

AS - CONSTRUCTED PLANS FOR

SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY

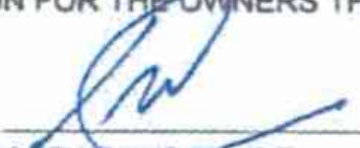
WATER DIVISION NO.2 WATER DISTRICT NO.14
PUEBLO COUNTY, COLORADO

PREPARED FOR:

STONEWALL SPRINGS RESERVOIR COMPANY
16055 OLD FOREST PT., SUITE 300
MONUMENT, CO 80132

C CERTIFICATION:

I HEREBY CERTIFY THAT THESE PLANS FOR THE CONSTRUCTION OF THE
SOUTH RESERVOIR DIVERSION AND INLET CHANNEL WERE PREPARED UNDER
MY DIRECT SUPERVISION FOR THE OWNERS THEREOF

BY: 
GLEN CHURCH, P.E.
COLORADO, P.E. #31642

12/16/2020
DATE:

STONEWALL SPRINGS RESERVOIR COMPANY DOES HEREBY ACCEPT AND
APPROVE THESE PLANS FOR THE SOUTH RESERVOIR DIVERSION AND INLET
CHANNEL.

BY: 
STONEWALL SPRINGS RESERVOIR COMPANY

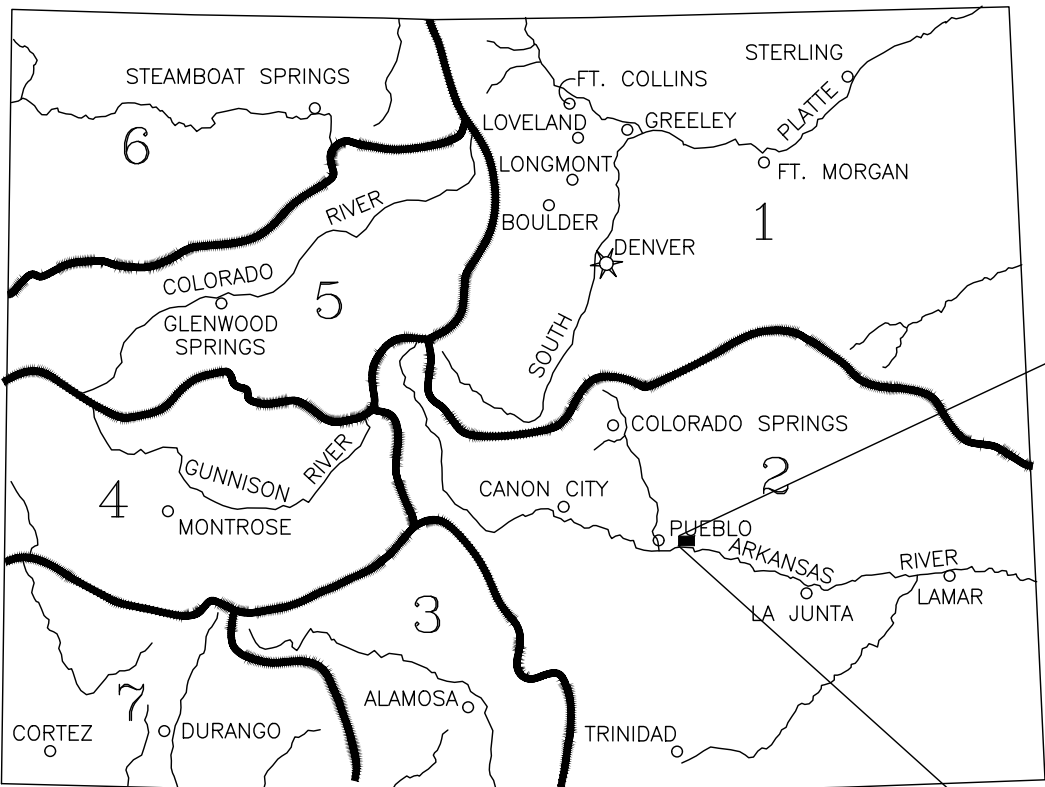
THESE PLANS REPRESENT THE AS-CONSTRUCTED PLANS FOR SOUTH
RESERVOIR DIVERSION INLET CHANNEL TO THE BEST OF OUR KNOWLEDGE
AND JUDGEMENT. BASED IN PART ON THE INFORMATION FURNISHED BY
OTHERS AS OF THE 20TH DAY OF AUGUST, 2021.

BY: 
GLEN CHURCH, P.E.
COLORADO, P.E. #31642

8/20/2021
DATE:

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- Cover Sheet
- General Plan, Capacity Curves and Flow Rate Schedule
- Inlet Channel Plan Profile
- Inlet Channel Plan and Profile Station 0+00 to 6+00
- Inlet Channel Plan and Profile Station 6+00 to 12+00
- Inlet Channel Plan and Profile Station 12+00 to 18+00
- Inlet Channel Plan and Profile Station 18+00 to 24+00
- Inlet Channel Rundown Plan and Profile Station 24+00 to 27+00
- South Inlet Diversion Structure Plan & Profile
- South Inlet Diversion Structure Details
- Gate Details
- Grates and Metal Work Details
- Culvert Plan, Profile & Sections
- Plunge Pool Details
- Drop Structure Details
- 16A Low Flow Pipeline Plan and Profile (CCD #003)
- 17A Spillway Plan and Profile (CCD #002)
- 18A Spillway Cross Sections (CCD #002)
- 19A Spillway Structural Details (CCD #002)
- Erosion and Sediment Control Details



STATE OF COLORADO
PROJECT LOCATION MAP

SCALE: NONE

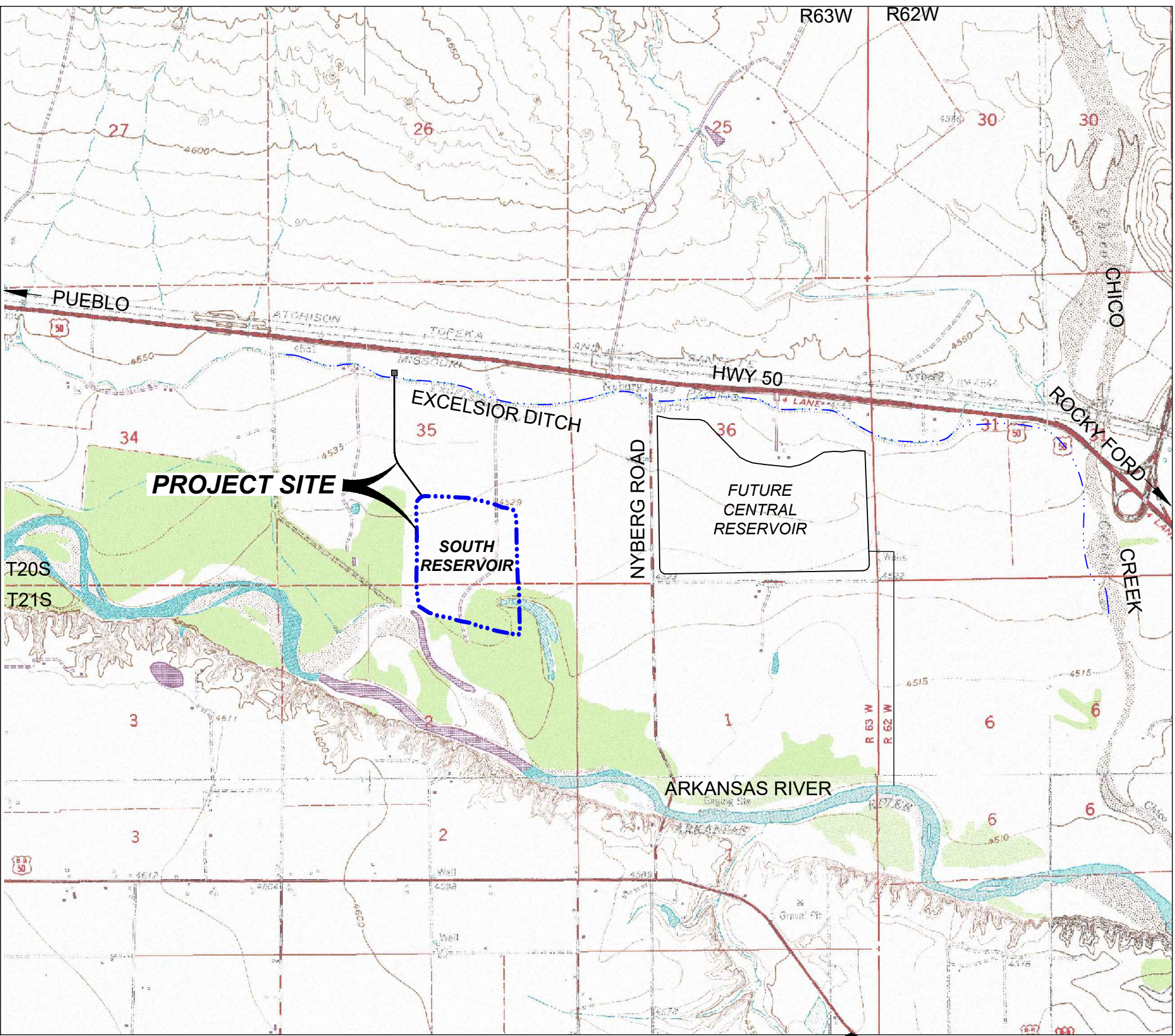
NOTES:

DEERE AND AULT CONSULTANTS, INC. IS NOT A GUARANTOR OF THE
PERFORMANCE OF THE WORK.

DEERE AND AULT CONSULTANTS, INC. IS NOT RESPONSIBLE FOR SAFETY, IN,
ON, OR ABOUT THE PROJECT SITE, NOR FOR COMPLIANCE BY THE
APPROPRIATE PARTY WITH ANY REGULATIONS RELATED THERETO.

DEERE AND AULT CONSULTANTS, INC. EXERCISES NO CONTROL OVER THE
SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENTS,
FORMS, OR OTHER WORK AIDS USED IN OR ABOUT THE PROJECT, OR OVER
THE SUPERINTENDING OF THE SAME.

WRITTEN SCALES ON PLAN ARE FOR FULL SIZED 22" x 34" PLANS AND DO
NOT APPLY TO REDUCED PLAN SETS.



PROJECT VICINITY MAP

0 2000 4000
SCALE IN FEET



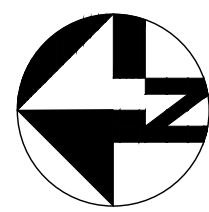
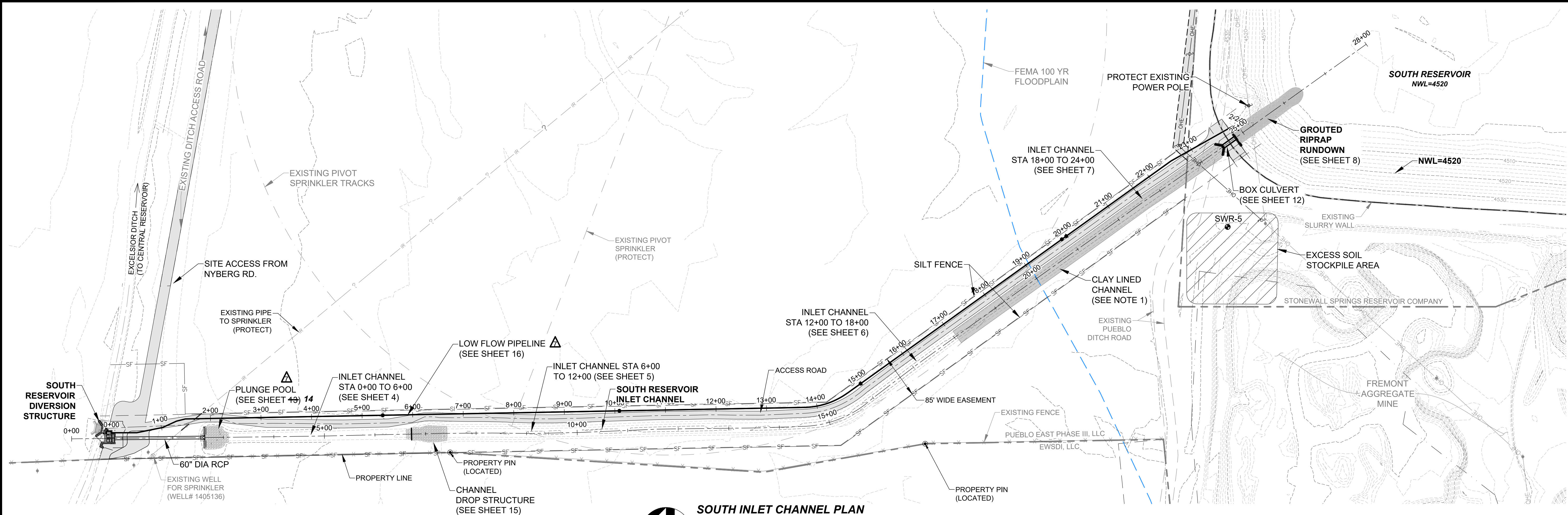
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

DEERE & AULT CONSULTANTS, INC. ASSUMES NO
RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS
(HORIZONTAL AND VERTICAL), THE EXISTING UTILITIES
SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE
BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE
RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY
THE LOCATION OF ALL UTILITIES PRIOR TO THE
COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.



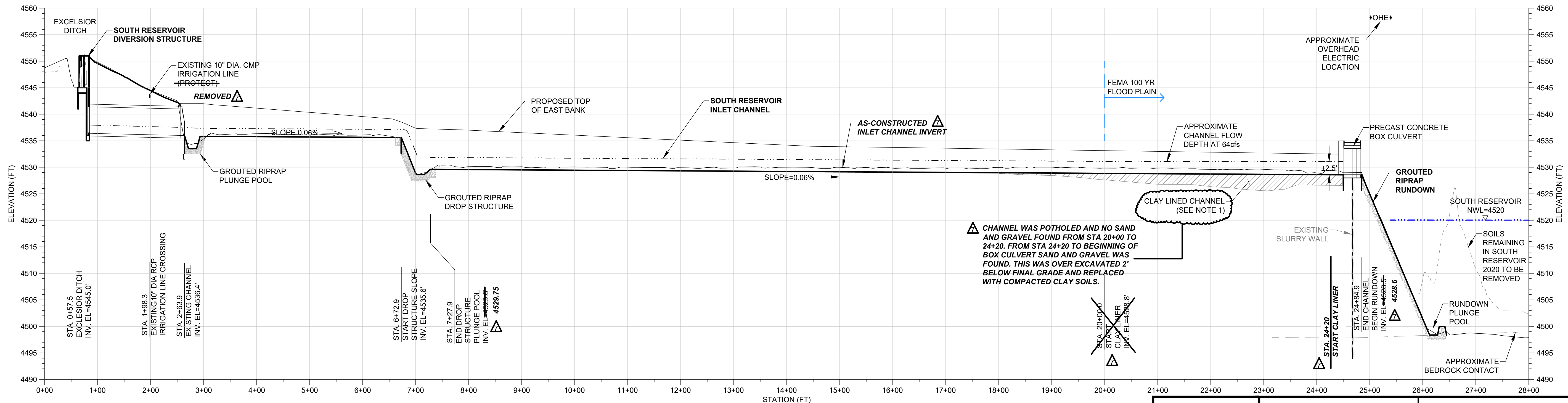
REVISIONS				SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
NO.	DESCRIPTION	DATE	BY	Cover Sheet			
1	90% SUBMITTAL	10-16-20	GCC	DEERE & AULT			
2	BID SET	11-19-20	GCC				
3	FOR CONSTRUCTION SET	12-15-20	BAB	A SCHNABEL ENGINEERING COMPANY			
4	RFI #1	01-12-21	BAB	DESIGNED BY: BB/QG	APPROVED BY: GCC	JOB NO.	SHEET:
5	CCD-#002	02-19-21	BAB	DRAWN BY: ITR	DATE: AUG 2021	20C26014.00	1
6	CCD-#003	03-19-21	BAB	CHECKED BY: GCC	SCALE: AS NOTED		
7	AS CONSTRUCTED	08/20/21	QJG				

Friday, August 20, 2021 4:07:01 PM DRAWING: G:\2020\Longmont\20c26014.00_south_reservoir_inflow_channel\CAD\Working\As-Built\ASB_SR_Gen_Plan.DWG



SOUTH INLET CHANNEL PLAN

0 100 200
SCALE IN FEET
PROPOSED CONTOUR INTERNAL = 2'
EXISTING CONTOUR INTERNAL = 2'



SOUTH INLET CHANNEL PROFILE

Vertical Scale (FT) 0 10 20
Horizontal Scale (FT) 0 100 200

NOTES:

- CONTRACTOR SHALL TEST PIT THE CHANNEL INVERTS AND SLOPES TO VERIFY 2' OF EXISTING SOIL CLAY MATERIAL BELOW THE CHANNEL INVERT. IF SAND & GRAVEL IS ENCOUNTERED WITHIN 2' OF FINAL CHANNEL GRADE AND SLOPES, CONTRACTOR SHALL OVER EXCAVATE 2' BELOW FINAL GRADE AND REPLACE WITH COMPACTED CLAY SOILS.

- ESTIMATED COMPACT CLAY SOIL REPLACEMENT AREA



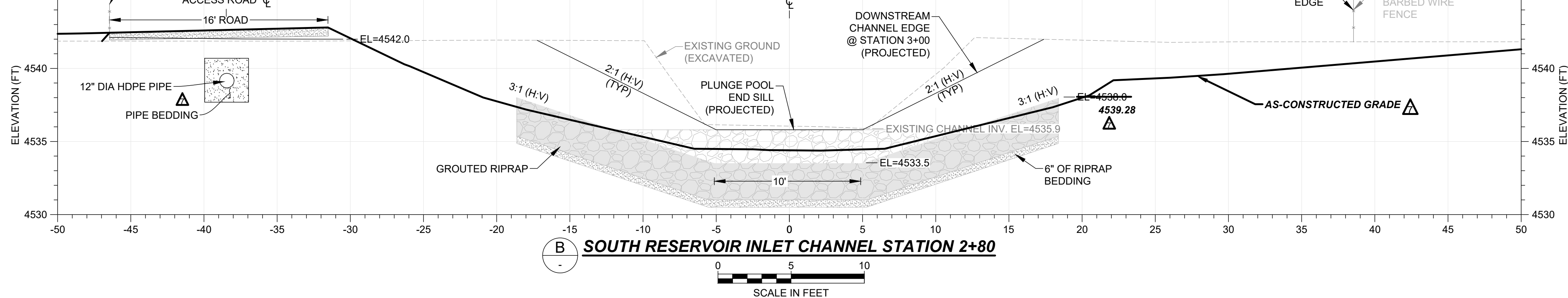
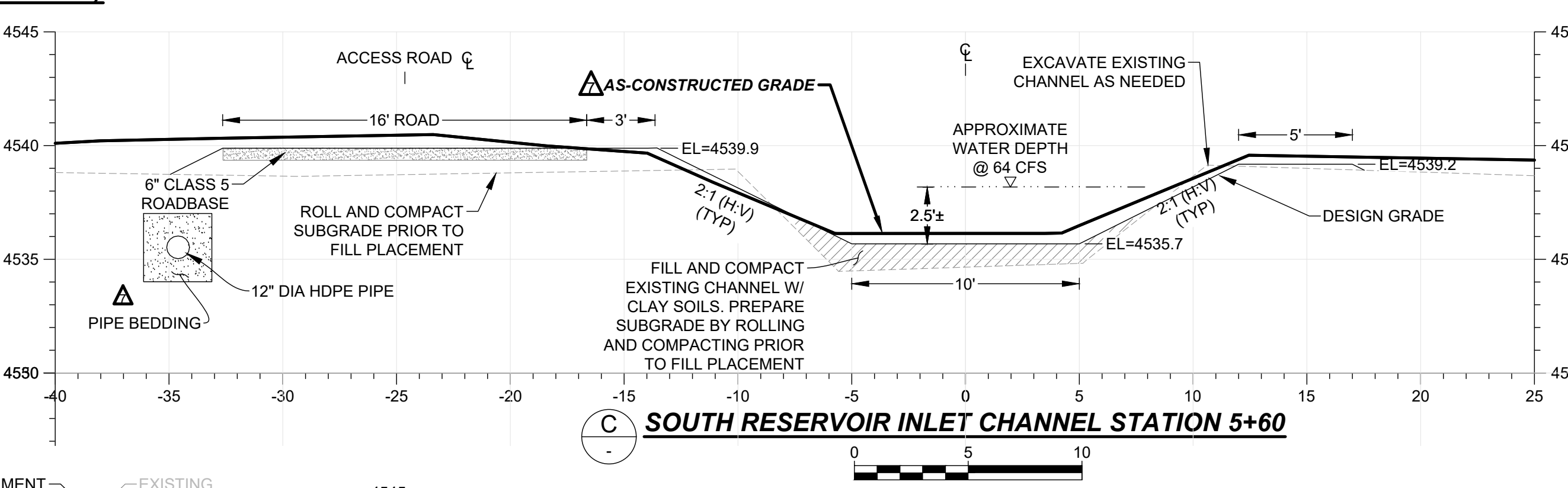
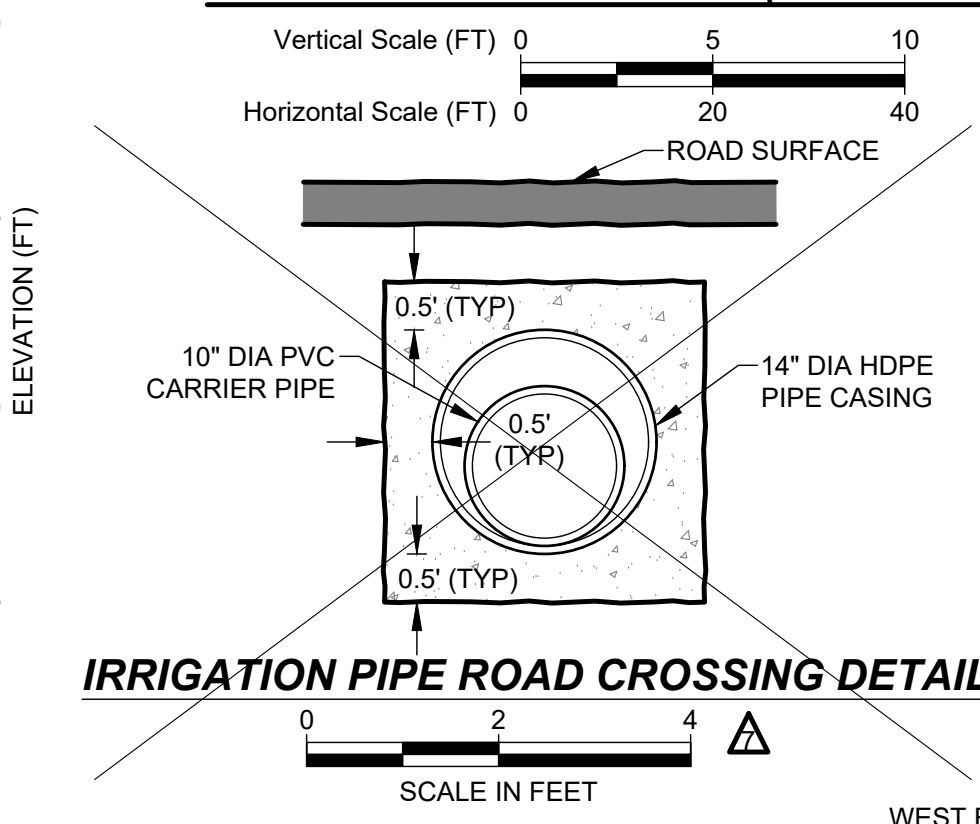
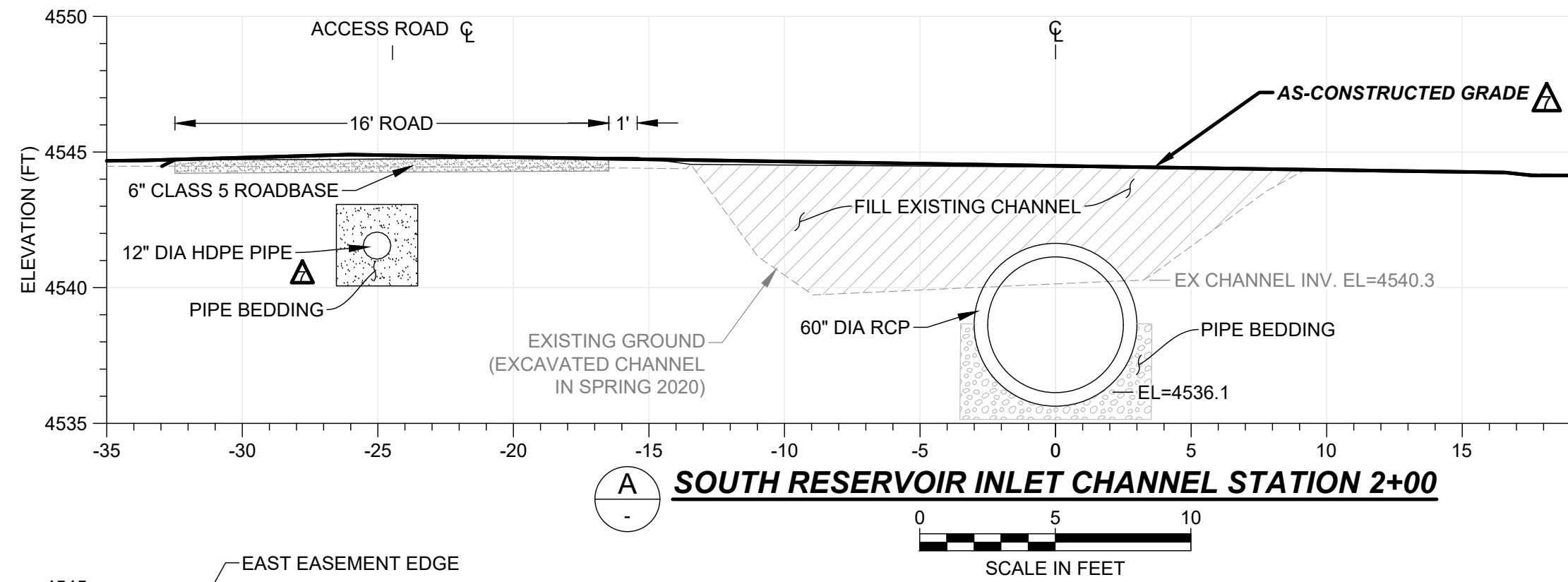
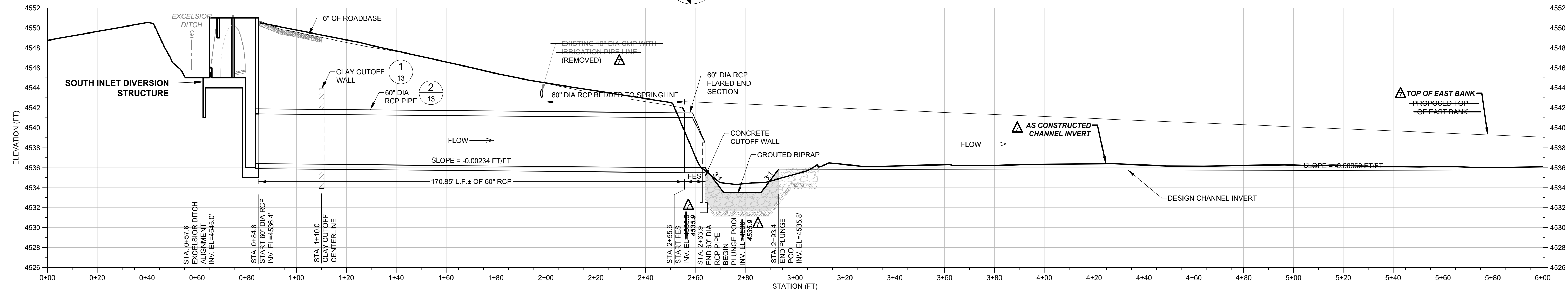
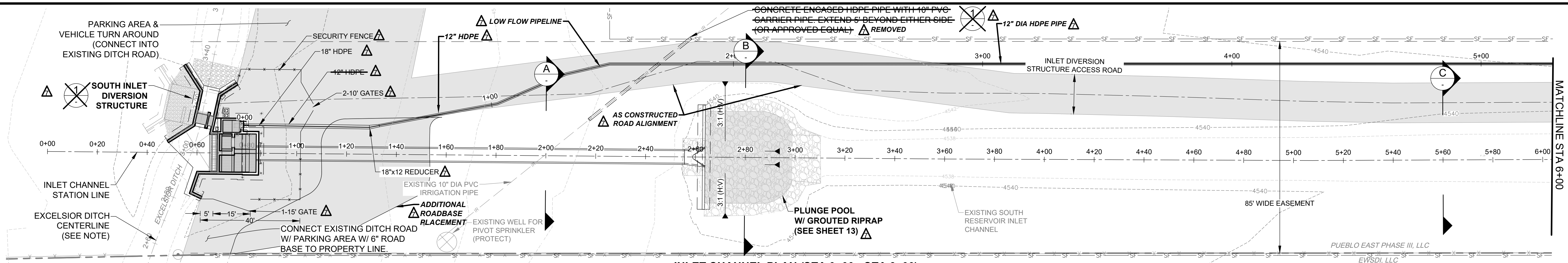
REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	90% SUBMITTAL	10-16-20	GGC
2	BID SET	11-19-20	GGC
3	FOR CONSTRUCTION SET	12-15-20	BAB
4	RFI #1	01-12-21	BAB
5	CCD-#002	02-19-21	BAB
6	CCD-#003	03-19-21	BAB
7	AS CONSTRUCTED	08/20/21	QJG

SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY

Inlet Channel Plan Profile

DEERE & AULT A SCHNABEL ENGINEERING COMPANY		600 S. AIRPORT RD., BLDG. A, SUITE 205 LONGMONT, CO 80503 TEL 303.651.1468 FAX 303.651.1469	
DESIGNED BY: BB/QG	APPROVED BY: GGC	JOB NO.	SHEET:
DRAWN BY: ITR	DATE: AUG 2021	20C26014.00	3
CHECKED BY: GGC	SCALE: AS NOTED		

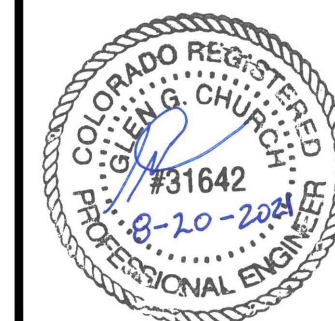
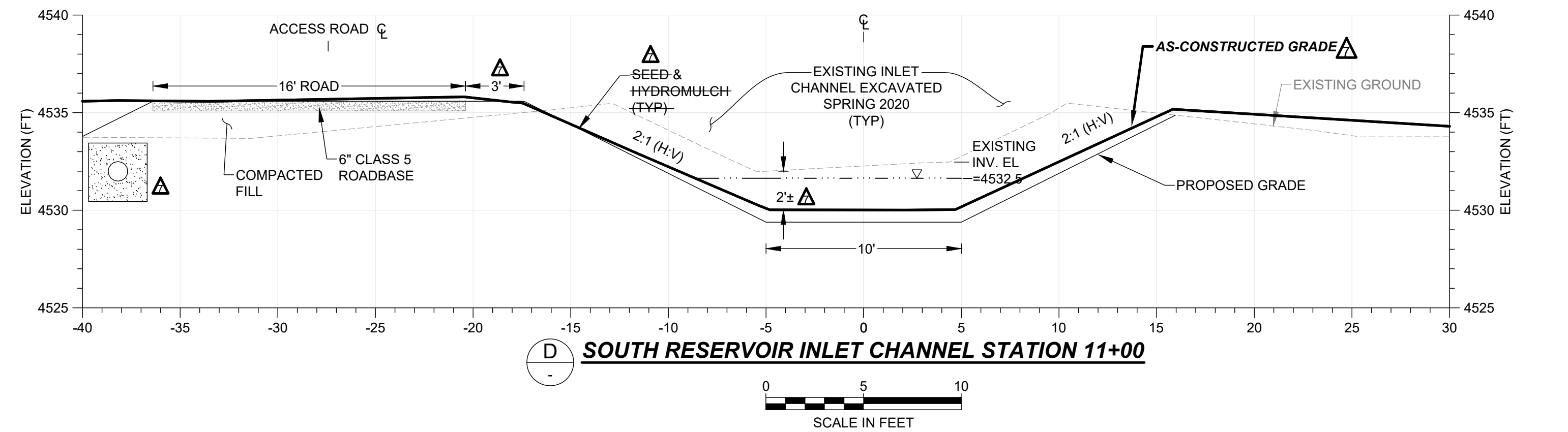
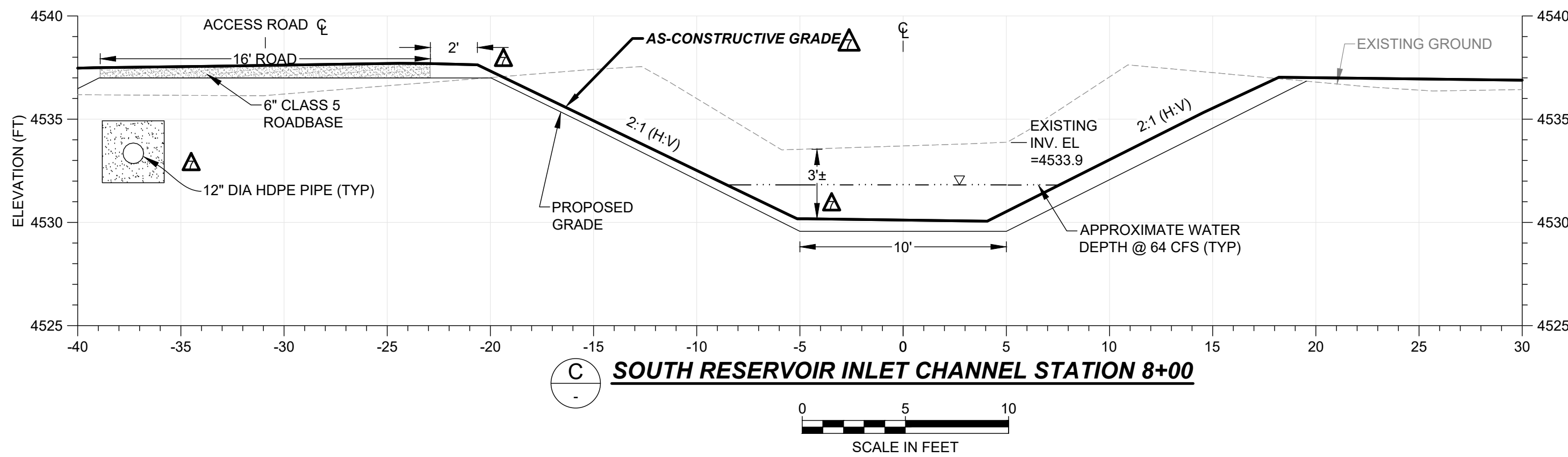
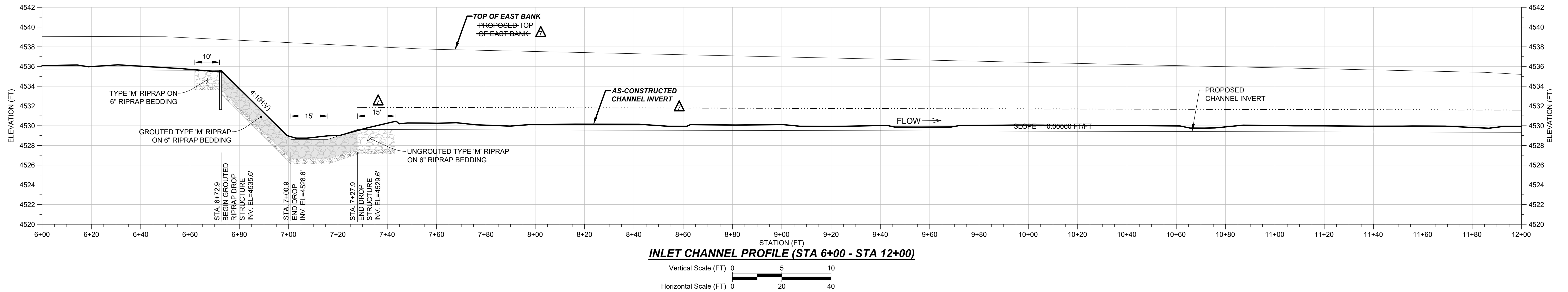
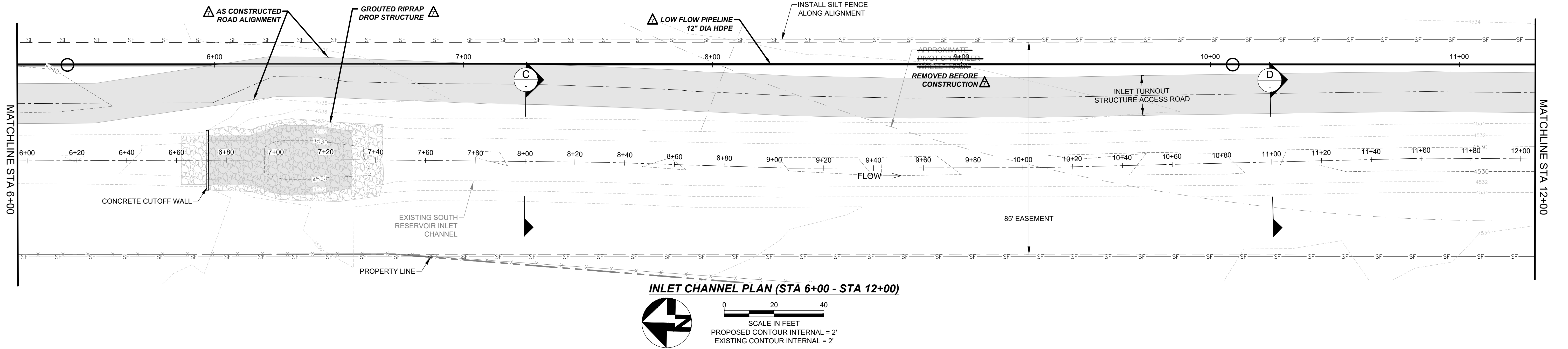
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REVISIONS			
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1	90% SUBMITTAL	10-16-20	GCG
2	BID SET	11-19-20	GCG
3	FOR CONSTRUCTION SET	12-15-20	BAB
4	RFI #1	01-12-21	BAB
5	CCD-#002	02-19-21	BAB
6	CCD-#003	03-19-21	BAB
Δ	AS CONSTRUCTED	08/20/21	QJG

SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
Inlet Channel Plan and Profile Station 0+00 to 6+00			
DEERE & AULT A SCHWABER ENGINEERING COMPANY		600 S. AIRPORT RD., BLDG. A, SUITE 205 LONGMONT, CO 80503 TEL 303.651.1408 FAX 303.651.1469	
DESIGNED BY: BB/QG	APPROVED BY: GCG	JOB NO.	SHEET:
DRAWN BY: ITR	DATE: AUG 2021	20C26014.00	4
CHECKED BY: GCG	SCALE: AS NOTED		

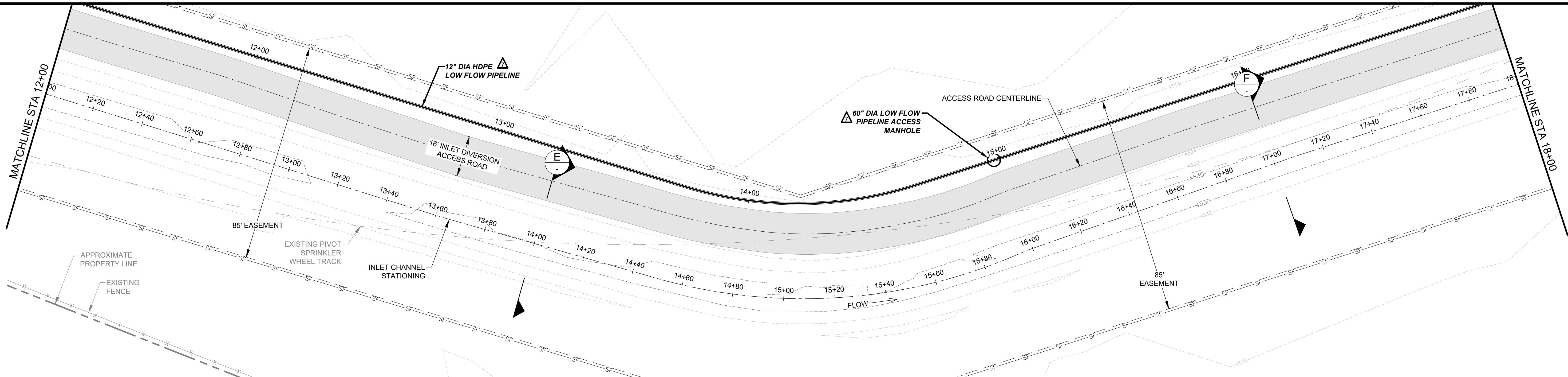
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REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	90% SUBMITTAL	10-16-20	GGC
2	BID SET	11-19-20	GGC
3	FOR CONSTRUCTION SET	12-15-20	BAB
4	RFI #1	01-12-21	BAB
5	CCD-#002	02-19-21	BAB
6	CCD-#003	03-19-21	BAB
Δ	AS CONSTRUCTED	08/20/21	QJG

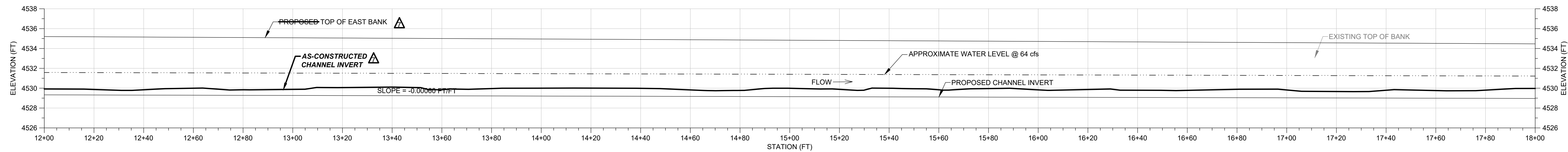
SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
Inlet Channel Plan and Profile Station 6+00 to 12+00			
DEERE & AULT		600 S. AIRPORT RD., BLDG. A, SUITE 205 LONGMONT, CO 80503 TEL 303.651.1408 FAX 303.651.1469	
DESIGNED BY: BB/QG		APPROVED BY: GGC	JOB NO.
DRAWN BY: ITR		DATE: AUG 2021	SHEET:
CHECKED BY: GGC		SCALE: AS NOTED	20C26014.00
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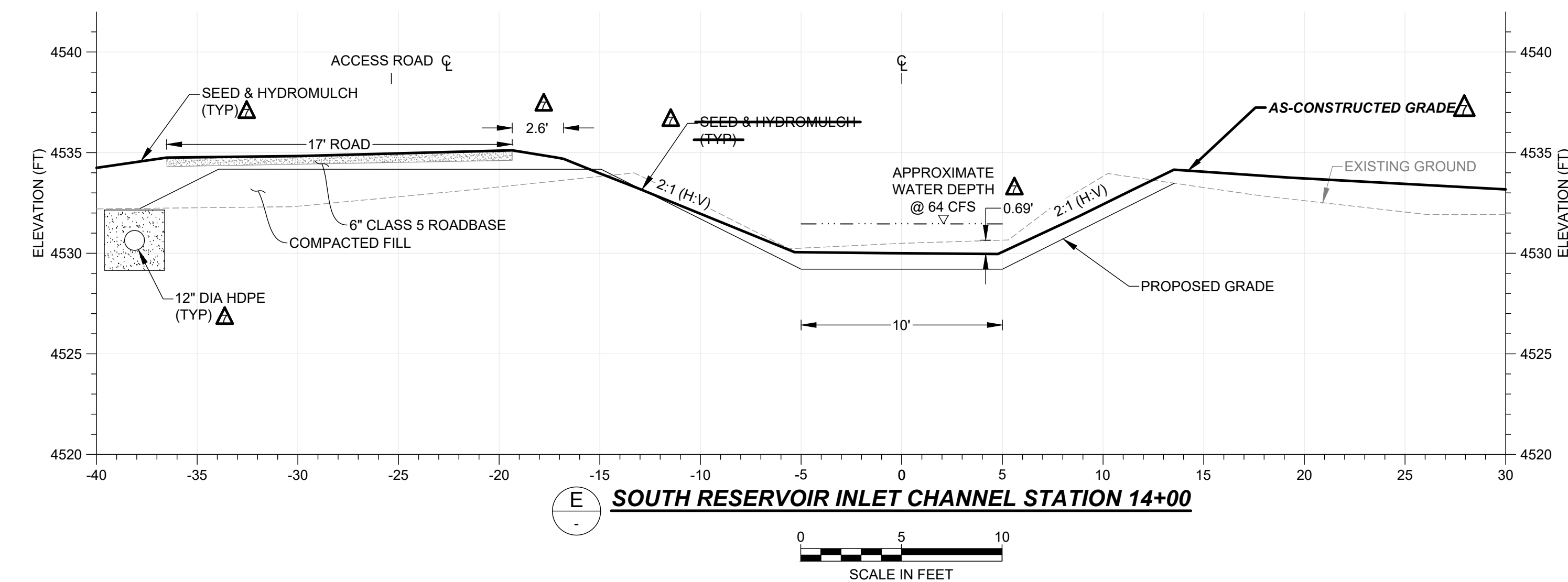
INLET CHANNEL PLAN (STA 12+00 - STA 18+00)

0 20 40
SCALE IN FEET
PROPOSED CONTOUR INTERNAL = 2'
EXISTING CONTOUR INTERNAL = 2'



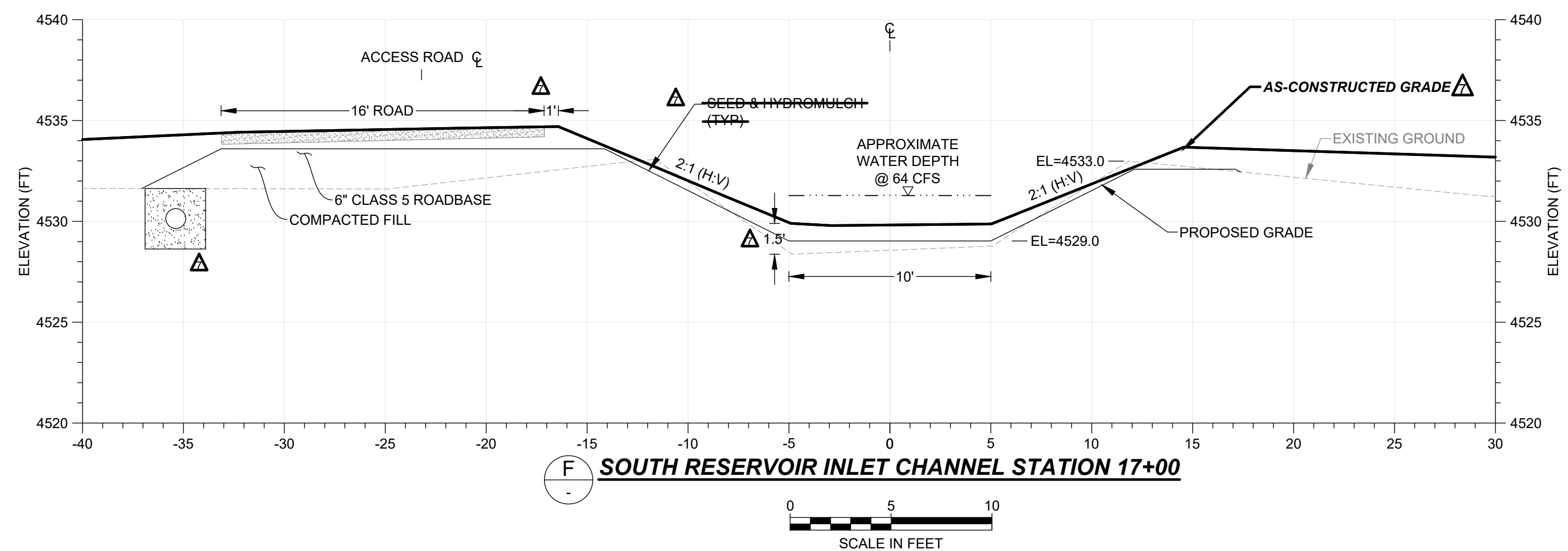
INLET CHANNEL PROFILE (STA 12+00 - STA 18+00)

Vertical Scale (FT) 0 5 10
Horizontal Scale (FT) 0 20 40



SOUTH RESERVOIR INLET CHANNEL STATION 14+00

0 5 10
SCALE IN FEET



SOUTH RESERVOIR INLET CHANNEL STATION 17+00

0 5 10
SCALE IN FEET



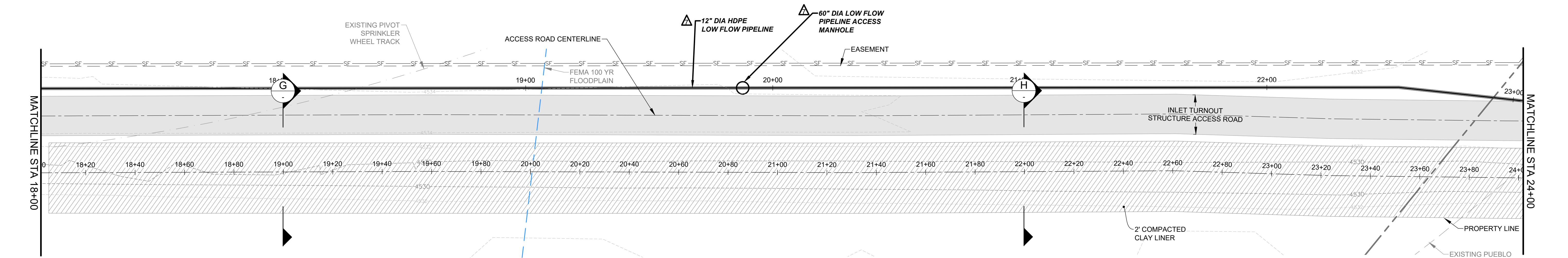
REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	90% SUBMITTAL	10-16-20	GCG
2	BID SET	11-19-20	GCG
3	FOR CONSTRUCTION SET	12-15-20	BAB
4	RFI #1	01-12-21	BAB
5	CCD-#002	02-19-21	BAB
6	CCD-#003	03-19-21	BAB
7	AS CONSTRUCTED	08/20/21	QJG

SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY

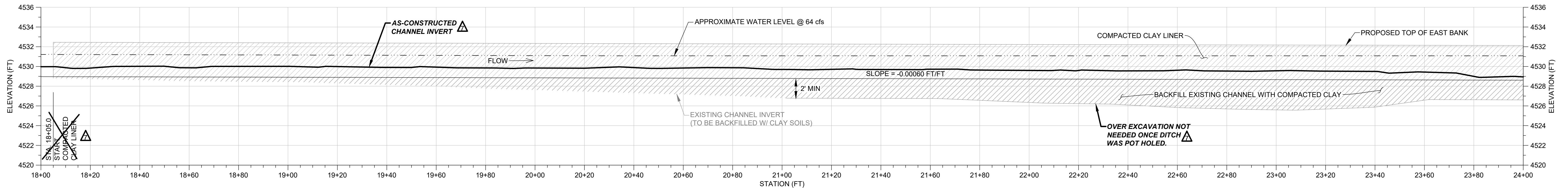
**Inlet Channel Plan and Profile
Station 12+00 to 18+00**

DEERE & AULT		600 S. AIRPORT RD., BLDG. A, SUITE 205 LONGMONT, CO 80503 TEL 303.651.1408 FAX 303.651.1469	
DESIGNED BY: BB/QG	APPROVED BY: GGC	JOB NO.	SHEET:
DRAWN BY: ITR	DATE: AUG 2021	20C26014.00	6
CHECKED BY: GGC	SCALE: AS NOTED		

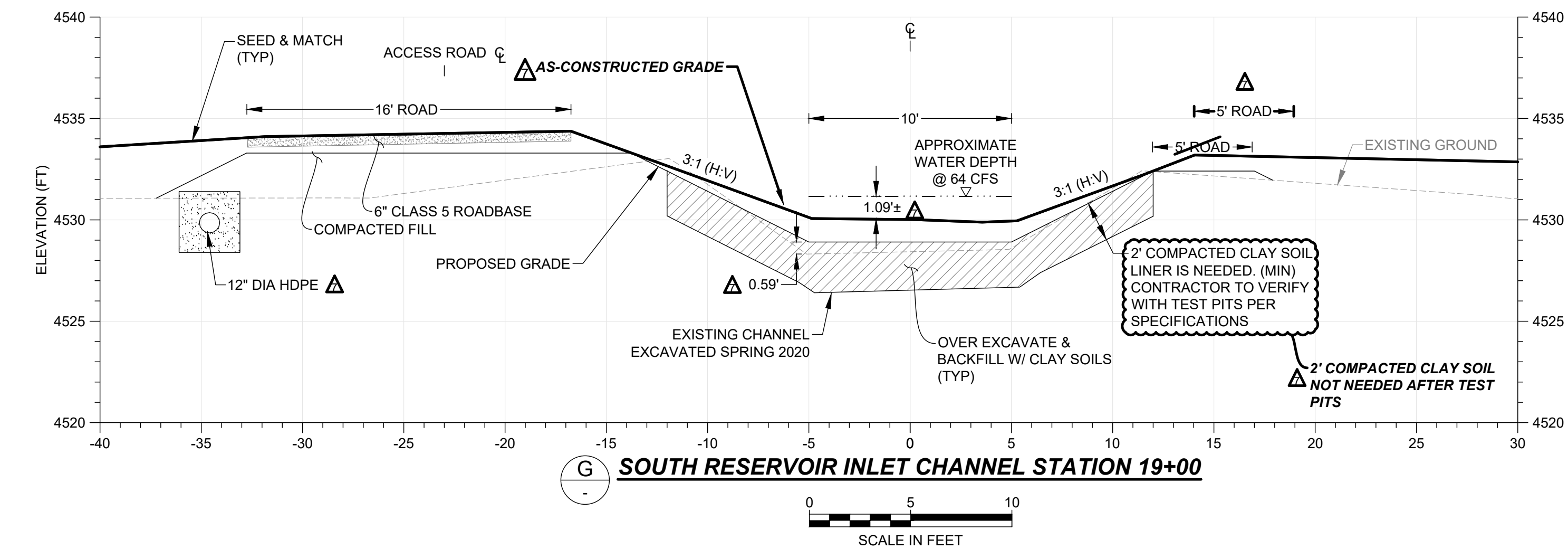
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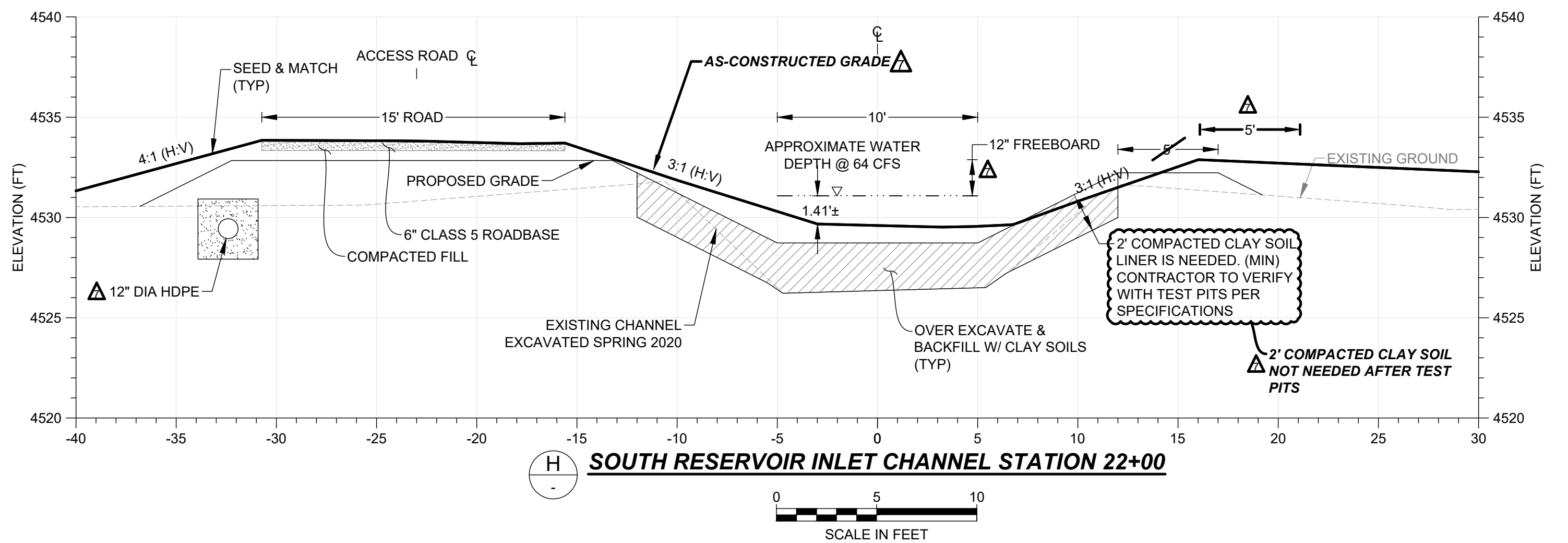
INLET CHANNEL PLAN (STA 18+00 - STA 24+00)



