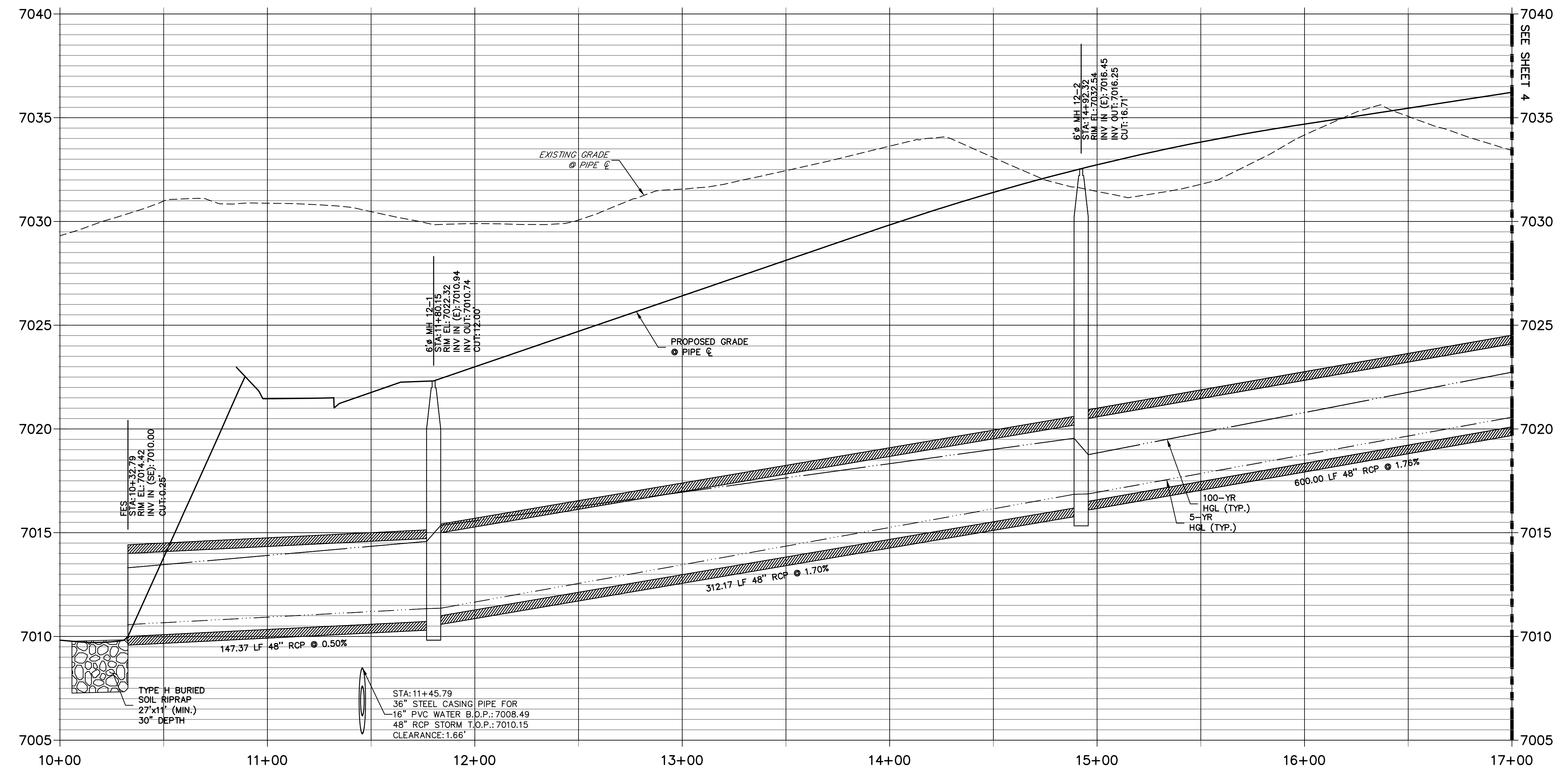
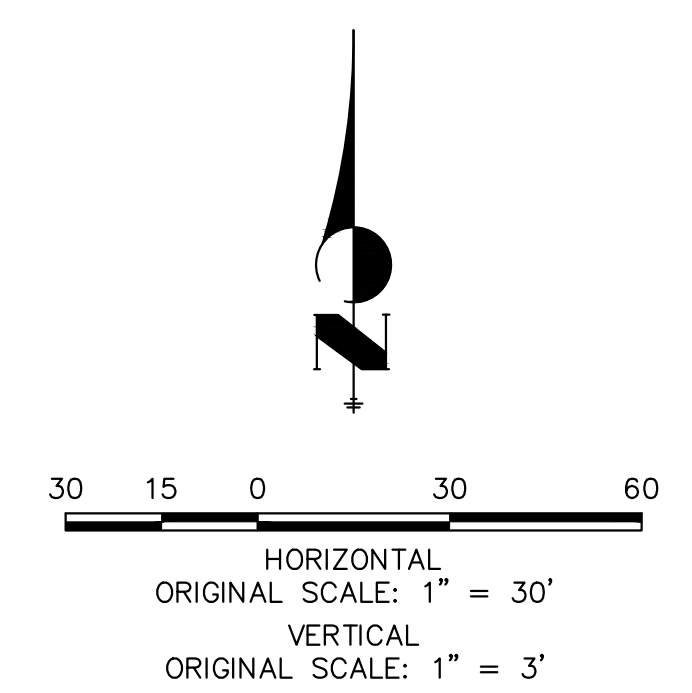


**DP12 PROFILE (1)**  
**STA 10+00.00 TO 17+00.00**  
PUBLIC



**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**

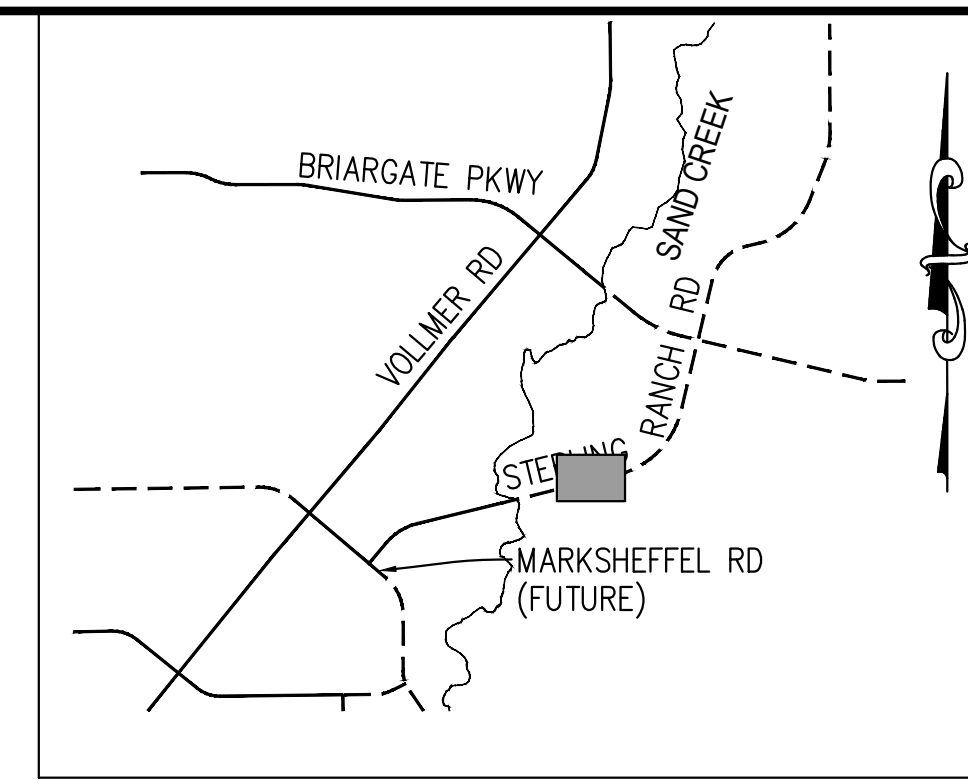
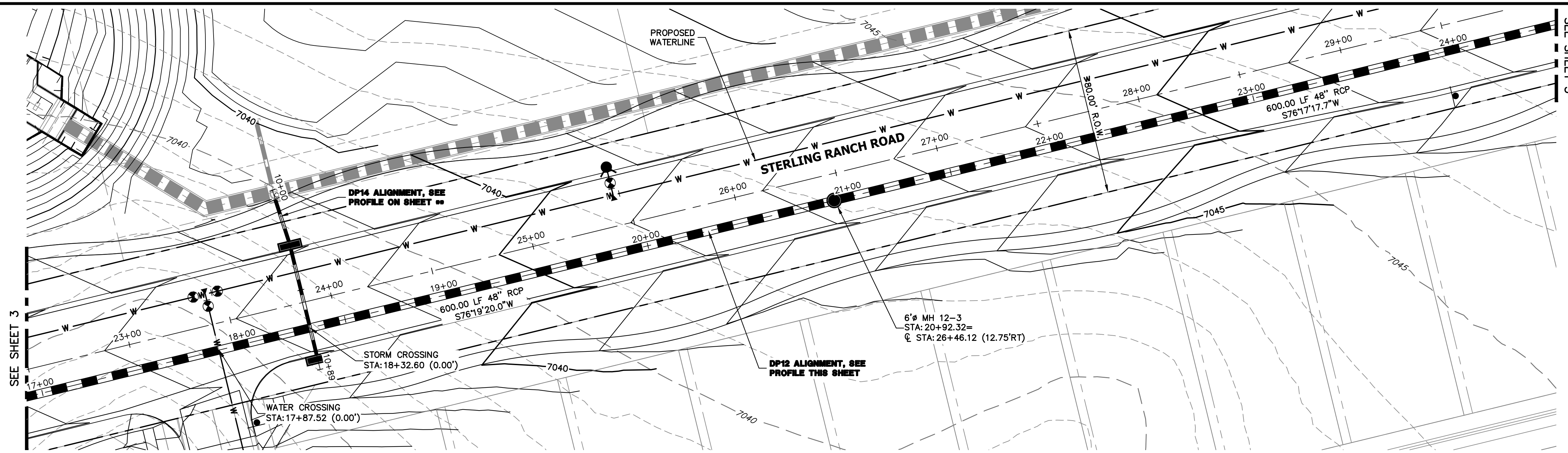
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

*Mike Bramlett*

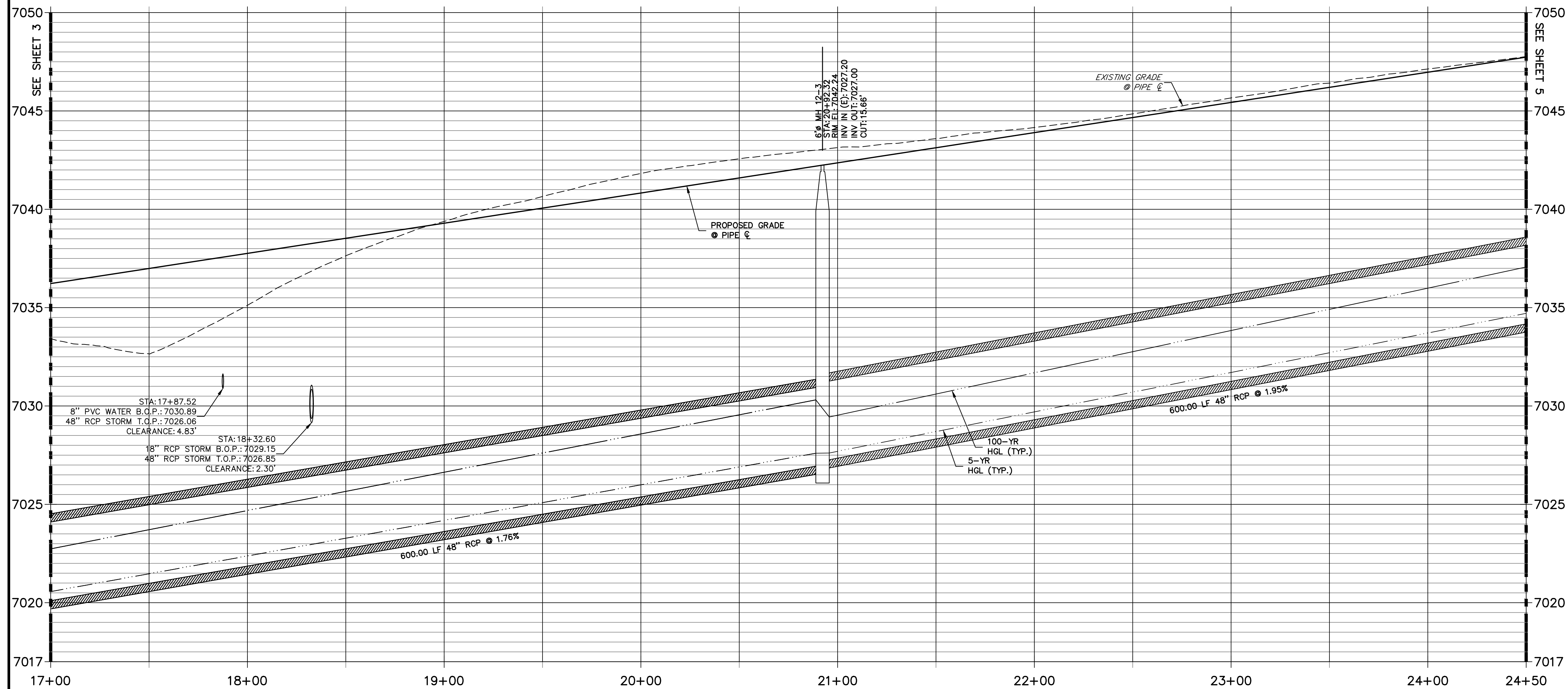
32314 05/08/23

MIKE A. BRAMLETT, P.E. COLORADO P.E. 32314 FOR AND ON BEHALF OF JR ENGINEERING, LLC

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USES DESIGNATED BY WRITTEN AUTHORIZATION.	PREPARED FOR <b>SR LAND, LLC</b> 20 BOULDER CRESCENT SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742
	<b>J.R. ENGINEERING</b> 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 3 OF 19 JOB NO. 25188.03



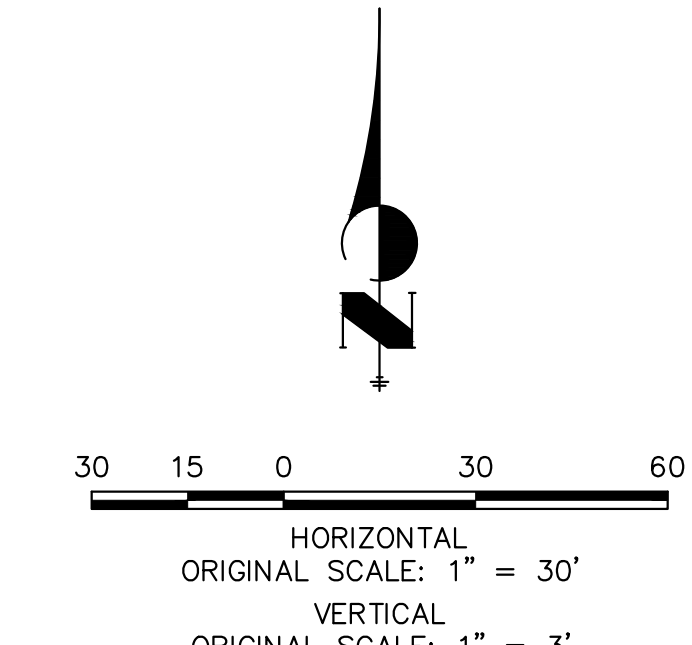
**DP12 PROFILE(2)**  
**STA 17+00.00 TO 24+50.00**  
PUBLIC



**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 Bramlett*

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

DATE: 05/08/23

FOR AND ON BEHALF OF JR ENGINEERING, INC.

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: 719-588-2583  
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: MMC

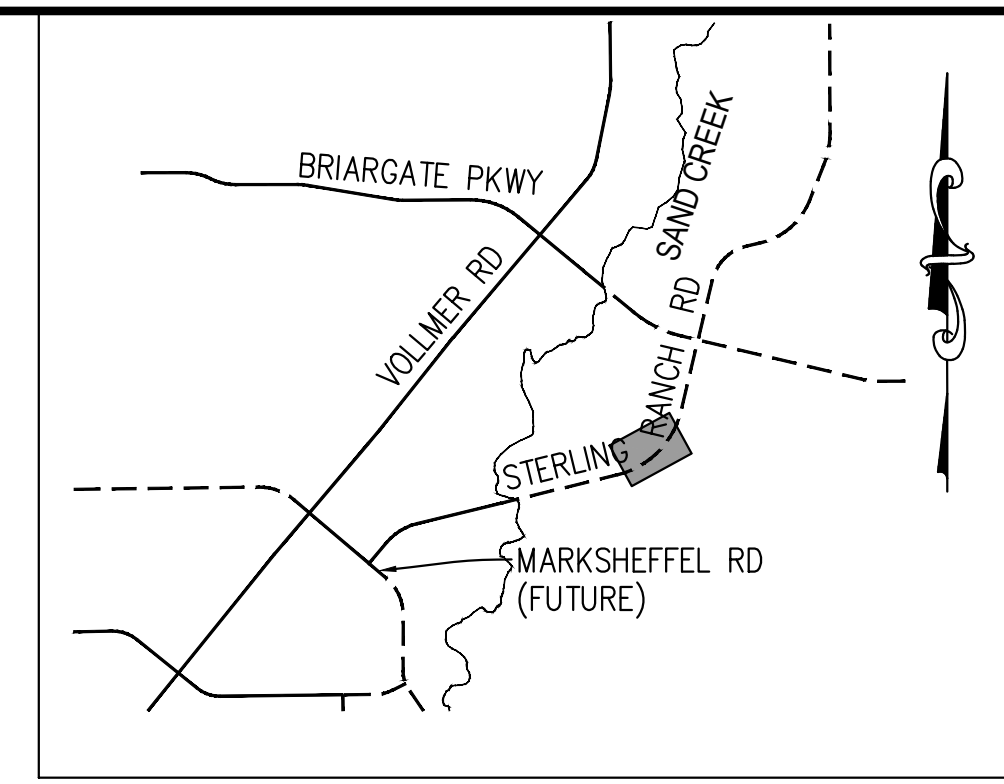
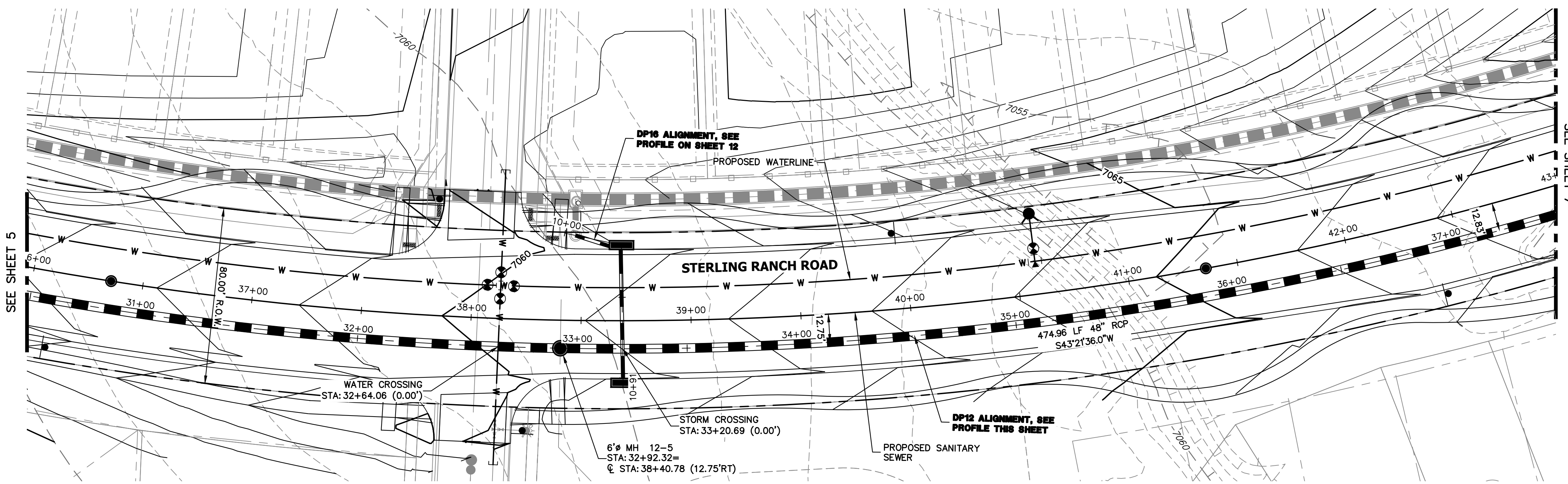
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS

