

STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS

COUNTY OF EL PASO, STATE OF COLORADO

STORM SEWER PLANS

MAY 2023

PCD FILING NO.: CDR 221

AGENCIES

OWNER/DEVELOPER: SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY (719) 471-1742

CIVIL ENGINEER: JR ENGINEERING, LLC
5475 TECH CENTER DRIVE
COLORADO SPRINGS, CO 80919
MIKE BRAMLETT P.E. (303) 267-6240

COUNTY ENGINEERING: EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
JEFF RICE, P.E. (719) 520-6300

TRAFFIC ENGINEERING: EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS
3275 AKERS DRIVE
COLORADO SPRINGS, CO 80922
JENNIFER IRVINE, P.E. (719) 520-6460

WATER RESOURCES: STERLING RANCH METRO DISTRICT ENGINEERS
JDS-HYDRO CONSULTANTS
545 E. PIKES PEAK AVE., SUITE 300
COLORADO SPRINGS, CO 80903
JOHN MCGINN (719) 668-8769

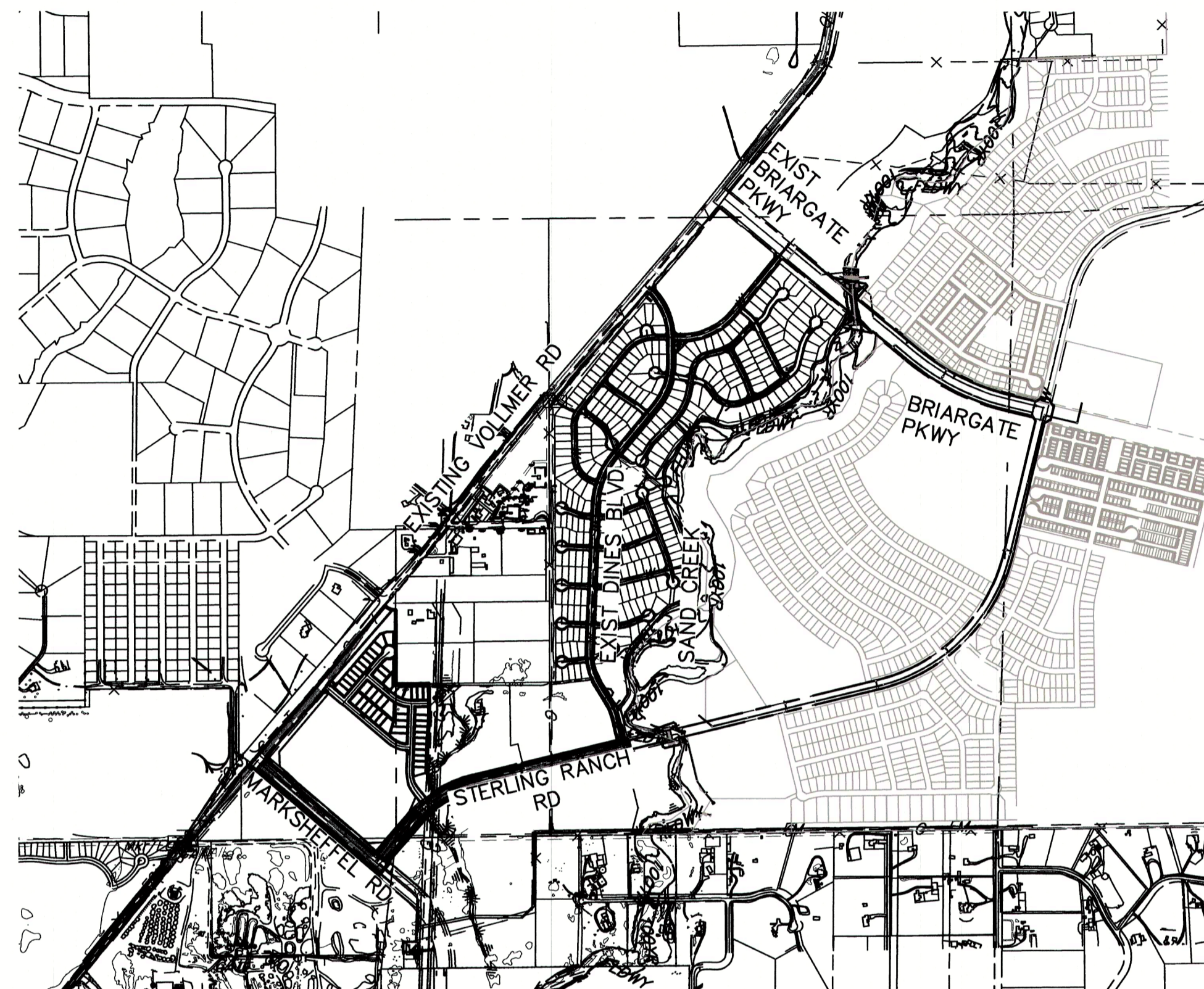
FIRE DISTRICT: BLACK FOREST FIRE PROTECTION DISTRICT
11445 TEACHOUT ROAD
COLORADO SPRINGS, CO 80908
CHIEF BRYAN JACK (719) 495-4300

GAS DEPARTMENT: COLORADO SPRINGS UTILITIES
7710 DURANT DR.
COLORADO SPRINGS, CO 80947
TIM WENDT (719) 668-3556

ELECTRIC DEPARTMENT: MOUNTAIN VIEW ELECTRIC
11140 E. WOODMEN ROAD
FALCON, CO 80831
(719) 495-2283

COMMUNICATIONS: QWEST COMMUNICATIONS (U.N.C.C. LOCATORS) (800) 922-1987
AT&T (LOCATORS) (719) 635-3674

GAS MAINS: STORMWATER ENTERPRISE
30 S. NEVADA AVENUE, SUITE 401
COLORADO SPRINGS, CO 80903
(719)-385-5918



VICINITY MAP
SCALE: 1"=1,000'

BASIS OF BEARINGS

BASIS OF BEARINGS:
BEARINGS ARE BASED ON THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M. AS MONUMENTED AT THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER BY A 2-1/2" ALUMINUM CAP STAMPED "LS 11624" AND AT THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER BY A 2-1/2" ALUMINUM CAP STAMPED "LS 11624", SAID LINE BEARS N89°14'14"E, A DISTANCE OF 2,722.56 FEET.

SHEET INDEX

1	COVER SHEET
2	NOTES & LEGEND
3-15	STORM SEWER PLAN & PROFILE
16-17	POND FSD-11B (INTERIM DESIGN)
18-19	DETAILS SHEETS
19	TOTAL SHEETS

BENCHMARKS

1. THE TOP OF AN ALUMINUM SURVEYORS CAP, STAMPED "9853", AT THE SOUTHWEST BOUNDARY CORNER OF BARBARICK SUBDIVISION
NORTHING = 411416.273
EASTING = 235167.071
ELEVATION = 7023.42
2. THE TOP OF A RED PLASTIC SURVEYORS CAP, ILLEGIBLE, AT THE NORTHWEST BOUNDARY CORNER OF PAWNEE RANCHEROS SUBDIVISION
NORTHING = 410095.404
EASTING = 235052.131
ELEVATION = 7000.40
3. THE TOP OF A RED PLASTIC SURVEYORS CAP, STAMPED "38141", AT THE SOUTHWEST BOUNDARY CORNER OF BARBARICK SUBDIVISION
NORTHING = 411399.962
EASTING = 233849.817
ELEVATION = 7030.82

OWNER/DEVELOPER STATEMENT

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

James F. Morley
JAMES F. MORLEY
DATE 5/19/2023

SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT 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 PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLAN 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.

Mike A. Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC
DATE 05/08/23

EL PASO COUNTY STATEMENT

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

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

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

Approved
By: Gilbert LaForce, P.E.
Date: 07/25/2023 5:27:42 PM
El Paso County Department of Public Works

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

DISTRICT APPROVALS

THESE DOCUMENTS HAVE BEEN REVIEWED AND APPROVED FOR STORM DRAIN AND ASSOCIATED UTILITY SERVICE CONSTRUCTION.

James F. Morley
FOR AND ON BEHALF OF THE STERLING RANCH METRO DISTRICT
DATE 5/19/2023

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE AS DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

J.R. ENGINEERING
A Weidman Company
Continental 303-740-9883 • Colorado Springs 719-569-2988
Fort Collins 970-451-9888 • www.jrengineering.com

BY	DATE	REVISION

H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=1,000'	N/A	05/04/23	RAB	RAB	RAB

STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS
COVER SHEET

SHEET 1 OF 19
JOB NO. 25188.03



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STANDARD CONSTRUCTION NOTES:

- 1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION.
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 TIME INCLUDING THE FOLLOWING:
3.1 EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
3.2 CITY OF COLORADO SPRINGS/EL PASO COUNTY ENGINEERING CRITERIA MANUAL VOLUMES 1 AND 2.
3.3 COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARDS SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.
3.4 CDOT M&S STANDARDS.
4. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ACCURACY SHOW EXISTING CONDITION BOTH ONSITE AND OFFSITE ON THE CONSTRUCTION PLANS. ANY MODIFICATION NECESSARY DUE TO CONFLICT OMISSIONS OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPERS RESPONSIBILITY TO RECTIFY.
5. IT IS THE CONTRACTORS 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 STORM WATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, US ARMY CORPS OF ENGINEER ISSUED 401 AND/OR 404 PERMITS AND COUNTY AND STATE FUGITIVE DUST PERMITS.
6. ANY TEMPORARY SIGNAGE AND STRIPING SHALL COMPLY WITH EL PASO COUNTY PCD AND MUTCD CRITERIA.
7. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
8. 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 OFFSITE DISTURBANCE GRADING, OR CONSTRUCTION.

STORM SEWER GENERAL NOTES

- 1. ALL STATIONING IS ALONG STORM SEWER CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE INVERT UNLESS OTHERWISE INDICATED.
2. ALL STORM SEWER BENDS AND WYES SHOWN ON THE PLAN SHALL BE PREFABRICATED.
3. HORIZONTAL AND VERTICAL BENDS ARE INDICATED ON THE PLANS.
4. JOINTS SHALL BE IN ACCORDANCE WITH ASTM C443 "STANDARD SPECIFICATIONS FOR JOINTS FOR CIRCULAR CONCRETE SEWER AND CULVERT PIPE USING RUBBER GASKET." IN NO CASE SHALL THE MAXIMUM JOINT OPENING FOR STRAIGHT ALIGNMENT EXCEED 1 INCH OR ONE AND ONE-HALF INCH ON CURVED ALIGNMENT.
5. INLET DIMENSIONS SHOWN ON PLANS REFER TO DISTANCES FROM INSIDE FACES OF BOX BETWEEN THE WIDTHS AND LENGTHS.
6. MANHOLE WIDTHS AND LENGTHS SHOWN ON PLAN REFER TO THE EXTERIOR WALL DIMENSIONS.
7. ALL STORM SEWER SHALL BE A MINIMUM OF CLASS III REINFORCED CONCRETE PIPE. SPECIFIC SEGMENTS OF STORM SEWER SHALL BE REQUIRED TO BE CONSTRUCTED OF A MINIMUM OF 5000 PSI CONCRETE DUE TO EXCESSIVE VELOCITIES. REFER TO ADDITIONAL NOTES WITHIN CONSTRUCTION PLANS.
8. SINCE ALL PIPE ENTRIES INTO THE BASE ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK.
9. THE MH RING (FRAME) SHALL BE SET IN A BED OF GROUT. THE FRAME SHALL BE SURROUNDED WITH A GROUT IN UNPAVED AREA, OR A CONCRETE COLLAR IN PAVED AREA.
10. PRECAST MANHOLES AND REINFORCEMENT SHALL CONFORM TO ASTM C 478 (AASHTO M 199).
11. CAST IN PLACE MANHOLES SHALL BE CLASS B CONCRETE.
12. STEPS SHALL BE REQUIRED WHEN THE MANHOLE DEPTH EXCEEDS 3'-6" AND SHALL BE IN ACCORDANCE WITH AASHTO M 199.
13. ALL REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI. VERTICAL STEEL SHALL BE PLACED AT 2 OF WALL. ALL BARS SHALL HAVE A 2" MINIMUM CLEARANCE.
14. FLOW CHANNELS AND INVERTS SHALL BE FORMED BY SHAPING WITH CLASS B CONCRETE OR APPROVED GROUT.
15. STUB-OUTS SHALL EXTEND 4 FT MINIMUM BEYOND OUTSIDE WALL SURFACE OF MANHOLE AND BE SATISFACTORILY PLUGGED.
16. CHECK WITH THE LOCAL GOVERNMENT AUTHORITY FOR ANY ADDITIONAL STORM SEWER SPECIFICATIONS, DETAILS, OR REGULATIONS.
17. THE SLOPE OF THE MANHOLE COVER SHALL MATCH THE ROADWAY PROFILE AND CROSS SLOPE.
18. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ALL PREFABRICATED STRUCTURES TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION.

SOIL RIPRAP NOTES:

- 1. THE SOIL MATERIAL SHALL BE NATIVE OR TOPSOIL AND MIXED WITH SIXTY FIVE PERCENT (65%) RIPRAP AND THIRTY FIVE PERCENT (35%) SOIL BY VOLUME.
2. SOIL RIPRAP SHALL CONSIST OF A UNIFORM MIXTURE OF SOIL AND RIPRAP WITHOUT VOIDS.
3. CONTRACTOR SHALL COOPERATE WITH ENGINEER IN OBTAINING AND PROVIDED SAMPLES OF ALL SPECIFIED MATERIALS.
4. CONTRACTOR SHALL SUBMIT CERTIFIED LABORATORY TEST CERTIFICATES FOR ALL ITEMS REQUIRED FOR SOIL RIPRAP.
5. RIPRAP USED SHALL BE THE TYPE DESIGNATED ON THE DRAWINGS AND SHALL CONFORM TO TABLE SHOWN TO THE RIGHT.
6. THE RIPRAP DESIGNATION AND TOTAL THICKNESS OF RIPRAP SHALL BE AS SHOWN ON THE DRAWINGS. THE MAXIMUM STONE SIZE SHALL NOT LARGER THAN THE THICKNESS OF THE RIPRAP.
7. NEITHER WIDTH NOR THICKNESS OF A SINGLE STONE OF RIPRAP SHALL BE LESS THAN ONE-THIRD (1/3) OF ITS LENGTH.
8. THE SPECIFIC GRAVITY OF THE RIPRAP SHALL BE TWO AND ONE-HALF (2.5) OR GREATER.
9. MINIMUM DENSITY FOR ACCEPTABLE RIPRAP SHALL BE ONE HUNDRED AND SIXTY FIVE (165) POUNDS PER CUBIC FOOT.
10. RIPRAP SPECIFIC GRAVITY SHALL BE ACCORDING TO THE BULK-SATURATED, SURFACE-DRY BASIS, IN ACCORDANCE WITH AASHTO T85.
11. BROKEN CONCRETE OR ASPHALT PAVEMENT SHALL NOT BE ACCEPTABLE FOR USE IN THE WORK.
12. ROUNDED RIPRAP (RIVER ROCK) IS NOT ACCEPTABLE, UNLESS SPECIFICALLY DESIGNATED ON THE DRAWINGS.

STRUCTURAL CONCRETE NOTES:

- 1. ALL CONSTRUCTION INVOLVING THE PLACEMENT OF STRUCTURAL CONCRETE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, AND AS SUPPLEMENTED BY THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION.
2. STEEL REINFORCING SHALL BE GRADE 60 FOR ALL REINFORCING STEEL GREATER THAN #4. SPLICING, LAP SPLICING SHALL BE MINIMUM IN THE FOLLOWING TABLE UNLESS OTHERWISE SPECIFIED:
BAR SIZE #4 #5 #6 #7 #8
SPLICE LENGTH 1'-9" 2'-2" 2'-7" 3'-4" 4'-3"
ALL REINFORCING SHALL HAVE A 2-INCH MINIMUM COVER UNLESS OTHERWISE SPECIFIED. ALL REINFORCED STEEL TO BE EPOXY COATED.
3. CAST-IN-PLACE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (fc) OF 4,000 PSI AT 28 DAYS. ALL CONCRETE PLACED AGAINST SOIL SHALL BE TYPE II PORTLAND CEMENT. ALL EXPOSED CORNERS SHALL BE FORMED WITH A 3/4" CHAMFER UNLESS OTHERWISE SPECIFIED.
4. EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M-213.
5. BACKFILL AGAINST STRUCTURES SHALL NOT COMMENCE UNTIL ALL SUPPORTING DIAPHRAGMS ARE IN PLACE AND CONCRETE HAS OBTAINED ITS FULL SEVEN DAY STRENGTH. BACKFILL SHALL BE PLACED EQUALLY ON EACH SIDE OF RETAINING WALL STRUCTURES AND CUTOFF WALLS UNTIL THE FINAL GRADE IS REACHED.
6. FOOTING EXCAVATIONS SHALL BE EXAMINED BY THE GEOTECHNICAL ENGINEER WITH A 24-HOUR MINIMUM NOTIFICATION FOR SOIL AND/OR CONCRETE TESTING. PLACEMENT OF CONCRETE IN THE ABSENCE OF TESTING SHALL BE COMPLETED AT THE SOLE RISK OF THE CONTRACTOR.
7. PRIOR TO THE PLACEMENT OF CONCRETE IN AREAS WHERE SOIL IS PRESENT, THE SOIL SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 6-INCHES. THE MOISTURE CONTENT SHALL BE ADJUSTED TO WITHIN PLUS OR MINUS 2 PERCENT OF THE OPTIMUM MOISTURE CONTENT AND RECOMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION (AASHTO-T-180).

ABBREVIATIONS
EC --- EPOXY COATED O.F. --- OUTSIDE FACE E.F. --- EACH FACE E.W. --- EACH WAY I.F. --- INSIDE FACE N.F. --- NEAR FACE
T.O.C. --- TOP OF CONCRETE B.O.C. --- BOTTOM OF CONCRETE CONT. --- CONTINUOUS

LAYER LINETYPE LEGEND

Table with columns for 'EXISTING' and 'PROPOSED'. Rows list various utility types such as PHASE LINE, MATCH LINE, SECTION LINE, BOUNDARY LINE, PROPERTY LINE, EASEMENT LINE, RIGHT OF WAY, CENTERLINE, CABLE TV, ELECTRIC, FIBER OPTIC, GAS MAIN, IRRIGATION MAIN, OIL/PETRO. MAIN, OVERHEAD UTILITY, SANITARY SEWER, STORM DRAIN, TELEPHONE, WATER MAIN, RAW WATER LINE, SWALE/WATERWAY FLOWLINE, DIVERSION DITCH, DIVERSION CHANNEL, TOP OF SLOPE, TOE OF SLOPE, EDGE OF WATER, INDEX CONTOUR, INTERMEDIATE CONTOUR, DEPRESSION CONT. (INDEX), DEPRESSION CONT. (INTER), 100 YEAR FLOODPLAIN, 500 YEAR FLOODPLAIN, FLOODWAY, BASE FLOOD ELEVATION, and EDGE OF WETLANDS. Each row shows a unique line style for existing conditions and a different one for proposed conditions.

ABBREVIATIONS

Table of abbreviations and their meanings. Columns include AC (ACRE), AVE (AVENUE), BNDY (BOUNDARY), BOP (BOTTOM OF PIPE), BVF (BLOW OFF VALVE), BLVD (BOULEVARD), BOW (BOTTOM OF WALL), C&G (CURB & GUTTER), CATV (CABLE TELEVISION), CB (CATCH BASIN), CBC (CONCRETE BOX CULVERT), CDOT (COLORADO DEPARTMENT OF TRANSPORTATION), CDS (CUL-DE-SAC), CF (CUBIC FOOT), CFS (CUBIC FEET PER SECOND), CIP (COMPLETE IN PLACE), CL (CENTER LINE), CMP (CORRUGATED METAL PIPE), CO (CLEAN OUT), COCS (CITY OF COLORADO SPRINGS), CONC (CONCRETE), CR (CIRCLE), CSP (CORRUGATED STEEL PIPE), CSU (COLORADO SPRINGS UTILITIES), CTRB (CONCRETE THRUST REDUCER), CY (CUBIC YARD), DBPS (DRAINAGE BASIN PLANNING STUDY), DE (DRAINAGE EASEMENT), DIA (DIAMETER), DIP (DUCTILE IRON PIPE), DR (DRIVE), DRC (DESIGN REVIEW COMMITTEE), DU (DWELLING UNITS), E (EAST), EA (EACH), EGL (ENERGY GRADE LINE), EL (ELEVATION), ELEC (ELECTRIC), EOA (EDGE OF ASPHALT), EPC (EL PASO COUNTY), ERCP (ELLIPITICAL RCP), ESMT (EASEMENT), EX (EXISTING), FES (FLARED END SECTION), FF (FINISHED FLOOR ELEVATION), FG (FINISHED GRADE), FH (FIRE HYDRANT), FL (FLOWLINE), FIL (FILING), FO (FIBER OPTIC CABLE), GIS (GEOGRAPHIC INFORMATION SYSTEM), GL (GAS LINE), GPS (GLOBAL POSITIONING SYSTEM), GV (GATE VALVE), HBP (HOT BITUMINOUS PAVEMENT), HC (HANDICAP), HDPE (HIGH DENSITY POLYETHYLENE), HGL (HYDRAULIC GRADE LINE), HMA (HOT MIX ASPHALT), HOA (HOME OWNERS ASSOCIATION), KB (KICK (THRUST) BLOCK), LF (LINEAR FOOT), LP (LOW POINT), LS (LUMP SUM), MAX (MAXIMUM), MDDP (MASTER DEVELOPMENT DRAINAGE PLAN), MH (MANHOLE), MIN (MINIMUM), N (NORTH), OHE (OVERHEAD ELECTRIC), OHU (OVERHEAD UTILITY), PC (POINT OF CURVATURE), PCC (POINT OF COMPOUND CURVATURE), PCR (POINT OF CURB RETURN), PE (PROFESSIONAL ENGINEER), PI (POINT OF INTERSECTION), PKWY (PARKWAY), PL (PROPERTY LINE), PR (PROPOSED), PRC (POINT OF REVERSE CURVATURE), PT (POINT OF TANGENCY), PVC (POLYVINYL CHLORIDE), R (RADIUS), RCBC (REINFORCED CONCRETE BOX CULVERT), RCP (REINFORCED CONCRETE PIPE), RD (ROAD), ROW (RIGHT OF WAY), S (SOUTH), SAN (SANITARY SEWER), SF (SQUARE FOOT), ST (STREET), STA (STATION), SY (SQUARE YARD), TB (THRUST BLOCK), TBC (TOP BACK OF CURB), TBW (TOP BACK OF WALK), TEL (TELEPHONE), TOC (TOP OF CURB OR CONCRETE), TOP (TOP OF FOUNDATION), TOP (TOP OF PIPE), TW (TOP OF WALL), TYP (TYPICAL), UE (UTILITY EASEMENT), U&DE (UTILITY & DRAINAGE EASEMENT), VPC (VERTICAL POINT OF CURVATURE), VPI (VERTICAL POINT OF INTERSECTION), VPT (VERTICAL POINT OF TANGENCY), VTC (VEHICLE TRACKING CONTROL), W (WEST), WL (WATER LINE), WS (WATER SURFACE), WSE (WATER SURFACE ELEVATION)

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

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Fort Collins 970-491-9888 • www.jrengineering.com

Table with columns: H-SCALE, V-SCALE, DATE, DESIGNED BY, DRAWN BY, CHECKED BY, No., REVISION, BY, DATE. Contains project-specific scale and revision information.

STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS
NOTES & LEGEND
SHEET 2 OF 19
JOB NO. 25188.03

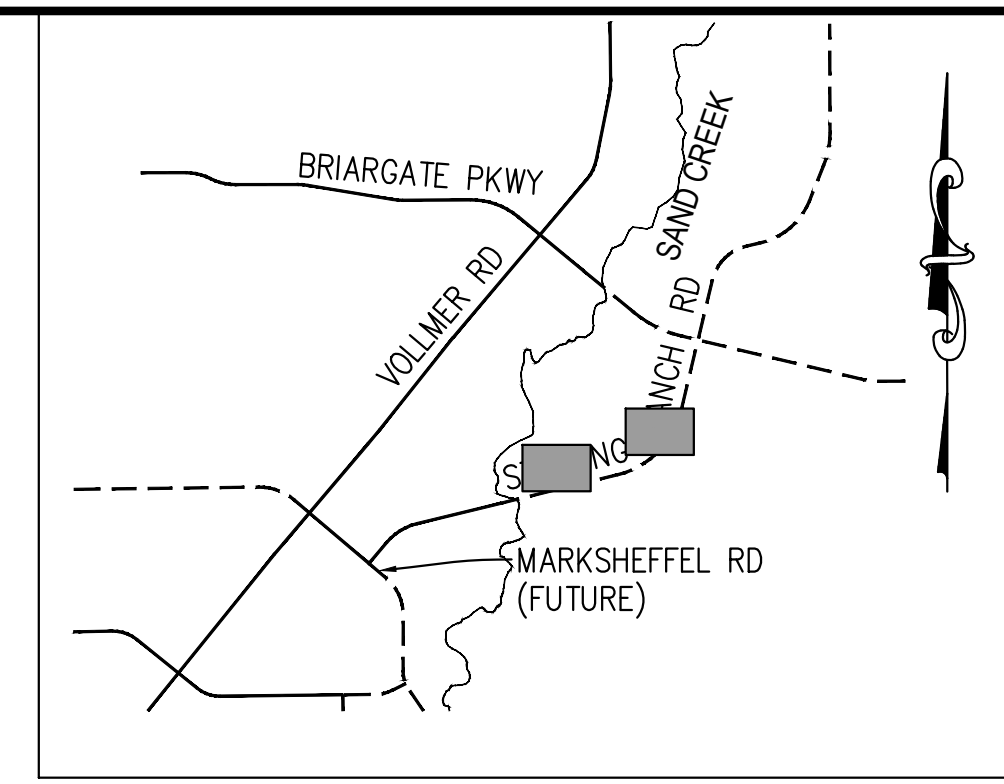
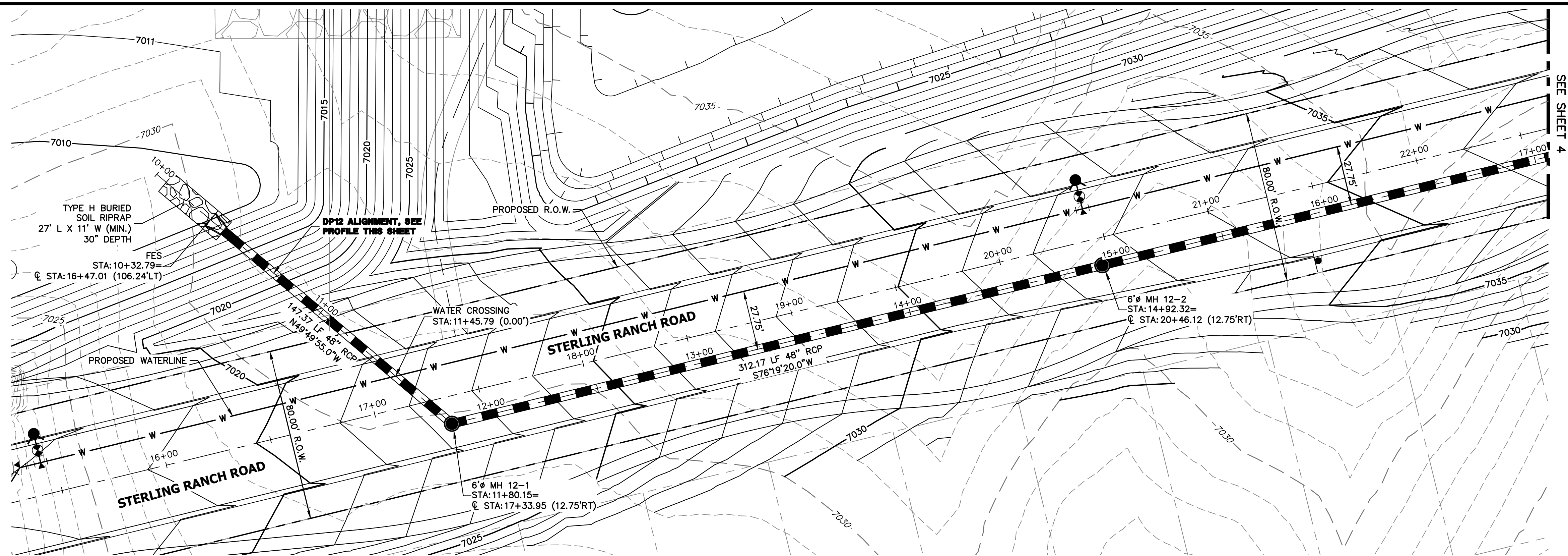


Know what's below. Call before you dig.

