

PoDI / NHS	
FHWA PROJECT OF DIVISION INTEREST (PoDI)?	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
NATIONAL HIGHWAY SYSTEM?	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES



NATIONAL HIGHWAY SYSTEM? ☒ NO ☐ YES

JANITELL RD BRIDGE OVER FOUNTAIN CREEK SCOUR PROTECTION PROJECT



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5-6	SUMMARY OF APPROXIMATE QUANTITIES
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Computer File Information			Sheet Revisions			 <div>El Paso County Department of Public Works 3275 Akers Drive Colorado Springs, CO 80922 (719) 520-6460</div>	 <div>Alfred Benesch & Company 7979 E. Tufts Avenue, Suite 800 Denver, Colorado 80237 303-771-8868 Job No. 152064.01</div>	As Constructed		JANITELL RD BRIDGE SCOUR PROTECTION			Project No./Code	
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COLORADO
DEPARTMENT OF TRANSPORTATION

M&S STANDARDS PLANS LIST

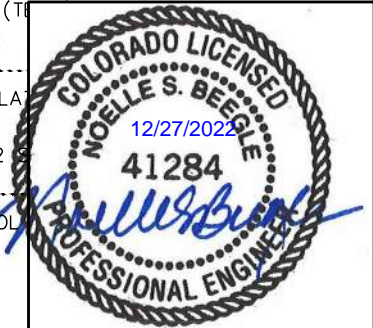
July 31, 2019

Revised on September 6, 2022

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED
AND REVISED, APPLY TO THIS PROJECT WHEN USED
BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

THE M&S STANDARD PLANS USED TO DESIGN THIS PROJECT ARE
INDICATED BY A MARKED BOX ☒ AND WILL BE ATTACHED TO THE
PLANS. ALL THE OTHER M&S STANDARD PLANS ARE STILL ELIGIBLE
FOR CONSTRUCTION IF APPROVED BY AN APPROPRIATE CDOT ENGINEER.

PLAN NUMBER	S STANDARD TITLE	PAGE NUMBER
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GENERAL CARE OF WATER:


- CARE OF WATER SHALL INCLUDE THE DESIGN OF ALL TEMPORARY CARE OF WATER PROVISIONS INCLUDING COFFER DAMS, SUMPS, PUMPING SYSTEMS, PIPELINES, CHANNELS, FLUMES, DRAINS, AND OTHER PROTECTIVE AND DEWATERING WORKS TO ALLOW FOR CONSTRUCTION TO BE PERFORMED UNDER DRY CONDITIONS.
1. NO CONSTRUCTION EQUIPMENT SHALL BE OPERATED BELOW THE EXISTING WATER SURFACE UNLESS SPECIFICALLY AUTHORIZED BY THE STORMWATER QUALITY PERMIT ISSUED BY EL PASO COUNTY AND ANY OTHER APPLICABLE LOCAL, STATE, OR FEDERAL LICENSE OR PERMIT.
 2. THE CONTRACTOR IS RESPONSIBLE FOR ALL CARE OF WATER INCLUDING, BUT NOT LIMITED TO, DESIGNING, SUPPLYING, CONSTRUCTING, OPERATING, AND REMOVING ALL CARE OF WATER PROVISIONS (INCLUDING COFFER DAMS AND SEDIMENT REMOVAL SYSTEMS). THE CONTRACTOR IS ALSO RESPONSIBLE FOR DESIGNING, SUPPLYING, INSTALLING, MAINTAINING, AND REMOVING PROTECTIVE WORKS FOR CARE OF WATER SYSTEMS FOR WINTER OPERATIONS.
 3. THE CONTRACTOR SHALL COMPLY WITH ALL USACE SECTION 404 PERMIT REQUIREMENTS AND THE USE OF NATIONWIDE PERMIT #3.
 4. CARE OF WATER SHALL INCLUDE PROVISIONS FOR HANDLING GROUNDWATER, RAINSTORM RUNOFF, SNOW, SNOW MELT, AND ICE THAT MAY ENTER THE WORK AREA.
 5. PROTECTIVE WORKS SHALL BE DESIGNED BY THE CONTRACTOR AS NECESSARY TO INCLUDE ENCLOSURES, INSULATION, AND HEATING SYSTEMS TO ENSURE THAT DEWATERING SYSTEMS OPERATE CONTINUOUSLY AND DO NOT BECOME FROZEN DURING COLD WEATHER.
 6. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE AND MAINTAIN SEDIMENT PONDS, REMOVE SEDIMENT FROM WATERS COLLECTED WITHIN THE ACTIVE CONSTRUCTION AREAS PRIOR TO ALLOWING IT TO ENTER OR RETURN TO THE WATERCOURSE, AND SHALL DISPOSE OF SEDIMENTS IN A LOCATION.
 7. THE CONTRACTOR SHALL MONITOR WATER TURBIDITY DURING CONSTRUCTION ACTIVITIES AND SHALL SHUT DOWN WORKS AT TIMES OF EXCESS TURBIDITY IN ORDER TO ALLOW THE WATER TO CLEAR PRIOR TO THE RECOMMENCEMENT OF INSTREAM WORK.
 8. TURBIDITY IS EXPECTED DURING PLACEMENT AND REMOVAL OF WATER CONTROL. IF WATERS BECOME NOTICEABLY TURBID, THE CONTRACTOR SHOULD PROMPTLY HALT OPERATIONS TO ALLOW WATERS TO CLEAR PRIOR TO RESUMING OPERATIONS. FURTHERMORE, SHUTDOWNS FOR SILTY OR TURBID WATER MAY BE SPECIFIED BY THE ENGINEER OF THE OWNER’S REPRESENTATIVE, AT THEIR DISCRETION.
 9. IN THE EVENT OF UNSCHEDULED CONSTRUCTION ACTIVITY THAT RESULTS IN A VISUALLY CONSPICUOUS PLUME OF SEDIMENT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE MITIGATION ACTIONS NECESSARY TO COMPLY WITH THE SPECIFIED CLEAN WATER CRITERIA.

INVASIVE AQUATIC NUISANCE SPECIES:


- IN ORDER TO AVOID THE SPREAD OF INVASIVE AQUATIC SPECIES INCLUDING, BUT NOT LIMITED TO, EURASIAN WARERMILFOIL, ZEBRA MUSSEL, QUAGGA MUSSEL, AND THE NEW ZEALAND MUDSNAIL, THE FOLLOWING BMPS SHALL BE PRACTICED:
1. IF TOOLS, CONSTRUCTION MATS, AND/OR HEAVY EQUIPMENT ARE TO BE USED FOR INSTREAM WORK THAT HAS BEEN PREVIOUSLY UTILIZED IN ANOTHER STREAM, RIVER, LAKE, POND, OR WETLAND, REMOVE ALL MUD, PLANTS, AND ORGANIC MATERIAL AWAY FROM WATER BODIES, AND APPLY ONE OF THE FOLLOWING PROCEDURES TO PREVENT THE SPREAD OF AQUATIC NUISANCE SPECIES AND OTHER PATHOGENS:
 - 1.A. IMMERSE TOOLS AND/OR OTHER EQUIPMENT IN A SOLUTION OF QUATERNARY AMMONIUM-BASED INSTITUTIONAL CLEANER AND CLEAN WATER (SIX OUNCES OF GREEN SOLUTIONS HIGH DILUTION DISINFECTANT 256 OR SUPER HDQ NEUTRAL PER GALLON OF CLEAN WATER). RINSE WITH CLEAN WATER AND DISPOSE OF CHEMICALS PROPERLY AWAY FROM WATER BODIES.
 - 1.B. SPRAY OR SOAK TOOLS AND/OR EQUIPMENT WITH CLEAN WATER (MUST BE 140° OR WARMER) FOR AT LEAST TEN MINUTES PRIOR TO AND AFTER WORK WITHIN A WATERWAY. GEAR AND EQUIPMENT SHOULD BE SPRAYED OR SOAKED AWAY FROM WATER BODIES. ALL EQUIPMENT SHOULD BE COMPLETELY DRAINED OF WATER AND DRIED. TOOLS AND/OR EQUIPMENT SHOULD BE COMPLETELY DRIED BETWEEN EACH USE.
 2. IF THERE ARE QUESTIONS ABOUT THESE DISINFECTION PROCEDURES, PLEASE CONTACT CPW’S INVASIVE SPECIES PROGRAM AT (303) 291-7295 OR INVASIVE.SPECIES@STATE.CO.US



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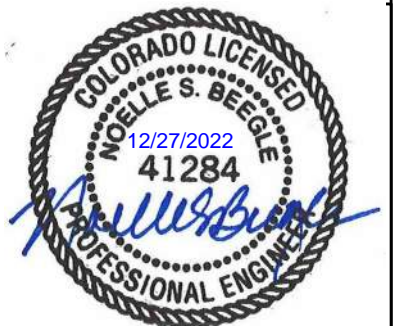
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201-00000	CLEARING AND GRUBBING	LS	1						1	
202-00127	REMOVAL OF RIPRAP	CY	329						329	
203-00010	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	6338						6338	
203-00400	ROCK EXCAVATION	CY	751						751	
203-01597	POTHOLING	hour	8						8	
207-00702	TOPSOIL	CY	403						403	
208-00002	EROSION LOG TYPE 1 (12 INCH)	LF	680						680	
208-00041	ROCK CHECK DAM	EA	3						3	
208-00070	VEHICLE TRACKING PAD	EA	1						1	
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	hour	24						24	
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	hour	24						24	
208-00207	EROSION CONTROL MANAGEMENT	DAY	30						30	
208-00301	TEMPORARY DIVERSION	LF	308						308	
208-00400	WATER CONTROL	LS	1						1	
208-00520	TEMPORARY STREAM CROSSING	EA	1						1	
210-01000	RESET FENCE	LF	50						50	





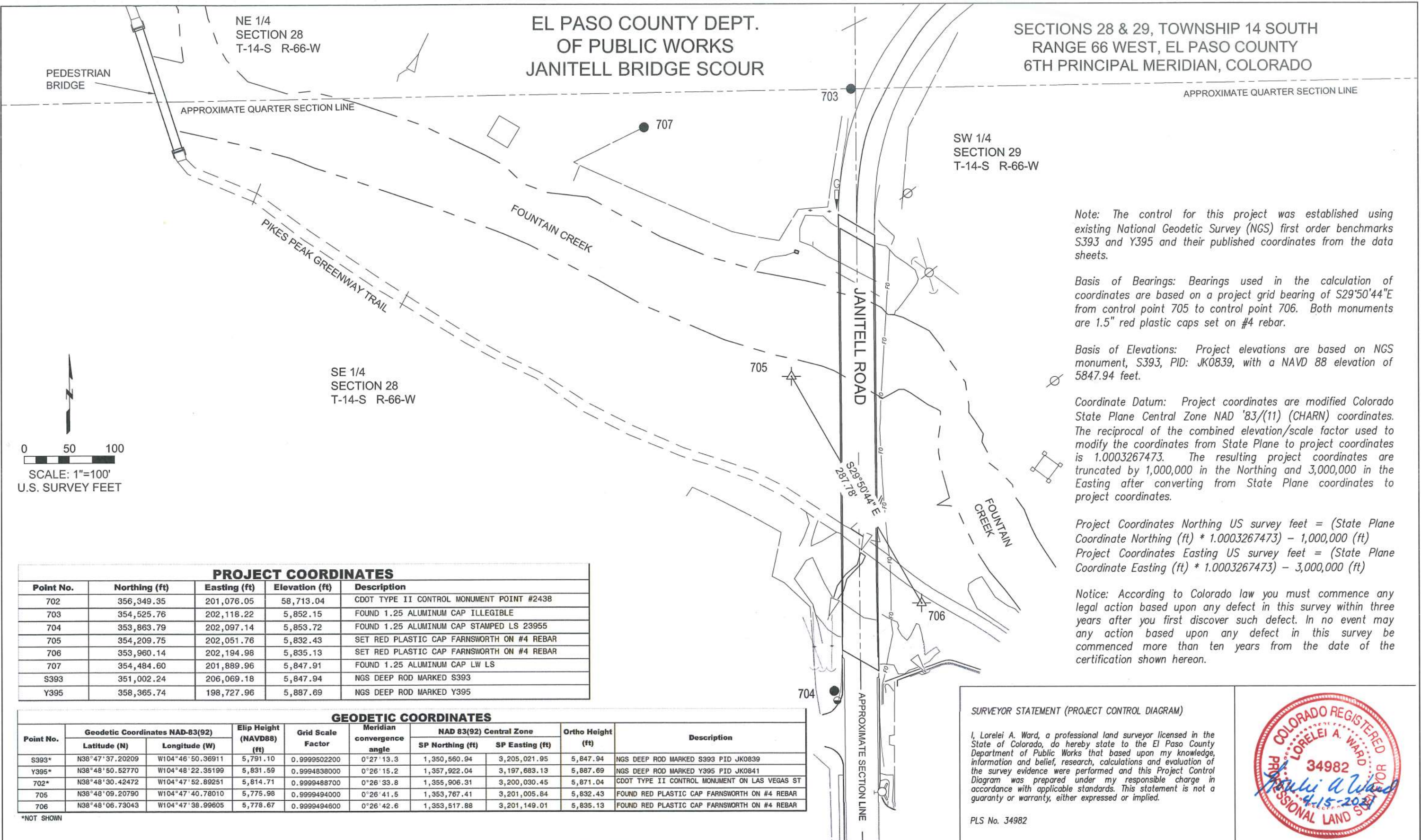
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			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
212-00005	SEEDING (NATIVE)	ACRE	0.43						0.43	
212-00032	SOIL CONDITIONING	ACRE	0.43						0.43	
216-00306	COIR MAT	SY	2077						2077	
240-00000	WILDLIFE BIOLOGIST	HOUR	8						8	
240-00015	PROTECTION OF MIGRATORY BIRDS	HOUR	8						8	
506-00412	SOIL RIPRAP (12 INCH)	CY	1259						1259	
506-00424	SOIL RIPRAP (24 INCH)	CY	4910						4910	
620-00020	SANITARY FACILITY	EA	1						1	
625-00000	CONSTRUCTION SURVEYING	LS	1						1	
626-00000	MOBILIZATION	LS	1						1	
630-00016	CONSTRUCTION TRAFFIC CONTROL	LS	1						1	
700-70010	F/A MINOR CONTRACT REVISIONS	FA	1						1	
700-70195	F/A UTILITIES	FA	1						1	
700-70310	F/A LANDSCAPING	FA	1						1	
700-70380	F/A EROSION CONTROL	FA	1						1	
700-70495	ASBESTOS REMOVAL	FA	1						1	

TABULATION OF EARTHWORK	
UNCLASSIFIED EXCAVATION	CY
NORTH BANK	922
OVERFLOW CHANNEL	5435
EMBANKMENT	CY
OVERFLOW CHANNEL	19



Computer File Information			Sheet Revisions			 <div>El Paso County Department of Public Works 3275 Akers Drive Colorado Springs, CO 80922 (719) 520-6460</div>	 <div>Alfred Benesch & Company 7979 E. Tufts Avenue, Suite 800 Denver, Colorado 80237 303-771-8868 Job No. 152064.01</div>	As Constructed		JANITELL RD BRIDGE SCOUR PROTECTION			Project No./Code	
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Acad Ver. 2020 Scale: Units: English	<input type="text"/>													



Note: The control for this project was established using existing National Geodetic Survey (NGS) first order benchmarks S393 and Y395 and their published coordinates from the data sheets.

Basis of Bearings: Bearings used in the calculation of coordinates are based on a project grid bearing of S29°50'44"E from control point 705 to control point 706. Both monuments are 1.5" red plastic caps set on #4 rebar.

Basis of Elevations: Project elevations are based on NGS monument, S393, PID: JK0839, with a NAVD 88 elevation of 5847.94 feet.

Coordinate Datum: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(11) (CHARN) coordinates. The reciprocal of the combined elevation/scale factor used to modify the coordinates from State Plane to project coordinates is 1.0003267473. The resulting project coordinates are truncated by 1,000,000 in the Northing and 3,000,000 in the Easting after converting from State Plane coordinates to project coordinates.