STORM SEWER PLAN & PROFILE

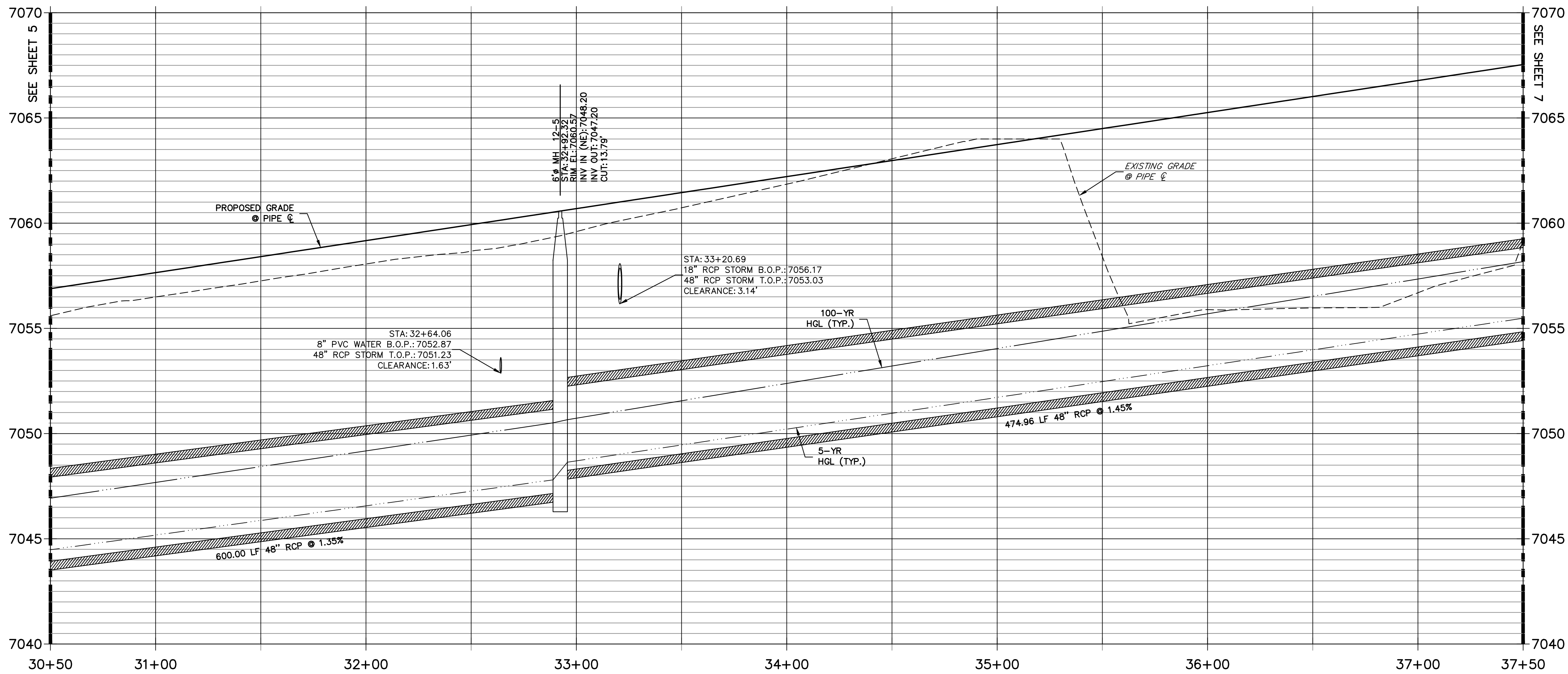
SHEET 4 OF 19

JOB NO. 25188.03

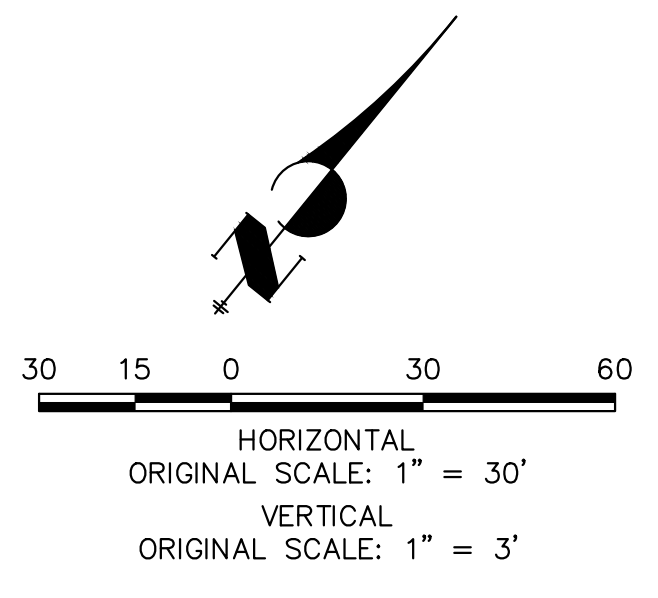




**DP12 PROFILE(4)  
STA 30+50.00 TO 37+50.00**



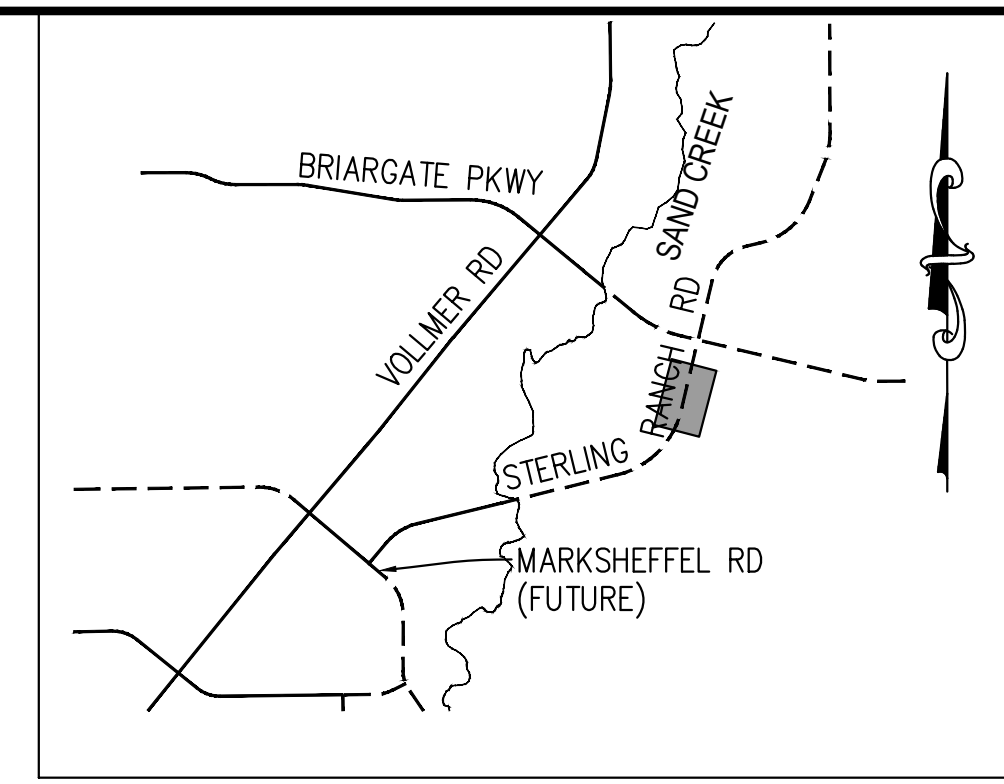
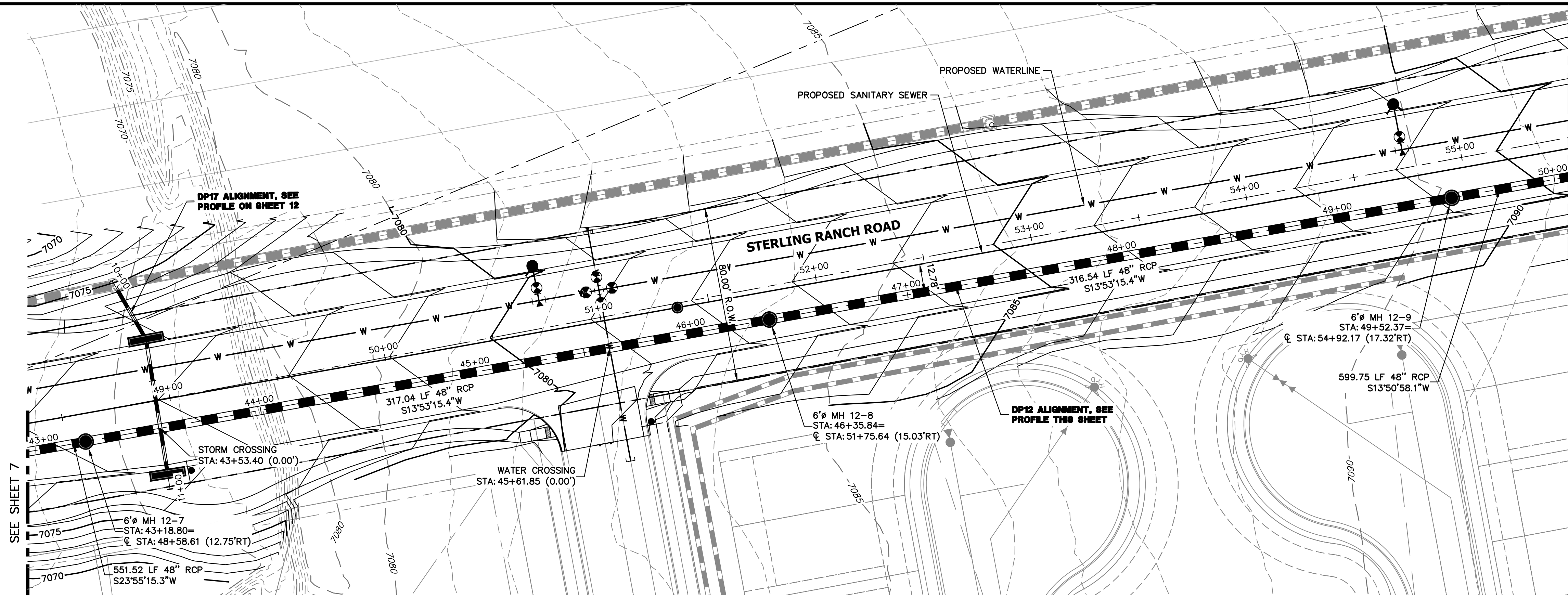
**NOTE:**  
 1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED  
 2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2



**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

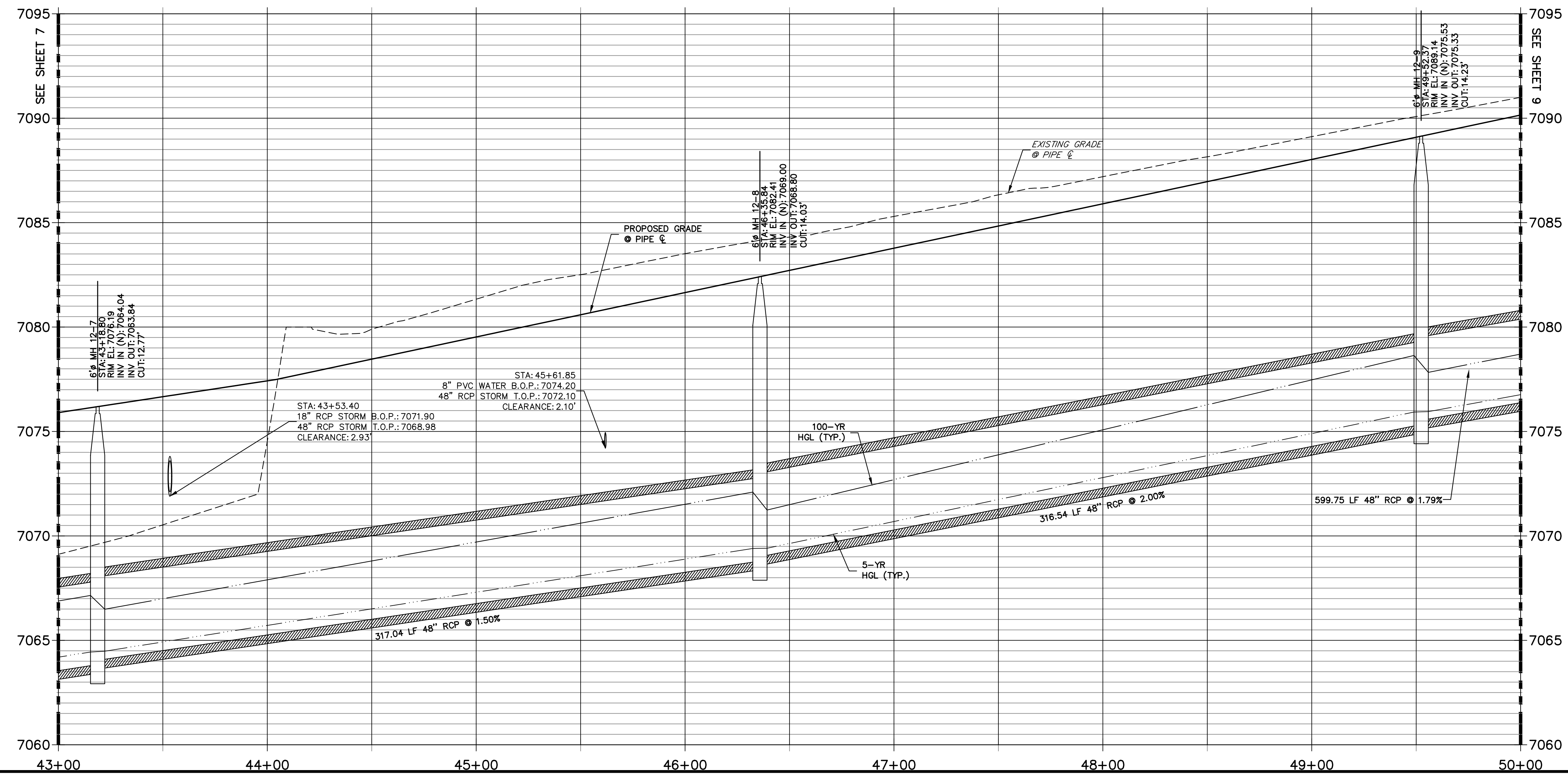
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE DESIGNATED BY WRITTEN AUTHORIZATION.  PREPARED FOR <b>SR LAND, LLC</b> 20 BOULDER CRESCENT SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742	<b>J.R. ENGINEERING</b> 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: _____
<b>STERLING RANCH ROAD &amp; BRIARGATE PARKWAY STORM PLANS</b>  <b>STORM SEWER PLAN &amp; PROFILE</b>		SHEET 6 OF 19 JOB NO. 25188.03



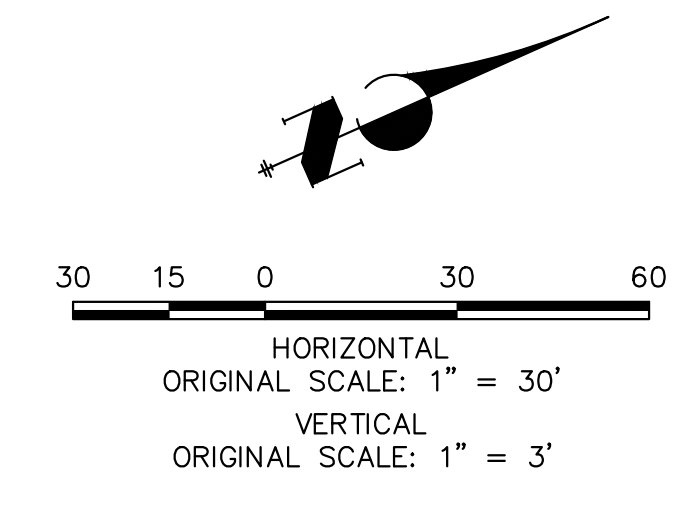


**KEY MAP**  
N.T.S.


**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



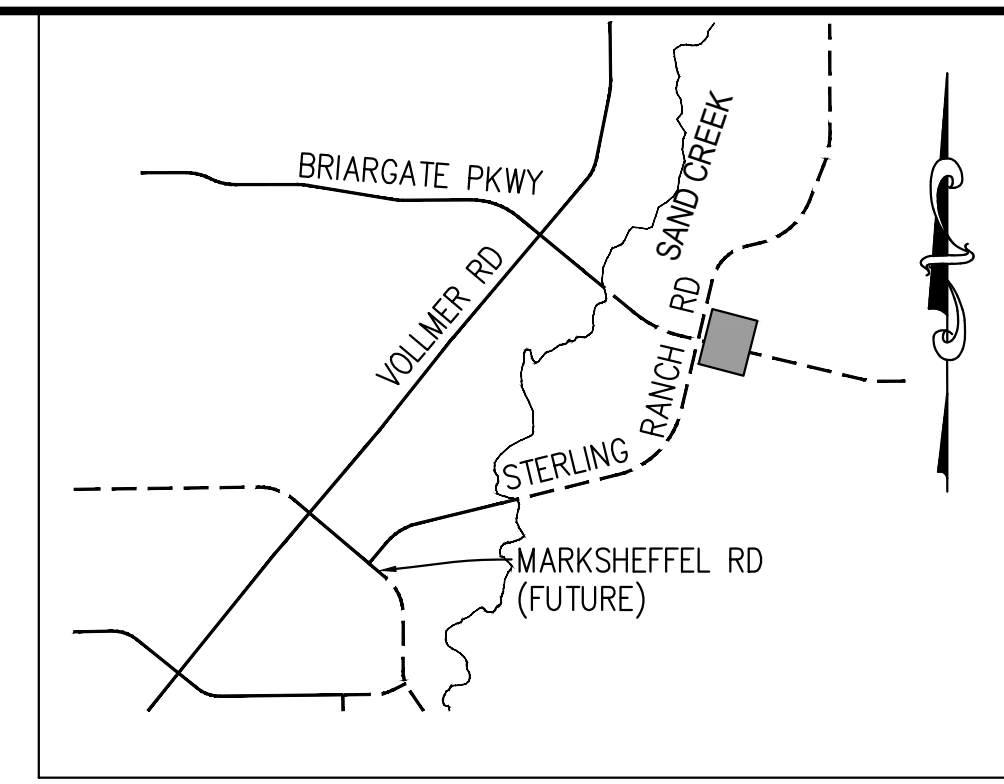
**ENGINEER'S STATEMENT**  
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING  
*Mike Bramlett*  
MIKE A. BRAMLETT, P.E.  
COLORADO P.E. 32314  
FOR AND ON BEHALF OF JR ENGINEERING, INC. LOCAL ENGINEER  
DATE: 05/08/23

