

COUNTY OF EL PASO, STATE OF COLORADO

CONSTRUCTION PLANS

GENERAL CONSTRUCTION NOTES:

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STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS

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- The site map illustrates the proposed development area, divided into four tracts: Tract A (top left), Tract B (top center), Tract C (top right), and Tract D (bottom center). Lot 1 is located within Tract D. The map shows the existing Southern Rail Pt. and U.S. Highway No. 24. A north arrow and a scale bar are provided for orientation and measurement.

THE EAST LINE OF TRACT C "CROSSROADS MIXED USE FILING NO. 2" RECORDED UNDER RECEPTION NO 22714975 IN THE RECORDS OF EL PASO COUNTY, COLORADO, BEING MONUMENTED AT EACH END WITH A SET NO. 5 REBAR WITH AN ORANGE PLASTIC CAP STAMPED "M&S CIVIL PLS 25966", WHICH BEARS N007°07'04"E A DISTANCE OF 871.79 FEET.

1. NATIONAL GEODETIC VERTICAL DATUM OF 1929, MONUMENT R76 SET IN TOP OF CONCRETE MONUMENT ELEVATION = 6286.32'
2. NATIONAL GEODETIC VERTICAL DATUM OF 1929, FOUND #5 REBAR AND ORANGE CAP PLS 32820 ELEVATION = 6325.50'

SHEET 1 TITLE SHEET
SHEET 2 STORM SEWER PLAN & PROFILE
SHEET 3 STORM STRUCTURE DETAILS

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 PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.



VIRGIL A. SANCHEZ, COLORADO P.E. #37160
FOR AND ON BEHALF OF M & S CIVIL CONSULTANTS, INC.

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

DANNY MIENTKA (MANAGER)
CROSSROADS DEVELOPMENT COMPANY, LLC

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.

