

Gagnon - DNR, Nikie <nikie.gagnon@state.co.us>

# Re: M2020007 Ragsdale Reservoirs Acreage Release AR1 Inspection Report

1 message

**Gagnon - DNR, Nikie** <nikie.gagnon@state.co.us> To: Lynn Mayer Shults <lmshults@lgeverist.com> Tue, Jul 30, 2024 at 4:33 PM

Hi Lynn.

To follow-up on our conversation earlier today, please see the revised inspection report for the Ragsdale Reservoirs site. In the report, I clarified that LGE will need to submit an Amendment Application to add the underdrain to the mining and reclamation plans and extend the permit boundary to South Platte River where the drain discharges. Unfortunately, we cannot approve a permit boundary change through a technical revision.

Also, since you mentioned it, I changed the wording from groundwater drain to underdrain throughout the report to be consistent with the plans/schematics you sent in.

I apologize that I didn't catch the error regarding submitting a technical revision vs an amendment before I sent the original report to you yesterday.

Please reach out to me if you have any questions. The possible violation letter will be sent certified mail. I will send you an email copy when it goes out.

Kind regards,

Nikie Gagnon

On Mon, Jul 29, 2024 at 3:54 PM Gagnon - DNR, Nikie <<u>nikie.gagnon@state.co.us</u>> wrote: | Hi Lynn.

Attached is the inspection report for the Ragsdale Reservoir 1.95 acre release (AR1). The approval for the release will be sent under separate cover.

As we discussed on the phone last week, there are two issues cited in the report. One is a possible violation for impacting land outside the permit area. The other is a problem cited for the location of the western permit boundary. I will send a separate Reason to Belive a Violation Exists letter out later this week.

I'm happy to discuss the next steps once you've had a chance to go over the report and the violation letter.

Kind regards,

Nikie Gagnon Environmental Protection Specialist



COLORADO Division of Reclamation, Mining and Safety Department of Natural Resources

Cell: 720.527.1640 Physical: 1313 Sherman Street, Room 215, Denver, CO 80203 Address for FedEx, UPS, or hand delivery: DRMS Room 215, 1001 E 62nd Ave, Denver, CO 80216 nikie.gagnon@state.co.us | https://www.drms.colorado.gov

INSP-REPORT\_M2020007\_Ragsdale Reservoirs\_AR1\_Revised 20240730.pdf



# MINERALS PROGRAM INSPECTION REPORT PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME:	MINE/PROSPECTING ID#:	MINERAL:	COUNTY:
Ragsdale Reservoirs	M-2020-007	Gravel, sand and	Weld
		borrow material	
INSPECTION TYPE:	WEATHER: Clear	INSP. DATE:	INSP. TIME:
Surety Release Inspection		July 16, 2024	10:00
OPERATOR:	<b>OPERATOR REPRESENTATIVE:</b>	TYPE OF OPERAT	FION:
L. G. Everist, Incorporated	Lynn Mayer Schults	112c - Construction	Regular Operation

<b>REASON FOR INSPECTION:</b>		<b>BOND CALCULATION TYPE:</b>	BOND AMOUNT:
Surety Release Requested AR1		None	\$3,535,000.00
DATE OF COMPLAINT:		POST INSP. CONTACTS:	JOINT INSP. AGENCY:
NA		None	None
INSPECTOR(S):	INSPE	CTOR'S SIGNATURE:	SIGNATURE DATE:
Nikie Gagnon			July 30, 2024
	1	Kie Gagnon	
	Cy y	nu Sagnon	

### The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

### **INSPECTION TOPIC:** Off-site Damage

**POSSIBLE VIOLATION:** Possible Violation: The Division observed an underdrain that runs between the Phase 1 and Phase 2 mining areas. The drain was installed to move groundwater from the east around the slurry walled reservoirs and extends beyond the western permit boundary where it discharges to the South Platte River. Land was affected outside of the approved permit boundary for the installation of the drain. This is a possible violation at this time pursuant to C.R.S. 34-32.5-116(4)(i) for failure to protect areas outside of the affected land from slides or damages occurring during the mining operation.

**CORRECTIVE ACTIONS:** This possible violation will require a hearing before the Mined Land Reclamation Board. The schedule and other details for the MLRB hearing will be provided under a separate document to be sent via certified mail to the operator.

### **INSPECTION TOPIC:** Boundary Markers

**PROBLEM**: The affected area boundary markers on the western side of the permit boundary are not consistent with the approved application, which states, "the western permit boundary is 100 feet east and parallel to the east toe of a historic levee/berm that was built by the landowner along the South Platte River." Per the requirements of 3.1.12 (2), the boundaries of the affected area will be marked by monuments or other markers that are clearly visible and adequate to delineate such boundaries.

**CORRECTIVE ACTIONS:** The operator shall survey and install boundary markers along the western side of the permit area, 100 feet east and parallel to the toe of the historic levee/berm. The boundaries of the affected area must be marked by monuments or other markers that are clearly visible and adequate to delineate such boundaries. The operator shall demonstrate compliance by submitting photographic evidence of the installation of the markers in place, along with point location data, to the Division by the corrective action date. **CORRECTIVE ACTION DUE DATE:** 8/28/24

### **OBSERVATIONS**

This inspection was completed as part of a partial acreage release request, submitted in accordance with Rule 4.17, received by the Division on June 10, 2024. Nikie Gagnon, with the Division of Reclamation, Mining and Safety (Division/DRMS), conducted the inspection. Lynn Mayer Shults, representing L.G. Everist (LGE/Operator), accompanied the Division.

The Ragsdale Reservoirs site is located 3.5 miles northwest of Ft. Lupton in Weld County along State Highway 85. The mine is a 112c construction operation permitted to affect 643.30 acres. The permit area is split into two areas separated by State Highway 85 and the Union Pacific Railroad which runs north to south. The west area contains Mining Phases 1, 2 and 3. Slurry walls have been installed around the Phase 1 and 2 mining areas. Phase 1 is currently being mined and the operator has started clearing overburden in preparation for mining in Phase 2. A processing plant is constructed in the Phase 3 area. The Division observed trucks entering and leaving the site. Stockpiles of material are stored near the entrance to the site in the Phase 3 area. The east side of the permit area, which is currently undisturbed, contains Phases 4, 5, and 6. The approved post mining land use is developed water resources with upland areas around the reservoirs reclaimed as cropland.

### Acreage Release AR1 Area:

The 1.95 acre proposed acreage release area is in the southwestern tip of the Ragsdale permit area, in the southeast corner of the Phase 1 mining area adjacent to the Evans #2/Platte Valley Canal. The parcel is owned by the Platte Valley Irrigation Company. This portion of the permit area was not included in the Weld County Use by Special Review (USR) permit. The Operator proposes to release this undisturbed segment from the DRMS permit to align with the County USR permitted area. During this inspection, the Division observed the proposed release area has not been disturbed by the mining operation. Therefore, no reclamation of this parcel is required for a release.

Release notifications were mailed by the Division on June 12, 2024, and to date no objections to the acreage reduction have been received. Based on observations made during this inspection, the request for an acreage release of 1.95 acres will be approved. Notice of the Division's decision regarding the release request will be sent under a separate cover letter.

### General Compliance with Mine Plan

The Division observed the Phase 1 and Phase 2 mining areas on the west side of the permit area. Mining is nearing completion in Phase 1 and LGE has started on reclamation of the slopes around the reservoir. During this inspection, the Division observed mining equipment operating in the bottom of the reservoir. A slurry wall is installed around the perimeter and LGE is conducting leak testing to certify the liner. The side slopes of the reservoir are graded to 3H:1V slope and topsoiled in preparation for seeding. Approved concrete rip rap, approximately 12-24" in size, mixed with finer material, was observed placed along the western side slopes of the reservoir. Per the approved reclamation plan, a section of the rip rap on the south end of the reservoir was covered with topsoil. The Operator discussed removing this requirement to topsoil the concrete rip rap from the reclamation plan. The Operator should submit a Technical Revision to propose a new reclamation plan for the western slopes of the Phase 1 reservoir, or include this proposed change in a future permit amendment. During the inspection, the Operator informed the Division of plans to submit an Amendment Application to the Division for a future conveyor belt running from the Phase 3/Plant Site on the west side of the permit area to the east side of Highway 285.

The Division viewed the slurry wall recently installed around the perimeter of the Phase 2 area. Additionally, the Operator pointed out that the oil and gas wells depicted on the mining and reclamation maps in the Phase 1 and Phase 2 areas have been removed, along with the associated gas lines. The Operator should depict this change on the mining and reclamation maps in the next permit revision.

### <u>Hydrology</u>

During this inspection, representatives of LGE showed the Division an underdrain that runs between the Phase 1 and Phase 2 mining areas. The drain was recently installed to move groundwater from the east around the slurry walled reservoirs to the South Platte River. Ms. Shults informed the Division that they installed the permanent underdrain for the landowner, Cannon Land Company. Following the inspection, the Division reviewed the permit file and approved mining and reclamation plan maps and determined the underdrain was not included in the original plans for the site. In response to an email request from the Division, LGE provided the schematics and plans for of the installed underdrain.

