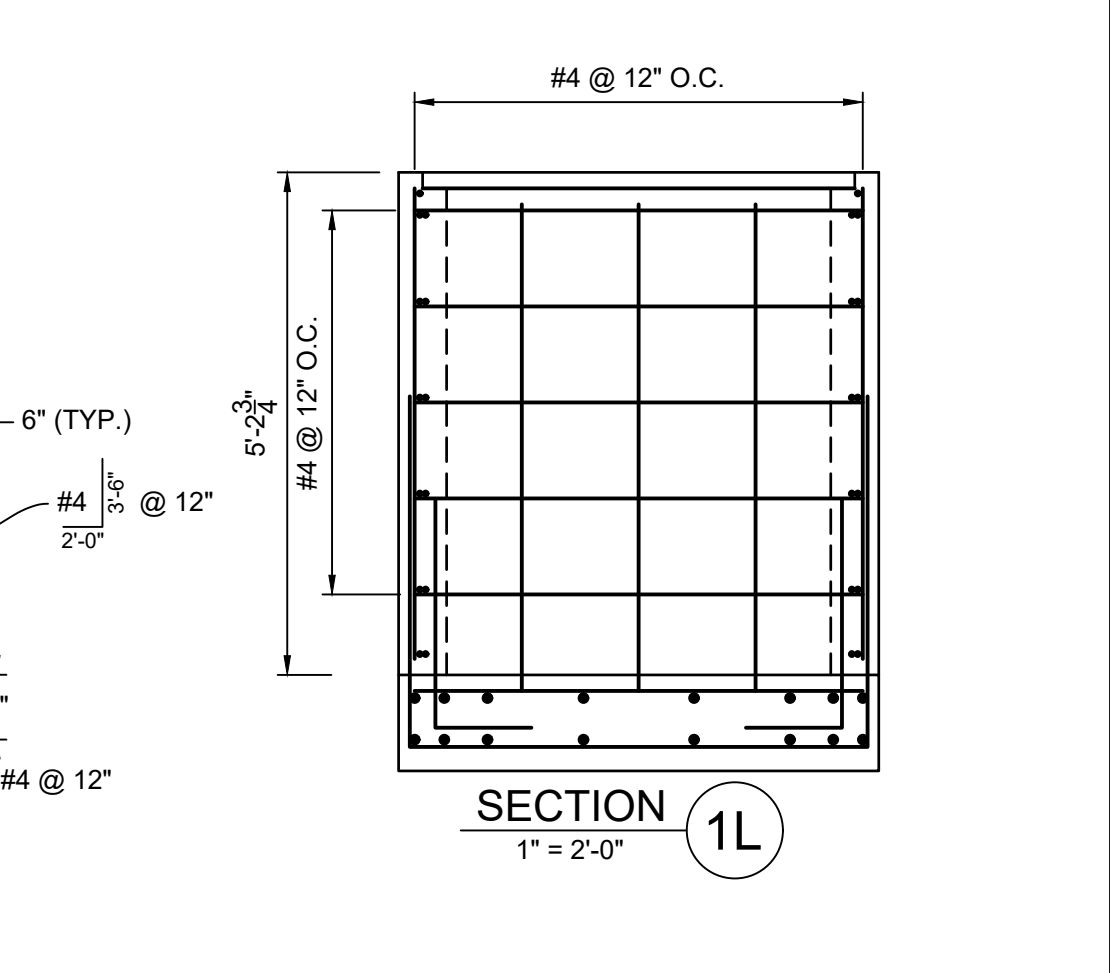
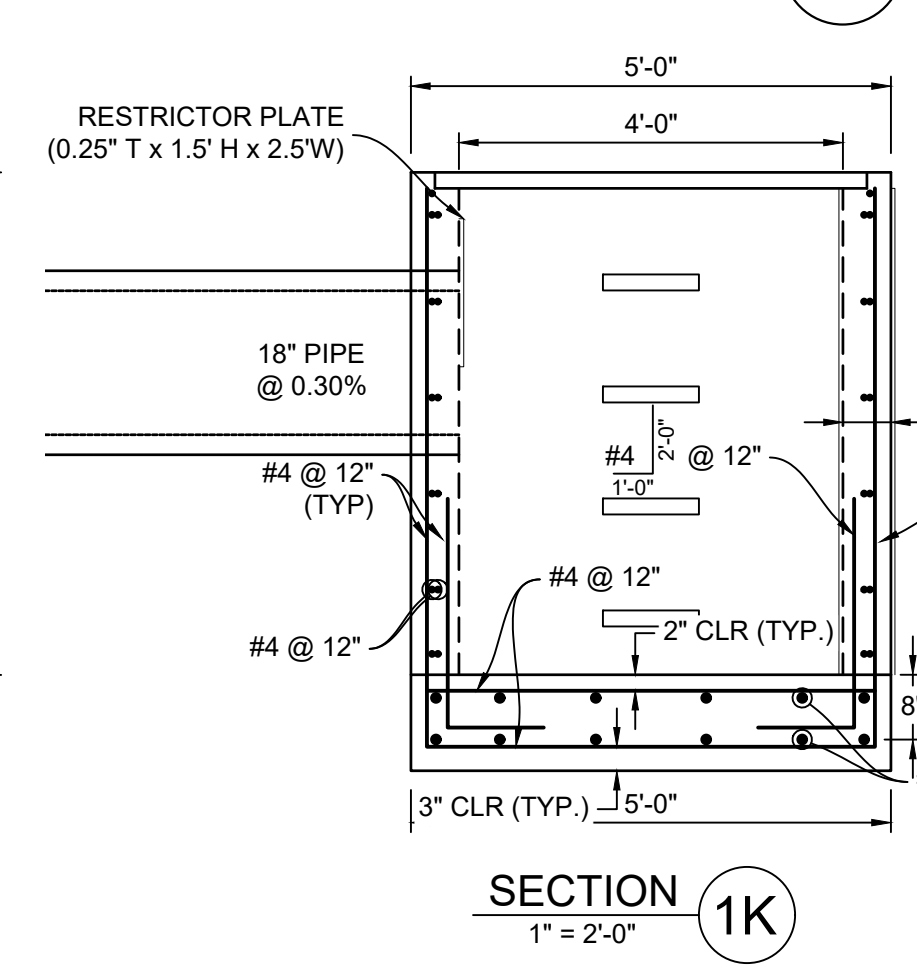
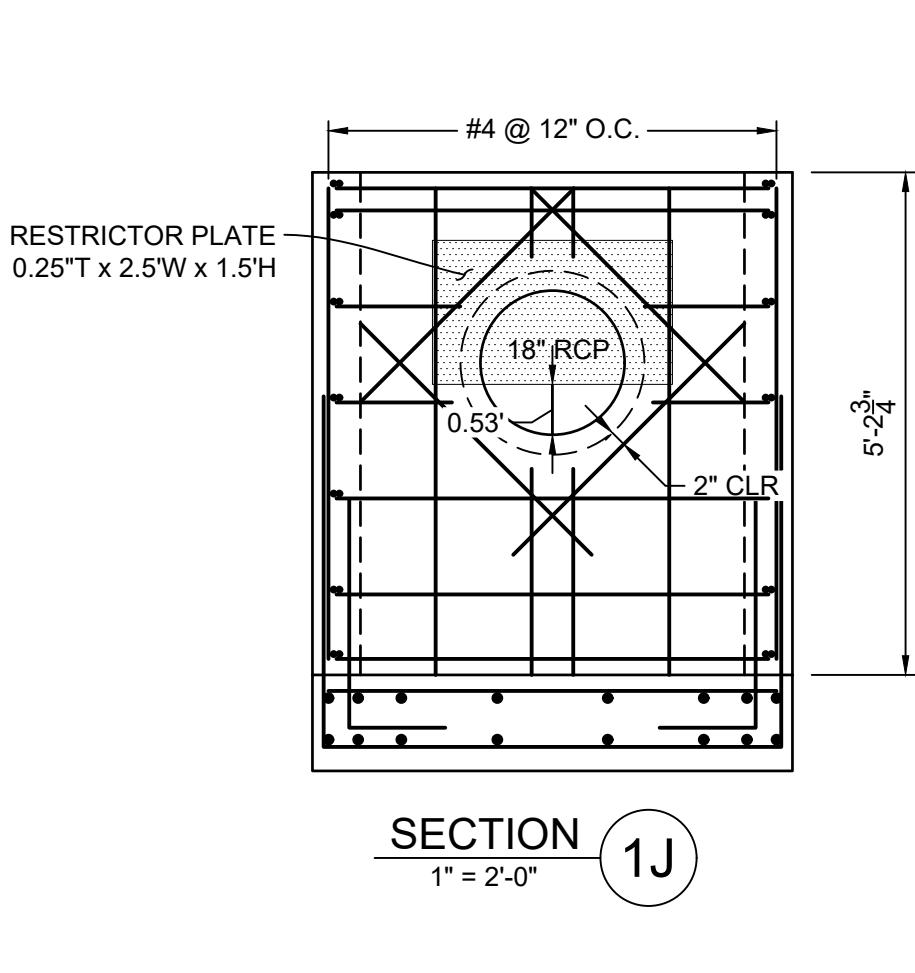
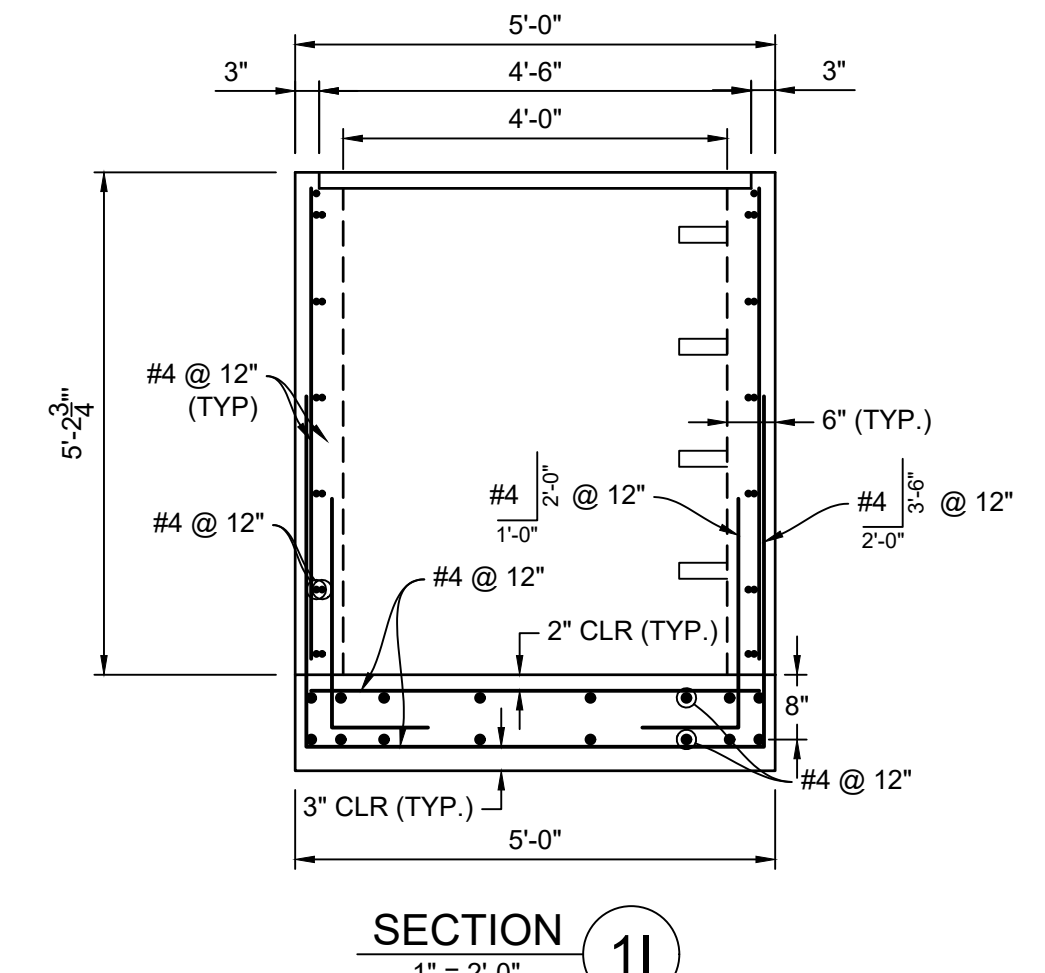
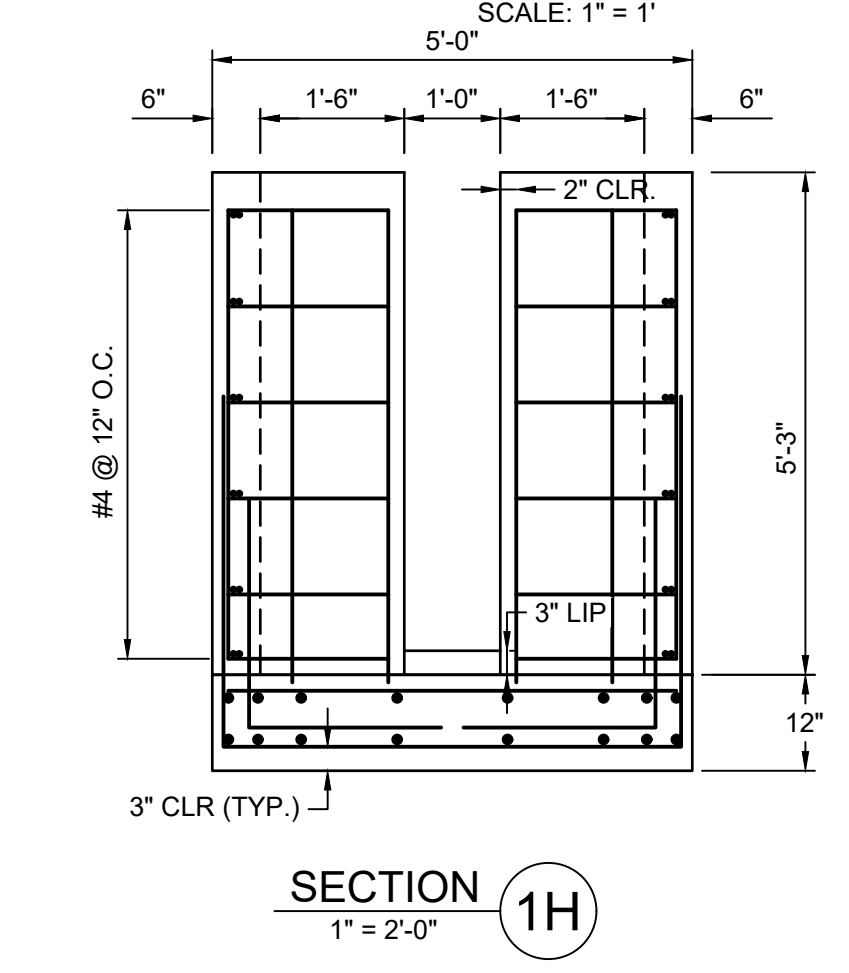
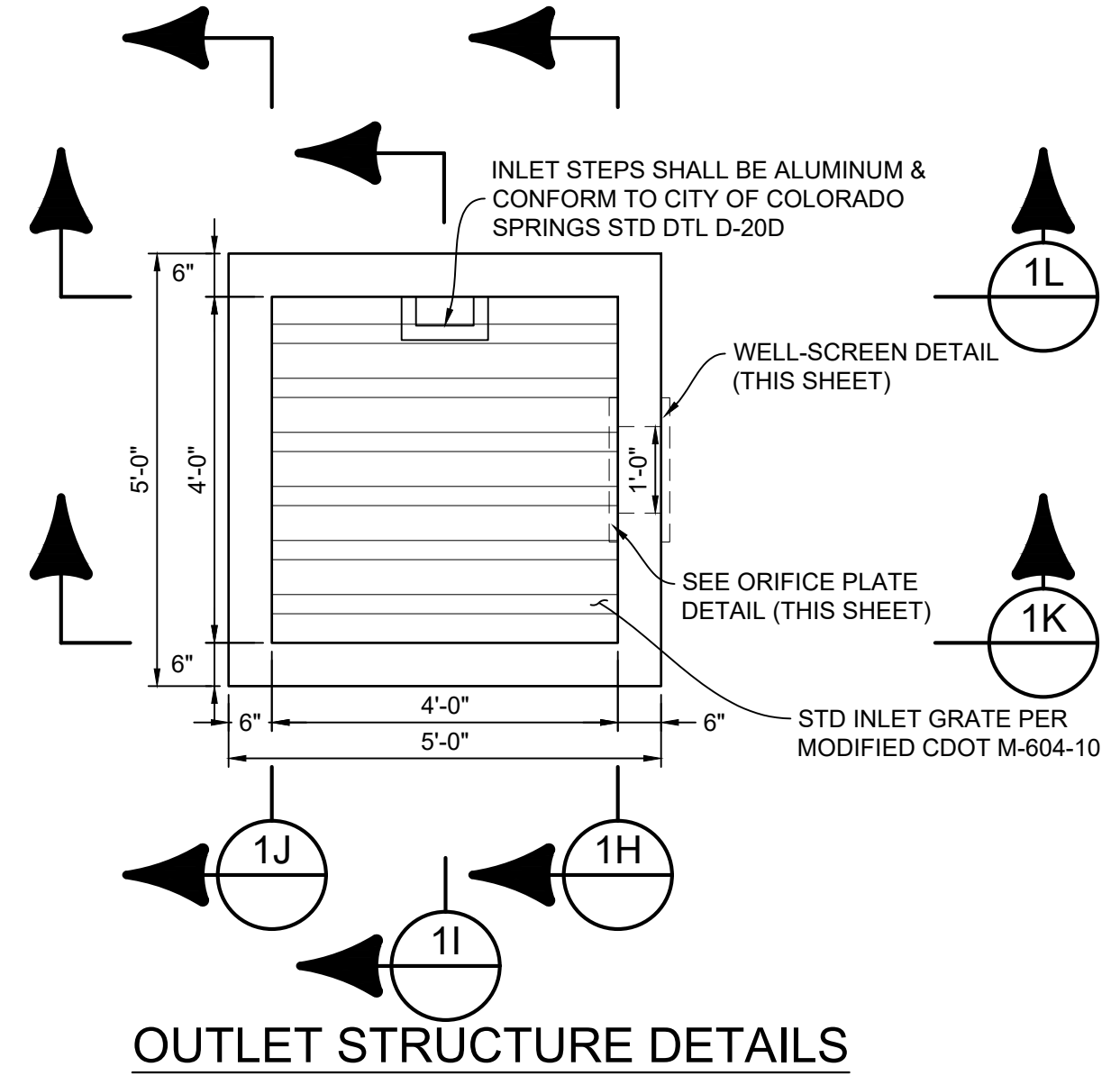
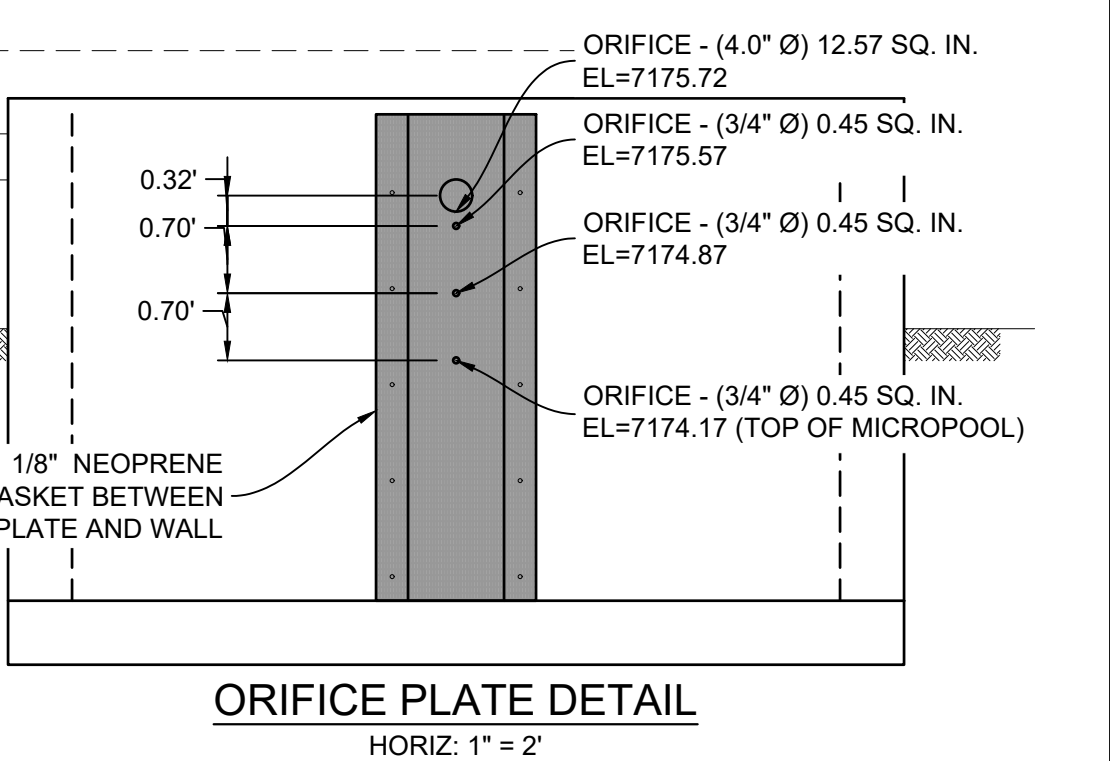
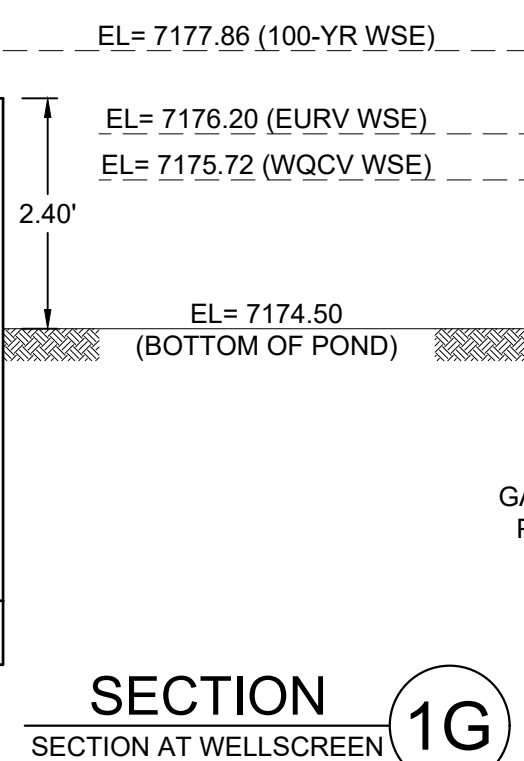
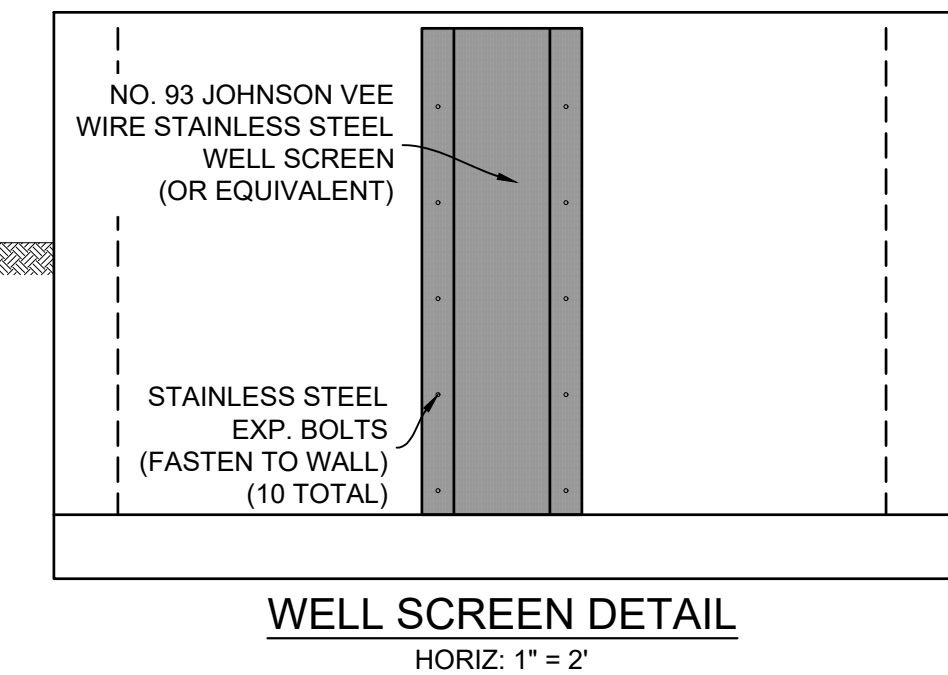
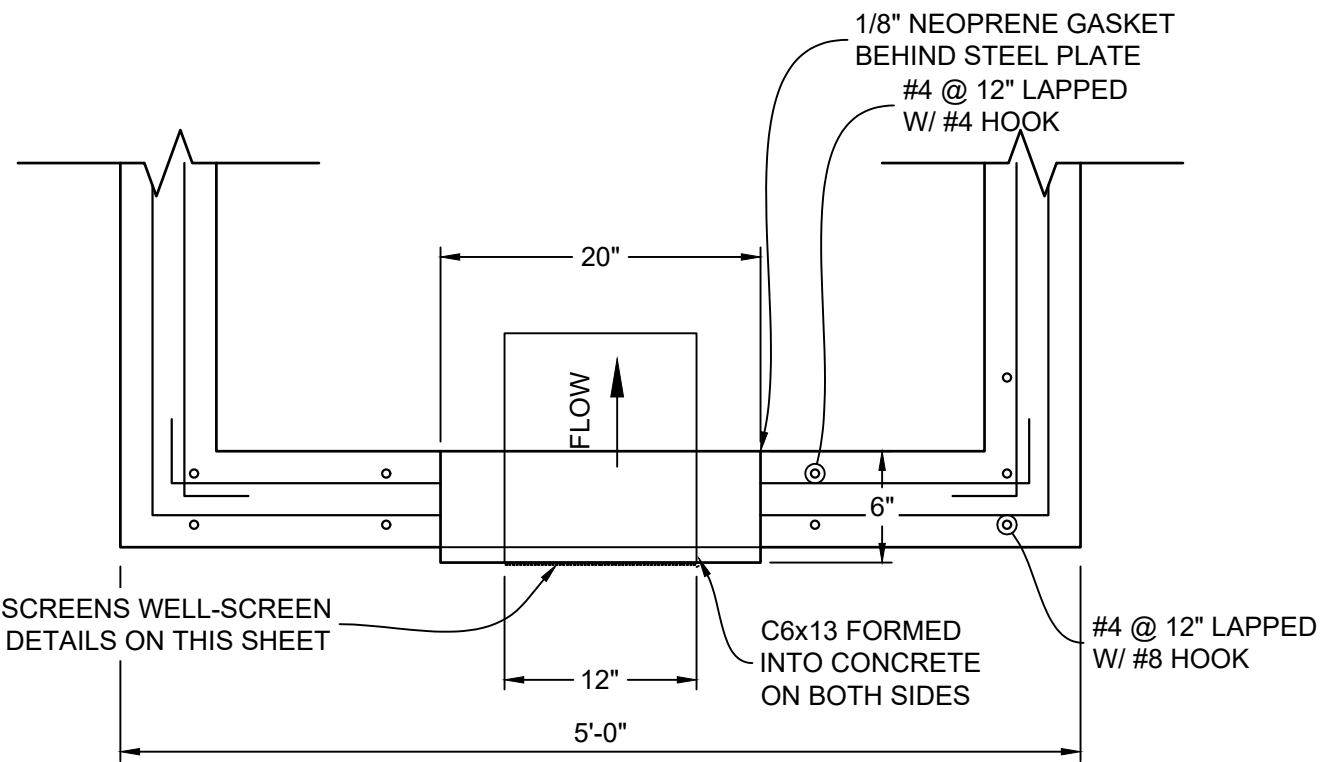
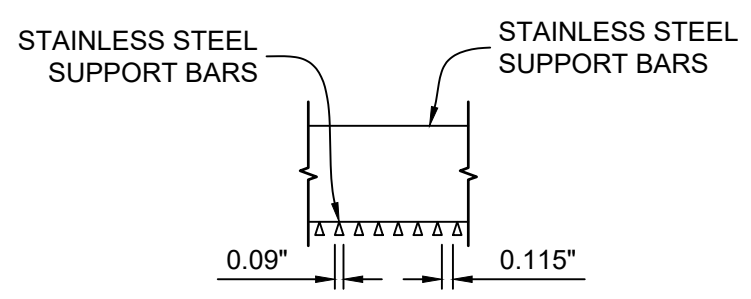
SEAL				
GRANDWOOD RANCH				
EL PASO COUNTY ROAD AND STORM PLANS				
DF-1 & DF-2 FOREBAY PLANS & DETAILS				
DESIGNED BY: BAS	SCALE: N/A	DATE ISSUED: SEPTEMBER 2020	DRAWING No. DF05	
DRAWN BY: BAS	HORIZ: N/A	SHEET 33 OF 38		
CHECKED BY: CP	VERT: N/A			



