

WOODMEN HILLS METROPOLITAN DISTRICT REGIONAL WATER RECLAMATION FACILITY STORMWATER IMPROVEMENTS CONSTRUCTION DOCUMENTS

THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER, SECTION 06, TOWNSHIP 13 SOUTH, RANGE 64
WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO
EL PASO COUNTY PCD FILE NO.: CDR268

CONTACTS:

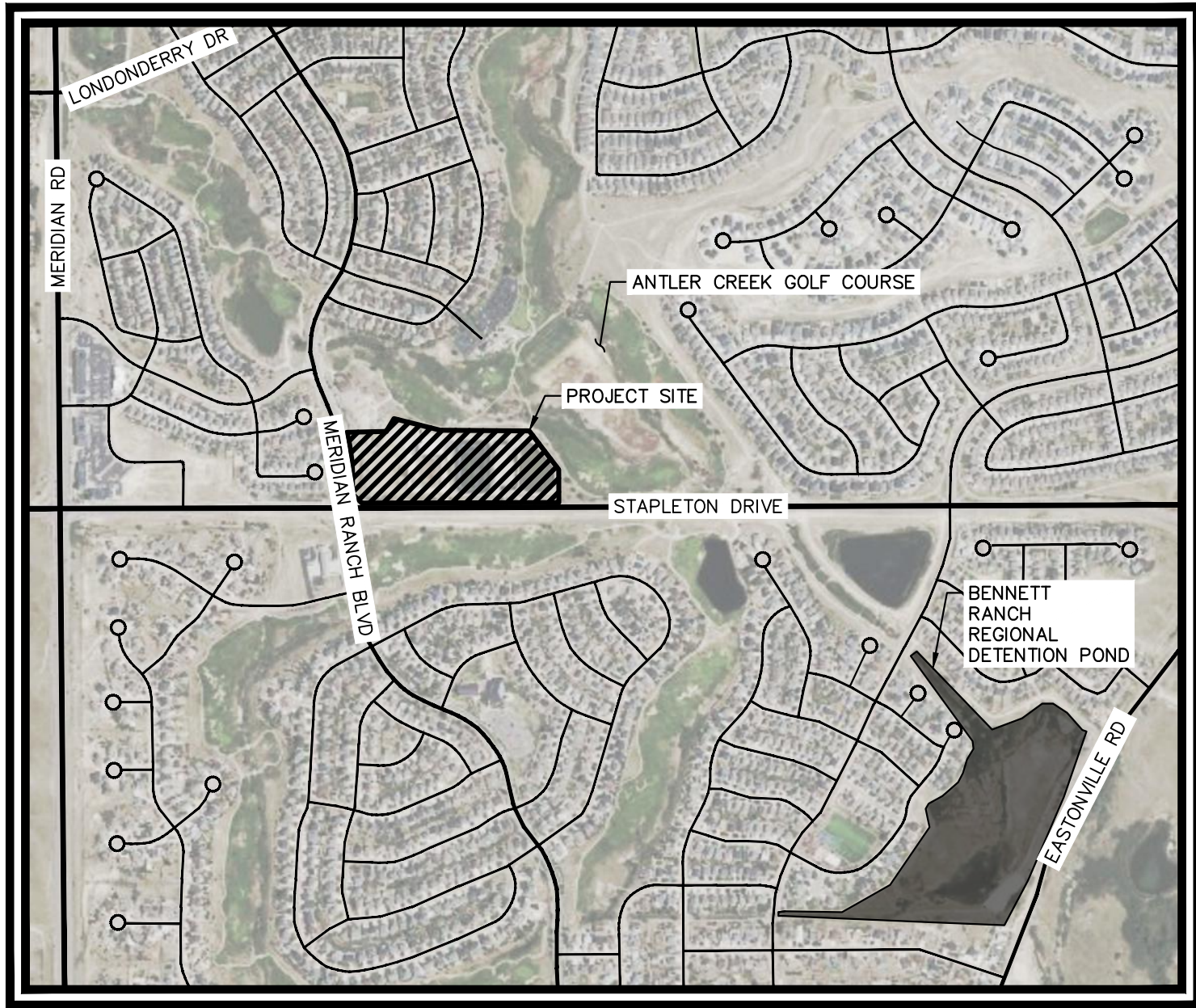
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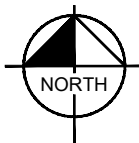
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EL PASO COUNTY
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VICINITY MAP

SCALE: NOT TO SCALE



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BENCHMARK

SITE BENCHMARK IS A NUMBER 5 REBAR WITH 2" ALUMINUM CAP STAMPED "TOPOGRAPHIC CP" AT THE WEST SIDE OF THE ENTRY GATE TO THE WHMD FACILITY, WITH A NAVD 88 ELEVATION OF 7058.81'.

BASIS OF BEARING

BEARINGS CONTAINED HEREIN ARE BASED UPON THE GRID BEARING OF N 51°24'46" W BETWEEN CONTROL POINT DM1 AND DM2, BOTH BEING SET NUMBER 5 REBARS WITH 2 -INCH ALUMINUM CAPS STAMPED "TOPOGRAPHIC CP".

LEGAL DESCRIPTION

TRACTS I AND J, STONEBRIDGE FILING NO. 1 AT MERIDIAN RANCH AS RECORDED AT RECEPTION NUMBER 713582 OF THE EL PASO COUNTY CLERK AND RECORDER'S OFFICE AND TRACT K, MERIDIAN RANCH FILING NO. 1 AS RECORDED AT RECEPTION NUMBER 202156316 OF SAID CLERK AND RECORDER'S OFFICE.

DATUM STATEMENT

ALL DIRECTIONS, DISTANCES AND DIMENSIONS ARE BASED ON MODIFIED COORDINATES FROM THE COLORADO COORDINATE SYSTEM OF 1983 CENTRAL ZONE (C.R.S. 38-52-102).

C.S.F:1.0003963142

ORIGIN: 0,0

ELEVATION TAKEN AS 7058.81 FEET (NORTH AMERICAN VERTICAL DATUM OF 1988)

DESIGN ENGINEER'S SIGNATURE BLOCK

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN APPROVED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

Kevin Kofford 9/30/2026
KEVIN KOFFORD, P.E. 57234 — KIMLEY-HORN AND ASSOCIATES, INC. DATE

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 DIRECTOR'S DISCRETION.

JOSHUA J. PALMER, P.E. — COUNTY ENGINEER/ECM ADMINISTRATOR DATE

Kimley»Horn

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WWW.KIMLEY-HORN.COM REGISTRY NO. 35108



KHA PROJECT 196013004	DATE 2026-09-30	SCALE AS SHOWN	DESIGNED BY MEG	DRAWN BY MEG	CHECKED BY KRK
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RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT

COLORADO
EL PASO COUNTY

COVER SHEET

SHEET NUMBER
C1.1



1. ALL EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER. AT THE TIME THE DRAWINGS WERE PREPARED AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. THE LOCATIONS SHOWN ARE FOR BIDDING PURPOSES ONLY. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTORS RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
3. CONTRACTOR SHALL CONTACT UTILITY NOTIFICATION CENTER FOR THE LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION (1-800-922-1987).
4. CONSTRUCTION SHALL COMPLY WITH ALL GOVERNING CODES AND BE CONSTRUCTED TO SAME.
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED CONSTRUCTION PERMITS AND BONDS PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE.
7. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKSMANSHIP WITHIN THE PUBLIC RIGHT-OF-WAY OR EASEMENT SHALL CONFORM TO EL PASO COUNTY SPECIFICATIONS AND STANDARDS. (LATEST EDITION)
8. CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGGERS, AND ALL OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) CONSTRUCTION AREA TRAFFIC CONTROL.
9. A CONSTRUCTION TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO AND APPROVED BY EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM) ADMINISTRATOR PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS IN THE COUNTY RIGHT-OF-WAY.
10. ANY WORK IN EL PASO COUNTY RIGHT OF WAY (ROW) REQUIRES A ROW PERMIT PRIOR TO COMMENCING ANY WORK WITHIN THE COUNTY ROW.
11. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS.
12. CONTRACTOR SHALL MATCH PROPOSED CURB AND GUTTER, CONCRETE, AND PAVEMENT TO EXISTING GRADE AT ALL TIE IN LOCATIONS.
13. THE EARTHWORK BE IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS AND ARCHITECTURAL BUILDING PLANS AND SPECIFICATIONS.
14. CONTRACTOR SHALL REFER TO BUILDING PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL UTILITY ENTRANCES, TO INCLUDE, SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, AND TELEPHONE SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED, AS WELL AS, COORDINATE WITH ANY UTILITY COMPANIES FOR APPROVED LOCATIONS AND SCHEDULING OF TIE-INS/CONNECTIONS TO THEIR FACILITIES.
15. CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DONE TO ANY EXISTING ITEM DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO, OR BETTER THAN, EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND NOTIFY CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION START.
16. CONTRACTOR TO REMOVE OR RELOCATE, WHEN APPLICABLE, ALL EXISTING BUILDINGS, FOUNDATIONS, BASEMENTS, CONNECTING IMPROVEMENTS, DRAIN PIPES, SANITARY SEWER PIPES, POWER POLES, AND GUY WIRES, WATER METERS AND WATER LINES, WELLS, SIDEWALKS, SIGN POLES, UNDERGROUND GAS, SEPTIC TANKS, AND ASPHALT, SHOWN AND NOT SHOWN, WITHIN CONSTRUCTION LIMITS AND WHERE NEEDED, TO ALLOW FOR NEW CONSTRUCTION AS SHOWN.

3. THESE TRENCHING NOTES SPECIFIES REQUIREMENTS IN ADDITION TO THOSE SPECIFIED IN THE LATEST EDITION OF THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. ALL EXCAVATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA, STATE, AND LOCAL REQUIREMENTS. BASED ON THE GEOTECHNICAL INVESTIGATION, SOILS SHOULD GENERALLY BE ASSUMED TO CLASSIFY AS OSHA TYPE C MATERIAL. TRENCHES SHALL BE BRACED, SHEETED, OR PROTECTED WITH AN APPROVED TRENCH BOX AS REQUIRED FOR SAFETY.
3. GROUNDWATER WAS ENCOUNTERED DURING THE GEOTECHNICAL INVESTIGATION AND MAY BE PRESENT DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE DEWATERING AS NECESSARY TO MAINTAIN A DRY, STABLE TRENCH BOTTOM AND SHALL DIVERT SURFACE RUNOFF AWAY FROM OPEN EXCAVATIONS. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS.
4. PIPE BEDDING SHALL CONSIST OF IMPORTED GRANULAR MATERIAL INTENDED FOR PIPE BEDDING AND EMBEDMENT, OR AS OTHERWISE APPROVED BY THE PIPE MANUFACTURER OR GOVERNING AGENCY. BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 3/8 INCH, LESS THAN 25 PERCENT PASSING THE NO. 50 SIEVE, AND LESS THAN 5 PERCENT PASSING THE NO. 200 SIEVE.
5. PIPE ZONE BACKFILL SHALL CONSIST OF GRANULAR MATERIAL SIMILAR TO THE PIPE BEDDING MATERIAL AND SHALL BE COMPACTED TO A MINIMUM OF 75 PERCENT RELATIVE DENSITY IN ACCORDANCE WITH ASTM D4253 AND ASTM D4254. SPECIAL CARE SHALL BE TAKEN TO ADEQUATELY COMPACT MATERIAL BENEATH PIPE HAUNCHES.
6. TRENCH BACKFILL ABOVE THE PIPE ZONE MAY CONSIST OF ONSITE OR IMPORTED MATERIAL MEETING THE GEOTECHNICAL REPORT REQUIREMENTS. CLAY MATERIAL SHALL NOT BE PLACED WITHIN 2 FEET OF PAVEMENT SUBGRADE.
7. TRENCH BACKFILL WITHIN ROADWAYS, EXTERIOR FLATWORK, AND PAVED AREAS SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698) OR 90 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D1557). MOISTURE CONTENT SHALL BE MAINTAINED WITHIN +0 TO +3 PERCENT OF OPTIMUM FOR COHESIVE SOILS AND -2 TO +2 PERCENT OF OPTIMUM FOR GRANULAR SOILS.
8. WHERE CLAY IS ENCOUNTERED AT THE BASE OF THE PIPELINE EXCAVATION, IT SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL TO A DEPTH OF NOT LESS THAN 3 FEET BELOW THE PIPE.
9. AT THE DISCRETION OF THE ECM ADMINISTRATOR, THE PAVEMENT MAY BE REQUIRED TO BE SAW-CUT BACK TO MAINTAIN A STRAIGHT EDGE.
10. A TEMPORARY COLD-MIX ASPHALT PATCH, A MINIMUM DEPTH OF 4 INCHES, SHALL BE REQUIRED FOR ALL ROAD CUTS. A PERMANENT HOT-MIX ASPHALT PATCH SHALL BE INSTALLED UPON COMPLETION OF CONSTRUCTION.
11. IF EXISTING ROAD IS PAVED WITH FABRIC, A "TEE" TRENCH SHALL BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY SAW-CUT AND REMOVE THE LAYER OF ASPHALT ABOVE THE FABRIC A MINIMUM OF 12" BACK FROM THE EDGE OF THE TRENCH.
12. CHANGES IN DESIGN CRITERIA WILL REQUIRE COMPENSATING CHANGE IN PIPE DESIGN.
13. WHEN PIPE SEWER IS TO BE EXTENDED OR REPLACED WITH PIPE OF DIFFERENT MATERIAL, THE CONNECTIONS SHALL CONFORM TO THE DETAIL SHOWN ON PLANS OR BE APPROVED.
14. SPACING FOR MULTIPLE PIPE SEWER INSTALLATIONS SHALL BE 1/2" INSIDE DIAMETER OR SPAN, OR 3" MAXIMUM.
15. TRENCHES OVER 5 FEET (5') IN DEPTH SHALL BE EITHER SHARED OR THE TRENCH WALLS SHALL BE SLOPED TO THE ANGLE OF REPOSE. IF SLOPED, THE BOTTOM OF THE SLOPE SHALL BE A MINIMUM OF 1 FOOT (1') ABOVE THE BOTTOM OF THE SLOPE.
16. SHORING WILL BE REQUIRED WHEN THE BOTTOM OF THE SLOPE IS MORE THAN 3 FEET (3') ABOVE THE BOTTOM OF THE TRENCH. SHORING SHALL EXTEND A MINIMUM OF 1 FOOT (1') ABOVE THE BOTTOM OF THE SLOPE.
17. TIMBER SHEETING OR SHORING MAY BE CUT OFF 1 FOOT (1') ABOVE THE TOP OF THE PIPE AFTER BACKFILLING IS COMPLETE.

1. ALL DEMOLITION SHALL BE CARRIED OUT IN A SAFE MANNER AND IN STRICT ACCORDANCE WITH OSHA REGULATIONS.
2. ALL CONDITIONS SHOWN TO BE "EXISTING" SHALL BE VERIFIED IN THE FIELD BY THE GENERAL CONTRACTOR PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE NOTED AND SUBMITTED TO THE OWNER AND THE ENGINEER FOR REVIEW. CHANGES TO THE ORIGINAL DESIGN OF THIS PROJECT DUE TO EXISTING SITE CONDITIONS MUST BE APPROVED BY BOTH THE OWNER AND THE ENGINEER PRIOR TO MAKING ANY CHANGES.
3. THE CONTRACTOR SHALL FIELD VERIFY THE EXTENT OF DEMOLITION.

1. ON-SITE STORM SEWER SYSTEM HAS BEEN PROVIDED TO MAINTAIN THE EXISTING DRAINAGE PATTERNS.
2. ALL ON-SITE STORM SEWER IS PRIVATE, UNLESS OTHERWISE NOTED.
3. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED. EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
4. THE CONTRACTOR SHALL DE-SILT ALL DRAINAGE STRUCTURES AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
5. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER PRIOR TO EXCAVATION.

0. 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.
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.
16. EL PASO COUNTY DOES NOT OWN AND IS NOT RESPONSIBLE FOR THE UNDERDRAINS OR GROUNDWATER DISCHARGE SYSTEMS SHOWN ON THESE PLANS AND ASSUMES NO LIABILITY FOR WATER RIGHTS ADMINISTRATION BY APPROVING THESE PLANS. MAINTENANCE AND WATER RIGHTS ARE THE RESPONSIBILITY OF THE DEVELOPER (WOODMEN HILLS METROPOLITAN DISTRICT).

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 DEPARTMENT OF PUBLIC WORKS (DPW).
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 35 MPH OR HIGHER SHALL HAVE 8" UPPER-LOWER CASE LETTERING ON 12" BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE FHWA STANDARD HIGHWAY SIGNS: 2004 EDITION WITH 2012 SUPPLEMENT. SIGNING POLE MOUNTED AND OVERHEAD STREET NAME SIGNS SHALL BE PER MUTCD SIZE STANDARDS.
8. ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM DIAMOND GRADE RETROREFLECTIVE SHEETING THAT MEETS ASTM D4956 TYPE XI SHEETING REQUIREMENTS.
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 0.125" MINIMUM THICKNESS.

1. ALL CONCRETE SIDEWALKS SHALL HAVE CONTROL JOINTS CUT ON 5' CENTERS AND EXPANSION JOINTS PLACED ON 20' CENTERS. CONCRETE PAVEMENT JOINTS SHALL BE SPACED AT 12' CENTERS MAXIMUM.
2. WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED.
3. IF EXISTING ROAD IS PAVED WITH FABRIC, A "TEE" TRENCH SHALL BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY SAW-CUT AND REMOVE THE LAYER OF ASPHALT ABOVE THE FABRIC A MINIMUM OF 12" BACK FROM THE EDGE OF THE TRENCH.

1. CONTOURS ON PROPOSED DRIVE AISLES, PARKING AREAS, SWALES/DITCHES ARE TO FINISHED GRADE.
2. FOR FINAL STABILIZATION OF ALL DISTURBED AREAS WITHIN THE PROJECT SITE, REFER TO LANDSCAPE PLANS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.

[illegible]

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KHA PROJECT 196013004	DATE 2026-09-30
SCALE	AS SHOWN
DESIGNED BY	MEO
DRAWN BY	MEO
CHECKED BY	KRK

**RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
EL PASO COUNTY COLORADO**

GENERAL NOTES

SHEET NUMBER
C1.2



SUMMARY OF APPROXIMATE QUANTITIES

BID ITEMS		
Item Description	Unit	Quantity
CONSTRUCTION MANAGEMENT	LS	1
MATERIALS AND SAMPLE TESTING	LS	1
CONSTRUCTION TRAFFIC CONTROL	LS	1
MOBILIZATION	LS	1
CONSTRUCTION SURVEYING AND STAKING	LS	1
REMOVAL OF CULVERT	LF	37
REMOVAL OF BOLLARDS	EA	8
REMOVAL OF GRAVEL	SY	3898
REMOVAL OF FIBER OPTICS LINE	LF	302
REMOVAL OF 0.5" PVC SEWER LINE	LF	122
REMOVAL OF 2.5" PVC SEWER LINE	LF	244
REMOVAL OF 12" PVC WATER LINE	LF	106
SIGN POST AND PANEL (ADA PARKING SIGN)	EA	1
CLEARING AND GRUBBING	SY	4930
SUBGRADE SOIL PREPARATION (6-INCH)	SY	4040
UNCLASSIFIED EXCAVATION	CY	3852
DEWATERING	HRS	720
CLSM FLOWFILL - WATER LOWERING	CY	3
CONCRETE WASH OUT BASIN	EA	1
VEHICLE TRACKING CONTROL	EA	1
EROSION CONTROL BLANKET	SY	523
TYPE VL RIPRAP	SF	1
SILT FENCE	LF	680
STORM DRAIN INLET PROTECTION	EA	17
AGGREGATE BASE COURSE (CLASS 6)	CY	674
ASPHALT CONCRETE PAVEMENT (GRADING SX)	TON	971
CONCRETE PAVEMENT (6 INCH)	SY	115
CONCRETE CROSS PAN (8" WIDE, 9" THICK)	SY	17
CURB AND GUTTER TYPE A	LF	17
CURB AND GUTTER TYPE A (SPILL)	LF	336
CONCRETE SIDEWALK (4-INCH)	SY	28
CONCRETE WHEELSTOP	EA	1
EPOXY PAVEMENT MARKING	SF	3
THERMOPLASTIC PAVEMENT MARKING	SF	100
TACTILE WARNING SURFACING (TRUNCATED DOME)	SF	10
RESET FENCE	LF	307
MSE BLOCK WALL	SF	660
BOLLARDS	EA	8
SEEDING AND MULCHING	ACRE	1
BENNETT RANCH POND MAINTENANCE	LS	1
REINFORCED CONCRETE PIPE BRIDGING BLOCKS	CY	1
TYPE 1 (BOX BASE MANHOLE)	EA	1
TYPE 1 (PRE CAST SLAB MANHOLE)	EA	5
STORM CLEANOUT	EA	7
12 INCH PVC WATER PIPE	LF	103
12 INCH 45-DEGREE VERTICAL BENDS WITH MJ RESTRAINTS	EA	4
RESET HYDRANT	EA	2
2.5 INCH FLEXIBLE COUPLINGS	EA	2
0.5 INCH FLEXIBLE COUPLING	EA	1
0.5 INCH PVC PIPE	LF	122
2.5 INCH PVC PIPE	LF	244
0.5 INCH 45-DEGREE HORIZONTAL BEND	EA	1
2.5 INCH 45-DEGREE HORIZONTAL BEND	EA	2
24 INCH REINFORCED CONCRETE PIPE (COMPLETE IN PLACE)	LF	35
18 INCH REINFORCED CONCRETE PIPE (COMPLETE IN PLACE)	LF	75
23 X14 INCH ELLIPTICAL REINFORCED CONCRETE PIPE (COMPLETE IN PLACE)	LF	253
ROOF DRAIN CONNECTION AND FITTING	EA	4
30 INCH REINFORCED CONCRETE (COMPLETE IN PLACE)	LF	234
38 X 24 INCH ELLIPTICAL REINFORCED CONCRETE PIPE (COMPLETE IN PLACE)	LF	133
36 INCH REINFORCED CONCRETE (COMPLETE IN PLACE)	LF	112
12 INCH GRATED END CAP	EA	1
6" NYLPOPLAST AREA INLET W/ CAST IRON DOME GRATE	EA	1
12" NYLPOPLAST AREA INLET W/ CAST IRON DOME GRATE	EA	1
CDOT TYPE D INLET	EA	1
COS AREA INLET TYPE 1 (WITH CONCRETE APRON)	EA	1
CDOT TYPE C INLET	EA	5
12 INCH PERFORATED PVC PIPE	LF	207
F/A MINOR CONTRACT REVISIONS	F/A	0
F/A LANDSCAPE RESTORATION	F/A	0
BID ALTERNATE ITEMS		
12 INCH HDPE DUAL WALL FLEXIBLE PIPE	LF	250
DRAIN ROCK (#57 STONE)	TON	55
NONWOVEN GEOTEXTILE FABRIC	SY	140
CLASS C VAPOR BARRIER	SF	1500

[illegible]

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DESIGNED BY	MEO	
DRAWN BY	MEO	
CHECKED BY	KRK	

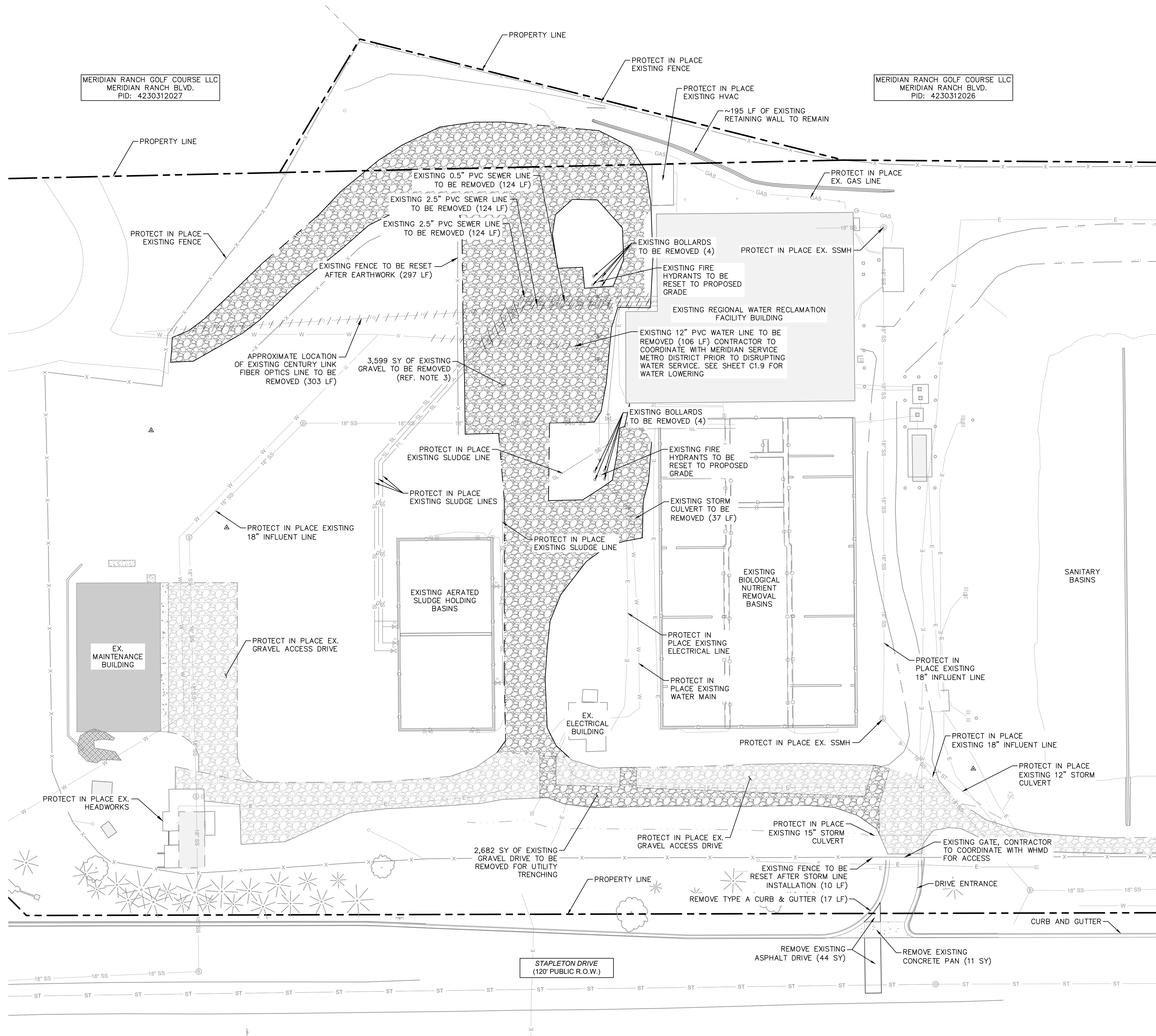
**RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
EL PASO COUNTY COLO.**

SAQ

SHEET NUMBER
C1.3



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LEGEND

---	PROPERTY LINE
---	PARCEL LINE
X-X	EXISTING SITE FENCE
W-W	EXISTING WATER MAIN
18" SS	EXISTING 18" SANITARY LINE
SL-SL	EXISTING SLUDGE LINE
FO-FO	EXISTING FIBER OPTICS LINE
GAS-GAS	EXISTING GAS LINE
E-E	EXISTING ELECTRIC LINE
ST-ST	EXISTING STORM SEWER
////	DEMO EXISTING UTILITY LINE
XXXXXX	DEMO EXISTING GRAVEL

NOTES

1. ALL EXISTING UTILITIES TO REMAIN AND BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
2. UTILITIES TO BE REMOVED ARE TO BE CAPPED IN PLACE IN ACCORDANCE WITH WOODMEN HILL METRO STANDARDS AND OVERSIGHT.
3. CONTRACTOR TO DETERMINE IF REMOVED GRAVEL IS ADEQUATE TO BE USED AS SUBGRADE PREP. IF ADEQUATE, GRAVEL TO BE STOCKPILED AND STORED ON-SITE PER PROJECT SPECIFICATIONS.

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SCALE	AS SHOWN
DESIGNED BY	MEG
DRAWN BY	MEG
CHECKED BY	KRK

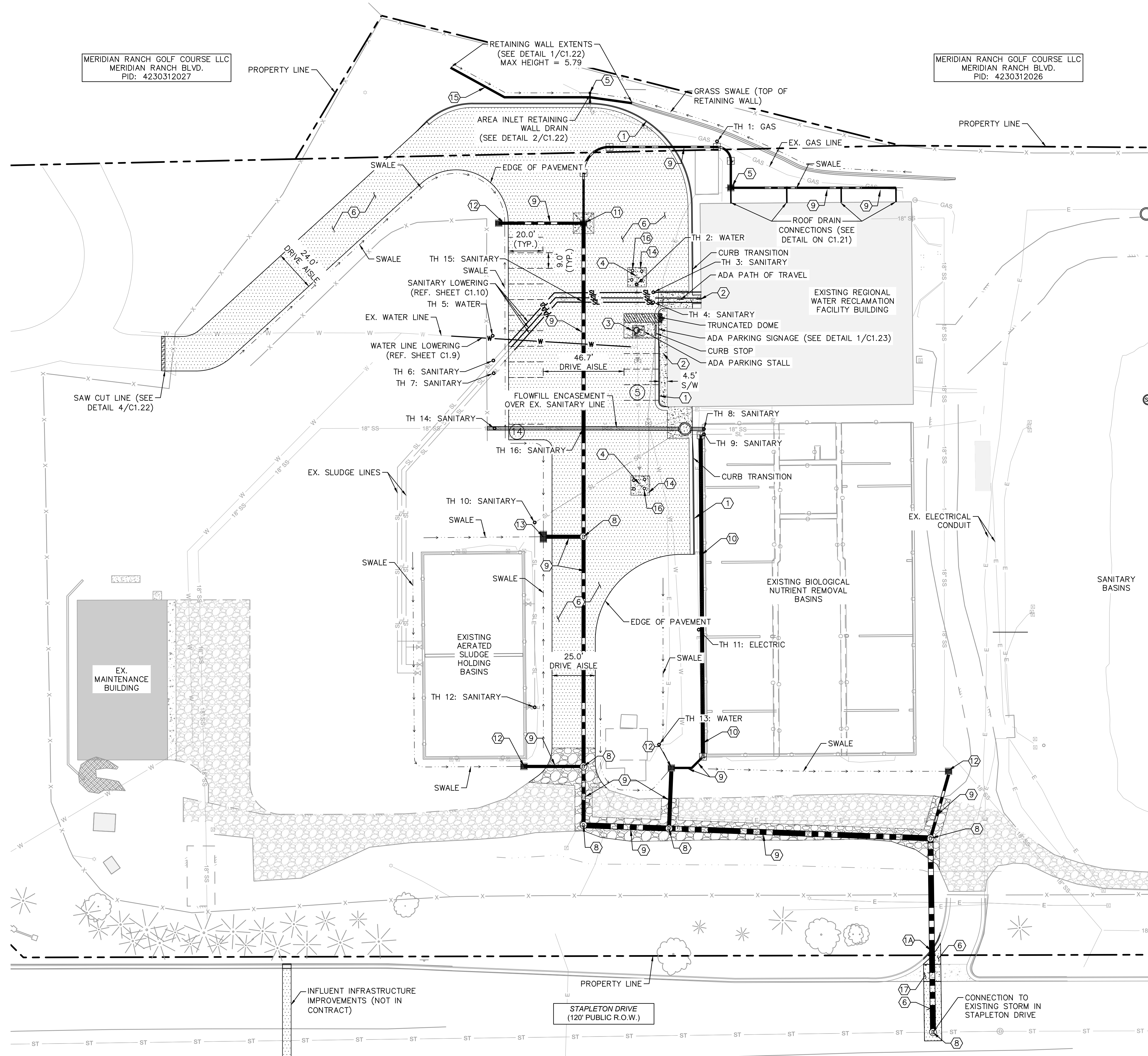
RWRF STORMWATER
IMPROVEMENTS
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METROPOLITAN DISTRICT
EL PASO COUNTY
COLORADO

EX. CONDITIONS & DEMO PLAN

SHEET NUMBER
C1.4



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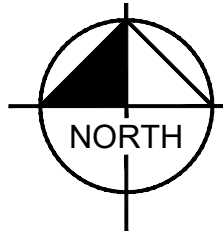
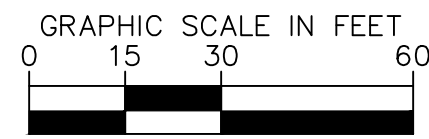
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---	PARCEL LINE
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-W-W-	EXISTING WATER MAIN
-18" SS-	EXISTING 18" SANITARY LINE
-SL-	EXISTING SLUDGE LINE
-FO-	EXISTING FIBER OPTICS LINE
-GAS-	EXISTING GAS LINE
-E-	EXISTING ELECTRIC LINE
-ST-	EXISTING STORM SEWER
---	SWALE (REF. GRADING PLANS)
---	MSE BLOCK RETAINING WALL
---	PARKING DELINEATION (NO STRIPING)
---	SPILL CURB & GUTTER
---	EXISTING GRAVEL DRIVE
---	EXISTING CONCRETE SIDEWALK
---	EXISTING CONCRETE PAN
---	LANDSCAPING
---	CONCRETE SIDEWALK/CONCRETE PAD
---	ASPHALT DRIVE AREA
---	FLOWFILL ENCASEMENT
---	MILL & OVERLAY ASPHALT
---	PROPOSED GRAVEL DRIVE AREA
---	PARKING STALL COUNT

POTHOLE LOG

DESCRIPTION	NORTHING	EASTING	DEPTH TO T/P	PIPE MATERIAL	PIPE SIZE
TH 1: GAS	1416227.7533	3257355.6836	41"	N/A	N/A
TH 2: WATER	1416145.2513	3257309.2266	62"	PVC DR18	6"
TH 3: SANITARY	1416140.6092	3257318.8413	96"	PVC SCHD 80	2.5"
TH 4: SANITARY	1416134.8170	3257318.8413	96"	PVC SCHD 80	2.5"
TH 5: WATER	1416115.4914	3257226.0692	64"	PVC DR18	8"
TH 6: SANITARY	1416101.2091	3257226.4627	96"	PVC SCHD 80	2.5"
TH 7: SANITARY	1416093.8783	3257226.6646	96"	PVC SCHD 80	2.5"
TH 8: SANITARY	1416061.6469	3257348.1179	21"	SDR 35 PVC	18"
TH 9: SANITARY	1416058.5664	3257348.1346	177"	C900 DR14 PVC	6"
TH 10: SANITARY	1416007.6798	3257250.3334	168"	C900 DR14 PVC	6"
TH 11: ELECTRIC	1415945.7593	3257345.1188	59"	N/A	N/A
TH 12: SANITARY	1415900.9503	3257250.3501	190"	C900 DR14 PVC	6"
TH 13: WATER	1415879.3922	3257322.1687	64"	POLY PIPE	2"
TH 14: SANITARY	1416062.0412	3257227.1412	42"	SDR 35 PVC	18"
TH 15: SANITARY	1416135.0083	3257278.5291	84"	PVC SCHD 80	2.5"
TH 16: SANITARY	1416062.0494	3257278.5653	39"	SDR 35 PVC	18"

KEYNOTES:

- PROPOSED EPC TYPE A SPILL CURB AND GUTTER PER EL PASO COUNTY STANDARD DRAWING 2-20 (REF SHEET C1.17 FOR DETAIL) (SEE PAVING PLAN FOR QUANTITY)
- PROPOSED EPC TYPE A CURB AND GUTTER PER EL PASO COUNTY STANDARD DRAWING 2-20 (REF SHEET C1.17 FOR DETAIL) (SEE PAVING PLAN FOR QUANTITY)
- PROPOSED CONCRETE SIDEWALK, DIMENSIONED PER PLAN (SEE PAVING PLAN FOR QUANTITY)
- PROPOSED ADA PARKING (REF. SHEET C1.23 FOR DETAIL)
- EXISTING HYDRANT TO BE RESET TO FINISHED GRADE
- NYOPLAST AREA INLET WITH DOME GRATE (REF. SHEET C1.21 FOR DETAIL)
- PROPOSED ASPHALT PAVEMENT (SEE DETAIL 3/C1.22) (SEE PAVING PLAN FOR QUANTITY)
- PROPOSED STORM SEWER MANHOLE (REF. SHEETS C1.12 - C1.16 FOR SIZE AND MATERIAL)
- PROPOSED STORM SEWER PIPE (REF. SHEETS C1.12 - C1.16 FOR SIZE AND MATERIAL)
- PROPOSED FRENCH DRAIN (SEE DETAIL 5/C1.23) BID ALTERNATE ITEM
- PROPOSED COS AREA INLET TYPE 1 WITH CONCRETE APRON & TRAFFIC RATED GRATE (REF. SHEET C1.19 FOR DETAIL)
- PROPOSED CDOT TYPE C AREA INLET (REF. SHEET C1.18 FOR DETAIL)
- PROPOSED CDOT TYPE D AREA INLET (REF. SHEET C1.18 FOR DETAIL)
- PROPOSED CONCRETE PAD (SEE PAVING PLAN FOR QUANTITY)
- PROPOSED RETAINING WALL (REF. GRADING PLAN FOR DETAILS)
- PROPOSED BOLLARD (SEE DETAIL 4/C1.23)
- CONCRETE CROSS PAN (SEE PAVING PLAN FOR QUANTITY)