Additionally, the Division observed the underdrain outlet in the South Platte River, which flows parallel to the western permit boundary. According to the description in the 2020 application, the western permit boundary is 100 feet east and parallel to the east toe of a historic levee/berm that was built by the landowner along the South Platte River. Based on this description and observations in the field, the Division determined the underdrain extends 400-feet beyond the western permit boundary to the South Platte River. The Division observed a 20-foot-wide x 400-foot-long disturbance patch between the western permit boundary and the discharge point. Concrete was placed at the culvert outlet to prevent erosion around the drain. Therefore, this section of the underdrain is outside the permitted area. Based on the observations during this inspection, approximately 8000 ft<sup>2</sup> (0.18 acre) was affected outside of the approved permit boundary for the installation of the underdrain. Pursuant to C.R.S. 34-32.5-116(4)(i) this is a possible violation for failure to protect areas outside of the affected land from slides or damages occurring during the mining. As cited above, this Possible Violation will require a hearing before the Mined Land Reclamation Board. The schedule and other details for the MLRB hearing will be provided under a separate document to be sent via certified mail to the operator.

Based on the observations during this inspection and the schematics and plans provided, LGE will need to submit an Amendment Application and obtain approval for the underdrain and extend the permit boundary to encompass the area affected by the installation and operation of the drain.

### **Boundary Markers**

Based on the description in the 2020 application, the western permit boundary is 100 feet east and parallel to the east toe of a historic levee/berm that was built by the landowner along the South Platte River. During this inspection, the Division observed a barbed wire fence on top of the historic levee/berm. The operator stated the fence is the western permit boundary marker, which is inconsistent with the description in the application. **Problem 1 cited above states that LGE shall survey the western permit boundary and ensure it is marked as described in the approved application. The operator shall demonstrate compliance by submitting photographic evidence of the installation of the markers in place along point location data by the corrective action date. Additionally, when the operator submits the next revision or amendment, the mining and reclamation maps should be updated to clearly show a 100' buffer between the toe of the historic levee and the permit boundary.** 

This concludes the Division's report. A subset of the photographs taken during inspection are attached. Any questions or comments regarding this inspection report should be forwarded to Nikie Gagnon at the Colorado Division of Reclamation, Mining and Safety at 720-527-1640, or email at nikie.gagnon@state.co.us.

### PERMIT #: M-2020-007 INSPECTOR'S INITIALS: NCG INSPECTION DATE: July 16, 2024

# **PHOTOGRAPHS**



Photo 1: Looking south across the proposed 1.95-acre release area. New boundary marker in the foreground (red arrow).



Photo 2: Looking north across the proposed 1.95-acre release area.

### PERMIT #: M-2020-007 INSPECTOR'S INITIALS: NCG INSPECTION DATE: July 16, 2024



Image 1: Google imagery showing the Phase 1 mining area. Release area shown in red. Image dated 9/04/2023.



Photo 3: Looking north from the southern end of the Phase 1 mining area. Metal posts with white tops mark the installed slurry wall around the reservoir.



Photo 4: Looking north at mining operations in the Phase 1 area. Reservoir slopes have been graded to 3H:1V and topsoil has been placed on top.



Photo 5: Looking south from the north end of the Phase 1 mining area. Slopes are 3H:1V and concrete rip rap is placed along the western side.

### PERMIT #: M-2020-007 INSPECTOR'S INITIALS: NCG INSPECTION DATE: July 16, 2024



Photo 6: Looking at the underdrain marker and manhole/cleanout near the western boundary, between the Phase 1 and Phase 2 areas.



Photo 7: Looking west from the boundary fence on top of the levee that runs along the western side of the permit area. The newly installed underdrain runs beneath this area.



Photo 8: Looking west towards the South Platte River at the area of disturbance outside the permit boundary. The underdrain is installed beneath the ground here.



Photo 9: Looking at the discharge location for the underdrain in the South Platte River.

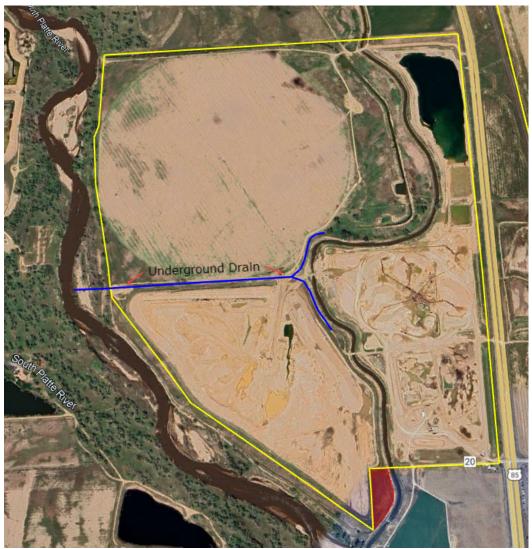


Image 2: Google Imagery showing the approximate permit boundary on the west side of the permit area and the location of the installed underdrain (blue line) between the Phase 1 and Phase 2 mining areas. Image dated 9/4/2023.



Photo 10: Looking west at the recently installed slurry wall that runs along the northern border of the Phase 2 area.

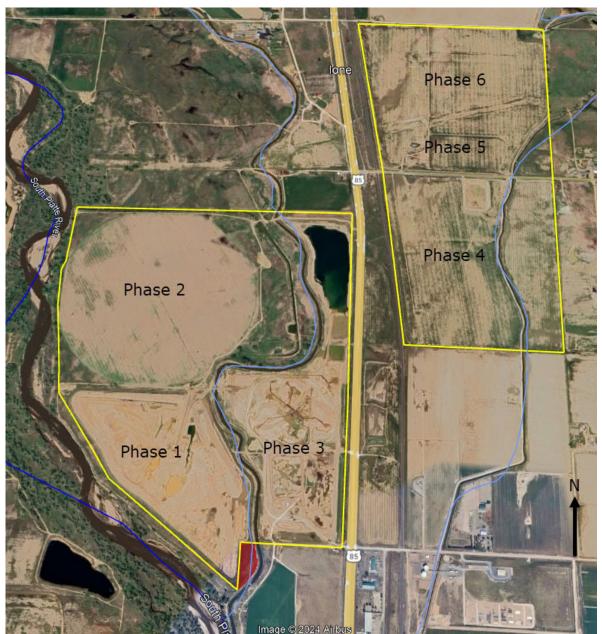


Image 3: Google Imagery depicting permitted area and mining phases. Image dated 9/4/2023.

### **GENERAL INSPECTION TOPICS**

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

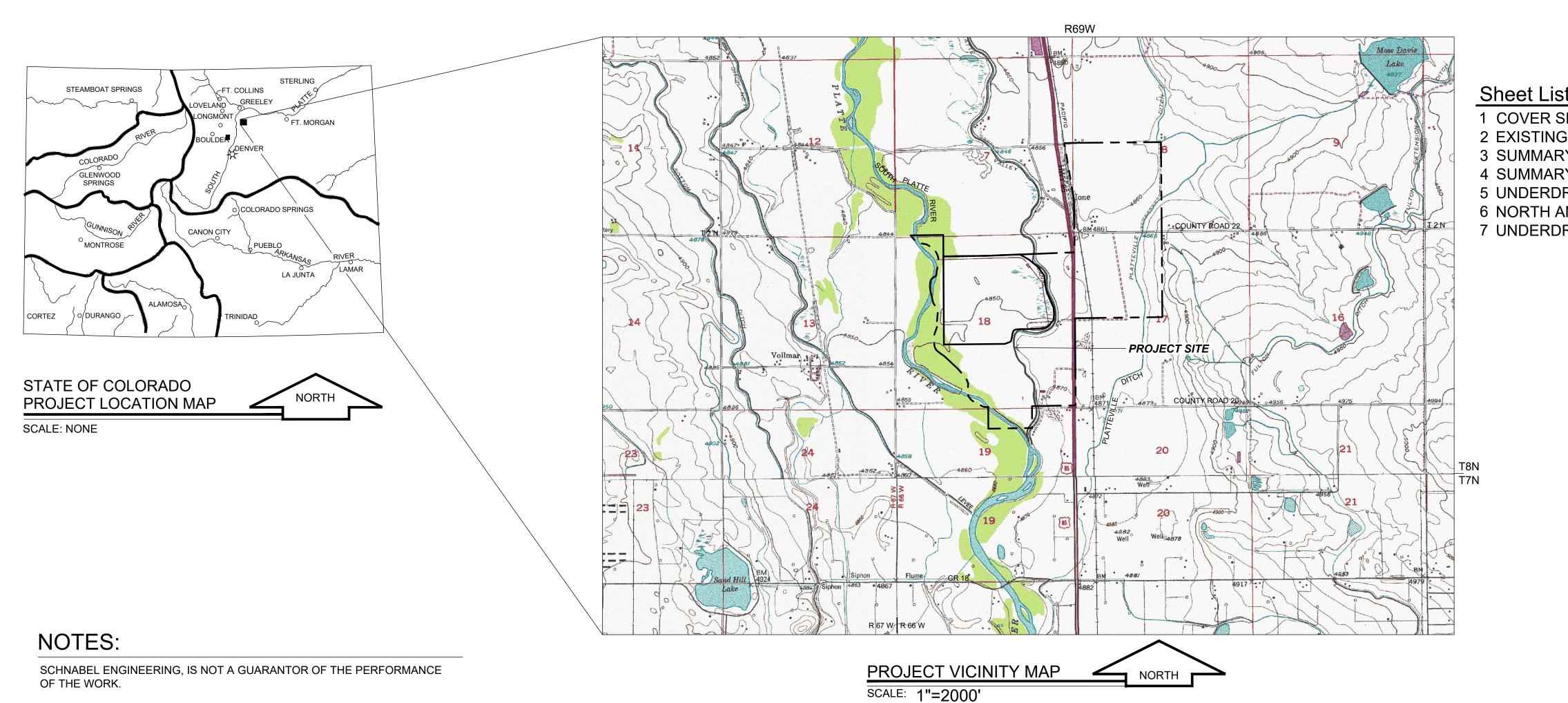
(AR) RECORDS <u>Y</u>	(FN) FINANCIAL WARRANTY <u>N</u>	(RD) ROADS <u>N</u>
(HB) HYDROLOGIC BALANCE <u>Y</u>	(BG) BACKFILL & GRADING <u>Y</u>	(EX) EXPLOSIVES <u>N</u>
(PW) PROCESSING WASTE/TAILING <u>N</u>	(SF) PROCESSING FACILITIES <u>N</u>	(TS) TOPSOIL <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE <u>N</u>	(RV) REVEGETATION <u>N</u>
(SM) SIGNS AND MARKERS <u>PV</u>	(SP) STORM WATER MGT PLAN <u>N</u>	(RS) RECL PLAN/COMP <u>N</u>
(ES) OVERBURDEN/DEV. WASTE <u>N</u>	(SC) EROSION/SEDIMENTATION <u>N</u>	(ST) STIPULATIONS <u>N</u>
(AT) ACID OR TOXIC MATERIALS <u>N</u>	(OD) OFF-SITE DAMAGE <u>PV</u>	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