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

X:\2518803\Drawings\Sheet\Drawings\Storm Sewer Plans\2518803 DP12 In Road.dwg, DP12(6), 5/4/2023 11:06:36 AM, CS







**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

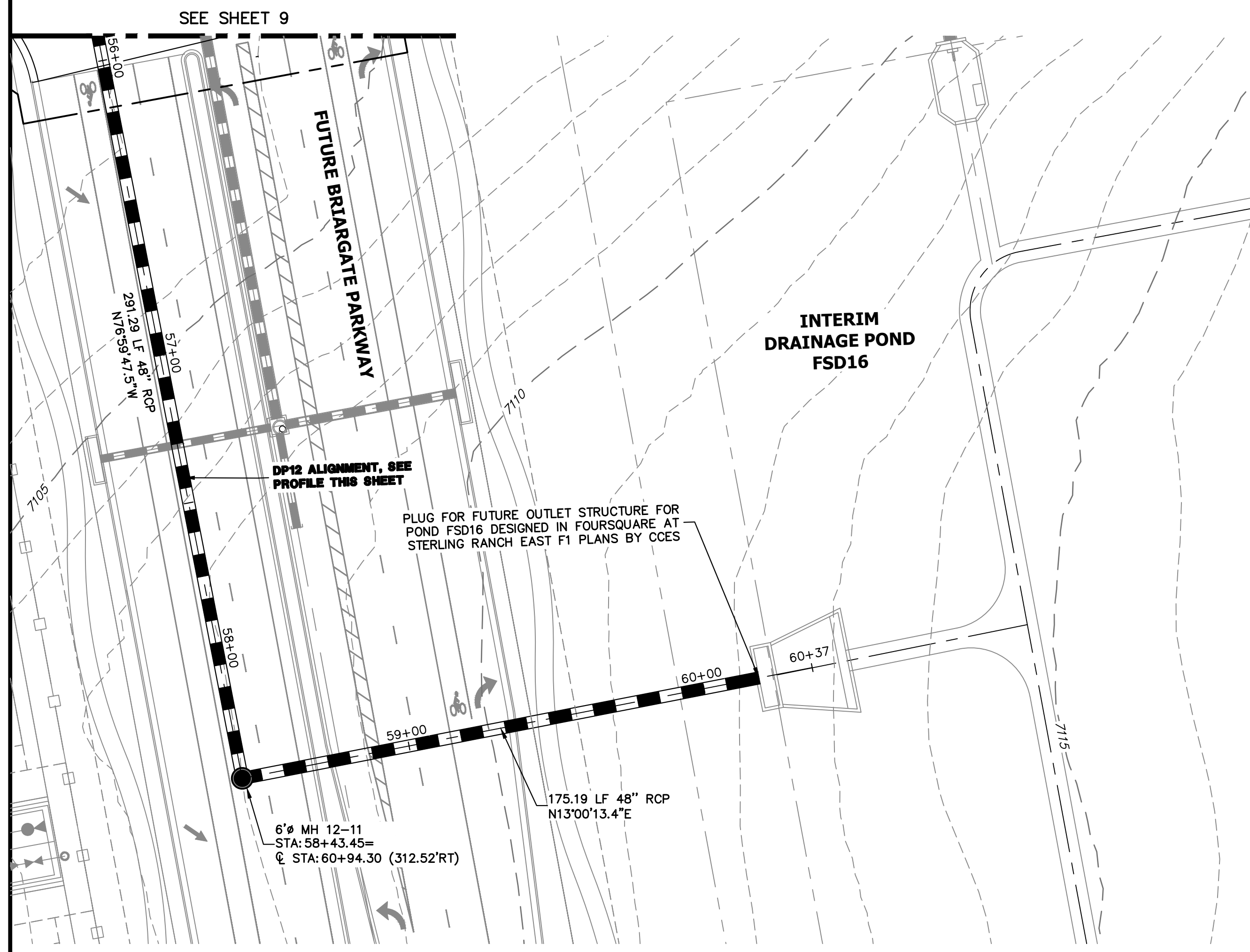
BY	DATE	No.	REVISION

STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS

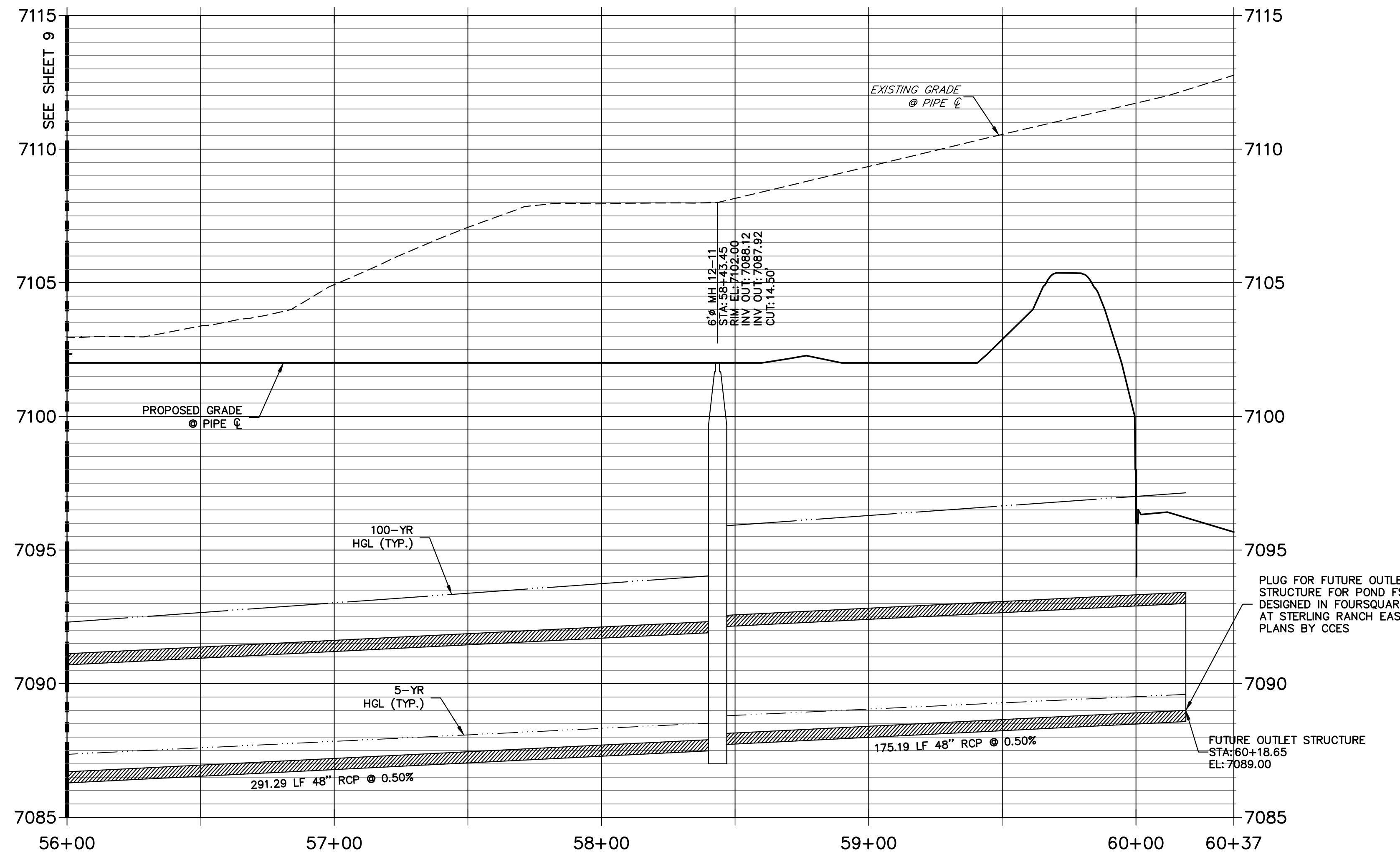
STORM SEWER PLAN & PROFILE

SHEET 10 OF 19

JOB NO. 25188.03



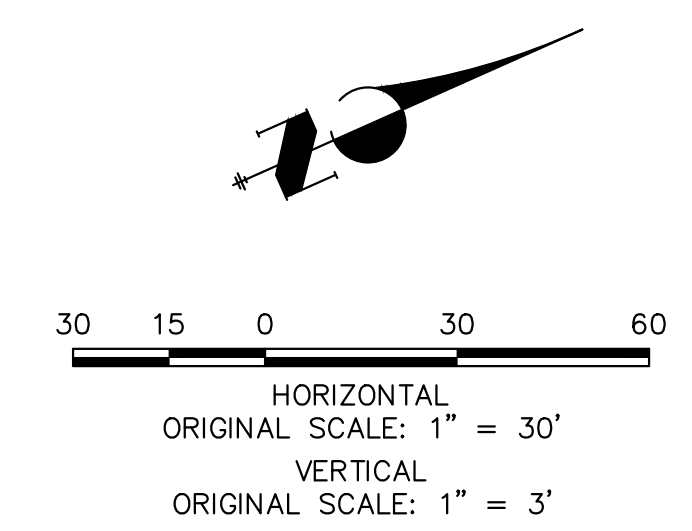
**DP12 PROFILE(8)**  
**STA 56+00.00 TO 60+36.64**  
PRIVATE (SRMD)



**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



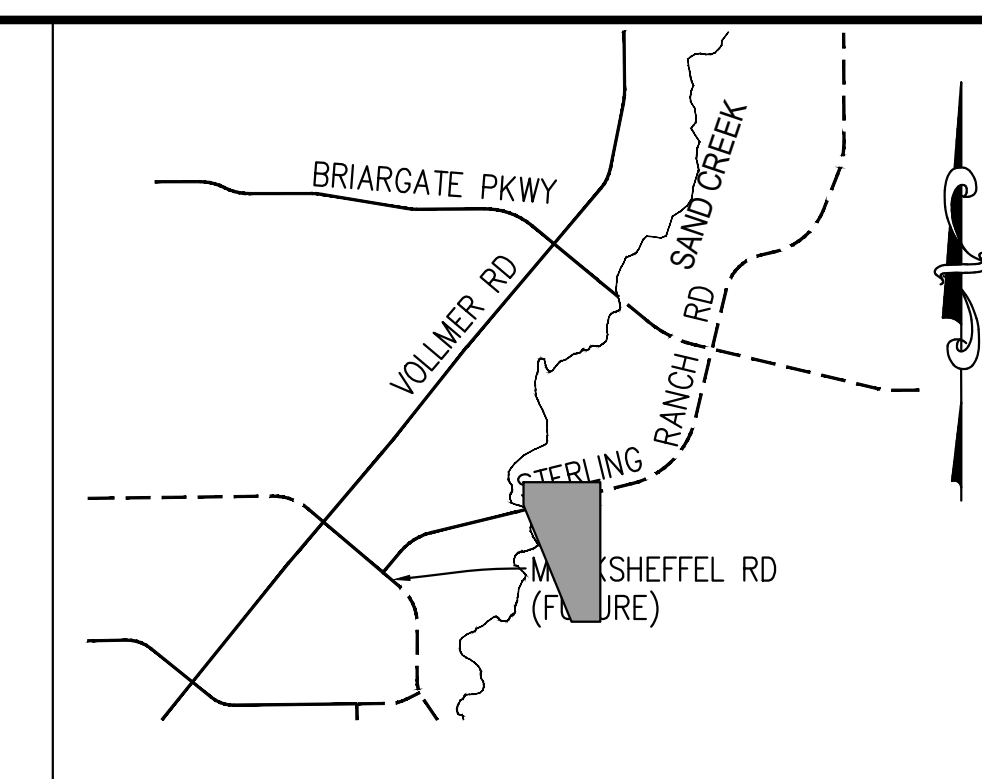
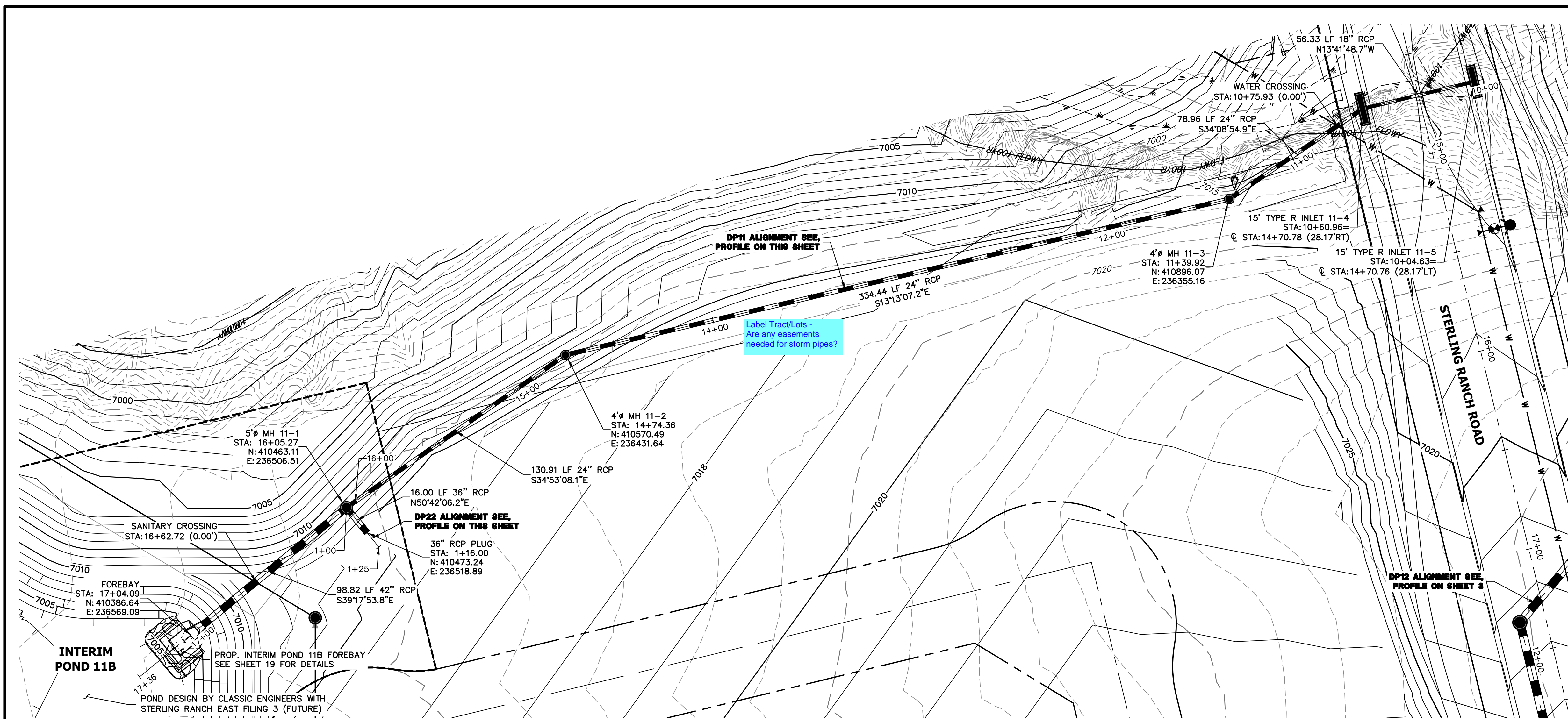
**ENGINEER'S STATEMENT**

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

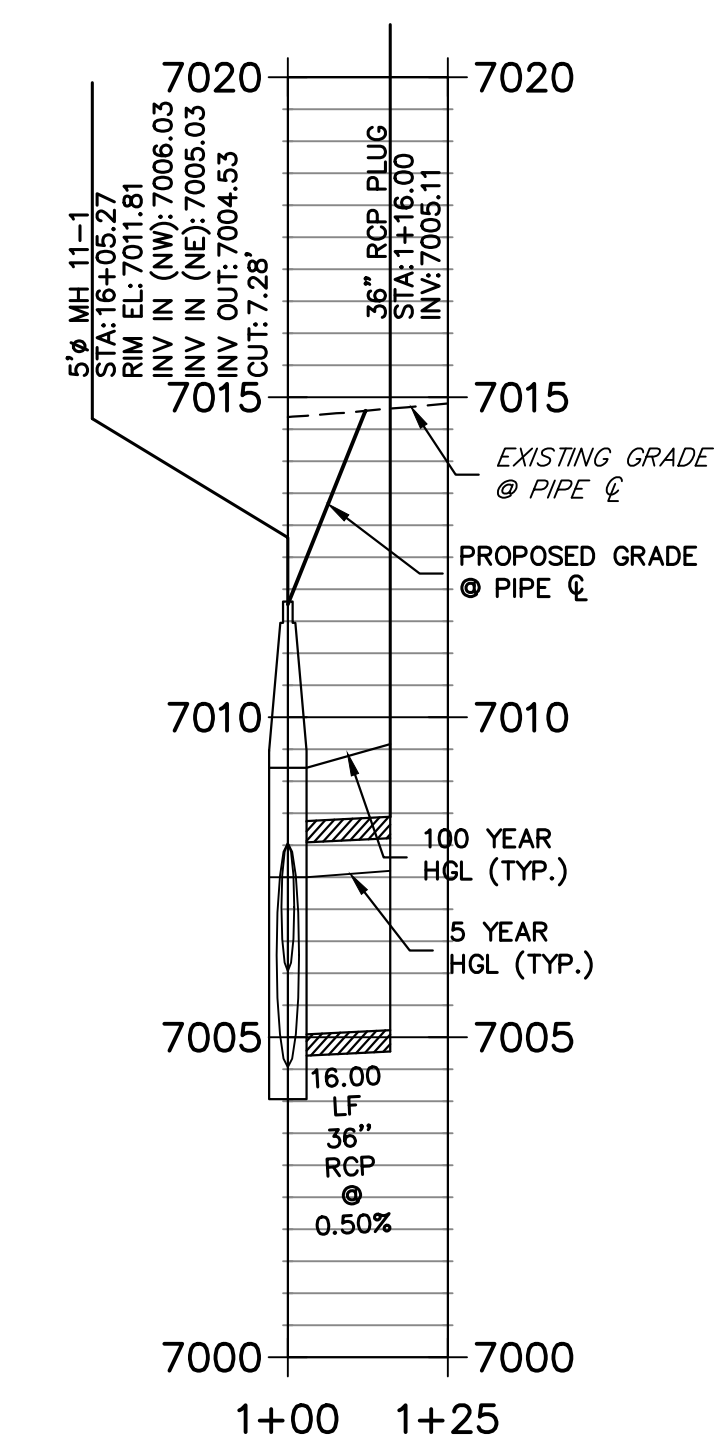
DATE: 05/08/23

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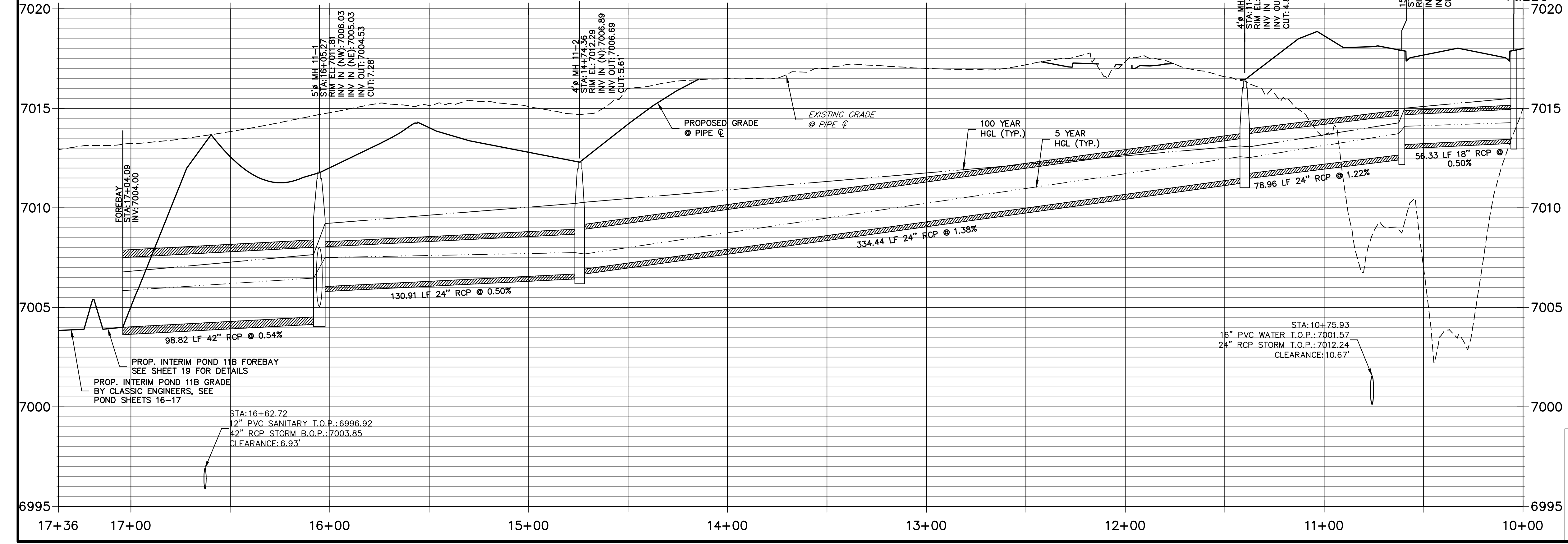


KEY MAP  
N.T.S.