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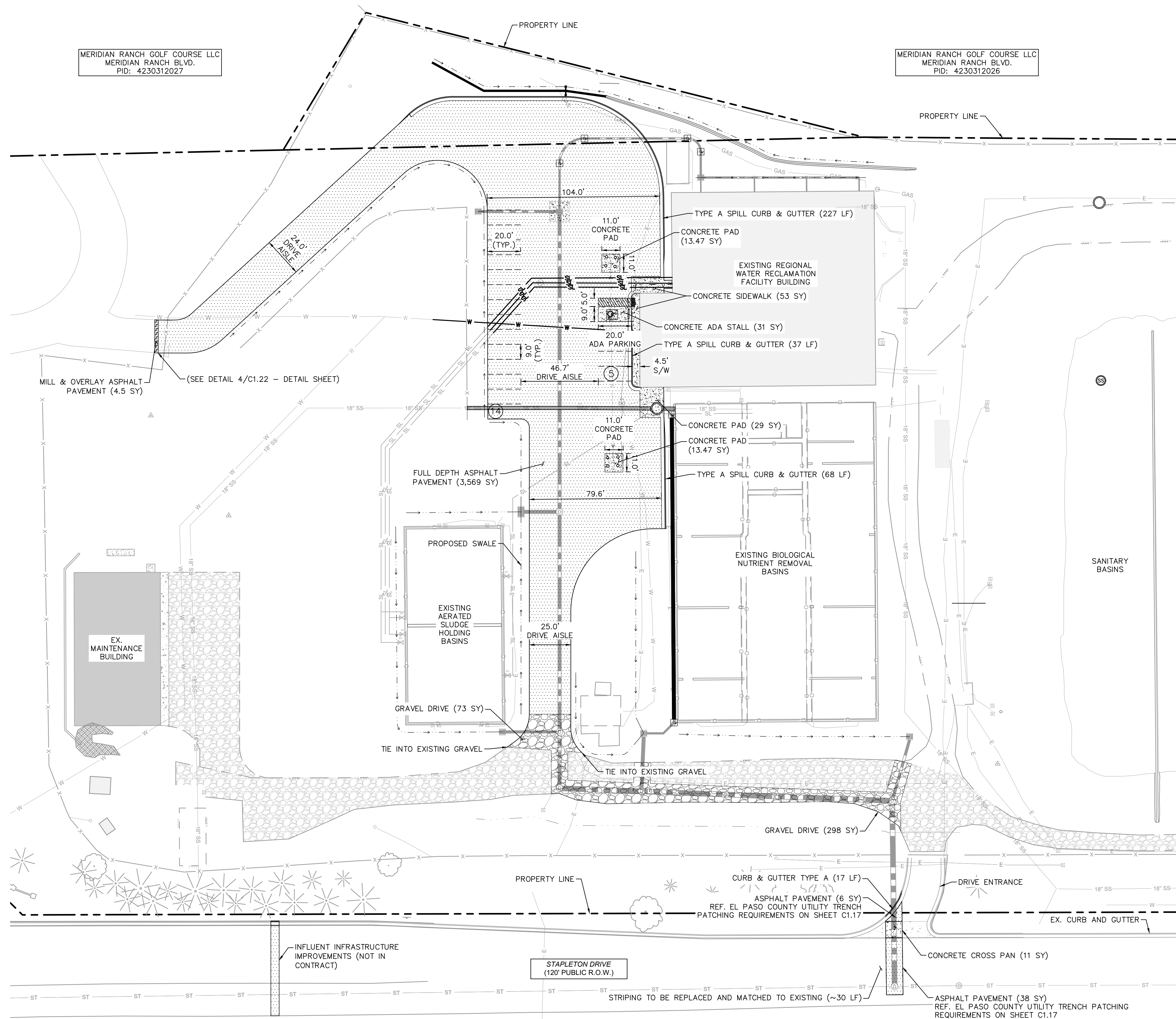
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SCALE	AS SHOWN
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EL PASO COUNTY

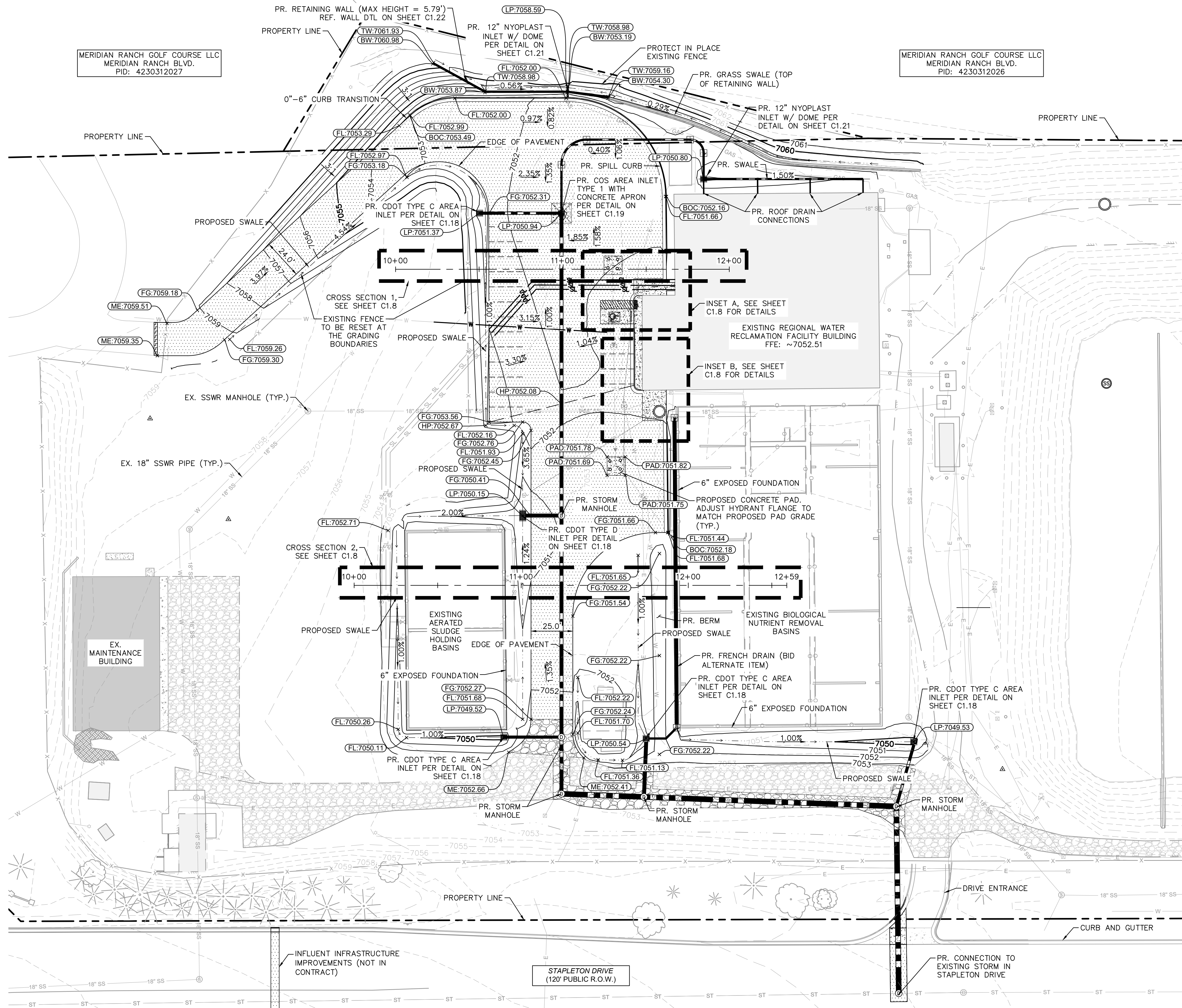
SITE PLAN

SHEET NUMBER
C1.5

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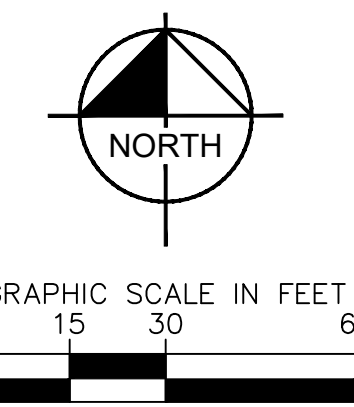


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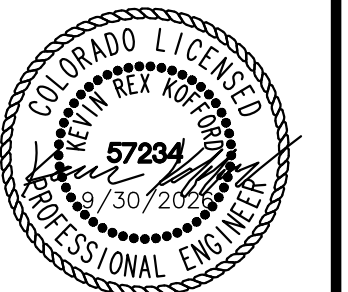
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	SWALE (REF. GRADING PLANS)
	SWALE (REF. GRADING PLANS)
	SWALE (REF. GRADING PLANS)
	SWALE (REF. GRADING PLANS)
	SWALE (REF. GRADING PLANS)
	MSE BLOCK RETAINING WALL
	INSET
	CROSS SECTION
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK

ABBREVIATION LEGEND

BW	BOTTOM OF WALL AT FINISHED GRADE
TW	TOP OF WALL AT FINISHED GRADE
FG	FINISHED GRADE
FL	FLOWLINE
LP	LOW POINT
HP	HIGH POINT
ME	MATCH EXISTING
BOC	BACK OF CURB



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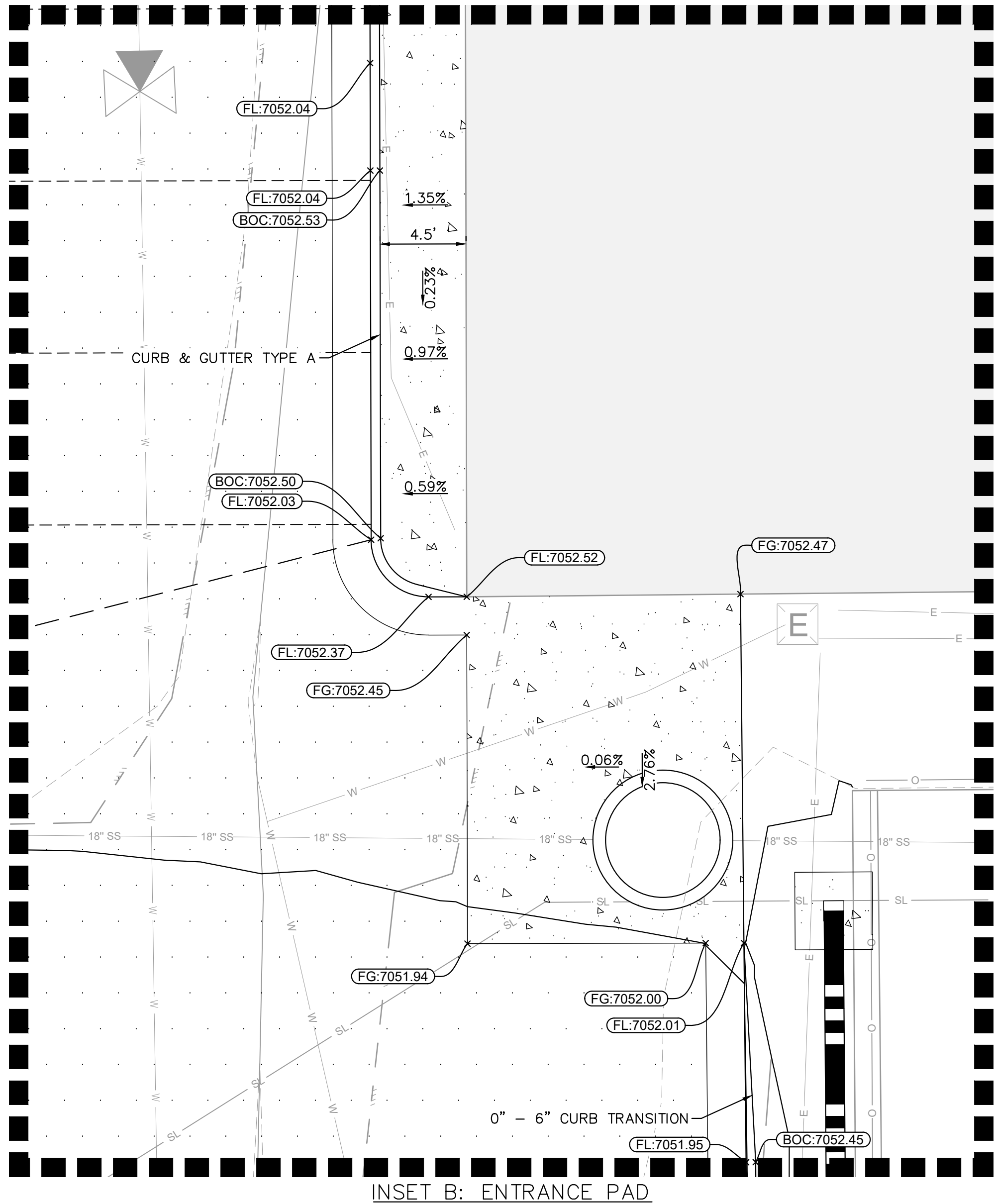
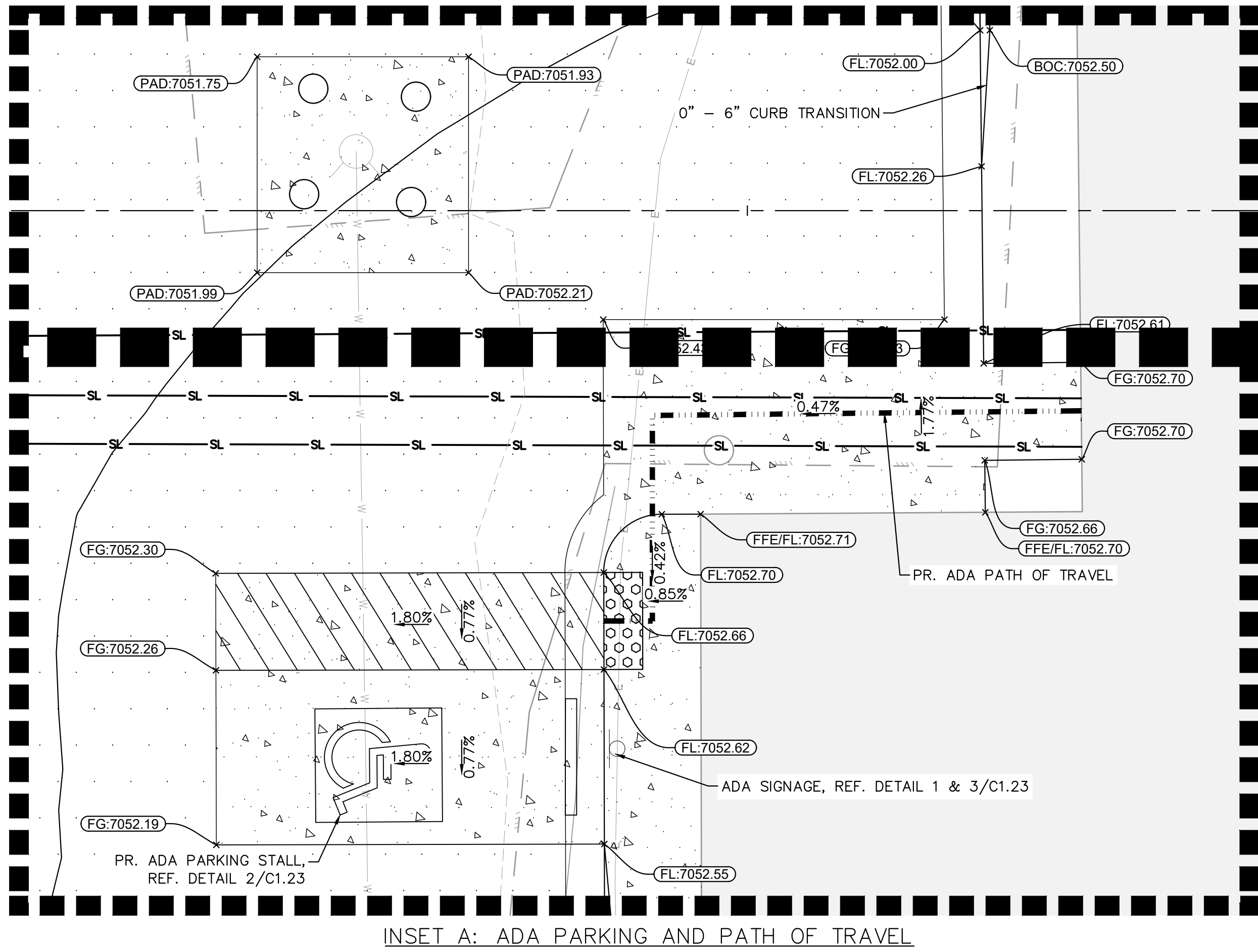
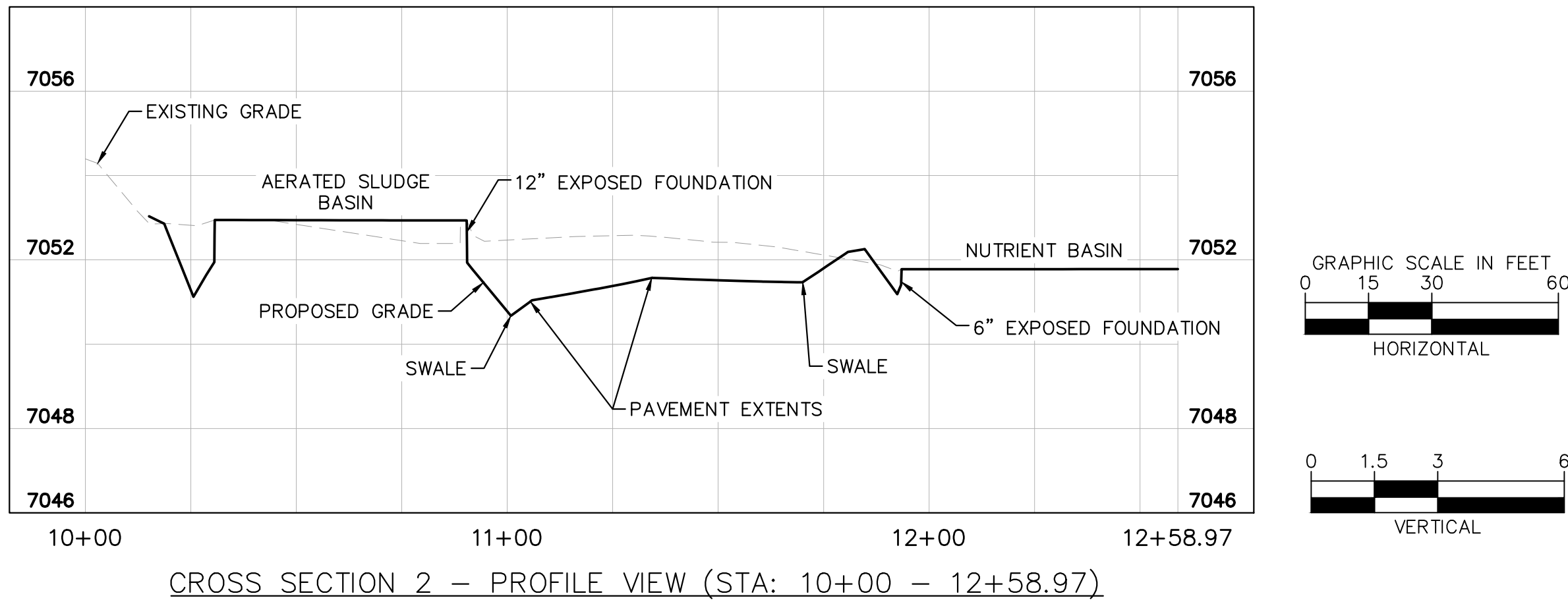
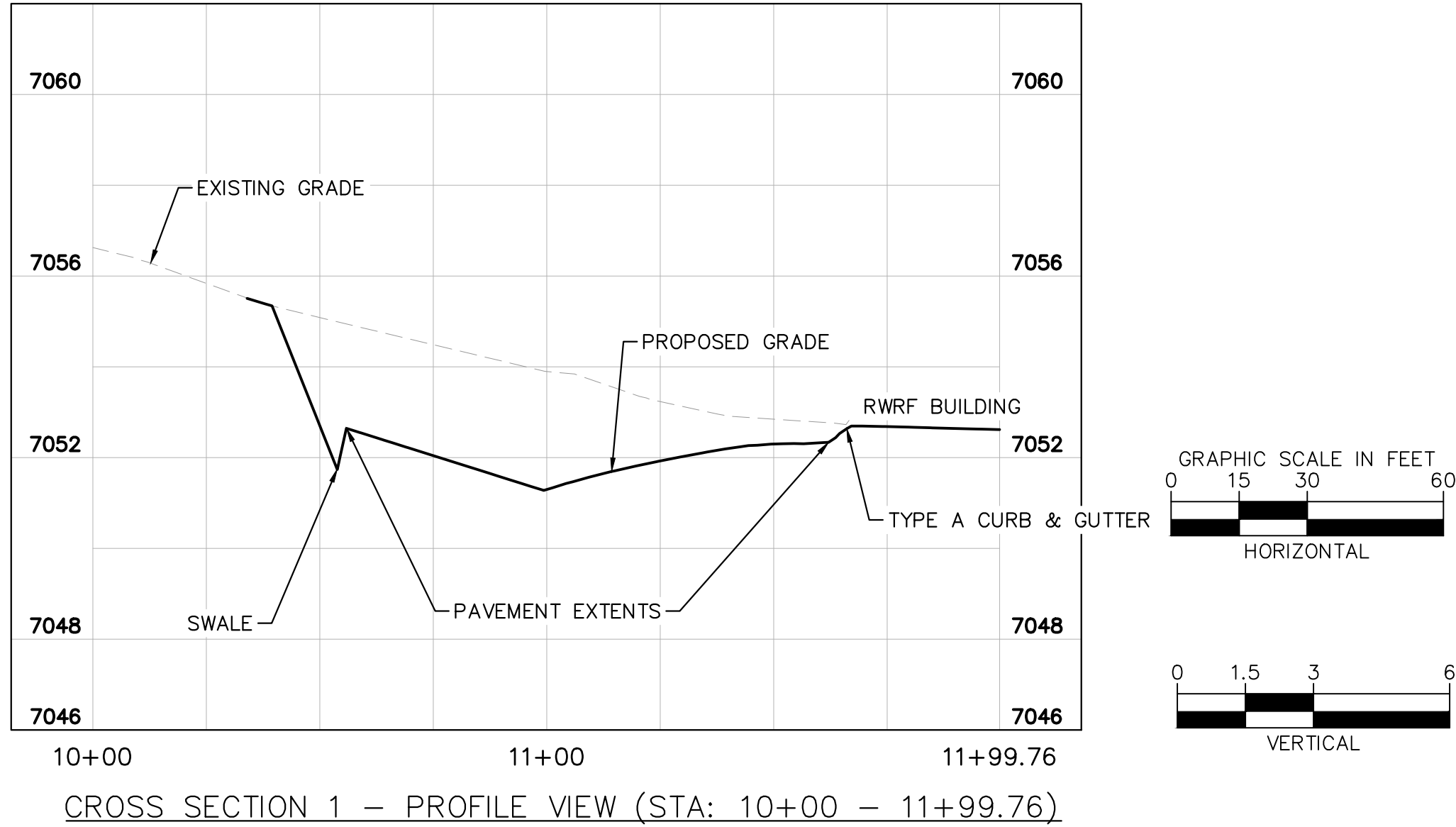
RWRf STORMWATER
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EL PASO COUNTY
COLORADO

GRADING PLAN

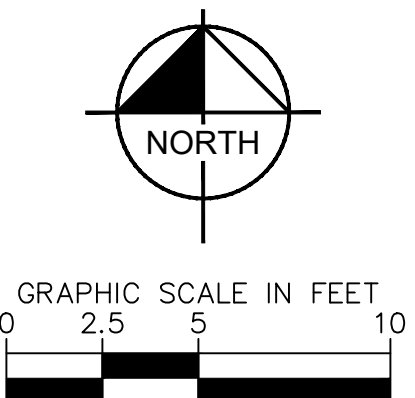
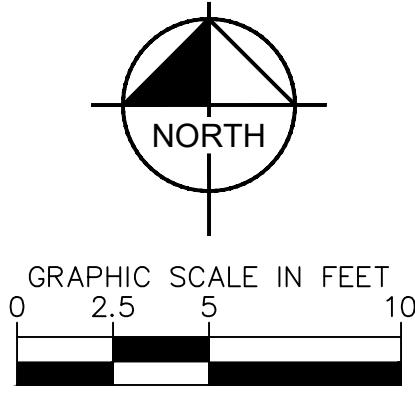
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- LEGEND**
- SPILL CURB & GUTTER
 - SWALE (REF. GRADING PLANS)
 - MSE BLOCK RETAINING WALL
 - ASPHALT PAVEMENT
 - CONCRETE SIDEWALK



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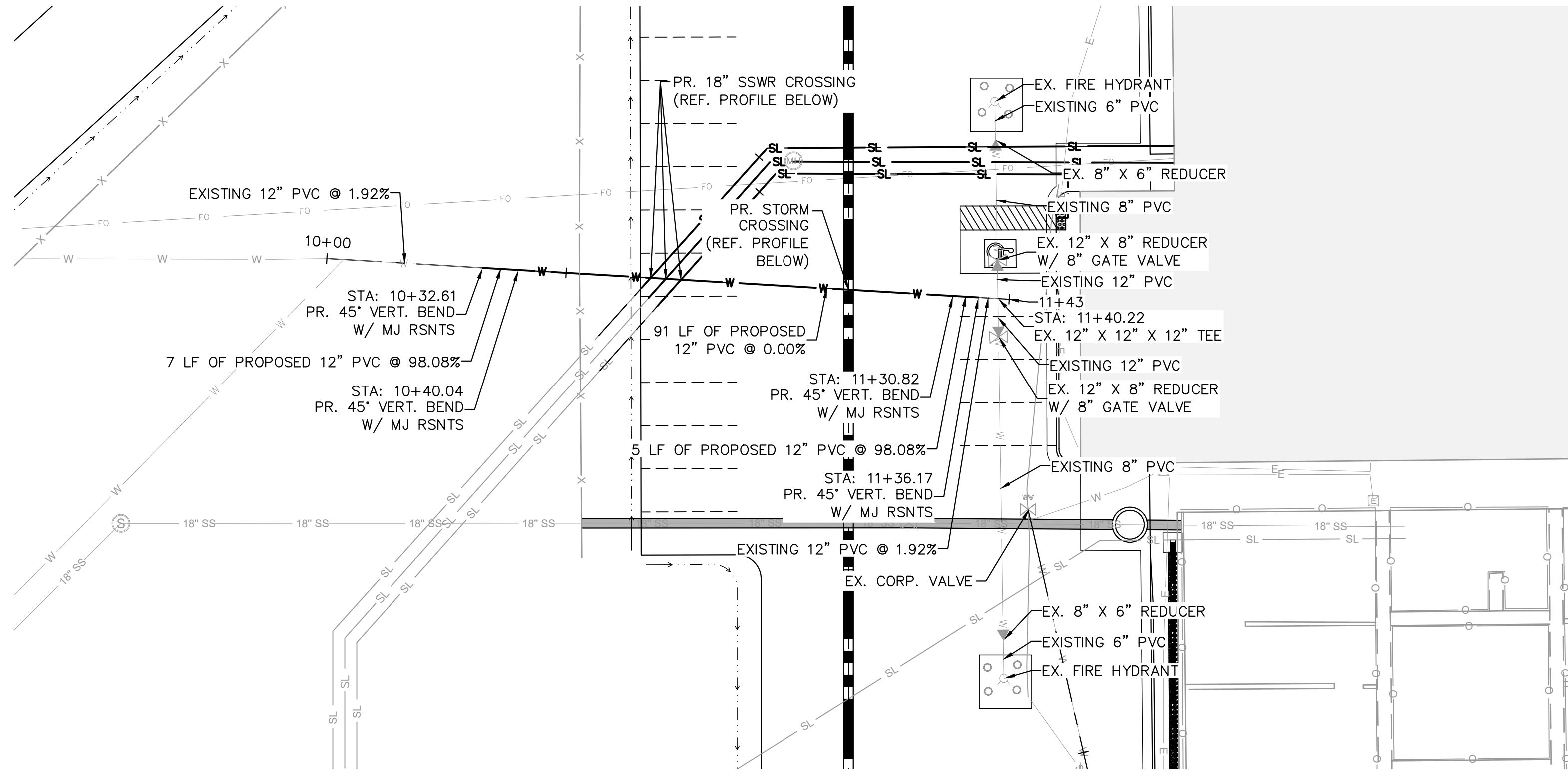


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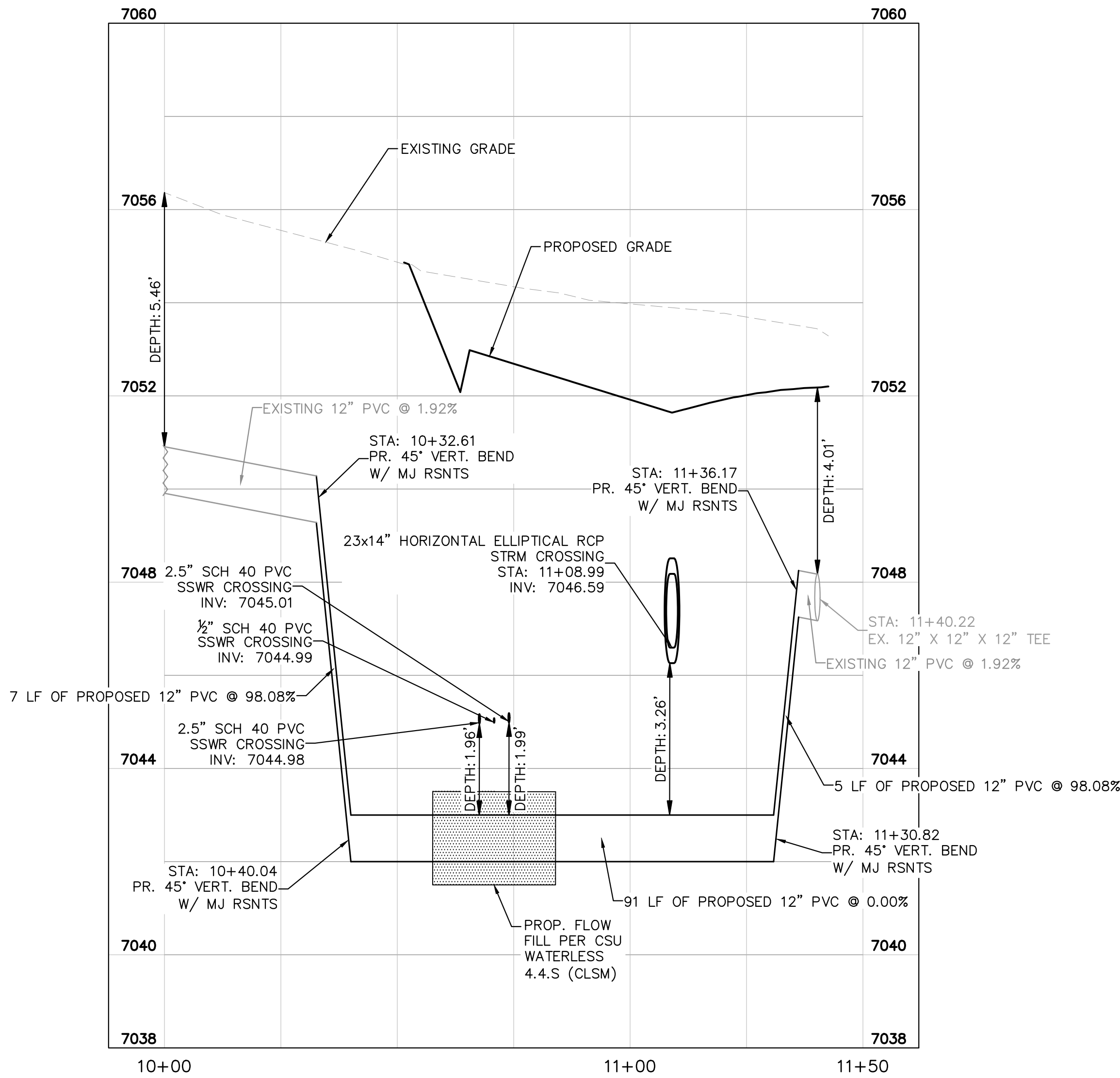
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CROSS SECTIONS & ADA INSET
SHEET NUMBER
C1.8

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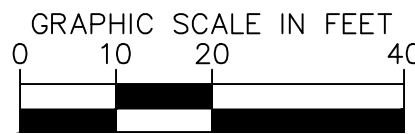
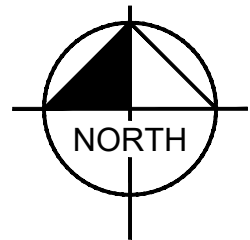
WATER LINE — PLAN VIEW (STA: 10+00 — 11+06)



WATER LINE — PROFILE VIEW (STA: 10+00 — 11+06)

LEGEND

	PROPERTY LINE
	PARCEL LINE
	EXISTING SITE FENCE
	EXISTING WATER MAIN
	EXISTING 18" SANITARY LINE
	EXISTING SLUDGE LINE
	EXISTING FIBER OPTICS LINE
	EXISTING GAS LINE
	EXISTING ELECTRIC LINE
	EXISTING STORM SEWER
	PROPOSED SLUDGE LINE
	PROPOSED WATER LINE
	PROPOSED STORM LINE
	SWALE (REF. GRADING PLANS)
	MSE BLOCK RETAINING WALL
	PARKING DELINEATION (NO STRIPING)
	SPILL CURB & GUTTER



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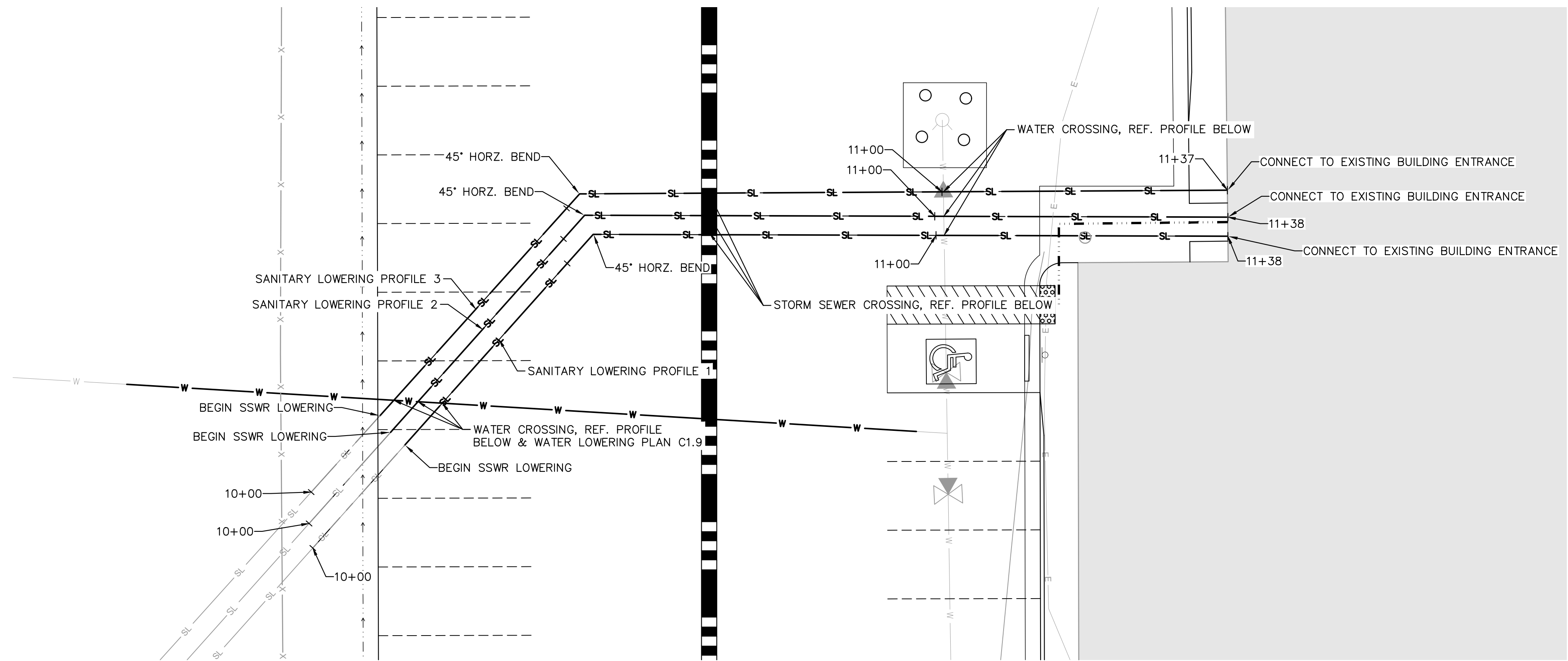
WATER LOWERING PLAN &
PROFILE

SHEET NUMBER
C1.9



Know what's below.
Call before you dig.