Project Coordinates Northing US survey feet = (State Plane Coordinate Northing (ft) * 1.0003267473) - 1,000,000 (ft)
Project Coordinates Easting US survey feet = (State Plane Coordinate Easting (ft) * 1.0003267473) - 3,000,000 (ft)

Notice: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

PROJECT COORDINATES				
Point No.	Northing (ft)	Easting (ft)	Elevation (ft)	Description
702	356,349.35	201,076.05	58,713.04	CDOT TYPE II CONTROL MONUMENT POINT #2438
703	354,525.76	202,118.22	5,852.15	FOUND 1.25 ALUMINUM CAP ILLEGIBLE
704	353,863.79	202,097.14	5,853.72	FOUND 1.25 ALUMINUM CAP STAMPED LS 23955
705	354,209.75	202,051.76	5,832.43	SET RED PLASTIC CAP FARNSWORTH ON #4 REBAR
706	353,960.14	202,194.98	5,835.13	SET RED PLASTIC CAP FARNSWORTH ON #4 REBAR
707	354,484.60	201,889.96	5,847.91	FOUND 1.25 ALUMINUM CAP LW LS
S393	351,002.24	206,069.18	5,847.94	NGS DEEP ROD MARKED S393
Y395	358,365.74	198,727.96	5,887.69	NGS DEEP ROD MARKED Y395

GEODETIC COORDINATES									
Point No.	Geodetic Coordinates NAD-83(92)		Elip Height (NAVD88) (ft)	Grid Scale Factor	Meridian convergence angle	NAD 83(92) Central Zone		Ortho Height (ft)	Description
	Latitude (N)	Longitude (W)				SP Northing (ft)	SP Easting (ft)		
S393*	N38°47'37.20209	W104°46'50.36911	5,791.10	0.9999502200	0°27'13.3	1,350,560.94	3,205,021.95	5,847.94	NGS DEEP ROD MARKED S393 PID JK0839
Y395*	N38°48'50.52770	W104°48'22.35199	5,831.59	0.9994838000	0°26'15.2	1,357,922.04	3,197,683.13	5,887.69	NGS DEEP ROD MARKED Y395 PID JK0841
702*	N38°48'30.42472	W104°47'52.89251	5,814.71	0.9999488700	0°26'33.8	1,355,906.31	3,200,030.45	5,871.04	CDOT TYPE II CONTROL MONUMENT ON LAS VEGAS ST
705	N38°48'09.20790	W104°47'40.78010	5,775.98	0.9999494000	0°26'41.5	1,353,767.41	3,201,005.84	5,832.43	FOUND RED PLASTIC CAP FARNSWORTH ON #4 REBAR
706	N38°48'06.73043	W104°47'38.99605	5,778.67	0.9999494600	0°26'42.6	1,353,517.88	3,201,149.01	5,835.13	FOUND RED PLASTIC CAP FARNSWORTH ON #4 REBAR

*NOT SHOWN

SURVEYOR STATEMENT (PROJECT CONTROL DIAGRAM)

I, Lorelei A. Ward, a professional land surveyor licensed in the State of Colorado, do hereby state to the El Paso County Department of Public Works that based upon my knowledge, information and belief, research, calculations and evaluation of the survey evidence were performed and this Project Control Diagram was prepared under my responsible charge in accordance with applicable standards. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 34982



Print Date: April 14, 2021

File Name: 0210332.00 - Janitell Bridge Scour

Horizontal Scale: 1" = 100' Vertical Scale: N/A

Farnsworth GROUP

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7979 E. Tufts Avenue, Suite 800

Denver, Colorado 80237

303-771-6868

Sheet Revisions

Date	Comments	Initials

EL PASO COUNTY

3275 Akers Drive

Colorado Springs, CO 80922

tel 719.520.6460

fax 719.520.6879

As Constructed

No Revisions:

Revised:

Void:

CONTROL DIAGRAM

Designer:	LAW
Detailer:	CDO
Subset:	RIGHT OF WAY
Structure Numbers	
Sheets:	1 of 1

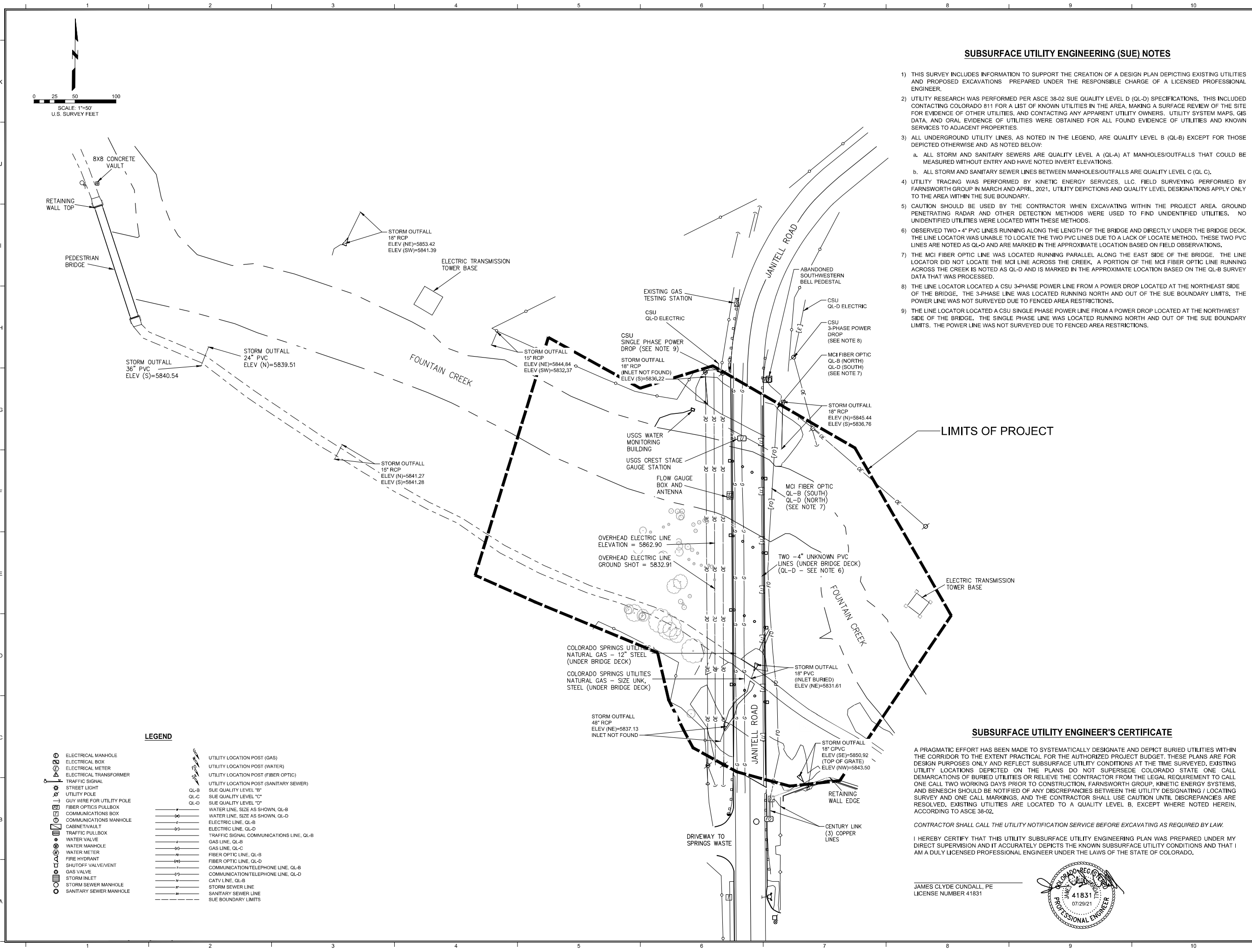
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#152064

503940

Sheet Number

[Foundell | 4/2021 10/10/2020 - Janitell Bridge SUE QL-B SUE Plan (Survey Coordination) V:\SUE SITE_SUE 0210332.00 WITH 4/2021 STAMP.dwg | 17/20/2021 8:38 AM]



SUBSURFACE UTILITY ENGINEERING (SUE) NOTES

- 1) THIS SURVEY INCLUDES INFORMATION TO SUPPORT THE CREATION OF A DESIGN PLAN DEPICTING EXISTING UTILITIES AND PROPOSED EXCAVATIONS PREPARED UNDER THE RESPONSIBLE CHARGE OF A LICENSED PROFESSIONAL ENGINEER.
- 2) UTILITY RESEARCH WAS PERFORMED PER ASCE 38-02 SUE QUALITY LEVEL D (QL-D) SPECIFICATIONS. THIS INCLUDED CONTACTING COLORADO 811 FOR A LIST OF KNOWN UTILITIES IN THE AREA, MAKING A SURFACE REVIEW OF THE SITE FOR EVIDENCE OF OTHER UTILITIES, AND CONTACTING ANY APPARENT UTILITY OWNERS. UTILITY SYSTEM MAPS, GIS DATA, AND ORAL EVIDENCE OF UTILITIES WERE OBTAINED FOR ALL FOUND EVIDENCE OF UTILITIES AND KNOWN SERVICES TO ADJACENT PROPERTIES.
- 3) ALL UNDERGROUND UTILITY LINES, AS NOTED IN THE LEGEND, ARE QUALITY LEVEL B (QL-B) EXCEPT FOR THOSE DEPICTED OTHERWISE AND AS NOTED BELOW:
 - a. ALL STORM AND SANITARY SEWERS ARE QUALITY LEVEL A (QL-A) AT MANHOLES/OUTFALLS THAT COULD BE MEASURED WITHOUT ENTRY AND HAVE NOTED INVERT ELEVATIONS.
 - b. ALL STORM AND SANITARY SEWER LINES BETWEEN MANHOLES/OUTFALLS ARE QUALITY LEVEL C (QL C).
- 4) UTILITY TRACING WAS PERFORMED BY KINETIC ENERGY SERVICES, LLC. FIELD SURVEYING PERFORMED BY FARNSWORTH GROUP IN MARCH AND APRIL, 2021. UTILITY DEPICTIONS AND QUALITY LEVEL DESIGNATIONS APPLY ONLY TO THE AREA WITHIN THE SUE BOUNDARY.
- 5) CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING WITHIN THE PROJECT AREA. GROUND PENETRATING RADAR AND OTHER DETECTION METHODS WERE USED TO FIND UNIDENTIFIED UTILITIES. NO UNIDENTIFIED UTILITIES WERE LOCATED WITH THESE METHODS.
- 6) OBSERVED TWO - 4" PVC LINES RUNNING ALONG THE LENGTH OF THE BRIDGE AND DIRECTLY UNDER THE BRIDGE DECK. THE LINE LOCATOR WAS UNABLE TO LOCATE THE TWO PVC LINES DUE TO A LACK OF LOCATE METHOD. THESE TWO PVC LINES ARE NOTED AS QL-D AND ARE MARKED IN THE APPROXIMATE LOCATION BASED ON FIELD OBSERVATIONS.
- 7) THE MCI FIBER OPTIC LINE WAS LOCATED RUNNING PARALLEL ALONG THE EAST SIDE OF THE BRIDGE. THE LINE LOCATOR DID NOT LOCATE THE MCI LINE ACROSS THE CREEK. A PORTION OF THE MCI FIBER OPTIC LINE RUNNING ACROSS THE CREEK IS NOTED AS QL-D AND IS MARKED IN THE APPROXIMATE LOCATION BASED ON THE QL-B SURVEY DATA THAT WAS PROCESSED.
- 8) THE LINE LOCATOR LOCATED A CSU 3-PHASE POWER LINE FROM A POWER DROP LOCATED AT THE NORTHEAST SIDE OF THE BRIDGE. THE 3-PHASE LINE WAS LOCATED RUNNING NORTH AND OUT OF THE SUE BOUNDARY LIMITS. THE POWER LINE WAS NOT SURVEYED DUE TO FENCED AREA RESTRICTIONS.
- 9) THE LINE LOCATOR LOCATED A CSU SINGLE PHASE POWER LINE FROM A POWER DROP LOCATED AT THE NORTHWEST SIDE OF THE BRIDGE. THE SINGLE PHASE LINE WAS LOCATED RUNNING NORTH AND OUT OF THE SUE BOUNDARY LIMITS. THE POWER LINE WAS NOT SURVEYED DUE TO FENCED AREA RESTRICTIONS.

LIMITS OF PROJECT

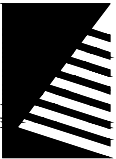
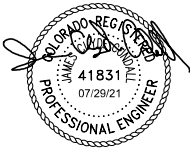
SUBSURFACE UTILITY ENGINEER'S CERTIFICATE

A PRAGMATIC EFFORT HAS BEEN MADE TO SYSTEMATICALLY DESIGNATE AND DEPICT BURIED UTILITIES WITHIN THE CORRIDOR TO THE EXTENT PRACTICAL FOR THE AUTHORIZED PROJECT BUDGET. THESE PLANS ARE FOR DESIGN PURPOSES ONLY AND REFLECT SUBSURFACE UTILITY CONDITIONS AT THE TIME SURVEYED. EXISTING UTILITY LOCATIONS DEPICTED ON THE PLANS DO NOT SUPERSEDE COLORADO STATE ONE CALL DEMARCATIONS OF BURIED UTILITIES OR RELIEVE THE CONTRACTOR FROM THE LEGAL REQUIREMENT TO CALL ONE CALL TWO WORKING DAYS PRIOR TO CONSTRUCTION. FARNSWORTH GROUP, KINETIC ENERGY SYSTEMS, AND BENESCH SHOULD BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE UTILITY DESIGNATING / LOCATING SURVEY AND ONE CALL MARKINGS, AND THE CONTRACTOR SHALL USE CAUTION UNTIL DISCREPANCIES ARE RESOLVED. EXISTING UTILITIES ARE LOCATED TO A QUALITY LEVEL B, EXCEPT WHERE NOTED HEREIN, ACCORDING TO ASCE 38-02.

CONTRACTOR SHALL CALL THE UTILITY NOTIFICATION SERVICE BEFORE EXCAVATING AS REQUIRED BY LAW.

I HEREBY CERTIFY THAT THIS UTILITY SUBSURFACE UTILITY ENGINEERING PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND IT ACCURATELY DEPICTS THE KNOWN SUBSURFACE UTILITY CONDITIONS AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF COLORADO.