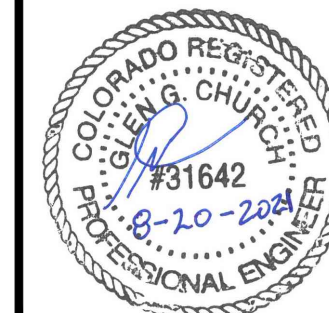
INLET CHANNEL PROFILE (STA 18+00 - STA 24+00)



SOUTH RESERVOIR INLET CHANNEL STATION 19+00

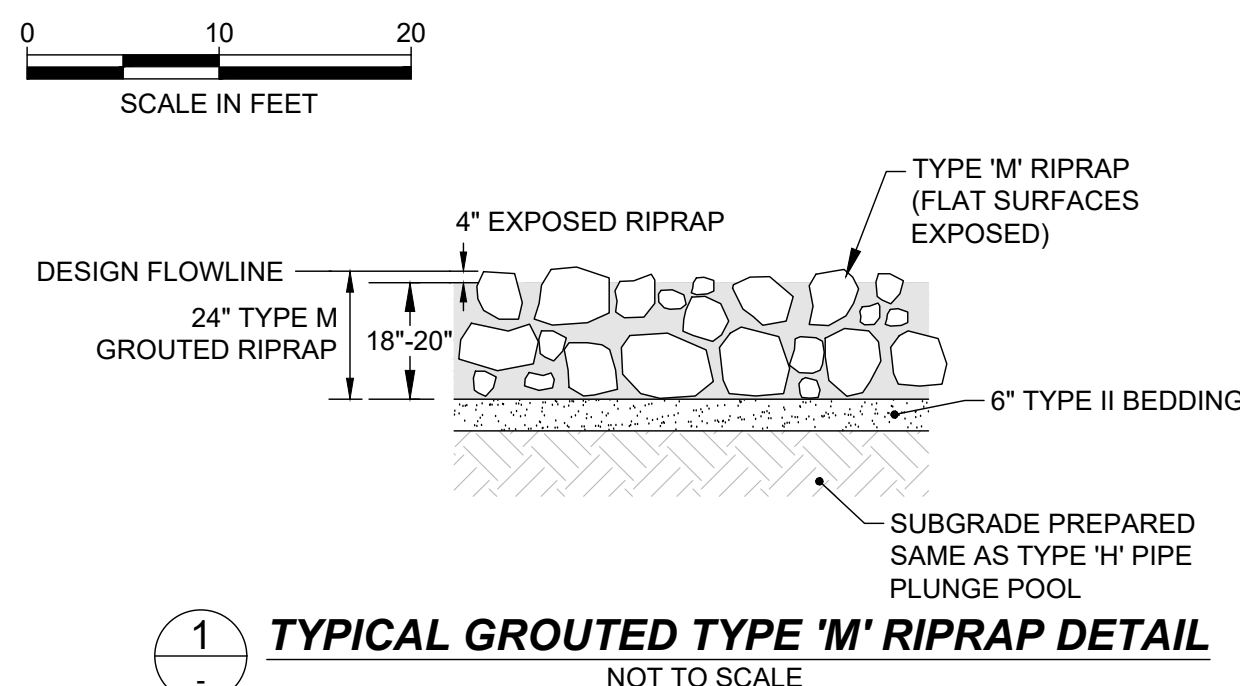
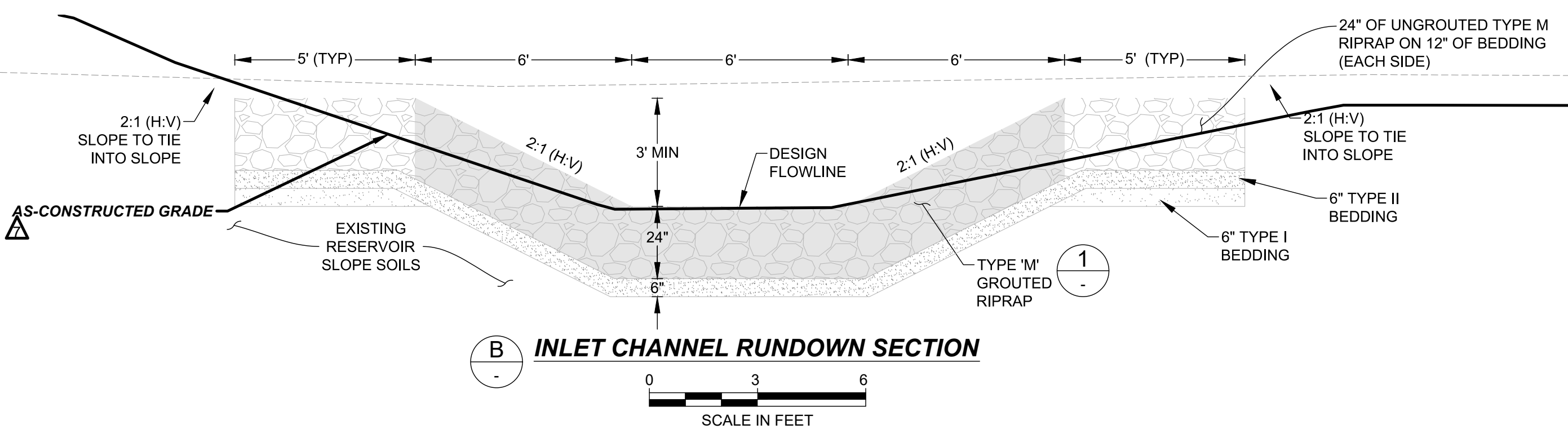
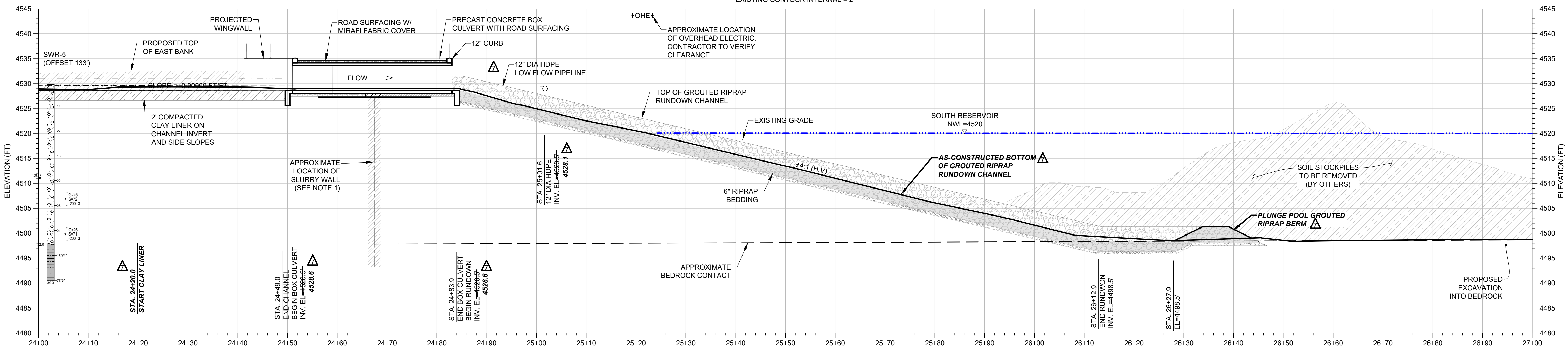
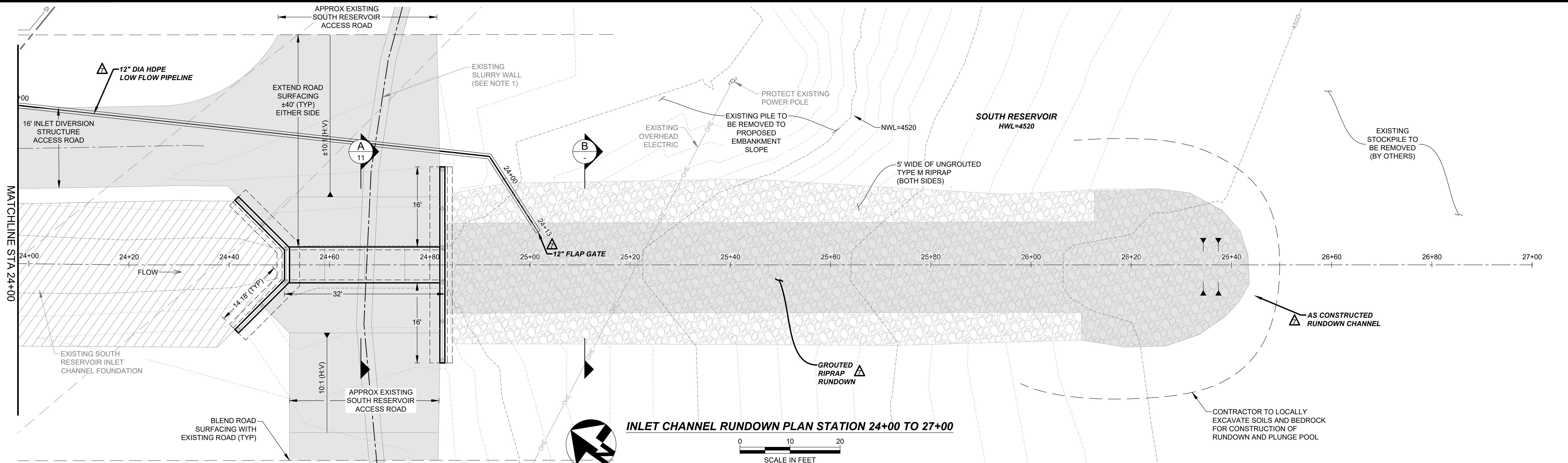


SOUTH RESERVOIR INLET CHANNEL STATION 22+00



REVISIONS				SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
NO.	DESCRIPTION	DATE	BY	Inlet Channel Plan and Profile Station 18+00 to 24+00			
1	90% SUBMITTAL	10-16-20	GGC	DEERE & AULT A SCHWABER ENGINEERING COMPANY 600 S. AIRPORT RD., BLDG. A, SUITE 205 LONGMONT, CO 80503 TEL 303.651.1468 FAX 303.651.1469			
2	BID SET	11-19-20	GGC				
3	FOR CONSTRUCTION SET	12-15-20	BAB				
4	RFI #1	01-12-21	BAB	DESIGNED BY: BB/QG	APPROVED BY: GGC	JOB NO.	SHEET:
5	CCD-#002	02-19-21	BAB	DRAWN BY: ITR	DATE: AUG 2021	20C26014.00	7
6	CCD-#003	03-19-21	BAB	CHECKED BY: GGC	SCALE: AS NOTED		
A	AS CONSTRUCTED	08/20/21	QJG				

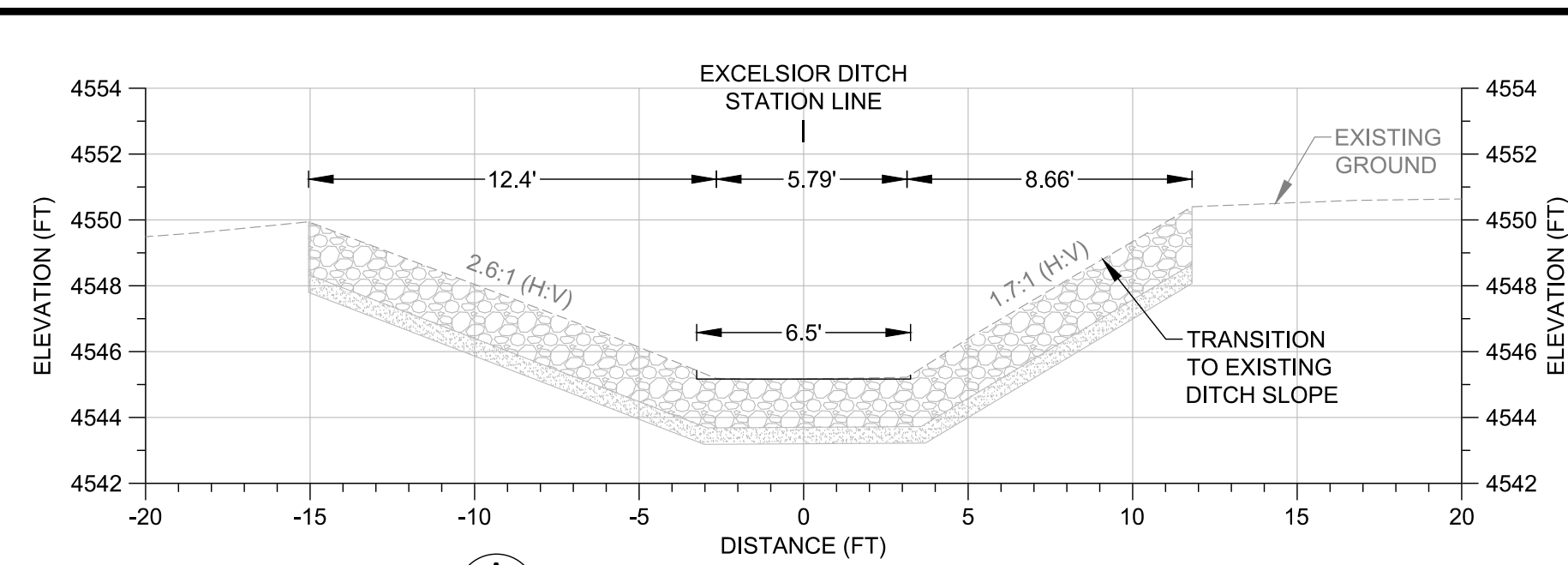
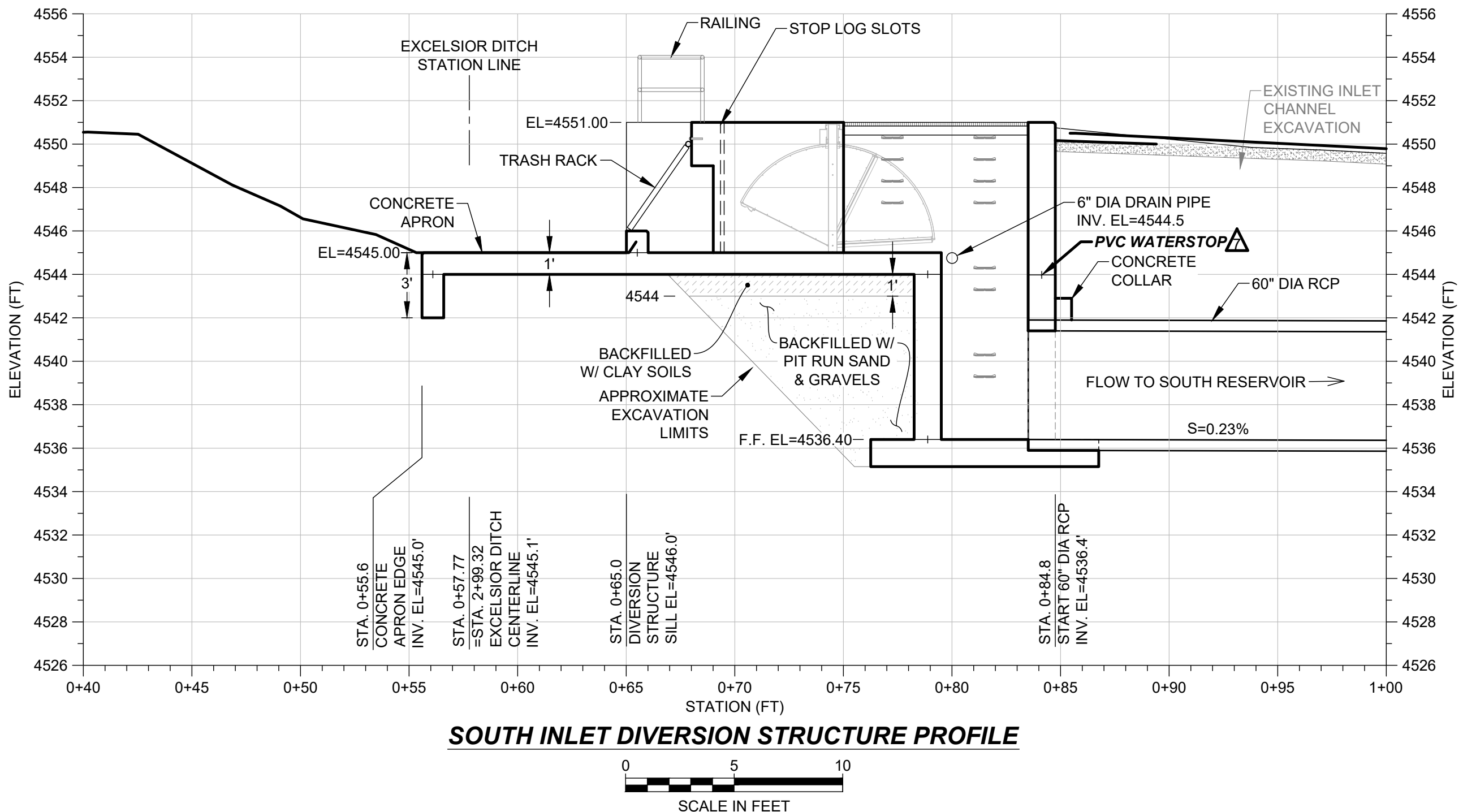
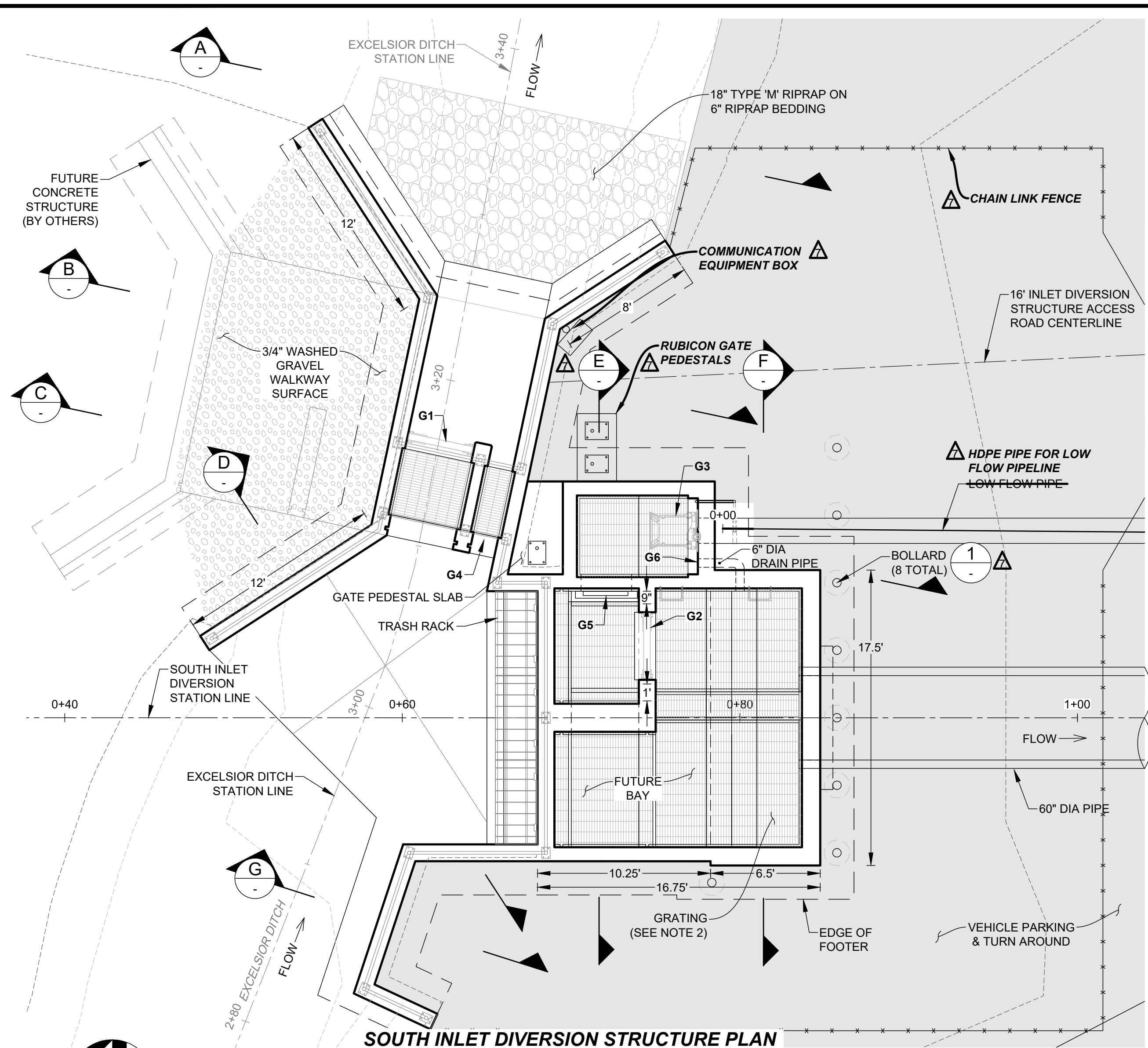
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- NOTES:**
- CONTRACTOR TO EXCAVATE TEST PITS WITH SMALL BACKHOE (OR AS APPROVED BY ENGINEER) TO VERIFY AS-BUILT LOCATION AND ELEVATION OF SLURRY WALL. CONTRACTOR TO SURVEY LOCATION & TOP ELEVATION OF SLURRY WALL AND PROVIDED TO ENGINEER. COORDINATE WITH ENGINEER 48 HOURS BEFORE COMPLETING.

REVISIONS					SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
NO.	DESCRIPTION	DATE	BY		Inlet Channel Rundown Plan and Profile Station 24+00 to 27+00			
1	90% SUBMITTAL	10-16-20	GCG		DEERE & AULT A SCHWABEL ENGINEERING COMPANY			
2	BID SET	11-19-20	GCG					
3	FOR CONSTRUCTION SET	12-15-20	BAB		DESIGNED BY: BB/QG	APPROVED BY: GGC	JOB NO.	SHEET:
4	RFI #1	01-12-21	BAB		DRAWN BY: ITR	DATE: AUG 2021	20C26014.00	8
5	CCD-#002	02-19-21	BAB		CHECKED BY: GGC	SCALE: AS NOTED		
6	CCD-#003	03-19-21	BAB					
AS	AS CONSTRUCTED	08/20/21	QJG					

Friday, August 20, 2021 4:10:10 PM DRAWING: G:\2020\Longmont\20c26014.00_south_reservoir_inflow_channel\CAD\Working\As-Built\ASB_SR_inlet_Channel.DWG



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NOTE:

1. STOP LOG SLOT HOT DIPPED GALVANIZED STEEL

1 STOP LOG SLOT DETAIL
NTS

DIVERSION STRUCTURE PLAN

CONSTRUCTION JOINT DETAIL

NOTE:
NO REBAR SPLICES AT CONSTRUCTION JOINTS.