- RAIL NOTES:**
- ALL PIPE IS 1 1/2" Ø HOT-DIPPE GALV. SCH 40 STEEL PIPE. DIMENSIONS SHOWN ARE FROM CENTER OF PIPE UNLESS OTHERWISE NOTED.
 - RAILING SHALL BE PLACED AT ALL LOCATIONS WHERE FALL HEIGHT IS GREATER THAN 30".
 - MAXIMUM HORIZONTAL SPACING FOR ANCHOR POSTS TO BE 8'.



For information only regarding the design, no additional action needed:
Reference, MHFD USDCM Vol 3
Construction Practices, accessories and sometimes a vertical barrier from the micropool of an EDB, which can increase safety of the structure. Parallel walls can also be used with a second trash rack that is secured flush with the top of the wall as shown in Photo OS-4. This eliminates the need for a safety rail and may provide additional protection from clogging; however, it creates a maintenance issue by restricting access to the water quality screen. The rack shown in Photo OS-4 was modified after construction due to this problem.



REFERENCE DRAWINGS	No.	DATE	DESCRIPTION	BY
X-1105-EX SITE DESIGN				
X-1105-PR-SITE				
X-1105-W-R&S				

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CTB FILE: Matrix(black).ctb		
PLOT DATE: October 2, 2020 9:29:31 AM		
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.		

SHEET KEY

BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS 'LWA PLS 28658'

OWNER:
GRANDWOOD ENTERPRISES, LLC
WILLIAM F. HERBIC II, MANAGER
14160 GLENEAGLE DRIVE
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

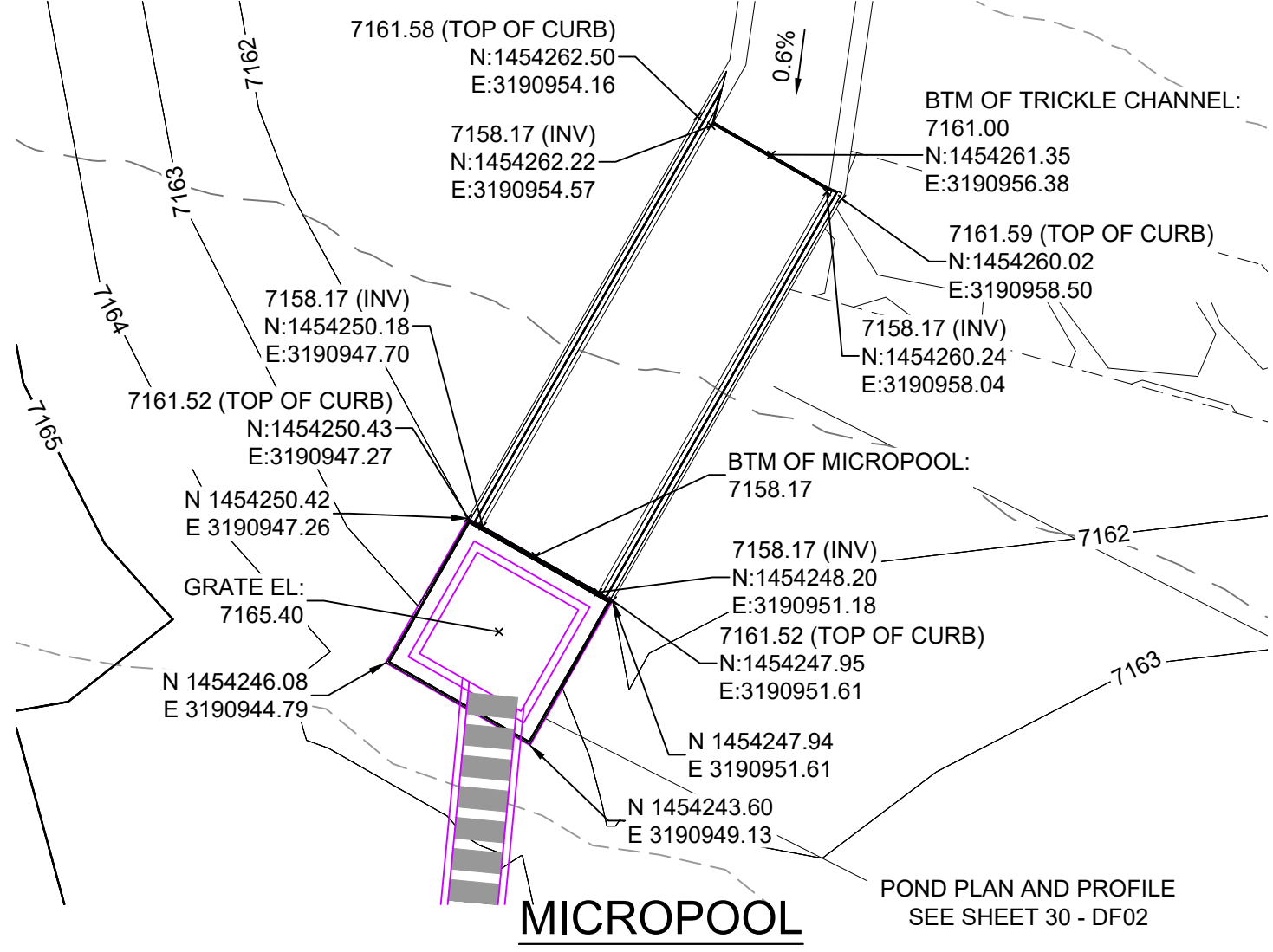
SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH
EL PASO COUNTY
ROAD AND STORM PLANS

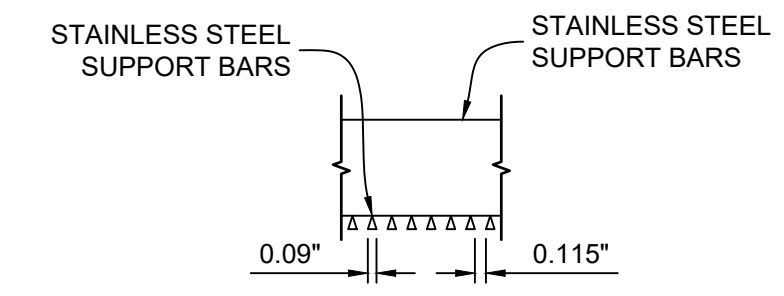
DF-1 OUTLET STRUCTURE PLAN & DETAILS

DESIGNED BY: BAS	SCALE: N/A	DATE ISSUED: SEPTEMBER 2020	DRAWING No. DF06
CHECKED BY: CP	VERT. N/A	SHEET 34 OF 38	

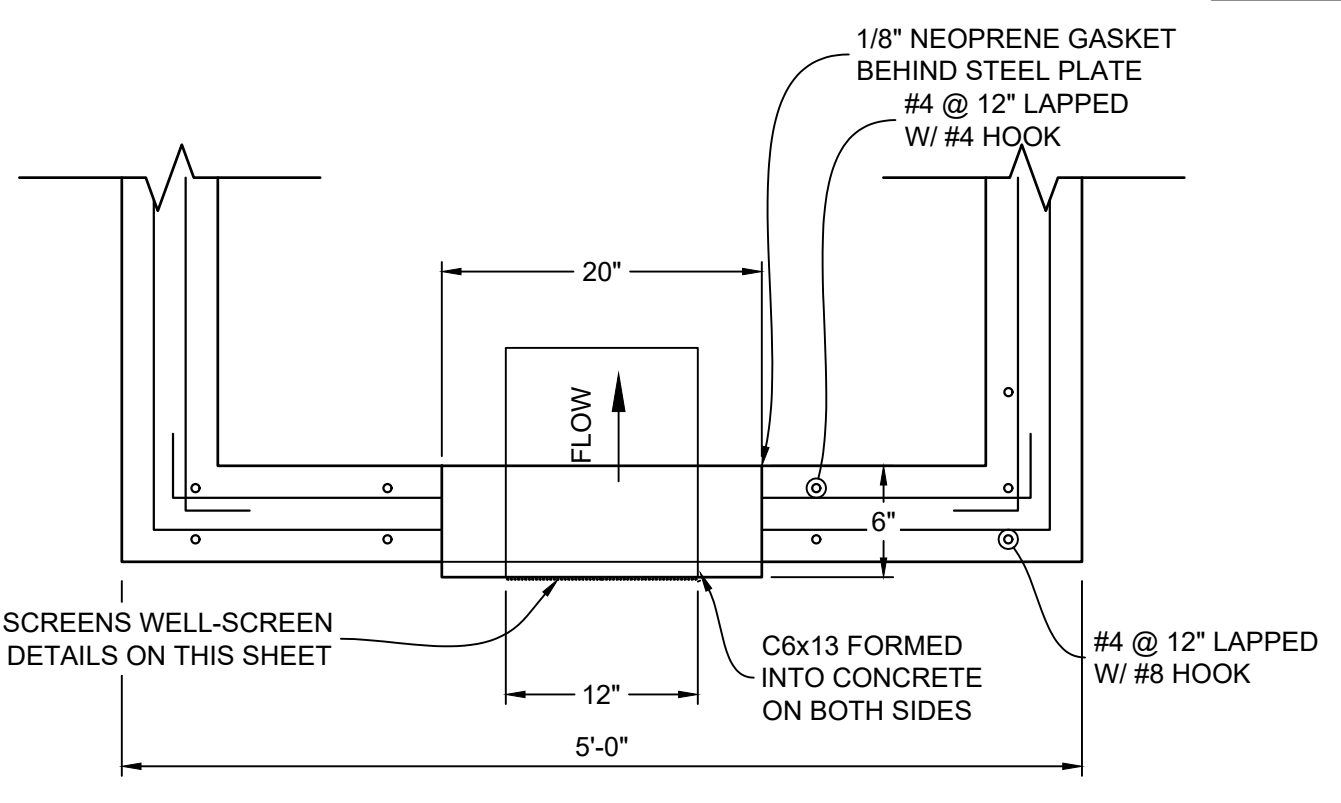


JOHNSON SCREENS STAINLESS STEEL VEE WIRE FILTERS WELL-SCREEN (OR EQUAL)

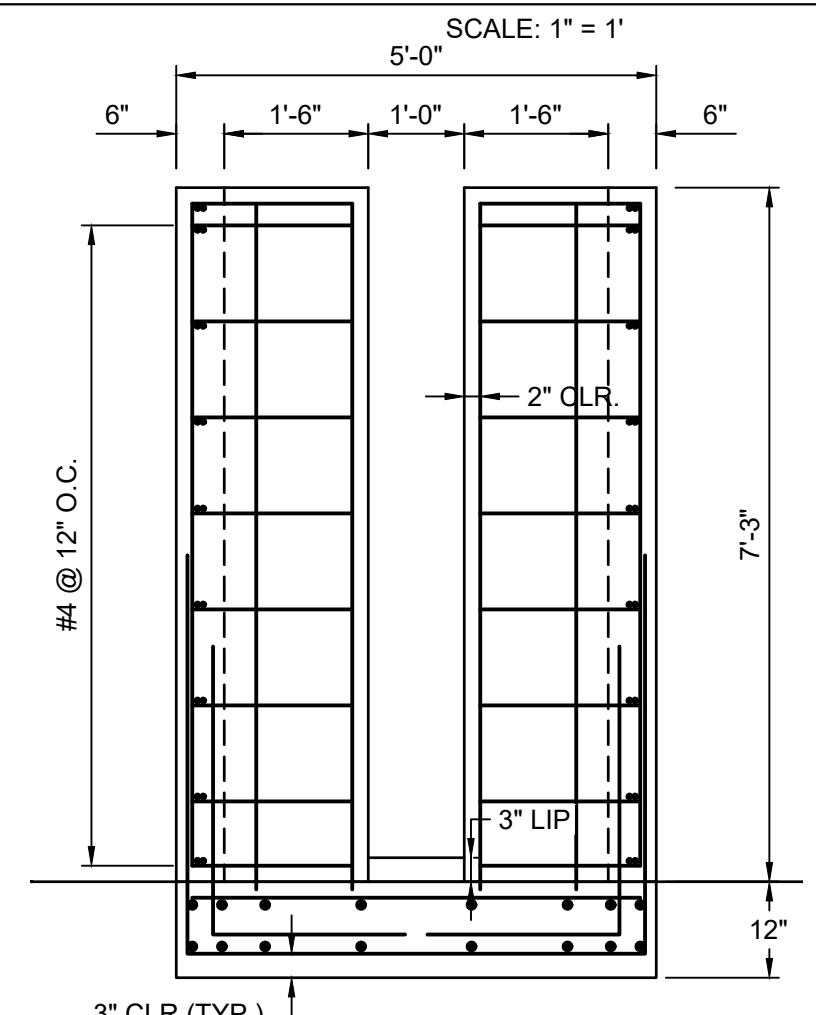
STRUCTURE	SCREEN #93 VEE WIRE SLOT OPENING	SUPPORT ROD TYPE & SPACING	TOTAL SCREEN THICKNESS	CARBON STEEL FRAME TYPE
OUTLET STRUCTURE	0.139	#156 VEE @ 3/4" O.C.	0.31"	3/8" x 1" BAR



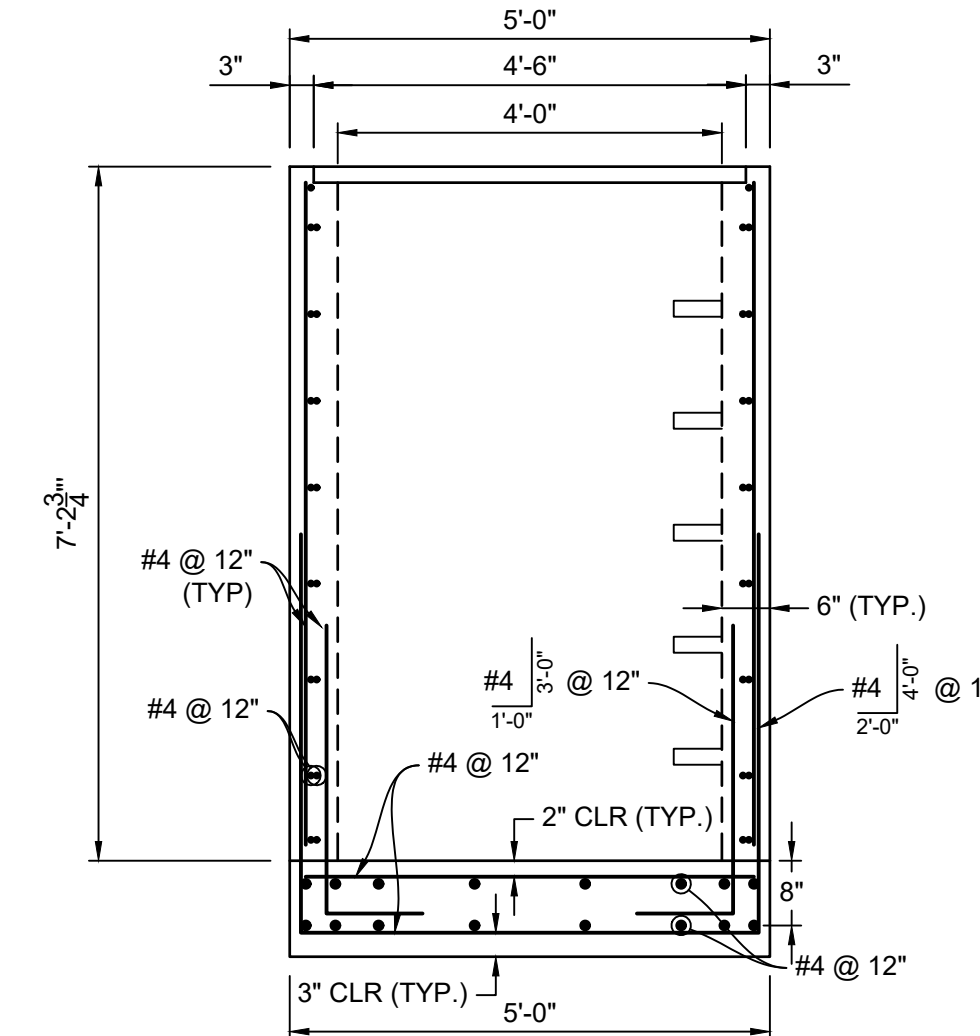
Make sure everything is labeled correctly.