JAMES CLYDE CUNDALL, PE
LICENSE NUMBER 41831



Farnsworth
GROUP

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www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE:		
#	DATE:	DESCRIPTION:
1	7/22/2021	UTILITY LOCATES/SUE EXHIBIT

PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT:
ALFRED BENESCH & COMPANY

JANITELL ROAD
BRIDGE
IMPROVEMENTS

DATE: 7/28/2021

DESIGNED: LAW

DRAWN: CDO

REVIEWED: GDK

FIELD BOOK NO.: N/A

SHEET TITLE:

SUE EXHIBIT

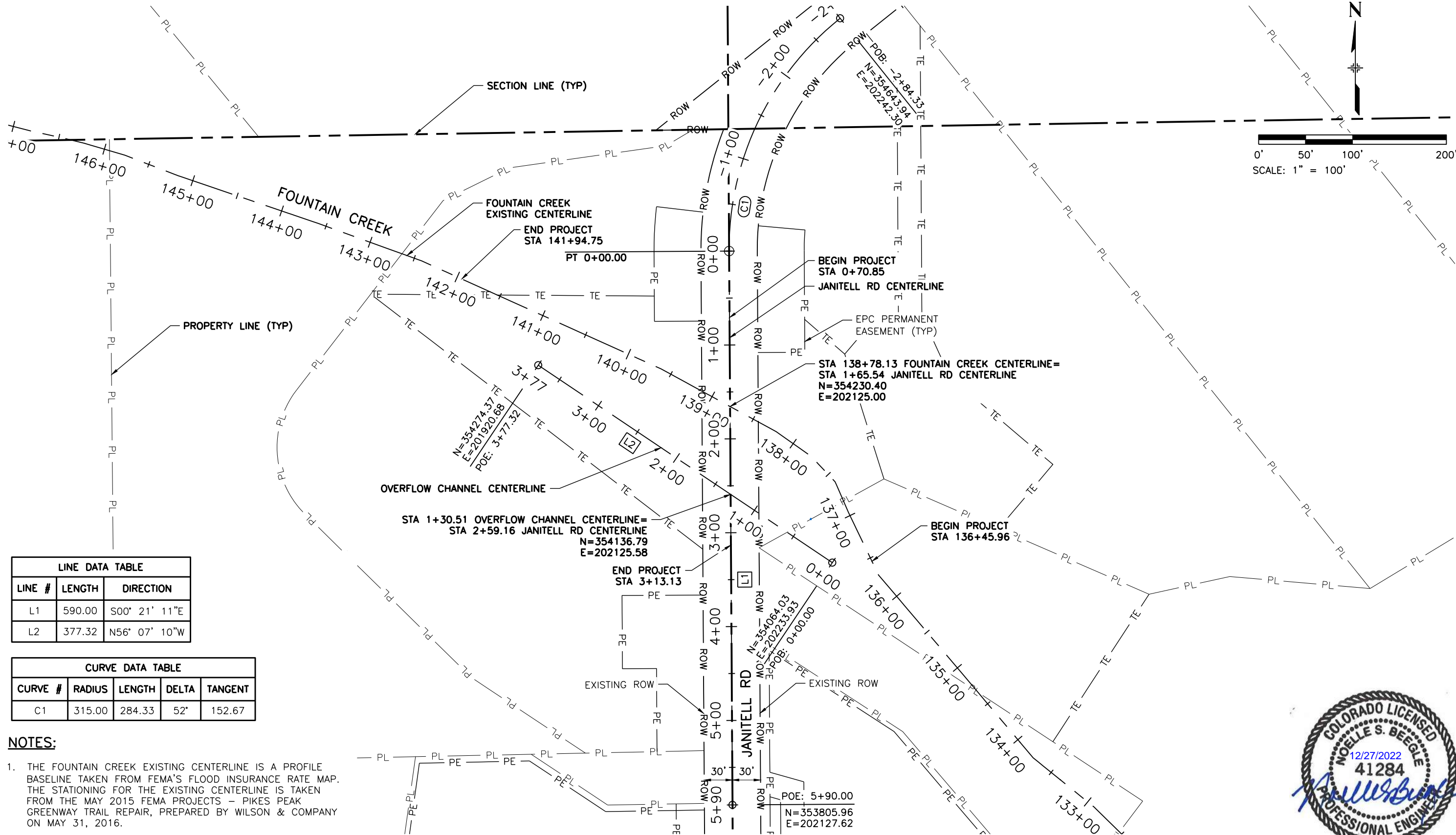
JANITELL ROAD
BRIDGE IMPROVEMENTS

SHEET NUMBER:

1

PROJECT NO.: 0210332.00

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LINE DATA TABLE		
LINE #	LENGTH	DIRECTION
L1	590.00	S00° 21' 11"E
L2	377.32	N56° 07' 10"W

CURVE DATA TABLE				
CURVE #	RADIUS	LENGTH	DELTA	TANGENT
C1	315.00	284.33	52°	152.67

NOTES:

1. THE FOUNTAIN CREEK EXISTING CENTERLINE IS A PROFILE BASELINE TAKEN FROM FEMA'S FLOOD INSURANCE RATE MAP. THE STATIONING FOR THE EXISTING CENTERLINE IS TAKEN FROM THE MAY 2015 FEMA PROJECTS - PIKES PEAK GREENWAY TRAIL REPAIR, PREPARED BY WILSON & COMPANY ON MAY 31, 2016.

Computer File Information

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Acad Ver.	2020	Scale:	1"=100'
		Units:	English

Sheet Revisions



El Paso County
Department of Public Works
3275 Akers Drive
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7979 E. Tufts Avenue, Suite 800
Denver, Colorado 80237
303-771-8868 Job No. 152064.01

As Constructed

No Revisions:

Revised:

Void:

JANITELL RD BRIDGE SCOUR PROTECTION

GEOMETRIC LAYOUT

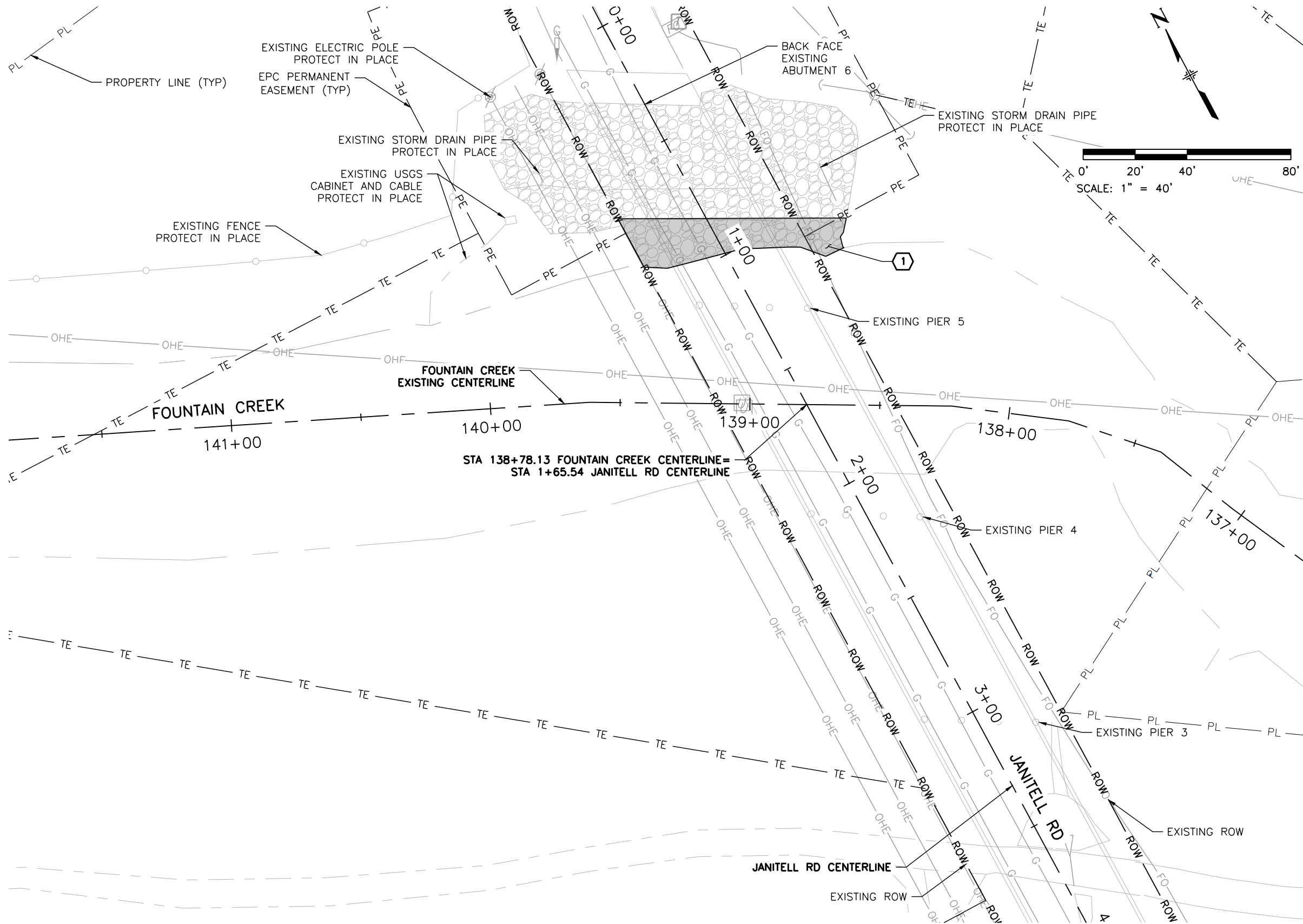
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Detailer:	LMW	Numbers	
Sheet Subset:	GEOM	Subset Sheets:	1 of 1

Project No./Code

503940

Sheet Number 9 of 38

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LEGEND:

- EXISTING RIPRAP
- EXISTING RIPRAP/SOIL TO BE REMOVED

CONSTRUCTION NOTES:

- REMOVE EXISTING RIPRAP
329 CY

NOTES:

- EXISTING RIPRAP, DESIGNATED TO BE REMOVED ON THE PLANS, SHALL BE REUSED AND PLACED WITHIN THE PROJECT LIMITS, TO THE EXTENT POSSIBLE.
- CLEARING AND GRUBBING WITHIN THE PROJECT LIMITS SHALL INCLUDE THE REMOVAL OF HUMAN TRASH AND WASTE.



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303-771-6868 Job No. 152064.01

	As Constructed	JANITELL RD BRIDGE SCOUR PROTECTION			Project No./Code
	No Revisions:	REMOVALS PLAN			
	Revised:	Designer: MES	Structure Numbers	EPC 0377--00.50A	503940
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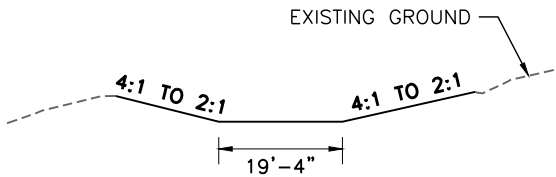
NORTH BANK POINT TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
NB01	354282.99	201856.98	GRADING LIMITS
NB02	354337.24	202027.27	GRADING LIMITS
NB03	354344.04	202063.41	RIPRAP LIMITS
NB04	354327.69	202094.41	RIPRAP LIMITS
NB05	354311.82	202124.50	RIPRAP LIMITS
NB06	354295.95	202154.60	RIPRAP LIMITS
NB07	354281.47	202182.68	GRADING LIMITS
NB08	354268.94	202219.40	GRADING LIMITS
NB09	354222.37	202247.54	GRADING LIMITS
NB10	354172.13	202260.05	GRADING LIMITS
NB11	354145.49	202276.59	GRADING LIMITS
NB12	354134.39	202263.58	GRADING LIMITS - BOS
NB13	354194.89	202211.98	GRADING LIMITS - BOS
NB14	354219.32	202168.81	GRADING LIMITS - BOS
NB15	354265.79	202154.06	PIER PROTECTION LIMITS
NB16	354251.87	202146.18	PIER PROTECTION LIMITS
NB17	354294.48	202103.38	PIER PROTECTION LIMITS
NB18	354280.56	202095.49	PIER PROTECTION LIMITS
NB19	354269.12	202080.82	GRADING LIMITS - BOS
NB20	354322.32	202027.27	GRADING LIMITS - BOS

OVERFLOW CHANNEL POINT TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
CH01	354318.45	201817.64	GRADING LIMITS
CH02	354222.32	202054.58	GRADING LIMITS - TOS
CH03	354177.26	202082.93	GRADING LIMITS - BOS
CH04	354189.76	202095.26	PIER PROTECTION LIMITS
CH05	354195.56	202095.22	GRADING LIMITS - TOS
CH06	354208.21	202095.14	PIER PROTECTION LIMITS
CH07	354174.10	202155.35	PIER PROTECTION LIMITS
CH08	354155.62	202155.46	PIER PROTECTION LIMITS
CH09	354144.63	202155.53	GRADING LIMITS - TOS
CH10	354112.61	202179.02	GRADING LIMITS - BOS
CH11	354139.37	202163.05	BEGINNING OF TRANSITION - TOS
CH12	354131.03	202191.39	END OF TRANSITION - TOS
CH13	354087.14	202221.58	GRADING LIMITS
CH14	354064.03	202233.93	GRADING LIMITS
CH15	354048.11	202232.36	GRADING LIMITS
CH16	354041.13	202214.62	GRADING LIMITS
CH17	354096.52	202168.21	GRADING LIMITS - BOS
CH18	354084.24	202155.90	GRADING LIMITS - TOS
CH19	354079.89	202155.93	GRADING LIMITS - TOS
CH20	354065.75	202156.02	PIER PROTECTION LIMITS
CH21	354099.89	202095.81	PIER PROTECTION LIMITS
CH22	354118.34	202095.70	PIER PROTECTION LIMITS
CH23	354128.29	202095.64	GRADING LIMITS - TOS
CH24	354133.92	202087.87	BEGINNING OF TRANSITION - TOS
CH25	354139.82	202057.79	END OF TRANSITION - TOS
CH26	354161.19	202072.14	GRADING LIMITS - BOS
CH27	354150.52	202039.52	GRADING LIMITS
CH28	354232.86	201918.61	GRADING LIMITS
CH29	354282.99	201856.98	GRADING LIMITS

LEGEND:

BOS BOTTOM OF SLOPE

TOS TOP OF SLOPE



DETAIL A
TYPICAL SECTION
OVERFLOW CHANNEL
N.T.S.



Computer File Information			
Creation Date:	11/2/2022	Initials:	LMW
Last Modification Date:	12/23/2022	Initials:	LMW
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Sheet Revisions			



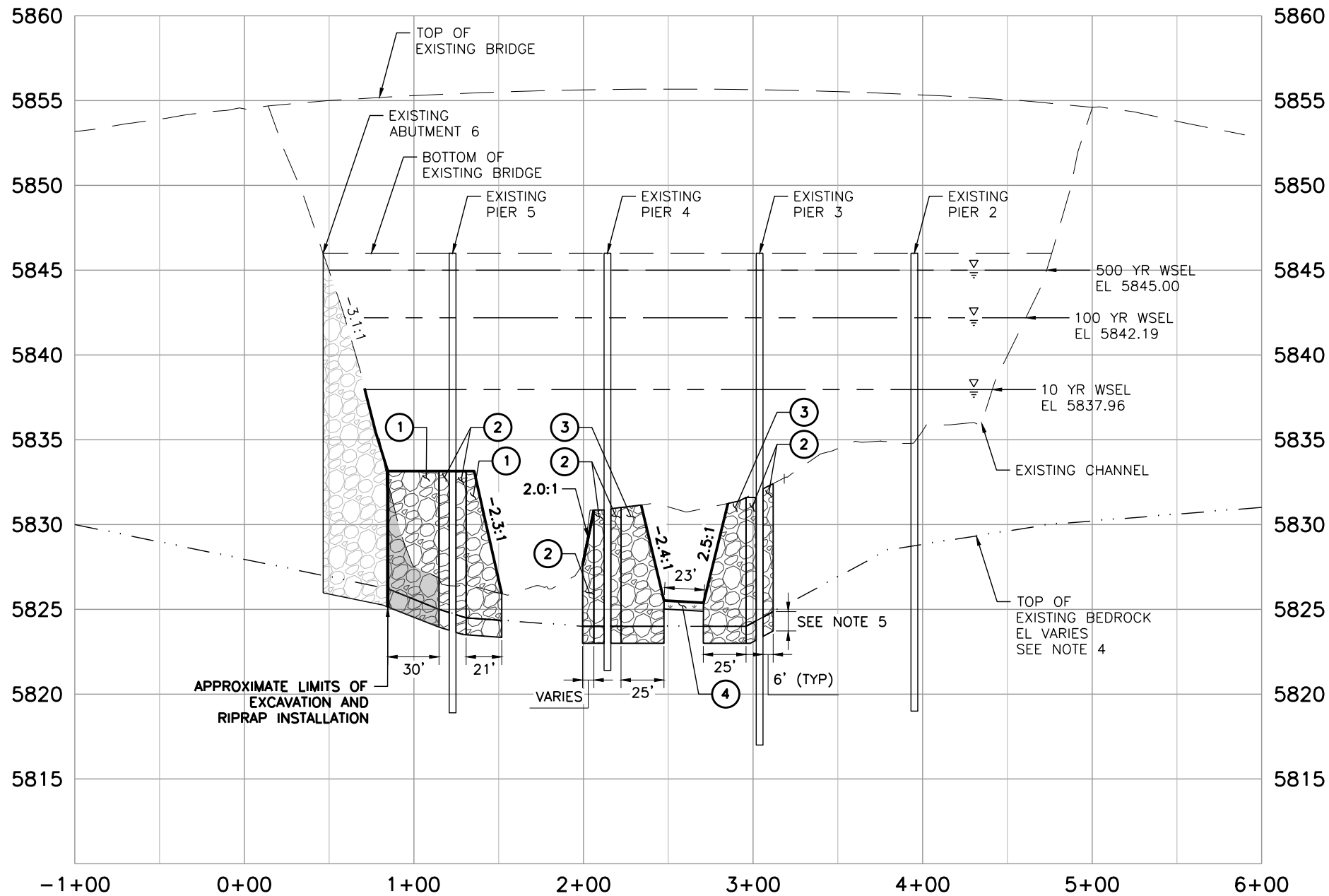
El Paso County
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As Constructed		JANITELL RD BRIDGE SCOUR PROTECTION			Project No./Code	
No Revisions:		SOIL RIPRAP DETAILS			503940	
Revised:		Designer:	MES	Structure	EPC 0377-00.50A	
		Detailer:	LMW	Numbers		
Void:		Sheet Subset:	DTLS	Subset Sheets:	2 of 2	Sheet Number 12 of 38

