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PLANS OF PROPOSED IMPROVEMENT ON THE
INTERSTATE ROAD SYSTEM
POLK COUNTY
PRELIMINARY

**I-80 From Junction of
I-80/35/235 Northeast Mixmaster System Interchange To US 65**

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



For Project Location Map
Refer to Sheet A.2

INTERSTATE 80 DESIGN DATA URBAN			
2012	AADT	75,700	V.P.D.
2050	AADT	130,100	V.P.D.
2050	DHV	10,790	V.P.H.
	TRUCKS	17	%
	Total		
	Design ESALs	--	

REVISIONS

TOTAL
T B D
PROJECT IDENTIFICATION NUMBER
10-77-035-010-05
PROJECT NUMBER
IM-NHS-080-4(80)138--03-77
R.O.W. PROJECT NUMBER
IMN-080-4(92)138--0E-77

Revised 2/14/2022

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN SUBMITTAL
Date: January, 2022



Sta. 4128+95.91 (WB I-80)
Sta. 5128+00.00 (ULT ML I-80)
End WB Construction
Begin ULT ML080 Construction

Sta. 5208+07.97 (ULT ML I-80)
End ULT ML080 Construction

Sta. 1208+50.00 (ML I-80)
End ML080 Construction

Sta. 7406+44.66 (INT WB I-80)
Sta. 4103+49.83 (WB I-80)
End Interim Construction
Begin WB ML080 Construction

Sta. 7401+43.52 (INT WB I-80)
Begin Interim Construction

Sta. 39651+00.00 (RAMP H)
End Ramp H Construction

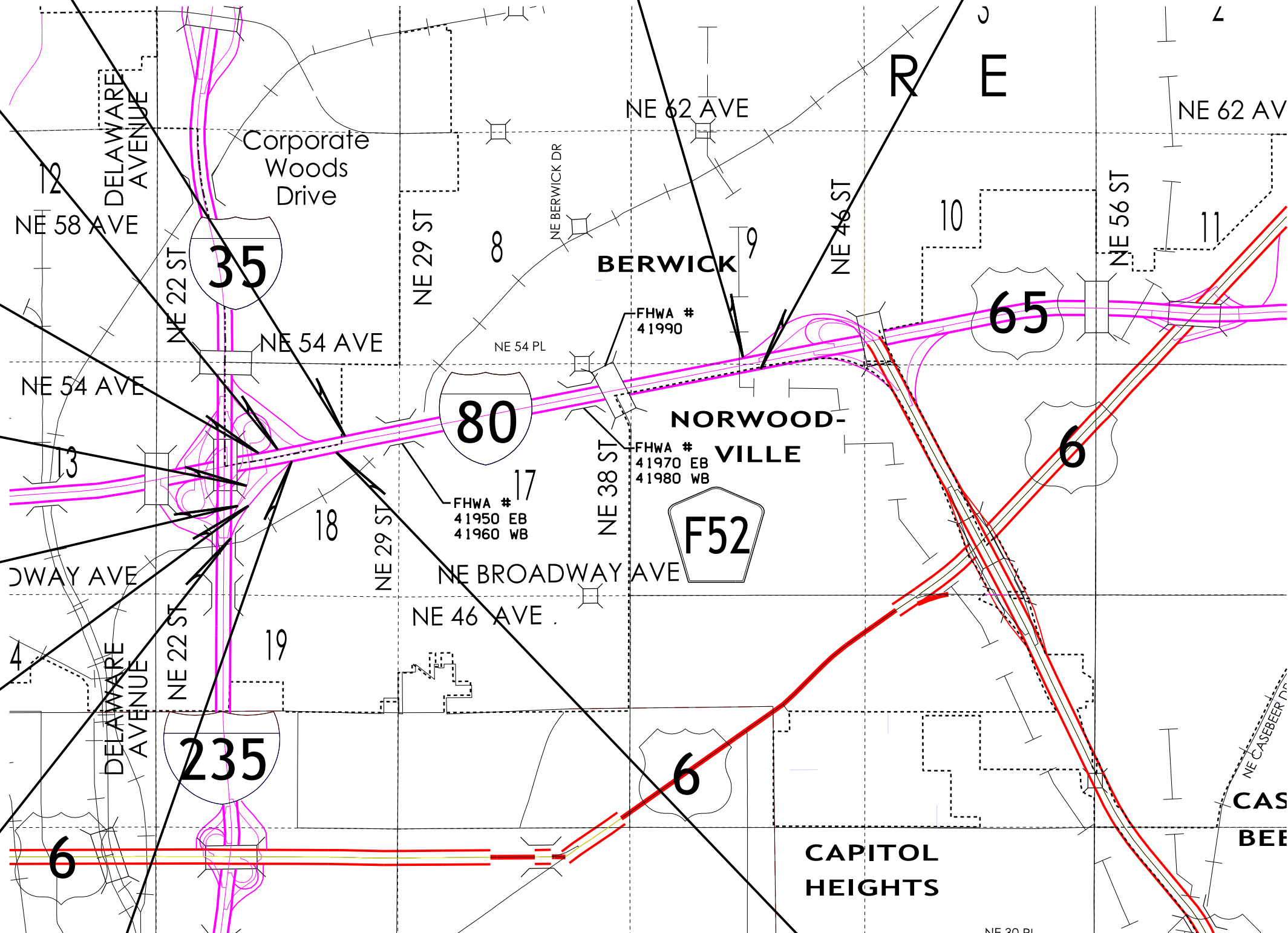
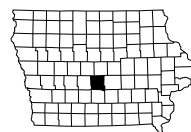
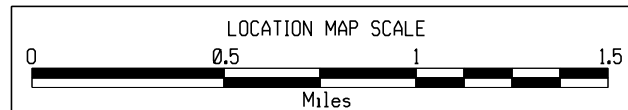
Sta. 39651+00.00 (RAMP H)
Begin Ramp H Construction

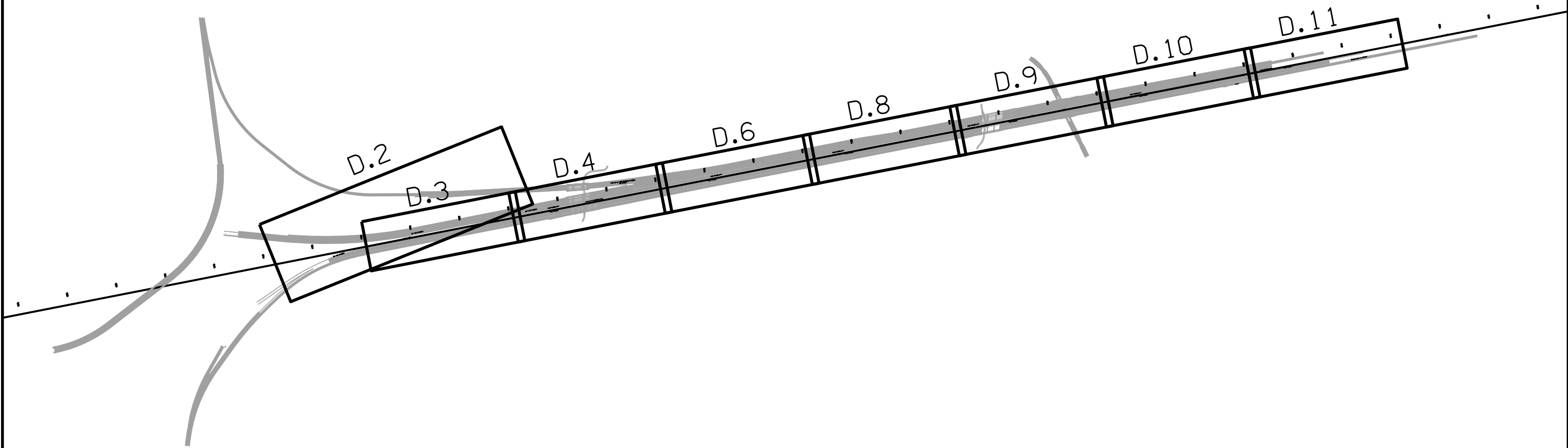
Sta. 33551+92.33 (RAMP D)
Sta. 37007+85.73 (INT RAMP D)
End Ultimate Ramp D Construction
Begin Interim Ramp D Construction

Sta. 33544+06.61 (RAMP D)
Begin Ultimate Ramp D Construction

Sta. 37023+99.35 (INT RAMP D)
Sta. 38+37.50, 48.00' RT (EB I-80)
End Interim Ramp D Construction
Begin EB ML080 Construction

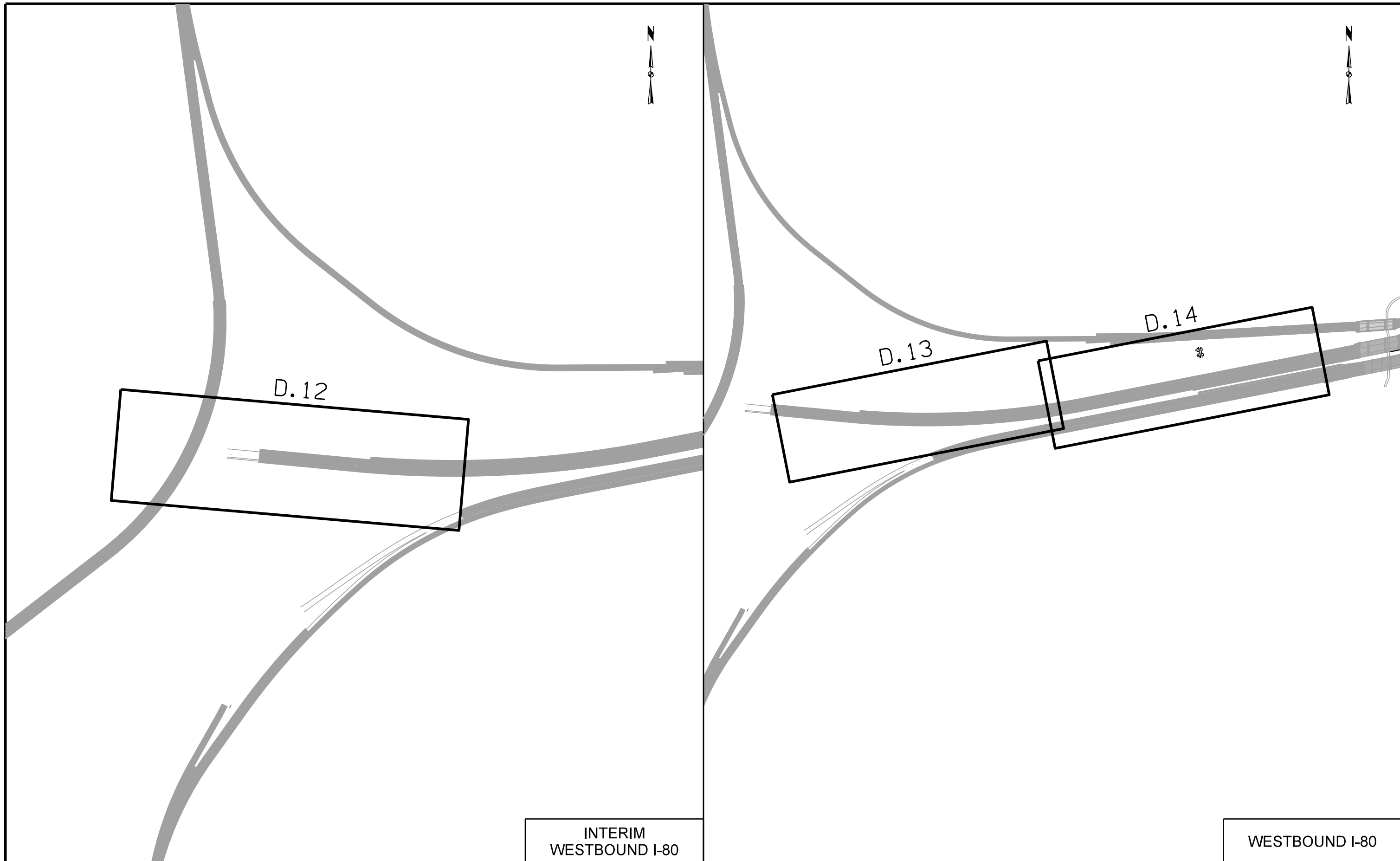
Sta. 43+58.66 (EB I-80)
Sta. 1111+51.67 (ML080)
End EB ML080 Construction
Begin ML080 Construction





I-80 (EASTBOUND)

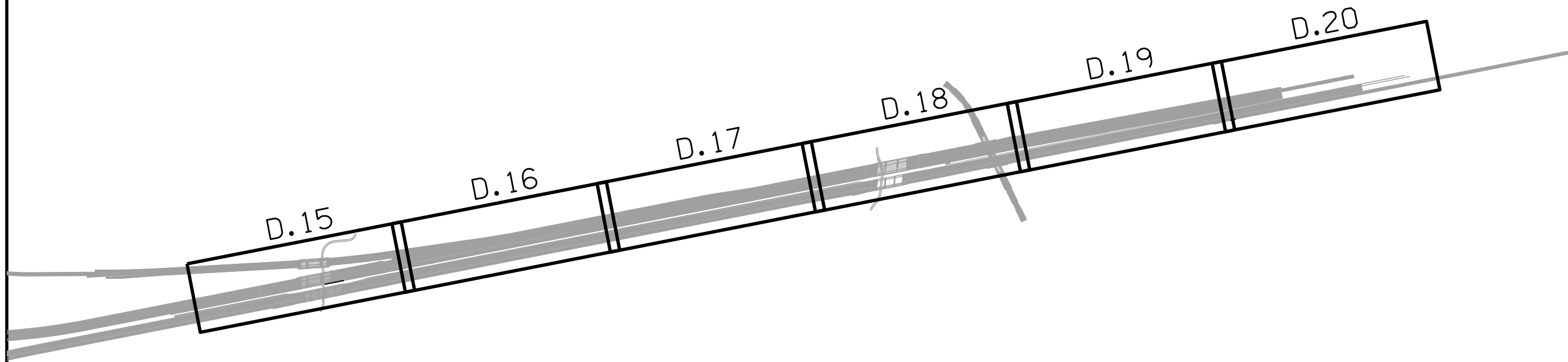
Project Key Maps



INTERIM
WESTBOUND I-80

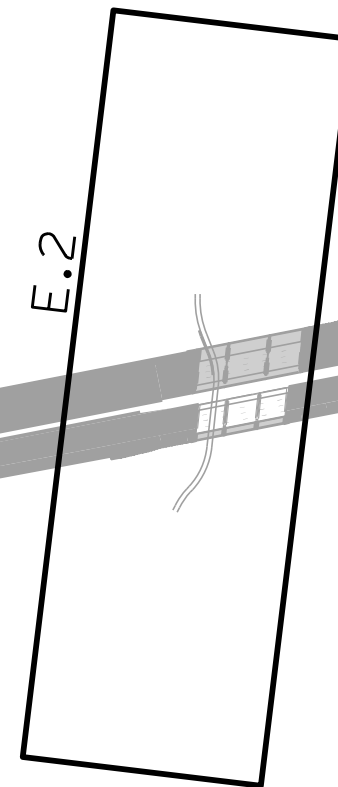
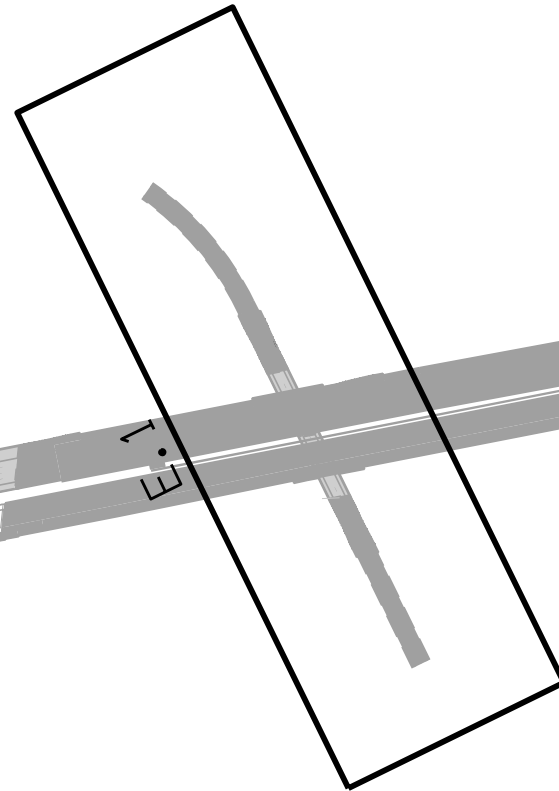
WESTBOUND I-80

Project Key Maps



I-80 (WESTBOUND)

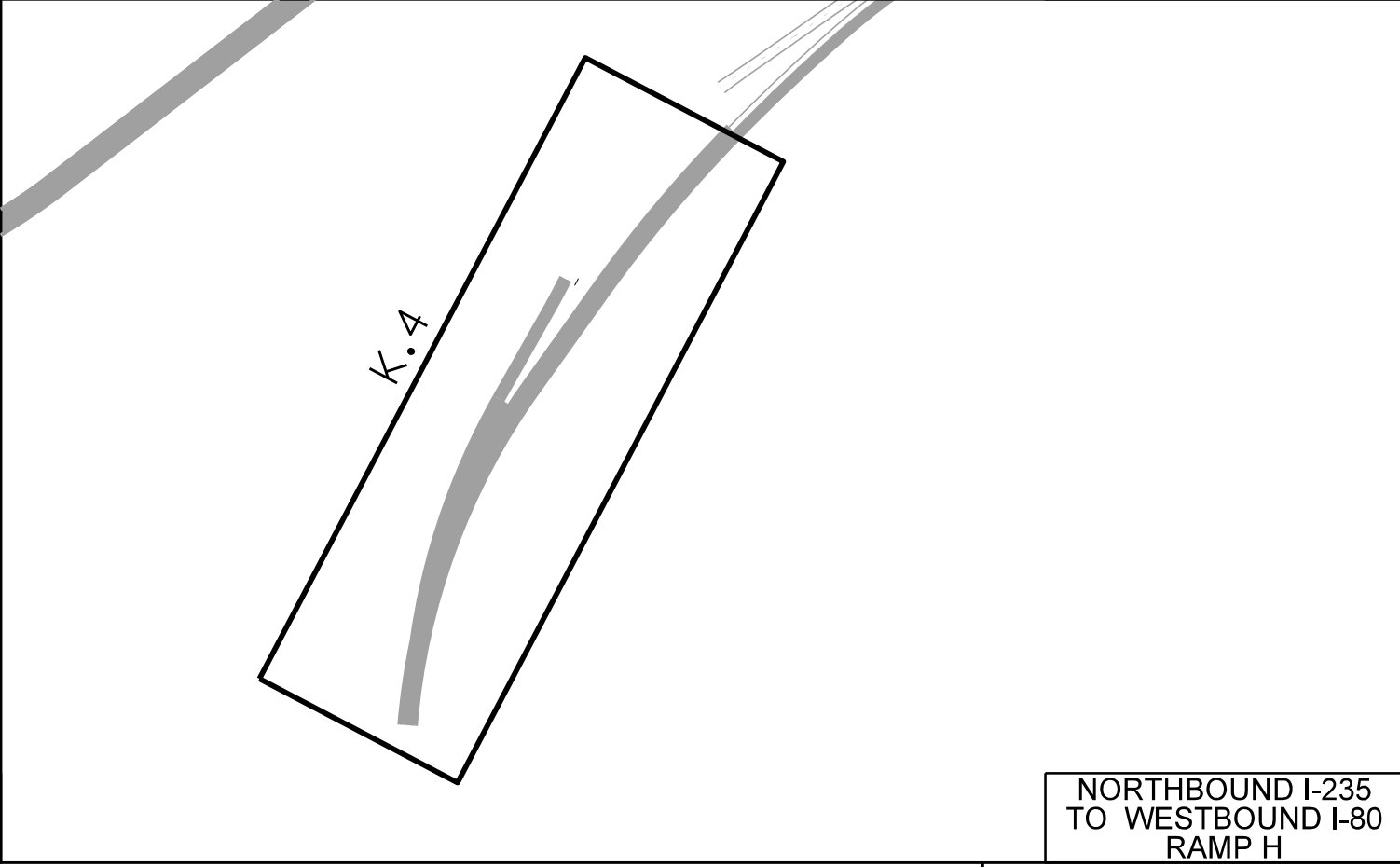
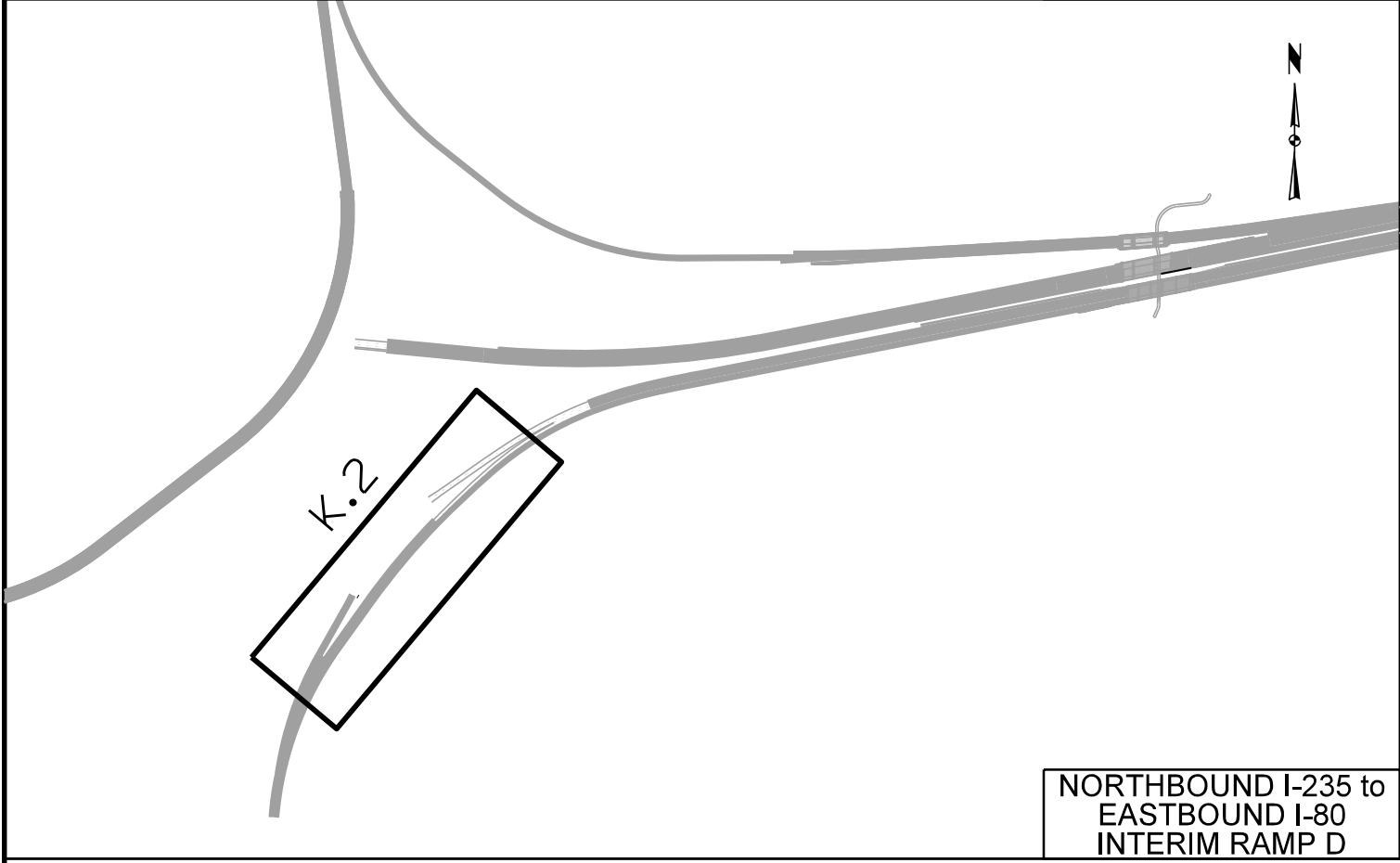
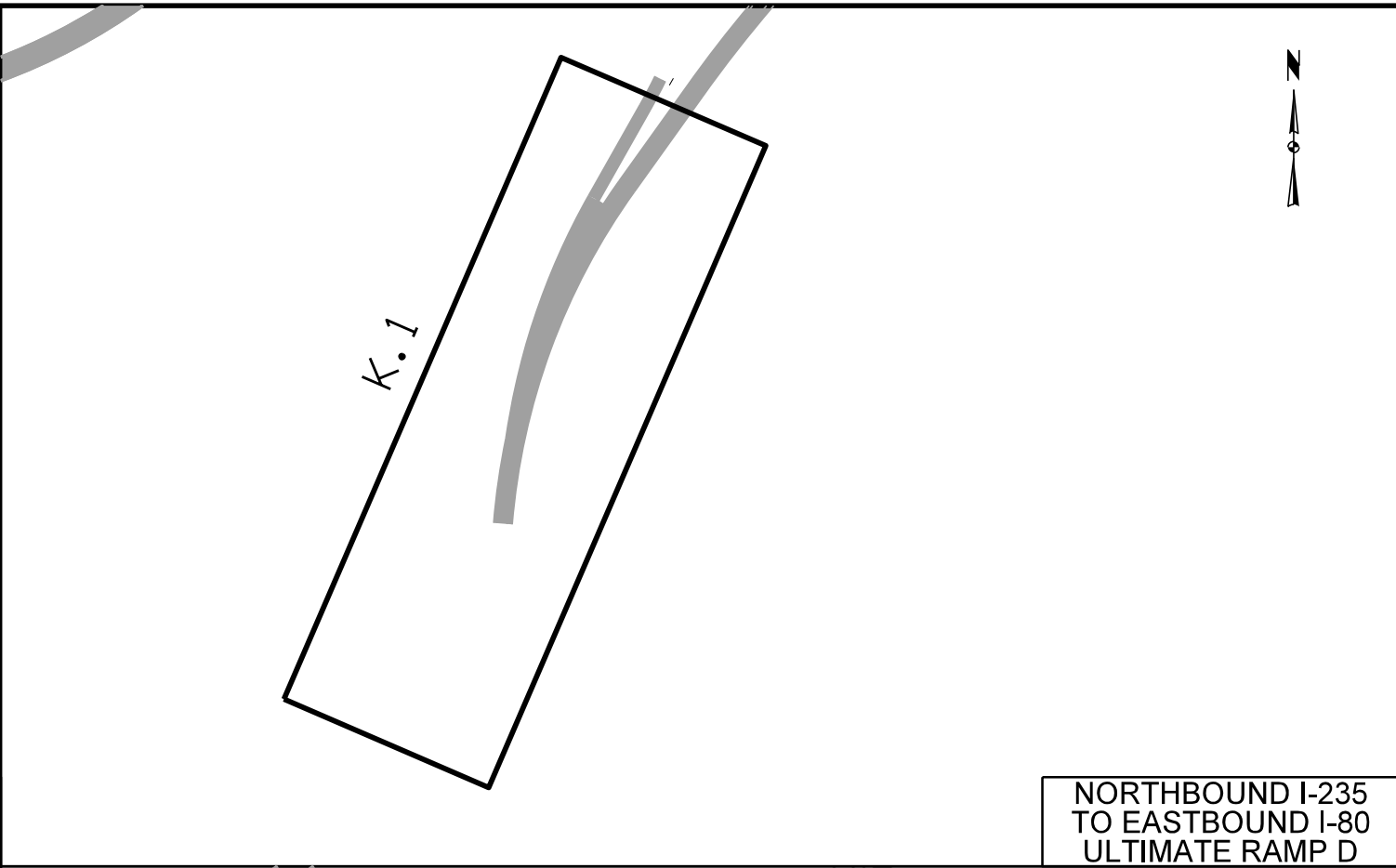
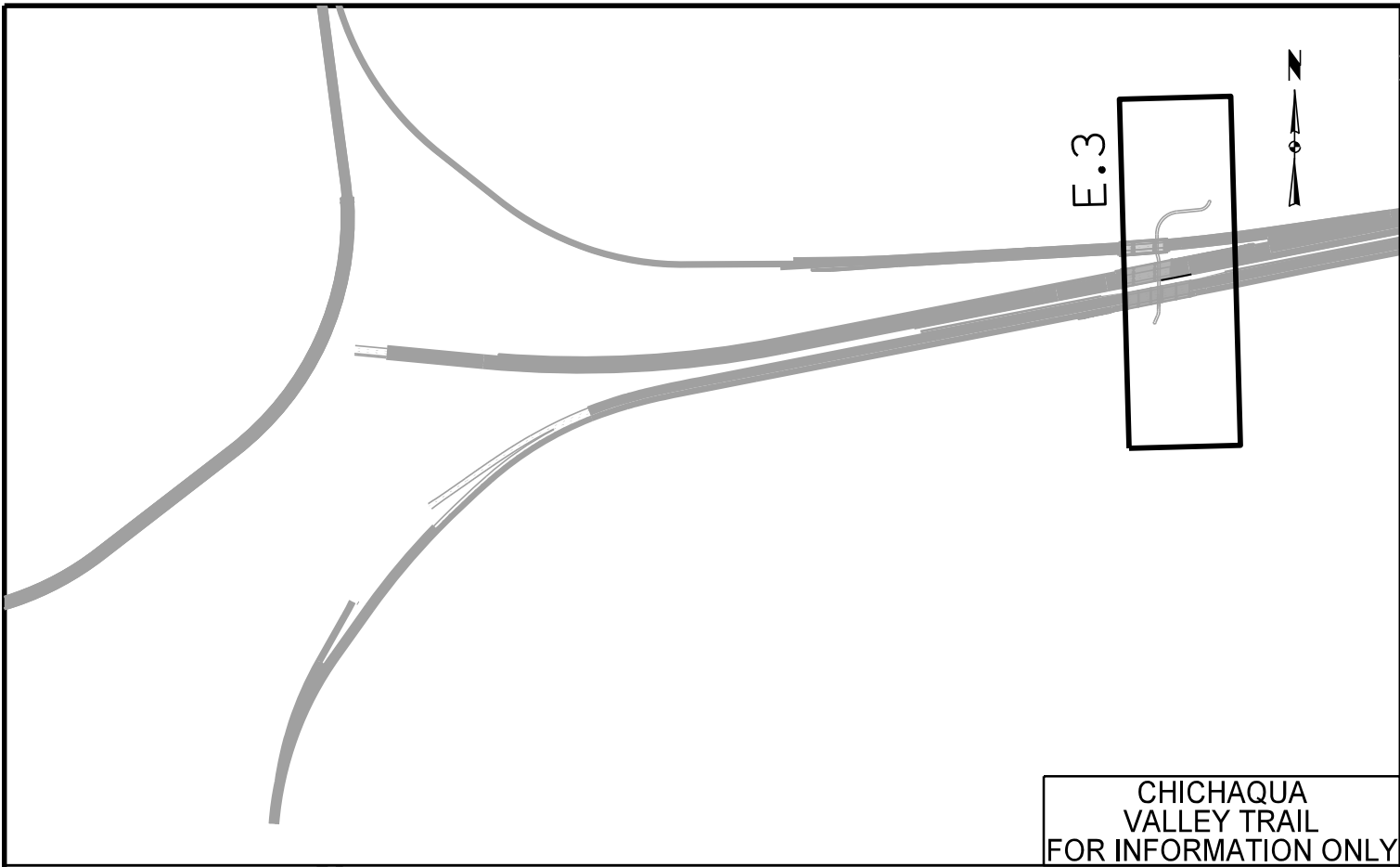
Project Key Maps



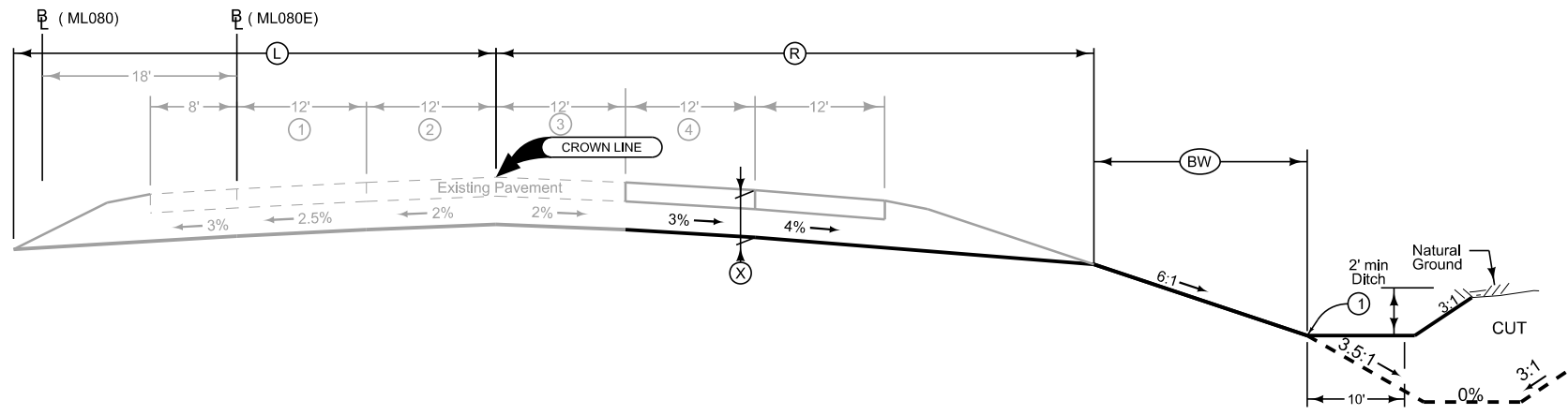
NE 38TH STREET

FOUR MILE CREEK
GAY LEA WILSON TRAIL

Project Key Maps



Project Key Maps



8 LANE GRADING

DIMENSIONS				LOCATION		
(X) Inches	(L) Feet	(R) Feet	(BW) Feet	STATION TO STATION	ROAD IDENTIFICATION	
28.5	44.7	56.8	1.2	38+37.50	43+58.66	ML080E
28.5	44.7	56.8	1.2	1111+51.67	1121+65.75	ML080

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

See U Sheets for Crown Line Transitions.

① Refer to project plan and cross sections for specific location of foreslope change.

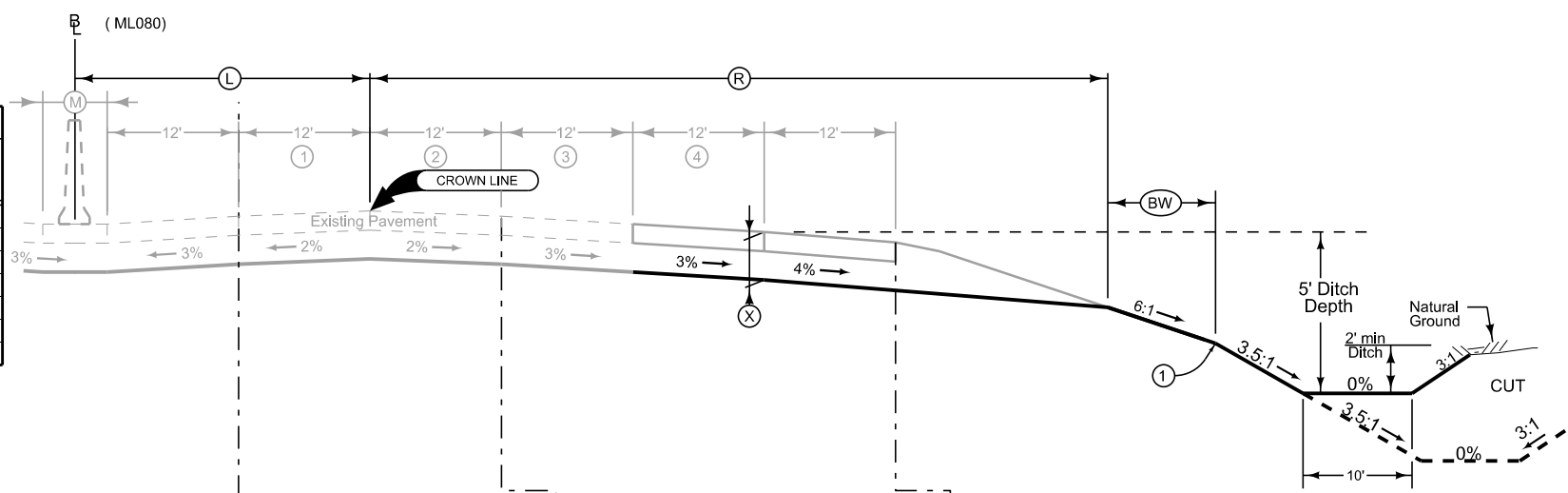
See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

GRADING EASTBOUND I-80

8 Lane Grading

ROAD IDENTIFICATION	LOCATION		DIMENSIONS	
	STATION TO STATION	STATION TO STATION	(M) Feet	(L) Feet
ML080	1121+65.75	1136+00.00	12	30
ML080	1136+00.00	1140+00.00	12-6	30-27
ML080	1140+00.00	1166+75.00	6	27
ML080	1166+75.00	1170+75.00	6-12	27-30
ML080	1170+75.00	1177+25.00	12	30
ML080	1177+25.00	1181+25.00	12-6	30-27
ML080	1181+25.00	1208+50.00	6	27



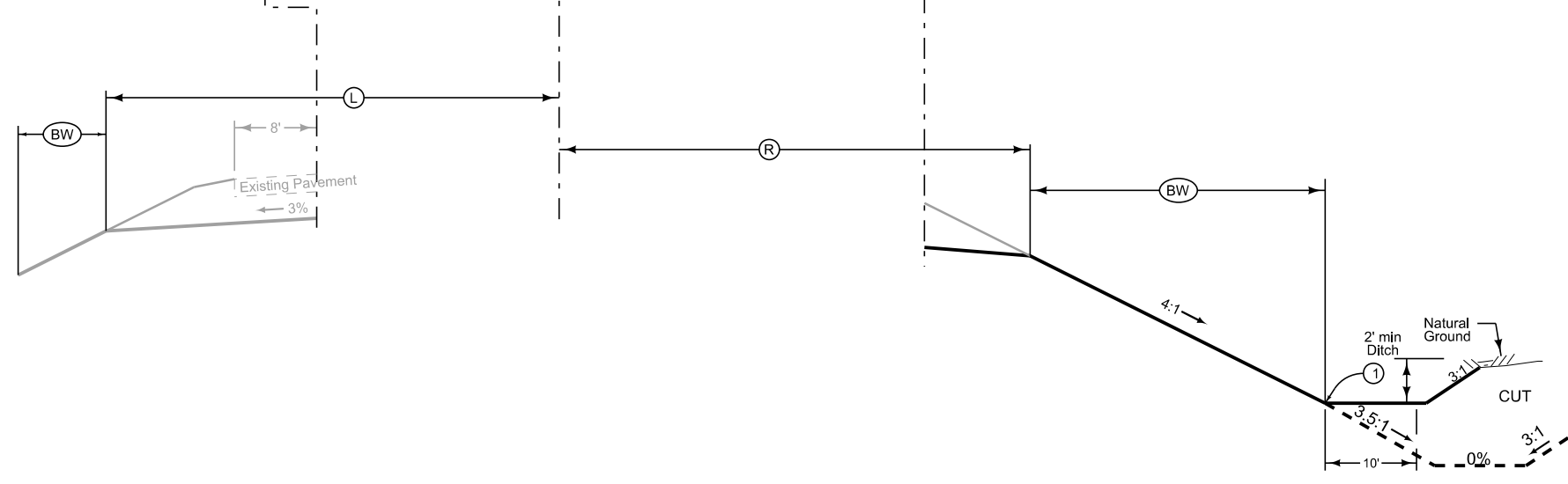
8 LANE GRADING

DIMENSIONS			LOCATION		
(BW) Feet	(X) Inches	(R) Feet	STATION TO STATION	STATION TO STATION	ROAD IDENTIFICATION
1.2	28.5	56.8	1121+65.75	1129+00.00	ML080
1.2	26.5	56.8	1129+00.00	1131+00.00	ML080
1.2	26.5	56.8-68.8	1133+82.00	1140+00.00	ML080
1.2	26.5	68.8	1140+00.00	1166+75.00	ML080
1.2	26.5	68.8-56.8	1166+75.00	1170+75.00	ML080
1.2	26.5	56.8	1170+75.00	1172+85.00	ML080
1.2	26.5	56.8	1174+76.00	1177+25.00	ML080
1.2	26.5	56.8-68.8	1177+25.00	1181+25.00	ML080
1.2	26.5	68.8	1181+25.00	1190+25.00	ML080

① Refer to project plan and cross sections for specific location of foreslope change.

8 Lane Foreslope Grading

ROAD IDENTIFICATION	LOCATION		DIMENSIONS	
	STATION TO STATION	STATION TO STATION	(L) Feet	(BW) Feet
ML080	1111+51.67	1121+65.75	44.7	2.2



8 LANE GRADING

DIMENSIONS			LOCATION		
(BW) Feet	(X) Inches	(R) Feet	STATION TO STATION	STATION TO STATION	ROAD IDENTIFICATION
11.6	26.5	58.4	1190+25.00	1208+50.00	ML080

① Refer to project plan and cross sections for specific location of foreslope change.

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

GRADING MAINLINE I-80 (EASTBOUND)

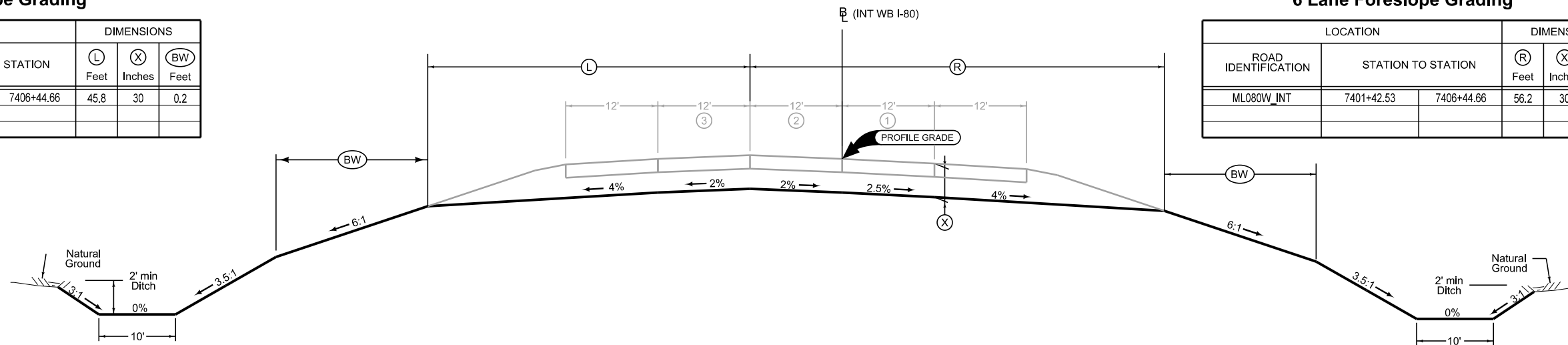
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

See U Sheets for Crown Line Transitions.

6 Lane Foreslope Grading

LOCATION		DIMENSIONS		
ROAD IDENTIFICATION	STATION TO STATION	(L) Feet	(X) Inches	(BW) Feet
ML080W_INT	7401+42.53 - 7406+44.66	45.8	30	0.2



6 Lane Foreslope Grading

LOCATION		DIMENSIONS		
ROAD IDENTIFICATION	STATION TO STATION	(R) Feet	(X) Inches	(BW) Feet
ML080W_INT	7401+42.53 - 7406+44.66	56.2	30	1.8

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

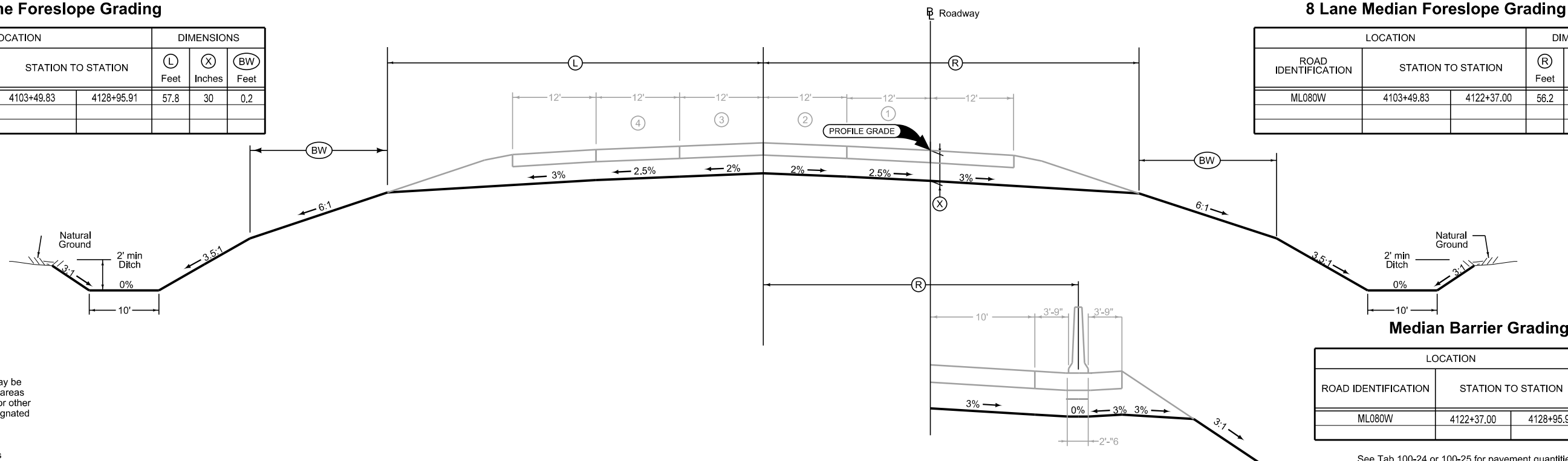
See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

GRADING INTERIM WESTBOUND I-80

8 Lane Foreslope Grading

LOCATION		DIMENSIONS		
ROAD IDENTIFICATION	STATION TO STATION	(L) Feet	(X) Inches	(BW) Feet
ML080W	4103+49.83 - 4128+95.91	57.8	30	0.2



8 Lane Median Foreslope Grading

LOCATION		DIMENSIONS		
ROAD IDENTIFICATION	STATION TO STATION	(R) Feet	(X) Inches	(BW) Feet
ML080W	4103+49.83 - 4122+37.00	56.2	30	1.8

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

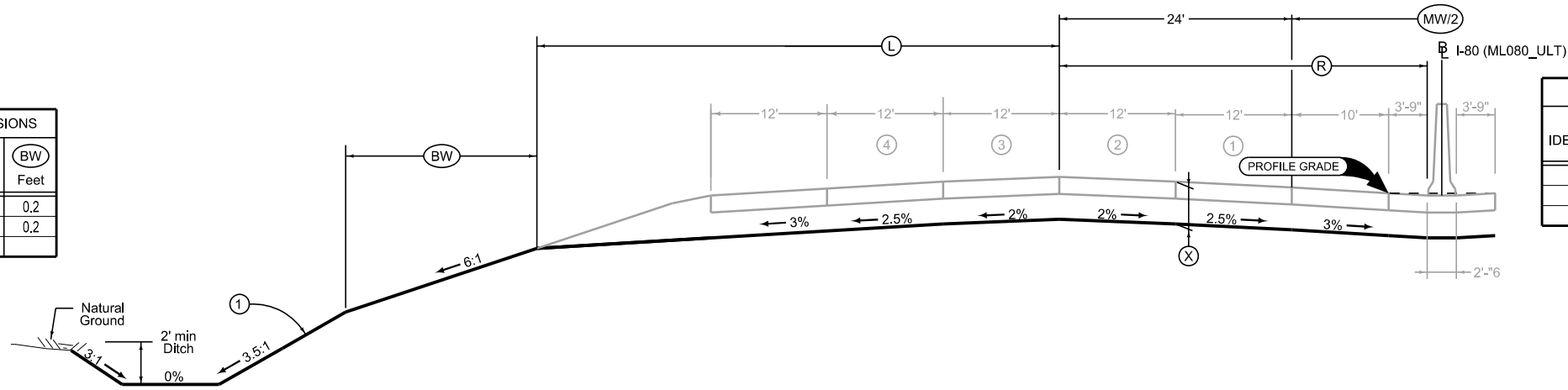
Median Barrier Grading

LOCATION		(R) Feet
ROAD IDENTIFICATION	STATION TO STATION	
ML080W	4122+37.00 - 4128+95.91	39.0

GRADING WESTBOUND I-80

8 Lane Foreslope Grading

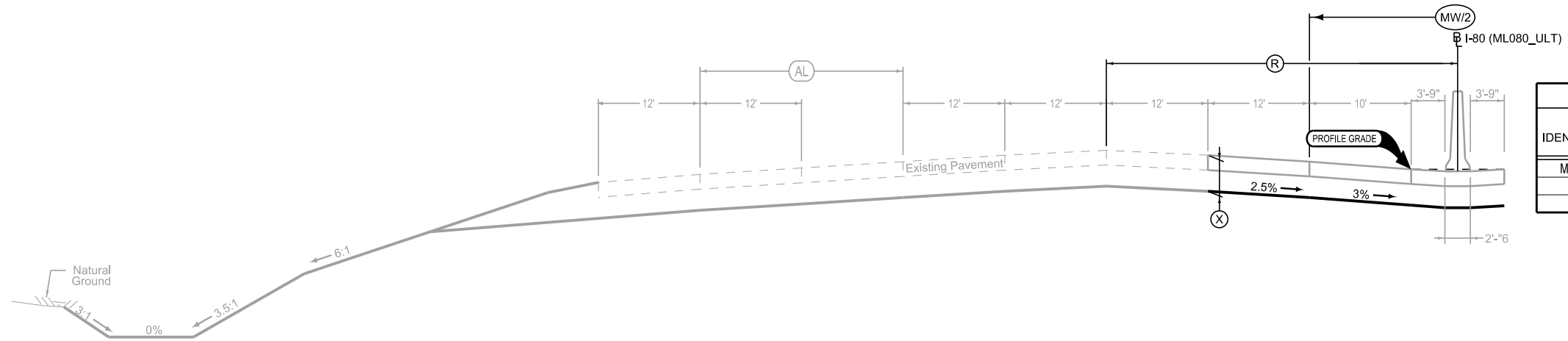
ROAD IDENTIFICATION	LOCATION		DIMENSIONS	
	STATION TO STATION		(L) Feet	(BW) Feet
ML080_ULT	5128+00.00	5130+93.59	57.8	0.2
ML080_ULT	5132+87.59	5137+77.87	57.8	0.2



8 LANE GRADING

ROAD IDENTIFICATION	LOCATION		DIMENSIONS		
	STATION TO STATION		(R) Feet	(X) Inches	(MW) Feet
ML080_ULT	5128+00.00	5130+93.59	37.75	30	30
ML080_ULT	5132+87.59	5137+77.87	37.75	30	30

① Refer to project plan and cross sections for specific location of foreslope change.



8 LANE GRADING

ROAD IDENTIFICATION	LOCATION		DIMENSIONS		
	STATION TO STATION		(R) Feet	(X) Inches	(MW) Feet
ML080_ULT	5137+77.87	5150+58.17	37.75	30	30

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

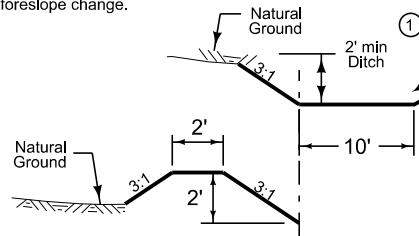
See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

GRADING MAINLINE I-80 (WESTBOUND)

10 LANE GRADING

LOCATION		DIMENSIONS				
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	MW Feet	BW Feet
ML080_ULT	5164+00.00 - 5202+75.09	69.8	37.75	30	30	0.2

① Refer to project plan and cross sections for specific location of foreslope change.



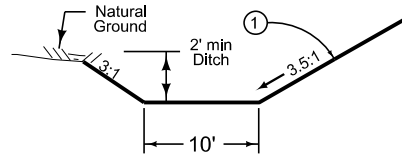
Earth Dike

LOCATION	
ROAD IDENTIFICATION	STATION TO STATION
ML080_ULT	5169+30.00 - 5171+00.00
ML080_ULT	5183+75.00 - 5185+50.00

10 Lane Foreslope Grading w/Auxiliary Lane

LOCATION		DIMENSIONS		
ROAD IDENTIFICATION	STATION TO STATION	L Feet	X Inches	BW Feet
ML080_ULT	5150+58.17 - 5161+00.00	81.8	30	0.2
ML080_ULT	5161+00.00 - 5164+00.00	81.8 - 69.8	30	0.2

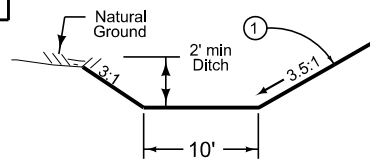
① Refer to project plan and cross sections for specific location of foreslope change.



8 Lane Foreslope Grading

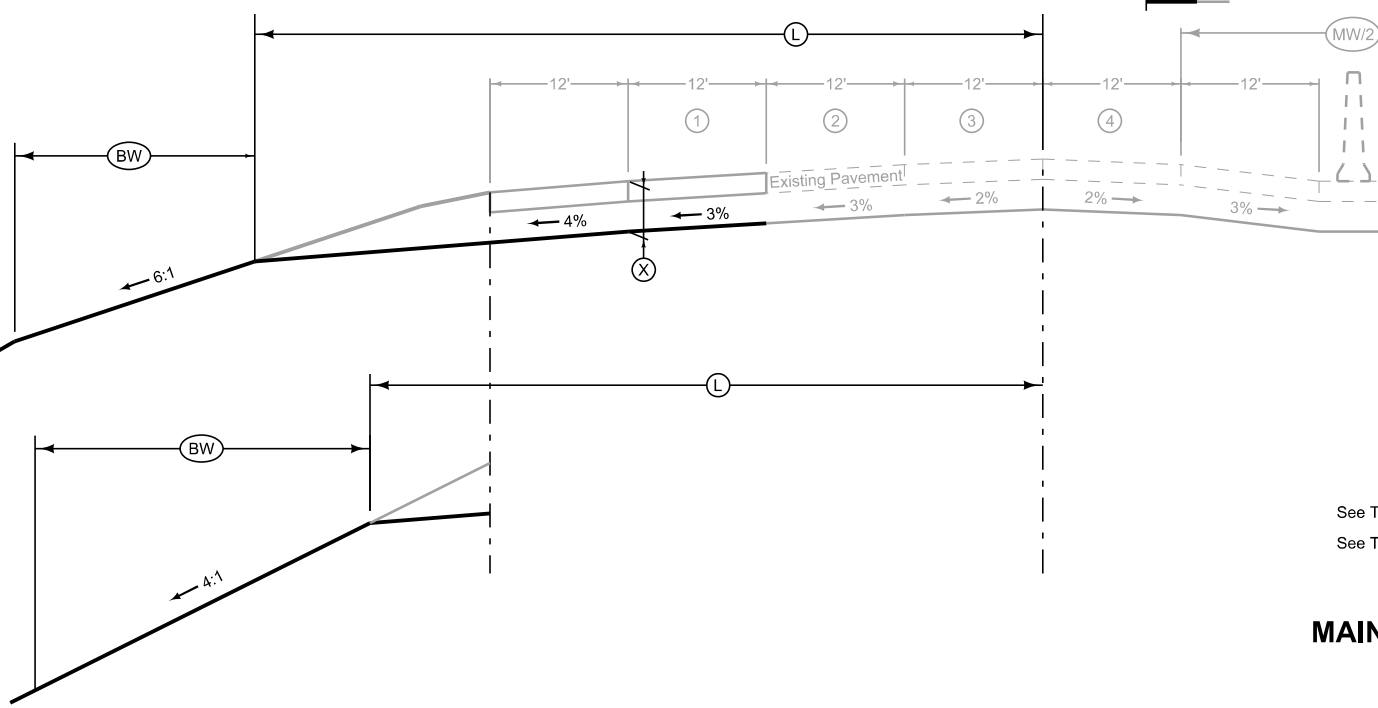
LOCATION		DIMENSIONS		
ROAD IDENTIFICATION	STATION TO STATION	L Feet	X Inches	BW Feet
ML080_ULT	5202+75.09 - 5206+50.00	70.0 - 58.0	30	0.0

① Refer to project plan and cross sections for specific location of foreslope change.



8 Lane Foreslope Grading

LOCATION		DIMENSIONS	
ROAD IDENTIFICATION	STATION TO STATION	L Feet	BW Feet
ML080_ULT	5206+50.00 - 5208+07.97	58.0 - 48.0	9.7



Full Median Barrier

Direction of Travel	BEGIN STATION	END STATION
WB	5128+00.00	5137+77.87
WB	5150+58.17	5198+50.00

Full Median Barrier Without PCC Shoulder

Direction of Travel	BEGIN STATION	END STATION
WB	5190+00.00	5194+50.00

Half Median Barrier

Direction of Travel	BEGIN STATION	END STATION
WB	5194+50.00	5198+92.64

Existing Median Barrier

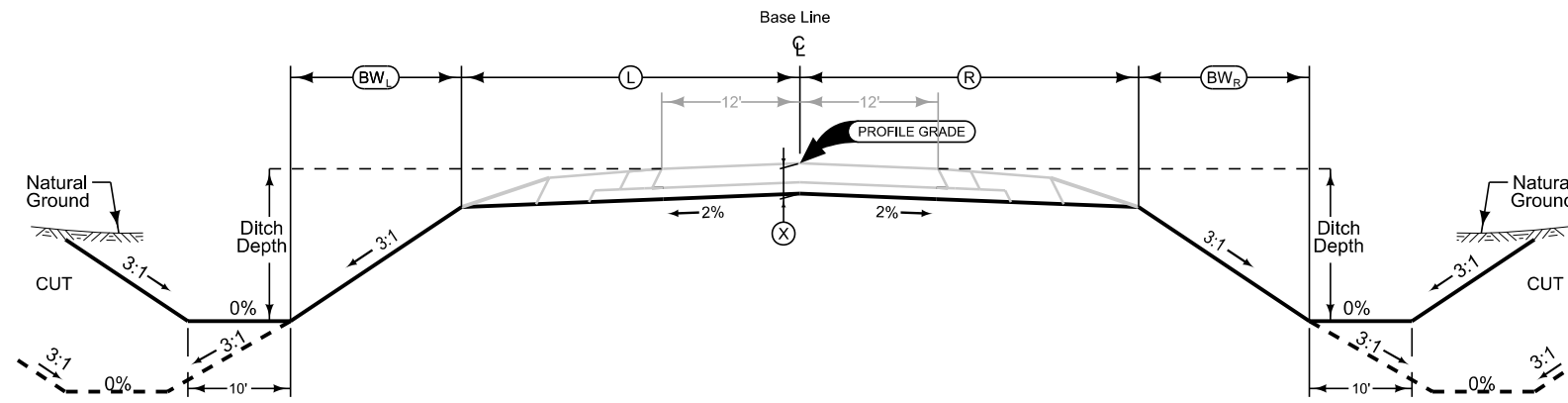
Direction of Travel	BEGIN STATION	END STATION	M Feet
WB	5198+92.64	5202+75.09	3.8-0

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

**GRADING
MAINLINE I-80 (WESTBOUND)**



2 LANE GRADING

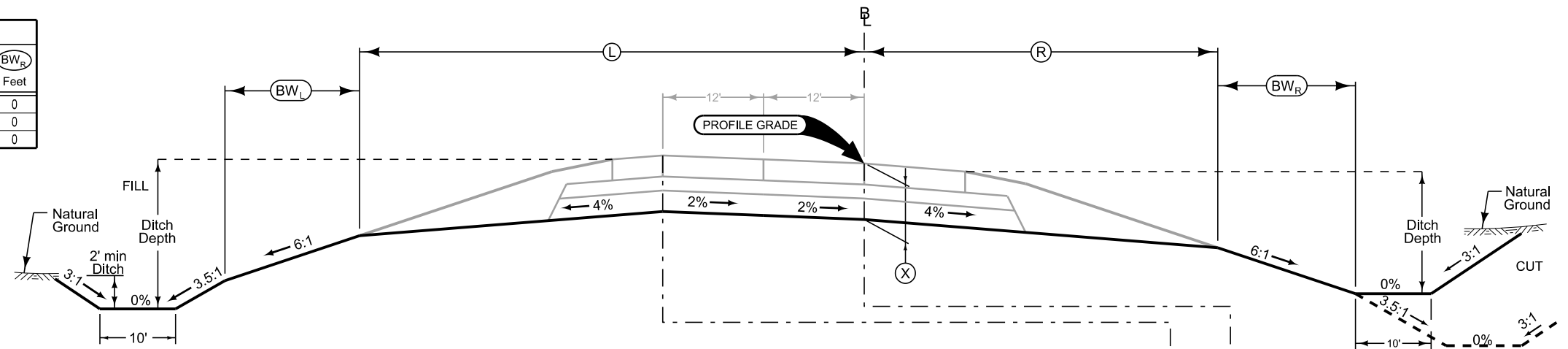
ROAD IDENTIFICATION	LOCATION		DIMENSIONS			
	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet
NE 38TH STREET	2146+50.00	2150+35.33	28.6	28.6	17	13.1
NE 38TH STREET	2153+30.43	2158+00.00	28.6	28.6	17	13.1

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

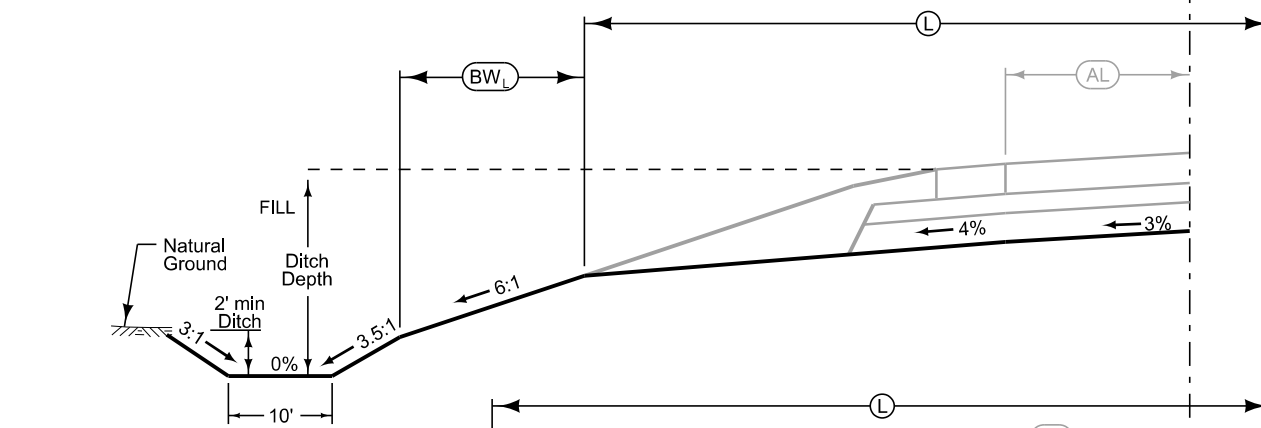
See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

**GRADING
NE 38TH STREET**

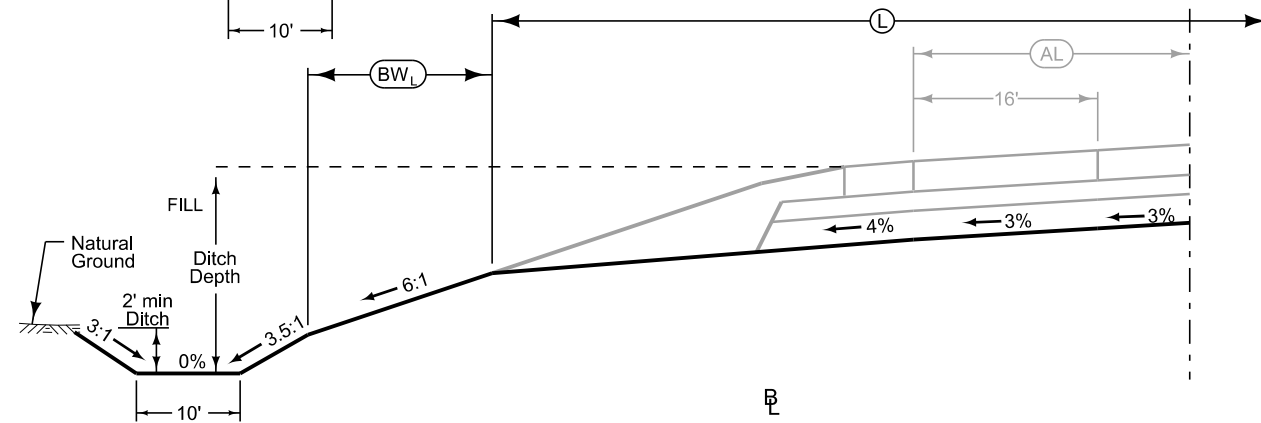
LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW _L) Feet	(BW _R) Feet
NEMM	235D	33544+06.61	33545+64.80	51.8	33.8	30	0	0
NEMM	235D	33551+55.35	33551+92.33	51.8	33.8	30	0	0
NEMM	235D_INT	37007+85.73	37015+38.39	51.8	33.8	30	0	0



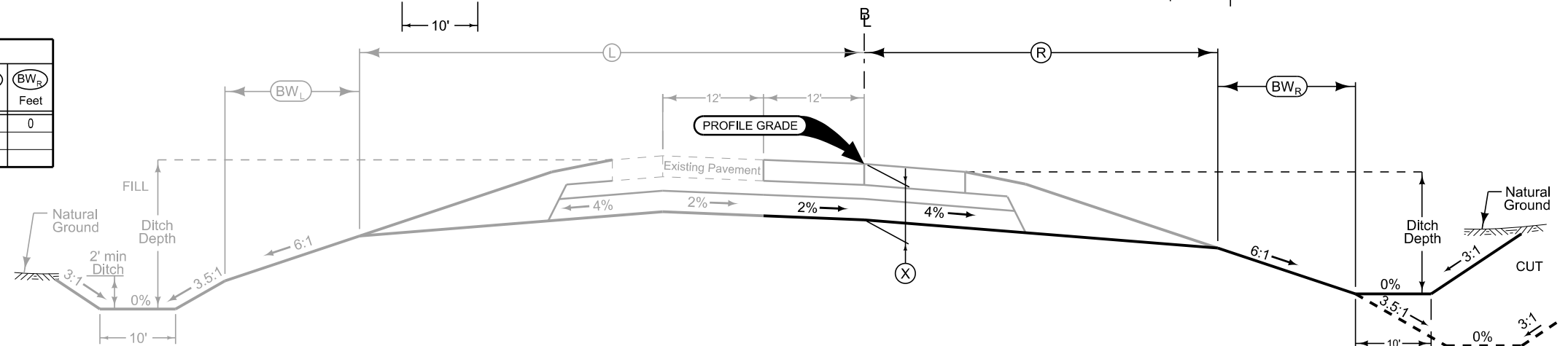
LOCATION				DIMENSIONS						
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW _L) Feet	(BW _R) Feet	(AL) Feet	
NEMM	235D	33545+64.80	33548+40.39	76.4	51.8	33.8	30	0	0	0-18.6



LOCATION				DIMENSIONS						
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW _L) Feet	(BW _R) Feet	(AL) Feet	
NEMM	235D	33548+40.39	33551+55.35	97.8	76.4	33.8	30	0	0	18.6-40



LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW _L) Feet	(BW _R) Feet
NEMM	235D_INT	37015+38.39	37023+99.35	51.8	33.8	30	0	0

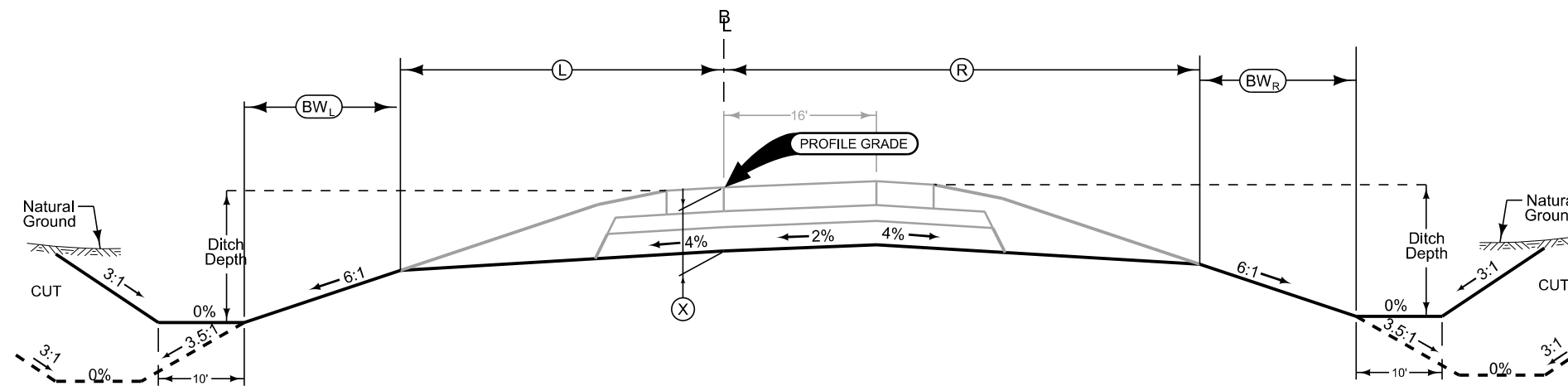


Normal section shown may be modified appropriately in areas of super-elevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

**GRADING
RAMP 235D &
INTERIM RAMP 235D**



LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW _L) Feet	(BW _R) Feet
NEMM	235H	39651+00.00	39654+06.33	25.8	43.8	30	0	0

Normal section shown may be modified appropriately in areas of super-elevated curves or other locations specifically designated by the Engineer.

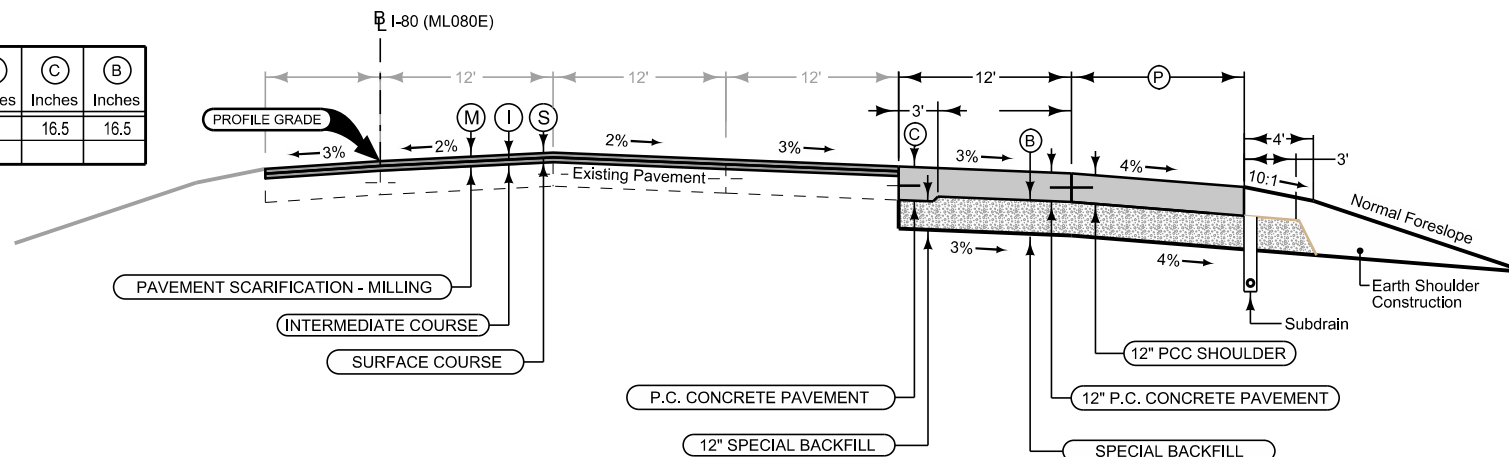
See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

**GRADING
RAMP 235H**

Mainline Jointing:
Transverse joints: CD at 17' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(M) Inches	(S) Inches	(I) Inches	(C) Inches	(B) Inches
ML080E	EB	38+37.50	43+58.66	5	2	3	16.5	16.5



Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

(P) Feet	STATION TO STATION		Direction of Travel
12	38+37.50	43+58.66	EB

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

PAVING EASTBOUND I-80

Median Barrier

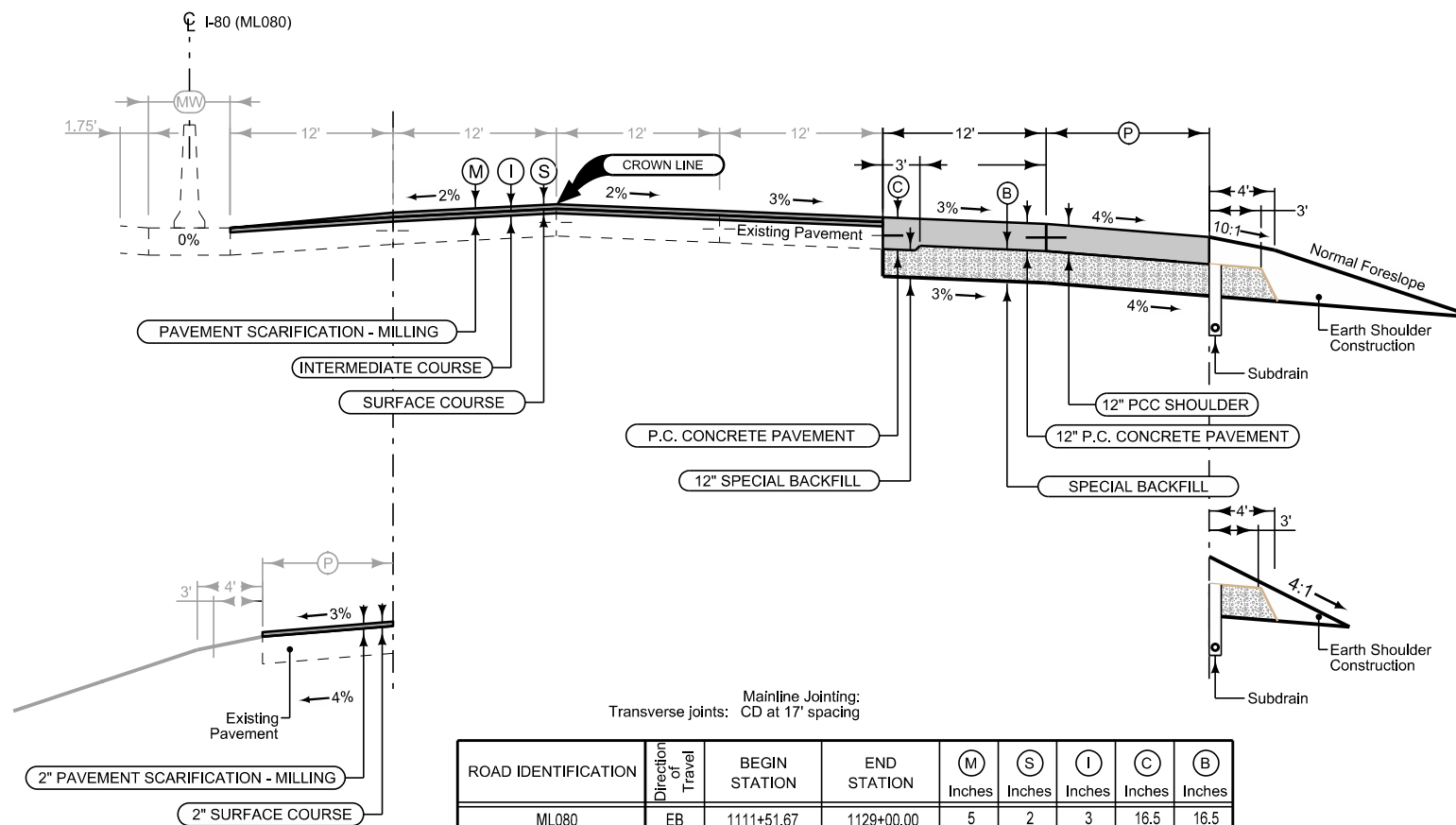
(MW) Feet	STATION TO STATION		Direction of Travel
12	1121+65.75	1136+00.00	EB
12-6	1136+00.00	1140+00.00	EB
6	1140+00.00	1166+75.00	EB
6-12	1166+75.00	1170+75.00	EB
12	1170+75.00	1177+25.00	EB
12-6	1177+25.00	1181+25.00	EB
6	1181+25.00	1208+50.00	EB

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

(P) Feet	STATION TO STATION		Direction of Travel
8	1111+51.67	1121+65.75	EB

See U Sheets for Crown Line Transitions.



Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

(P) Feet	STATION TO STATION		Direction of Travel
12	1111+51.67	1190+25.00	EB

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

(P) Feet	STATION TO STATION		Direction of Travel
12	1190+25.00	1208+50.00	EB

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

PAVING MAINLINE I-80 (EASTBOUND)

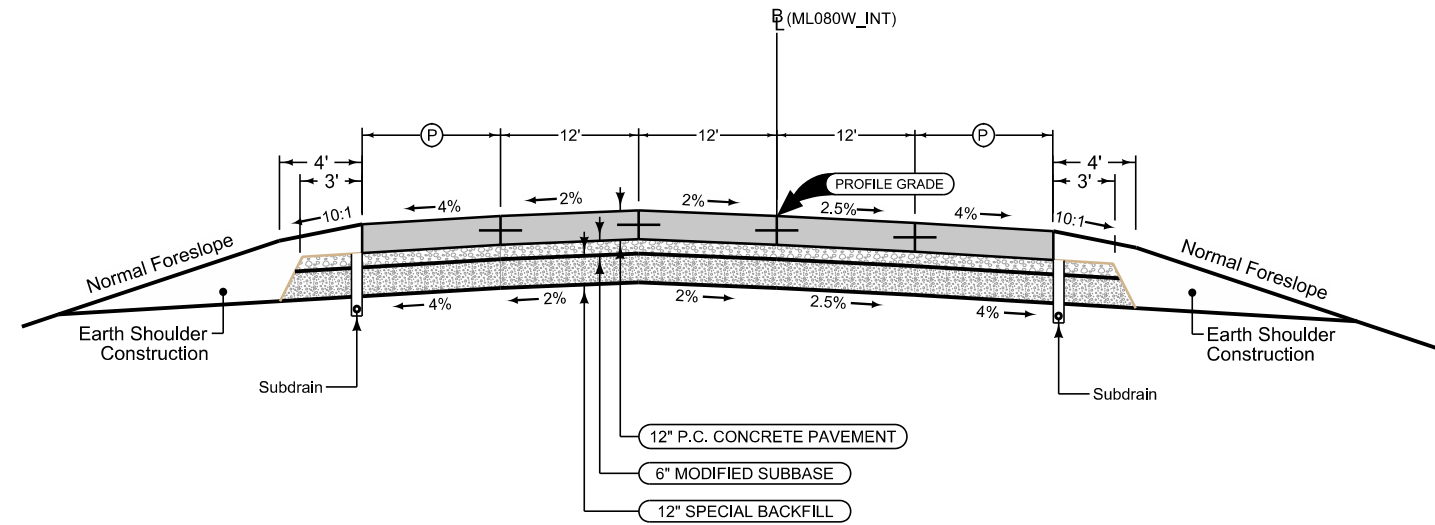
ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(M) Inches	(S) Inches	(I) Inches	(C) Inches	(B) Inches
ML080	EB	1111+51.67	1129+00.00	5	2	3	16.5	16.5
ML080	EB	1129+00.00	1208+50.00	3	2	1	14.5	14.5

Mainline Jointing:
Transverse joints: CD at 17' spacing

Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 17' spacing

Direction of Travel	STATION TO STATION		(P) Feet
WB	7401+43.52	7406+44.66	12



Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 17' spacing

Direction of Travel	STATION TO STATION		(P) Feet
WB	7401+43.52	7406+44.66	12

Mainline Jointing:
 Transverse joints: CD at 17' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION
ML080W_INT	WB	7401+43.52	7406+44.66

See Tab 100-24 or 100-25 for pavement quantities.

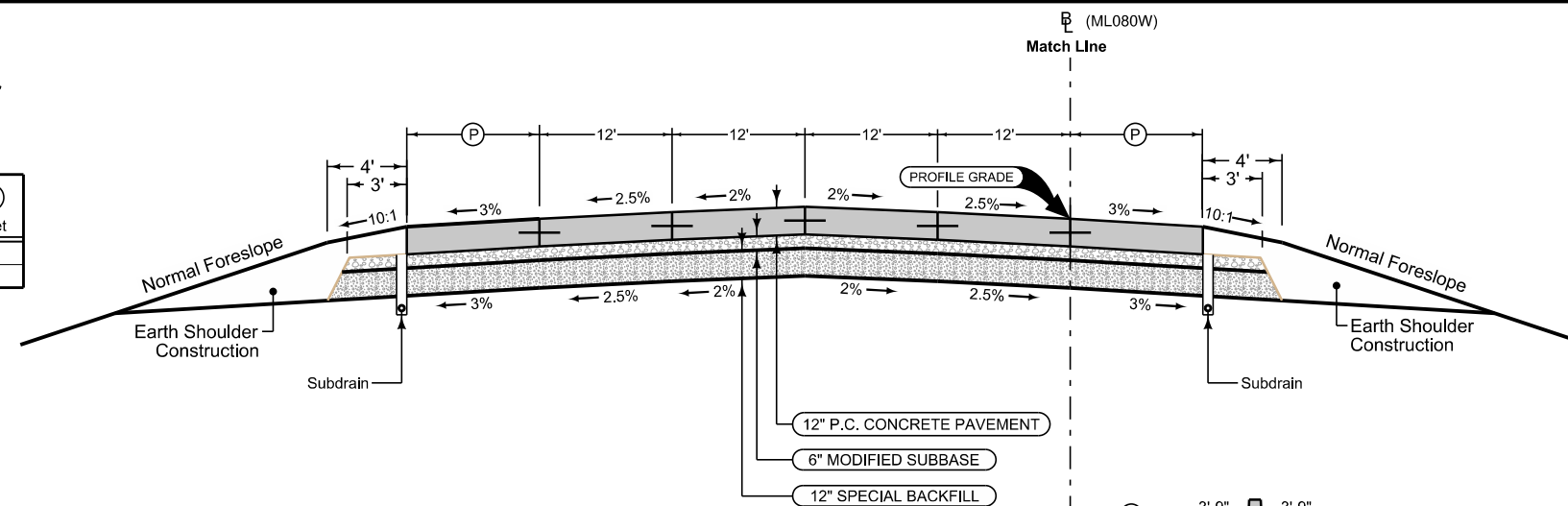
See Tab 112-9 for shoulder quantities.

**PAVING
 INTERIM WESTBOUND I-80**

Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 17' spacing

Direction of Travel	STATION TO STATION		(P) Feet
WB	4103+49.83	4128+95.91	12



Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 17' spacing

Direction of Travel	STATION TO STATION		(P) Feet
WB	4103+49.83	4122+37.00	12

Mainline Jointing:
 Transverse joints: CD at 17' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION
ML080W	WB	4103+49.83	4128+95.91

**Full Depth PCC Shoulder
 w/ Barrier**

Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 17' spacing

Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	4122+37.00	4128+95.91	10.0

See Tab 100-24 or 100-25 for pavement quantities.

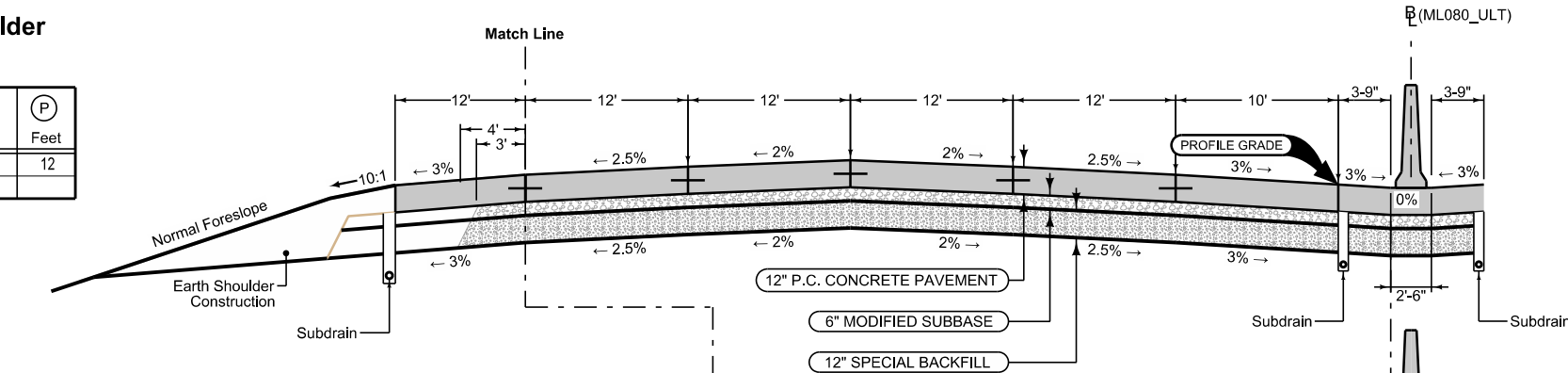
See Tab 112-9 for shoulder quantities.

**PAVING
 WESTBOUND I-80**

Full Depth PCC Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline

Direction of Travel	BEGIN STATION	END STATION	(P) Feet
WB	5128+00.00	5137+77.87	12



Full Median Barrier

Direction of Travel	BEGIN STATION	END STATION
WB	5128+00.00	5137+77.87
WB	5150+58.17	5198+50.00

Full Median Barrier Without PCC Shoulder

Direction of Travel	BEGIN STATION	END STATION
WB	5190+00.00	5194+50.00

Half Median Barrier

Direction of Travel	BEGIN STATION	END STATION
WB	5194+50.00	5198+92.64

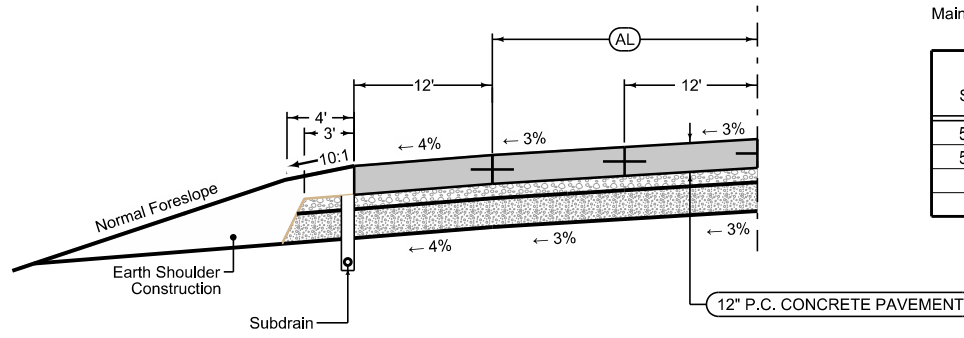
Existing Median Barrier

Direction of Travel	BEGIN STATION	END STATION	(M) Feet
WB	5198+92.64	5202+75.09	3.8-0

Auxiliary Lane with Full Depth PCC Shoulder

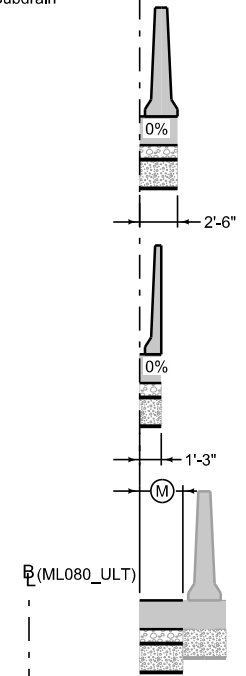
Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

Direction of Travel	STATION TO STATION	(AL) Feet	(P) Feet
WB	5150+58.17 - 5161+00.00	24	12
WB	5161+00.00 - 5164+00.00	24 - 12	12
WB	5164+00.00 - 5202+75.09	12	12



Mainline Jointing:
Transverse joints: CD at 17' spacing

BEGIN STATION	END STATION
5128+00.00	5137+77.87
5150+58.17	5202+75.09



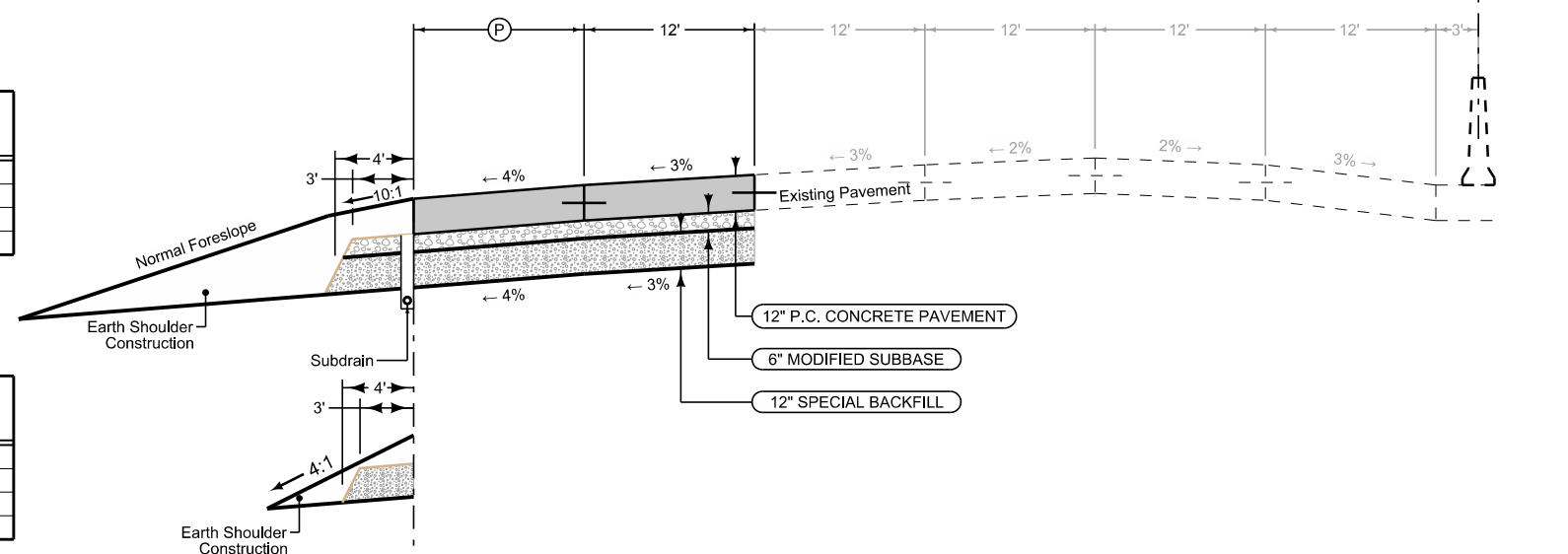
Mainline Jointing:
Transverse joints: CD at 17' spacing

BEGIN STATION	END STATION
5137+77.87	5150+58.17

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

Direction of Travel	STATION TO STATION	(P) Feet
WB	5202+75.09 - 5206+50.00	12



Mainline Jointing:
Transverse joints: CD at 17' spacing

BEGIN STATION	END STATION
5202+75.09	5208+07.97

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 17' spacing

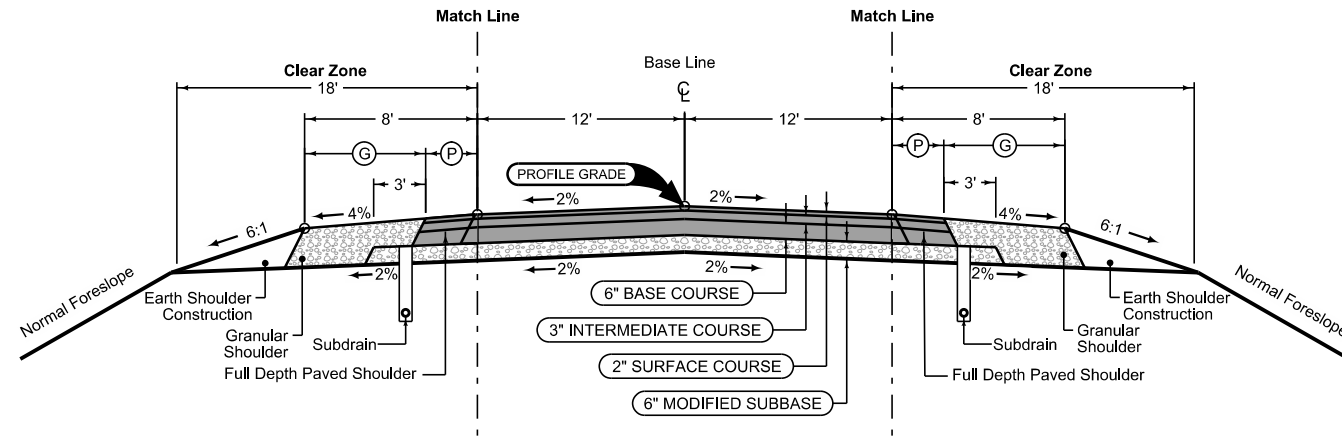
Direction of Travel	STATION TO STATION	(P) Feet
WB	5206+50.00 - 5208+07.97	12

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

**PAVING
MAINLINE I-80 (WESTBOUND)**

Combination Shoulder

2_C_ MODIFIED				
Direction of Travel	BEGIN STATION	END STATION	(P) Feet	(G) Feet
SB	2146+50.00	2149+07.98	3.0	5.0
SB	2154+70.02	2158+00.00	3.0	5.0



Combination Shoulder

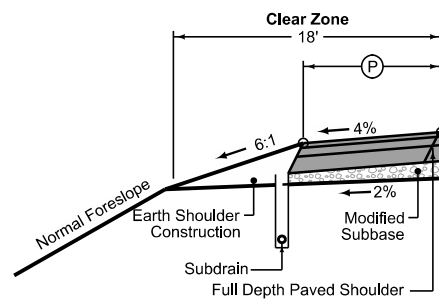
2_C_ MODIFIED				
Direction of Travel	BEGIN STATION	END STATION	(P) Feet	(G) Feet
NB	2146+50.00	2148+97.25	3.0	5.0
NB	2154+59.28	2158+00.00	3.0	5.0

2 LANE PAVING

2H_ MODIFIED	
STATION TO STATION	
2146+50.00	2150+35.35
2153+30.46	2158+00.00

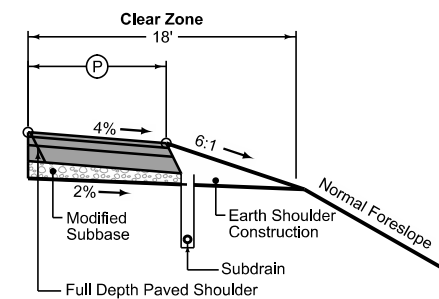
Paved Shoulder at Guardrail

4_P_Guard_ MODIFIED				
Direction of Travel	BEGIN STATION	END STATION	(P) Feet	(G) Feet
SB	2149+07.98	2149+38.06	11.0	
SB	2149+38.06	2149+77.39	11.0 - 9.6	
SB	2149+77.39	2150+40.68	9.6	
SB	2153+35.79	2154+03.37	9.6	
SB	2154+03.37	2154+39.94	9.6 - 11.0	
SB	2154+39.94	2154+70.02	11.0	



Paved Shoulder at Guardrail

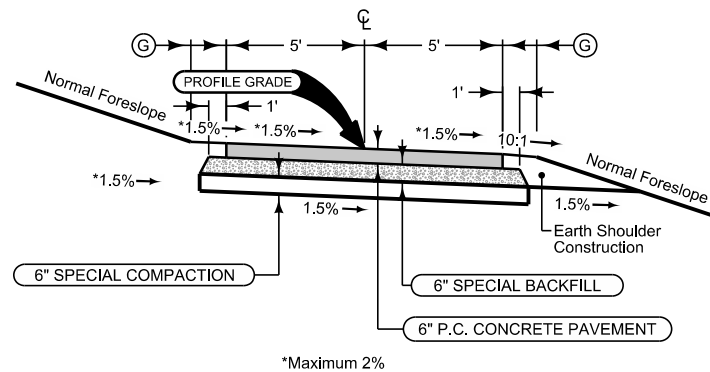
4_P_Guard_ MODIFIED				
Direction of Travel	BEGIN STATION	END STATION	(P) Feet	(G) Feet
NB	2148+97.25	2149+27.33	11.0	
NB	2149+27.33	2149+63.61	11.0 - 9.6	
NB	2149+63.61	2150+29.97	9.6	
NB	2153+25.07	2153+87.71	9.6	
NB	2153+87.71	2154+29.20	9.6 - 11.0	
NB	2154+29.20	2154+59.28	11.0	



PAVING NE 38TH STREET

Earth Shoulder

BEGIN STATION	END STATION	(G) Feet
301+70.00	306+45.00	2 (MIN)



Earth Shoulder

BEGIN STATION	END STATION	(G) Feet
301+00.00	306+45.00	2 (MIN)

Trail Jointing:
Transverse joints: C at 10' spacing.

ROAD IDENTIFICATION	BEGIN STATION	END STATION
FOUR MILE CREEK	301+70.00	306+45.00
GAY LEA WILSON TRAIL		

**PAVING FOURMILE CREEK
GAY LEA WILSON TRAIL**

Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 17' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(P) Feet
RAMP 235D	NB	33544+06.61	33545+64.80	6
RAMP 235D	NB	33551+55.35	33551+92.33	6
RAMP 235D_INT	NB	37007+85.73	37015+38.39	6

Auxiliary Lane with Full Depth PCC Shoulder

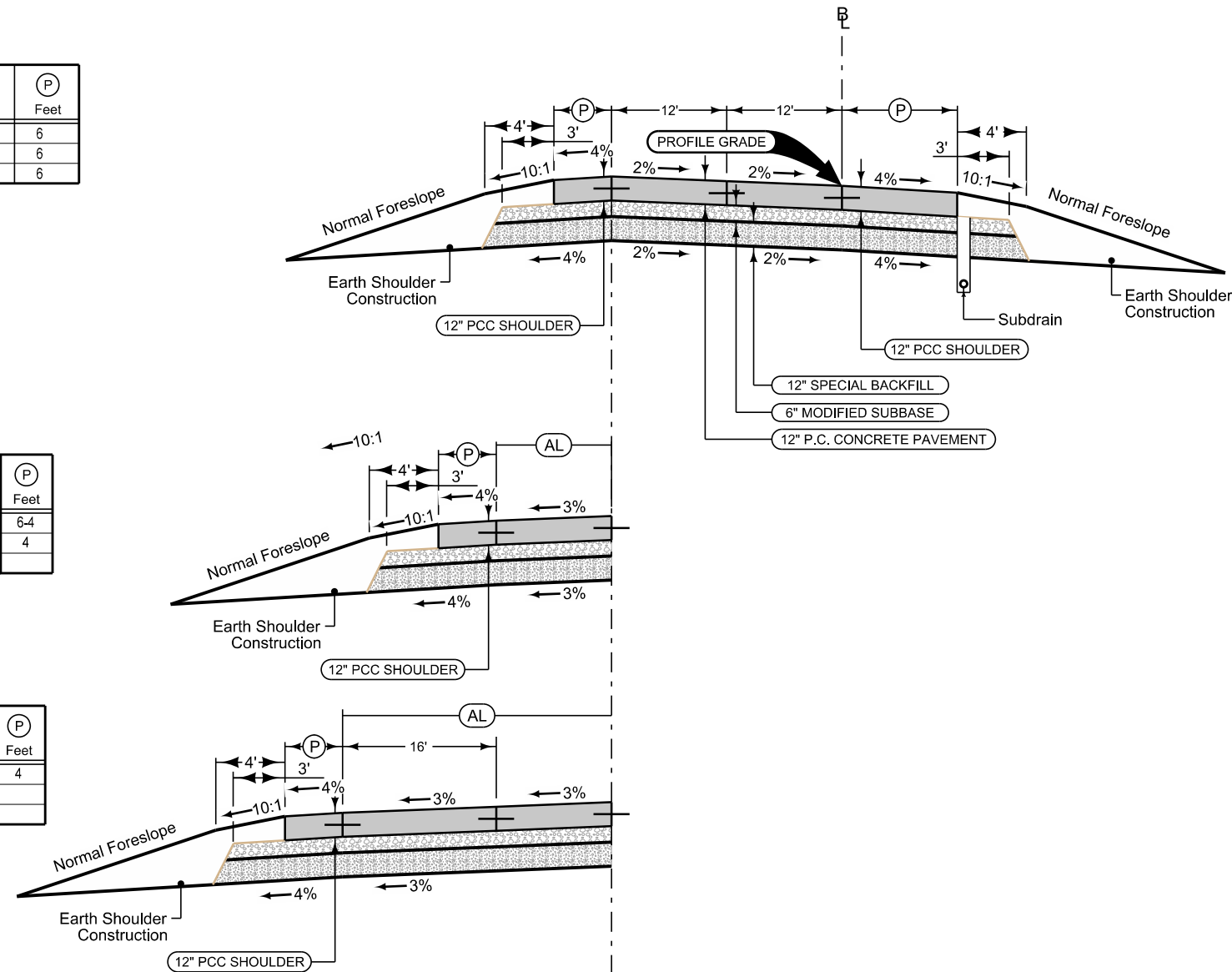
Longitudinal joint: L or KT
 Transverse joint: Match Mainline

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet
RAMP 235D	NB	33545+64.80	33545+94.42	0-2	6-4
RAMP 235D	NB	33545+94.42	33548+40.39	2-18.6	4

Auxiliary Lane with Full Depth PCC Shoulder

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet
RAMP 235D	NB	33548+40.39	33551+55.35	18.6-40	4



Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 17' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(P) Feet
RAMP 235D	NB	33544+06.61	33551+92.33	12
RAMP 235D_INT	NB	37007+85.73	37015+38.39	12

Section shown in the direction of traffic.

Ramp Jointing:
 Transverse joints: CD at 17' spacing.
 Longitudinal joint: L-2

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION
RAMP 235D	NB	33544+06.61	33551+92.33
RAMP 235D_INT	NB	37007+85.73	37015+38.39

Section shown in the direction of traffic.

Ramp Jointing:
 Transverse joints: CD at 17' spacing.
 Longitudinal joint: L-2

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION
RAMP 235D_INT	NB	37015+38.39	37023+99.35

Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 17' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(P) Feet
RAMP 235D_INT	NB	37015+38.39	37023+99.35	12

PAVING RAMP 235D INTERIM RAMP 235D

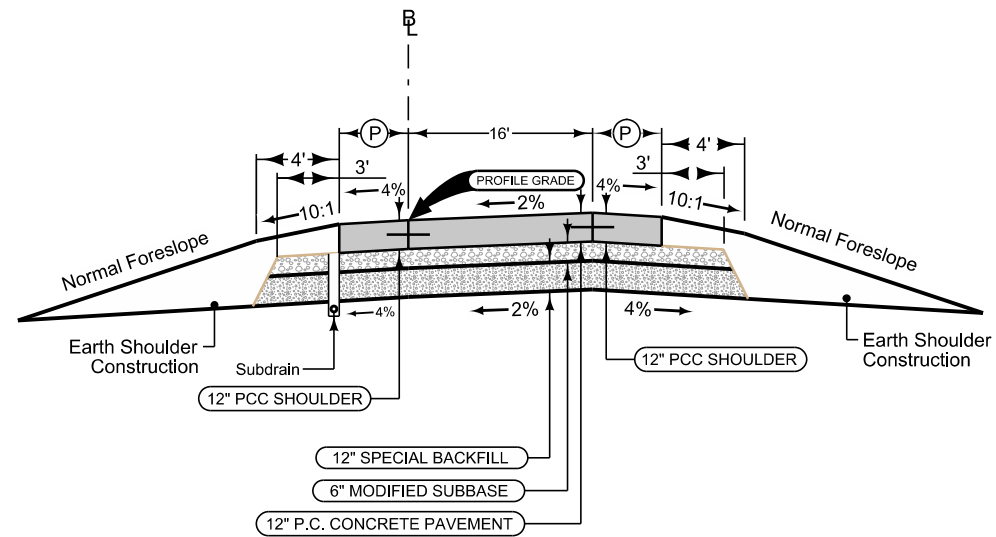
See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 12' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(P) Feet
RAMP 235H	NB	39651+00.00	39654+06.33	4



Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 12' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(P) Feet
RAMP 235H	NB	39651+00.00	39654+06.33	6

Section shown in the direction of traffic.

Ramp Jointing:
 Transverse joints: CD at 12' spacing.
 Longitudinal joint: L-2

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION
RAMP 235H	NB	39651+00.00	39654+06.33

See Tab 100-24 or 100-25 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

**PAVING
 RAMP 235H**

BEGIN STATION	END STATION	(PL) Feet	(A) Feet	(B) Feet	(PR) Feet
1112+60.97	1114+54.06	0	0	9.37 - 0	4.25 - 13.63
1114+54.06	1115+45.19	0 - 11	0	0	13.63
1115+45.19	1117+16.10	13	0	0	13.63
1117+16.10	1118+16.71	13	0	0	11.63 - 0
1118+16.71	1119+95.11	13 - 7	0 - 8	0	0

Refer to F Sheets for geometric layout

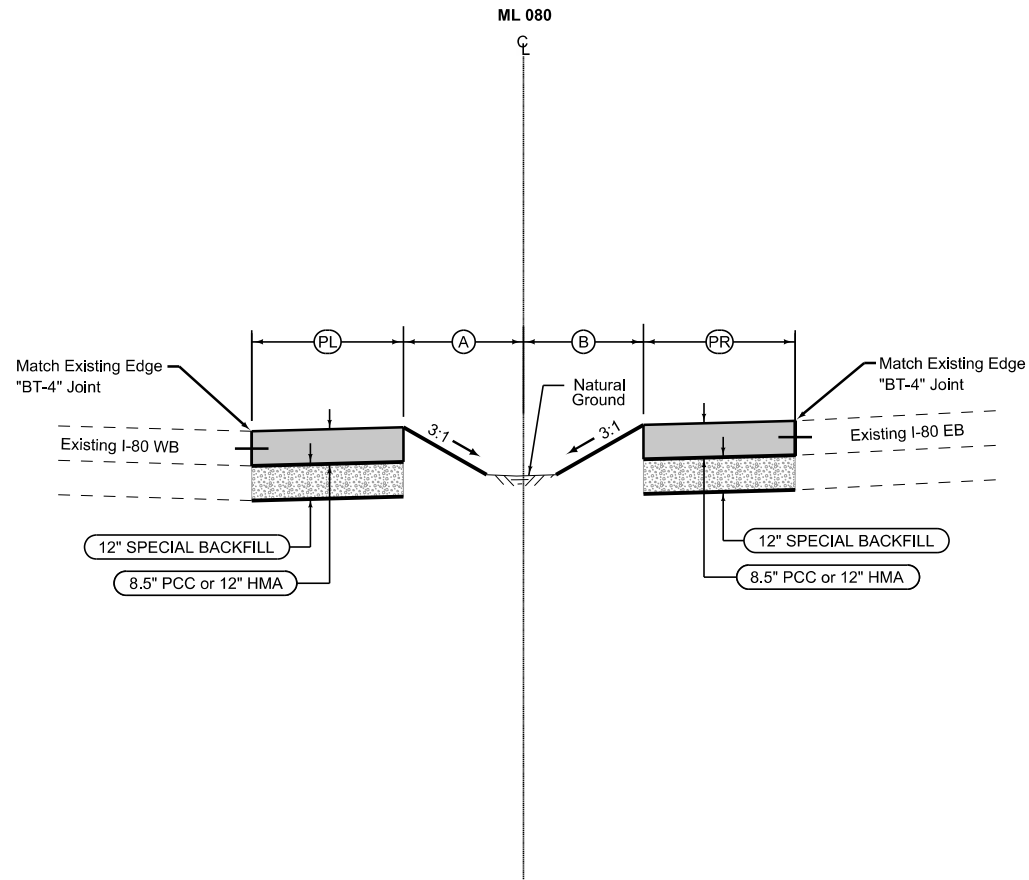
Section shown in the direction of stationing.

Detour Jointing:
 Transverse joints: Refer to PV-121
 Longitudinal joint: BT-4

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

① Refer to project plan and cross sections for specific location of foreslope change.



DET_80EB_2_1
Stage 1
I-80 MEDIAN

BEGIN STATION	END STATION	(WL) Feet	(WR) Feet
1208+15.45	1212+63.45	2.43 - 2.52	2.04 - 1.93

Refer to F Sheets for geometric layout

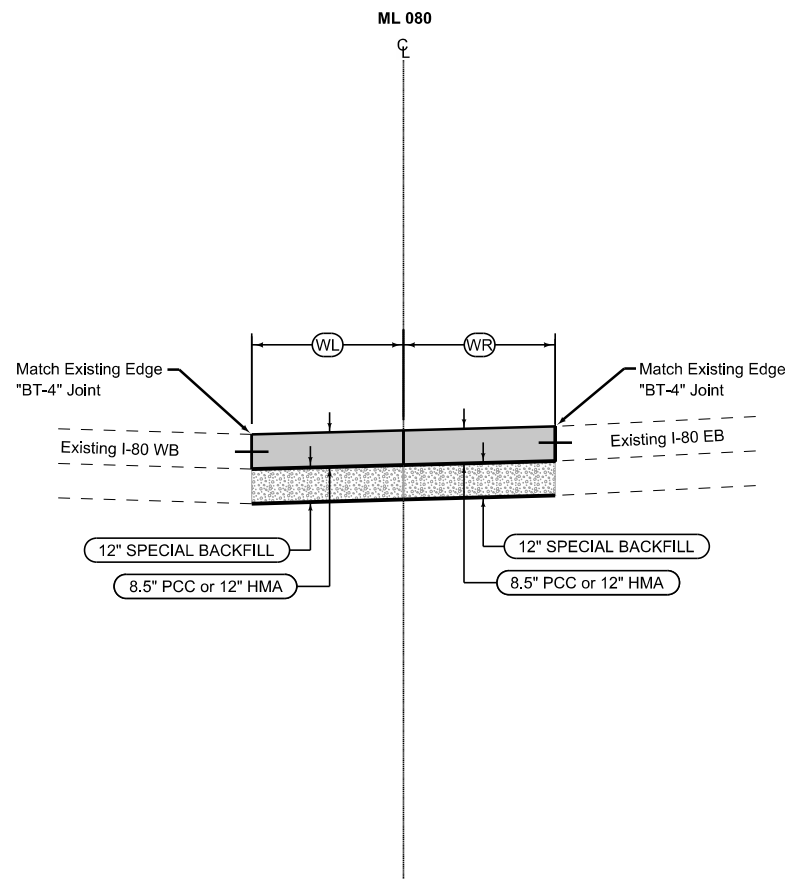
Section shown in the direction of stationing.

Detour Jointing:
 Transverse joints: Refer to PV-121
 Longitudinal joint: BT-4

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

① Refer to project plan and cross sections for specific location of foreslope change.



DET_80EB_2_2
Stage 1
I-80 MEDIAN

BEGIN STATION	END STATION	(A) Feet
23001+00.00	23005+63.04	26.15 - 16.77
23005+63.04	23009+90.41	16.77 - 0
Refer to F Sheets for Slope and Geometric Layout		

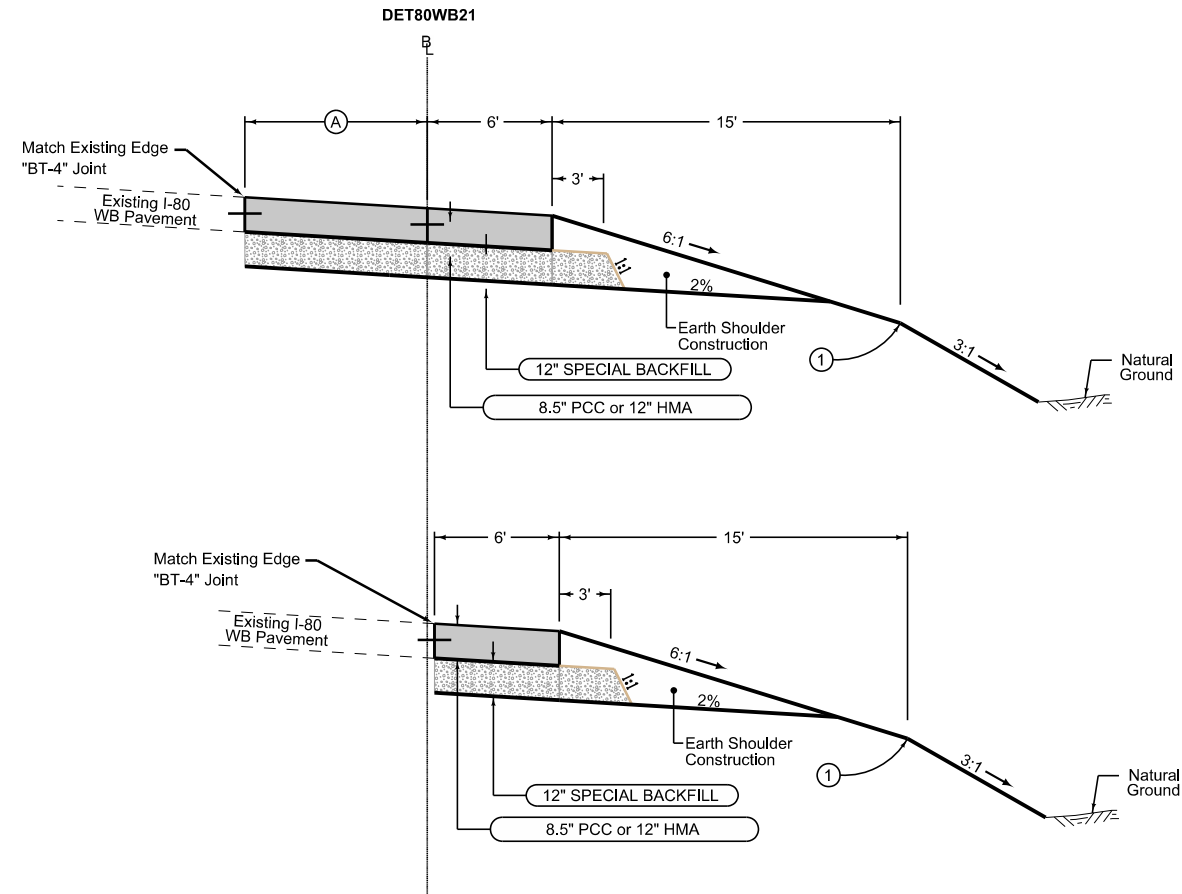
Section shown in the direction of traffic.

Detour Jointing:
 Transverse joints: Refer to PV-121
 Longitudinal joint: BT-4

BEGIN STATION	END STATION
23009+90.41	23012+95.02
Refer to F Sheets Geometric Layout	

Section shown in the direction of traffic.

Detour Jointing:
 Transverse joints: Refer to PV-121
 Longitudinal joint: BT-4



Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

① Refer to project plan and cross sections for specific location of foreslope change.

DET_80WB_2_1
Stage 1
I-80 WB

SURVEY SYMBOLS

	PPA Power Pole Co. 1		EP Edge of Paved Roads (ML or SR)
	PRA Power Riser Co. 1		SNP Unpaved Shoulder
	UB Utility Box		CU Back of Curb
	TSG Traffic Signal		GU Gutter In Front of Curb
	TSL Traffic Signal and Luminaire		ENT Centerline BL of Entrance
	TCB Traffic Signal Box		ENP Edge Paved Entrance & Park Lot
	LUM Luminaire		ENU Edge Unpaved Entrance & Parking
	TPD Telephone Pedestal		SWK Sidewalk
	MH Utility Access (Manhole)		CON Concrete or A/C Slab
	IN Storm Sewer Intake		E1 - ELA Underground Electric Line Co. 1
	INB Storm Sewer Beehive Intake		E2 - ELA Underground Electric Line Co. 2
	WV Water Valve		E3 - ELA Underground Electric Line Co. 3
	FHYD Fire Hydrant		T1 - ELA Underground Telephone Line Co. 1
	SI Sign		F0 - FOA Underground Fiber Optic Co. 1
	SL Speed Limit Sign		F02 - FOB Underground Fiber Optic Co. 2
	BB Billboard		F03 - FOB Underground Fiber Optic Co. 3
	MM Mile Marker Post		F04 - FOB Underground Fiber Optic Co. 4
	ROW Right of Way Rail		G - GLA Underground Gas Line Co. 1
	TEV Evergreen Tree		W - WLA Underground Water Line Co. 1
	SHR Shrub		ST S - STA Storm Sewer Line Co. 1
	TDC Tree Deciduous		ST S2 - STA Storm Sewer Line Co. 2
	SWAMP		
	FLG Flagpole		
	BCL Bridge Centerline		
	BD Bridge Deck		
	BLS Bridge Low Steel		
	UE Utility Elevation		
	PRO Profile Shot		
	BRG Bridge		
	PLG Location of General Photo		
	PIP Pipe Culvert		
	SOP Size of Pipe or Culvert		
	DU Centerline Draw or Stream (Up)		
	D Centerline Draw or Stream (Down)		
	DIK Centerline of Dike or Dam		
	GDL Guard Rail Steel		
	GPR Guard Post (4 or More Posts)		
	GDC Guard Rail Cable		
	RIP Rip-Rap		
	TLN Tree Line		
	TIL Tile Line		
	FCL Chain Link and Security Fence		
	FW Wire Fence		
	RET Retaining Walls		

UTILITY LEGEND

This is a POINT 25 Project and is subject to the provisions of IAC 761-115.25.