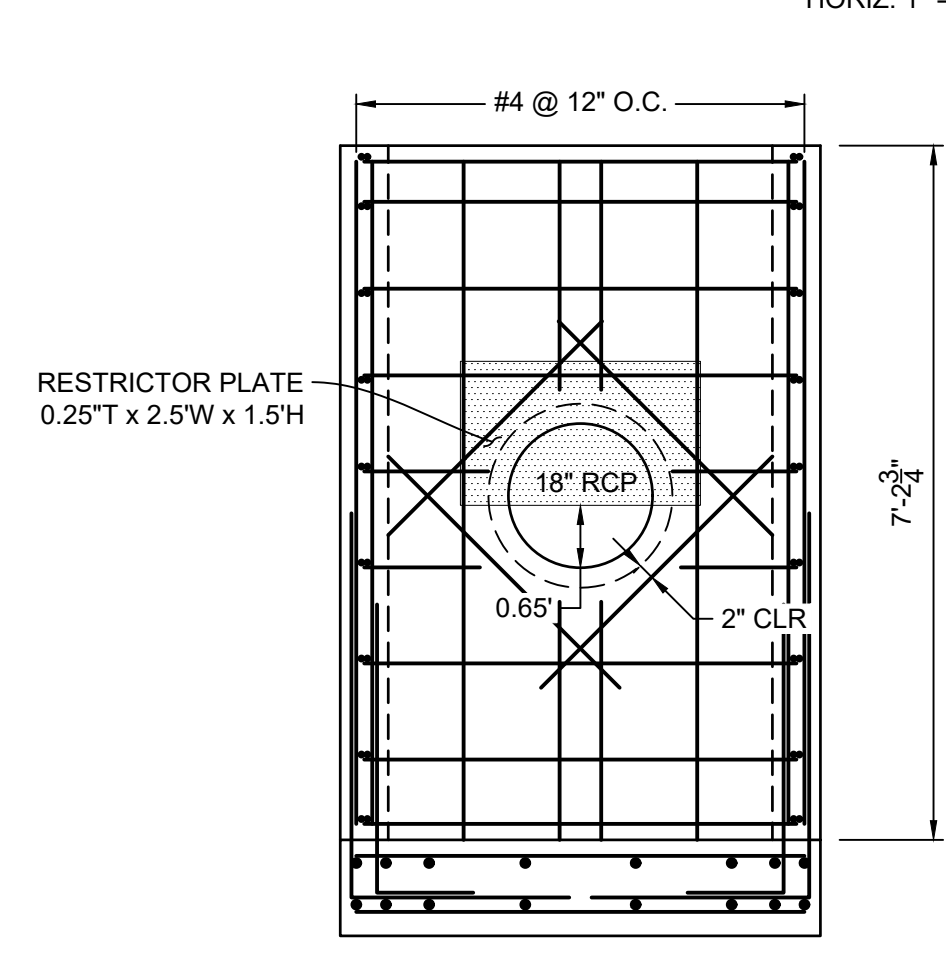
STRUCTURE DETAILS AT ORIFICE PLATE



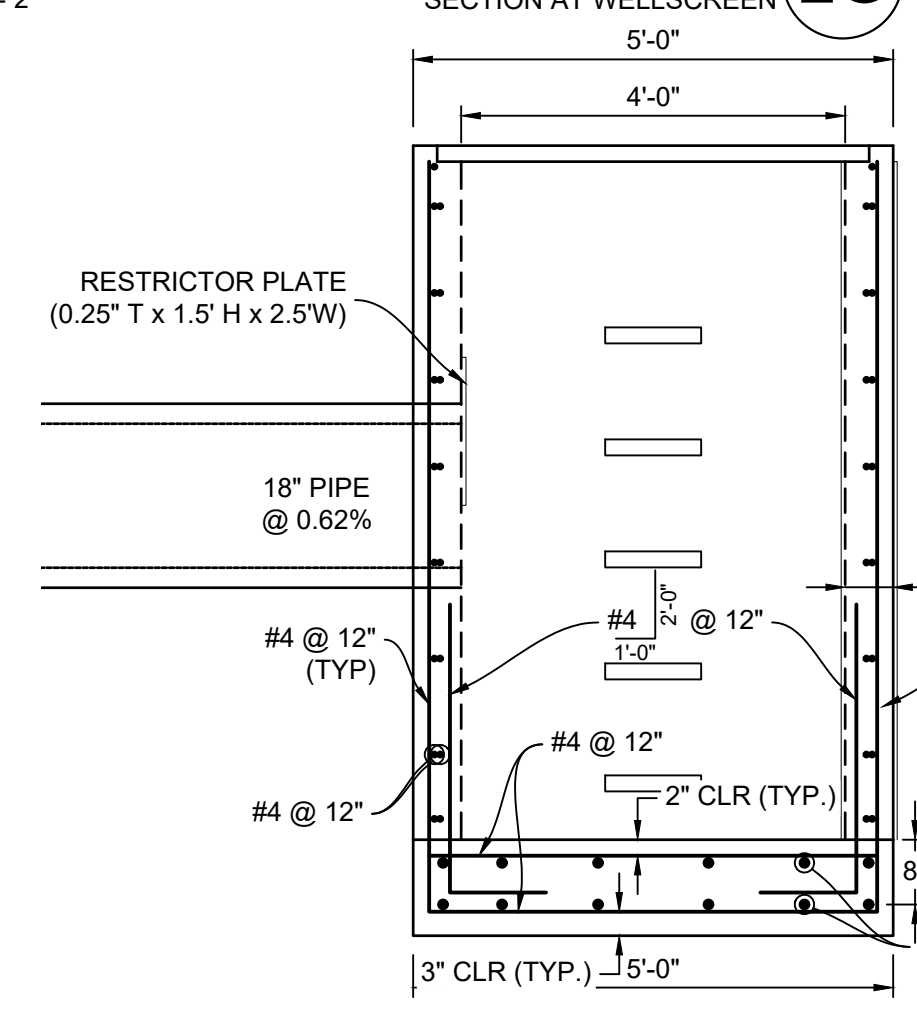
SECTION 2H



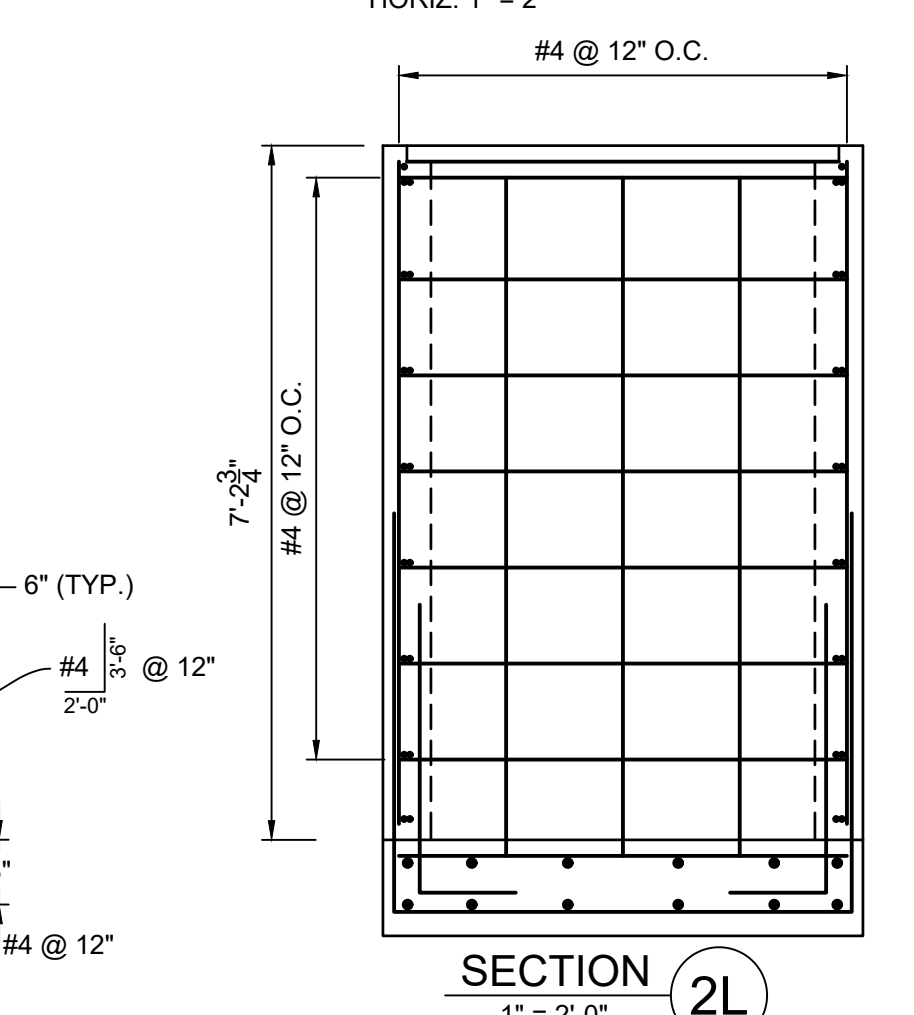
SECTION 2I



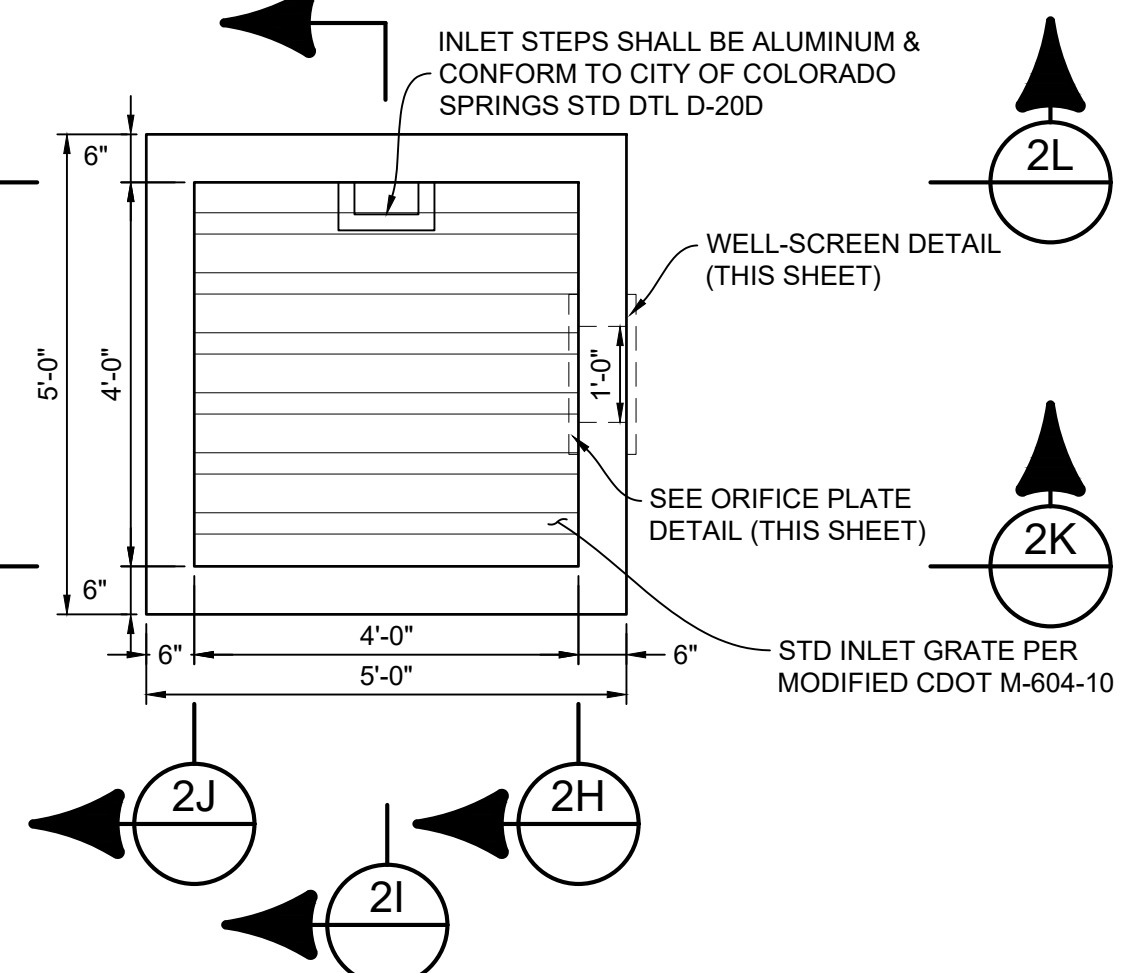
SECTION 2J



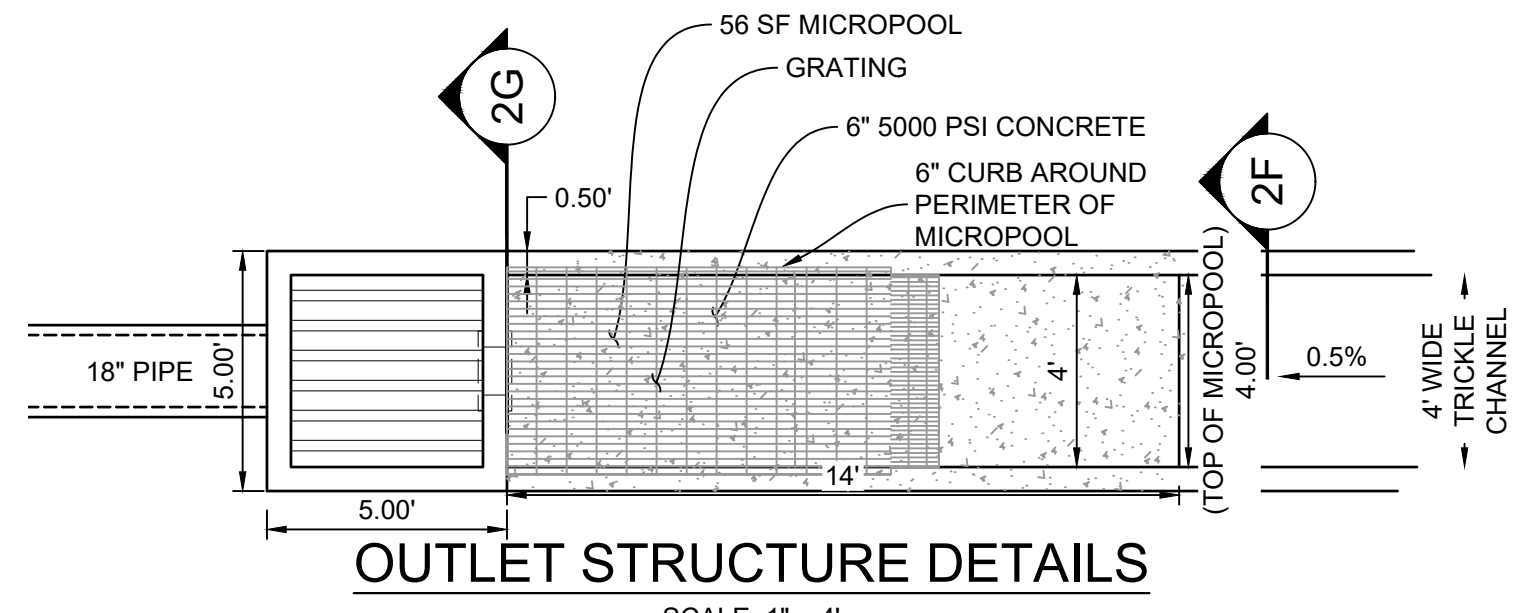
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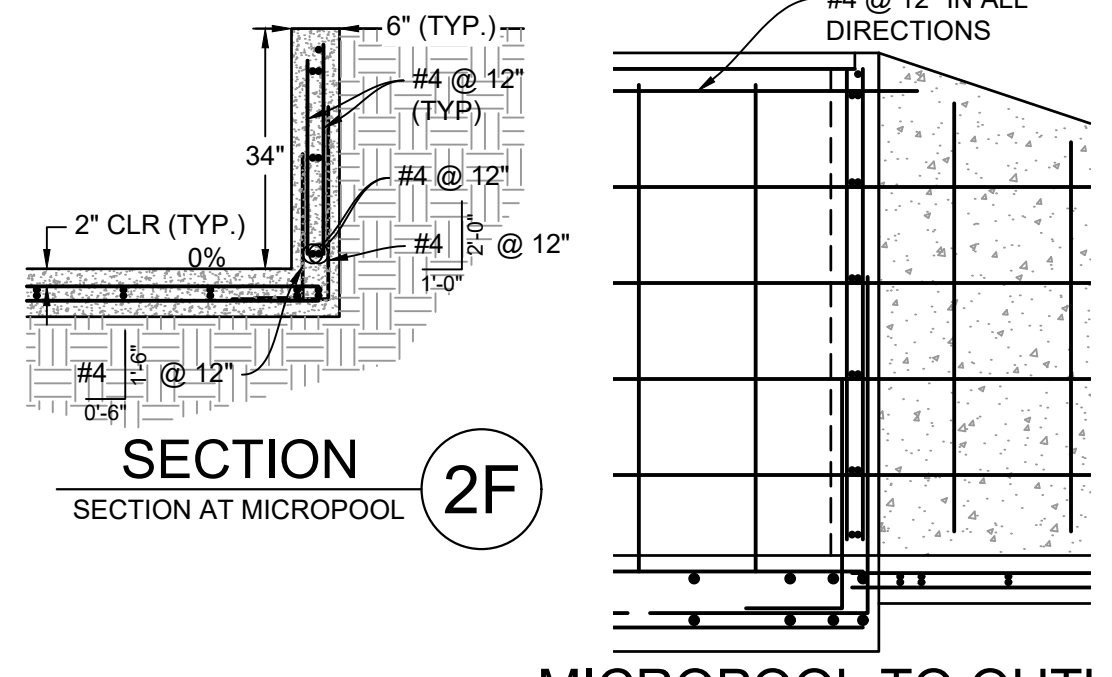
SECTION 2L



