CONSTRUCTION DRAWINGS FOR ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH

IMPROVEMENT PLANS

PREPARED FOR GTL, INC. DBA GTL DEVELOPMENT, INC.

A PARCEL OF LAND LOCATED IN THE NORTH HALF OF SECTION 20, IN TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH PRINCIPAL MERIDIAN, EL PASO COUNTY, STATE OF COLORADO.

UTILITY CONTACTS:

WATER – MERIDIAN SERVICE METROPOLITAN DISTRICT
POC: BRADEN McCRORY
(719)–495–6567

SANITARY SEWER – MERIDIAN SERVICE METROPOLITAN DISTRICT
POC: BRADEN McCRORY
(719)–495–6567

DRAINAGE – EL PASO COUNTY PCD/INSPECTIONS
(719)–520–6300

DRAINAGE – MERIDIAN SERVICE METROPOLITAN DISTRICT
POC: TOM KERBY
(719)–495–7444

GAS – BLACK HILLS ENERGY
(719)–393–6625

ELECTRIC – MOUNTAIN VIEW ELECTRIC ASSOC.
(719)–495–2283

GEOTECHNICAL ENGINEER – ENTECH ENGINEERING, INC.
(719)–531–5599

FALCON FIRE PROTECTION DISTRICT
(719) 495–4050

CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOW ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

LEGAL DESCRIPTION:

KNOW ALL MEN BY THESE PRESENTS:
THAT GTL, INC. DBA GTL DEVELOPMENT, INC., THEODORE TCHANG, PRESIDENT BEING THE OWNER OF THE FOLLOWING DESCRIBED TRACT OF LAND:

A PARCEL OF LAND LOCATED IN THE NORTH HALF OF SECTION 20, IN TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH PRINCIPAL MERIDIAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EASTERLY RIGHT–OF–WAY OF ESTATE RIDGE DRIVE AS–DEDICATED IN THE ESTATES AT ROLLING HILLS RANCH FILING NO. 2, RECORDED WITH RECEPTION NO. 222714944 IN THE RECORDS OF EL PASO COUNTY, POINT BEING ON THE EASTERN BOUNDARY LINE OF SAID FILING;

THE FOLLOWING FIVE (5) COURSES ARE ON SAID BOUNDARY LINE:

1. THENCE N07°26'02"E A DISTANCE OF 616.00 FEET;
2. THENCE N52°26'02"E A DISTANCE OF 31.11 FEET;
3. THENCE N07°26'02"E A DISTANCE OF 60.00 FEET;
4. THENCE S82°33'58"E A DISTANCE OF 168.00 FEET;
5. THENCE N07°26'02"E A DISTANCE OF 120.00 FEET;
6. THENCE S82°33'58"E A DISTANCE OF 1005.00 FEET;
7. THENCE N83°0250"E A DISTANCE OF 125.64 FEET;
8. THENCE N76°59'35"E A DISTANCE OF 60.00 FEET TO A NON–TANGENT CURVE TO THE RIGHT;
9. THENCE ON THE ARC OF SAID CURVE, HAVING A RADIUS OF 430.00 FEET, A DELTA ANGLE OF 20°26'26", AN ARC LENGTH OF 153.41 FEET, WHOSE LONG CHORD BEARS S02°47'11"E A DISTANCE OF 152.59 FEET;
10. THENCE S37°33'58"E A DISTANCE OF 31.11 FEET TO A NON–TANGENT CURVE TO THE LEFT;
11. THENCE ON THE ARC OF SAID CURVE, HAVING A RADIUS OF 320.00 FEET, A DELTA ANGLE OF 29°52'23", AN ARC LENGTH OF 166.84 FEET, WHOSE LONG CHORD BEARS N82°29'50"E A DISTANCE OF 164.96 FEET;
12. THENCE N67°33'39"E A DISTANCE OF 278.06 FEET;
13. THENCE N22°33'39"E A DISTANCE OF 31.11 FEET;
14. THENCE N22°26'21"W A DISTANCE OF 103.00 FEET;
15. THENCE N67°33'39"E A DISTANCE OF 230.00 FEET;
16. THENCE N64°41'54"E A DISTANCE OF 100.12 FEET;
17. THENCE N67°33'39"E A DISTANCE OF 215.00 FEET;
18. THENCE N69°55'18"E A DISTANCE OF 97.94 FEET;
19. THENCE N77°08'32"E A DISTANCE OF 97.44 FEET;
20. THENCE N87°17'03"E A DISTANCE OF 98.28 FEET;
21. THENCE N89°46'57"E A DISTANCE OF 225.24 FEET;
22. THENCE S00°13'03"E A DISTANCE OF 99.94 FEET;
23. THENCE N89°46'57"E A DISTANCE OF 160.00 FEET TO A POINT ON THE WESTERN BOUNDARY OF FALCON REGIONAL PARK RECORDED WITH RECEPTION NO. 214093227;

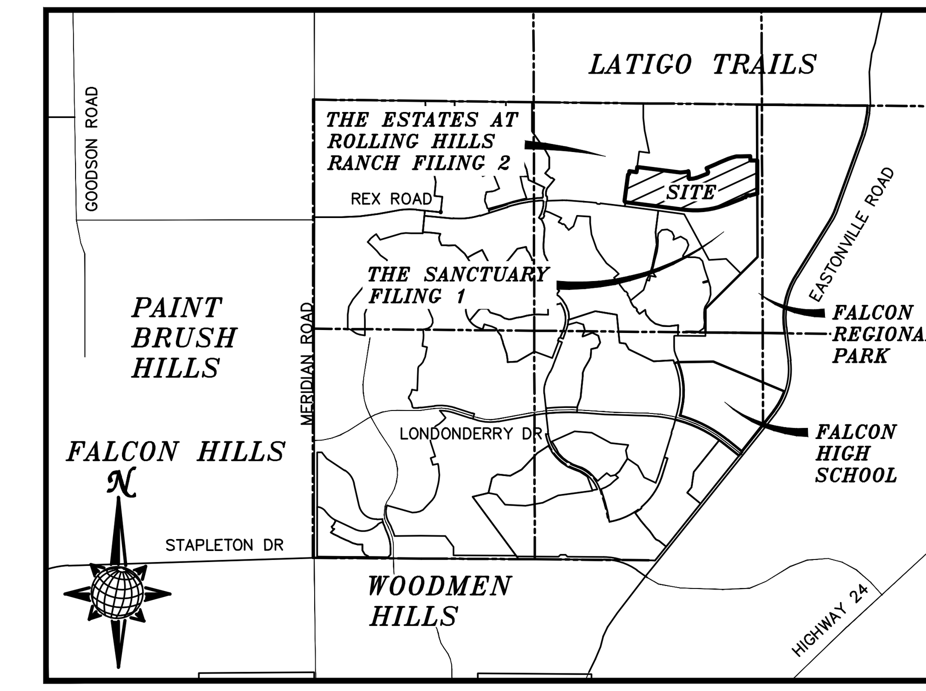
THE FOLLOWING COURSE IS ON SAID BOUNDARY LINE:

24. THENCE S00°13'03"E A DISTANCE OF 769.32 FEET TO A NON–TANGENT CURVE TO THE LEFT, POINT BEING ON THE NORTHERN BOUNDARY OF THE SANCTUARY FILING NO. 1 AT MERIDIAN RANCH RECORDED WITH RECEPTION NO. 223715140 IN THE RECORDS OF EL PASO COUNTY;

THE FOLLOWING NINE (9) COURSES ARE ON THE BOUNDARY LINE OF SAID THE SANCTUARY FILING NO. 1 AT MERIDIAN RANCH:

25. THENCE ON THE ARC OF SAID CURVE, HAVING A RADIUS OF 2050.00 FEET, A DELTA ANGLE OF 05°02'20", AN ARC LENGTH OF 180.29 FEET, WHOSE LONG CHORD BEARS S75°52'06"W A DISTANCE OF 180.23 FEET;
26. THENCE N62°31'53"W A DISTANCE OF 31.42 FEET;
27. THENCE S71°53'44"W A DISTANCE OF 60.00 FEET;
28. THENCE S26°19'21"W A DISTANCE OF 31.42 FEET TO A NON–TANGENT CURVE TO THE LEFT;
29. THENCE ON THE ARC OF SAID CURVE, HAVING A RADIUS OF 2050.00 FEET, A DELTA ANGLE OF 02°03'13", AN ARC LENGTH OF 73.48 FEET, WHOSE LONG CHORD BEARS S69°24'55"W A DISTANCE OF 73.48 FEET;
30. THENCE S68°23'18"W A DISTANCE OF 399.50 FEET TO A POINT OF CURVE TO THE RIGHT;
31. THENCE ON THE ARC OF SAID CURVE, HAVING A RADIUS OF 1930.00 FEET, A DELTA ANGLE OF 29°02'43", AN ARC LENGTH OF 978.39 FEET, WHOSE LONG CHORD BEARS S82°54'40"W A DISTANCE OF 967.95 FEET;
32. THENCE N82°33'58"W A DISTANCE OF 1387.37 FEET;
33. THENCE N37°33'58"W A DISTANCE OF 31.11 FEET TO THE POINT OF BEGINNING;

THE ABOVE PARCEL OF LAND CONTAINS 60.700 ACRES, MORE OR LESS.



VICINITY MAP
N.T.S.

SHEET NO	SHEET INDEX	SHEET NO	SHEET INDEX
1	COVER SHEET	17	CRYSTAL FALLS DRIVE
2	INDEX SHEET	18	SHELTER CREEK DRIVE
3	NOTES SHEET	19	SIDEWALK & STRIPING PLAN
4–5	DETAIL SHEETS	20	OVERALL SANITARY SEWER
6–7	SUNRISE RIDGE DRIVE	21–22	OVERALL SANITARY SEWER SERVICES
8	SUNRISE RIDGE DRIVE & STORM #1	23	OVERALL UNDERDRAIN
9	REDWALL DRIVE & HORN HILL DRIVE	24	UNDERDRAIN DETAILS
10	HORN HILL DRIVE & GALEROS DRIVE	25	OVERALL WATER
11	GALEROS DRIVE & STORM #2	26–27	OVERALL WATER SERVICES
12	TEMPLE BUTTE DRIVE	28	OVERALL STORM DRAIN
13	BRIGHT ANGEL DRIVE	29	GRADING INDEX SHEET
14	TAPEATS DRIVE & SS #1	30–34	GRADING LAYOUT SHEETS
15	HOUSE ROCK DRIVE	35	GRADING LAYOUT CUT–FILL SHEET
16	HOUSE ROCK DRIVE & CARDENAS DRIVE	36–37	GRADING DETAIL SHEET

DESIGN ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE 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.

THOMAS A. KERBY, P.E. #31429

COLORADO REGISTERED PROFESSIONAL ENGINEER THOMAS A. KERBY 31429

DEVELOPERS STATEMENT:

DEVELOPERS STATEMENT:

THE UNDERSIGNED DEVELOPER HAS READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

7/25/2024

RAUL GUZMAN, VICE PRESIDENT
GTL DEVELOPMENT, INC. — DATE

DISTRICT ENGINEER:

July 16, 2024

THOMAS A. KERBY, PE CO 31429 — DATE
MERIDIAN SERVICE METROPOLITAN DISTRICT

WATER AND SANITARY SEWER APPROVALS:

07/16/2024

JIM NIKKEL, GENERAL MANAGER — DATE
MERIDIAN SERVICE METROPOLITAN DISTRICT

OWNERS STATEMENT:

OWNERS STATEMENT:

THE UNDERSIGNED OWNER HAS READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

7/25/2024

RAUL GUZMAN, VICE PRESIDENT
GTL DEVELOPMENT, INC. — DATE

RAUL GUZMAN, VICE PRESIDENT
MERIDIAN RANCH INVESTMENTS, INC.

EL PASO COUNTY:

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

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA VOL. 1 & 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 BEEN STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

Gilbert LaForce, P.E. Digitally signed by Gilbert LaForce, P.E.
Reason: Authorized signatory as County Engineer designee
Date: 2024.09.03 16:21:57-06'00'

9/3/2024

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

BASIS OF BEARING

BASIS OF BEARINGS FOR THIS DESCRIPTION IS THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 29, T12S, R64W OF THE 6TH P.M., WHICH IS ASSUMED TO BEAR S89°25'42"E FROM THE SOUTHWEST CORNER OF SECTION 29 (A STONE W/SCRIBED "X") TO THE SOUTH QUARTER CORNER OF SECTION 29 (3.25" ALUM. CAP LS 30087).

TWO WORKING DAYS
BEFORE YOU DIG
CALL 811
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1–800–922–1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

BENCH MARK

1) MRRC1 – 3 1/4" ALUMINUM CAP ON NO.6 REBAR LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LONDONDERRY DRIVE AND ANGELES ROAD. LOCATED AT THE SE CORNER OF THE MERIDIAN RANCH RECREATIONAL CENTER SIGN. ELEVATION – 7098.40'

2) MRMS1 – 3 1/4" ALUMINUM CAP ON NO.6 REBAR LOCATED ON THE WEST SIDE OF RAINBOW BRIDGE DRIVE 1,150 FEET NORTH OF LONDONDERRY DRIVE. LOCATED NEAR THE BACK OF SIDE WALK AT THE NW CORNER OF RAINBOW BRIDGE DRIVE AND THE NORTHERLY ENTRANCE TO MERIDIAN RANCH ELEMENTARY SCHOOL (10480 RAINBOW BRIDGE DRIVE). ELEVATION – 7099.73'

No.	Revisions	Date	Init.	Appr.	Date
1					
2					
3					
4					

TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS

COVER SHEET

Drawn by LCG
Checked by TAK
Date JULY 2024

Scale AS SHOWN

1 of 37

PCD PROJECT NO. SF2411

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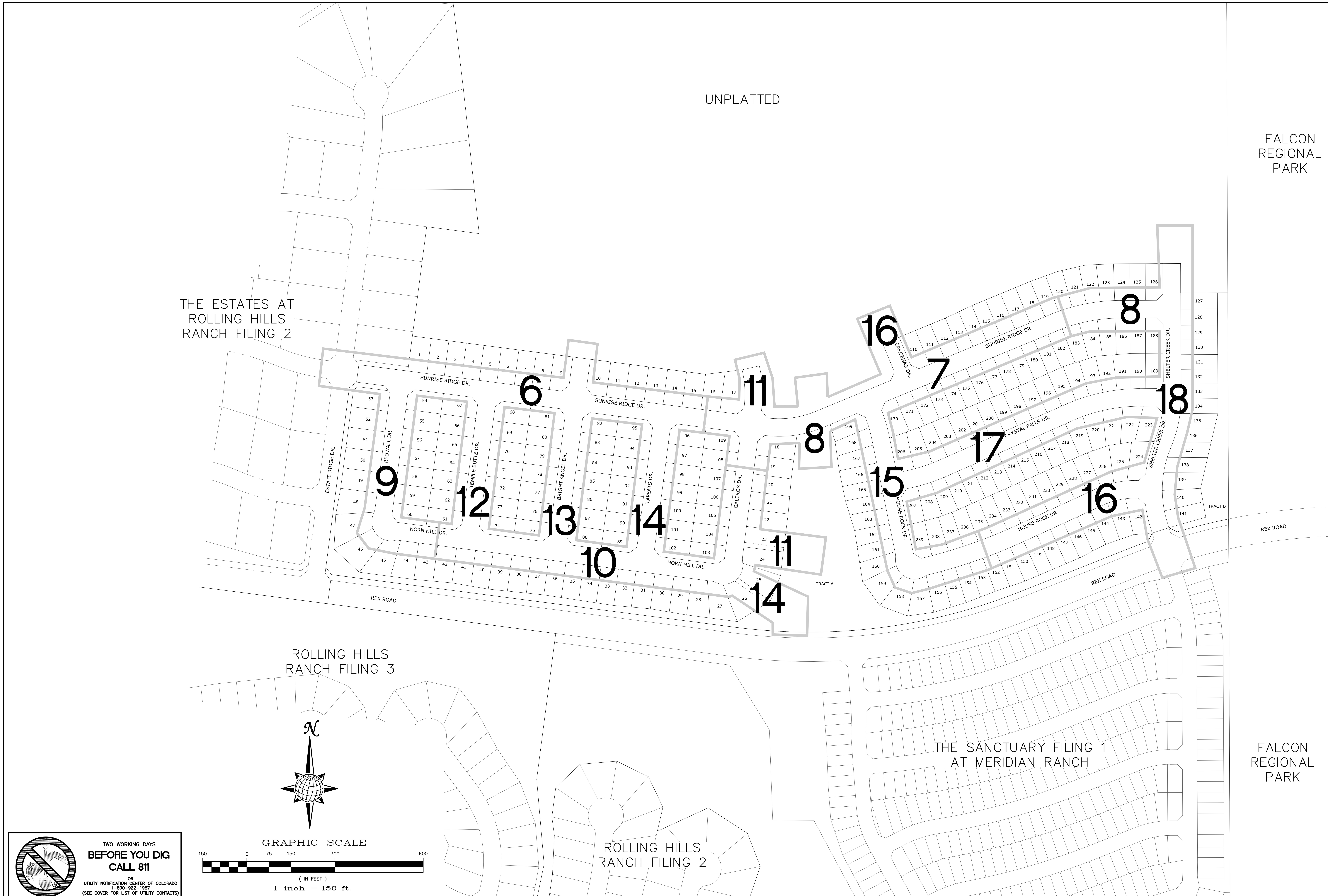

No.	Revisions	Date	Init.	Appr.	Date
1		-	-		
2					
3					
4					

TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS

INDEX SHEET

Drawn by LCG
Checked by TAK
Date JULY 2024

Scale AS SHOWN

2 of 37

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

PCD PROJECT NO. SF2411

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METROPOLITAN DISTRICT GENERAL UTILITY NOTES FOR MERIDIAN SERVICE METROPOLITAN DISTRICT MSMD BOARD APPROVED: JANUARY 8, 2020

GENERAL NOTES

1. MERIDIAN SERVICE METROPOLITAN DISTRICT (MSMD) CONTACT:

   11886 STAPLETON DR
   FALCON, CO 80831
   PHONE 719–495–6567

2. ALL SANITARY SEWER, POTABLE WATER, RECLAIMED WATER, RAW WATER AND STORM DRAIN SYSTEMS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE CURRENT MERIDIAN SERVICE METROPOLITAN DISTRICT (MSMD) SPECIFICATIONS. MSMD SPECIFICATIONS HEREINAFTER SHALL BE CONSISTENT WITH THE COLORADO SPRINGS UTILITIES SPECIFICATIONS (CSUS) FOR WASTEWATER LINE EXTENSION & SERVICE STANDARDS, 2010 EDITION AND THE WATER LIND EXTENSION & SERVICE STANDARDS, 2014 EDITION, UNLESS OTHERWISE NOTED AND APPROVED.
3. ALL PLANS ON THE JOB SITE SHALL BE SIGNED AND APPROVED BY MSMD AND MSMD'S ENGINEER. ANY REVISION TO THE PLANS SHALL BE APPROVED BY MSMD AND MSMD'S ENGINEER AND SO NOTED ON THE PLANS.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY MSMD. MSMD RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO MSMD STANDARDS AND SPECIFICATIONS.
5. ALL PIPE MATERIAL, BACKFILL, AND INSTALLATION SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT, COLORADO SPRINGS UTILITIES, MSMD, DISTRICT ENGINEER AND THE SOILS ENGINEER.
6. ALL UTILITY TRENCH BACKFILL SHALL BE PLACED PER THE APPROVED SOILS REPORT RECOMMENDATIONS AND UNDER THE DIRECTION OF THE SOILS ENGINEER. TRENCH BACKFILL SHALL BE MOISTURE CONDITIONED TO WITHIN 2 PERCENT OF OPTIMUM AND COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM MODIFIED PROCTOR DRY DENSITY (ASTM D 1557) OR HIGHER STANDARD AS REQUIRED BY THE EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT OR THE SOILS ENGINEER RECOMMENDATION. THIS SHALL INCLUDE ALL MAIN LINE, VALVES, FIRE HYDRANT RUNS, WATER & SEWER SERVICE LINES, CLEAN OUTS, INLET BOXES, MANHOLES, ETC. A QUALIFIED SOILS ENGINEER SHALL OBSERVE AND TEST THE BACKFILL AND COMPACTION OF ALL TRENCHES AND ALL REPORTS SHALL BE SUBMITTED TO MSMD FOR REVIEW AND APPROVAL.
7. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING FACILITIES (ABOVEGROUND AND UNDERGROUND) WITHIN THE PROJECT SITE SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT THE REVISIONS OF THE CONSTRUCTION DRAWINGS IF IT IS FOUND THAT THE ACTUAL LOCATIONS ARE IN CONFLICT WITH THE PROPOSED WORK.
8. ALL WATER AND SANITARY SEWER SERVICE LATERAL LOCATIONS SHALL BE CLEARLY MARKED BY STAMPING AN "S" FOR SEWER AND A "W" FOR WATER ON THE CURB FACE AT EACH SERVICE LATERAL LOCATION. ALL SLEEVE LOCATIONS SHALL BE CLEARLY MARKED BY STAMPING AN "X" ON THE CURB FACE. ALL PRIVATE IRRIGATION SLEEVES SHALL BE MARKED BY STAMPING AN "I" ON THE TOP OF THE SIDEWALK.
9. BENDS, DEFLECTIONS & CUT PIPE LENGTHS SHALL BE USED TO HOLD HORIZONTAL ALIGNMENT OF SEWER AND WATER LINES TO NO MORE THAN 0.5' FROM THE DESIGNED ALIGNMENT.
10. AT ALL LOCATIONS WHERE CAP AND STUB IS NOTED ON DRAWINGS, PROVIDE A PLUG AT THE END OF THE PIPE JOINT NEAREST THE SPECIFIED STATION. PROVIDE A REVERSE ANCHOR AT ALL WATER LINE PLUGS AND BLOW OFFS.
11. ALL EXISTING UTILITY MAINS SHALL BE SUPPORTED AND PROTECTED IN PLACE AND FUNCTION CONTINUOUSLY DURING ALL CONSTRUCTION OPERATIONS. SHOULD A MSMD UTILITY FAIL OR BE DAMAGED AS A RESULT OF THE CONSTRUCTION OPERATION, IT SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR PER ALL MSMD SPECIFICATIONS. IN THE EVENT THE CONTRACTOR CANNOT IMMEDIATELY MAKE THE REPAIRS TO THE FAILED OR DAMAGED MSMD UTILITY TO THE SATISFACTION OF MSMD, MSMD MAY REPAIR OR CAUSE THE REPAIR AND BACK CHARGE ALL SUCH COSTS TO THE CONTRACTOR.
12. THE CONTRACTOR SHALL REPLACE OR REPAIR ANY AND ALL DAMAGE CAUSED BY THE CONTRACTOR DURING CONSTRUCTION ACTIVITIES TO ALL ABOVE OR BELOW GROUND IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, LANDSCAPING, CURB, GUTTER, SIDEWALK, ASPHALT, ELECTRIC SYSTEMS, GAS SYSTEMS, TELEPHONE/TELEVISION SYSTEMS, ETC.
13. A PRECONSTRUCTION CONFERENCE MEETING SHALL BE HELD AT THE PROJECT SITE A MINIMUM OF 7 DAYS BEFORE CONSTRUCTION BEGINS AND SHALL BE ATTENDED BY ALL REPRESENTATIVES RESPONSIBLE FOR CONSTRUCTION, INSPECTION, SUPERVISION, TESTING AND ALL OTHER ASPECTS OF THE WORK. THE CONTRACTOR SHALL NOTIFY MSMD AND ALL AFFECTED UTILITY COMPANIES ADJACENT TO THE PROPOSED UTILITY CONSTRUCTION A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION FOR SCHEDULING. THE CONTRACTOR SHALL SCHEDULE BI–WEEKLY CONSTRUCTION MEETINGS AT THE PROJECT SITE OR MORE FREQUENTLY AS DEEMED NECESSARY BY MSMD.
14. PRELIMINARY ACCEPTANCE SHALL BE DEFINED AS THE POINT IN TIME THAT MSMD ACCEPTS THE FACILITY FOR USE AND ALL SURFACE IMPROVEMENTS AND RESTORATIONS ARE COMPLETED.
15. FINAL ACCEPTANCE BY MSMD OF ANY UTILITY LINE OR SYSTEM SHALL NOT OCCUR UNTIL COMPLETION OF FINAL ASPHALT LAYERS AND/OR FINAL COMPLETION AND/OR RESTORATION OF ALL SURFACE IMPROVEMENTS. THE WARRANTY PERIOD FOR ALL FACILITIES SHALL BE 12 MONTHS COMMENCING WITH FINAL ACCEPTANCE. MSMD MAY REQUIRE RETESTING OF THE UTILITY SYSTEM PRIOR TO FINAL ACCEPTANCE.
16. INSPECTION FEES: CALL MSMD FOR FEE SCHEDULE OR VIEW AT WWW.MERIDIANRANCHMETRO.ORG.
17. ALL COMMERCIAL/BUSINESS DEVELOPMENTS SHALL HAVE A MINIMUM EIGHT INCH DIAMETER WATER MAIN LOOPED THROUGH THE PROPOSED PROPERTY WITH GATE VALVES LOCATED WHERE THE MAIN ENTERS AND EXITS THE PROPERTY AND A MINIMUM EIGHT INCH SANITARY SEWER MAIN WITH A MANHOLE IN THE STREET WHERE THE MAIN ENTERS THE PROPERTY. THE EXTENT OF THE MAINS SHALL BE MARKED WITH THE APPROPRIATELY COLORED CARSONITE MARKERS AND TRACER WIRE.
18. AFTER REVIEW AND APPROVAL OF PLANS FOR THE EXTENSION OF LINES, FACILITIES, AND/OR SERVICES, CONSTRUCTION MUST BE COMPLETED WITHIN 18 MONTHS FOR RESIDENTIAL SUBDIVISIONS AND 12 MONTHS FOR ANY COMMERCIAL INSTALLATIONS. IF WORK IS NOT COMPLETED WITHIN THIS TIME FRAME AND NO EXTENSION HAS BEEN GIVEN, THEN ALL PLANS MUST BE RE–SUBMITTED TO MSMD FOR REVIEW (WITH NEW FEES PAID) AND APPROVAL.
19. PUMPING OR BYPASS OPERATIONS SHALL BE REVIEWED AND APPROVED BY MSMD AND THE ENGINEER OF RECORD PRIOR TO EXECUTION.
20. ANY FACILITIES OUTSIDE OF PAVED ROADS MUST BE MARKED APPROPRIATELY WITH CARSONITE MARKERS AT EACH VALVE, MANHOLE, TEST STATION, AND ANY OTHER FACILITIES MSMD DEEMS NECESSARY.

SANITARY SEWER NOTES

21. SANITARY SEWER MANHOLES WITH ONE ENTRANCE PIPE SHALL BE A MINIMUM OF FOUR (4) FOOT IN DIAMETER, ALL OTHERS SHALL BE A MINIMUM OF FIVE (5) FOOT IN DIAMETER. ALL MANHOLE JOINT EXTERIORS SHALL BE WRAPPED WITH MINIMUM 12" WIDE CON–SEAL CS–212 APPLIED OVER APPROPRIATE MSMD APPROVED JOINT PRIMER. THE WHOLE EXTERIOR OF THE MANHOLES SHALL BE COATED WITH CONCRETE WATER PROOFING TAR APPLIED PER CSUS.
22. ALL SANITARY SEWER MAINS, SANITARY SEWER LATERALS, AND WATER MAIN LINES (PVC & DUCTILE IRON) SHALL BE INSTALLED WITH COATED 12 GAUGE U.F. TRACER WIRE PER MSMD SPECIFICATIONS. SANITARY SEWER TRACER WIRE SHALL BE EXTENDED INTO THE MANHOLES AND WRAPPED AROUND THE TOP STEP OF THE MANHOLE AND EXTENDED TO EACH SANITARY SEWER LATERAL 2" X 4" MARKER AS NOTED BELOW (NOTE 26 AND 28). EXTEND TRACER WIRE TO THE TOP OF WATER VALVE BOXES A MINIMUM OF EVERY 500 FEET.
23. TESTING OF FACILITIES:
    a. THE CONTRACTOR SHALL NOTIFY MSMD A <u>MINIMUM OF 48 HOURS</u> AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF ANY TESTING TO ALLOW MSMD STAFF TO BE PRESENT AT ALL TIMES DURING TESTING. ALL TESTING SHALL BE PER MSMD SPECIFICATIONS OR CSUS, WHICHEVER IS GREATER.
    b. ALL SANITARY SEWER FACILITIES SHALL MEET THE FOLLOWING TESTING REQUIREMENTS:
       - ALL SANITARY SEWER MAIN SHALL BE PRESSURE TESTED PER CSUS.
       - ALL SEWER MAIN SHALL BE PROPERLY BALLED/MANDRILL.
       - ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED PER CSUS.
       - ALL SANITARY SEWER MAINS SHALL BE CCTV INSPECTED WITH TWO VIDEOS ON DVDS SUBMITTED TO MSMD FOR REVIEW AND APPROVAL. ALL SANITARY SEWER MAINS SHALL BE JET CLEANED AND FLUSHED DIRECTLY PRIOR TO CCTV INSPECTION WITH RUNNING WATER IN THE SANITARY SEWER MAIN DURING THE CCTV INSPECTION. SANITARY SEWER MAINS THAT DO NOT MEET MSMD STANDARDS SHALL BE REPLACED AND OR REPAIRED AS NECESSARY AND RE–TESTED.
24. COMMENCEMENT OF USE OF ANY SANITARY SEWER LINES AND/OR SYSTEMS. NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL:
    a. MSMD HAS APPROVED ALL TESTS AND COMPACTION TESTING REPORTS, AS–BUILT DRAWINGS AND REVIEWS ARE SUBMITTED TO AND APPROVED BY MSMD.
    b. ALL SANITARY SEWER LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, ANY REQUIRED SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.
    c. ALL NECESSARY EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED TO MSMD, AND RECORDED.
    d. DOWNSTREAM PLUG CAN BE REMOVED ONCE FIRST LIFT OF ASPHALT IS DOWN AND THE ABOVE REQUIREMENTS ARE MET.
25. WHEN A RESIDENTIAL SEWER SERVICE IS INSTALLED ON AN EXISTING SEWER MAIN A DOUBLE STRAP STAINLESS STEEL SADDLE TEE SHALL BE USED. THE SADDLE TEE, GASKET HUB & GASKET SKIRT MUST BE A STRAIGHT STYLE CONNECTION; NO "Y" STYLE WILL BE ALLOWED. ALL SEWER SERVICE CORE CUTOUTS MUST BE RECOVERED AND RETURNED TO THE DISTRICT FOR INSPECTION. IF ALL SEWER SERVICE CORE CUTOUTS ARE RECOVERED AND COMPLETE, THEN NO VIDEO INSPECTION OF THAT PORTION OF THE SEWER MAIN IS REQUIRED. IF ANY SEWER SERVICE CORE CUTOUT OR PORTION THERE FROM IS NOT RECOVERED, THAT SECTION OF SEWER MAIN SHALL BE CLEANED AND VIDEO INSPECTED TO ENSURE THAT THE SEWER SERVICE CORES OR PORTION THERE FROM IS RECOVERED.
26. SANITARY SEWER MAIN LENGTHS ARE MH CENTER TO MH CENTER. ALL SANITARY SEWER PIPES SHALL BE SDR 35 PVC OR EQUAL AND HAVE A MINIMUM COVER DEPTH OF 5'–6" INSTALLED WITH A COATED 12 GAUGE U.F. TRACER WIRE. USE PRE–MANUFACTURED IN–LINE PVC PUSH–ON WYES FOR SANITARY SEWER LATERAL CONNECTIONS TO THE SANITARY SEWER MAIN. TAPPING SADDLES MAY ONLY BE USED FOR TAPPING PRE–EXISTING SANITARY SEWER MAINS. ALL LOTS SHALL RECEIVE A 4" SANITARY SEWER SERVICE LATERAL. THE END OF EACH SANITARY SEWER SERVICE LATERAL SHALL BE "LOCATED" WITH A WOOD 2" X 4" EXTENDED 4' ABOVE FINISH GRADE FROM THE END OF THE SERVICE LOCATION AND PAINTED GREEN ABOVE FINISH GRADE. EXTEND THE COATED 12 GAUGE U.F. TRACER WIRE TO END OF EACH SANITARY SEWER LATERAL UP TO THE SURFACE COILED AROUND THE 2" X 4" MARKER. ALL TRACER WIRE CONNECTIONS SHALL BE WATER TIGHT STYLE OF APPROVED ELECTRICAL CONNECTORS SUCH AS A DBY (DIRECT BURY YELLOW) OR EQUAL.

WATER NOTES

27. ALL WATER MAIN PIPES SHALL BE AWWA C900 PVC, PRESSURE CLASS 200 OR MSMD APPROVED EQUAL, INSTALLED PER MANUFACTURERS' SPECIFICATIONS. ALL WATER MAIN FITTINGS SHALL HAVE MECHANICAL RESTRAINTS AND THRUST BLOCKS. ALL WATER MAIN PIPES SHALL HAVE A MINIMUM COVER DEPTH OF 5'–6" INSTALLED WITH A COATED 12 GAUGE U.F. TRACER WIRE.
28. ALL LOTS SHALL RECEIVE A MINIMUM 3/4 " DIAMETER HDPE OR COPPER WATER SERVICE INSTALLED PER APPROVED PLANS CSUS AND MSMD SPECIFICATIONS. HDPE WATER SERVICE SHALL BE HDPE SIDR–7 PE4710 RATED FOR 200 PSI WITH THE MARKING SIDR–7, AWWA C901, NSF61 PE4710. WATER SERVICES SHALL BE INCREASED IN SIZE TO 1" DIAMETER WHERE THE RESIDENTIAL SERVICE WATER PRESSURE IS LESS THAN 40 PSI AT 10 GPM DEMAND AND ALL 1/3 ACRE OR GREATER LOTS SHALL RECEIVE A MINIMUM 1" DIAMETER WATER SERVICE AS INDICATED ON THE PLANS. THE CURB STOP VALVE AND BOX AT THE END OF EACH WATER SERVICE SHALL BE "LOCATED" WITH A 2" X 4" PIECE OF WOOD EXTENDED 4' ABOVE FINISH GRADE, PAINTED BLUE, DIRECTLY BEHIND THE CURB STOP VALVE AND BOX. ALL TRACER WIRE CONNECTIONS SHALL BE MADE WITH DBY (DIRECT BURY YELLOW) WATER TIGHT STYLE ELECTRICAL CONNECTORS OR EQUAL.
29. IF HDPE WATER SERVICES ARE TO BE USED THEY SHALL INCLUDE A ROMAC 202 NS OR EQUAL TAPPING SADDLE AND A CURB STOP VALVE INSIDE A CURB STOP BOX AT THE END OF THE WATER SERVICE. ALL CORPORATION STOPS SHALL BE AY MCDONALD MODEL NUMBER 74701B–33 FOR SIDR HDPE SAME SIZE AS THE WATER SERVICE. ALL CURB STOP VALVES SHALL BE ¾" AY MCDONALD MODEL NUMBER 76100 (FLARE X FLARE) OR EQUIVALENT WITH A MAIN SIDE ONE PACK JOINT (PEP) ADAPTOR AY MCDONALD MODEL NUMBER 74755–33 UNLESS OTHERWISE NOTED ON THE PLANS. ALL 1" DIAMETER WATER SERVICES SHALL RECEIVE A 1" INLET BY ¾" OUTLET CURB STOP VALVE.
30. IF COPPER WATER SERVICES ARE TO BE USED THEY SHALL INCLUDE A ROMAC 202 BS OR EQUAL TAPPING SADDLE AND A CURB STOP VALVE INSIDE A CURB STOP BOX AT THE END OF THE WATER SERVICE. ALL CURB STOP VALVES SHALL BE ¾" UNLESS OTHERWISE NOTED ON THE PLANS. ALL 1" DIAMETER WATER SERVICES SHALL RECEIVE A 1" INLET BY ¾" OUTLET CURB STOP VALVE MANUFACTURED BY AY MCDONALD MODEL NUMBER 6104 (FLARE X FLARE) OR EQUIVALENT.
31. ALL POTABLE WATER VALVES SHALL OPEN CLOCKWISE WITH THE VALVE OPERATING NUT INSTALLED LOW NEAR THE MAIN LINE AND PAINTED RED. ALL POTABLE AND RAW WATER VALVES NOT WITHIN PAVED STREETS SHALL BE MARKED WITH CARSONITE MARKERS. ALL RAW WATER VALVES SHALL OPEN COUNTERCLOCKWISE WITH THE VALVE OPERATING NUT INSTALLED HIGH WITHIN 1' FROM THE SURFACE AND PAINTED BLACK.
32. ALL POTABLE WATER, RAW WATER AND NON–POTABLE WATER VALVES 14" OR GREATER SHALL BE BUTTERFLY VALVES WITH A SIDE OPERATING NUT. THE OPERATIONAL DEPTH OF THE POTABLE WATER VALVES SHALL NOT EXCEED 6' IN OVERALL DEPTH NOR SHALL IT BE CLOSER TO THE SURFACE THEN 4'
33. FIRE HYDRANT LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE APPLICABLE FIRE DEPARTMENT AUTHORITY.
34. FIRE HYDRANTS SHALL BE AVK MODEL 2780 NOSTALGIC (PART # 27ND–023XX–0010B–AN) OPEN RIGHT WITH A 1 ½" PENTAGON OPERATING NUT AND SERVICE CAPS, STANDARD 4 1/2" PUMPER NOZZLE WITH A THREAD PATTERN OF 5 – 3/8" – 6 TPI (THREADS PER INCH) ALONG WITH TWO STANDARD 2 ½" NST (NATIONAL STANDARD THREAD) SIDE NOZZLES. HYDRANT SHALL BE PAINTED WITH RUSTOLEUM SAFETY YELLOW.
35. ALL DUCTILE IRON PIPES, FITTINGS, VALVES AND FIRE HYDRANTS SHALL BE WRAPPED WITH POLYETHYLENE TUBING, DOUBLE BONDED AT EACH JOINT AND ELECTRICALLY ISOLATED. BONDING AND ANODE CONNECTIONS SHALL BE THOROUGHLY COATED WITH BITUMINOUS COATINGS.
36. ALL DUCTILE IRON PIPE AND FITTINGS LESS THAN 12 INCHES IN DIAMETER SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB. MAGNESIUM ANODES EVERY 400 FEET AND 9 LB. MAGNESIUM ANODES AT EACH FITTING. ALL DUCTILE IRON PIPE AND FITTINGS 12 INCHES AND GREATER SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB. MAGNESIUM ANODES EVERY 300 FEET AND 9 LB. MAGNESIUM ANODES AT EACH FITTING. CATHODIC PROTECTION AND ANODES SHALL BE INSTALLED PER MSMD SPECIFICATIONS.
37. ALL EXISTING WATER UTILITY MATERIAL REMOVED AS PART OF THE WORK ON THESE DRAWINGS SHALL BE RETURNED TO MSMD AS REQUESTED.
38. TESTING OF FACILITIES:
    a. THE CONTRACTOR SHALL NOTIFY MSMD A <u>MINIMUM OF 48 HOURS</u> AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF ANY TESTING TO ALLOW MSMD STAFF TO BE PRESENT AT ALL TIMES DURING TESTING. ALL TESTING SHALL BE PER MSMD SPECIFICATIONS OR CSUS, WHICHEVER IS GREATER.
    b. ALL SECTIONS OF WATER LINES MUST FIRST PASS A CHLORINE TEST WITH A MINIMUM OF 50 PARTS PER MILLION OF RESIDUAL AFTER 24 HOURS. THE WHOLE SECTION OF LINE BEING TESTED MUST BE RE–CHLORINATED AND RE–TESTED IF IT DOES NOT PASS. ONCE THE SECTION OF LINE BEING TESTED PASSES THE CHLORINE TEST THE LINE MUST BE FLUSHED AND BAC–T TESTED PER CSUS. ONCE THE BAC–T TEST PASSES, THE SECTION OF LINE MAY BE PRESSURE TESTED. WATER FLUSHED FROM THE WATER SYSTEM MUST BE PROPERLY DE–CHLORINATED DURING THE FLUSHING PROCESS
    c. ALL SECTIONS OF WATER LINES MUST PASS A TWO HOUR 200 PSI HYDROSTATIC PRESSURE TEST. THE PRESSURE SHALL NOT DECREASE BY MORE THAN 5 PSI DURING THE DURATION OF THE TEST. NO WATER SHALL BE ADDED DURING THE PRESSURE TEST. IF THE PRESSURE TEST FAILS, THE SECTIONS OF LINE THAT FAILED MUST AGAIN PASS THE CHLORINE TEST, BE FLUSHED, AND PASS THE BAC–T TEST PRIOR TO CONDUCTING A NEW PRESSURE TEST.
    d. ONCE WATER SERVICES ARE INSTALLED A SECOND WATER PRESSURE TEST MUST BE DONE TO A WORKING PSI OF 150 PSI FOLLOWING THE ABOVE TESTING STANDARDS.
    e. SECTIONS OF WATER LINES SHALL BE LEFT PRESSURIZED ONCE THE WATER LINES HAVE PASSED ALL TESTING DURING THE REMAINING CONSTRUCTION ACTIVITIES.
39. COMMENCEMENT OF USE OF WATER LINES AND/OR SYSTEMS. NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL:
    a. MSMD HAS APPROVED ALL TESTS AND COMPACTION TESTING REPORTS, AND AS–BUILT DRAWINGS ARE SUBMITTED TO AND APPROVED BY MSMD.
    b. ALL WATER LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.
    c. ALL EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED TO MSMD, AND RECORDED.
40. ANY WATER SHUT DOWNS THAT NEED TO OCCUR ON THE CRITICAL LINES AS DEFINED BY THE MSMD SOP (STANDARD OPERATION PROCEDURE) MANUAL SHALL BE COORDINATED WITH MSMD STAFF FOR NIGHT TIME SHUT DOWNS.
41. THE CONTRACTOR SHALL MAKE ALL NECESSARY CONNECTIONS TO EXISTING WATER MAINS WITHOUT A SHUTDOWN OF THE WATER SYSTEM. IN THE EVENT THAT A SHUTDOWN OF A WATER SYSTEM IS NECESSARY, THE CONTRACTOR SHALL ACQUIRE A PERMIT FROM MSMD.
42. ALL NON–POTABLE WATER MAINS SHALL BE AWWA NON–POTABLE STANDARD (PURPLE PIPE) C900 PVC, PRESSURE CLASS 200 OR MSMD APPROVED EQUAL, INSTALLED PER MANUFACTURERS' SPECIFICATIONS. ALL WATER MAIN FITTINGS SHALL HAVE MECHANICAL RESTRAINTS AND THRUST BLOCKS. ALL WATER MAIN PIPES SHALL HAVE A MINIMUM COVER DEPTH OF 5'–6" INSTALLED WITH A COATED 12 GAUGE U.F. TRACER WIRE.
43. ALL NON– POTABLE WATER VALVES SHALL OPEN COUNTER CLOCKWISE WITH A VALVE EXTENSION, EXTENDING TO WITHIN 1' OF THE SURFACE AND PAINTED PURPLE WITH AN OPEN DIRECTION ARROW.
44. IRRIGATION SERVICES SHALL HAVE A STOP AND WASTE CURB STOP VALVE INSTALLED ALONG WITH A TRACER WIRE EXTENDING BACK TO THE MAIN LINE.

THE ABOVE GUIDELINES ARE SUBJECT TO CHANGE AT ANY TIME.

TWO WORKING DAYS
BEFORE YOU DIG
CALL 811
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1–800–922–1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

EL PASO COUNTY GENERAL NOTES:

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

GENERAL NOTES:

1. THE CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ALL APPLICABLE CODES, LICENSES, STANDARDS, PERMITS, BONDS, ETC. WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK.
2. LOCATIONS AND ELEVATIONS OF EXISTING IMPROVEMENTS TO BE MET (OR AVOIDED) BY WORK TO BE DONE SHALL BE CONFIRMED BY THE CONTRACTOR THROUGH FIELD EXPLORATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT TO THE ENGINEER ANY DISCREPANCIES BETWEEN HIS MEASUREMENTS AND THESE PLANS.
3. ANY CONSTRUCTION DEBRIS OR MUD DROPPED INTO MANHOLES, INLETS, PIPES OR TRACKED ONTO EXISTING ROADWAYS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL REPAIR ANY EXCAVATIONS OR PAVEMENT FAILURES CAUSED BY HIS CONSTRUCTION. THE CONTRACTOR SHALL PROPERLY BARRICADE THE CONSTRUCTION SITE UNTIL CONSTRUCTION IS COMPLETE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NOT OBTAINED BY THE OWNER OR OWNER'S REPRESENTATIVES AND PAY ALL FEES AS REQUIRED BY THE CONSTRUCTION COVERED IN THESE PLANS.
5. ALL WORK AND MATERIALS WILL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
6. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES. CONTRACTOR SHALL PROVIDE ALL WORK AND MATERIALS AS SHOWN ON THESE PLANS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY OF HIS OWN PERSONNEL, ALL VISITORS TO THE SITE, AND THE GENERAL PUBLIC INCLUDING, BUT NOT LIMITED TO, TRENCH EXCAVATION AND SHORINGS, TRAFFIC CONTROL, AND SECURITY NOT LIMITED TO NORMAL WORKING HOURS.
8. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL SITE IMPROVEMENTS (INCLUDING BUT NOT LIMITED TO: UTILITIES, STRUCTURES, PAVING, LANDSCAPING, ETC.) SUCH THAT NO DAMAGE IS DONE TO SITE IMPROVEMENTS (I.E.: SAWCUTTING NEW PAVEMENT). SITE IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED, TO EQUAL OR BETTER CONDITION, TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
9. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE THAT A PRIOR UNIDENTIFIED SITUATION IS PRESENT, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
10. THE CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM WORK UNDER THIS CONTRACT TO AN APPROVED DUMP SITE.
11. USE ONLY DIMENSIONS PROVIDED ON THESE PLANS. DO NOT SCALE DRAWINGS. INFORM ENGINEER OF ANY DISCREPANCIES AND/OR MISSING INFORMATION.
12. CONTRACTOR TO OBTAIN DEWATERING PERMIT, IF REQUIRED, FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) PRIOR TO COMMENCING WORK. DISCHARGES SHALL BE MONITORED ACCORDING TO THE CONDITIONS OF THE CDPHE PERMIT.
13. CONTRACTOR TO OBTAIN AND READ THE GEOTECHNICAL ENGINEERING STUDY) PREPARED FOR THIS PROJECT. IN CASE OF ANY CONFLICT WITH THESE PLANS AND SITEWORK SPECIFICATIONS REGARDING PAVING AND EARTHWORK, CONTACT ENGINEER IMMEDIATELY. ALL PAVING AND EARTH WORK SHALL CONFORM TO THE RECOMMENDATIONS OF THIS REPORT.
14. STREET NAME SIGNS TO BE MOUNTED ON TOP OF STOP SIGNS AT LOCATIONS SHOWN ON PLANS.
15. WATER TIGHT JOINTS REQUIRED AT PIPES WITH PRESSURE HEADS PER ECM 3.3.1.D.

