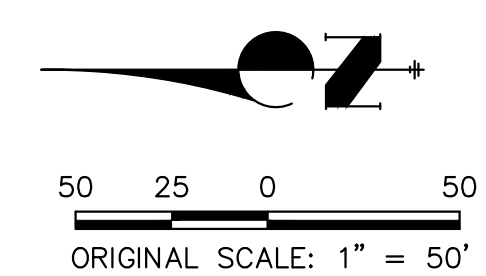
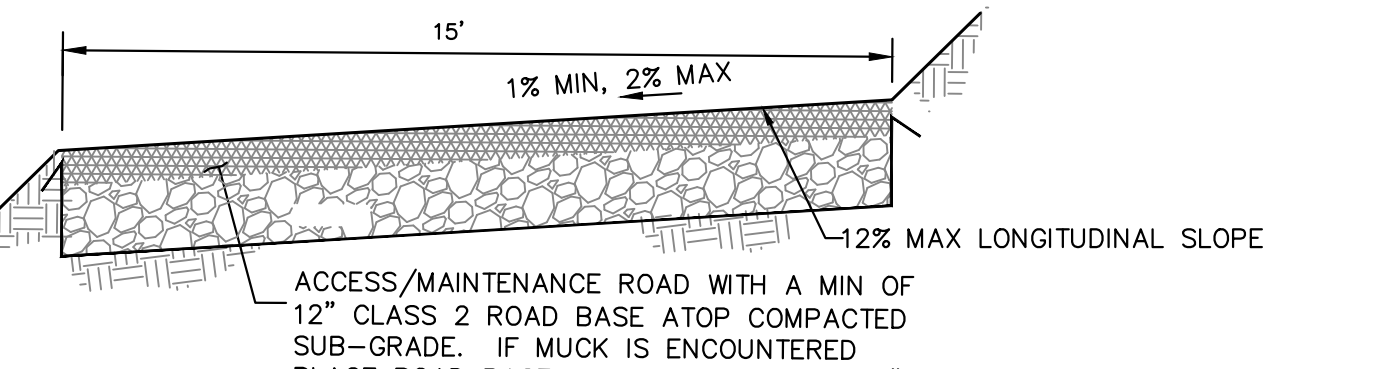
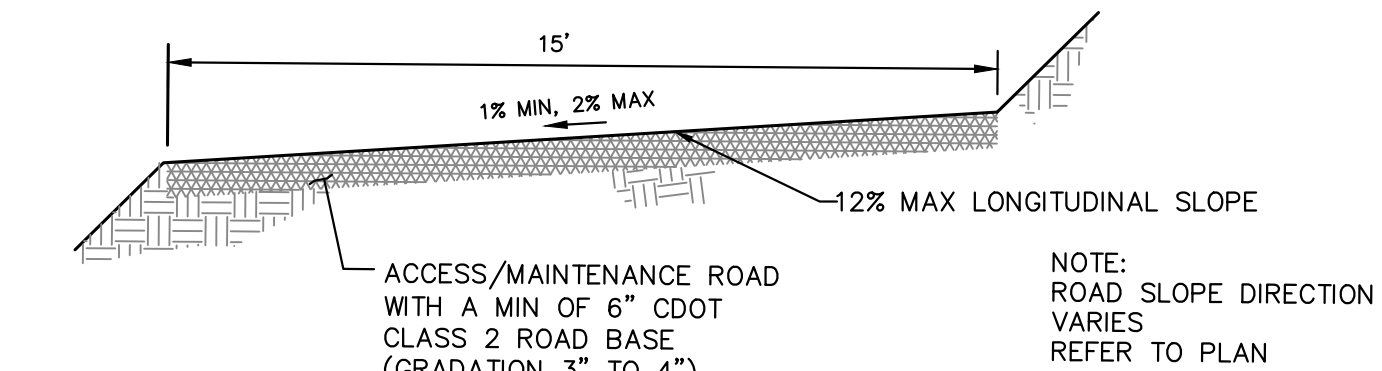
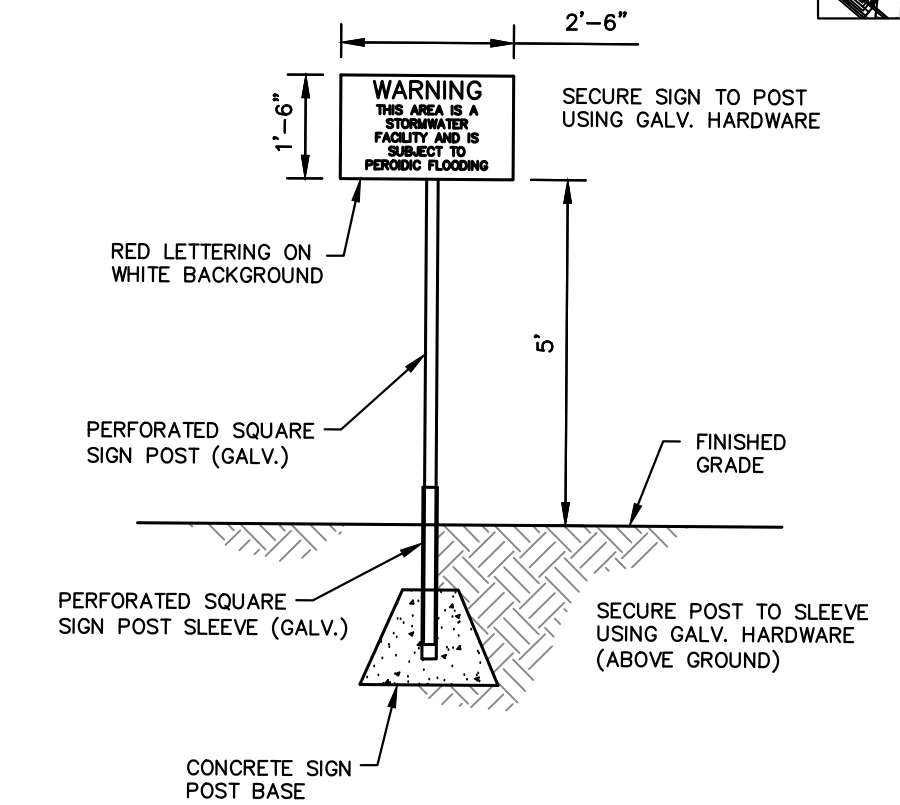
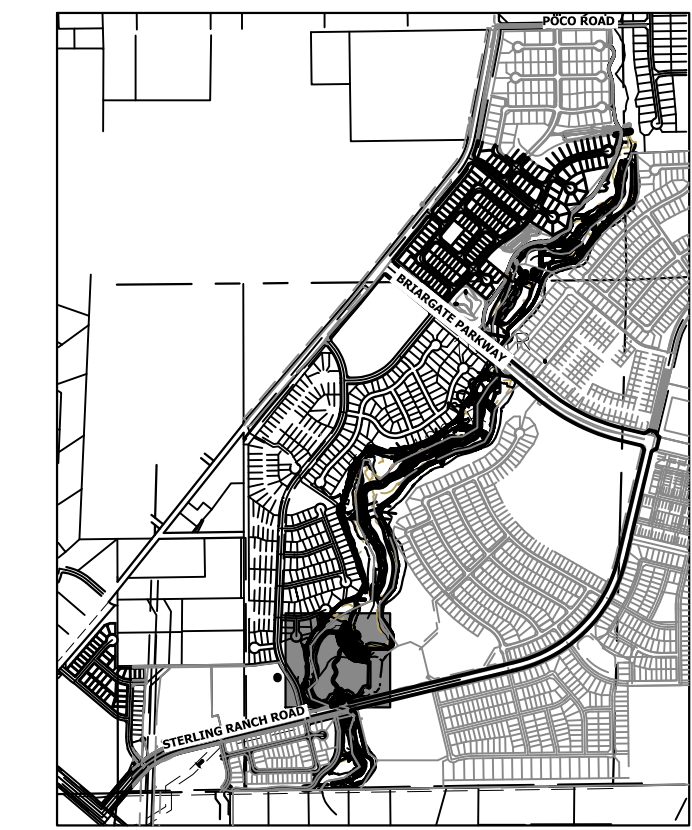


POND W-3		
DRAINAGE AREA (AC)	2729.9	
AVERAGE % IMP.	17%	
	5-YR	100-YR
Q _{in} (CFS)	578.95	2160.40
Q _{out} (CFS)	470.55	1562.40
WSEL (FT)	7004.72	7011.17
DEPTH (FT)	3.55	10.00
VOLUME (AC-FT)	6.75	50.60
SURFACE AREA (AC)	5.46	7.84

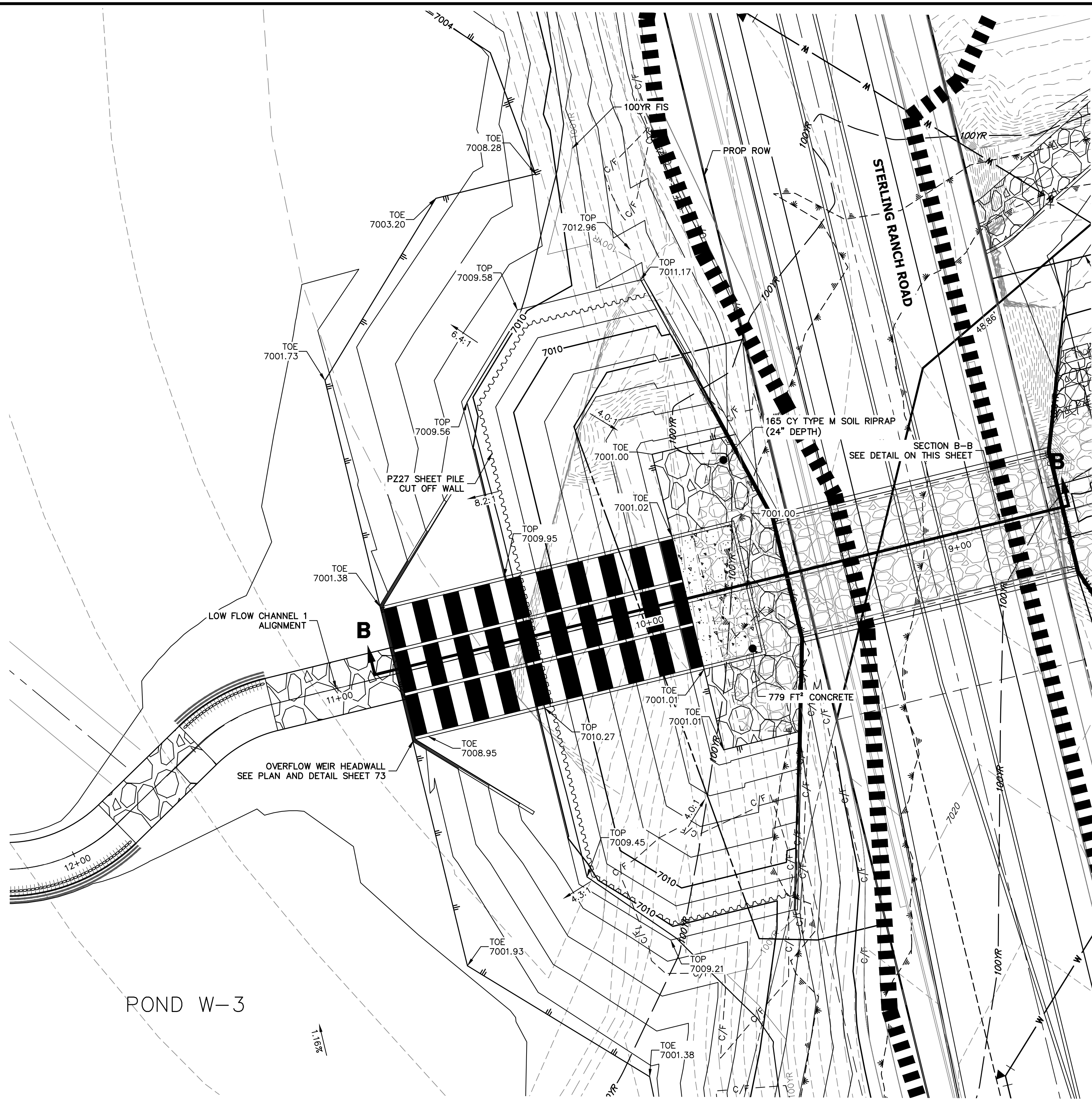


ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION

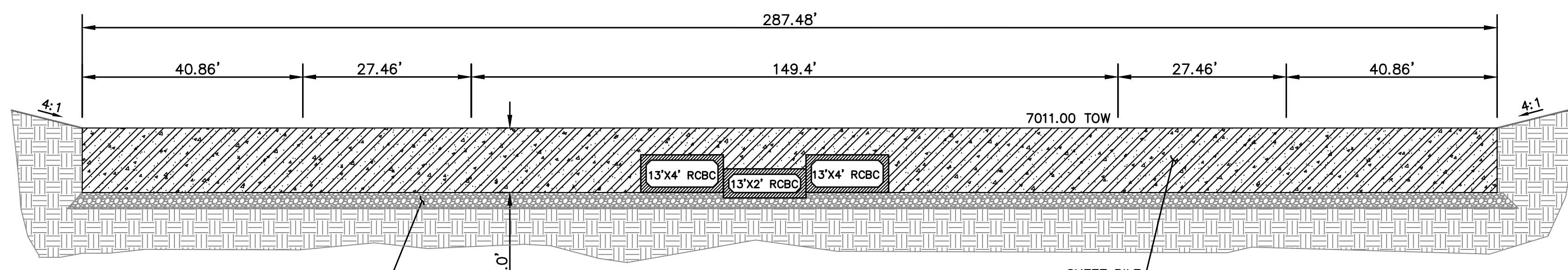
Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING

32314
11/20/23

PREPARED FOR	SR LAND, LLC 20 BOULDER CRESCENT 2ND FLOOR COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 419-3024	
	<p>J.R. ENGINEERING A Westman Company Central 303-740-8888 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com</p>	
BY	DATE	
No.	REVISION	
H-SCALE	1"=50'	N/A
V-SCALE	N/A	11/20/23
DESIGNED BY	DV	
DRAWN BY	NEO	
CHECKED BY		
SAND CREEK RESTORATION		
POND PLANS		
SHEET	41	OF 121
JOB NO.	25188.04	

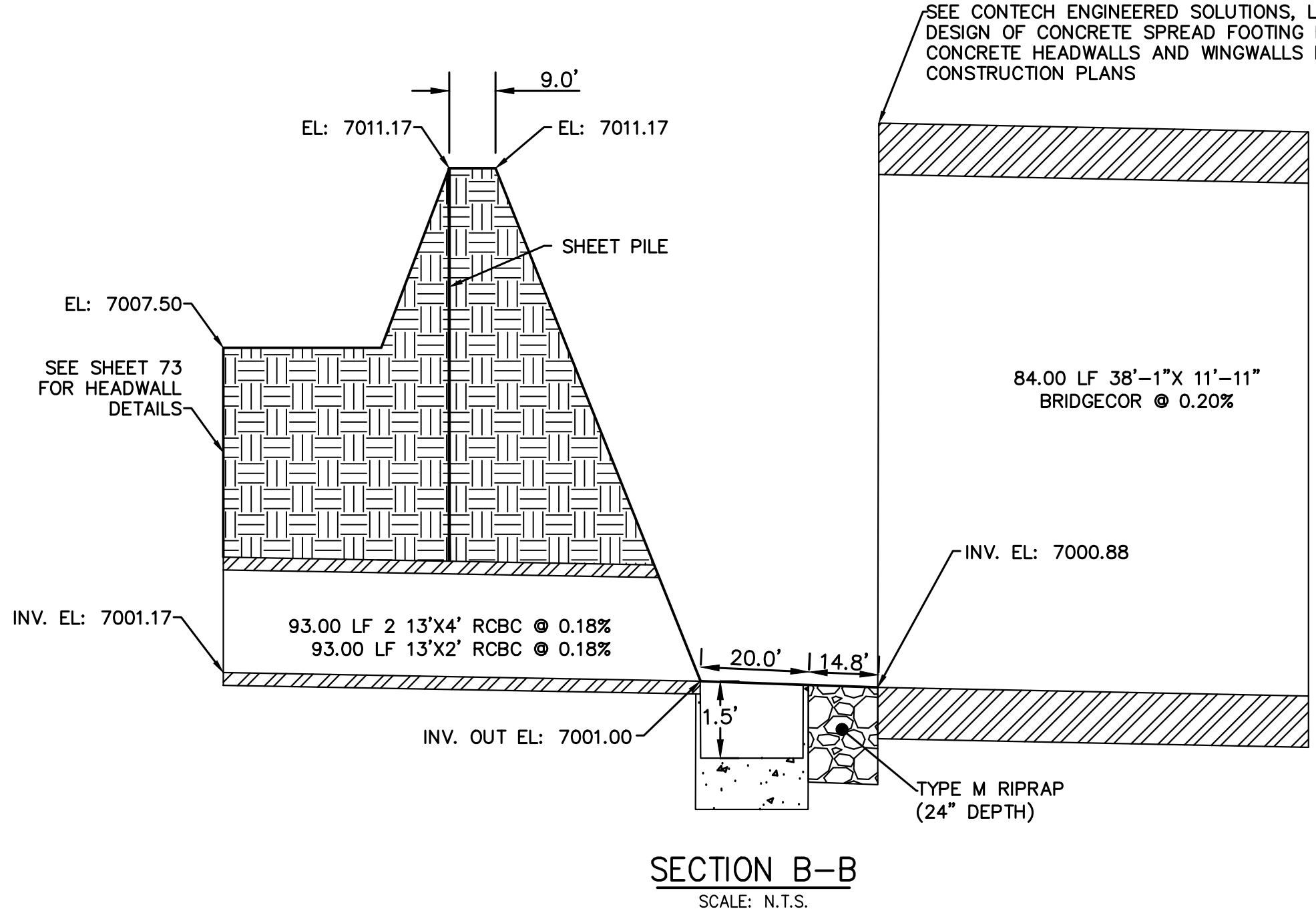


POND W-3 OVERFLOW WEIR
SCALE: 1"=20'



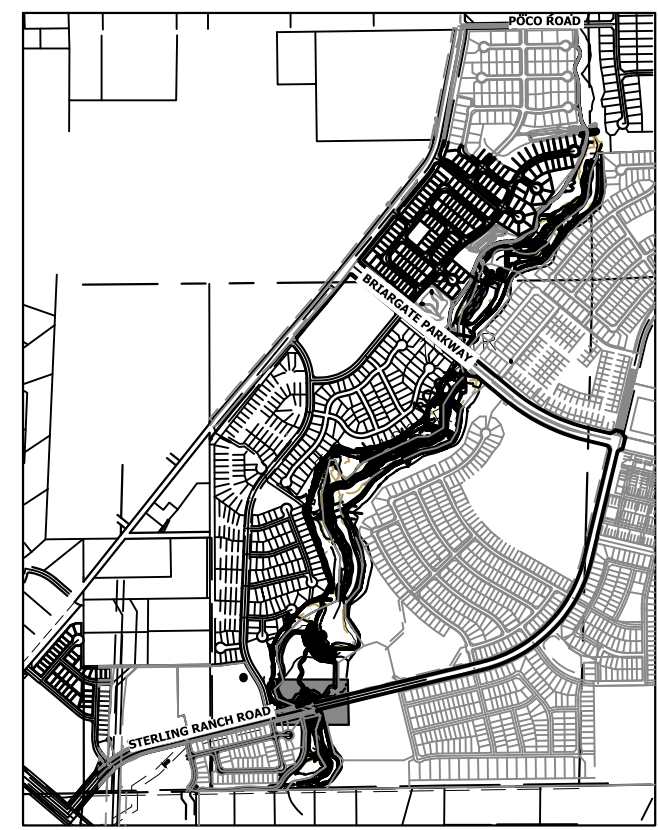
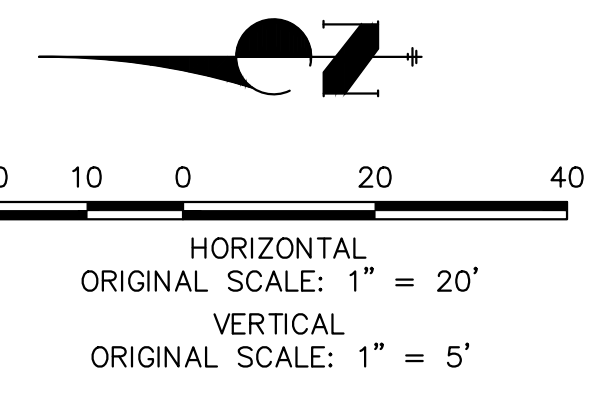
BERM DETAIL
SCALE: N.T.S.

PLACE FLOOR ATOP 6" OF AGGREGATE BASE
BASE COARSE AND COMPACTED SUBGRADE. IF
MUCK IS ENCOUNTERED, USE MAX. OF 1-1/2"
TO 3" ROCK ATOP 12" OF 3"-5" ROCK
(DEPENDANT UPON FIELD CONDITIONS)



SECTION B-B
SCALE: N.T.S.

SEE CONTECH ENGINEERED SOLUTIONS, LLC
DESIGN OF CONCRETE SPREAD FOOTING FOUNDATIONS,
CONCRETE HEADWALLS AND WINGWALLS FOR BRIDGECOR
CONSTRUCTION PLANS



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

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
2ND FLOOR
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 419-3024

J.R. ENGINEERING
A Westman Company

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

H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	REVISION	
						No.	DATE
1"=20'	1"=5'	11/20/23	DV	NEO			

SAND CREEK RESTORATION

POND PLANS

SHEET 42 OF 121

JOB NO. 25188.04

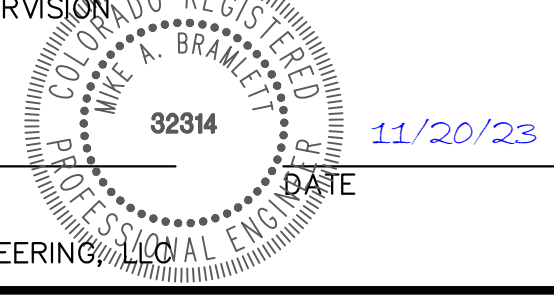


ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION

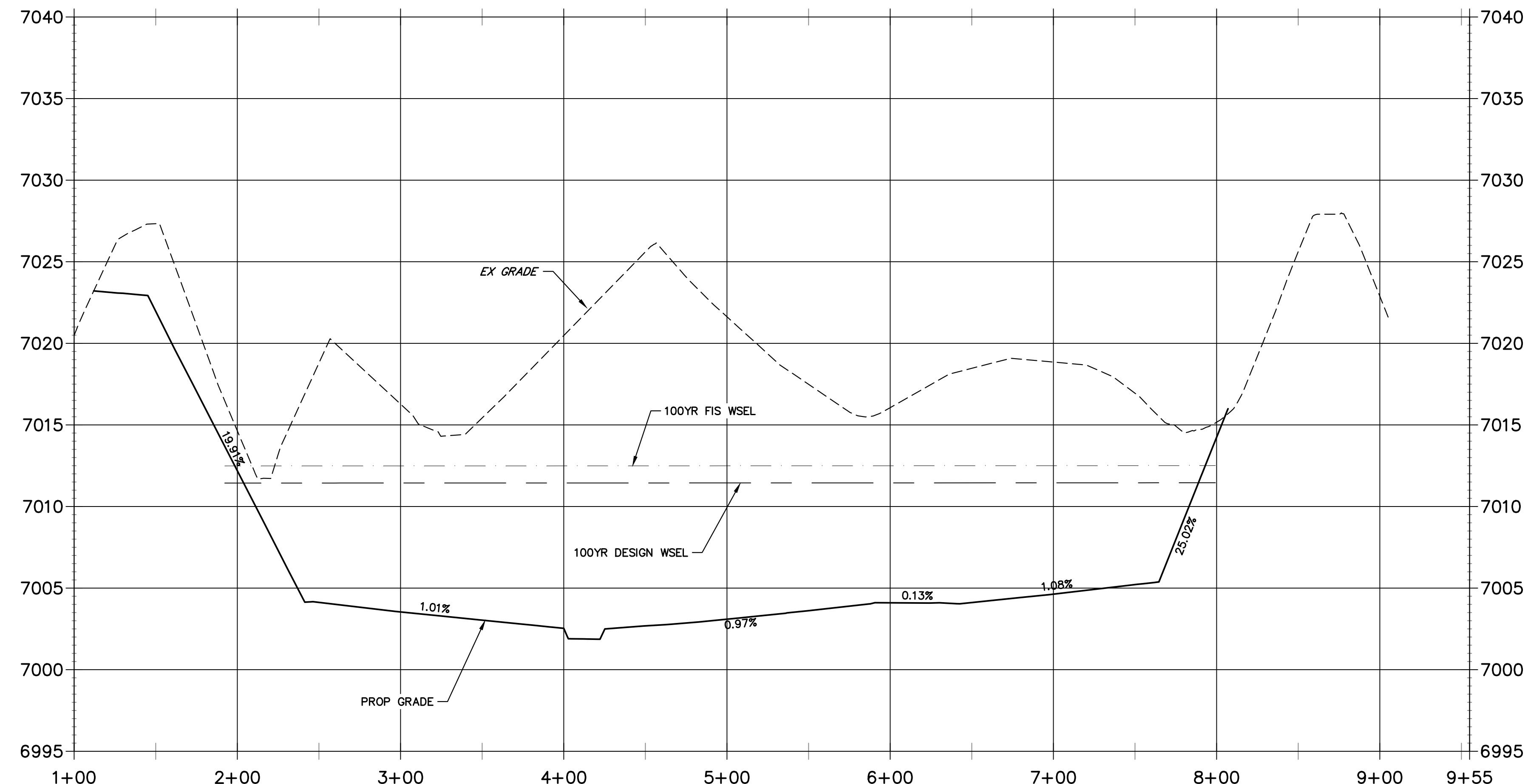
Mike Bramlett

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



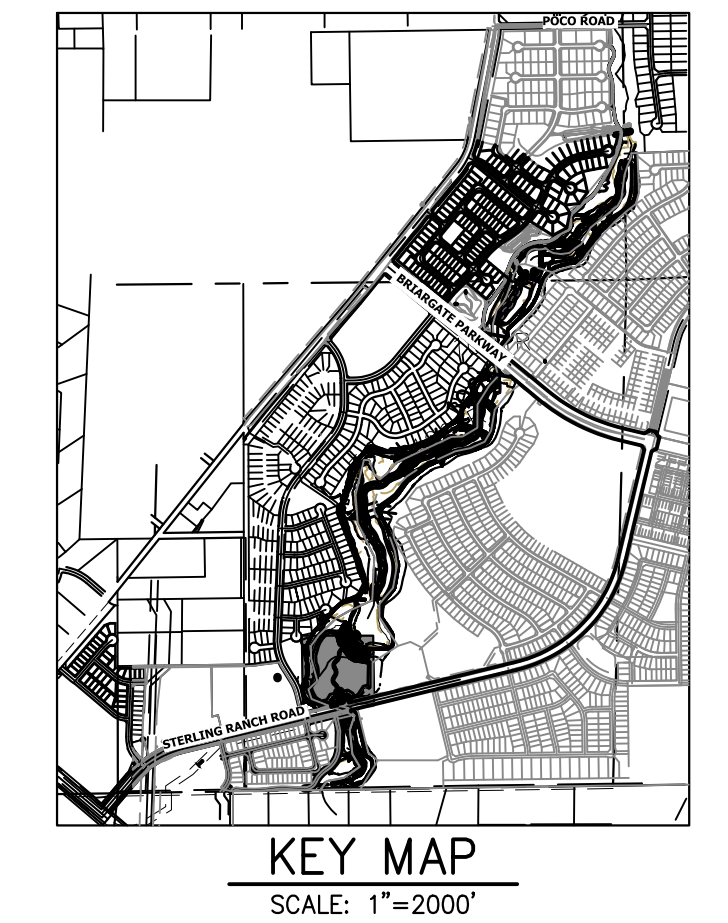
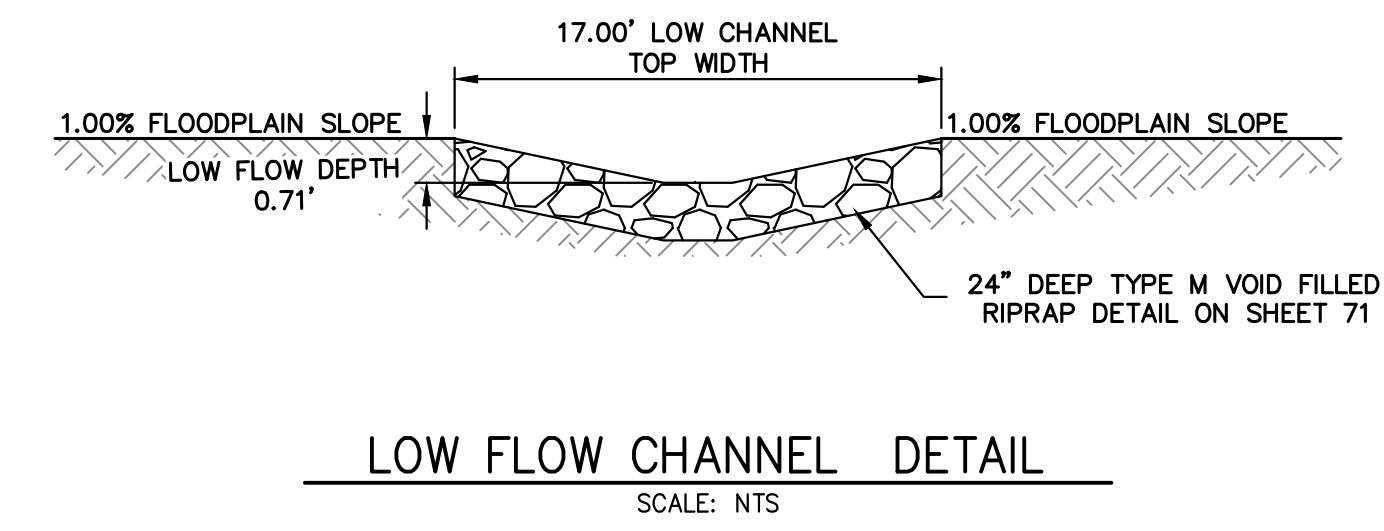
FOR AND ON BEHALF OF JR ENGINEERING

CROSS SECTION A-A STA 1+00.00 TO 9+55.00



**LOW FLOW CHANNEL 1
STA 9+00.00 TO 19+00.00**

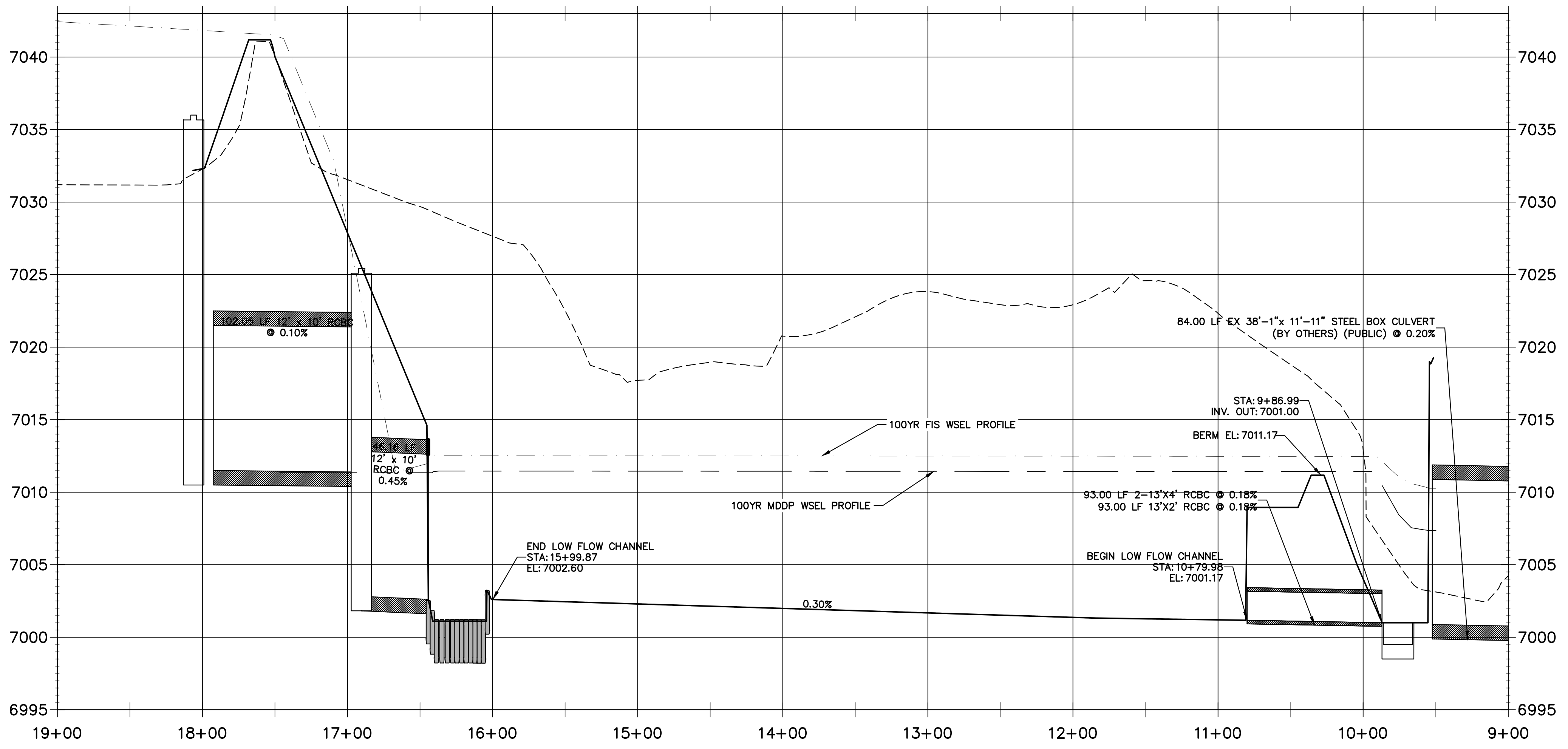
**POND W-3
CROSS SECTION A-A**
HORIZONTAL SCALE: 1"=50'



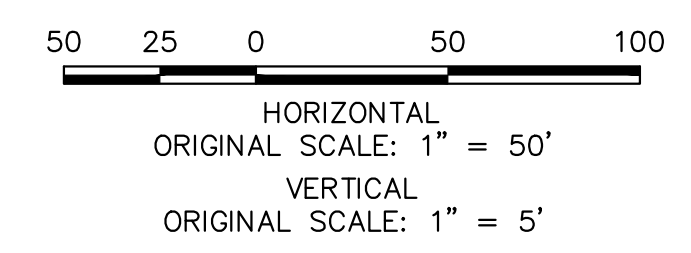
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
2ND FLOOR
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 419-3024

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POND W-3 LOW FLOW CHANNEL
HORIZONTAL SCALE: 1"=100'



ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION

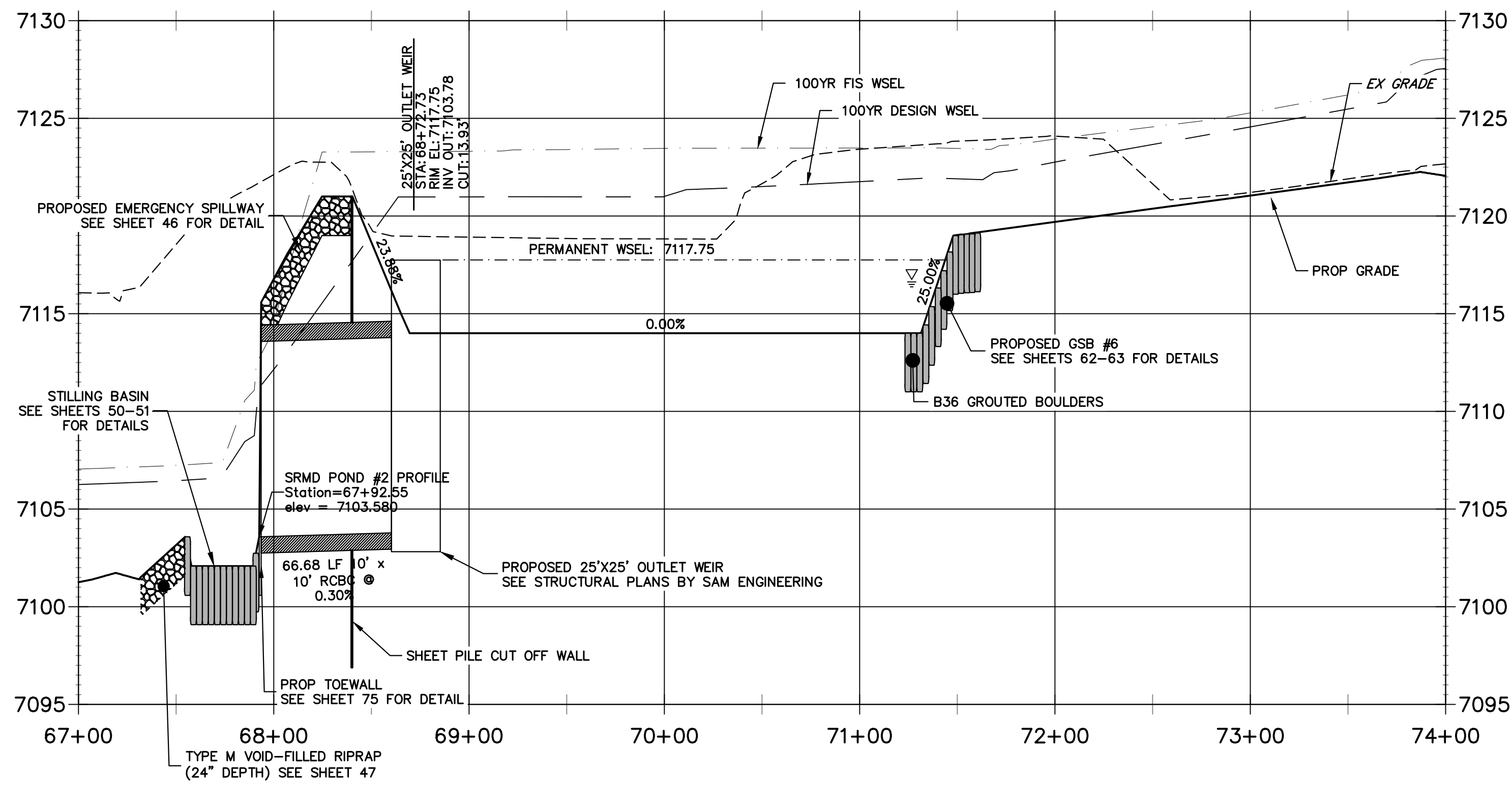
Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING

32314 11/20/23
DATE

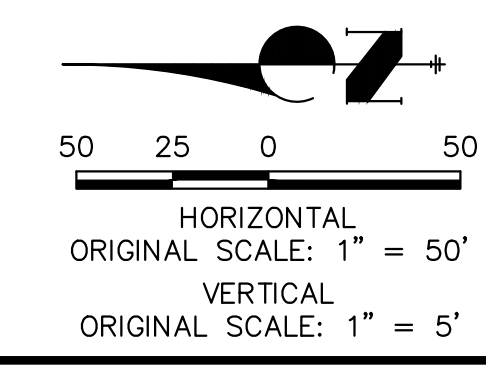
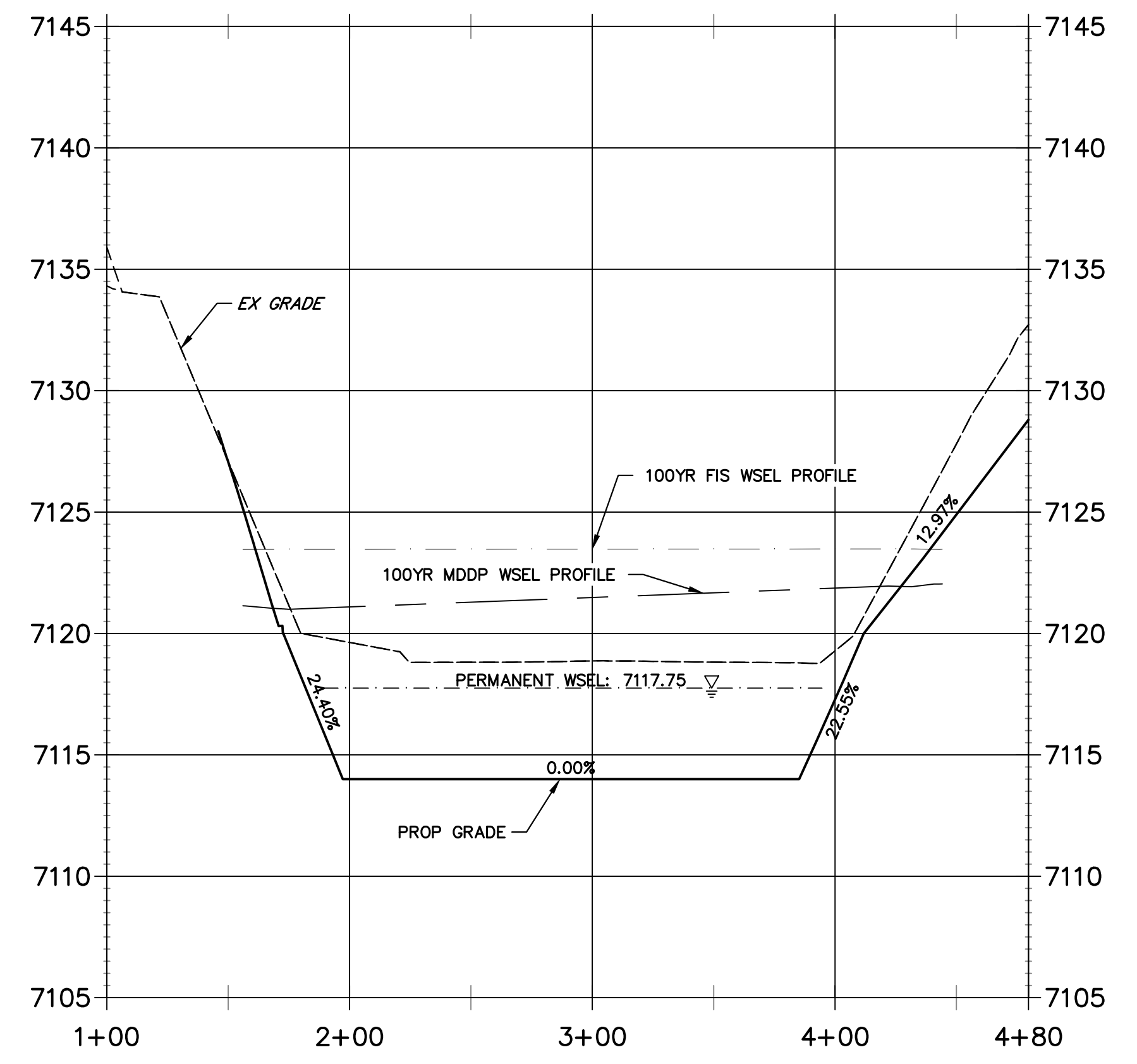
SAND CREEK RESTORATION	BY DATE		No. REVISION	
	H-SCALE	V-SCALE	DESIGNED BY	DRAWN BY
	1"=50'	1"=5'	11/20/23	DV
	CHECKED BY	NEO		
POND PLANS		SHEET 43 OF 121		
JOB NO. 25188.04				

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**SRMD POND #2 PROFILE
STA 67+00.00 TO 74+00.00**

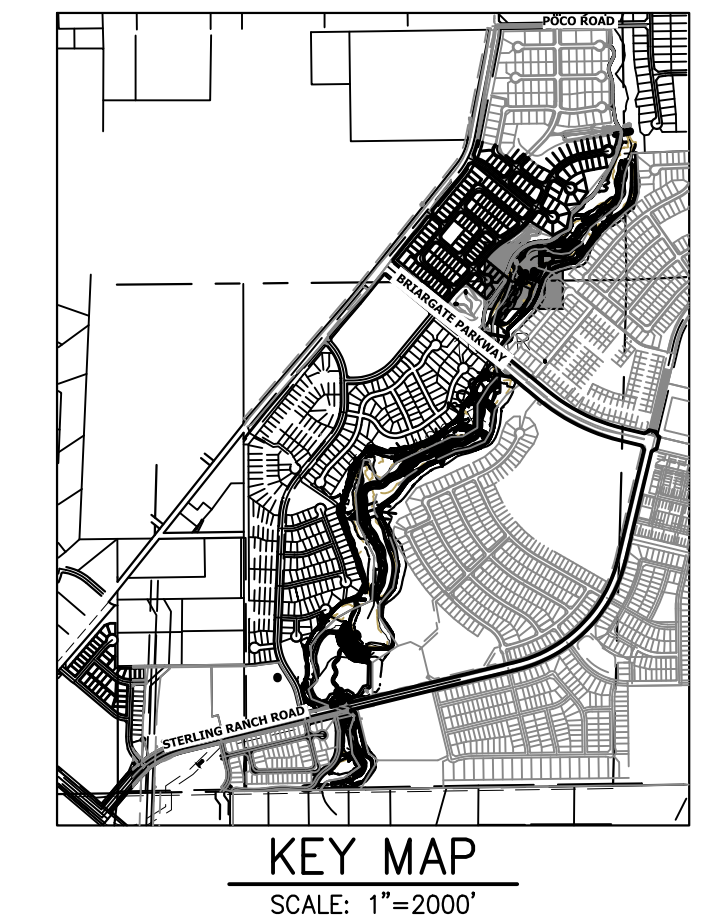
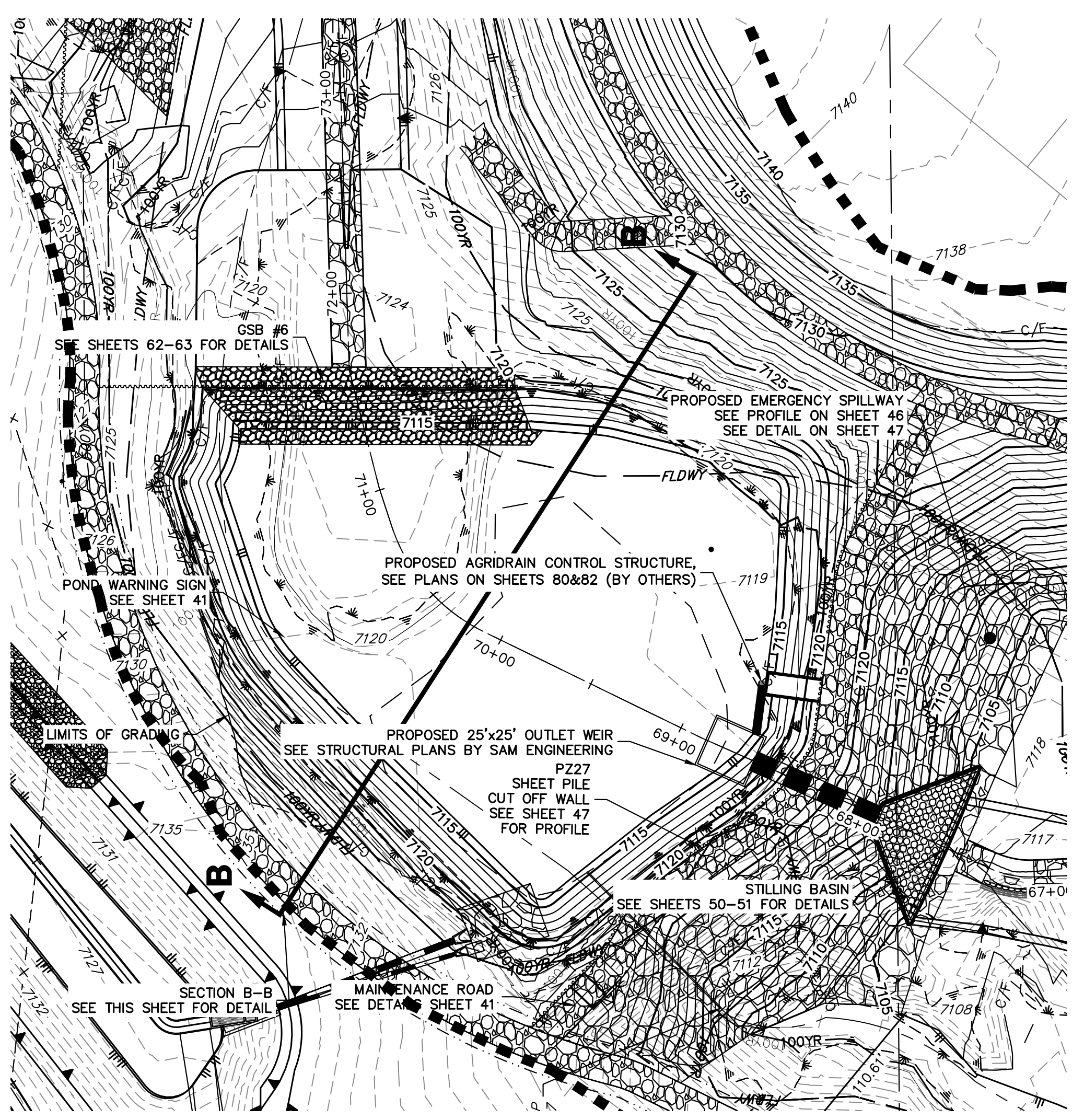


**CROSS SECTION B-B
STA 1+00.00 TO 4+79.69**



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

32314
 11/20/23
 DATE



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PREPARED FOR
SR LAND, LLC
 20 BOULDER CRESCENT
 2ND FLOOR
 COLORADO SPRINGS, CO 80903
 JAMES F. MORLEY
 (719) 419-3024

J.R. ENGINEERING
 A Westman Company
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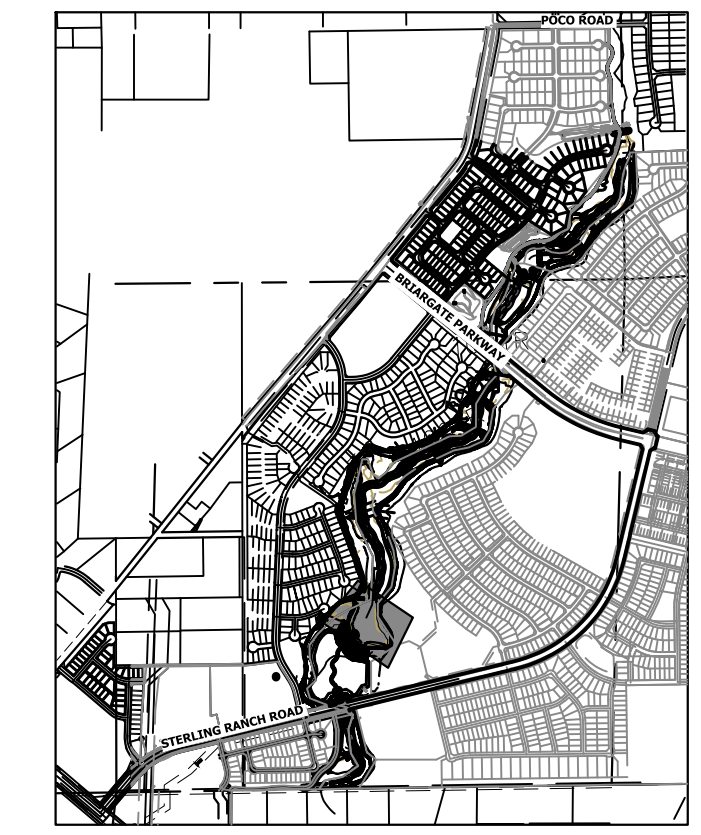
BY	DATE	No.	REVISION

SAND CREEK RESTORATION	H-SCALE	1"=50'
	V-SCALE	1"=5'
POND PLANS	DATE	11/20/23
	DESIGNED BY	DV
SHEET 44 OF 121	DRAWN BY	NEO
	CHECKED BY	
JOB NO.	25188.04	

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GRADING NOTES:

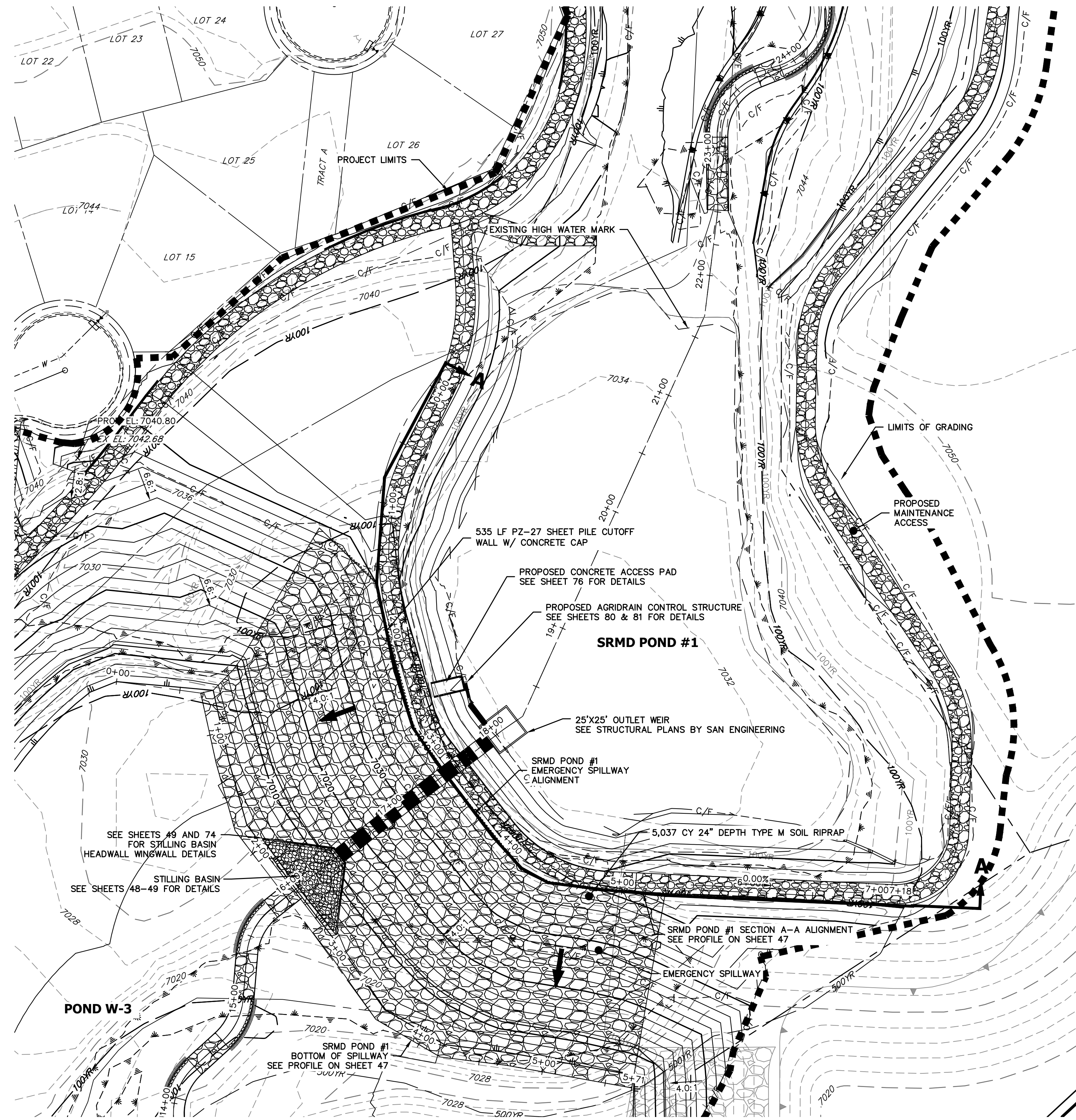
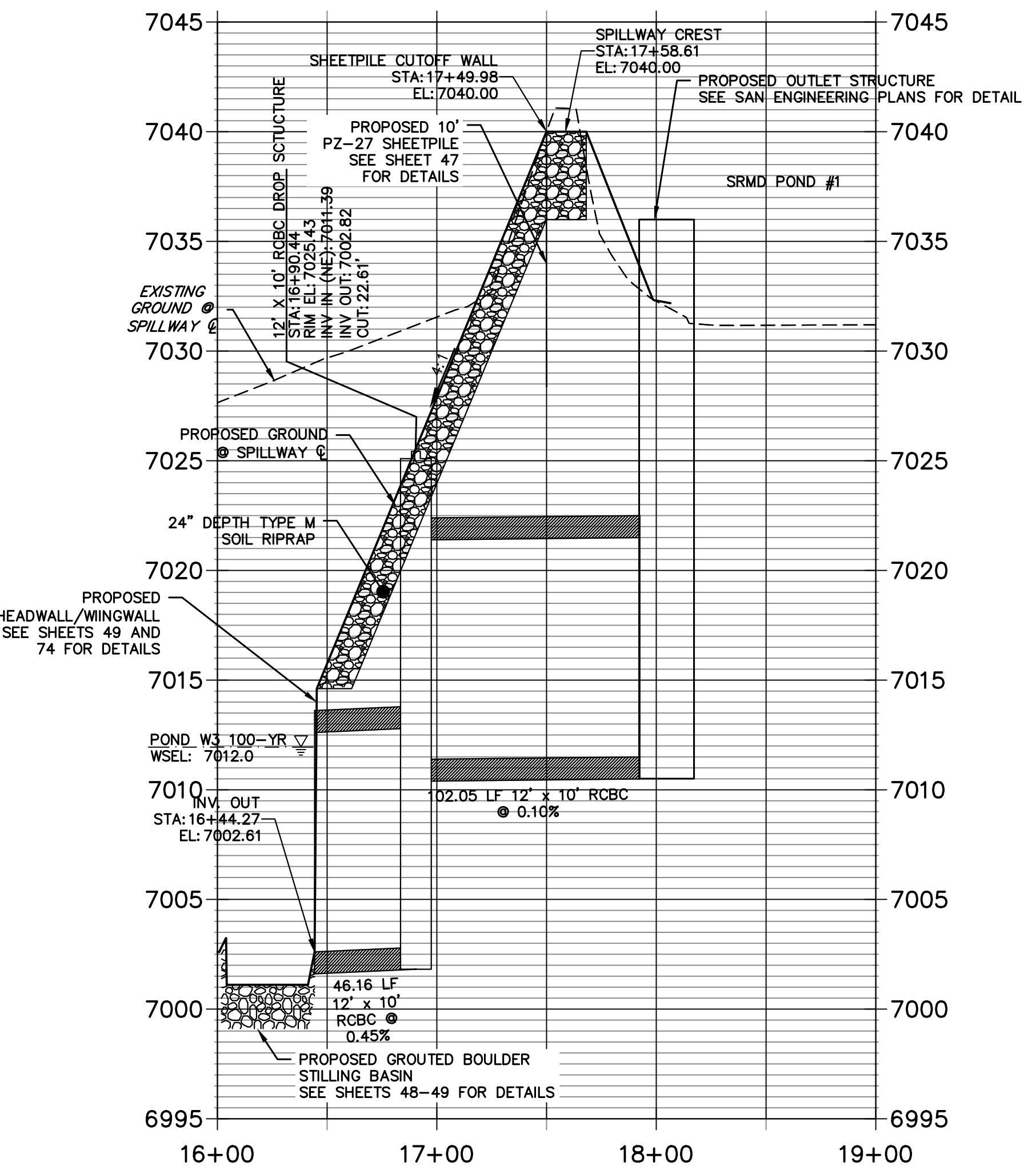
- ALL PROPOSED CONTOURS ARE TO FINISHED GRADE.
- EARTHEN CUT AND FILL SLOPES SHALL BE 3:1 MAXIMUM. SLOPES IN EXCESS OF 4:1 AND AREAS OTHERWISE INDICATED BY WITHIN THESE PLANS, SHALL BE COVERED WITH SOIL RETENTION BLANKET OVER 4" MIN. THICKNESS OF TOPSOIL AND SEEDED.
- IF THE PROJECT IS CONSTRUCTED DURING THE SUMMER WHEN SEEDING IS NOT ALLOWED, APPLY 1-1/2 TONS OF CERTIFIED WEED FREE MULCH PER ACRE MECHANICALLY CRIMPED INTO THE SOIL IN COMBINATION WITH AN ORGANIC MULCH TACKIFIER.
- PRIOR TO ANY CONSTRUCTION ACTIVITIES THE PROPOSED SILT FENCE SHOWN ON THE EROSION CONTROL SHEET SHALL BE CONSTRUCTED. THE FENCE SHALL BE REMOVED UPON THE LATER OF STABILIZATION OF THE SITE OR COMPLETION OF CONSTRUCTION.
- TO REDUCE THE POTENTIAL FOR CLOGGING OF DEBRIS GRATES, NO STRAW MULCH SHALL BE USED WITHIN THE EURV OR WQCV OF A DETENTION BASIN. INSTEAD, EROSION CONTROL BLANKETS SHALL BE INSTALLED FOR A WIDTH OF AT LEAST 6 FEET ON EITHER SIDE OF CONCRETE LOW-FLOW CHANNELS. THE BLANKETS SHALL COMPLY WITH THE MATERIALS AND INSTALLATION REQUIREMENTS FOR EROSION CONTROL BLANKETS (STRAW COCONUT OR 100 PERCENT COCONUT). SITE-SPECIFIC CONDITIONS MAY REQUIRE ADDITIONAL BLANKET OR OTHER EROSION CONTROL MEASURES.