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

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

DATE _____

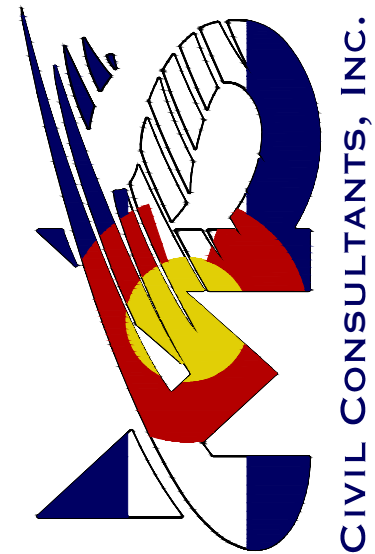
EL PASO COUNTY FILE NO. PPR2311



FOR LOCATING
& MARKING
GAS,
ELECTRIC,
WATER &
TELEPHONE
LINES

FOR BURIED UTILITY INFORMATION
48 HRS BEFORE YOU DIG
CALL 1-800-922-1987

212 N. WAHSATCH AVE., STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

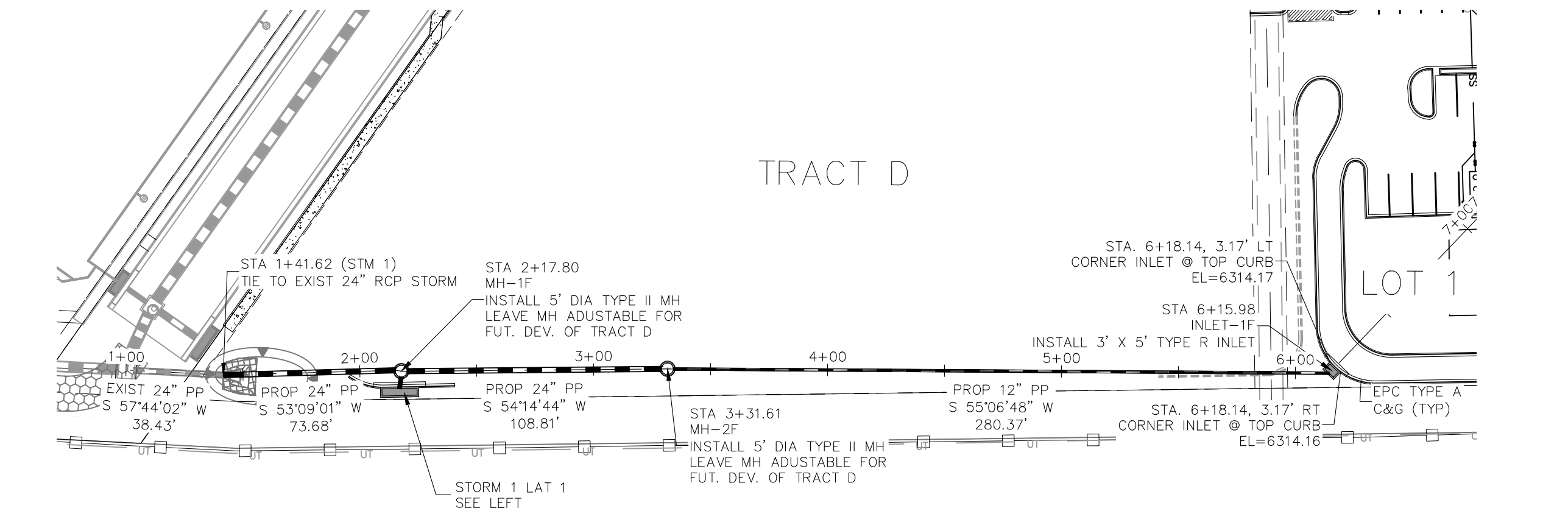


160 FOR AND ON
BEHALF OF
M&S CIVIL
CONSULTANTS,
INC.

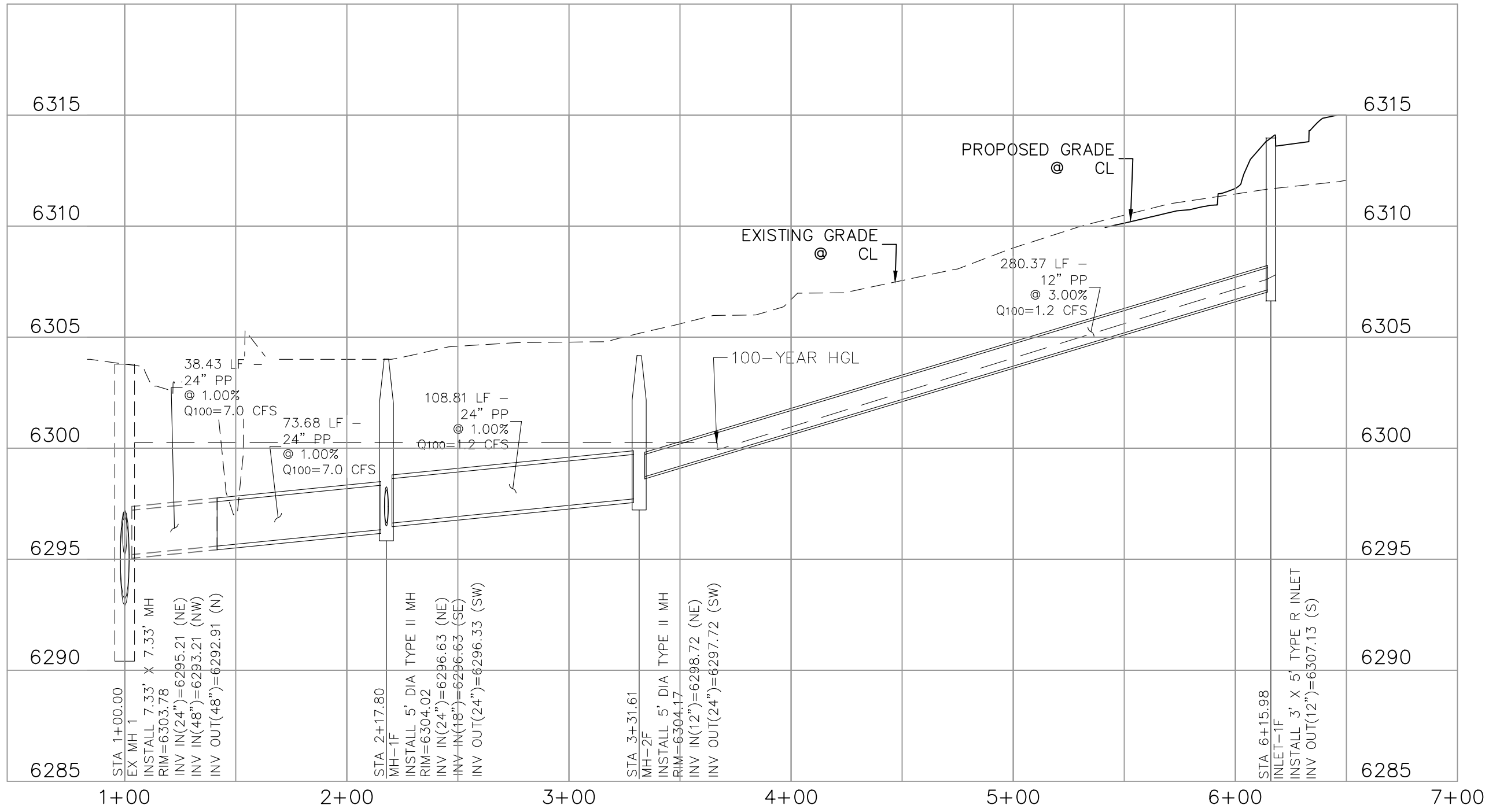
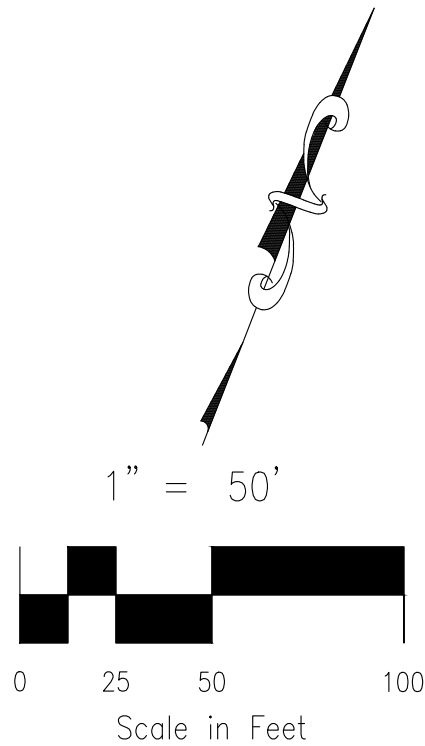
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THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