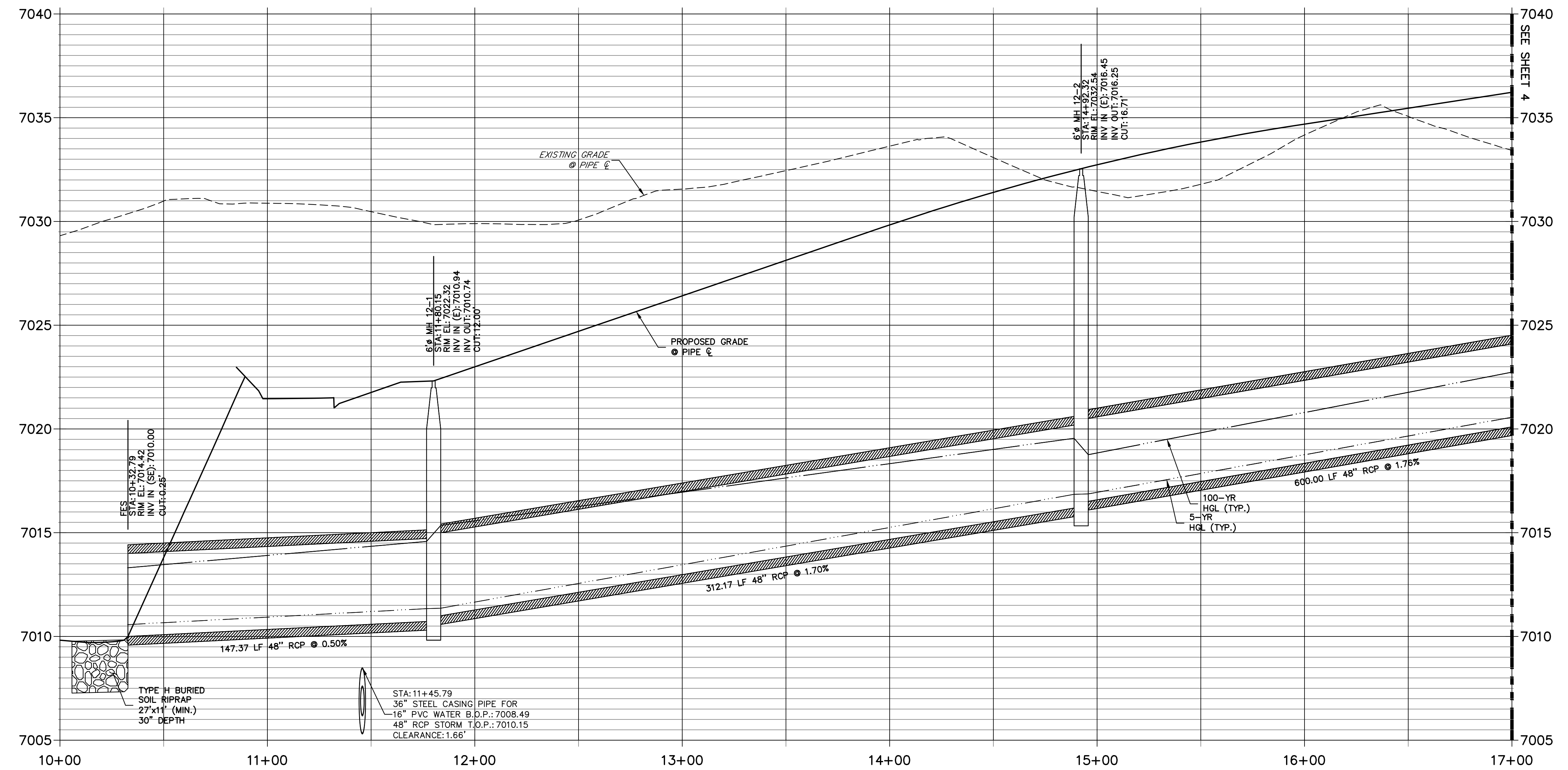
ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING
Mike Bramlett (Signature)
32314
DATE 05/08/23
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING/LOCAL ENGINEER

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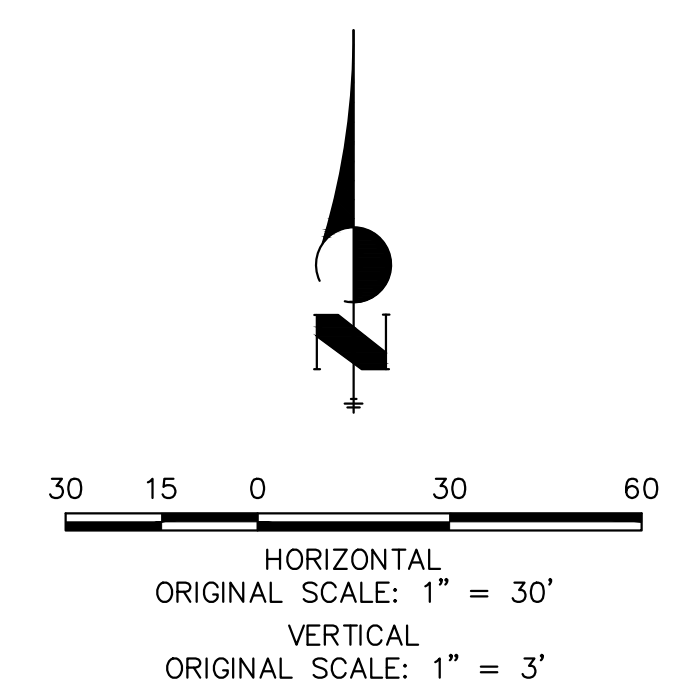


DP12 PROFILE (1)
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PUBLIC



NOTE:

- 1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED
- 2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2



ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett

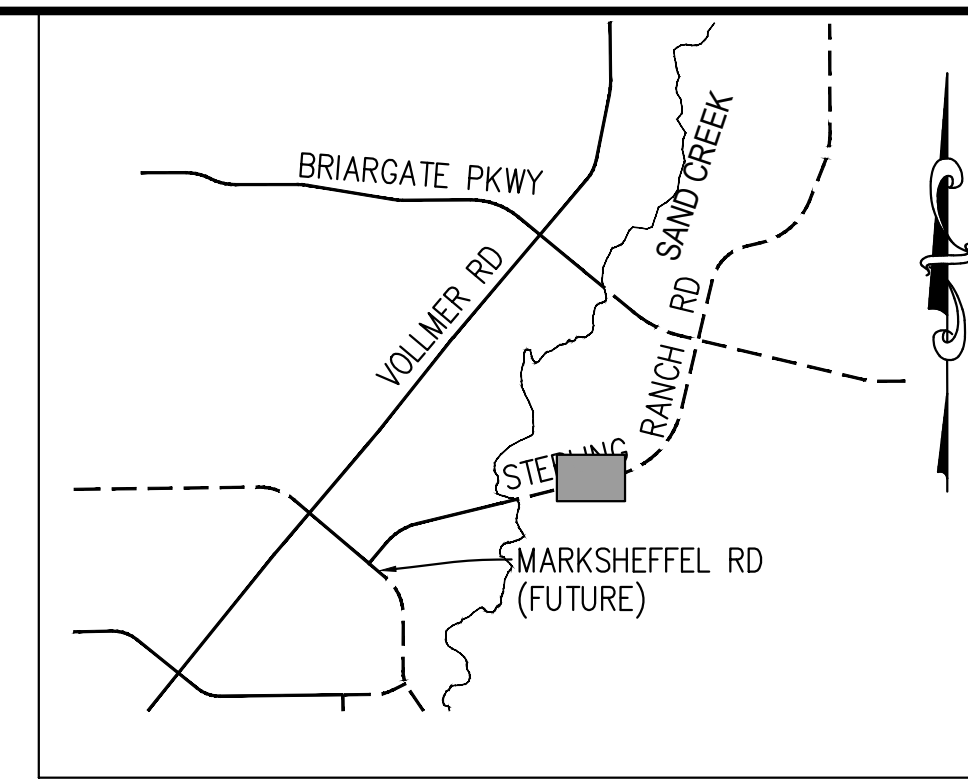
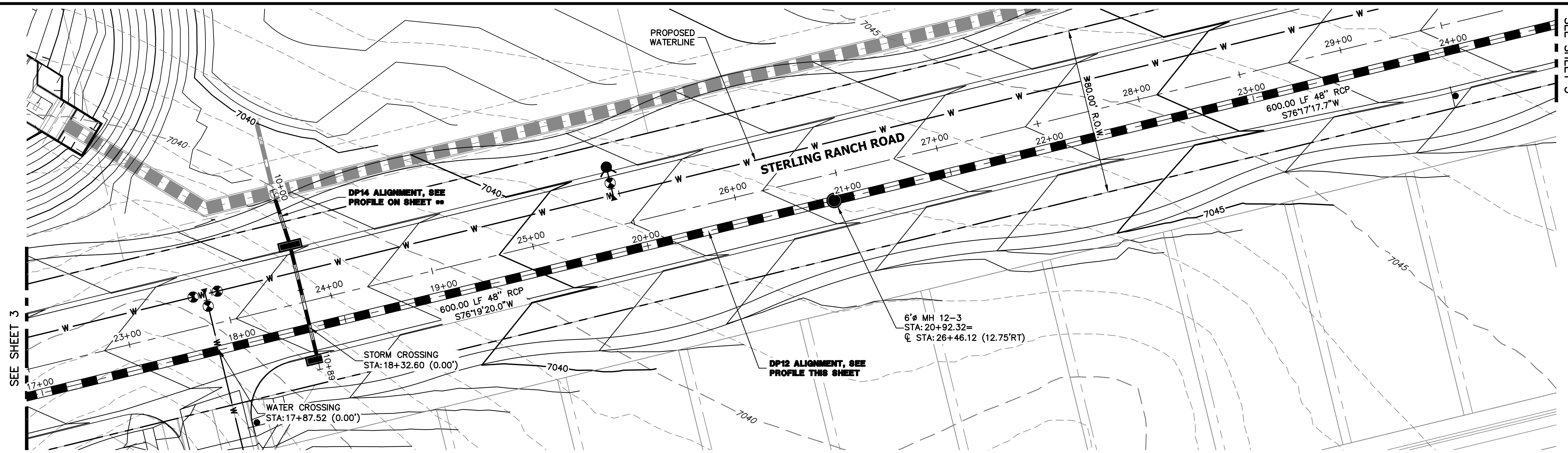
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05/08/23

MIKE A. BRAMLETT, P.E. COLORADO P.E. 32314

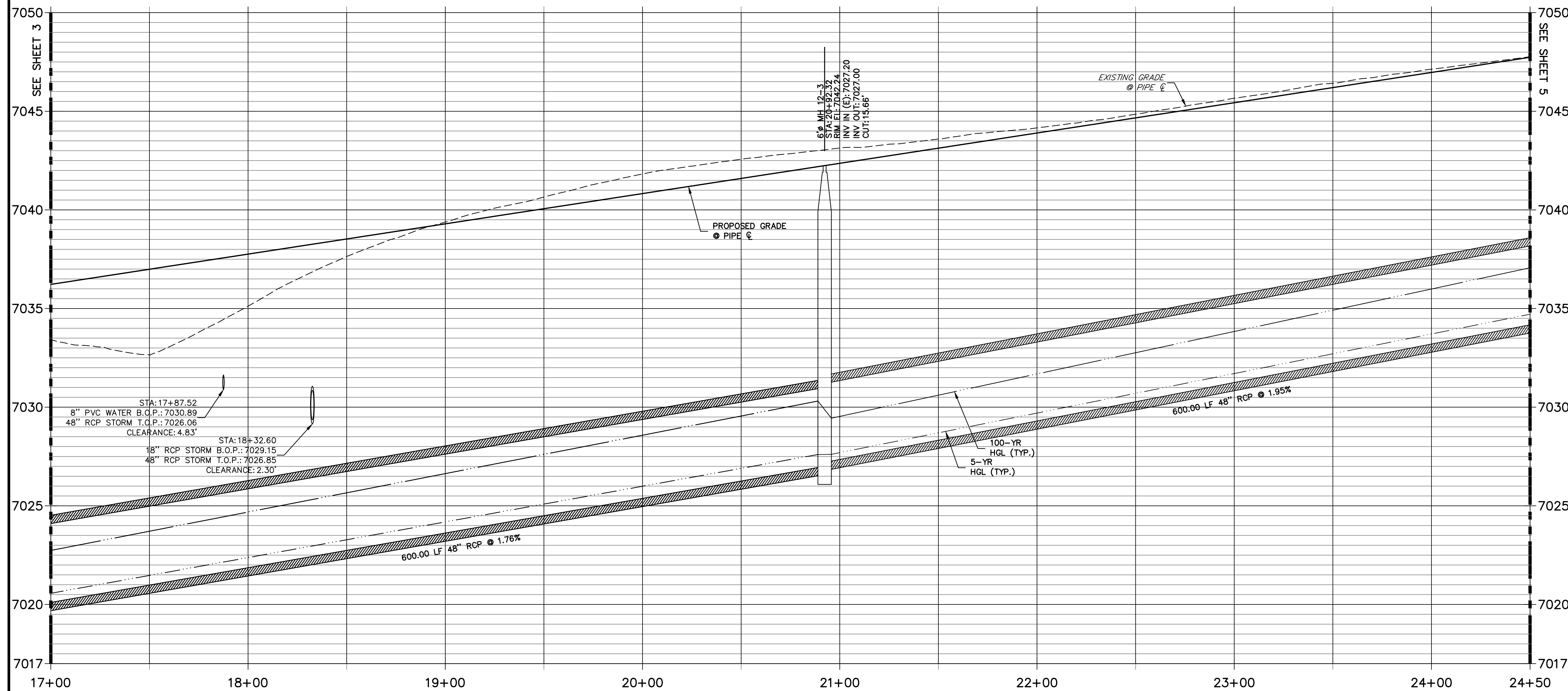
FOR AND ON BEHALF OF JR ENGINEERING, LLC

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<p>J.R. ENGINEERING A Westman Company Central 303-740-9888 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com</p>	
BY	DATE
No.	REVISION
H-SCALE	1" = 30'
V-SCALE	1" = 3'
DATE	05/04/23
DESIGNED BY	MMC
DRAWN BY	MMC
CHECKED BY	
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS	
STORM SEWER PLAN & PROFILE	
SHEET 3	OF 19
JOB NO. 25188.03	

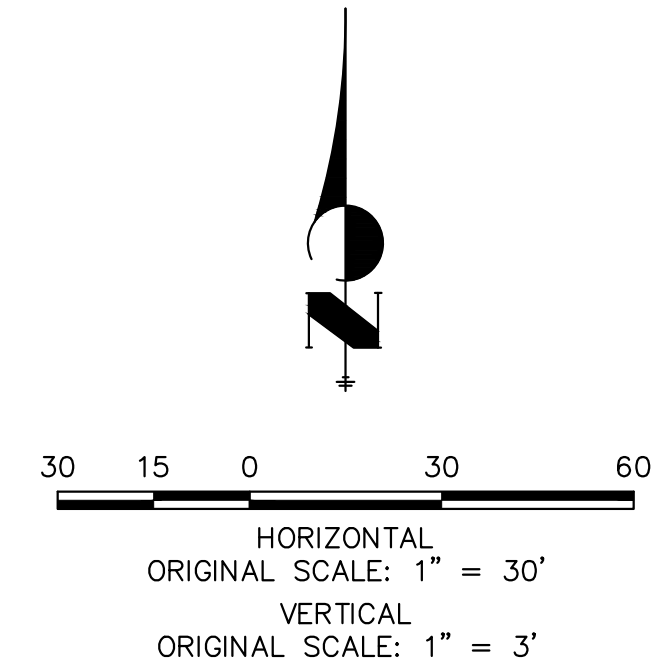


KEY MAP
N.T.S.

DP12 PROFILE(2)
STA 17+00.00 TO 24+50.00
PUBLIC



NOTE:
 1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED
 2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2



ENGINEER'S STATEMENT
 PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING
 Mike A. Bramlett, P.E.
 COLORADO P.E. 32314
 FOR AND ON BEHALF OF JR ENGINEERING, INC.
 DATE: 05/08/23

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
 20 BOULDER CRESCENT
 SUITE 201
 COLORADO SPRINGS, CO 80903
 JAMES F. MORLEY
 (719) 471-1742

J.R. ENGINEERING
 A Westman Company
 Centennial 303-740-9888 • Colorado Springs 719-583-2583
 Fort Collins 970-491-9888 • www.jrengineering.com

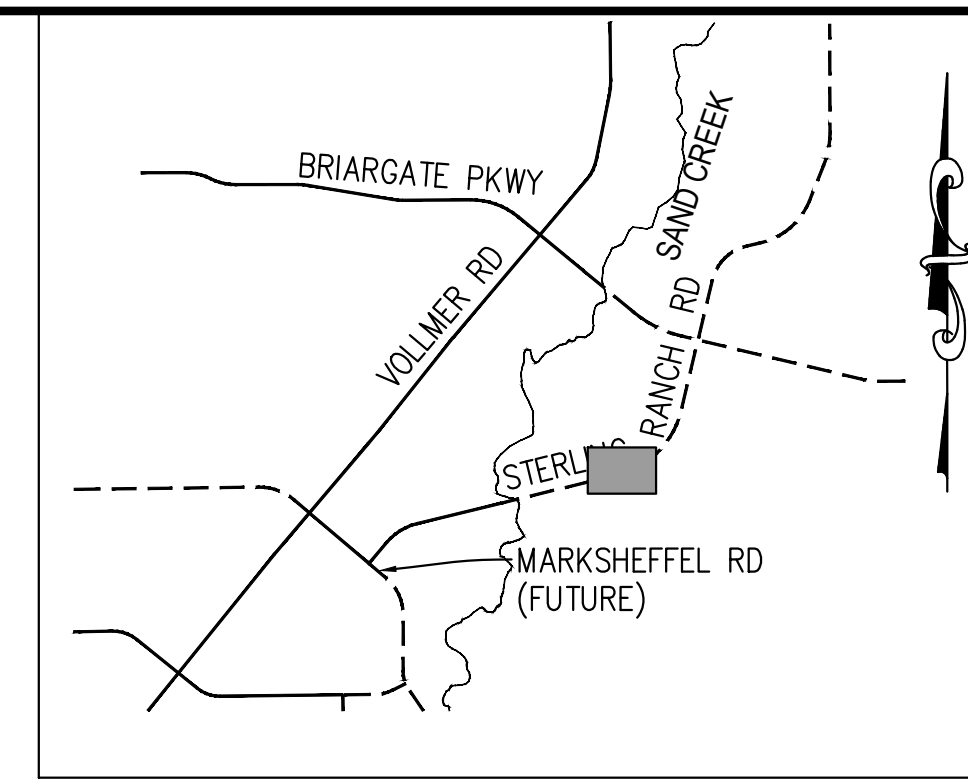
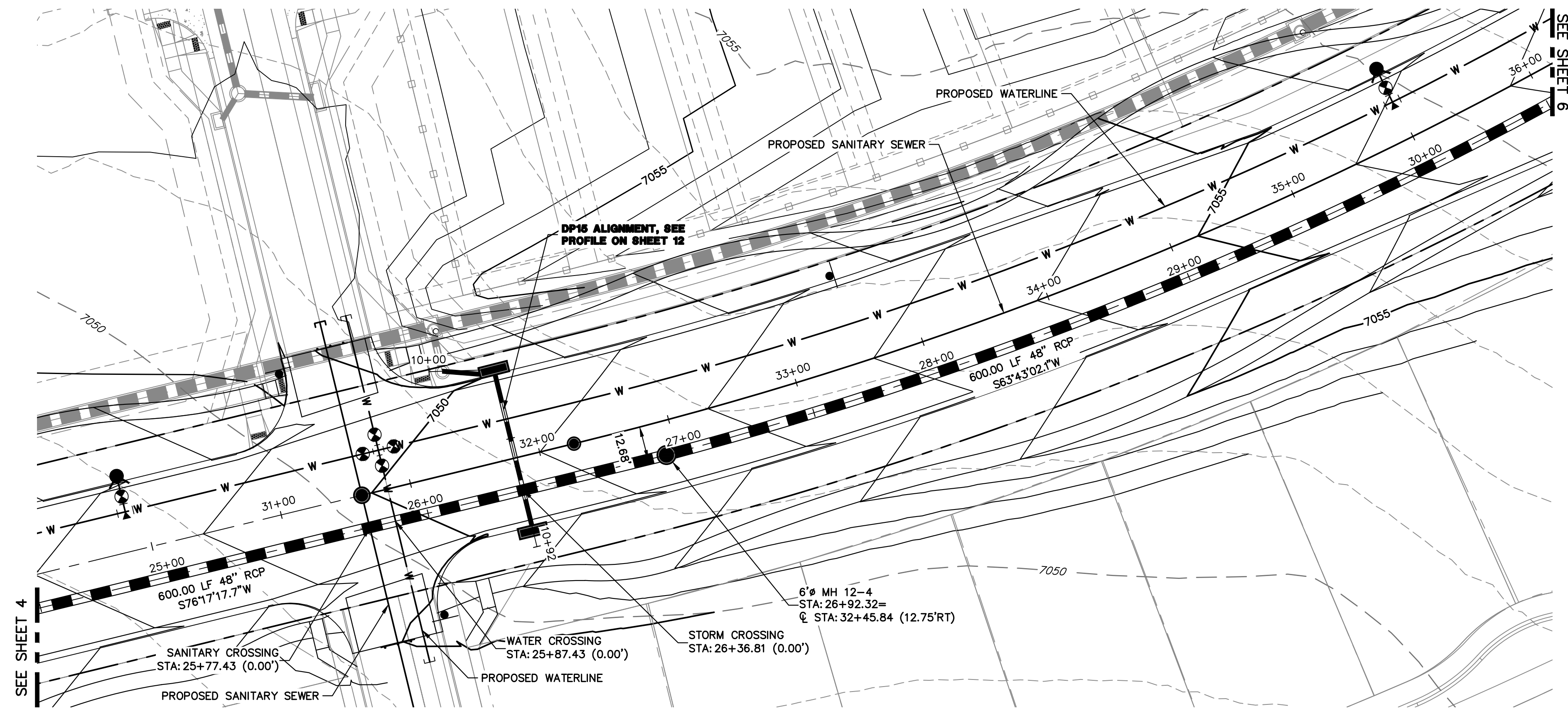
No.	REVISION	BY	DATE

H-SCALE 1"=30'
 V-SCALE 1"=3'
 DATE 05/04/23
 DESIGNED BY MMC
 DRAWN BY MMC
 CHECKED BY

STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS
STORM SEWER PLAN & PROFILE

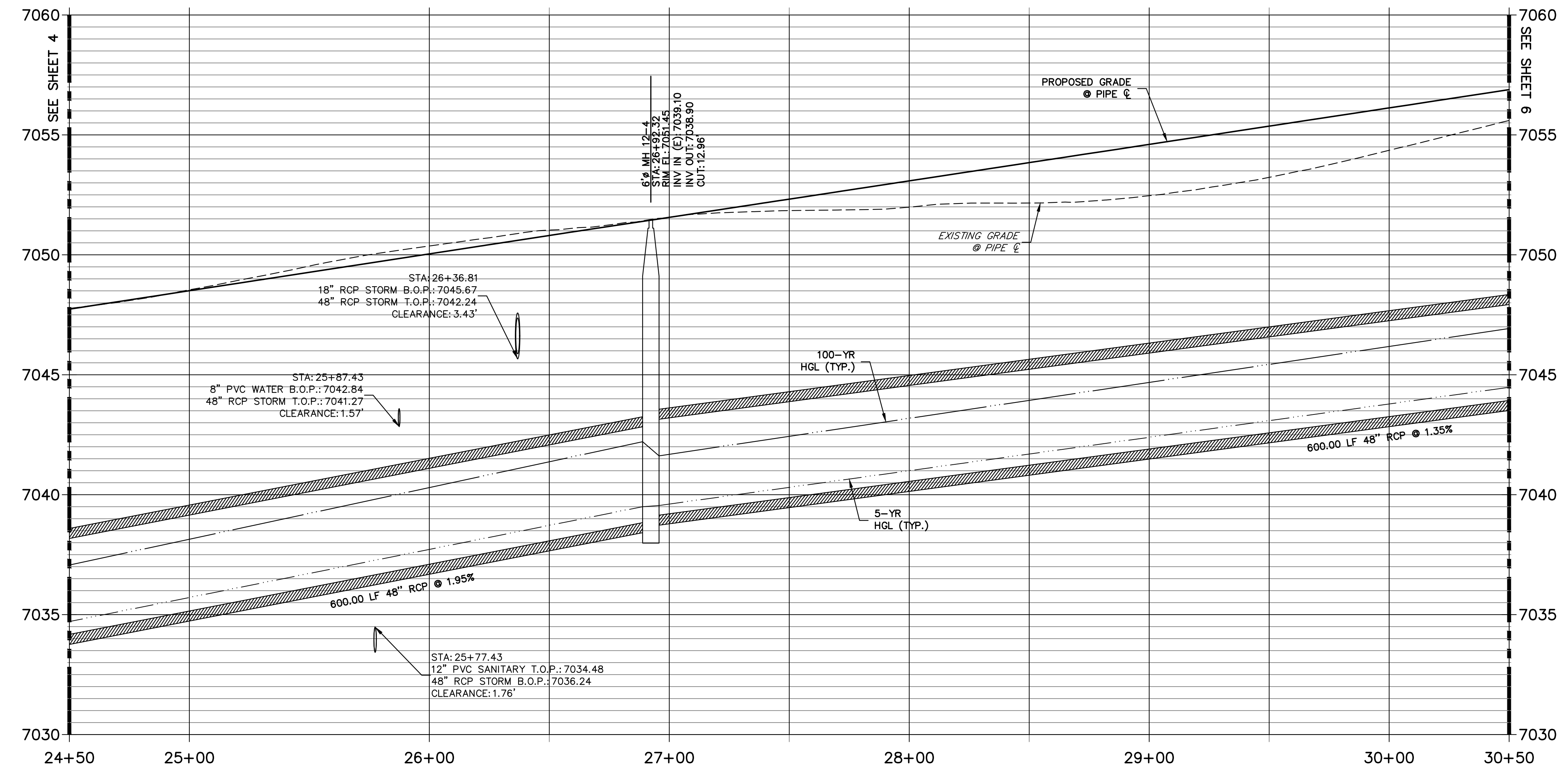
SHEET 4 OF 19
 JOB NO. 25188.03

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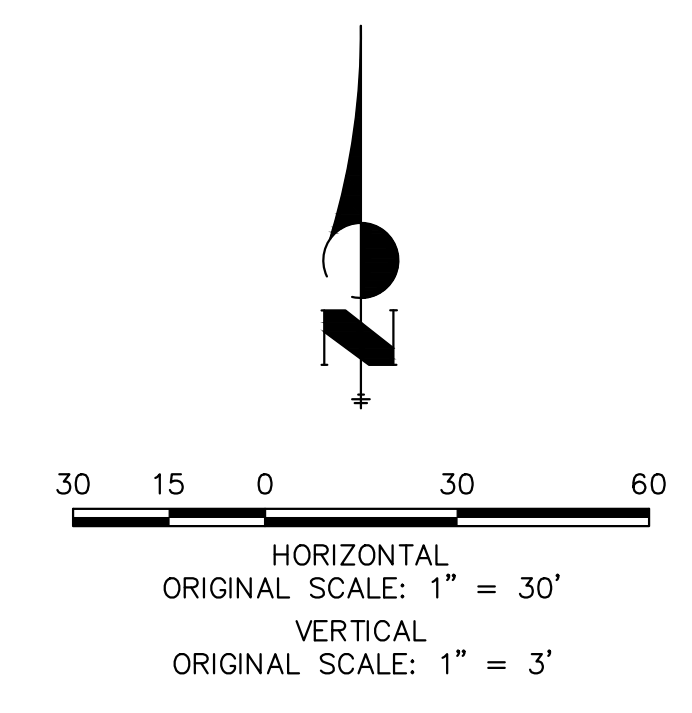


KEY MAP
N.T.S.

DP12 PROFILE(3)
STA 24+50.00 TO 30+50.00
PUBLIC



NOTE:
1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED
2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2



ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING
Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, INC. LOCAL ENGINEER
DATE 05/08/23

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE AGENCIES, JR ENGINEERING APPROVES THEIR USE DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

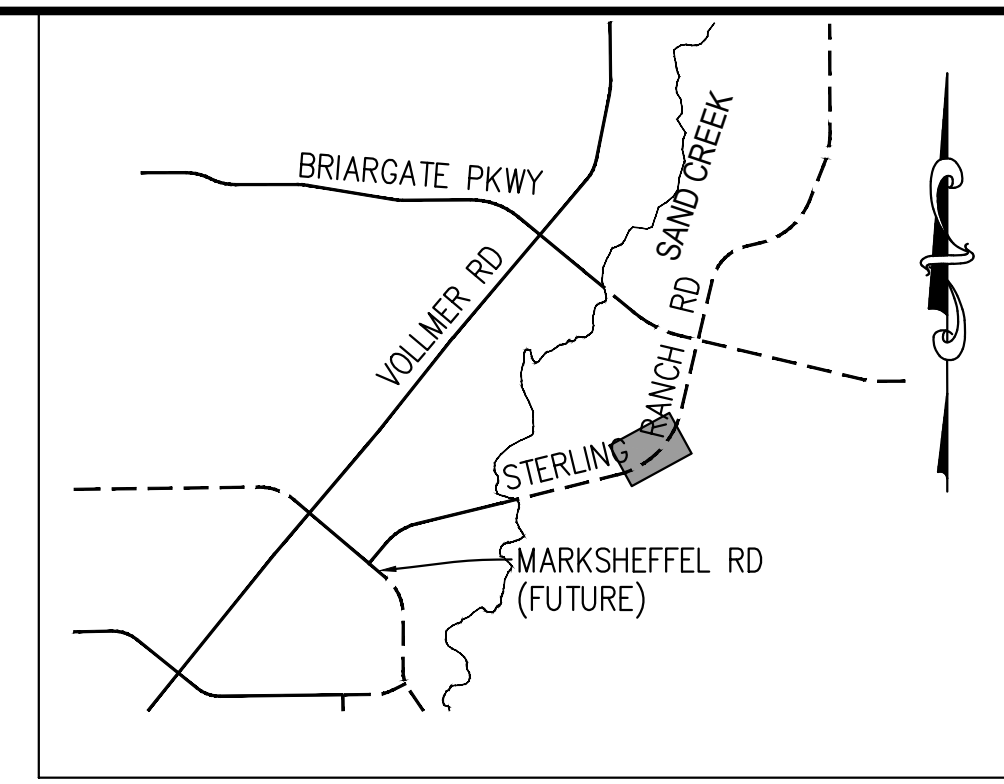
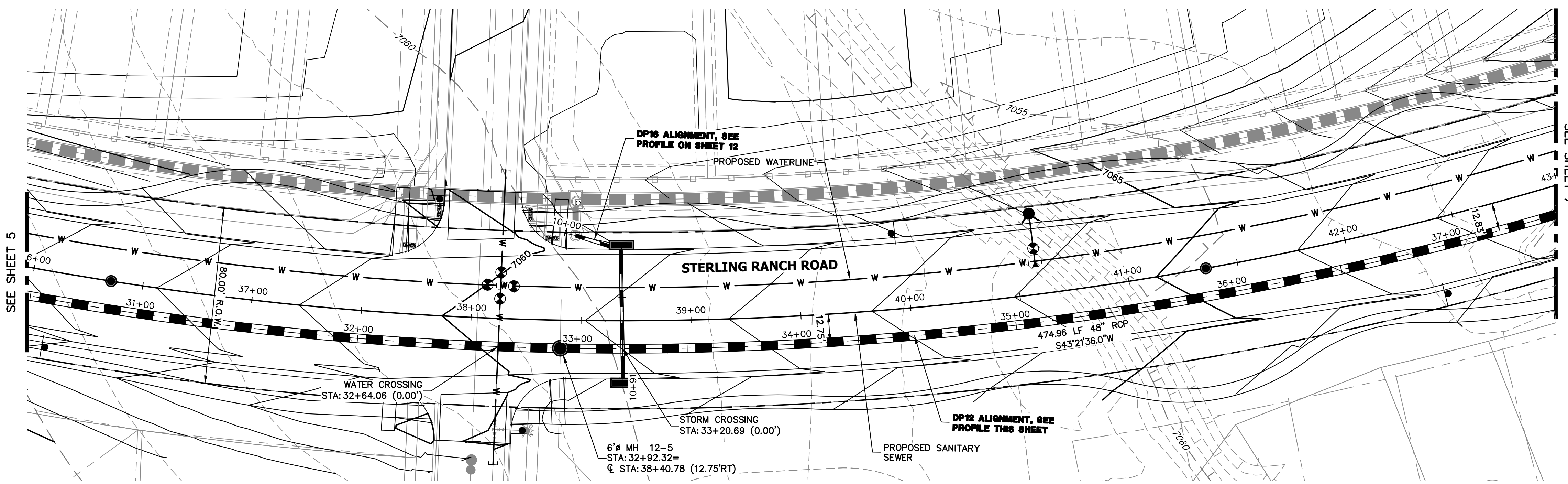
J.R. ENGINEERING
A Westman Company
Central 303-740-9888 • Colorado Springs 719-588-2583
Fort Collins 970-491-9888 • www.jrengineering.com

BY	DATE	No.	REVISION

H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=30'	1"=3'	05/04/23	MMC	MMC	

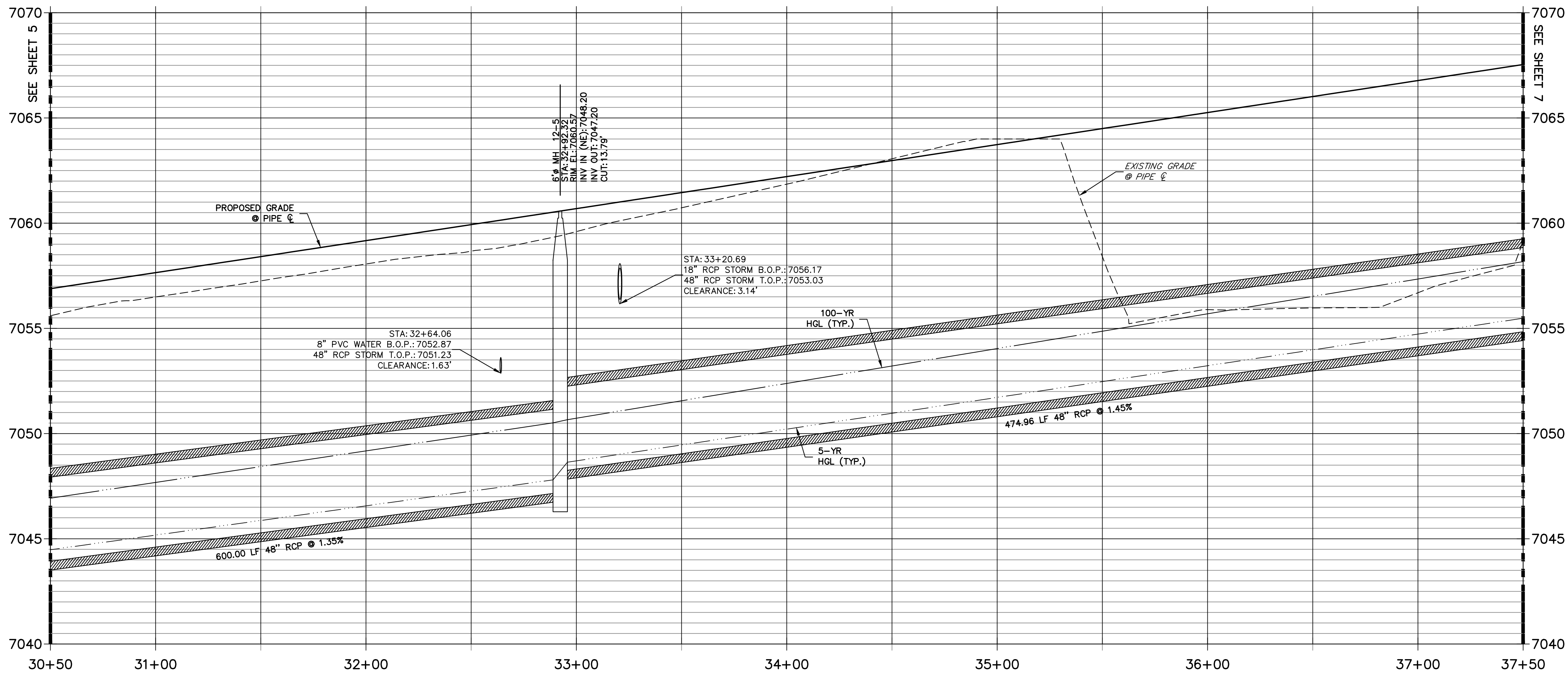
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS
STORM SEWER PLAN & PROFILE
SHEET 5 OF 19
JOB NO. 25188.03

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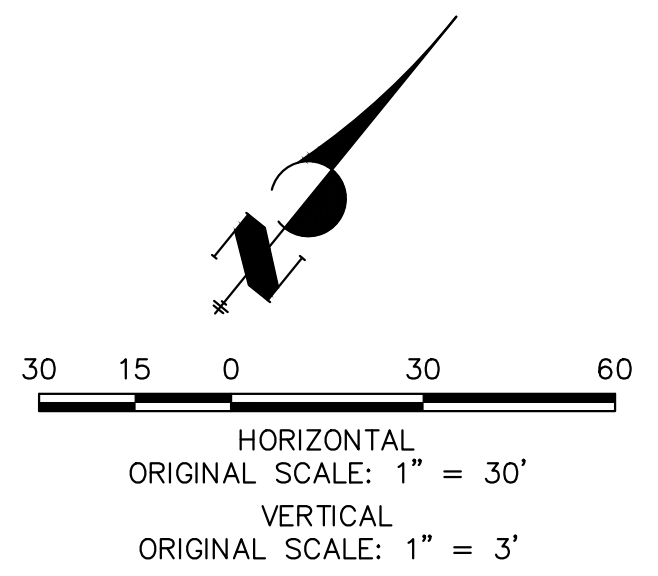


KEY MAP
N.T.S.

