

S:\CivilProj\Windingwalk Filing 2\DWG\PLAN SHEETS\IMPROVEMENT PLANS\01.dwg 9/17/2018 1:49:26 PM

UTILITY CONTACTS:

WATER — MERIDIAN SERVICE METROPOLITAN DISTRICT  
POC: KEVIN FACKERELL  
(719)–495–6567

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

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

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

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

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

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

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 OWNERS OF THE FOLLOWING DESCRIBED TRACT OF LAND:

A PARCEL OF LAND LOCATED IN A PORTION OF SECTION 29, IN TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF LAMBERT ROAD, POINT BEING BOUNDARY OF THE VISTAS FILING NO. 1 AT MERIDIAN RANCH, RECORDED WITH RECEPTION NO. 217713953 IN THE RECORDS OF EL PASO COUNTY;

THE FOLLOWING SEVEN(7) COURSES ARE ON SAID BOUNDARY:

1. THENCE S72°55'12"E A DISTANCE OF 80.00 FEET;
2. THENCE S17°04'48"W A DISTANCE OF 421.16 FEET TO A CURVE TO THE RIGHT;
3. THENCE ON THE ARC OF SAID CURVE, HAVING A RADIUS OF 1540.00 FEET, A DELTA ANGLE OF 32°34'11", AN ARC LENGTH OF 875.41 FEET, WHOSE LONG CHORD BEARS S33°21'53"W A DISTANCE OF 863.67 FEET;
4. THENCE S05°49'18"W A DISTANCE OF 31.52 FEET;
5. THENCE S51°35'04"W A DISTANCE OF 60.00 FEET;
6. THENCE N82°39'10"W A DISTANCE OF 31.52 FEET TO A NON–TANGENT CURVE TO THE RIGHT;
7. THENCE ON THE ARC OF SAID CURVE, HAVING A RADIUS OF 1540.00 FEET, A DELTA ANGLE OF 03°34'52", AN ARC LENGTH OF 96.25 FEET, WHOSE LONG CHORD BEARS S55°18'35"W A DISTANCE OF 96.24 FEET TO A POINT ON THE BOUNDARY OF WINDINGWALK FILING NO. 1 AT MERIDIAN RANCH, RECORDED WITH RECEPTION NO. \_\_\_\_\_ IN THE RECORDS OF EL PASO COUNTY AND A CURVE TO THE RIGHT;

THE FOLLOWING FIFTEEN(15) COURSES ARE ON SAID BOUNDARY LINE:

8. THENCE ON THE ARC OF SAID CURVE, HAVING A RADIUS OF 1540.00 FEET, A DELTA ANGLE OF 22°25'04", AN ARC LENGTH OF 602.55 FEET, WHOSE LONG CHORD BEARS S68°18'33"W A DISTANCE OF 598.71 FEET;
9. THENCE S79°31'05"W A DISTANCE OF 28.00 FEET;
10. THENCE N10°28'55"W A DISTANCE OF 80.00 FEET;
11. THENCE N02°35'36"W A DISTANCE OF 27.08 FEET;
12. THENCE N12°32'41"W A DISTANCE OF 116.37 FEET;
13. THENCE N12°32'41"W A DISTANCE OF 60.00 FEET;
14. THENCE N13°41'16"W A DISTANCE OF 184.00 FEET;
15. THENCE N19°52'23"W A DISTANCE OF 124.00 FEET;
16. THENCE N16°53'48"W A DISTANCE OF 60.00 FEET;
17. THENCE N16°53'48"W A DISTANCE OF 130.00 FEET;
18. THENCE N67°43'26"E A DISTANCE OF 120.00 FEET;
19. THENCE N59°22'06"E A DISTANCE OF 120.00 FEET;
20. THENCE N46°39'10"E A DISTANCE OF 120.00 FEET;
21. THENCE N50°54'07"E A DISTANCE OF 125.10 FEET;
22. THENCE N48°41'56"W A DISTANCE OF 92.55 FEET;
23. THENCE N48°27'37"E A DISTANCE OF 125.15 FEET;
24. THENCE N32°40'27"E A DISTANCE OF 349.31 FEET TO A POINT ON THE SOUTHERN BOUNDARY OF STONEBRIDGE FILING NO. 3 AT MERIDIAN RANCH, RECORDED WITH RECEPTION NO. 217714053 IN THE RECORDS OF EL PASO COUNTY;

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

25. THENCE S55°38'05"E A DISTANCE OF 290.90 FEET;
26. THENCE S28°43'28"E A DISTANCE OF 308.38 FEET;
27. THENCE S64°52'09"E A DISTANCE OF 294.58 FEET TO A NON–TANGENT CURVE TO THE LEFT;
28. THENCE ON THE ARC OF SAID CURVE, HAVING A RADIUS OF 1460.00 FEET, A DELTA ANGLE OF 08°03'03", AN ARC LENGTH OF 205.15 FEET, WHOSE LONG CHORD BEARS N21°06'20"E A DISTANCE OF 204.98 FEET;
29. THENCE N17°04'48"E A DISTANCE OF 421.16 FEET TO THE POINT OF BEGINNING.

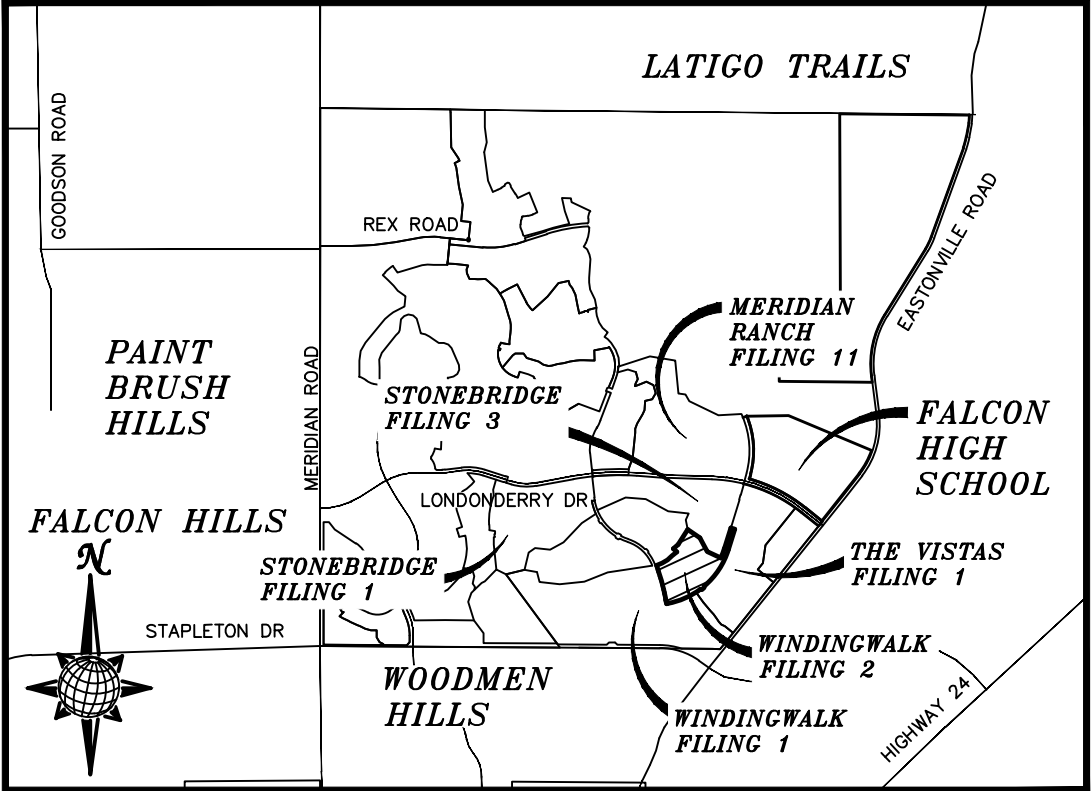
THE ABOVE PARCEL OF LAND CONTAINS 25.092 ACRES, MORE OR LESS.

# CONSTRUCTION DRAWINGS FOR WINDINGWALK FILING NO. 2 AT MERIDIAN RANCH

## IMPROVEMENT PLANS

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

A PARCEL OF LAND LOCATED IN A PORTION OF SECTION 29,  
IN TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH PRINCIPAL MERIDIAN,  
EL PASO COUNTY, STATE OF COLORADO.



## VICINITY MAP N.T.S.

SHEET NO	SHEET INDEX
1	COVER SHEET
2	INDEX SHEET
3–4	DETAIL SHEET
5	WINDINGWALK DR.
6	MORNING CREEK LN.
7	WINDING BEND LN. & SEWER #1
8	PICKET FENCE WAY & SEWER #2
9	QUIETWALK LN. & STORM #1
10	LAMBERT ROAD
11	LAMBERT ROAD
12	STORM #2 & STORM #3
13	6' SIDEWALK PLAN
14	SIGNAGE AND STRIPING
15	OVERALL SANITARY SEWER
16	OVERALL SANITARY SEWER SERVICES
17	OVERALL UNDERDRAIN
18	OVERALL WATER
19	OVERALL WATER SERVICES
20	OVERALL STORM DRAIN
21	GRADING INDEX SHEET
22–24	GRADING LAYOUT
25–26	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



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, 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 ET THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

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

DATE

DEVELOPERS STATEMENT:

DEVELOPERS STATEMENT:

THE UNDERSIGNED DEVELOPER HAS READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED IN THESE CONSTRUCTION PLANS AND THE ACCOMPANYING DRAINAGE REPORT.

RAUL GUZMAN, VICE PRESIDENT  
GTL DEVELOPMENT, INC.

9/20/18  
DATE

OWNERS STATEMENT:

OWNERS STATEMENT:

THE UNDERSIGNED OWNER HAS READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED IN THESE CONSTRUCTION PLANS AND THE ACCOMPANYING DRAINAGE REPORT.

RAUL GUZMAN, VICE PRESIDENT  
MERIDIAN RANCH INVESTMENTS, INC.

9/20/18  
DATE

DISTRICT ENGINEER:

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

9-17-18  
DATE

WATER AND SANITARY SEWER APPROVALS:

MILTON GABRIELSKI, PRESIDENT  
MERIDIAN SERVICE METROPOLITAN DISTRICT

10/3/2018  
DATE

BENCH MARK

1) MRR01 – 3 1/4" ALUMINUM CAP ON NO.6 REBAR LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LONDON DERRY 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 LONDON DERRY 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 – 7098.73'



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)

WINDINGWALK F2 AT MERIDIAN RANCH  
STREET AND UTILITY PLANS  
COVER SHEET

WINDINGWALK F2 AT MERIDIAN RANCH

STREET AND UTILITY PLANS

COVER SHEET

Drawn by LCA

Checked by TAK

Date

Scale AS SHOWN

1 of 26

SEPTEMBER 2018

No.	Revisions	Date	Init.	Appr.	Date

TECH CONTRACTORS  
11886 STAPLETON DRIVE  
FALCON, CO 80831  
TELEPHONE 719.495.7444  
FAX 719.495.2457



### GENERAL NOTES

1. MERIDIAN SERVICE METROPOLITAN DISTRICT (MSMD) CONTACT TELEPHONE NUMBERS:  
ON SITE OFFICE 719-495-6567.
- MANAGEMENT COMPANY, IN CARE OF CRS OF COLORADO, L33 303--381-4965.
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 PROJECT STANDARDS 2010 EDITION AND THE WATER LINED 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 WORKSMANSHIP SHALL BE SUBJECT TO INSPECTION BY MSMD. MSMD RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKSMANSHIP 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 SOLS ENGINEER.
6. ALL UTILITY TRENCH BACKFILL SHALL BE PLACED PER THE APPROVED SOILS REPORT RECOMMENDATIONS AND UNDER THE DIRECTION OF THE SOILS ENGINEER. BACKFILL SHALL BE COMPACTED 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 HYDRANTS, AND ALL SEWER SERVICE, SLOTTED, SLOTTED, GLETS, OUTFALLS, INLET BOXES, MANHOLES, ETC. A QUALITY ASSURANCE PROGRAM SHALL BE DEVELOPED AND THE RESULTS OF THE PROGRAM 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 LOCATION IS 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 AN "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 IRIGATION 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 OFF.
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 UTILITY 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, ELEVATION 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, SUPERVISORY, 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. DURING THE CONSTRUCTION PERIOD, 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 TWENTY (20) MONTHS COMMENCING WITH THE DATE OF ACCEPTANCE. MSMD MAY REQUIRE RETESTING OF THE UTILITY SYSTEM PRIOR TO FINAL ACCEPTANCE.
16. INSPECTION FEES: CALL MSMD FOR FEE SCHEDULE.
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 APPROPRIATE COLOR CODE AND CANNY 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. DUMPING 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-45-1000 AND COVERED WITH APPROVED JOINT PRIMER. THE WHOLE EXTERIOR OF THE MANHOLES SHALL BE COATED WITH CONCRETE WATER PROOFING TAP 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/L 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 MINIMUM OF 48 HOURS 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 COMPED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE ASPHALT IS TO BE PLACED OVER THE LINE, ANY REQUIRED SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO THE USE OF THE FACILITY.
  - c. ALL NECESSARY EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED TO MSMD, AND RECORDED.
25. DOWNSTEAM PLUG CAN BE REMOVED ONE FIRST LIFT OF ASPHALT IS DOWN AND THE ABOVE REQUIREMENTS ARE MET.
26. 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, OCKET HUB & OCKET SHORT 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 THEREOF IS NOT RECOVERED OR INSPECTION OF SEWER MAIN SHALL BE CLEANED AND VIDEO INSPECTED TO ENSURE THAT THE SEWER SERVICE CORES OR PORTION THERE OF IS RECOVERED.
26. SANITARY SEWER MAIN LENGTHS ARE MH CENTER TO MH CENTER. ALL SANITARY SEWER PIPES SHALL BE SDR 35 PIPES OR EQUAL AND HAVE A MINIMUM COVER DEPTH OF 5'-6" INSTALLED WITH A COATED 12 GAUGE U/L TRACER WIRE. USE PRE-MANUFACTURED IN-LINE PUP PUSH-ON WYES FOR SANITARY SEWER LATERAL CONNECTIONS TO THE SANITARY SEWER MAIN. TAPPING SADDLES MAY ONLY BE USED FOR TAPPING SANITARY SEWER LATERALS TO EXISTING SANITARY SEWER MAINS. LOTS SHALL RECEIVE A 4" SANITARY SEWER 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/L TRACER WIRE TO END OF EACH SANITARY SEWER LATERAL. UP TO THE SURFACE. COILED AROUND THE 2" X 4" MARKER. ALL TRACER CONNECTIONS SHALL BE WATER TIGHT STYLE OF APPROVED ELECTRICAL CONNECTORS SUCH AS A DBY (DIRECT BURIAL YELLOW) OR EQUAL.

## WATER NOTES

27. ALL WATER MAIN PIPES SHALL BE AWWA C900 PVC, PRESSURE CLASS 200 OR MSDM APPROVED EQUIV., INSTALLED PER MANUFACTURERS' SPECIFICATIONS. ALL WATER MAIN FITTINGS SHALL HAVE MECHANICAL RESTRAINTS AND THRUST BLOCKS. ALL WATER SERVICE LINES SHALL BE AWWA C900 PVC, PRESSURE CLASS 200 OR MSDM APPROVED EQUIV., INSTALLED PER MANUFACTURERS' SPECIFICATIONS.
28. ALL SLOTS SHALL RECEIVE A MINIMUM 3/4" DIAMETER HDPE OR COPPER WATER SERVICE LINES, INSTALLED PER APPROVED PLANS, CURB AND MSDM SPECIFICATIONS. HDPE WATER SERVICE SHALL BE HOPE SDIRP-7 PEARTO RAYFLO FOR 200 PSI WITH THE MARKING SIGN: C-200-AWWA C900, NSF61 PEADTIO. WATER SERVICES SHALL BE INCREASED IN SIZE TO 1" DIAMETER WHERE THE RESIDENTIAL SERVICE WATER SERVICE IS LESS THAN 1" DIAMETER. ALL WATER SERVICES SHALL BE INSTALLED AT AN ANGLE OF 45 DEGREES TO THE CURB. ALL WATER SERVICES SHALL BE INSTALLED 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. ALL WATER SERVICE CONNECTIONS SHALL BE MADE WITH DBY (DIRECT BUR) YELLOW WATER TIGHT STYLE ELECTRIC CONDUCTORS OR ECT.

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.

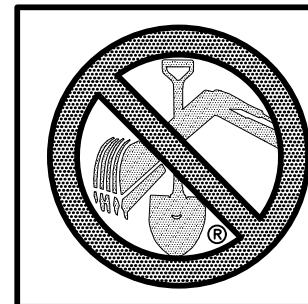
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]

14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.

15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

GENERAL NOTES:

1. THE CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ALL APPLICABLE CODES, LICENSES, STANDARDS, PERMITS, BONDS, ETC. WHICH ARE NECESSARY TO FORM 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. THE 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 THE 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. ALL ROADS IN THIS FILING EXCEPT LAMBERT ROAD ARE CLASSIFIED AS RESIDENTIAL URBAN LOCAL AND HAVE A DESIGN AND POSTED SPEED OF 25 MPH. LAMBERT ROAD IS CLASSIFIED AS A NON-RESIDENTIAL COLLECTOR, HAVE A DESIGN SPEED OF 40 MPH AND A POSTED SPEED OF 35 MPH.



**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)

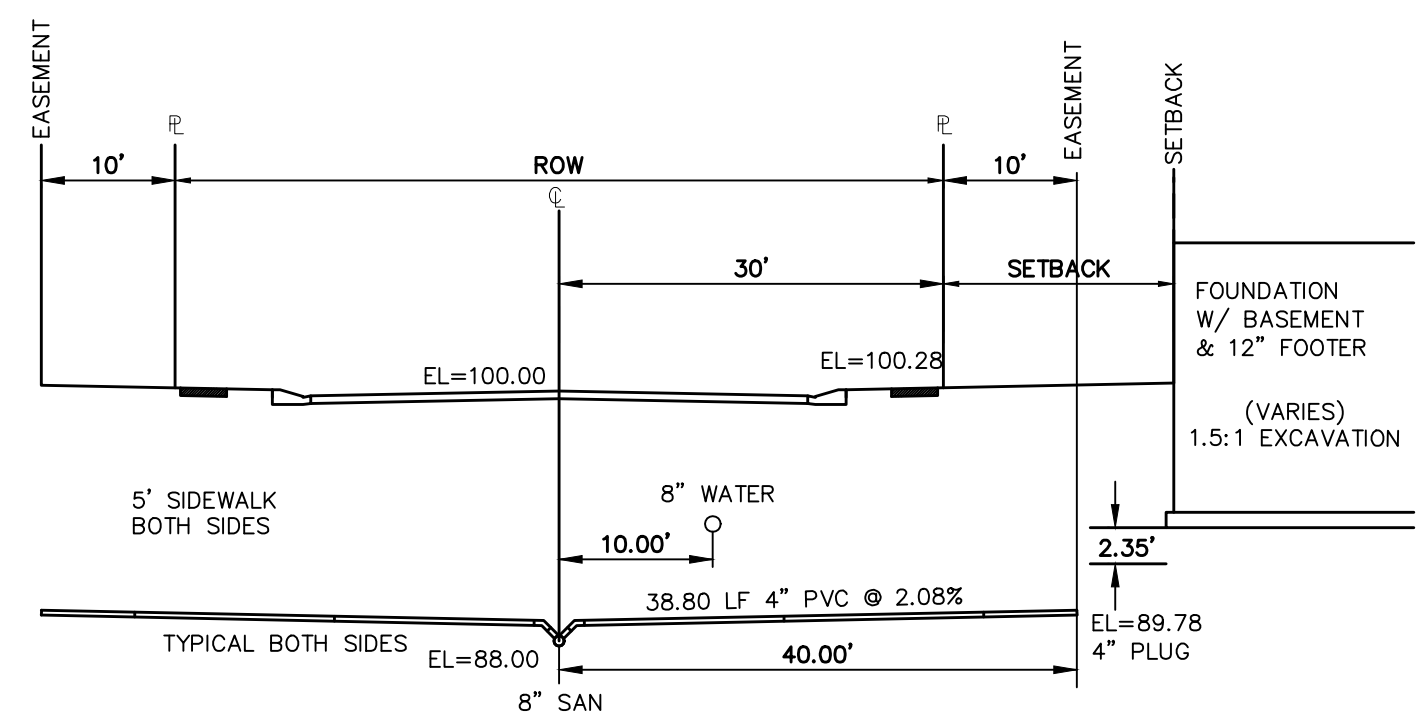
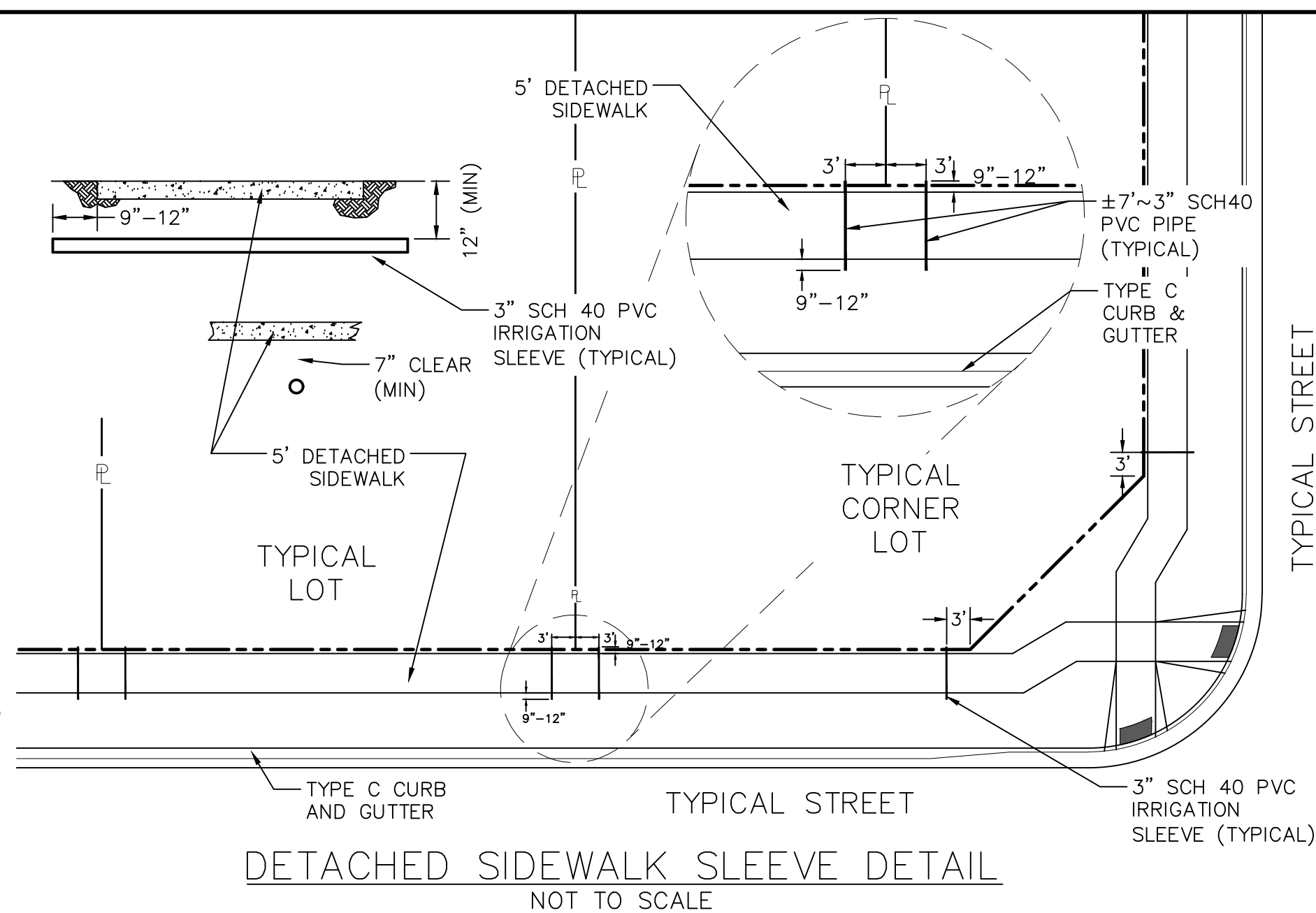
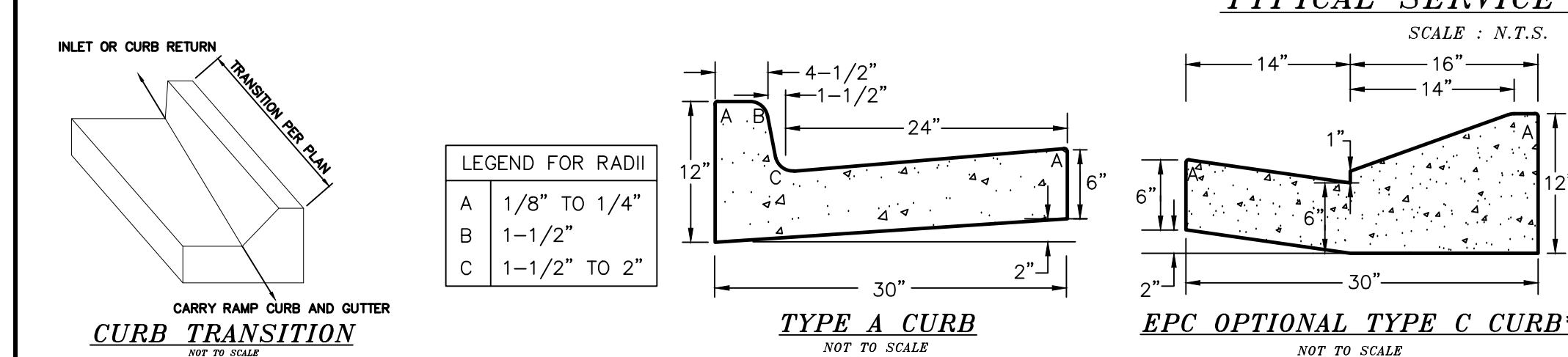
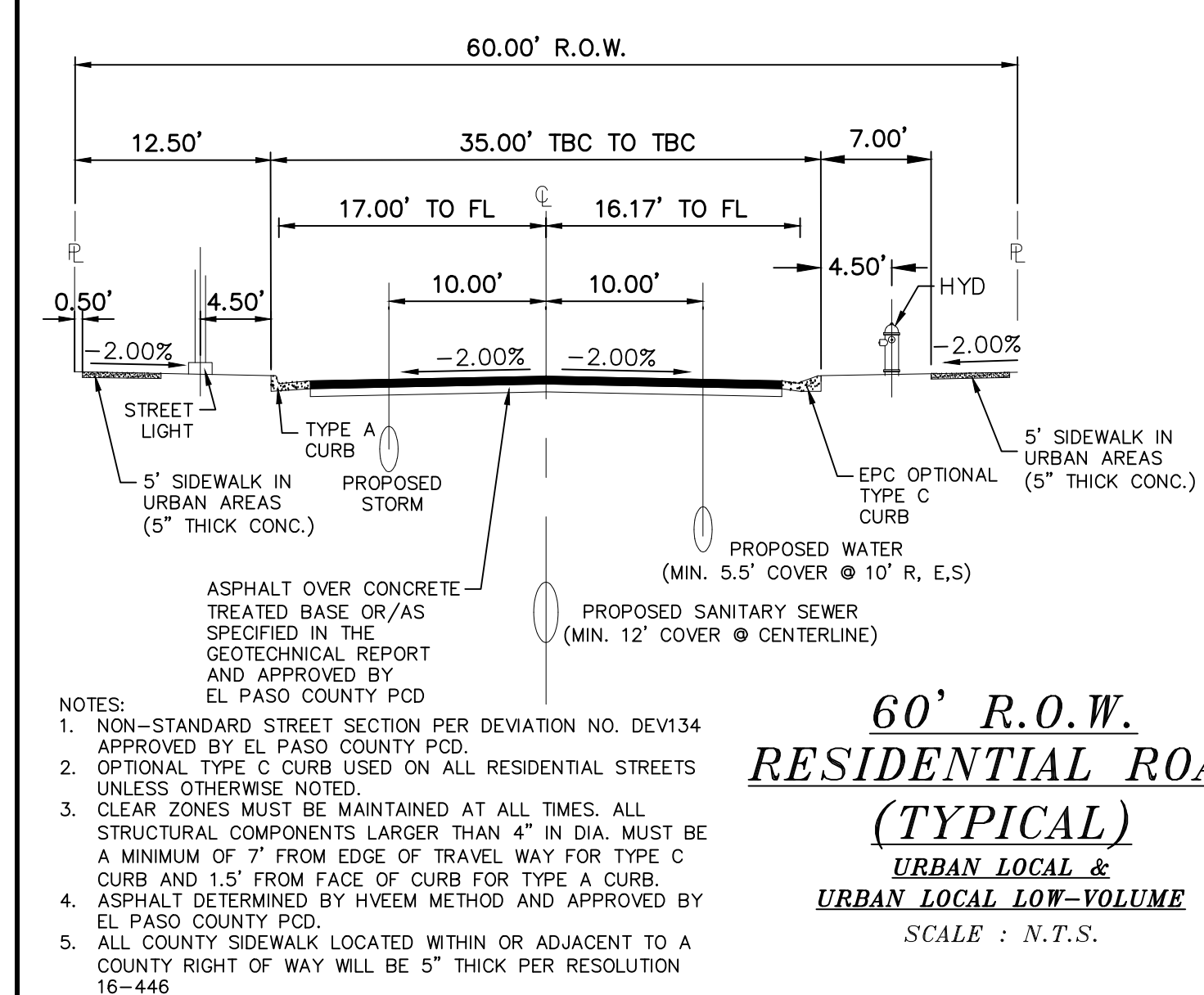
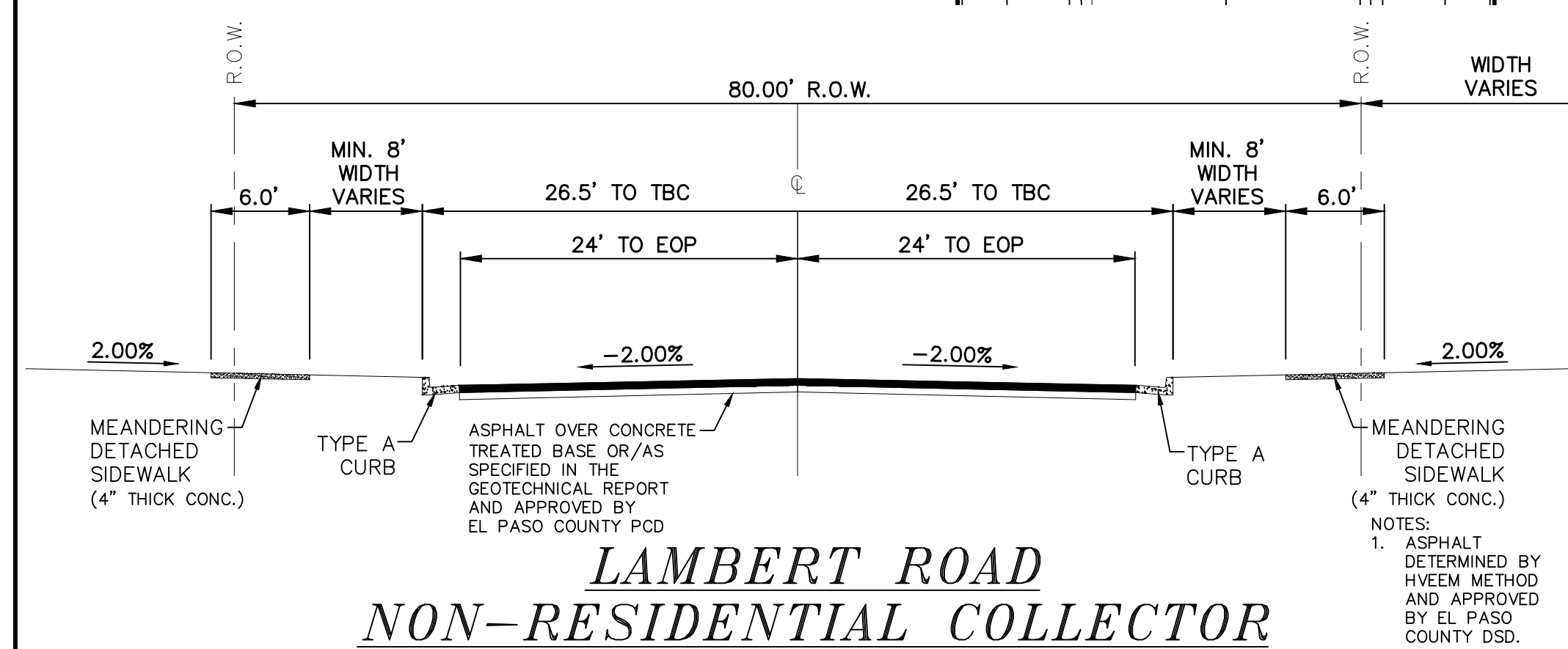
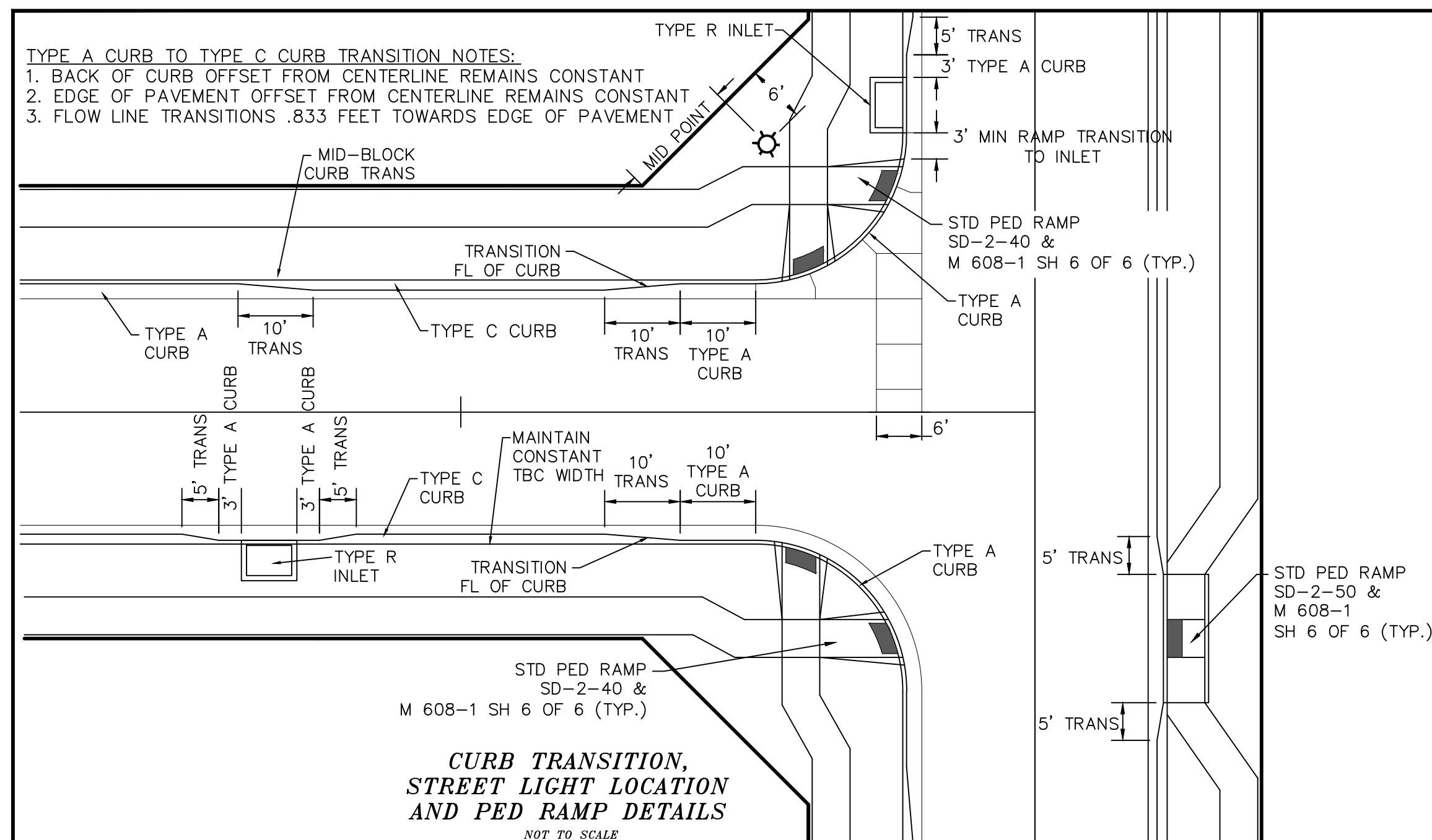
GRAPHIC SCALE