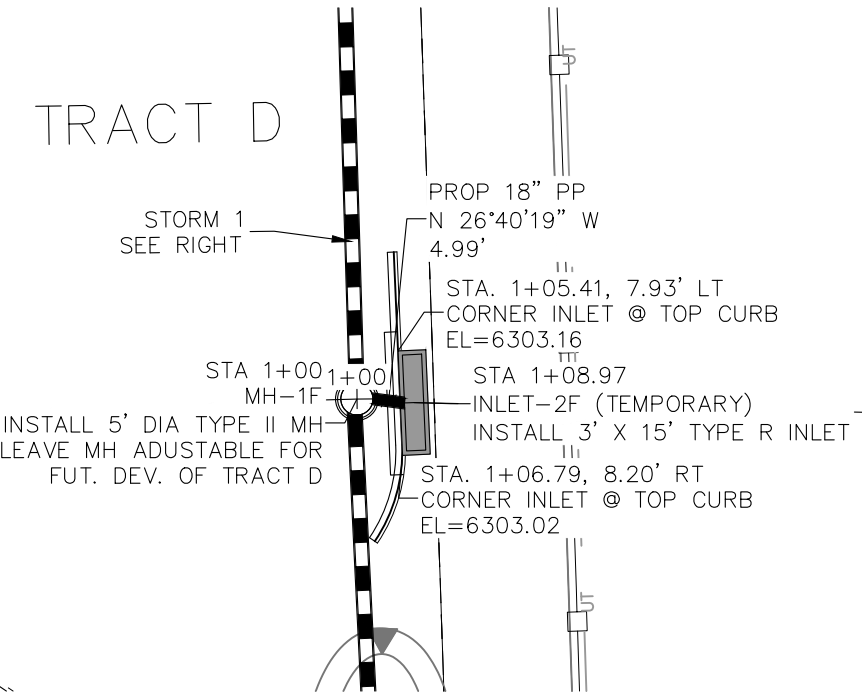
CAUTION



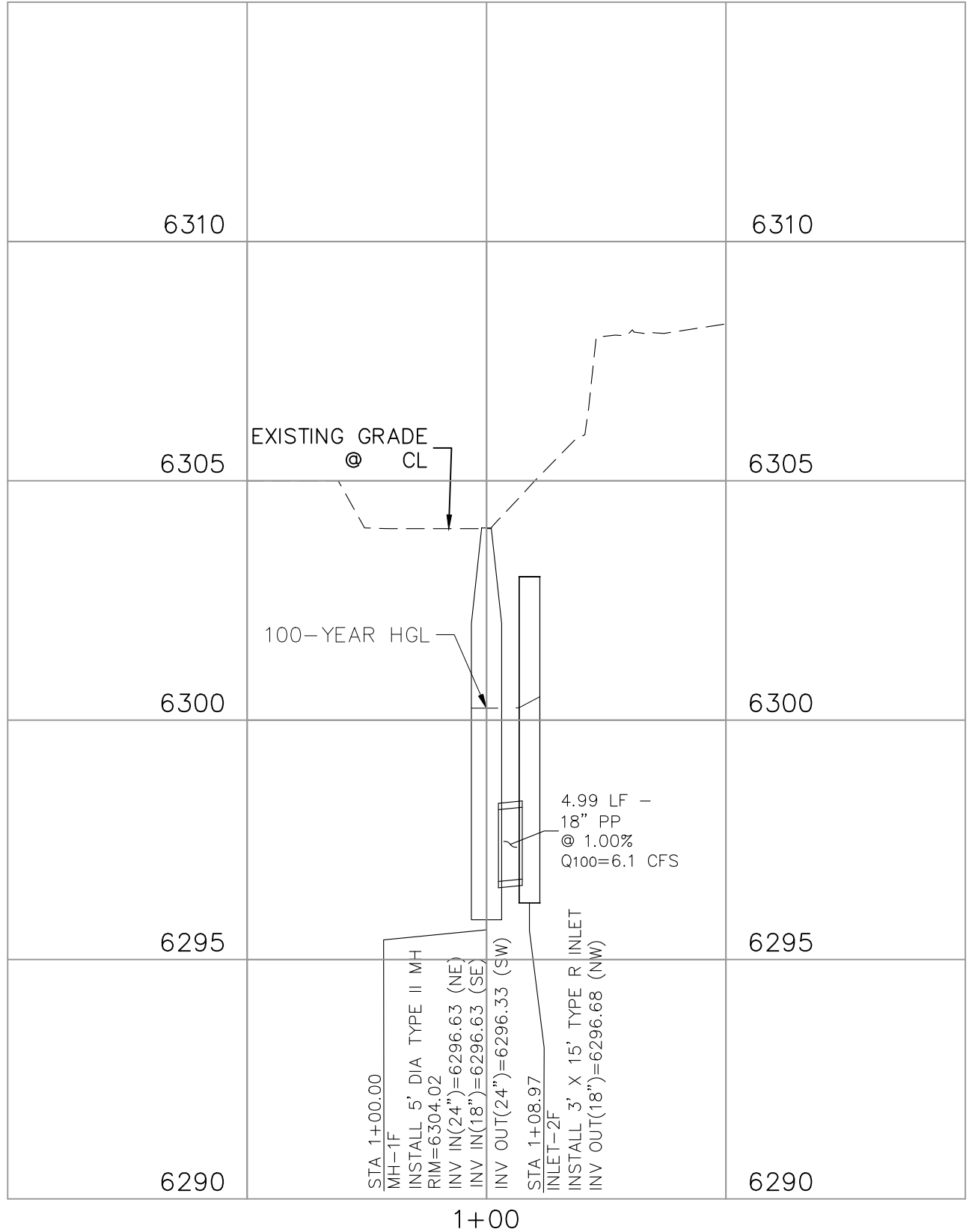
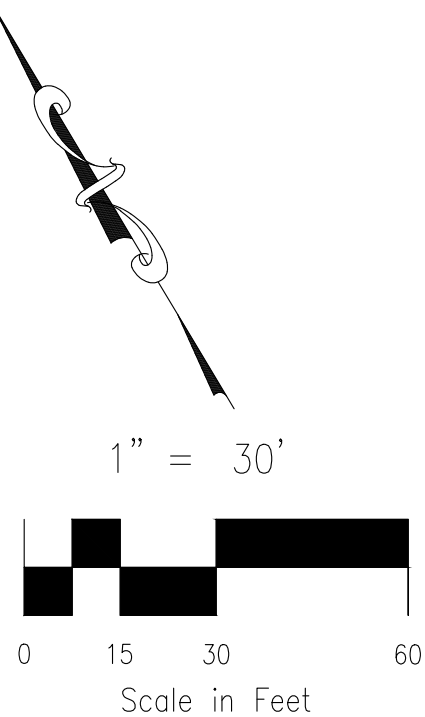
STORM 1
STA 1+41.62 TO STA 7+22.92