**DP12 PROFILE(4)
STA 30+50.00 TO 37+50.00**

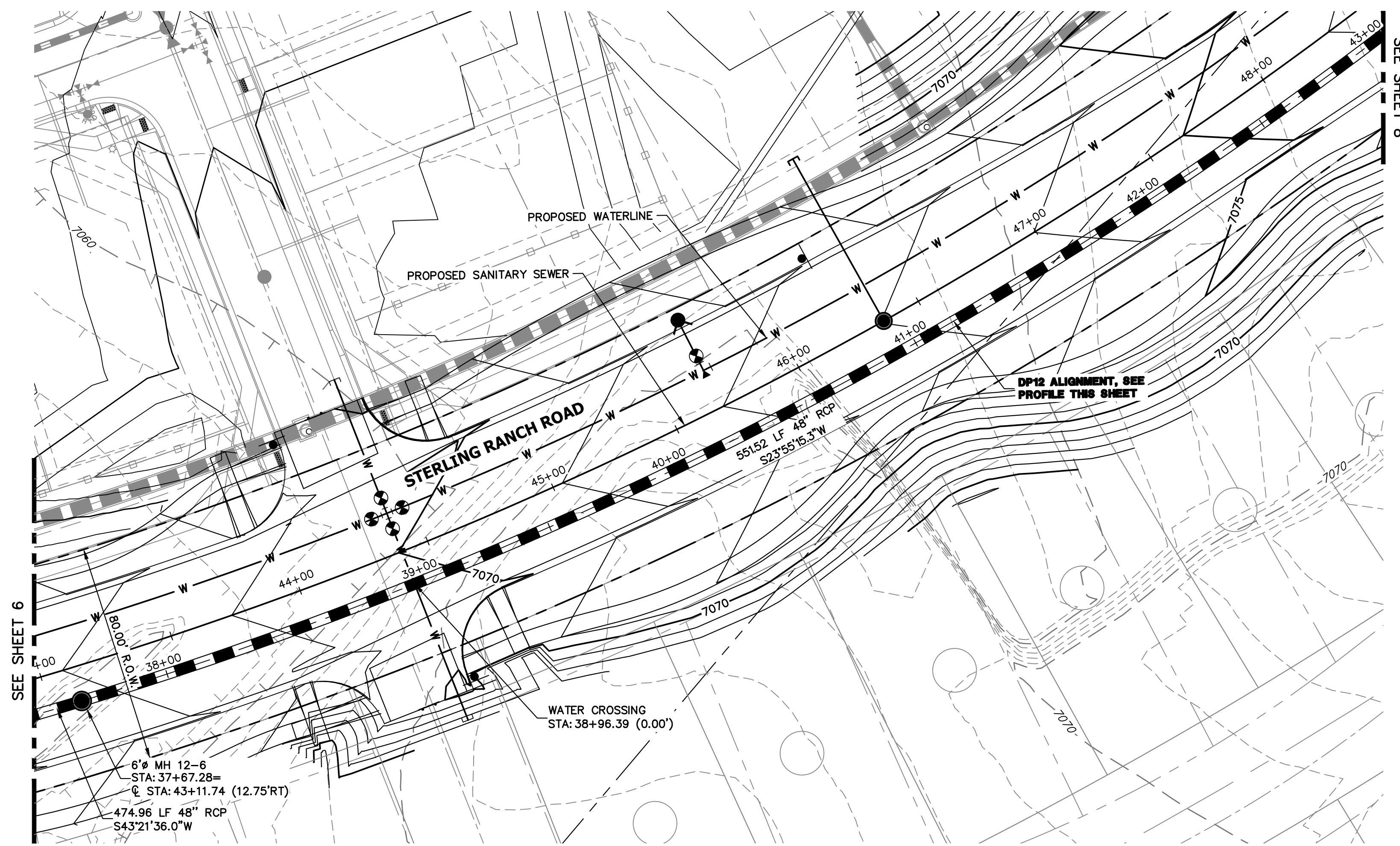


NOTE:
1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED
2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2

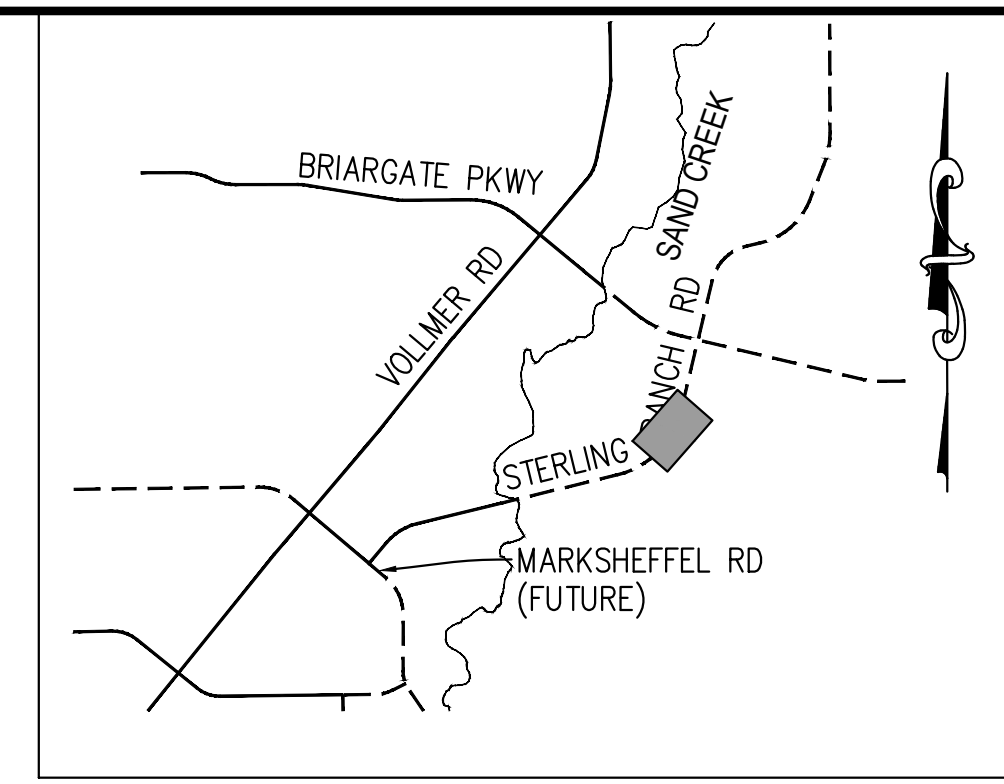


ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING
Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, INC. DATE 05/08/23

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE DESIGNATED BY WRITTEN AUTHORIZATION.	
PREPARED FOR	SR LAND, LLC 20 BOULDER CRESCENT SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742
<p>J.R. ENGINEERING A Westman Company Central 303-740-9888 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com</p>	
BY	DATE
No.	REVISION
H-SCALE	1" = 30'
V-SCALE	1" = 3'
DATE	05/04/23
DESIGNED BY	MMC
DRAWN BY	MMC
CHECKED BY	
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS	
STORM SEWER PLAN & PROFILE	
SHEET	6 OF 19
JOB NO.	25188.03

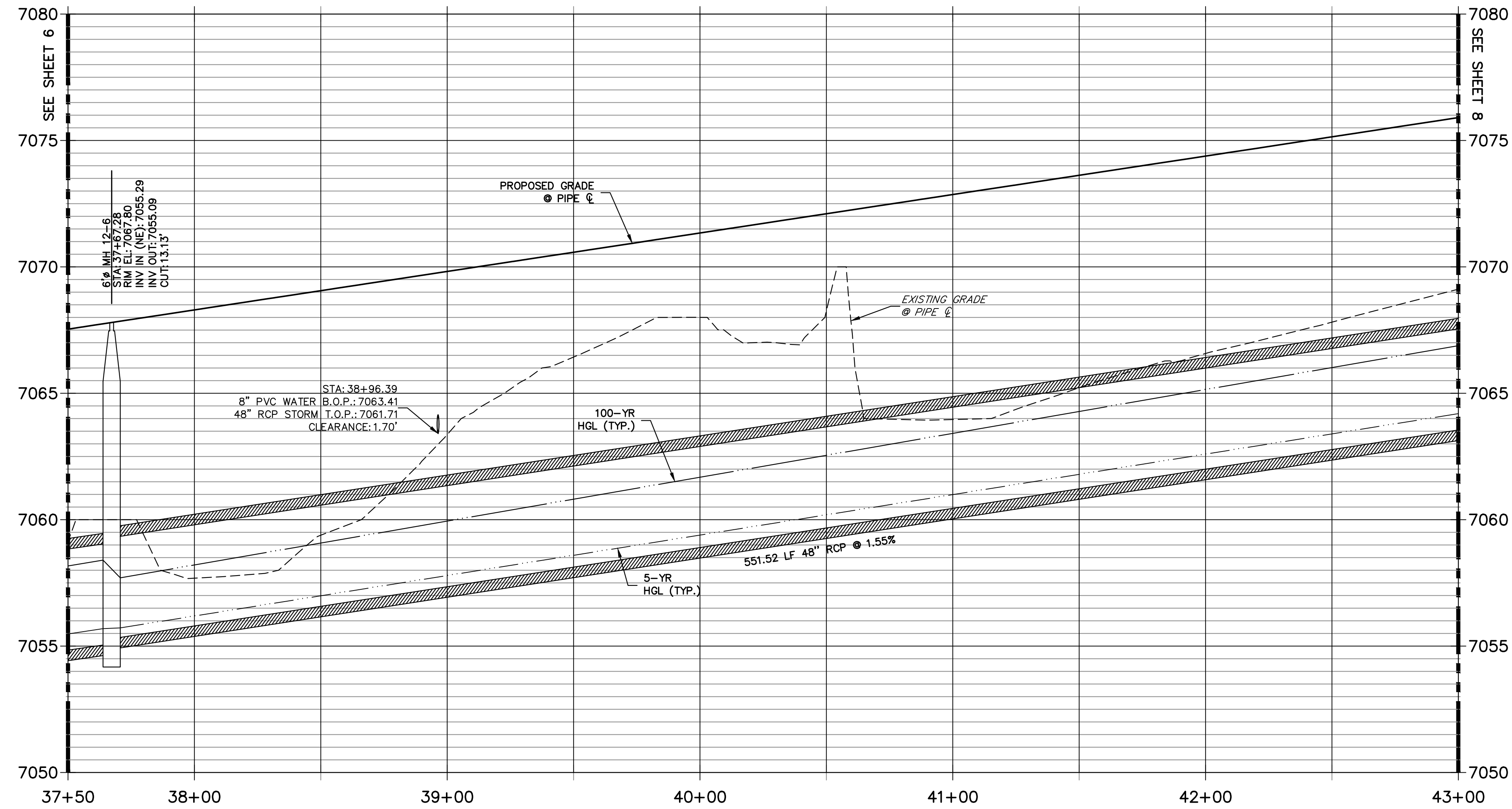


DP12 PROFILE(5)
STA 37+50.00 TO 43+00.00
 PUBLIC



UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE DESIGNATED BY WRITTEN AUTHORIZATION.
 PREPARED FOR
SR LAND, LLC
 20 BOULDER CRESCENT SUITE 201
 COLORADO SPRINGS, CO 80903
 JAMES F. MORLEY
 (719) 471-1742

J.R. ENGINEERING
 A Westman Company
 Centennial 303-740-9888 • Colorado Springs 719-583-2683
 Fort Collins 970-491-9888 • www.jrengineering.com



NOTE:
 1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED
 2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2

30 15 0 30 60
 HORIZONTAL ORIGINAL SCALE: 1" = 30'
 VERTICAL ORIGINAL SCALE: 1" = 3'

 Know what's below.
 Call before you dig.

ENGINEER'S STATEMENT
 PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

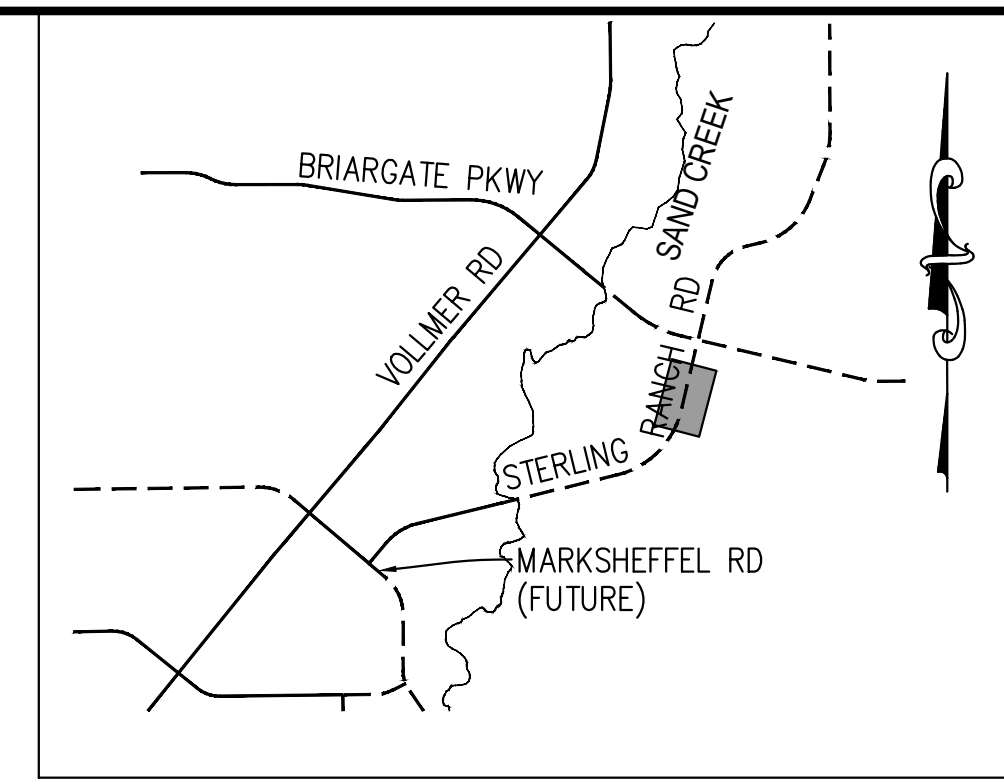
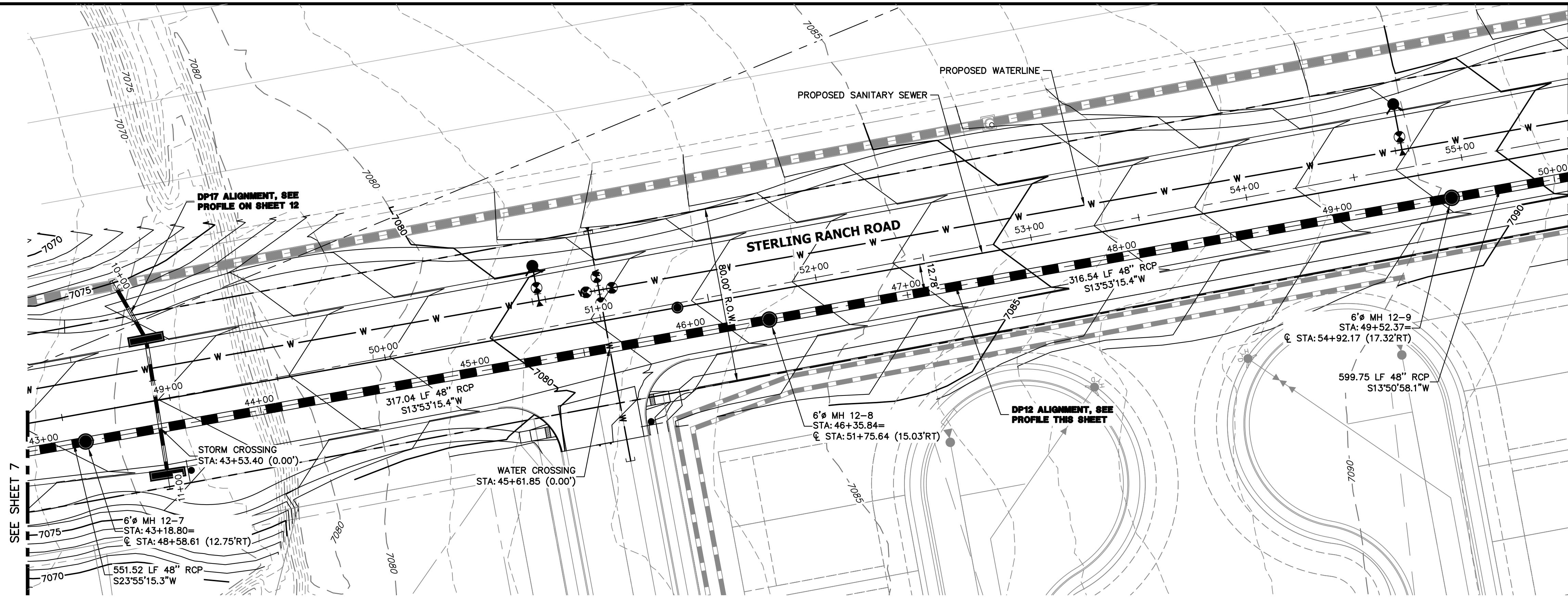
 MIKE A. BRAMLETT, P.E.
 COLORADO P.E. 32314
 FOR AND ON BEHALF OF JR ENGINEERING
 DATE 05/08/23

BY	DATE

No.	REVISION

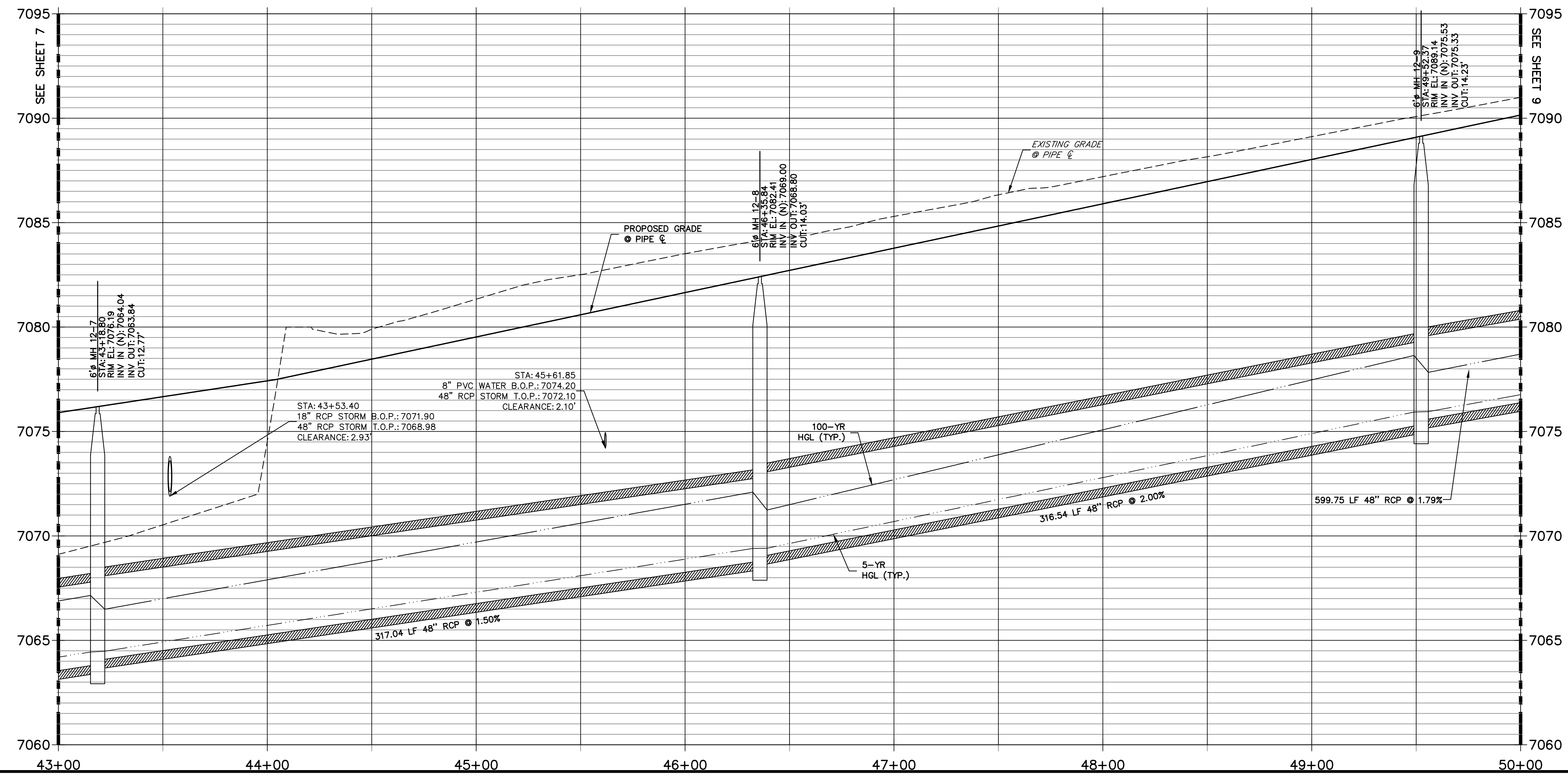
H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=30'	1"=3'	05/04/23	MMC	MMC	

STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS
STORM SEWER PLAN & PROFILE
 SHEET 7 OF 19
 JOB NO. 25188.03
 EPC 7/25/2023

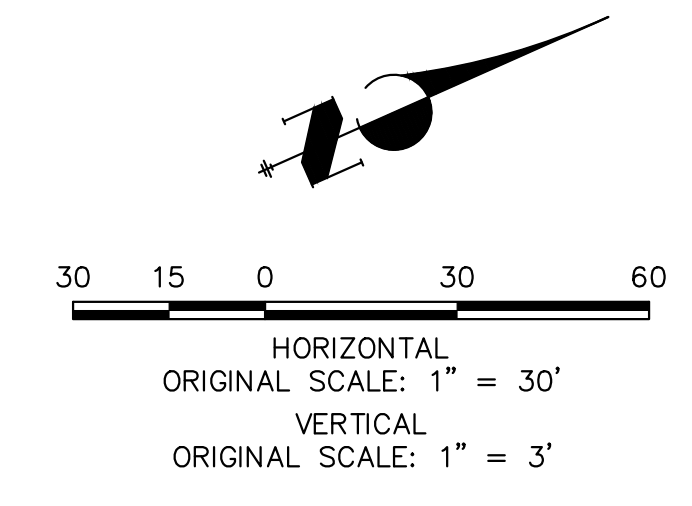


KEY MAP
N.T.S.

DP12 PROFILE(6)
STA 43+00.00 TO 50+00.00
PUBLIC

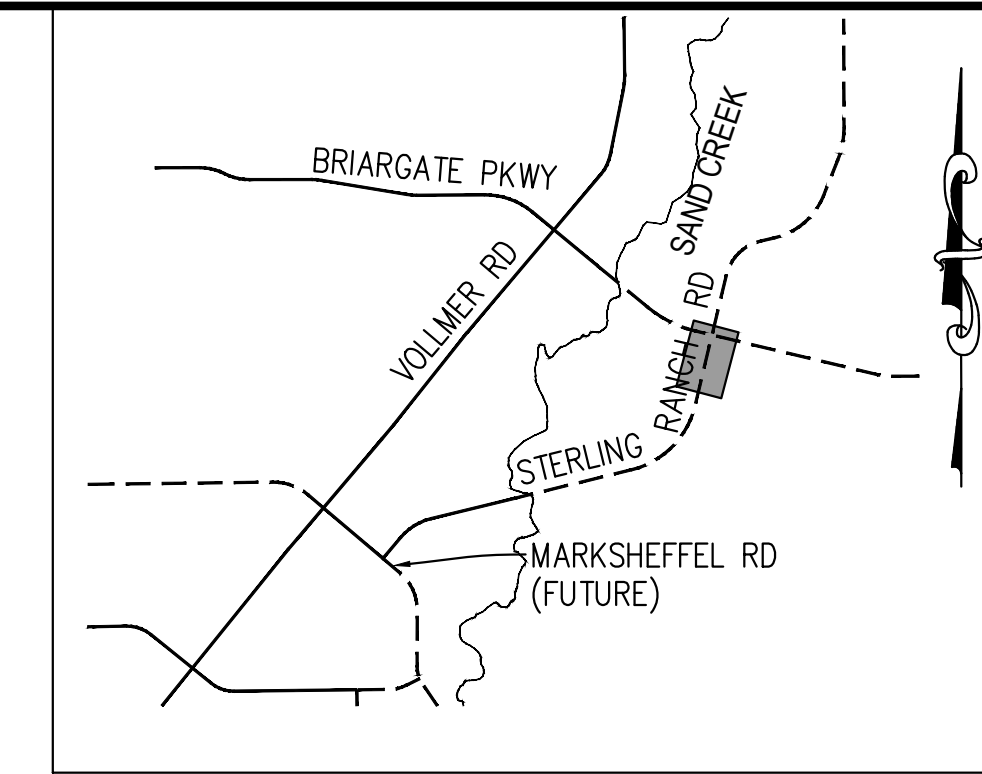
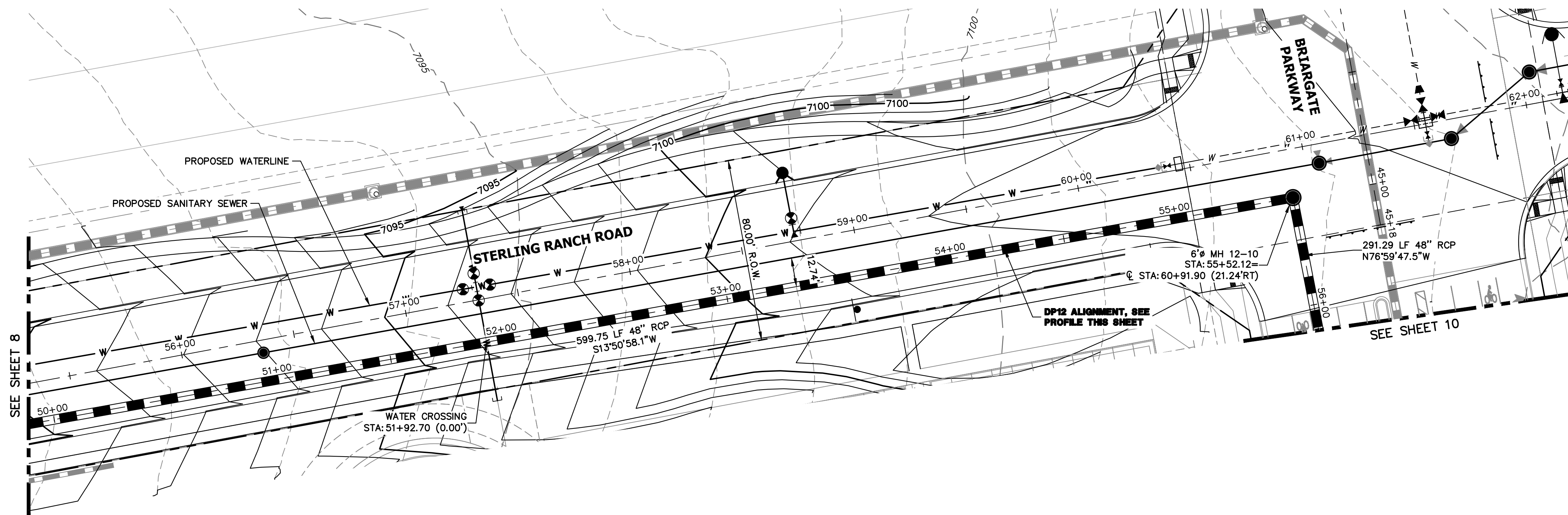


NOTE:
1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED
2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2



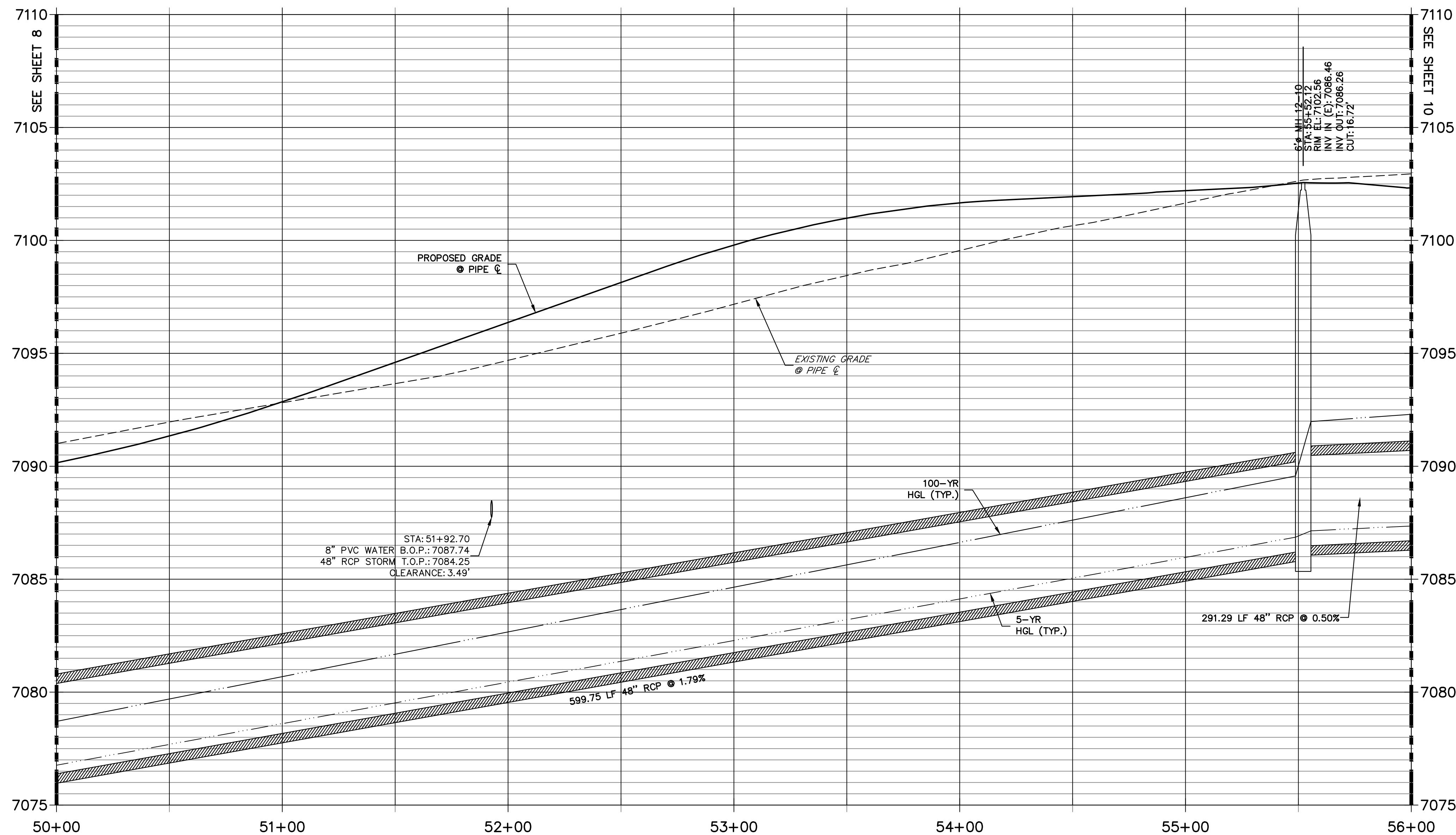
ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING
Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, INC.
DATE: 05/08/23

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USES DESIGNATED BY WRITTEN AUTHORIZATION.	PREPARED FOR SR LAND, LLC 20 BOULDER CRESCENT SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742										
	J.R. ENGINEERING A Westman Company Centennial 300-740-9888 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com										
No. REVISION <table border="1"> <tr><th>BY</th><th>DATE</th></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>	BY	DATE									H-SCALE 1"=30' V-SCALE 1"=3' DATE 05/04/23 DESIGNED BY MMC DRAWN BY MMC CHECKED BY
BY	DATE										
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS STORM SEWER PLAN & PROFILE	SHEET 8 OF 19 JOB NO. 25188.03										



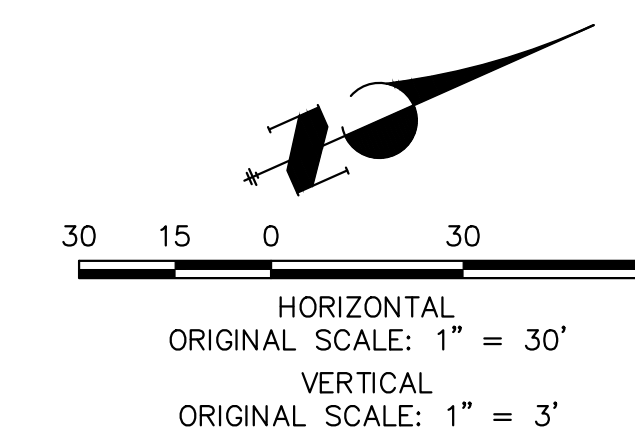
KEY MAP
N.T.S.