F DIVERSION STRUCTURE SECTION

A DIVERSION STRUCTURE SECTION

C DIVERSION STRUCTURE SECTION

D DIVERSION STRUCTURE SECTION

B DIVERSION STRUCTURE SECTION

G DIVERSION STRUCTURE SECTION

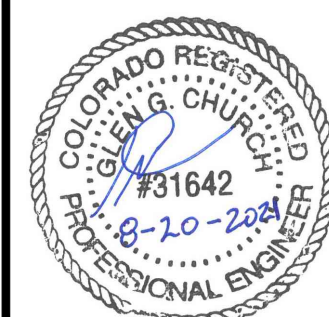
TYPICAL CORNER
REINFORCEMENT DETAIL
NTS

GATE BLOCKOUT REINFORCING STEEL DETAIL

E DIVERSION STRUCTURE SECTION

BAR LAP TABLE				
LENGTH (')				
BAR SIZE	HOOK X	LAP	EMBEDMENT E	
#3	6"	16" (21")	12" (16")	
#4	8"	16" (21")	12" (16")	
#5	10"	20" (26")	15" (20")	
#6	12"	28" (37")	22" (28")	
#7	14"	48" (62")	37" (48")	
#8	16"	62" (81")	48" (62")	
#9	19"	79" (102")	61" (79")	
#10	22"	100" (130")	77" (100")	
#11	24"	123" (160")	95" (123")	

*USE LENGTH IN PARENTHESIS FOR WALL HORIZONTAL REBARS AND SLAB BARS WITH 12" OR MORE OF FRESH CONCRETE UNDERNEATH



REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	90% SUBMITTAL	10-16-20	GCG
2	BID SET	11-19-20	GCG
3	FOR CONSTRUCTION SET	12-15-20	BAB
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7	AS CONSTRUCTED	08/20/21	QJG

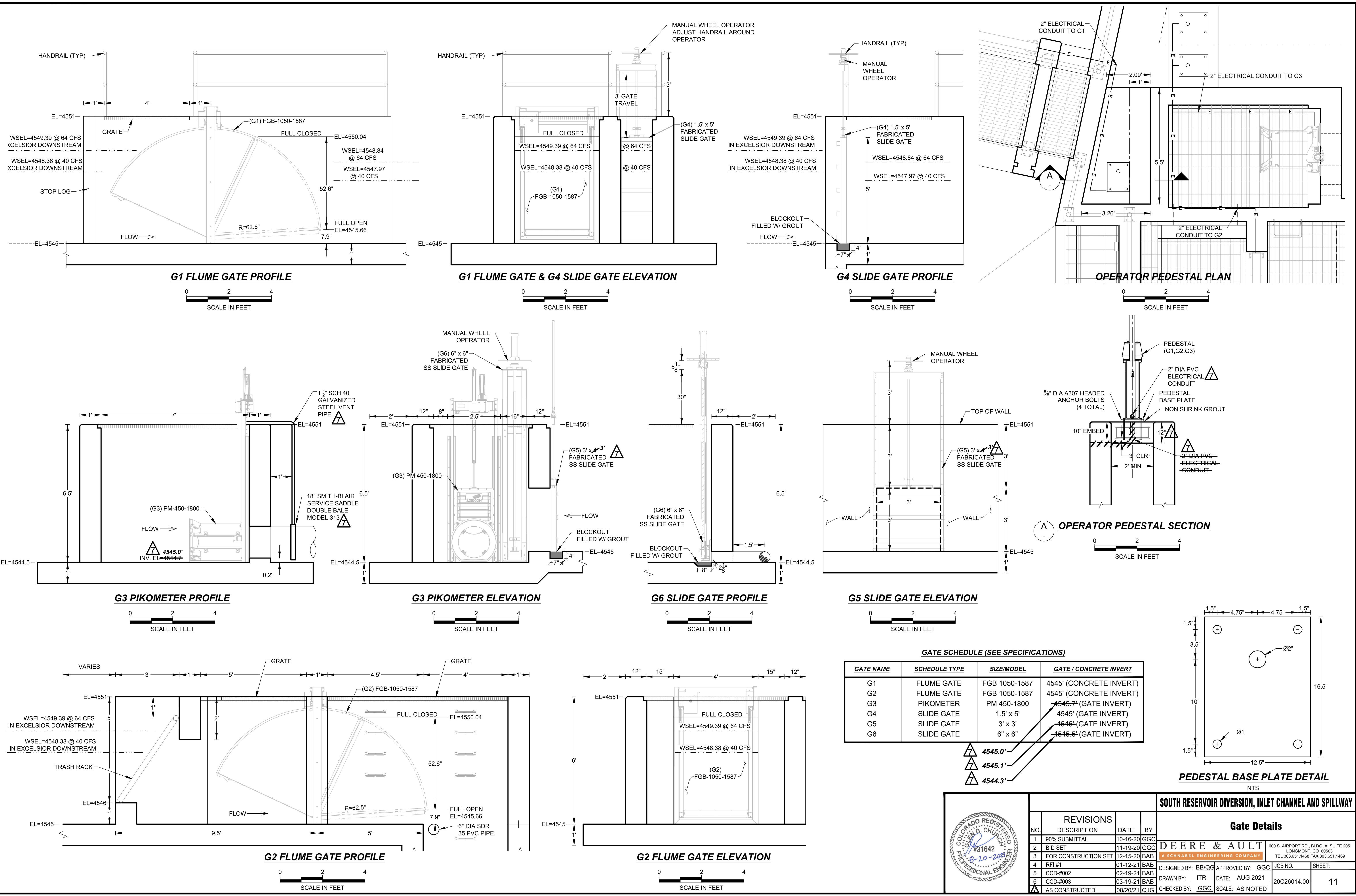
SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY

South Inlet Diversion Structure Details

DEERE & AULT
A SCHWABEL ENGINEERING COMPANY
600 S. AIRPORT RD., BLDG. A, SUITE 205
LONGMONT, CO 80503
TEL 303.651.1408 FAX 303.651.1469

DESIGNED BY: BB/QG APPROVED BY: GCG
DRAWN BY: ITR DATE: AUG 2021
CHECKED BY: GCG SCALE: AS NOTED
JOB NO. 20C26014.00 SHEET: 10

Friday, August 20, 2021 4:13:07 PM DRAWING: G:\2020\Longmont\20C26014.00_south_reservoir_inflow_channel\CAD\Working\As-Built\ASB_SR_Inlet_Details.DWG



REVISIONS				Gate Details			
NO.	DESCRIPTION	DATE	BY	DESIGNED BY:	APPROVED BY:	JOB NO.	SHEET:
1	90% SUBMITTAL	10-16-20	GCG	DEERE & AULT	GCG	20C26014.00	11
2	BID SET	11-19-20	GCG				
3	FOR CONSTRUCTION SET	12-15-20	BAB				
4	RFI #1	01-12-21	BAB				
5	CCD-#002	02-19-21	BAB				
6	CCD-#003	03-19-21	BAB				
7	AS CONSTRUCTED	08/20/21	QJG	CHECKED BY:	GCG	SCALE: AS NOTED	

600 S. AIRPORT RD., BLDG. A, SUITE 205
LONGMONT, CO 80503
TEL 303.651.1468 FAX 303.651.1469

DEERE & AULT

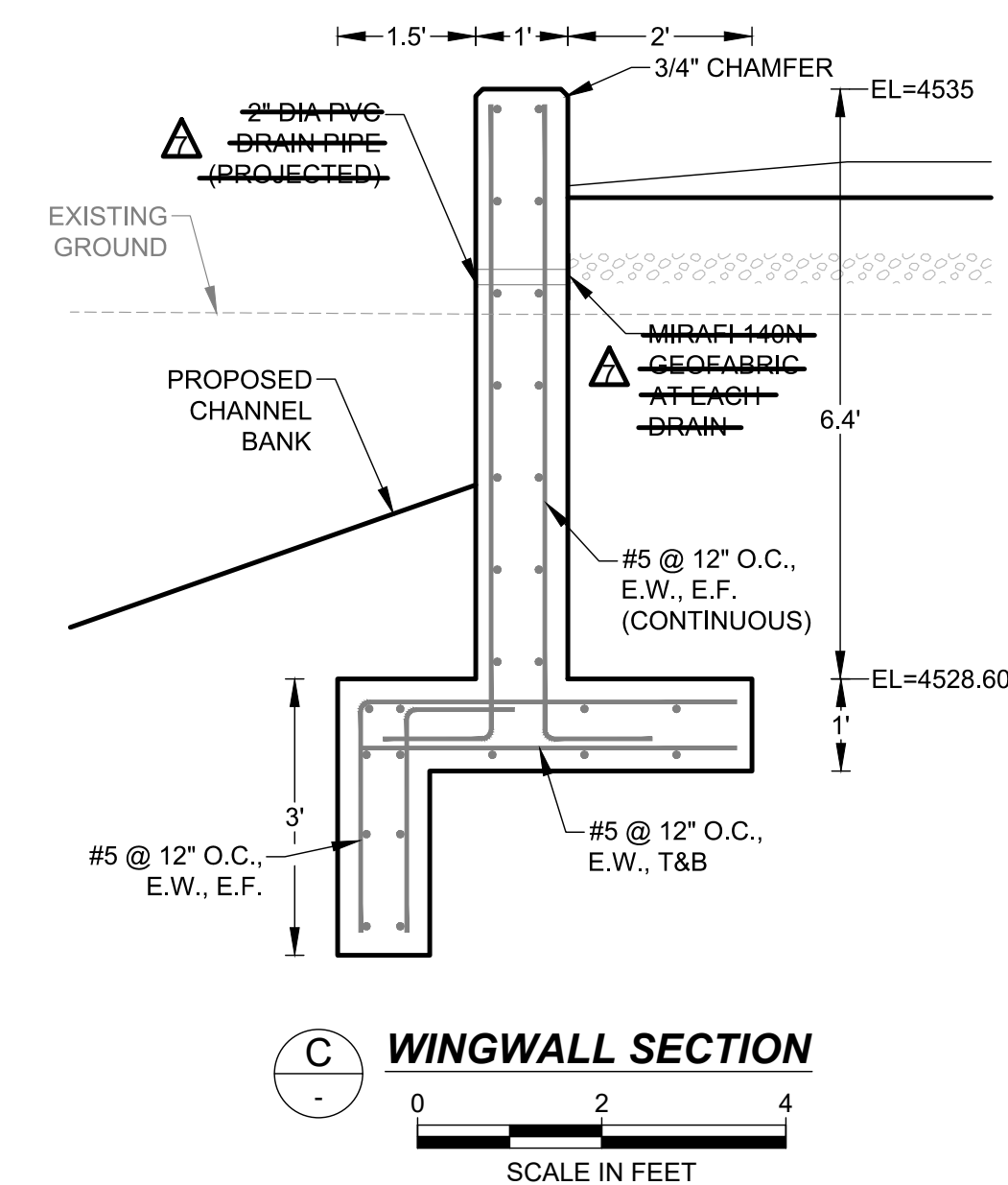
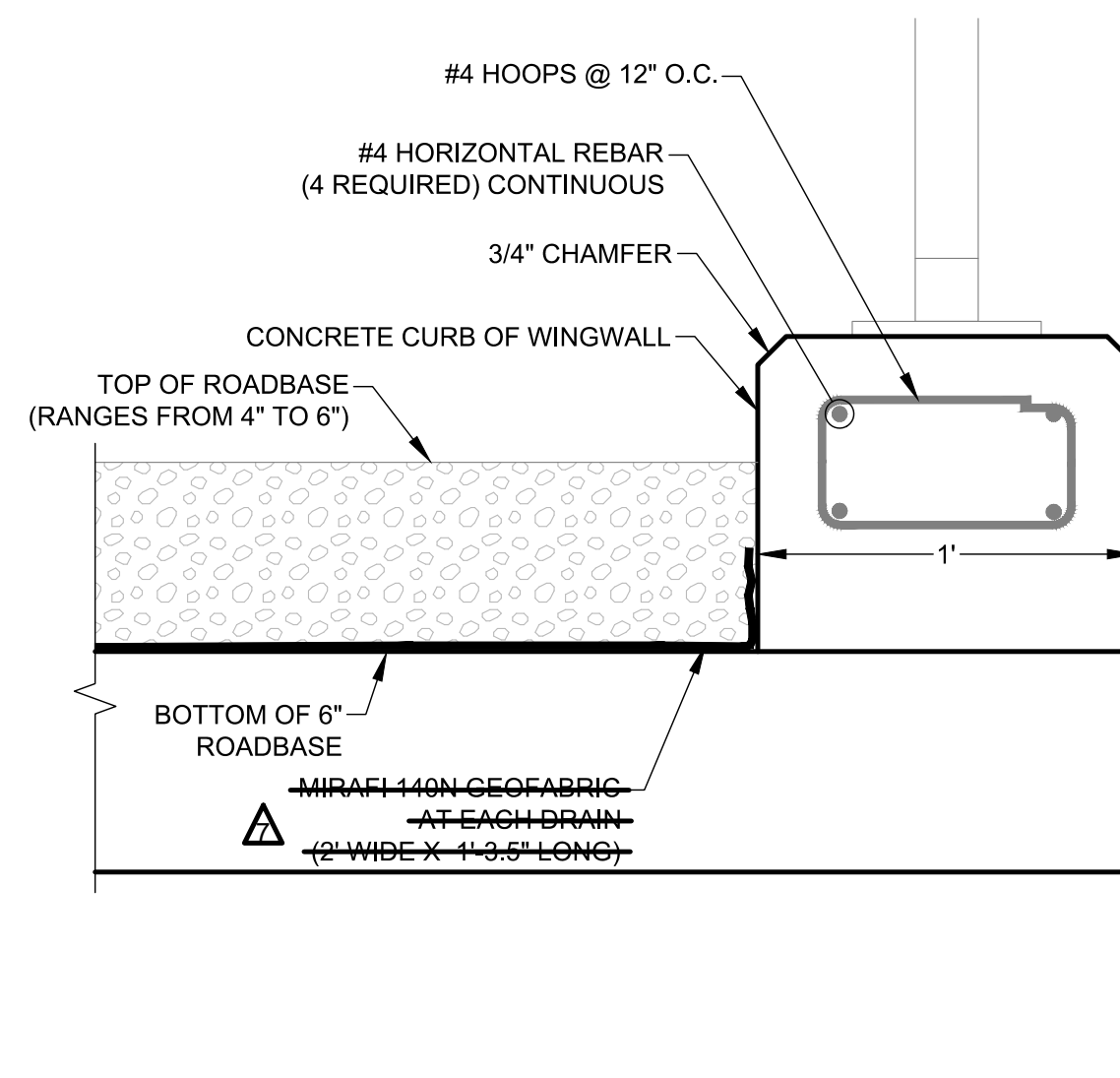
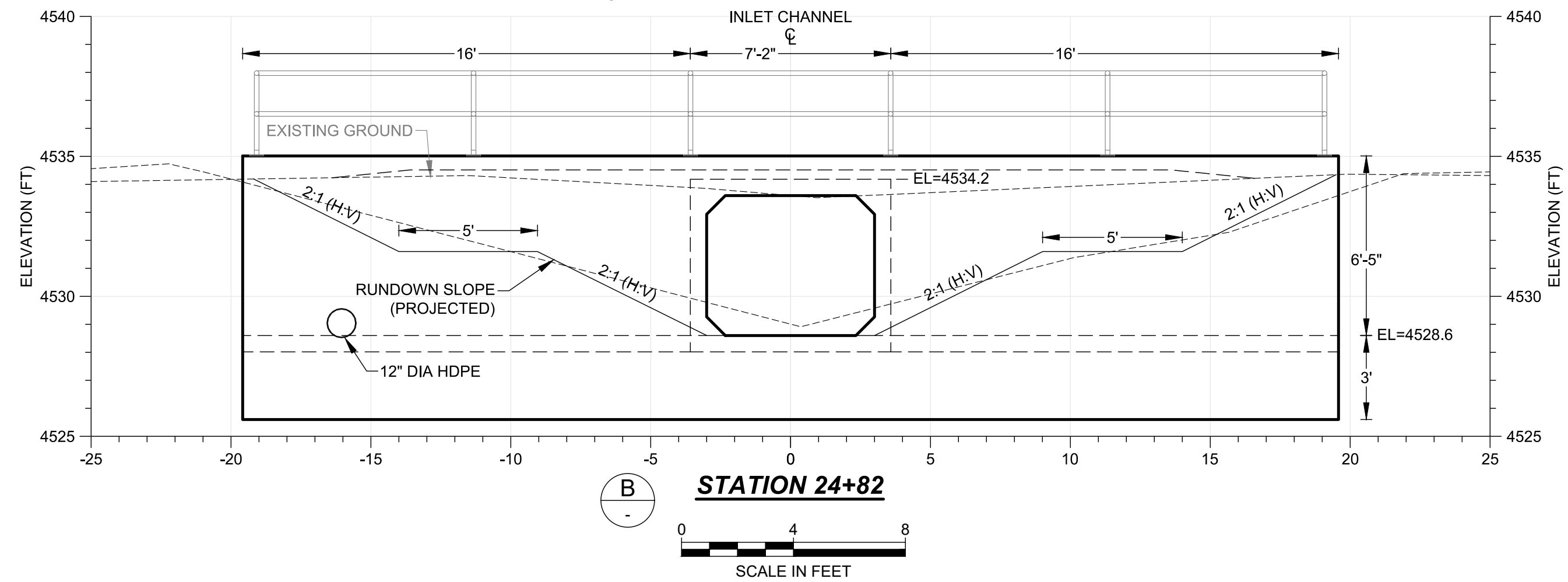
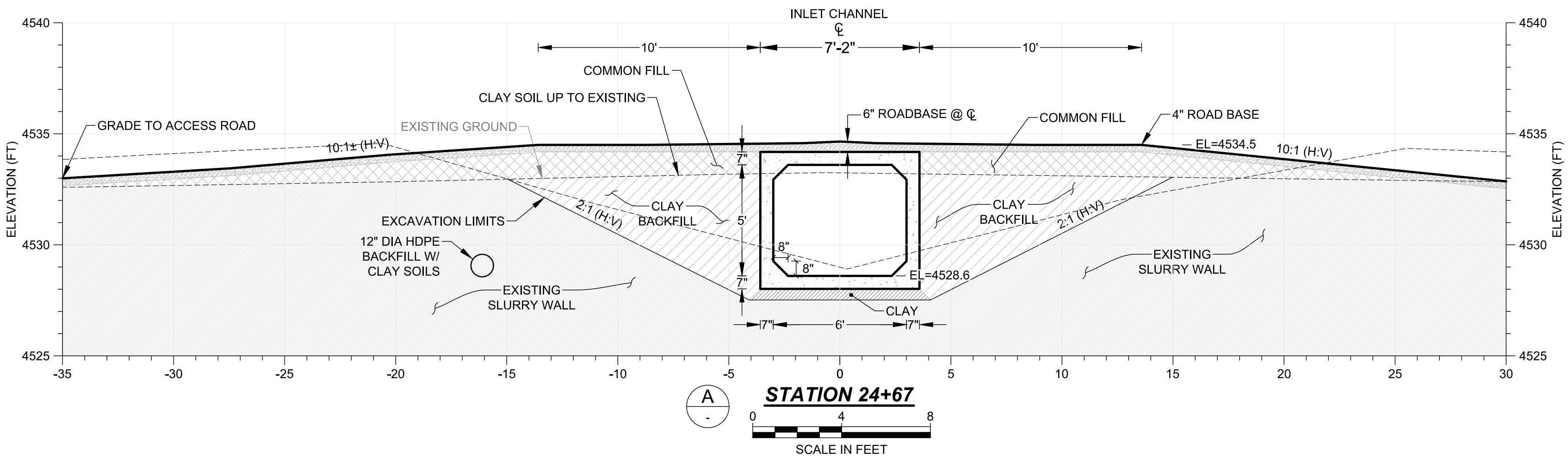
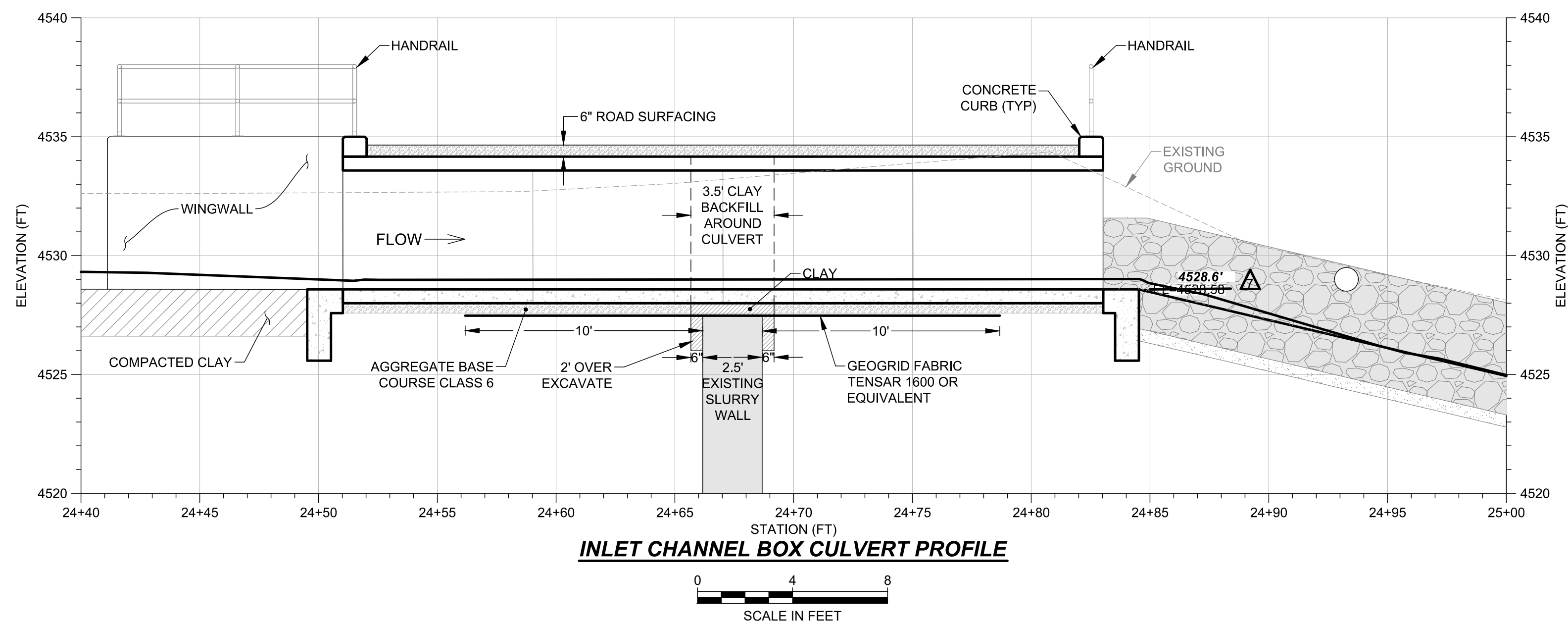
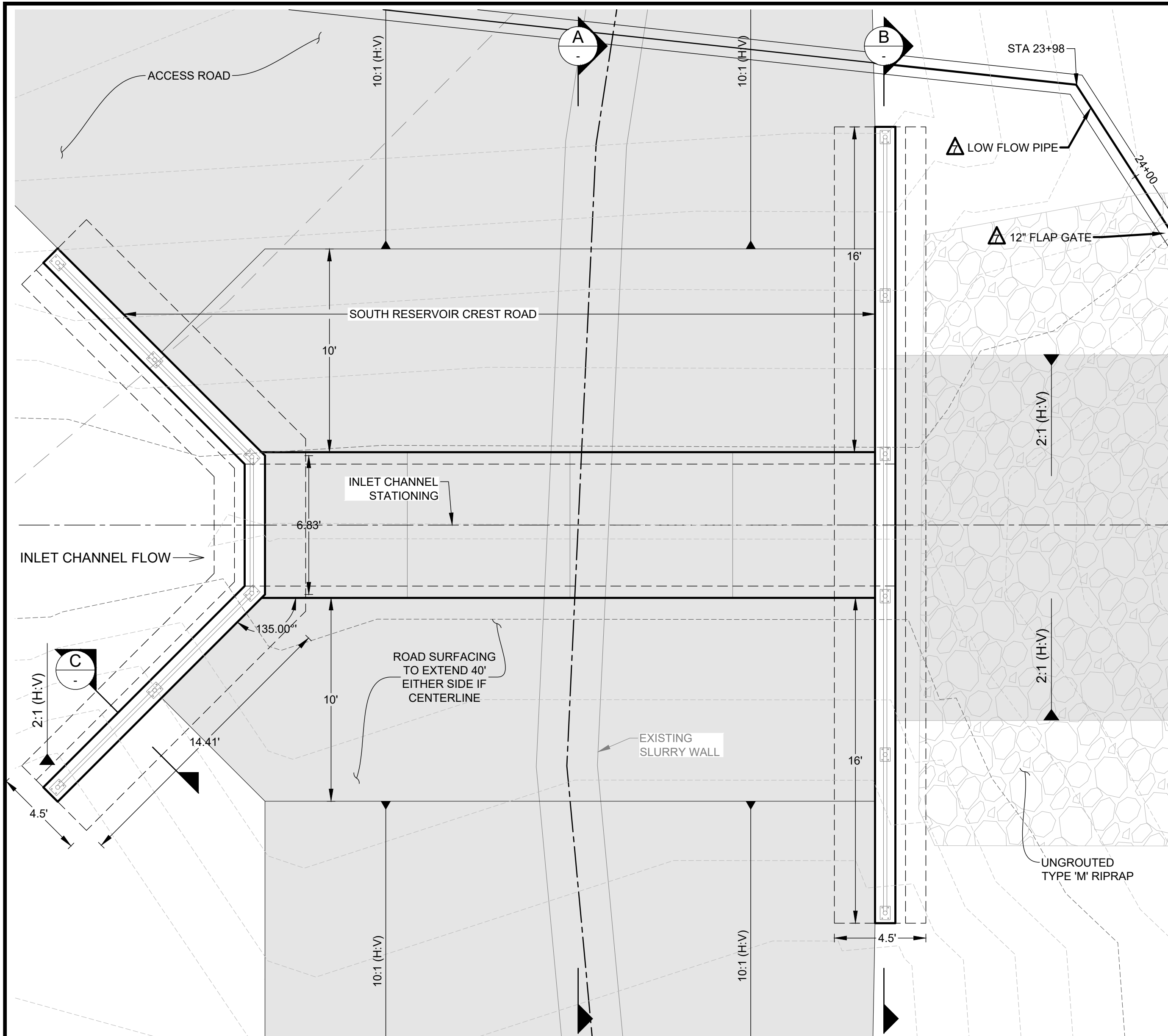
DESIGNED BY: BB/QG
DRAWN BY: ITR
DATE: AUG 2021

SCMNASSEL ENGINEERING COMPANY

APPROVED BY: GCG

DATE: AUG 2021

F:\2020\Longmont\20c26014.00_south_reservoir_inflow_channel\CAD\Working\As-Built\SR_inlet_Details.DWG Friday, August 20, 2021 4:14:48 PM DRAWING: G:\2020\Longmont\20c26014.00_south_reservoir_inflow_channel\CAD\Working\As-Built\SR_inlet_Details.DWG



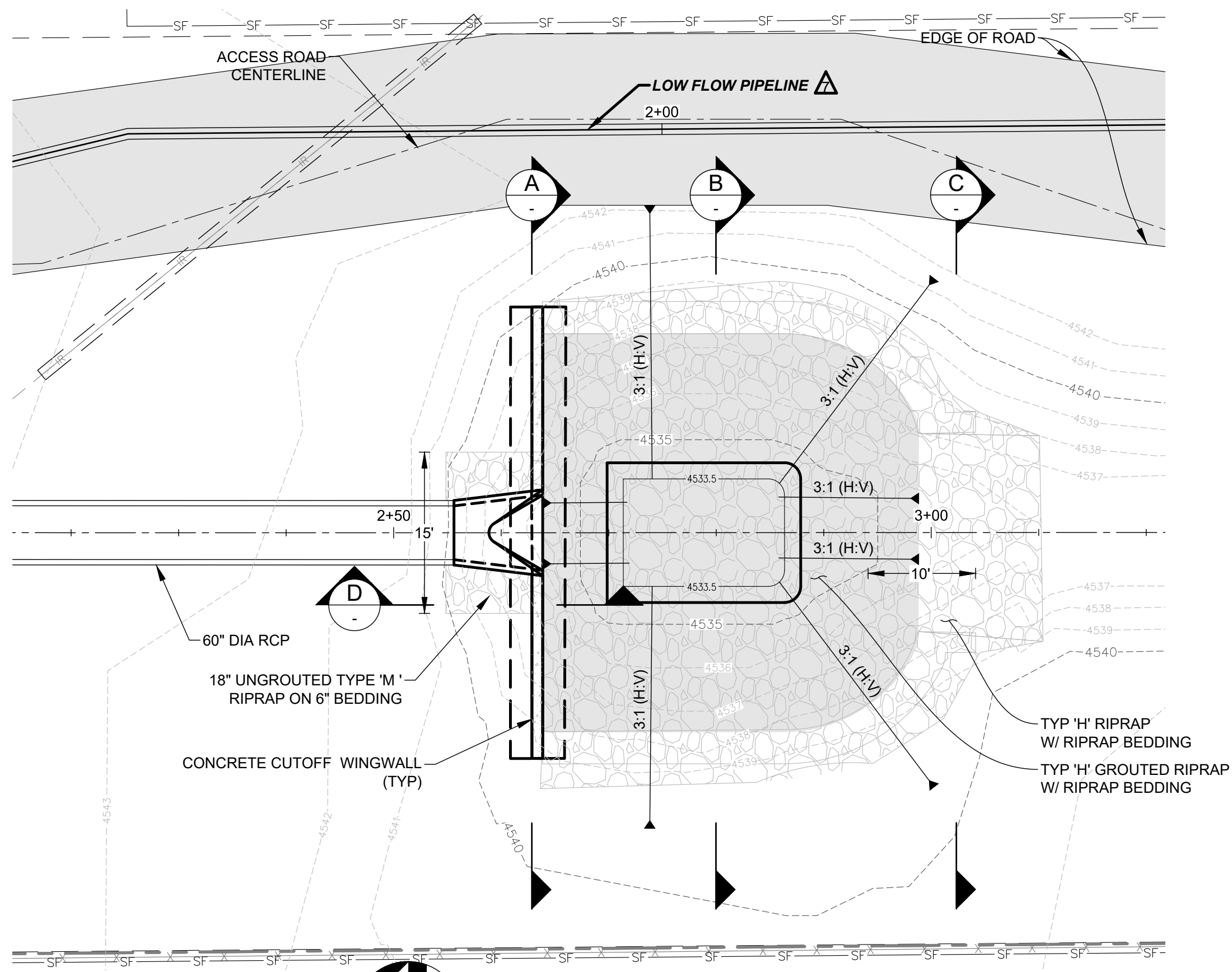
GRATING DETAILS:

- PRECAST BOX CULVERT SHALL BE RATED FOR H20 LOADING.
- PRECAST BOX CULVERT JOINTS SHALL BE WATER TIGHT AND INSTALLED BY MANUFACTURES INSTRUCTION. JOINTS INSIDE THE BOX CULVERT SHALL BE FILLED W/ GROUT.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE SLURRY WALL PRIOR TO EXCAVATION FOR BOX CULVERT. VERIFICATION SHALL BE DONE BY POT-HOLING OR TEST PITS AND ENGINEER SHALL BE NOTIFIED 48 HOURS IN ADVANCE.