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PROFILE VIEW - JANITELL RD CENTERLINE
VERTICAL SCALE: 1"=8'

NOTES:

- THICKNESS OF RIPRAP SHALL BE NO LESS THAN SHOWN AND NO MORE THAN TWO (2) INCHES GREATER THAN THICKNESS SHOWN.
- PROFILE IS OF JANITELL RD CENTERLINE. SEE SOIL RIPRAP CROSS SECTIONS (SHEETS 27-38) FOR ADDITIONAL INFORMATION REGARDING THE RIPRAP IMPROVEMENTS ALONG THE NORTH BANK AND OVERFLOW CHANNEL.
- THE CONTRACTOR SHALL BENCH THE PROPOSED CUT TO OSHA STANDARDS. THE CONTRACTOR SHALL DETERMINE THE APPROPRIATE MEANS AND METHODS TO ENSURE SLOPE STABILITY DURING CONSTRUCTION ACTIVITY AS WELL AS LONG TERM STABILITY AFTER WORK IS COMPLETE. NO SEPARATE PAYMENT WILL BE MADE.
- THE ELEVATION OF THE TOP OF EXISTING BEDROCK IS APPROXIMATE. FOR ADDITIONAL INFORMATION, SEE THE GEOTECHNICAL INVESTIGATION FOR THE JANITELL ROAD BRIDGE, PREPARED BY CTL THOMPSON INC. ON SEPTEMBER 28, 2021.
- SOIL RIPRAP EMBEDMENT INTO EXISTING BEDROCK SHALL BE A MINIMUM OF 1' WHERE SOIL RIPRAP IS CALLED OUT ON THE PLANS.

LEGEND:

- EXISTING RIPRAP
- EXISTING RIPRAP/SOIL TO BE REMOVED
- NEW SOIL RIPRAP
- SEEDING, TOPSOIL, AND COIR MAT

CONSTRUCTION NOTES:

- ABUTMENT PROTECTION**
REMOVE EXISTING RIPRAP
INSTALL CLASS VH RIPRAP
D₅₀=24"
EMBEDMENT INTO EXISTING BEDROCK=1'
- PIER PROTECTION**
INSTALL TYPE VH RIPRAP
D₅₀=24"
EMBEDMENT INTO EXISTING BEDROCK=1'
- OVERFLOW CHANNEL**
INSTALL CLASS M RIPRAP
(SLOPES UNDER BRIDGE)
D₅₀=12"
EMBEDMENT INTO EXISTING BEDROCK=1'
- OVERFLOW CHANNEL**
INSTALL SEEDING, TOPSOIL, AND COIR MAT
(ALONG OVERFLOW CHANNEL WHERE THERE IS NO RIPRAP)
THICKNESS=6"



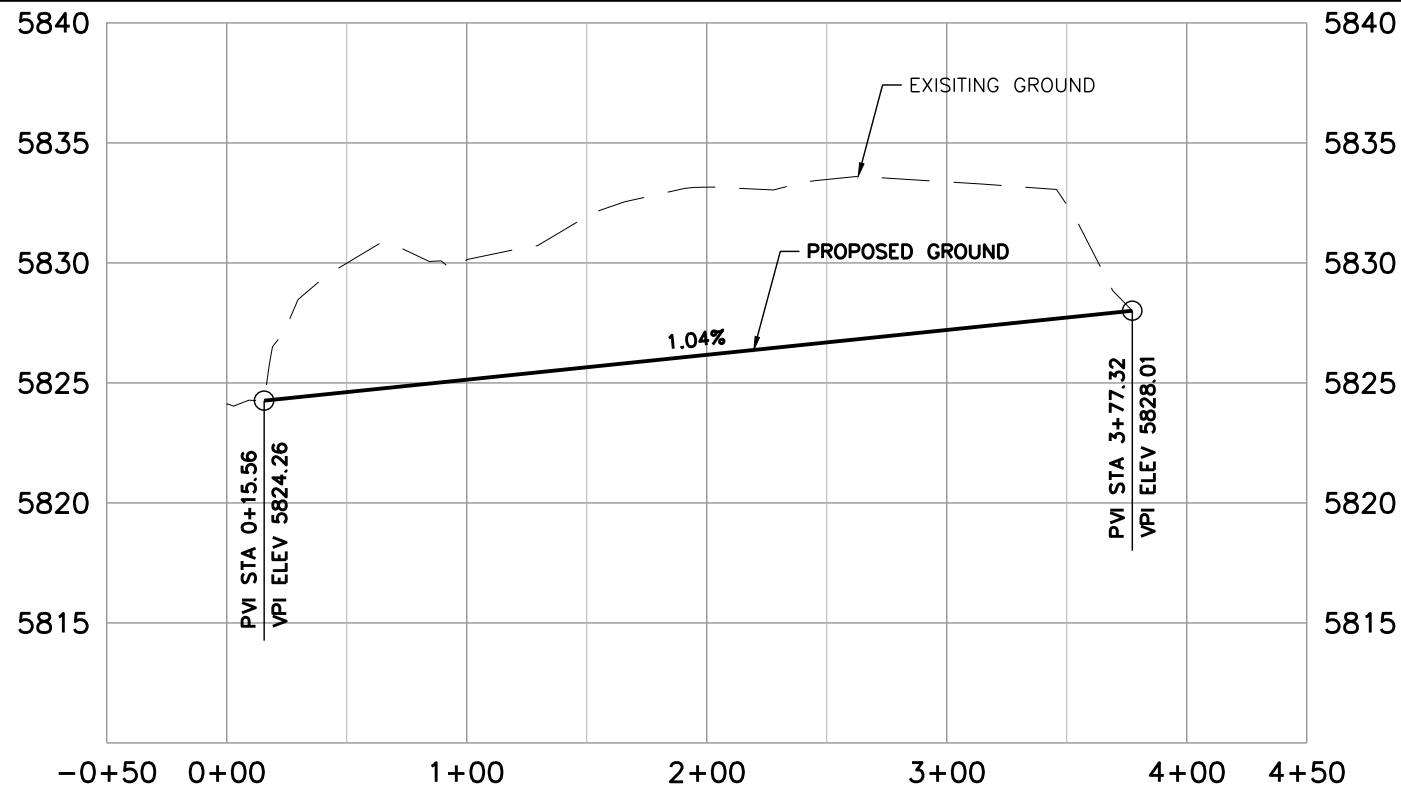
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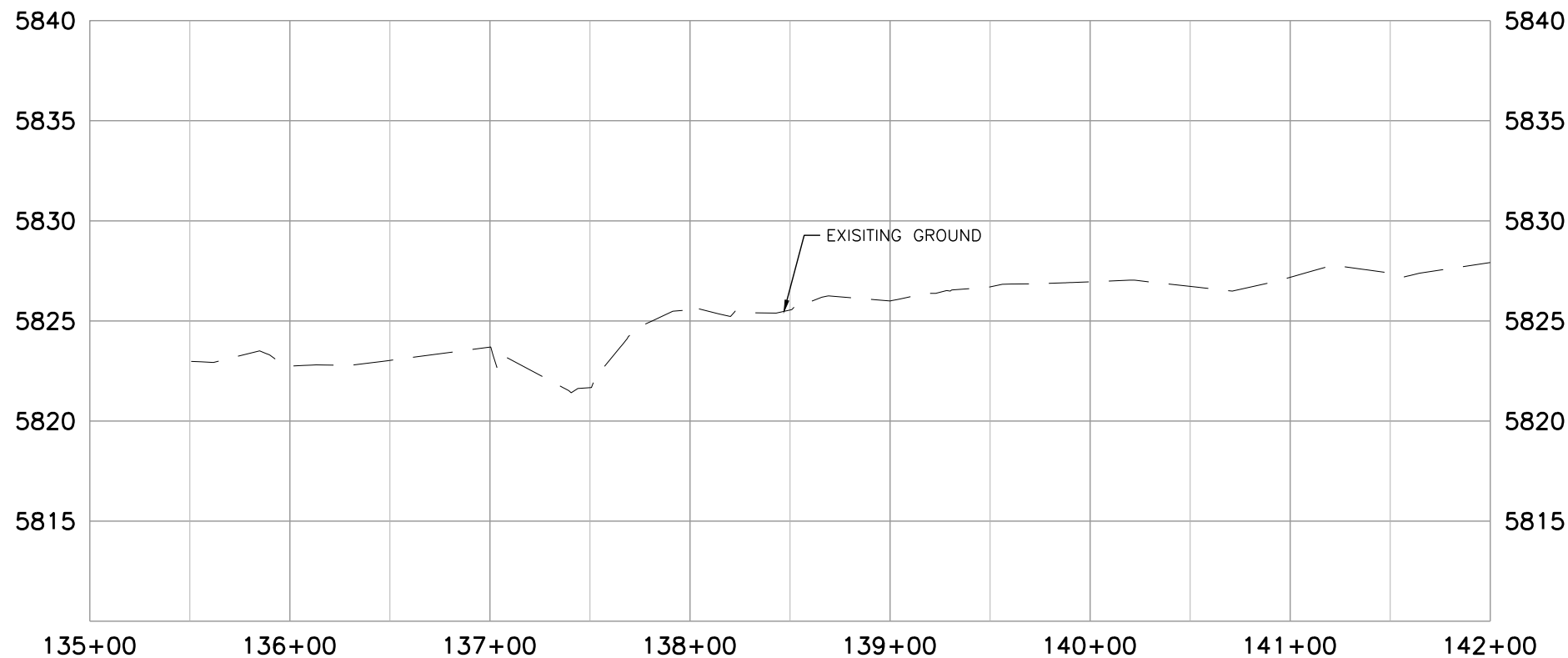
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Colorado Springs, CO 80922
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PROFILE VIEW - OVERFLOW CHANNEL CENTERLINE
VERTICAL SCALE: 1"=8'



PROFILE VIEW - FOUNTAIN CREEK EXISTING CENTERLINE
VERTICAL SCALE: 1"=8'

NOTES:

1. SEE SOIL RIPRAP CROSS SECTIONS (SHEETS 27-38) FOR ADDITIONAL INFORMATION REGARDING THE RIPRAP IMPROVEMENTS ALONG THE NORTH BANK AND OVERFLOW CHANNEL.



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Creation Date:	12/1/2022	Initials:	LMW	<input type="checkbox"/>			No Revisions:		CHANNEL PROFILES			503940
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El Paso County
Department of Public Works
3275 Akers Drive
Colorado Springs, CO 80922
(719) 520-6460



Alfred Benesch & Company
7979 E. Tufts Avenue, Suite 800
Denver, Colorado 80237
303-771-6868 Job No. 152064.01

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A. PROJECT SITE LOCATION:

Location or address of construction office:

C. PROPOSED SCHEDULE FOR SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES:

D. ACRES OF DISTURBANCE:

- E. EXISTING SOIL DATA:

F. EXISTING VEGETATION, INCLUDING PERCENT OF VEGETATIVE COVER:

Pre-Construction Date of survey: _____ Percent Existing Vegetative Cover: _____

Description of existing vegetation:

Method for determining percent vegetative cover:

Post-Construction Date of survey: Percent Vegetative Cover:

Description of vegetation:

The method used to determine pre-construction percent cover shall be used to determine post construction percent cover.

G. POTENTIAL POLLUTANTS SOURCES:

H. DRAINAGE PATTERNS AND RECEIVING WATER(S):

3. Ultimate receiving water(s): Fountain Creek and Arkansas River

- I. ALLOWABLE NON-STORMWATER DISCHARGES:

*Concrete washout water associated with the washing of concrete tools and concrete mixer chutes can be discharged to the ground if site is managed accordingly to prevent the water from leaving the site as surface runoff or reaching receiving waters.

- J. DESCRIPTION OF DRAINAGE PATTERNS FROM THE SITE:

K. ALTERNATIVE TEMPORARY STABILIZATION SCHEDULE:

2. SITE MAP COMPONENTS:

Pre-construction



- A. PROJECT CONSTRUCTION POTENTIAL SITE BOUNDARIES:

See SWMP Site Maps

- B. FLOW ARROWS THAT DEPICT STORMWATER FLOW DIRECTIONS ON-SITE, RUN-ON AND RUNOFF**

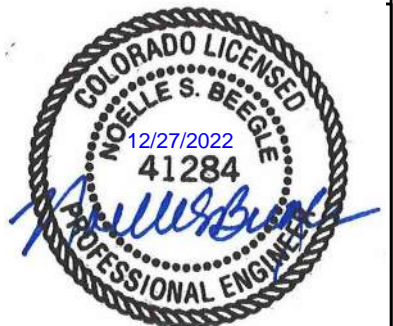
DIRECTION:



See SWMP Site Maps

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10. PRIOR TO PROJECT FINAL ACCEPTANCE

- A. When directed by the Engineer, removal and disposal of temporary control measures shall be included in the cost of work.
- B. At the end of the project, all ditch checks shall consist of either temporary erosion logs (or equivalent) or permanent riprap.
- C. All storm drains shall be cleaned prior to the Final Acceptance of the project. If required, include work in 202-04002 Clean Culvert.
- D. Refer to subsection 208.10 for Items to be completed prior to requesting partial acceptance of water quality work.



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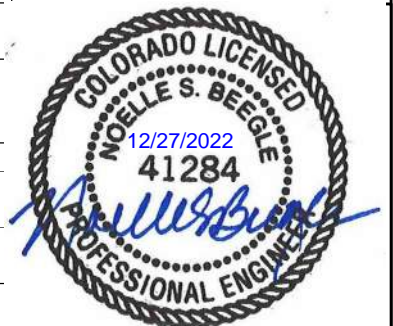
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1. Control measure narratives have been included for the CDOT Standard Specifications and Standard Plan M-208 and M-216 along with any non-standard control measures approved during the design process. If a Non-Standard Control Measure not included in the SWMP is proposed and approved by the Engineer the SWMP Administrator for Construction shall do the following: Place an "X" in the column for non-standard and complete a Non-Standard Control Measure Specification and Narrative covering what, when, where, and why the control measure is being used shall be add to the SWMP. The appropriate "X" shall also be added to the implementation phase(s).

2. The SWMP Administrator for Construction shall place an "X" in the column In Use On Site when the control measure has been installed.

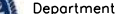

3. A "B" in the Initial Activities Column indicates that the control measure shall be installed **before** construction activity starts. Locations and quantities will be discussed during the Environmental Pre-Construction Conference with the Regional Water Pollution Control Manager.