DP12 PROFILE(7)
STA 50+00.00 TO 56+00.00
PUBLIC



NOTE:

- 1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED
- 2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2



ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
DATE 05/08/23

FOR AND ON BEHALF OF JR ENGINEERING, LOCAL ENGINEER

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USES DESIGNATED BY WRITTEN AUTHORIZATION.

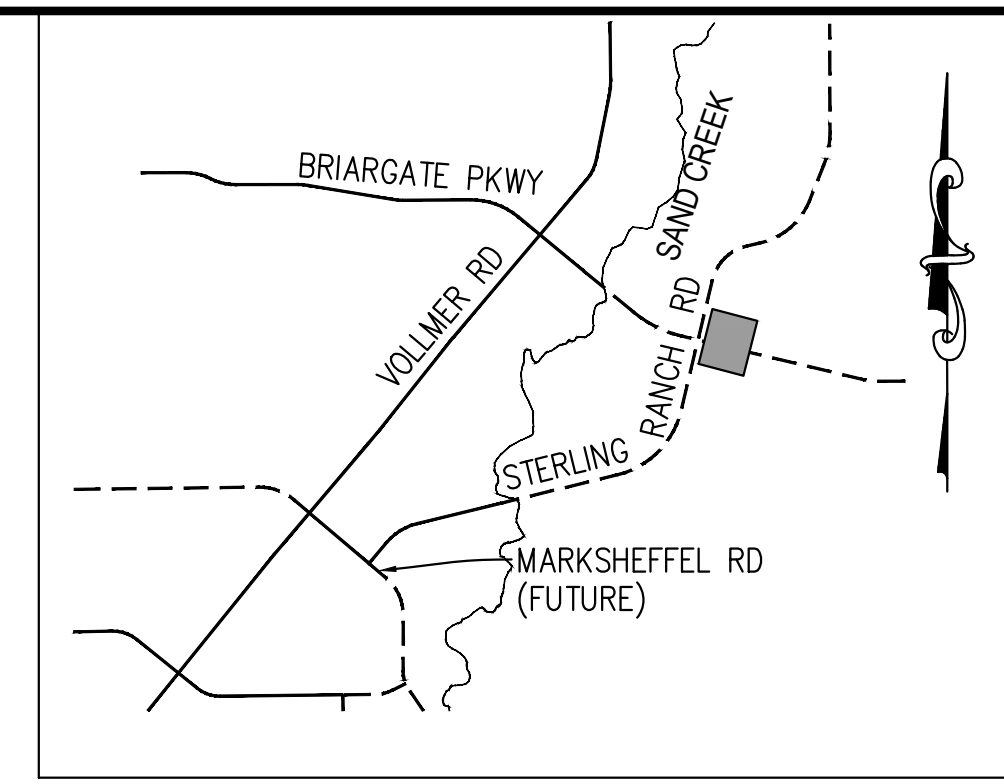
PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

J.R. ENGINEERING
A Westman Company
Central 303-740-9888 • Colorado Springs 719-583-2583
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=30'	1"=3'	05/04/23	MMC	MMC	

STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS
STORM SEWER PLAN & PROFILE



KEY MAP
N.T.S.

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE. THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

J.R. ENGINEERING
A Westman Company

Central 303-740-9888 • Colorado Springs 719-583-2583
Fort Collins 970-491-9888 • www.jrengineering.com

BY	DATE	No.	REVISION

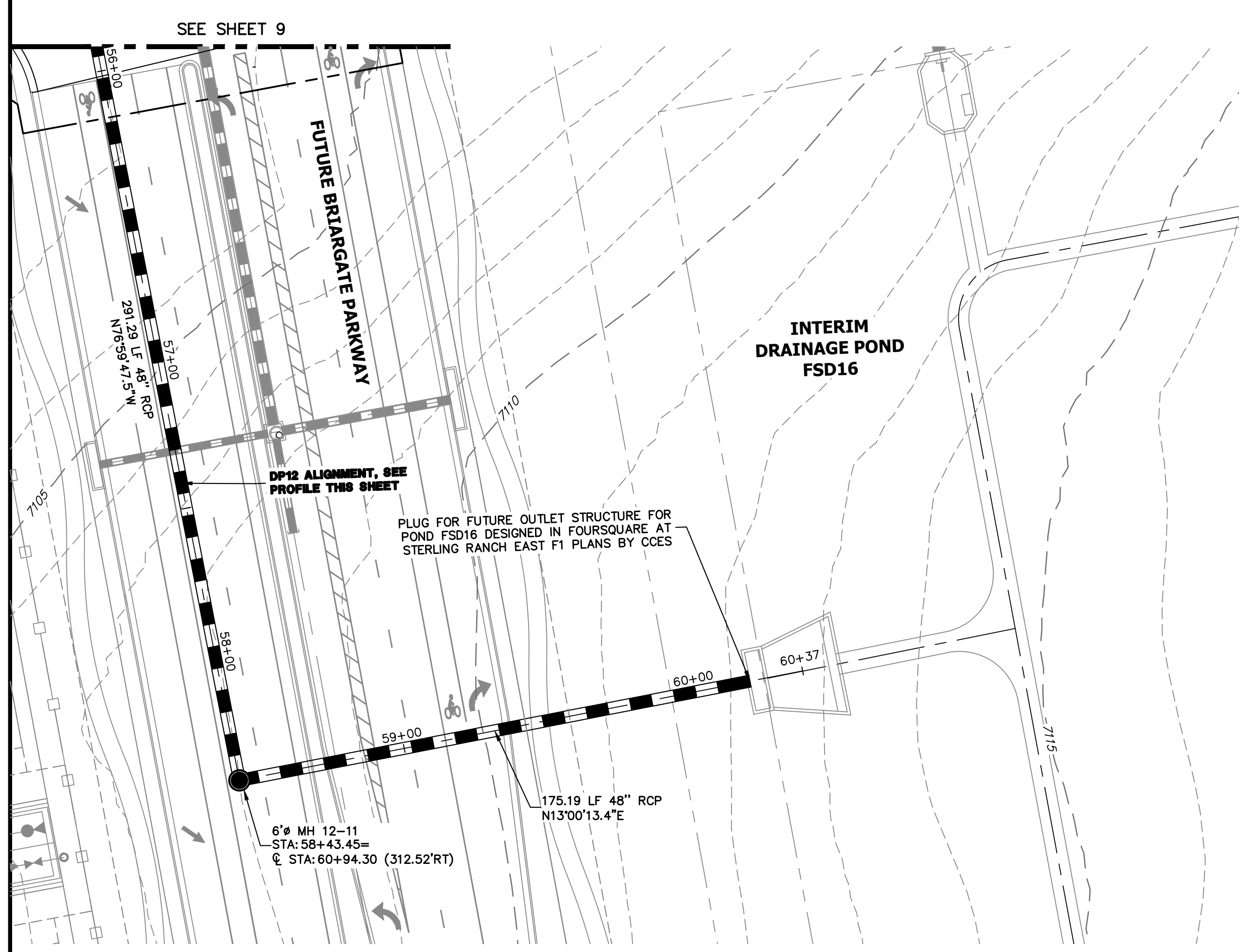
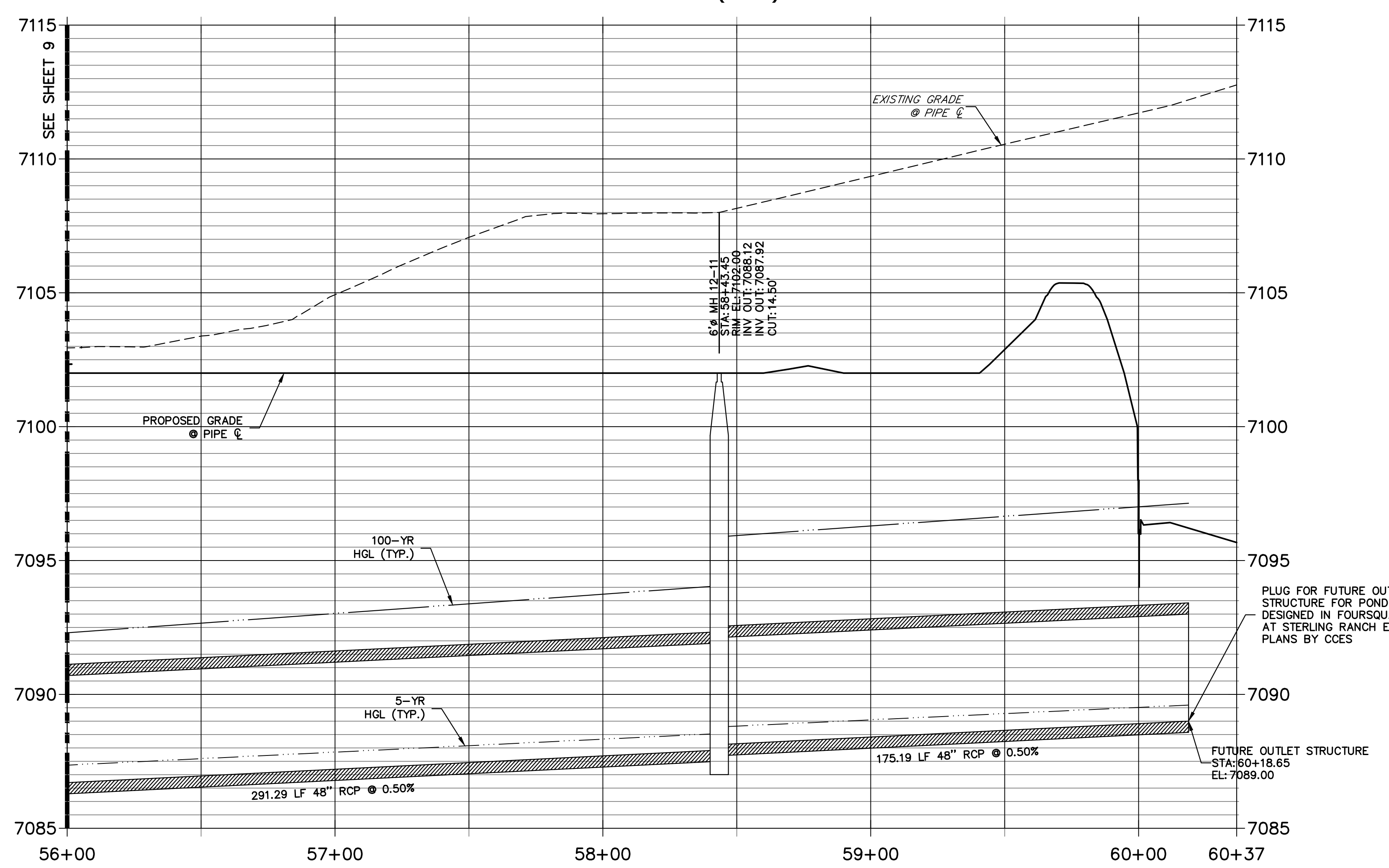
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS

STORM SEWER PLAN & PROFILE

SHEET 10 OF 19

JOB NO. 25188.03

DP12 PROFILE(8)
STA 56+00.00 TO 60+36.64
PRIVATE (SRMD)



NOTE:

1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED

2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2

30 15 0 30 60

HORIZONTAL ORIGINAL SCALE: 1" = 30'

VERTICAL ORIGINAL SCALE: 1" = 3'

811

Know what's below.
Call before you dig.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

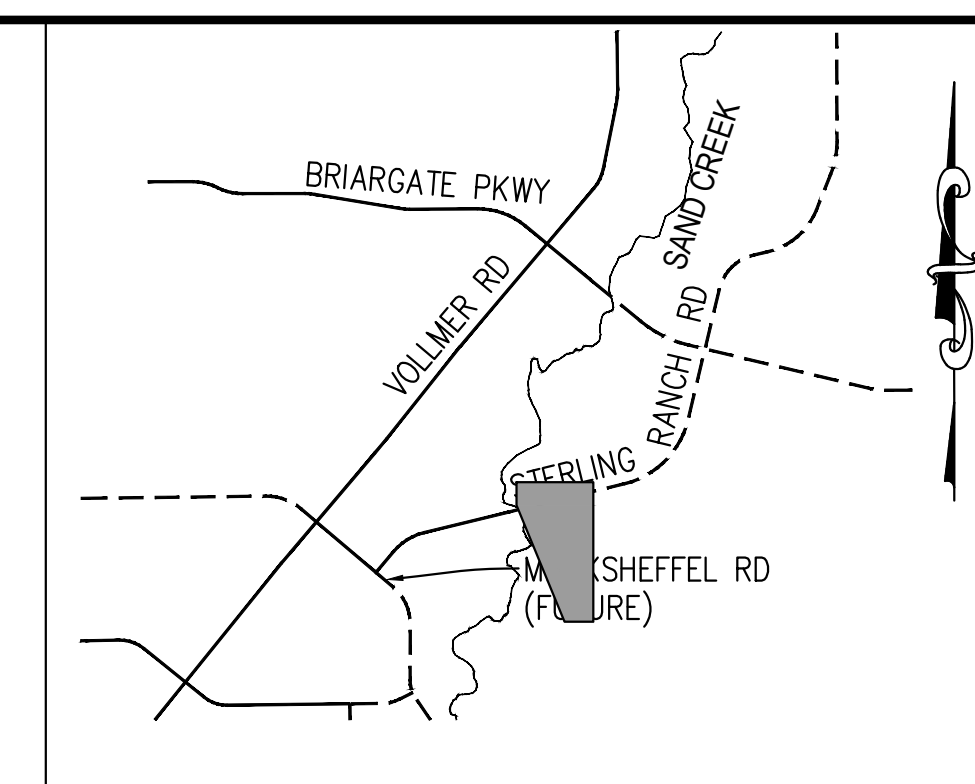
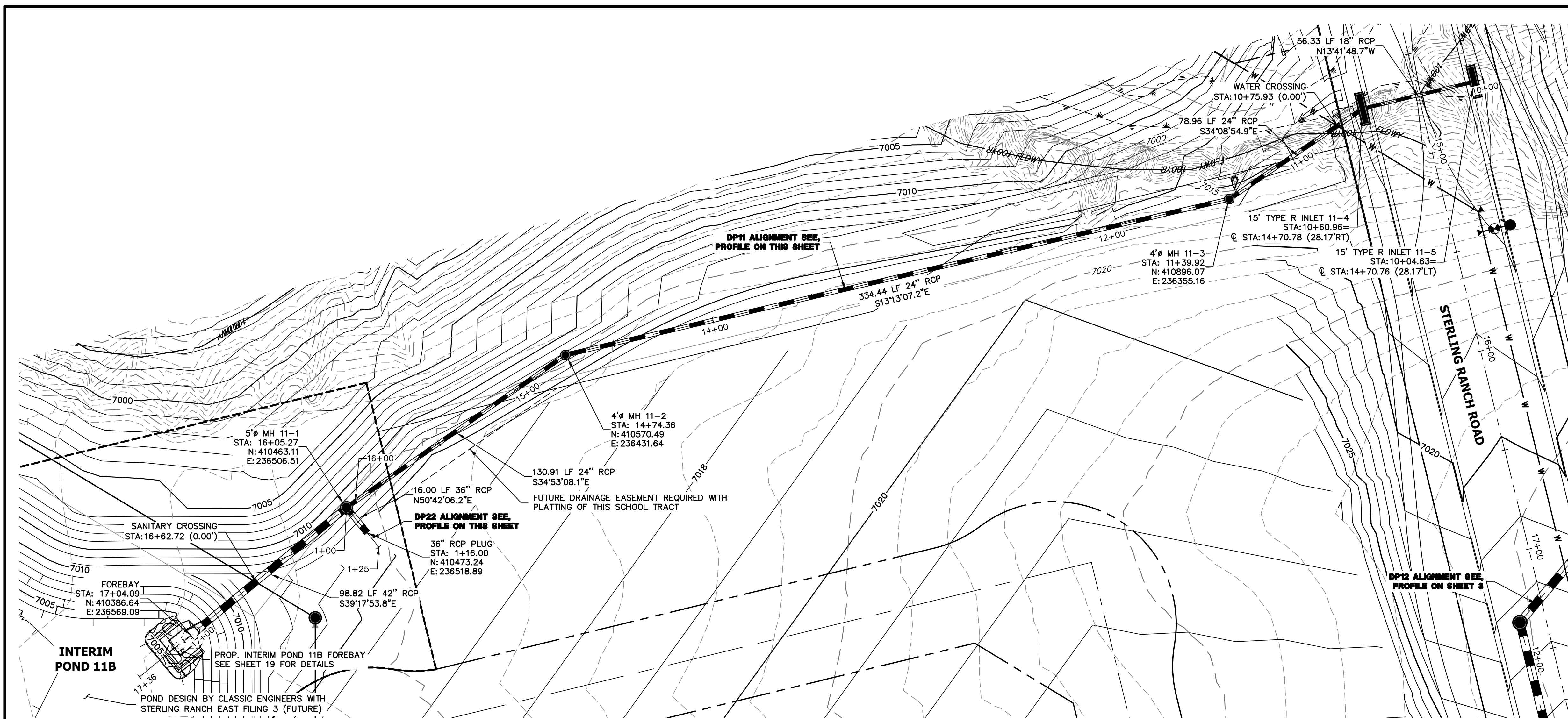
Mike Bramlett

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314

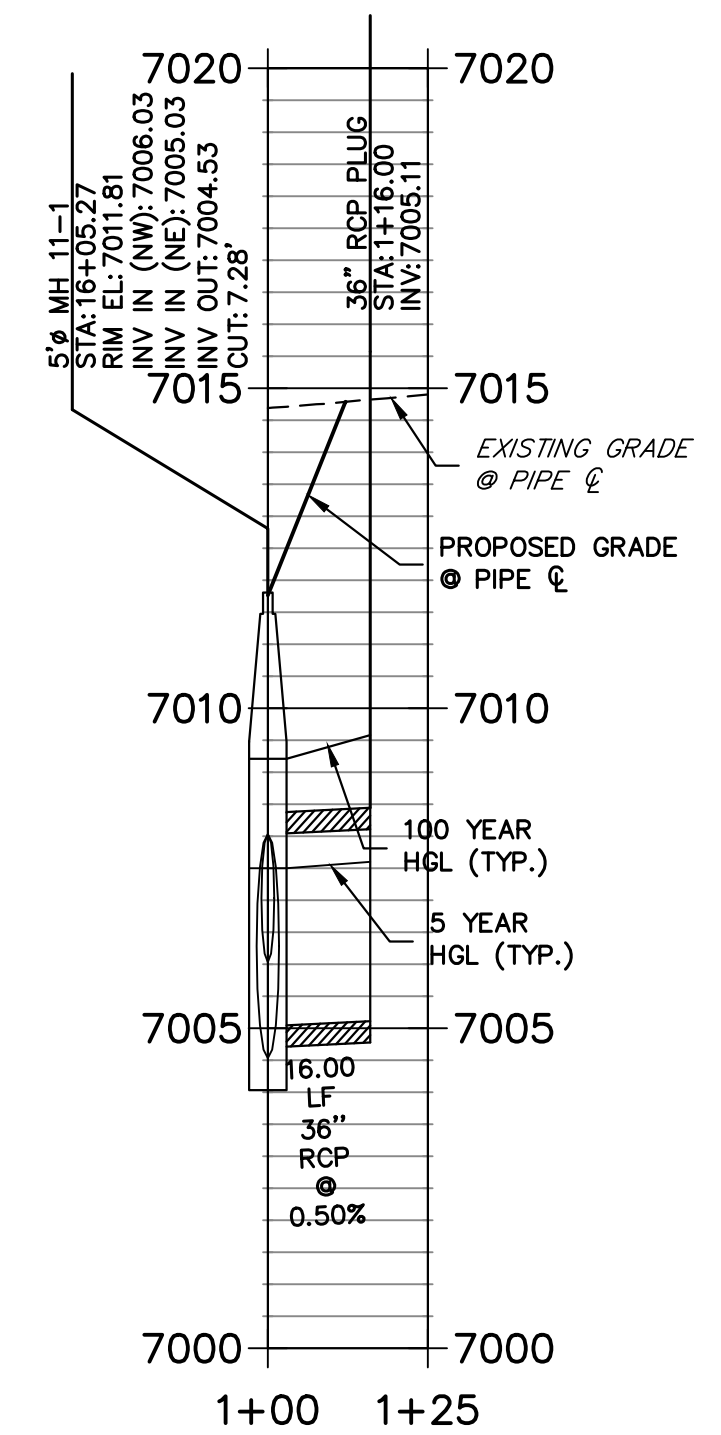
DATE 05/08/23

FOR AND ON BEHALF OF JR ENGINEERING, INC.

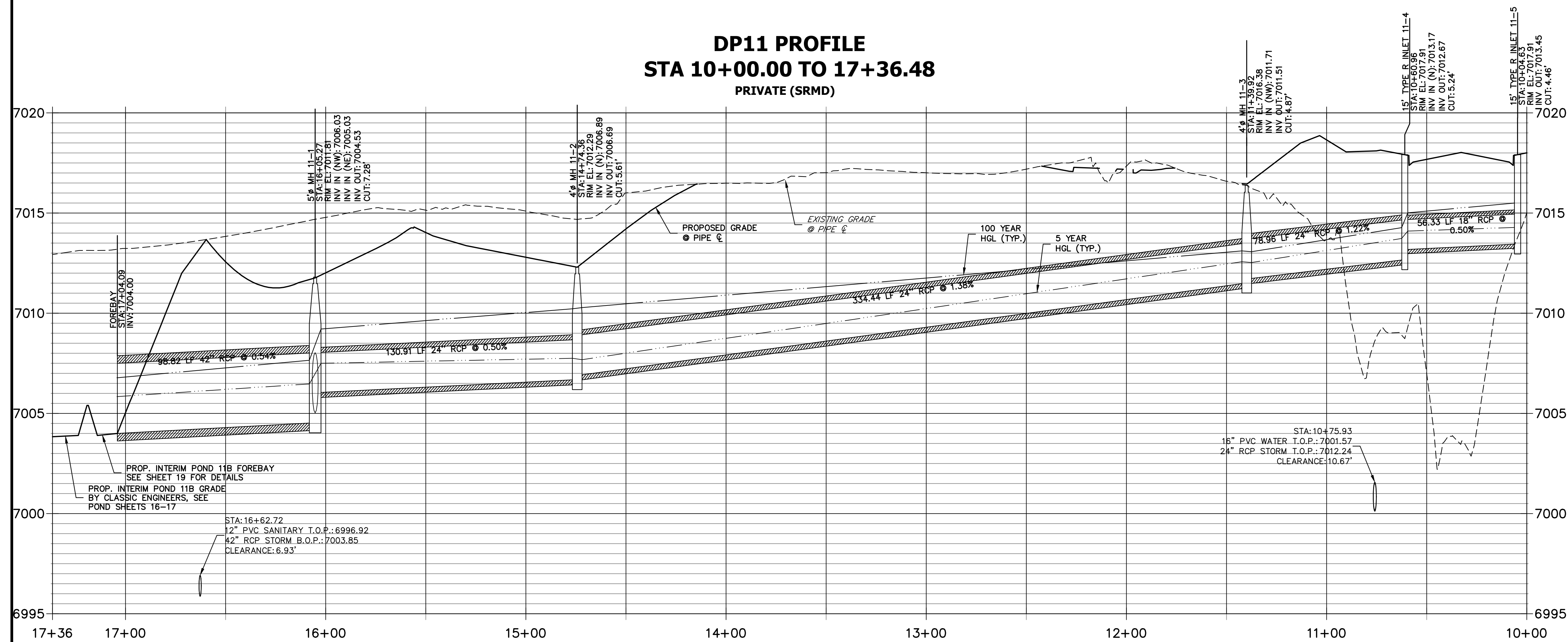
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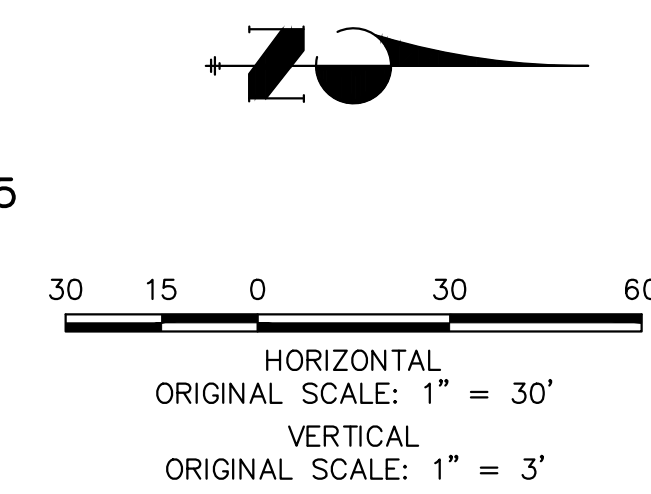
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STA 1+00.00 TO 1+25.00



DP11 PROFILE
STA 10+00.00 TO 17+36.48
PRIVATE (SRMD)



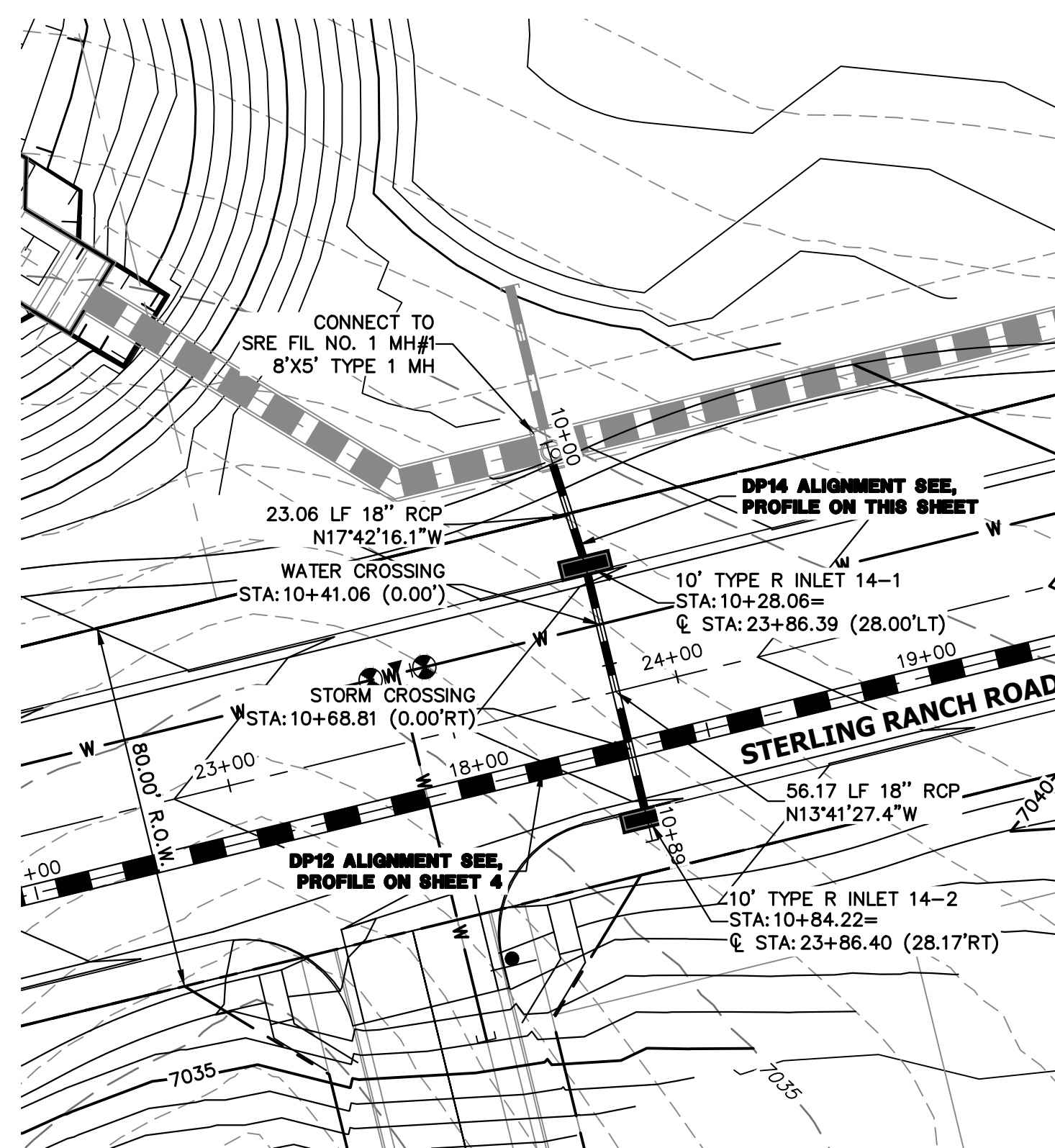
NOTE:
 1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED.
 2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2



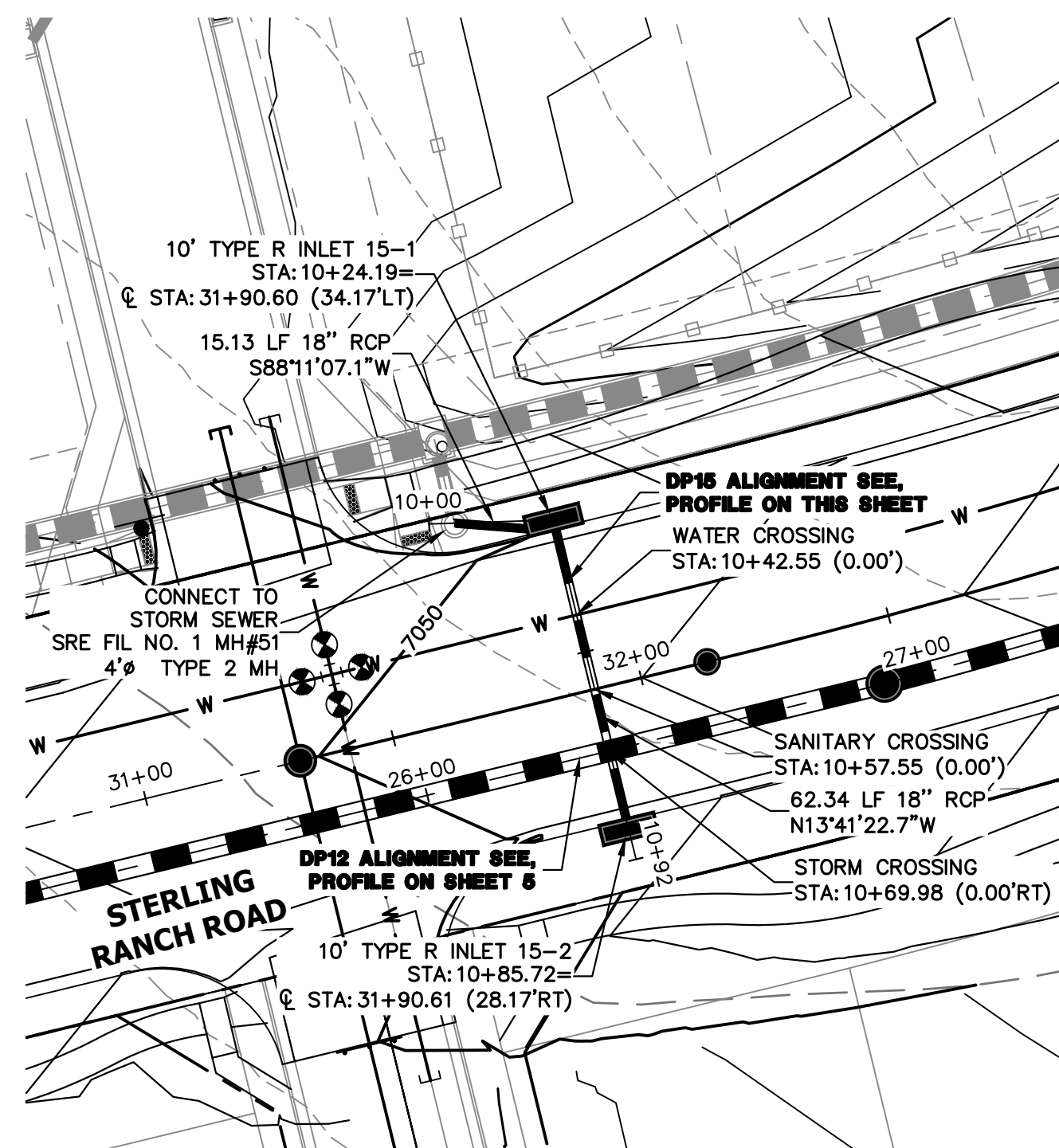
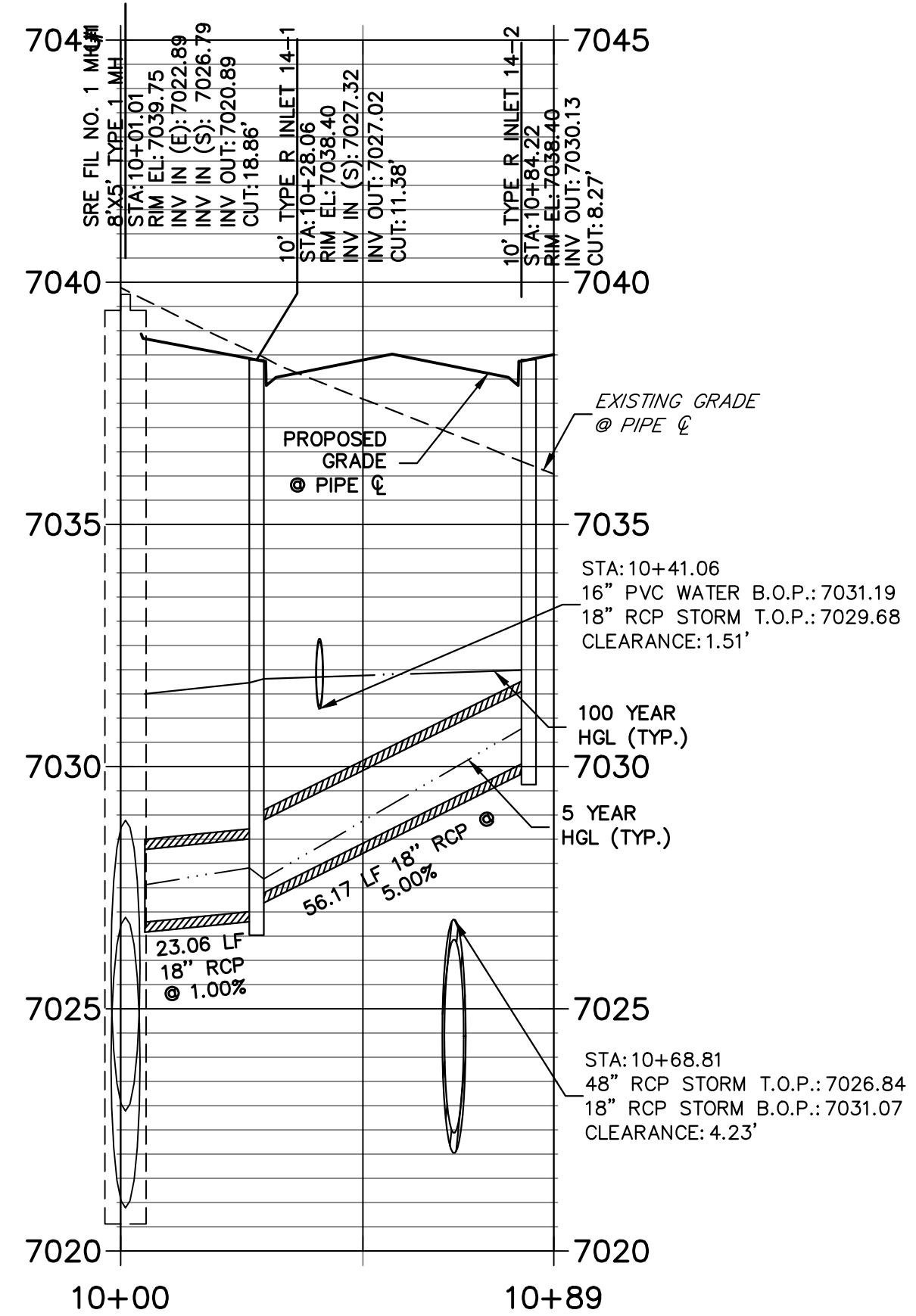
ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING
 Mike Bramlett
 32314
 05/08/23
 MIKE A. BRAMLETT, P.E.
 COLORADO P.E. 32314
 FOR AND ON BEHALF OF JR ENGINEERING, A LOCAL ENGINEERING FIRM