STORM 1
STA 1+41.62 TO STA 7+22.92



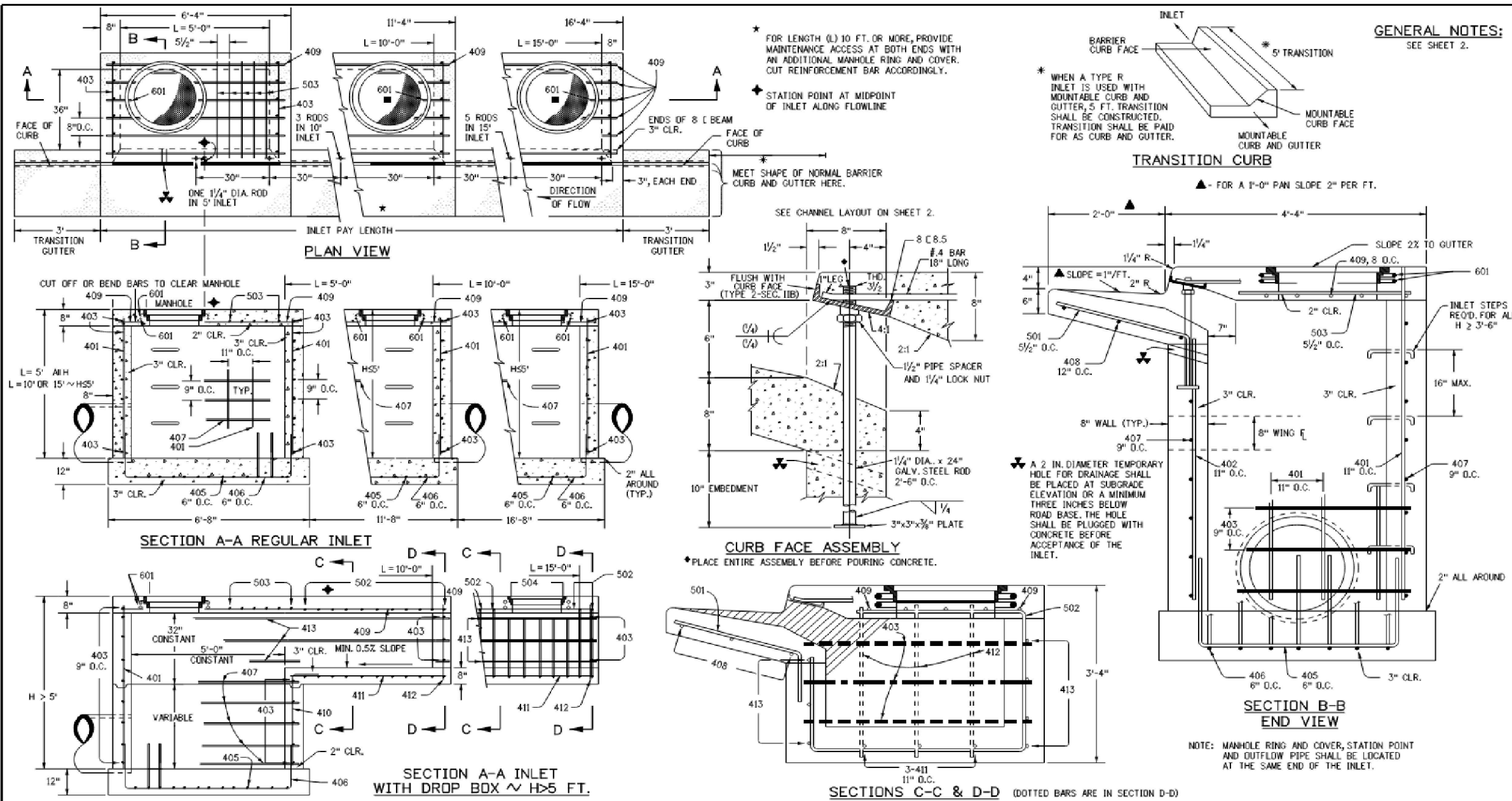
STORM 1 LAT 1
STA 1+00.00 TO STA 1+08.97