OUTLET STRUCTURE DETAILS

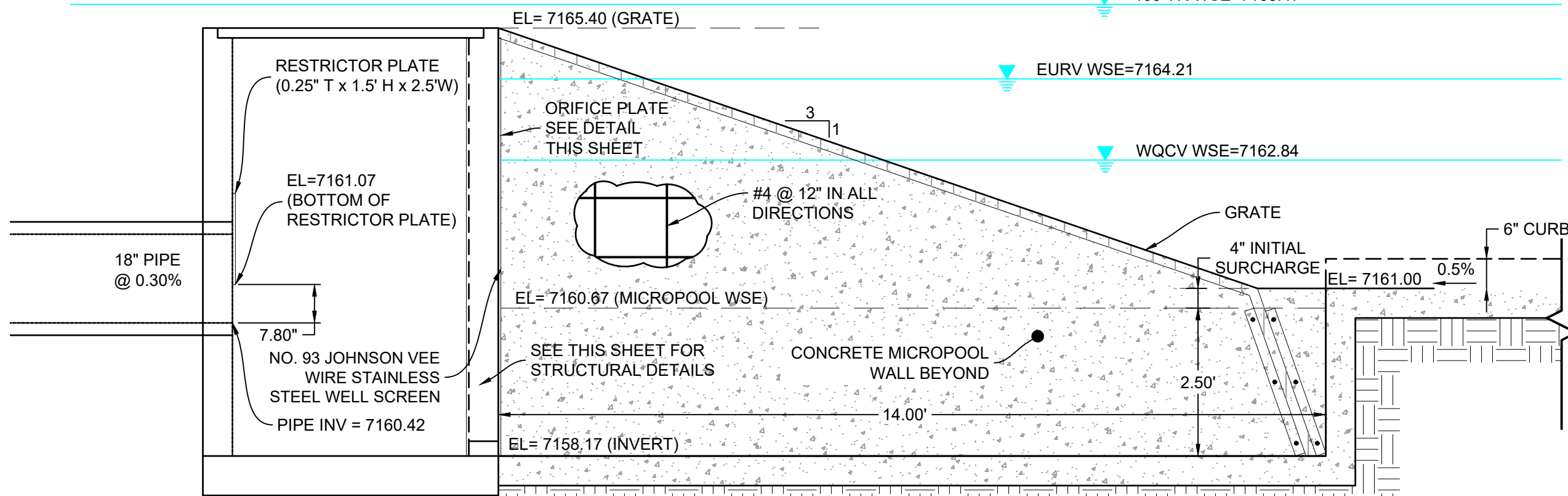


OUTLET STRUCTURE DETAILS

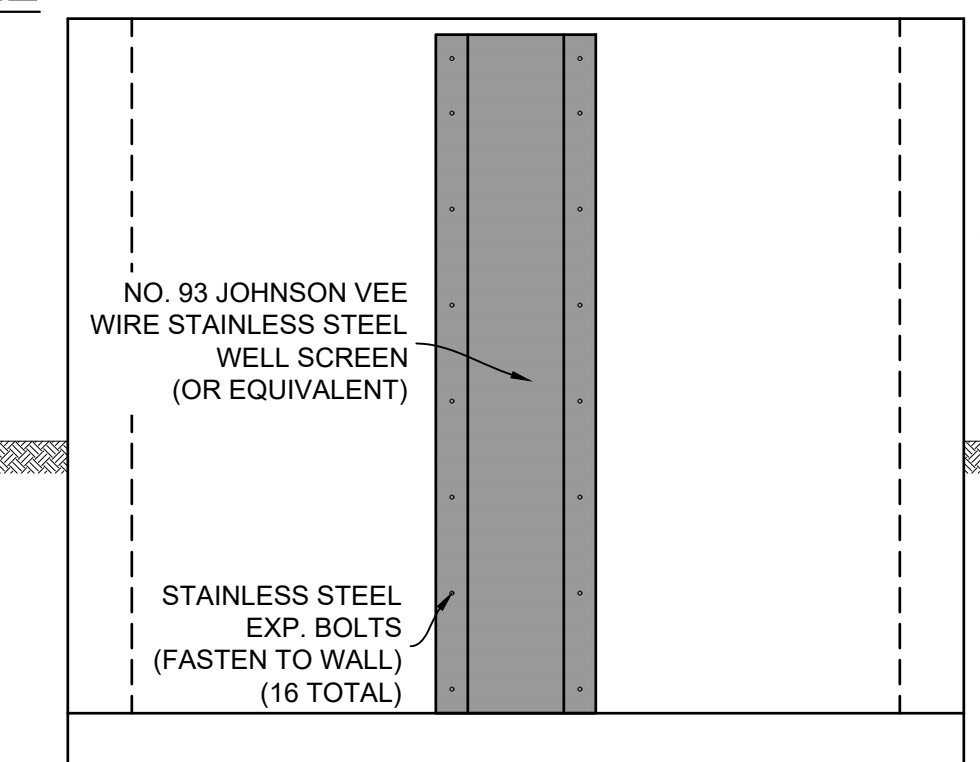


SECTION 2F

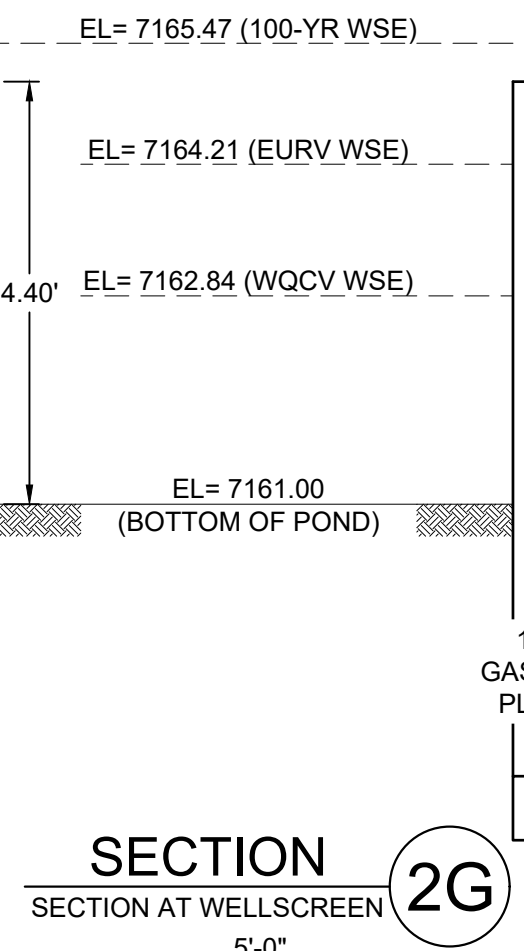
MICROPOOL TO OUTLET STRUCTURE CONNECTION



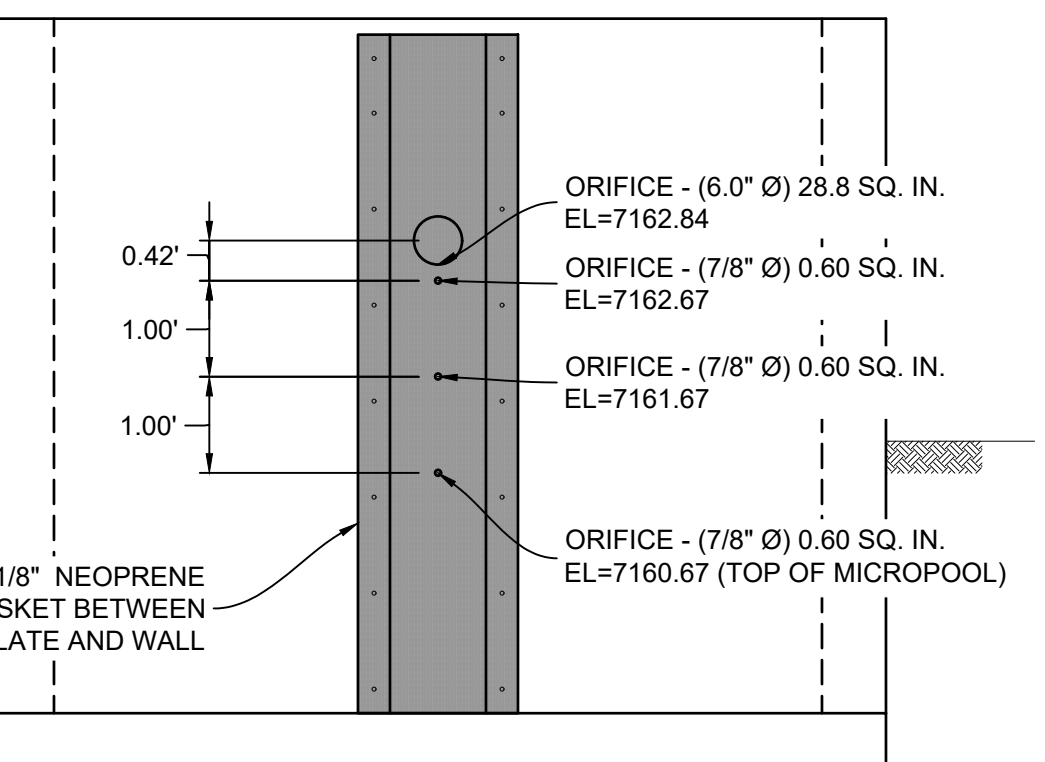
MICROPOOL - CL PROFILE



WELL SCREEN DETAIL



SECTION 2G



ORIFICE PLATE DETAIL

REF. NO.	DATE	DESCRIPTION	BY

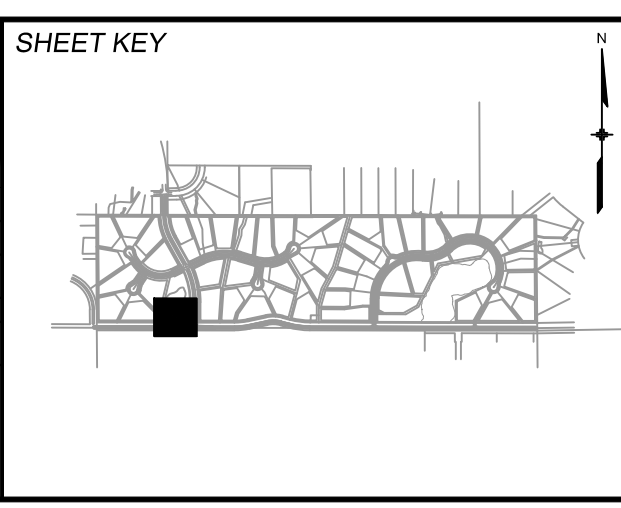
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CTB FILE: Matrix(black).ctb

PLOT DATE: October 2, 2020 9:29:59 AM

THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.