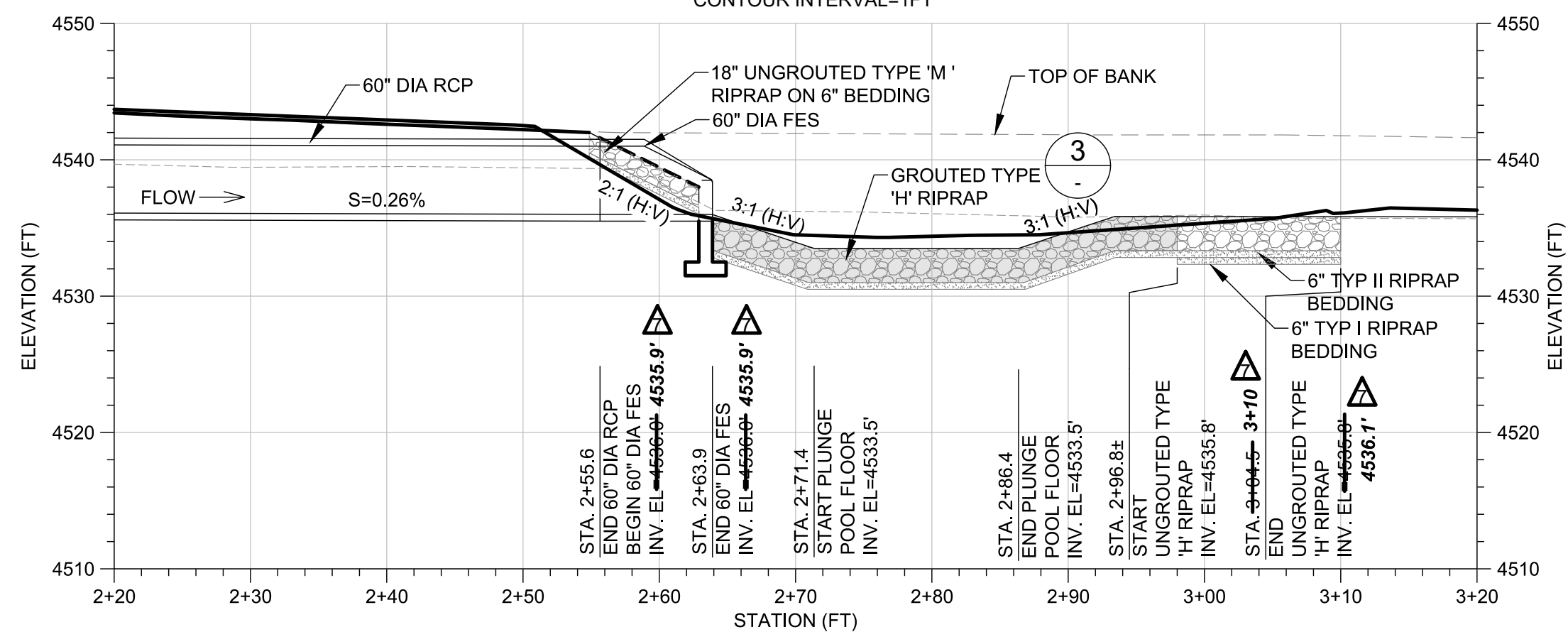
REVISIONS				SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
NO.	DESCRIPTION	DATE	BY	Culvert Plan, Profile & Sections			
1	90% SUBMITTAL	10-16-20	GCG	DEERE & AULT A SCHNABEL ENGINEERING COMPANY DESIGNED BY: BB/QG APPROVED BY: GGC DRAWN BY: ITR DATE: AUG 2021 CHECKED BY: GGC SCALE: AS NOTED			
2	BID SET	11-19-20	GCG				
3	FOR CONSTRUCTION SET	12-15-20	BAB				
4	RFI #1	01-12-21	BAB				
5	CCD-#002	02-19-21	BAB				
6	CCD-#003	03-19-21	BAB				
A	AS CONSTRUCTED	08/20/21	QJG	JOB NO. 20C26014.00 SHEET: 13			

Friday, August 20, 2021 4:15:13 PM DRAWING: G:\2020\Longmont\20c26014.00_south_reservoir_inflow_channel\CAD\Working\As-Built\SR_inlet_Details.DWG



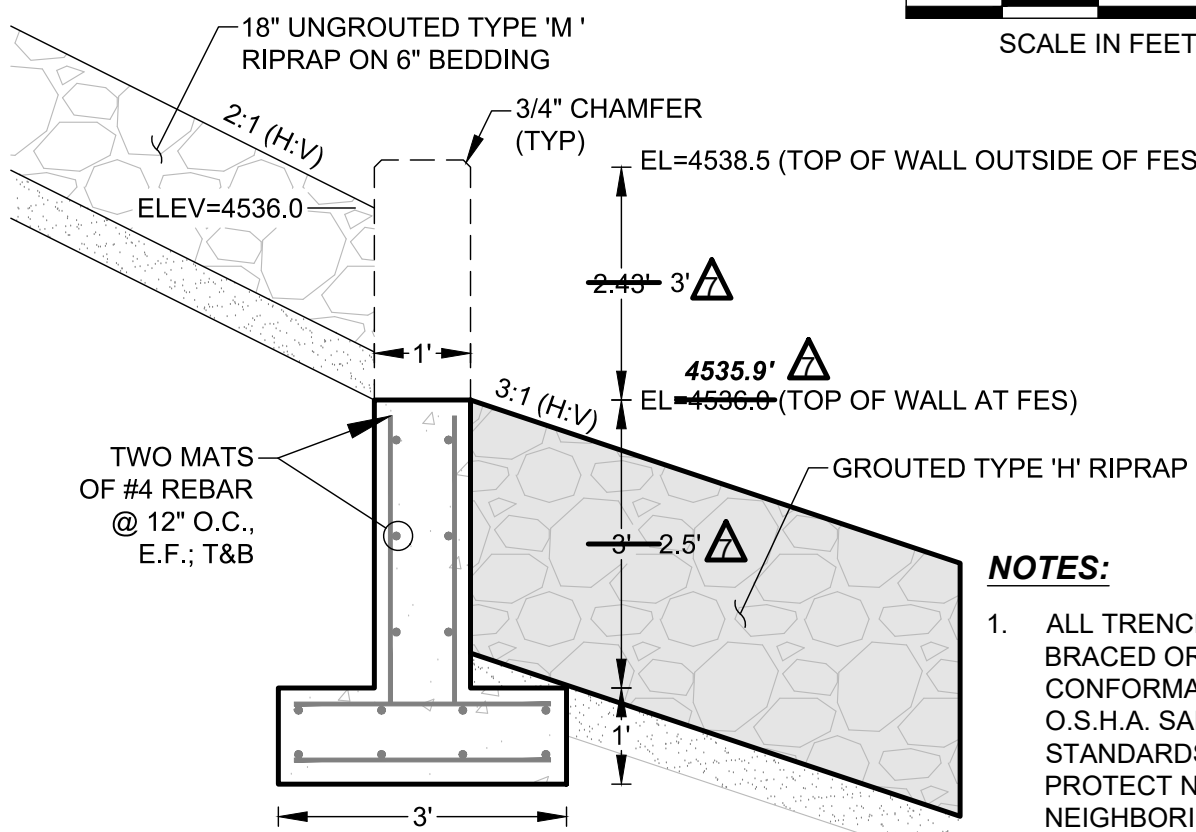
PLUNGE POOL PLAN

SCALE IN FEET
CONTOUR INTERVAL=1FT



PLUNGE POOL PROFILE

SCALE IN FEET

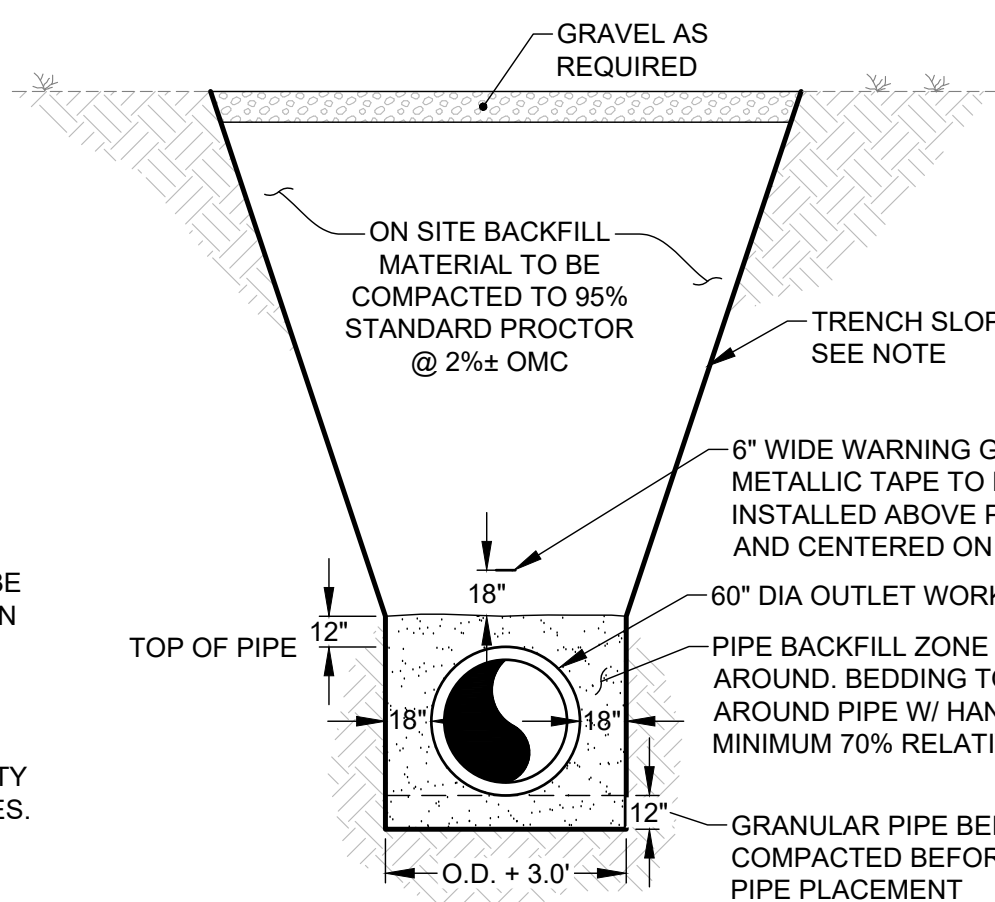


CONCRETE CUT OFF WALL DETAIL

SCALE IN FEET

NOTES:

- ALL TRENCHES SHALL BE BRACED OR SHIELDED IN CONFORMANCE WITH O.S.H.A. SAFETY STANDARDS AND TO PROTECT NEARBY NEIGHBORING PROPERTY & EXISTING STRUCTURES.
- CONTRACTOR TO FOLLOW MANUFACTURER'S PIPE INSTALLATION RECOMMENDATIONS.

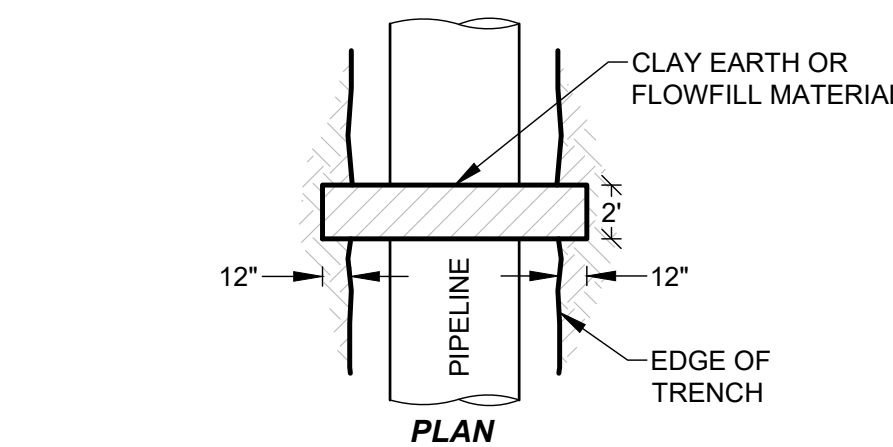


60" DIA RCP TRENCH DETAIL

NTS

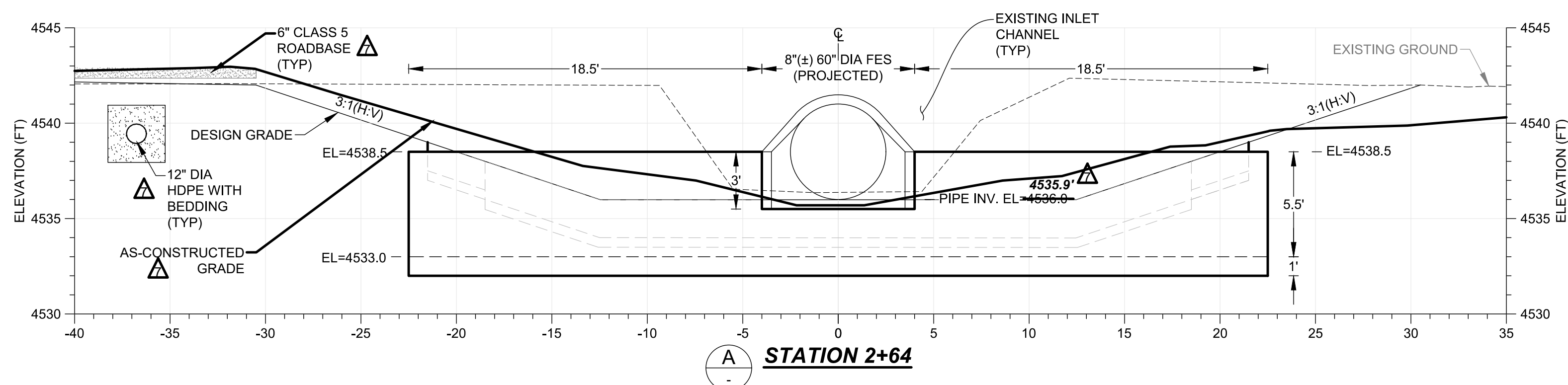
BEDDING NOTE:

- 60" DIA RCP SHALL BE BEDDED AS SHOWN IN DETAIL FROM STA 0+84.5 TO 2+00. 60" DIA RCP WILL BE BEDDED TO SPRINGLINE FROM STA 2+00 TO 2+56.

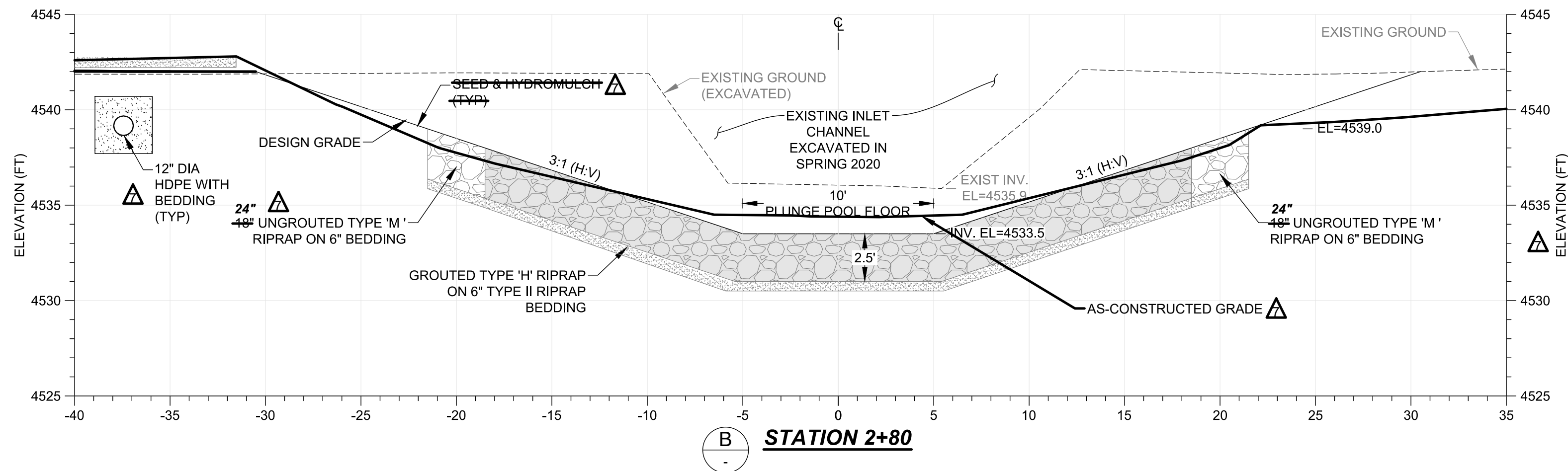


60" PIPE CLAY CUT-OFF WALL DETAIL

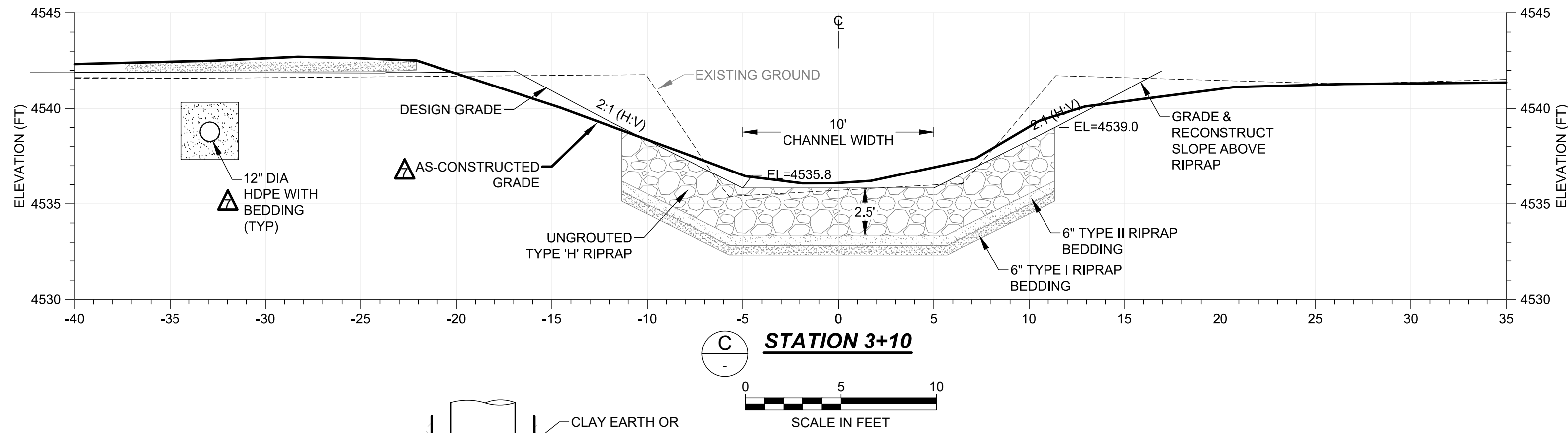
NTS



STATION 2+64

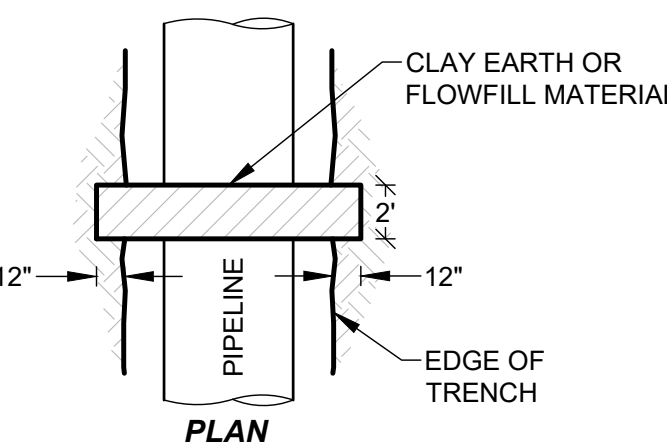


STATION 2+80



STATION 3+10

SCALE IN FEET

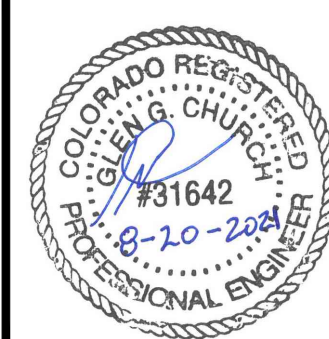


TYPICAL GROUTED TYPE 'H' RIPRAP DETAIL

NOT TO SCALE

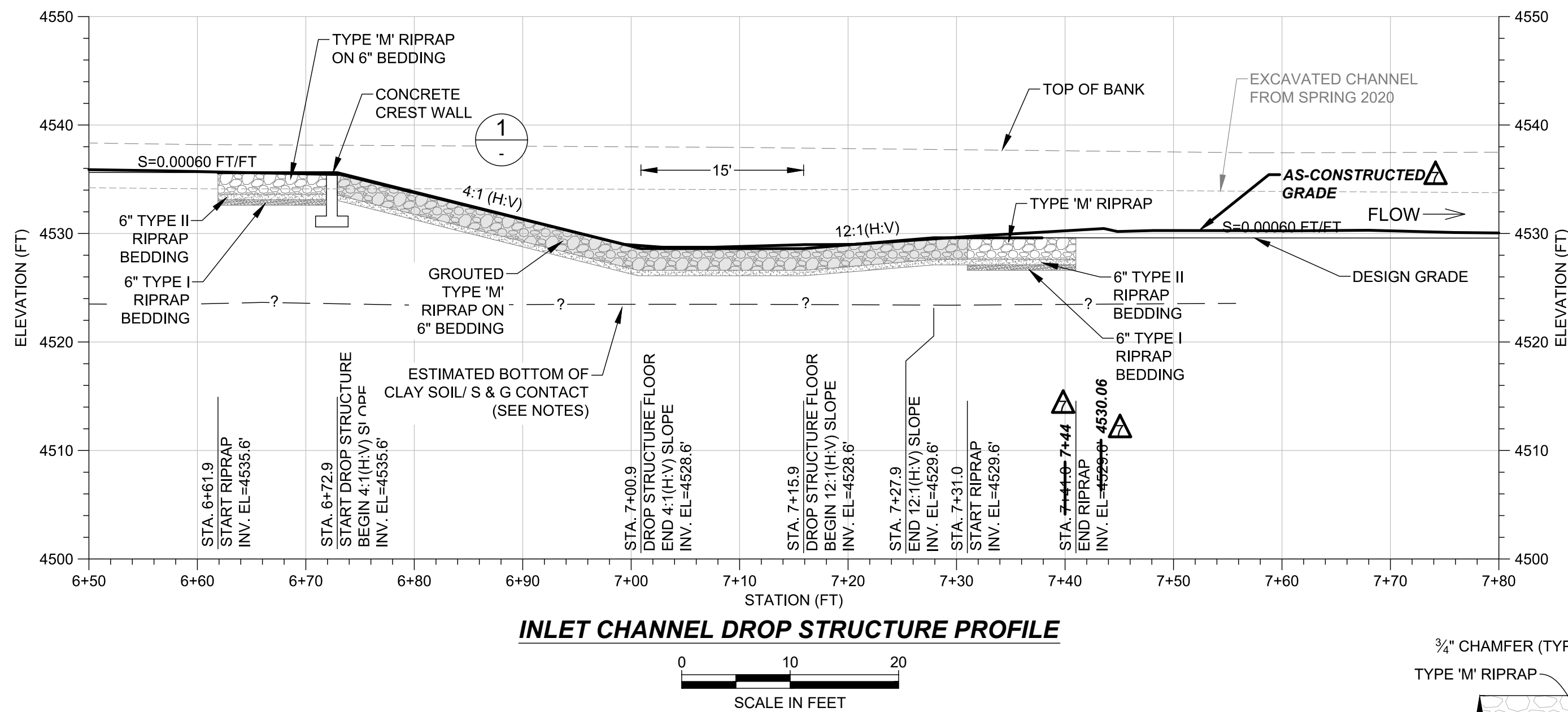
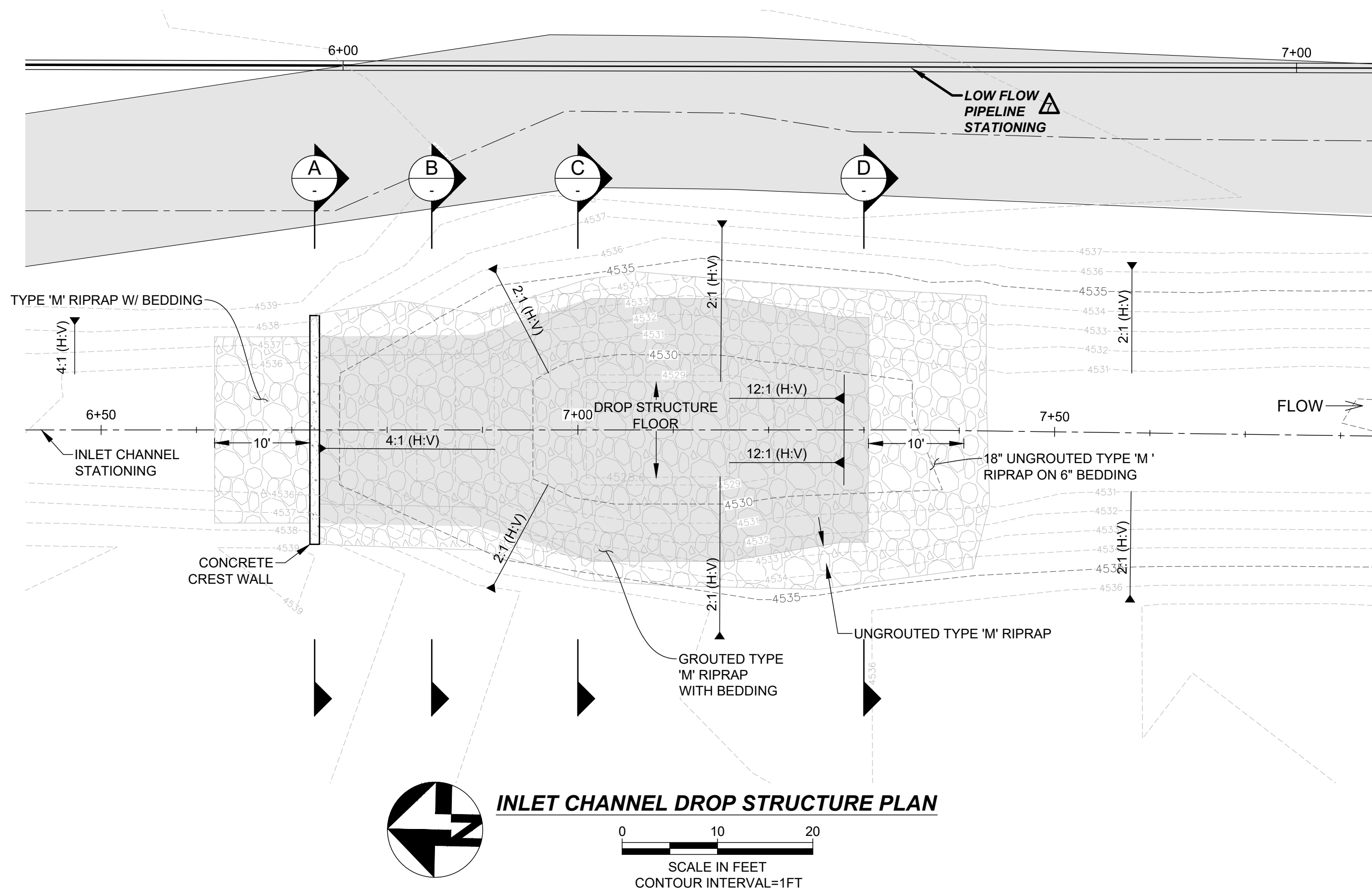
NOTES:

- CLAY WALL EXTENDS A MINIMUM OF 12" INTO UNDISTURBED SOIL ON EACH SIDE AND BOTTOM OF TRENCH & SHALL EXTEND A MINIMUM OF 12" ABOVE TOP OF PIPE BEDDING.
- CLAY MATERIAL TO BE CLASSIFIED AS CL OR CH AS NOTED IN THE SPECIFICATIONS.