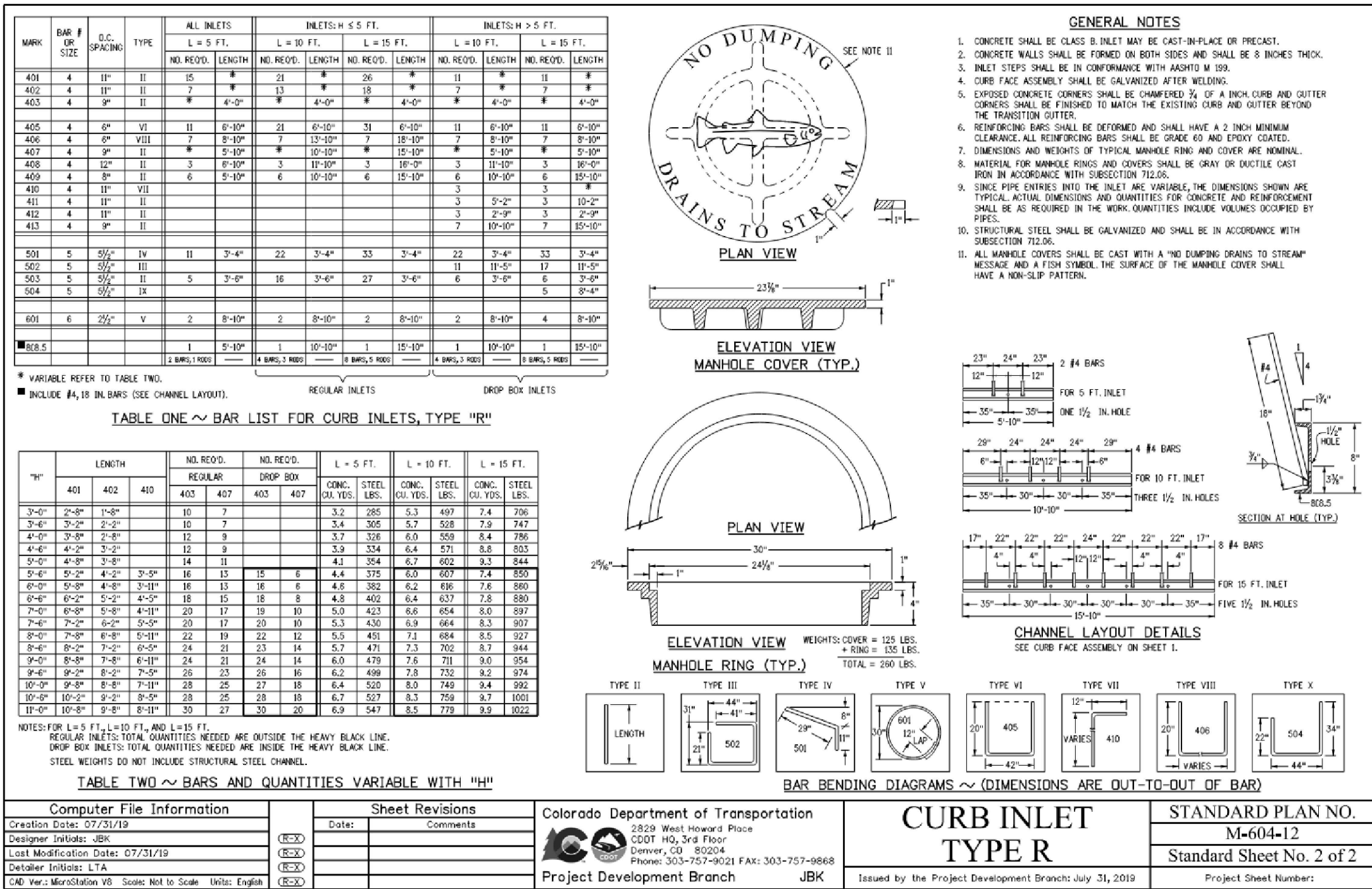
STORM 1 LAT 1
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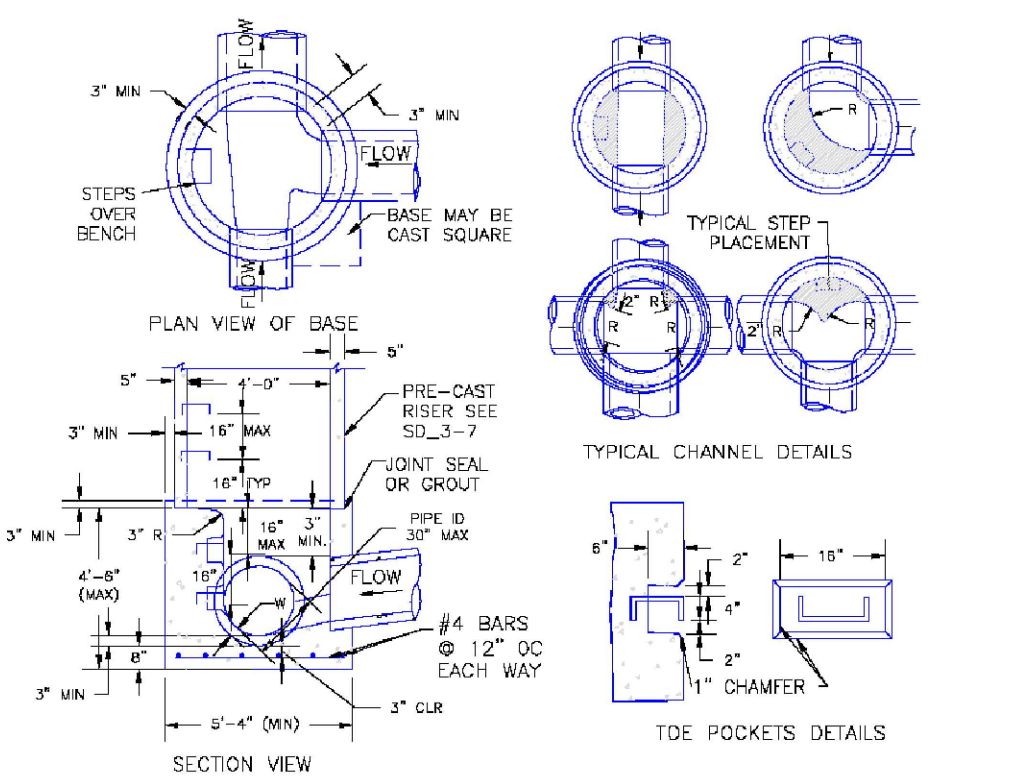
LOT 1 – CROSSROADS MIXED USE FILING NO. 2					
STORM SEWER PLAN & PROFILE					
PROJECT NO. 18-005	SCALE: HORIZONTAL: 1"=50', 1"=30" VERTICAL: 1"= 5', 1"=3'	DATE: 09/06/2023	ST02 SHEET 2 OF 3		
DESIGNED BY: TAU	DRAWN BY: TAU	CHECKED BY: VAS			
212 N WAHATCH AVE, STE 305 COLORADO SPRINGS CO 80903 PHONE: 719.955.5465					
FOR AND ON BEHALF OF VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160					
REVISIONS:	NO.	DATE:	BY:	DESCRIPTION:	DATE:
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CAUTION					



Computer File Information		Sheet Revisions		Colorado Department of Transportation		CURB INLET TYPE R		STANDARD PLAN NO. M-604-12	
Creation Date: 07/31/19	Designer: JBK	Date:	Comments:	2559 West Inverness Place	CDOT HQ, 3rd Floor	CDOT HQ, 3rd Floor	Denver, CO 80204	Phone: 303-757-9021	FAX: 303-757-8868
Last Modification Date: 07/31/19	Draftsman: LTA			2559 West Inverness Place	CDOT HQ, 3rd Floor	CDOT HQ, 3rd Floor	Denver, CO 80204	Phone: 303-757-9021	FAX: 303-757-8868
CDOT Ver.: MicroStation V8	Scale: Not to Scale	Units: English		2559 West Inverness Place	CDOT HQ, 3rd Floor	CDOT HQ, 3rd Floor	Denver, CO 80204	Phone: 303-757-9021	FAX: 303-757-8868