No.	Revisions	Date	Init.	Appr.	Date
1		-	-		
2					
3					
4					

TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

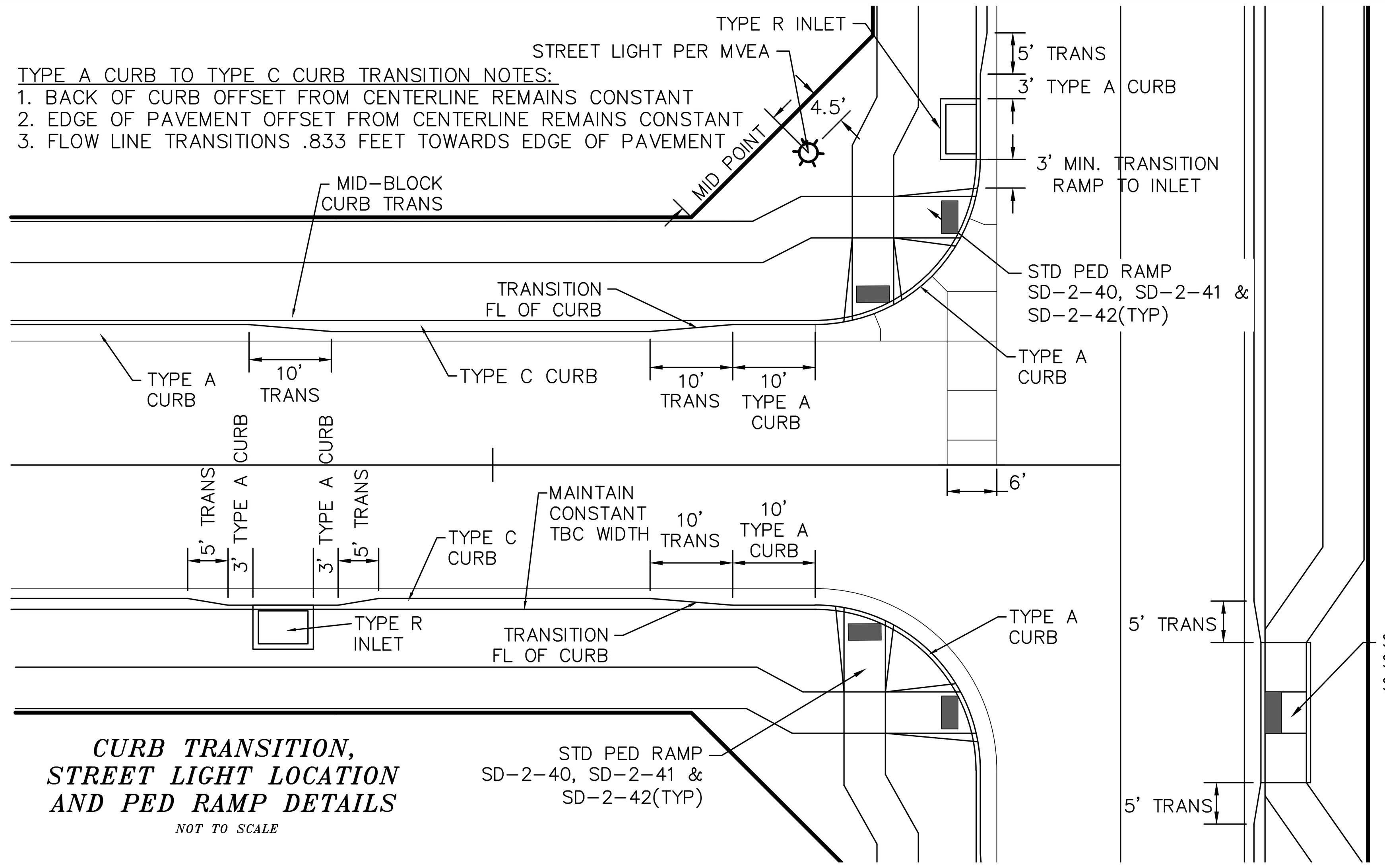
ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS
NOTES SHEET

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN

3 of 37

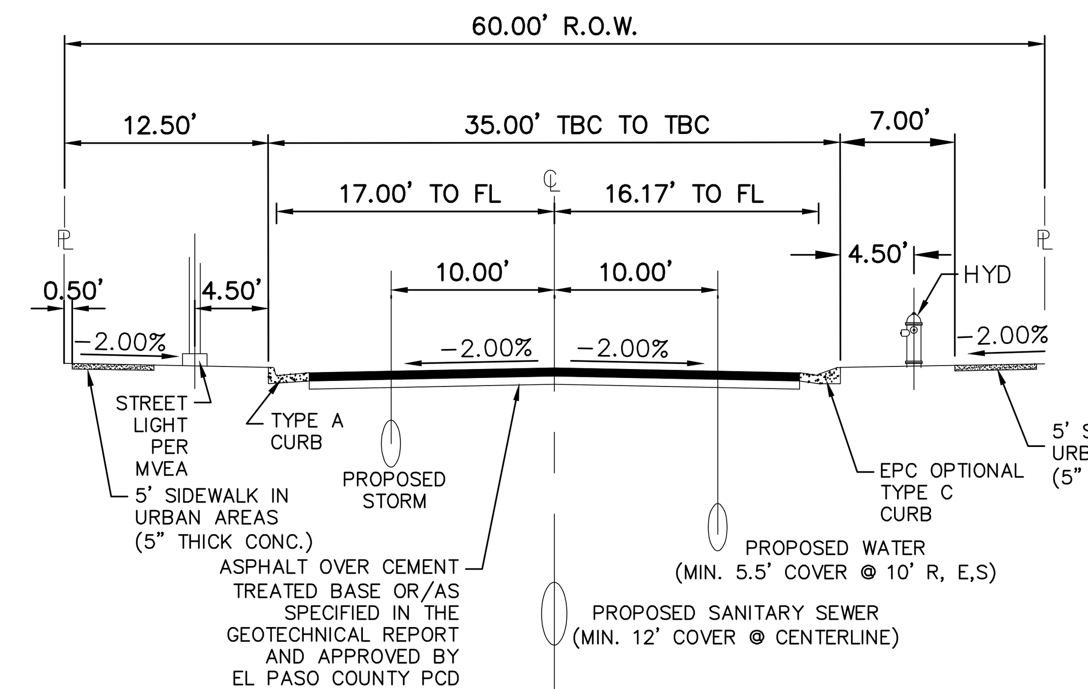
COLORADO LICENSED PROFESSIONAL ENGINEER THOMAS A. KERBY 31429 7-15-24

PCD PROJECT NO. SF2411



CURB TRANSITION, STREET LIGHT LOCATION AND PED RAMP DETAILS

NOT TO SCALE

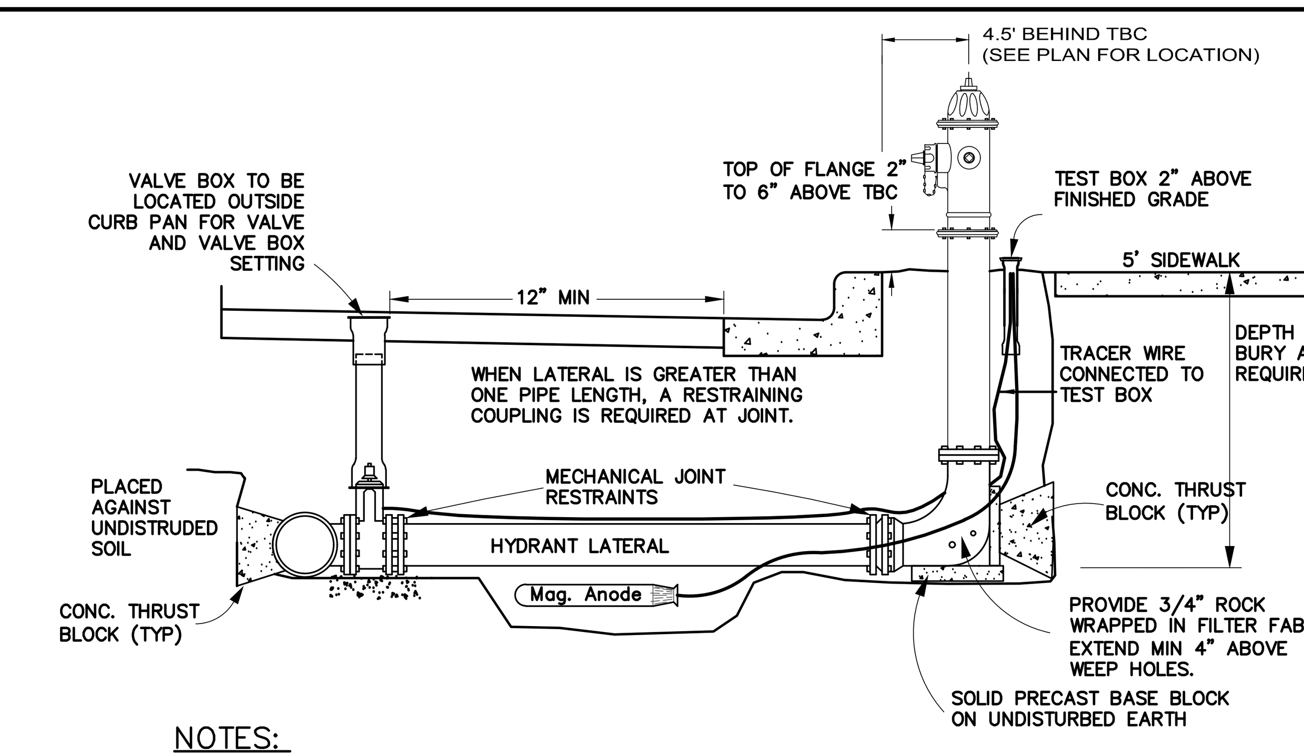


NOTES:
1. NON-STANDARD STREET SECTION PER DEVIATION NO. DEV134 APPROVED BY EL PASO COUNTY PCD.
2. OPTIONAL TYPE C CURB USED ON ALL RESIDENTIAL STREETS UNLESS OTHERWISE NOTED.
3. CLEAR ZONES MUST BE MAINTAINED AT ALL TIMES. ALL STRUCTURAL COMPONENTS LARGER THAN 4" IN DIA. MUST BE A MINIMUM OF 7' FROM EDGE OF TRAVEL WAY FOR TYPE C CURB AND 1.5' FROM FACE OF CURB FOR TYPE A CURB.
4. ASPHALT DETERMINED BY HVEEM METHOD AND APPROVED BY EL PASO COUNTY PCD.
5. ALL COUNTY SIDEWALK LOCATED WITHIN OR ADJACENT TO A COUNTY RIGHT OF WAY WILL BE 5" THICK PER RESOLUTION 16-446

60' R.O.W. RESIDENTIAL ROAD (TYPICAL)

URBAN LOCAL & URBAN LOCAL LOW-VOLUME

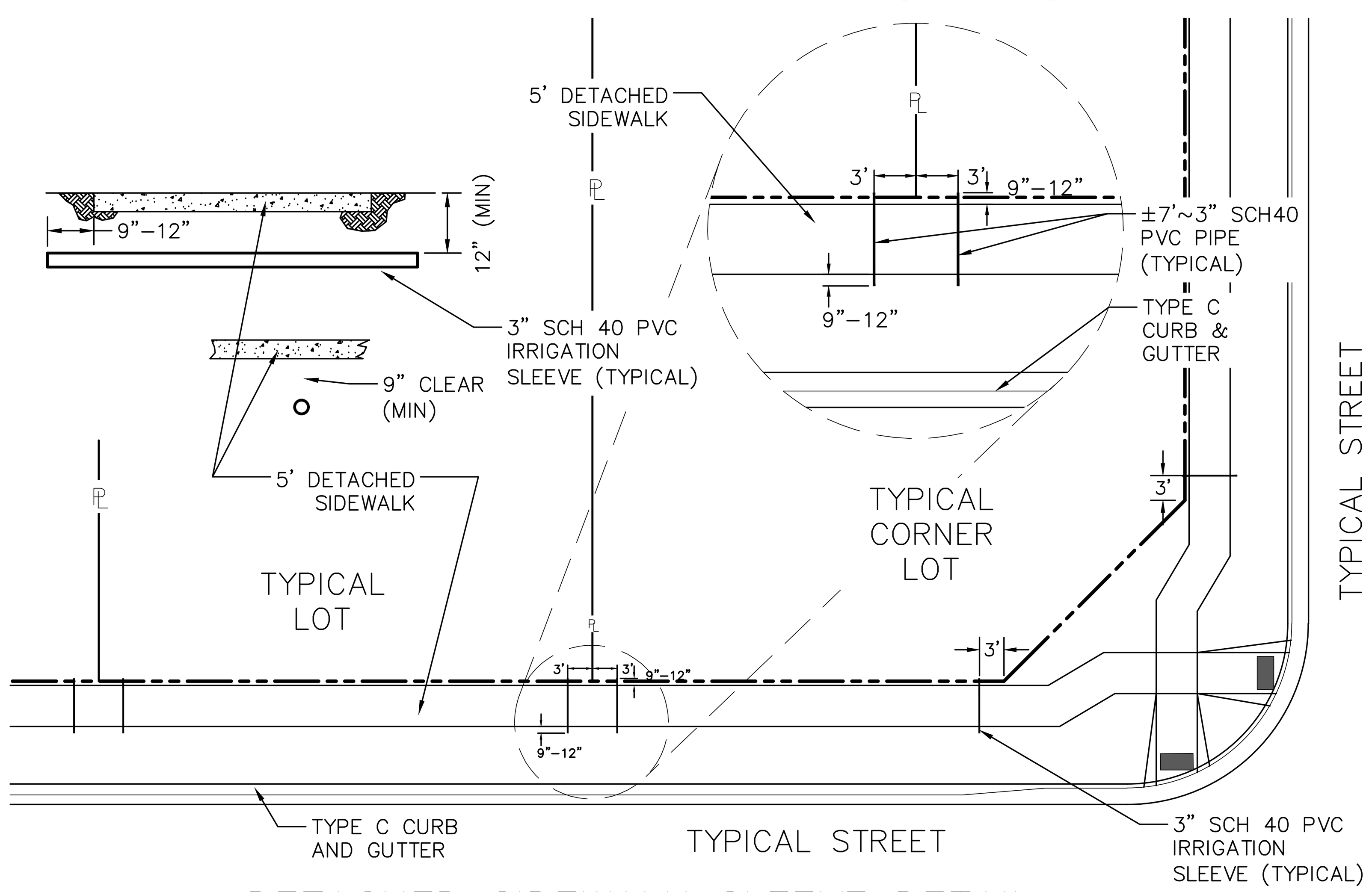
SCALE : N.T.S.



NOTES:
1. FIRE HYDRANTS SHALL BE AVK MODEL 2780 NOSTALGIC OPEN RIGHT WITH A 1 ½" PENTAGON OPERATING NUT AND SERVICE CAPS, STANDARD 4 ½" PUMPER NOZZLE WITH A THREAD PATTERN OF 5-3/8"-6 TPI(THREADS PER INCH) ALONG WITH TWO STANDARD 2 ½" NTS(NATIONAL STANDARD THREAD) SIDE NOZZLES.
2. HYDRANT SHALL BE INSTALLED PLUMB IN ALL DIRECTIONS.
3. MECHANICAL JOINT RESTRAINTS. SEE COLORADO SPRINGS UTILITIES FOR MECH. JOINT PIPE RESTRAINT SPECIFICATIONS.
4. SEE COLORADO SPRINGS UTILITIES FOR MECH. JOINT PIPE RESTRAINTS SPECIFICATIONS.
5. FINAL TOP OF FLANGE ELEVATION TO BE 2 TO 6 INCHES ABOVE TOP BACK OF CURB (TBC). WATERMAIN CONTRACTOR TO ADJUST HYDRANTS AS NECESSARY AFTER INSTALLATION OF CURB AND GUTTER TO ACHIEVE PROPER FINISHED ELEVATION.
6. NO OBSTRUCTIONS TO BE CONSTRUCTED IN FRONT OF THE FIRE HYDRANT.
7. PROVIDE A 9 LB. MAGNESIUM ANODE AND TEST STATION AT EACH HYDRANT PER CURRENT MERIDIAN SERVICE METROPOLITAN DISTRICT STANDARD NOTES.
8. HYDRANT SHALL BE PAINTED WITH RUSTOLEUM 659 SAFETY YELLOW PRIOR TO ACCEPTANCE.

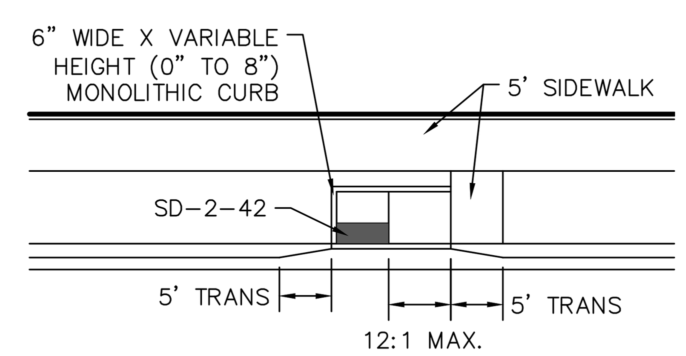
FIRE HYDRANT ASSEMBLY

SCALE : N.T.S.



DETACHED SIDEWALK SLEEVE DETAIL

NOT TO SCALE



MODIFIED PED RAMP DETAIL

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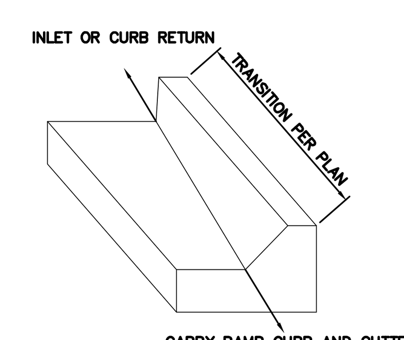

CURB TRANSITION

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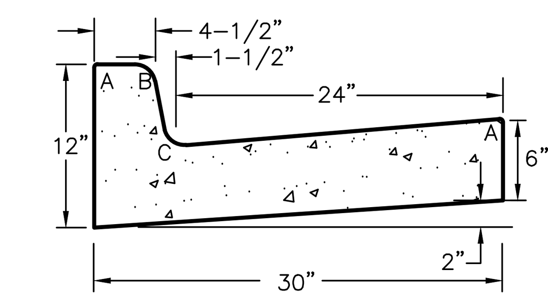
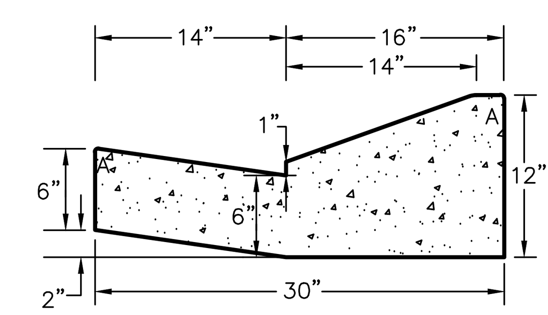


TYPE A CURB

NOT TO SCALE



*EPC OPTIONAL TYPE C CURB**

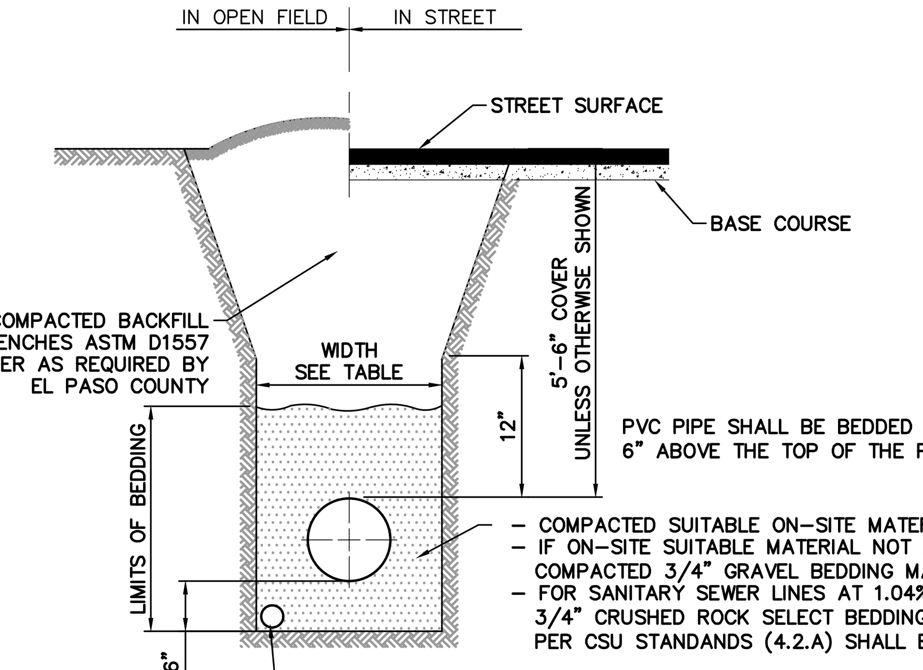
NOT TO SCALE

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

* ALL TYPE C CURB IDENTIFIED IN THIS PLAN TO BE EPC OPTIONAL TYPE C CURB

PIPE CHART

PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-4"	4'-0"
6"	1'-6"	4'-0"
8"	1'-8"	4'-0"
12"	2'-0"	4'-0"
18'	3'-0"	4'-0"
24'	3'-6"	4'-0"
30"	4'-0"	6'-0"
36'	5'-0"	6'-0"
42'	6'-0"	8'-0"
48"	6'-0"	8'-0"
54"	8'-0"	8'-0"
60"	8'-0"	8'-0"
66"	8'-0"	10'-0"
72"	10'-0"	12'-0"



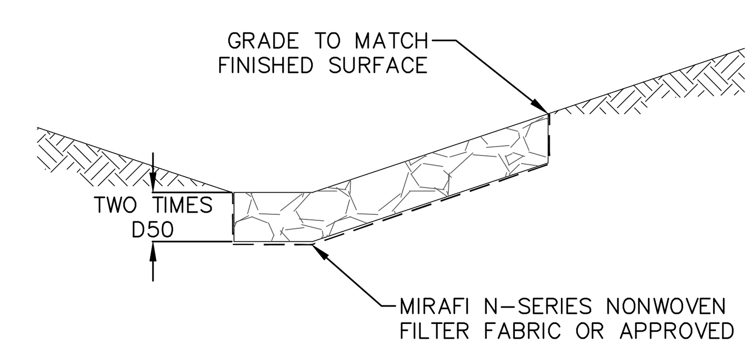
- COMPACTED SUITABLE ON-SITE MATERIAL.
- IF ON-SITE SUITABLE MATERIAL NOT AVAILABLE USE COMPACTED 3/4" GRAVEL BEDDING MATERIAL (IMPORT)
- FOR SANITARY SEWER LINES AT 1.04% OR LESS, 3/4" CRUSHED ROCK SELECT BEDDING MATERIAL (IMPORT) PER CSU STANDANDS (4.2.A) SHALL BE USED

TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFTEY OF THE WORKMEN AND THE PROTECTION OF OTHER UTILITIES.

- INSTALL A PVC UNDERDRAIN PIPE (SDR35) BELOW SANITARY SEWER LINES, EXTENDING TO DAYLIGHT AS NOTED IN THE PLANS.
- SEE OVERALL UNDERDRAIN PLAN FOR INSTALLATION NOTES AND UNDERDRAIN SIZE
- INSTALL AN UNDERDRAIN CLEANOUT ON THE SHELF OF EVERY SANITARY SEWER MANHOLE.
- STUB UNDERDRAIN PIPE TO EACH LOT IN COMMON TRENCH WITH SANITARY SEWER SERVICE.

TYPICAL TRENCH & BEDDING DETAIL

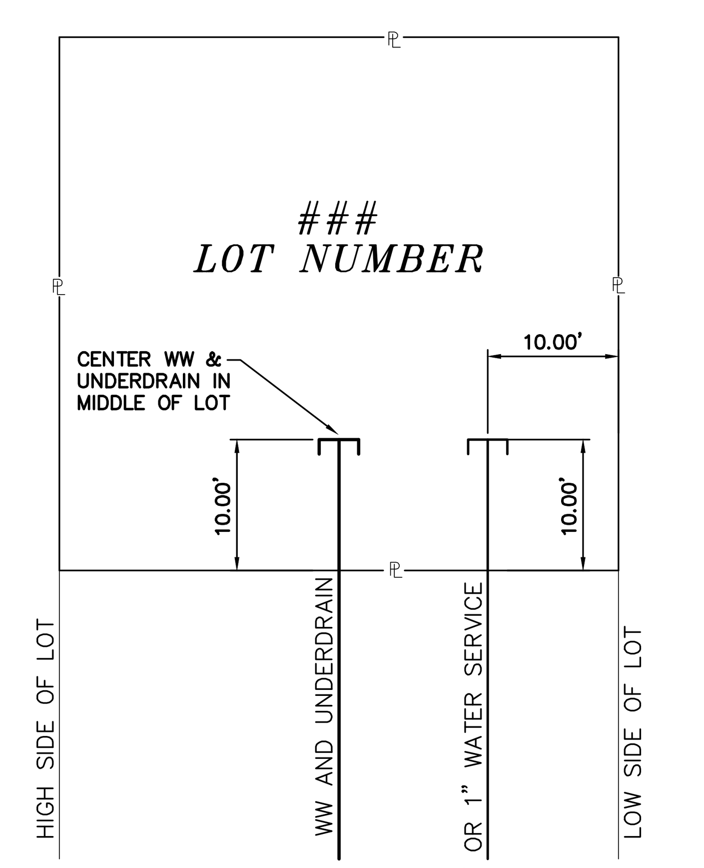
SCALE : N.T.S.



RIP-RAP INSTALLATION DETAIL

NOT TO SCALE

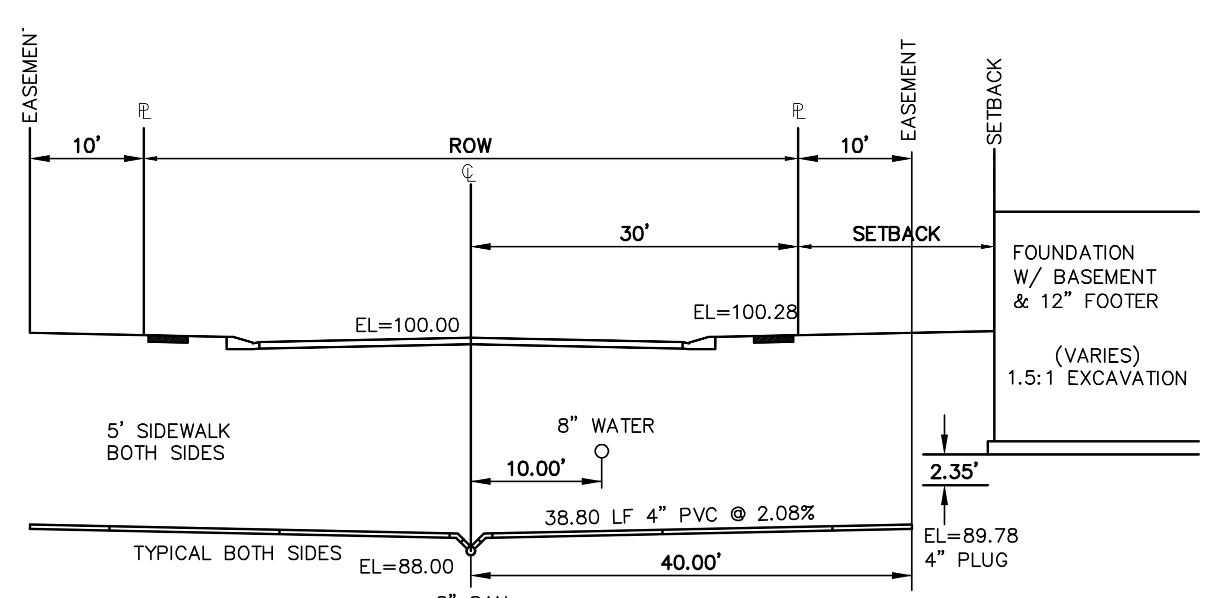
LEGEND		
SYMBOL	ACRONYM	DESCRIPTION
	RCP W/FES	REINFORCED CONCRETE PIPE W/FLARED END SECTIONS
	INLET	STORM SEWER INLET BOX
	SDMH	STORM SEWER MANHOLE
	ST	STORM SEWER LINE (PUBLIC UNLESS OTHERWISE NOTED)
	SS	SANITARY SEWER MAIN
	SSMH	SANITARY SEWER MANHOLE
	WM	WATER MAIN (ALL PIPES PVC, UNLESS OTHERWISE NOTED)
	GV	WATER GATE VALVE
	BV	WATER BUTTERFLY VALVE
	BOV	WATER BLOW-OFF VALVE
	HYD ASSY	FIRE HYDRANT ASSEMBLY
	TEE W/GV	WATER TEE W/ GATE VALVES
	ATT SW	ATTACHED SIDEWALK
		STANDARD PEDESTRIAN RAMP PER SD-2-40 & M-608-1 (SH 6 OF 6)
		ANODE (COTHODIC PROTECTION)
	TS	TEST STATION
	HB	HAY BALE DAM
	SF	SILT FENCE
	EXIST	EXISTING FEATURES
123		LOT NUMBERS
		CROSS PAN PER SD-2-26
	SL	STREET LIGHT PER MOUNTAIN VIEW ELECTRIC ASSOCIATION (MVEA)
STOP	R1-1	STOP SIGN - R1-1, 30x30 UNLESS OTHERWISE NOTED
7150		EXISTING CONTOUR (10')
		EXISTING CONTOUR (2')



EXTEND SERVICE LINES AS SHOWN AT ALL LOTS OR AS DIRECTED BY MERIDIAN SERVICE METROPOLITAN DISTRICT. DRIVEWAYS ARE TO BE LOCATED ON THE HIGH SIDE OF THE LOT(TYPICAL).

TYPICAL SERVICE DETAIL

SCALE : N.T.S.

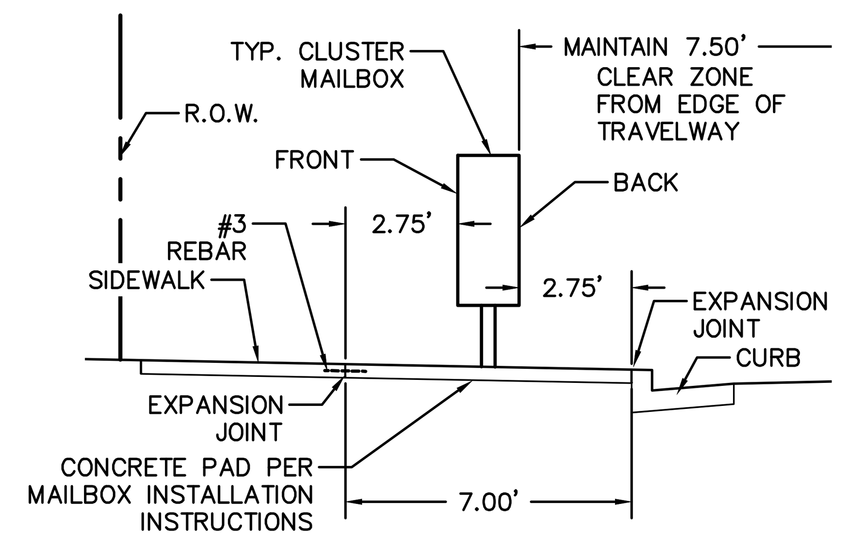


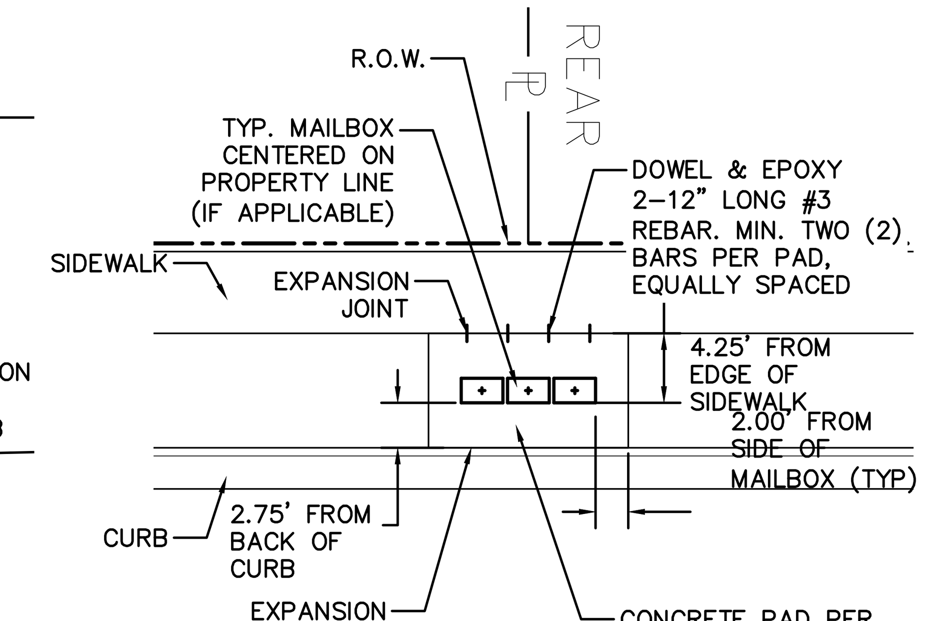
TYPICAL SEWER SERVICE CONNECTION DETAIL

NOTE: SERVICE LINE MAY VARY IN DEPTH DUE TO SITE CONDITIONS OR THE CONSTRUCTION OF A CRAWL SPACE/BASEMENT UNDER THE HOUSE.

MINIMUM SLOPES FOR WASTEWATER SERVICE LINES

4" PVC SDR 35	2.08% OR 1/4" PER FOOT
4" SCH 40 PVC	1.04% OR 1/8" PER FOOT
6" PVC SDR 35	1.04% OR 1/8" PER FOOT





GENERAL MAILBOX LAYOUT DETAIL

NOT TO SCALE

No.	Revisions	Date	Init.	Appr.	Date
1			.		
2			.		
3					
4					

TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
DETAIL SHEET

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN
4 of 37

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

PCD PROJECT NO. SF2411

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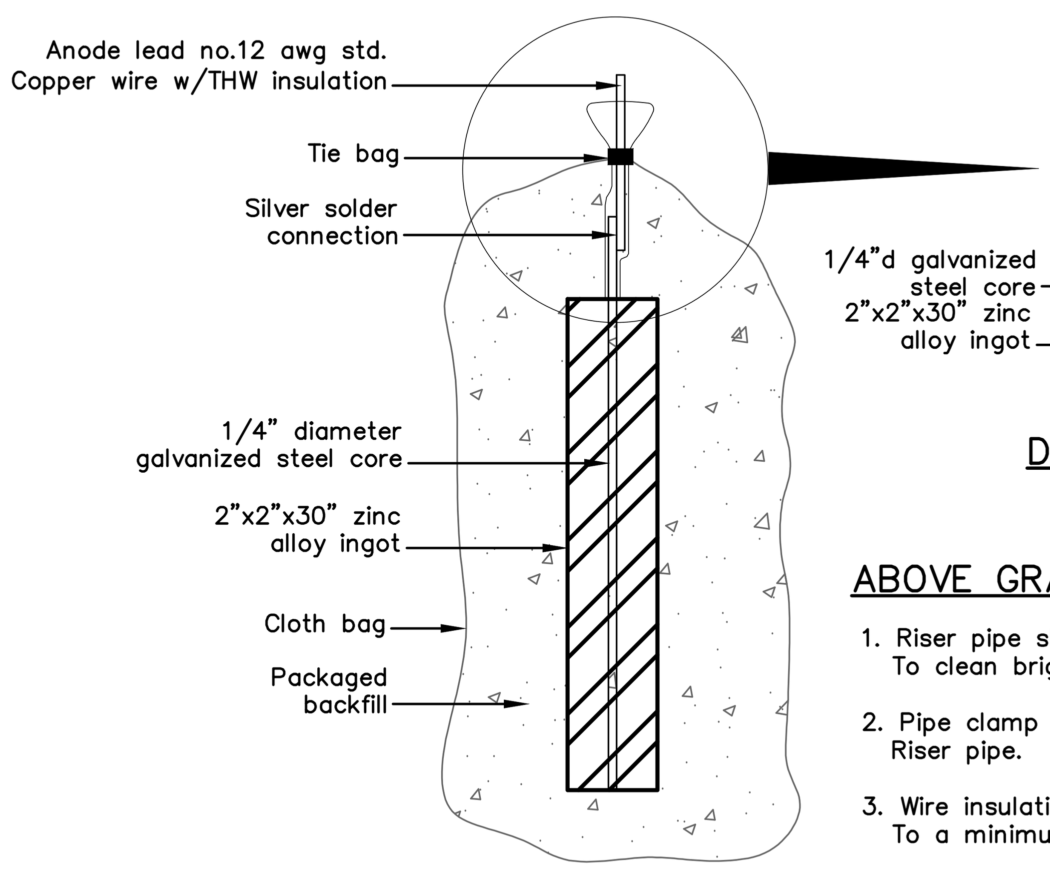
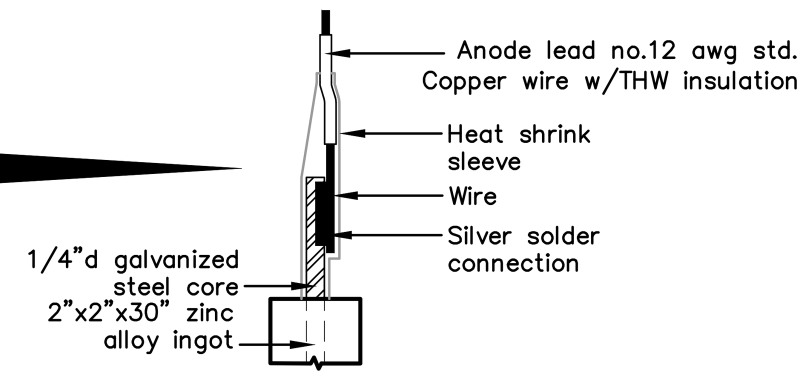


ZINC ANODE



DETAIL A

ABOVE GRADE CONNECTION NOTES:

1. Riser pipe shall be wire brushed To clean bright metal.
2. Pipe clamp shall be located on Riser pipe.
3. Wire insulation shall be stripped To a minimum length to connect

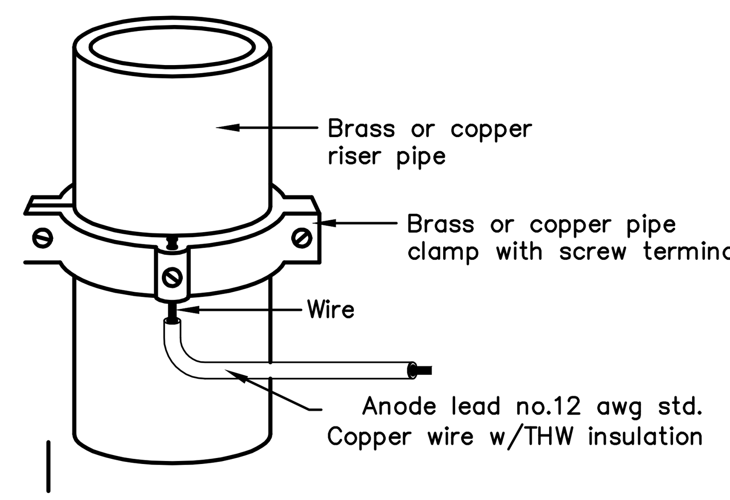
Wire to pipe clamp.

ZINC ANODE AND CONNECTORS FOR 1" AND 2" WATER SERVICE

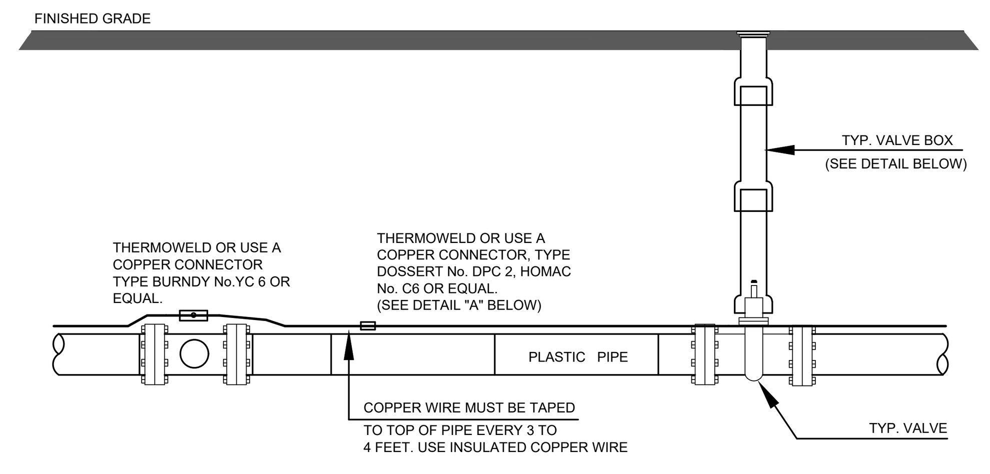
PACKAGED BACKFILL COMPOSTION:

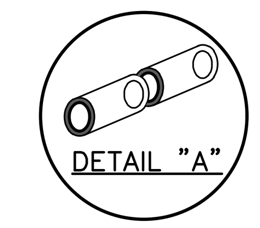
75% gypsum
20% bentonite
5% sodium sulfate

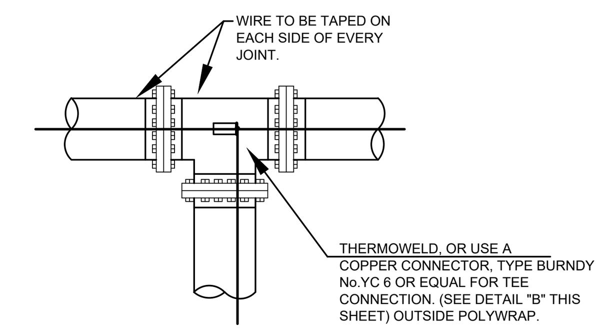
Ingot weight: 30 lbs.
Pkgd. Weight: 70 lbs. Approx.

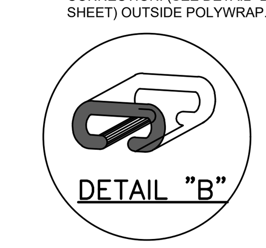


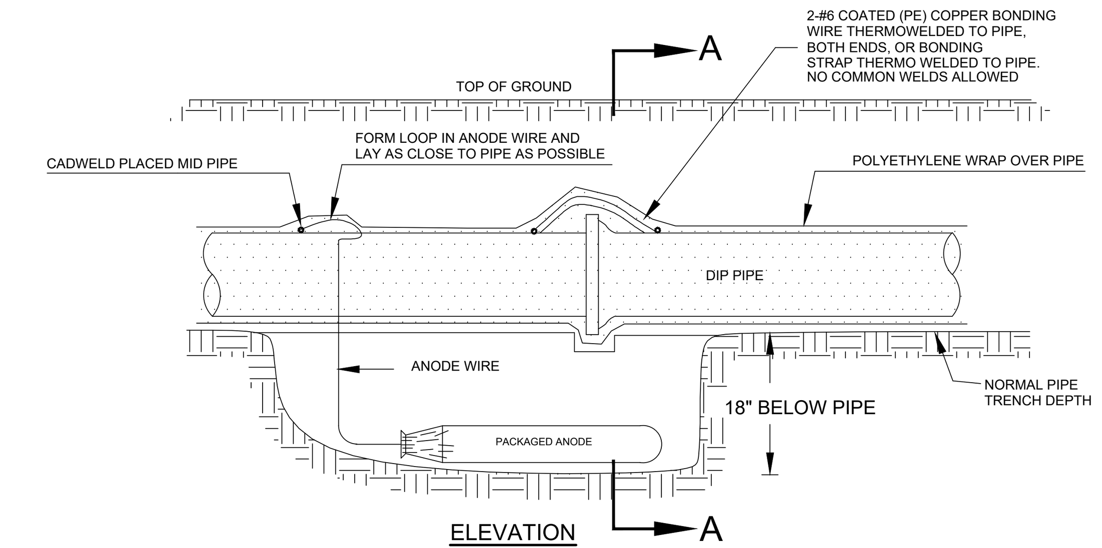
ANODE LEAD ABOVE GRADE CONNECTION











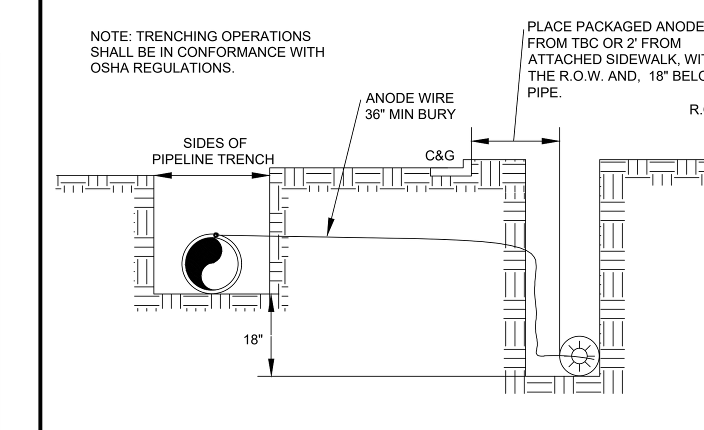
ELEVATION

Anode Design

For use with DIP in conjunction with poly–wrap sleeves and piping in 1000 ohm–cm soil estimating a 5% holiday area.