	Mid American Energy - Electric Distribution and Gas Jordan Hohensee 10510 Douglas Avenue Urbandale, Iowa 50322 515-242-4235 - Jordan.Hohensee@midamerican.com
	Mid American Energy - Electric Transmission Nate Johnson 563-333-8648 - Nathan.Johnson@midamerican.com
	Iowa D. O. T. - Lighting and Fiber Optic Mark Van Dyke 800 Lincoln Way Ames, Iowa 50010 515-323-6227 - Mark.VanDyke@dot.iowa.us
	Lumen Century Link - Telephone and Fiber Optics Dwaynn Reineke 2103 East University Avenue Des Moines, Iowa 50317 515-263-4968 Dwayne.Reineke@lumen.com
	Windstream - Fiber Optics Mark Hussman 115 South 2nd Avenue West Newton, Iowa 50208 402-677-5874 Mobile 402-827-6355 Office Mark.Hussman@windstream.com
	Aureon Network Services - Fiber Optics Jeff Klocko 7760 Office Plaza Drive South West Des Moines, Iowa 50266 515-830-0445 Jeff.klocko@aureon.com
	Des Moines Water Works - Water Carla Schumacher 2201 George Flagg Parkway Des Moines, Iowa 50321 515-323-6227 cschumacher@dmww.com
	Mediacom - Telephone Kevin Collins 515-867-3527 kcollins1@mediacomc.com
	Des Moines Metropolitan Wastewater Reclamation Authority - Sanitary James Beck 3000 Vandavia Road Des Moines, Iowa 50317 (515) 323-8055 dmmwra.org

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	Description
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING		
Design Color No.	Description	
Yellow	(4)	Highlight for Critical Notes or Features
Red	(3)	Delineates Restricted Areas
Lavender	(9)	Temporary Pavement Shading
Gray, Light	(48)	Proposed Pavement Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Med	(96)	Paving by Others Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading "In conjunction with a paving project"
Gray, Dark	(128)	Proposed HMA Overlay Shading
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	Description
Green	(2)	Existing Ground Line Profile
Blue	(1)	Proposed Profile and Annotation
Magenta	(5)	Existing Utilities
Blue, Light	(230)	Proposed Ditch Grades, Left
Black	(0)	Proposed Ditch Grades, Median
Rust	(14)	Proposed Ditch Grades, Right

Symbol	Description
	Reference Point
	Station
	Section Corner
	Ground Line Intercept
	Saw Cut
	Guardrail
	Trench Drain
	HighTension Cable Guardrail
	Retaining Wall
	Sheet Pile
	Pavement Removal
	Clearing & Grubbing Area

Symbol	Description
	Proposed Right-of-Way
	Existing Right of Way
	Existing and Proposed Right-of-Way
	Easement and Existing Right-of-Way
	Easement (Temporary)
	Easement
	C/A Access Control
	Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES D, E, F, & K)

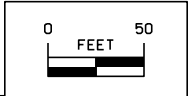
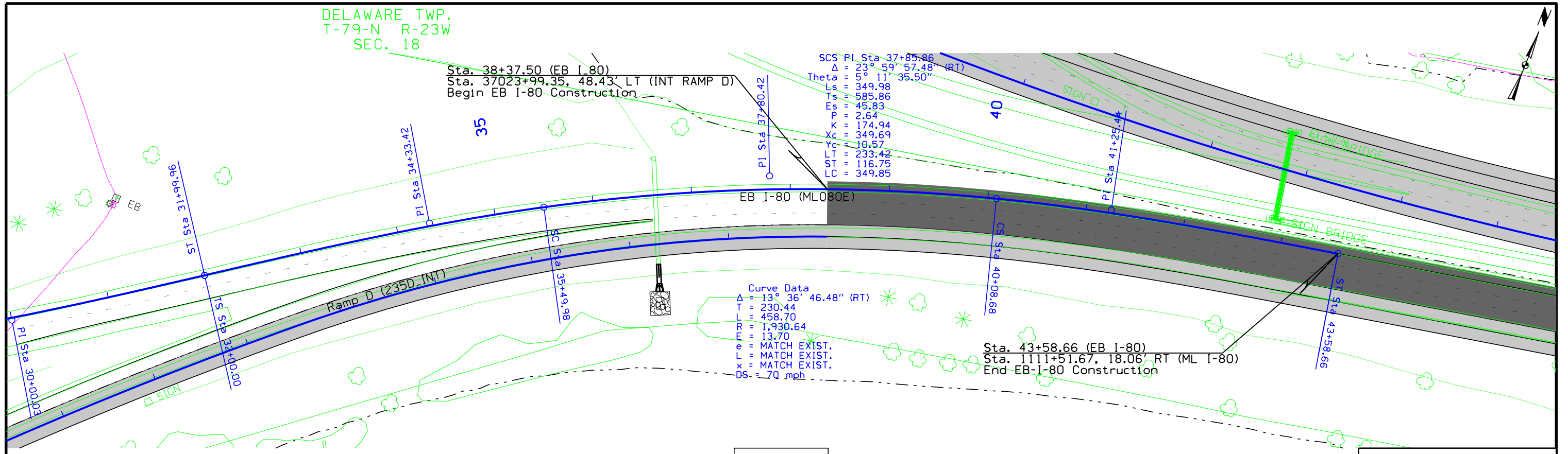
DELAWARE TWP.
T-79-N R-23W
SEC. 18

Sta. 38+37.50 (EB I-80)
Sta. 37023+99.35, 48.43' LT (INT RAMP D)
Begin EB I-80 Construction

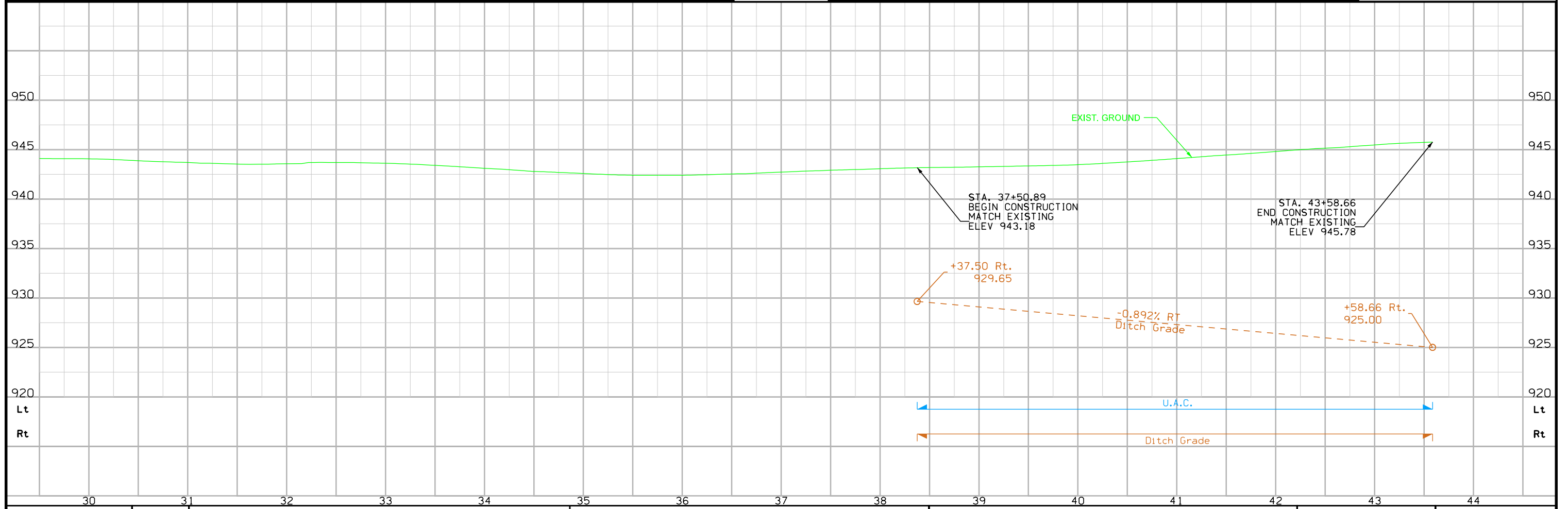
SCS PI Sta 37+85.86
 $\Delta = 23^\circ 59' 57.48''$ (RT)
Theta = $5^\circ 11' 35.50''$
Ls = 349.98
Ts = 585.86
Es = 45.83
P = 2.64
K = 174.94
Xc = 349.69
Yc = 10.57
LT = 233.42
ST = 116.75
LC = 349.85

Curve Data
 $\Delta = 13^\circ 36' 46.48''$ (RT)
T = 230.44
L = 458.70
R = 1,930.64
E = 13.70
e = MATCH EXIST.
L = MATCH EXIST.
x = MATCH EXIST.
DS = 70 mph

Sta. 43+58.66 (EB I-80)
Sta. 1111+51.67, 18.06' RT (ML I-80)
End EB-I-80 Construction



MAINLINE
EASTBOUND I-80



DELAWARE TWP.
T-79-N R-23W
SEC. 18

1115

1120

1125

WB I-80 (ML080W)

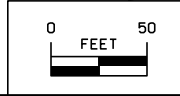
I-80 (ML080)

EB I-80 (ML080E)

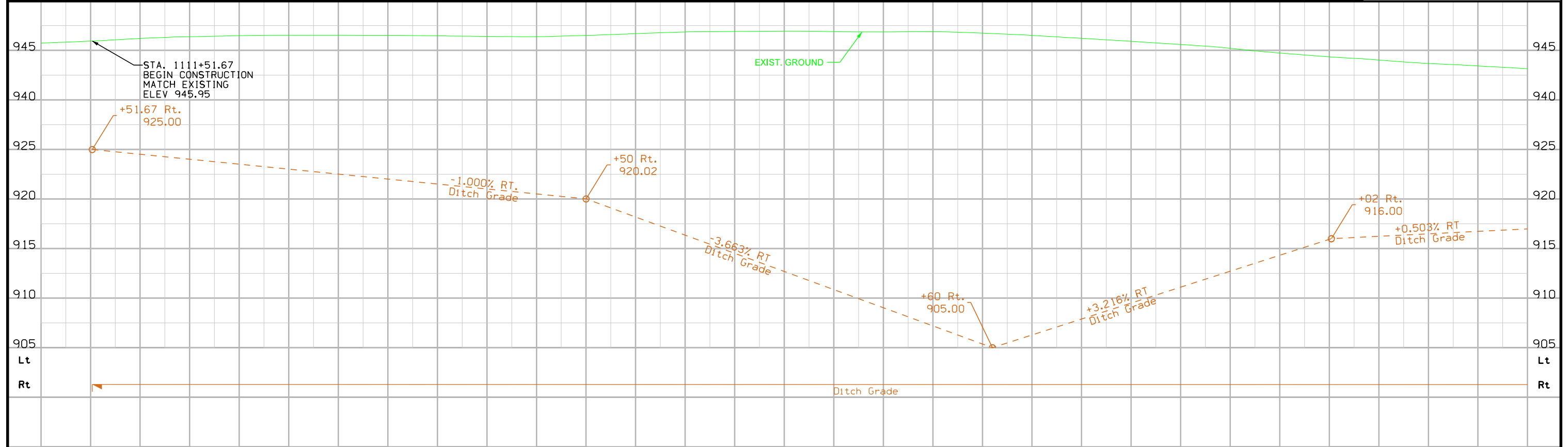
Sta. 1111+51.67 (I-80)
Sta. 43+58.66 (EB I-80, 18.06' LT)
Sta. 4112+51.15 (WB I-80, 49.22' RT)
Resume I-80 Construction ML I-80

Sta. 4117+33.36
4' X 4' X 401'
Conc Box Culvert

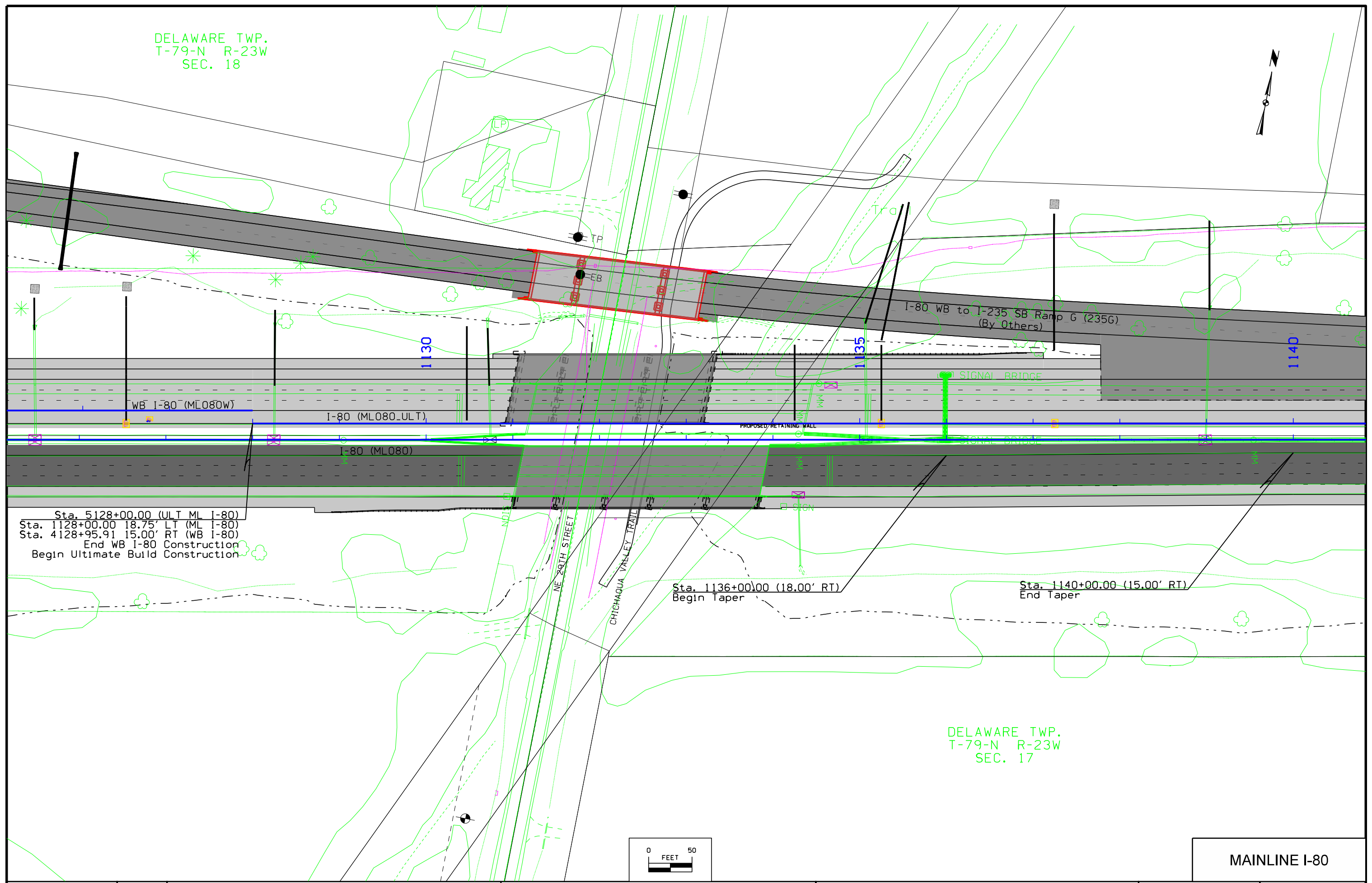
Extend Existing 4' X 4' BOX
w/60" x 146' DR-621



MAINLINE I-80



DELAWARE TWP.
T-79-N R-23W
SEC. 18

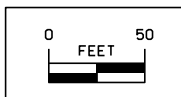


Sta. 5128+00.00 (ULT ML I-80)
Sta. 1128+00.00 18.75' LT (ML I-80)
Sta. 4128+95.91 15.00' RT (WB I-80)
End WB I-80 Construction
Begin Ultimate Build Construction

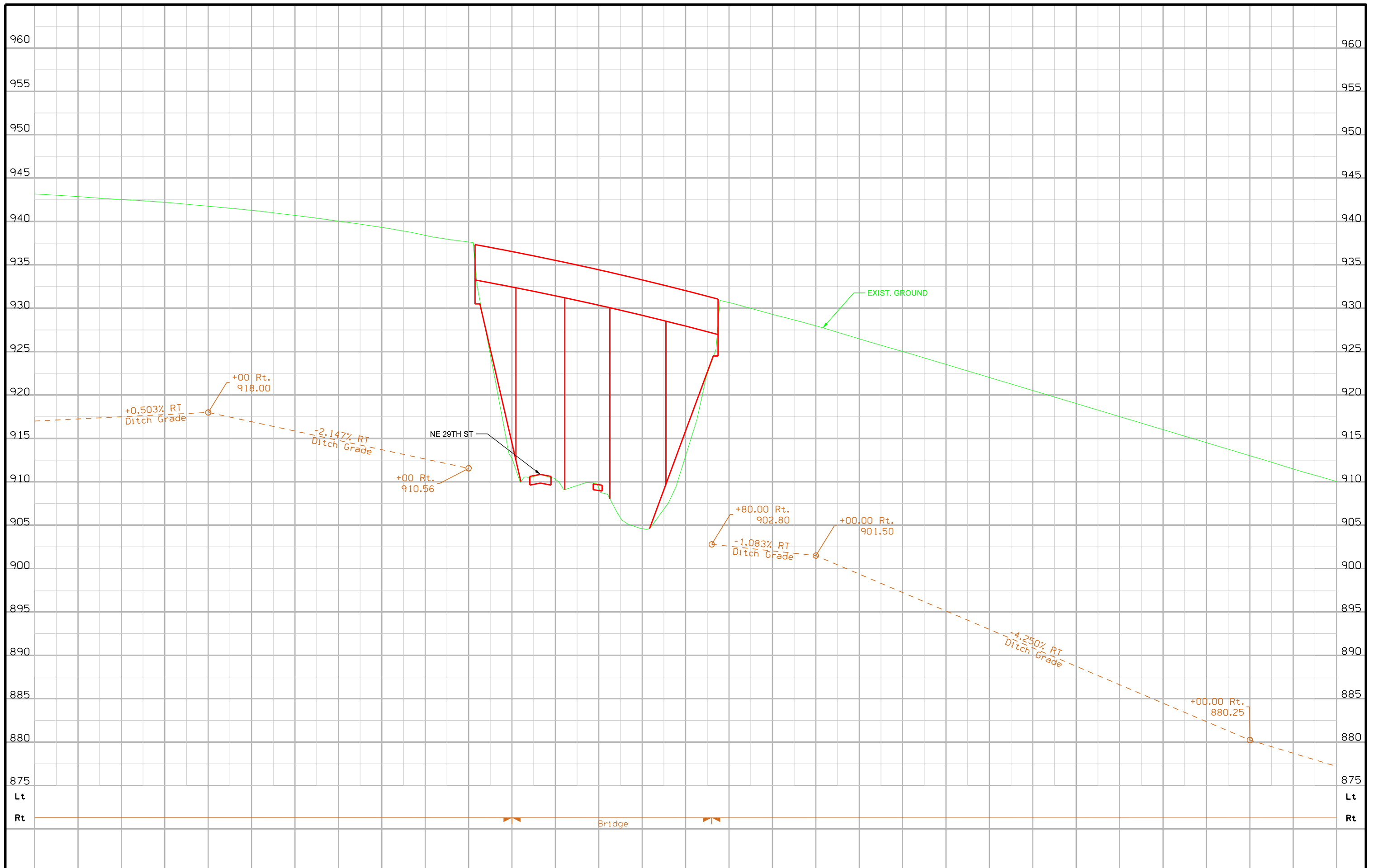
Sta. 1136+00.00 (18.00' RT)
Begin Taper

Sta. 1140+00.00 (15.00' RT)
End Taper

DELAWARE TWP.
T-79-N R-23W
SEC. 17



MAINLINE I-80



DELAWARE TWP.
T-79-N R-23W
SEC. 17



1145

1150

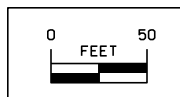
I-80 (ML080_ULT)

I-80 (ML080)

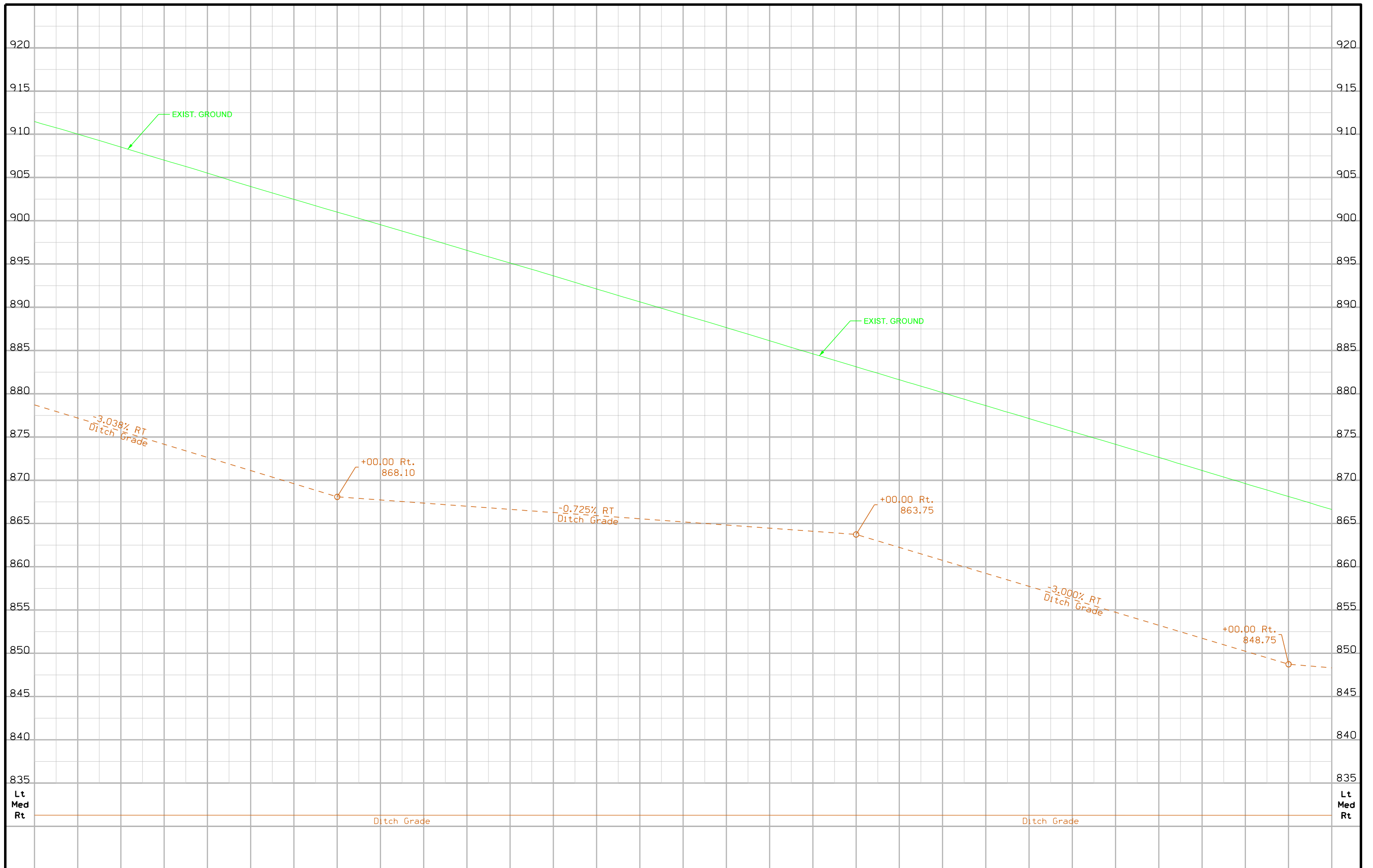
NOIS

SIGN

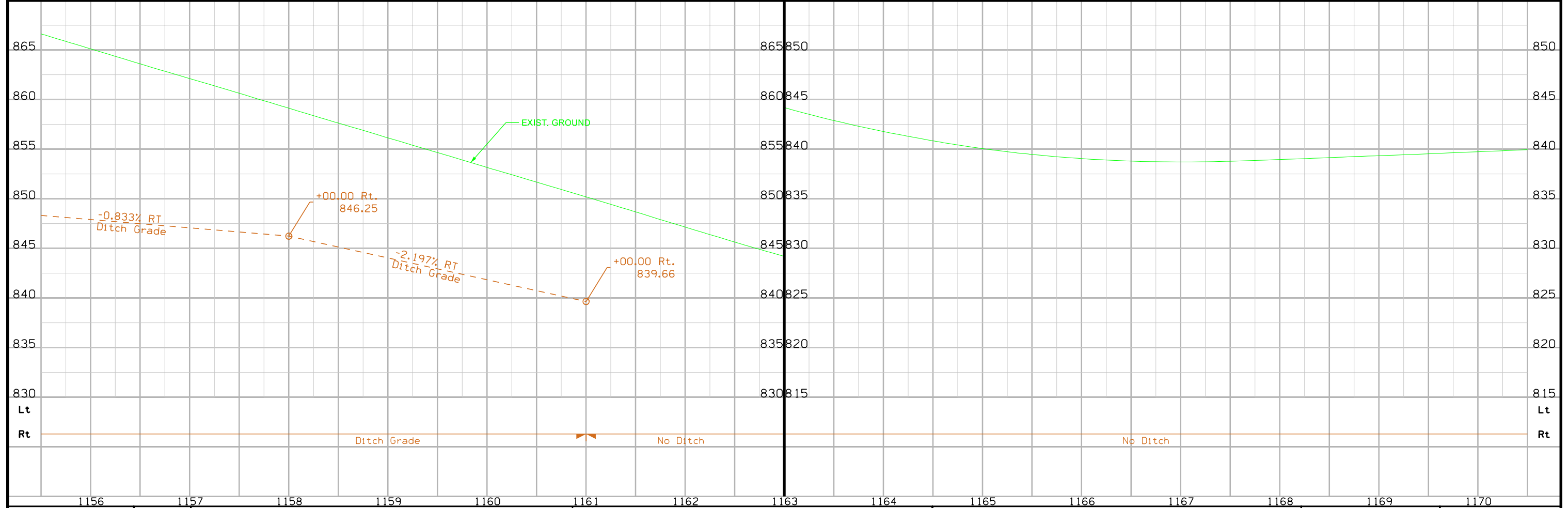
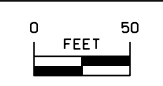
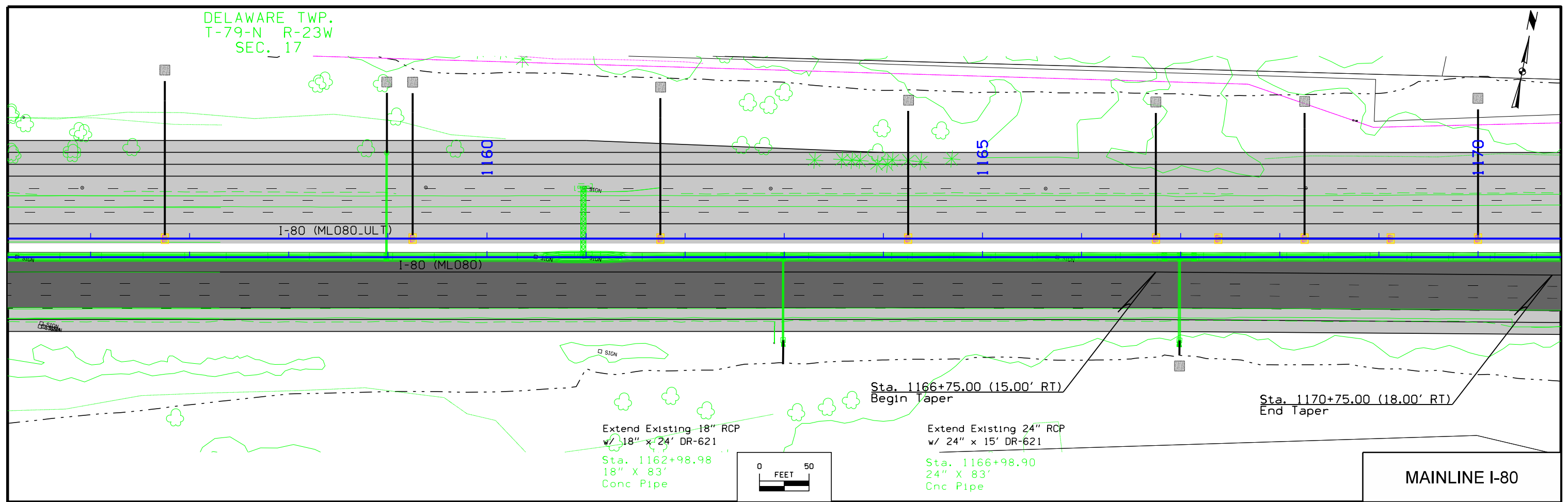
SIGN SIGN



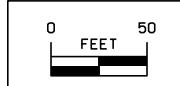
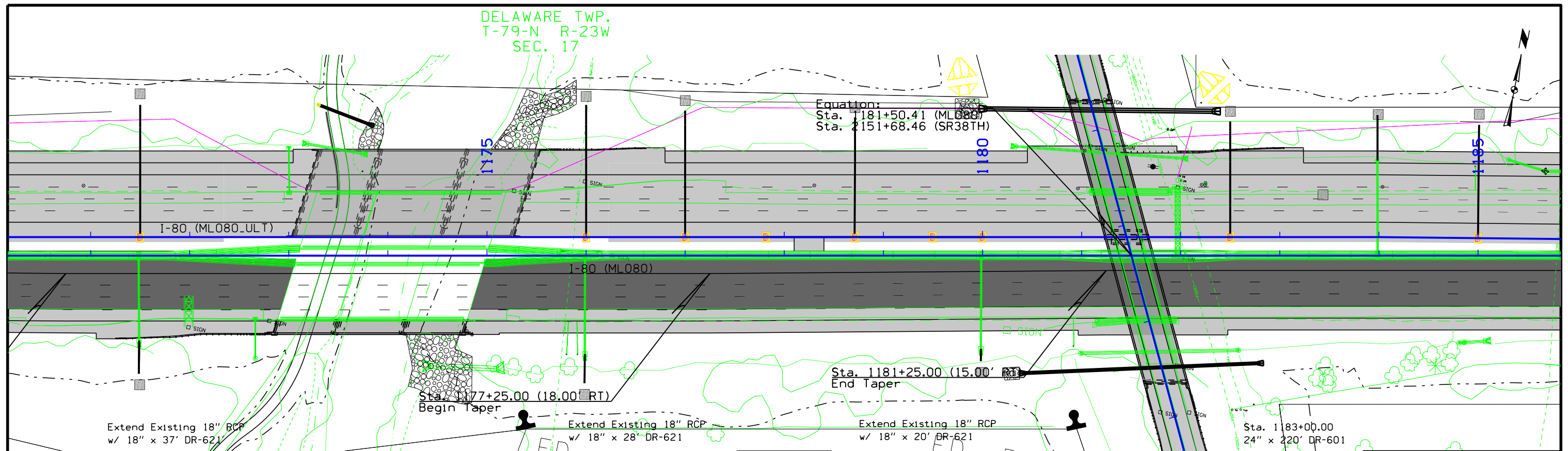
MAINLINE I-80



DELAWARE TWP.
T-79-N R-23W
SEC. 17



DELAWARE TWP.
T-79-N R-23W
SEC. 17



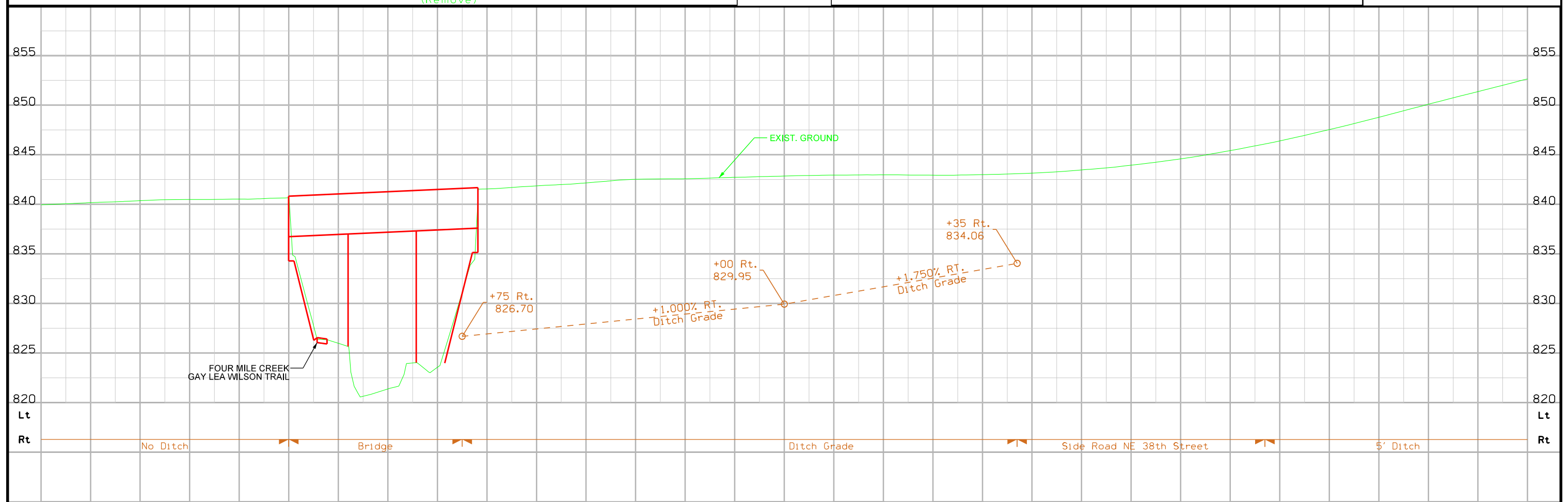
Sta. 1171+48.98
18" X 85'
Cnc Pipe

Sta. 1174+42.82
60" X 63'
Cnc Pipe
(Remove)

Sta. 1175+98.77
18" X 99'
Cnc Pipe

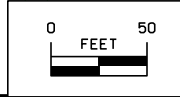
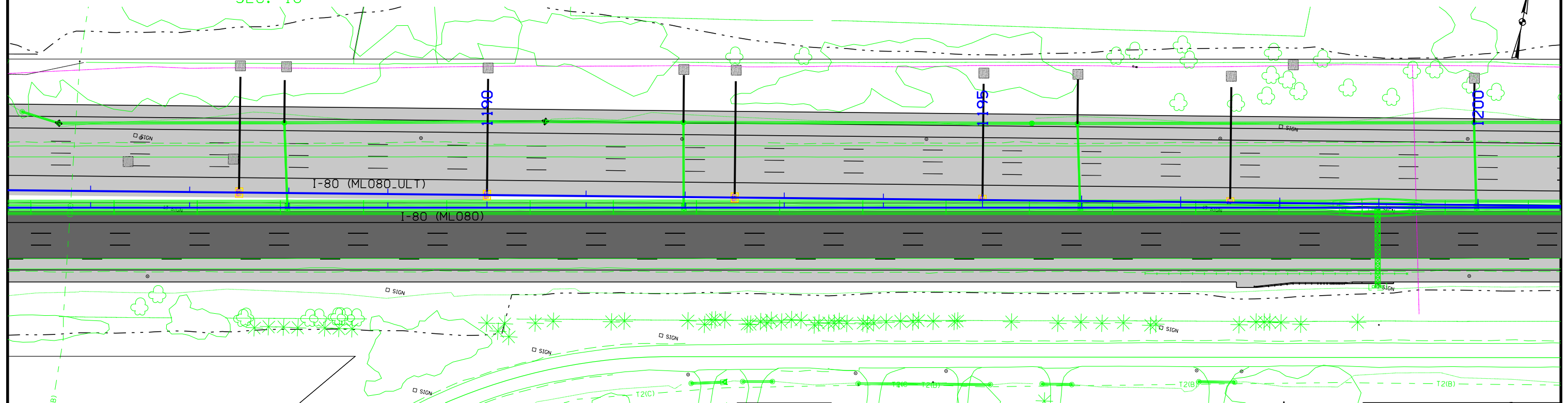
Sta. 1179+98.47
18" X 93'
Cnc Pipe

Sta. 1182+58.38
30" X 159'
Cnc Pipe

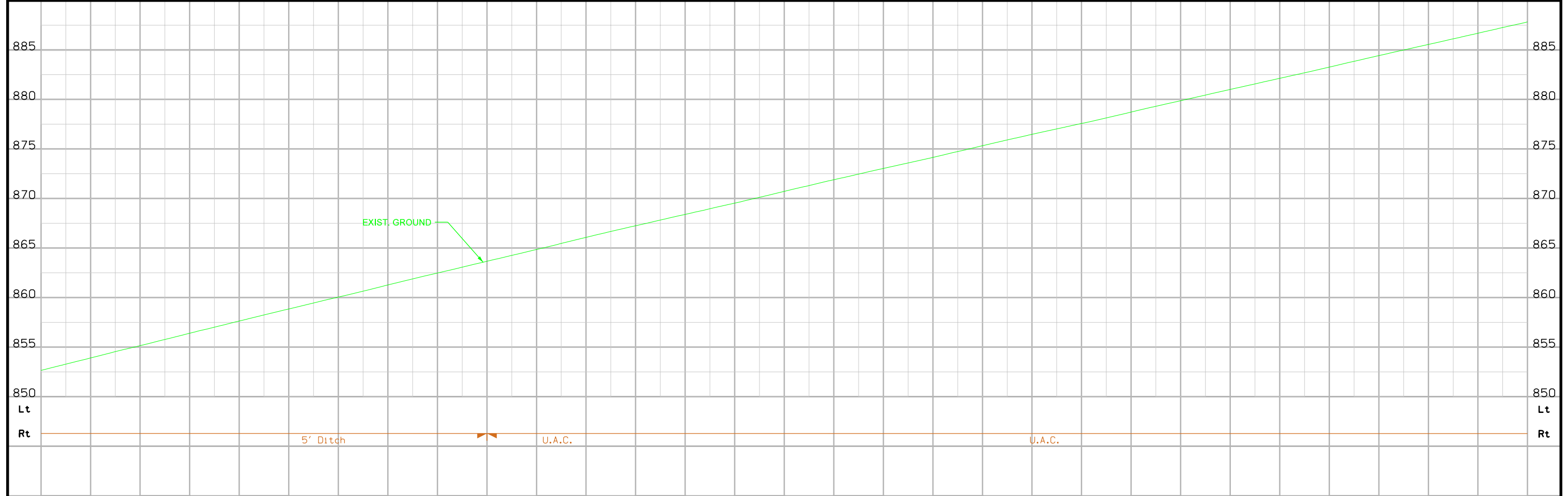


1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185
FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR			POLK COUNTY	PROJECT NUMBER	IM-NHS-080-4(80)138--03-77			SHEET NUMBER	D.9		

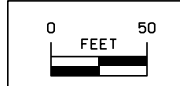
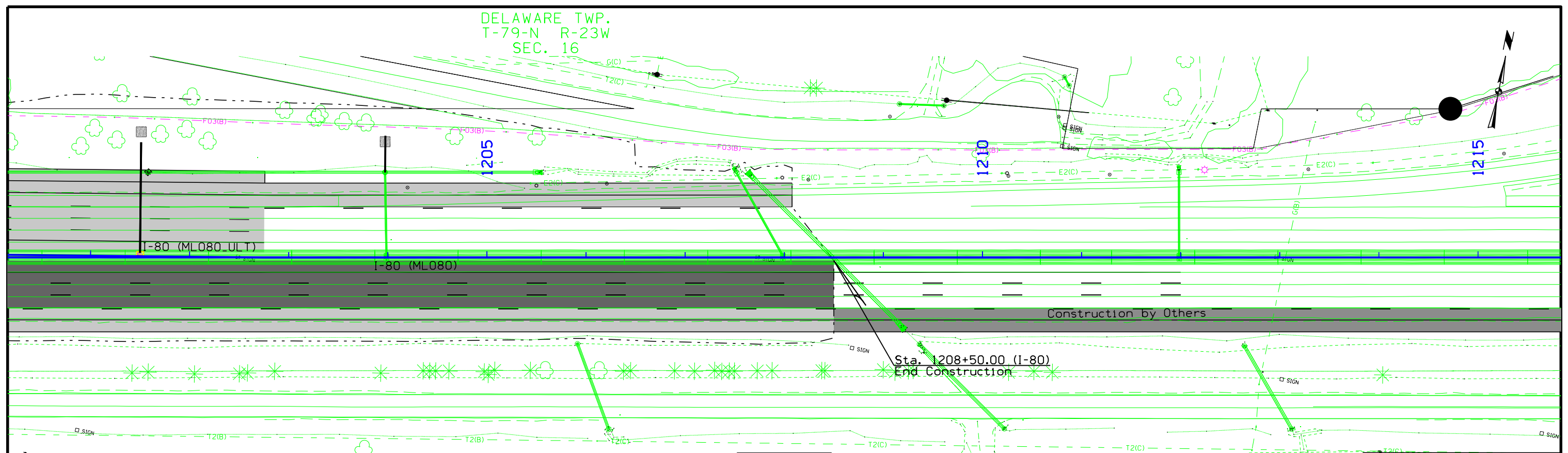
DELAWARE TWP.
T-79-N R-23W
SEC. 16



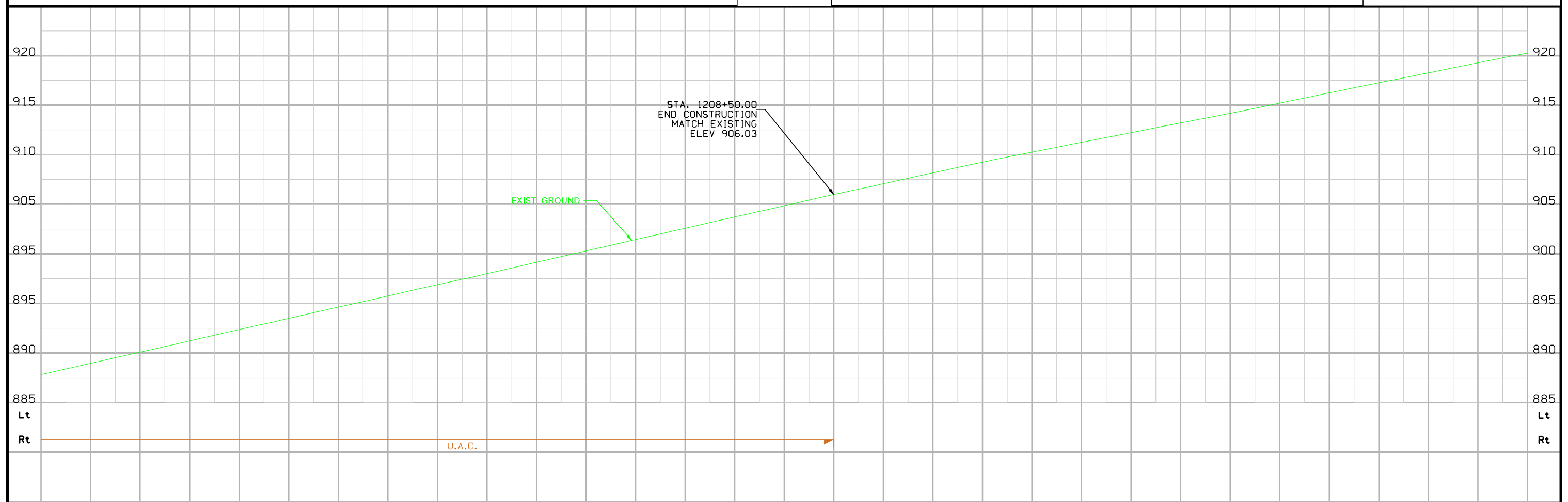
MAINLINE I-80



DELAWARE TWP.
T-79-N R-23W
SEC. 16

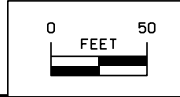
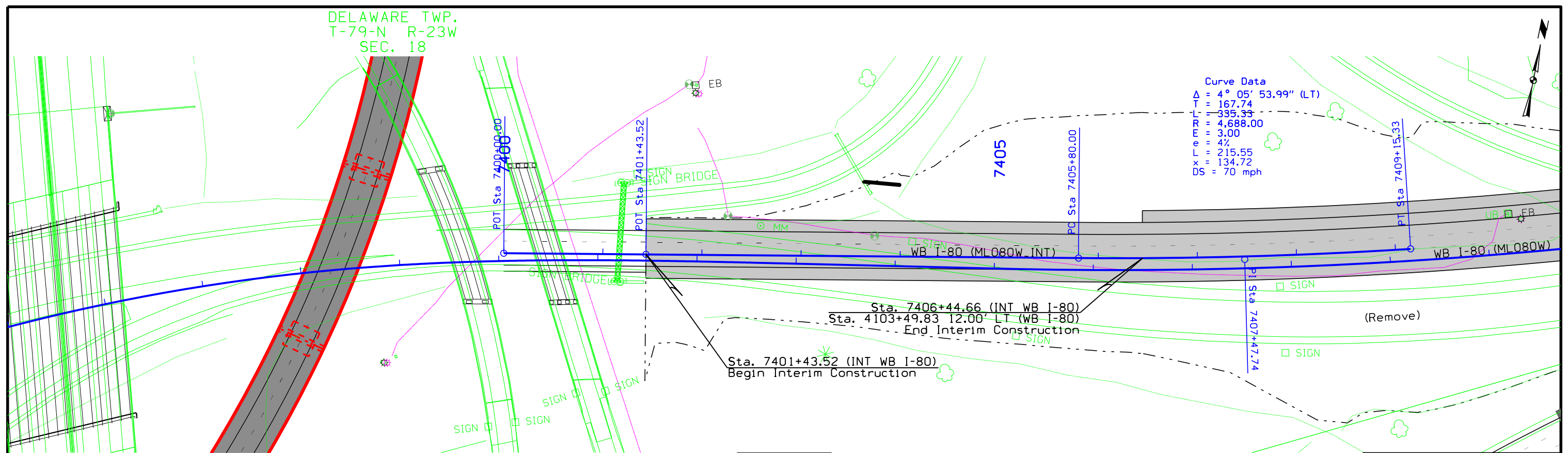


MAINLINE I-80

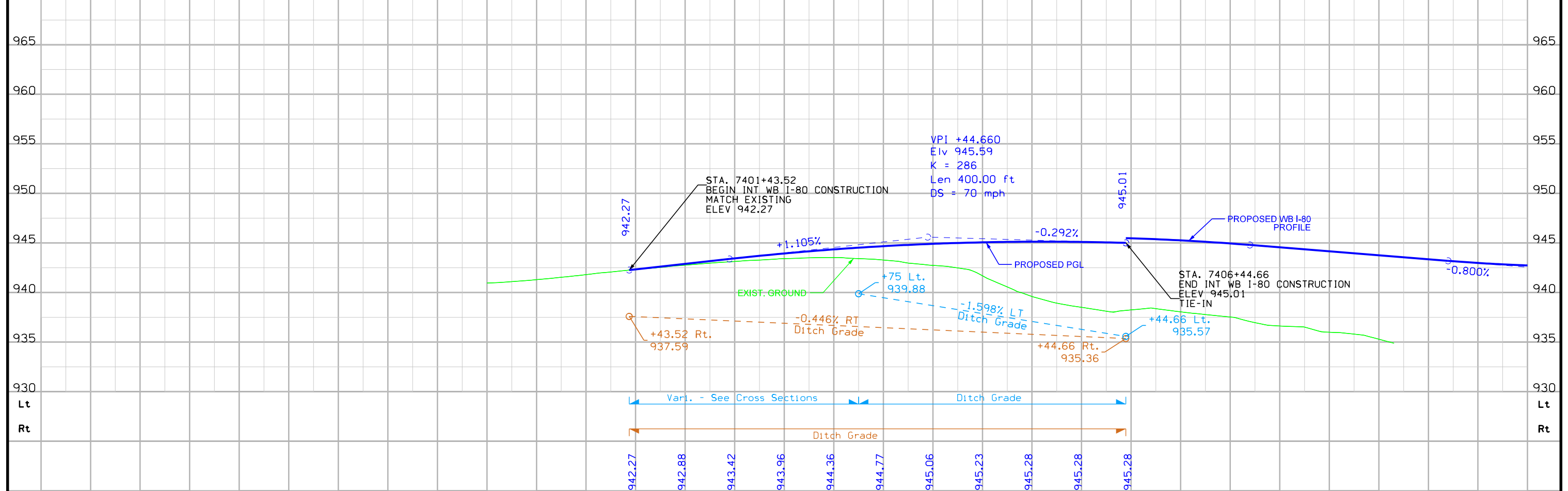


DELAWARE TWP.
T-79-N R-23W
SEC. 18

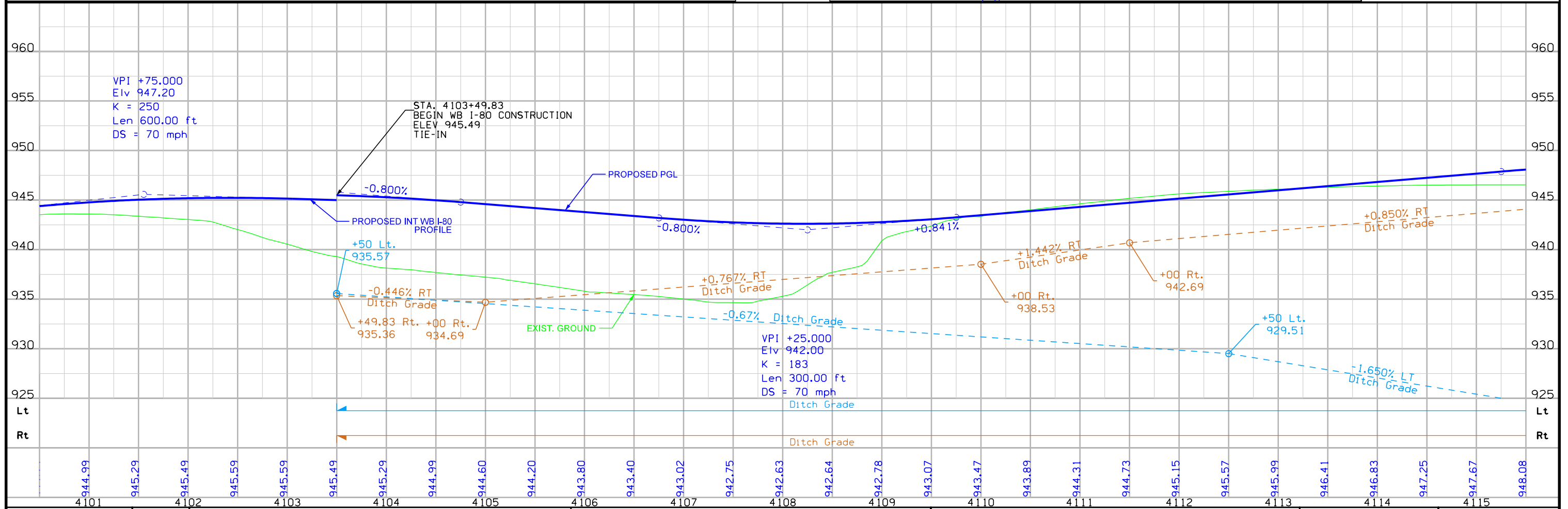
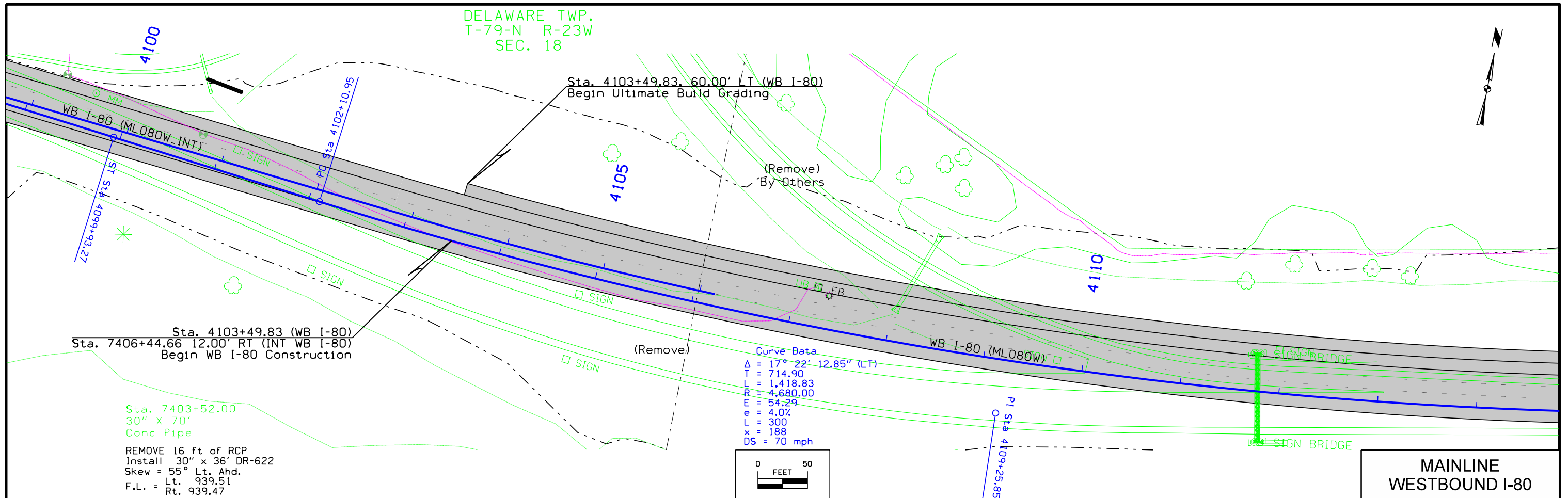
Curve Data
 $\Delta = 4^\circ 05' 53.99''$ (LT)
 $T = 167.74$
 $L = 335.33$
 $R = 4,688.00$
 $e = 3.00$
 $e = 4\%$
 $L = 215.55$
 $x = 134.72$
 $DS = 70$ mph

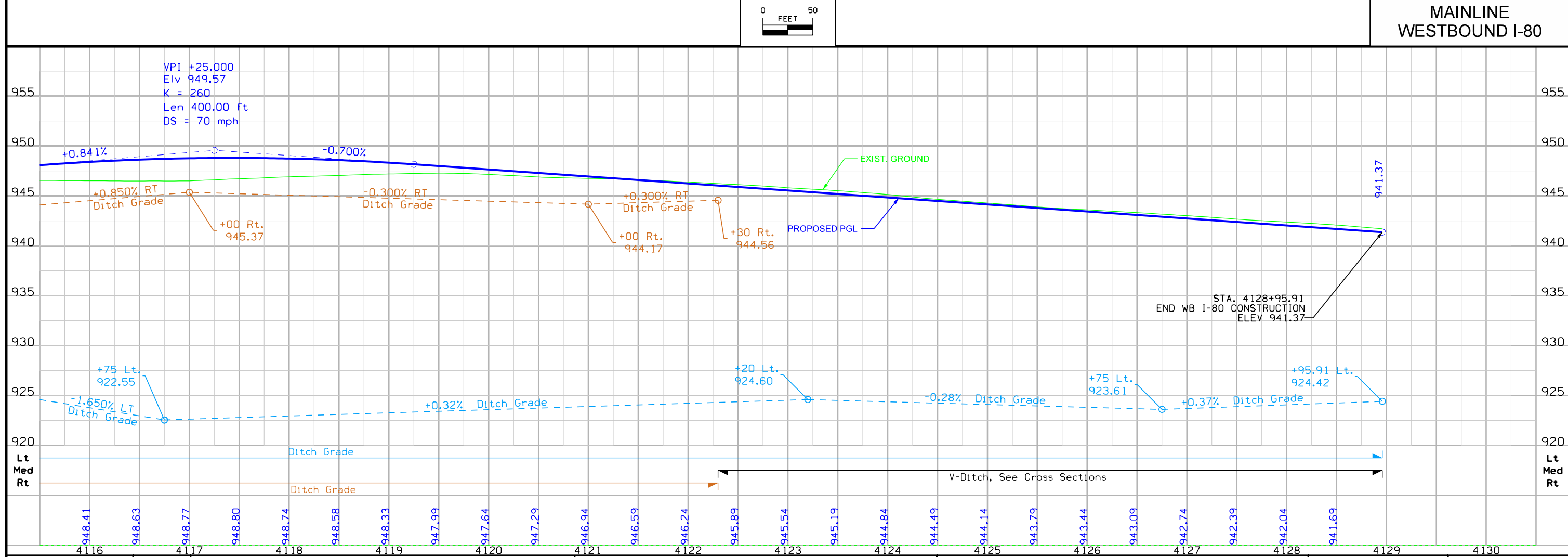
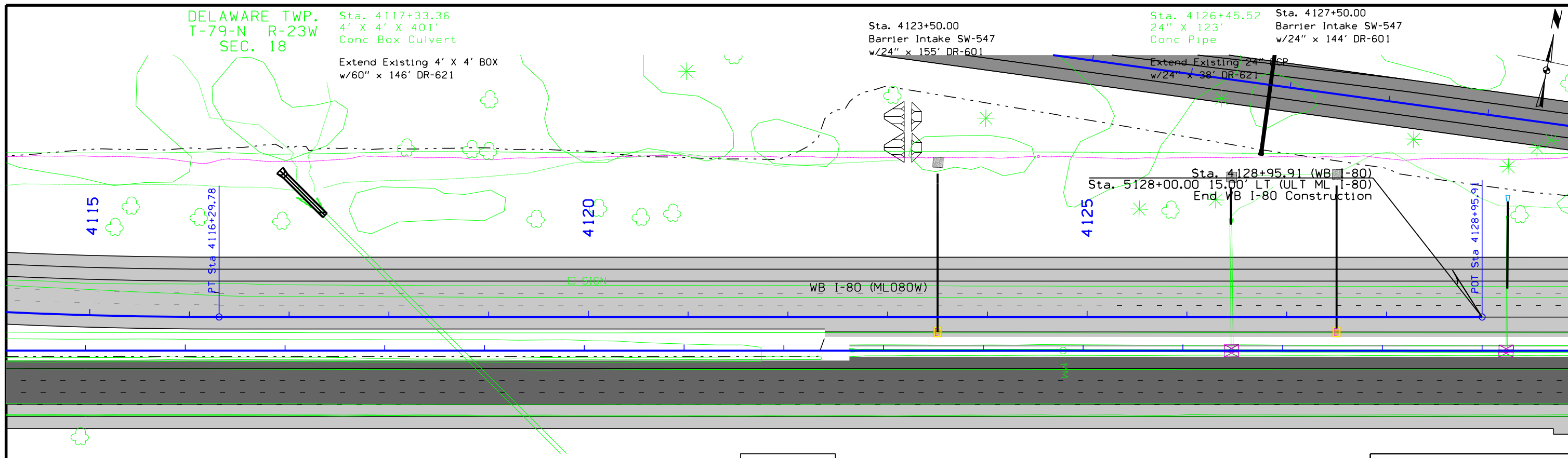


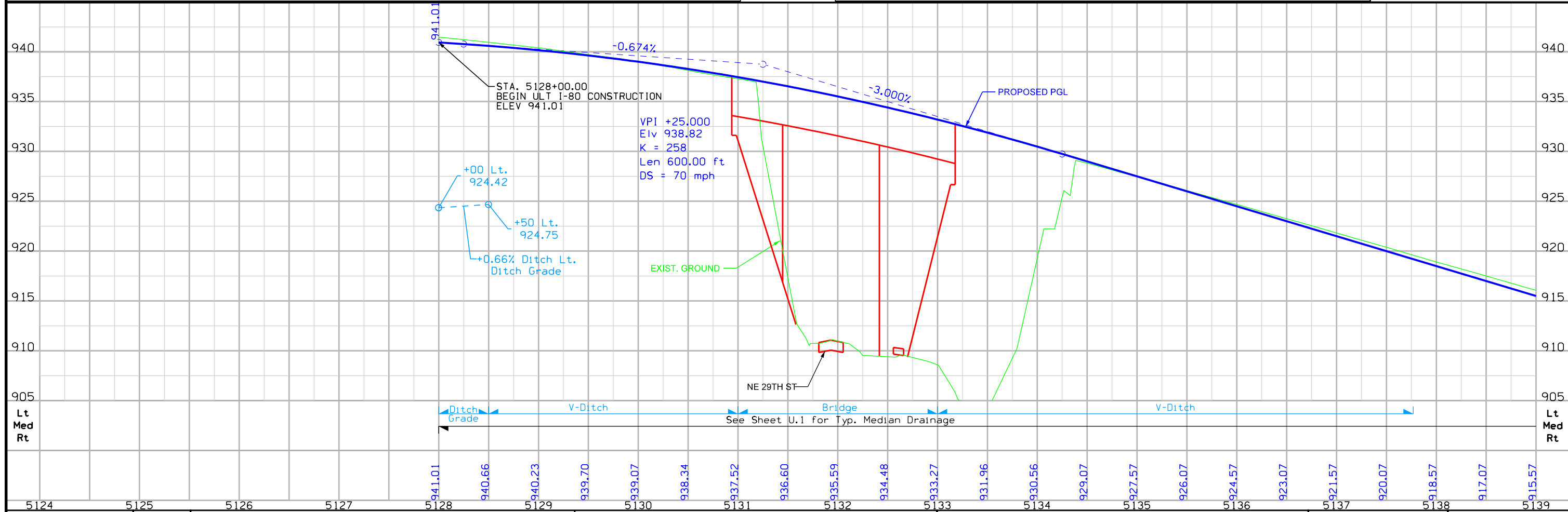
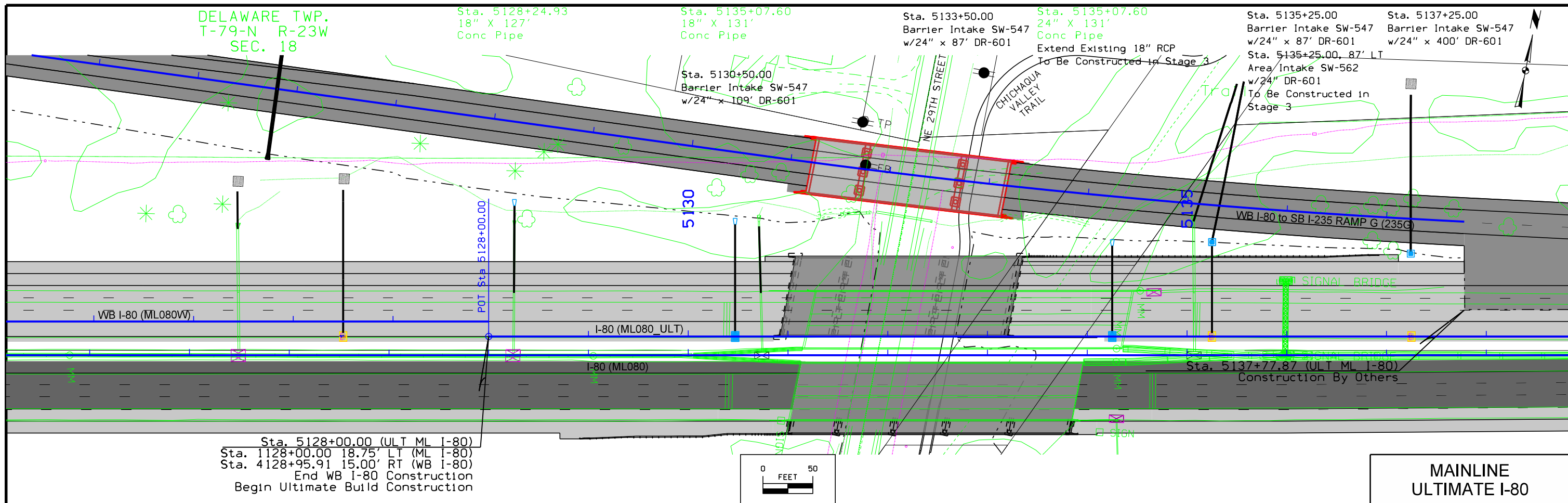
**MAINLINE
WESTBOUND I-80
INTERIM PAVING**

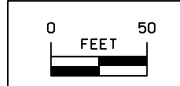
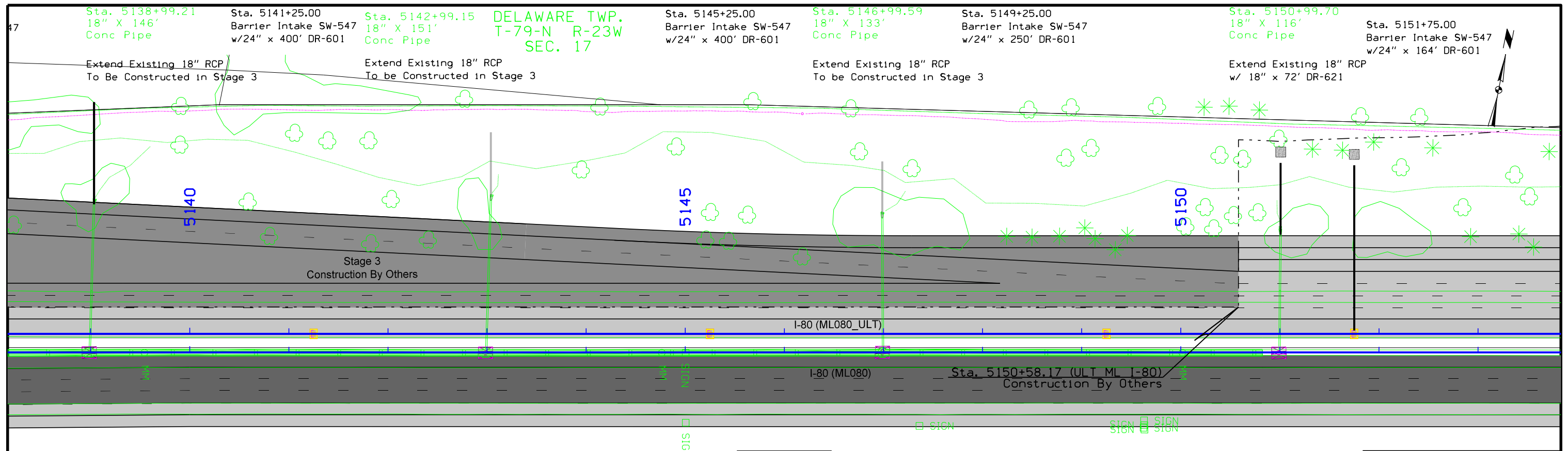


DELAWARE TWP.
T-79-N R-23W
SEC. 18









**MAINLINE
ULTIMATE I-80**



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-NHS-080-4(80)138--03-77	SHEET NUMBER	D.16
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Sta. 5154+99.08 DELAWARE TWP. T-79-N R-23W SEC. 17
 18" X 113' Conc Pipe
 Sta. 5156+75.00 Barrier Intake SW-547 w/24" x 156' DR-601
 Sta. 5158+98.71 18" X 107' Conc Pipe
 Sta. 5159+25.00 Barrier Intake SW-547 w/24" x 144' DR-601
 Sta. 5161+75.00 Barrier Intake SW-547 w/24" x 138' DR-601
 Sta. 5164+25.00 Barrier Intake SW-547 w/24" x 125' DR-601
 Sta. 5166+75.00 Barrier Intake SW-547 w/24" x 123' DR-601
 Sta. 5167+37.94 Barrier Intake SW-547 w/24" x 82' DR-601

Extend Existing 18" RCP w/ 18" x 78' DR-621

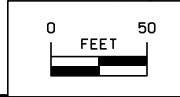
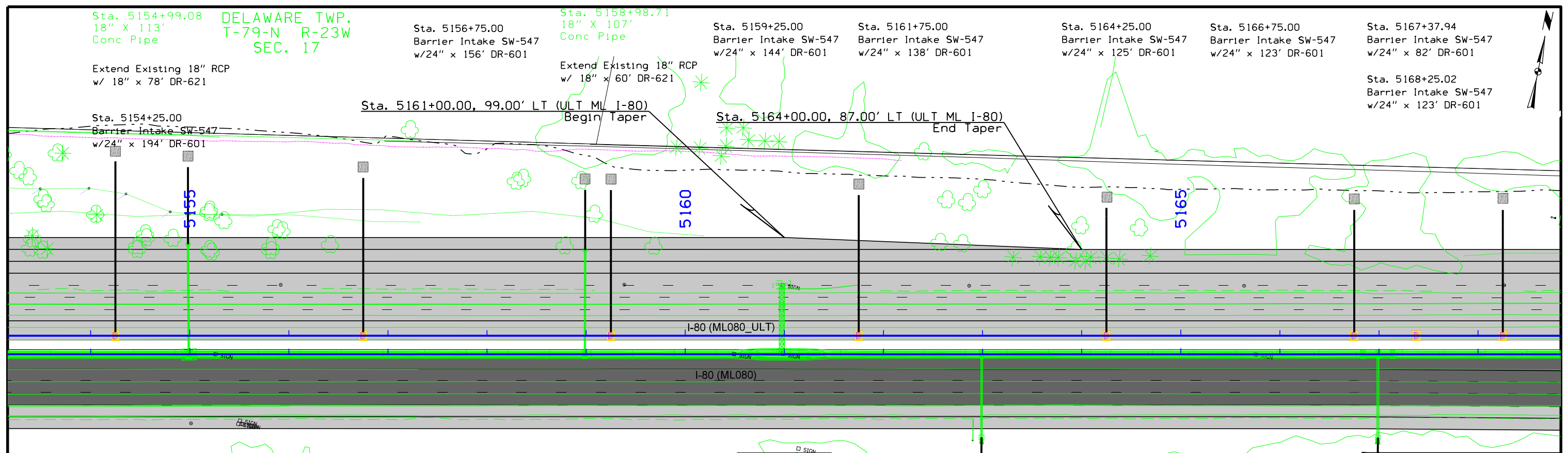
Extend Existing 18" RCP w/ 18" x 60' DR-621

Sta. 5154+25.00 Barrier Intake SW-547 w/24" x 194' DR-601

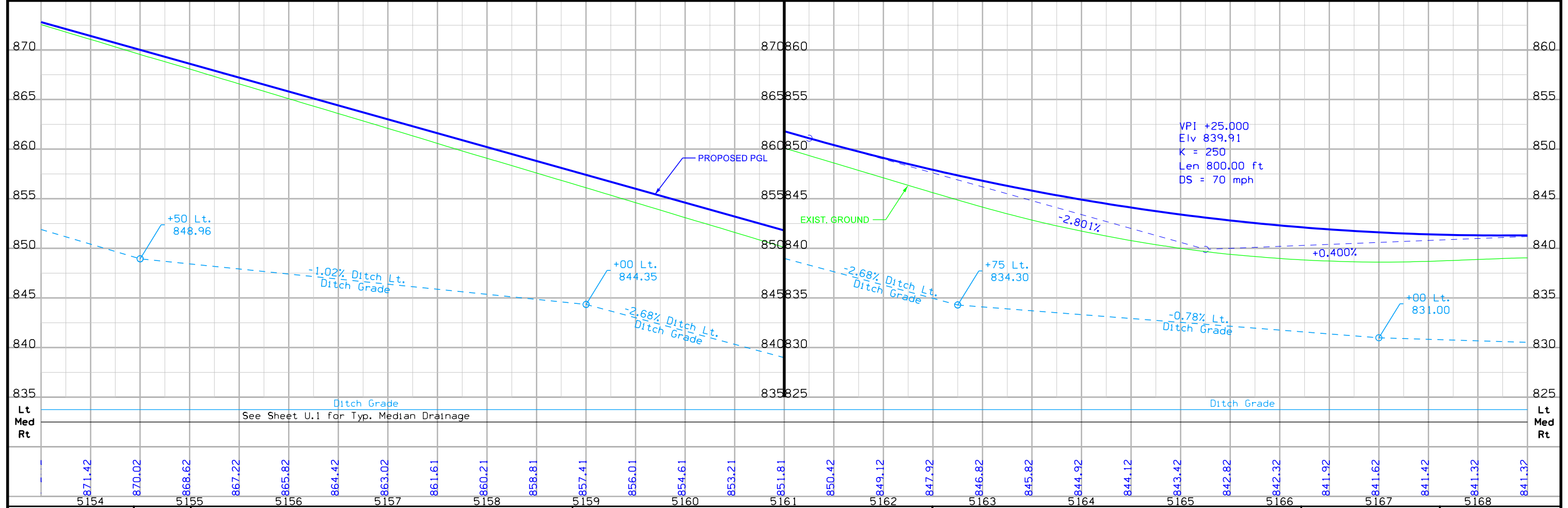
Sta. 5161+00.00, 99.00' LT (ULT ML I-80) Begin Taper

Sta. 5164+00.00, 87.00' LT (ULT ML I-80) End Taper

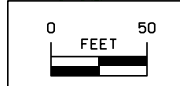
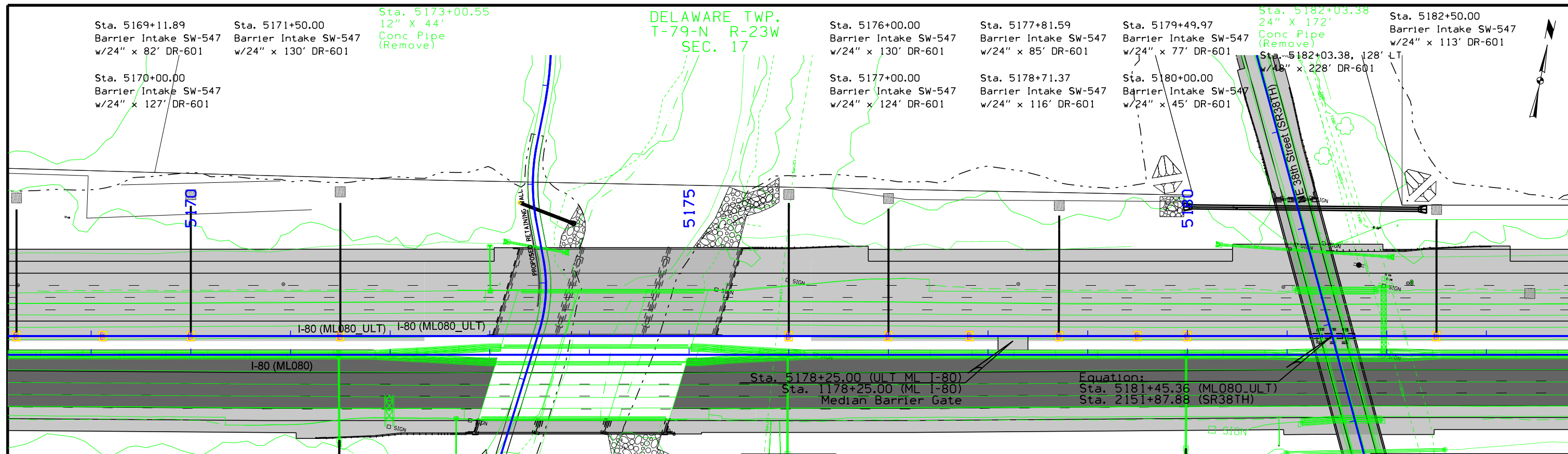
Sta. 5168+25.02 Barrier Intake SW-547 w/24" x 123' DR-601



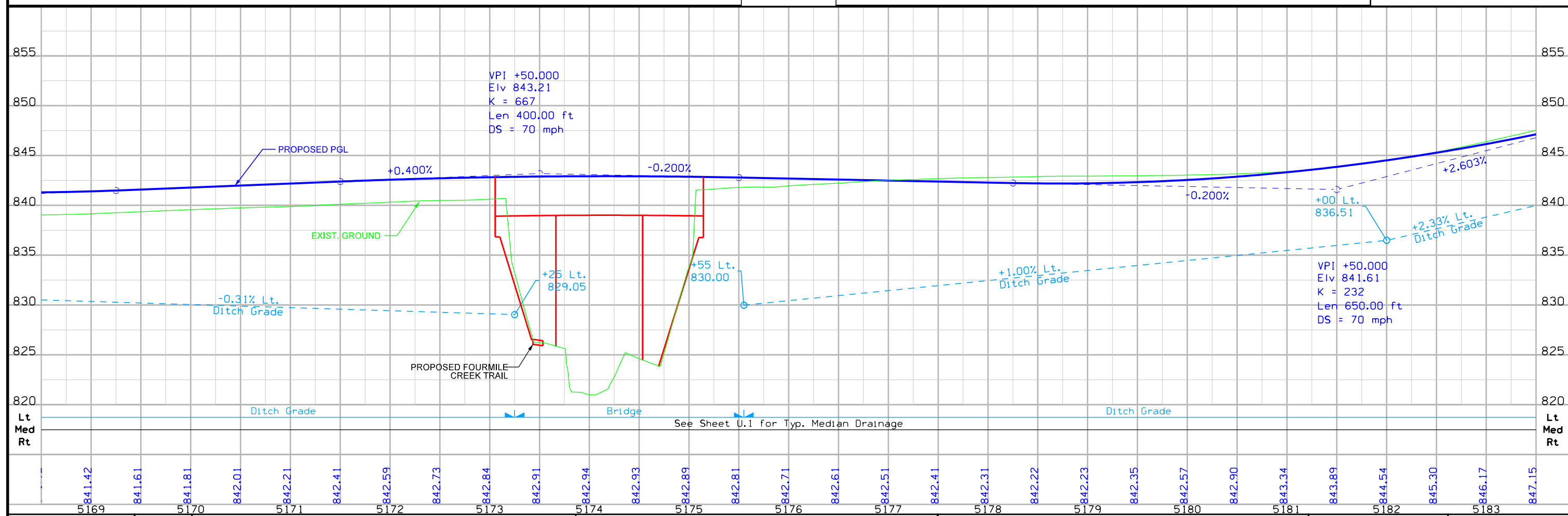
MAINLINE ULTIMATE I-80

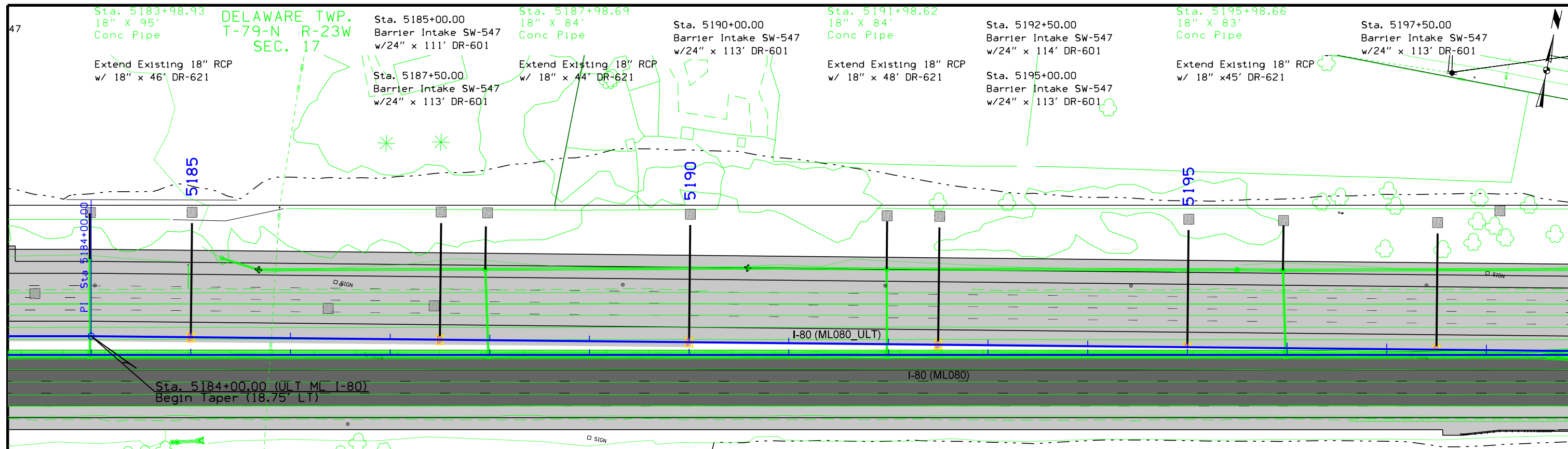


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-NHS-080-4(80)138--03-77	SHEET NUMBER	D.17
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**MAINLINE
ULTIMATE I-80**





Sta. 5183+98.93
18" X 95'
Conc Pipe

DELaware TWP.
T-79-N R-23W
SEC. 17

Sta. 5185+00.00
Barrier Intake SW-547
w/24" x 111' DR-601

Sta. 5187+98.69
18" X 84'
Conc Pipe

Sta. 5190+00.00
Barrier Intake SW-547
w/24" x 113' DR-601

Sta. 5191+98.62
18" X 84'
Conc Pipe

Sta. 5192+50.00
Barrier Intake SW-547
w/24" x 114' DR-601

Sta. 5195+98.66
18" X 83'
Conc Pipe

Sta. 5197+50.00
Barrier Intake SW-547
w/24" x 113' DR-601

Extend Existing 18" RCP
w/ 18" x 46' DR-621

Extend Existing 18" RCP
w/ 18" x 44' DR-621

Extend Existing 18" RCP
w/ 18" x 48' DR-621

Extend Existing 18" RCP
w/ 18" x 45' DR-621

Sta. 5184+00.00 (ULT ML I-80)
Begin Taper (18.75' LT)

I-80 (ML080_ULT)

I-80 (ML080)

Sta. 5185+67.34
30" X 39'
Conc Pipe
(Remove)

Sta. 5187+94.78
30" X 228'
Conc Pipe
(Remove)

Sta. 5190+58.18
30" X 264'
Conc Pipe
(Remove)

0 FEET 50

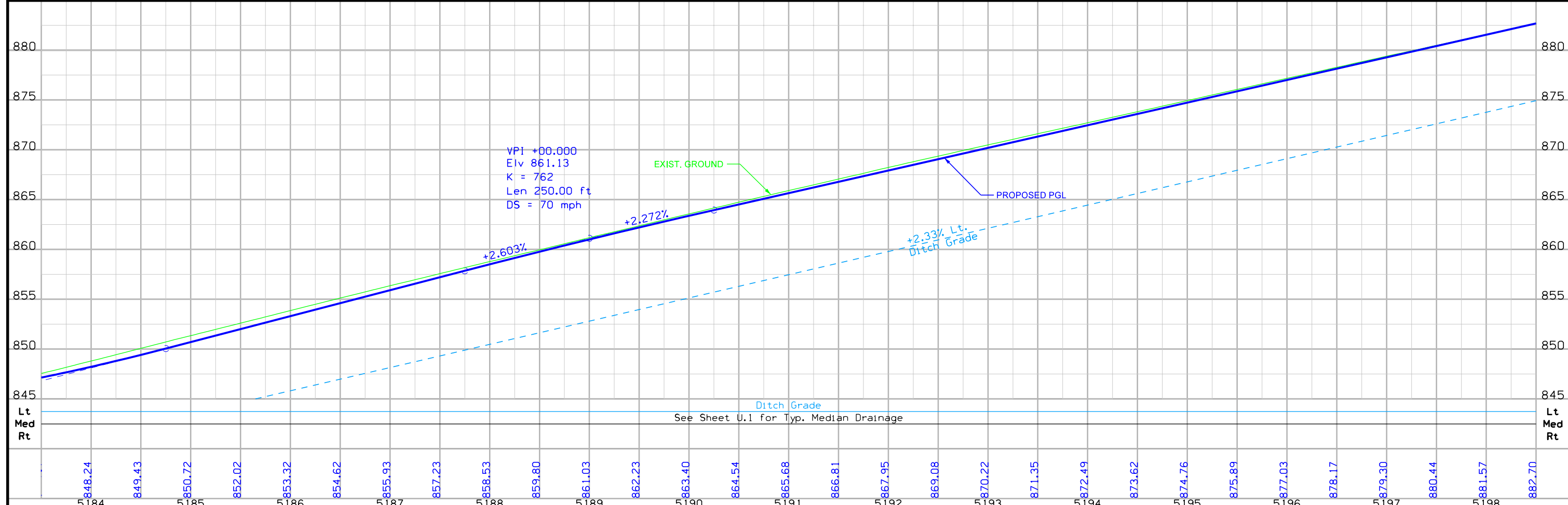
Sta. 5191+97.34
30" X 139'
Conc Pipe
(Remove)

Sta. 5195+49.26
30" X 352'
Conc Pipe
(Remove)

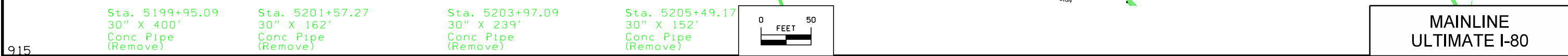
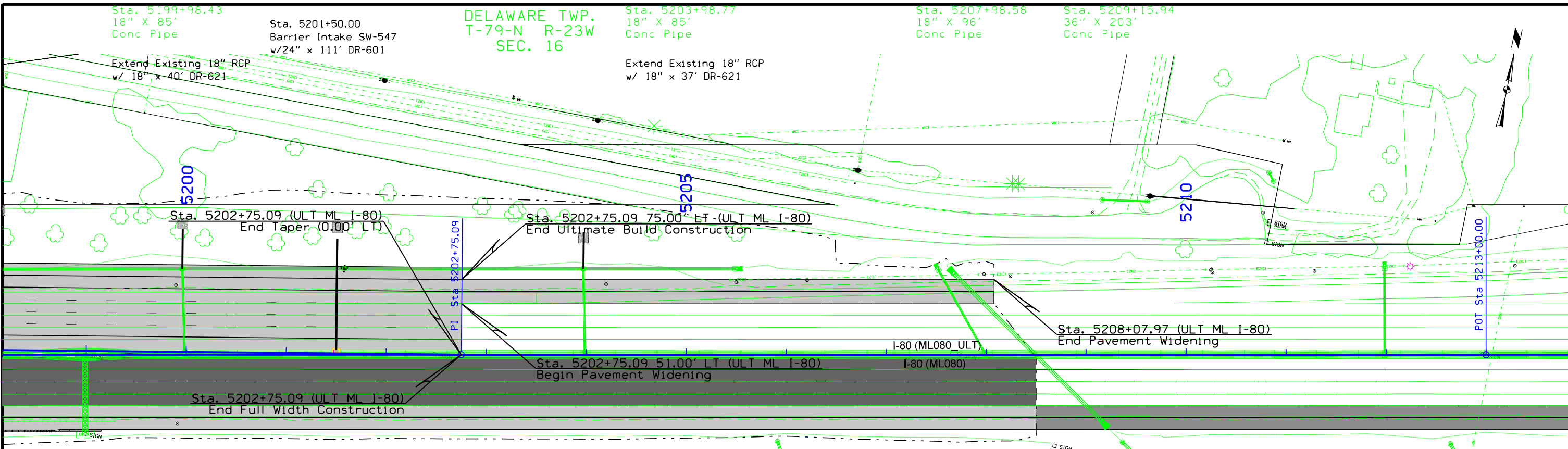
DELaware TWP.
T-79-N R-23W
SEC. 16

Sta. 5195+95.02
30" X 46'
Conc Pipe
(Remove)

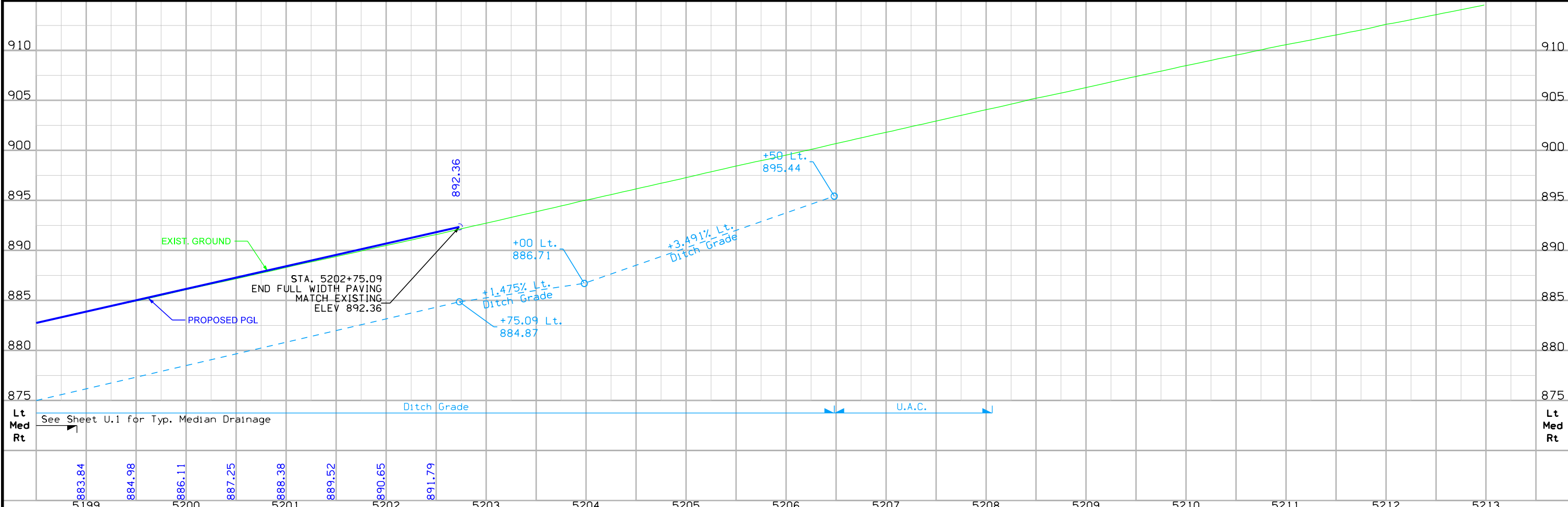
**MAINLINE
ULTIMATE I-80**



DELAWARE TWP.
T-79-N R-23W
SEC. 16



**MAINLINE
ULTIMATE I-80**



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR										POLK COUNTY	PROJECT NUMBER	IM-NHS-080-4(80)138--03-77	SHEET NUMBER	D.20
5199	5200	5201	5202	5203	5204	5205	5206	5207	5208	5209	5210	5211	5212	5213			

DELAWARE TWP.
T-79-N R-23W
SEC. 17

+83 Prop.
Type F Dike
Elev. =837.0

Sta. 2157+62.54
30" X 110'
Conc Pipe
(U.A.C.)
Install 30" Apron DR-201

Sta. 2158+00.00 (38th St)
End Construction

Sta. 2146+50.00 (38th St)
Begin Construction

Equation:
Sta. 2151+68.46 (SR38TH)
Sta. 1181+50.41 (ML080)

Equation:
Sta. 2151+87.88 (SR38TH)
Sta. 5181+45.36 (ML080.ULT)

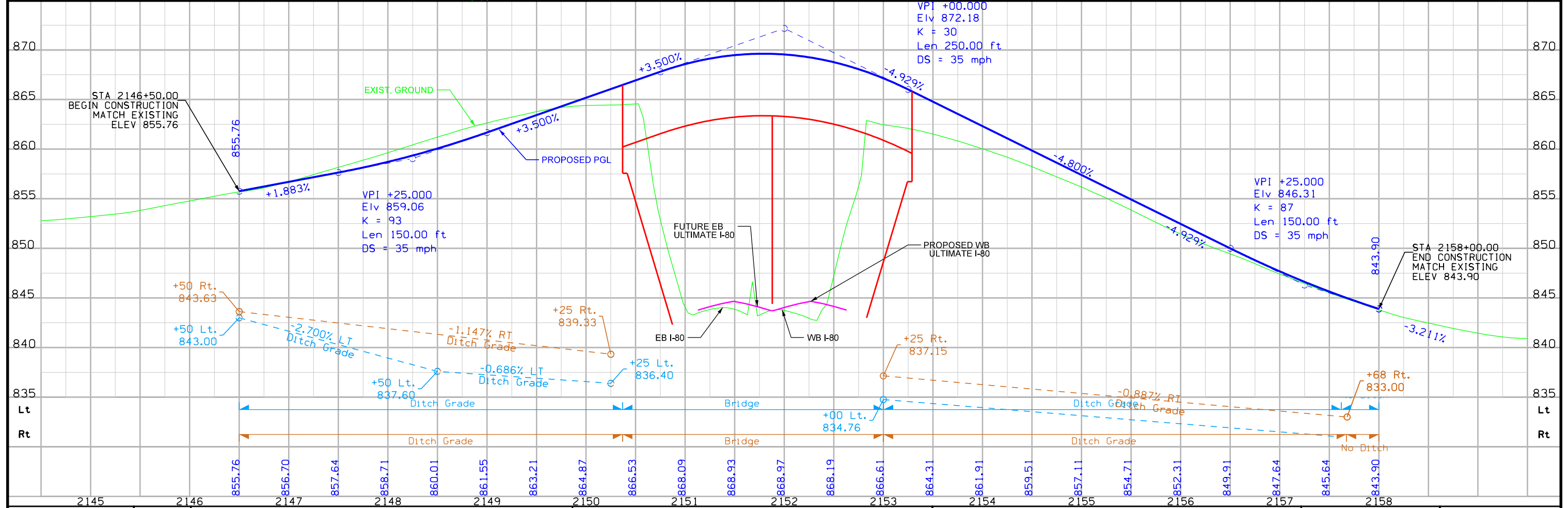
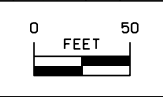
Curve Data
Δ = 42° 00' 47.03" (LT)
T = 240.00
L = 458.28
R = 625.00
e = 44.49
e = 5.27
L = 100
x = 39
DS = 35 mph

Sta. 2147+21.18
48" x 216' DR-601
Sta. 2147+42.81
48" X 107'
Conc Pipe
(Remove)

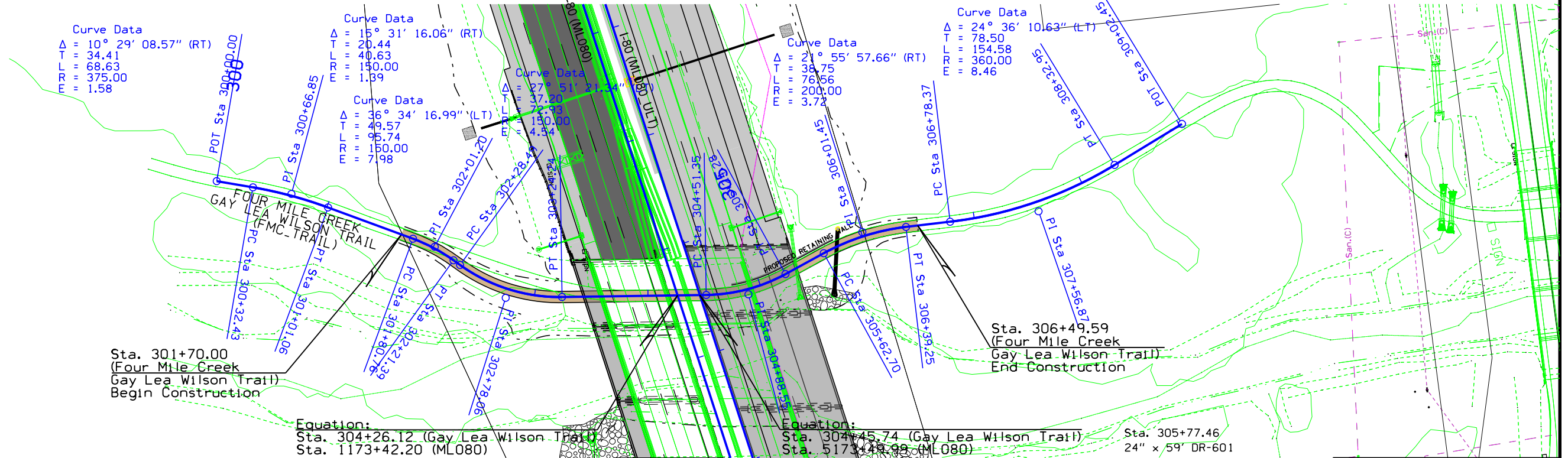
+19 Prop.
Type F Dike
Elev. =841.0

Sta. 2157+67.45
30" X 110'
Conc Pipe
(U.A.C.)

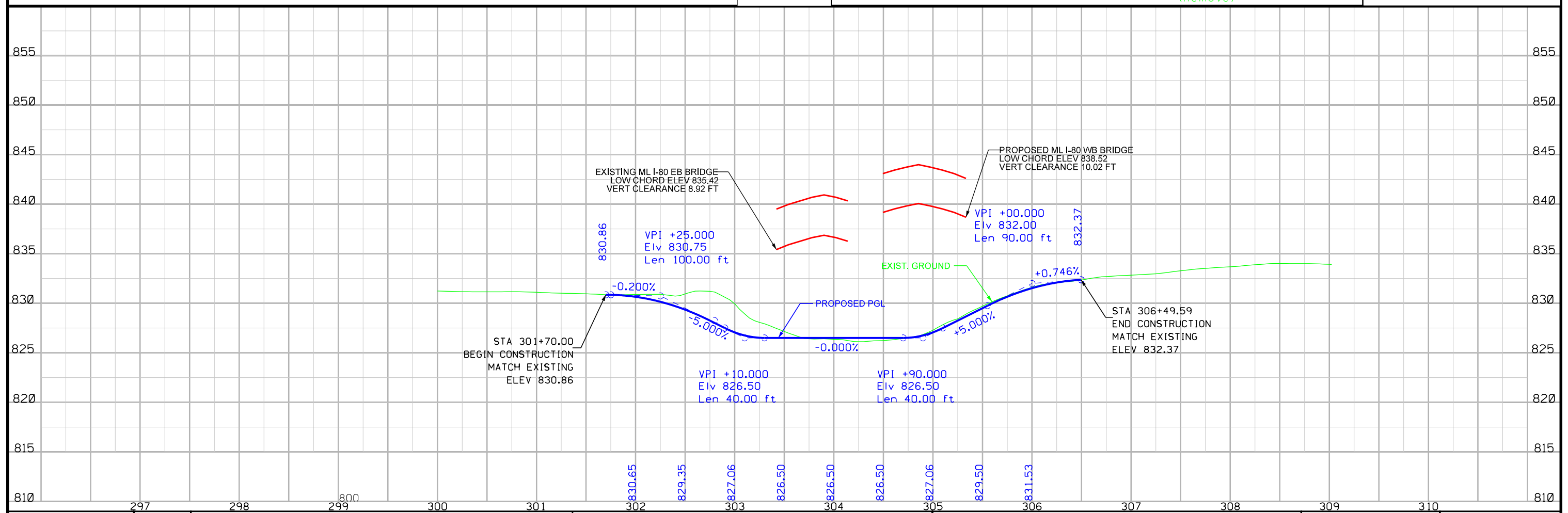
SIDE ROAD
NE 38TH STREET



DELAWARE TWP.
T-79-N R-23W
SEC. 17

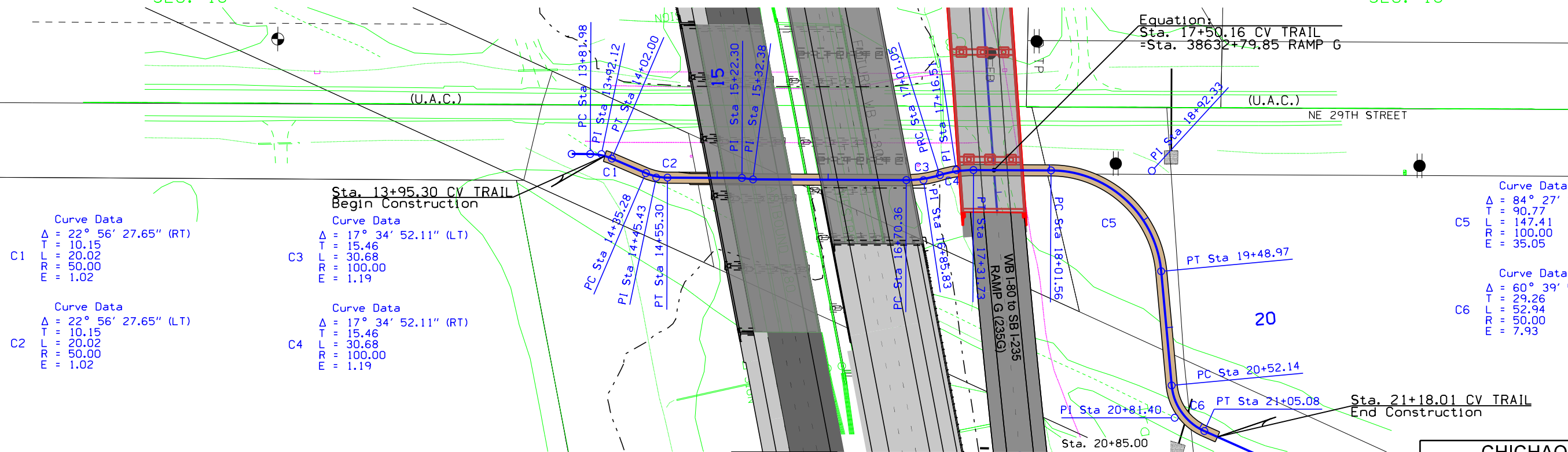
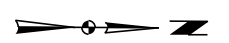


**FOUR MILE CREEK
GAY LEA WILSON TRAIL**



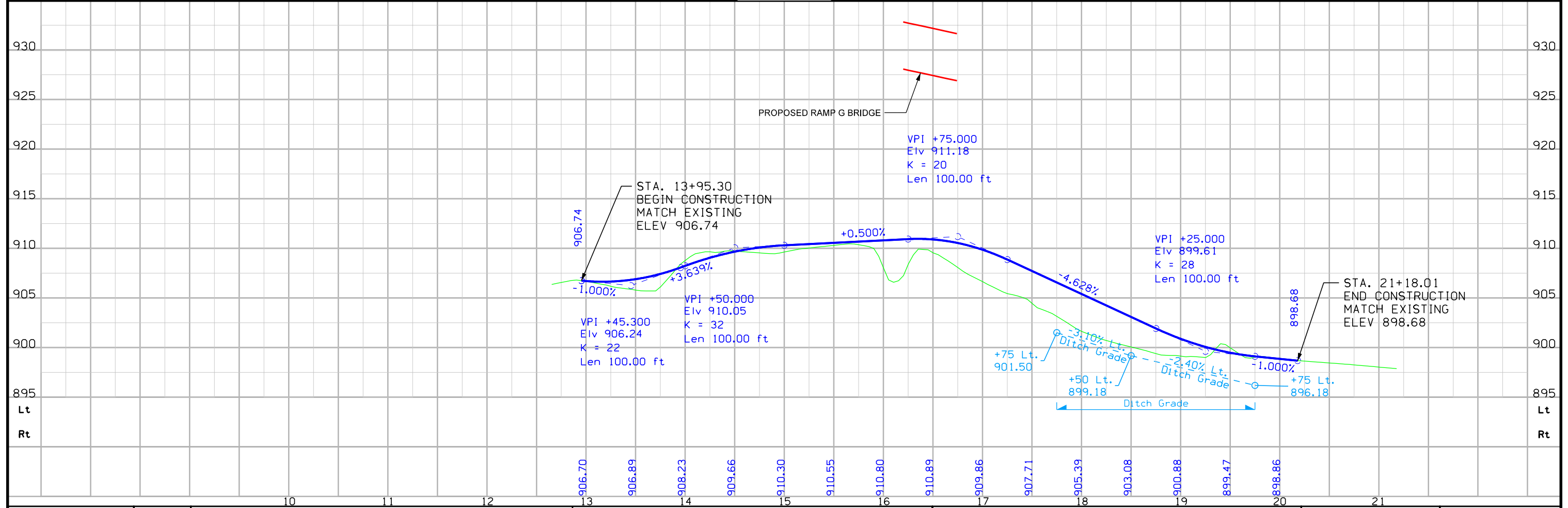
DELAWARE TWP.
T-79-N R-23W
SEC. 18

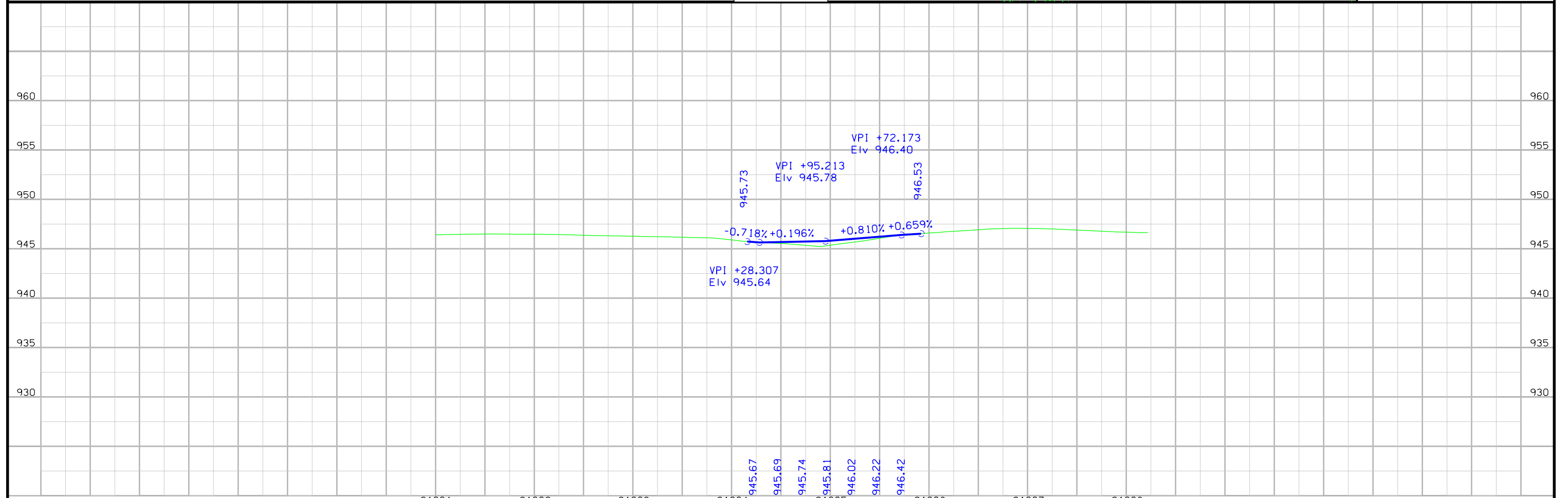
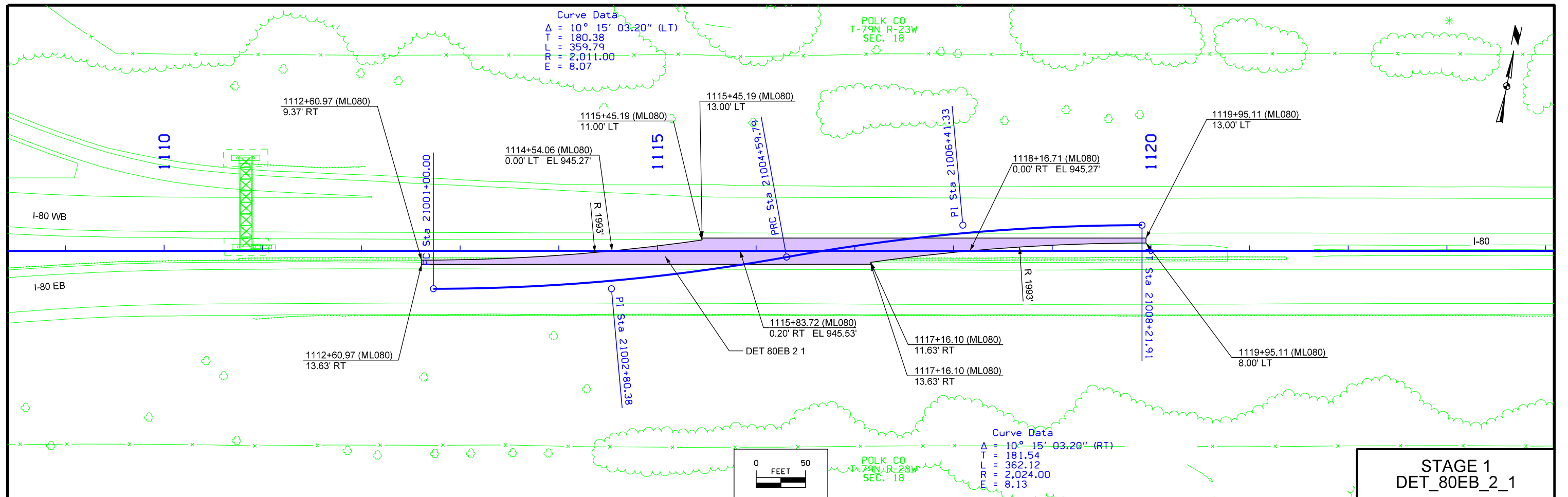
DELAWARE TWP.
T-79-N R-23W
SEC. 18

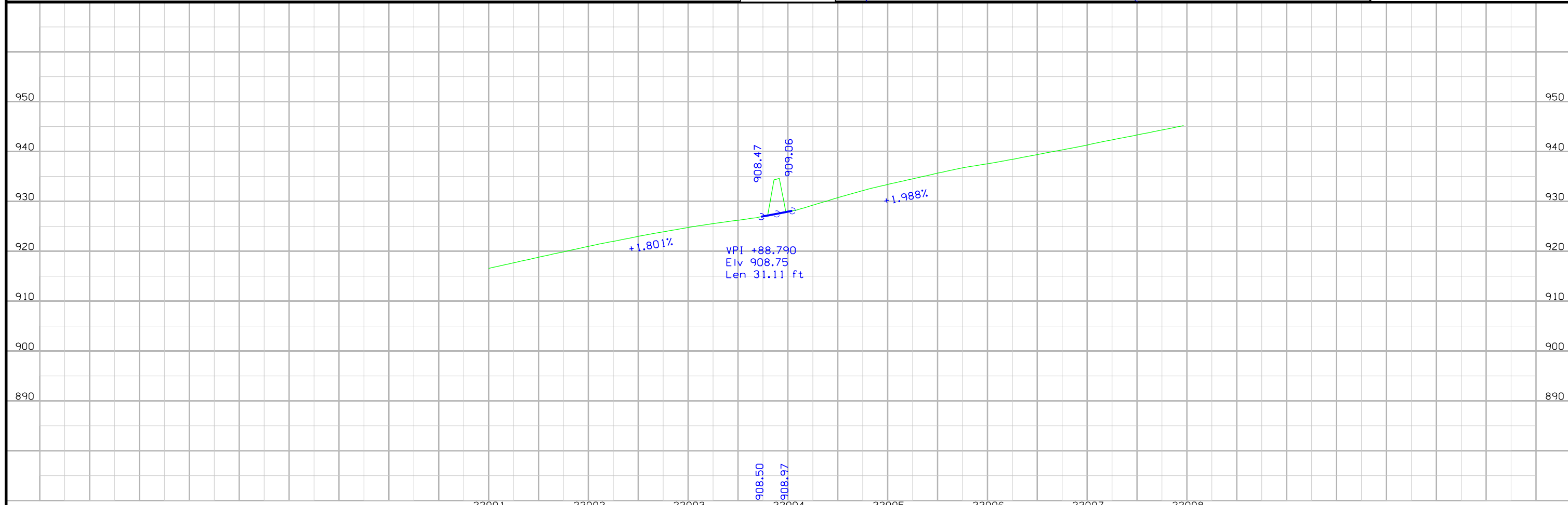
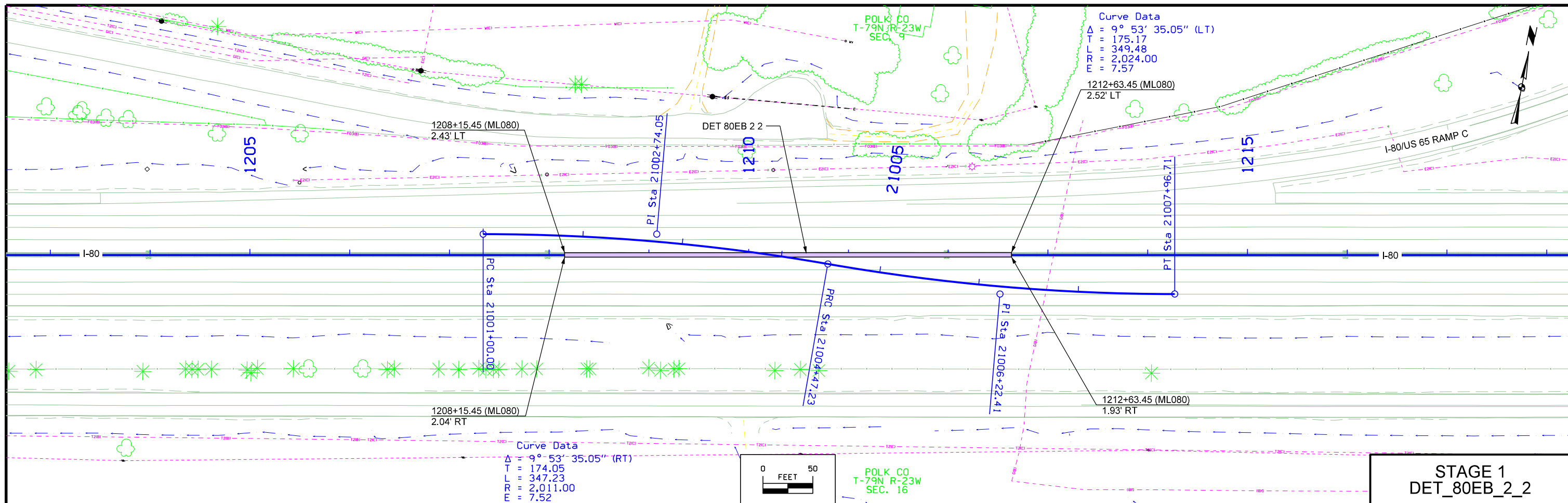


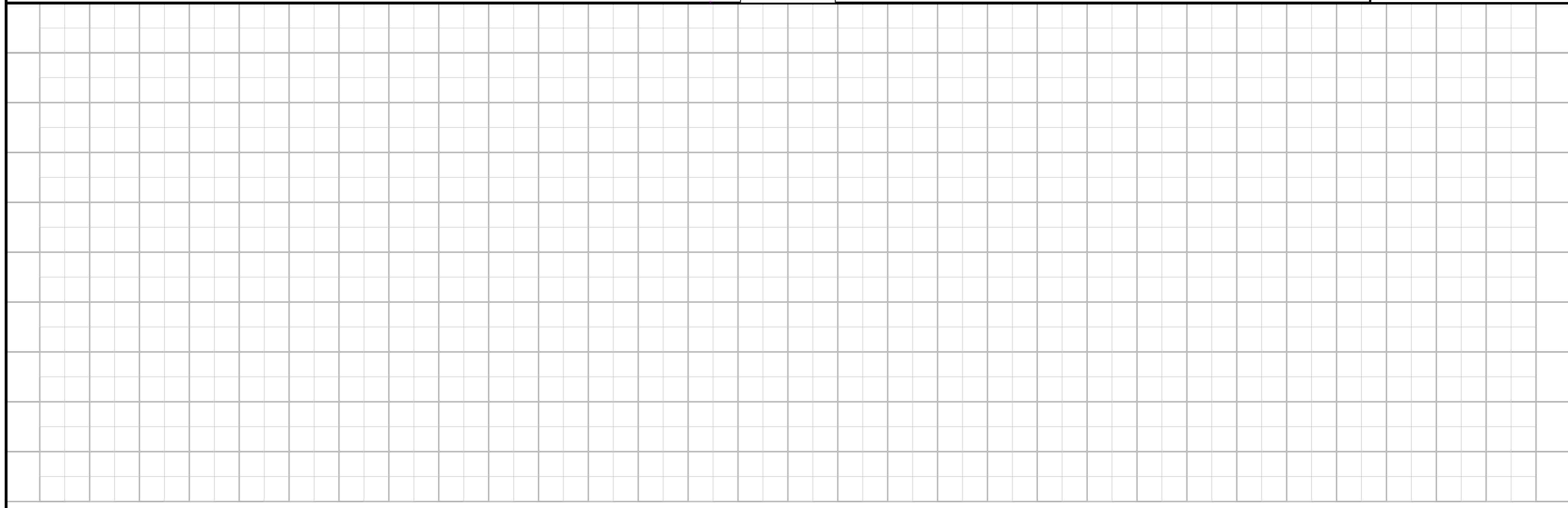
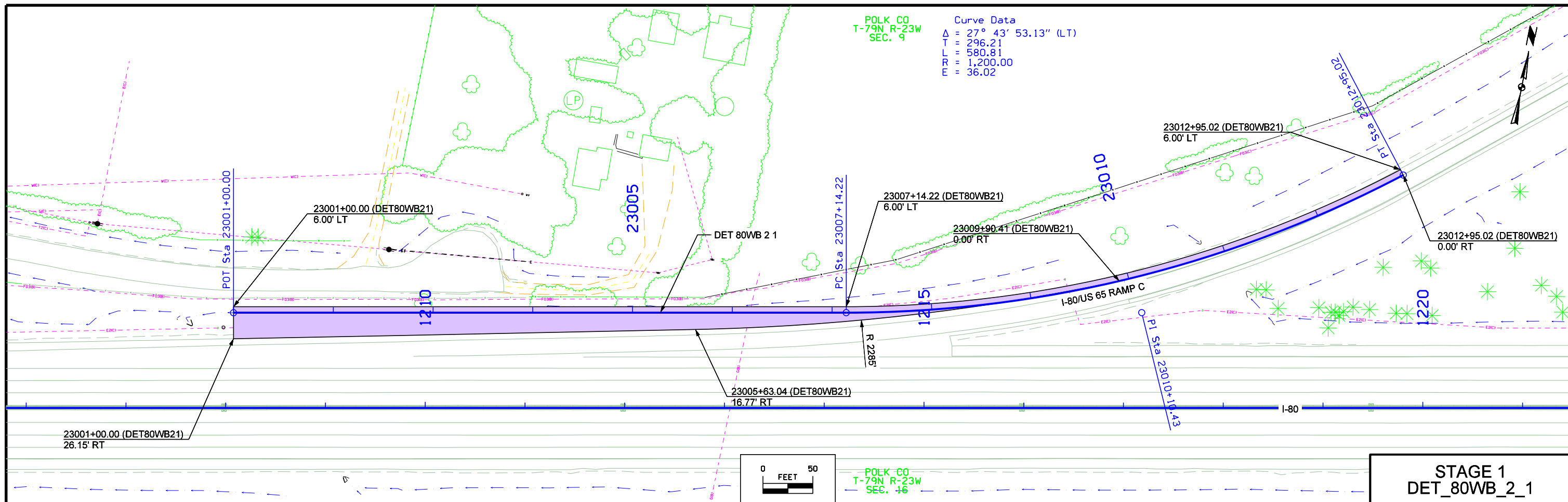
DELAWARE TWP.
T-79-N R-23W
SEC. 17

CHICHAQUA
VALLEY TRAIL
FOR INFORMATION ONLY









Survey Information

Polk County
IM-035-4(158)87--0E-77
Northeast Mix Master – I80 Des Moines, IA
I-80 from NEMM to US 65, Stage 5
PIN 10-77-035-010

Party Personnel

Jody Budde - PLS
 Wes Shimp – PLS
 Dave Overman – Party Chief
 Aaron Paulsen - Party Chief
 Logan Hook - Party Chief
 Katerina Wyatt - Party Chief
 Jason Flaherty - Assistant Party Chief

Date(s) of Survey

Begin Date 01/22/2020
 End Date 05/29/2020

General Information

Measurement units for this survey are US survey feet. This survey is for the preliminary design for the section of I-80 just east of the I-80/I-35/I-235 interchange on the northeast side of Des Moines to the I-80/US 65 Interchange near Altoona, Iowa. Project datum and control information is provided by Design Survey Office. This project is a Partial DTM with Photo control. This survey request was for the I-80 corridor only, along with some side road areas adjacent to I-80. Project horizontal datum is NAD83(2011) Iowa State Plane South zone, with local project scale factor adjustment for ground coordinates based on a continuation of a legacy project.

Vertical Control

Vertical datum for this survey is relative to NAVD88(Geoid12B). This survey consisted of setting and observing 3 new FENO 1-meter rod monuments using minimum 2hr initial static observations along with data from 3 Iowa RTN CORS sites: Des Moines (IADM), Ames (IAAM), and Newton (IANT).

Additionally, three local existing FENO monuments established prior by the Iowa DOT with published NAVD88 elevations were observed and used that are located in proximity to the I-80 corridor project area:

FENO 26 has published Elv of: 886.70 usft
 Survey Elv = 886.70 usft

FENO 100 has published Elv of: 904.54 usft
 Survey Elv = 904.54 usft

FENO 101 has published Elv of: 932.94 usft
 Survey Elv = 932.94 usft

The final vertical adjustment results show standard deviations were less than 0.04 ft. at 95% confidence level (2 sigma) for the new FENO monuments.

Horizontal Control

Project horizontal datum is NAD83(2011) Iowa State Plane South zone, US Survey Feet, with local project scale factor adjustment for ground coordinates. Point 30 is the project Grid/Ground origin point for this survey with details:

Point Name	Grid/Ground Northing	Grid/Ground Easting	Elevation
Point30	609616.47	1618959.90	945.43

Grid to Ground Project Scalar: 1.000062537

This survey control is relative to IaRTN reference stations. IaRTN Reference Station coordinates are relative to the National Reference Station network datum: NAD83 (2011) for Epoch 2010.00. Coordinates were determined by observing each mark for 120 minutes minimum for the primary observation. Additionally, independent 3-minute control point RTK observations using the Iowa RTN were also observed on a separate day as QA/QC check points of the static adjusted points.

The horizontal standard deviation of these adjusted observations was less than 0.03 ft. at 95% confidence level (2 sigma).

Alignment Information

The mainline horizontal alignment for this survey is a retrace of As-built Plans No. I-IG-80-4(2)142. This alignment is an extension from a previous phase of the project to meet the new project limits for Stage 5. Survey stationing was equated to the plan PI at STA 1181+53.00 and extended ahead through the survey. The sideroad horizontal alignments for this survey are a retrace of As-built Plans No. I-IG-80-4(2)142, BRM-FM-2820(3)--5Q-77, and F-500-1(2)--20-77.

Survey stationing relates to as built plan stationing as follows:

POT STA 1181+53.00 As-built Plans Project No. I-IG-80-4(2)142
 Survey POT STA 1181+51.88

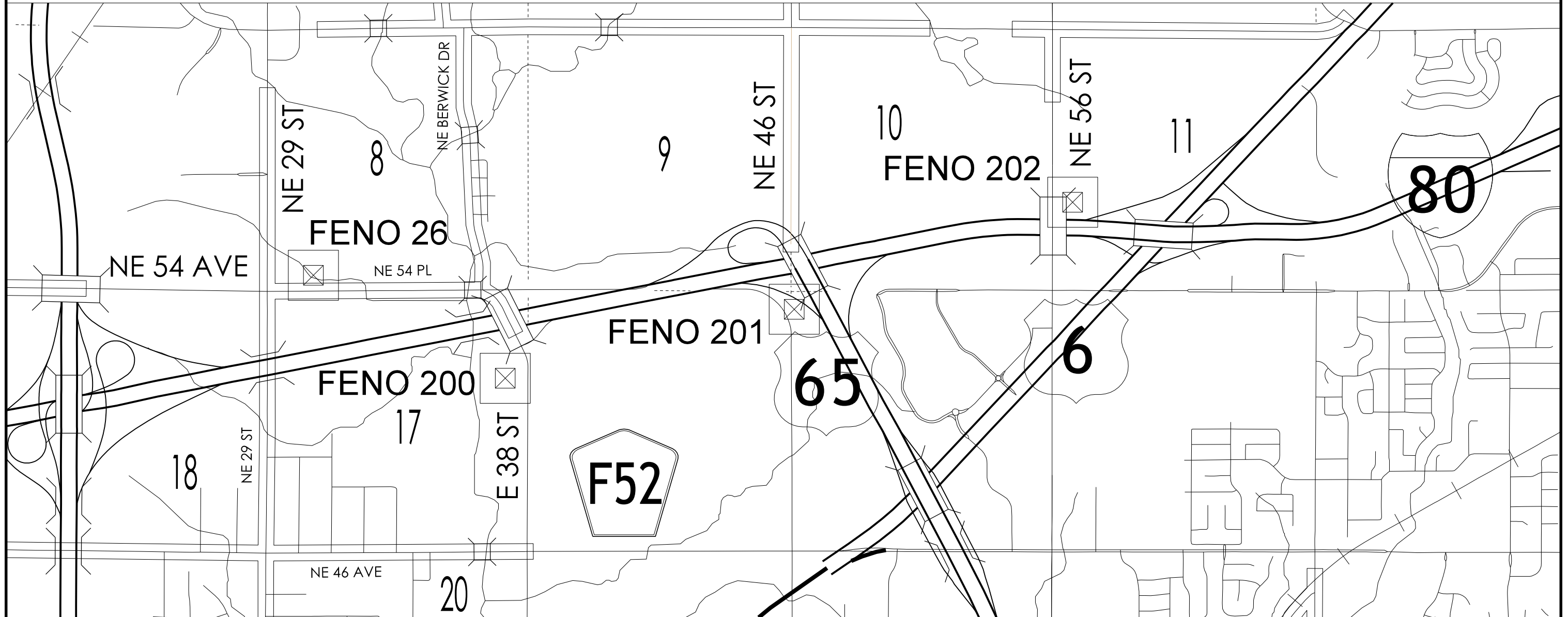
POT STA 1214+28.05 As-built Plans Project No. I-IG-80-4(2)142
 Survey POT STA 1214+27.31

POT STA 1239+54.26 As-built Plans Project No. I-IG-80-4(2)142
 Survey POT STA 1239+52.69

Project Control -FENO monuments are also Bench Marks

Name	Ground Northing (USft)	Ground Easting (USft)		
26	604283.735	1624489.54	886.7	
100	601242.32	1613129.09	904.54	
101	612281.88	1619265.53	932.94	
FENO200	602872.23	1628931.66	851.56	Feno Monument
FENO201	604250.2	1633818.53	951.47	Feno. Monument
FENO202	605718.69	1639601.06	987.16	Feno. Monument

PROJECT CONTROL POINT LOCATION MAP



HORIZ. DATUM: NAD83(2011) EPOCH 2010.00
VERT. DATUM: NAVD88

Survey Information

County: Polk
 PIN: 10-77-035-010-03
 Project Number: IM-035-3(194)87--13-77
 Location: I-35/80/235 Interchange NE Of Des Moines(Stage 3A)
 Type of Work: Grading
 Project Directory: 7703501010
 This Index covers SAP's 0742.2, 0742.3 and 0742.4

General Information

Measurement units for this survey are US survey feet. This survey is for phase 3 of the NE Mixmaster ramp reconstruction. This survey uses the same coordinate system as the Delaware Ave. IM-035-4(161)87--13-77 and 54th. Ave. IM-035-4(160)87--13-77 Surveys. Phase 3 surveying was accomplished by an IDOT design survey crew and 2 consulting firms. IDOT surveyed project control, mainline alignments, culvert surveys, utility survey, photo control survey and selected ground features. R.E.Y. Consultants surveyed mainline pavement and interchange ramps using mobile LiDAR. Snyder and Associates surveyed railroads. Aerial survey will also be used to create a project surface and to add other topographic features.

IDOT Design Party Personnel

John Dewey- Party Chief
 Robert Mingus- Party Chief
 Myron Fox- Assistant Party Chief

IDOT Date(s) of Survey

Begin Date 04/2014
 End Date 09/2014

R.E.Y Engineers, Inc.
 Contract No. 801AH; WO7

Date(s) of R.E.Y. Survey
 June-July 2014

Snyder and Associates
 Contract No. 433AF; WO 5

Date(s) of R.E.Y. Survey
 Oct. 2014

Project Control Information

GPS Control from previous surveys were used as follows:
 GPS PROJECT : Sap 323 & 324 STP-69-4(65)--2c-77 (2000 Survey)
 STATE PLANE COORDINATE ZONE 1402 (IOWA SOUTH LAMBERT)
 STATE PLANE COORDINATES HELD AT POINT G030
 AVERAGE PROJECT LATITUDE = 41 40 12.05576
 RESULTING RADIUS = 6363663.482 (METERS)
 MEAN PROJECT ELEVATION = 285.000 (METERS)
 SEA LEVEL FACTOR = 0.999955216
 AVERAGE PROJECT SCALE FACTOR = 0.999982250
 COMBINED FACTOR (GRID) = 0.999937467
 1 / GRID = 1.000062537
 VERTICAL DATUM = NAVD 88 <> HORIZONTAL DATUM = NAD 83 (1996)

GPS Control point G024 coordinates from previous surveys were used and the following points were re-observed and adjusted: G013, G025, G026 and G027. G010, G011, G029 and G030 were searched for but not found. It is presumed reconstruction has obliterated those points. Point G128 from an I-235 survey was re- observed and adjusted. Points G128 and G026 are FENO monuments. All other points are 5/8" Rebar. Two FENO monuments were added. These are points 100 and 101.
 It is intended that the control included in the re-observation will be the primary control used for future survey work. The FENO monuments designated as 26,100,101 and 128 to the north, south, east and west of the interchange are constructed to hold horizontal and vertical position reasonably well. The other rebar can be used but should be verified first relative to the FENO monuments. It is anticipated additional temporary marks in the interchange will be needed at various stages as the project progresses. Those temporary marks will be established as needed relative to this control.

Alignment Information

Mainline Alignment (I-80)

The I 80 alignment is relative to the control in the metric as-built plans IM-35-3(116)85--13-77 computed from a 1994 metric I 80 survey alignment. Metric alignment points were scaled and translated to this survey coordinate system. No rotation was required. Sta 2000+00.00 was assigned to the PC of the metric I 80 curve west of the Delaware Ave. Bridge. Stationing was run ahead without station equation to the end of the alignment at the mixmaster interchange central intersection point.

This Mainline survey relates to the mainline plan stationing as follows:

CP Sta. 1024+84.88, 97.35' Lt this survey (English)
 =CP Sta. 312+34.97, 29.67m Lt Project # IM-35-3(116)85—13-77 (Metric)

POT Sta. 1075+46.01, 0.04' Lt this survey (English)
 =POT Sta. 327+77.59, 0.010m Lt Project # IM-35-3(116)85—13-77 (Metric)

POT Sta. 1181+51.81 this survey (English)
 =POT Sta. 1181+53.0 Project # IM-80-5(145)137--13-77 (English)

Mainline Alignment (I-35)

From 2001/2002 I-35 Realignment, Project # IM-35-4(101)—13-77
 The mainline alignment for this survey is a retrace of Project # IM-35-4(101)—13-77. The mainline alignment was created in centerline of median. Stationing was obtained at PI Sta. 2001+60.36 and carried ahead to PI Sta. 3100+53.44 without equation. The following PI points were used to create this CL alignment.