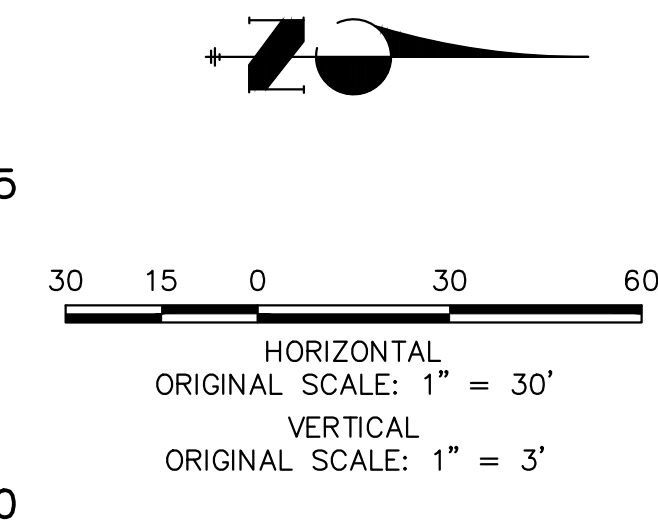
DP22 PROFILE  
STA 1+00.00 TO 1+25.00



DP11 PROFILE  
STA 10+00.00 TO 17+36.48  
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

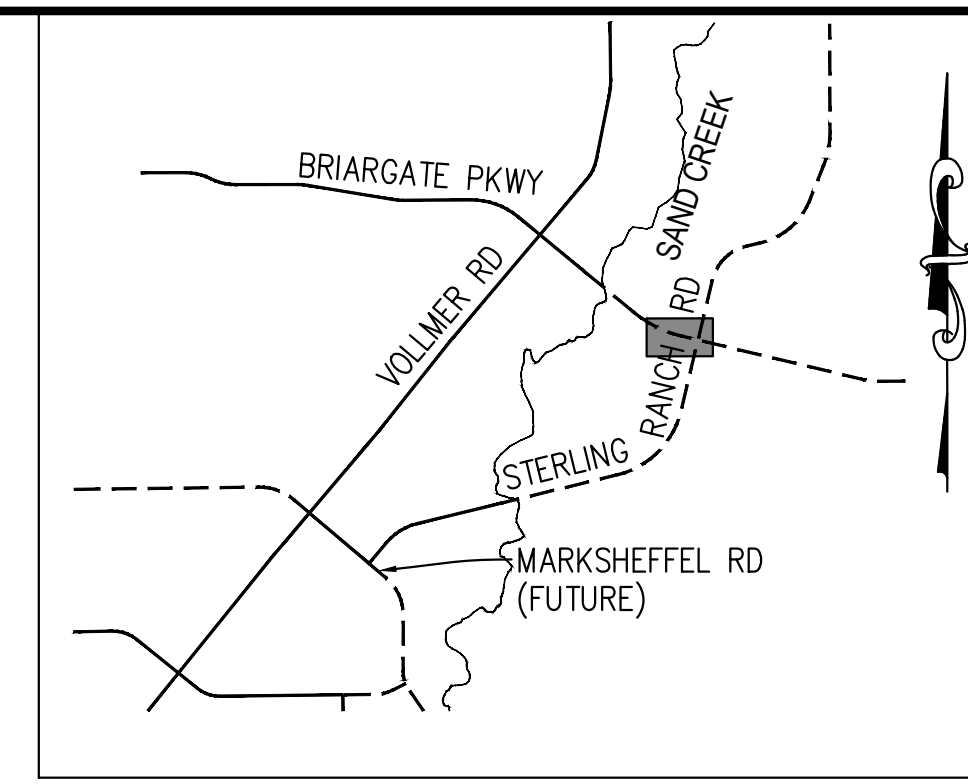
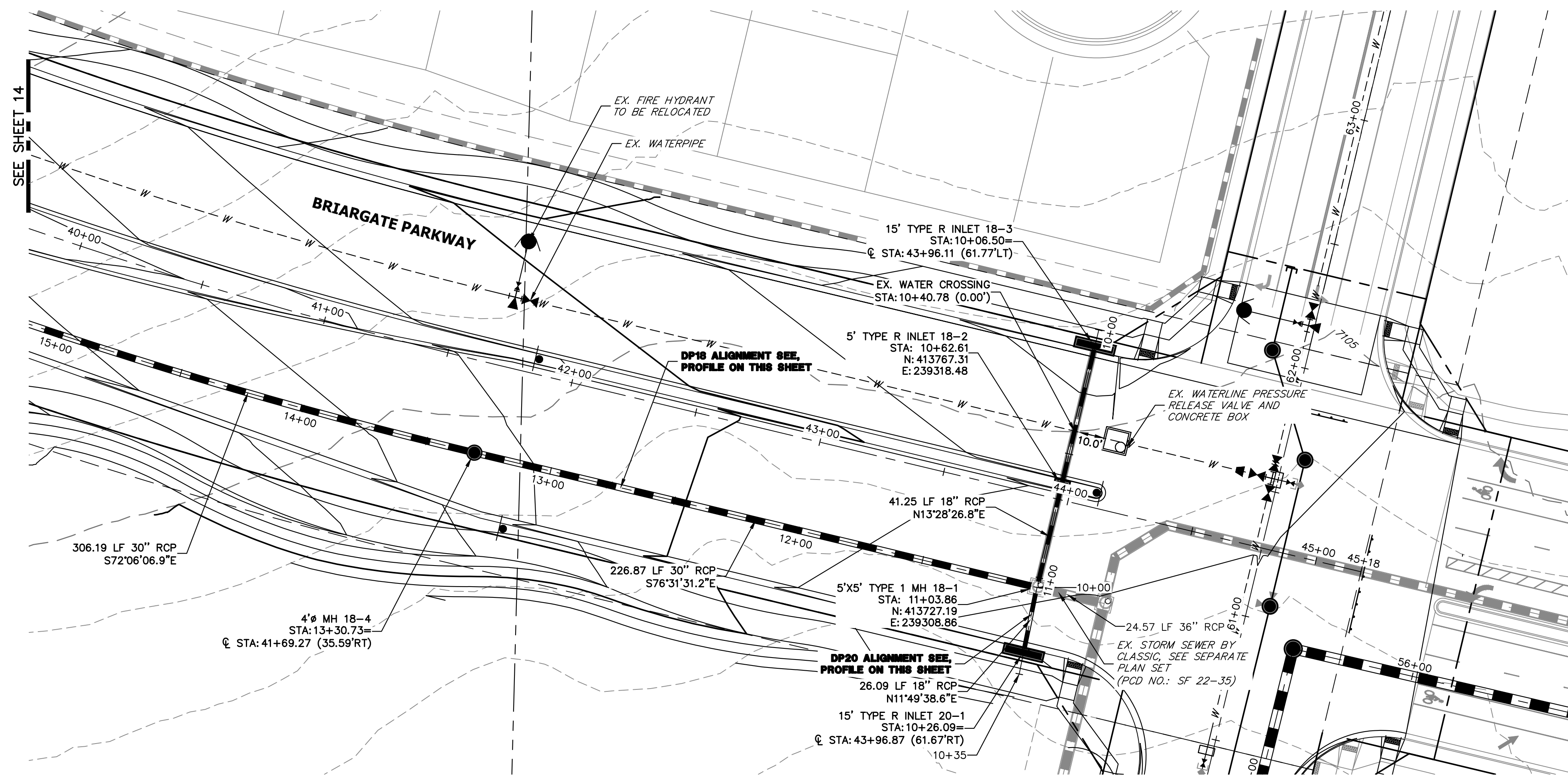


**ENGINEER'S STATEMENT**  
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING  
*Mike Bramlett*  
MIKE A. BRAMLETT, P.E.  
32314  
DATE: 05/08/23  
FOR AND ON BEHALF OF JR ENGINEERING, A LOCAL ENGINEERING FIRM

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
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 11 OF 19	JOB NO. 25188.03

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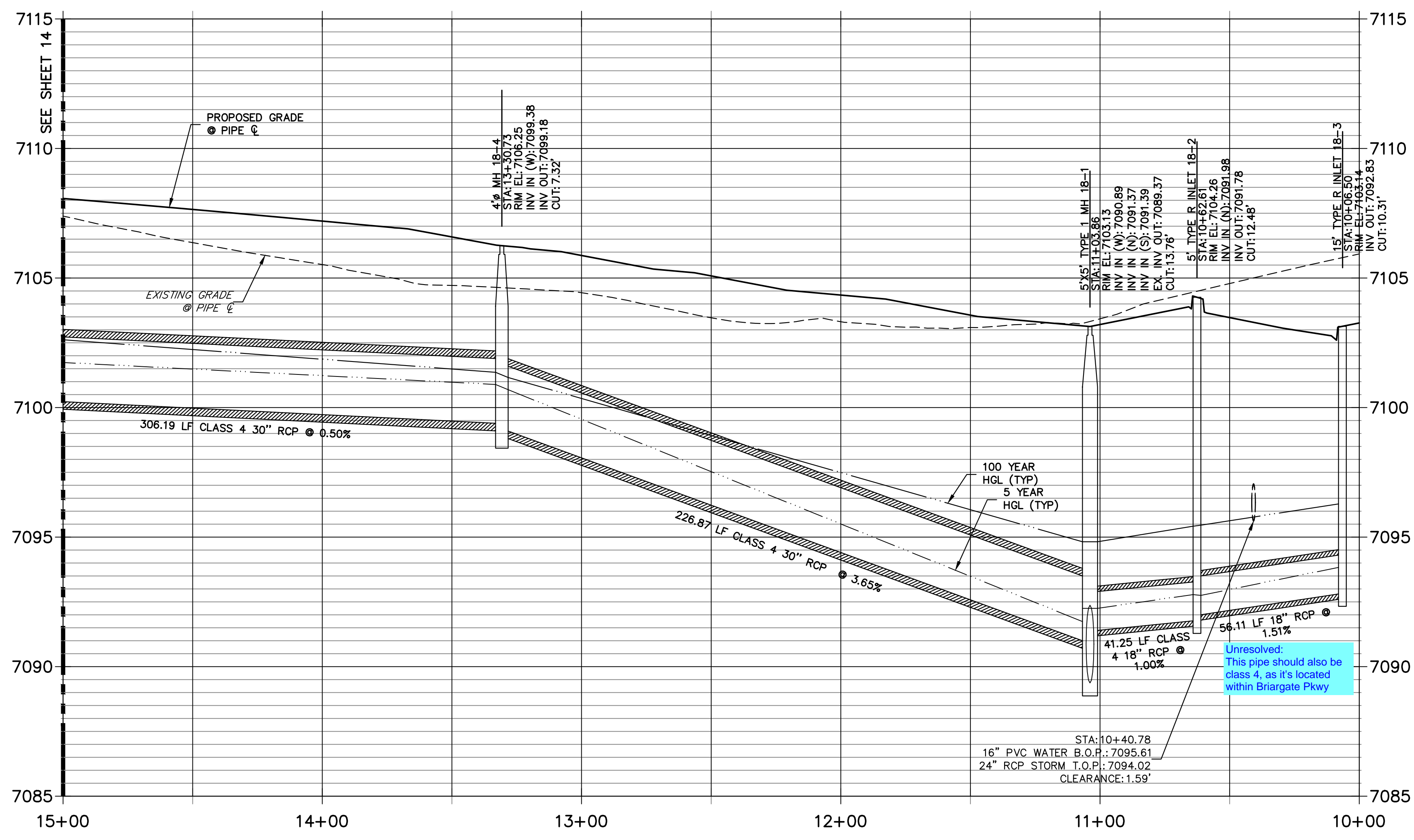


UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE. THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.

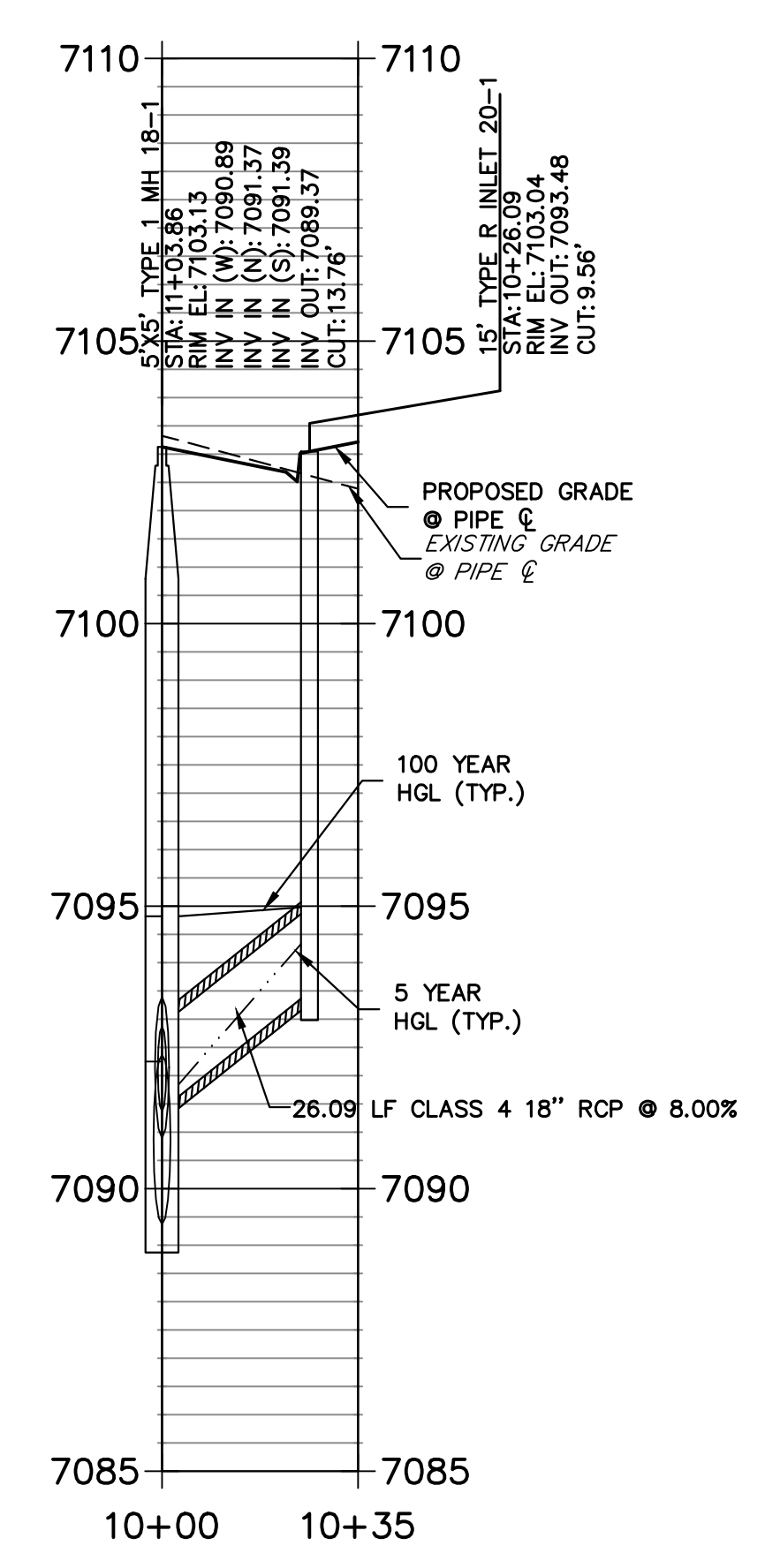
PREPARED FOR  
**SR LAND, LLC**  
20 BOULDER CRESCENT SUITE 201  
COLORADO SPRINGS, CO 80903  
JAMES F. MORLEY  
(719) 471-1742

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

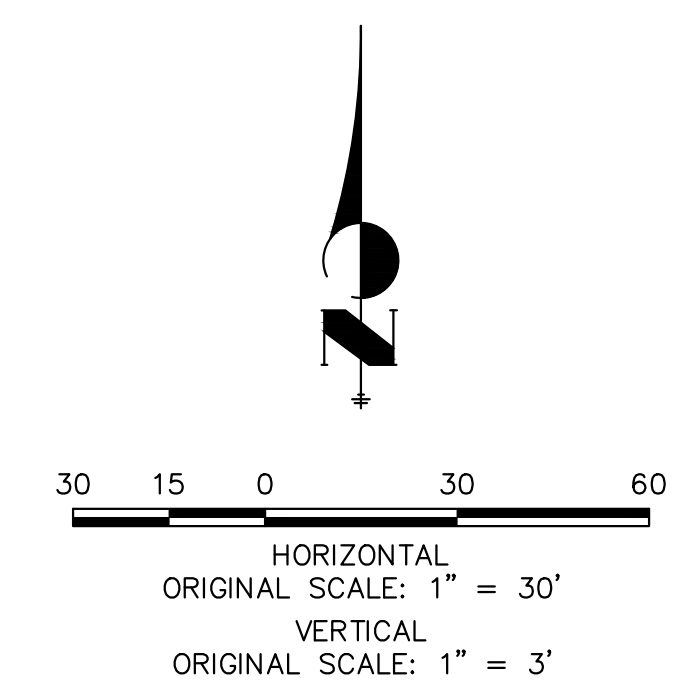
**DP18 PROFILE(1)**  
**STA 10+00.00 TO 15+00.00**  
PUBLIC