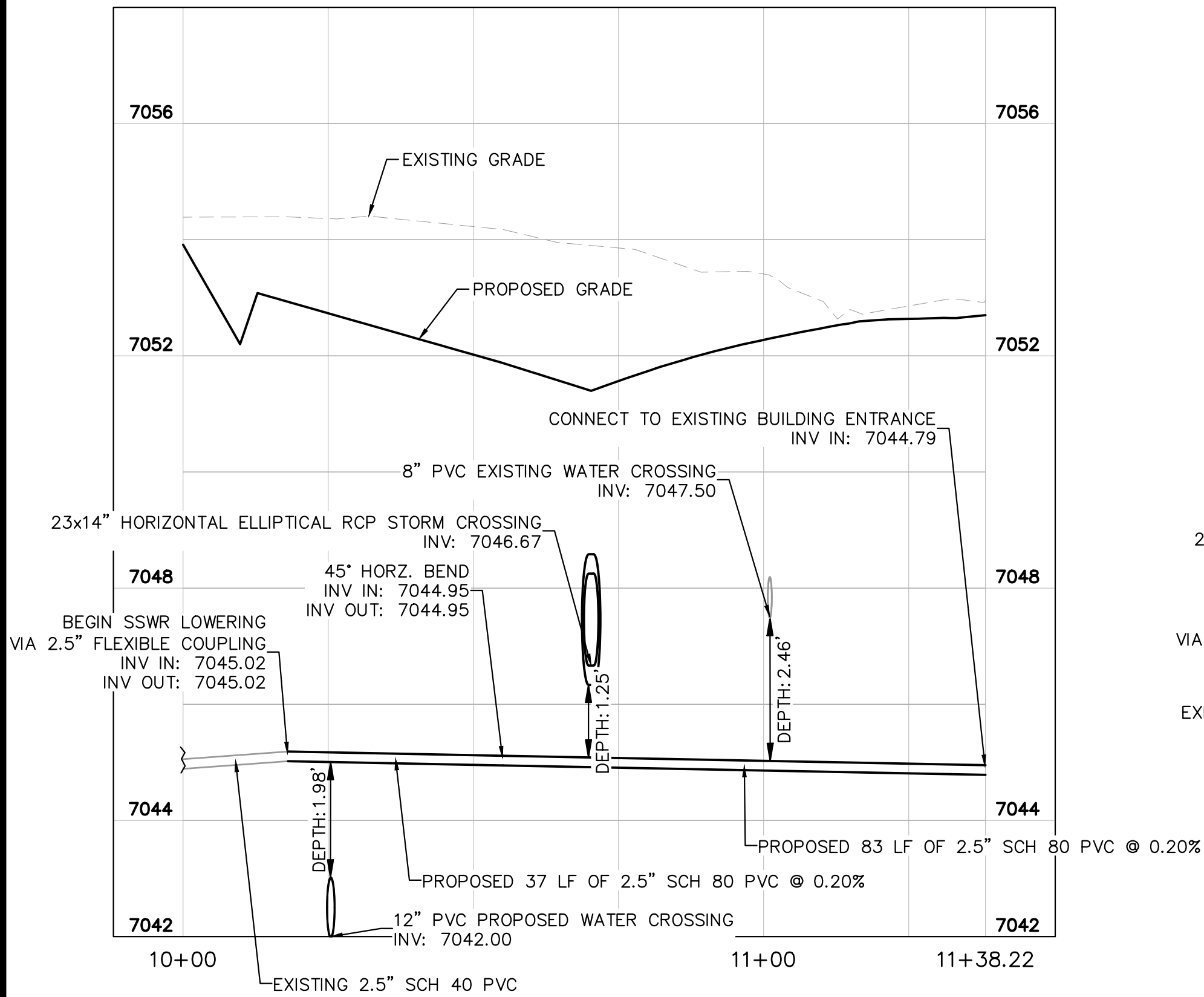
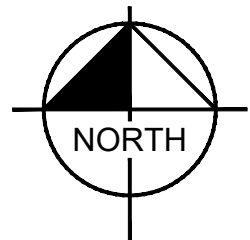
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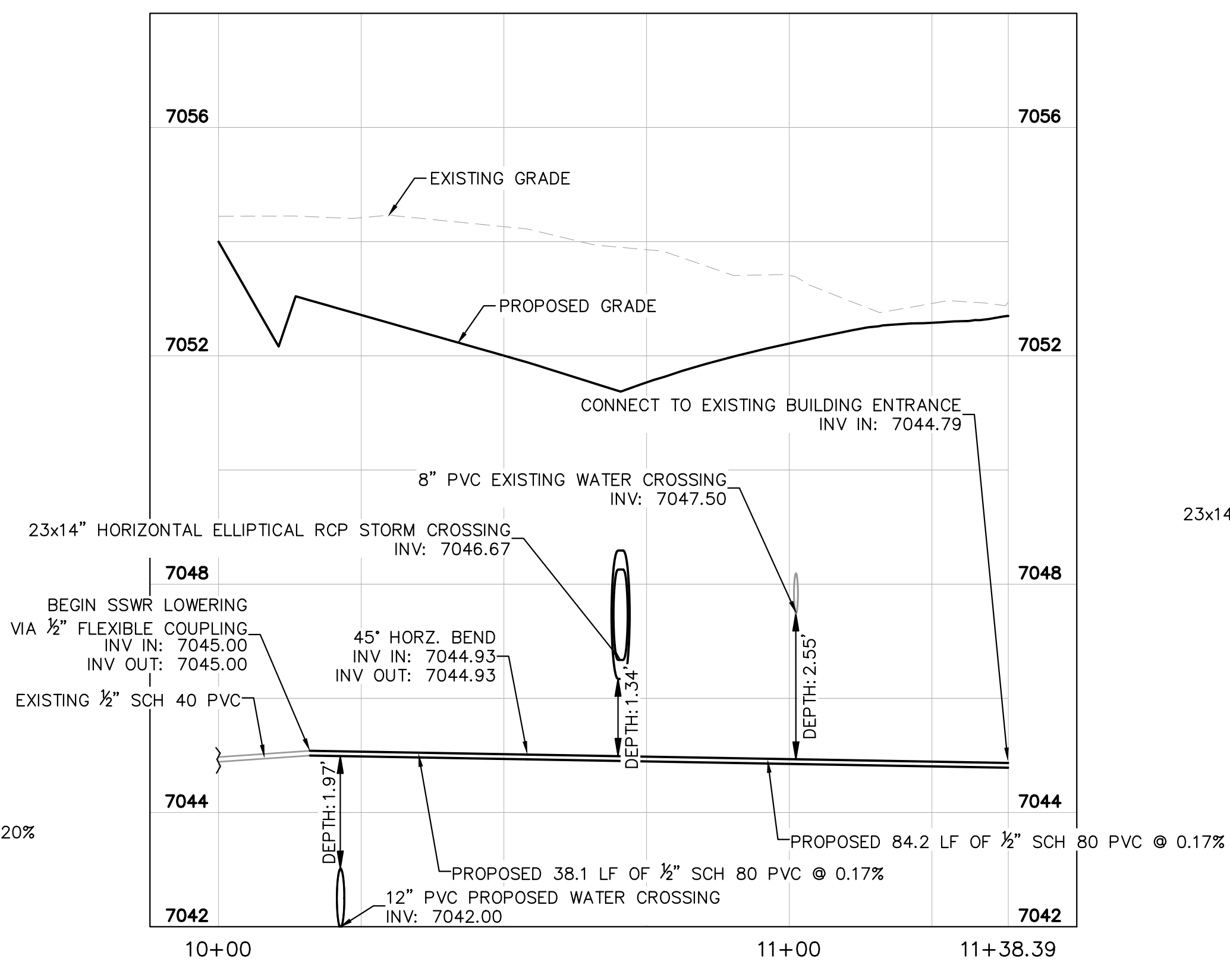
SANITARY LOWERING PLAN VIEW 1, 2, & 3

LEGEND

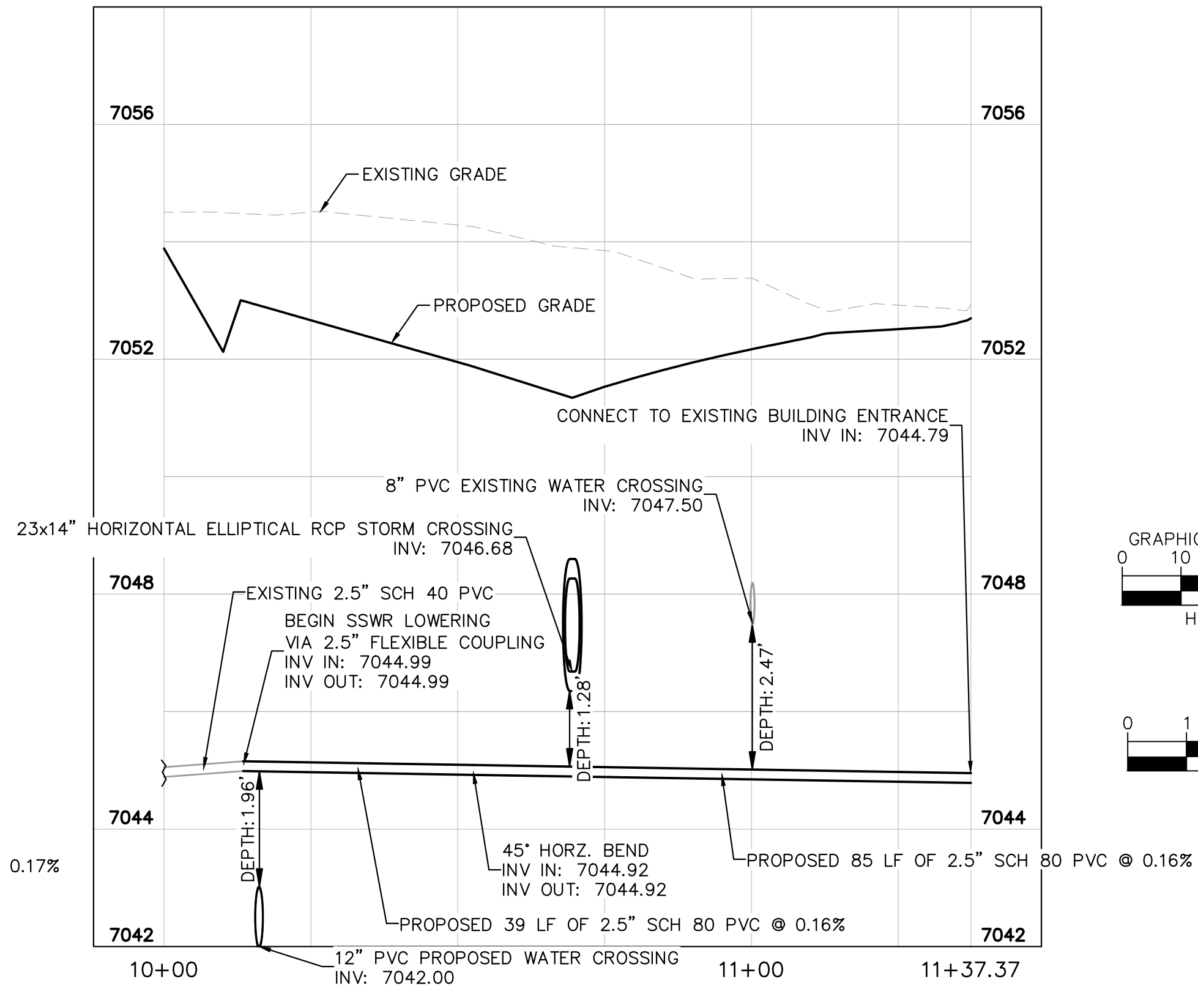
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- PARCEL LINE
- EXISTING SITE FENCE
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- EXISTING 18" SANITARY LINE
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- EXISTING GAS LINE
- EXISTING ELECTRIC LINE
- EXISTING STORM SEWER
- PROPOSED SLUDGE LINE
- PROPOSED WATER LINE
- PROPOSED STORM LINE
- SWALE (REF. GRADING PLANS)
- MSE BLOCK RETAINING WALL
- PARKING DELINEATION (NO STRIPING)
- SPILL CURB & GUTTER



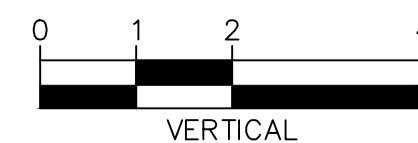
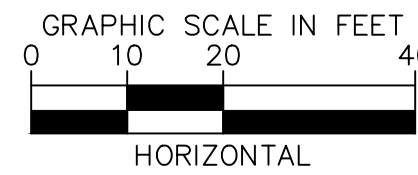
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SANITARY LOWERING 2 - PROFILE VIEW (STA: 10+00 - 11+38.39)

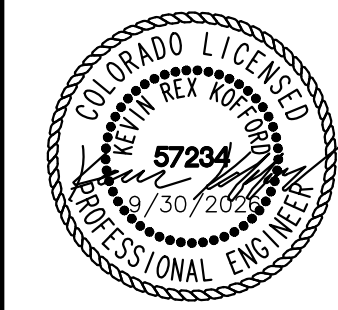


SANITARY LOWERING 3 - PROFILE VIEW (STA: 10+00 - 11+37.37)



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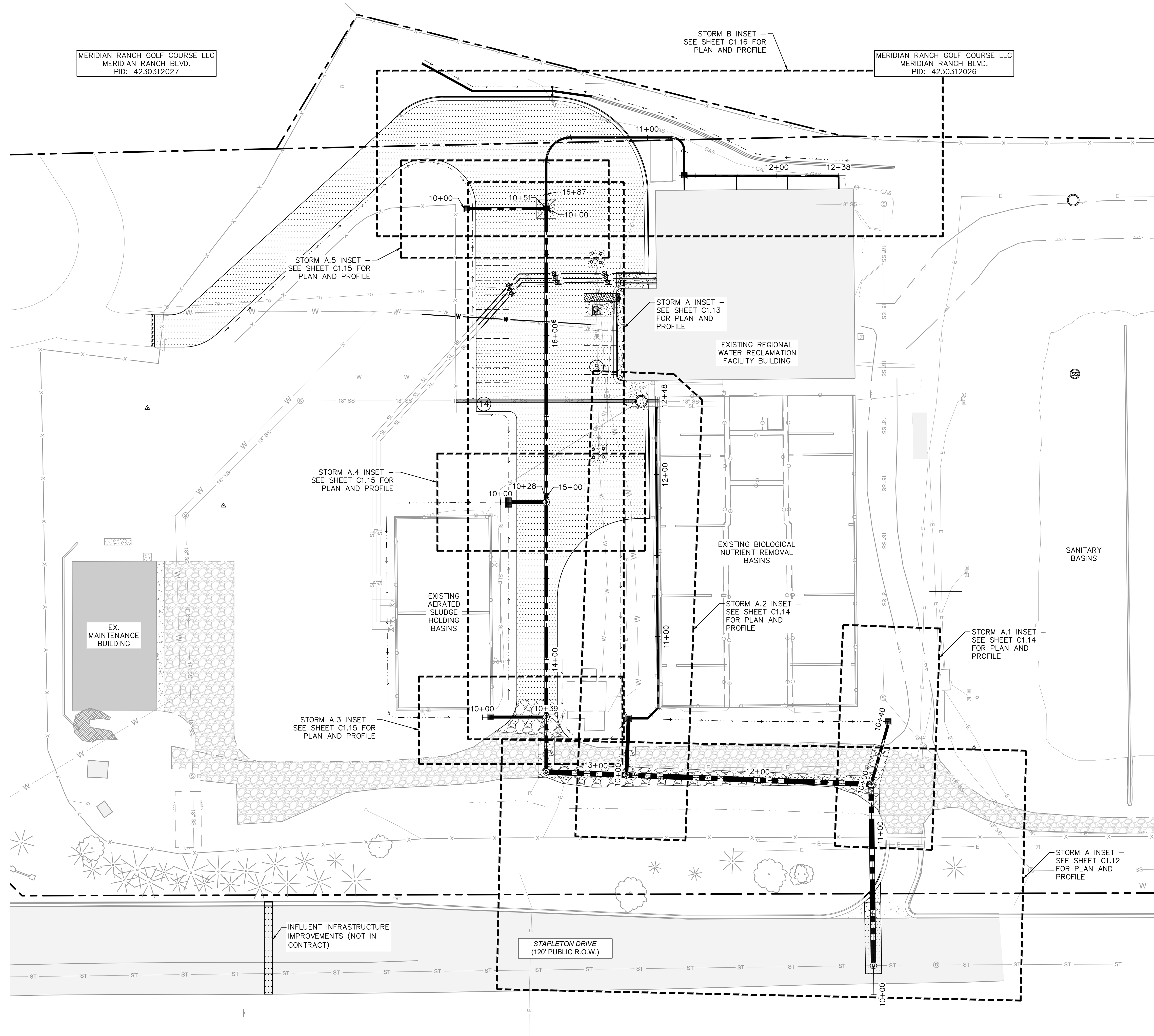
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DRAWN BY	MEG
CHECKED BY	KRK

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SANITARY SEWER LOWERING
PLAN

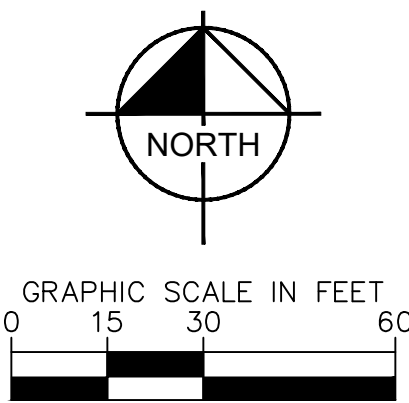
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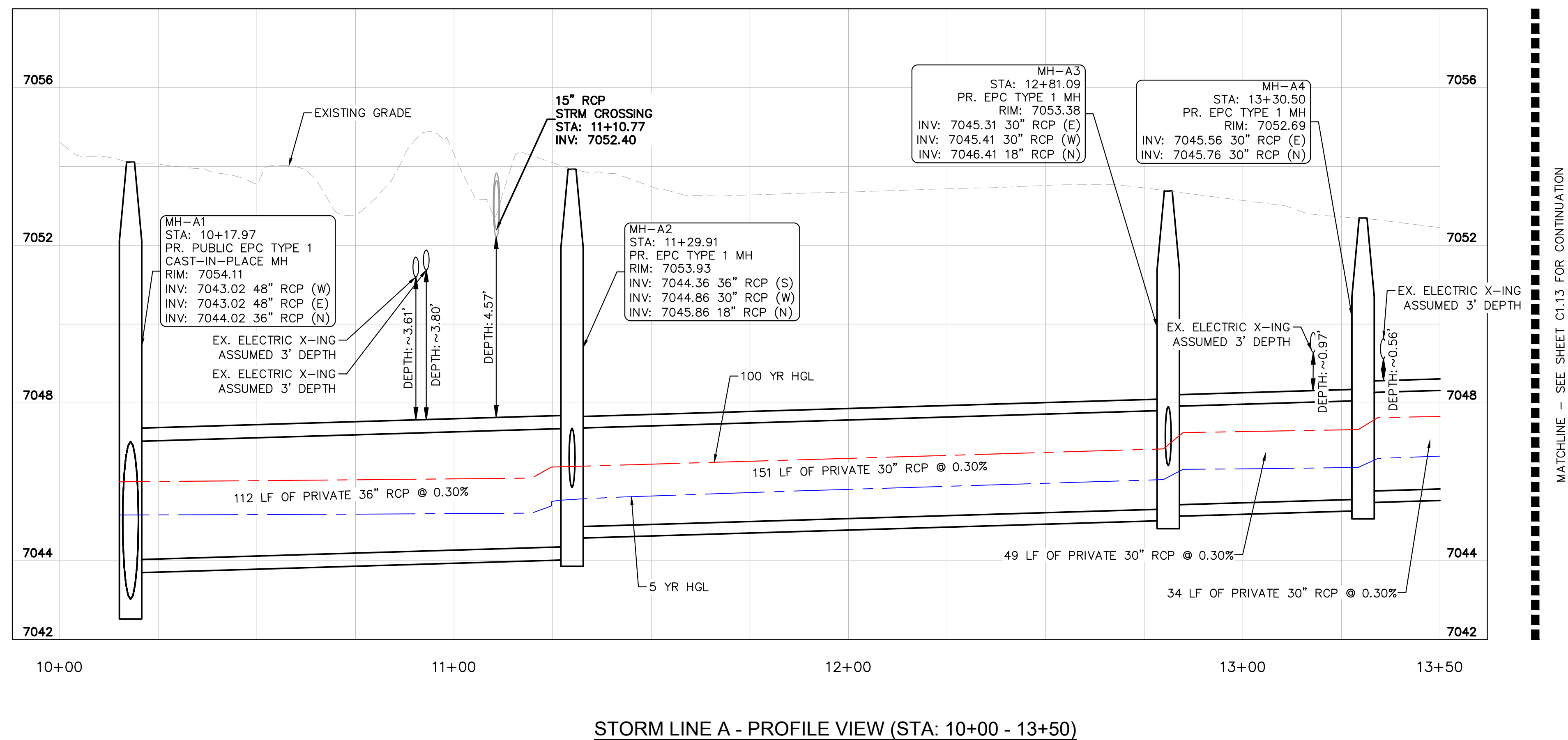
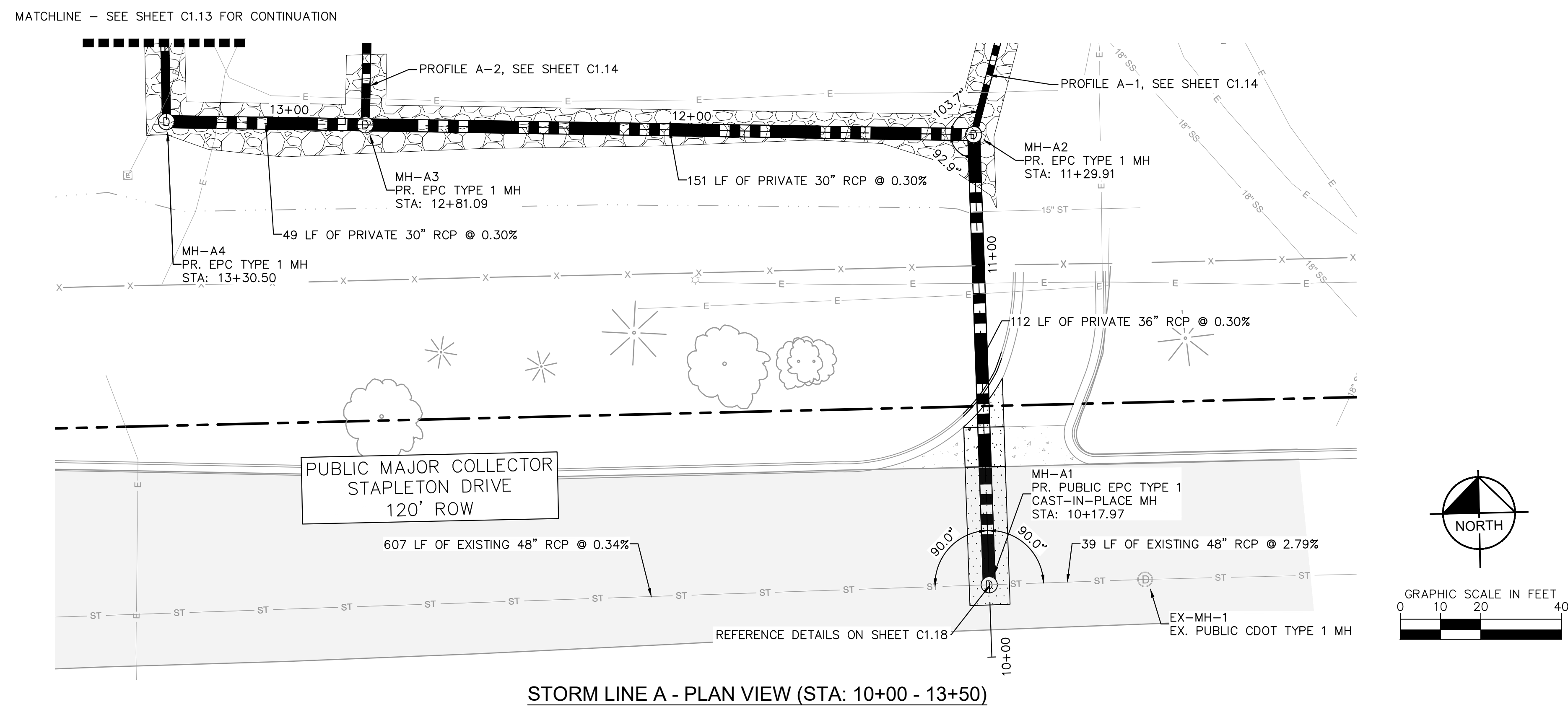


LEGEND

- PROPOSED SPILL CURB & GUTTER
- PROPOSED SWALE (REF. GRADING PLANS)
- PROPOSED MSE BLOCK RETAINING WALL
- PROPERTY LINE



KHA PROJECT 196013004	DATE 2026-09-30	SCALE AS SHOWN	DESIGNED BY MEG	DRAWN BY MEG	CHECKED BY KRK	KIMLEY-HORN AND ASSOCIATES, INC. 2206 KIMLEY-HORN DRIVE WOODMEN HILLS, CO 80603 WWW.KIMLEY-HORN.COM REGISTRY NO. 35108	Revisions	By	Date
RWRF STORMWATER IMPROVEMENTS PREPARED FOR WOODMEN HILLS METROPOLITAN DISTRICT EL PASO COUNTY COLORADO							OVERALL STORM PLAN		
SHEET NUMBER							C1.11		
PCD FILE NO.: CDR268									

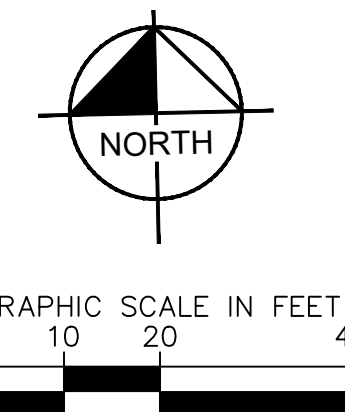


LEGEND

- | | |
|---|-------------------------|
|  | PROPERTY LINE |
|  | EASEMENT LINE |
|  | SETBACK LINE |
|  | PROPOSED SANITARY LINE |
|  | PROPOSED STORM LINE |
|  | PROPOSED WATER LINE |
|  | PROPOSED FIRE LINE |
|  | EXISTING GAS LINE |
|  | EXISTING WATER LINE |
|  | EXISTING ELECTRIC LINE |
|  | EXISTING STORM LINE |
|  | 5-YR DESIGN STORM HGL |
|  | 100-YR DESIGN STORM HGL |

NOTES

1. ALL PROPOSED STORM INFRASTRUCTURE IS TO BE CONSIDERED PRIVATE UNLESS OTHERWISE NOTED.
2. PIPE BEDDING MATERIAL PER WHMD STANDARD SPECIFICATION 3.3



GRAPHIC SCALE IN FEET

0 10 20 30 40



196013004	DATE	2026-09-30
SCALE	AS SHOWN	
DESIGNED BY	MEO	
DRAWN BY	MEO	
CHECKED BY	KRK	

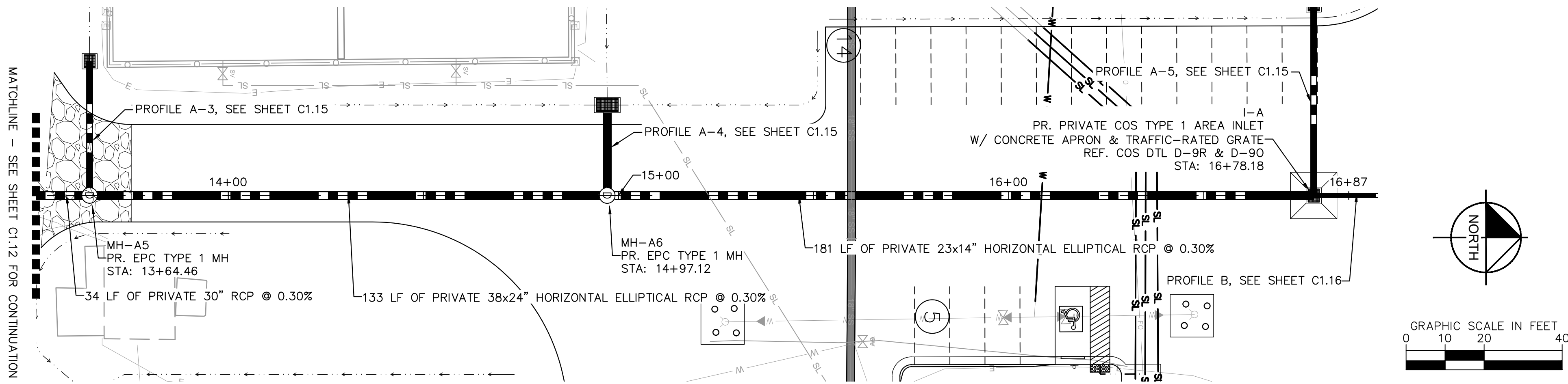
TOWN OF GLENWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
EL PASO COUNTY COLORADO

STORM FLAN AND PROFILE

HEET NUMBER
C1.12



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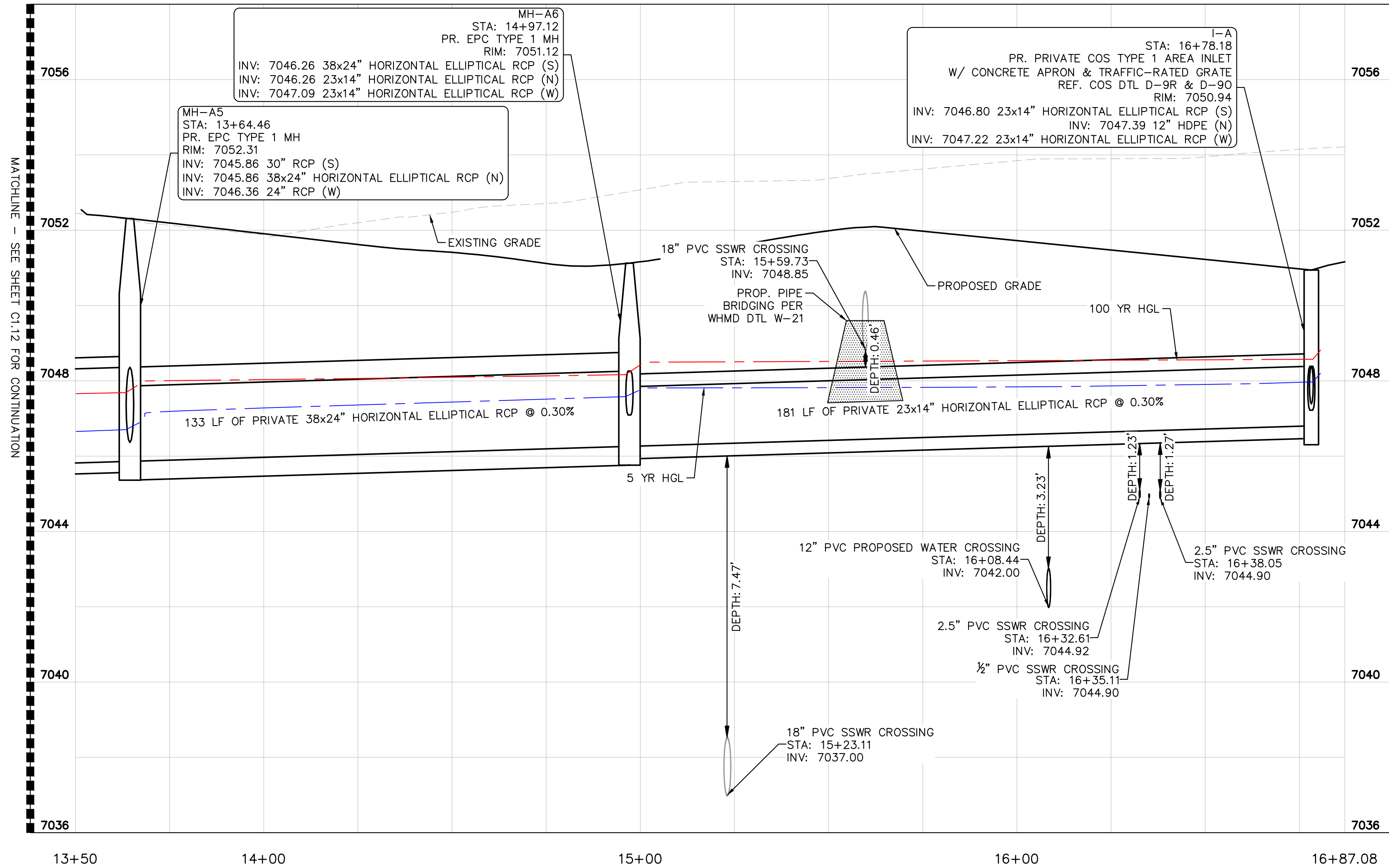
STORM LINE A - PLAN VIEW

LEGEND

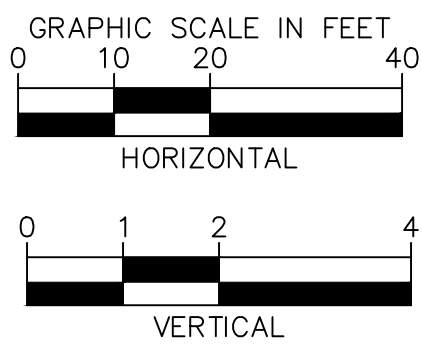
- PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- PROPOSED SANITARY LINE
- PROPOSED STORM LINE
- PROPOSED WATER LINE
- PROPOSED FIRE LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING STORM LINE
- 5-YR DESIGN STORM HGL
- 100-YR DESIGN STORM HGL

NOTES

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- PIPE BEDDING MATERIAL PER WHMD STANDARD SPECIFICATION 3.3

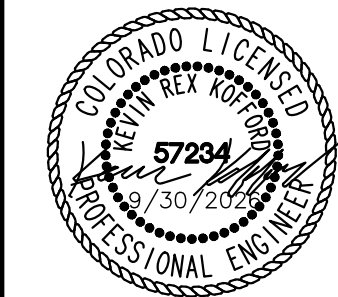


STORM LINE A - PROFILE VIEW



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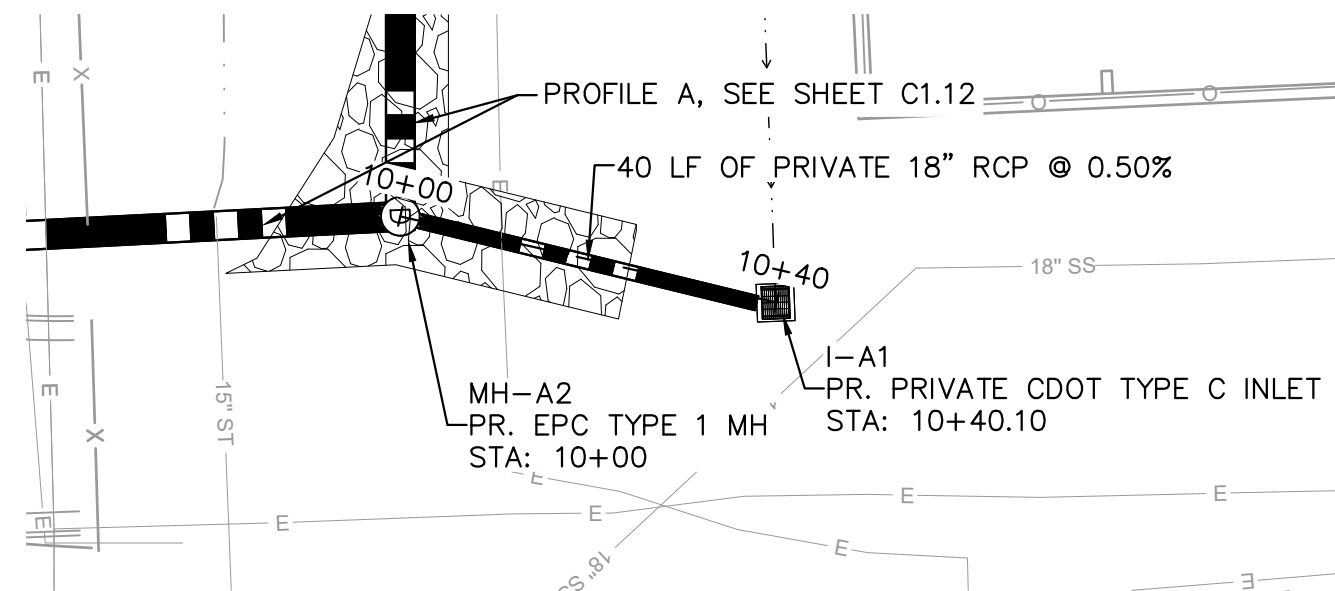
RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
EL PASO COUNTY
COLORADO