PI 2001+60.36 Project # IM-35-4(101)88—13-77 (not found or set)
 PI 3100+53.44 Project # IM-35-4(101)88—13-77 (not found or set)

This Mainline survey relates to the mainline plan stationing as follows:

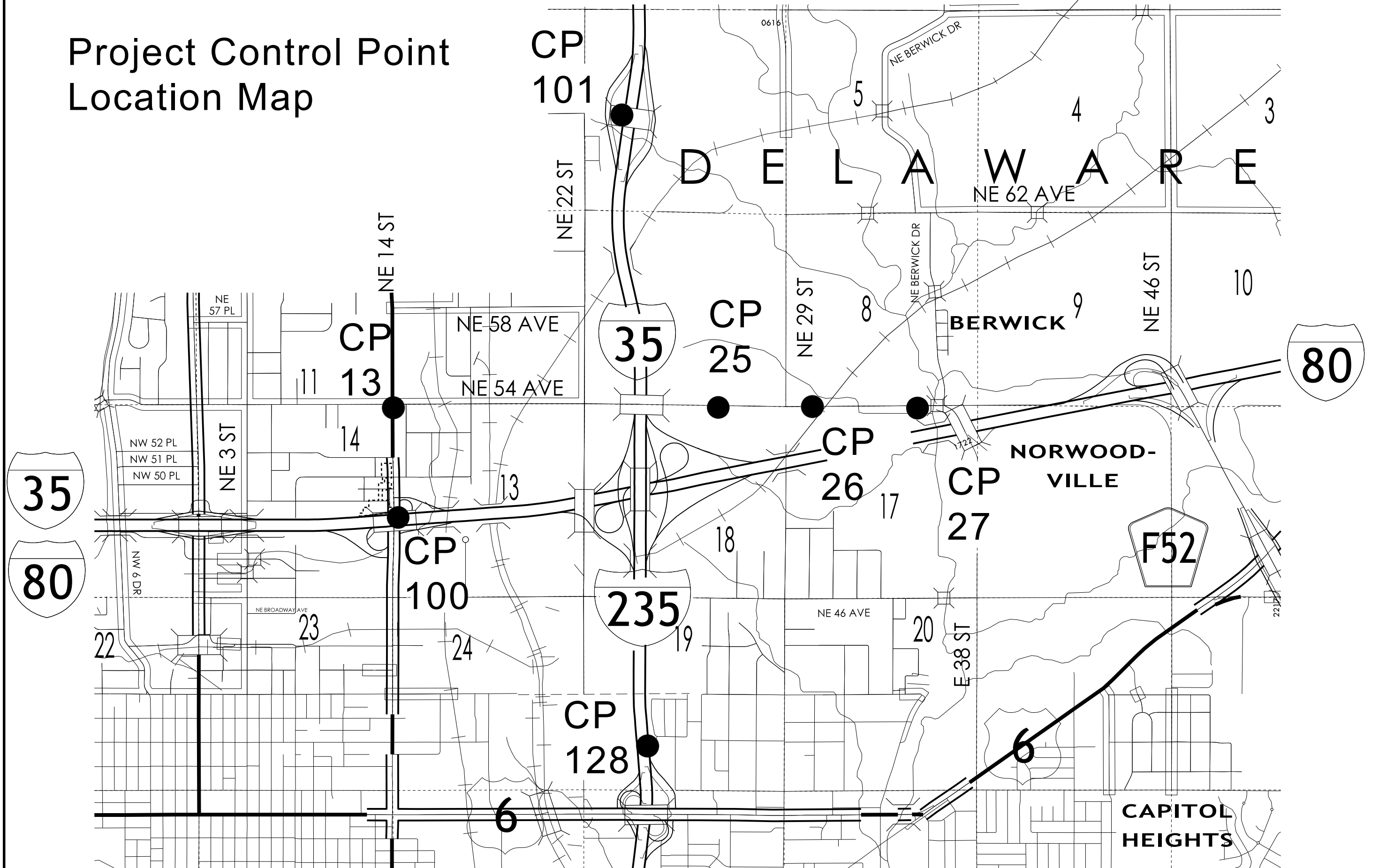
PI Sta. 2001+60.36 this survey
 =PI Sta. 2001+60.36 Project # IM-35-4(101)88—13-77

PI Sta. 2100+53.74 this survey
 =PI Sta. 3100+53.44 Project # IM-35-4(101)88—13-77

Project Control -FENO monuments are also Bench Marks

Name	Ground Northing (USft)	Ground Easting (USft)		
13	604251.756	1612997.613		
25	604260.796	1621907.741	939.609	
26	604283.735	1624489.54	886.7	
27	604243.29	1627372.639	838.959	
100	601242.316	1613129.094	904.541	Feno. Monument
101	612281.879	1619265.525	932.935	Feno. Monument
128	594971.978	1619970.2	933.868	Feno. Monument between top backslope and ROW fence in east ROW

Project Control Point Location Map



ALIGNMENT COORDINATES

101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
	I-80 EASTBOUND																		
SCS ML080SE-1					2+00.00	601,528.01	1,617,801.02	4+99.98	601,577.81	1,618,096.76	7+56.32	601,634.71	1,618,347.01	9+99.98	601,569.60	1,618,595.26	12+99.96	601,510.11	1,618,889.20
SCS ML080SE-2					13+00.00	601,510.10	1,618,889.24	15+99.98	601,450.60	1,619,183.18	23+01.15	601,285.87	1,619,864.95	28+99.98	601,695.14	1,620,434.56	31+99.96	601,860.92	1,620,684.47
SCS ML080SE-3					32+00.00	601,860.94	1,620,684.50	35+49.98	602,053.15	1,620,976.83	37+85.86	602,197.45	1,621,164.08	40+08.68	602,232.38	1,621,397.89	43+58.66	602,309.82	1,621,739.07
	I-80																		
SUR MLA08001		1024+84.88	601,145.79	1,613,164.17															
CUR SURMLA080.3								1058+28.34	601,384.75	1,616,499.08	1064+81.99	601,431.47	1,617,151.06	1071+34.02	601,556.86	1,617,792.56			
SURMLA0805		1241+76.59	604,826.05	1,634,518.63															
	I-80 WESTBOUND																		
200000		4041+00.00	601,276.19	1,614,774.09															
200001		4055+07.15	601,376.76	1,616,177.64															
CUR 200001								4055+07.15	601,376.76	1,616,177.64	4059+27.63	601,406.81	1,616,597.05	4063+47.95	601,457.60	1,617,014.46			
200002		4063+47.95	601,457.60	1,617,014.46															
CUR 200002								4063+47.95	601,457.60	1,617,014.46	4072+26.20	601,563.68	1,617,886.28	4080+84.26	601,457.60	1,618,660.33			
200003		4080+84.26	601,978.62	1,618,660.33															
200004		4083+14.92	602,087.60	1,618,863.62															
SCS 200004					4083+14.92	602,087.60	1,618,863.62	4087+64.92	602,285.39	1,619,267.55	4091+58.88	602,432.17	1,619,633.15	4095+43.27	602,432.27	1,620,027.12	4099+93.27	602,399.34	1,620,475.67
200008		4102+10.95	602,375.43	1,620,692.04															
CUR 200008								4102+10.95	602,375.43	1,620,692.04	4109+25.85	602,296.85	1,621,402.60	4116+29.78	602,433.98	1,622,104.22			
200009		4116+29.78	602,433.98	1,622,104.22															
200010		4128+95.91	602,676.86	1,623,346.84															
	I-80 WESTBOUND																		
740000	(INTERIM)	7400+00.00	602,434.45	1,620,189.41															
740001		7401+43.52	602,420.93	1,620,332.29															
740002		7405+80.00	602,379.82	1,620,766.83															
CUR 740002								7405+80.00	602,379.82	1,620,766.83	7407+47.74	602,364.07	1,620,933.82	7409+15.33	602,360.30	1,621,101.52			
740003		7409+15.33	602,360.30	1,621,101.52															
	I-80																		
250000	(ULTIMATE)	5128+00.00	602,662.14	1,623,349.72															
250001		5184+00.00	603,736.36	1,628,845.72															
250002		5202+75.09	604,077.63	1,630,689.50															
250003		5213+00.00	604,274.23	1,631,695.38															
	RAMP D																		
335000	(ULTIMATE)	33544+06.61	600,310.04	1,619,835.10															
CUR 335000								33544+06.61	600,310.04	1,619,835.10	33549+83.45	600,884.98	1,619,881.96	33555+07.99	601,280.37	1,620,301.97			
335001		33555+07.99	601,280.37	1,620,301.97															
CUR 335001								33555+07.99	601,280.37	1,620,301.97	33561+66.39	601,731.67	1,620,781.37	33568+09.58	601,977.92	1,621,391.98			
335002		33568+09.58	601,977.92	1,621,391.98															
	RAMP D																		
307600	(INTERIM)	37000+00.00	600,310.03	1,619,835.10															
CUR 307600								37000+00.00	600,310.03	1,619,835.10	37004+15.64	600,724.30	1,619,868.86	37008+10.93	601,062.11	1,620,111.02			
307601		37008+10.93	601,062.11	1,620,111.02															
307602		37010+73.54	601,275.74	1,620,263.73															
CUR 307602								37010+73.54	601,275.74	1,620,263.73	37013+06.43	601,465.21	1,620,399.17	37015+38.39	601,631.50	1,620,562.23			
307603		37015+38.39	601,631.50	1,620,562.23															
CUR 307603								37015+38.39	601,631.50	1,620,562.23	37017+00.05	601,746.92	1,620,675.41	37018+61.57	601,853.91	1,620,796.60			
307604		37018+61.57	601,853.91	1,620,796.60															
CUR 307604								37018+61.57	601,853.91	1,620,796.60	37021+33.25	602,033.73	1,621,000.26	37023+99.35	602,132.54	1,621,253.34			
307605		37023+99.35	602,132.54	1,621,253.34															

ALIGNMENT COORDINATES

101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
	RAMP H																		
308009		39651+00.00	601,045.03	1,620,021.78															
308008		39653+34.76	601,249.44	1,620,137.22															
CUR 308008								39653+34.76	601,249.44	1,620,137.22	39658+35.08	601,658.10	1,620,383.24	39662+91.48	602,174.59	1,620,279.66			
308007		39662+91.48	602,174.59	1,620,279.66															
308006		39664+22.29	602,302.56	1,620,252.58															
308005		39667+23.19	602,596.94	1,620,190.29															
308004		39667+52.75	602,625.86	1,620,184.17															
CUR 308004								39667+52.75	602,625.86	1,620,184.17	39667+88.70	602,661.04	1,620,176.73	39668+24.62	602,696.69	1,620,172.06			
308003		39668+24.62	602,696.69	1,620,172.06															
CUR 308003								39668+24.62	602,696.69	1,620,172.06	39675+29.26	603,395.37	1,620,080.68	39674+68.25	602,931.37	1,620,610.98			
308002		39674+68.25	602,931.37	1,620,610.98															
CUR 308002								39674+68.25	602,931.37	1,620,610.98	39681+73.68	602,466.86	1,621,141.87	39681+12.08	602,465.19	1,620,436.45			
308001		39681+12.08	602,465.19	1,620,436.45															
308000		39683+73.06	602,464.57	1,620,175.47															
	NE 38th STREET																		
307000		2139+87.91	602,574.98	1,628,993.17															
307001		2141+82.24	602,769.31	1,628,991.99															
CUR 307001								2141+82.24	602,769.31	1,628,991.99	2142+80.98	602,868.05	1,628,991.39	2143+76.63	602,957.46	1,628,949.51			
307002		2143+76.63	602,957.46	1,628,949.51															
307003		2145+93.72	603,154.05	1,628,857.42															
307004		2154+83.48	603,952.92	1,628,465.66															
CUR 307004								2154+83.48	603,952.92	1,628,465.66	2157+23.48	604,168.41	1,628,359.99	2159+41.78	604,257.78	1,628,137.26			
307005		2159+41.78	604,257.78	1,628,137.26															
CUR 307005								2159+41.78	604,257.78	1,628,137.26	2160+06.04	604,281.71	1,628,077.62	2160+68.66	604,281.15	1,628,013.36			
307006		2160+68.66	604,281.15	1,628,013.36															
307007		2164+11.47	604,278.13	1,627,670.57															
	FOURMILE TRAIL																		
TRAIL 100		300+00.00	603,124.02	1,627,662.18															
CUR TRAIL 1								300+32.43	603,155.09	1,627,671.49	300+66.85	603,188.05	1,627,681.36	301+01.06	603,218.67	1,627,697.07			
CUR TRAIL 2								301+80.76	603,289.58	1,627,733.45	302+01.20	603,307.77	1,627,742.78	302+21.39	603,322.80	1,627,756.63			
CUR TRAIL 3								302+28.49	603,328.02	1,627,761.45	302+78.06	603,364.45	1,627,795.05	303+24.24	603,413.74	1,627,800.32			
CUR TRAIL 4								304+51.35	603,540.14	1,627,813.85	304+88.55	603,577.12	1,627,817.81	305+24.28	603,611.67	1,627,644.70			
CUR TRAIL 5								305+62.70	603,647.35	1,627,789.79	306+01.45	603,683.35	1,627,775.43	306+39.25	603,722.10	1,627,775.43			
CUR TRAIL 6								306+78.37	603,761.22	1,627,775.68	307+56.87	603,839.72	1,627,775.94	308+32.95	603,911.20	1,627,743.49			
TRAIL 101		309+02.45	603,974.48	1,627,714.76															

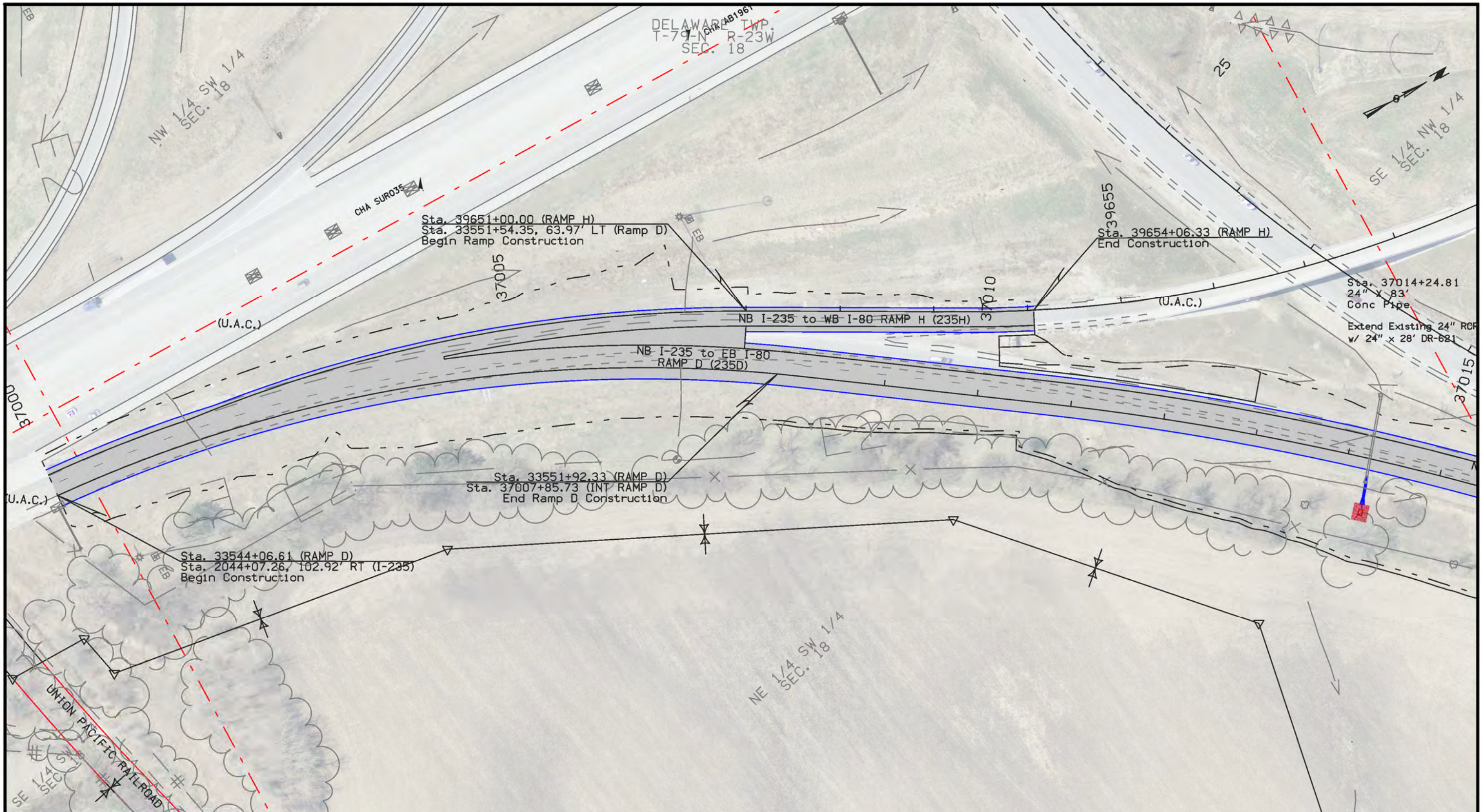
SPIRAL OR CIRCULAR CURVE DATA

101-17
04-19-11

Name	Location	Δ _{scs}	Horizontal Alignment Data												Remarks		
			Spiral Data						Curve Data								
			θs	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	Δ _c	T	L	R		E	
	I-80 EASTBOUND																
SCS ML080SE-1		23° 59' 57.93" RT	4° 29' 57.93"	299.98'	556.32'	44.67'	299.80'	7.85'	200.05'	100.05'	15° 00' 00.10" RT	251.44'	500.00'	1,909.86'	16.48'		
SCS ML080SE-2		47° 59' 57.83" LT	4° 29' 58.91"	299.98'	1,001.15'	182.89'	299.80'	7.85'	200.05'	100.05'	39° 00' 00.00" LT	676.32'	1,300.00'	1,909.86'	116.21'		
SCS ML080SE-3		23° 59' 57.48" RT	5° 11' 35.50"	349.98'	585.86'	45.83'	349.69'	10.57'	233.42'	116.75'	13° 36' 46.48" RT	230.44'	458.70'	1,930.64'	13.70'		
	I-80																
CUR MLA080.3											6° 57' 38.61" LT	653.65'	1,305.88'	10,747.47'	19.86'		
	I-80 WESTBOUND																
CUR 200001											2° 50' 19.67" LT	420.49'	840.80'	16,970.00'	5.21'		
CUR 200002											21° 15' 25.45" LT	878.25'	1,736.31'	4,680.00'	81.69'		
SCS 200004		34° 29' 58.92" RT	6° 19' 09.79"	450.00'	859.62'	100.41'	449.45'	16.53'	300.19'	150.17'	21° 51' 39.33" RT	393.97'	2,040.00'	2,040.00'	37.69'		
CUR 200008											17° 22' 12.85" LT	714.90'	1,418.83'	4,680.00'	54.29'		
	I-80 WESTBOUND (INTERIM)																
CUR 740002											4° 05' 53.99" LT	167.74'	335.33'	4,688.00'	3.00'		
	RAMP D (ULTIMATE)																
CUR 335000											3° 49' 10.99" RT	576.84'	1,101.38'	1,500.00'	107.09'		
CUR 335001											21° 18' 26.17" RT	658.40'	1,301.59'	3,500.00'	61.39'		
	RAMP D (INTERIM)																
CUR 307600											30° 58' 30.45" RT	415.64'	810.93'	1,500.00'	56.52'		
CUR 307602											8° 52' 41.29" RT	232.90'	464.86'	3,000.00'	9.03'		
CUR 307603											4° 07' 19.61" RT	161.66'	323.17'	4,492.00'	2.91'		
CUR 307604											20° 06' 45.51" RT	271.69'	537.78'	1,532.00'	23.90'		
	RAMP H																
CUR 308008											41° 24' 07.36" LT	500.32'	956.73'	1,324.00'	91.38'		
CUR 308004											4° 29' 44.91" RT	35.96'	71.88'	916.00'	0.71'		
CUR 308003											138° 38' 13.27" RT	704.64'	643.63'	266.00'	487.17'		
CUR 308002											138° 40' 45.93" RT	705.43'	705.43'	266.00'	487.91'		
	NE 38th STREET																
CUR 307001											24° 45' 02.67" LT	98.74'	194.39'	450.00'	10.70'		
CUR 307004											42° 00' 47.03" LT	240.00'	458.29'	625.00'	44.49'		
CUR 307005											22° 22' 09.15" LT	64.26'	126.89'	325.00'	6.29'		
	FOURMILE TRAIL																
CUR TRAIL1											10° 29' 08.57" RT	34.41'	68.63'	375.00'	1.57'		
CUR TRAIL2											15° 31' 16.06" RT	20.44'	40.63'	150.00'	1.39'		
CUR TRAIL3											36° 34' 16.99" LT	49.57'	95.74'	150.00'	7.97'		
CUR TRAIL4											27° 51' 21.34" LT	37.19'	72.93'	150.00'	4.54'		
CUR TRAIL5											21° 55' 57.66" RT	38.75'	76.56'	200.00'	3.72'		
CUR TRAIL6											24° 36' 10.63" LT	78.50'	154.58'	360.00'	8.46'		

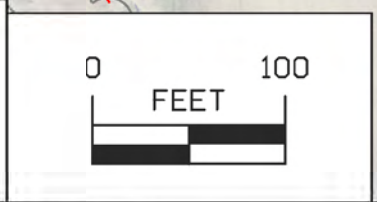
NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.

ACCESS CONTROL PREVIOUSLY ACQUIRED.

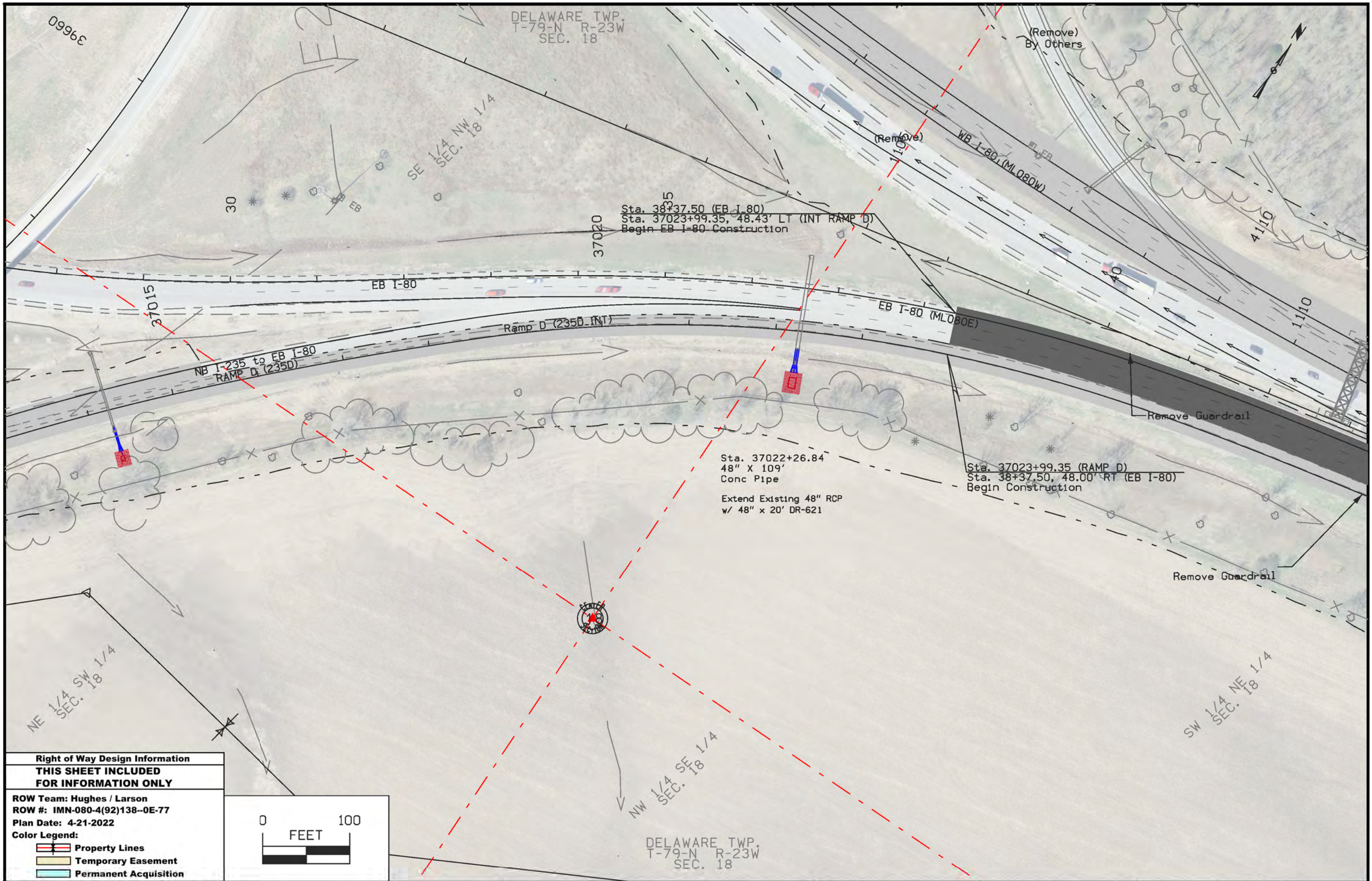


Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Hughes / Larson
 ROW #: IMN-080-4(92)138-0E-77
 Plan Date: 4-21-2022
 Color Legend:
 [Red Line] Property Lines
 [Yellow Area] Temporary Easement
 [Blue Area] Permanent Acquisition



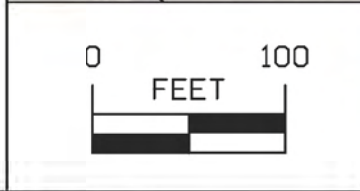
DELAWARE TWP.
 T-79-N R-23W
 SEC. 18

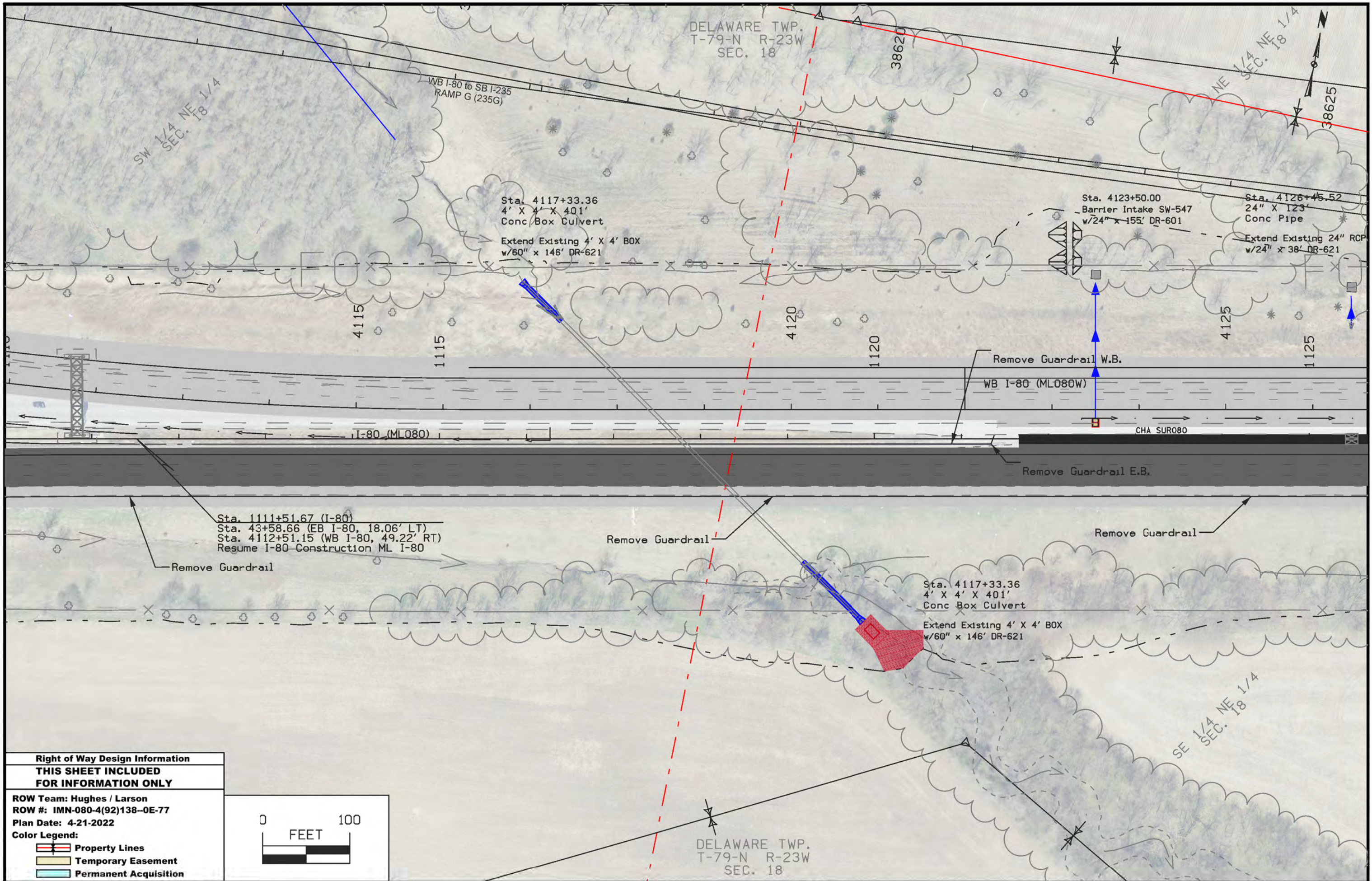


Right of Way Design Information
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FOR INFORMATION ONLY

ROW Team: Hughes / Larson
 ROW #: IMN-080-4(92)138-0E-77
 Plan Date: 4-21-2022

- Color Legend:**
- Property Lines
 - Temporary Easement
 - Permanent Acquisition



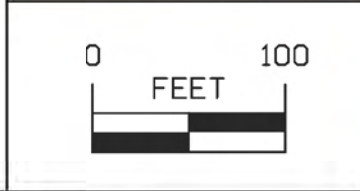


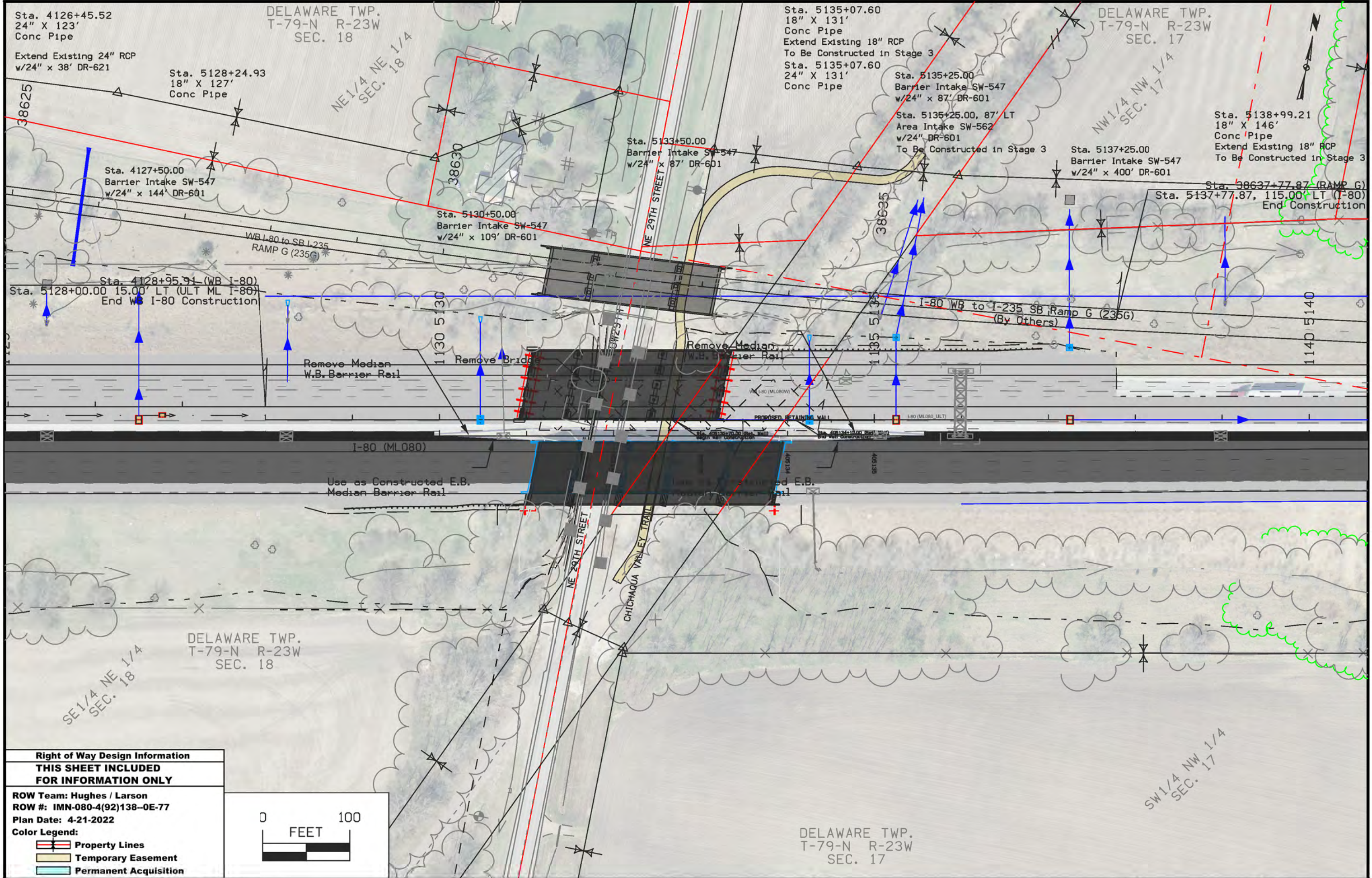
Right of Way Design Information
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ROW Team: Hughes / Larson
ROW #: IMN-080-4(92)138-0E-77
Plan Date: 4-21-2022

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition



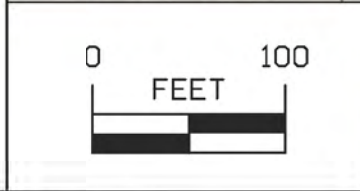


Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: Hughes / Larson
ROW #: IMN-080-4(92)138-0E-77
Plan Date: 4-21-2022

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition



DELAWARE TWP.
T-79-N R-23W
SEC. 17

①
BRENDA R SAFRANSKI,
CARMEN SCHAMP-PRYOR LIFE ESTATE

Sta. 5150+99.70
18" X 116'
Conc Pipe
Extend Existing 18" RCP
w/ 18" x 72' DR-621

Sta. 5138+99.21
18" X 146'
Conc Pipe

Sta. 5141+25.00
Barrier Intake SW-547
w/24" x 400' DR-601

Sta. 5142+99.15
18" X 151'
Conc Pipe

Extend Existing 18" RCP
To Be Constructed in Stage 3

Sta. 5145+25.00
Barrier Intake SW-547
w/24" x 400' DR-601

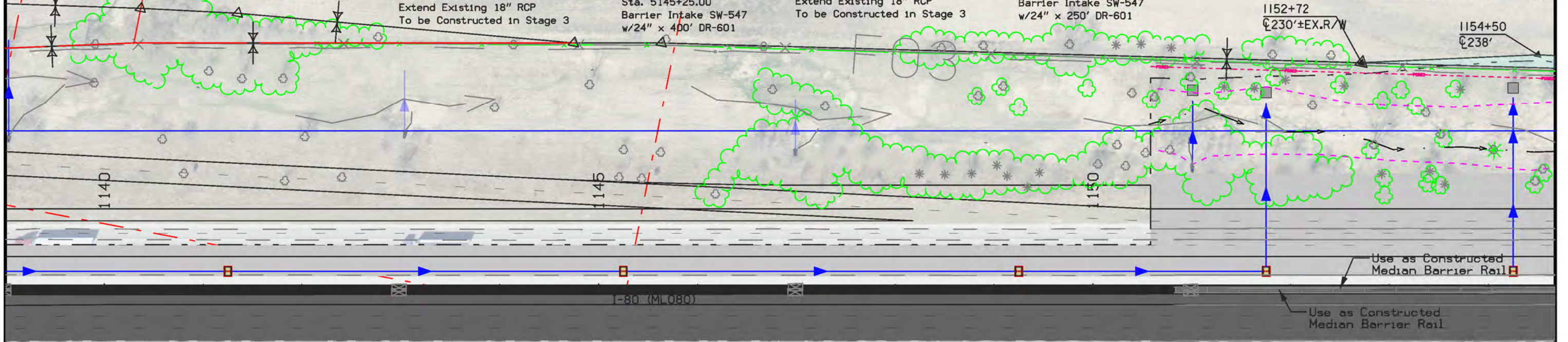
Sta. 5146+99.59
18" X 133'
Conc Pipe

Extend Existing 18" RCP
To Be Constructed in Stage 3

Sta. 5149+25.00
Barrier Intake SW-547
w/24" x 250' DR-601

Sta. 5151+75.00
Barrier Intake SW-547
w/24" x 164' DR-601

Sta. 5154+25.00
Barrier Intake SW-547
w/24" x 194' DR-601

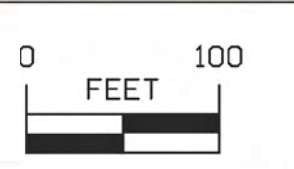


Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Hughes / Larson
 ROW #: IMN-080-4(92)138-0E-77
 Plan Date: 6-6-2022

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition



DELAWARE TWP.
T-79-N R-23W
SEC. 17

DELAWARE TWP.
T-79-N R-23W
SEC. 17

BRENDA R SAFRANSKI,
GARMEN SCHAMP-PRYOR LIFE ESTATE

Sta. 5154+25.00
Barrier Intake SW-547
w/24" x 194' DR-601

Sta. 5154+99.08
18" X 113'
Conc Pipe

Extend Existing 18" RCP
w/ 18" x 78' DR-621

Sta. 5156+75.00
Barrier Intake SW-547
w/24" x 156' DR-601

Sta. 5158+98.71
18" X 107'
Conc Pipe
Extend Existing 18" RCP
w/ 18" x 60' DR-621

Sta. 5159+25.00
Barrier Intake SW-547
w/24" x 144' DR-601

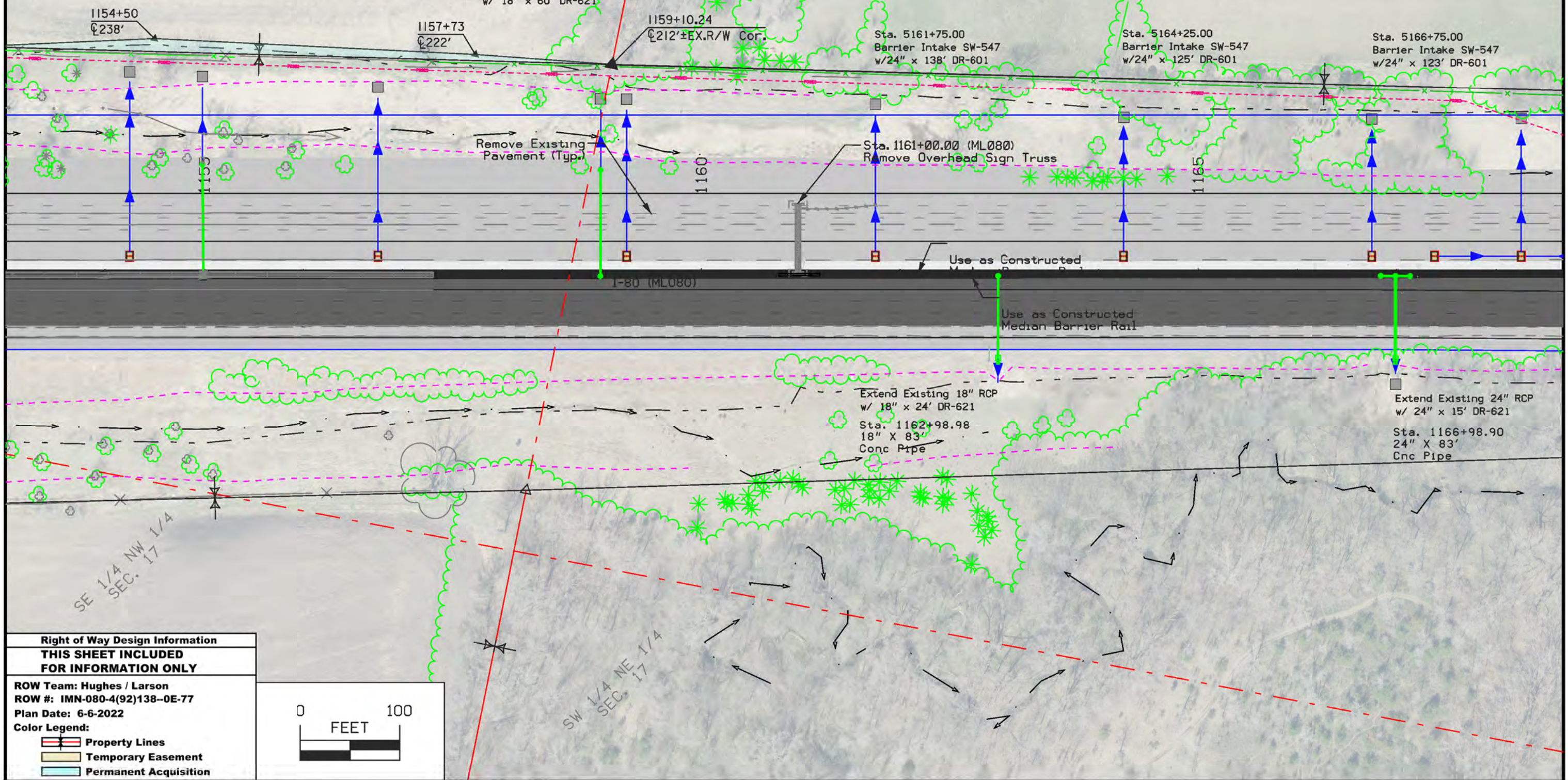
Sta. 5161+75.00
Barrier Intake SW-547
w/24" x 138' DR-601

Sta. 5164+25.00
Barrier Intake SW-547
w/24" x 125' DR-601

Sta. 5166+75.00
Barrier Intake SW-547
w/24" x 123' DR-601

Sta. 5168+25.02
Barrier Intake SW-547
w/24" x 123' DR-601

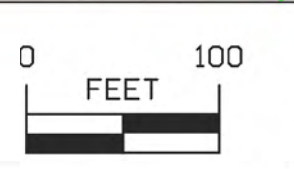
Sta. 5167+37.94
Barrier Intake SW-547
w/24" x 82' DR-601

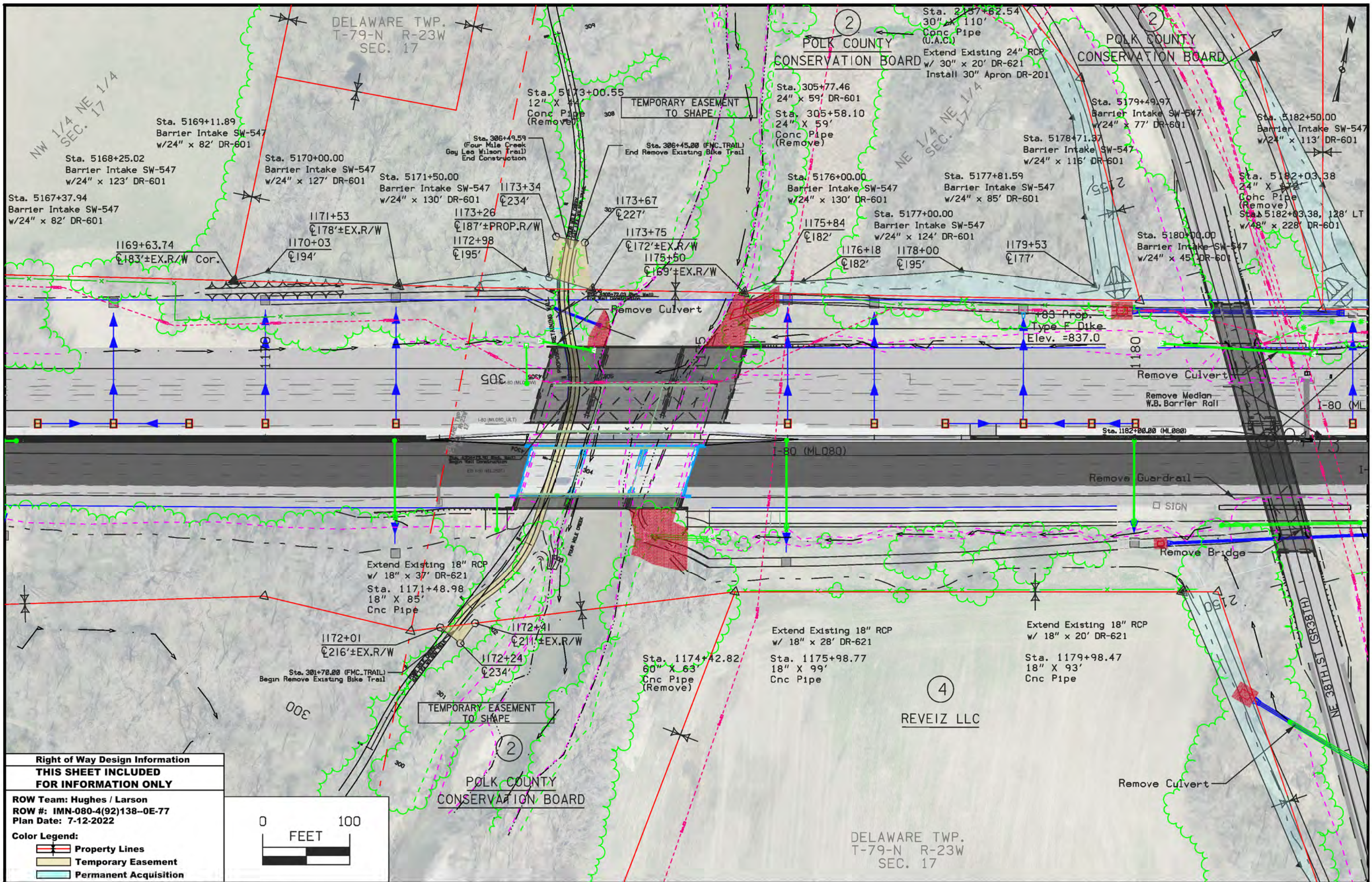


Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Hughes / Larson
ROW #: IMN-080-4(92)138--0E-77
Plan Date: 6-6-2022

Color Legend:
 Property Lines
 Temporary Easement
 Permanent Acquisition



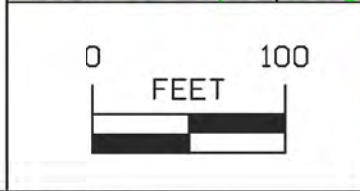


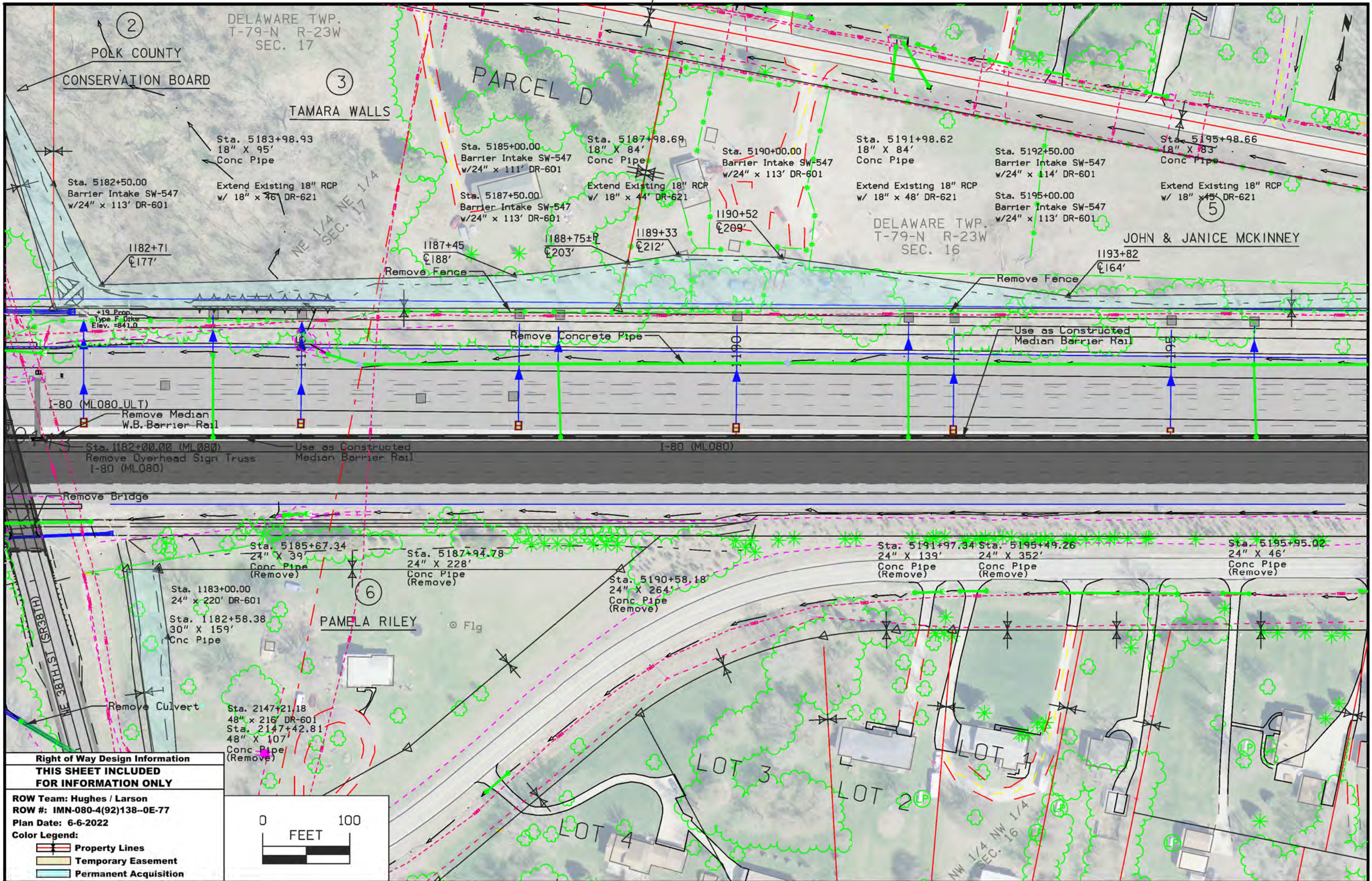
Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: Hughes / Larson
ROW #: IMN-080-4(92)138-0E-77
Plan Date: 7-12-2022

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition



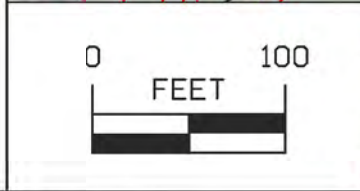


Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY

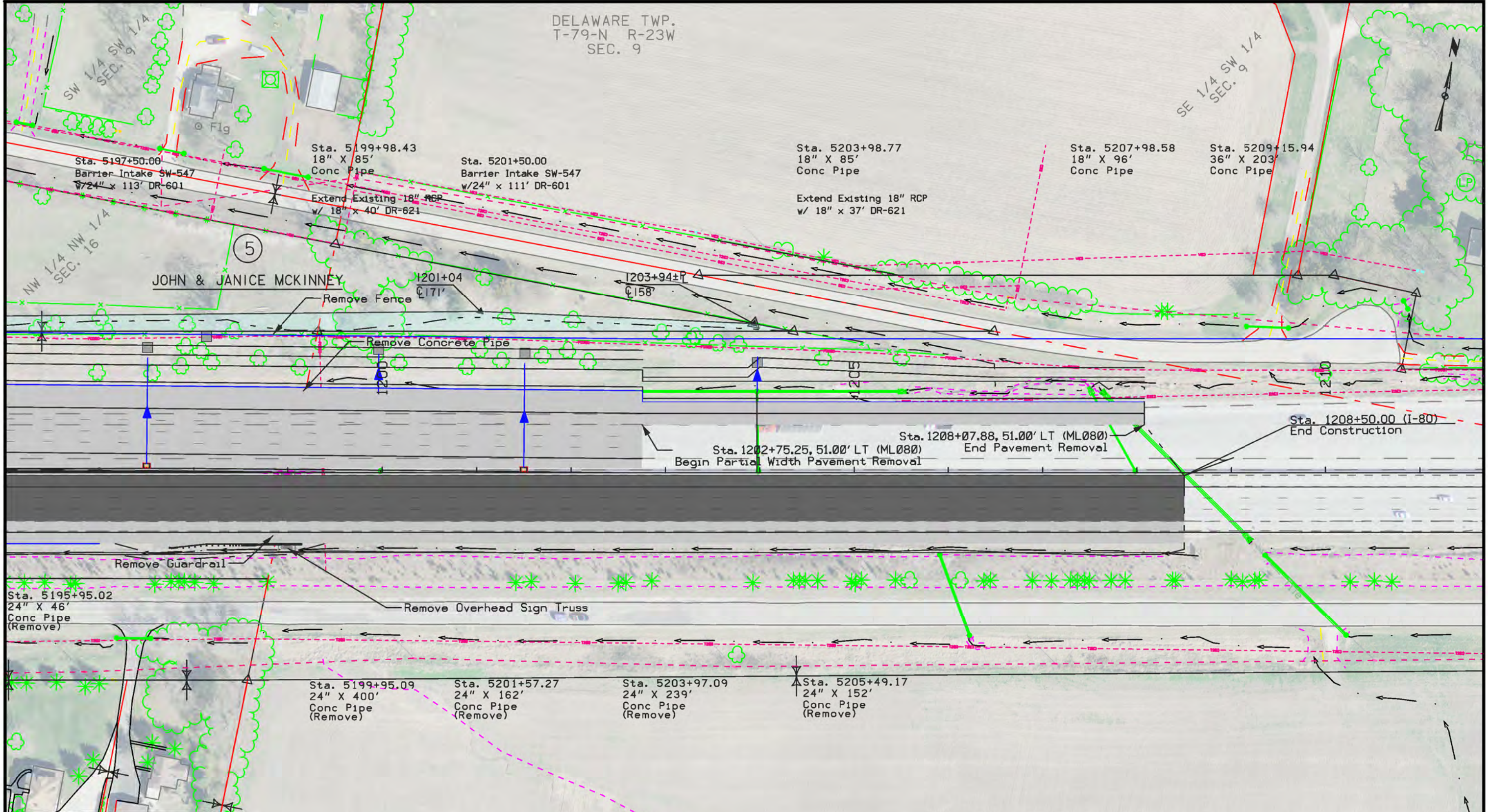
ROW Team: Hughes / Larson
 ROW #: IMN-080-4(92)138-0E-77
 Plan Date: 6-6-2022

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition



DELAWARE TWP.
T-79-N R-23W
SEC. 9



SE 1/4 SW 1/4
SEC. 9

NW 1/4 NW 1/4
SEC. 16

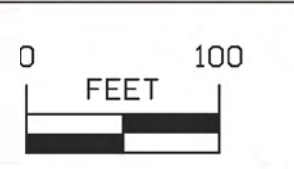
NE 1/4 NW 1/4
SEC. 16

JOHN & JANICE MCKINNEY

Right of Way Design Information
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FOR INFORMATION ONLY

ROW Team: Hughes / Larson
ROW #: IMN-080-4(92)138-0E-77
Plan Date: 6-6-2022

- Color Legend:
- Property Lines
 - Temporary Easement
 - Permanent Acquisition



DELAWARE TWP.
T-79-N R-23W
SEC. 16

DELAWARE TWP.
T-79-N R-23W
SEC. 17

NE 1/4 NE 1/4
SEC. 17

4

REVEIZ LLC

Extend Existing 18" RCP
w/ 18" x 20' DR-621

Sta. 1179+98.47
18" X 93'
Cnc Pipe

Sta. 305+77.46
24" x 59' DR-601
Sta. 305+58.10
24" x 59'
Conc Pipe
(Remove)

POLK COUNTY
CONSERVATION BOARD

Sta. 5176+00.00
Barrier Intake SW-547
w/24" x 130' DR-601
Sta. 5177+00.00
Barrier Intake SW-547
w/24" x 124' DR-601
Sta. 5177+81.59
Barrier Intake SW-547
w/24" x 85' DR-601

Sta. 5178+71.37
Barrier Intake SW-547
w/24" x 116' DR-601

Sta. 2157+62.54
30" x 110'
Conc Pipe

2154+70
135'
Sta. 2158+00.00 (38th St)
End Construction
2156+06
109'

Extend Existing 24" RCP
w/ 30" x 20' DR-621

2157+90
84'±R

2146+87
90'
2146+37
74'±R
Sta. 2146+50.00 (38th St)
Begin Construction

2150+24±EX.R/W
138'

Remove Culvert

Remove Guardrail

NE 38TH ST (SR38TH)

Remove Bridge
Sta. 1183+00.00
24" x 220' DR-601
Sta. 1182+58.38
30" x 159'
Cnc Pipe

Sta. 5182+03.38
24" x 172'
Conc Pipe
(Remove)

Sta. 5182+03.38, 128' LT
w/48" x 228' DR-601

2147+03±R
93'

2148+97
130'

2149+75±EX.R/W
140'

Sta. 5182+50.00
Barrier Intake SW-547
w/24" x 113' DR-601

POLK COUNTY
CONSERVATION BOARD

Extend Existing 60" RCP
w/ 30" x 10' DR-621
Sta. 2157+87.45
30" x 110'
Conc Pipe

Sta. 5185+67.34
24" x 39'
Conc Pipe
(Remove)

Sta. 5183+98.93
18" x 95'
Conc Pipe

Remove Fence

Extend Existing 18" RCP
w/ 18" x 46' DR-621
Sta. 17022+26.84
48" x 109'
Conc Pipe

TAMARA WALLS

Extend Existing 48" RCP
w/ 48" x 48' DR-621

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Hughes / Larson
ROW #: IMN-080-4(92)138--0E-77
Plan Date: 4-21-2022

Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition



TRAFFIC CONTROL PLAN

1. 3 lanes of traffic shall be maintained on I-80 and Ramps at all times, except as provided for in the following notes, Staging Notes and Staging Sheets.
2. The contractor shall submit any requests for closures or traffic control plan modifications to the engineer for review and approval 2 weeks prior to any changes being made. Traffic control for closures / detours not shown in the plans will be the responsibility of the Contractor to provide to the Engineer for review and approval.
 - A. Temporary nighttime full road closures of I-80 will be permitted as follows.
 - Short duration of up to 20 minutes to complete overhead work and to set new bridge beams. The Contractor shall submit the traffic control plan 2 weeks in advance to the Engineer for approval.
 - Extended durations of over 20 minutes to remove existing bridge or place bridge beams. I-80 traffic will be detoured to local roads per Off Site Detours. The Contractor shall submit the traffic control plan 2 weeks in advance for the Engineer's approval.
 - B. Allowable interstate lane closure times are shown in the graphics on the following sheets as provided by the IDOT.
 - RT & LT lane & Inside Shoulder closures allowed from 8 PM - 5 AM Sunday through Thursday.
 - Center Lane closing require a Left Lane closure and are allowed from 10 PM - 5 AM Sunday through Thursday.
 - No outside shoulder closures allowed 6 AM - 9 AM Monday through Friday nor 3 PM - 6 PM daily.
3. Traffic control devices shall not be placed in the traveled way before the permitted times shown.
4. Traffic control devices shall be removed from the traveled way before the ending times shown.
5. Contractor shall fully remove all detour signing nightly.
6. Contractor is responsible for installation, maintenance, and removal of all detour signing.
7. Coordinate with Engineer during temporary nighttime road closures to display sign messages on permanent DMS on I-80.
8. Install Portable Dynamic Message Signs (PDMS) on interstates per Off-Site Detour plans for extended duration temporary nighttime full road closure.
9. PDMS shall be deployed 3 days prior to any overnight closure of ramps or interstate mainline. All PDMS units shall be furnished, maintained and removed by the Contractor. The Contractor shall coordinate with the Engineer to determine appropriate locations.
10. All PDMS shall be connected to the Statewide Traffic Management Center (TMC), at least 1 week before the PDMS is first activated. The Contractor must provide the TMC with necessary PDMS connection information. The TMC will develop and post all messages.
11. The Contractor shall provide notification to the Statewide Traffic Management Center (515-237-3300) immediately prior to deployment and upon removal of lane closures. If a planned lane closure does not occur at the scheduled time immediately contact the Statewide Traffic Management Center.
12. Ramp closures shall be in accordance with Standard Road Plan TC-417. The Contractor shall notify the Engineer two weeks in advance of the time of closure. "Need to Provide an off site detour for Ramp H"
13. The Contractor shall provide, install, maintain, and remove traffic control for detours. Refer to the detour maps provided on the J-sheets for route and sign location details. Existing alternate route signs that conflict with active detours shall be covered by the Contractor for the duration of the detour.
14. The Contractor shall coordinate traffic control with other projects.
15. Contractor shall maintain access to Chichaqua Valley Trail at all times except in the event of overhead bridge work.
16. The Contractor shall maintain clean pavement leading into and out of the work areas at all times.

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
IM-035-3(194)87--13-77	Grading
IM-035-3(197)87--13-77	Grading and Paving
IM-035-3(195)87--13-77	Bridge I-35 NB
IM-035-3(196)87--13-77	Bridge Ramp G (Over Broadway)
IM-035-3(203)87--13-77	Bridge Ramp B
IM-035-3(070)87--13-77	Bridge Ramp G (Over 29th)
	Signing
	Lighting

STAGING NOTES

STAGING NOTES

Stage 1

Traffic:

- Maintain 3 lanes Traffic on existing I-80 EB and I-80 WB roadways via lane shifts.
- Maintain 2 lanes of Traffic to Ramp D / Ramp H
- Temporary closures of Chichaqua Valley Trail and NE 29th St for partial removal of I-80 WB Bridge and setting beams
- Temporary closures of Fourmile Creek Trail for partial removal of I-80 WB Bridge, Trail and Retaining Wall Construction and setting beams
- Closure of NE 38th St
- Temporary short term closures of I-80 WB for removal of the North portion of the existing NE 38th Street Bridge

Construction:

- Partial removal of the existing I-80 WB Bridges at NE 29th Street, Fourmile Creek and NE 38th Street
- Remove existing pavement at NE 38th Street
- Construct temporary shoring along existing I-80 WB at the NE 29th Street Bridge
- Construct partial I-80 WB bridge over NE 29th St. and Chichaqua Valley Trail
- Construct partial I-80 WB bridge over Fourmile Creek
- Construct cast in place retaining wall along Fourmile Creek Greenway Trail
- Construct Fourmile Creek Greenway Trail
- Construct grading at NE 38th St
- Construct pavement on the north portion of I-80 WB
- Construct detour pavement on I-80 WB
- Construct detour pavement on Ramp D
- Construct Median crossovers on I-80
- Remove remainder of existing I-80 WB to I-35 NB ramp
- Remove existing Dynamic Message Sign (DMS), truss and footings on I-80 WB east of NE 38th Street
- Install Portable Dynamic Message Sign (PDMS), on I-80 WB east of NE 38th Street

Stage 2A

Traffic:

- Maintain 3 lanes I-80 WB traffic on new pavement
- Maintain 3 lanes I-80 EB traffic on existing pavement
- Maintain traffic to Ramp D \ Ramp H
- Maintain closure of NE 38th Street

Construction:

- Remove Detour Pavement along Ramp G gore, placed by previous project, and replace with proposed pavement on I-80 WB.

Stage 2B

Traffic:

- Maintain 3 lanes I-80 WB traffic on new pavement
- Maintain 3 lanes I-80 EB traffic on existing I-80 WB pavement via median crossovers
- Maintain 1 lane of Traffic on Ramp D with temporary short term closures for removal of truss sign and construction of truss sign
- Close Ramp H for I-80 WB roadway construction
- Temporary closures of Chichaqua Valley Trail and NE 29th St for removal of deck and setting beams
- Maintain closure of NE 38th St

Construction:

- Remove Truss Sign Structure at Ramp D and Cantilever Sign Structure along I-80 EB at NE 38th Street
- Partial removal of the south half of existing I-80 EB Bridge at NE 38th Street
- Construct Truss Sign Structure at Ramp D and Cantilever Sign Structures along I-80 EB at NE 38th Street
- Construct pavement widening on I-80 EB and Ramp D
- Construct sections of pavement and temporary pavement on I-80 WB by Ramp H (Stage to complete just prior to beginning Stage 3)
- Construct EB I-80 bridge widening and deck replacement over NE 29th St. and Chichaqua Valley Trail
- Construct EB I-80 bridge widening and deck replacement over Fourmile Creek
- Mill and overlay portions of EB I-80

Stage 3

Traffic:

- Maintain 3 lanes I-80 WB traffic on new pavement
- Temporary short term closure of I-80 WB for placement of truss sign
- Maintain 3 lanes I-80 EB traffic on new I-80 EB pavement
- Temporary closures of NE 29th St, Chichaqua Valley Trail and Four Mile Creek Trail for partial removal of I-80 Bridges and setting beams
- Close Ramp H
- Maintain 1 lane of traffic on newly constructed Ramp D
- Maintain closure of NE 38th St

Construction:

- Construct MSE Wall along the I-80 WB Bridge over NE 29th St and Chichaqua Valley Trail
- Complete construction of I-80 WB Pavement and Bridges
- Construct bridge on NE 38th St over I-80
- Construct pavement of NE 38th St
- Construct remaining portion of Ramp D, Ramp H and gore
- Remove median crossovers and the remaining portion of existing WB I-80 pavement
- Construct truss sign structure and reinstall DMS sign on I-80 WB east of NE 38th Street

STAGING NOTES

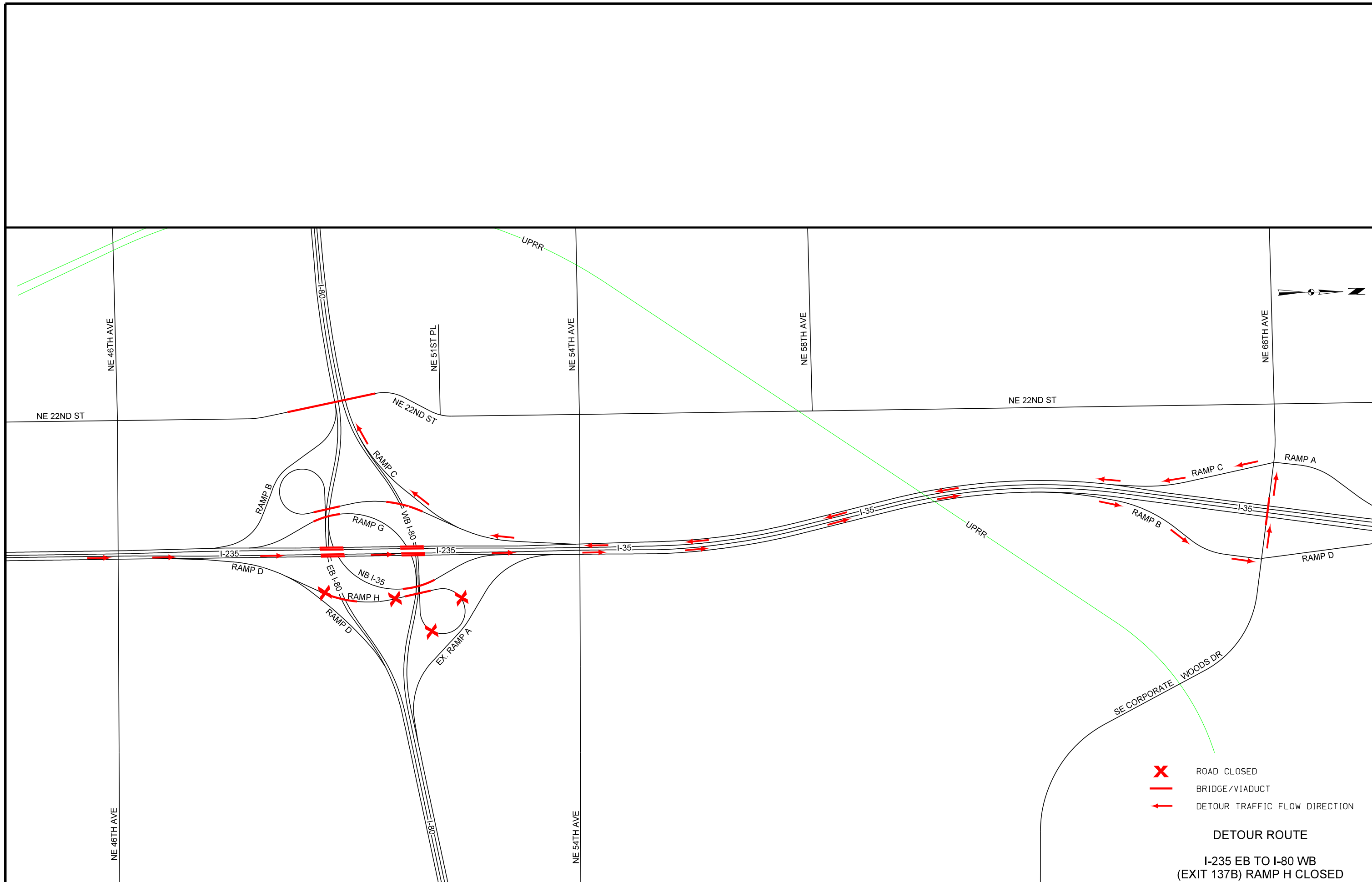
Stage 4

Traffic:

- Maintain 3 lanes I-80 EB traffic utilizing off peak hours and lane closures for milling and overlay
- Open Ramp H to traffic
- Open Ramp D to two lanes of traffic
- Open I-80 WB to traffic
- Open NE 38th St to traffic

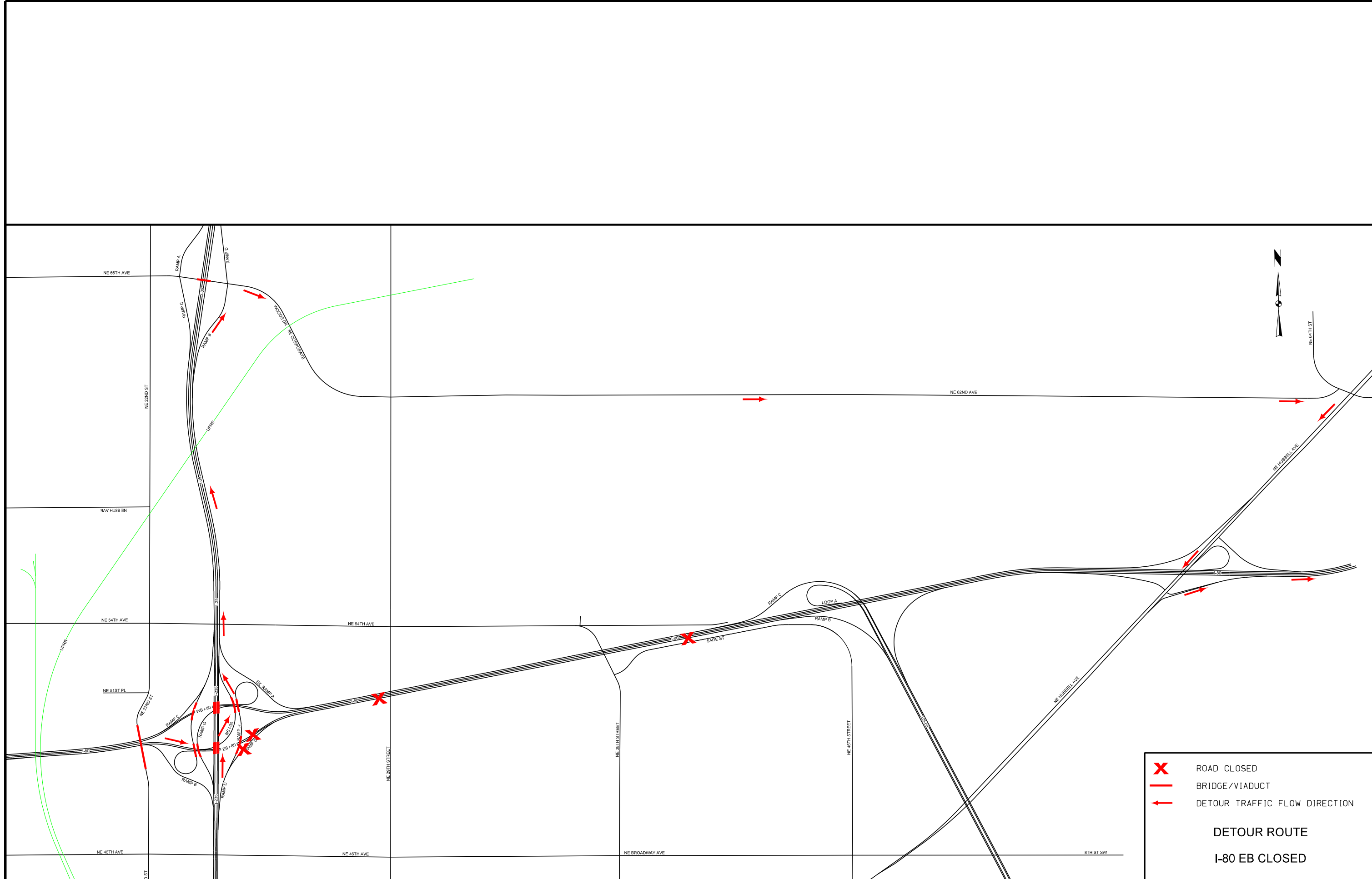
Construction:

- Mill and overlay remainder of EB I-80.



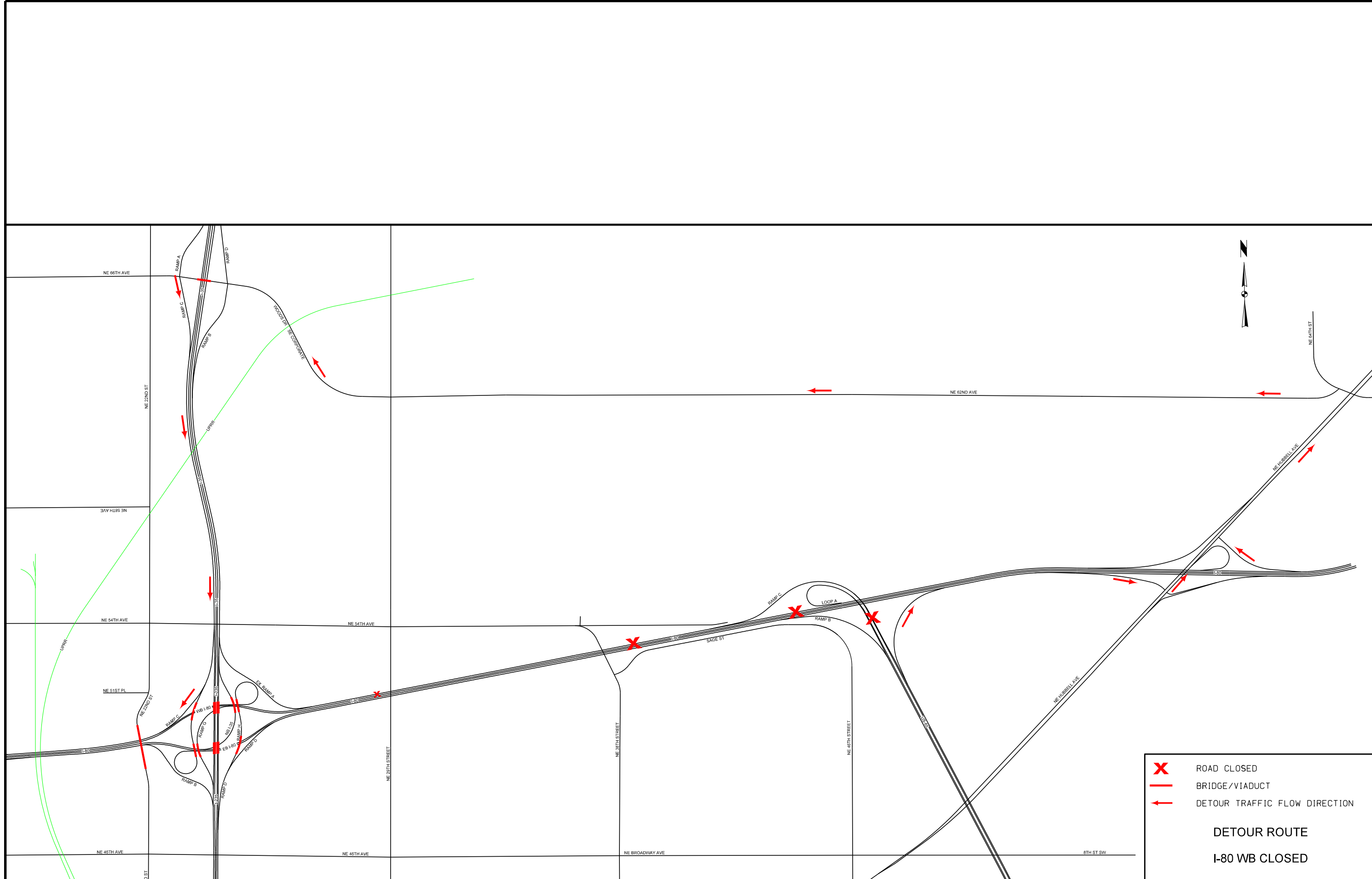
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- BRIDGE/VIADUCT
- ← DETOUR TRAFFIC FLOW DIRECTION

DETOUR ROUTE
I-235 EB TO I-80 WB
(EXIT 137B) RAMP H CLOSED



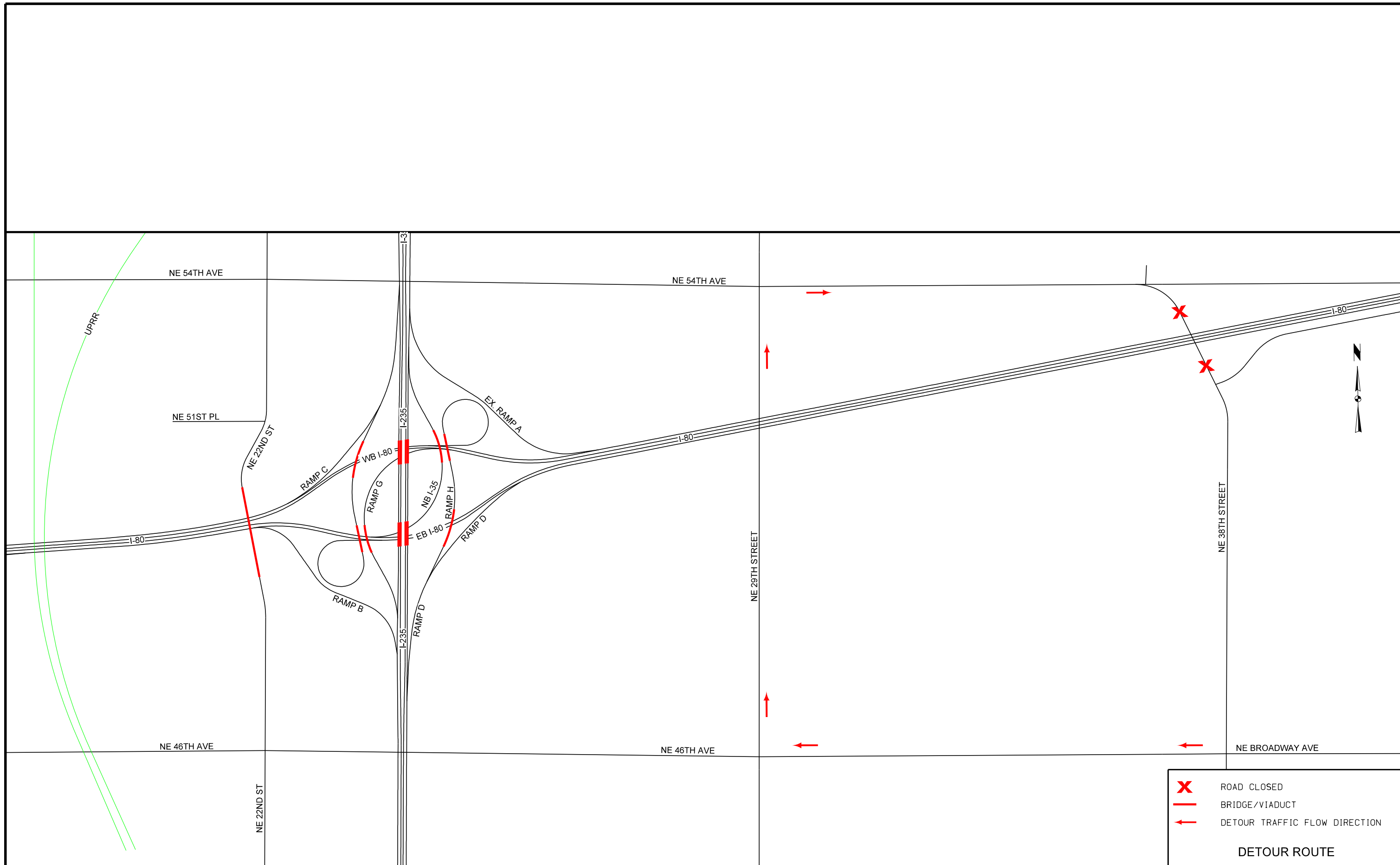
- X ROAD CLOSED
- BRIDGE/VIADUCT
- ← DETOUR TRAFFIC FLOW DIRECTION

DETOUR ROUTE
I-80 EB CLOSED



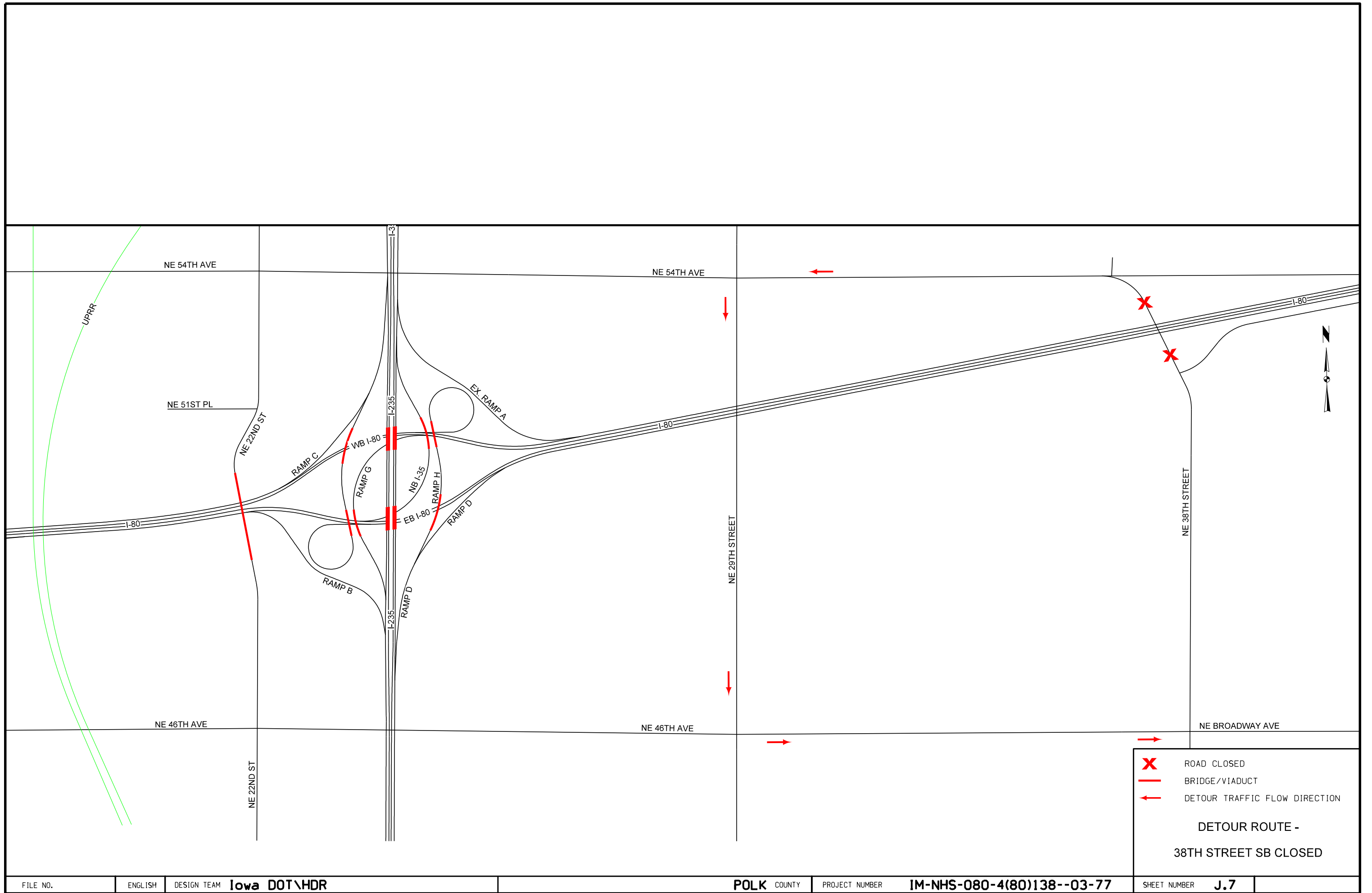
X ROAD CLOSED
— BRIDGE/VIADUCT
← DETOUR TRAFFIC FLOW DIRECTION




 DETOUR ROUTE
 I-80 WB CLOSED



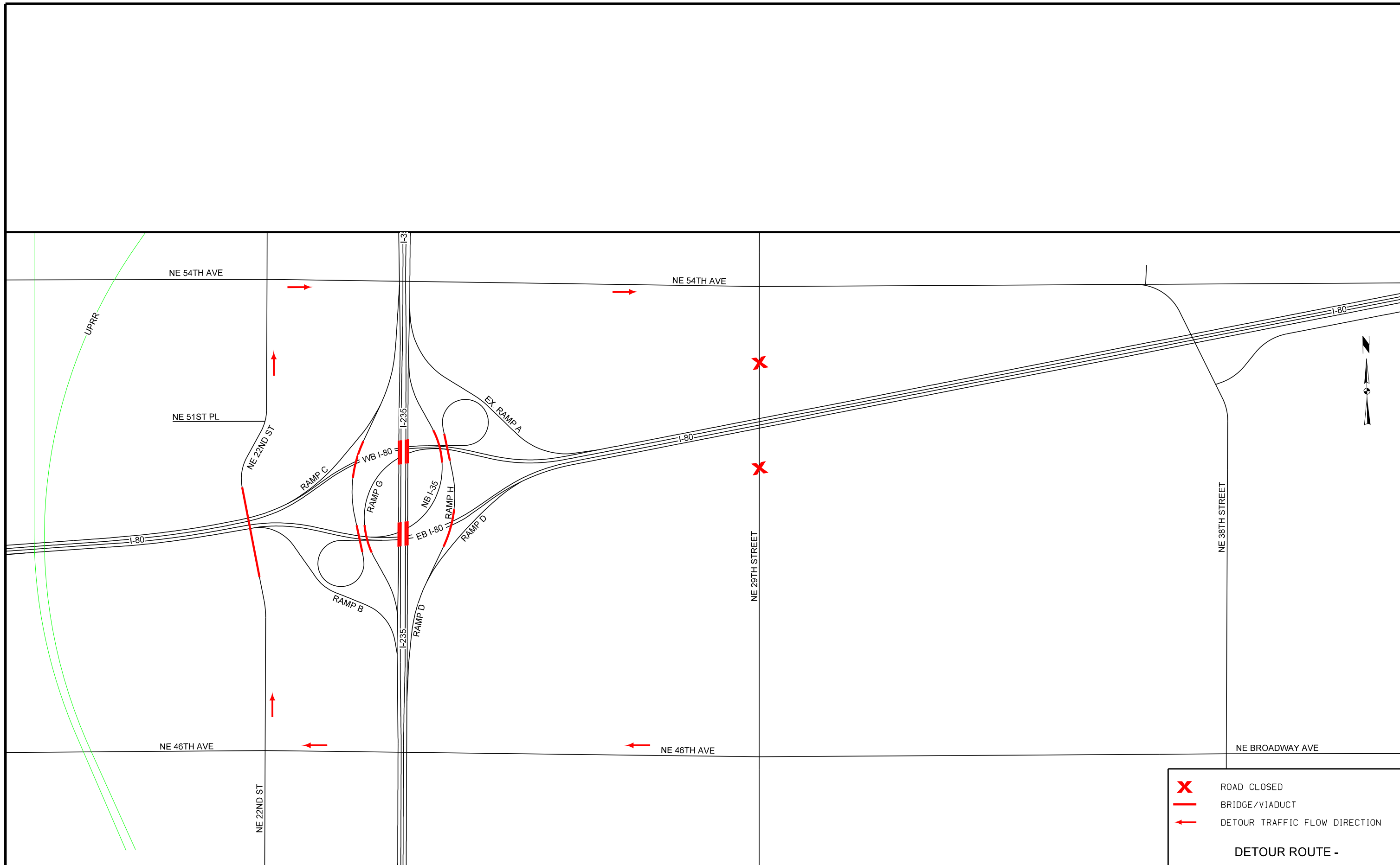
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- BRIDGE/VIADUCT
- ← DETOUR TRAFFIC FLOW DIRECTION




DETOUR ROUTE
NE 38TH STREET NB CLOSED



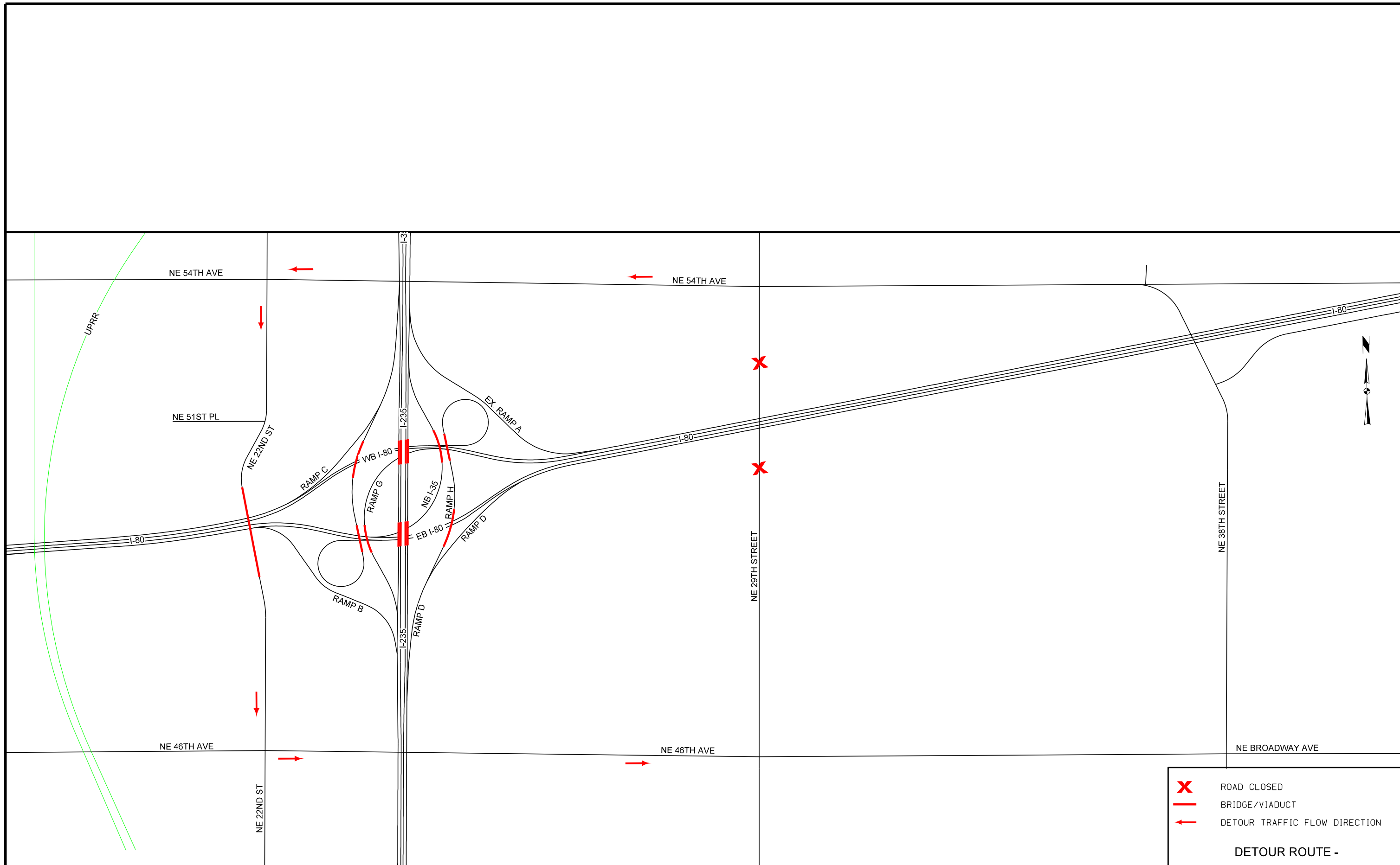
 ROAD CLOSED
 BRIDGE/VIADUCT
 DETOUR TRAFFIC FLOW DIRECTION

 DETOUR ROUTE -
 38TH STREET SB CLOSED

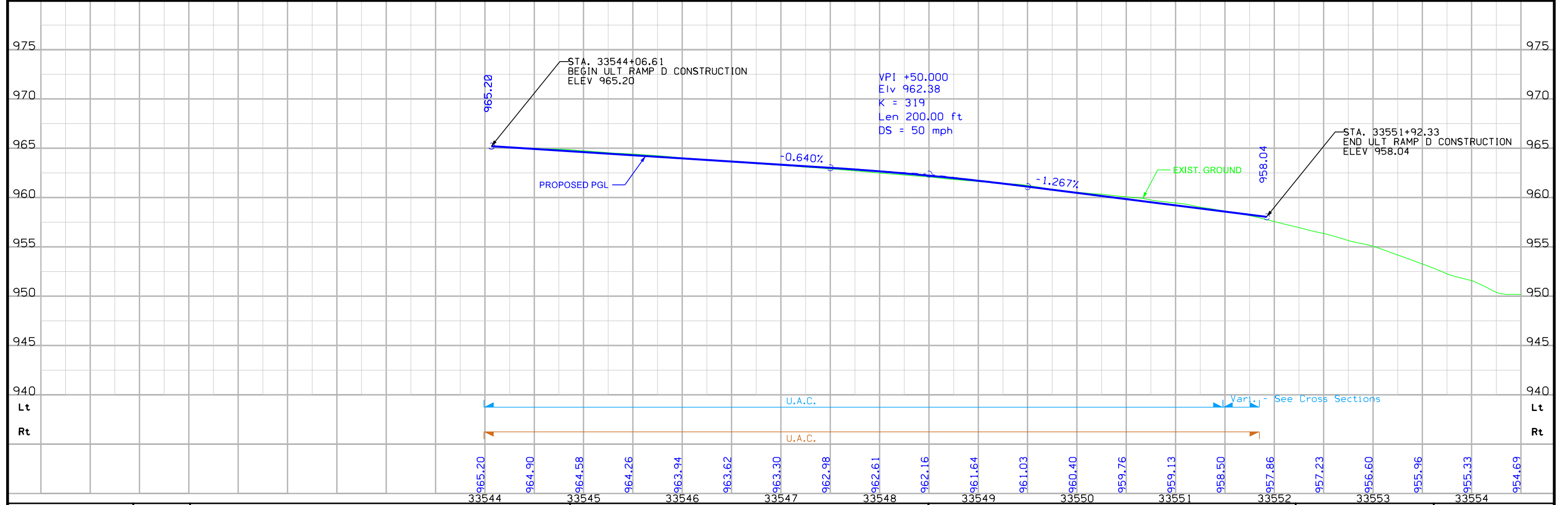
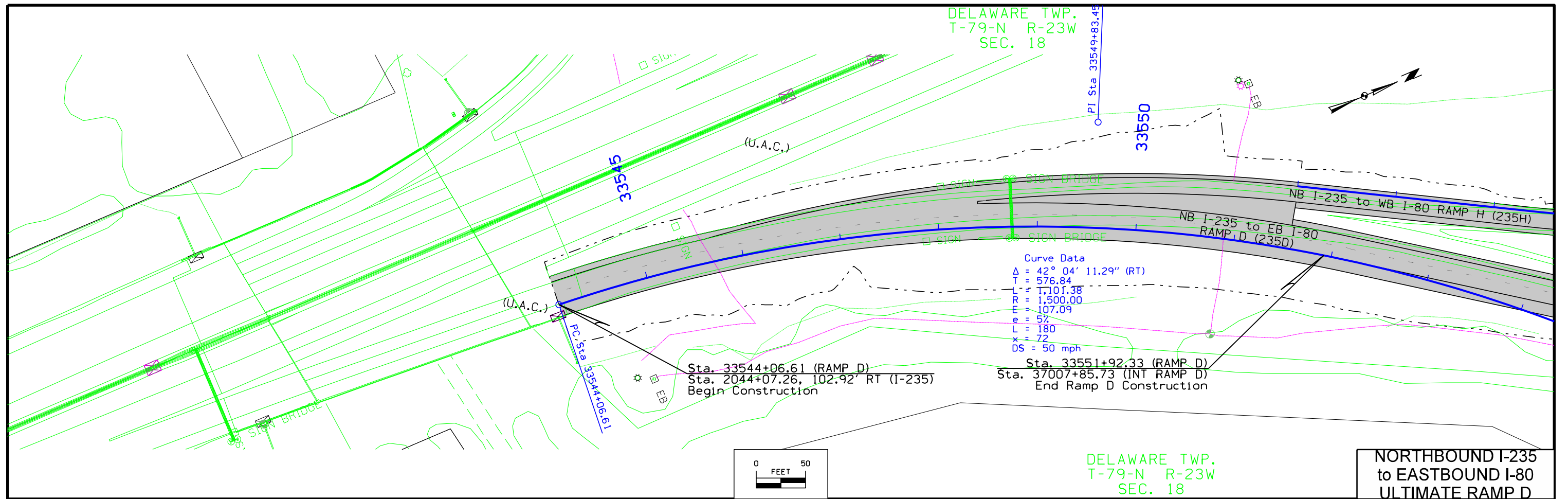


-  ROAD CLOSED
-  BRIDGE/VIADUCT
-  DETOUR TRAFFIC FLOW DIRECTION

DETOUR ROUTE -
29TH STREET NB CLOSED



	ROAD CLOSED
	BRIDGE/VIADUCT
	DETOUR TRAFFIC FLOW DIRECTION
DETOUR ROUTE -	
29TH STREET SB CLOSED	

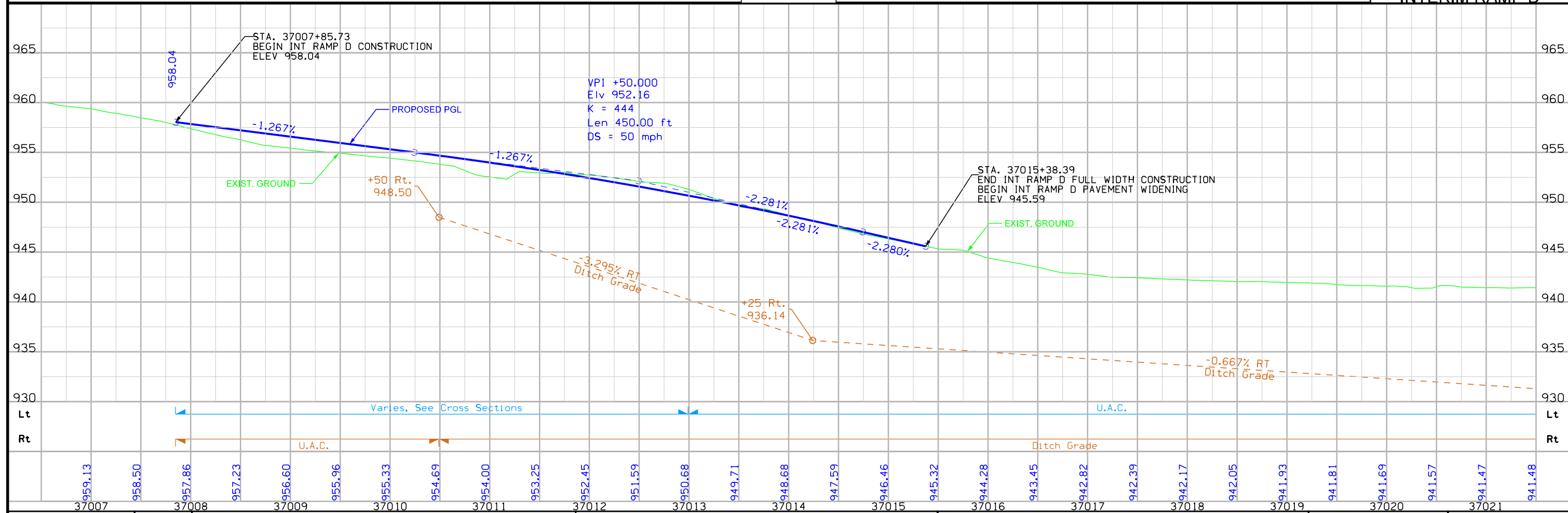
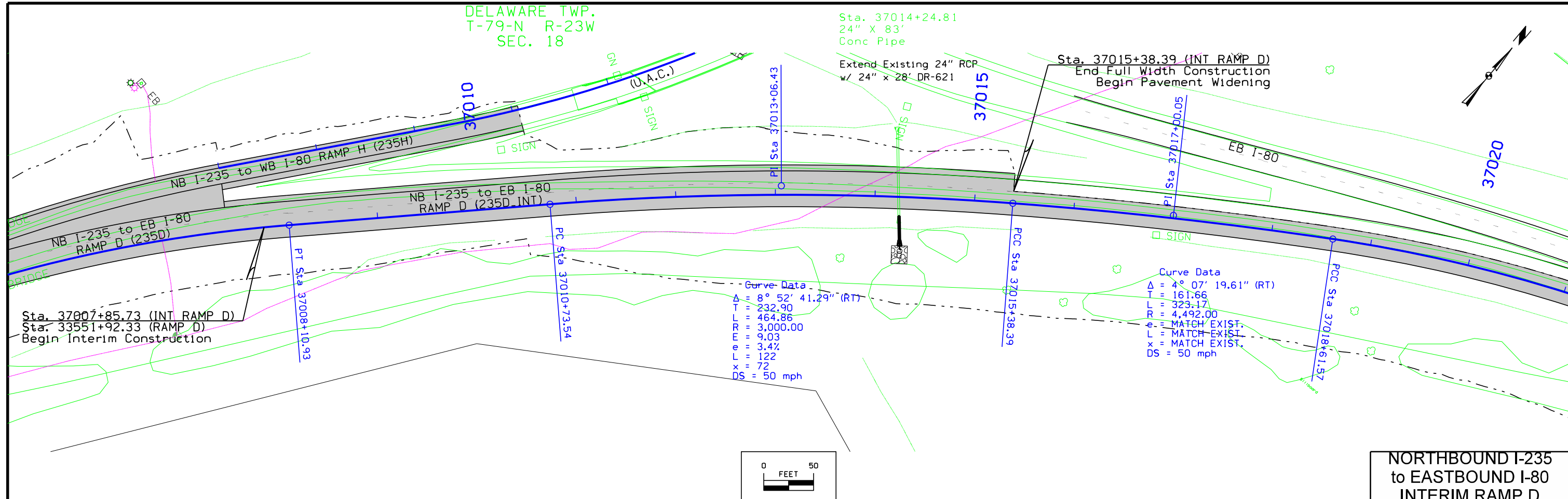


DELAWARE TWP.
T-79-N R-23W
SEC. 18

Sta. 37014+24.81
24" X 83'
Conc Pipe

Extend Existing 24" RCP
w/ 24" x 28' DR-621

Sta. 37015+38.39 (INT RAMP D)
End Full Width Construction
Begin Pavement Widening



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-NHS-080-4(80)138--03-77	SHEET NUMBER	K.2
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DELAWARE TWP.
T-79-N R-23W
SEC. 18

Sta. 37022+26.84
48" X 109"
Conc Pipe

Extend Existing 48" RCP
w/ 48" x 20' DR-621

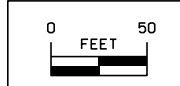
PI Sta 37021+33.25

EB I-80
NB I-235 to EB I-80
RAMP D (235D.INT)

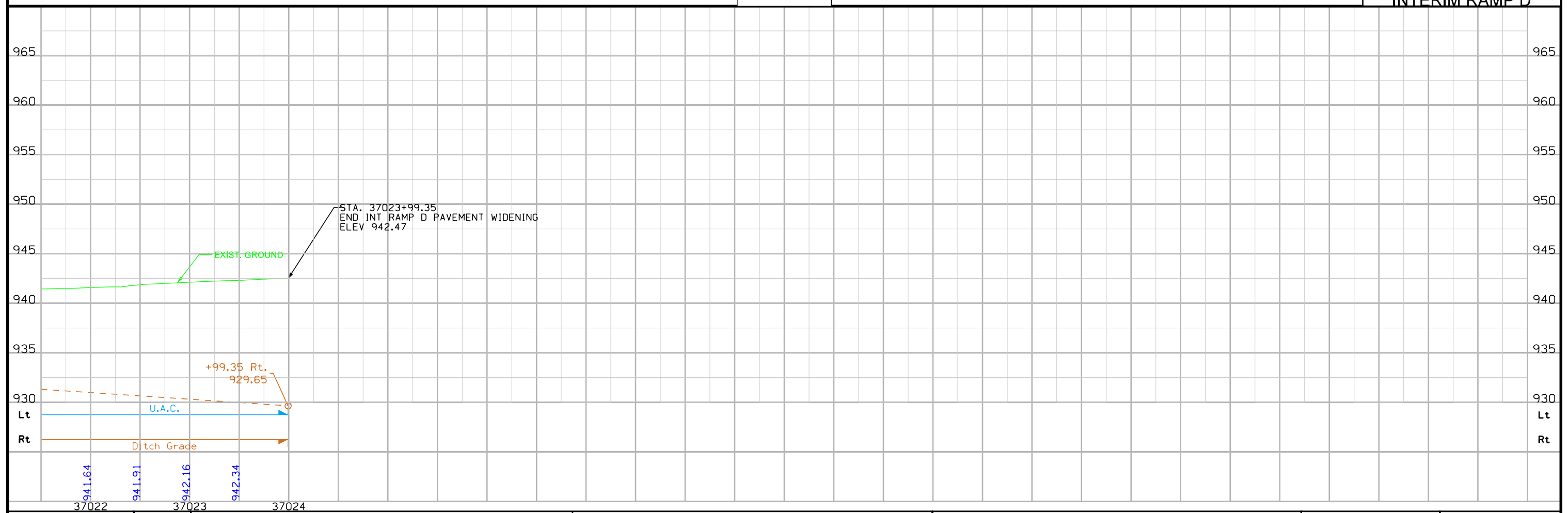
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L = 537.78
E = 1,532.00
P = 23.90
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L = MATCH EXIST.
x = MATCH EXIST.
DS = 50 mph

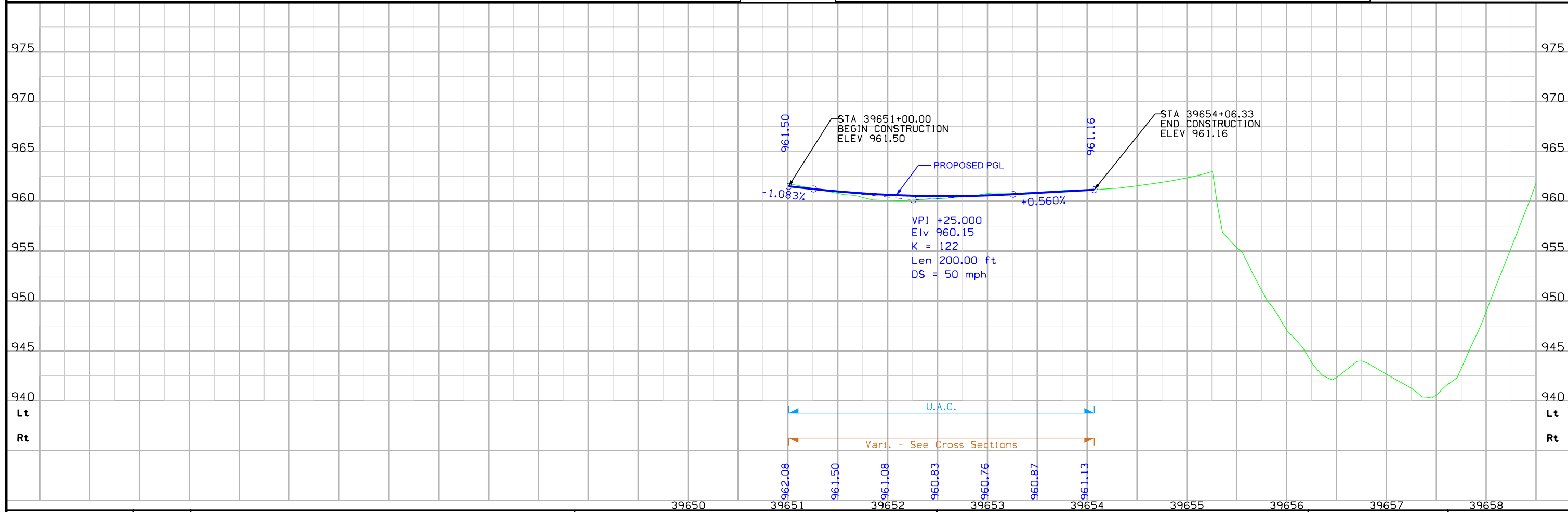
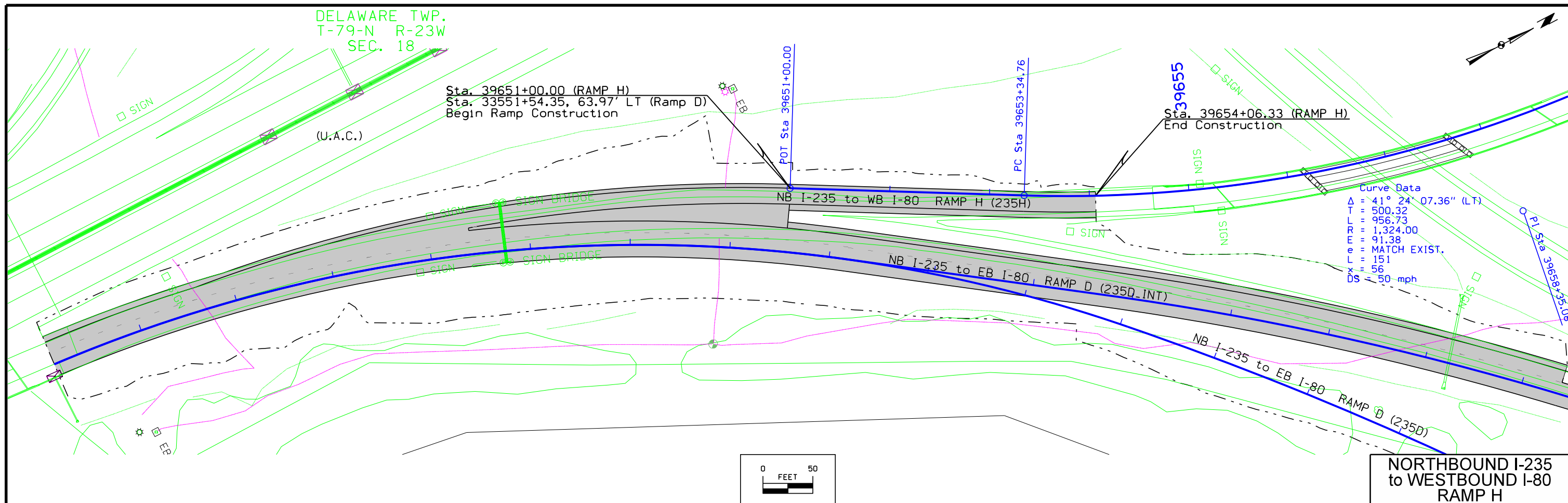
PI Sta 37023+99.35

Sta. 37023+99.35 (INT RAMP D)
Sta. 38+37.50, 48.00' RT (EB I-80)
End Ramp Pavement Widening



NORTHBOUND I-235
to EASTBOUND I-80
INTERIM RAMP D

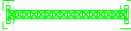





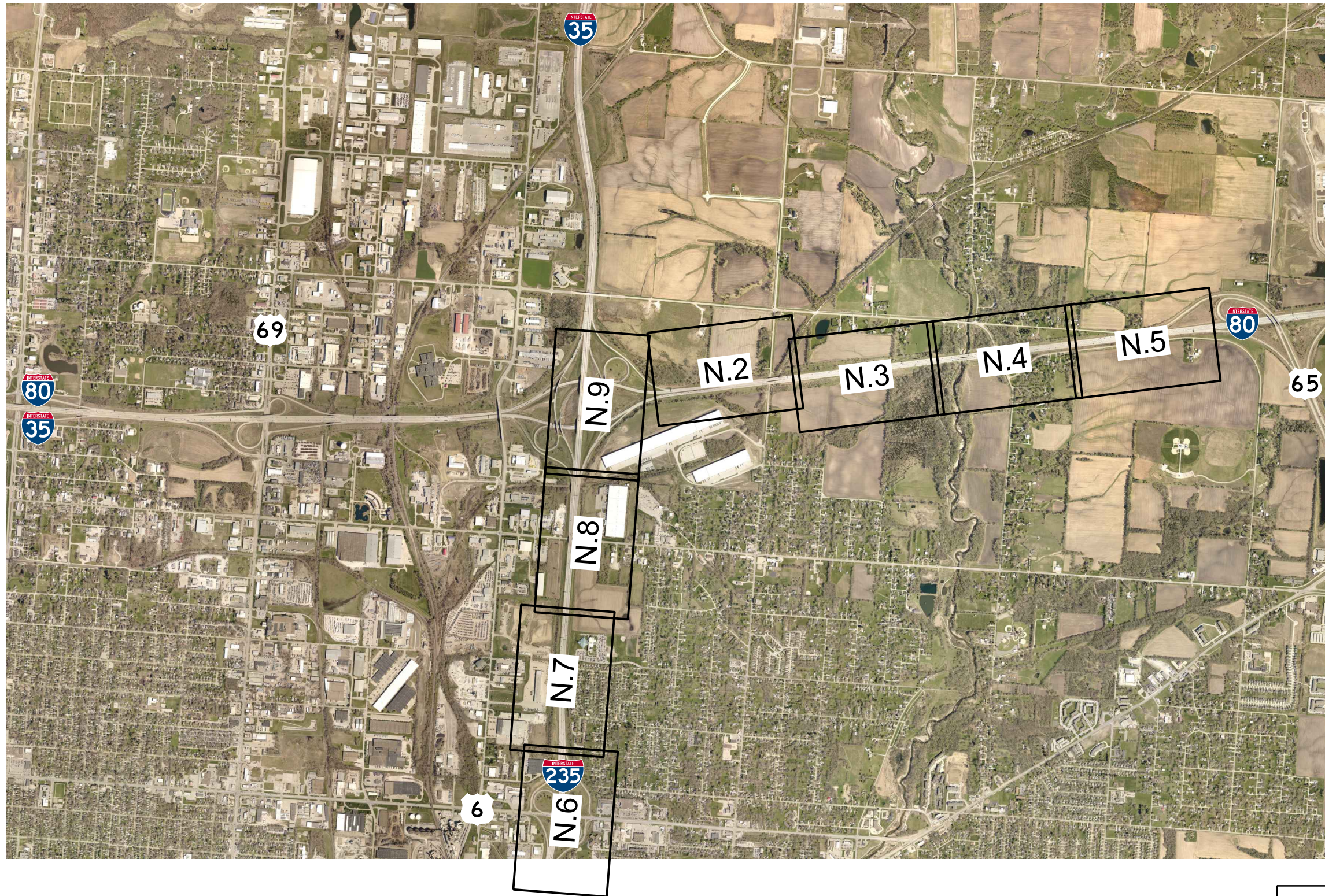


KEY MAP



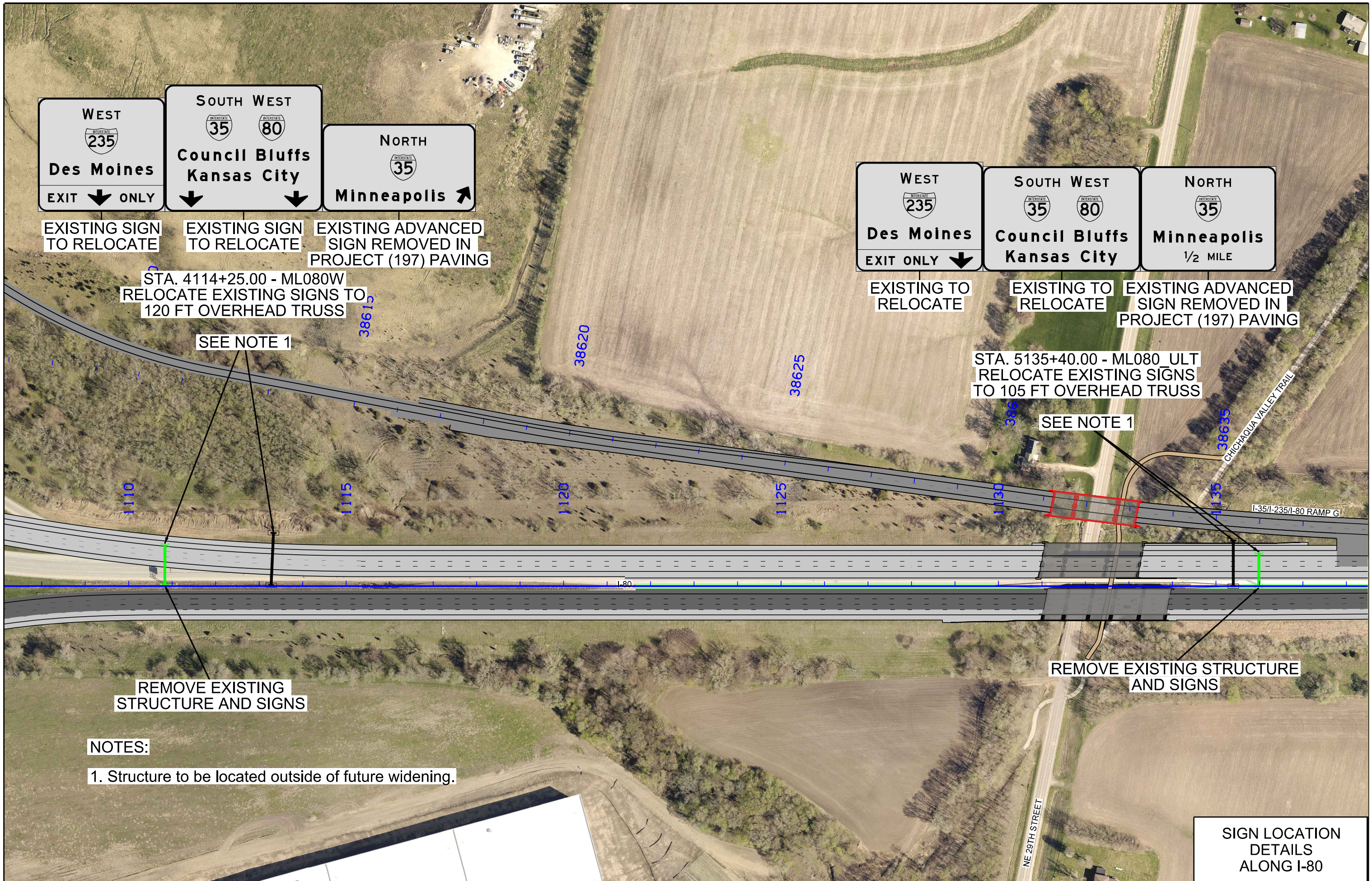
LEGEND

-  Existing Structure
-  Proposed Structure
-  Existing Sign
-  Proposed Sign



NO SCALE

SHEET LAYOUT
OVERVIEW



WEST
 INTERSTATE 235
Des Moines
 EXIT ONLY ↓

SOUTH WEST
 INTERSTATE 35 INTERSTATE 80
Council Bluffs
Kansas City

NORTH
 INTERSTATE 35
Minneapolis ↗

WEST
 INTERSTATE 235
Des Moines
 EXIT ONLY ↓

SOUTH WEST
 INTERSTATE 35 INTERSTATE 80
Council Bluffs
Kansas City

NORTH
 INTERSTATE 35
Minneapolis
 1/2 MILE

EXISTING SIGN TO RELOCATE

EXISTING SIGN TO RELOCATE

EXISTING ADVANCED SIGN REMOVED IN PROJECT (197) PAVING

EXISTING TO RELOCATE

EXISTING TO RELOCATE

EXISTING ADVANCED SIGN REMOVED IN PROJECT (197) PAVING

STA. 4114+25.00 - ML080W
 RELOCATE EXISTING SIGNS TO 120 FT OVERHEAD TRUSS

STA. 5135+40.00 - ML080 ULT
 RELOCATE EXISTING SIGNS TO 105 FT OVERHEAD TRUSS

SEE NOTE 1

SEE NOTE 1

REMOVE EXISTING STRUCTURE AND SIGNS

REMOVE EXISTING STRUCTURE AND SIGNS

NOTES:

1. Structure to be located outside of future widening.

SIGN LOCATION DETAILS ALONG I-80



WEST
 INTERSTATE 235
 Des Moines
 1 1/4 MILE
 EXIT ↓ ONLY

SOUTH WEST
 INTERSTATE 35 INTERSTATE 80
 Council Bluffs
 Kansas City

80-77-X
 M4002 STAGE 5
 INTERSTATE 35 NORTH
 Minneapolis
 ↑

MODIFY ADVANCE
 SIGN - (083) PAVING
 INTERSTATE 35 NORTH
 Minneapolis
 ↗ ↘

EXISTING TO
 RELOCATE

EXISTING TO
 RELOCATE

INSTALL ADVANCE SIGN
 WITH OVERLAY PANEL

STA. 5155+50.00 - ML080 ULT
 RELOCATE EXISTING SIGNS TO
 130 FT OVERHEAD TRUSS

INSTALLED IN PROJECT
 (197) PAVING
 POST MOUNTED
 (083) PAVING - MODIFIED
 SIGN TRUSS MOUNTED

SEE NOTE 1

REMOVE EXISTING STRUCTURE
 AND SIGNS

NOTES:

- 1. Structure to be located outside of future widening.
- 2. Structure lengths shown are approximate and are rounded to the nearest 5 feet.

SIGN LOCATION
 DETAILS
 ALONG I-80

NOTES:

1. Structure to be located in ultimate location outside of future widening.

35 NORTH
Minneapolis
1/2 MILE

STA. 5170+25.00 - ML080 ULT
INSTALL RELOCATED
ADVANCE SIGN

PROJECT (197) PAVING
POST MOUNTED
PROJECT (083) PAVING
40' CANTILEVER MOUNTED

DMS

STA. 5182+10.00 - ML080 ULT
INSTALL RELOCATED DYNAMIC
MESSAGE SIGN ON 90 FT
OVERHEAD TRUSS

PORTABLE DMS DURING ROADWAY CONST.

SEE NOTE 1

80-77-X M313

65 SOUTH
Altoona
Des Moines
1 MILE
EXIT **↓** ONLY

REMOVE EXISTING
CANTILEVER STRUCTURE
AND SIGNS

STA. 5172+25.00 - ML080 ULT
INSTALL EXIT DIRECTION ON
34 FT CANTILEVER


REMOVE EXISTING DYNAMIC
MESSAGE SIGN AND STRUCTURE

80-77-X M314

65 SOUTH
Altoona
Des Moines
EXIT **↓** ONLY

STA. 5194+00.00 - ML080 ULT
INSTALL EXIT DIRECTION ON
34 FT CANTILEVER

SIGN LOCATION
DETAILS
ALONG I-80

 NORTH
 Minneapolis
 1 MILE

STA. 1201+63.12
 INTERIM ADVANCE ON
 50 FT INTERIM CANTILEVER

STRUCTURE AND SIGN
 INSTALLED IN PROJECT
 (197) PAVING

1200

NE 54TH PL

1205

1210

1215

I-80/US 65 RAMP C

1220

1225

I-80

SAGE ST

I-80/US 65 RAMP B

DMS

EXISTING DYNAMIC
 MESSAGE SIGN AND
 STRUCTURE TO REMAIN

EXIT 14 2

WEST NORTH NORTH
  
 Marshalltown
 Bondurant
 1 1/4 MILE

EXIT 14 1

SOUTH

 Altoona 
 Des Moines

EXISTING STRUCTURE AND SIGNS TO REMAIN

NOTES:

1. Structure to be located outside of future widening.
2. Structure lengths shown are approximate and are rounded to the nearest 5 feet.

SIGN LOCATION
 DETAILS
 ALONG I-80



EXIT 12
 6
 E Euclid Ave
 Grand View Univ

EXISTING STRUCTURE AND SIGN TO REMAIN

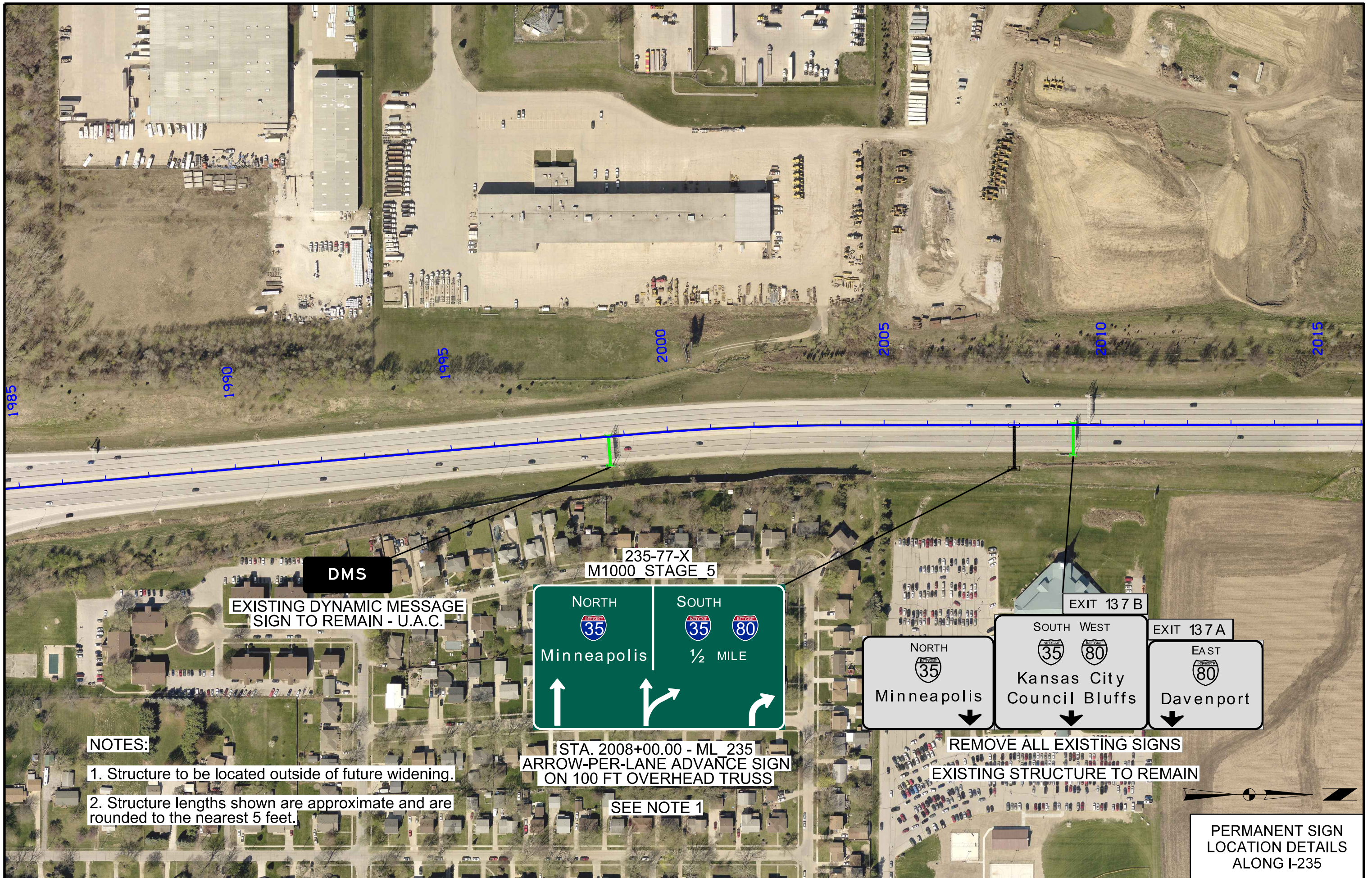
NORTH
 35
 Minneapolis

SOUTH
 35 80
 Kansas City
 Council Bluffs
 Davenport

1 1/4 MILES

EXISTING STRUCTURE AND SIGN TO REMAIN
 REMOVE SIGN PANEL - EXIT 137

PERMANENT SIGN
 LOCATION DETAILS
 ALONG I-235



DMS

EXISTING DYNAMIC MESSAGE SIGN TO REMAIN - U.A.C.

235-77-X
M1000 STAGE 5

NORTH 35 Minneapolis ↑	SOUTH 35 80 1/2 MILE ↗
---------------------------------	---------------------------------

NORTH 35 Minneapolis ↓

SOUTH WEST 35 80 Kansas City Council Bluffs ↓

EXIT 137 B	EXIT 137 A
EAST 80 Davenport ↓	

NOTES:

1. Structure to be located outside of future widening.
2. Structure lengths shown are approximate and are rounded to the nearest 5 feet.