APPLICATION, CONTROL MEASURE	NARRATIVE	M- 208 STANDARD or "X" for NON- STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITIES	INTERIM ACTIVITIES	PERMANENT STABILIZATION
PROTECTION OF EXISTING WETLANDS <i>Fence (plastic) and erosion logs</i>	Fence (plastic) shall be placed in combination with erosion logs to prevent encroachment of construction traffic and sediment into state waters prior to start of construction disturbances. Fence (plastic) shall be placed adjacent to the wetlands; erosion logs shall be placed between the plastic fence and disturbance area. Logs shall be placed to direct flows away from or filter water running into wetlands from disturbance areas.			B	X	
PROTECTION OF EXISTING TREES/LANDSCAPING <i>Fence (plastic)</i>	Fence (plastic) shall be used in areas indicated in the plans to prevent encroachment of construction traffic and sediment for the protection of sensitive habitat, mature trees and/or existing landscaping prior to start of construction disturbances.			B	X	
CHECK DAM/DITCH CHECK <i>Erosion log, silt berm, silt dike, rock check dam</i>	Placed in ditches immediately upon completion of ditch grading to reduce velocity of runoff in ditch. For existing ditches, place prior to start of construction disturbances.	M-208		X	X	
<i>Storm Drain Inlet Protection In Paved Roadways (Type 1, 2 and 3 as shown on M-208-1, sheet 5 of 11)</i>	Manufactured storm drain inlet protection placed prior to construction disturbances as detailed in M-208-1, to protect existing inlets or immediately upon completion of new inlets to prevent sediment from entering the inlet throughout construction.	M-208				
<i>Storm Drain Inlet Protection In Native Seed Areas (M-604 Standard Inlets Type C and D)</i>	Erosion logs or aggregate bags placed around inlet grate to prevent sediment from entering inlet. Place prior to construction disturbances to protect existing inlets or immediately upon completion of new inlets.	M-208				
CULVERT INLET/OUTLET PROTECTION <i>Erosion logs, aggregate bags</i>	Placed at mouth of culvert inlets and over top of culvert at inlet and outlet where disturbance may be occurring adjacent to pipe to prevent sediment laden water from entering pipe or drainage. Place prior to the start of construction disturbances.	M-208				
TYPE C, TYPE D AND TYPE 13 PROTECTION <i>Erosion logs, aggregate bags, erosion bales</i>	Placed around inlet grate or slope and ditch paving to prevent sediment from entering inlet. Place prior to the start of construction disturbances.	M-208				
STOCKPILE PROTECTION <i>Temporary berm, erosion logs, aggregate bags*</i>	Placed within specified distance, in accordance with subsection 208.06, from toe to contain sediment around stockpile. *Aggregate bags are easily moved and replaced for access during the workday. Place prior to start of stockpiling, increase control as the stockpile increases size.	M-208			X	
TOE OF FILL PROTECTION <i>Erosion logs, temporary berm, silt fence, topsoil windrow*</i>	Place prior to slope/embankment work to capture sediment and protect and delineate undisturbed areas. *Can be used to stockpile topsoil for salvage.	M-208		X	X	
PERIMETER CONTROL <i>Erosion logs, silt fence, temporary berm, topsoil windrow*</i>	Placed prior to construction commencing to address potential run-on water from off site, and to divert around disturbed area. *Can be used to stockpile topsoil for salvage.	M-208		B	X	
SLOPE CONTROL <i>Silt fence, erosion logs</i>	Placed on the contour of a slope to contain and slow down construction runoff. Place prior to the start of construction disturbances.	M-208		X	X	
TEMPORARY SEDIMENT TRAP	Used to capture sediment laden runoff from disturbed areas < 5 acres during construction. Place prior to the start of construction disturbances. Outlets that withdraw water from or near the surface may be installed when discharging from basins and impoundments.	M-208				
TEMPORARY SLOPE DRAIN	Placed as a conduit or chute to drain runoff down slope and to prevent erosion of slope.	M-208				
OUTLET PROTECTION <i>Riprap, or approved other</i>	Material placed as an energy dissipater to prevent erosion at outlet structure.	M-601-12				
CONCRETE WASHOUT <i>In-ground or fabricated</i>	Construction control, used for waste management of concrete and concrete equipment cleaning. Place prior to the start of concrete activities.	M-208				



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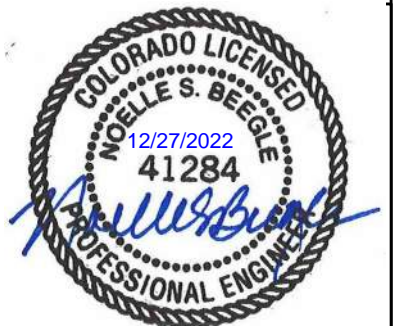




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NON-STRUCTURAL Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to: Erosion control devices are used to limit the amount of soil loss on site. Sediment control devices are designed to capture sediment on the project site. Construction controls are control measures related to construction access and staging. Control Measure locations are indicated on the SWMP Site Map.

* **Use of vegetative buffer strip requirements.** The CDPHE Water Quality Control Division Technical Memorandum dated August 27, 2015 clarifies the requirements for utilization of existing vegetation as a buffer type of sediment control measure, while maintaining compliance with the CDPS permit for Stormwater Discharges Associated with Construction Activity – CDPS Permit No. COR4000000. In general, the division does not recommend that vegetated buffers be implemented as a sediment removal control measure for runoff from disturbed areas at construction sites, unless implemented as a “finishing” component of a treatment train comprised of additional, adequate up-gradient Control Measures. The entire memorandum can be found at: <https://www.colorado.gov/pacific/sites/default/files/Vegetative%20Buffer%20Memo.pdf>

APPLICATION, CONTROL MEASURE	NARRATIVE	M- STANDARD or "For NON- STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITY	INTERIM ACTIVITIES	PERMANENT STABILIZATION
* VEGETATIVE BUFFER STRIP	Finishing component for filtering sediment-laden runoff from disturbance area. Area within CDOT ROW or temporary easement to be identified on SWMP prior to construction starting.			X	X	X
GRADING APPLICATIONS (LANDFORM)	Existing or created landforms may be used as a control measure if they prevent sediment from entering or leaving the disturbance area. If a landform directs flow of water to a concentrated outfall point, the outfall point shall be protected to prevent erosion. Area to be identified on SWMP prior to construction starting.	M-208		X	X	
TOPSOIL MANAGEMENT STOCKPILE/SALVAGE Stockpile	Prior to any site disturbance work commencing, existing topsoil shall be scraped to a depth six inches or as specified, and placed in stockpiles or windrows. Upon completion of final grading, topsoil shall be evenly distributed over embankment to a depth of six inches or as specified.	M-208		X	X	X
SURFACE ROUGHENING / GRADING TECHNIQUES	Temporary stabilization of disturbance and to minimize wind and erosion.				X	
SEEDING (TEMPORARY)	Temporary stabilization used for over wintering of disturbance or used to control erosion for areas scheduled for future construction.				X	
BONDED FIBER MATRIX or MULCHING (HYDRAULIC)	Not to be used in areas of concentrated flows, i.e. ditch lines. To be for either Interim or Permanent Stabilization placed as a surface cover for erosion control. May be used as surface cover when work is temporarily halted and as approved by the Engineer for stockpiles.					
Straw or Hay MULCH/MULCH TACKIFIER	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as Interim Stabilization as a surface cover when work is temporarily halted and as approved by the Engineer					
SPRAY-ON MULCH BLANKET (Not to be used in areas of concentrated flows, i.e. ditch lines.)	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as temporary surface cover when work is temporarily halted and as approved by the Engineer					
SEEDING PERMANENT (NATIVE PERENNIAL)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.					X
SOIL RETENTION BLANKET (SRB)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.	M-216				
TURF REINFORCEMENT MAT (TRM)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas. Placed in channels or on slopes for erosion control, channel liner and seeding establishment.	M-216				
Sweeping	Source control, used to remove sediment tracked onto paved surfaces and to prevent sediment from entering drainage system. Sweep daily and at the end of the construction shift as needed. Kick brooms shall not be permitted.			X	X	X
OTHER						



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12. TABULATION OF STORMWATER QUANTITIES

- E. Control Measure sediment removal and disposal shall be paid for as: 208 Removal and Disposal of Sediment (Equipment) and 208 Removal and Disposal of Sediment (Labor). All other control measure maintenance shall be included in the cost of the control measure.
- F. Establishment of seeded areas from Substantial Landscape Completion shall be paid for as: included in the price of work. This shall include mowing, weed control, reseeding/mulch/tackifier.

Pay Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity
207-00702	Topsoil	CY			403	403
208-00002	Erosion Log Type 1 (12 Inch)	LF	680			680
208-00041	Rock Check Dam	EA	3			3
208-00070	Vehicle Tracking Pad	Each		1		1
208-00103	Removal and Disposal of Sediment (Labor)	Hour				24
208-00105	Removal and Disposal of Sediment (Equipment)	Hour				24
208-00207	Erosion Control Management (ECM)	Day				30
208-00301	Temporary Diversion	LF		308		308
208-00400	Water Control	LS		1		1
208-00520	Temporary Stream Crossing	EA		1		1
212-00005	Seeding (Native)	Acre			0.43	0.43
700-70380	F/A Erosion Control	FA				1
700-70310	F/A Landscaping	FA				1

*It is anticipated that additional control measures and control measure quantities not shown on the SWMP Site Maps shall be required on the project for unforeseen conditions and replacement of items that are beyond their useful service life, see subsections 208.03 and 208.04. **Quantities for all control measures shown above are estimated and have been increased for unforeseen conditions and normal control measure life expectancy.** Quantities shall be adjusted according to the conditions encountered in the field as directed and approved by the Engineer. Payment shall be for the actual work completed and material used.

**Pay Item 208-00071 is included for anticipated maintenance of vehicle tracking pads based on the service life of the control measure in the field. The use of the material shall be directed and approved by the Engineer.

*** F/A refers to CDOT's Force Account Pay Items.

13. BIOLOGICAL IMPACTS and DEWATERING

- A. ENVIRONMENTAL IMPACTS:
- Wetland Impacts: YES
 - Stream Impacts: YES
 - Threatened and Endangered Species: The gray wolf and the greenback cutthroat trout is listed as endangered, whereas the eastern black rail is listed as threatened.
- B. DEWATERING:
- (Not covered under the CDPHE guidance document Low Risk Discharge Guidance Discharges of Uncontaminated Groundwater to Land):
- <https://www.colorado.gov/pacific/sites/default/files/WQ%20LOW%20RISK%20GW.pdf>
- Dewatering: Refer to other environmental permits in accordance with subsection 107.02 and the permits contained in Tab 16 of the SWMP.
 - If groundwater does not meet water quality standards for receiving water a separate CDPS Dewatering Permit shall be obtained by the Contractor from CDPHE in accordance with subsections 107.02 and 107.25.

14. NOTES

- A. Portable toilets shall be located a minimum of 10 feet from stormwater inlets and 50 feet from state waters. They shall be secured at all four corners to prevent overturning and cleaned on a weekly basis. They shall be inspected daily for spills.



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UTILITY NOTES:

1. ALL UTILITY INSTALLATIONS WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN ARE COVERED UNDER THIS PLAN. LOCATIONS OF UTILITIES WITHIN THE LIMITS OF DISTURBANCE MAY BE MODIFIED AFTER PLAN APPROVAL AS A FIELD CHANGE.
2. THE PLAN SHALL NOT SUBSTANTIALLY CHANGE THE DEPTH OF COVER OR ACCESS TO EXISTING UTILITY LINES. ACCEPTANCE OF THIS PLAN DOES NOT CONSTITUTE APPROVAL TO GRADE IN ANY UTILITY EASEMENT OR RIGHT-OF-WAY. APPROVALS TO GRADE WITHIN UTILITY EASEMENTS MUST BE OBTAINED FROM THE APPROPRIATE UTILITY COMPANY. IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY COLORADO SPRINGS UTILITY EASEMENT OR UTILITY RIGHT-OF-WAY WITHOUT THEIR WRITTEN APPROVAL. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO EXISTING UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS IS AT THE APPLICANT'S EXPENSE.

WATERWAY PROTECTION NOTES:

1. CONSTRUCTION VEHICLES SHOULD BE KEPT OUT OF A WATERWAY TO THE MAXIMUM POSSIBLE EXTENT PRACTICAL.
2. WHERE IN-CHANNEL WORK IS NECESSARY, STEPS SUCH AS TEMPORARY CHANNEL DIVERSIONS MUST BE TAKEN TO STABILIZE THE WORK AREA AND CONTROL EROSION DURING CONSTRUCTION.
3. WHERE AN ACTIVELY-FLOWING WATERCOURSE MUST BE CROSSED REGULARLY BY CONSTRUCTION VEHICLES, A TEMPORARY CROSSING CHANNEL SHALL BE PROVIDED.
4. WHEN WORK TAKES PLACE WITHIN A CHANNEL, A TEMPORARY WATER DIVERSION TO BYPASS THE WORK AREA SHALL BE REQUIRED.
5. TO THE EXTENT PRACTICAL, CONSTRUCTION IN A WATERWAY SHOULD BE SEQUENCED TO BEGIN AT THE MOST DOWNSTREAM POINT AND WORK PROGRESSIVELY UPSTREAM INSTALLING THE REQUIRED CHANNEL AND GRADE CONTROL FACILITIES.
6. COMPLETE WORK IN SMALL SEGMENTS, EXPOSING AS LITTLE OF THE CHANNEL AT A TIME AS PRACTICAL. KEEP EQUIPMENT OPERATORS CONTAINED IN IMMEDIATE WORK AREA AND AVOID EXCESSIVE COMPACTING OF THE SOIL SURFACE BECAUSE IT INHIBITS REVEGETATION.
7. WHERE FEASIBLE, IT IS BEST TO PERFORM IN-CHANNEL WORK BETWEEN OCTOBER 1 AND MARCH 31 IN COLORADO. THIS IS THE PERIOD WHEN THE CHANCES OF FLASH FLOODS AND FLOWS HIGHER THAN THE 2-YEAR FLOOD PEAK FLOWS ARE LESS LIKELY.
8. DURING THE PROCESS OF CUT AND FILL, AVOID LETTING SIDE-CAST OR WASTE MATERIAL ENTER WATERWAYS OR PLACING IT ON UNSTABLE AREAS. INSTEAD, EFFICIENTLY MOVE EXCAVATED MATERIAL TO AREAS NEEDING FILL OR TO A STOCKPILE.

ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS. SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS REPORT

Noelle Beegle
ENGINEER OF RECORD SIGNATURE

12/27/2022
DATE

OWNER'S STATEMENT:

I THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

NAME, TITLE

ADDRESS

DATE

EL PASO COUNTY:

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

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

JOSHUA PALMER, PE
COUNTY ENGINEER/ECM ADMINISTRATOR

DATE



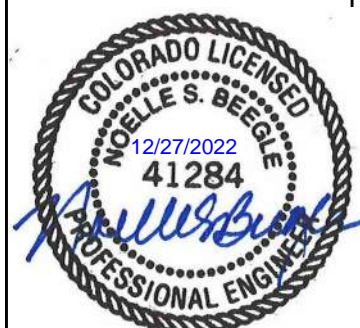
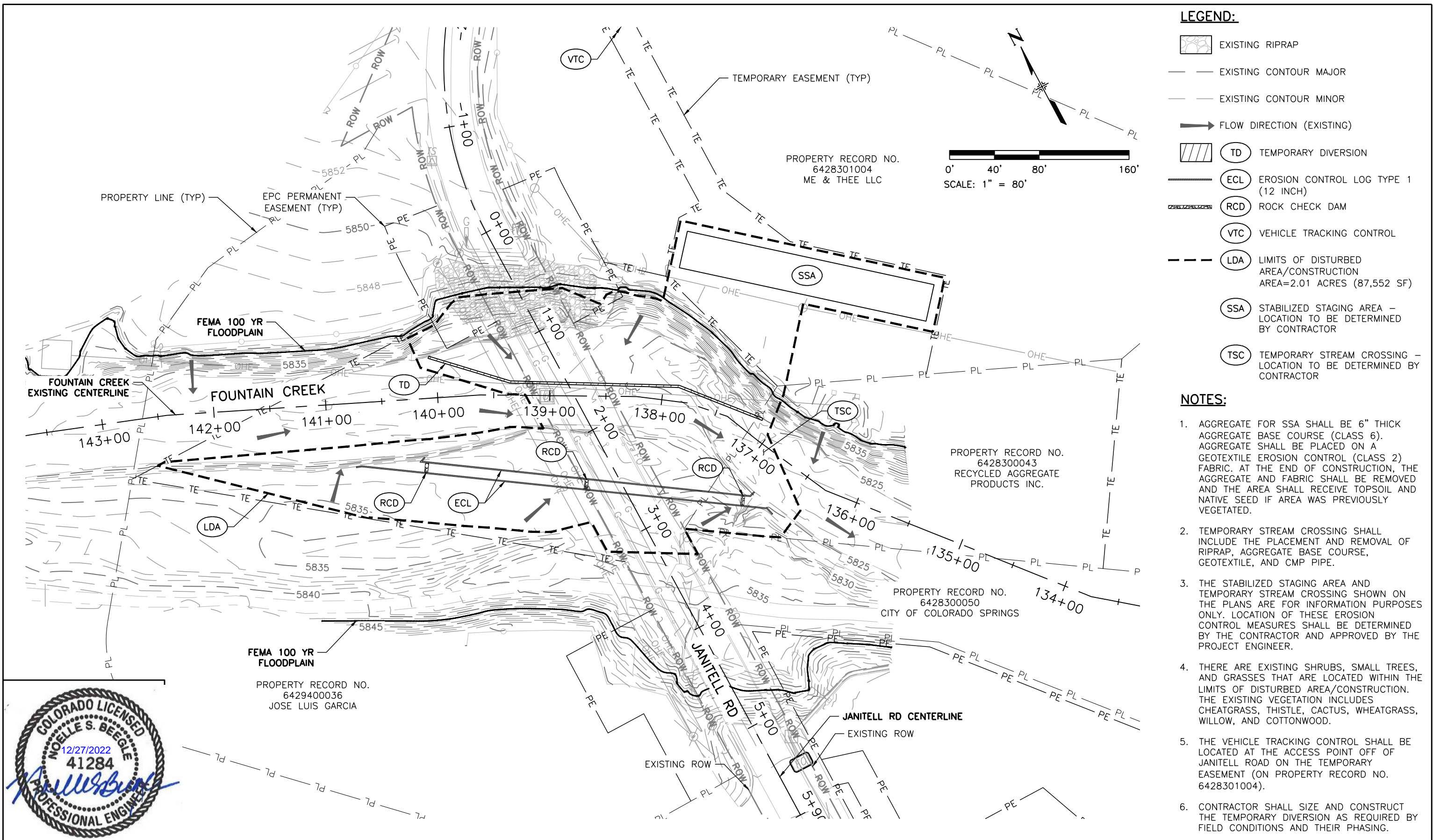
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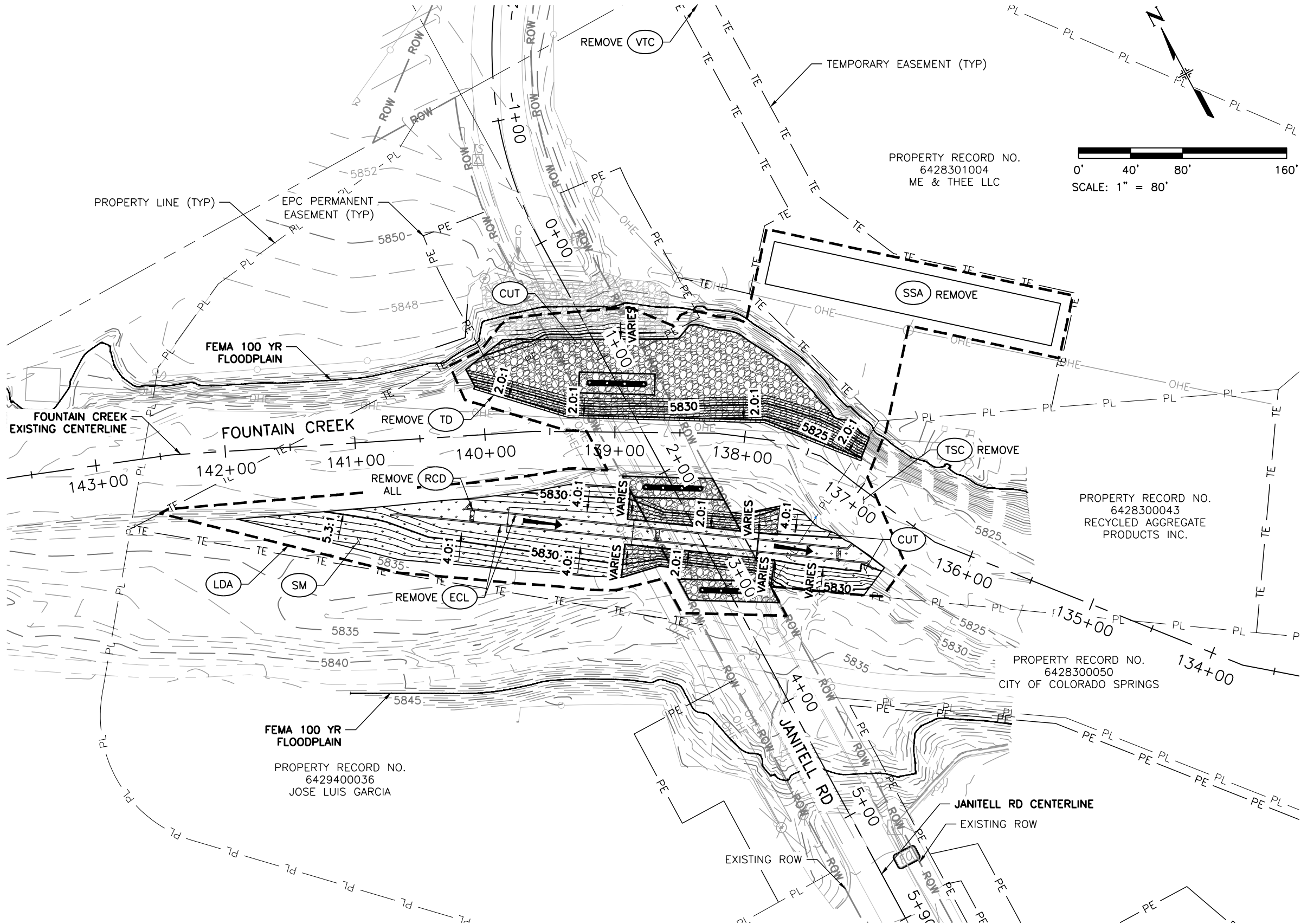


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- LEGEND:**
- EXISTING RIPRAP
 - NEW SOIL RIPRAP
 - PROPOSED CONTOUR MAJOR
 - PROPOSED CONTOUR MINOR
 - EXISTING CONTOUR MAJOR
 - EXISTING CONTOUR MINOR
 - FLOW DIRECTION (PROPOSED)
 - TD TEMPORARY DIVERSION
 - ECL EROSION CONTROL LOG TYPE 1 (12 INCH)
 - RCD ROCK CHECK DAM
 - SM SEEDING, 6" TOPSOIL, AND COIR MAT AREA=0.43 ACRES
 - VTC VEHICLE TRACKING CONTROL
 - CUT FILL AREAS OF CUT OR FILL
 - LDA LIMITS OF DISTURBED AREA/CONSTRUCTION AREA=2.01 ACRES (87,552 SF)
 - SSA STABILIZED STAGING AREA - LOCATION TO BE DETERMINED BY CONTRACTOR
 - TSC TEMPORARY STREAM CROSSING - LOCATION TO BE DETERMINED BY CONTRACTOR

- NOTES:**
- EARTHWORK FOR THE PROJECT INCLUDES THE FOLLOWING:
 - UNCLASSIFIED EXCAVATION: 6,338 CY
 - REFER TO MHFD URBAN STORM DRAINAGE CRITERIA MANUAL VOL. 3, EC-6, ROLLED EROSION CONTROL PRODUCTS (RECP). COIR MATERIAL PER SECTION 216 OF THE CDOT STANDARD SPECIFICATIONS. BIODEGRADABLE.



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Sheet Revisions			

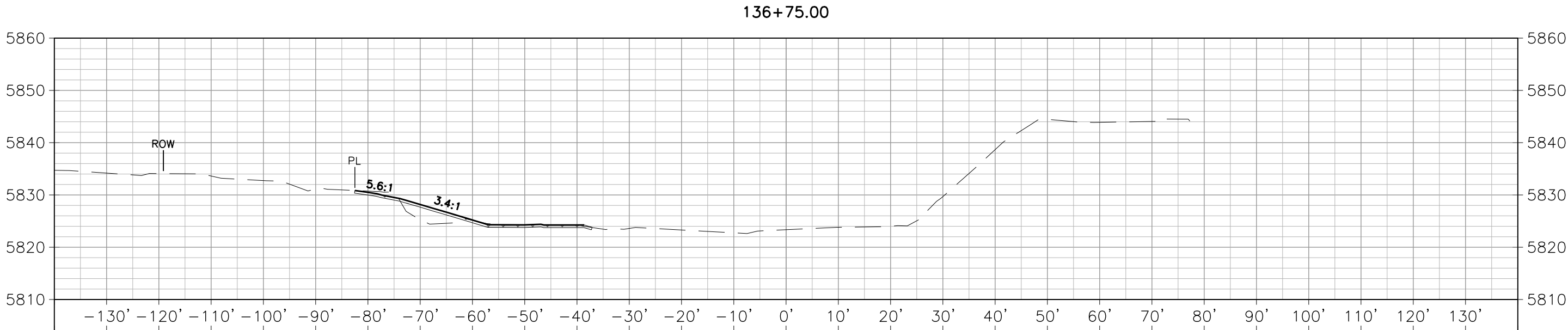
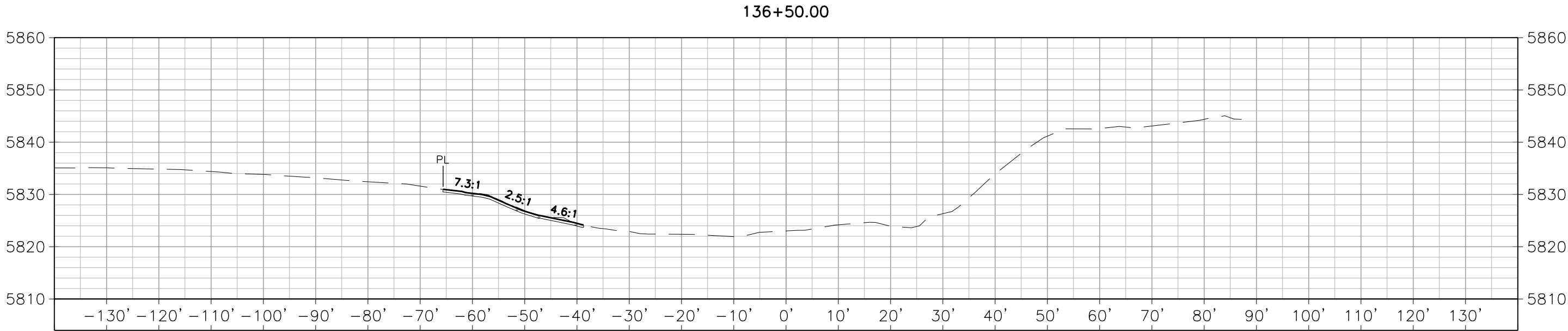


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
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LEGEND:

-  EXISTING RIPRAP/SOIL TO BE REMOVED
-  NEW SOIL RIPRAP
-  SEEDING, TOPSOIL, AND COIR MAT

- ROW JANITELL ROAD RIGHT-OF-WAY
- PL PROPERTY LINE
- TE TEMPORARY EASEMENT

NOTES:

1. CROSS SECTIONS ARE CUT PERPENDICULAR TO THE FOUNTAIN CREEK EXISTING CENTERLINE.



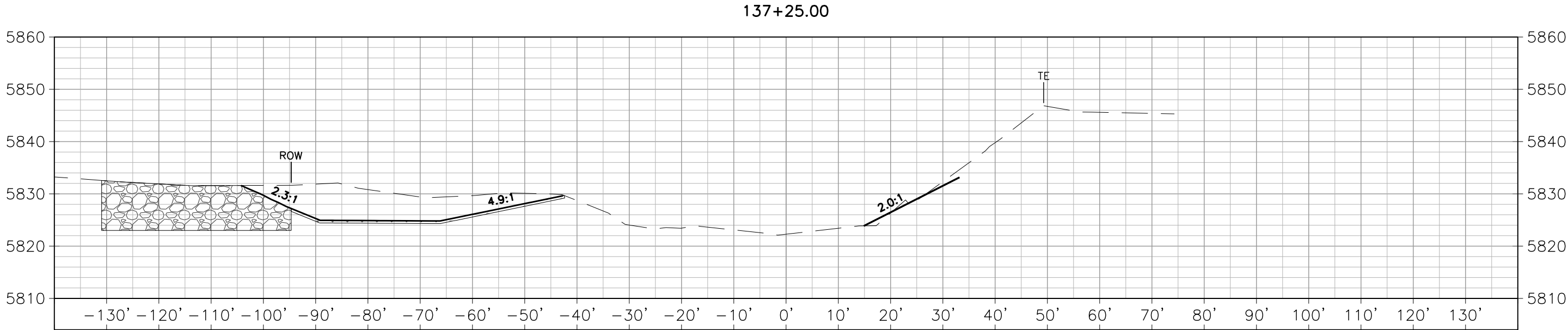
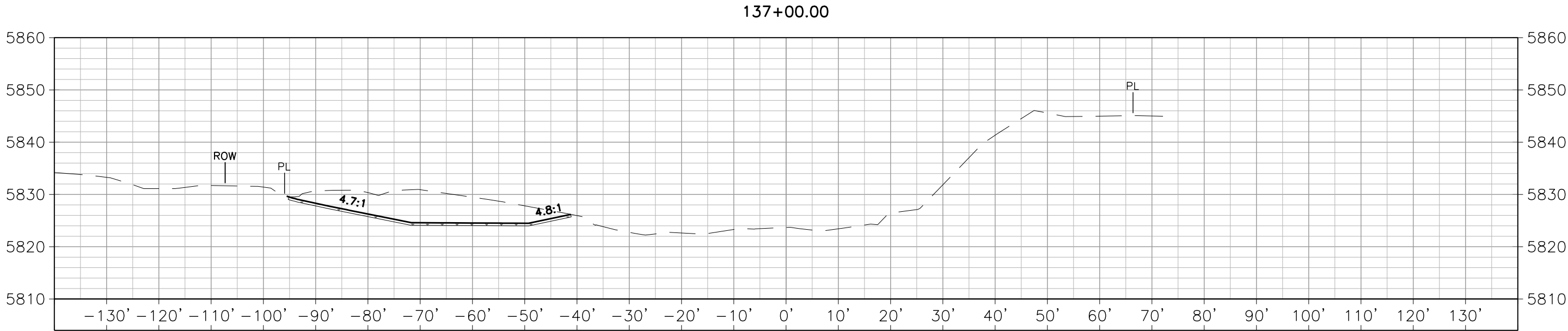
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
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LEGEND:

-  EXISTING RIPRAP/SOIL TO BE REMOVED
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-  SEEDING, TOPSOIL, AND COIR MAT

- ROW JANITELL ROAD RIGHT-OF-WAY
- PL PROPERTY LINE
- TE TEMPORARY EASEMENT

NOTES:

1. CROSS SECTIONS ARE CUT PERPENDICULAR TO THE FOUNTAIN CREEK EXISTING CENTERLINE.



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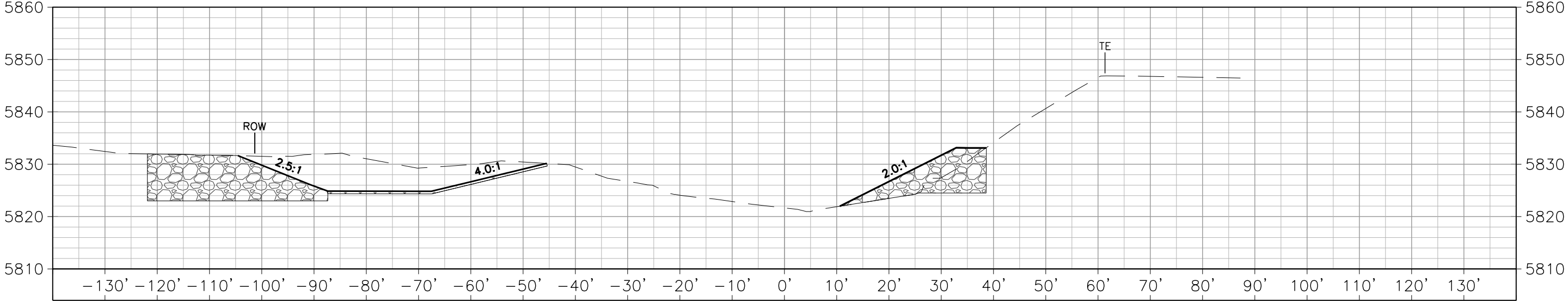