Pipe Size Inches	Actual OD Inches	Anode Spacing Feet	Anode (see note 2)
4	4.8	763	17 lb
6	6.9	531	17 lb
8	9.05	405	17 lb
12	13.20	277	17 lb
16	16	210	32 lb
20	20	169	32 lb
24	24	142	48 lb
30	30	114	48 lb
36	36	95.7	48 lb
42	42	82.4	48 lb
48	48	72.1	48 lb
54	54	64.2	48 lb

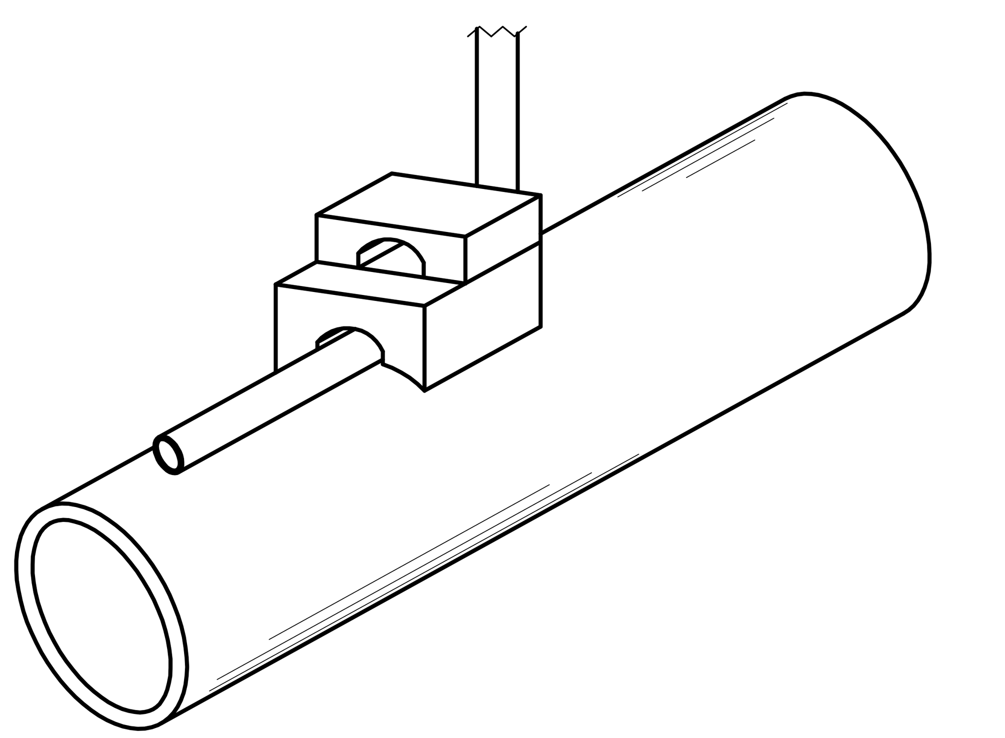
The distance from the point of the begining to the first anode shall not exceed one half the recommended spacing.

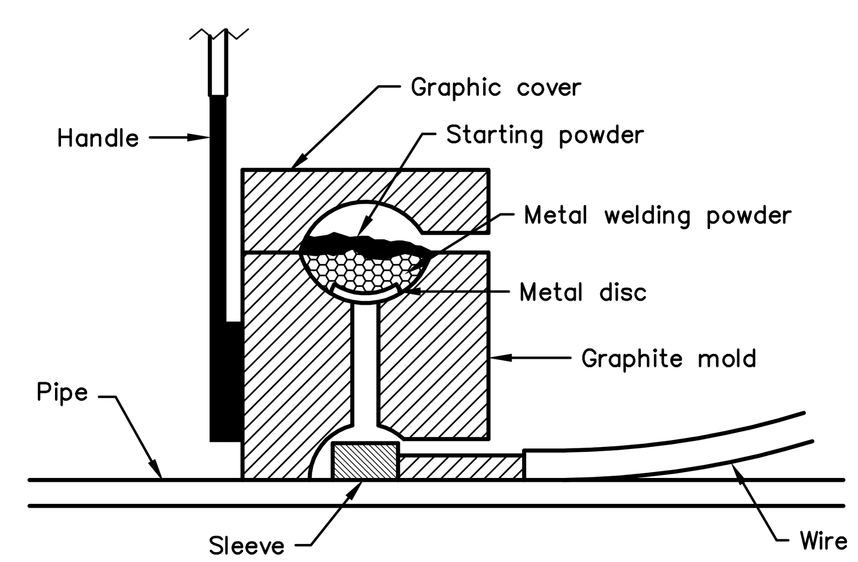


SECTION A-A

NOTES

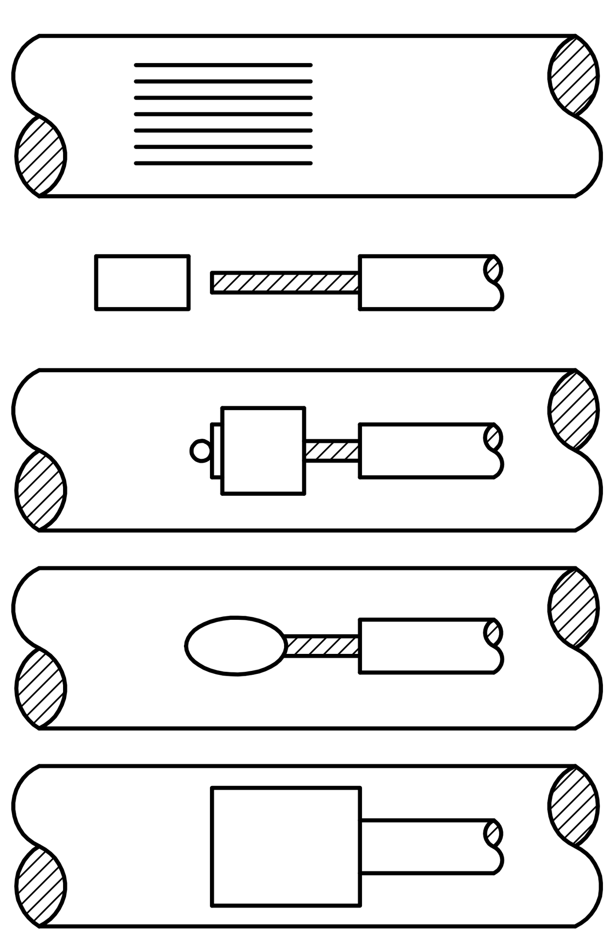
1. Cadweld connection to be primed and coated carefully. Packed anode should be covered with fine soil containing no rocks or dirt clumps, tamped.
2. When anodes are required with metal fittings and appurtenances together with PVC pipe installations, the anodes shall be placed and attached to the metal fittings in same manner as shown on this drawing. 9 lb anodes can be used on metal fittings when using PVC pipe.
3. Packaged anode to be wetted and covered with soil prior to backfilling.





NOTE

1. Contractor is reponsible for continuity of all tracer wire.
2. Tracer wire is required on all pipes per MSMD specifications (PVC and HDPE).



STEP 1. File structure connection area (3 in x 3 in) to bare shiny metal and clean.

STEP 2. Strip insulation from wire. Attach sleeve where requried by manufacturer.

STEP 3. Hold mold firmly with opening away from operator and ignite with flint gun.

STEP 4. Remove slag from connection and peen weld for soundness.

STEP 5. Cover connection and exposed structure surface with a bituminous coating compound. Place plastic sheild cap firmly over connection.

NOTES:

1. All wire welds shall be minimum 3 inches apart.
2. Standard weld cartridges shall be used for steel surfaces.

EXOTHERMIC WELD PROCESS

FIELD INSTALLATION OF POLYETHYLENE WRAP FOR DIP PIPE AND FITTINGS.

STEP 1:

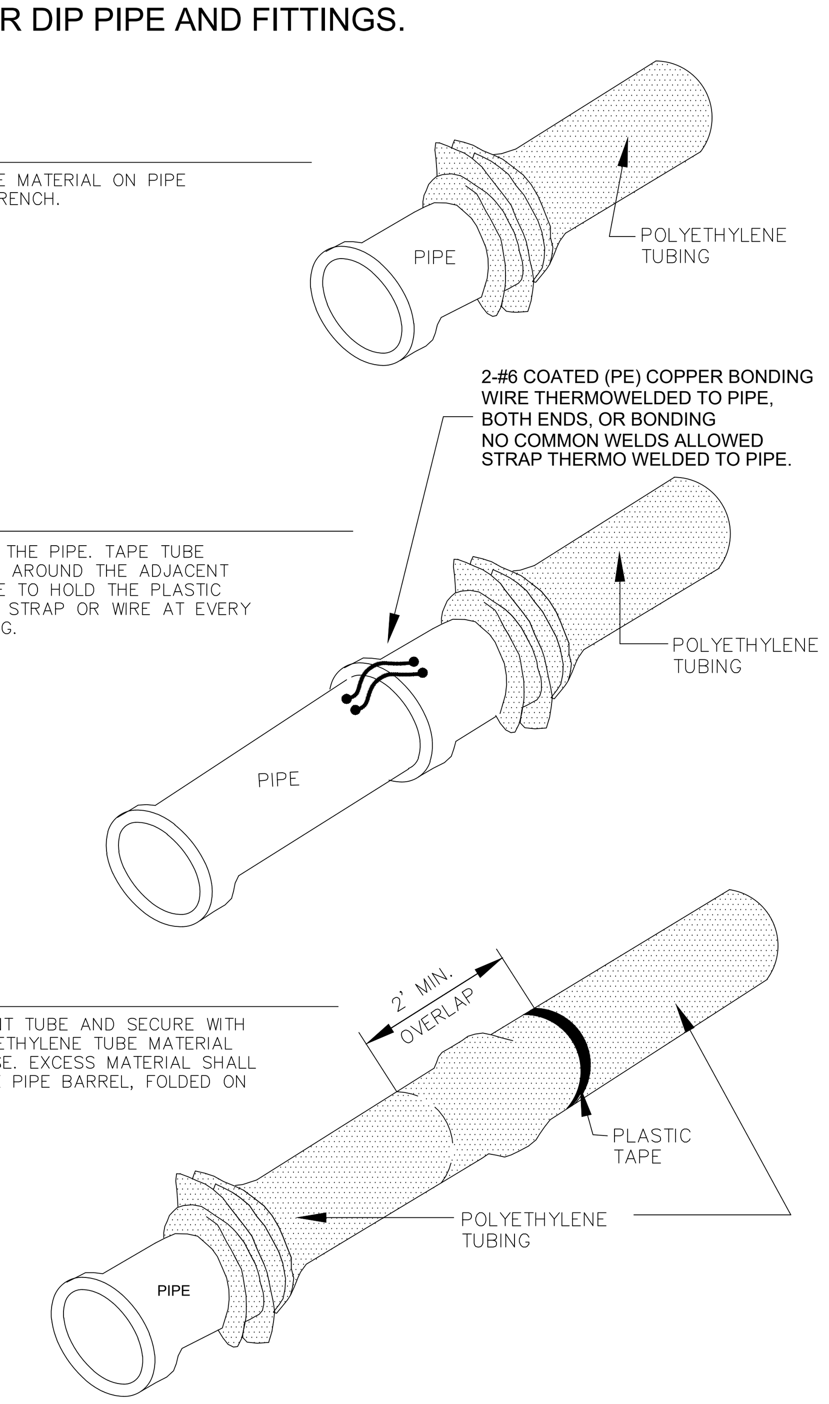
PLACE TUBE OF POLYETHYLENE MATERIAL ON PIPE PRIOR TO LOWERING IT INTO TRENCH.

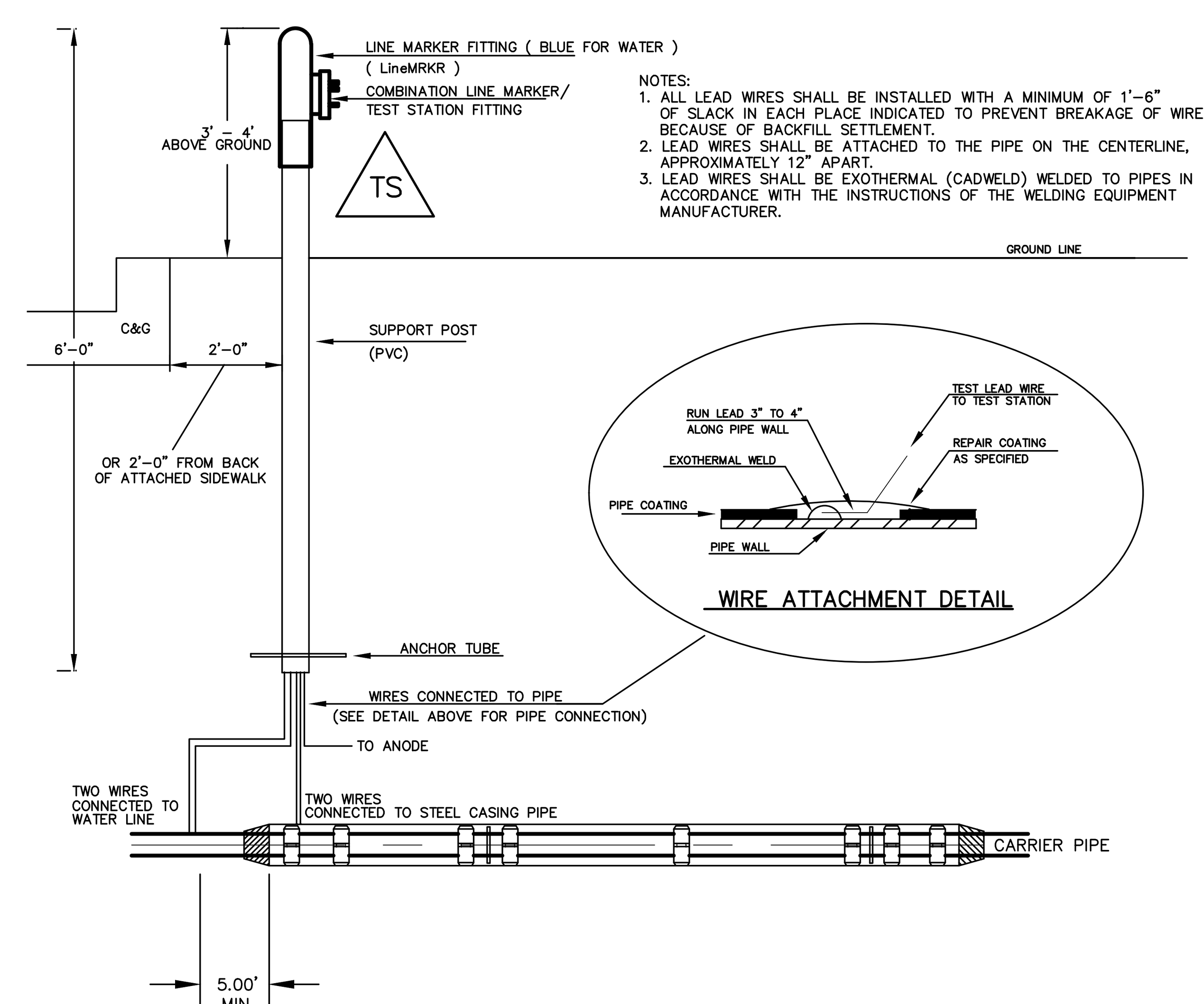
STEP 2:

PULL TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO END AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH TAPE TO HOLD THE PLASTIC TUBE IN PLACE. INSTALL BONDING STRAP OR WIRE AT EVERY JOINT OF PIPE PRIOR TO WRAPPING.

STEP 3:

OVERLAP FIRST TUBE WITH ADJACENT TUBE AND SECURE WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE SHALL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED ON TOP OF PIPE AND TAPED IN PLACE.





NOTES:
1. ALL LEAD WIRES SHALL BE INSTALLED WITH A MINIMUM OF 1'–6" OF SLACK IN EACH PLACE INDICATED TO PREVENT BREAKAGE OF WIRE BECAUSE OF BACKFILL SETTLEMENT.
2. LEAD WIRES SHALL BE ATTACHED TO THE PIPE ON THE CENTERLINE, APPROXIMATELY 12" APART.
3. LEAD WIRES SHALL BE EXOTHERMAL (CADWELD) WELDED TO PIPES IN ACCORDANCE WITH THE INSTRUCTIONS OF THE WELDING EQUIPMENT MANUFACTURER.

TYPICAL DETAIL FOR TEST STATION WITH STEEL SLEEVE INSTALLATION

NOTES:

1.) Lowerings to be cathodically protected under the direction of the MSMD Inspector, per standards.
(For anode size see detail above.)
2.) Example can vary due to site conditions and MSMD Inspector's direction's.
3.) Reference Colorado Springs Utilities Standard Detail Drawing No. A 8–6 – Steel Sleeve Installation.

No.	Revisions	Date	Init.	Appr.	Date
1		-			
2		-			
3					
4					

TECH CONTRACTORS
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FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
DETAIL SHEET

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

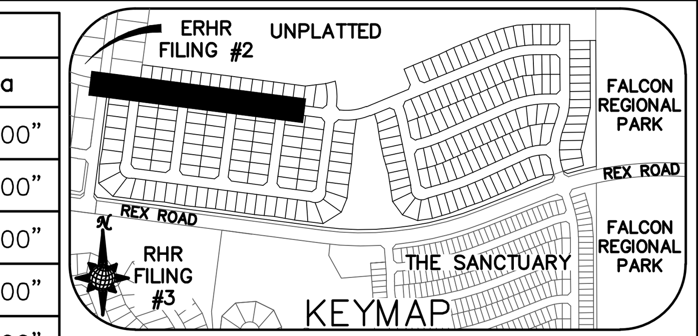
PCD PROJECT NO. SF2411

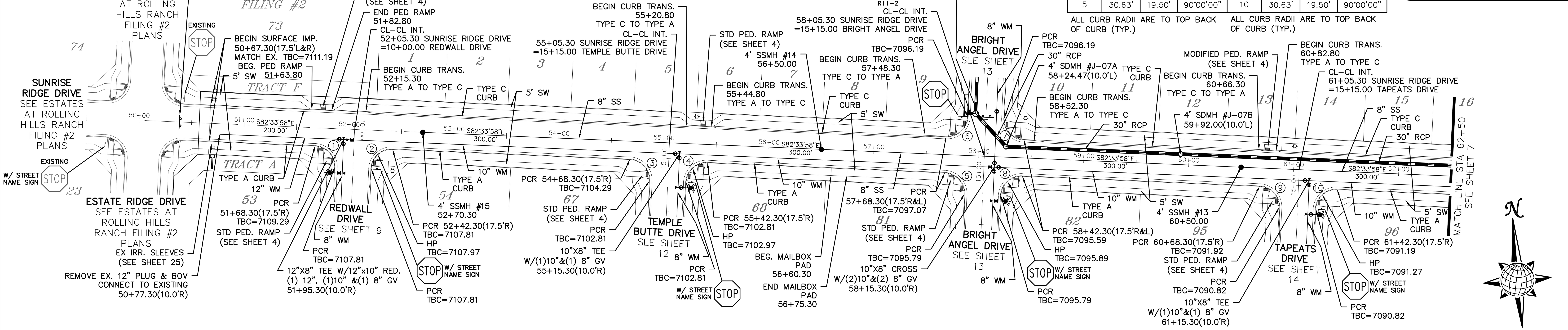
Curve Table			
CURVE	LENGTH	RADIUS	Delta
1	30.63'	19.50'	90°00'00"
2	30.63'	19.50'	90°00'00"
3	30.63'	19.50'	90°00'00"
4	30.63'	19.50'	90°00'00"
5	30.63'	19.50'	90°00'00"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)

Curve Table			
CURVE	LENGTH	RADIUS	Delta
6	30.63'	19.50'	90°00'00"
7	30.63'	19.50'	90°00'00"
8	30.63'	19.50'	90°00'00"
9	30.63'	19.50'	90°00'00"
10	30.63'	19.50'	90°00'00"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)



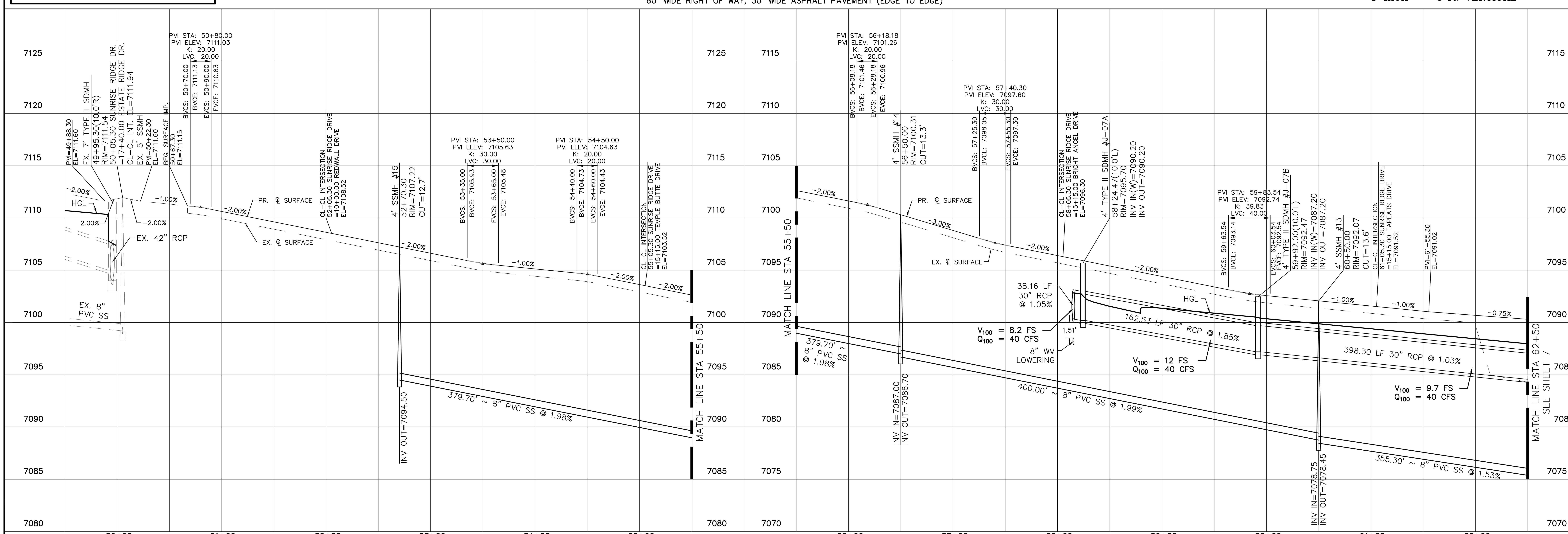


SUNRISE RIDGE DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
1 inch = 5 ft. VERTICAL

TWO WORKING DAYS BEFORE YOU DIG CALL 811
OR UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)



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MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
SUNRISE RIDGE DRIVE

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN

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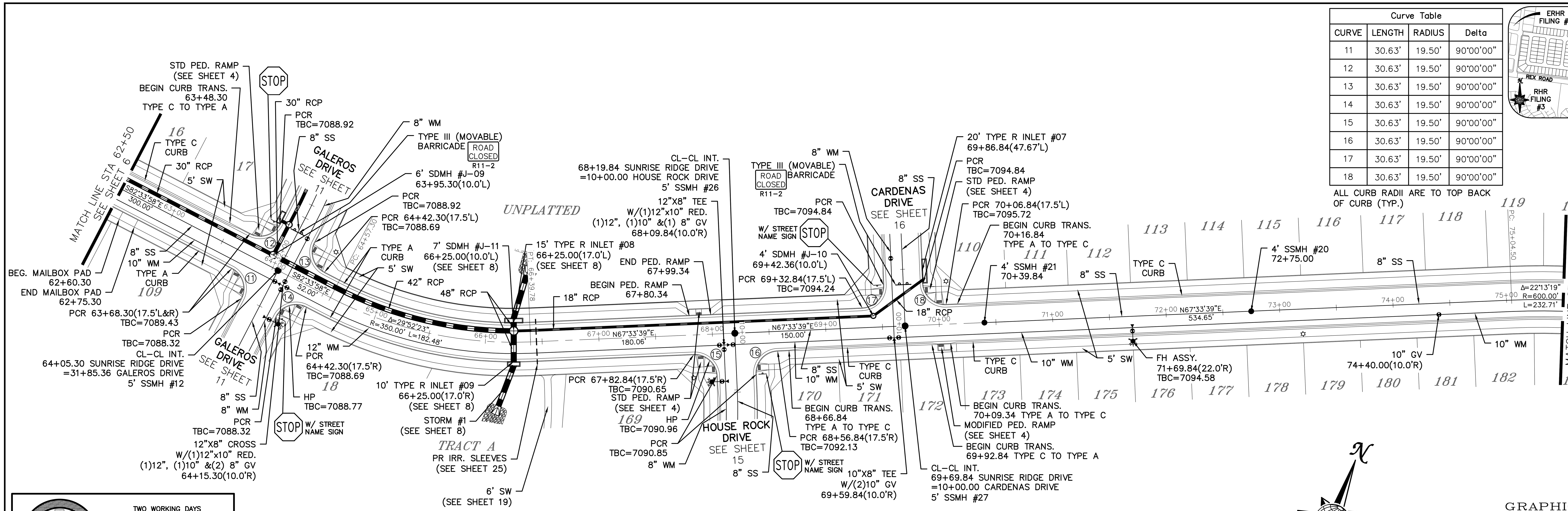
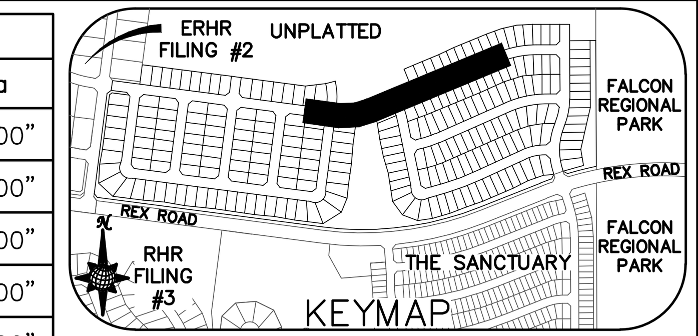


Curve Table			
CURVE	LENGTH	RADIUS	Delta
11	30.63'	19.50'	90°00'00"
12	30.63'	19.50'	90°00'00"
13	30.63'	19.50'	90°00'00"
14	30.63'	19.50'	90°00'00"
15	30.63'	19.50'	90°00'00"
16	30.63'	19.50'	90°00'00"
17	30.63'	19.50'	90°00'00"
18	30.63'	19.50'	90°00'00"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)

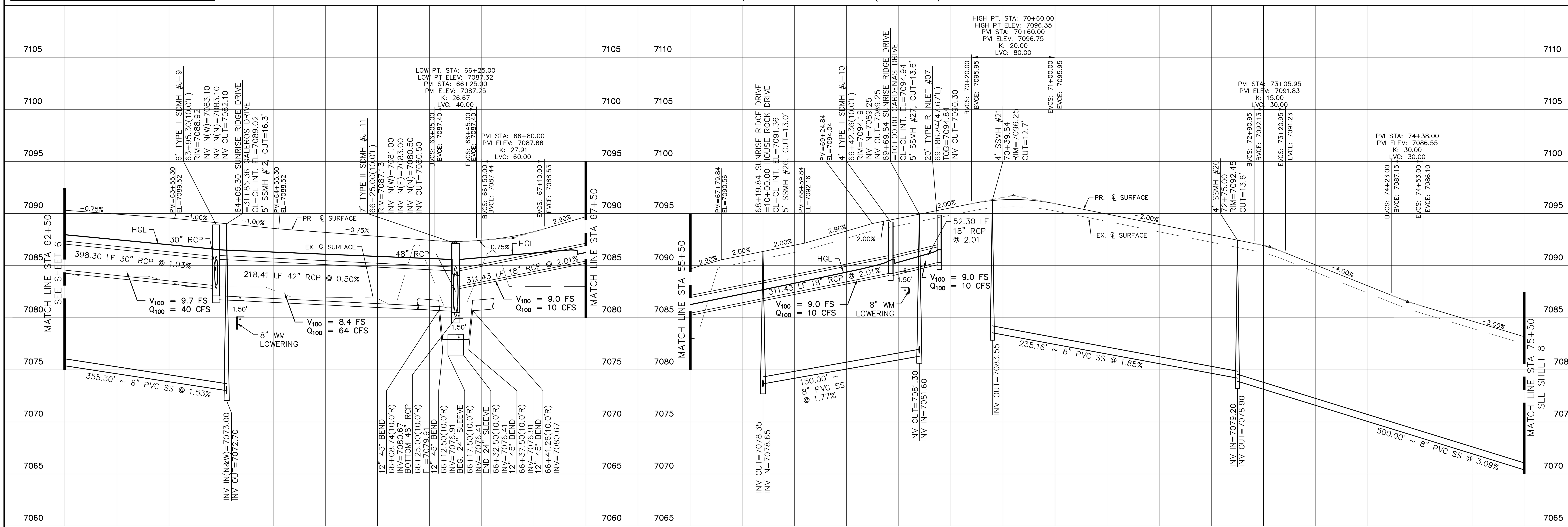


TWO WORKING DAYS BEFORE YOU DIG CALL 811 OR UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 (SEE COVER FOR LIST OF UTILITY CONTACTS)

SUNRISE RIDGE DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.
1 inch = 5 ft. VERTICAL



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FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
SUNRISE RIDGE DRIVE

No.	Revisions	Date	Init.	Appr.	Date
1					
2					
3					
4					

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

PCD PROJECT NO. SF2411

TWO WORKING DAYS
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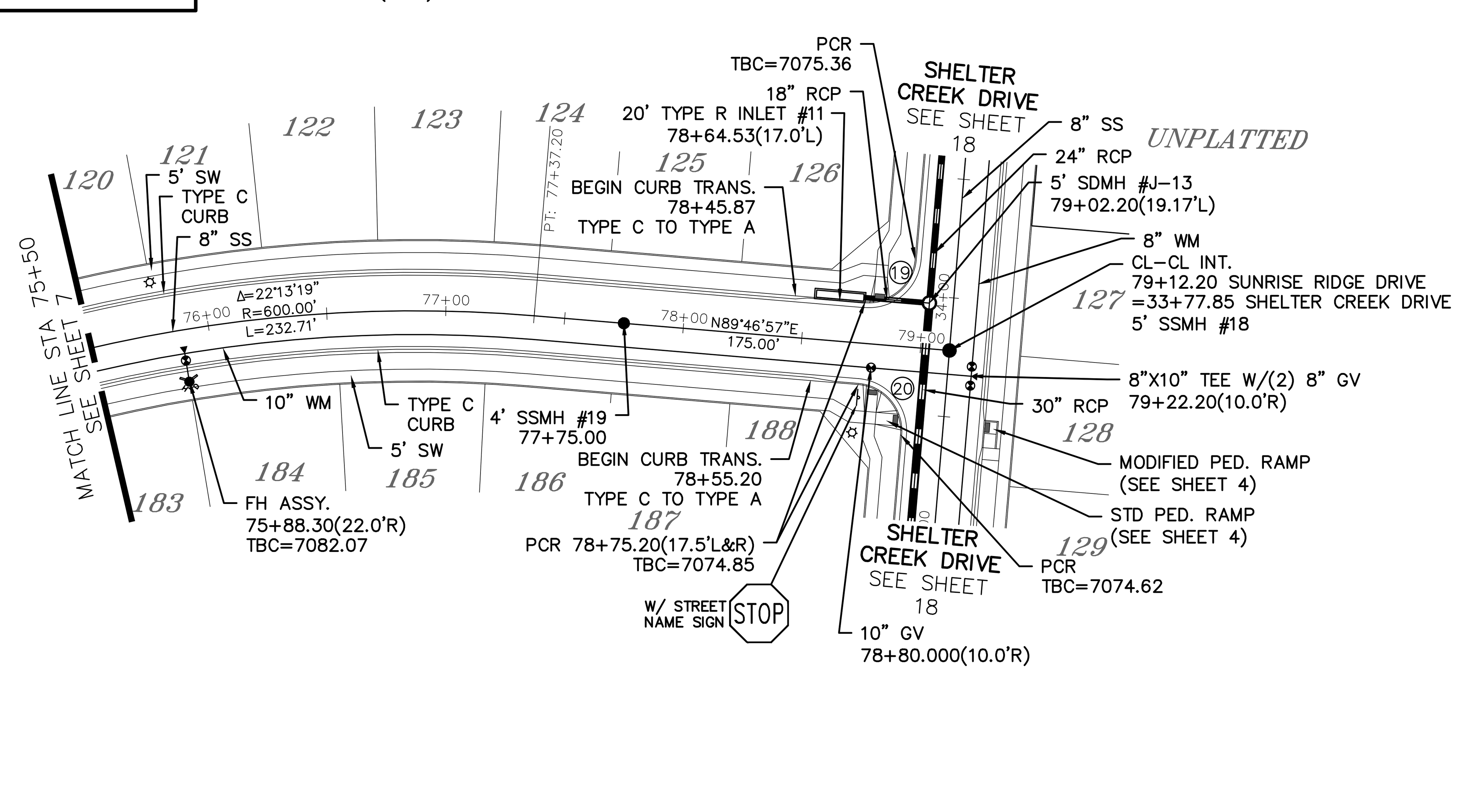
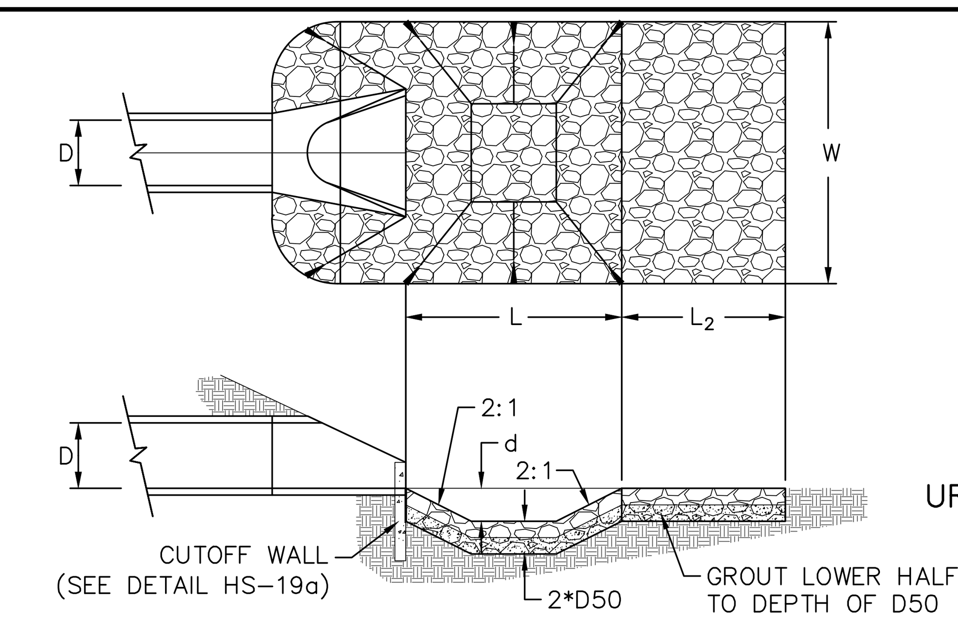
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

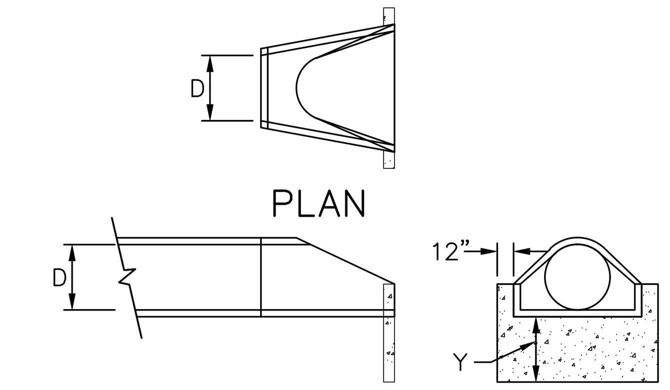
Curve Table			
CURVE	LENGTH	RADIUS	Delta
19	30.63'	19.50'	90°00'00"
20	30.63'	19.50'	90°00'00"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)

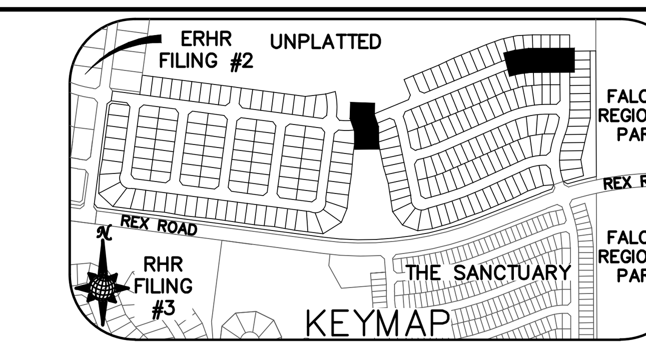




URBAN DRAINAGE AND FLOOD CONTROL DISTRICT (MODIFIED*)
Figure HS-19. Culvert and Outlet Erosion Protection
*RIP RAP RECTANGULAR POOL



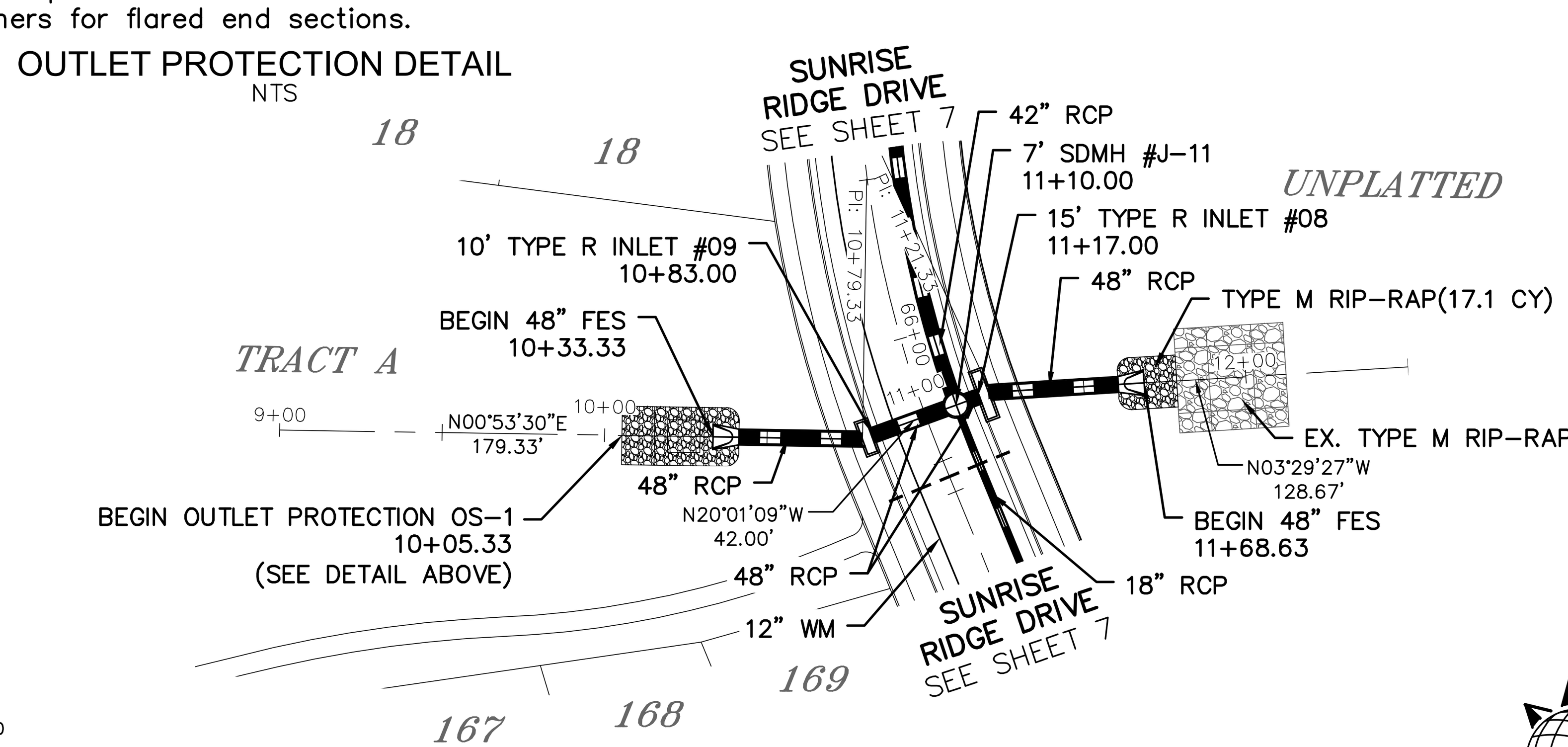
URBAN DRAINAGE AND FLOOD CONTROL DISTRICT
Figure HS-19a. Culvert Cutoff Wall



PIPE OUTLET		L	W	L_2	d	Y	TYPE	D_{50}	CY	NOTES
OS-1	48"	18	18	10	2.0	4.0	M	1.00'	43.7	SEE LEFT
OS-2	30"	11	10	20	1.25	3.0	M	1.00'	25.9	SEE LEFT

NOTES:
1. Flared end section required at RCP outlets.
2. Provide joint fasteners for flared end sections.

OUTLET PROTECTION DETAIL
NTS

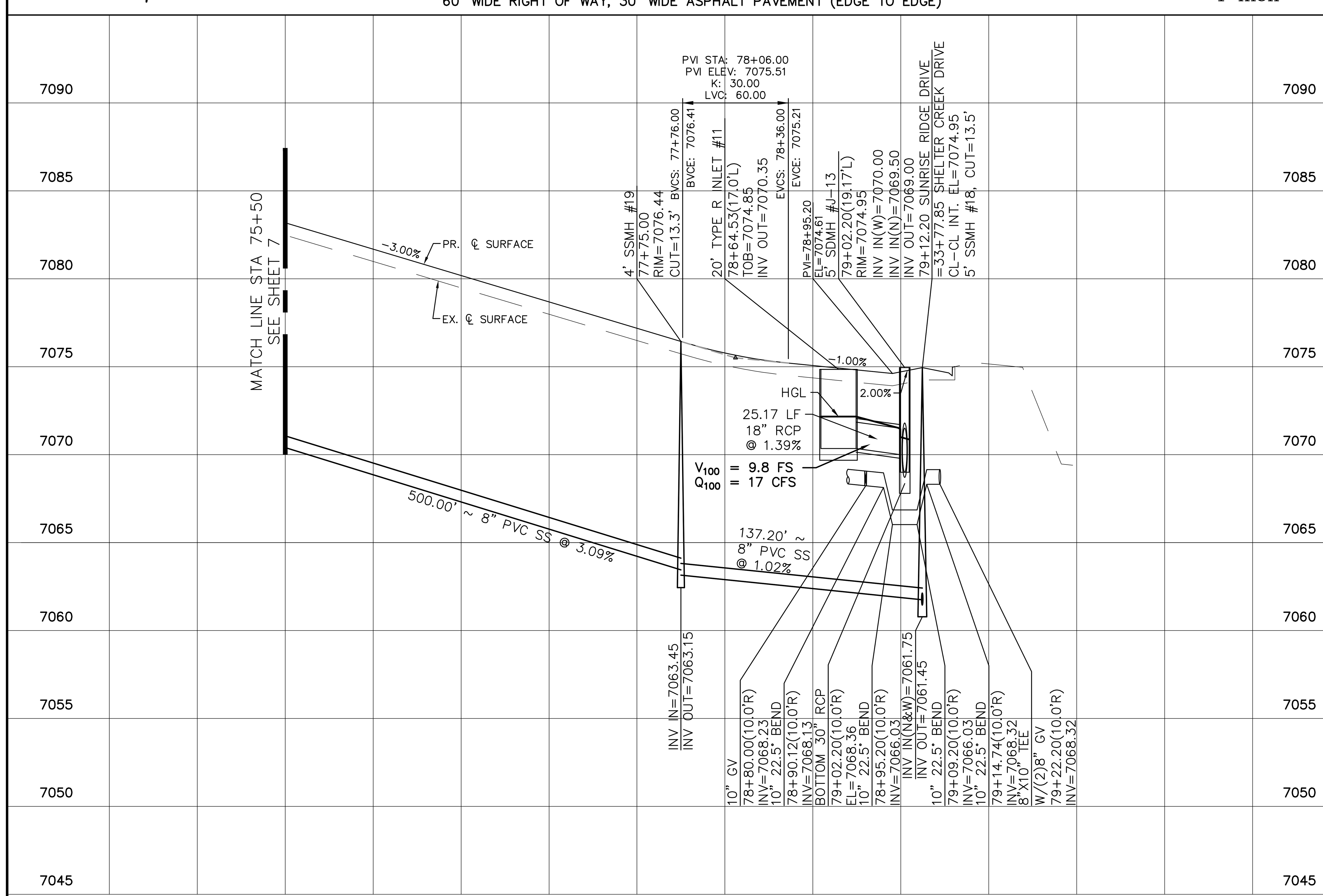


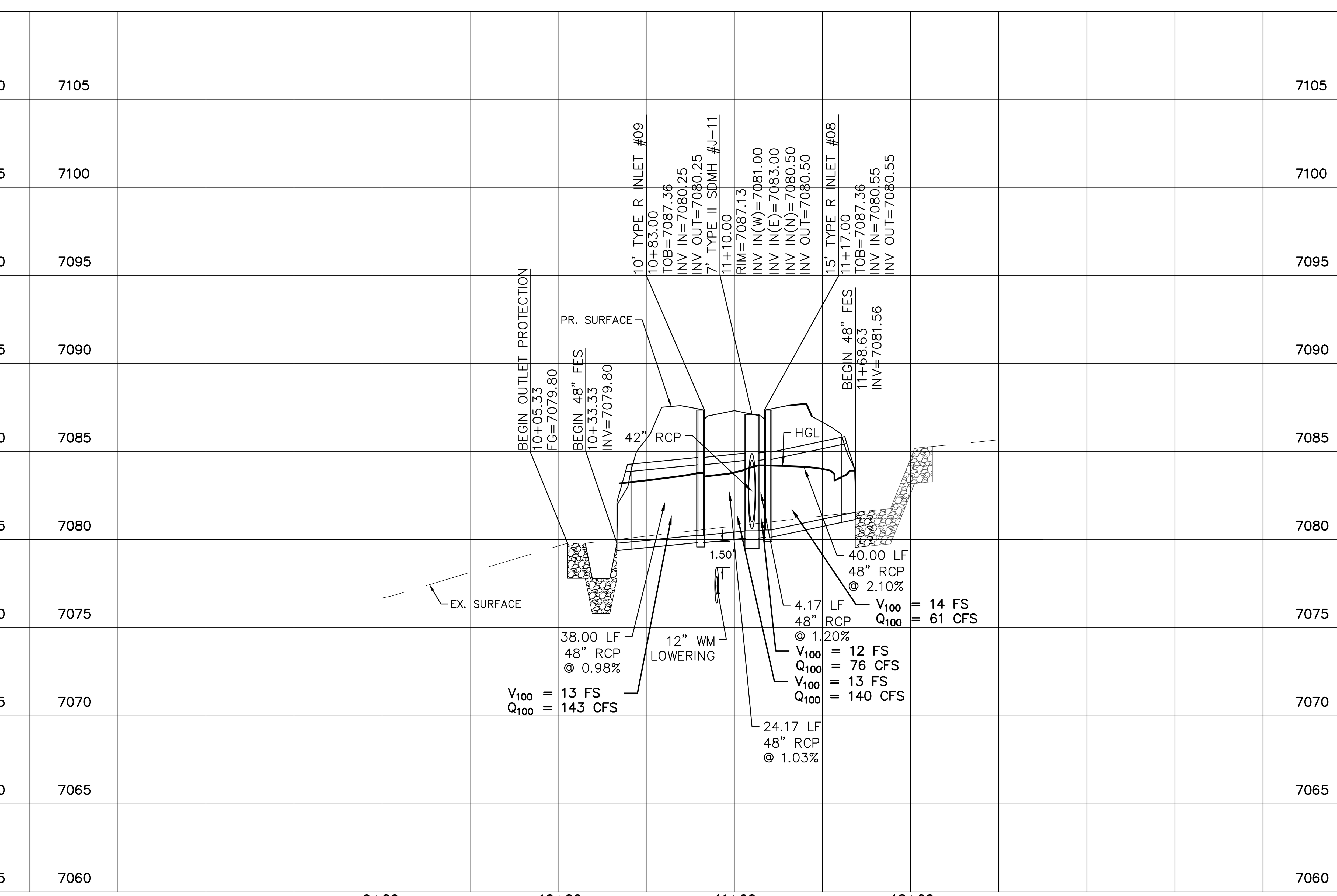
SUNRISE RIDGE DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.
1 inch = 5 ft. VERTICAL