PREPARED FOR
SR LAND, LLC
 20 BOULDER CRESCENT
 2ND FLOOR
 COLORADO SPRINGS, CO 80903
 JAMES F. MORLEY
 (719) 419-3024

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

**SRMD POND #1 EMERGENCY SPILLWAY PROFILE
 STA 16+00.00 TO 19+00.00**

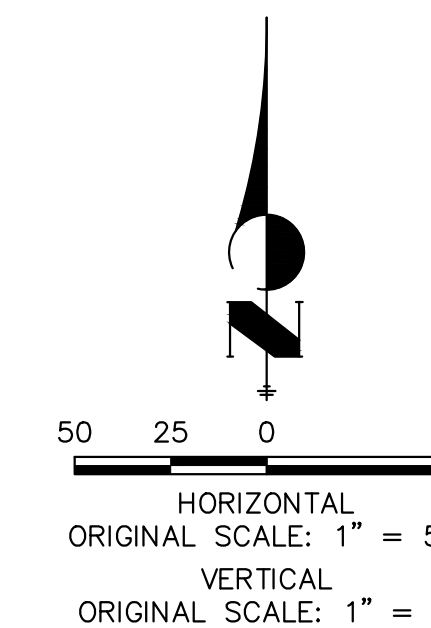


EXISTING SRMD POND #1 EMERGENCY SPILLWAY
 SCALE: 1"=50'

SRMD POND #1		
DRAINAGE AREA (AC)	2313.1	
AVERAGE % IMP.	9%	
	5-YR	100-YR
Q ₅ (CFS)	511.84	1977.60
Q ₁₀₀ (CFS)	499.73	1819.90
STATIC WSEL (FT)	7036.00	7036.00
MAX WSEL (FT)	7040.00	7040.00
DEPTH (FT)	6.17	8.09
VOLUME (AC-FT)	10.43	36.00
SURFACE AREA (AC)	2.7	4.40



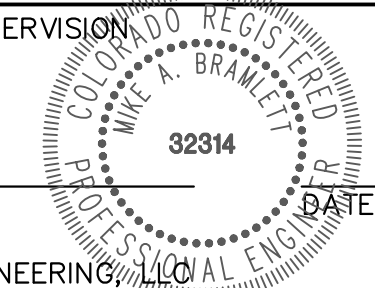
Know what's below.
 Call before you dig.



ENGINEER'S STATEMENT

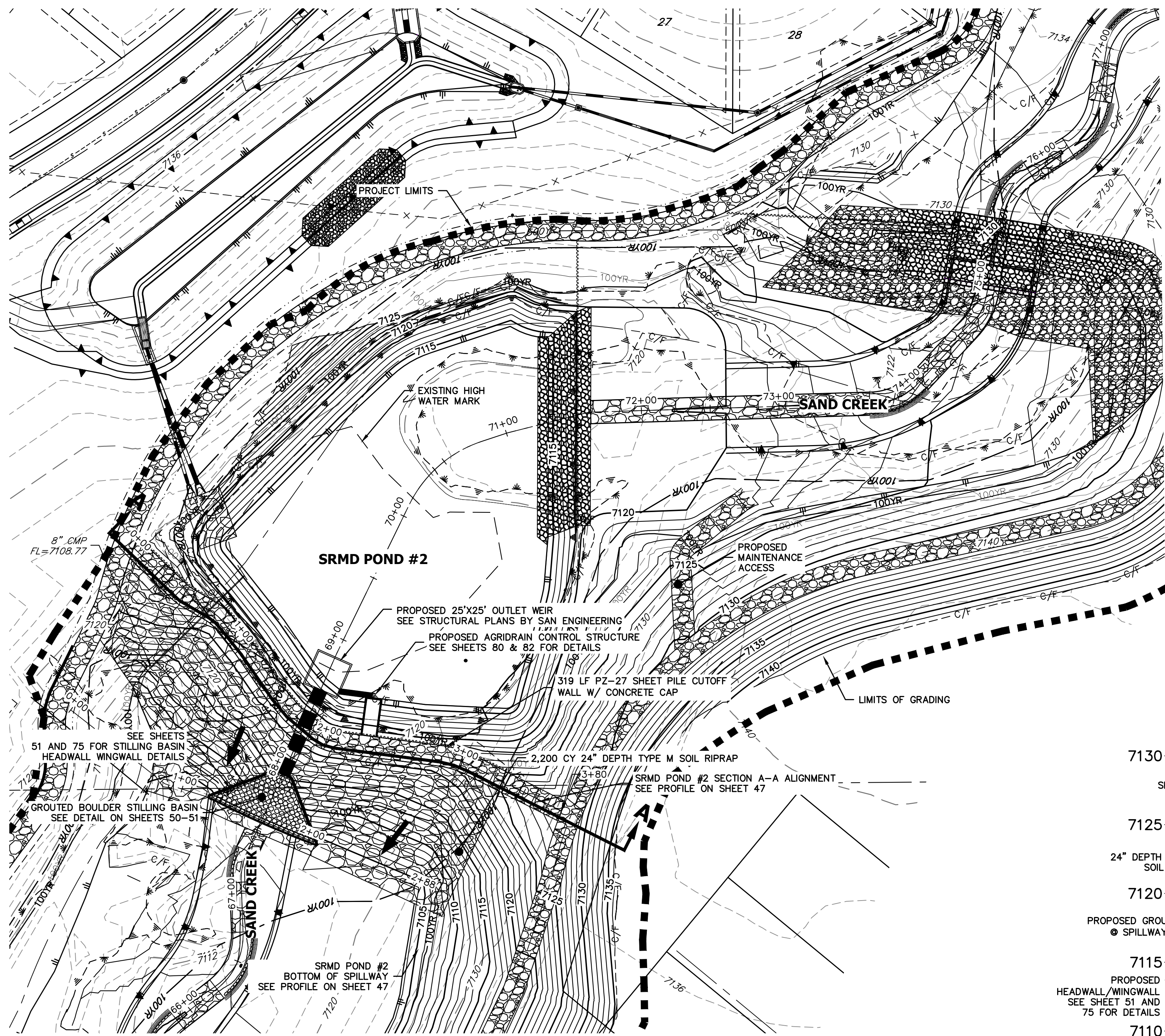
PREPARED UNDER MY DIRECT SUPERVISION

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



H-SCALE	V-SCALE	DATE	DESIGNED BY		DRAWN BY		CHECKED BY	
			DJV	DJV	DJV	DJV		
1"=50'	1"=5'	11/20/23						

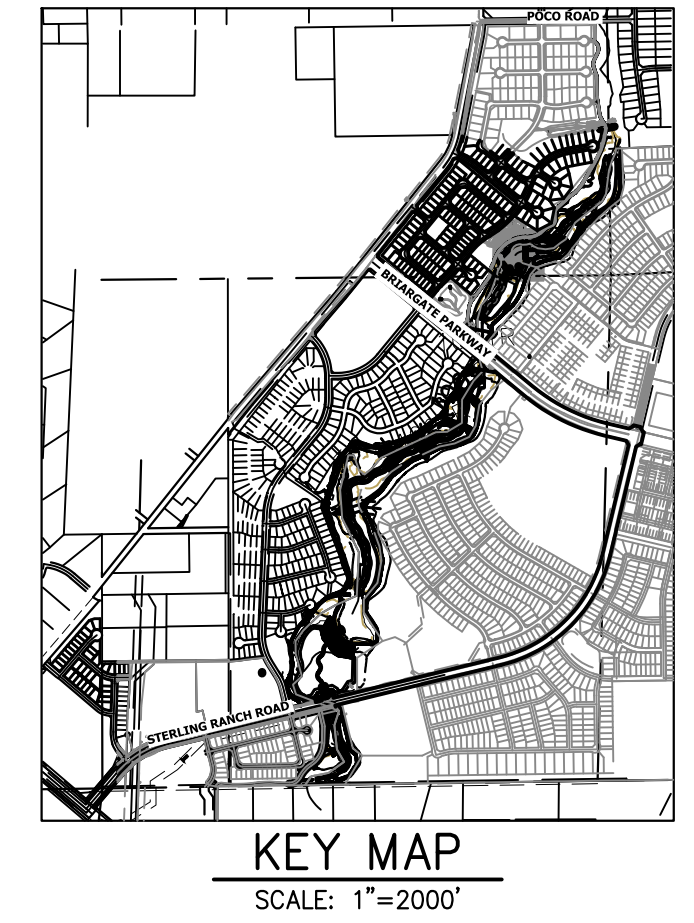
SAND CREEK RESTORATION
 POND PLANS
 SHEET 45 OF 26
 JOB NO. 25188.04



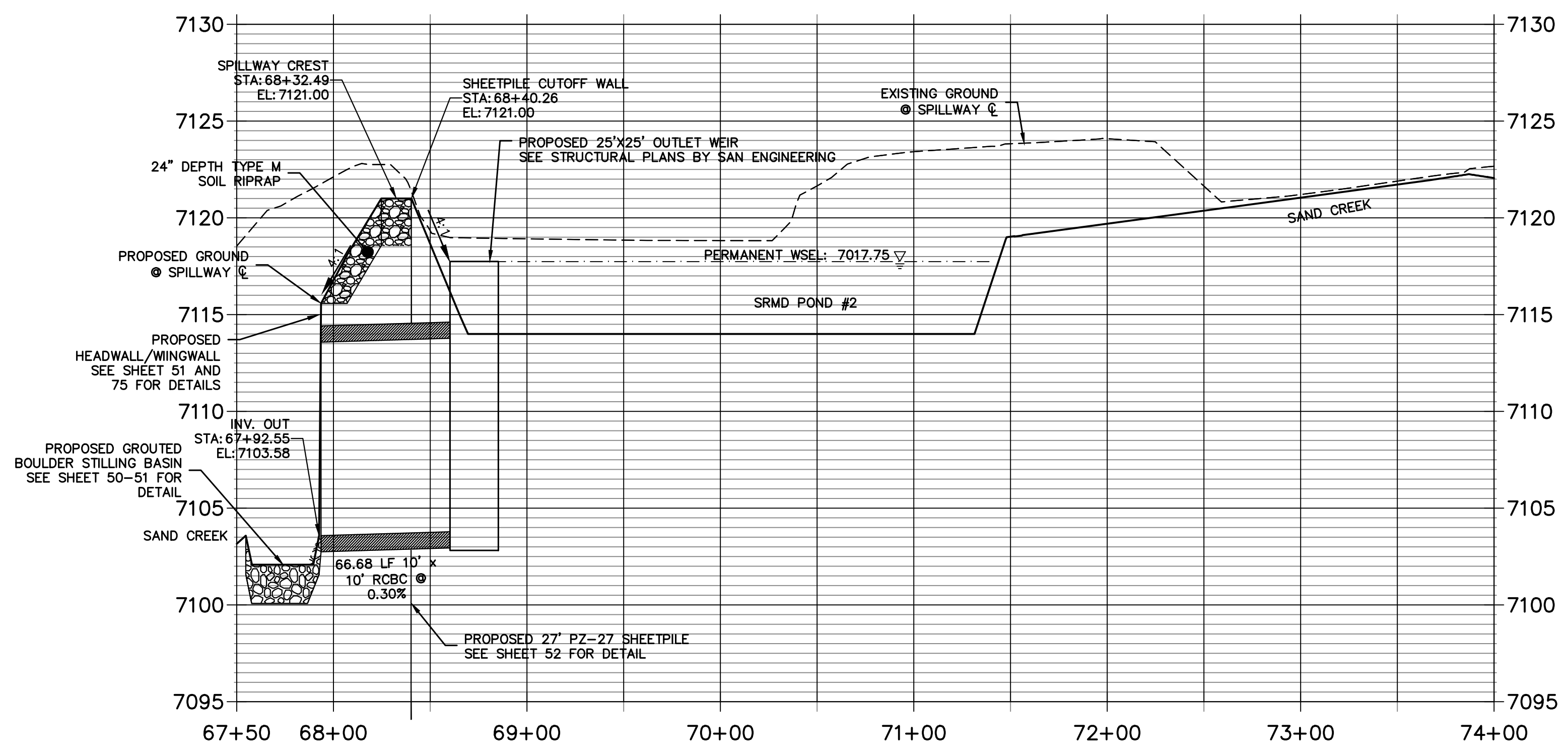
GRADING NOTES:

- ALL PROPOSED CONTOURS ARE TO FINISHED GRADE.
- EARTHEN CUT AND FILL SLOPES SHALL BE 3:1 MAXIMUM. SLOPES IN EXCESS OF 4:1 AND AREAS OTHERWISE INDICATED BY WITHIN THESE PLANS, SHALL BE COVERED WITH SOIL RETENTION BLANKET OVER 4" MIN. THICKNESS OF TOPSOIL AND SEEDED.
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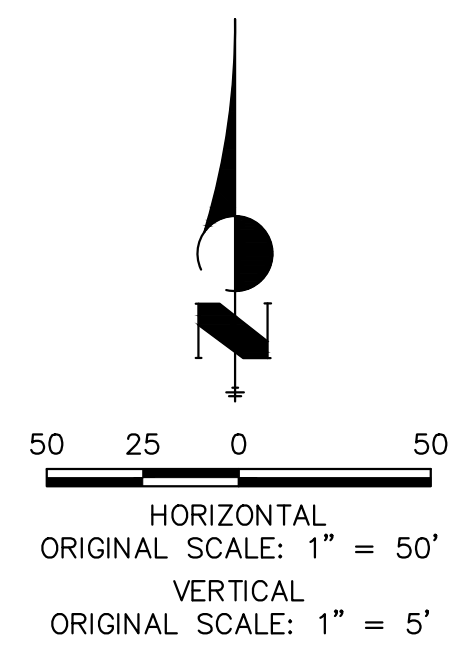
SRMD POND #2	
DRAINAGE AREA (AC)	2003.2
AVERAGE % IMP.	8%
Q ₅ (CFS)	477.23
Q ₁₀₀ (CFS)	476.24
STATIC WSEL (FT)	7117.75
MAX WSEL (FT)	7019.27
DEPTH (FT)	5.08
VOLUME (AC-FT)	6.26
SURFACE AREA (AC)	1.35



**SRMD POND #2 EMERGENCY SPILLWAY PROFILE
STA 67+50.00 TO 74+00.00**



Know what's below.
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ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION

Mike Bramlett

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

FOR AND ON BEHALF OF JR ENGINEERING

DATE: 11/20/23

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
2ND FLOOR
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 419-3024

J.R. ENGINEERING
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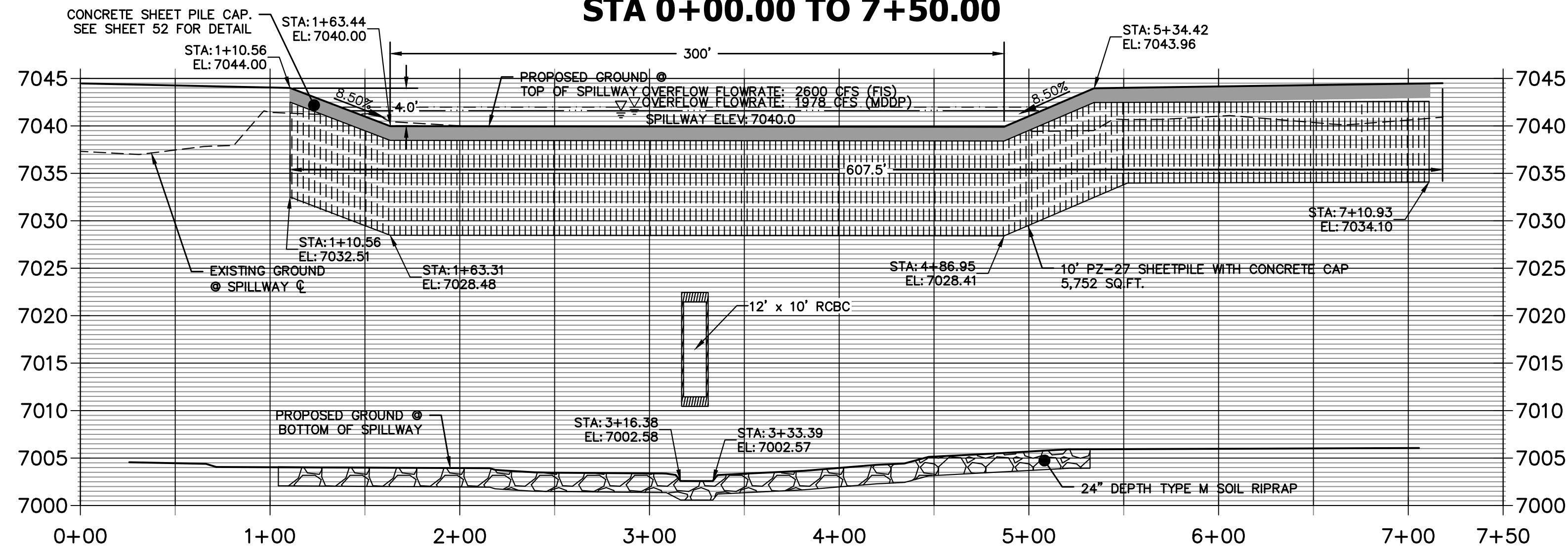
BY	DATE	REVISION

H-SCALE 1"=50'
V-SCALE 1"=5'
DATE 11/20/23
DESIGNED BY DJV
DRAWN BY DJV
CHECKED BY

SAND CREEK RESTORATION
POND PLANS

SHEET 46 OF 26
JOB NO. 25188.04

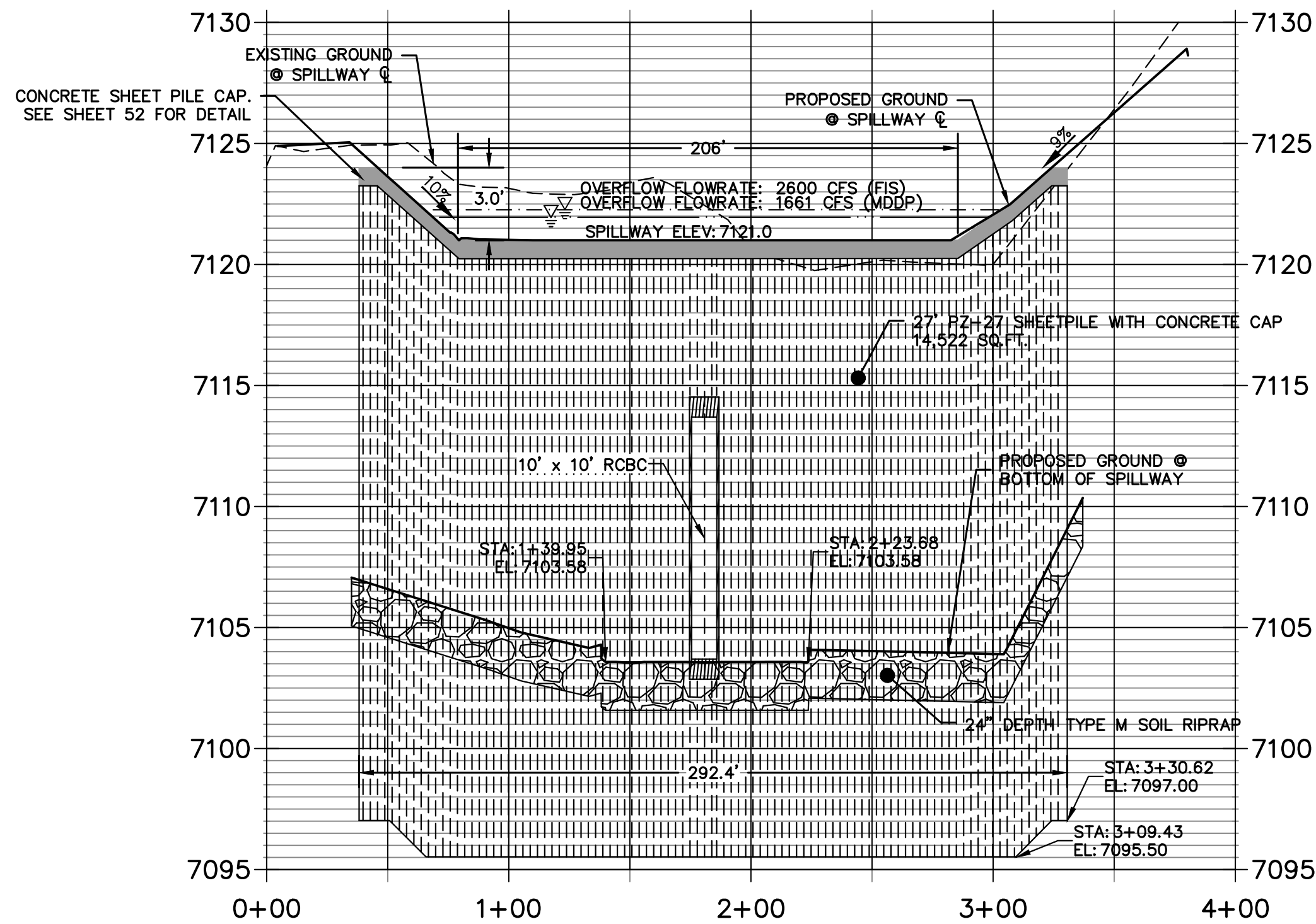
**SRMD POND #1 SECTION A-A PROFILE
STA 0+00.00 TO 7+50.00**



SRMD POND #1 SECTION A-A PROFILE
HORZ SCALE: 1"=50'
VERT SCALE: 1"=10'

NOTES:
SEE STRUCTURAL PLANS BY SAM ENGINEERING FOR OUTLET STRUCTURE DESIGN.

**SRMD POND #2 SECTION A-A PROFILE
STA 0+00.00 TO 4+00.00**

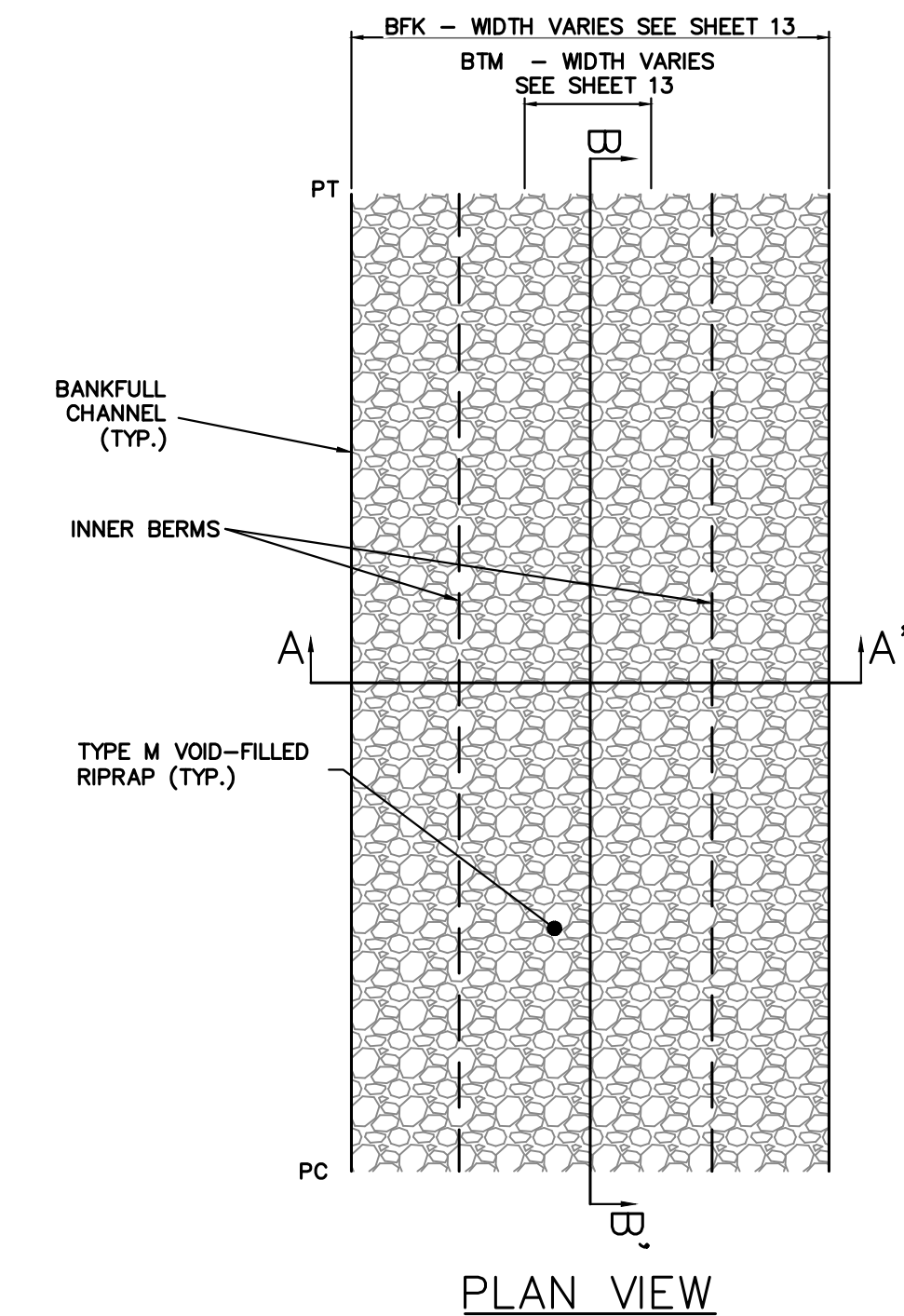
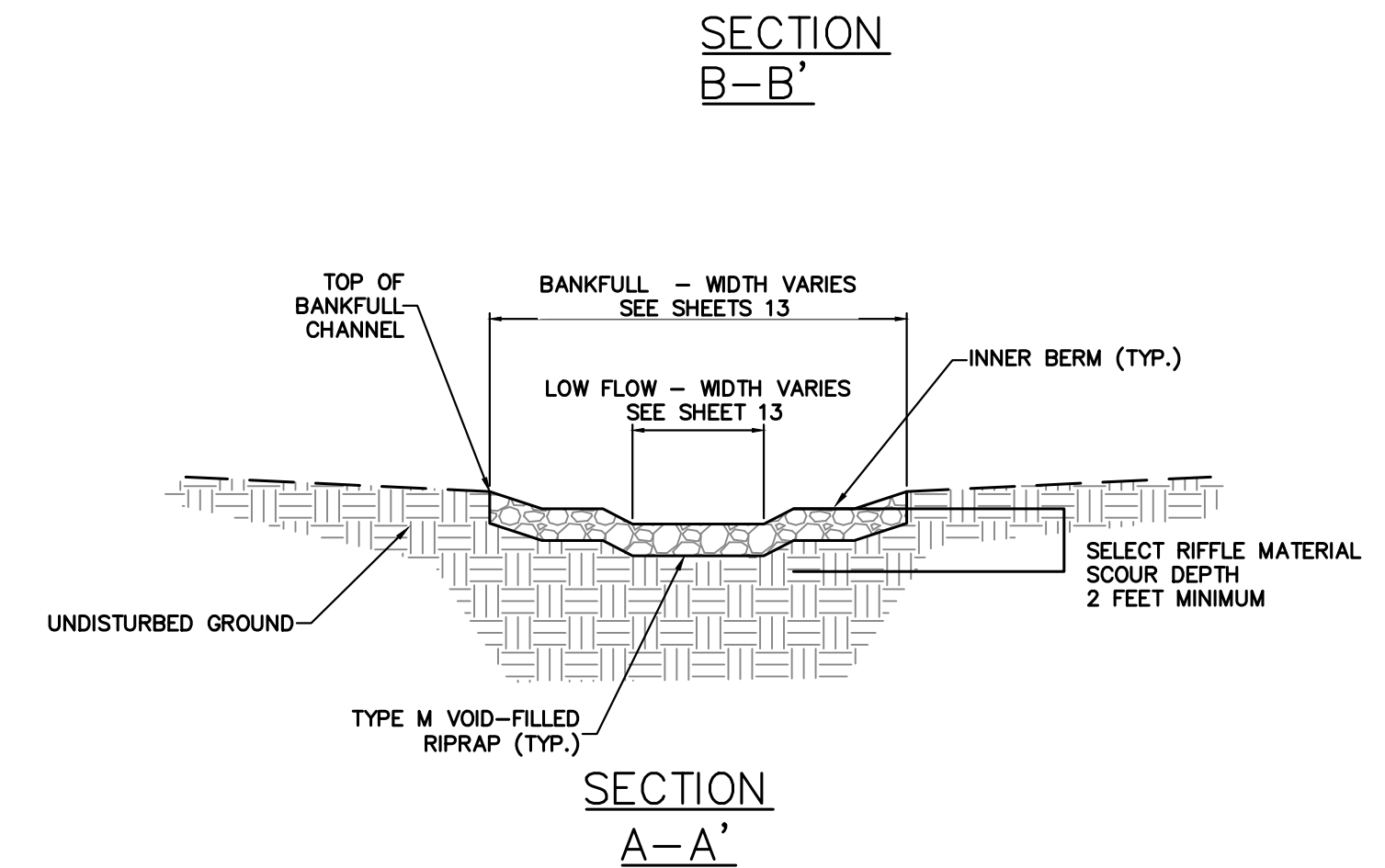
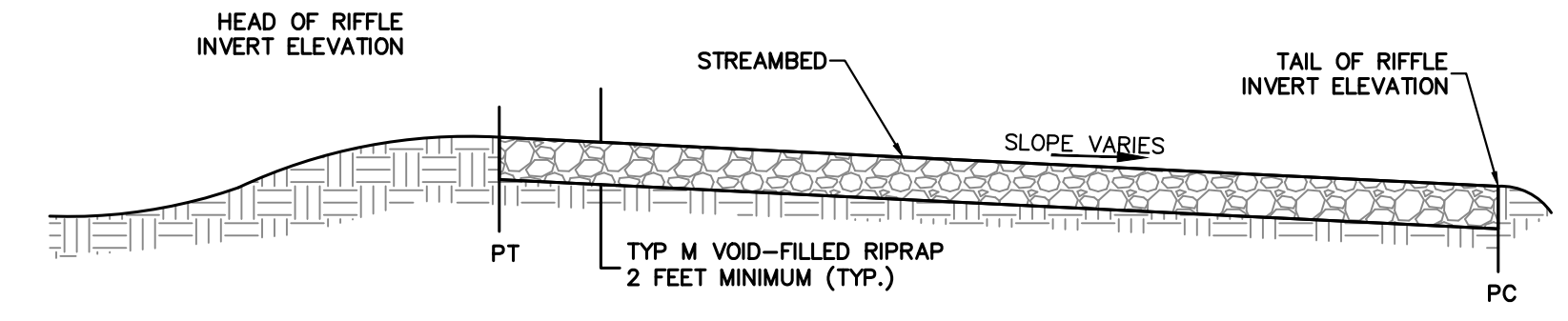
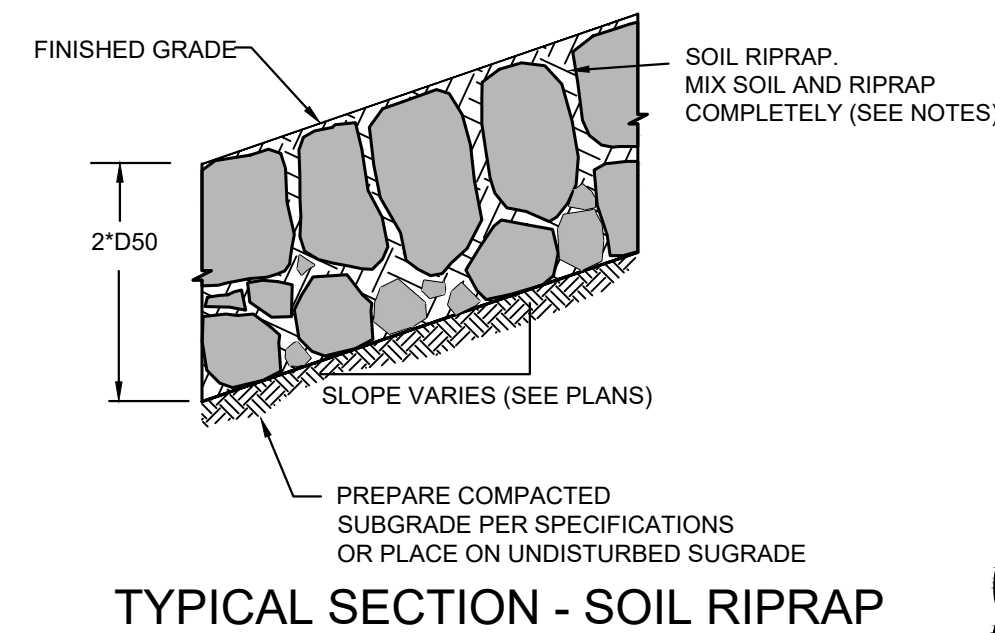
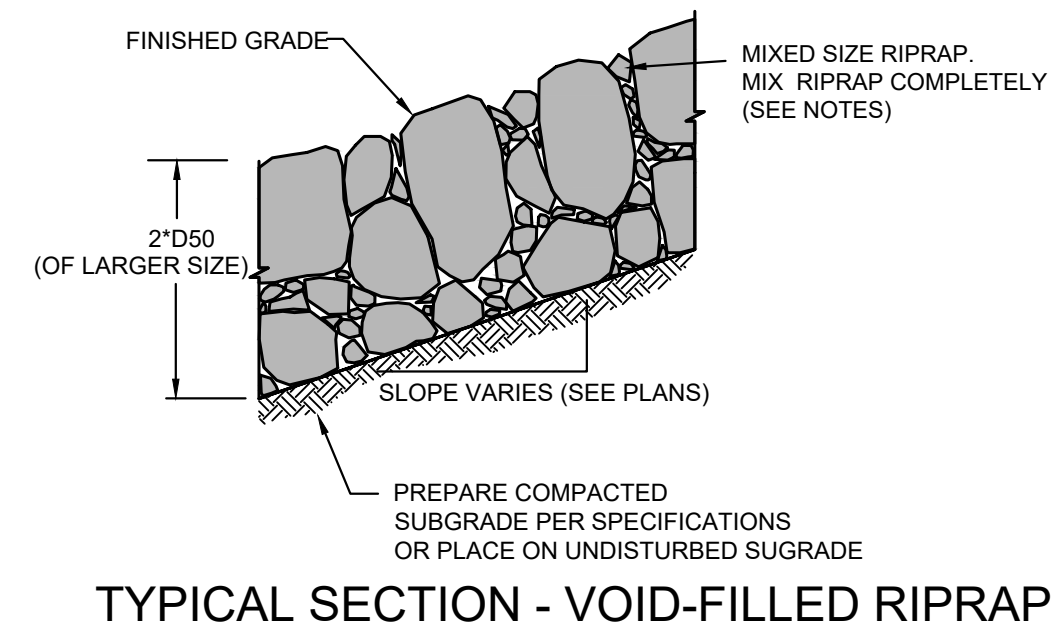


SRMD POND #2 SPILLWAY PROFILE
HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'

RIPRAP NOTES:

- WHERE "SOIL RIPRAP" IS DESIGNATED ON THE CONTRACT DRAWINGS, RIPRAP VOIDS ARE TO BE FILLED WITH APPROVED FILL. THE RIPRAP SHALL BE PRE-MIXED WITH THE APPROVED FILL AT THE FOLLOWING PROPORTIONS BY VOLUME: 65 PERCENT RIPRAP AND 35 PERCENT SOIL. THE SOIL USED FOR MIXING SHALL BE NATIVE TOPSOIL AND SHALL HAVE A MINIMUM FINES CONTENT OF 15 PERCENT. THE SOIL RIPRAP SHALL BE INSTALLED IN A MANNER THAT RESULTS IN A DENSE, INTERLOCKED LAYER OF RIPRAP WITH RIPRAP VOIDS FILLED COMPLETELY WITH SOIL. SEGREGATION OF MATERIALS SHALL BE AVOIDED AND IN NO CASE SHALL THE COMBINED MATERIAL CONSIST PRIMARILY OF SOIL. THE DENSITY AND INTERLOCKING NATURE OF RIPRAP IN THE MIXED MATERIAL SHALL ESSENTIALLY BE THE SAME AS IF THE RIPRAP WAS PLACED WITHOUT SOIL.
- PLACE ALL RIPRAP AND SOIL-RIPRAP TO RESULT IN SECURELY INTERLOCKED ROCK AT THE DESIGN THICKNESS AND GRADE, COMPACT AND ALL LEVEL TO ELIMINATE VOIDS AND ROCKS PROJECTING DESIGN ABOVE RIPRAP TOP GRADE.
- ALL SOIL RIPRAP THAT IS BURIED WITH TOPSOIL SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ANY TOPSOIL PLACEMENT.
- CRIMP OR TACKIFY MULCH OR USE APPROVED HYDROMULCH AS CALLED FOR IN THE PLANS AND SPECIFICATIONS.
- ELEVATION TOLERANCES FOR RIPRAP SHALL BE 0.10 FEET. THICKNESS OF SOIL RIPRAP SHALL BE NO LESS THAN THICKNESS SHOWN AND NO MORE THAN 2-INCHES GREATER THAN THE THICKNESS SHOWN.

RIPRAP DESIGNATION	INTERMEDIATE ROCK DIMENSION (IN.)	PERCENT PASSING (%)	D50 (IN.)
TYPE VL	12	70-100	6
	9	50-70	
	6	35-50	
	2	2-10	
TYPE M	21	70-100	12
	18	50-70	
	12	35-50	
	4	2-10	
TYPE H	30	70-100	18
	24	50-70	
	18	35-50	
	6	2-10	



ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION
 Mike Bramlett
 COLORADO P.E. 32314
 FOR AND ON BEHALF OF JR ENGINEERING

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

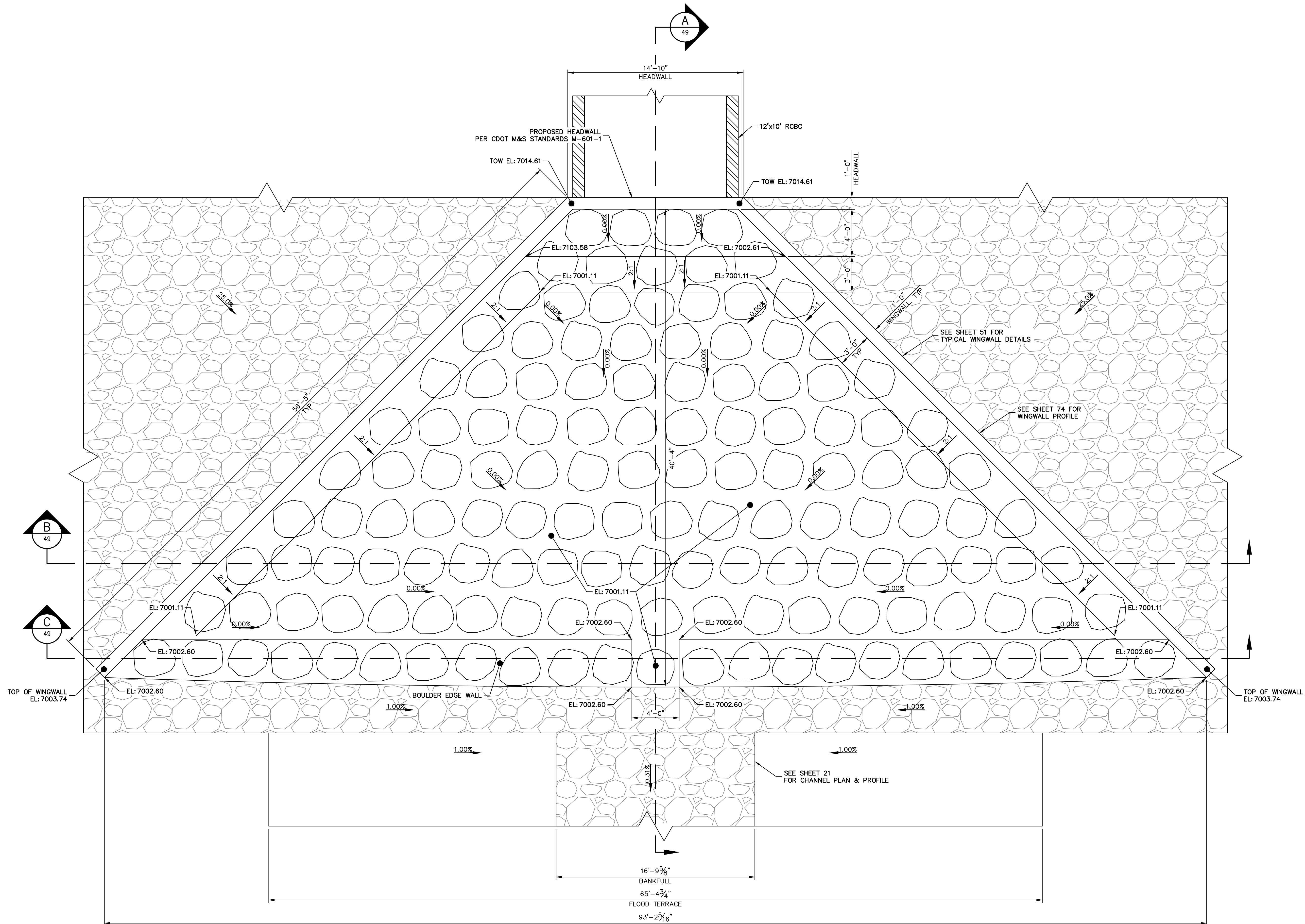
PREPARED FOR
 SR LAND, LLC
 20 BOULDER CRESCENT
 2ND FLOOR
 COLORADO SPRINGS, CO 80903
 JAMES F. MORLEY
 (719) 419-3024

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 Centennial 300-740-0888 • Colorado Springs 719-583-2583
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NO.	REVISION	BY	DATE

H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=50'	VARIES	11/20/23	DJV	DJV	

SAND CREEK RESTORATION
 POND PLANS



SRMD POND #1 STILLING BASIN PLAN
SCALE: 1/4"=1'

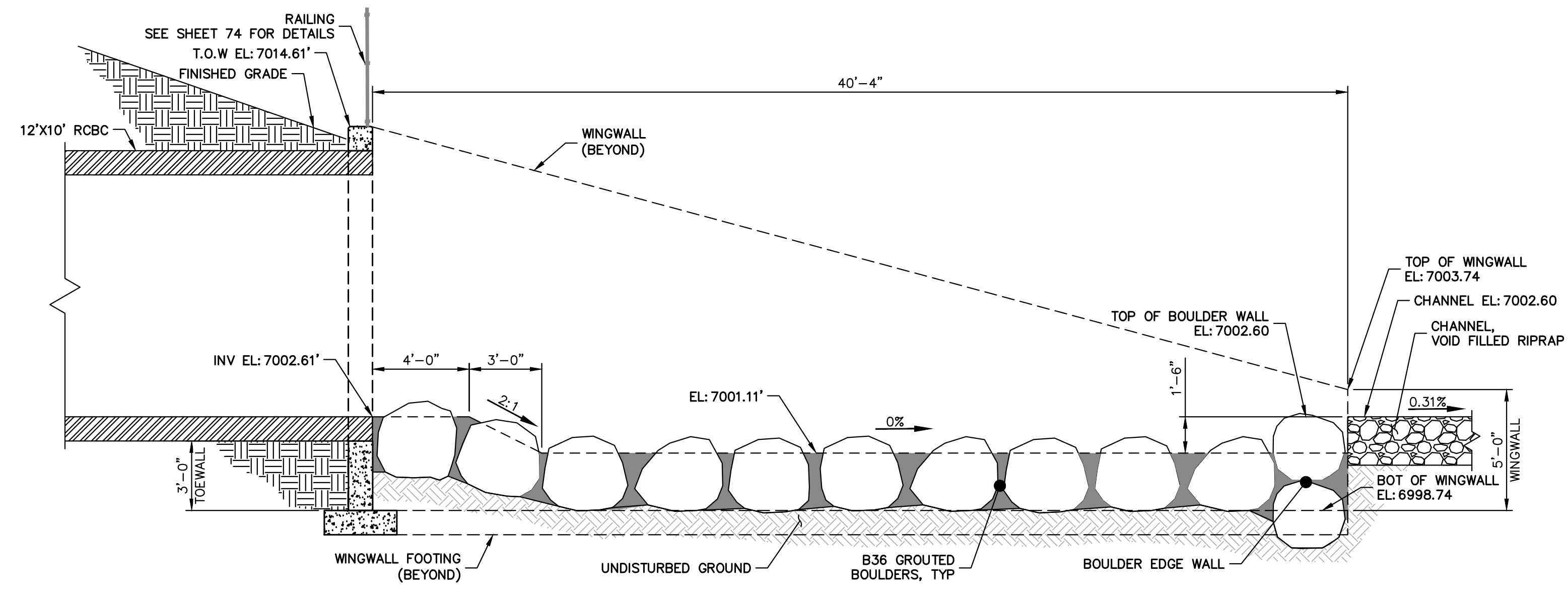
811
Know what's below.
Call before you dig.

ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION

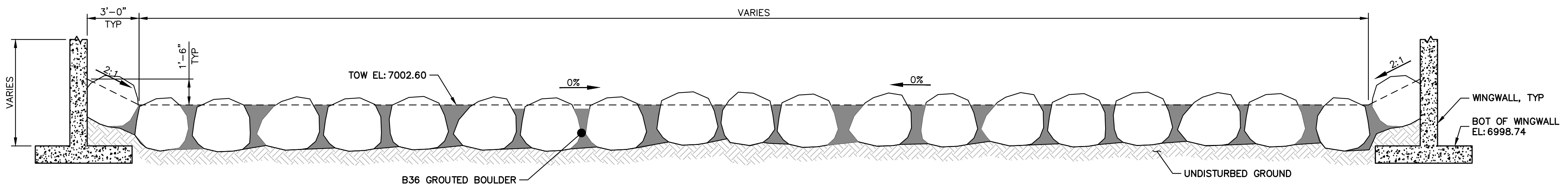
Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING

32314
11/20/23

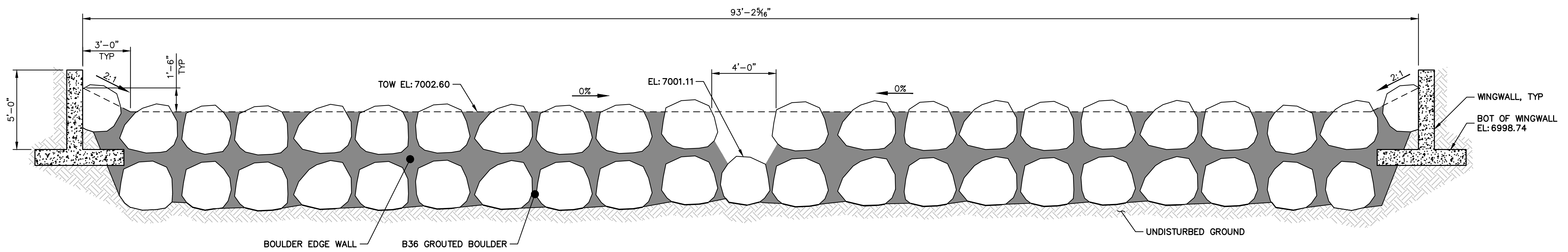
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.	
PREPARED FOR	SR LAND, LLC 20 BOULDER CRESCENT 2ND FLOOR COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 419-3024
<p>J.R. ENGINEERING A Westman Company Central 303-740-9888 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com</p>	
BY	DATE
No.	REVISION
H-SCALE	1/4"=1'
V-SCALE	N/A
DATE	11/20/23
DESIGNED BY	DJV
DRAWN BY	NEO
CHECKED BY	
SAND CREEK RESTORATION	
POND PLANS	
SHEET	48 OF 121
JOB NO.	25188.04



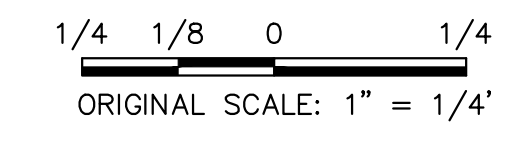
A SRMD POND #1 STILLING BASIN SECTION
 48 SCALE: 1/4"=1'-0"



B SRMD POND #1 STILLING BASIN SECTION
 48 SCALE: 1/4"=1'-0"



C SRMD POND #1 STILLING BASIN SECTION
 48 SCALE: 1/4"=1'-0"



ENGINEER'S STATEMENT
 PREPARED UNDER MY DIRECT SUPERVISION

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

32314
 11/20/23

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PREPARED FOR	SR LAND, LLC 20 BOULDER CRESCENT 2ND FLOOR COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 419-3024
 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	1/4"=1"
V-SCALE	N/A
DESIGNED BY	DJV
DRAWN BY	NEO
CHECKED BY	
SAND CREEK RESTORATION	
POND PLANS	
SHEET	49 OF 121
JOB NO.	25188.04

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PREPARED FOR
SR LAND, LLC
 20 BOULDER CRESCENT
 2ND FLOOR
 COLORADO SPRINGS, CO 80903
 JAMES F. MORLEY
 (719) 419-3024

J.R. ENGINEERING
 A Westman Company

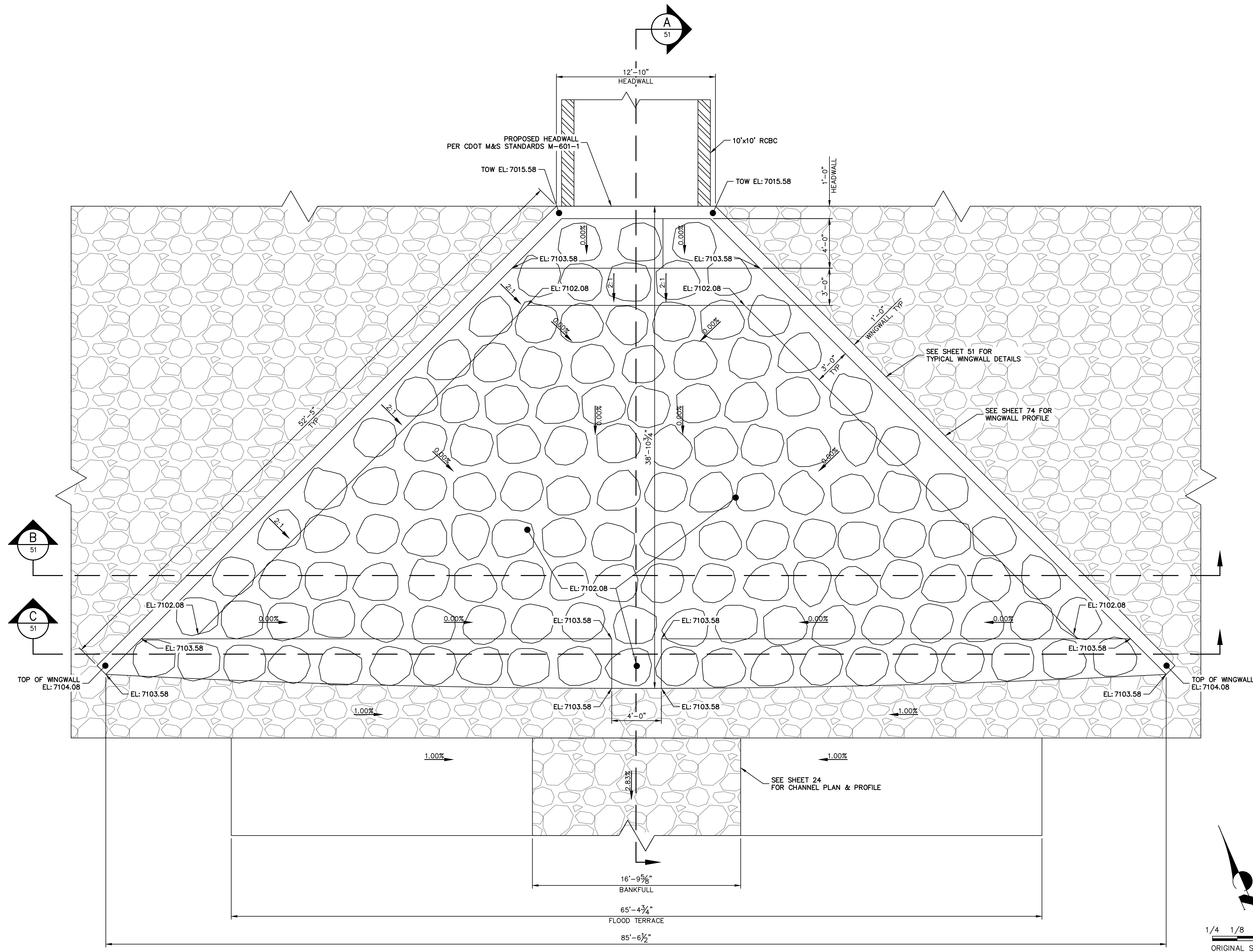
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BY	DATE	No.	REVISION

H-SCALE	1/4" = 1'
V-SCALE	N/A
DATE	11/20/23
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SAND CREEK RESTORATION
 POND PLANS

SHEET 50 OF 121
 JOB NO. 25188.04



SRMD POND #2 STILLING BASIN PLAN
 SCALE: 1/4" = 1'

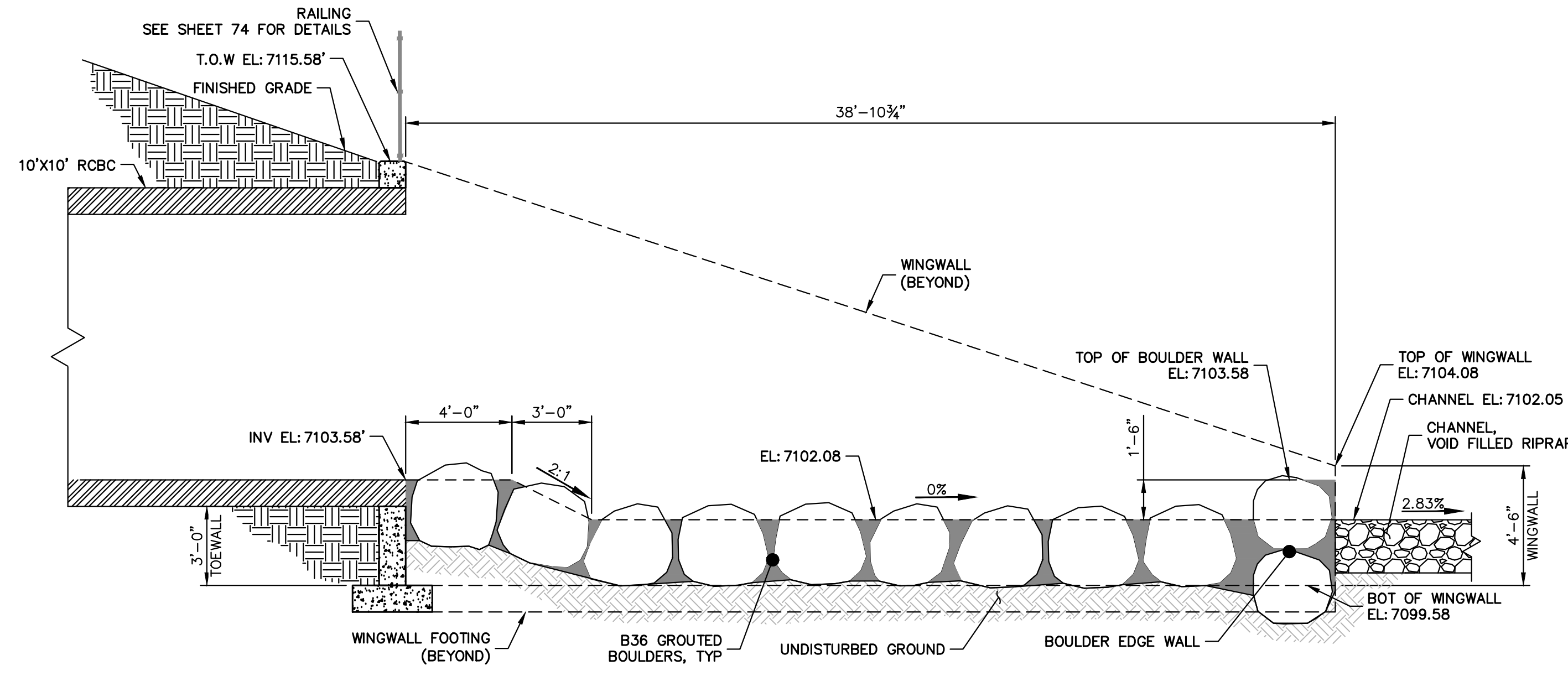
ORIGINAL SCALE: 1" = 1/4'

ENGINEER'S STATEMENT
 PREPARED UNDER MY DIRECT SUPERVISION

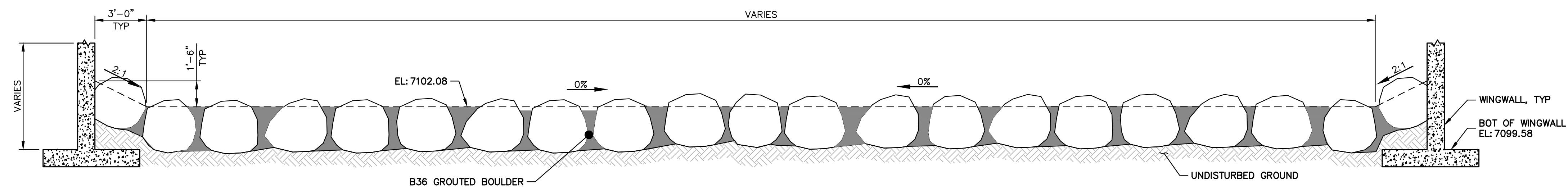
Mike Bramlett
 MIKE A. BRAMLETT, P.E.
 COLORADO P.E. 32314
 FOR AND ON BEHALF OF JR ENGINEERING

DATE: 11/20/23

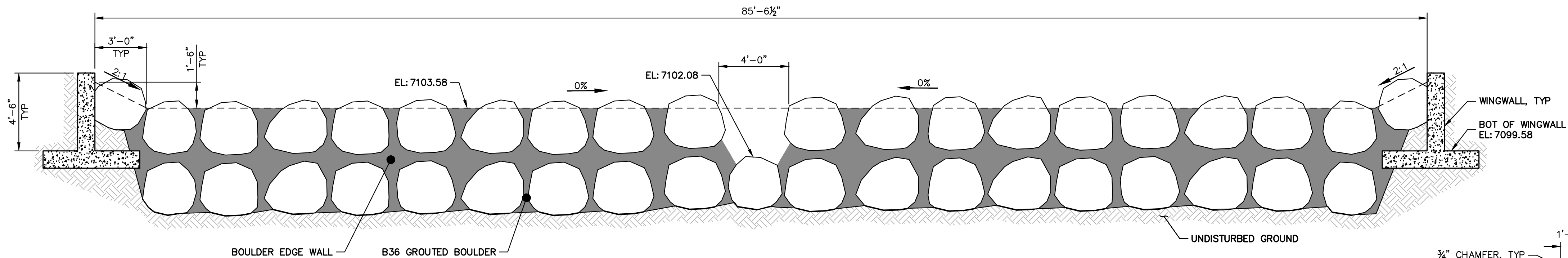
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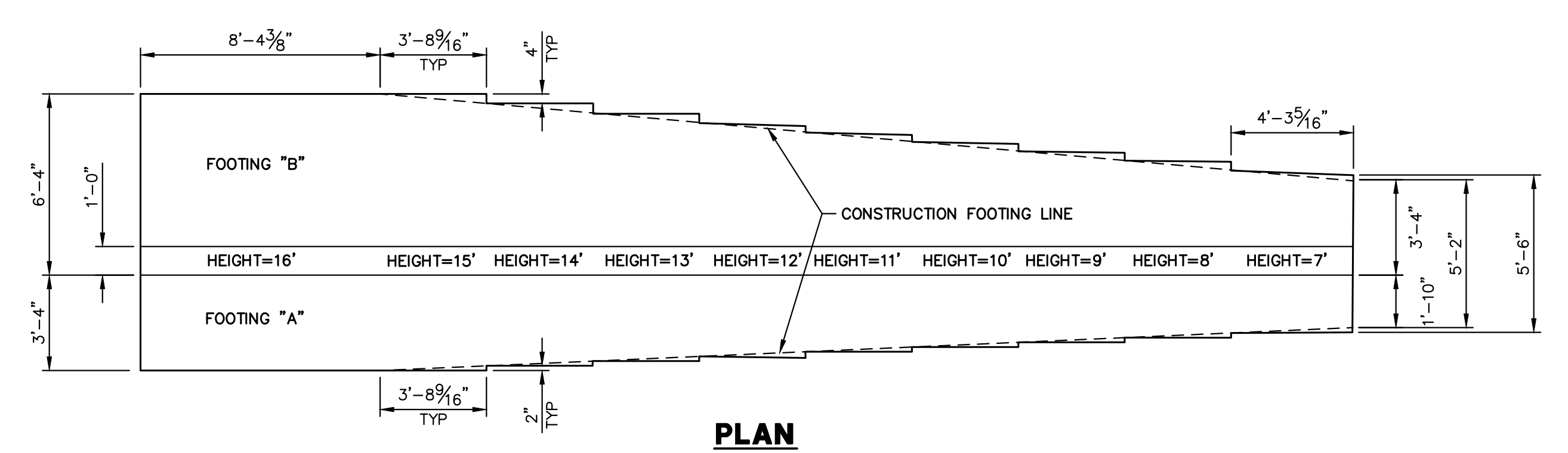
A SRMD POND #2 STILLING BASIN SECTION
SCALE: 1/4"=1'-0"



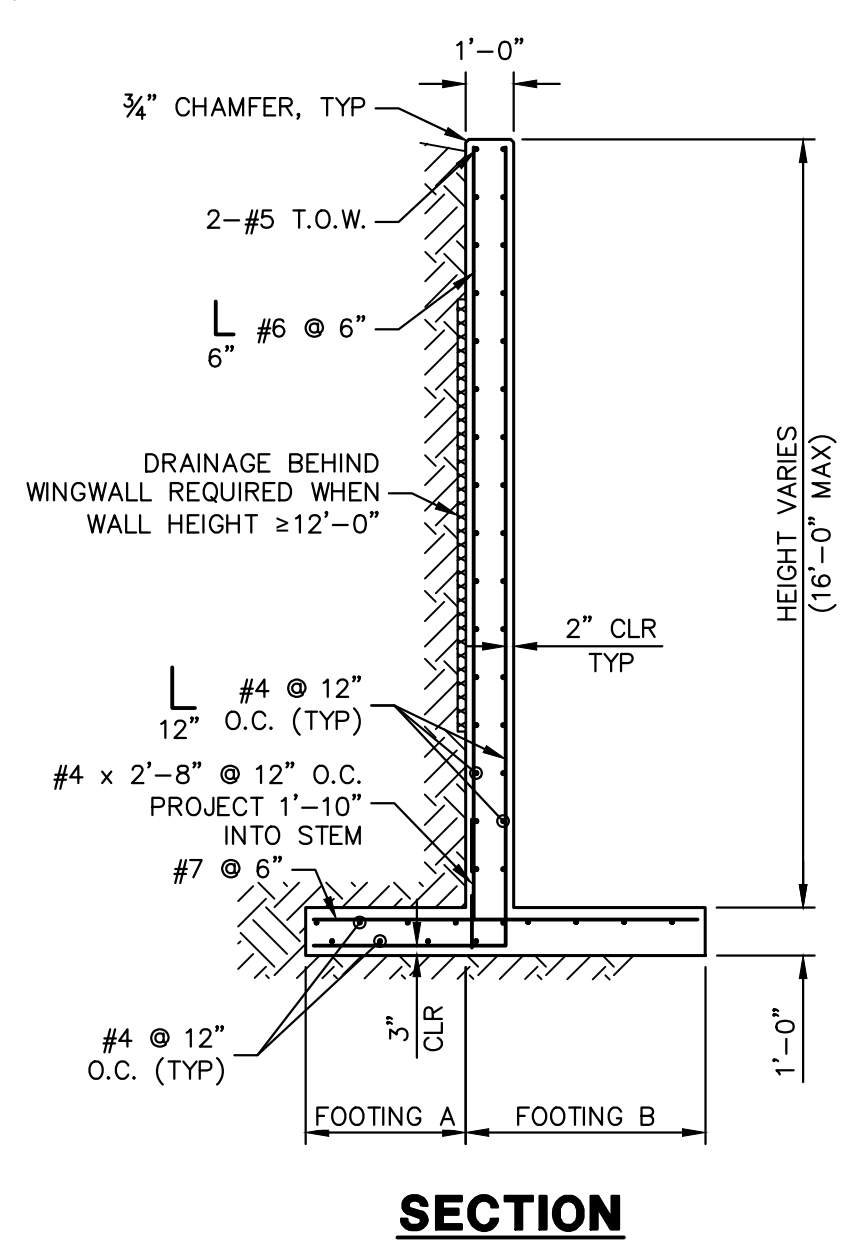
B SRMD POND #2 STILLING BASIN SECTION
SCALE: 1/4"=1'-0"



C SRMD POND #2 STILLING BASIN SECTION
SCALE: 1/4"=1'-0"



TYPICAL WINGWALL DETAILS
SCALE: 1/4"=1'

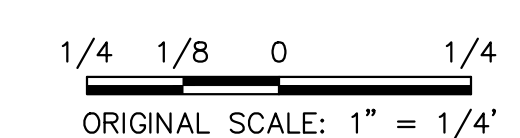


WINGWALL NOTES:

- AASHTO LRFD EIGHTH EDITION, 2017 DESIGN METHOD: LOAD AND RESISTANCE FACTOR DESIGN, YIELD LINE METHOD
- REINFORCED CONCRETE:
 - CONCRETE CLASS D (BOX CULVERT): F'c= 4,500 PSI
 - REINFORCING STEEL: Fy = 60,000 PSI
- LOADING:
 - AT-REST EARTH (FLUID) PRESSURE FOR CONCRETE STEM DESIGN = 55 PCF FOR 2 (MIN.) : 1 SLOPED BACKFILL
 - ACTIVE EARTH (FLUID) PRESSURE FOR CONCRETE FOOTING DESIGN = 40 PCF FOR 2 (MIN.) : 1 SLOPED BACKFILL
 - LIVE LOAD SURCHARGE = 2'
 - MINIMUM RESISTANCE FOR SOIL BEARING = 5.5 KSF
 - SOIL BEARING RESISTANCE FACTOR = 0.45
- GENERAL NOTES:
 - ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4" IN.
 - WINGWALL FOOTING AND FLOOR OF BOX CULVERT SHALL BE PLACED MONOLITHICALLY.
 - MINIMUM CLASS B LAP SPLICE LENGTH FOR BLACK REINFORCING BARS:
 - BAR SIZE & SPLICE LENGTH: #4(1'-6"), #5(1'-11"), #6(2'-3"), #7(2'-7")
 - DESIGN DOES NOT CONSIDER ANY SCOUR EFFECTS.

GROUTED BOULDER NOTES:

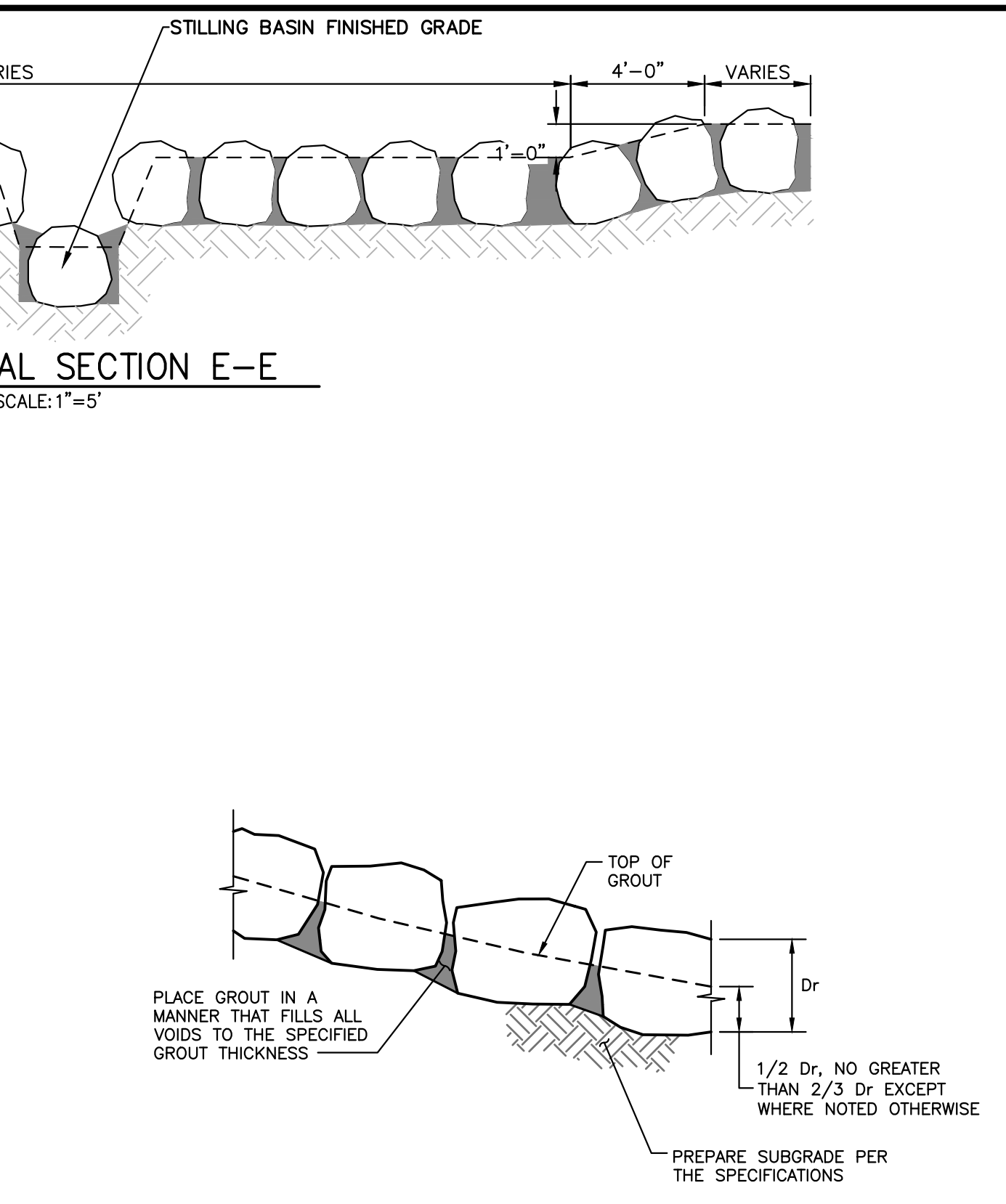
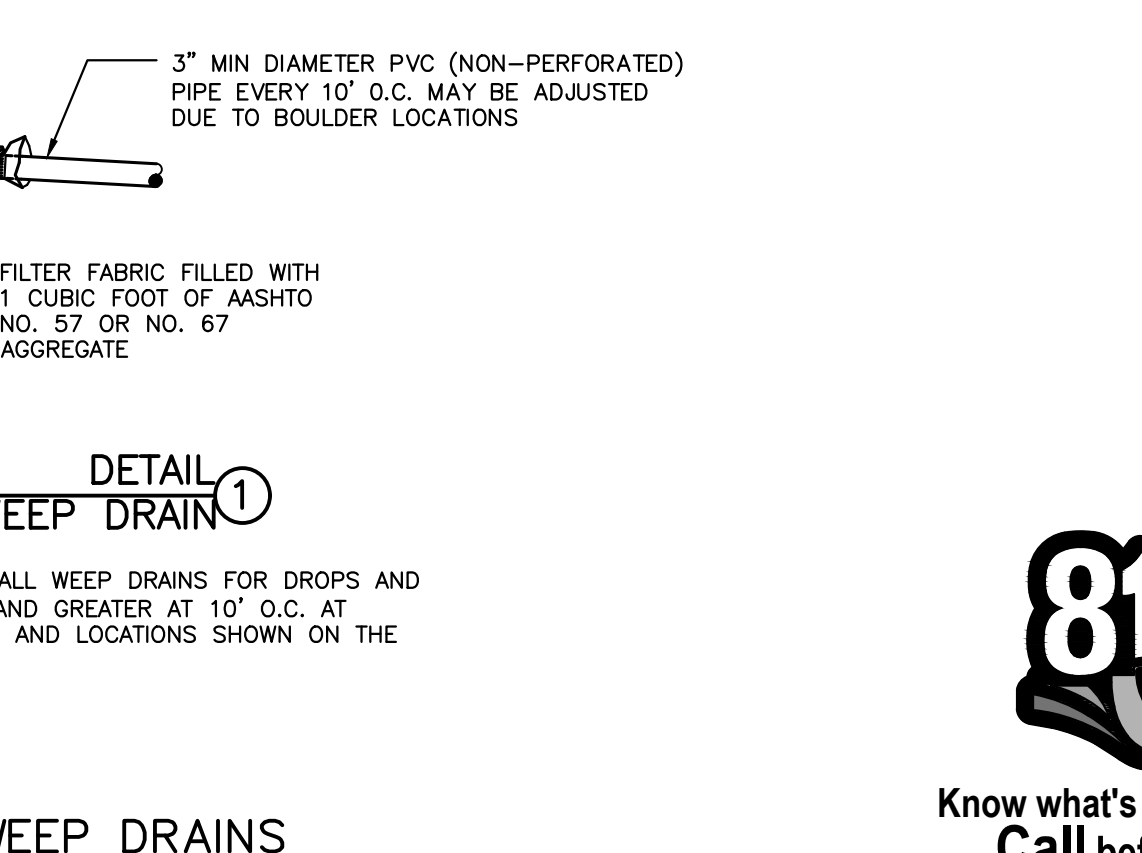
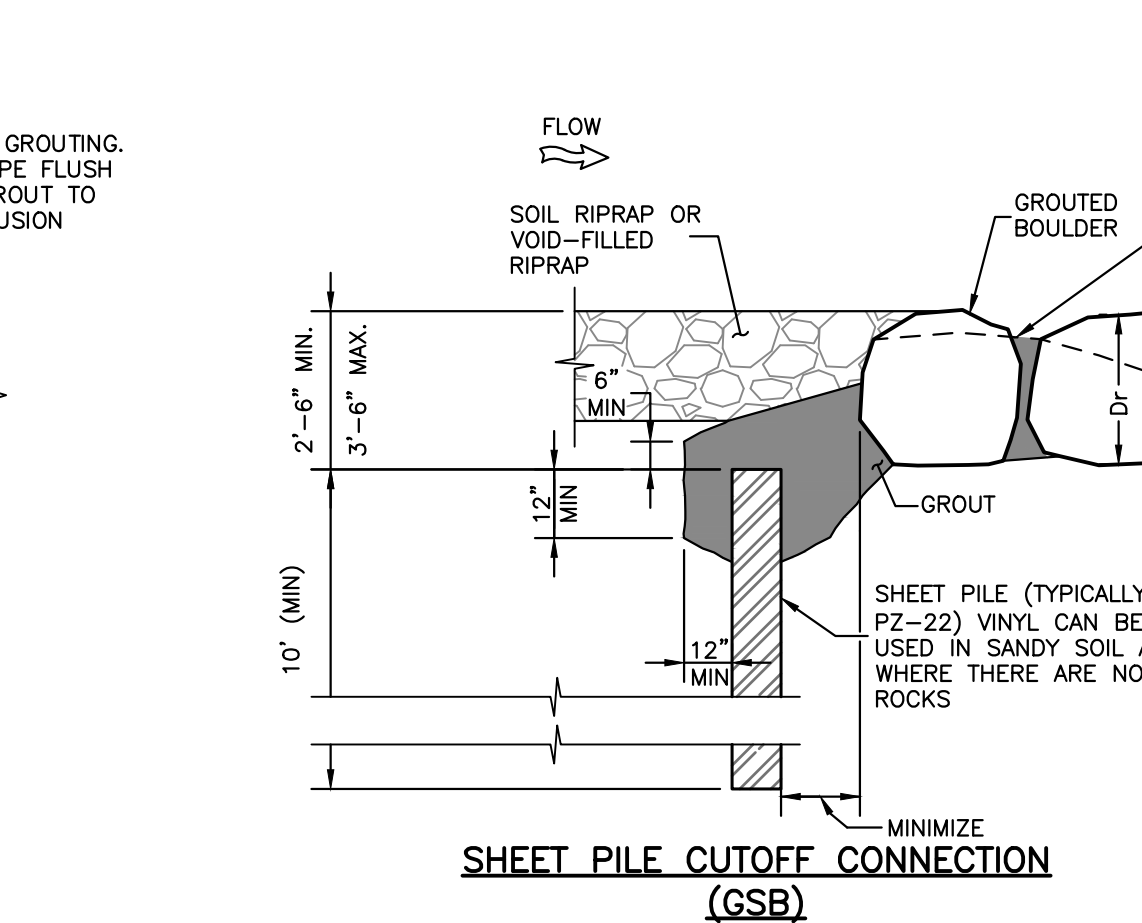
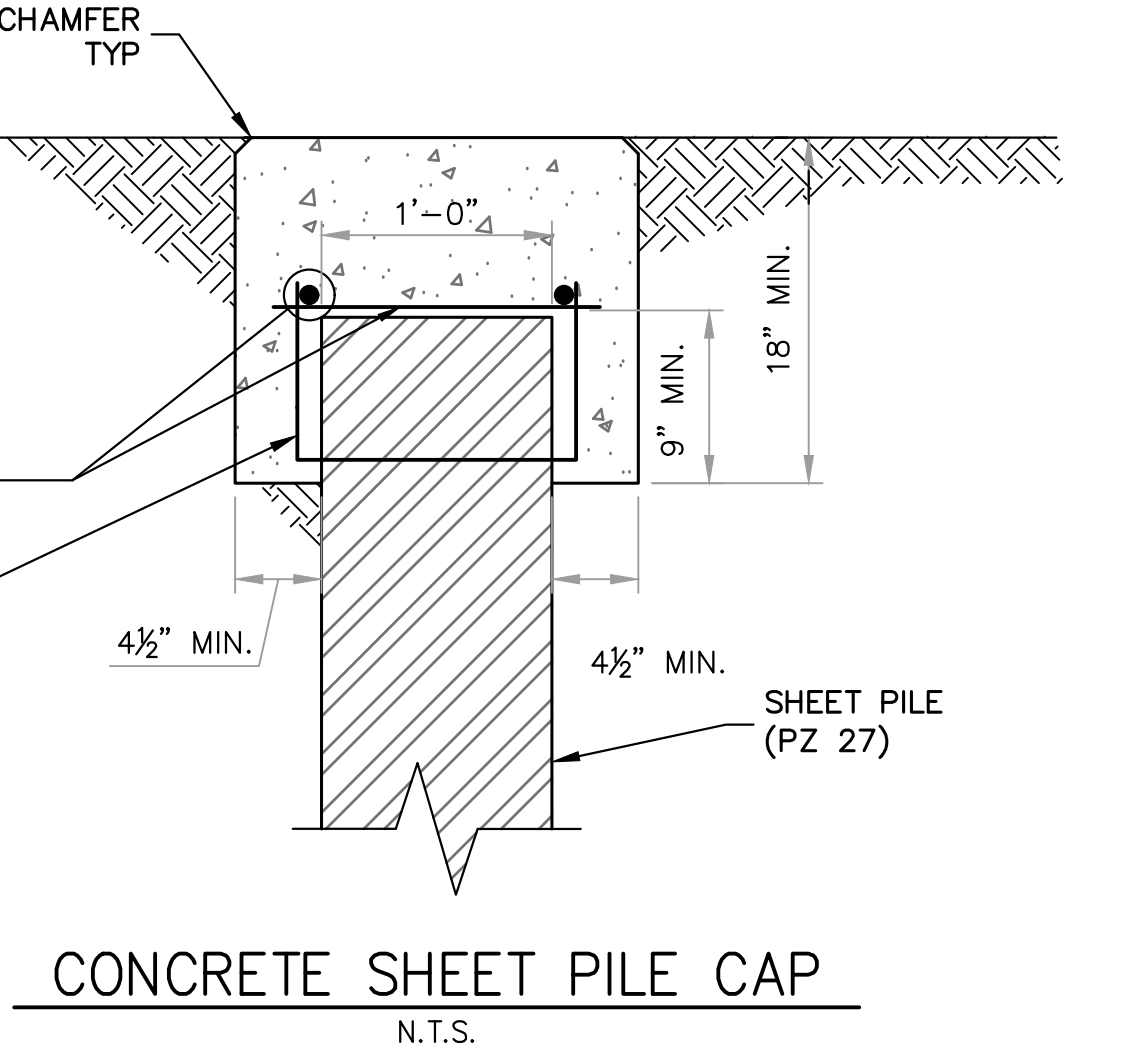
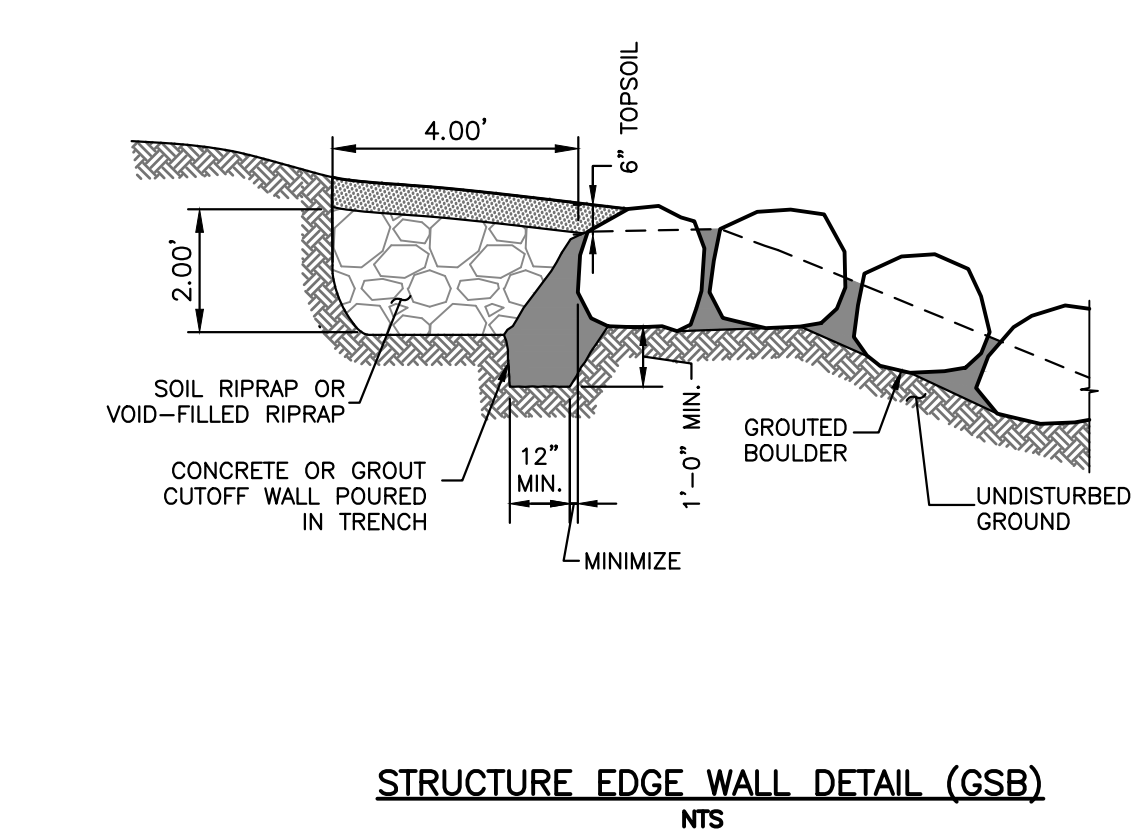
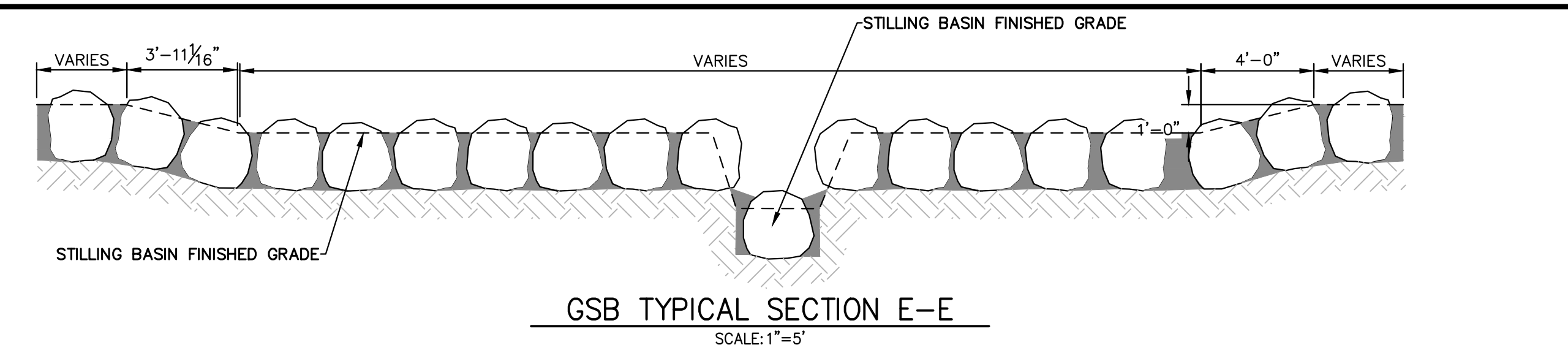
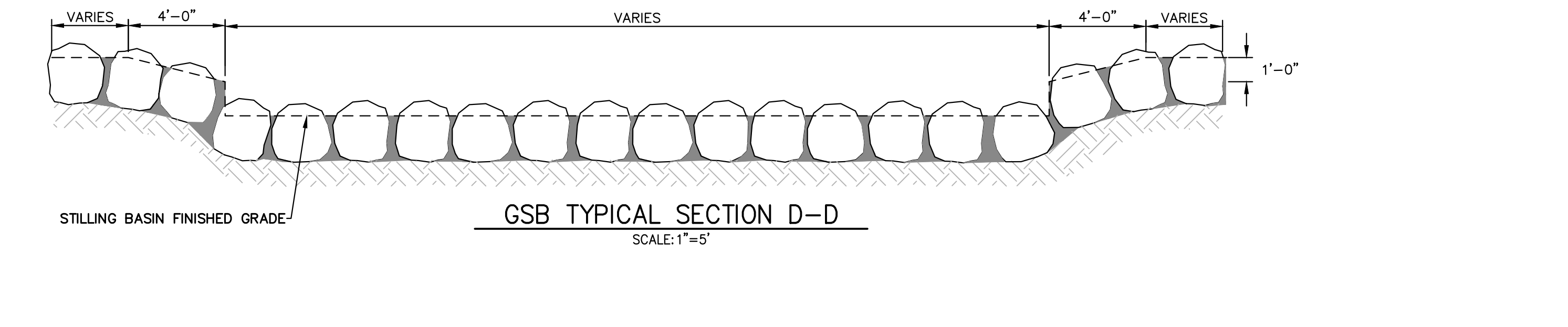
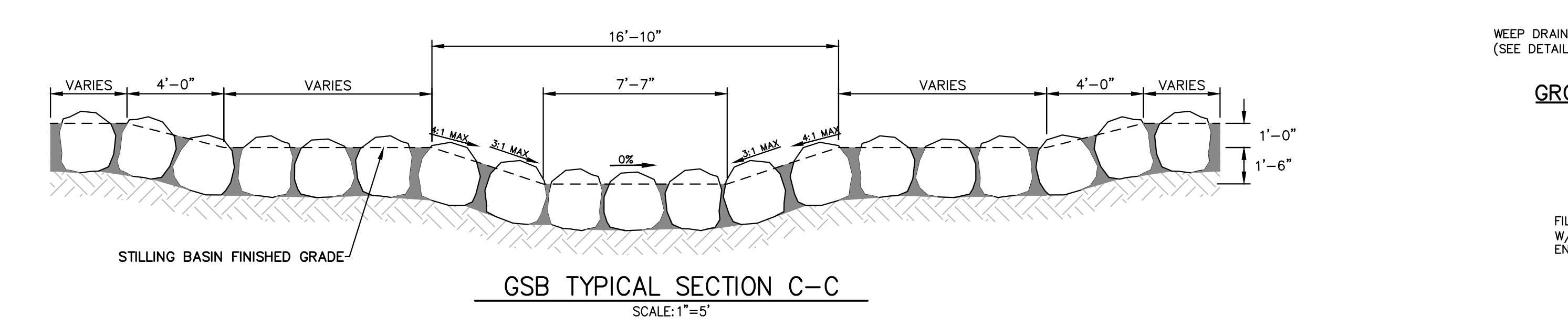
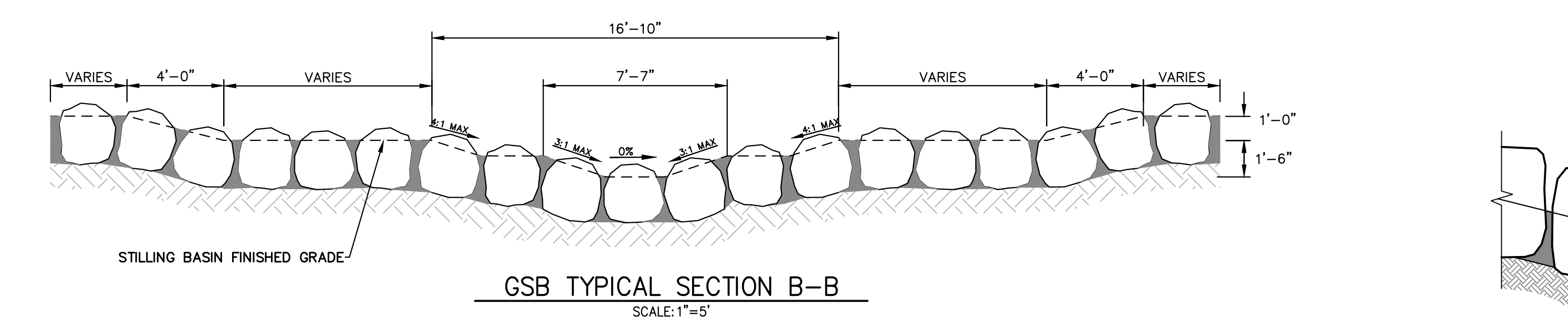
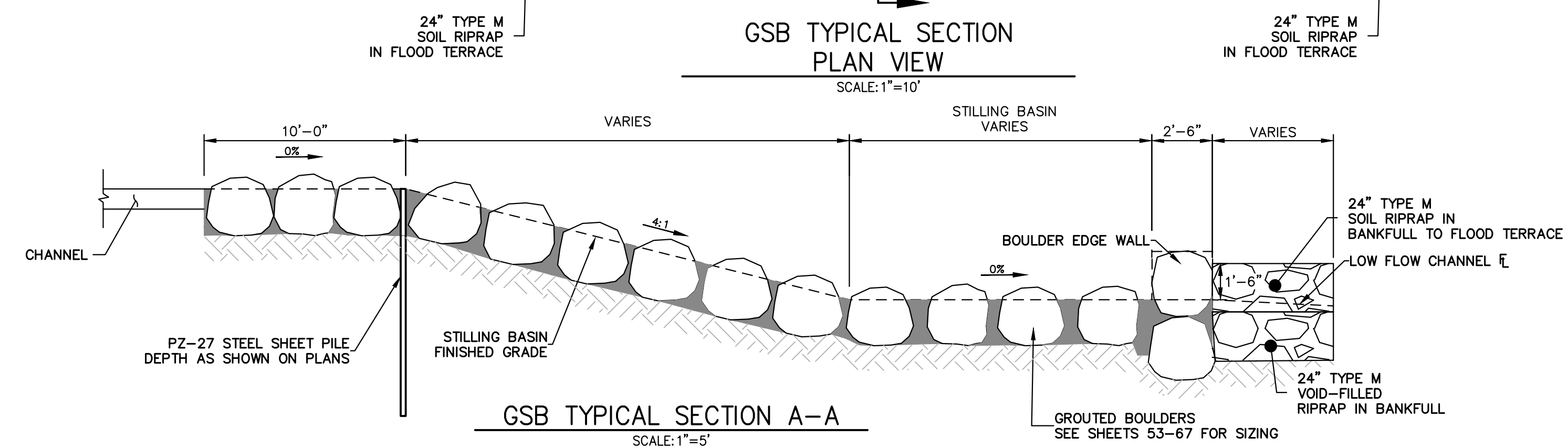
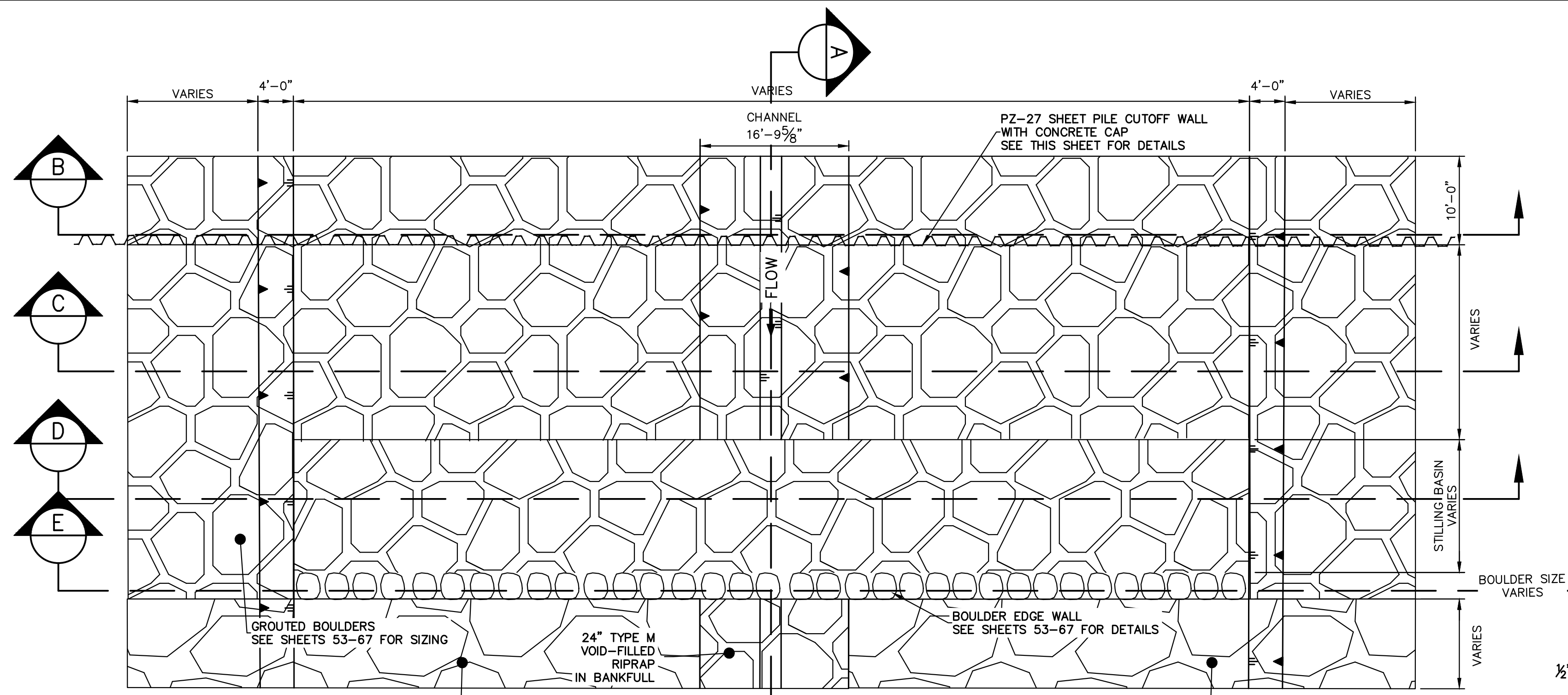
- BOULDERS USED FOR GROUTING SHOULD MEET ALL THE PROPERTIES OF ROCK FOR ORDINARY RIPRAP, AND ROCK OF UNIFORM SIZE SHOULD BE USED.
- ROCK SHALL BE HARD, DURABLE, AND FREE FROM CRACKS, OVERBURDEN, SHALE, AND ORGANIC MATTER.
- GROUTED BOULDERS SHALL BE PLACED DIRECTLY ON STABILIZED, COMPACTED SUBGRADE WITHOUT GRANULAR BEDDING.
- THE TOP ONE-THIRD OF THE BOULDERS SHALL BE LEFT UNGROUTED AND EXPOSED.
- ROCK HAVING A MINIMUM SPECIFIC GRAVITY OF 2.65 IS PREFERRED; HOWEVER, IN NO CASE SHALL ROCK HAVE A SPECIFIC GRAVITY LESS THAN 2.50.
- WEEP HOLES SHALL BE PROVIDED AT THE CHANNEL SLOPES AND CHANNEL DROPS AS SHOWN TO REDUCE UPLIFT FORCES ON THE GROUTED CHANNEL LINING.
- PLACEMENT AND GROUTING OF BOULDERS SHALL GENERALLY CONFORM TO THE SPECIFICATIONS AND DETAILS FOR GROUTED BOULDER DROPS. SEE DETAILS AND NOTES FOR GROUTED BOULDER DROPS ON THIS SHEET.
- BOULDERS SHALL BE SET IN A STEPPED MANNER. BOULDERS SHALL NOT BE ORIENTED INTO A SMOOTH SLOPING FACE.
- BOULDERS SHALL BE GROUTED TO 2/3 THE ROCK HEIGHT.
- BOULDERS OF DIFFERENT SOURCES AND/OR COLORS SHALL BE MIXED WITH THE OTHER ROCK AND EVENLY DISPERSED THROUGHOUT THE PROJECT TO AVOID HAVING AREAS OF NON-UNIFORMITY.
- THE BOULDER SIZES SHOWN ON THE PLANS ARE MINIMUM DIMENSIONS. LARGER ROCK MAY BE SUBSTITUTED AS LONG AS THE TOP OF BOULDER ELEVATIONS SHOWN ON THE PLANS ARE MET AND THE MINIMUM OVER-EXCAVATION REQUIREMENTS ARE MET AT EACH BOULDER LOCATION.



ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION
 Mike Bramlett
 MIKE A. BRAMLETT, P.E.
 COLORADO P.E. 32314
 FOR AND ON BEHALF OF JR ENGINEERING
 11/20/23
 32314

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 2ND FLOOR COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 419-3024
	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	
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V-SCALE	N/A	
DATE	11/20/23	
DESIGNED BY	DJV	
DRAWN BY	NEO	
CHECKED BY		
SAND CREEK RESTORATION	POND PLANS	
SHEET 51	OF 121	
JOB NO.	25188.04	



BOULDER PLACEMENT NOTES:

1. PLACE BOULDERS WITH THE REQUIRED BOULDER HEIGHT VERTICAL. PLACE BOULDERS AS TIGHTLY TOGETHER AS POSSIBLE (WITHOUT TOUCHING) WHILE PROVIDING ENOUGH ROOM BETWEEN THEM TO THOROUGHLY VIBRATE THE GROUT AND TO ENSURE NO GAPS IN THE GROUT. THE SMALL DIMENSION OF A 2x4 CAN BE USED AS A GUIDE TO CHECK MINIMUM SPACING.
2. BEFORE GROUTING, CLEAN ALL DIRT AND MATERIAL FROM ROCK THAT COULD PREVENT THE GROUT FROM BINDING TO THE ROCK. KEEP BOULDERS FROM TOUCHING. AVOID SLIDING BOULDERS AGAINST SUBGRADE TO PROPERLY POSITION.