STORM PLAN AND PROFILE

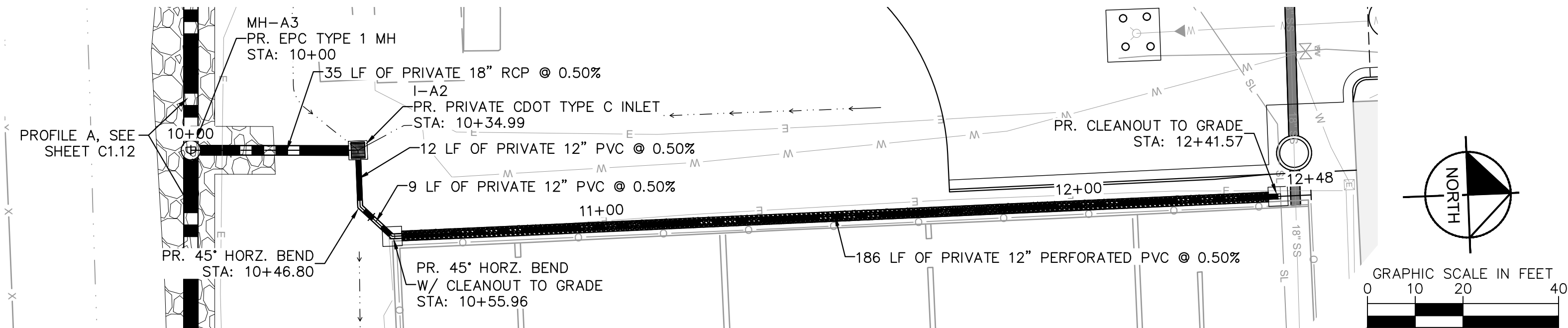
SHEET NUMBER
C1.13



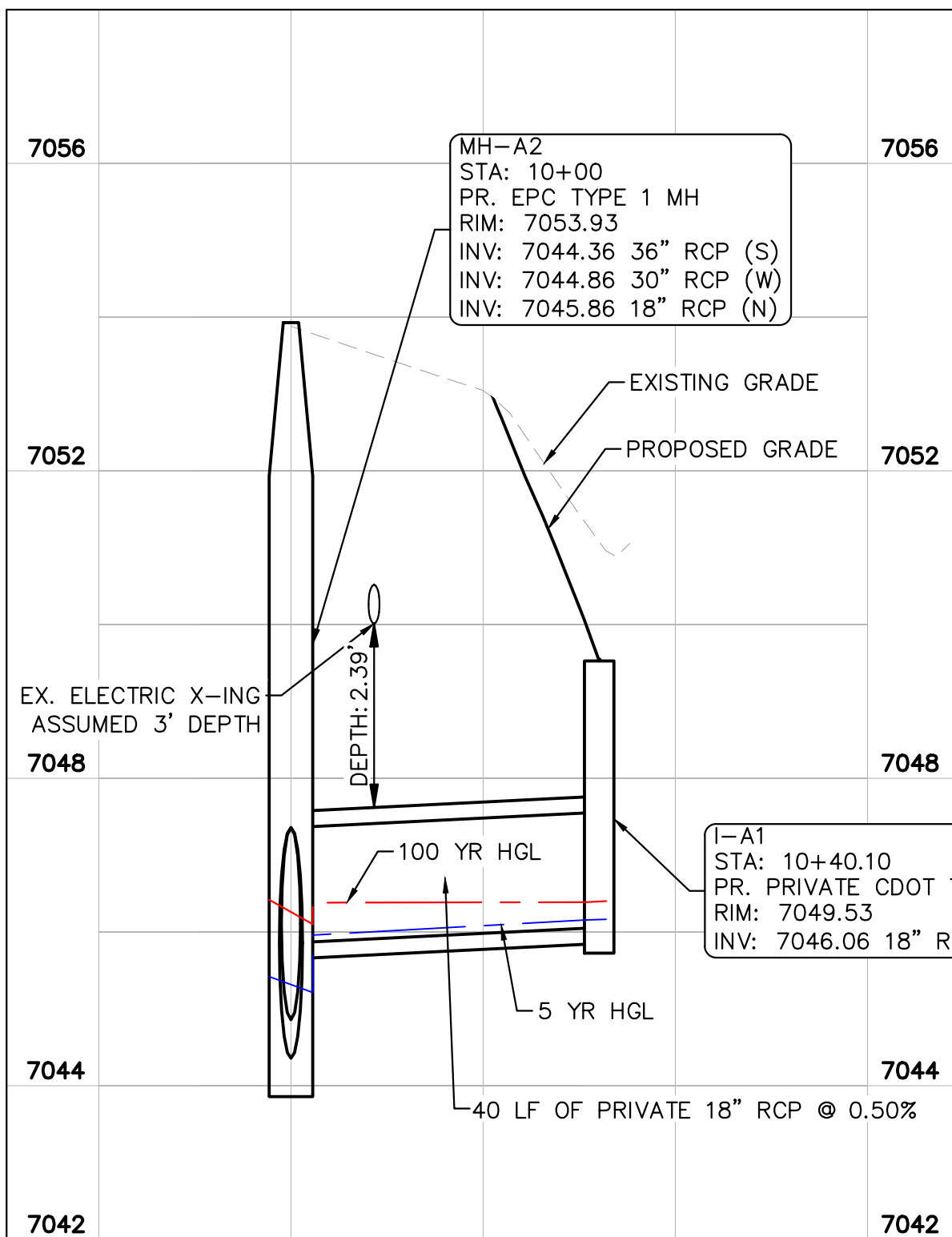
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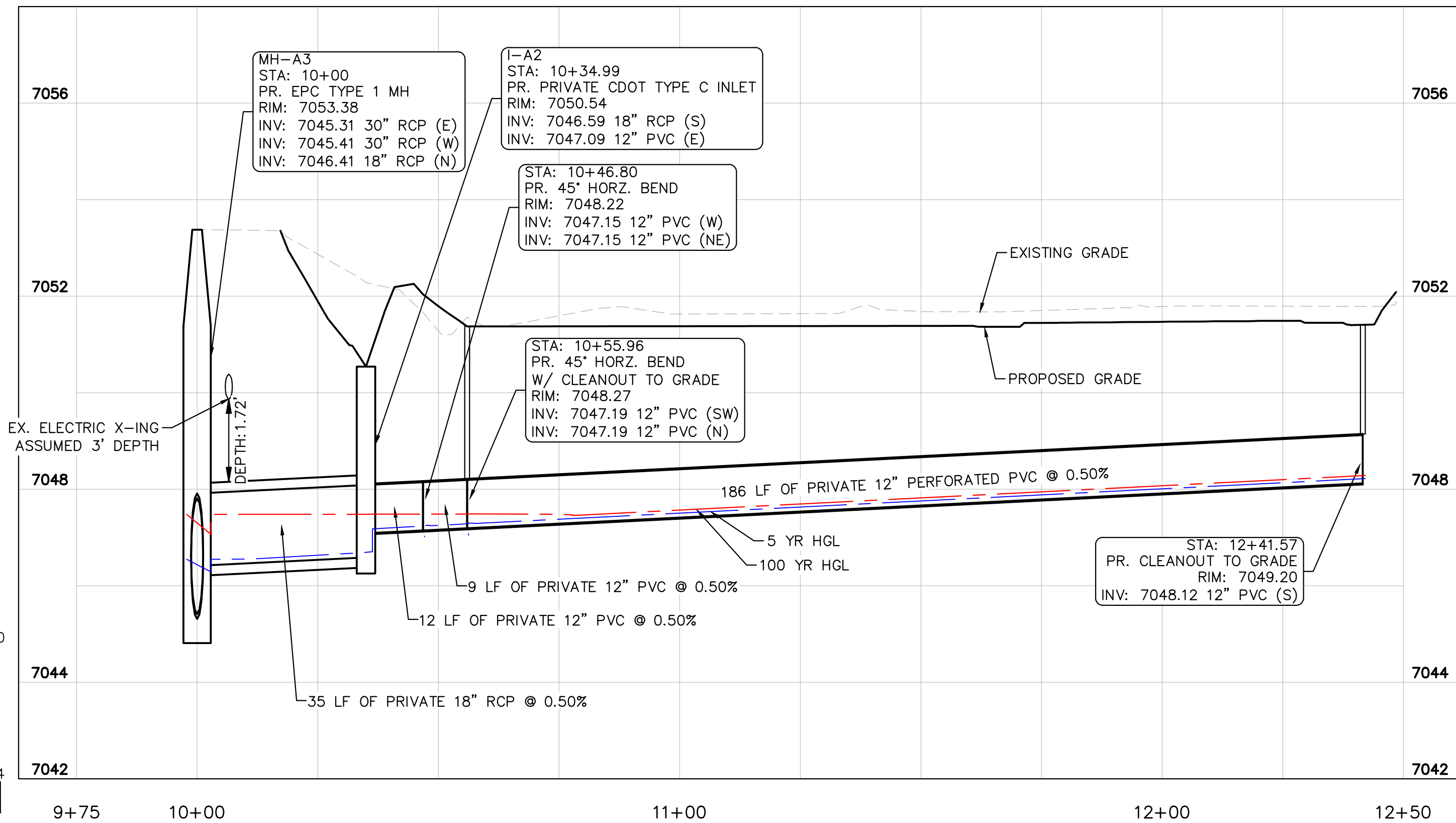
STORM LINE A.1 - PLAN VIEW



STORM LINE A.2 - PLAN VIEW - BID ALTERNATE ITEM



STORM LINE A.1 - PROFILE VIEW



STORM LINE A.2 - PROFILE VIEW - BID ALTERNATE ITEM

LEGEND

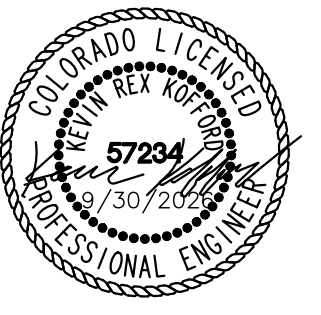
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	SETBACK LINE
	PROPOSED SANITARY LINE
	PROPOSED STORM LINE
	PROPOSED WATER LINE
	PROPOSED FIRE LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
	EXISTING ELECTRIC LINE
	EXISTING STORM LINE
	5-YR DESIGN STORM HGL
	100-YR DESIGN STORM HGL

NOTES

- ALL PROPOSED STORM INFRASTRUCTURE IS TO BE CONSIDERED PRIVATE UNLESS OTHERWISE NOTED.
- PIPE BEDDING MATERIAL PER WHMD STANDARD SPECIFICATION 3.3

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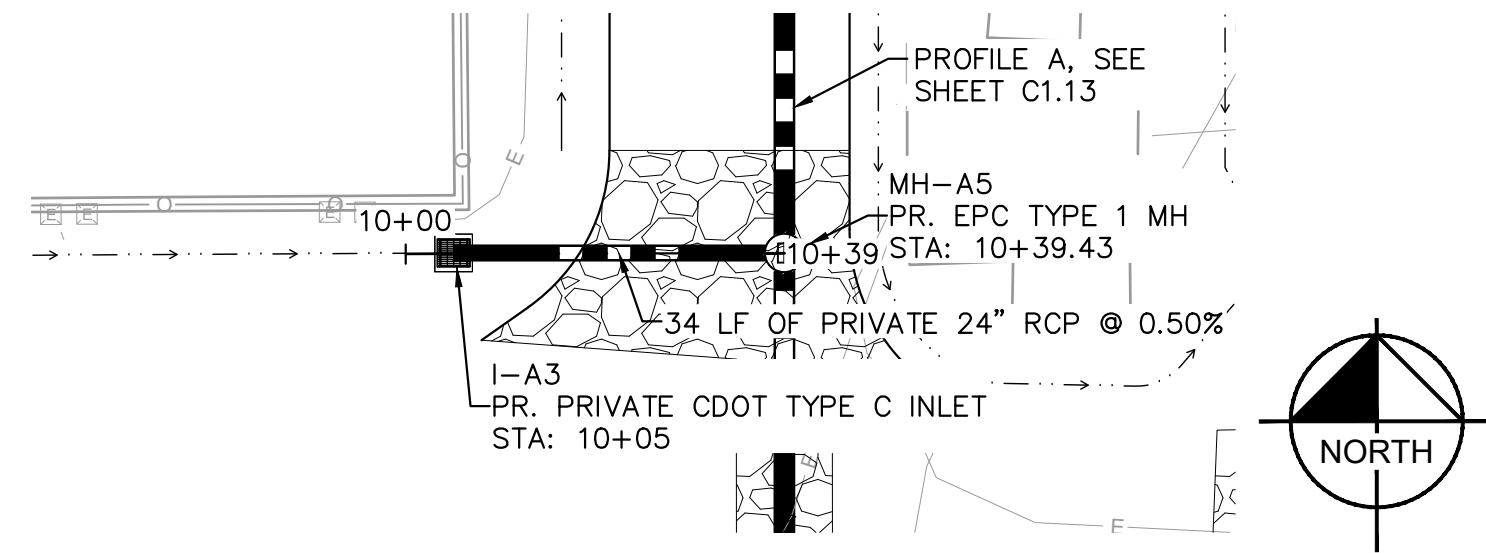
RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
COLORADO
EL PASO COUNTY

STORM PLAN AND PROFILE

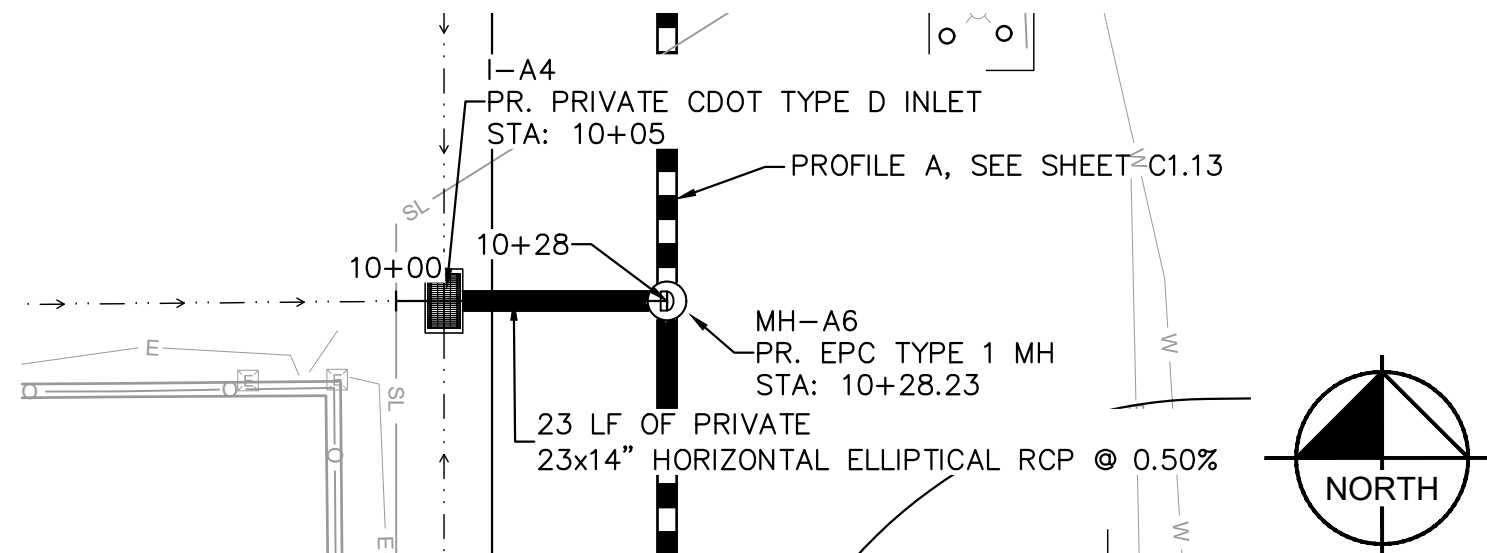
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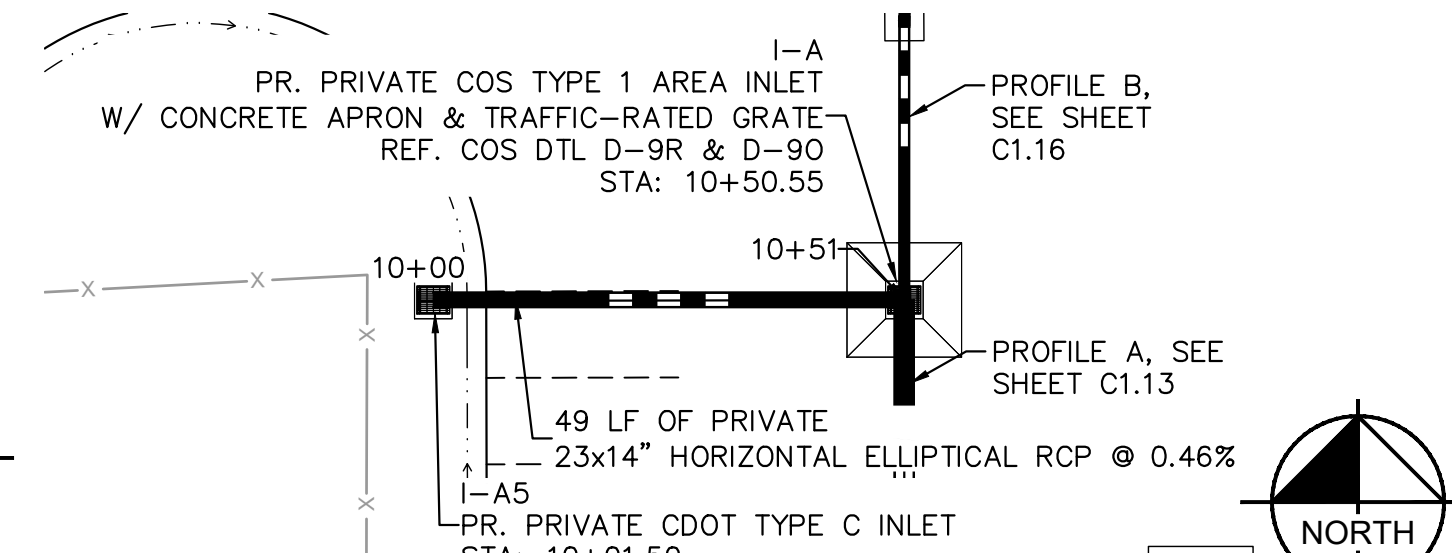
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STORM LINE A.3 - PLAN VIEW



STORM LINE A.4 - PLAN VIEW



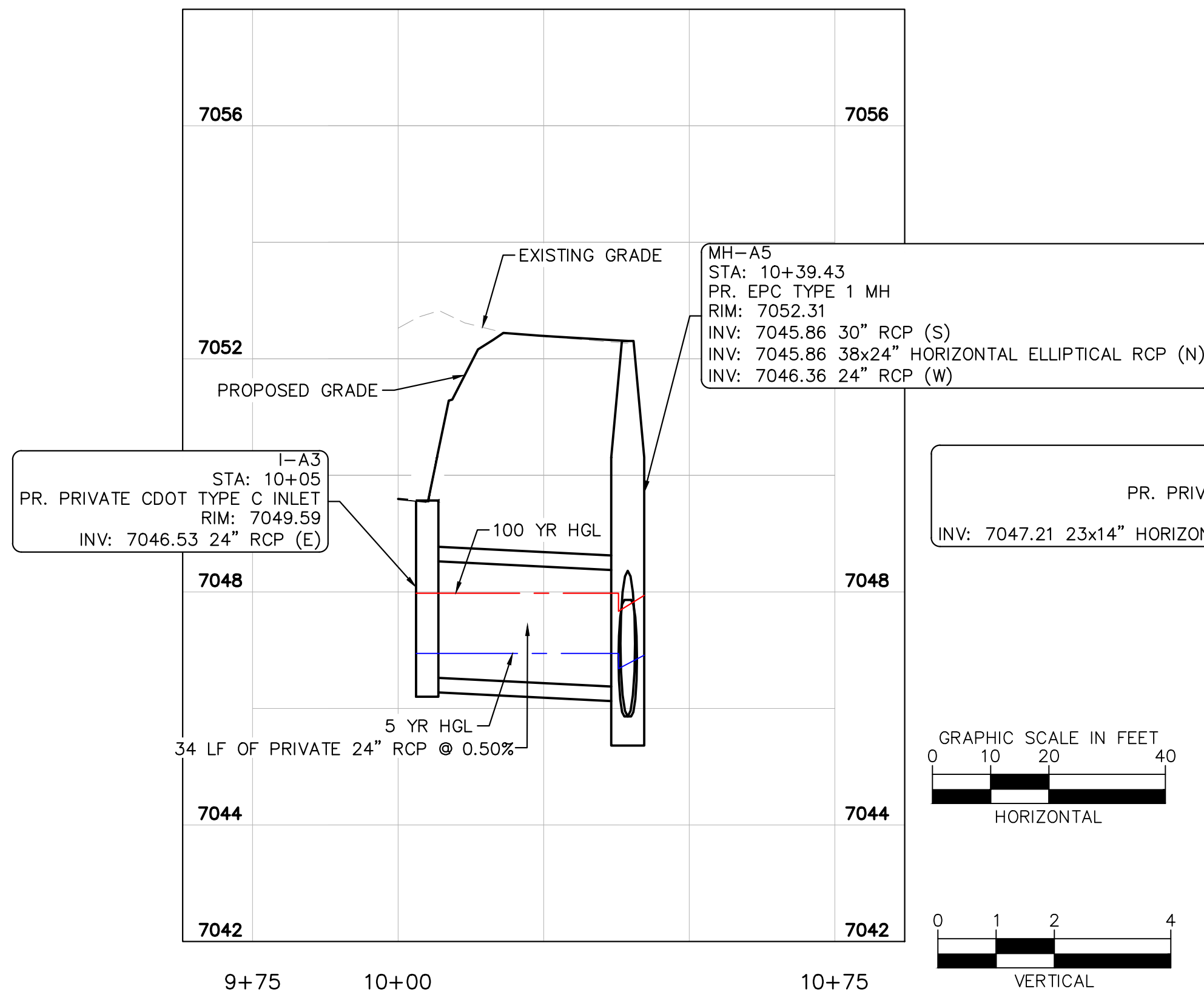
STORM LINE A.5 - PLAN VIEW

LEGEND

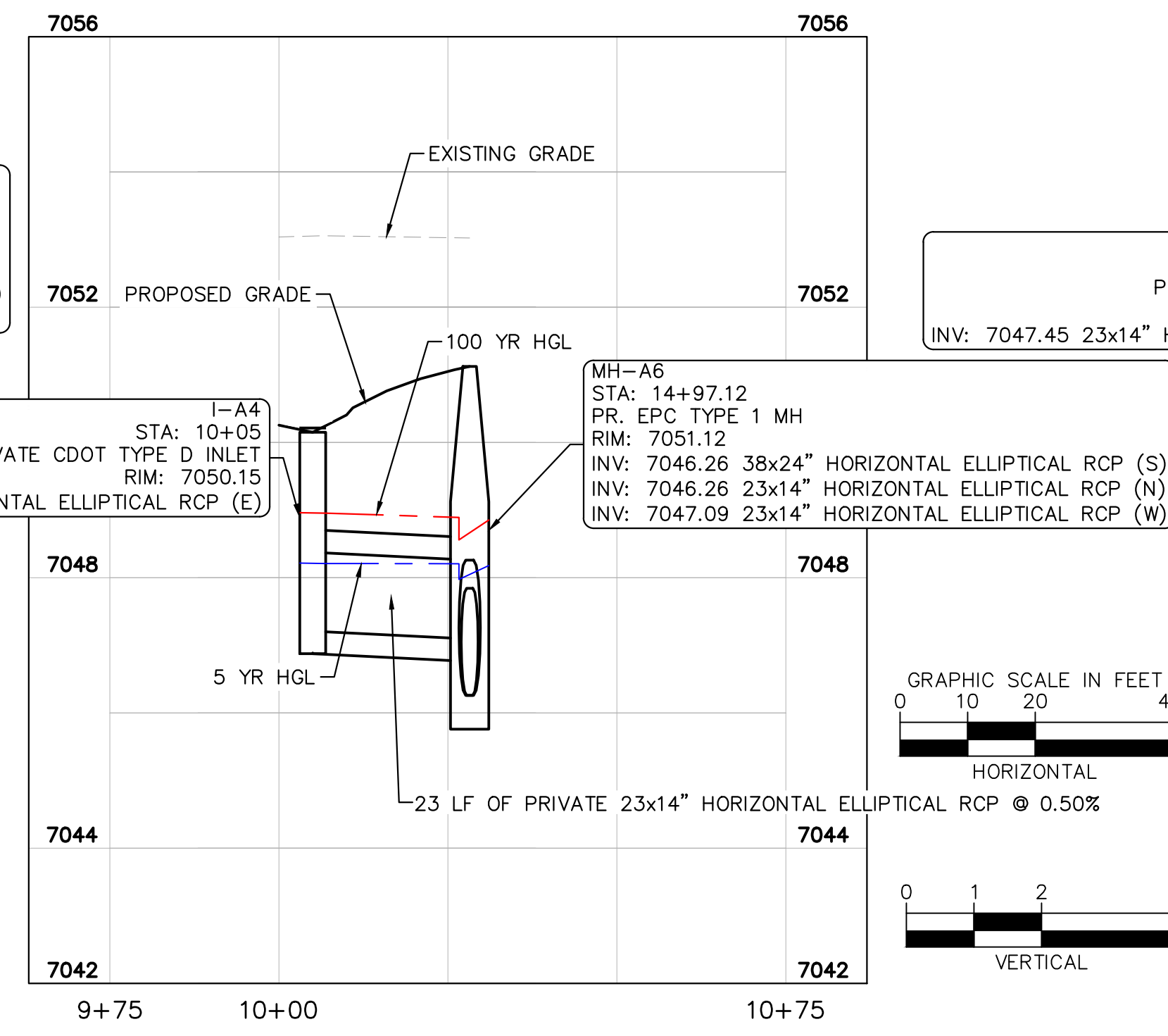
	PROPERTY LINE
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	SETBACK LINE
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	PROPOSED STORM LINE
	PROPOSED FIRE LINE
	PROPOSED WATER LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
	EXISTING ELECTRIC LINE
	EXISTING STORM LINE
	5-YR DESIGN STORM HGL
	100-YR DESIGN STORM HGL

NOTES

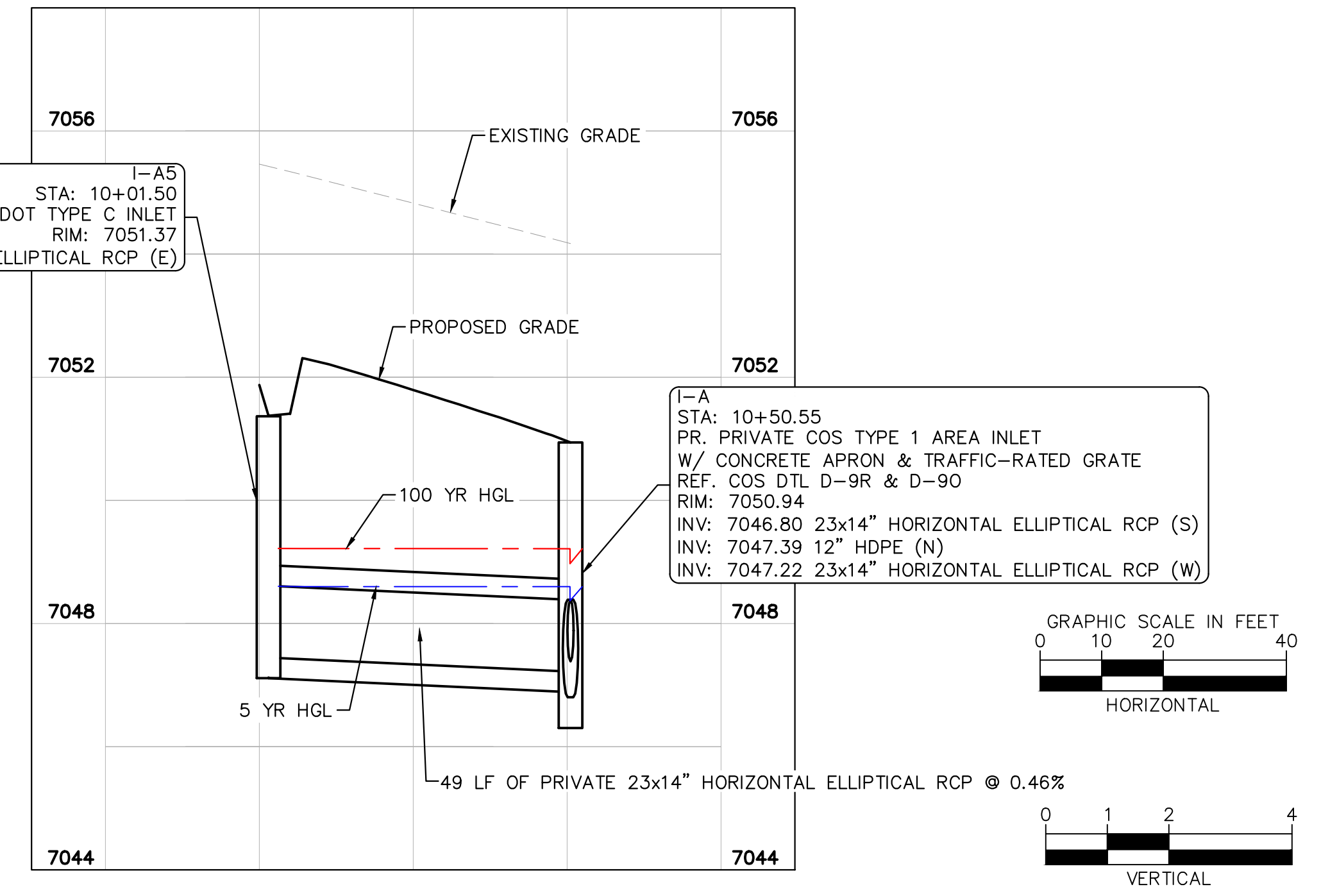
- ALL PROPOSED STORM INFRASTRUCTURE IS TO BE CONSIDERED PRIVATE UNLESS OTHERWISE NOTED.
- PIPE BEDDING MATERIAL PER WHMD STANDARD SPECIFICATION 3.3



STORM LINE A.3 - PROFILE VIEW



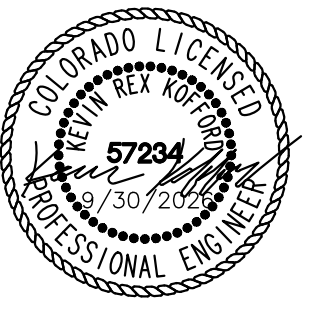
STORM LINE A.4 - PROFILE VIEW



STORM LINE A.5 - PROFILE VIEW

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SCALE	AS SHOWN
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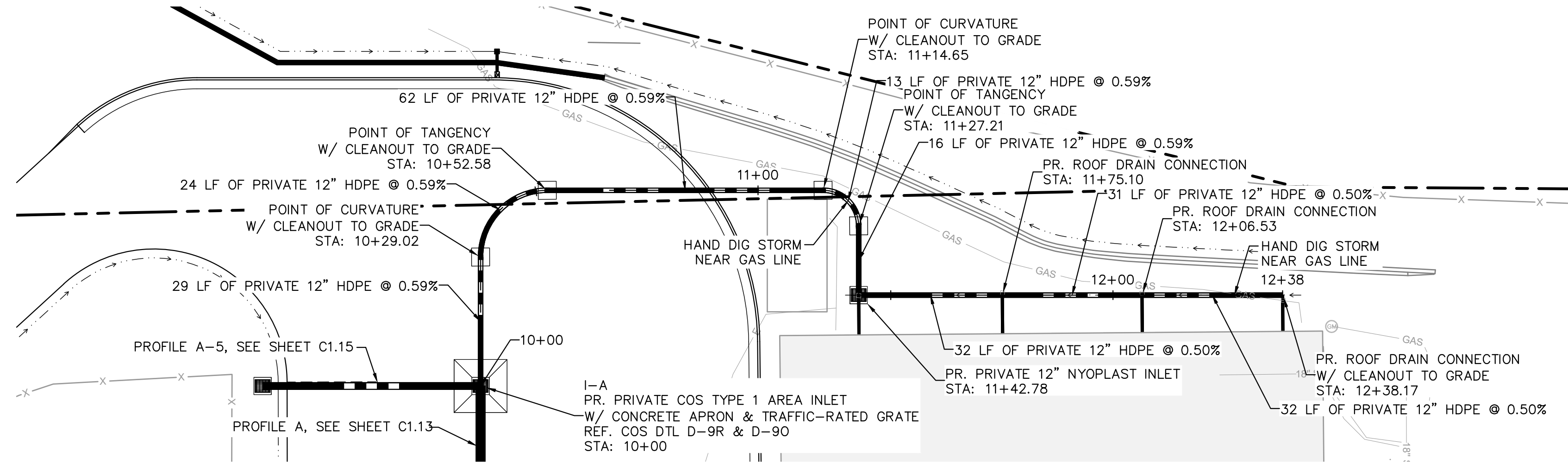
RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
EL PASO COUNTY
COLORADO

STORM PLAN AND PROFILE

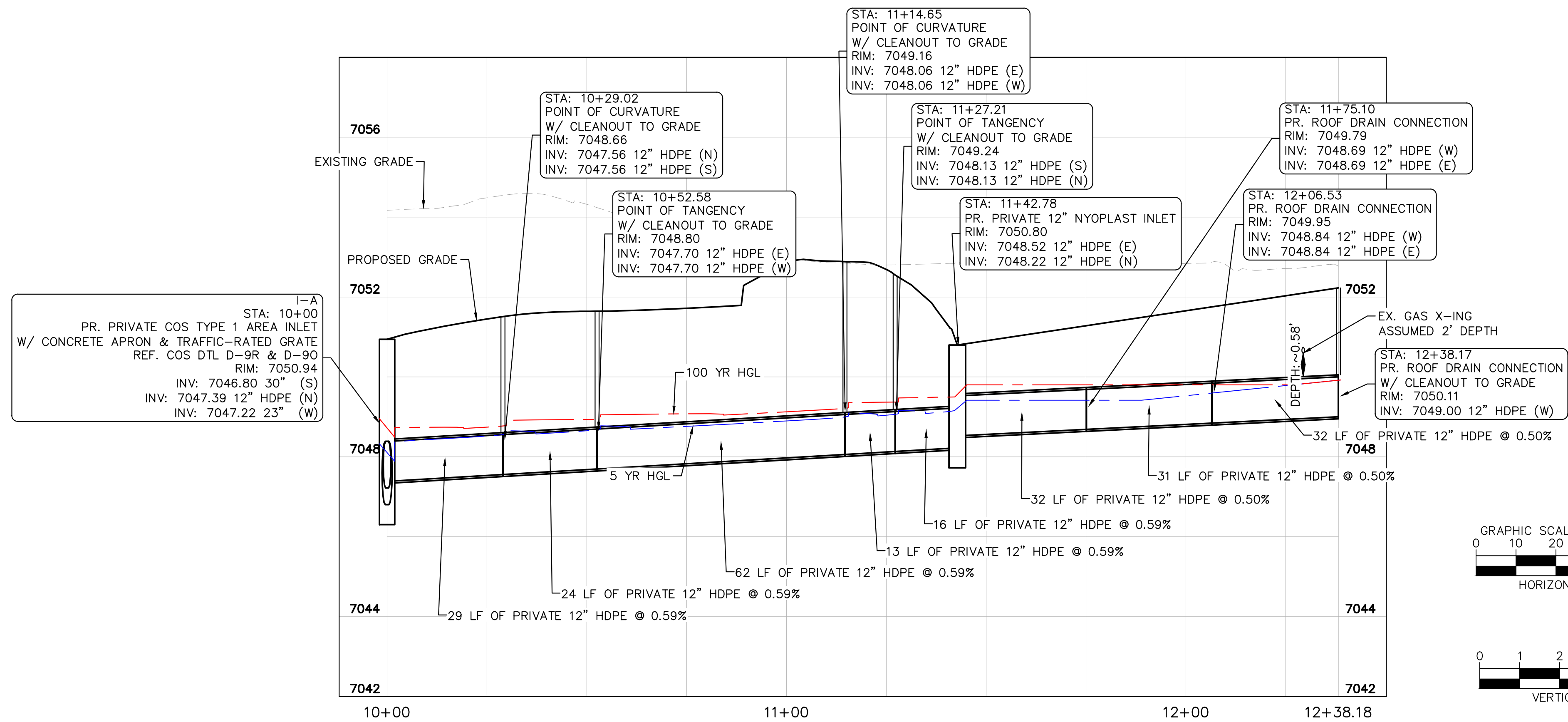
SHEET NUMBER
C1.15



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STORM LINE B - PLAN VIEW



STORM LINE B - PROFILE VIEW

LEGEND

- PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- PROPOSED SANITARY LINE
- PROPOSED STORM LINE
- PROPOSED WATER LINE
- PROPOSED FIRE LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
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- 5-YR DESIGN STORM HGL
- 100-YR DESIGN STORM HGL

NOTES

- ALL PROPOSED STORM INFRASTRUCTURE IS TO BE CONSIDERED PRIVATE UNLESS OTHERWISE NOTED.
- PIPE BEDDING MATERIAL PER WHMD STANDARD SPECIFICATION 3.3
- HDPE SHALL BE DUAL WALL FLEXIBLE PIPE (ADS N-12 OR APPROVED EQUIVALENT).

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COLORADO

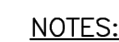
STORM PLAN AND PROFILE

SHEET NUMBER
C1.16





LEGEND FOR RADII	
A	1/8" TO 1/4"
B	1-1/2"
C	1-1/2" TO 2"



1. THIS DETAIL MAY BE USED FOR PAVEMENT CUTS LESS THAN 200 SQ. FT.
2. EXISTING PAVEMENT MAY BE ROUGH CUT INITIALLY IN CONJUNCTION WITH TRENCHING.
3. A SQUARE VERTICAL CUT SHALL BE MADE IN THE EXISTING A.C. PAVEMENT AFTER PLACEMENT OF BACKFILL PRIOR TO PAVEMENT REPLACEMENT.
4. THICKNESS OF NEW A.C. PAVEMENT REPLACEMENT SHALL MATCH EXISTING (4" MIN.)
5. THICKNESS OF NEW BASE COURSE SHALL BE MINIMUM OF 6" OR EQUAL TO EXISTING, WHICHEVER IS GREATER.