STORM #1





No.	Revisions	Date	Init.	Appr.	Date
1					
2					
3					
4					

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FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
SUNRISE RIDGE DRIVE AND STORM #1

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN

COLORADO LICENSED PROFESSIONAL ENGINEER 31429 7.15.24

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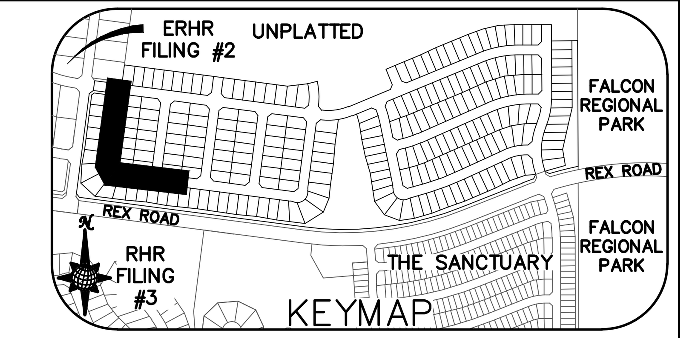
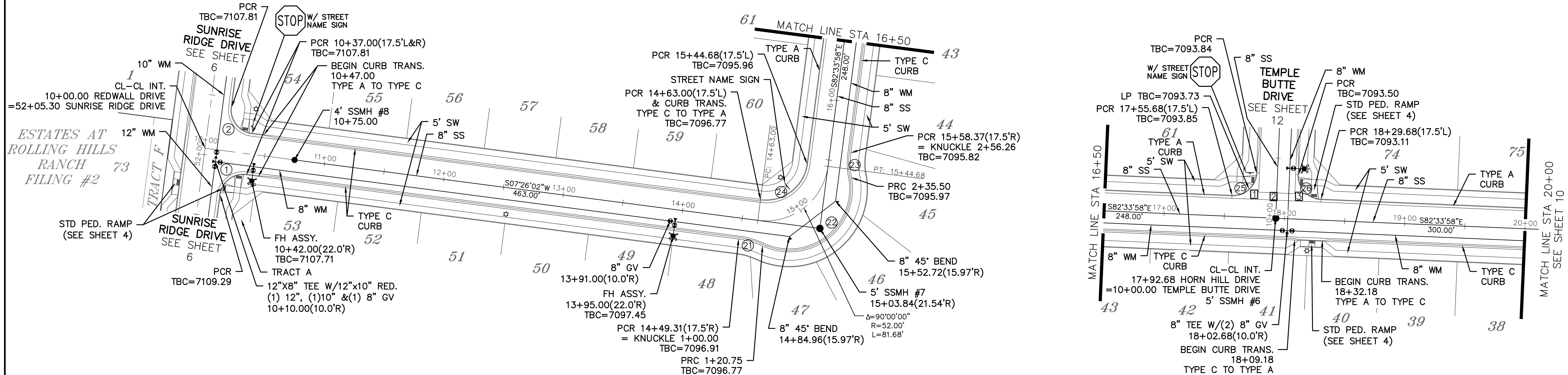


INSTALL CROSS PAN
PER COUNTY STD
SD-2-26
1 = 7093.15
2 = 7092.98
3 = 7092.81

CURVE	LENGTH	RADIUS	Delta
1	30.63'	19.50'	90°00'00"
2	30.63'	19.50'	90°00'00"
21	20.75'	67.50'	17°36'59"
22	114.75'	52.50'	125°13'57"
23	20.75'	67.50'	17°36'59"
24	54.19'	34.50'	90°00'00"
25	30.63'	19.50'	90°00'00"
26	30.63'	19.50'	90°00'00"

Curve Table

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)



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BEFORE YOU DIG CALL 811
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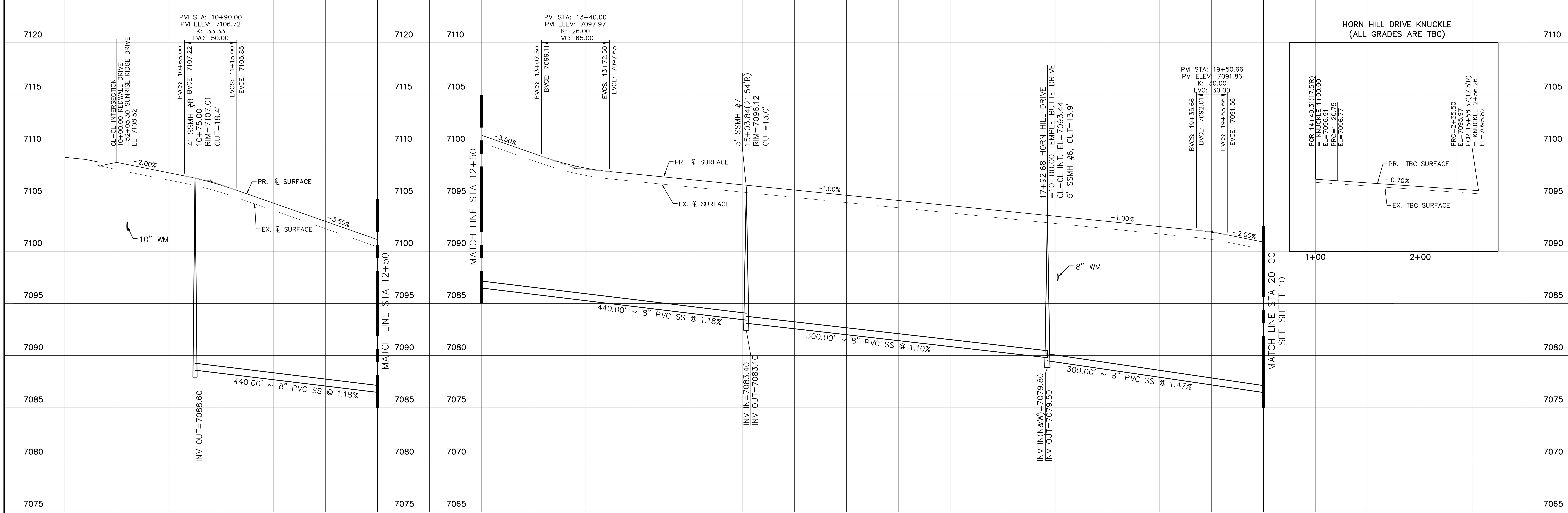
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

REDWALL DRIVE & HORN HILL DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.
1 inch = 5 ft. VERTICAL



No.	Revisions	Date	Init.	Appr.	Date
1		-	-		
2		-	-		
3					
4					

TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS
REDWALL DRIVE
AND HORN HILL DRIVE

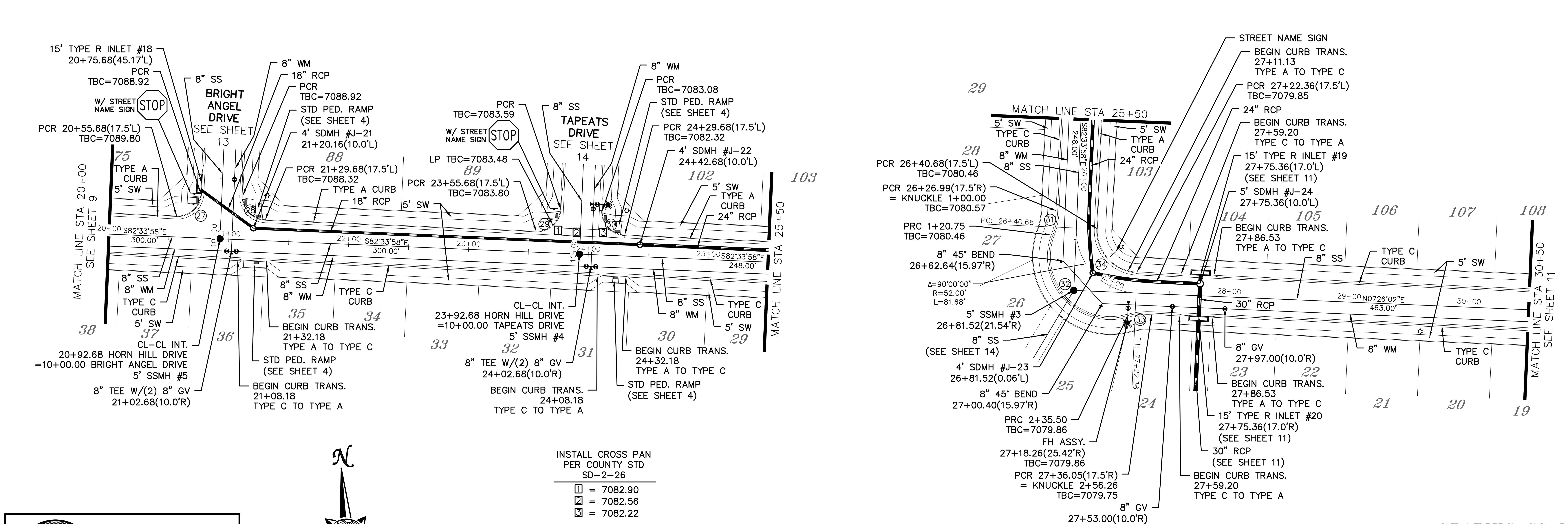
Drawn by LCG
Checked by TAK
Date JULY 2024

Scale AS SHOWN
9 of 37

COLORADO LICENSED PROFESSIONAL ENGINEER 31429 7.15.24

PCD PROJECT NO. SF2411

S:\OneDrive\CivilPro\Rolling Hills Ranch North Filing 1\DWG\PLAN SHEETS\Improvement Plans\02-RHRN1.dwg, 7/16/2024 8:22:53 AM



CURVE	LENGTH	RADIUS	Delta
27	30.63'	19.50'	90°00'00"
28	30.63'	19.50'	90°00'00"
29	30.63'	19.50'	90°00'00"
30	30.63'	19.50'	90°00'00"
31	20.75'	67.50'	17°36'59"
32	114.75'	52.50'	125°13'57"
33	20.75'	67.50'	17°36'59"
34	54.19'	34.50'	90°00'00"

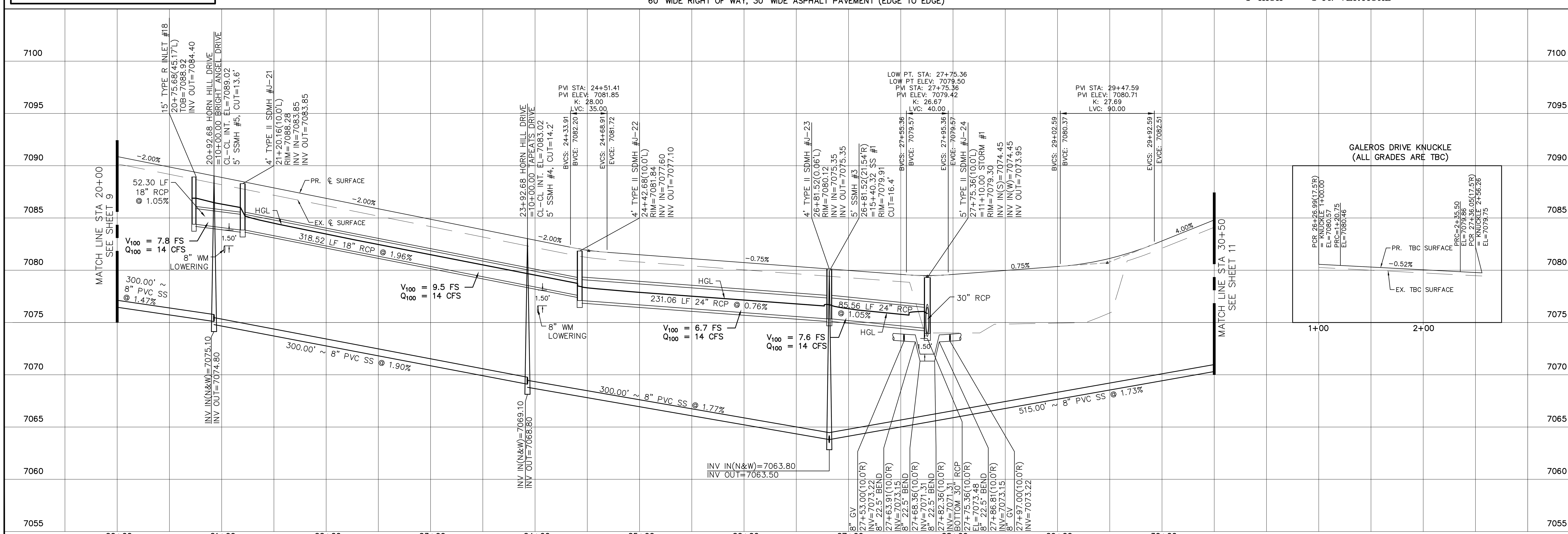
ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)

TWO WORKING DAYS BEFORE YOU DIG CALL 811 OR UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 (SEE COVER FOR LIST OF UTILITY CONTACTS)

HORN HILL DRIVE & GALEROS DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)

GRAPHIC SCALE (IN FEET)
1 inch = 50 ft.
1 inch = 5 ft. VERTICAL



TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

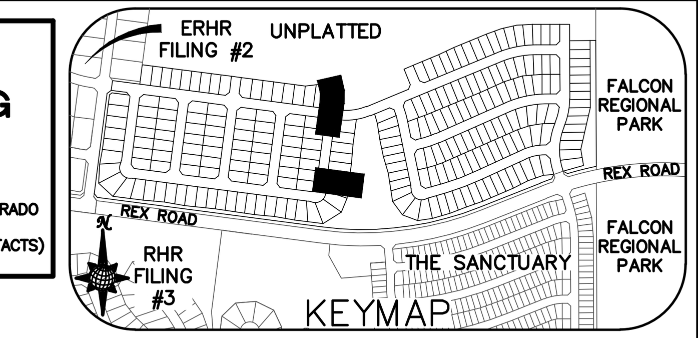
ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
HORN HILL DRIVE AND GALEROS DRIVE

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN

PCD PROJECT NO. SF2411

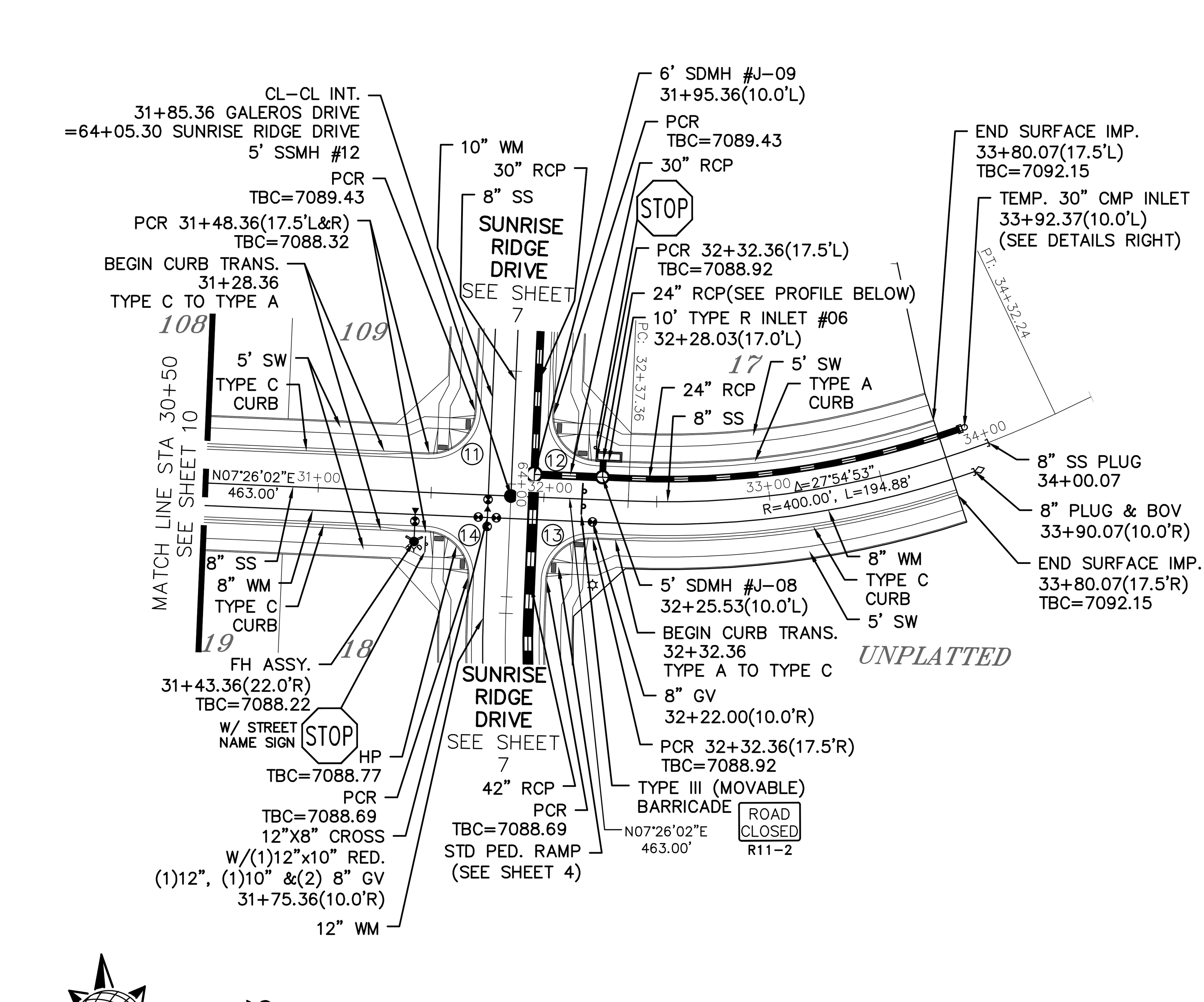
NOTE: PAINT OR COAT ALL WELD AND CUT AREAS OF THE CMP PIPES.

TWO WORKING DAYS
BEFORE YOU DIG
CALL 811
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)



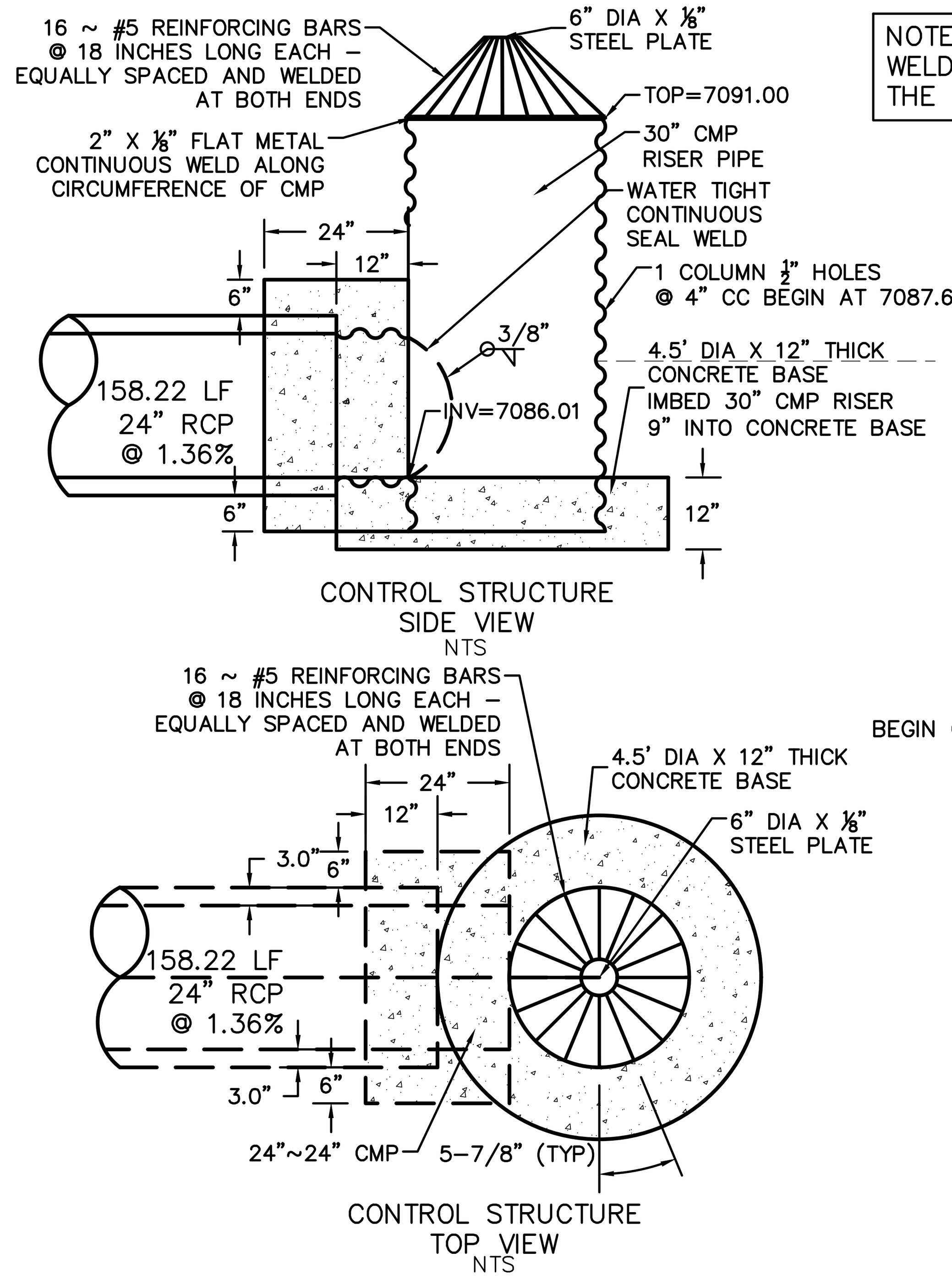
Curve Table			
CURVE	LENGTH	RADIUS	Delta
11	30.63'	19.50'	90°00'00"
12	30.63'	19.50'	90°00'00"
13	30.63'	19.50'	90°00'00"
14	30.63'	19.50'	90°00'00"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)

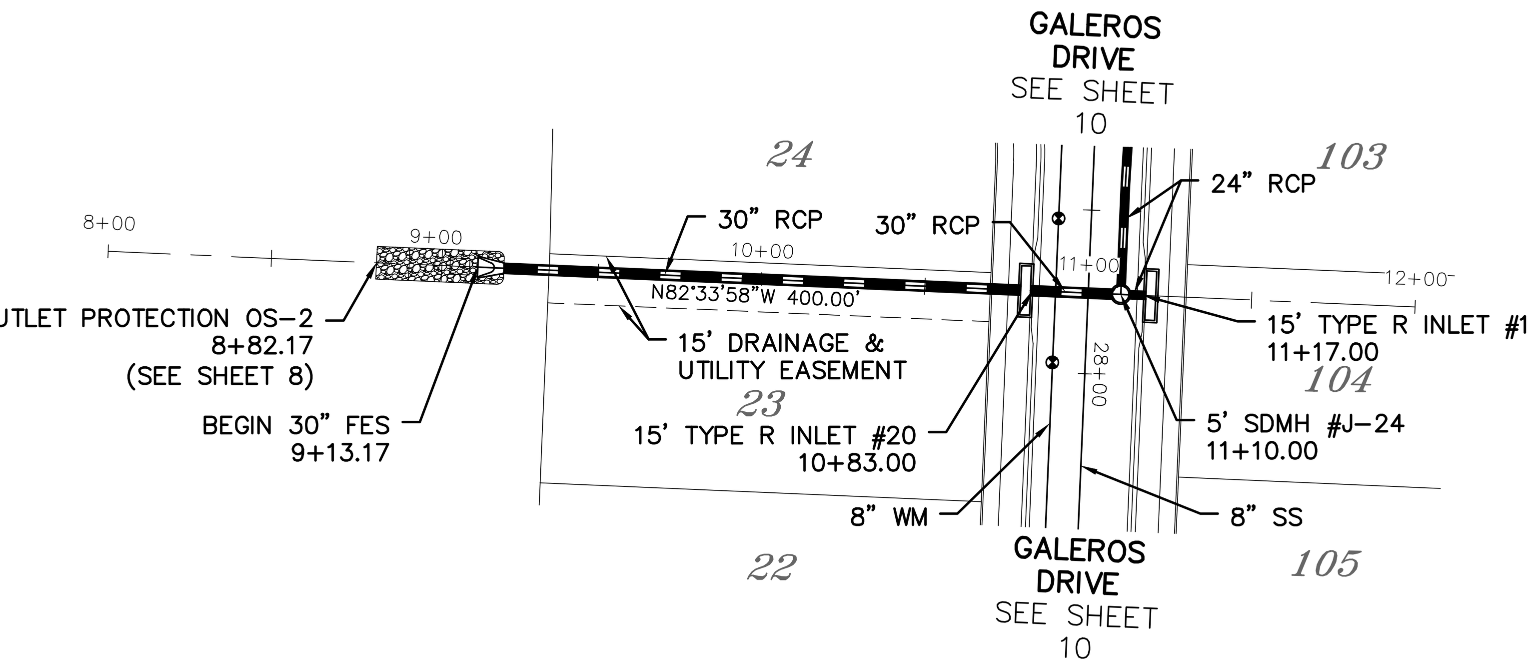


GALEROS DRIVE

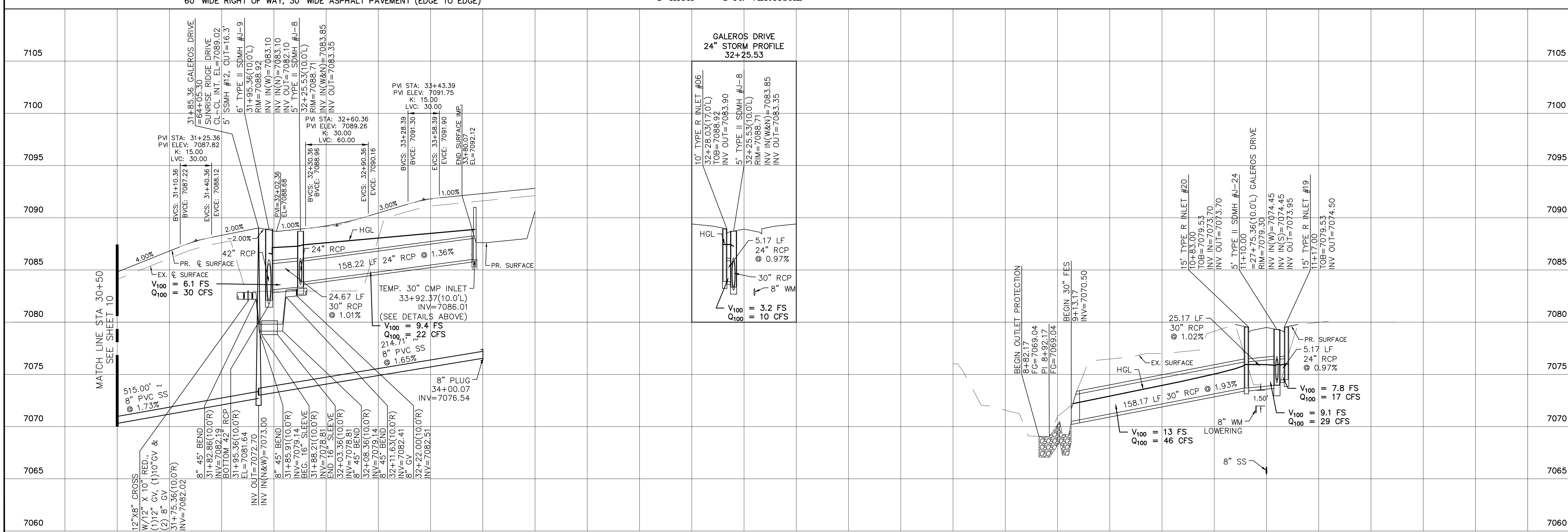
URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
1 inch = 5 ft. VERTICAL



STORM #2



TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS

GALEROS DRIVE AND STORM #2

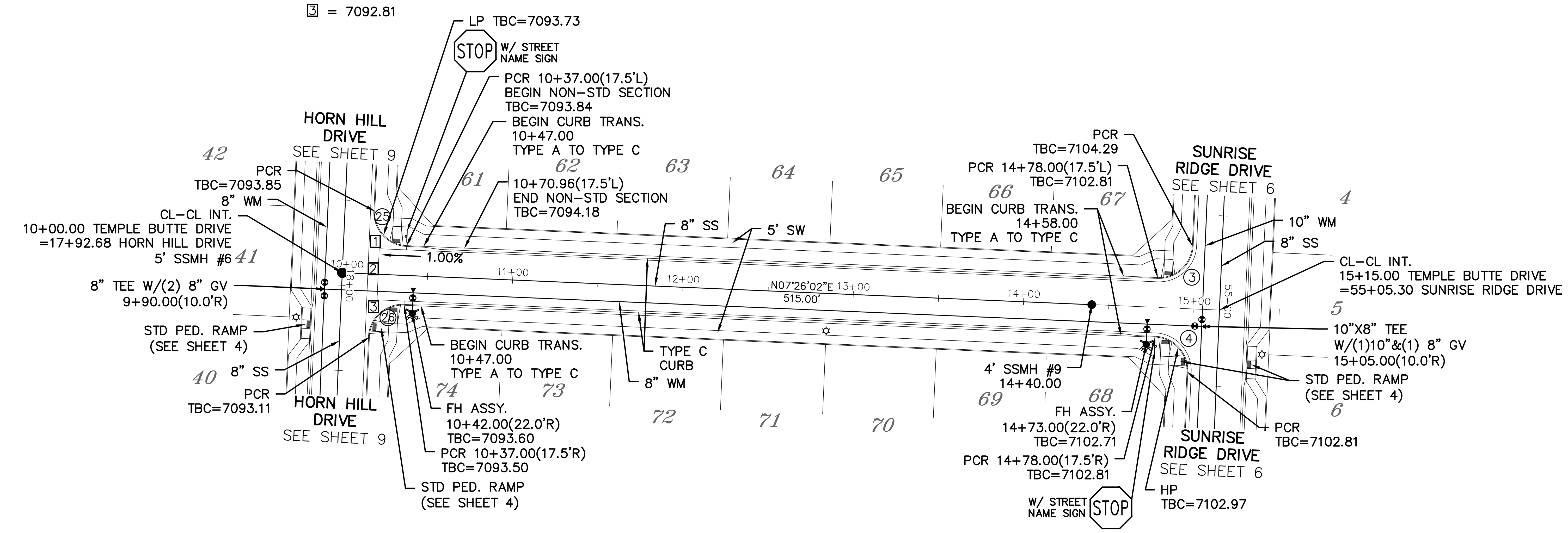
Drawn by	LCG
Checked by	TAK
Date	JULY 2024
Scale	AS SHOWN

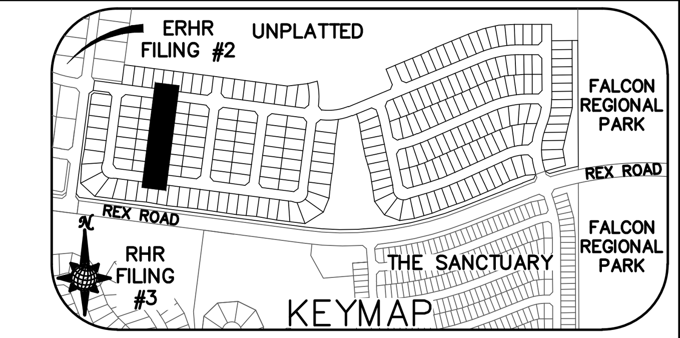
No.	Revisions	Date	Init.	Appr.	Date
1					
2					
3					
4					

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

PCD PROJECT NO. SF2411

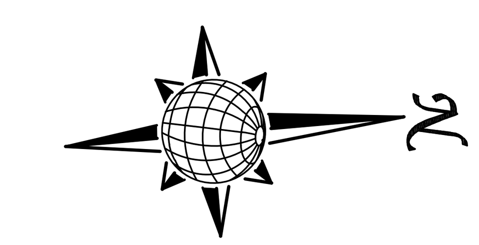
INSTALL CROSS PAN
PER COUNTY STD
SD-2-26
1 = 7093.15
2 = 7092.98
3 = 7092.81





Curve Table			
CURVE	LENGTH	RADIUS	Delta
3	30.63'	19.50'	90°00'00"
4	30.63'	19.50'	90°00'00"
25	30.63'	19.50'	90°00'00"
26	30.63'	19.50'	90°00'00"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)

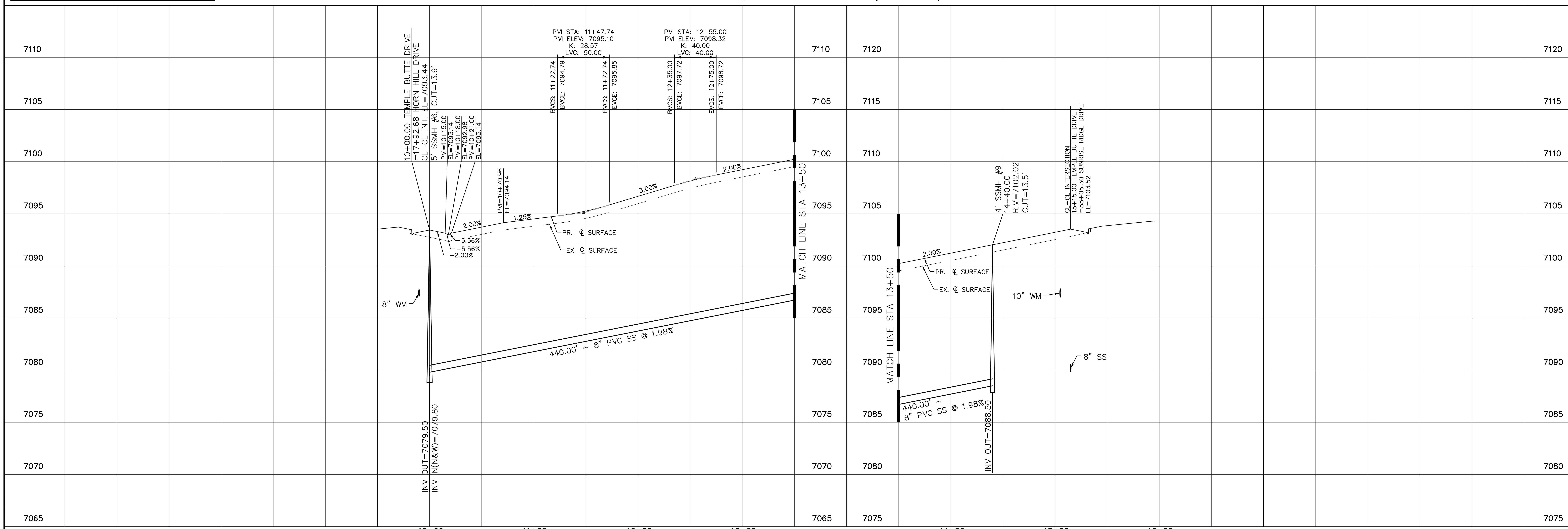


GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
1 inch = 5 ft. VERTICAL

TWO WORKING DAYS
BEFORE YOU DIG
CALL 811
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

TEMPLE BUTTE DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



No.	Revisions	Date	Init.	Appr.	Date
1		-	-		
2					
3					
4					

TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS
TEMPLE BUTTE DRIVE

Drawn by LCG
Checked by TAK
Date JULY 2024

Scale AS SHOWN

COLORADO LICENSED PROFESSIONAL ENGINEER 31429 7.15.24

PCD PROJECT NO. SF2411

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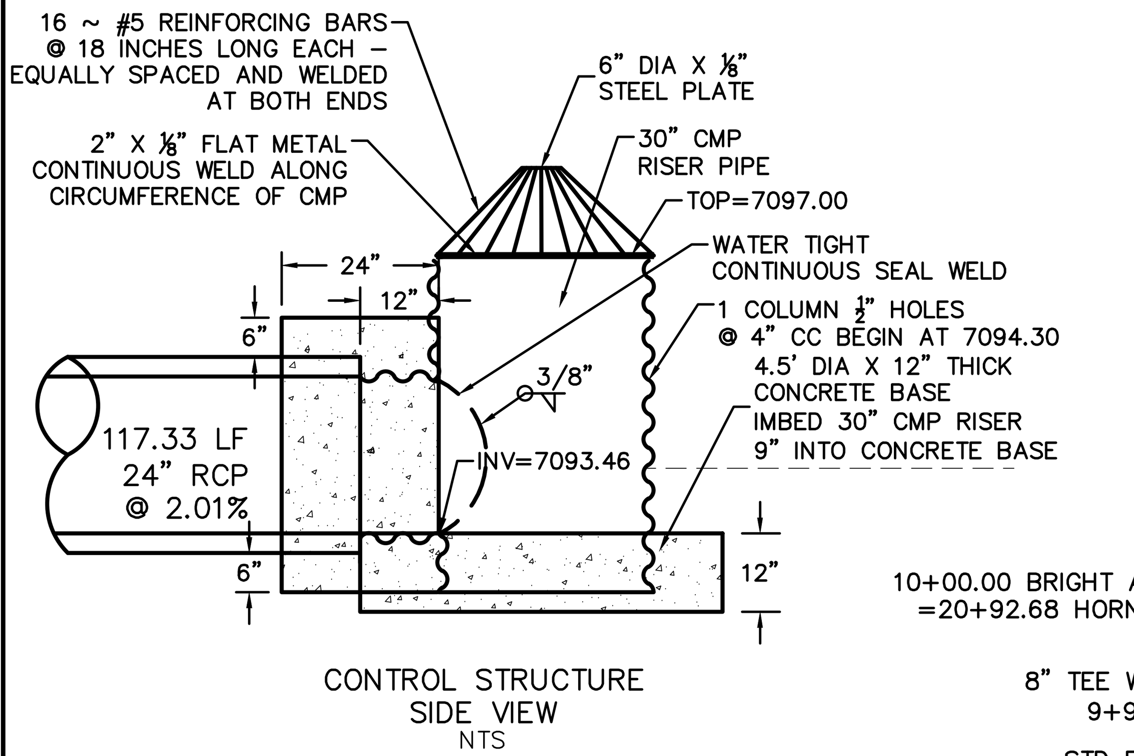
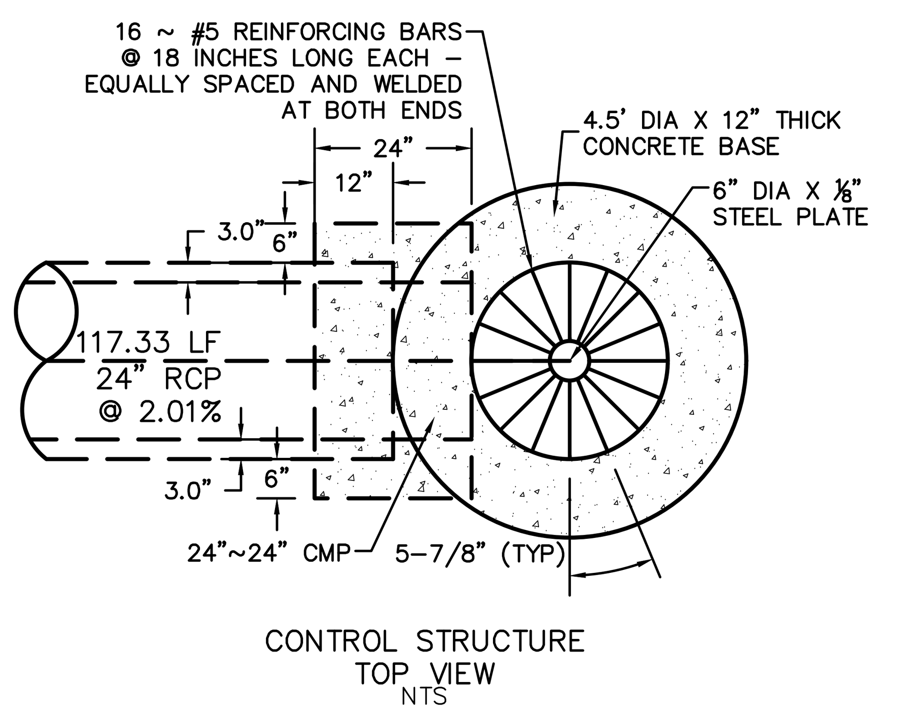
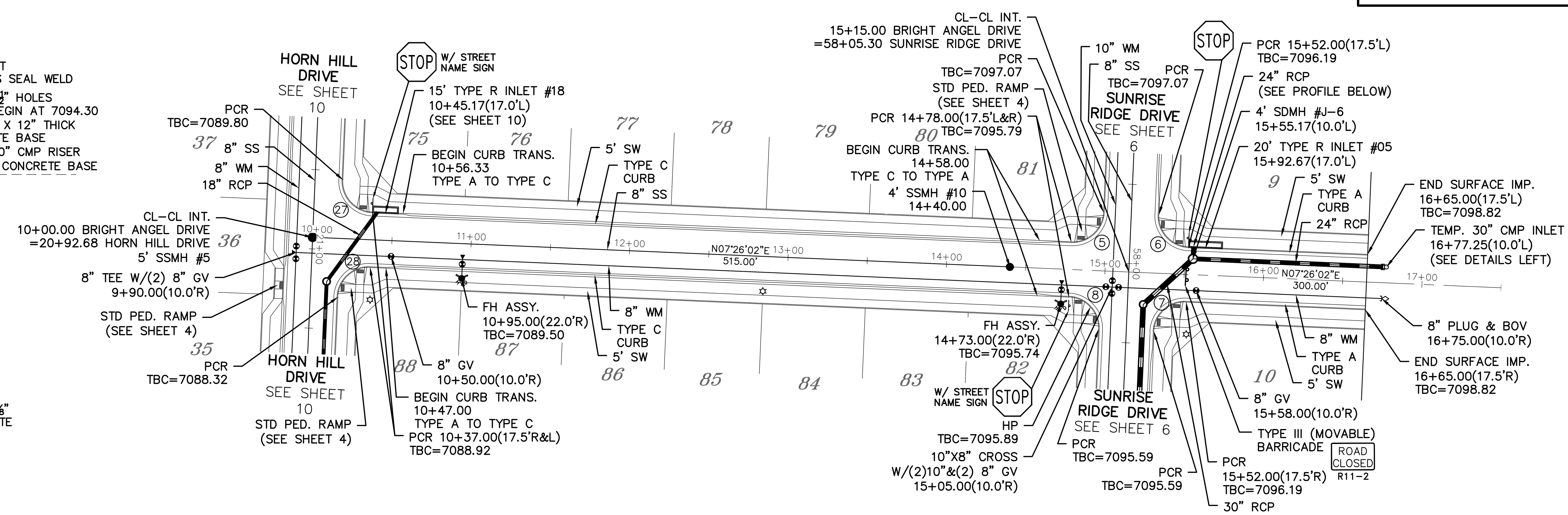
NOTE: PAINT OR COAT ALL WELD AND CUT AREAS OF THE CMP PIPES.