MATERIAL SPECIFICATIONS:

1. ALL GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH EQUAL TO 3200 PSI.
2. ONE CUBIC YARD OF GROUT SHALL HAVE A MINIMUM OF SIX (6) SACKS OF TYPE II PORTLAND CEMENT.
3. A MAXIMUM OF 25% TYPE F FLY ASH MAY BE SUBSTITUTED FOR THE PORTLAND CEMENT.
4. THE AGGREGATE SHALL BE COMPRISED OF 70% NATURAL SAND (FINES) AND 30% 3/4-INCH ROCK (COARSE).
5. THE GROUT SLUMP SHALL BE BETWEEN 4-INCHES TO 6-INCHES.
6. AIR ENTRAINMENT SHALL BE BETWEEN 5.5% AND 7.5%.
7. TO CONTROL SHRINKAGE AND CRACKING, 1.5 POUNDS OF FIBERMESH, OR EQUIVALENT, SHALL BE USED PER CUBIC YARD OF GROUT.
8. COLOR ADDITIVE IN REQUIRED AMOUNTS SHALL BE USED WHEN SO SPECIFIED BY CONTRACT.

GROUT PLACEMENT SPECIFICATIONS:

1. SPECIAL PROCEDURES SHALL BE REQUIRED FOR GROUT PLACEMENT WHEN THE AIR TEMPERATURES ARE LESS THAN 40°F OR GREATER THAN 90°F. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE DESIGN ENGINEER OF THE PROCEDURES TO BE USED FOR PROTECTING THE GROUT.
2. GROUT SHALL BE DELIVERED BY MEANS OF A LOW PRESSURE (LESS THAN 10 PSI) GROUT PUMP USING A 2-INCH DIAMETER (MAXIMUM) NOZZLE.
3. FULL DEPTH PENETRATION OF THE GROUT INTO THE BOULDER VOIDS SHALL BE ACHIEVED BY INJECTING GROUT STARTING WITH THE NOZZLE NEAR THE BOTTOM AND RAISING IT AS THE GROUT FILLS, WHILE VIBRATING GROUT INTO PLACE USING A PENCIL VIBRATOR.
4. ALL GROUT BETWEEN BOULDERS SHALL BE TREATED WITH A BROOM FINISH.
5. AFTER GROUT PLACEMENT, EXPOSED BOULDER FACES SHALL BE CLEANED AND FREE OF GROUT.
6. ALL FINISHED GROUT SURFACES SHALL BE SPRAYED WITH A CLEAR LIQUID MEMBRANE CURING COMPOUND AS SPECIFIED IN ASTM C309.

GROUDED BOULDER NOTES:

1. BOULDERS USED FOR GROUDED BOULDER SHOULD MEET ALL THE PROPERTIES OF ROCK FOR ORDINARY RIPRAP, AND ROCK OF UNIFORM SIZE SHOULD BE USED.
2. ROCK SHALL BE HARD, DURABLE, AND FREE FROM CRACKS, OVERBURDEN, SHALE, AND ORGANIC MATTER.
3. GROUDED BOULDERS SHALL BE PLACED DIRECTLY ON STABILIZED, COMPACTED SUBGRADE WITHOUT GRANULAR BEDDING.
4. THE TOP ONE-THIRD OF THE BOULDERS SHALL BE LEFT UNGROUTED AND EXPOSED.
5. ROCK HAVING A MINIMUM SPECIFIC GRAVITY OF 2.65 IS PREFERRED; HOWEVER, IN NO CASE SHALL ROCK HAVE A SPECIFIC GRAVITY LESS THAN 2.50.
6. WEEP HOLES SHALL BE PROVIDED AT THE CHANNEL SLOPES AND CHANNEL DROPS AS SHOWN TO REDUCE UPLIFT FORCES ON THE GROUDED CHANNEL LINING.
7. PLACEMENT AND GROUDED OF BOULDERS SHALL GENERALLY CONFORM TO THE SPECIFICATIONS AND DETAILS FOR GROUDED BOULDER DROPS. SEE DETAILS AND NOTES FOR GROUDED BOULDER DROPS ON THIS SHEET.
8. BOULDERS SHALL BE SET IN A STEPPED MANNER. BOULDERS SHALL NOT BE ORIENTED INTO A SMOOTH SLOPING FACE.
9. BOULDERS SHALL BE GROUDED TO 3/8 THE ROCK HEIGHT.
10. BOULDERS OF DIFFERENT SOURCES AND/OR COLORS SHALL BE MIXED WITH THE OTHER ROCK AND EVENLY DISPERSED THROUGHOUT THE PROJECT TO AVOID HAVING AREAS OF NON-UNIFORMITY.
11. THE BOULDER SIZES SHOWN ON THE PLANS ARE MINIMUM DIMENSIONS. LARGER ROCK MAY BE SUBSTITUTED AS LONG AS THE TOP OF BOULDER ELEVATIONS SHOWN ON THE PLANS ARE MET AND THE MINIMUM OVER-EXCAVATION REQUIREMENTS ARE MET AT EACH BOULDER LOCATION.

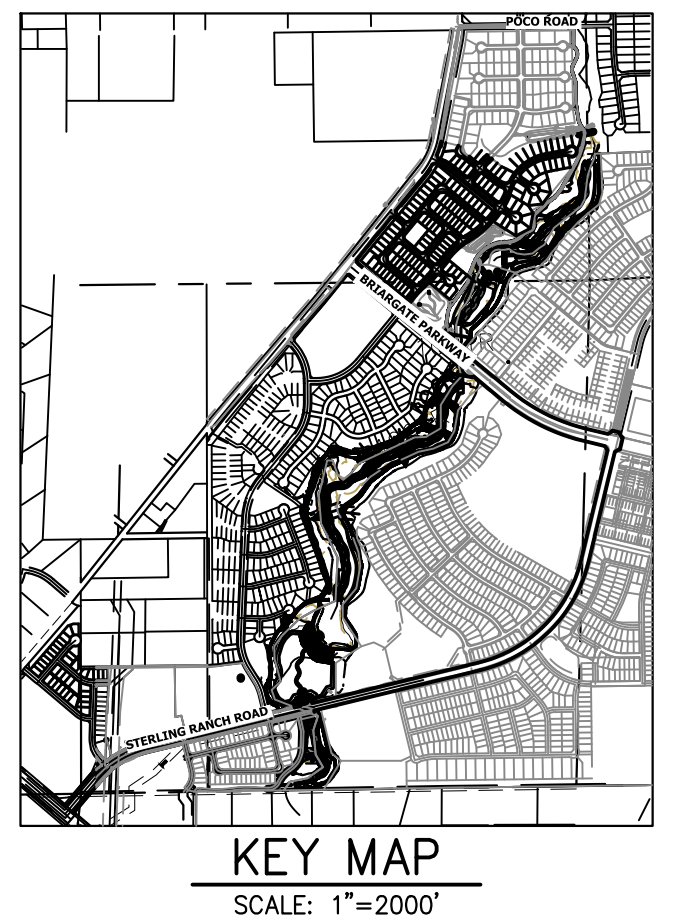
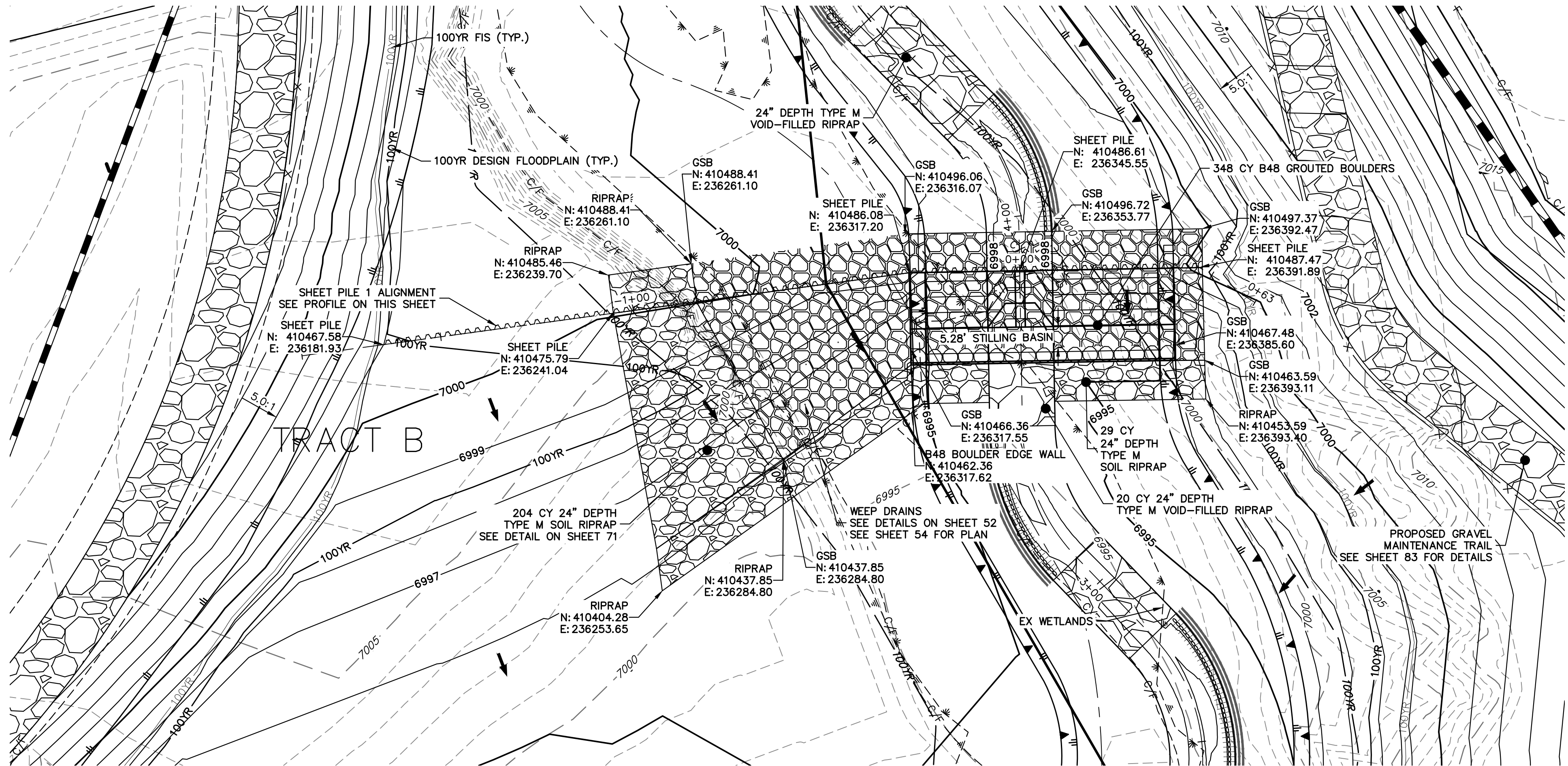
ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION

Mike Bramlett
MIKE A. BRAMLETT, P.E.
32314
11/20/23

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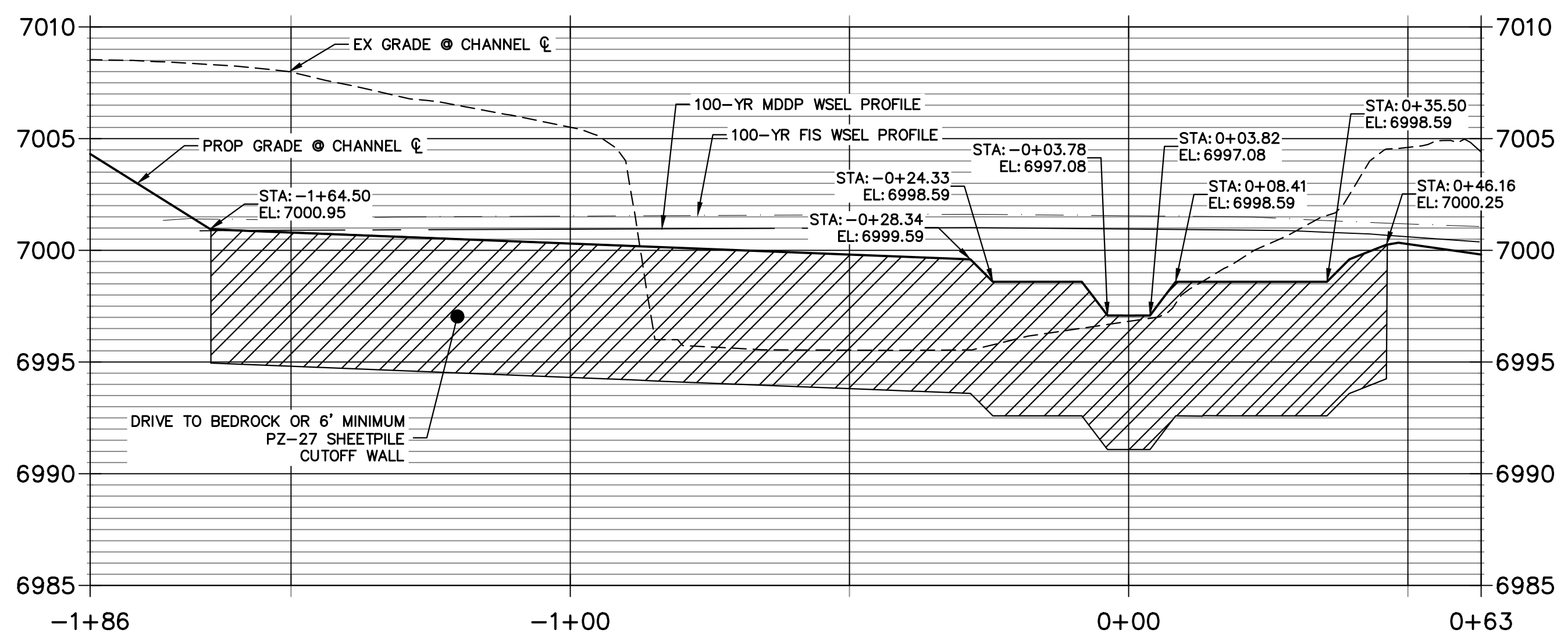
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11/20/23	DJV
	NEO
	CHECKED BY
SAND CREEK RESTORATION	
GSB DETAILS	
SHEET 52	OF 121
JOB NO.	25188.04



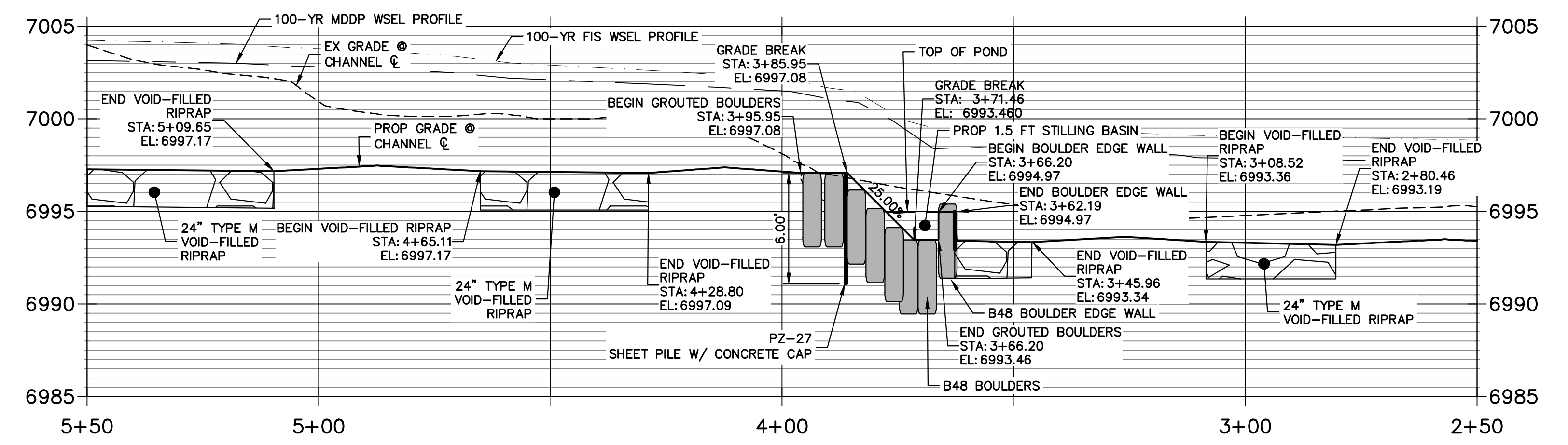


GRouted STEPPED BOULDER DROP #1 DETAIL
PLAN VIEW
 SCALE: 1"=20"

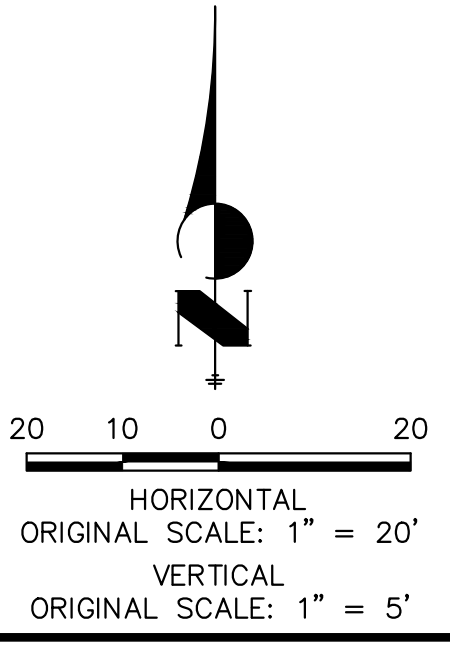
GSB 1 SHEET PILE PROFILE
STA -1+85.99 TO 0+63.12



GSB DETAIL 1
STA 2+50.00 TO 5+50.00



- NOTE**
1. SEE TYPICAL GSB DETAILS ON SHEET 52
 2. DRIVE SHEET PILE THROUGH BEDROCK OR MINIMUM OF 6 FEET.
 3. SHEET PILE ELEVATIONS ARE AT TOP OF CONCRETE CAP.
 4. NO GRADING OR CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY



ENGINEER'S STATEMENT

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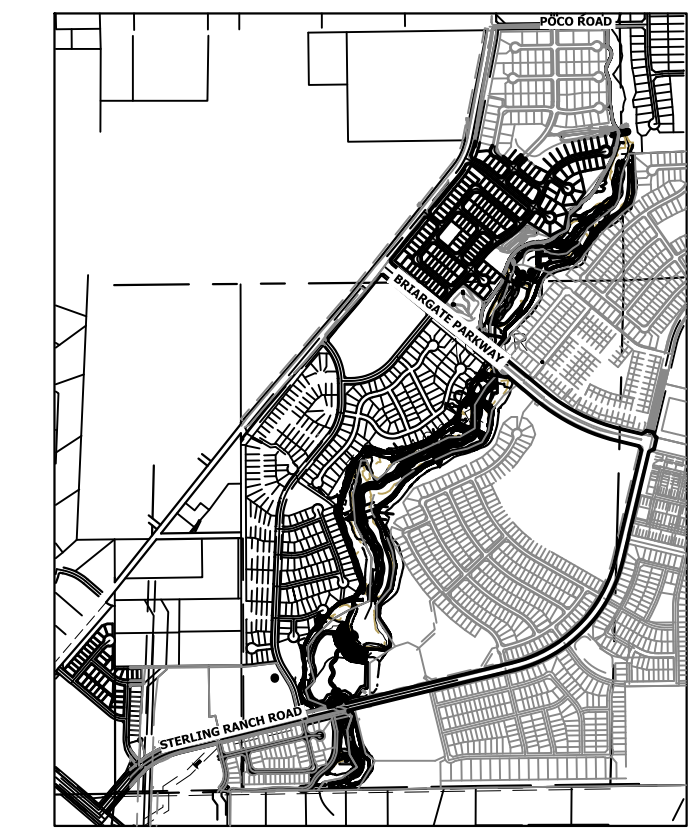
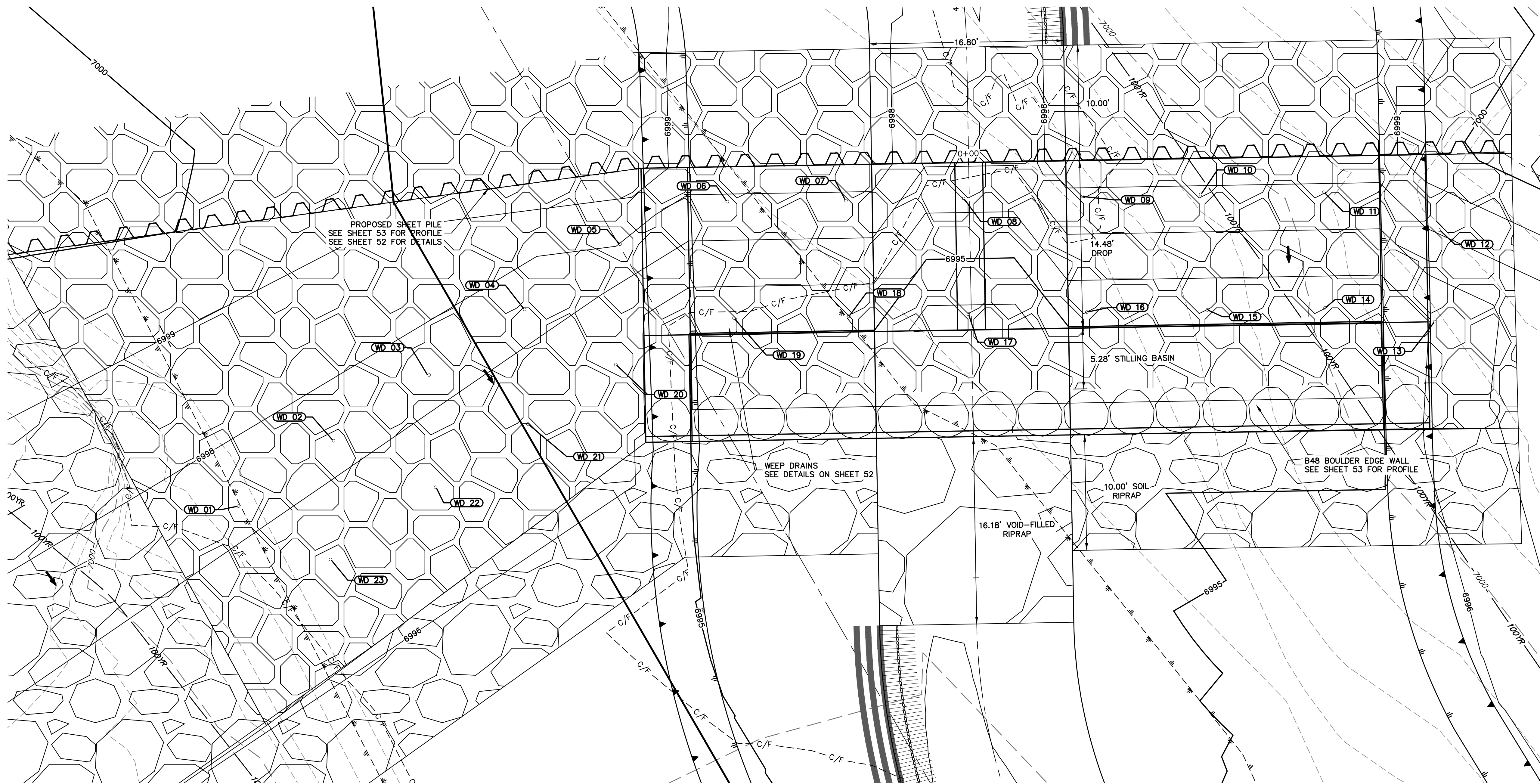
SAND CREEK RESTORATION	GSB DETAILS	H-SCALE	1"=20'	No.	REVISION	BY	DATE
		V-SCALE	1"=5'	11/20/23	DV	NEO	
SHEET 53	OF 121	JOB NO. 25188.04					

J.R. ENGINEERING
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PREPARED FOR
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 20 BOULDER CRESCENT
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 COLORADO SPRINGS, CO 80903
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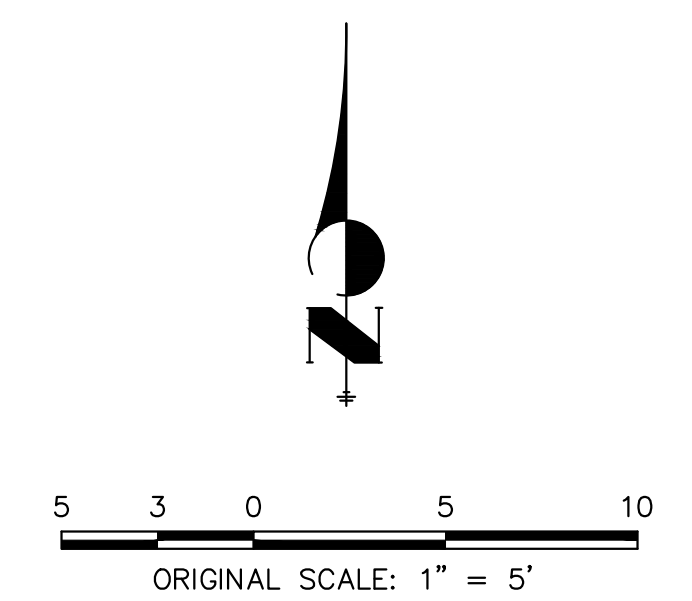
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GSB01 WEEP DRAINS PLAN VIEW
SCALE: 1"=5'

POINT TABULATION			
ID NO.	DESCRIPTION	NORTHING/EASTING	ELEV
WD 01	WEEP DRAIN	N: 410456.84 E: 236282.37	6997.36
WD 02	WEEP DRAIN	N: 410462.49 E: 236290.60	6997.44
WD 03	WEEP DRAIN	N: 410468.11 E: 236298.80	6997.46
WD 04	WEEP DRAIN	N: 410473.85 E: 236307.14	6997.46
WD 05	WEEP DRAIN	N: 410479.51 E: 236315.39	6997.97
WD 06	WEEP DRAIN	N: 410483.18 E: 236324.67	6997.84
WD 07	WEEP DRAIN	N: 410483.27 E: 236334.93	6997.81
WD 08	WEEP DRAIN	N: 410483.45 E: 236345.11	6996.30
WD 09	WEEP DRAIN	N: 410483.63 E: 236355.37	6997.81
WD 10	WEEP DRAIN	N: 410483.81 E: 236365.63	6997.81
WD 11	WEEP DRAIN	N: 410484.00 E: 236376.28	6997.81
WD 12	WEEP DRAIN	N: 410480.72 E: 236386.28	6998.09

POINT TABULATION			
ID NO.	DESCRIPTION	NORTHING/EASTING	ELEV
WD 13	WEEP DRAIN	N: 410472.80 E: 236385.88	6996.07
WD 14	WEEP DRAIN	N: 410473.99 E: 236376.36	6995.31
WD 15	WEEP DRAIN	N: 410473.81 E: 236366.19	6995.31
WD 16	WEEP DRAIN	N: 410473.63 E: 236355.77	6995.31
WD 17	WEEP DRAIN	N: 410473.45 E: 236345.51	6993.80
WD 18	WEEP DRAIN	N: 410473.27 E: 236335.18	6995.31
WD 19	WEEP DRAIN	N: 410473.10 E: 236325.24	6995.31
WD 20	WEEP DRAIN	N: 410469.09 E: 236315.02	6996.52
WD 21	WEEP DRAIN	N: 410463.95 E: 236307.41	6996.53
WD 22	WEEP DRAIN	N: 410458.47 E: 236299.43	6996.53
WD 23	WEEP DRAIN	N: 410452.21 E: 236290.33	6996.63



UNLESS SHOWN OTHERWISE, ALL DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
 PREPARED FOR
SR LAND, LLC
 20 BOULDER CRESCENT
 2ND FLOOR
 COLORADO SPRINGS, CO 80903
 JAMES F. MORLEY
 (719) 419-3024

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

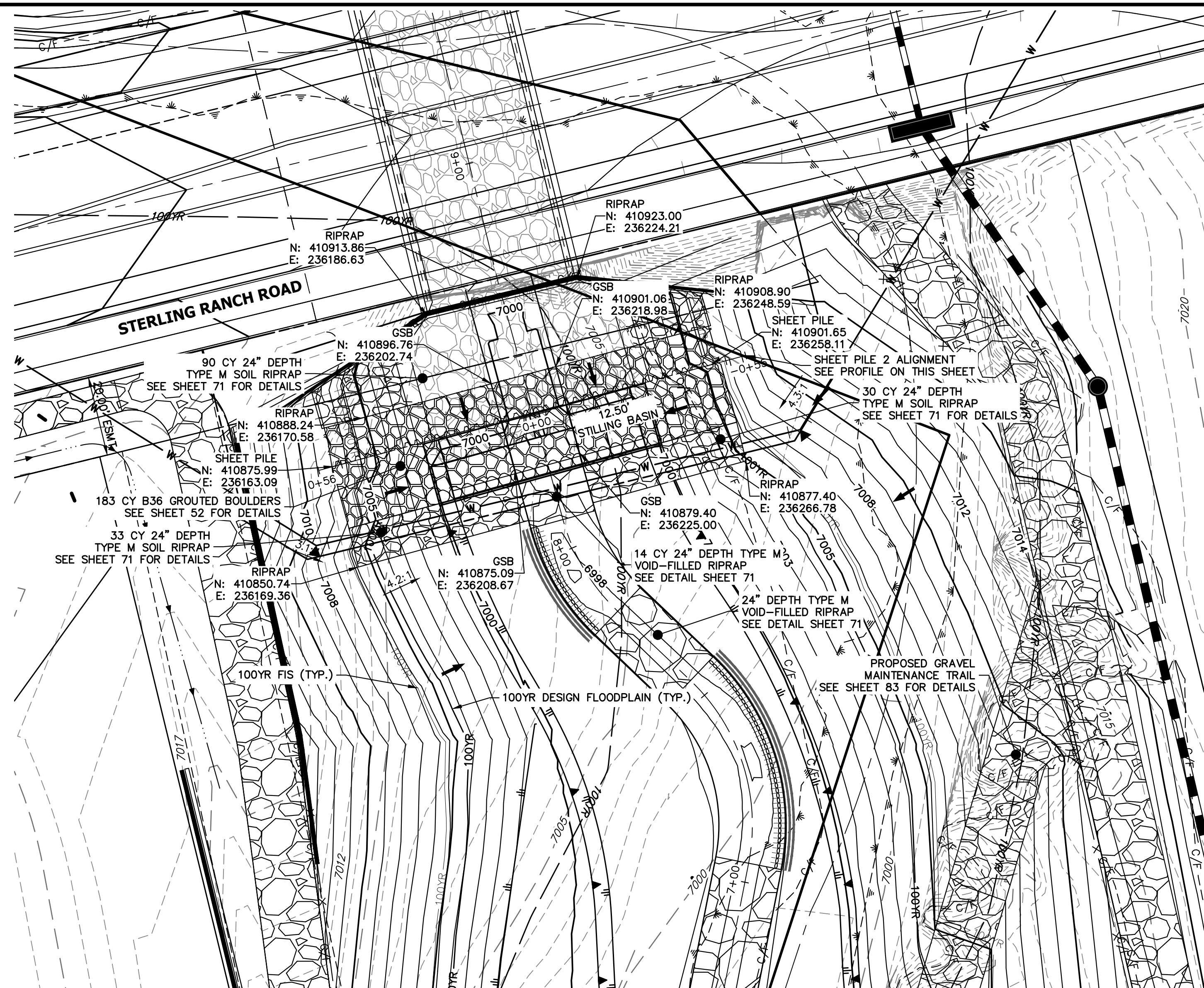
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1"=5'	N/A	11/20/23						

SAND CREEK RESTORATION
GSB DETAILS
 SHEET 54 OF 121
 JOB NO. 25188.04



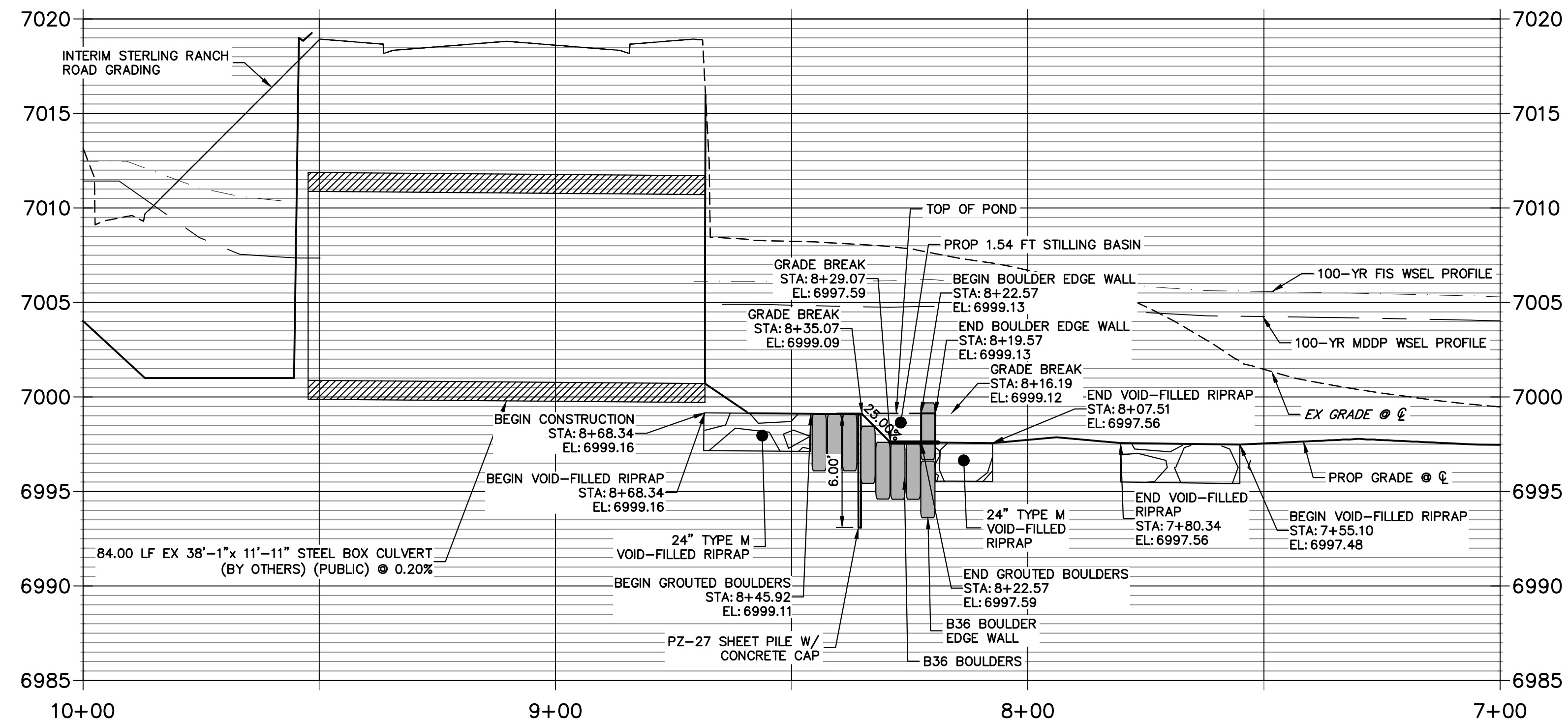
ENGINEER'S STATEMENT
 PREPARED UNDER MY DIRECT SUPERVISION
 Mike Bramlett
 MIKE A. BRAMLETT, P.E.
 COLORADO P.E. 32314
 FOR AND ON BEHALF OF JR ENGINEERING, LOCAL ENG. NO. 32314
 DATE 11/20/23

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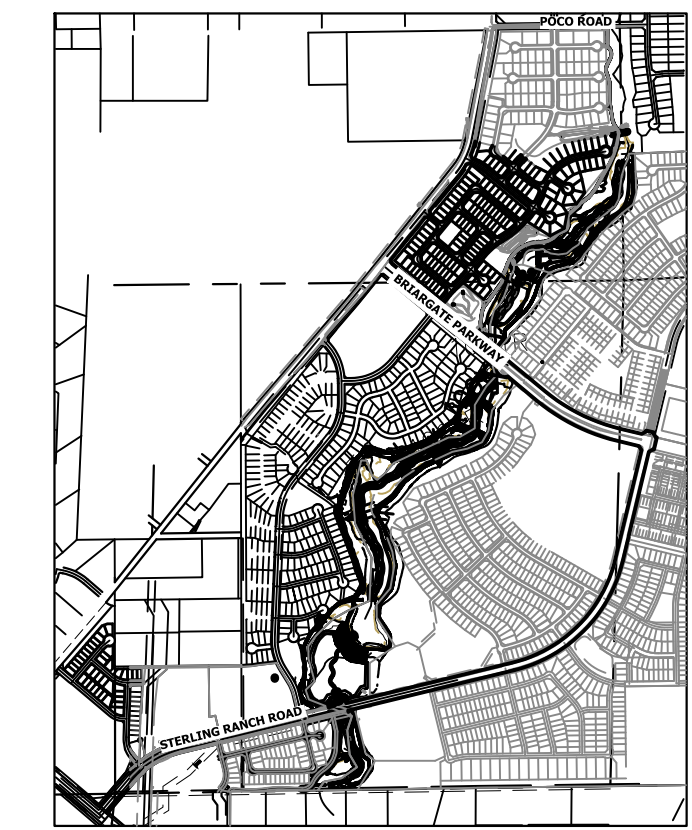
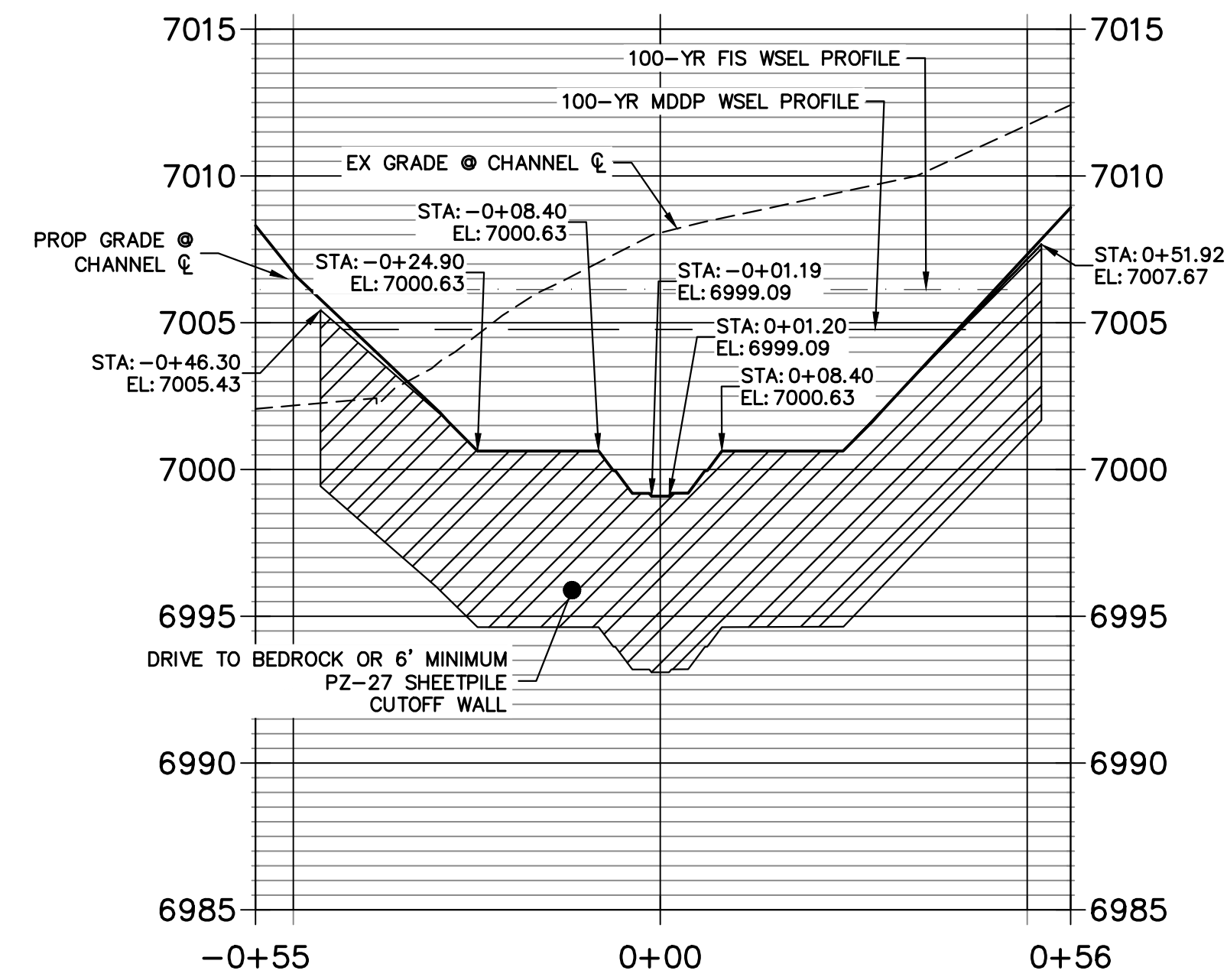


GRouted STEPPED BOULDER DROP #2 DETAIL
PLAN VIEW
SCALE: 1"=20'

**GSB PROFILE 2
STA 7+00.00 TO 10+00.00**



**GSB 2 SHEET PILE PROFILE
STA -0+55.15 TO 0+55.91**



KEY MAP
SCALE: 1"=2000'

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

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
2ND FLOOR
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 419-3024

J.R. ENGINEERING
A Westman Company

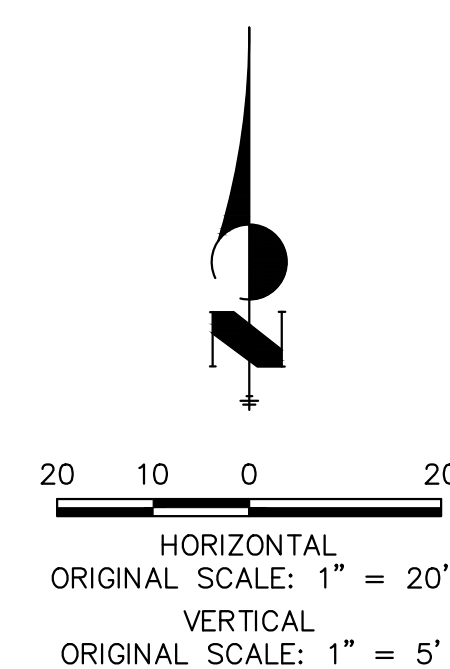
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No.	REVISION	BY	DATE

H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=20'	1"=5'	11/20/23	DV	NEO	

SAND CREEK RESTORATION

GSB DETAILS

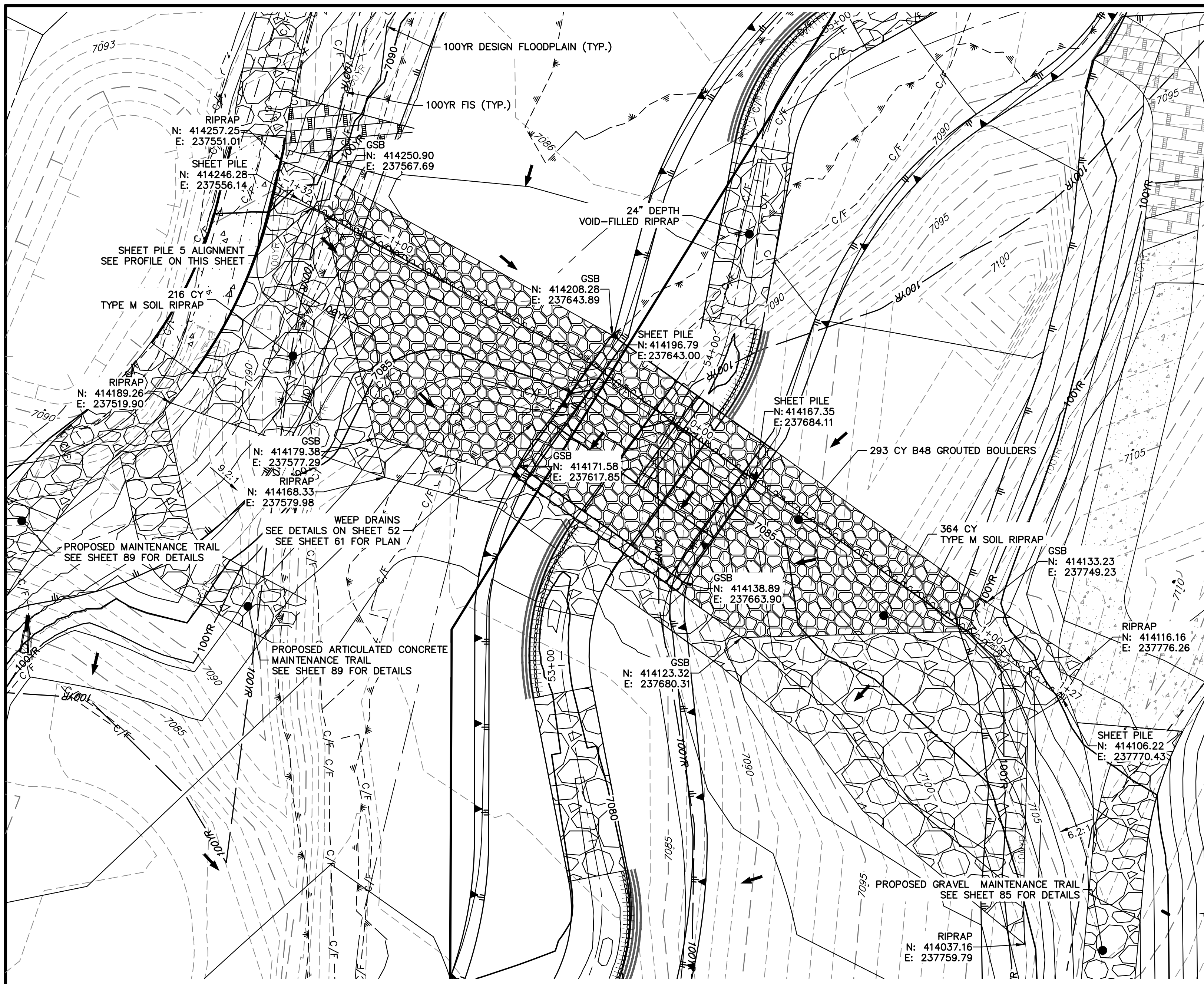


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ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION

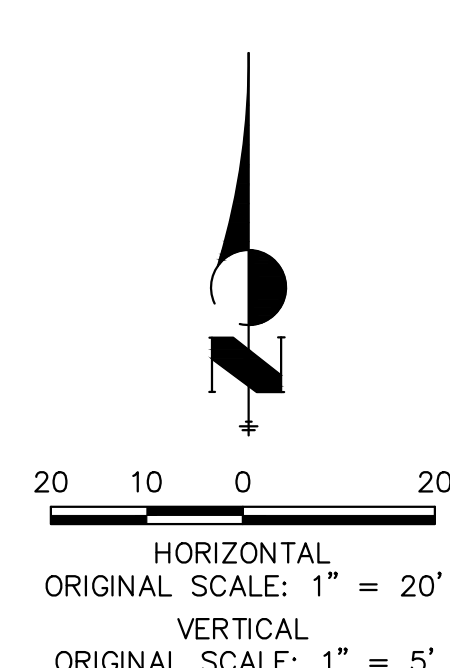
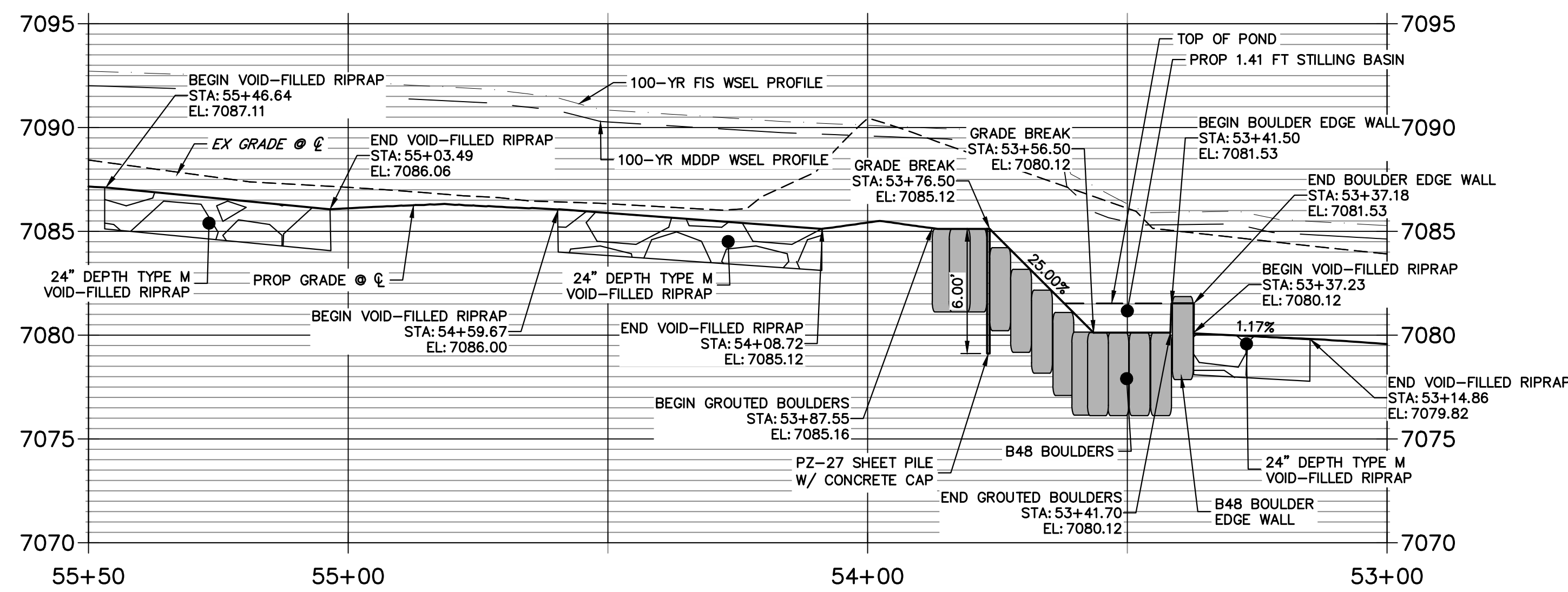
Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, INC.