**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



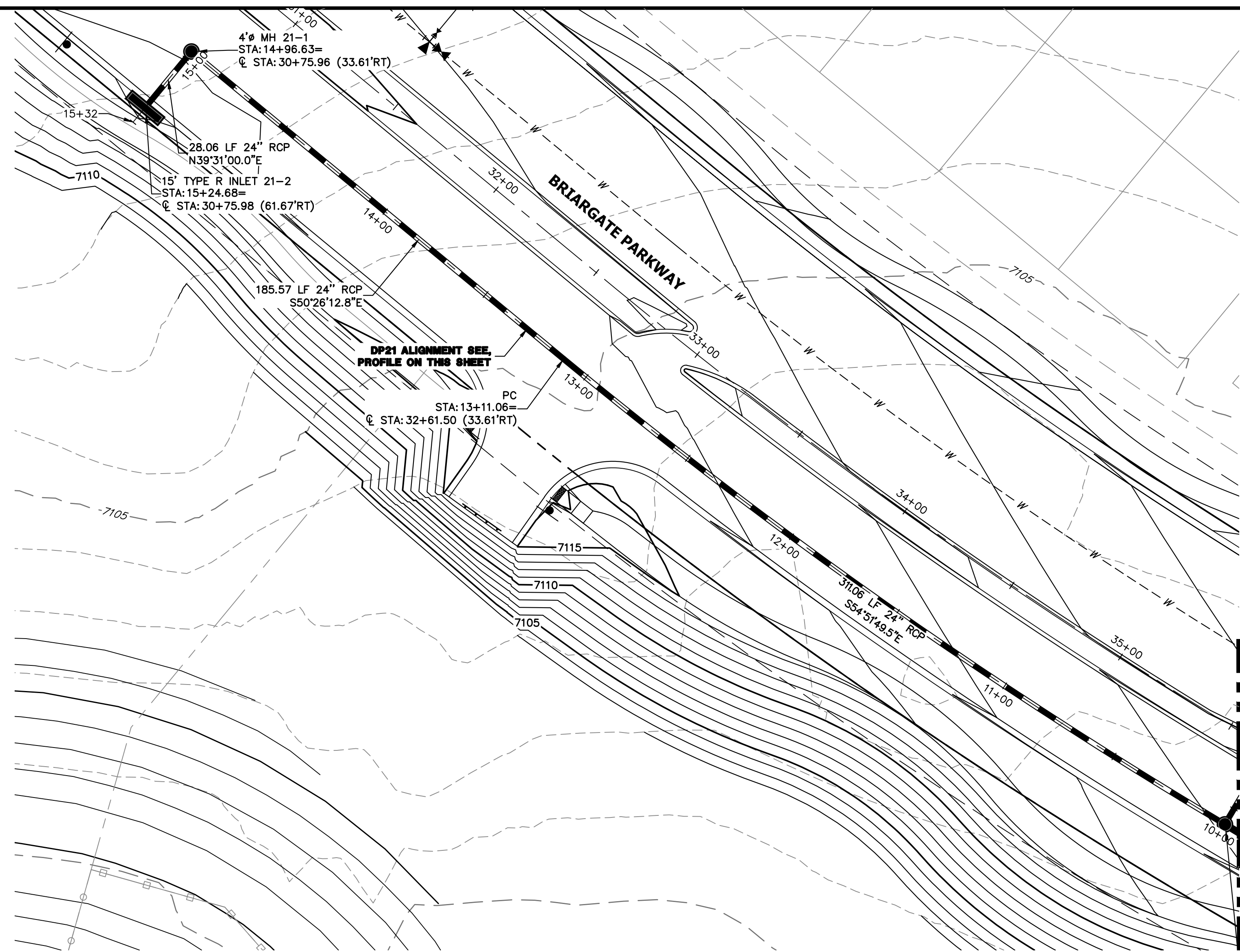
**ENGINEER'S STATEMENT**  
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING  
*Mike Bramlett*  
MIKE A. BRAMLETT, P.E.  
COLORADO P.E. 32314  
DATE 05/08/23

No.	REVISION	BY	DATE	H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

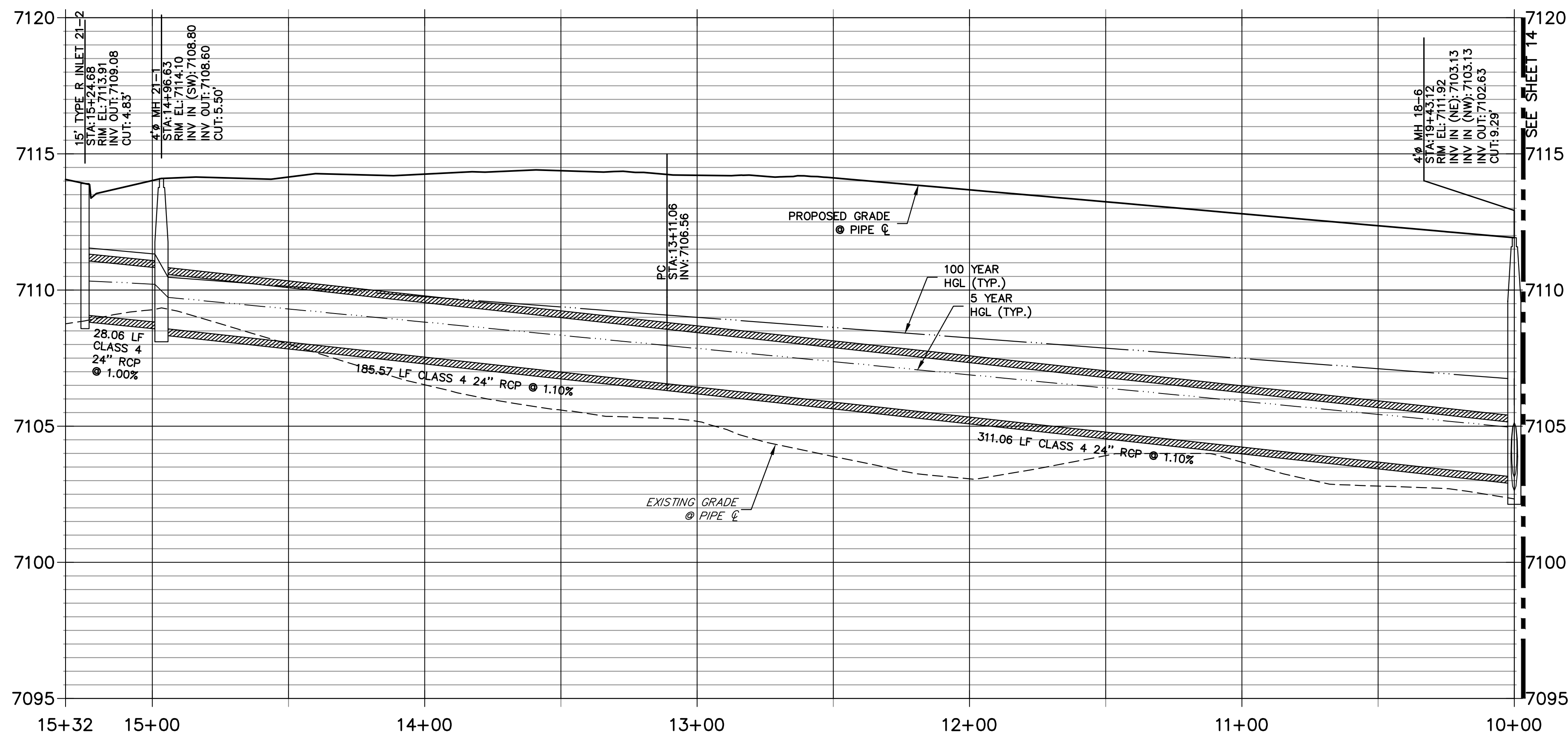
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS  
STORM SEWER PLAN & PROFILE

SHEET 13 OF 19  
JOB NO. 25188.03



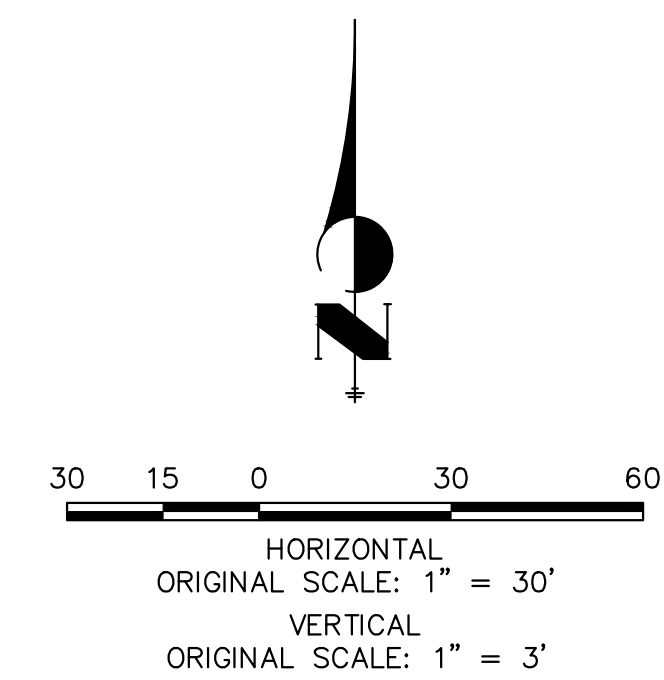


**DP21 PROFILE**  
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 PUBLIC



**NOTE:**

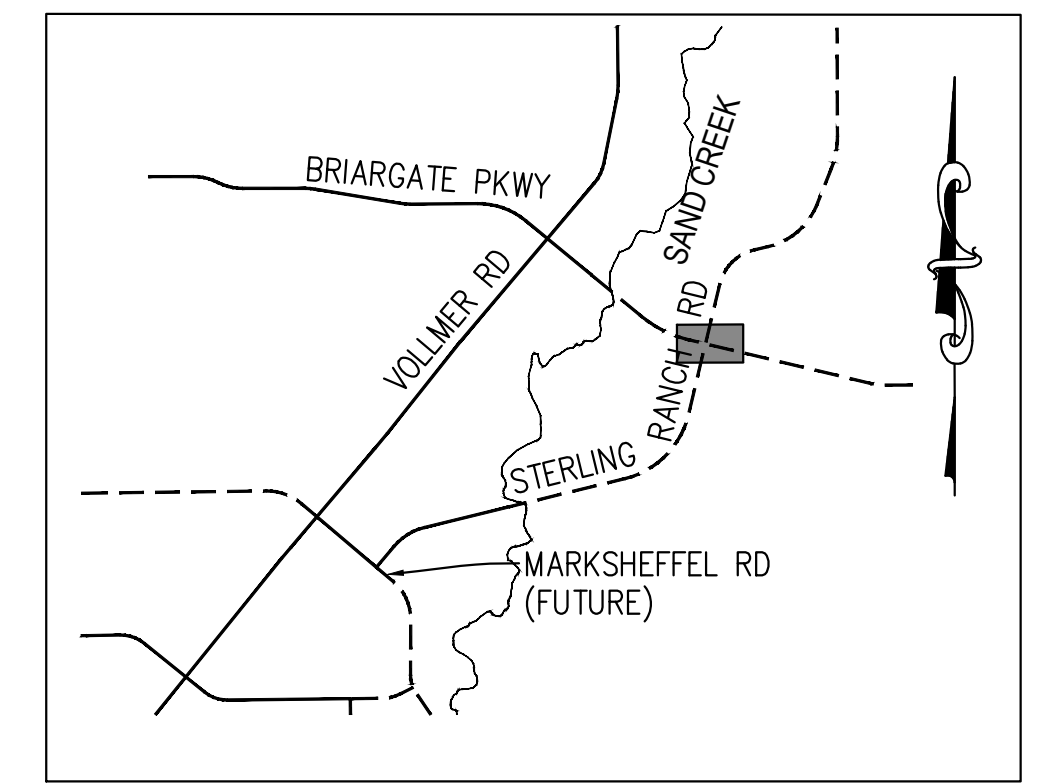
- 1) ADD WATER TIGHT JOINT WHEN 100 YR HGL SHOWS PIPE FULLY INUNDATED
- 2) ALL STORM PIPE INSTALLED IN BRIARGATE WILL NEED TO HAVE AN EXTENDED 100YR SERVICE LIFE PER ECM 3.3.1.B.2



**ENGINEER'S STATEMENT**

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING


*Mike 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.

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE 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  
  
 Centennial 303-740-9888 • Colorado Springs 719-583-2583  
 Fort Collins 970-491-9888 • www.jrengineering.com

BY	DATE	No.	REVISION

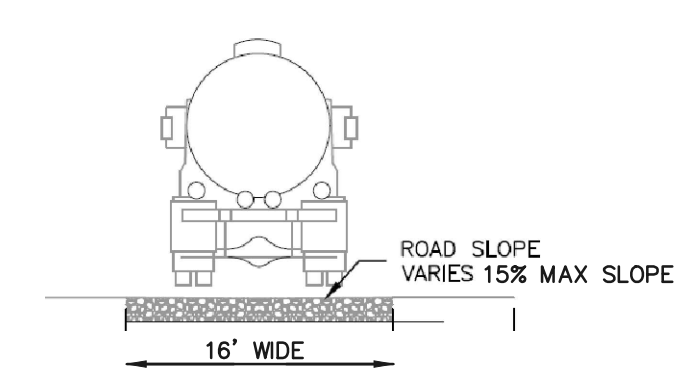
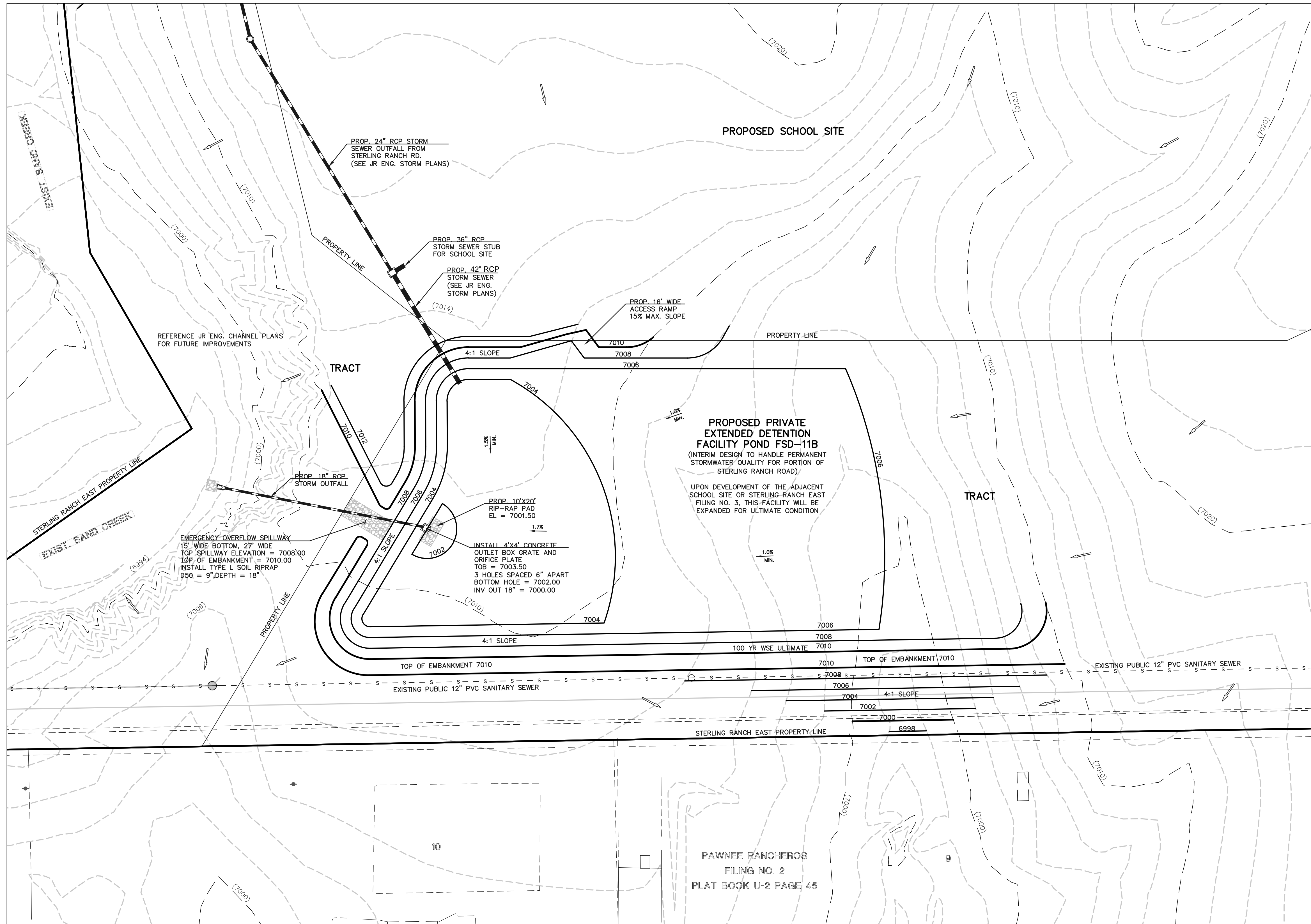
H-SCALE	1"=30'
V-SCALE	1"=3'
DATE	05/04/23
DESIGNED BY	MMC
DRAWN BY	MMC
CHECKED BY	

STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS

STORM SEWER PLAN & PROFILE

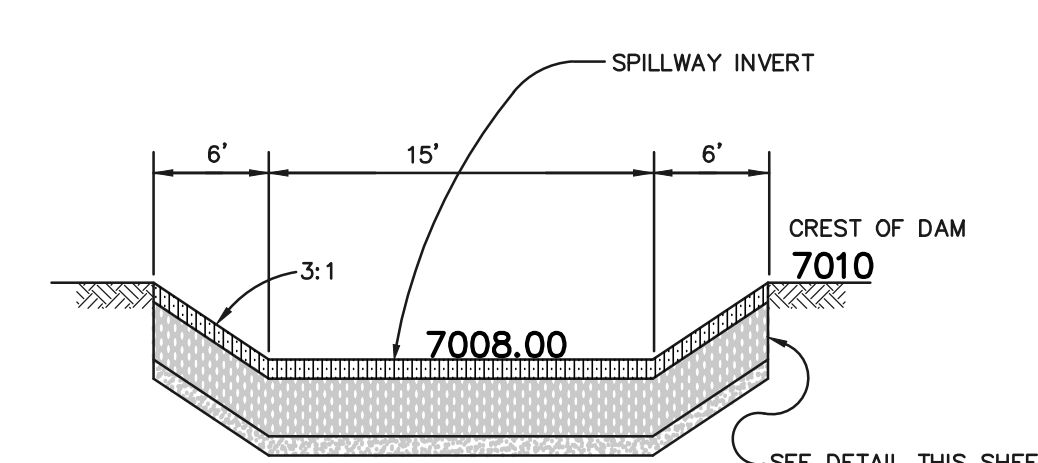
SHEET 15 OF 19

JOB NO. 25188.03

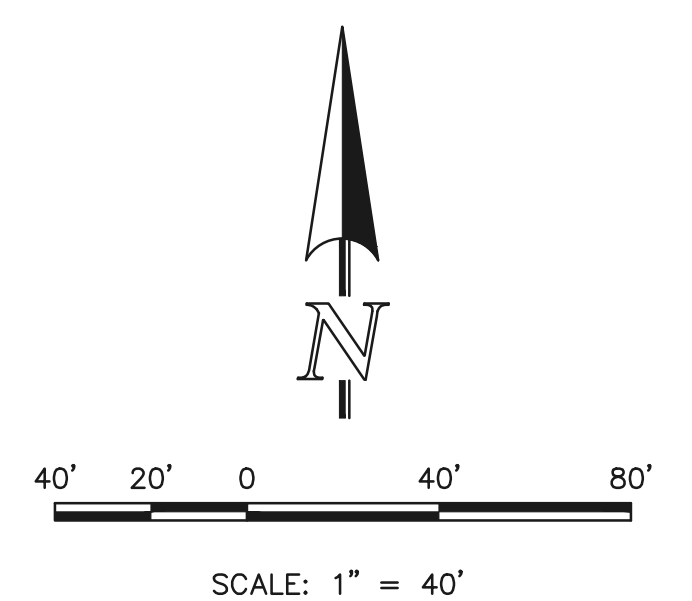


12" LAYER OF AGGREGATE BASE COURSE OR CRUSHED GRAVEL OVER COMPACTED SUBGRADE TO ELEVATION 7097.10 (WOOD ELEVATION)  
8" LAYER OF AGGREGATE BASE COURSE OR CRUSHED GRAVEL ABOVE 7097.10