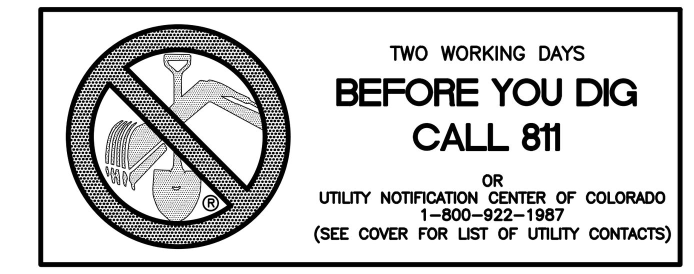


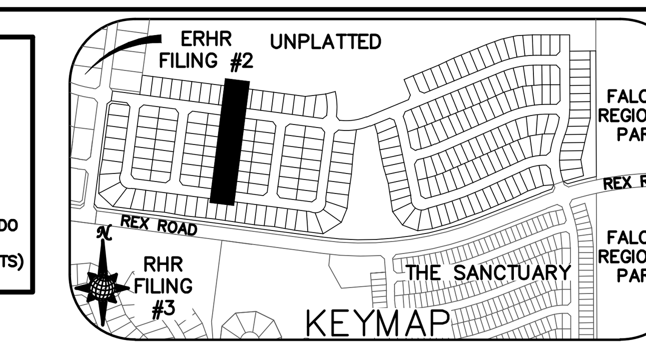
CONTROL STRUCTURE SIDE VIEW
NTS



CONTROL STRUCTURE TOP VIEW
NTS







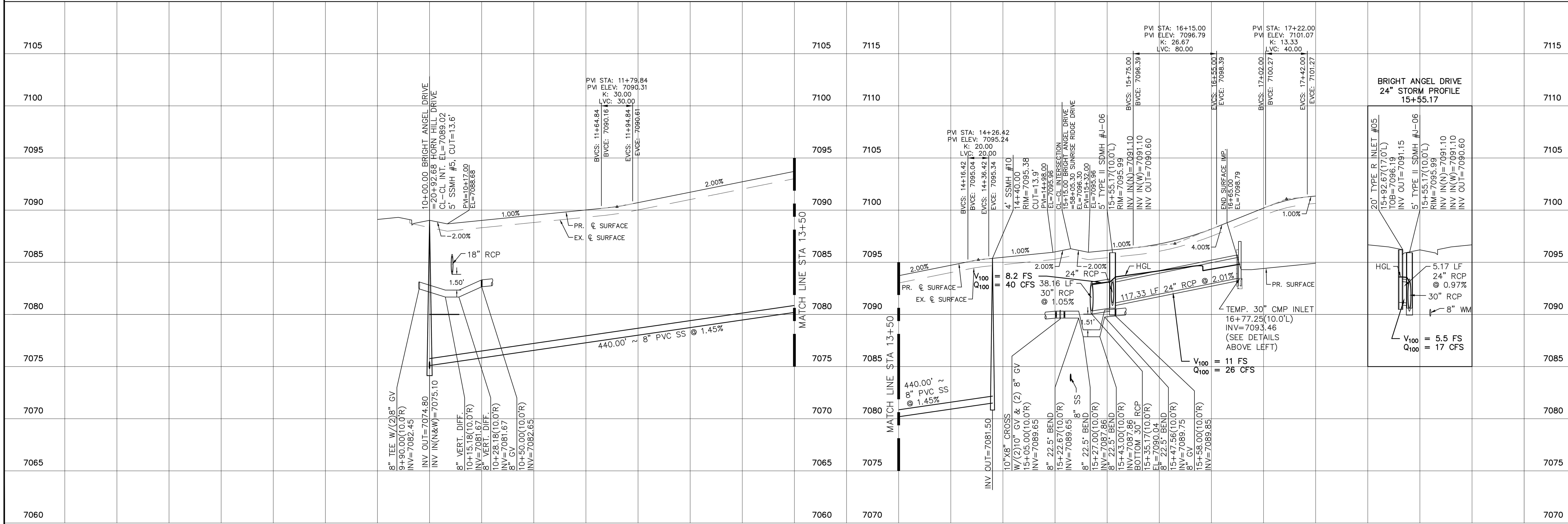
Curve Table			
CURVE	LENGTH	RADIUS	Delta
5	30.63'	19.50'	90°00'00"
6	30.63'	19.50'	90°00'00"
7	30.63'	19.50'	90°00'00"
8	30.63'	19.50'	90°00'00"
27	30.63'	19.50'	90°00'00"
28	30.63'	19.50'	90°00'00"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.
1 inch = 5 ft. VERTICAL

BRIGHT ANGEL DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

No.	Revisions	Date	Init.	Appr.	Date
1					
2					
3					
4					

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
BRIGHT ANGEL DRIVE

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

PCD PROJECT NO. SF2411

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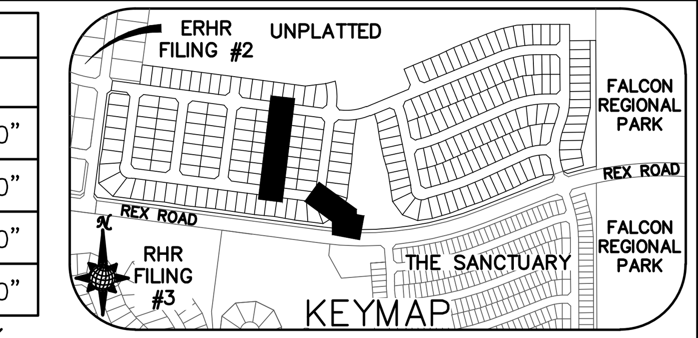
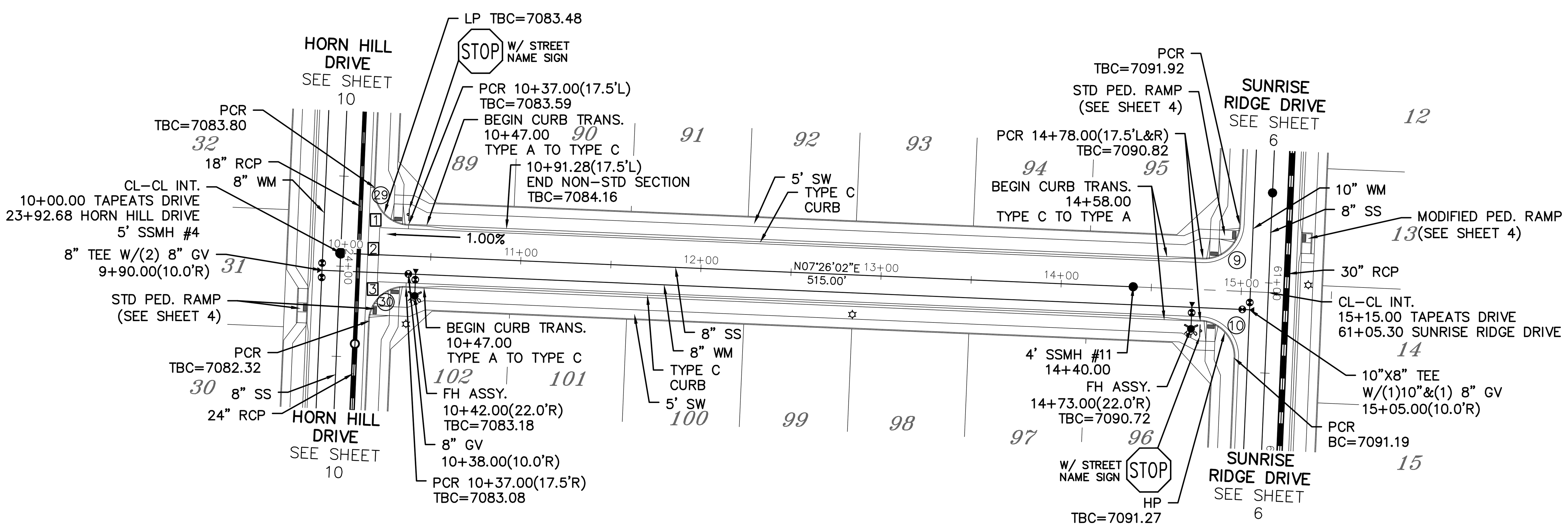
TWO WORKING DAYS
BEFORE YOU DIG
CALL 811
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

INSTALL CROSS PAN
PER COUNTY STD
SD-2-26
1 = 7082.90
2 = 7082.56
3 = 7082.22

Curve Table			
CURVE	LENGTH	RADIUS	Delta
9	30.63'	19.50'	90°00'00"
10	30.63'	19.50'	90°00'00"
29	30.63'	19.50'	90°00'00"
30	30.63'	19.50'	90°00'00"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)

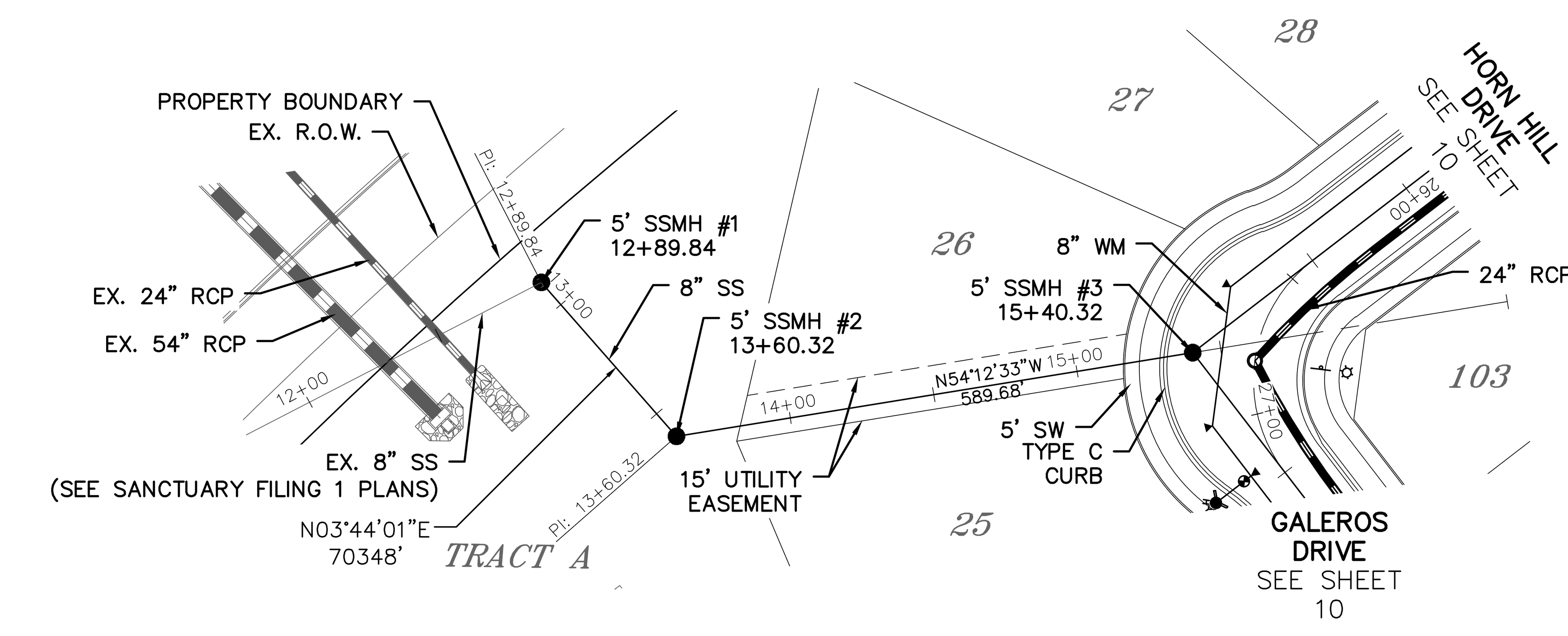




TAPEATS DRIVE

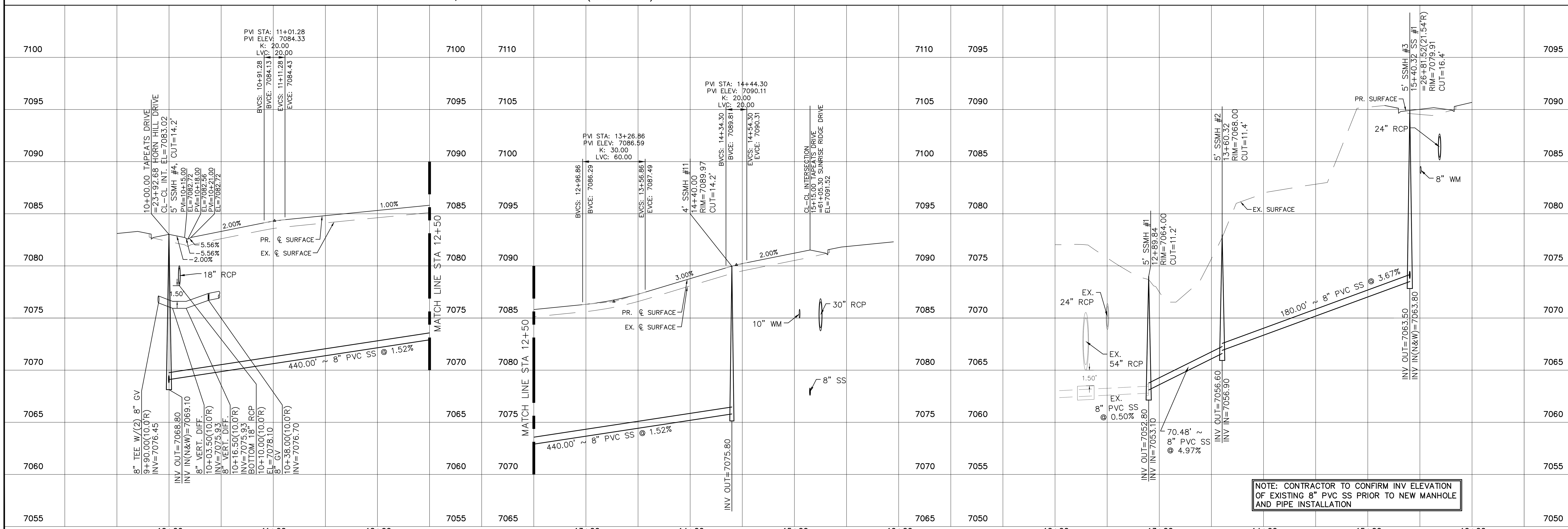
URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
1 inch = 5 ft. VERTICAL



NOTE: CONTRACTOR TO CONFIRM INV ELEVATION OF EXISTING 8" PVC SS PRIOR TO NEW MANHOLE AND PIPE INSTALLATION

SS #1



NOTE: CONTRACTOR TO CONFIRM INV ELEVATION OF EXISTING 8" PVC SS PRIOR TO NEW MANHOLE AND PIPE INSTALLATION

TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS
TAPEATS DRIVE AND SS #1

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN
14 of 37

No.	Revisions	Date	Init.	Appr.	Date
1					
2					
3					
4					

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

PCD PROJECT NO. SF2411

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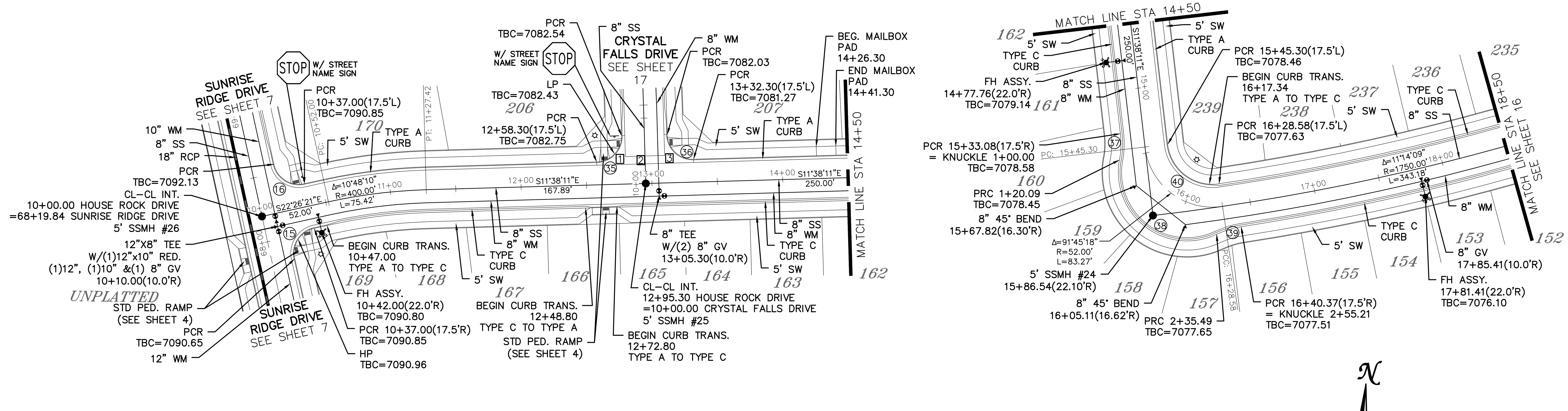
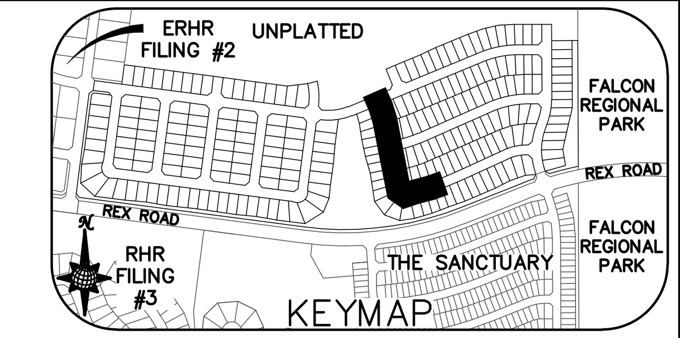
INSTALL CROSS PAN
PER COUNTY STD
SD-2-26
1 = 7081.85
2 = 7081.51
3 = 7081.17





Curve Table

CURVE	LENGTH	RADIUS	Delta
15	30.63'	19.50'	90°00'00"
16	30.63'	19.50'	90°00'00"
35	30.63'	19.50'	90°00'00"
36	30.63'	19.50'	90°00'00"
37	20.09'	67.50'	17°03'24"
38	115.39'	52.50'	125°56'10"
39	19.72'	67.50'	16°44'18"
40	55.25'	34.50'	91°45'18"

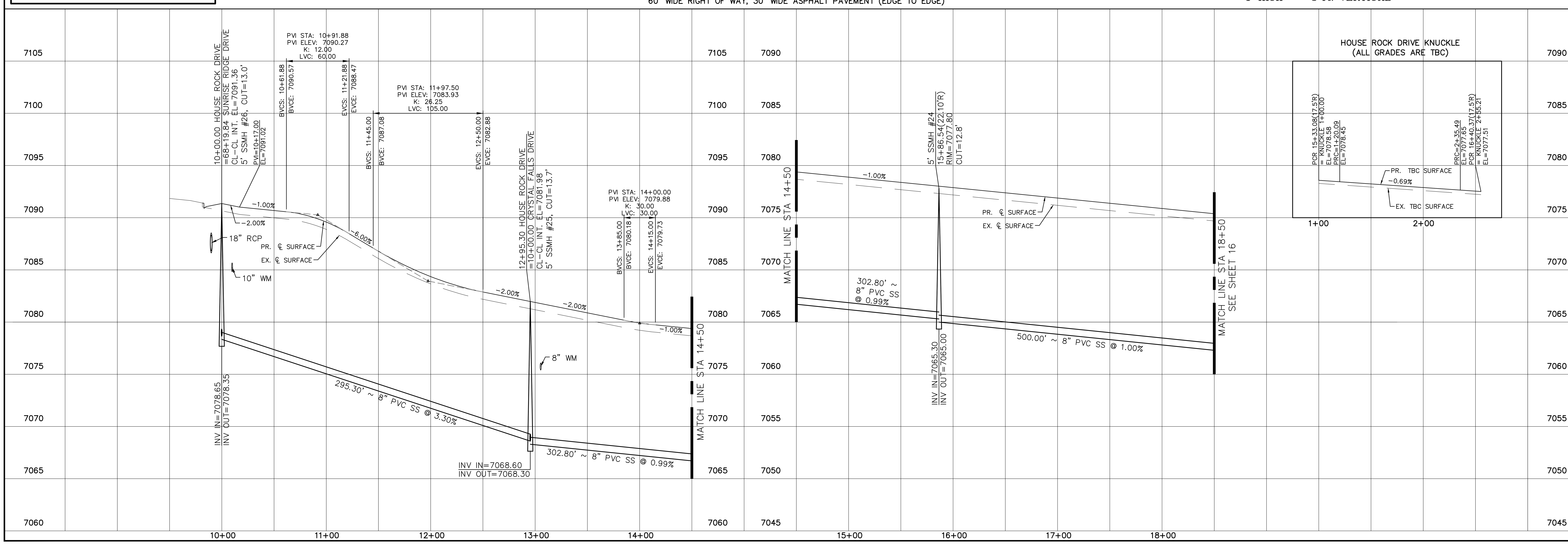
ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)

TWO WORKING DAYS
BEFORE YOU DIG
CALL 811
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

HOUSE ROCK DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.
1 inch = 5 ft. VERTICAL



No.	Revisions	Date	Init.	Appr.	Date
1					
2					
3					
4					

TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS
HOUSE ROCK DRIVE

Drawn by LCG
Checked by TAK
Date JULY 2024

Scale AS SHOWN
15 of 37

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

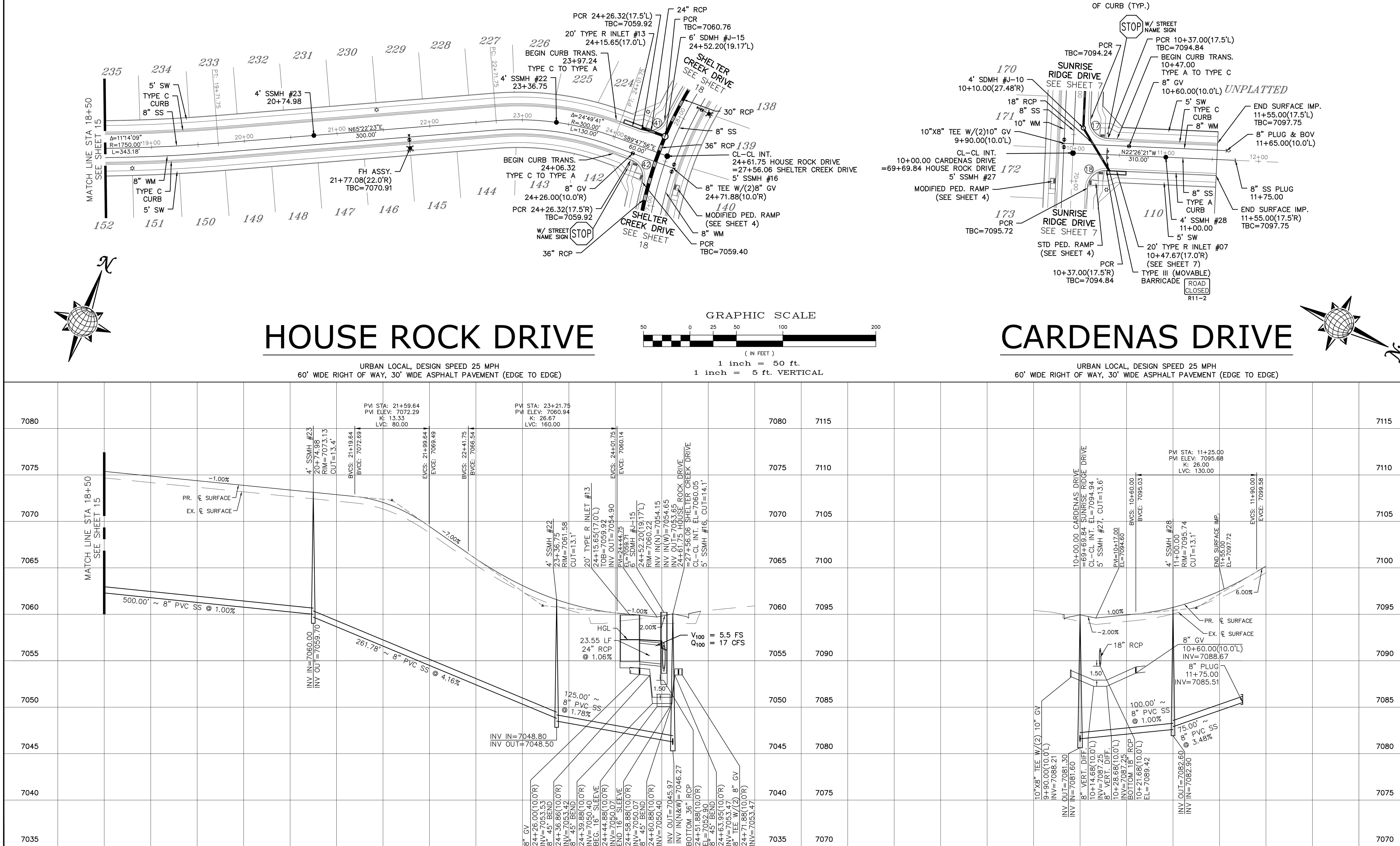
PCD PROJECT NO. SF2411

S:\OneDrive\CivilPro\Rolling Hills Ranch North Filing 1\DWG\PLAN SHEETS\Improvement Plans\02-RHRN1.dwg, 7/16/2024 8:30:29 AM

TWO WORKING DAYS
BEFORE YOU DIG CALL 811
OR UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 (SEE COVER FOR LIST OF UTILITY CONTACTS)

Curve Table			
CURVE	LENGTH	RADIUS	Delta
17	30.63'	19.50'	90°00'00"
18	30.63'	19.50'	90°00'00"
41	28.98'	19.50'	85°08'35"
42	28.98'	19.50'	85°08'35"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)



TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
HOUSE ROCK DRIVE AND CARDENAS DRIVE

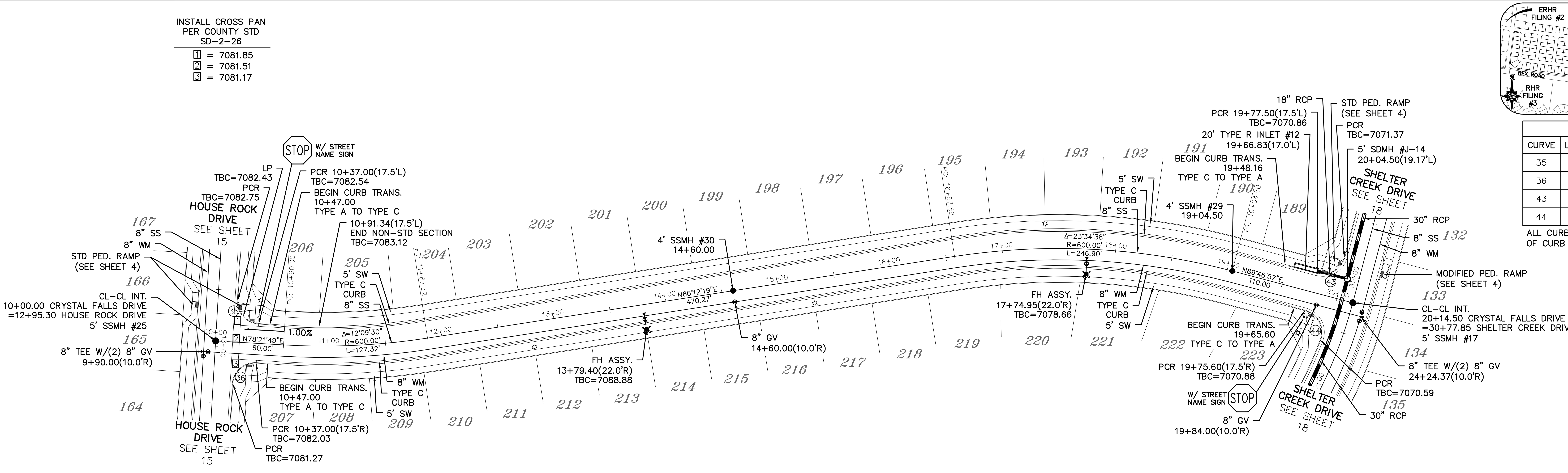
Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN
16 of 37

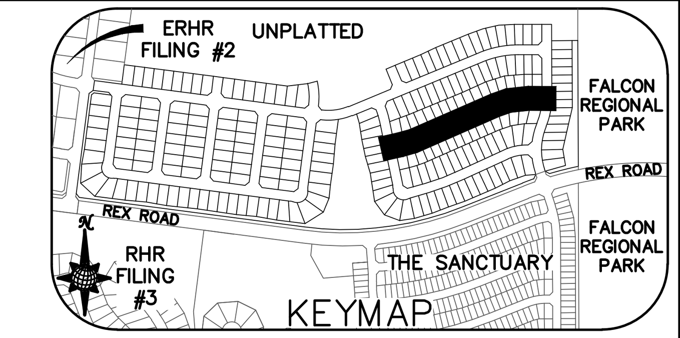
PCD PROJECT NO. SF2411

S:\OneDrive\CivilPro\Rolling Hills Ranch North Filing 1\DWG\PLAN SHEETS\Improvement Plans\02-RHRN1.dwg, 7/16/2024 8:32:15 AM

CRYSTAL FALLS DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)

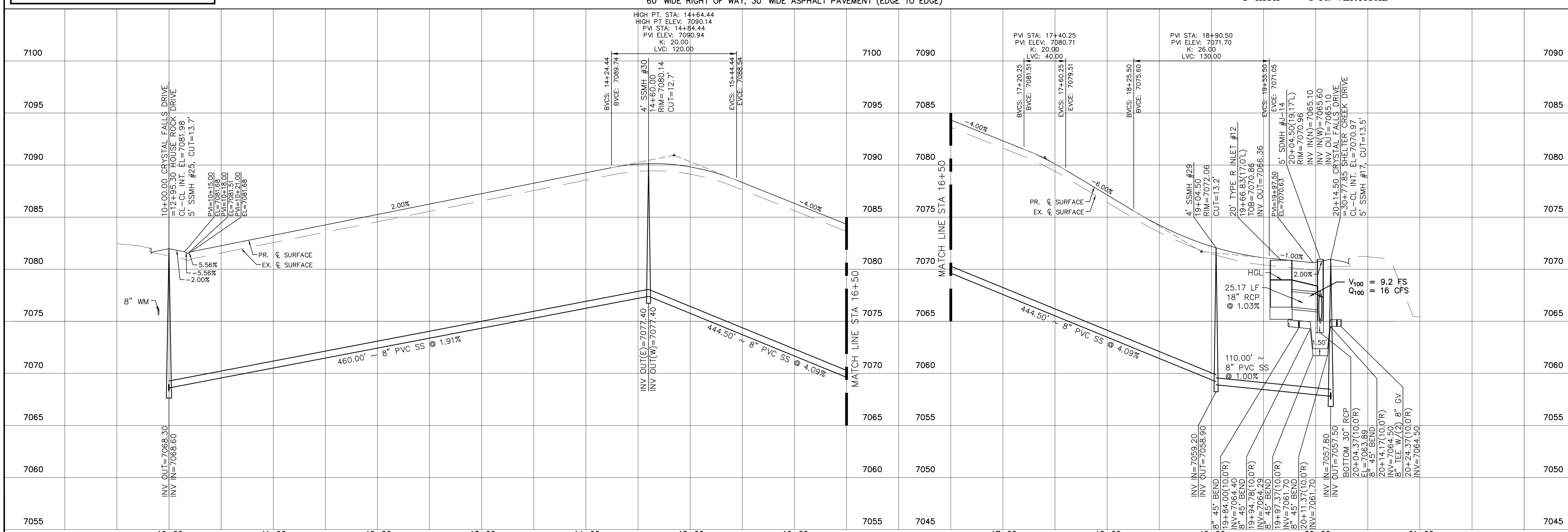




Curve Table			
CURVE	LENGTH	RADIUS	Delta
35	30.63'	19.50'	90°00'00"
36	30.63'	19.50'	90°00'00"
43	30.63'	19.50'	90°00'00"
44	32.62'	19.50'	95°51'01"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)

TWO WORKING DAYS
BEFORE YOU DIG CALL 811
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)



TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
CRYSTAL FALLS DRIVE

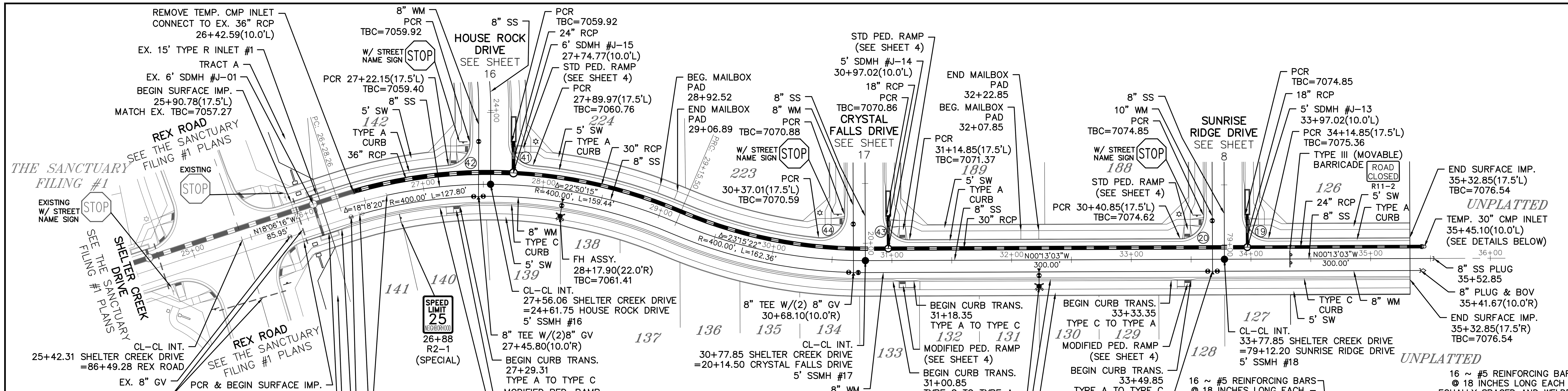
Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN
17 of 37

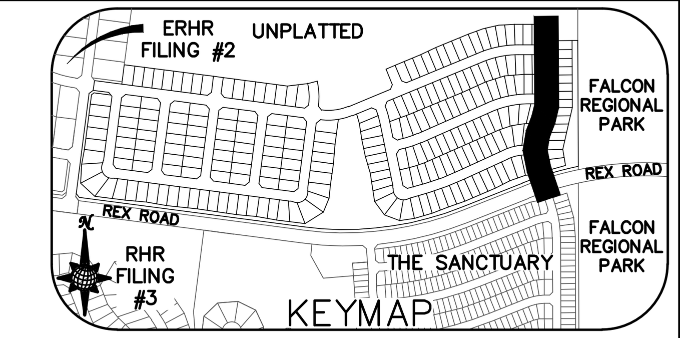
No. | Revisions | Date | Init. | Appr. | Date

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

PCD PROJECT NO. SF2411

S:\OneDrive\CivilPro\Rolling Hills Ranch North Filing 1\DWG\PLAN SHEETS\Improvement Plans\02-RHRN1.dwg, 7/16/2024 8:33:39 AM





CURVE	LENGTH	RADIUS	Delta
19	30.63'	19.50'	90°00'00"
20	30.63'	19.50'	90°00'00"
41	28.98'	19.50'	85°08'35"
42	28.98'	19.50'	85°08'35"
43	30.63'	19.50'	90°00'00"
44	32.62'	19.50'	95°51'01"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)

NOTE: PAINT OR COAT ALL WELD AND CUT AREAS OF THE CMP PIPES.

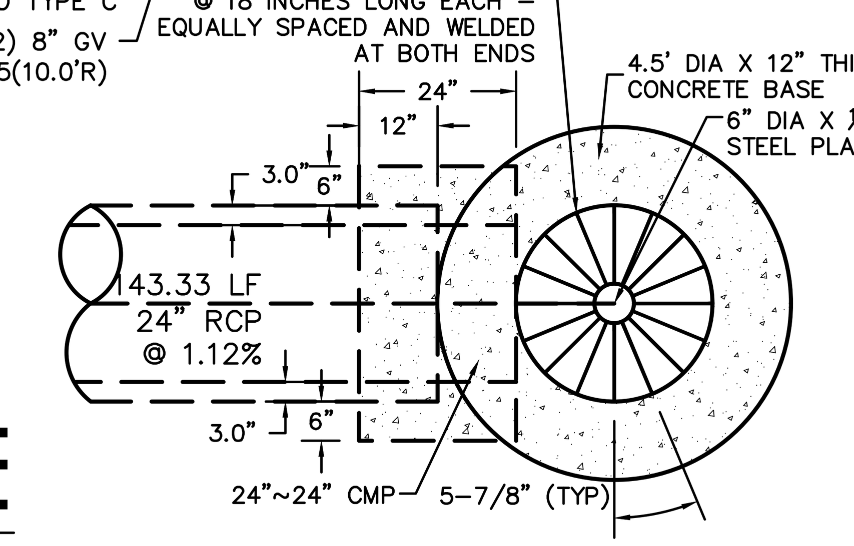
NOTE:
1) CONTRACTOR TO CONFIRM INV ELEVATION OF EXISTING 8" PVC SS PRIOR TO NEW MANHOLE AND PIPE INSTALLATION
2) CONTRACTOR TO CONFIRM INV ELEVATION OF EXISTING 36" RCP PRIOR TO NEW MANHOLE AND PIPE INSTALLATION

TWO WORKING DAYS
BEFORE YOU DIG CALL 811
OR UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 (SEE COVER FOR LIST OF UTILITY CONTACTS)

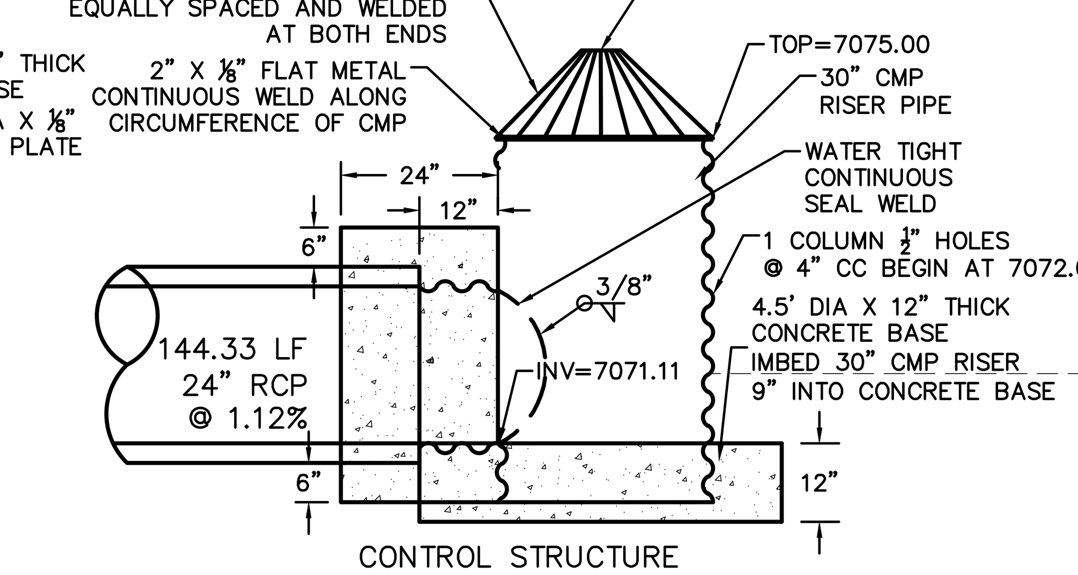
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
1 inch = 5 ft. VERTICAL

SHELTER CREEK DRIVE

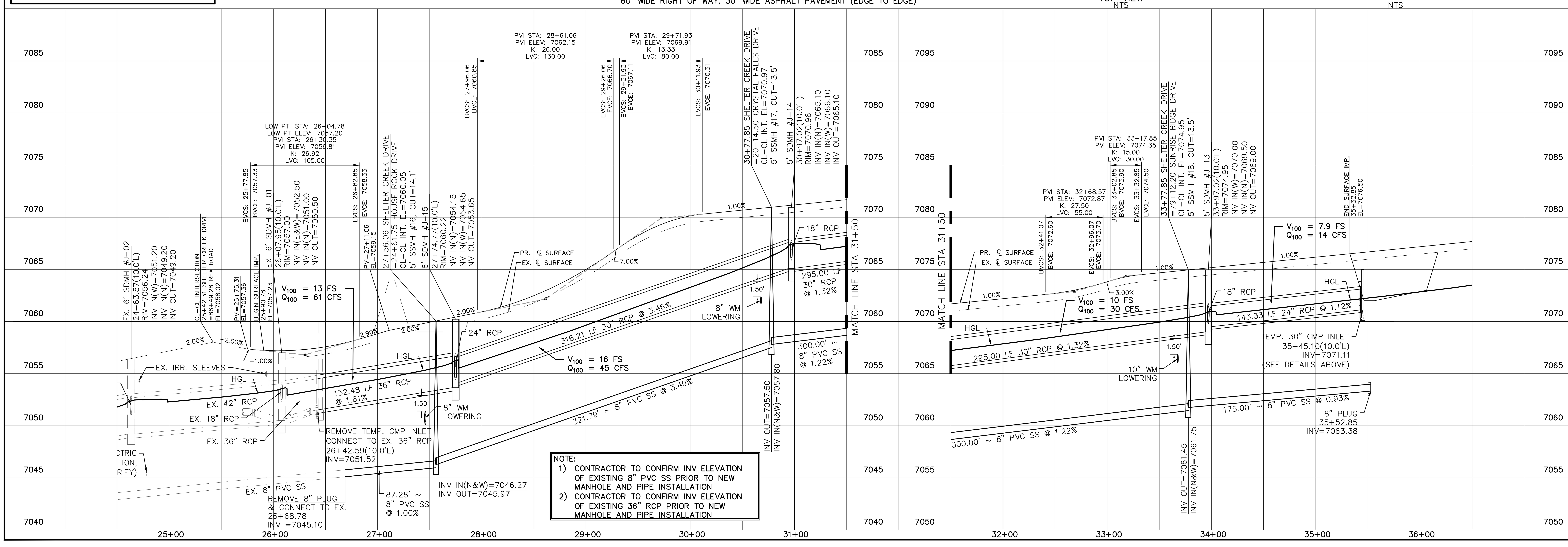
URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



CONTROL STRUCTURE TOP VIEW
NTS



CONTROL STRUCTURE SIDE VIEW
NTS



NOTE:
1) CONTRACTOR TO CONFIRM INV ELEVATION OF EXISTING 8" PVC SS PRIOR TO NEW MANHOLE AND PIPE INSTALLATION
2) CONTRACTOR TO CONFIRM INV ELEVATION OF EXISTING 36" RCP PRIOR TO NEW MANHOLE AND PIPE INSTALLATION

TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
SHELTER CREEK DRIVE

No.	Revisions	Date	Init.	Appr.	Date
1					
2					
3					
4					

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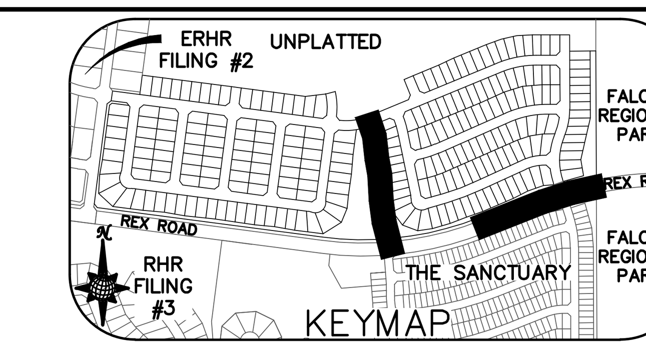
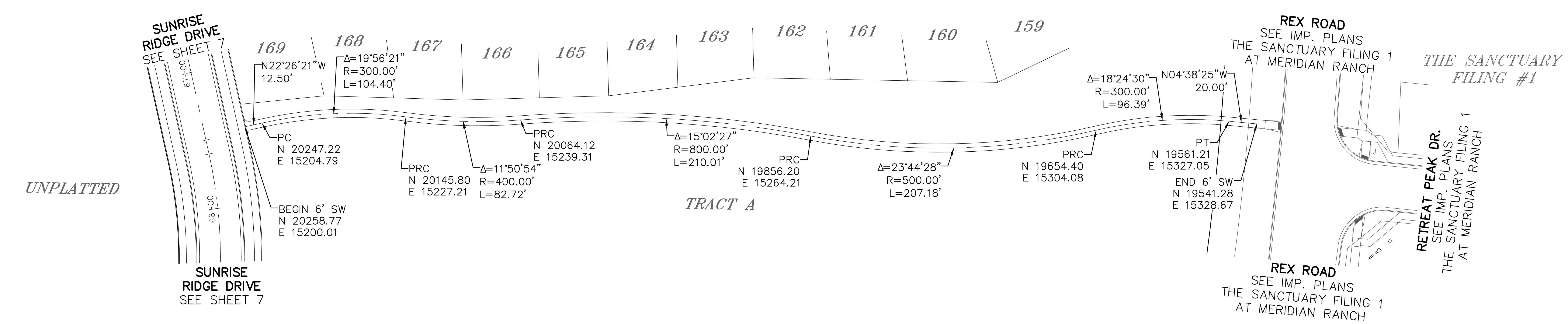
Checked by TAK
Date JULY 2024
Scale AS SHOWN

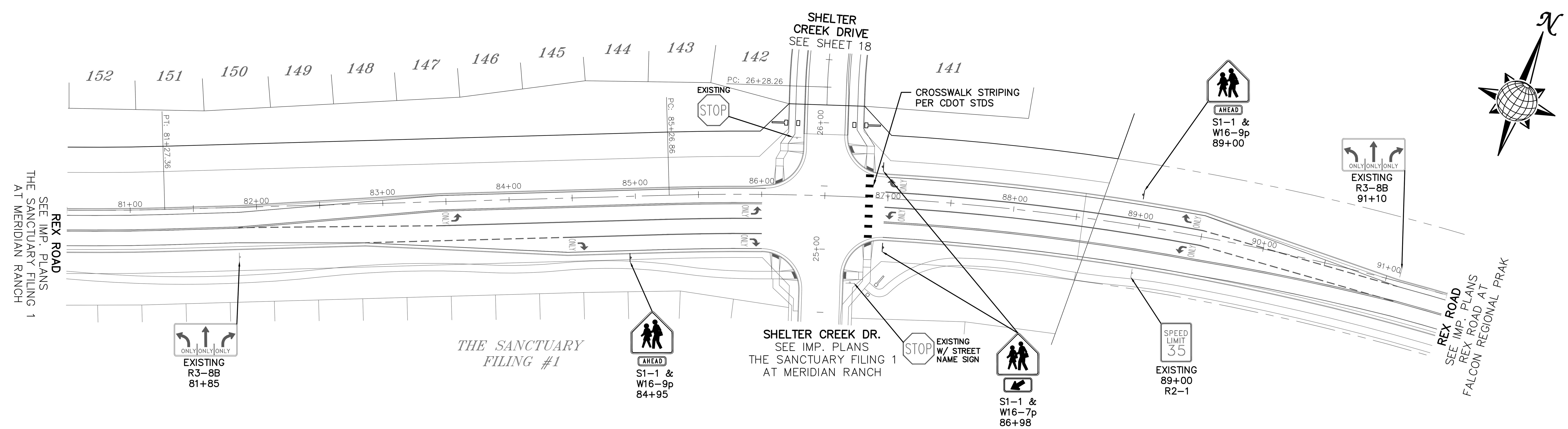
PCD PROJECT NO. SF2411

SIDEWALK & STRIPING PLAN

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.







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TECH CONTRACTORS
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FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS
SIDEWALK + STRIPING PLAN

Drawn by LCG
Checked by TAK
Date JULY 2024

Scale AS SHOWN

COLORADO LICENSED PROFESSIONAL ENGINEER 31429 7.15.24

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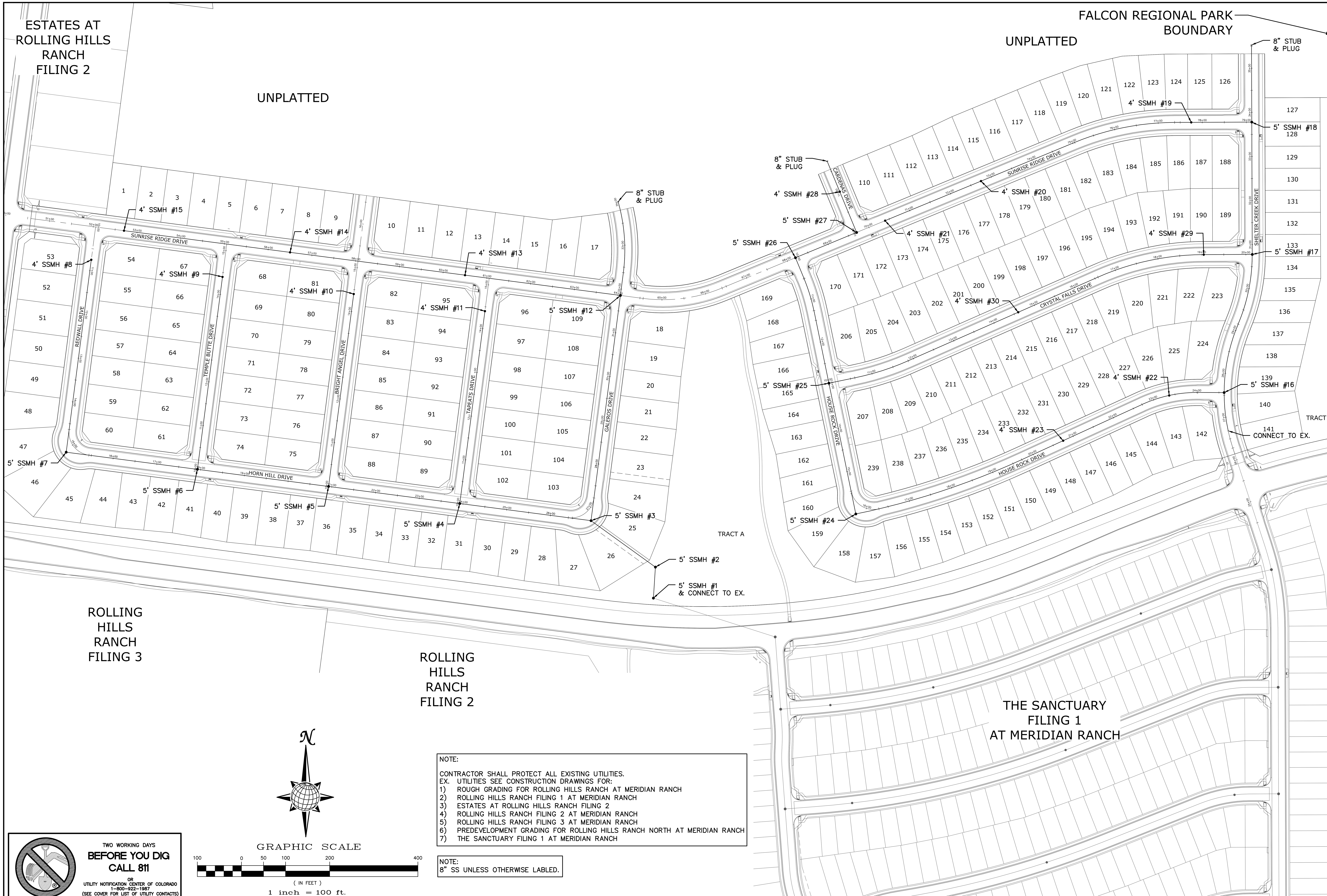

NOTE:

CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:

1) ROUGH GRADING FOR ROLLING HILLS RANCH AT MERIDIAN RANCH
2) ROLLING HILLS RANCH FILING 1 AT MERIDIAN RANCH
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4) ROLLING HILLS RANCH FILING 2 AT MERIDIAN RANCH
5) ROLLING HILLS RANCH FILING 3 AT MERIDIAN RANCH
6) PREDEVELOPMENT GRADING FOR ROLLING HILLS RANCH NORTH AT MERIDIAN RANCH
7) THE SANCTUARY FILING 1 AT MERIDIAN RANCH

NOTE:
8" SS UNLESS OTHERWISE LABLED.