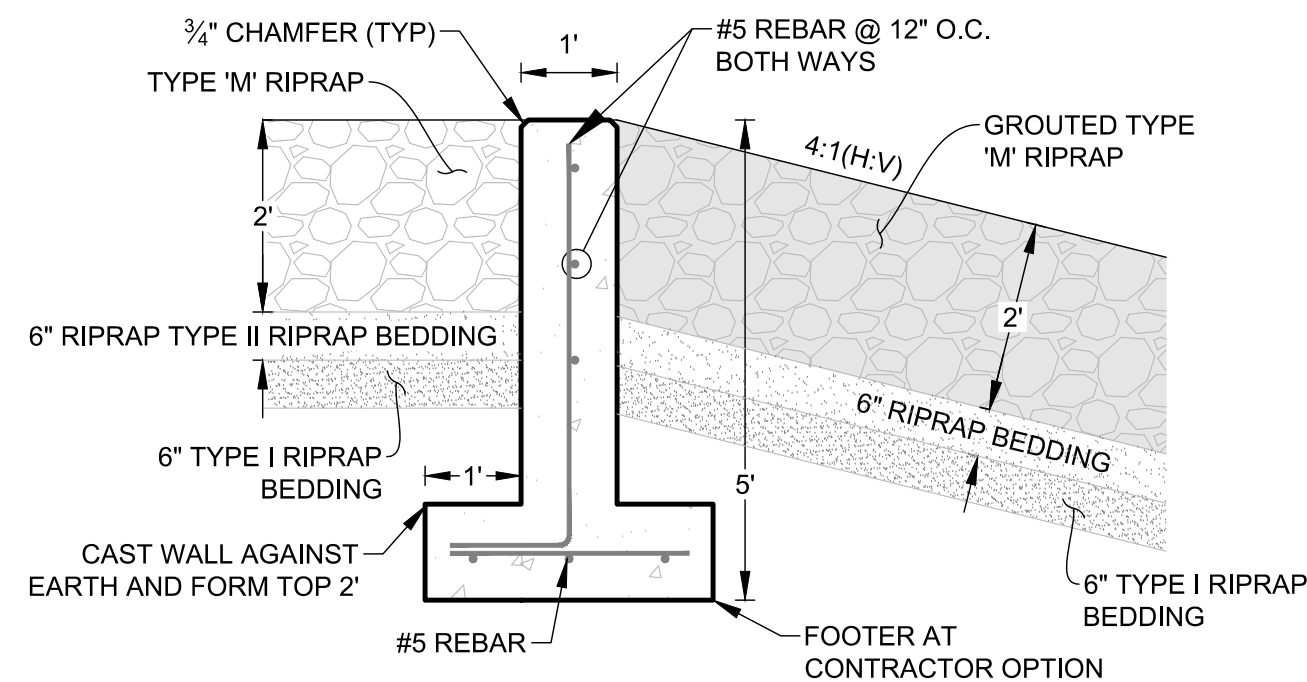
REVISIONS				SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
NO.	DESCRIPTION	DATE	BY	Plunge Pool Details			
1	90% SUBMITTAL	10-16-20	GGC	DEERE & AULT			
2	BID SET	11-19-20	GGC				
3	FOR CONSTRUCTION SET	12-15-20	BAB	A SCHNASEL ENGINEERING COMPANY			
4	RFI #1	01-12-21	BAB				
5	CCD-#002	02-19-21	BAB	DESIGNED BY: BB/QG	APPROVED BY: GGC	JOB NO.	SHEET:
6	CCD-#003	03-19-21	BAB	DRAWN BY: ITR	DATE: AUG 2021	20C26014.00	14
AS CONSTRUCTED	08/20/21	QJG	CHECKED BY: GGC	SCALE: AS NOTED			

Friday, August 20, 2021 4:15:53 PM DRAWING: G:\2020\Longmont\20c26014.00_south_reservoir_inflow_channel\CAD\Working\As-Built\ASB_SR_inlet_Details.DWG



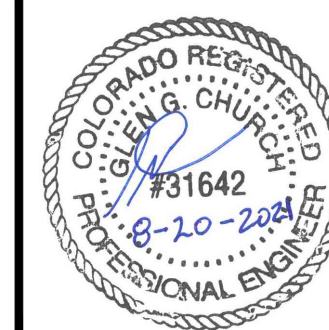
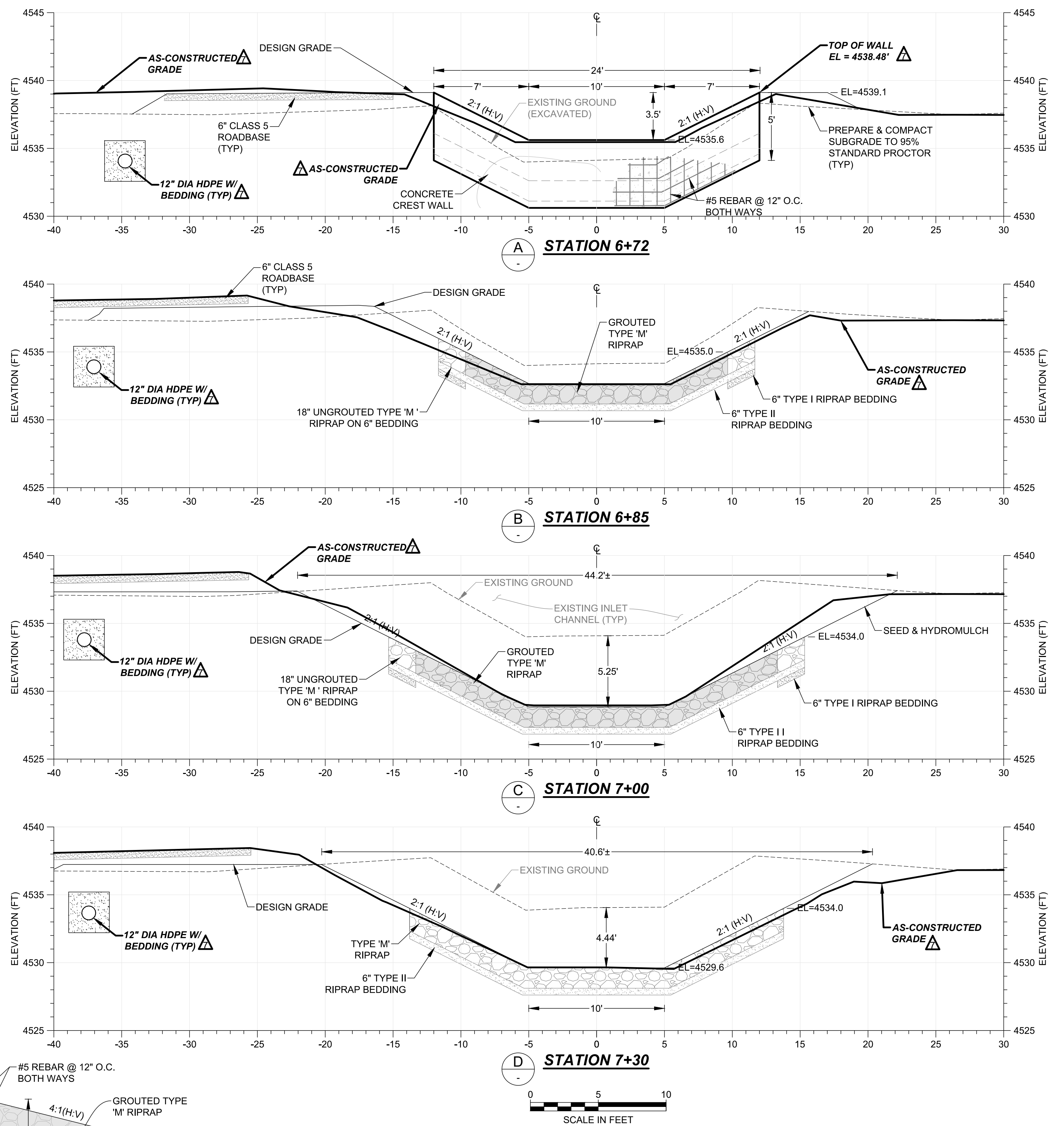
INLET CHANNEL EXCAVATION NOTES:

- FROM THE JULY 2006 GEOTECHNICAL INVESTIGATION, THM-1 SHOWED CLAY SOILS EXTENDING FROM GROUND SURFACE TO ELEVATION 4523.5±. GROUND WATER WAS NOTED AT ELEVATION 4517.0±.
- CONTRACTOR SHALL TEST PIT THE BOTTOM OF THE DROP STRUCTURE (EL 4523.8') TO VERIFY 2' OF CLAYEY SOIL BELOW CHANNEL INVERT. IF NOT OVER EXCAVATE & PLACE & COMPACT TO 90% STANDARD PROCTOR 2' CLAY SOILS FOR SUBGRADE.



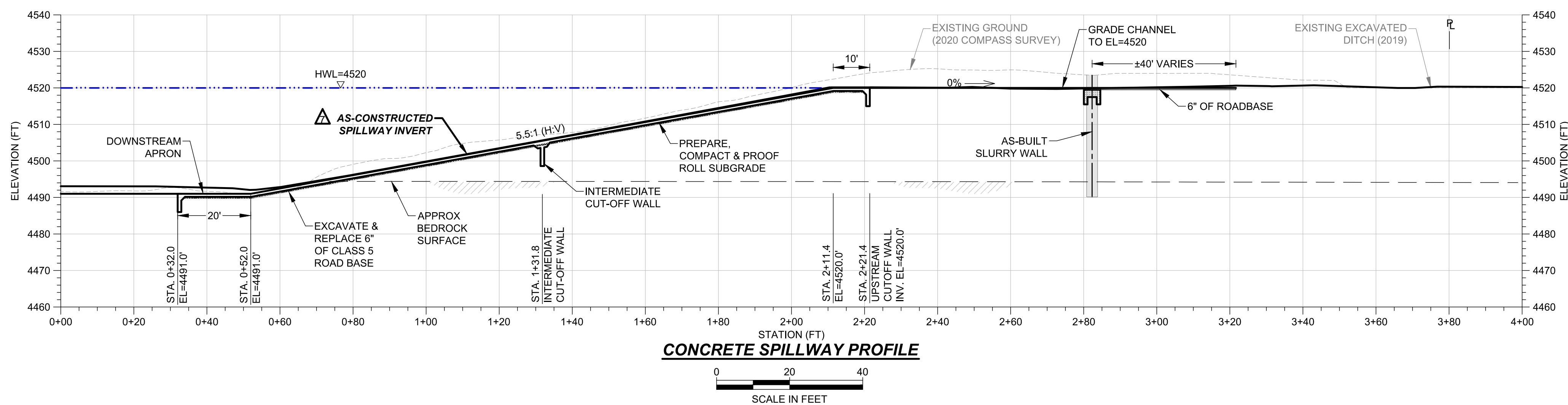
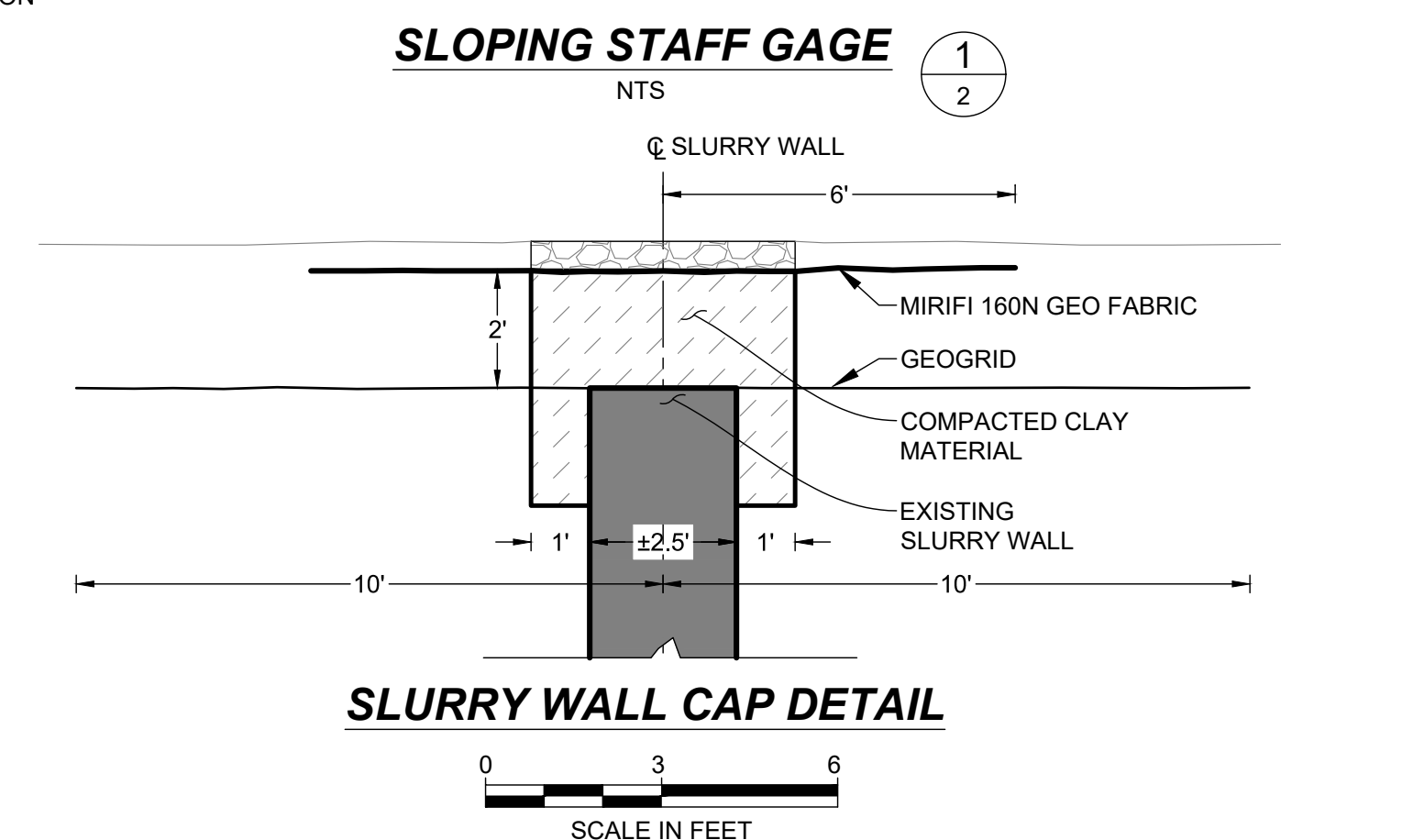
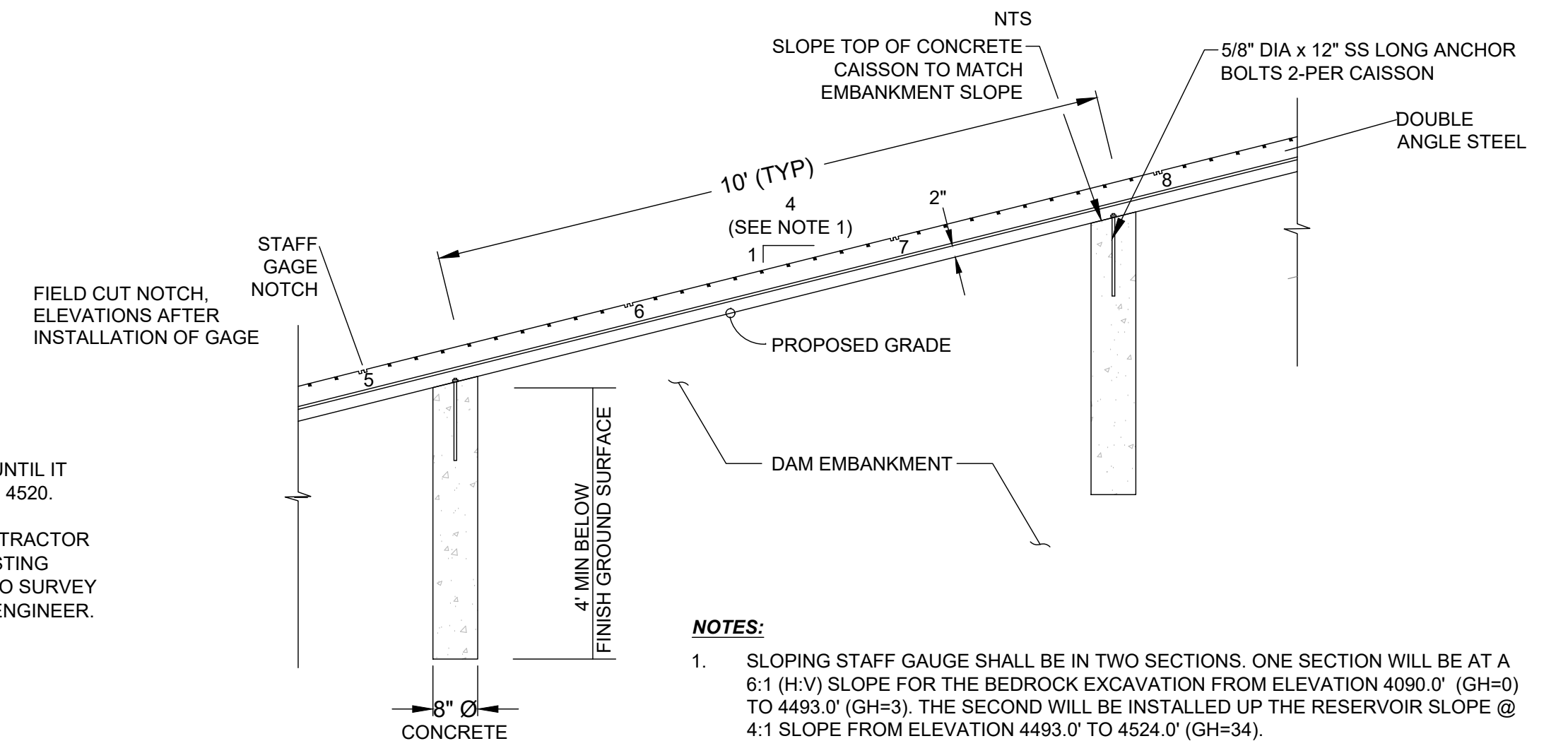
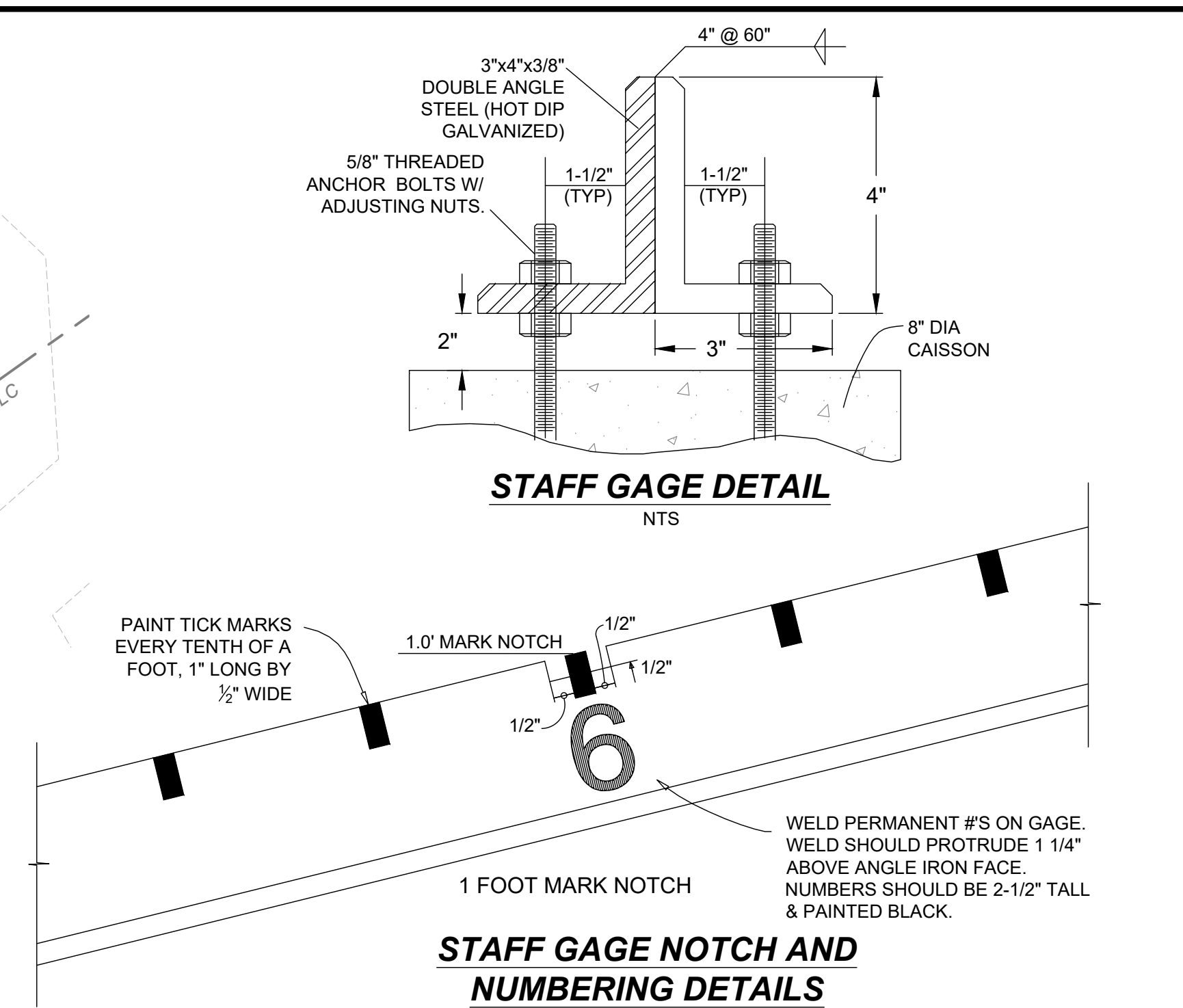
NOTE:

- CONTRACTOR CAN CONSTRUCT CREST WALL BY EXCAVATING TRENCH 12" WIDE, PLACING REBAR & CASTING CONCRETE NEAT AGAINST EARTH OR CAN CONSTRUCT WITH REINFORCED FOOTER.

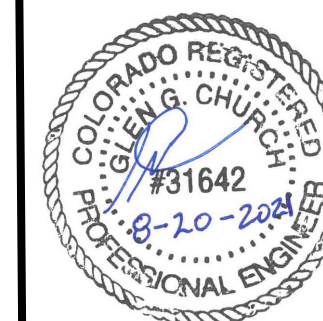


REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	90% SUBMITTAL	10-16-20	GGC
2	BID SET	11-19-20	GGC
3	FOR CONSTRUCTION SET	12-15-20	BAB
4	RFI #1	01-12-21	BAB
5	CCD-#002	02-19-21	BAB
6	CCD-#003	03-19-21	BAB
7	AS CONSTRUCTED	08/20/21	QJG

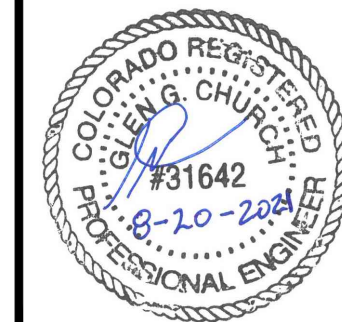
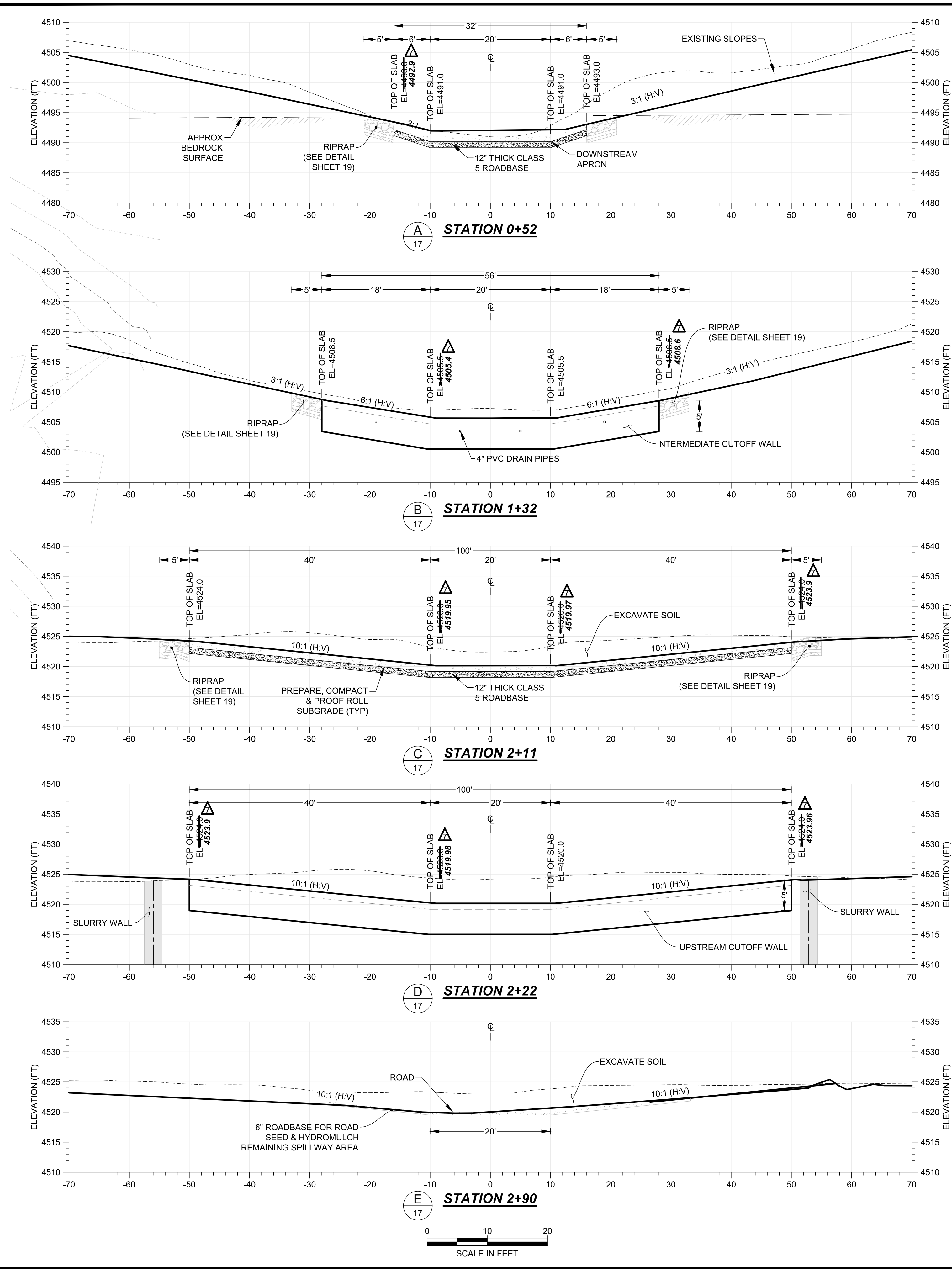
SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
Drop Structure Details			
DEERE & AULT		600 S. AIRPORT RD., BLDG. A, SUITE 205 LONGMONT, CO 80503 TEL 303.651.1468 FAX 303.651.1469	
DESIGNED BY: BB/QG	APPROVED BY: GGC	JOB NO.	SHEET:
DRAWN BY: ITR	DATE: AUG 2021	20C26014.00	15
CHECKED BY: GGC	SCALE: AS NOTED		



				SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
				Spillway Plan and Profile			
NO.	REVISIONS DESCRIPTION	DATE	BY	DEERE & AULT A SCHNABEL ENGINEERING COMPANY		600 S. AIRPORT RD., BLDG. A, SUITE 205 LONGMONT, CO 80503 TEL 303.651.1488 FAX 303.651.1469	
1	90% SUBMITTAL	10-16-20	GCC				
2	BID SET	11-19-20	GCC	DESIGNED BY: BB/QC APPROVED BY: GGC DRAWN BY: ITR DATE: AUG 2021 CHECKED BY: GGC SCALE: AS NOTED		JOB NO.	SHEET:
3	FOR CONSTRUCTION SET	12-15-20	BAB				
4	RFI #1	01-12-21	BAB	20C26014.00		17A	
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6	CCD-#003	03-19-21	BAB				
	AS CONSTRUCTED	08/20/21	OJG				

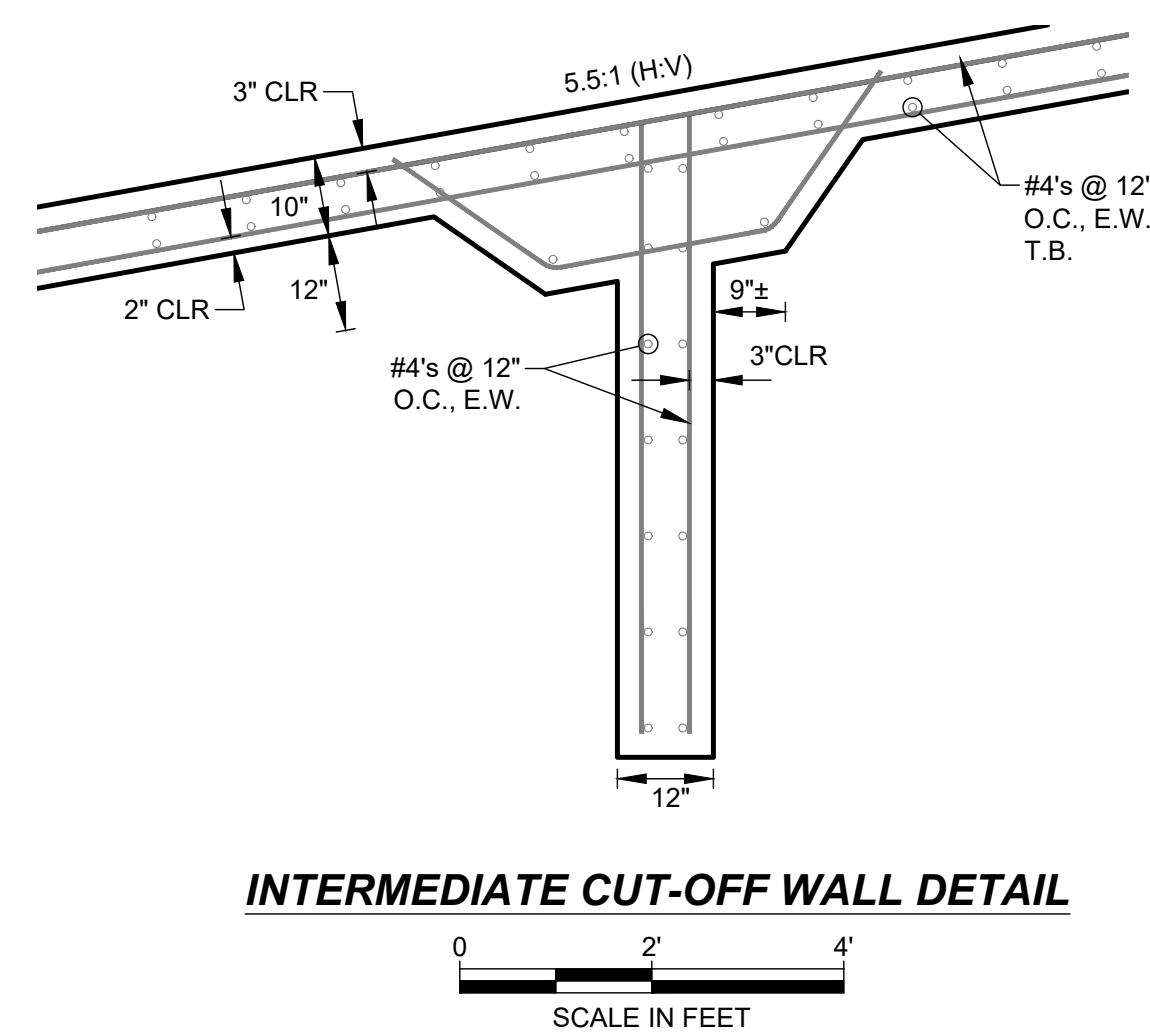
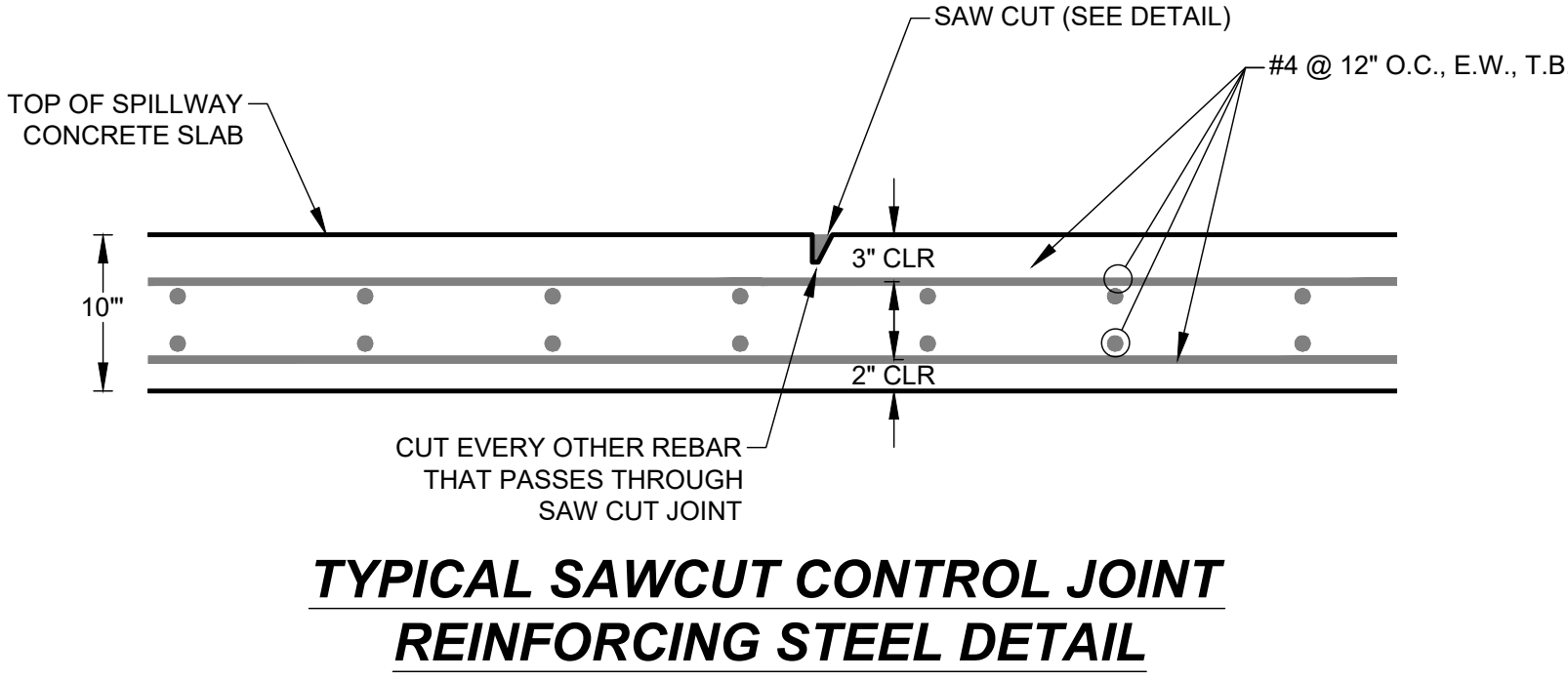
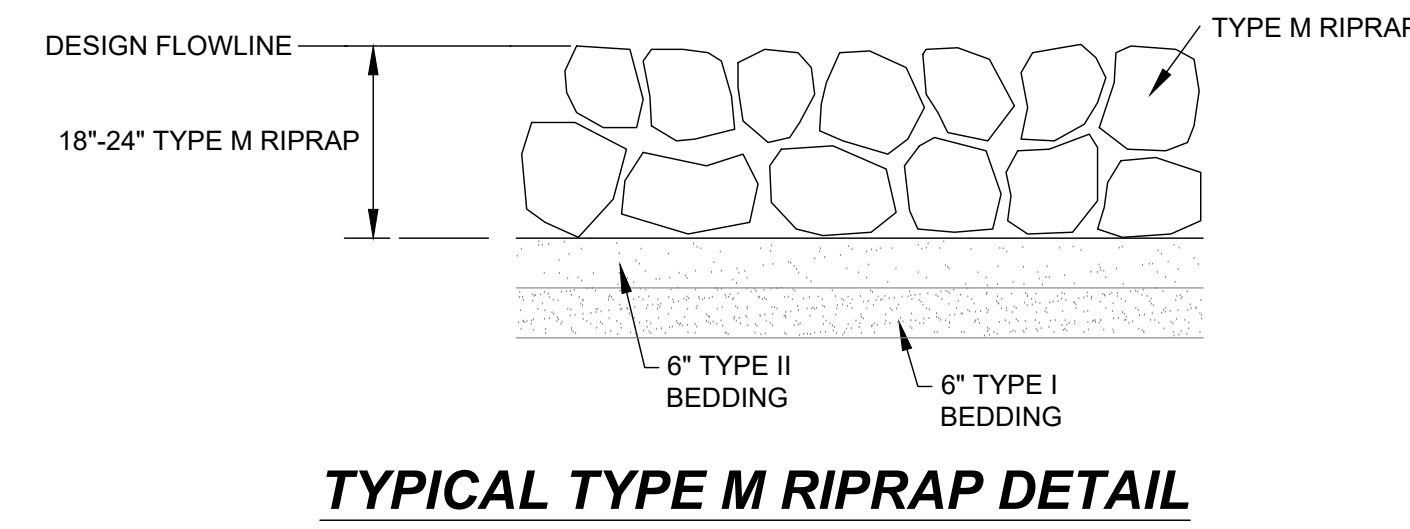
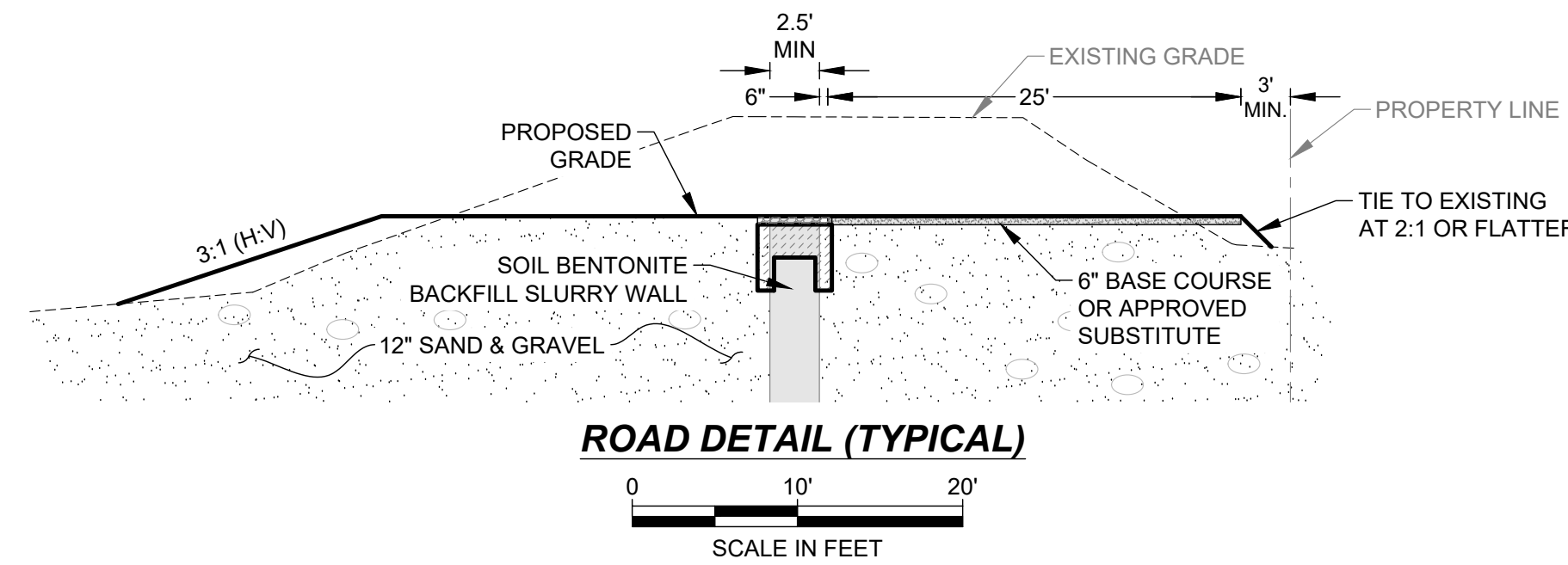
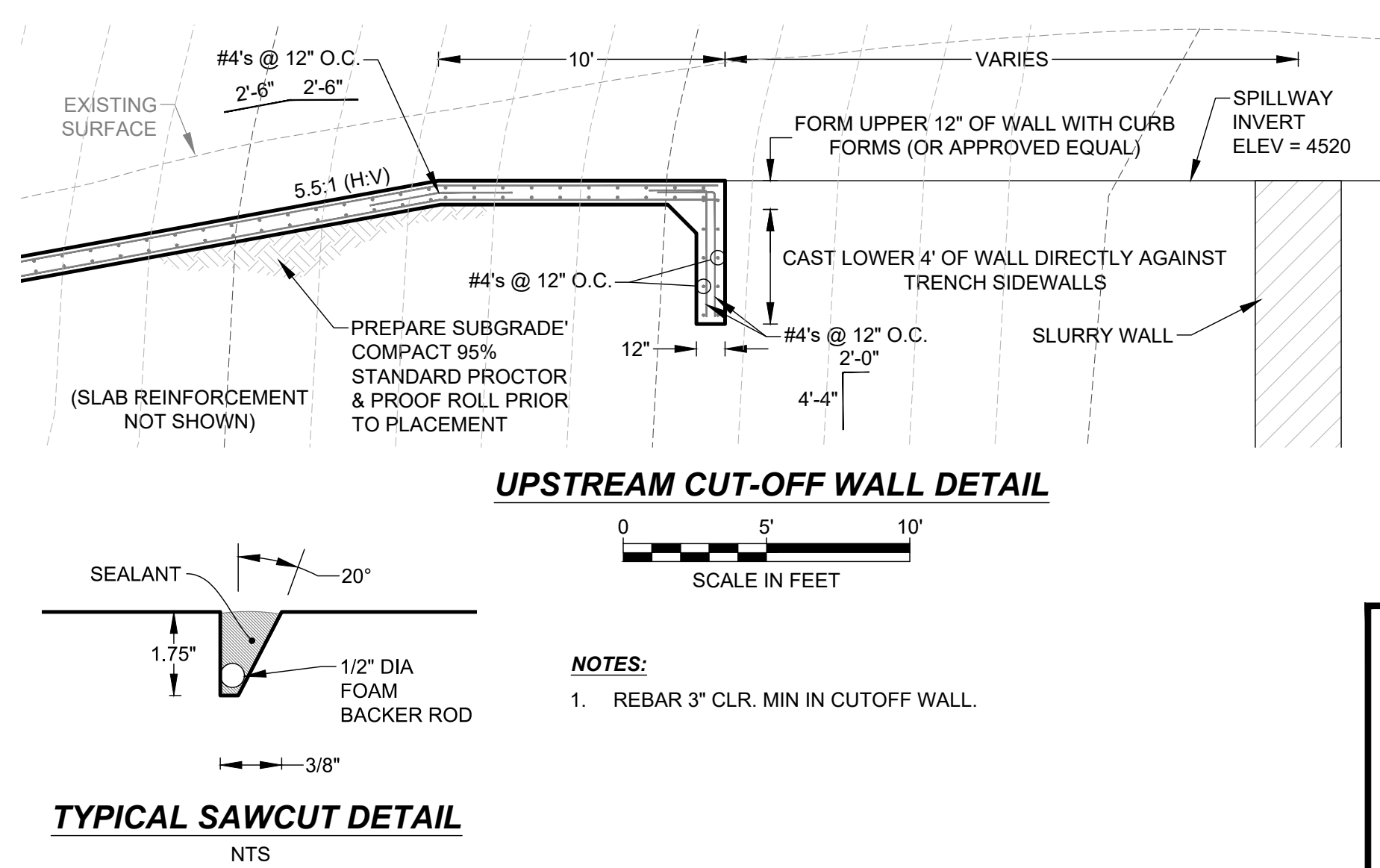
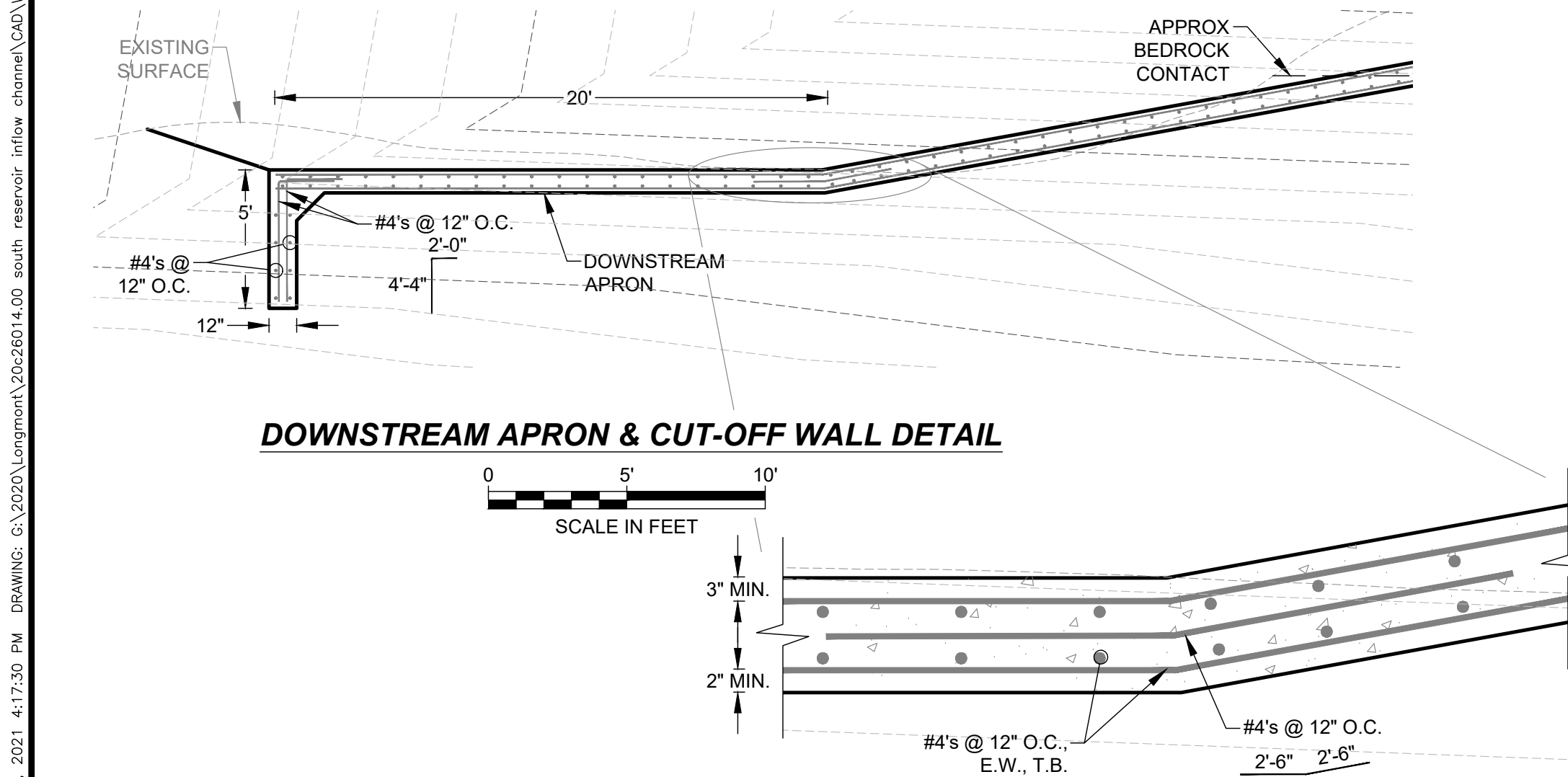
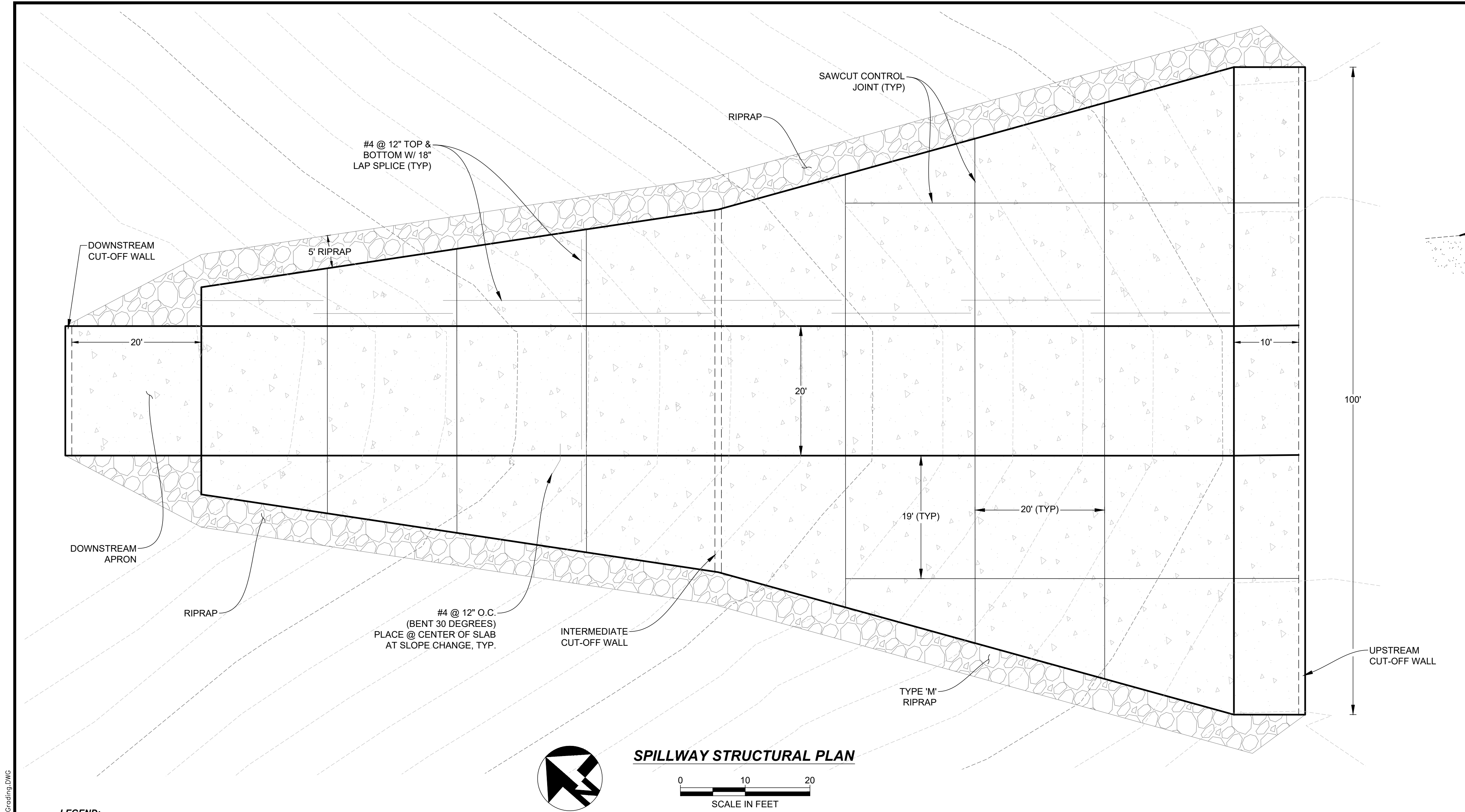


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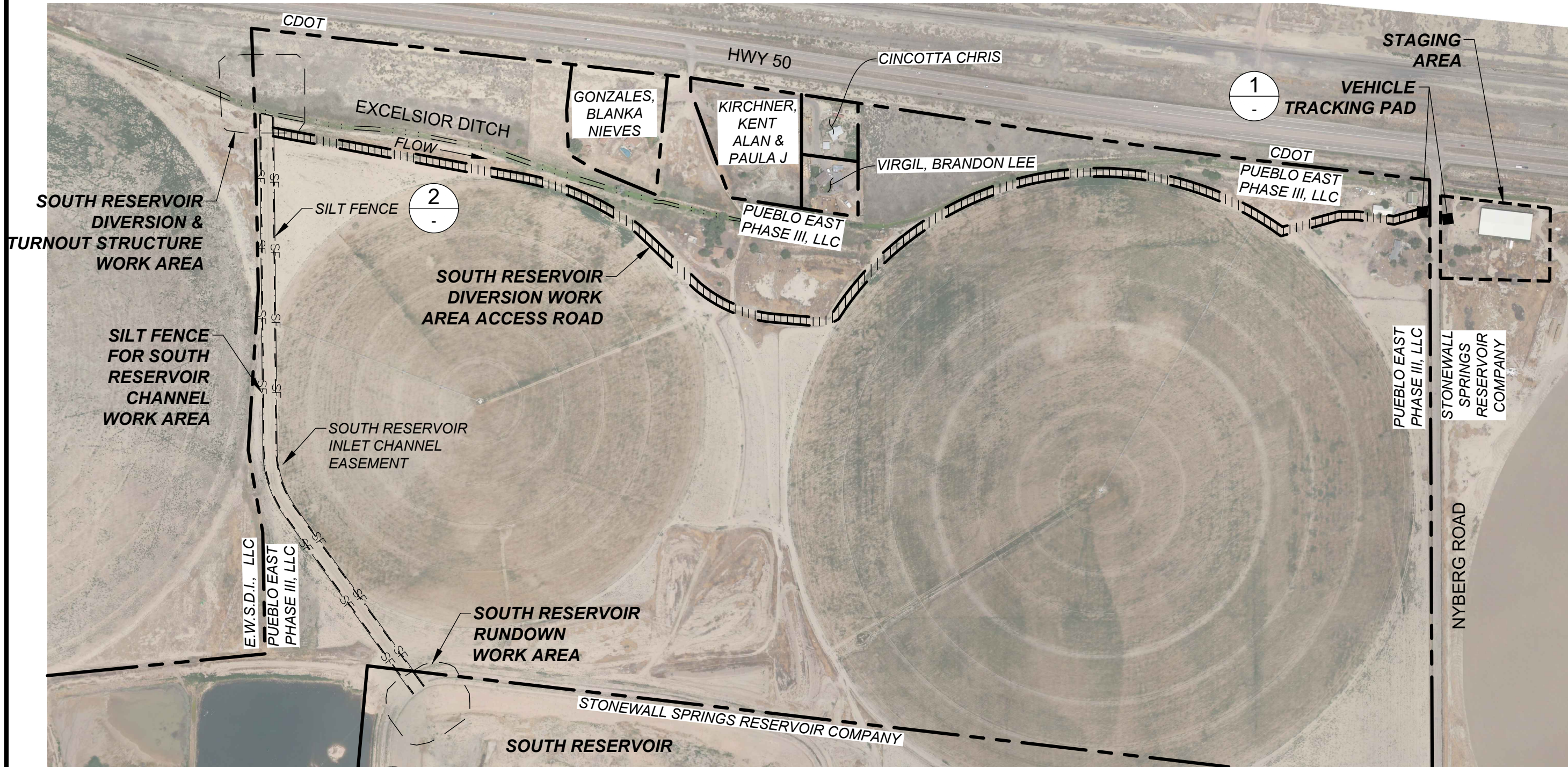
REVISIONS				SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
NO.	DESCRIPTION	DATE	BY	Spillway Cross Sections			
1	90% SUBMITTAL	10-16-20	GGC	DEERE & AULT A SCHWABER ENGINEERING COMPANY			
2	BID SET	11-19-20	GGC				
3	FOR CONSTRUCTION SET	12-15-20	BAB				
4	RFI #1	01-12-21	BAB	DESIGNED BY: SAR	APPROVED BY: GGC	JOB NO.	SHEET:
5	CCD-#002	02-19-21	BAB	DRAWN BY: ITR	DATE: AUG 2021	20C26014.00	18A
6	CCD-#003	03-19-21	BAB	CHECKED BY: GGC	SCALE: AS NOTED		
Δ	AS CONSTRUCTED	08/20/21	QJG				