SCALE: NOT TO SCALE

8/11/11 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Utility Trench Repair Detail Asphalt Pavement Standard Drawing	
	REVISION DATE: 11/10/04	FILE NAME: SD_4-20



△ ALSO EQUIVALENT ROUND DIMENSION FOR ELLIPTICAL PIPE

DIMENSIONS FOR REINFORCED CONCRETE PIPE

(FOR INFORMATION ONLY)



H = HEIGHT OF FILL OVER TOP OF PIPE, INCLUDING PAVEMENT THICKNESS.

L_1 = LENGTH OF PIPE TO BE MEASURED WHEN PLACED IN ACCORDANCE WITH SECTION 624.
 L_2 = LENGTH OF PIPE TO BE MEASURED WHEN PLACED IN ACCORDANCE WITH SECTION 603.



CONSTRUCTION
MINIMUM COVER FOR RIGID PIPE

ALLOWABLE RANGE OF HEIGHTS FOR FILL OVER REINFORCED CONCRETE PIPE

(ALL SIZES)

Issued by the Project Development Branch: July 31, 2019

Standard Sheet No. 1 of 1

Project Sheet Number

REINFORCED CONCRETE PIPE

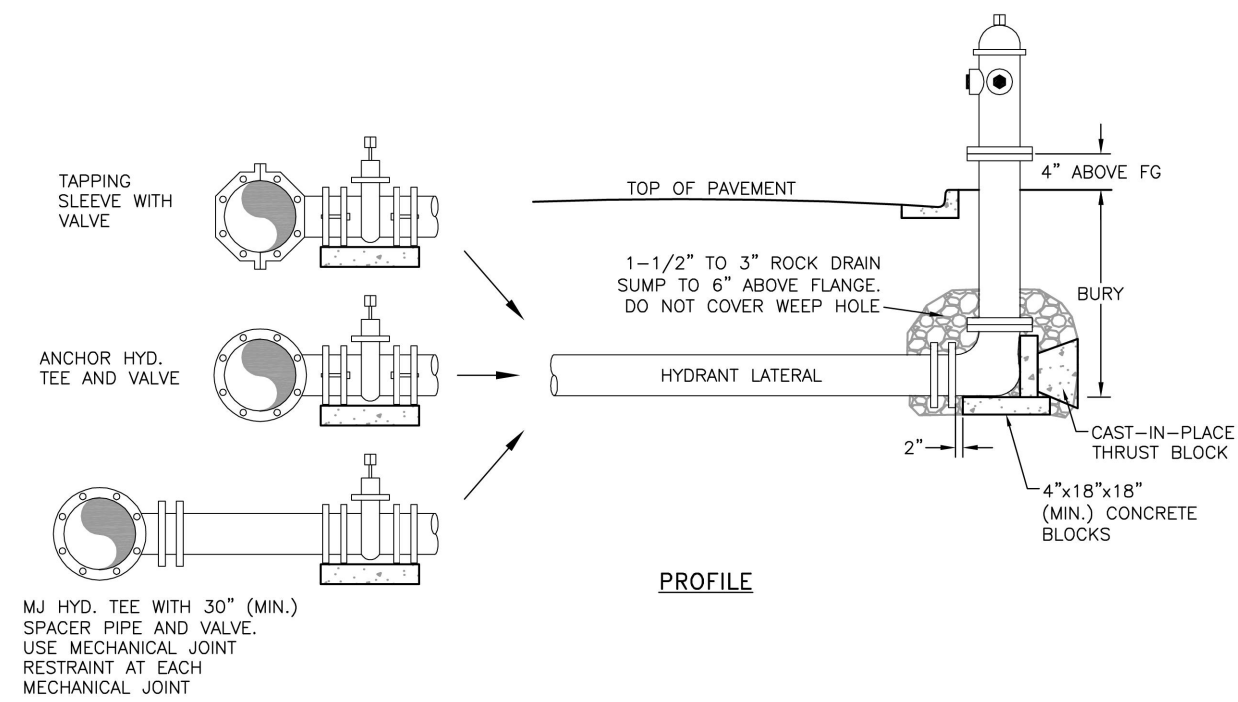
STANDARD PLAN NO.
M-603-2
Standard Sheet No. 1 of 1
Project Sheet Number:



811 Know what's below.
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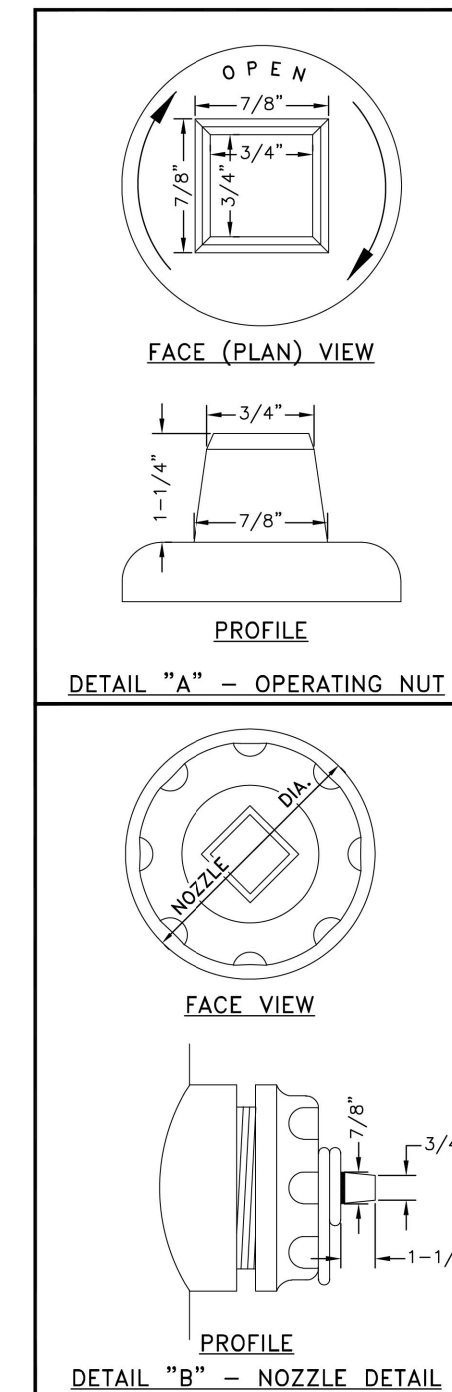
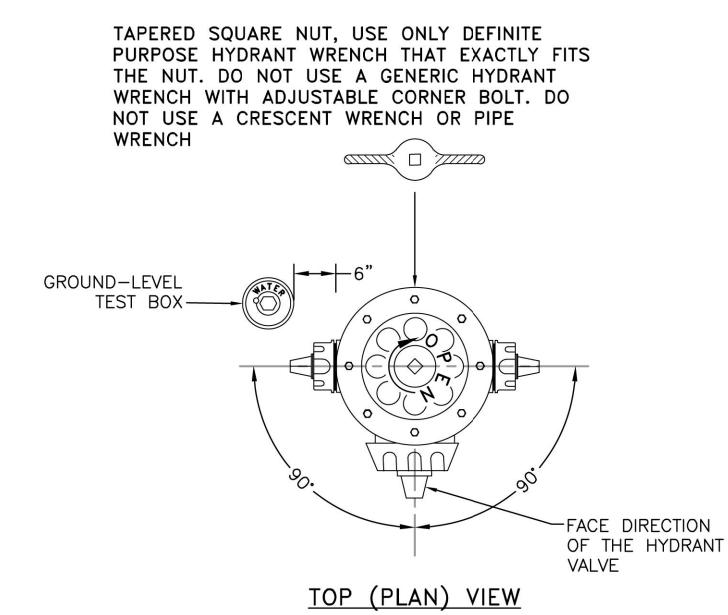
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PCD FILE NO.: CDR268



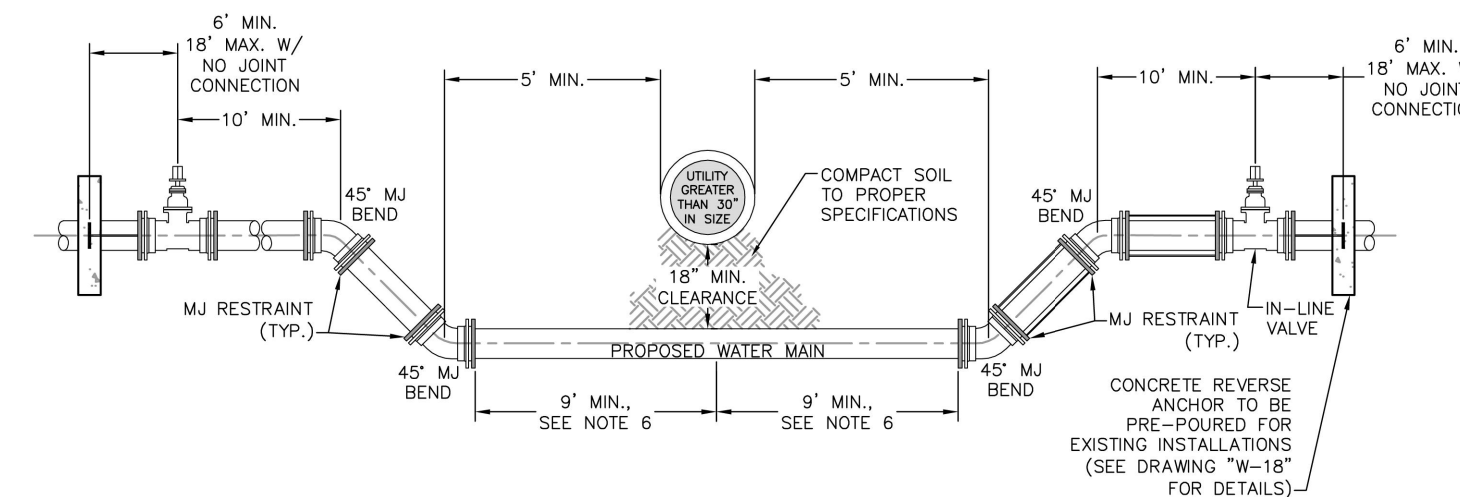
FIRE HYDRANT INSTALLATION

Drawn: GGM/SKG	Revised: DECEMBER 2021	 WOODMEN HILLS METROPOLITAN DISTRICT	WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	W-2
Date: MARCH 2011	Revised:			
Scale: N.T.S.	Revised:			



FIRE HYDRANT SPECIFICATIONS

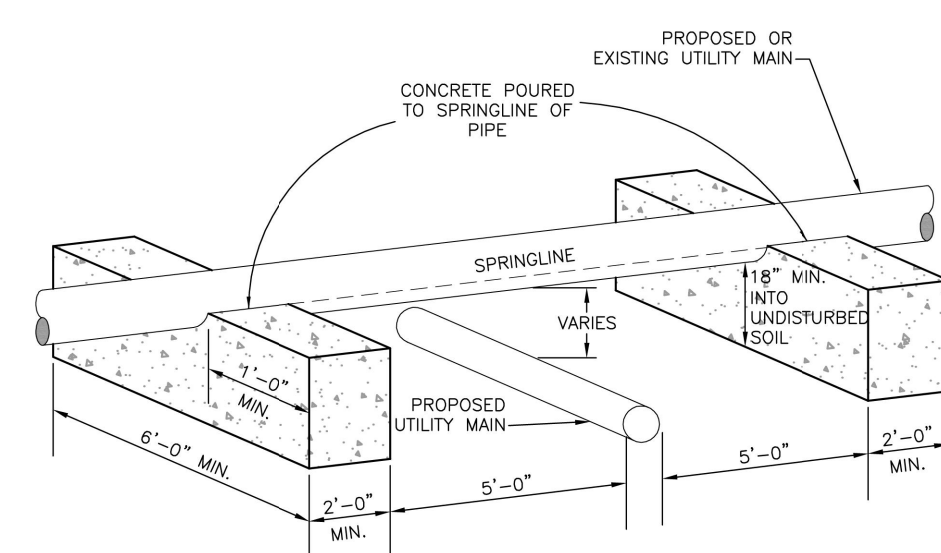
Drawn: GCM	Revised: DECEMBER 2021	 WOODMEN HILLS METROPOLITAN DISTRICT	WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	W-3
Date: MARCH 2011	Revised:			
Scale: N.T.S.	Revised:			



LOWERING DETAIL - UTILITY CROSSING 30" & SMALLER

Drawn: SKG	Revised: DECEMBER 2021	 WOODMEN HILLS METROPOLITAN DISTRICT	WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	W-19
Date: MARCH 2011	Revised:			
Scale: N.T.S.	Revised:			

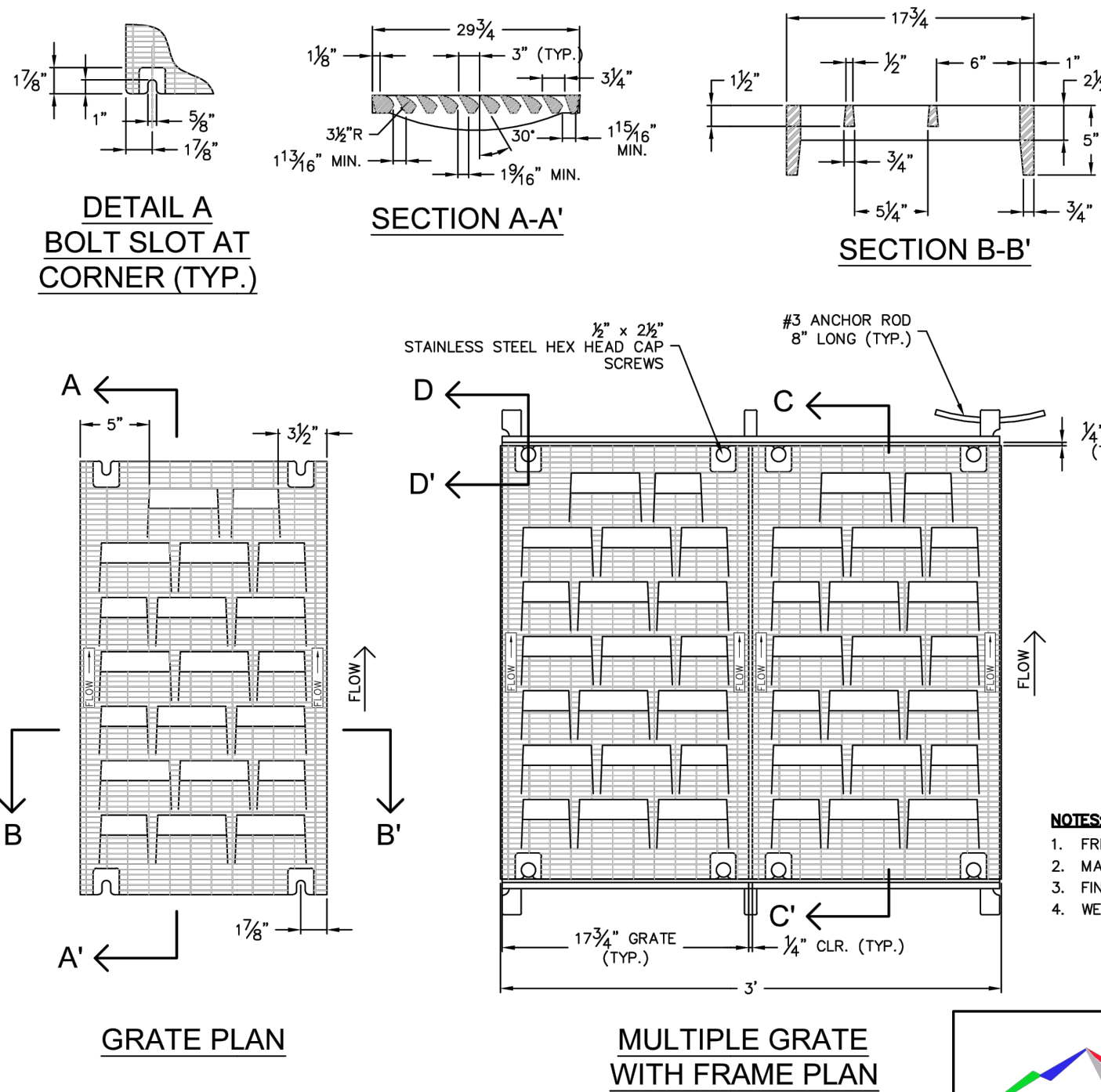
- NOTES:
1. ALL DUCTILE IRON FITTINGS AND PIPE SHALL BE CATHODICALLY PROTECTED.
 2. ALL FITTINGS SHALL HAVE MJ RESTRAINTS.
 3. EXAMPLE CAN VARY DUE TO SITE CONDITIONS AND DISTRICT INSPECTOR'S DIRECTION.
 4. RESTRAINED JOINTS ARE REQUIRED WITHIN LOWERING.
 5. NO TAPS OR TEES ARE ALLOWED WITHIN THE LOWERING.
 6. WHERE WATER MAIN CROSSES UNDER STORM SEWER, WASTEWATER, OR NON-POTABLE WATER INFRASTRUCTURE, A MINIMUM OF 9 FEET IS REQUIRED BETWEEN THE CENTERLINE OF THE CROSSING AND THE FIRST JOINT.



- NOTES:
1. CONCRETE BLOCKS TO BE REINFORCED WITH #6 REBAR SET ON 12" CENTERS.
 2. NO JOINTS OF UTILITY MAIN SHALL BE ALLOWED BETWEEN CONCRETE BRIDGING BLOCKS.

PIPE BRIDGING DETAIL

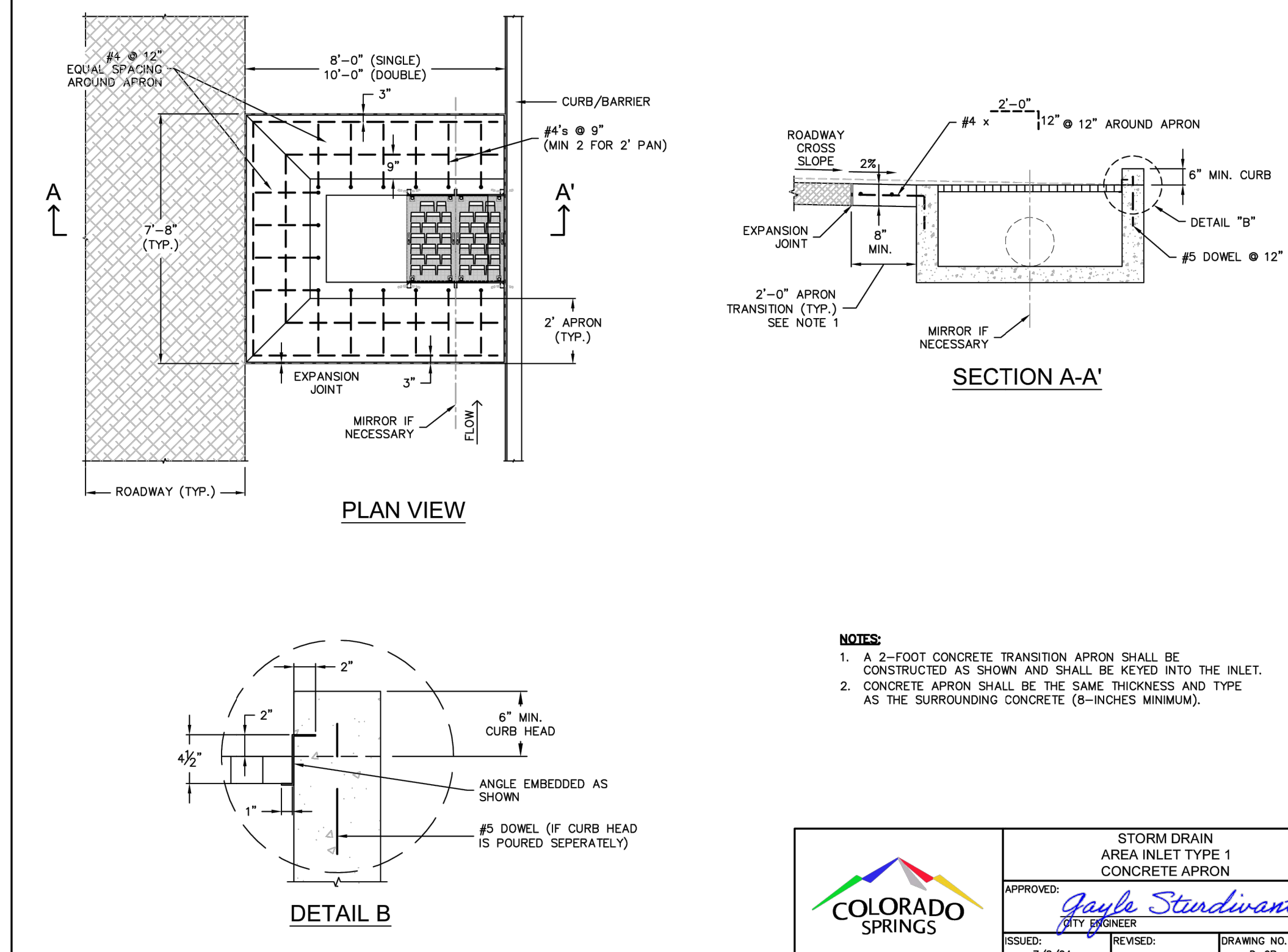
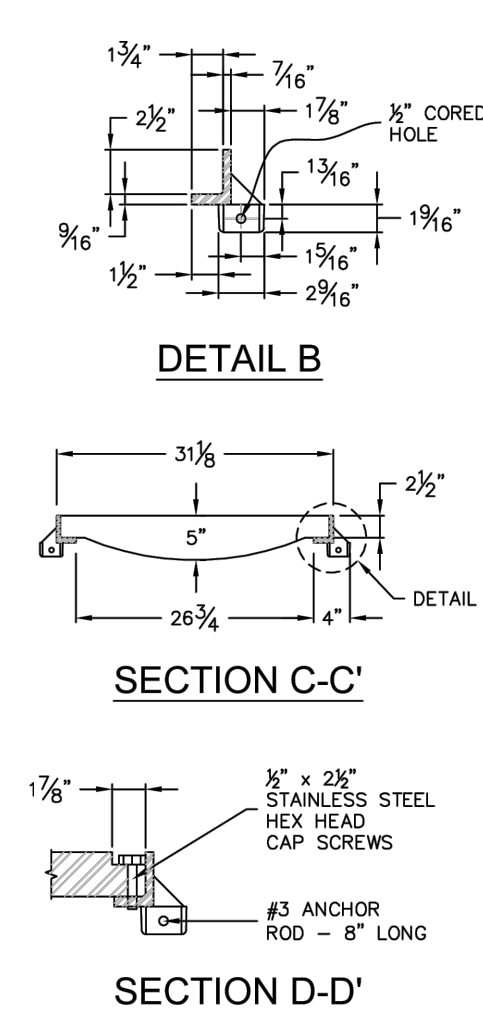
Drawn: GGM	Revised: DECEMBER 2021	 WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	W-21
Date: MARCH 2011	Revised:		
Scale: N.T.S.	Revised:		



- NOTES:**
1. FREE OPEN AREA: 190-SQUARE INCHES/GRATE
 2. MATERIAL: CAST IRON ASTM A-48 CLASS 35b.
 3. FINISH: GALVANIZED (HOT DIP)
 4. WEIGHT: 170-LBS. EACH; FRAME 29-LBS. EACH



STORM DRAIN AREA INLET TYPE 1 FRAME AND GRATE		
APPROVED: <i>Gayle Sturdivant</i> CITY ENGINEER		
ISSUED: 7.10.04	REVISED:	DRAWING NO. 2-00



- NOTES:**
1. A 2-FOOT CONCRETE TRANSITION APRON SHALL BE CONSTRUCTED AS SHOWN AND SHALL BE KEYED INTO THE INLET.
 2. CONCRETE APRON SHALL BE THE SAME THICKNESS AND TYPE AS THE SURROUNDING CONCRETE (8-INCHES MINIMUM).



STORM DRAIN AREA INLET TYPE 1 CONCRETE APRON		
APPROVED: <i>Jayle Sturdivant</i> CITY ENGINEER		
ISSUED:	REVISED:	DRAWING NO.



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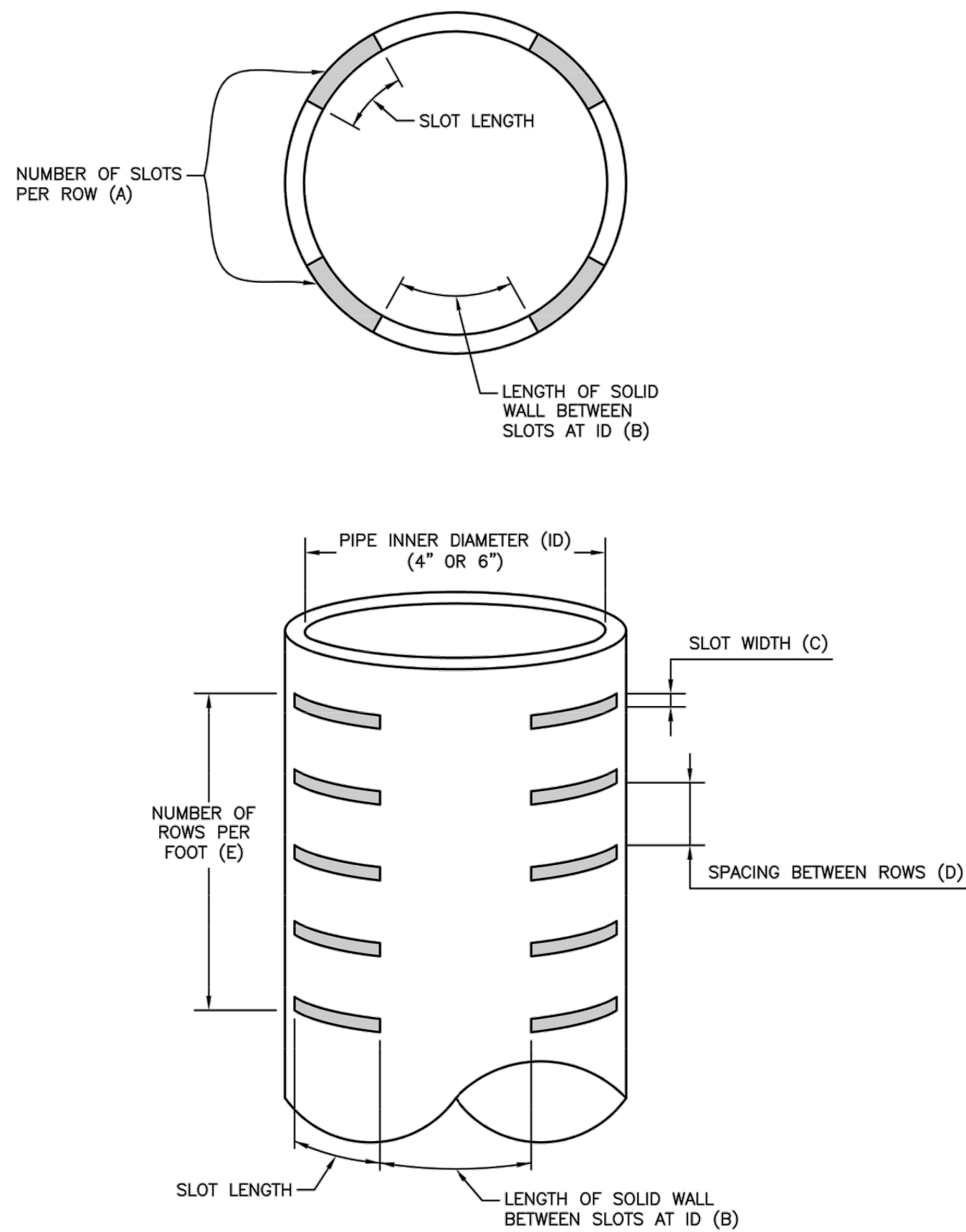
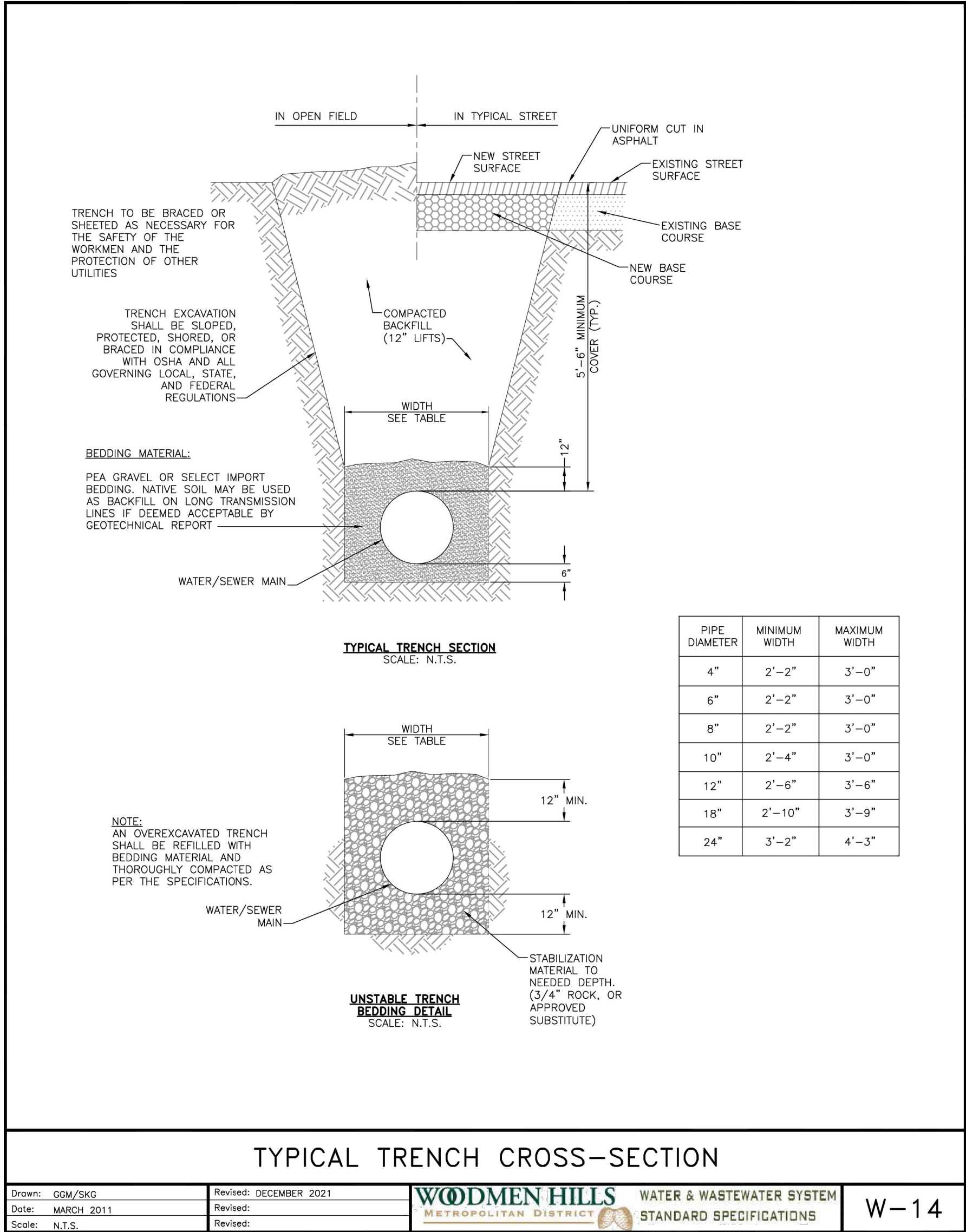
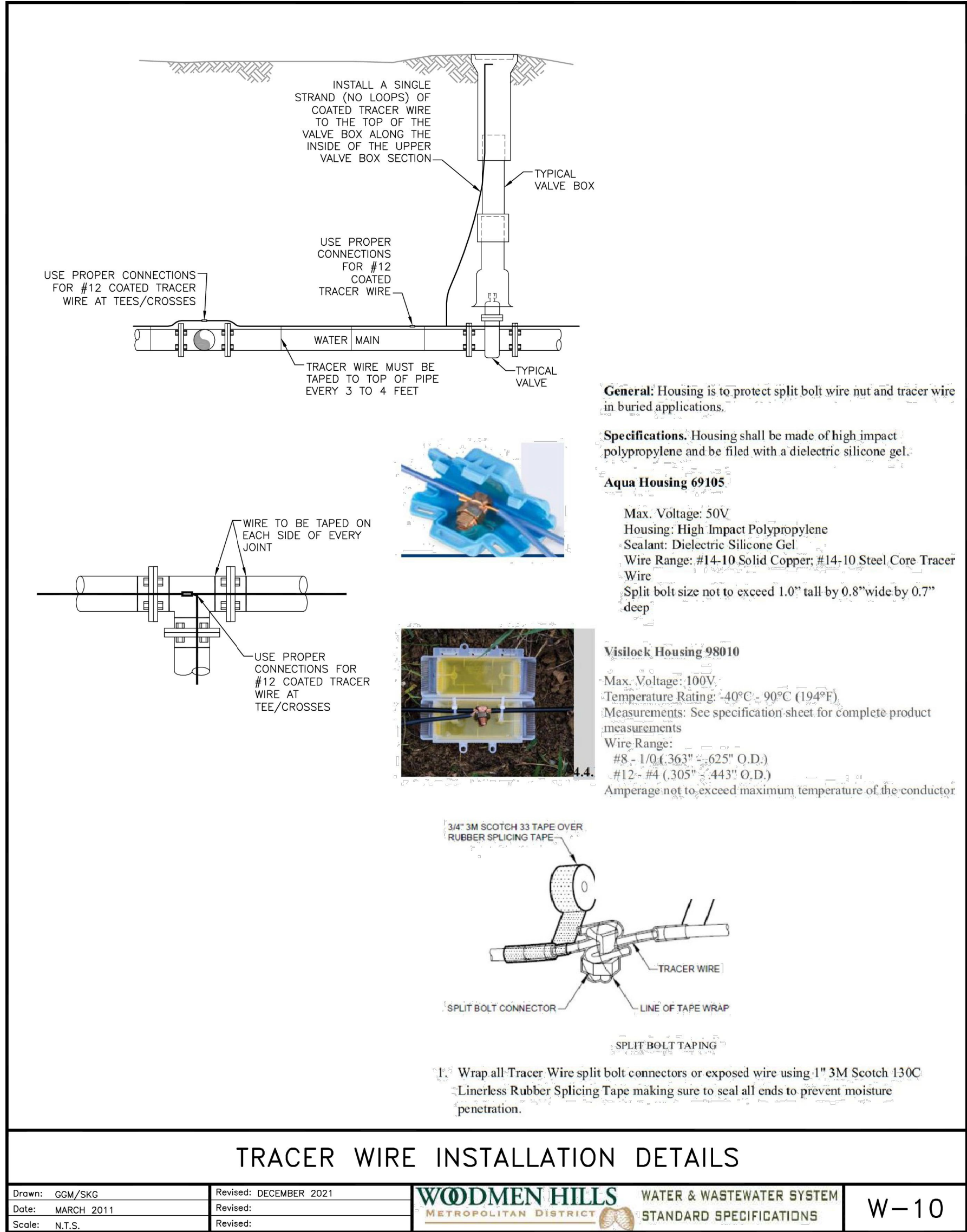
KHA PROJECT 196013004
DATE 2026-09-30
SCALE AS SHOWN
DESIGNED BY MEO
DRAWN BY MEO
CHECKED BY KRK

**RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
PASEO COUNTY
COLORADO**

DETAIL SHEET

SHEET NUMBER
C1.19

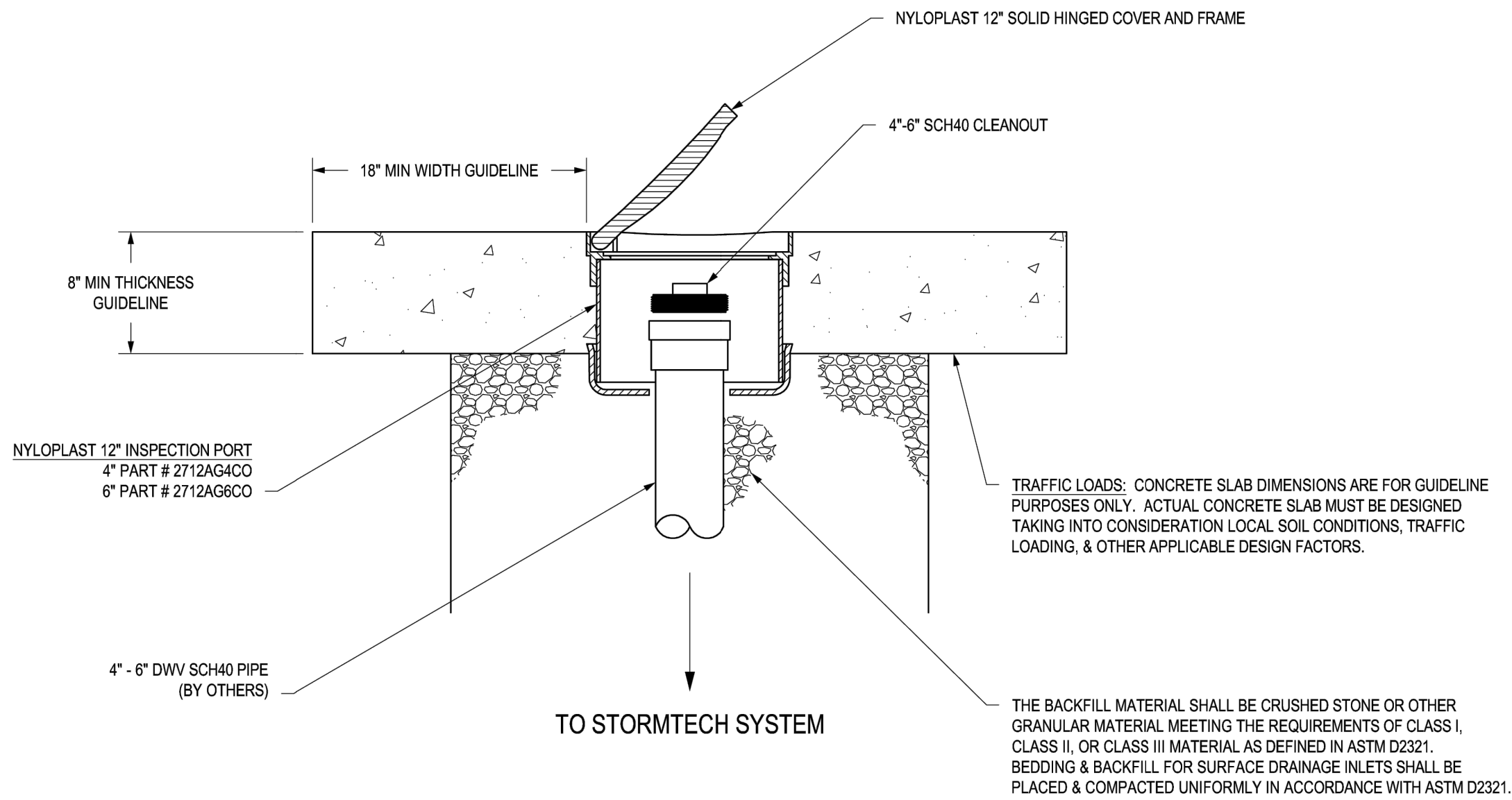
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DETAIL SHEET	RWRF STORMWATER IMPROVEMENTS PREPARED FOR WOODMEN HILLS METROPOLITAN DISTRICT EL PASO COUNTY	KHA PROJECT 196013004 DATE 2026-09-30 SCALE AS SHOWN DESIGNED BY MEG DRAWN BY MEG CHECKED BY KRK		Kimley»Horn © 2026 KIMLEY-HORN AND ASSOCIATES, INC. 2 N NEVADA AVE SUITE 100, COLORADO SPRINGS, CO 80903 WWW.KIMLEY-HORN.COM REGISTRY No. 35108	Revisions	By	Date
SHEET NUMBER C1.20							

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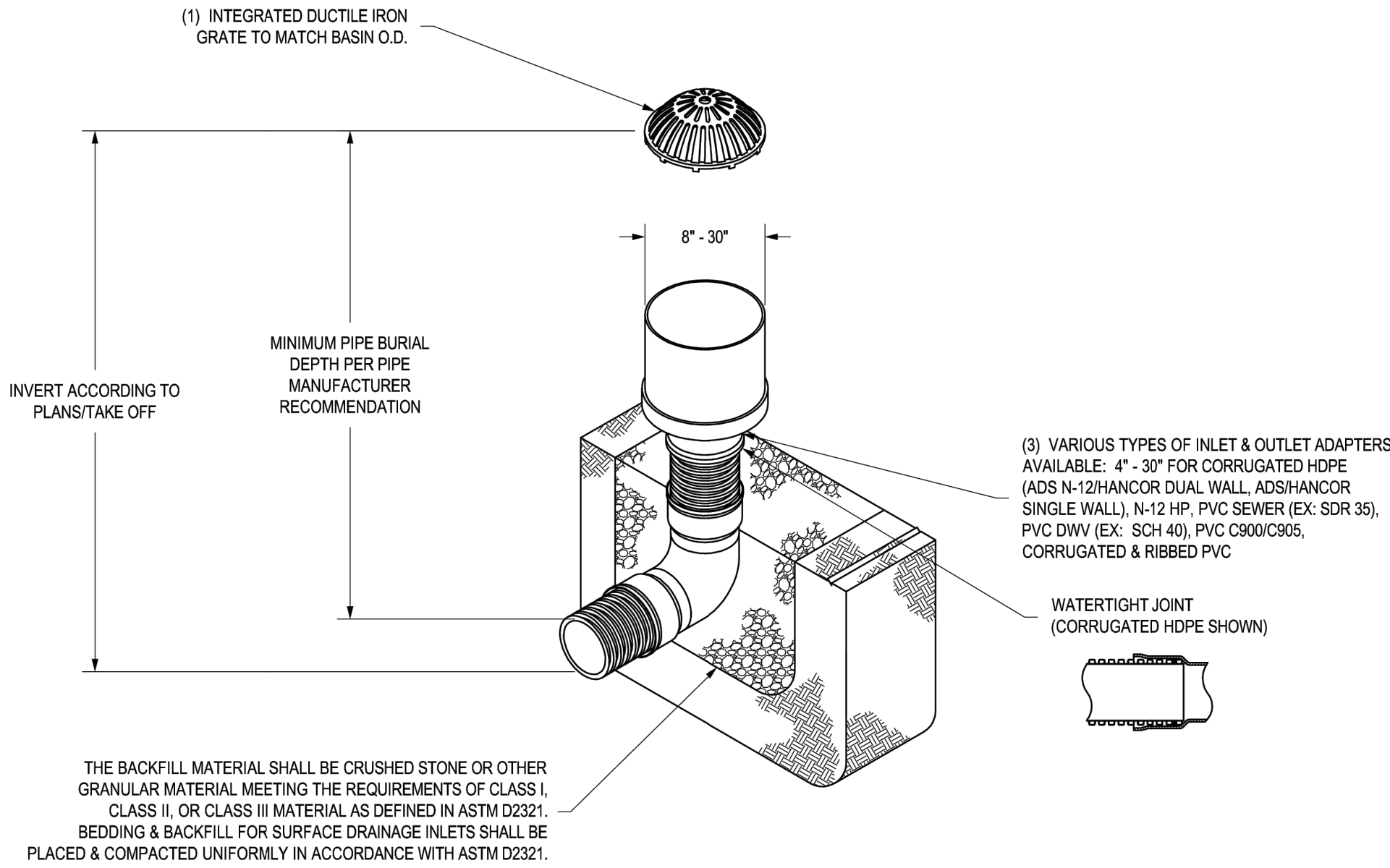
NYLOPLAST 12" INSPECTION PORT: TRAFFIC RATED INSTALLATION



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DATE 7-27-12		REVISD BY NMH		PROJECT NO. NAME			
DATE 03-16-16		DWG SIZE A		SCALE 1:10 SHEET 1 OF 1		TITLE INSPECTION PORT FOR STORMTECH SYSTEMS - TRAFFIC RATED INSTALLATION	
DWG NO. 7003-110-065		REV C					

STORM CLEANOUT DETAIL

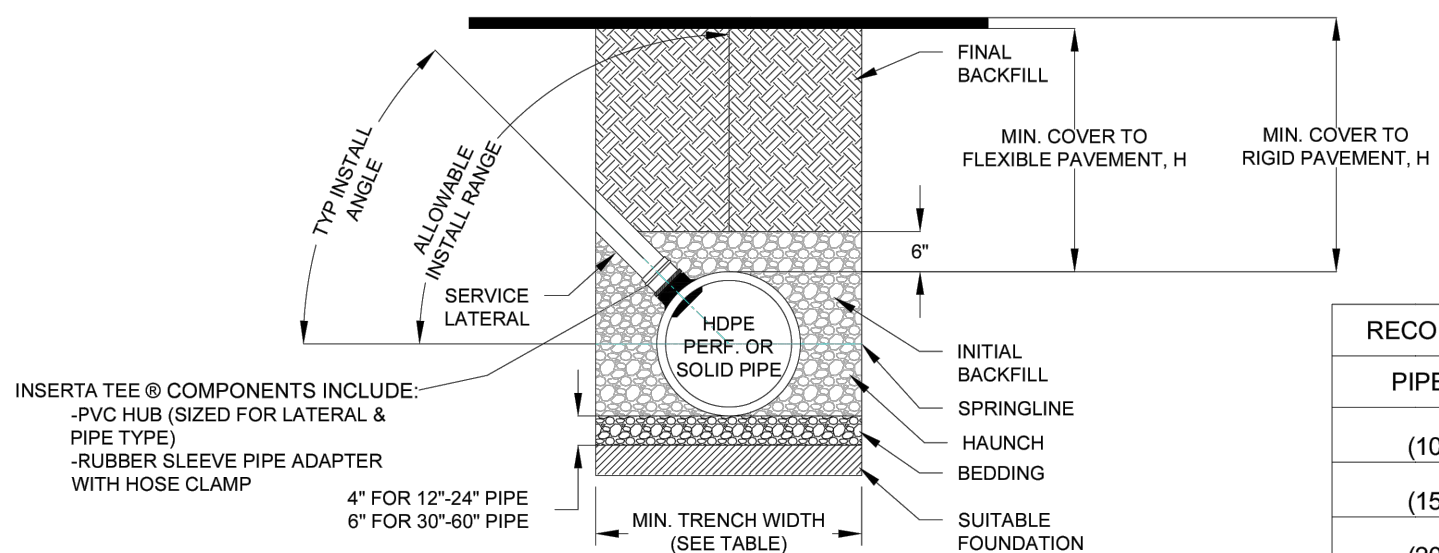
NYLOPLAST INLINE DRAIN WITH DOME GRATE



1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.		THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.		DRAWN BY EBC		MATERIAL				3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com	
2 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 30").				DATE 03-25-10		REVISD BY NMH		PROJECT NO. NAME			
3 - 8" - 30" DOME GRATES HAVE NO LOAD RATING				DATE 03-15-16						TITLE	
				DWG SIZE A		SCALE 1:40		SHEET 1 OF 1		DWG NO. 7003-110-057	
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12" NYOPLAST INLET DETAIL

INSERTA TEE® DETAIL (HDPE)



NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. THE INSERTA TEE CONNECTION CAN BE INSTALLED UP TO A VERTICAL ORIENTATION, BUT A 45° INSTALL ANGLE IS MOST COMMON. GREATER ANGLES ARE SUBJECT TO DESIGN ENGINEER APPROVAL AND MAY REQUIRE PREMIUM BACKFILL.
4. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL, AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
5. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).
6. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
7. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

NOTE: FOR INSTALLATION INSTRUCTIONS, REFER TO DETAIL STD-1100. FOR PROTRUSION INFORMATION, REFER TO DETAIL STD-1101. FOR HOLE SAW INFORMATION, REFER TO DETAIL STD-1102.

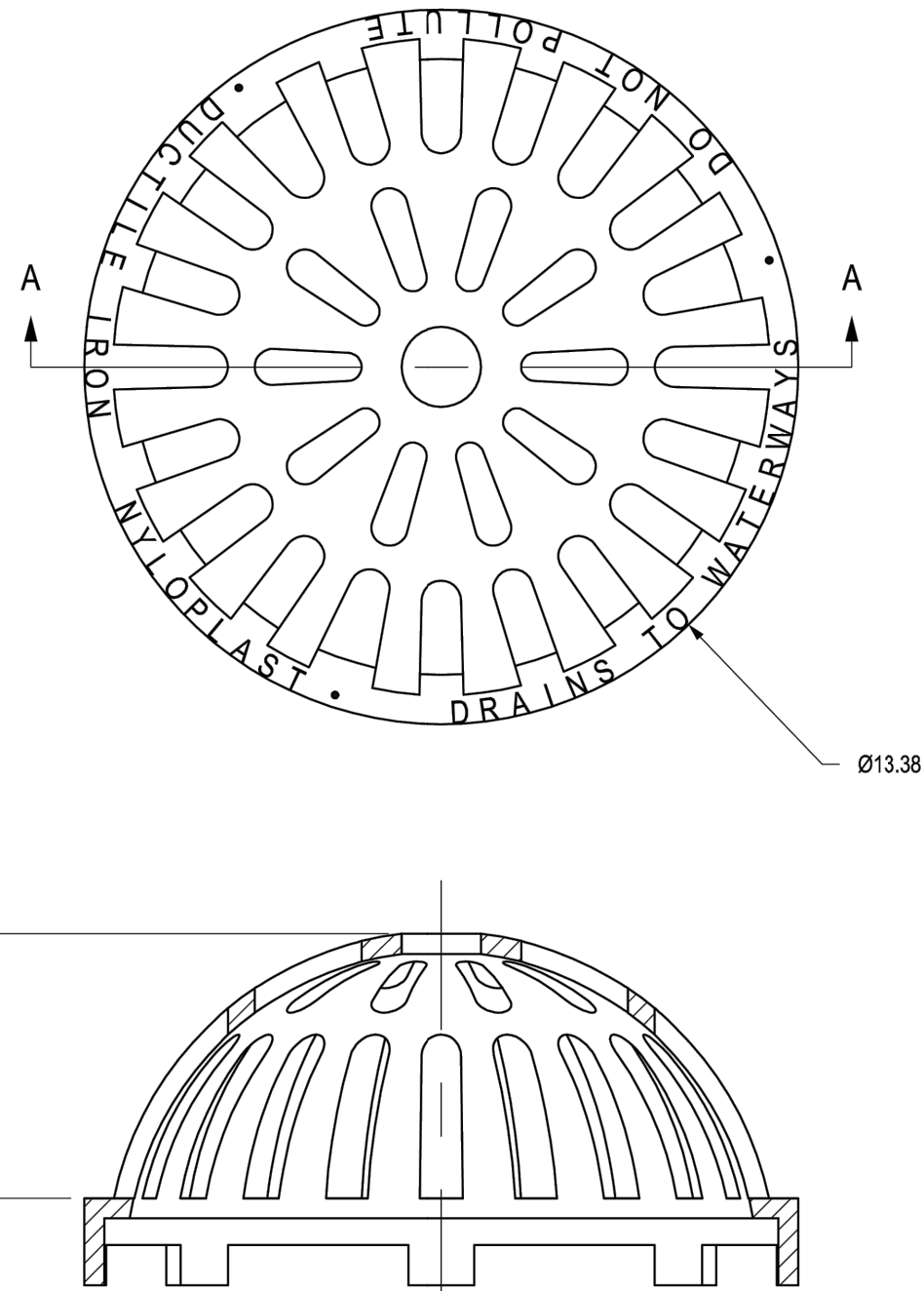
RECOMMENDED MINIMUM TRENCH WIDTHS	
PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
(100mm)	(533mm)
6"	23"
(150mm)	(584mm)
8"	26"
(200mm)	(660mm)
10"	28"
(250mm)	(711mm)
12"	30"
(300mm)	(762mm)
15"	34"
(375mm)	(864mm)
18"	39"
(450mm)	(991mm)
24"	48"
(600mm)	(1219mm)
30"	56"
(750mm)	(1422mm)
36"	64"
(900mm)	(1626mm)
42"	72"
(1050mm)	(1829mm)
48"	80"
(1200mm)	(2032mm)
54"	88"
(1350mm)	(2235mm)
60"	96"
(1500mm)	(2438mm)

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEET OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.			4640 TRUEAMEN BLVD HILLIARD, OH 43026	DESIGN BY	HAK
INSERTA TEE DETAIL (HDPE)				CHECKED BY	07/19/23
DRAWING NUMBER		STD-1101		DESIGNED BY	ENG
			SCALE	NTS	
			DATE	1	

ROOF DRAIN CONNECTION DETAIL

1299CGD

APPROX. DRAIN AREA = 82.87 SQ IN
APPROX. WEIGHT = 18.50 LBS



SECTION A-A

DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.	DRAWN BY	EBC	MATERIAL		3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com				
	DATE	05-06-06	DUCTILE IRON						
	REVISD BY	CCA	PROJECT NO. NAME	TITLE					
	DATE	08-30-13							
DWG SIZE	A	SCALE	1:4	SHEET	1 OF 1	DWG NO.	7001-110-206	REV	E

12" NYOPLAST DOME GRATE DETAIL

GENERAL NOTES:

1. DETAILS ON THIS SHEET TO BE BY ADS OR OF AN APPROVED EQUIVALENT STORM SOLUTION MANUFACTURER.

Kimley»Horn

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WWW.KIMLEY-HORN.COM REGISTRY NO. 35108



KHA PROJECT 196013004	DATE 2026-09-30	SCALE AS SHOWN	DESIGNED BY MEO	DRAWN BY MEO	CHECKED BY KRK
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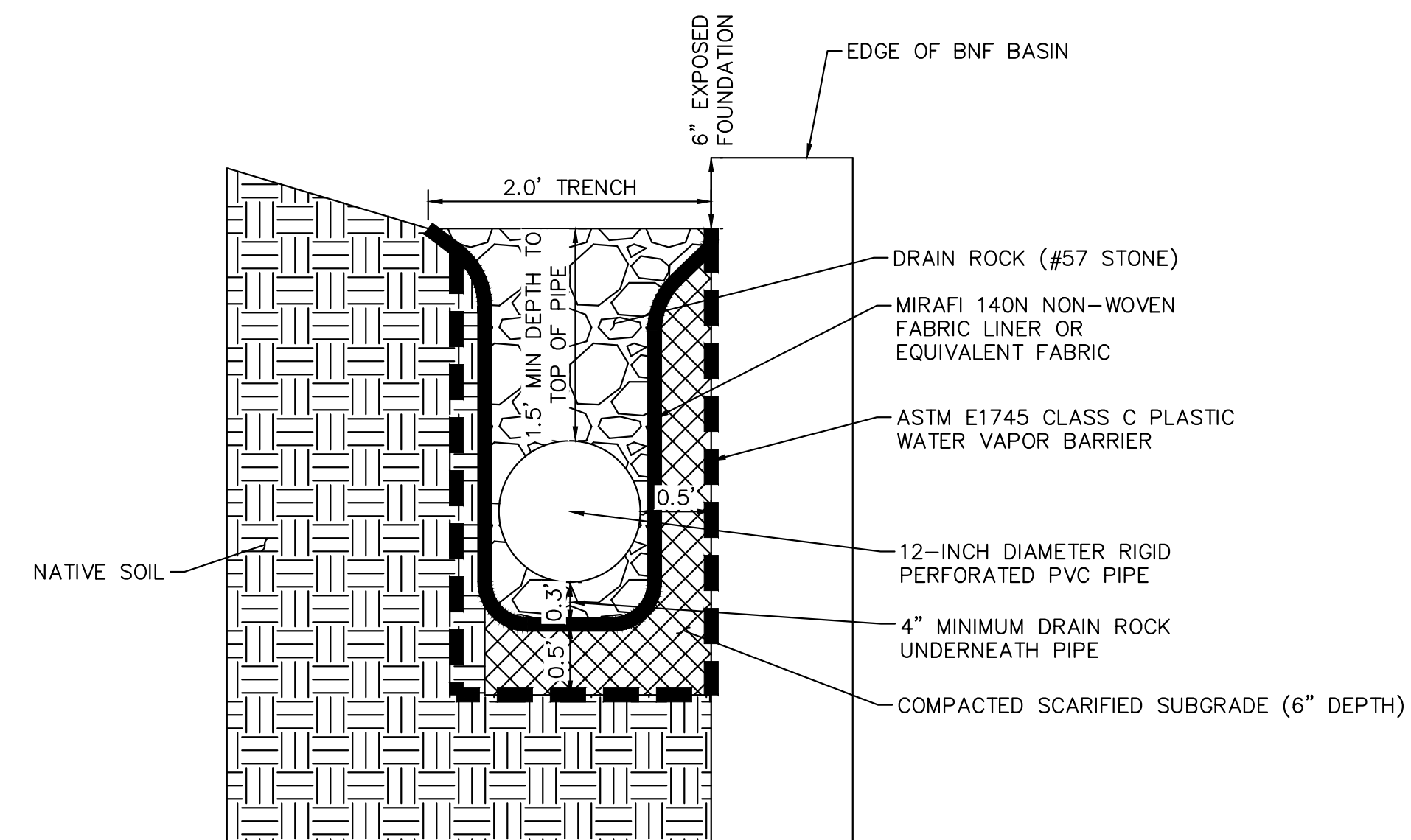
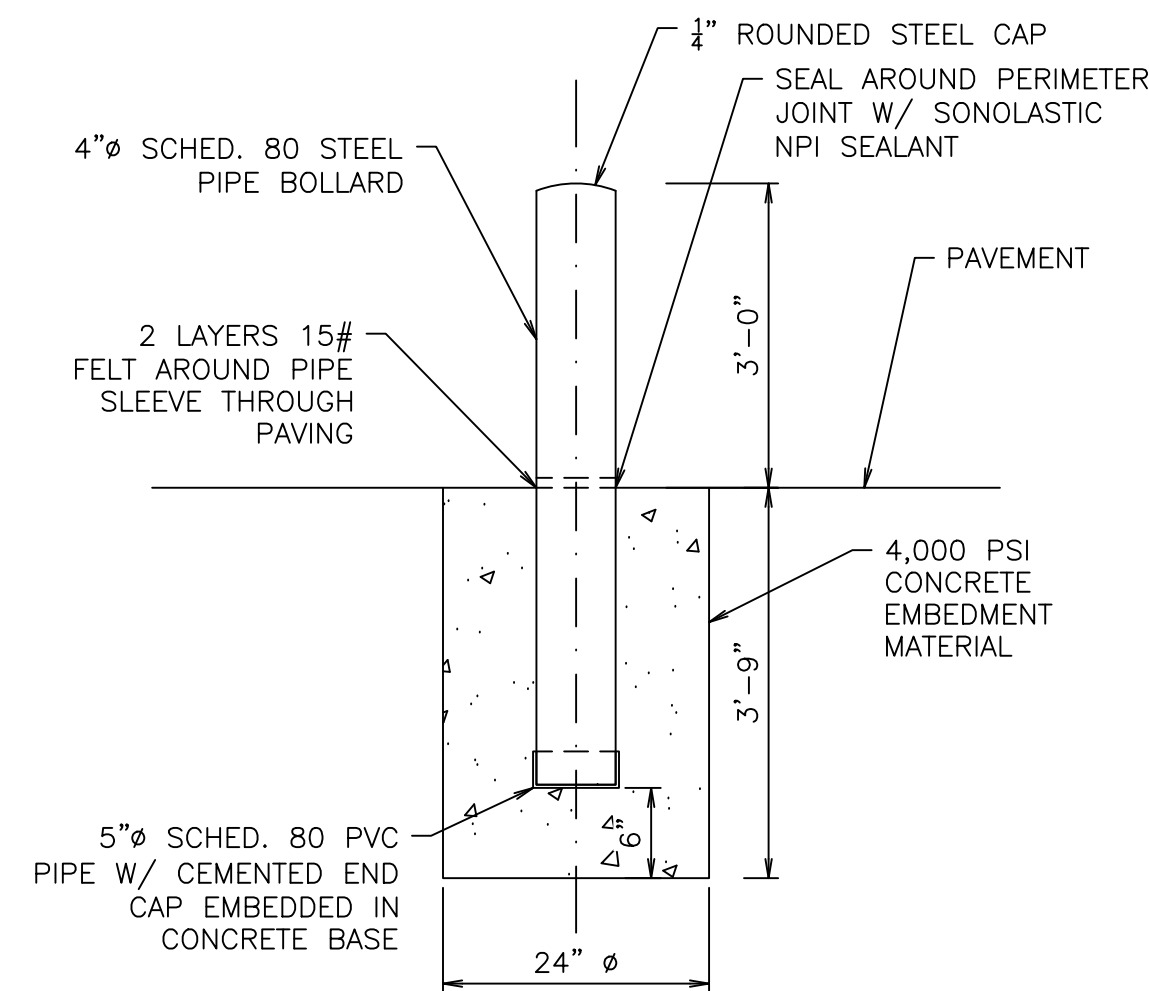
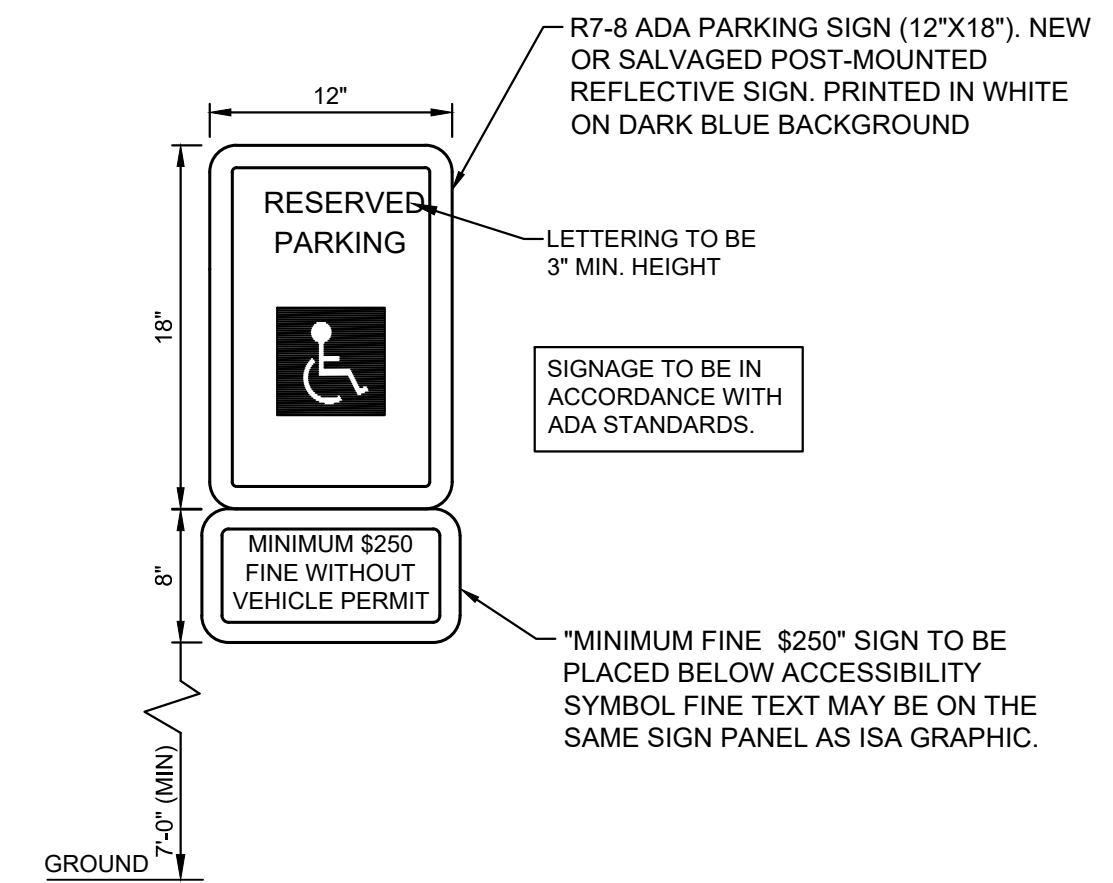
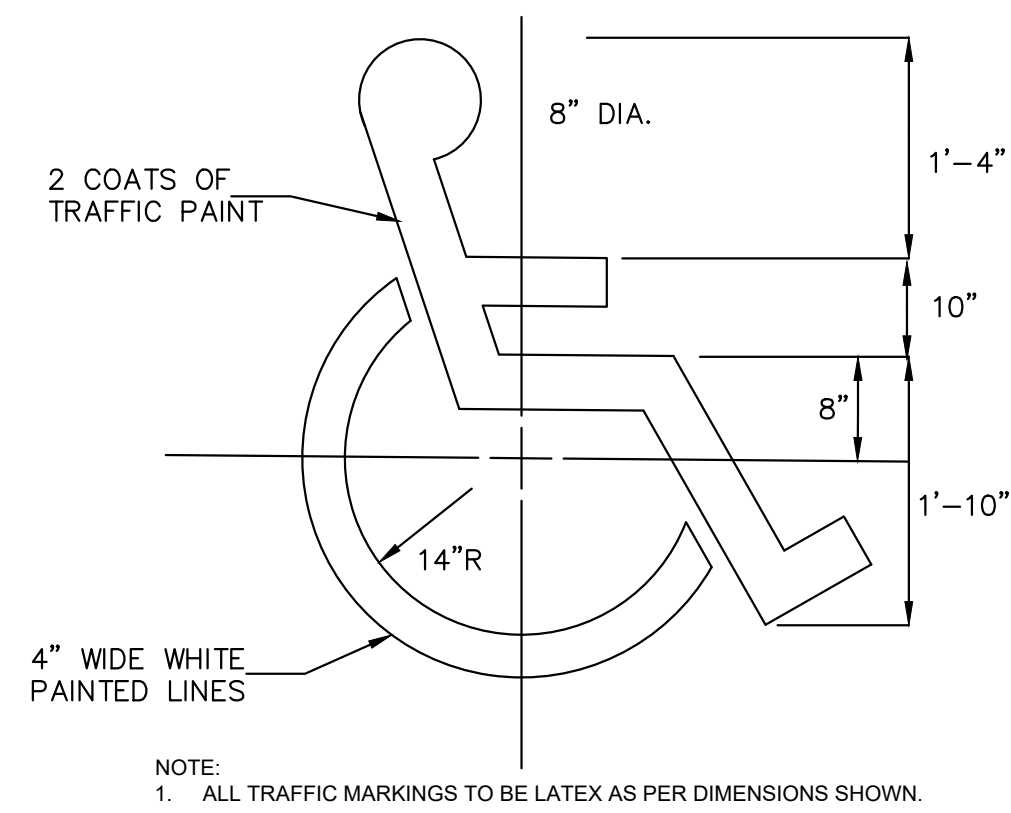
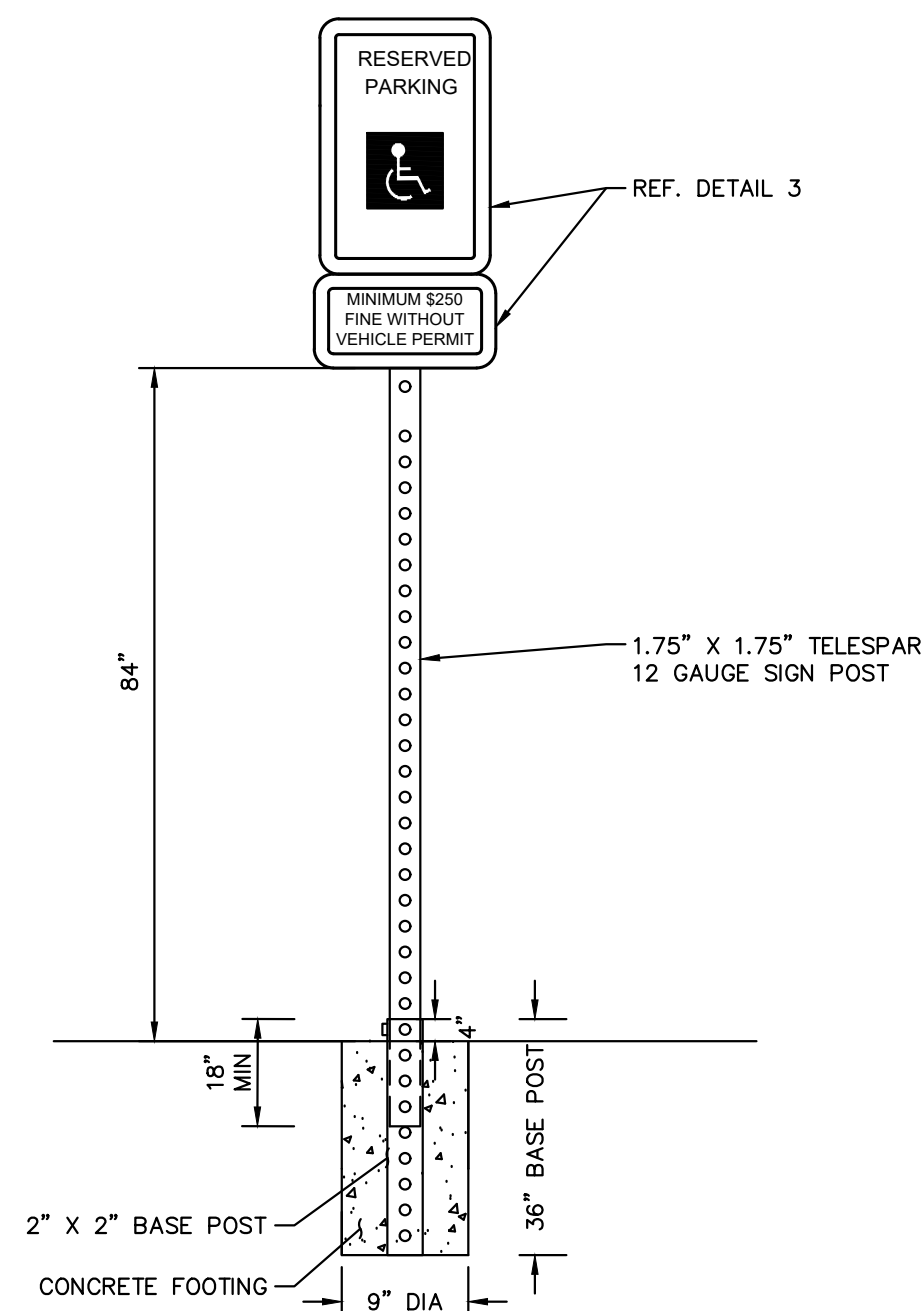
RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
EL PASO COUNTY
COLORADO

DETAIL SHEET

SHEET NUMBER
C1.21







WOODMEN HILLS METROPOLITAN DISTRICT REGIONAL
WATER RECLAMATION FACILITY
GRADING AND EROSION CONTROL PLAN

THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER, SECTION 06, TOWNSHIP 13 SOUTH, RANGE 64
WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO

CONTACTS:

OWNER:
WOODMEN HILLS METRO DISTRICT
8046 EASTONVILLE RD,
PEYTON, CO 80831
CONTACT: WALLY EAVES
TEL: (719) 210-0659

ENGINEER:
KIMLEY-HORN AND ASSOCIATES, INC.
2 NEVADA NORTH AVE., SUITE 300
COLORADO SPRINGS, CO 80903
CONTACT: KEVIN KOFFORD, PE
TEL: 719-453-0180

SURVEYOR:
TOPOGRAPHIC, CO.
520 STACY COURT, UNIT B
LAFAYETTE, CO 80026
CONTACT: KYLE WALKER, PLS
TEL: (303) 253-0549

EL PASO COUNTY:
EL PASO COUNTY
PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
PHONE: (719) 520-6300

GEOTECH:
KUMAR & ASSOCIATES
6735 KUMAR HEIGHTS
COLORADO SPRINGS, CO 80918
CONTACT: ARBEN KALAVESHI, P.E.
TEL: (719) 632-7009

BENCHMARK

SITE BENCHMARK IS A NUMBER 5 REBAR WITH 2" ALUMINUM CAP STAMPED "TOPOGRAPHIC CP" AT THE WEST SIDE OF THE ENTRY GATE TO THE WHMD FACILITY, WITH A NAVD 88 ELEVATION OF 7058.81'.

BASIS OF BEARING

BEARINGS CONTAINED HEREIN ARE BASED UPON THE GRID BEARING OF N51°24'46"W BETWEEN CONTROL POINT DM1 AND DM2, BOTH BEING SET NUMBER 5 REBARS WITH 2 -INCH ALUMINUM CAPS STAMPED "TOPOGRAPHIC CP".

LEGAL DESCRIPTION

TRACT K MERIDIAN RANCH FIL NO 1

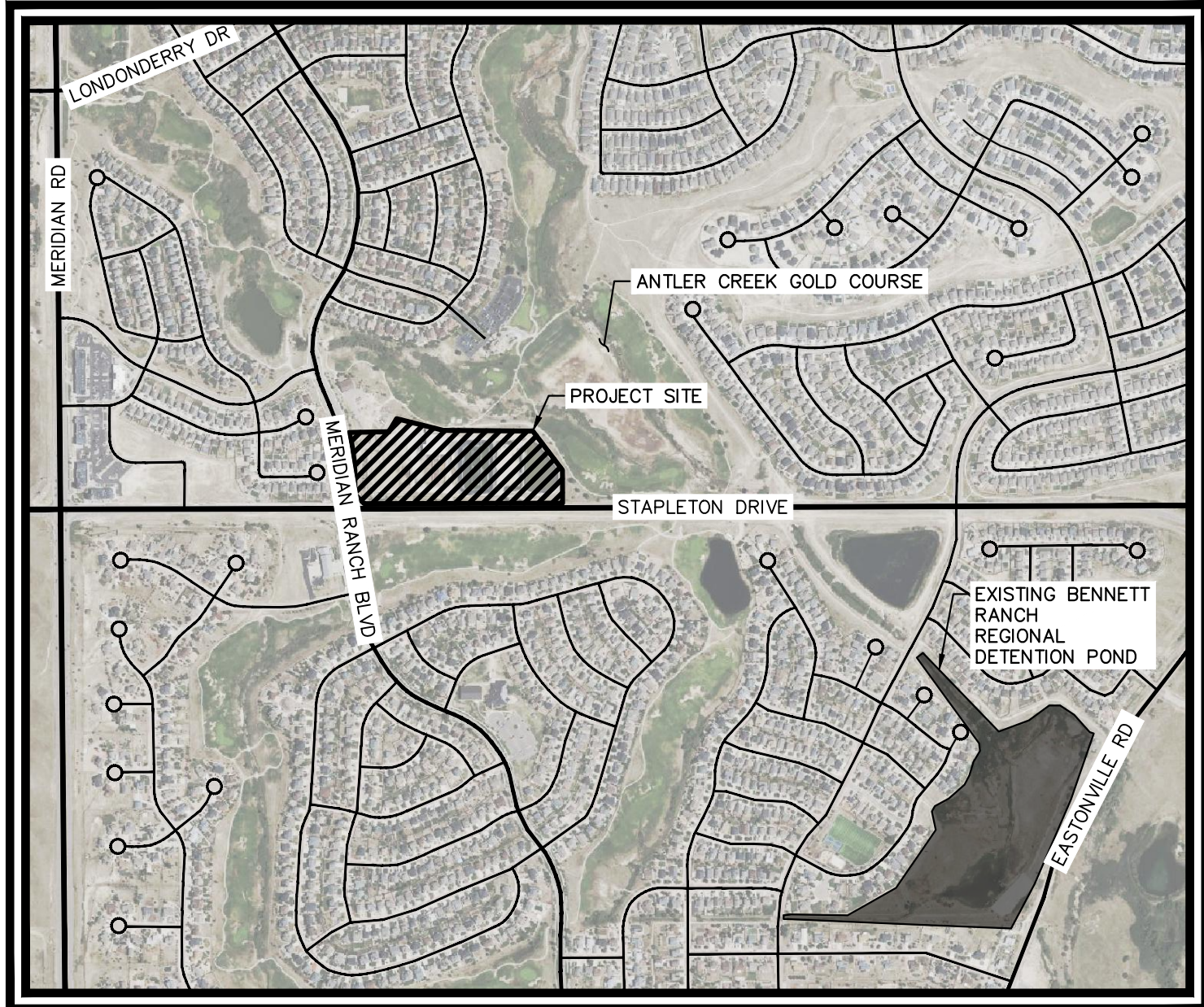
DATUM STATEMENT

ALL DIRECTIONS, DISTANCES AND DIMENSIONS ARE BASED ON MODIFIED COORDINATES FROM THE COLORADO COORDINATE SYSTEM OF 1983 CENTRAL ZONE (C.R.S. 38-52-102).