11/20/23



GRouted STEPPED BOULDER DROP #5 DETAIL
PLAN VIEW
SCALE: 1"=20'

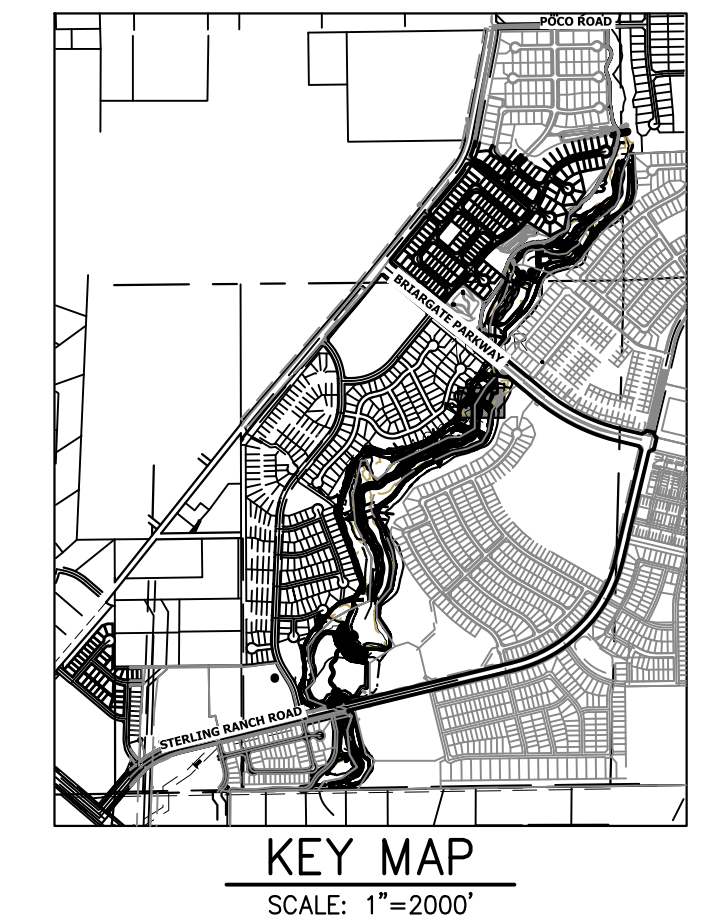
**GSB PROFILE 5
STA 53+00.00 TO 55+50.00**



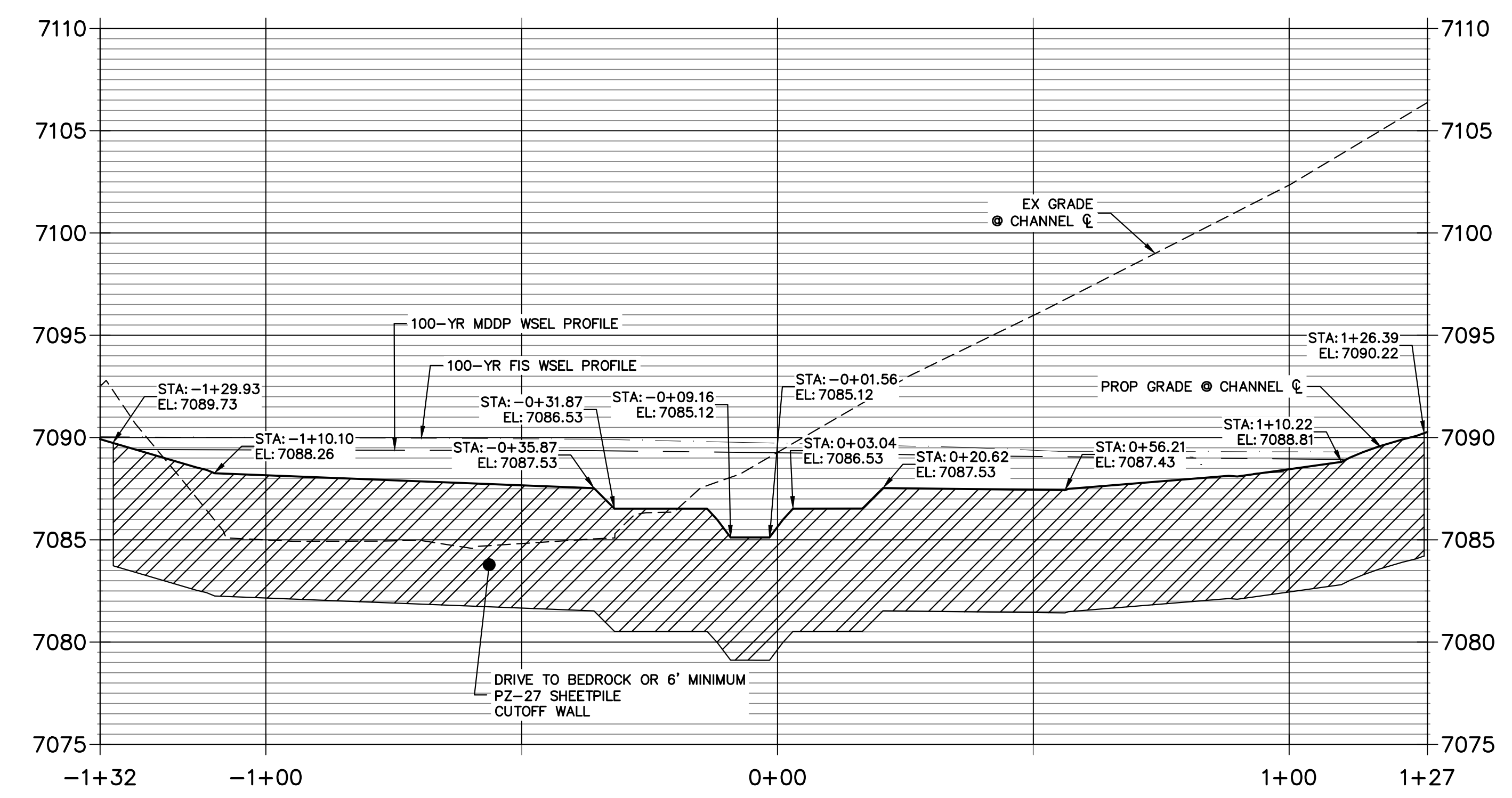
ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION

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

32314
DATE 11/20/23

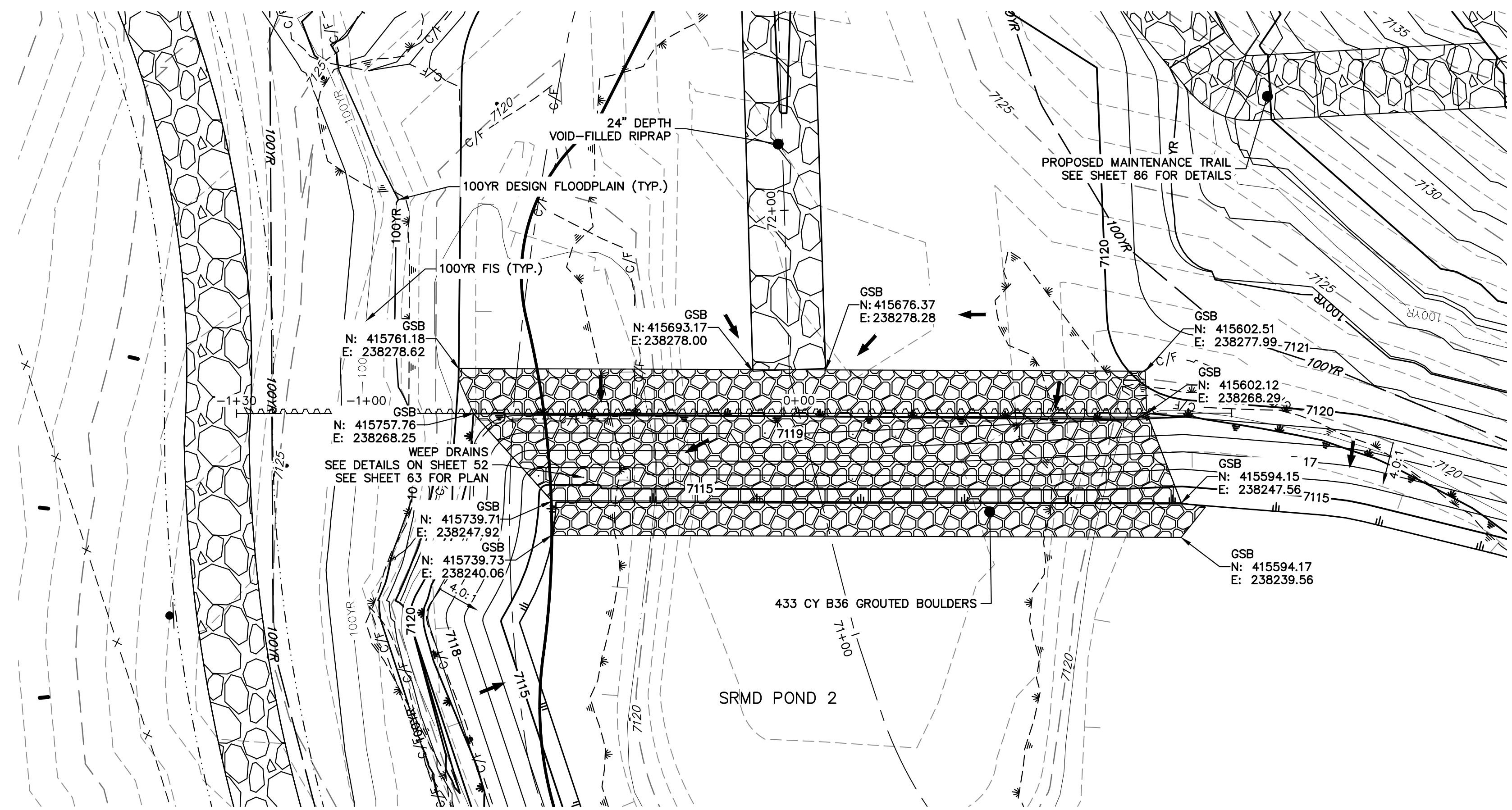


**GSB 5 SHEET PILE PROFILE
STA -1+32.40 TO 1+27.04**

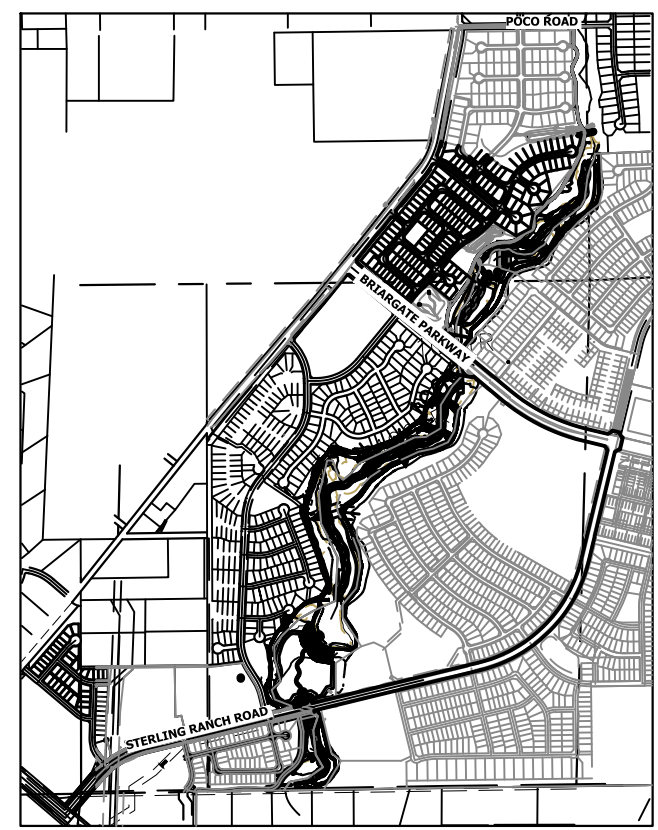


PREPARED FOR	SR LAND, LLC 20 BOULDER CRESCENT 2ND FLOOR COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 419-3024								
	UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE DESIGNATED BY WRITTEN AUTHORIZATION.								
BY DATE									
No. REVISION									
H-SCALE	1"=20'	V-SCALE	1"=5'	DESIGNED BY	DJV	DRAWN BY	NEO	CHECKED BY	
DATE		6/15/23		DESIGNED BY		DRAWN BY		CHECKED BY	
SAND CREEK RESTORATION									
GSB DETAILS									
SHEET 60 OF 121									
JOB NO. 25188.04									

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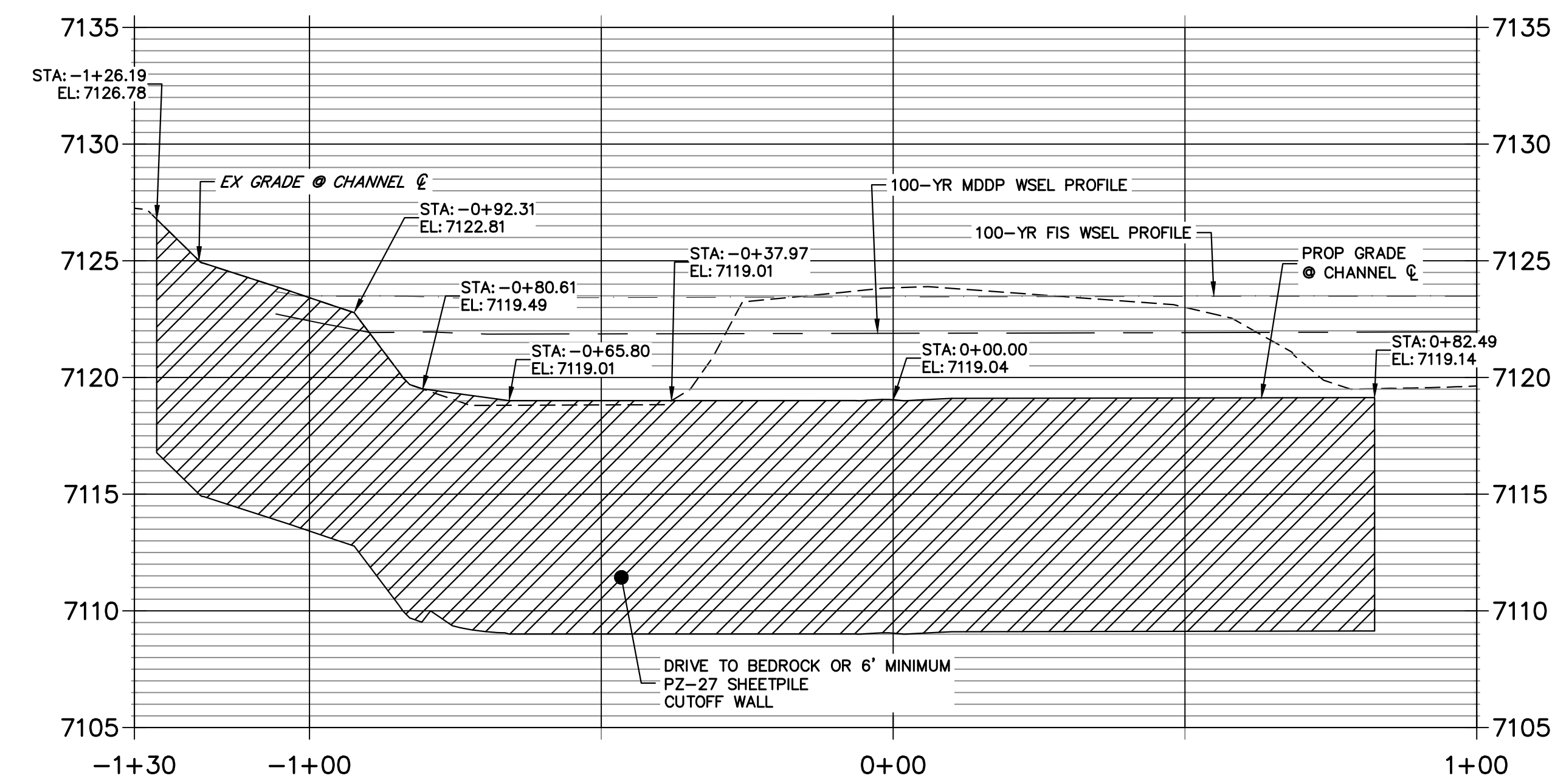


GRouted STEPPED BOULDER DROP #6 DETAIL
PLAN VIEW
SCALE: 1"=20'

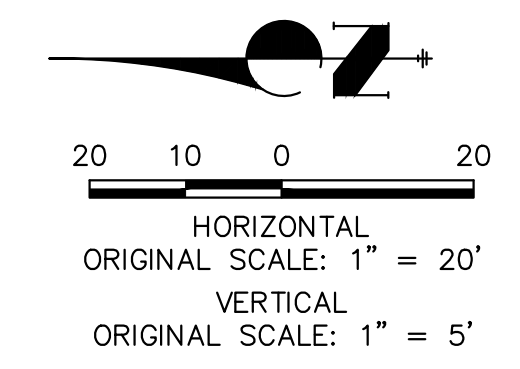
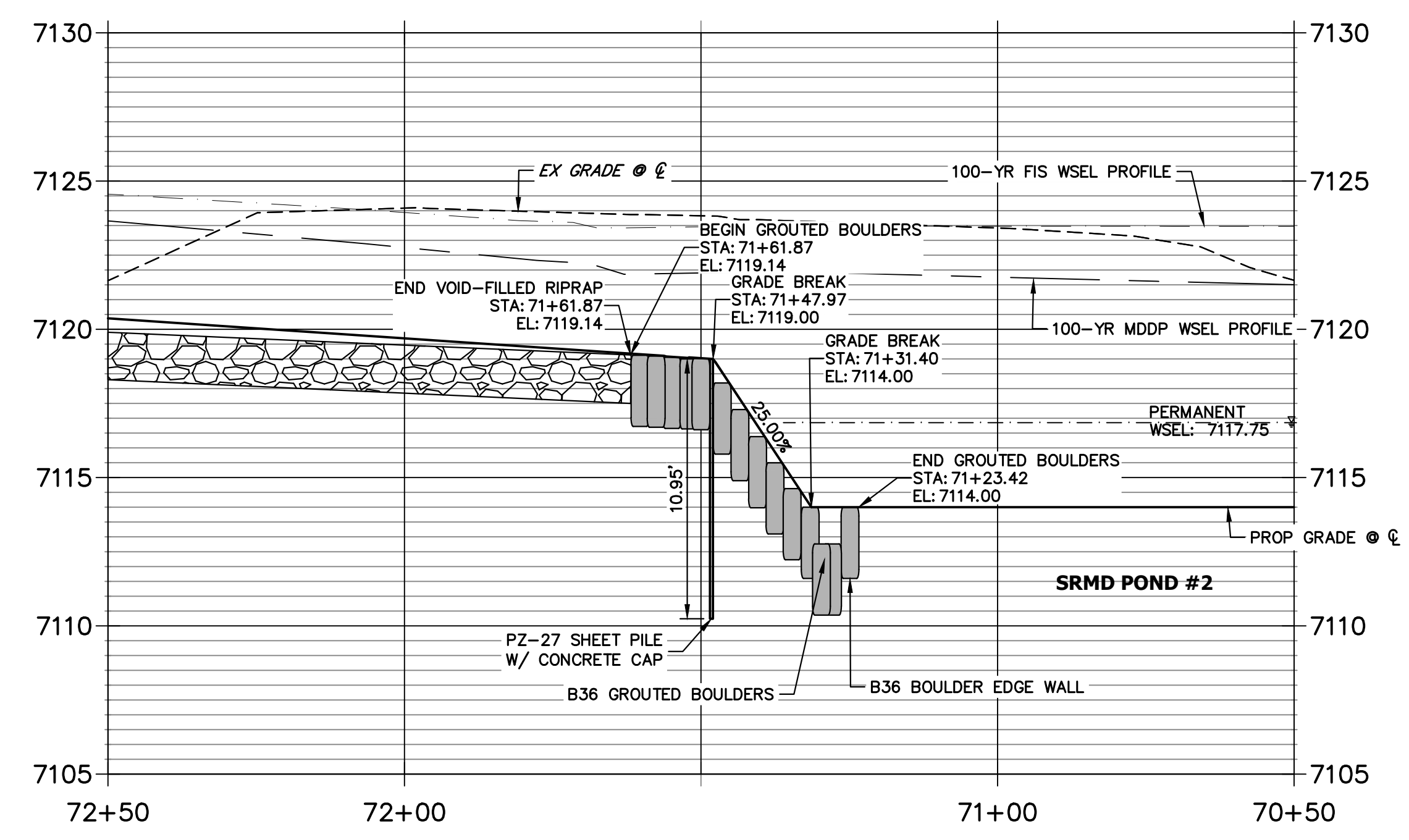


KEY MAP
SCALE: 1"=2000'

GSB 6 SHEET PILE PROFILE
STA -1+30.00 TO 1+00.00




GSB PROFILE 6
STA 70+50.00 TO 72+50.00

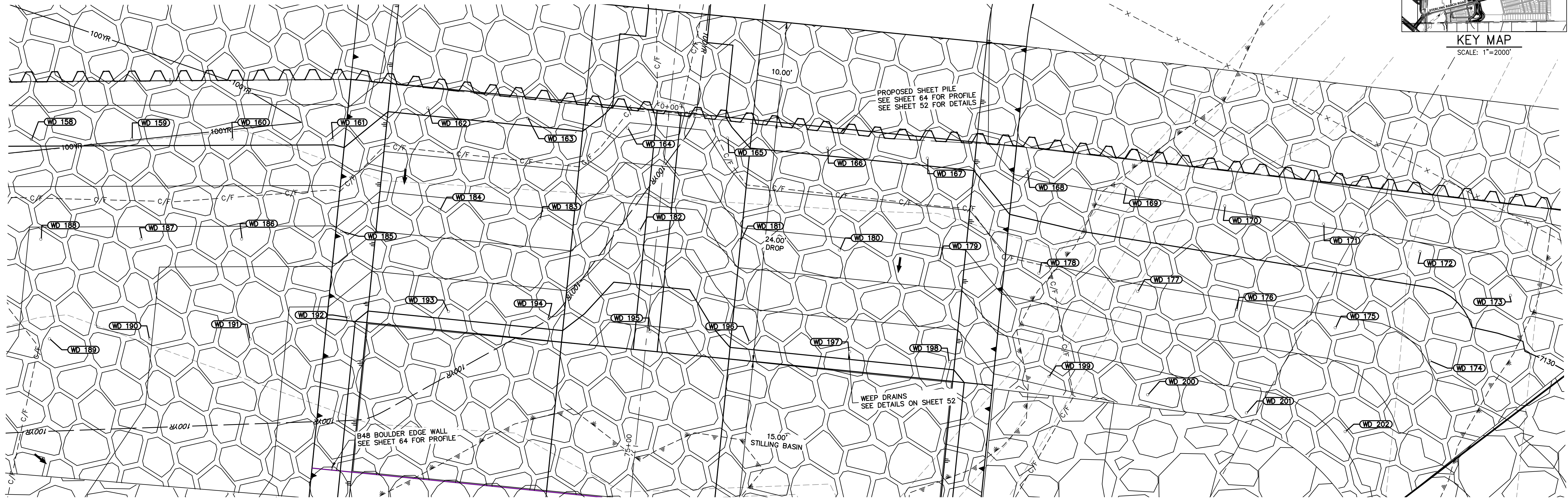


ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION

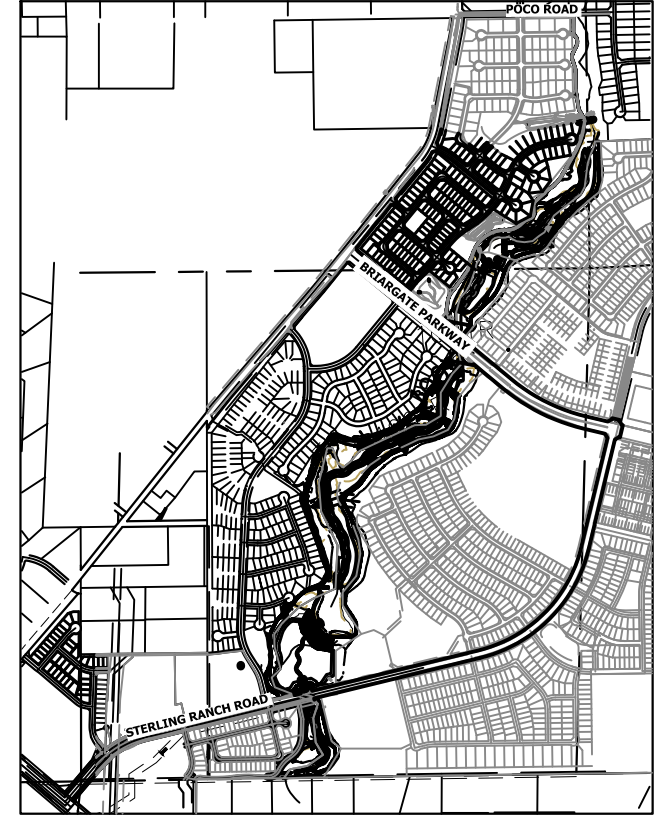
Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING

32314
11/20/23

PREPARED FOR SR LAND, LLC 20 BOULDER CRESCENT 2ND FLOOR COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 419-3024	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.	
	J.R. ENGINEERING A Westman Company  Centennial 303-740-9888 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com	SAND CREEK RESTORATION GSB DETAILS
BY DATE No. REVISION H-SCALE 1"=20' V-SCALE 1"=5' DATE 6/15/23 DESIGNED BY DJV DRAWN BY NEO CHECKED BY	SHEET 62 OF 121 JOB NO. 25188.04	32314 11/20/23



GSB07 WEEP DRAINS PLAN VIEW
SCALE: 1"=5'



PREPARED FOR
SR LAND, LLC
 20 BOULDER CRESCENT
 2ND FLOOR
 COLORADO SPRINGS, CO 80903
 JAMES F. MORLEY
 (719) 419-3024

J.R. ENGINEERING
 A Westman Company
 Centennial 303-740-9383 • Colorado Springs 719-583-2593
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BY	DATE

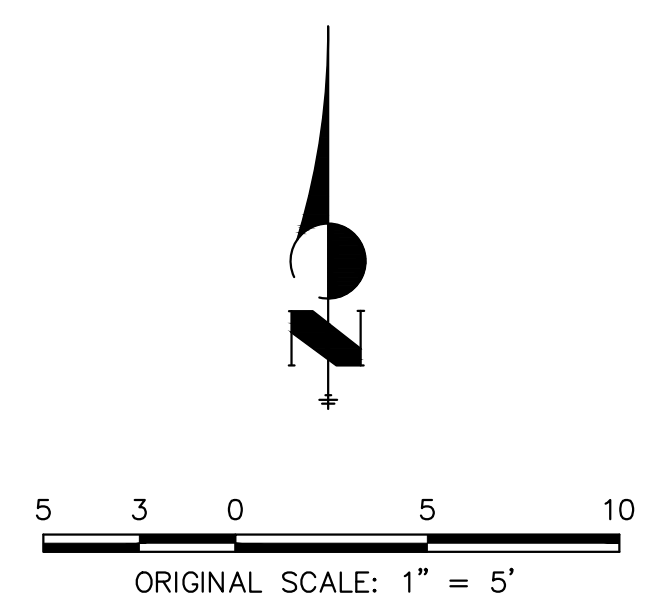
No.	REVISION	1"=5'	
		H-SCALE	V-SCALE

DESIGNED BY	DRAWN BY	CHECKED BY	DATE	
			DATE	DATE
			11/20/23	

ID NO.	DESCRIPTION	NORTHING/EASTING	ELEV
WD 158	WEEP DRAIN	N: 415816.51 E: 238509.68	7130.17
WD 159	WEEP DRAIN	N: 415815.95 E: 238519.70	7130.16
WD 160	WEEP DRAIN	N: 415815.35 E: 238529.71	7130.15
WD 161	WEEP DRAIN	N: 415814.70 E: 238539.71	7130.13
WD 162	WEEP DRAIN	N: 415817.29 E: 238549.40	7130.19
WD 163	WEEP DRAIN	N: 415815.69 E: 238559.30	7130.19
WD 164	WEEP DRAIN	N: 415814.10 E: 238569.20	7128.91
WD 165	WEEP DRAIN	N: 415812.51 E: 238579.11	7129.61
WD 166	WEEP DRAIN	N: 415810.92 E: 238589.01	7130.19
WD 167	WEEP DRAIN	N: 415809.32 E: 238598.91	7130.19
WD 168	WEEP DRAIN	N: 415807.60 E: 238608.79	7131.20
WD 169	WEEP DRAIN	N: 415805.20 E: 238618.53	7131.16
WD 170	WEEP DRAIN	N: 415802.80 E: 238628.27	7131.11
WD 171	WEEP DRAIN	N: 415800.41 E: 238638.01	7131.06
WD 172	WEEP DRAIN	N: 415797.09 E: 238647.48	7130.79

ID NO.	DESCRIPTION	NORTHING/EASTING	ELEV
WD 173	WEEP DRAIN	N: 415792.20 E: 238656.24	7130.67
WD 174	WEEP DRAIN	N: 415786.14 E: 238647.82	7129.05
WD 175	WEEP DRAIN	N: 415790.01 E: 238638.57	7128.73
WD 176	WEEP DRAIN	N: 415792.40 E: 238628.83	7128.78
WD 177	WEEP DRAIN	N: 415794.80 E: 238619.09	7128.83
WD 178	WEEP DRAIN	N: 415797.20 E: 238609.35	7128.72
WD 179	WEEP DRAIN	N: 415799.10 E: 238599.50	7127.69
WD 180	WEEP DRAIN	N: 415800.69 E: 238589.60	7127.69
WD 181	WEEP DRAIN	N: 415802.25 E: 238579.82	7127.69
WD 182	WEEP DRAIN	N: 415803.88 E: 238569.79	7126.36
WD 183	WEEP DRAIN	N: 415805.58 E: 238559.91	7127.72
WD 184	WEEP DRAIN	N: 415807.06 E: 238549.99	7127.69
WD 185	WEEP DRAIN	N: 415805.51 E: 238540.08	7127.76
WD 186	WEEP DRAIN	N: 415805.34 E: 238530.06	7127.68
WD 187	WEEP DRAIN	N: 415805.94 E: 238520.05	7127.70

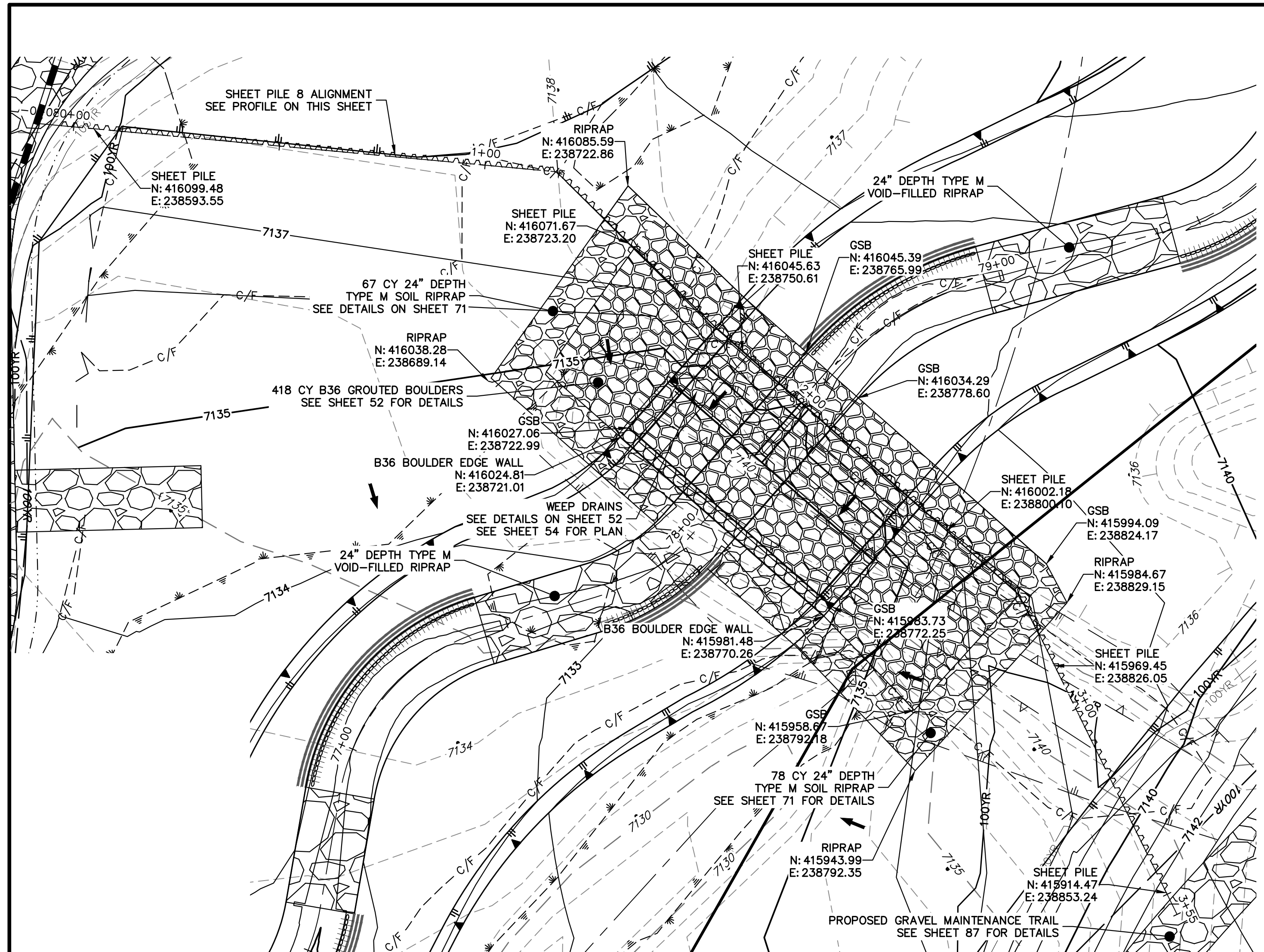
ID NO.	DESCRIPTION	NORTHING/EASTING	ELEV
WD 188	WEEP DRAIN	N: 415806.51 E: 238510.04	7127.91
WD 189	WEEP DRAIN	N: 415796.53 E: 238510.31	7127.77
WD 190	WEEP DRAIN	N: 415795.93 E: 238520.32	7127.02
WD 191	WEEP DRAIN	N: 415795.33 E: 238530.33	7126.27
WD 192	WEEP DRAIN	N: 415796.89 E: 238540.23	7125.26
WD 193	WEEP DRAIN	N: 415796.89 E: 238550.26	7125.19
WD 194	WEEP DRAIN	N: 415795.57 E: 238560.20	7125.26
WD 195	WEEP DRAIN	N: 415793.68 E: 238570.21	7123.86
WD 196	WEEP DRAIN	N: 415792.09 E: 238580.11	7125.19
WD 197	WEEP DRAIN	N: 415790.50 E: 238590.01	7125.19
WD 198	WEEP DRAIN	N: 415788.90 E: 238599.92	7125.19
WD 199	WEEP DRAIN	N: 415786.84 E: 238609.73	7126.25
WD 200	WEEP DRAIN	N: 415784.44 E: 238619.47	7126.37
WD 201	WEEP DRAIN	N: 415782.04 E: 238629.21	7126.45
WD 202	WEEP DRAIN	N: 415779.60 E: 238638.94	7127.16



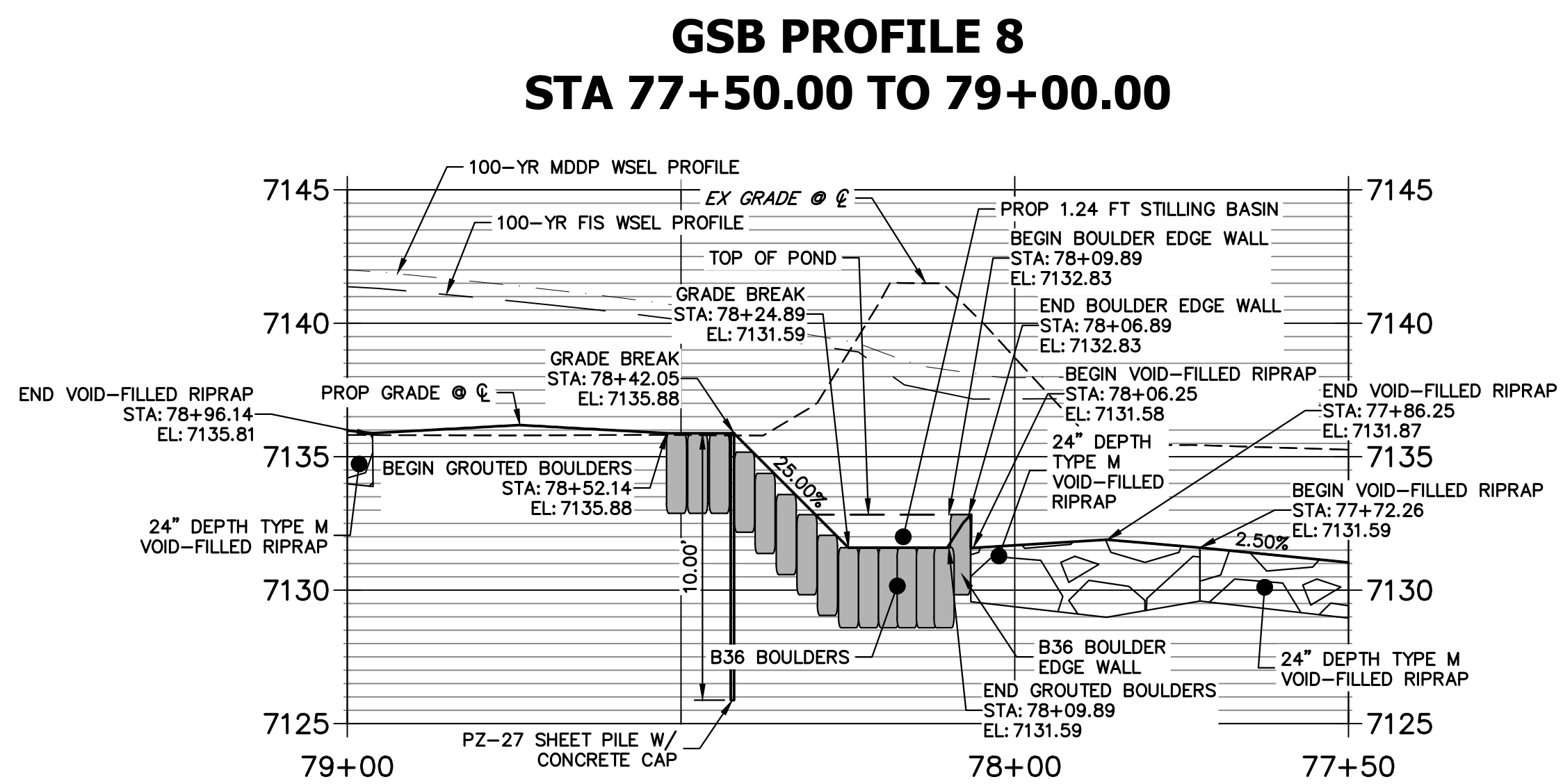
ENGINEER'S STATEMENT
 PREPARED UNDER MY DIRECT SUPERVISION

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

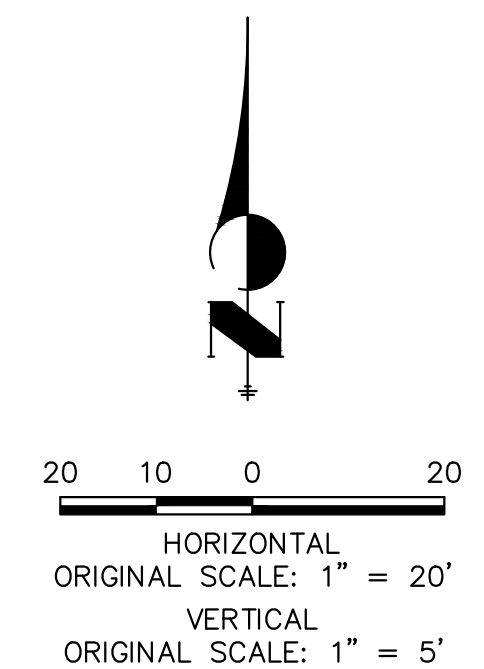
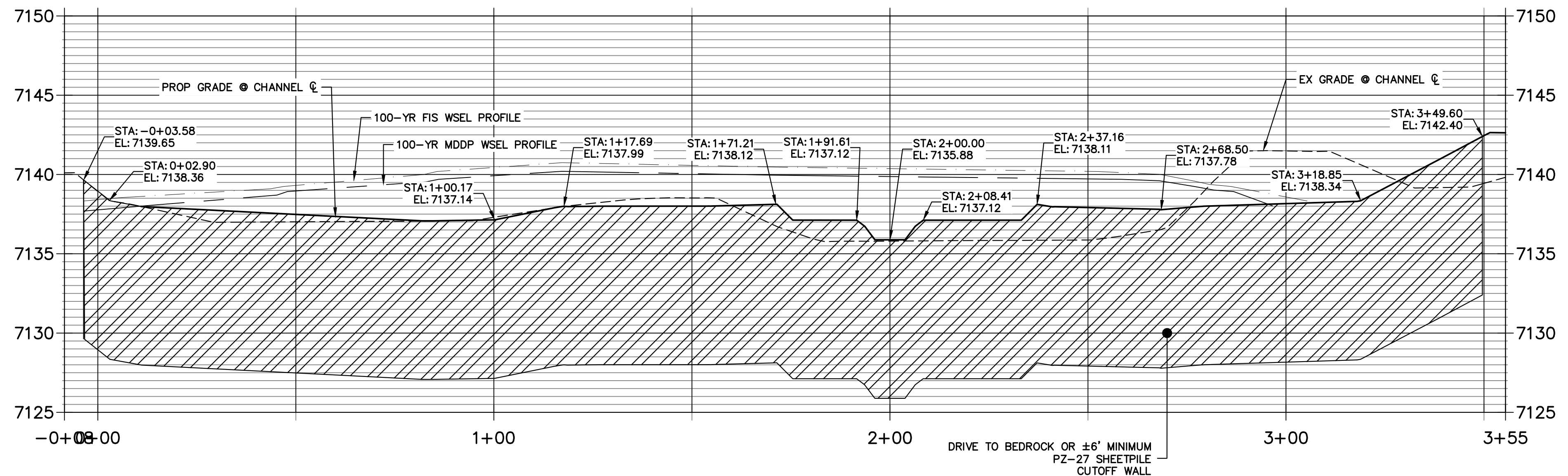
32314
 DATE 11/20/23



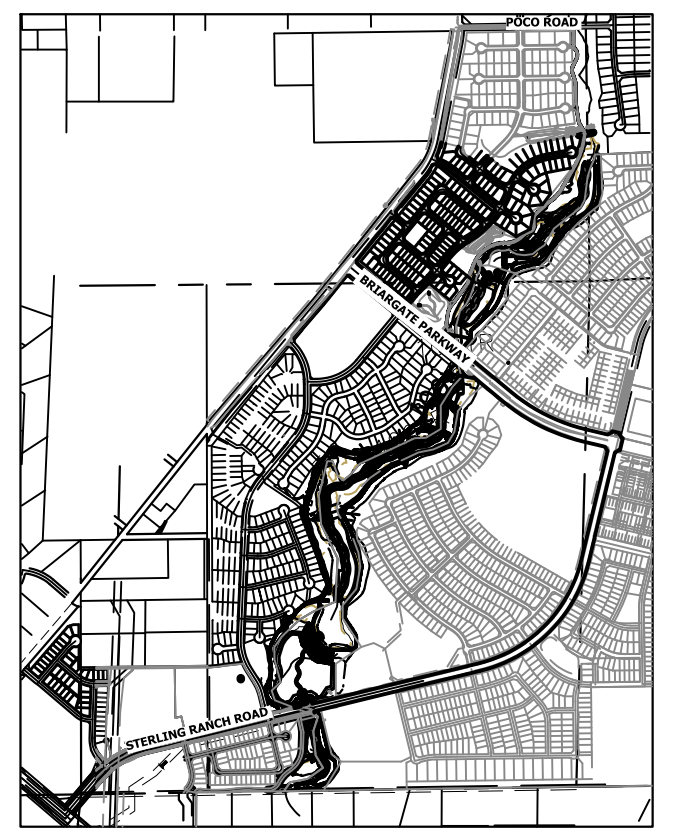
**GRouted STEPPED BOULDER DROP #8 DETAIL
PLAN VIEW**
HORIZONTAL SCALE: 1"=20'



**GSB 8 SHEET PILE PROFILE
STA -0+08.44 TO 3+55.43**



ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION
Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING
DATE: 11/20/23



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
2ND FLOOR
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 419-3024

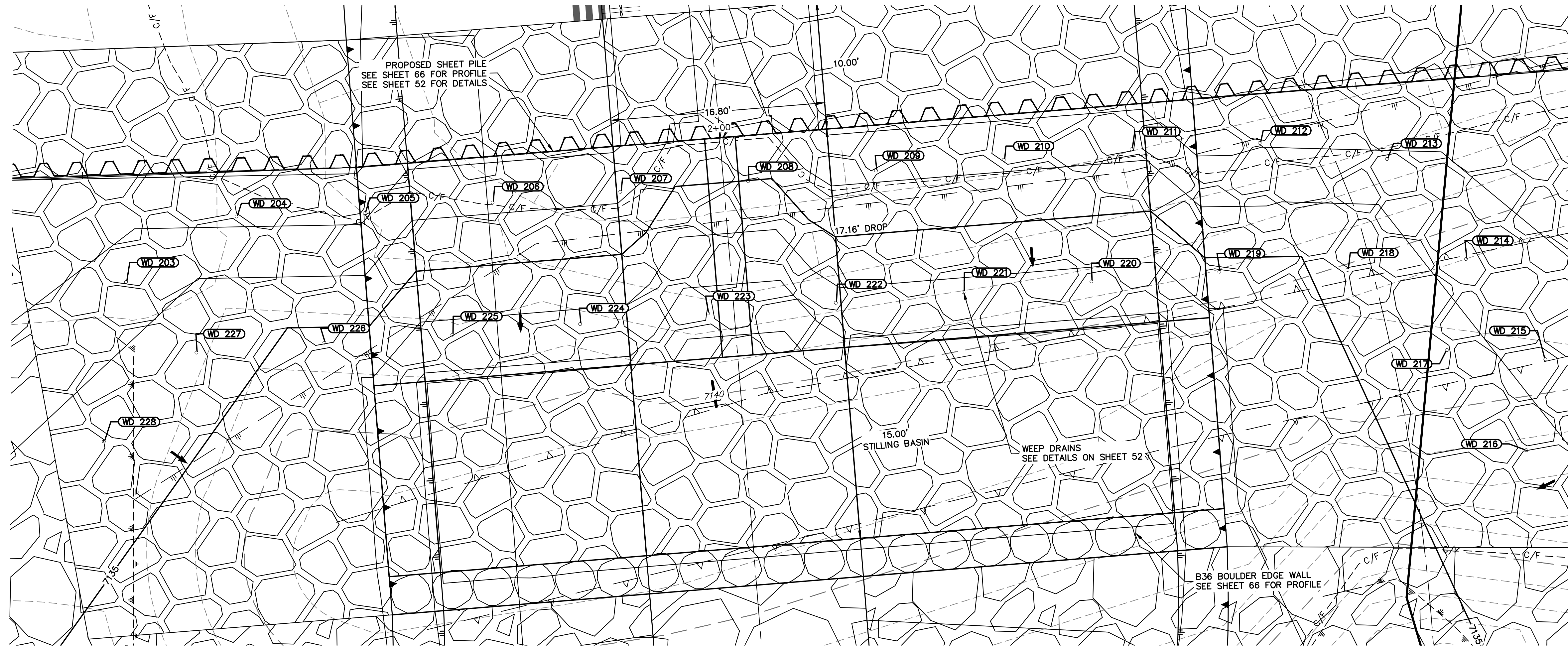
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BY	DATE	REVISION

H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=20'	1"=5'	11/20/23	DJV	NEO	

SAND CREEK RESTORATION
GSB DETAILS
SHEET 66 OF 121
JOB NO. 25188.04

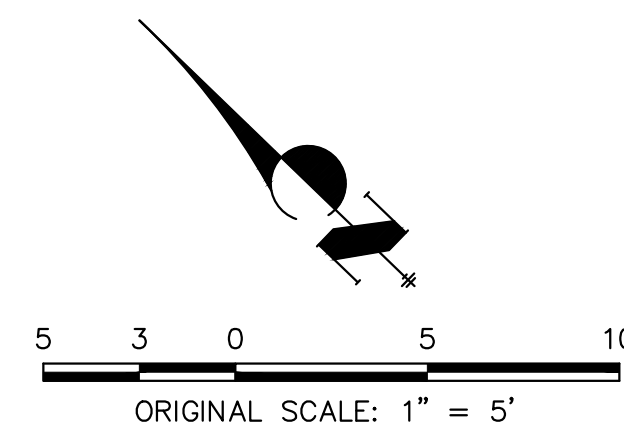
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GSB08 WEEP DRAINS PLAN VIEW
SCALE: 1"=5'

POINT TABULATION			
ID NO.	DESCRIPTION	NORTHING/EASTING	ELEV
WD 203	WEEP DRAIN	N: 416057.94 E: 238725.28	7136.58
WD 204	WEEP DRAIN	N: 416055.29 E: 238734.98	7137.20
WD 205	WEEP DRAIN	N: 416048.25 E: 238742.14	7137.13
WD 206	WEEP DRAIN	N: 416041.63 E: 238749.70	7136.22
WD 207	WEEP DRAIN	N: 416035.01 E: 238757.25	7136.17
WD 208	WEEP DRAIN	N: 416028.39 E: 238764.81	7134.99
WD 209	WEEP DRAIN	N: 416021.77 E: 238772.37	7136.23
WD 210	WEEP DRAIN	N: 416015.15 E: 238779.92	7136.23
WD 211	WEEP DRAIN	N: 416008.53 E: 238787.48	7136.24
WD 212	WEEP DRAIN	N: 416001.65 E: 238794.80	7137.08
WD 213	WEEP DRAIN	N: 415993.62 E: 238800.82	7136.84
WD 214	WEEP DRAIN	N: 415983.71 E: 238799.49	7136.43
WD 215	WEEP DRAIN	N: 415973.79 E: 238798.16	7136.43
WD 216	WEEP DRAIN	N: 415969.91 E: 238792.01	7135.61
WD 217	WEEP DRAIN	N: 415979.82 E: 238793.34	7135.61

POINT TABULATION			
ID NO.	DESCRIPTION	NORTHING/EASTING	ELEV
WD 218	WEEP DRAIN	N: 415989.79 E: 238792.42	7135.30
WD 219	WEEP DRAIN	N: 415996.92 E: 238785.35	7134.72
WD 220	WEEP DRAIN	N: 416003.60 E: 238777.84	7133.72
WD 221	WEEP DRAIN	N: 416010.22 E: 238770.28	7133.72
WD 222	WEEP DRAIN	N: 416016.84 E: 238762.73	7133.64
WD 223	WEEP DRAIN	N: 416023.46 E: 238755.17	7132.47
WD 224	WEEP DRAIN	N: 416030.08 E: 238747.62	7133.71
WD 225	WEEP DRAIN	N: 416036.70 E: 238740.06	7133.70
WD 226	WEEP DRAIN	N: 416043.48 E: 238732.65	7134.70
WD 227	WEEP DRAIN	N: 416050.14 E: 238725.13	7135.59
WD 228	WEEP DRAIN	N: 416050.52 E: 238715.08	7135.82

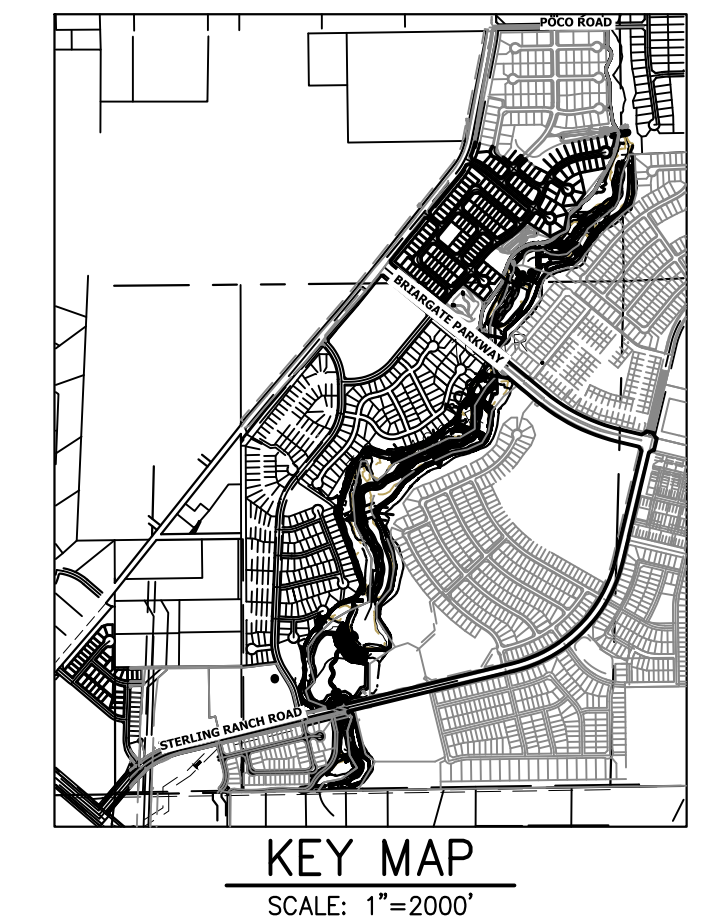


811
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PREPARED UNDER MY DIRECT SUPERVISION

Mike Bramlett
MIKE A. BRAMLETT, P.E.
32314
11/20/23

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COLORADO P.E. 32314
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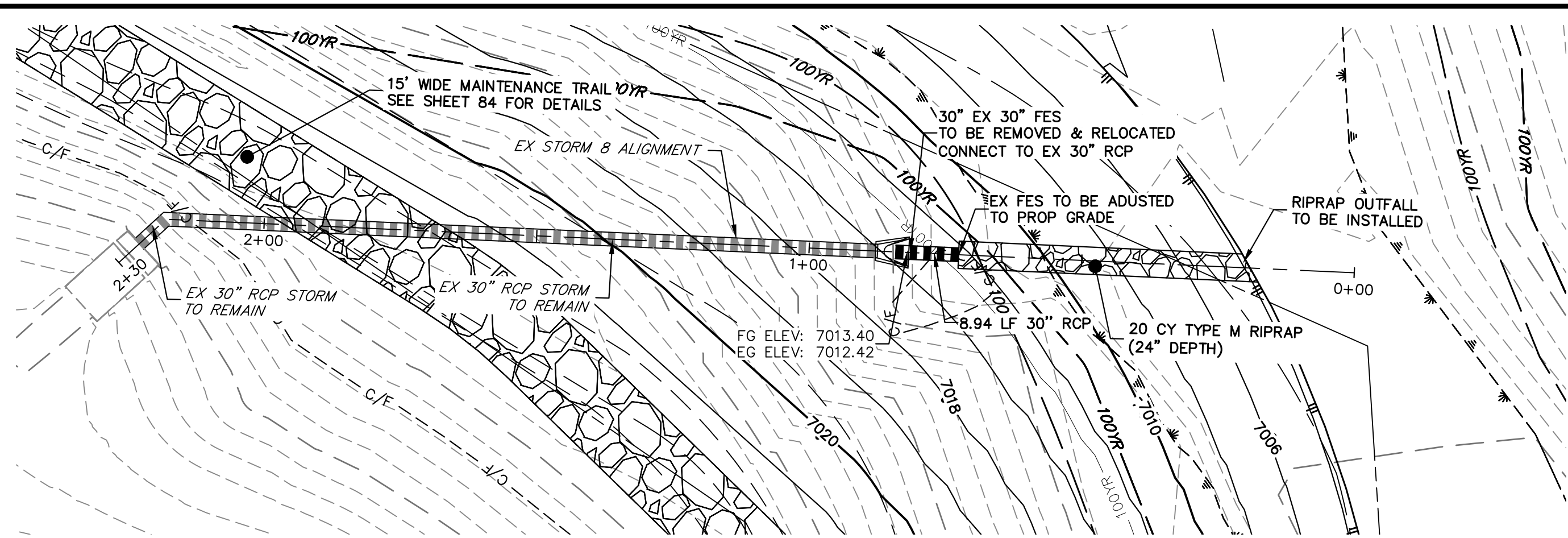
BY	DATE	REVISION