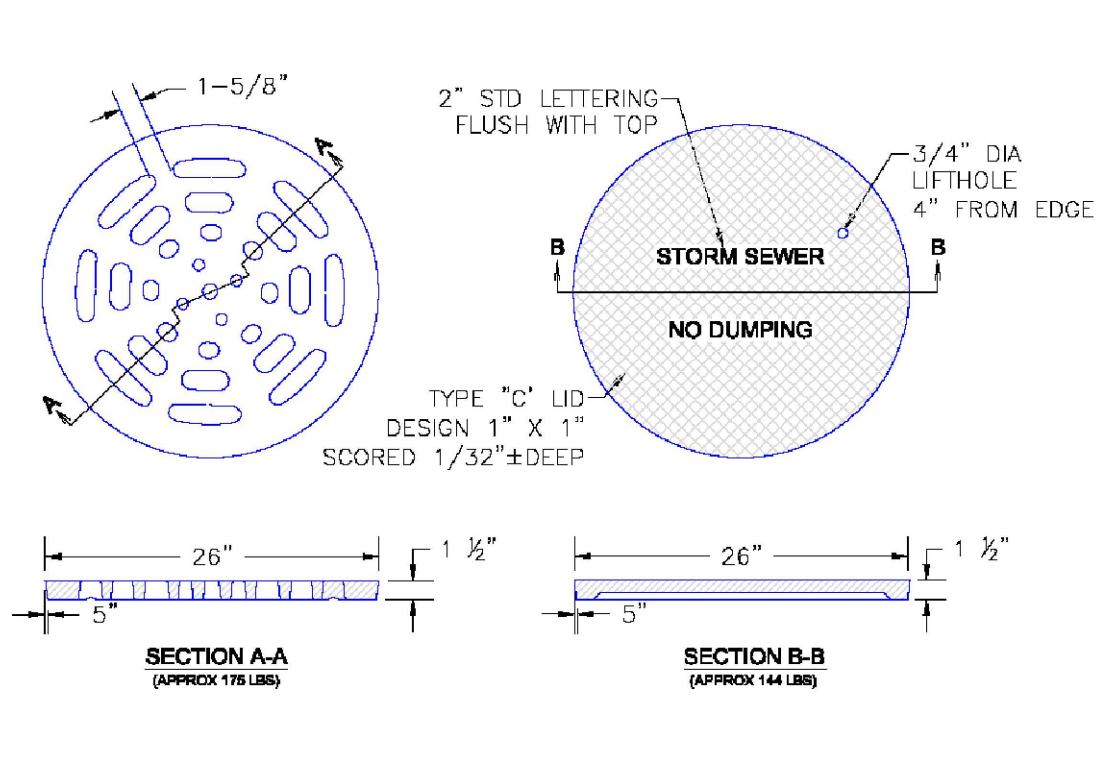


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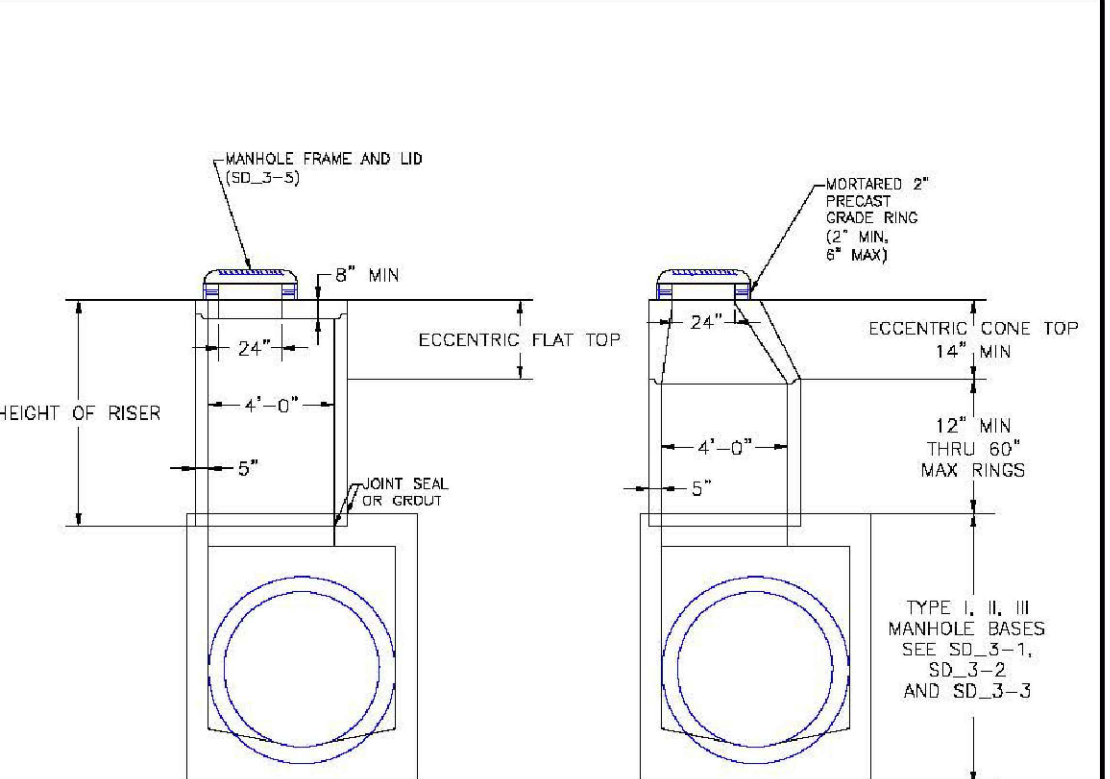
- NOTES
- TYPE II MAN-HOLES SHALL BE USED WHEN APPROPRIATE AND TYPICALLY WHEN THE PIPE SIZES ARE 30" OR LESS INSIDE DIAMETER.
 - VIEW AND DETAILS ARE TYPICAL. DESIGN ENGINEER SHALL DETERMINE MANHOLE BASE CONFIGURATION AND DIMENSIONS FOR PARTICULAR PIPE SIZES AND ALIGNMENT.
 - EITHER LADDER OF STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS IN BASE SHALL BE INSTALLED IN "TOD POCKETS" (SEE DETAIL THIS SHEET). LOWEST STEP SHALL BE A MAXIMUM OF 16" ABOVE THE FLOOR.
 - PIPES SHALL BE TRIMMED TO FINAL SHAPE AND SET BEFORE MANHOLE IS POURED.
 - BENCH SHALL BE SLOPED TOWARD CENTER OF MANHOLE BASE (4:1 MAX., 1/2" PER FOOT, MIN.).
 - FLOOR OF MANHOLE SHALL BE TROWELLED TO A SMOOTH, HARD SURFACE AND SHALL SLOPE TOWARDS THE OUTLET (6:1, 1/2" PER FT. MIN.). FLOOR SHALL BE SHAPED AND CHANNELLED; SEE DETAILS THIS SHEET.