200                      0                      100                      200                      400                      600                      800

( IN FEET )

$$1 \text{ inch} = 200 \text{ ft.}$$





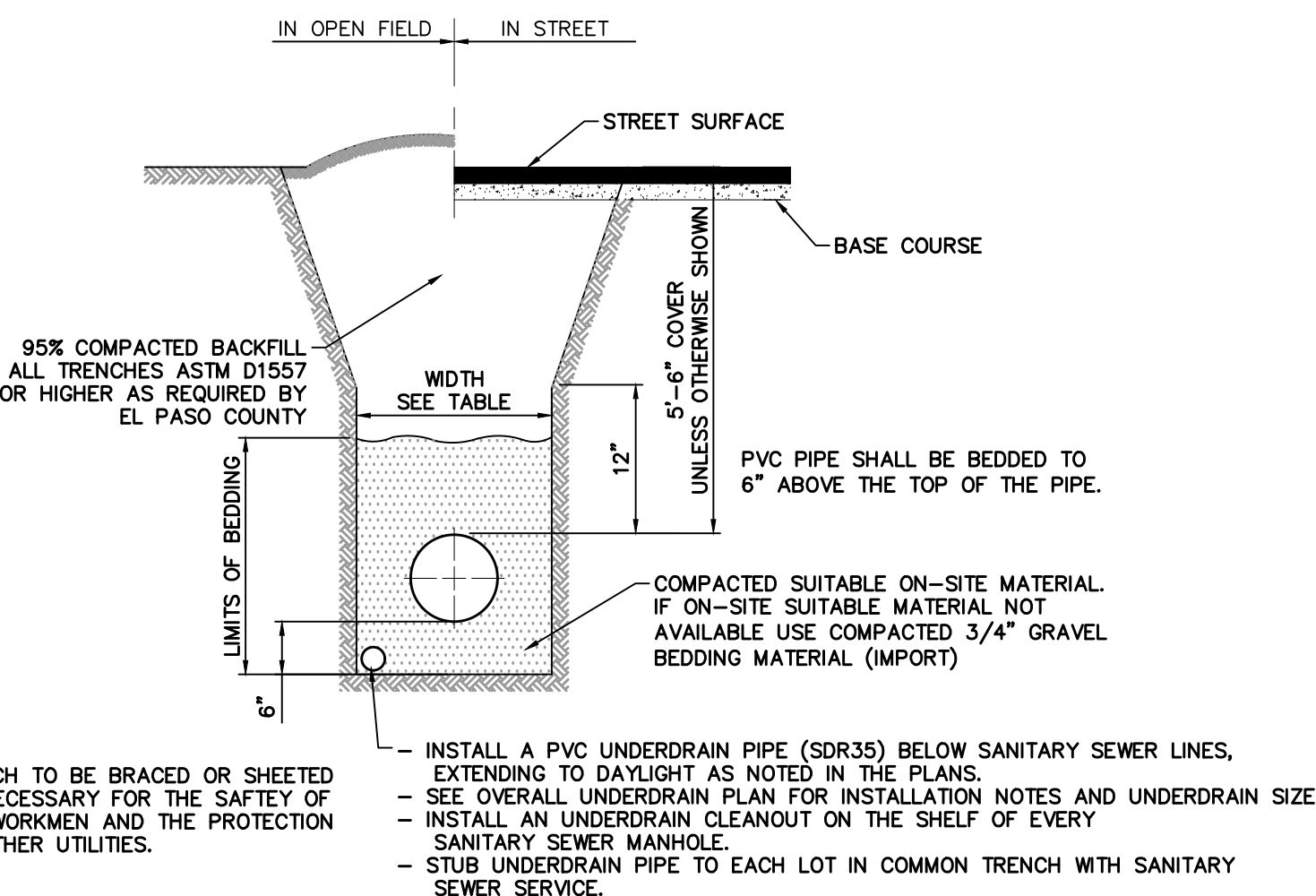
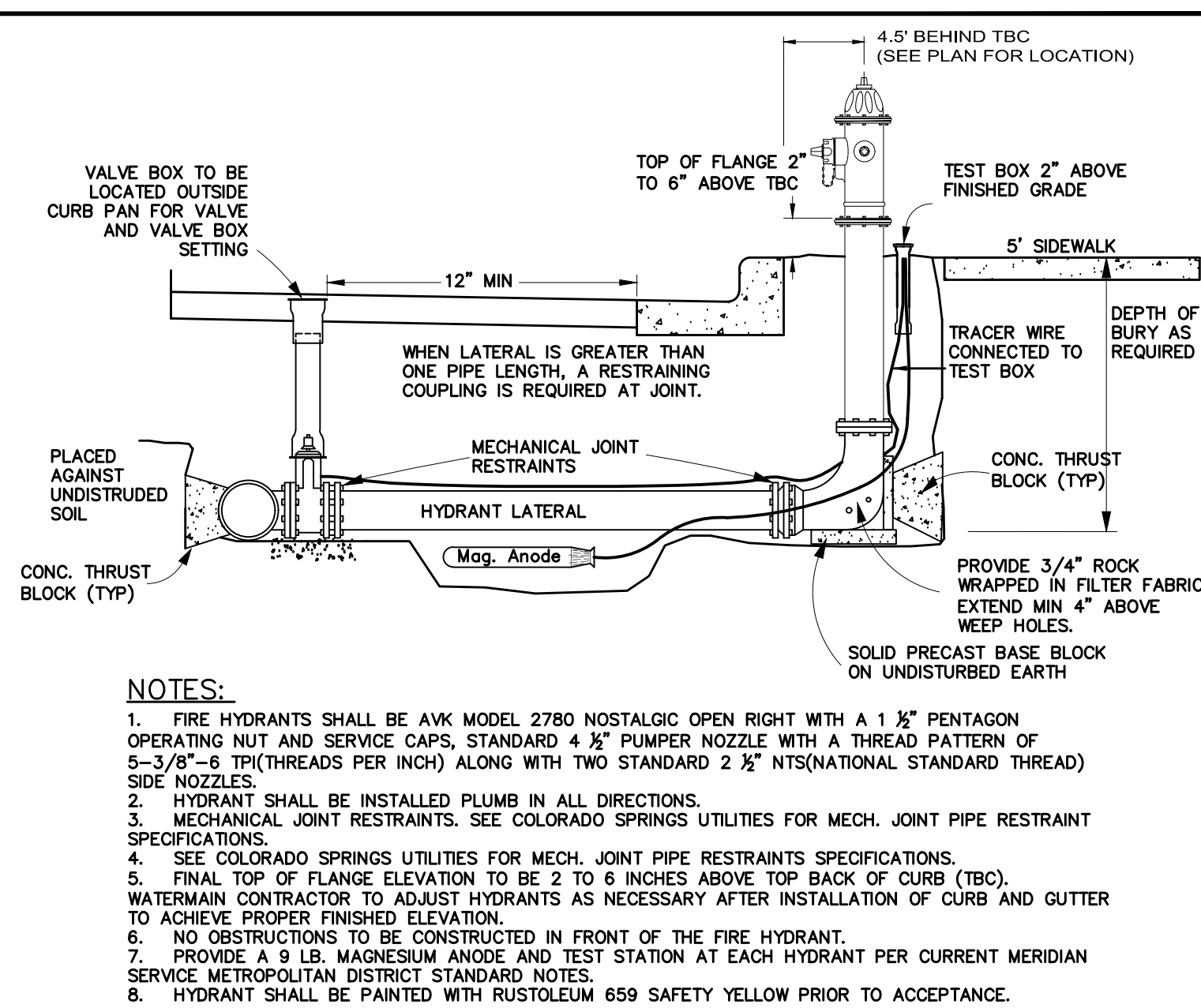
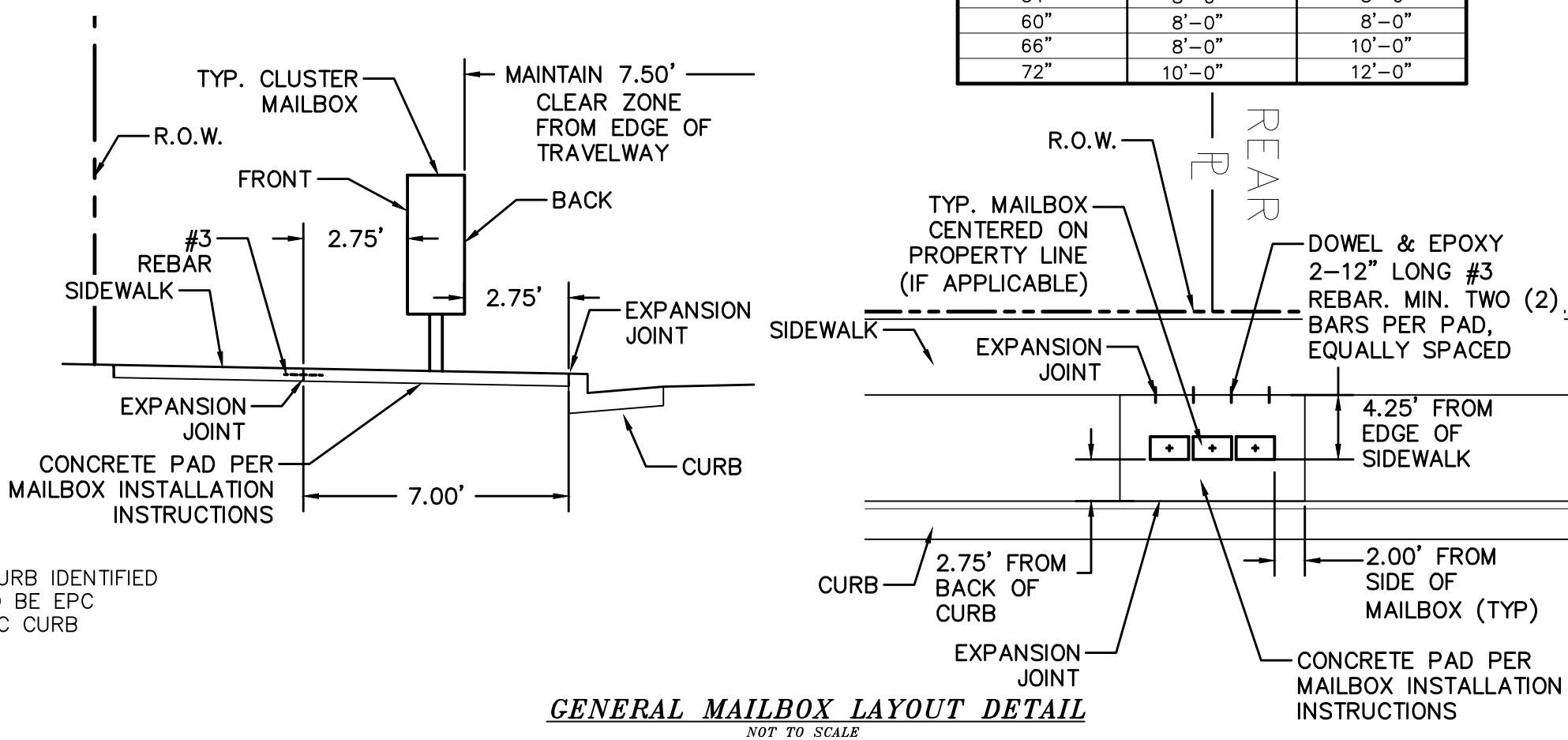
NOTE: SERVICE LINE MAY VARY IN DEPTH DUE TO SITE CONDITIONS OR THE CONSTRUCTION OF A CRAWL SPACE/BASEMENT UNDER THE HOUSE.

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

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"



<u><b>SYMBOL</b></u>	<u><b>ACRONYM</b></u>	<u><b>DESCRIPTION</b></u>
	RCP W/FES	REINFORCED CONCRETE PIPE W/FLARED END SECTIONS
	INLET	STORM SEWER INLET BOX
	STMH	STORM SEWER MANHOLE
	ST	STORM SEWER LINE
	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 (CATHODIC PROTECTION)
	TS	TEST STATION
	HB	HAY BALE DAM
	SF	SILT FENCE
	EXIST	EXISTING FEATURES
		LOT NUMBERS
		CROSS PAN PER SD-2-26
	PI	POINT OF INTERSECTION
	BT	BEGINNING OF TRANSITION
	ET	END OF TRANSITION
		EXISTING CONTOUR (10')
		EXISTING CONTOUR (2')

[illegible]

**TECH CONTRACTORS**  
**11886 STAPLETON DRIVE**  
**FALCON, CO 80831**  
**TELEPHONE: 719.495.7444**  
**FAX: 719.495.2457**



# MERIDIAN RANCH

WINDINGWALK F2 AT MERIDIAN RANCH

## STREET AND UTILITY PLANS

## DETAIL SHEET

Drawn by

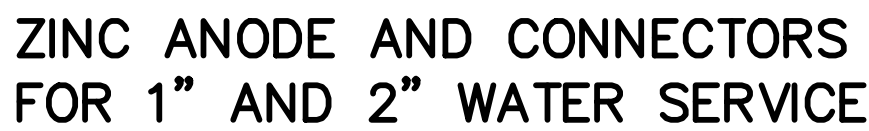
Checked by

Date

Scale

7.9

3 of 26



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

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

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. Packed anode to be wetted and covered with soil prior to backfilling.

- 
- The diagram illustrates the five steps of the welding process for a sleeve connection, shown in a vertical sequence of five cross-sectional views of a pipe with a sleeve being attached.
- STEP 1:** The sleeve is positioned over the pipe. The connection area (3 in x 3 in) is prepared to be bare shiny metal and clean.
  - STEP 2:** The sleeve is moved to the right, stripping insulation from the wire and attaching the sleeve where required by the manufacturer.
  - STEP 3:** The sleeve is moved further to the right, holding the mold firmly with the opening away from the operator and igniting with a flint gun.
  - STEP 4:** The sleeve is moved further to the right, removing slag from the connection and peening the weld for soundness.
  - STEP 5:** The sleeve is moved further to the right, covering the connection and exposed structure surface with a bituminous coating compound. A plastic shield cap is placed firmly over the connection.

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.

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

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.

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.

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

**TECH CONTRACTORS**  
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**FALCON, CO 80831**  
**TELEPHONE: 719.495.7444**  
**FAX: 719.495.2457**



**MERIDIAN RANCH**

## WINDINGWALK F2 AT MERIDIAN RANCH

## STREET AND UTILITY PLANS


## DETAIL SHEET

<i>Drawn by</i> LOG	<i>Checked by</i> TAK	<i>Date</i> SEPTEMBER 2018
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Scale  
AS SHOWN  
4 of 26







TWO WORKING DAYS

BEFORE YOU DIG

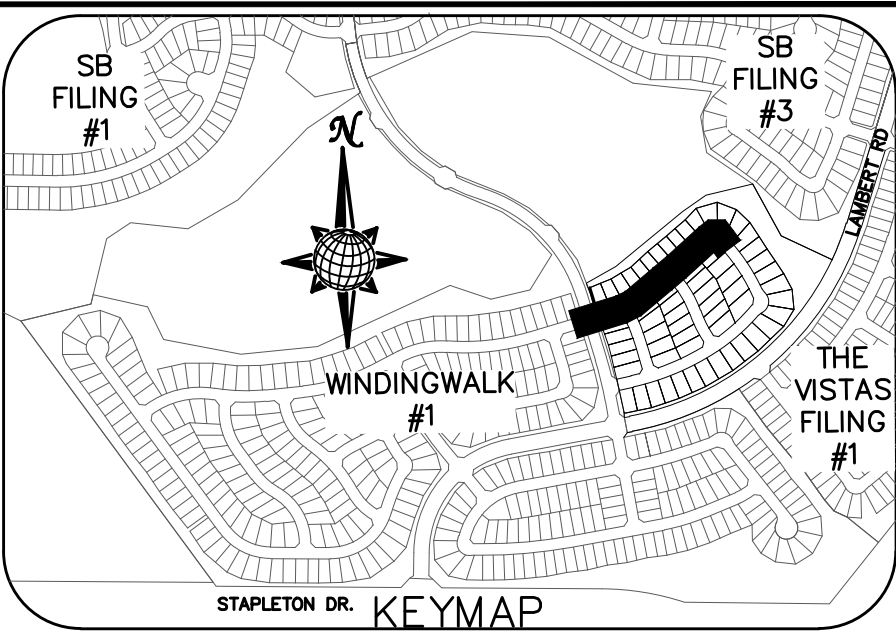
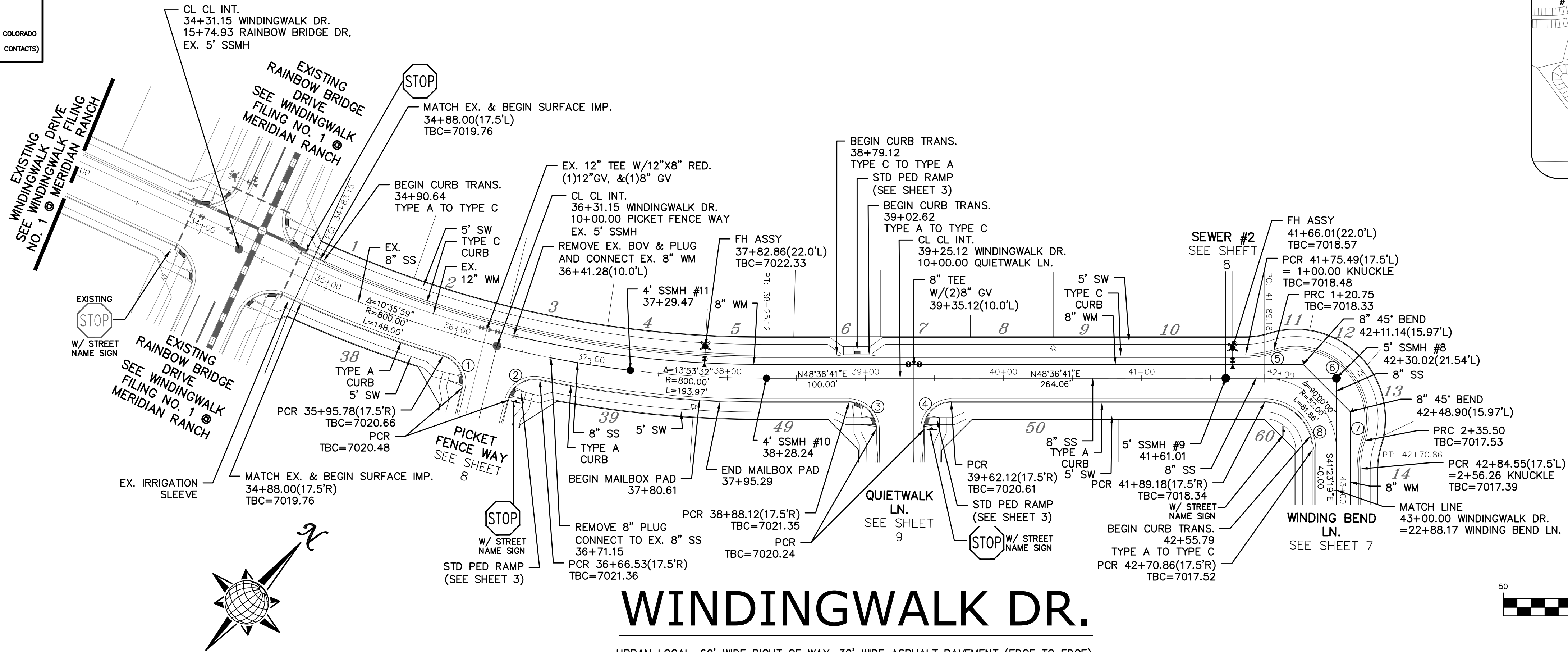
CALL 811

OR

UTILITY NOTIFICATION CENTER OF COLORADO

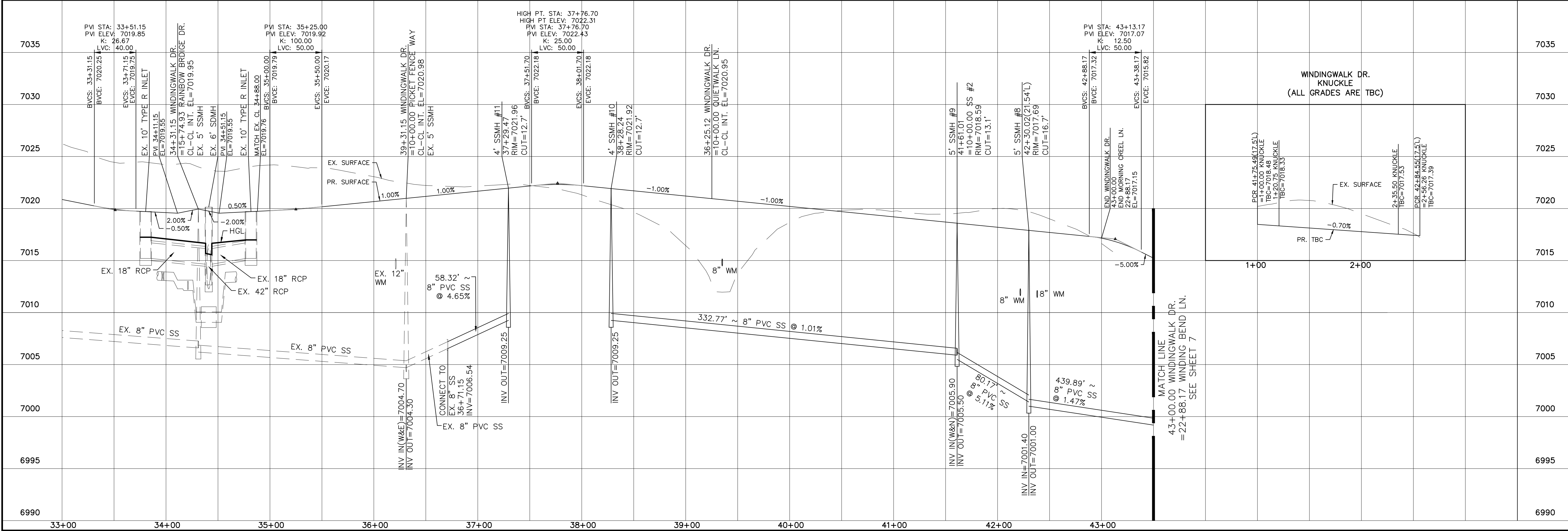
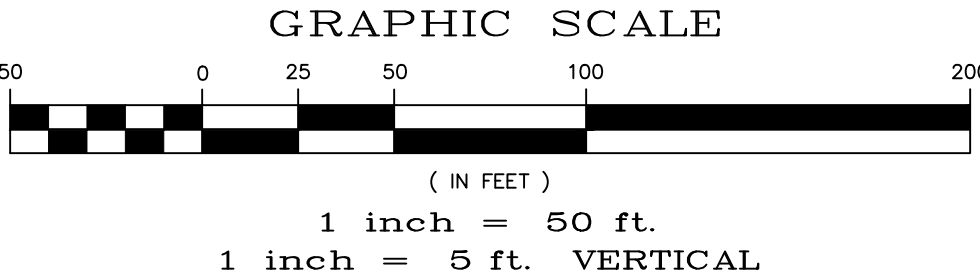
1-800-322-1867

(SEE COVER FOR LIST OF UTILITY CONTACTS)



CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
1	29.77'	19.50'	87°27'59"
2	29.77'	19.50'	87°27'59"
3	30.63'	19.50'	90°00'00"
4	30.63'	19.50'	90°00'00"
5	20.75'	67.50'	17°36'59"
6	114.75'	52.50'	125°13'57"
7	20.75'	67.50'	17°36'59"
8	54.19'	34.50'	90°00'00"

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



Date

Appr.

Init.

Date

No.

Revisions


TECH CONTRACTORS

11886 STAPLETON DRIVE

FALCON, CO 80831

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FAX 719.495.2457



MERIDIAN RANCH

WINDINGWALK F2 AT MERIDIAN RANCH

STREET AND UTILITY PLANS

WINDINGWALK DR.

Drawn by

Loc

Checked by

TAK


Date

SEPTEMBER 2016

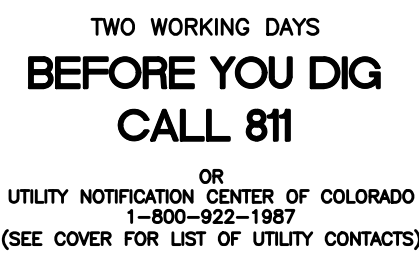
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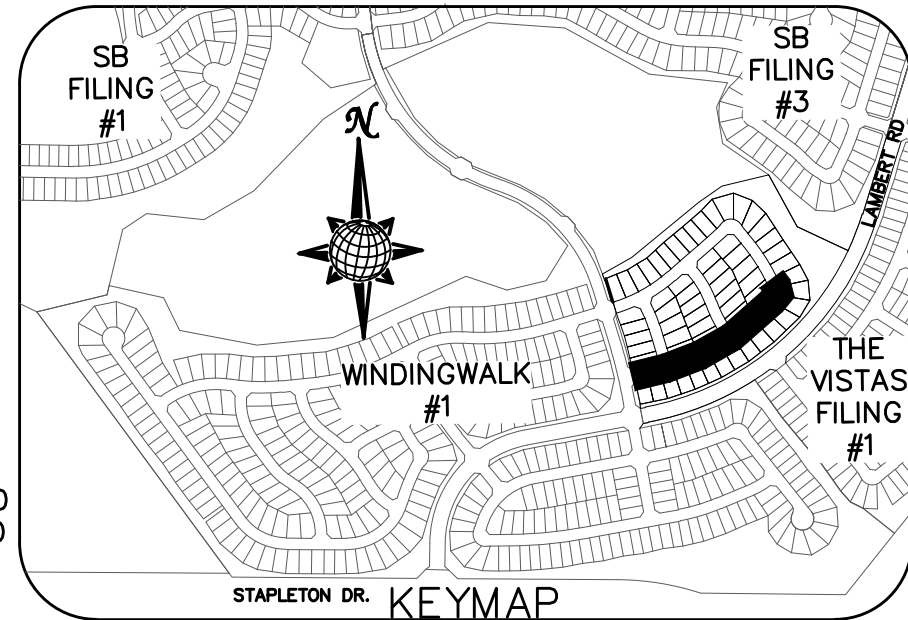
5 of 26



PROFESSIONAL ENGINEER

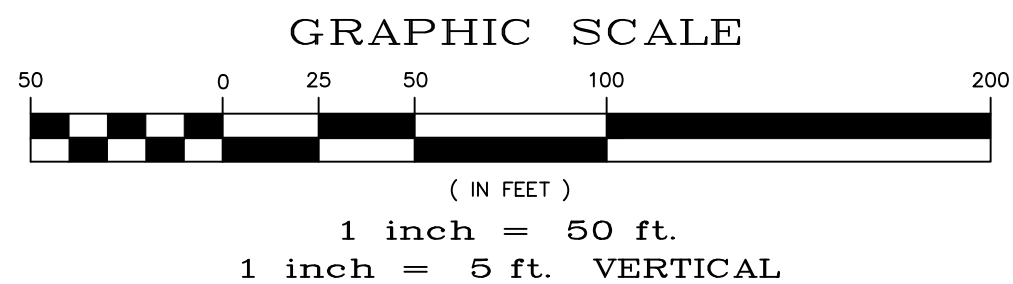


INSTALL CROSS PAN	
PER COUNTY STD	
SD-2-26	
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2	= 7010.27
3	= 7010.35
4	= 7008.51
5	= 7008.33
6	= 7008.16



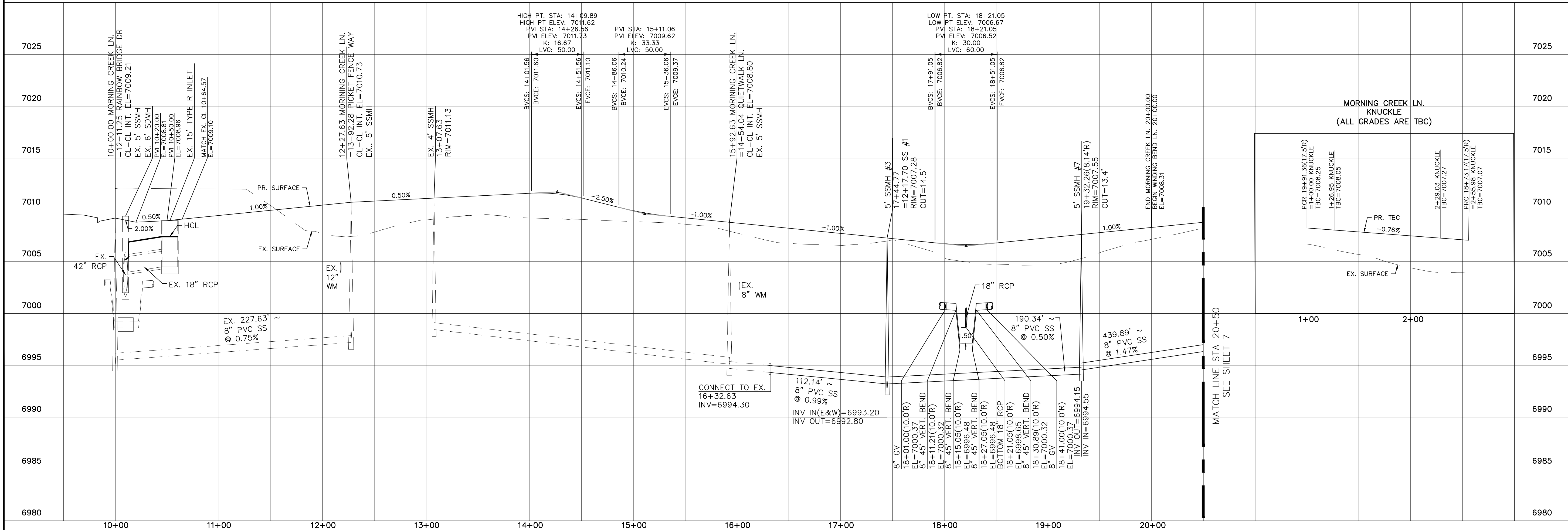
CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
9	31.21'	19.50'	91°41'56"
10	31.21'	19.50'	91°41'56"
11	31.21'	19.50'	91°41'56"
12	31.38'	19.50'	92°12'07"
13	26.95'	67.50'	22°52'29"
14	102.08'	52.50'	111°24'10"
15	26.95'	67.50'	22°52'29"
16	37.40'	34.50'	62°06'40"



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



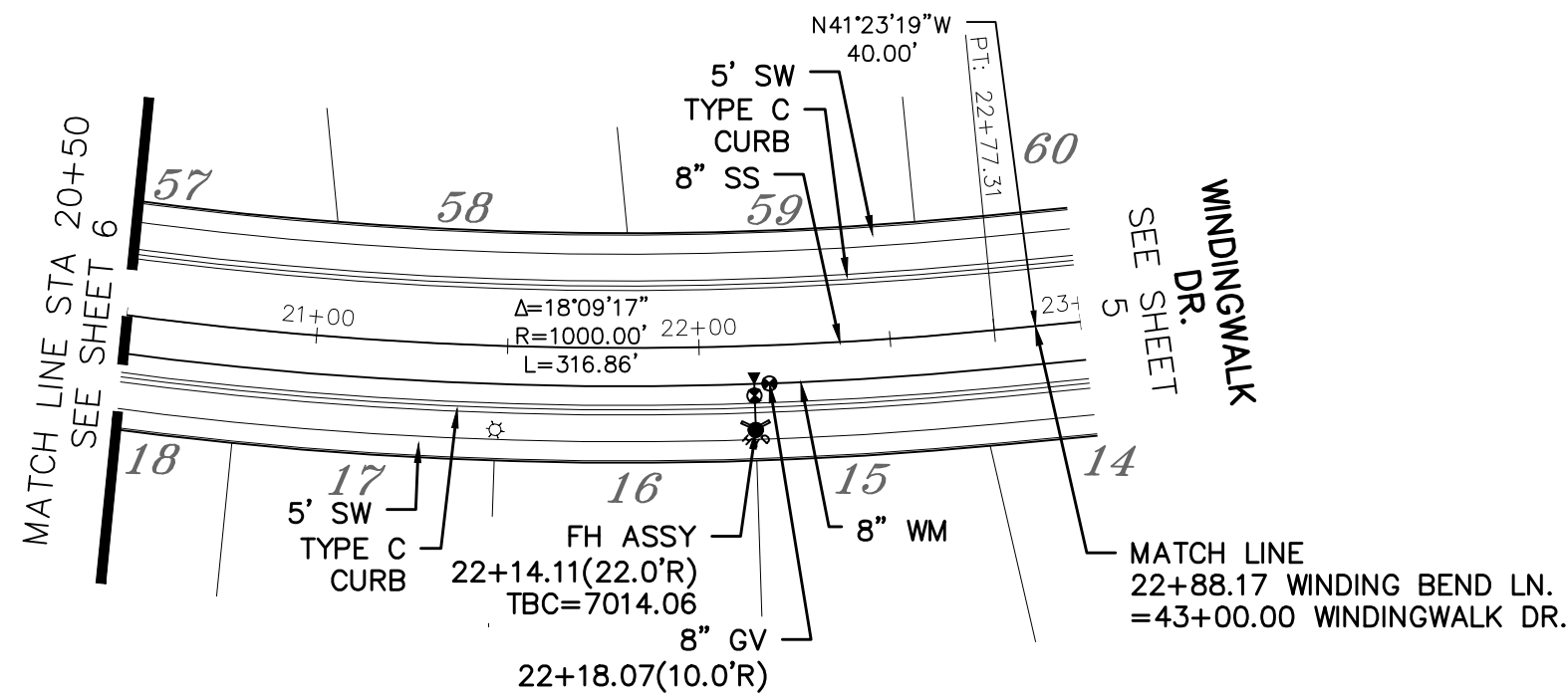
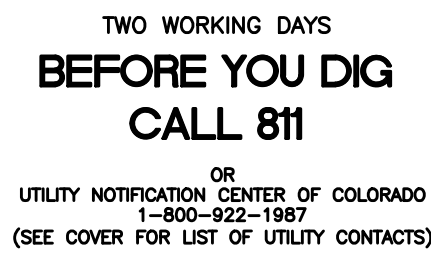
MORNING CREEK LN.