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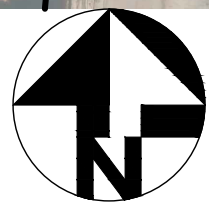
REVISIONS					SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
NO.	DESCRIPTION	DATE	BY		Spillway Structural Details			
1	90% SUBMITTAL	10-16-20	GGC		DEERE & AULT A SCHWABEL ENGINEERING COMPANY			
2	BID SET	11-19-20	GGC					
3	FOR CONSTRUCTION SET	12-15-20	BAB		DESIGNED BY:	APPROVED BY:	JOB NO.	SHEET:
4	RFI #1	01-12-21	BAB		GDG	GGC	20C26014.00	19A
5	CCD-#002	02-19-21	BAB		DRAWN BY:	DATE:		
6	CCD-#003	03-19-21	BAB		ITR	AUG 2021		
7	AS CONSTRUCTED	08/20/21	QJG		CHECKED BY:	SCALE:		
					GGC	AS NOTED		



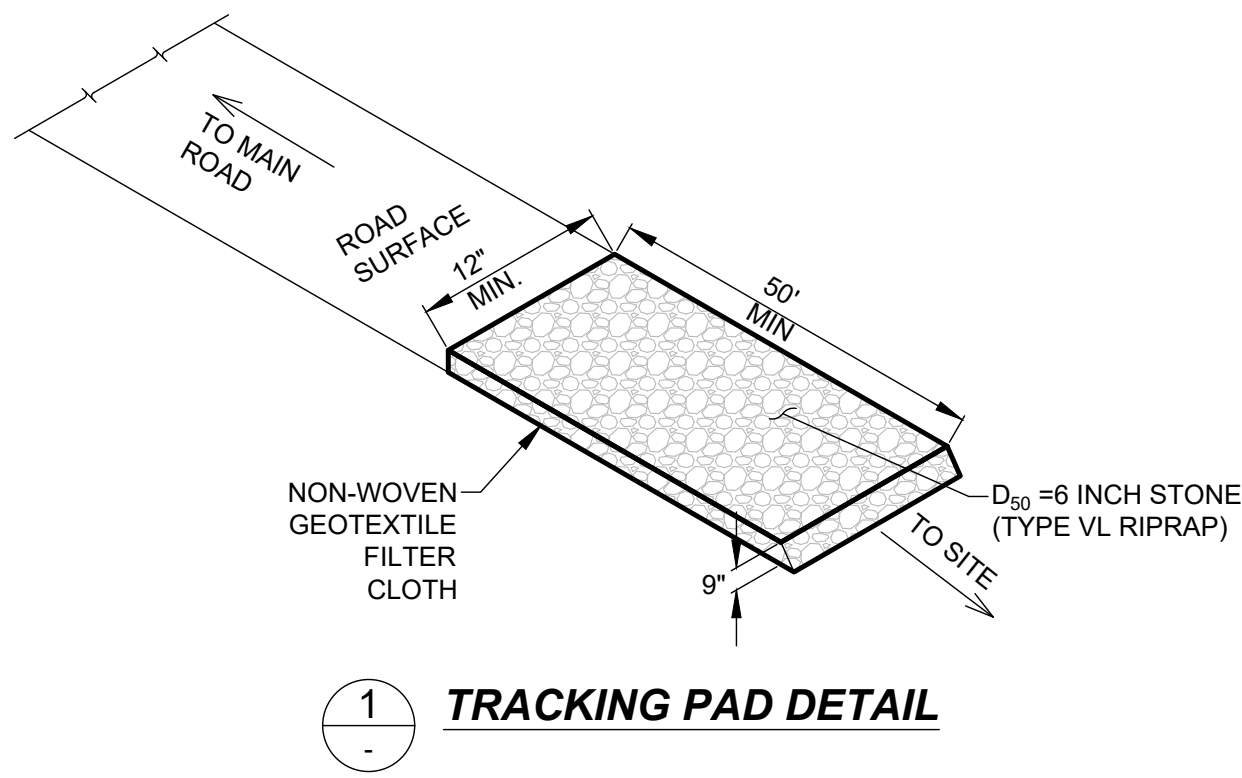


NOTE:

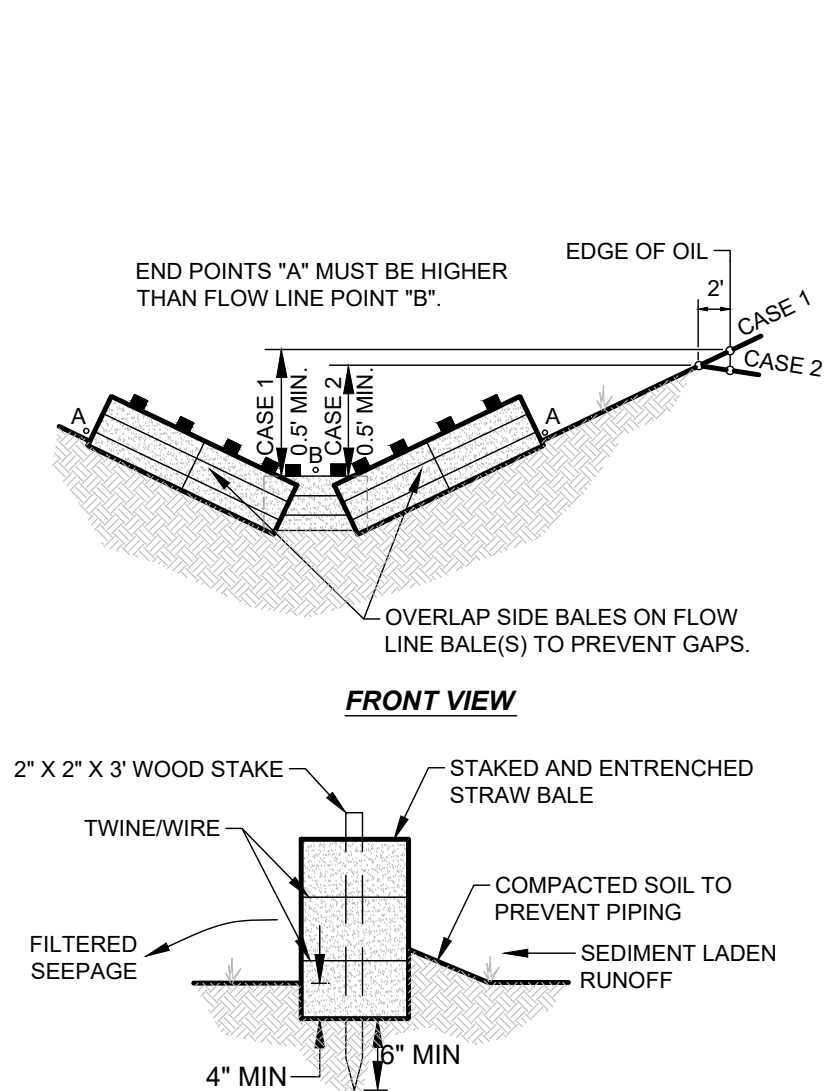
1. AERIAL IMAGE FROM COMPASS AIR PHOTO TAKEN ON 7-16-20.



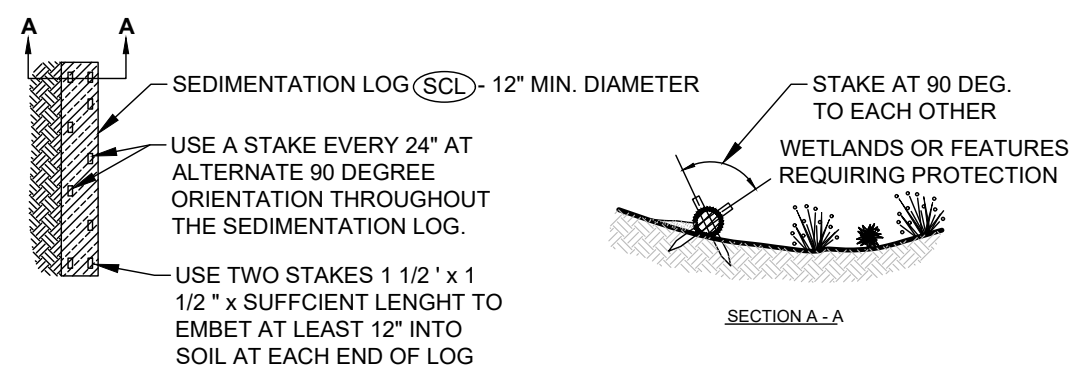
OVERVIEW MAP OF PROJECT ACCESS & STAGING AREA



TRACKING PAD DETAIL



DITCH EROSION BALE DETAIL



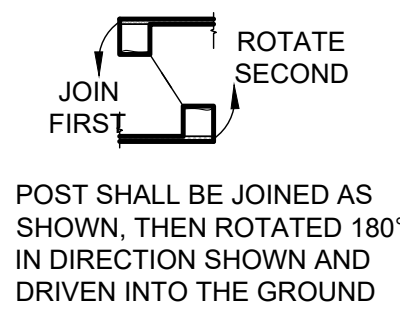
SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOG.
2. SEDIMENT CONTROL LOGS INDICATED ON THE PLAN SHALL BE INSTALLED PRIOR TO ANY LAND ACTIVITIES.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, OR COCONUT FIBER.
4. NOT FOR USE IN CONCENTRATED FLOW AREAS. SCL TO BE INSTALLED PER PLAN IN THE CANAL AND CREEK WHEN FLOW IS BEING DIVERTED OR PUMPED AROUND THE CONSTRUCTION LIMITS.
5. THE SEDIMENT CONTROL LOG SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 2".

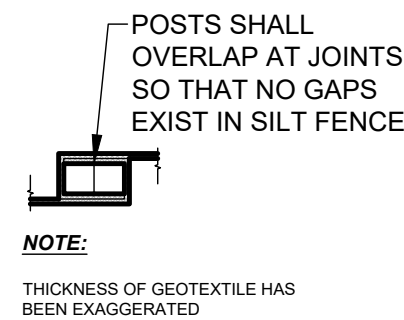
SEDIMENT CONTROL LOG MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL INSPECT SEDIMENT CONTROL LOGS DAILY, DURING AFTER ANY STORM EVENT AND AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOGS SHALL BE REMOVED WHEN THE UPSTREAM 1/2 SEDIMENT DEPTH IS WITHIN THE HEIGHT OF THE CREST OF LOG
3. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE COVERED WITH TOP SOIL, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY OF LONGMONT.

SEDIMENT CONTROL LOG DETAIL



POST SHALL BE JOINED AS SHOWN, THEN ROTATED 180° IN DIRECTION SHOWN AND DRIVEN INTO THE GROUND

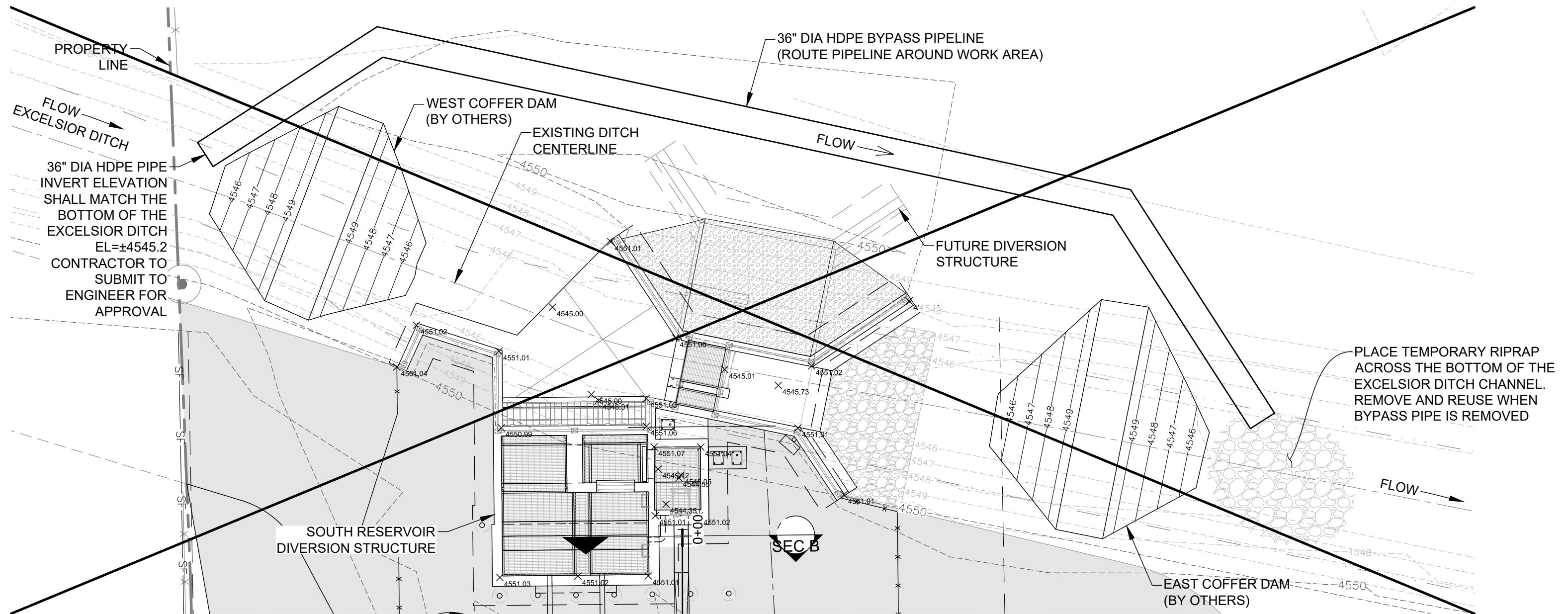


NOTE: THICKNESS OF GEOTEXTILE HAS BEEN EXAGGERATED

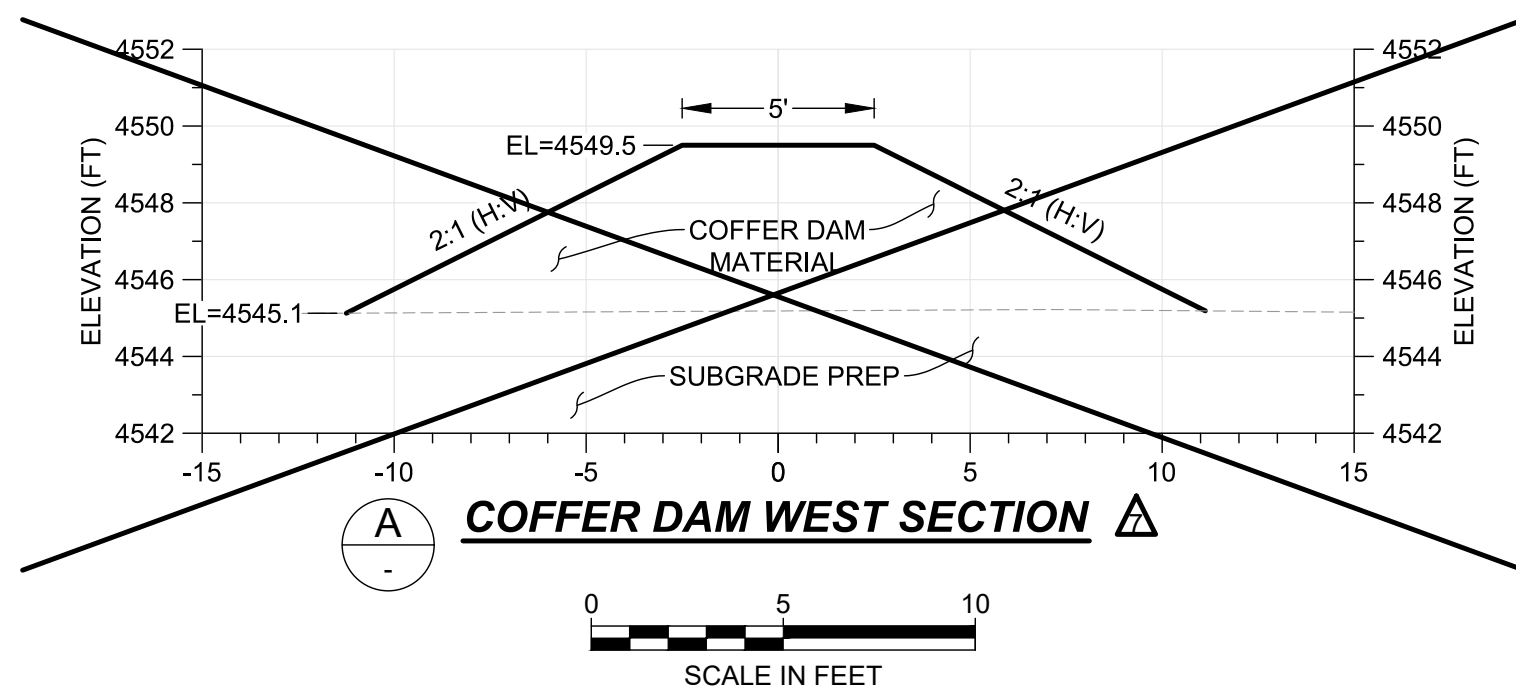
NOTE:

1. SILT FENCE INDICATED ON PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
2. THE CONTRACTOR SHALL INSPECT SILT FENCE DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
3. SEDIMENT ACCUMULATED UPSTREAM OF SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT REACHES A DEPTH OF 6-INCHES.
4. SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE OWNERS REPRESENTATIVE. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL. IT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE OWNERS REPRESENTATIVE.
5. SILT FENCE TO BE PROVIDED AROUND ALL DISTURBED AREAS. AREA DISTURBED BY THE CONTRACTOR IS TO BE MINIMIZED DURING CONSTRUCTION. RETURN DISTURBED AREAS TO EXISTING CONDITIONS WHEN WORK IS COMPLETED. THE EROSION CONTROL PLAN IS THE RESPONSIBILITY OF THE CONTRACTOR. SILT FENCE AND SEDIMENT CONTROL LOGS SHOWN ON THE PLANS ARE A MINIMUM THAT WILL BE REQUIRED.
6. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS INCLUDING BUT NOT LIMITED TO DEWATERING & CITY OF GOLDEN PERMITS AS APPLICABLE.

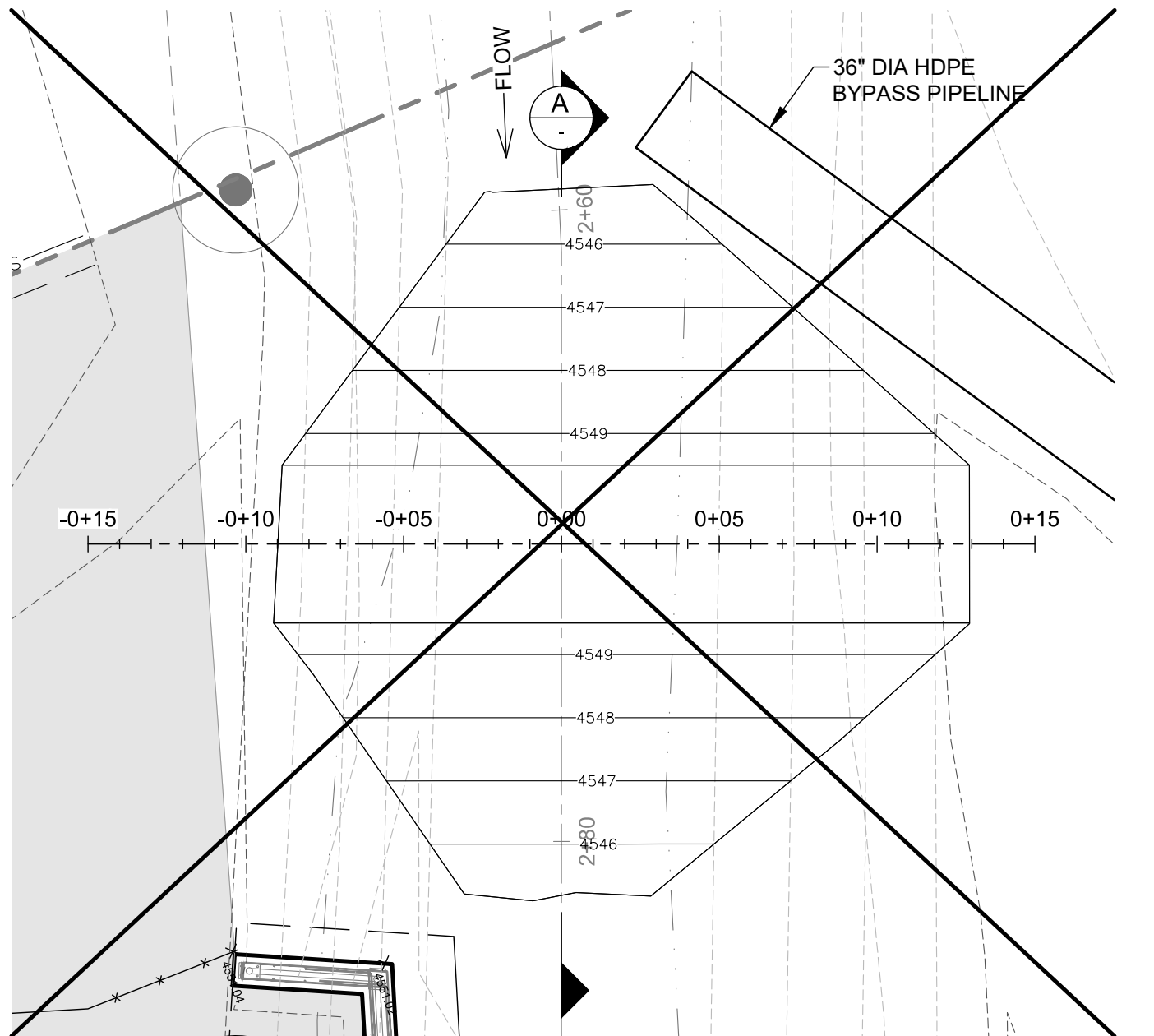
TYPICAL SILT FENCE



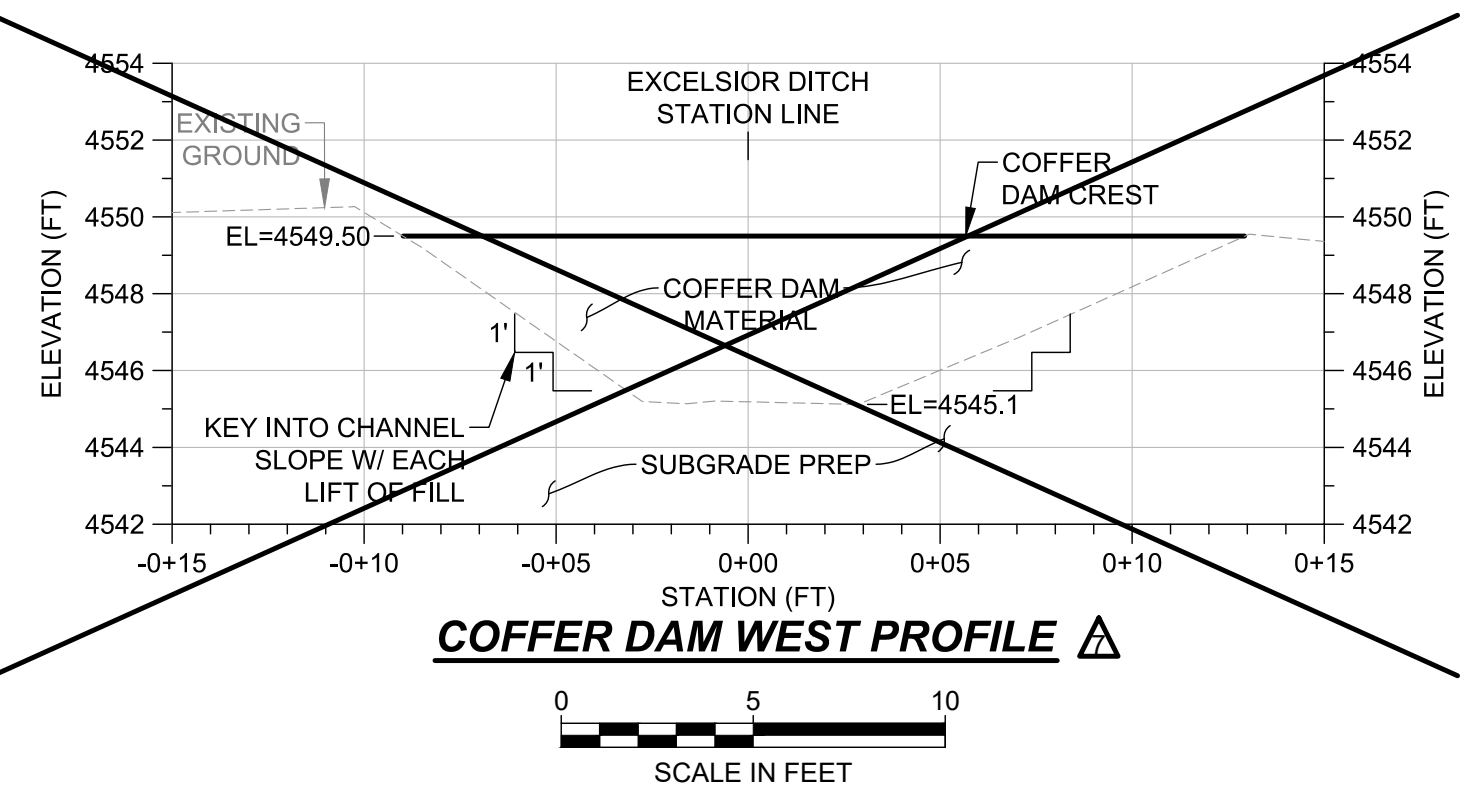
COFFER DAMS AND BYPASS PIPELINE PLAN



COFFER DAM WEST SECTION



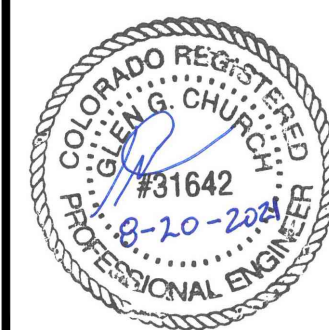
COFFER DAM WEST PLAN



COFFER DAM WEST PROFILE

NOTE:

EXCELSIOR DITCH WAS DRY DURING THE CONSTRUCTION OF TURNOUT STRUCTURE. THE CONSTRUCTION OF COFFER DAM AND BYPASS PIPELINE WAS NOT NEEDED.



REVISIONS				SOUTH RESERVOIR DIVERSION, INLET CHANNEL AND SPILLWAY			
NO.	DESCRIPTION	DATE	BY	Erosion and Sediment Control Details			
1	90% SUBMITTAL	10-16-20	GCG	DEERE & AULT			
2	BID SET	11-19-20	GCG				
3	FOR CONSTRUCTION SET	12-15-20	BAB	A SCHWABER ENGINEERING COMPANY			
4	RFI #1	01-12-21	BAB	DESIGNED BY: BB/QG	APPROVED BY: GCG	JOB NO.	SHEET:
5	CCD-#002	02-19-21	BAB	DRAWN BY: ITR	DATE: AUG 2021	20C26014.00	20
6	CCD-#003	03-19-21	BAB	CHECKED BY: GCG	SCALE: AS NOTED		
7	AS CONSTRUCTED	08/20/21	QJG				