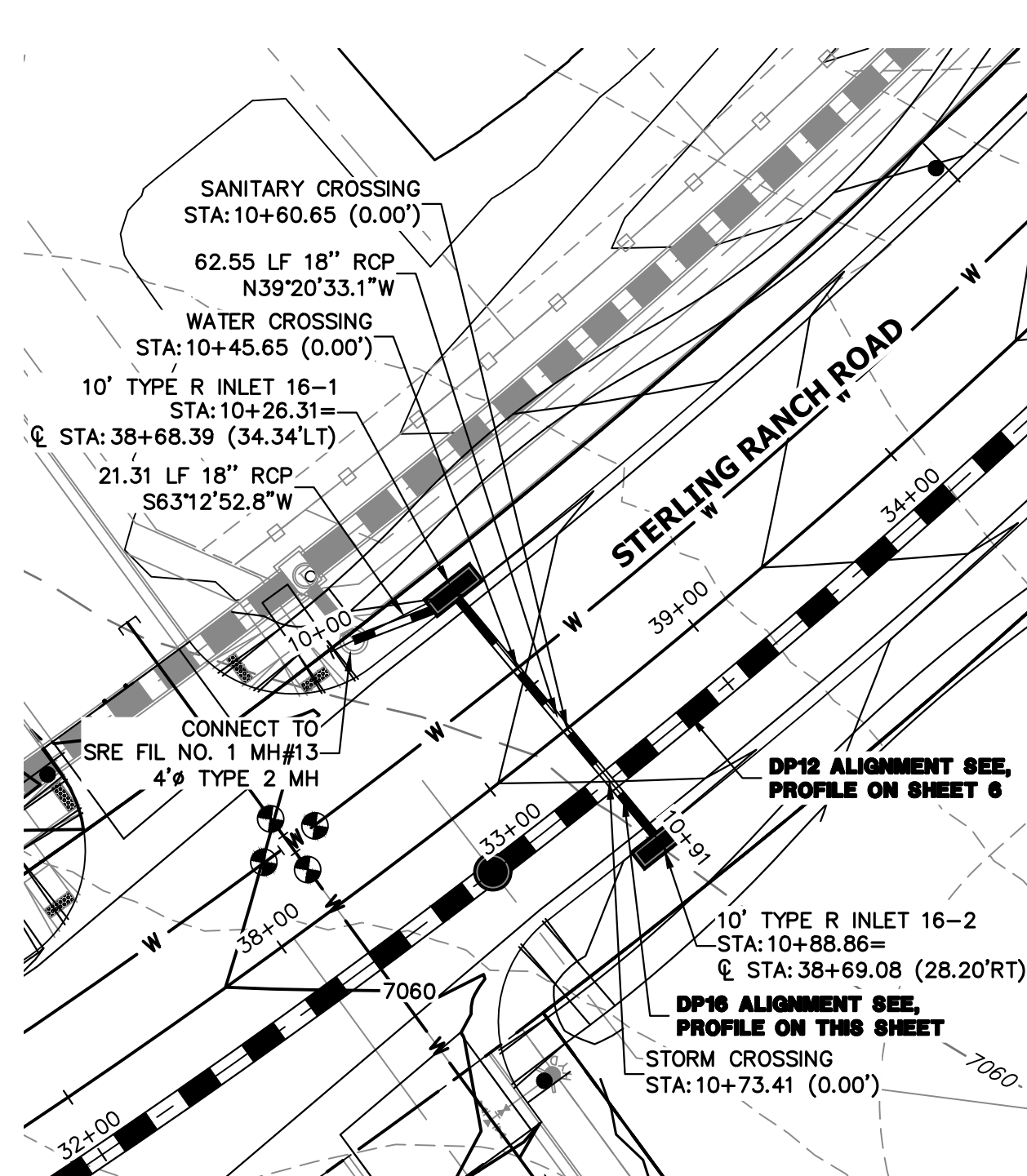
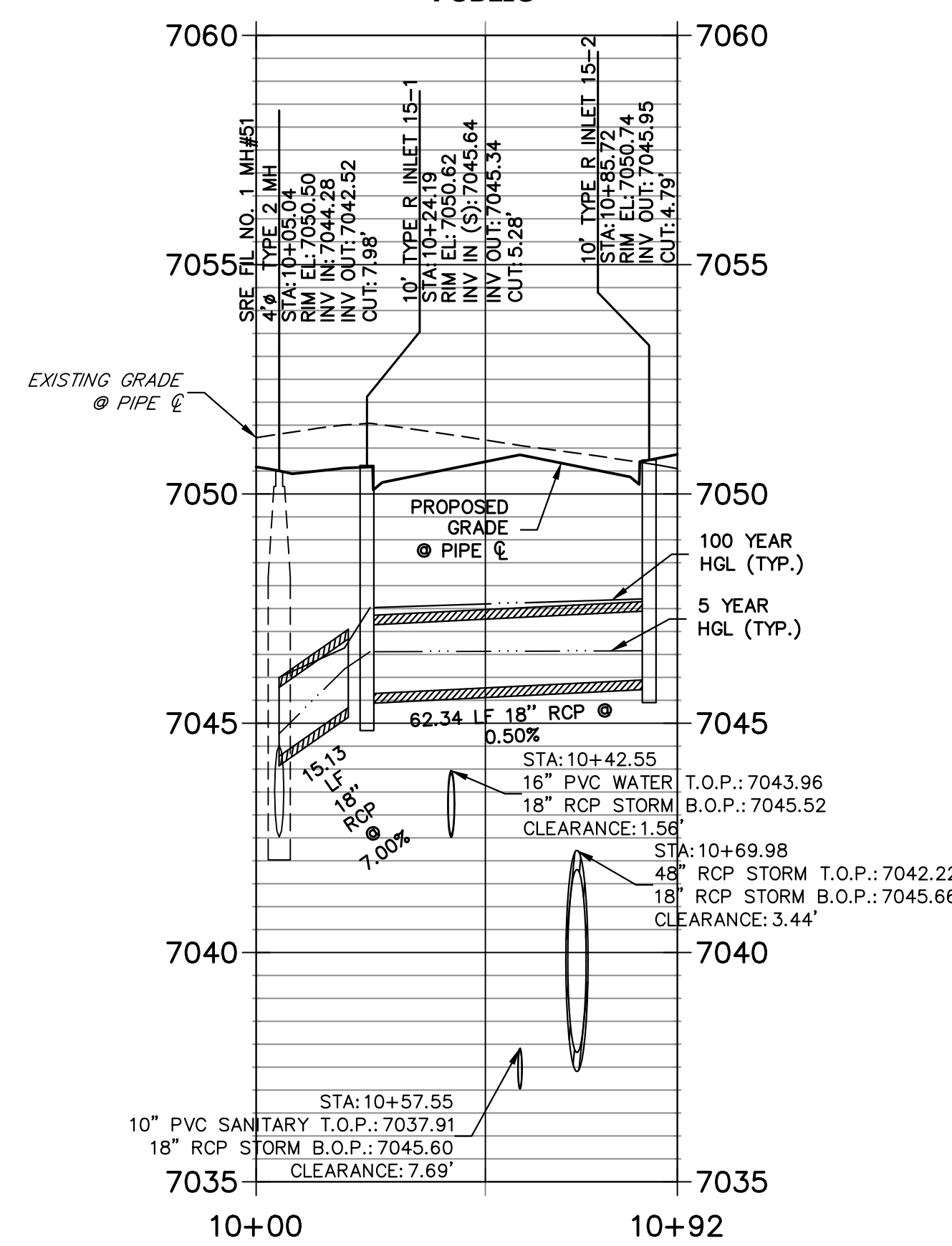
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USES DESIGNATED BY WRITTEN AUTHORIZATION.	
PREPARED FOR	SR LAND, LLC 20 BOULDER CRESCENT SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742
 J.R. ENGINEERING A Westman Company Centennial 300-740-9888 • Colorado Springs 719-588-2583 Fort Collins 970-491-9888 • www.jrengineering.com	
BY	DATE
No.	REVISION
H-SCALE 1"=30'	V-SCALE 1"=3'
DATE 05/04/23	DESIGNED BY MMC
DRAWN BY	CHECKED BY
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS	
STORM SEWER PLAN & PROFILE	
SHEET 11 OF 19	JOB NO. 25188.03



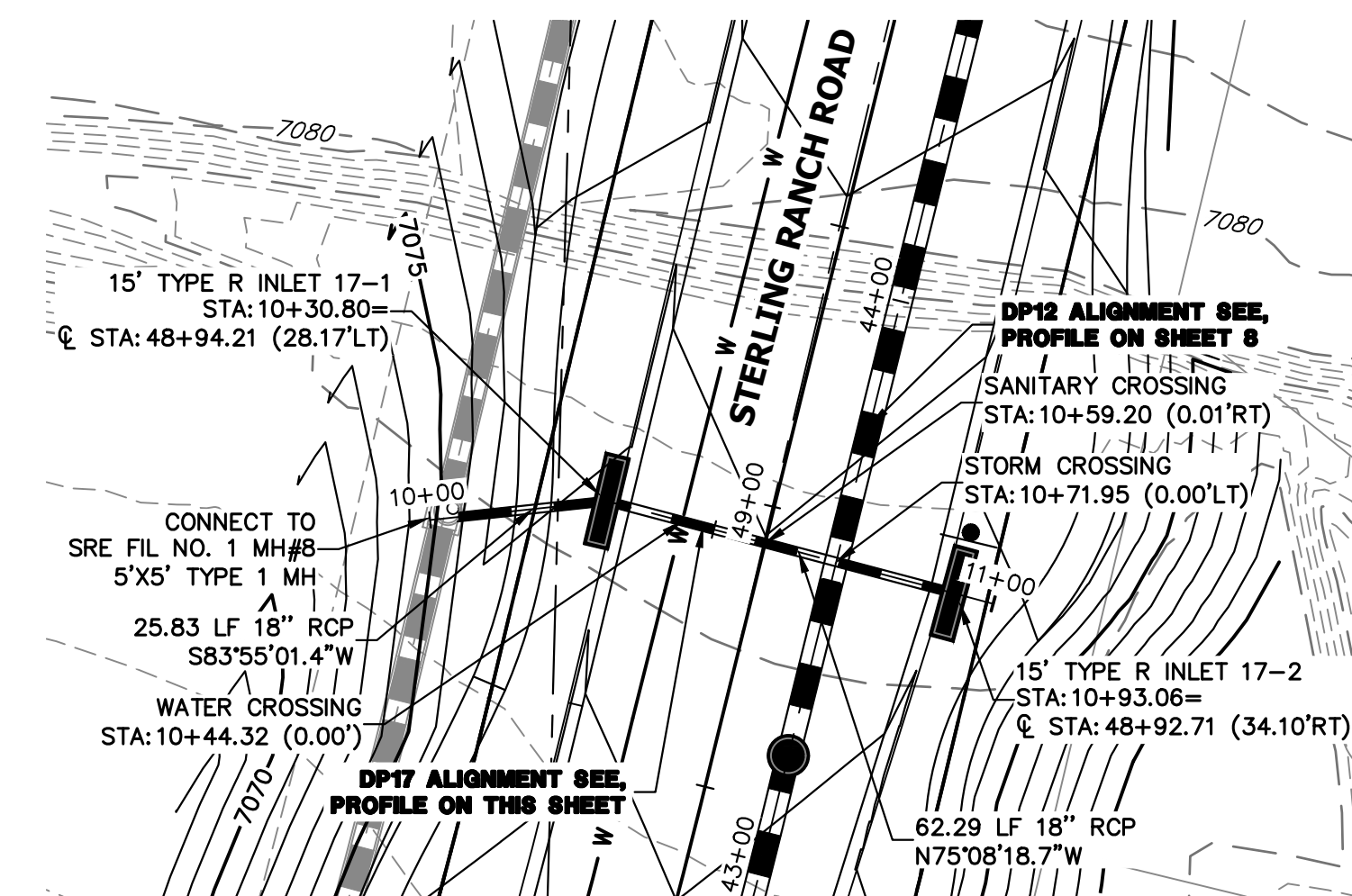
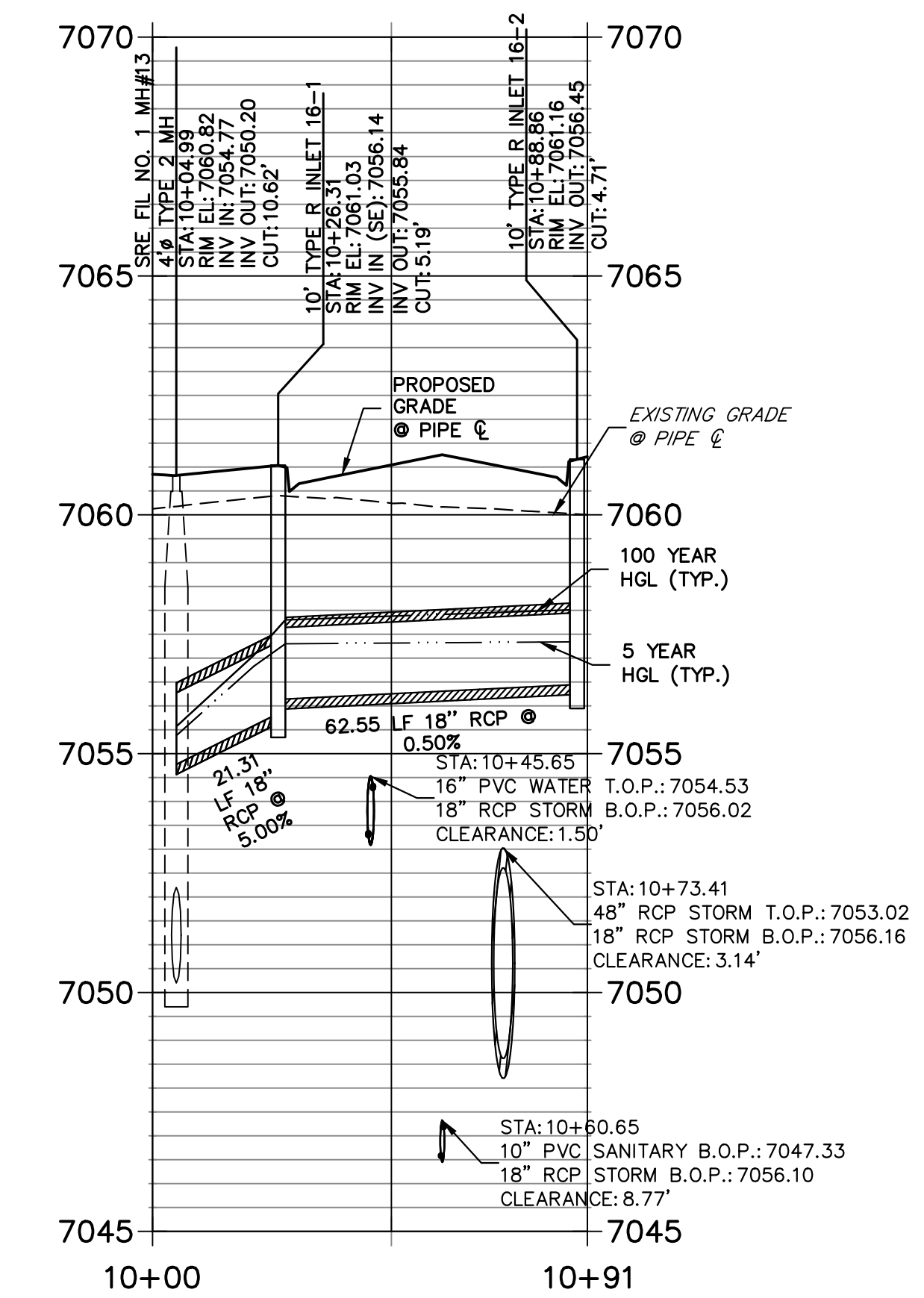
DP14 PROFILE
STA 10+00.00 TO 10+89.39
 PUBLIC



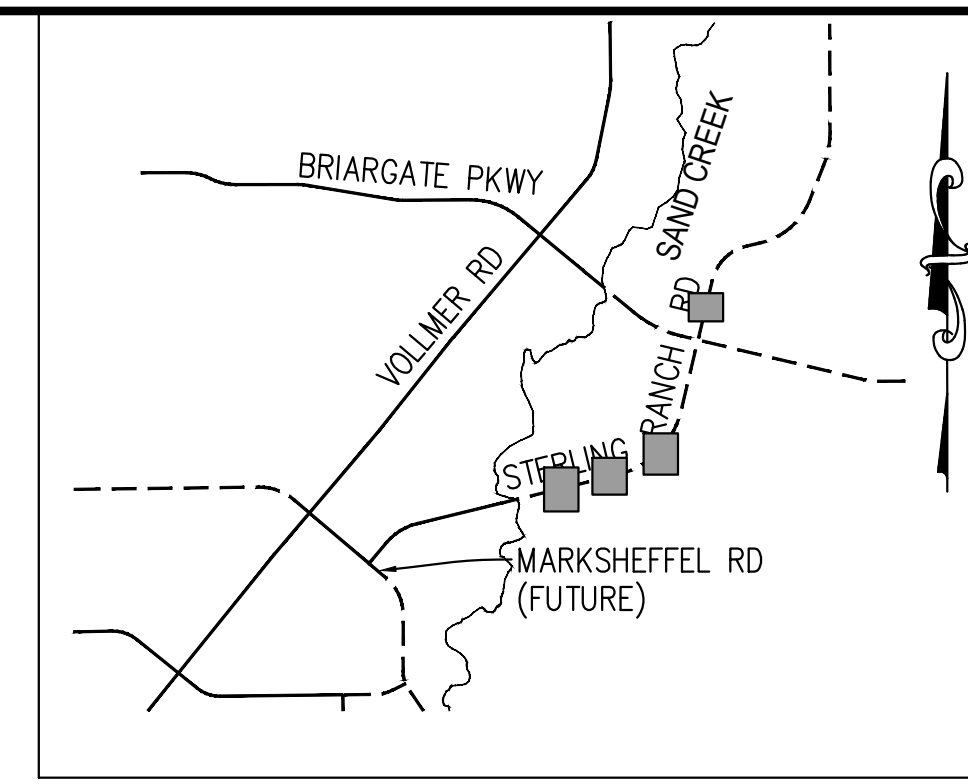
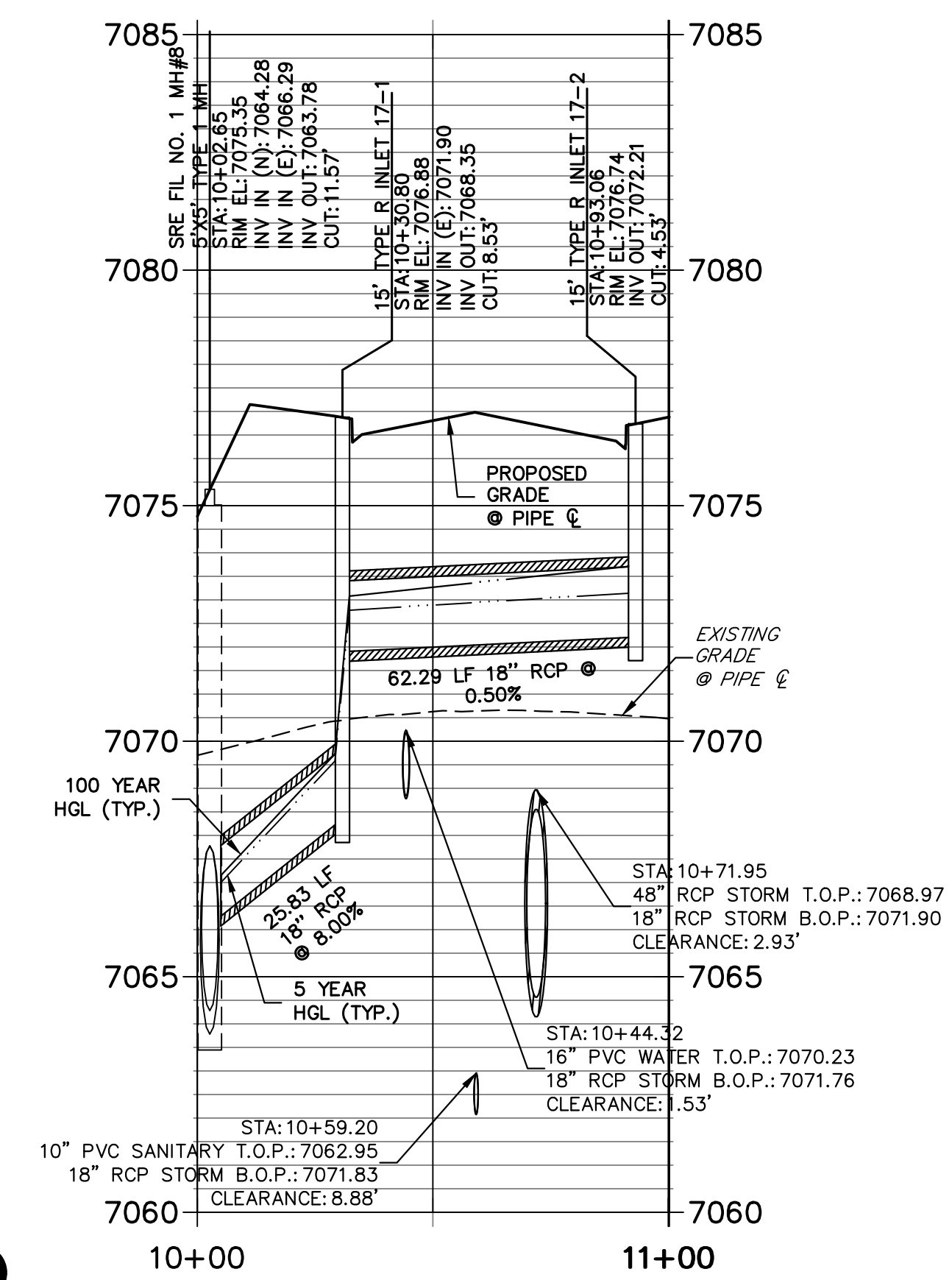
DP15 PROFILE
STA 10+00.00 TO 10+91.88
 PUBLIC



DP16 PROFILE
STA 10+00.00 TO 10+91.02
 PUBLIC

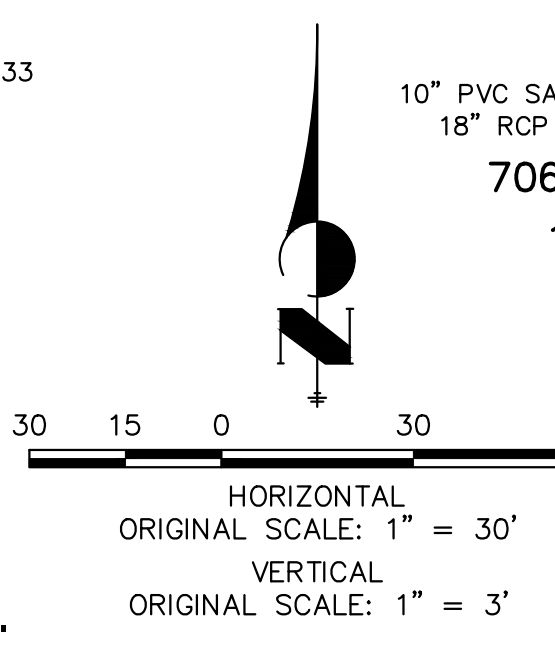


DP17 PROFILE
STA 10+00.00 TO 11+00.23
 PUBLIC



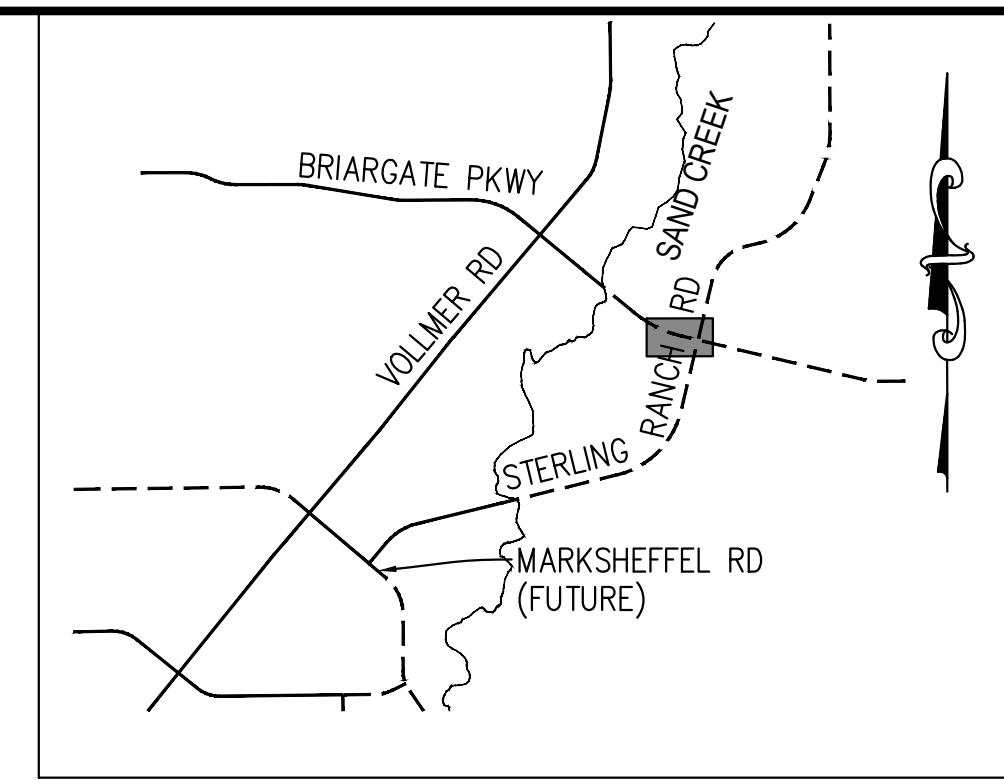
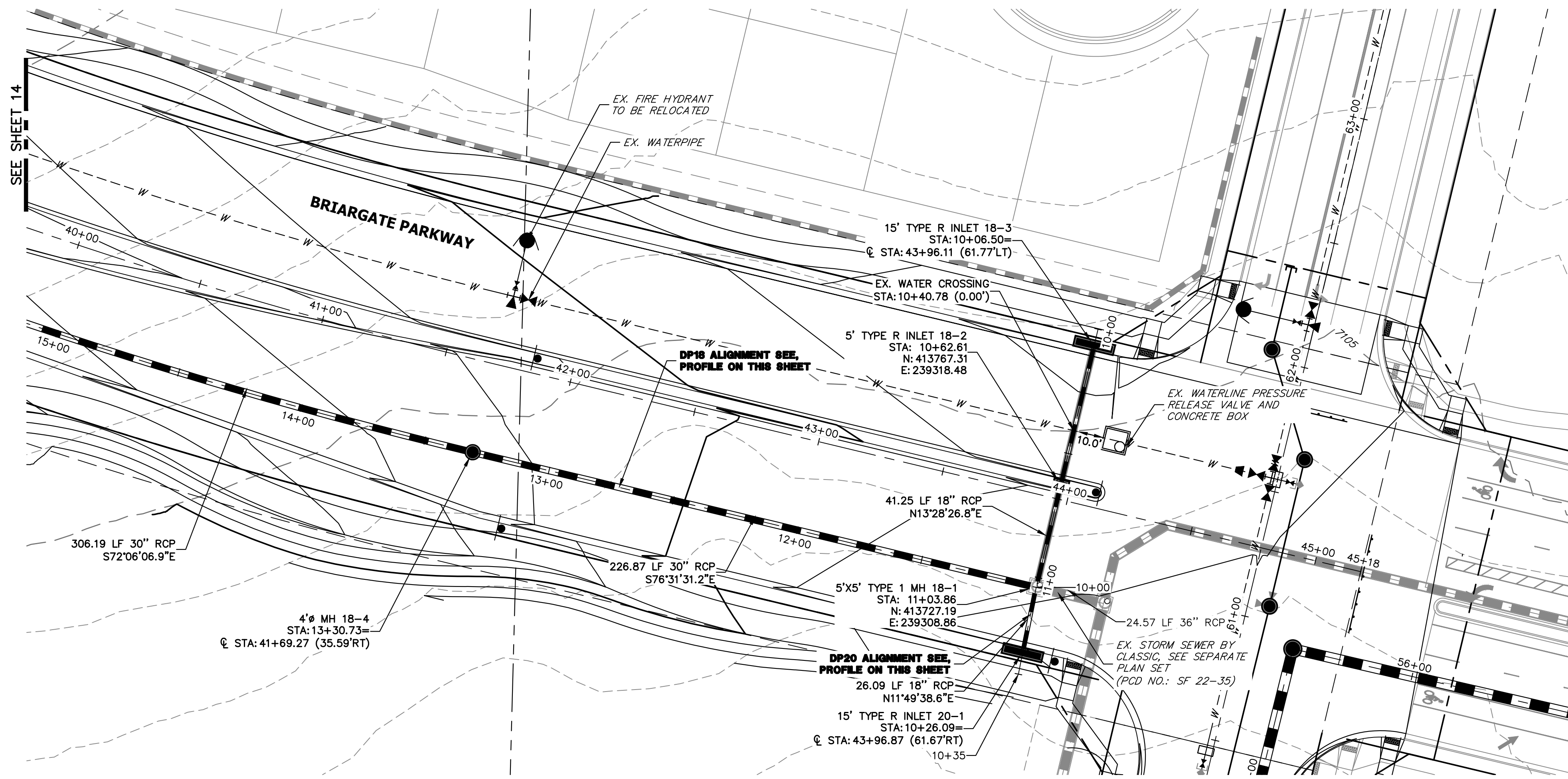
KEY MAP
 N.T.S.