H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=5'	N/A	11/20/23	DJV	NEO	

SAND CREEK RESTORATION
GSB DETAILS

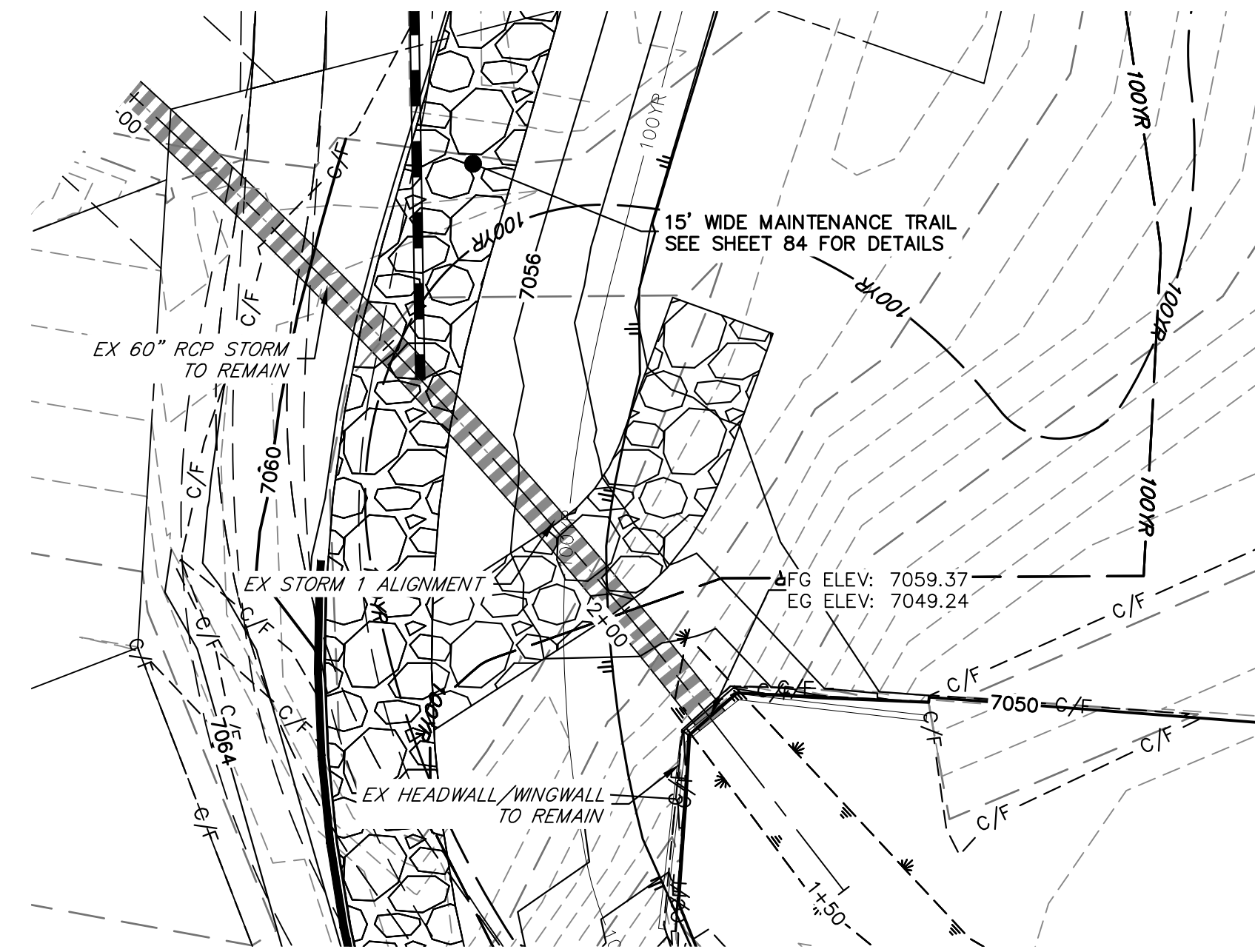
SHEET 67 OF 121
JOB NO. 25188.04

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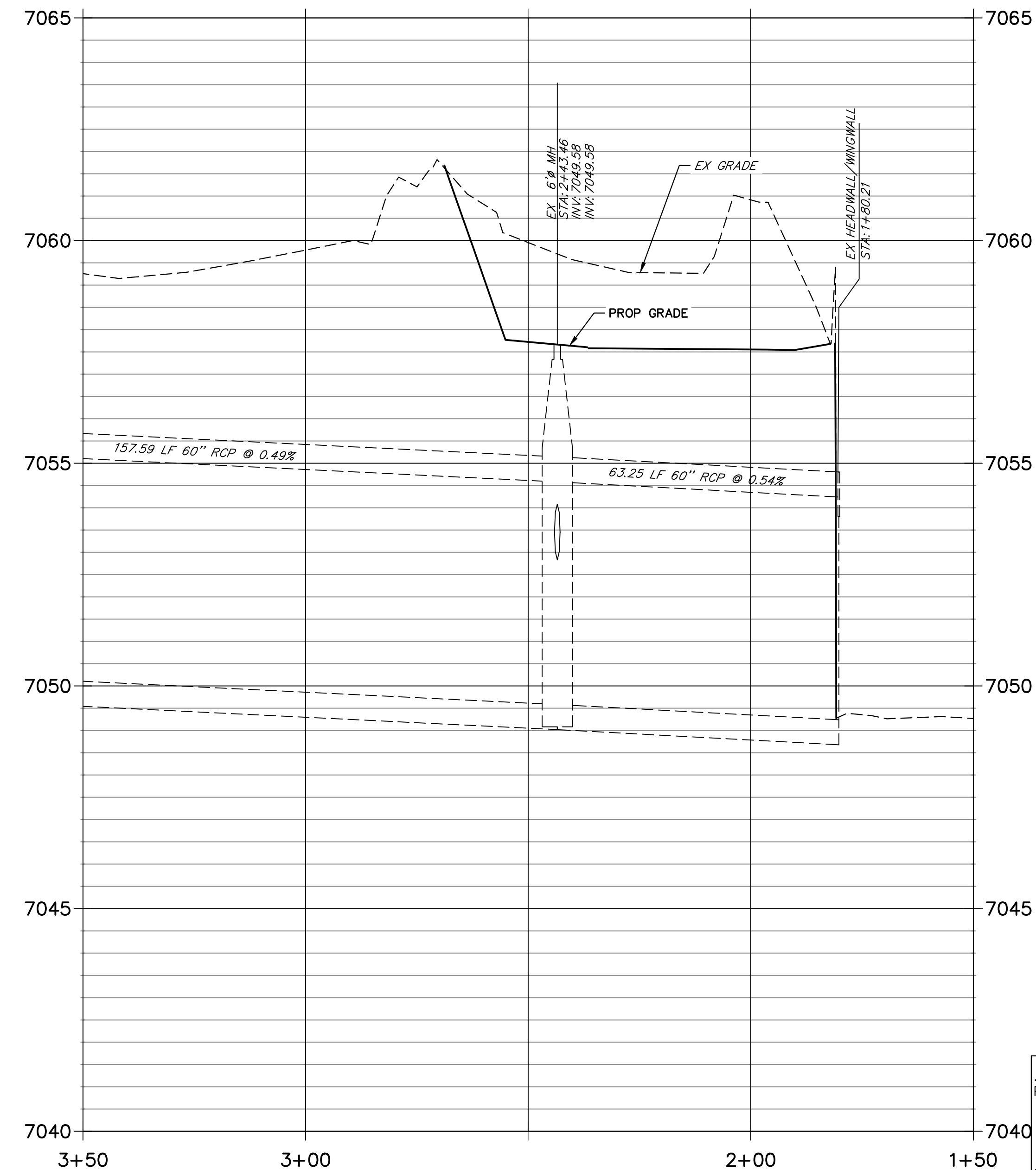
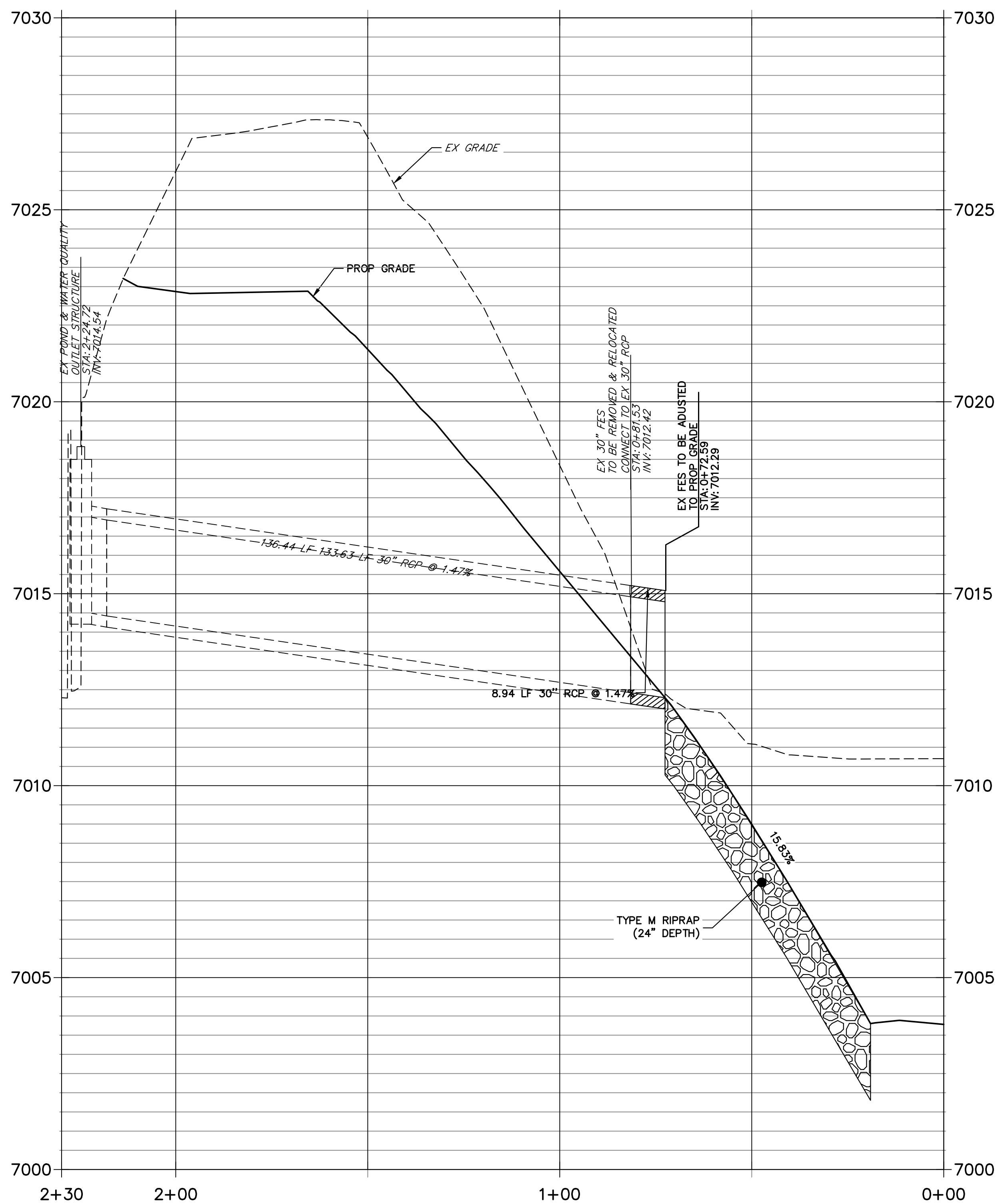
SEE STERLING RANCH FILING NO. 1 PLANS FOR AS BUILT
(BY M&S CIVIL)

**EX STORM 8
STA 0+00.00 TO 2+29.72**



SEE STERLING RANCH FILING NO. 1 PLANS FOR AS BUILT
(BY M&S CIVIL)

**EX STORM 1
STA 1+50.00 TO 3+50.00**



BENCHMARK

- THE TOP OF AN ALUMINUM SURVEYORS CAP, STAMPED "3853" AT THE SOUTHWEST BOUNDARY CORNER OF BARBARICK SUBDIVISION
NORTHING = 411416.273
EASTING = 235167.071
ELEVATION = 7023.42
- THE TOP OF A RED PLASTIC SURVEYORS CAP, ILLEGIBLE, AT THE NORTHWEST BOUNDARY CORNER OF PANWEE RANCHEROS SUBDIVISION
NORTHING = 410095.404
EASTING = 235052.131
ELEVATION = 7000.40
- 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

BASIS OF BEARINGS

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 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 2,722.69 FEET.

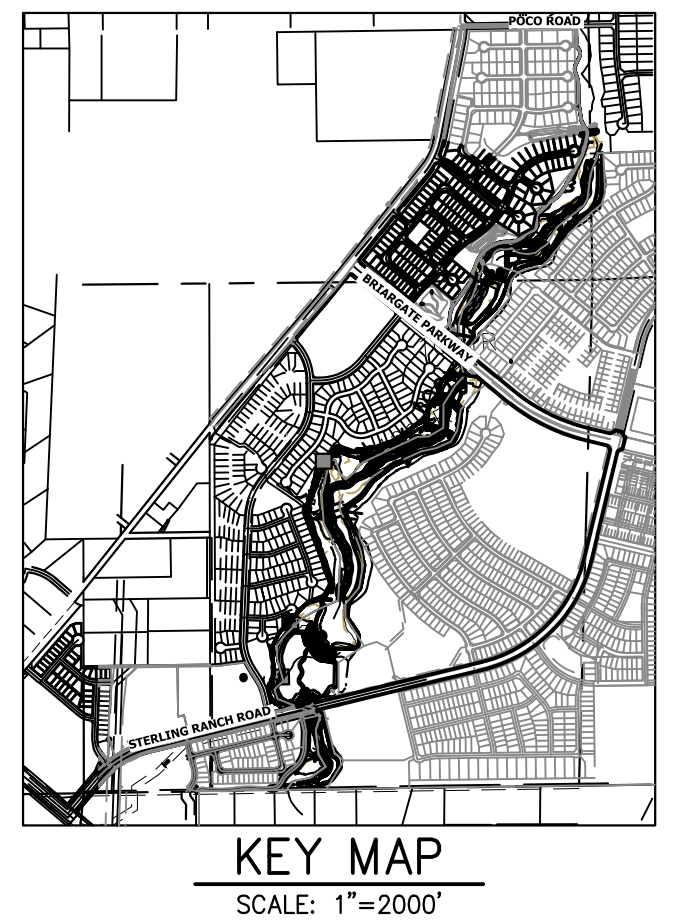
811
Know what's below.
Call before you dig.

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION

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

DATE: 11/20/23



PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
2ND FLOOR
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 419-3024

J.R. ENGINEERING
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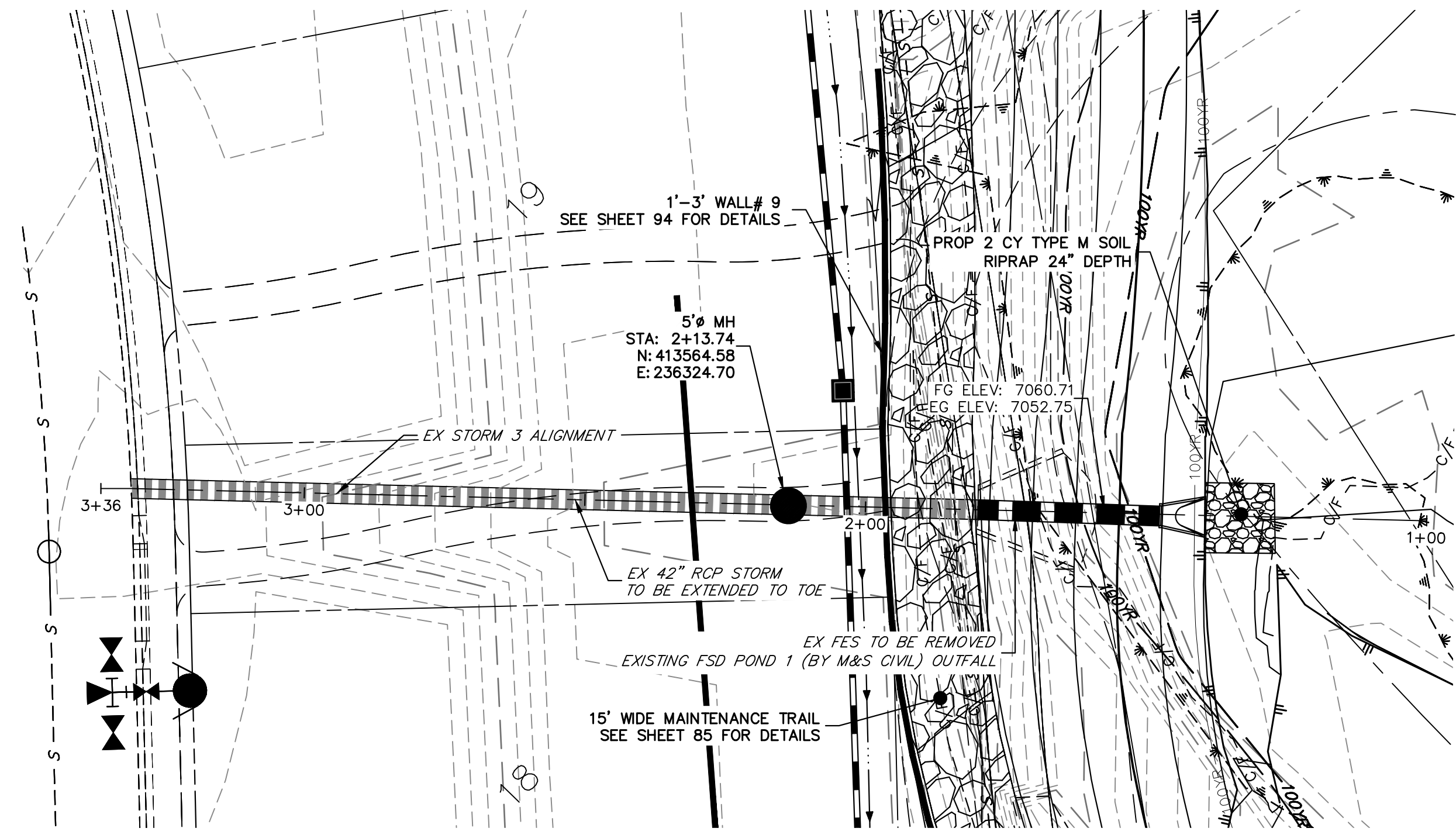
BY	DATE	No.	REVISION

SAND CREEK RESTORATION

STORM PLAN & PROFILE

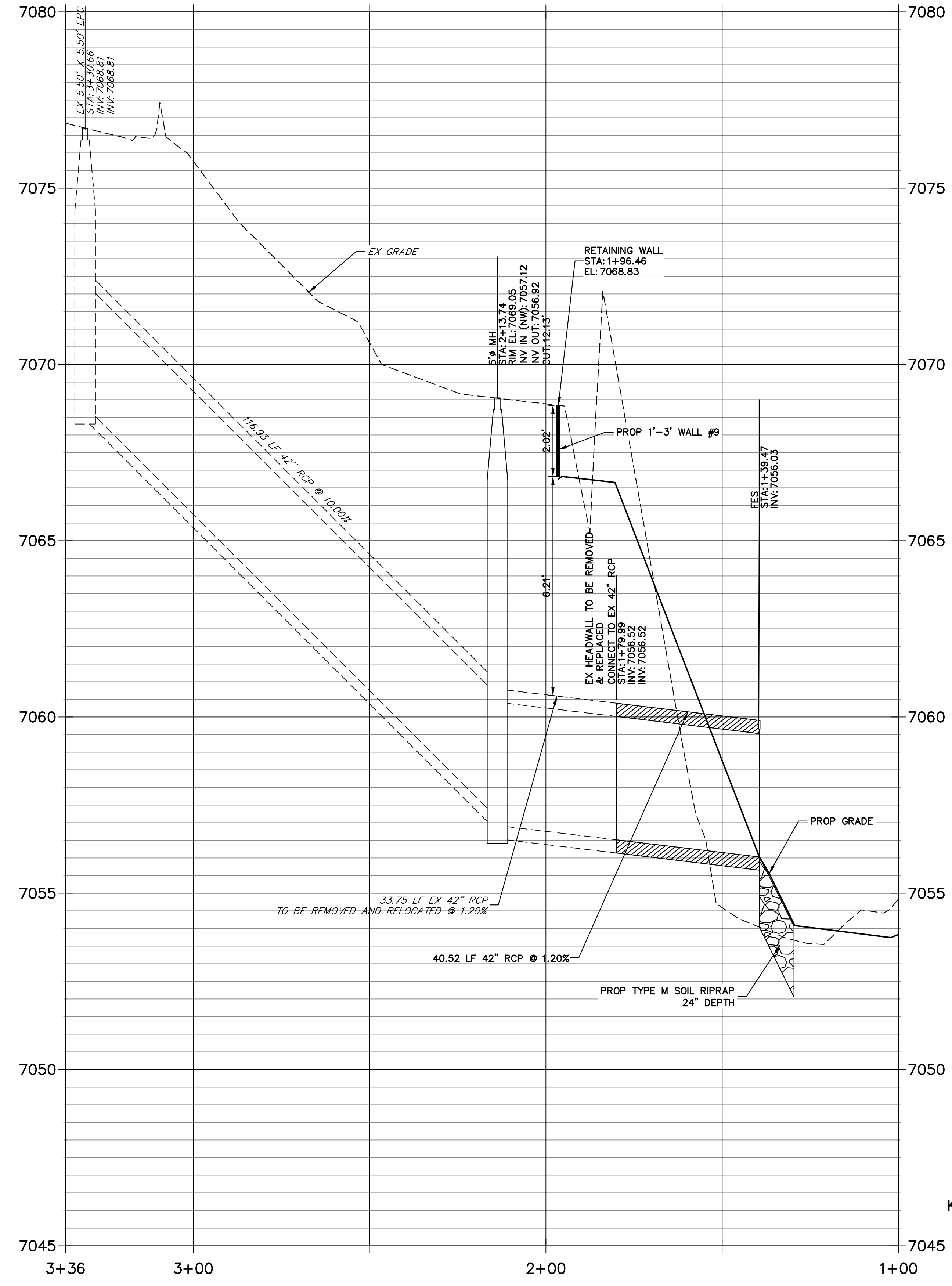
SHEET 68 OF 121

JOB NO. 25188.04



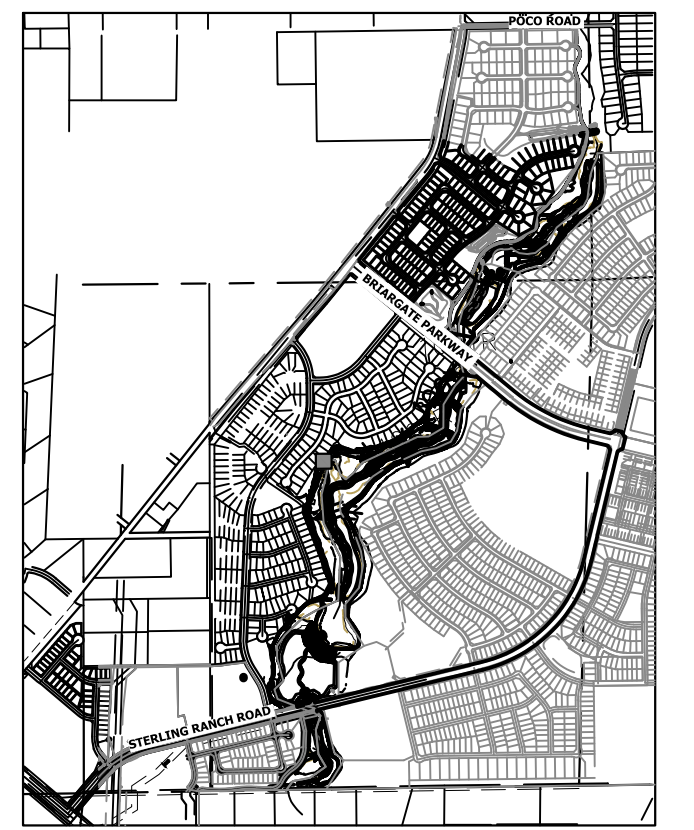
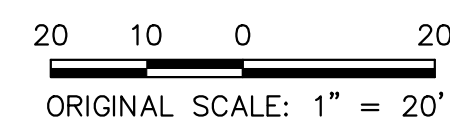
SEE HOMESTEAD AT STERLING RANCH FILING NO. 2 PLANS FOR AS BUILTS (BY M&S CIVIL)

EX STORM 3 STA 1+00.00 TO 3+36.25



- BENCHMARK**
- THE TOP OF AN ALUMINUM SURVEYORS CAP, STAMPED "9853", AT THE SOUTHEAST BOUNDARY CORNER OF BARBRICK SUBDIVISION
 NORTHING = 411416.273
 EASTING = 235167.071
 ELEVATION = 7023.42
 - THE TOP OF A RED PLASTIC SURVEYORS CAP, ILLEGIBLE, AT THE NORTHWEST BOUNDARY CORNER OF PANTEE RANCHEROS SUBDIVISION
 NORTHING = 410095.404
 EASTING = 235052.131
 ELEVATION = 7000.40
 - THE TOP OF A RED PLASTIC SURVEYORS CAP, STAMPED "38141", AT THE SOUTHWEST BOUNDARY CORNER OF BARBRICK SUBDIVISION
 NORTHING = 411399.962
 EASTING = 233849.817
 ELEVATION = 7030.82

BASIS OF BEARINGS
 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 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 2,722.69 FEET.



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

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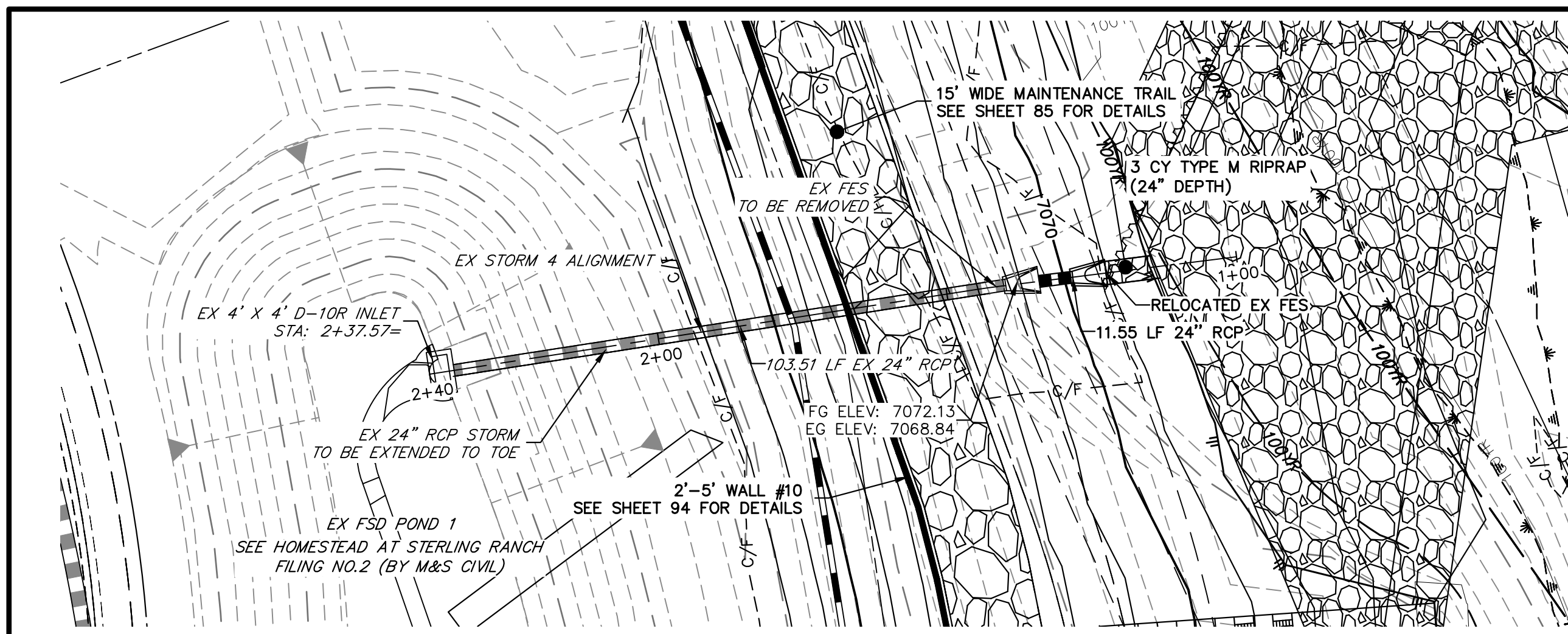
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No.	REVISION	BY	DATE				
				H-SCALE	V-SCALE	DATE	DESIGNED BY
1"	20'						
1"	2'						
			11/20/23				
				DJV			
					NEO		

ENGINEER'S STATEMENT
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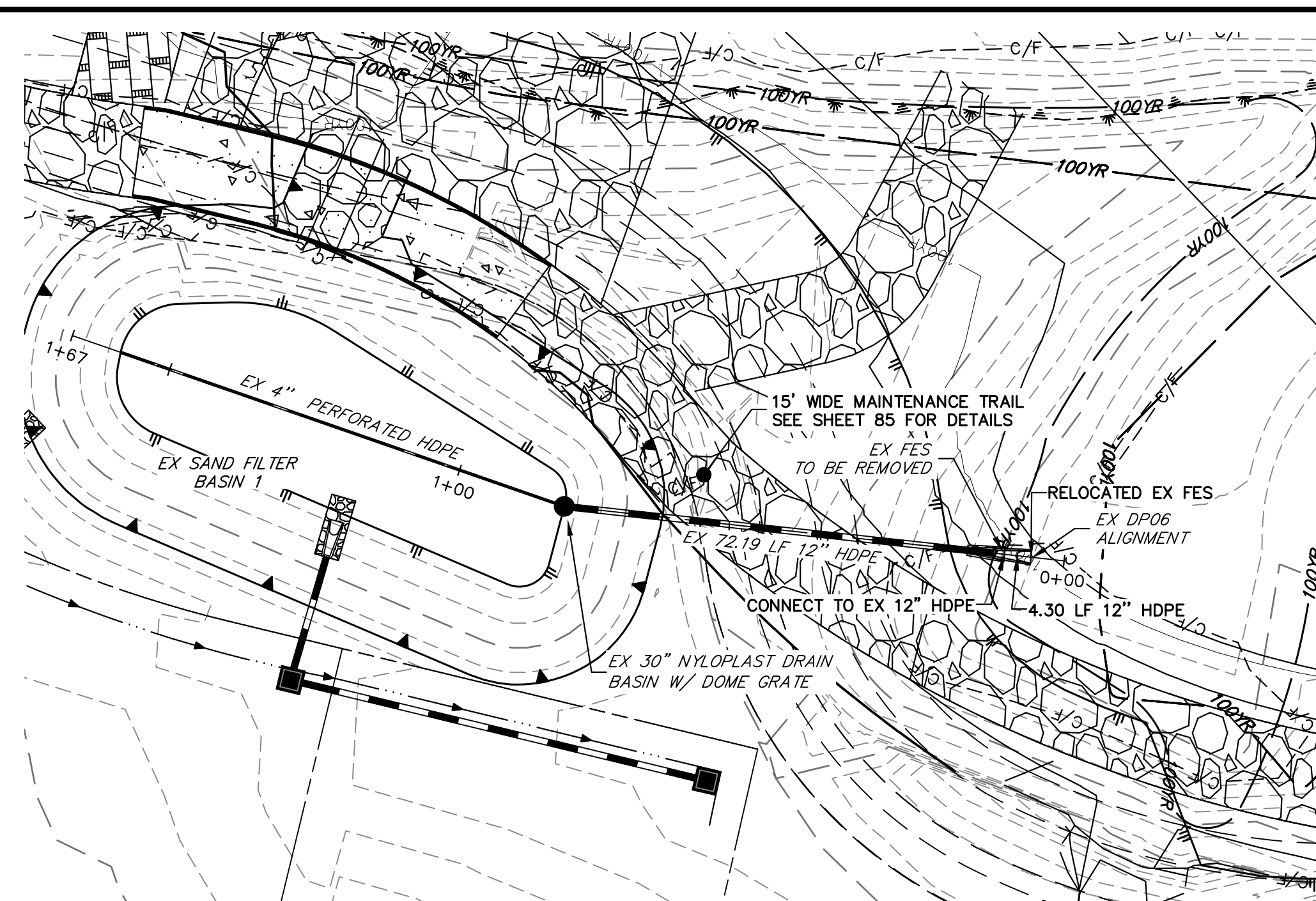
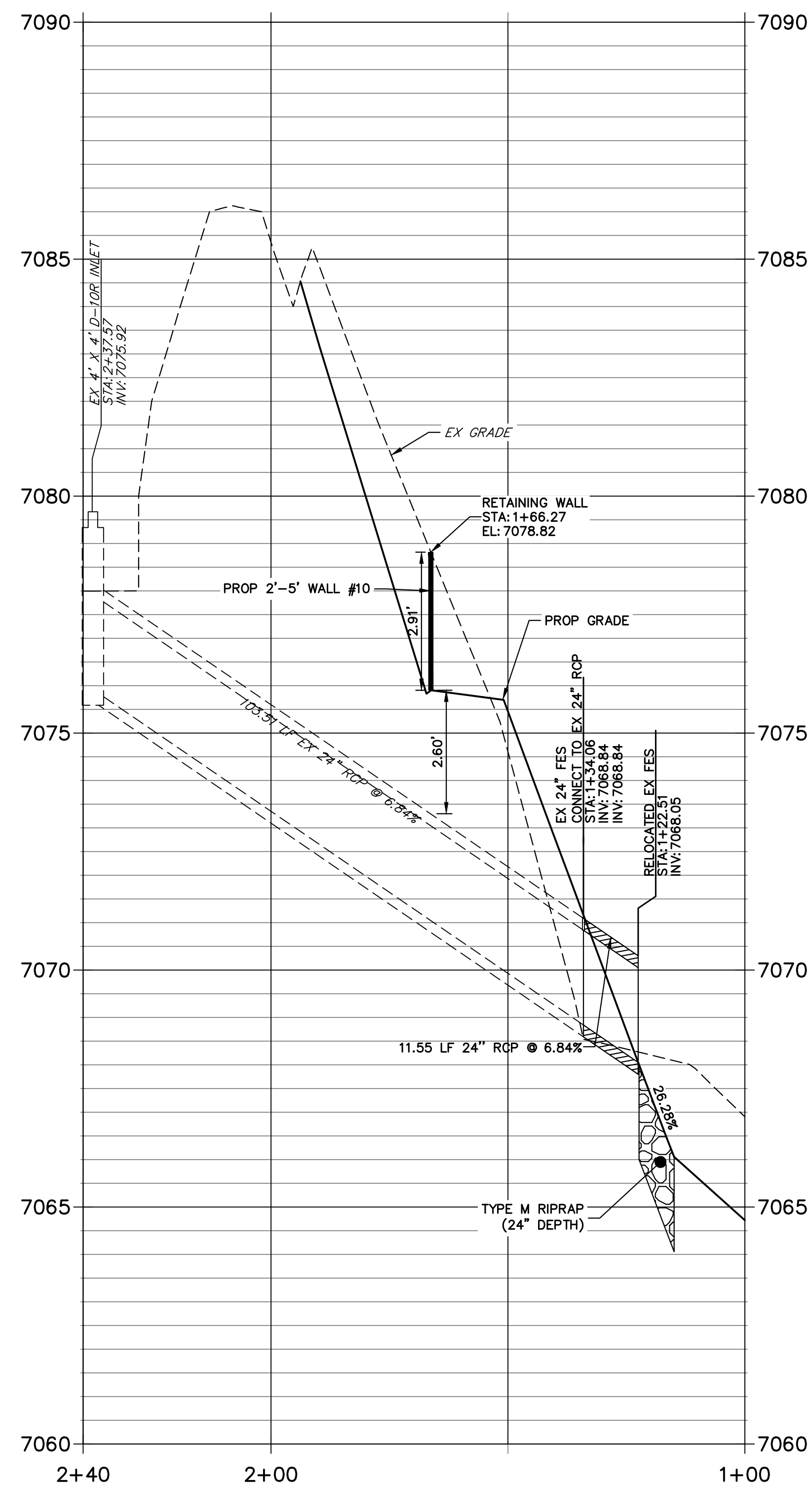
Mike Bramlett
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32314
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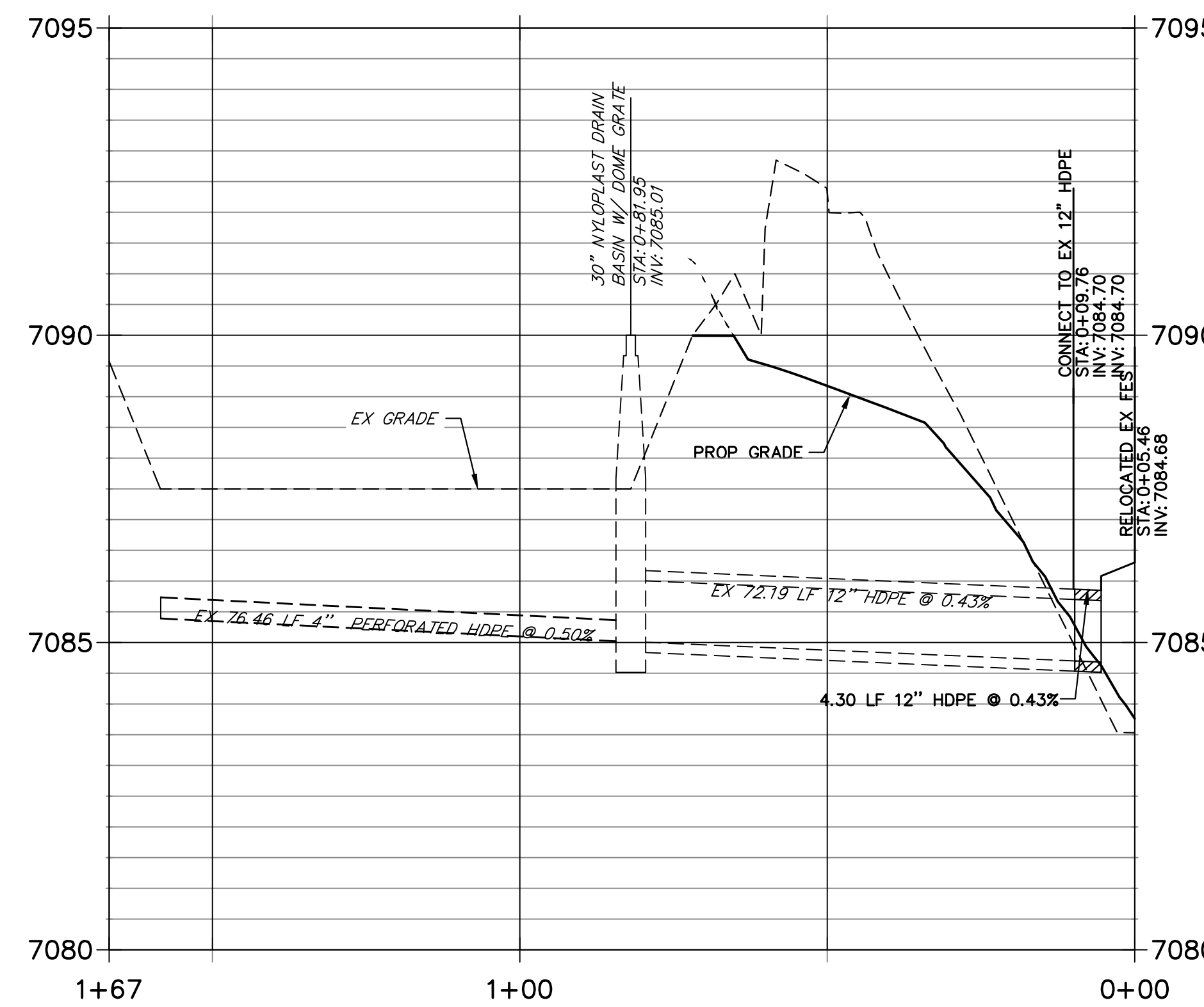
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(BY M&S CIVIL)

**EX STORM 4 (PRIVATE)
STA 1+00.00 TO 2+39.64**



SEE HOMESTEAD 2 COMMONS SAND FILTER STORM PLANS FOR AS BUILTS
(BY JR ENGINEERING)

**EX DP06
STA 0+00.00 TO 1+66.80**



BENCHMARK

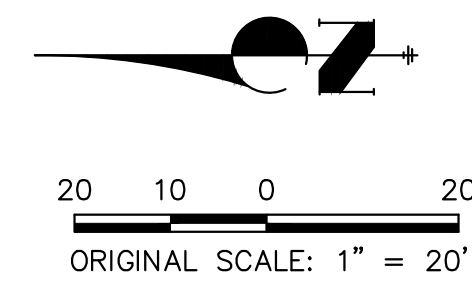
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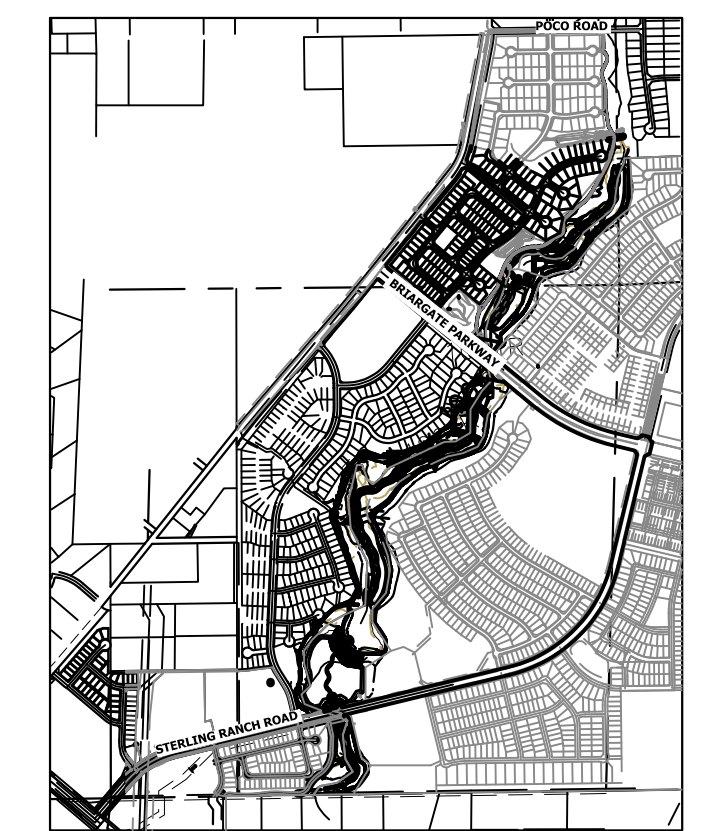
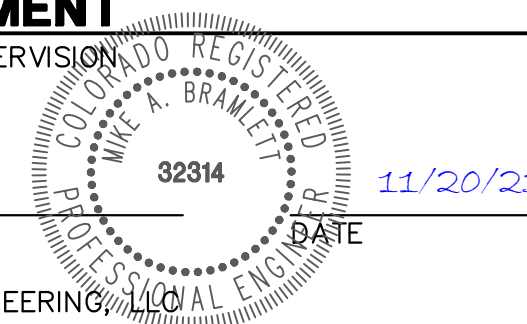
Know what's below.
Call before you dig.



ENGINEER'S STATEMENT

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COLORADO P.E. 32314
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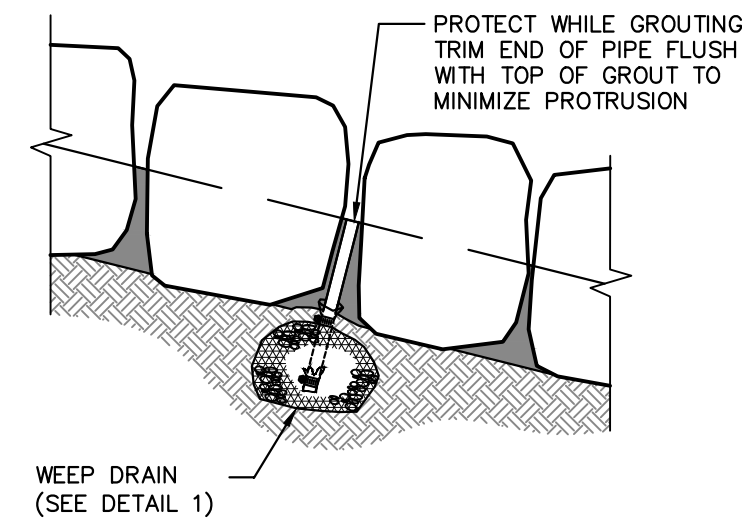
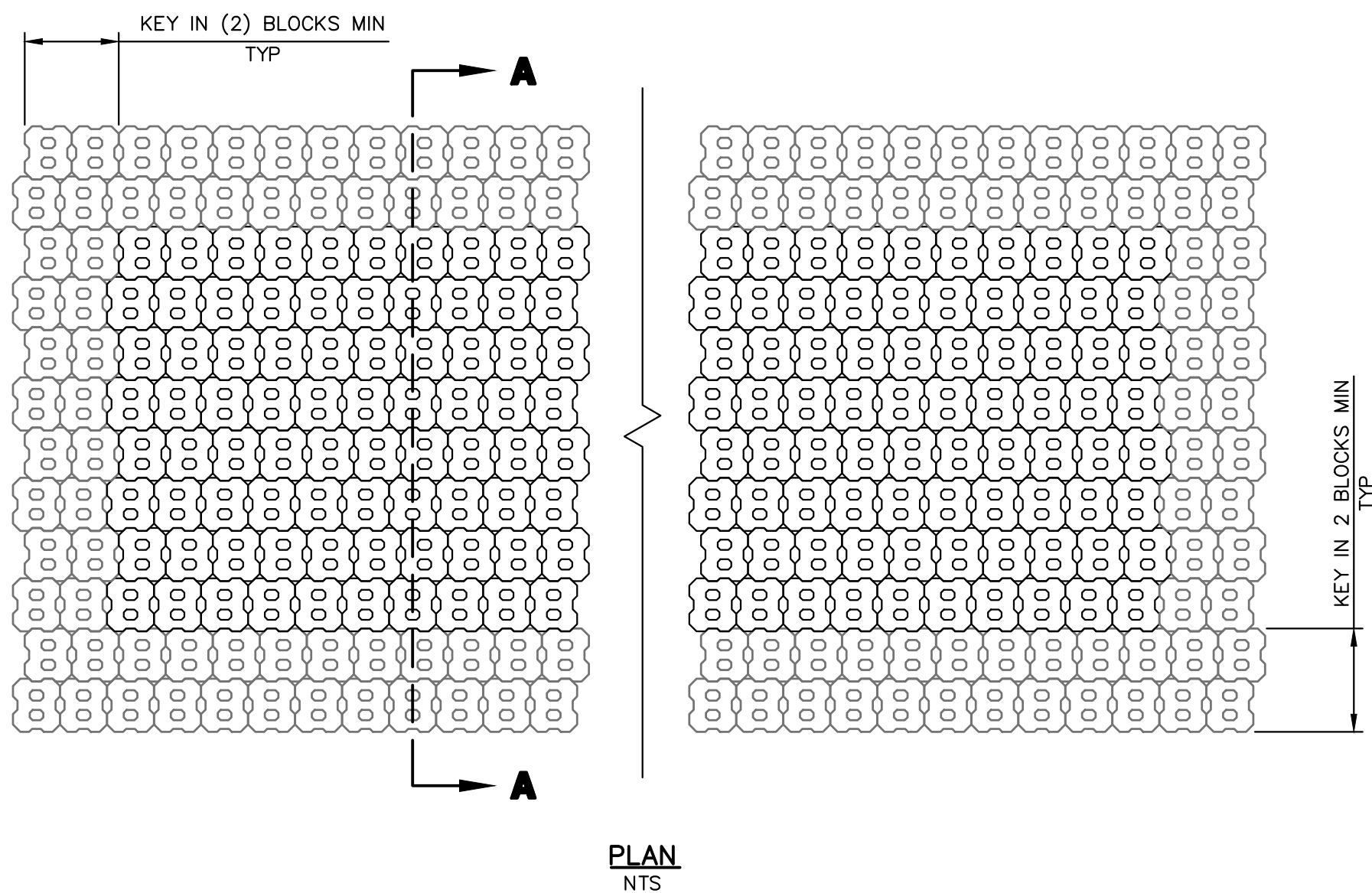
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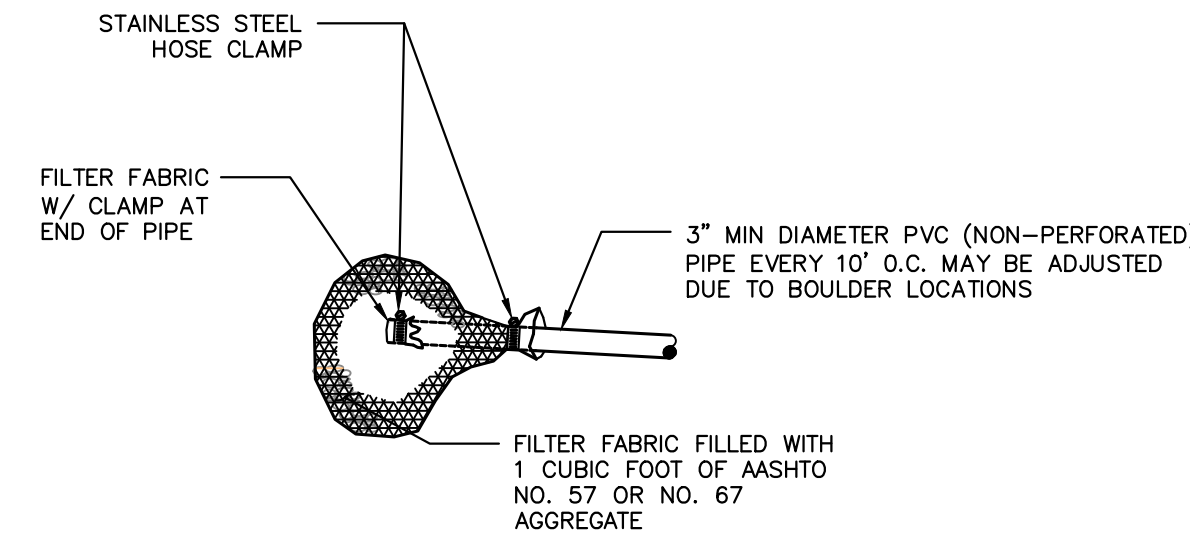
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SAND CREEK RESTORATION
STORM PLAN & PROFILE
SHEET 70 OF 121
JOB NO. 25188.04



GROUTED BOULDERS



DETAIL WEEP DRAIN

NOTE: INSTALL WEEP DRAINS FOR DROPS AND WALLS 5' AND GREATER AT 10' O.C. AT ELEVATIONS AND LOCATIONS SHOWN ON THE DRAWINGS

WEEP DRAINS

BOULDER PLACEMENT NOTES:

1. PLACE BOULDERS WITH THE REQUIRED BOULDER HEIGHT VERTICAL. PLACE BOULDERS AS TIGHTLY TOGETHER AS POSSIBLE (WITHOUT TOUCHING) WHILE PROVIDING ENOUGH ROOM BETWEEN THEM TO THOROUGHLY VIBRATE THE GROUT AND TO ENSURE NO GAPS IN THE GROUT. THE SMALL DIMENSION OF A 2'x4' CAN BE USED AS A GUIDE TO CHECK MINIMUM SPACING.
2. BEFORE GROUTING, CLEAN ALL DIRT AND MATERIAL FROM ROCK THAT COULD PREVENT THE GROUT FROM BINDING TO THE ROCK. KEEP BOULDERS FROM TOUCHING. AVOID SLIDING BOULDERS AGAINST SUBGRADE TO PROPERLY POSITION.

MATERIAL SPECIFICATIONS:

1. ALL GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH EQUAL TO 3200 PSI.
2. ONE CUBIC YARD OF GROUT SHALL HAVE A MINIMUM OF SIX (6) SACKS OF TYPE II PORTLAND CEMENT.
3. A MAXIMUM OF 25% TYPE F FLY ASH MAY BE SUBSTITUTED FOR THE PORTLAND CEMENT.
4. THE AGGREGATE SHALL BE COMPRISED OF 70% NATURAL SAND (FINES) AND 30% 3/4-INCH ROCK (COARSE).
5. THE GROUT SLUMP SHALL BE BETWEEN 4-INCHES TO 6-INCHES.
6. AIR ENTRAINMENT SHALL BE BETWEEN 5.5% AND 7.5%.
7. TO CONTROL SHRINKAGE AND CRACKING, 1.5 POUNDS OF FIBERMESH, OR EQUIVALENT, SHALL BE USED PER CUBIC YARD OF GROUT.
8. COLOR ADDITIVE IN REQUIRED AMOUNTS SHALL BE USED WHEN SO SPECIFIED BY CONTRACT.