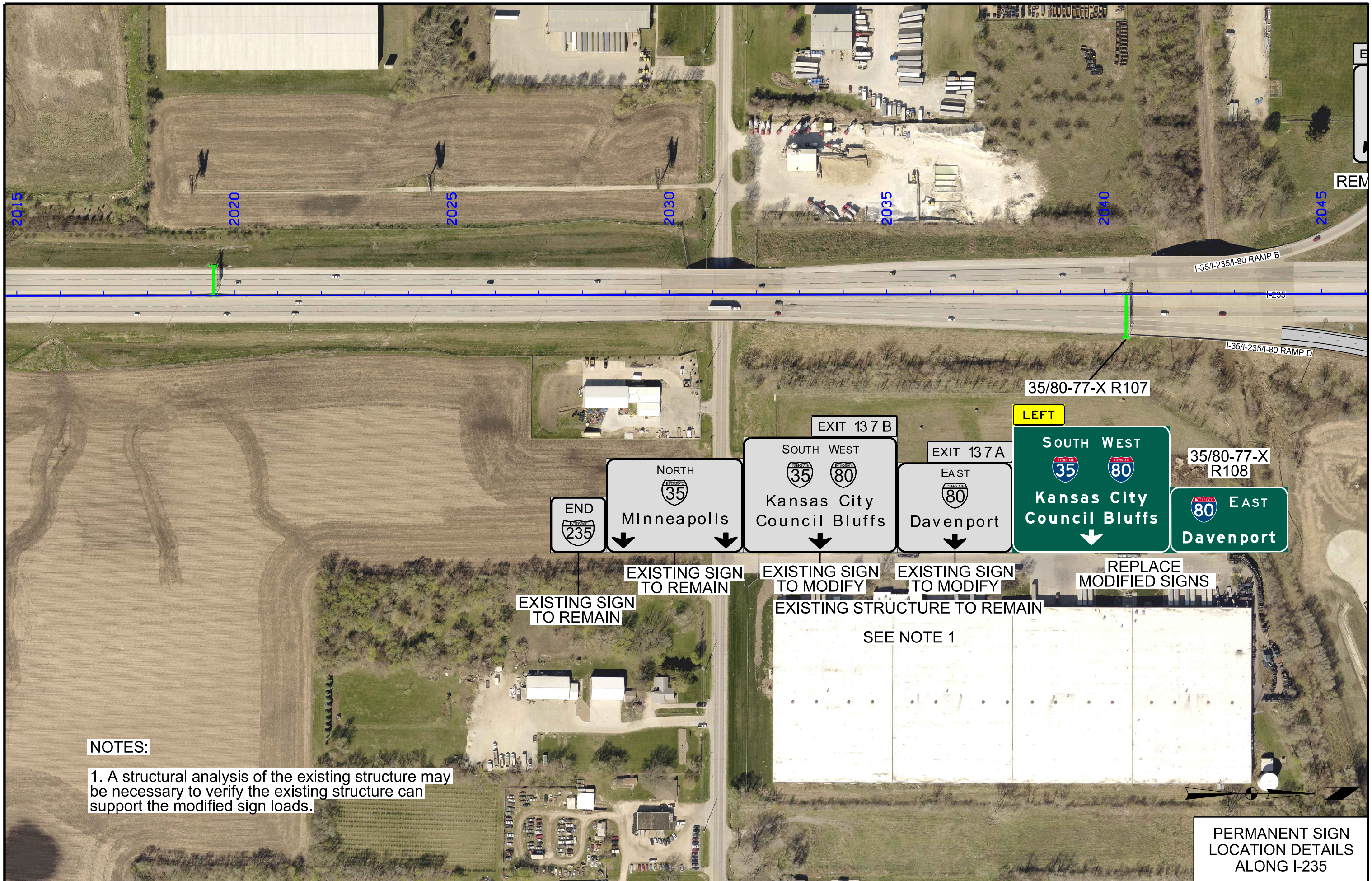
STA. 2008+00.00 - ML 235
ARROW-PER-LANE ADVANCE SIGN
ON 100 FT OVERHEAD TRUSS

SEE NOTE 1

REMOVE ALL EXISTING SIGNS
EXISTING STRUCTURE TO REMAIN



PERMANENT SIGN
LOCATION DETAILS
ALONG I-235



NOTES:

1. A structural analysis of the existing structure may be necessary to verify the existing structure can support the modified sign loads.

PERMANENT SIGN LOCATION DETAILS ALONG I-235

NOTES:

1. Structure to be located in ultimate location outside of future widening.

EXIT 137 B

SOUTH WEST
KANSAS CITY
COUNCIL BLUFFS

EXIT 137 A

EAST
DAVENPORT

REMOVE EXISTING STRUCTURE AND SIGNS

35/80-77-X R109

LEFT

SOUTH WEST
KANSAS CITY
COUNCIL BLUFFS

35/80-77-X R110

EAST
DAVENPORT

STA. 33549+00.00 - 235D ULT
INSTALL EXIT DIRECTION
AND EXIT DIRECTION SIGNS
ON 120 FT OVERHEAD TRUSS

SEE NOTE 1

REMOVE EXISTING
STRUCTURE AND SIGNS

LEFT
EXIT 137 A

WEST
235
45 MPH
Des Moines
EXIT ONLY

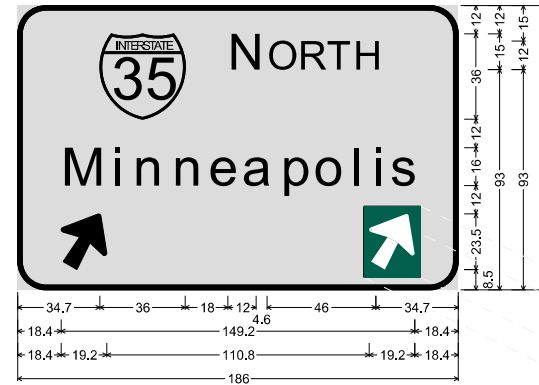
SOUTH WEST
KANSAS CITY
COUNCIL BLUFFS

LANE ENDS
1200 FEET

STA. 4099+00.00 - ML080W
RELOCATE EXISTING SIGNS TO
130 FT OVERHEAD TRUSS

PERMANENT SIGN
LOCATION DETAILS
ALONG I-235 AND I-80

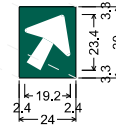
80-77-X M4002_STAGE_5



12.0" Radius, 2.0" Border, White on Green;
 "N ORTH", E; "Minneapolis", E Mod; Arrow 8 - 25.0° 60°;
 Arrow 8 - 25.0° 60°;

Table of letter and object lefts

34.7	N	O	R	T	H					
88.7	105.3	118.4	130.4	141.7						
M	i	n	n	e	a	p	o	i	s	
18.4	39.6	48.8	65.3	80.6	94.7	111.2	125.0	140.6	149.8	157.3
↑	↑									
18.4	148.4									



No border, White on Green;
 Arrow 8 - 25.0° 60°;
 Table of letter and object lefts

↑
2.4

80-77-X M313



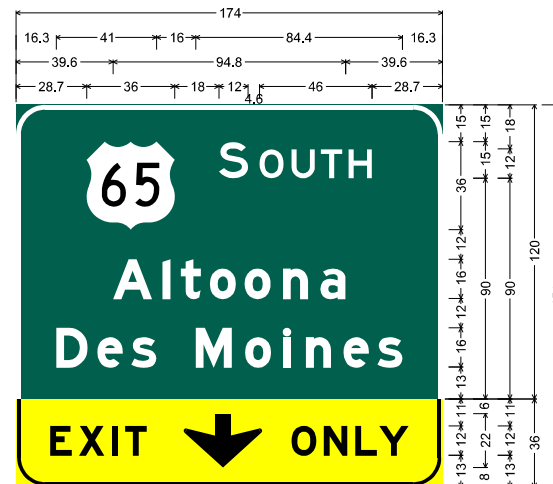
12.0" Radius, 2.0" Border, White on Green;
 [S OUTH] E; [Altoona] E Mod; [Des Moines] E Mod;
 [1 MILE] E;

12.0" Radius, 1.5" Border, 0.5" Indent, Black on Yellow;
 [EXIT] E Mod specified length; Down Arrow II-A - 22.0° 270°;
 [ONLY] E Mod specified length;

Table of letter and object lefts.

28.7	S	O	U	T	H			
82.7	99.3	112.4	124.4	135.7				
A	i	t	o	n	a			
39.6	59.8	67.3	79.1	93.2	108.8	124.1		
D	e	s	M	o	i	n	e	s
16.3	33.2	47.0	73.3	93.5	109.1	118.3	133.6	147.4
E	X	I	T	↓	O	N	L	Y
13.8	25.7	39.1	44.5	68.4	112.4	125.6	138.4	148.2

80-77-X M314



12.0" Radius, 2.0" Border, White on Green;
 [S OUTH] E; [Altoona] E Mod; [Des Moines] E Mod;
 12.0" Radius, 1.5" Border, 0.5" Indent, Black on Yellow;
 [EXIT] E Mod specified length; Down Arrow II-A - 22.0° 270°;
 [ONLY] E Mod specified length;

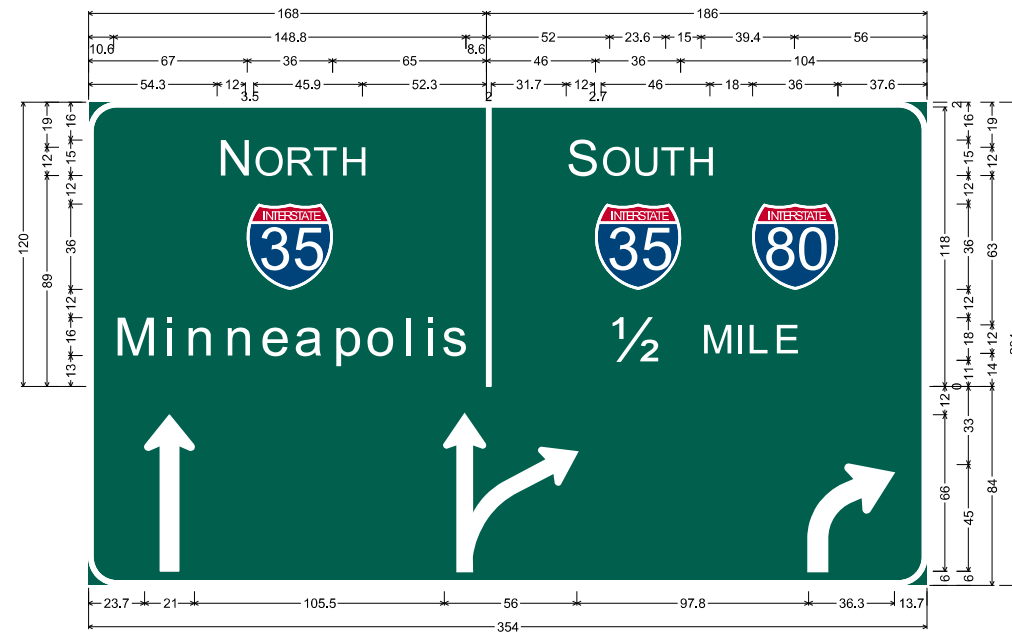
Table of letter and object lefts.

28.7	S	O	U	T	H			
82.7	99.3	112.4	124.4	135.7				
A	i	t	o	n	a			
39.6	59.8	67.3	79.1	93.2	108.8	124.1		
D	e	s	M	o	i	n	e	s
16.3	33.2	47.0	73.3	93.5	109.1	118.3	133.6	147.4
E	X	I	T	↓	O	N	L	Y
13.8	25.7	39.1	44.5	68.4	112.4	125.6	138.4	148.2

NOTE: SIGN DIMENSIONS ARE IN INCHES

SIGN
DETAILS

235-77-X M1000_STAGE_5



12.0" Radius, 2.0" Border, White on Green;
"NORTH", E: "Minneapolis", E;

12.0" Radius, 2.0" Border, White on Green;
"SOUTH", E: "1/2 MILE", E;

12.0" Radius, 2.0" Border, White on Green;
Arrow Custom - 66.0° 90°; 30D: 48A;

Table of letter and object lefts

N	O	R	T	H						
54.3	69.8	82.8	94.8	106.1						
↓										
M	i	n	n	e	a	p	o	i	s	
10.6	31.9	40.8	57.3	72.6	86.7	103.2	117.0	132.6	141.8	149.1
I	S	O	U	T	H	↓				
168.0	201.7	216.4	229.5	241.5	252.8	280.4				
↓										
1/2	M	I	L	E						
220.0	258.6	272.8	278.0	289.2						
↑	↓	↓								
23.7	150.2	304.0								

35/80-77-X R107



3.0" Radius, 1.3" Border, 0.8" Indent, Black on Yellow;

[LEFT] E specified length;

12.0" Radius, 2.0" Border, White on Green;

[S OUTH] E: [W EST] E: [Kansas City] E Mod: [Council Bluffs] E Mod;

Down Arrow 22.0° 270°;

Table of letter and object lefts.

L	E	F	T									
14.6	26.3	37.9	48.6									
S	O	U	T	H	W	E	S	T				
41.0	57.6	70.6	82.7	94.0	122.5	142.9	154.1	166.2				
↓												
54.3	130.8											
K	a	n	s	a	s	C	i	t	y			
31.8	48.0	64.5	79.3	93.1	107.9	134.2	152.2	159.7	171.1			
C	o	u	n	c	i	l	B	i	u	f	s	
17.7	34.7	50.3	66.8	82.1	97.5	106.6	125.7	144.1	153.3	168.4	178.3	188.0
↓												
92.0												

NOTE: SIGN DIMENSIONS ARE IN INCHES

SIGN
DETAILS

35/80-77-X R108



12.0" Radius, 2.0" Border, White on Green;
 [E AST] E; [Davenport] E Mod;
 Table of letter and object lefts.

Ⓢ	E	A	S	T				
28.5	82.5	98.2	112.6	124.7				
D	a	v	e	n	p	o	r	t
17.8	34.7	49.5	64.7	80.1	96.7	110.5	126.1	136.1

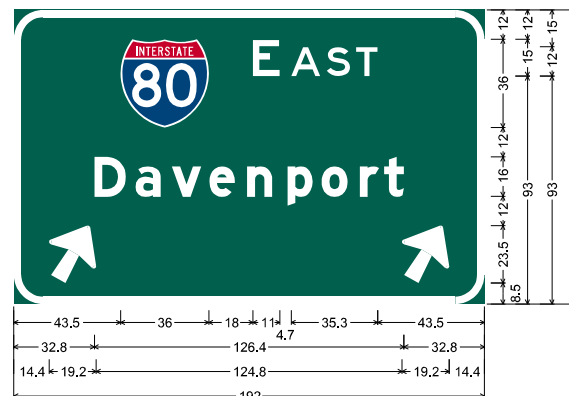
35/80-77-X R109



3.0" Radius, 1.3" Border, 0.8" Indent, Black on Yellow;
 [LEFT] E specified length;
 12.0" Radius, 2.0" Border, White on Green;
 [S OUTH] E; [W EST] E; [Kansas City] E Mod; [Council Bluffs] E Mod;
 Arrow 8 - 25.0" 120°;
 Table of letter and object lefts.

L	E	F	T									
14.6	26.3	37.9	48.6									
S	O	U	T	H	W	E	S	T				
41.0	57.6	70.6	82.7	94.0	122.5	142.9	154.1	166.2				
Ⓢ	Ⓢ											
54.3	130.8											
K	a	n	s	a	s	C	i	t	y			
31.8	48.0	64.5	79.3	93.1	107.9	134.2	152.2	159.7	171.1			
C	o	u	n	c	i	B	i	u	f	f	s	
17.7	34.7	50.3	66.8	82.1	97.5	106.6	125.7	144.1	153.3	168.4	178.3	188.0
Ⓢ												
98.4												

35/80-77-X R110

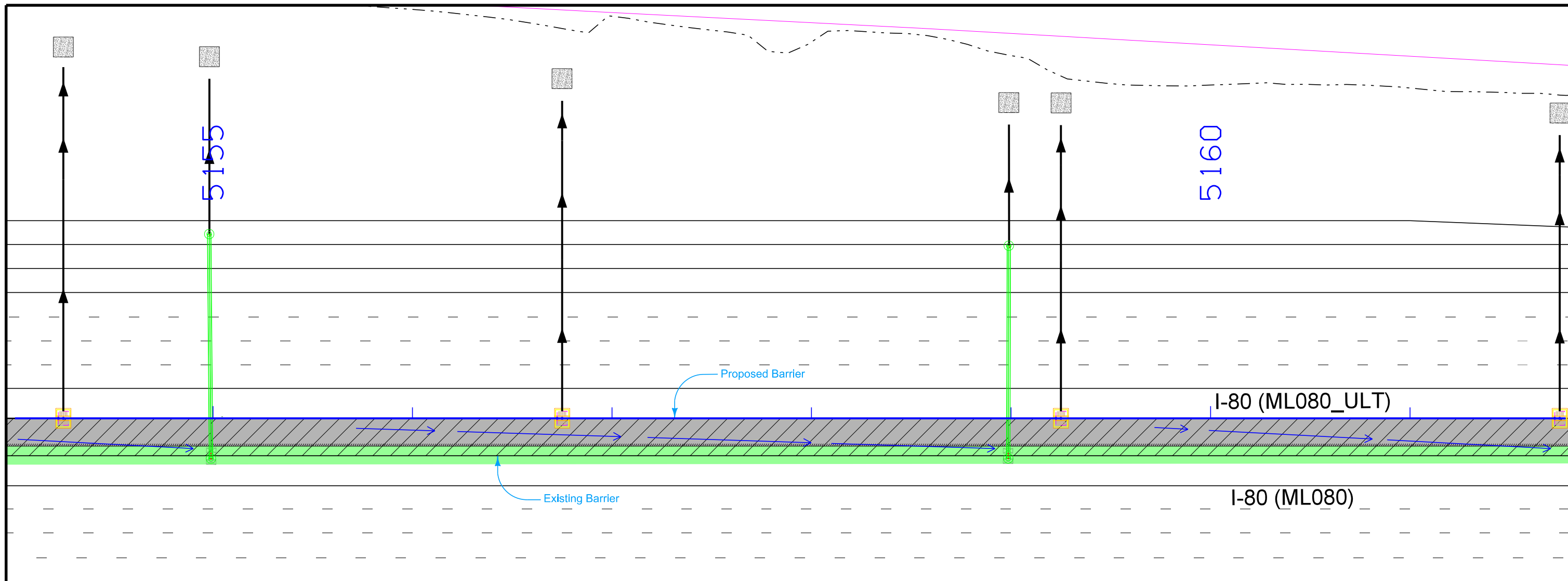


12.0" Radius, 3.0" Border, White on Green;
 [E AST] E; [Davenport] E Mod; Arrow 8 - 25.0" 60°;
 Arrow 8 - 25.0" 60°;
 Table of letter and object lefts.

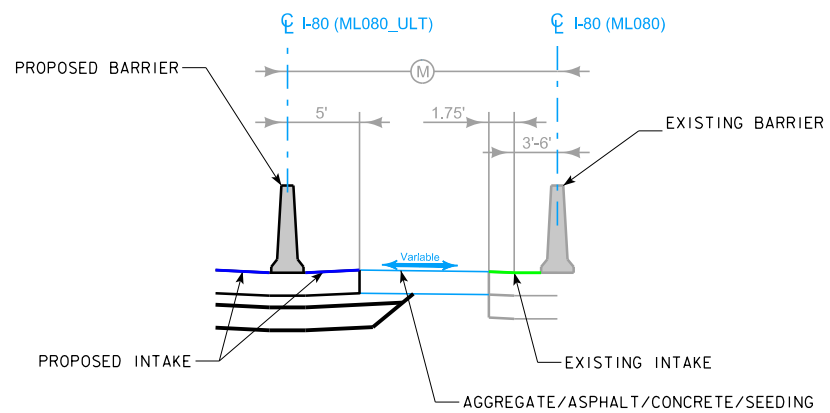
Ⓢ	E	A	S	T				
43.5	97.5	113.2	127.6	139.7				
D	a	v	e	n	p	o	r	t
32.8	49.7	64.5	79.7	95.1	111.7	125.5	141.1	151.1
Ⓢ	Ⓢ							
14.4	158.4							

NOTE: SIGN DIMENSIONS ARE IN INCHES

SIGN
DETAILS



TYPICAL SECTION



LEGEND

- Median Surfacing (Seeding/Aggregate/Concrete/Asphalt)
- Existing Pavement
- Proposed Intake
- Existing Intake
- Sawcut Line
- Flow Direction
- Drainage Area



MEDIAN DRAINAGE
DETAIL



WESTBOUND I-80

Sta. 1178+25 (ML080)
Centerline of Crossing

Proposed Pavement

Movable Barrier Gate (Raising)

1177

18.75'

Full Barrier (Proposed)

Full Barrier (Existing)

Unpinned Barrier

1178

30'

Unpinned Barrier

Crash Cushion

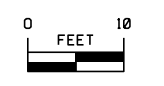
1179

Full Barrier (Existing)

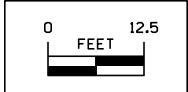
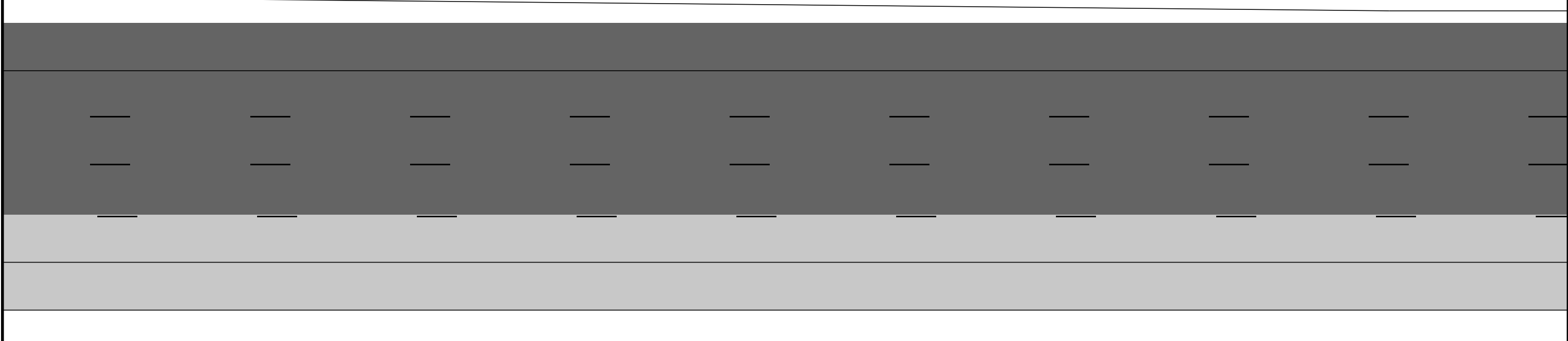
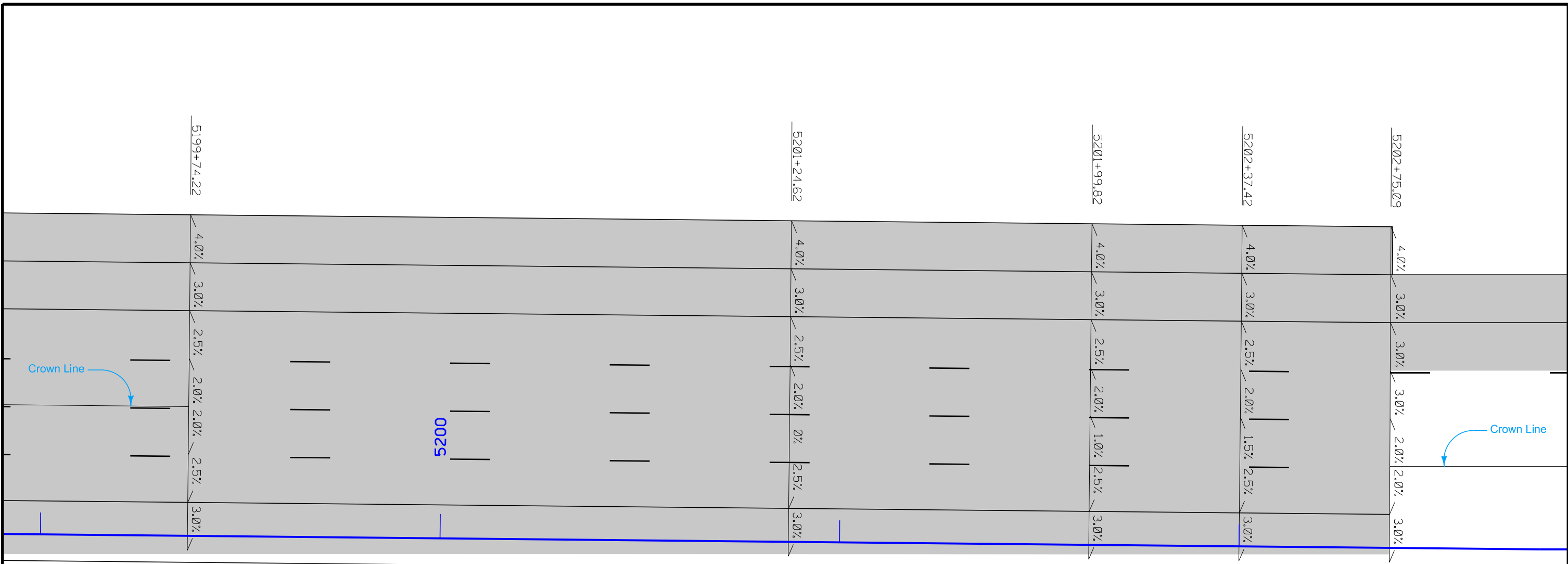
Full Barrier (Proposed)

Existing Pavement

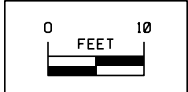
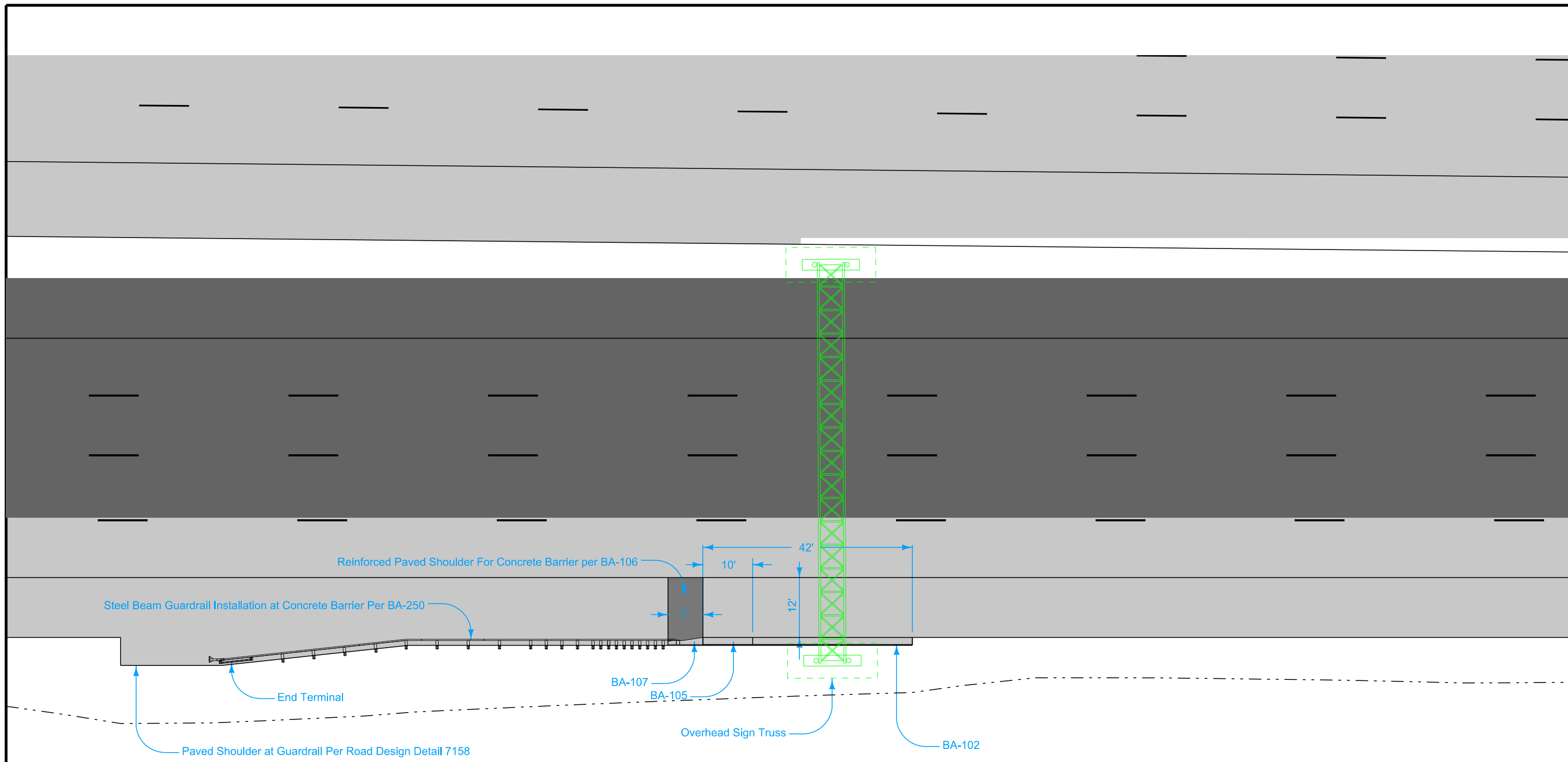
EASTBOUND I-80



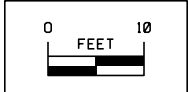
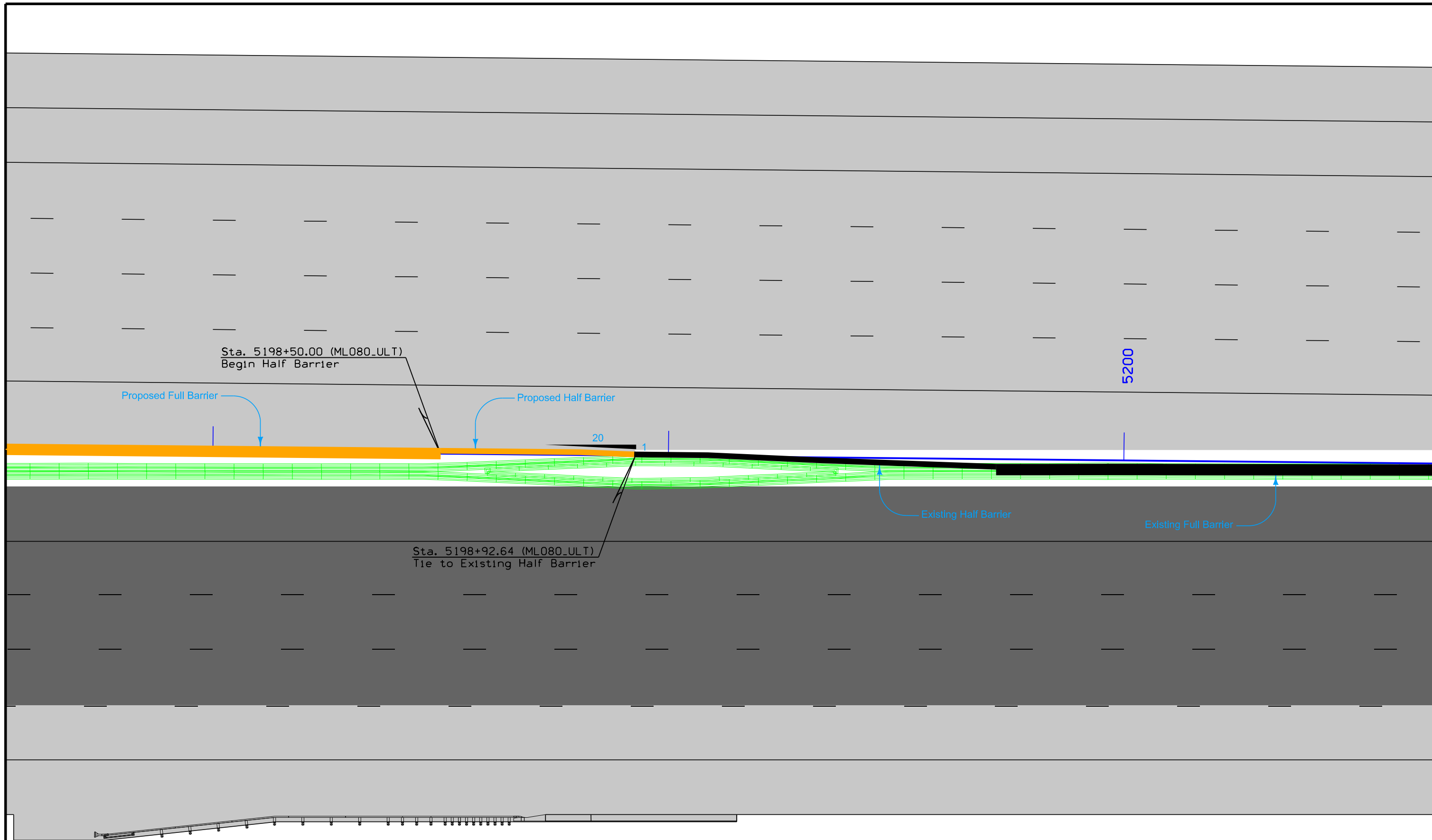
MEDIAN BARRIER GATE



ML080 (WESTBOUND)
CROWN TRANSITION

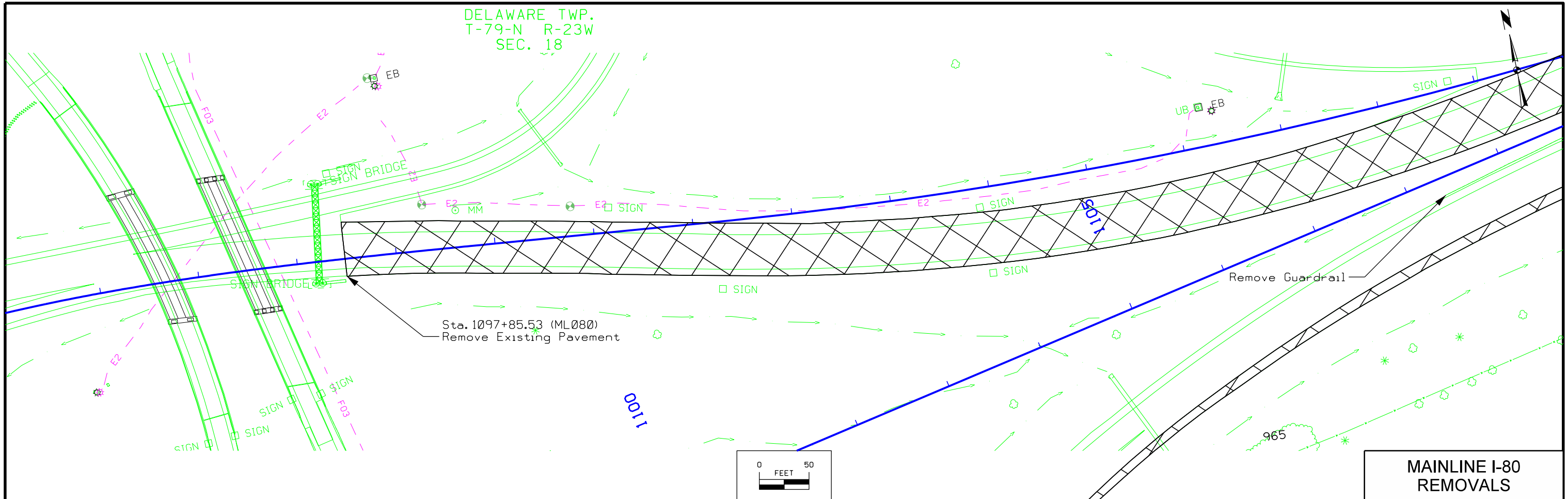


DMS
PROTECTION PLAN



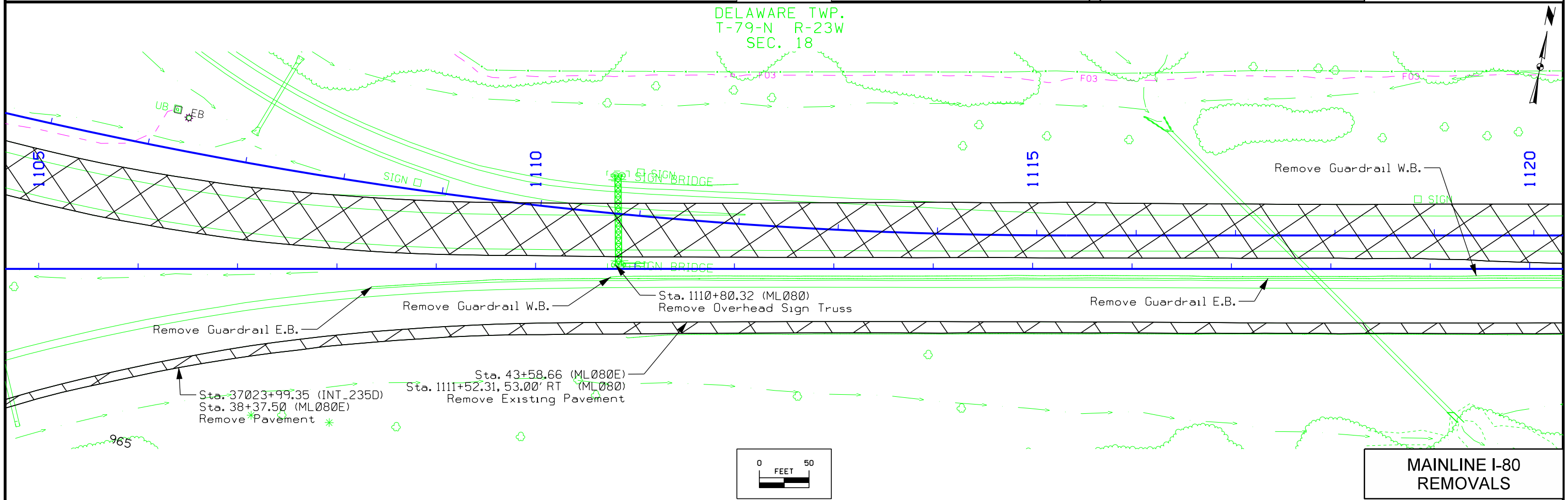
Barrier Transition
into Existing Barrier

DELAWARE TWP.
T-79-N R-23W
SEC. 18

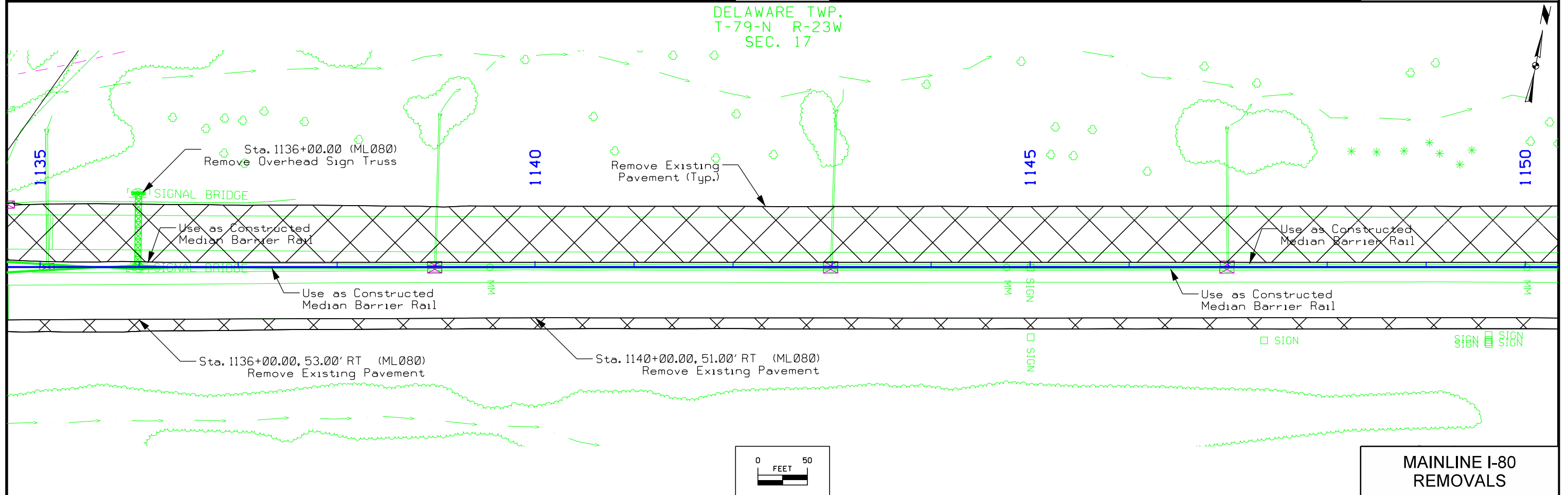
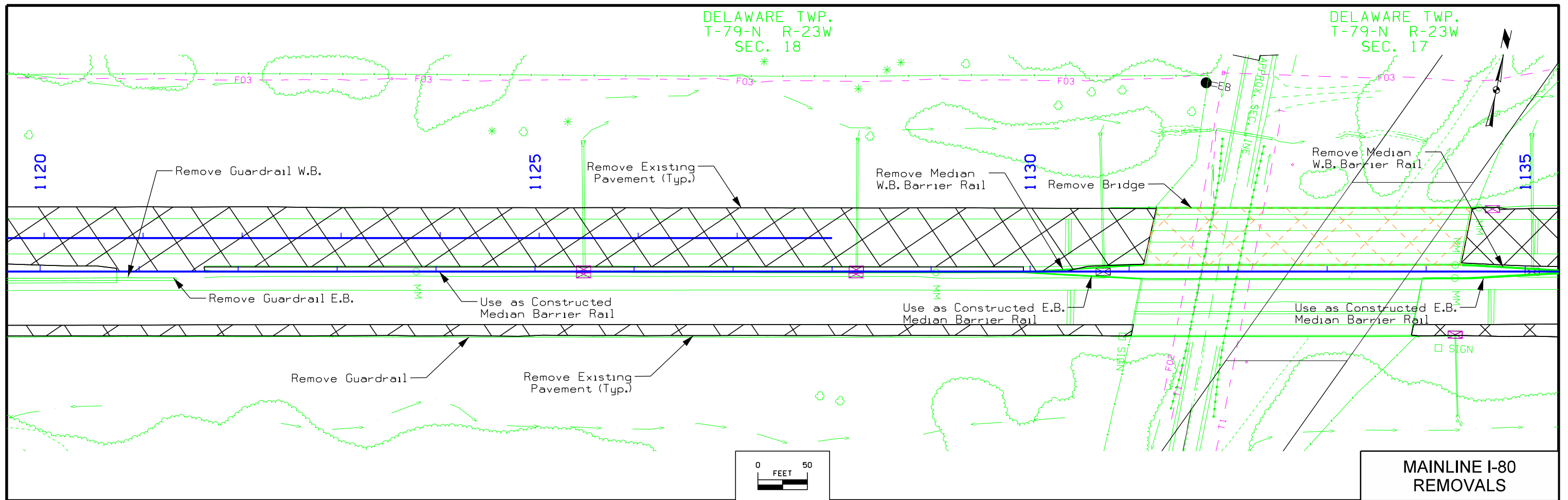


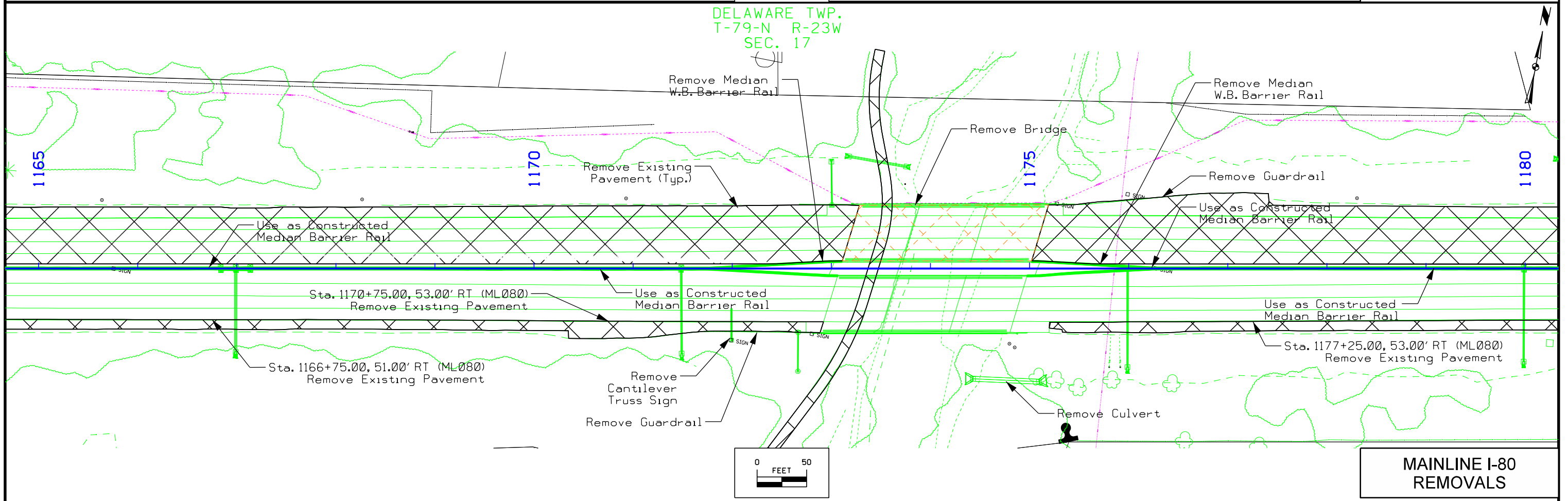
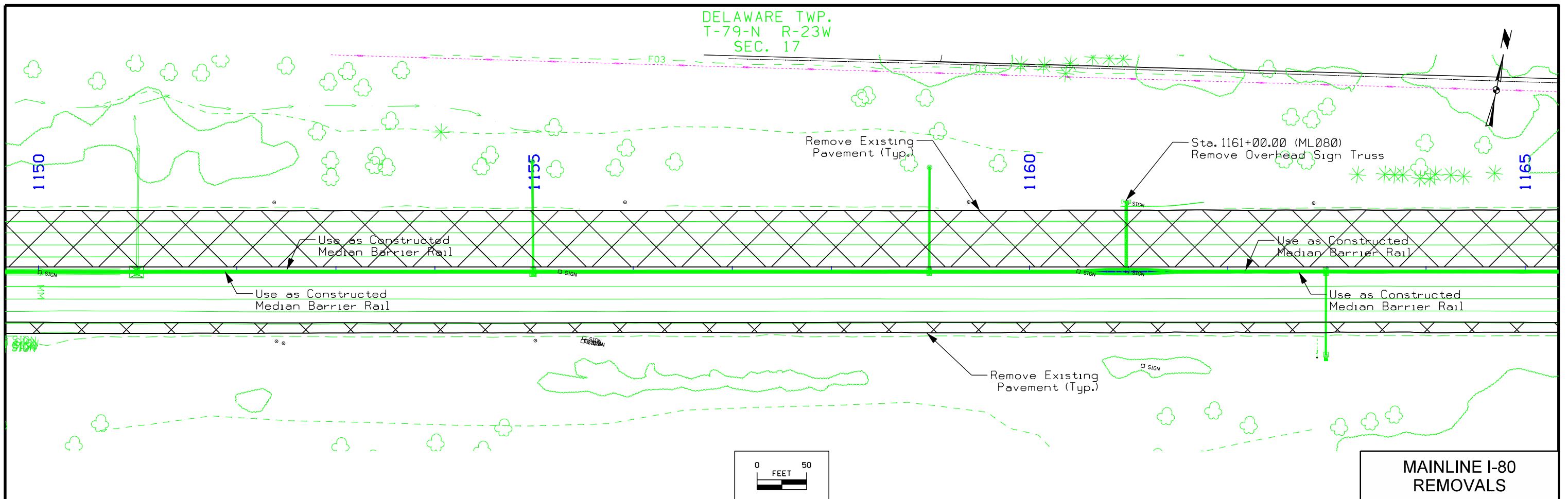
MAINLINE I-80
REMOVALS

DELAWARE TWP.
T-79-N R-23W
SEC. 18



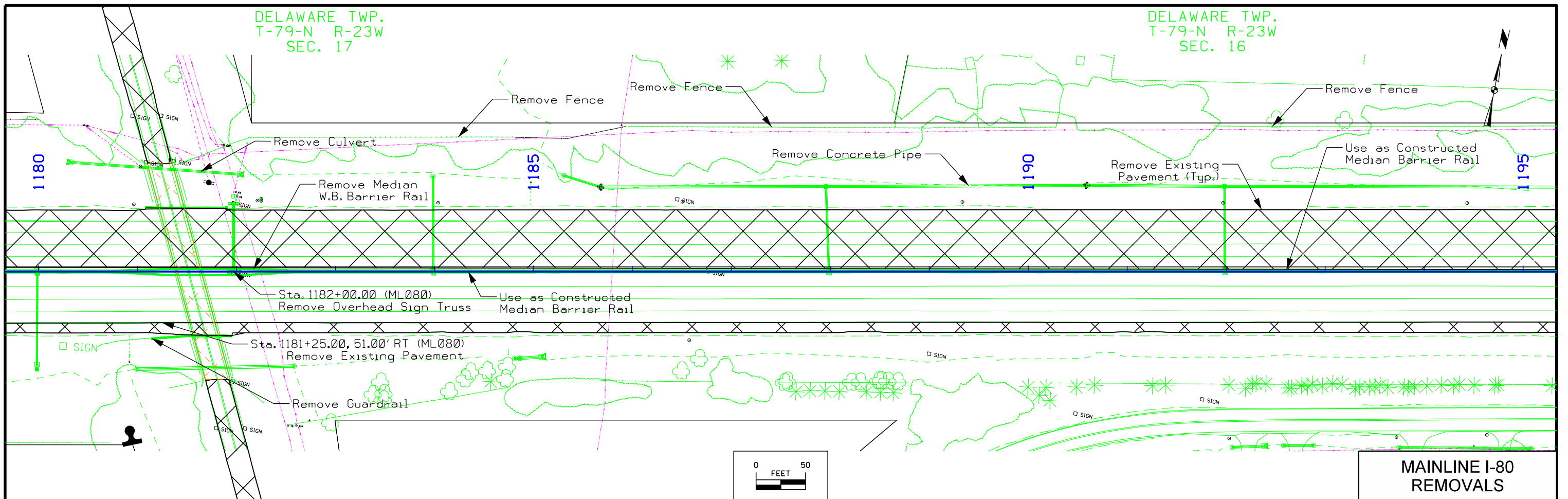
MAINLINE I-80
REMOVALS





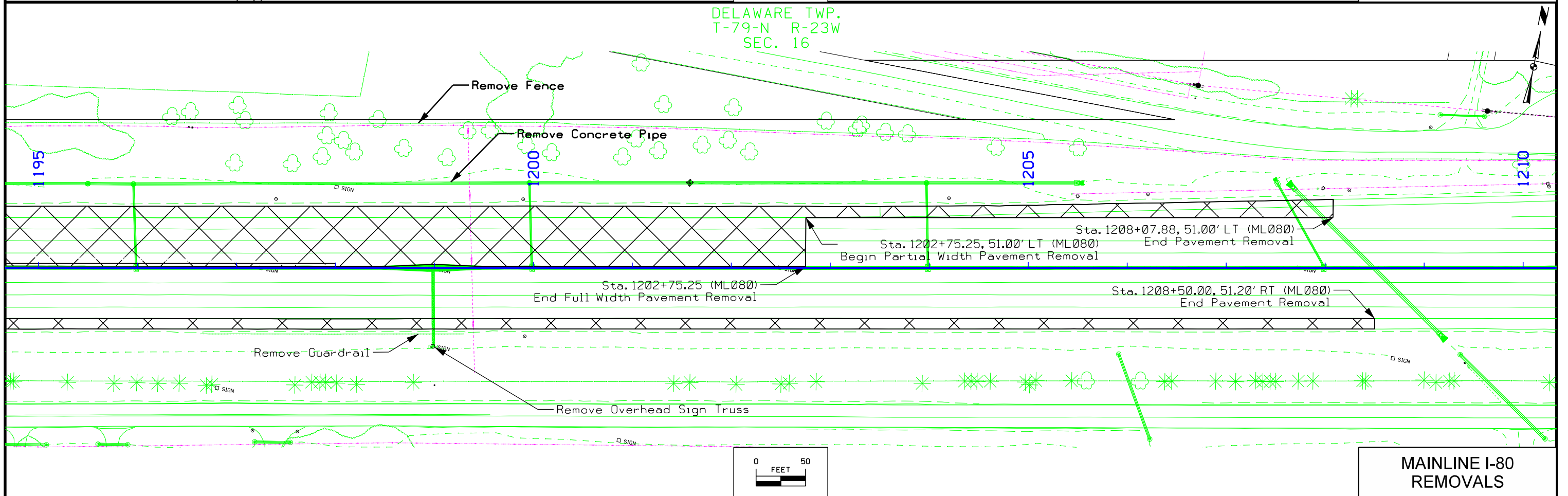
DELAWARE TWP.
T-79-N R-23W
SEC. 17

DELAWARE TWP.
T-79-N R-23W
SEC. 16

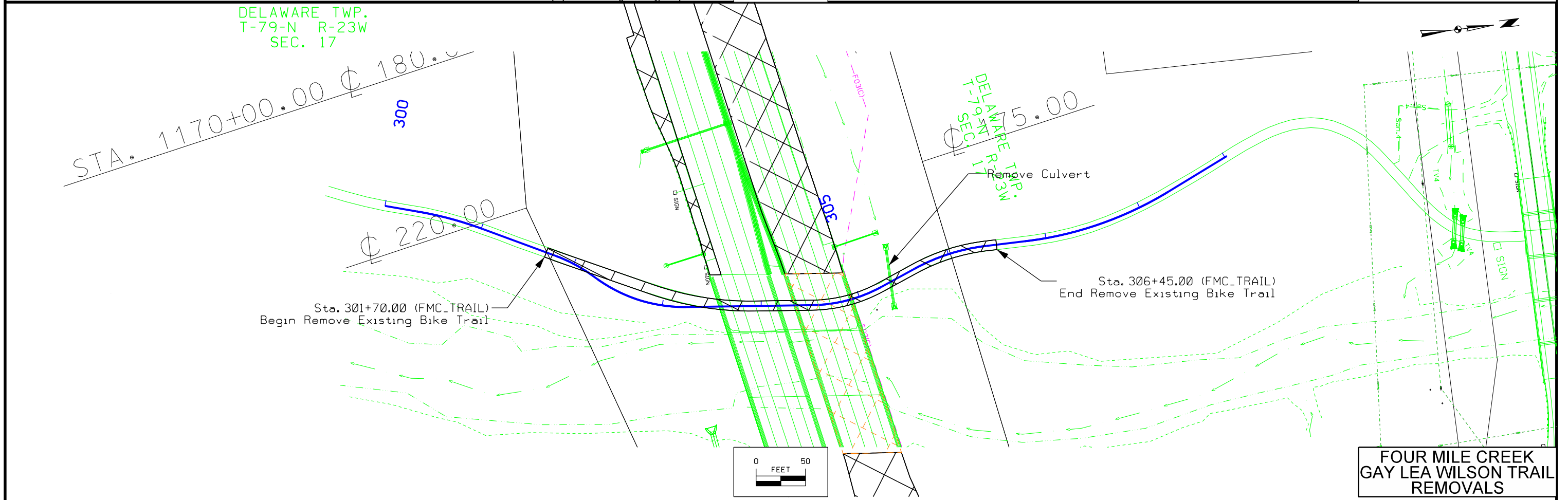
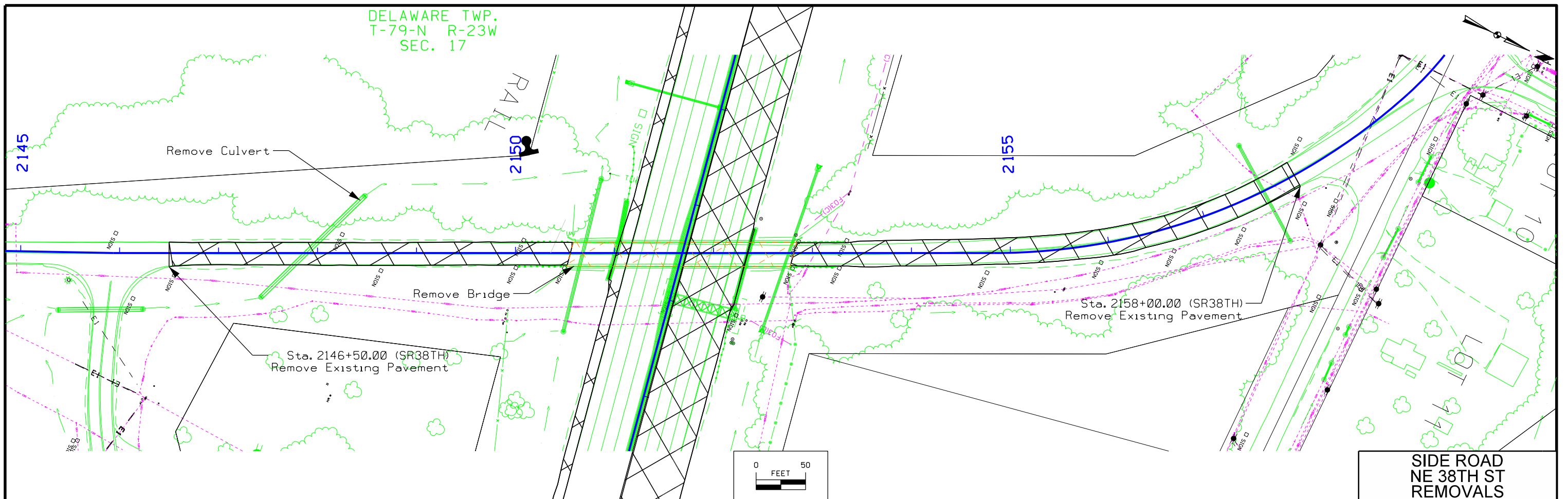


MAINLINE I-80
REMOVALS

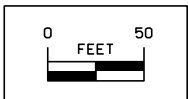
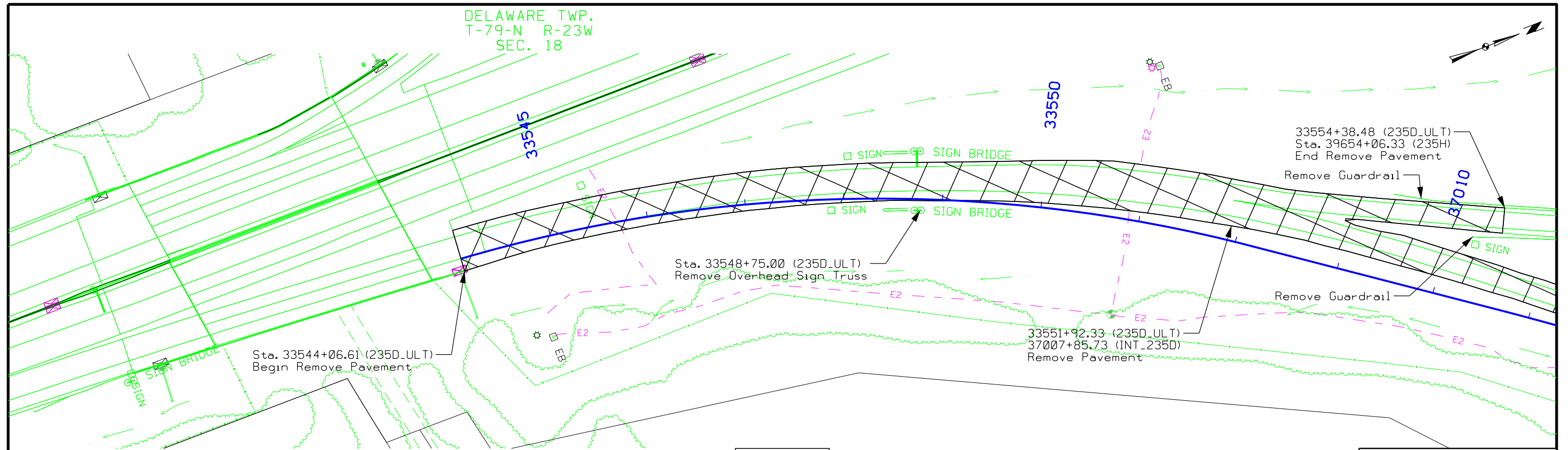
DELAWARE TWP.
T-79-N R-23W
SEC. 16



MAINLINE I-80
REMOVALS

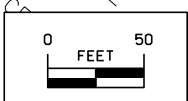
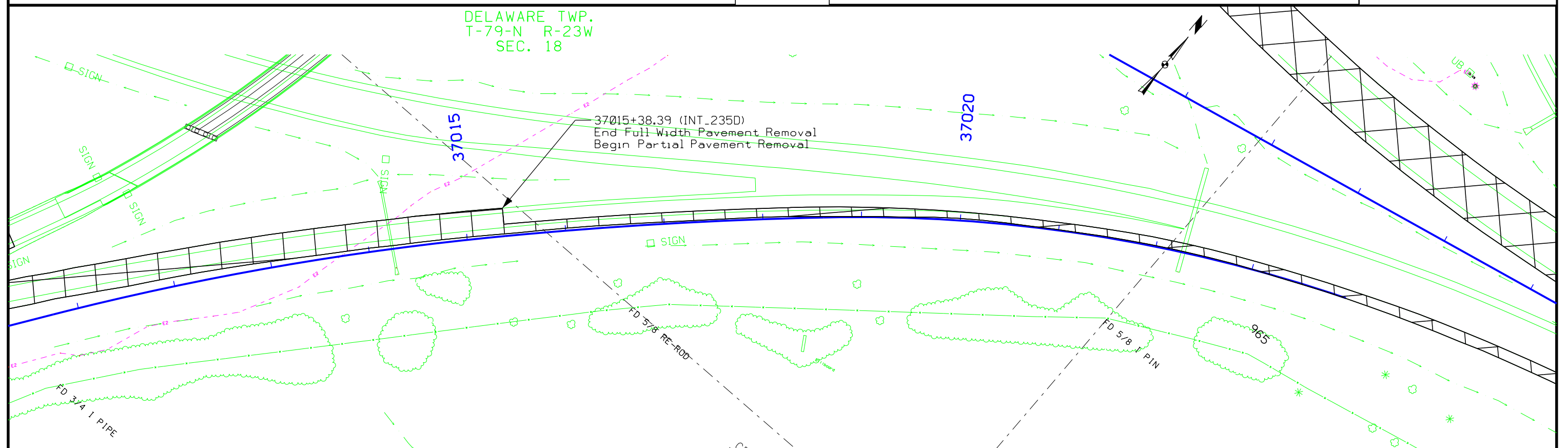


DELAWARE TWP.
T-79-N R-23W
SEC. 18

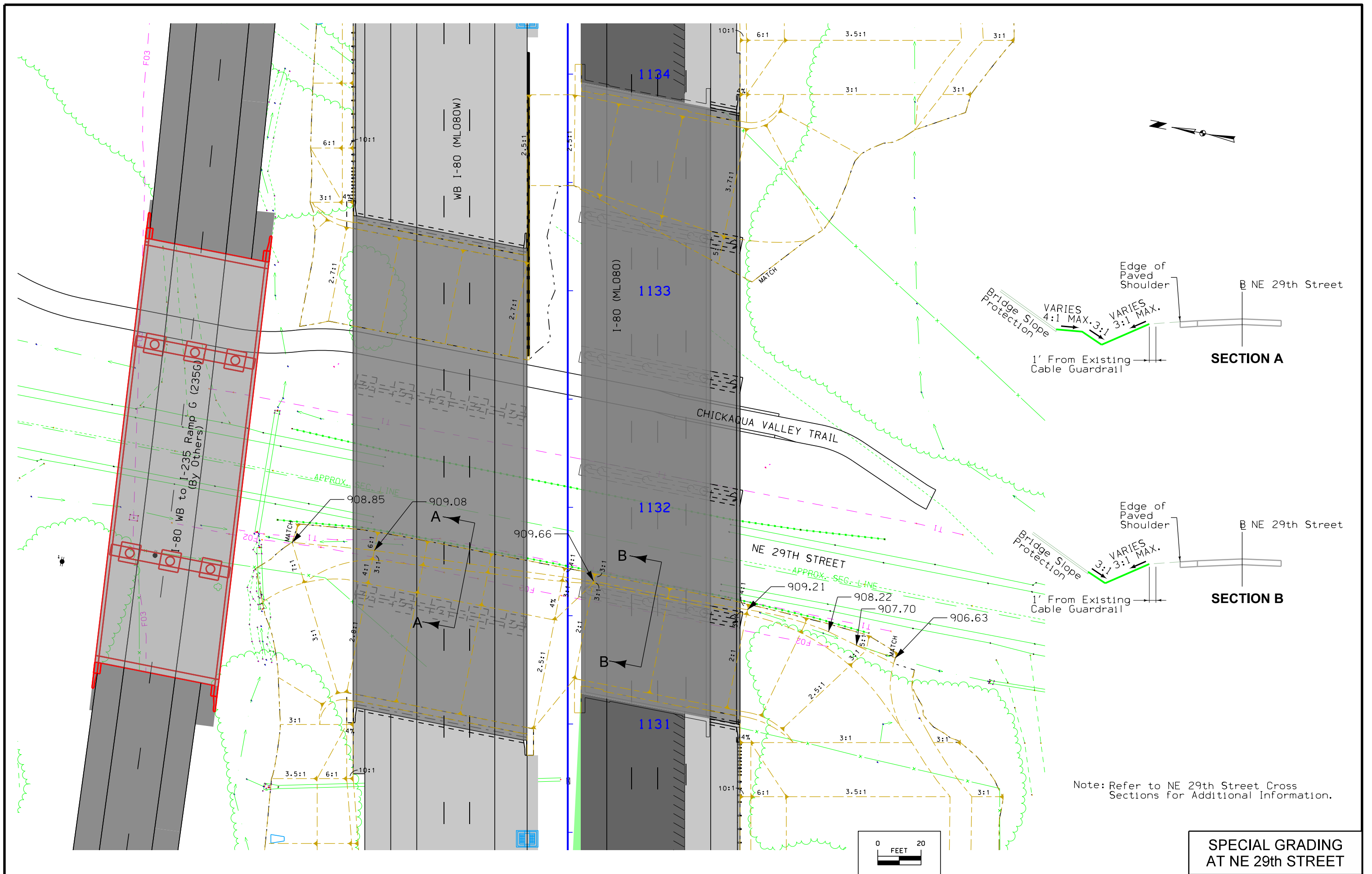


**RAMP D
REMOVALS**

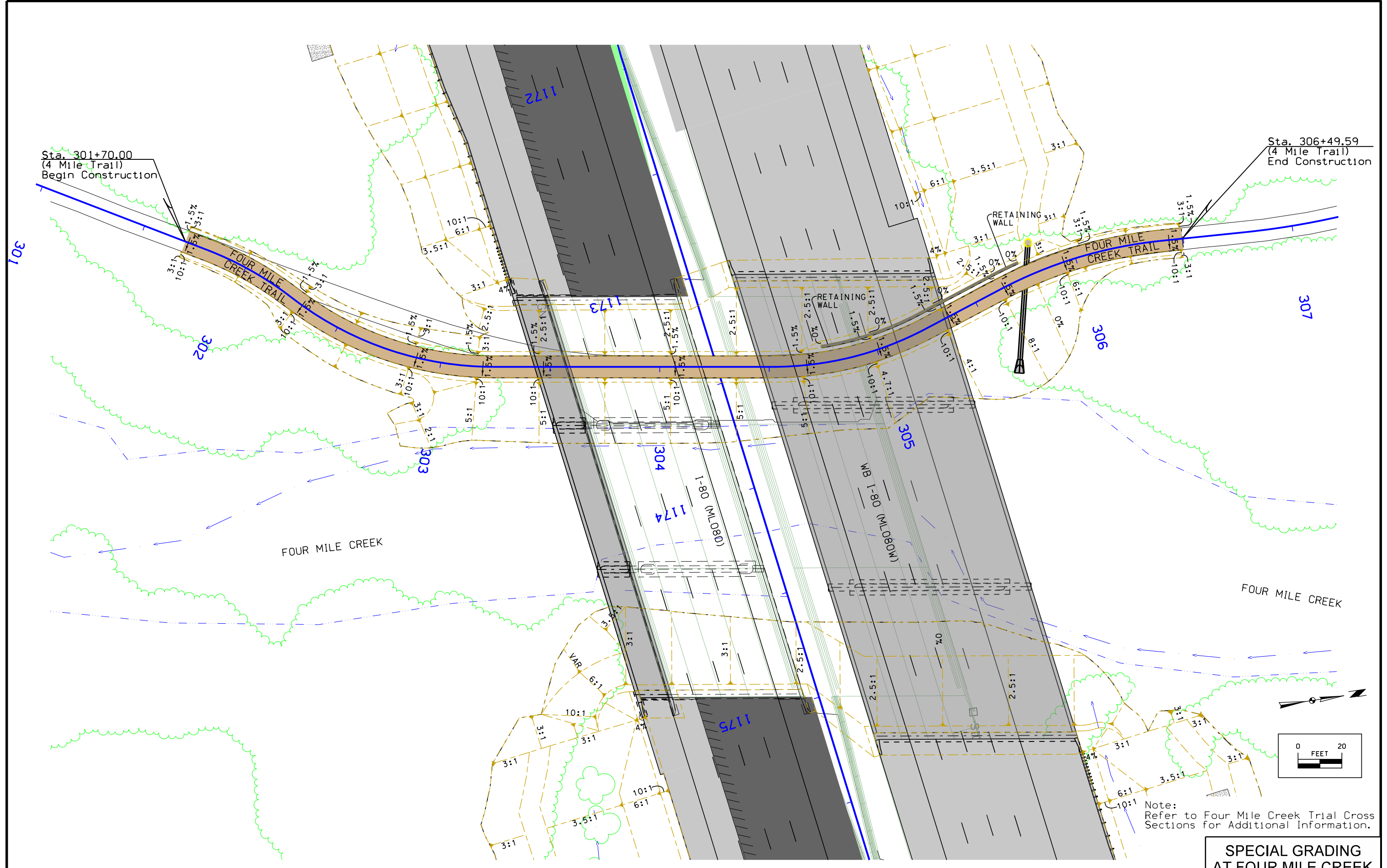
DELAWARE TWP.
T-79-N R-23W
SEC. 18



**RAMP D
REMOVALS**



**SPECIAL GRADING
AT NE 29th STREET**



Sta. 301+70.00
(4 Mile Trail)
Begin Construction

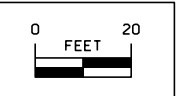
Sta. 306+49.59
(4 Mile Trail)
End Construction

FOUR MILE CREEK TRAIL

FOUR MILE CREEK TRAIL

FOUR MILE CREEK

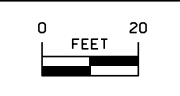
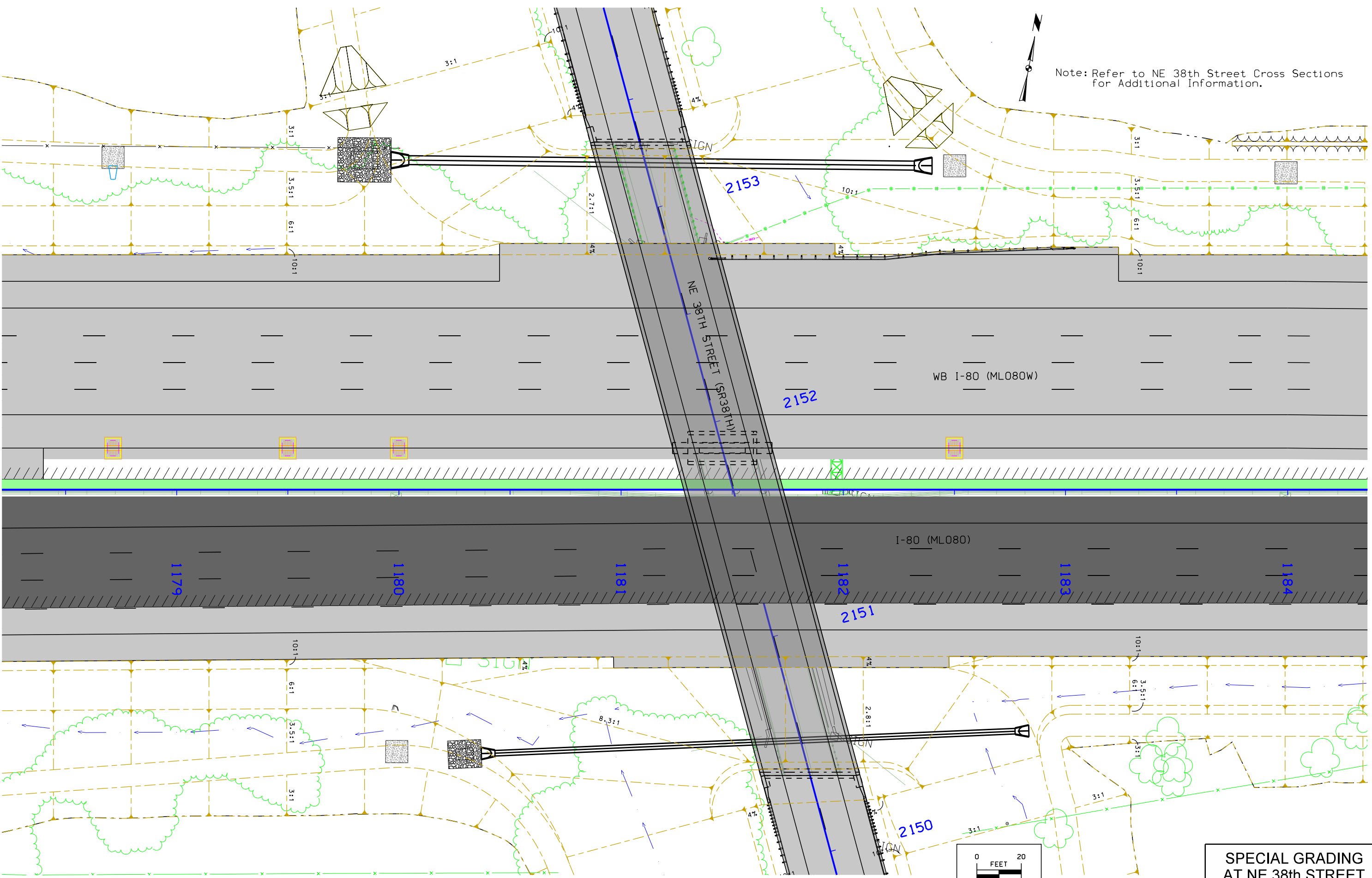
FOUR MILE CREEK



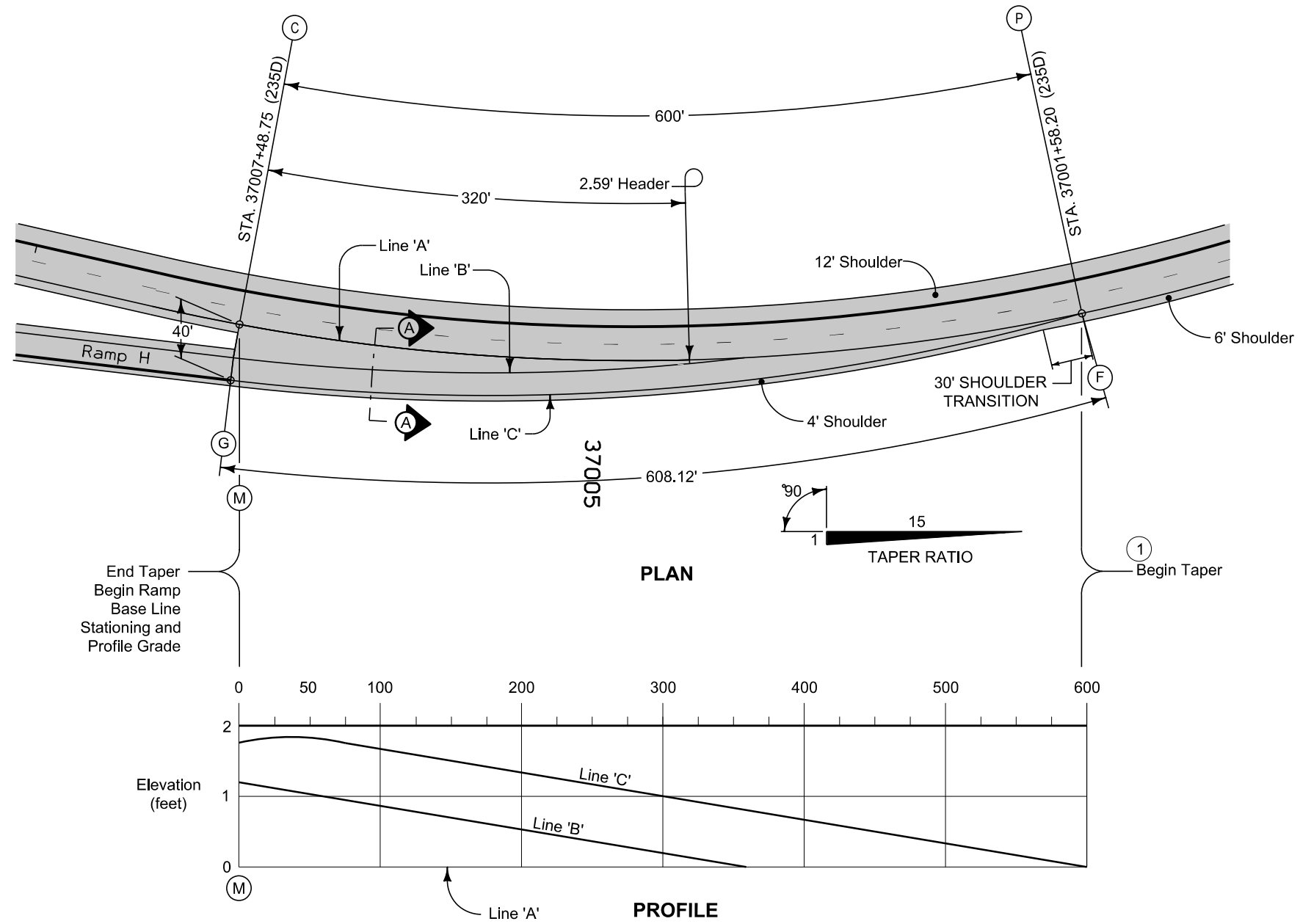
Note:
Refer to Four Mile Creek Trail Cross
Sections for Additional Information.

**SPECIAL GRADING
AT FOUR MILE CREEK**

Note: Refer to NE 38th Street Cross Sections for Additional Information.



**SPECIAL GRADING
AT NE 38th STREET**



Refer to detail project plans for mainline and ramp alignment and grade data.
 Construct ramp exit pavement the same thickness as mainline pavement.
 Ramp exit pavement shown by shaded area is 1129 square yards.
 For jointing layout, see Standard Road Plan PV-411.
 This design is based on 60 mph design speed at e max = 6%.

- ① For header construction details at the beginning of taper see Typical 7101.
- ② Construct subbase for ramp exit pavement the same thickness as mainline subbase.

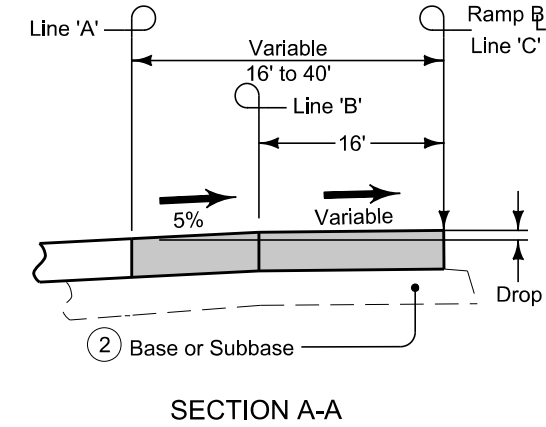
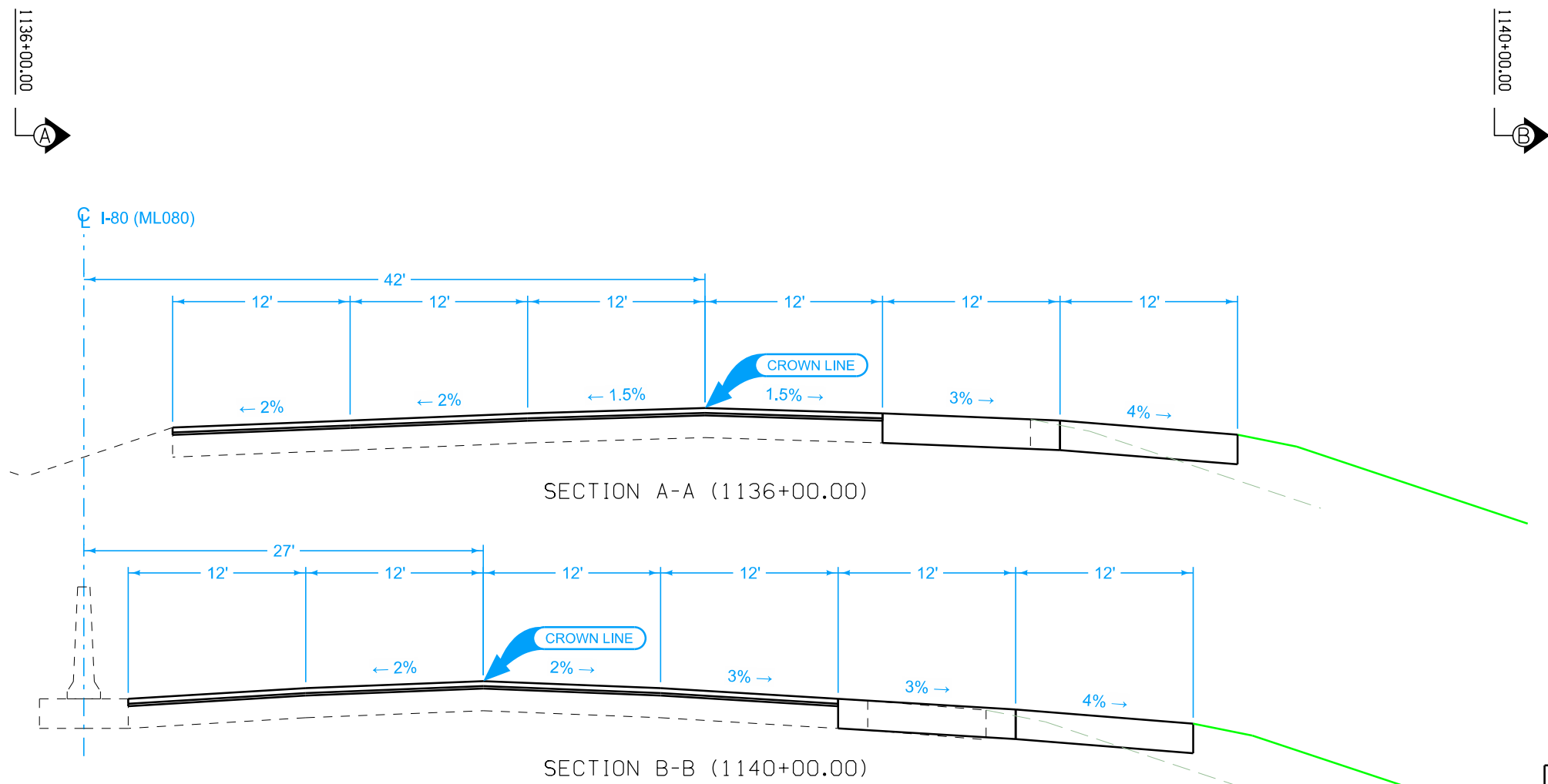
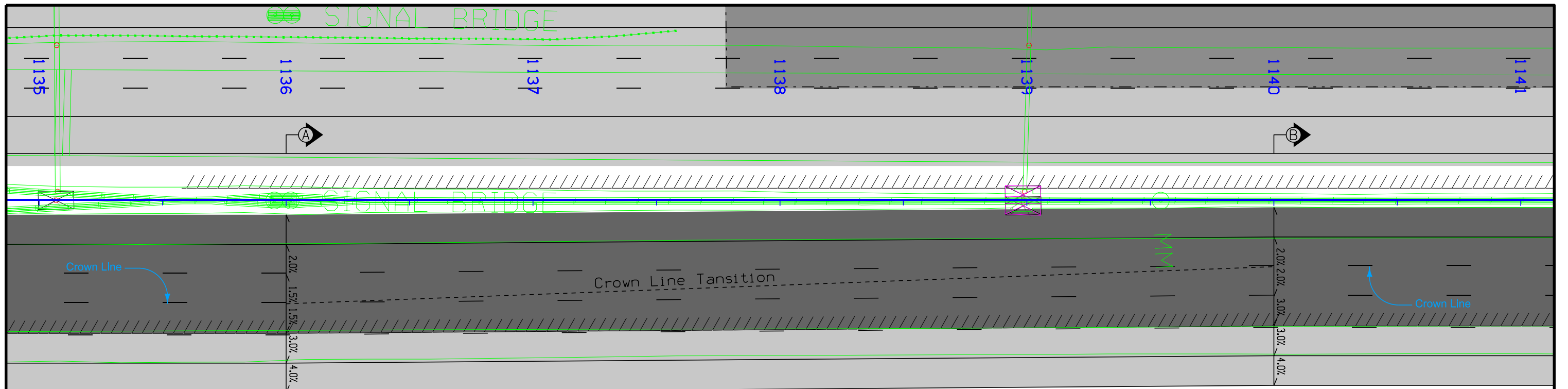


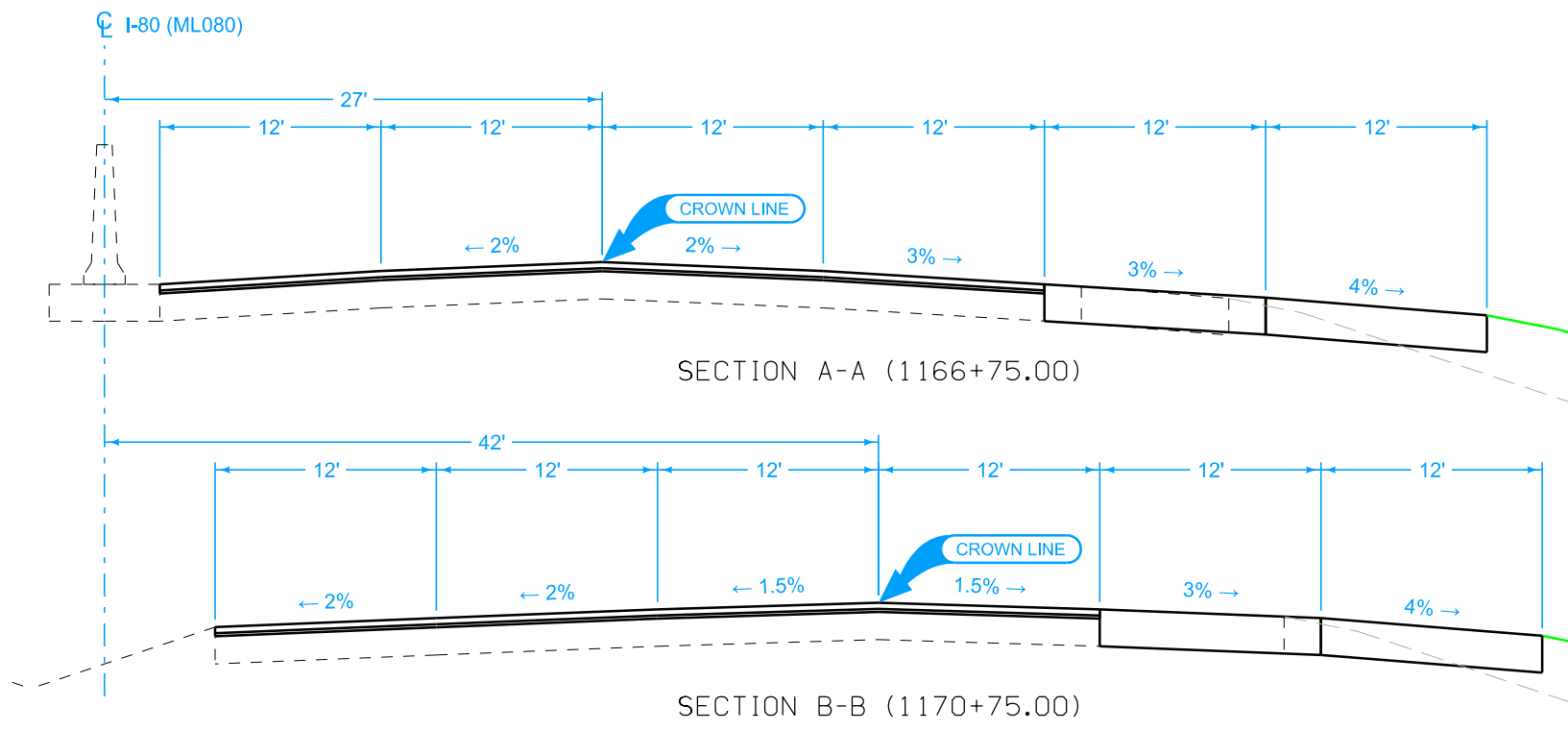
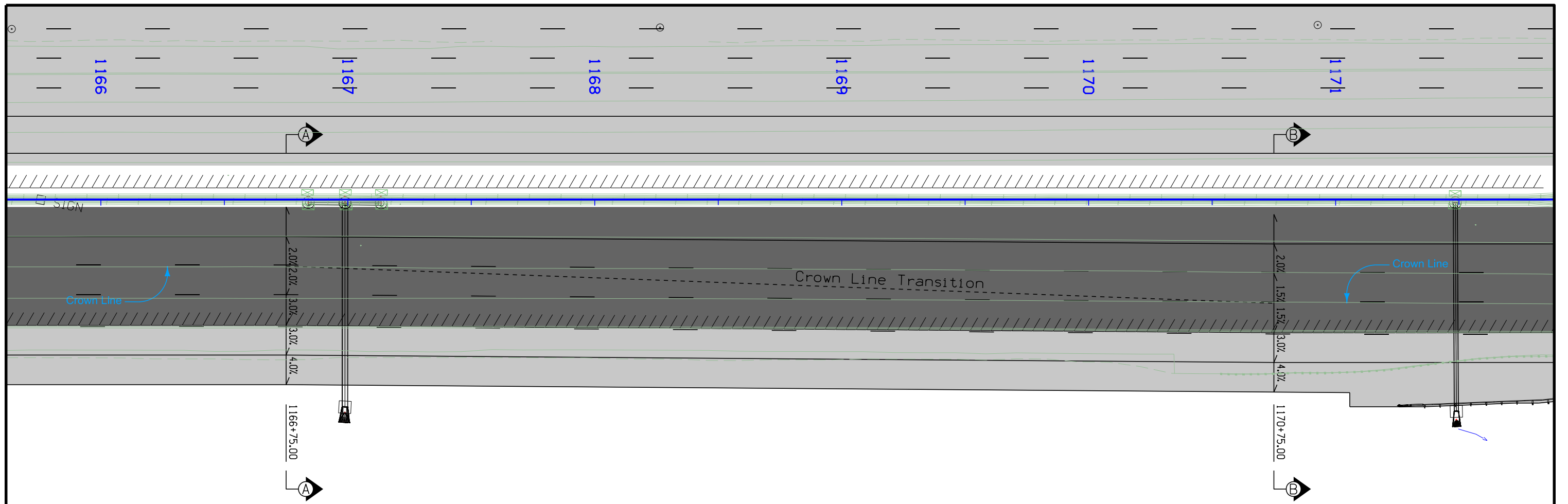
TABLE OF OFFSETS AND DROPS FOR 16' RAMP TAPER

DISTANCE FROM POINT (C) ALONG LINE 'A' (Ft.)		0	25	50	75	100	125	150	175	200	225	250	275	300	325	350	359	375	400	425	450	475	500	525	550	575	600																					
From Line 'A' To Line 'B'	OFFSET (Ft.)	24.00	22.33	20.65	18.97	17.29	15.62	13.94	12.27	10.59	8.92	7.26	5.59	3.92	2.26	0.60	0																															
	SLOPE (%)	← Constant 5.0% Slope →																																														
	DROP (Ft.)	1.20	1.12	1.03	0.95	0.86	0.78	0.70	0.61	0.53	0.45	0.36	0.28	0.20	0.11	0.03	0																															
From Line 'B' To Line 'C'	OFFSET (Ft.)	← Constant 16' Offset →																																														
	SLOPE (%)	3.5	4.42	← Constant 5.0% Slope →																																												
	DROP (Ft.)	0.56	0.71	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80																														
From Line 'A' To Line 'C'	OFFSET (Ft.)																		14.92	13.26	11.59	9.94	8.27	6.62	4.96	3.30	1.65	0																				
	SLOPE (%)	← Constant 5.0% Slope →																																														
	DROP (Ft.)	1.76	1.83	1.83	1.75	1.66	1.58	1.50	1.41	1.33	1.25	1.16	1.08	1.00	0.91	0.83	0.80	0.75	0.66	0.58	0.50	0.41	0.33	0.25	0.17	0.08	0																					

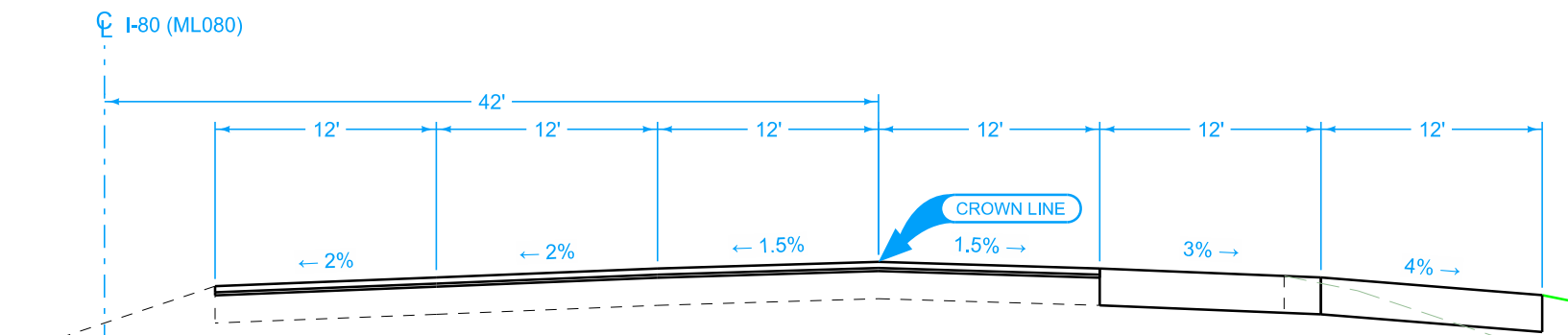
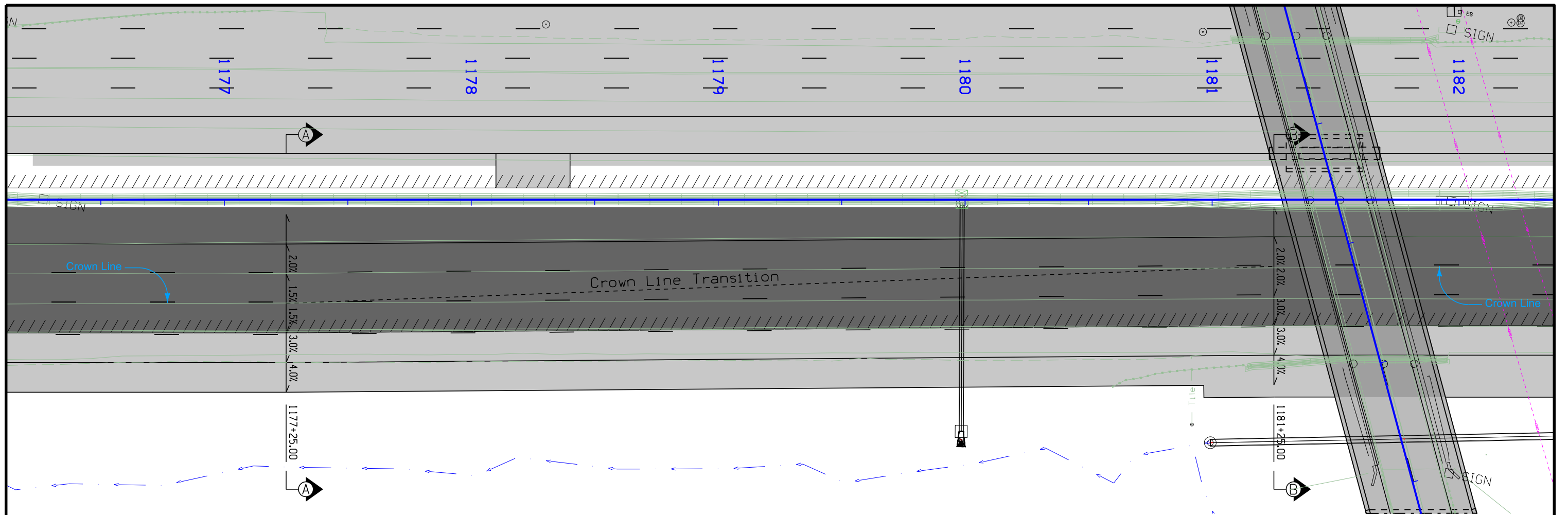
**ML235 NB
RAMP H - EXIT**



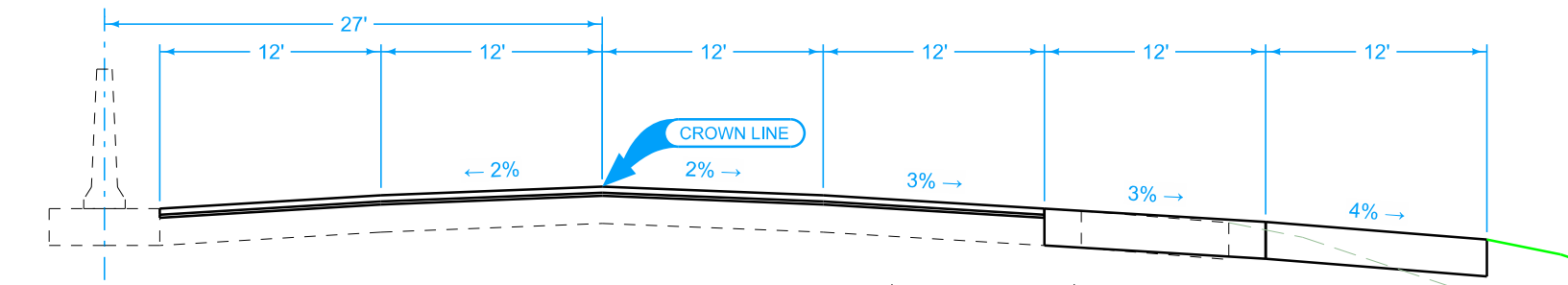
ML080 (EASTBOUND)
CROWN TRANSITION



**ML080 (EASTBOUND)
CROWN TRANSITION**

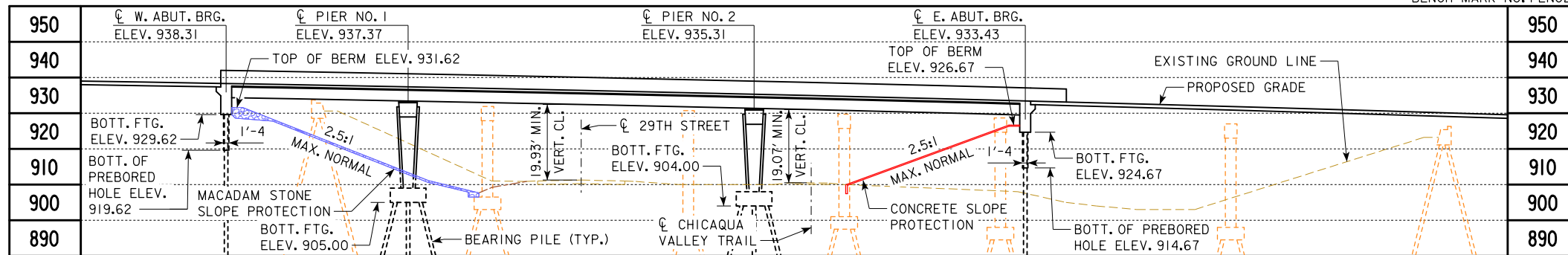


SECTION A-A (1177+25.00)



SECTION B-B (1181+25.00)

**ML080 (EASTBOUND)
CROWN TRANSITION**

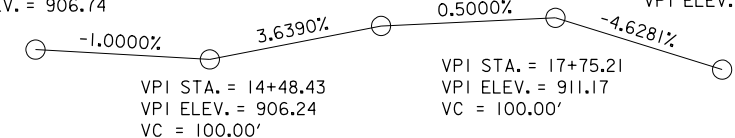


NOTES:
 THIS DESIGN IS FOR THE REPLACEMENT OF THE EXISTING 315'-5" X 56'-0" PPCB BRIDGE, POLK DESIGN 4658, FHWA NO. 041960, MAINTENANCE NO. 7738.7L080.
 ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
 ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE UNLESS NOTED OTHERWISE.
 TL-5 BRIDGE RAILING PROPOSED.
 PIER TYPE-FRAME; BEAM TYPE-BTB BEAM.
 BRIDGE AESTHETICS TO BE INCORPORATED IN FINAL DESIGN.
 BERM SLOPES TO BE CONFIRMED IN FINAL DESIGN.
 COLLISION REQUIREMENTS AT PIERS SHALL BE EVALUATED DURING FINAL DESIGN.

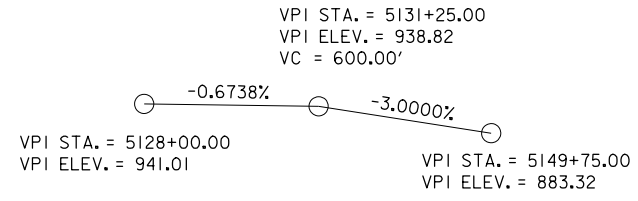
VPI STA. = 15+53.30
 VPI ELEV. = 910.06
 VC = 100.00'

VPI STA. = 13+98.43
 VPI ELEV. = 906.74

VPI STA. = 20+25.00
 VPI ELEV. = 899.61



PROPOSED PROFILE - CHICHAQUA VALLEY TRAIL



PROPOSED PROFILE - I-80 (ULTIMATE)

LOCATION

I-80 W.B. OVER 29TH ST.
 T-79N R-23W
 SECTIONS 17 & 18
 DELAWARE TOWNSHIP
 POLK COUNTY
 FHWA NO. XXXXX
 BRIDGE MAINT. NO. XXXXX
 LATITUDE 41.654427°
 LONGITUDE -93.560996°

TRAFFIC ESTIMATE

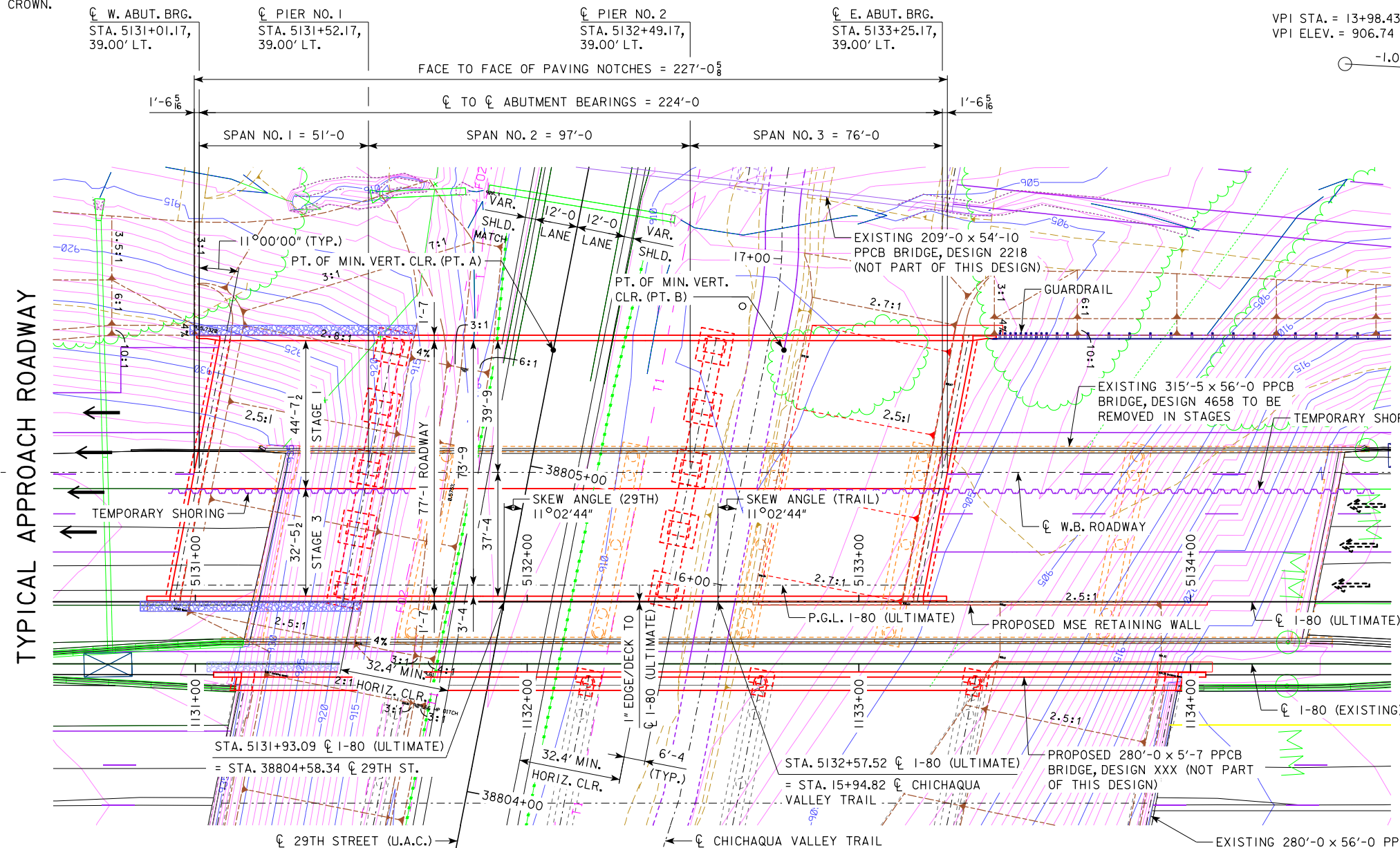
2021 AADT	33,600	V.P.D.
2041 AADT	32,800	V.P.D.
2041 DHV	3,580	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS	-	



DESIGN FOR 11° SKEW (L.A.)
224'-0" X 77'-1" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
 51'-0" & 76'-0" END SPANS 97'-0" INTERIOR SPAN
SITUATION PLAN
 STATION 5132+13.17 (CL I-80 ULTIMATE) NOVEMBER 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION
 DESIGN SHEET NO. 1 OF 3 FILE NO. 32061 DESIGN NO. 524

NOTE:
 TOP OF BRIDGE DECK AT CL W.B. ROADWAY IS 0.81' ABOVE THE PROFILE GRADE TO ACCOUNT FOR DECK CROSS SLOPE AND PARABOLIC CROWN.

LONGITUDINAL SECTION ALONG CL W.B. ROADWAY



SITUATION PLAN

MINIMUM VERTICAL CLEARANCE (PT. A)

OVERHEAD STATION = 5132+08.09, 76.83' LT.
 OVERHEAD ELEVATION = 935.37
 DEPTH OF SUPERSTRUCTURE = 3.96'
 UNDERPASS STATION = 38805+36.63
 UNDERPASS ELEVATION = 911.48
 MINIMUM VERTICAL CLEARANCE = 19.93'

MINIMUM VERTICAL CLEARANCE (PT. B)

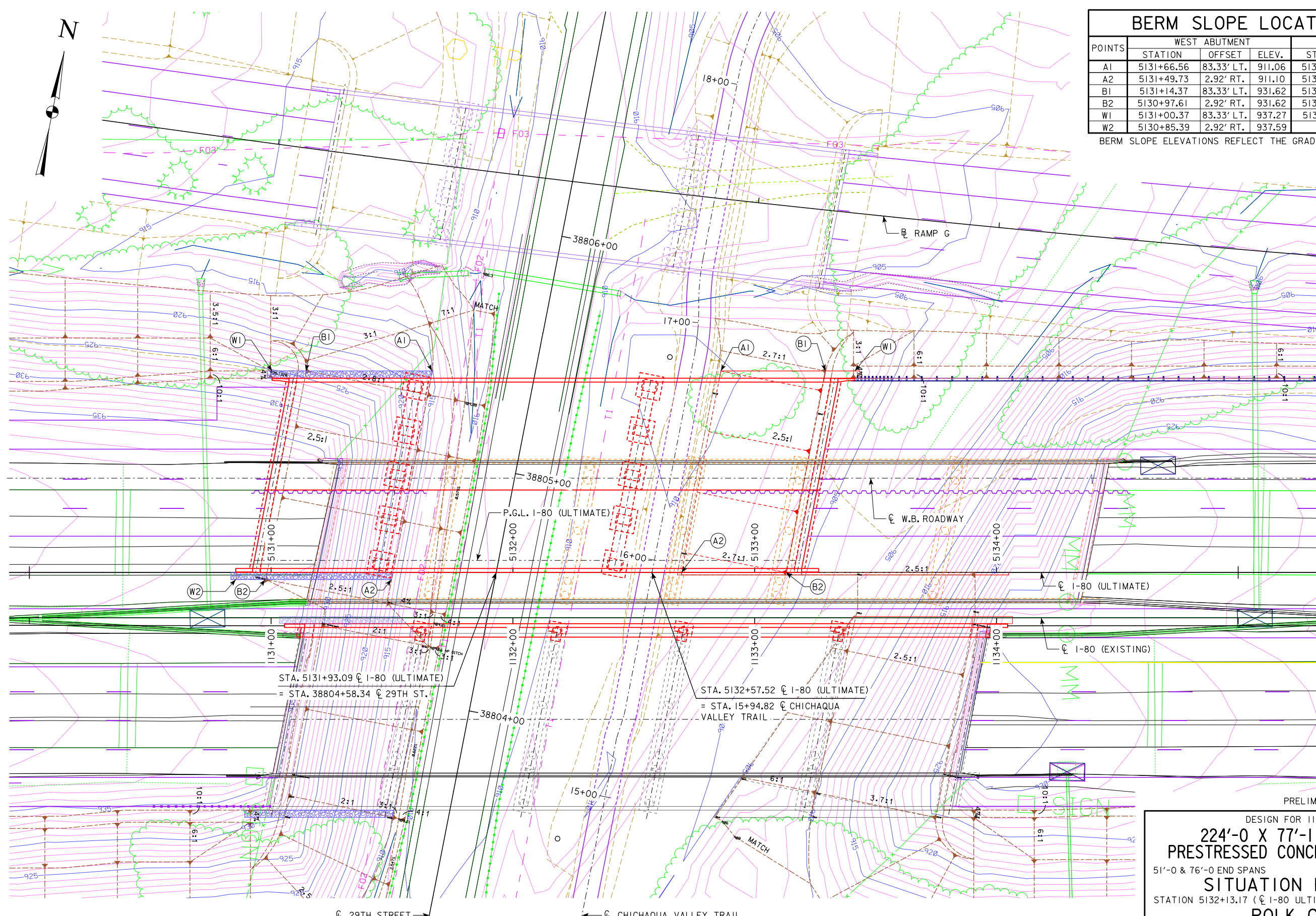
OVERHEAD STATION = 5132+77.62, 76.83' LT.
 OVERHEAD ELEVATION = 933.77
 DEPTH OF SUPERSTRUCTURE = 3.96'
 UNDERPASS STATION = 16+74.07
 UNDERPASS ELEVATION = 910.74
 MINIMUM VERTICAL CLEARANCE = 19.07'

UTILITIES LEGEND:

- T1 TELEPHONE (CENTURYLINK)
- F02 FIBER OPTIC (CENTURYLINK)

POINTS	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	5131+66.56	83.33' LT.	911.06	5132+86.02	83.33' LT.	910.43
A2	5131+49.73	2.92' RT.	911.10	5132+69.75	0.00'	910.00
B1	5131+14.37	83.33' LT.	931.62	5133+29.20	83.33' LT.	926.67
B2	5130+97.61	2.92' RT.	931.62	5133+13.01	0.00'	926.67
W1	5131+00.37	83.33' LT.	937.27	5133+41.43	83.33' LT.	931.95
W2	5130+85.39	2.92' RT.	937.59	--	--	--

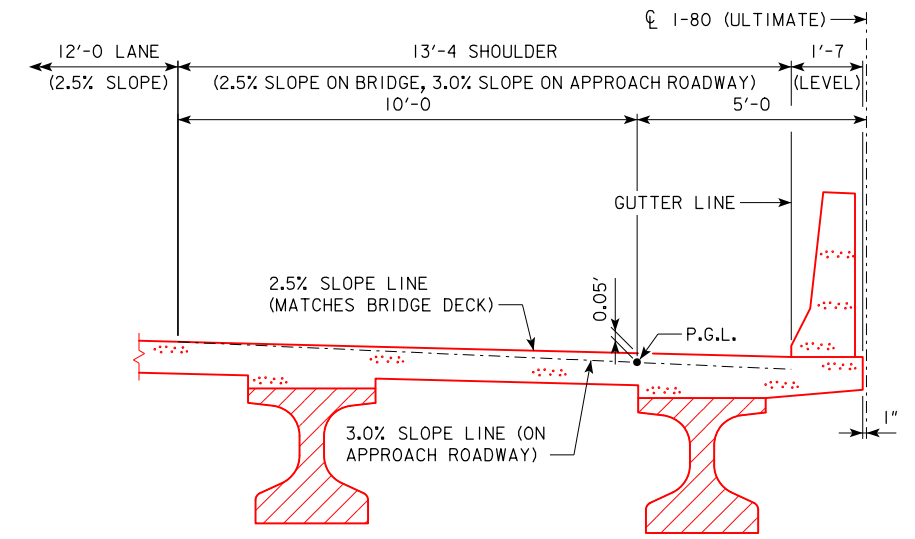
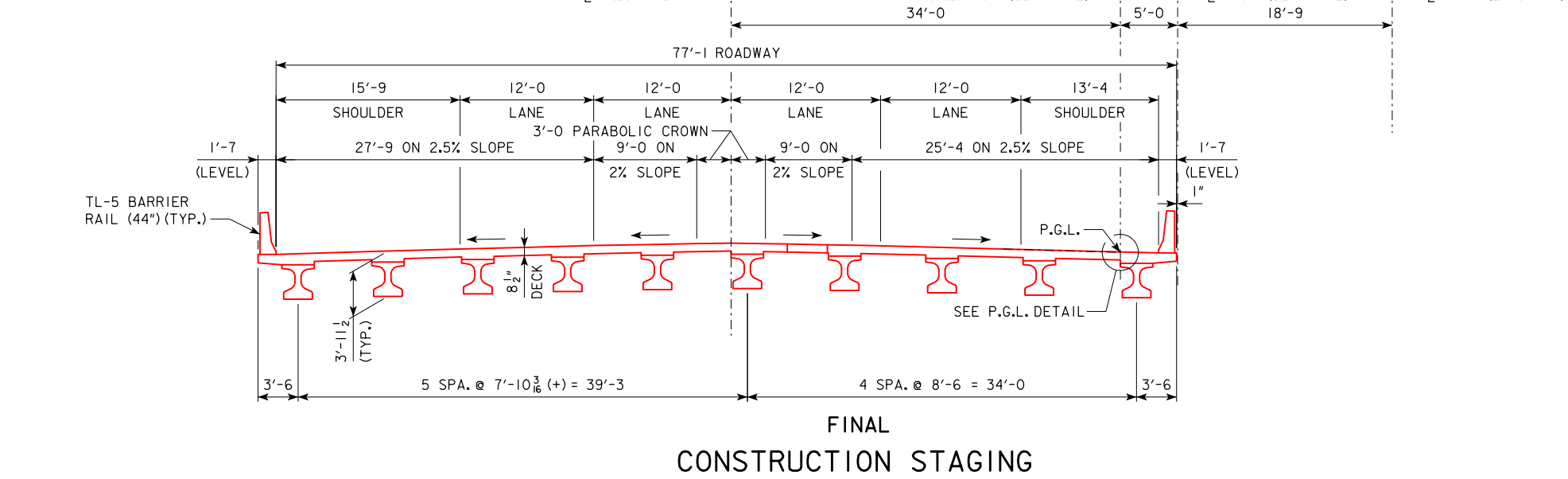
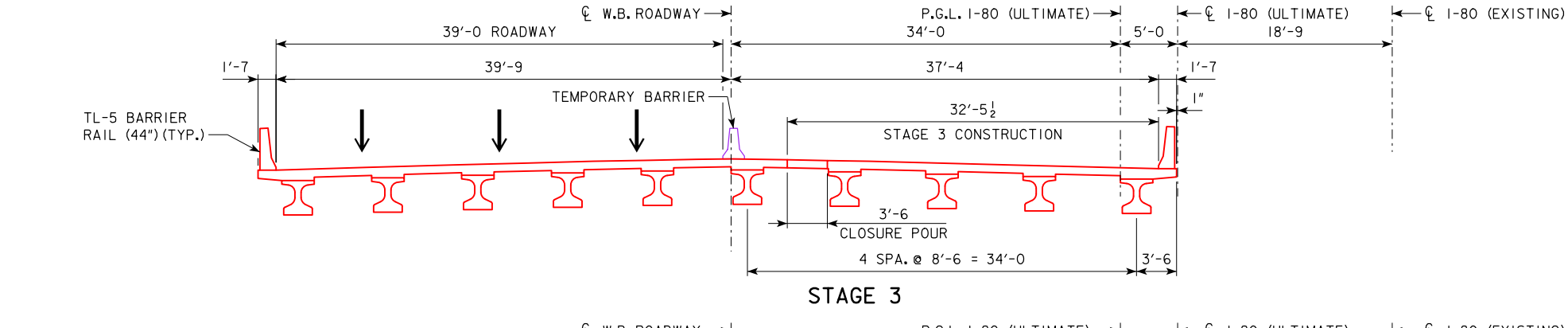
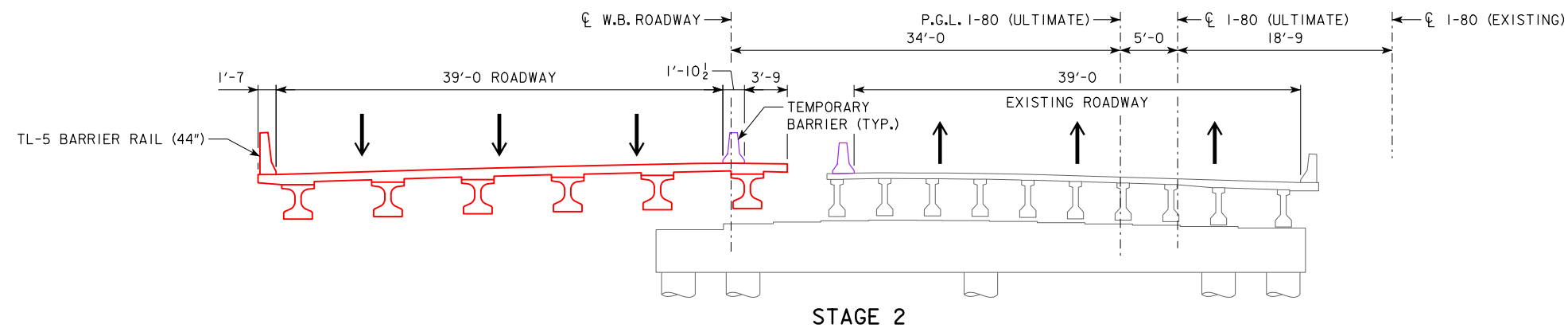
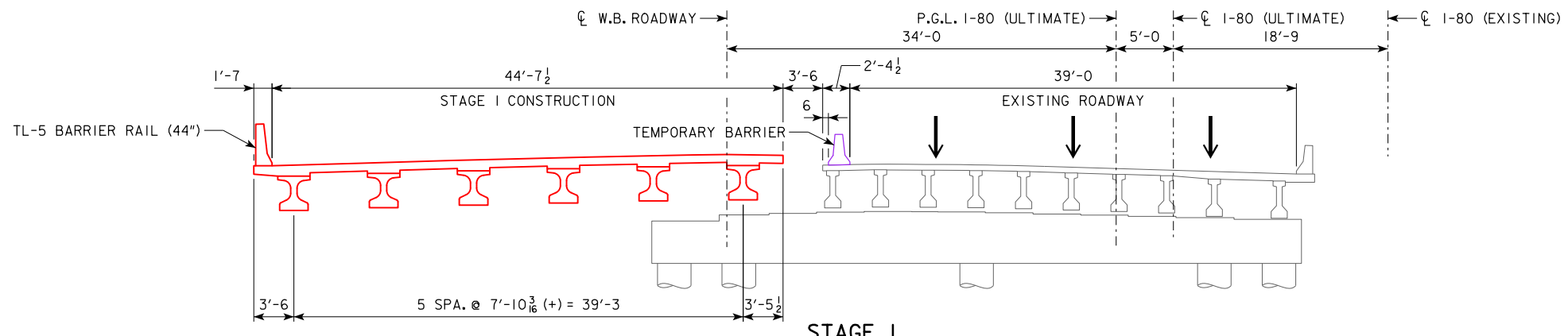
BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE.



PRELIMINARY

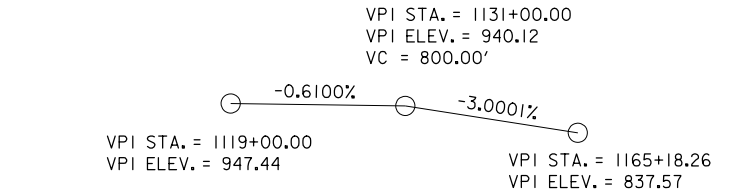
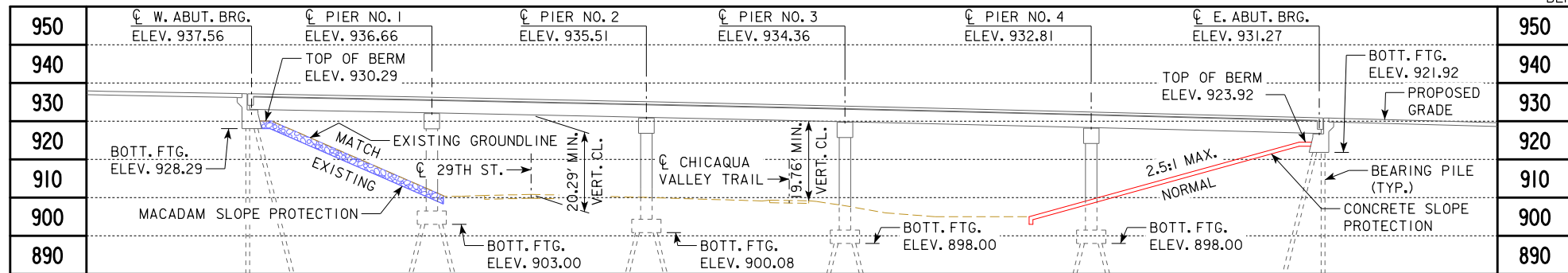
DESIGN FOR 11° SKEW (L.A.)
**224'-0 X 77'-1 PRETENSIONED
 PRESTRESSED CONCRETE BEAM BRIDGE**
 51'-0 & 76'-0 END SPANS 97'-0 INTERIOR SPAN
SITUATION PLAN - SITE
 STATION 5132+13.17 (CL I-80 ULTIMATE) NOVEMBER 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION
 DESIGN SHEET NO. 2 OF 3 FILE NO. 32061 DESIGN NO. 524

SITE PLAN

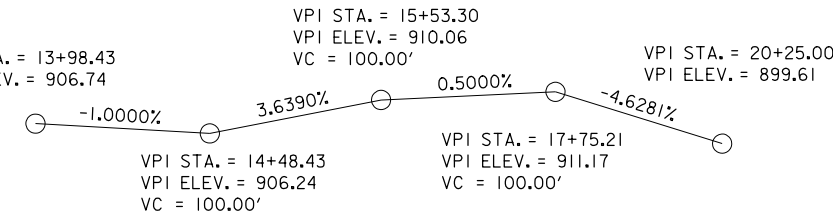


NOTE:
 THE P.G.L. IS LOCATED WITHIN THE SOUTH SHOULDER OF THE I-80 WESTBOUND APPROACH ROADWAY. THE SHOULDER TRANSITIONS FROM A 3.0% CROSS SLOPE ON THE WEST APPROACH ROADWAY TO 2.5% ON THE BRIDGE, AND BACK TO 3.0% ON THE EAST APPROACH ROADWAY. HOWEVER, THE P.G.L. LOCATION DOES NOT CHANGE AND IS ALWAYS LOCATED ON THE 3.0% CROSS SLOPE LINE. THE RESULT IS THAT THE P.G.L. DOES NOT LIE ON THE BRIDGE DECK, BUT IS 0.05' BELOW THE BRIDGE DECK. SEE DETAIL ABOVE.