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)

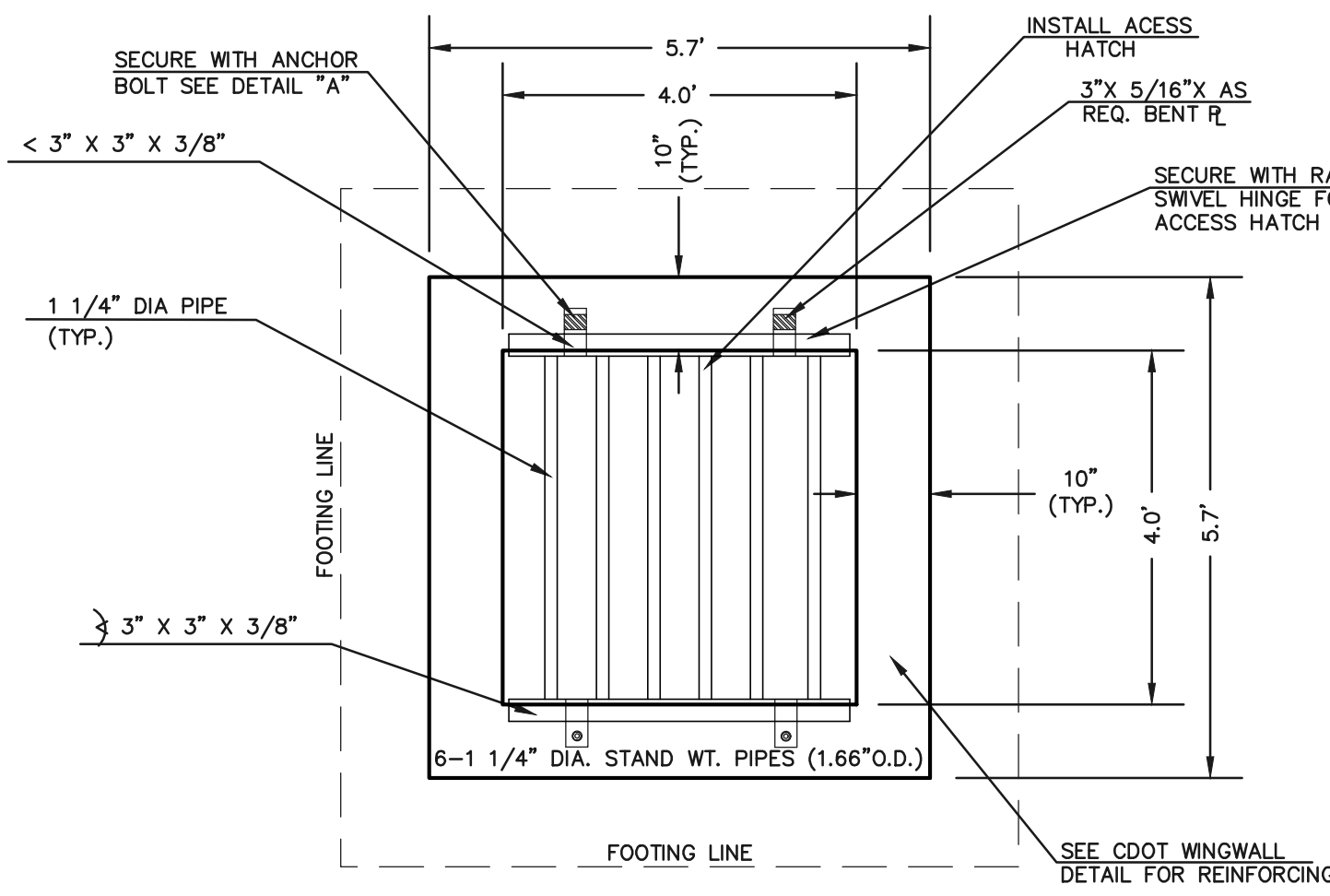
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS			
PRIVATE POND FSD-11B (INTERIM DESIGN) POND PLAN			
DESIGNED BY	MAW	SCALE	DATE 4/5/23
DRAWN BY	ESO	(H) 1" = 40'	SHEET 16 OF 19
CHECKED BY		(V) 1" = N/A	JOB NO. 25188.03

N:\1833\DRAWINGS\CONSTRUCTION\STORM\1833-POND-INTERIM-1.dwg, 4/14/2023 5:46:33 PM, 1:1

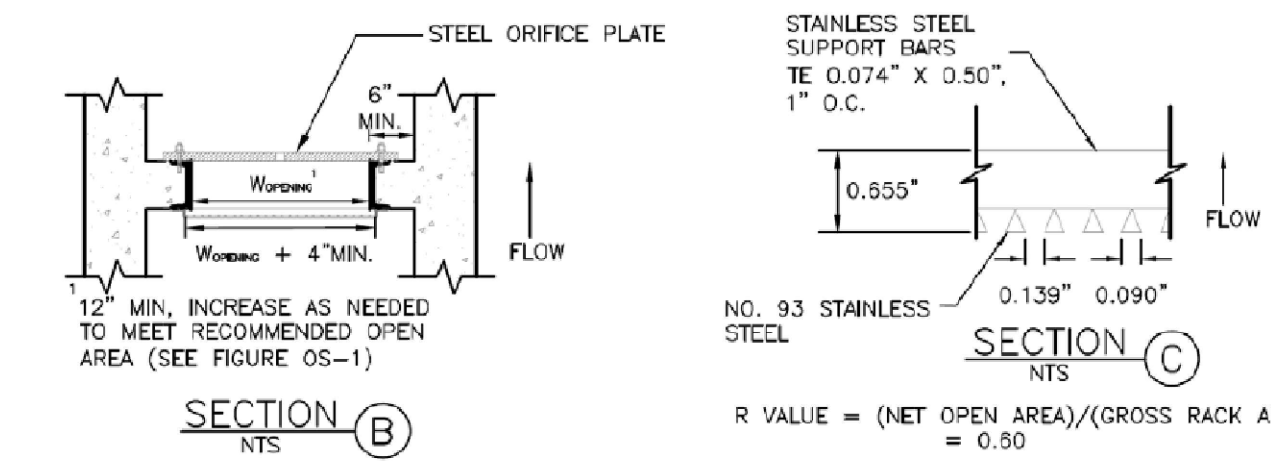


NOTES:

- 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.

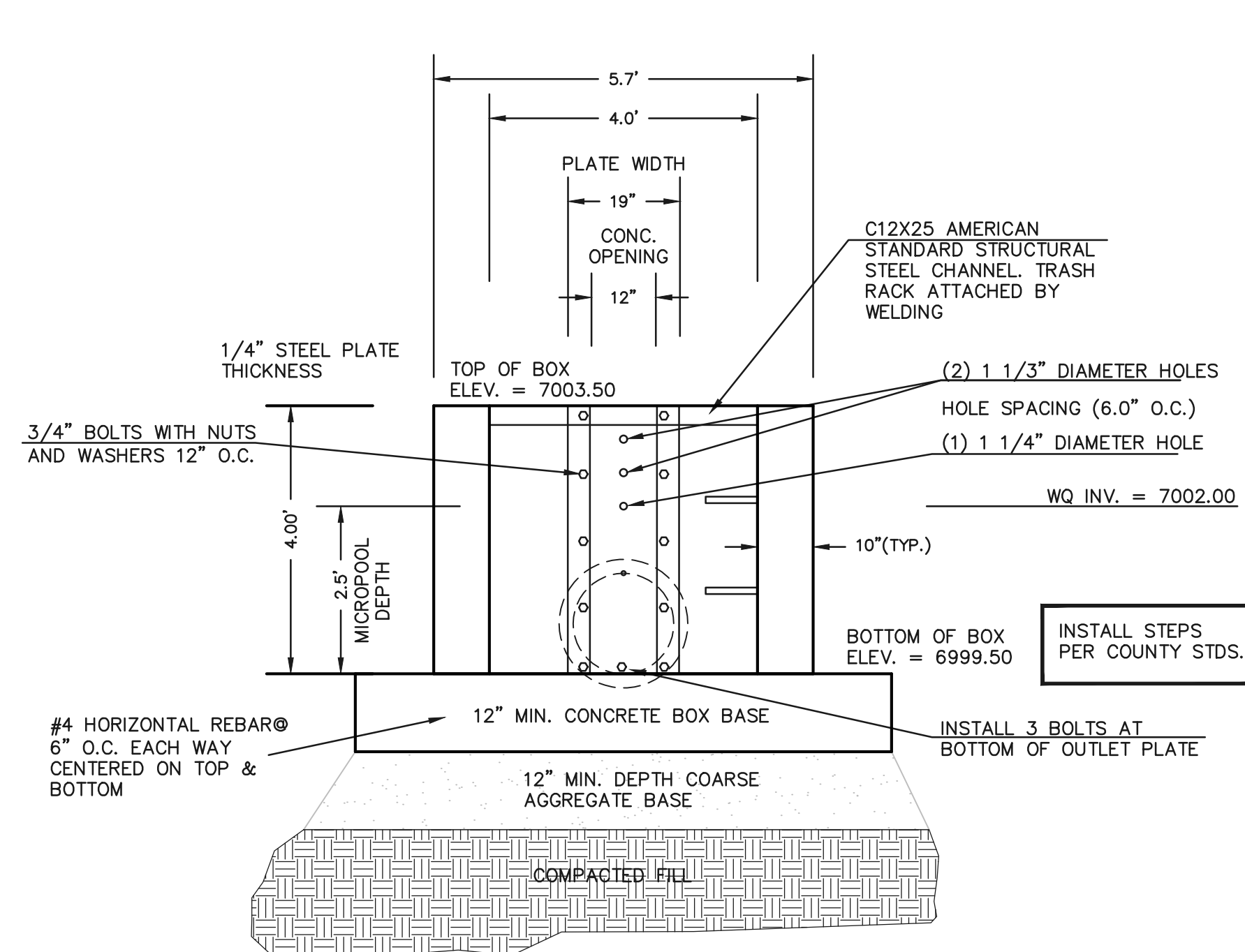
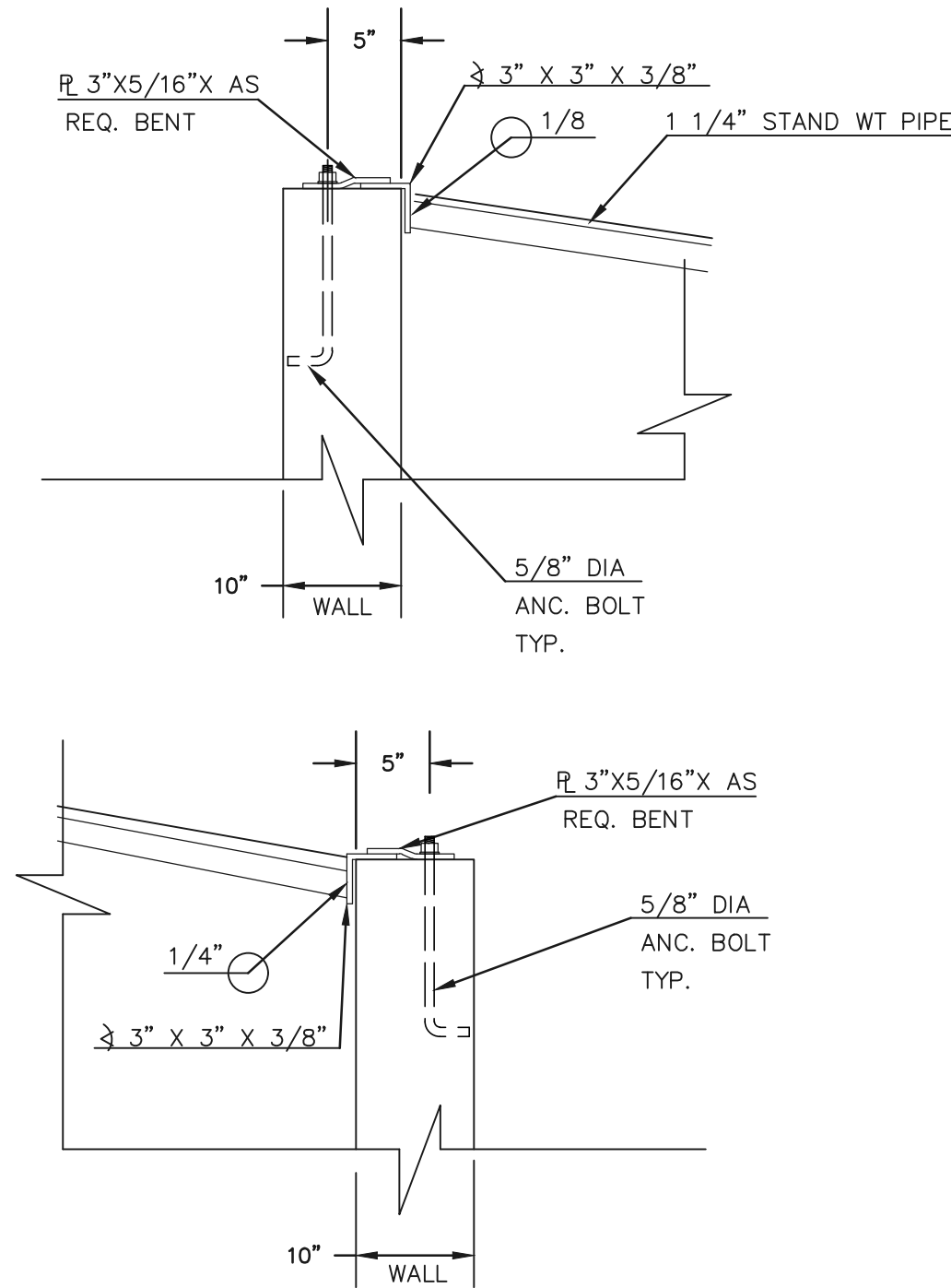


**4'x4' OUTLET BOX OVERFLOW TRASH RACK**  
SCALE 1" = 2'



**SECTION B**  
NTS

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.

**DETENTION BASIN STAGE-STORAGE TABLE BUILDER**

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

Water Surface Elevation (ft)	Storage Volume (cu ft)	Outflow Rate (cfs)	Stage (ft)	Depth (ft)	Area (sq ft)	Volume (cu ft)	Area (sq ft)	Volume (cu ft)
7000	0	0	0	0	0	0	0	0
7005	1000	100	1	1	1000	1000	1000	1000
7010	4000	400	2	2	4000	4000	4000	4000
7015	9000	900	3	3	9000	9000	9000	9000
7020	16000	1600	4	4	16000	16000	16000	16000
7025	25000	2500	5	5	25000	25000	25000	25000
7030	36000	3600	6	6	36000	36000	36000	36000
7035	49000	4900	7	7	49000	49000	49000	49000
7040	64000	6400	8	8	64000	64000	64000	64000
7045	81000	8100	9	9	81000	81000	81000	81000
7050	100000	10000	10	10	100000	100000	100000	100000

**DETENTION BASIN OUTLET STRUCTURE DESIGN**

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

Zone	WQCV	EURV	Estimated Stage (ft)	Estimated Volume (cu ft)	Outlet Type
Zone 1	1.04	0.152	1.04	0.152	Orifice Plate
Zone 2	1.36	0.104	1.36	0.104	Orifice Plate
Zone 3	2.65	0.748	2.65	0.748	Well/Screen (Desired)
Total (all zones)					1.004

**Calculated Parameters for Underdrain**

User Input: Orifice Plate with one or more orifices or Elliptical Slot. Typically used to drain WQCV and/or EURV in a sedimentation basin.

Underdrain Orifice Invert Depth = 0.00 ft (relative to basin bottom at Stage = 0 ft)

Underdrain Orifice Diameter = 18.00 inches

Underdrain Orifice Area = 254.47 sq in

**Calculated Parameters for Plate**

User Input: Orifice Plate with one or more orifices or Elliptical Slot. Typically used to drain WQCV and/or EURV in a sedimentation basin.

Depth at top of Zone using Orifice Plate = 1.50 ft (relative to basin bottom at Stage = 0 ft)

Orifice Plate Orifice Vertical Spacing = 6.00 inches

Orifice Plate Orifice Area per Row = 1.77 sq ft

**Calculated Parameters for Vertical Orifice**

User Input: Vertical Orifice (Circular or Rectangular)

Invert of Vertical Orifice = 0.00 ft (relative to basin bottom at Stage = 0 ft)

Depth at top of Zone using Vertical Orifice = 1.50 ft (relative to basin bottom at Stage = 0 ft)

Vertical Orifice Area = 1.77 sq ft

Vertical Orifice Diameter = 18.00 inches

**Calculated Parameters for Overflow Weir**

User Input: Overflow Weir (Crested with Flat or Sloped Sides and Outlet Edge OR Rectangular/Trapezoidal Weir and No Outlet Pipe)

Zone 3 Weir: Not Selected

Overflow Weir Front Edge Height, H<sub>o</sub> = 1.50 ft (relative to basin bottom at Stage = 0 ft)

Overflow Weir Front Edge Length = 4.00 ft

Overflow Weir Crest Length = 4.00 ft

Overflow Weir Crest Slope = 0.00 ft/ft

Horizontal Length of Weir Sides = 4.00 ft

Overflow Grate Type = Type C Grate

Debris Chopping % = 50%

**Calculated Parameters for Outlet Pipe w/ Flow Restriction Plate**

User Input: Outlet Pipe w/ Flow Restriction Plate (Circular Orifice, Restrictor Plate, or Rectangular Orifice)

Zone 3 Restrictor: Not Selected

Depth to Invert of Outlet Pipe = 2.50 ft (relative to basin bottom at Stage = 0 ft)

Outlet Pipe Diameter = 18.00 inches

Restrictor Plate Height Above Pipe Invert = 18.00 inches

Outlet Orifice Area = 1.77 sq ft

Outlet Orifice Control = 0.75

Half-Central Angle of Restrictor Plate on Pipe = 3.14 radians

**Calculated Parameters for Spillway**

User Input: Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage = 8.00 ft (relative to basin bottom at Stage = 0 ft)

Spillway Crest Length = 15.00 ft

Spillway End Slopes = 3:00 H:1 V

Freeboard above Max Water Surface = 1.00 ft

Spillway Design Flow Depth = 0.81 ft

Stage at Top of Freeboard = 9.81 ft

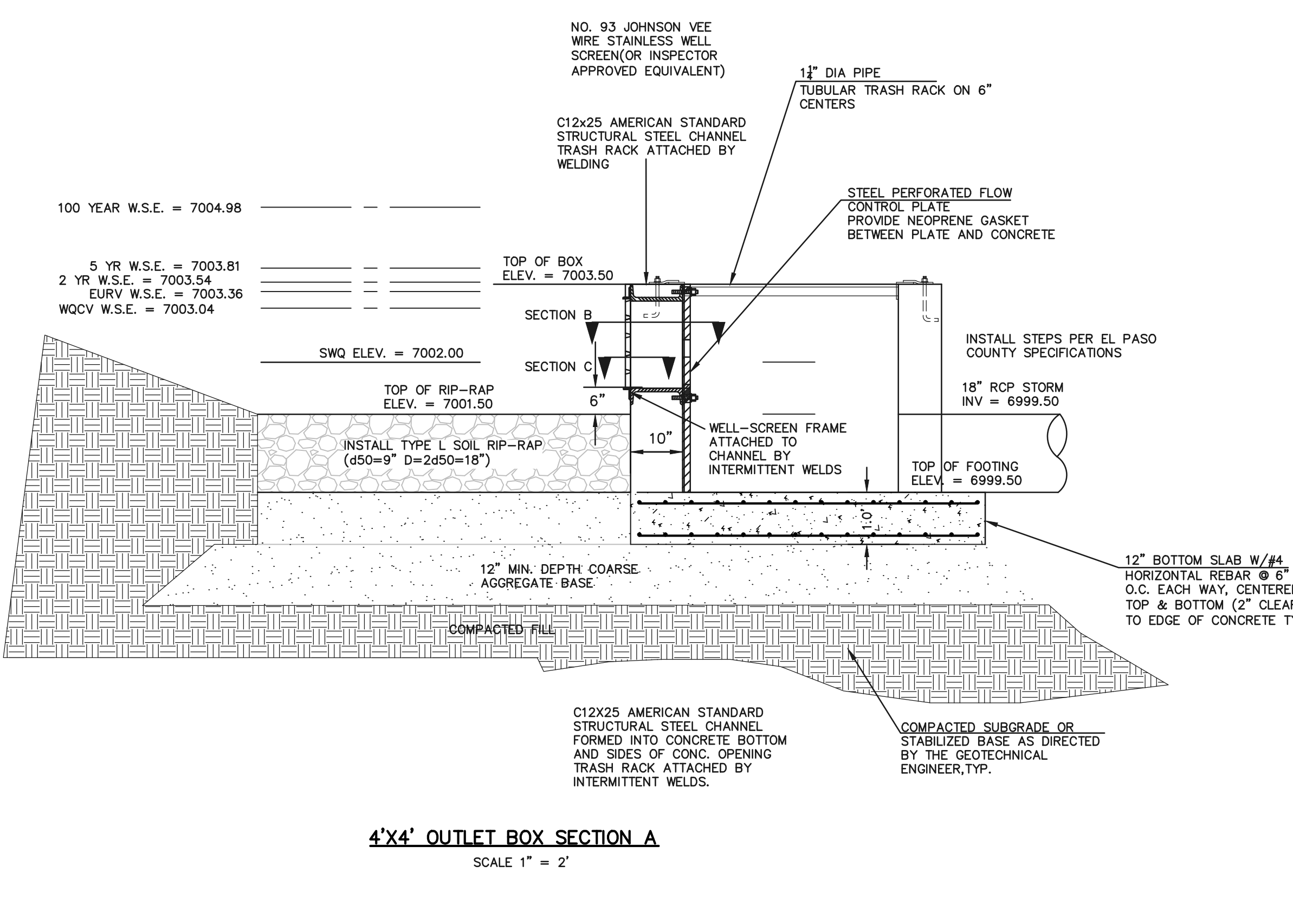
Basin Area at Top of Freeboard = 3.11 acres

Basin Volume at Top of Freeboard = 12.96 cu ft

**ROUTED HYDROGRAPH RESULTS**

The user can override the default CLMP hydrographs and runoff values by entering new values in the Inflow Hydrographs table (Columns W through AP).