TWO WORKING DAYS
BEFORE YOU DIG
CALL 811
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

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MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
OVERALL SANITARY SEWER

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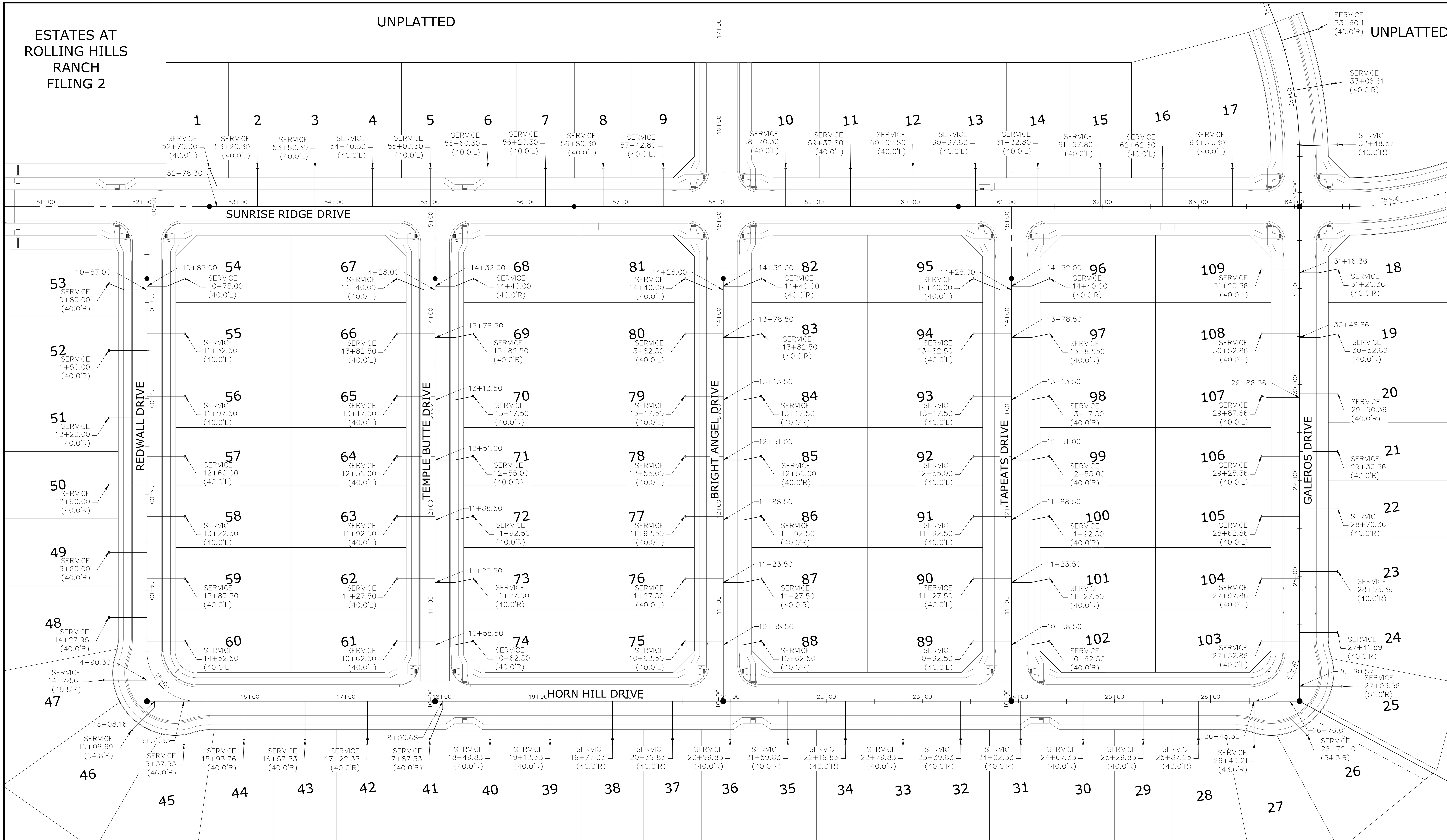

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7) THE SANCTUARY FILING 1 AT MERIDIAN RANCH

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

TWO WORKING DAYS
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MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS
OVERALL SANITARY SEWER SERVICES

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Date JULY 2024
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PCD PROJECT NO. SF2411

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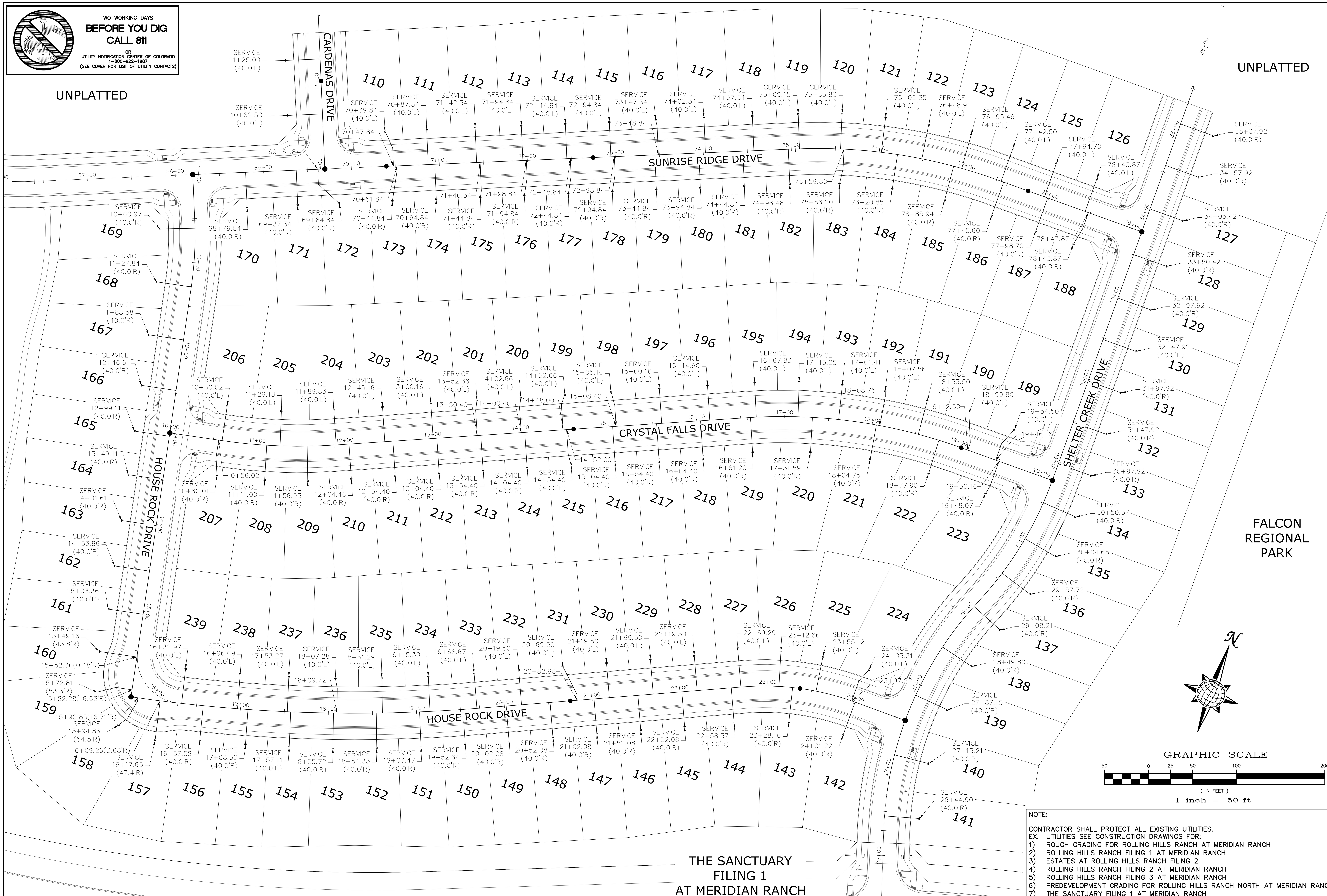

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MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
OVERALL SANITARY SEWER SERVICES

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COLORADO LICENSED PROFESSIONAL ENGINEER 31429

PCD PROJECT NO. SF2411

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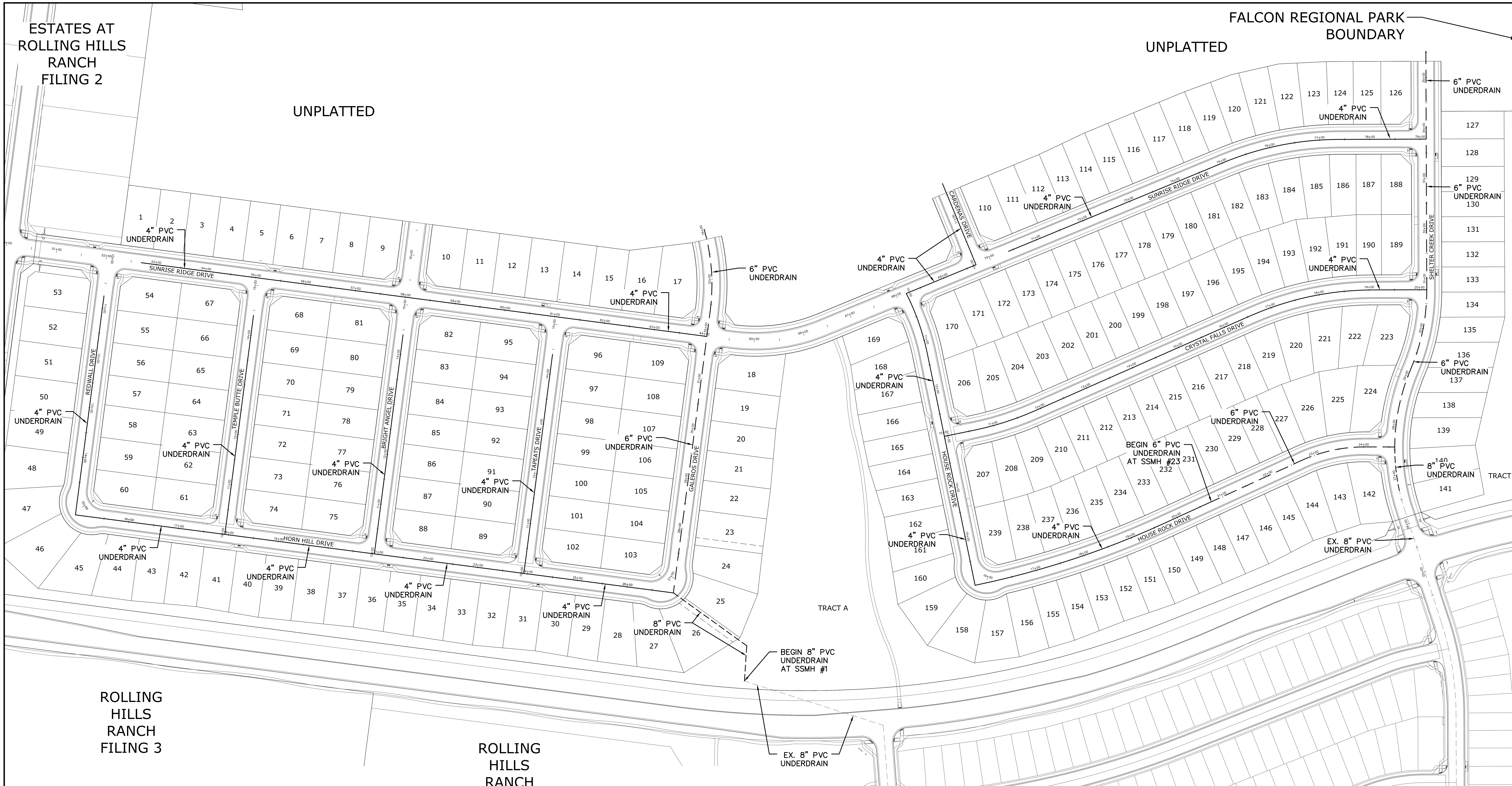

LEGEND

	EX. 4" UNDERDRAIN
	EX. 6" UNDERDRAIN
	EX. 8" UNDERDRAIN
	4" UNDERDRAIN
	6" UNDERDRAIN
	8" UNDERDRAIN

N

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft.

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TWO WORKING DAYS
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1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

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FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS

OVERALL UNDERDRAIN

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Date JULY 2024

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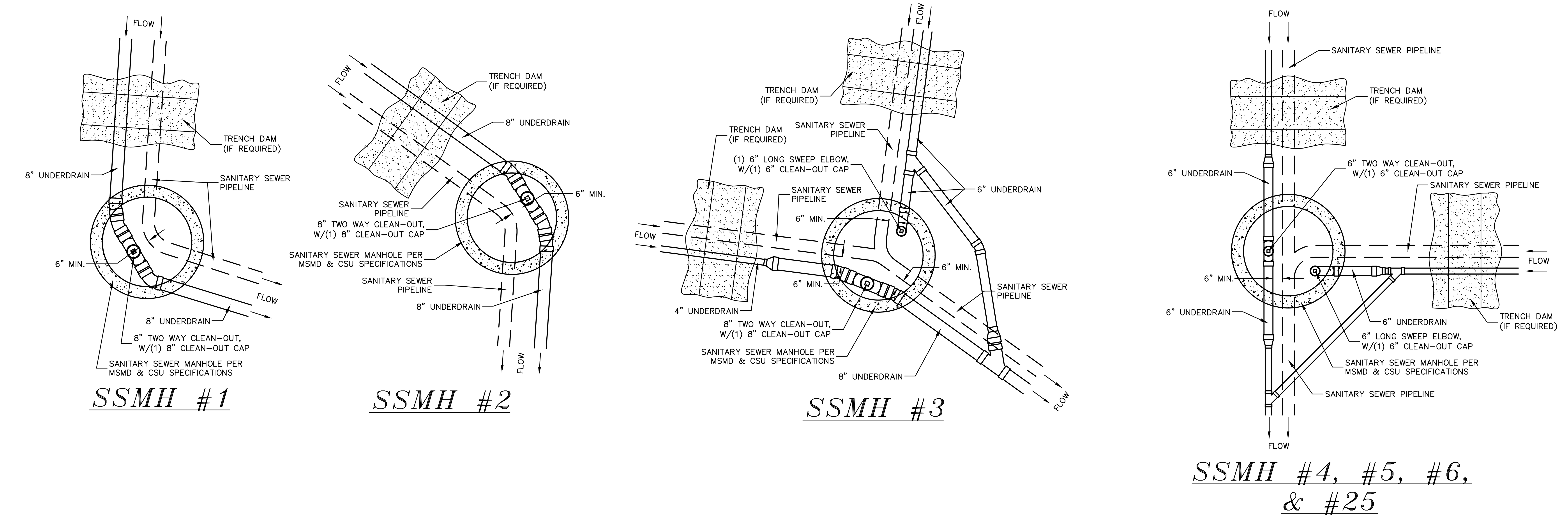
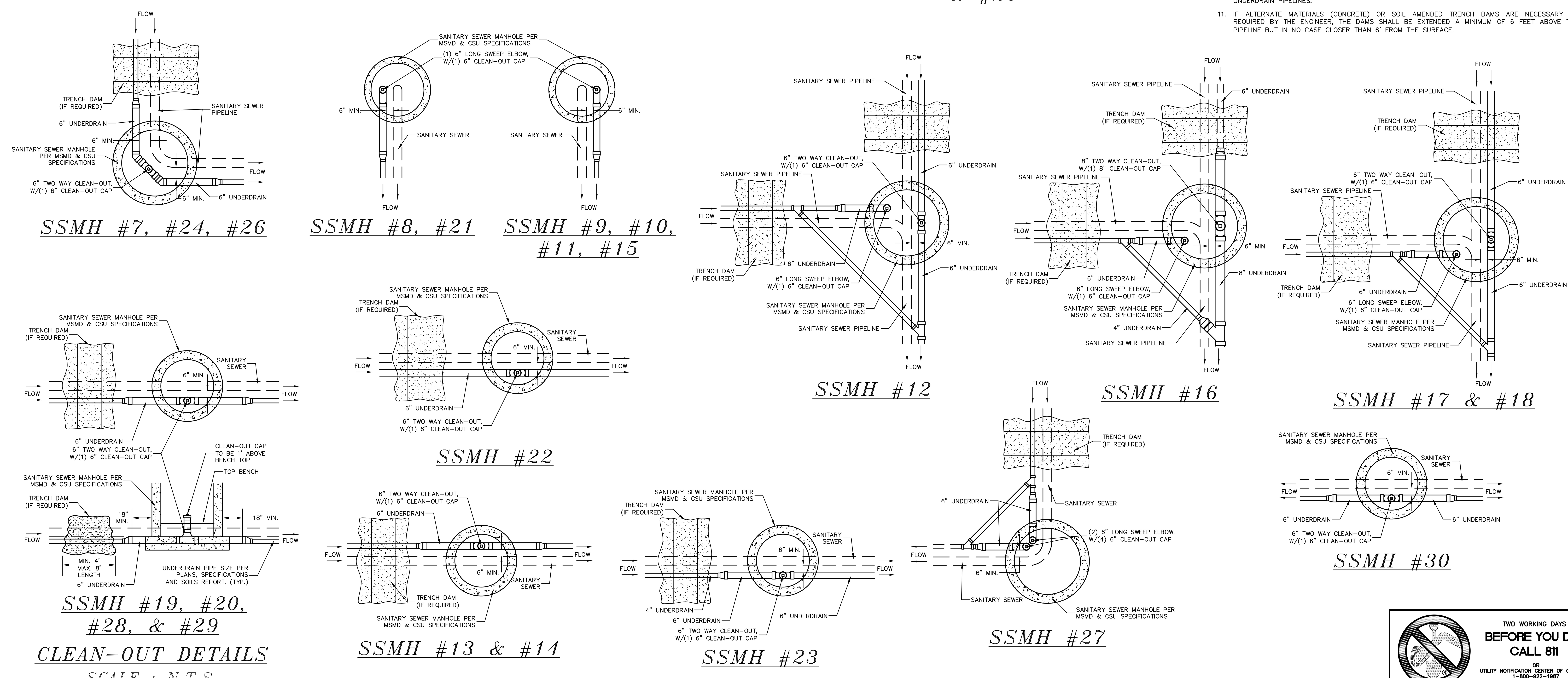
NOTES:

1. THE UNDERDRAIN SYSTEM SHALL BE PASSIVE, WATER TIGHT, NON– PERFORATED PIPE, WITH THE MAIN LINE SIZE DESIGNED BY THE ENGINEER. ALL UNDERDRAIN PIPES AND FITTINGS SHALL BE SDR 35 PVC, OR MSMD APPROVED EQUAL, INSTALLED PER THE SAME INSTALLATION STANDARDS AS OUTLINED BY CSUS FOR SANITARY SEWER SYSTEMS. THE UNDERDRAIN SYSTEM AT EACH SANITARY SEWER MANHOLE SHALL CONTAIN 6" CLEAN–OUTS IN EACH UNDERDRAIN MAIN DIRECTION PER THE CLEAN–OUT DETAIL. ALL LOTS SHALL RECEIVE A WHITE 3" UNDERDRAIN SERVICE LATERAL ADJACENT TO THE SANITARY SEWER SERVICE LATERAL.
2. TESTING OF THE UNDERDRAIN SYSTEM WILL CONSIST OF VISUAL INSPECTIONS FOR WATER IN THE SYSTEM, ALONG WITH A VIDEO INSPECTION PERFORMED BY MSMD PERSONNEL. ALL UNDERDRAIN MAINS AND DOWNSTREAM INFILTRATION STRUCTURES SHALL BE CLEAN AND DEBRIS FREE UPON COMPLETION OF THE SYSTEM AND PRIOR TO CCTV. ALL UNDERDRAIN MAINS SHALL BE CCTV INSPECTED BY MSMD AND REVIEWED FOR APPROVAL. THE SPECIFICATION FOR ALLOWABLE STANDING WATER AND WATER INFILTRATION IN THE UNDERDRAIN SYSTEM SHALL BE THE SAME AS PER CSUS FOR SANITARY SEWER SYSTEMS. IF EXCESS WATER IS OBSERVED IN THE UNDERDRAIN SYSTEM, THE CONTRACTOR SHALL LOCATE THE SOURCE OF WATER INFILTRATION AND REPAIR AS NECESSARY TO MEET CSUS.
3. IF THE UNDERDRAIN MAIN HAS LOW SPOTS THAT EXCEED CSUS STANDARDS, THE CONTRACTOR SHALL REPAIR THE LINE AS NECESSARY TO MEET CSUS. UNDERDRAIN MAINS THAT DO NOT MEET MSMD STANDARDS SHALL BE REPLACED AND OR REPAIRED AS NECESSARY. THE CONTRACTOR SHALL RE–CCTV INSPECT THE UNDERDRAIN MAIN LINES AFTER THE REPAIRS HAVE BEEN MADE WITH ONE VIDEO SUBMITTED TO MSMD FOR REVIEW AND APPROVAL.
4. UNDER DRAIN MAIN LINES SHALL HAVE CONTINUOUS POSITIVE DRAINAGE TO THE POINT OF DISCHARGE INTO A BELOW GRADE AN APPROVED UNDERDRAIN INFILTRATION STRUCTURE WHEREVER POSSIBLE. UNDERDRAIN INFILTRATION STRUCTURES SHALL BE DESIGNED WITH OVERFLOW LINES FOR FUTURE EXPANSION AS NEEDED. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION OF THE INFILTRATION STRUCTURE, STOP INSTALLATION AND CONTACT THE DISTRICT ENGINEER FOR POSSIBLE ALTERNATE DESIGN.
5. UNDERDRAINS WILL DAYLIGHT AT LOCATIONS SHOWN ON THE DRAWINGS.
6. UNDERDRAIN CLEANOUTS SHALL BE 6 INCH AND SHALL BE LOCATED AT EVERY MANHOLE. UNDERDRAIN CLEANOUTS AND CLEANOUT CONSTRUCTION WILL LEAVE NO INFILTRATION WITHIN SEWER MANHOLES. MANHOLE PENETRATIONS TO BE FILLED WITH NON–SHRINKING GROUT. UNDERDRAIN SIZE WILL NOT BE REDUCED THROUGH THE MANHOLE.
7. TRENCH DAMS WILL BE PROVIDED AT INTERVALS NO GREATER THAN 350 FEET IN SANITARY SEWER SECTIONS WHERE GROUNDWATER EXISTS OR WHERE DIRECTED BY THE ENGINEER. A TRENCH DAM WILL BE CONSTRUCTED WITHIN THE FIRST 100 FEET OF EITHER ENTERING OR EXITING GROUNDWATER. THE CONTRACTOR SHALL NOTIFY THE DISTRICT WHEN GROUNDWATER IS ENCOUNTERED TO REVIEW TRENCH DAM NEEDS, LOCATIONS, AND MATERIALS.
8. TRENCH DAMS MAY BE CONSTRUCTED OF ON SITE MATERIALS IF APPROVED BY THE SOILS ENGINEER.
9. TRENCH DAMS SHALL COMPLETELY INTERRUPT GRAVEL BEDDING AND STABILIZATION THE FULL WIDTH OF THE TRENCH FOR A LENGTH OF NO LESS THAN 4 FEET BUT NO GREATER THAN 8 FEET.
10. TRENCH DAMS SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR AROUND THE SEWER AND UNDERDRAIN PIPELINES.
11. IF ALTERNATE MATERIALS (CONCRETE) OR SOIL AMENDED TRENCH DAMS ARE NECESSARY OR REQUIRED BY THE ENGINEER, THE DAMS SHALL BE EXTENDED A MINIMUM OF 6 FEET ABOVE THE PIPELINE BUT IN NO CASE CLOSER THAN 6' FROM THE SURFACE.





TWO WORKING DAYS
BEFORE YOU DIG
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OR
UTILITY NOTIFICATION CENTER OF COLORADO
1–800–922–1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

No.	Revisions	Date	Init.	Appr.	Date
1		-	-		
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4					

TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS

UNDERDRAIN DETAILS

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

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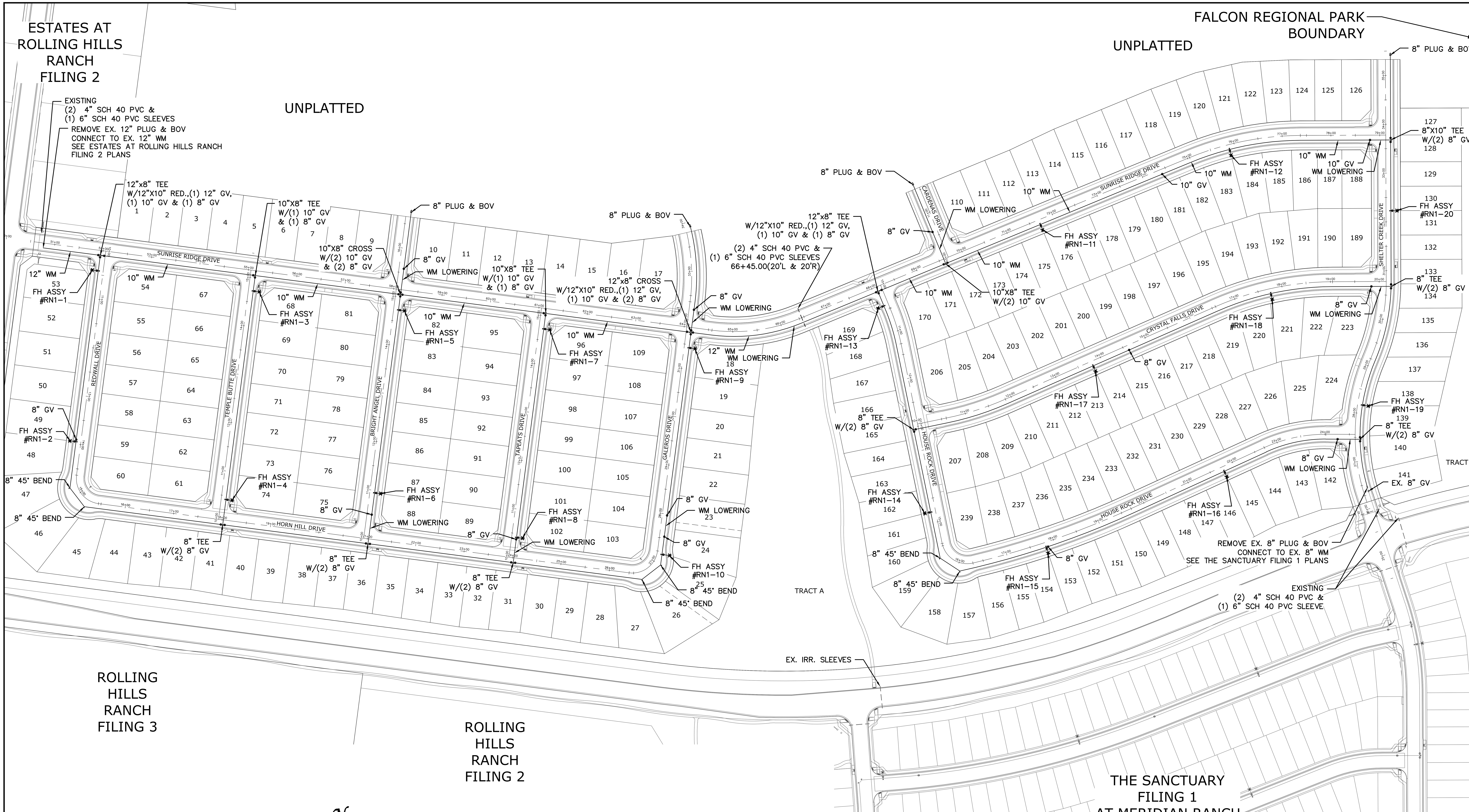

RESIDENTIAL HOME
4,800 SQ. FT. (MAX)
VB CONSTRUCTION
REQ'D FIRE FLOW: 1750 GPM
HYDRANT SPACING: 500' (MAX)
HOSE LAY DIST.: 250' (MAX)
NON-SPRINKLER

TWO WORKING DAYS
BEFORE YOU DIG CALL 811
OR
UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987
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NOTE:
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7) THE SANCTUARY FILING 1 AT MERIDIAN RANCH

NOTE:
8" WM UNLESS OTHERWISE LABLED.

No.	Revisions	Date	Init.	Appr.	Date
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TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
OVERALL WATER

Drawn by LCG
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Date JULY 2024
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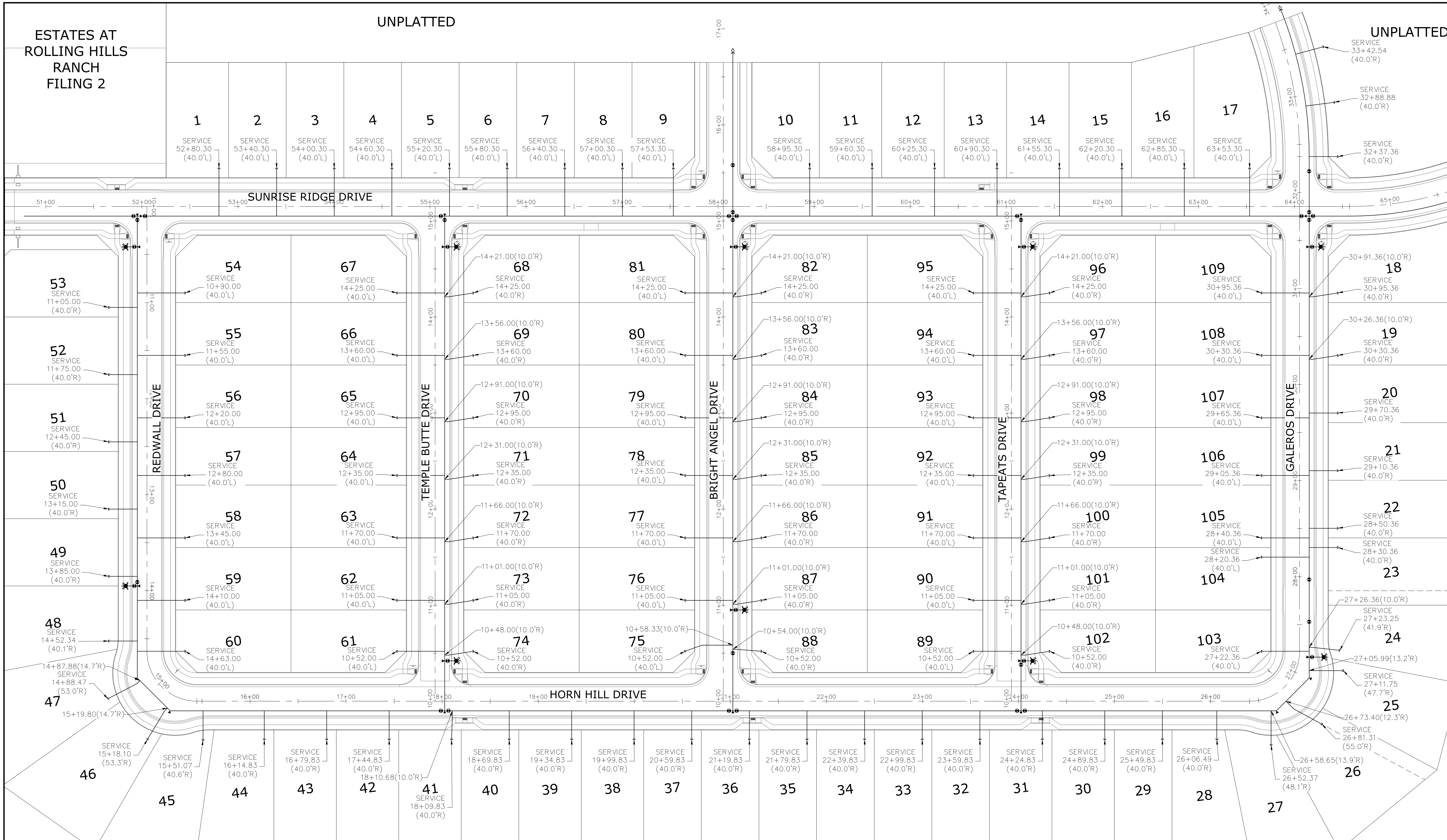

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NOTE:
3/4" WATER SERVICE UNLESS OTHERWISE LABELED.

RESIDENTIAL HOME
4,800 SQ. FT. (MAX)
VB CONSTRUCTION
REQ'D FIRE FLOW: 1750 GPM
HYDRANT SPACING: 500' (MAX)
HOSE LAY DIST.: 250' (MAX)
NON-SPRINKLER

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

N

TWO WORKING DAYS
BEFORE YOU DIG
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1-800-922-1987
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MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
STREET AND UTILITY PLANS

OVERALL WATER SERVICES

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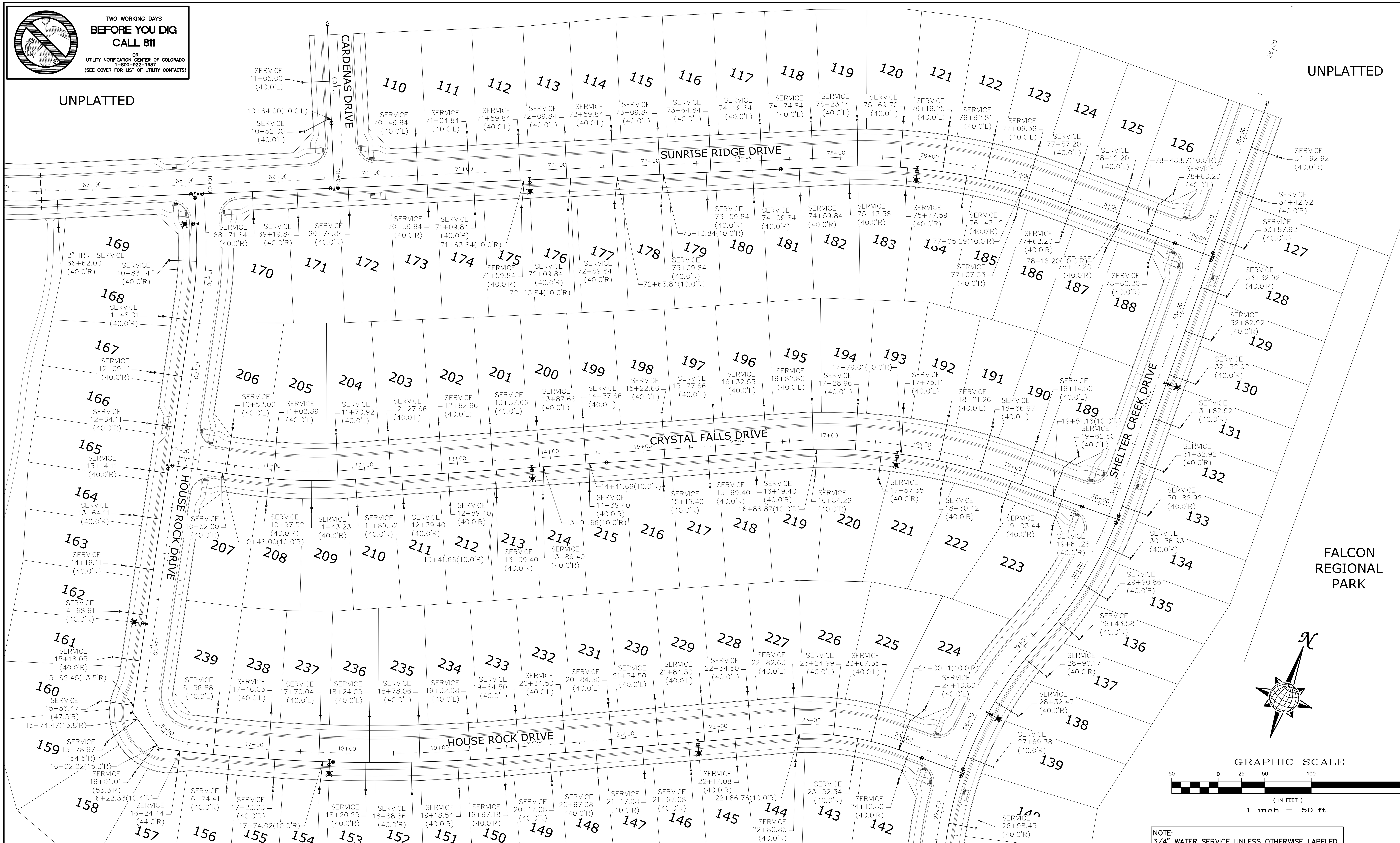

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OR UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 (SEE COVER FOR LIST OF UTILITY CONTACTS)

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MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS
OVERALL WATER SERVICES

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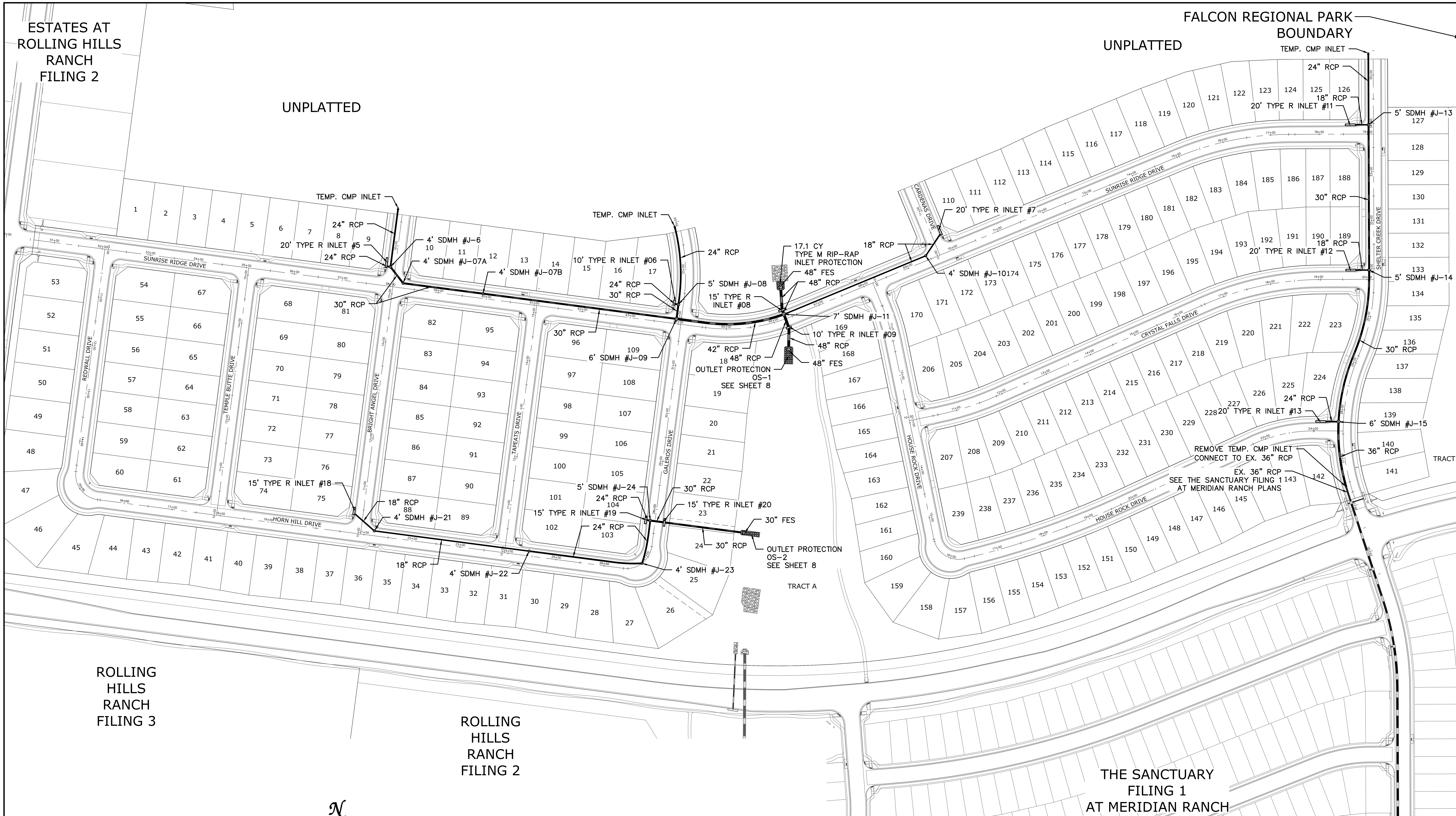

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MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
STREET AND UTILITY PLANS

OVERALL STORM DRAIN

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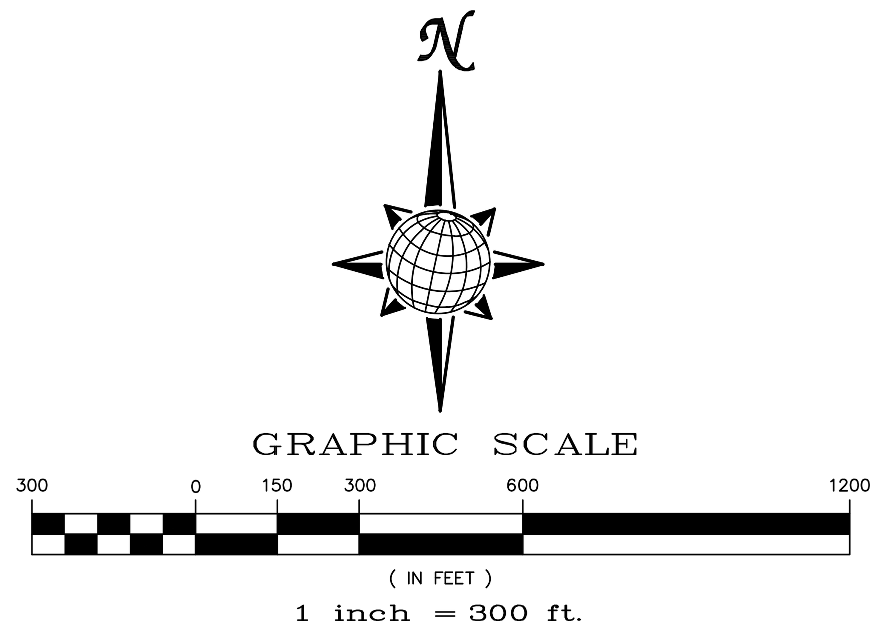
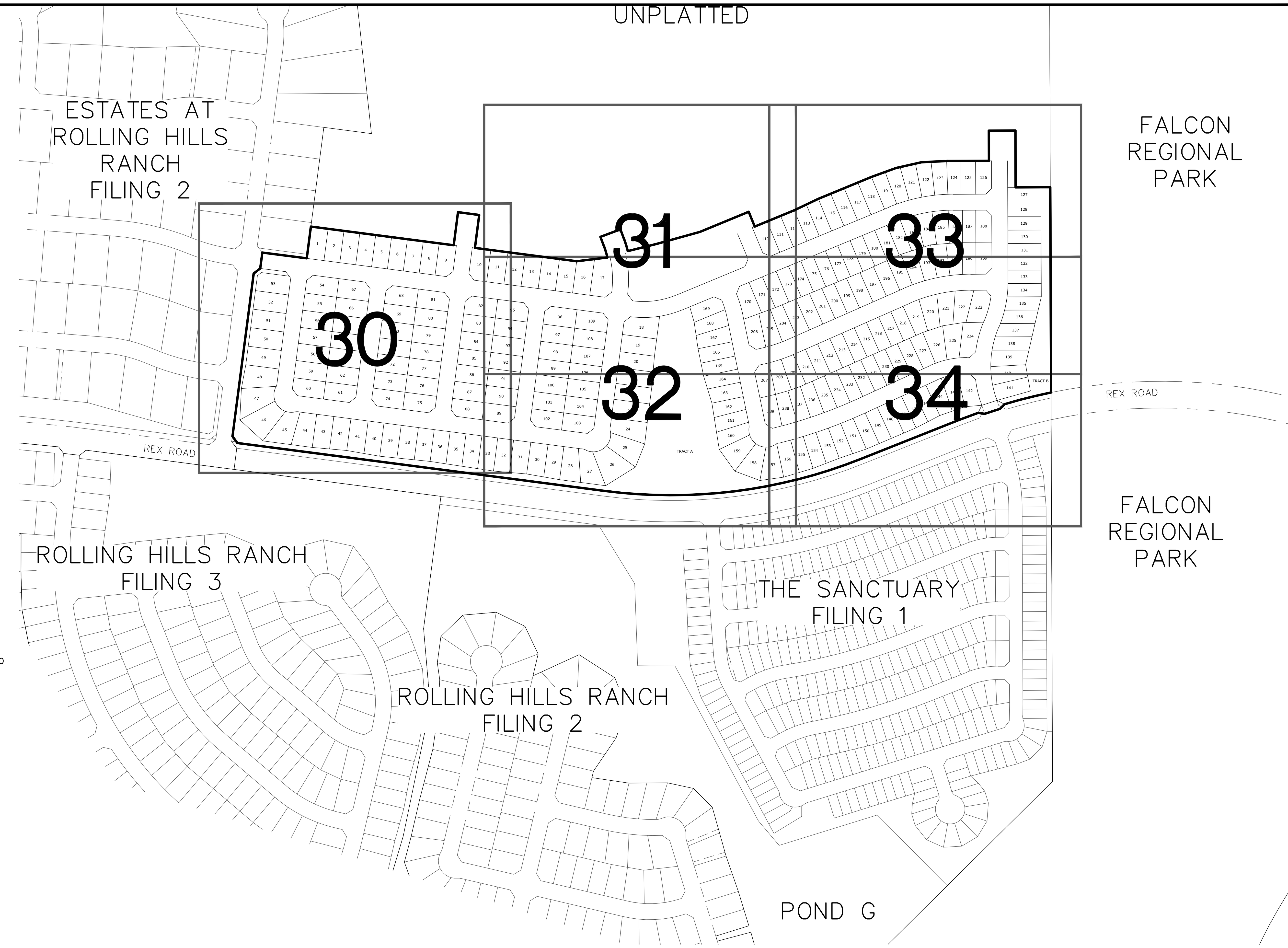
EL PASO COUNTY STANDARD NOTES:

1. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF SITE WATERS, INCLUDING WETLANDS.
2. 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 TO REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
5. CONTROL MEASURES MUST BE INSTALLED PRIOR COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, 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 WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
12. ANY TEMPORARY OR PERMANENT FACILITY 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.
13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
17. WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
20. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
28. THE SOILS REPORTS FOR THIS SITE ARE ROLLING HILLS RANCH NORTH FILING 1 & 2 DATED APRIL 20, 2022 AND ROLLING HILLS RANCH DATED JULY, 15, 2019 BOTH HAVE BEEN PREPARED BY ENTECH ENGINEERING, INC. AND SHALL BE CONSIDERED A PART OF THESE PLANS.
29. AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL 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





Stage	Description	Control Measures	Begin Date	End Date
Stage 1	Overlot Grading	Silt fence & VTC Temporary Sed. Basins Swale Checks as needed Surface Roughening	June 2022	August 2022
Stage 2	Underground utilities Surface Improvements	Perimeter Control Inlet Protection	June 2024	August 2025
Stage 3	Home Construction	Inlet Protection Individual Lot Perimeter Control	August 2025	November 2026
Final Stabilization	Permit Close	Final Stabilization Permanent Seeding Permanent Measures	November 2026	

EARTHWORK QUANTITIES

NET YARDS BALANCE

TOTAL STRIPPINGS 0.11 AC. 60 CY

	CUT	FILL
NET YARDS	2,590 CY	8,182 CY

20% COMPACTION FACTOR

NOTE: FILL WILL BE GENERATED FROM UTILITY INSTALLATION.