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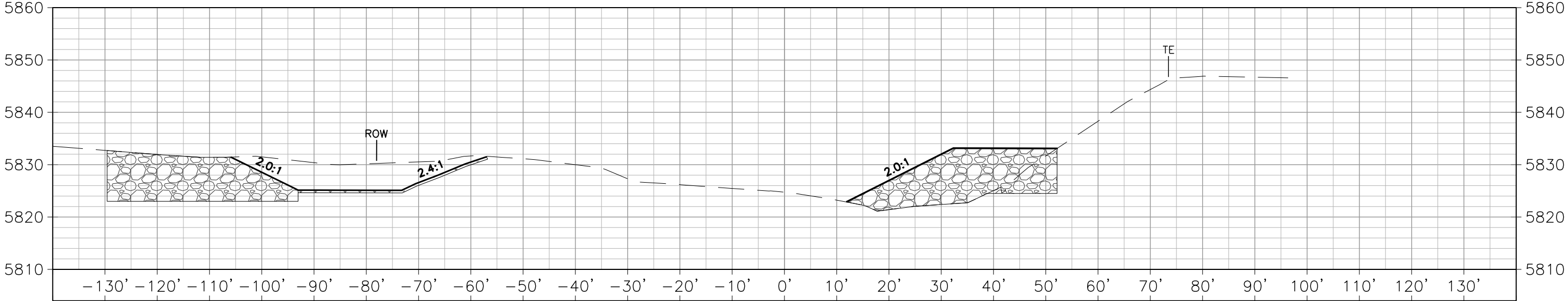


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137+50.00



137+75.00



LEGEND:

- EXISTING RIPRAP/SOIL TO BE REMOVED
- NEW SOIL RIPRAP
- SEEDING, TOPSOIL, AND COIR MAT

- ROW JANITELL ROAD RIGHT-OF-WAY
- PL PROPERTY LINE
- TE TEMPORARY EASEMENT

NOTES:

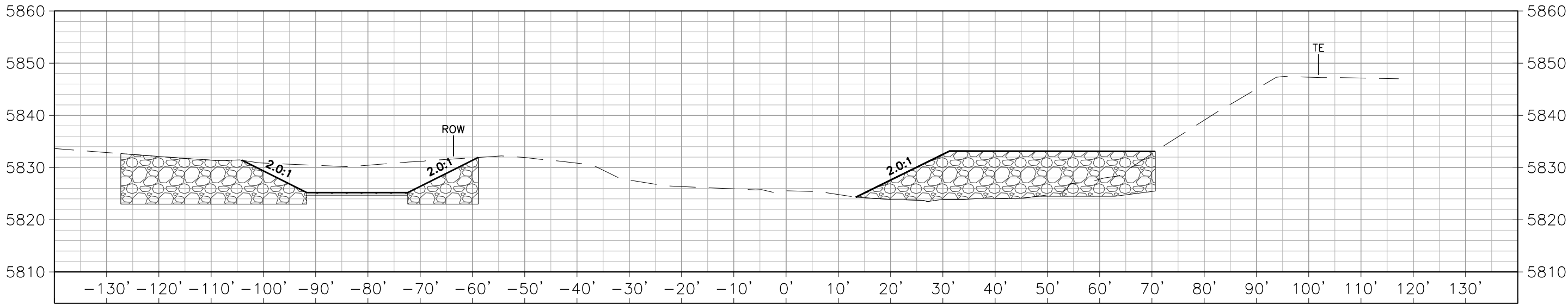
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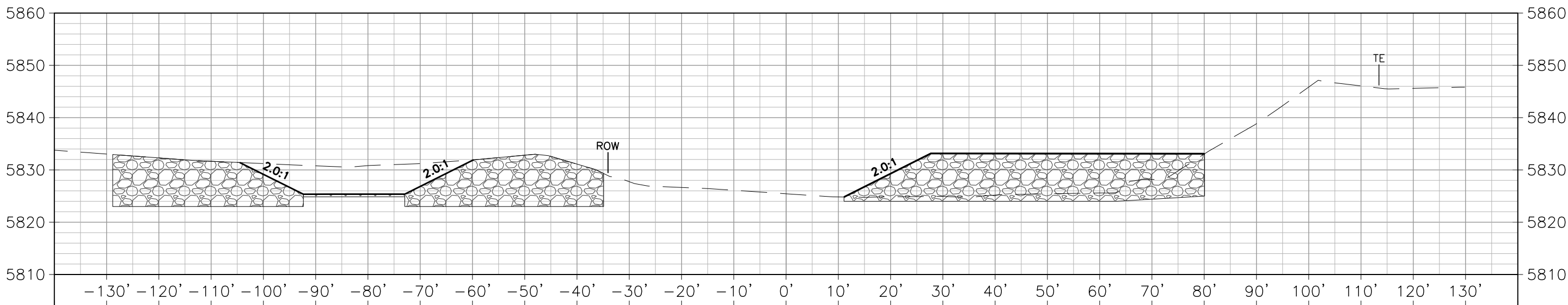
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138+00.00



138+25.00



LEGEND:

- | | | | |
|--|------------------------------------|-----|----------------------------|
| | EXISTING RIPRAP/SOIL TO BE REMOVED | ROW | JANITELL ROAD RIGHT-OF-WAY |
| | NEW SOIL RIPRAP | PL | PROPERTY LINE |
| | SEEDING, TOPSOIL, AND COIR MAT | TE | TEMPORARY EASEMENT |

NOTES:

1. CROSS SECTIONS ARE CUT PERPENDICULAR TO THE FOUNTAIN CREEK EXISTING CENTERLINE.



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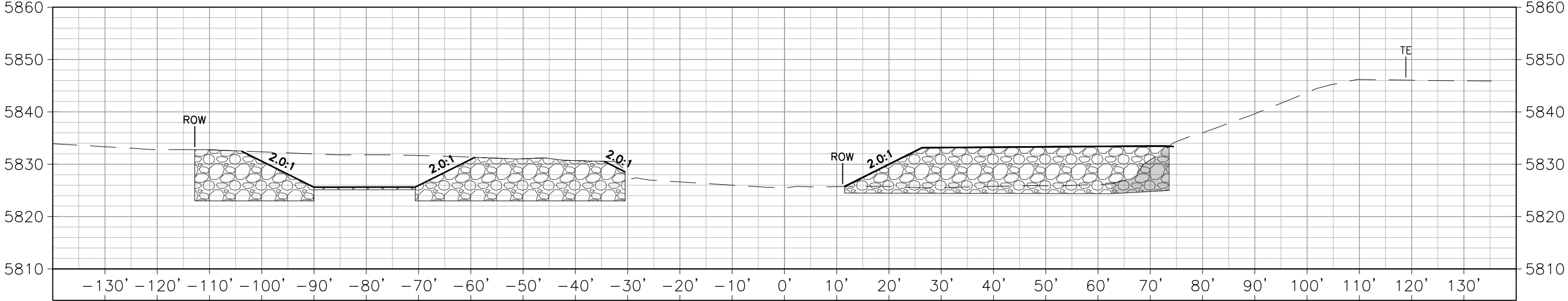
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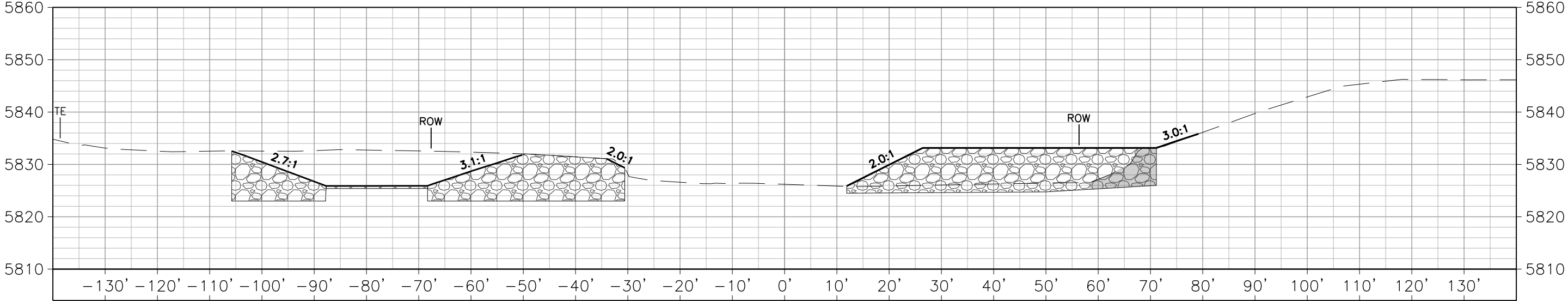
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
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138+75.00



LEGEND:

-  EXISTING RIPRAP/SOIL TO BE REMOVED
-  NEW SOIL RIPRAP
-  SEEDING, TOPSOIL, AND COIR MAT

- ROW JANITELL ROAD RIGHT-OF-WAY
- PL PROPERTY LINE
- TE TEMPORARY EASEMENT

NOTES:

- CROSS SECTIONS ARE CUT PERPENDICULAR TO THE FOUNTAIN CREEK EXISTING CENTERLINE.



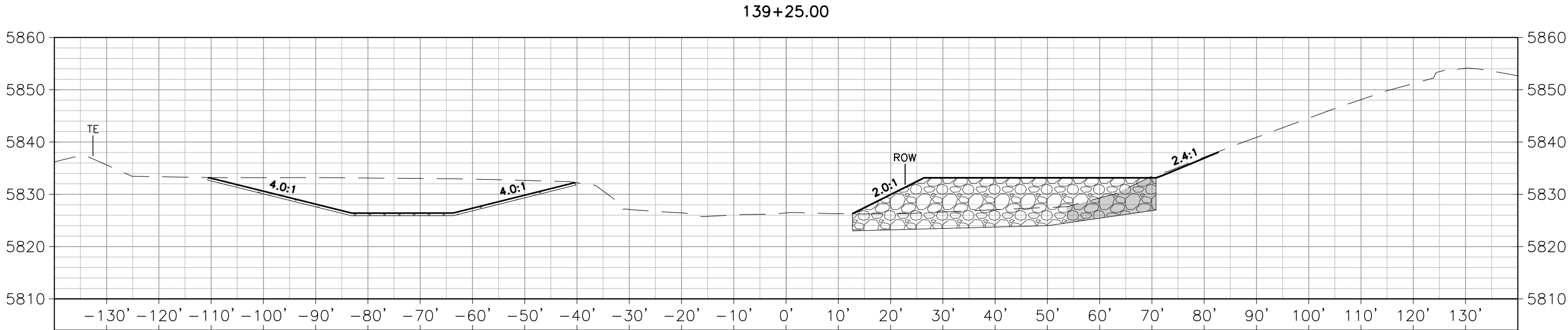
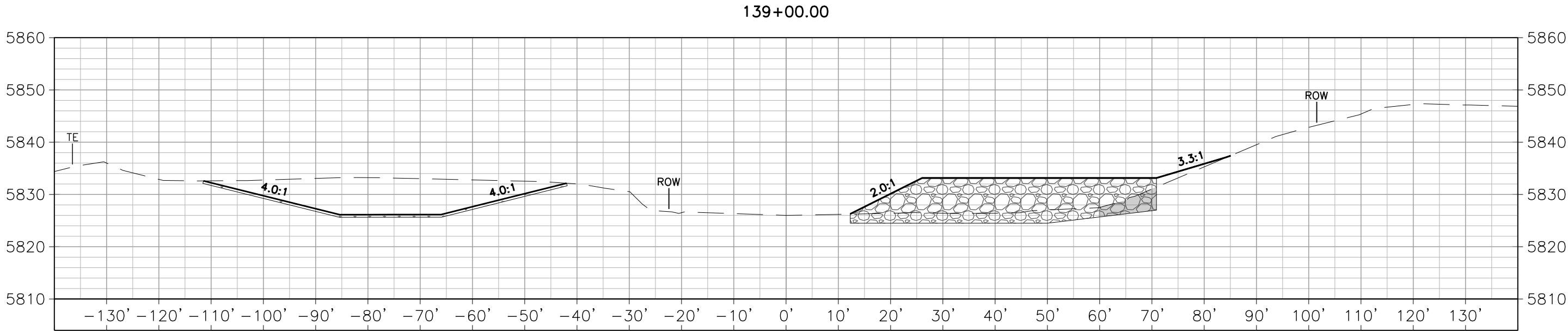
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LEGEND:

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- SEEDING, TOPSOIL, AND COIR MAT


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NOTES:


1. CROSS SECTIONS ARE CUT PERPENDICULAR TO THE FOUNTAIN CREEK EXISTING CENTERLINE.



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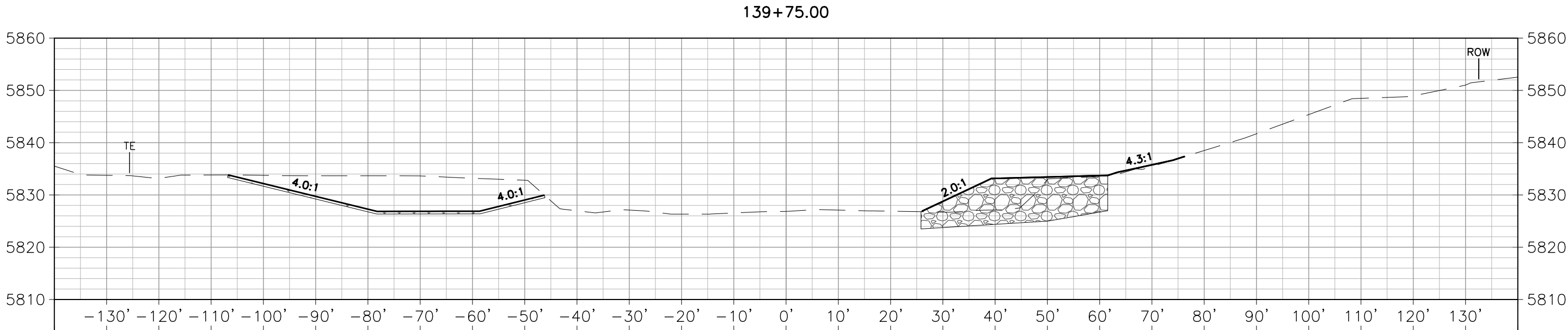
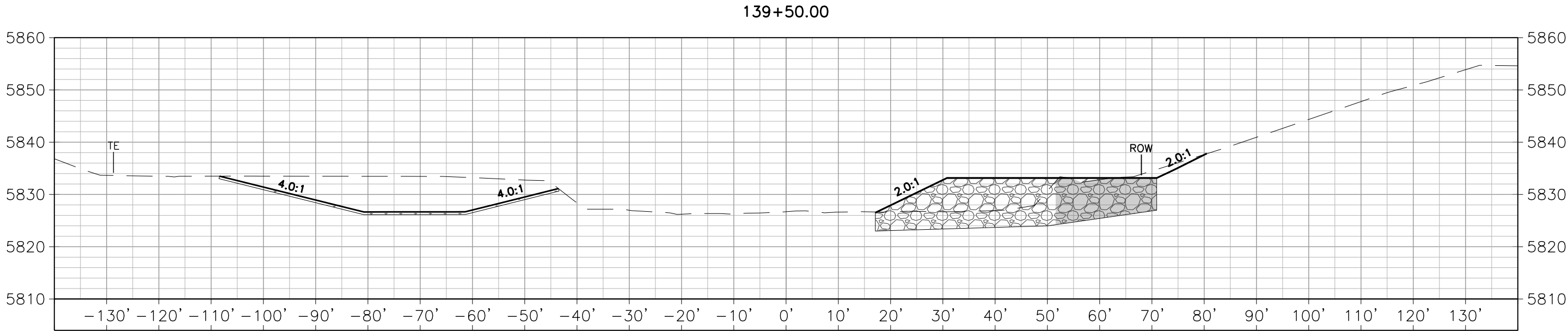