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



	Scale AS SHOWN	Drawn by LCG	WINDINGWALK F2 AT MERIDIAN RANCH  STREET AND UTILITY PLANS  MORNING CREEK LN.	 <b>MERIDIAN RANCH</b>	TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE: 719.495.7444 FAX: 719.495.2457									
		Checked by TAK												
	6 of 26	Date SEPTEMBER 2018												
						No.	Revisions	Date	Invt.	Appr.	Date			





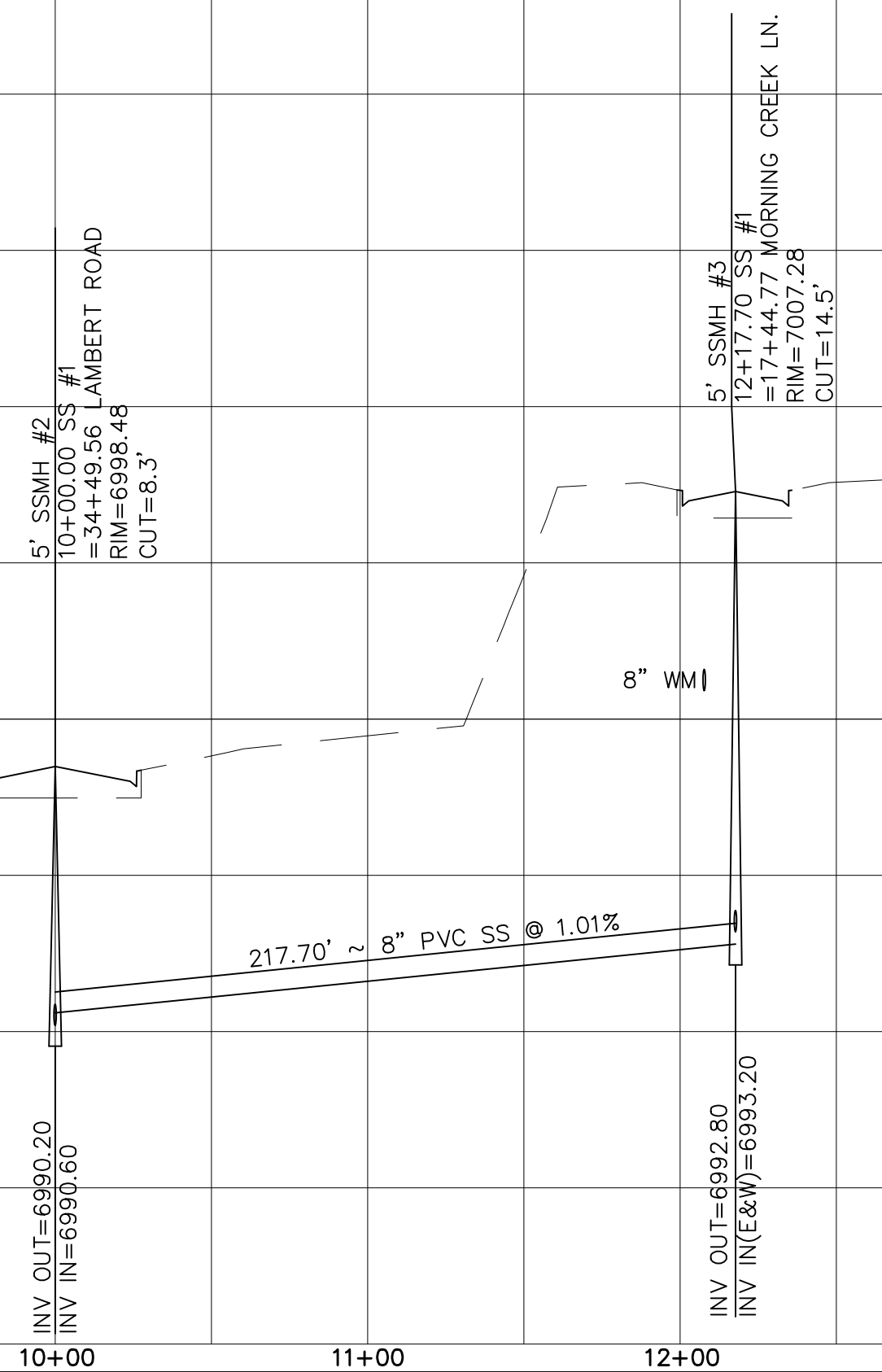
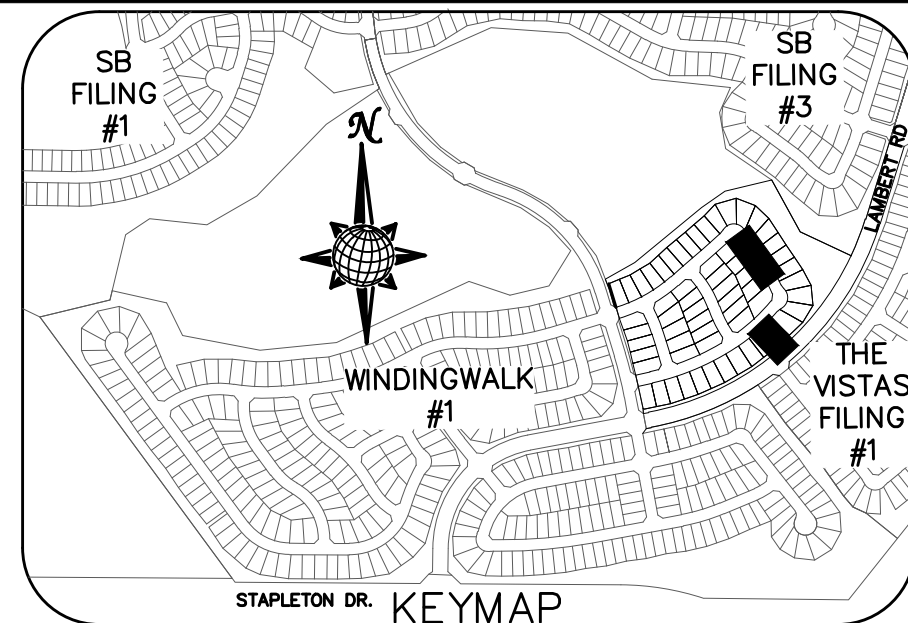
URBAN LOCAL, 60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



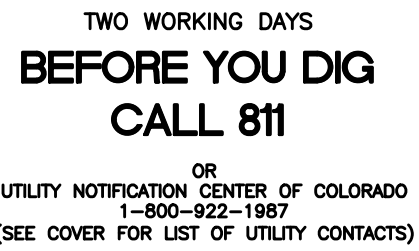
**GRAPHIC SCALE**

( IN FEET )

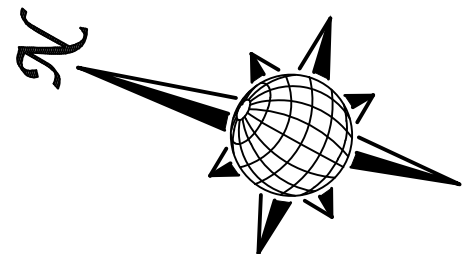
1 inch = 50 ft.  
1 inch = 5 ft. VERTICAL



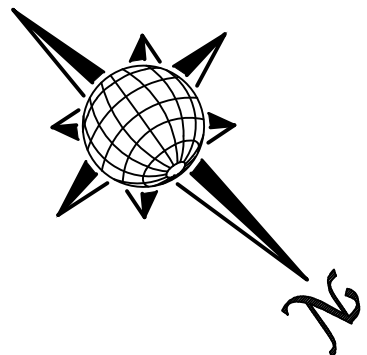
	Scale AS SHOWN	Drawn by LOJ	WINDINGWALK F2 AT MERIDIAN RANCH  STREET AND UTILITY PLANS  WINDING BEND LN. + SEWER #1	 <b>MERIDIAN RANCH</b>	TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831  TELEPHONE: 719.495.7444 FAX: 719.495.2457									
		Checked by TAK												
	7 of 26	Date SEPTEMBER 2018												
						No.	Revisions	Date	Invt.	Appr.	Date			



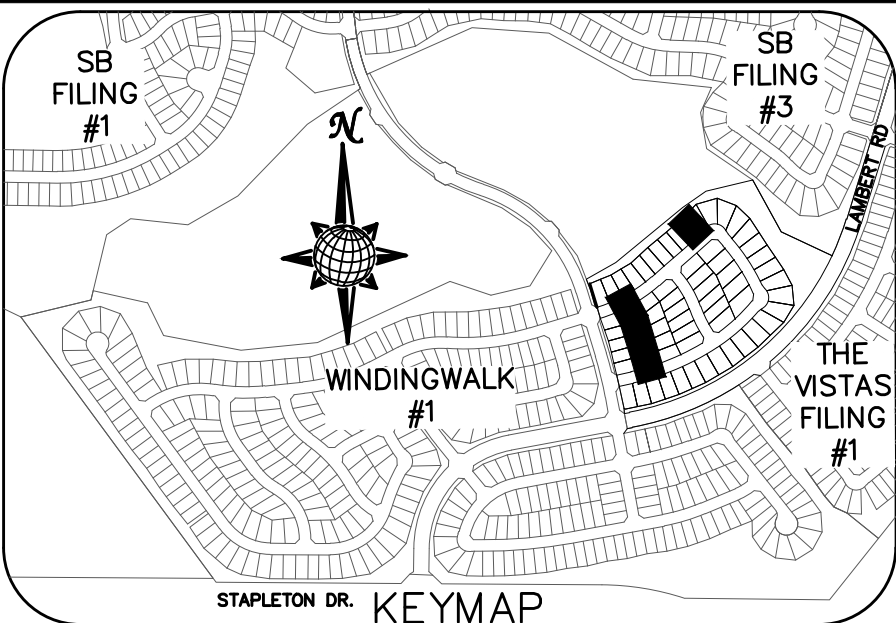
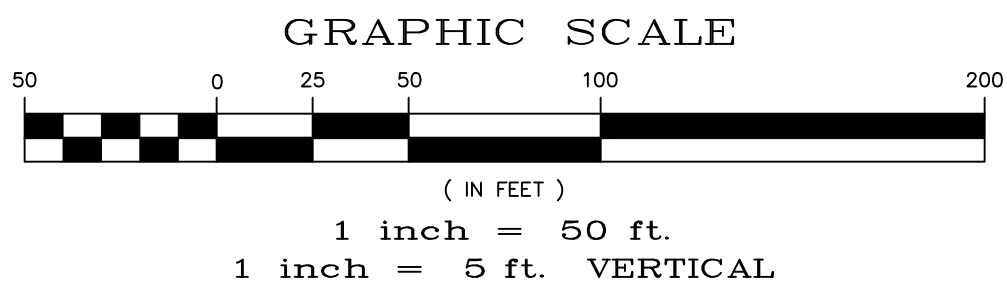
INSTALL CROSS PAN PER COUNTY STD SD-2-26	
1	= 7010.09
2	= 7010.27
3	= 7010.35



URBAN LOCAL LOW VOLUME, 60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



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

[illegible]

**TECH CONTRACTORS**  
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**FALCON, CO 80831**  
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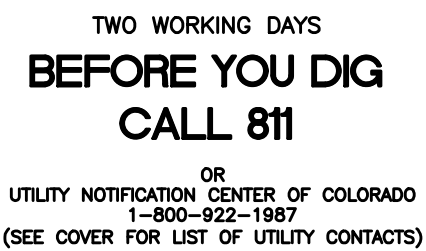


WINDINGWALK F2 AT MERIDIAN RANCH  
STREET AND UTILITY PLANS  
PICKET FENCE WAY

<i>Scale</i>	<b>AS SHOWN</b>	<i>Drawn by</i>	LOQ
		<i>Checked by</i>	TAK
<b>8 of 26</b>		<i>Date</i>	SEPTEMBER 2018



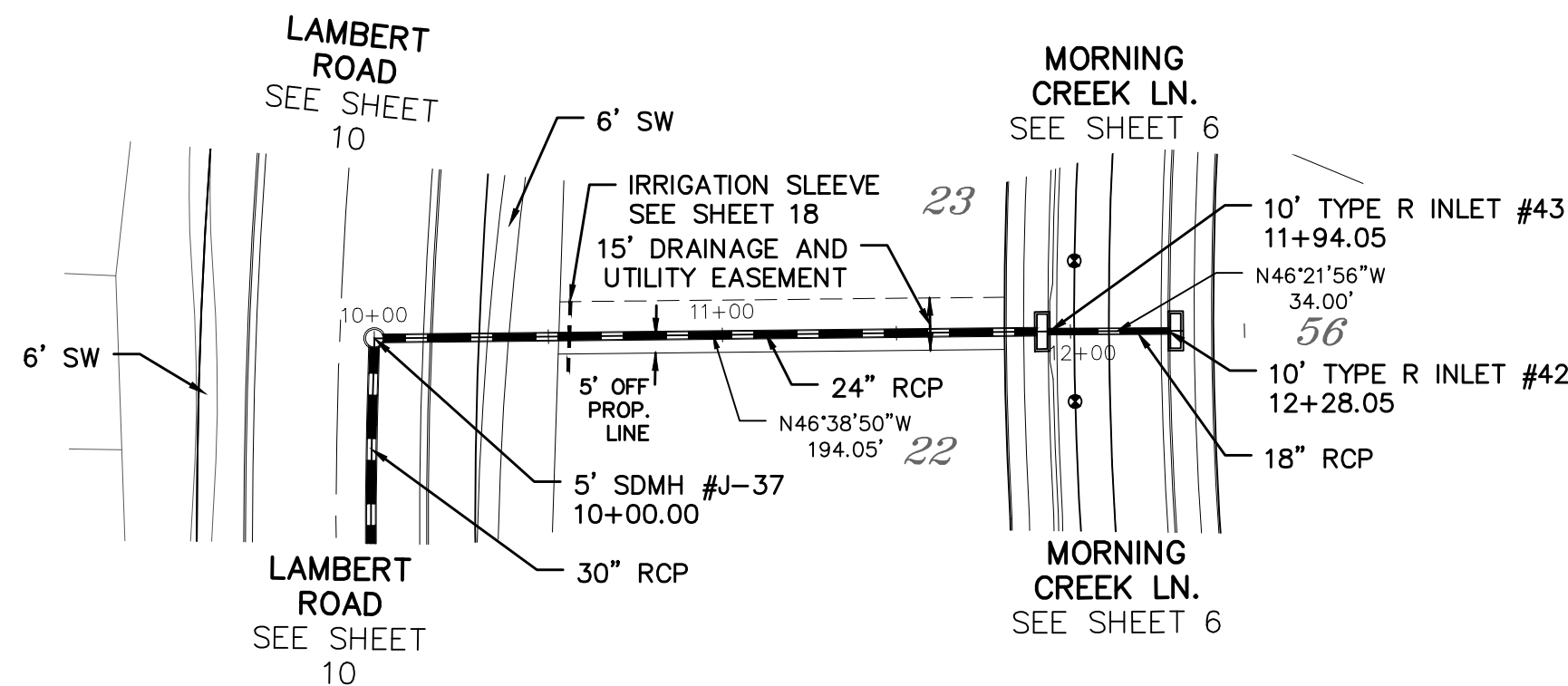
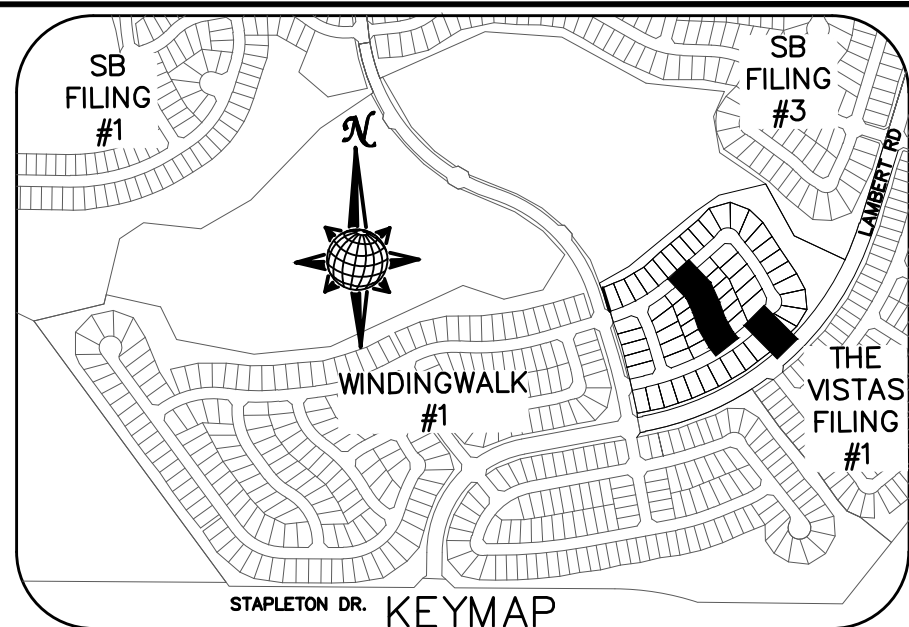




INSTALL CROSS PAN  
PER COUNTY STD  
SD-2-26

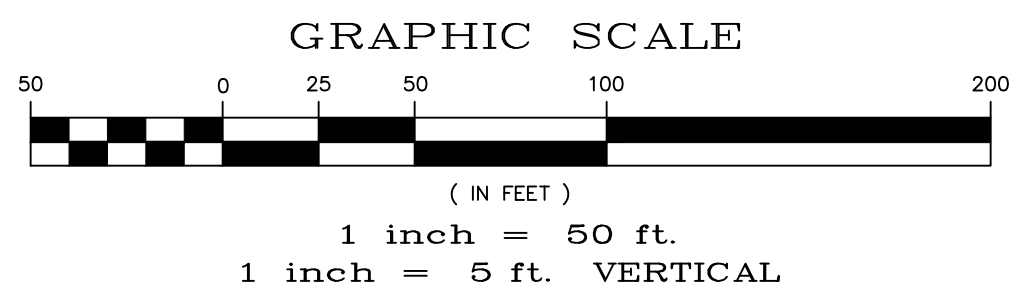
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1	=	7008.51
2	=	7008.33
3	=	7008.16



CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
3	30.63'	19.50'	90°00'00"
4	30.63'	19.50'	90°00'00"
11	31.21'	19.50'	91°41'56"
12	31.38'	19.50'	92°12'07"

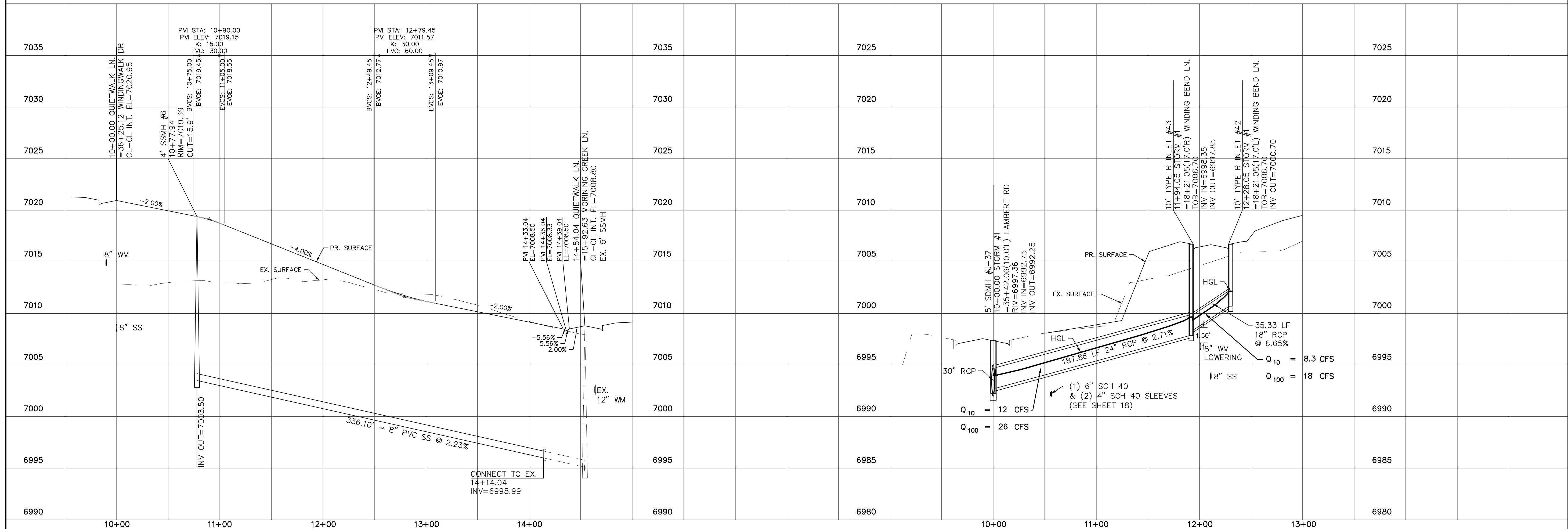
ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)





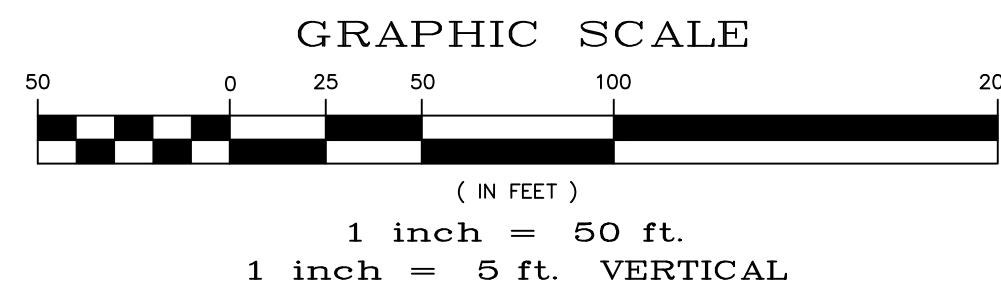
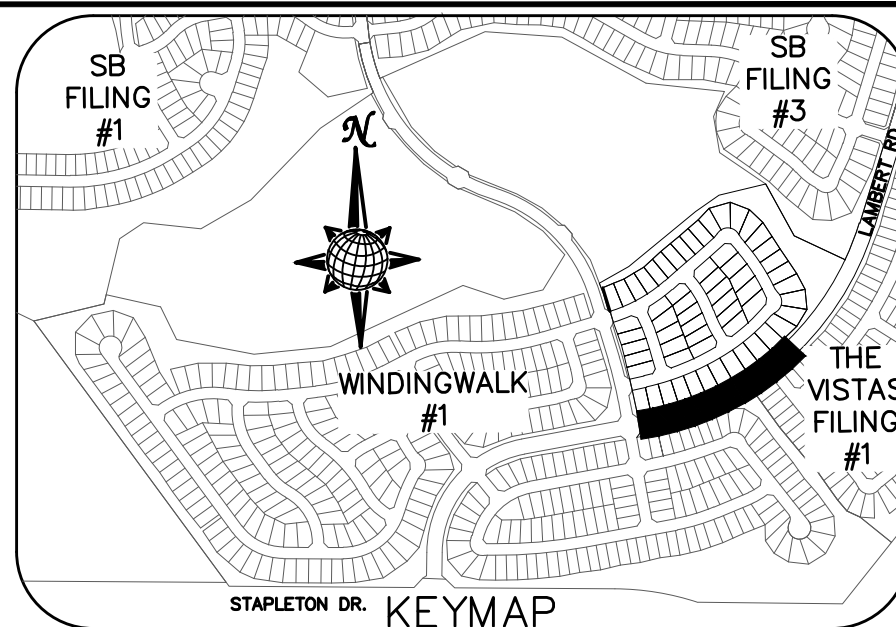
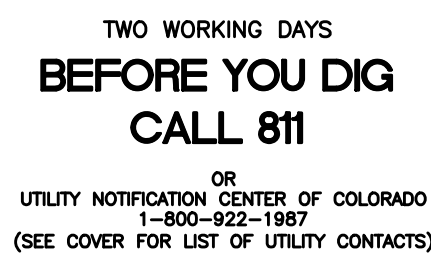
# QUIETWALK LN.