Inspection Contact Address Lynn Mayer Schults L. G. Everist, Incorporated 7321 E 88th Ave Henderson, CO 80640

Enclosure: Schematics and plans for the underground drain provided by LGE on 7/18/2024.

CC: Jared Ebert, Senior EPS, DRMS



SCHNABEL ENGINEERING, IS NOT RESPONSIBLE FOR SAFETY, IN, ON, OR ABOUT THE PROJECT SITE, NOR FOR COMPLIANCE BY THE APPROPRIATE PARTY WITH ANY REGULATIONS RELATED THERETO.

SCHNABEL ENGINEERING, 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.

# CONSTRUCTION PLANS FOR **RAGSDALE UNDERDRAIN**

WELD COUNTY, COLORADO

# PREPARED FOR: L.G. EVERIST, INC. 7321 EAST 88TH AVE, SUITE 200

HENDERSON, COLORADO 80640



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

SCHNABEL ENGINEERING, 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.

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	FOR CONSTRUCTION	DESCRIPTION
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		NG A, SUITE 205 80503 -651-1469
	Schna	600 SOUTH AIRPORT ROAD, BUILDING A, SUITE 205 LONGMONT, COLORADO 80503 Phone: 303-651-1468 / Fax: 303-651-1469 Schnabel-eng.com
	RAGSDALE UNDERDRAIN	COVER SHEET
	DATE: FI	20C26026.03 EBRUARY 2023 SHEET OF 7



	CONTROL	POINT TAB	LE
ORTHING	EASTING	ELEVATION	DESCRIPTION
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293462.06	3189802.79	4853.36	CP CORN
291668.58	3193508.91	4873.42	CP CR 20
295968.61	3189659.77	4850.58	CP RIVER
296920.56	3193748.62	4863.32	BM NGS W 260
291962.21	3190872.30	4860.73	CP BANK
290951.21	3192217.14	4864.39	CP POLE
290300.29	3193531.65	4872.50	CP HAY
289646.37	3193683.79	4873.52	CP YARD
291000.45	3193671.89	4874.41	CP AUTO
292335.11	3193662.54	4871.84	CP WHEAT
293596.61	3193672.84	4865.16	CP PIT

<u>x</u>	CONTROL POINT
)	WELL
B-1,CI, R2-1	TEST HOLES
SD-CP-01	TEST HOLE (BY OTHERS)
TP-2,R2-TP-2	TEST PIT
	PROPERTY LINE
50	EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	EXISTING EASEMENT
XX	EXISTING FENCE
W	EXISTING WATERLINE
G	EXISTING GASLINE
	BEDROCK CONTOURS

1. THE LAND SURVEY PLAT WAS PERFORMED BY AKLAM, INC., BETWEEN NOVEMBER 19, 2018 AND JANUARY 11, 2019. AERIAL IMAGERY CAPTURE WAS PERFORMED IN CONJUNCTION WITH THIS SURVEY AND COMPLETED NOVEMBER 28, 2018.

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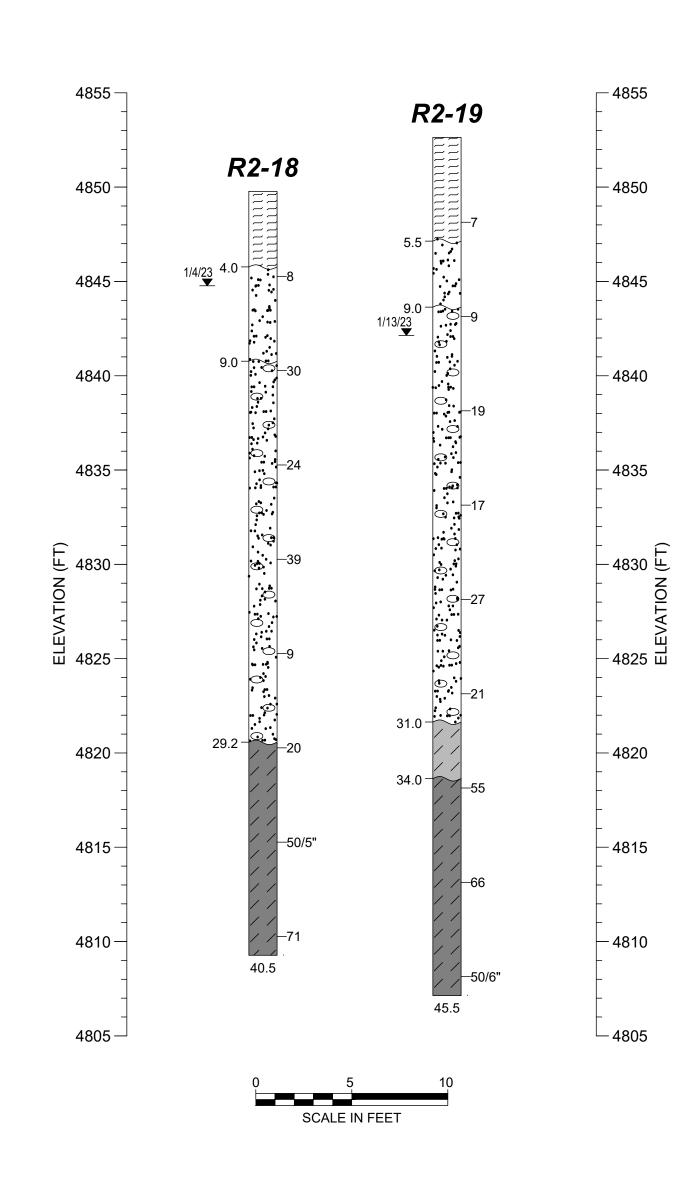
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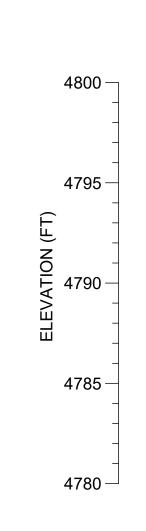
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4. ADDITIONAL TEST PITS, BORINGS, OIL & GAS SURFACE FEATURES SURVEYED BY L.G. EVERIST.

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DESIGNED BY: SAR	NS		STATE PRO
		600 SOUTH AIRPORT ROAD, BUILDING A, SUITE 205 LONGMONT, COLORADO 80503 Phone: 303-651-1468 / Fax: 303-651-1469	schnabel-eng.com
RAGSDALE UNDERDRAIN		EXISTING CONDITIONS & TEST HOLE LOCATIONS	