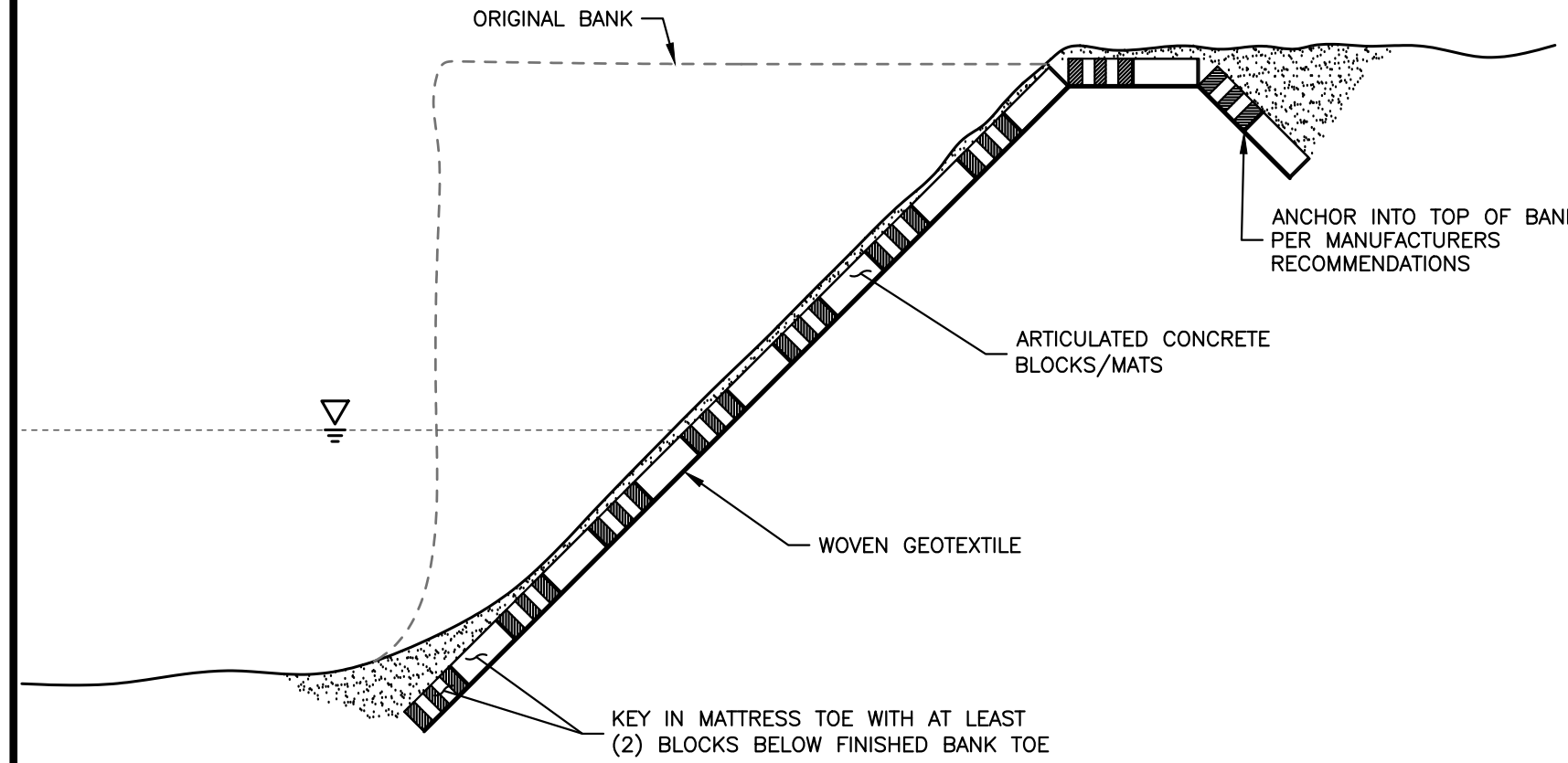
GROUT PLACEMENT SPECIFICATIONS:

1. SPECIAL PROCEDURES SHALL BE REQUIRED FOR GROUT PLACEMENT WHEN THE AIR TEMPERATURES ARE LESS THAN 40°F OR GREATER THAN 90°F. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE DESIGN ENGINEER OF THE PROCEDURES TO BE USED FOR PROTECTING THE GROUT.
2. GROUT SHALL BE DELIVERED BY MEANS OF A LOW PRESSURE (LESS THAN 10 PSI) GROUT PUMP USING A 2-INCH DIAMETER (MAXIMUM) NOZZLE.
3. FULL DEPTH PENETRATION OF THE GROUT INTO THE BOULDER VOIDS SHALL BE ACHIEVED BY INJECTING GROUT STARTING WITH THE NOZZLE NEAR THE BOTTOM AND RAISING IT AS THE GROUT FILLS, WHILE VIBRATING GROUT INTO PLACE USING A PENCIL VIBRATOR.
4. ALL GROUT BETWEEN BOULDERS SHALL BE TREATED WITH A BROOM FINISH.
5. AFTER GROUT PLACEMENT, EXPOSED BOULDER FACES SHALL BE CLEANED AND FREE OF GROUT.
6. ALL FINISHED GROUT SURFACES SHALL BE SPRAYED WITH A CLEAR LIQUID MEMBRANE CURING COMPOUND AS SPECIFIED IN ASTM C309.

GROUTED BOULDER PLACEMENT DETAIL
NTS

GROUTED BOULDER NOTES:

1. BOULDERS USED FOR GROUTING SHOULD MEET ALL THE PROPERTIES OF ROCK FOR ORDINARY RIPRAP, AND ROCK OF UNIFORM SIZE SHOULD BE USED.
2. ROCK SHALL BE HARD, DURABLE, AND FREE FROM CRACKS, OVERBURDEN, SHALE, AND ORGANIC MATTER.
3. GROUTED BOULDERS SHALL BE PLACED DIRECTLY ON STABILIZED, COMPACTED SUBGRADE WITHOUT GRANULAR BEDDING.
4. THE TOP ONE-THIRD OF THE BOULDERS SHALL BE LEFT UNGROUTED AND EXPOSED.
5. ROCK HAVING A MINIMUM SPECIFIC GRAVITY OF 2.65 IS PREFERRED; HOWEVER, IN NO CASE SHALL ROCK HAVE A SPECIFIC GRAVITY LESS THAN 2.50.
6. WEEP HOLES SHALL BE PROVIDED AT THE CHANNEL SLOPES AND CHANNEL DROPS AS SHOWN TO REDUCE UPLIFT FORCES ON THE GROUTED CHANNEL LINING.
7. PLACEMENT AND GROUTING OF BOULDERS SHALL GENERALLY CONFORM TO THE SPECIFICATIONS AND DETAILS FOR GROUTED BOULDER DROPS. SEE DETAILS AND NOTES FOR GROUTED BOULDER DROPS ON THIS SHEET.
8. BOULDERS SHALL BE SET IN A STEPPED MANNER. BOULDERS SHALL NOT BE ORIENTED INTO A SMOOTH SLOPING FACE.
9. BOULDERS SHALL BE GROUTED TO 3/8 THE ROCK HEIGHT.
10. BOULDERS OF DIFFERENT SOURCES AND/OR COLORS SHALL BE MIXED WITH THE OTHER ROCK AND EVENLY DISPERSED THROUGHOUT THE PROJECT TO AVOID HAVING AREAS OF NON-UNIFORMITY.
11. THE BOULDER SIZES SHOWN ON THE PLANS ARE MINIMUM DIMENSIONS. LARGER ROCK MAY BE SUBSTITUTED AS LONG AS THE TOP OF BOULDER ELEVATIONS SHOWN ON THE PLANS ARE MET AND THE MINIMUM OVER-EXCAVATION REQUIREMENTS ARE MET AT EACH BOULDER LOCATION.

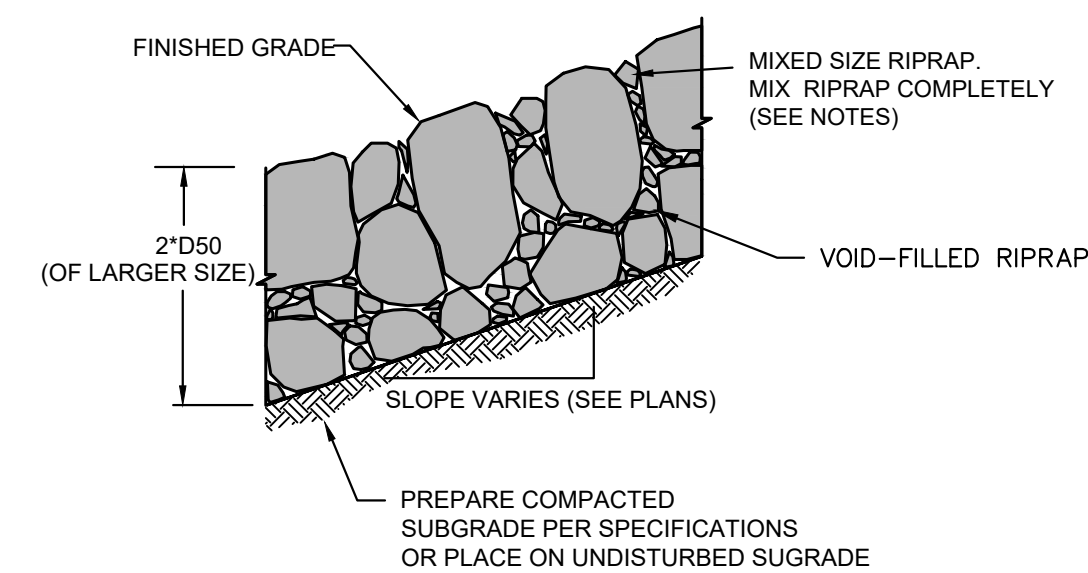


SECTION A-A
NTS

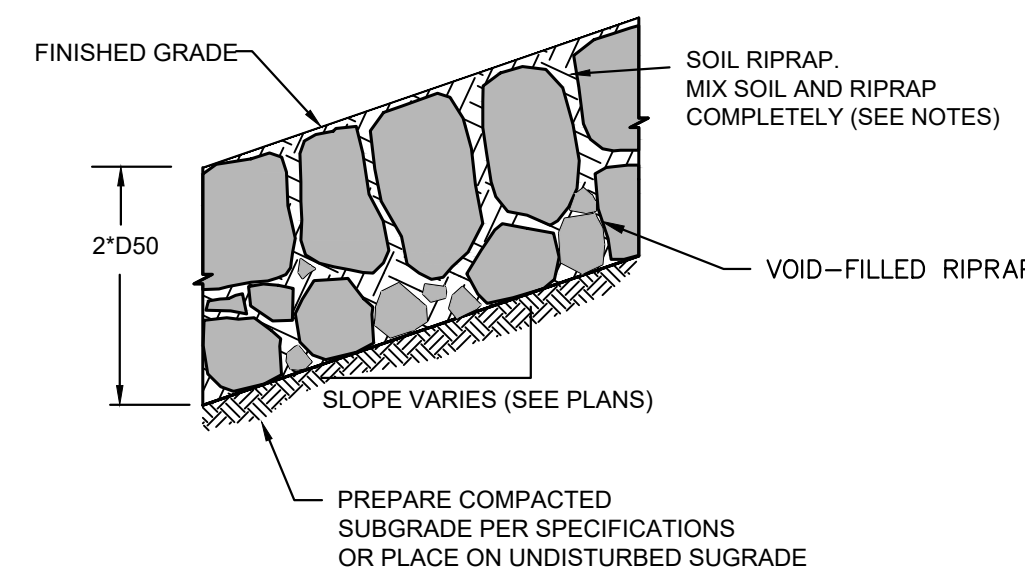
ARTICULATED CONCRETE BLOCK MATS

RIPRAP NOTES:

1. WHERE "SOIL RIPRAP" IS DESIGNATED ON THE CONTRACT DRAWINGS, RIPRAP VOIDS ARE TO BE FILLED WITH APPROVED FILL. THE RIPRAP SHALL BE PRE-MIXED WITH THE APPROVED FILL AT THE FOLLOWING PROPORTIONS BY VOLUME: 65 PERCENT RIPRAP AND 35 PERCENT SOIL. THE SOIL USED FOR MIXING SHALL BE NATIVE TOPSOIL AND SHALL HAVE A MINIMUM FINES CONTENT OF 15 PERCENT. THE SOIL RIPRAP SHALL BE INSTALLED IN A MANNER THAT RESULTS IN A DENSE, INTERLOCKED LAYER OF RIPRAP WITH RIPRAP VOIDS FILLED COMPLETELY WITH SOIL. SEGREGATION OF MATERIALS SHALL BE AVOIDED AND IN NO CASE SHALL THE COMBINED MATERIAL CONSIST PRIMARILY OF SOIL; THE DENSITY AND INTERLOCKING NATURE OF RIPRAP IN THE MIXED MATERIAL SHALL ESSENTIALLY BE THE SAME AS IF THE RIPRAP WAS PLACED WITHOUT SOIL.
2. PLACE ALL RIPRAP AND SOIL-RIPRAP TO RESULT IN SECURELY INTERLOCKED ROCK AT THE DESIGN THICKNESS AND GRADE. COMPACT AND ALL LEVEL TO ELIMINATE VOIDS AND ROCKS PROJECTING DESIGN ABOVE RIPRAP TOP GRADE.
3. ALL SOIL RIPRAP THAT IS BURIED WITH TOPSOIL SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ANY TOPSOIL PLACEMENT.
4. CRIMP OR TACKIFY MULCH OR USE APPROVED HYDROMULCH AS CALLED FOR IN THE PLANS AND SPECIFICATIONS.
5. ELEVATION TOLERANCES FOR RIPRAP SHALL BE 0.10 FEET. THICKNESS OF SOIL RIPRAP SHALL BE NO LESS THAN THICKNESS SHOWN AND NO MORE THAN 2-INCHES GREATER THAN THE THICKNESS SHOWN.



TYPICAL SECTION - VOID-FILLED RIPRAP



TYPICAL SECTION - SOIL RIPRAP

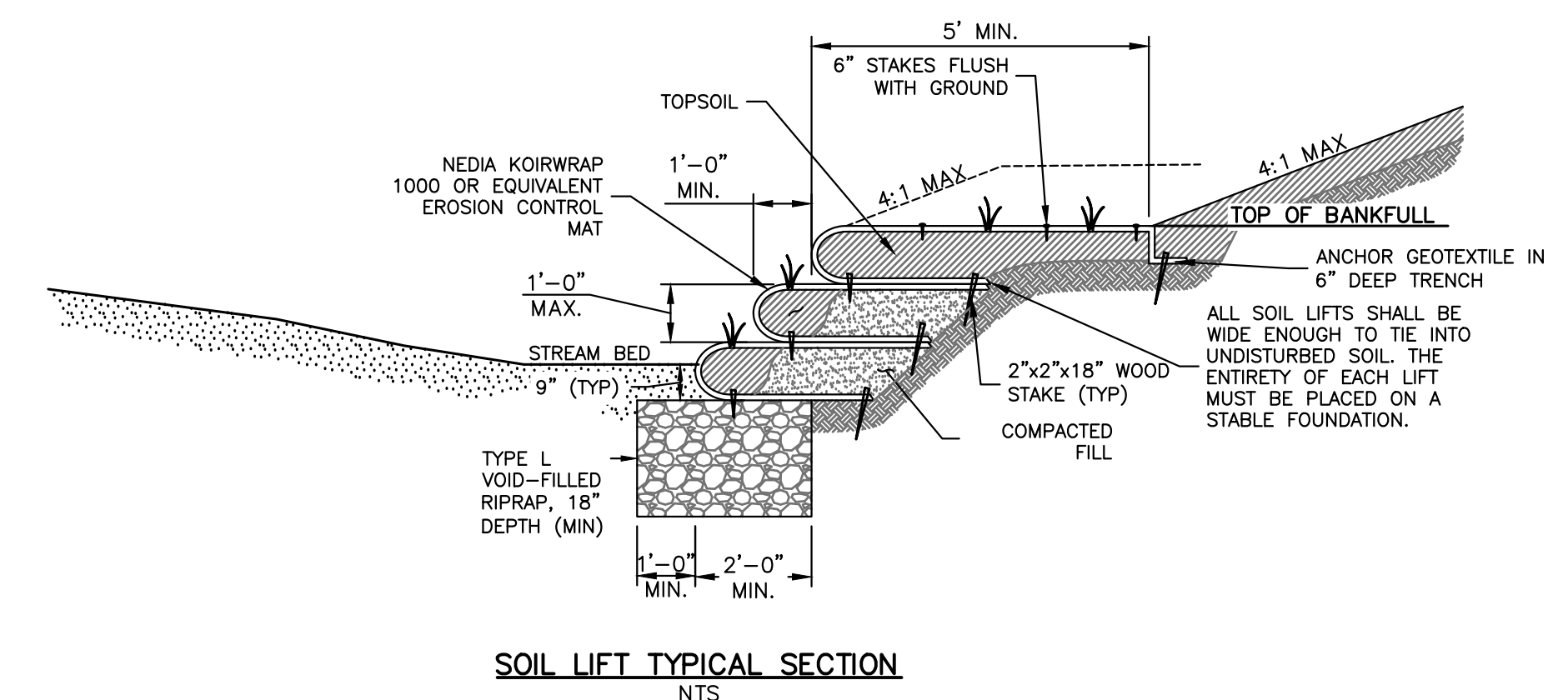
RIPRAP DESIGNATION	INTERMEDIATE ROCK DIMENSION (IN.)	PERCENT PASSING (%)	D50 (IN.)
TYPE VL	12	70-100	6
	9	50-70	
	6	35-50	
TYPE M	21	70-100	12
	18	50-70	
	12	35-50	
TYPE H	30	70-100	18
	24	50-70	
	18	35-50	
	6	2-10	

SOIL LIFT NOTES:

1. THE SOIL BACKFILL USED FOR LIFTS AND TOPSOIL USED FOR LAYERING WITH THE LIVE BRANCHES SHALL BE FREE OF ANY LARGE ROOTS OR DEBRIS AND SHALL GENERALLY BE FREE OF GRAVEL OR COBBLE MATERIAL.
2. SOIL BACKFILL SHALL BE COMPACTED WITHOUT DAMAGING THE UNDERLYING SOIL LIFT.
3. PLACE SOIL BACKFILL UP TO THE LIFT HEIGHT SPECIFIED, NO GREATER THAN 12", WITHOUT AFFECTING OR TEARING THE PREVIOUSLY PLACED LIFT AND COIR FABRIC.
4. THE COIR FABRIC SHALL BE PULLED AS TIGHT AS POSSIBLE WITHOUT TEARING OR DISTORTING THE FABRIC.
5. PLACE A LAYER OF TOPSOIL AND LIVE BRANCHES ON TOP OF EACH SOIL LIFT, EXPOSING 6"-12" OF EACH LIVE BRANCH AND 24"-48" OF THE BRANCH WILL BE COVERED BY THE FOLLOWING SOIL LIFT.
6. STAKE ALL EXPOSED SOIL LIFTS WITH LIVE STAKES SPACED @ 24" EACH WAY.
7. LIVE STAKES AND BRANCHES SHALL BE OF A SPECIES APPROVED BY THE ENGINEER. NO INVASIVE SPECIES SHALL BE PERMITTED.
8. THE COIR FABRIC ON THE UPPER-MOST LIFT SHALL BE SECURED WITH A 6" DEEP TRENCH AS SHOWN.
9. THE SURFACE OF THE SOIL LIFTS SHALL BE FINISHED TO A SMOOTH AND COMPACT SURFACE IN ACCORDANCE WITH THE CONTOURS AND ELEVATIONS IN THE PLANS.
10. RE-DRESSING OF THE CHANNEL AND BANKFULL STREAM BED MAY BE REQUIRED POST-INSTALLATION AND IS INCIDENTAL TO CONSTRUCTION.

RECOMMENDED SOIL LIFT PROCEDURE:

1. PLACE A LAYER OF 6.5-FOOT WIDE COIR BLANKET ON TOP OF THE TOPSOIL AND LIVE BRANCHES ALLOWING 2.5 FEET OF THE BLANKET TO BE BURIED BELOW THE NEXT SOIL LIFT. ALLOW ROUGHLY 4.0 FEET TO HANG FREELY OVER THE PRECEDING LIFTS.
2. PLACE A LAYER OF NON-WOVEN COIR MATTING OVER THE SAME LIMITS.
3. ADD SOIL AND COMPACT, USING A PIECE OF 2x6 LUMBER PLACED AS A BACKSTOP AND SECURED WITH WOODEN STAKES.
4. PLACE BACKFILL TO THE LIFT HEIGHT SPECIFIED.
5. TOP DRESS THE SOIL LIFT WITH TOPSOIL, FROM THE FACE OF THE LIFT BACK 4.0 FEET MINIMUM.
6. REMOVE THE SAWN LUMBER BACKSTOP AND STAKES AND WRAP THE FACE OF THE SOIL LIFT WITH THE FEE-HANGING COIR AND NON-WOVEN MATTING.
7. PULL THE COIR AND MATTING AS TIGHT AS POSSIBLE TO FORM THE FACE OF THE LIFT.
8. SECURE THE COIR AND MATTING IN PLACE BY STAKING THE END OF THE FABRICS WITH WOODEN STAKES AT 18" ON CENTER EACH WAY FLUSH WITH THE COIR.
9. BEGIN CONSTRUCTION OF THE NEXT LIFT REPEATING FROM STEP 1.



SOIL LIFT TYPICAL SECTION
NTS

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION

Mike Bramlett

32314

11/20/23

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

BY	DATE	NO.	REVISION	H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	SAND CREEK RESTORATION	CONSTRUCTION DETAILS	SHEET 71 OF 121	JOB NO. 25188.04

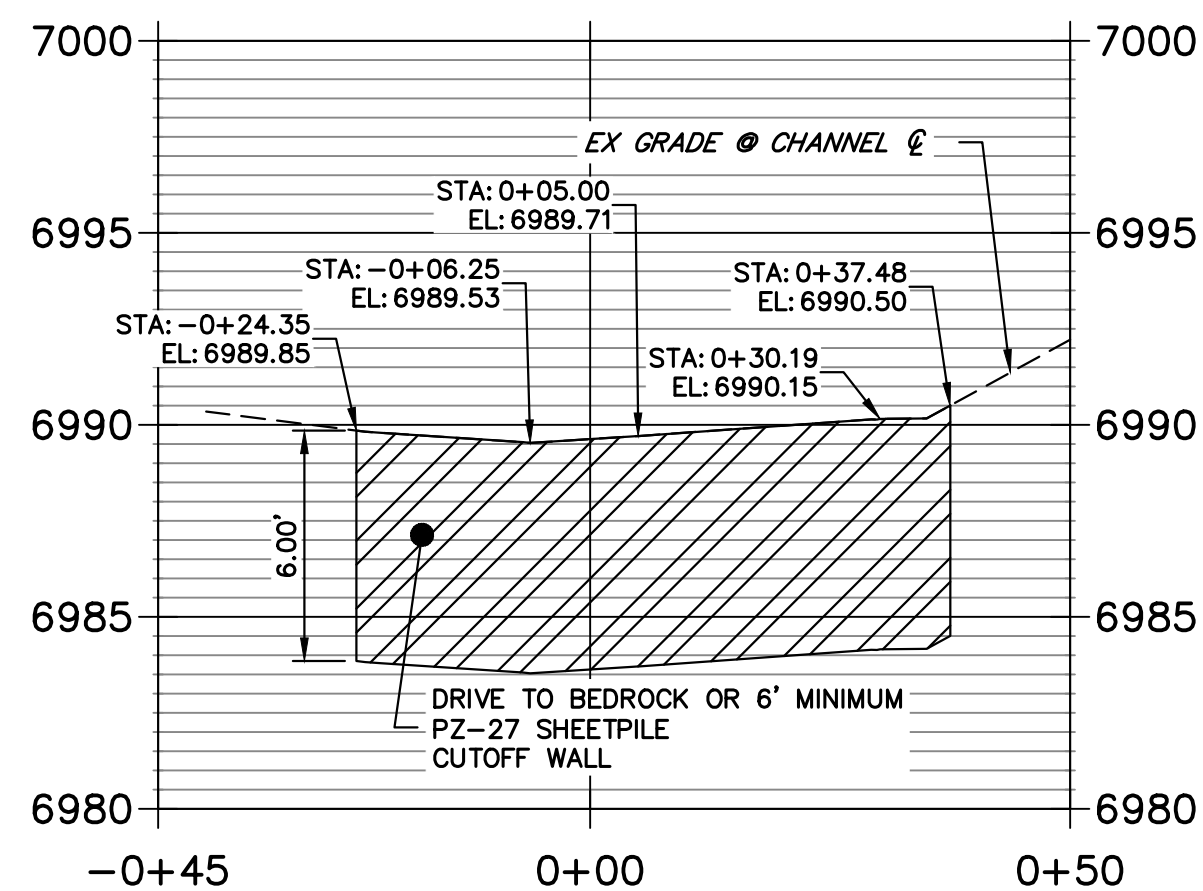
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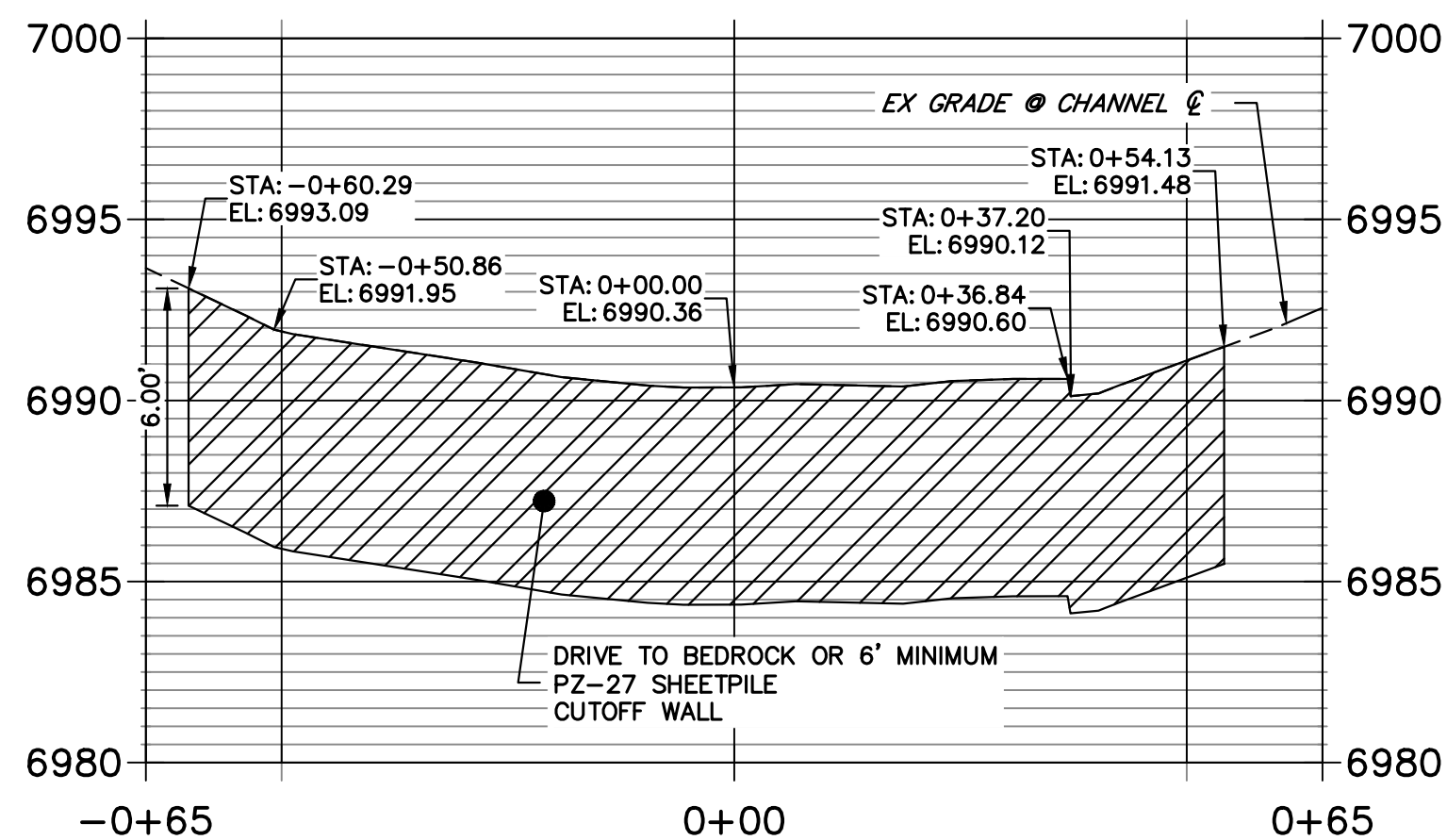
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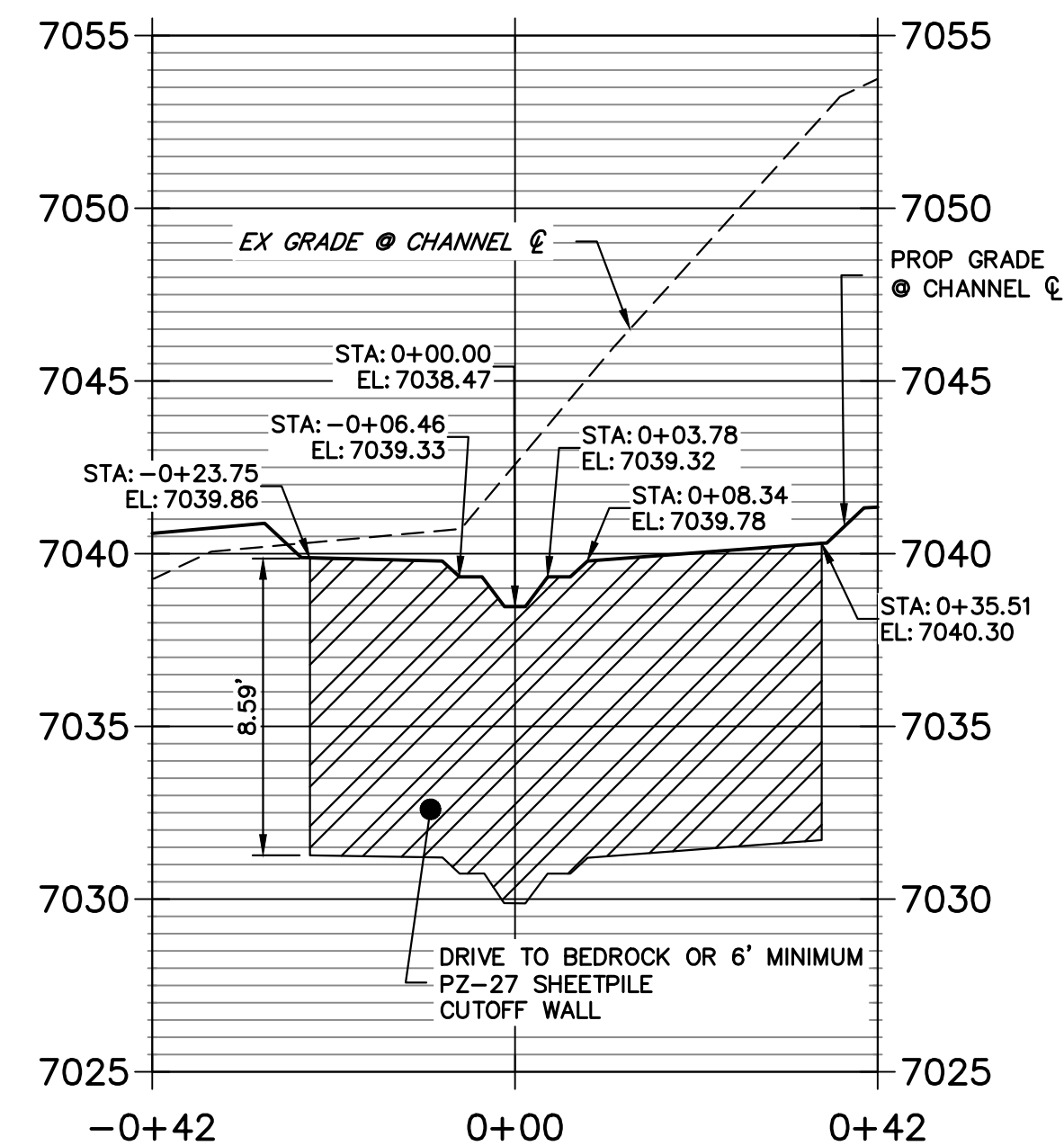
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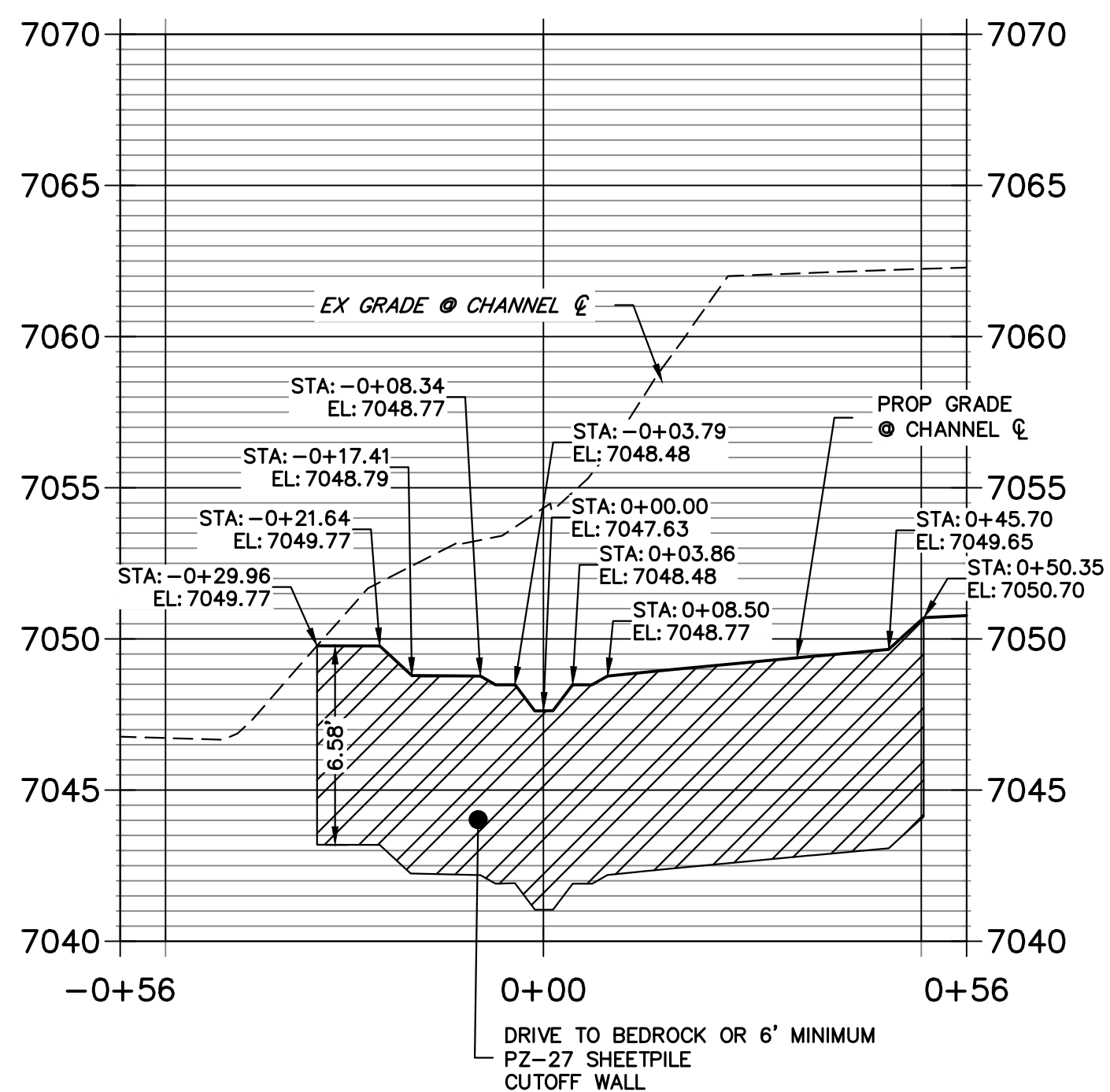
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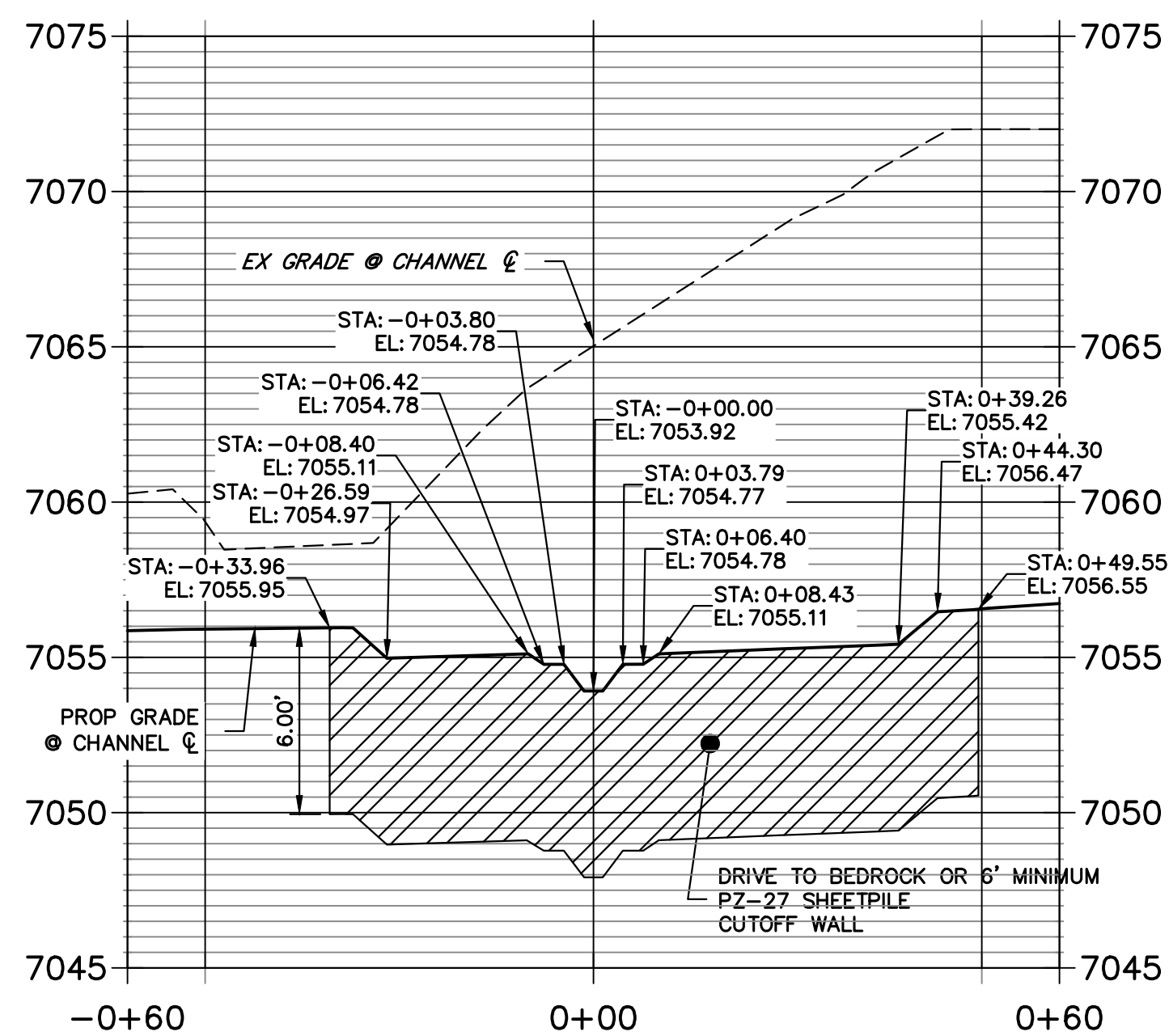
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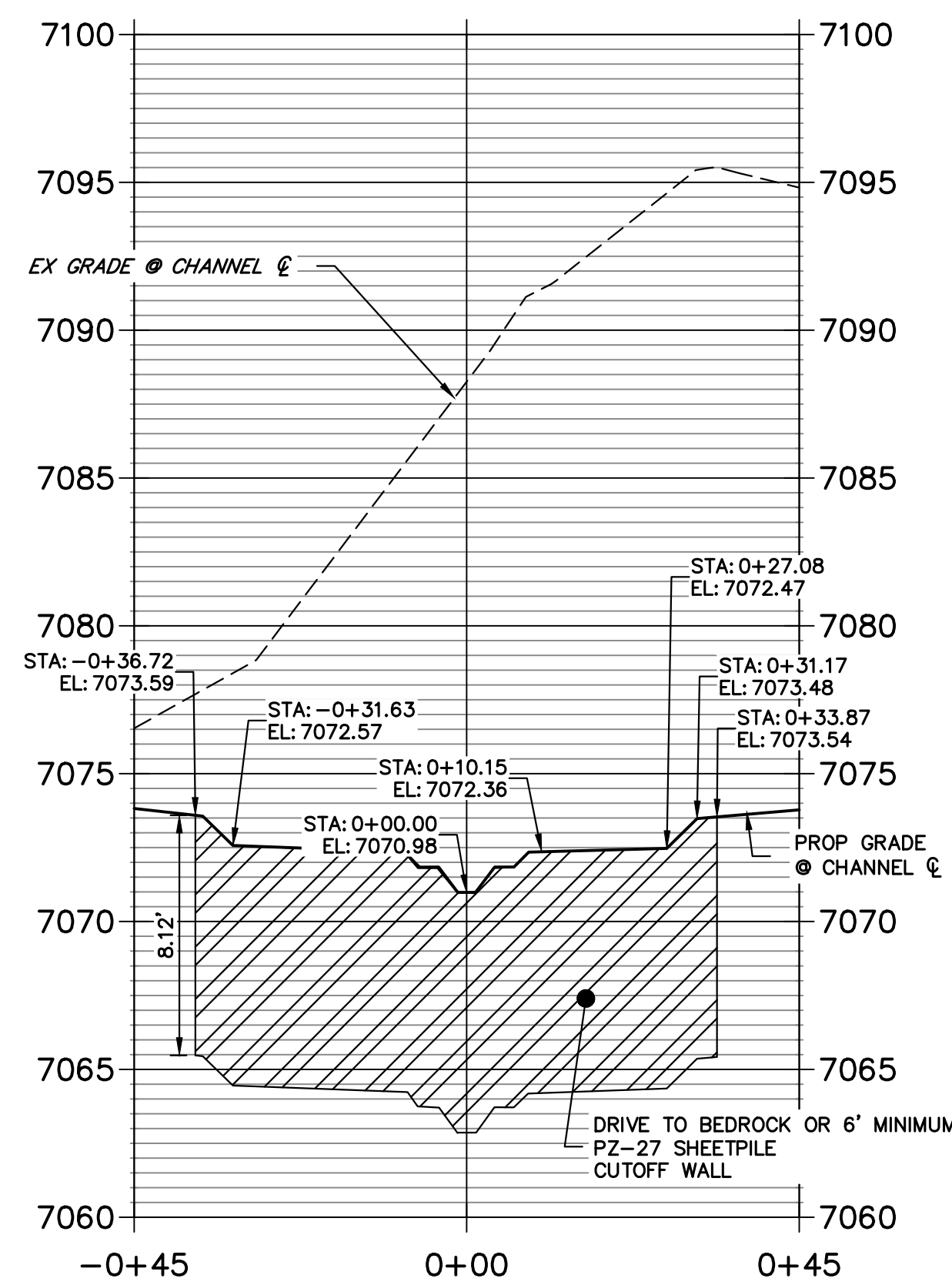
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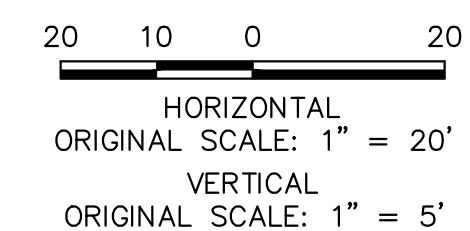
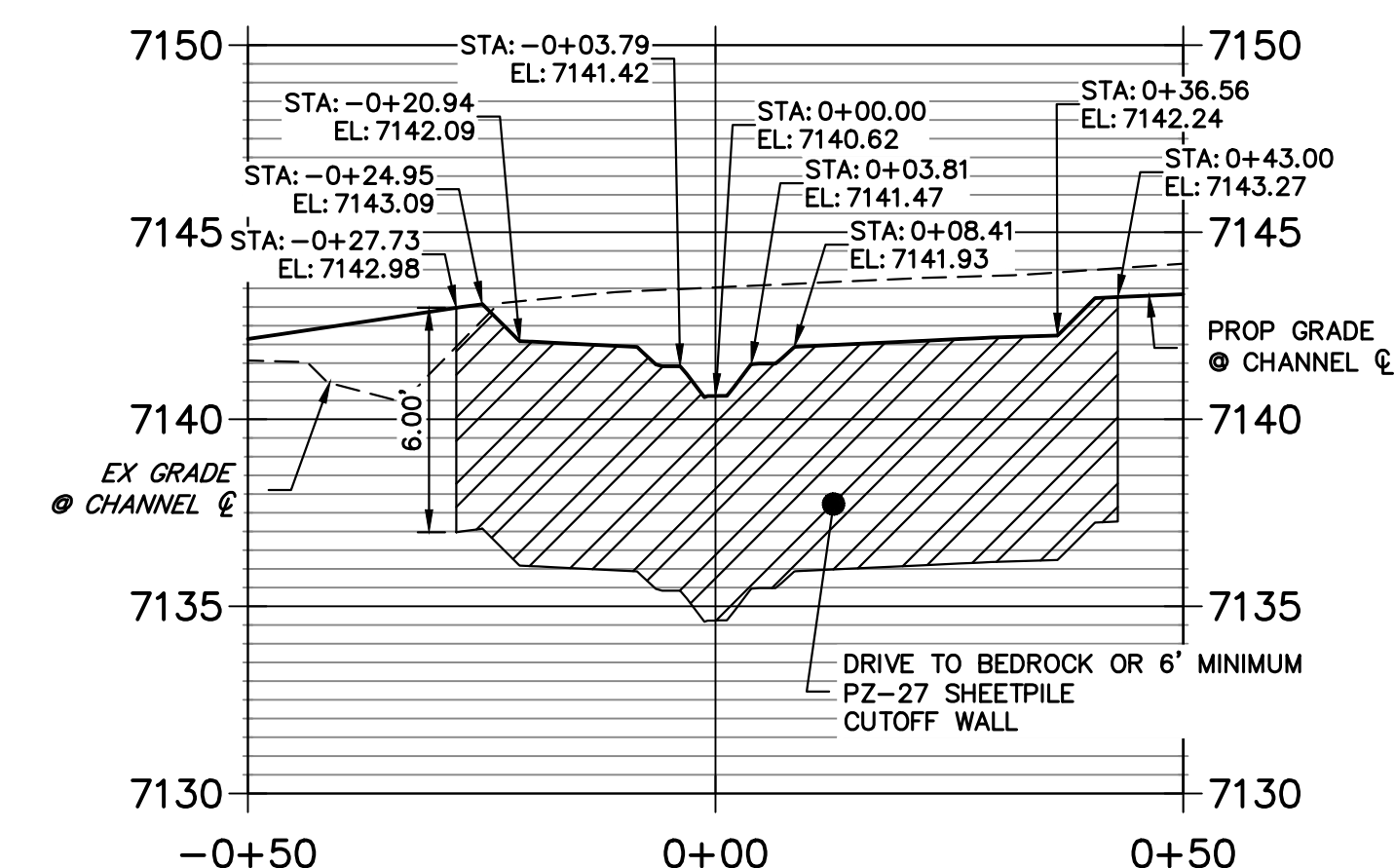
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**SHEET PILE CUTOFF WALL #6
STA -0+45.00 TO 0+45.01**



**SHEET PILE CUTOFF WALL #7
STA -0+50.00 TO 0+50.00**



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DATE 11/20/23

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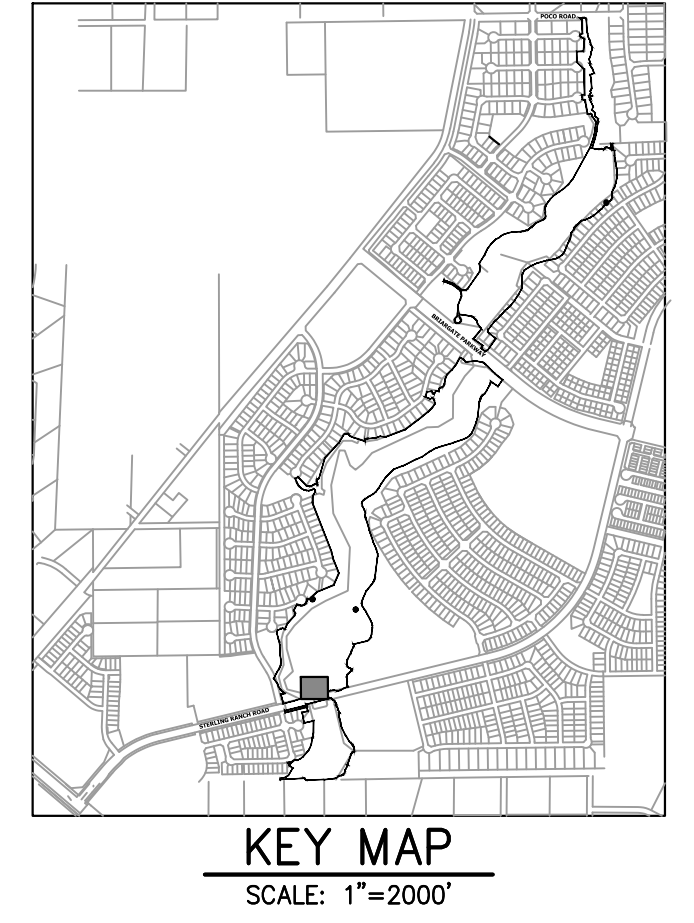
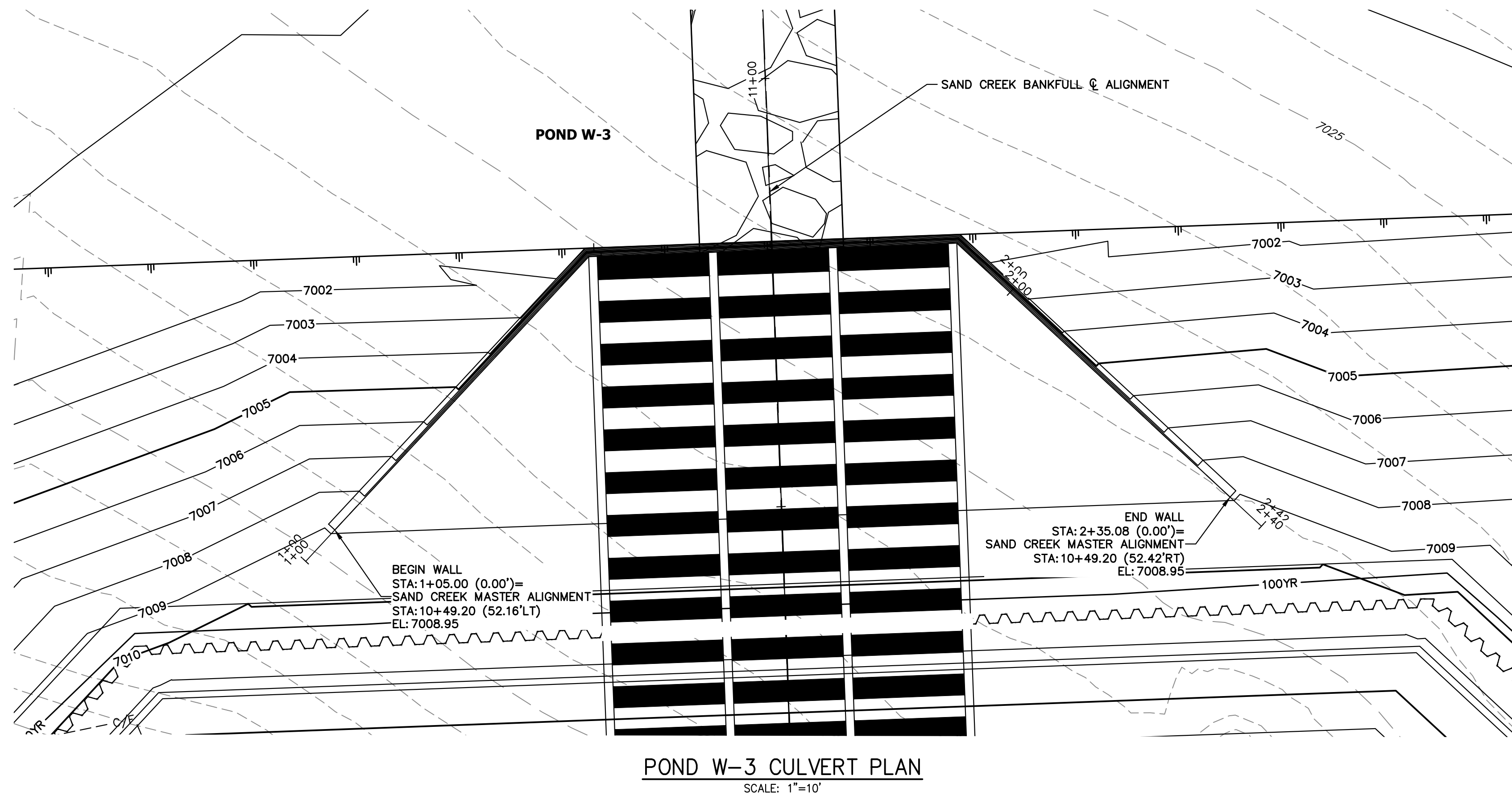
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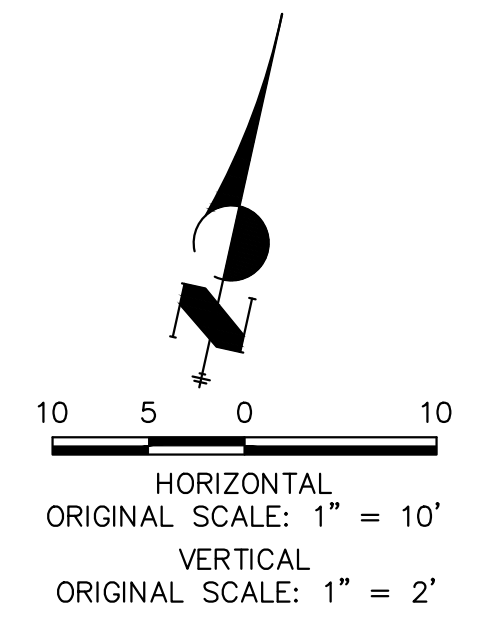
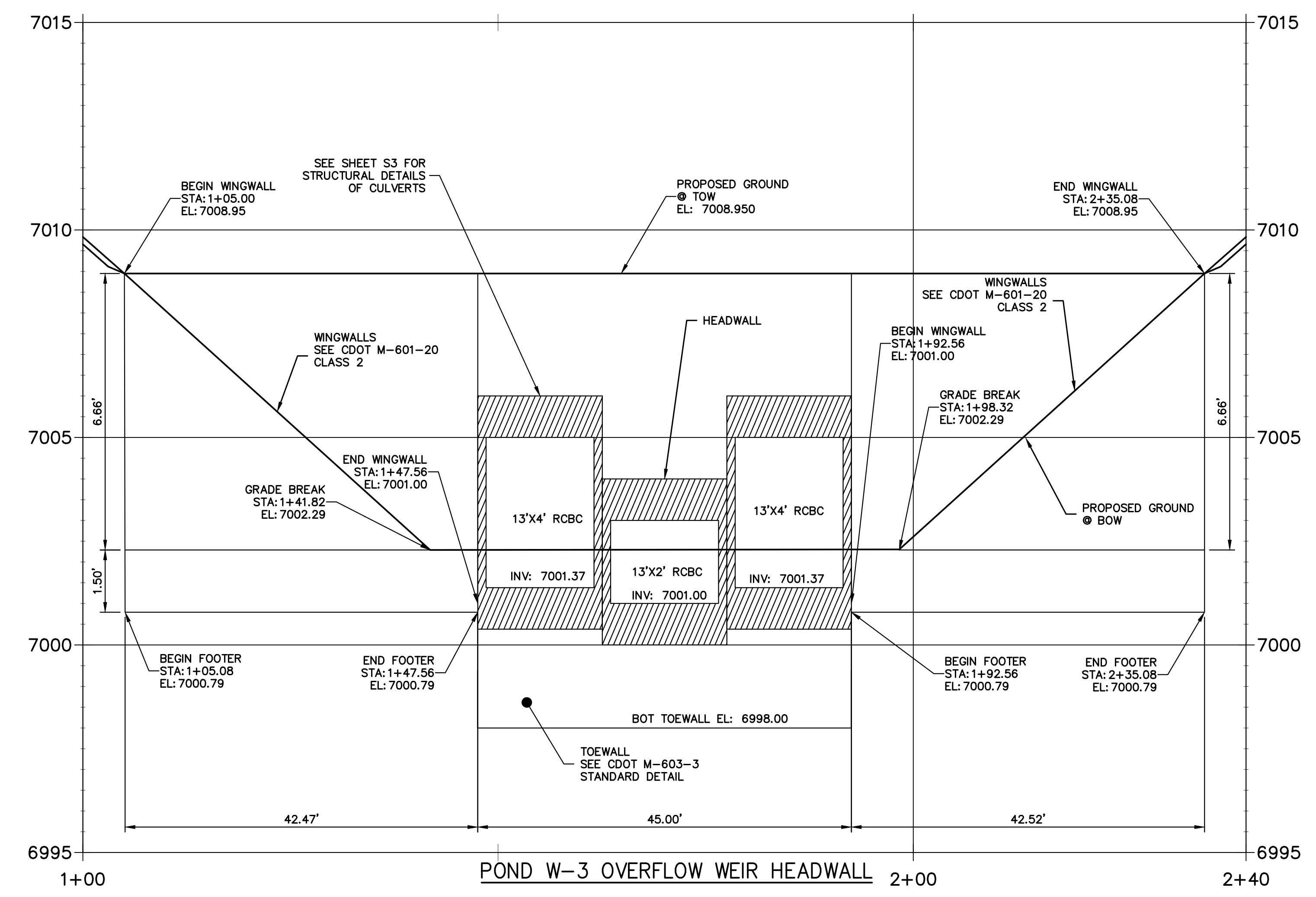
H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=20'	1"=5'	11/20/23	DV	NEO	