BENCHMARK
NGS T 294 ELEVATION - 7247.10 NAVD 88

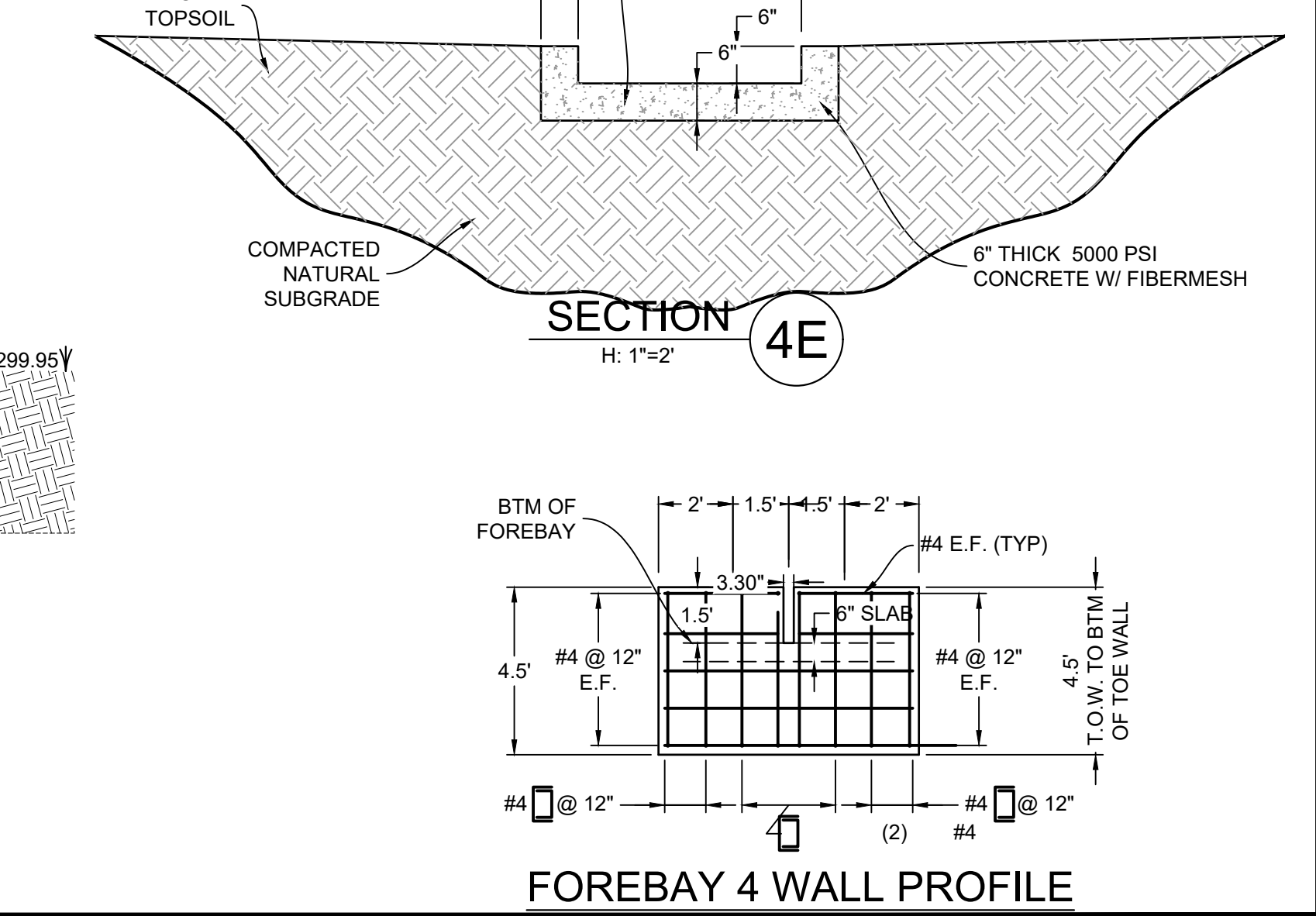
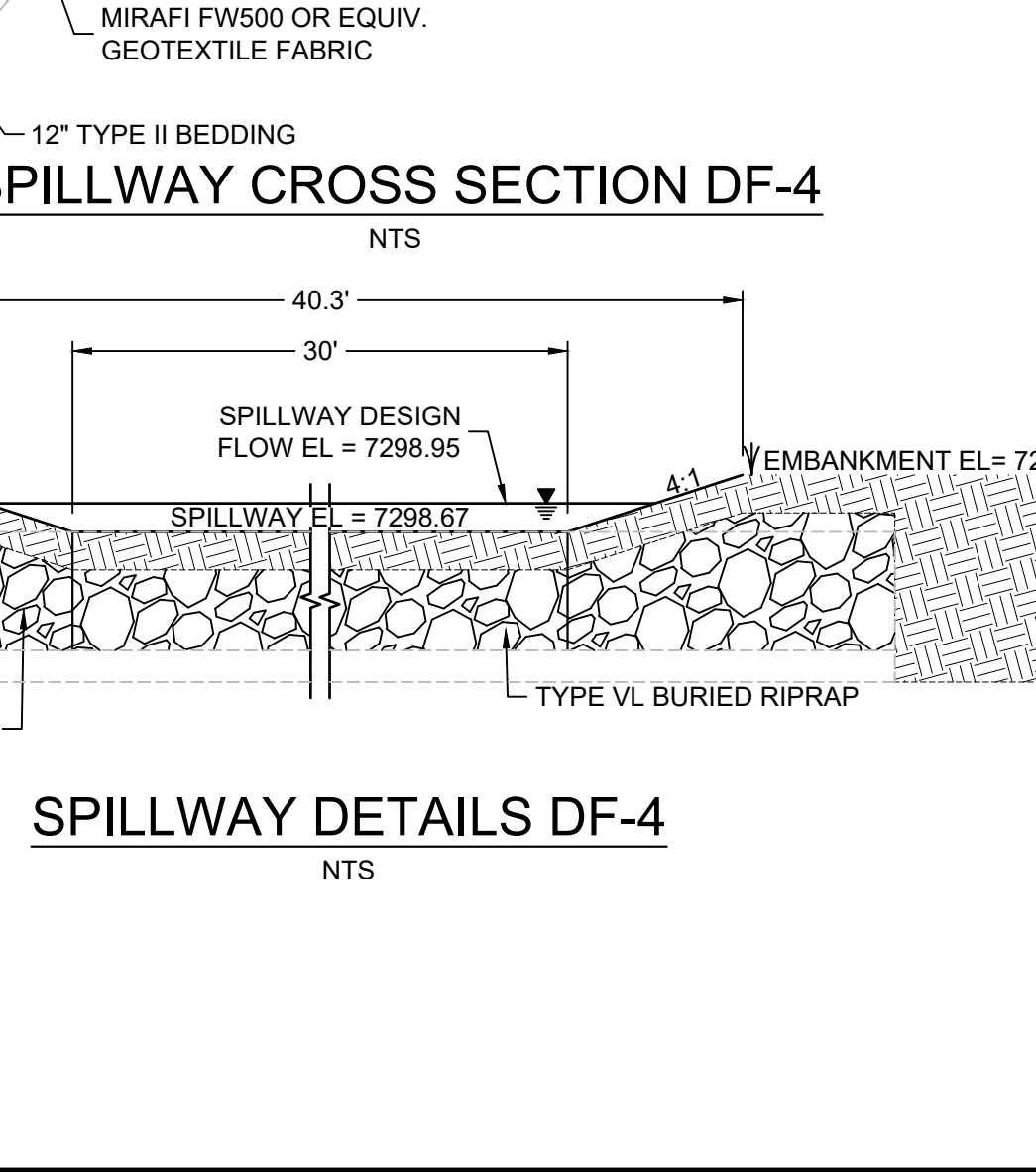
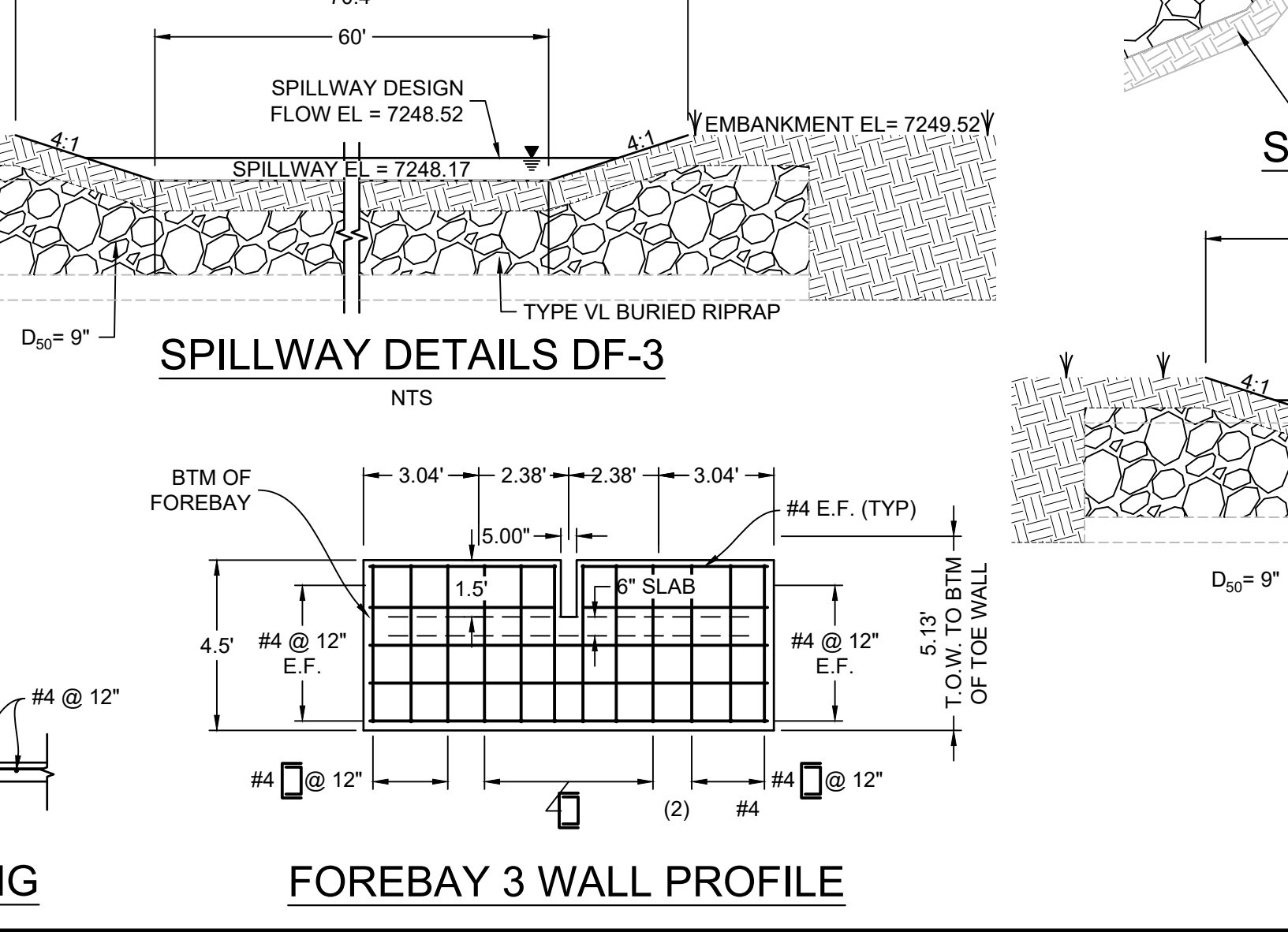
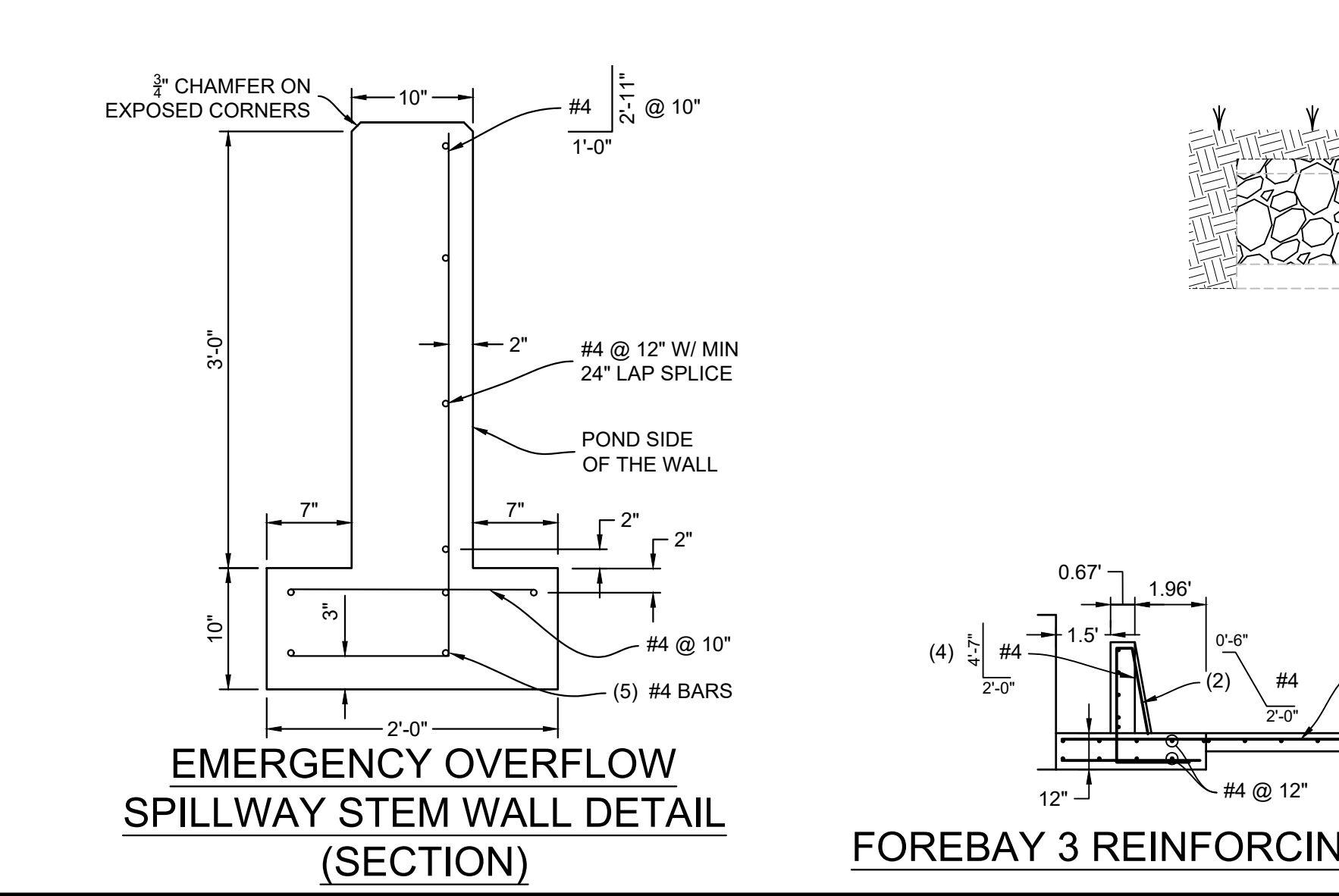
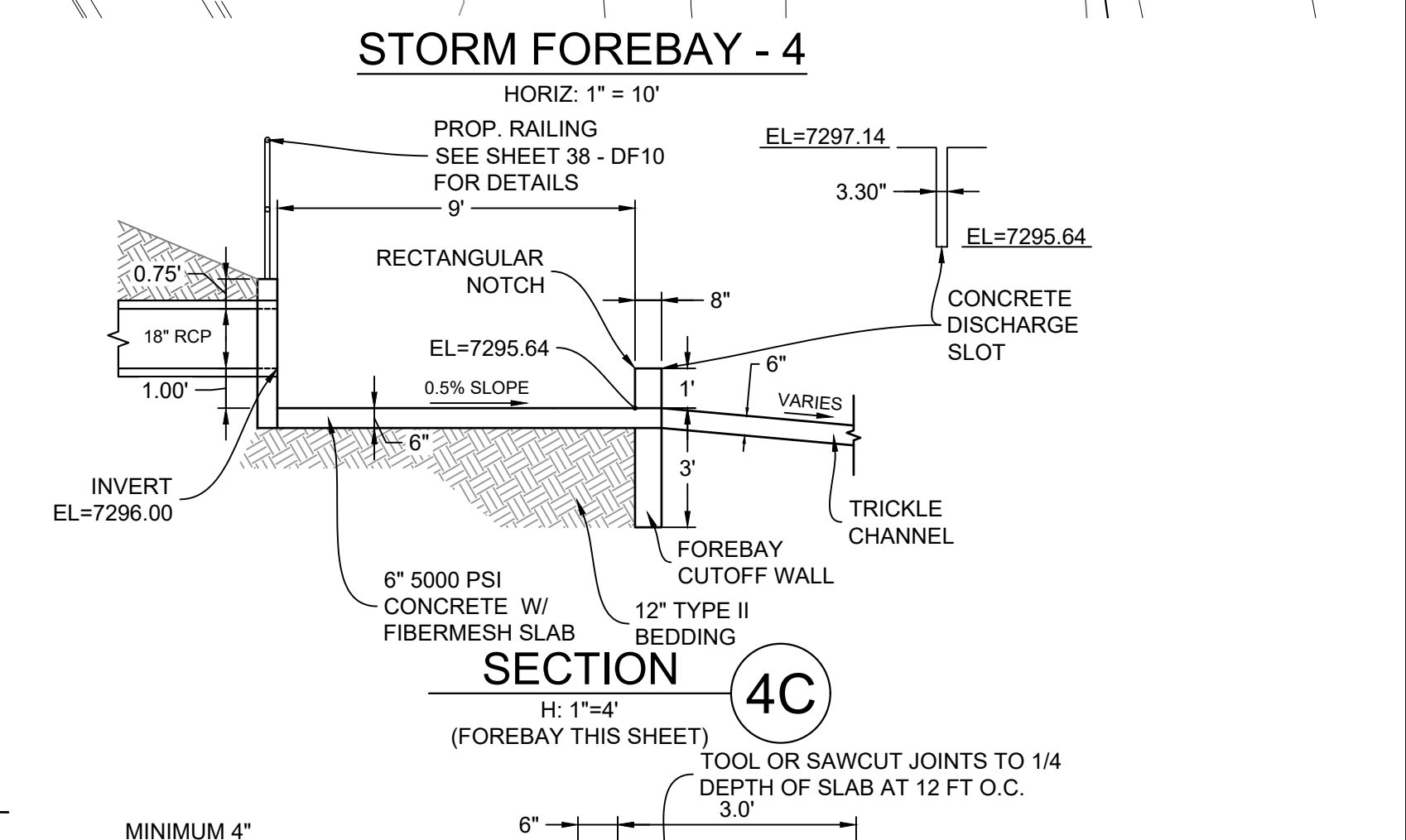
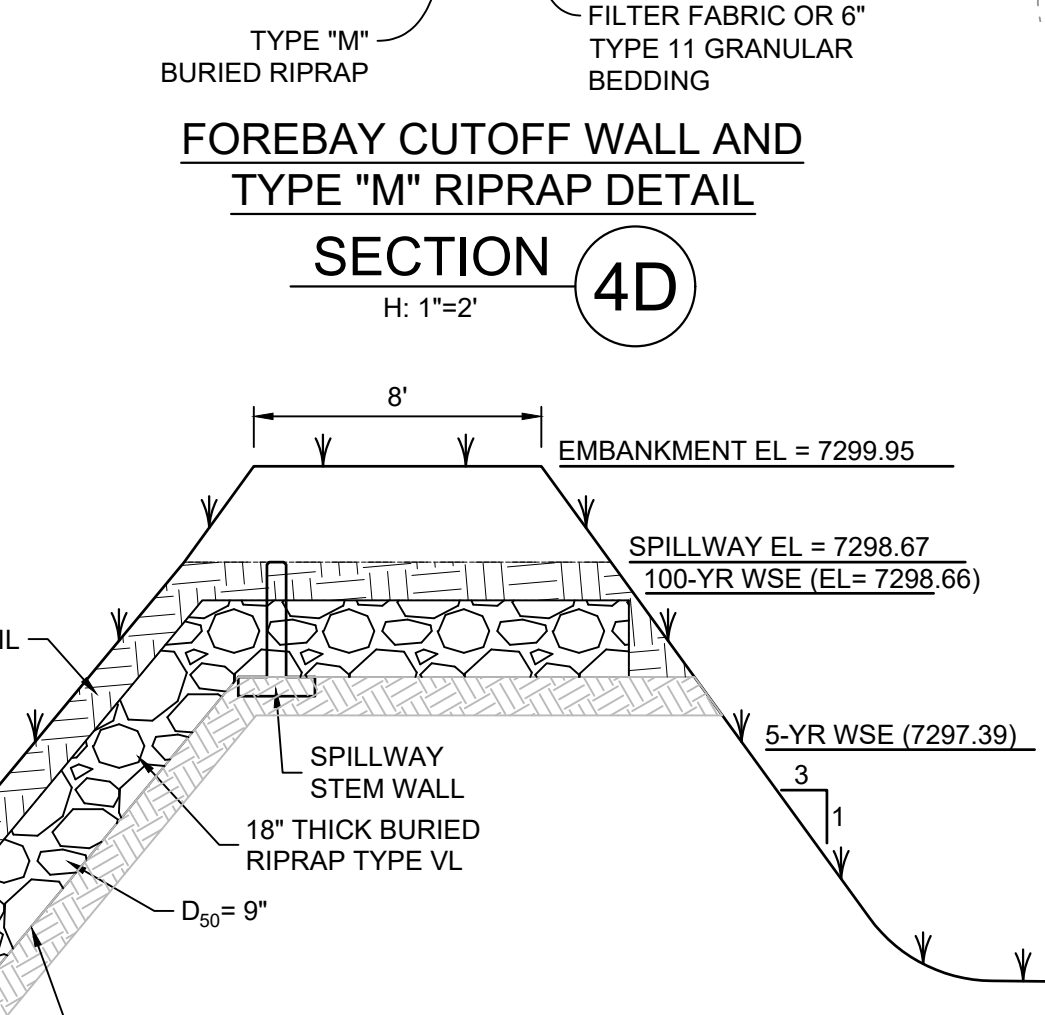
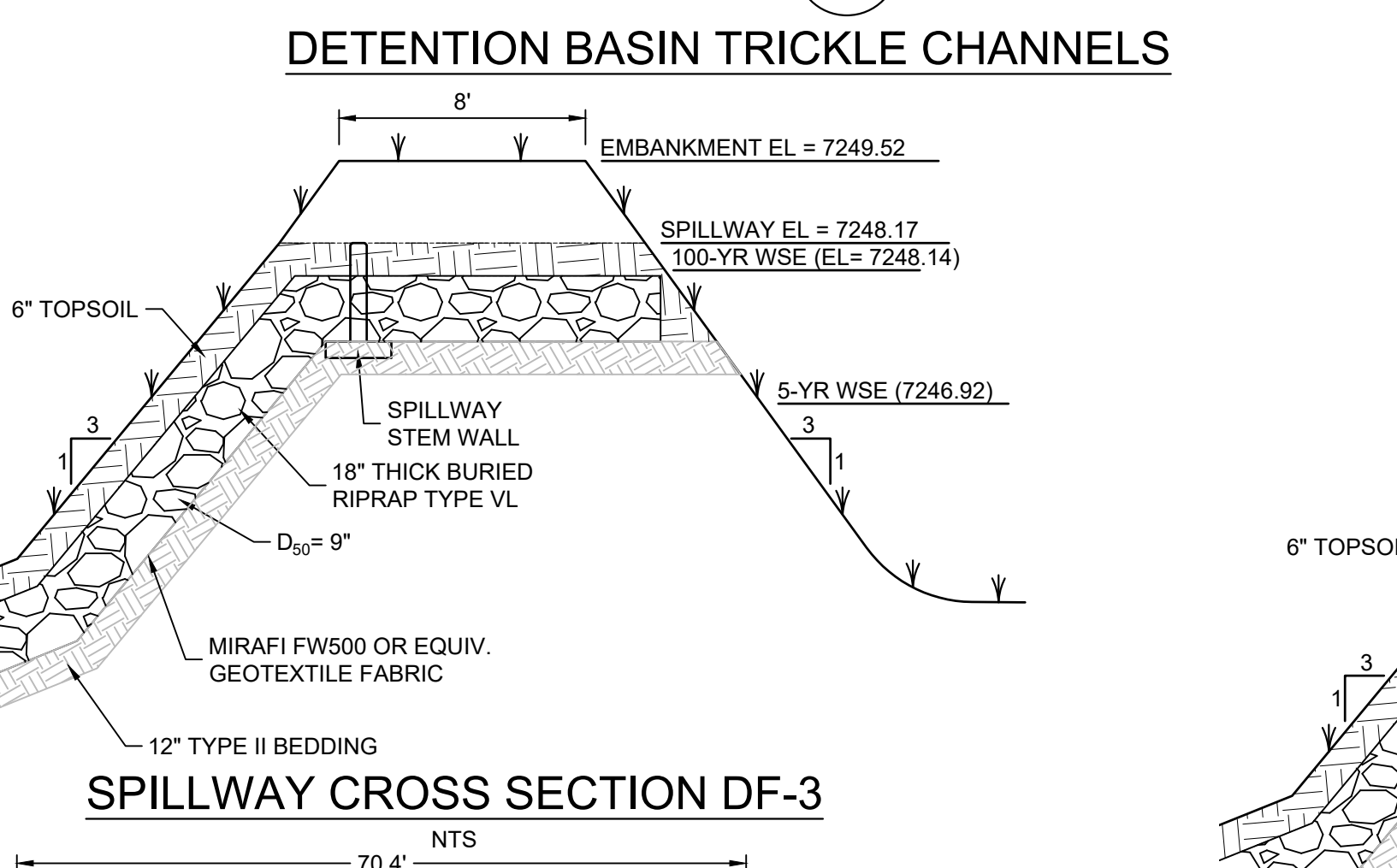
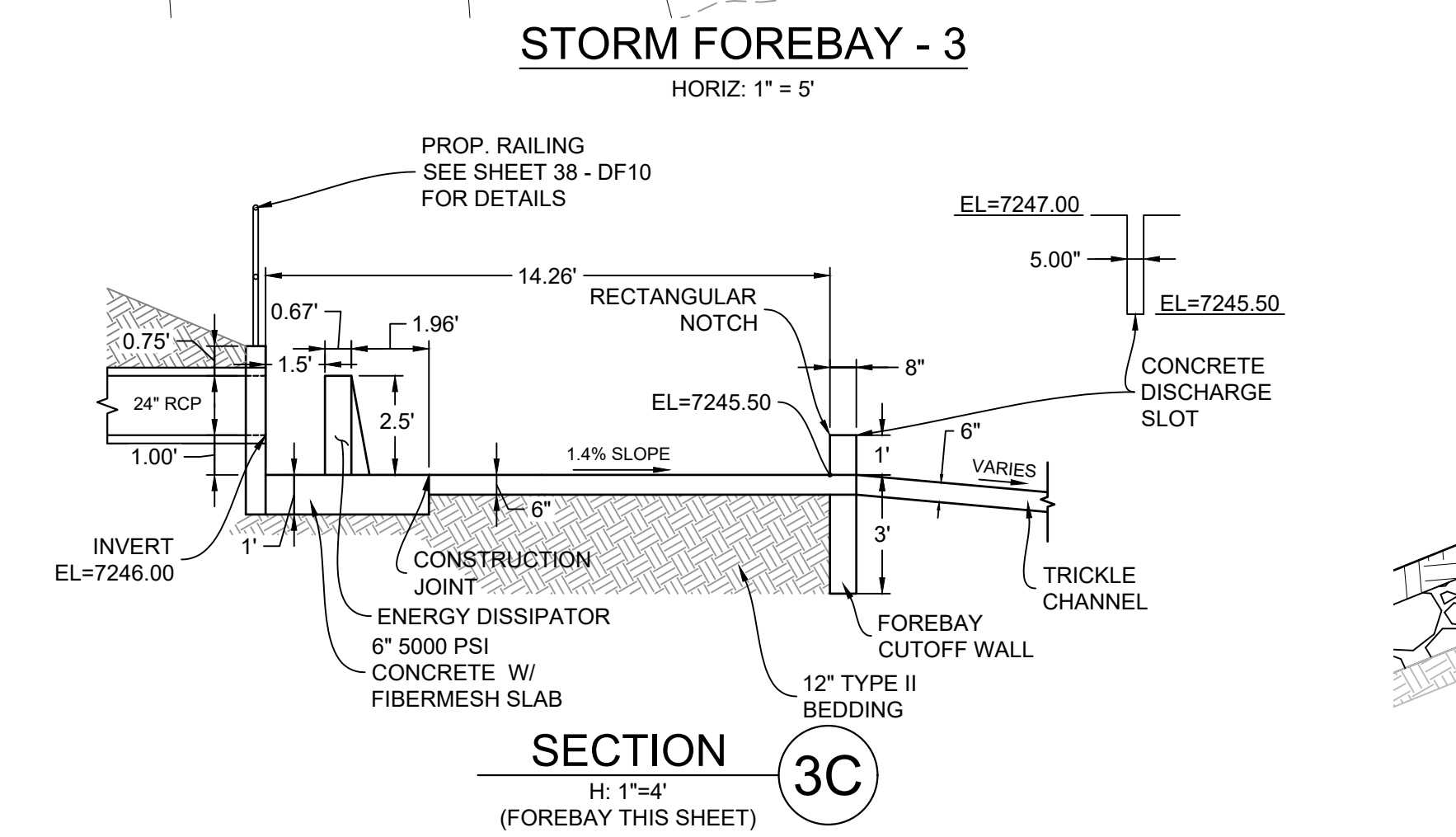
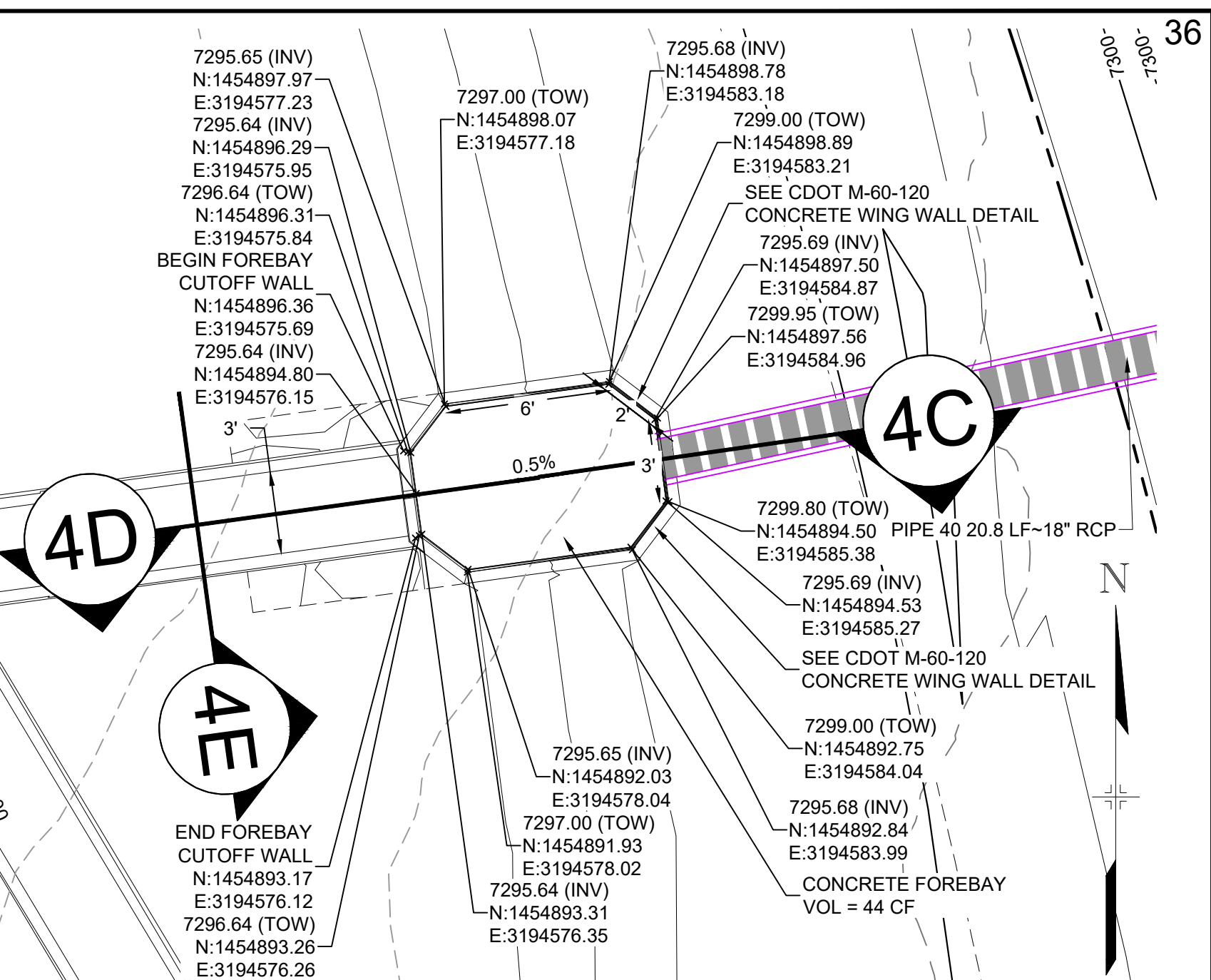
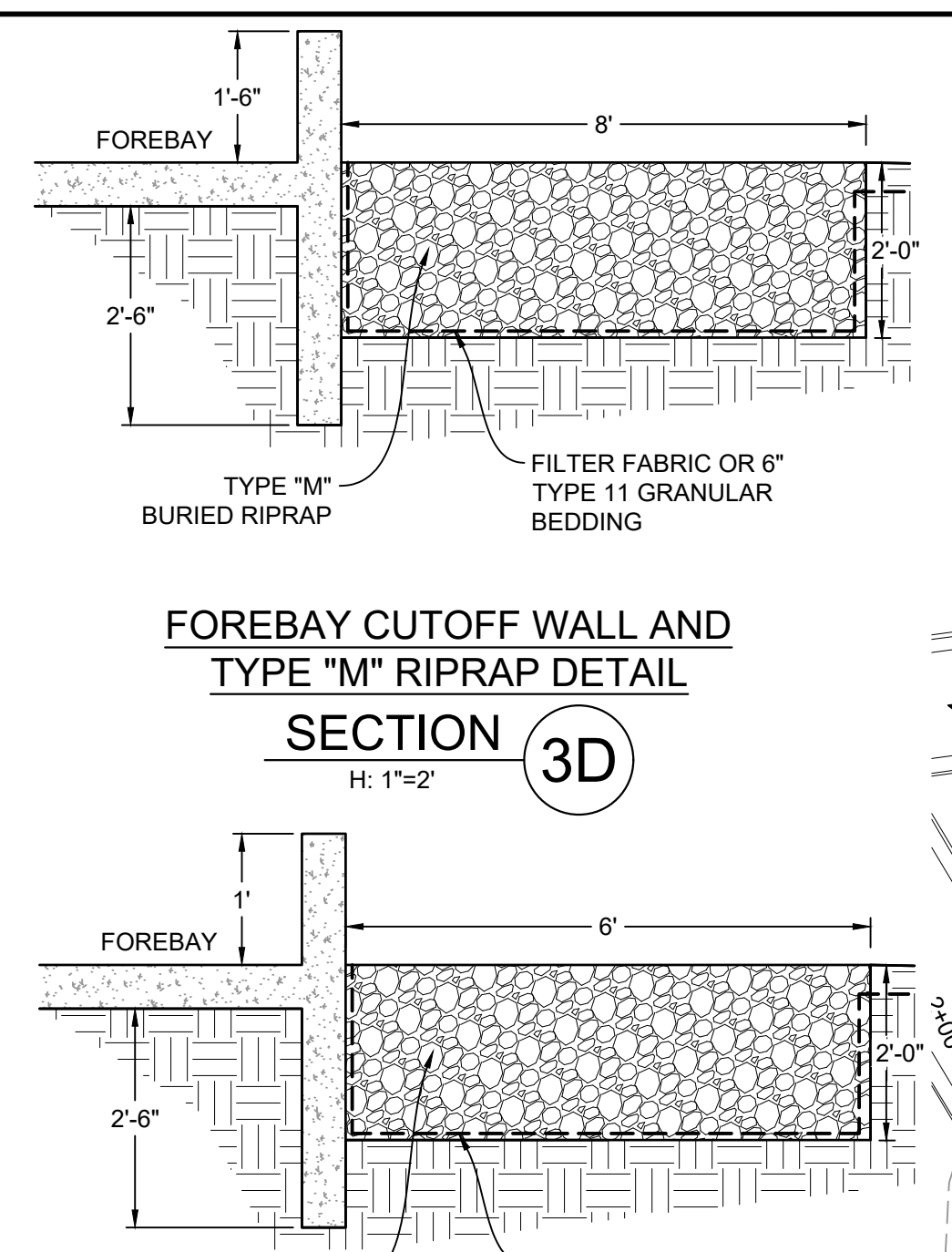
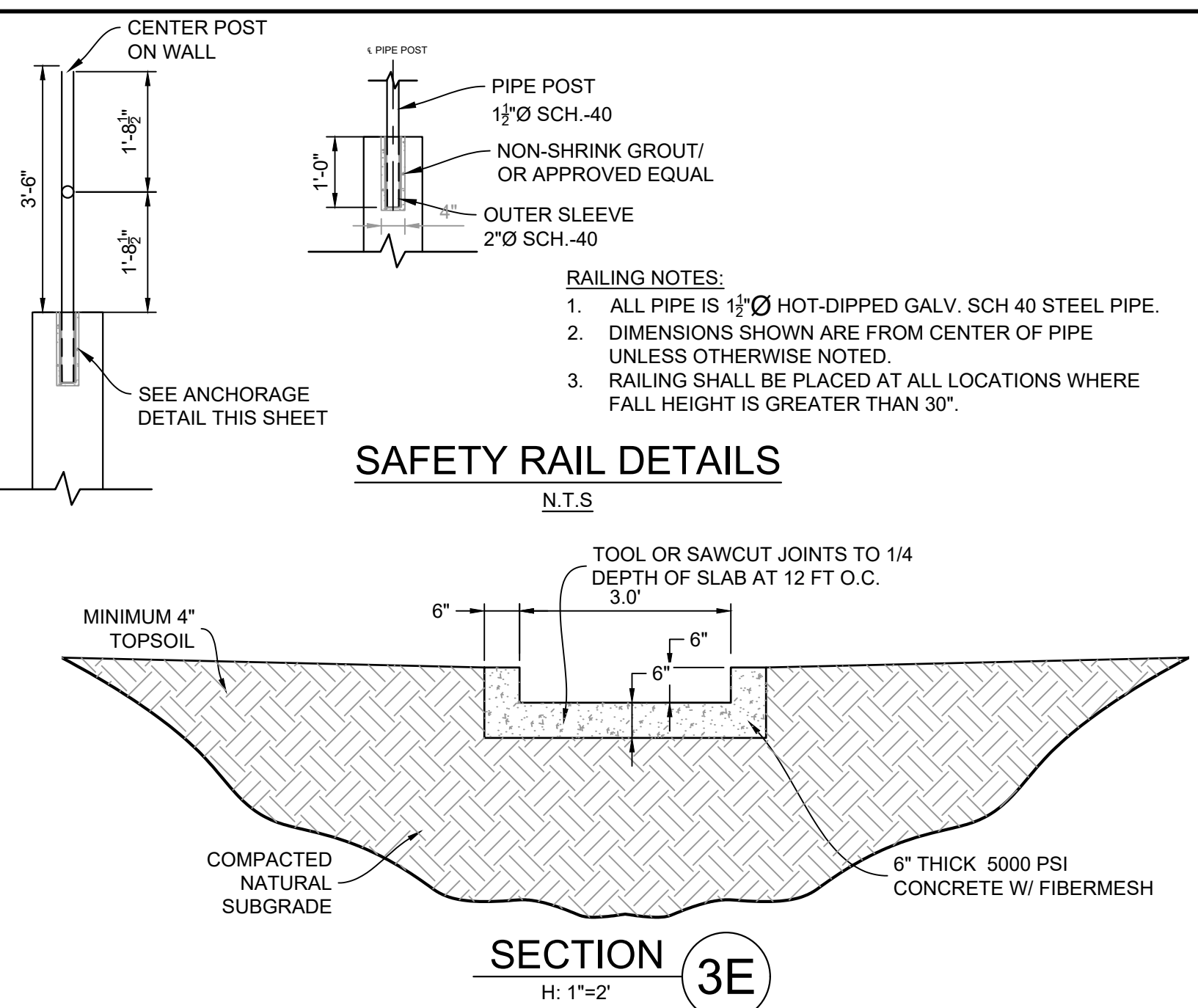
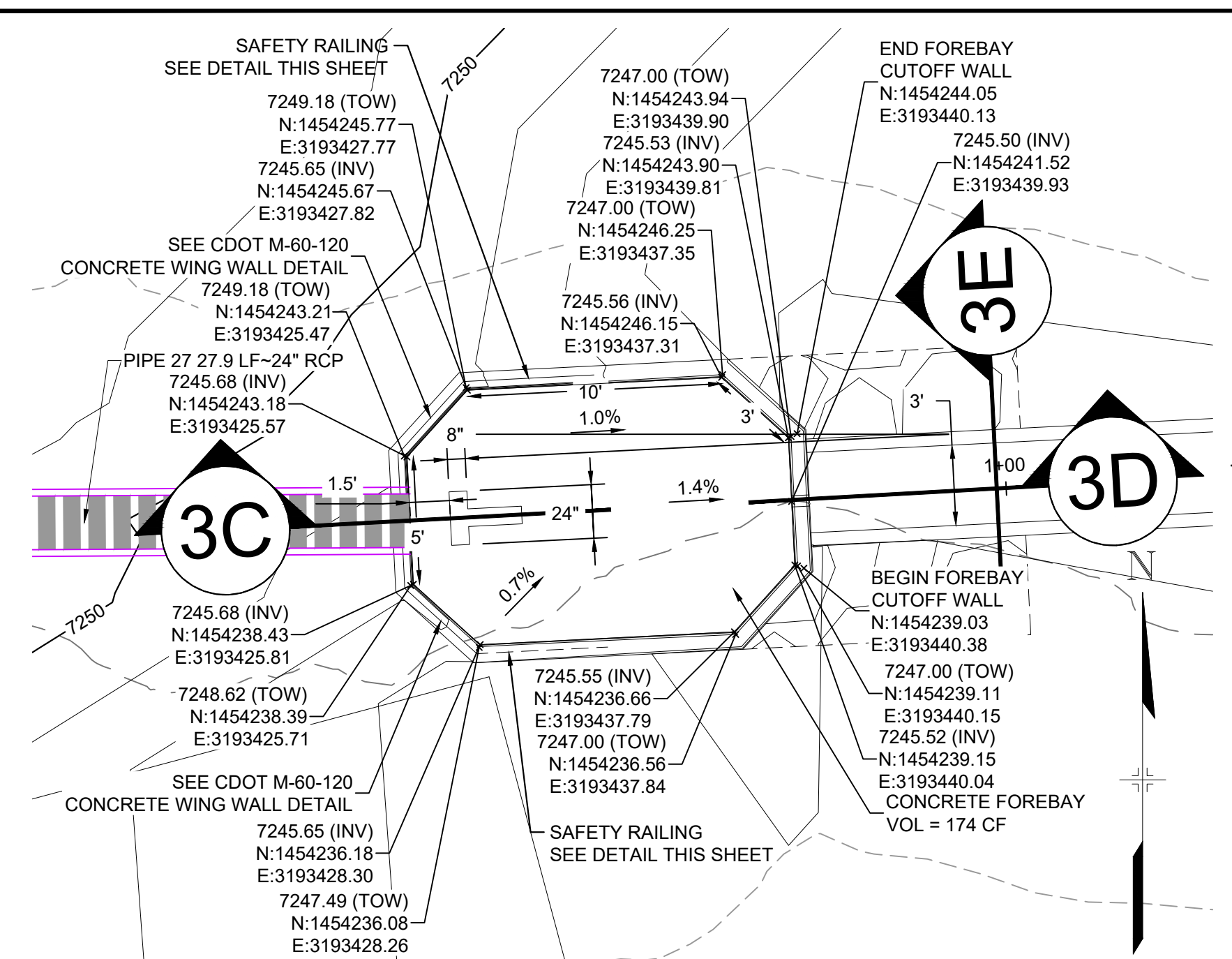
BASIS OF BEARING:
A LINE THAT IS 20' NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658"