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NO



# NOTES:

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- 2. TEST PITS R2-TF 160 LC EXCAVAT
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- 5. TEST PITS R2-T
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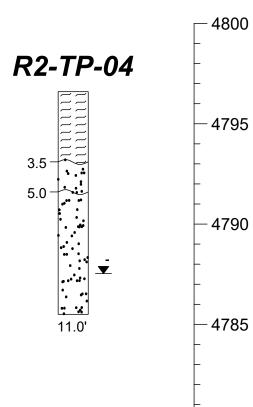
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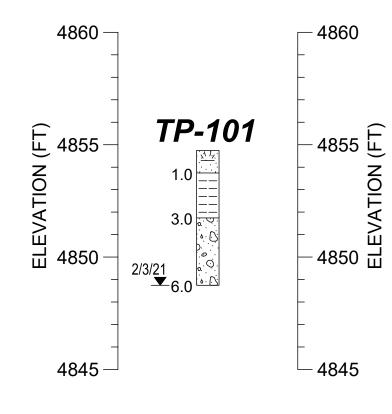
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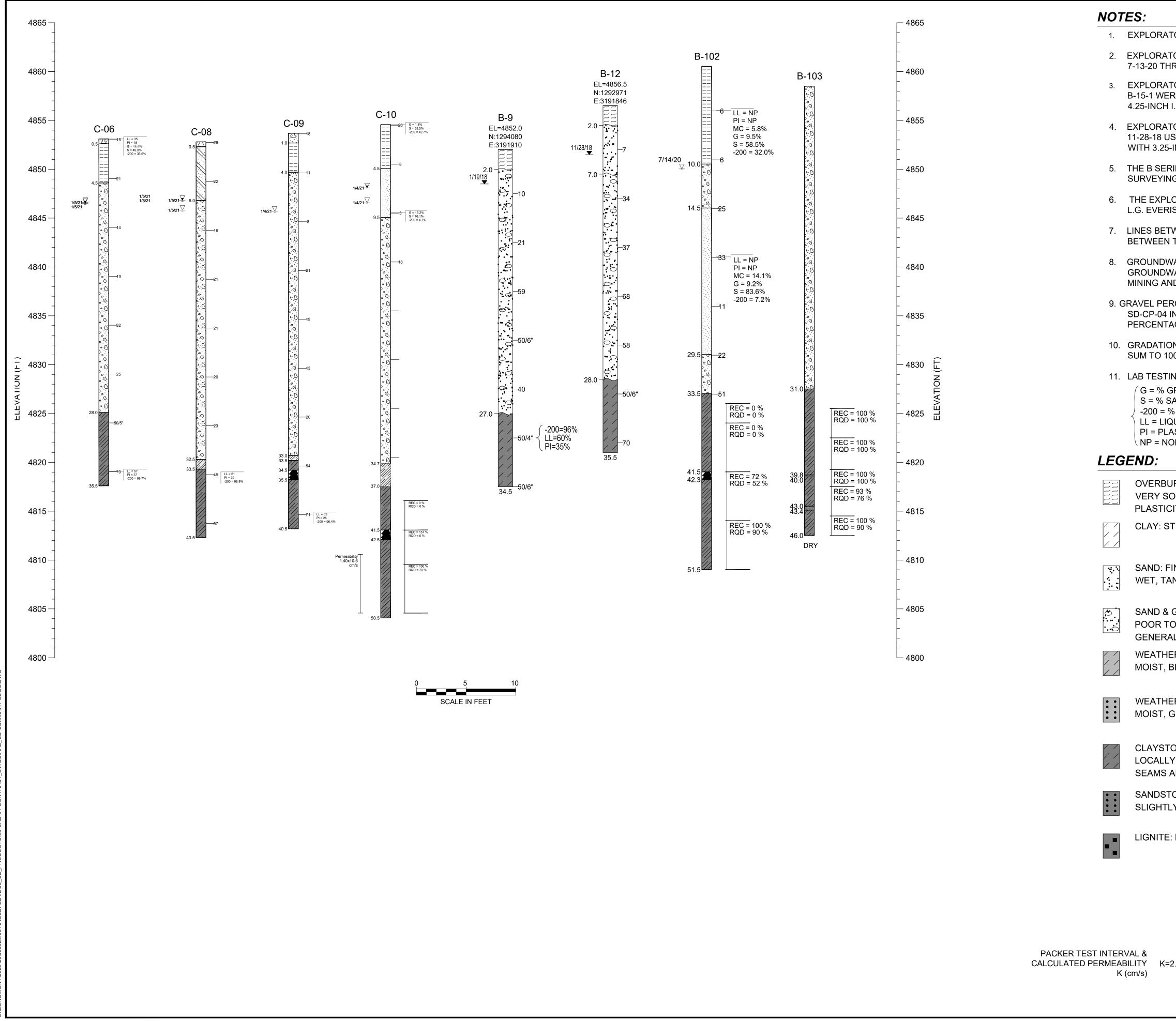
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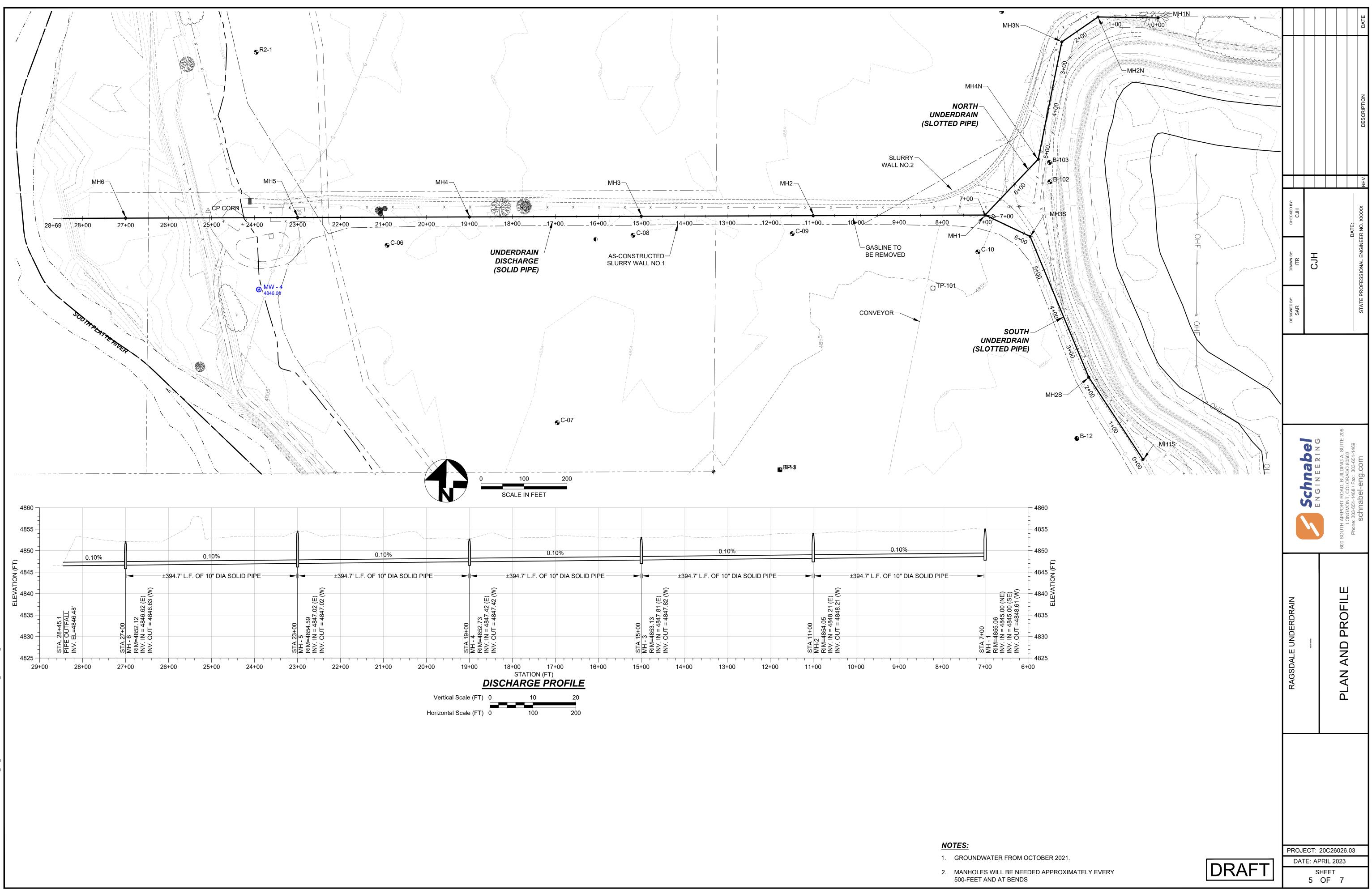
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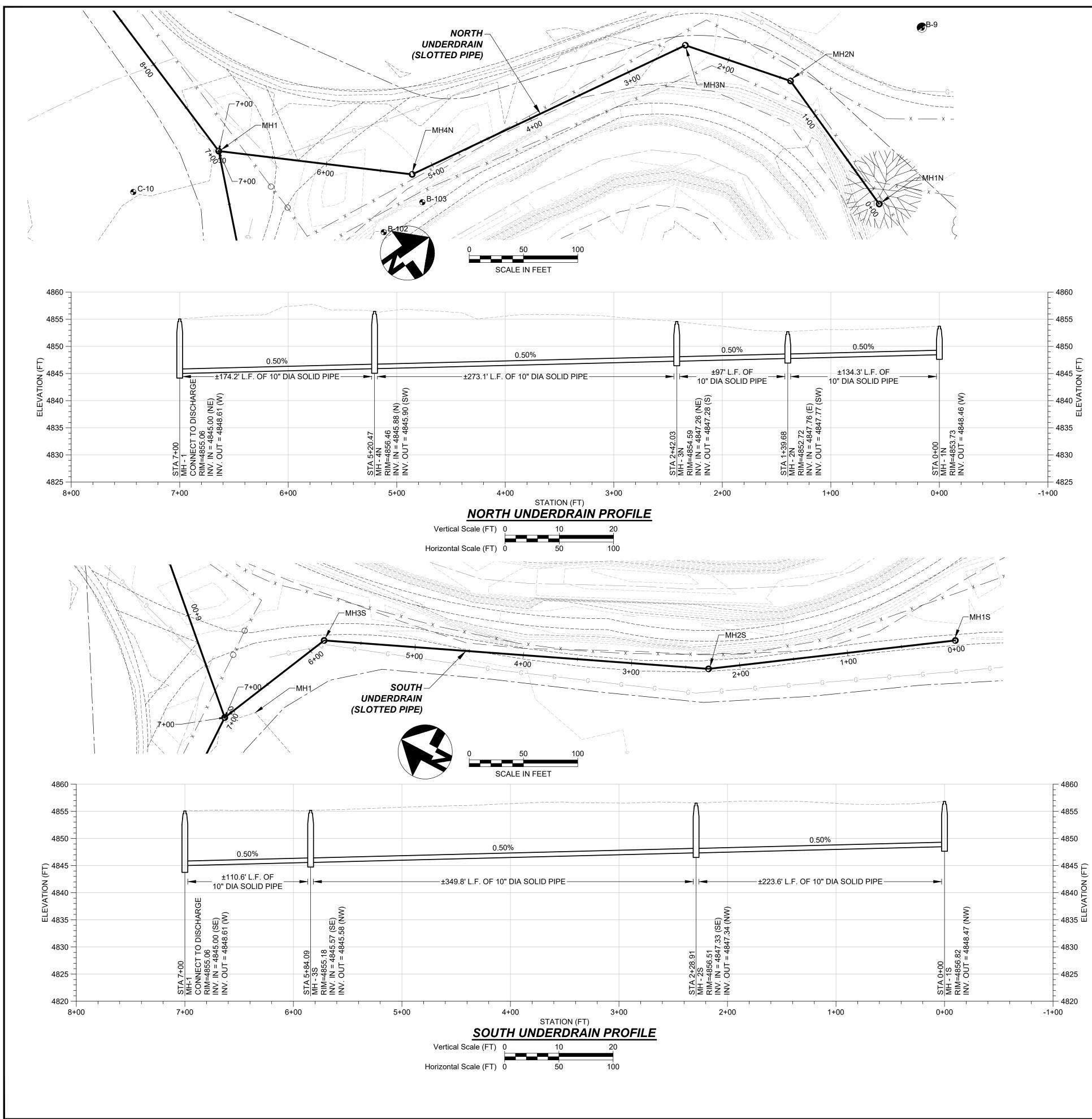
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5.0 - APPROXIMATE DEPTH OF GEOLOGIC CONTACT					
1/8/14 WATER ENCOUNTERED DURING DRILLING AND DATE MEASURED					
<ul> <li>23 STANDARD SPLITSPOON BLOW COUNTS. NUMBER ("N" VALUE) INDICATES THE NUMBER OF BLOWS OF A 140 LB. HAMMER FREE FALLING 30 INCHES REQUIRED TO DRIVE THE SAMPLER 1 FOOT OR THE INDICATED INTERVAL. "WT" INDICATES THE SAMPLER WAS DRIVEN 1 FOOT BY THE WEIGHT OF THE HAMMER ALONE.</li> </ul>					
KER TEST INTERVAL & LATED PERMEABILITY K=2.2E <sup>-5</sup>					
K (cm/s)	PROJ	ECT:	20C2	6026.03	;
24.0 TOTAL DEPTH OF BORING (FT)	DA			ARY 20 -	23
			OF	7	