NOTE:
1) EXISTING VEGETATION ON THE PROJECT SITE AND THE IN SURROUNDING AREAS CONSISTS OF A MIXTURE OF NATIVE GRASSES AND WEEDS WITH COVERAGE APPROXIMATING 70% DENSITY UNLESS OTHERWISE NOTED. SOME AREAS HAVE NEGLIGIBLE VEGETATIVE GROWTH AT THIS TIME AS THE SITE WAS PREVIOUSLY GRADED AND RE-SEEDED OR USED AS A BUILDERS' STOCKPILE LOCATION. AREAS PREVIOUSLY GRADED HAS BEEN RE-SEEDED WITH THE APPROVED COUNTY SEED MIX.
2) MATERIAL STORAGE, TOPSOIL STOCKPILES(EDFCD: MM-2), STAGING(UDFCD: SM-6), CONCRETE WASHOUT AND WASTE AREAS SHALL BE IDENTIFIED BY THE CONTRACTOR PRIOR TO START OF CONSTRUCTION AND ADJUSTED AS NECESSARY.
3) THERE IS NO CONCRETE BATCH PLANT ASSOCIATED WITH THIS PROJECT.
4) NO SLOPES GREATER THAN 3:1 ARE EXPECTED ON THIS SITE. SLOPES GREATER THAN 3:1 REQUIRE EROSION CONTROL BLANKET.
5) MIRIFI FABRIC TO BE PLACED BELOW ALL RIP-RAP.

TWO WORKING DAYS
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TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
GRADING+EROSION CONTROL PLAN

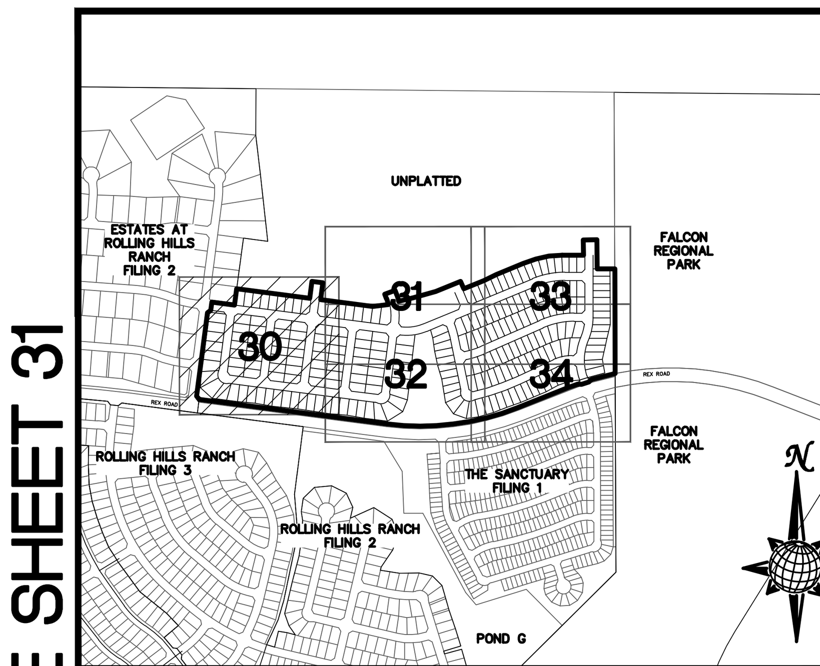
GRADING INDEX SHEET

Drawn by LCG
Checked by TAK
Date JULY 2024

Scale AS SHOWN

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

PCD PROJECT NO. SF2411



INDEX MAP

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LEGEND

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		FLOW DIRECTION
2.00%		GRADE
A		LOT GRADE TYPE
75		LOT NUMBER

NOTE:
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GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

1 inch = 50 ft.

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MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
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GRADING+EROSION CONTROL PLAN

PLAN SHEET

Drawn by LCG
Checked by TAK
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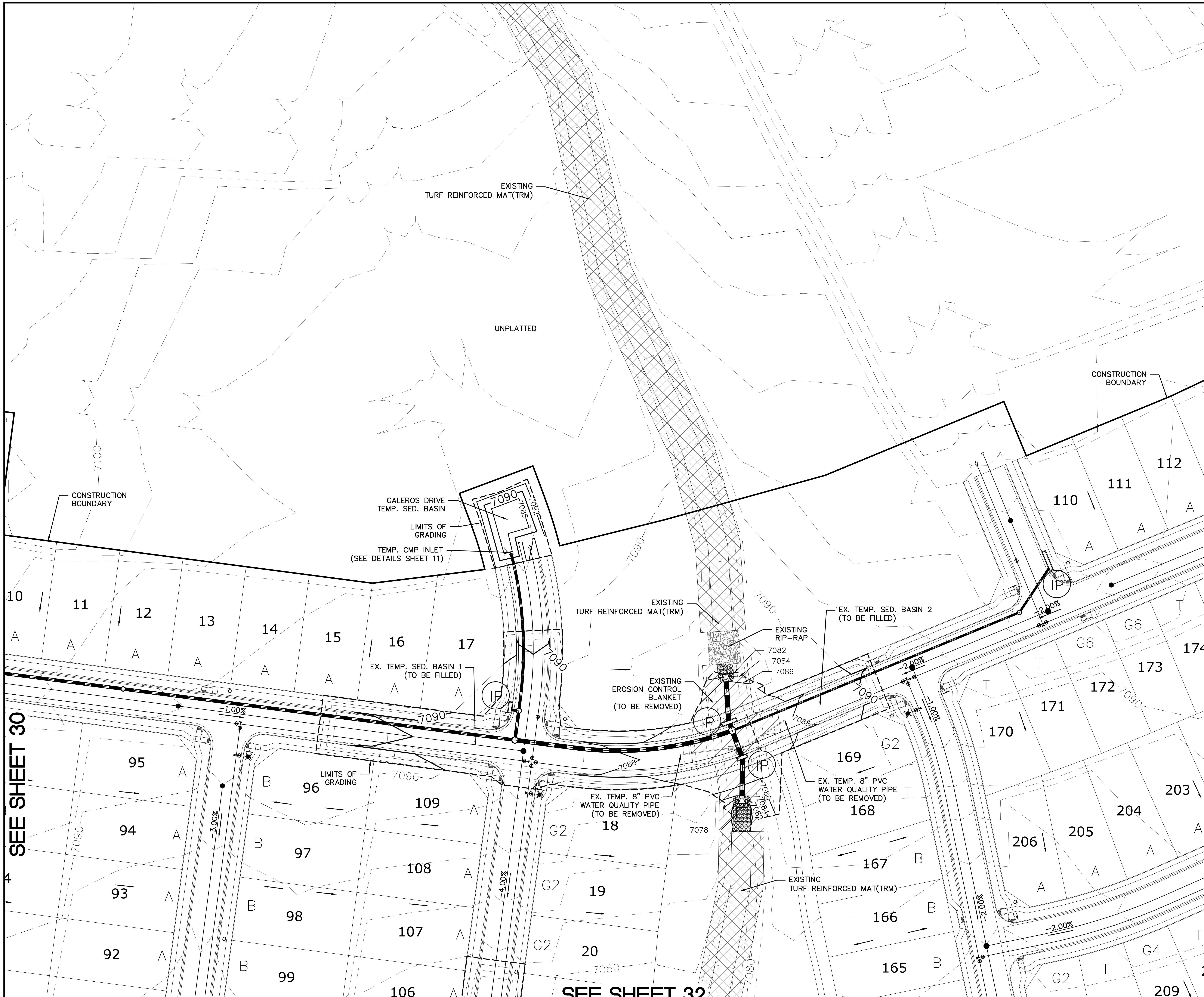

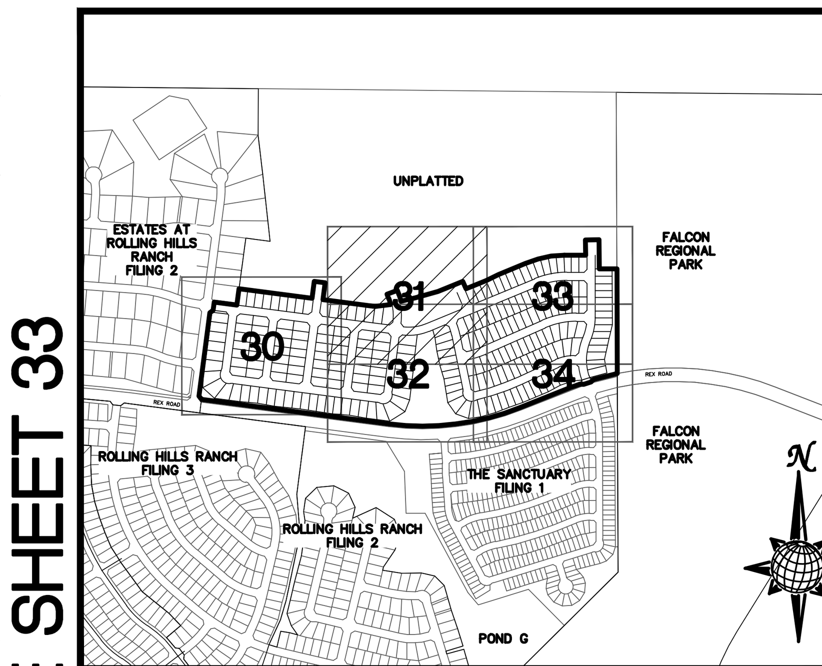

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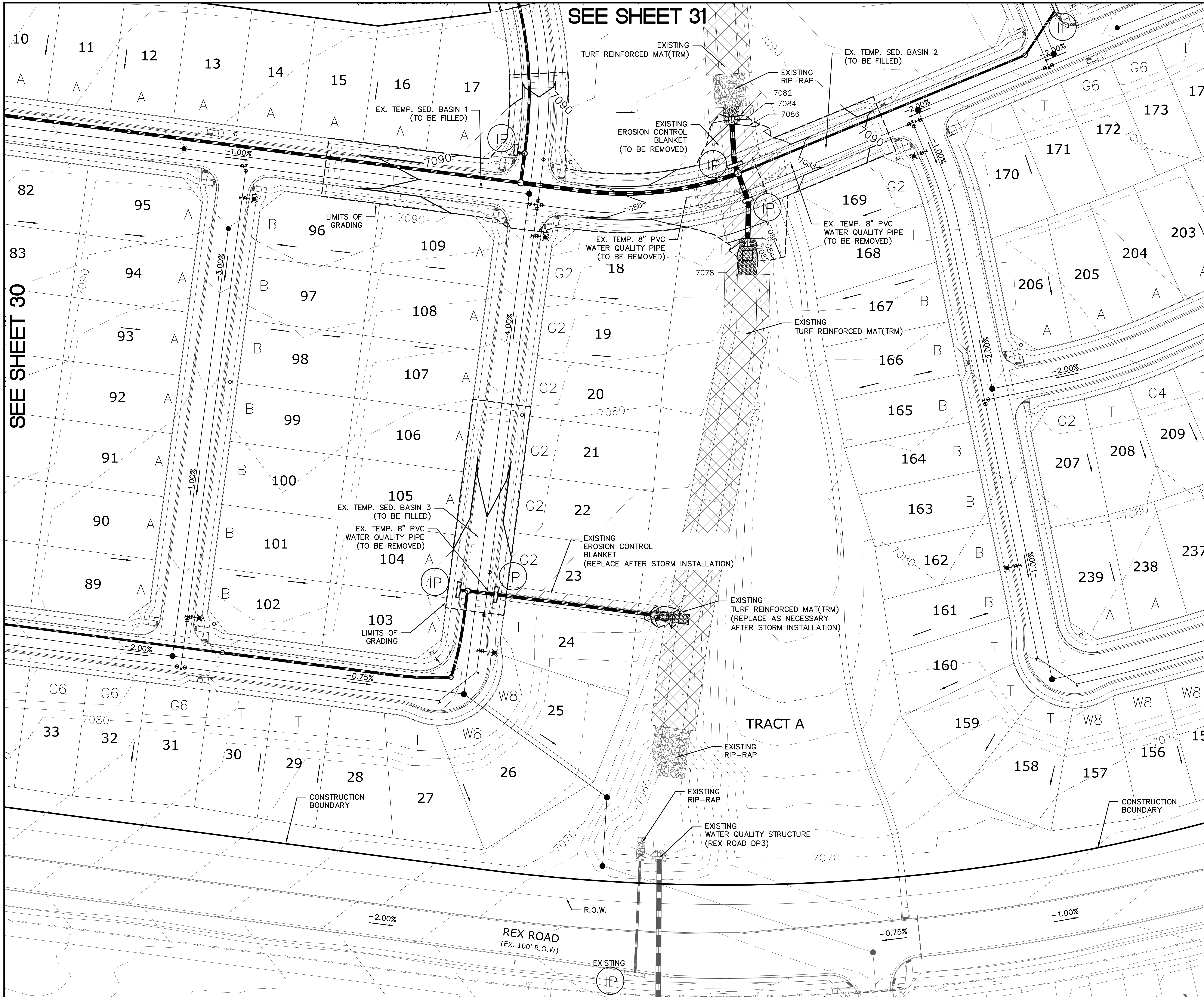

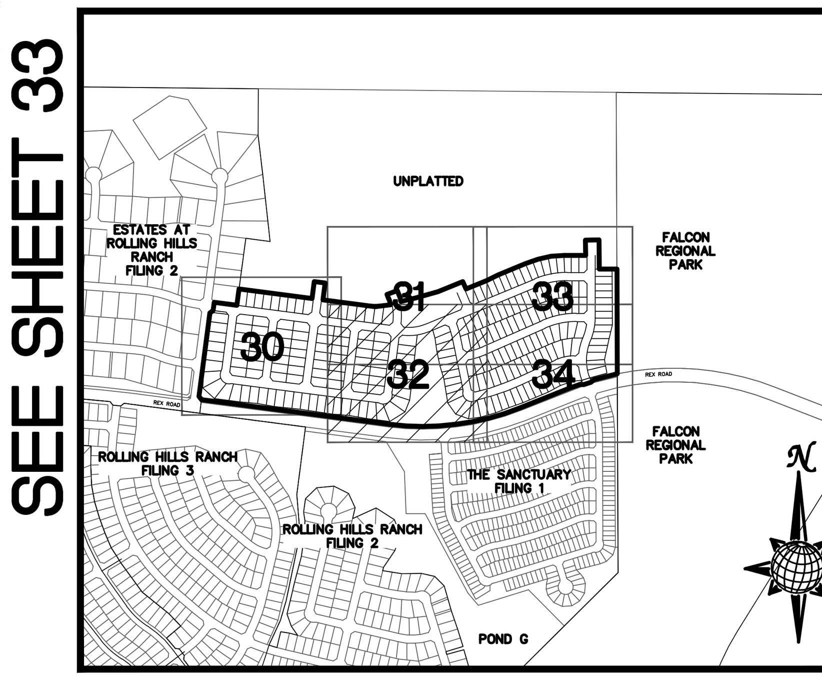

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PLAN SHEET

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN

COLORADO LICENSED PROFESSIONAL ENGINEER 31429 THOMAS A. KERBY 7-15-24

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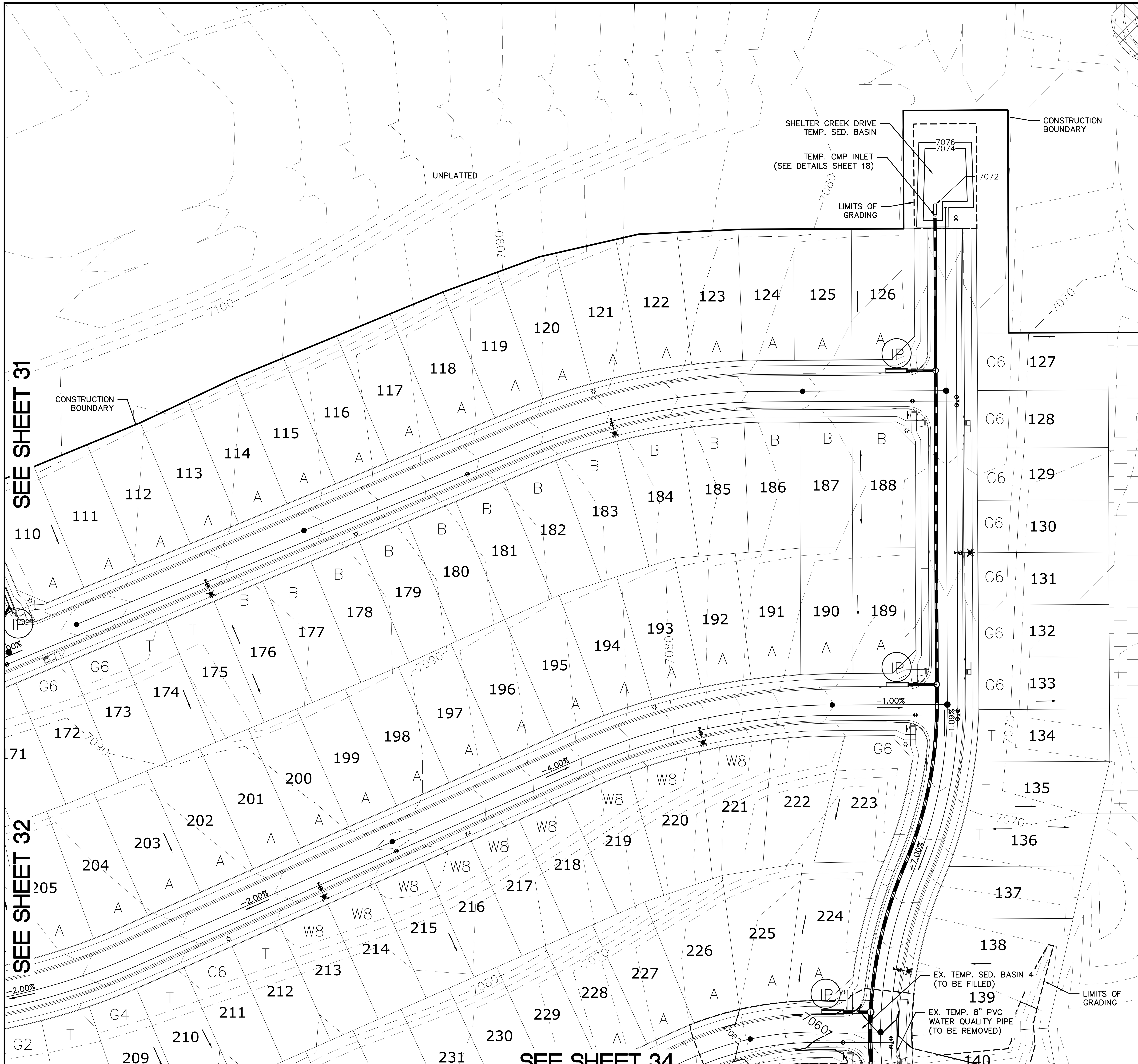

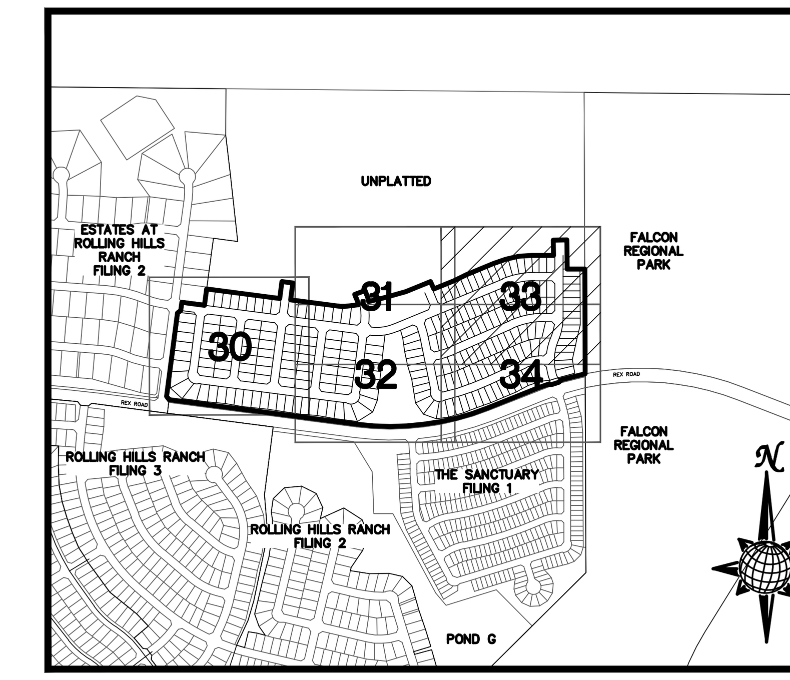

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(IN FEET)
1 inch = 50 ft.

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TECH CONTRACTORS
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TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1 AT MERIDIAN RANCH
GRADING+EROSION CONTROL PLAN

PLAN SHEET

Drawn by LCG
Checked by TAK
Date JULY 2024

Scale AS SHOWN

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COLORADO LICENSED PROFESSIONAL ENGINEER 31429

PCD PROJECT NO. SF2411

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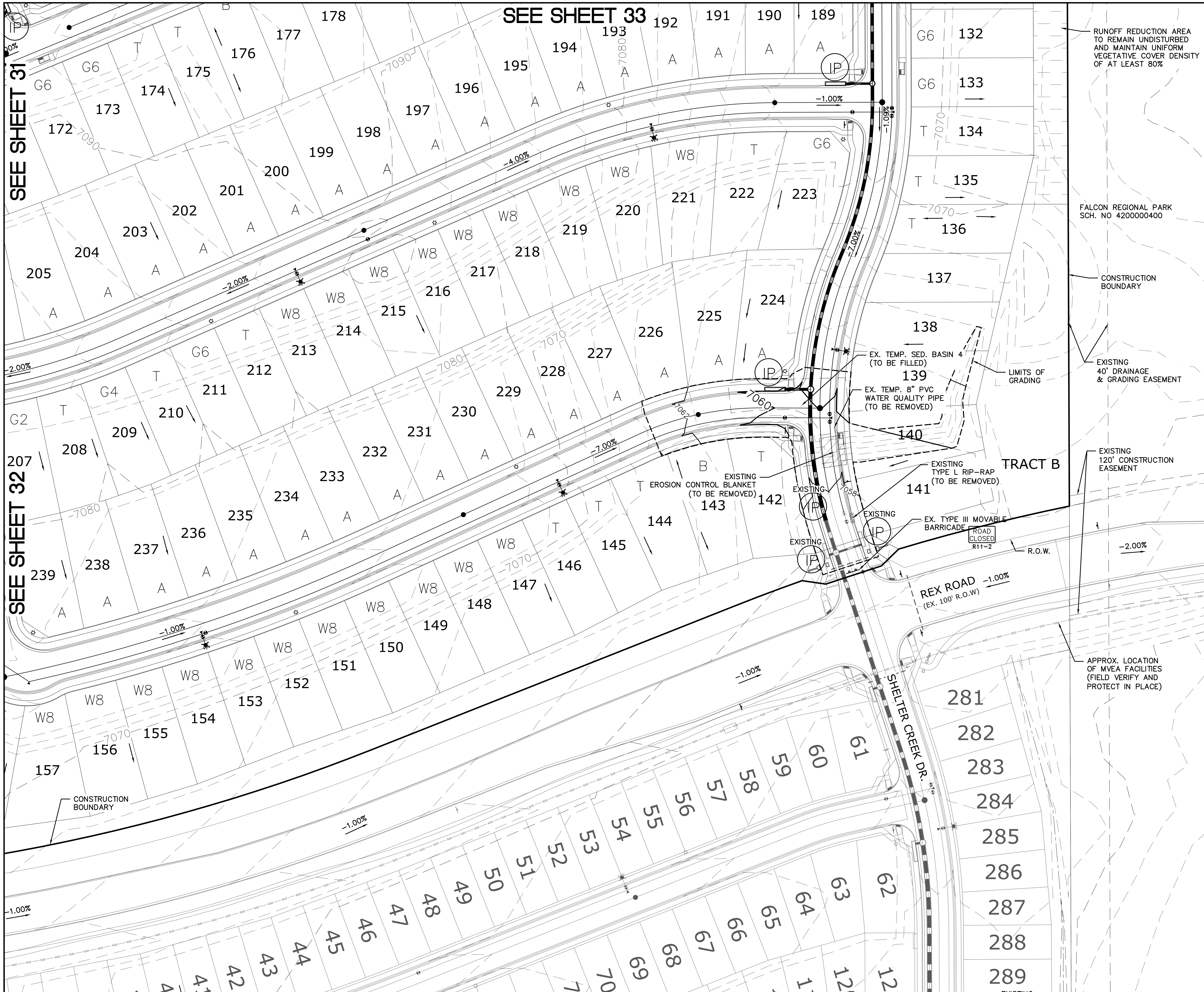

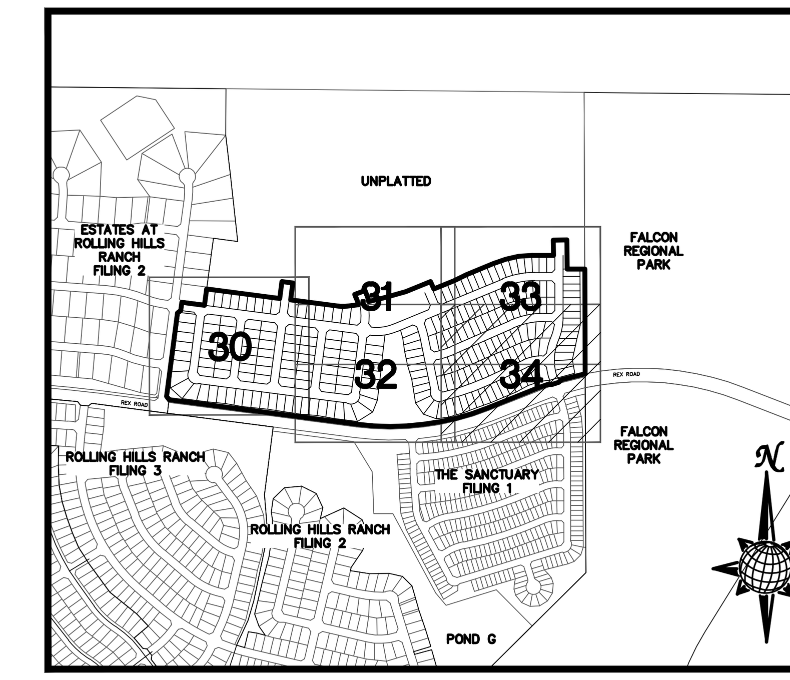

INDEX MAP
N.T.S.

LEGEND

SYMBOL	ACRONYM	DESCRIPTION
		STRAW BALES PER DETAIL SHEET 37
		EX. EROSION WATTLES(UNLESS OTHERWISE NOTED) PER DETAIL SHEET 37
OR		EX. EROSION CONTROL BLANKET (UNLESS OTHERWISE NOTED) PER DETAIL ECB-1 & ECB-2 DCM VOL. 2
	RCP	REINFORCED CONCRETE PIPE
	SF	SILT FENCE PER DETAIL SF-1, SF-2 & SF-3 DCM VOL. 2
	VTC	VEHICLE TRACKING CONTROL PER DETAIL VT-2 DCM VOL. 2
IP	IP	INLET PROTECTION PER DETAIL SHEET 37
		LIMITS OF GRADING/DISTURBANCE
7150		EXISTING CONTOUR (10')
		EXISTING CONTOUR (2')
7150		PROPOSED CONTOUR (10')
		PROPOSED CONTOUR (2')
		CONSTRUCTION BOUNDARY
		FLOW DIRECTION
2.00%		GRADE
A		LOT GRADE TYPE
75		LOT NUMBER

NOTE:
ALL CONTOURS SHOWN WITHIN THE PLAN SET ARE TO FINISHED SURFACE. ALL STREET SECTIONS ARE TO BE GRADED TO ROUGH SUB-GRADE AS SHOWN IN THEIR RESPECTIVE TYPICAL STREET SECTION SHOWN ON SHEET 36.

CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:
1) ESTATES AT ROLLING HILLS RANCH FILING 2
2) ROLLING HILLS RANCH FILING 3 AT MERIDIAN RANCH
3) ROLLING HILLS RANCH FILING 2 AT MERIDIAN RANCH
4) ROLLING HILLS RANCH FILING 1 AT MERIDIAN RANCH
5) ROUGH GRADING FOR ROLLING HILLS RANCH
6) PREDEVELOPMENT GRADING FOR ROLLING HILLS RANCH NORTH AT MERIDIAN RANCH
7) THE SANCTUARY FILING 1 AT MERIDIAN RANCH

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

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MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
GRADING+EROSION CONTROL PLAN

PLAN SHEET

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COLORADO LICENSED PROFESSIONAL ENGINEER 31429

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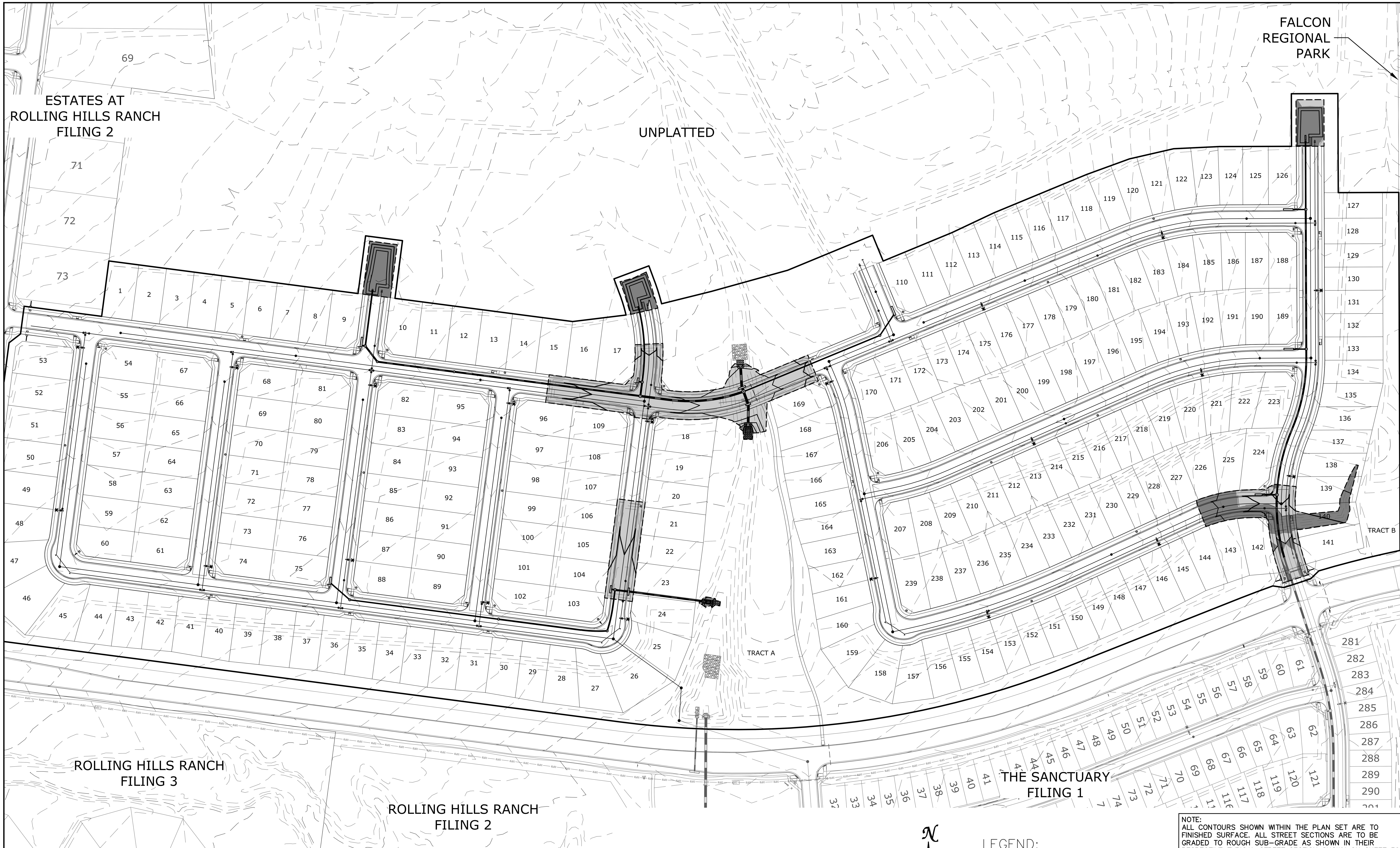

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft.

N

LEGEND:

AREAS OF CUT

AREAS OF FILL

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MERIDIAN RANCH

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AT MERIDIAN RANCH
GRADING+EROSION CONTROL PLAN

CUT-FILL SHEET

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COLORADO LICENSED PROFESSIONAL ENGINEER THOMAS A. KERBY 31429

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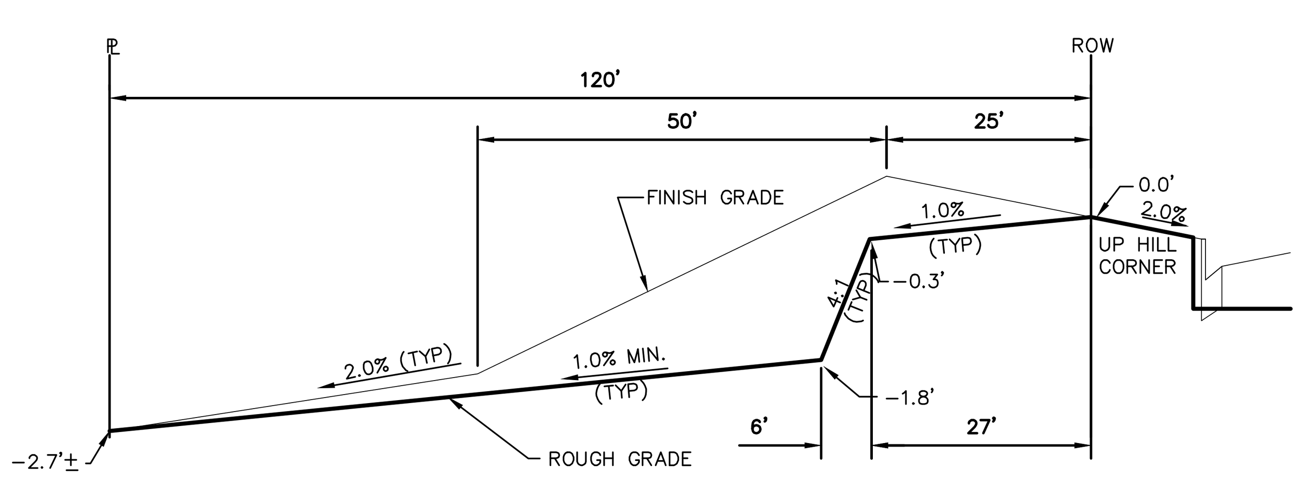
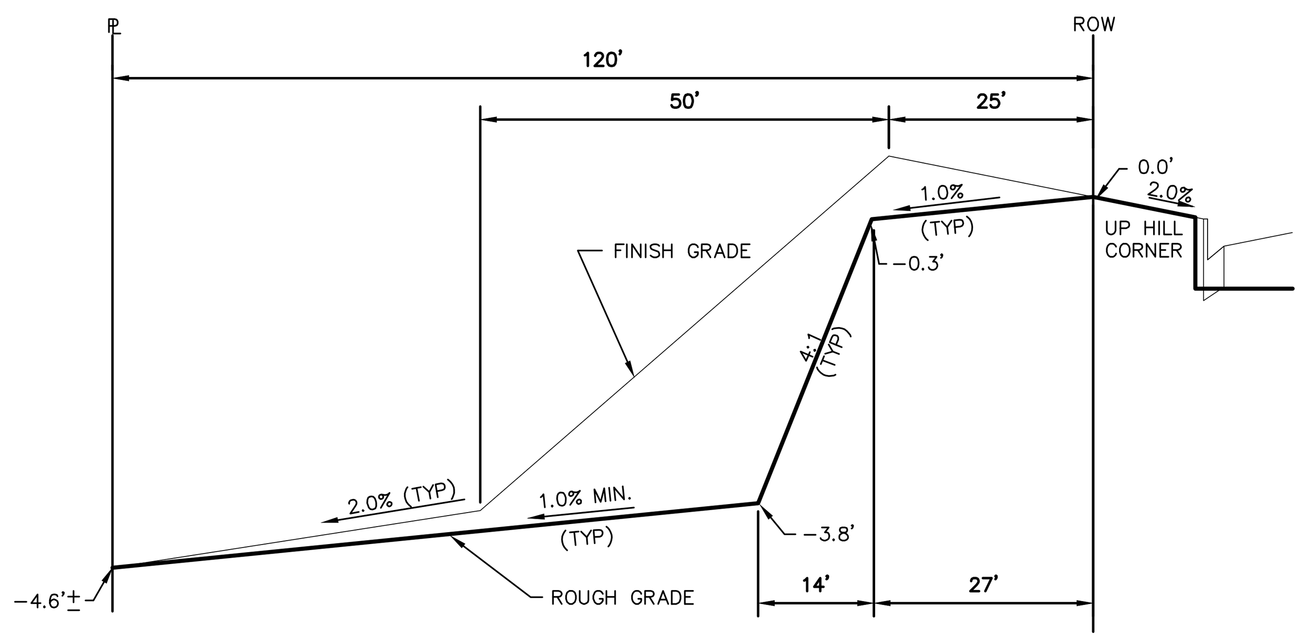
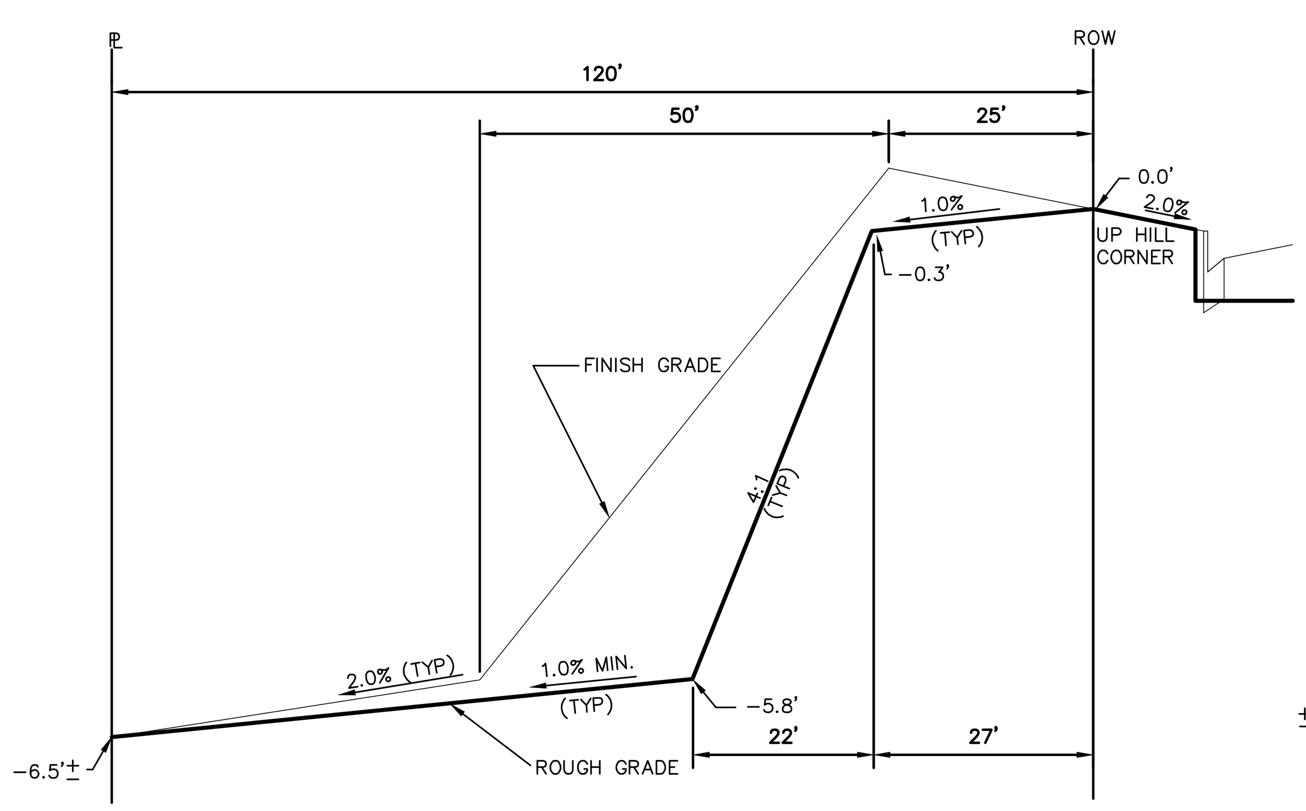


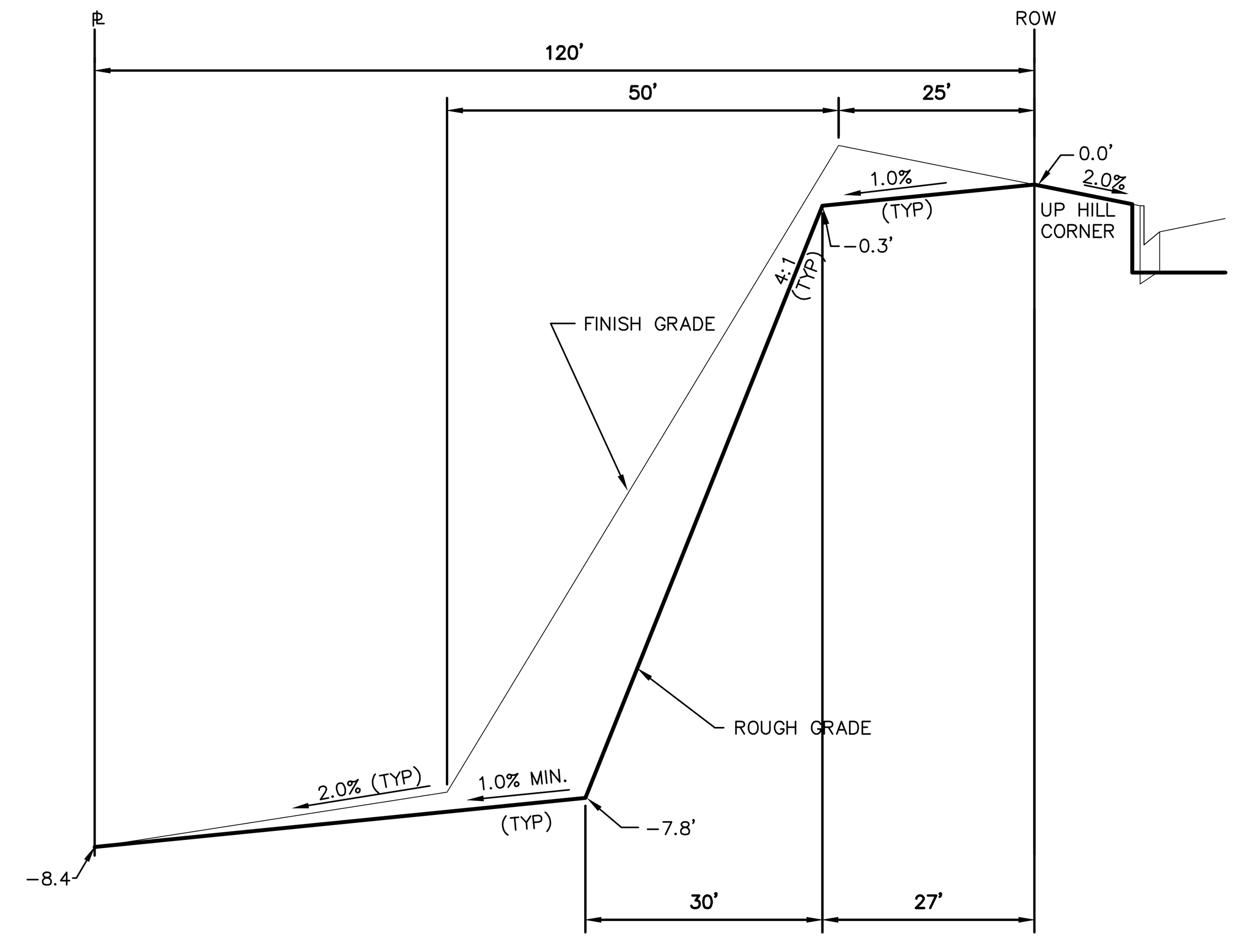
TYPICAL LOT "G2" TEMPLATES
NTS



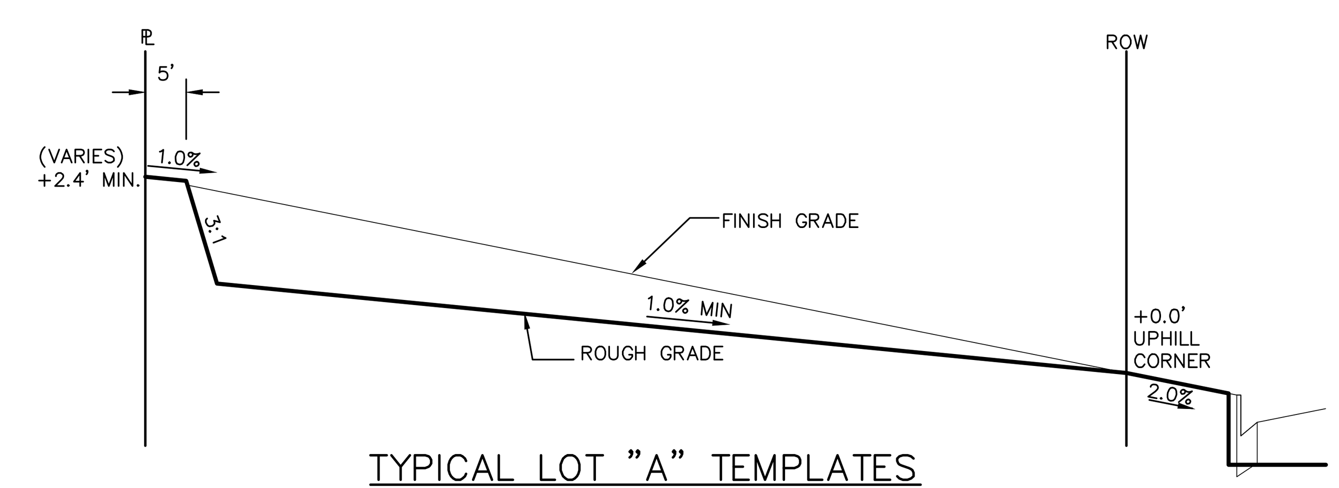
TYPICAL LOT "G4" TEMPLATES
NTS



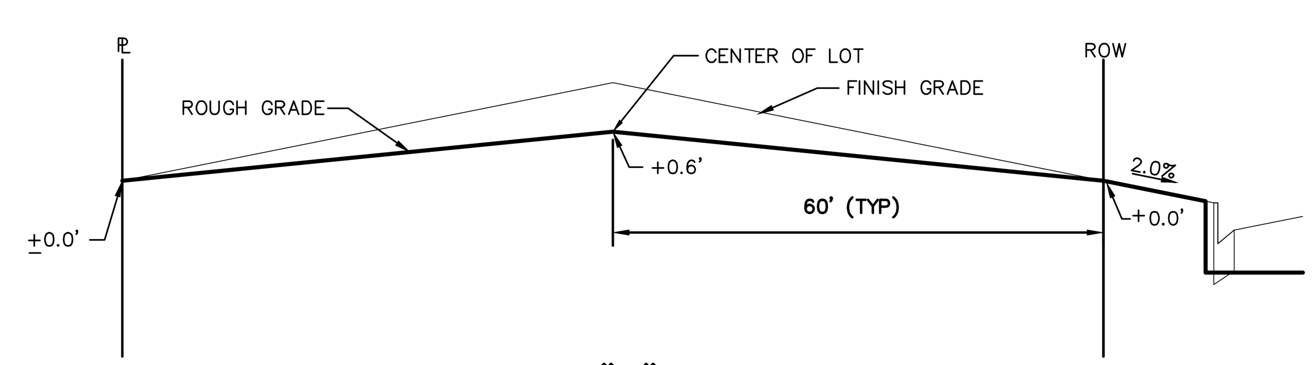
TYPICAL LOT "G6" TEMPLATES
NTS



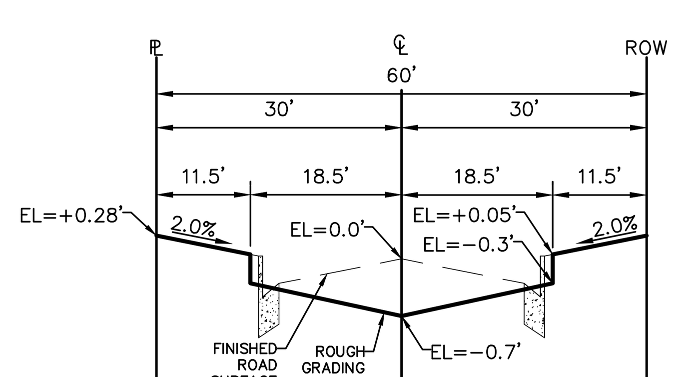
TYPICAL LOT "W8" TEMPLATES
NTS



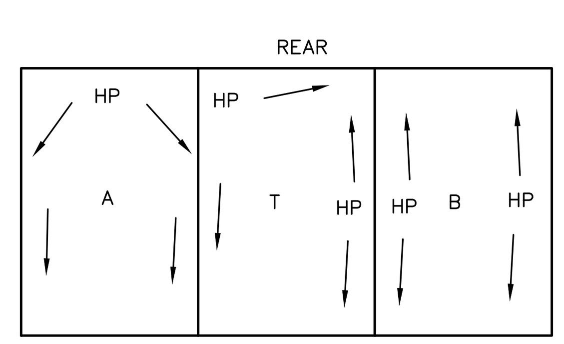
TYPICAL LOT "A" TEMPLATES
NTS



TYPICAL LOT "B" TEMPLATES
NTS



TYPICAL RESIDENTIAL STREET SECTION
60' ROW
NTS



TYPICAL DRAINAGE PATTERN
NTS

NOTE: "T" IS A TRANSITION BETWEEN LOT TEMPLATES

STEPS FOR CONSTRUCTION

THE ANTICIPATED START FOR THIS PROJECT IS OCTOBER 2024 WITH AN ANTICIPATED COMPLETION DATE OF AUGUST 2025. BELOW IS A BRIEF OUTLINE OF THE CONSTRUCTION SEQUENCE FOR THIS PROJECT.