NOTE:
 1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED
 2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2

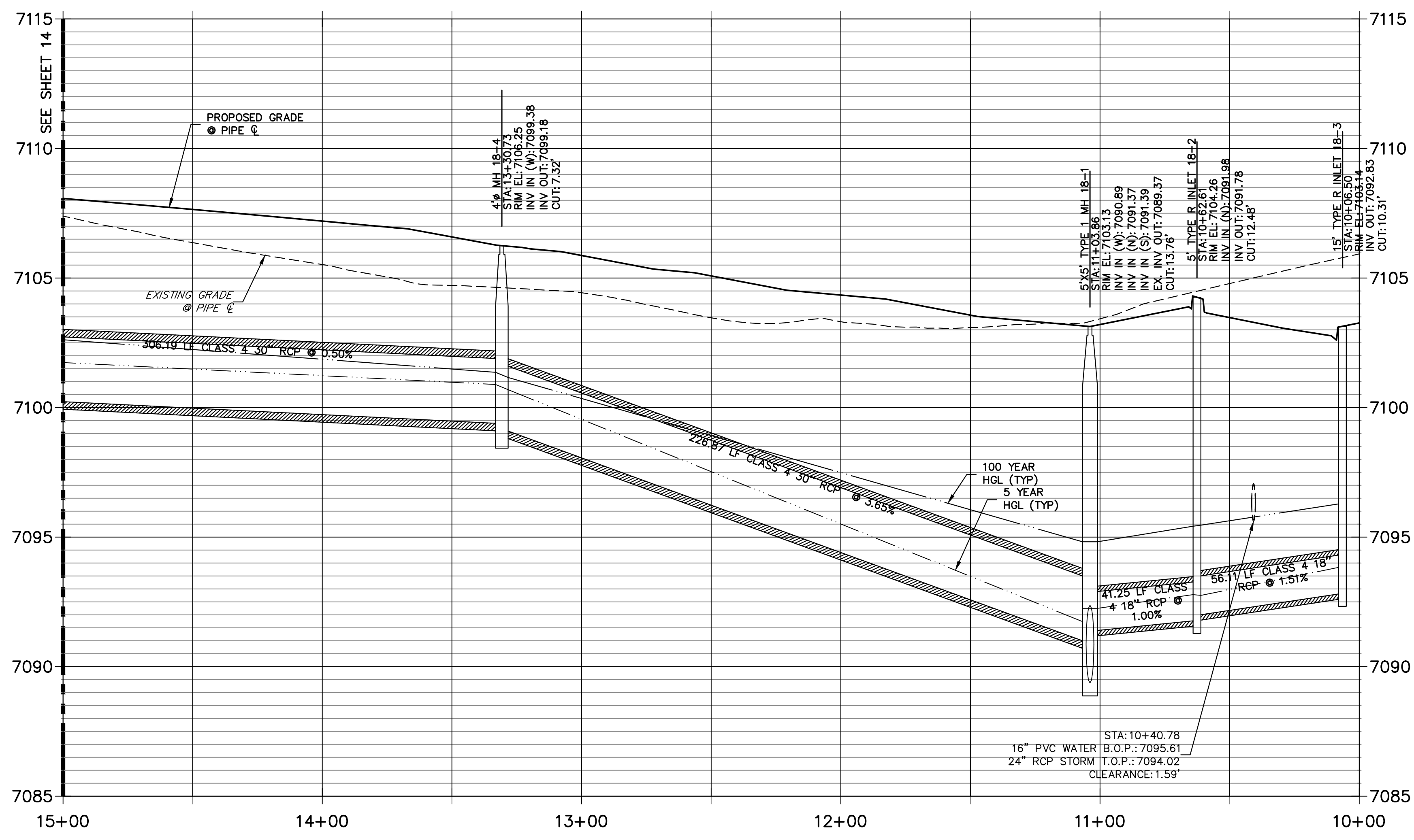


ENGINEER'S STATEMENT
 PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING
 Mike Bramlett
 MIKE A. BRAMLETT, P.E.
 COLORADO P.E. 32314
 FOR AND ON BEHALF OF JR ENGINEERING, INC. LOCAL ENGINEER
 DATE 05/08/23

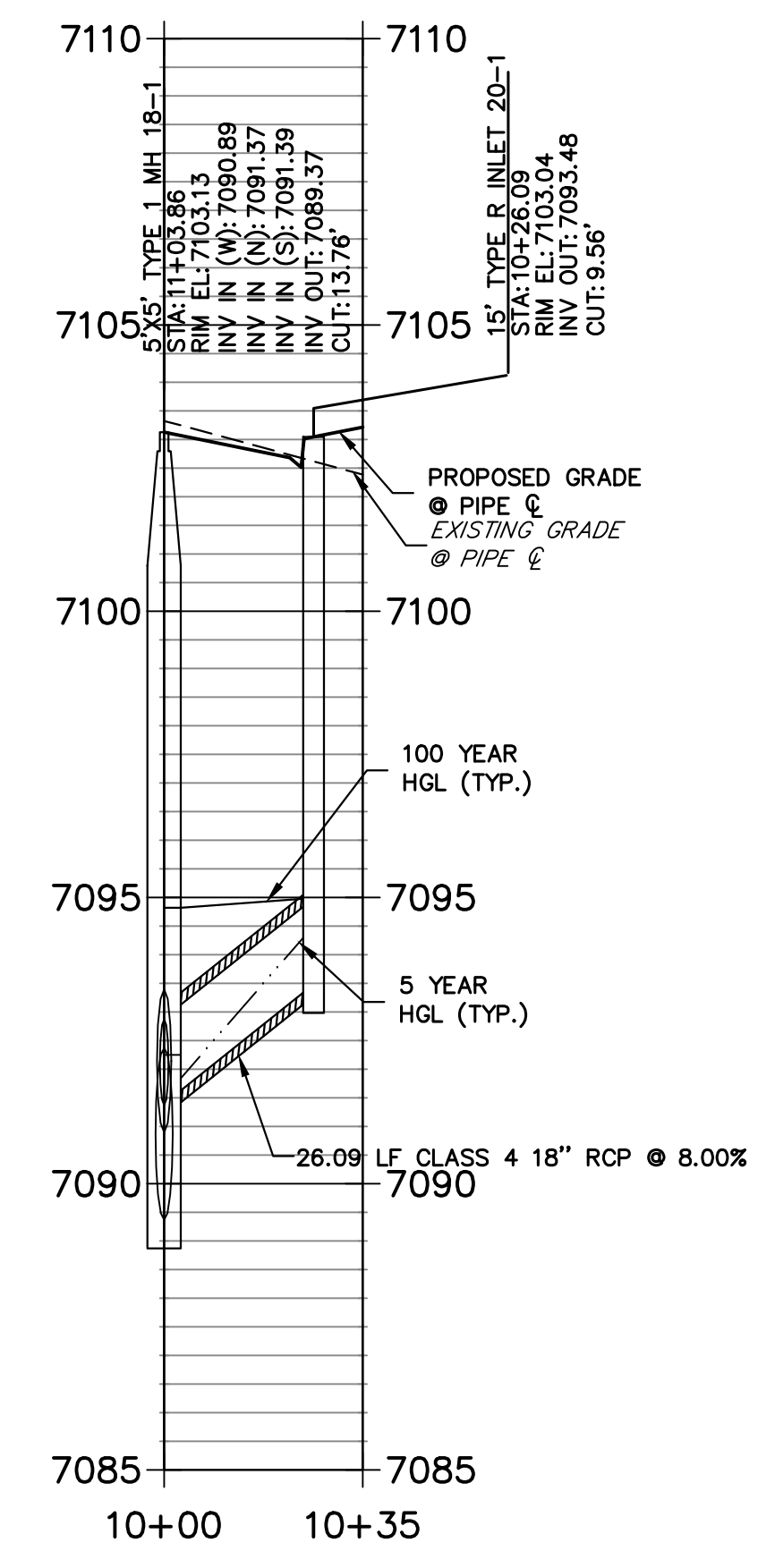
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.	
PREPARED FOR	SR LAND, LLC 20 BOULDER CRESCENT SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742
J.R. ENGINEERING A Westman Company	Central 303-740-8888 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com
BY	DATE
No.	REVISION
H-SCALE 1"=30'	V-SCALE 1"=3'
DATE 05/04/23	DESIGNED BY MMC
DRAWN BY MMC	CHECKED BY
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS	
STORM SEWER PLAN & PROFILE	
SHEET 12	OF 19
JOB NO. 25188.03	



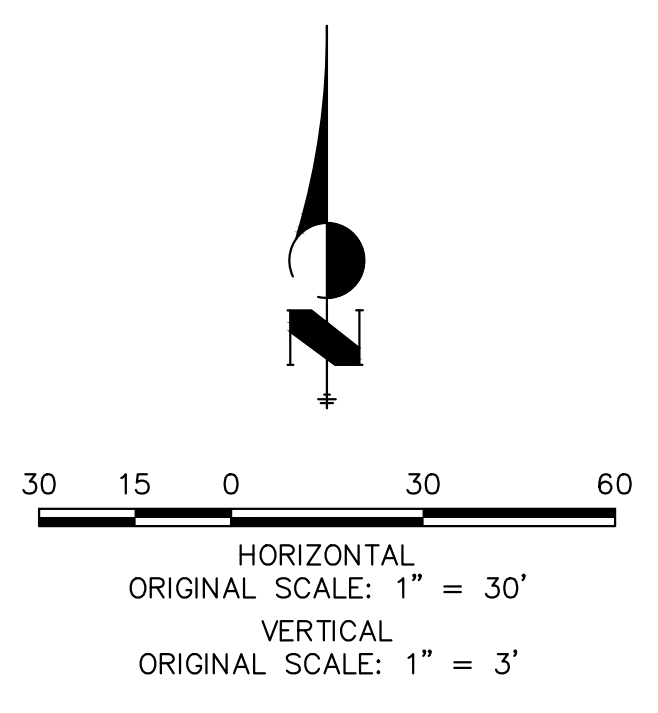
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STA 10+00.00 TO 15+00.00
PUBLIC



DP20 PROFILE
STA 10+00.00 TO 10+34.67
PUBLIC



NOTE:
1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED
2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2



ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING
 MIKE A. BRAMLETT, P.E.
 COLORADO P.E. 32314
 FOR AND ON BEHALF OF JR ENGINEERING, LOCAL ENGINEER

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE AS DESIGNATED BY WRITTEN AUTHORIZATION.

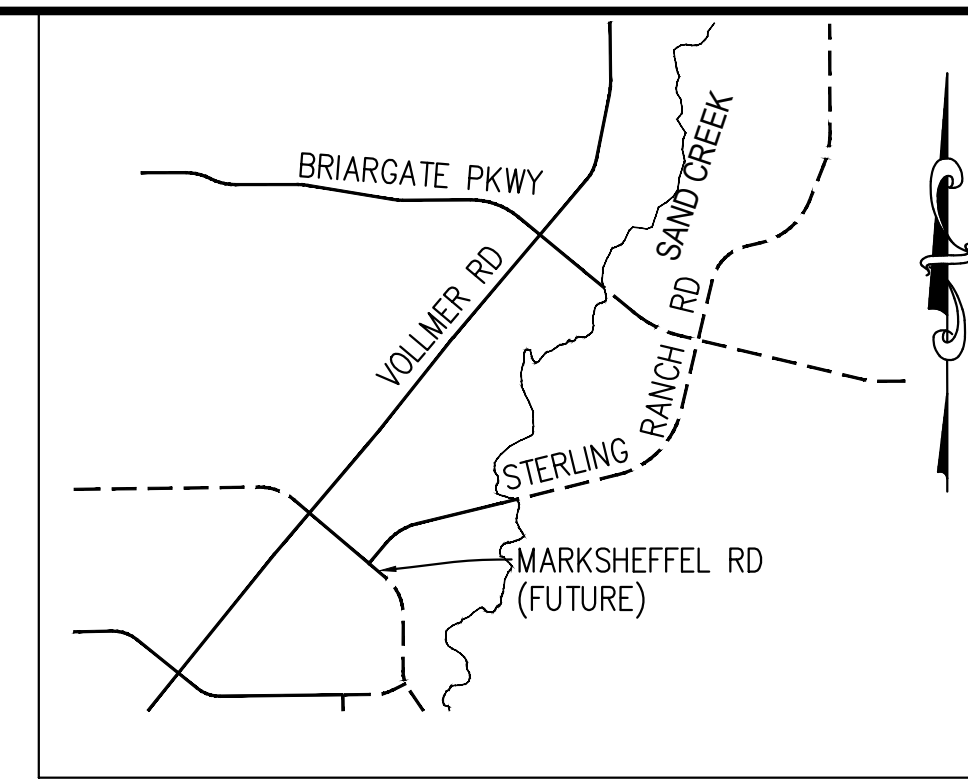
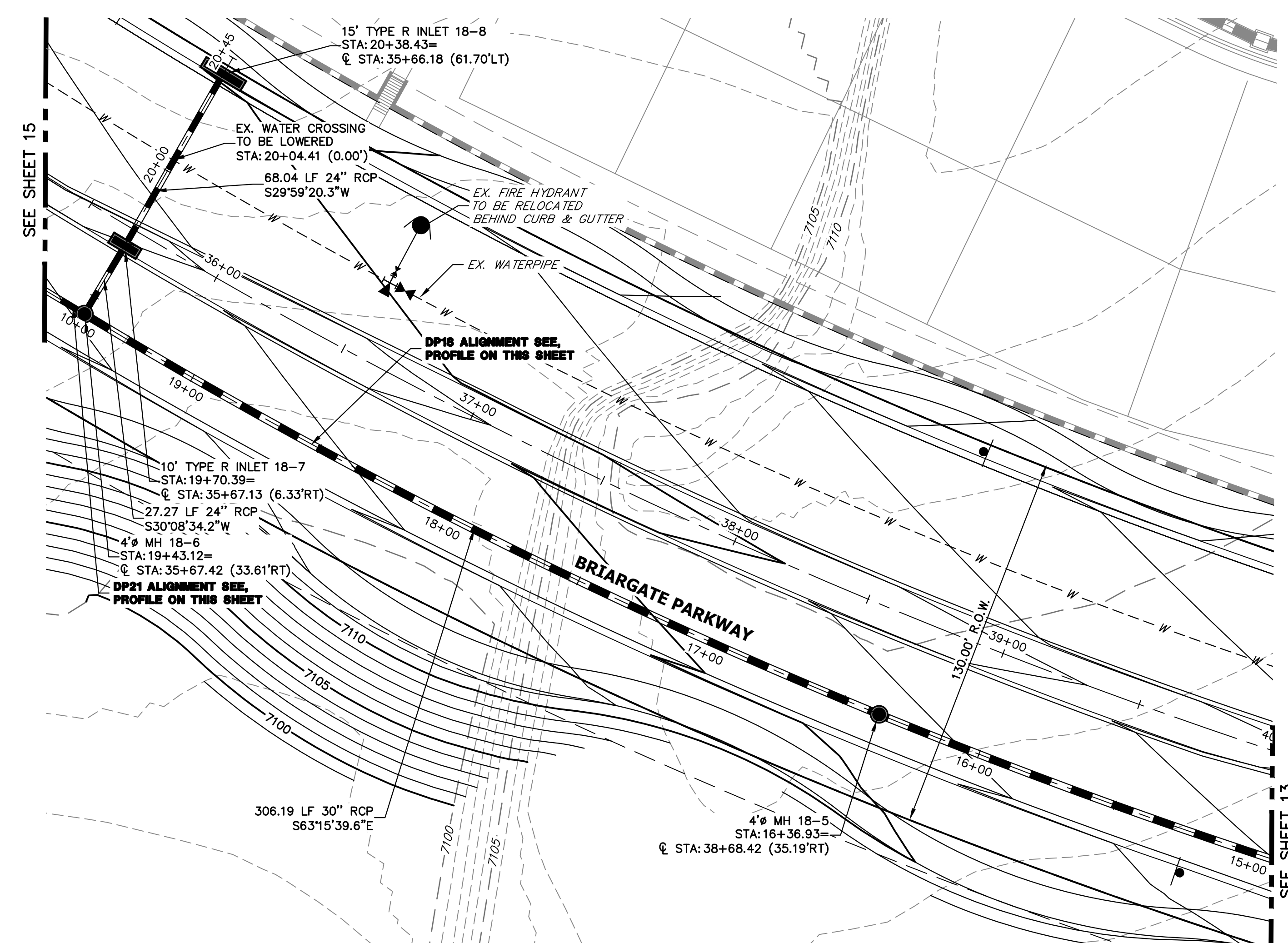
PREPARED FOR
SR LAND, LLC
 20 BOULDER CRESCENT SUITE 201
 COLORADO SPRINGS, CO 80903
 JAMES F. MORLEY
 (719) 471-1742

J.R. ENGINEERING
 A Westman Company
 Centennial 303-740-9888 • Colorado Springs 719-583-2583
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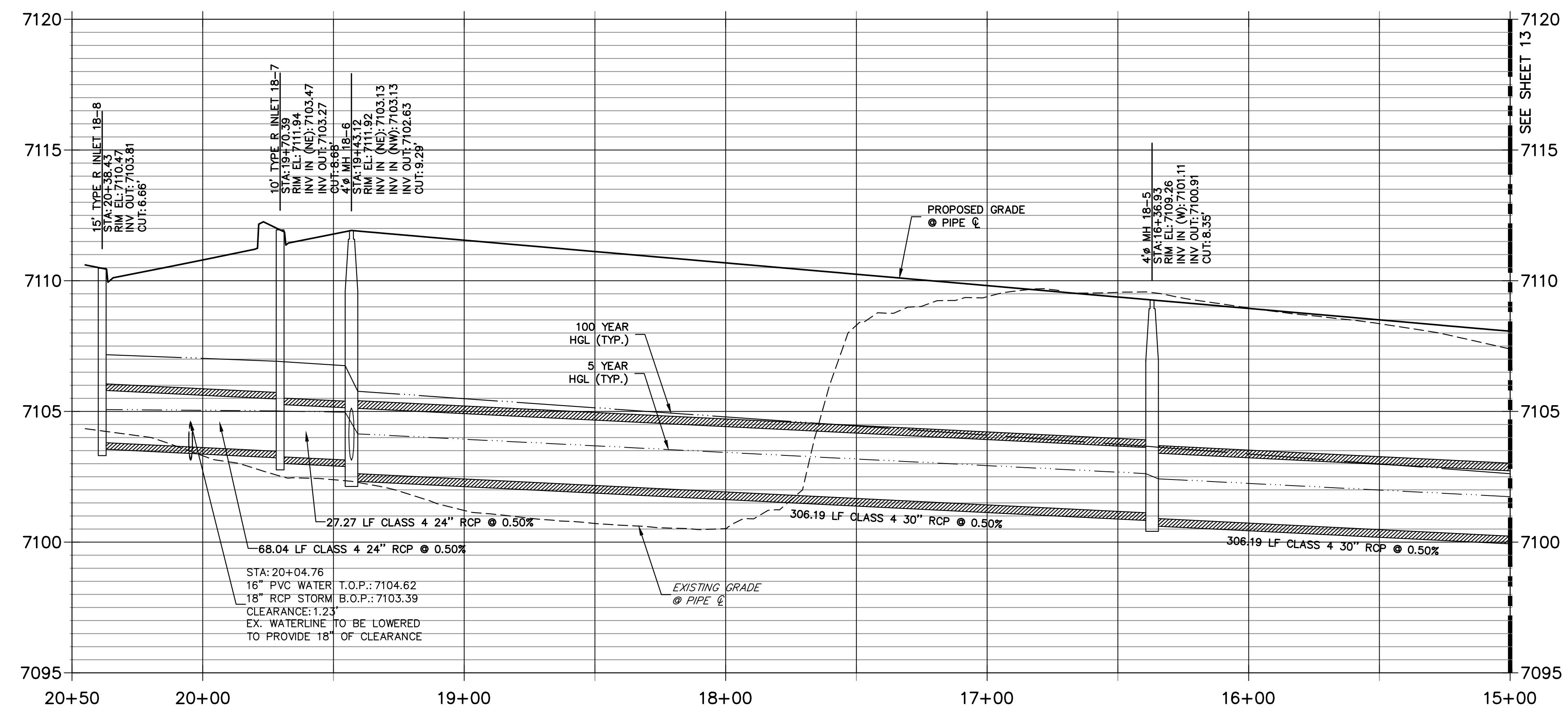
No.	REVISION	BY	DATE

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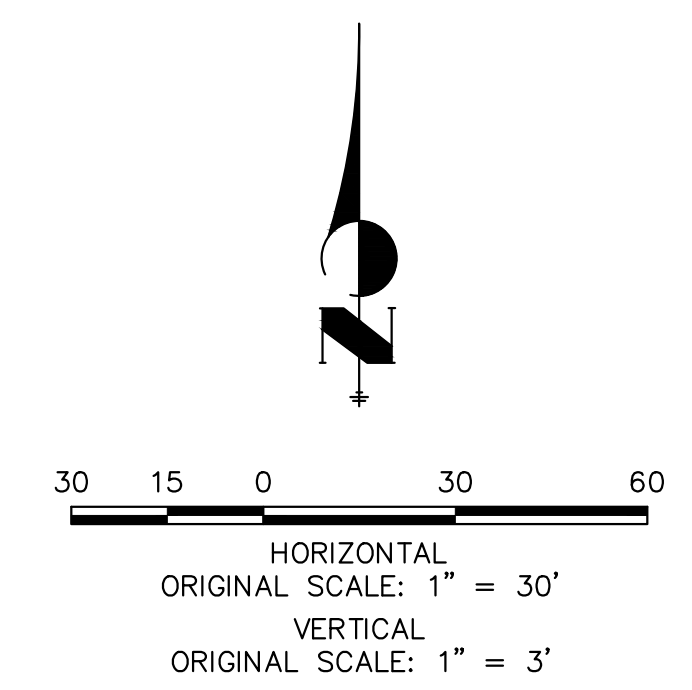
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS
STORM SEWER PLAN & PROFILE
 SHEET 13 OF 19
 JOB NO. 25188.03



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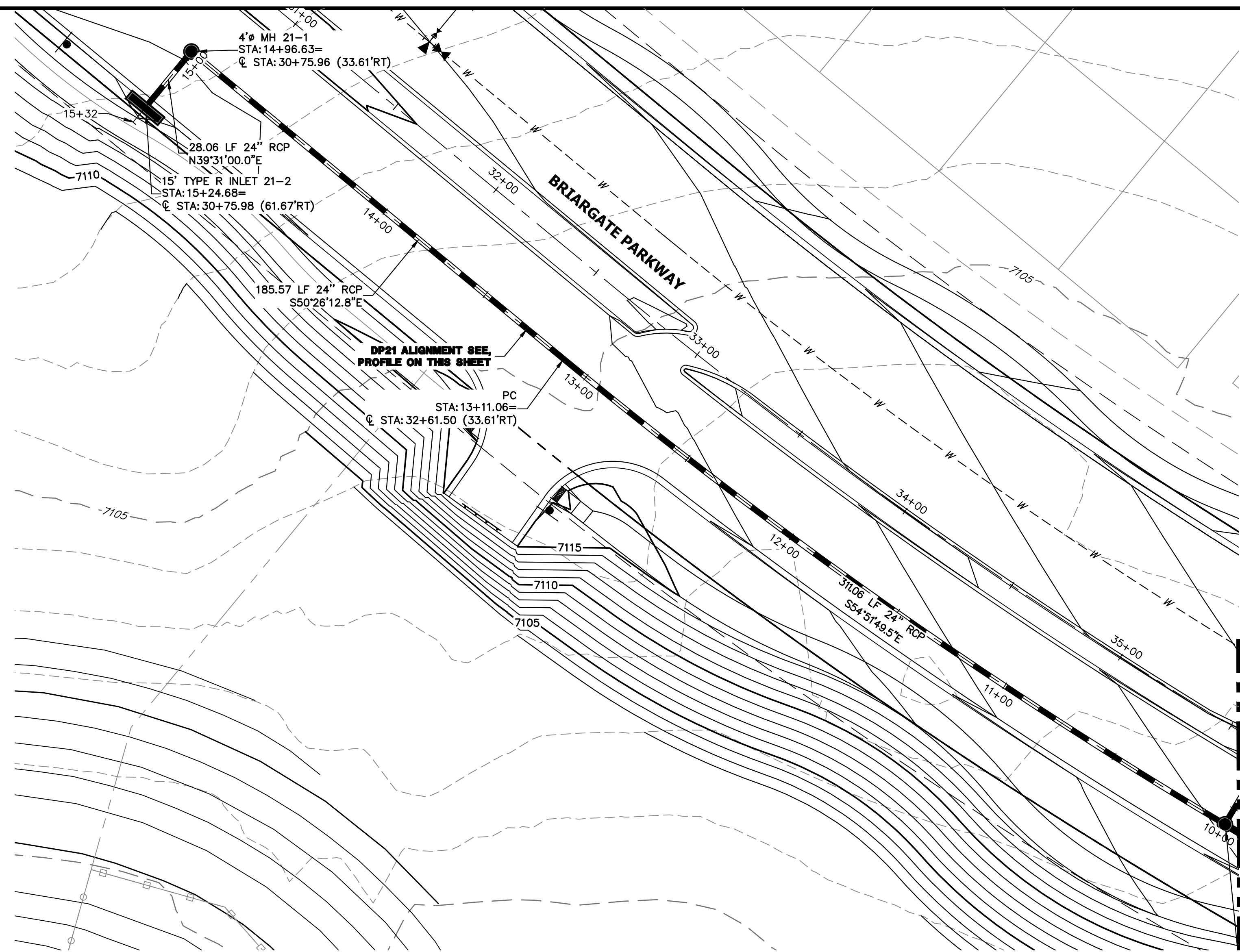
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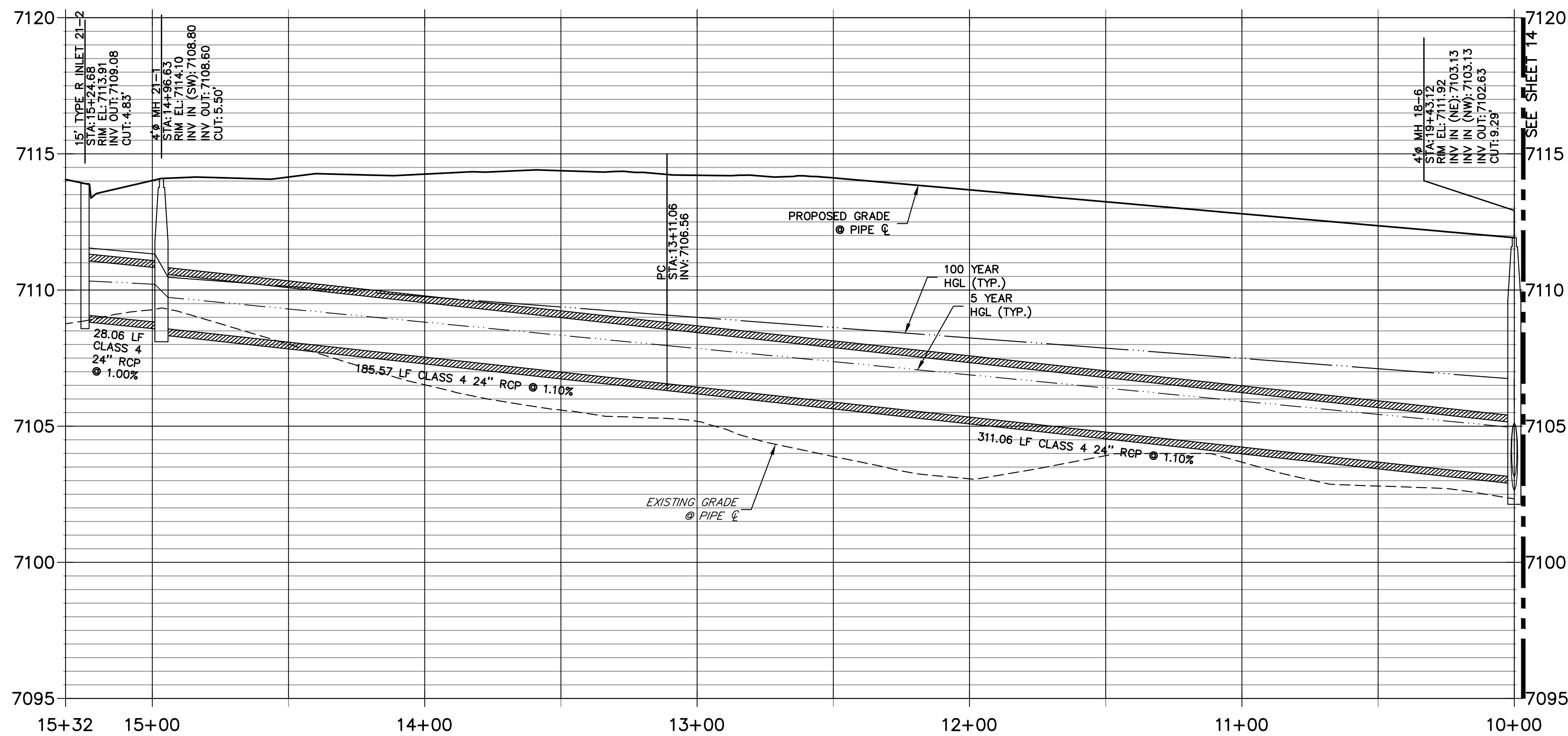
ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING
Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, INC.

DATE: 05/08/23

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE DESIGNATED BY WRITTEN AUTHORIZATION.	
PREPARED FOR	SR LAND, LLC 20 BOULDER CRESCENT SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742
J.R. ENGINEERING A Westman Company	Centennial 303-740-9888 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com
BY	DATE
No.	REVISION
H-SCALE 1"=30'	V-SCALE 1"=3'
DATE 05/04/23	DESIGNED BY MMC
	DRAWN BY MMC
	CHECKED BY
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS	
STORM SEWER PLAN & PROFILE	
SHEET 14	OF 19
JOB NO. 25188.03	

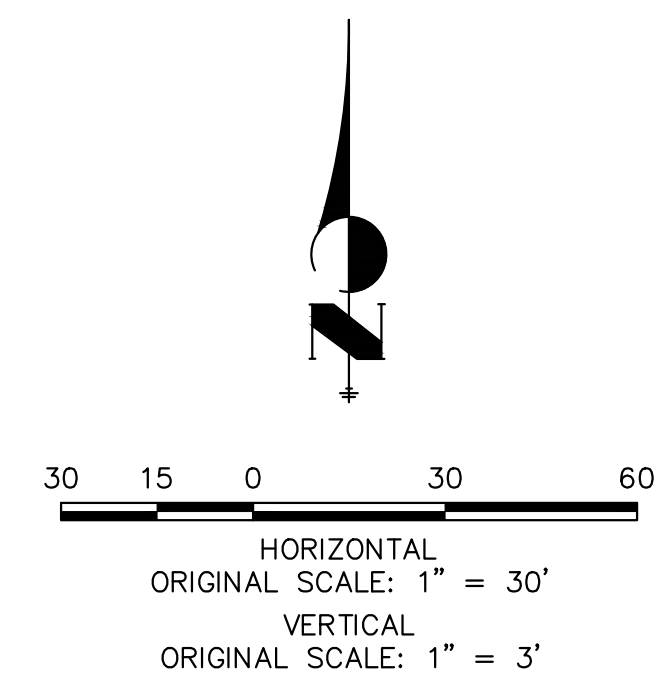


DP21 PROFILE
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 PUBLIC



NOTE:

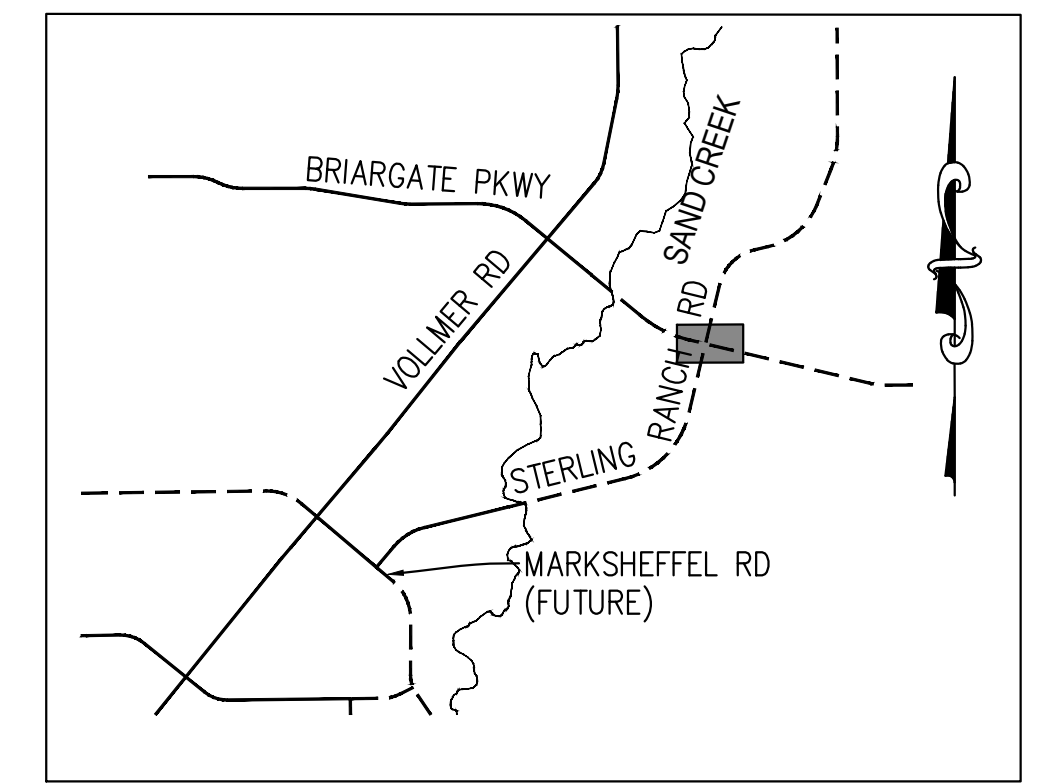
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- 2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2



ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike A. Bramlett
 MIKE A. BRAMLETT, P.E.
 COLORADO P.E. 32314
 FOR AND ON BEHALF OF JR ENGINEERING, INC.
 DATE: 05/08/23



KEY MAP
 N.T.S.