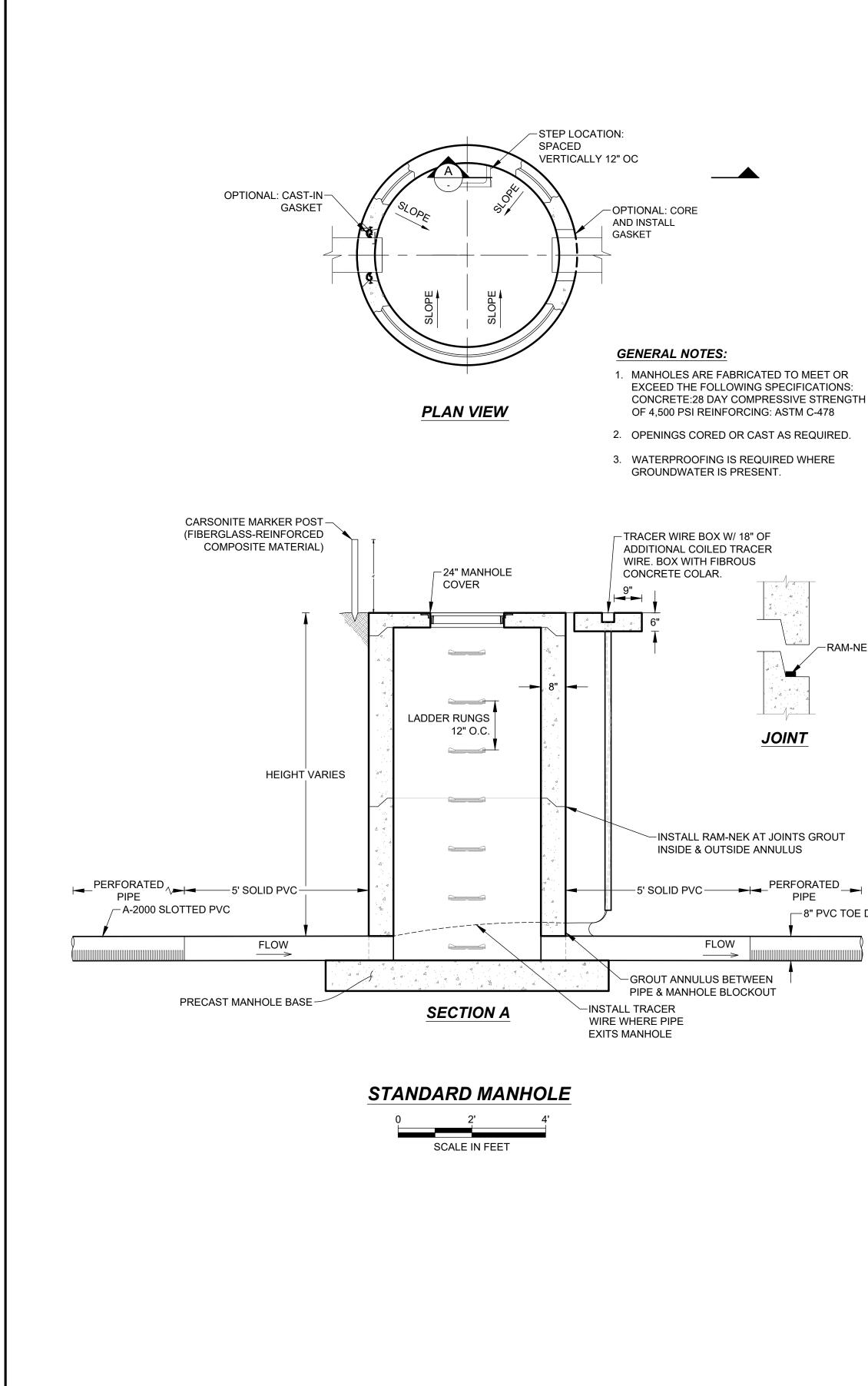
		<u> </u>	-		_
	10-12-23				DATE
TORY BORINGS C-01 THROUGH C-12 WERE DRILLED 1-4-21 TO 1-8-21.	SAR				
TORY BORINGS B-101 THROUGH B-103 AND B-15-1 WERE DRILLED IROUGH 7-15-20.					
TORY BORINGS C-01 THROUGH C-12 AND B-101 THROUGH B-103 AND RE DRILLED USING A TRACK-MOUNTED CME-55 DRILL RIG WITH I.D. HOLLOW STEM AUGERS.					<b>PTION</b>
TORY BORINGS B-1 THROUGH B-30 WERE DRILLED 11-12-18 TO SING A TRUCK-MOUNTED D-50 DRILL RIG. BORINGS WERE DRILLED -INCH I.D. HOLLOW STEM AUGERS.	CONSTRUCTION				DESCRIPTION
RIES EXPLORATORY LOCATIONS WERE SURVEYED BY ACKLAN IG.	FOR CONSTF				
ORATORY LOCATIONS FROM 2020 AND 2021 WERE SURVEYED BY IST.					REV.
WEEN MATERIALS REPRESENT APPROXIMATE BOUNDARIES	снескер вү: С <b>JH</b>	 		ü	XXXXX .C
VATER LEVELS WERE MEASURED AT THE TIME OF DRILLING. VATER LEVELS MAY FLUCTUATE SEASONALLY AND DUE TO SITE ND DEWATERING OPERATIONS.	DRAWN BY: ITR	A. RAINEY		DATE:	ONAL ENGINEER NO. XXXXX
RCENTAGE OF SAMPLES FOR TEST HOLES SD-CP-01 THROUGH INCLUDES % RETAINED ON SIEVE 2", 1", 3/4", 1/2", 3/8". SAND AGES OF SAMPLES % RETAINED ON SIEVE #4 AND BELOW.		SUSAN /			STATE PROFESSION
ON RESULT SHOWN ON THE BORE HOLES AND TEST HOLES MAY NOT 00% DUE TO THE WAY THE RESULTS WERE ROUNDED BY THE LAB.	DESIGNED BY: SAR				STATE
ING: GRAVEL BY WEIGHT (>NO.4 SIEVE) SAND BY WEIGHT (NO.4>S>NO.200) % BY WEIGHT PASSING THE #200 SIEVE (FINES) QUID LIMIT ASTICITY LIMIT ON PLASTIC		1			
JRDEN SOILS: SANDY LEAN, CLAY, SLIGHTLY MOIST TO MOIST, OFT TO MEDIUM STIFF, BROWN TO DARK BROWN, LOW CITY (CL).		U Z Z		A, SUITE 205 03 1-1469	
TIFF TO VERY STIFF, VERY MOIST TO WET, BROWN.		<b>D</b> <b>D</b> <b>D</b> <b>D</b> <b>D</b> <b>D</b> <b>D</b> <b>D</b> <b>D</b> <b>D</b>		OAD, BUILDING A, 3 COLORADO 80503 168 / Fax: 303-651-1	
TINE TO COARSE GRAINED, MEDIUM TO VERY DENSE, MOIST TO AN, BROWN, POORLY GRADED WITH SILT OR CLAY (SP, SW, SC)		SCh		NRPORT R NGMONT, 303-651-14	schnabel-eng
GRAVEL: LOCAL COBBLES, LOOSE TO VERY DENSE, WET, O WELL GRADED, BROWN, PINK, SUBROUNDED GRAVEL IS ALLY 2-INCH MINUS. (SP,SW)				600 SOUTH A LC Phone:	
ERED CLAYSTONE: STIFF TO VERY HARD, SLIGHTLY MOIST TO BROWN, GRAY, ORANGE, PLASTIC, LOCALLY WEATHERED. (CL)	_			2	
ERED SANDSTONE: FINE GRAINED, SLIGHTLY MOIST TO GRAY.	IDERDRAIN			, LOGS	
ONE: HARD TO VERY HARD, SLIGHTLY MOIST TO MOIST, Y SANDY, GRAY TO DARK GRAY, PLASTIC , LOCAL LIGNITE AND PARTINGS, LOCALLY WEATHERED (CH)	RAGSDALE UNDERDRAIN	1		SUMMARY LOGS	
ONE: VERY FINE TO FINE GRAINED, VERY DENSE, LY MOIST TO MOIST, GRAY, FRESH				SI	
: LOW-GRADE COAL, HARD, BLACK, DRY, BLOCKY.					
5.0 - APPROXIMATE DEPTH OF GEOLOGIC CONTACT					
1/8/14 WATER ENCOUNTERED DURING DRILLING AND DATE MEASURED					
2.2E <sup>-5</sup> STANDARD SPLITSPOON BLOW COUNTS. NUMBER ("N" VALUE) INDICATES THE NUMBER OF BLOWS OF A 140 LB. HAMMER FREE FALLING 30 INCHES REQUIRED TO DRIVE THE SAMPLER 1 FOOT OR THE INDICATED INTERVAL. "WT" INDICATES THE SAMPLER WAS DRIVEN 1 FOOT BY					
"WT" INDICATES THE SAMPLER WAS DRIVEN 1 FOOT BY THE WEIGHT OF THE HAMMER ALONE.		ECT: 2 TE: FE			
24.0 TOTAL DEPTH OF BORING (FT)		SI	HEET OF		