* INSTALL INITIAL BMP'S
* SANITARY SEWER
* WATER
* STORM SEWER AND CULVERTS
* ELECTRIC
* GAS
* PHONE & CABLE TV
* FINISHED ROAD GRADING AND PAVING

EROSION AND SEDIMENT CONTROLS

SILT FENCES AND STRAW BALE CHECK DAMS (OR APPROVED EQUAL) WILL BE INSTALLED PRIOR TO ANY EXCAVATION FOR THE MAJOR ROADS. STRAW BALE CHECK DAMS, FILTREX OR APPROVED EQUAL WILL BE PLACED AT ALL ENTRANCES AND EXITS OF DRAINAGE WAYS. STRAW BALES, FILTREXX OR APPROVED EQUAL WILL BE INSTALLED AROUND THE OUTLET AND OVERFLOW STRUCTURE. THE OUTLET STRUCTURE WILL ALSO BE PROTECTED WITH RIPRAP ON THE DOWNSTREAM SIDE.

NON-STRUCTURE PRACTICES TO CONTROL EROSION AND SEDIMENTATION WILL INCLUDE RESEEDING OF GROUND COVER IN DISTURBED AREAS ACCORDING TO THE EROSION CONTROL PLAN. TEMPORARY SEEDING OF THE DETENTION POND AND MULCHING ALONG STEEP EMBANKMENTS WILL BE PERFORMED AS REQUIRED.

SILT FENCE IS REQUIRED TO BE IN PLACE PRIOR TO ANY MOVEMENT OF DIRT.

MATERIAL HANDLING AND SPILL PREVENTION

THE MOST PROBABLE SOURCE OF NON-STORMWATER POLLUTION IS REFUELING AND DAILY MAINTENANCE OPERATIONS. IF MOBILE FUEL TRUCKS ARE USED TO SERVICE EQUIPMENT, ABSORBENT MATERIALS AND CONTAINERS FOR THE STORAGE OF USED ABSORBENT MATERIAL WILL BE CLOSE BY. IF A FUEL TANK IS LEFT ON SITE, BERMS WILL BE BUILT AROUND THE TANK TO CAPTURE ANY SPILLED FUEL. AGAIN, ABSORBENT MATERIALS AND THEIR CONTAINERS WILL BE ON HAND.

THERE ARE NO DEDICATED ASPHALT OR CONCRETE BATCH PLANTS PLANNED ON SITE.

FINAL STABILIZATION AND LONG TERM STORMWATER MANAGEMENT

ONCE THE MAJOR ROADS ARE PAVED AND THE SURROUNDING DISTURBED AREAS ARE 70% ESTABLISHED WITH VEGETATION AND ACCEPTANCE BY THE MERIDIAN RANCH SERVICE DISTRICT, THE CHECK DAMS AND THE SILT FENCES AROUND THE STREETS CAN BE REMOVED. AFTER COMPLETION OF THE STORM SEWER SYSTEM, THE STRAW BALES AND/OR FILTREX CAN BE REMOVED. AFTER ALL GROUND DISTURBING CONSTRUCTION HAS BEEN COMPLETED AND ALL SLOPES ARE 70% ESTABLISHED WITH VEGETATION AND ACCEPTANCE BY THE MERIDIAN RANCH SERVICE DISTRICT, REMAINING CHECK DAMS AND SILT FENCES CAN BE REMOVED. THE RIPRAP ON ANY OF THE OUTLETS WILL REMAIN AFTER CONSTRUCTION TO REDUCE EROSION OF THE CHANNELS. ALL PERMANENT SWALES WILL BE LINED WITH LANDSCAPING TO SLOW RUNOFF AND FILTER SEDIMENTS.

OTHER CONTROLS

THERE ARE SEVERAL BEST MANAGEMENT PRACTICES THAT CAN BE EMPLOYED TO PREVENT OR MITIGATE THE SOURCE OF POLLUTANTS AND CONTAMINATION OF STORMWATER RUNOFF. SOME OF THESE ARE:
* ALL REFUSE DUMPSTERS AND RECEPTACLES SHALL BE EQUIPPED WITH FUNCTIONAL LIDS TO PREVENT RAIN AND SNOW FROM
ENTERING.
* STORAGE CONTAINERS, DRUMS AND BAGS SHALL BE STORED AWAY FROM DIRECT TRAFFIC ROUTES TO PREVENT ACCIDENTAL SPILLS.
* EMPTY DRUMS SHALL BE COVERED TO PREVENT COLLECTION OF PRECIPITATION.
* CONTAINERS SHALL BE STORED ON PALLETS OR OTHER DUNNAGE TO PREVENT CORROSION OF CONTAINERS, WHICH CAN
RESULT WHEN CONTAINERS COME IN CONTACT WITH MOISTURE ON THE GROUND.
* REGULARLY SCHEDULED REMOVAL OF CONSTRUCTION TRASH AND DEBRIS.

THE CONTRACTOR IS CERTAINLY NOT LIMITED TO THESE GOOD HOUSEKEEPING MEASURES, AND MAY IMPLEMENT FURTHER CONTROLS AS PRUDENCE AND GOOD JUDGEMENT DEEM NECESSARY.

INSPECTION AND MAINTENANCE

A THOROUGH INSPECTION OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE PERFORMED EVERY 14 DAYS AS WELL AS AFTER ANY RAIN OR SNOWMELT EVENT THAT CAUSES SURFACE EROSION:
* EROSION OF V-NOTCH SWALES, CHANNELS AND SIDE SLOPES SHALL BE REPAIRED.
* WHEN THE CHECK DAMS HAVE SILTED UP TO HALF THEIR HEIGHT, THE SILT SHALL BE REMOVED, CHANNEL GRADE REESTABLISHED, AND SIDE SLOPES RE-SEEDED IF NECESSARY. ANY CHECK DAMS THAT HAVE SHIFTED OR DECAYED SHALL BE REPAIRED OR REPLACED.
* SILT FENCES SHALL BE CLEANED WHENEVER SEDIMENT HAS REACHED A DEPTH OF 6" AT THE FENCE, AND BROKEN WOODEN PARTS OR TORN FABRIC SHALL BE REPAIRED OR REPLACED.
* ANY ACCUMULATED TRASH OR DEBRIS SHALL BE REMOVED FROM OUTLETS.
* IF THE DEPTH OF THE SILT IN THE TEMPORARY SEDIMENTATION TRAP EXCEEDS 1/2 OF THE ORIGINAL DEPTH, THE TRAP SHALL BE CLEANED OUT AND RESTORED TO ITS ORIGINAL DEPTH. THE OVERFLOW SPILLWAY SHALL BE CLEANED OR REPAIRED AS NECESSARY.

AN INSPECTION AND MAINTENANCE LOG FOLLOWS THIS STORMWATER MANAGEMENT PLAN.

REVEGETATION AND SEEDING

ALL DISTURBED AREAS SHALL BE REQUIRE SEEDING WITHIN TWO (2) WEEKS FOLLOWING THE ESTABLISHMENT OF FINAL GRADE. AREAS TO RECEIVE PAVEMENT DURING THE CONSTRUCTION OF THE ROAD SYSTEM SHALL NOT RECEIVE ANY SEEDING. SEEDING SHOULD BE ACCOMPLISHED USING AN APPROPRIATE GRASS DRILL, BY BROADCASTING OR BY HYDROMULCHING. IF SEEDING BY THE BROADCAST METHOD IS SELECTED THE APPLICATION RATE SHOULD BE DOUBLED. IF HYDROMULCHING IS SELECTED TWO OPERATIONS SHOULD BE CONSIDERED, APPLYING THE SEED FIRST AND THE MULCH IN A SECOND OPERATION. UPON COMPLETION OF THE SEEDING OPERATION THE SITE SHOULD BE COVERED WITH WEED FREE MULCH AT A RATE OF 4,000 LBS. PER ACRE. MULCH SHALL BE INSTALLED PER DCM VOLUME 2, FIGURE MU-1, FOUND ON PAGE 3-30.

BELOW IS THE ACCEPTED GRASS MIX FOR SANDY SOILS:

GRASS	VARIETY	AMOUNT IN PLS LBS. PER ACRE
SIDEOATS GRAMA	EL RENO	3.0
WESTERN WHEATGRASS	BARTON	2.5
SLENDER WHEATGRASS	NATIVE	2.0
LITTLE BLUESTERN	PASTURA	2.0
SAND DROPSEED	NATIVE	0.5
SWITCH GRASS	NEBRASKA	3.0
WEEPING LOVE GRASS	MORPHA	1.0

NOTE:

"FINISH GRADE" IN THE TEMPLATES ARE ONLY APPROXIMATE GRADES. ACTUAL FINISHED GRADES WILL VARY DEPENDING ON INDIVIDUAL HOME PLOT PLANS. PLOT PLANS SHALL CLOSELY FOLLOW THE FINISH GRADE PATTERNS SHOWN IN THE TEMPLATES WITHOUT ADVERSELY AFFECTING THE GRADES AND DRAINAGE PATTERNS OF NEIGHBORING LOTS OR TRACTS. CONTOURS SHOWN ON THESE PLANS ARE ROUGH GRADES AND WILL CHANGE WITH EVERY HOME CONSTRUCTION. FIELD VERIFY ALL GRADES PRIOR DESIGN OF INDIVIDUAL HOME PLOT PLANS.

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MERIDIAN RANCH

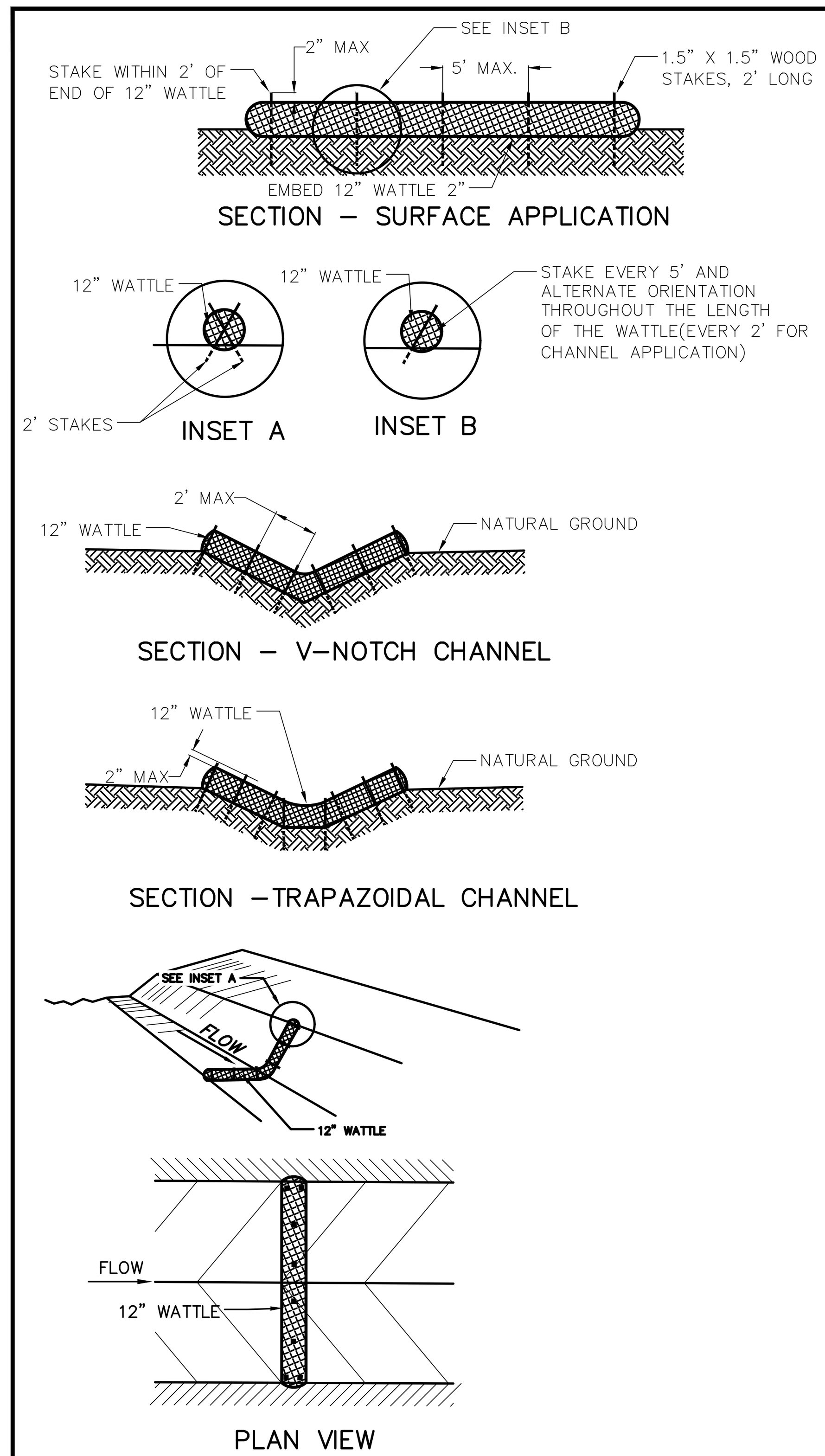
ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
GRADING+EROSION CONTROL PLAN

GRADING DETAIL SHEET

Drawn by LCG
Checked by TAK
Date JULY 2024
Scale AS SHOWN

COLORADO LICENSED PROFESSIONAL ENGINEER 31429

PCD PROJECT NO. SF2411



NOTES:

USE 2 FT WOODEN STATES WITH A 1.5 IN BY 1.5 IN NOMINAL CROSS SECTION.

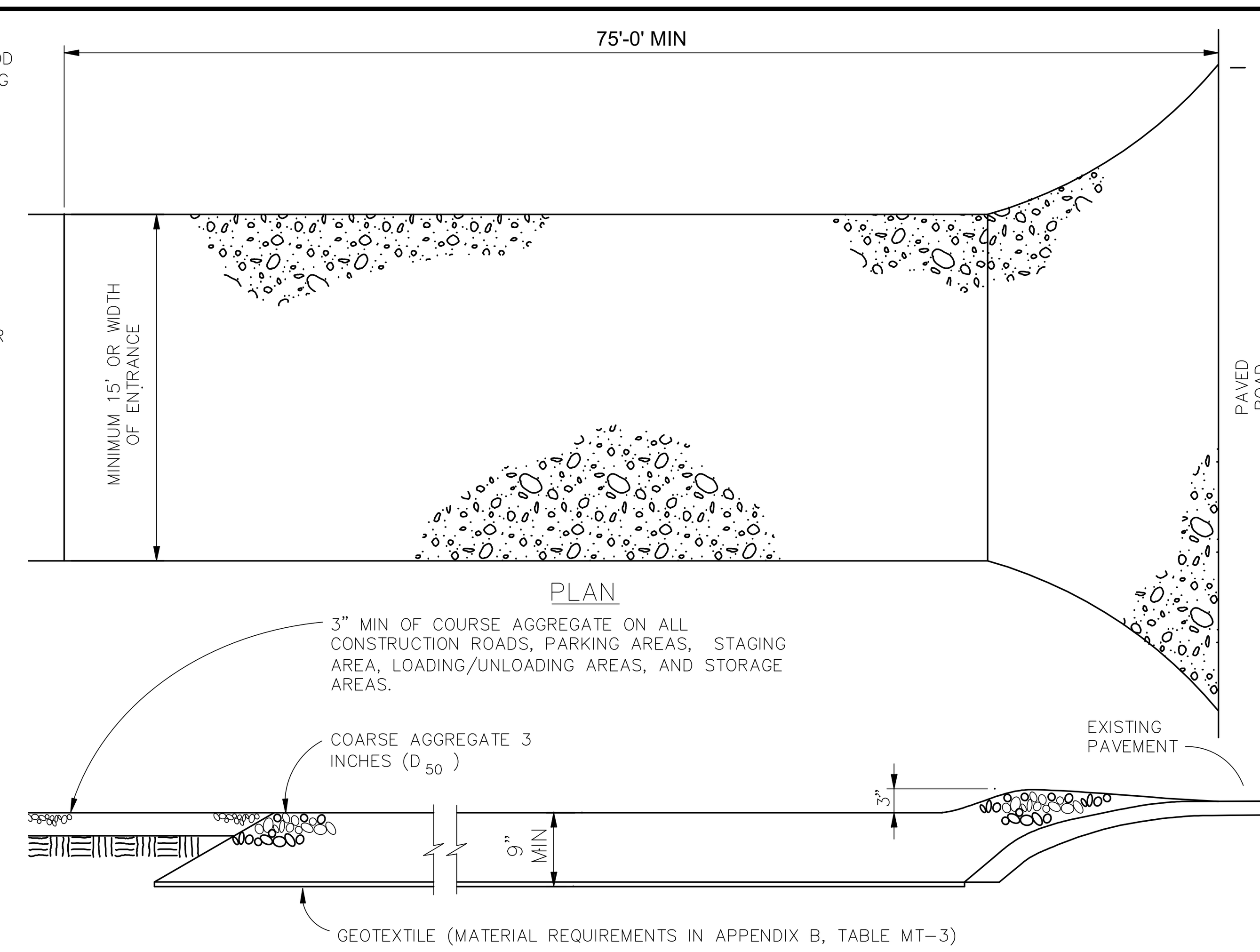
ONLY INSTALL 12" WATTLES TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES OR AS DIRECTED.

REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE HALF OF THE EXPOSED LOG HEIGHT. INSPECTIONS SHELL BE PERFORMED FREQUENTLY FOR PROPER FUNCTION.

WHEN MORE THAN ONE EROSION LOG IS NEEDED, ENDS MUST BE TIGHTLY ABUTTED.

WATTLES MAY ALSO BE USED ACROSS LONG SLOPES TO REDUCE EROSION AND SEDIMENT VOLUME.

STRAW WATTLES MAY BE USED IN LIEU OF STRAW BALES AND/OR SILT FENCE WITH APPROVAL THE COUNTY, OWNER, ENGINEER, AND SWMP ADMINISTRATOR.



SECTION

VEHICLE TRACKING

NTS

VEHICLE TRACKING NOTES

INSTALLATION REQUIREMENTS

1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.

2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.

3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.

4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.

5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

MAINTENANCE REQUIREMENTS

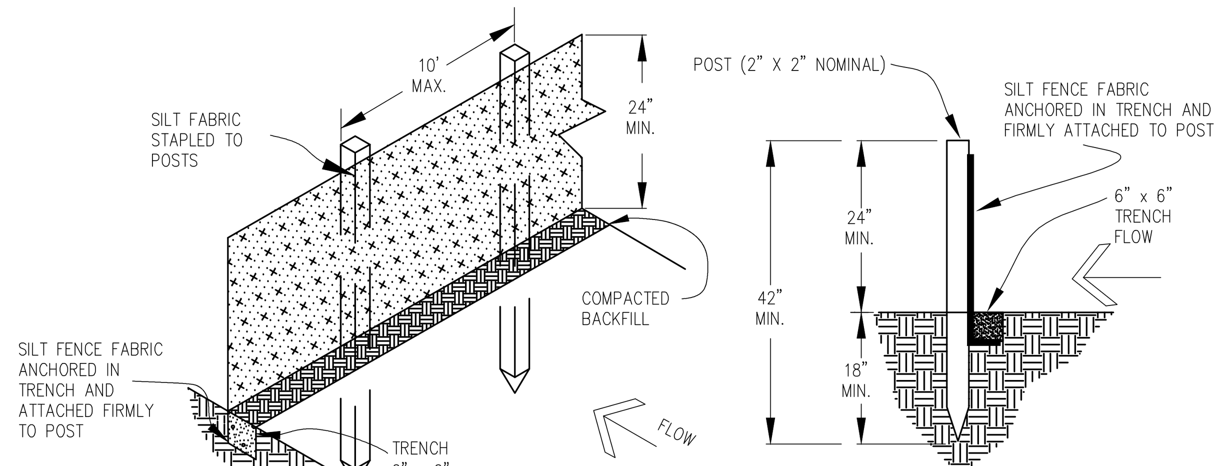
1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.

2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.

3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.

4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.

5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.



SILT FENCE

NTS

SILT FENCE NOTES

INSTALLATION REQUIREMENTS

1. SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

2. WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POST AND SECURELY SEALED.

3. METAL POSTS SHALL BE "STUDDED TEE" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.

4. THE FILTER MATERIAL SHALL BE FASTENED SECURELY TO METAL OR WOOD POSTS USING WIRE TIES, OR TO WOOD POSTS WITH 3/4" LONG #9 HEAVY-DUTY STAPLES. THE SILT FENCE GEOTEXTILE SHALL NOT BE STAPLED TO EXISTING TREES.

5. WHILE NOT REQUIRED, WIRE MESH FENCE MAY BE USED TO SUPPORT THE GEOTEXTILE. WIRE FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 3/4" LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 6" AND SHALL NOT EXTEND MORE THAN 3' ABOVE THE ORIGINAL GROUND SURFACE.

6. ALONG THE TOE OF FILLS, INSTALL THE SILT FENCE ALONG A LEVEL CONTOUR AND PROVIDE AN AREA BEHIND THE FENCE FOR RUNOFF TO POND AND SEDIMENT TO SETTLE. A MINIMUM DISTANCE OF 5 FEET FROM THE TOE OF THE FILL IS RECOMMENDED.

7. THE HEIGHT OF THE SILT FENCE FROM THE GROUND SURFACE SHALL BE MINIMUM OF 24 INCHES AND SHALL NOT EXCEED 36 INCHES; HIGHER FENCES MAY INPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. DAMAGED, COLLAPSED, UNENTRENCHED OR INEFFECTIVE SILT FENCES SHALL BE PROMPTLY REPAIRED OR REPLACED.

2. SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES TO HALF THE EXPOSED GEOTEXTILE HEIGHT.

3. SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.

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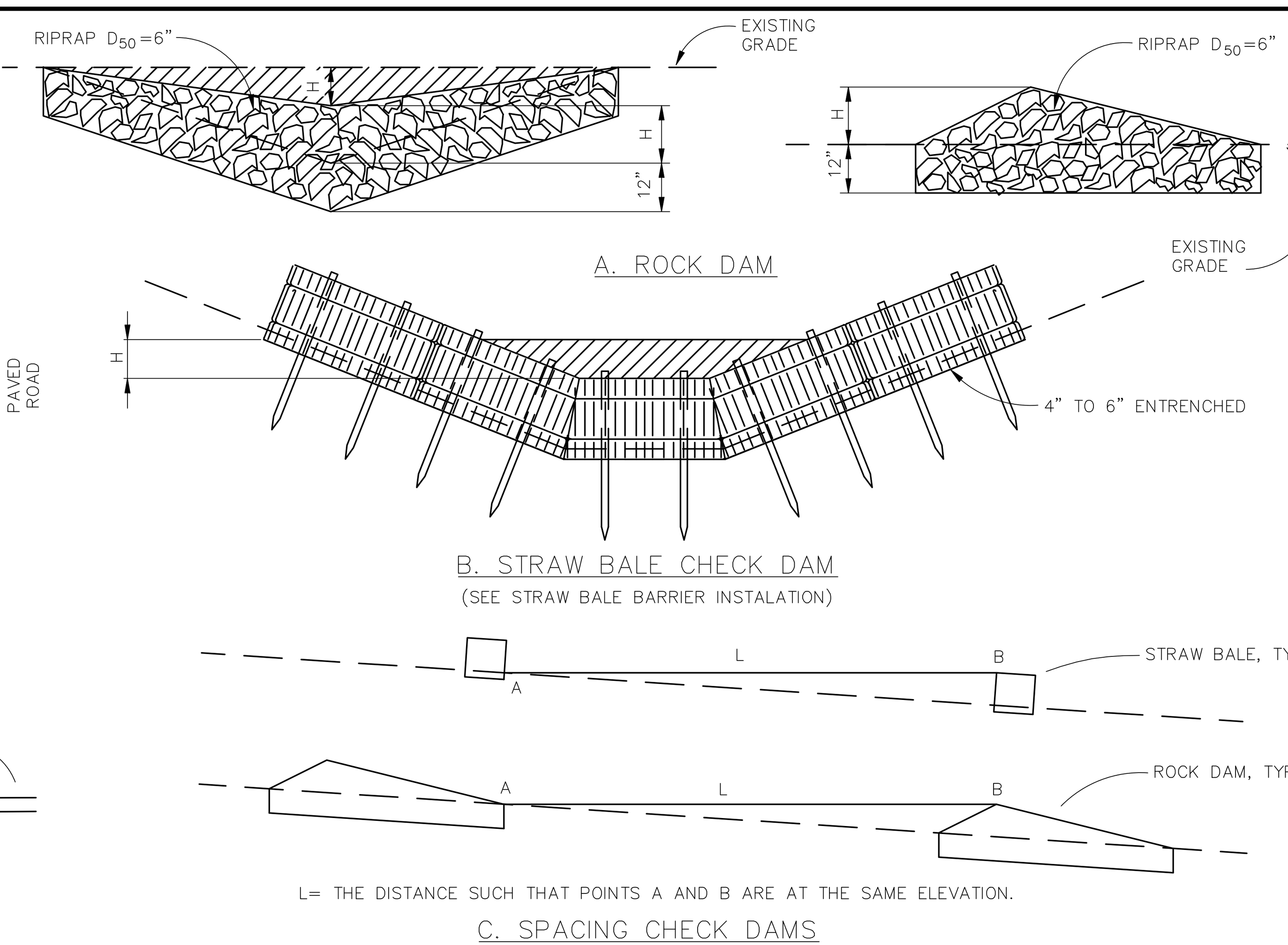


CHECK DAM

NTS

CHECK DAM NOTES

INSTALLATION REQUIREMENTS

1. STRAW BALES USED AS CHECK DAMS ARE TO MEET THE REQUIREMENTS STATED IN FIGURE SBB-2.

2. THE "H" DIMENSION SHALL BE SELECTED TO PROVIDE WEIR FLOW CONVEYANCE FOR 2-YEAR FLOW OR GREATER.

MAINTENANCE REQUIREMENTS

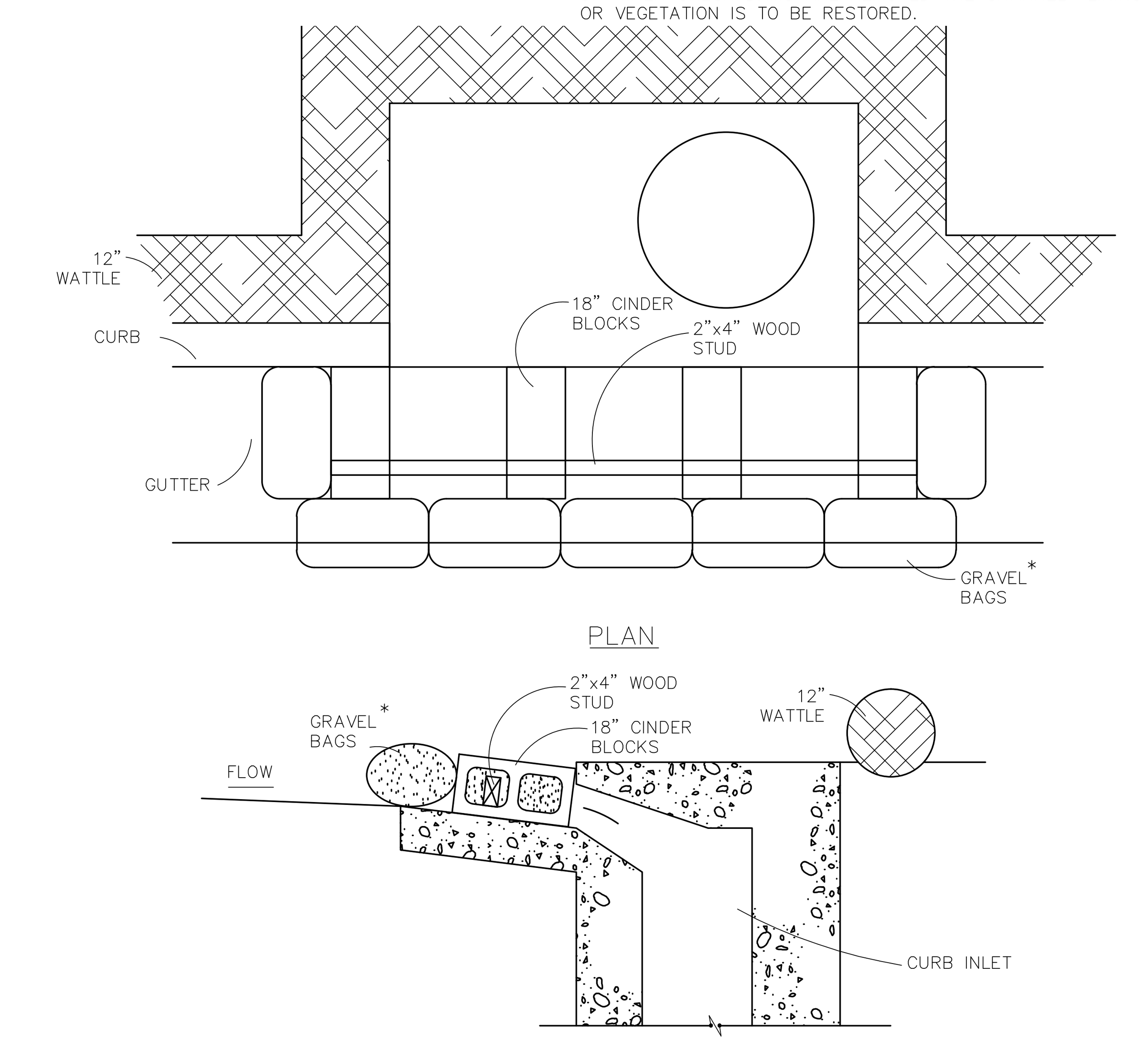
1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL CHECK DAMS, ESPECIALLY AFTER STORM EVENTS.

2. REPLACE STONE AS NECESSARY TO MAINTAIN THE CORRECT HEIGHT OF THE DAM.

3. ACCUMULATED SEDIMENT AND DEBRIS IS TO BE REMOVED FROM BEHIND THE DAMS AFTER EACH STORM OR WHEN 1/2 OF THE ORIGINAL HEIGHT OF THE DAM IS REACHED.

4. CHECK DAMS ARE TO REMAIN IN PLACE AND OPERATIONAL UNTIL THE DRAINAGE AREA AND CHANNEL ARE PERMANENTLY STABILIZED.

5. WHEN CHECK DAMS ARE REMOVED THE CHANNEL LINING OR VEGETATION IS TO BE RESTORED.



MODIFIED BLOCK AND GRAVEL BAG* CURB INLET PROTECTION

NTS

BLOCK AND GRAVEL BAG* CURB INLET PROTECTION NOTES

INSTALLATION REQUIREMENTS

1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.

2. CONCRETE BLOCKS ARE TO BE LAID AT 2' SPACING ON THEIR SIDES WITH THE OPEN ENDS OF THE BLOCK FACING EACH OTHER.

3. IF MORE THAN ONE 2X4 IS REQUIRED, THEY NEED TO OVERLAP BY A MINIMUM OF 2'

4. GRAVEL BAGS ARE TO BE PLACED AROUND THE CONCRETE BLOCKS AND 2X4 TO CLOSELY ABUTTING ONE ANOTHER SO THERE ARE NO GAPS.

5. GRAVEL BAGS ARE TO CONTAIN WASHED SAND OR GRAVEL APPROXIMATELY 3/4 INCH IN DIAMETER.

6. BAGS ARE TO BE MADE OF 1/4" INCH WIRE MESH (USED WITH GRAVEL ONLY) OR GEOTEXTILE.

MAINTENANCE REQUIREMENTS

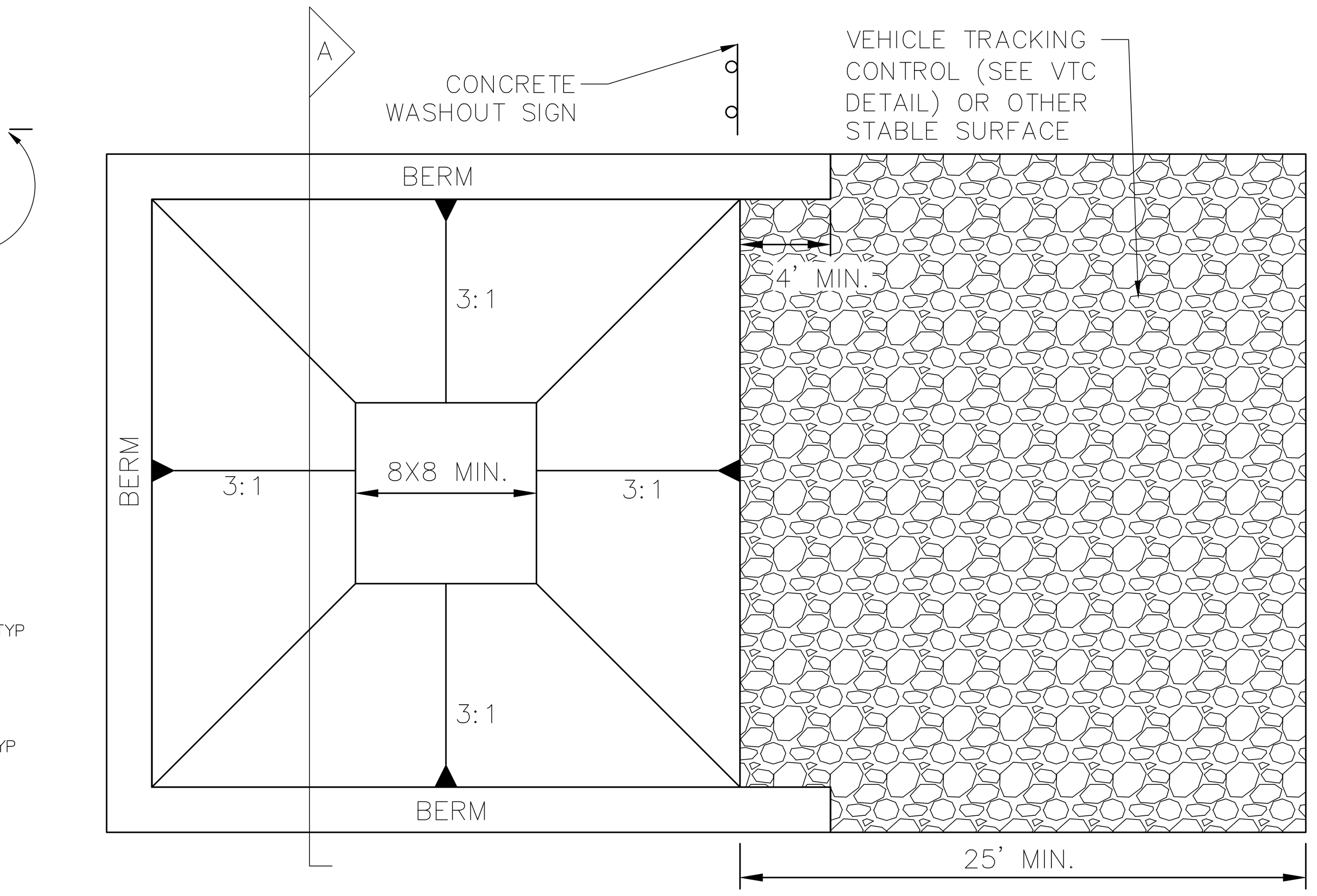
1. CONTRACTOR SHALL INSPECT INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.

2. DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL PROMPTLY BE REPAIRED OR REPLACED.

3. SEDIMENT SHALL BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO APPROXIMATELY 1/2 THE DESIGN DEPTH OF THE TRAP.

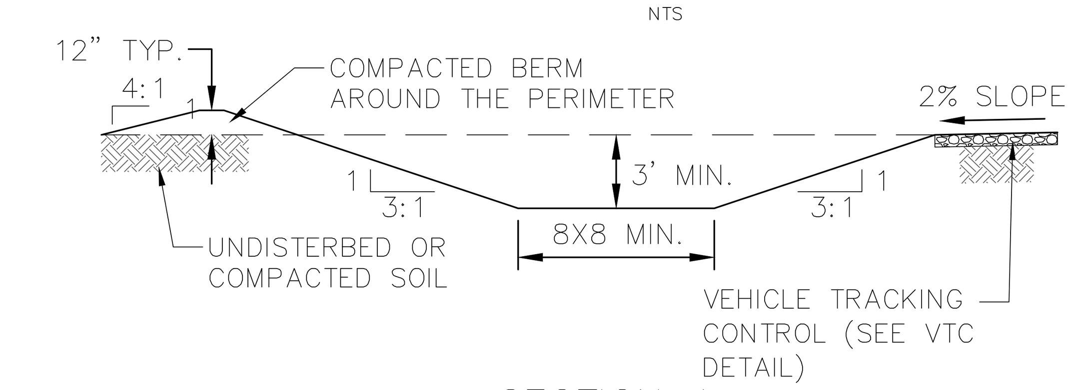
4. INLET PROTECTION SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED WITHIN THE DRAINAGE AREA AS APPROVED BY THE CITY.

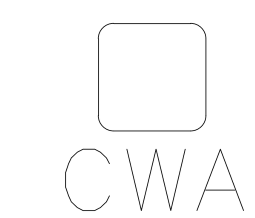
* AN ALTERNATE 3/4" TO 1" GRAVEL FILTER OVER A WIRE SCREEN MAY BE USED IN PLACE OF GRAVEL BAGS. THE WIRE MESH SHALL EXTEND ABOVE THE TOP OF THE CONCRETE BLOCKS AND THE GRAVEL PLACED OVER THE WIRE SCREEN TO THE TOP OF THE CONCRETE BLOCKS.



CONCRETE WASHOUT AREA PLAN

NTS





SECTION A

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CWA INSTALLATION NOTES:

1. SEE PLAN VIEW FOR CWA INSTALLATION LOCATION.
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOACTE WITHIN 1000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASABLE, 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 SHOULD BE USED.
3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' X 8'. SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE A MINIMUM HEIGHT OF 1'.
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
7. 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.
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

CWA 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 ASOON 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. 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'.
5. 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.
6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOPSOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

STRAW BALE BARRIER NOTES

INSTALLATION REQUIREMENTS

1. STRAW BALE BARRIERS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

2. BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF CERTIFIED WEED FREE HAY OR STRAW AND WEIGH NOT LESS THAN 35 POUNDS.

3. BALES ARE TO BE PLACED IN A SINGLE ROW WITH THE END OF THE BALES TIGHTLY ABUTTING ONE ANOTHER.

4. EACH BALE IS TO BE SECURELY ANCHORED WITH AT LEAST TWO STAKES AND THE FIRST STAKE IS TO BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.

5. STAKES ARE TO BE A MINIMUM OF 42 INCHES LONG. METAL STAKES SHALL BE STANDARD "T" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD STAKES SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.

6. BALES ARE TO BE BOUND WITH EITHER WIRE OR STRING AND ORIENTED SUCH THAT THE BINDINGS ARE AROUND THE SIDES AND NOT ALONG THE TOPS AND BOTTOMS OF THE BALE.

7. GAPS BETWEEN BALES ARE TO BE CHINKED (FILLED BY WEDGING) WITH STRAW OR THE SAME MATERIAL OF THE BALE.

8. END BALES ARE TO EXTEND UPSLOPE SO THE TRAPPED RUNOFF CANNOT FLOW AROUND THE ENDS OF THE BARRIER.

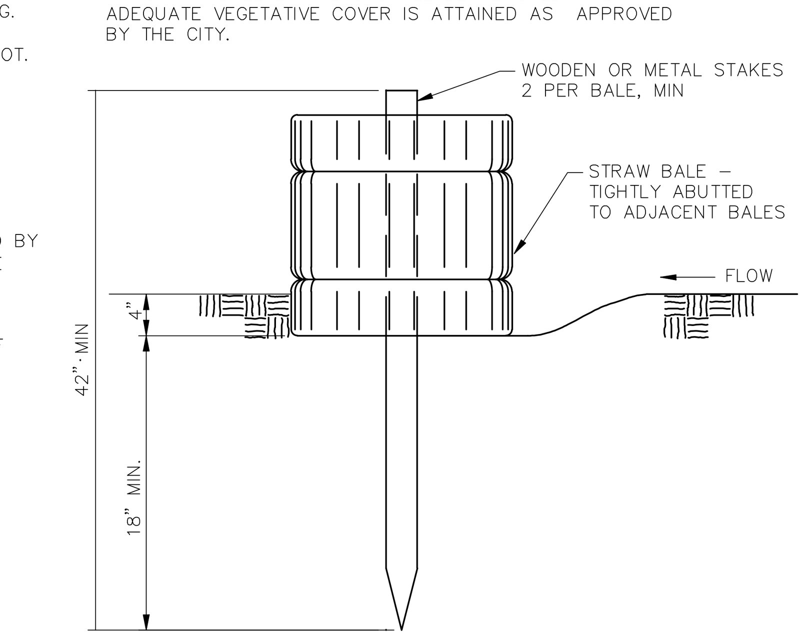
MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT STRAW BALE BARRIERS IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.

2. DAMAGED OR INEFFECTIVE BARRIERS SHALL PROMPTLY BE REPAIRED, REPLACING BALES IF NECESSARY, AND UNENTRENCHED BALES NEED TO BE REPAIRED WITH COMPACTED BACKFILL MATERIAL.

3. SEDIMENT SHALL BE REMOVED FROM BEHIND STRAW BALE BARRIERS WHEN IT ACCUMULATES TO APPROXIMATELY 1/2 THE HEIGHT OF THE BARRIER.

4. STRAW BALE BARRIERS SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.



STRAW BALE BARRIER

NTS

No.	Revisions	Date	Init.	Appr.	Date
1		-	-		
2					
3					
4					

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FALCON, CO 80831
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MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 1
AT MERIDIAN RANCH
GRADING+EROSION CONTROL PLAN

GRADING DETAIL SHEET

Drawn by LCG
Checked by TAK
Date JULY 2024

Scale AS SHOWN

COLORADO LICENSED PROFESSIONAL ENGINEER
THOMAS A. KERBY
31429
7-15-24

PCD PROJECT NO. SF2411