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LEGEND:

- EXISTING RIPRAP/SOIL TO BE REMOVED
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- SEEDING, TOPSOIL, AND COIR MAT

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NOTES:

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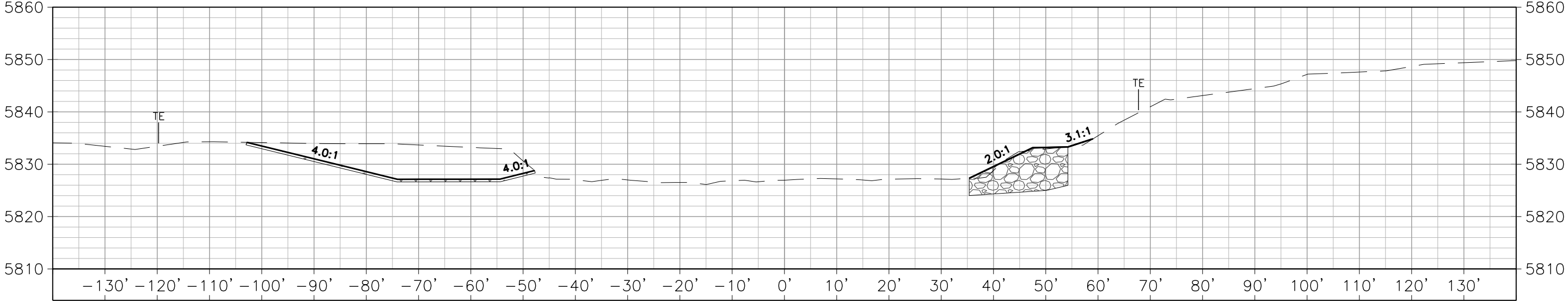


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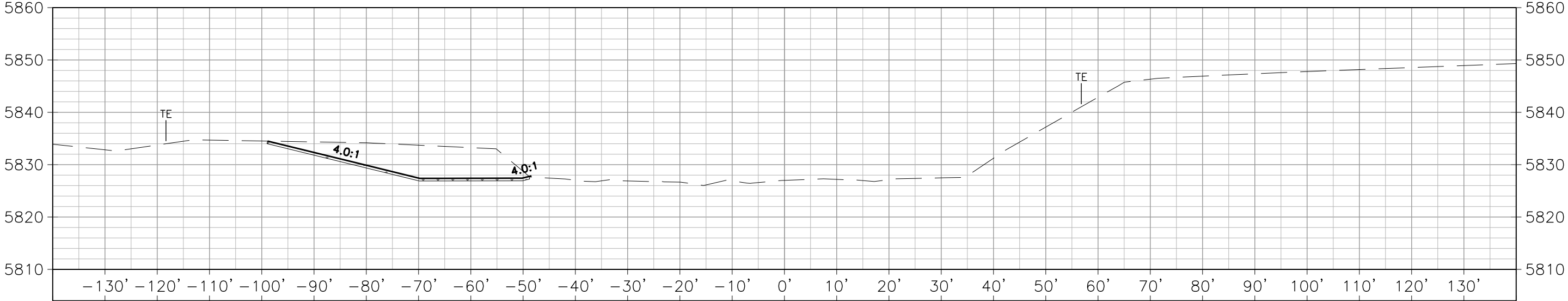
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140+00.00



140+25.00



LEGEND:

- EXISTING RIPRAP/SOIL TO BE REMOVED
- NEW SOIL RIPRAP
- SEEDING, TOPSOIL, AND COIR MAT

- ROW JANITELL ROAD RIGHT-OF-WAY
- PL PROPERTY LINE
- TE TEMPORARY EASEMENT

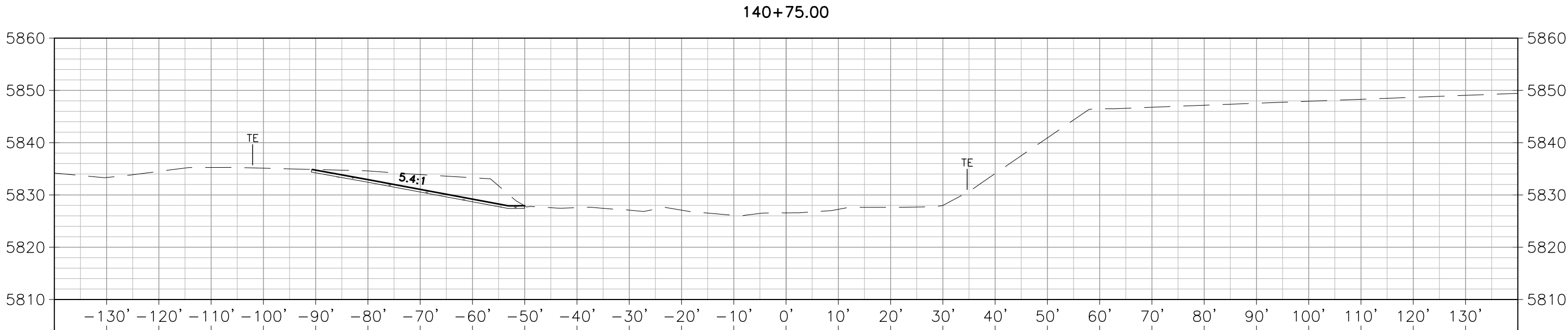
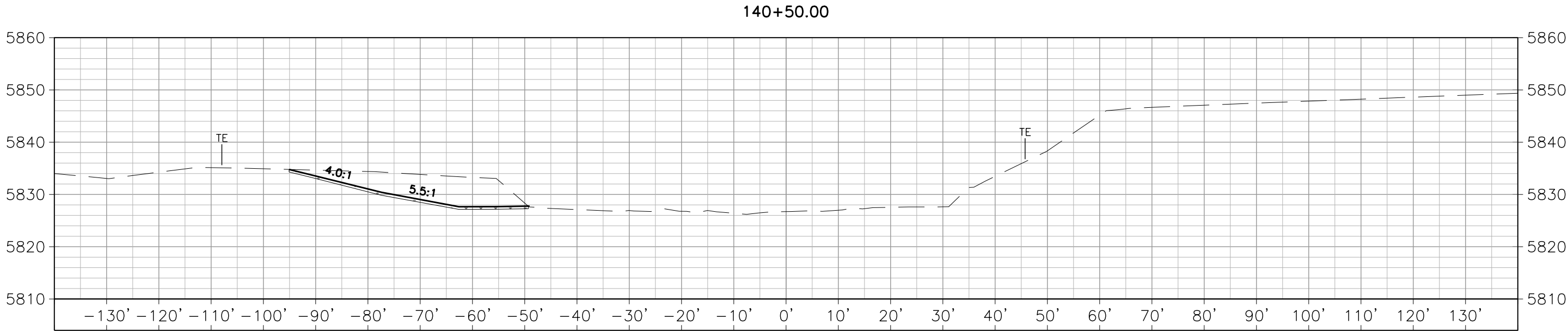
NOTES:

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LEGEND:

- EXISTING RIPRAP/SOIL TO BE REMOVED
- NEW SOIL RIPRAP
- SEEDING, TOPSOIL, AND COIR MAT

- ROW JANITELL ROAD RIGHT-OF-WAY
- PL PROPERTY LINE
- TE TEMPORARY EASEMENT

NOTES:

- CROSS SECTIONS ARE CUT PERPENDICULAR TO THE FOUNTAIN CREEK EXISTING CENTERLINE.



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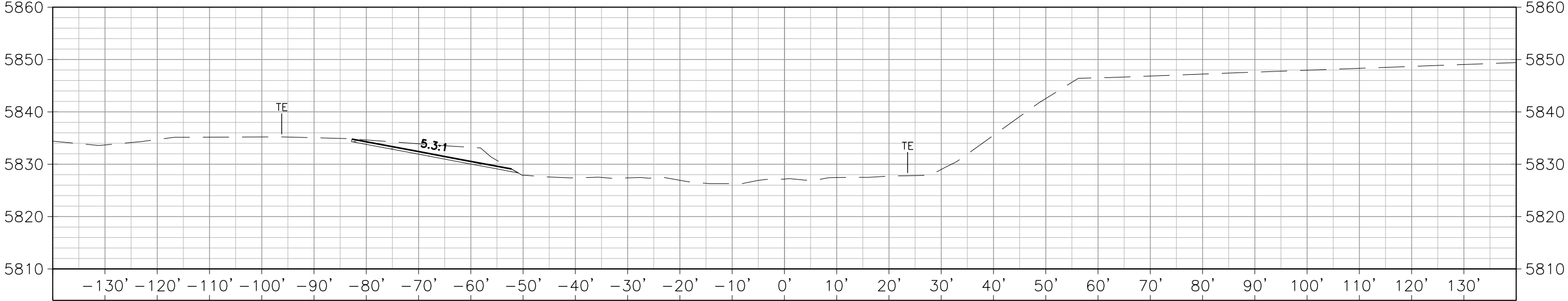


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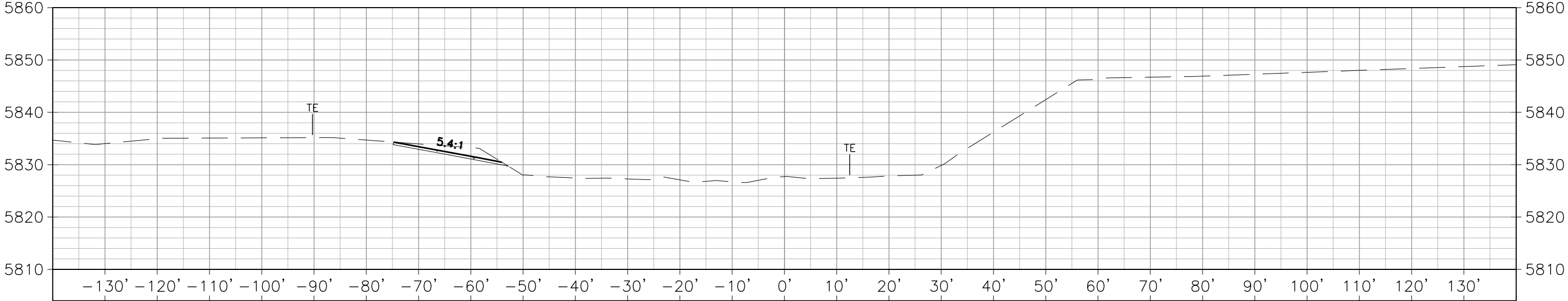


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141+00.00



141+25.00



LEGEND:



- EXISTING RIPRAP/SOIL TO BE REMOVED
- NEW SOIL RIPRAP
- SEEDING, TOPSOIL, AND COIR MAT

- ROW JANITELL ROAD RIGHT-OF-WAY
- PL PROPERTY LINE
- TE TEMPORARY EASEMENT

NOTES:

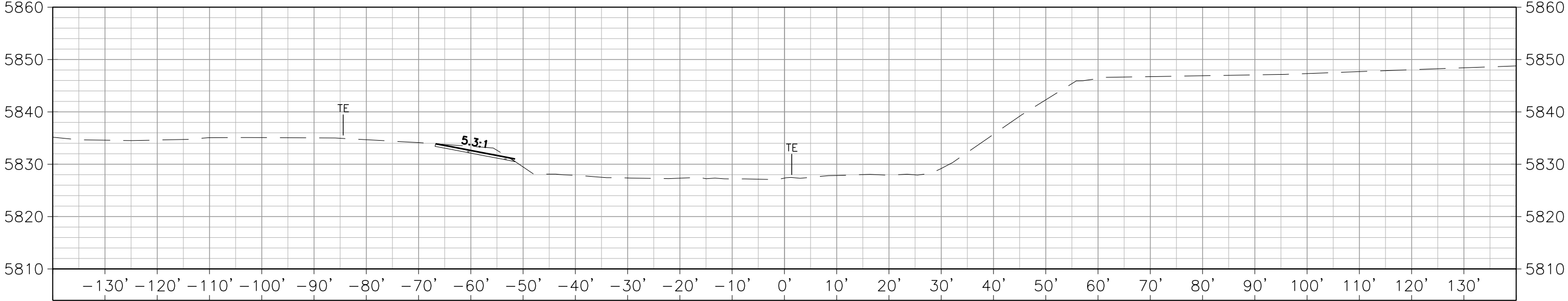
- CROSS SECTIONS ARE CUT PERPENDICULAR TO THE FOUNTAIN CREEK EXISTING CENTERLINE.



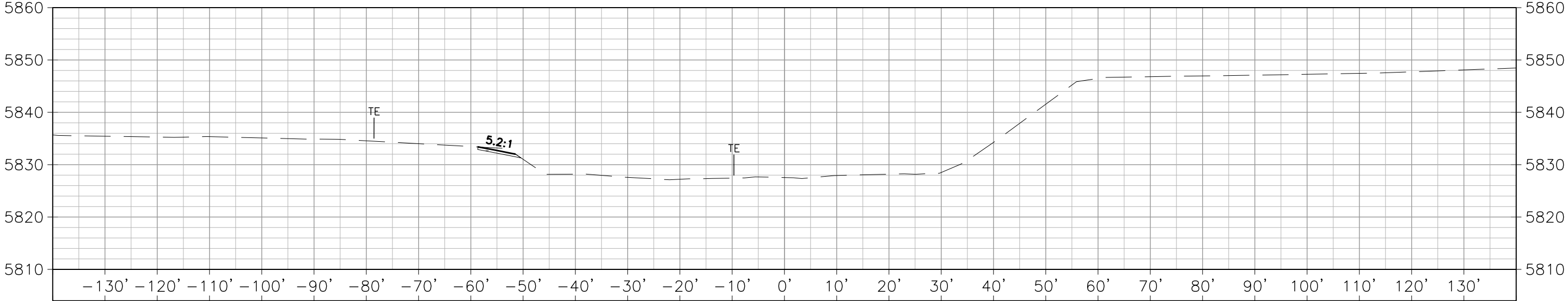
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141+50.00



141+75.00



LEGEND:

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NOTES:

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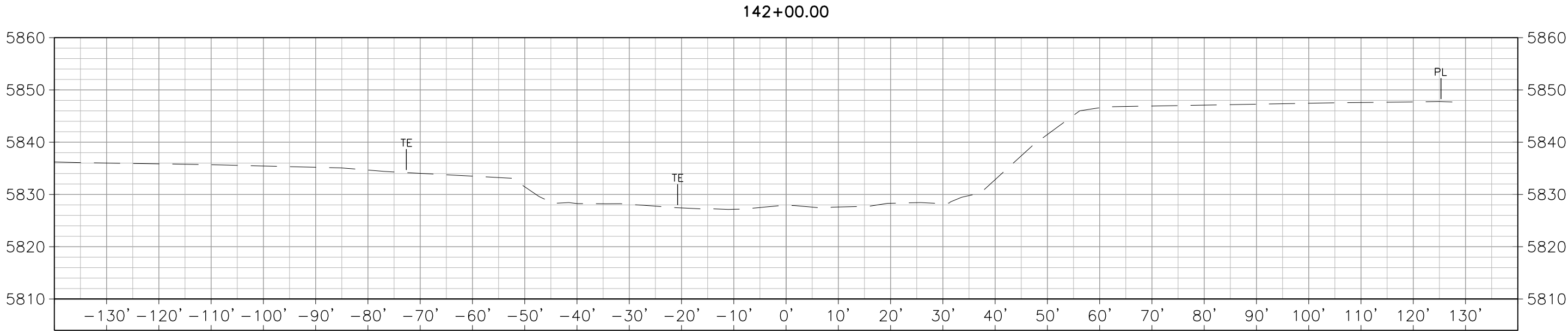


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


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LEGEND:

-  EXISTING RIPRAP/SOIL TO BE REMOVED
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