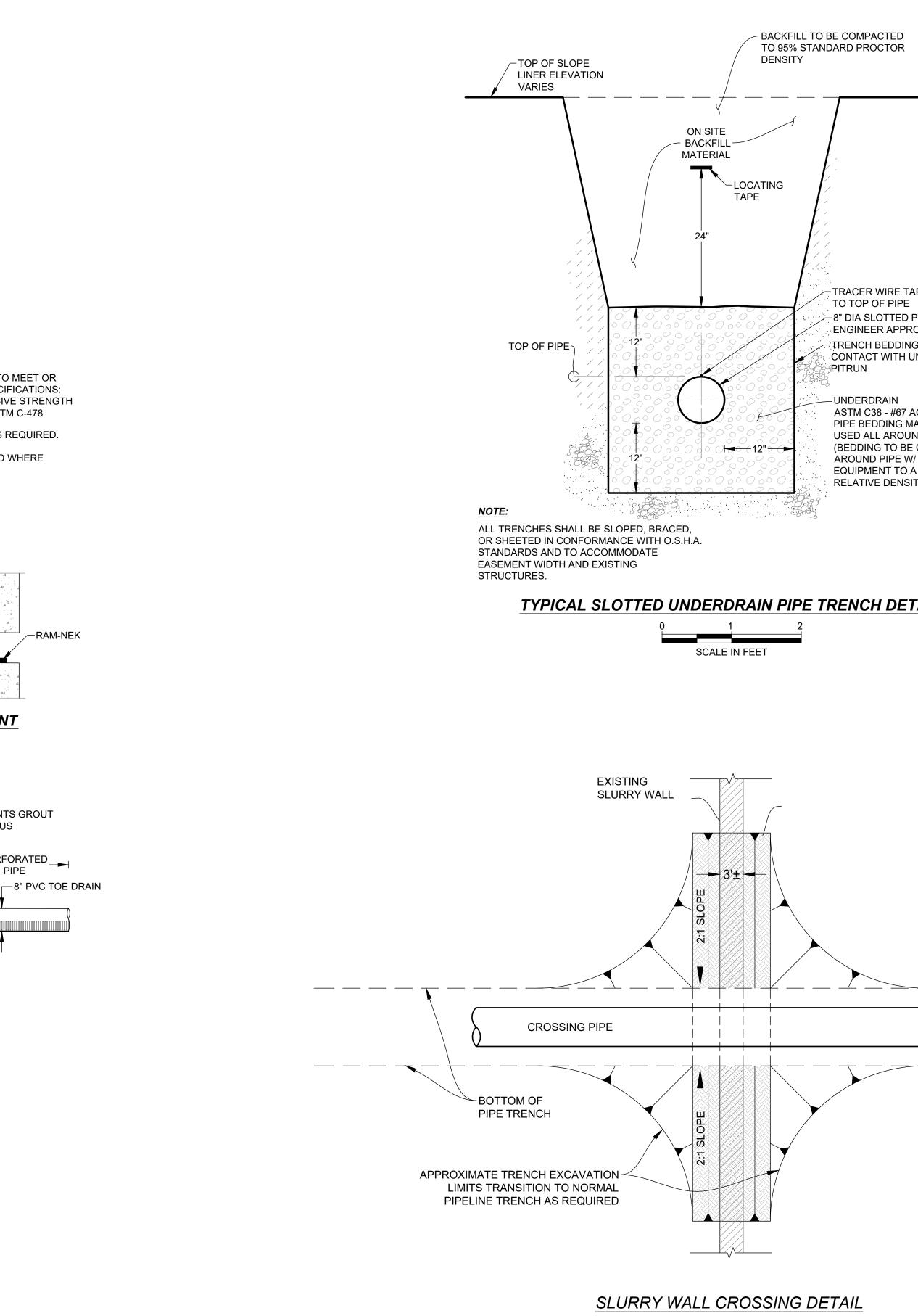


NOTES:

RAGSDALE UNDERDRAIN		DESIGNED BY:	DRAWN BY:	CHECKED BY:		
		SAR	ITR	CJH		
	Schnabel		ЧС			
	ENGINEERING					
NORTH AND SOUTH						
	600 SOUTH AIRPORT ROAD, BUILDING A, SUITE 205					
	LONGMUN , CULORADU 00903 Phone: 303-651-1468 / Fax: 303-651-1469		DA	TE:		
PROFILES	schnabel-eng.com	STATE PROFE	SSIONAL ENGINEER N		V. DESCRIPTION	DATE
	RAGSDALE UNDERDRAIN  UNDERDRAIN PLANS AND PROFILES		600 SOUTH AIRPORT ROAD, BUILDING A, SUITE 205         LONGMONT, COLORADO 88603         Phone: 303-651-1469         For an addel-eng.com	600 SOUTH AIRPORT ROAD, BUILDING A, SUITE 205         1000 SOUTH AIRPORT ROAD, BUILDING A, SUITE 205	Montain     Description     Description     Description       Schnabel     Schnabel     Description     Description       Montain     Countration     Cunt     Cunt       Montain     Cunt     Cunt     Cunt	Image: Solution in the sector of the sect