URBAN LOCAL LOW VOLUME, 60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)

# STORM #1

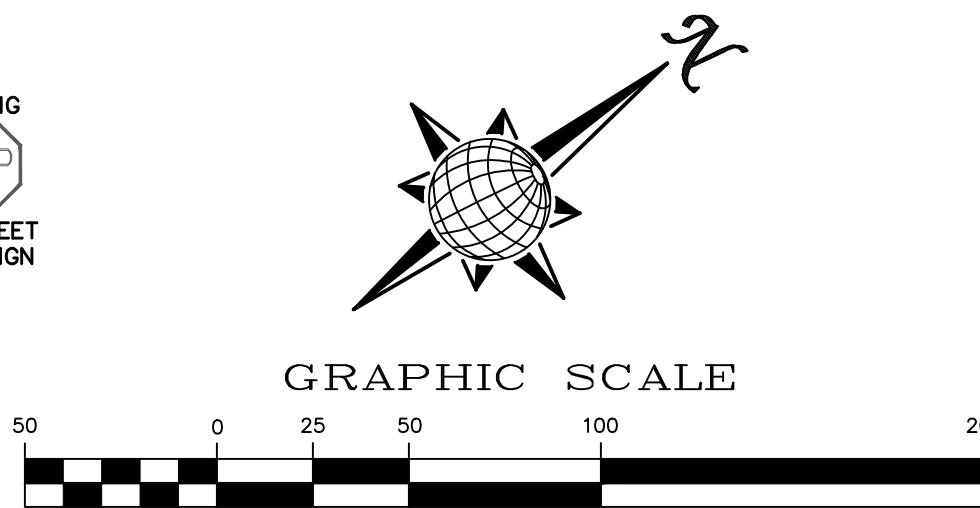
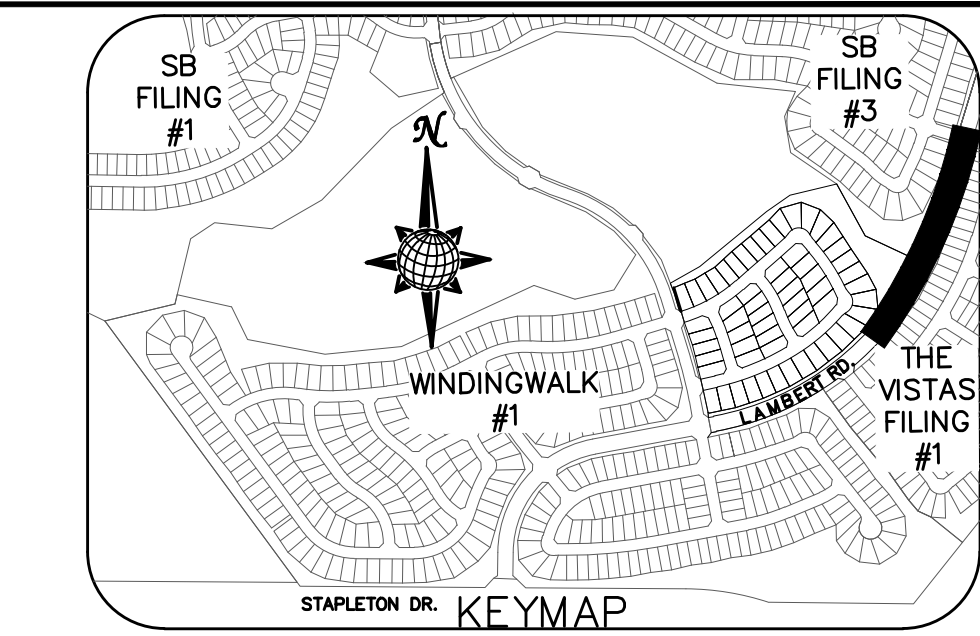
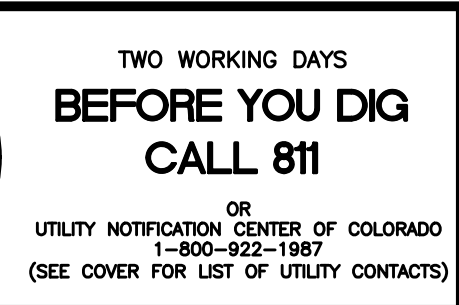


	Scale AS SHOWN	9 of 26	Drawn by LCG	WINDINGWALK F2 AT MERIDIAN RANCH  STREET AND UTILITY PLANS  QUETWALK LN. + STORM #1	 <b>MERIDIAN RANCH</b>	TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE: 719.495.7444 FAX: 719.495.2457										
			Checked by TAK													
	Date SEPTEMBER 2018															
							No.	Revisions	Date	Invt.	Appr.	Date				

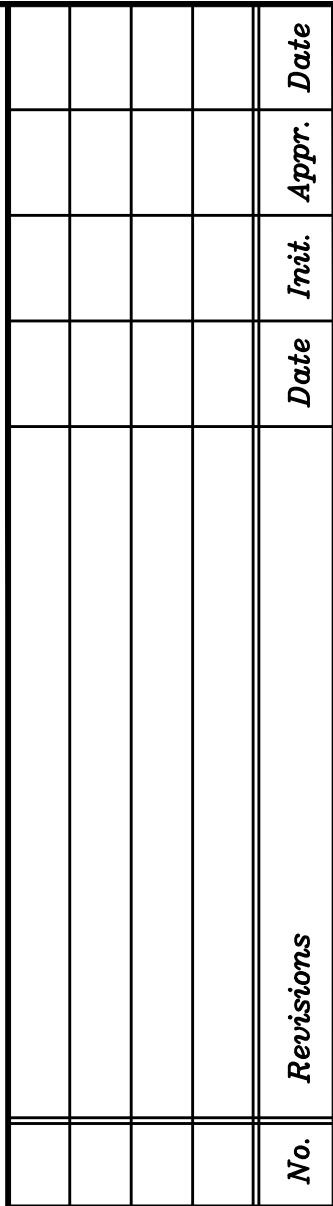


	Scale	Drawn by LOG	WINDINGWALK F2 AT MERIDIAN RANCH  STREET AND UTILITY PLANS  LAMBERT ROAD	 <b>MERIDIAN RANCH</b>	TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831  TELEPHONE: 719.495.7444 FAX: 719.495.2457						
	AS SHOWN	Checked by TAK									
	10 of 26	Date SEPTEMBER 2016									
						No.	Revisions	Date	Instr.	Appr.	Date





NON-RESIDENTIAL COLLECTOR, 80' WIDE RIGHT OF WAY, 48' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



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**FALCON, CO 80831**  
**TELEPHONE: 719.495.7444**  
**FAX: 719.495.2457**



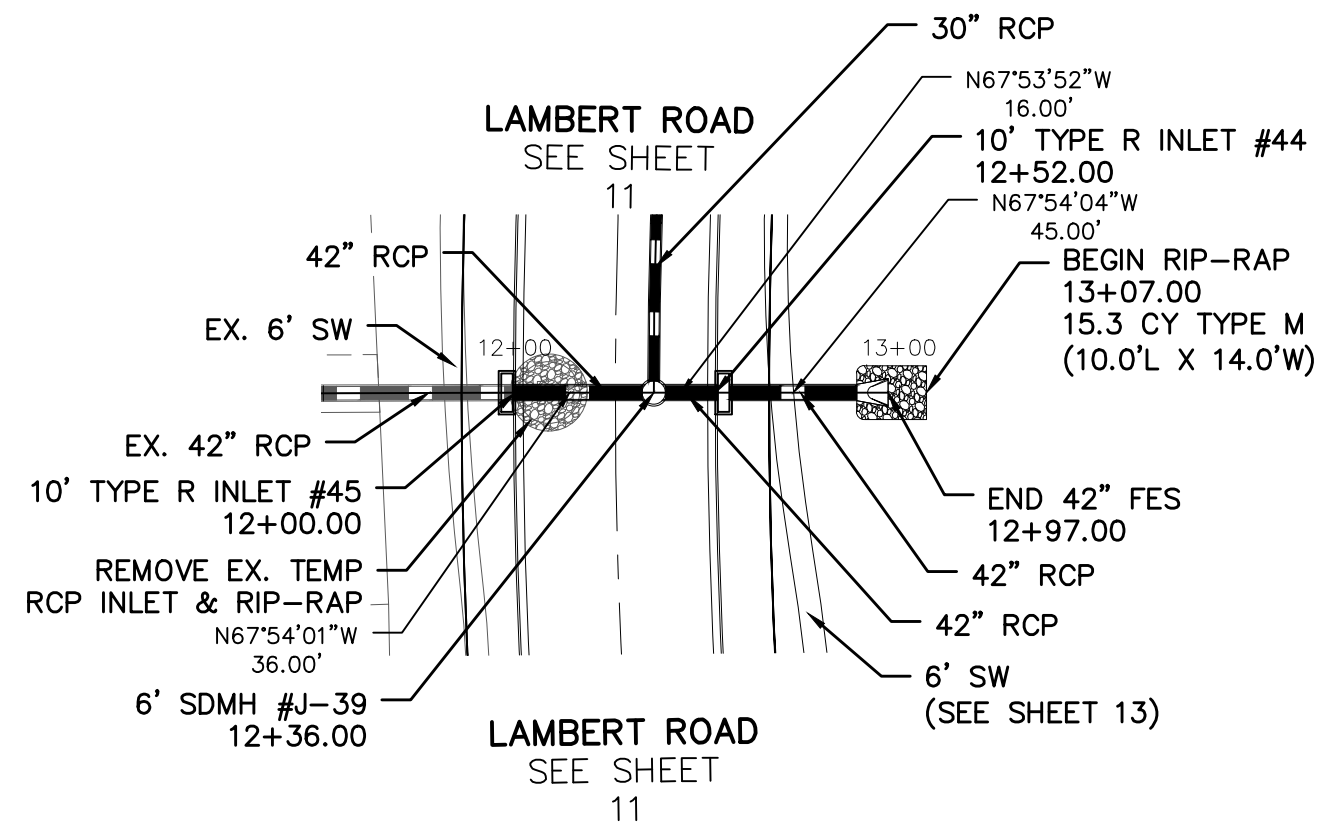
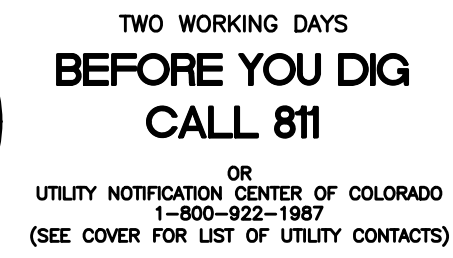
**MERIDIAN RANCH**

WINDINGWALK F2 AT MERIDIAN RANCH  
STREET AND UTILITY PLANS  
LAMBERT ROAD

<i>Drawn by</i>	LOG
<i>Checked by</i>	TAK
<i>Date</i>	SEPTEMBER 2018

Scale	AS SHOWN
11	of 26

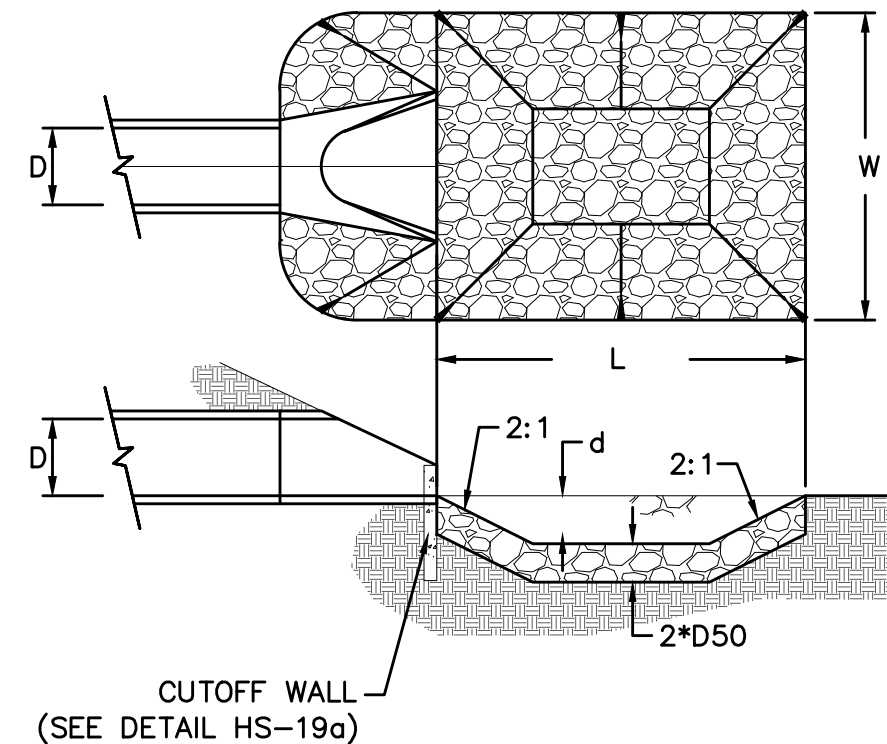




The image displays three orthographic views of a mechanical component:

- PLAN:** A top-down view showing a U-shaped profile with a central semi-circular cutout. The outer diameter is labeled  $D$ .
- PROFILE:** A side view showing the component's length and a tapered top surface. The outer diameter is labeled  $D$ .
- END VIEW:** A cross-sectional view showing a semi-circular top with a radius of  $12''$  and a base layer of thickness  $Y$ .

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

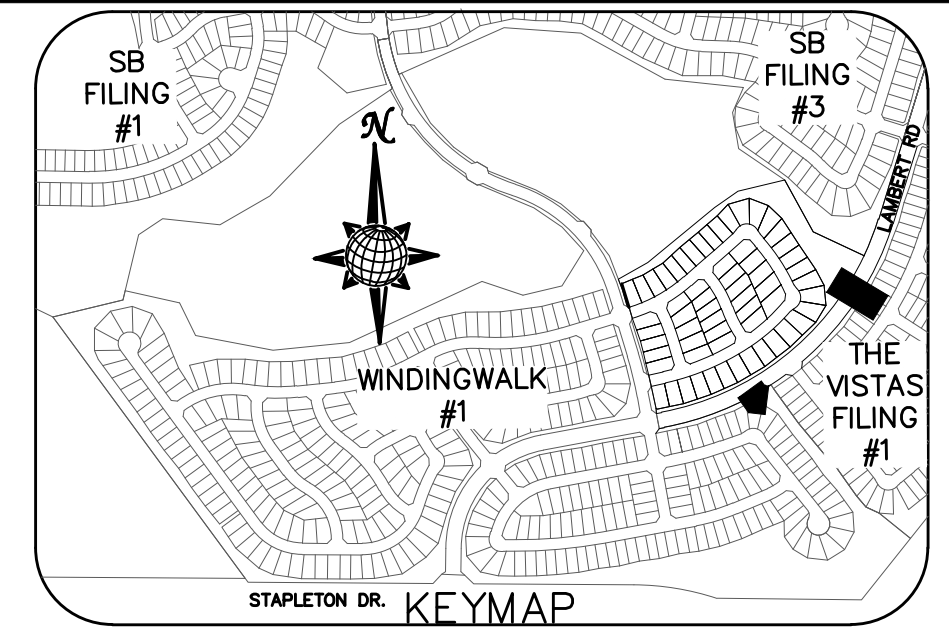
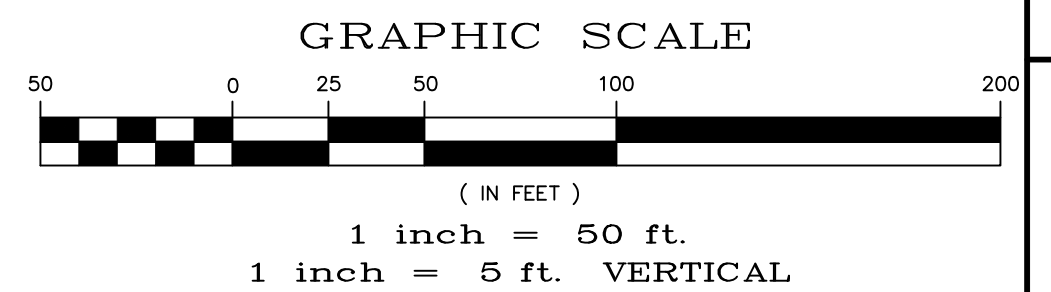
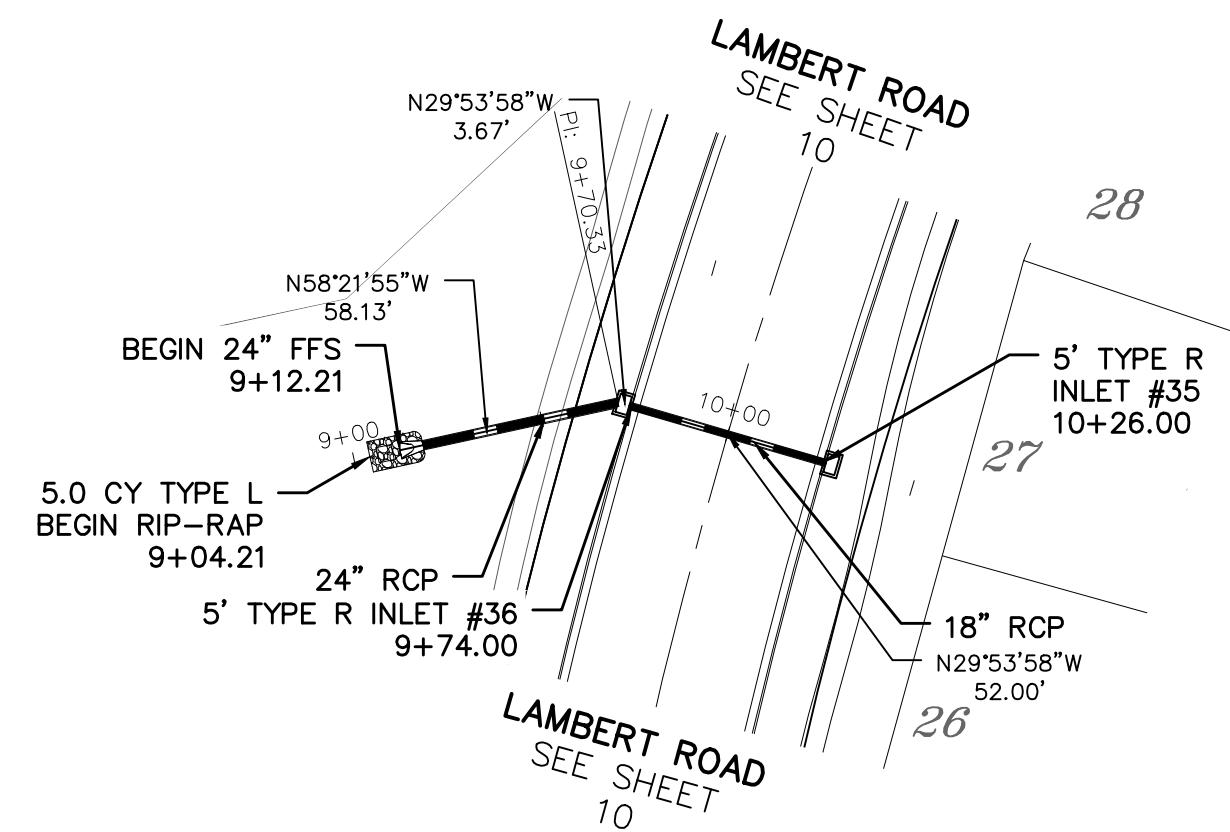


URBAN DRAINAGE AND FLOOD CONTROL DISTRICT (MODIFIED\*)  
Figure HS-19. Culvert and Outlet Erosion Protection  
\*RIP RAP RECTANGULAR POOL

- NOTES:
1. Headwall with wingwalls or flared end section required at all culvert outlets.
  2. Provide joint fasteners for flared end sections.

STORM #3  
OUTLET PROTECTION DETAIL  
NTS

	PIPE OUTLET	L	W	d	TYPE	D <sub>50</sub>	CY	Y	NOTES
STORM #3	24"	8.0	8.0	1.0	L	0.75'	5.0	2.3'	SEE ABOVE



No.	Revisions	Date	Instr.	Appr.	Date

**TECH CONTRACTORS**  
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FALCON, CO 80831  
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FAX: 719.495.2457



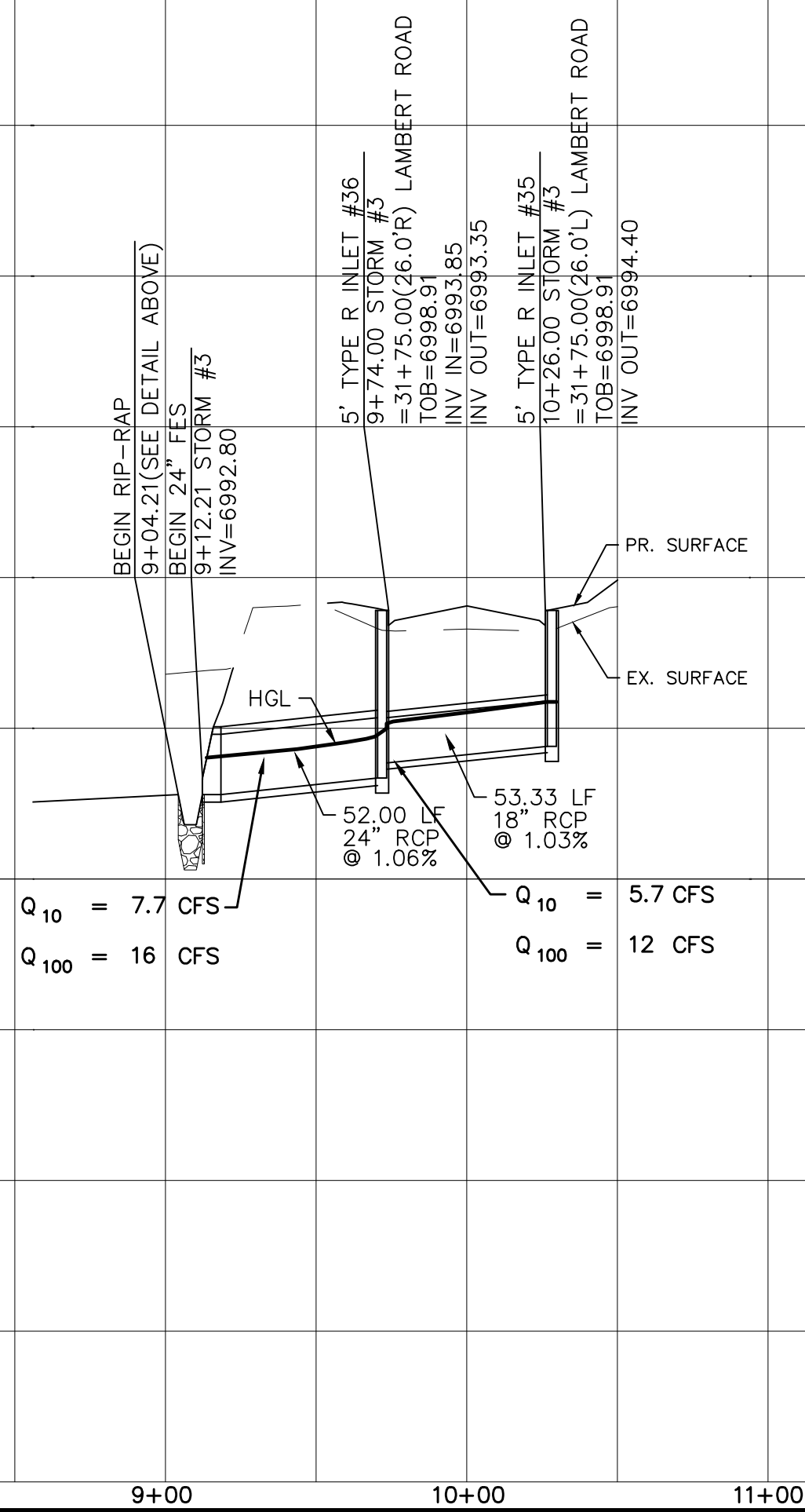
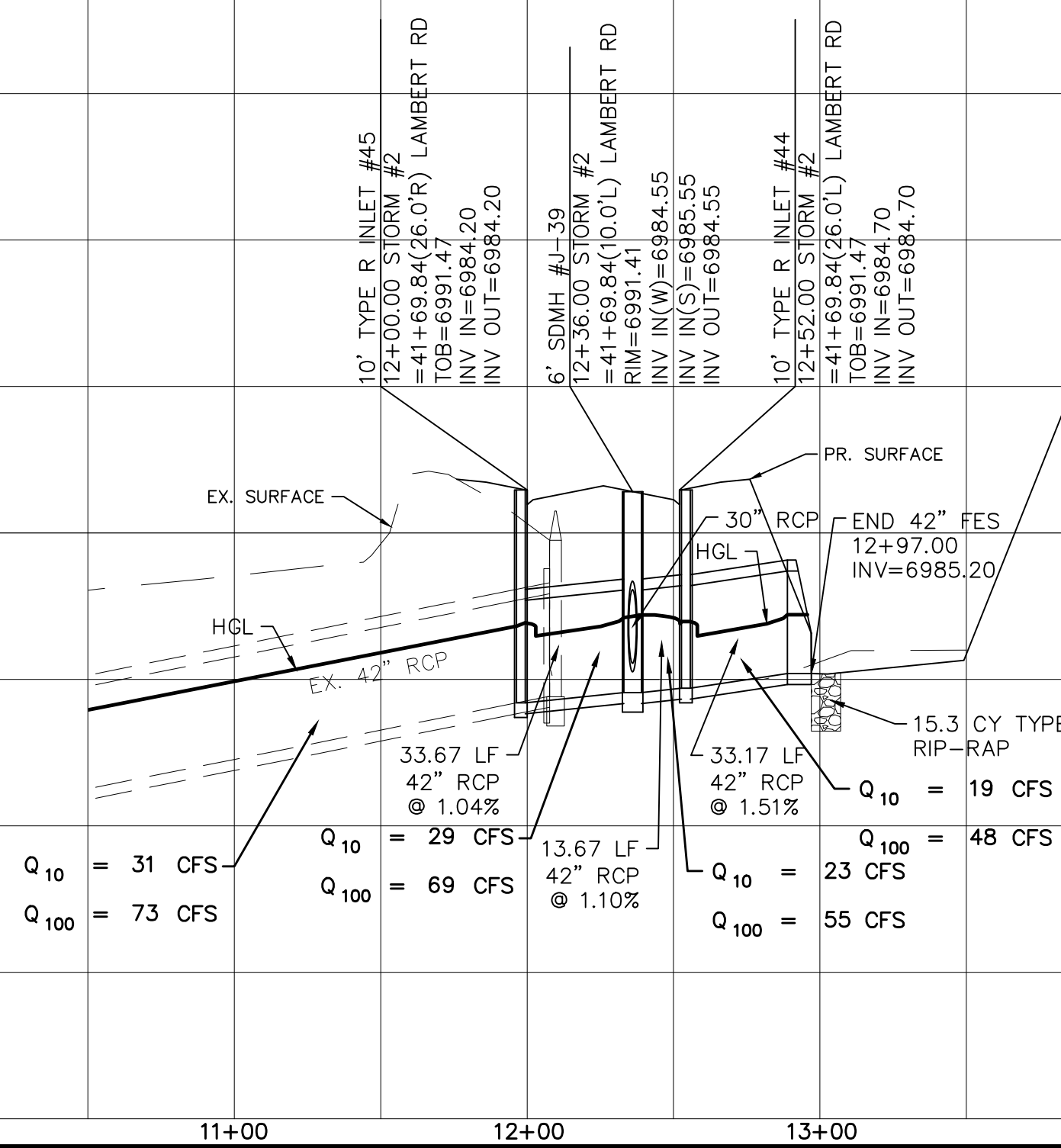
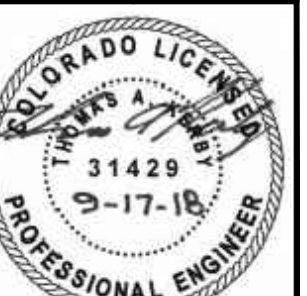
MERIDIAN RANCH

WINDINGWALK FZ AT MERIDIAN RANCH

## STREET AND UTILITY PLANS

### STORM #2 + STORM #3

<i>Scale</i> <b>AS SHOWN</b>	<b>12 of 26</b>	<i>Drawn by</i> <b>LOG</b>
		<i>Checked by</i> <b>TAK</b>
		<i>Date</i> <b>SEPTEMBER 2018</b>

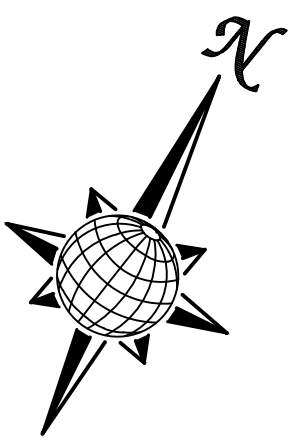
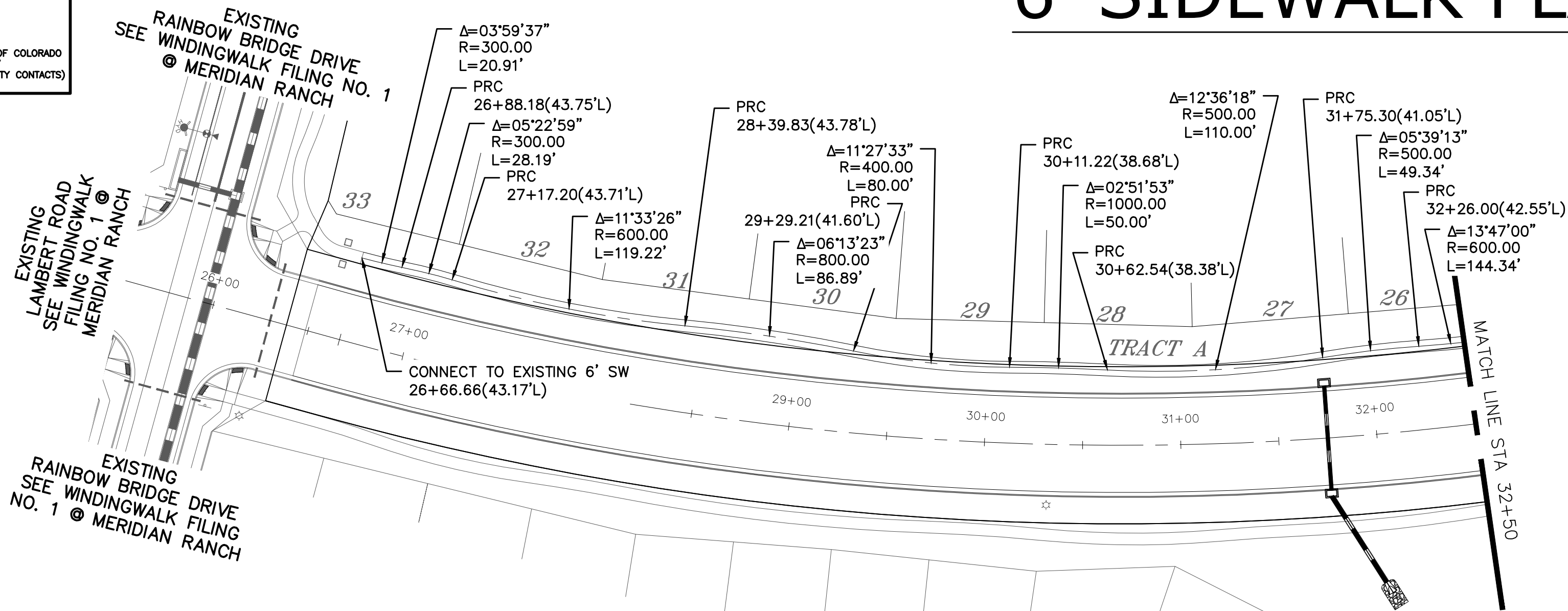
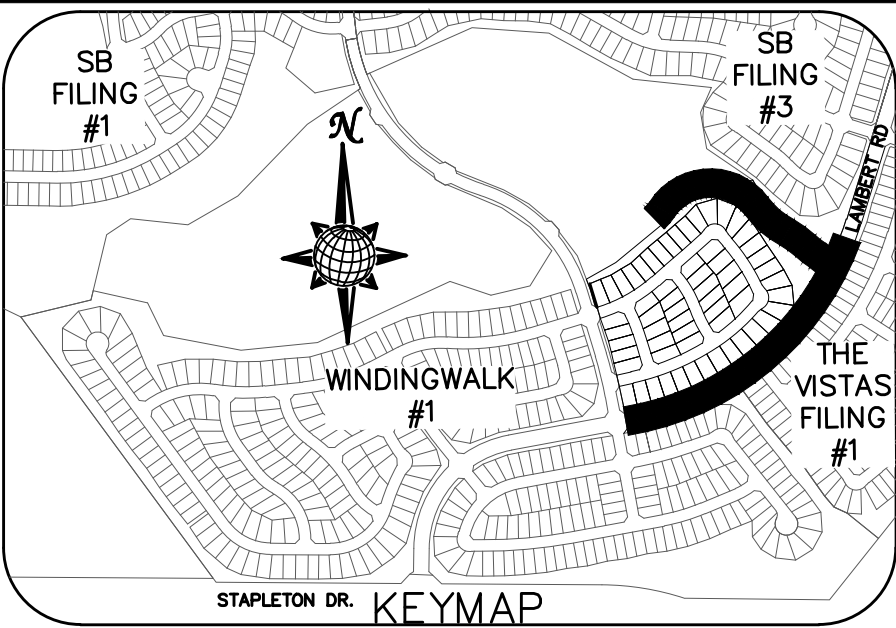






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OR  
UTILITY NOTIFICATION CENTER OF COLORADO  
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(SEE COVER FOR LIST OF UTILITY CONTACTS)

# 6' SIDEWALK PLAN

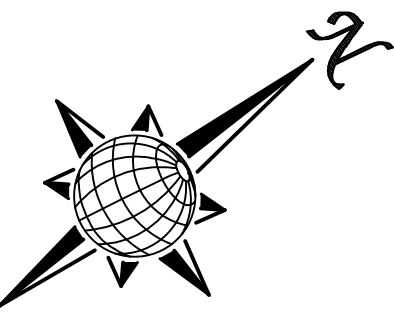
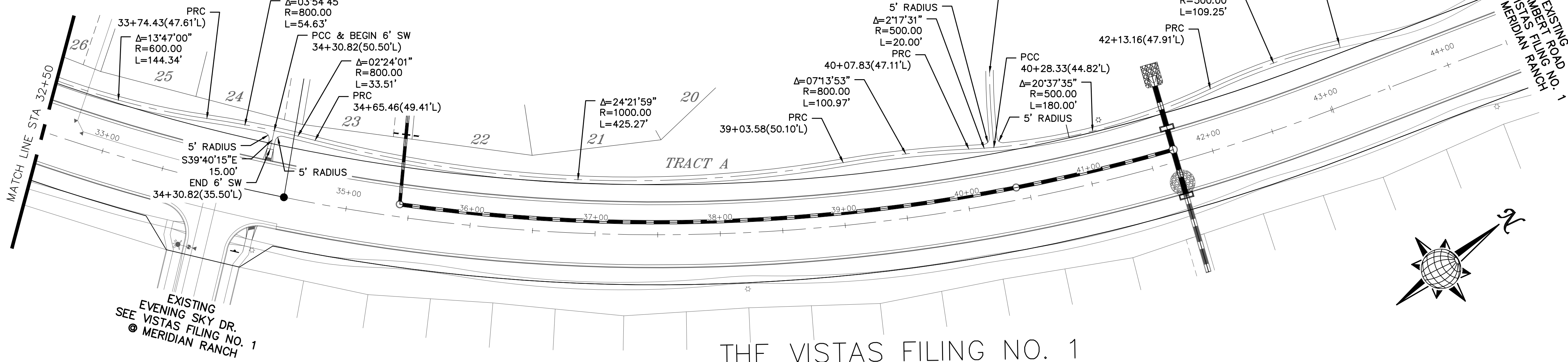