PRELIMINARY
 DESIGN FOR 11° SKEW (L.A.)
**224'-0 X 77'-1 PRETENSIONED
 PRESTRESSED CONCRETE BEAM BRIDGE**
 51'-0 & 76'-0 END SPANS 97'-0 INTERIOR SPAN
SITUATION PLAN - MISC.
 STATION 5132+13.17 (CL I-80 ULTIMATE) NOVEMBER 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION
 DESIGN SHEET NO. 3 OF 3 FILE NO. 32061 DESIGN NO. 524



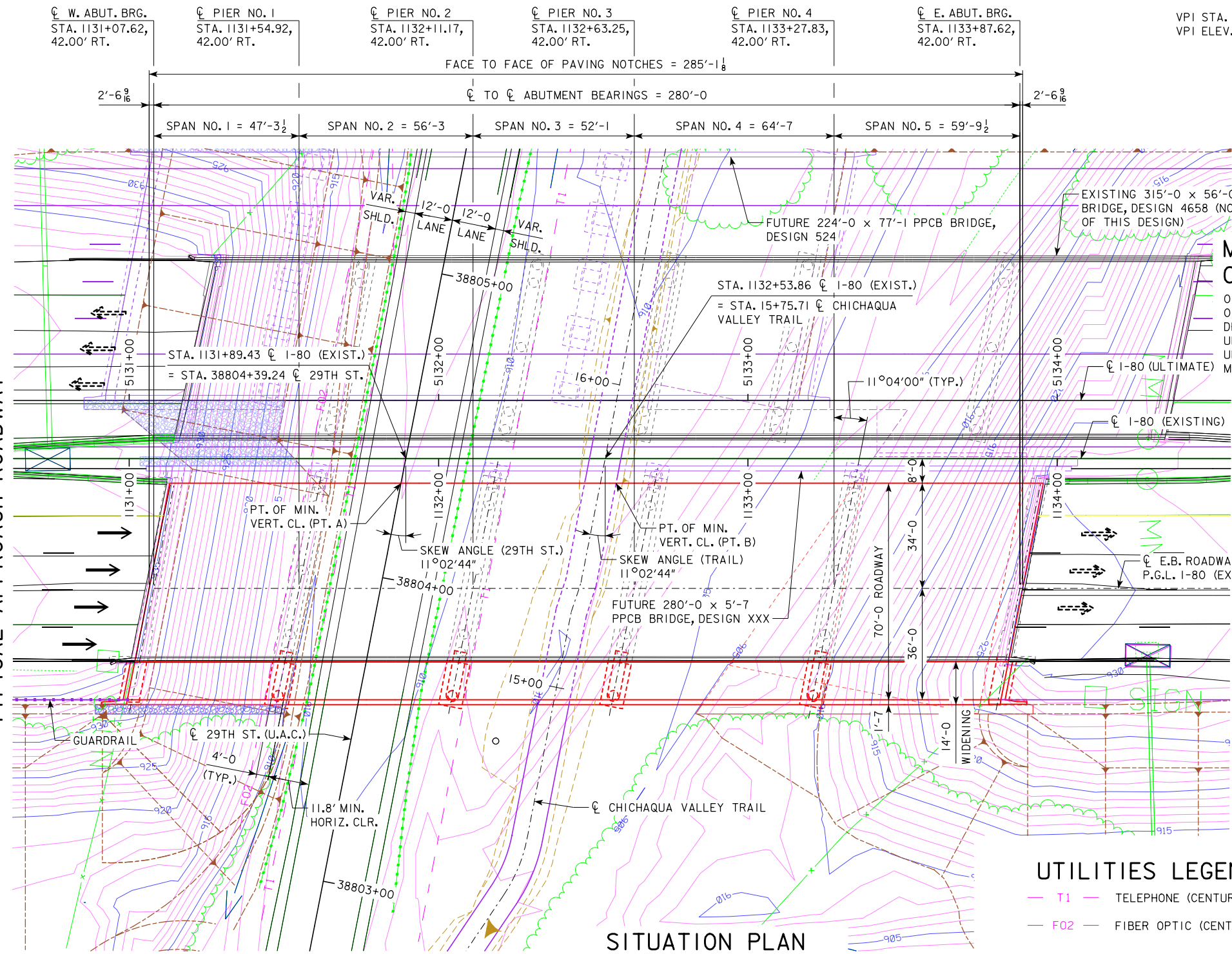
PROPOSED PROFILE - I-80 (EXISTING)



PROPOSED PROFILE - CHICHAQUA VALLEY TRAIL

NOTE:
TOP OF BRIDGE DECK AT E.B. ROADWAY IS 0.03' BELOW THE PROFILE GRADE TO ACCOUNT FOR PARABOLIC CROWN.

LONGITUDINAL SECTION ALONG E.B. ROADWAY



MINIMUM VERTICAL CLEARANCE (PT. A)

OVERHEAD STATION = 1131+87.57, 9.50' RT.
OVERHEAD ELEVATION = 935.18
DEPTH OF SUPERSTRUCTURE = 3.92'
UNDERPASS STATION = 38804+29.56
UNDERPASS ELEVATION = 910.97
MINIMUM VERTICAL CLEARANCE = 20.29'

MINIMUM VERTICAL CLEARANCE (PT. B)

OVERHEAD STATION = 1132+57.10, 9.50' RT.
OVERHEAD ELEVATION = 933.67
DEPTH OF SUPERSTRUCTURE = 3.92'
UNDERPASS STATION = 15+67.01, 5.00' RT.
UNDERPASS ELEVATION = 910.00
MINIMUM VERTICAL CLEARANCE = 19.76'

NOTES:
THIS DESIGN IS FOR THE WIDENING AND REDECKING OF THE EXISTING 280'-0 x 56'-0 PPCB BRIDGE, POLK DESIGN 4658, FHWA NO. 041950, MAINTENANCE NO. 7738.7R080.
ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE UNLESS NOTED OTHERWISE.
TL-5 BRIDGE RAILING PROPOSED.
PIER TYPE-FRAME; BEAM TYPE-BTB BEAM.
BRIDGE AESTHETICS TO BE INCORPORATED IN FINAL DESIGN.
BERM SLOPES TO BE CONFIRMED IN FINAL DESIGN.
COLLISION REQUIREMENTS AT PIERS SHALL BE EVALUATED DURING FINAL DESIGN.

TRAFFIC ESTIMATE

2021 AADT	40,700	V.P.D.
2041 AADT	55,100	V.P.D.
2041 DHV	6,020	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS		

LOCATION

I-80 E.B. OVER 29TH ST.
T-79N R-23W
SECTIONS 17 & 18
DELAWARE TOWNSHIP
POLK COUNTY
FHWA NO. _____
BRIDGE MAINT. NO. _____
LATITUDE 41.654177°
LONGITUDE -93.560802°



PRELIMINARY

DESIGN FOR WIDENING & REDECKING OF 11°04'00" SKEW (LA)
280'-0 X 56'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE TO 70'-0 ROADWAY BRIDGE
47'-3 1/2, 56'-3, 52'-1, 64'-7, 59'-9 1/2 SPANS

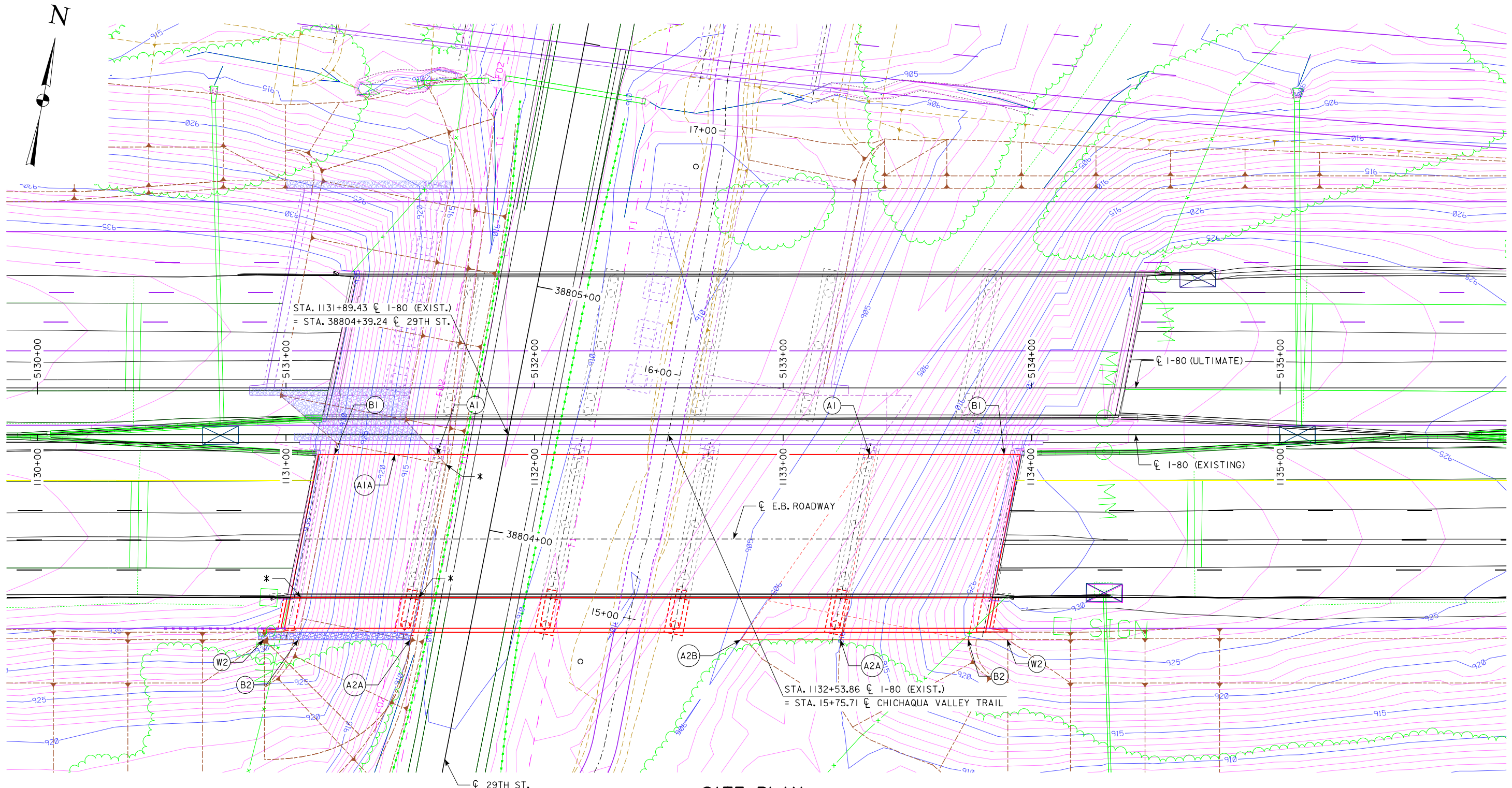
SITUATION PLAN

STATION 1132+47.62 (E.B. ROADWAY) NOVEMBER 2021
POLK COUNTY
IOWA DEPARTMENT OF TRANSPORTATION
DESIGN SHEET NO. 1 OF 3 FILE NO. 32061 DESIGN NO. 226

UTILITIES LEGEND:

- T1 TELEPHONE (CENTURYLINK)
- F02 FIBER OPTIC (CENTURYLINK)

SITUATION PLAN



SITE PLAN



BERM SLOPE LOCATION TABLE

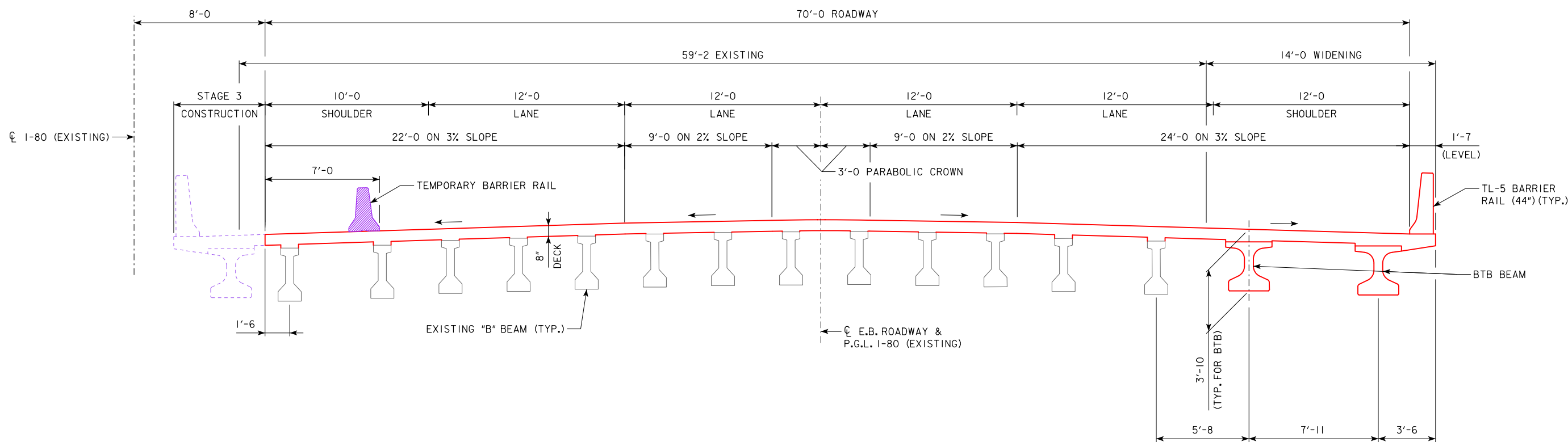
POINTS	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	1131+60.66	8.00' RT.	910.25	1133+34.87	8.00' RT.	905.00
A1A	1131+43.87	8.00' RT.	*	--	--	--
A2A	1131+49.95	82.58' RT.	910.00	1133+23.09	82.58' RT.	910.00
A2B	--	--	--	1132+83.03	82.58' RT.	905.00
B1	1131+19.54	8.00' RT.	*	1133+89.01	8.00' RT.	*
B2	1131+04.95	82.58' RT.	930.29	1133+74.42	82.58' RT.	923.92
W2	1130+91.03	82.58' RT.	936.78	1133+90.13	82.58' RT.	930.13

NOTE:
* MATCH EXISTING

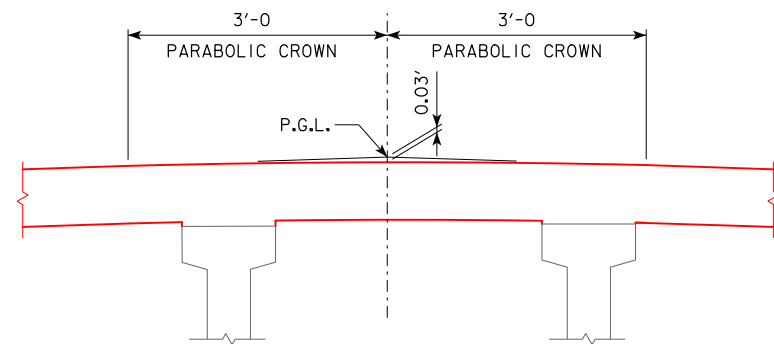
BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE.

PRELIMINARY

DESIGN FOR WIDENING & REDECKING OF 11°04'00" SKEW (LA)
280'-0 X 56'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE TO 70'-0 ROADWAY BRIDGE
 47'-3½, 56'-3, 52'-1, 64'-7, 59'-9½ SPANS
SITUATION PLAN - SITE
 STATION 1132+47.62 (I-80 EXISTING) NOVEMBER 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION
 DESIGN SHEET NO. 2 OF 3 FILE NO. 32061 DESIGN NO. 226



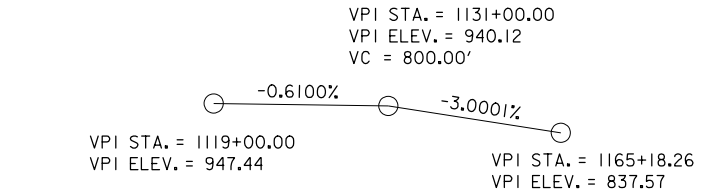
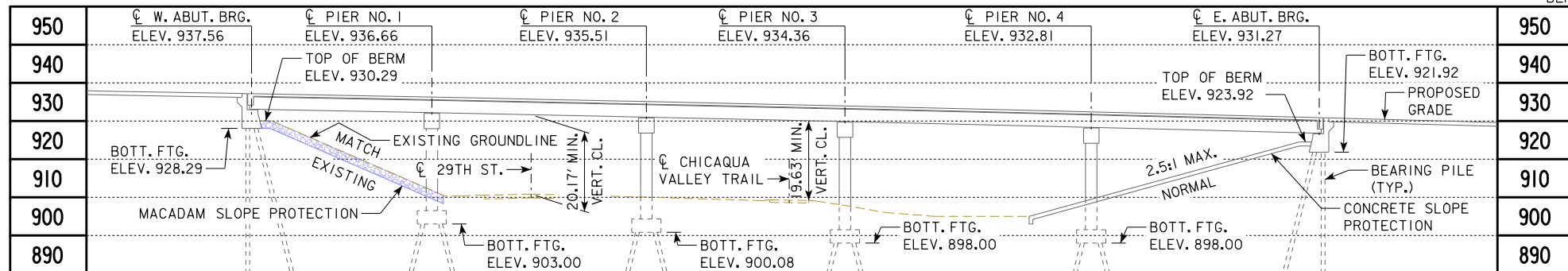
TYPICAL SECTION



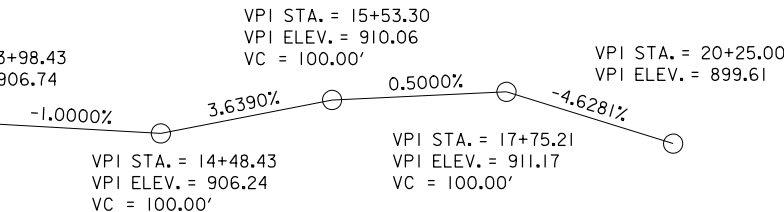
PARABOLIC CROWN DETAIL

PRELIMINARY

DESIGN FOR WIDENING & REDECKING OF 11°04'00" SKEW (LA)
**280'-0" X 56'-0" PRETENSIONED PRESTRESSED
 CONCRETE BEAM BRIDGE TO 70'-0" ROADWAY BRIDGE**
 47'-3½, 56'-3, 52'-1, 64'-7, 59'-9½ SPANS
SITUATION PLAN - MISC.
 STATION 1132+47.62 (CL 1-80 EXISTING) NOVEMBER 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION
 DESIGN SHEET NO. 3 OF 3 FILE NO. 32061 DESIGN NO. 226



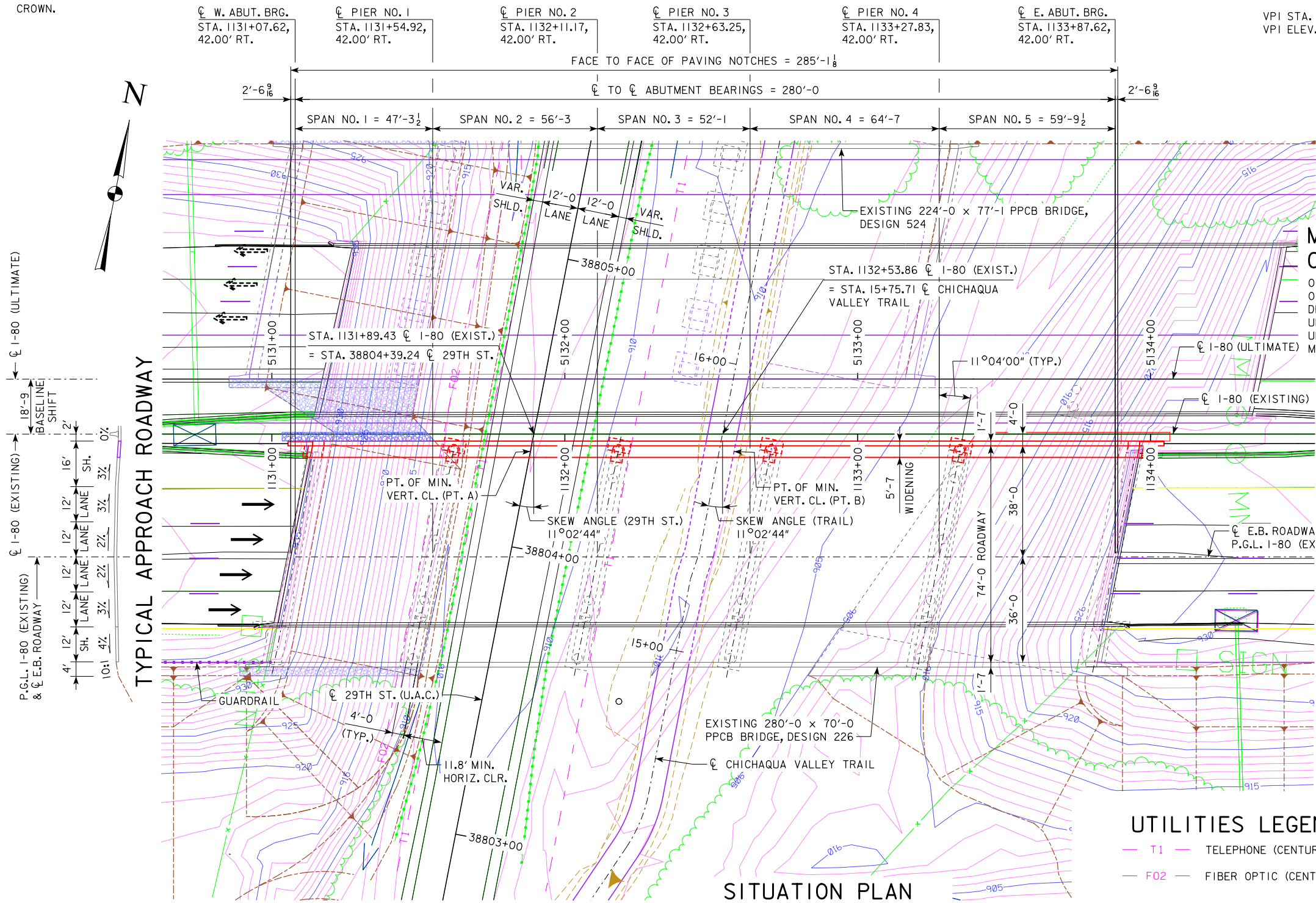
PROPOSED PROFILE - I-80 (EXISTING)



PROPOSED PROFILE - CHICHAQUA VALLEY TRAIL

NOTE:
TOP OF BRIDGE DECK AT CL E.B. ROADWAY IS 0.03' BELOW THE PROFILE GRADE TO ACCOUNT FOR PARABOLIC CROWN.

LONGITUDINAL SECTION ALONG CL E.B. ROADWAY



MINIMUM VERTICAL CLEARANCE (PT. A)

OVERHEAD STATION = 1131+88.35, 5.50' RT.
OVERHEAD ELEVATION = 935.06
DEPTH OF SUPERSTRUCTURE = 3.92'
UNDERPASS STATION = 38804+33.64
UNDERPASS ELEVATION = 910.97
MINIMUM VERTICAL CLEARANCE = 20.17'

MINIMUM VERTICAL CLEARANCE (PT. B)

OVERHEAD STATION = 1132+57.88, 5.50' RT.
OVERHEAD ELEVATION = 933.55
DEPTH OF SUPERSTRUCTURE = 3.92'
UNDERPASS STATION = 15+71.09, 5.00' RT.
UNDERPASS ELEVATION = 910.00
MINIMUM VERTICAL CLEARANCE = 19.63'

NOTES:
THIS DESIGN IS FOR THE WIDENING AND REDECKING OF THE EXISTING 280'-0 x 56'-0 PPCB BRIDGE, POLK DESIGN 4658, FHWA NO. 041950, MAINTENANCE NO. 7738.7R080.
ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE UNLESS NOTED OTHERWISE.
TL-5 BRIDGE RAILING PROPOSED.
PIER TYPE-FRAME; BEAM TYPE-BTB BEAM.
BRIDGE AESTHETICS TO BE INCORPORATED IN FINAL DESIGN.
BERM SLOPES TO BE CONFIRMED IN FINAL DESIGN.
COLLISION REQUIREMENTS AT PIERS SHALL BE EVALUATED DURING FINAL DESIGN.

TRAFFIC ESTIMATE

2021 AADT	40,700	V.P.D.
2041 AADT	55,100	V.P.D.
2041 DHV	6,020	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS		

LOCATION

I-80 E.B. OVER 29TH ST.
T-79N R-23W
SECTIONS 17 & 18
DELAWARE TOWNSHIP
POLK COUNTY
FHWA NO. _____
BRIDGE MAINT. NO. _____
LATITUDE 41.654177°
LONGITUDE -93.560802°



PRELIMINARY

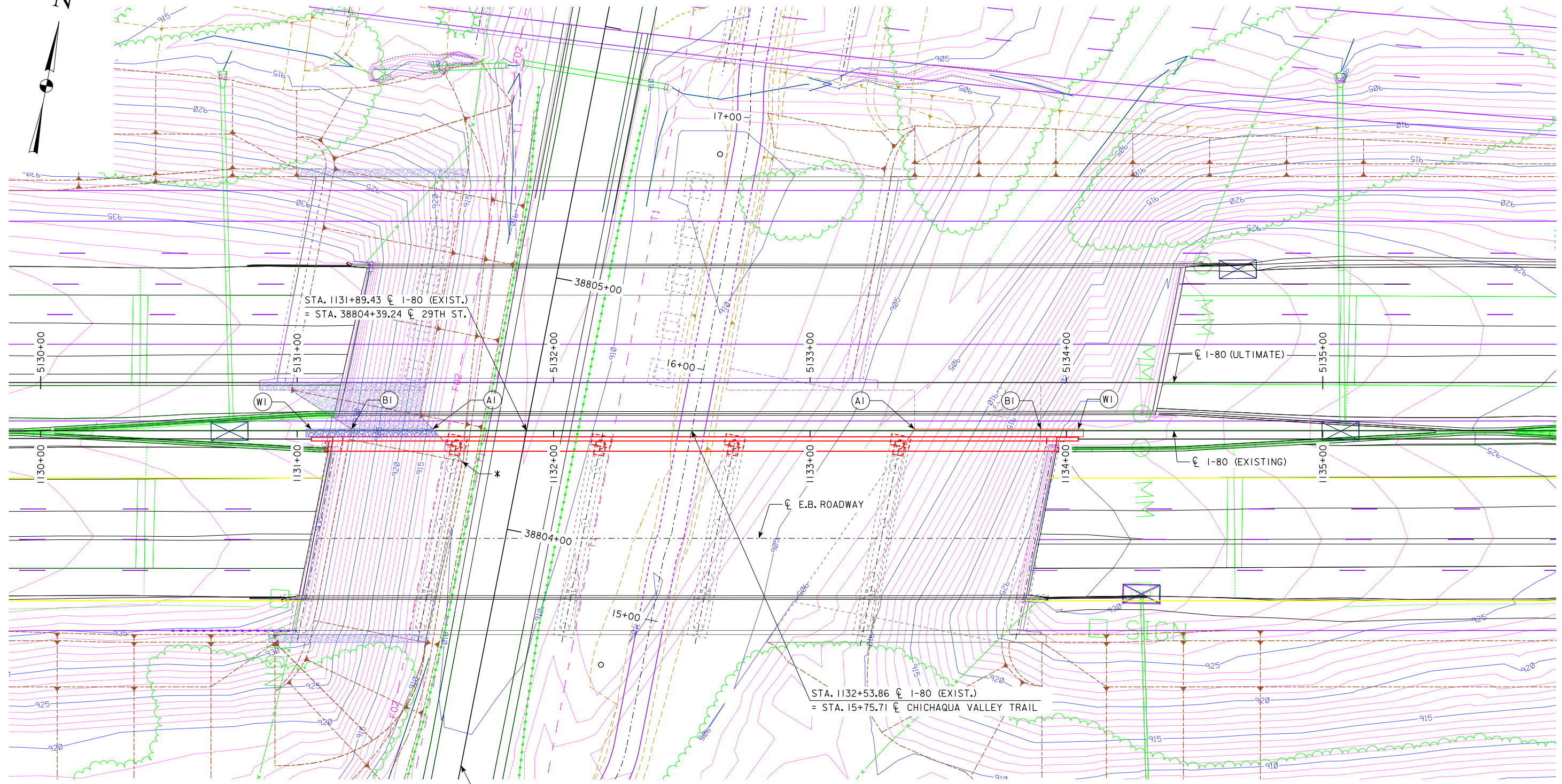
DESIGN FOR WIDENING & REDECKING OF 11°04'00" SKEW (LA)
280'-0 X 56'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE TO 74'-0 ROADWAY BRIDGE
47'-3 1/2, 56'-3, 52'-1, 64'-7, 59'-9 1/2 SPANS

SITUATION PLAN
STATION 1132+47.62 (CL I-80 EXISTING) NOVEMBER 2021
POLK COUNTY
IOWA DEPARTMENT OF TRANSPORTATION
DESIGN SHEET NO. 1 OF 3 FILE NO. 32061 DESIGN NO. XXX

UTILITIES LEGEND:

- T1 TELEPHONE (CENTURYLINK)
- F02 FIBER OPTIC (CENTURYLINK)

SITUATION PLAN



SITE PLAN



PRELIMINARY

BERM SLOPE LOCATION TABLE

POINTS	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
AI	1131+52.80	0.58' LT.	910.77	1133+40.83	0.58' LT.	905.00
BI	1131+21.22	0.58' LT.	930.70	1133+90.69	0.58' LT.	924.33
WI	1131+05.49	0.58' LT.	936.46	1134+04.60	0.58' LT.	929.68

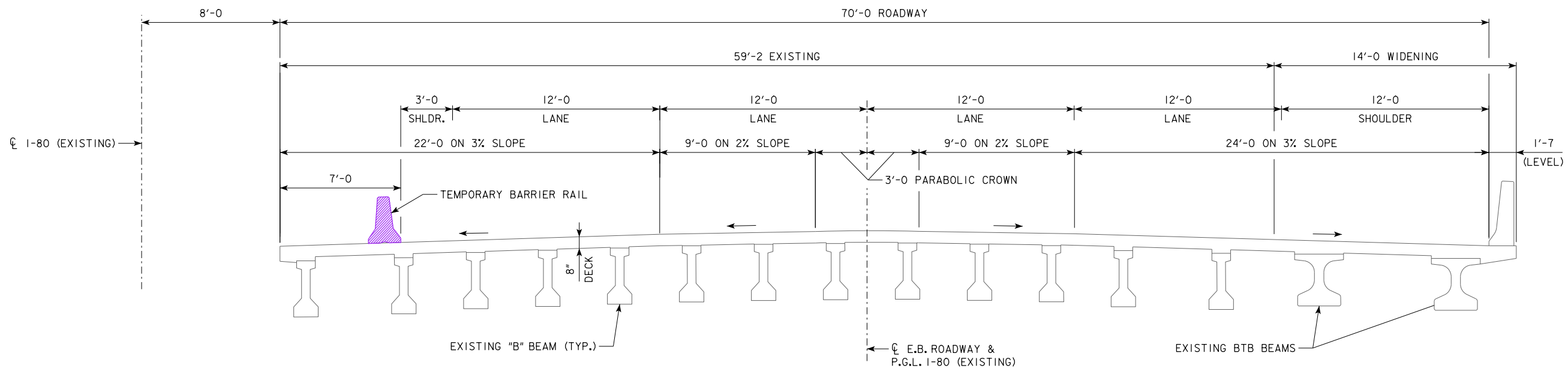
BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE.

NOTE:
* MATCH EXISTING

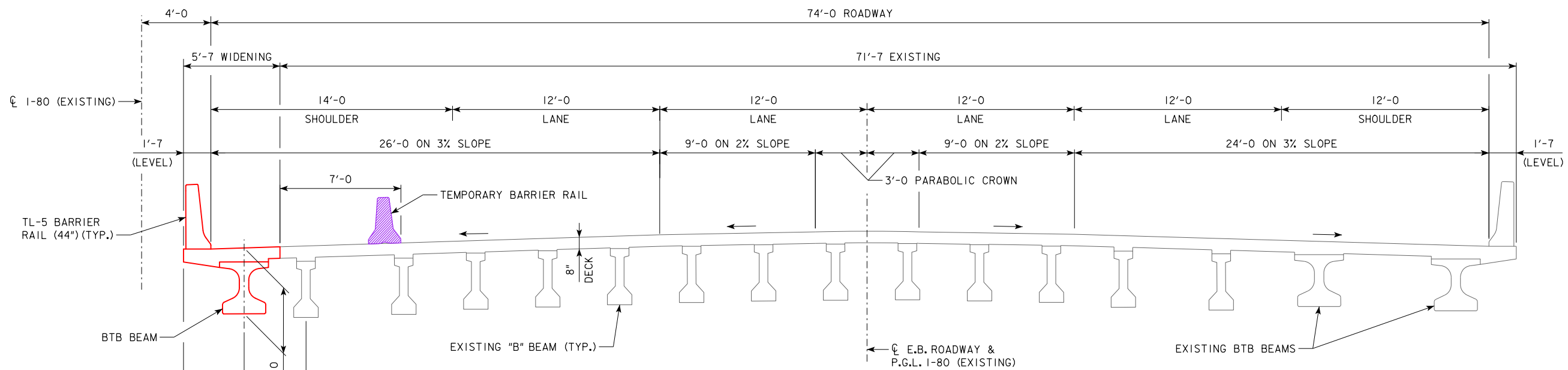
DESIGN FOR WIDENING & REDECKING OF 11°04'00" SKEW (LA)
280'-0 X 56'-0 PRETENSIONED PRESTRESSED
CONCRETE BEAM BRIDGE TO 74'-0 ROADWAY BRIDGE
47'-3½, 56'-3, 52'-1, 64'-7, 59'-9½ SPANS

SITUATION PLAN - SITE
STATION 1132+47.62 (I-80 EXISTING) NOVEMBER 2021
POLK COUNTY

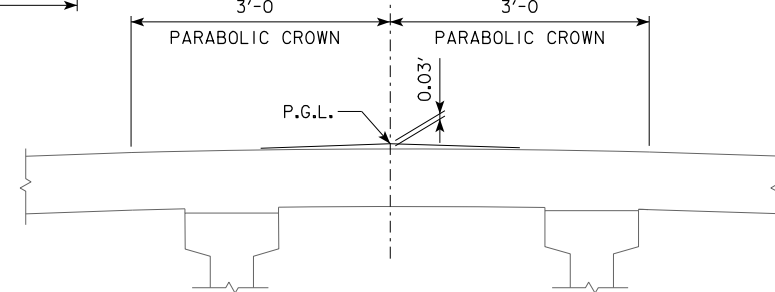
IOWA DEPARTMENT OF TRANSPORTATION
DESIGN SHEET NO. 2 OF 3 FILE NO. 32061 DESIGN NO. XXX



STAGE 2 - EXISTING CONDITION

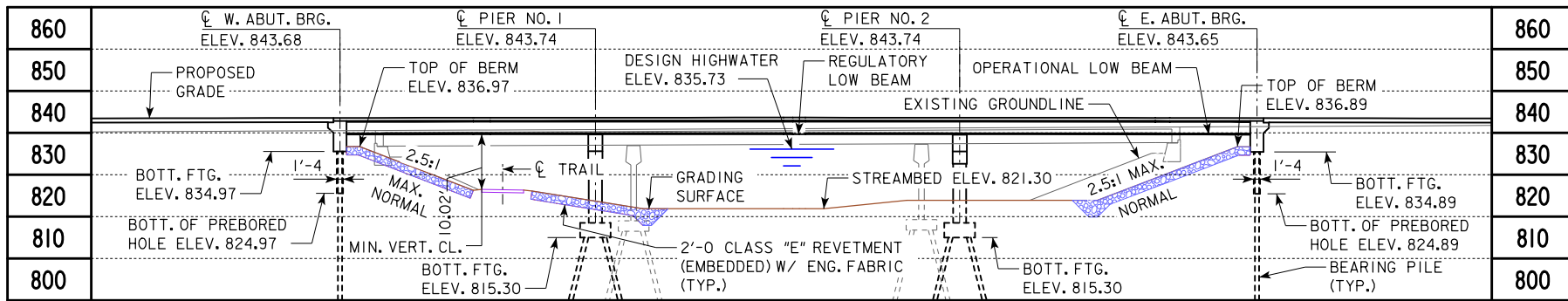


STAGE 3
CONSTRUCTION STAGING



PARABOLIC CROWN DETAIL

PRELIMINARY
 DESIGN FOR WIDENING & REDECKING OF 11°04'00" SKEW (LA)
**280'-0" X 56'-0" PRETENSIONED PRESTRESSED
 CONCRETE BEAM BRIDGE TO 74'-0" ROADWAY BRIDGE**
 47'-3½, 56'-3, 52'-1, 64'-7, 59'-9½ SPANS
SITUATION PLAN - MISC.
 STATION 1132+47.62 (CL I-80 EXISTING) NOVEMBER 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION
 DESIGN SHEET NO. 3 OF 3 FILE NO. 32061 DESIGN NO. XXX



NOTE:
TOP OF BRIDGE DECK AT W.B. ROADWAY IS 0.81' ABOVE THE PROFILE GRADE TO ACCOUNT FOR DECK CROSS SLOPE AND PARABOLIC CROWN.

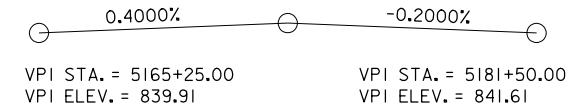
LONGITUDINAL SECTION ALONG W.B. ROADWAY

CURVE DATA

FOUR MILE CREEK GREENWAY TRAIL
 PI STA. 304+88.55
 $\Delta = 24^\circ 51' 21.34''$ (LT.)
 T = 37.20'
 L = 72.93'
 E = 4.54'
 R = 150.00'
 PC STA. 304+51.35
 PT STA. 305+24.28

BENCH MARK NO. FENO200, 1-METER ROD MONUMENT, STA. 1183+18.58, 845.82' RT., ELEV. 851.56

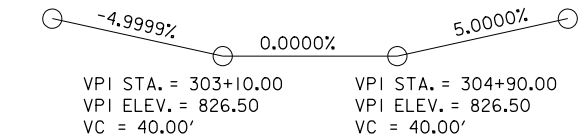
VPI STA. = 5173+50.00
 VPI ELEV. = 843.21
 VC = 400.00'



PROPOSED PROFILE - I-80 (ULTIMATE)

VPI STA. = 302+25.00
 VPI ELEV. = 830.75

VPI STA. = 306+30.00
 VPI ELEV. = 832.00



PROPOSED PROFILE - FOUR MILE CREEK GREENWAY TRAIL

LOCATION

I-80 W.B. OVER FOUR MILE CREEK
 T-79N R-23W
 SECTION 17
 DELAWARE TOWNSHIP
 POLK COUNTY
 FHWA NO. _____
 BRIDGE MAINT. NO. _____
 LATITUDE 41.656652°
 LONGITUDE -93.545866°

HYDRAULIC DATA

DRAINAGE AREA = 83.9 SQ. MI.
 STREAM SLOPE = 7.0 FT./MI.
 REGULATORY LOW BEAM = 838.77
 OPERATIONAL LOW BEAM = 838.64

$Q_{25} = 6,586$ CFS
 STAGE = 834.33

$Q_{50} = 8,220$ CFS
 STAGE = 835.00
 BACKWATER = 0.57 FT.
 CHANNEL VELOCITY = 4.5 FPS

$Q_{100} = 10,189$ CFS
 STAGE = 835.73
 BACKWATER = 0.60 FT.
 CHANNEL VELOCITY = 5.2 FPS

MINIMUM VERTICAL CLEARANCE

OVERHEAD STATION = 5173+47.20, 85.08' LT.
 OVERHEAD ELEVATION = 842.66
 DEPTH OF SUPERSTRUCTURE = 3.92'
 UNDERPASS STATION = 305+32.99, 5.00' LT.
 UNDERPASS ELEVATION = 828.72
 MINIMUM VERTICAL CLEARANCE = 10.02'

TRAFFIC ESTIMATE

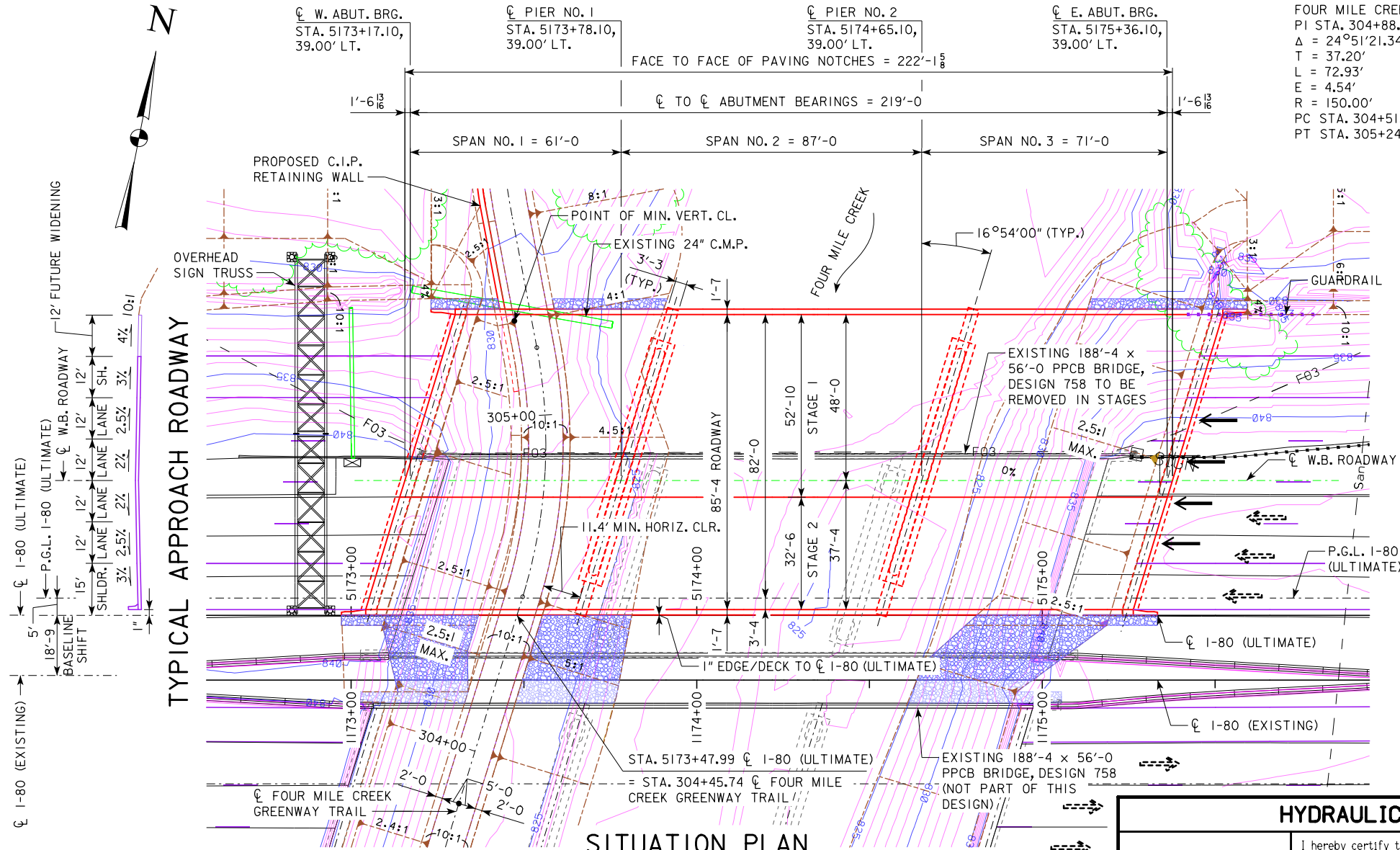
2021 AADT	40,700	V.P.D.
2041 AADT	55,100	V.P.D.
2041 DHV	6,020	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS		

$Q_{200} = 11,885$ CFS
 STAGE = 836.32
 CHANNEL VELOCITY = 5.8 FPS
 CALCULATED DESIGN SCOUR = 814.1

$Q_{500} = 14,233$ CFS
 STAGE = 838.43
 CHANNEL VELOCITY = 5.7 FPS
 CALCULATED CHECK SCOUR = 814.1

EXTREME H.W. STAGE = 836.0 (EST.)
 DATE = 7/1/2018

50, 100 & 500 YR. STAGES AND DISCHARGES FROM POLK COUNTY F.I.S., DATED 2/1/2019. 25 & 200 YR. DISCHARGES ESTIMATED FROM F.I.S. FLOW FREQUENCY RELATIONSHIP STAGES FROM HDR HYDRAULIC ANALYSIS. F.I.S. DATUM 0.0 FT. ABOVE PROJECT DATUM.

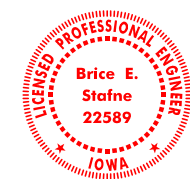


NOTES:
 THIS DESIGN IS FOR THE REPLACEMENT OF THE EXISTING 188'-4 x 56'-0 PPCB BRIDGE, POLK DESIGN 758, FHWA NO. 041980, MAINT. NO. 7739.4L080.
 ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
 ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE UNLESS NOTED OTHERWISE.
 TL-5 BRIDGE RAILING PROPOSED.
 PIER TYPE-T; BEAM TYPE-BTB BEAM.
 BRIDGE AESTHETICS TO BE INCORPORATED IN FINAL DESIGN.
 BERM SLOPES TO BE CONFIRMED IN FINAL DESIGN.

UTILITIES LEGEND:

San. — SANITARY SEWER (CITY OF DES MOINES)
 F03 — FIBER OPTIC (ICN)

HYDRAULIC DESIGN



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: *Brice E. Stafne* Date: 1/21/2022
 Printed or Typed Name: BRICE E. STAFNE

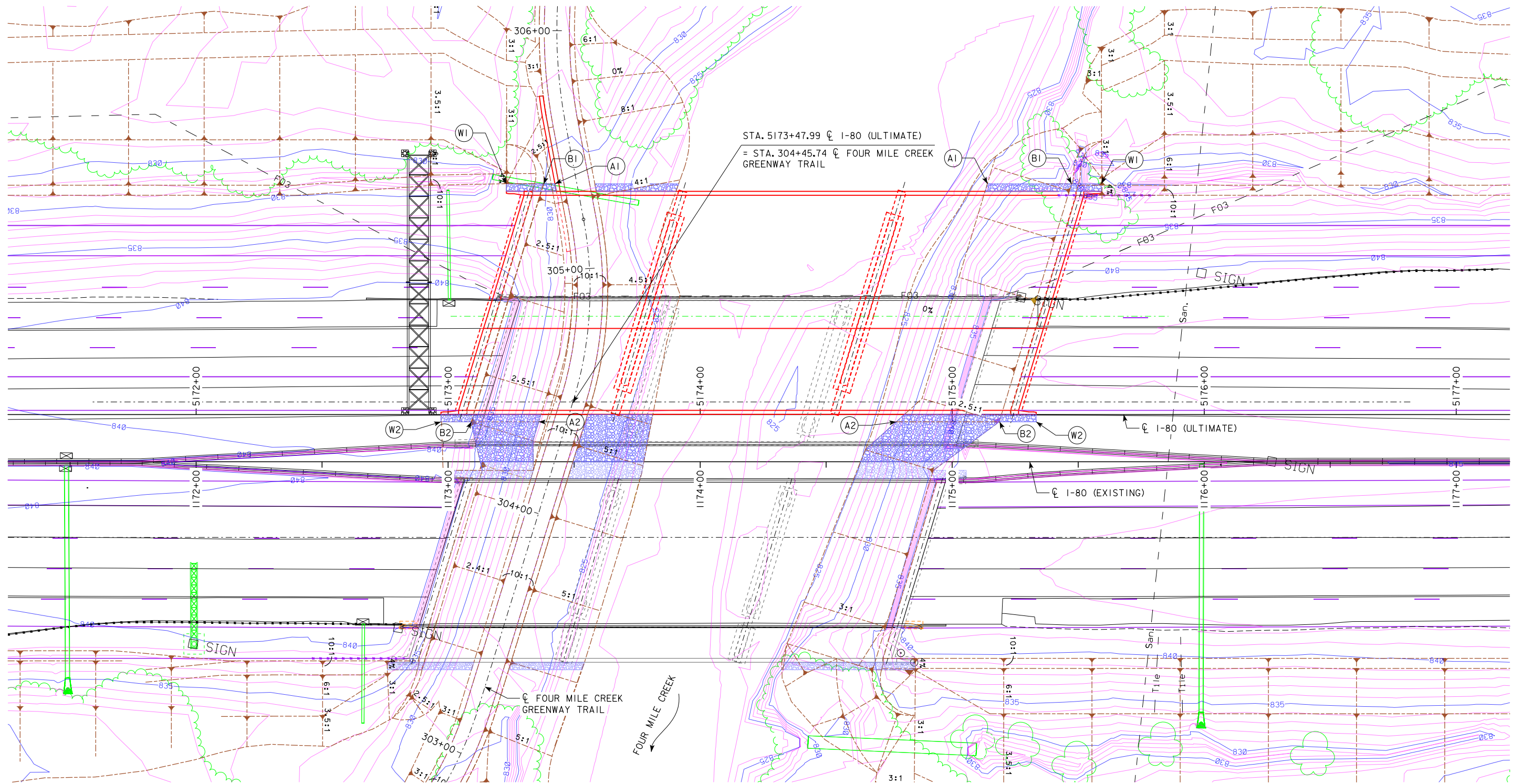
My license renewal date is December 31, 2022

Pages or sheets covered by this seal: DESIGN SHEET NO. 1
 H&H DATA ONLY



PRELIMINARY

DESIGN FOR 16°54'00" SKEW (LA)
219'-0 X 85'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
 61'-0 AND 71'-0 END SPANS 87'-0 INTERIOR SPAN
SITUATION PLAN
 STATION 5174+26.60 (W.B. ROADWAY) NOVEMBER 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION
 DESIGN SHEET NO. 1 OF 3 FILE NO. 32061 DESIGN NO. 624



BERM SLOPE LOCATION TABLE						
POINTS	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	5173+42.41	91.58' LT.	835.12	5175+13.98	91.58' LT.	824.00
A2	5173+35.92	2.92' RT.	826.58	5174+77.81	2.92' RT.	824.00
B1	5173+37.78	91.58' LT.	836.97	5175+47.37	91.58' LT.	836.89
B2	5173+09.06	2.92' RT.	836.97	5175+18.66	2.92' RT.	836.89
W1	5173+23.11	91.58' LT.	842.43	5175+59.25	91.58' LT.	842.34
W2	5172+97.19	2.92' RT.	842.65	5175+33.32	2.92' RT.	842.66

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE.

SITE PLAN



PRELIMINARY

DESIGN FOR 16°54'00" SKEW (LA)

**219'-0 X 85'-4 PRETENSIONED
PRESTRESSED CONCRETE BEAM BRIDGE**

61'-0 AND 71'-0 END SPANS 87'-0 INTERIOR SPAN

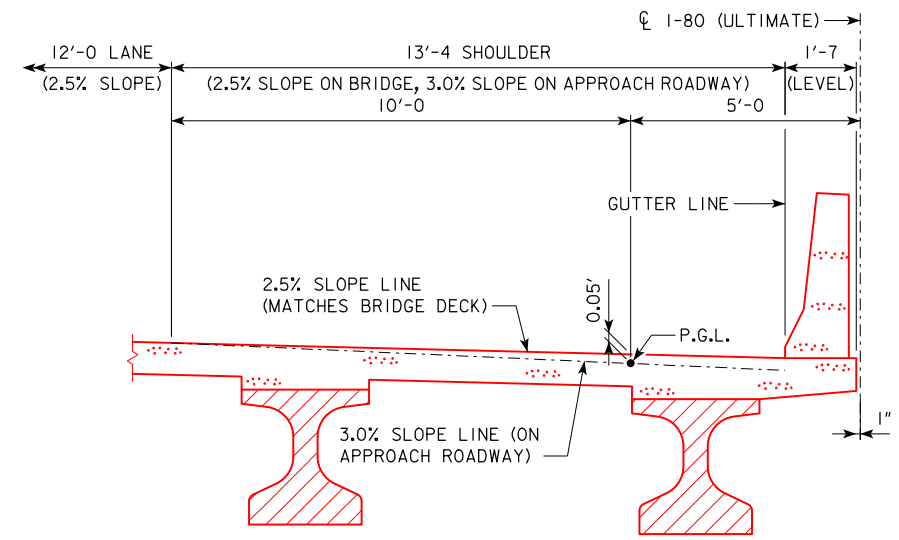
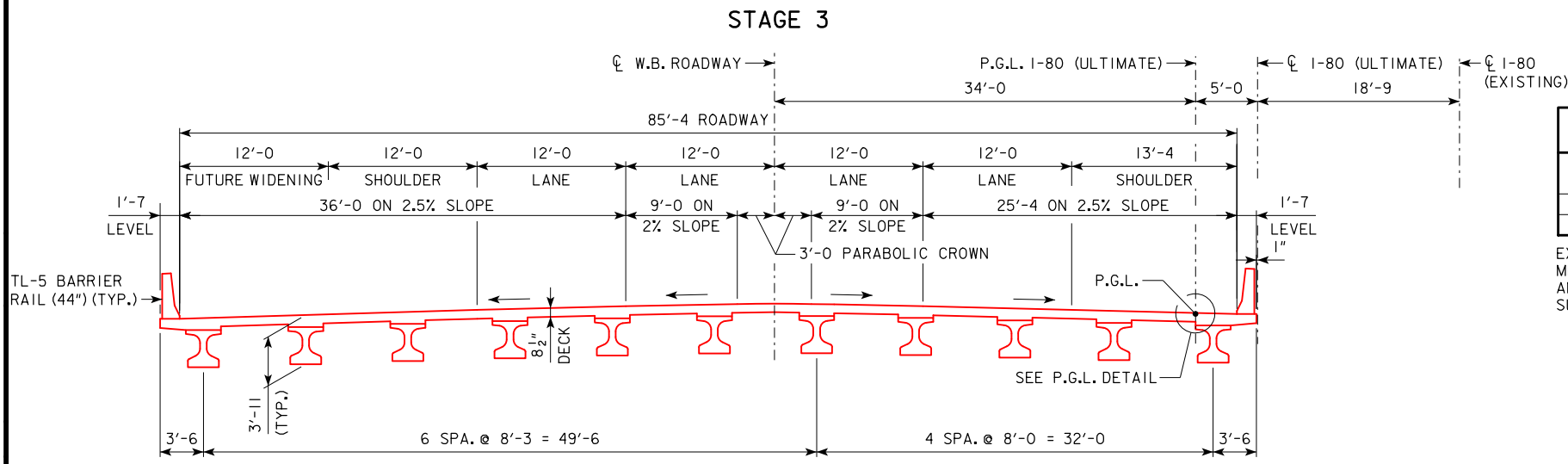
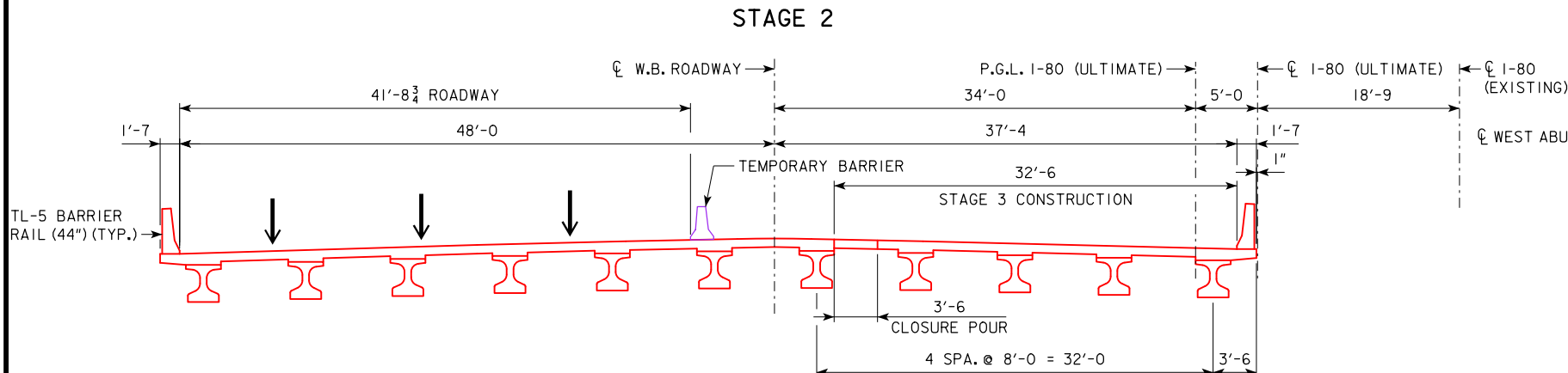
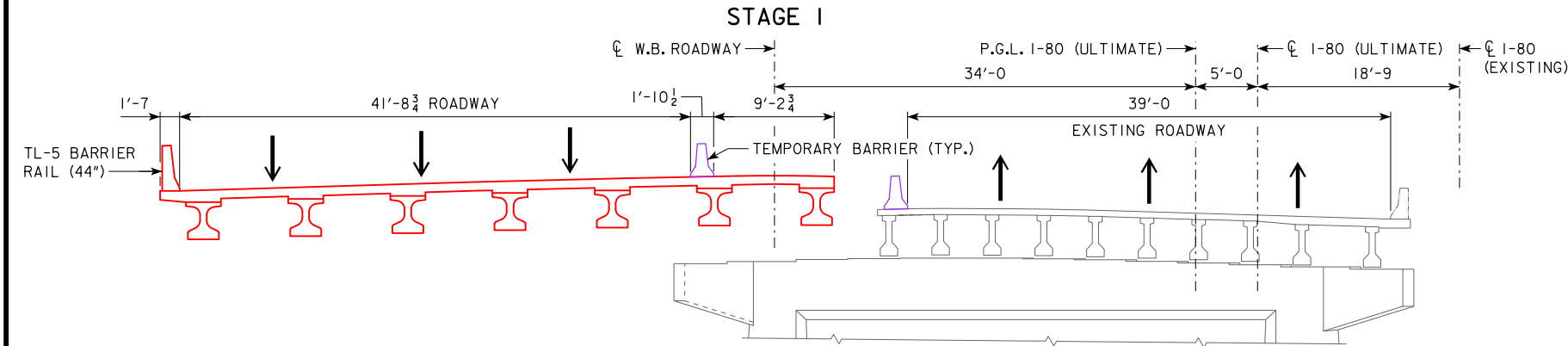
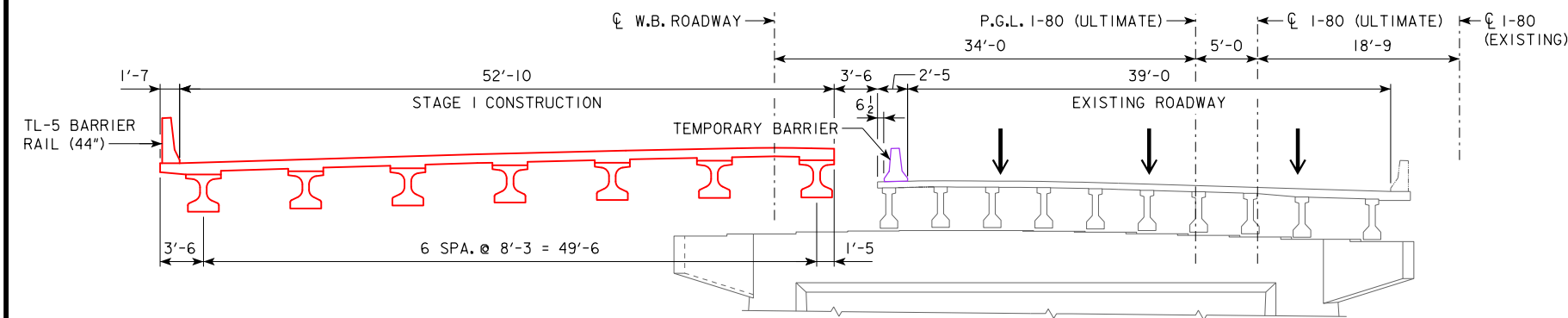
SITUATION PLAN - SITE

STATION 5174+26.60 (CL I-80 ULTIMATE) NOVEMBER 2021

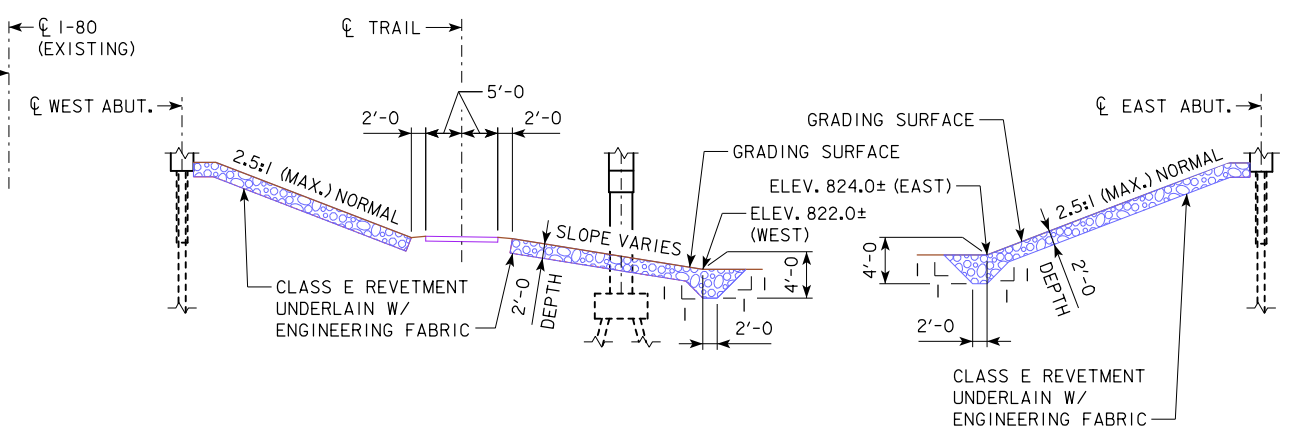
POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION

DESIGN SHEET NO. 2 OF 3 FILE NO. 32061 DESIGN NO. 624



NOTE:
 THE P.G.L. IS LOCATED WITHIN THE SOUTH SHOULDER OF THE I-80 WESTBOUND APPROACH ROADWAY. THE SHOULDER TRANSITIONS FROM A 3.0% CROSS SLOPE ON THE WEST APPROACH ROADWAY TO 2.5% ON THE BRIDGE, AND BACK TO 3.0% ON THE EAST APPROACH ROADWAY. HOWEVER, THE P.G.L. LOCATION DOES NOT CHANGE AND IS ALWAYS LOCATED ON THE 3.0% CROSS SLOPE LINE. THE RESULT IS THAT THE P.G.L. DOES NOT LIE ON THE BRIDGE DECK, BUT IS 0.05' BELOW THE BRIDGE DECK. SEE DETAIL ABOVE.



REVETMENT QUANTITIES			
REVETMENT LOCATION	REVETMENT CLASS E (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
WEST ABUTMENT BERM	807	779	505
EAST ABUTMENT BERM	658	412	648

EXCAVATION QUANTITY CALCULATED INCLUDES THE MATERIAL MEASURED FROM THE EXISTING GROUND TO THE GRADING SURFACE AND THE MATERIAL OF THE CORE OUT MEASURED FROM THE GRADING SURFACE TO THE BOTTOM OF THE REVETMENT.

PRELIMINARY

DESIGN FOR 16°54'00" SKEW (LA)

219'-0" X 85'-4" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

61'-0" AND 71'-0" END SPANS 87'-0" INTERIOR SPAN

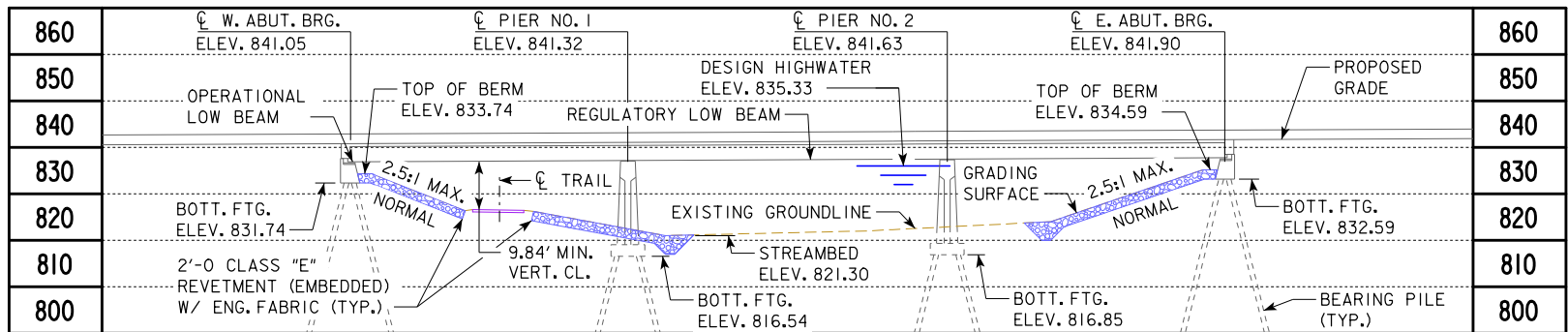
SITUATION PLAN - MISC.

STATION 5174+26.60 (CL I-80 ULTIMATE) NOVEMBER 2021

POLK COUNTY

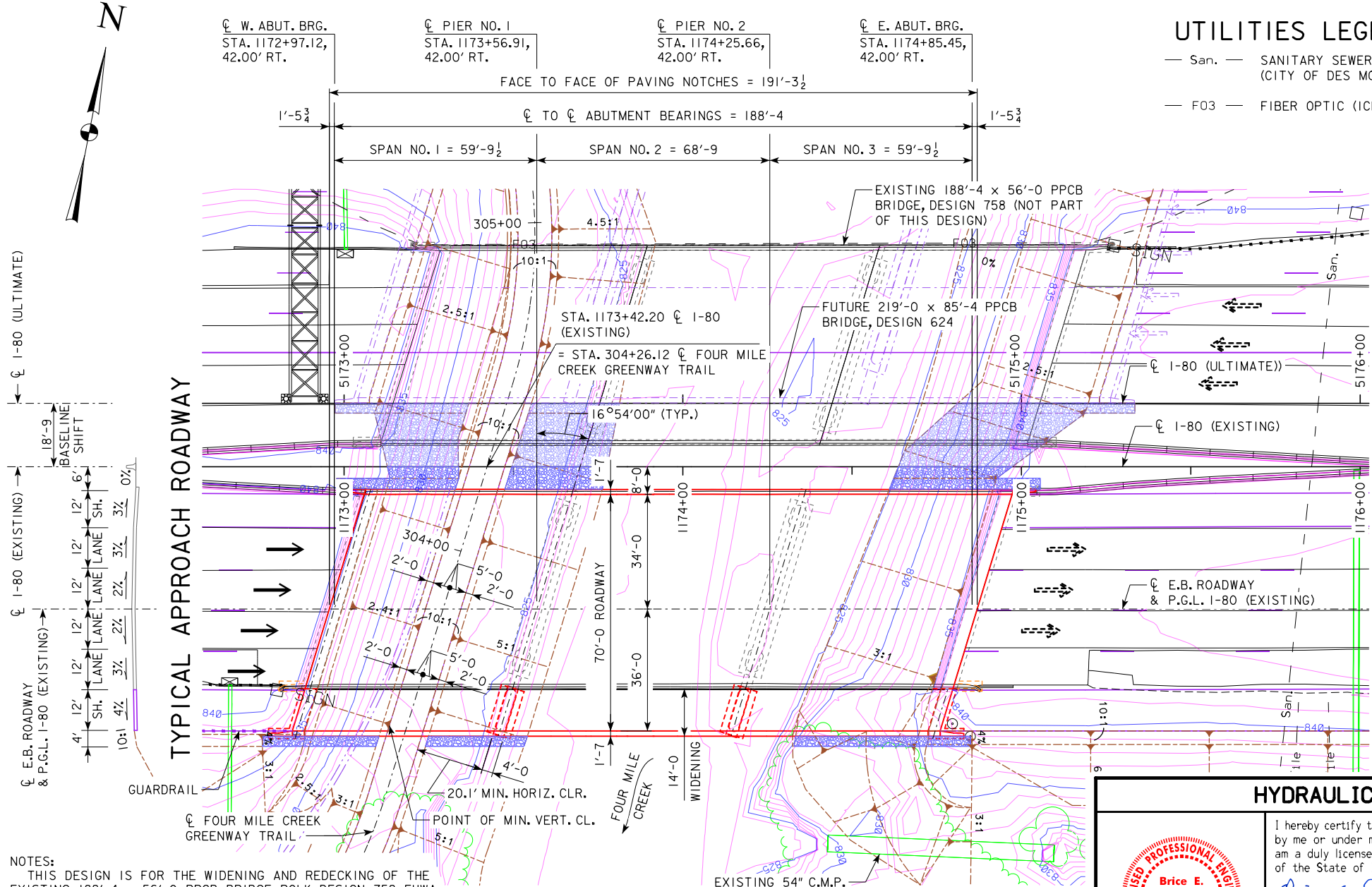
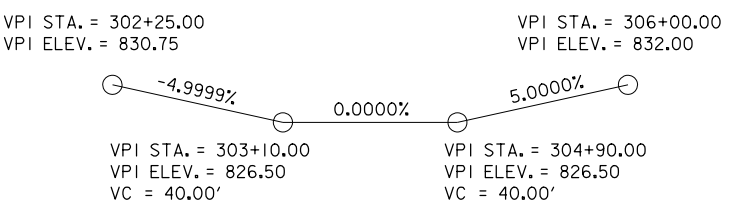
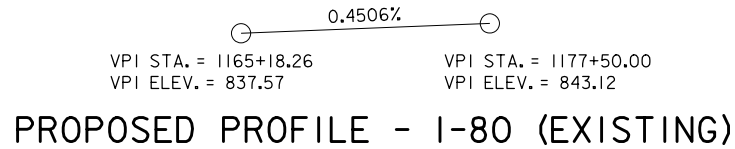
IOWA DEPARTMENT OF TRANSPORTATION

DESIGN SHEET NO. 3 OF 3 FILE NO. 32061 DESIGN NO. 624



NOTE:
TOP OF BRIDGE DECK AT E.B. ROADWAY IS 0.03' BELOW THE PROFILE GRADE TO ACCOUNT FOR PARABOLIC CROWN.

LONGITUDINAL SECTION ALONG E.B. ROADWAY



UTILITIES LEGEND:

- San. — SANITARY SEWER (CITY OF DES MOINES)
- F03 — FIBER OPTIC (ICN)

PROPOSED PROFILE - FOUR MILE CREEK GREENWAY TRAIL

LOCATION

I-80 E.B. OVER FOUR MILE CREEK
T-79N R-23W
SECTION 17
DELAWARE TOWNSHIP
POLK COUNTY
FHWA NO. -----
BRIDGE MAINT. NO. -----
LATITUDE 41.656365°
LONGITUDE -93.545922°

HYDRAULIC DATA

DRAINAGE AREA = 83.9 SQ. MI.
STREAM SLOPE = 7.0 FT./MI.
REGULATORY LOW BEAM = 836.72
OPERATIONAL LOW BEAM = 836.24

Q₂₅ = 6,586 CFS
STAGE = 834.13

Q₅₀ = 8,220 CFS
STAGE = 834.72
BACKWATER = 0.57 FT.
CHANNEL VELOCITY = 5.2 FPS

MINIMUM VERTICAL CLEARANCE

OVERHEAD STATION = 1173+13.46, 76.08' RT.
OVERHEAD ELEVATION = 840.25
DEPTH OF SUPERSTRUCTURE = 3.83'
UNDERPASS STATION = 303+44.94, 5.00' LT.
UNDERPASS ELEVATION = 826.58
MINIMUM VERTICAL CLEARANCE = 9.84'

Q₁₀₀ = 10,189 CFS
STAGE = 835.33
BACKWATER = 0.60 FT.
CHANNEL VELOCITY = 6.0 FPS

Q₂₀₀ = 11,885 CFS
STAGE = 835.80
CHANNEL VELOCITY = 6.7 FPS
CALCULATED DESIGN SCOUR = 814.1

Q₅₀₀ = 14,233 CFS
STAGE = 837.91
CHANNEL VELOCITY = 7.3 FPS
CALCULATED CHECK SCOUR = 814.1

TRAFFIC ESTIMATE

2021 AADT	40,700	V.P.D.
2041 AADT	55,100	V.P.D.
2041 DHV	6,020	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS		

EXTREME H.W. STAGE = 836.0 (EST.)
DATE = 7/1/2018

50, 100 & 500 YR. STAGES AND DISCHARGES FROM POLK COUNTY F.I.S., DATED 2/1/2019. 25 & 100 YR. DISCHARGES ESTIMATED FROM F.I.S. FLOW FREQUENCY RELATIONSHIP STAGES FROM HDR HYDRAULIC ANALYSIS. F.I.S. DATUM 0.0 FT. ABOVE PROJECT DATUM.

NOTES:
THIS DESIGN IS FOR THE WIDENING AND REDECKING OF THE EXISTING 188'-4" x 56'-0" PPCB BRIDGE, POLK DESIGN 758, FHWA NO. 041970, MAINT. NO. 7739.4R080.
ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE UNLESS NOTED OTHERWISE.
TL-5 BRIDGE RAILING PROPOSED.
PIER TYPE-T; BEAM TYPE-BTB BEAM.
BRIDGE AESTHETICS TO BE INCORPORATED IN FINAL DESIGN.
BERM SLOPES TO BE CONFIRMED IN FINAL DESIGN.

SITUATION PLAN

THE PROJECT WILL IMPACT CITY OF DES MOINES STREAM GAGE ATN14, FOUR MILE CREEK (CENTRAL IOWA) NEAR ALTOONA I-80, IA (DMX). CONTACT CITY OF DES MOINES 30 DAYS PRIOR TO CONSTRUCTION THAT WILL IMPACT THE GAGE. CITY OF DES MOINES ENGINEERING DEPARTMENT CONTACT: DAN PRITCHARD (515) 323-8163

HYDRAULIC DESIGN

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

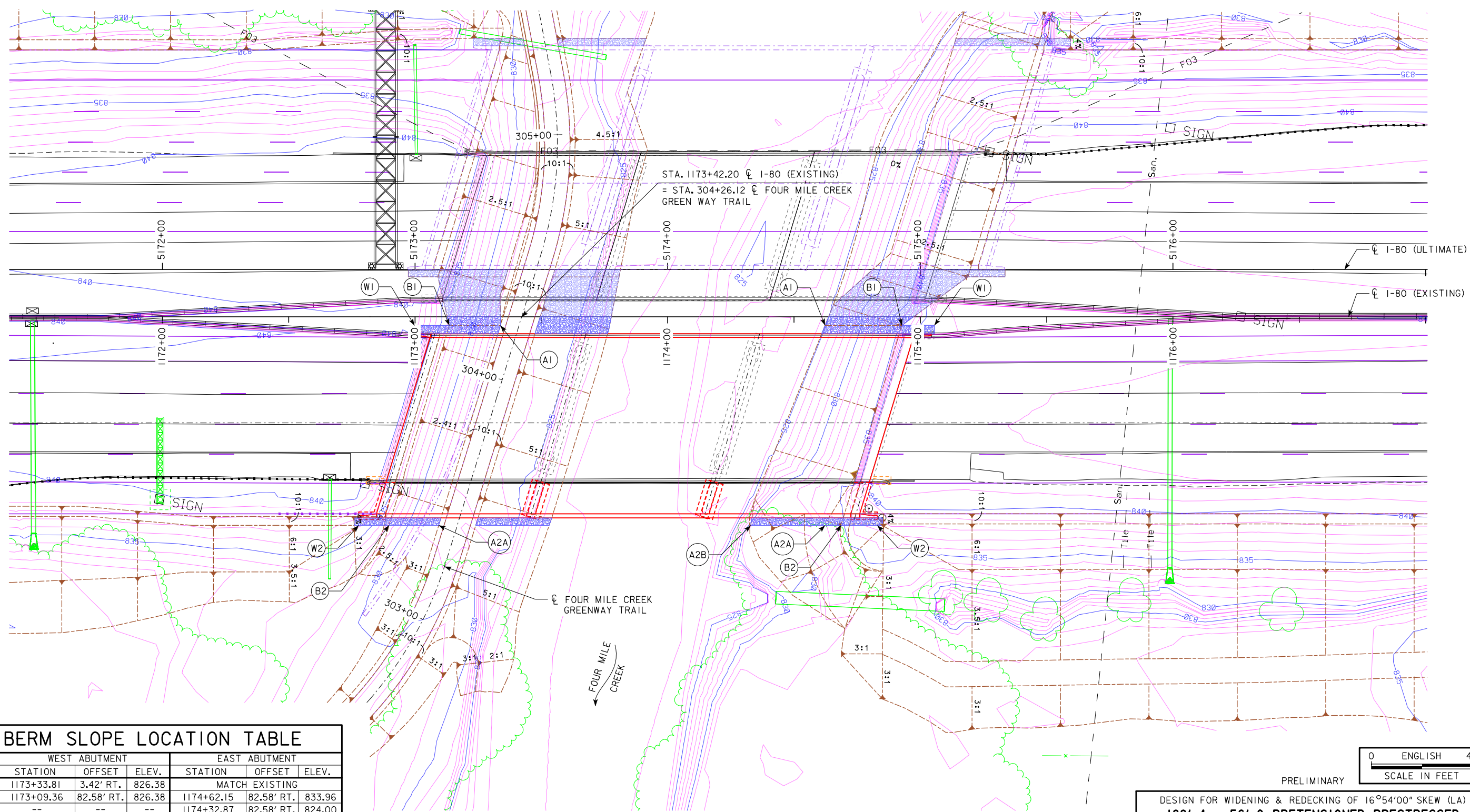
Brice E. Stafne 1/21/2022
Signature Date
BRICE E. STAFNE
Printed or Typed Name

My license renewal date is December 31, 2022

Pages or sheets covered by this seal: DESIGN SHEET NO. 1
H&H DATA ONLY

DESIGN FOR WIDENING & REDECKING OF 16°54'00" SKEW (LA)
188'-4" x 56'-0" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE TO 70'-0" ROADWAY BRIDGE
59'-9 1/2" END SPANS 68'-9" INTERIOR SPAN

SITUATION PLAN
STATION 1173+91.29 (E B. ROADWAY) NOVEMBER 2021
POLK COUNTY
IOWA DEPARTMENT OF TRANSPORTATION
DESIGN SHEET NO. 1 OF 3 FILE NO. 32061 DESIGN NO. 326



POINTS	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	1173+33.81	3.42' RT.	826.38	MATCH EXISTING		
A2A	1173+09.36	82.58' RT.	826.38	1174+62.15	82.58' RT.	833.96
A2B	--	--	--	1174+32.87	82.58' RT.	824.00
B1	MATCH EXISTING			MATCH EXISTING		
B2	1172+89.49	82.58' RT.	833.74	1174+68.42	82.58' RT.	834.59
W1	MATCH EXISTING			MATCH EXISTING		
W2	1172+75.70	82.58' RT.	839.87	1174+85.00	82.58' RT.	840.82

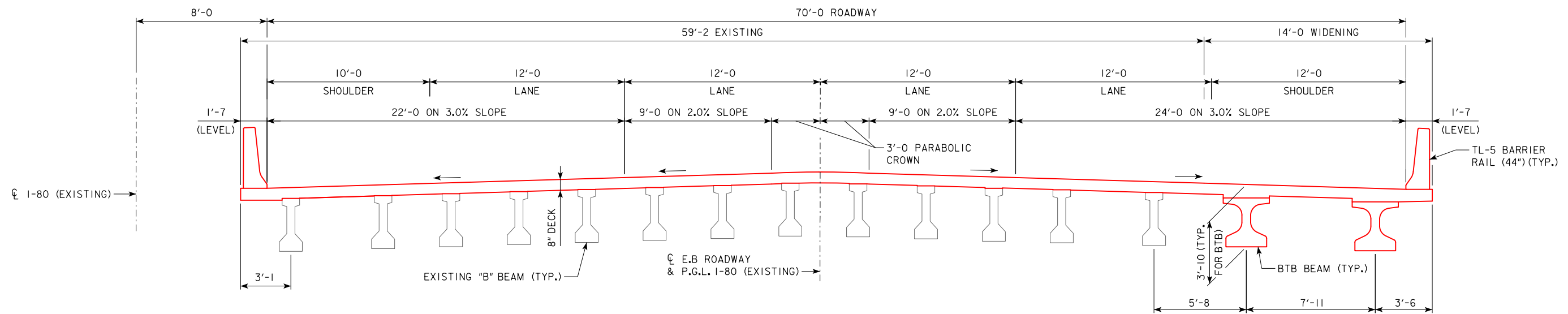
BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE.

SITE PLAN

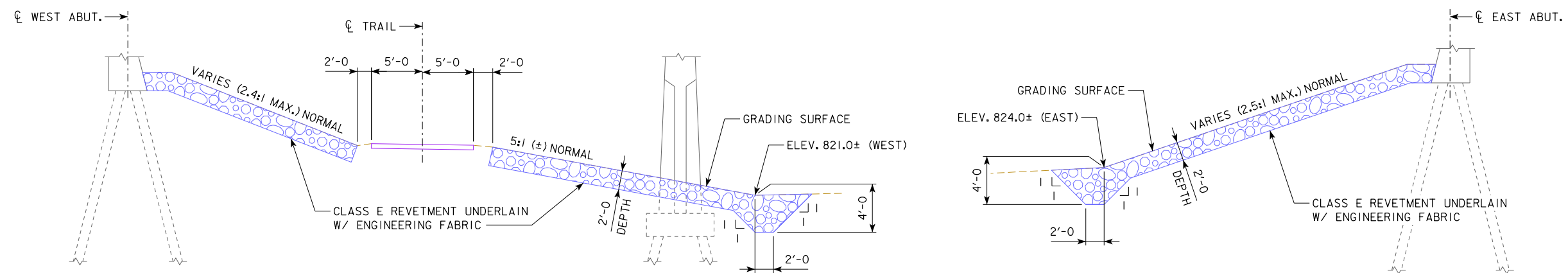


PRELIMINARY

DESIGN FOR WIDENING & REDECKING OF 16°54'00" SKEW (LA)
188'-4 x 56'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE TO 70'-0 ROADWAY BRIDGE
 59'-9½ END SPANS 68'-9 INTERIOR SPAN
SITUATION PLAN - SITE
 STATION 1173+91.29 (CL I-80 EXISTING) NOVEMBER 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION
 DESIGN SHEET NO. 2 OF 3 FILE NO. 32061 DESIGN NO. 326



TYPICAL SECTION



SECTION THROUGH STONE TOE AND BERM LINING

REVETMENT QUANTITIES

REVETMENT LOCATION	REVETMENT CLASS E (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
WEST ABUTMENT BERM	625	628	391
EAST ABUTMENT BERM	500	435	311

EXCAVATION QUANTITY CALCULATED INCLUDES MATERIAL MEASURED FROM THE EXISTING GROUND TO THE GRADING SURFACE AND THE MATERIAL OF THE CORE OUT MEASURED FROM THE GRADING SURFACE TO THE BOTTOM OF REVETMENT.

PRELIMINARY

DESIGN FOR WIDENING & REDECKING OF 16°54'00" SKEW (LA)
188'-4 x 56'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE TO 70'-0 ROADWAY BRIDGE

59'-9½ END SPANS 68'-9 INTERIOR SPAN

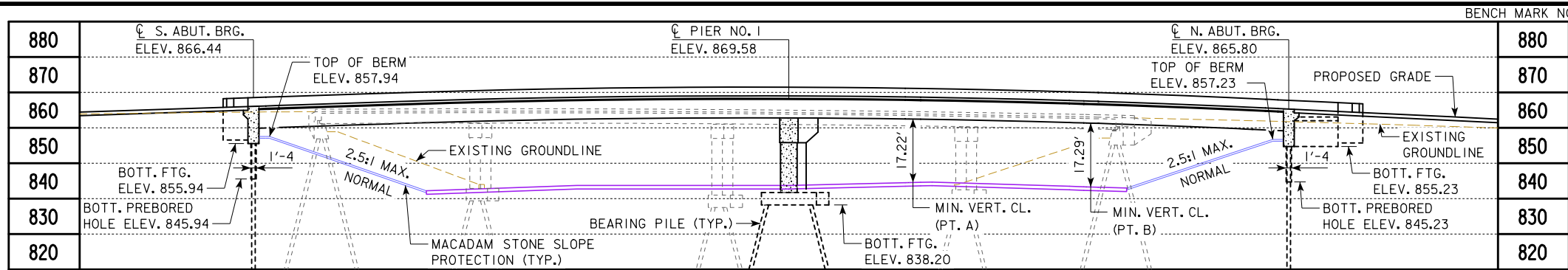
SITUATION PLAN - MISC.

STATION 1173+91.29 (1-80 EXISTING) NOVEMBER 2021

POLK COUNTY

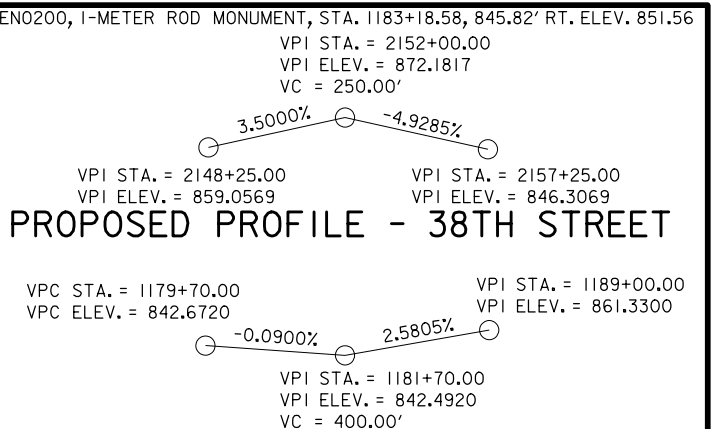
IOWA DEPARTMENT OF TRANSPORTATION

DESIGN SHEET NO. 3 OF 3 FILE NO. 32061 DESIGN NO. 326

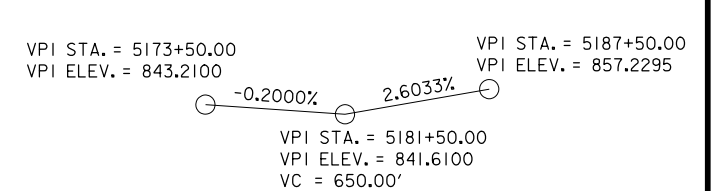


NOTE:
TOP OF BRIDGE DECK AT CENTERLINE ROADWAY IS 0.03' BELOW PROFILE GRADE LINE TO ACCOUNT FOR DECK CROSS SLOPE AND PARABOLIC CROWN.

LONGITUDINAL SECTION ALONG 38TH ST.



PROPOSED PROFILE - I-80 E.B.



PROPOSED PROFILE - I-80 W.B.

MINIMUM VERTICAL CLEARANCE (PT. A)

OVERHEAD STATION = 5181+53.59, 39.00' LT.
OVERHEAD ELEVATION = 868.93
DEPTH OF SUPERSTRUCTURE = 6.94'
UNDERPASS STATION = 2152+23.40, 18.08' RT.
UNDERPASS ELEVATION = 844.77
MINIMUM VERTICAL CLEARANCE = 17.22'

FUTURE MINIMUM VERTICAL CLEARANCE (PT. B)

OVERHEAD STATION = 5181+43.90, 75.00' LT.
OVERHEAD ELEVATION = 868.13
DEPTH OF SUPERSTRUCTURE = 7.08'
UNDERPASS STATION = 2152+60.68, 18.08' RT.
UNDERPASS ELEVATION = 843.76
MINIMUM VERTICAL CLEARANCE = 17.29'

LOCATION

38TH STREET OVER I-80
T-79N R-23W
SECTION 17
DELAWARE TOWNSHIP
POLK COUNTY
FHWA NO. -----
BRIDGE MAINT. NO. -----
LATITUDE 41.656914°
LONGITUDE -93.543249°

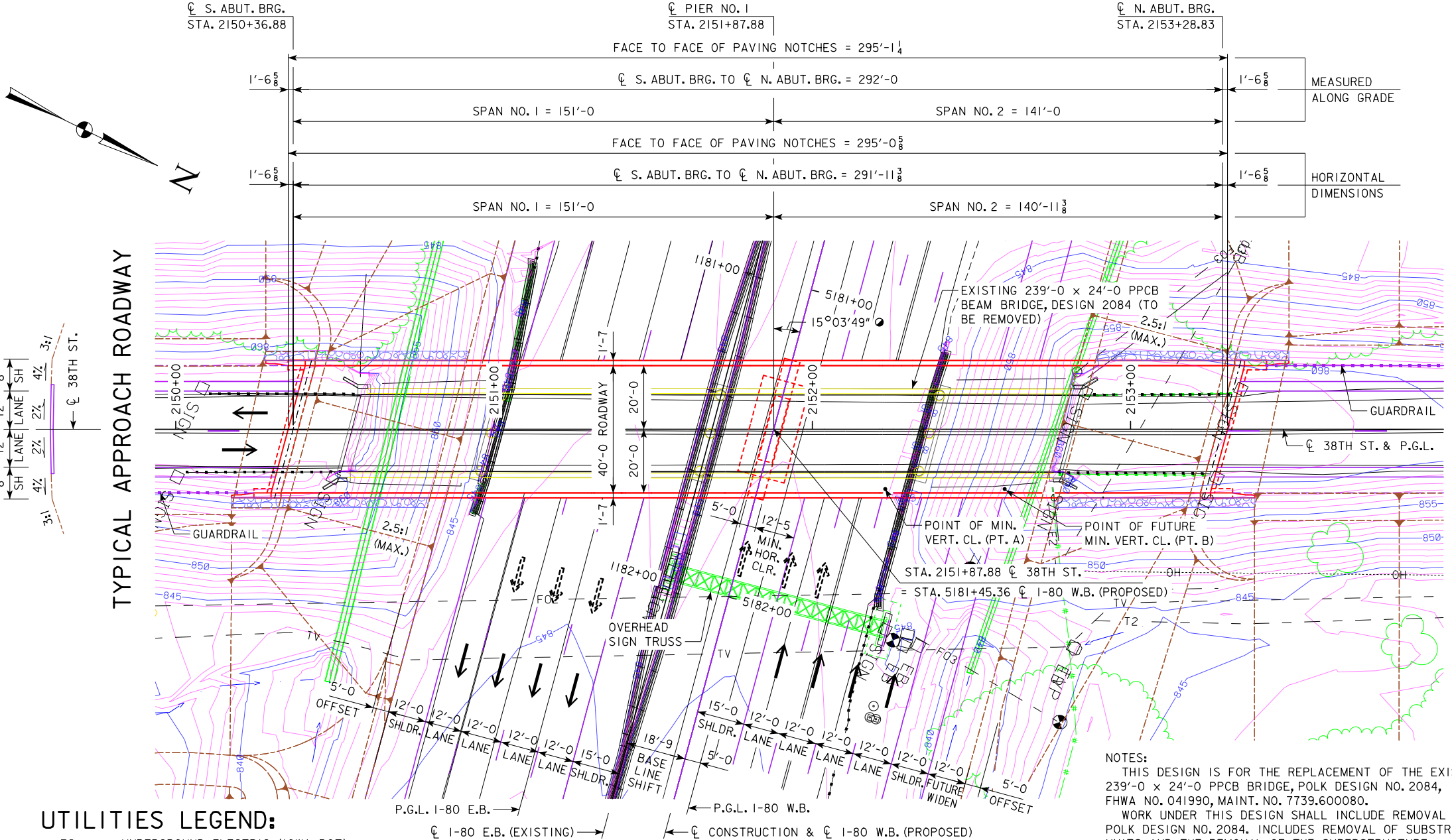
TRAFFIC ESTIMATE

2021 AADT	2600	V.P.D.
T-79N R-23W SECTION 17	5000	V.P.D.
2041 DHV	500	V.P.H.
TRUCKS	2	%
TOTAL DESIGN ESALS		

PRELIMINARY



DESIGN FOR 15°00'00" SKEW (LA)
292'-0" X 40'-0" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
151'-0" & 141'-0" SPANS (BTE BEAM TYPE)
SITUATION PLAN
STATION 2151+82.88
POLK COUNTY
IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION
DESIGN SHEET NO. 1 OF 3 FILE NO. 32061 DESIGN NO. 126



UTILITIES LEGEND:

- E2 — UNDERGROUND ELECTRIC (IOWA DOT)
- F02 — FIBER OPTIC (CENTURYLINK)
- F03 — FIBER OPTIC (ICN)
- OH — OVERHEAD UTILITY
- TV — UNDERGROUND CABLE TV (MEDIACOM)
- T2 — UNDERGROUND TELEPHONE (CENTURYLINK)

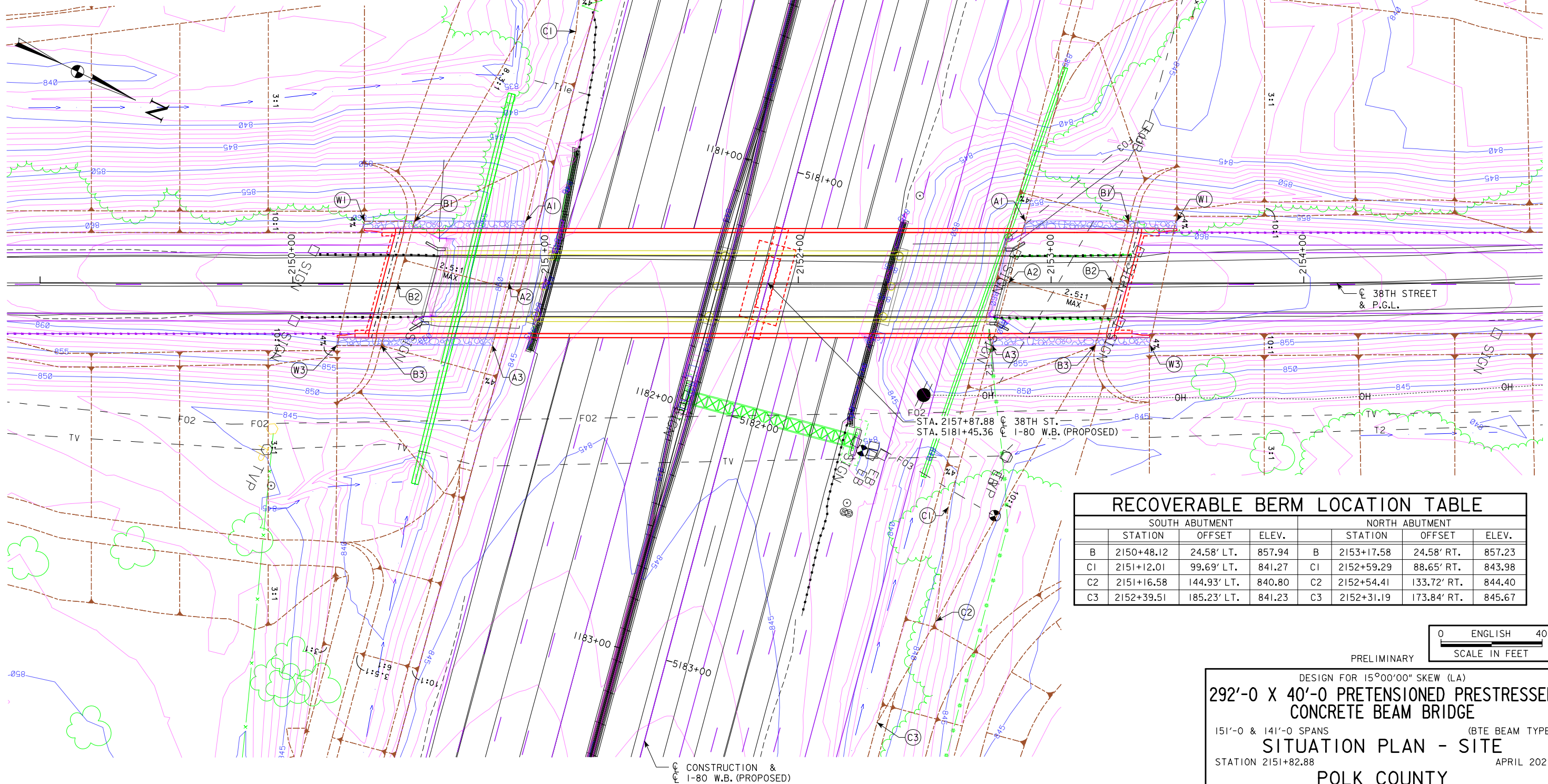
SITUATION PLAN

● SKEW ANGLE MEASURED BETWEEN 38TH STREET AND A PERPENDICULAR TO I-80 W.B.

NOTES:
THIS DESIGN IS FOR THE REPLACEMENT OF THE EXISTING 239'-0" X 24'-0" PPCB BRIDGE, POLK DESIGN NO. 2084, FHWA NO. 041990, MAINT. NO. 7739.600080.
WORK UNDER THIS DESIGN SHALL INCLUDE REMOVAL OF POLK DESIGN NO. 2084. INCLUDES REMOVAL OF SUBSTRUCTURE UNITS AND THE REMOVAL OF THE SUPERSTRUCTURE.
ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE UNLESS NOTED OTHERWISE.
TL-4 BRIDGE RAILING PROPOSED.
PIER TYPE-T; BEAM TYPE-BTE.
BRIDGE AESTHETICS TO BE INCORPORATED IN FINAL DESIGN.
BERM SLOPES TO BE CONFIRMED IN FINAL DESIGN.
2-SPAN GRADING SHOWN (SEE EW203/204 - 5' OFFSET).

BERM SLOPE LOCATION TABLE

SOUTH ABUTMENT			NORTH ABUTMENT				
	STATION	OFFSET	ELEV.		STATION	OFFSET	ELEV.
A1	2150+92.23	24.58' LT.	841.91	A1	2152+89.77	24.58' LT.	842.55
A2	2150+85.61	0.00'	842.21	A2	2152+83.15	0.00'	842.81
A3	2150+79.00	24.58' RT.	842.55	A3	2152+76.54	24.58' RT.	843.10
B1	2150+48.12	24.58' LT.	857.94	B1	2153+30.76	24.58' LT.	857.23
B2	2150+41.54	0.00'	857.94	B2	2153+24.17	0.00'	857.23
B3	2150+34.95	24.58' RT.	857.94	B3	2153+17.58	24.58' RT.	857.23
W1	2150+28.31	24.58' LT.	865.59	W1	2153+49.76	24.58' LT.	864.21
W3	2150+17.55	24.58' RT.	865.21	W2	2153+38.95	24.58' RT.	864.75



RECOVERABLE BERM LOCATION TABLE

SOUTH ABUTMENT			NORTH ABUTMENT				
	STATION	OFFSET	ELEV.		STATION	OFFSET	ELEV.
B	2150+48.12	24.58' LT.	857.94	B	2153+17.58	24.58' RT.	857.23
C1	2151+12.01	99.69' LT.	841.27	C1	2152+59.29	88.65' RT.	843.98
C2	2151+16.58	144.93' LT.	840.80	C2	2152+54.41	133.72' RT.	844.40
C3	2152+39.51	185.23' LT.	841.23	C3	2152+31.19	173.84' RT.	845.67



PRELIMINARY

DESIGN FOR 15°00'00" SKEW (LA)

292'-0 X 40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

151'-0 & 141'-0 SPANS (BTE BEAM TYPE)

SITUATION PLAN - SITE

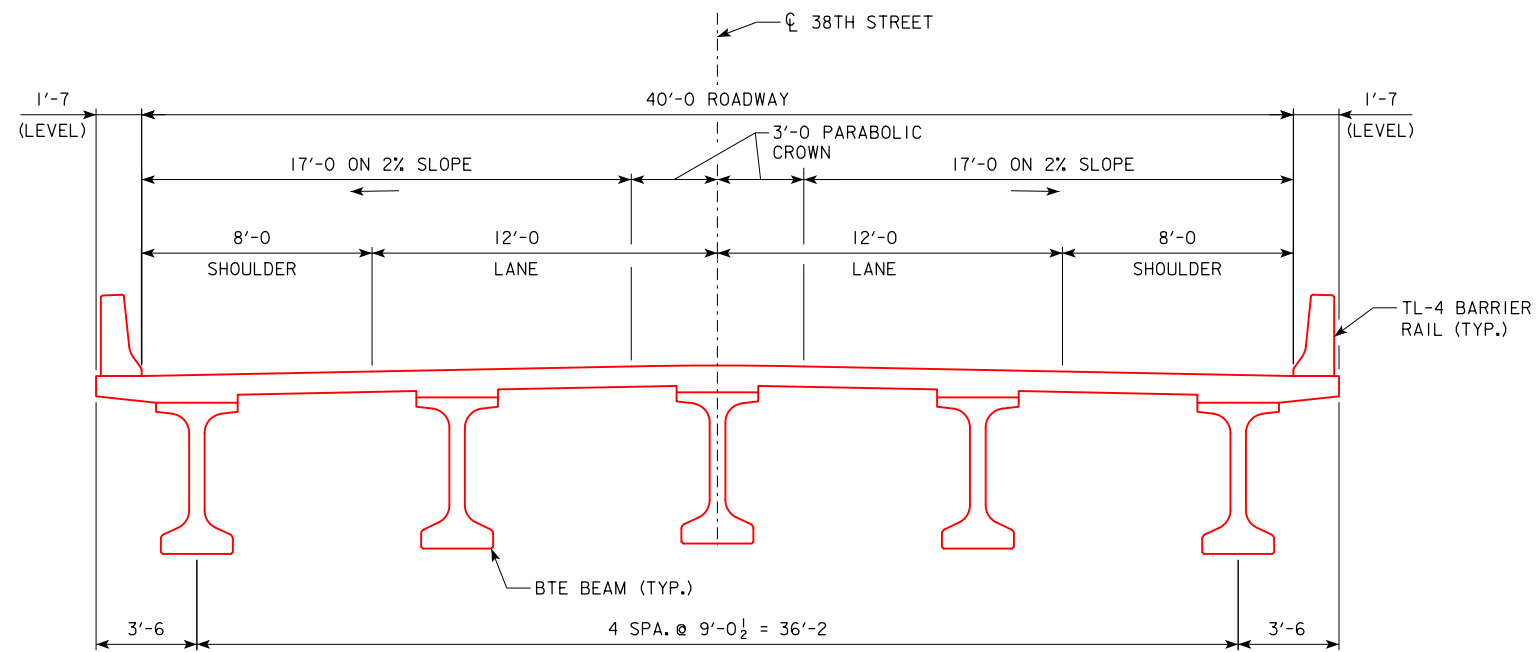
STATION 2151+82.88

POLK COUNTY

IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION

DESIGN SHEET NO. 2 OF 3 FILE NO. 32061 DESIGN NO. 126

SITE PLAN



TYPICAL SECTION

PRELIMINARY

DESIGN FOR 15°00'00" SKEW (LA)
**292'-0 X 40'-0 PRETENSIONED PRESTRESSED
 CONCRETE BEAM BRIDGE**

151'-0 & 141'-0 SPANS (BTE BEAM TYPE)

SITUATION PLAN - MISC.

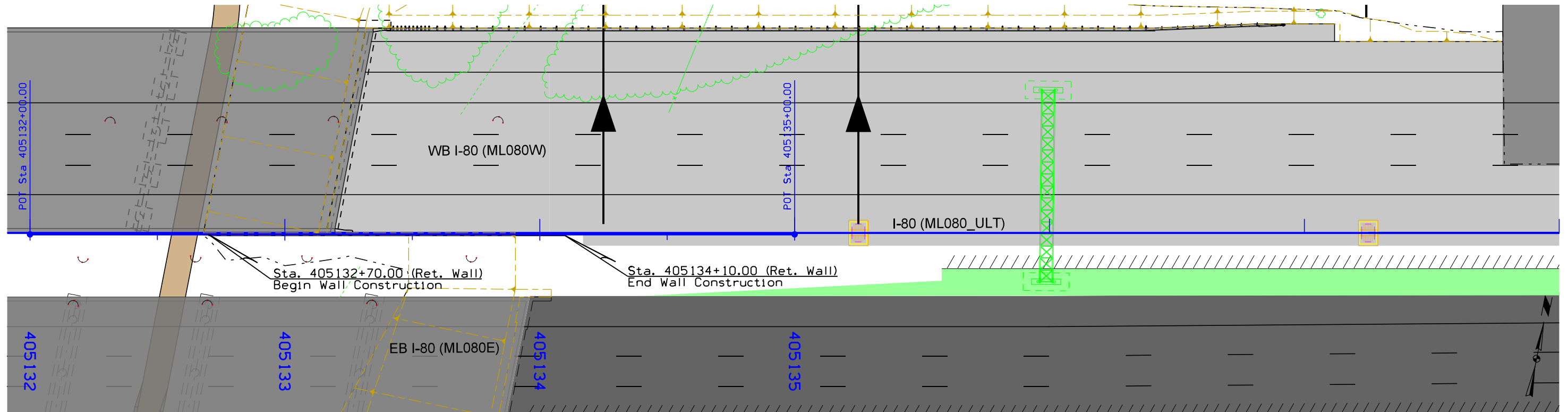
STATION 2151+82.88 APRIL 2021

POLK COUNTY

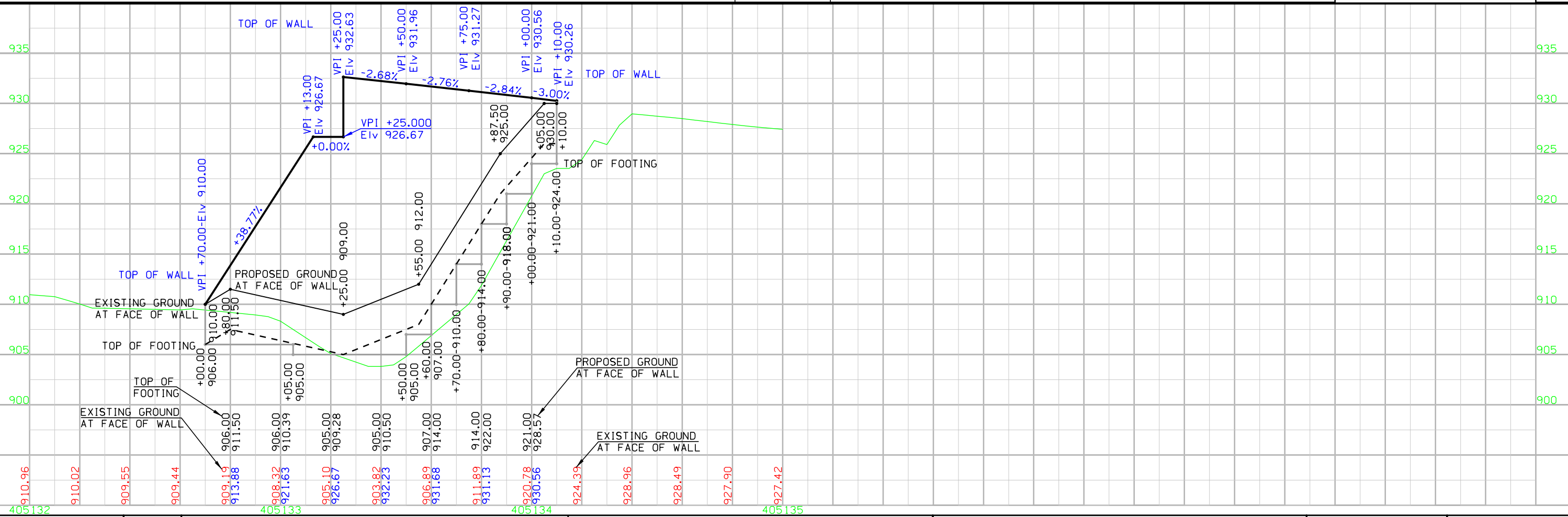
IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION

DESIGN SHEET NO. 3 OF 3 FILE NO. 32061 DESIGN NO. 126

DELAWARE TWP.
T-79-N R-23W
SEC. 17

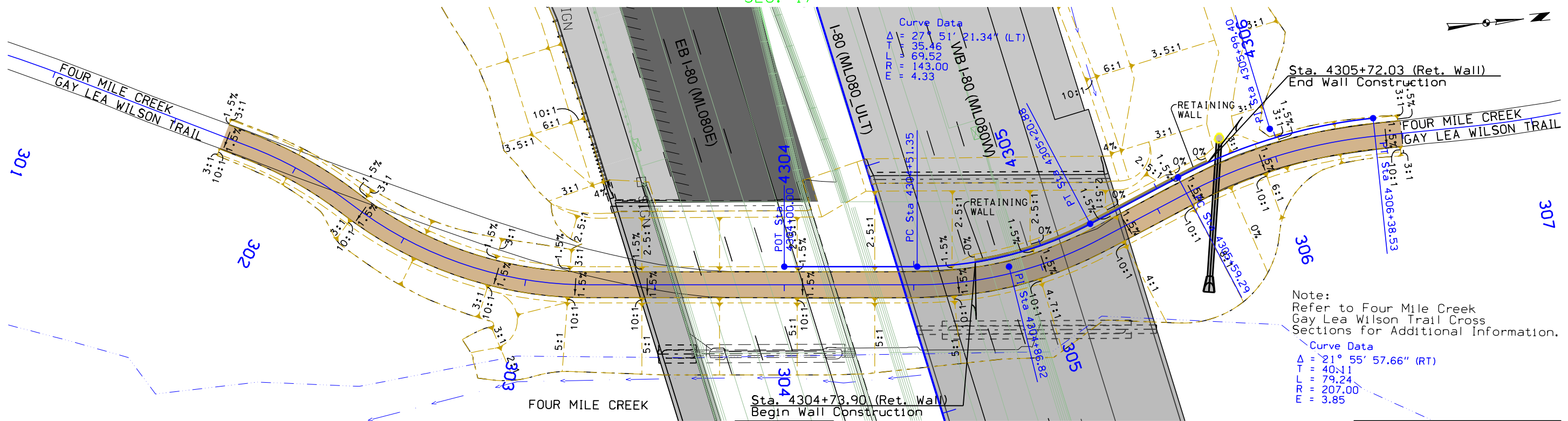


RETAINING WALL
29TH STREET



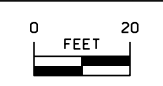
FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-NHS-080-4(80)138--03-77	SHEET NUMBER	V.16
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DELAWARE TWP.
T-79-N R-23W
SEC. 17

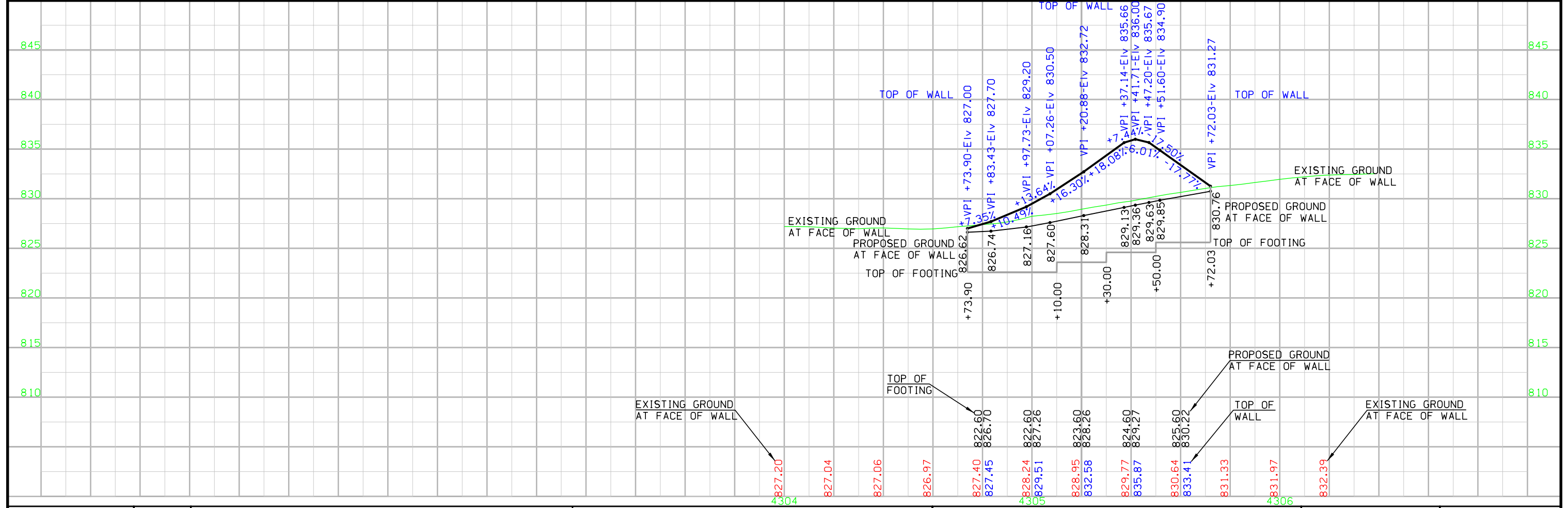


Note:
Refer to Four Mile Creek
Gay Lea Wilson Trail Cross
Sections for Additional Information.

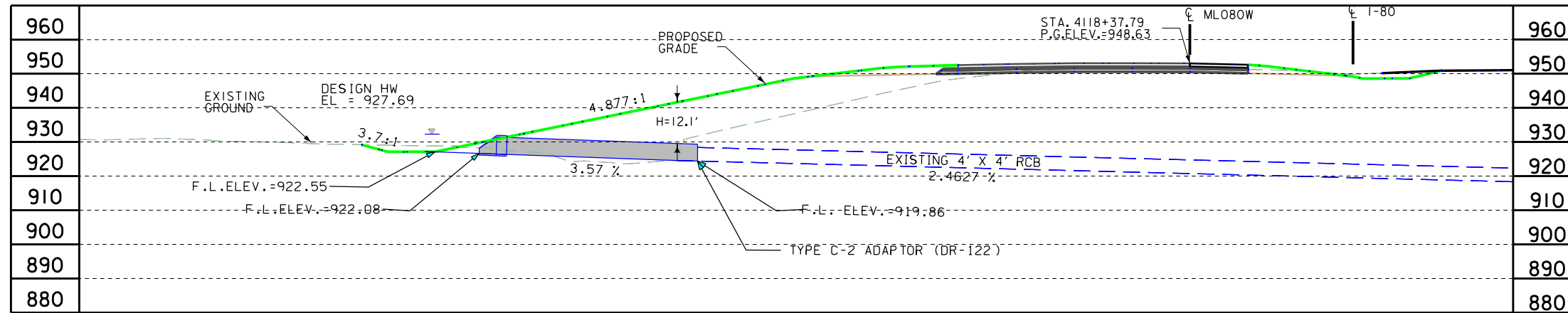
Curve Data
 $\Delta = 21^\circ 55' 57.66''$ (RT)
 T = 40.11
 L = 79.24
 R = 207.00
 E = 3.85



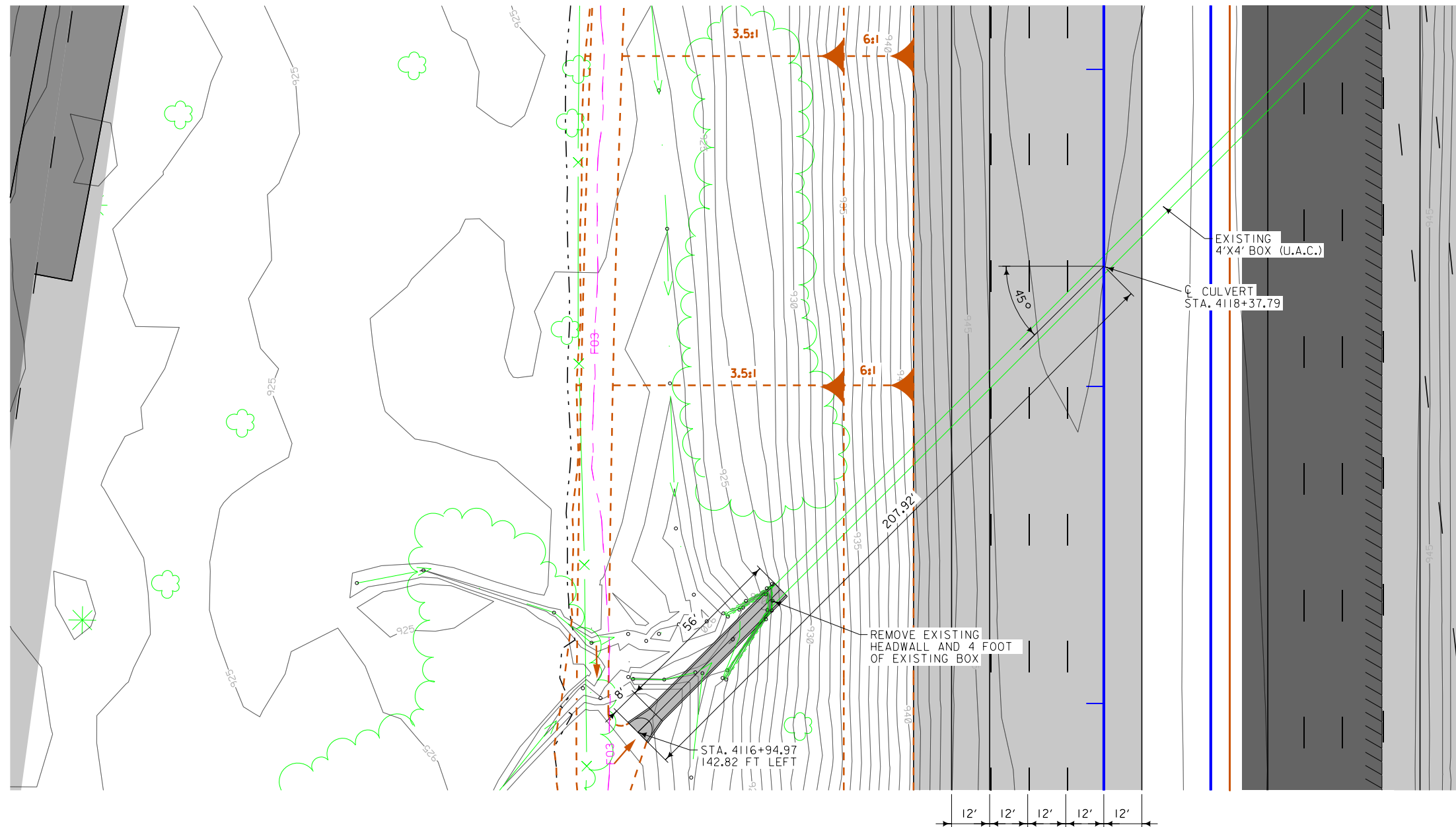
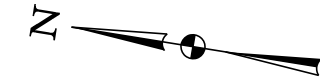
RETAINING WALL
FOUR MILE CREEK
GAY LEA WILSON TRAIL



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-NHS-080-4(80)138--03-77	SHEET NUMBER	V.17
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LONGITUDINAL SECTION ALONG \bar{C} CULVERT



PLAT PLAN



TRAFFIC ESTIMATE

2020 AADT	75,700	V.P.D.
2050 AADT	130,100	V.P.D.
2050 DHV	10,790	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS	--	

LOCATION

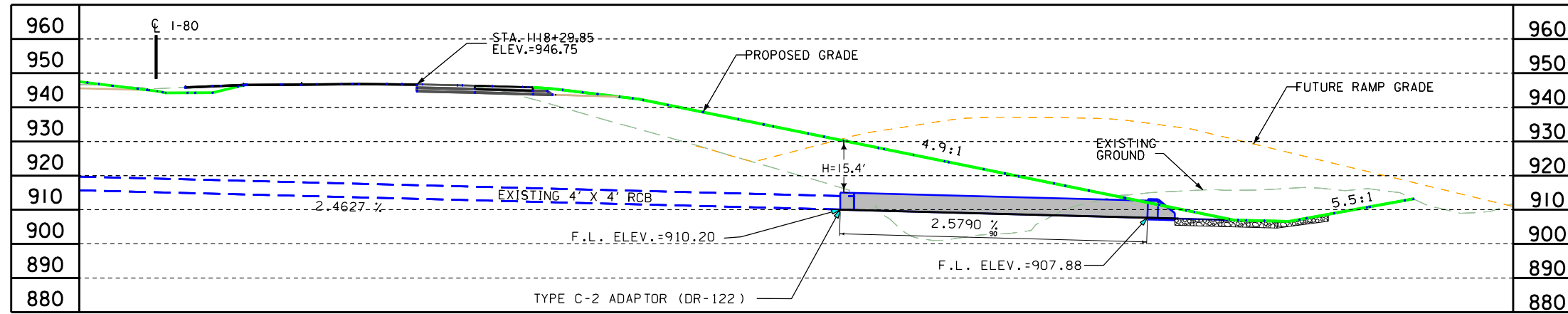
INTERSTATE 80
 T-79 N R-23 W
 SECTION 18
 DELAWARE TOWNSHIP
 POLK COUNTY
 LATITUDE 41°39'13.82" N
 LONGITUDE 93°34'00.37" W

HYDRAULIC DATA

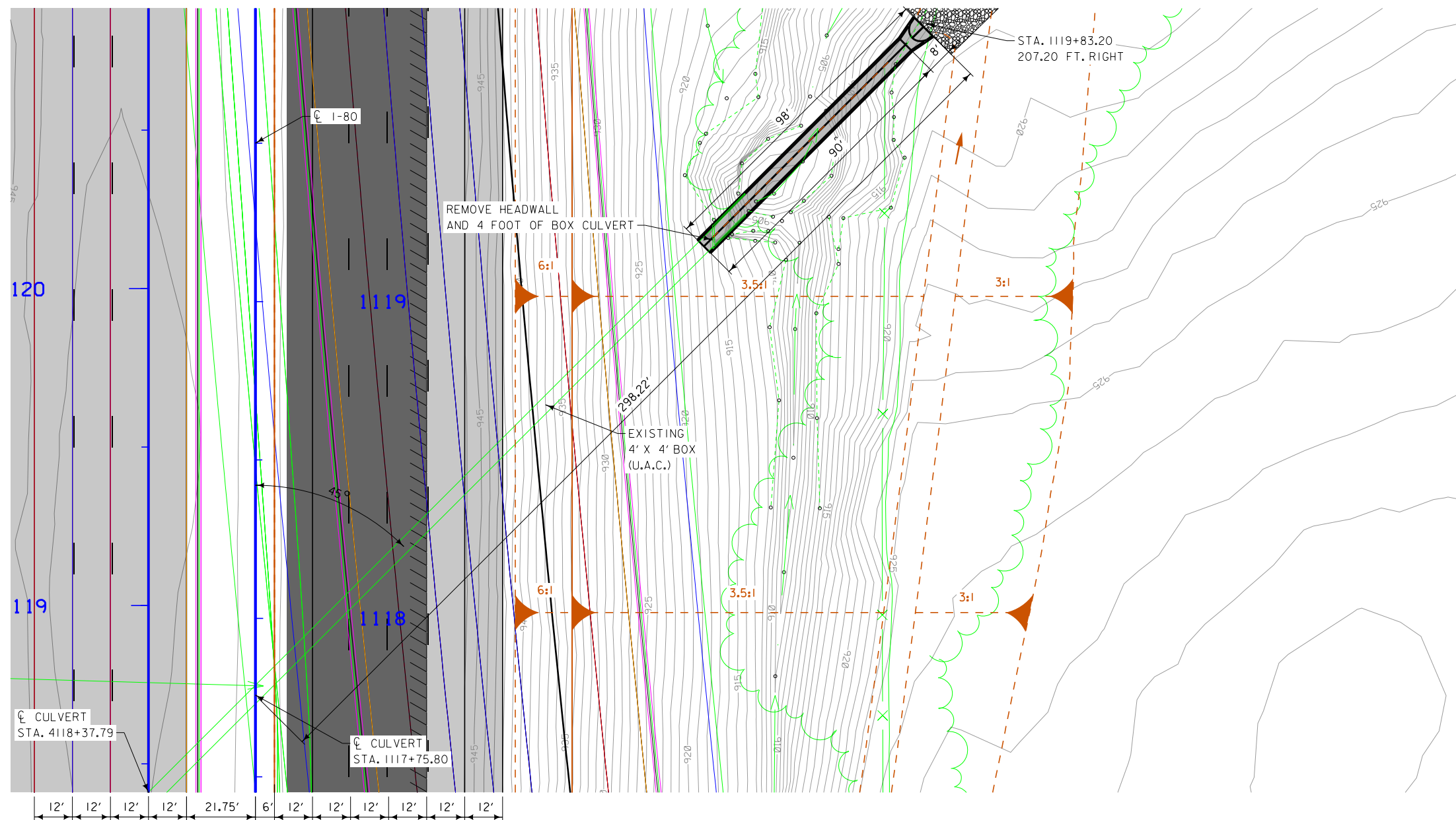
DRAINAGE AREA = 94.5 ACRES - ROLLING
 Q_{50} = 142 CFS
 HW ELEV. = 927.69

DESIGN FOR A 0° SKEW
**60 in. x 56 ft. (LEFT)
 REINFORCED CONC. PIPE EXTENSION**

PLAT PLAN
 STA. 4118+37.79 (ML_080W) APRIL, 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
 DESIGN SHEET NO. OF FILE NO. DESIGN NO.



LONGITUDINAL SECTION ALONG ϕ CULVERT



PLAT PLAN



TRAFFIC ESTIMATE

2020 AADT	75700	V.P.D.
2050 AADT	130100	V.P.D.
20XX DHV	10790	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS	--	

LOCATION

INTERSTATE 80
 T-79 N R-23 W
 SECTION 18
 DELAWARE TOWNSHIP
 POLK COUNTY
 LATITUDE 41°39'11.29" N
 LONGITUDE 93°33'55.36" W

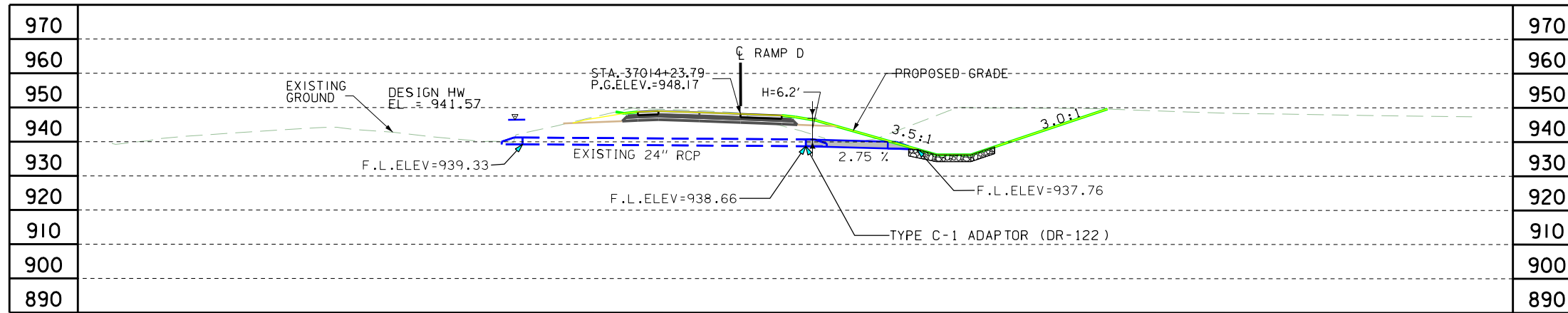
HYDRAULIC DATA

DRAINAGE AREA = 94.5 ACRES - HILLY
 $Q_{50} = 142$ CFS
 HW ELEV. = 927.69

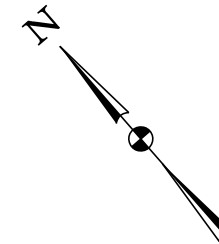
DESIGN FOR A 0° SKEW
**60 in. x 90 ft. (RIGHT)
 REINFORCED CONC. PIPE EXTENSION**

PLAT PLAN
 STA. 4118+37.79 (ML_080W) APRIL, 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
 DESIGN SHEET NO. 1 OF 1 FILE NO. DESIGN NO.