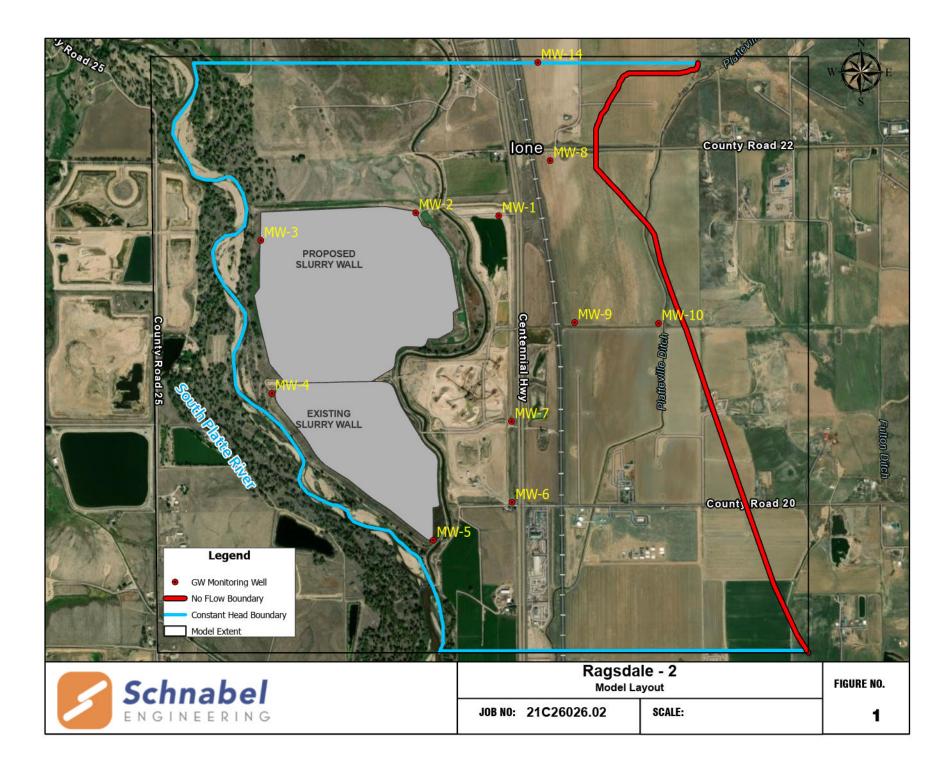
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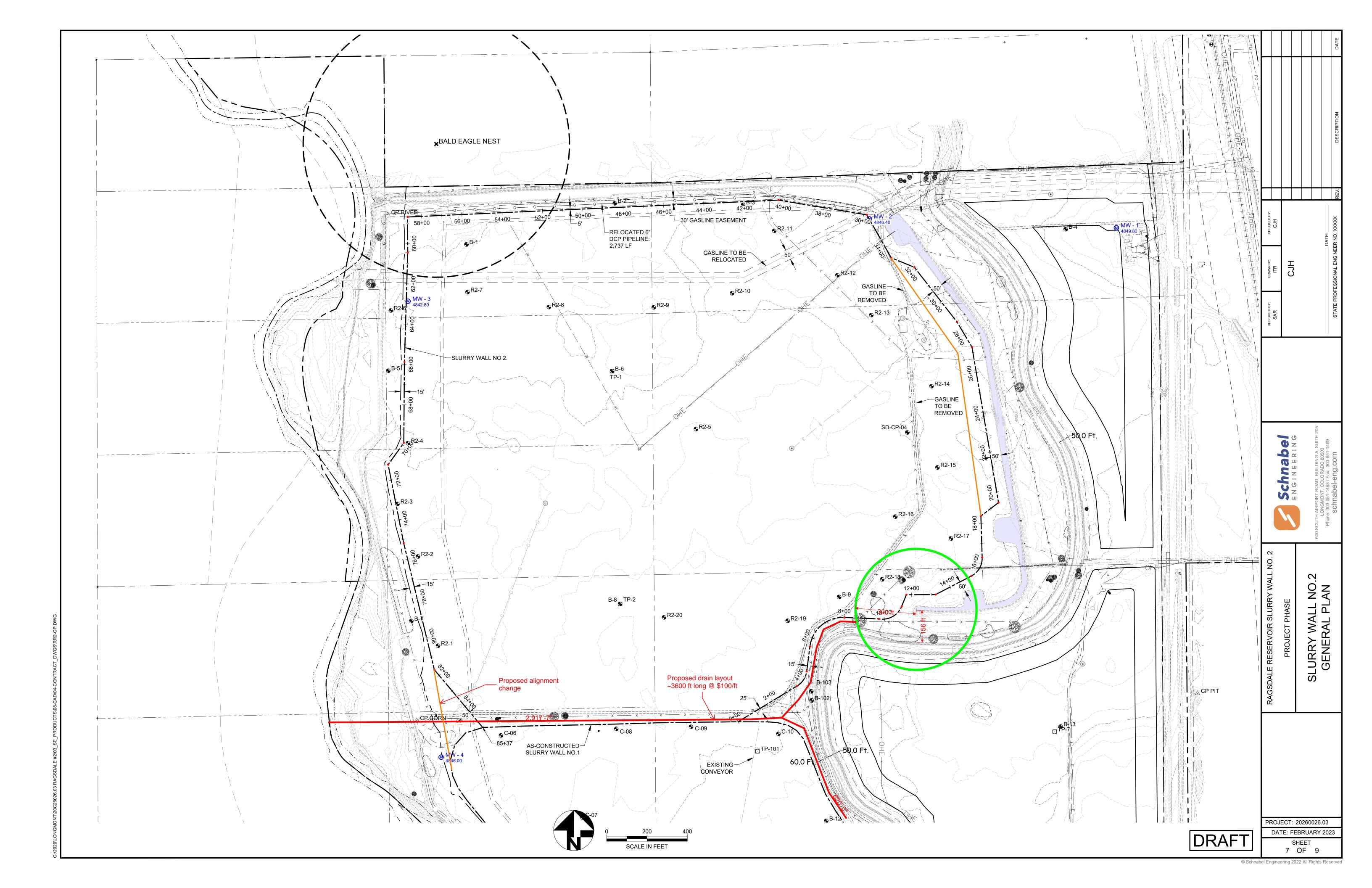


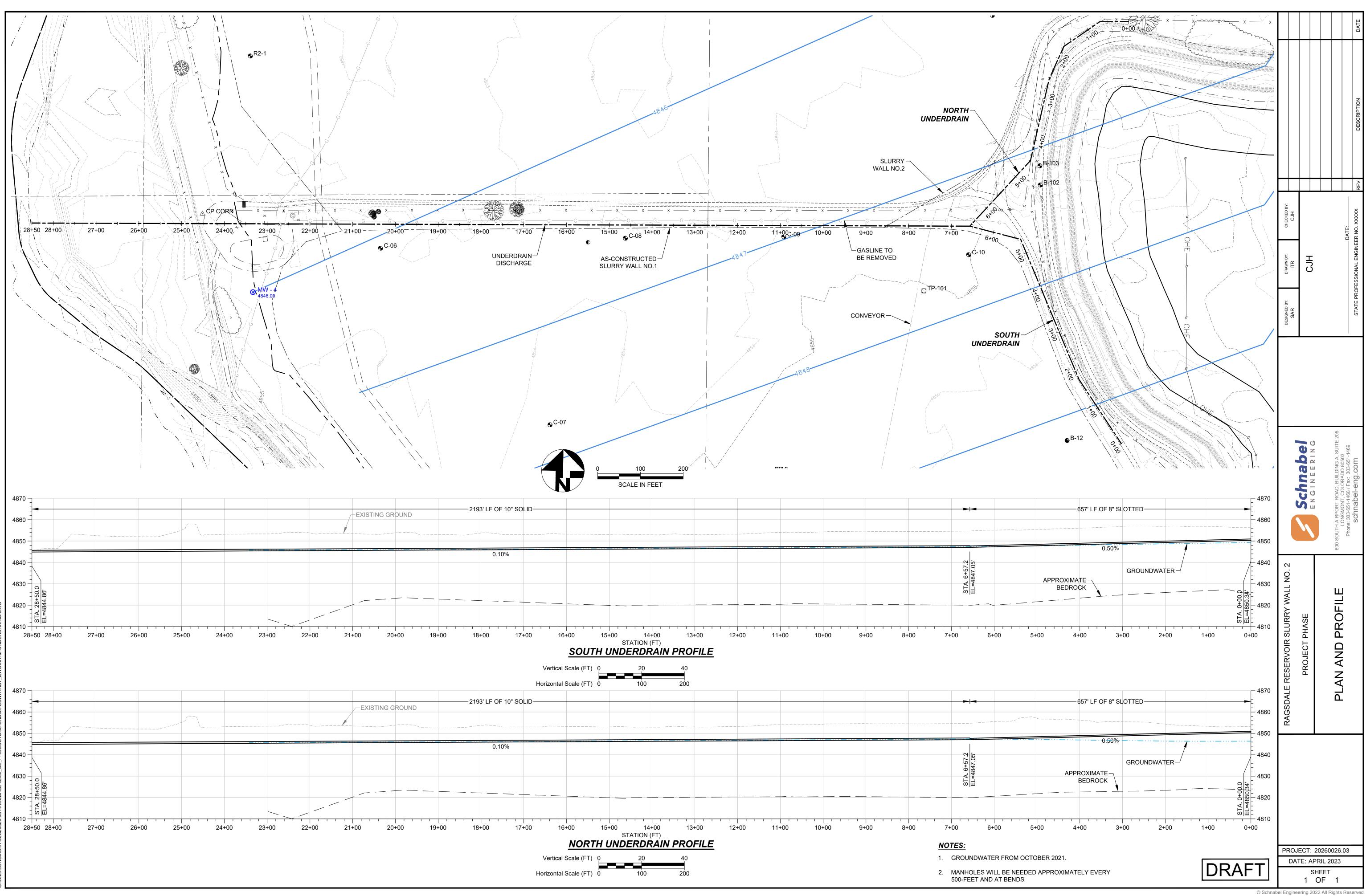
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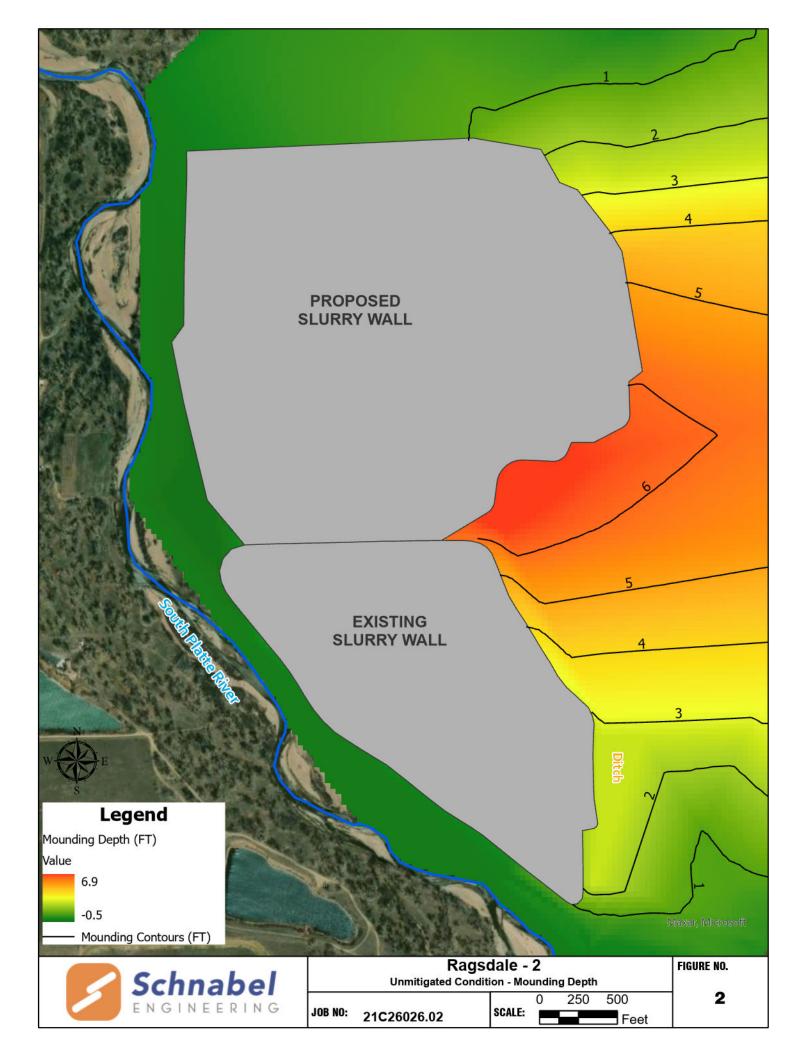
	5-31-23	8-24-23	10-6-23			DATE
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	1 FOR R	2 FOR C	3 REVISED			REV.
RE TAPPED PIPE	D BY:					
TED PVC PIPE OR APPROVED EQUAL DDING MUST BE IN	CHECKED BY:		ΕY		H V	R NO. XXXX
ITH UNDISTURBED	⊿ BY:	~	A. RAINEY		Ľ	STATE PROFESSIONAL ENGINEER NO. XXXXX
IN #67 AGGREGATE NG MATERIAL ROUND	DRAWN	ITR				ESSIONAL
O BE COMPACTED PE W/ HAND TO A MINIMUM 70% ENSITY)	ED BY:	R	SUSAN			LATE PROF
ENSITY)	DESIGNED BY:	SAR				IS
DETAIL						
				)	6445 Shiloh Road, Suite A / Alpharetta, GA 30005 / Phone: 770-781-8008 / Fax: 770-781-8003 /	E
			SCH DAD		′ Alpharetta, =ax: 770-78	schnabel-eng.com
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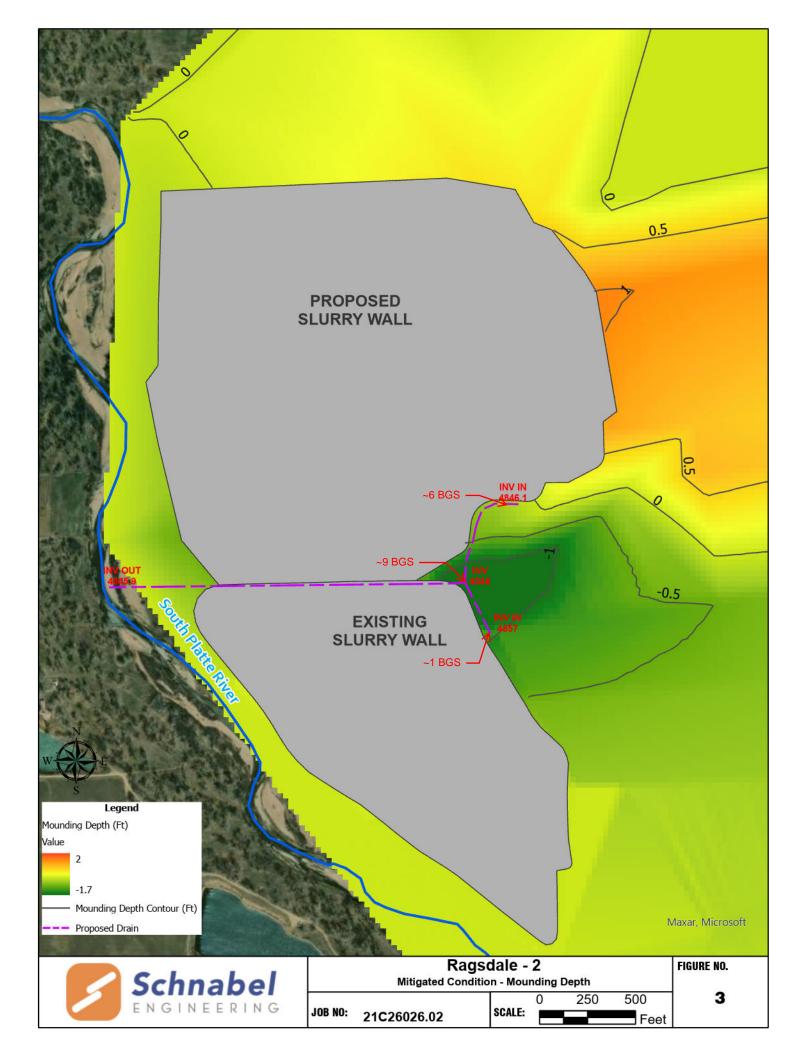