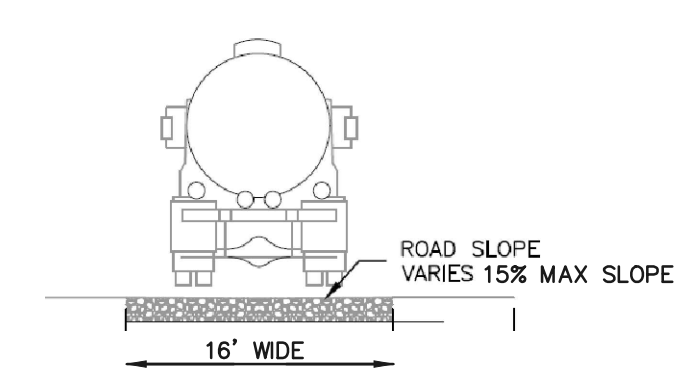
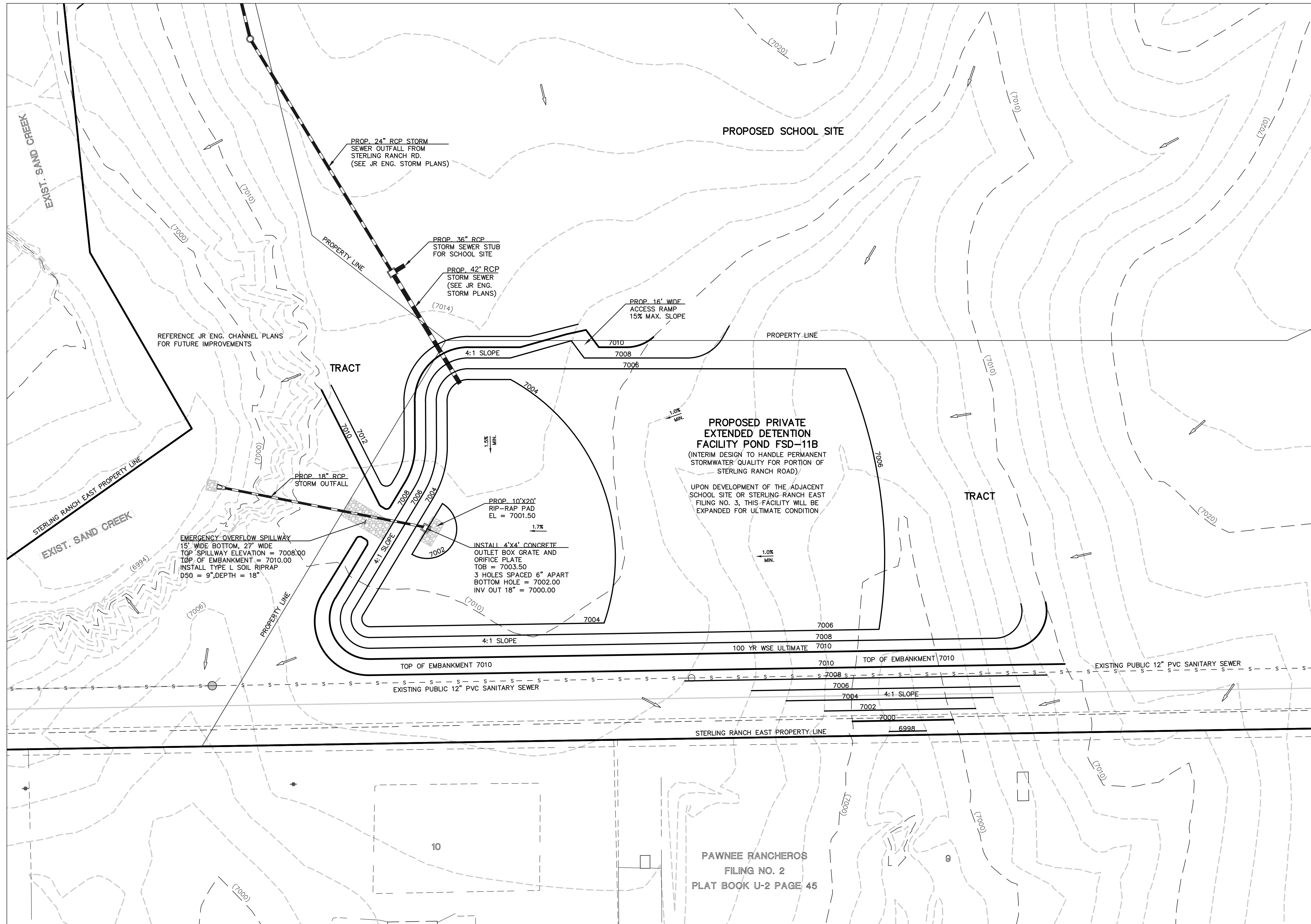
UNLESS SHOWN OTHERWISE, ALL DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
 PREPARED FOR
SR LAND, LLC
 20 BOULDER CRESCENT
 SUITE 201
 COLORADO SPRINGS, CO 80903
 JAMES F. MORLEY
 (719) 471-1742

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No.	REVISION	BY	DATE

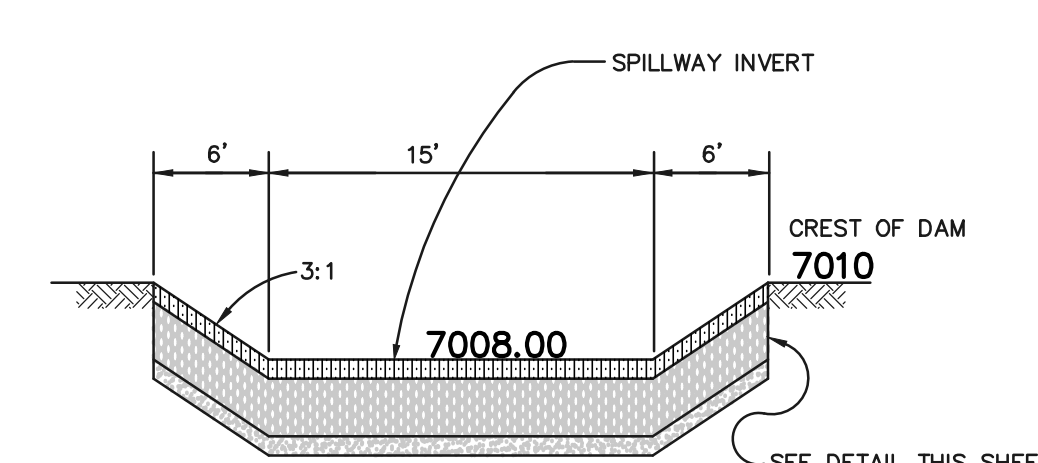
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V-SCALE	1"=3'
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CHECKED BY	

STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS
 STORM SEWER PLAN & PROFILE

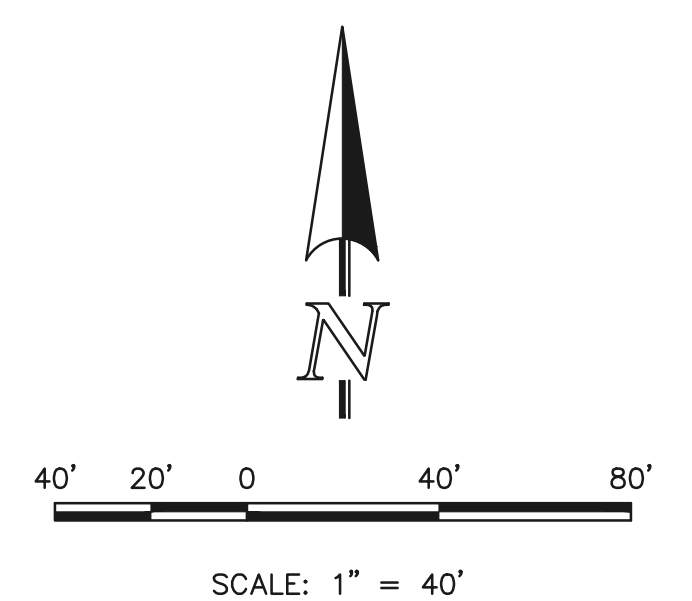


12" LAYER OF AGGREGATE BASE COURSE OR CRUSHED GRAVEL OVER COMPACTED SUBGRADE TO ELEVATION 7097.10 (WOOD ELEVATION)
8" LAYER OF AGGREGATE BASE COURSE OR CRUSHED GRAVEL ABOVE 7097.10

ACCESS ROAD



EMERGENCY SPILLWAY SECTION
100 YEAR WATER SURFACE = 7004.98 (PONDING PER UD-DETENTION)
SCALE: N.T.S.



POND FSD-11B (INTERIM DESIGN)

48 HOURS BEFORE YOU DIG,
CALL UTILITY LOCATORS
811
UTILITY NOTIFICATION CENTER OF COLORADO
IT'S THE LAW

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE

REVIEW:
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

MARC A. WHORTON, COLORADO P.E. #37155 DATE

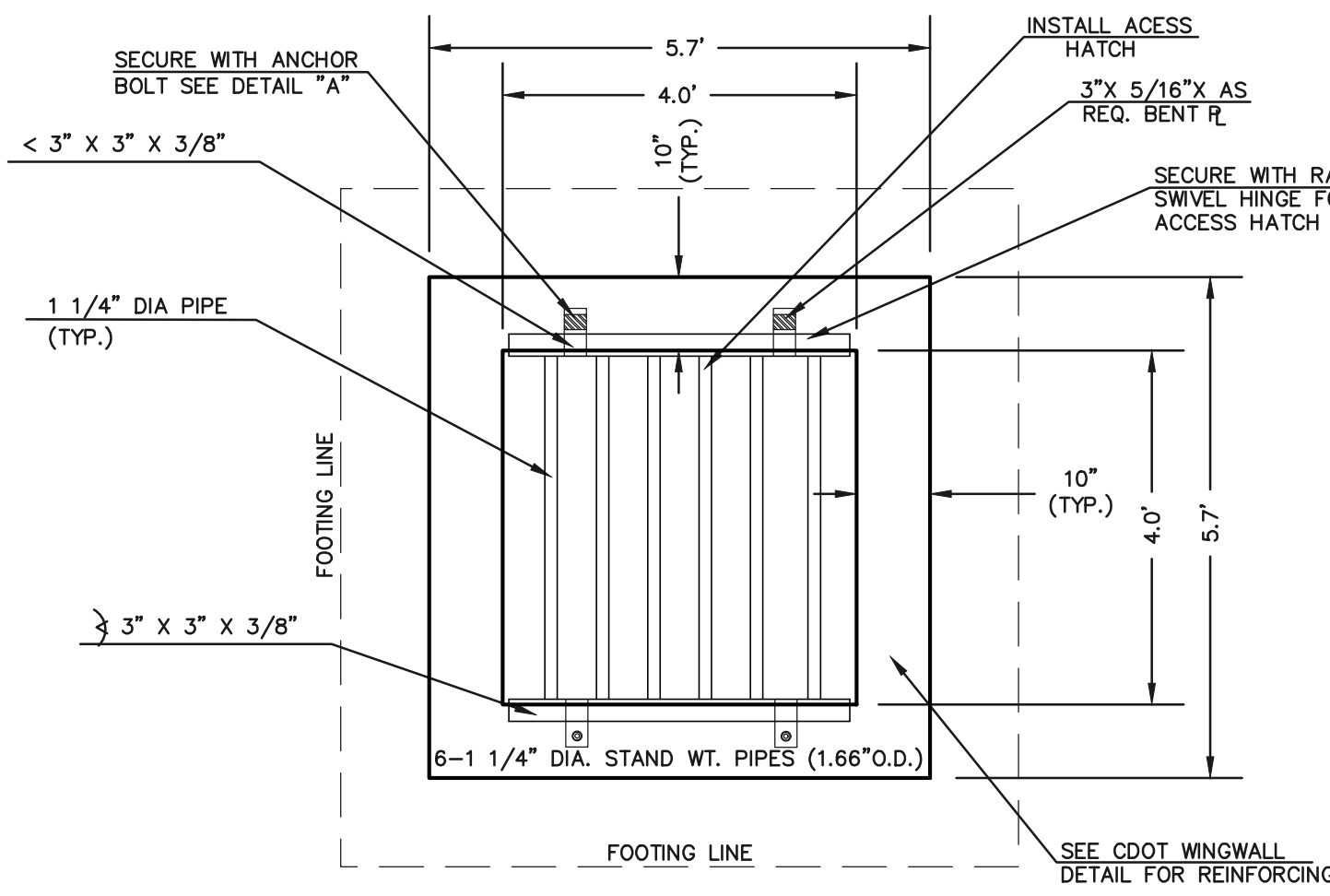
619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903
(719) 785-0790
(719) 785-0799 (Fax)

STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS			
PRIVATE POND FSD-11B (INTERIM DESIGN) POND PLAN			
DESIGNED BY	MAW	SCALE	DATE 4/5/23
DRAWN BY	ESO	(H) 1" = 40'	SHEET 16 OF 19
CHECKED BY	(V) 1" = N/A	JOB NO. 25188.03	DATE

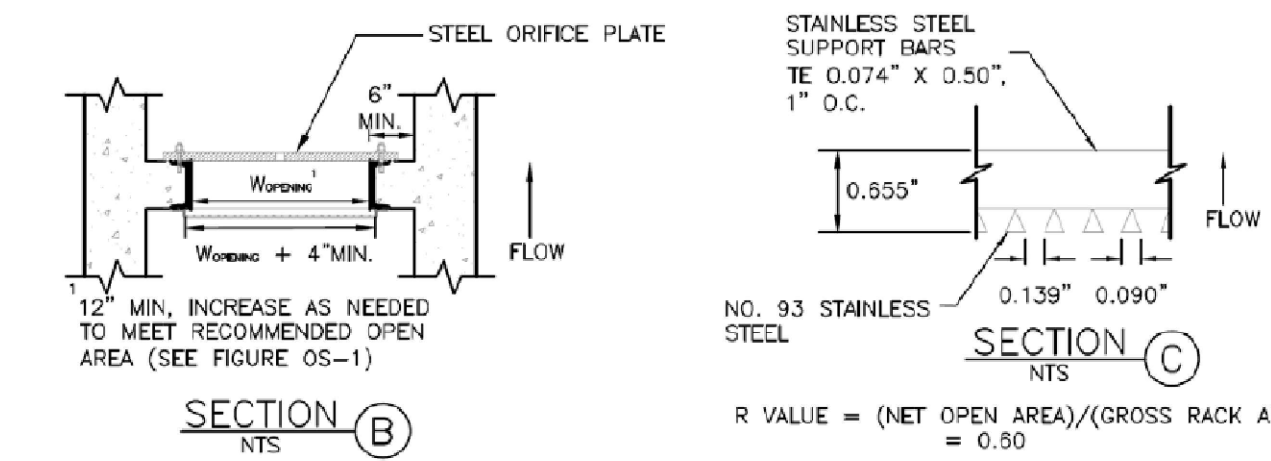
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NOTES:

- WELD PLATES MAY BE SUBSTITUTED FOR PIPE EMBEDMENT.
- DESIGN CRITERIA SHALL BE IN ACCORDANCE WITH AASHTO STANDARDS.
- HANDRAIL DESIGN SHALL BE COMPATIBLE WITH THE DESIGN OF THE WINGWALLS AND HEADWALLS.
- RAILING POSTS SHALL BE SET TO NORMAL TO GRADE. RAILS SHALL RUN PARALLEL TO THE SLOPES OF TOPS OF THE WALLS.
- ALL RAILS SHALL HAVE EXPANSION JOINTS SPACED AT 40'-0" MAX. JOINT ENDS SHALL BE FREE OF ANY SHARP EDGES OR CORNERS.

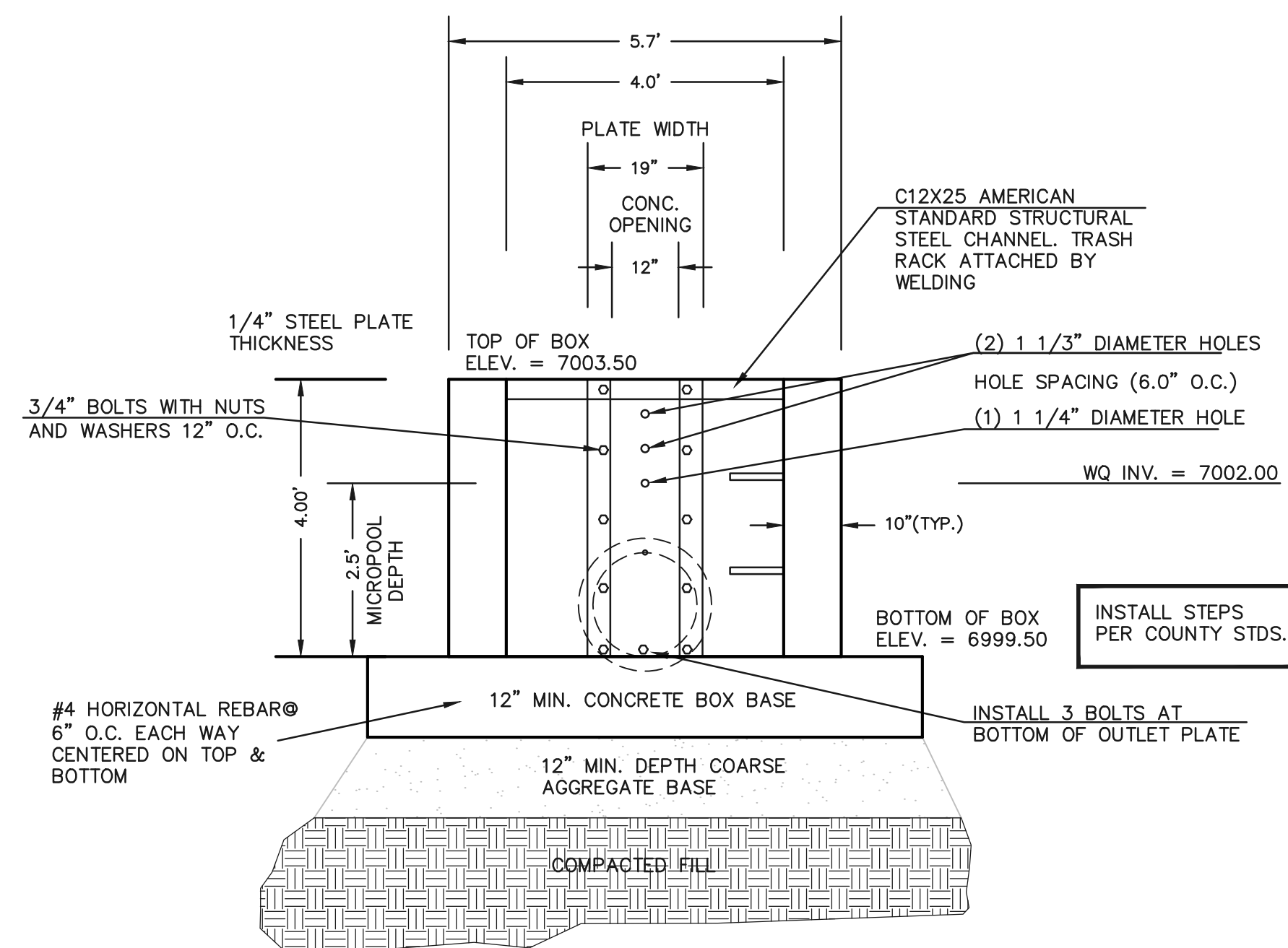
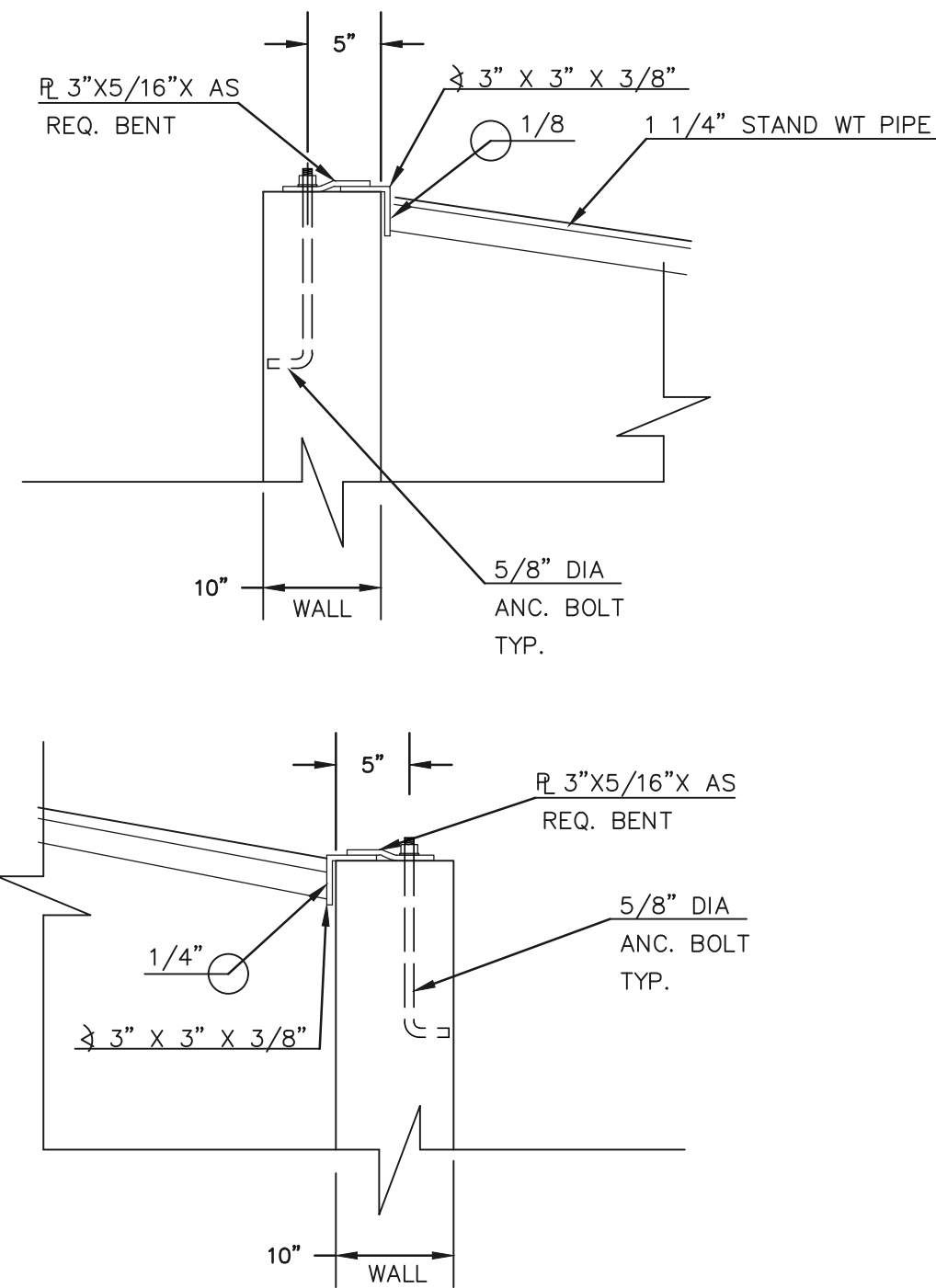


4'x4' OUTLET BOX OVERFLOW TRASH RACK
SCALE 1" = 2'



SECTION B

R VALUE = (NET OPEN AREA)/(GROSS RACK AREA) = 0.50



4'x4' OUTLET BOX ORIFICE PLATE
SCALE 1" = 2'

(ALL MATERIALS PER EL PASO COUNTY SPECIFICATIONS)

ORIFICE PLATE NOTES:

- INSTALL HOLES AS SHOWN ON DETAIL TO LEFT.
- PROVIDE GASKET MATERIAL BETWEEN THE ORIFICE PLATE AND CONCRETE

EURV AND WQCV TRASH RACKS:

- WELL-SCREEN TRASH RACKS SHALL BE STAINLESS STEEL AND SHALL BE ATTACHED BY INTERMITTENT WELDS ALONG THE EDGE OF THE MOUNTING FRAME.
- BAR GRATE TRASH RACKS SHALL BE ALUMINUM AND SHALL BE BOLTED USING STAINLESS STEEL HARDWARE.
- STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF RACK

OVERFLOW TRASH RACKS:

- ALL TRASH RACKS SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE AND PROVIDED WITH HINGED AND LOCKABLE OR BOLTABLE ACCESS PANELS
- TRASH RACKS SHALL BE STAINLESS STEEL, ALUMINUM, OR STEEL. STEEL TRASH RACKS SHALL BE HOT DIP GALVANIZED AND MAY BE HOT POWDER COATED AFTER GALVANIZING.
- TRASH RACKS SHALL BE DESIGNED SUCH THAT THE DIAGONAL DIMENSION OF EACH OPENING IS SMALLER THAN THE DIAMETER OF THE OUTLET PIPE.
- STRUCTURAL DESIGN OF THE TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

DETONATION BASIN STAGE-STORAGE TABLE BUILDER

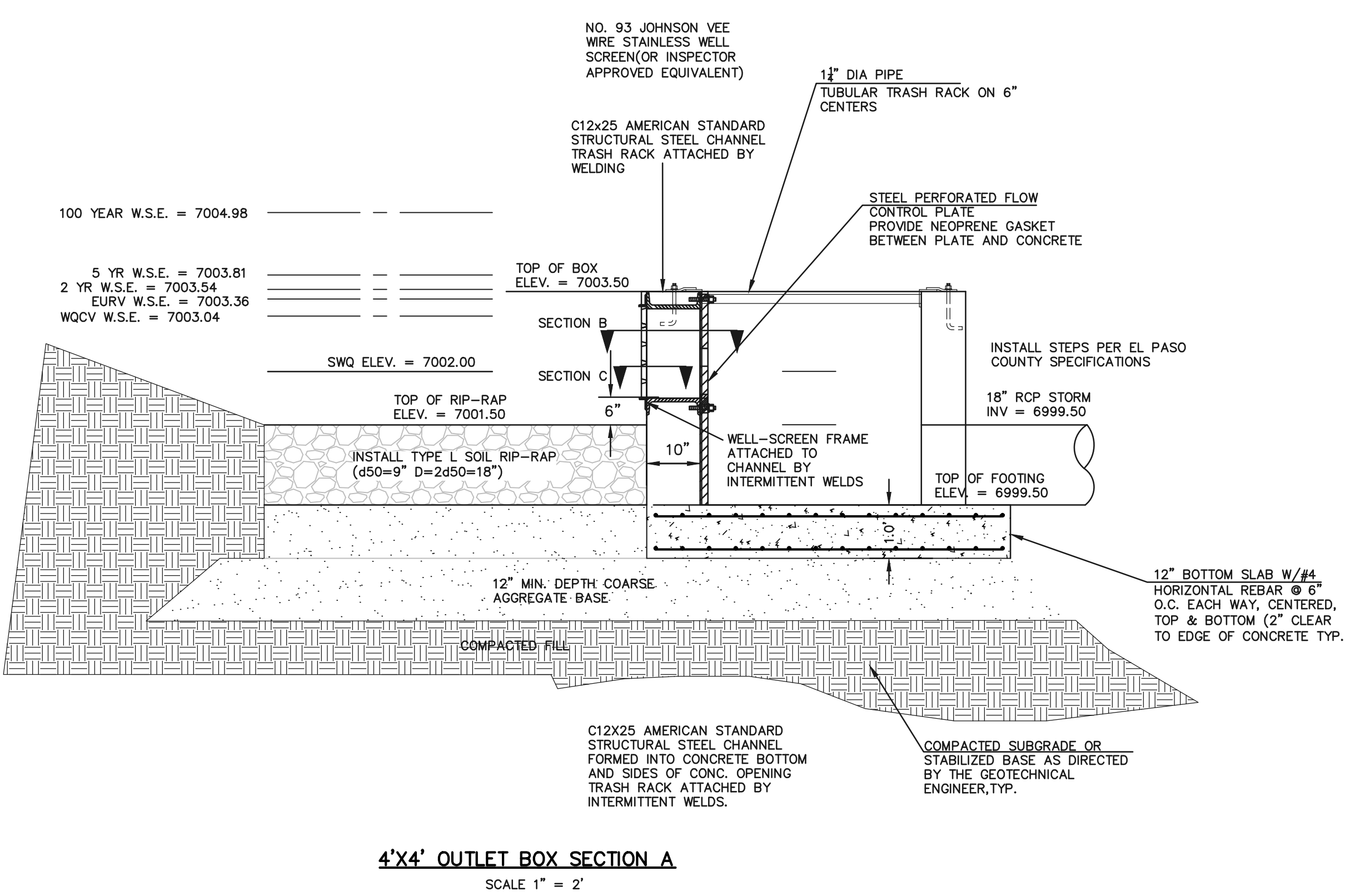
Project: STERLING RANCH EAST PRELIMINARY PLAN NO. 1
Basin ID: POND FSD-11B (Interim)

Water Level (ft)	Storage (cu ft)	Depth (ft)	Area (sq ft)	Volume (cu ft)	Area (sq ft)	Volume (cu ft)
7000	0	0.00	0.00	0.00	0.00	0.00
7005	1000	0.00	21,000	1,050,000	21,000	1,050,000
7010	4000	0.00	63,000	1,560,000	63,000	1,560,000
7015	8000	0.00	110,000	2,170,000	110,000	2,170,000
7020	12000	0.00	155,000	2,600,000	155,000	2,600,000

DETONATION BASIN OUTLET STRUCTURE DESIGN

Project: STERLING RANCH EAST PRELIMINARY PLAN NO. 1
Basin ID: POND FSD-11B (Interim)

Zone	WQCV (cfs)	EURV (cfs)	Outlet Type
Zone 1 (WQCV)	1.04	0.152	Orifice Plate
Zone 2 (EURV)	1.36	0.104	Orifice Plate
Zone 3 (100-year)	2.65	0.748	Wingwall (Debris)
Total (all zones)			1.004



4'x4' OUTLET BOX SECTION A
SCALE 1" = 2'

48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS

811

UTILITY NOTIFICATION CENTER OF COLORADO
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NO.	REVISION	DATE

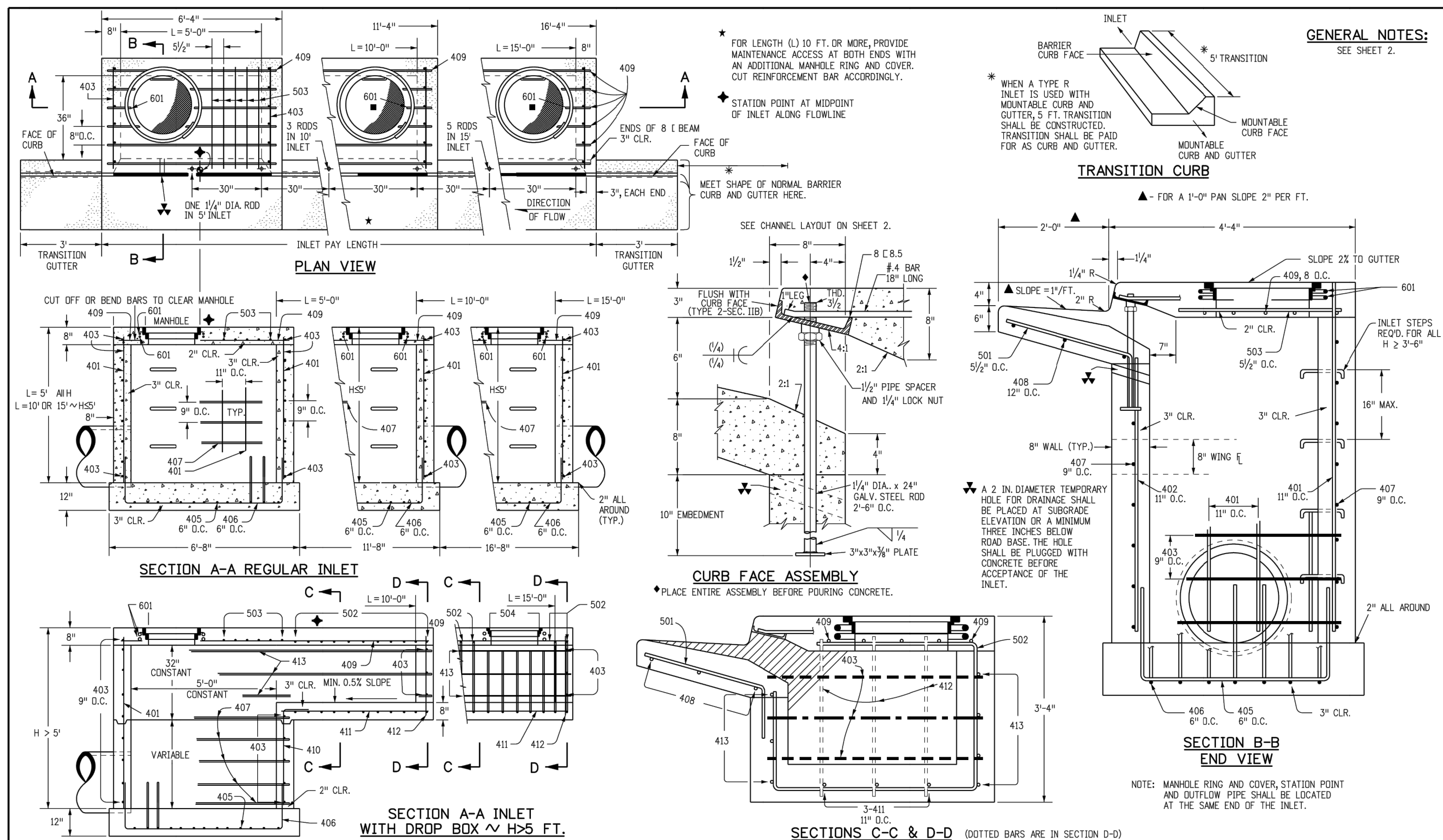
REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

MARC A. WHORTON, COLORADO P.E. #37155 DATE

STERLING RANCH & BRIARGATE PARKWAY STORM PLANS
PRIVATE POND FSD-11B (INTERIM DESIGN)
OUTLET STRUCTURE DETAILS

DESIGNED BY MAW SCALE DATE 4/5/23
DRAWN BY MAW (H) 1"= N/A SHEET 17 OF 19
CHECKED BY (V) 1"= N/A JOB NO. 25188.03
EPC 7/26/2023



GENERAL NOTES

FOR LENGTH (L) 10 FT. OR MORE, PROVIDE MAINTENANCE ACCESS AT BOTH ENDS WITH AN ADDITIONAL MANHOLE RING AND COVER. CUT REINFORCEMENT BAR ACCORDINGLY.