C.S.F:1.0003963142

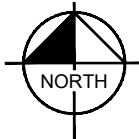
ORIGIN: 0,0

ELEVATION TAKEN AS 7058.81 FEET (NORTH AMERICAN VERTICAL DATUM OF 1988)



VICINITY MAP

SCALE: 1"=5000'



SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
C2.1	COVER SHEET
C2.2	GENERAL NOTES
C2.3	GEC INITIAL PLAN
C2.4	GEC INTERIM PLAN
C2.5	GEC FINAL PLAN
C2.6	DETAIL SHEET (1 OF 3)
C2.7	DETAIL SHEET (2 OF 3)
C2.8	DETAIL SHEET (3 OF 3)

GEC PLAN SIGNATURES:

DEVELOPER'S/OWNER'S SIGNATURE BLOCK

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

Walter Eaves 8/6/2026
WOODMEN HILLS METROPOLITAN DISTRICT DATE

ENGINEER'S SIGNATURE BLOCK

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS DOCUMENT.

Kevin Kofford 8/7/2026
KEVIN KOFFORD, P.E. 57234 - KIMLEY-HORN AND ASSOCIATES, INC. DATE

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 DIRECTOR'S DISCRETION.

JOSHUA J. PALMER, P.E. - COUNTY ENGINEER/ECM ADMINISTRATOR DATE

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WWW.KIMLEY-HORN.COM REGISTRY NO. 35108



KHA PROJECT 196013004	DATE 2026-09-30	SCALE AS SHOWN	DESIGNED BY MEG	DRAWN BY MEG	CHECKED BY KRK
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RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
COLORADO
EL PASO COUNTY

COVER SHEET

SHEET NUMBER
C2.1



NOTWITHSTANDING ANYTHING SHOWN OR SPECIFIED 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 (EPC) STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE (LDC), THE ENGINEERING CRITERIA MANUAL (ECM), THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME 1 AND 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.

A PRE-CONSTRUCTION MEETING BETWEEN THE PERMIT HOLDER(S) AND EL PASO COUNTY SHALL BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES. IT IS THE RESPONSIBILITY OF THE PERMIT HOLDER(S) TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF. NO LAND DISTURBANCE OR CONSTRUCTION ACTIVITIES BEYOND THE INSTALLATION OF THE INITIAL CONSTRUCTION CONTROL MEASURES (CCMS), AS INDICATED ON THE APPROVED GEC PLAN OR CCMS WITH GEC PLANS, MAY OCCUR PRIOR TO RECEIVING A NOTICE TO PROCEED (NTP) ISSUED BY THE ECM ADMINISTRATOR. FAILURE TO OBTAIN A NOTICE TO PROCEED PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES MAY RESULT IN AN IMMEDIATE STOP WORK ORDER (SWO).

CONSTRUCTION CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. STORMWATER RUNOFF FROM ALL DISTURBED AREAS AND SOIL STORAGE AREAS MUST UTILIZE OR FLOW TO ONE OR MORE CCMS TO MINIMIZE EROSION OR SEDIMENT IN THE DISCHARGE. THE CCMS(MUST) CONTAIN OR FILTER FLOWS IN ORDER TO PREVENT THE BYPASS OF FLOWS WITHOUT TREATMENT AND MUST BE APPROPRIATE FOR STORMWATER RUNOFF FROM DISTURBED AREAS AND FOR THE EXPECTED FLOW RATE, DURATION, AND FLOW CONDITIONS (E.G., SHEET OR CONCENTRATED FLOW).

ALL CCMS SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL FINAL STABILIZATION IS ACHIEVED. THE QUALIFIED STORMWATER MANAGER (QSM) SHALL ASSESS THE ADEQUACY OF CCMS AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CCMS ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CCMS.

PRIOR TO CONSTRUCTION THE PERMIT HOLDER(S) SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

MANAGEMENT OF THE STORMWATER MANAGEMENT PLAN (SWMP) DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QSM. THE SWMP SHALL BE LOCATED ON-SITE OR DIGITALLY ACCESSIBLE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES AND MUST BE IMPLEMENTED AS WRITTEN FROM THE START OF CONSTRUCTION ACTIVITY UNTIL FINAL STABILIZATION IS ACHIEVED. THE QSM SHALL AMEND THE SWMP WHEN THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE OF THE SITE WHICH WOULD REQUIRE THE IMPLEMENTATION OF NEW OR REVISED CCMS OR IF THE SWMP PROVES TO BE INEFFECTIVE IN CONTROLLING POLLUTANTS IN STORMWATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY OR WHEN CCMS ARE NO LONGER NECESSARY AND ARE REMOVED. THE QSM SHALL MAINTAIN A RECORD OF AMENDMENTS MADE TO THE SWMP THAT INCLUDES THE DATE AND IDENTIFICATION OF THE CHANGES.

EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ADEQUATELY SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNER, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME.

PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A RECEIVING WATER UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED. IN ADDITION TO MAINTAINING 50 HORIZONTAL FEET OF PRE-EXISTING VEGETATION UPGRADIENT OF A RECEIVING WATER (UNLESS INFEASIBLE AND APPROVED), THE PERMIT HOLDER(S) MUST INSTALL CCMS UPGRADIENT OF THE VEGETATIVE BUFFER.

TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.

EROSION CONTROL BLANKET (ECB) OR OTHER APPROVED CONTROL MEASURE(S) SHALL BE USED ON SLOPES STEEPER THAN 3:1.

VEHICLE TRACKING CONTROLS (VTC) MUST BE IMPLEMENTED TO MINIMIZE VEHICLE TRACKING OF SEDIMENT FROM DISTURBED AREAS. VTCs MUST INCLUDE A STRUCTURE CONTROL MEASURE (E.G., TRACKING PAD) AND MAY INCLUDE A NON-STRUCTURAL CONTROL MEASURE (E.G., PWSWEEPING). MATERIAL TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.

ANY TEMPORARY OR PERMANENT CONTROL MEASURE DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF-SITE.

29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE OR LESS THAN 1 ACRE AND PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE THAT WOULD DISTURB 1 OR MORE ACRES, THE PERMIT HOLDER(S) SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE (COR4000000 PERMIT) TO THE CDPHE WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A SWMP, OF WHICH THIS GEC PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:
- COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
WQCD - PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT

[illegible]

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PHONE: 719-453-9180
WWW.KIMLEY-HORN.COM REGISTRY No. 35106



KHA PROJECT 196013004	DATE 2026-09-30
SCALE	AS SHOWN
DESIGNED BY	MEO
DRAWN BY	MEO
CHECKED BY	KRK

**RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
EL PASO COUNTY COLO.**

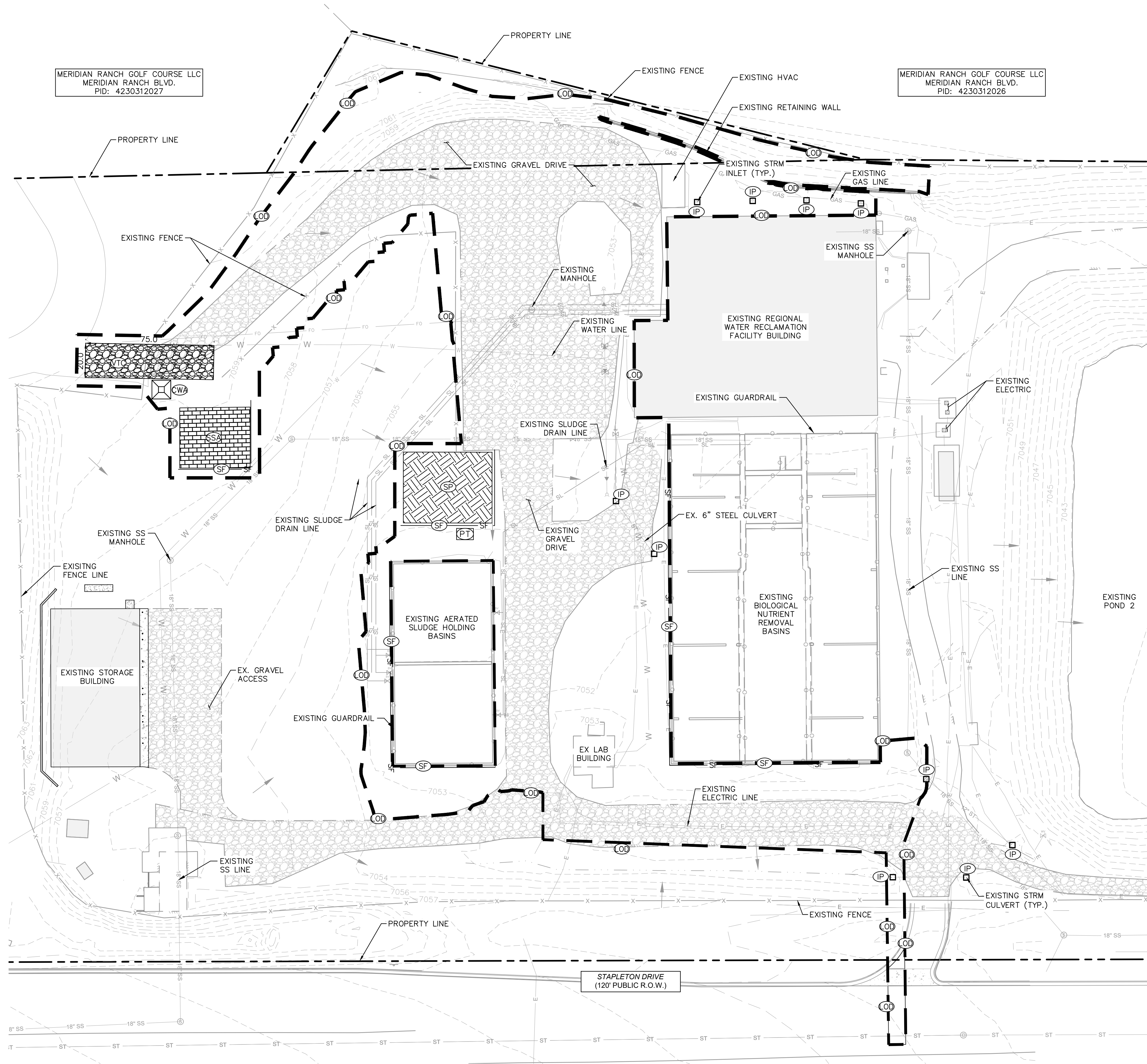
GENERAL NOTES

SHEET NUMBER
C2.2



Know what's **below**.
Call before you dig.

C:\ACCD\CDoc\Kimley-Horn\196013001 WHMD Expansion Study\Project Files\DWG\PlanSheets\Stormwater Improvements\PlantSheets\GEC\GEC_INITIAL.dwg



LEGEND

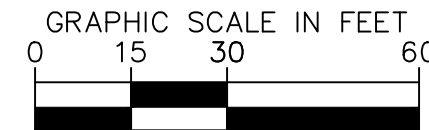
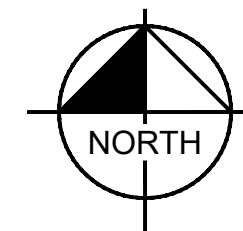
	PROPERTY LINE
	ADJACENT PROPERTY LINE
	LIMITS OF CONSTRUCTION/DISTURBANCE
	SILT FENCE
	EXISTING GRAVEL
	STABILIZED STAGING AREA
	CONCRETE WASHOUT
	VEHICLE TRACKING CONTROL
	SOIL STOCKPILE
	INLET PROTECTION
	PORTABLE TOILET
	EXISTING FLOW DIRECTION ARROW

LIMITS OF CONSTRUCTION

ONSITE DISTURBANCE	= 2.023 ACRES
OFFSITE DISTURBANCE	= 0.011 ACRES
TOTAL	= 2.034 ACRES

NOTES

1. THE INTENT OF THIS PLAN IS TO IDENTIFY THE EROSION CONTROL PRACTICES RECOMMENDED. THE CONTRACTOR SHALL REFERENCE ADDITIONAL CONSTRUCTION PLANS FOR DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS.
2. ADJACENT STREETS SHALL BE KEPT CLEAN AND FREE OF SEDIMENT AND/OR DEBRIS AT ALL TIMES. CONTRACTOR SHALL PERFORM STREET SWEEPING AT ALL TIMES DURING ACTIVE TRACKING AND AT A MINIMUM ON A DAILY BASIS AT THE END OF EACH CONSTRUCTION DAY.
3. TEMPORARY STABILIZATION (TS) SHALL BE IMPLEMENTED WITHIN THE DISTURBED PORTIONS OF THE PROJECT SITE NO LATER THAN 14 DAYS FOLLOWING THE CEASE OF CONSTRUCTION ACTIVITIES WITHIN THE DISTURBED AREAS.
4. PERMANENT STABILIZATION (PS) MAY BE USED WITHIN AREAS OF TEMPORARY STABILIZATION (TS) AT THE CONTRACTOR'S DISCRETION. STABILIZATION SHALL BE APPLIED IN ACCORDANCE WITH APPLICABLE TEMPORARY STABILIZATION SEQUENCING REQUIREMENTS.
5. CONTRACTOR SHALL UTILIZE ROLLED EROSION CONTROL PRODUCTS ON ALL SLOPES 3H:1V OR GREATER TO ACHIEVE REQUIRED STABILIZATION.
6. CONTRACTOR SHALL MAINTAIN ACCEPTABLE EROSION CONTROL PRACTICES WITHIN THE ANTICIPATED LIMITS OF CONSTRUCTION IDENTIFIED HEREIN. BEST MANAGEMENT PRACTICES AND STABILIZATION SHALL BE COMPLETED AS IDENTIFIED HEREIN IN ACCORDANCE WITHIN OWNER REQUIREMENTS.
7. ALL WORK IN THE STAPLETON DRIVE ROW REQUIRES A ROW PERMIT FROM EL PASO COUNTY. CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR AND OBTAINING ALL NECESSARY ROW PERMITS.
8. CONTRACTOR SHALL REFER TO THE APPROVED GEOTECHNICAL REPORT FOR OVEREXCAVATION REQUIREMENTS AND ADDITIONAL INFORMATION.
9. CONTRACTOR SHALL MAINTAIN STABILIZED STAGING AREA (SSA), VEHICLE TRACKING CONTROL (VTC), AND CONCRETE WASHOUT AREA (CWA) AT THE CONSTRUCTION ENTRANCE AT ALL TIMES. CONTRACTOR SHALL UPDATE THE EROSION CONTROL PLAN IN THE FIELD TO INDICATE THE LOCATION OF THE SSA, VTC, AND CWA BMPS AS EXCAVATION SEQUENCING DICTATES.
10. CONTRACTOR MAY SUBSTITUTE SEDIMENT CONTROL LOGS (SCL) FOR SILT FENCE (SF) AS PERIMETER CONTROL, DEPENDING UPON SITE CONDITIONS. SCL, AND SF MAY BE INTERCHANGED DEPENDING ON SITE CONDITIONS.



Kimley»Horn

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KHA PROJECT	196013004
DATE	2026-09-30
SCALE	AS SHOWN
DESIGNED BY	MEG
DRAWN BY	MEG
CHECKED BY	KRK

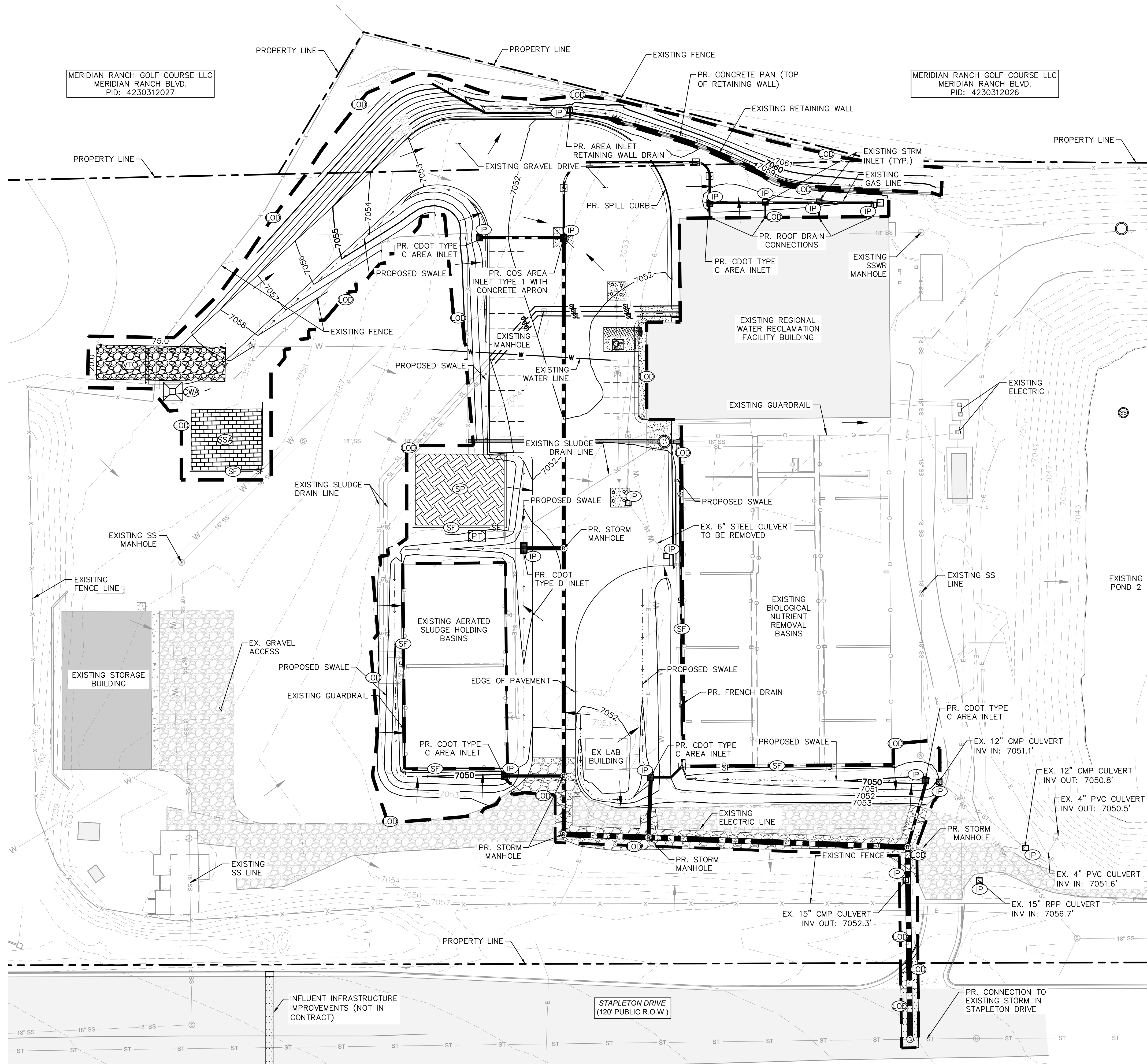
RWRF STORMWATER
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EL PASO COUNTY
COLORADO

GEC INITIAL PLAN

SHEET NUMBER
C2.3

PCD FILE NO.: CDR268

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LEGEND

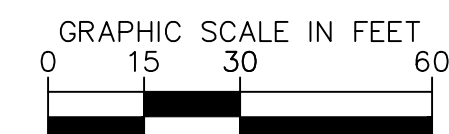
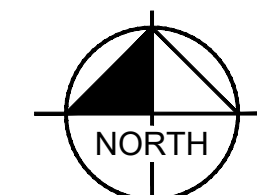
---	PROPERTY LINE
- - - -	ADJACENT PROPERTY LINE
---	LIMITS OF CONSTRUCTION/DISTURBANCE
---	SILT FENCE
---	EXISTING GRAVEL
---	SSA STABILIZED STAGING AREA
---	CWA CONCRETE WASHOUT
---	VTC VEHICLE TRACKING CONTROL
---	SP SOIL STOCKPILE
---	IP INLET PROTECTION
---	PT PORTABLE TOILET
---	EXISTING FLOW DIRECTION ARROW
---	PROPOSED FLOW DIRECTION ARROW

LIMITS OF CONSTRUCTION

ONSITE DISTURBANCE	= 2.023 ACRES
OFFSITE DISTURBANCE	= 0.011 ACRES
TOTAL	= 2.034 ACRES

NOTES

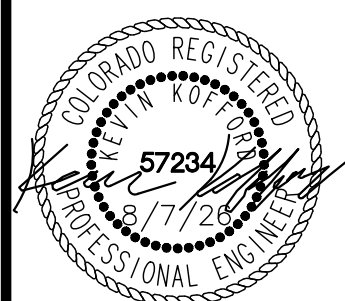
1. THE INTENT OF THIS PLAN IS TO IDENTIFY THE EROSION CONTROL PRACTICES RECOMMENDED. THE CONTRACTOR SHALL REFERENCE ADDITIONAL CONSTRUCTION PLANS FOR DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS.
2. ADJACENT STREETS SHALL BE KEPT CLEAN AND FREE OF SEDIMENT AND/OR DEBRIS AT ALL TIMES. CONTRACTOR SHALL PERFORM STREET SWEEPING AT ALL TIMES DURING ACTIVE TRACKING AND AT A MINIMUM ON A DAILY BASIS AT THE END OF EACH CONSTRUCTION DAY.
3. TEMPORARY STABILIZATION (TS) SHALL BE IMPLEMENTED WITHIN THE DISTURBED PORTIONS OF THE PROJECT SITE NO LATER THAN 14 DAYS FOLLOWING THE CEASE OF CONSTRUCTION ACTIVITIES WITHIN THE DISTURBED AREAS.
4. PERMANENT STABILIZATION (PS) MAY BE USED WITHIN AREAS OF TEMPORARY STABILIZATION (TS) AT THE CONTRACTOR'S DISCRETION. STABILIZATION SHALL BE APPLIED IN ACCORDANCE WITH APPLICABLE TEMPORARY STABILIZATION SEQUENCING REQUIREMENTS.
5. CONTRACTOR SHALL UTILIZE ROLLED EROSION CONTROL PRODUCTS ON ALL SLOPES 3H:1V OR GREATER TO ACHIEVE REQUIRED STABILIZATION.
6. CONTRACTOR SHALL MAINTAIN ACCEPTABLE EROSION CONTROL PRACTICES WITHIN THE ANTICIPATED LIMITS OF CONSTRUCTION IDENTIFIED HEREIN. BEST MANAGEMENT PRACTICES AND STABILIZATION SHALL BE COMPLETED AS IDENTIFIED HEREIN IN ACCORDANCE WITH OWNER REQUIREMENTS.
7. ALL WORK IN THE STAPLETON DRIVE ROW REQUIRES A ROW PERMIT FROM EL PASO COUNTY. CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR AND OBTAINING ALL NECESSARY ROW PERMITS.
8. CONTRACTOR SHALL REFER TO THE APPROVED GEOTECHNICAL REPORT FOR OVEREXCAVATION REQUIREMENTS AND ADDITIONAL INFORMATION.
9. CONTRACTOR SHALL MAINTAIN STABILIZED STAGING AREA (SSA), VEHICLE TRACKING CONTROL (VTC), AND CONCRETE WASHOUT AREA (CWA) AT THE CONSTRUCTION ENTRANCE AT ALL TIMES. CONTRACTOR SHALL UPDATE THE EROSION CONTROL PLAN IN THE FIELD TO INDICATE THE LOCATION OF THE SSA, VTC, AND CWA BMPs AS EXCAVATION SEQUENCING DICTATES.
10. CONTRACTOR MAY SUBSTITUTE SEDIMENT CONTROL LOGS (SCL) FOR SILT FENCE (SF) AS PERIMETER CONTROL, DEPENDING UPON SITE CONDITIONS. SCL, AND SF MAY BE INTERCHANGED DEPENDING ON SITE CONDITIONS.



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KHA PROJECT	196013004
DATE	2026-09-30
SCALE	AS SHOWN
DESIGNED BY	MEG
DRAWN BY	KRK
CHECKED BY	KRK

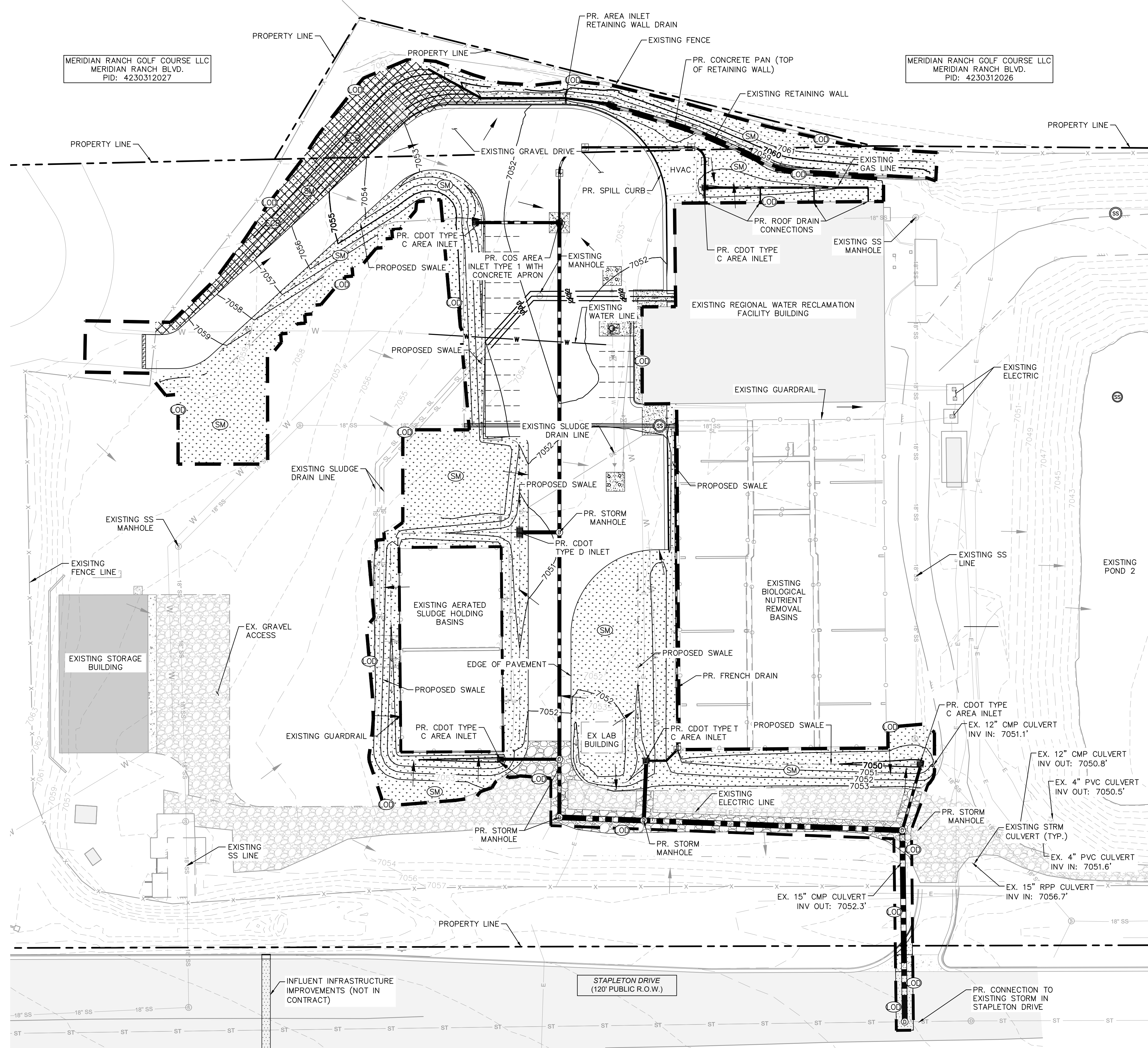
RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
EL PASO COUNTY
COLORADO

GEC INTERIM PLAN

SHEET NUMBER
C2.4

PCD FILE NO.: CDR268

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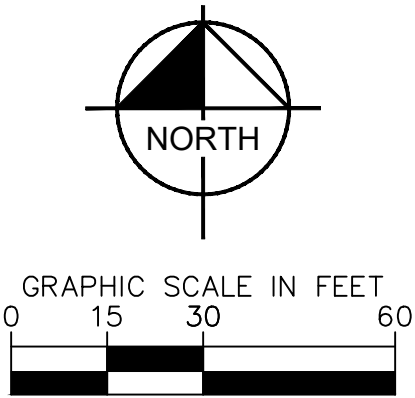
LEGEND

---	PROPERTY LINE
- - -	ADJACENT PROPERTY LINE
---	LIMITS OF CONSTRUCTION/DISTURBANCE
[Pattern]	EXISTING GRAVEL
[Pattern]	SEEDING AND MULCHING
[Pattern]	EROSION CONTROL BLANKET
→	EXISTING FLOW DIRECTION ARROW
→	PROPOSED FLOW DIRECTION ARROW

LIMITS OF CONSTRUCTION

ONSITE DISTURBANCE	= 2.023 ACRES
OFFSITE DISTURBANCE	= 0.011 ACRES
TOTAL	= 2.034 ACRES

- NOTES**
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 10. CONTRACTOR MAY SUBSTITUTE SEDIMENT CONTROL LOGS (SCL) FOR SILT FENCE (SF) AS PERIMETER CONTROL, DEPENDING UPON SITE CONDITIONS. SCL AND SF MAY BE INTERCHANGED DEPENDING ON SITE CONDITIONS.



KHA PROJECT 196013004		DATE 2026-09-30		SCALE AS SHOWN		DESIGNED BY MEG		DRAWN BY MEG		CHECKED BY KRC	
RWRF STORMWATER IMPROVEMENTS PREPARED FOR WOODMEN HILLS METROPOLITAN DISTRICT EL PASO COUNTY											
GEC FINAL PLAN											
SHEET NUMBER C2.5											
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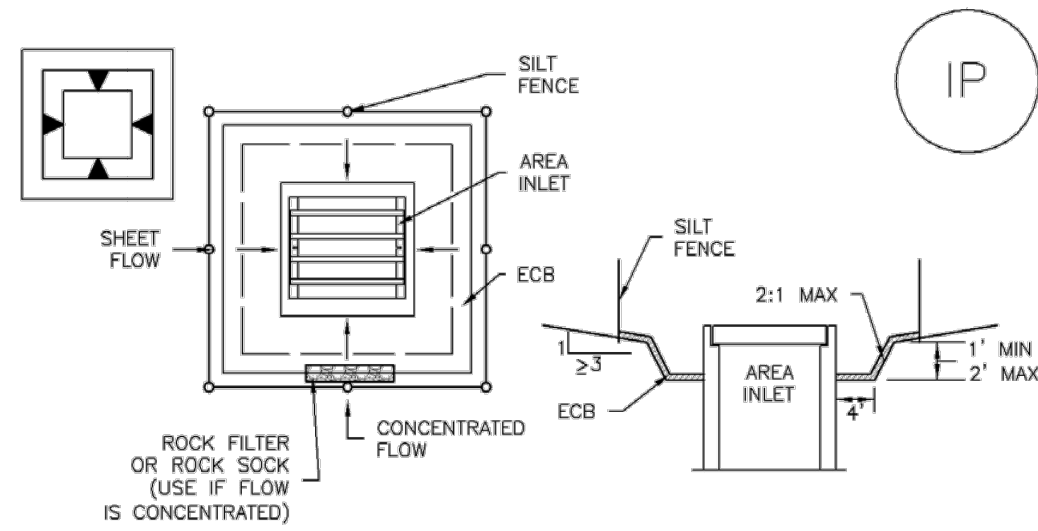
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COLORADO REGISTERED PROFESSIONAL ENGINEER 57234

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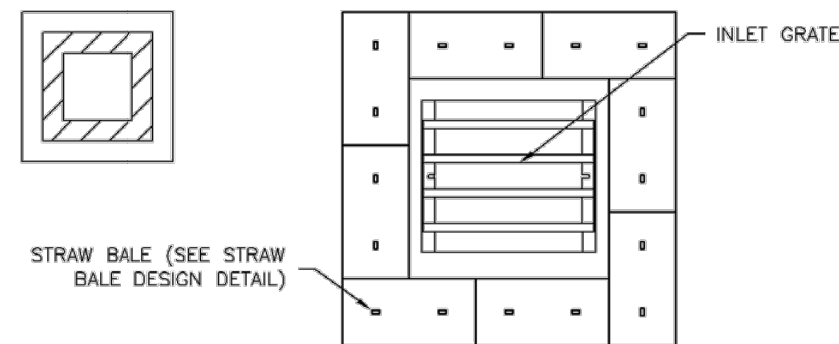
SC-6 Inlet Protection (IP)



IP-5. OVEREXCAVATION INLET PROTECTION

OVEREXCAVATION INLET PROTECTION INSTALLATION NOTES

1. THIS FORM OF INLET PROTECTION IS PRIMARILY APPLICABLE FOR SITES THAT HAVE NOT YET REACHED FINAL GRADE AND SHOULD BE USED ONLY FOR INLETS WITH A RELATIVELY SMALL CONTRIBUTING DRAINAGE AREA.
2. WHEN USING FOR CONCENTRATED FLOWS, SHAPE BASIN IN 2:1 RATIO WITH LENGTH ORIENTED TOWARDS DIRECTION OF FLOW.
3. SEDIMENT MUST BE PERIODICALLY REMOVED FROM THE OVEREXCAVATED AREA.



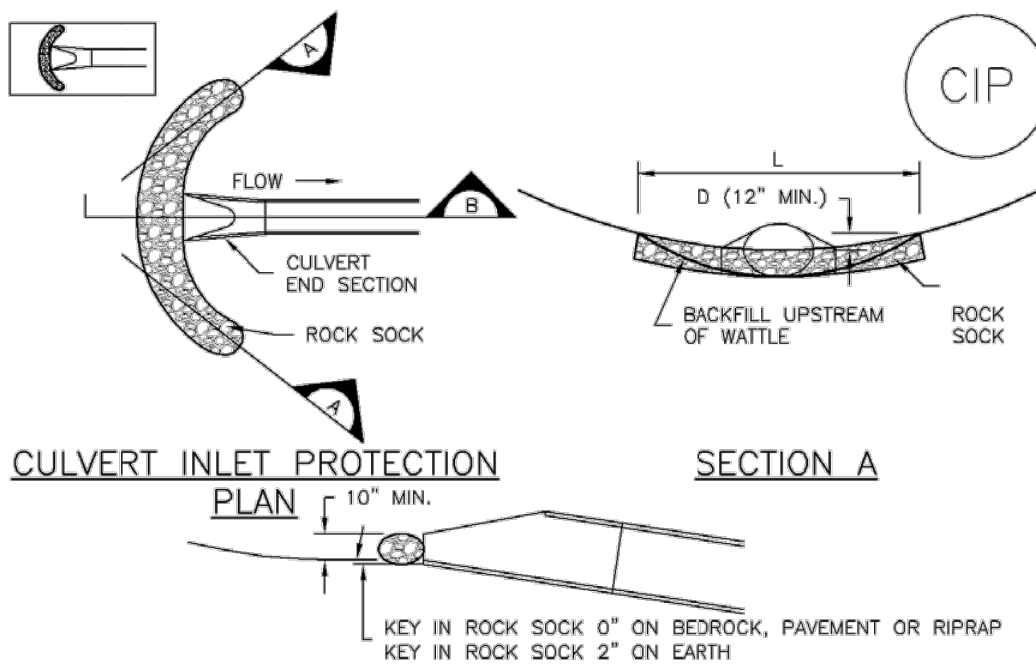
IP-6. STRAW BALE FOR SUMP INLET PROTECTION

STRAW BALE BARRIER INLET PROTECTION INSTALLATION NOTES

1. SEE STRAW BALE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
2. BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH ENDS OF BALES TIGHTLY ABUTTING ONE ANOTHER.