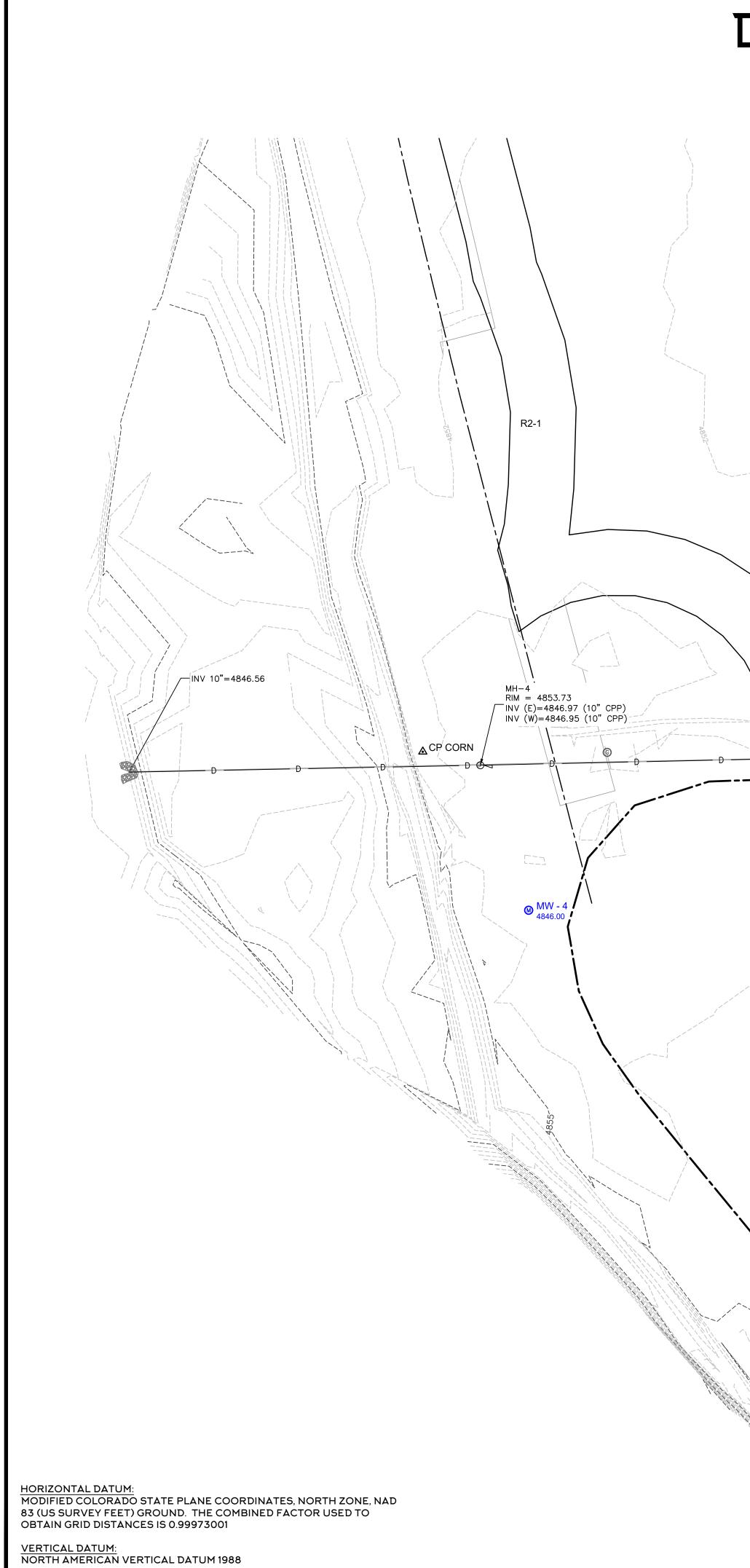




MONT\20C26026.03 RAGSDALE #2\03\_SE\_PRODUCTS\08-CAD\04-CONTRACT\_DWGS\RR2-UNDERDRAIN







# DRAINAGE AS-BUILT SURVEY CLAYSTONE RAGSDALE RESERVOIR SLURRY WALL R2-20 $\begin{array}{rcl} MH-3 \\ RIM &= 4854.07 \\ \hline INV (E) = 4847.89 (10" CPP) \\ INV (W) = 4847.84 (10" CPP) \end{array}$ CLEANOUT RIM = 4855.68 \_\_\_CLEANOUT \_\_\_\_RIM = 4853.80 MAJESTIC SURVEYING, LLC 1111 DIAMOND VALLEY DR. STE 104, WINDSOR, CO, 80550