LONGITUDINAL SECTION ALONG ϕ CULVERT



TRAFFIC ESTIMATE

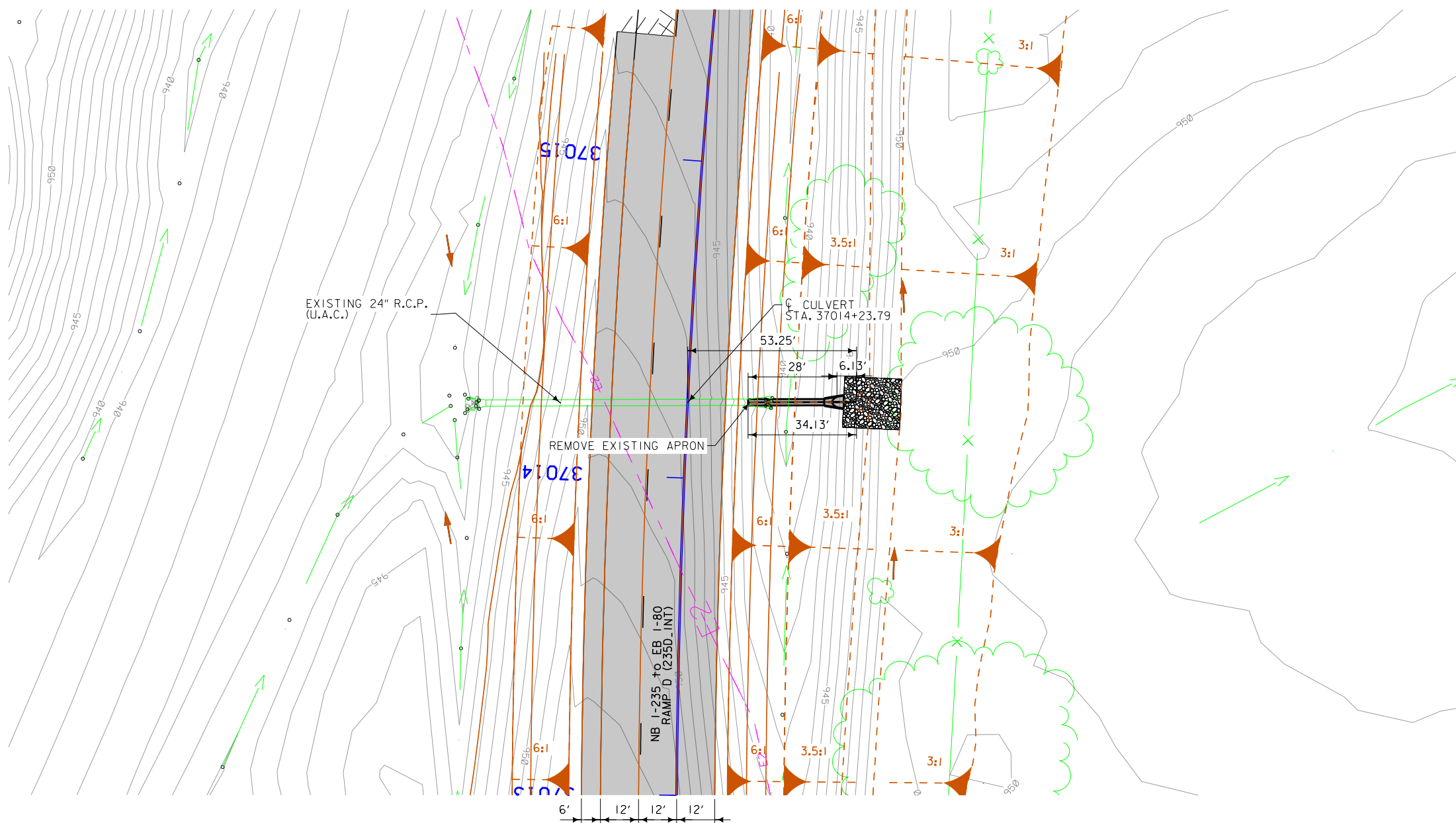
2020 AADT	75700	V.P.D.
2050 AADT	130100	V.P.D.
20XX DHV	10790	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS	--	

LOCATION

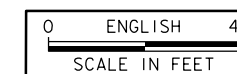
INTERSTATE 80
 T-79 N R-23 W
 SECTION 18
 DELAWARE TOWNSHIP
 POLK COUNTY
 LATITUDE 41°39'03.55" N
 LONGITUDE 93°34'22.28" W

HYDRAULIC DATA

DRAINAGE AREA = 2.9 ACRES - ROLLING
 Q_{50} = 16 CFS
 HW ELEV. = 941.57

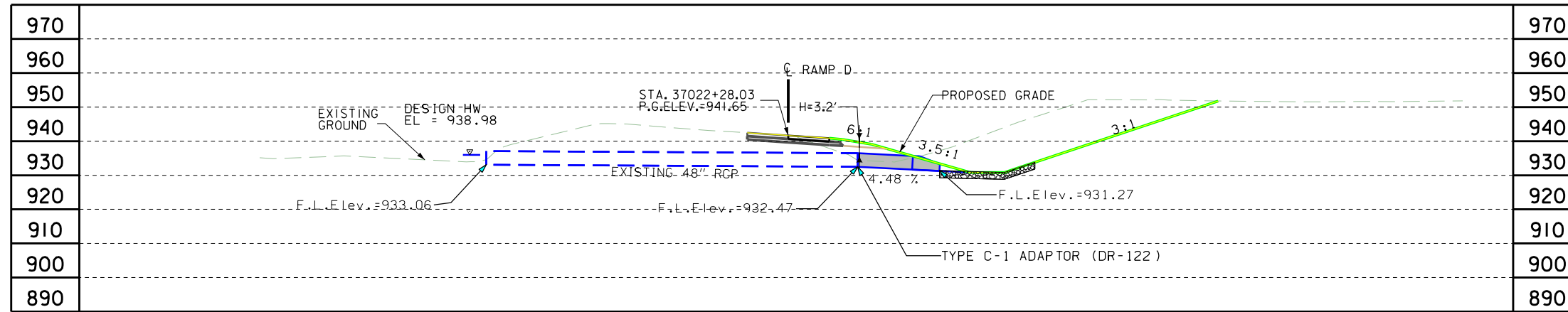


PLAT PLAN

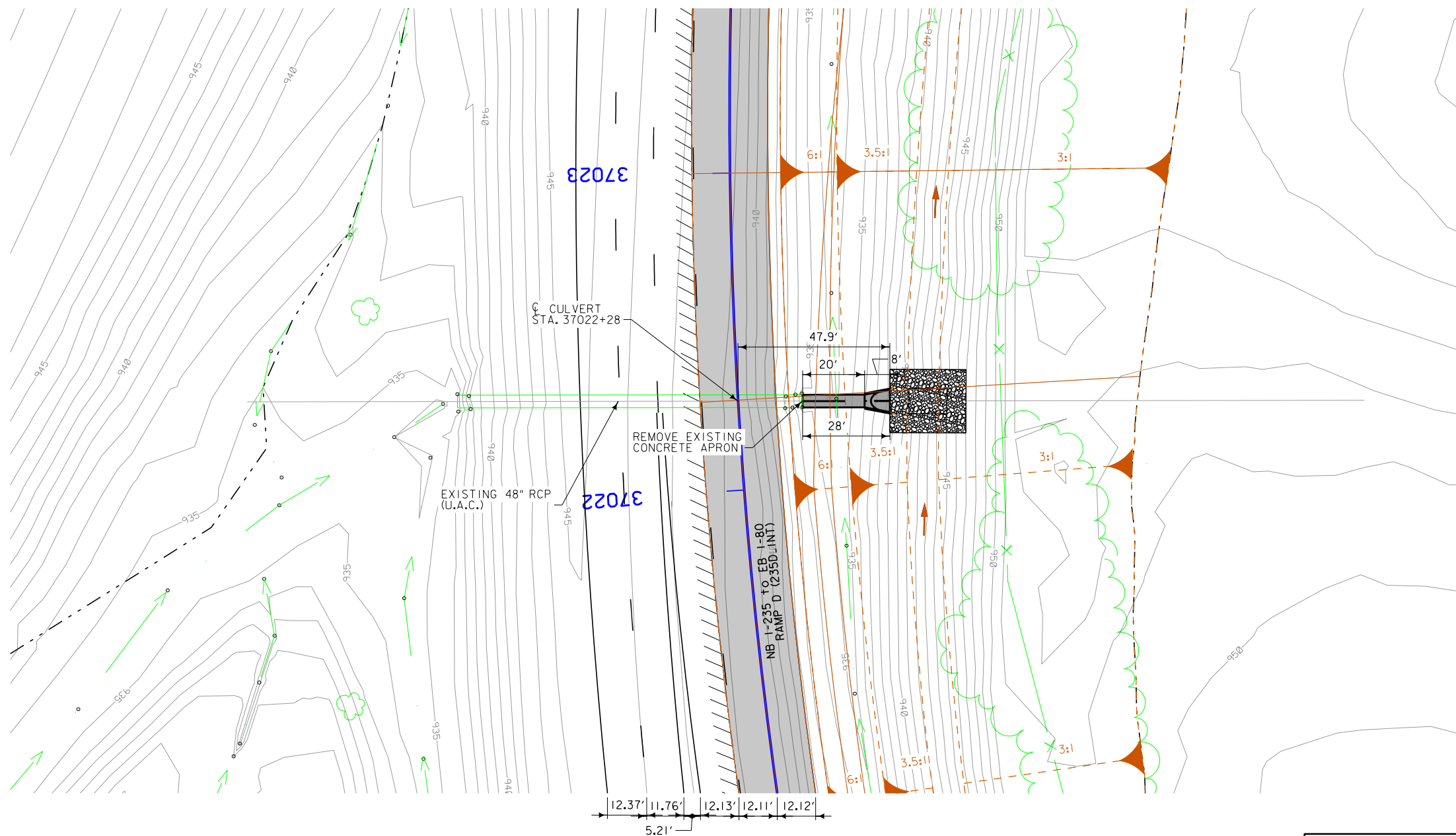
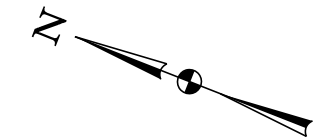


DESIGN FOR A 0° SKEW
24 in. x 28 ft. (RIGHT)
REINFORCED CONC. PIPE EXTENSION

PLAT PLAN
 STA. 37014+23 (RAMP D) APRIL, 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
 DESIGN SHEET NO. 1 OF 1 FILE NO. DESIGN NO.



LONGITUDINAL SECTION ALONG ϕ CULVERT



PLAT PLAN

TRAFFIC ESTIMATE

2020 AADT	75700	V.P.D.
2050 AADT	130100	V.P.D.
20XX DHV	10790	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS	--	

LOCATION

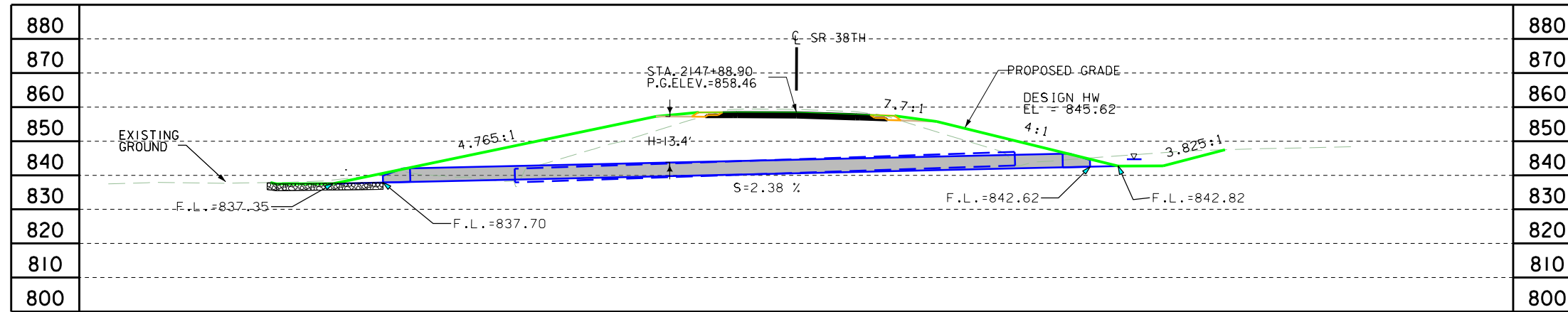
INTERSTATE 80
 T-79 N R-23 W
 SECTION 18
 DELAWARE TOWNSHIP
 POLK COUNTY
 LATITUDE 41°39'08.53" N
 LONGITUDE 93°34'14.30" W

HYDRAULIC DATA

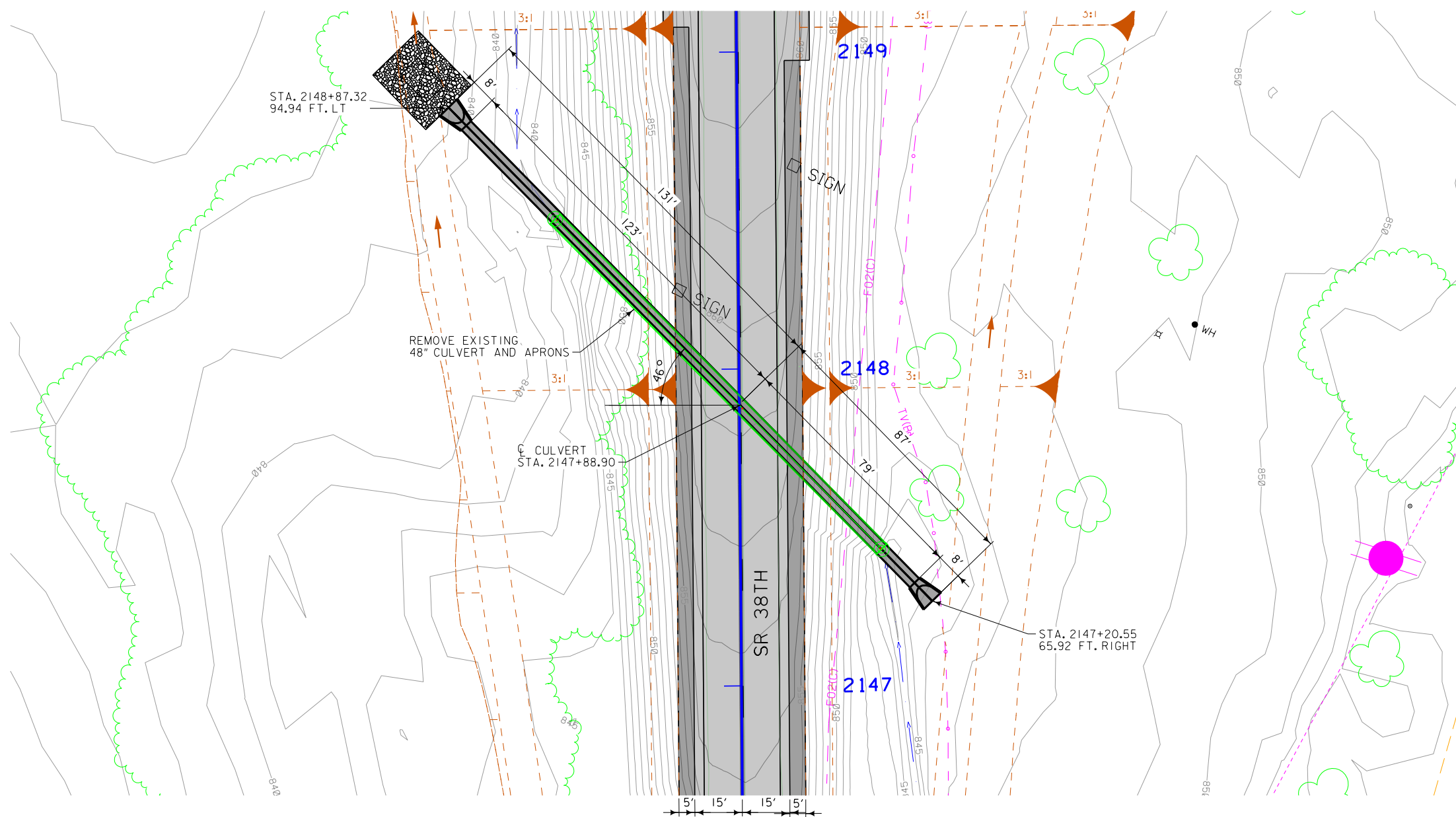
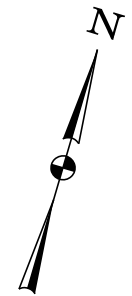
DRAINAGE AREA = 22.4 ACRES - ROLLING
 Q₅₀ = 48 CFS
 HW ELEV. = 935.98

DESIGN FOR A 0° SKEW
48 in. x 20 ft.
REINFORCED CONCRETE PIPE
REINFORCED CONC. PIPE EXTENSION
PLAT PLAN
 STA. 37022+28 (Ramp D) APRIL, 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
 DESIGN SHEET NO. OF FILE NO. DESIGN NO.





LONGITUDINAL SECTION ALONG ϕ CULVERT



PLAT PLAN

TRAFFIC ESTIMATE

2020 AADT	75700	V.P.D.
2050 AADT	130100	V.P.D.
20XX DHV	10790	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALs	--	

LOCATION

INTERSTATE 80
 T-79 N R-23 W
 SECTION 17
 DELAWARE TOWNSHIP
 POLK COUNTY
 LATITUDE 41°39'21.36" N
 LONGITUDE 93°32'33.38" W

HYDRAULIC DATA

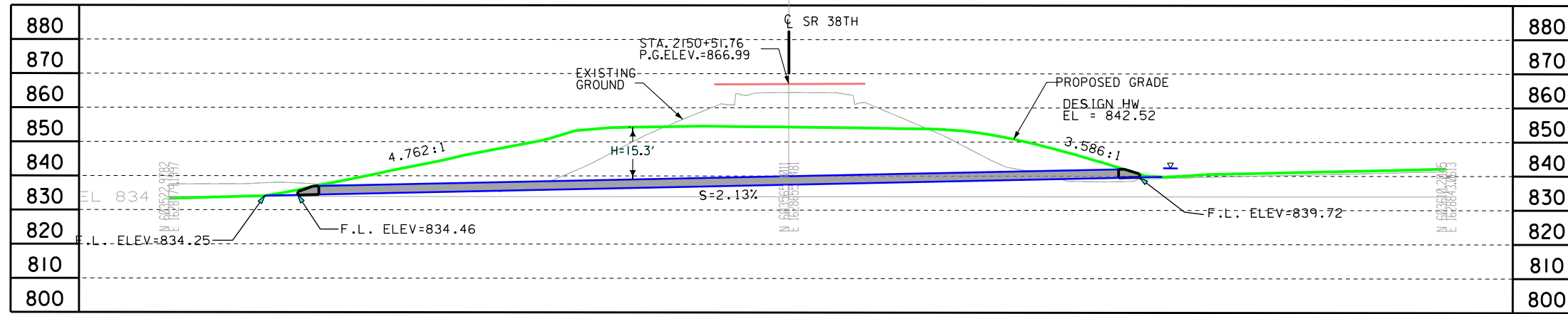
DRAINAGE AREA = 24.8 ACRES - ROLLING
 Q₅₀ = 51 CFS
 HW ELEV. = 845.62

DESIGN FOR A 46° SKEW
48 in. x 202 ft.
REINFORCED CONCRETE PIPE

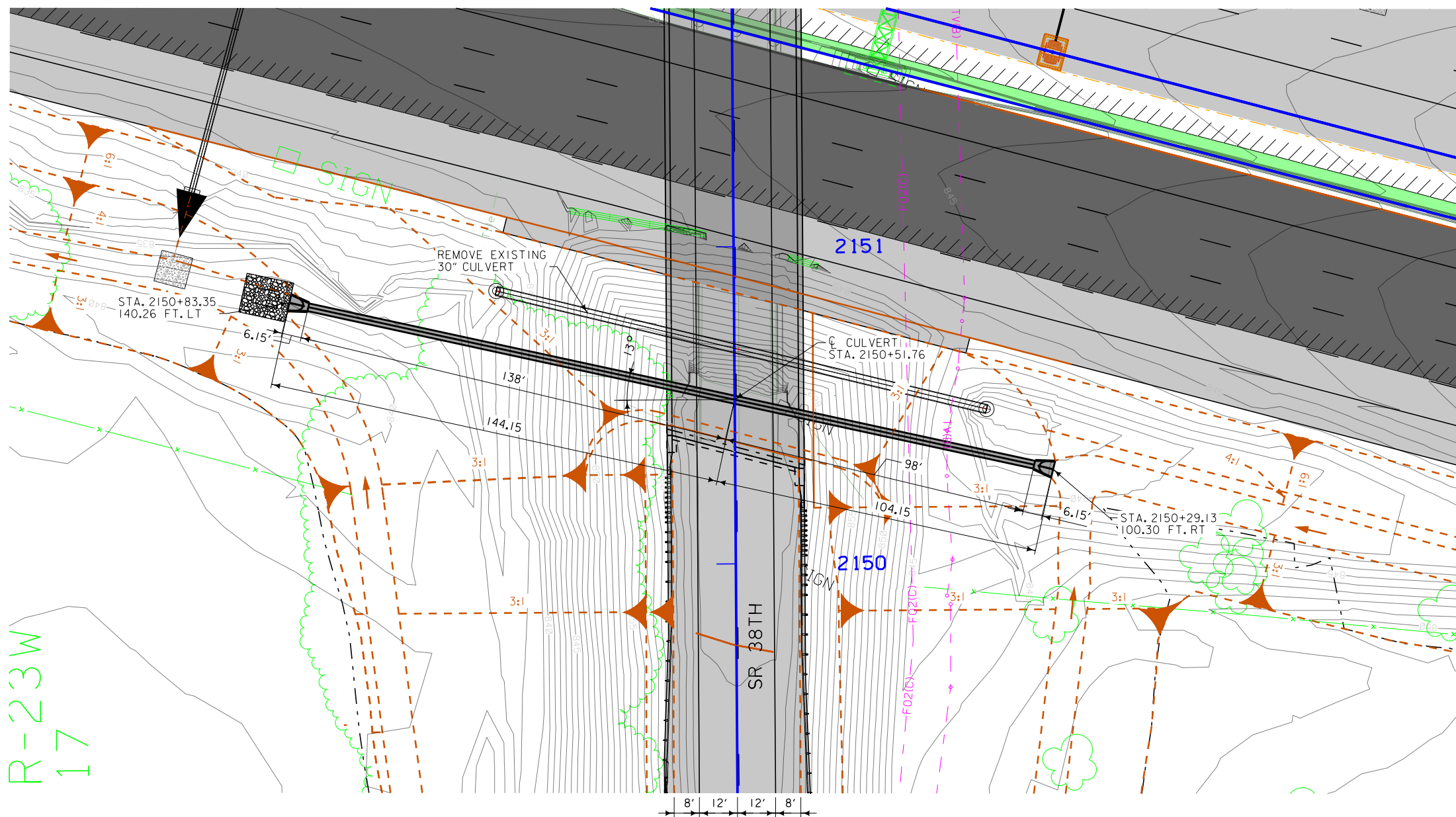
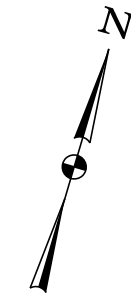
PLAT PLAN

STA. 2147+88.90 (SR 38TH) APRIL, 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
 DESIGN SHEET NO. 1 OF 1 FILE NO. DESIGN NO.



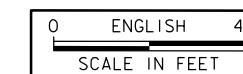


LONGITUDINAL SECTION ALONG ϕ CULVERT



R-23W
17

PLAT PLAN



TRAFFIC ESTIMATE

2020 AADT	75700	V.P.D.
2050 AADT	130100	V.P.D.
20XX DHV	10790	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS	--	

LOCATION

INTERSTATE 80
T-79 N R-23 W
SECTION 17
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41°39'23.65" N
LONGITUDE 93°32'34.88" W

HYDRAULIC DATA

DRAINAGE AREA = 11.1 ACRES - ROLLING
Q₅₀ = 28 CFS
HW ELEV. = 842.52

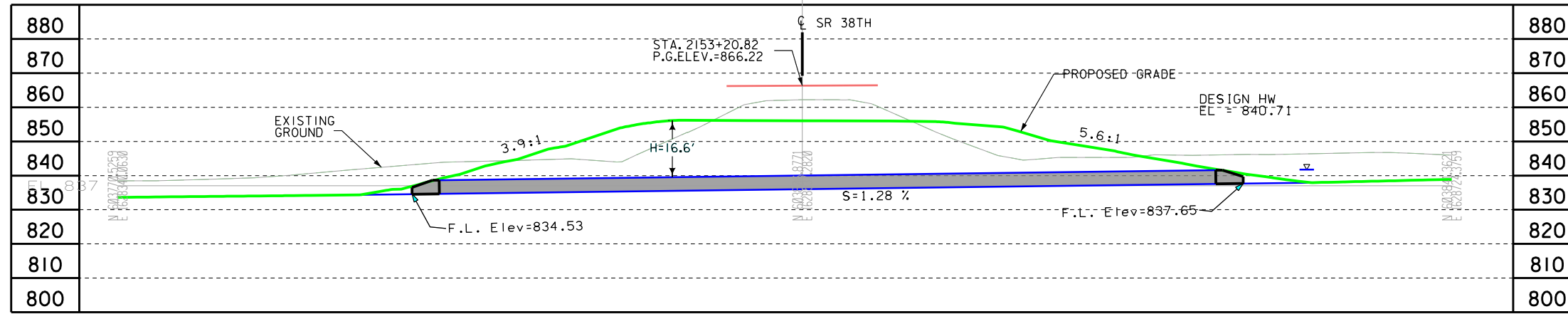
BRIDGE INFO.

38th Street Bridge Replacement over I-80 WB & EB
(replaces FHWA No. 041990,
Bridge Maintenance No. 7739.600080) IM-080-4(89)139- -03-77,
Design # 126, File # 32061

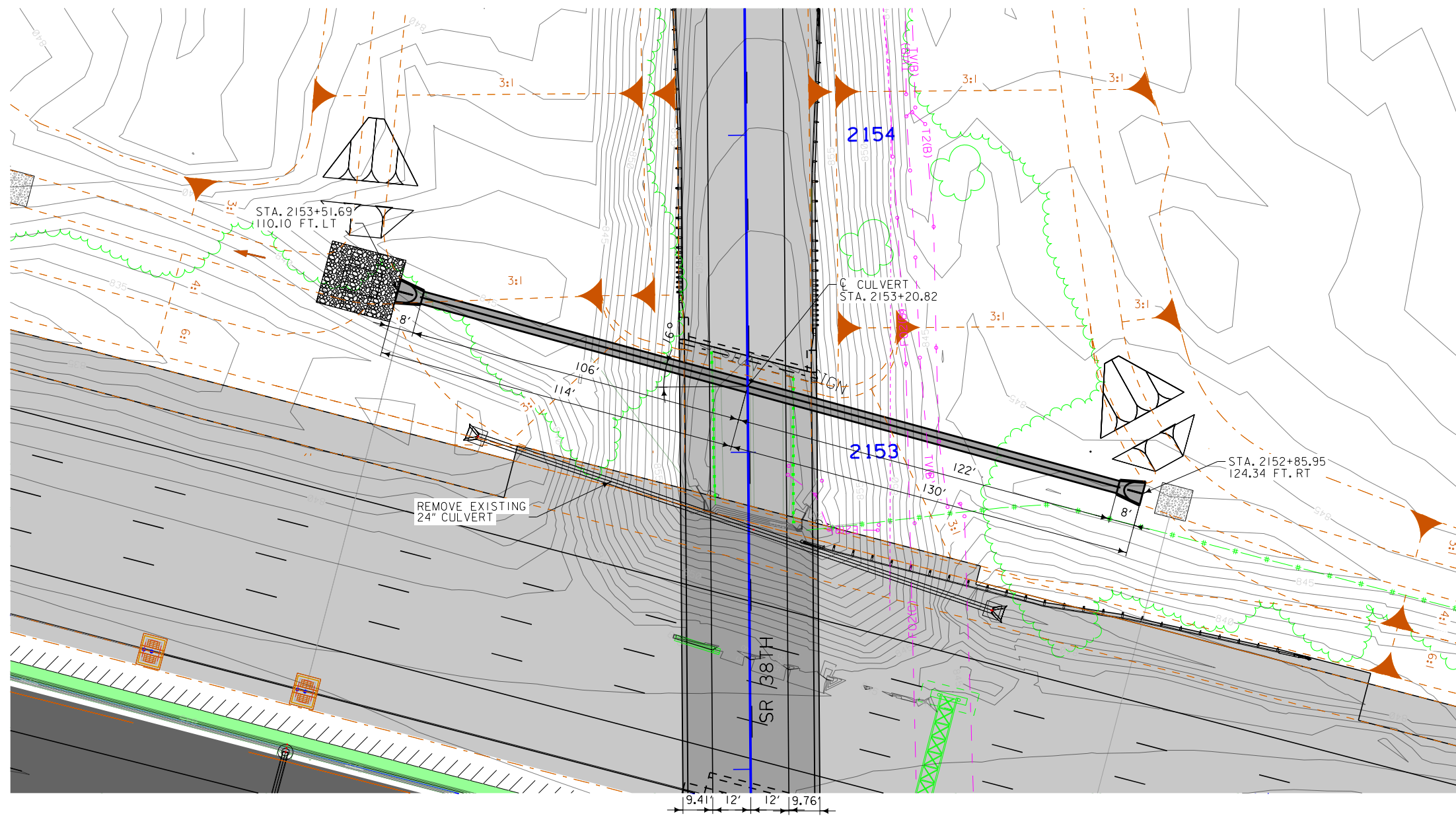
DESIGN FOR A 13° SKEW
30 in. x 236 ft.
REINFORCED CONCRETE PIPE

PLAT PLAN

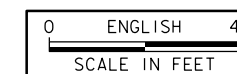
STA. 2150+51.76 (SR.38TH) APRIL, 2021
POLK COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
DESIGN SHEET NO. 1 OF 1 FILE NO. DESIGN NO.



LONGITUDINAL SECTION ALONG ϕ CULVERT



PLAT PLAN



TRAFFIC ESTIMATE

2020 AADT	75700	V.P.D.
2050 AADT	130100	V.P.D.
20XX DHV	10790	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALs	--	

LOCATION

INTERSTATE 80
 T-79 N R-23 W
 SECTION 17
 DELAWARE TOWNSHIP
 POLK COUNTY
 LATITUDE 41°39'26.04" N
 LONGITUDE 93°32'36.45" W

HYDRAULIC DATA

DRAINAGE AREA = 12.7 ACRES - HILLY
 $Q_{50} = 51$ CFS
 HW ELEV. = 840.71

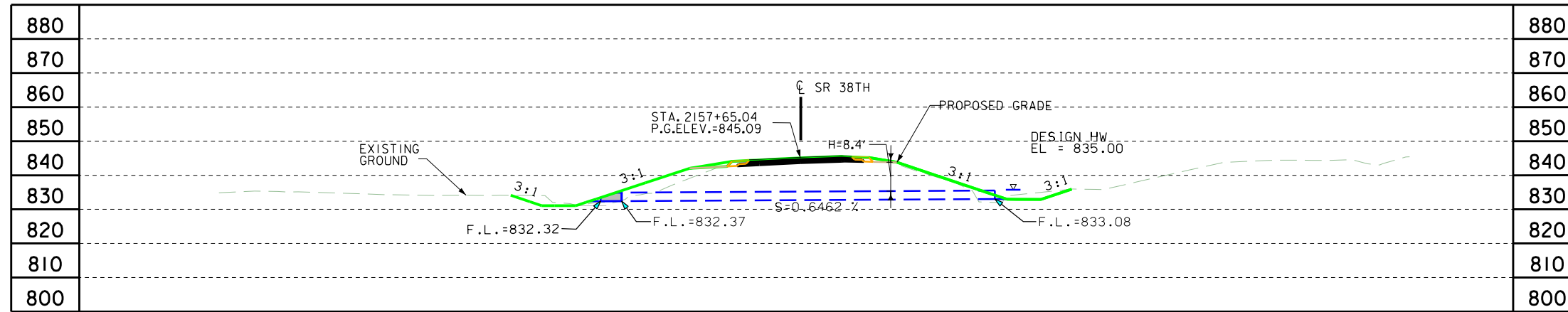
BRIDGE INFO.

38th Street Bridge Replacement over I-80 WB & EB
 (replaces FHWA No. 041990,
 Bridge Maintenance No. 7739.600080) IM-080-4(89)139- -03-77,
 Design # 126, File # 32061

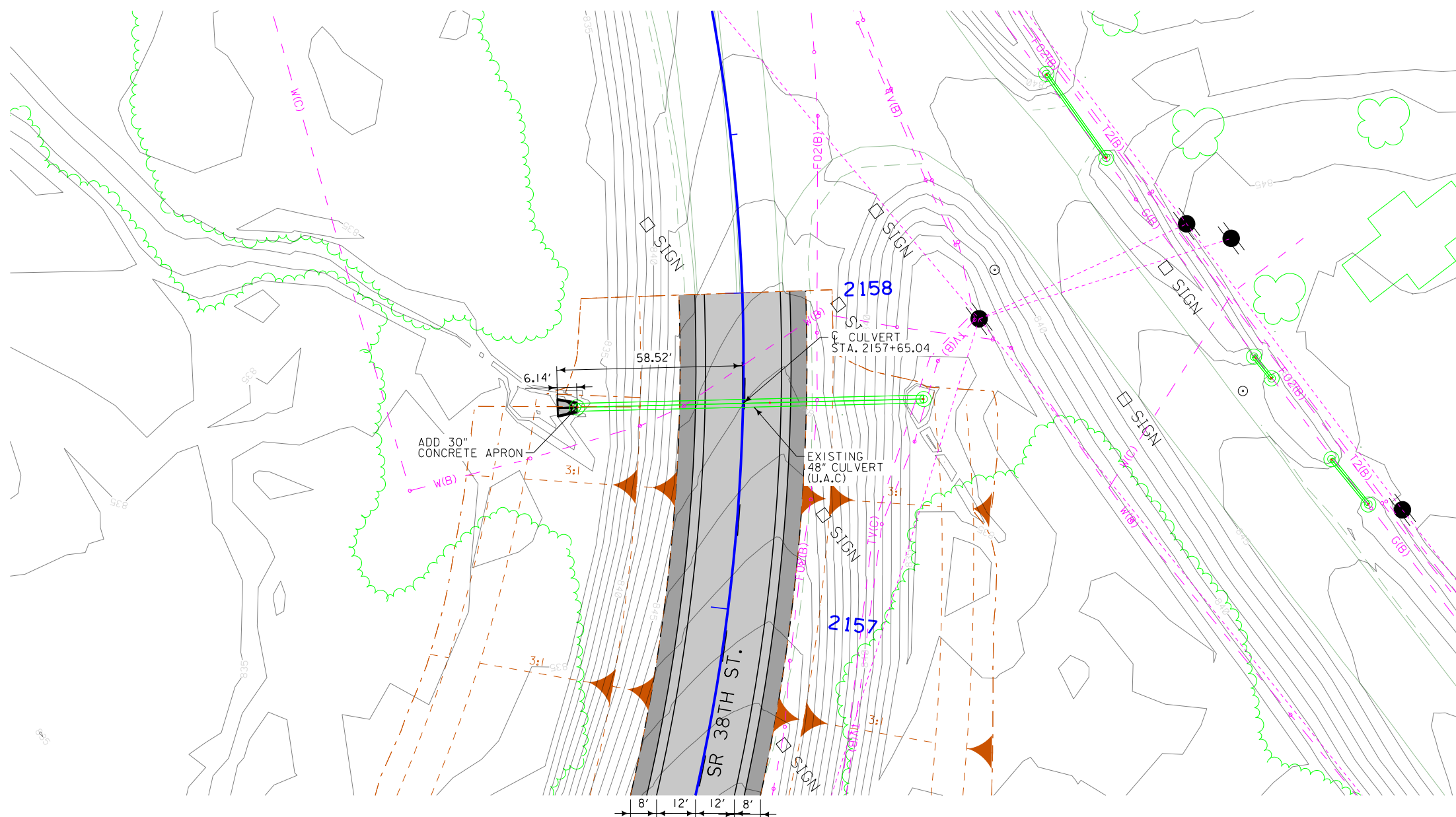
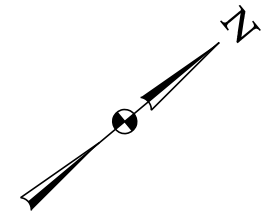
DESIGN FOR A 16° SKEW
48 in. x 228 ft.
REINFORCED CONCRETE PIPE

PLAT PLAN

STA. 2153+20 (SR.38TH) APRIL, 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
 DESIGN SHEET NO. OF FILE NO. DESIGN NO.



LONGITUDINAL SECTION ALONG ϕ CULVERT



PLAT PLAN

TRAFFIC ESTIMATE

2020 AADT	75700	V.P.D.
2050 AADT	130100	V.P.D.
20XX DHV	10790	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS	--	

FOR INTERSTATE 80

LOCATION

INTERSTATE 80
 T-79 N R-23 W
 SECTION 17
 DELAWARE TOWNSHIP
 POLK COUNTY
 LATITUDE 41°39'29.66" N
 LONGITUDE 93°32'39.76" W

HYDRAULIC DATA

DRAINAGE AREA = 5.7 ACRES - ROLLING
 $Q_{50} = 16$ CFS
 HW ELEV. = 835.00

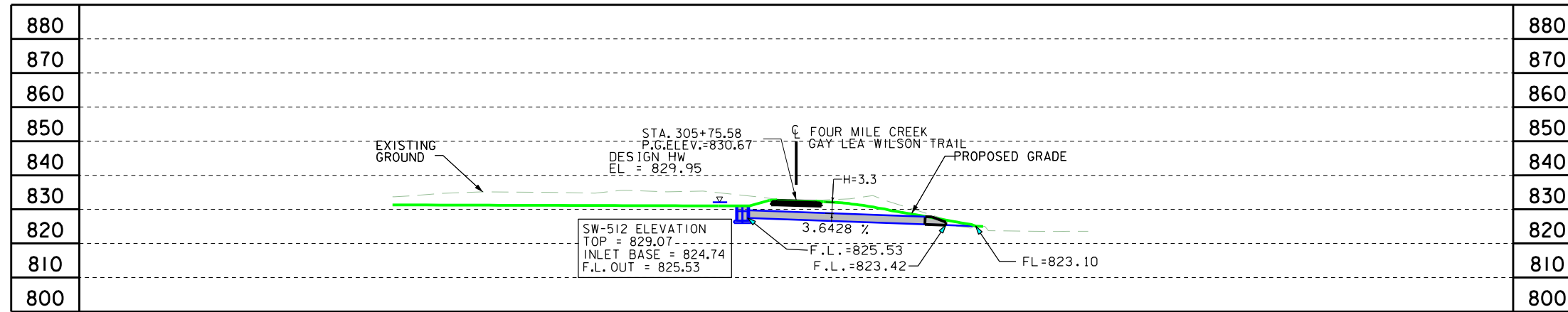
CURVE DATA (SR 38TH ST)

PC STA. 2154+83.48
 $\Delta = 42^\circ 00' 47.03''$ (LT)
 T = 240.00
 L = 458.29
 R = 625.00
 E = 44.49
 e = 5.2%
 L = 100
 x = 39
 DS = 35 mph

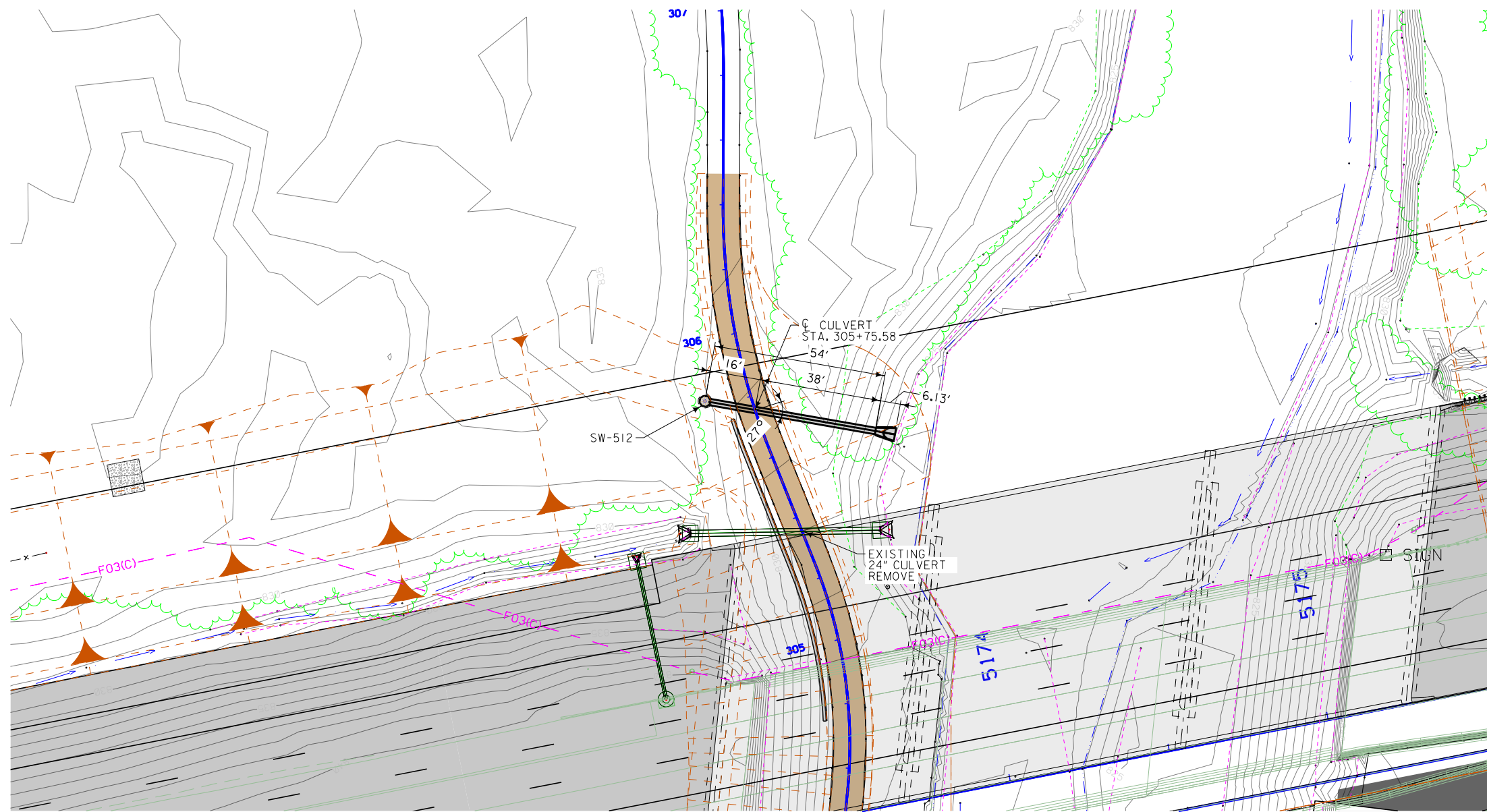
DESIGN FOR A 0° SKEW
30 in. x 0 ft. RIGHT REINFORCED CONC. PIPE EXTENSION

PLAT PLAN
 STA. 2157+65 (SR-38TH) APRIL, 2021
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
 DESIGN SHEET NO. 1 OF 1 FILE NO. DESIGN NO.





LONGITUDINAL SECTION ALONG ϕ CULVERT



PLAT PLAN

TRAFFIC ESTIMATE

2020 AADT	75700	V.P.D.
2050 AADT	130100	V.P.D.
20XX DHV	10790	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALs	--	

LOCATION

INTERSTATE 80
 T-79 N R-23 W
 SECTION 17
 DELAWARE TOWNSHIP
 POLK COUNTY
 LATITUDE 41°39'29.66" N
 LONGITUDE 93°32'39.76" W

HYDRAULIC DATA

DRAINAGE AREA = 23.5 ACRES - ROLLING
 Q_{50} = 49 CFS
 HW ELEV. = 829.95

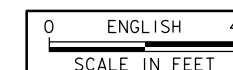
BRIDGE INFO.

I-80 WB bridge replacement over Four Mile Creek
 (replaces FHWA No. 041980, Bridge Maintenance No. 7738.4L080)
 IM-NHS-080-4(82)139- -03-77, Design # 624, File # 32061

DESIGN FOR A 27° SKEW
27 in. x 54 ft.
REINFORCED CONC. PIPE
WITH INTAKE

STA. 305+75
 (FOUR MILE CREEK
 GAY LEA WILSON TRAIL)
PLAT PLAN
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
 DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

APRIL, 2021



LINE STYLE LEGEND OF CROSS SECTION SHEETS (ROAD)

- · — · — · — Existing Ground Line
- Proposed Template
- Proposed Topsoil Placement
- - - - - - Additional Topsoil Removal
- Subgrade Treatment
- - - - - Granular Shoulder
- Pavement
- - - - - Existing Pipe\RCB
- Proposed Pipe\RCB
- Proposed Dike
- All Elements Associated with Proposed Entrances

LINE STYLE LEGEND OF CROSS SECTION SHEETS (SOILS)

- TS ———— Topsoil (Class 10)
- SLOPE DRESSING — Slope Dressing Only
- CL 10 ———— Class 10 Materials
- SEL LO ———— Select Loams And Clay-Loams
- SEL SA ———— Select Sand
- UNS A ———— Unsuitable Type A Disposal
- UNS B ———— Unsuitable Type B Disposal
- UNS C ———— Unsuitable Type C Disposal
- SHALE ———— Shale
- WASTE ———— Waste
- B&W LS ———— Broken and Weathered Rock
- ROCK ———— Solid Rock
- BLDRS ———— Boulders

Note: All layer lines and descriptions identify layers above the line.

Note: Vertical or near vertical lines connecting soil layers at edges of cross sections are only for the purpose of calculating template quantities and do not depict soil stratification.

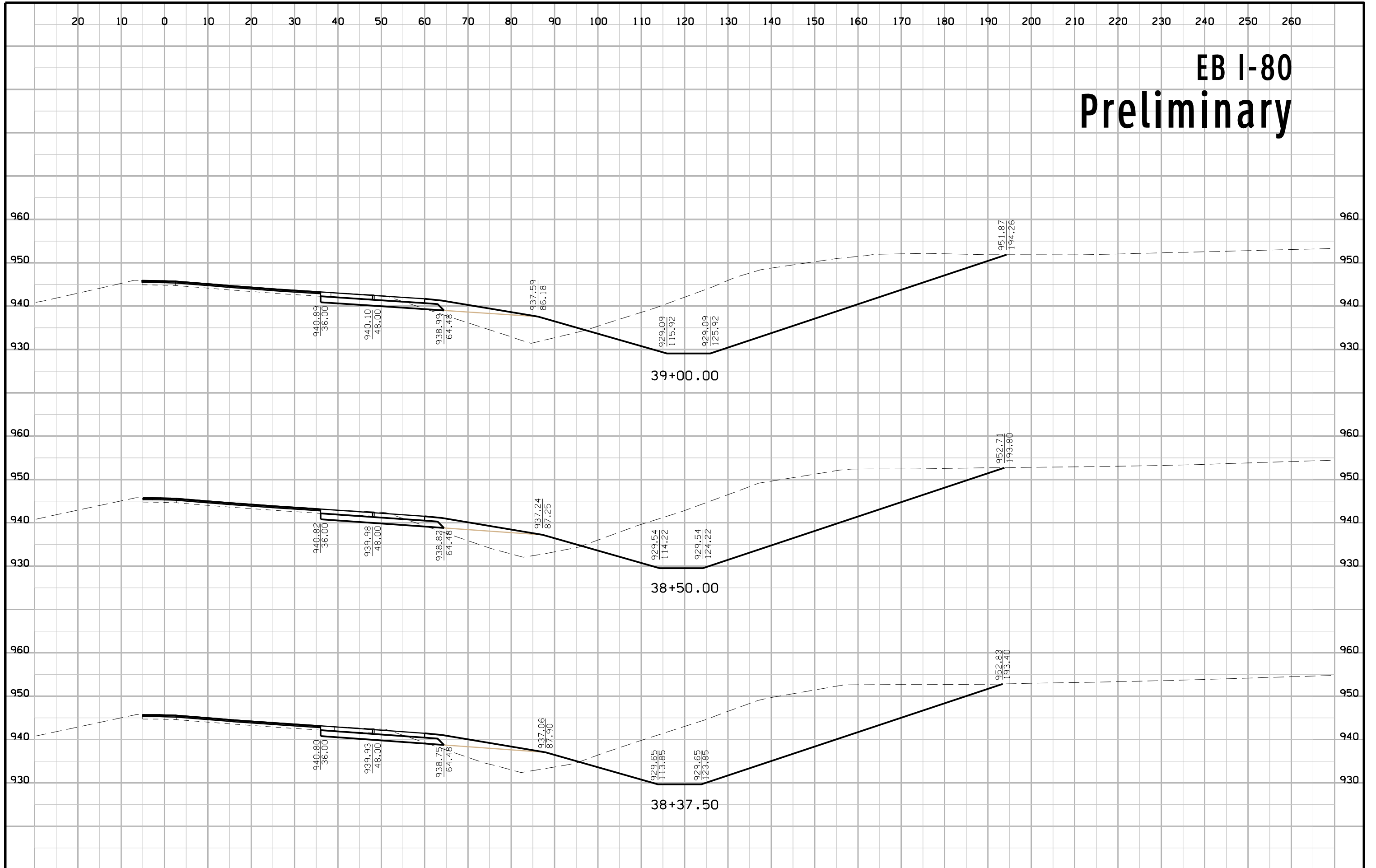
SYMBOL LEGEND OF CROSS SECTION SHEETS

- Existing ROW
|
· · · · · Existing Right-of-Way Limit
- Proposed ROW
|
· · · · · Proposed Right-of-Way Limit
- Temporary ROW
|
· · · · · Temporary Right-of-Way Limit

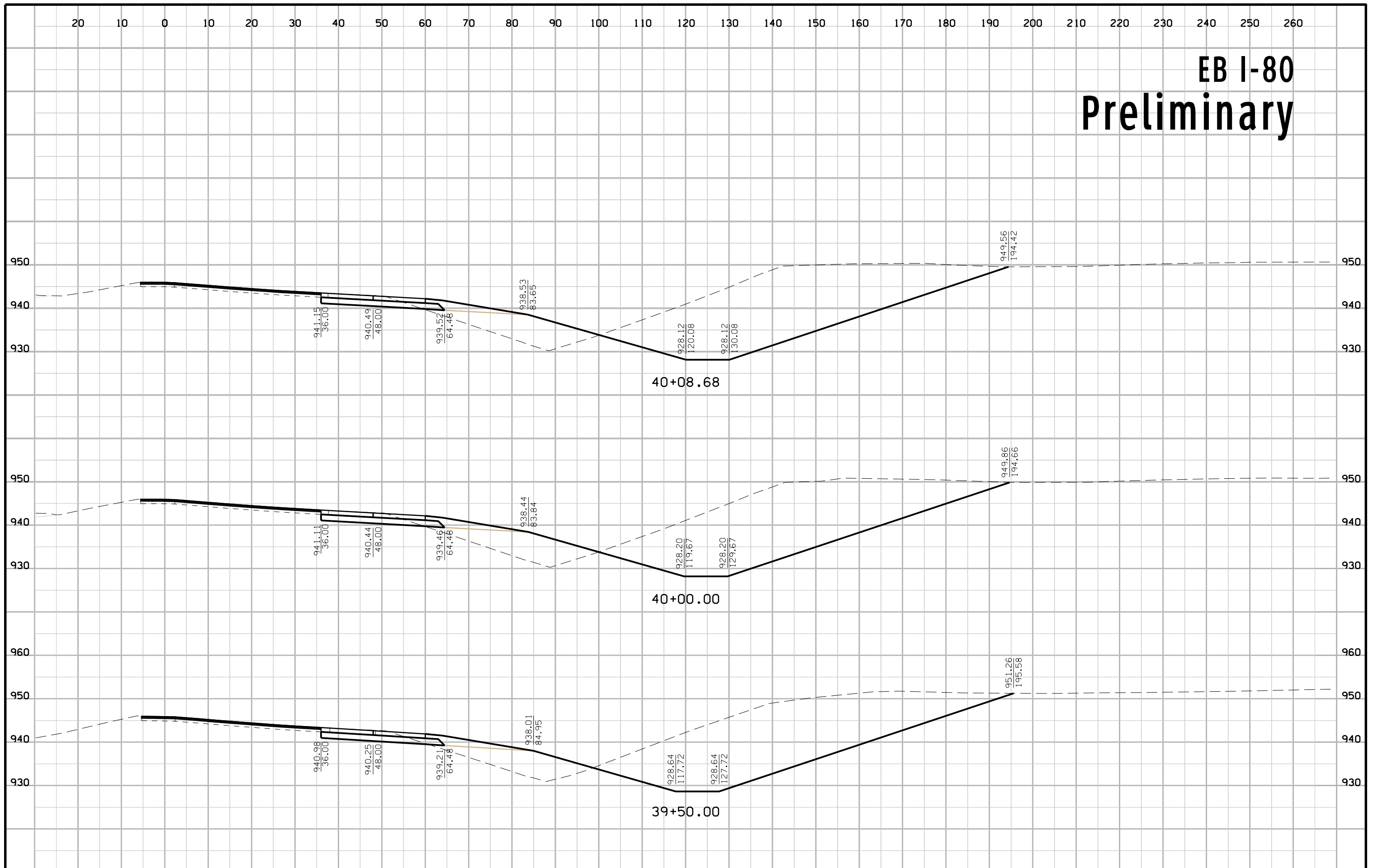
**CROSS SECTION
LEGEND AND SYMBOL
INFORMATION SHEET**

(COVERS SHEET SERIES W, X, Y, & Z)