SAND CREEK RESTORATION
CONSTRUCTION DETAILS


SHEET 72 OF 121
JOB NO. 25188.04

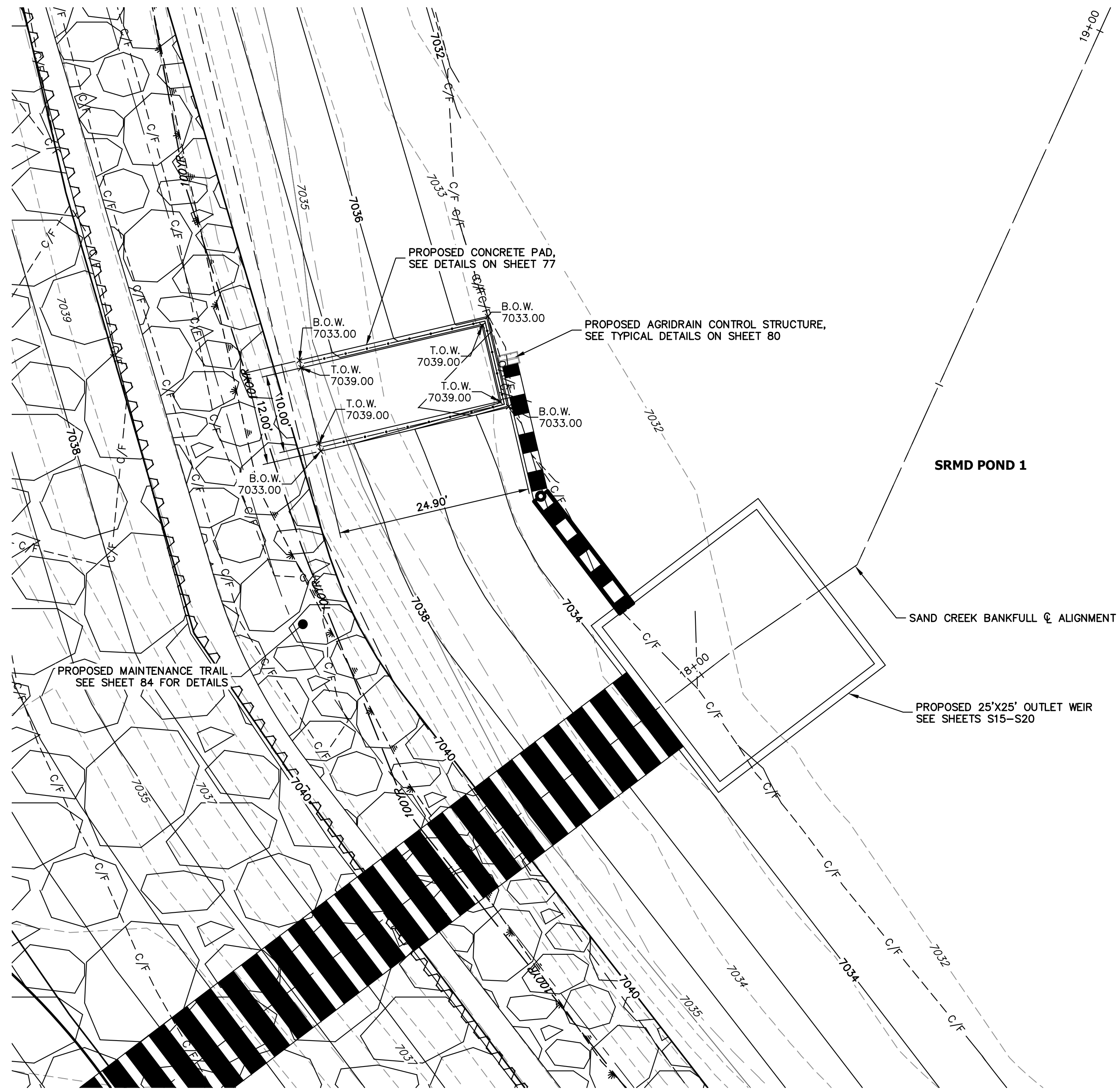


**HW TOW PROFILE
STA 1+00.00 TO 2+40.08**

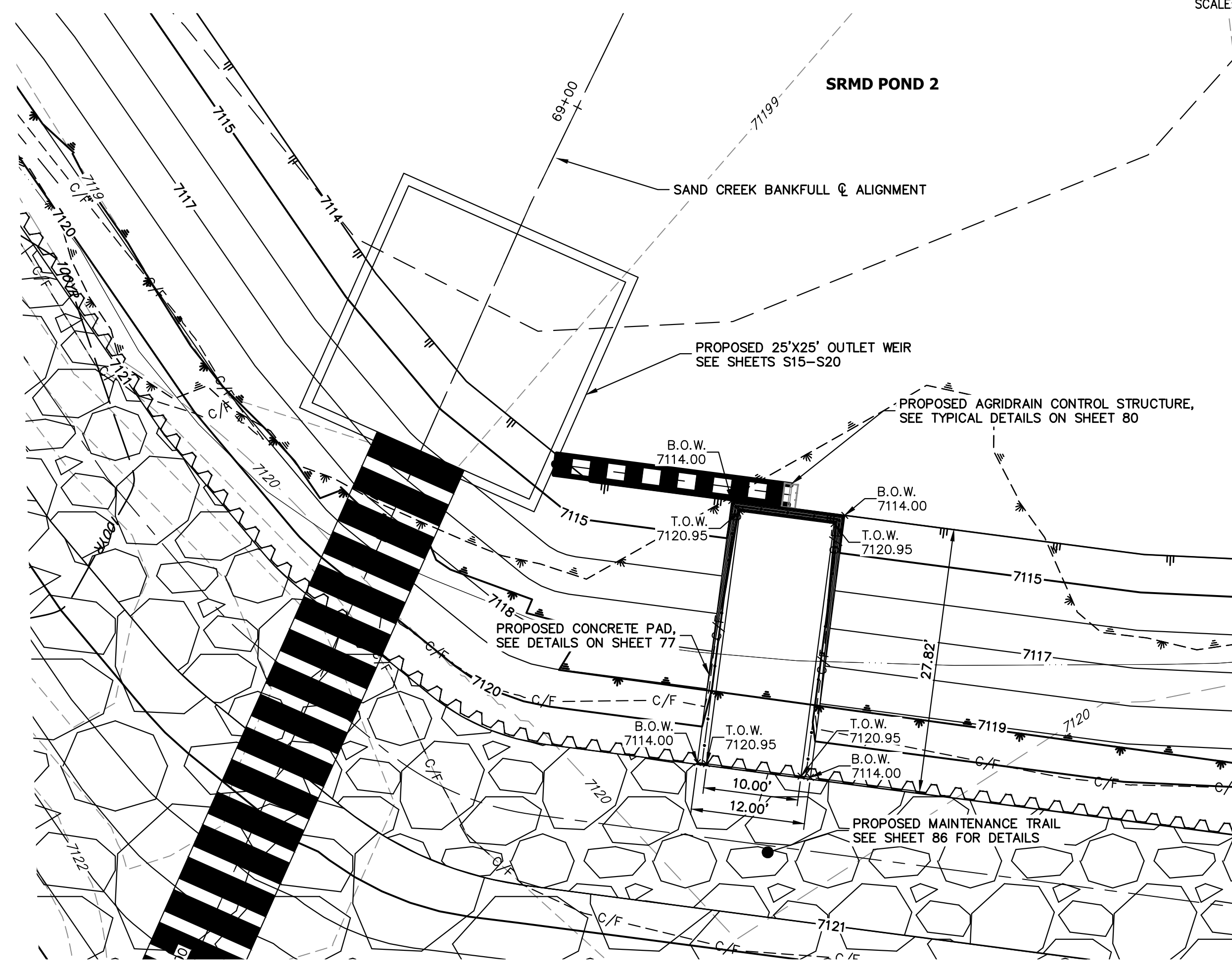


ENGINEER'S STATEMENT
 PREPARED UNDER MY DIRECT SUPERVISION
 Mike Bramlett
 COLORADO REG. ENG. NO. 32314
 DATE 11/20/23
 MIKE A. BRAMLETT, P.E.
 COLORADO P.E. 32314
 FOR AND ON BEHALF OF JR ENGINEERING

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION. PREPARED FOR SR LAND, LLC 20 BOULDER CRESCENT 2ND FLOOR COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 419-3024	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"=10'	V-SCALE 1"=2'	DESIGNED BY DV	CHECKED BY NEO
SAND CREEK RESTORATION STRUCTURAL DETAILS		SHEET 73 OF 121 JOB NO. 25188.04	



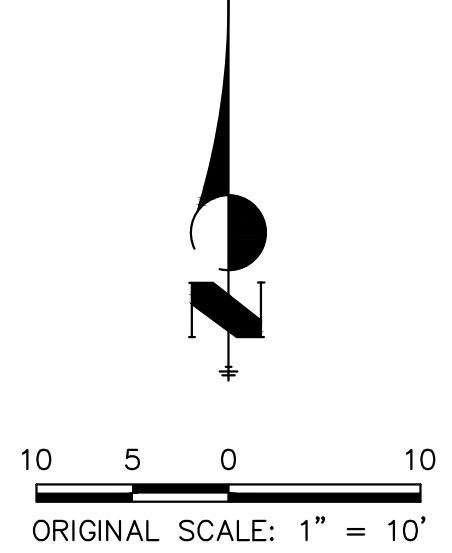
SRMD POND 1 CONCRETE PAD
SCALE: 1"=10'



SRMD POND 2 CONCRETE PAD
SCALE: 1"=10'



KEY MAP
SCALE: 1"=2000'

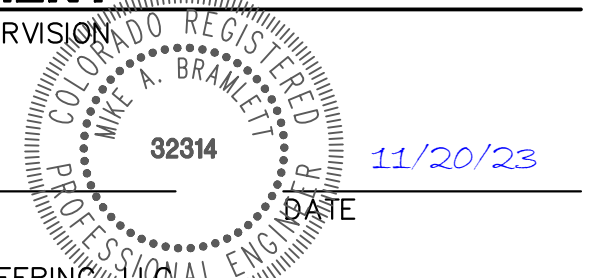


ENGINEER'S STATEMENT

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Mike Bramlett

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



FOR AND ON BEHALF OF JR ENGINEERING

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PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
2ND FLOOR
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 419-3024

J.R. ENGINEERING
A Westman Company

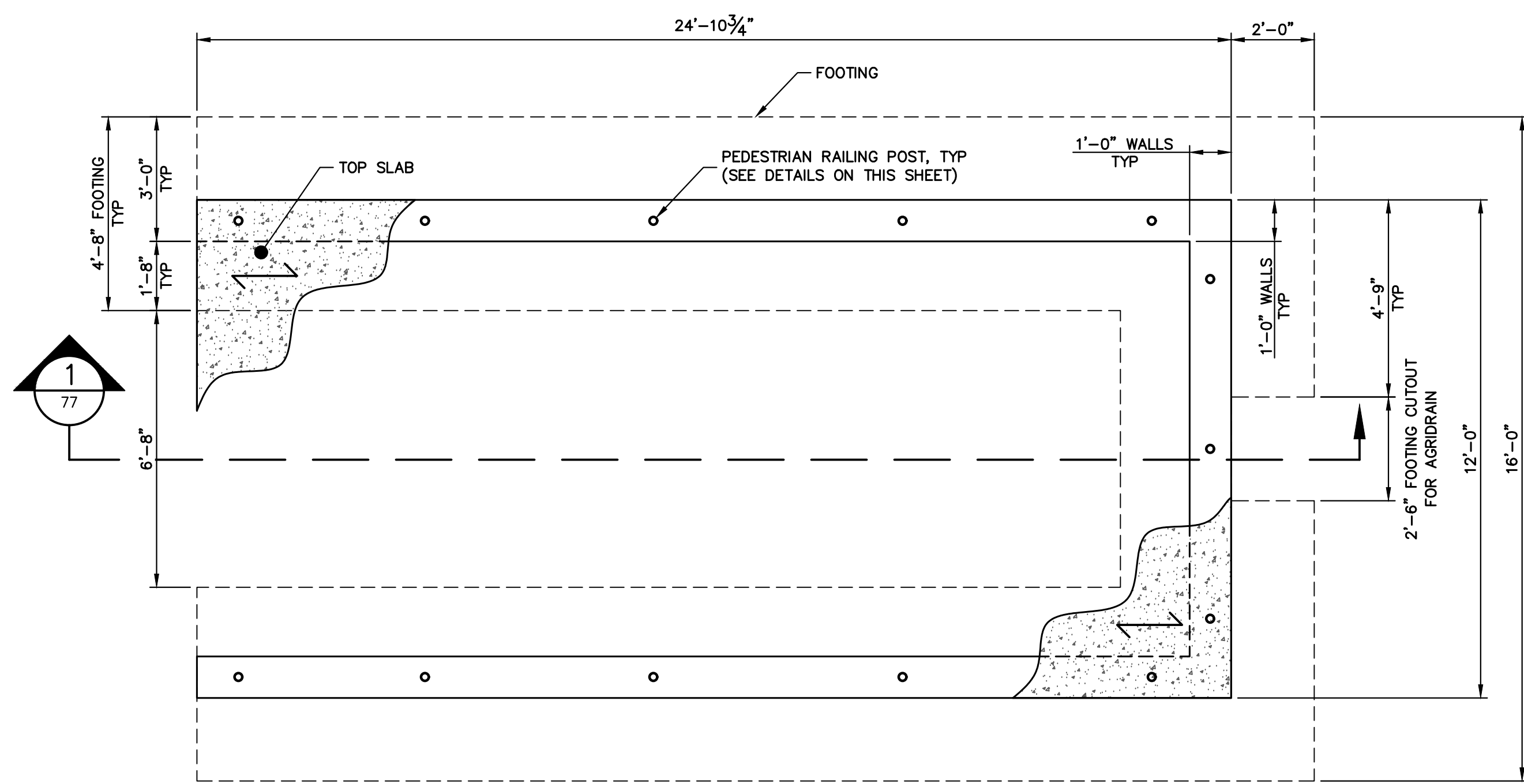
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H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	No.	REVISION	BY	DATE
								1"=10'	N/A

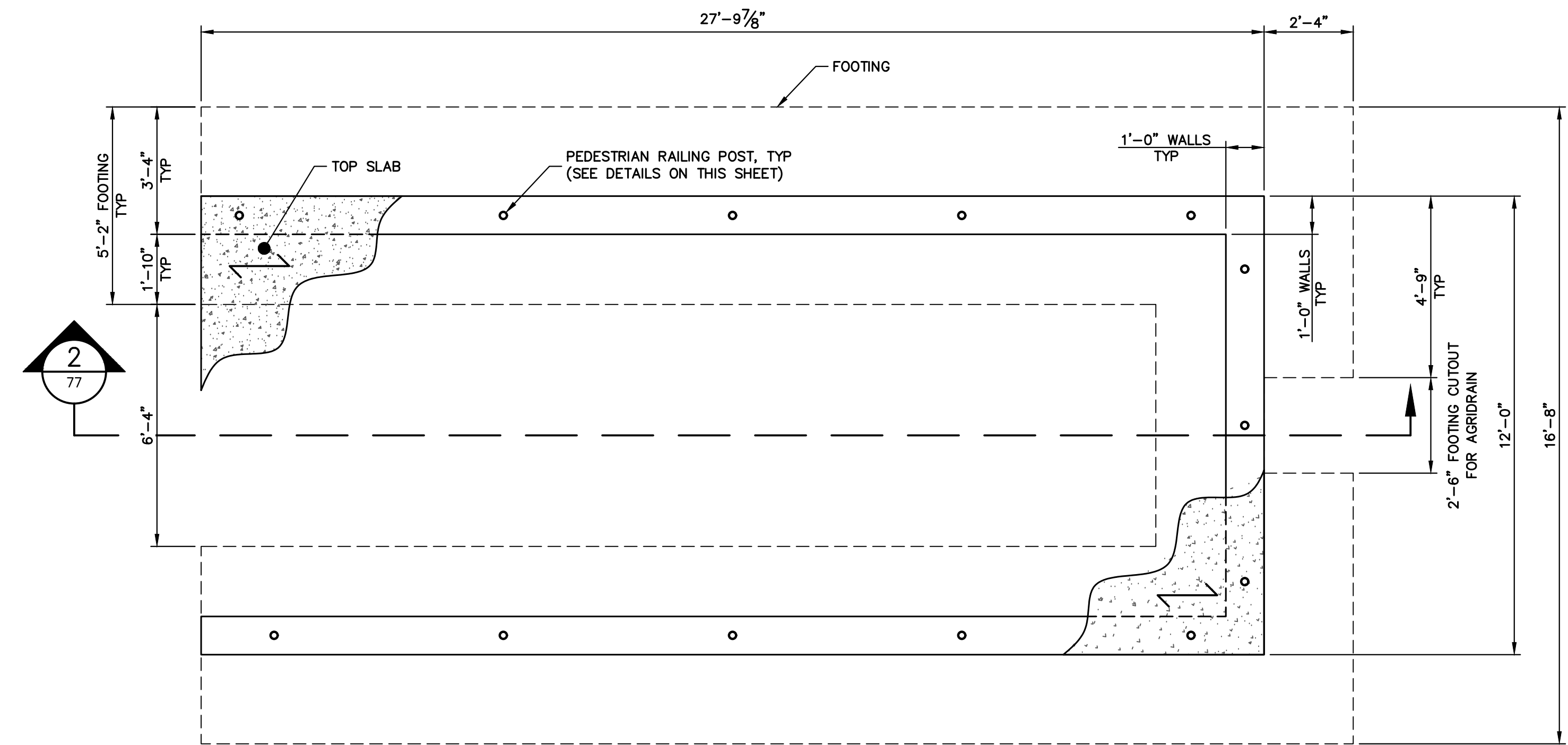
SAND CREEK RESTORATION
STRUCTURAL DETAILS

SHEET 76 OF 121
JOB NO. 25188.04

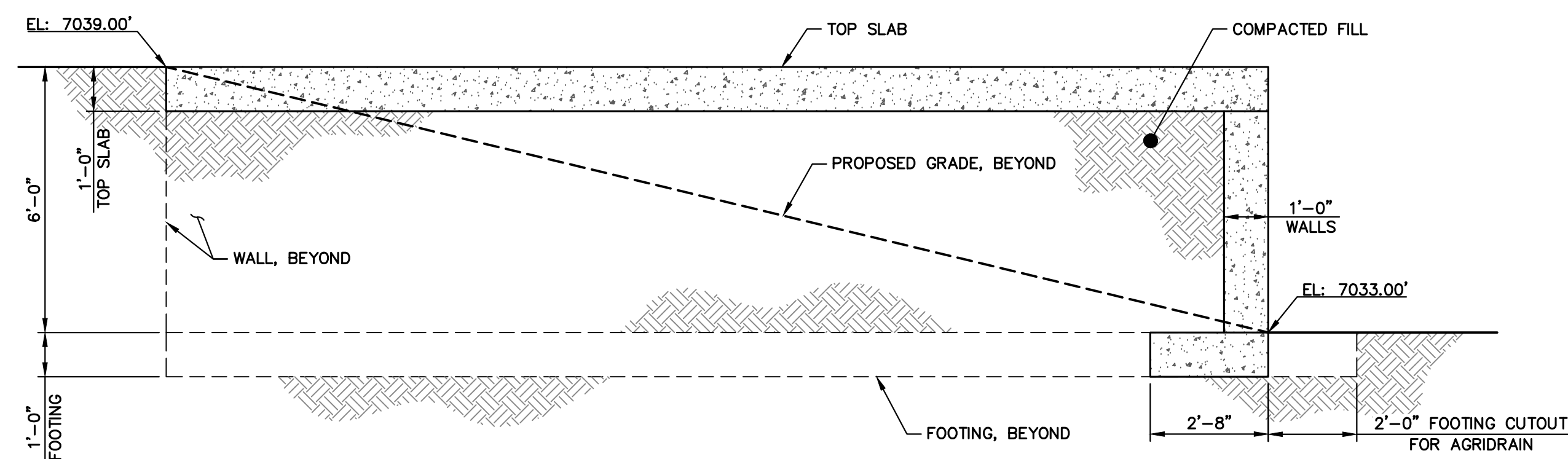
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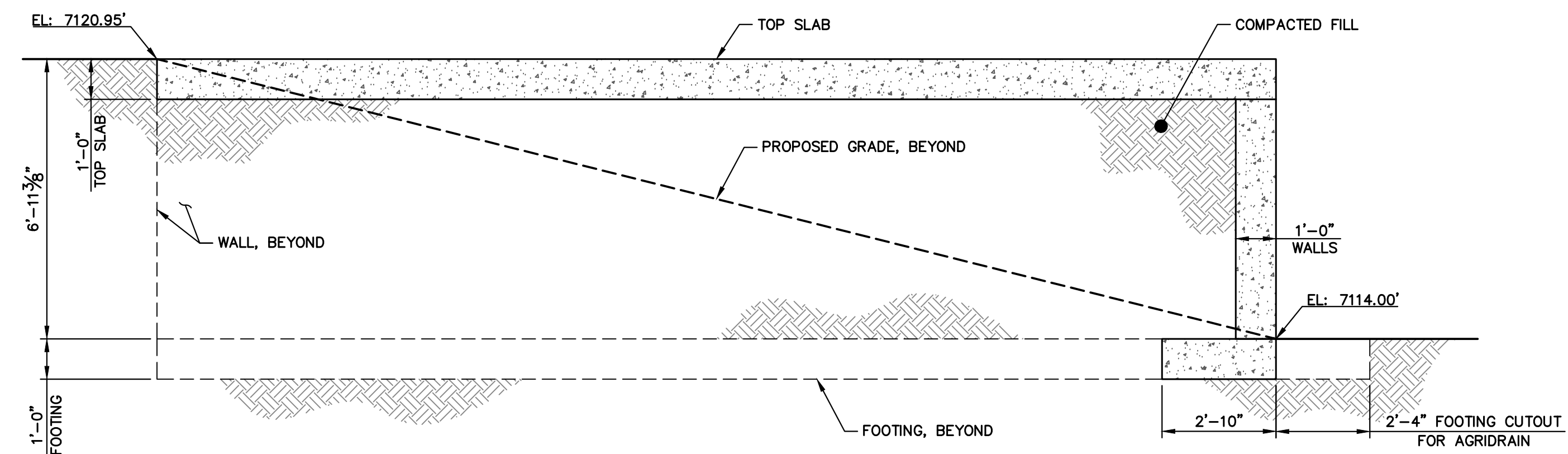
POND 1 CONCRETE PAD PLAN
SCALE: 3/8"=1'-0"



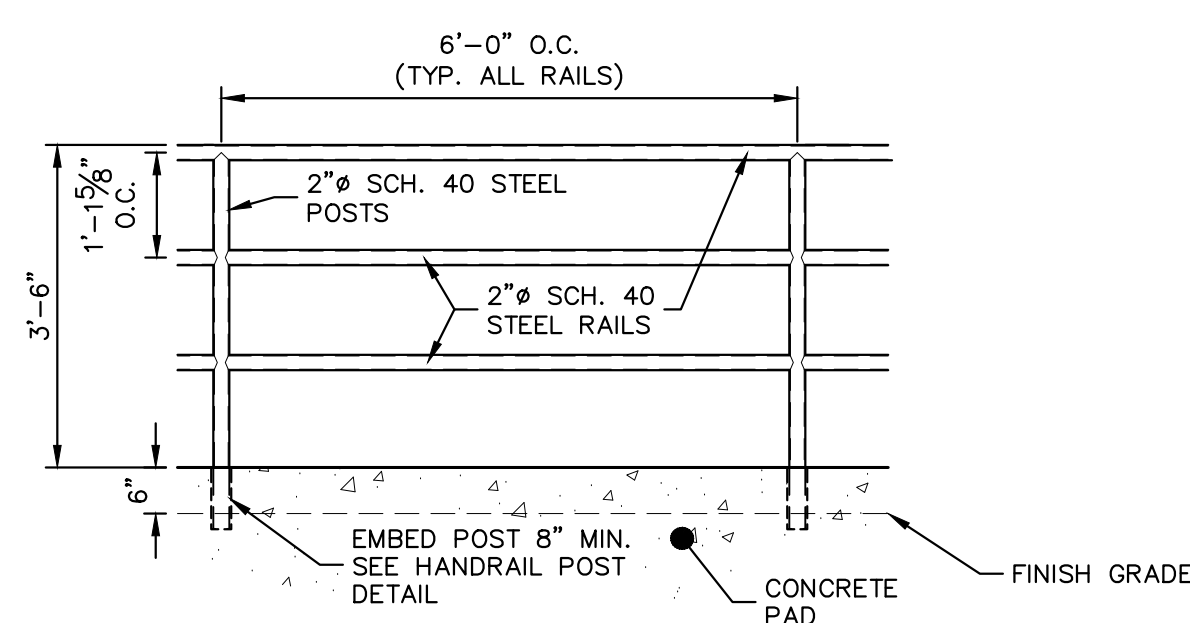
POND 2 CONCRETE PAD PLAN
SCALE: 3/8"=1'-0"



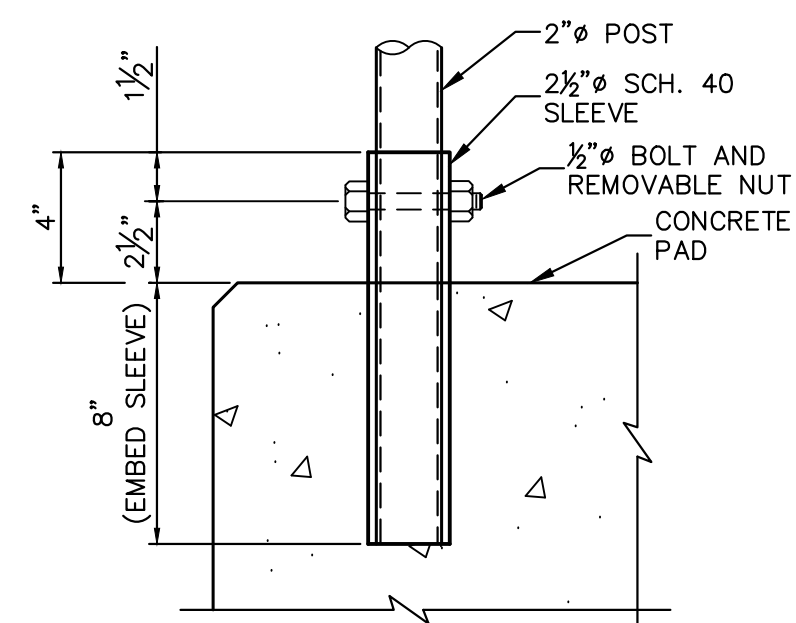
1 POND 1 CONCRETE PAD SECTION
SCALE: 3/8"=1'-0"



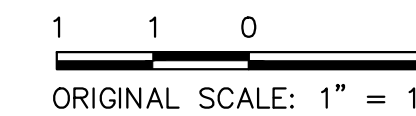
2 POND 2 CONCRETE PAD SECTION
SCALE: 3/8"=1'-0"



PEDESTRIAN RAILING DETAIL
SCALE: 1/2"=1'



PEDESTRIAN RAILING POST
SCALE: NTS

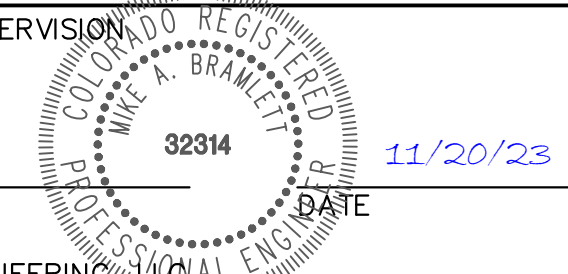


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MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314

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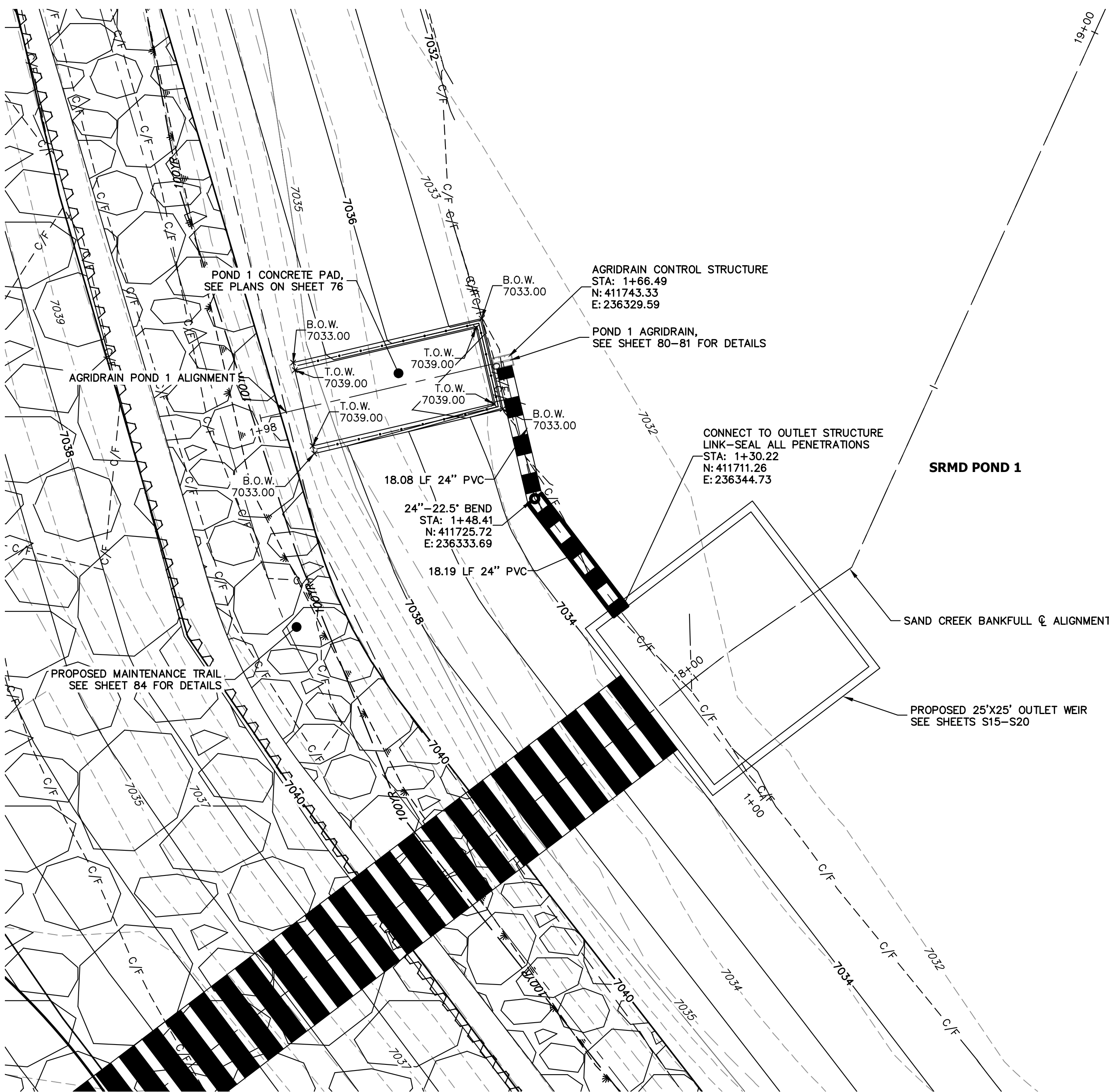
SAND CREEK RESTORATION		BY	DATE
STRUCTURAL DETAILS			
SHEET 77 OF 121			
JOB NO. 25188.04			

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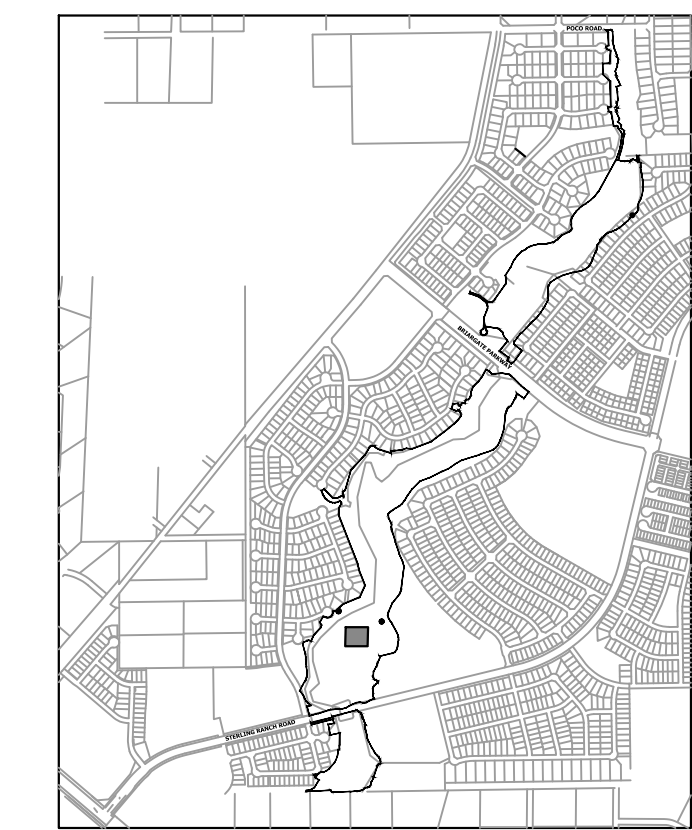
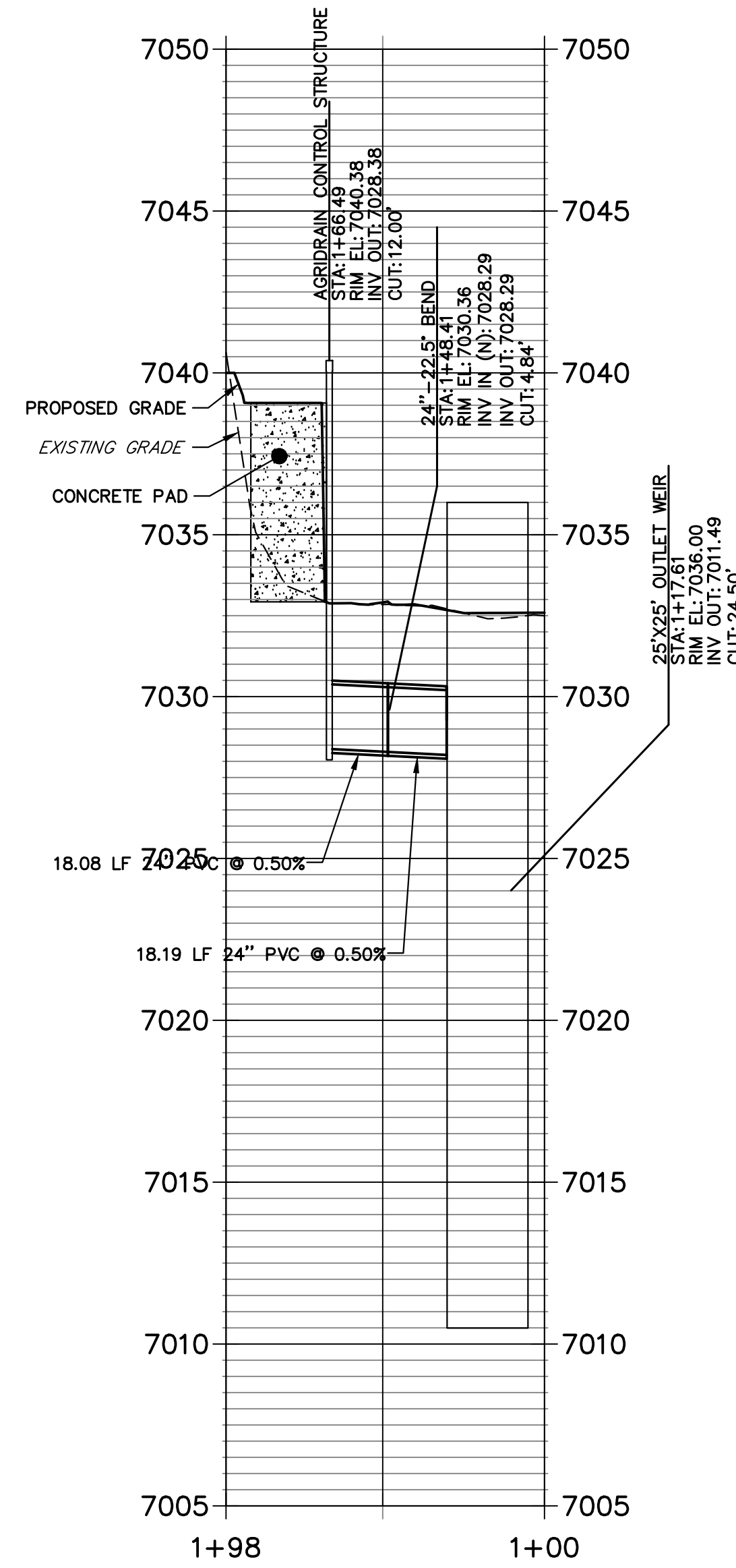
PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
2ND FLOOR
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 419-3024

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X:\25188\04\Drawings\Sheet\Drawings\Structural Details\25188.04_S1-D1.dwg, Concrete Pad Details, 3/7/2024 4:20:02 PM, VaughnD



AGRIDRAIN POND 1 PROFILE
STA 1+00.00 TO 1+98.44



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.

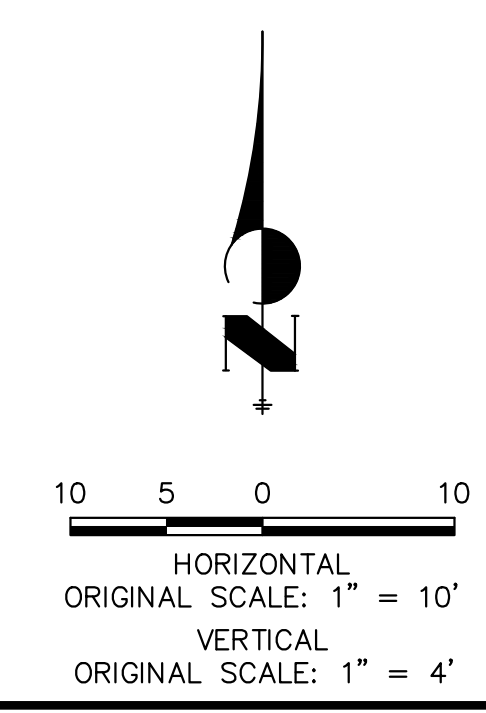
PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
2ND FLOOR
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 419-3024

J.R. ENGINEERING
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NO.	REVISION	BY	DATE

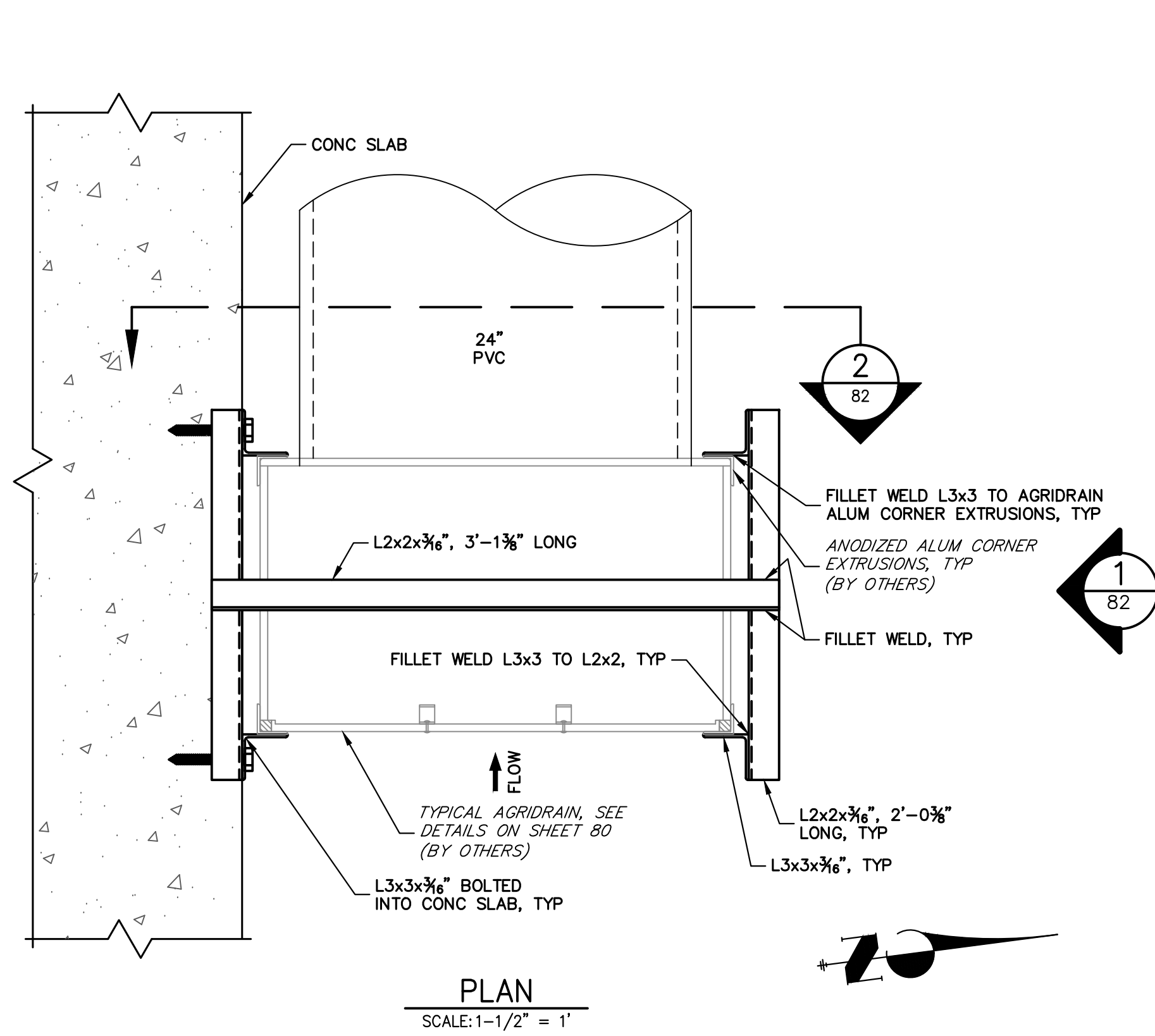
SAND CREEK RESTORATION	VARIES	11/20/23	DESIGNED BY	NEO
	H-SCALE 1"=4'	DATE	DRAWN BY	CHECKED BY
AGRIDRAIN DETAILS				



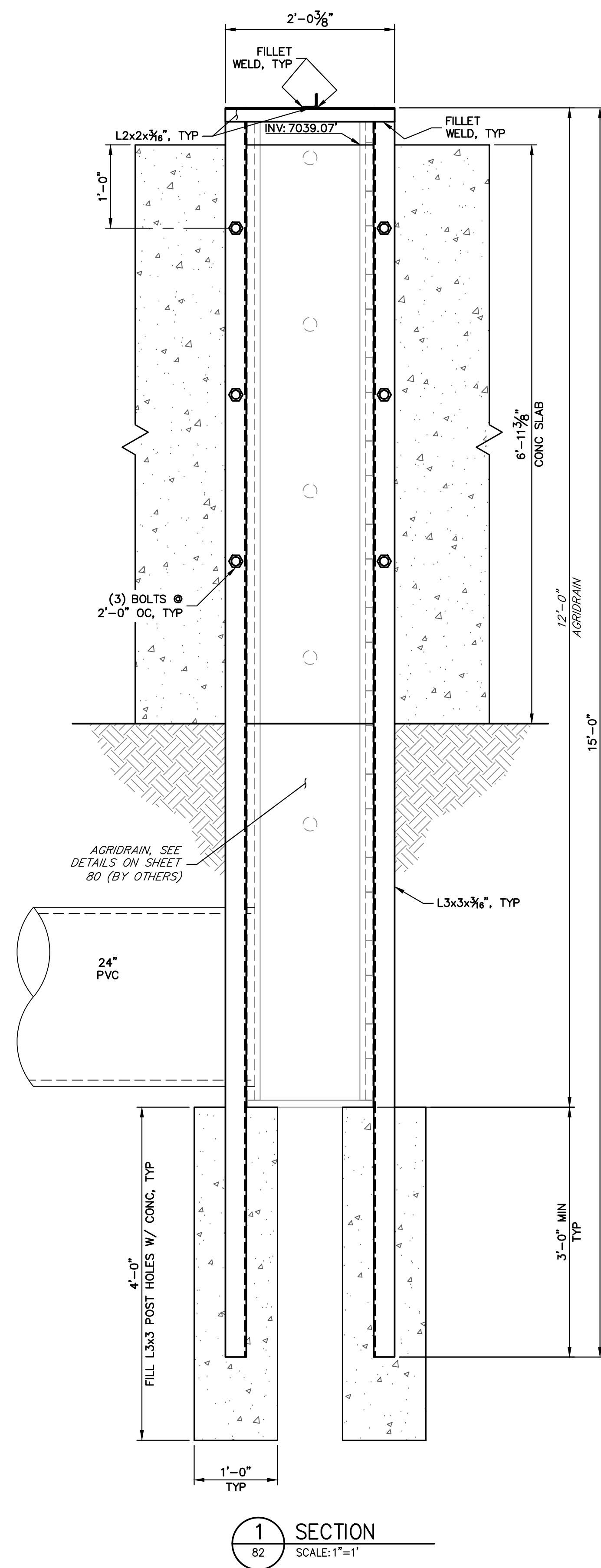
ENGINEER'S STATEMENT
PREPARED UNDER MY DIRECT SUPERVISION

Mike Bramlett
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
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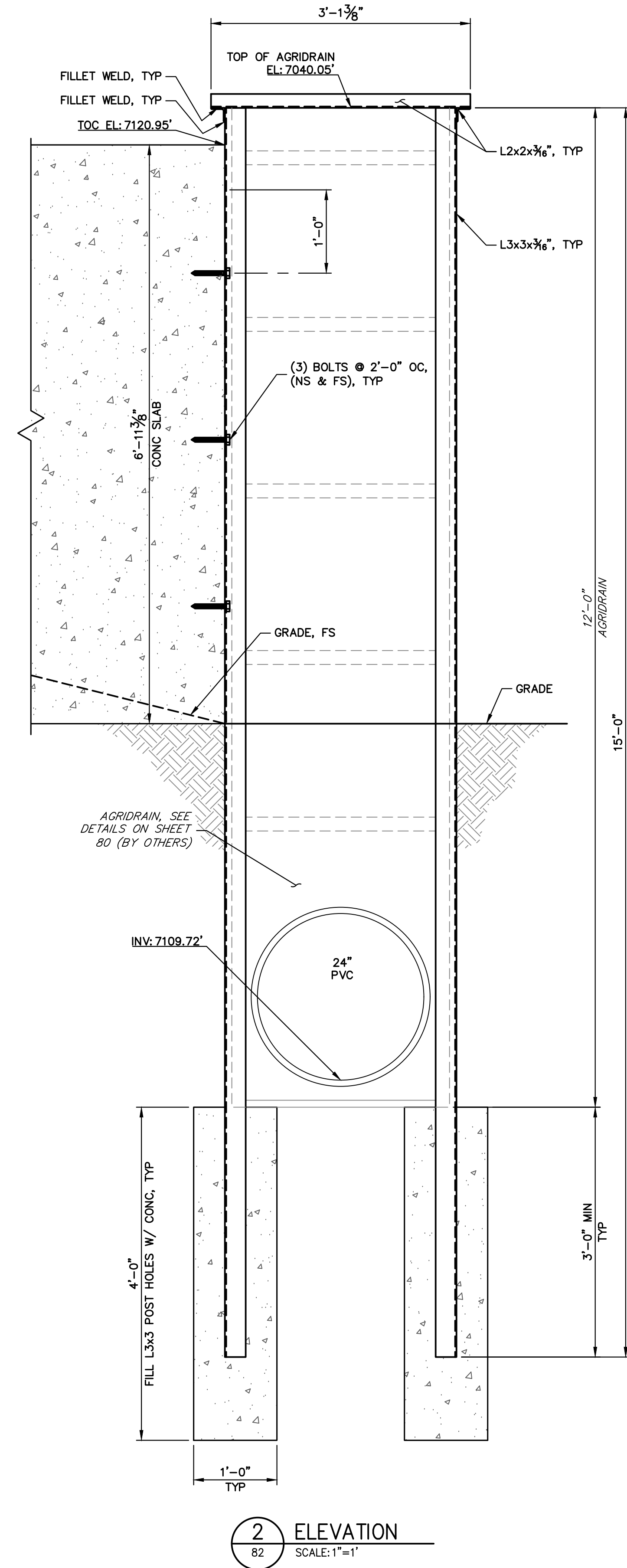
32314
11/20/23



PLAN
SCALE: 1-1/2" = 1'



1 SECTION
SCALE: 1" = 1'



2 ELEVATION
SCALE: 1" = 1'

1 1 0 1
ORIGINAL SCALE: 1" = 1'

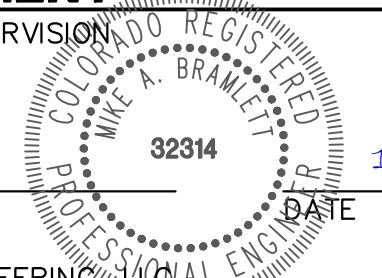


Know what's below.
Call before you dig.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION

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



FOR AND ON BEHALF OF JR ENGINEERING

SAND CREEK RESTORATION	AGRIDRAIN DETAILS	SHEET 82 OF 121	JOB NO. 25188.04	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 2ND FLOOR COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 419-3024
BY	DATE	NO.	REVISION	H-SCALE V-SCALE DATE DESIGNED BY DRAWN BY CHECKED BY
				VARIES VARIES 11/20/23 R.C.B. R.C.B.