OWNER:
GRANDWOOD ENTERPRISES, LLC
WILLIAM F. HERBIC II, MANAGER
14160 GLENEAGLE DRIVE
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

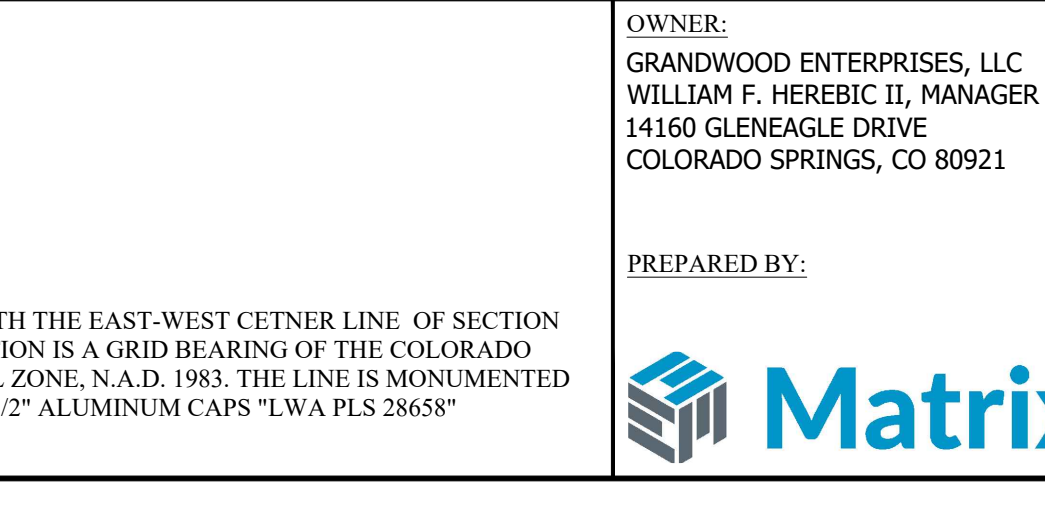
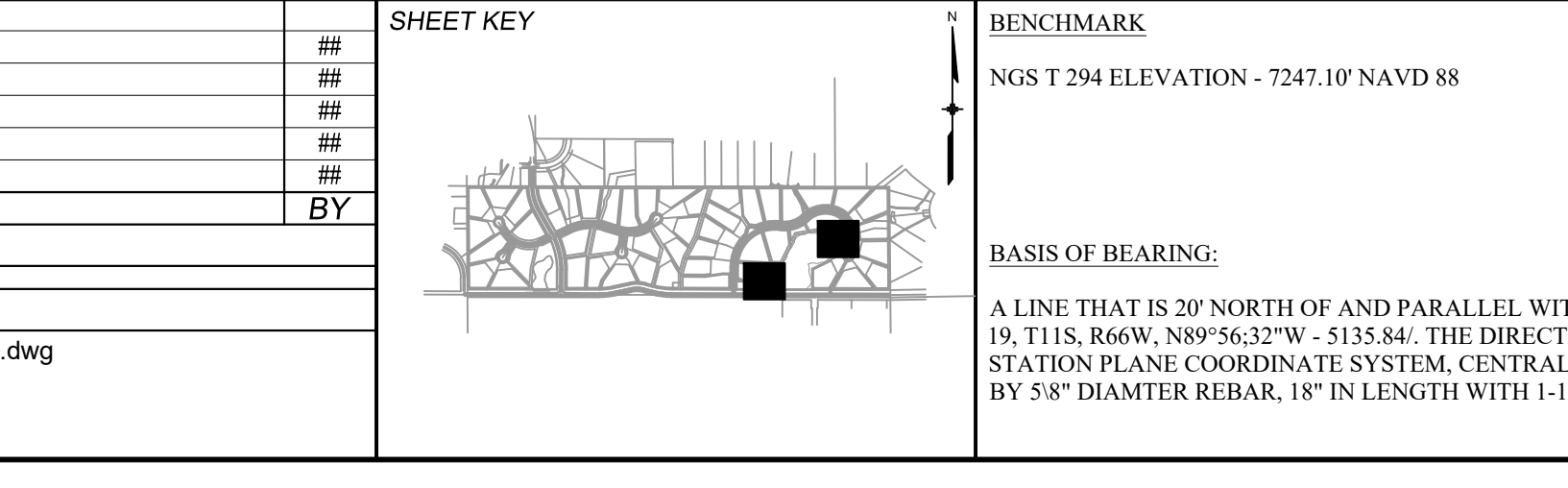
SEAL
FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH			
EL PASO COUNTY ROAD AND STORM PLANS			
DF-2 OUTLET STRUCTURE PLAN & DETAILS			
DESIGNED BY: BAS	SCALE: N/A	DATE ISSUED: SEPTEMBER 2020	DRAWING No. DF07
DRAWN BY: BAS	HORIZ: N/A	SHEET 35 OF 38	
CHECKED BY: CP	VERT: N/A		



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X-1105-PR-SITE		
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No.	DATE	DESCRIPTION
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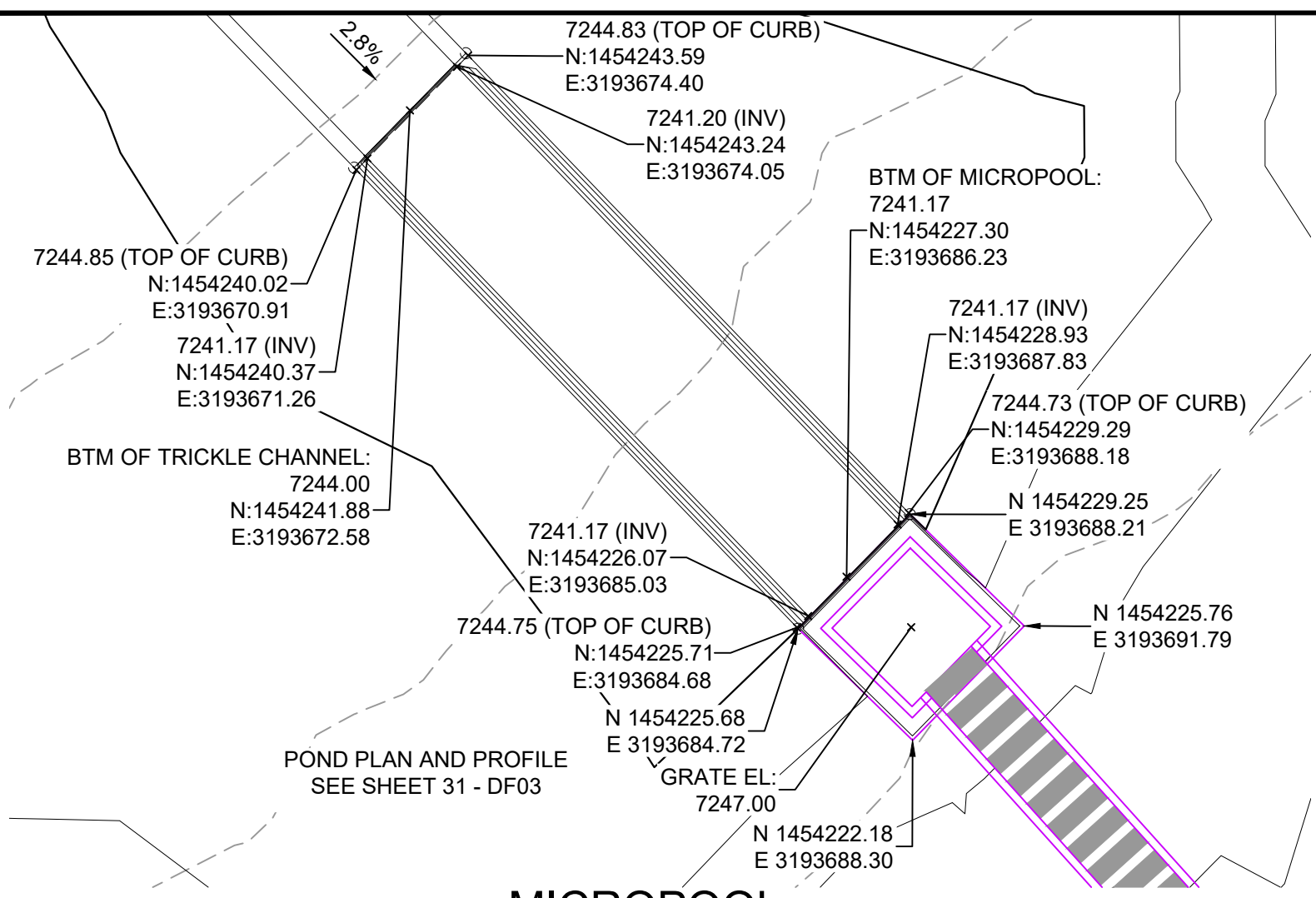
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GRANDWOOD RANCH
EL PASO COUNTY
ROAD AND STORM PLANS

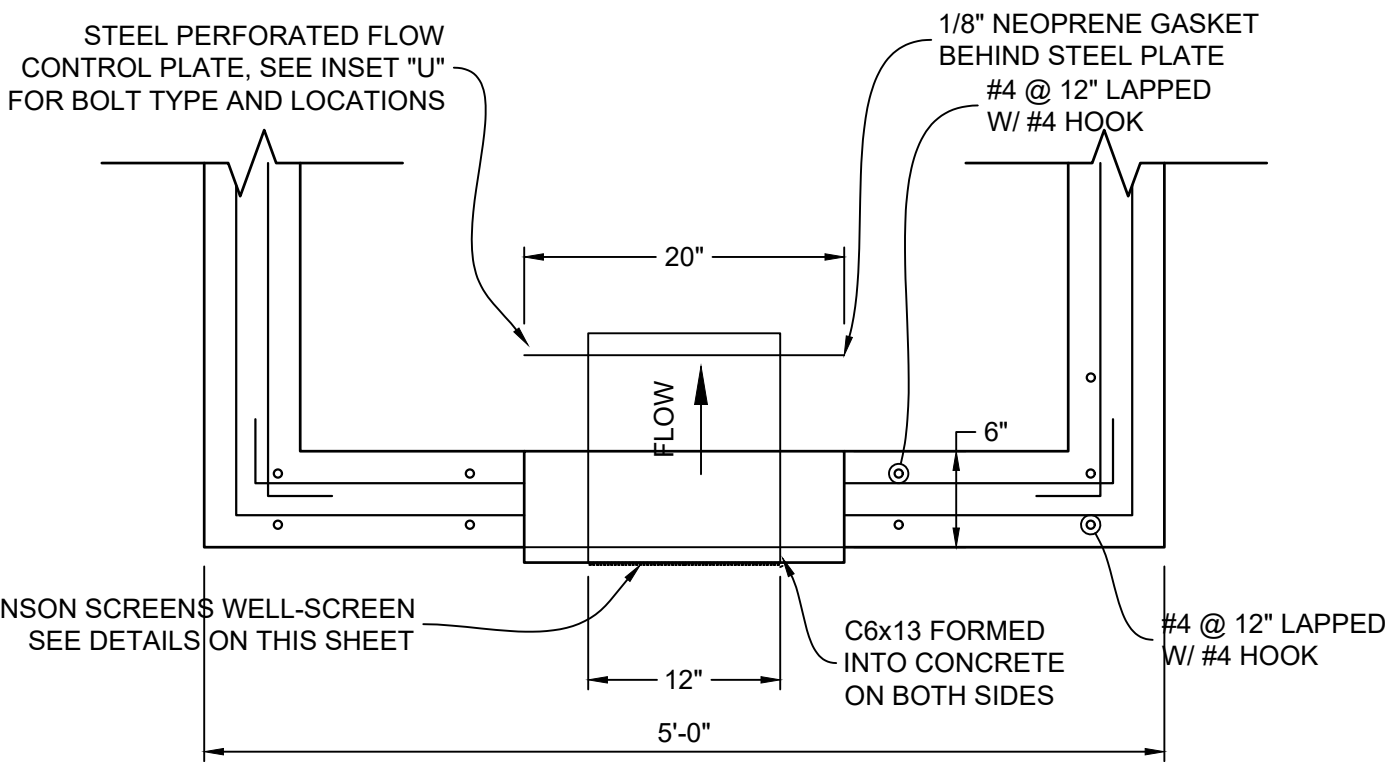
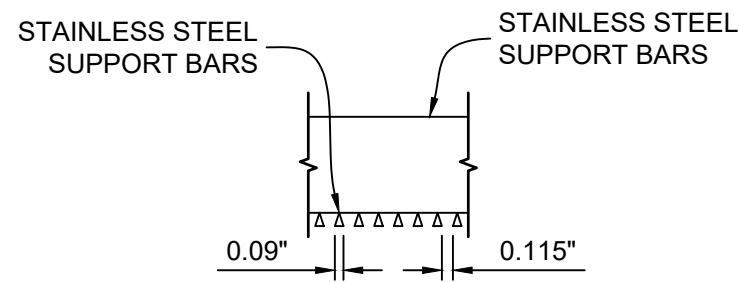
DF-3 & DF-4 FOREBAY PLANS & DETAILS

OWNER: GRANDWOOD ENTERPRISES, LLC WILLIAM F. HEREBIC II, MANAGER 14160 GLENEAGLE DRIVE COLORADO SPRINGS, CO 80921	SEAL
PREPARED BY:	
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 20.1120.003	DESIGNED BY: BAS DRAWN BY: BAS CHECKED BY: CP
SCALE: N/A	DATE ISSUED: SEPTEMBER 2020
HORIZ: N/A	DRAWING No. DF08
VERT: N/A	36 OF 38