STATION POINT AT MIDPOINT OF INLET ALONG FLOWLINE.

MEET SHAPE OF NORMAL BARRIER CURB AND GUTTER HERE.

SEE CHANNEL LAYOUT ON SHEET 2.

WHEN A TYPE R INLET IS USED WITH MOUNTABLE CURB AND GUTTER, 5 FT. TRANSITION SHALL BE CONSTRUCTED. TRANSITION SHALL BE PAID FOR AS CURB AND GUTTER.

FOR A 1"-0" PAN SLOPE 2" PER FT.

GENERAL NOTES:
SEE SHEET 2

TABLE ONE ~ BAR LIST FOR CURB INLETS, TYPE "R"

MARK	BAR #	D.C.	SPACING	TYPE	ALL INLETS			INLETS: H ≤ 5 FT.			INLETS: H > 5 FT.		
					L = 5 FT.	L = 10 FT.	L = 15 FT.	L = 5 FT.	L = 10 FT.	L = 15 FT.	L = 5 FT.	L = 10 FT.	L = 15 FT.
401	4	11"	11"	II	15	21	26	11	11	11	11	11	
402	4	11"	7"	VI	7	13	18	7	7	7	7	7	
403	4	9"	11"	VI	4-0"	4-0"	4-0"	4-0"	4-0"	4-0"	4-0"	4-0"	
405	4	9"	VI	VI	11	6-10"	21	6-10"	31	6-10"	11	6-10"	
406	4	9"	VIII	VIII	7	8-10"	7	13-10"	7	8-10"	7	8-10"	
407	4	9"	VI	VI	3	5-10"	3	10-10"	3	5-10"	3	5-10"	
408	4	12"	II	II	3	6-10"	3	11-10"	3	11-10"	3	11-10"	
409	4	8"	II	II	6	5-10"	6	10-10"	6	10-10"	6	10-10"	
410	4	11"	VI	VI	3	5-10"	3	5-10"	3	5-10"	3	5-10"	
411	4	11"	II	II	3	5-10"	3	5-10"	3	5-10"	3	5-10"	
412	4	9"	II	II	3	5-10"	3	5-10"	3	5-10"	3	5-10"	
413	4	9"	II	II	3	5-10"	3	5-10"	3	5-10"	3	5-10"	
501	5	9/16"	IV	IV	11	3-4"	22	3-4"	33	3-4"	22	3-4"	
502	5	9/16"	IV	IV	5	3-6"	16	3-6"	27	3-6"	11	3-6"	
503	5	9/16"	II	II	5	3-6"	16	3-6"	27	3-6"	6	3-6"	
504	5	9/16"	IX	IX	3	3-6"	16	3-6"	27	3-6"	6	3-6"	
818.5	8	1"	II	II	1	5-10"	1	10-10"	1	10-10"	1	10-10"	

TABLE TWO ~ BARS AND QUANTITIES VARIABLE WITH "H"

H"	LENGTH	REGULAR		DROP BOX		L = 5 FT.		L = 10 FT.		L = 15 FT.	
		NO. REQ'D.	CONC. CU. YDS.	NO. REQ'D.	CONC. CU. YDS.	CONC. CU. YDS.	STEEL LBS.	CONC. CU. YDS.	STEEL LBS.	CONC. CU. YDS.	STEEL LBS.
3-0"	3-8"	1-8"	10	7	3	3.2	285	5.3	497	7.4	706
3-6"	3-2"	2-2"	10	7	3	3.4	305	5.7	528	7.9	747
4-0"	3-8"	2-8"	12	9	3	3.7	326	6.0	559	8.4	786
4-6"	4-2"	3-2"	12	9	3	3.9	334	6.4	571	8.8	803
5-0"	4-8"	3-8"	14	11	4	4.1	354	6.7	602	9.3	844
5-6"	5-2"	4-2"	16	13	5	4.4	375	7.0	607	7.4	850
6-0"	5-8"	4-8"	16	13	5	4.6	382	7.2	616	7.8	860
6-6"	6-2"	5-2"	18	15	6	4.8	402	7.6	637	7.8	880
7-0"	6-8"	5-8"	17	19	10	5.0	423	8.6	654	8.0	897
7-6"	7-2"	6-2"	20	17	20	5.3	430	6.9	664	8.3	907
8-0"	7-8"	6-8"	22	19	22	5.5	451	7.1	684	8.5	927
8-6"	8-2"	7-2"	24	21	23	5.7	471	7.3	702	8.7	944
9-0"	8-8"	7-8"	24	21	24	6.0	479	7.6	711	9.0	954
9-6"	9-2"	8-2"	26	23	26	6.2	499	7.8	732	9.2	974
10-0"	9-8"	8-8"	28	25	27	6.4	520	8.0	749	9.4	992
10-6"	10-2"	9-2"	28	25	28	6.7	527	8.3	759	9.7	1001
11-0"	10-8"	9-8"	30	27	30	6.9	547	8.5	779	9.9	1022

Computer File Information: Creation Date: 07/31/19, Designer Initials: JBK, Last Modification Date: 07/31/19, Detaller Initials: LTA, CAD Ver.: MicroStation V8.

Sheet Revisions: [Table with revision columns]

Colorado Department of Transportation: 2829 West Howard Place, CDOT HQ, 3rd Floor, Denver, CO 80204, Phone: 303-757-9021, FAX: 303-757-9888.

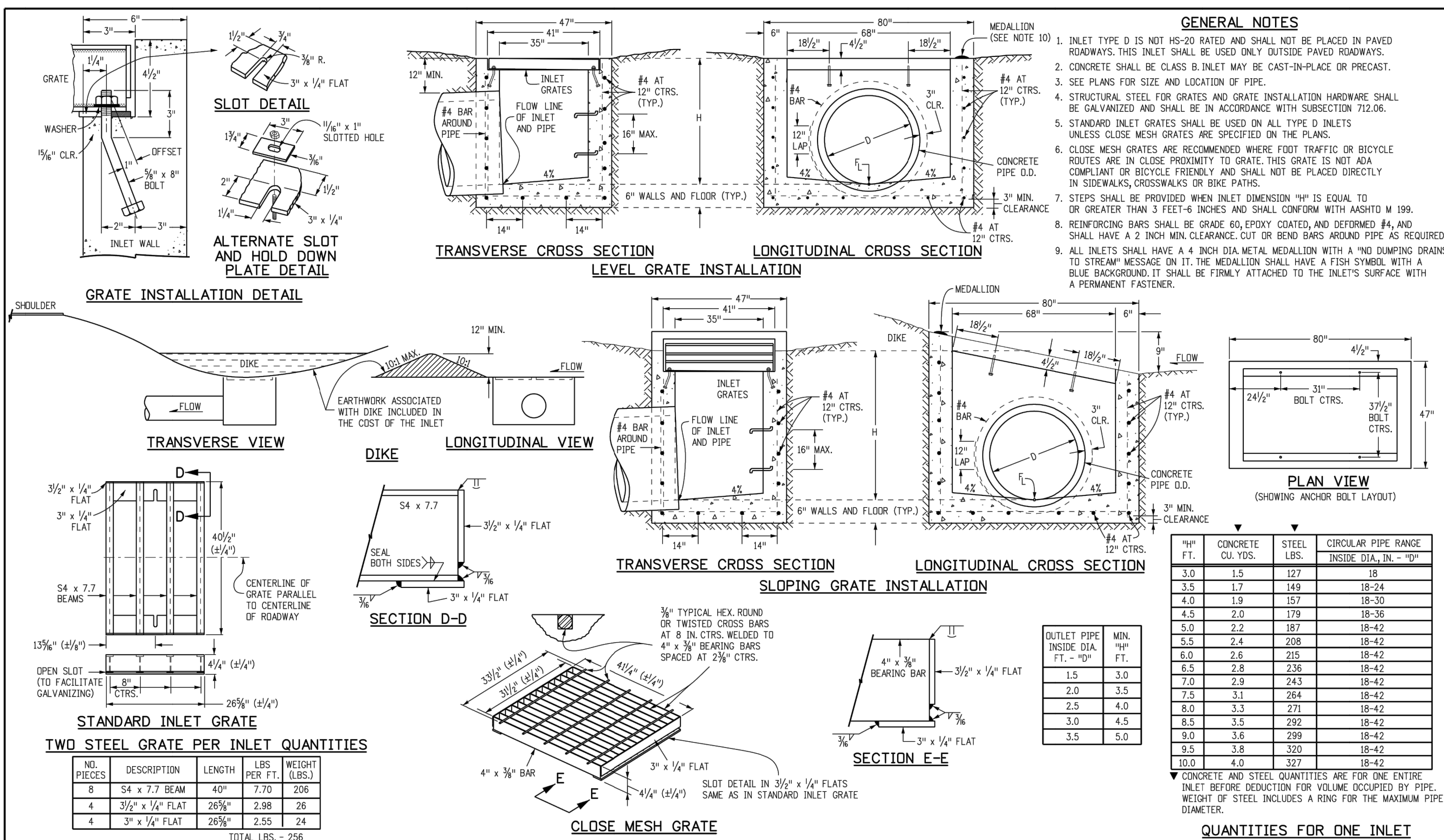
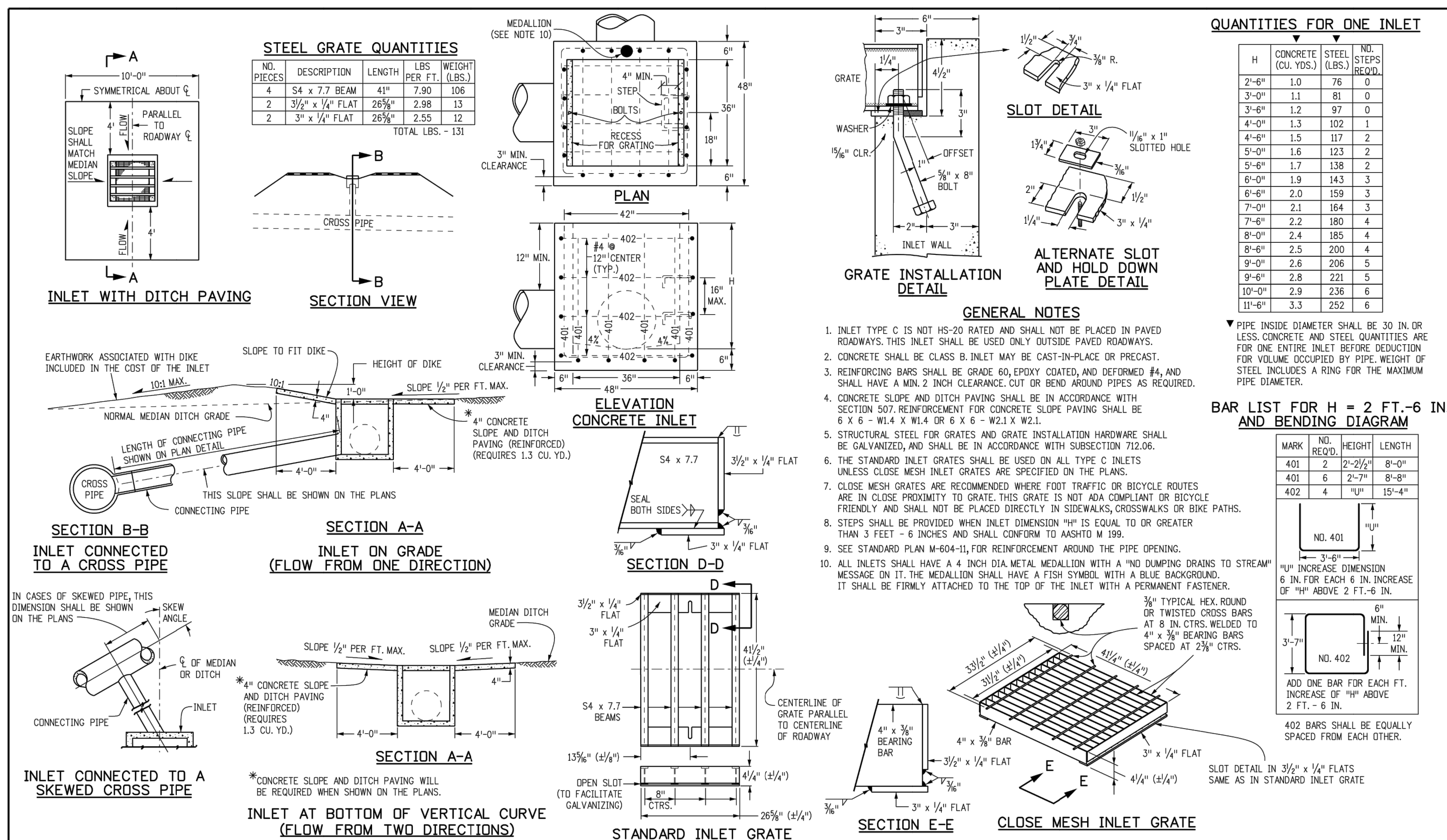
Project Development Branch: JBK

CURB INLET TYPE R

STANDARD PLAN NO. M-604-12, Standard Sheet No. 1 of 2

Issued by the Project Development Branch July 31, 2019

Computer File Information, Sheet Revisions, Colorado Department of Transportation, Project Development Branch, JBK, **CURB INLET TYPE R**, STANDARD PLAN NO. M-604-12, Standard Sheet No. 1 of 2, Issued by the Project Development Branch July 31, 2019



Computer File Information, Sheet Revisions, Colorado Department of Transportation, Project Development Branch, JBK, **CURB INLET TYPE D**, STANDARD PLAN NO. M-604-11, Standard Sheet No. 1 of 1, Issued by the Project Development Branch July 31, 2019

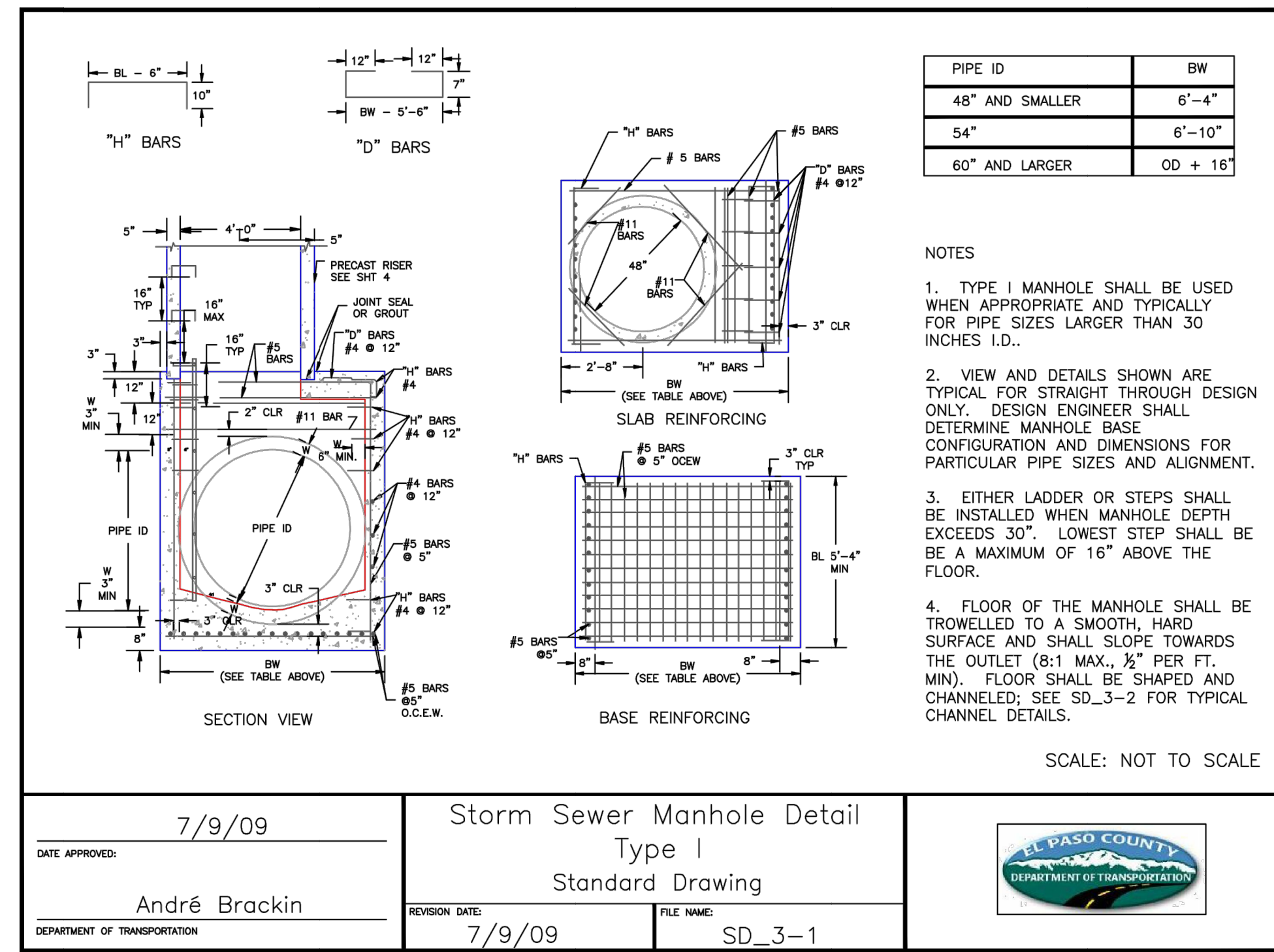
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PREPARED FOR: SR LAND, LLC
20 BOULDER CRESCENT SUITE 201
COLORADO SPRINGS, CO 80903
DESIGNED BY: JAMES F. MORLEY
(719) 471-1742

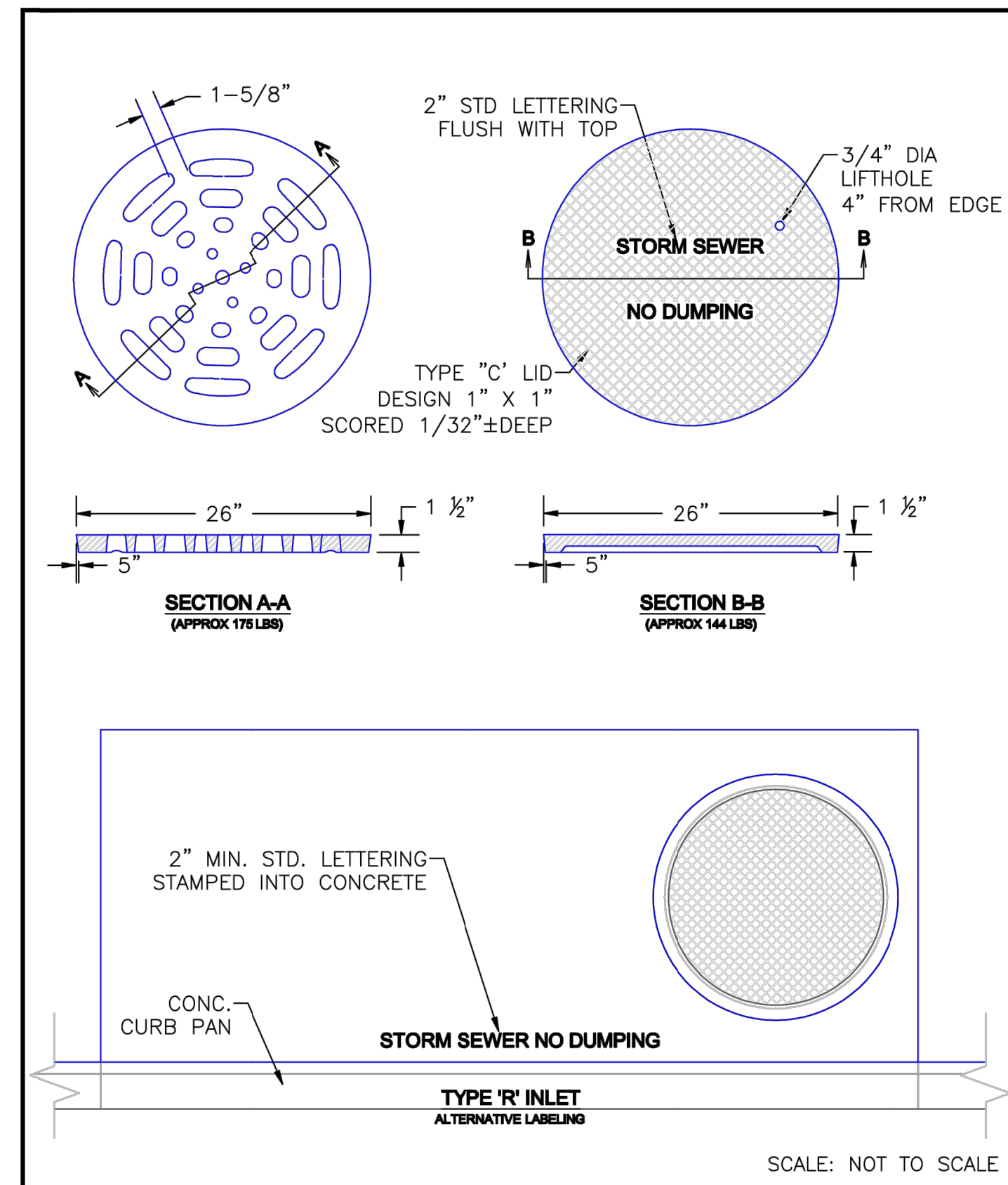
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Fort Collins 970-491-9888 • www.jrengineering.com

NO.	REVISION	DATE	BY

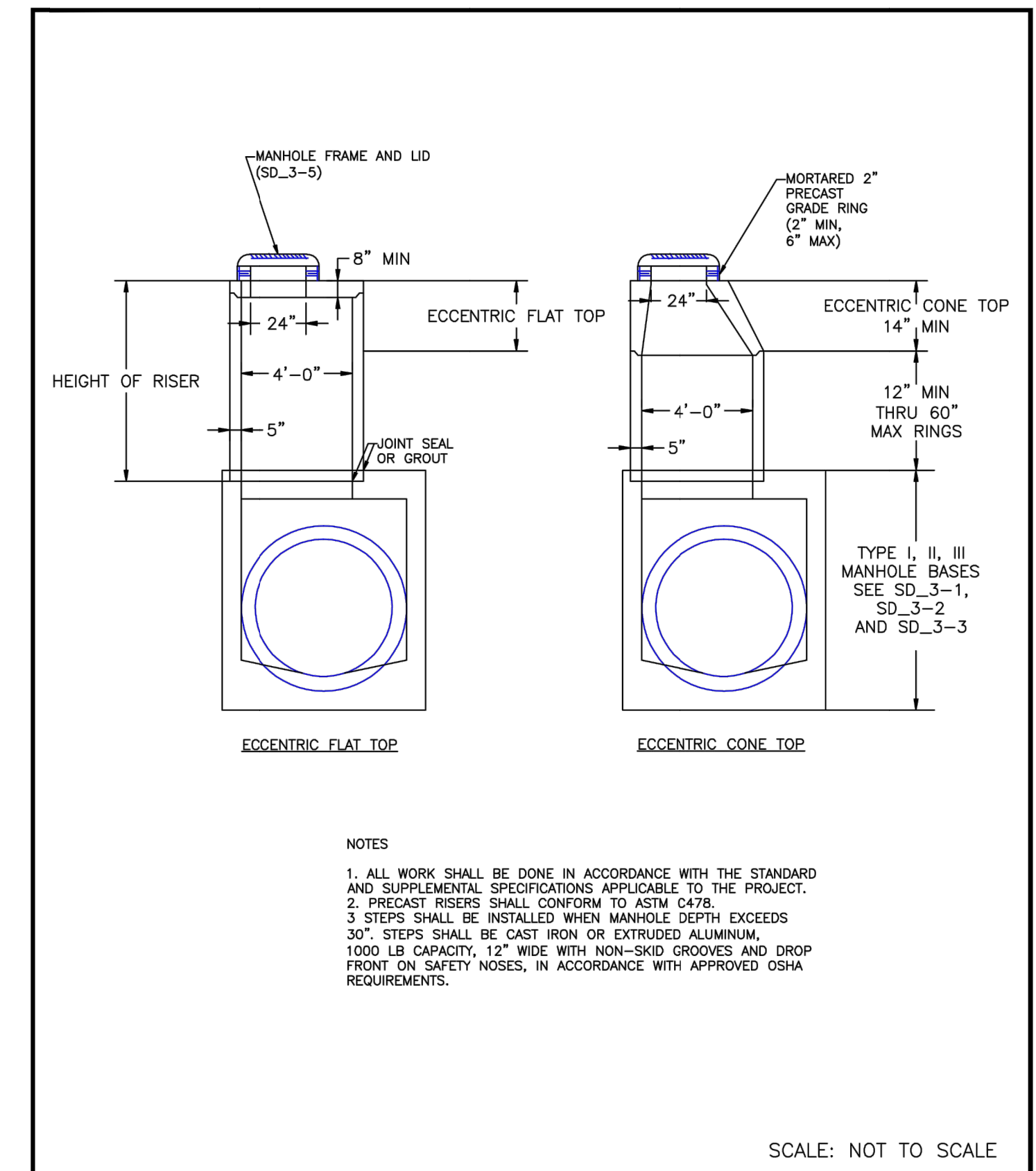
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DATE: 05/04/23
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DRAWN BY: N/A
CHECKED BY: N/A



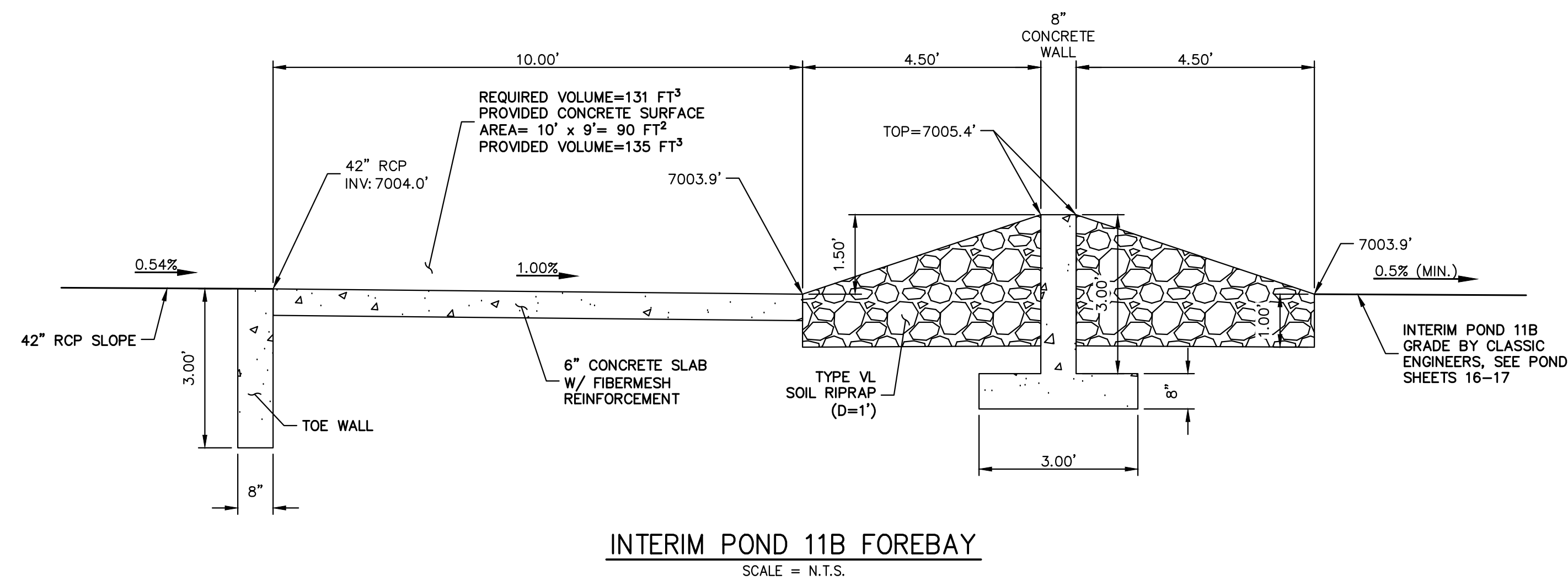
DATE APPROVED: 7/9/09
 DEPARTMENT OF TRANSPORTATION: André Brackin
 REVISION DATE: 7/9/09
 FILE NAME: SD_3-1



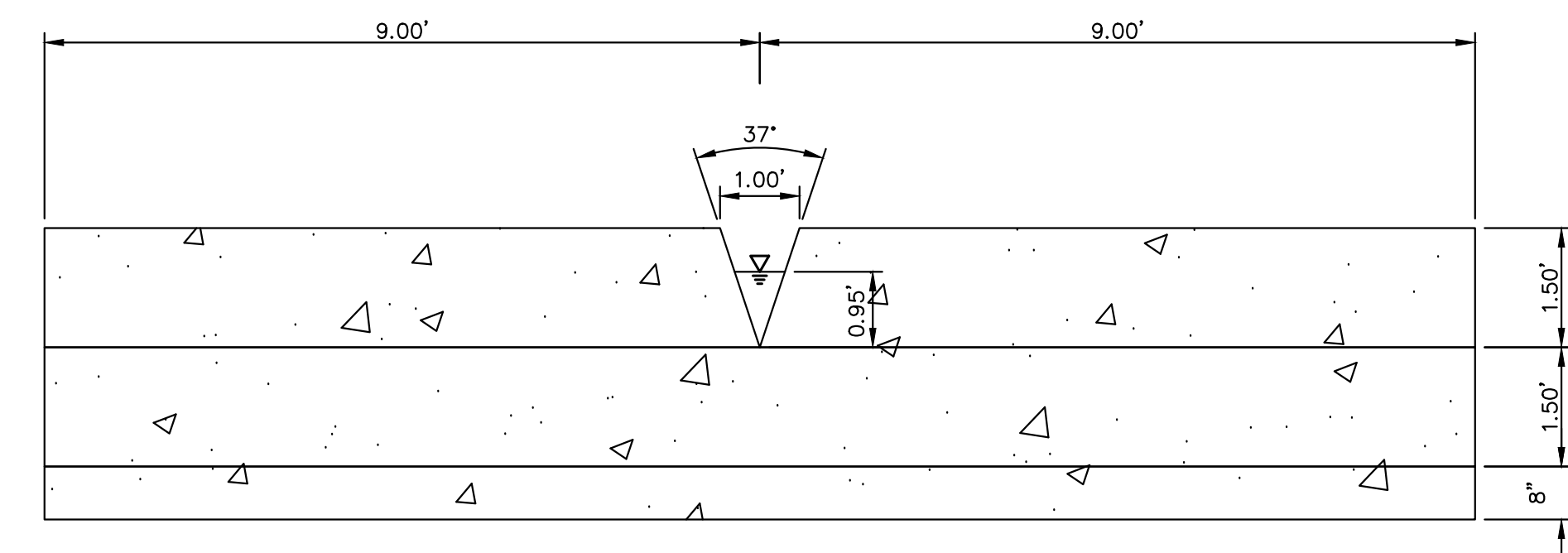
DATE APPROVED: 9/16/10
 DEPARTMENT OF TRANSPORTATION: André P. Brackin
 REVISION DATE: 9/16/10
 FILE NAME: SD_3-5



DATE APPROVED: 8/11/11
 DEPARTMENT OF TRANSPORTATION: André P. Brackin
 REVISION DATE: 11/23/04
 FILE NAME: SD_3-7



INTERIM POND 11B FOREBAY
 SCALE = N.T.S.



INTERIM POND 11B FOREBAY WEIR
 SCALE = N.T.S.

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.

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BY	DATE	NO.	REVISION

H-SCALE	N/A
V-SCALE	N/A
DATE	05/04/23
DESIGNED BY	N/A
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STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS
 DETAILS SHEETS