DATE APPROVED	Storm Sewer Manhole Detail Type II Standard Drawing	FILE NAME	SD_3-2
APPROVED BY	André P. Brackin	REVISION DATE	11/10/04



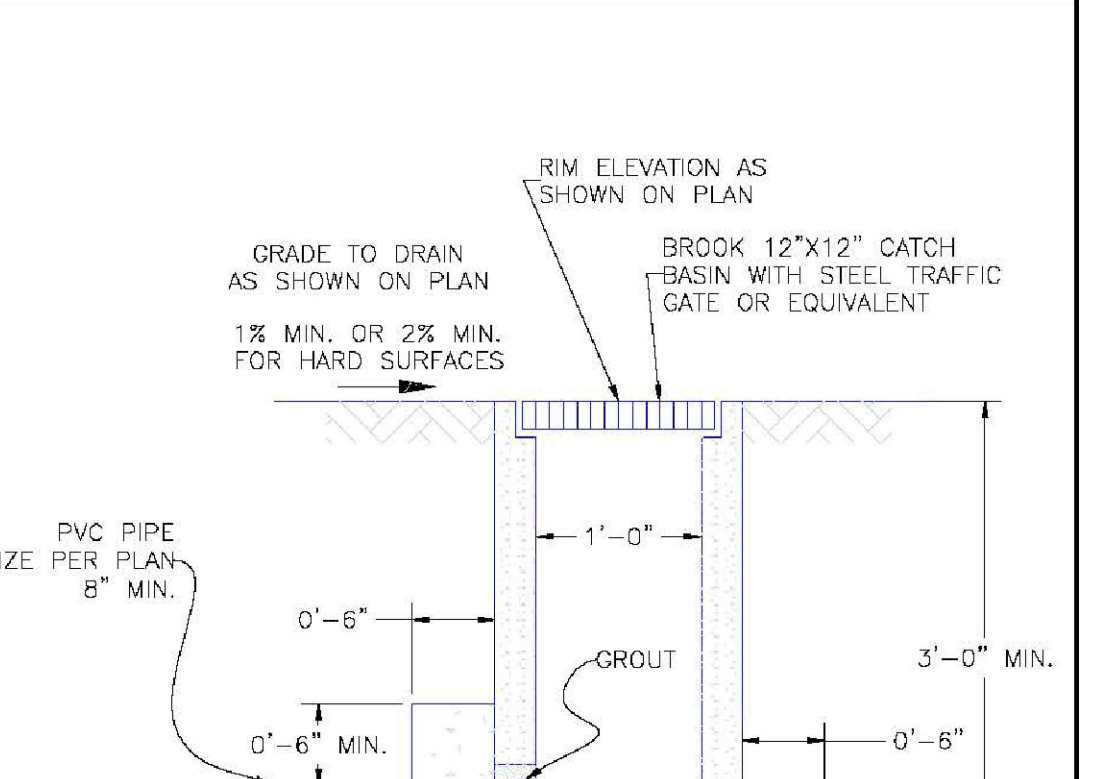
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 - FLOOR OF MANHOLE SHALL BE TROWELLED TO A SMOOTH, HARD SURFACE AND SHALL SLOPE TOWARDS THE OUTLET (6:1, 1/2" PER FT. MIN.). FLOOR SHALL BE SHAPED AND CHANNELLED; SEE DETAILS THIS SHEET.

DATE APPROVED	Storm Sewer Manhole Detail Type R Standard Drawing	FILE NAME	SD_3-5
APPROVED BY	André P. Brackin	REVISION DATE	9/16/10



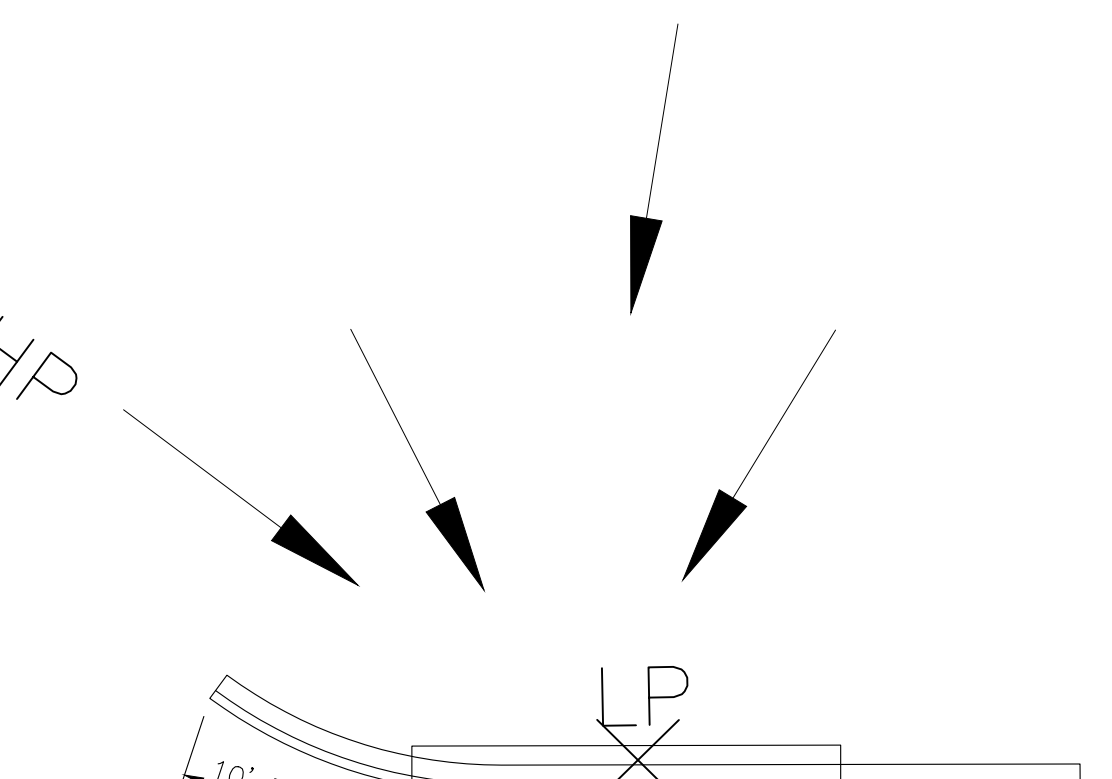
- NOTES
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD AND SUPPLEMENTAL SPECIFICATIONS APPLICABLE TO THE PROJECT.
 - PRECAST RISERS SHALL CONFORM TO ASTM C478.
 - STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS SHALL BE CAST IRON OR EXTRUDED ALUMINUM.
 - 1000 LB CAPACITY, 12" WIDE WITH NON-SKID CHORDS AND DROP FRONT ON SAFETY NOSES, IN ACCORDANCE WITH APPROVED OSHA REQUIREMENTS.