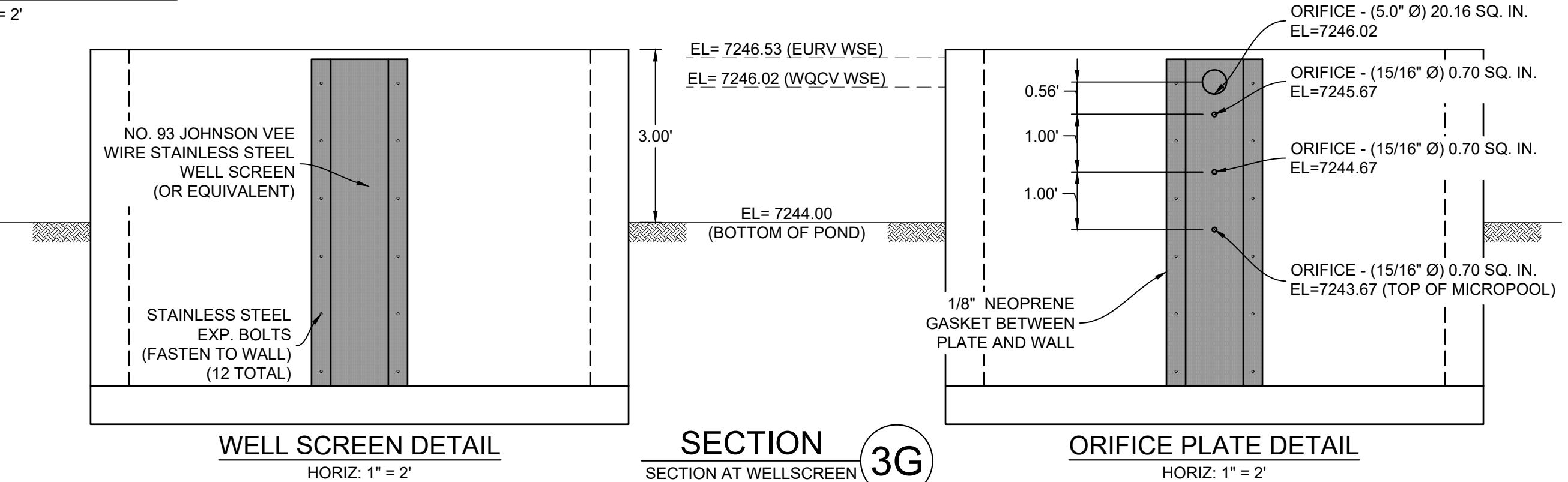
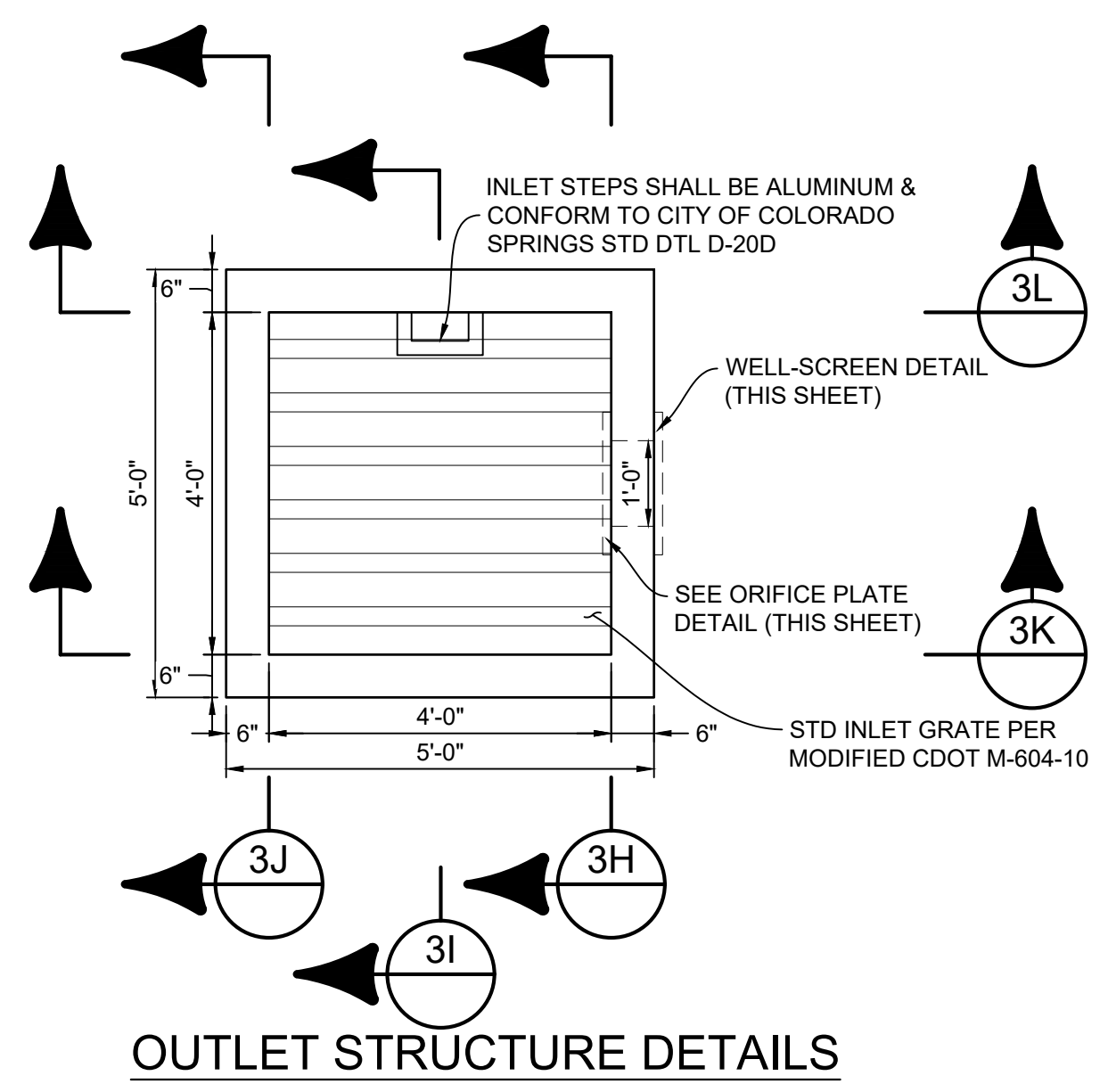
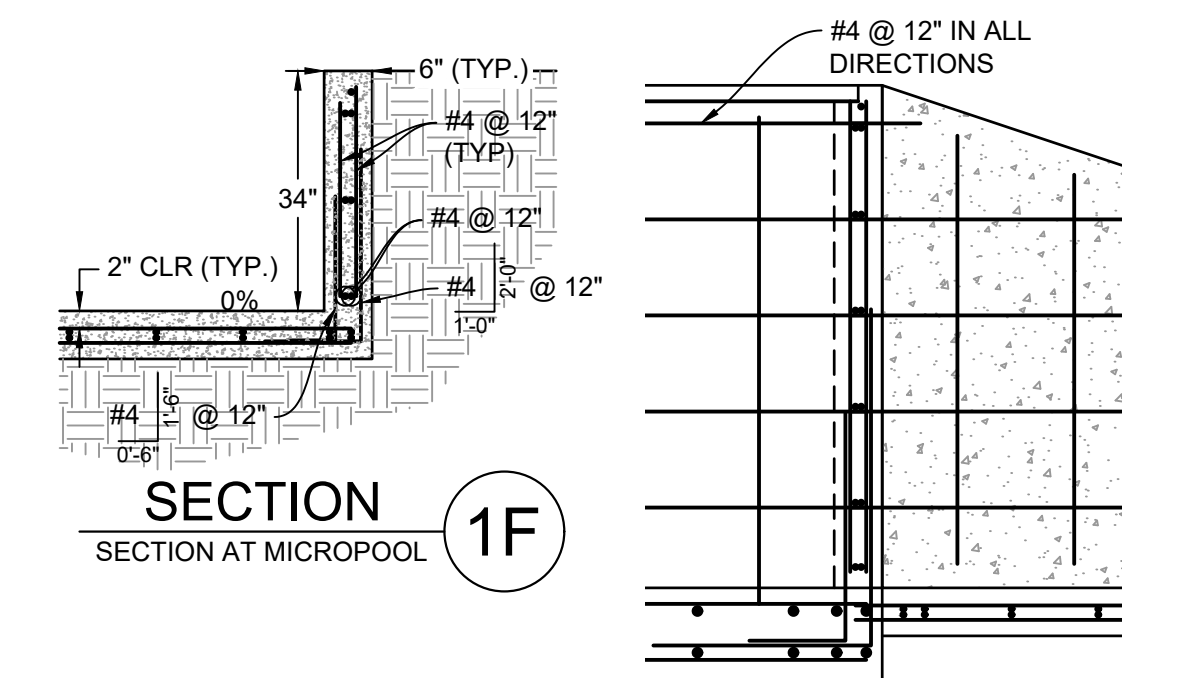
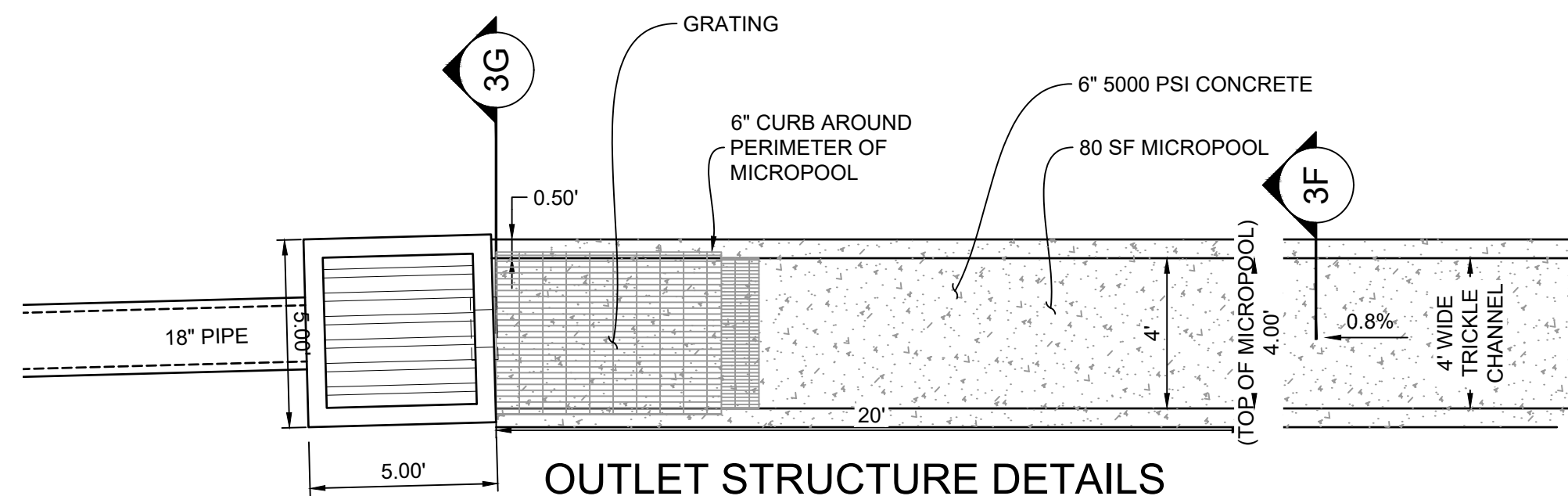
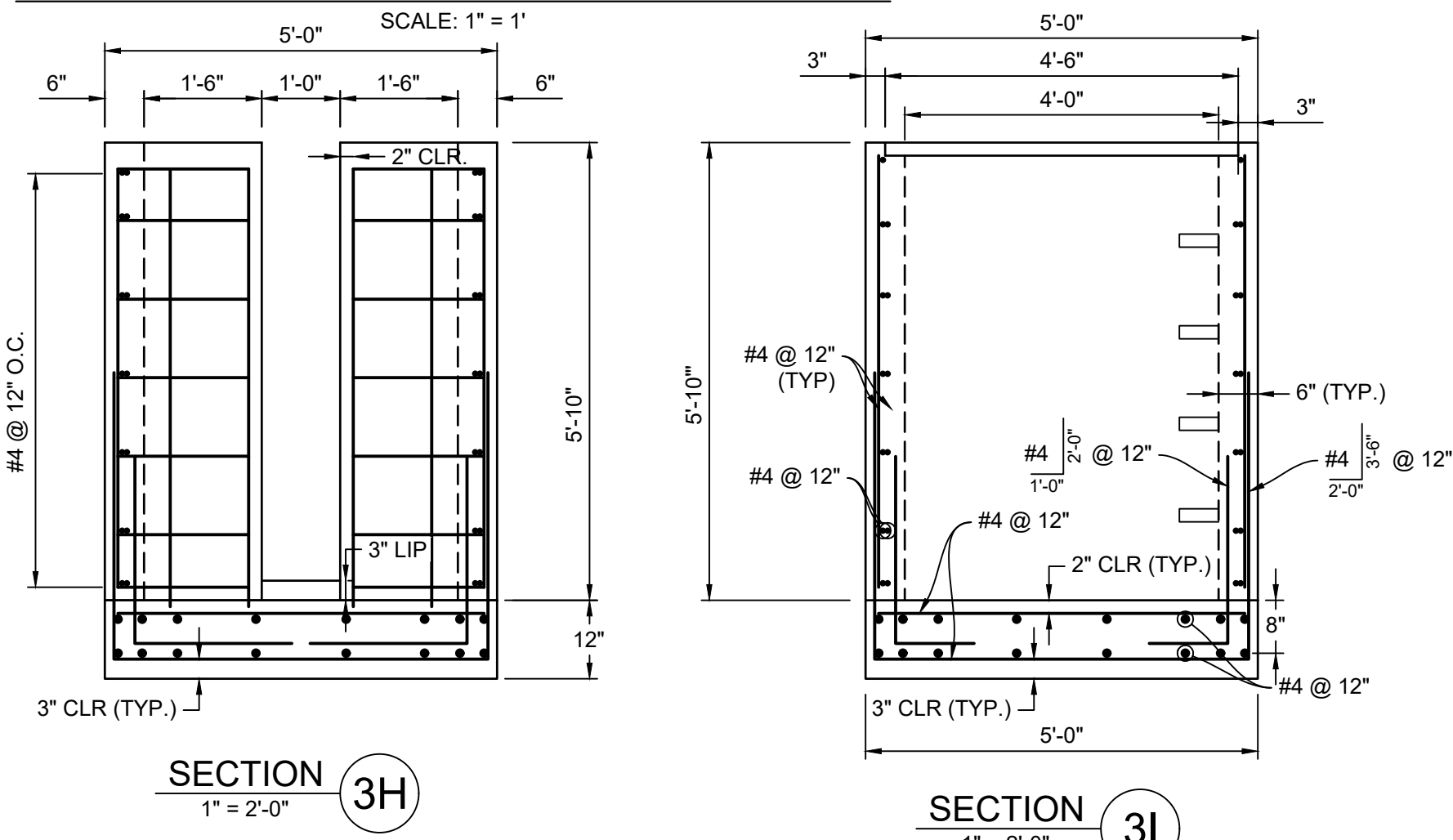


JOHNSON SCREENS STAINLESS STEEL VEE WIRE FILTERS WELL-SCREEN (OR EQUAL)

STRUCTURE	SCREEN #93 VEE WIRE SLOT OPENING	SUPPORT ROD TYPE & SPACING	TOTAL SCREEN THICKNESS	CARBON STEEL FRAME TYPE
OUTLET STRUCTURE	0.139	#156 VEE @ 3/4" O.C.	0.31"	3/8" x 1" BAR



STRUCTURE DETAILS AT ORIFICE PLATE



SECTION 3G
SECTION AT WELLSCREEN

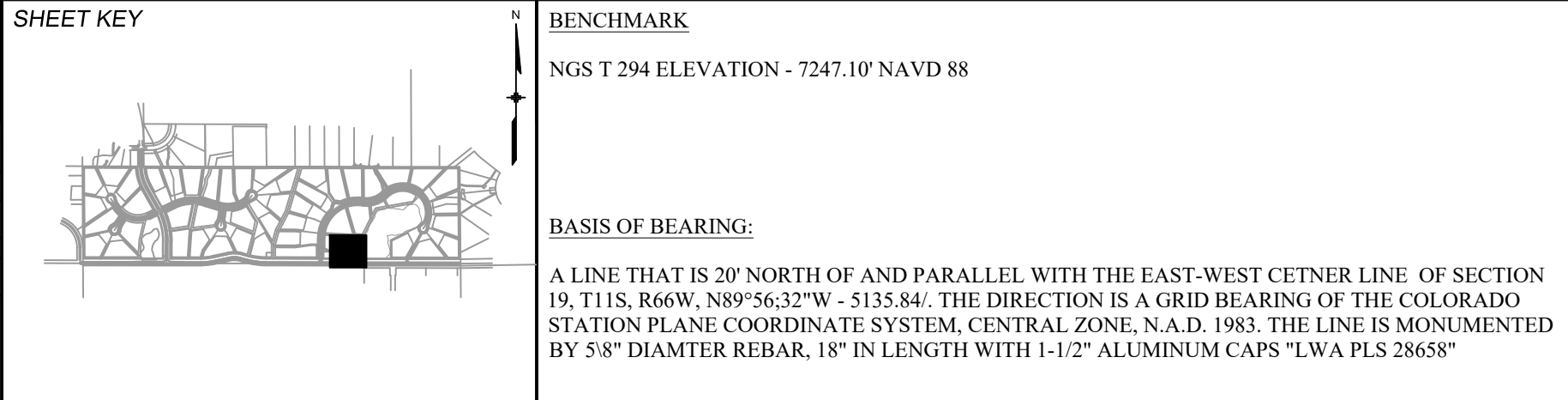
SECTION 3G
SECTION AT WELLSCREEN

SECTION 3G
SECTION AT WELLSCREEN

NO.	DATE	DESCRIPTION	BY

COMPUTER FILE MANAGEMENT

FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\DF08-10.dwg
 CTB FILE: Matrix(black).ctb
 PLOT DATE: October 2, 2020 9:41:40 AM
 THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.



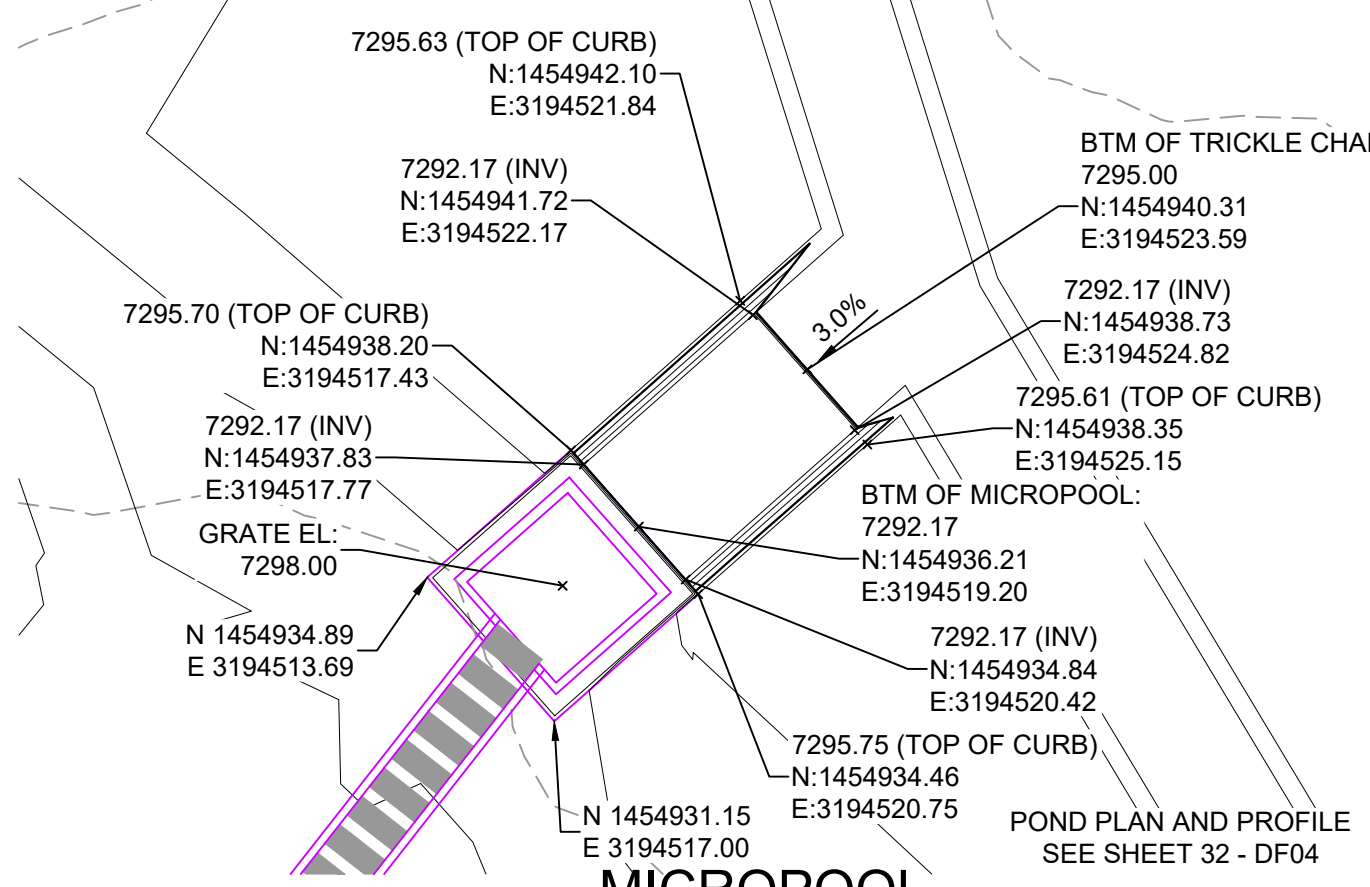
OWNER:
GRANDWOOD ENTERPRISES, LLC
WILLIAM F. HERBIC II, MANAGER
14160 GLENEAGLE DRIVE
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

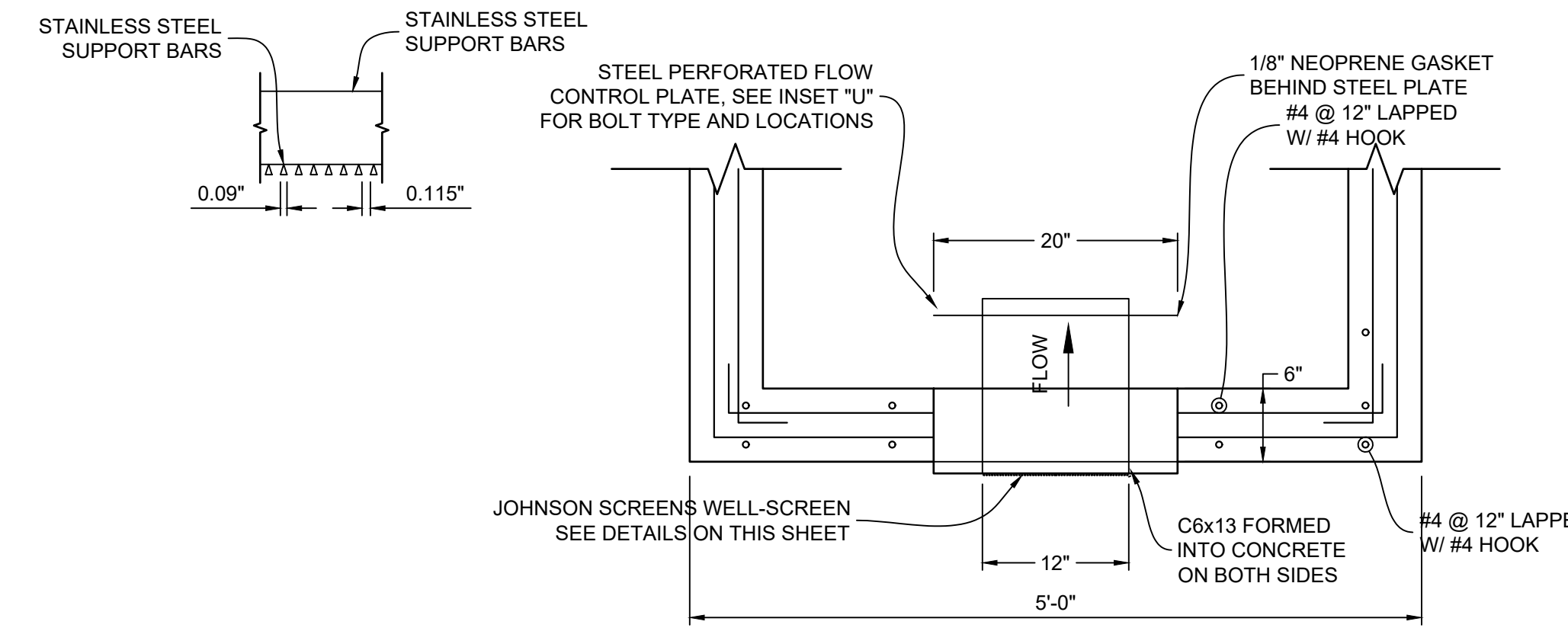
GRANDWOOD RANCH			
EL PASO COUNTY ROAD AND STORM PLANS			
DF-3 OUTLET STRUCTURE PLAN & DETAILS			
DESIGNED BY: BAS	SCALE: N/A	DATE ISSUED: SEPTEMBER 2020	DRAWING No. DF09
DRAWN BY: BAS	HORIZ: N/A	SHEET 37 OF 38	
CHECKED BY: CP	VERT: N/A		