EXISTING  
RAINBOW BRIDGE DRIVE  
SEE WINDINGWALK FILING  
NO. 1 @ MERIDIAN RANCH

EXISTING  
LANBERT ROAD  
SEE WINDINGWALK  
FILING NO. 1 @ MERIDIAN RANCH

WINDINGWALK FILING NO. 1

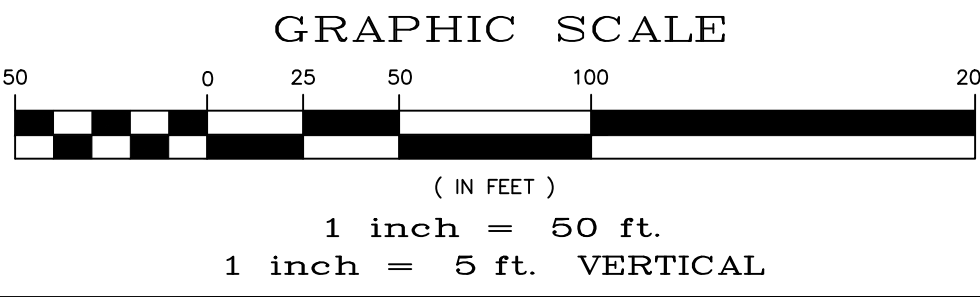
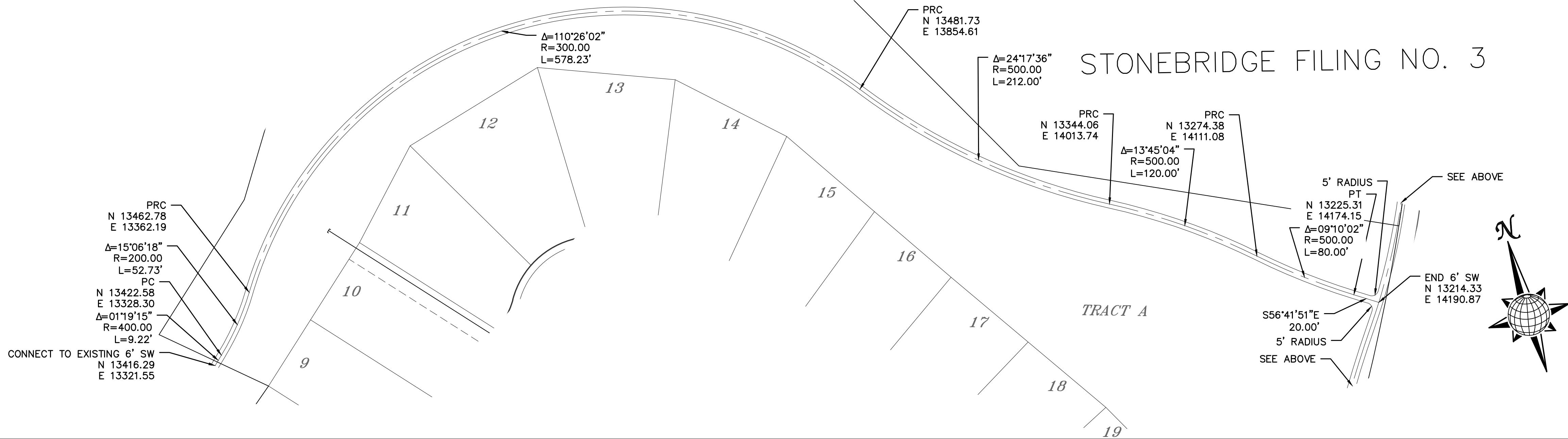
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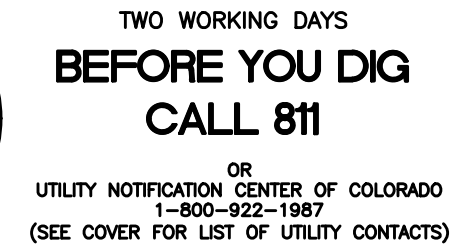
EXISTING  
EVENING SKY DR.  
SEE VISTAS FILING NO. 1  
@ MERIDIAN RANCH

THE VISTAS FILING NO. 1

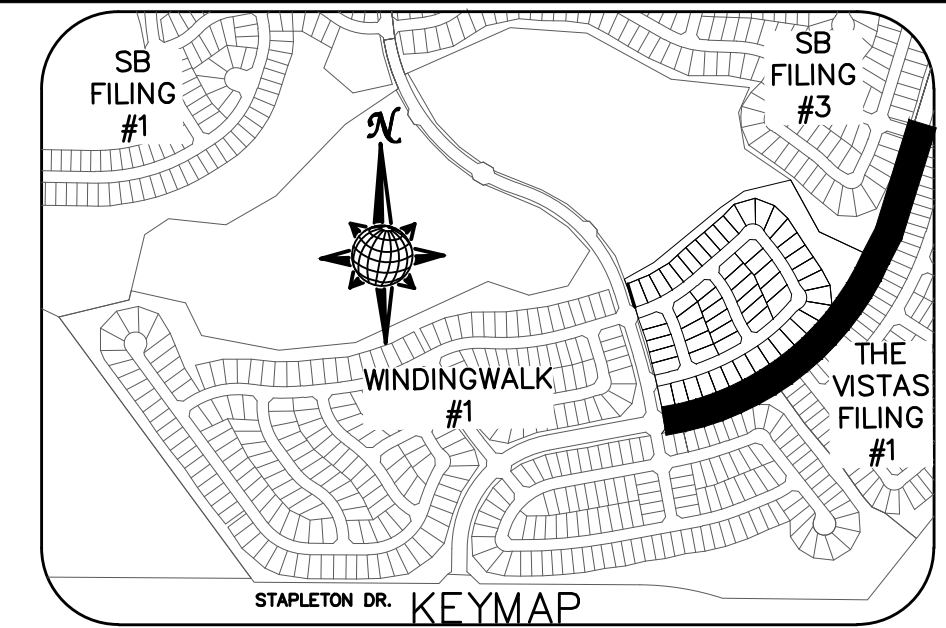
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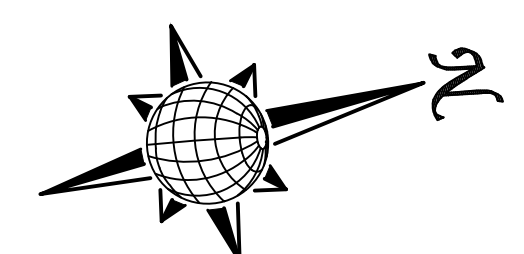
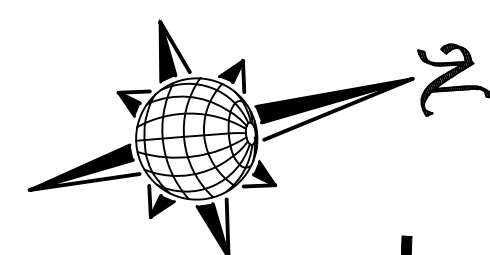
Date		Appr.		Date		Init.		Date		Revisions		No.	
TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE 719.495.7444 FAX 719.495.2457													
MERIDIAN RANCH													
WINDINGWALK F2 AT MERIDIAN RANCH STREET AND UTILITY PLANS 6' SIDEWALK PLAN													
Drawn by		Loc		Checked by		TAK		Date		SEPTEMBER 2016			
Scale		AS SHOWN		13		of		26					



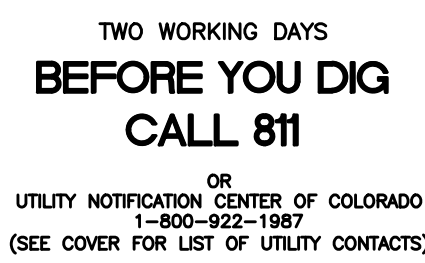
NOTE:  
DOTTED LINES TO BE  
2' LONG WITH 4' SPACING  
PER MUTCD STANDARD



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

[illegible]





NOTE:

CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.

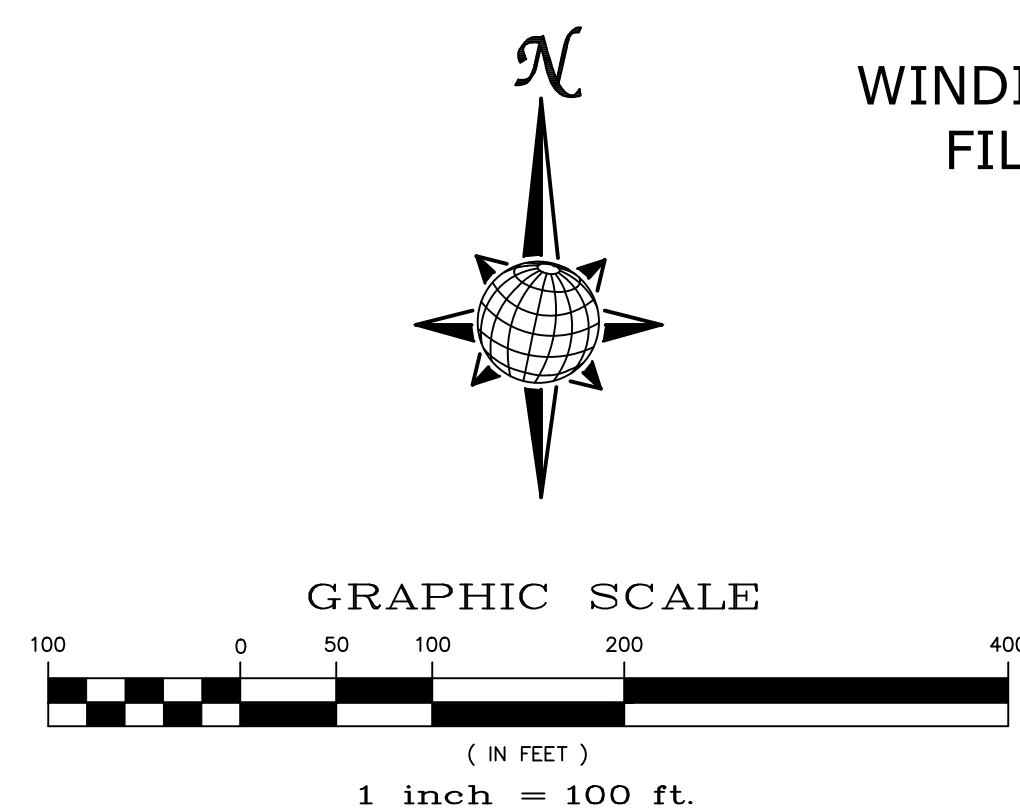
EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:

1)STONEBRIDGE FILING 3 AT MERIDIAN RANCH

2)THE VISTAS FILING 1 AT MERIDIAN RANCH

3)WINDINGWALK FILING NO. 1 @MERIDIAN RANCH

NOTE:  
8" SS UNLESS OTHERWISE LABELED.



WINDINGWALK  
FILING 1

STONEBRIDGE  
FILING 3

TRACT A

THE VISTAS  
FILING 1

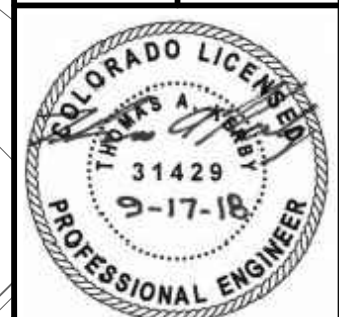
**TECH CONTRACTORS**  
**11886 STAPLETON DRIVE**  
**FALCON, CO 80831**  
**TELEPHONE: 719.495.7444**  
**FAX: 719.495.2457**



**MERIDIAN RANCH**

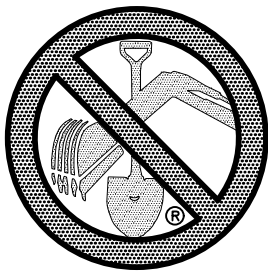
WINDINGWALK F2 AT MERIDIAN RANCH  
STREET AND UTILITY PLANS  
OVERALL SANITARY SEWER

Scale AS SHOWN	15 of 26	Drawn by	LOG
		Checked by	TAK
		Date	SEPTEMBER 2018



<i>No.</i>	<i>Revisions</i>
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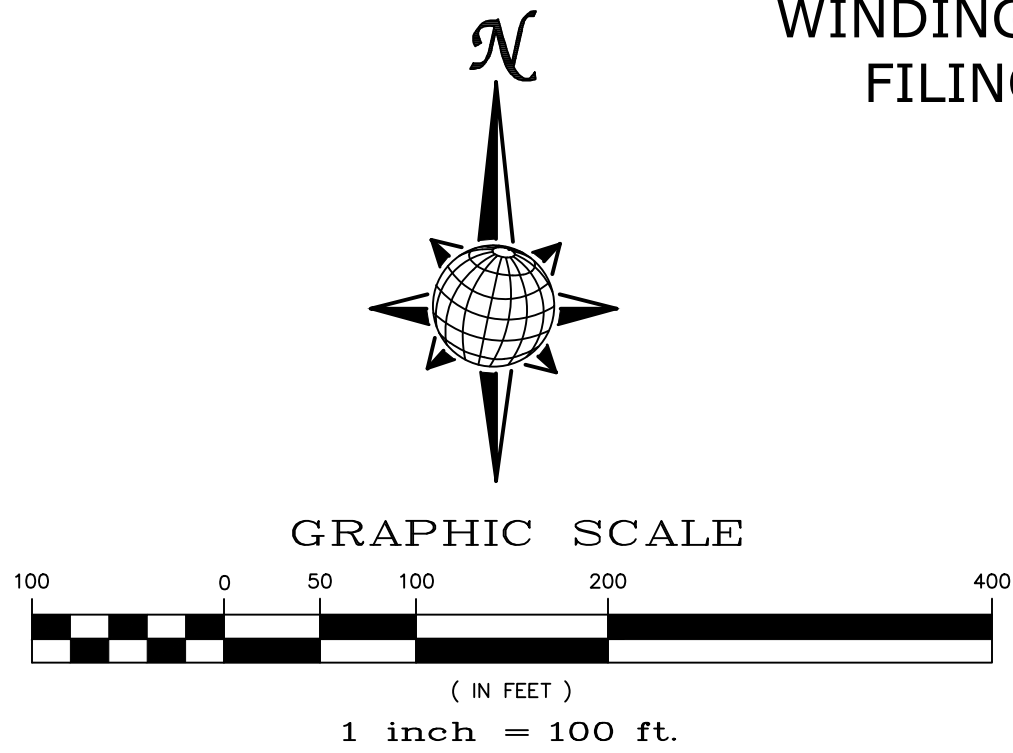
<i>Date</i>	<i>Init.</i>	<i>Appr.</i>	<i>Date</i>
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TWO WORKING DAYS  
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UTILITY NOTIFICATION CENTER OF COLORADO  
1-800-922-1987  
(SEE COVER FOR LIST OF UTILITY CONTACTS)

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2)THE VISTAS FILING 1 AT MERIDIAN RANCH  
3)WINDINGWALK FILING NO. 1 @MERIDIAN RANCH

NOTE:  
4" SS SERVICE UNLESS OTHERWISE LABELED.



WINDINGWALK  
FILING 1

STONEBRIDGE  
FILING 3

THE VISTAS  
FILING 1

No.	Revisions	Date	Init.	Appr.	Date

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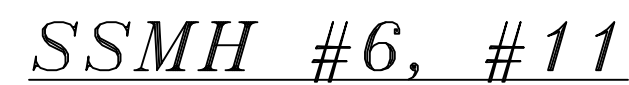
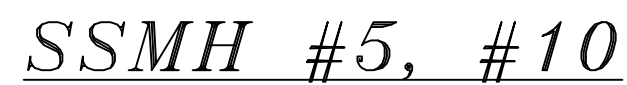
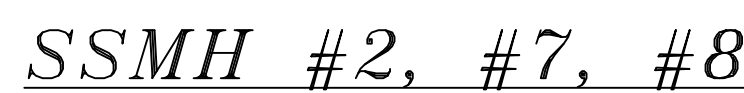


WINDINGWALK F2 AT MERIDIAN RANCH  
STREET AND UTILITY PLANS  
OVERALL SANITARY SEWER  
SERVICES

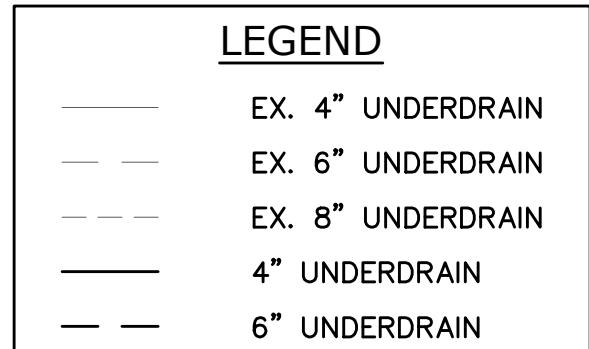
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AS SHOWN					
16 of 26					







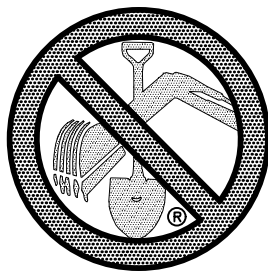
*SCALE* : *N.T.S.*



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 CSUD FOR SANITARY SEWER SYSTEMS. THE UNDERDRAIN SYSTEM AT EACH SANITARY SEWER MANHOLE SHALL CONTAIN CLEAN-OUTS AT EACH UNDERDRAIN MAIN DIRECTION PER THE CLEAN-OUT DETAIL. 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 CSUD 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 CSUD.
3. IF THE UNDERDRAIN MAIN HAS LOW SPOTS THAT EXCEED CSUD STANDARDS, THE CONTRACTOR SHALL REPAIR THE LINE AS NECESSARY TO MEET CSUD. 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.

PCD PROJECT NO. SF-18-022

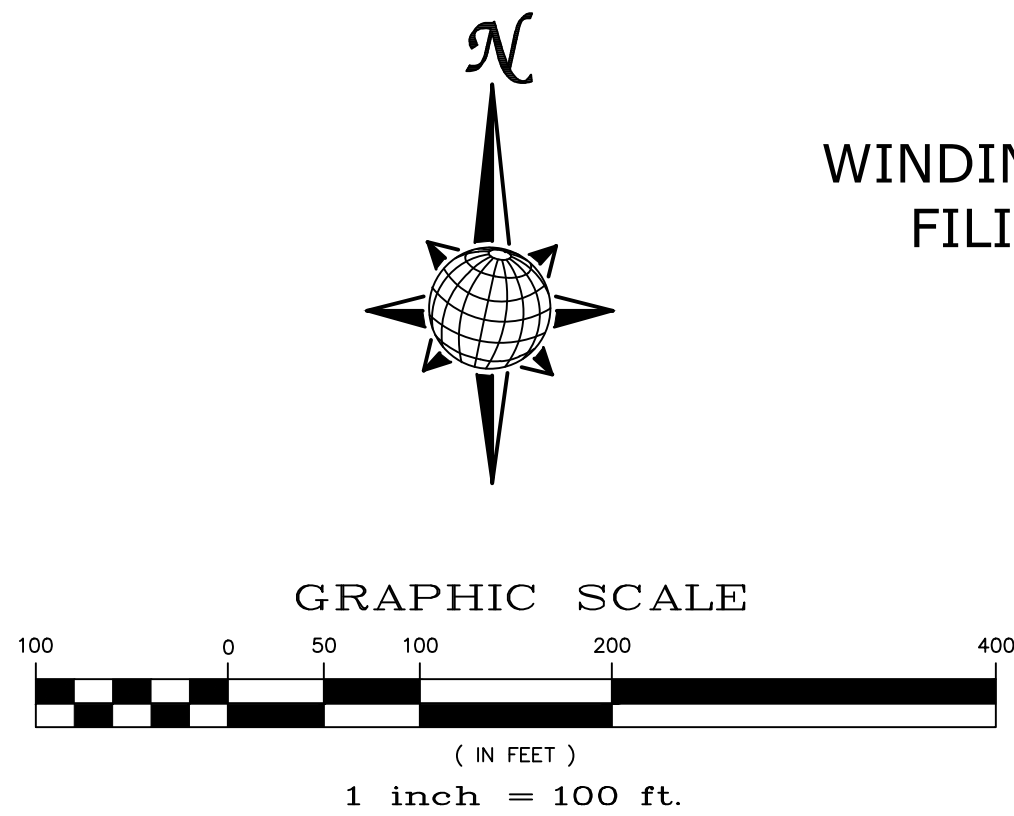


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1-800-922-1987  
(SEE COVER FOR LIST OF UTILITY CONTACTS)

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2)THE VISTAS FILING 1 AT MERIDIAN RANCH  
3)WINDINGWALK FILING NO. 1 @MERIDIAN RANCH

NOTE:  
8" WM 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



WINDINGWALK  
FILING 1

STONEBRIDGE  
FILING 3

THE VISTAS  
FILING 1

TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE: 719.495.7444 FAX: 719.495.2457		No.		Revisions		Date	Init.	Appr.	Date
WINDINGWALK F2 AT MERIDIAN RANCH		Scale		Drawn by		Checked by		Date	
STREET AND UTILITY PLANS		AS SHOWN		Loc		TAK		SEPTEMBER 2018	
OVERALL WATER		18 of 26							

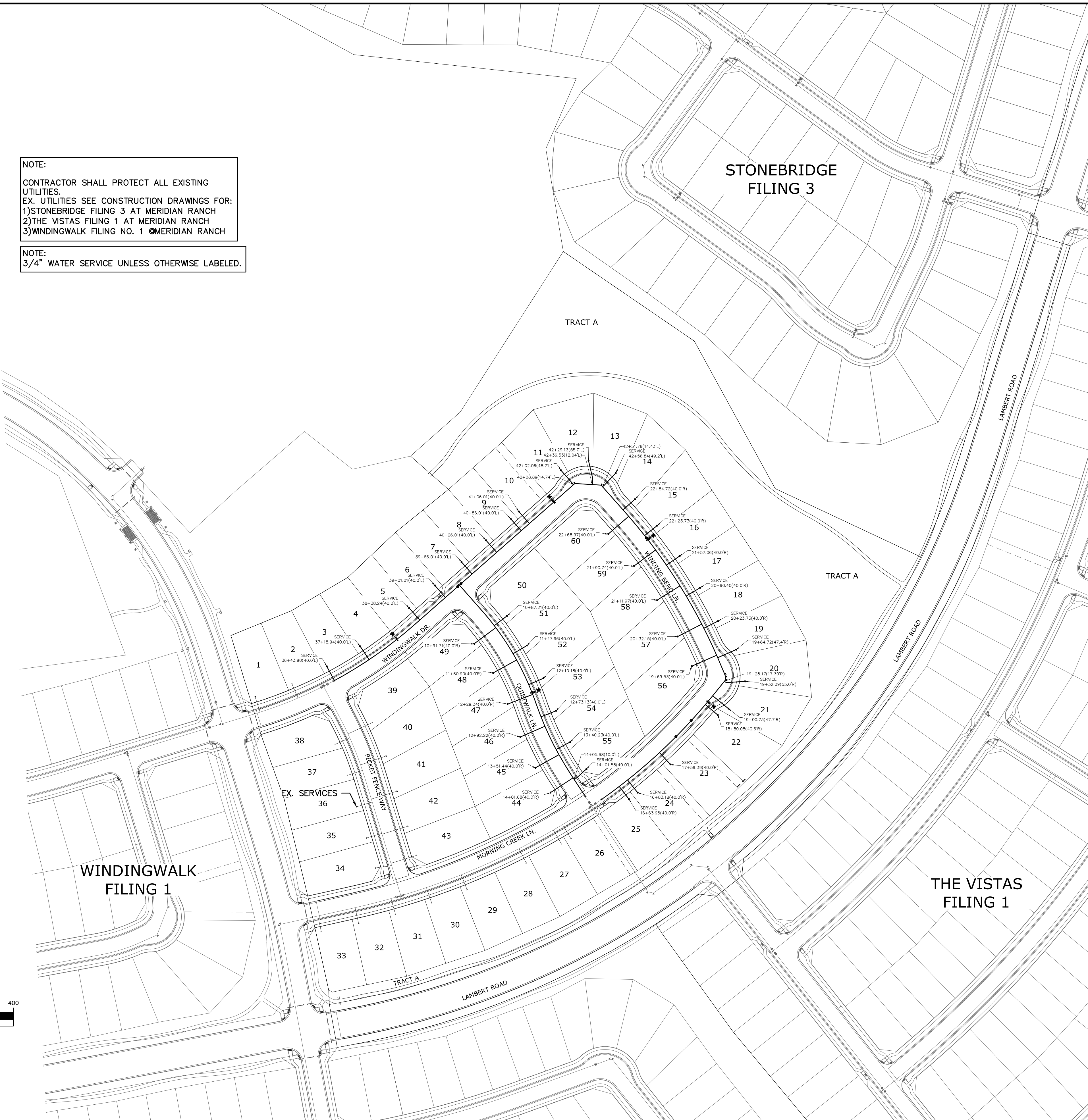
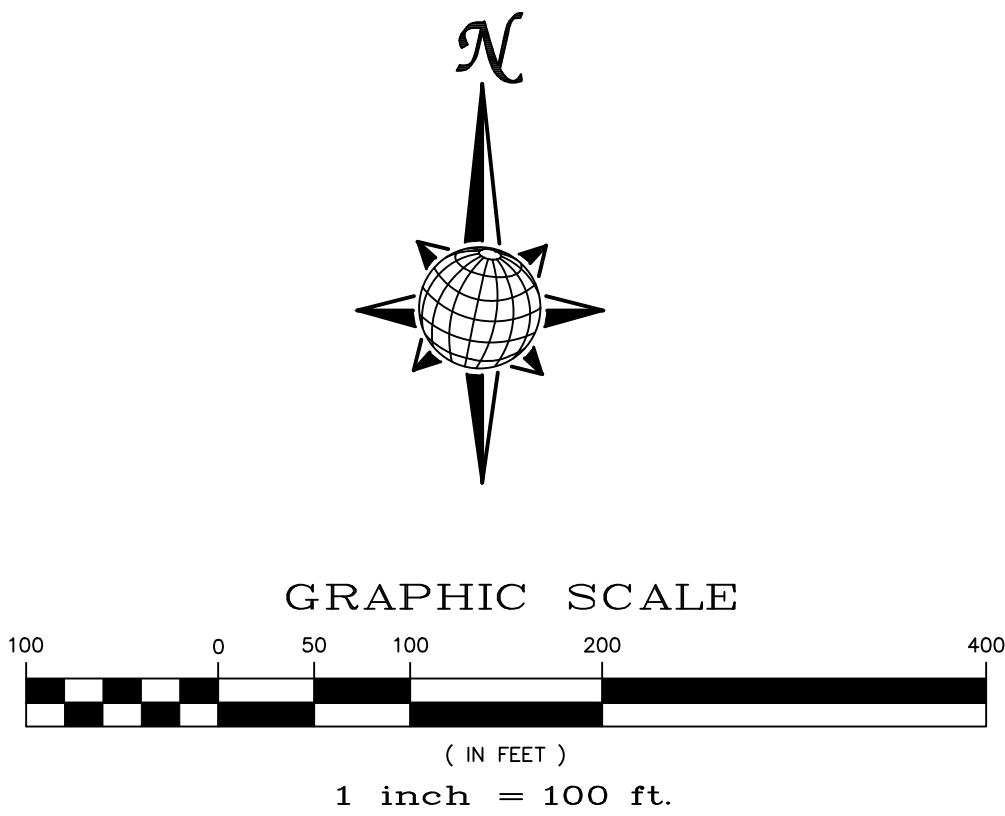




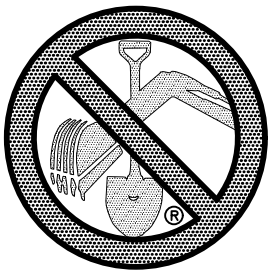
TWO WORKING DAYS  
**BEFORE YOU DIG**  
**CALL 811**  
OR  
UTILITY NOTIFICATION CENTER OF COLORADO  
1-800-922-1887  
(SEE COVER FOR LIST OF UTILITY CONTACTS)

NOTE:  
CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.  
EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:  
1)STONEBRIDGE FILING 3 AT MERIDIAN RANCH  
2)THE VISTAS FILING 1 AT MERIDIAN RANCH  
3)WINDINGWALK FILING NO. 1 @MERIDIAN RANCH

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

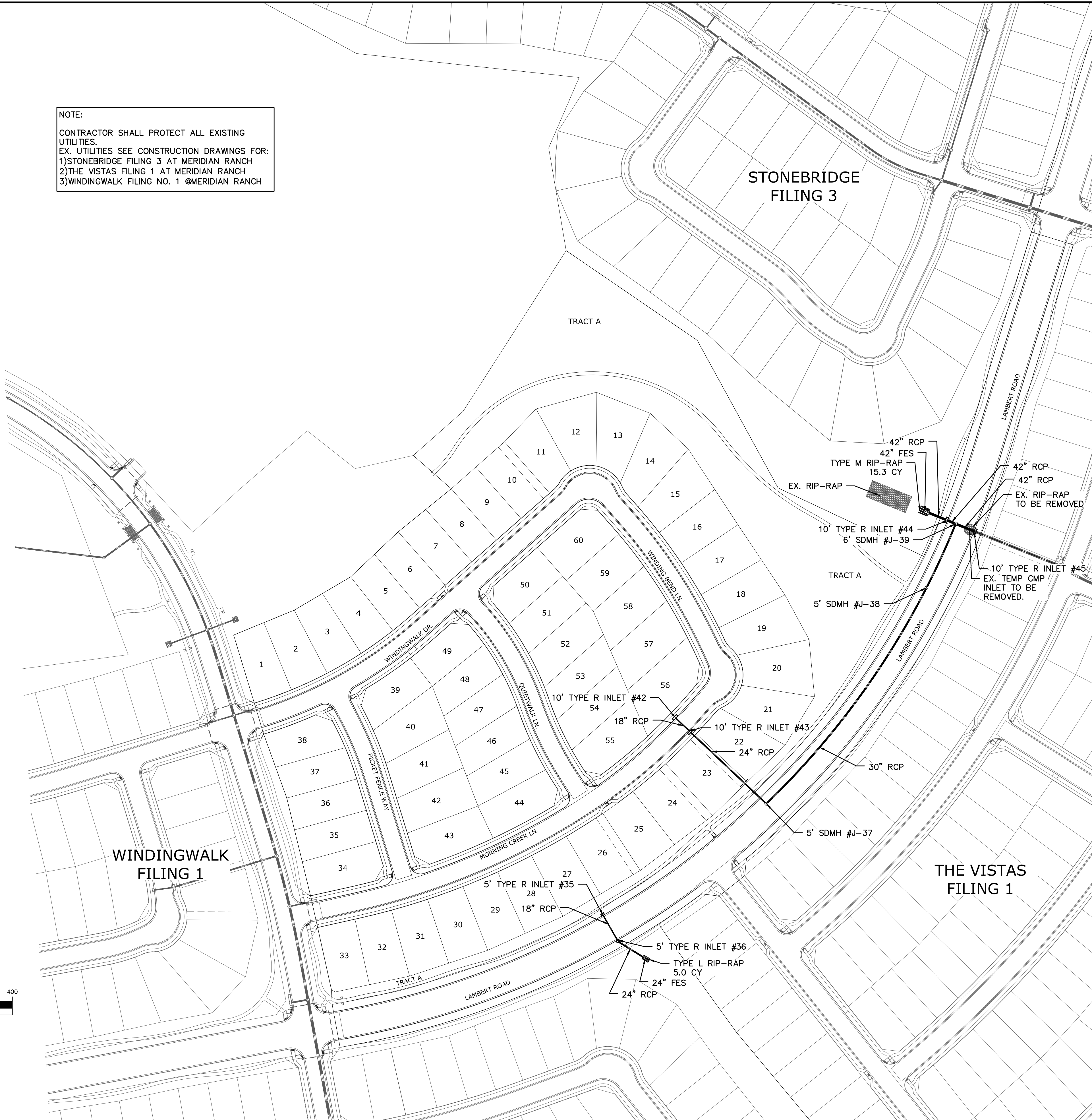
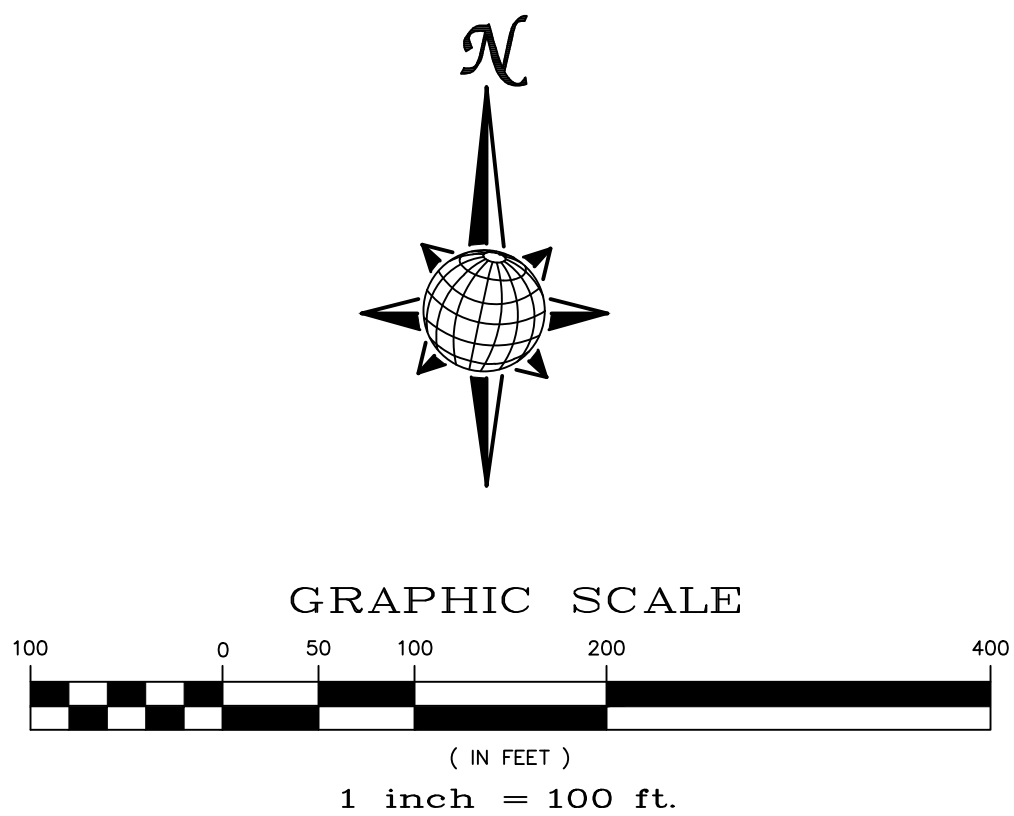


TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE: 719.495.7444 FAX: 719.495.2457		No.		Revisions		Date		Appr.		Date	
WINDINGWALK F2 AT MERIDIAN RANCH		Street and Utility Plans		Overall Water Services		Scale		AS SHOWN		19 of 26	
Drawn by		Loc		Checked by		TAK		Date		SEPTEMBER 2018	
31429		9-17-18		PROFESSIONAL ENGINEER		COLORADO LICENSE		31429		9-17-18	



TWO WORKING DAYS  
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TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE 719.495.7444 FAX 719.495.2457		No.		Revisions		Date	Appr.	Date
MERIDIAN RANCH		WINDINGWALK F2 AT MERIDIAN RANCH		STREET AND UTILITY PLANS		OVERALL STORM DRAIN		
Drawn by	Loc	Checked by	TAK	Date	SEPTEMBER 2018			
Scale	AS SHOWN		20	of	26			



1. CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM PLANNING AND COMMUNITY DEVELOPMENT (PCD) AND A PRECONSTRUCTION CONFERENCE IS HELD WITH PCD INSPECTIONS.