IP-6 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 August 2013

Inlet Protection (IP) SC-6



CULVERT INLET PROTECTION

SECTION A

SECTION B

CIP-1. CULVERT INLET PROTECTION

CULVERT INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
 - LOCATION OF CULVERT INLET PROTECTION.
2. SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINTING DETAIL.

CULVERT INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS $\frac{1}{2}$ THE HEIGHT OF THE ROCK SOCK.
5. CULVERT INLET PROTECTION SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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SC-6 Inlet Protection (IP)

GENERAL INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
 - LOCATION OF INLET PROTECTION.
 - TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6)
2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.
3. MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS. TYPICALLY WHEN STORAGE VOLUME REACHES SOX OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR $\frac{1}{4}$ OF THE HEIGHT FOR STRAW BALES.
5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

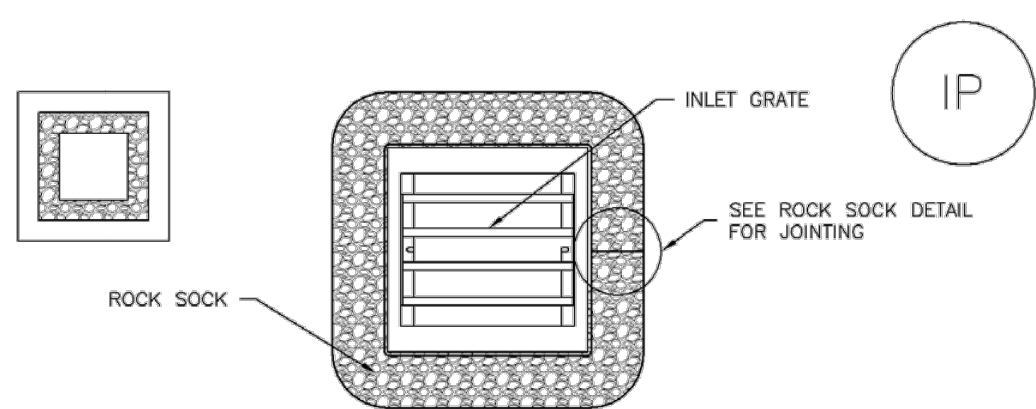
(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.

IP-8 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 August 2013

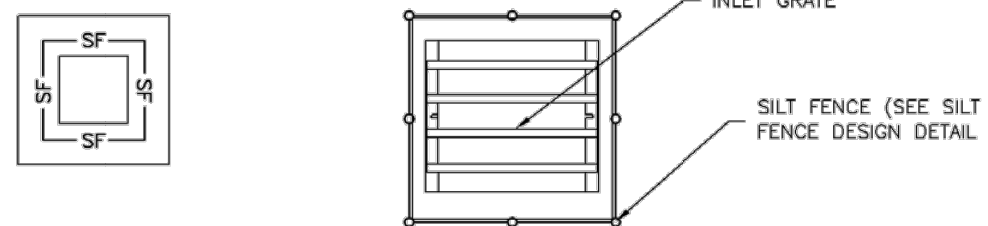
Inlet Protection (IP) SC-6



IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



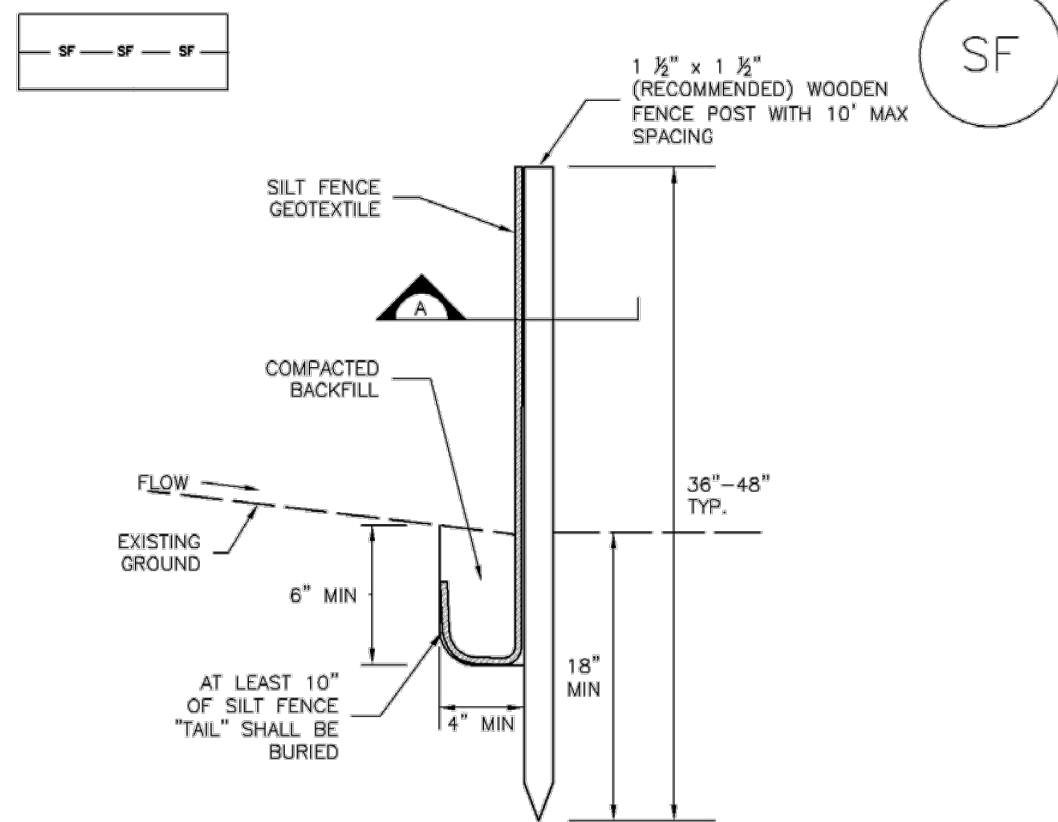
IP-4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

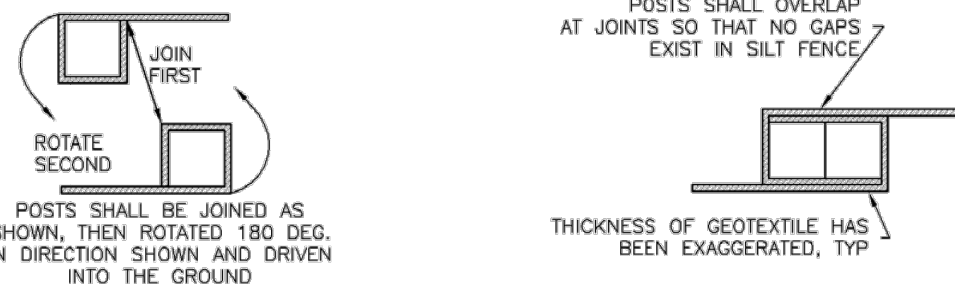
1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.
3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

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Silt Fence (SF) SC-1



SILT FENCE



SECTION A

SF-1. SILT FENCE

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SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE SHALL BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SF-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

MM-2 Stockpile Management (SM)

STOCKPILE PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
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STOCKPILE PROTECTION MAINTENANCE NOTES

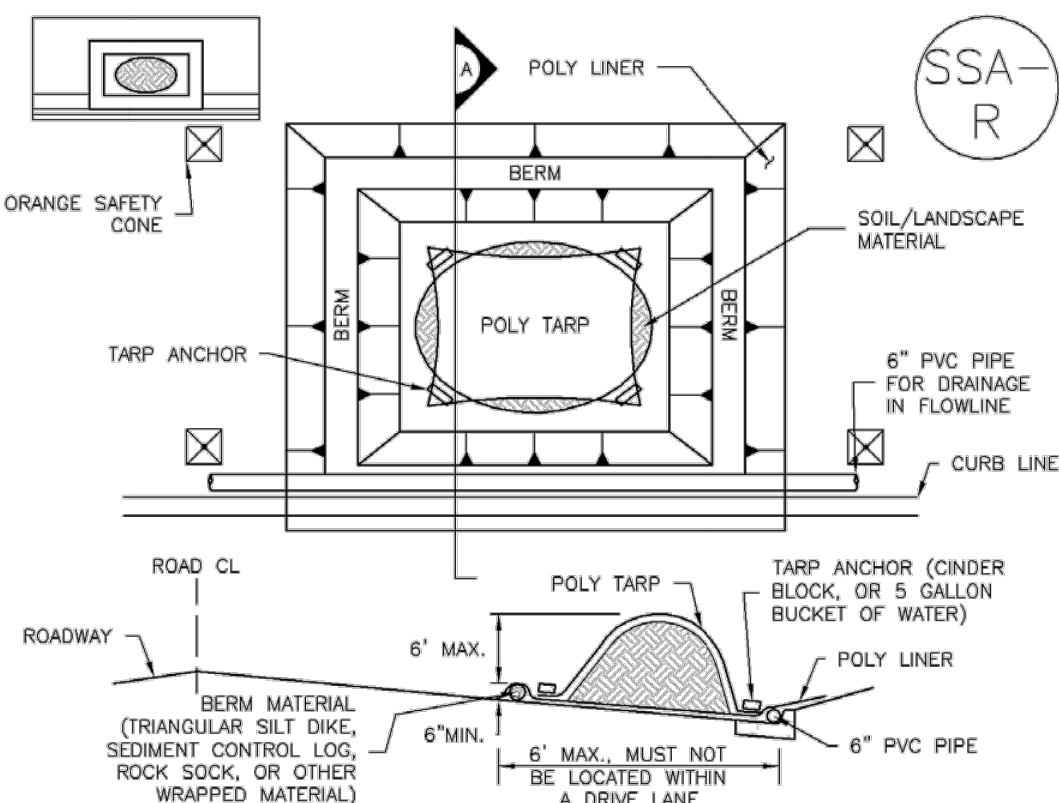
4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.
5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SP-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

Stockpile Management (SP) MM-2



SP-2. MATERIALS STAGING IN ROADWAY

MATERIALS STAGING IN ROADWAYS INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
 - LOCATION OF MATERIAL STAGING AREA(S).
 - CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
2. FEATURE MUST BE INSTALLED PRIOR TO EXCAVATION, EARTHWORK OR DELIVERY OF MATERIALS.
3. MATERIALS MUST BE STATIONED ON THE POLY LINER. ANY INCIDENTAL MATERIALS DEPOSITED ON PAVED SECTION OR ALONG CURB LINE MUST BE CLEANED UP PROMPTLY.
4. POLY LINER AND TARP COVER SHOULD BE OF SIGNIFICANT THICKNESS TO PREVENT DAMAGE OR LOSS OF INTEGRITY.
5. SAND BAGS MAY BE SUBSTITUTED TO ANCHOR THE COVER TARP OR PROVIDE BERMING UNDER THE BASE LINER.
6. FEATURE IS NOT INTENDED FOR USE WITH WET MATERIAL THAT WILL BE DRAINING AND/OR SPREADING OUT ON THE POLY LINER OR FOR DEMOLITION MATERIALS.
7. THIS FEATURE CAN BE USED FOR:
 - UTILITY REPAIRS.
 - WHEN OTHER STAGING LOCATIONS AND OPTIONS ARE LIMITED.
 - OTHER LIMITED APPLICATION AND SHORT DURATION STAGING.

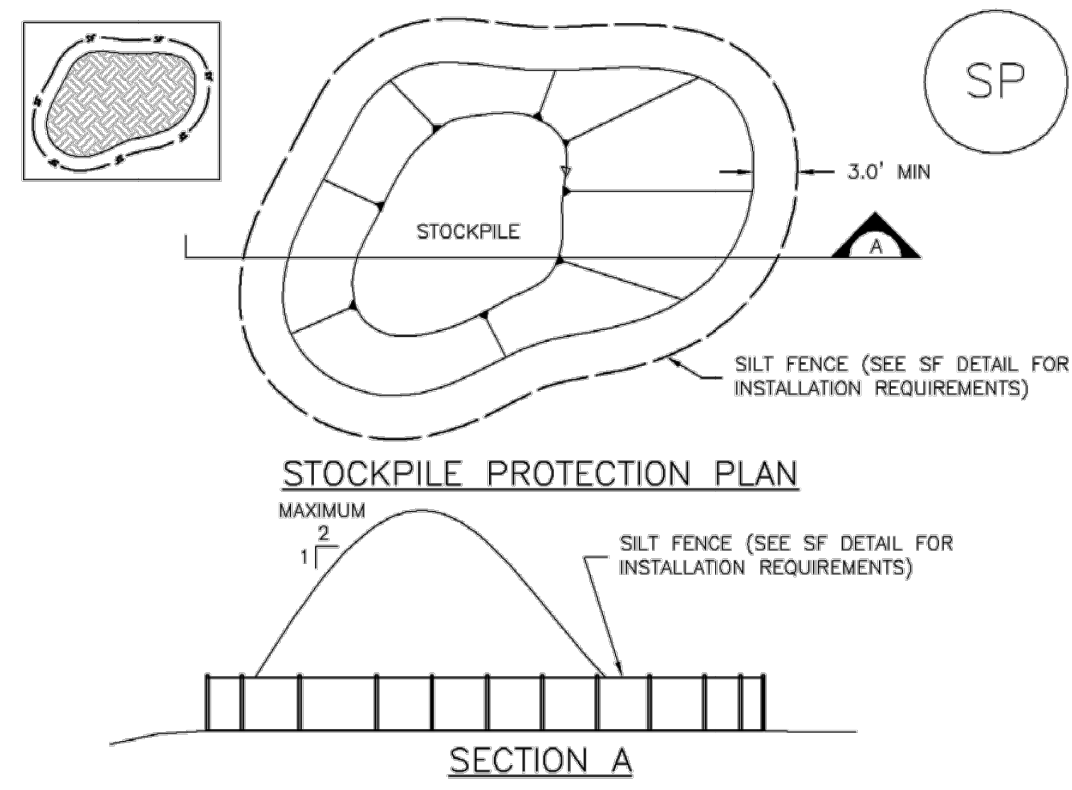
November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SP-5



KHA PROJECT 196013004		DATE 2026-09-30	SCALE AS SHOWN	DESIGNED BY MEG	DRAWN BY MEG	CHECKED BY KRC
RWRF STORMWATER IMPROVEMENTS PREPARED FOR WOODMEN HILLS METROPOLITAN DISTRICT EL PASO COUNTY		DETAIL SHEET (1 OF 3)		SHEET NUMBER C2.6		
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REGISTERED PROFESSIONAL ENGINEER 5723A		COLORADO		By Date		
Revisions		No.		Date		

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Stockpile Management (SP) MM-2



SP-1. STOCKPILE PROTECTION

- STOCKPILE PROTECTION INSTALLATION NOTES
- SEE PLAN VIEW FOR:
 - LOCATION OF STOCKPILES.
 - TYPE OF STOCKPILE PROTECTION.

- INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEGMENT CONTROL, LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

- STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL, BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).

- FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADEMENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SP-3

Temporary and Permanent Seeding (TS/PS) EC-2

Seeding dates for the highest success probability of perennial species along the Front Range are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. See Table TS/PS-3 for appropriate seeding dates.

Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses

Species* (Common name)	Growth Season ^a	Pounds of Pure Live Seed (PLS)/acre ^c	Planting Depth (inches)
1. Oats	Cool	35 - 50	1 - 2
2. Spring wheat	Cool	25 - 35	1 - 2
3. Spring barley	Cool	25 - 35	1 - 2
4. Annual ryegrass	Cool	10 - 15	½
5. Millet	Warm	3 - 15	½ - ¾
6. Sudangrass	Warm	5-10	½ - ¾
7. Sorghum	Warm	5-10	½ - ¾
8. Winter wheat	Cool	20-35	1 - 2
9. Winter barley	Cool	20-35	1 - 2
10. Winter rye	Cool	20-35	1 - 2
11. Triticale	Cool	25-40	1 - 2

^a Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or moved closer than 8 inches.

Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.

^b See Table TS/PS-3 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

^c Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

June 2012 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 TS/PS-3

Stockpile Management (SM) MM-2

MATERIALS STAGING IN ROADWAY MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

- INSPECT PVC PIPE ALONG CURB LINE FOR CLOGGING AND DEBRIS. REMOVE OBSTRUCTIONS PROMPTLY.

- CLEAN MATERIAL FROM PAVED SURFACES BY SWEEPING OR VACUUMING.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM AURORA, COLORADO)

SP-6 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

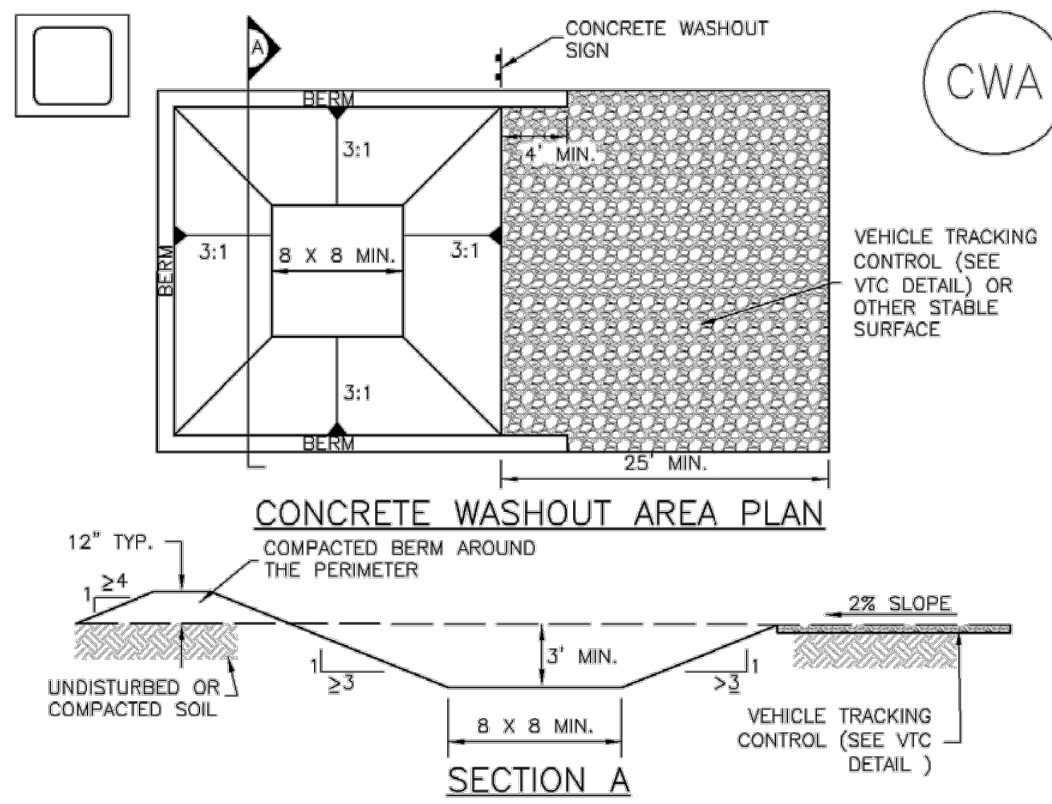
Temporary and Permanent Seeding (TS/PS) EC-2

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses

Common ^a Name	Botanical Name	Growth Season ^b	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Alkali Soil Seed Mix					
Alkali sacaton	<i>Sporobolus airoides</i>	Cool	Bunch	1,750,000	0.25
Basin wildrye	<i>Elymus cinereus</i>	Cool	Bunch	165,000	2.5
Sodar streambank wheatgrass	<i>Agropyron riparium 'Sodar'</i>	Cool	Sod	170,000	2.5
Jose tall wheatgrass	<i>Agropyron elongatum 'Jose'</i>	Cool	Bunch	79,000	7.0
Arriba western wheatgrass	<i>Agropyron smithii 'Arriba'</i>	Cool	Sod	110,000	5.5
Total					17.75
Fertile Loamy Soil Seed Mix					
Ephraim crested wheatgrass	<i>Agropyron cristatum 'Ephraim'</i>	Cool	Sod	175,000	2.0
Dural hard fescue	<i>Festuca ovina 'duriuscula'</i>	Cool	Bunch	565,000	1.0
Lincoln smooth brome	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
Sodar streambank wheatgrass	<i>Agropyron riparium 'Sodar'</i>	Cool	Sod	170,000	2.5
Arriba western wheatgrass	<i>Agropyron smithii 'Arriba'</i>	Cool	Sod	110,000	7.0
Total					15.5
High Water Table Soil Seed Mix					
Meadow foxtail	<i>Alopecurus pratensis</i>	Cool	Sod	900,000	0.5
Redtop	<i>Agrostis alba</i>	Warm	Open sod	5,000,000	0.25
Reed canarygrass	<i>Phalaris arundinacea</i>	Cool	Sod	68,000	0.5
Lincoln smooth brome	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
Pathfinder switchgrass	<i>Panicum virgatum 'Pathfinder'</i>	Warm	Sod	389,000	1.0
Alkar tall wheatgrass	<i>Agropyron elongatum 'Alkar'</i>	Cool	Bunch	79,000	5.5
Total					10.75
Transition Turf Seed Mix^c					
Ruebens Canadian bluegrass	<i>Poa compressa 'Ruebens'</i>	Cool	Sod	2,500,000	0.5
Dural hard fescue	<i>Festuca ovina 'duriuscula'</i>	Cool	Bunch	565,000	1.0
Citation perennial ryegrass	<i>Lolium perenne 'Citation'</i>	Cool	Sod	247,000	3.0
Lincoln smooth brome	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
Total					7.5

TS/PS-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 June 2012

Concrete Washout Area (CWA) MM-1



CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - CWA INSTALLATION LOCATION.

- DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS UNFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

- THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

- CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

- BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

- VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

- SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

- USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 CWA-3

Temporary and Permanent Seeding (TS/PS) EC-2

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses (cont.)

Common Name	Botanical Name	Growth Season ^a	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Sandy Soil Seed Mix					
Blue grama	<i>Bouteloua gracilis</i>	Warm	Sod-forming bunchgrass	825,000	0.5
Camper little bluestem	<i>Schizachyrium scoparium 'Camper'</i>	Warm	Bunch	240,000	1.0
Prairie sandreed	<i>Calamovilfa longifolia</i>	Warm	Open sod	274,000	1.0
Sand dropseed	<i>Sporobolus cryptandrus</i>	Cool	Bunch	5,298,000	0.25
Vaughn sideoats grama	<i>Bouteloua curtipendula 'Vaughn'</i>	Warm	Sod	191,000	2.0
Arriba western wheatgrass	<i>Agropyron smithii 'Arriba'</i>	Cool	Sod	110,000	5.5
Total					10.25
Heavy Clay, Rocky Foothill Seed Mix					
Ephraim crested wheatgrass ^b	<i>Agropyron cristatum 'Ephraim'</i>	Cool	Sod	175,000	1.5
Oahe Intermediate wheatgrass	<i>Agropyron intermedium 'Oahe'</i>	Cool	Sod	115,000	5.5
Vaughn sideoats grama ^c	<i>Bouteloua curtipendula 'Vaughn'</i>	Warm	Sod	191,000	2.0
Lincoln smooth brone	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
Arriba western wheatgrass	<i>Agropyron smithii 'Arriba'</i>	Cool	Sod	110,000	5.5
Total					17.5

^a All of the above seeding mixes and rates are based on drill seeding followed by crimped straw mulch. These rates should be doubled if seed is broadcast and should be increased by 50 percent if the seeding is done using a Brillion Drill or is applied through hydraulic seeding. Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1. If hydraulic seeding is used, hydraulic mulching should be done as a separate operation.

^b See Table TS/PS-3 for seeding dates.

^c If site is to be irrigated, the transition turf seed rates should be doubled.

^d Crested wheatgrass should not be used on slopes steeper than 6H to 1V.

^e Can substitute 0.5 lbs PLS of blue grama for the 2.0 lbs PLS of Vaughn sideoats grama.

June 2012 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 TS/PS-5

Concrete Washout Area (CWA) MM-1

CWA MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

- THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

- CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.

- THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

- WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD). NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

CWA-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

Temporary and Permanent Seeding (TS/PS) EC-2

Table TS/PS-3. Seeding Dates for Annual and Perennial Grasses

Seeding Dates	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
	Warm	Cool	Warm	Cool
January 1-March 15			✓	✓
March 16-April 30	4	1,2,3	✓	✓
May 1-May 15	4		✓	
May 16-June 30	4,5,6,7			
July 1-July 15	5,6,7			
July 16-August 31				
September 1-September 30		8,9,10,11		
October 1-December 31			✓	✓

Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the Mulching BMP Fact Sheet for additional guidance.

Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.

TS/PS-6 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 June 2012



DETAIL SHEET (2 OF 3)

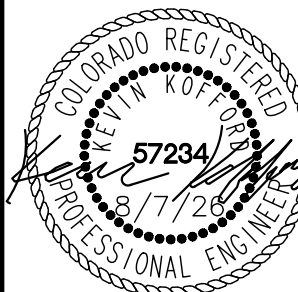
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KHA PROJECT
196013004

DATE
2026-09-30

SCALE
AS SHOWN

DESIGNED BY
MEG

DRAWN BY
KWK

CHECKED BY
KWK

RWRF STORMWATER
IMPROVEMENTS
PREPARED FOR
WOODMEN HILLS
METROPOLITAN DISTRICT
EL PASO COUNTY

COLORADO

Minimizing Long-Term Stabilization Requirements

- Utilize off-site parking and restrict vehicle access to the site.
- Use construction mats in lieu of rock when staging is provided in an area that will not be disturbed otherwise.
- Consider use of a bermed contained area for materials and equipment that do not require a stabilized surface.
- Consider phasing of staging areas to avoid disturbance in an area that will not be otherwise disturbed.

Maintenance and Removal

When construction is complete, debris, unused stockpiles and materials should be recycled or properly disposed. In some cases, this will require disposal of contaminated soil from equipment leaks in an appropriate landfill. Staging areas should then be permanently stabilized with vegetation or other surface cover planned for the development.

SM-6 **Stabilized Staging Area (SSA)**

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

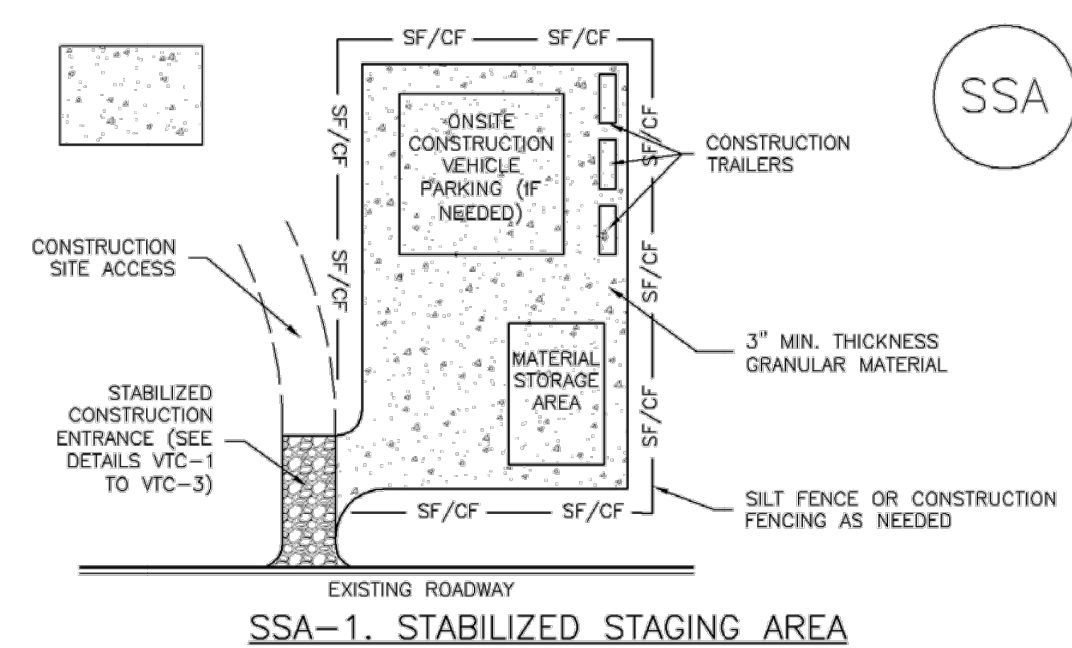
6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE STABILIZED STAGING AREA SHALL BE REMOVED AND APPROVED BY THE LOCAL JURISDICTION USING ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDS AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR FILL. IF YOUR STABILIZED STAGING IS APPROVED BY THE LOCAL JURISDICTION WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDC STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

Stabilized Staging Area (SSA) SM-6



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
 -LOCATION OF STAGING AREA(S).
 -CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

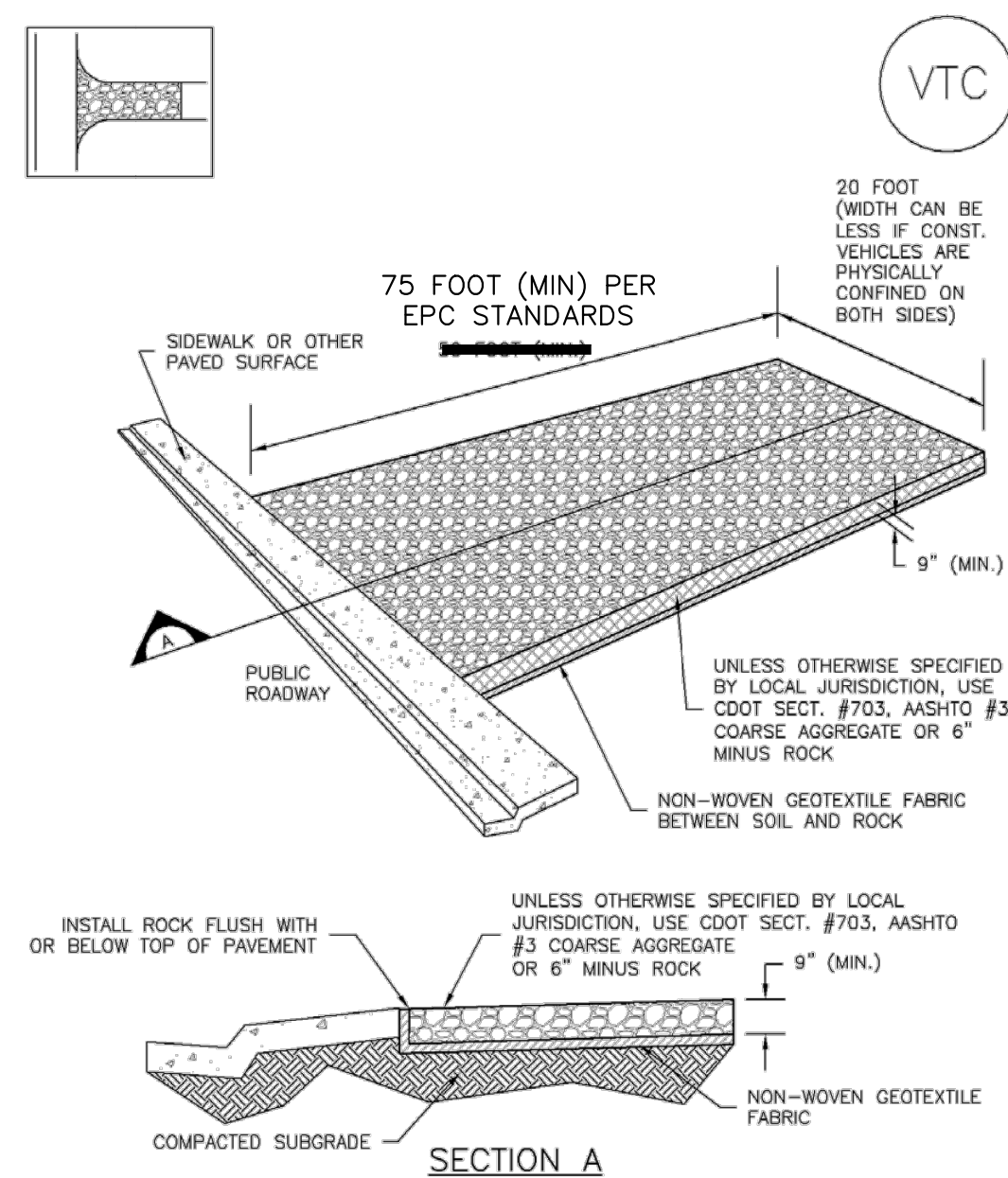
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

The diagram illustrates a wash rack system for a public roadway. A cross-section of the roadway is shown on the left, with a wash rack installed. The wash rack is a rectangular structure with a grid of small holes. A ditch runs alongside the wash rack, labeled "DITCH TO CARRY WASH WATER TO SEDIMENT TRAP OR BASIN". A symbol in the top right corner, consisting of a circle with "VTC" over "WW", indicates the system's function. A note at the bottom left states: "NOTE: WASH WATER MAY NOT CONTAIN CHEMICALS OR SOAPS WITHOUT OBTAINING A SEPARATE PERMIT".

SECTION A

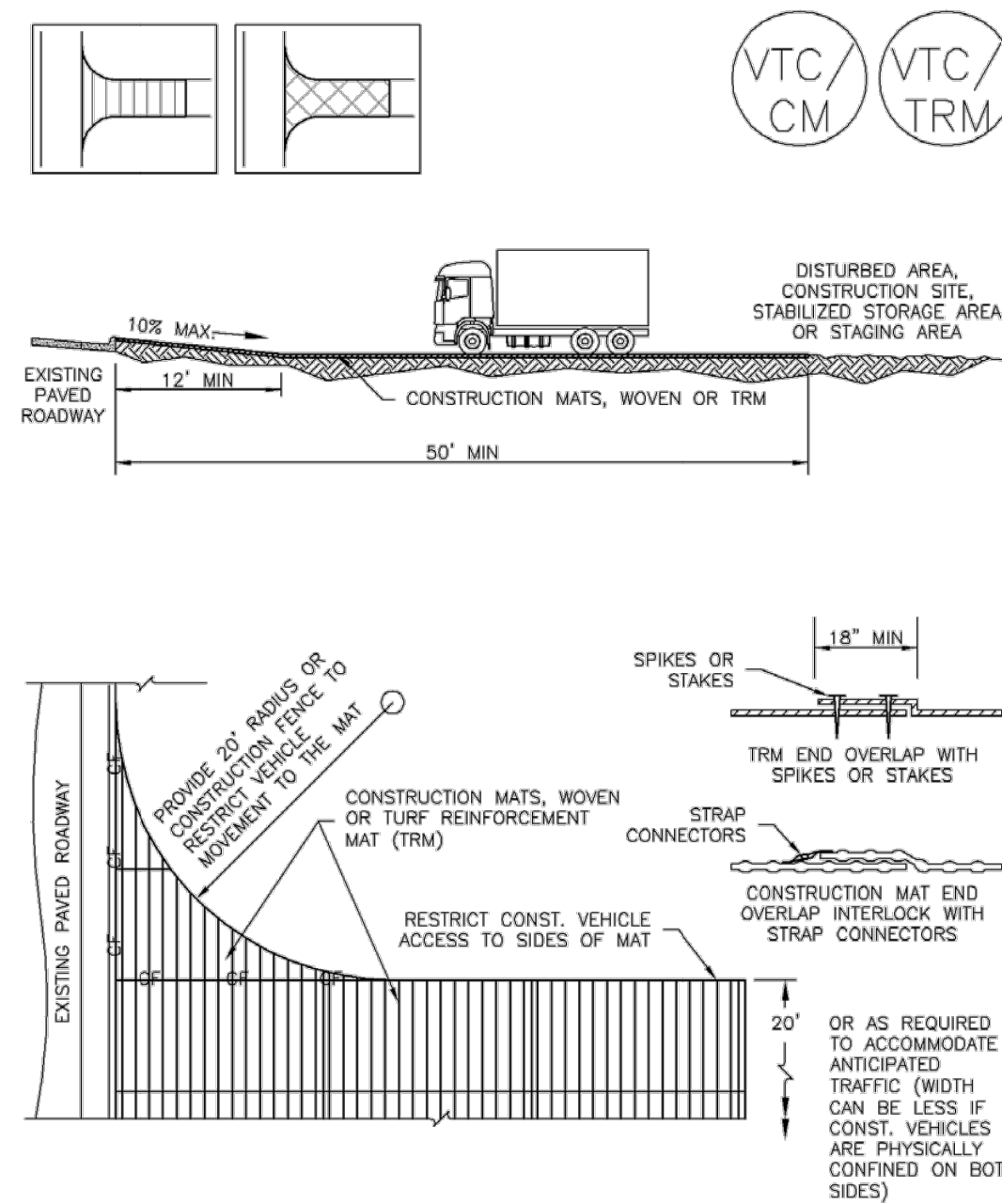
VTC-2. AGGREGATE VEHICLE TRACKING CONTROL WITH WASH RACK

Vehicle Tracking Control (VTC) SM-4



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

Vehicle Tracking Control (VTC) SM-4



3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION
MAT OR TURF REINFORCEMENT MAT (TRM)

SM-4 Vehicle Tracking Control (VTC)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

1. SEE PLAN VIEW FOR
-LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
-TYPE OF CONSTRUCTION ENTRANCE(S)/EXIT(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).
2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.
3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.
4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SPEC. #703, AASHTO #3 COARSE AGGREGATE OR 8" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

3. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE WATER FLOW AND REQUIRES NECESSARY MAINTENANCE.
4. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
5. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
6. ROCK SHALL BE REPLACED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
7. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)



811 Know what's below.
Call before you dig.