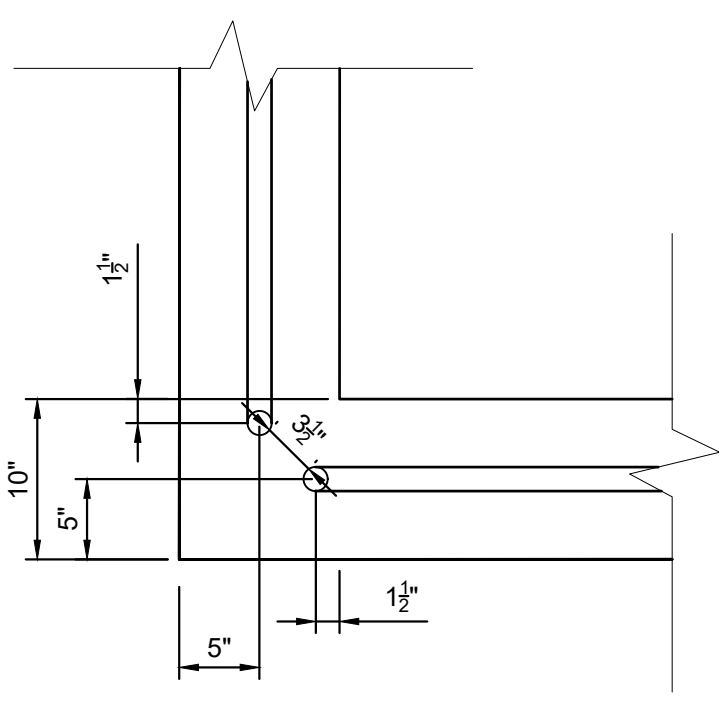
MICROPOOL
HORIZ: 1" = 5'

JOHNSON SCREENS STAINLESS STEEL VEE WIRE FILTERS WELL-SCREEN (OR EQUAL)

STRUCTURE	SCREEN #93 VEE WIRE SLOT OPENING	SUPPORT ROD TYPE & SPACING	TOTAL SCREEN THICKNESS	CARBON STEEL FRAME TYPE
OUTLET STRUCTURE	0.139	#156 VEE @ 3/4" O.C.	0.31"	3/8" x 1" BAR

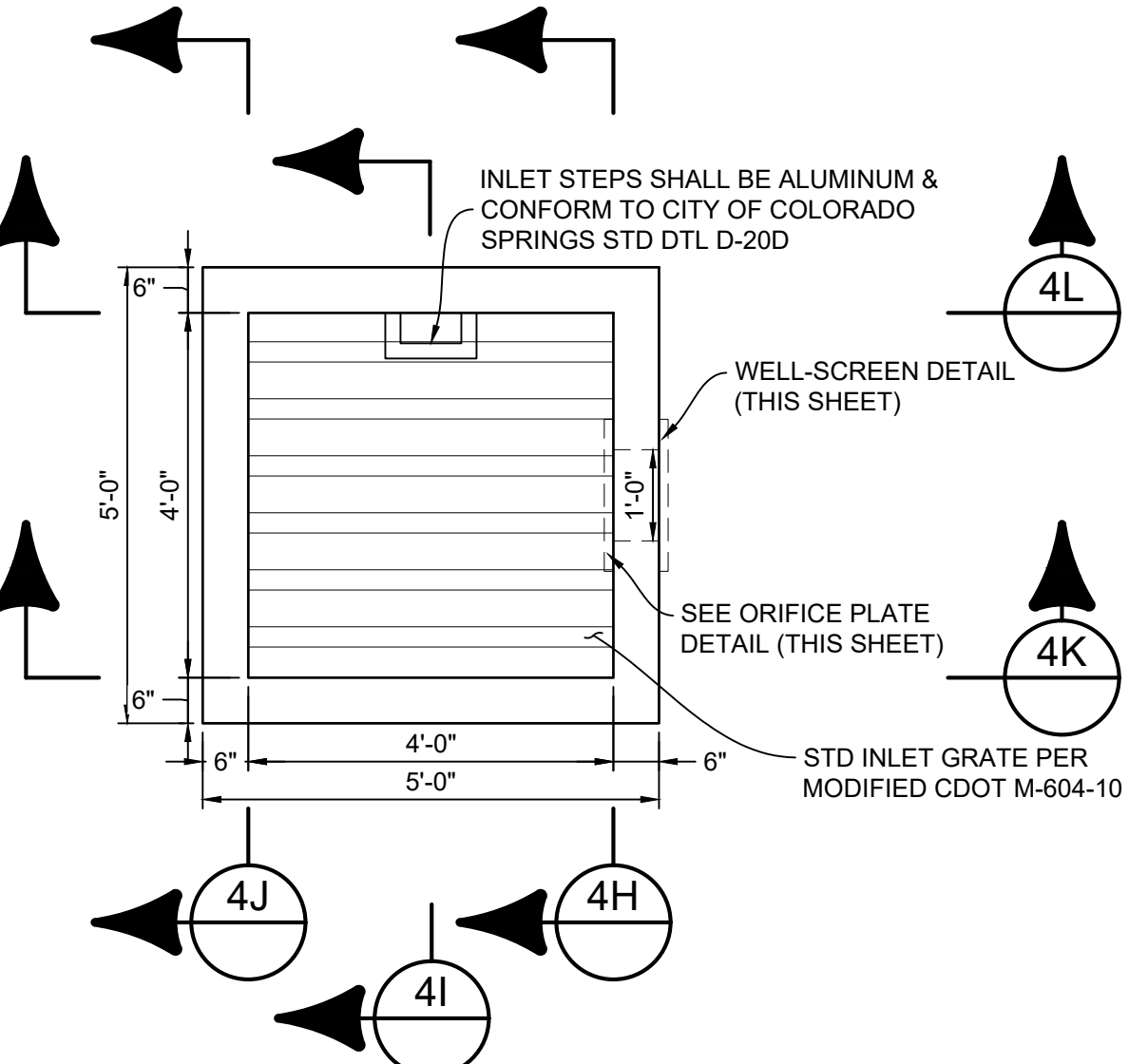
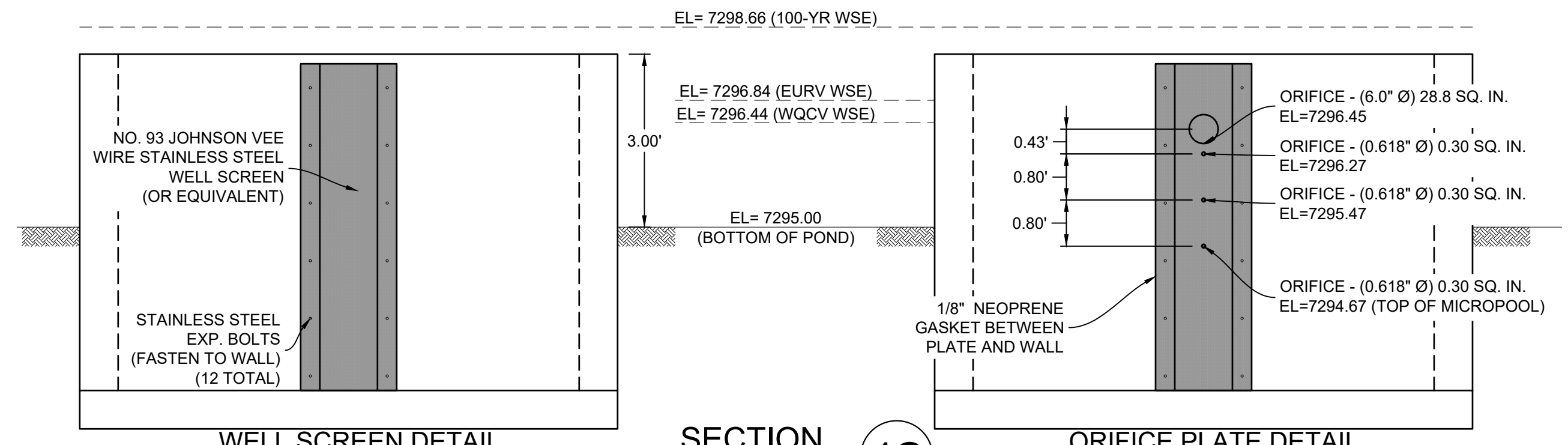
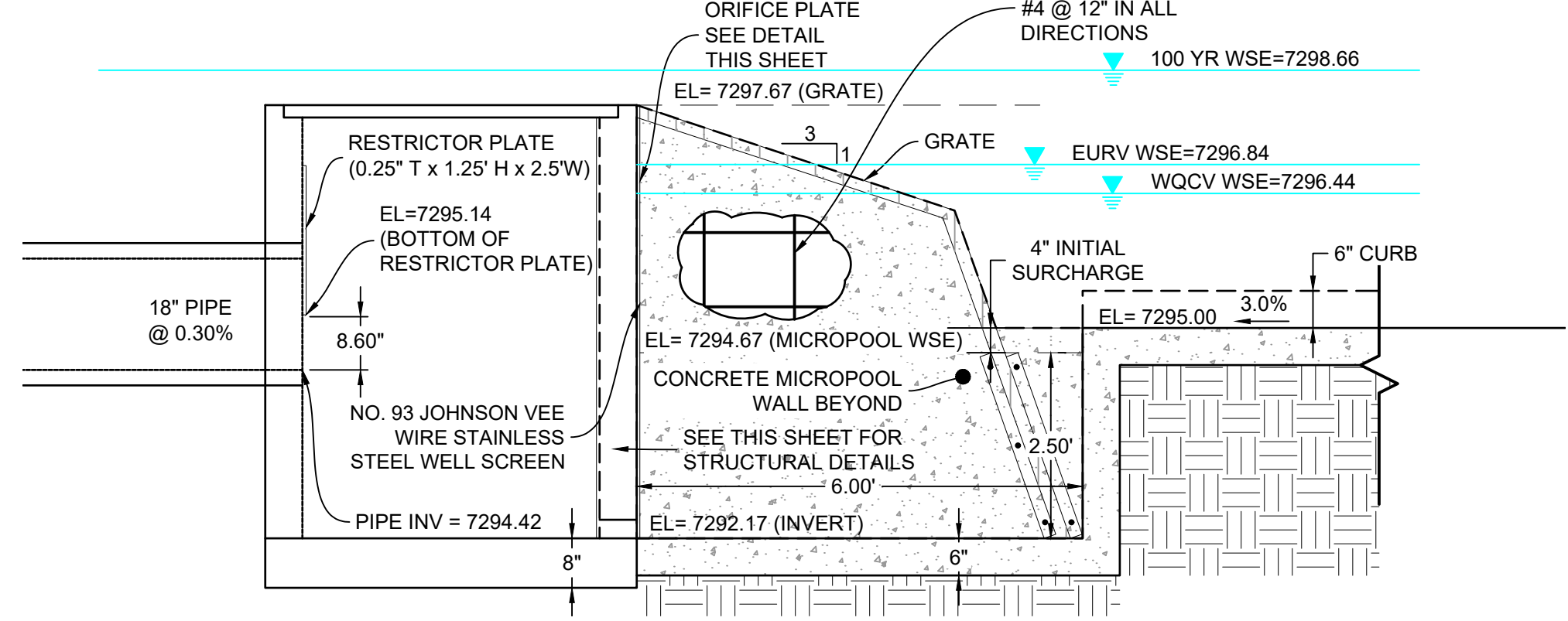
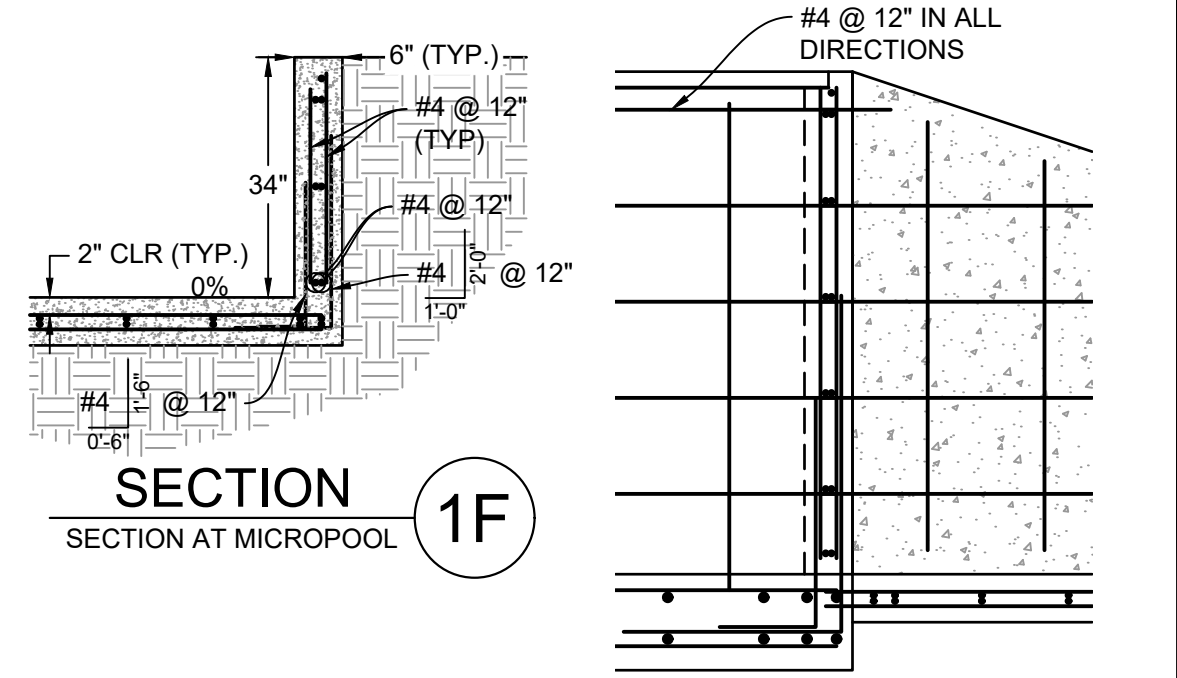
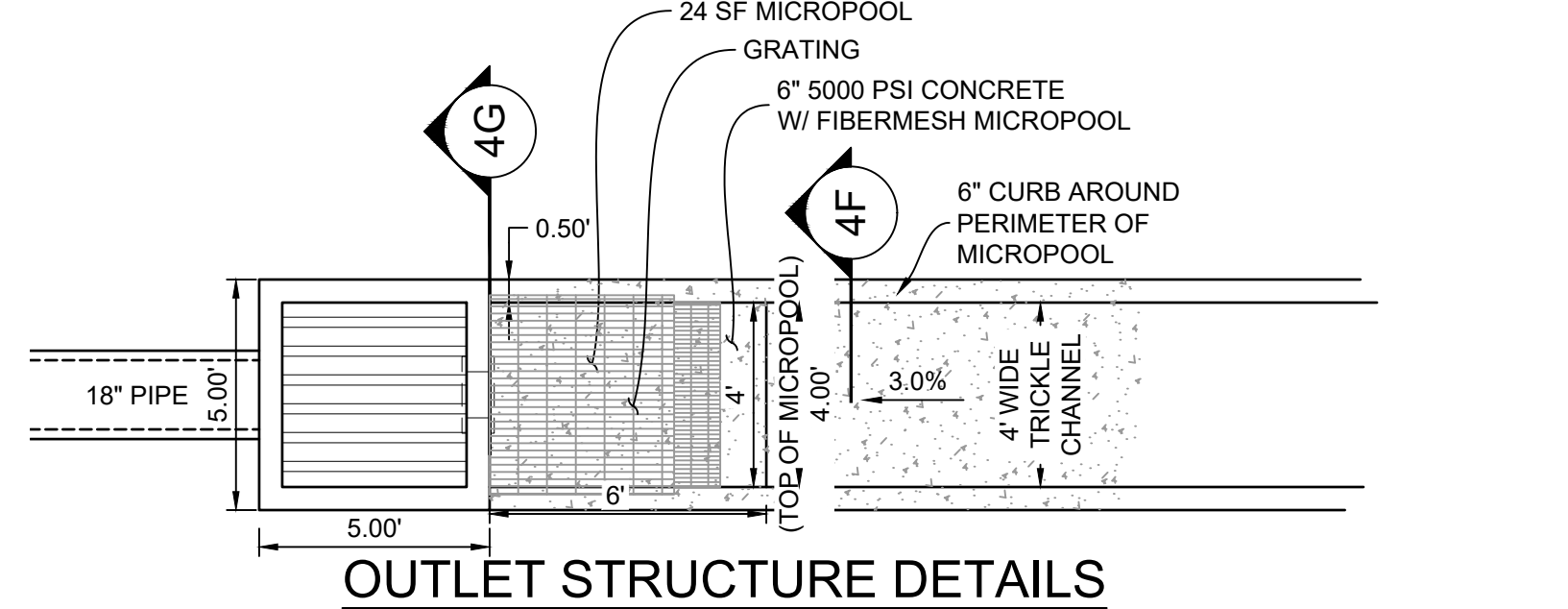


STRUCTURE DETAILS AT ORIFICE PLATE
SCALE: 1" = 1'

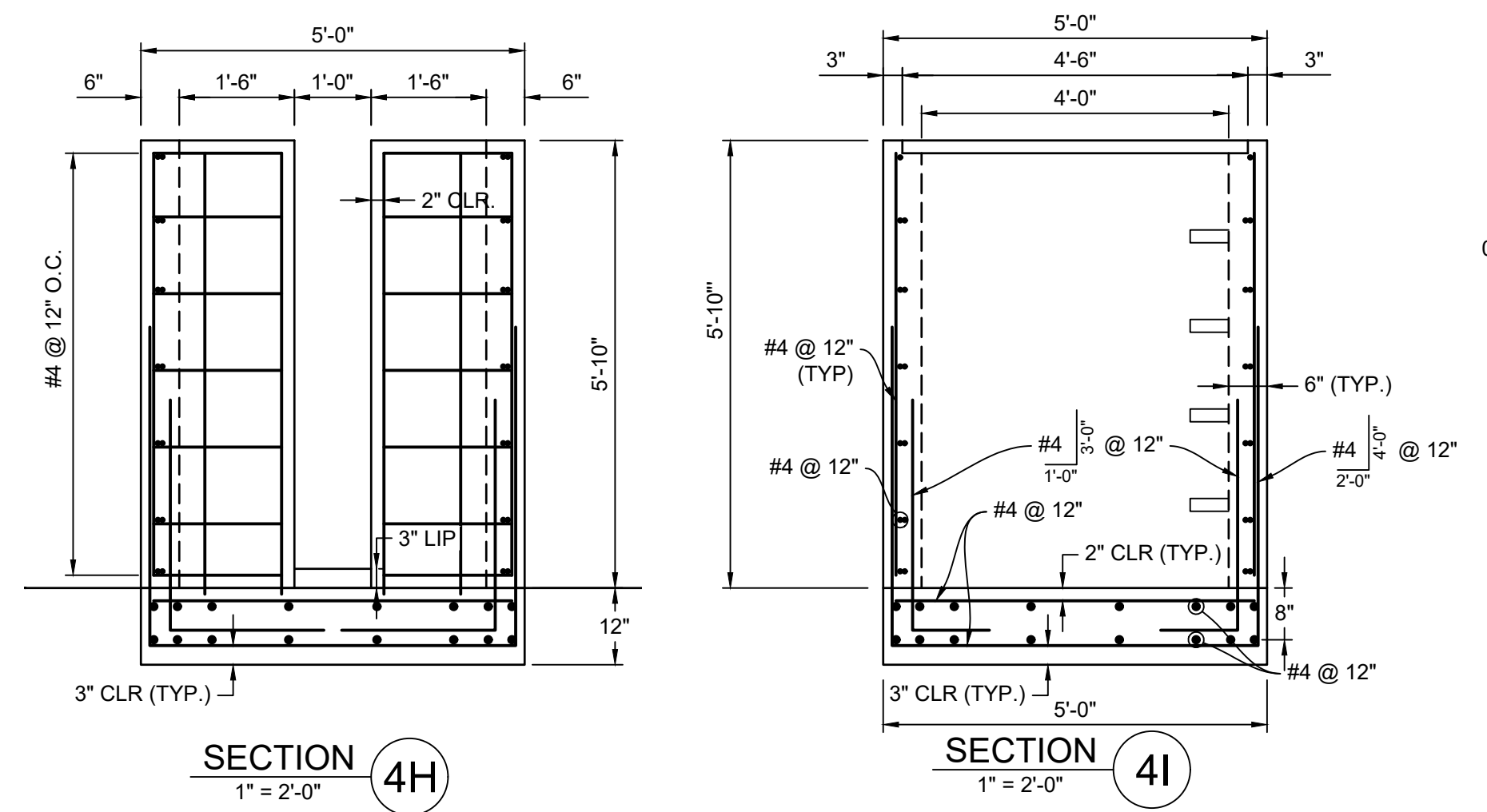


RAIL NOTES:

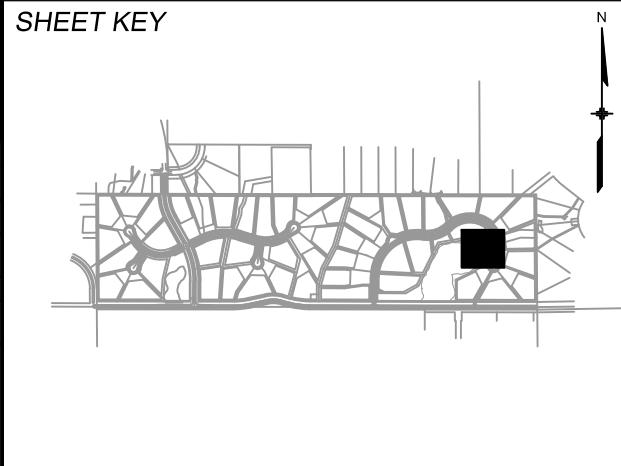
- ALL PIPE IS 1 1/2" Ø HOT-DIPPE GALV. SCH 40 STEEL PIPE
- DIMENSIONS SHOWN ARE FROM CENTER OF PIPE UNLESS OTHERWISE NOTED.
- RAILING SHALL BE PLACE AT ALL LOCATIONS WHERE FALL HEIGHT IS GREATER THAN 30".
- MAXIMUM HORIZONTAL SPACING FOR ANCHOR POSTS TO BE 8".



OUTLET STRUCTURE DETAILS
SCALE: 1" = 4'



REFERENCE DRAWINGS	NO.	DATE	DESCRIPTION	BY
X-1105-EX SITE DESIGN				
X-1105-PR-SITE				
X-1105-W-R&S				
COMPUTER FILE MANAGEMENT				
FILE NAME:	S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\DF08-10.dwg			
CTB FILE:	Matrix(black).ctb			
PLOT DATE:	October 2, 2020 9:42:03 AM			
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.				



BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658"

OWNER:
GRANDWOOD ENTERPRISES, LLC
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE
COLORADO SPRINGS, CO 80921

PREPARED BY:
Matrix

SEAL
FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH
EL PASO COUNTY
ROAD AND STORM PLANS

DF-4 OUTLET STRUCTURE PLAN & DETAILS

DESIGNED BY:	BAS	SCALE:	DATE ISSUED:	SEPTEMBER 2020	DRAWING No.:
DRAWN BY:	BAS	HORIZ:	N/A		DF10
CHECKED BY:	CP	VERT:	N/A	SHEET	38 OF 38