3. 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.

4. 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. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED STORMWATER MANAGER, SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.

5. ONCE THE ESQCP HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPs AS INDICATED ON THE 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 PCD INSPECTIONS STAFF.

6. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 21 CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE, HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPs SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.

7. TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES PURSUANT TO STANDARDS AND SPECIFICATION PRESCRIBED IN THE DCM VOLUME II AND THE ENGINEERING CRITERIA MANUAL (ECM) APPENDIX I.

8. ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPs IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME II AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT PLAN (SWMP).

9. ALL TEMPORARY EROSION CONTROL FACILITIES INCLUDING BMPs AND ALL PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF ANY EARTH DISTURBANCE OPERATIONS, SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS, THESMP AND THE DCM VOLUME II AND MAINTAINED THROUGHOUT THE DURATION OF THE EARTH DISTURBANCE OPERATION.

10. ANY EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE 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.

11. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE DISCHARGE TO A NON-EROSIVE VELOCITY.

12. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.

13. EROSION CONTROL BLANKETING IS TO BE USED ON SLOPES STEEPER THAN 3:1.

14. BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER 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. BMP'S MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.

15. VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFFSITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.

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. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.

18. 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.

19. NO CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.

20. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.

21. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR IN THE DITCHLINE.

22. INDIVIDUALS 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 INCLUDED IN THE DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.

23. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS

24. PRIOR TO ACTUAL CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

25. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.

26. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING, INC. AND SHALL BE CONSIDERED A PART OF THESE PLANS.

27. AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB 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

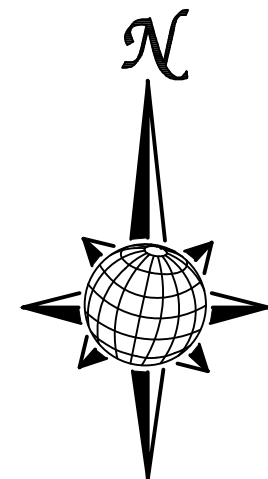
STONEBRIDGE  
FILING 3

# THE VISTAS FILING 1

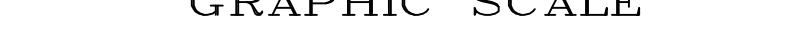
A large, stylized graphic of the numbers '23' in a bold, outlined font. The background features a grid of thin, light gray lines. The number '2' has a small '28' written inside its upper loop.

# WINDINGWALK

## FILING 1



**GRAPHIC SCALE**



( IN FEET )

**1 inch = 100 ft.**

NET YARDS	BALANCE	
TOTAL STRIPPINGS	0.26 AC.	140 CY
	<u>CUT</u>	<u>FILL</u>
NET YARDS	1,330 CY	1,330 CY

20% COMPACTION FACTOR



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11886 STAPLETON DRIVE  
FALCON, CO 80831  
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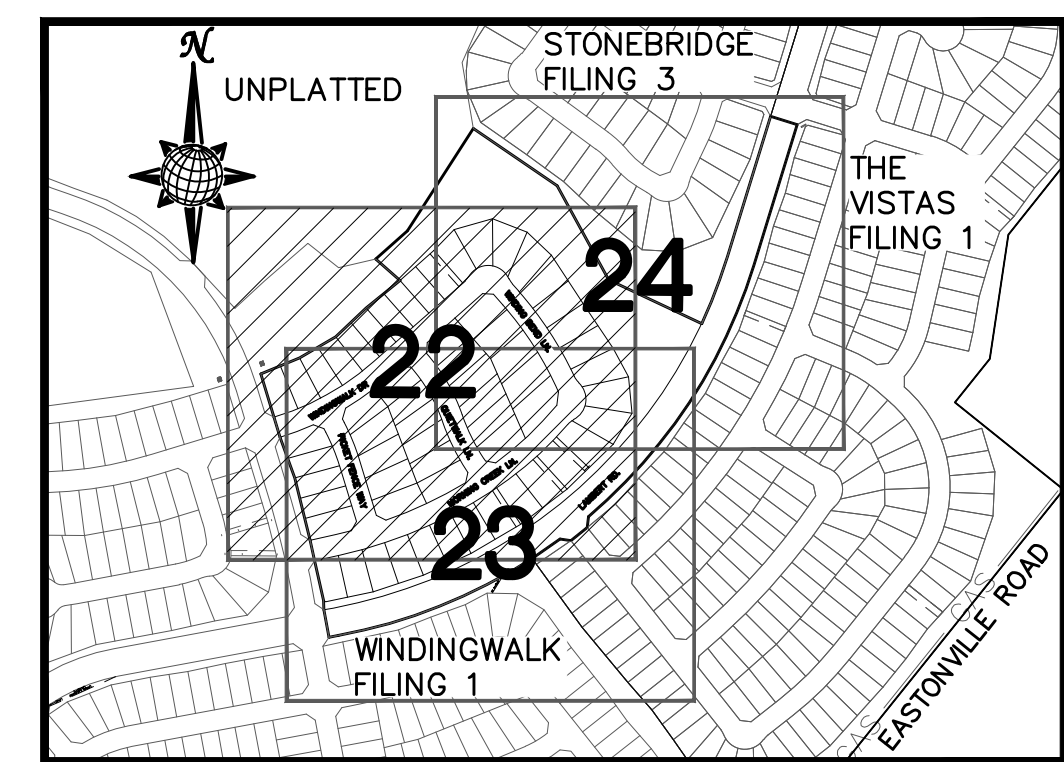
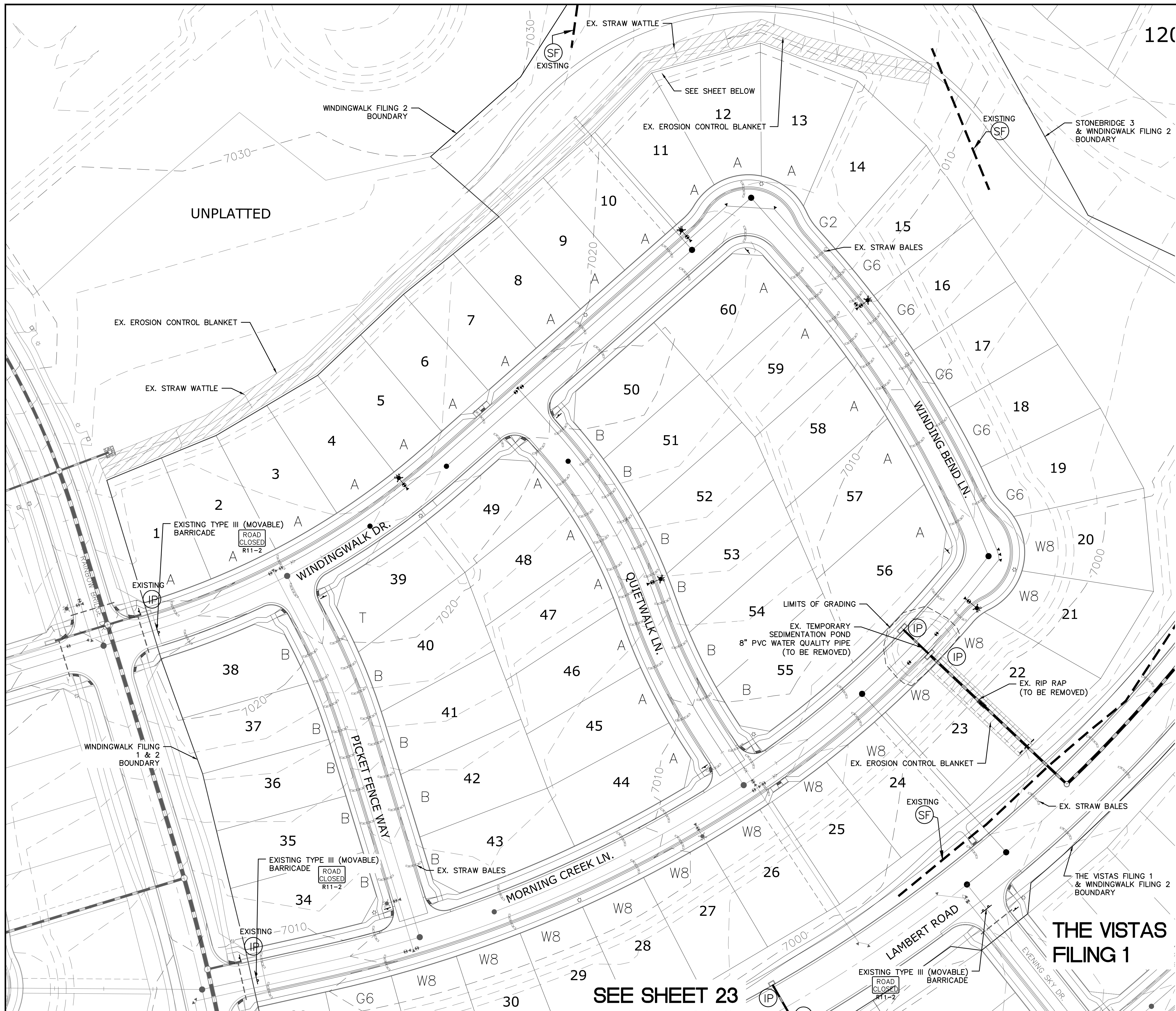
**MERIDIAN RANCH**

WINDINGWALK F2 AT MERIDIAN RANCH  
GRADING+EROSION CONTROL PLAN  
INDEX SHEET

Scale AS SHOWN	Drawn by LGG
	Checked by TAK
	Date SEPTEMBER 2018
21 of 26	




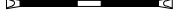














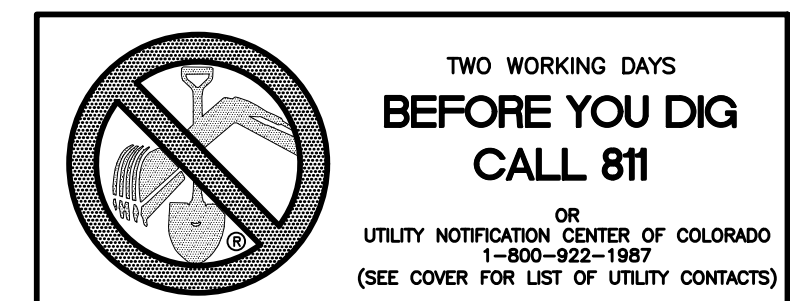
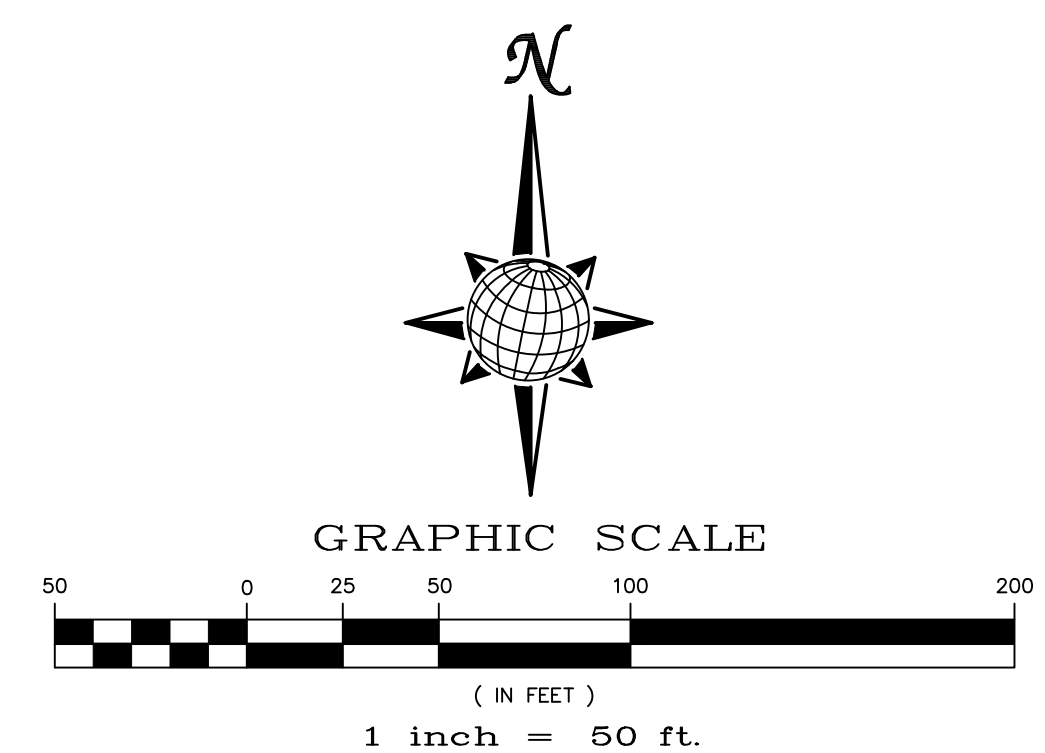
*INDEX MAP*  
N.T.S.

LEGEND

SYMBOL	ACRONYM	DESCRIPTION
		STRAW BALES
		EROSION WATTLES PER DETAIL SHEET 26
		EROSION CONTROL BLANKET 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)	INLET PROTECTION PER DETAIL SHEET 26
		GRADING BOUNDARY
		EXISTING CONTOUR (10')
		EXISTING CONTOUR (2')
		PROPOSED CONTOUR (10')
		PROPOSED CONTOUR (2')
2.00%		GRADE
75		LOT NUMBER
A		LOT GRADE TYPE

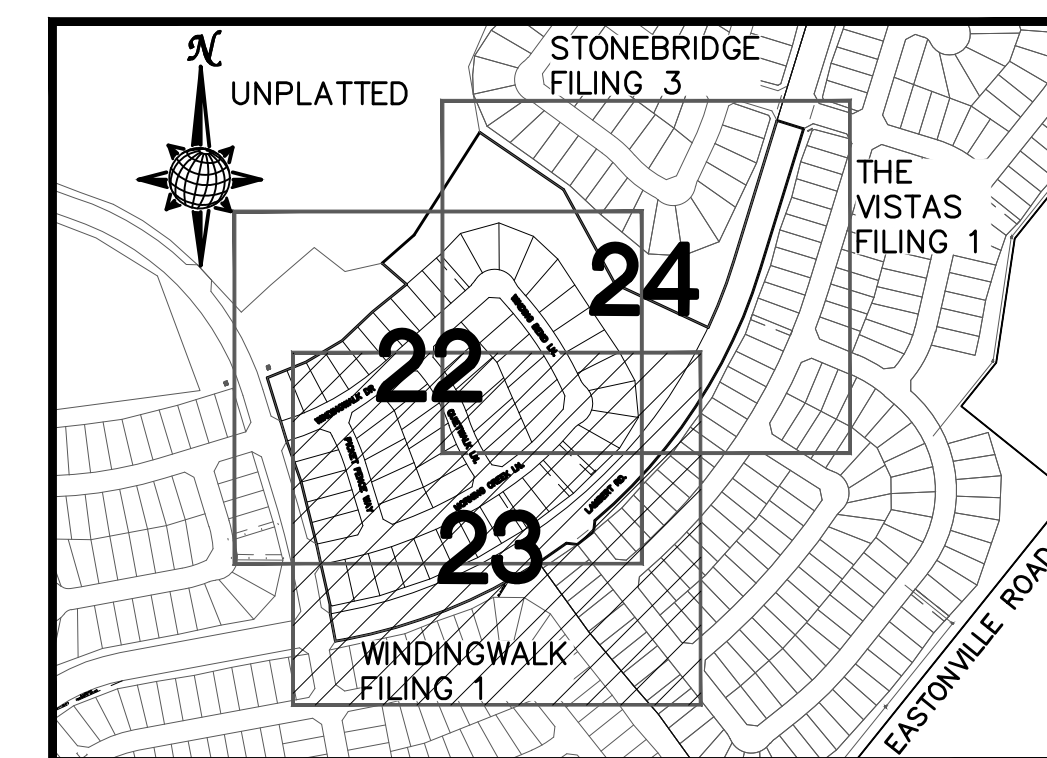
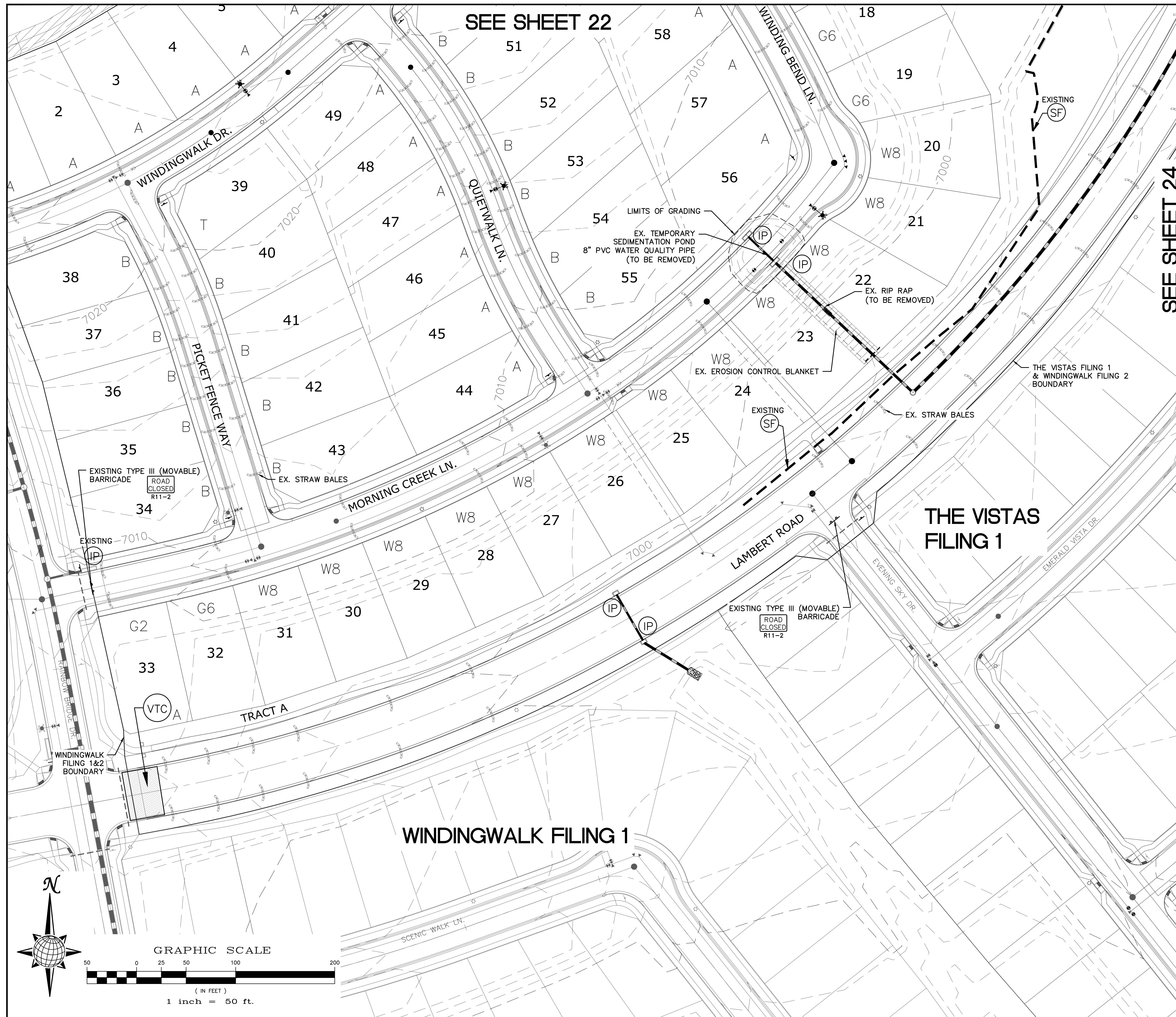
NOTE:  
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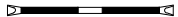






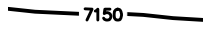

	Scale AS SHOWN	<i>Drawn by</i> LOG	WINDINGWALK F2 AT MERIDIAN RANCH	 <b>MERIDIAN RANCH</b>	TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831  TELEPHONE: 719.495.7444 FAX: 719.495.2457								
	22 of 26					<i>Checked by</i> TAK							
		<i>Date</i> SEPTEMBER 2018											
									No.	Revisions	Date	Appr.	Date






*INDEX MAP*  
N.T.S.

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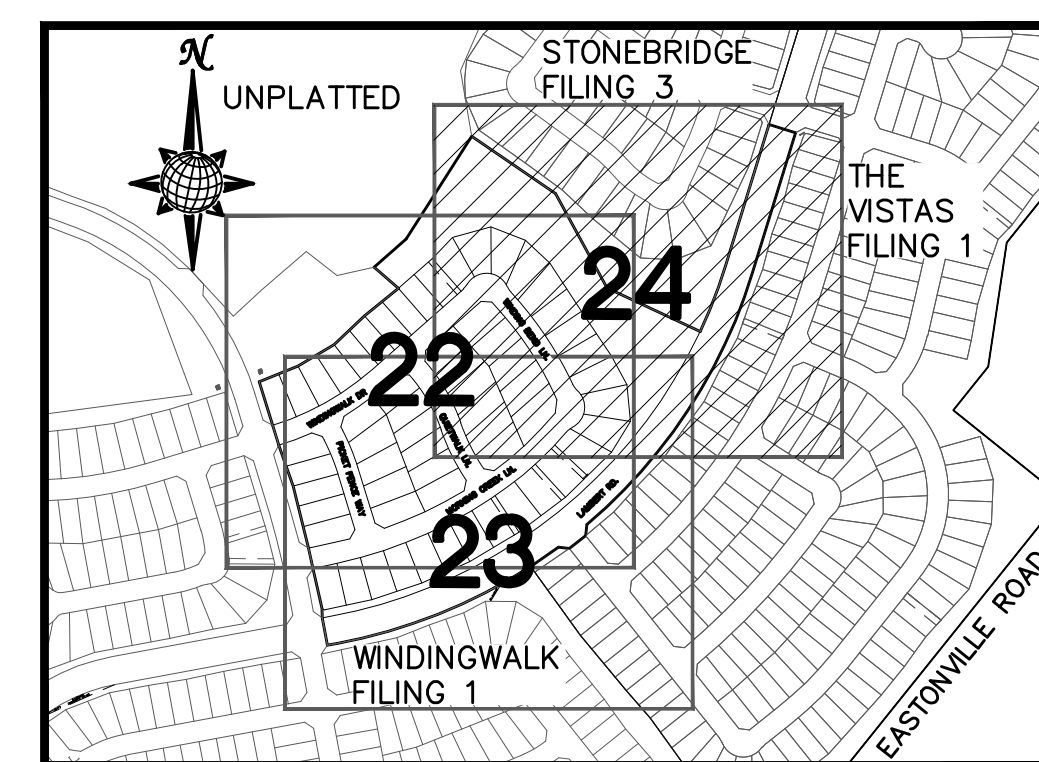
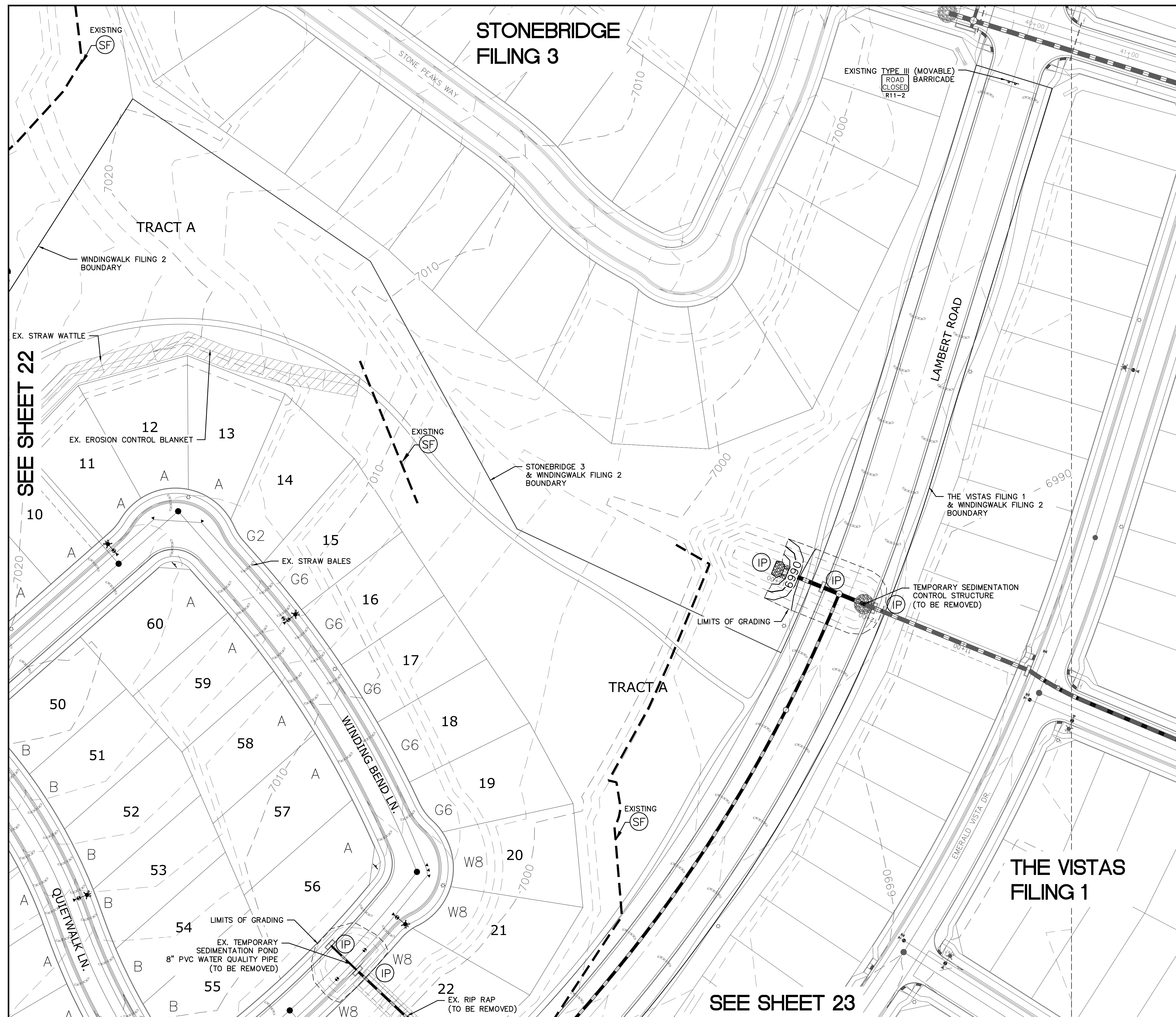
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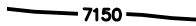

	Scale AS SHOWN	Drawn by LCG	WINDINGWALK F2 AT MERIDIAN RANCH	 <b>MERIDIAN RANCH</b>	TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE: 719.495.7444 FAX: 719.495.2457								
						Checked by TKK							
	23 of 26	Date SEPTEMBER 2018											