Design Storm Return Period	10 Year	2 Year	1 Year	0.5 Year	0.2 Year	0.1 Year	0.05 Year	0.02 Year
One Hour Rainfall Depth (in)	N/A	N/A	1.19	1.75	2.00	2.25	2.50	2.75
CLMP Runoff Volume (acre-ft)	0.152	0.256	0.363	0.601	1.239	2.019	2.551	3.317
Inflow Hydrograph Volume (acre-ft)	N/A	N/A	0.363	0.601	1.239	2.019	2.551	3.317
CLMP Peakflow Peak Q (cfs)	N/A	N/A	2.9	8.1	12.3	22.0	27.5	35.2
CLMP Peakflow Time to Peak (hr)	N/A	N/A	1.0	1.0	1.0	1.0	1.0	1.0
Predevelopment Unit Peak Flow, q (cfs/acre)	N/A	N/A	0.11	0.39	0.45	0.81	1.01	1.30
Peak Inflow Q (cfs)	N/A	N/A	4.7	10.1	14.3	28.4	37.2	59.1
Peak Outflow Q (cfs)	N/A	N/A	0.4	4.5	8.5	16.9	18.5	20.6
Ratio Peak Outflow to Predevelopment Q	N/A	N/A	N/A	0.4	0.7	0.8	0.8	0.8
Flow Rate	N/A	N/A	0.02	0.4	0.7	1.5	1.6	1.8
Max Velocity through Grate 1 (ft/s)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max Velocity through Grate 2 (ft/s)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time to Drain 90% of Inflow Volume (hours)	41	52	59	53	47	40	36	32
Time to Drain 95% of Inflow Volume (hours)	44	55	64	61	56	55	52	49
Maximum Ponding Depth (ft)	1.04	1.36	1.54	1.81	1.97	2.25	2.51	2.98
Area at Maximum Ponding Depth (acres)	0.28	0.42	0.48	0.53	0.66	0.80	0.94	1.01
Maximum Volume Stored (acre-ft)	0.154	0.259	0.329	0.446	0.932	0.992	0.889	1.311



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

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

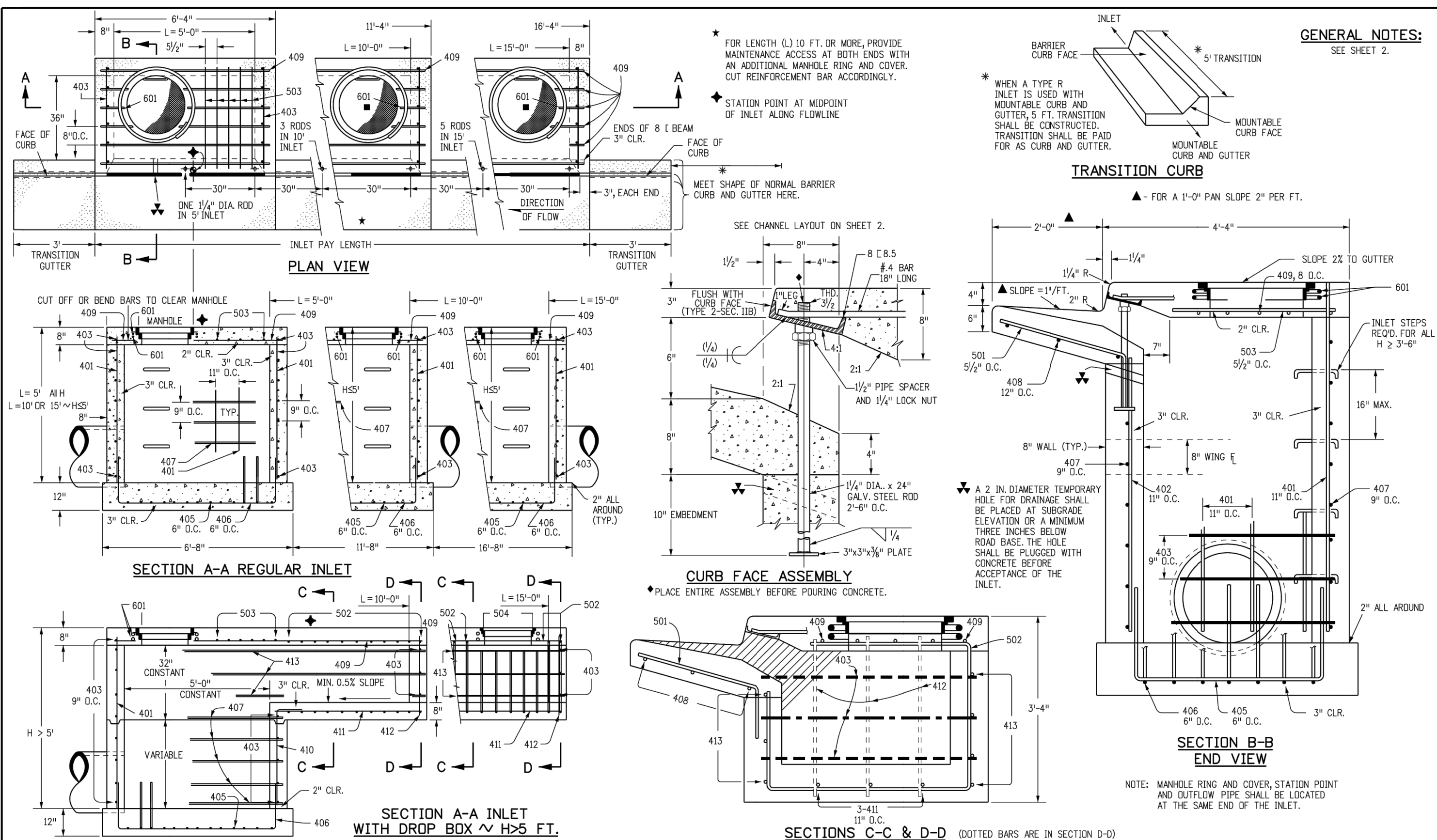
STERLING RANCH & BRIARGATE PARKWAY STORM PLANS  
PRIVATE POND FSD-11B (INTERIM DESIGN)  
OUTLET STRUCTURE DETAILS

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

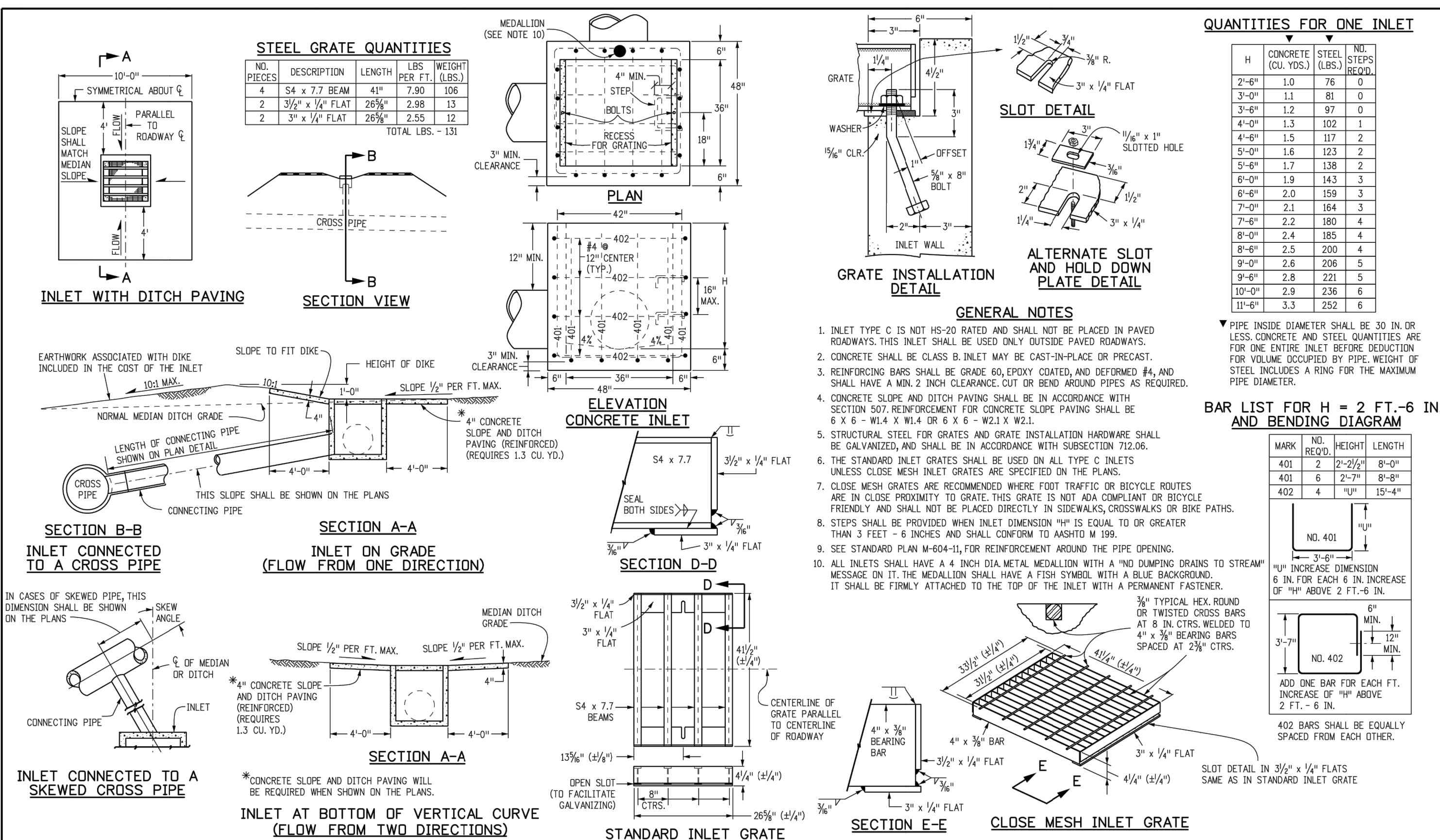
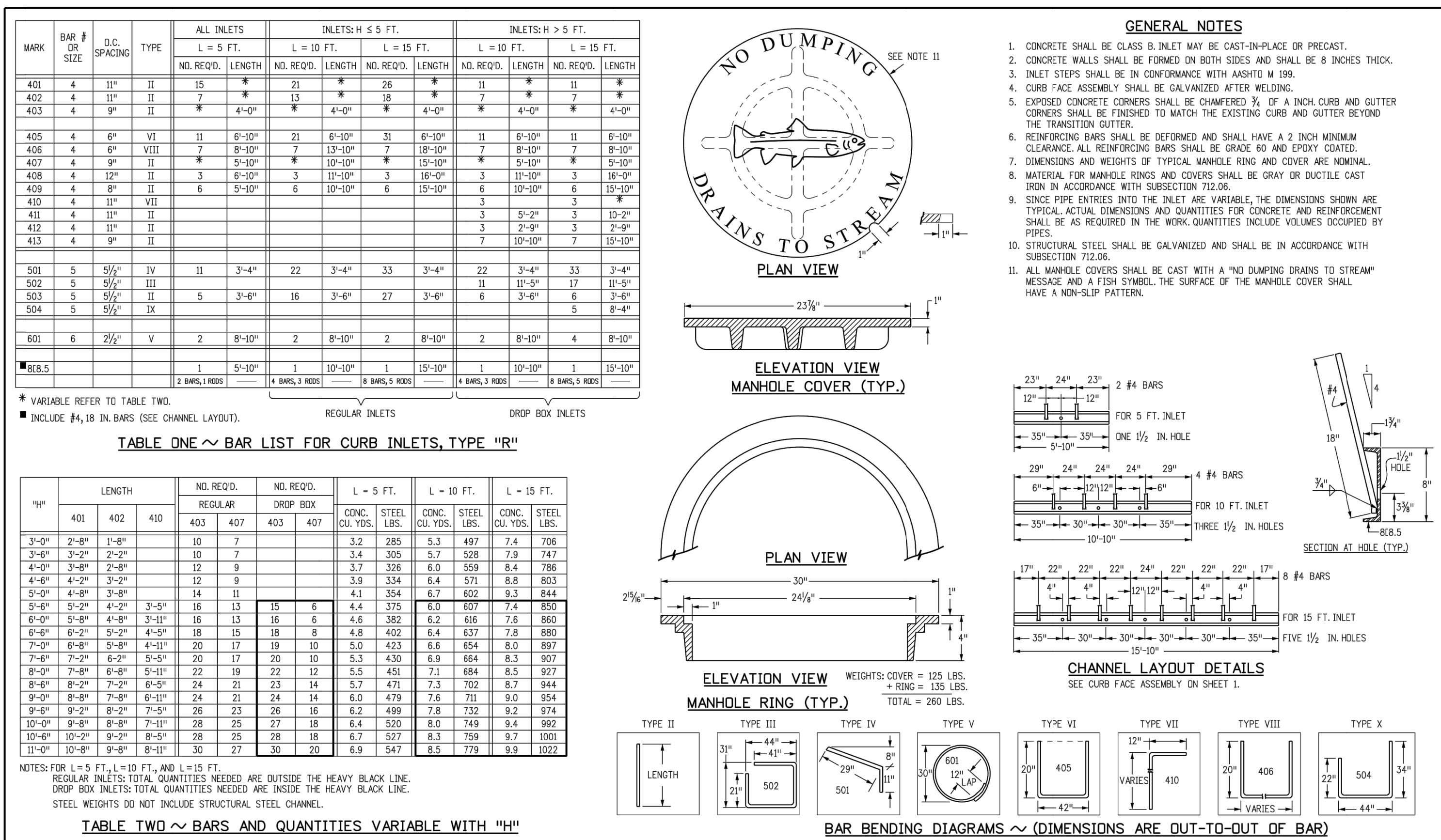
**CLASSIC CONSULTING**

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

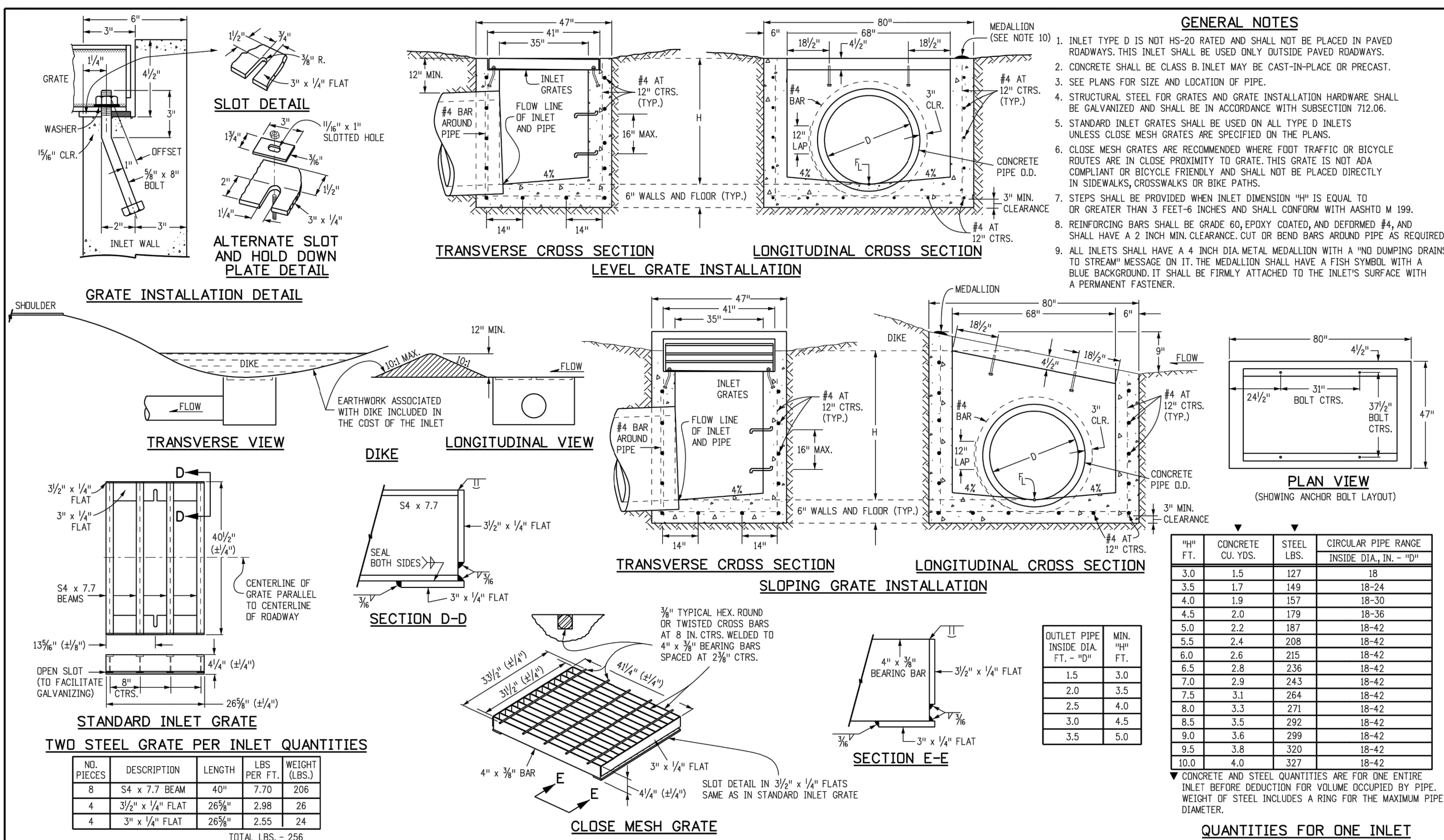
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Creation Date: 07/31/19	Date: 07/31/19	Comments:		2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868	Project Development Branch	JBK	Issued by the Project Development Branch July 31, 2019	Standard Sheet No. 1 of 2	Project Sheet Number:



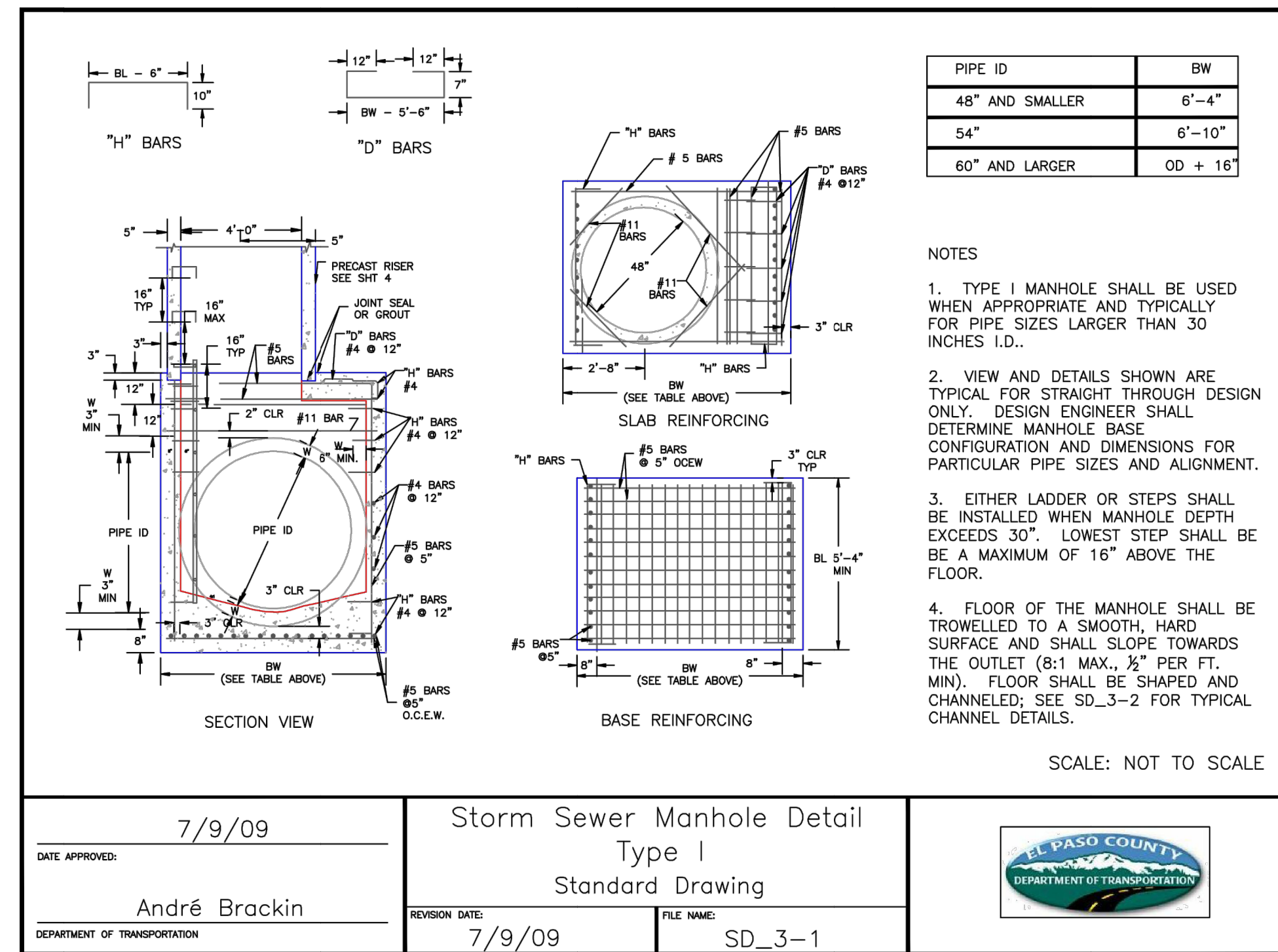
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Creation Date: 07/31/19	Date: 07/31/19	Comments:		2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868	Project Development Branch	JBK	Issued by the Project Development Branch July 31, 2019	Standard Sheet No. 1 of 1	Project Sheet Number:



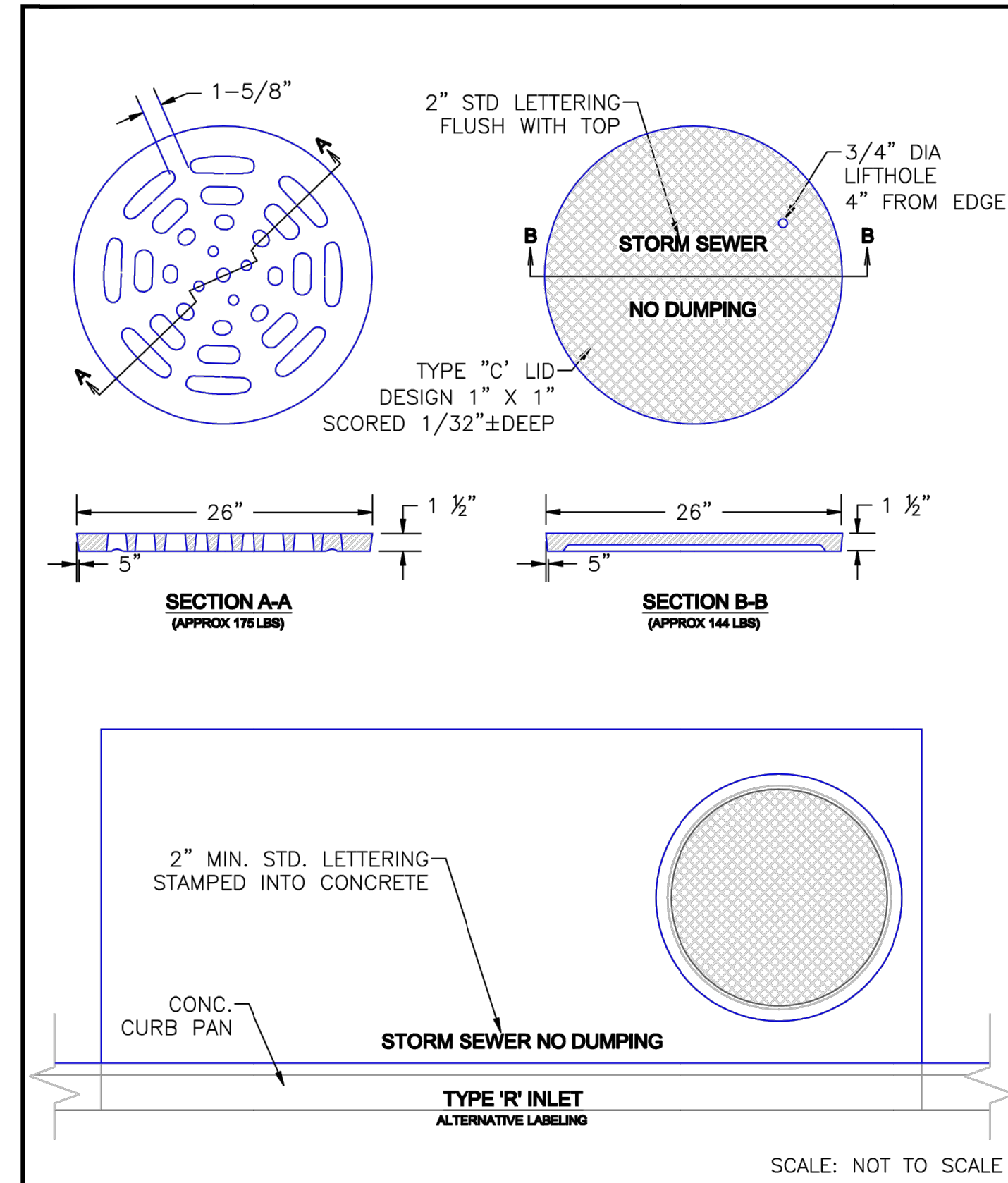
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Creation Date: 07/31/19	Date: 07/31/19	Comments:		2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868	Project Development Branch	JBK	Issued by the Project Development Branch July 31, 2019	Standard Sheet No. 1 of 1	Project Sheet Number:

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, OR ENGINEERING DESIGNED BY, OR PURCHASED BY, WRITTEN AUTHORIZATION.

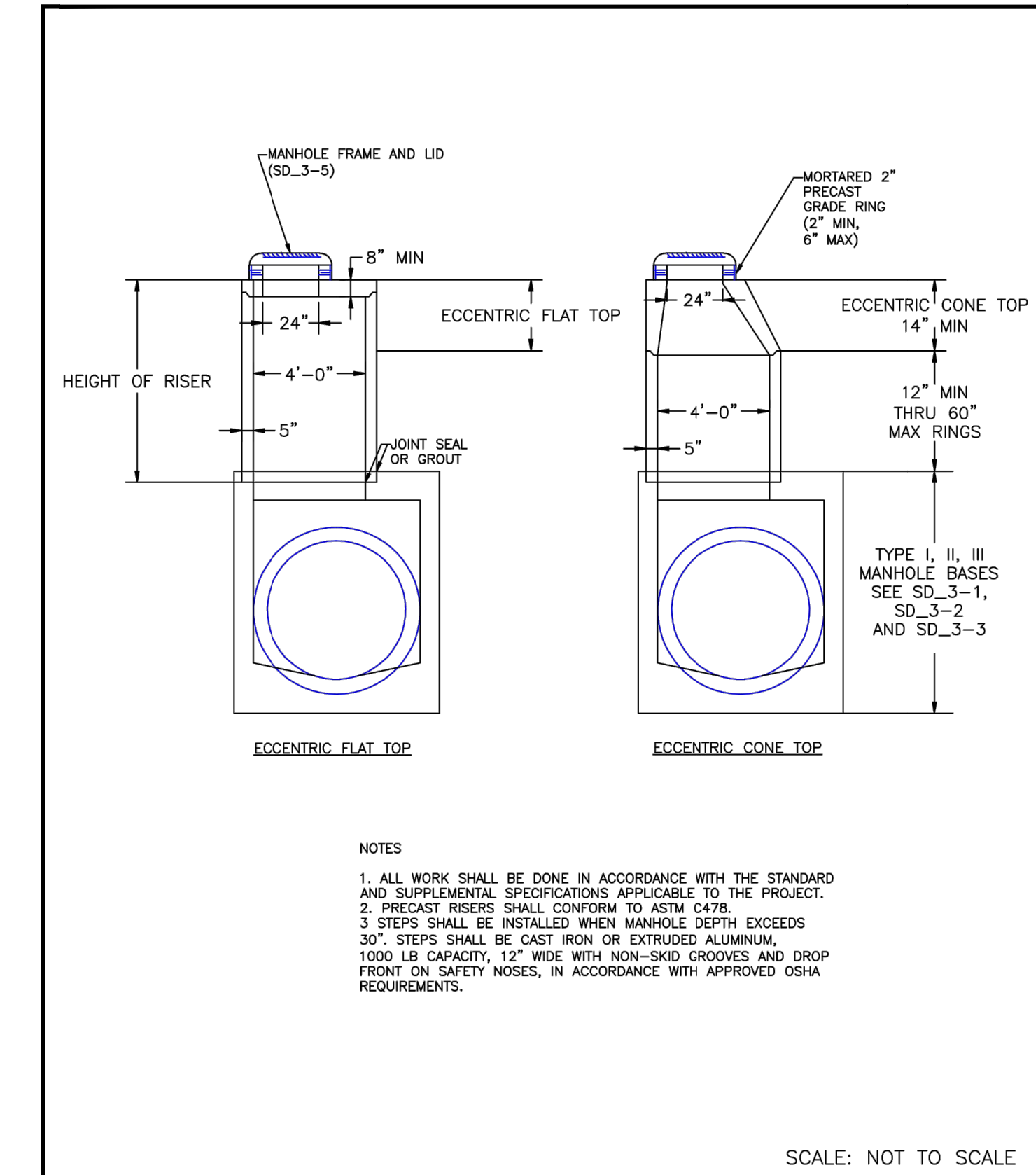
PREPARED FOR  
**SR LAND, LLC**  
 20 BOULDER CRESCENT  
 SUITE 201  
 COLORADO SPRINGS,



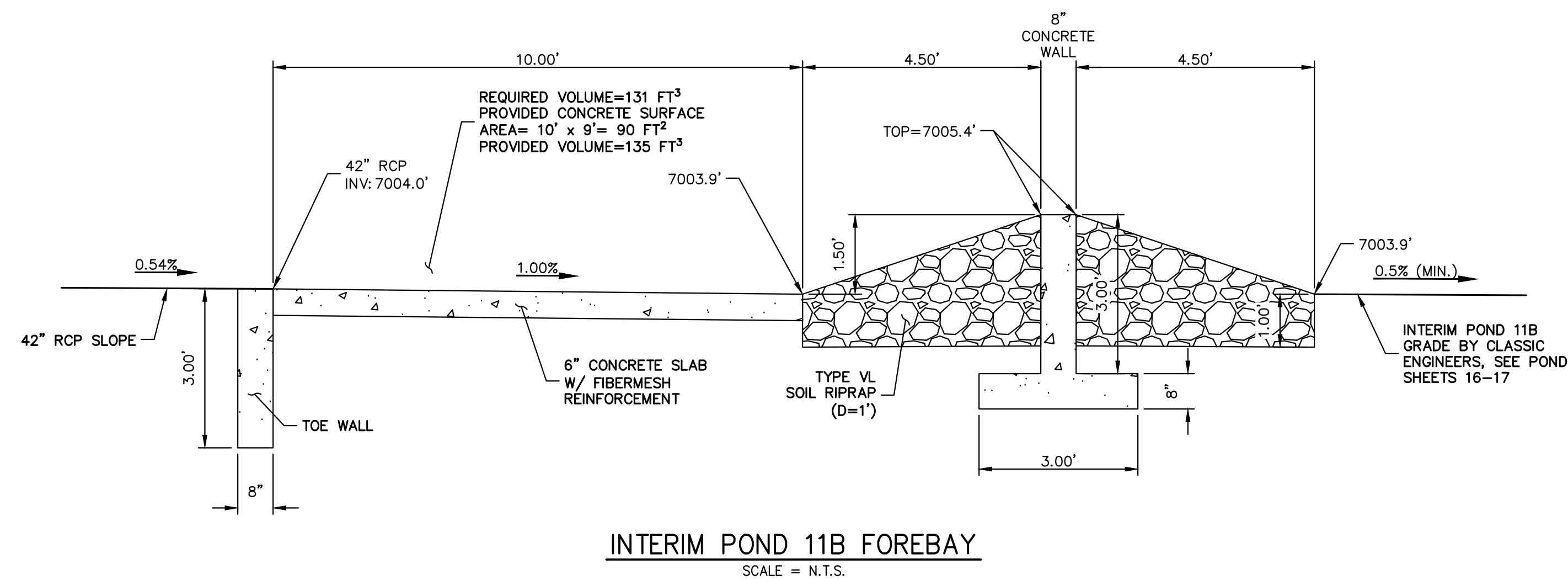
DATE APPROVED: 7/9/09	Storm Sewer Manhole Detail Type I Standard Drawing	
APPROVED BY: André Brackin	REVISION DATE: 7/9/09 FILE NAME: SD_3-1	



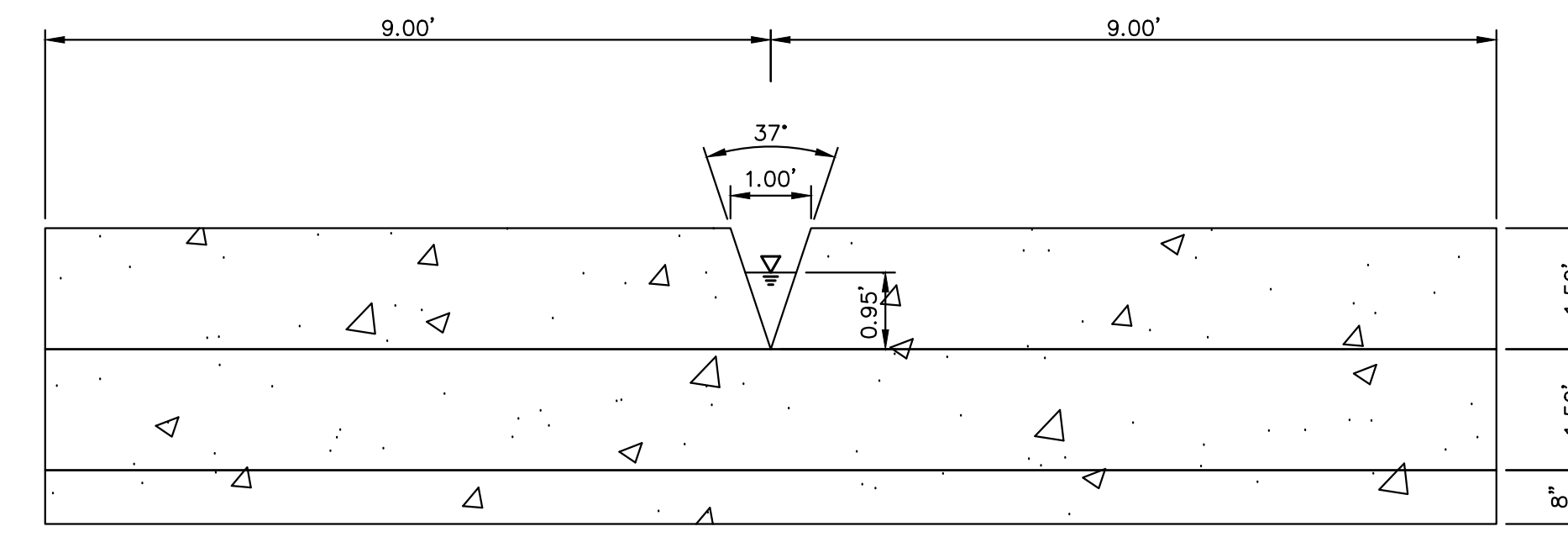
DATE APPROVED: 9/16/10	Storm Sewer Manhole Details Standard Drawing	
APPROVED BY: André P. Brackin	REVISION DATE: 9/16/10 FILE NAME: SD_3-5	



DATE APPROVED: 8/11/11	Storm Sewer Manhole Riser and Cover Detail Standard Drawing	
APPROVED BY: 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.

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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 303-740-9383 • Colorado Springs 719-583-2583  
 Fort Collins 970-491-9888 • www.jrengineering.com

BY	DATE	REVISION	N/A	N/A	05/04/23	N/A	N/A

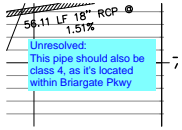
STERLING RANCH ROAD & BRIARGATE PARKWAY STORM PLANS  
 DETAILS SHEETS

# v5\_CDs Storm.pdf Markup Summary

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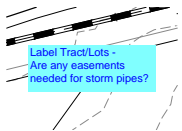
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Unresolved:  
This pipe should also be class 4, as it's located within Briargate Pkwy



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**Status:**  
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Label Tract/Lots -  
Are any easements needed for storm pipes?