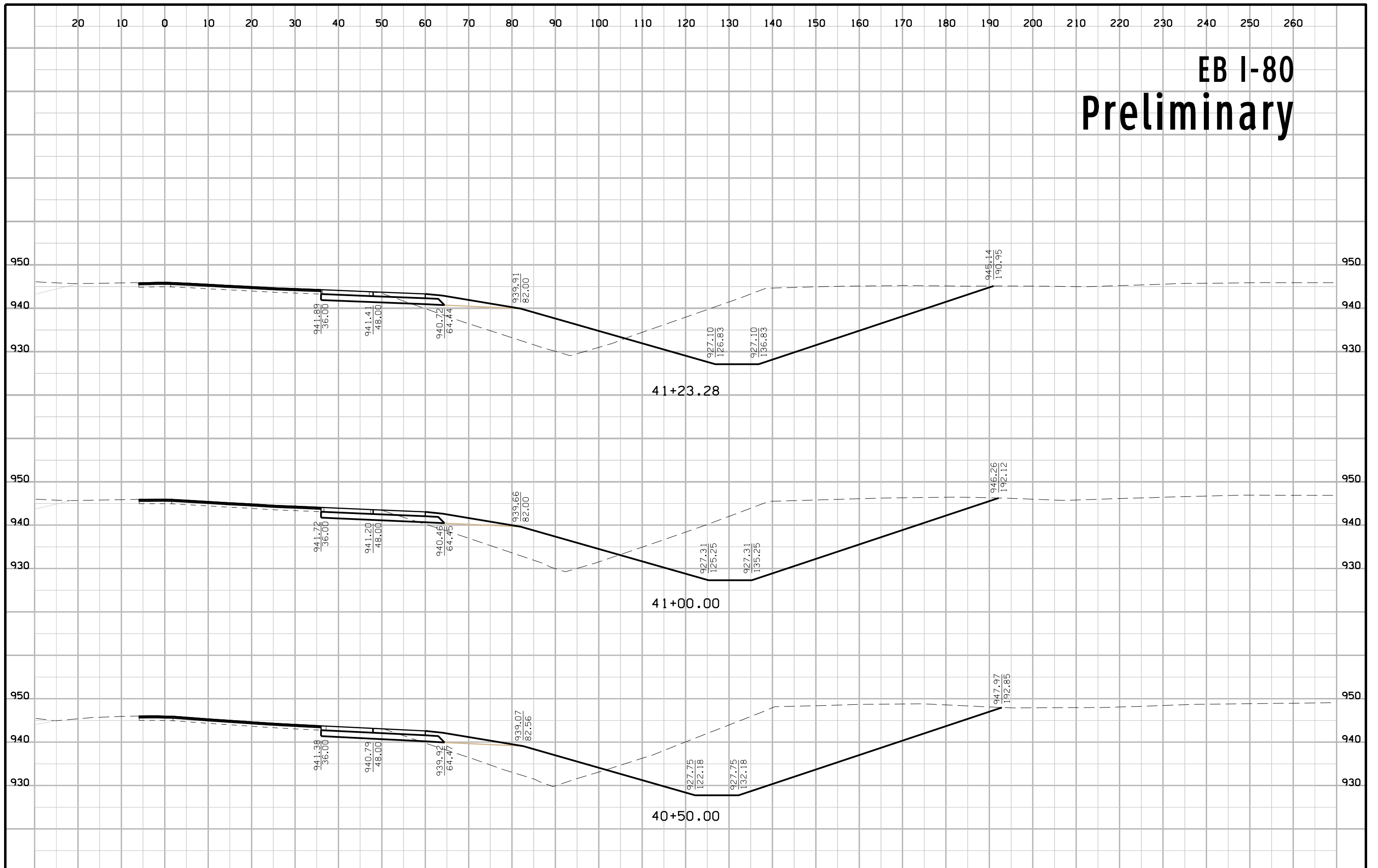
EB I-80 Preliminary



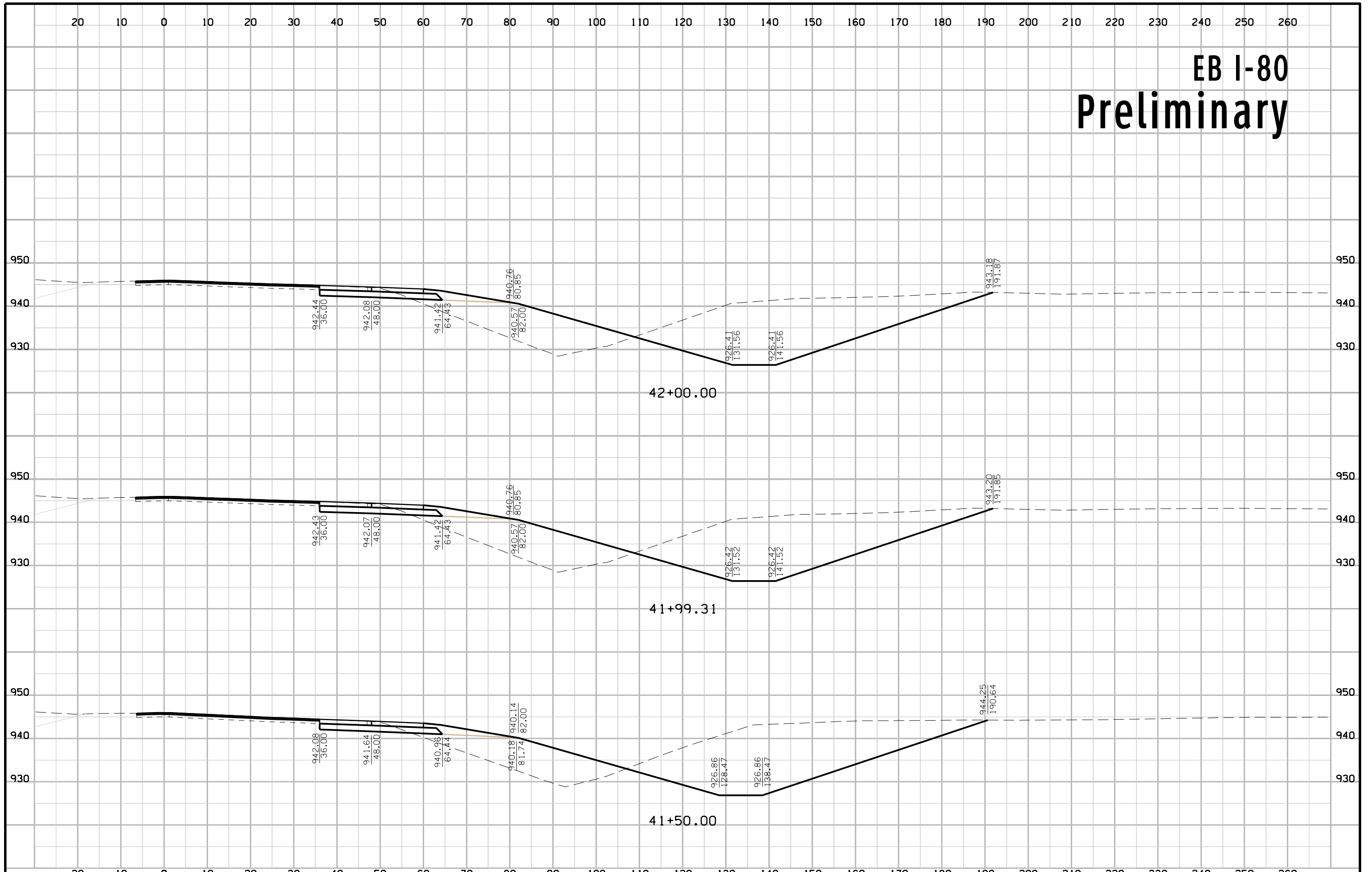
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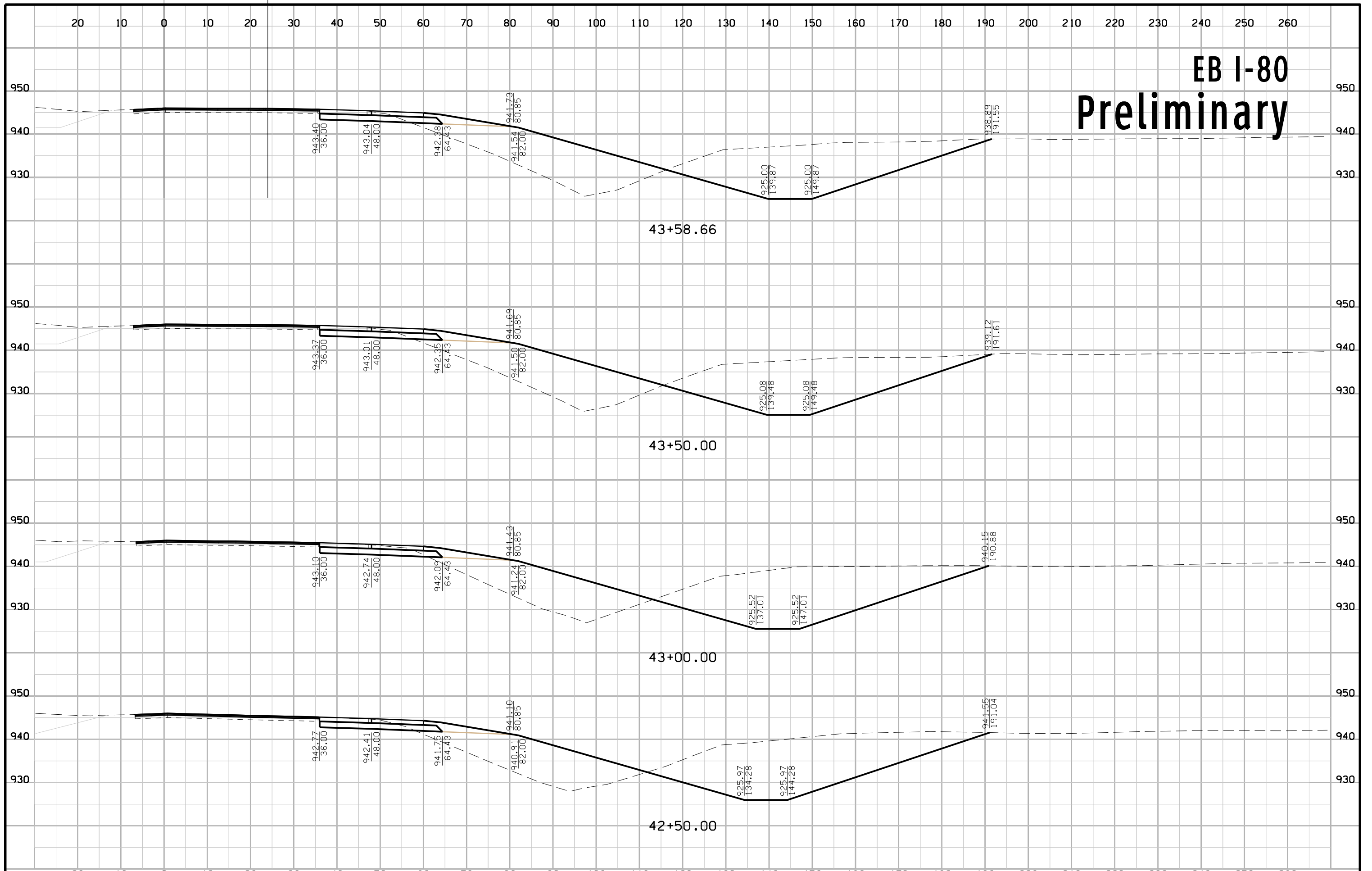
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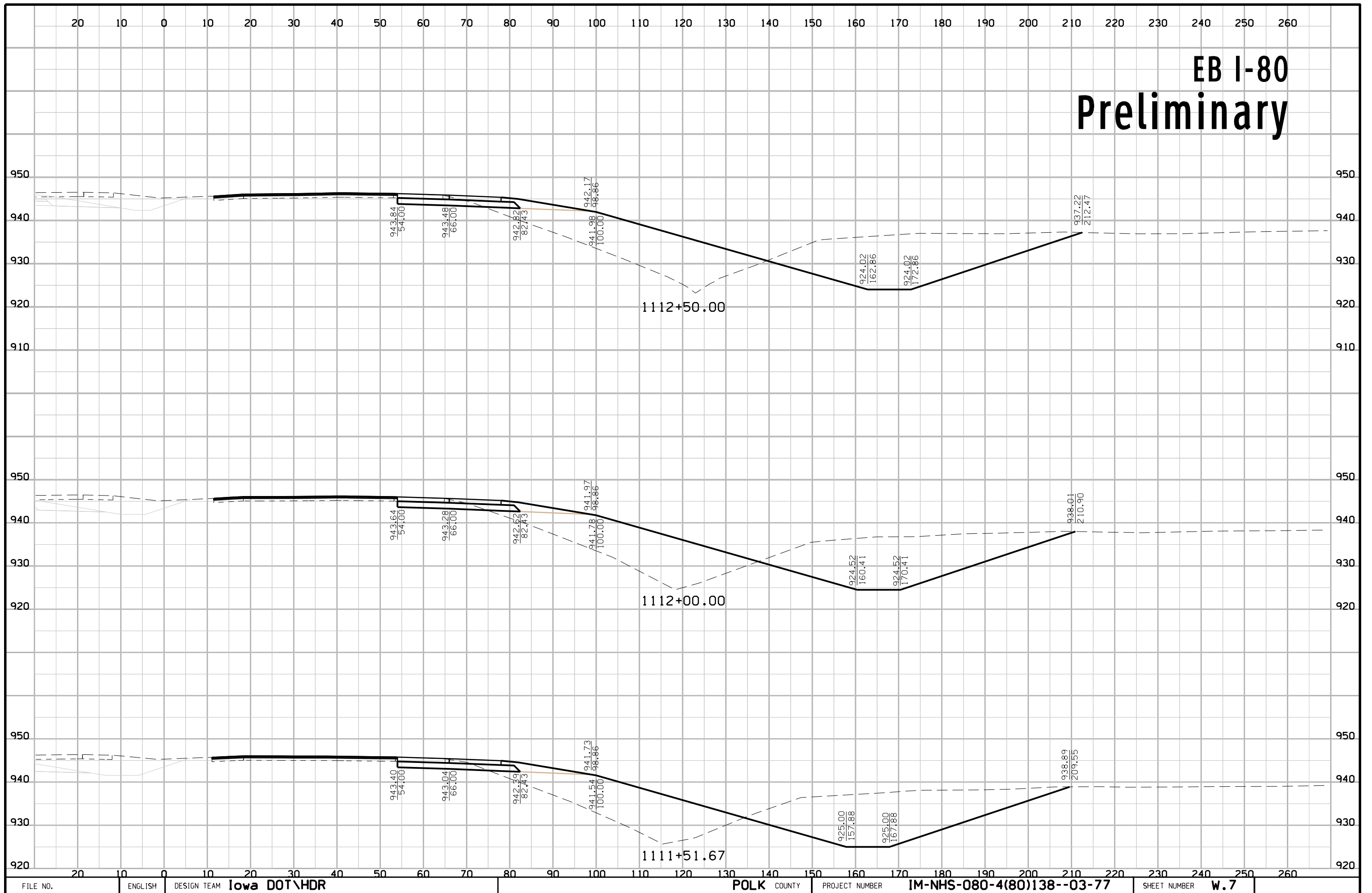
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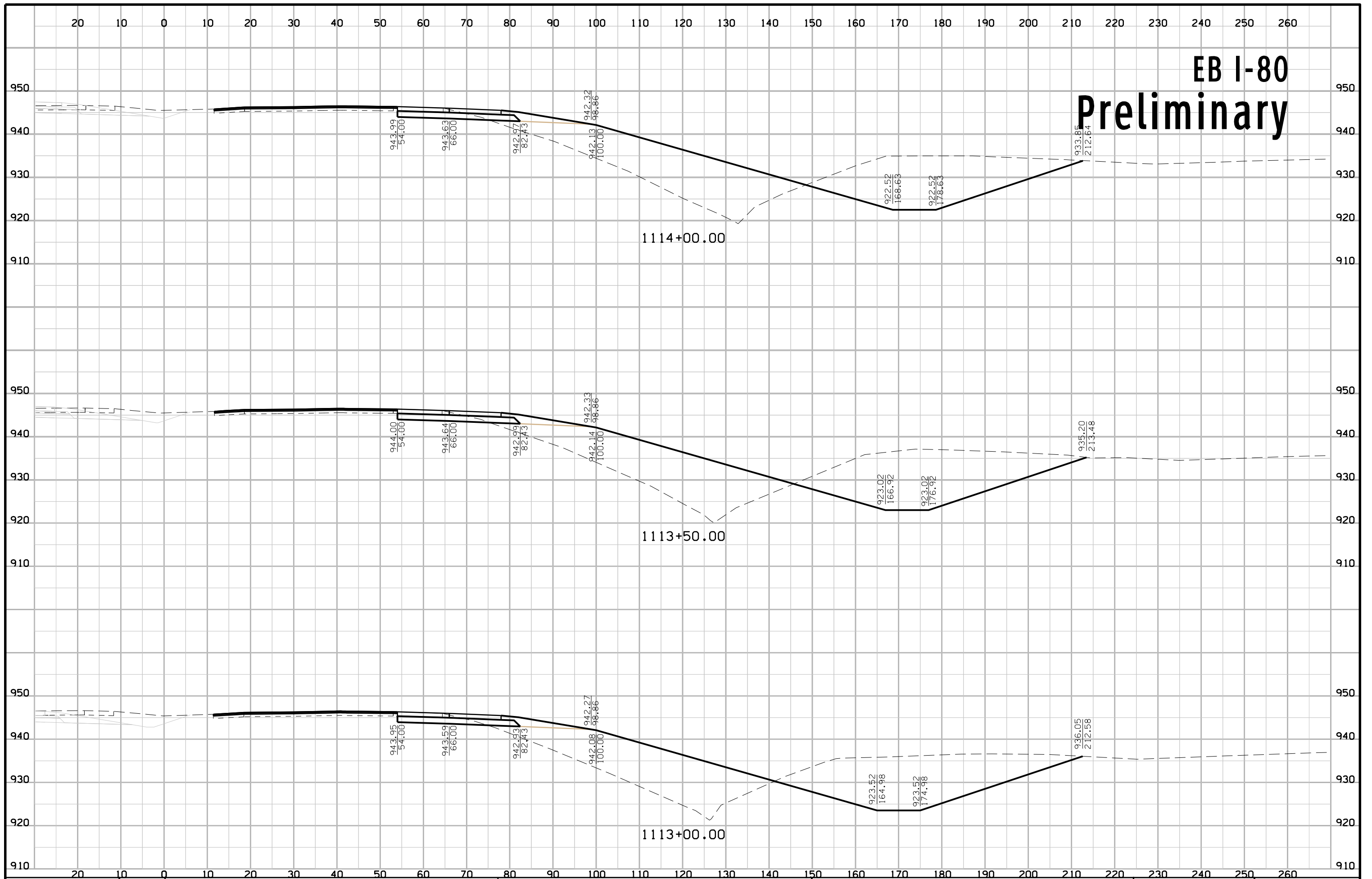
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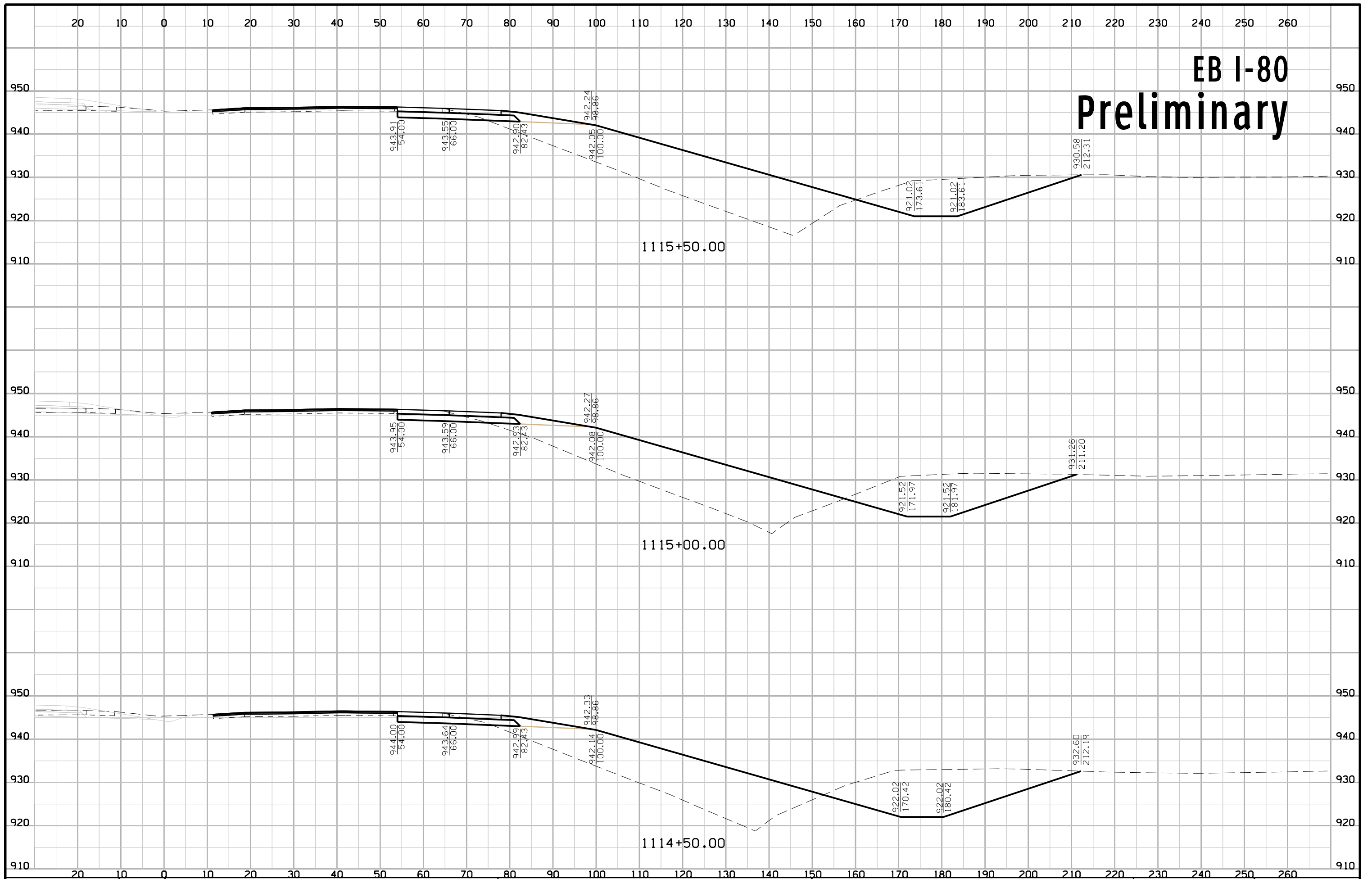
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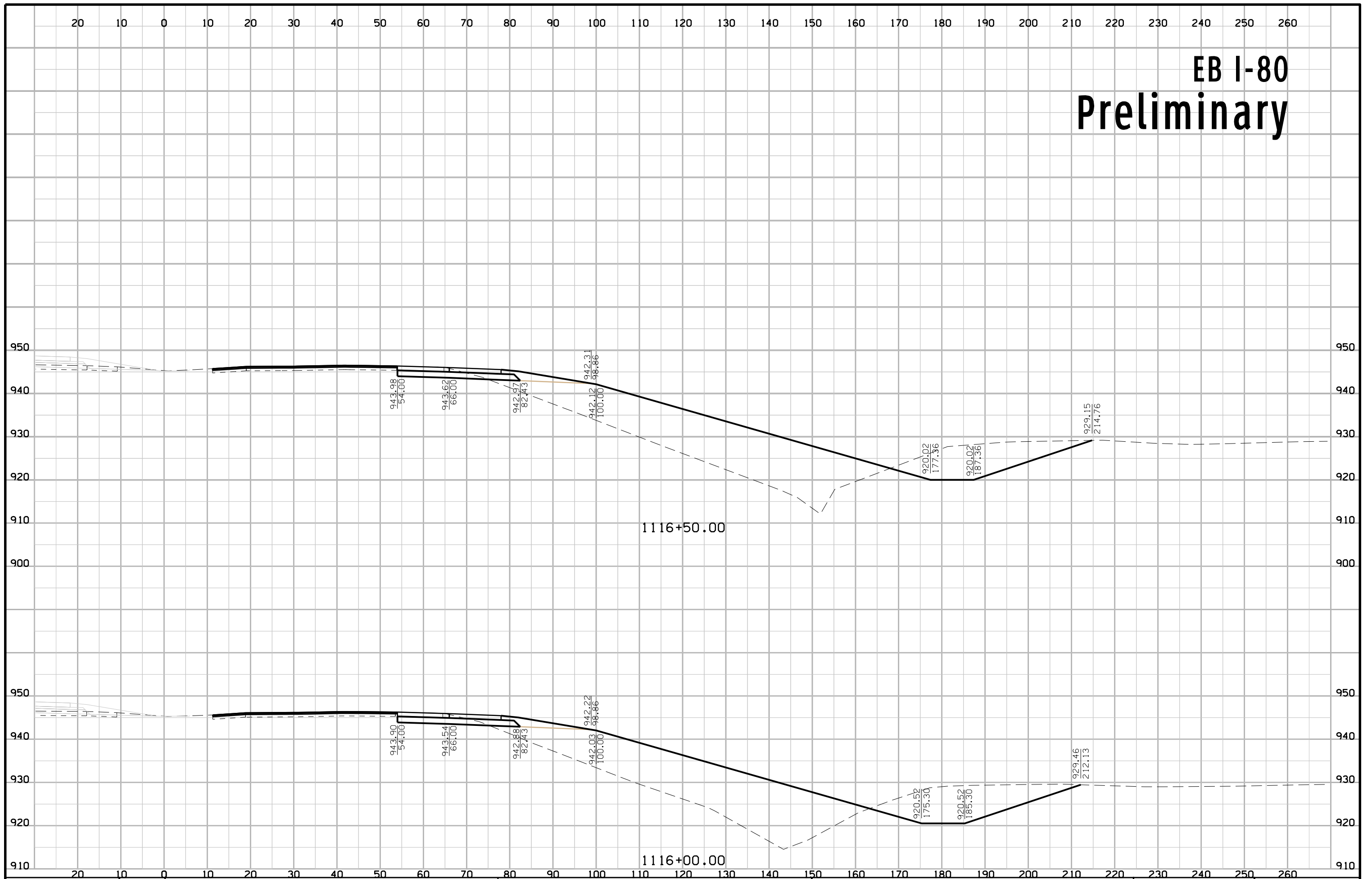
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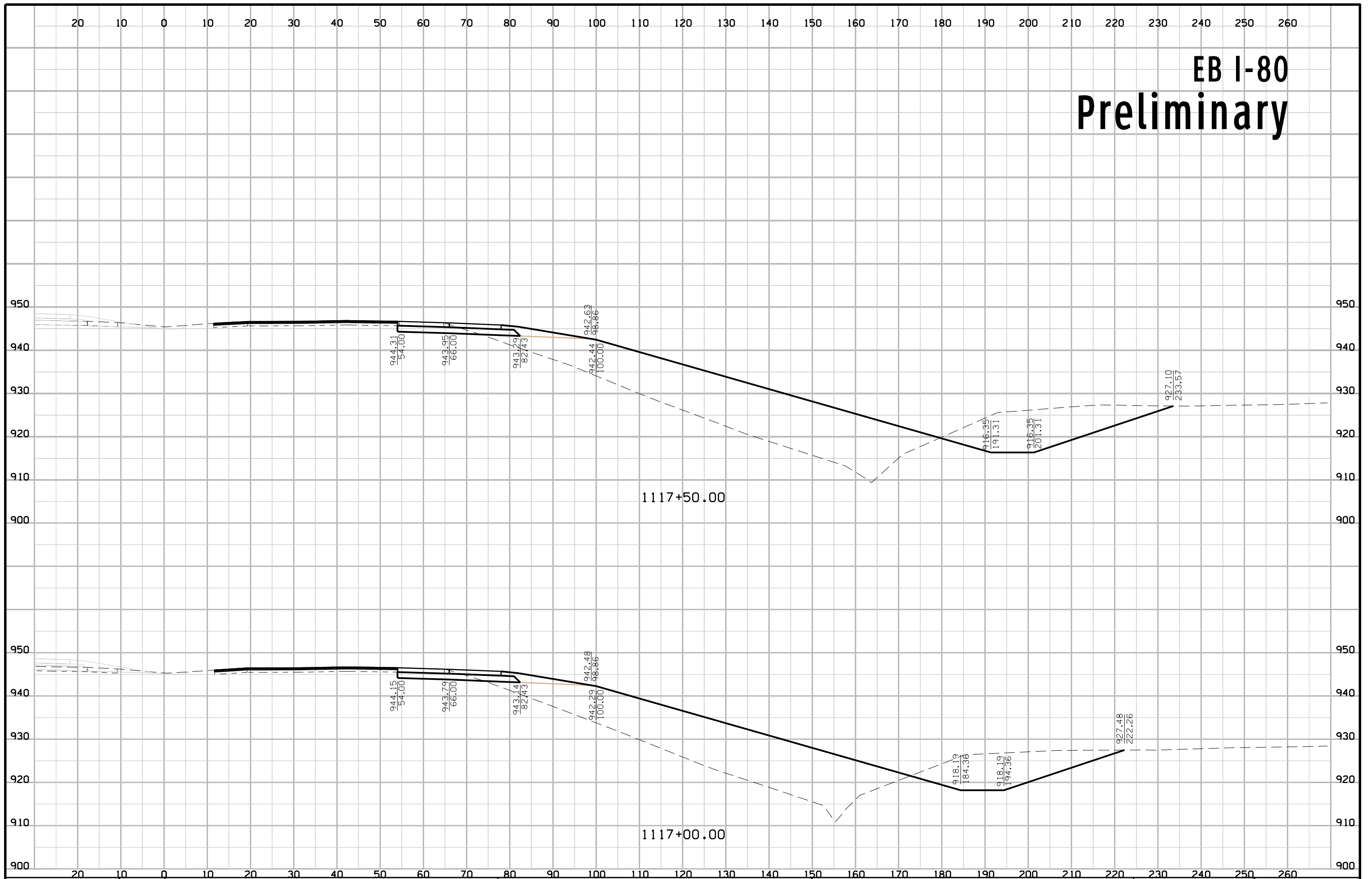
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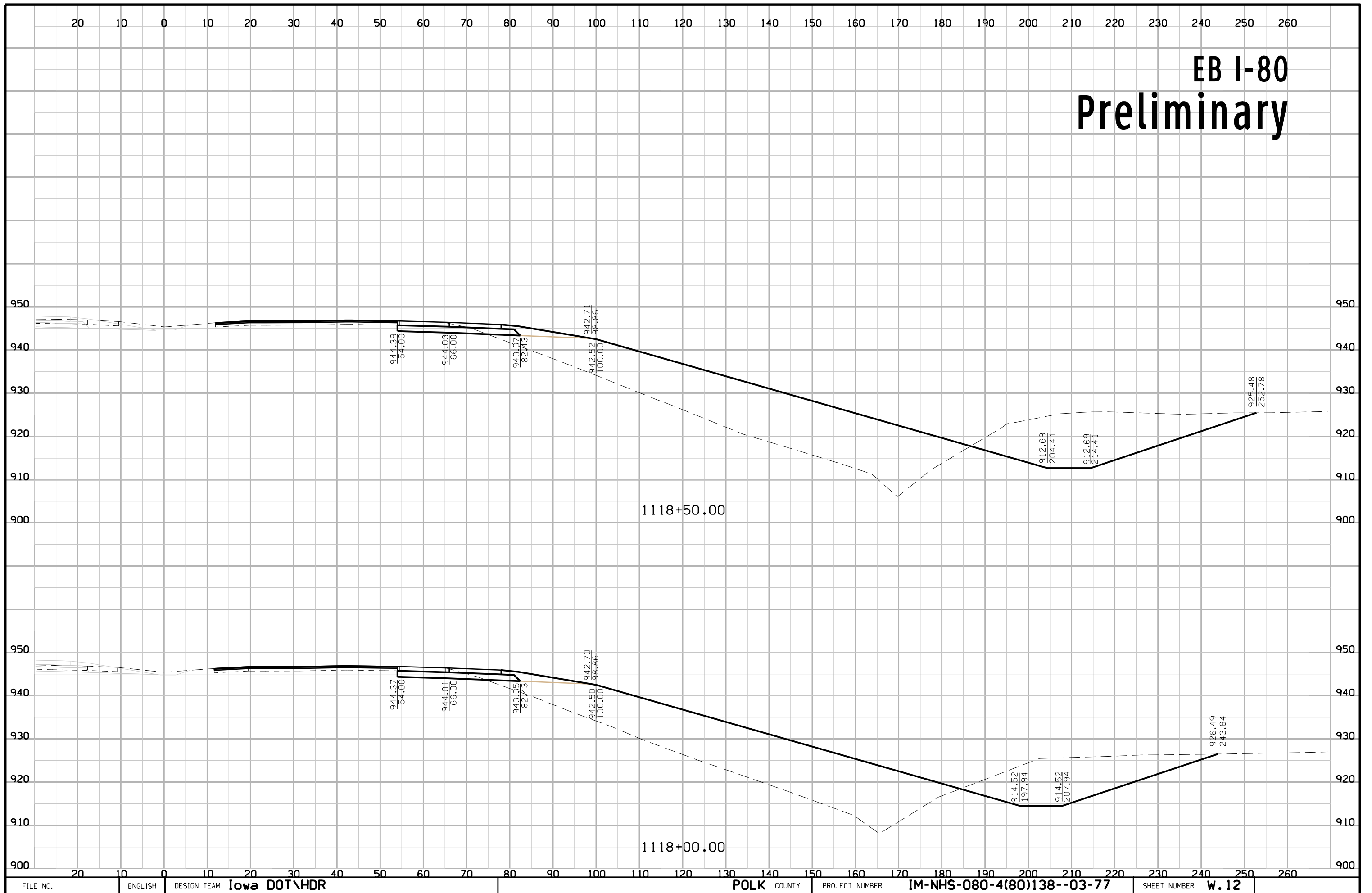
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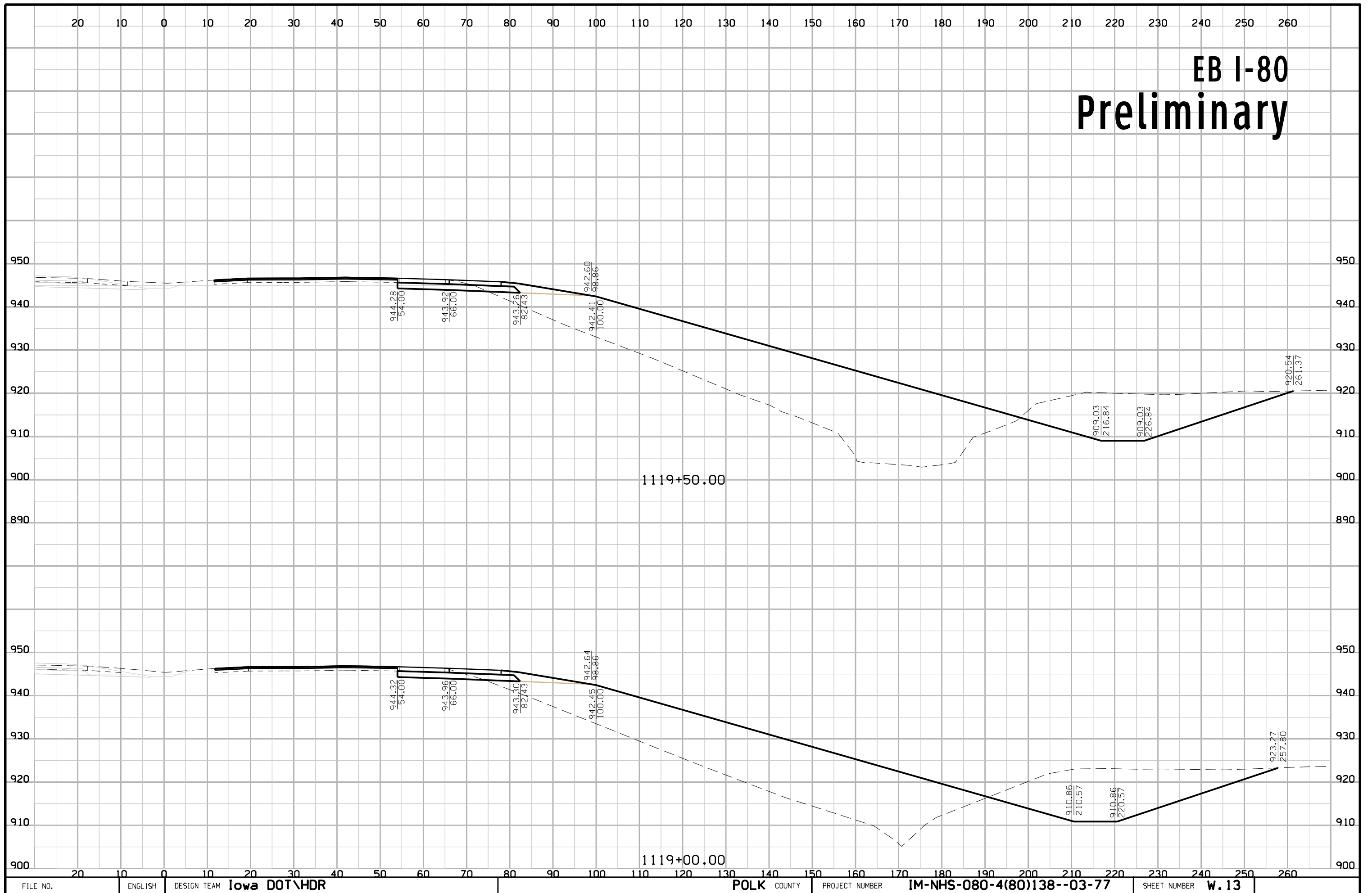
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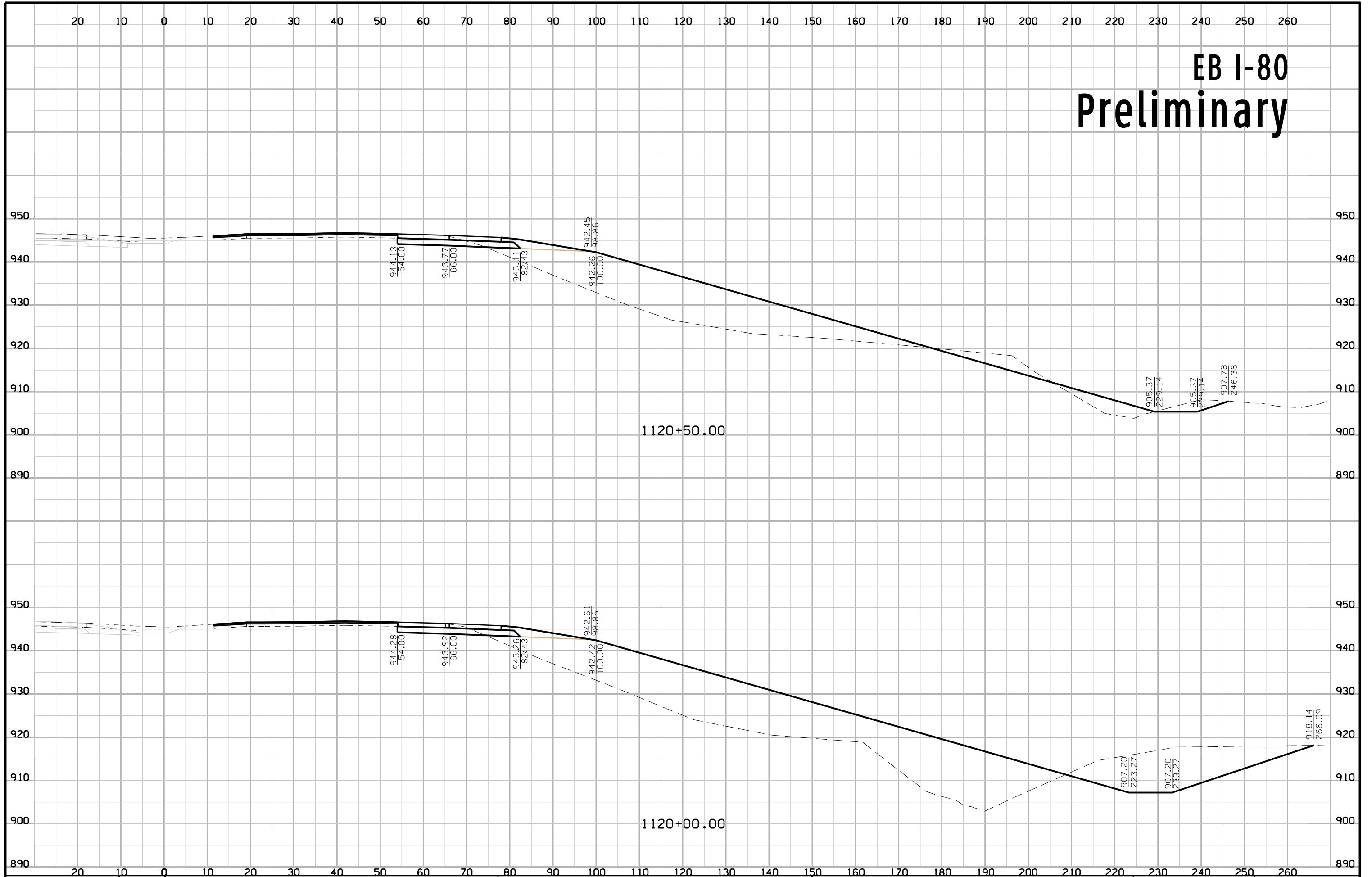
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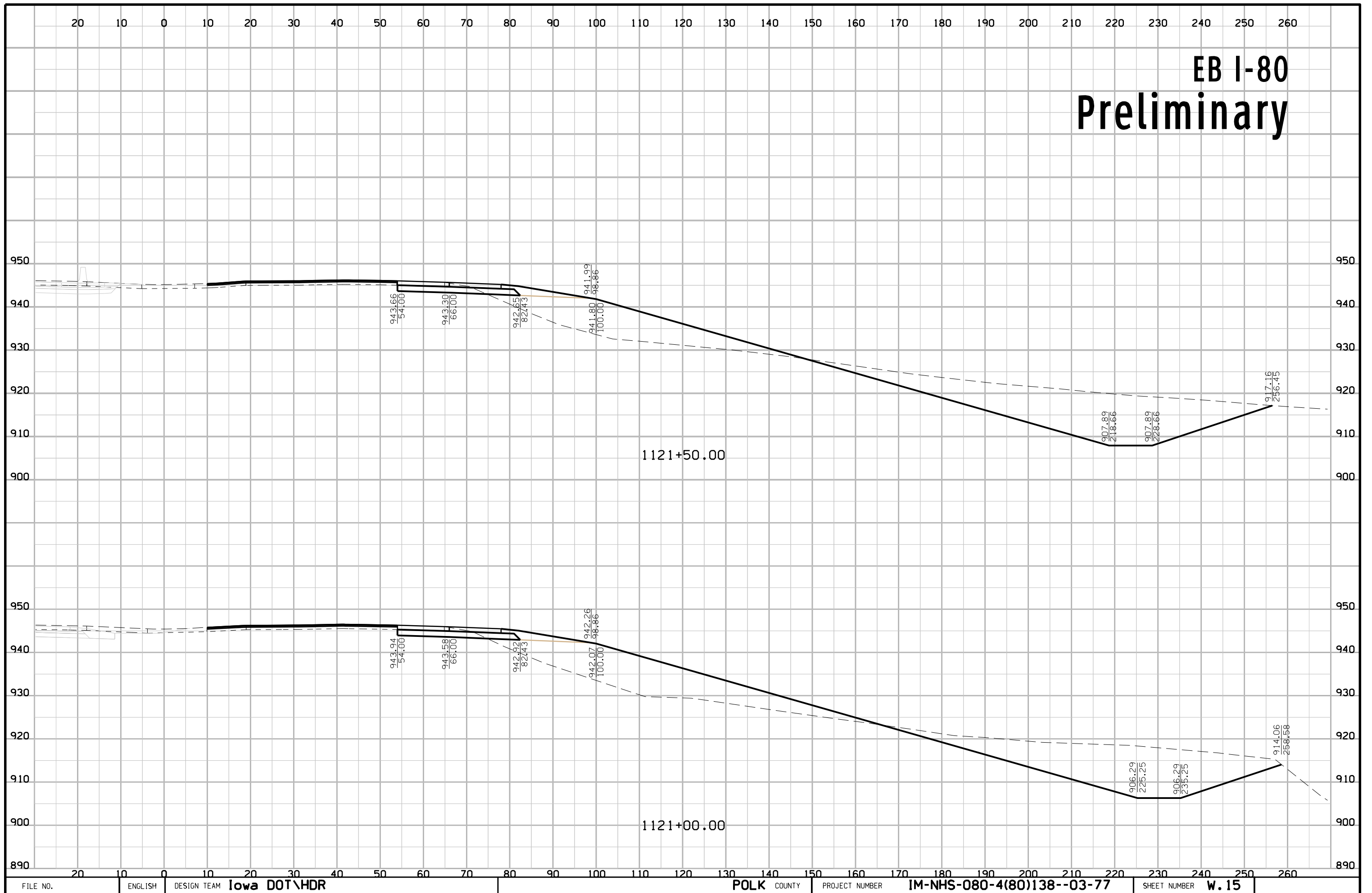
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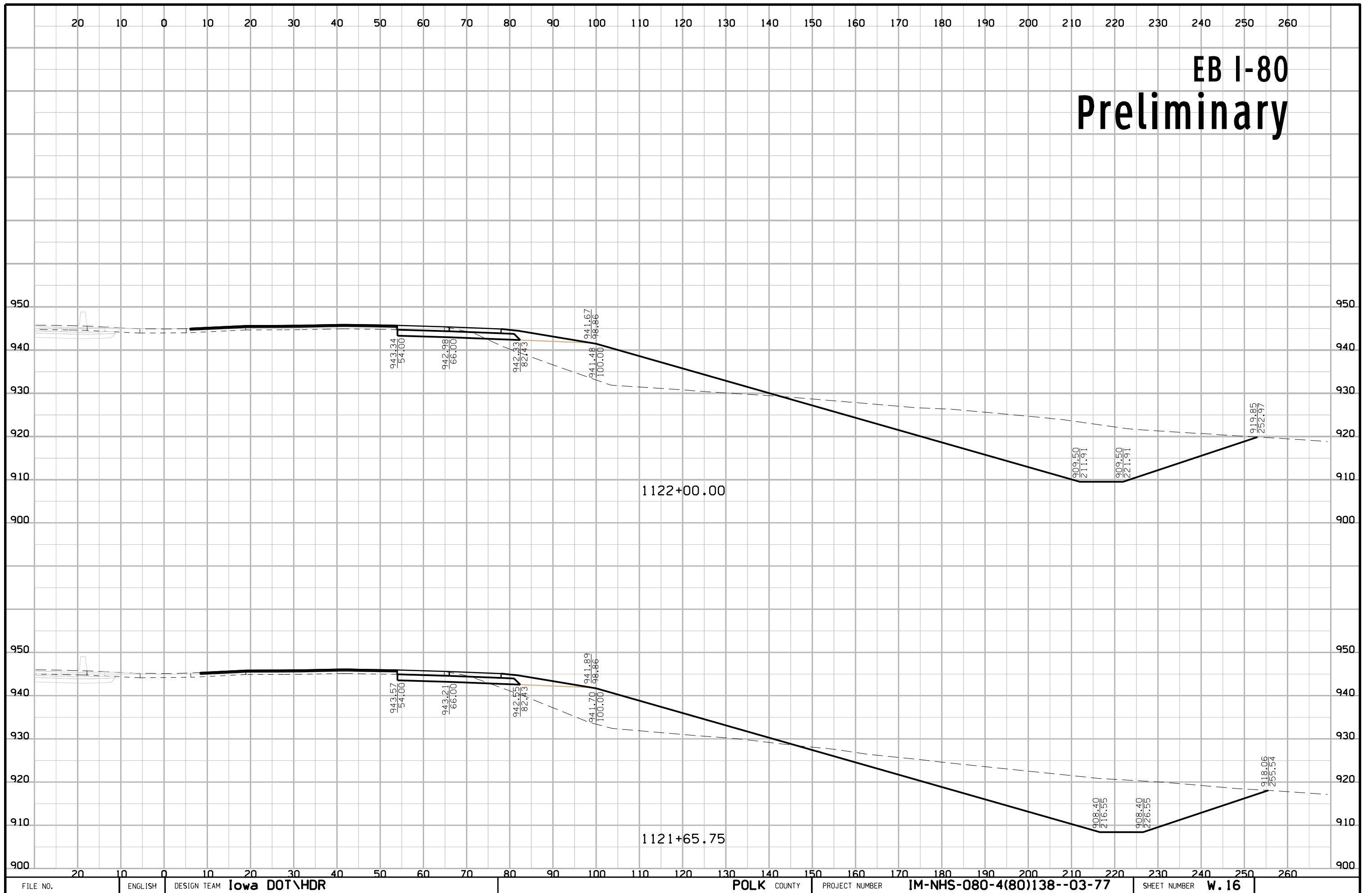
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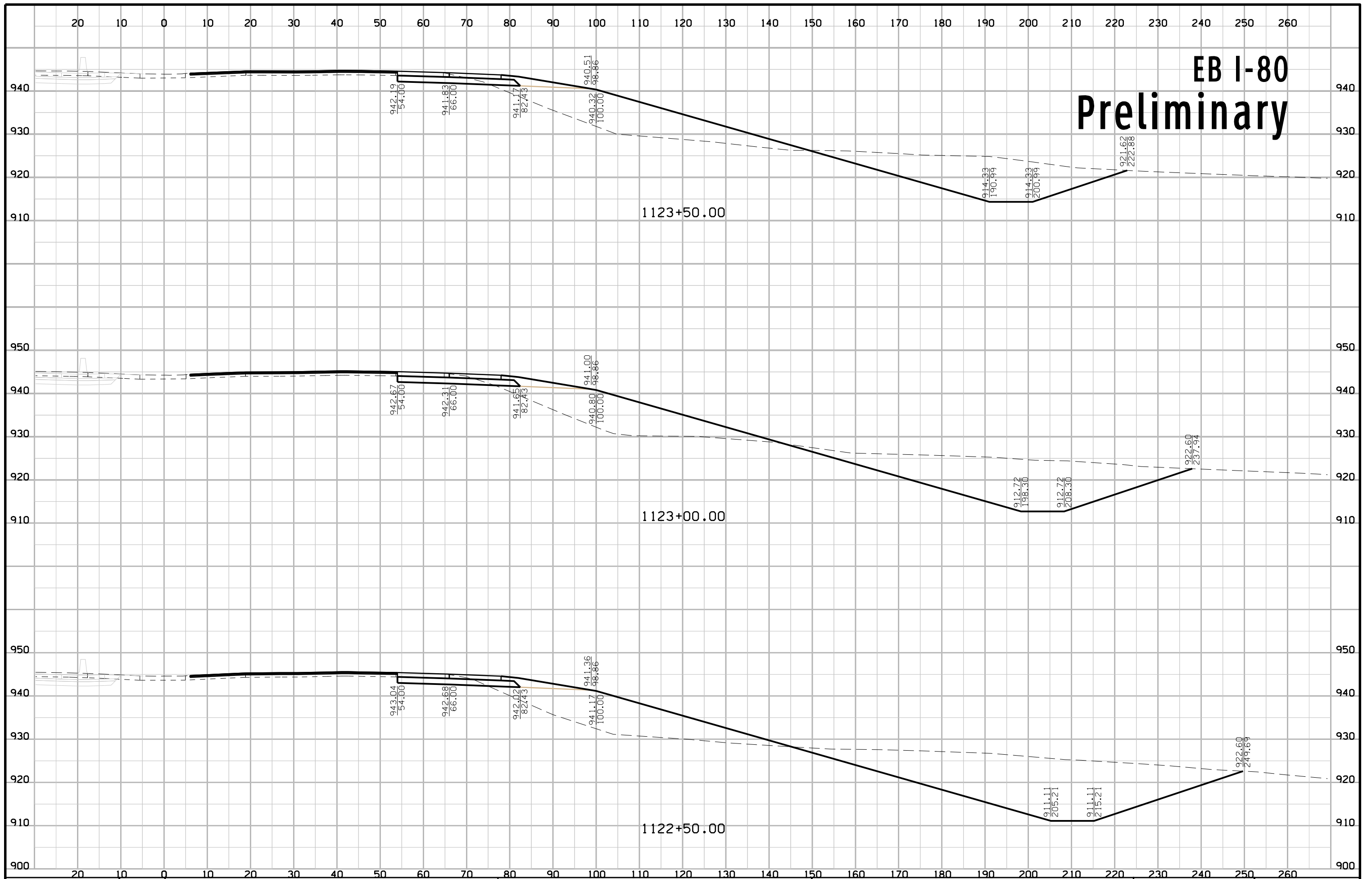
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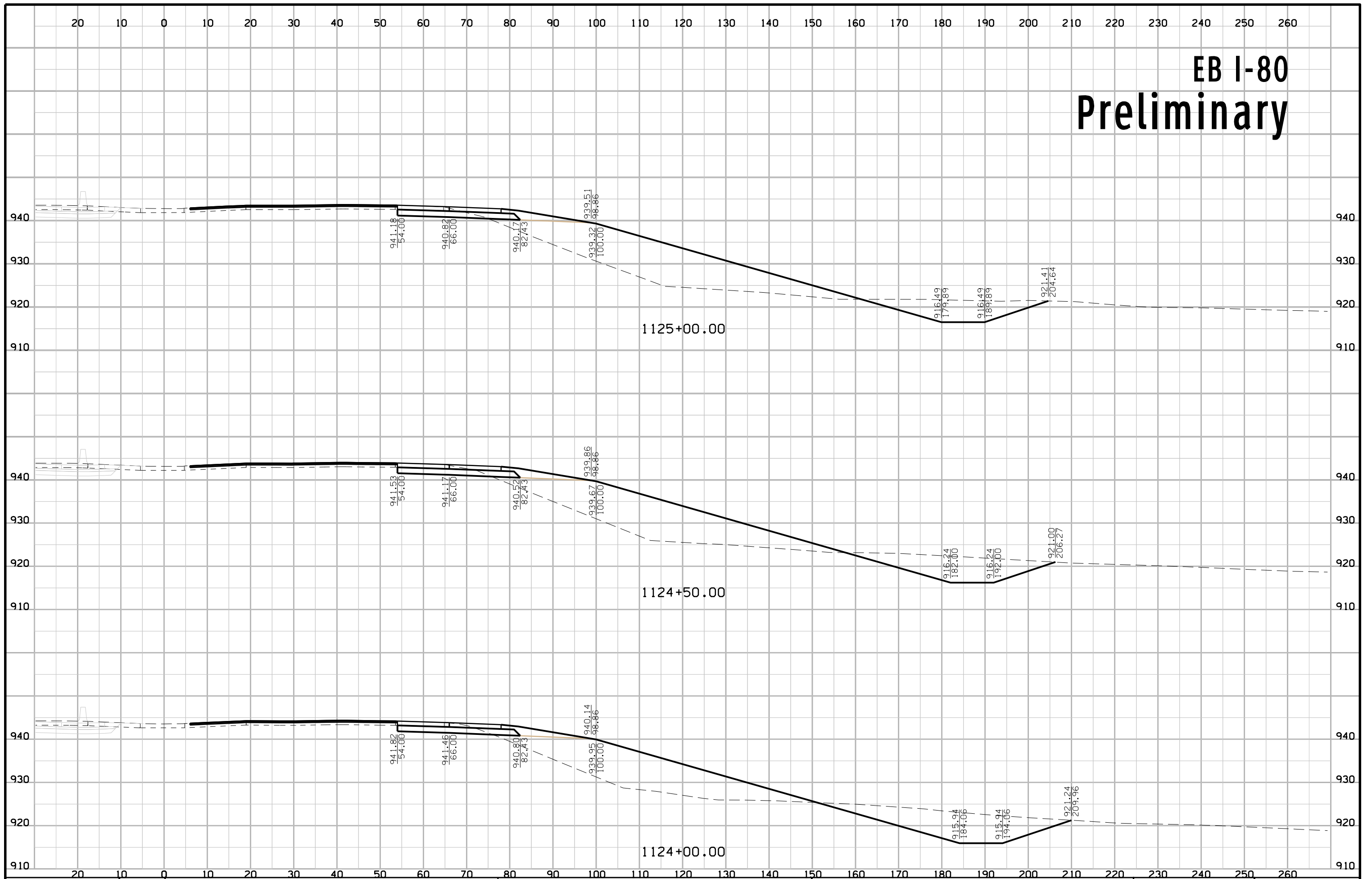
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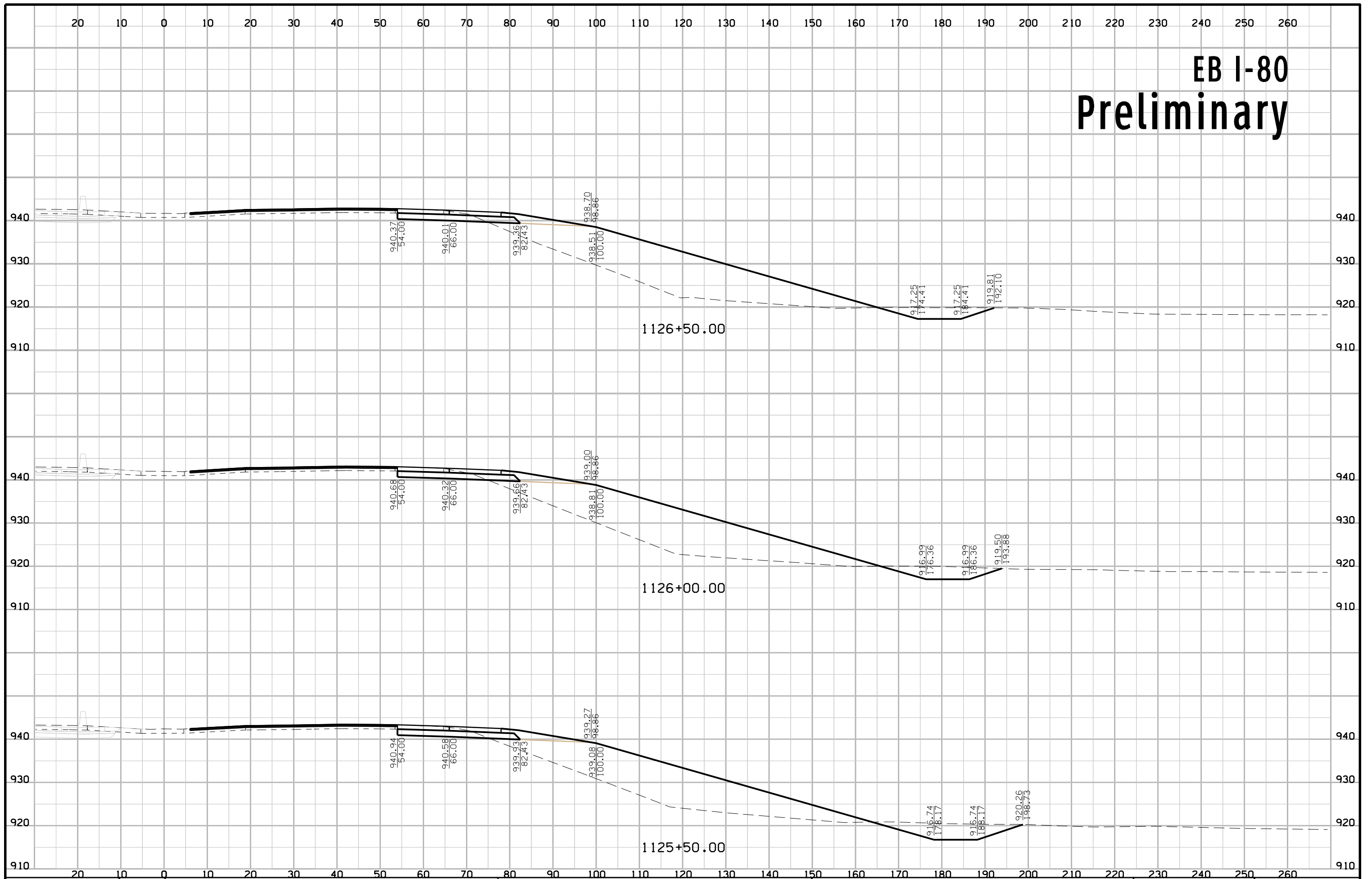
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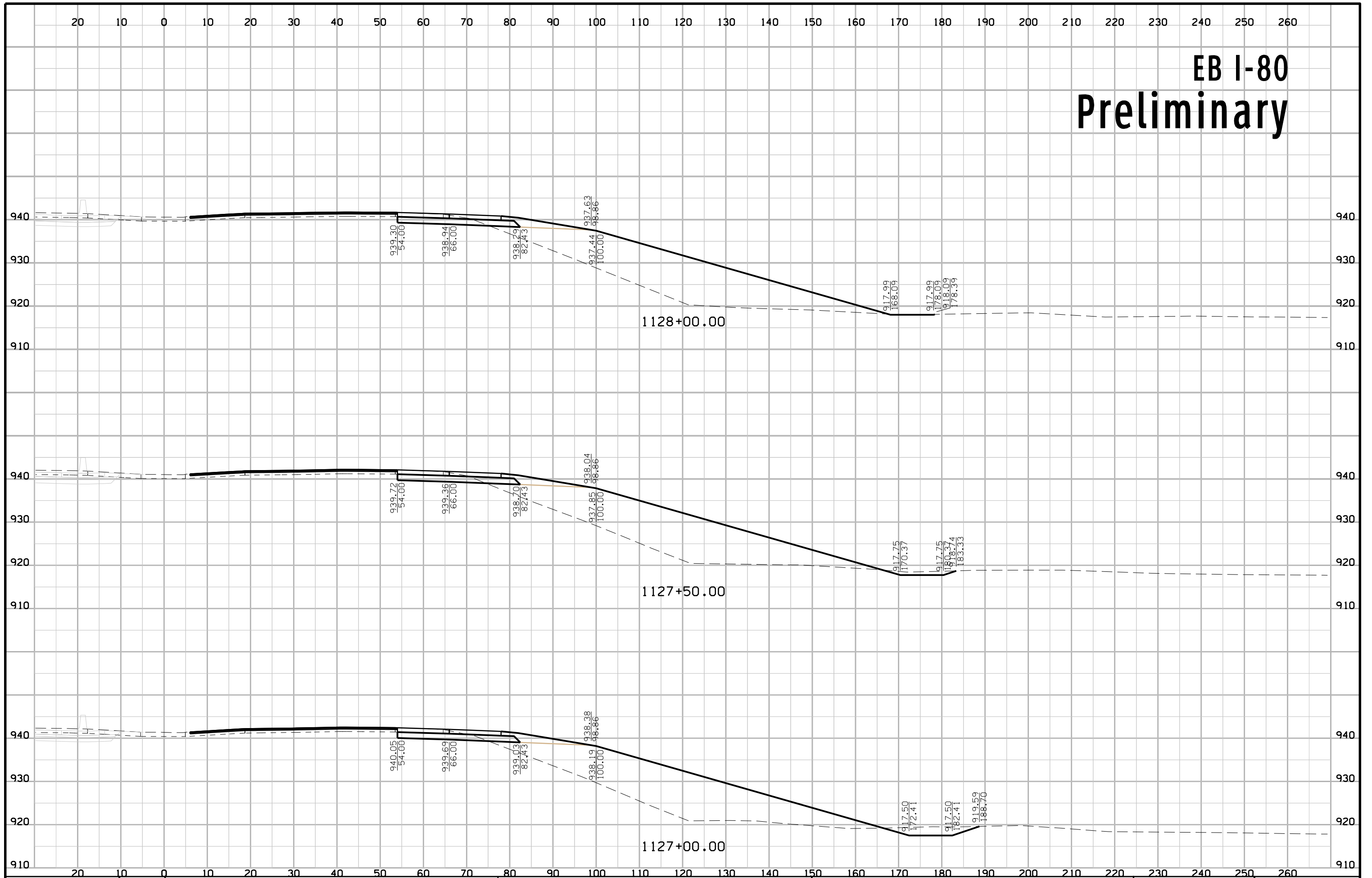
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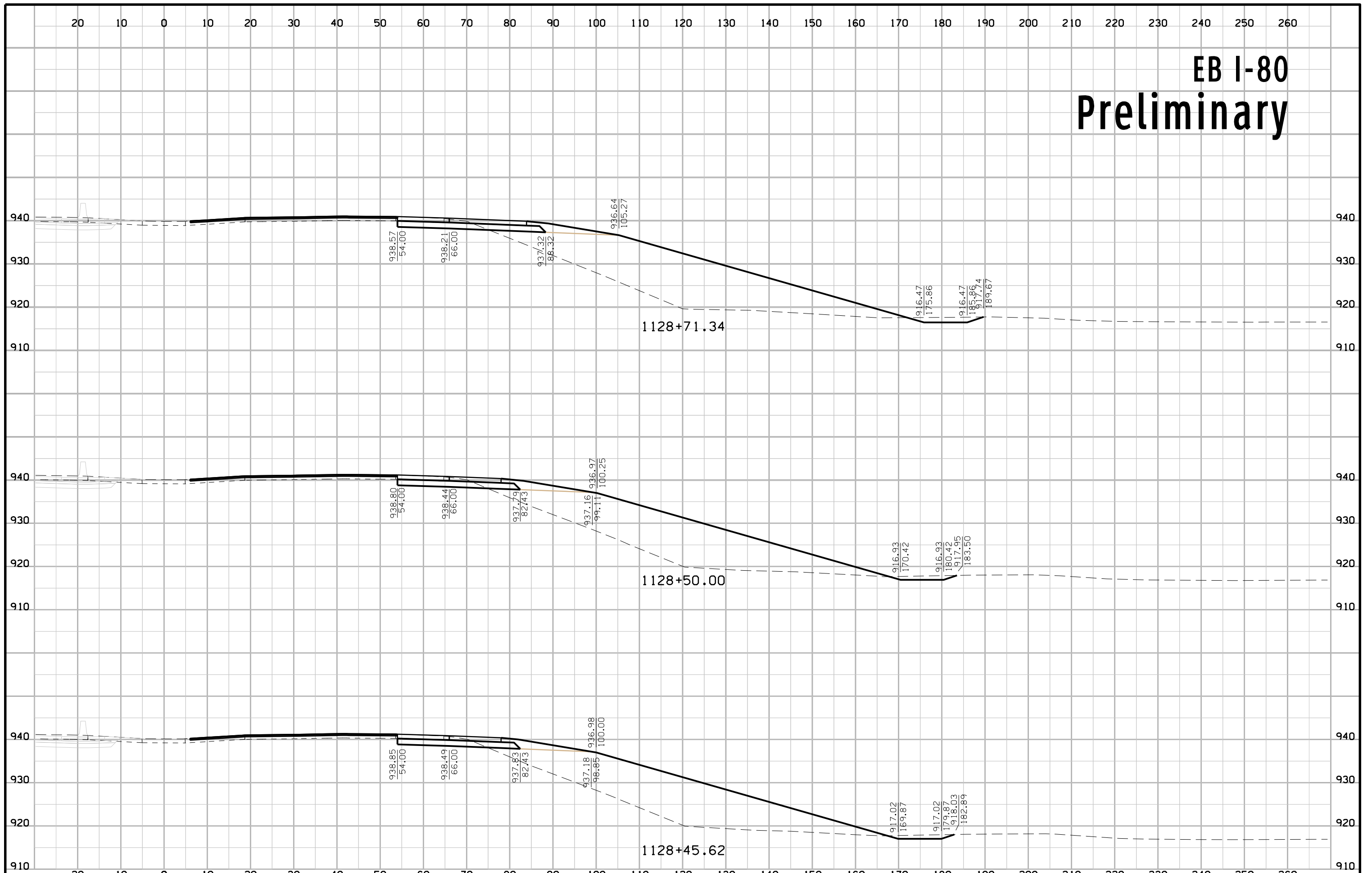
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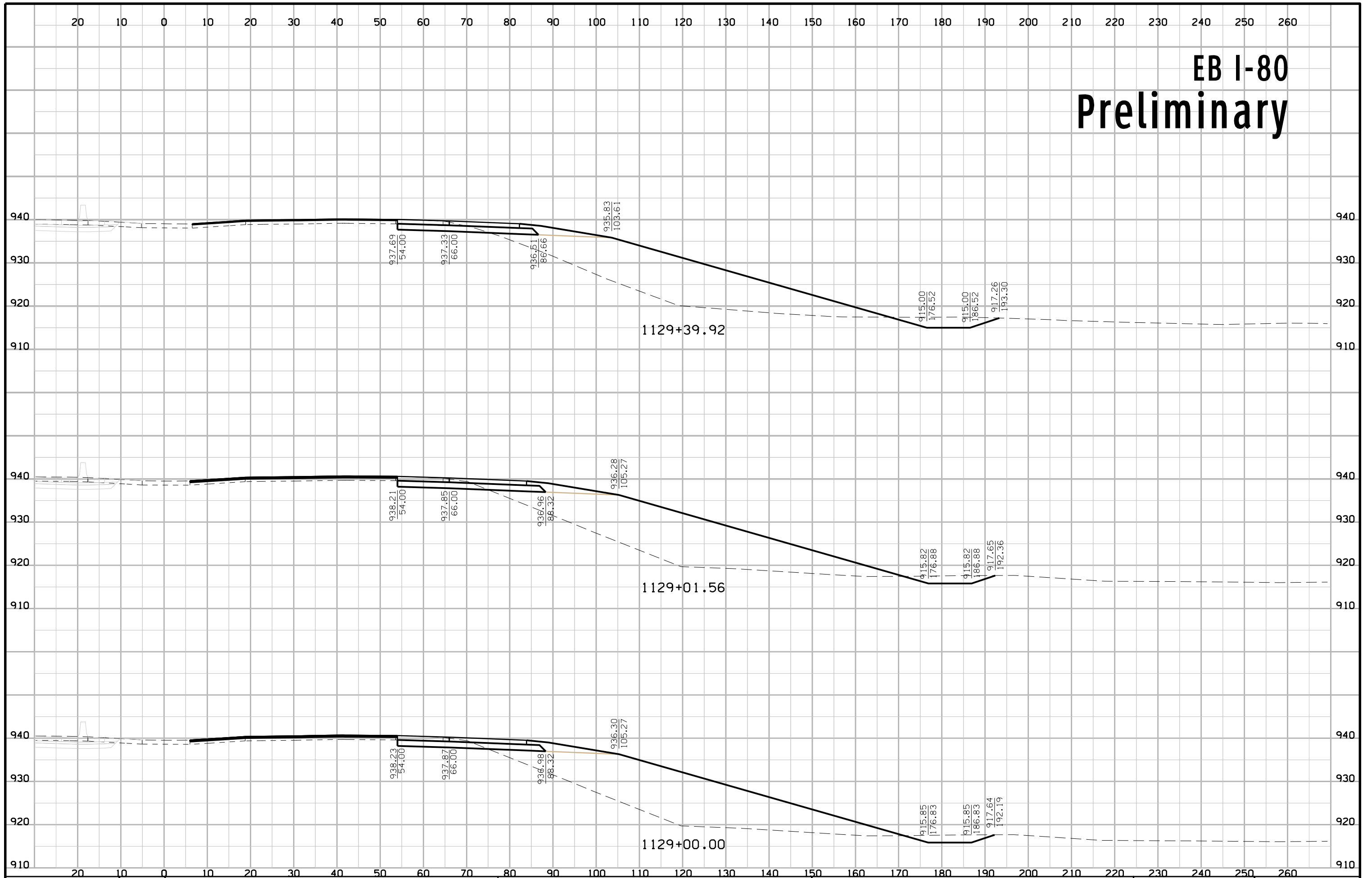
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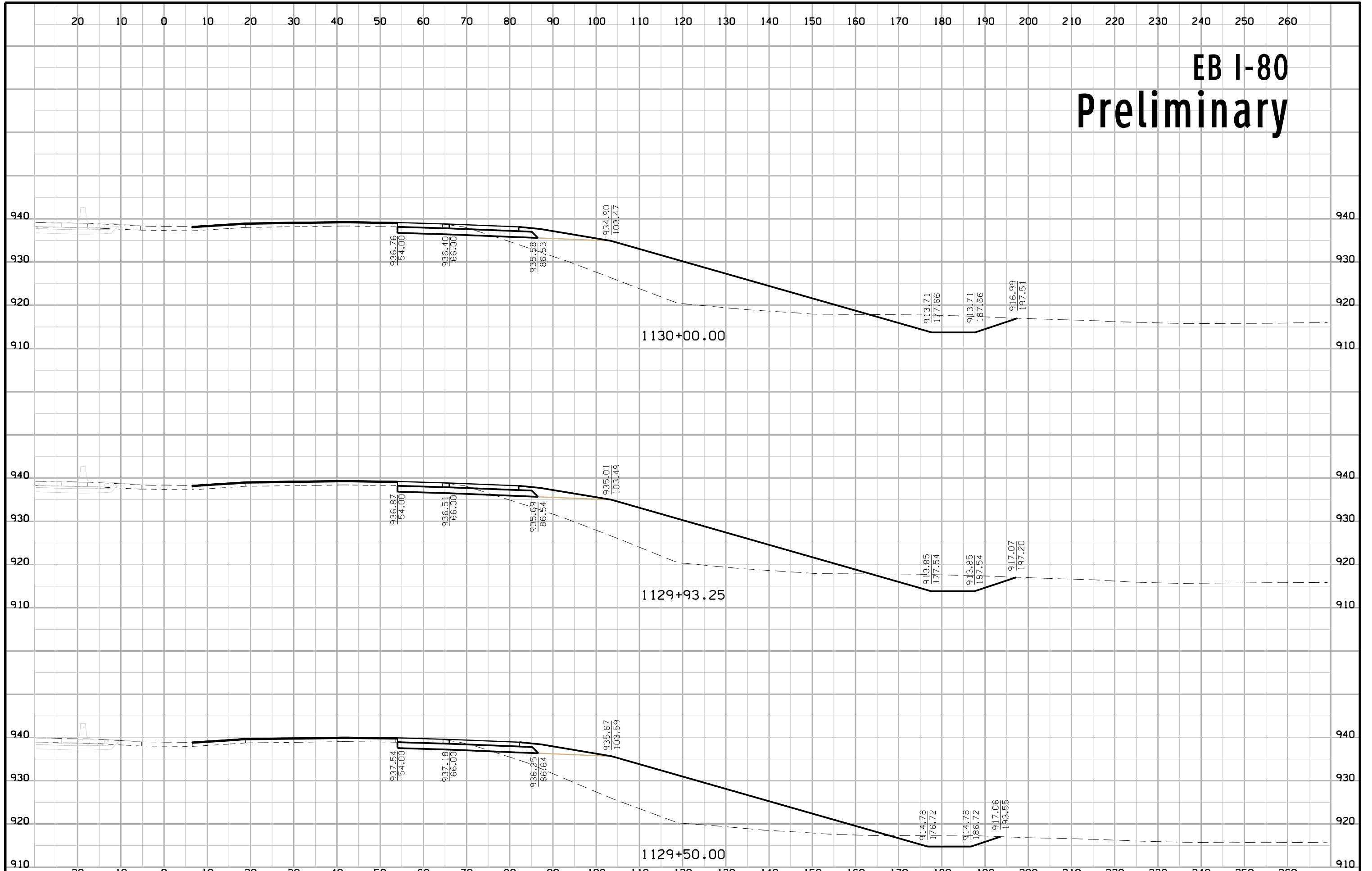
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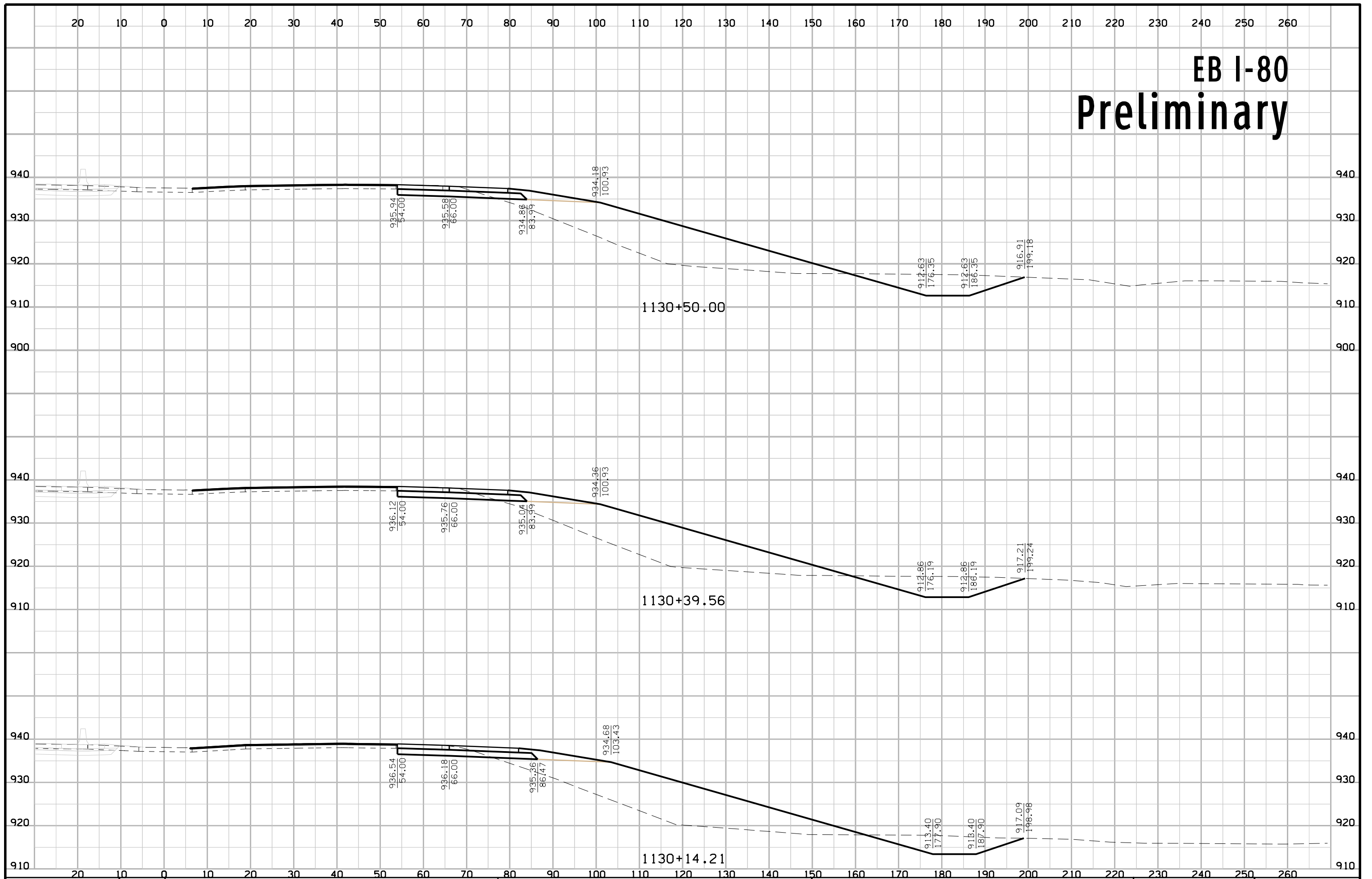
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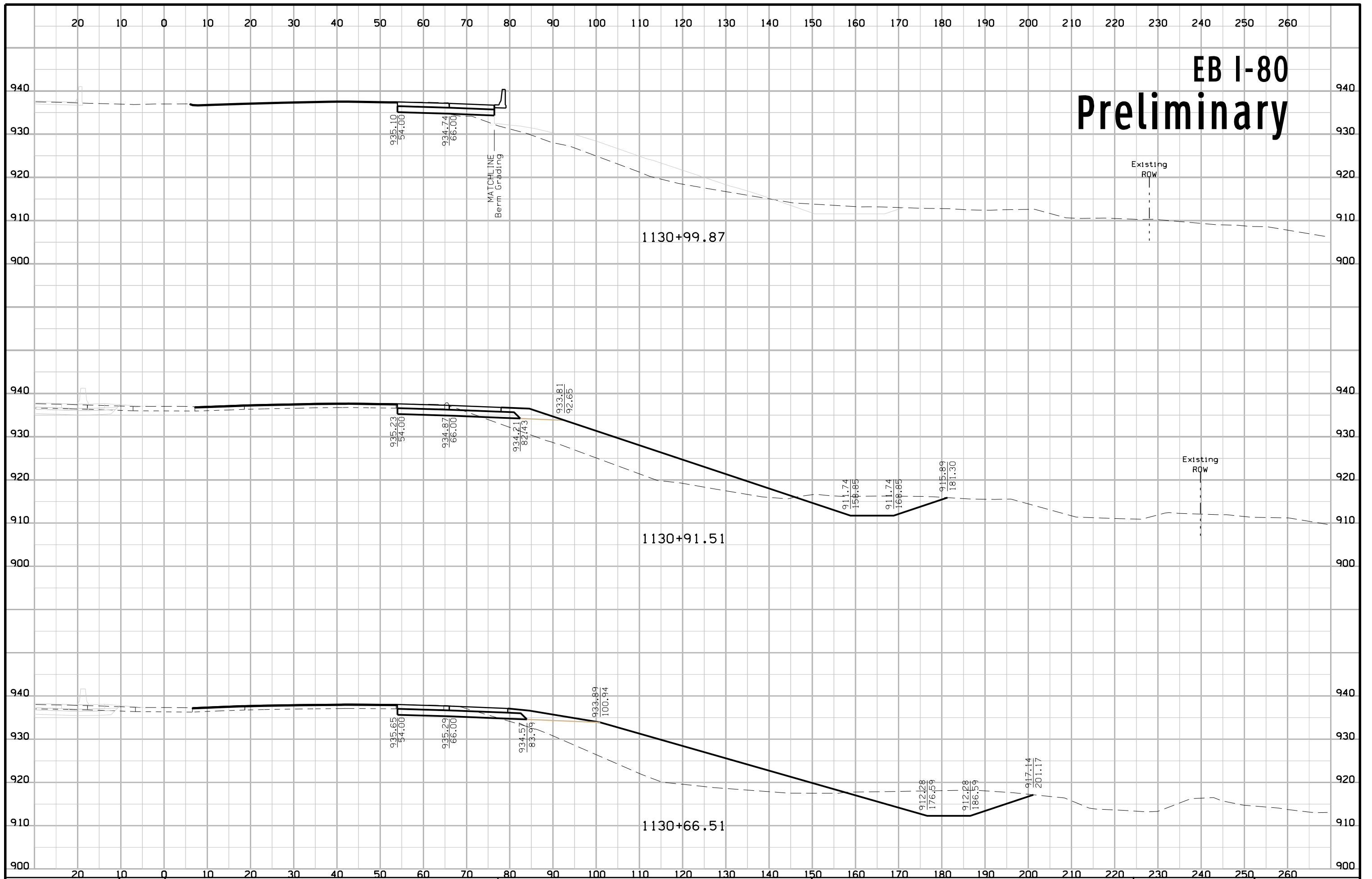
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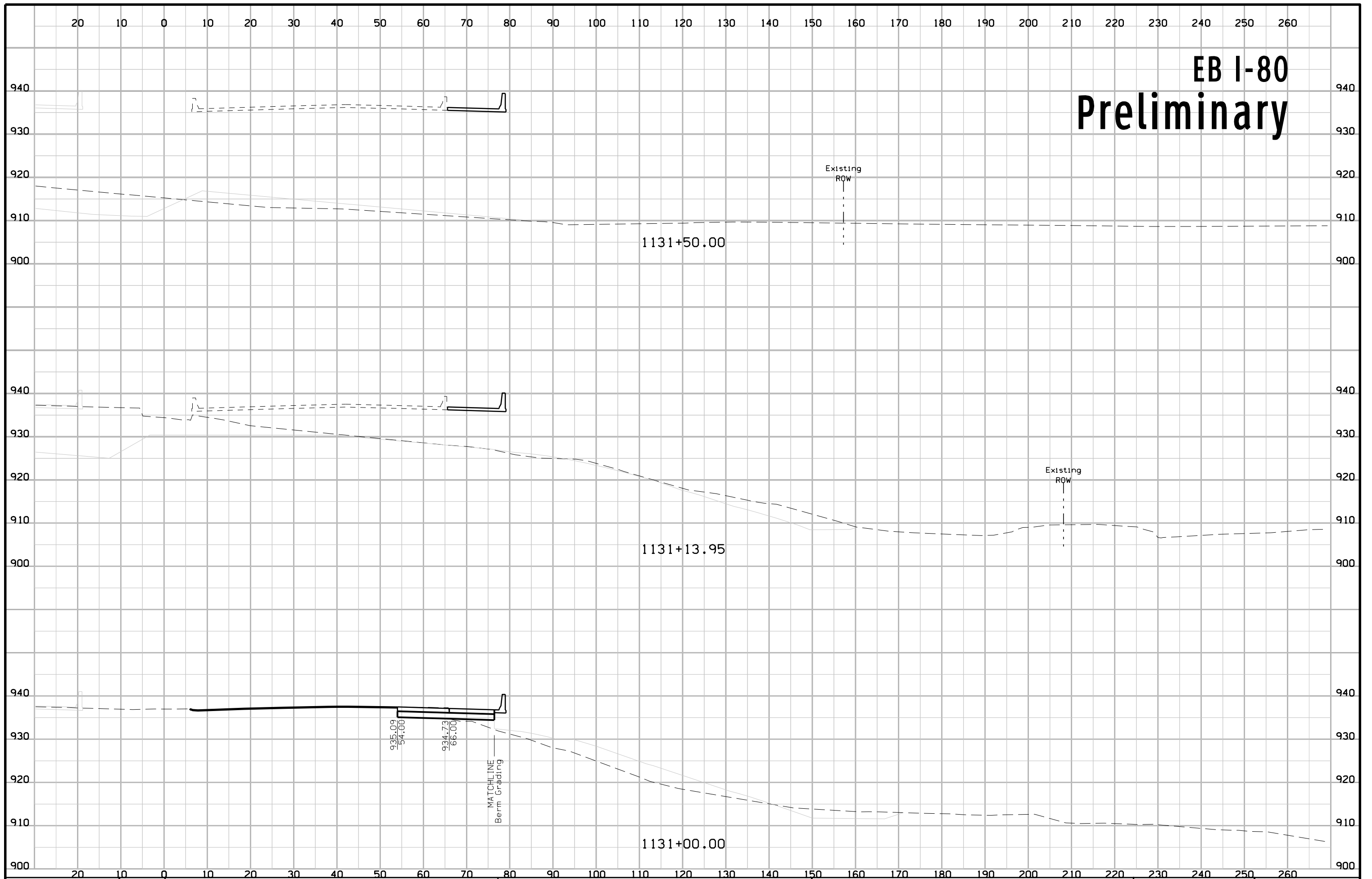
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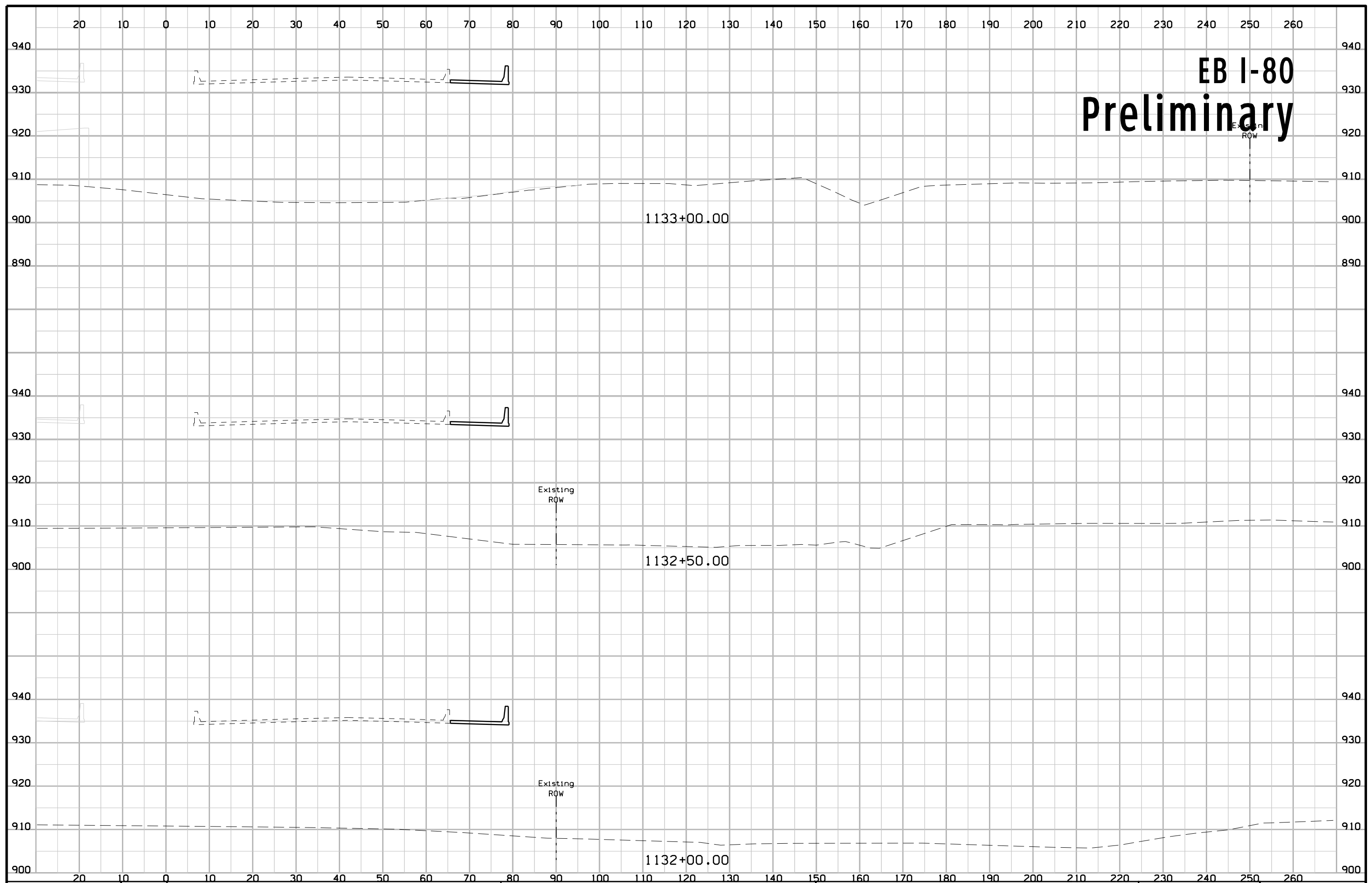
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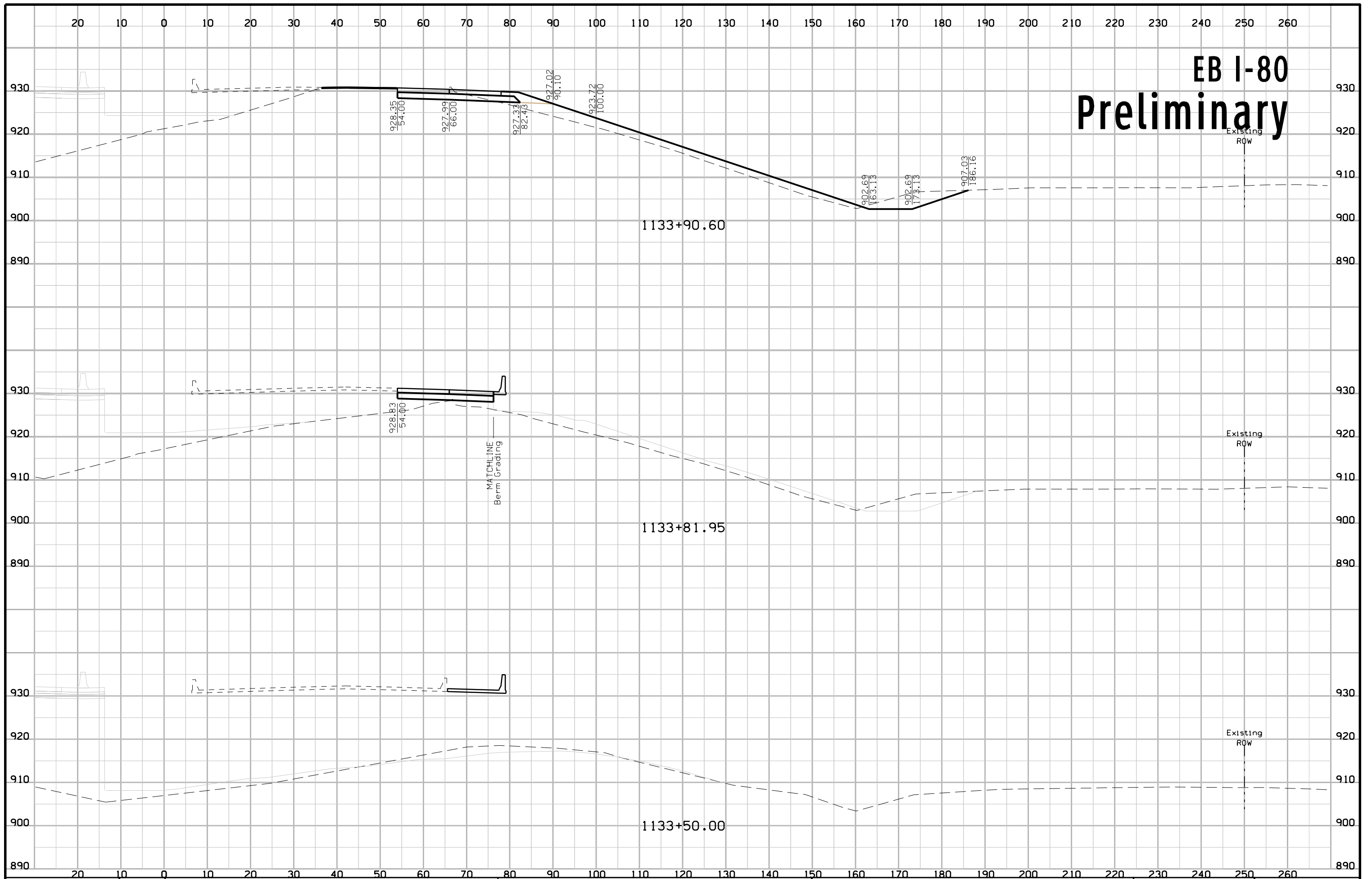
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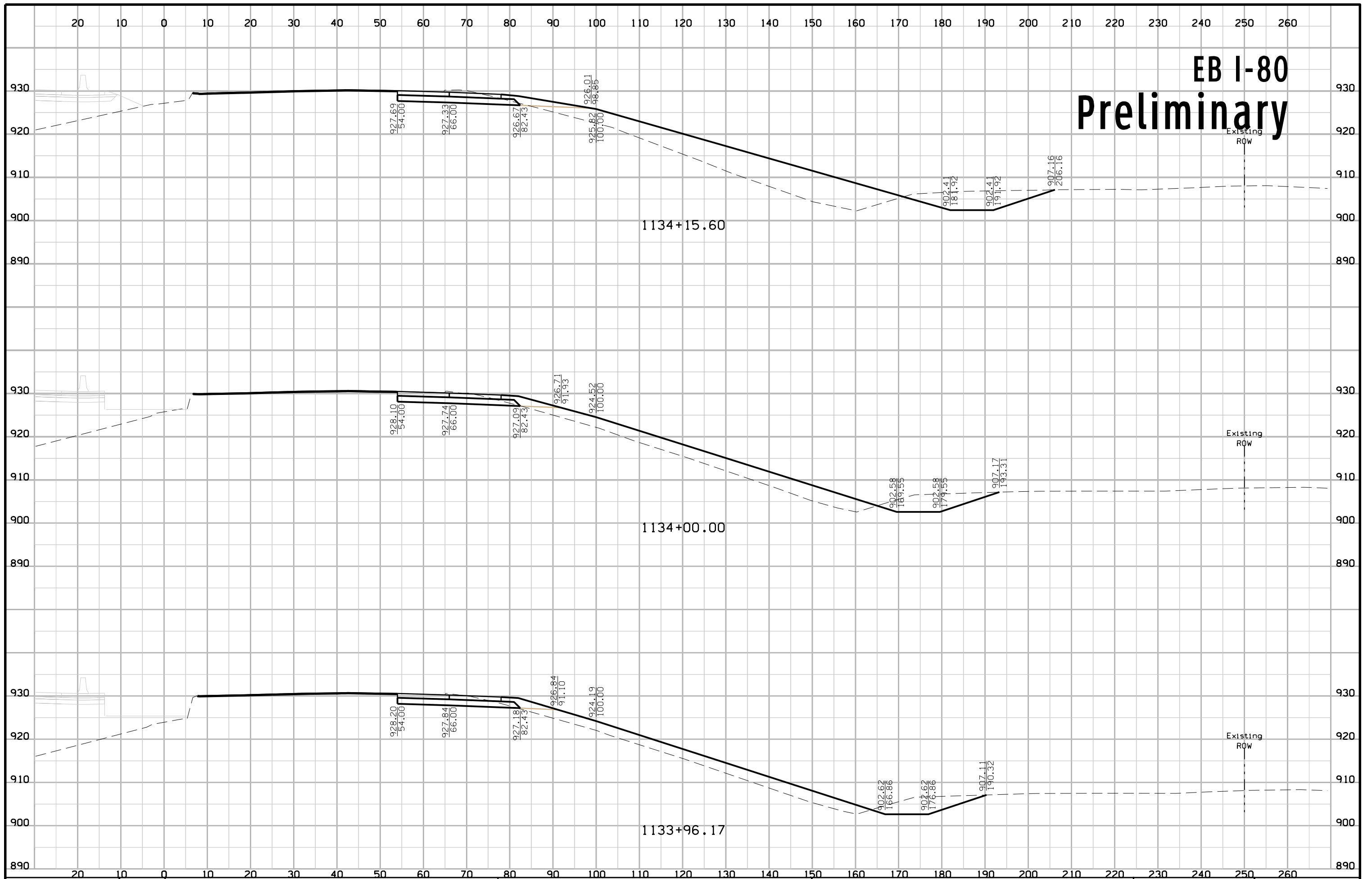
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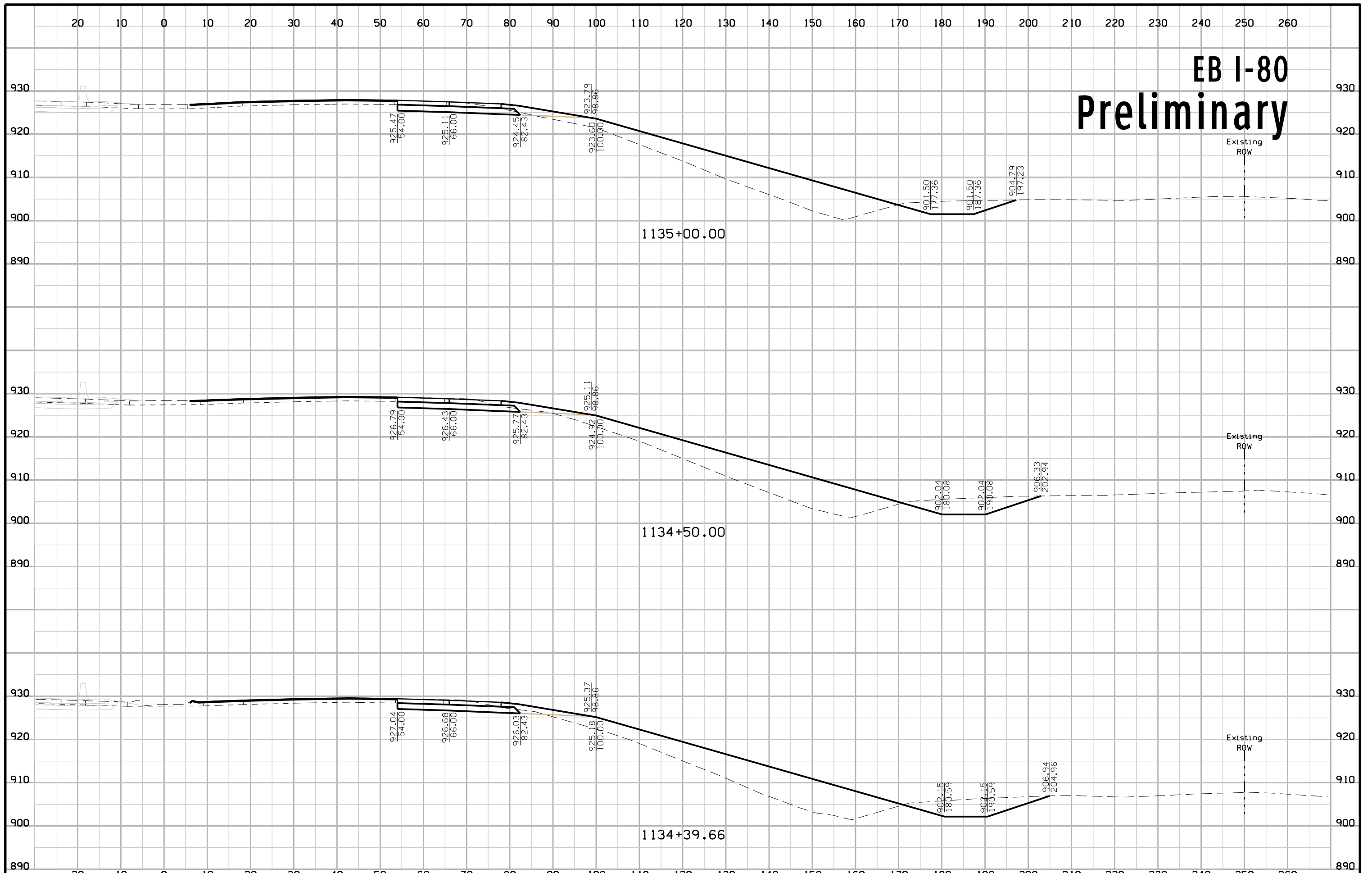
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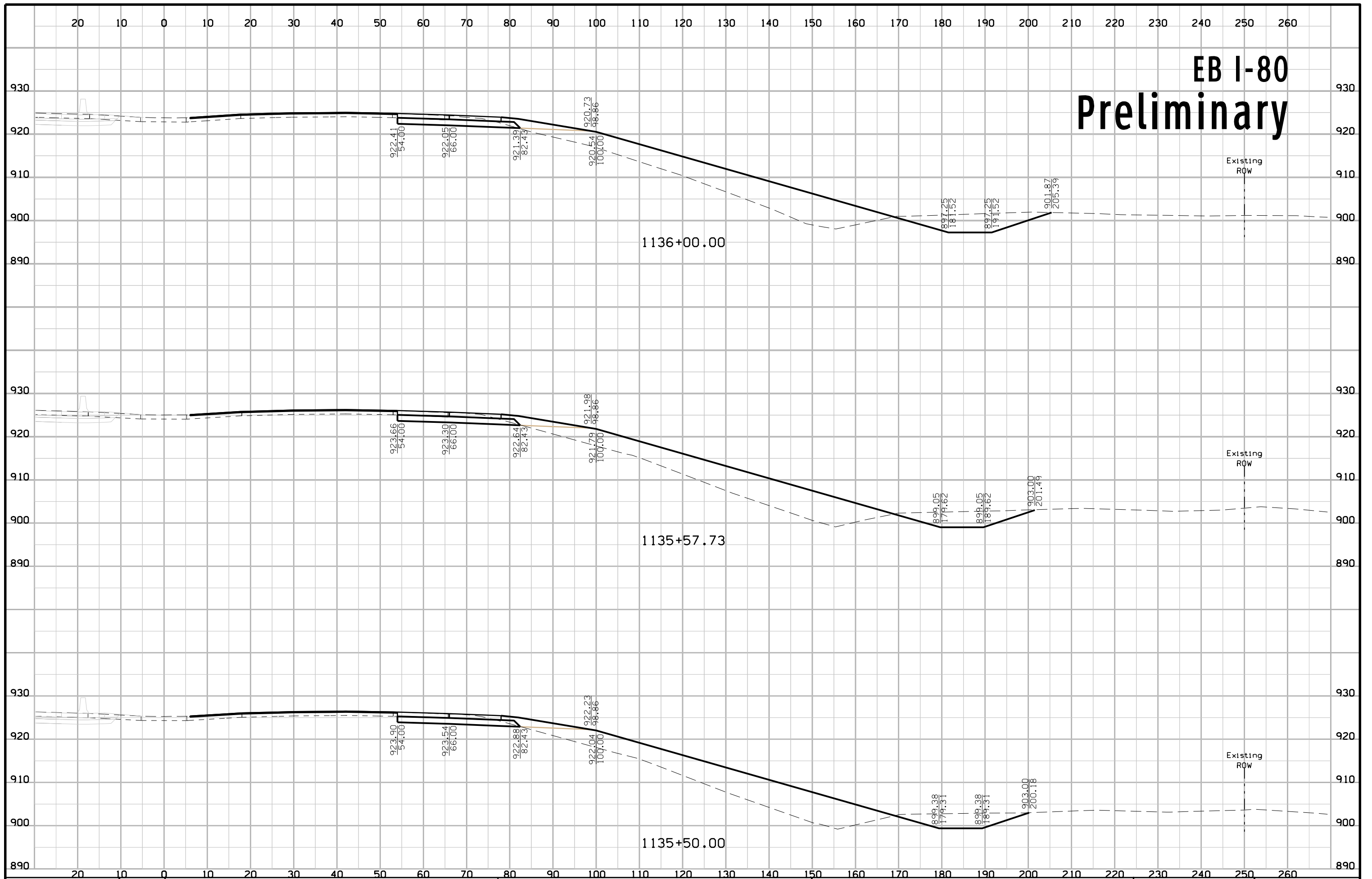
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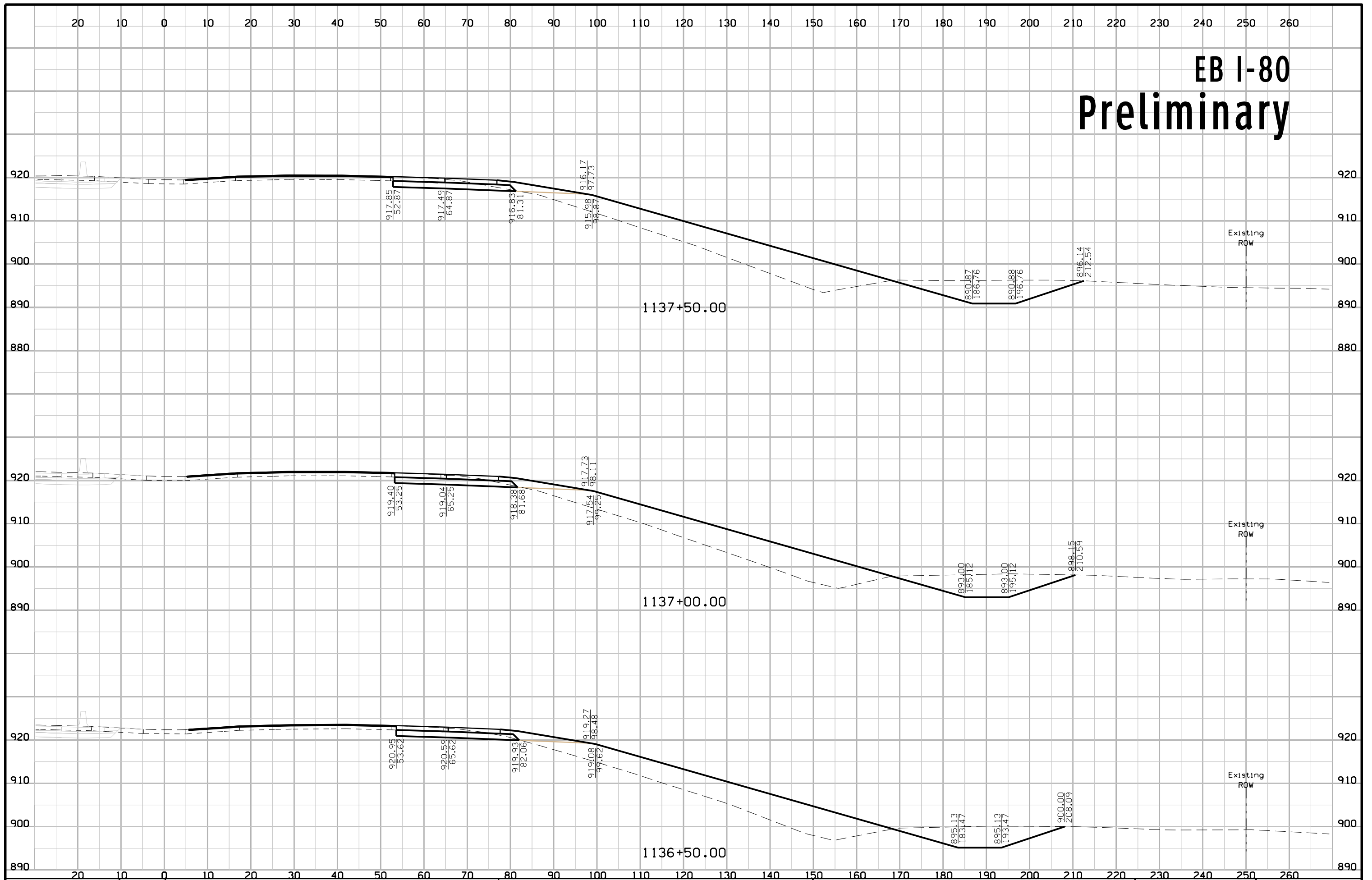
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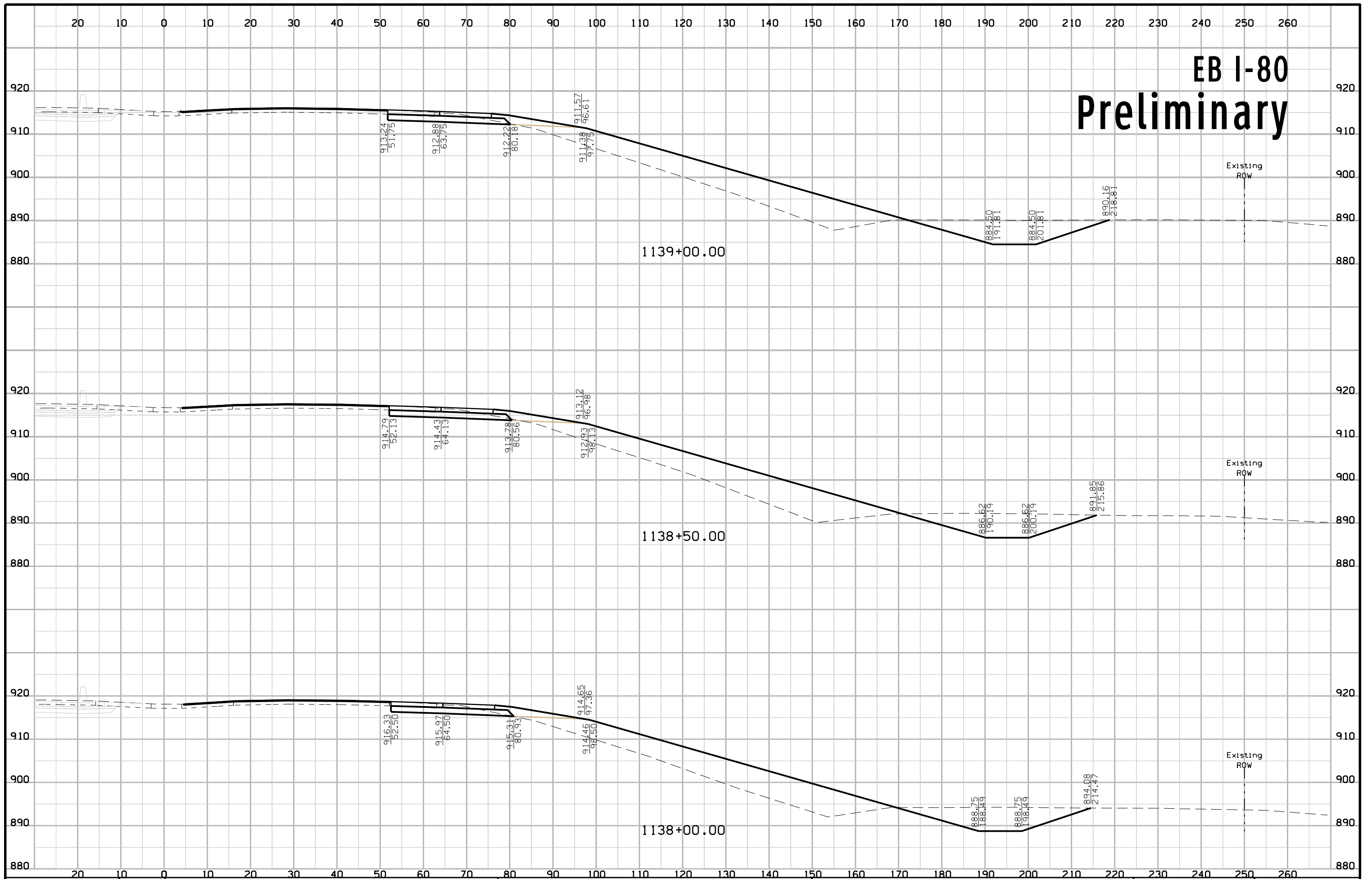
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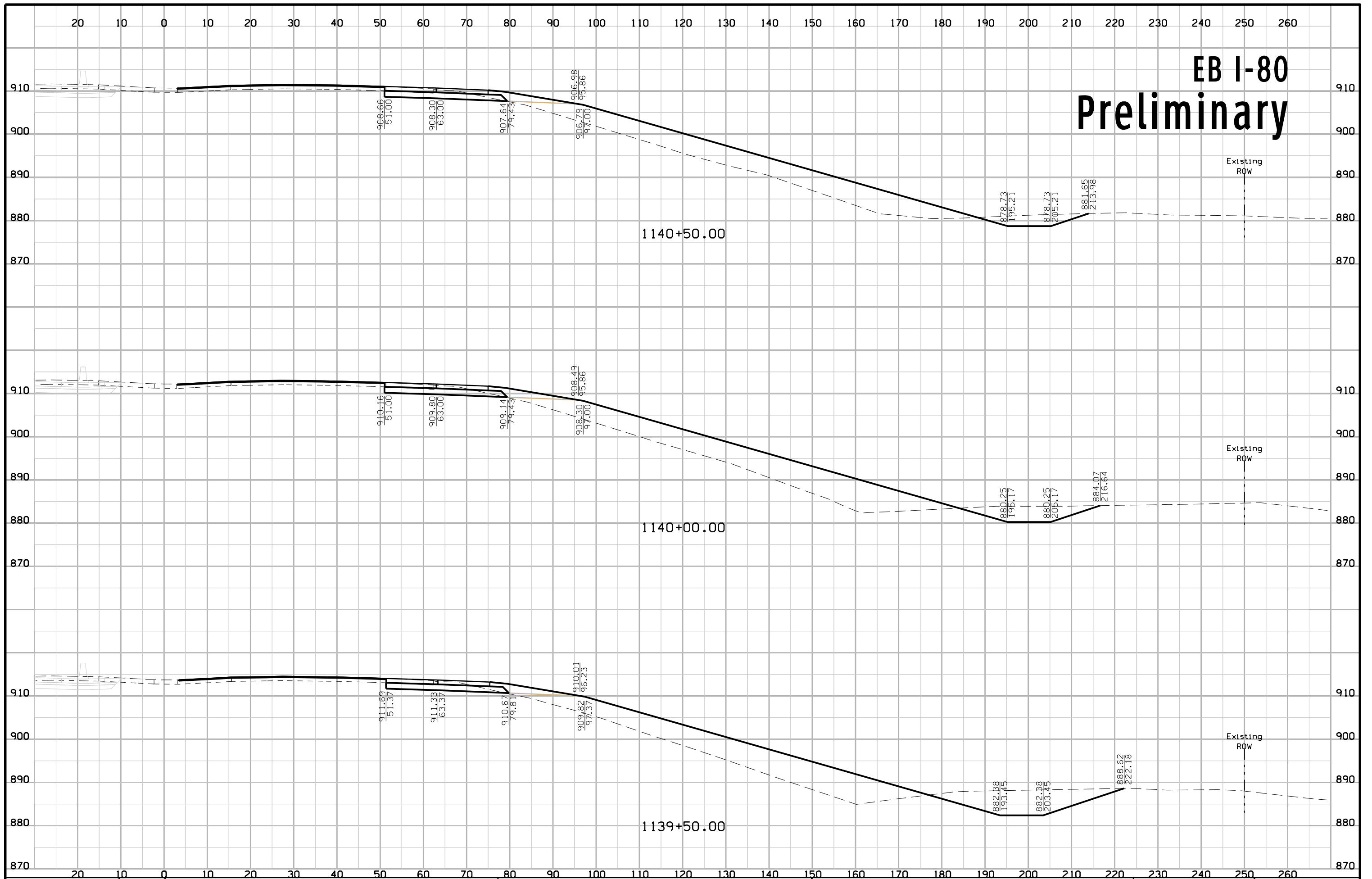
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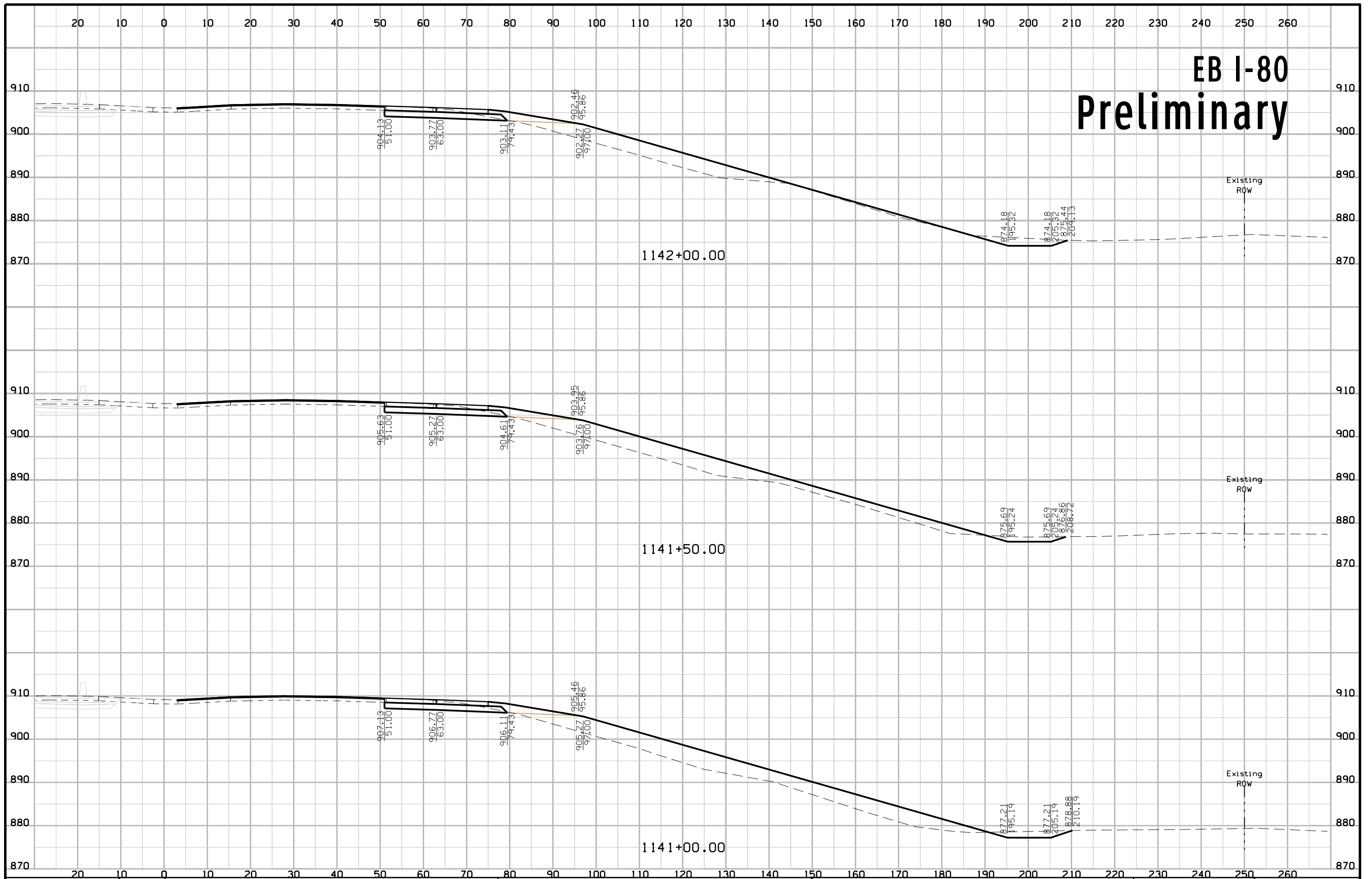
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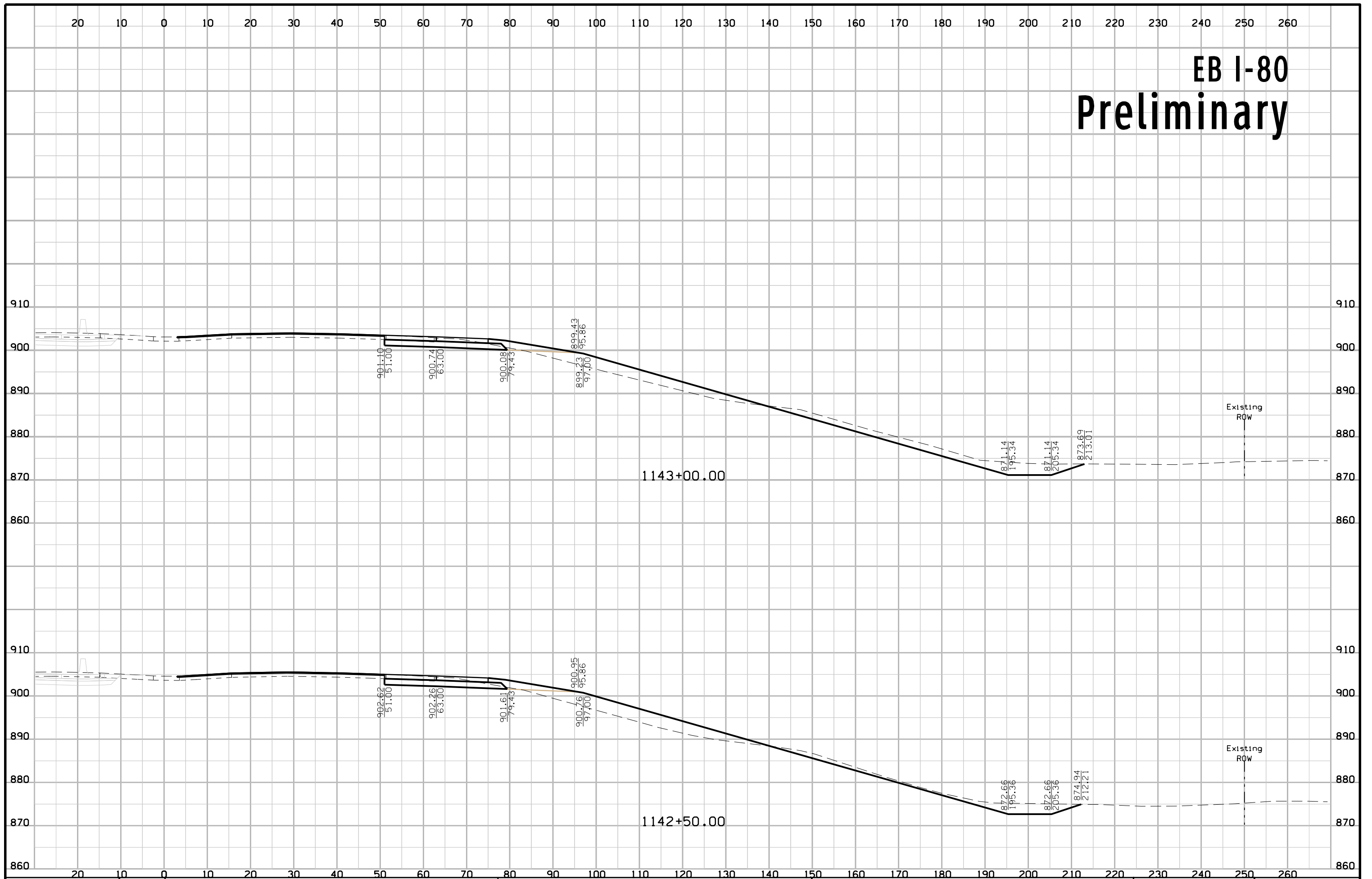
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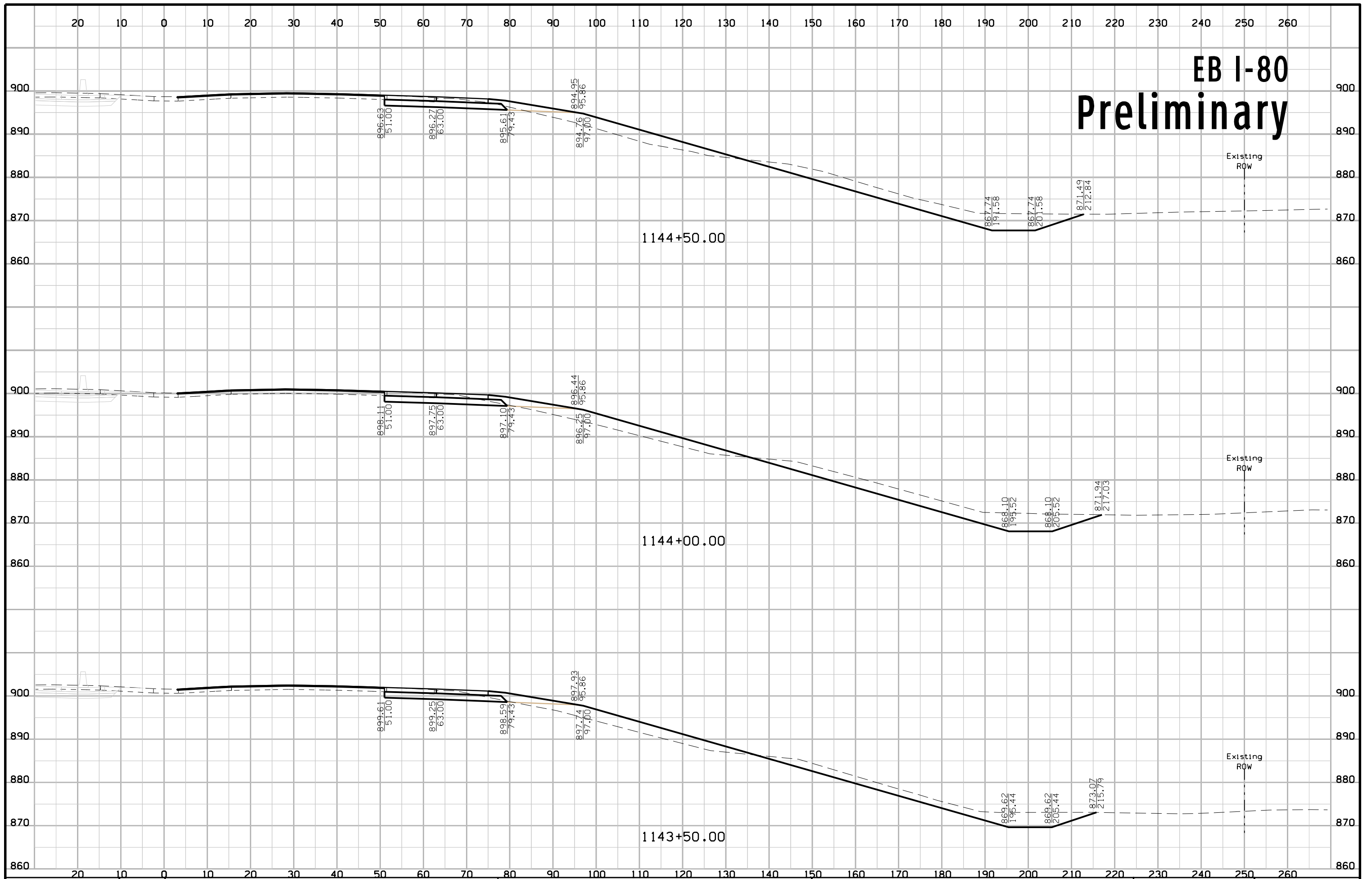
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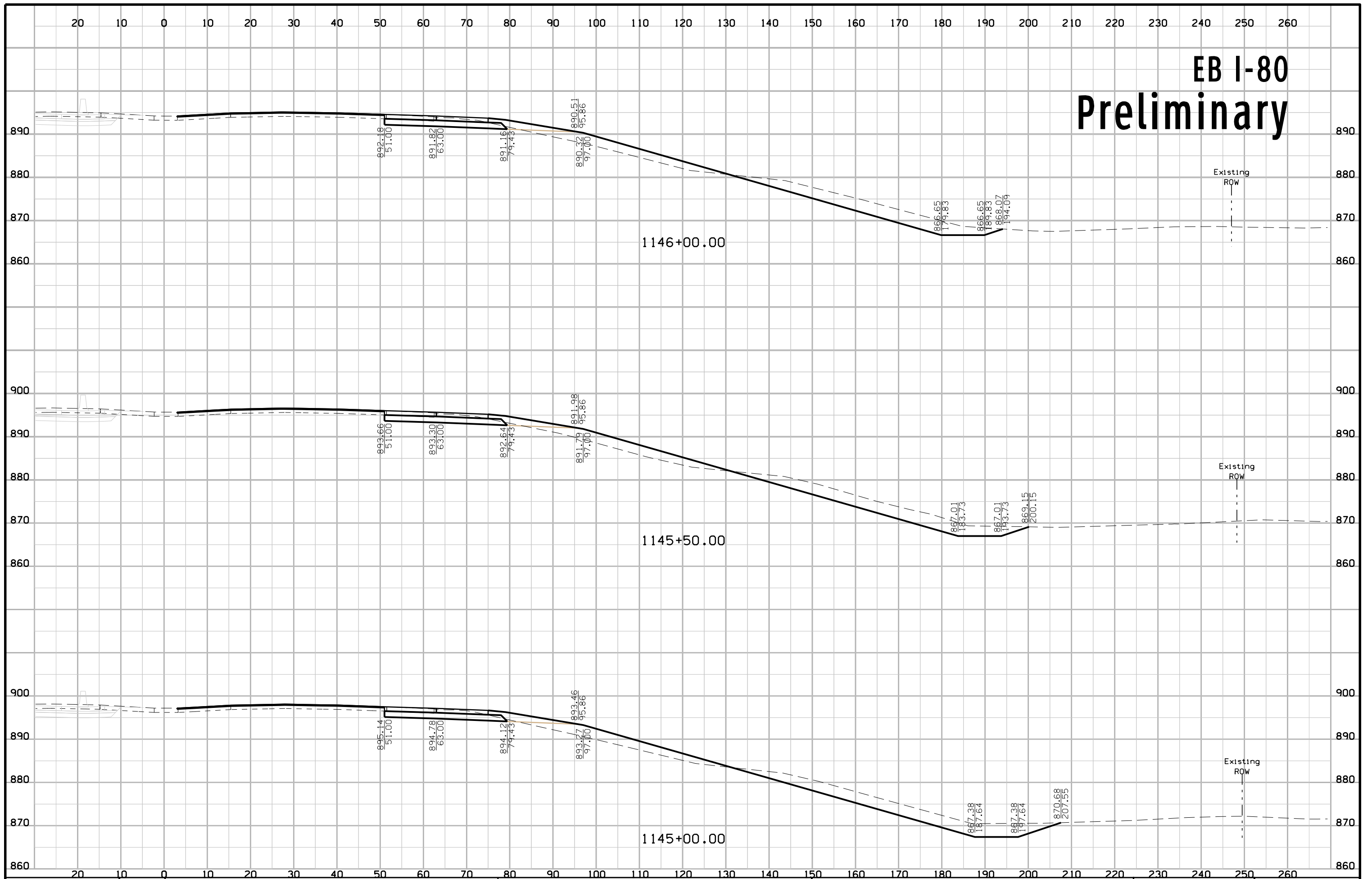
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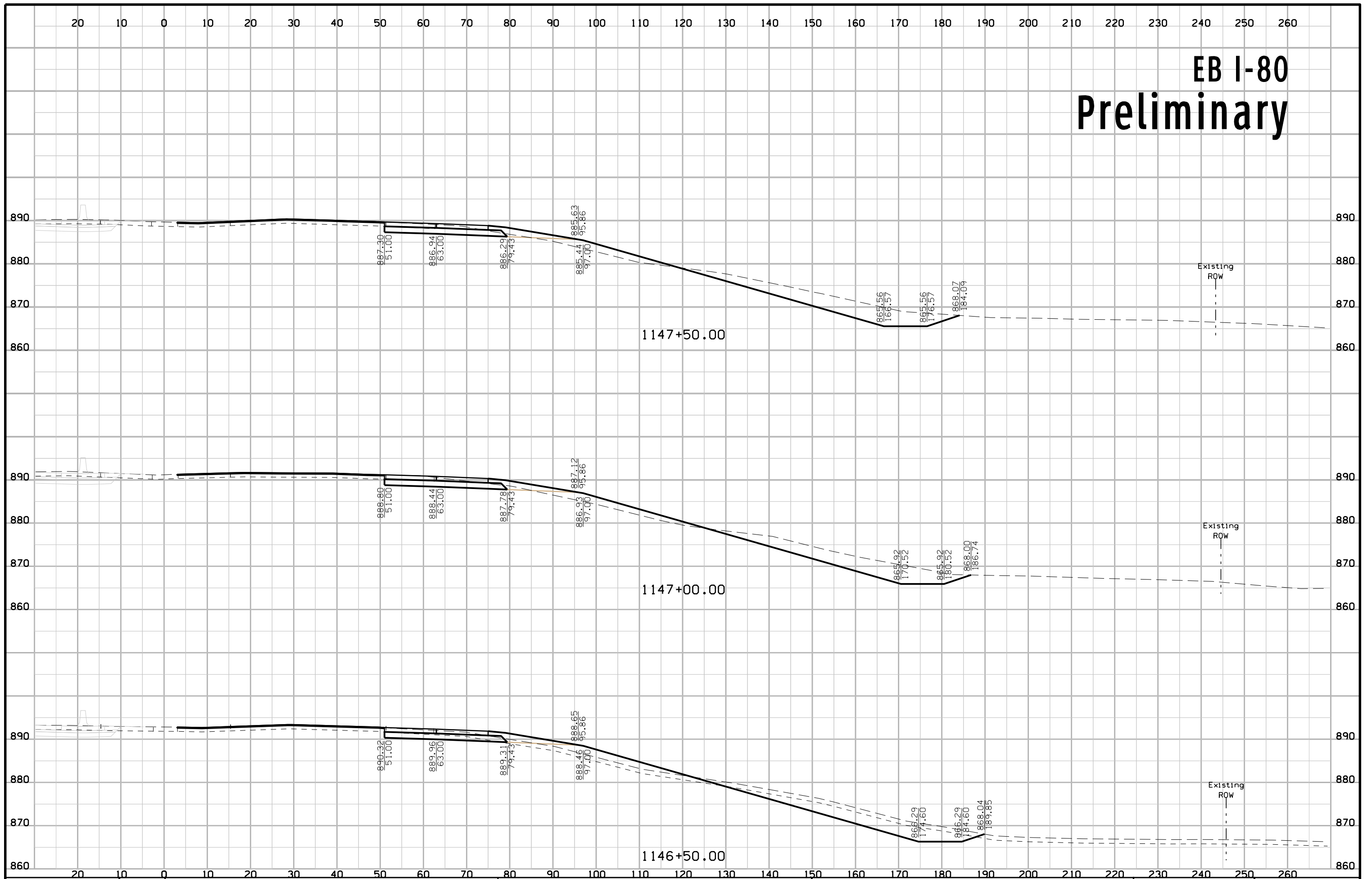
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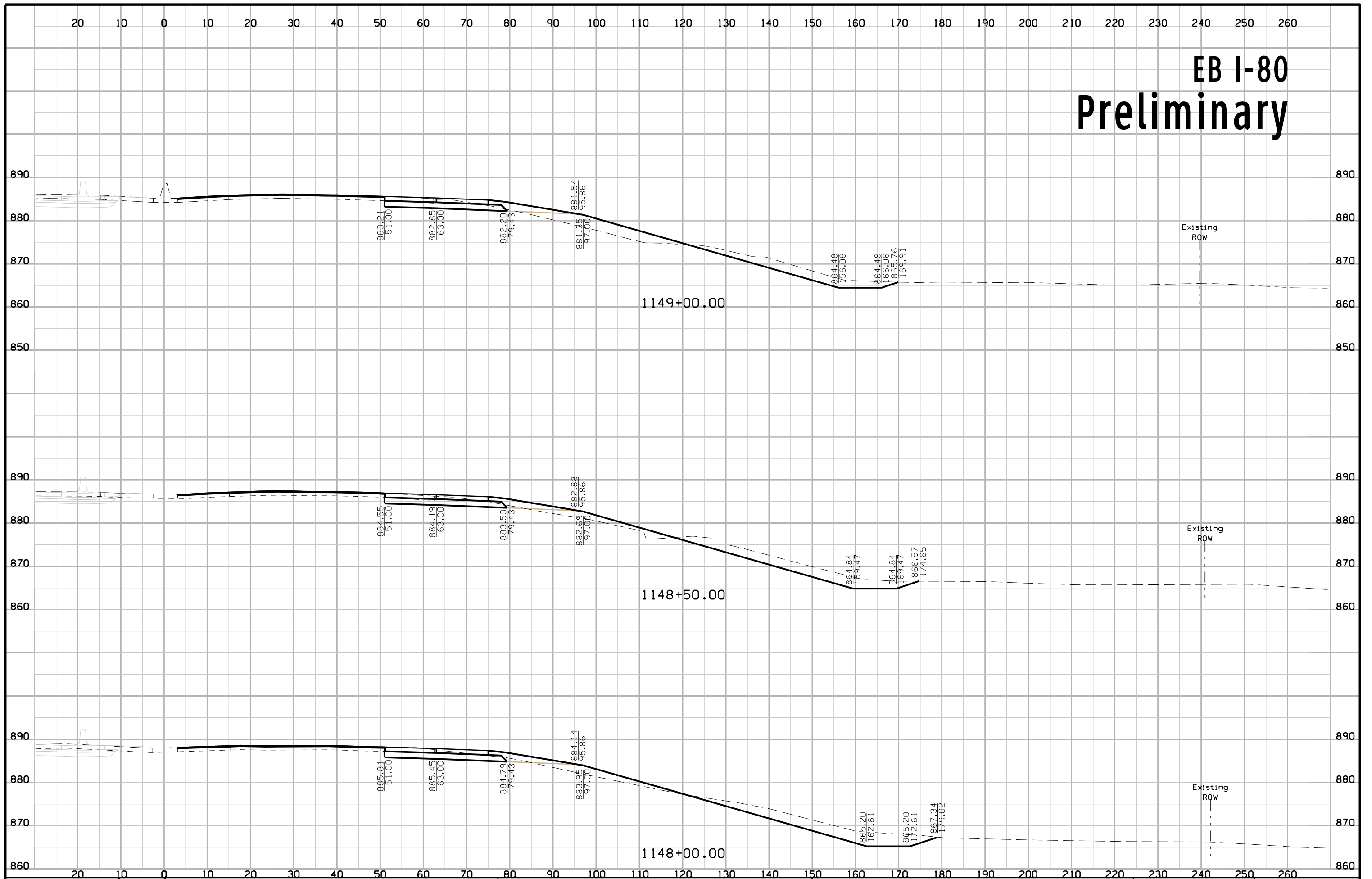
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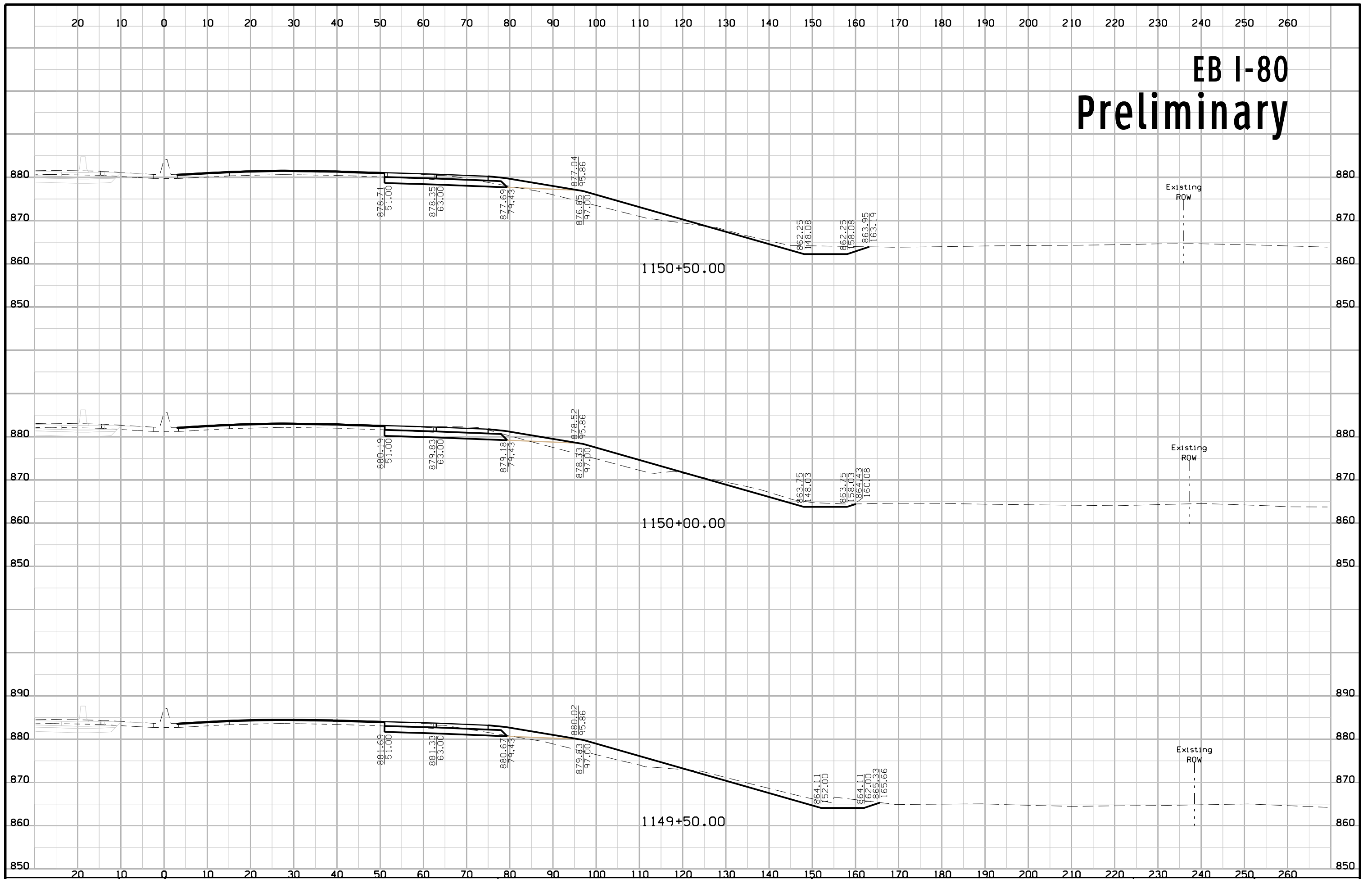
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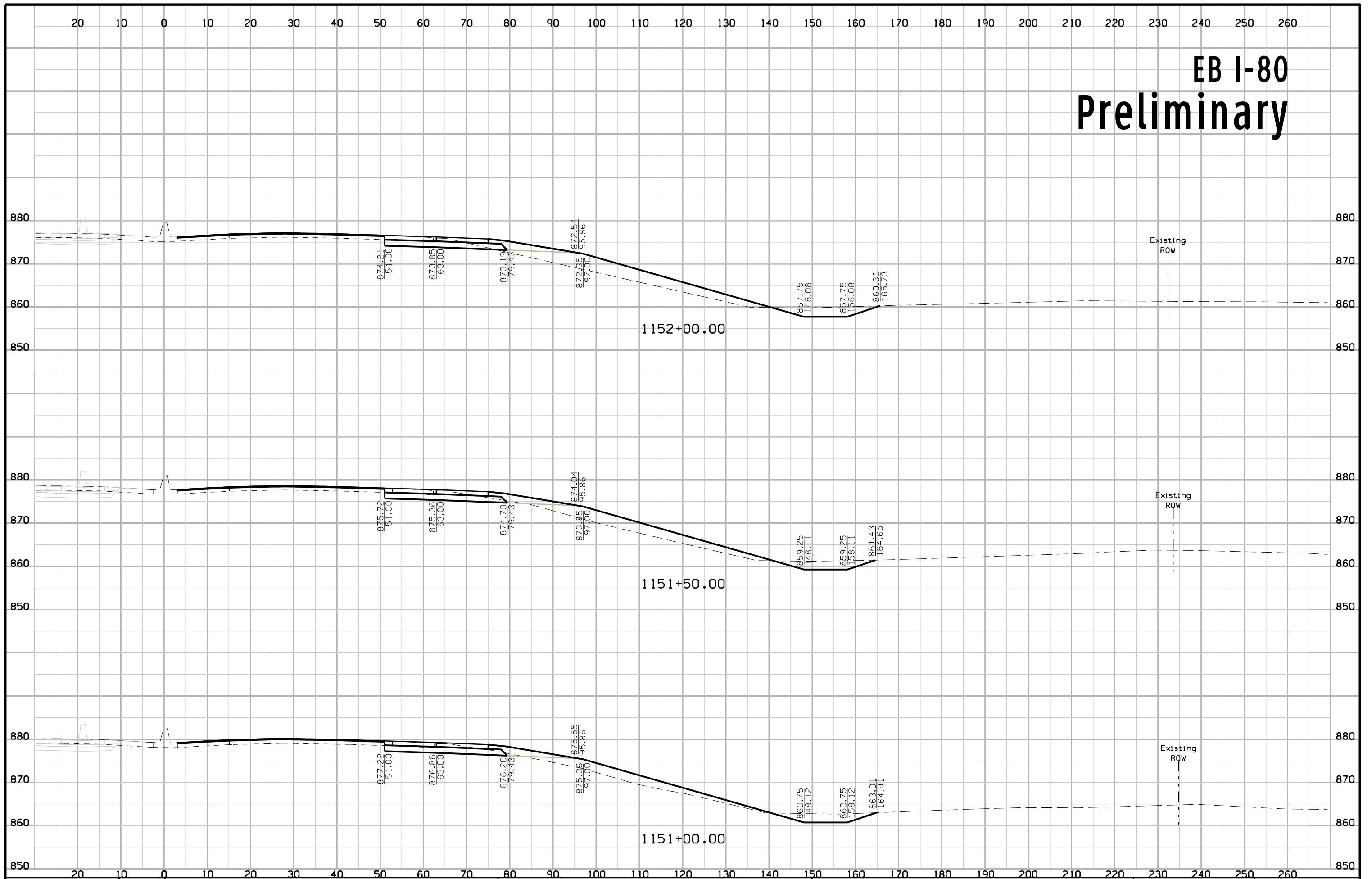
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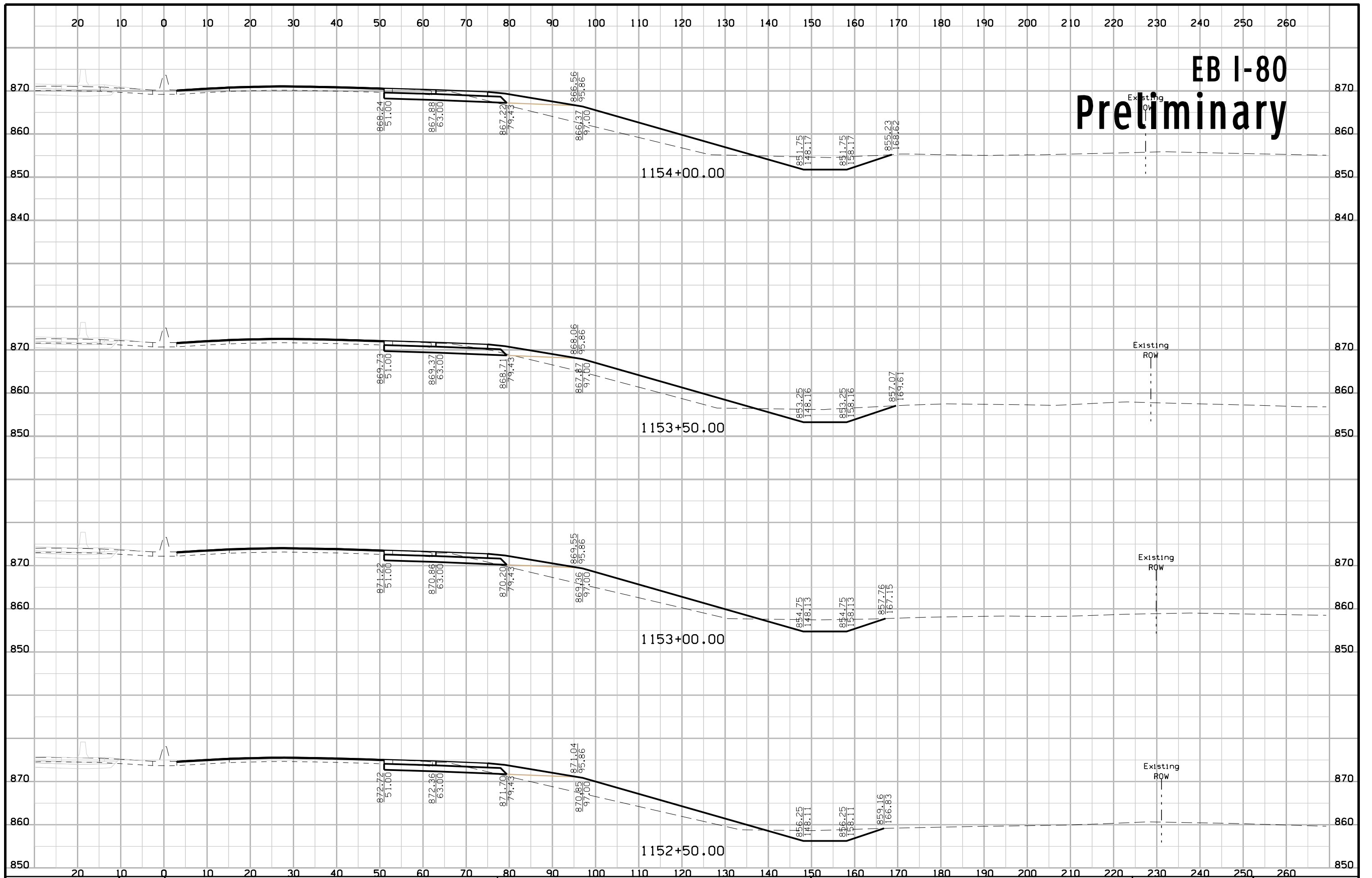
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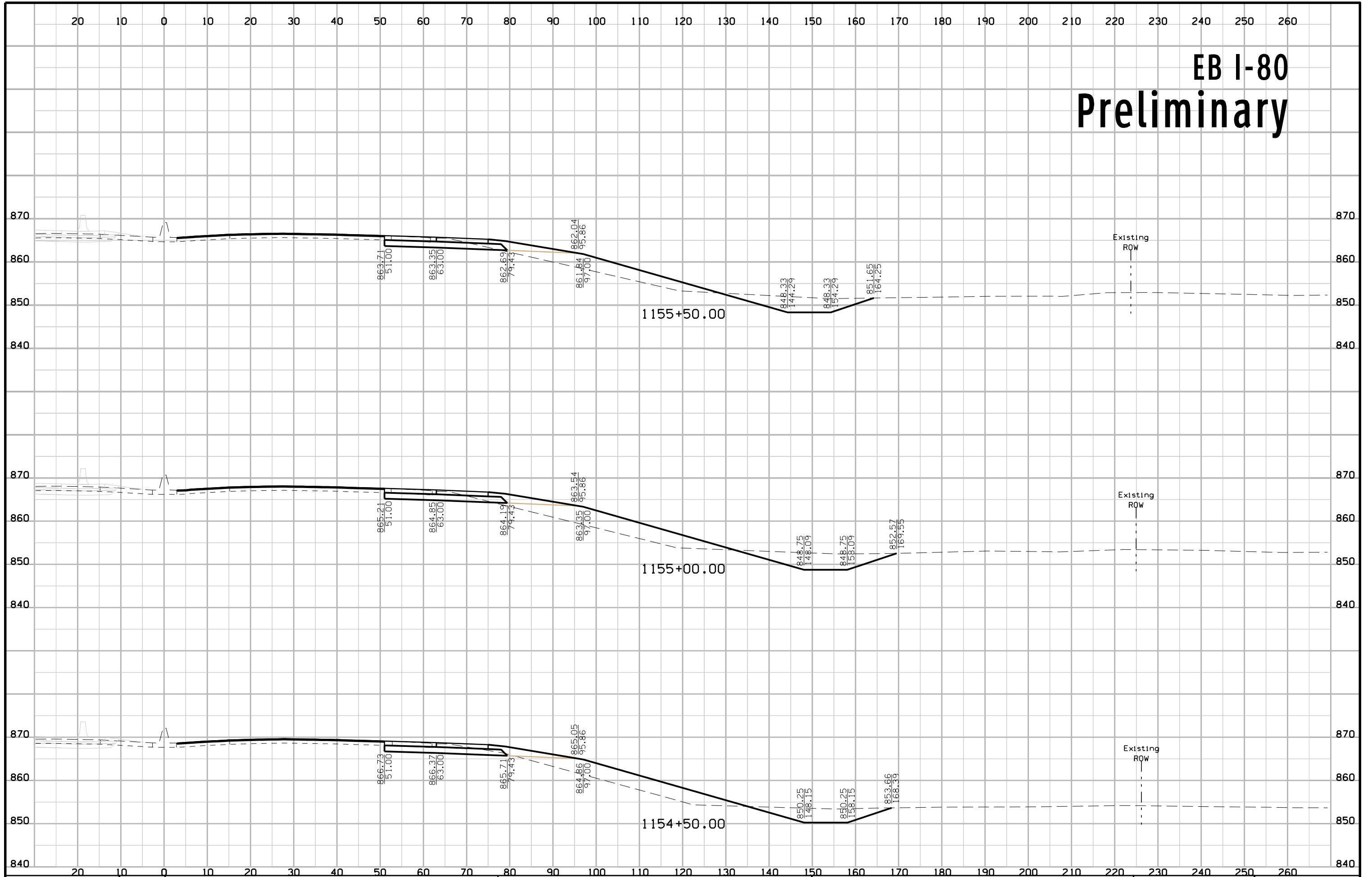
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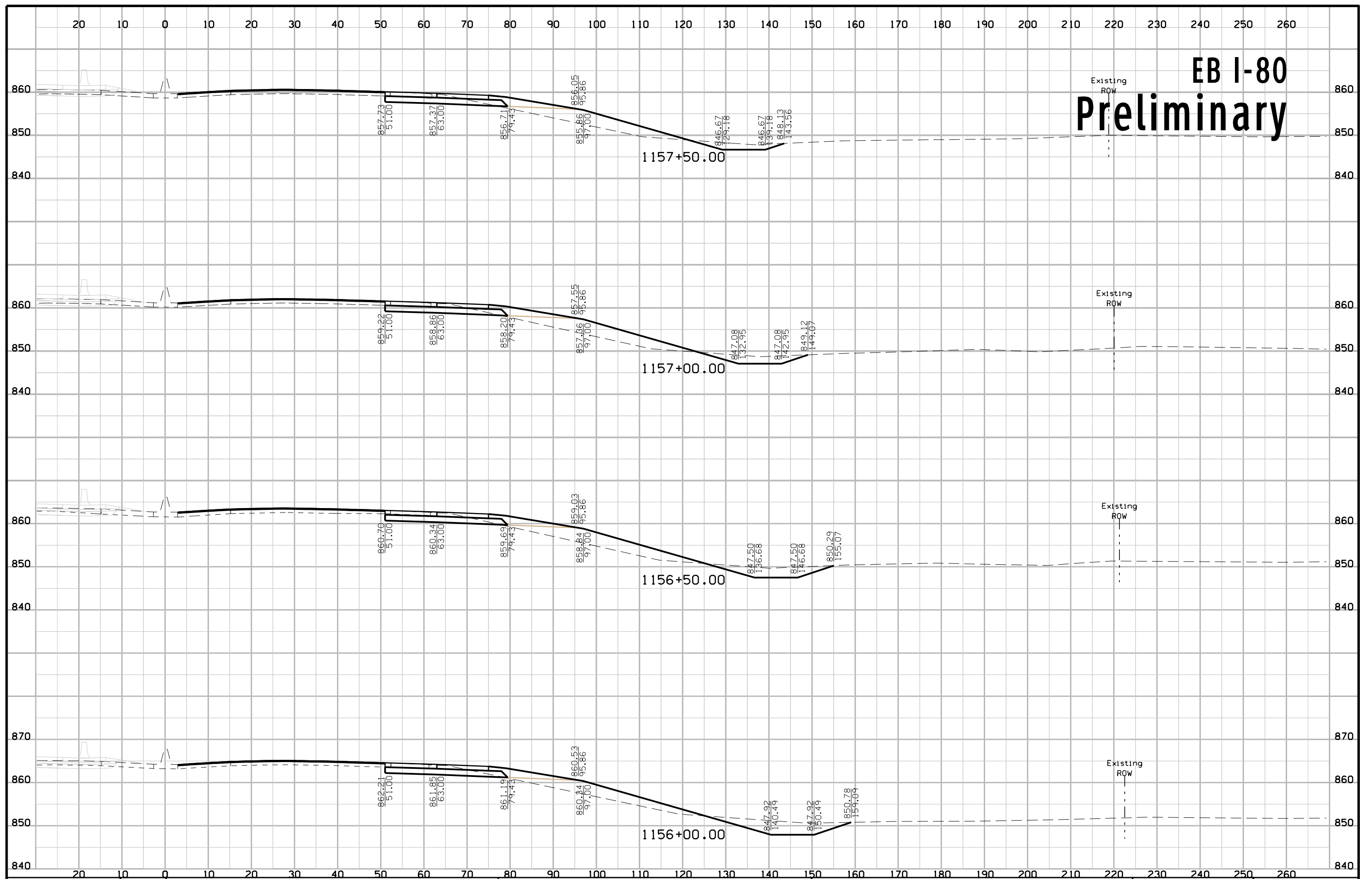


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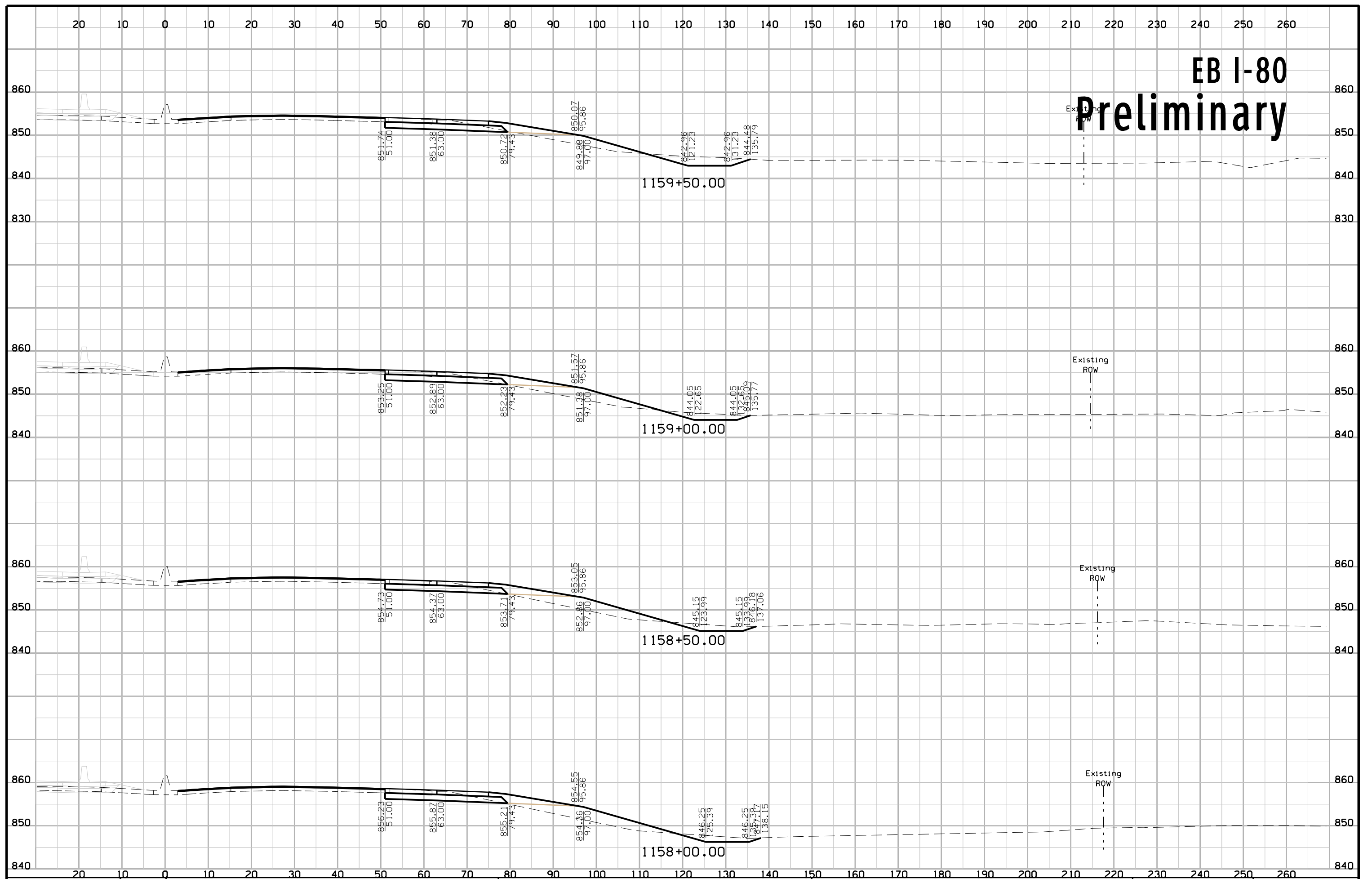
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Preliminary

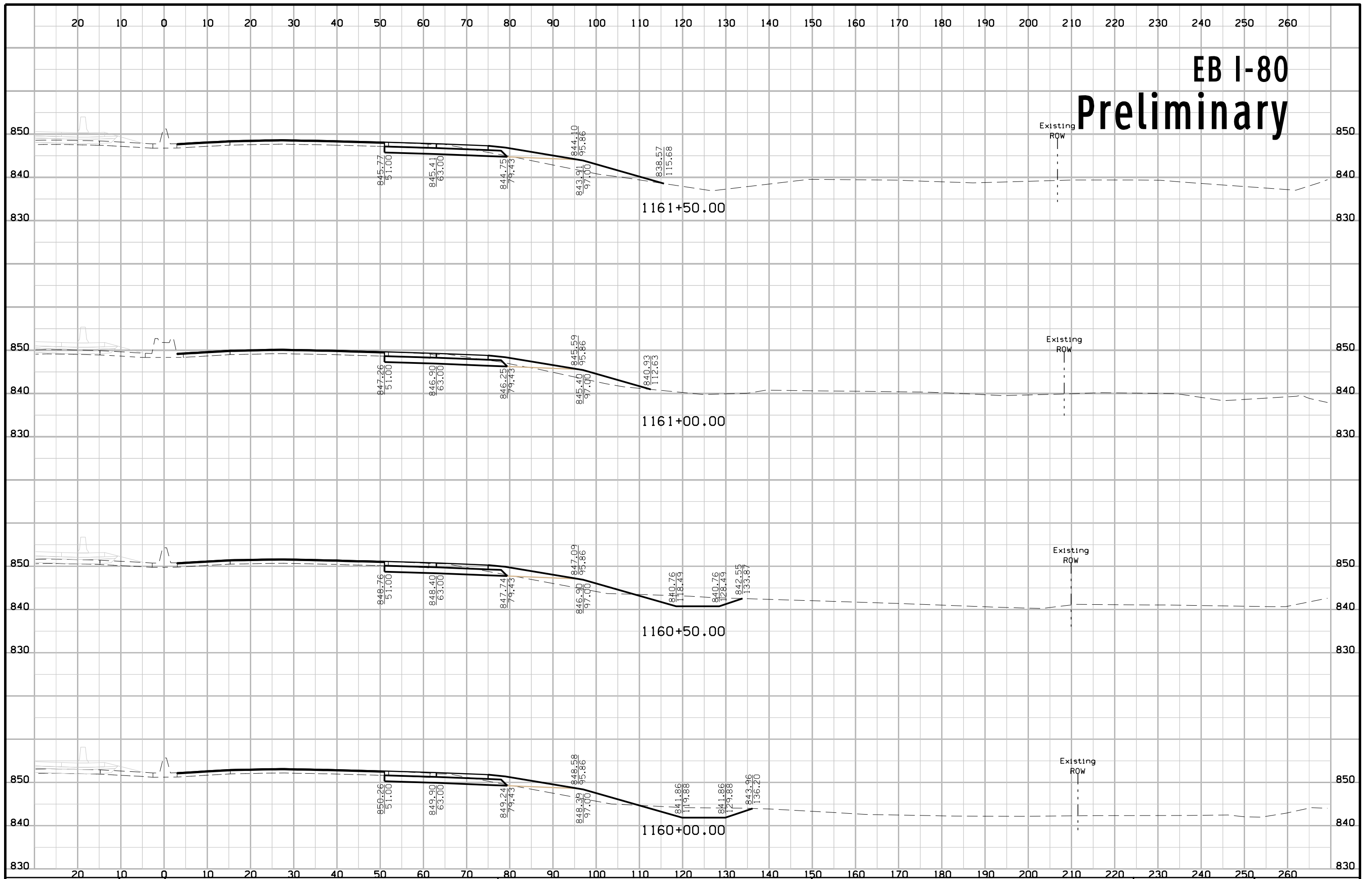


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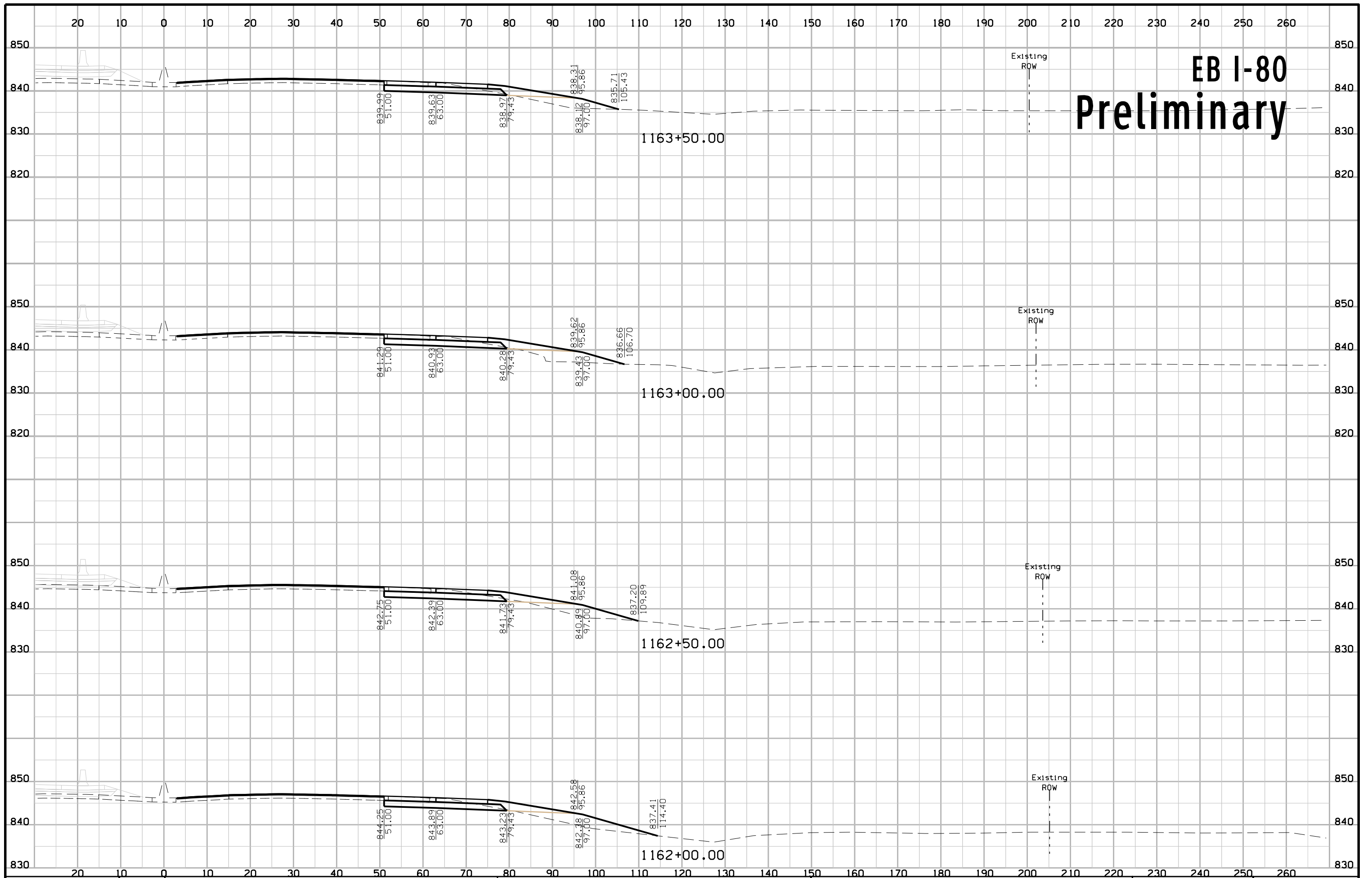
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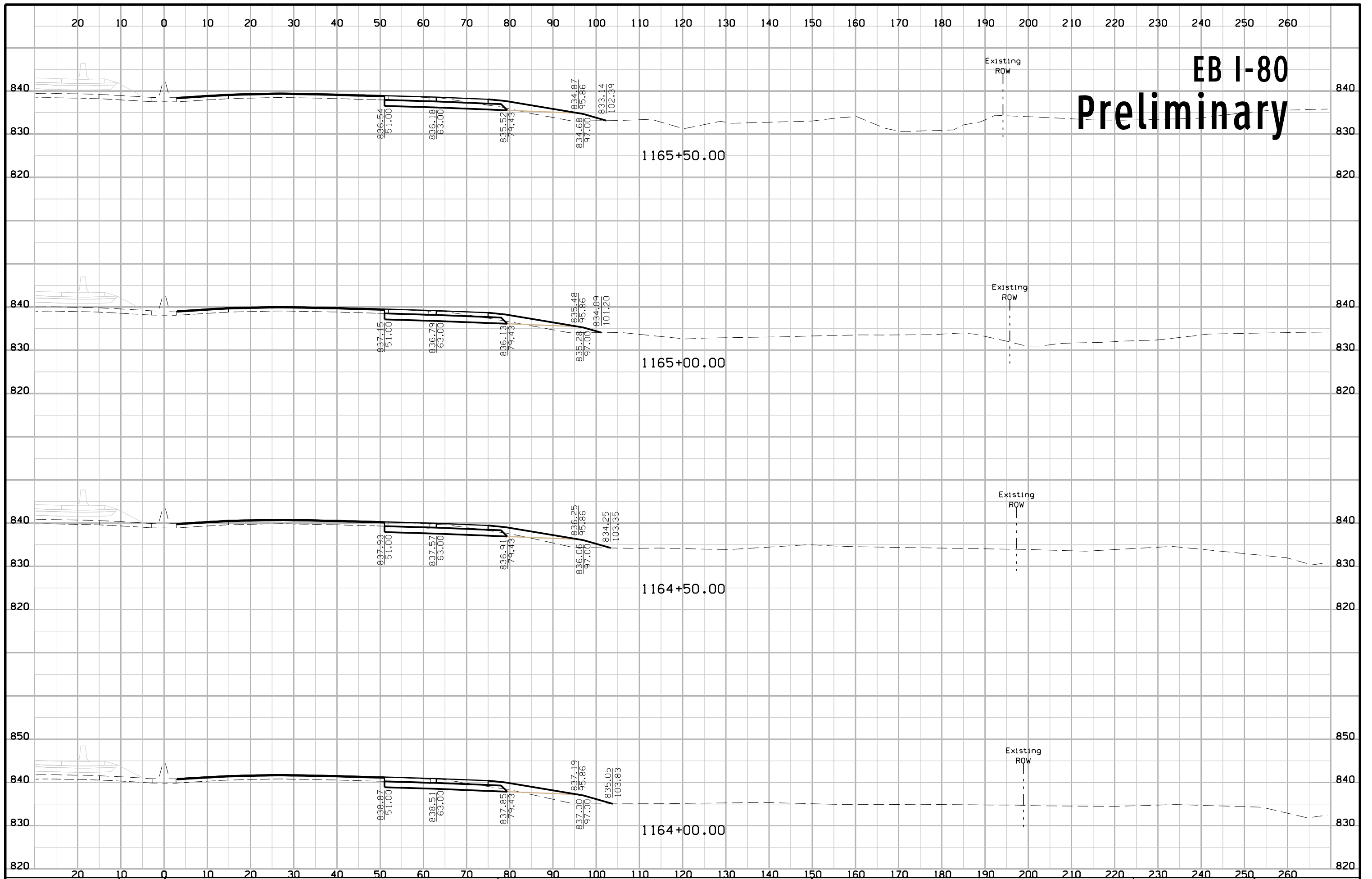
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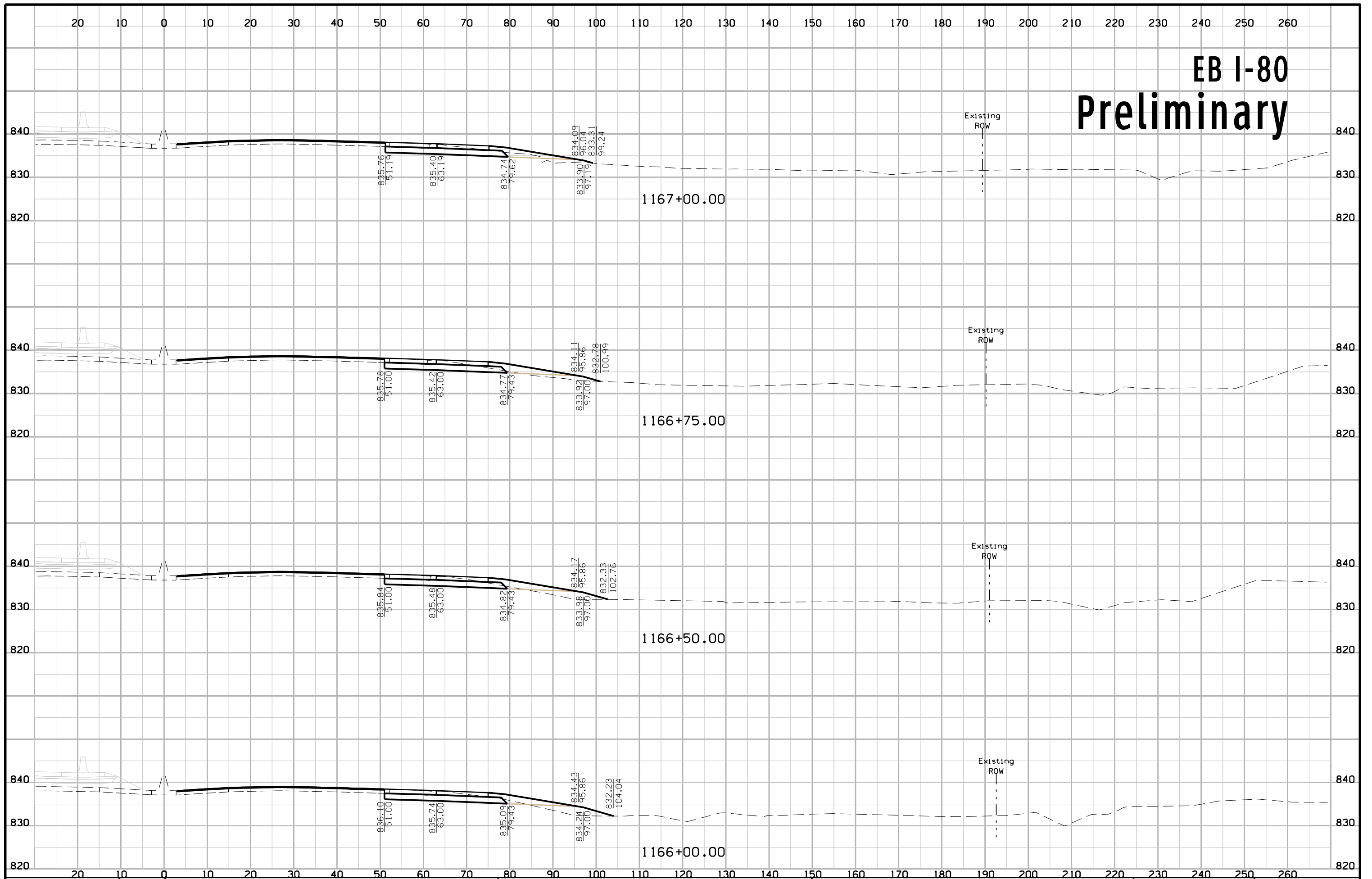
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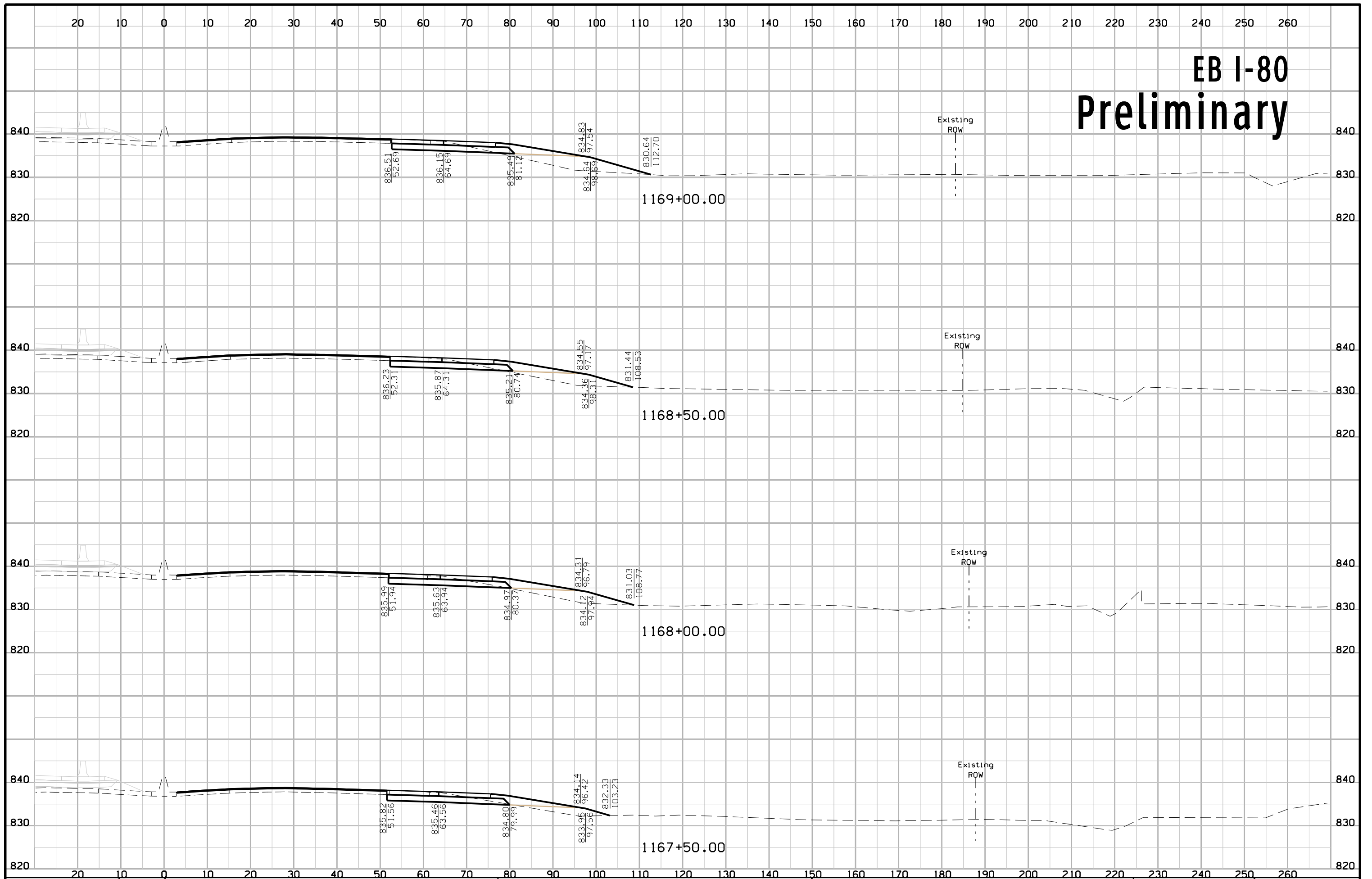
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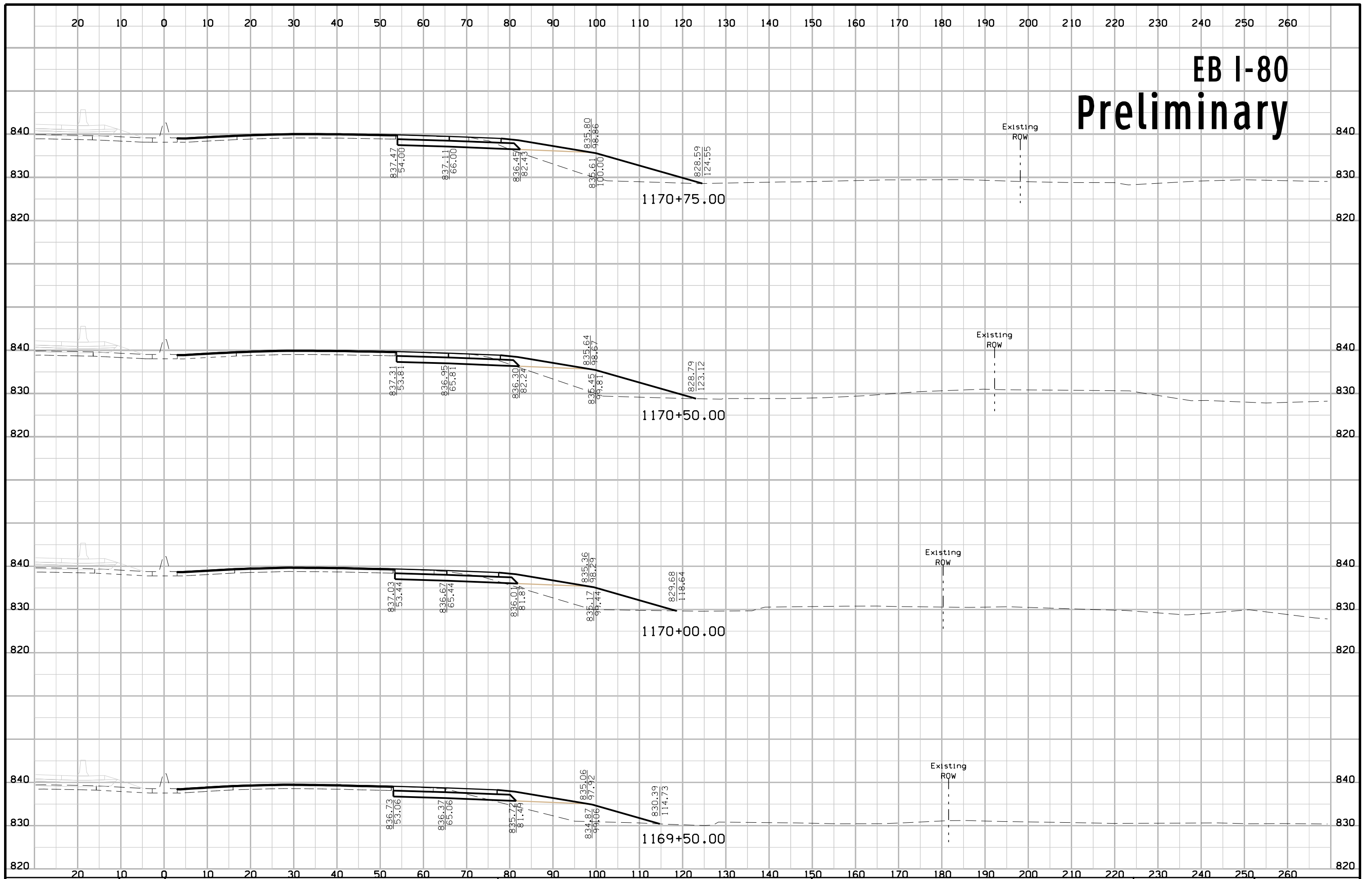
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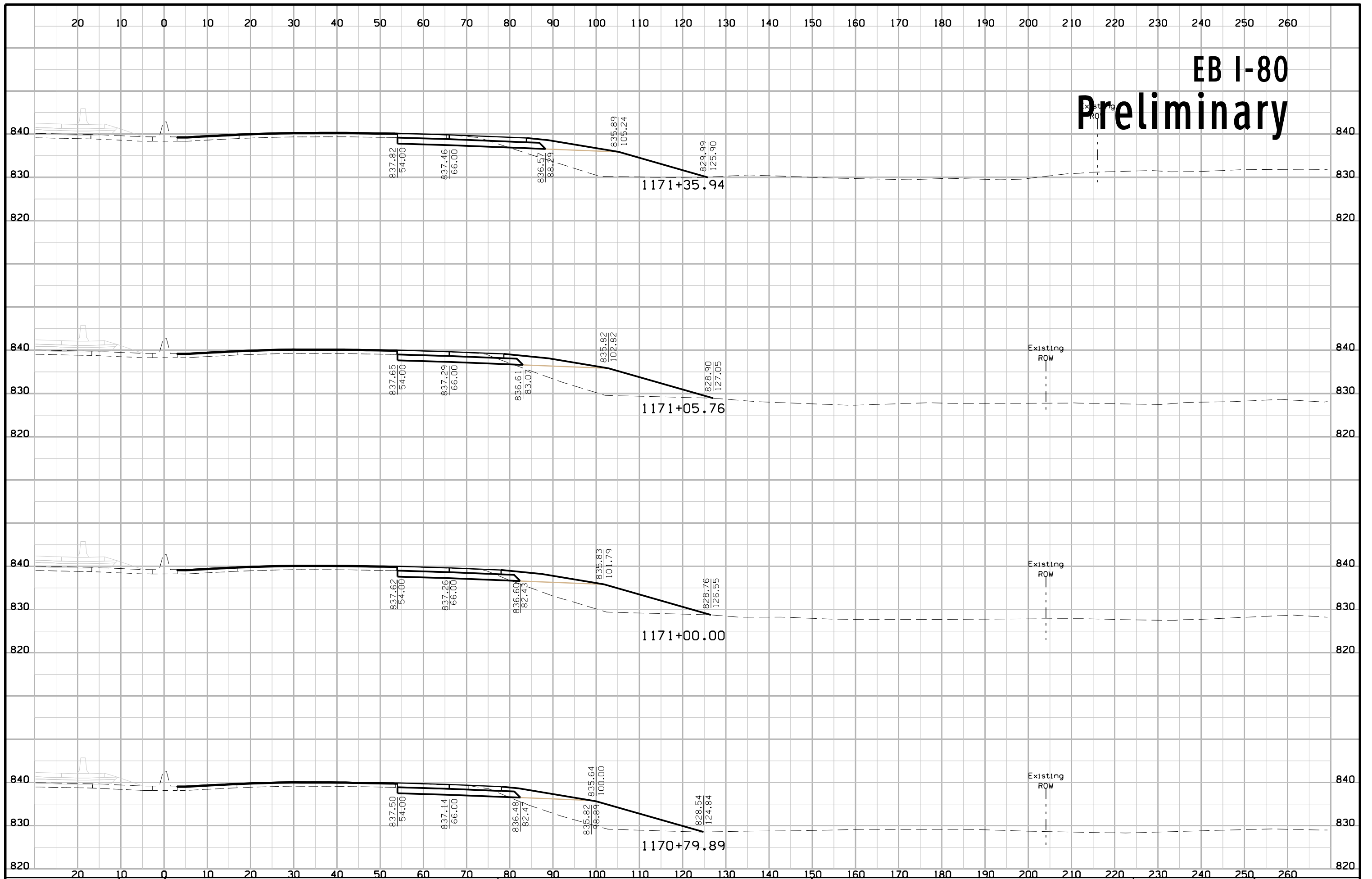
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EB I-80 Preliminary

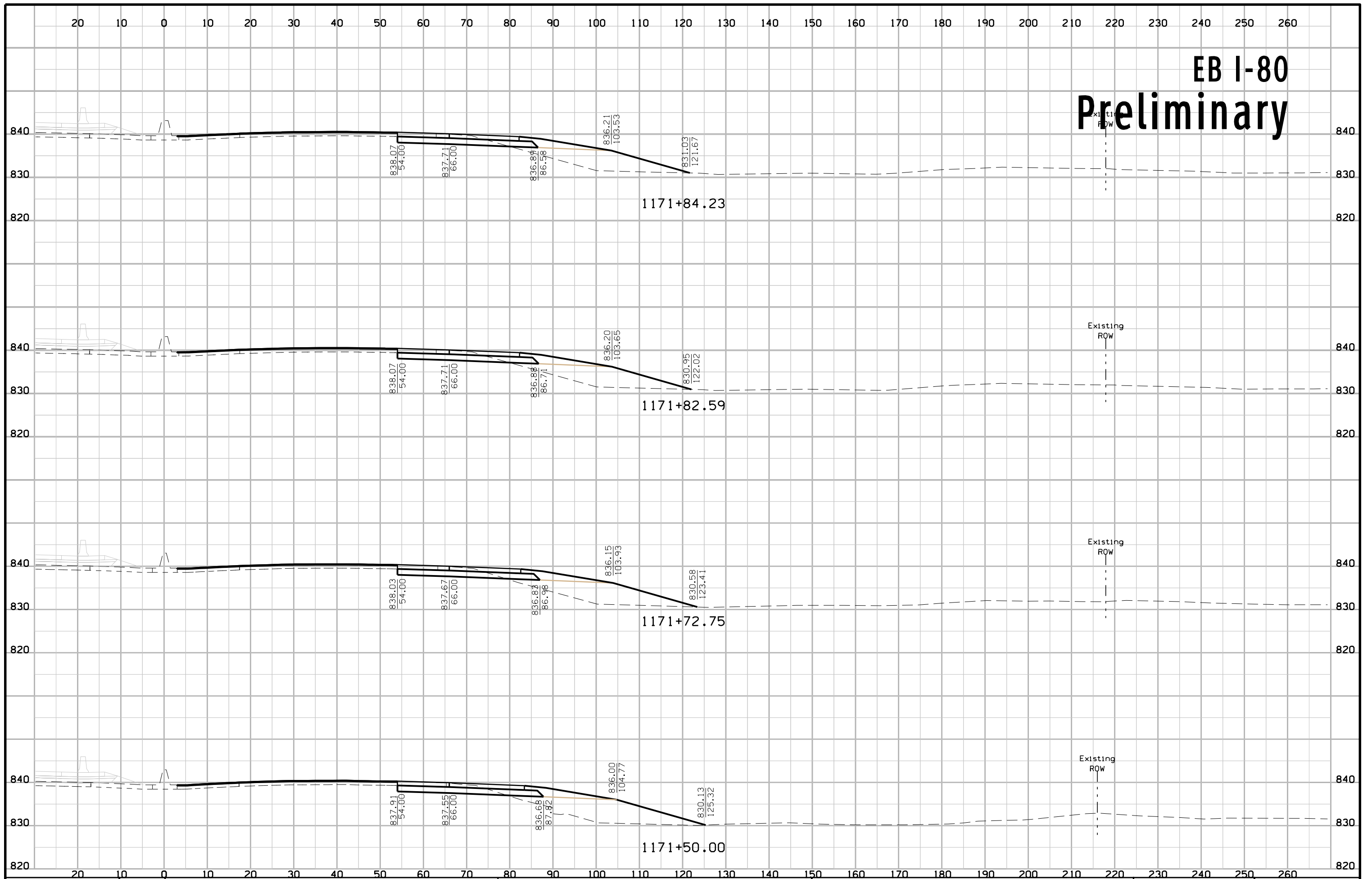


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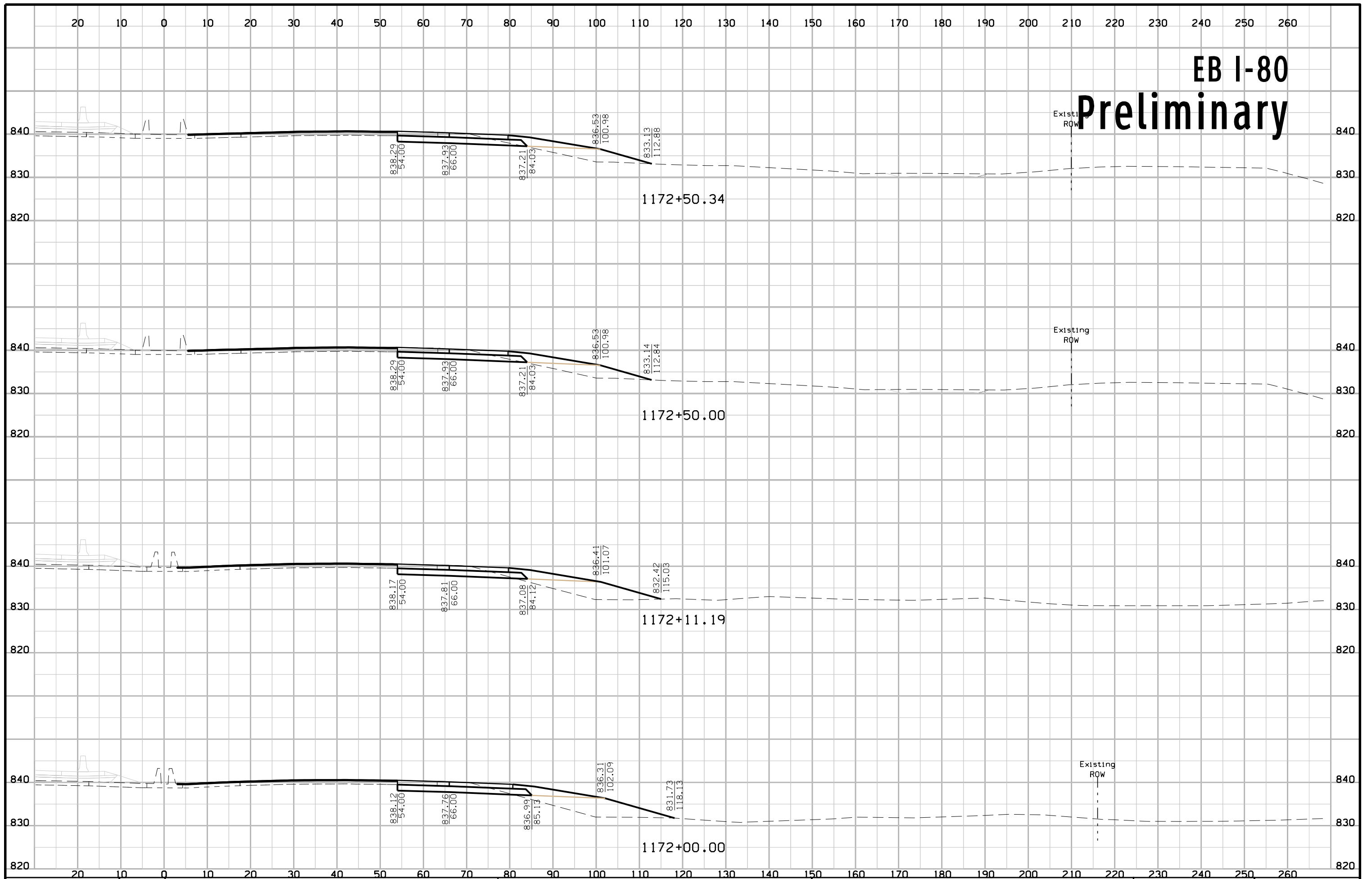
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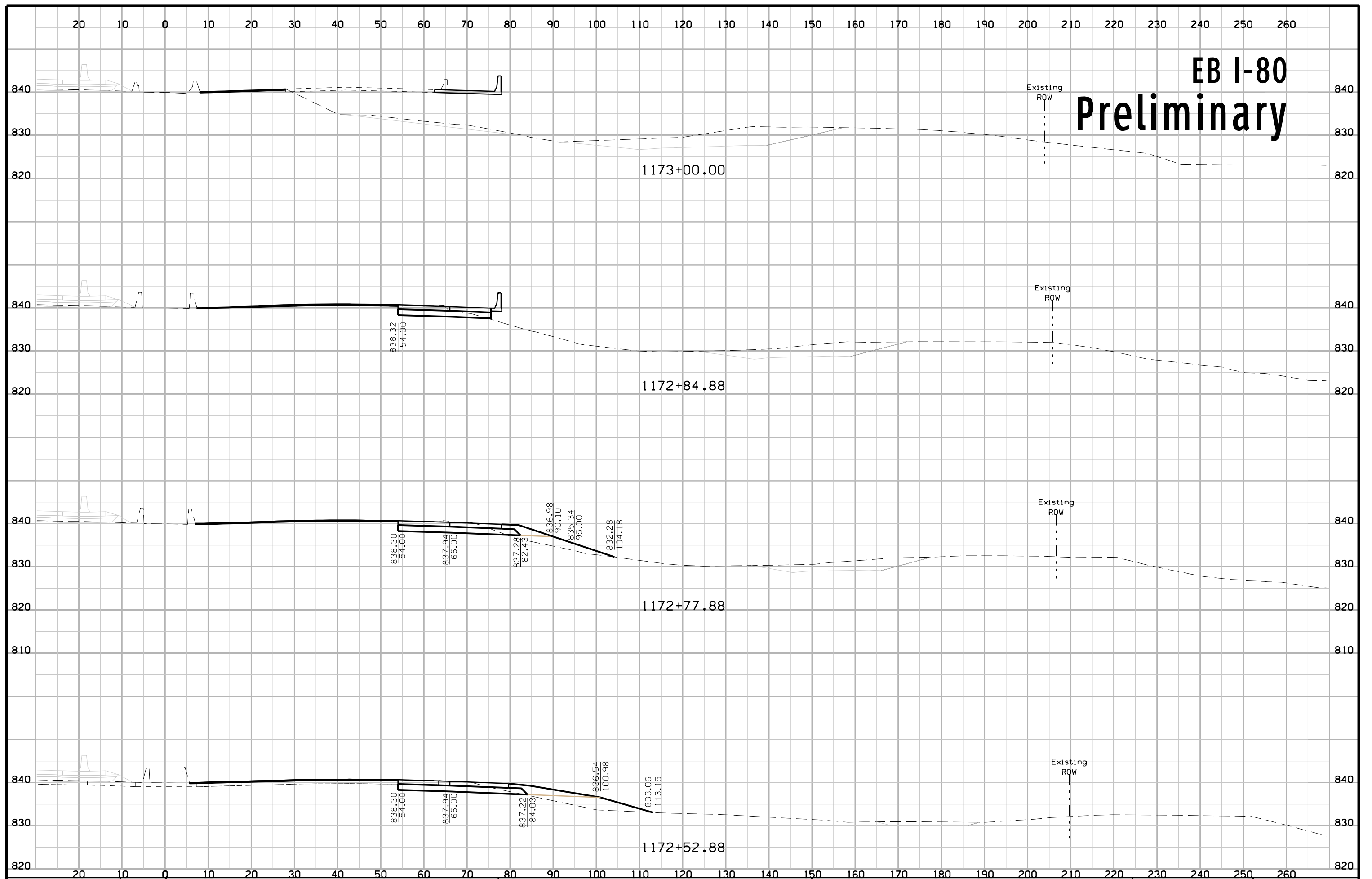
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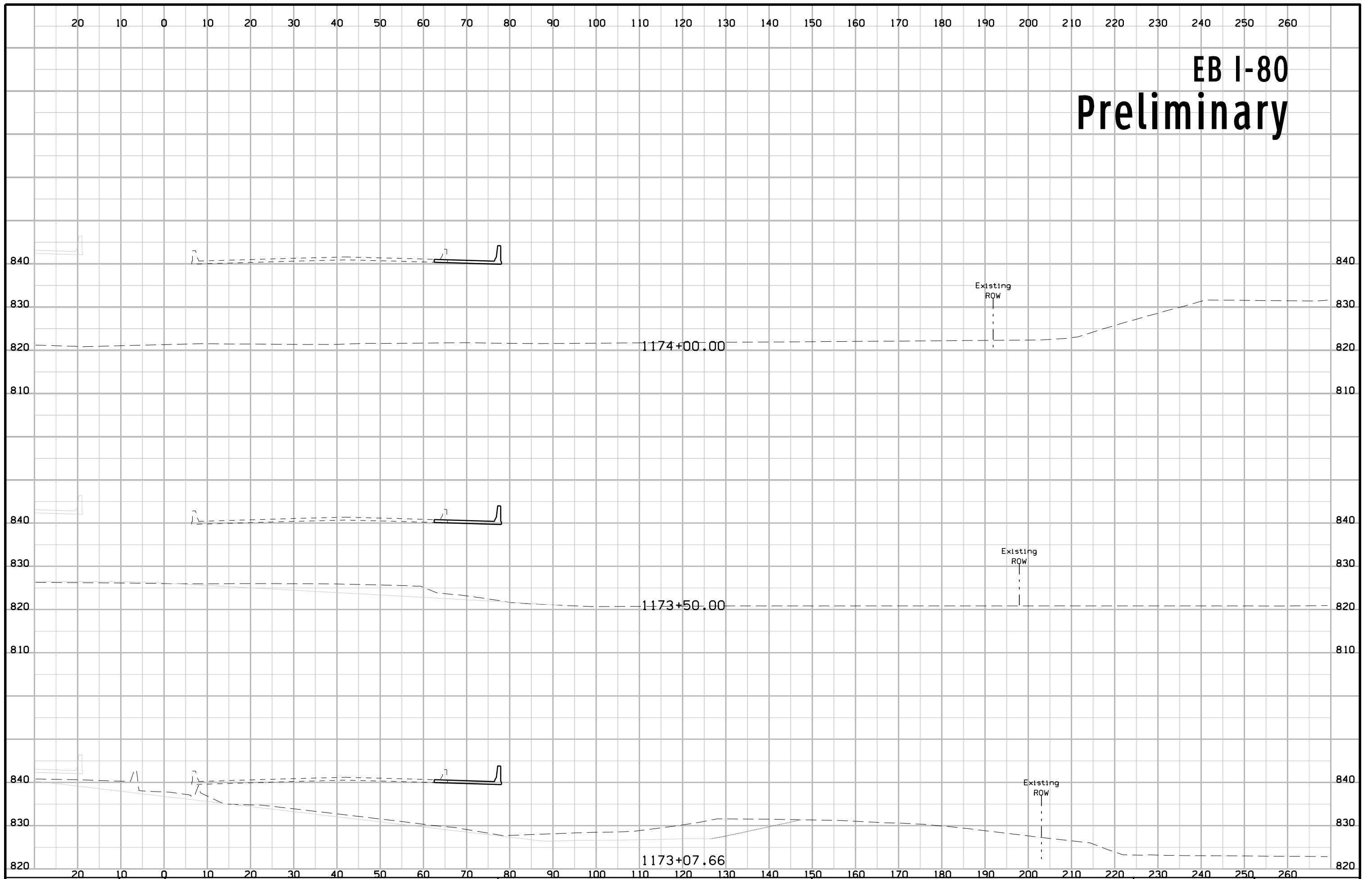