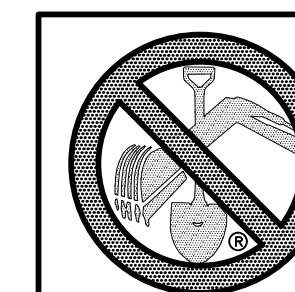
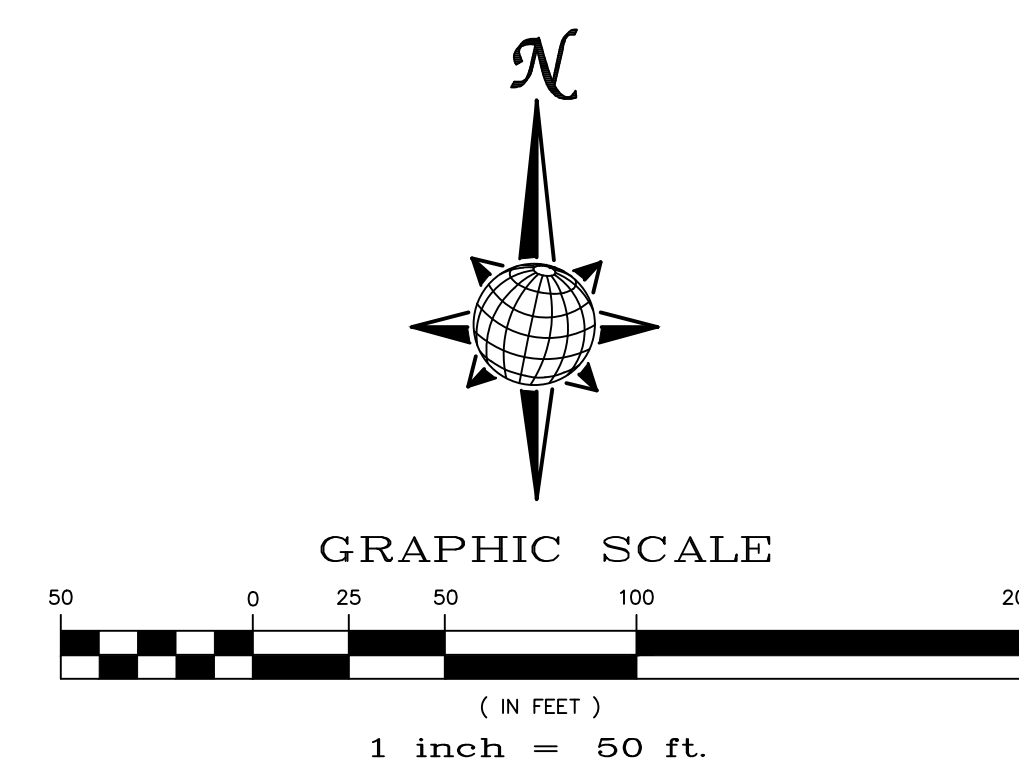
*INDEX MAP*  
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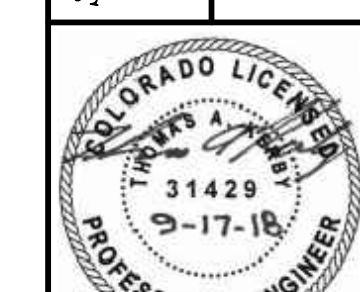
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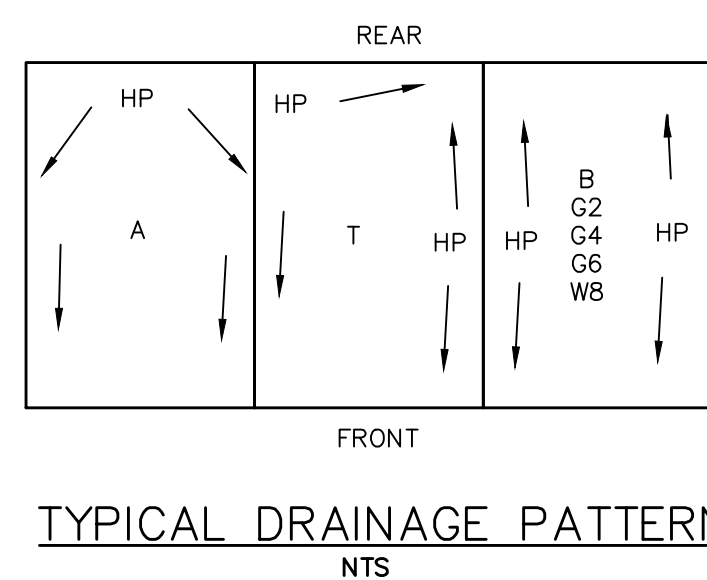
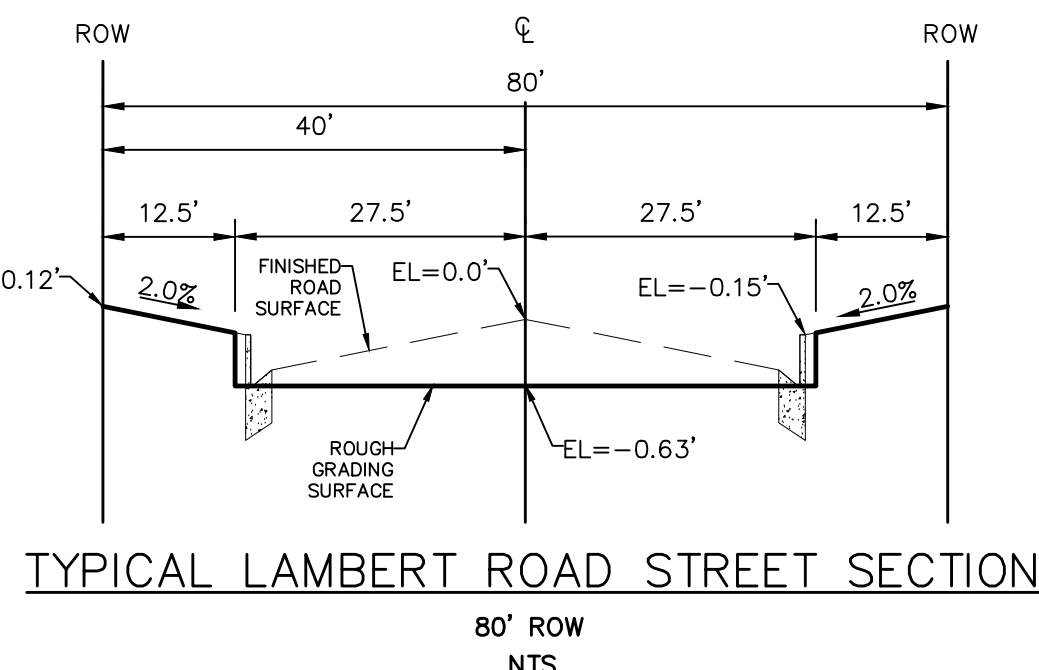
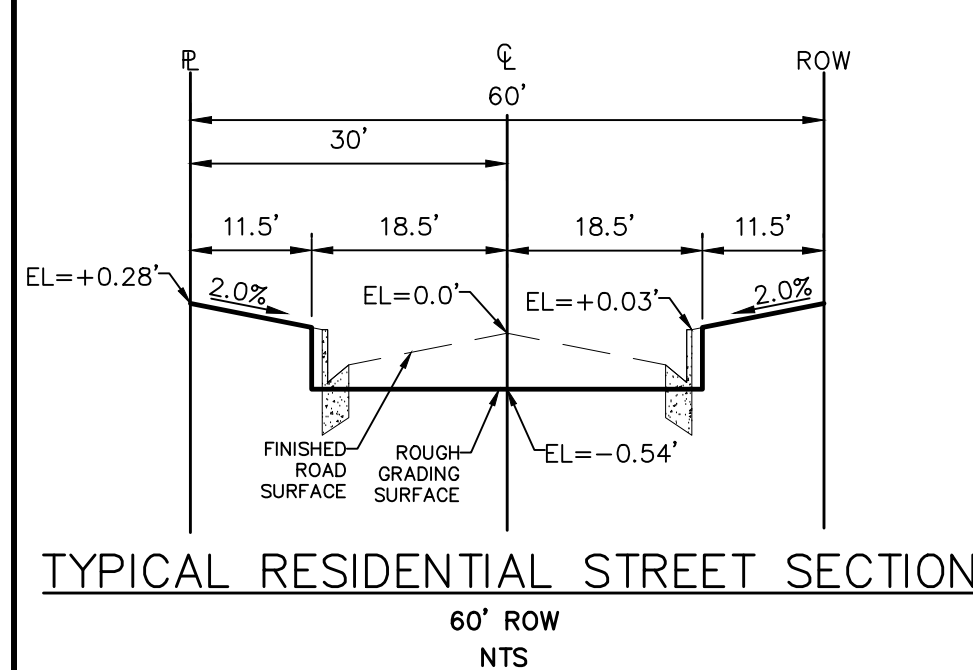
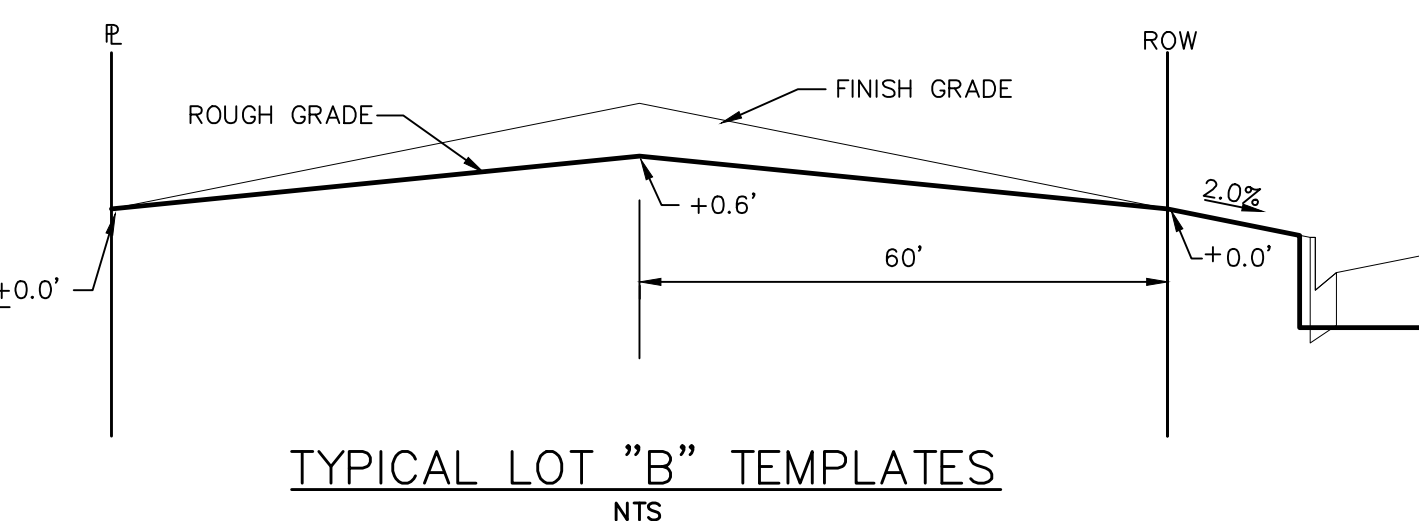
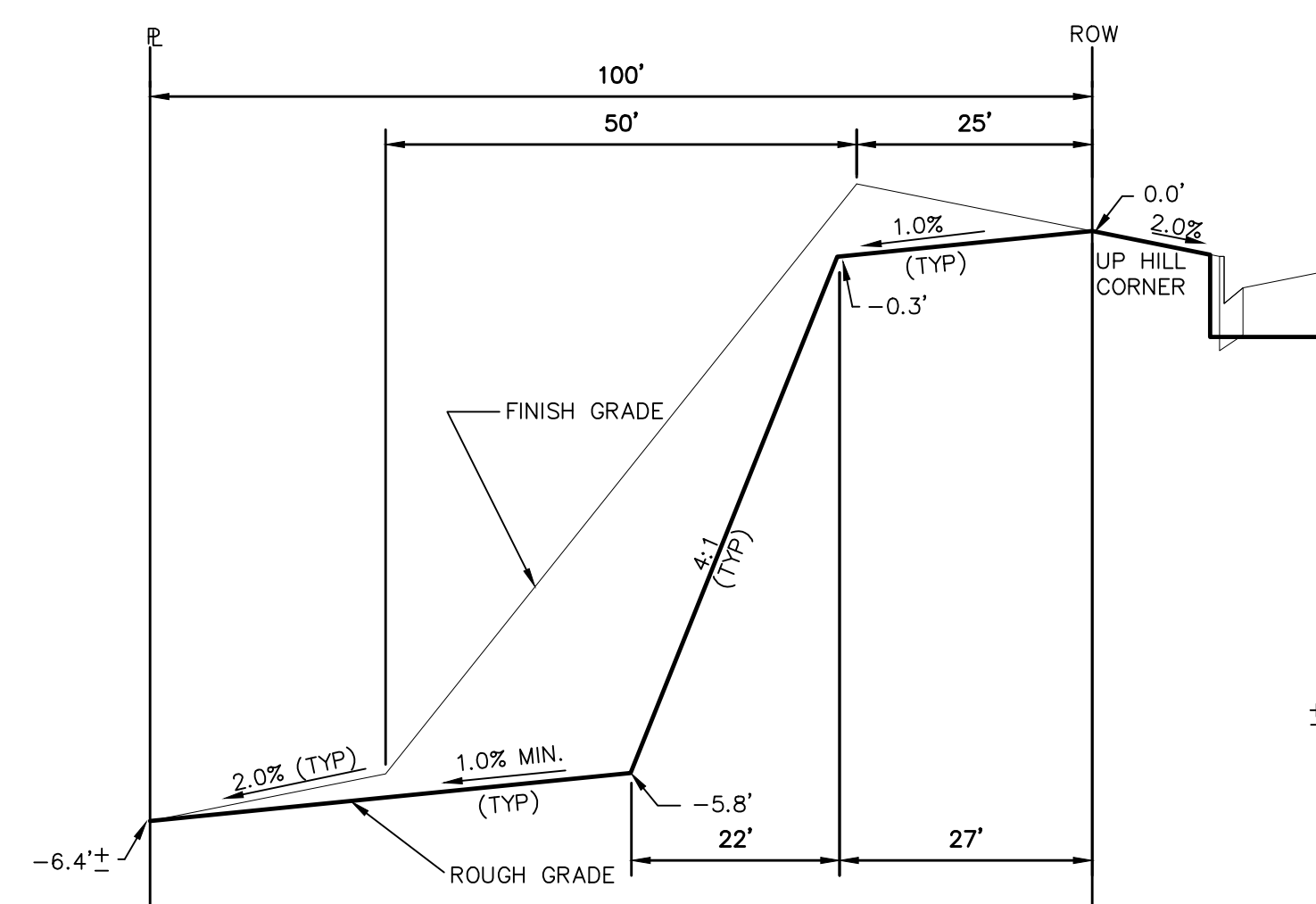
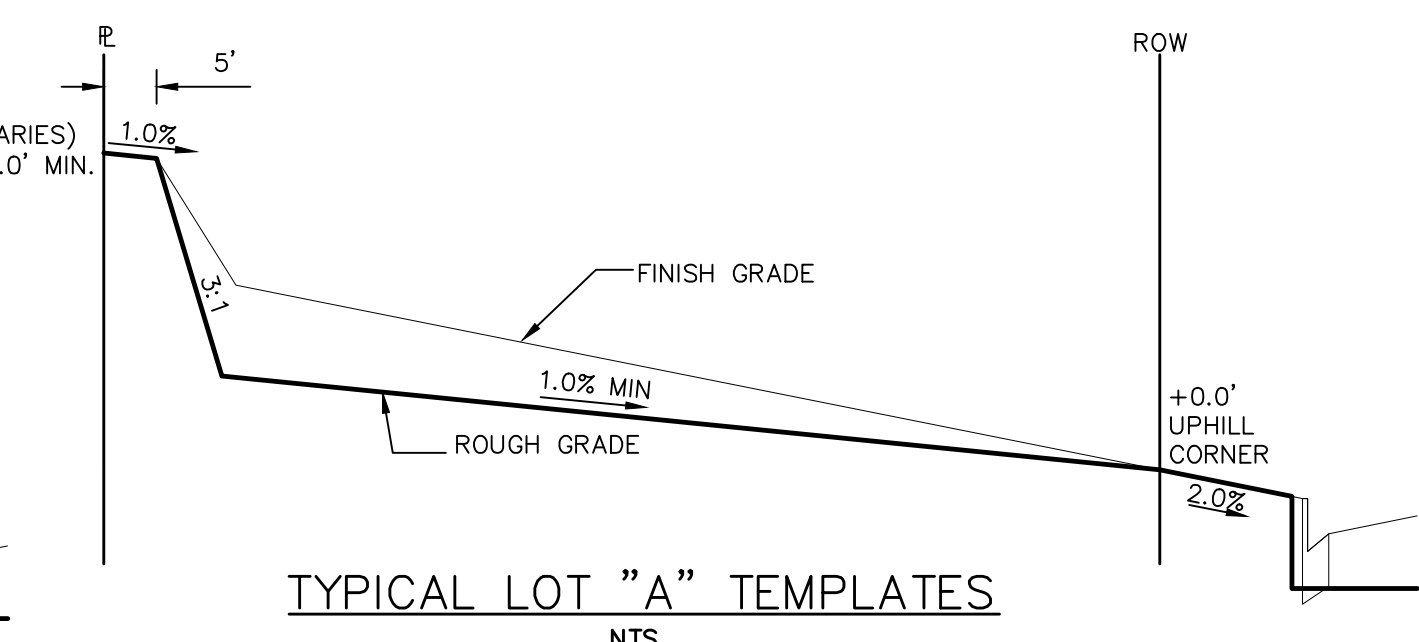
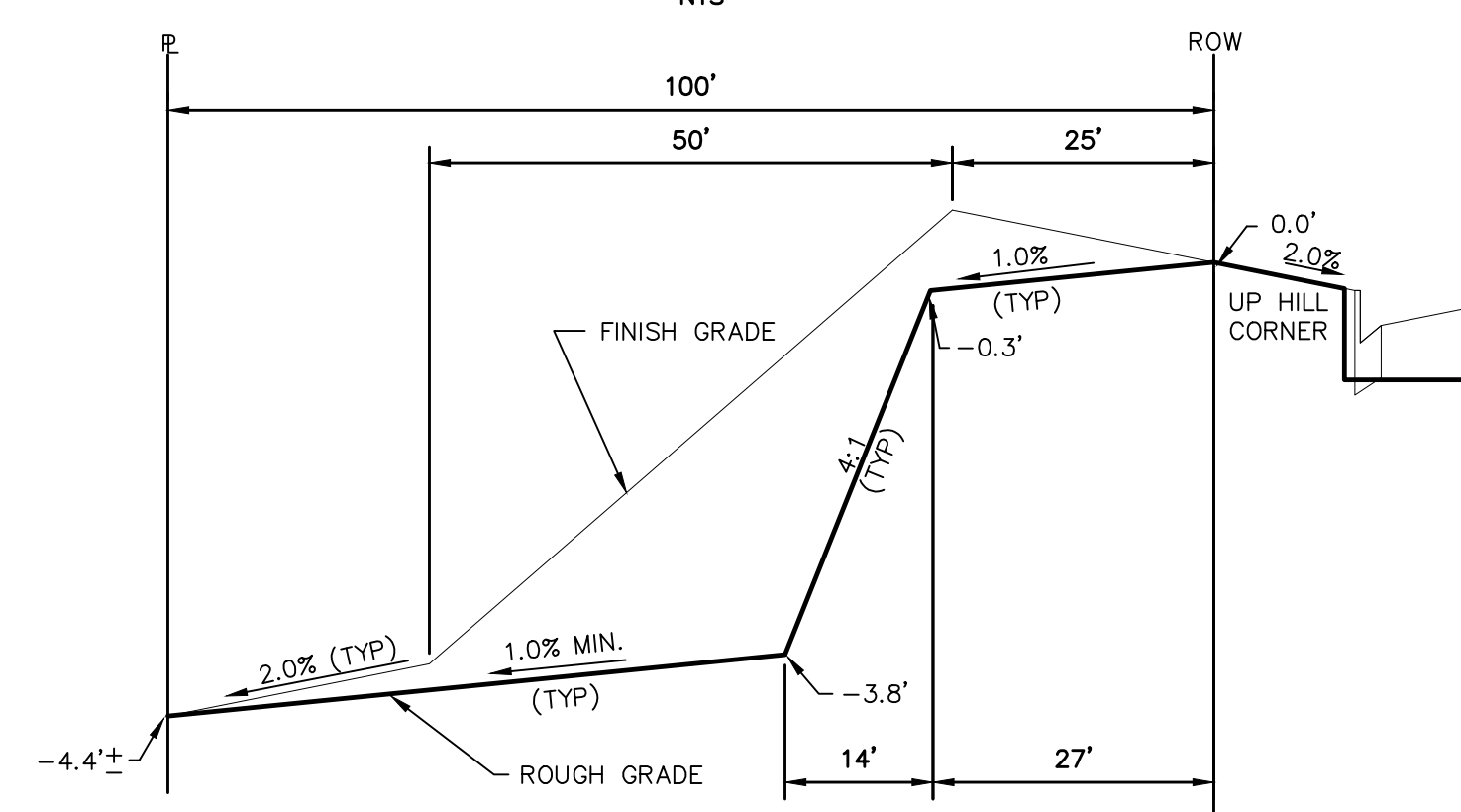
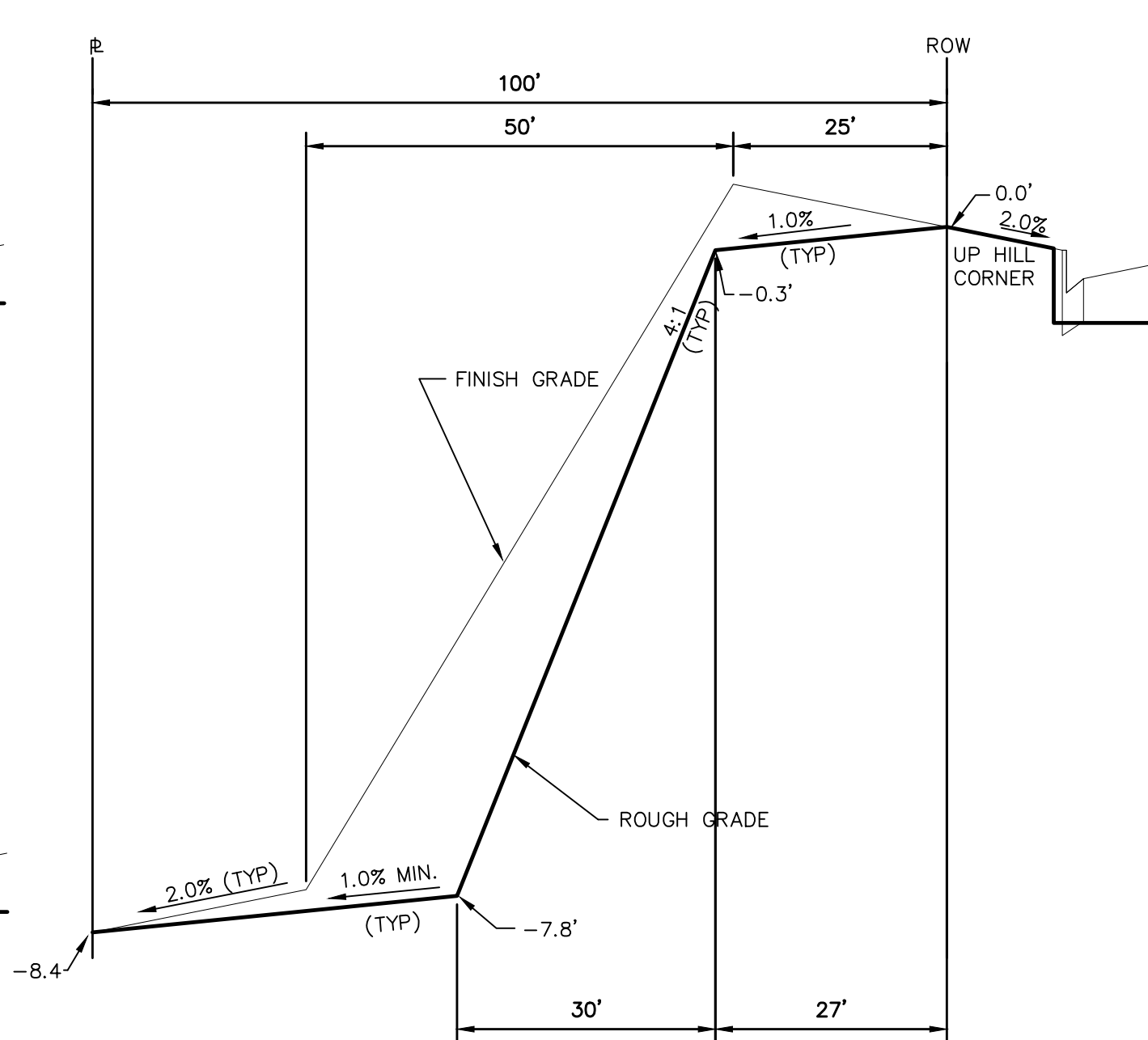
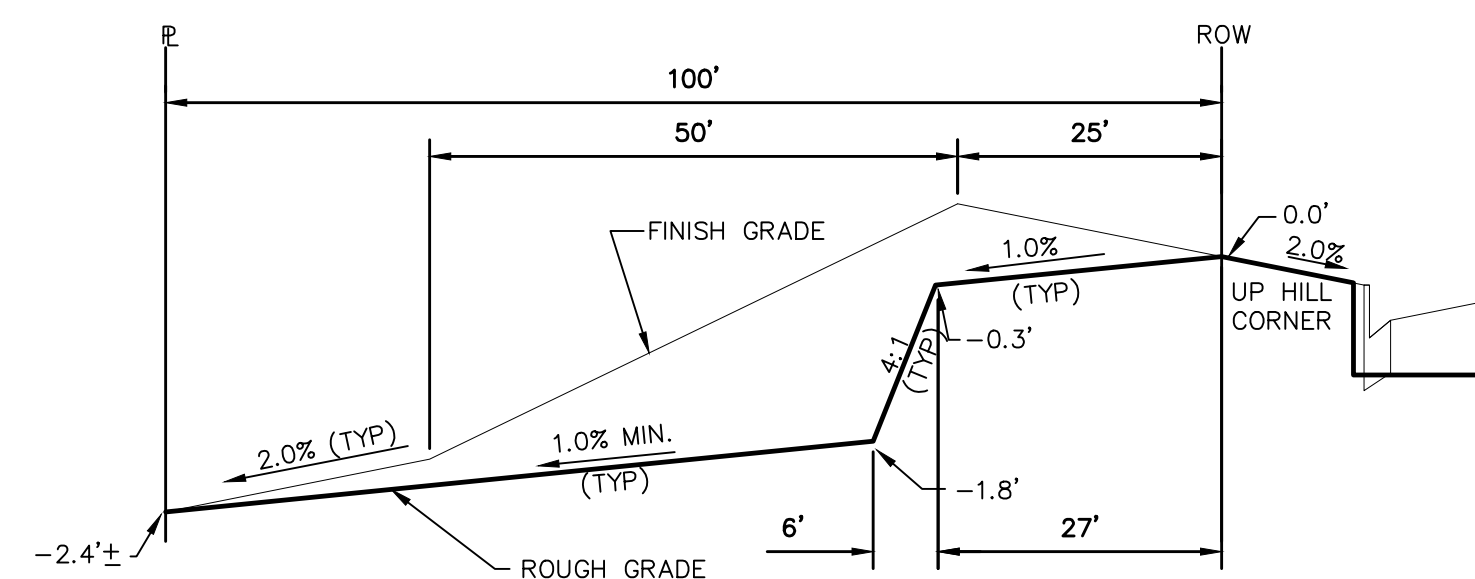


WINDINGWALK F2 AT MERIDIAN RANCH  
GRADING+EROSION CONTROL PLAN  
LAYOUT

Scale AS SHOWN	Drawn by LGA
	Checked by TAK
	Date SEPTEMBER 2018







### STEPS FOR CONSTRUCTION

THE ANTICIPATED START FOR THIS PROJECT IS DECEMBER 2018 WITH AN ANTICIPATED COMPLETION DATE OF MAY 2019. 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, FILTERX OR APPROVED EQUAL WILL BE PLACED AT ALL ENTRANCES AND EXITS OF DRAINAGE WAYS. STRAW BALES, FILTERX 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.

## 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 FILTER 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 GRAP ON ANY OF THE OUTLETS WILL REMAIN AFTER CONSTRUCTION TO REDUCE EROSION OF THE CHANNELS. ALL PERMANENT SNAWLES 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 WHEN EROSION PATTERNS OR FLOODING CONDITIONS ARE OBSERVED AND REPAIRED.
- \* 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.

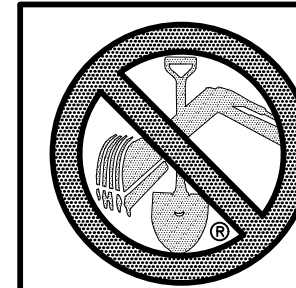
AN INSPECTION AND MAINTENANCE LOG FOLLOWS THIS STORMWATER MANAGEMENT PLAN.

## 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 USED, TWO OPERATIONS SHALL BE REQUIRED. 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.

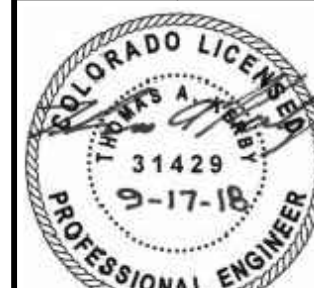
BELOW IS THE ACCEPTED GRASS MIX FOR SANDY SOILS:

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



**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)



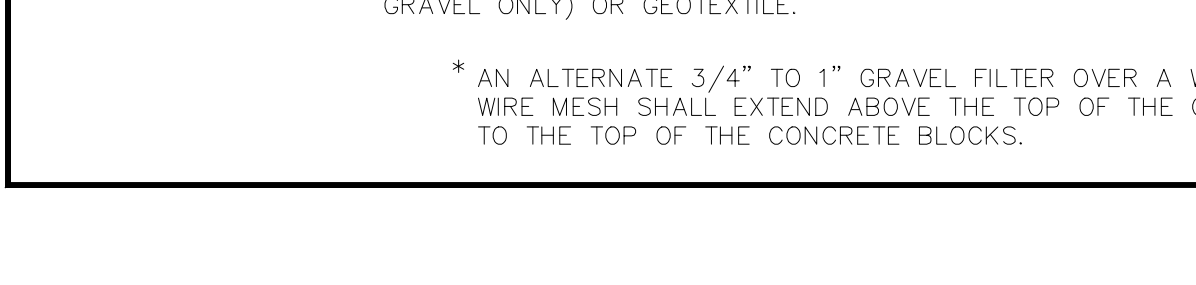
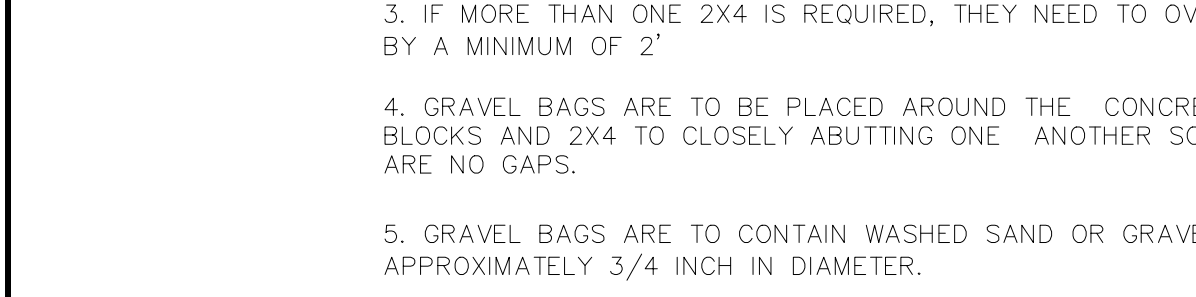
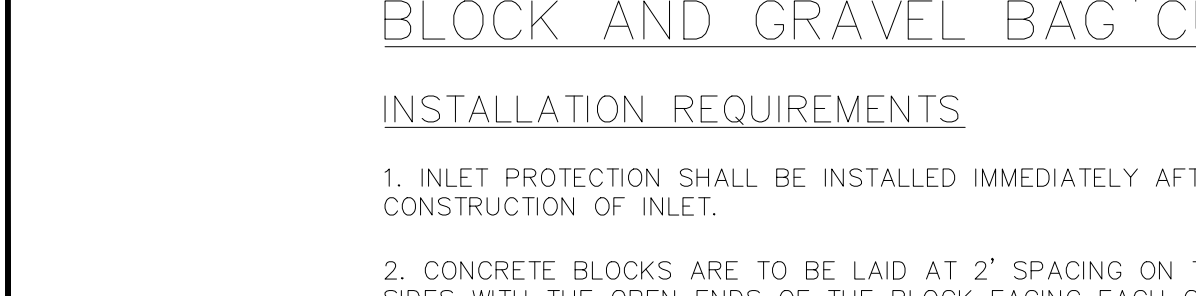
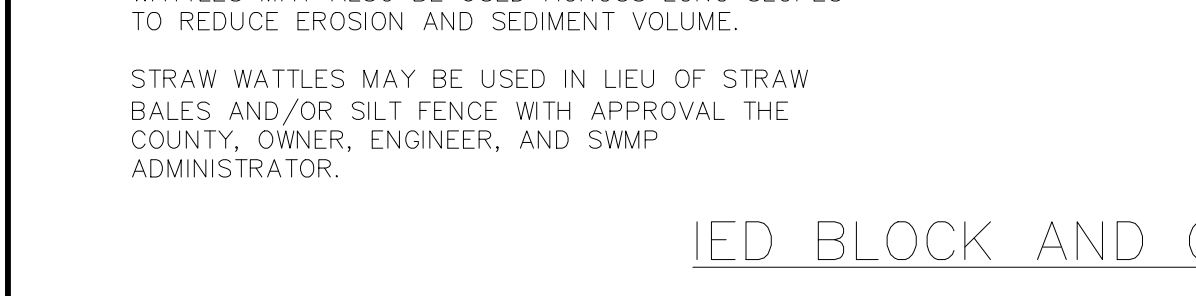
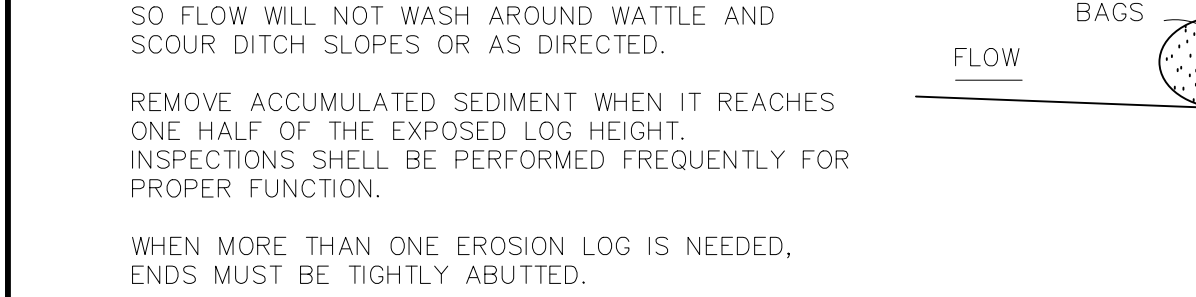
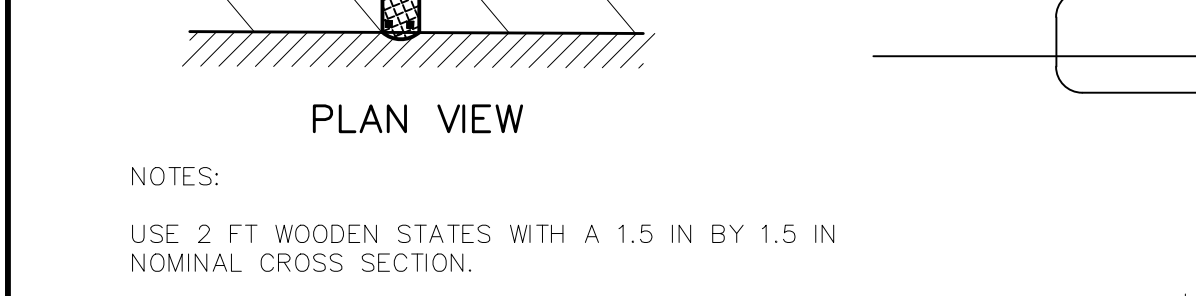
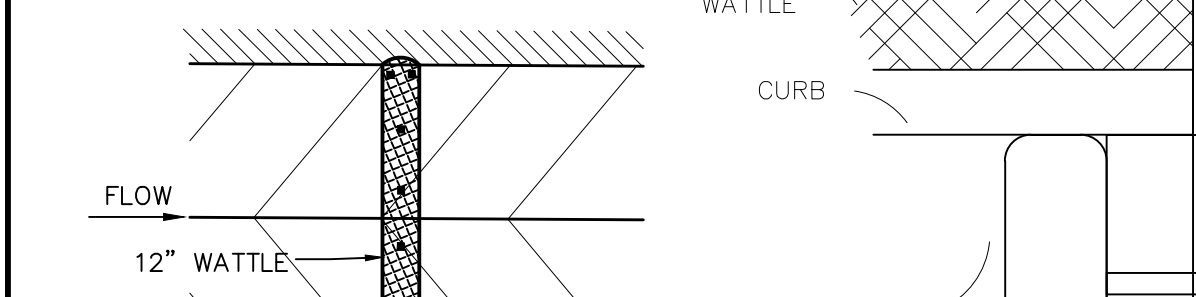
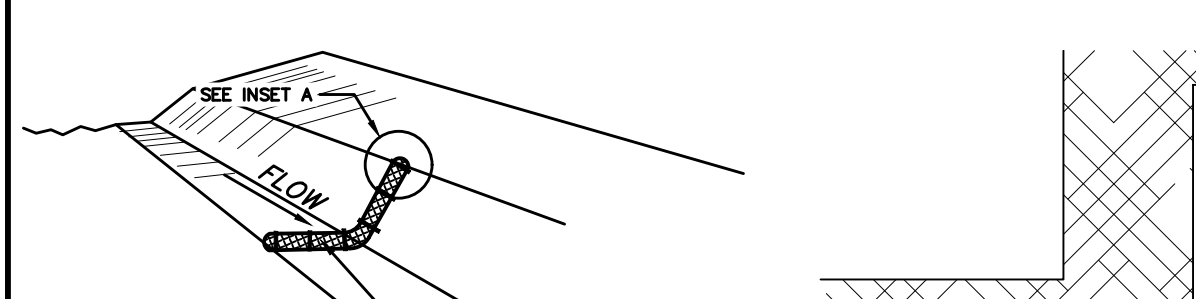
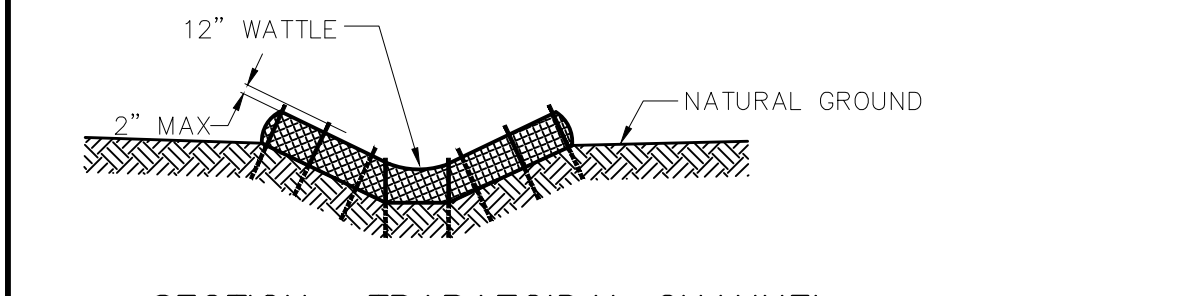
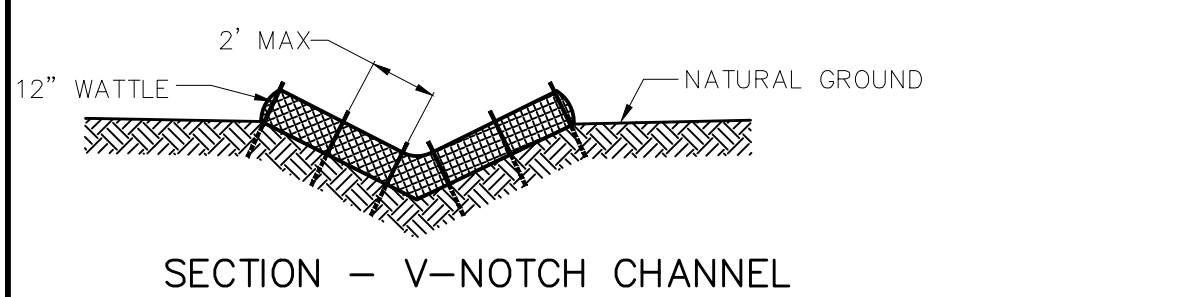
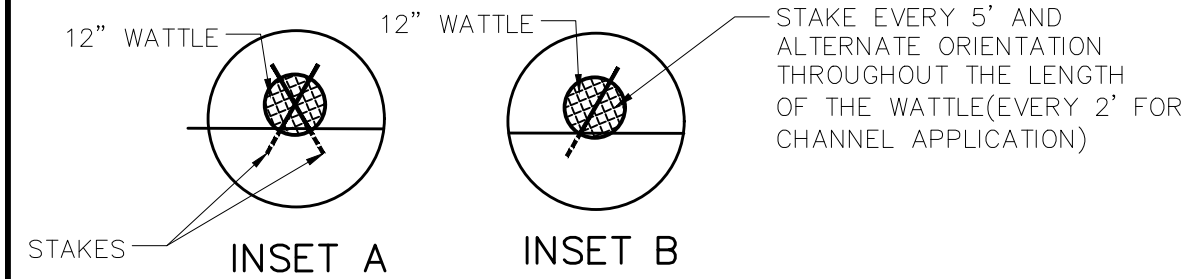
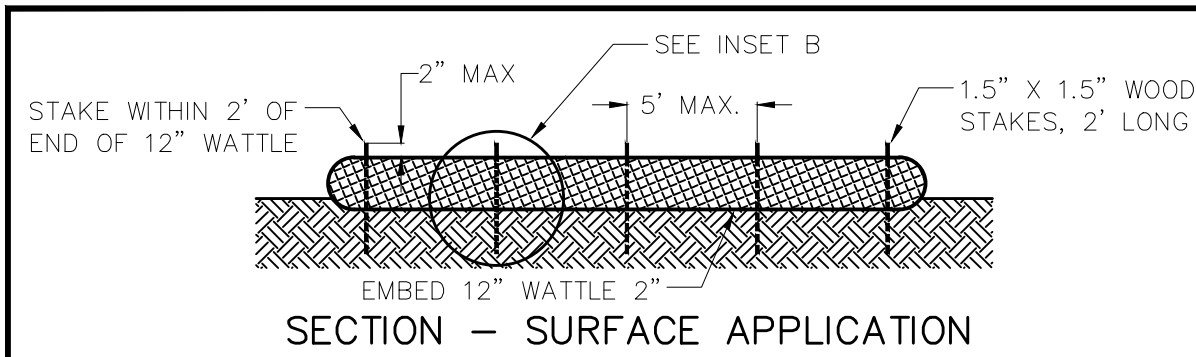
No.	Revisions	Date	Init.	Appr.	Date