DATE APPROVED	Storm Sewer Manhole Riser and Cover Detail Standard Drawing	FILE NAME	SD_3-7
APPROVED BY	André P. Brackin	REVISION DATE	11/23/04



- NOTES
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD AND SUPPLEMENTAL SPECIFICATIONS APPLICABLE TO THE PROJECT.
 - PRECAST RISERS SHALL CONFORM TO ASTM C478.
 - STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS SHALL BE CAST IRON OR EXTRUDED ALUMINUM.
 - 1000 LB CAPACITY, 12" WIDE WITH NON-SKID CHORDS AND DROP FRONT ON SAFETY NOSES, IN ACCORDANCE WITH APPROVED OSHA REQUIREMENTS.

DATE APPROVED	Grate Inlet for Common Areas (guidance) Standard Drawing	FILE NAME	SD_3-8
APPROVED BY	André P. Brackin	REVISION DATE	11/10/04



- NOTES
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD AND SUPPLEMENTAL SPECIFICATIONS APPLICABLE TO THE PROJECT.
 - PRECAST RISERS SHALL CONFORM TO ASTM C478.
 - STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS SHALL BE CAST IRON OR EXTRUDED ALUMINUM.
 - 1000 LB CAPACITY, 12" WIDE WITH NON-SKID CHORDS AND DROP FRONT ON SAFETY NOSES, IN ACCORDANCE WITH APPROVED OSHA REQUIREMENTS.

DATE APPROVED	Grate Inlet for Common Areas (guidance) Standard Drawing	FILE NAME	SD_3-8
APPROVED BY	André P. Brackin	REVISION DATE	11/10/04

STORM SEWER GENERAL NOTES

- ALL STATIONING IS ALONG STORM SEWER CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE INVERT UNLESS OTHERWISE INDICATED.
- ALL STORM SEWER BENDS, MANHOLES, AND WYES SHOWN ON THE PLANS SHALL BE PREFABRICATED. HORIZONTAL AND VERTICAL BENDS ARE INDICATED ON THE PLANS.
- ALL CONNECTIONS BETWEEN DISSIMILAR MATERIALS (I.E. HP STORM PIPE AND CONCRETE STRUCTURES), SHALL BE WATER TIGHT. REFER TO ADS WATERSTOP STRUCTURE CONNECTION DETAILS (SEE THIS CONSTRUCTION SET) FOR ADDITIONAL INFORMATION.
- THE CONTRACTOR SHOULD ATTEMPT TO LIMIT CONSTRUCTION TRAFFIC ATOP THE PROPOSED STORM SEWER INSTALLATION. AS PER THE MANUFACTURES RECOMMENDATIONS THE CONTRACTOR SHALL PROVIDE A MIN OF 12" OF COVER AT ALL TIMES ATOP THE BACKFILLED STORM SEWER TO TOP OF THE FINISHED GROUND OR BOTTOM OF FLEXIBLE PAVEMENT SURFACE TO PROTECT THE PIPE FROM H-25 VEHICULAR TRAFFIC. A MINIMUM OF 36" SHOULD BE PROVIDED TO PROTECT THE STORM SEWER FROM 30 T TO 60 T TRAFFIC AND MINIMUM OF 72" FOR TRAFFIC UP TO 78 T AXLE LOADS. FINAL GRADING SHOWN ON THE PLANS WILL PROHIBIT VEHICULAR TRAFFIC TO LOADS LESS THE H-25.
- REFER TO THE DETAIL IN THIS CONSTRUCTION SET FOR PIPE TRENCH DETAILS AND PIPE SPECIFICATION.

STRUCTURAL CONCRETE NOTES:

- 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.
- 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
SPlice LENGTH
#4 1'-9"
#5 2'-2"
#6 2'-7"
#7 3'-4"
#8 4'-3"
ALL REINFORCING SHALL HAVE A 2-INCH MINIMUM COVER UNLESS OTHERWISE SPECIFIED.
- CAST-IN-PLACE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f_c) 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.
- EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M-213.
- 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.
- FOOTING EXCAVATIONS SHALL BE EXAMINED BY THE GEOTECHNICAL ENGINEER WITH A 24-HOUR MINIMUM NOTIFICATION FOR SOIL ANE/OR CONCRETE TESTING. PLACEMENT OF CONCRETE IN THE ABSENCE OF TESTING SHALL BE COMPLETED AT THE SOLE RISK OF THE CONTRACTOR.
- 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).



LOT 1 – CROSSROADS MIXED USE FILING NO. 2

STORM STRUCTURE DETAILS

PROJECT NO. 18-005

DATE: 09/06/2023

SCALE: HORIZONTAL: N/A

VERTICAL: N/A

DESIGNED BY: TAU

DRAWN BY: TAU

CHECKED BY: VAS

ST03

SHEET 3 OF 3

212 N WAHATCH AVE, STE 305

COLORADO SPRINGS CO 80903

PHONE: 719.555.5465

CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF CIVIL CONSULTANTS, INC.

Virgil A. Sanchez, Colorado P.E. No. 37160

REVISIONS:

NO. DATE BY DESCRIPTION

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