**TECH CONTRACTORS**  
**11886 STAPLETON DRIVE**  
**FALCON, CO 80831**  
**TELEPHONE: 719.495.7444**  
**FAX: 719.495.2457**



WINDINGWALK F2 AT MERIDIAN RANCH  
GRADING+EROSION CONTROL PLAN  
DETAIL SHEET

<i>Scale</i> <b>AS SHOWN</b>	<i>Drawn by</i> LOG
	<i>Checked by</i> TAK
<b>25 of 26</b>	<i>Date</i> <b>SEPTEMBER 2018</b>



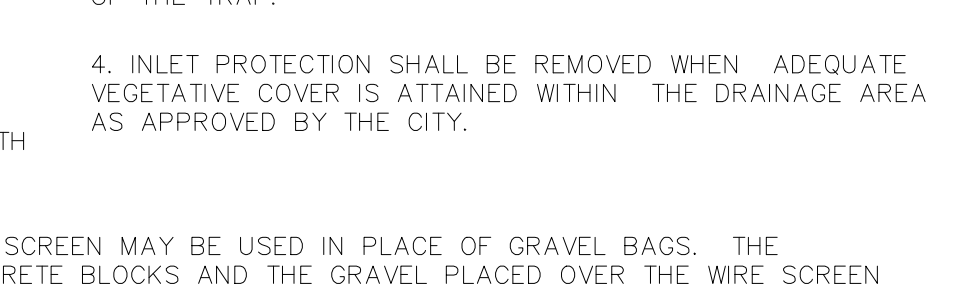
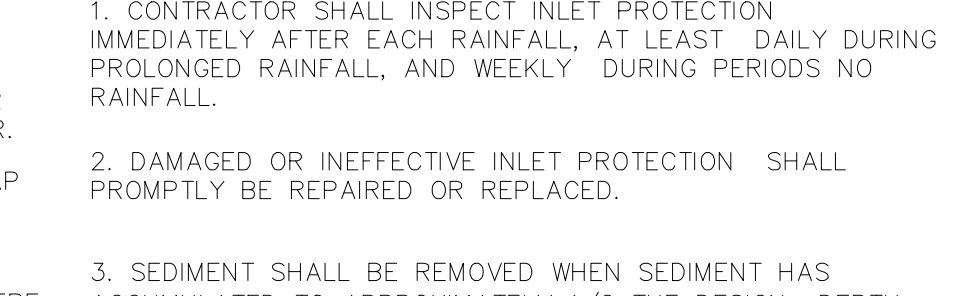
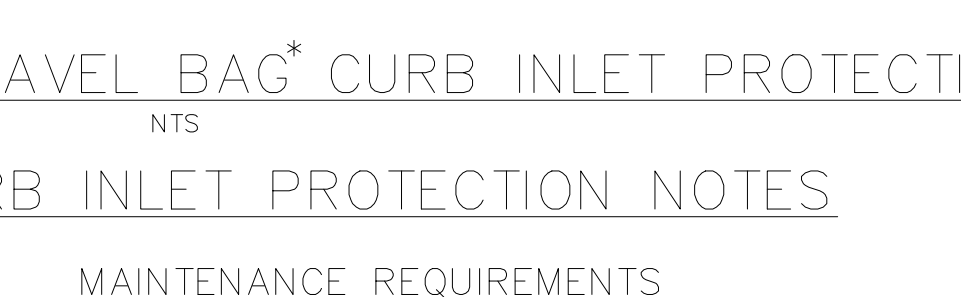
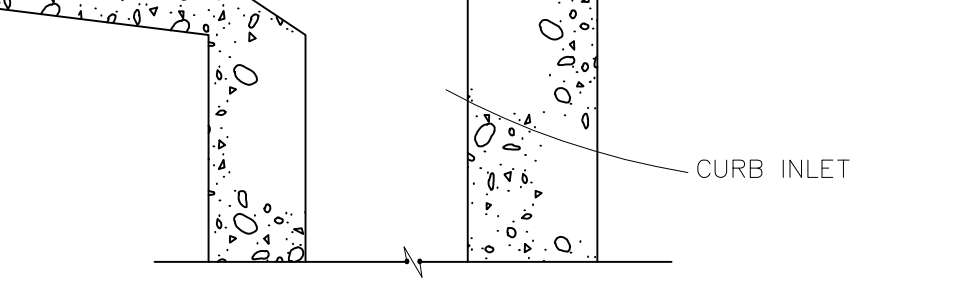
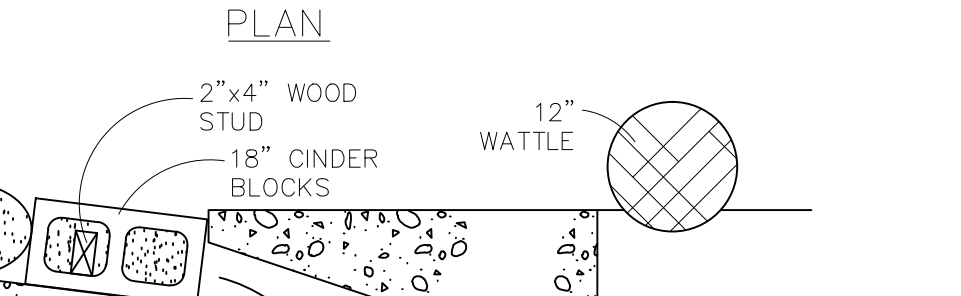
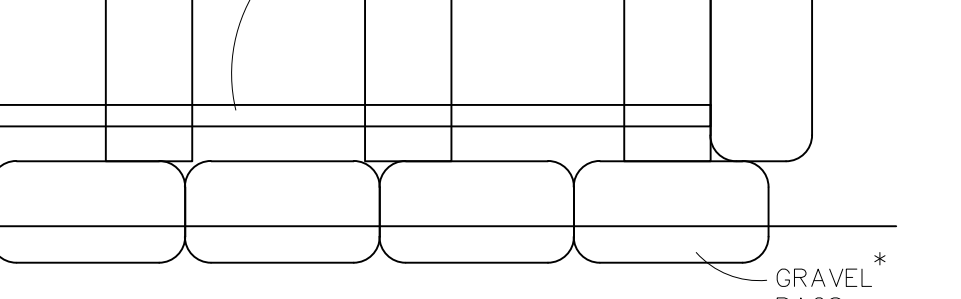
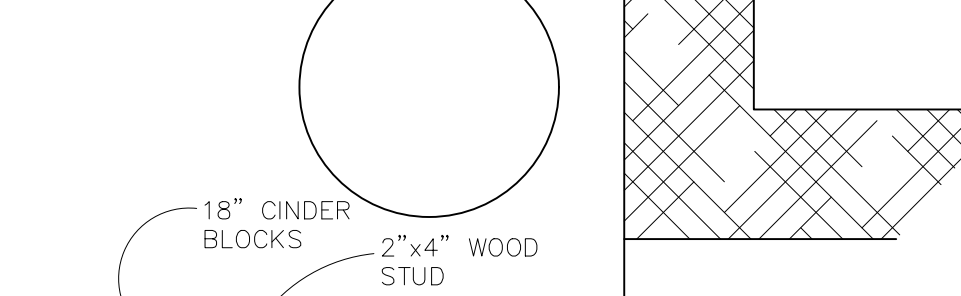
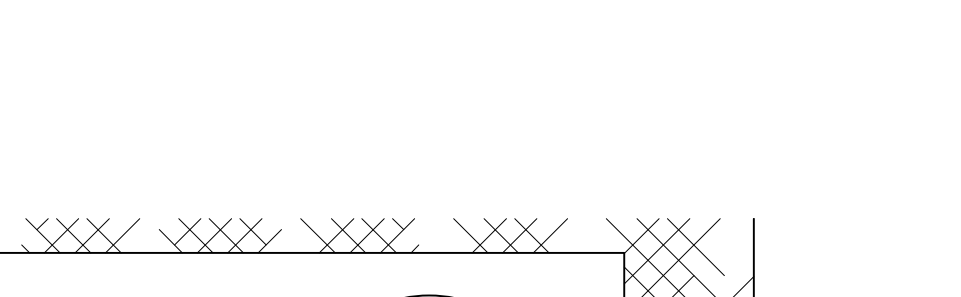
**STRAW BALE BARRIER NOTES**

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3. BALES ARE TO BE PLACED IN A SINGLE ROW WITH THE END OF THE BALES TIGHTLY ABUTTING ONE ANOTHER.
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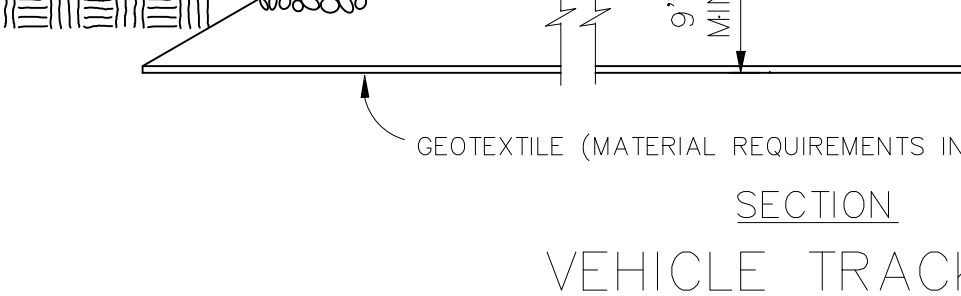
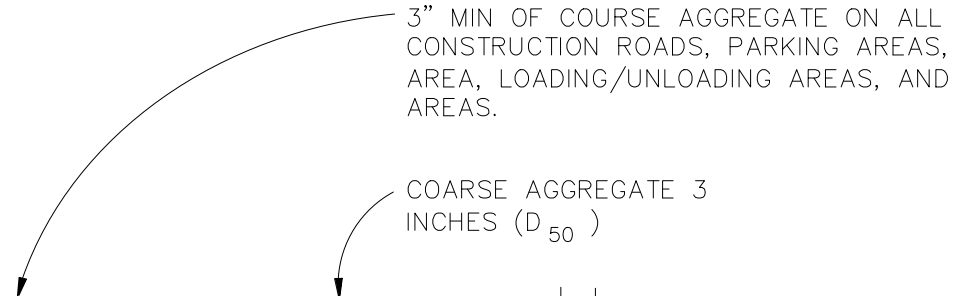
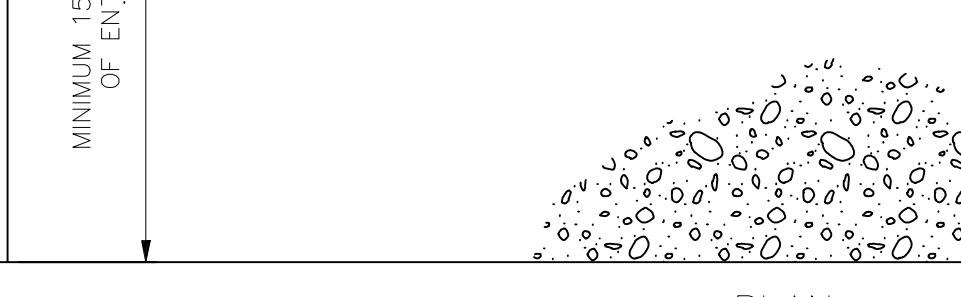
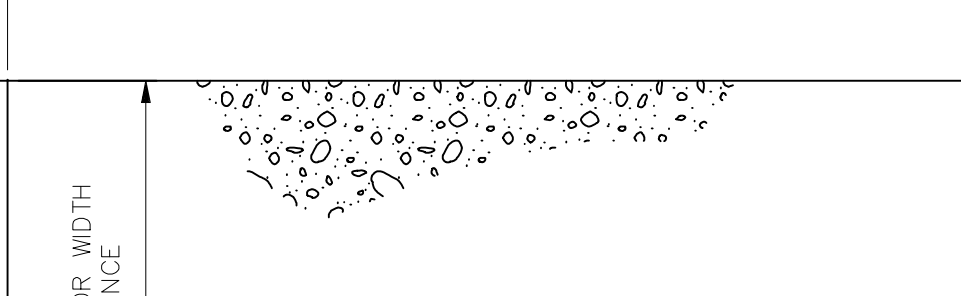
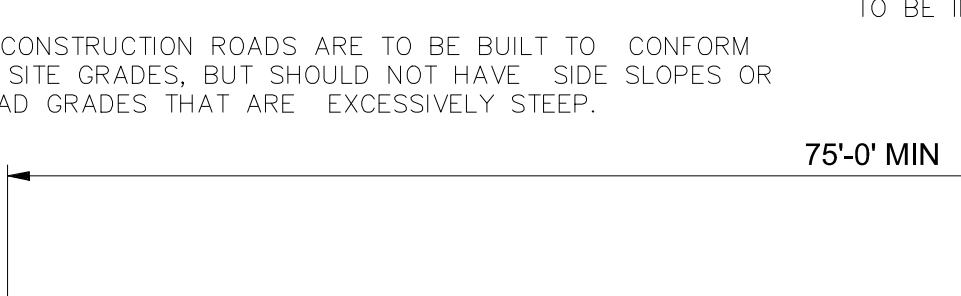
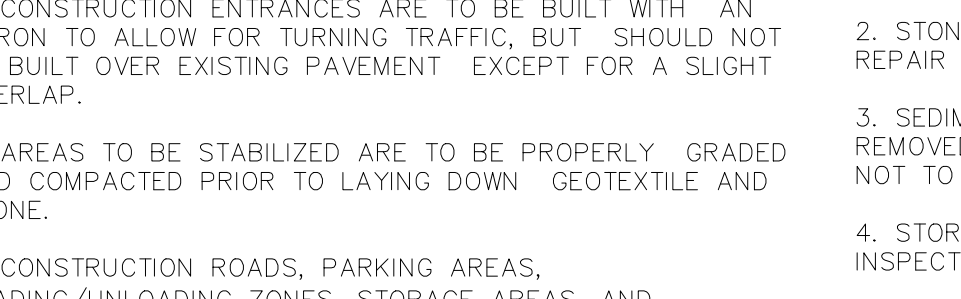
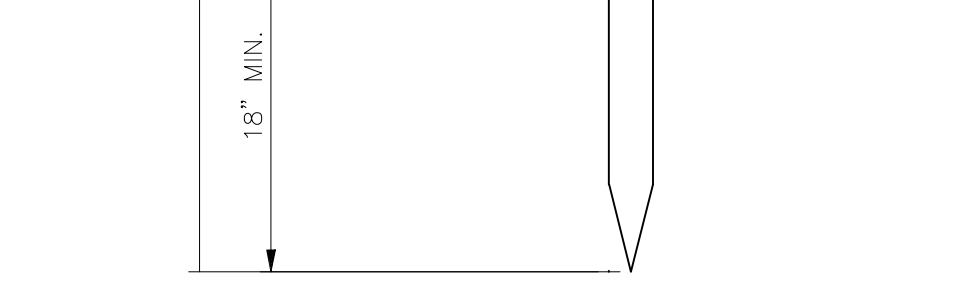
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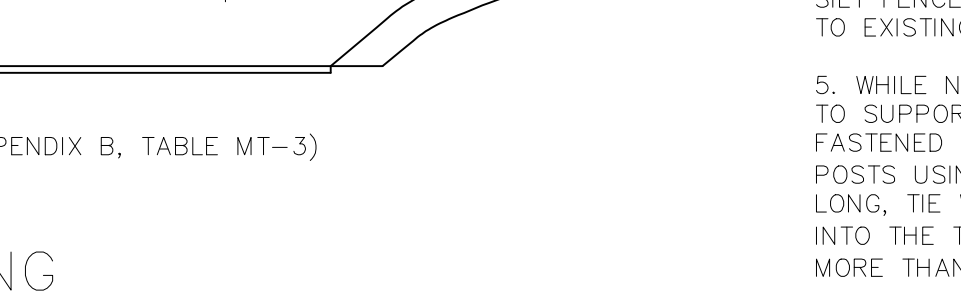
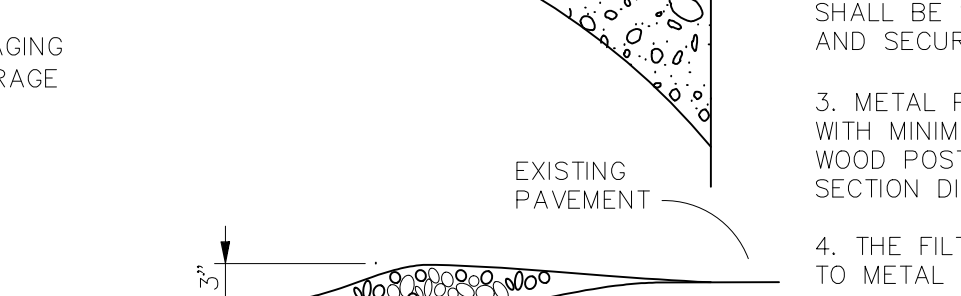
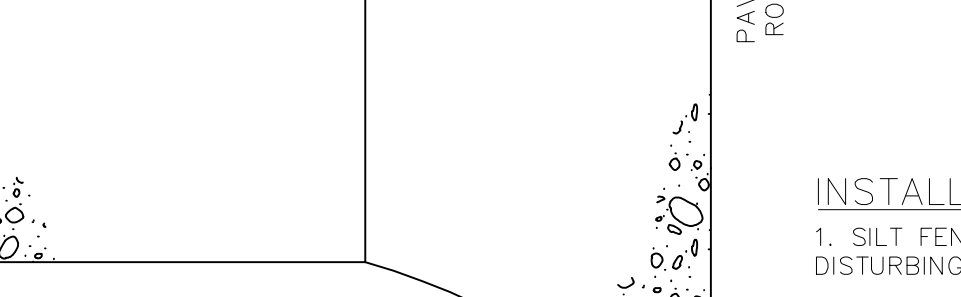
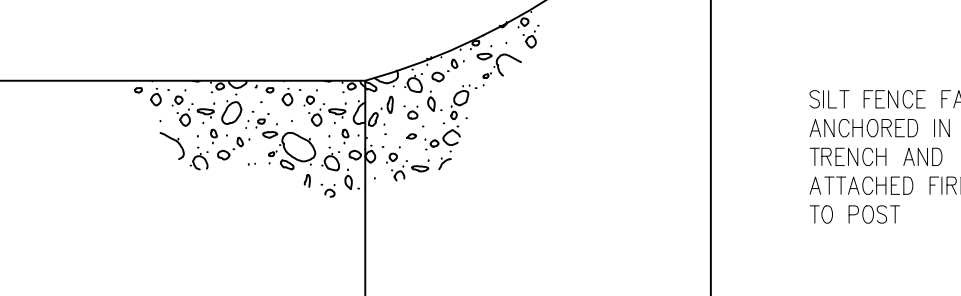
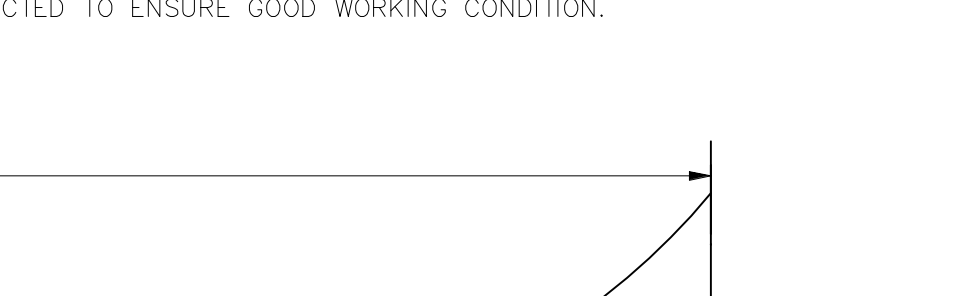
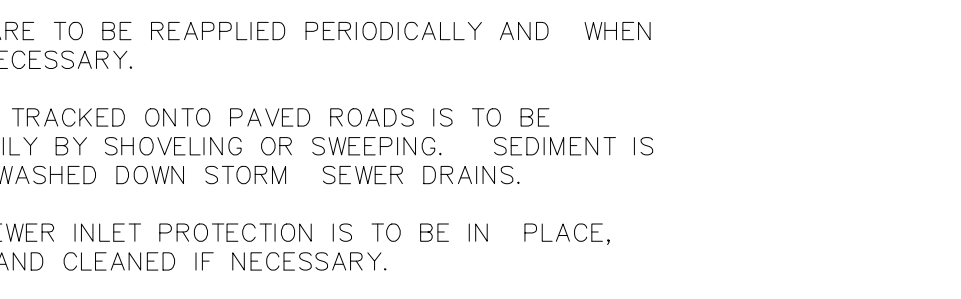
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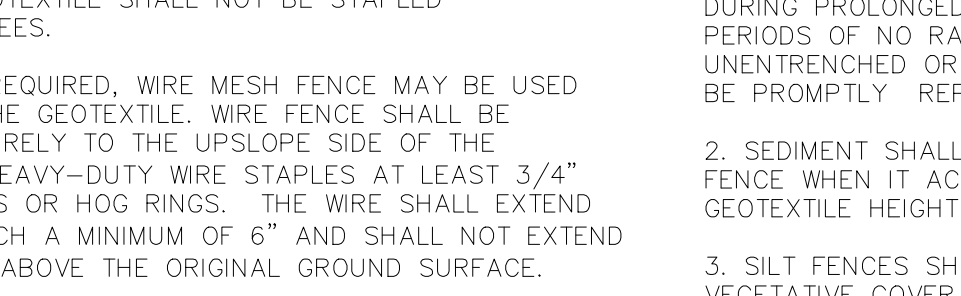
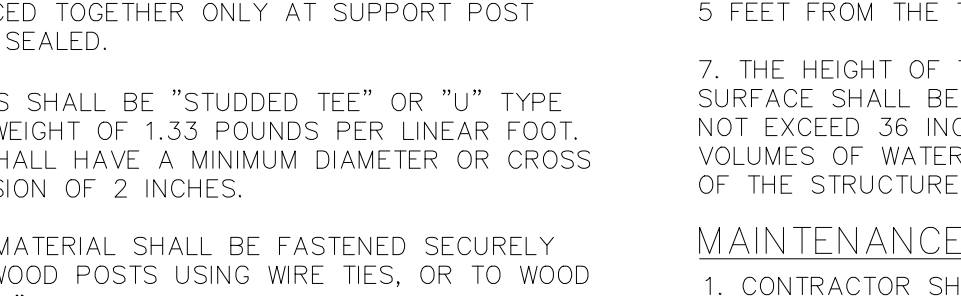
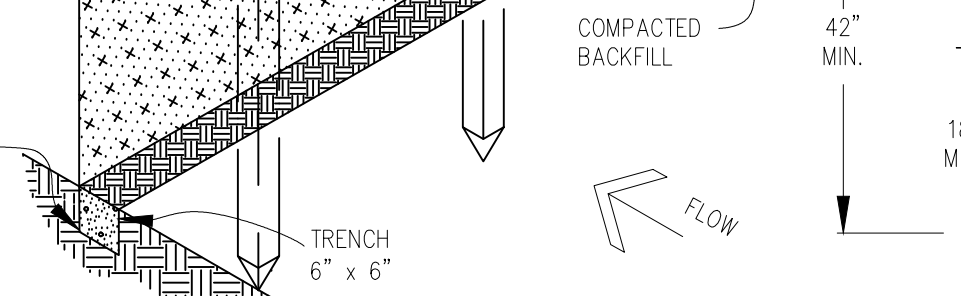
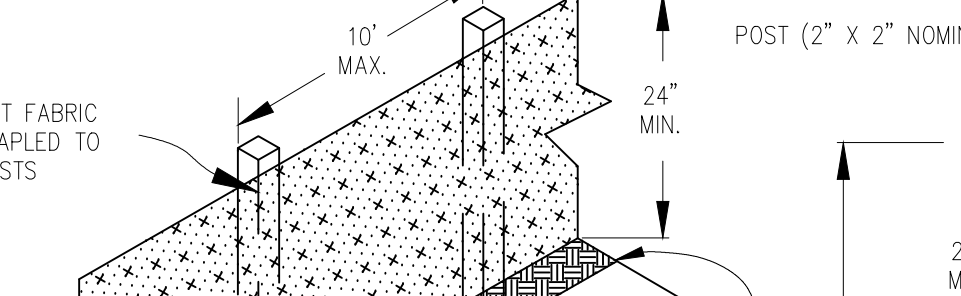
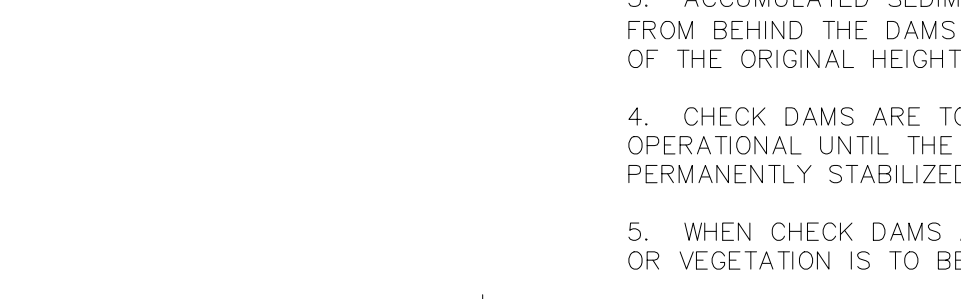
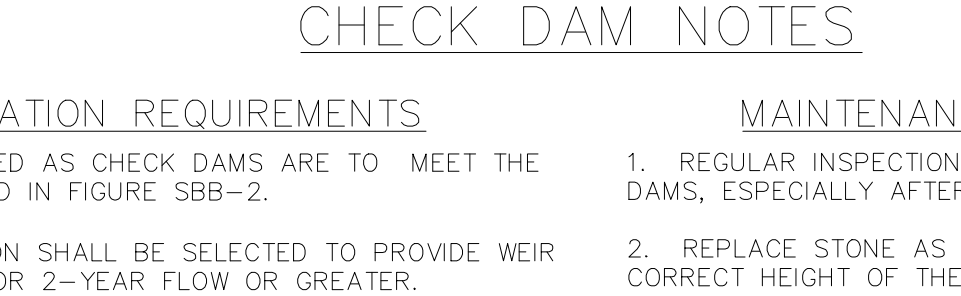
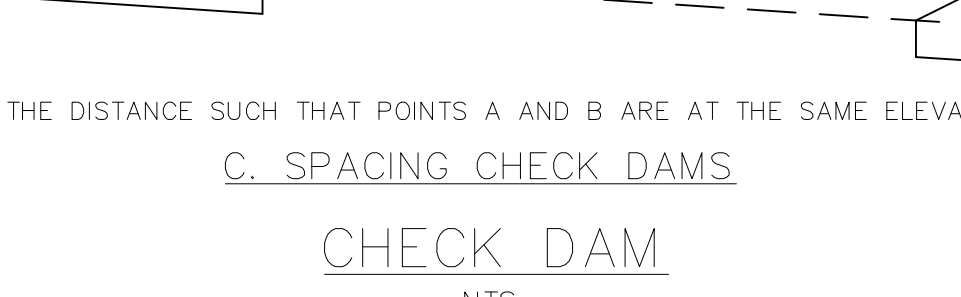
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3. SEDIMENT SHALL BE REMOVED FROM BEHIND STRAW BALE BARRIERS WHEN IT ACCUMULATES TO APPROXIMATELY 1/2 THE HEIGHT OF THE BARRIER.
4. STRAW BALE BARRIERS SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.



**STRAW BALE BARRIER 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.