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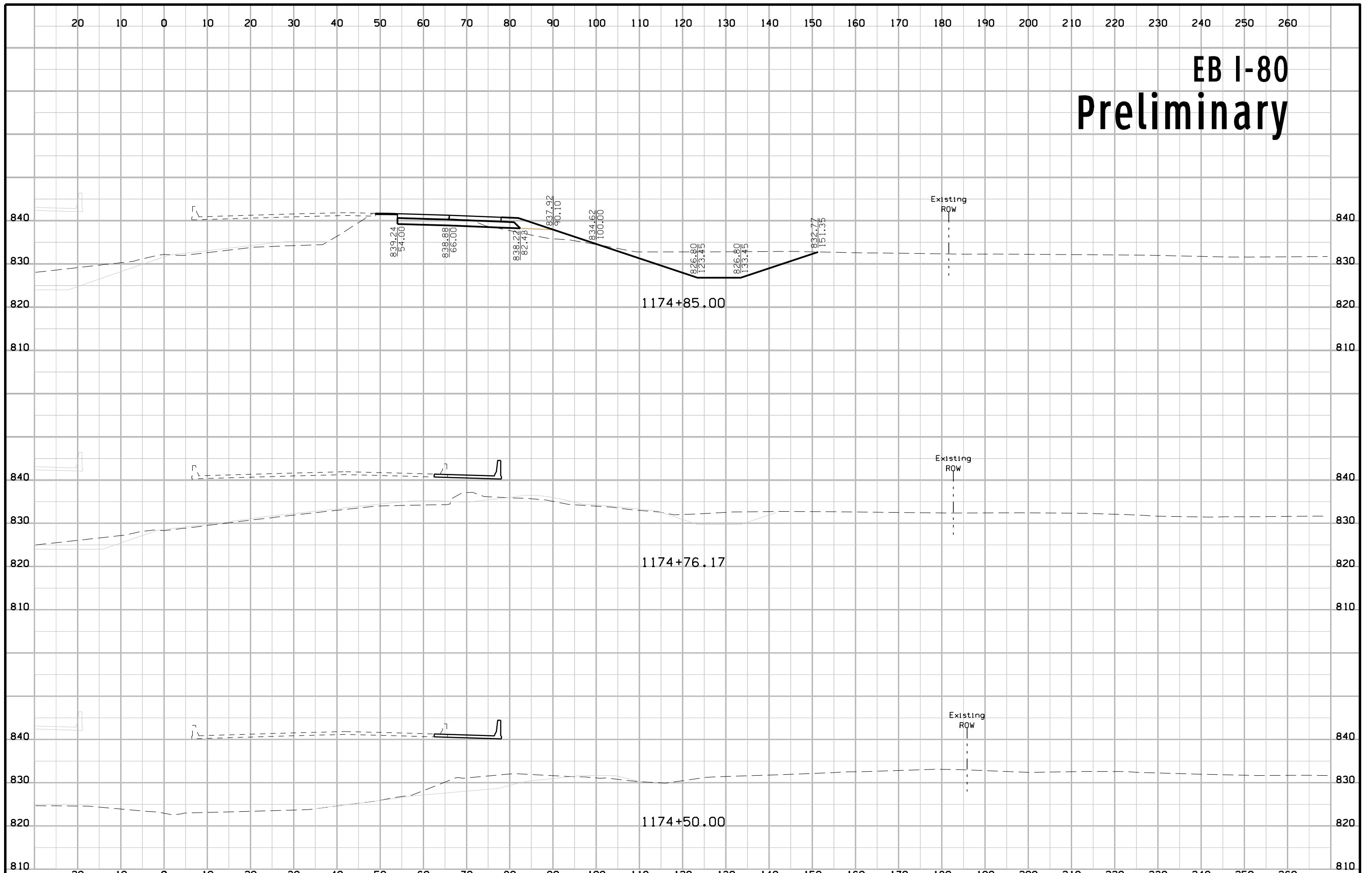
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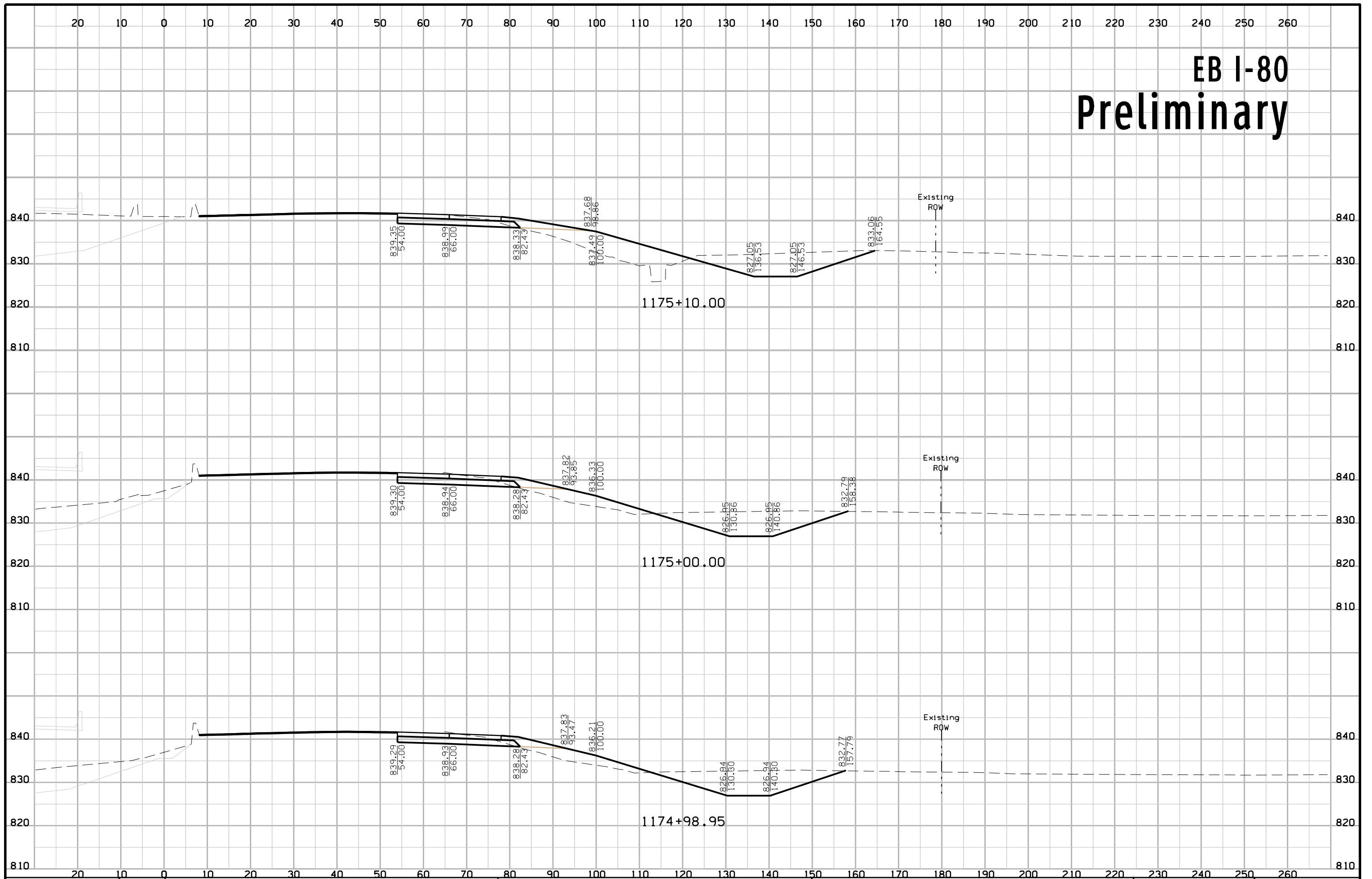
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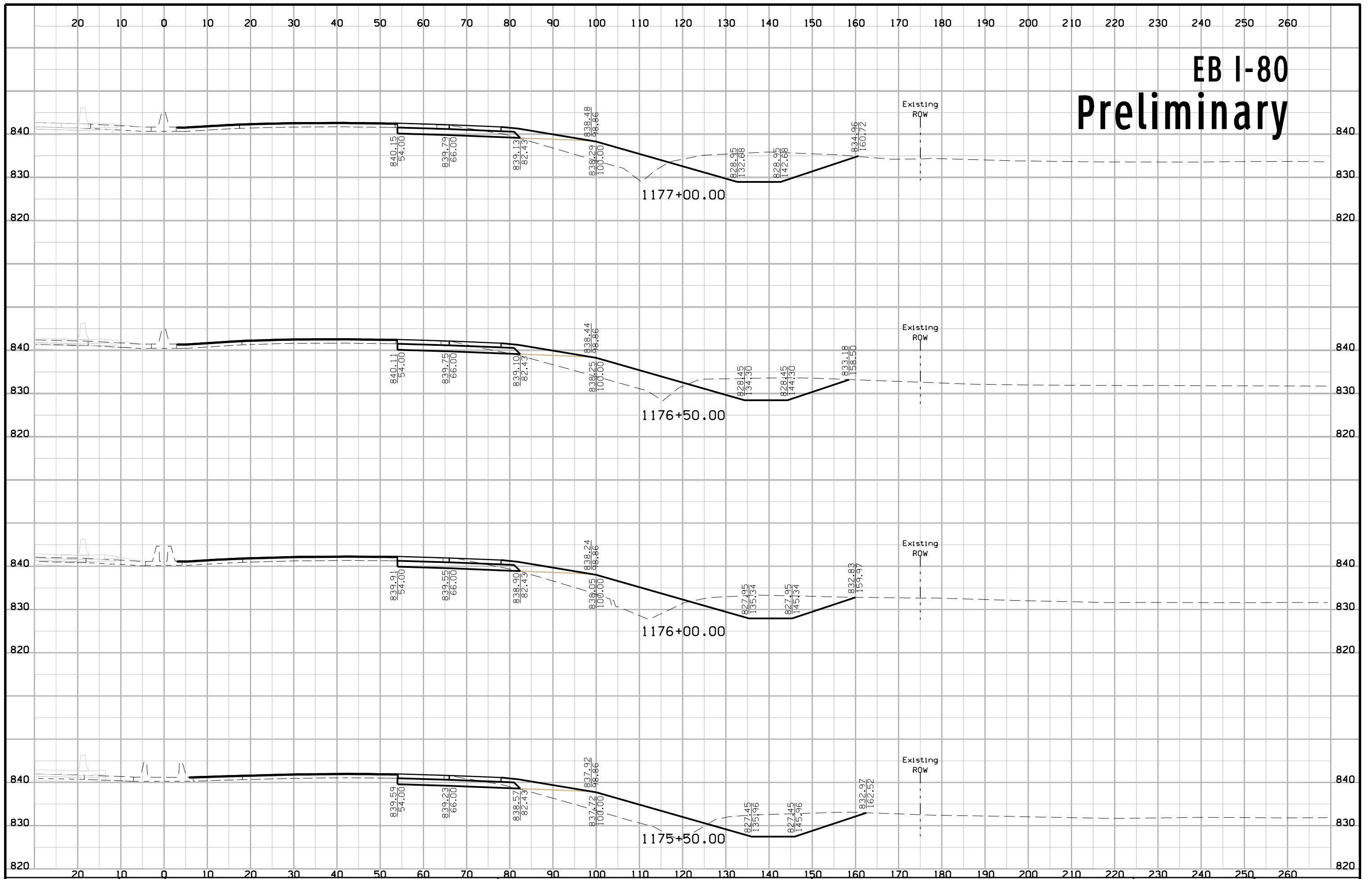
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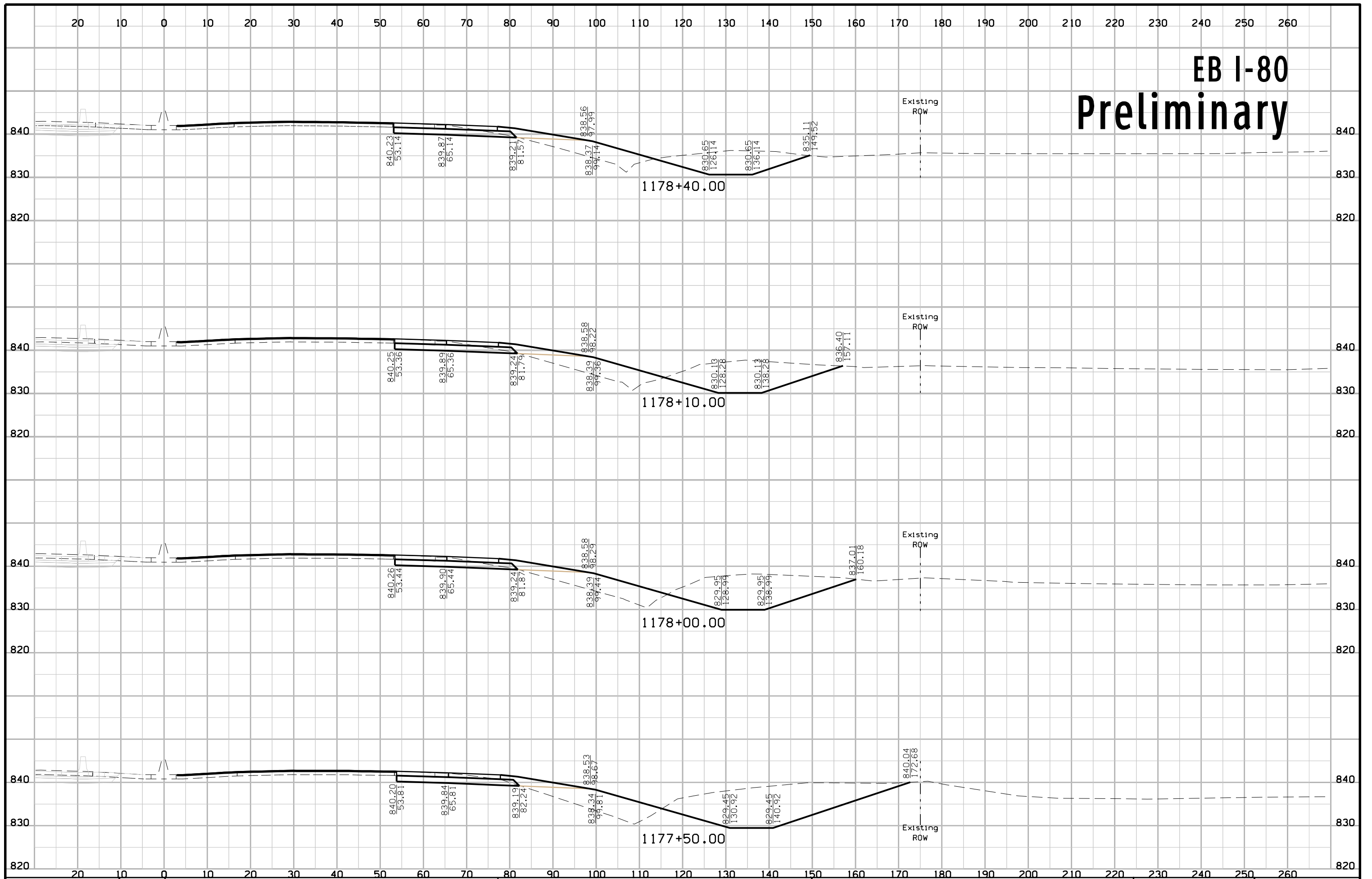
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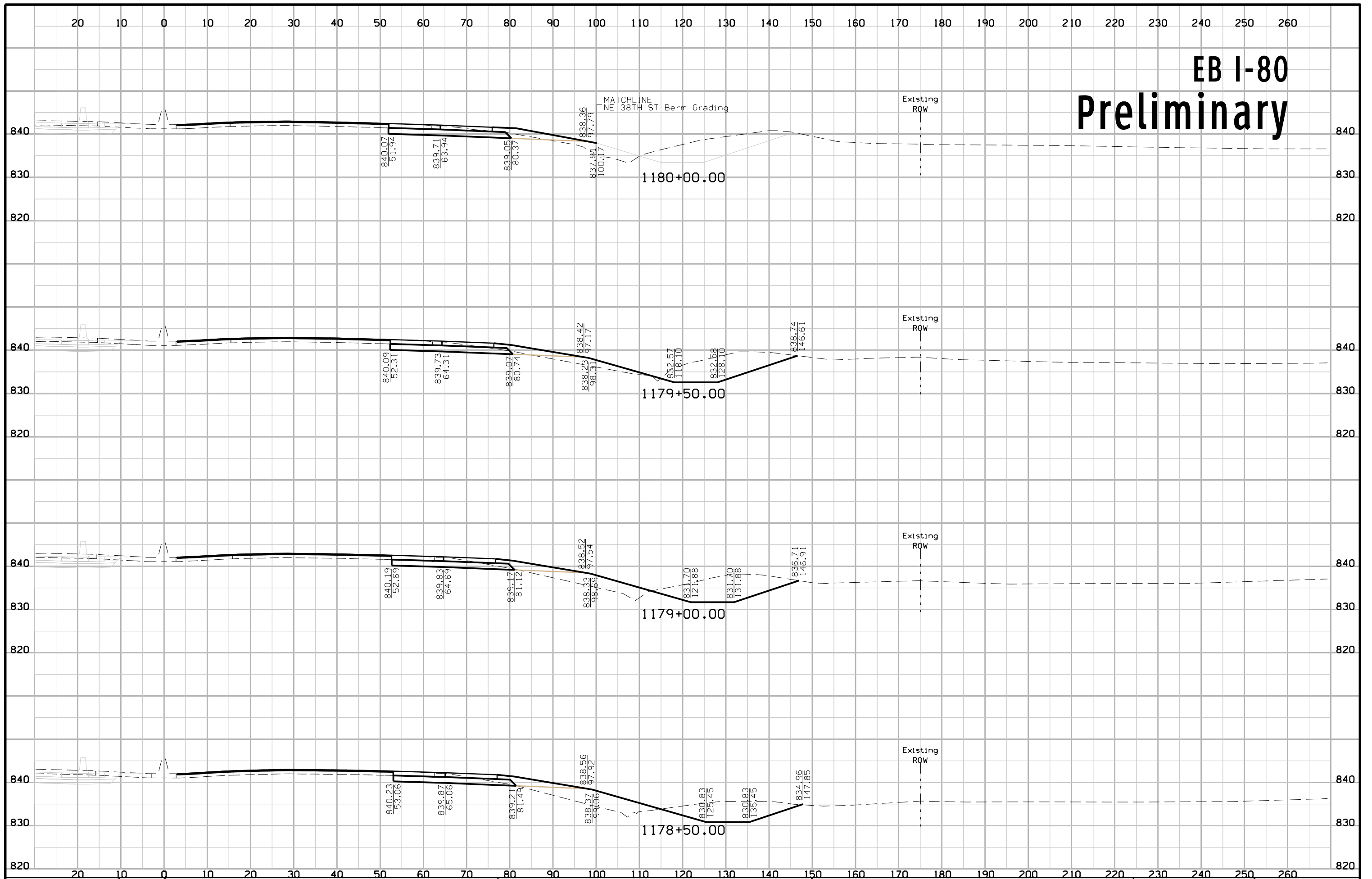
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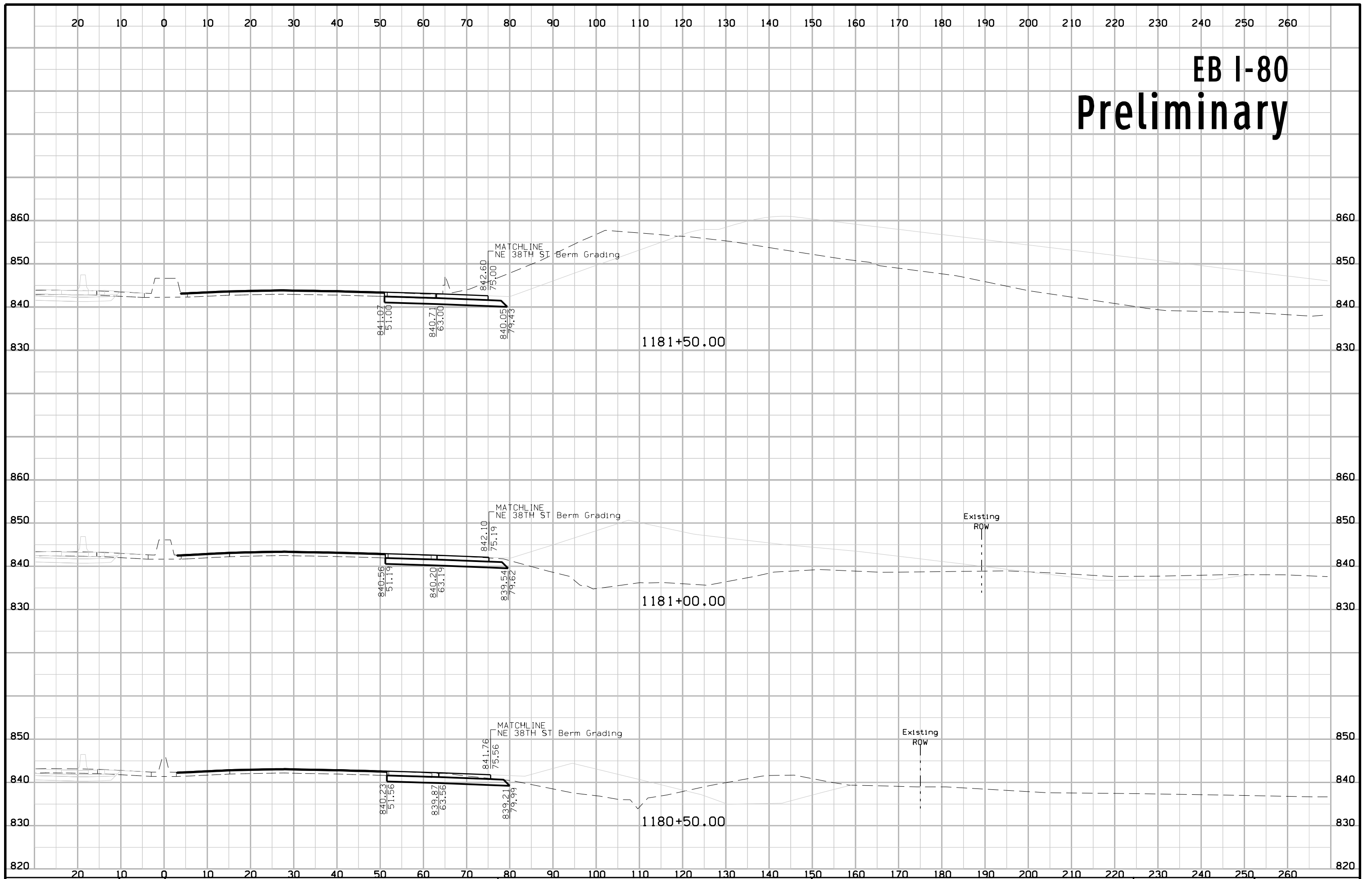
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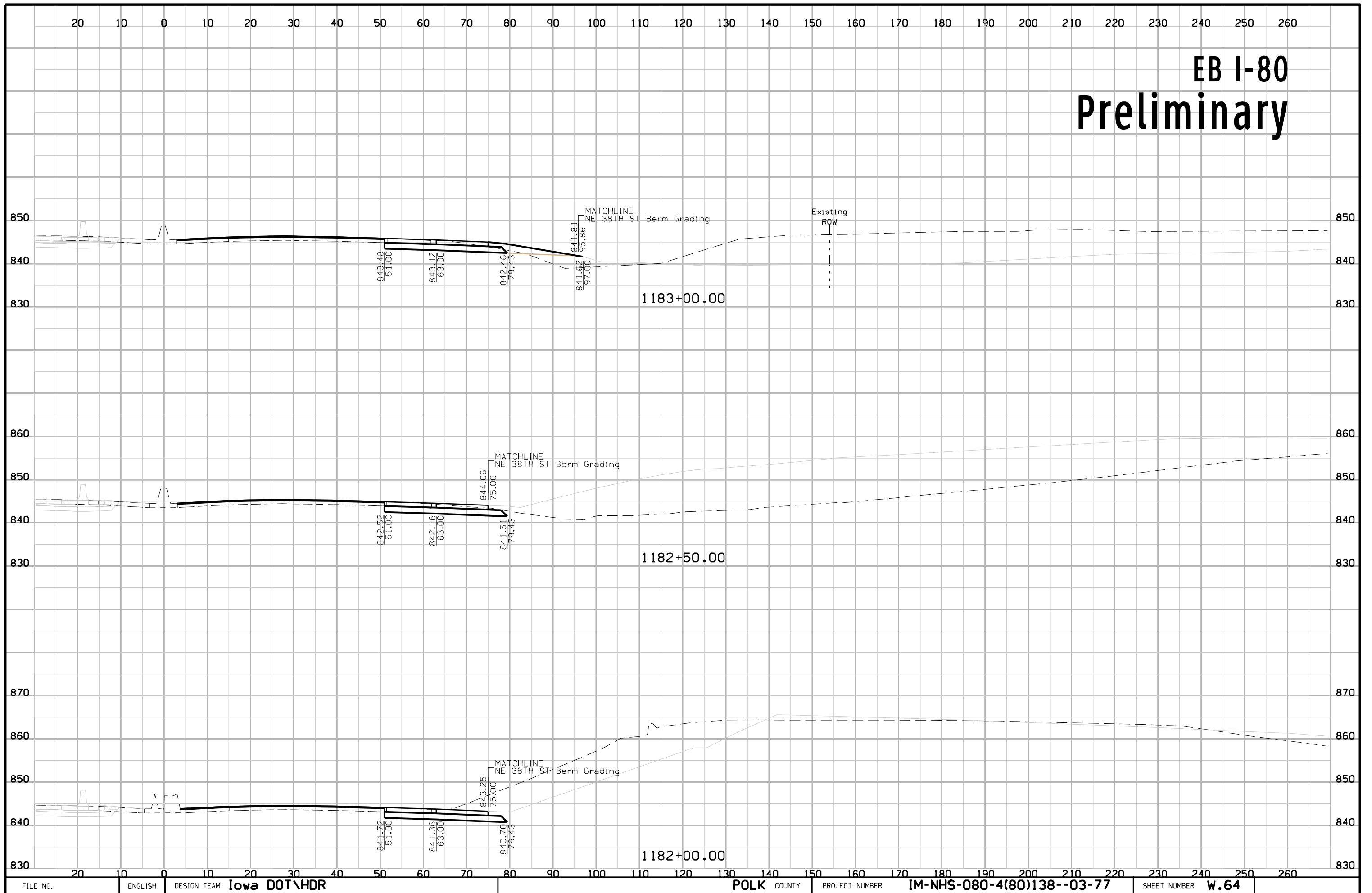
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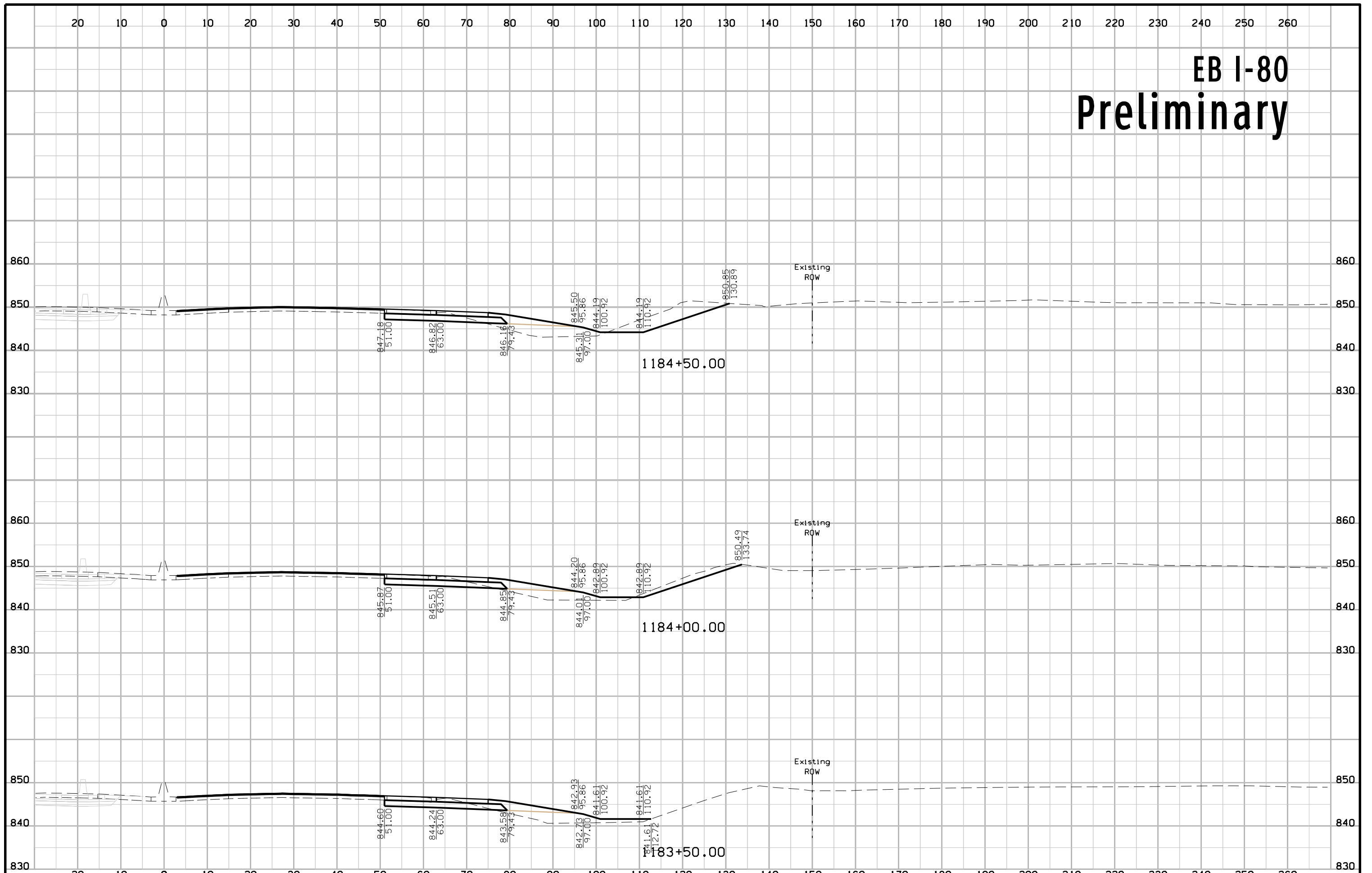
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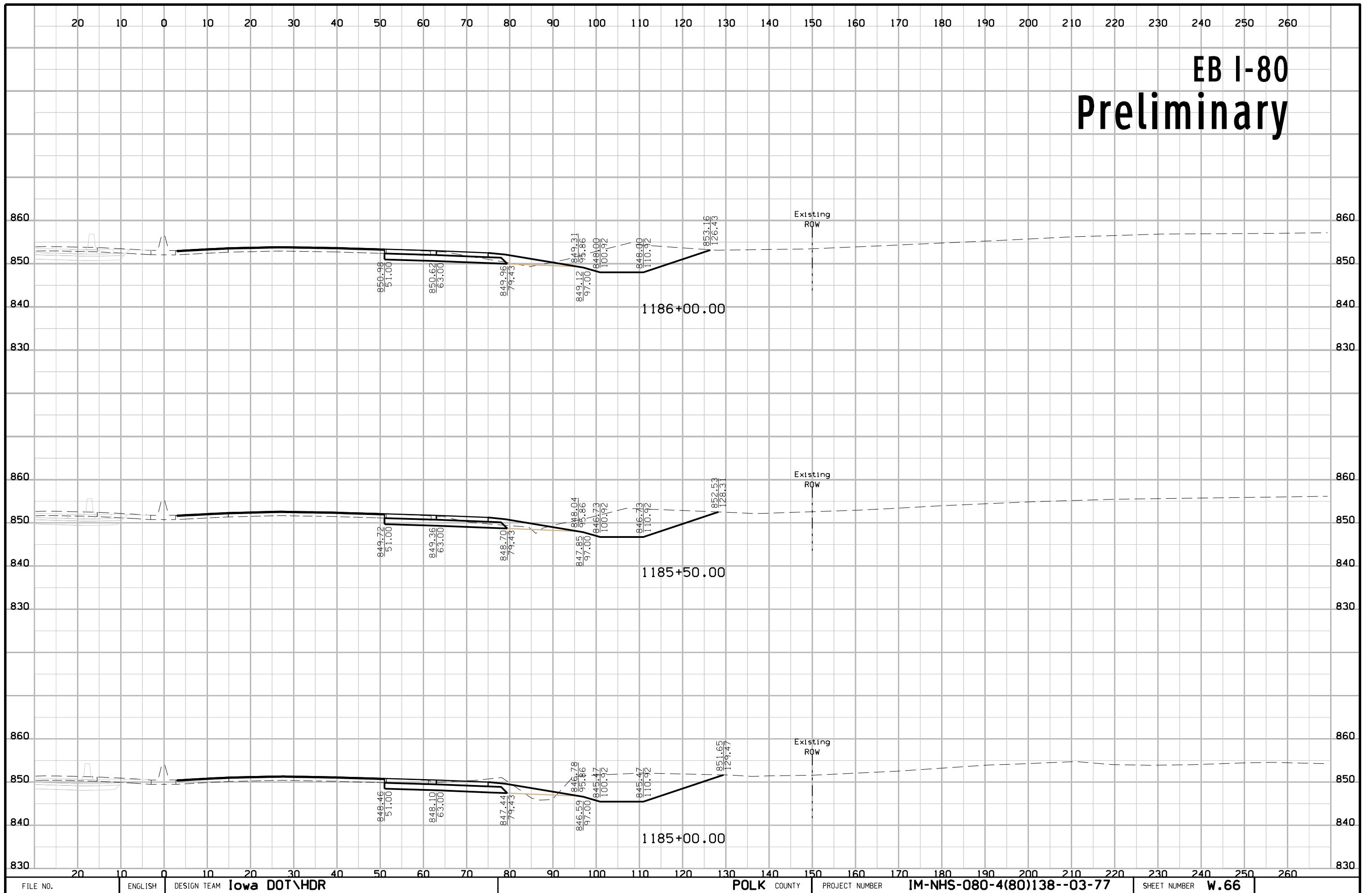
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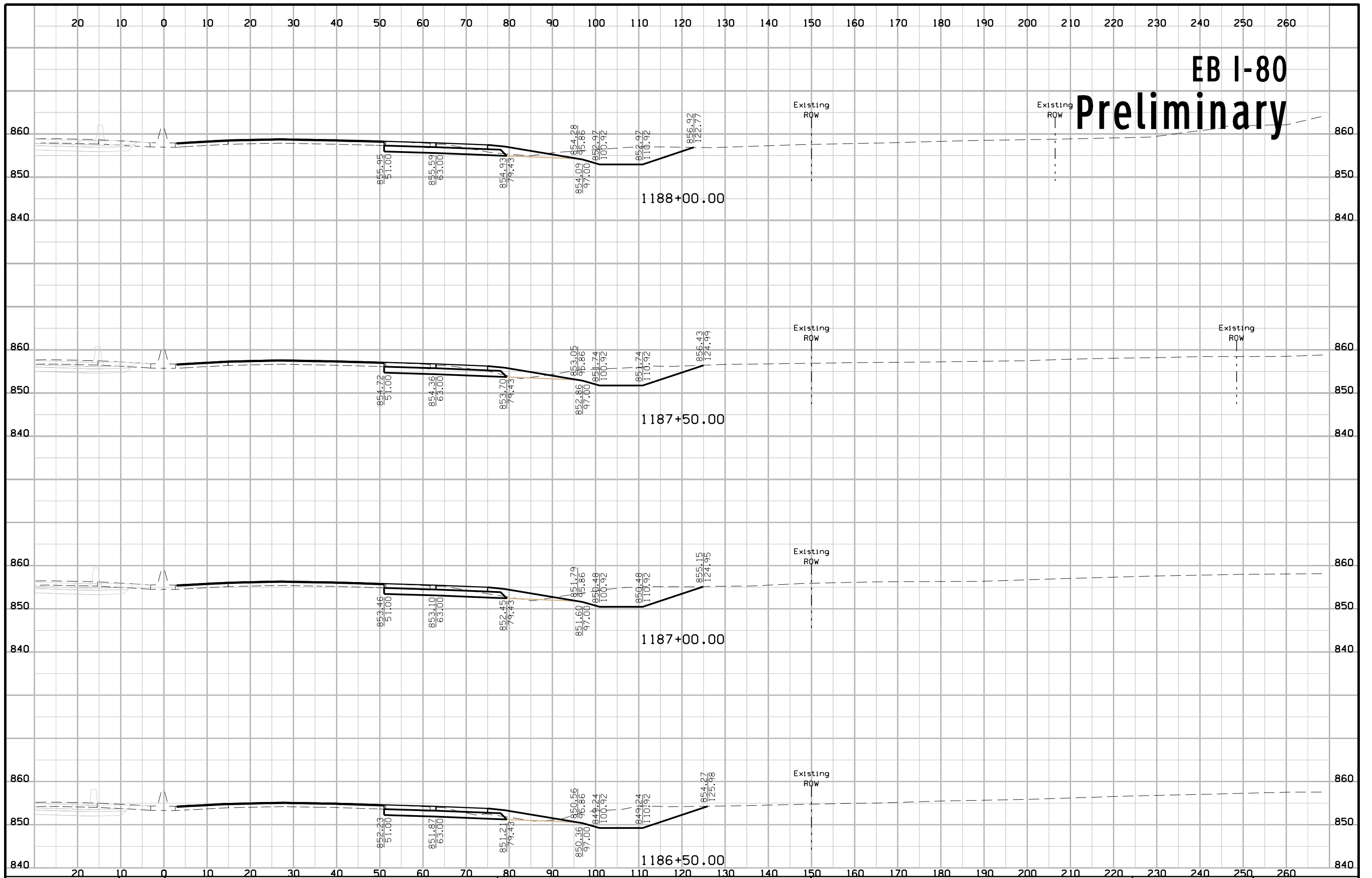


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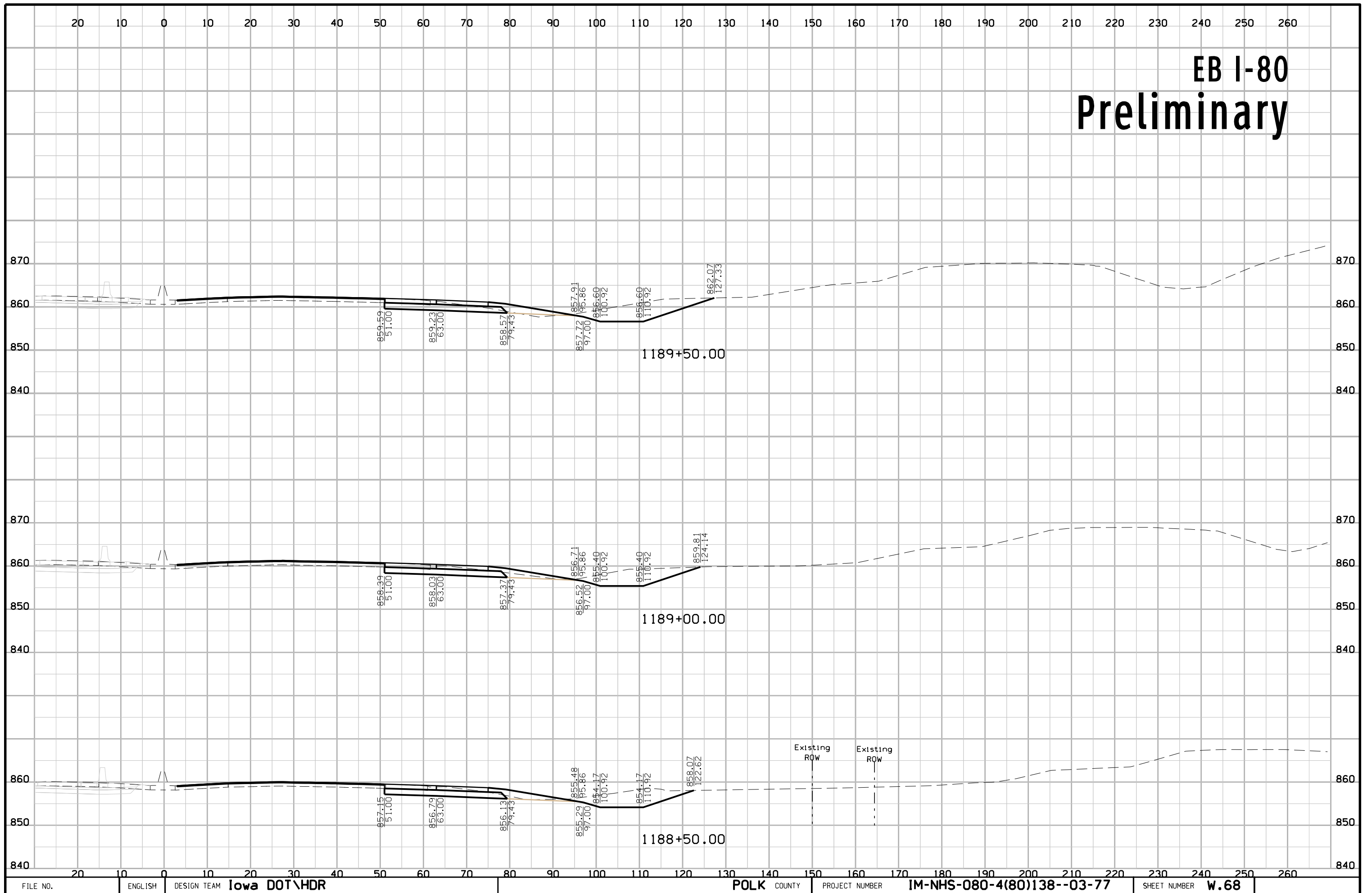


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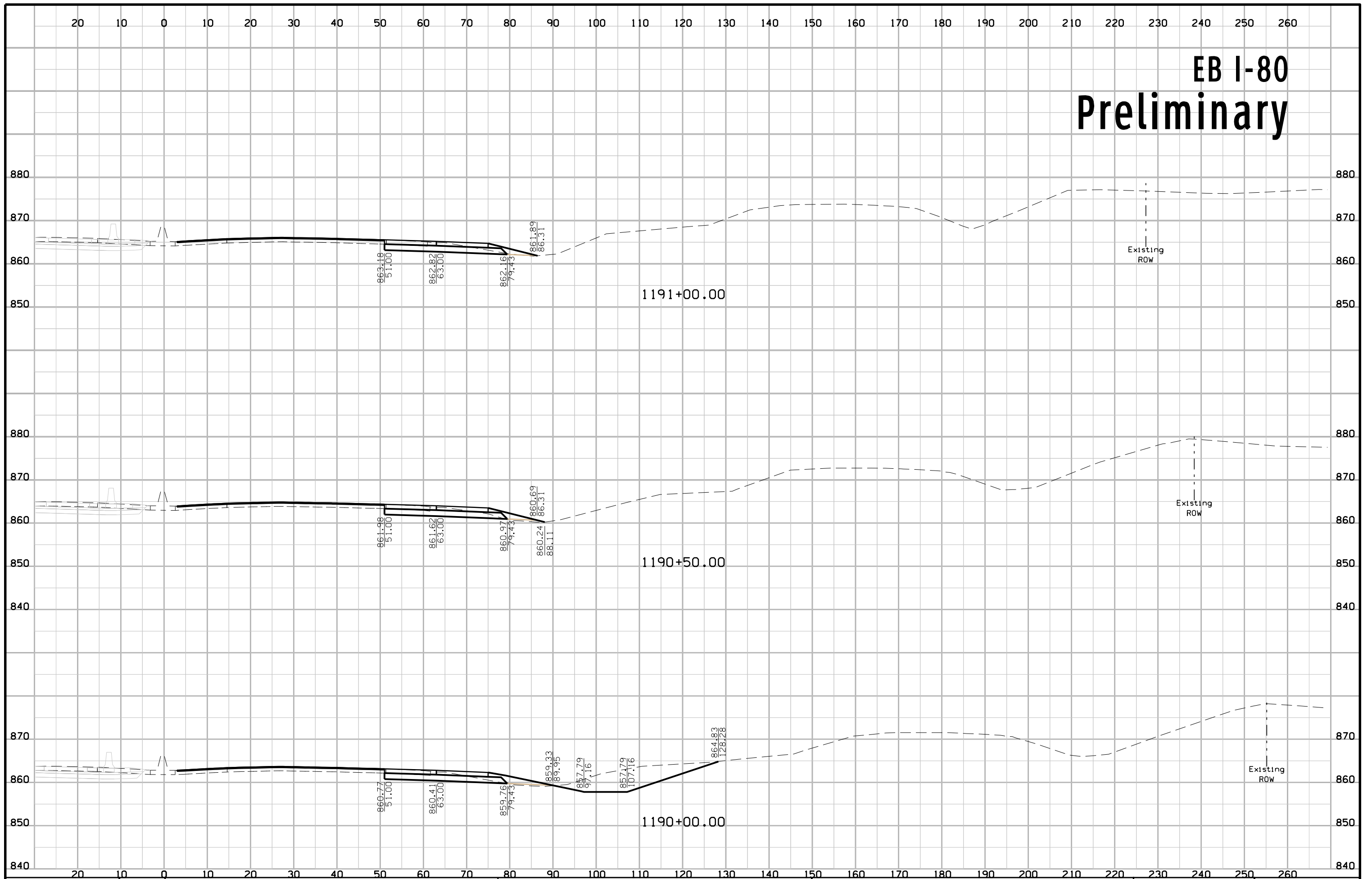
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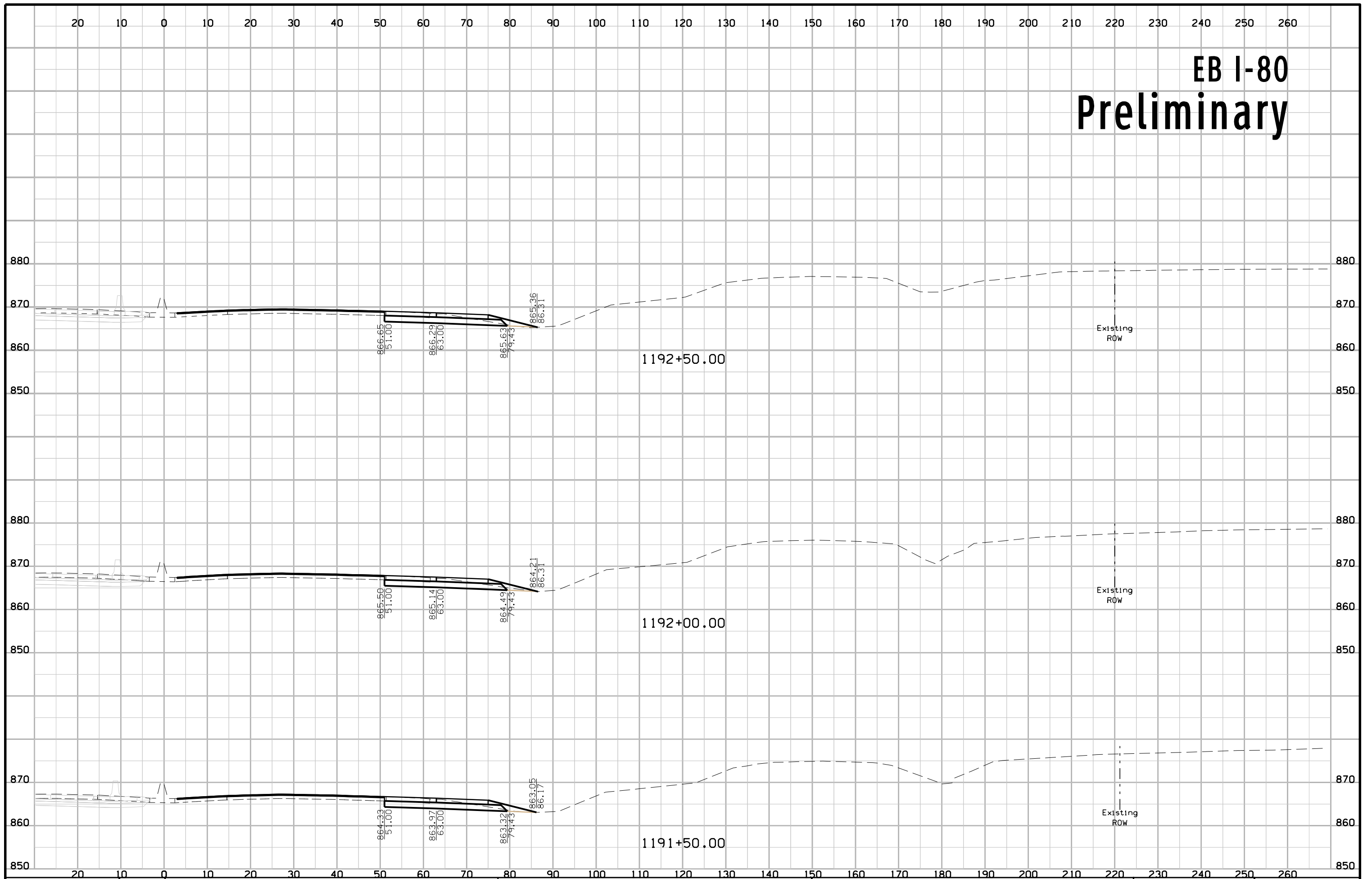
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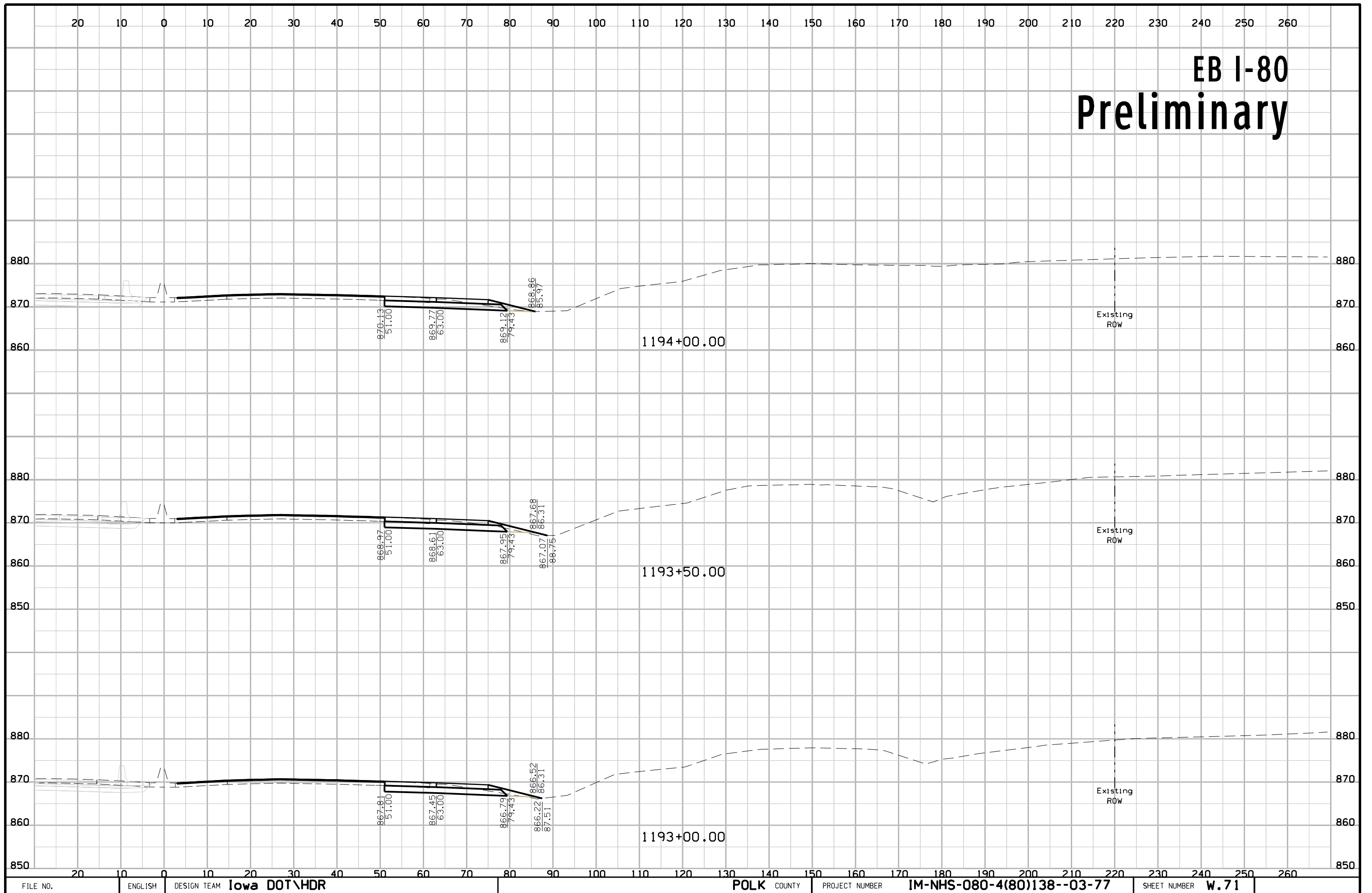
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EB I-80 Preliminary

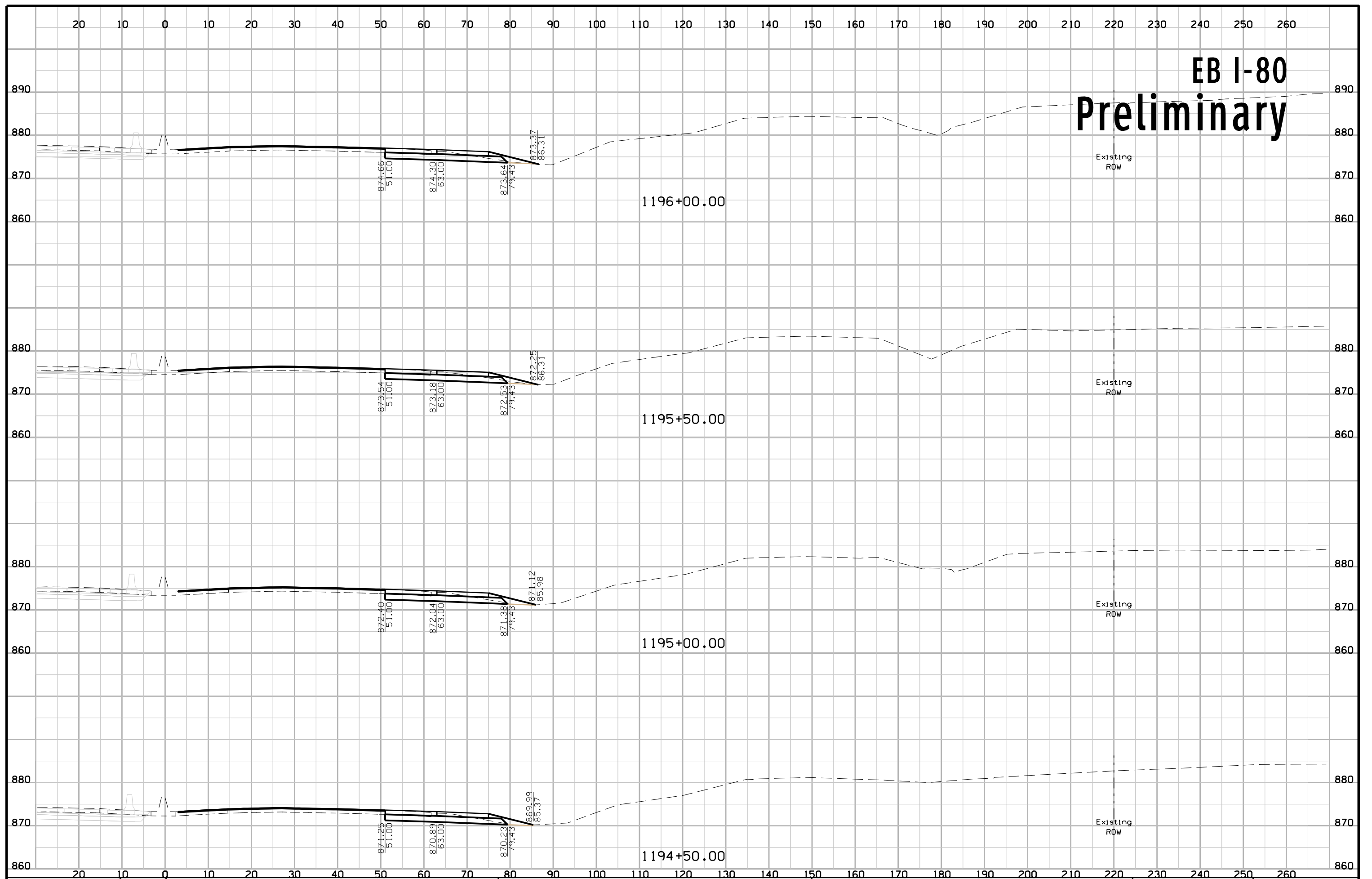


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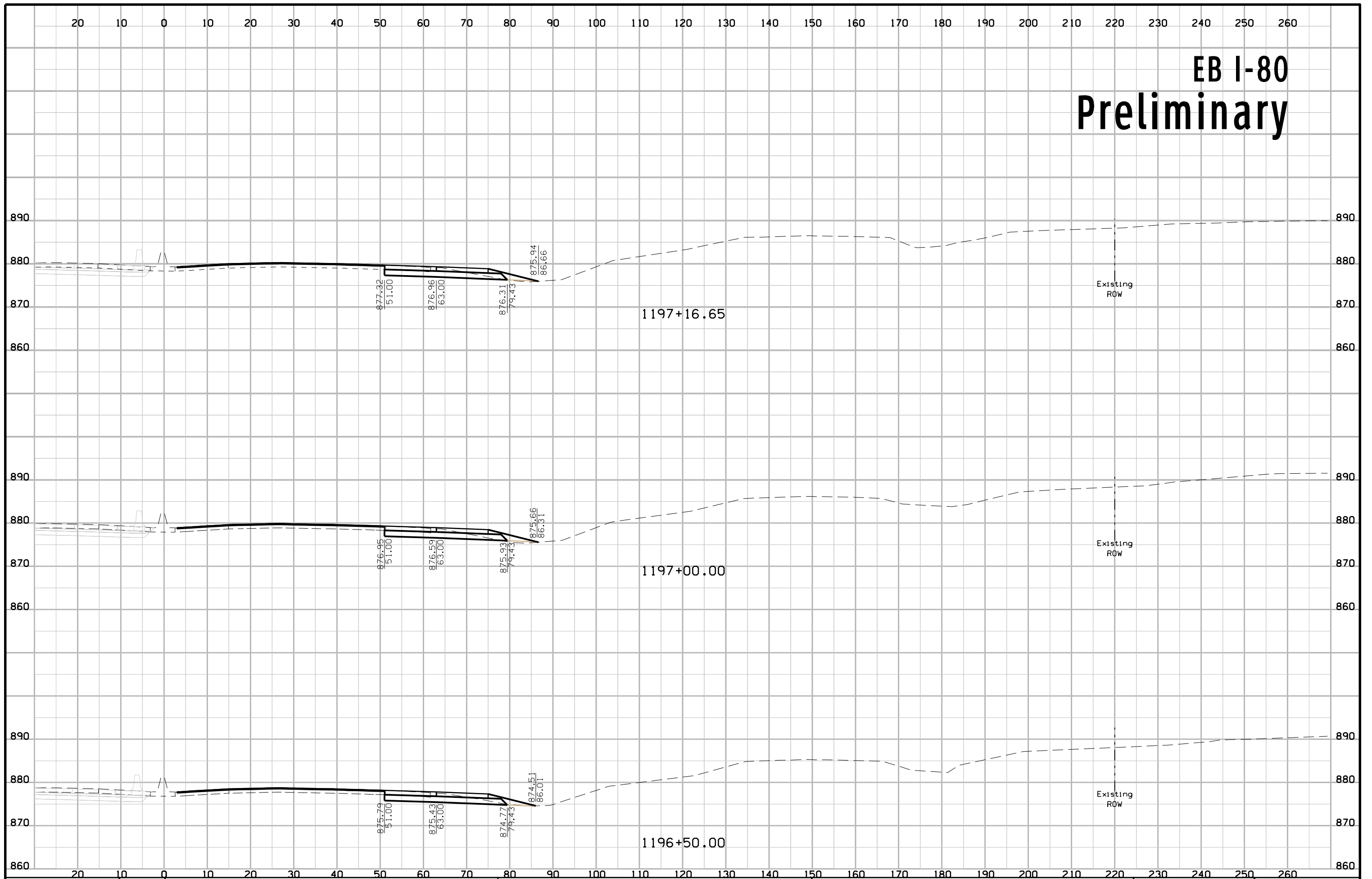


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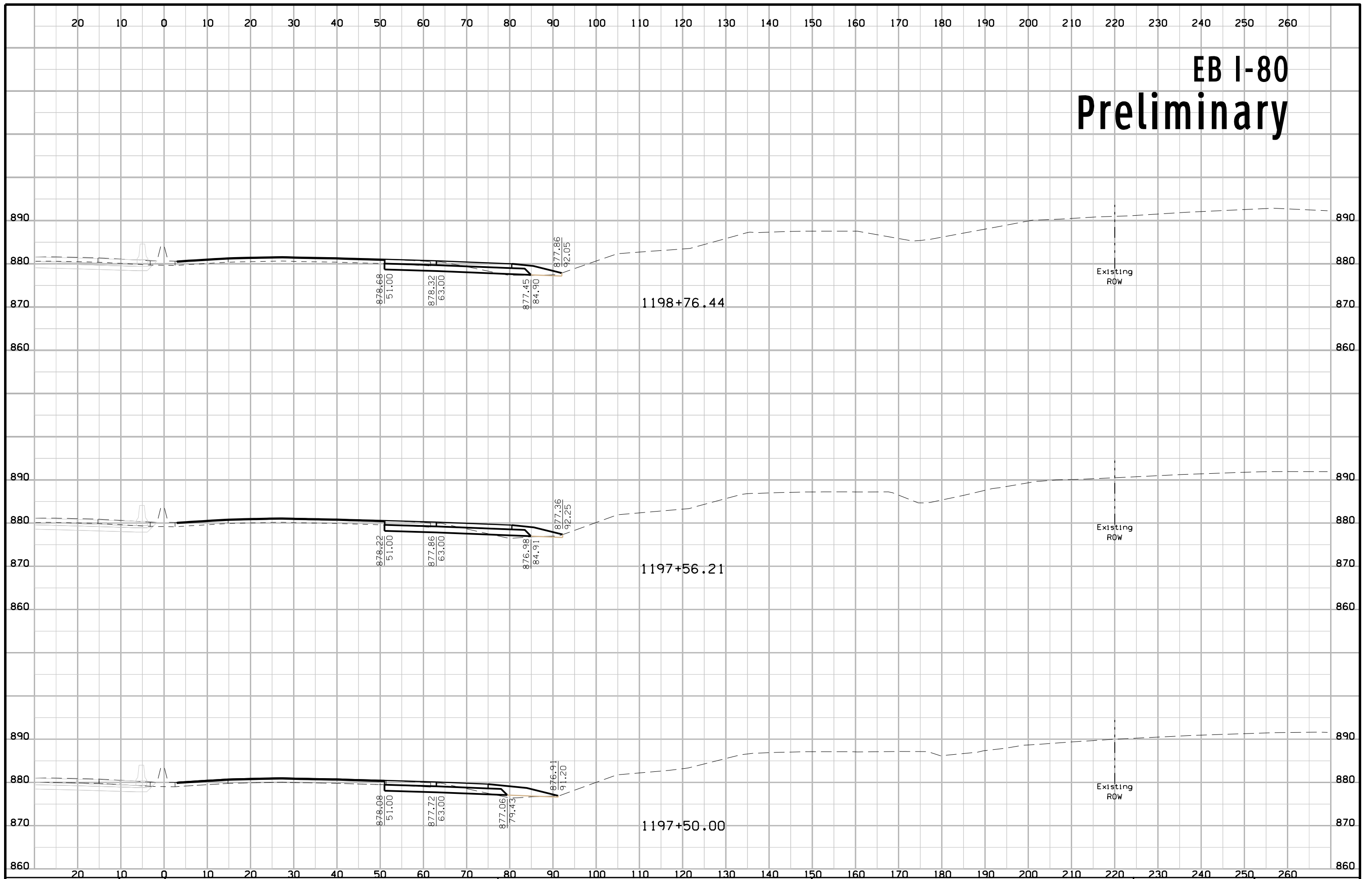
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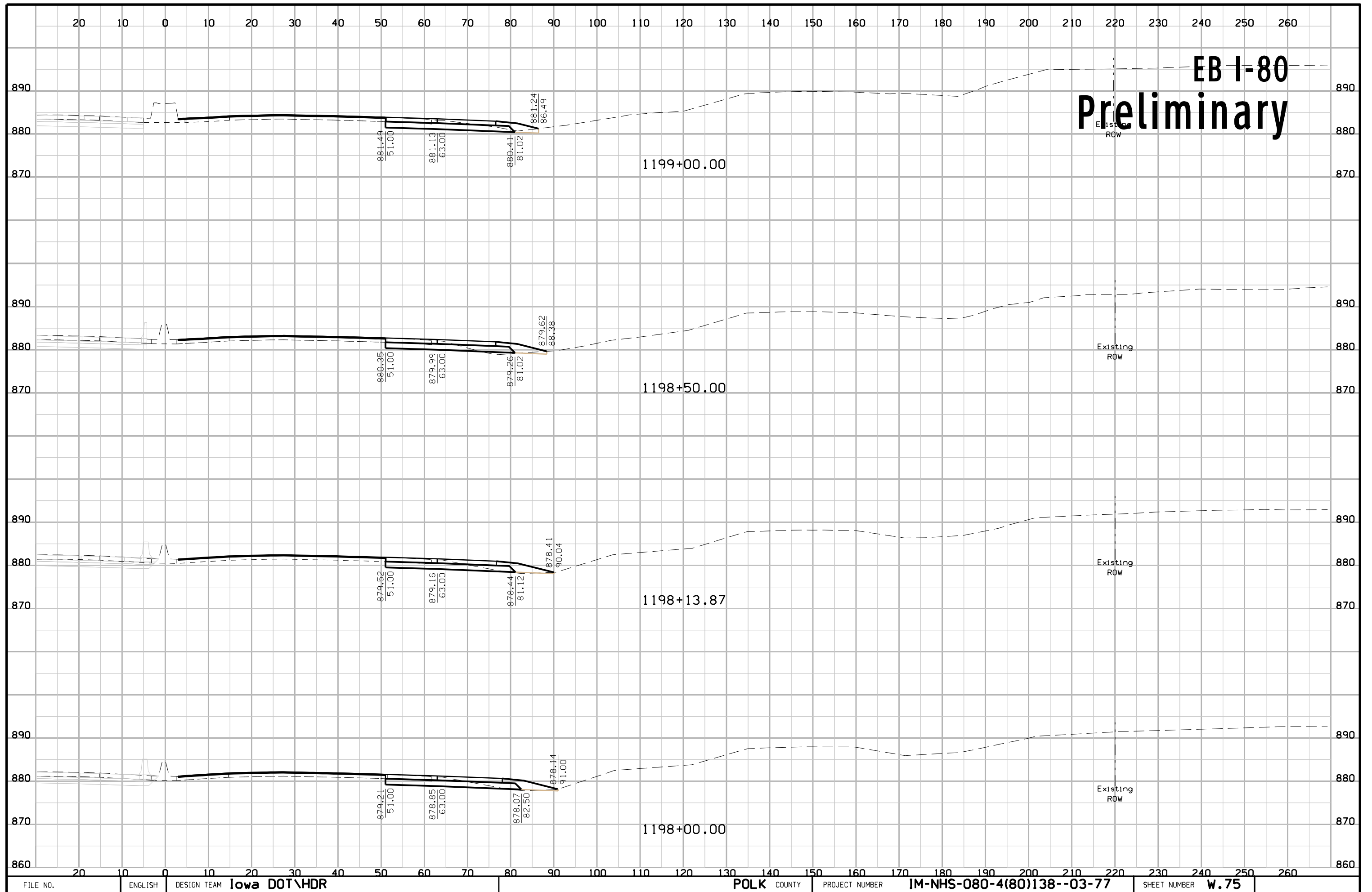


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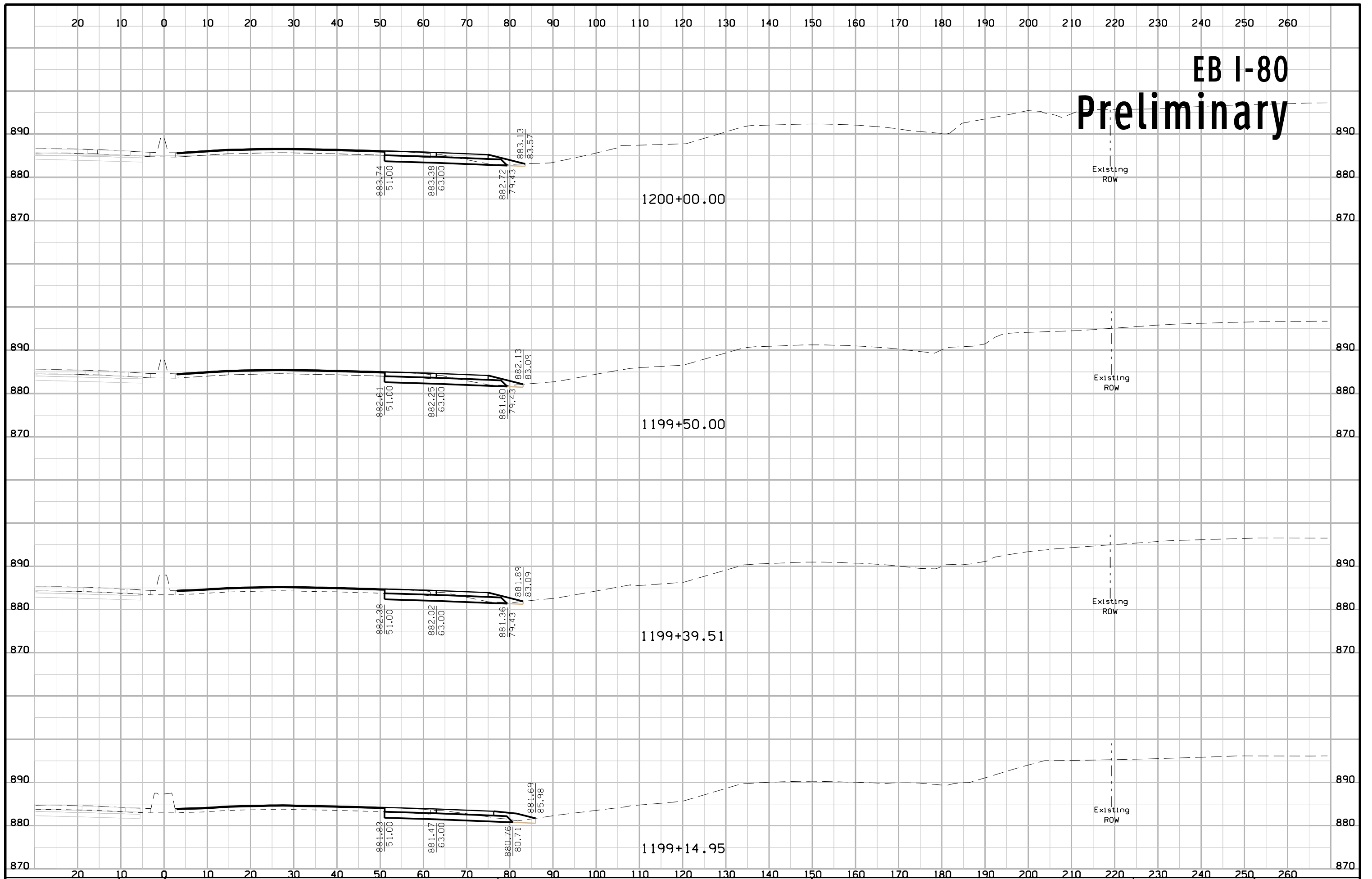
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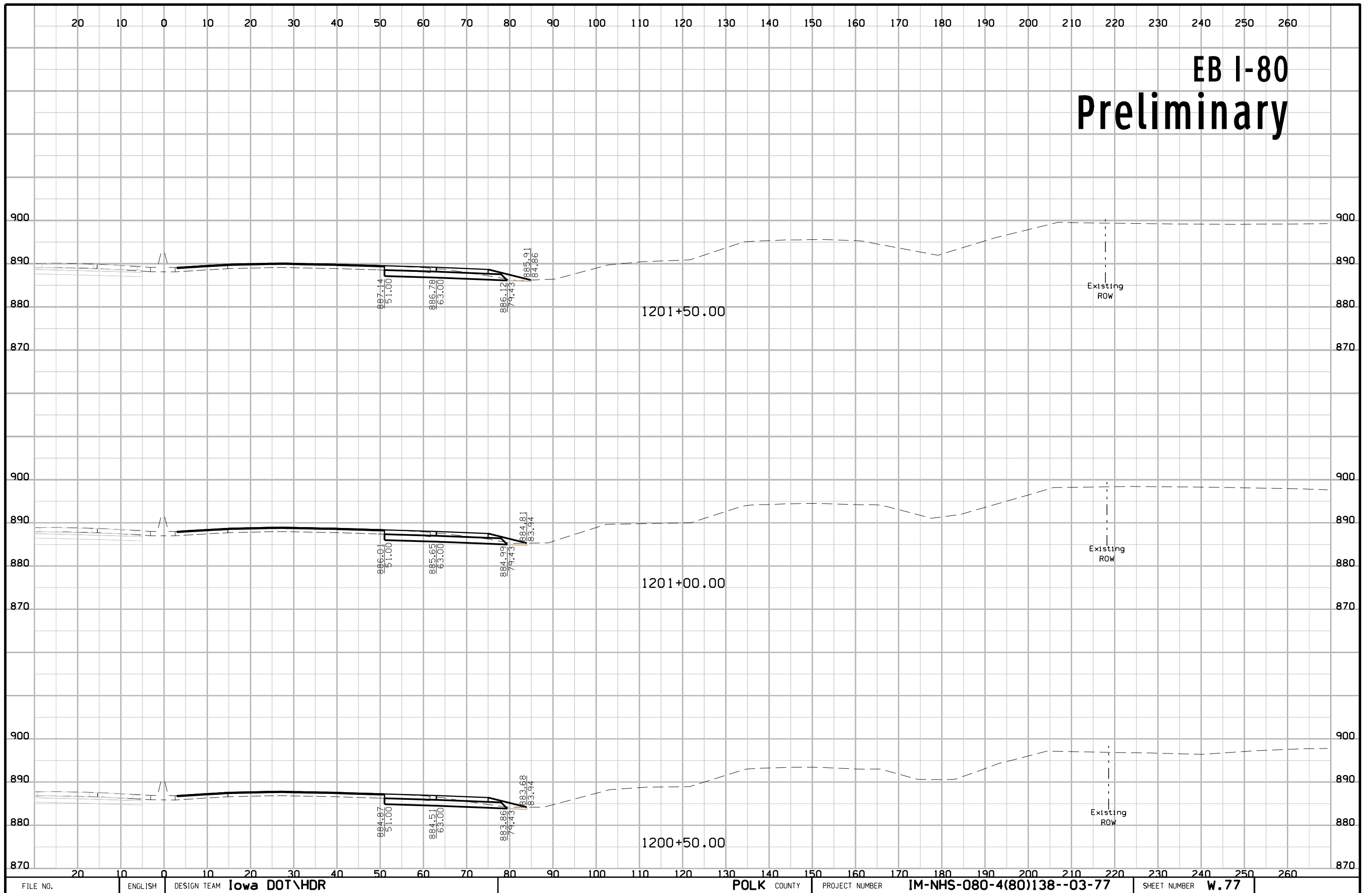


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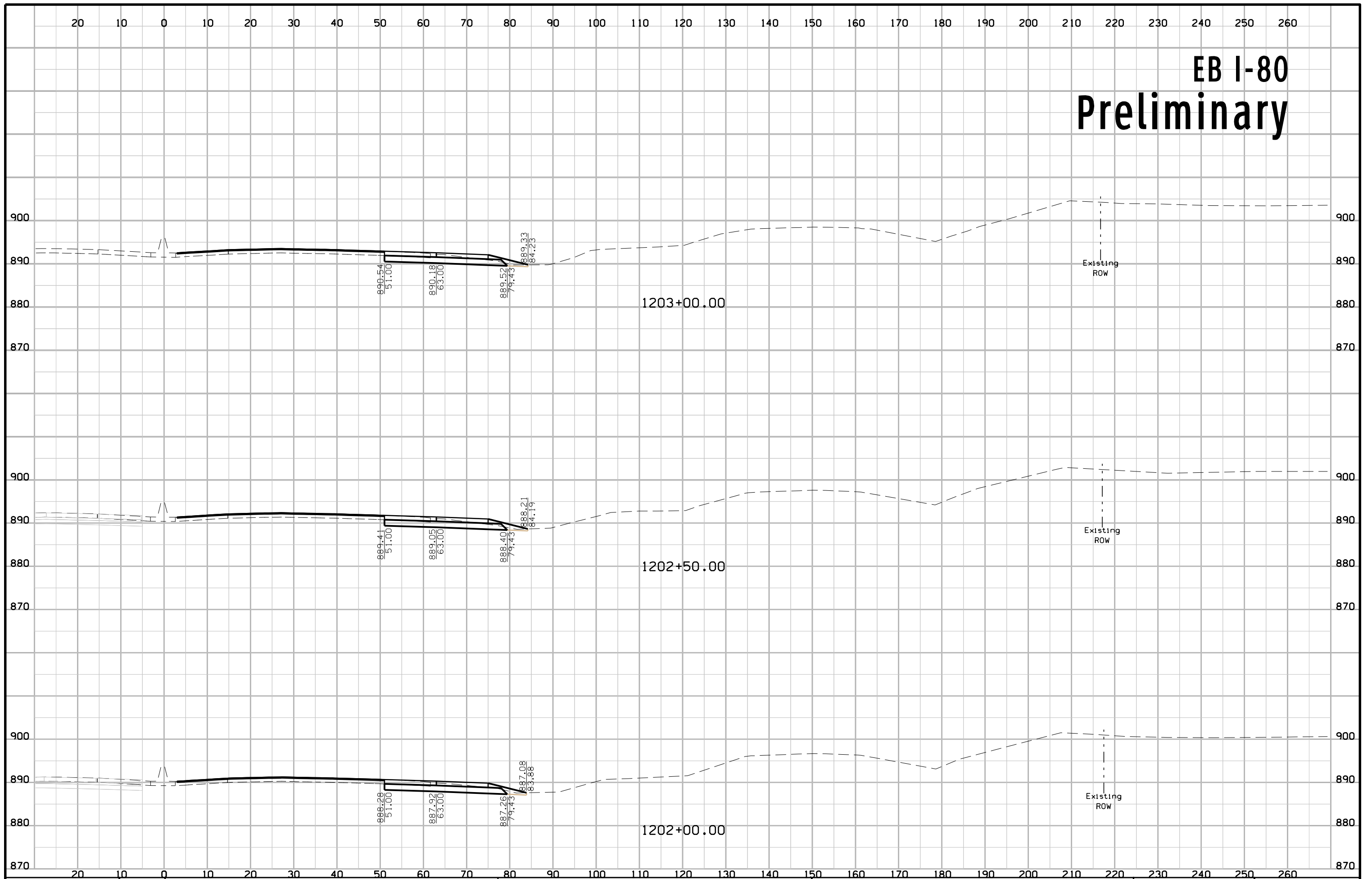
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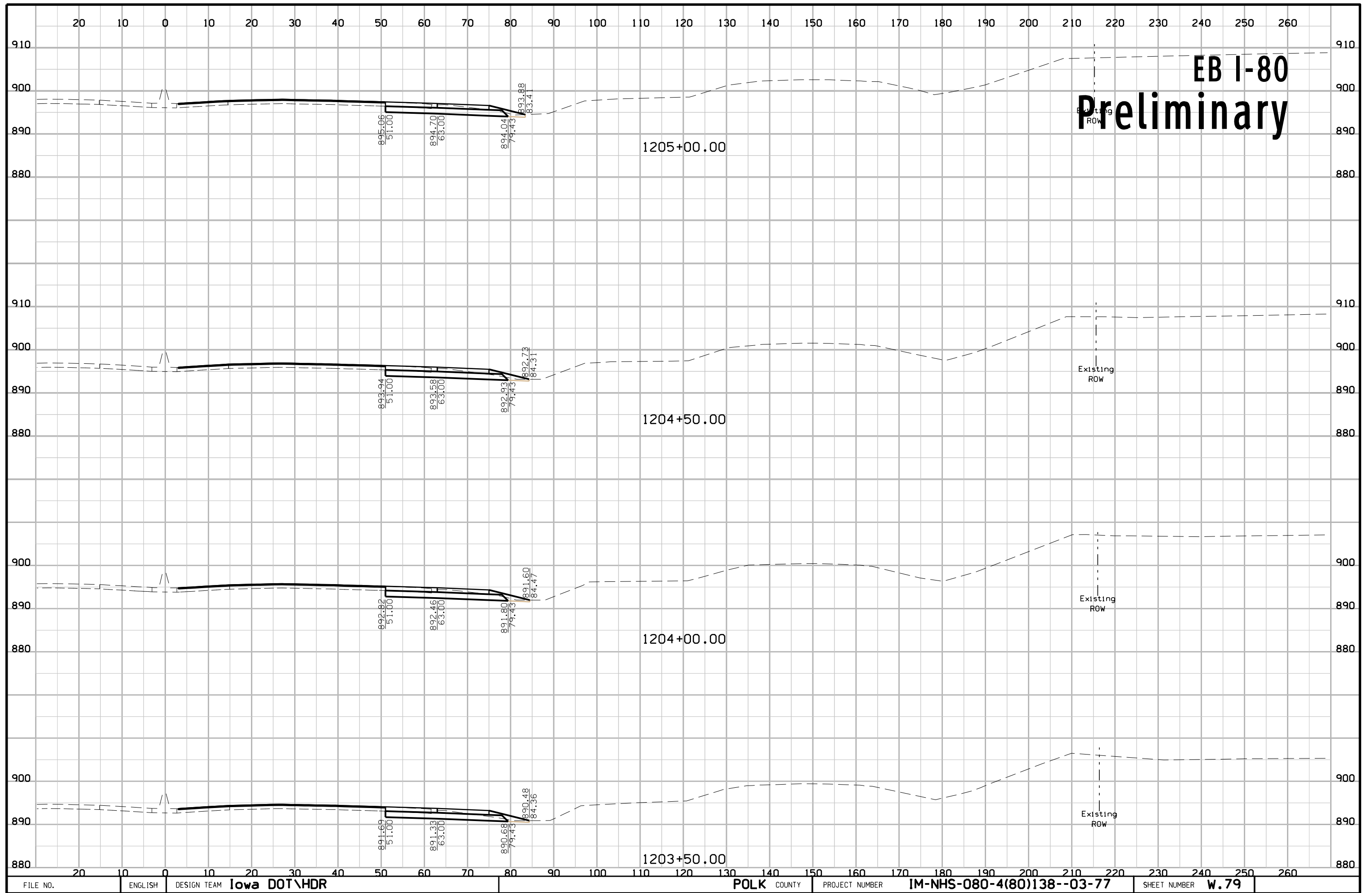


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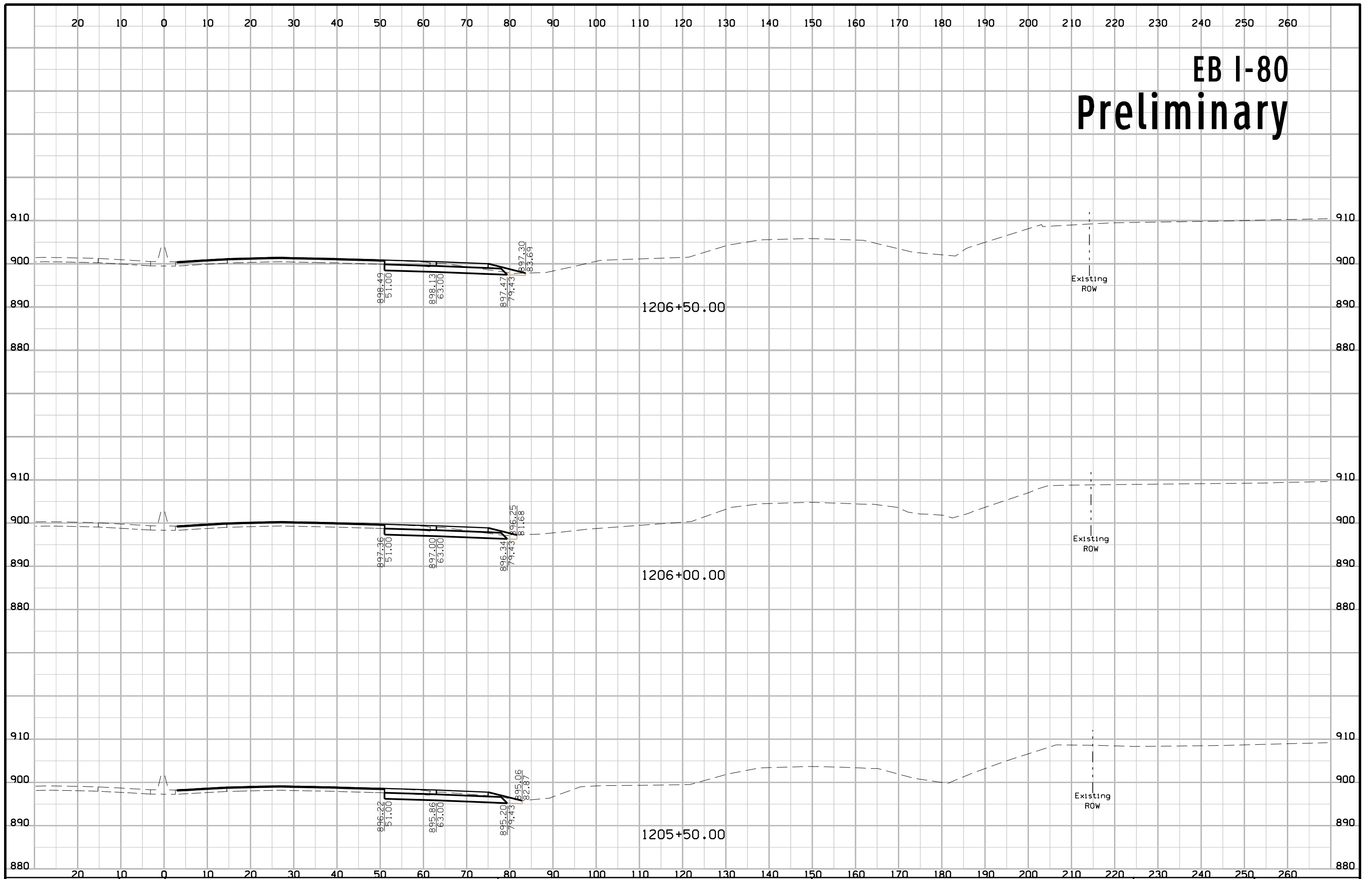


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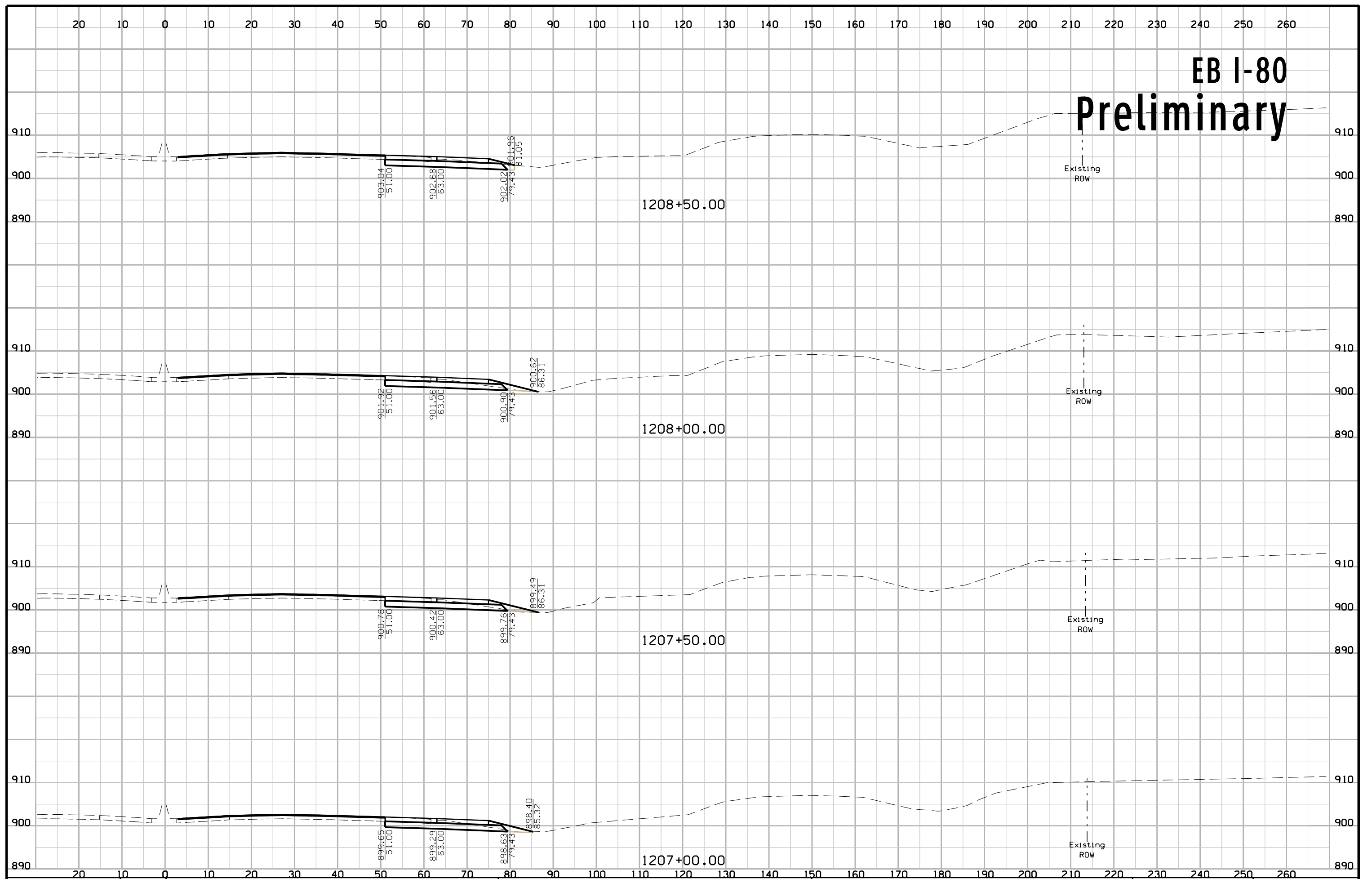


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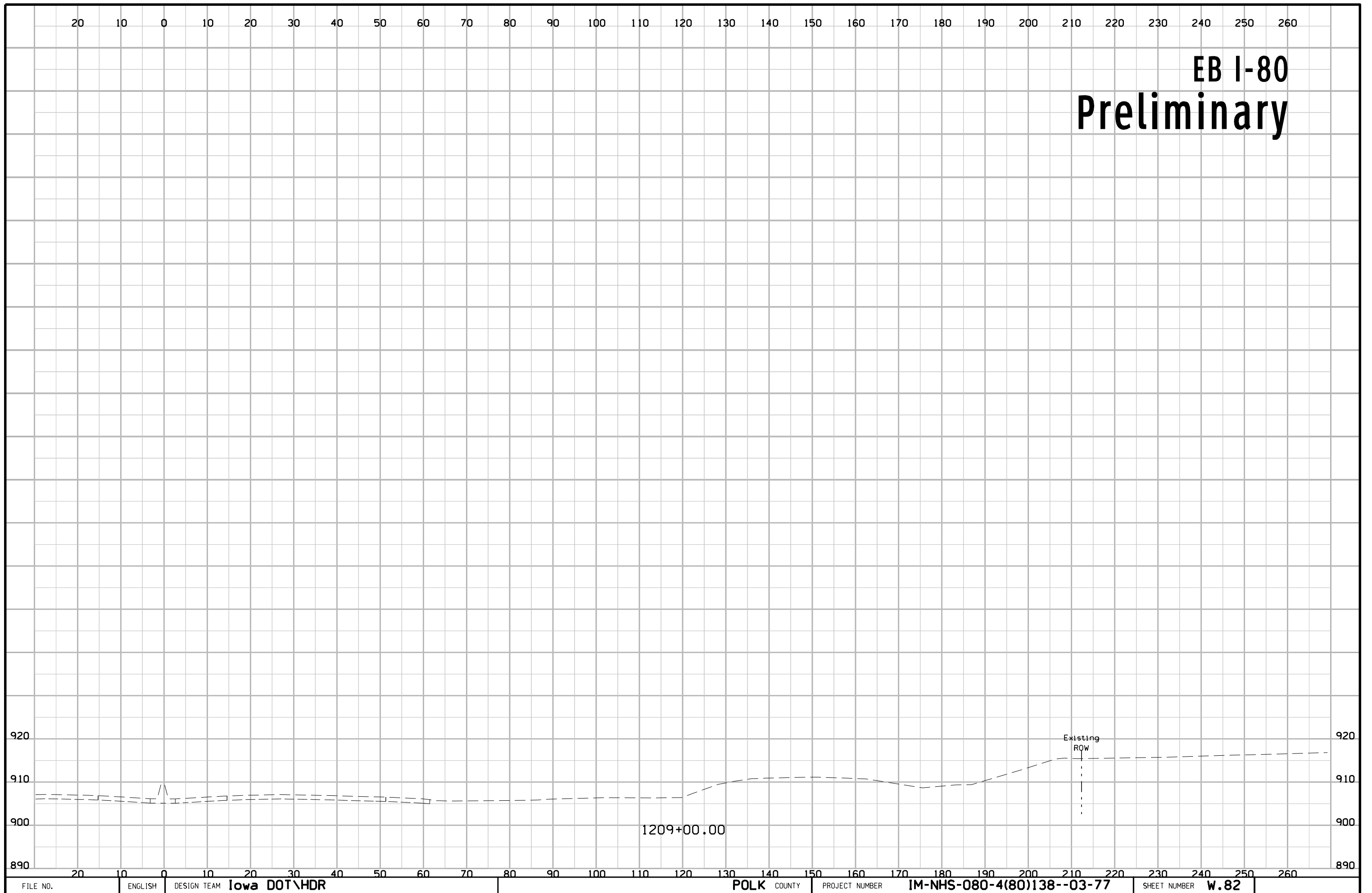


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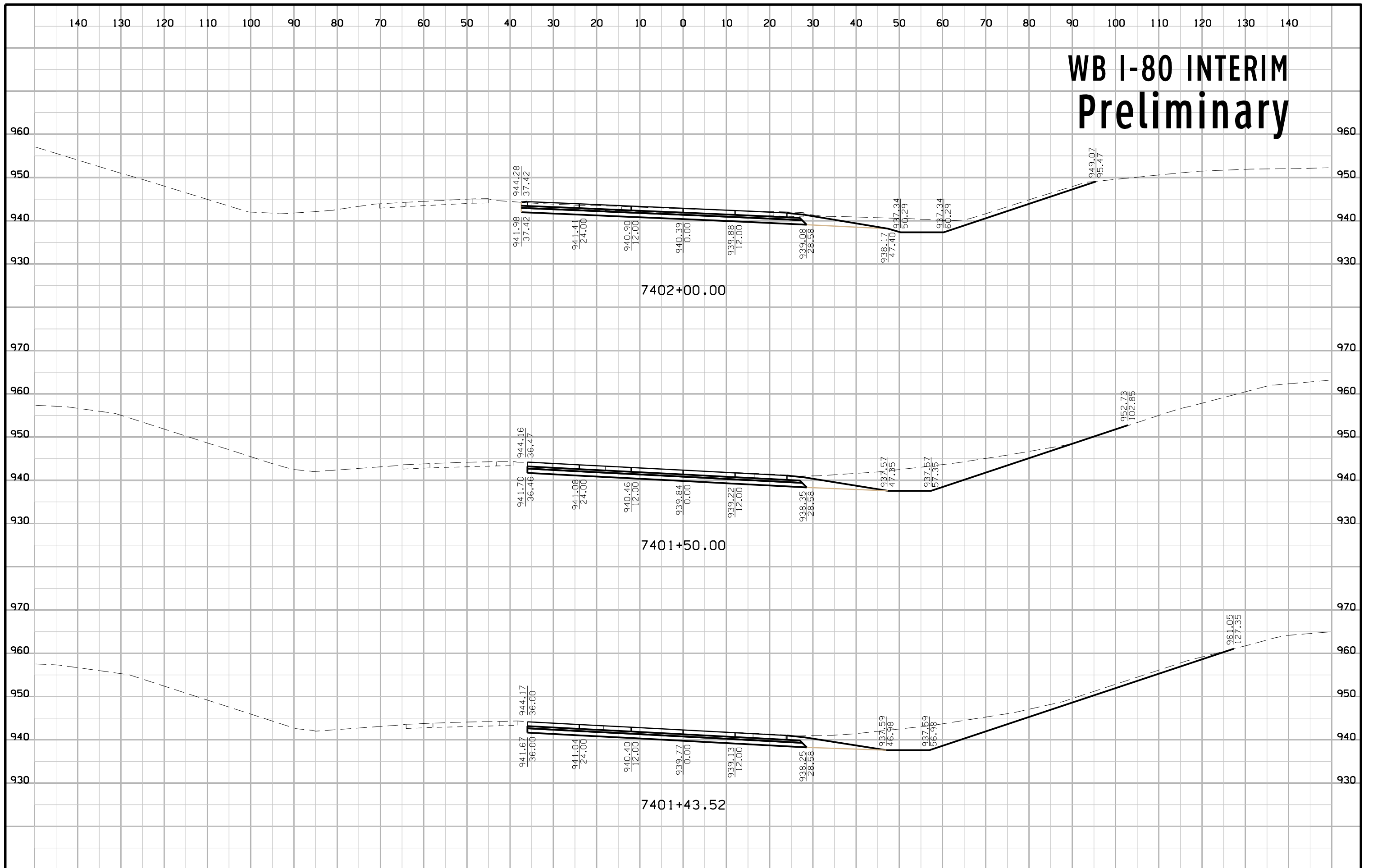
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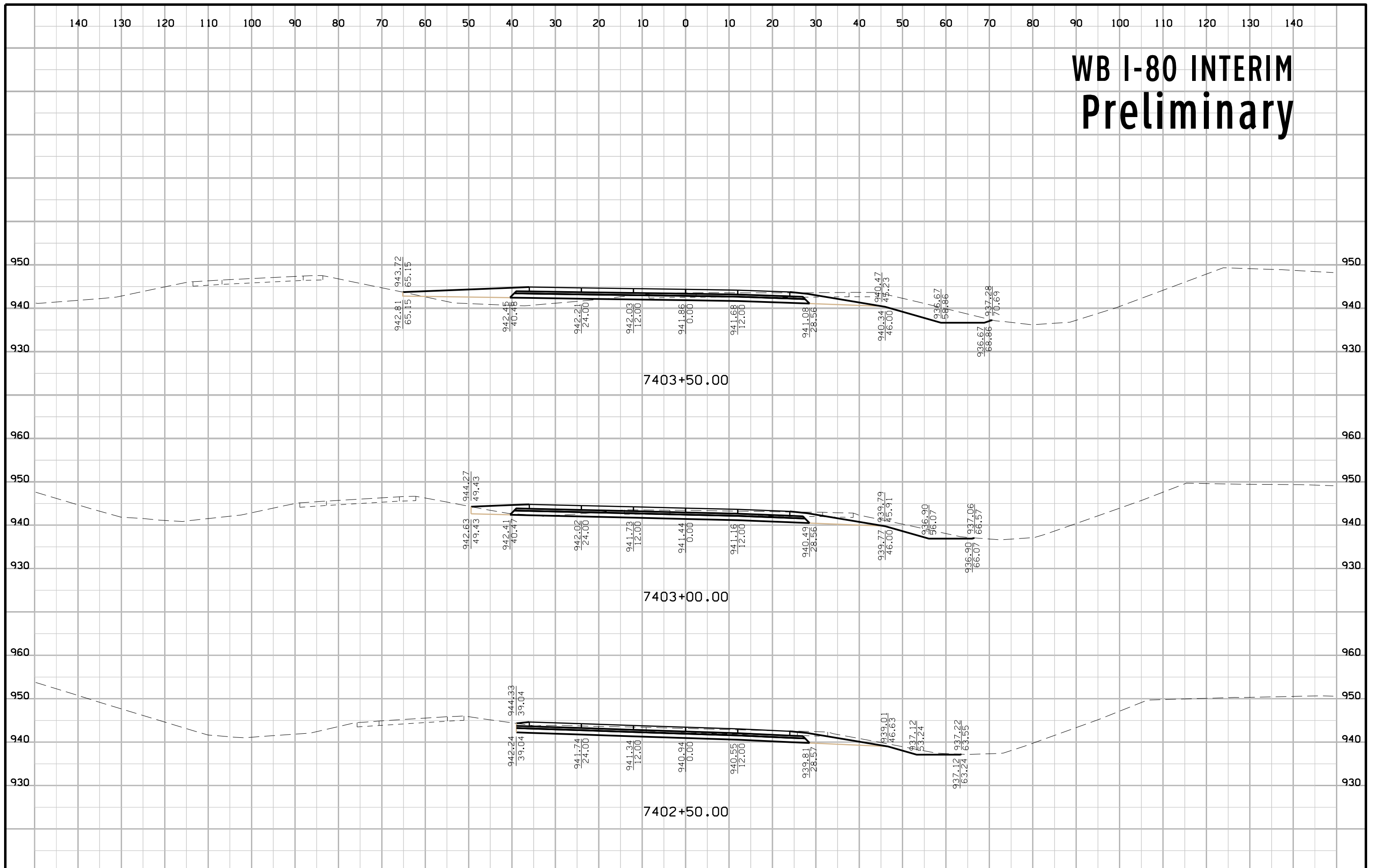
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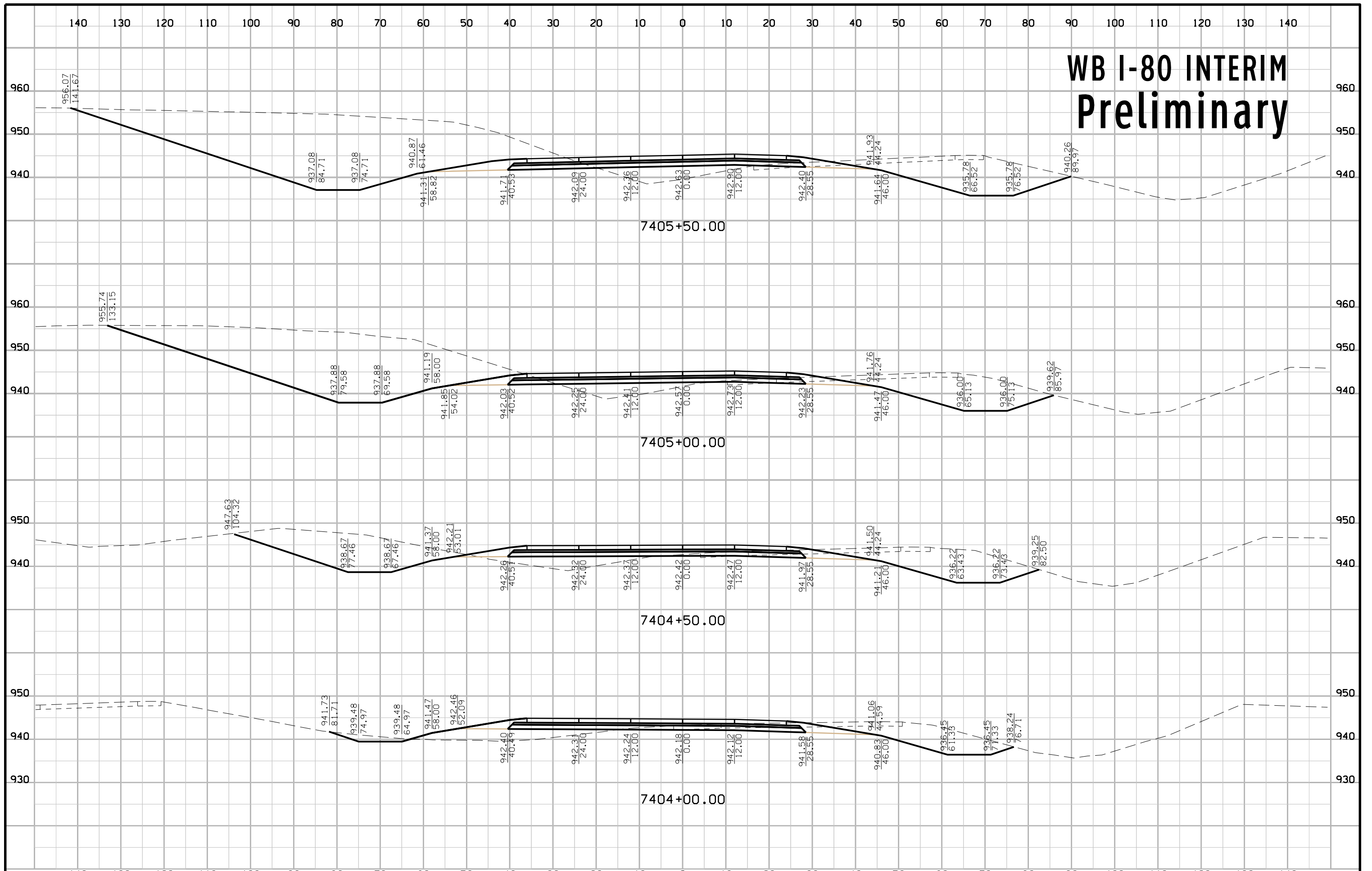
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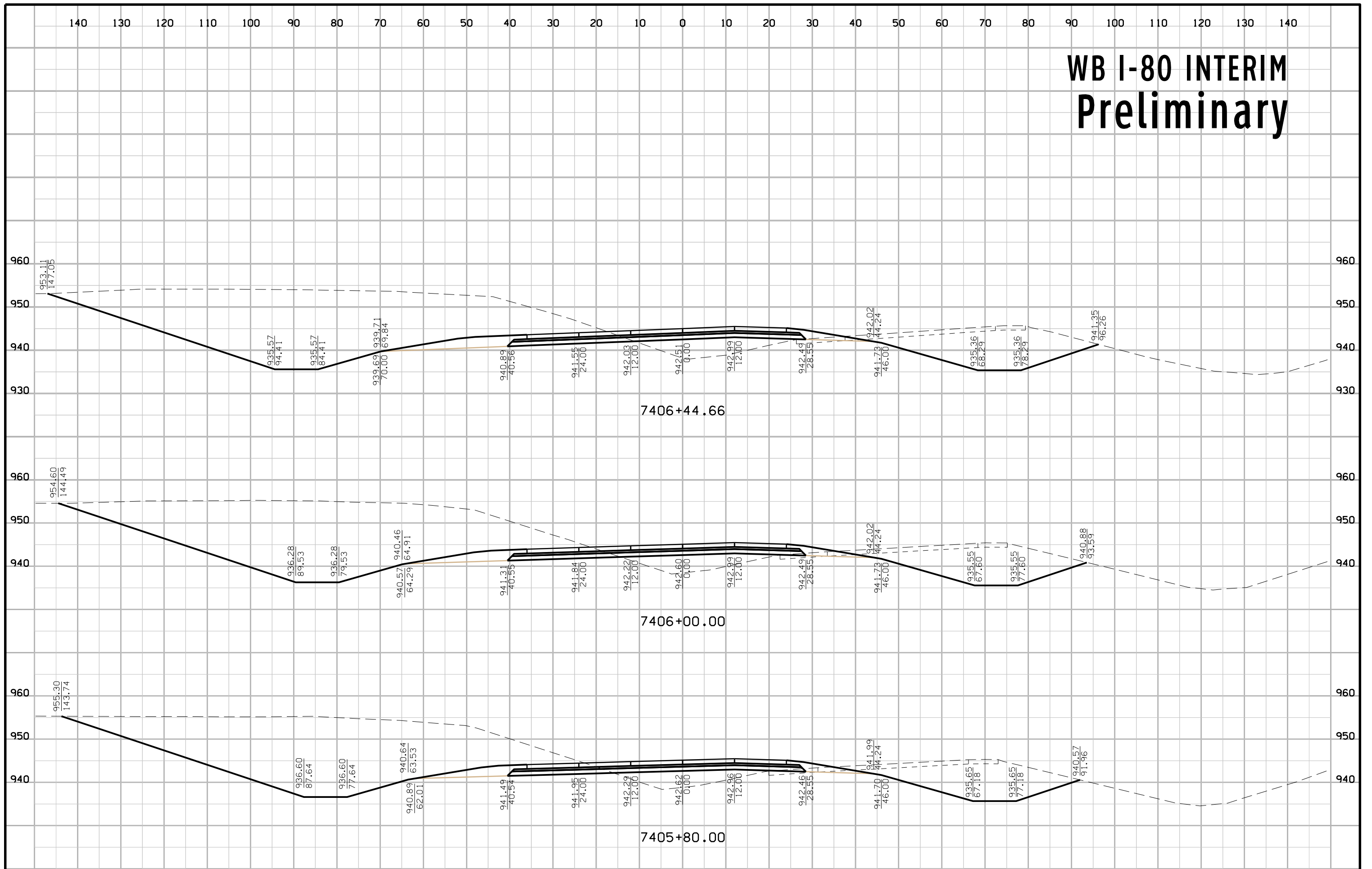
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WB I-80 INTERIM Preliminary



WB I-80 INTERIM Preliminary

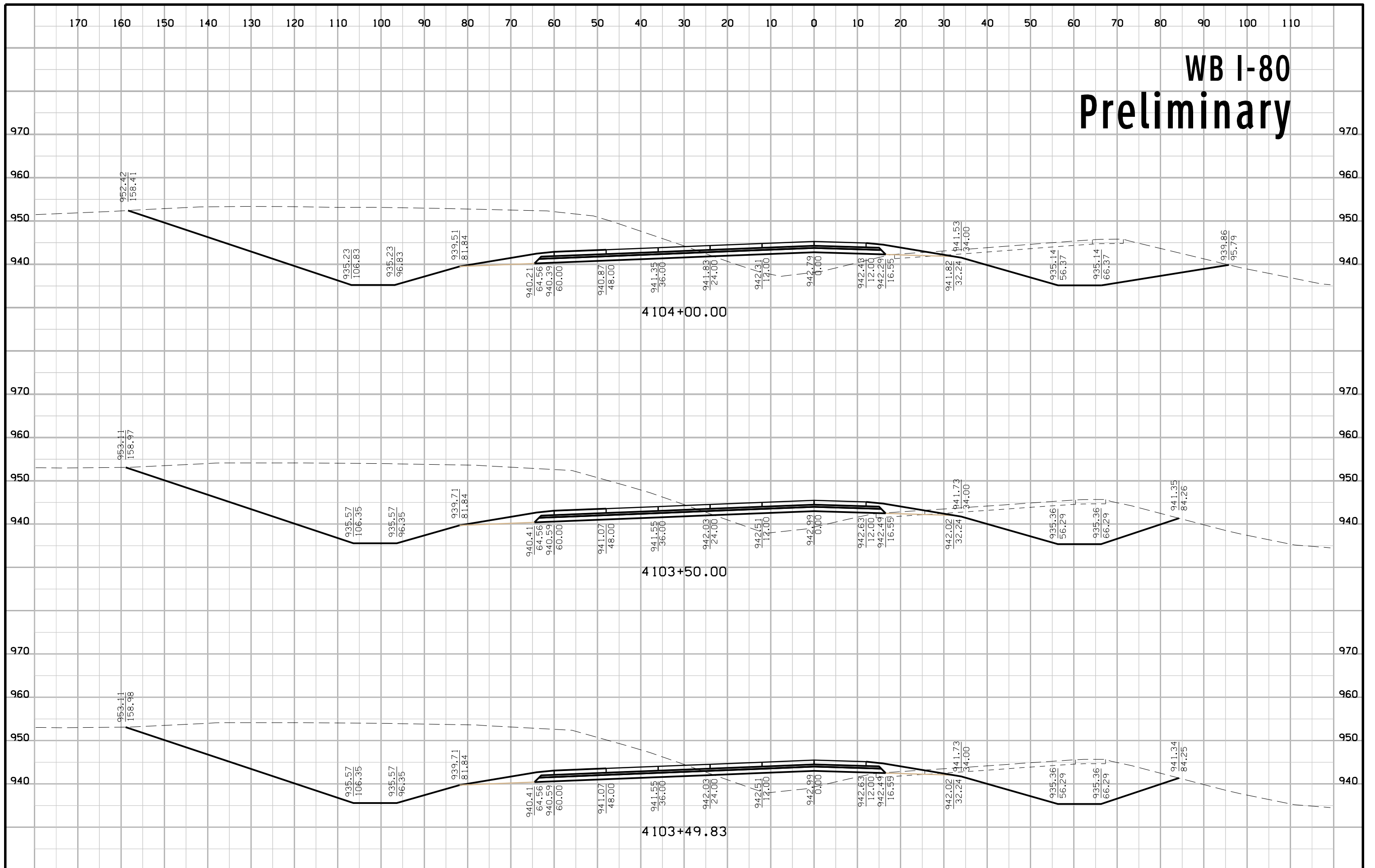


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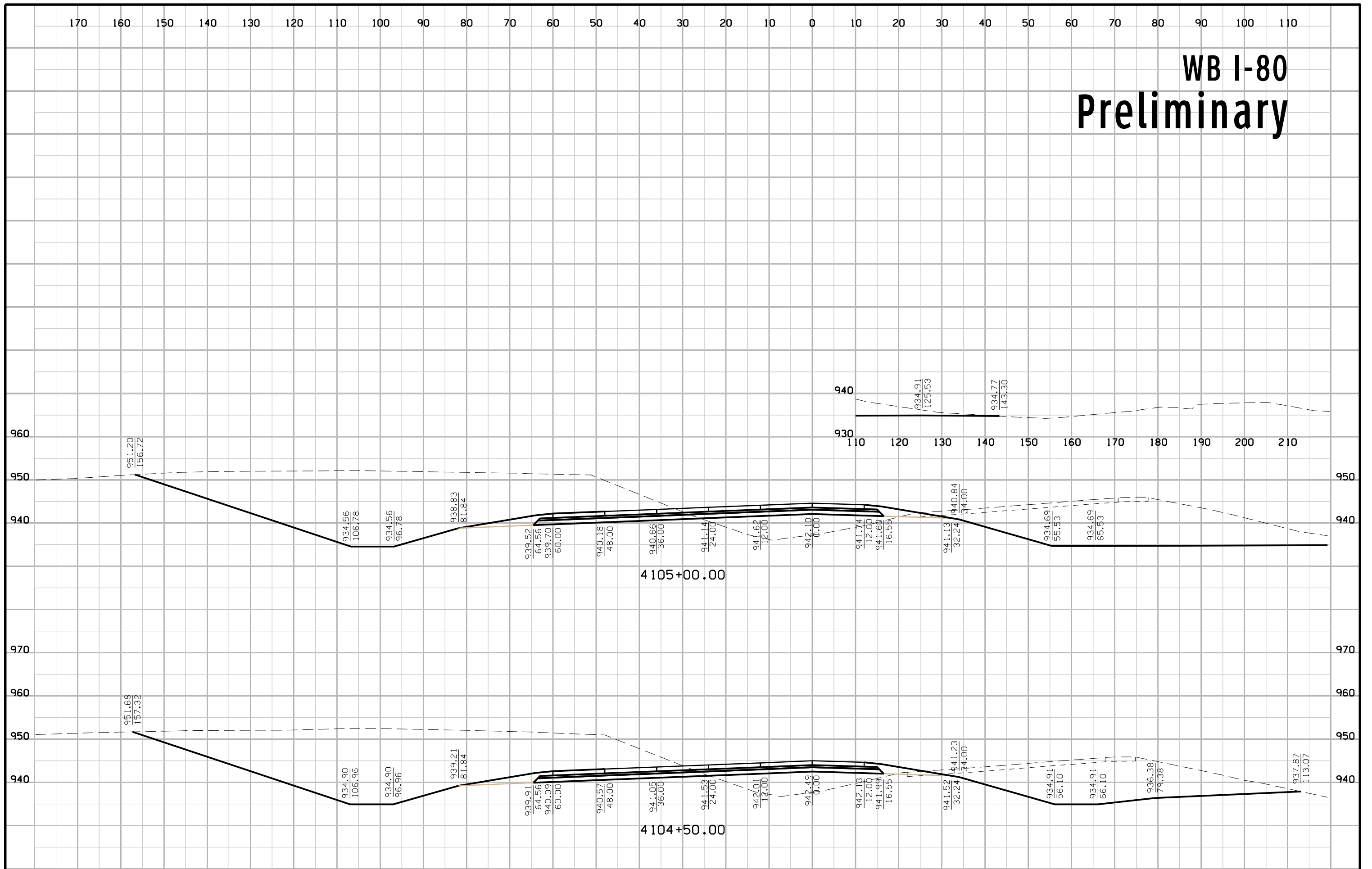
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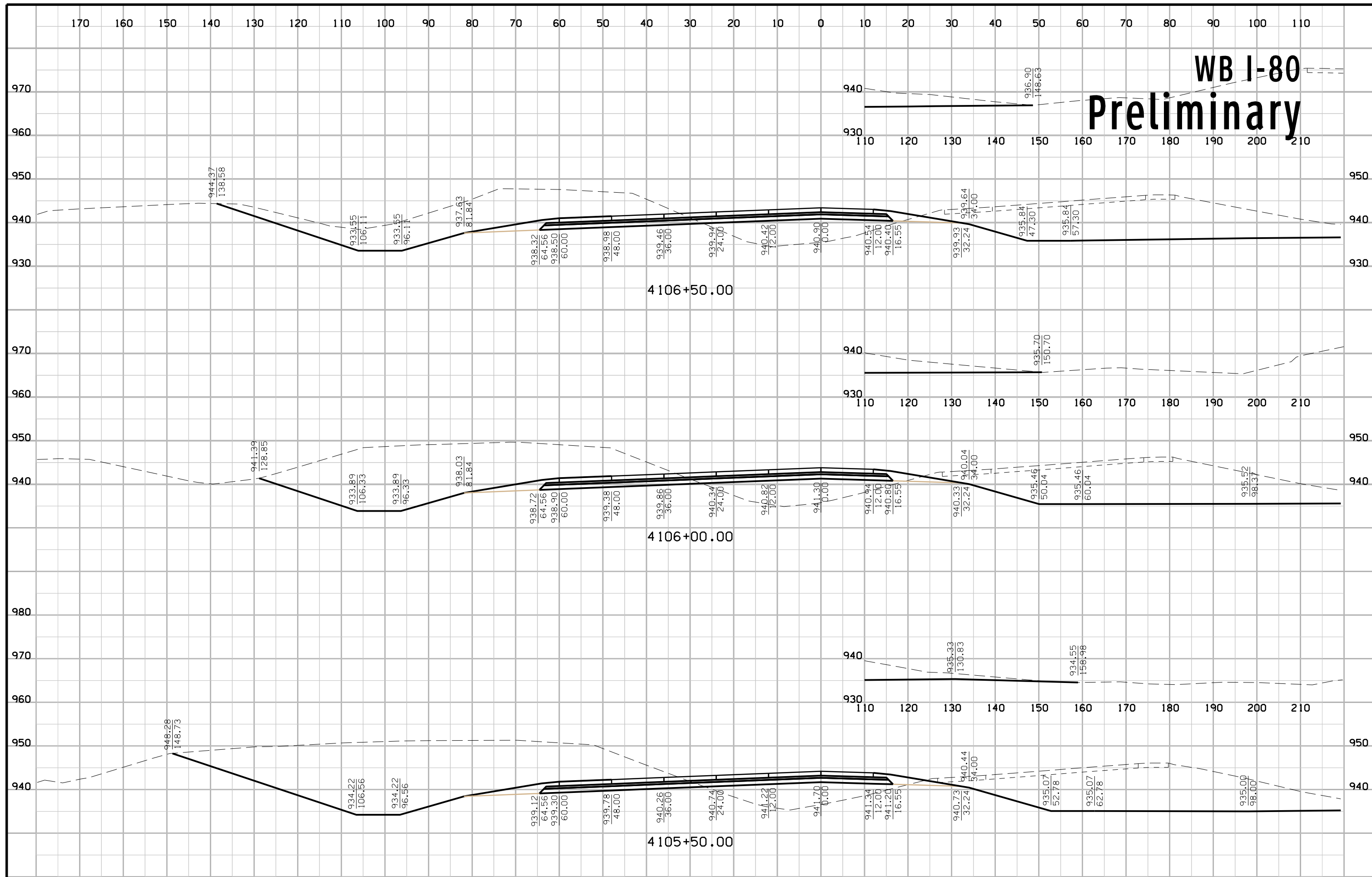
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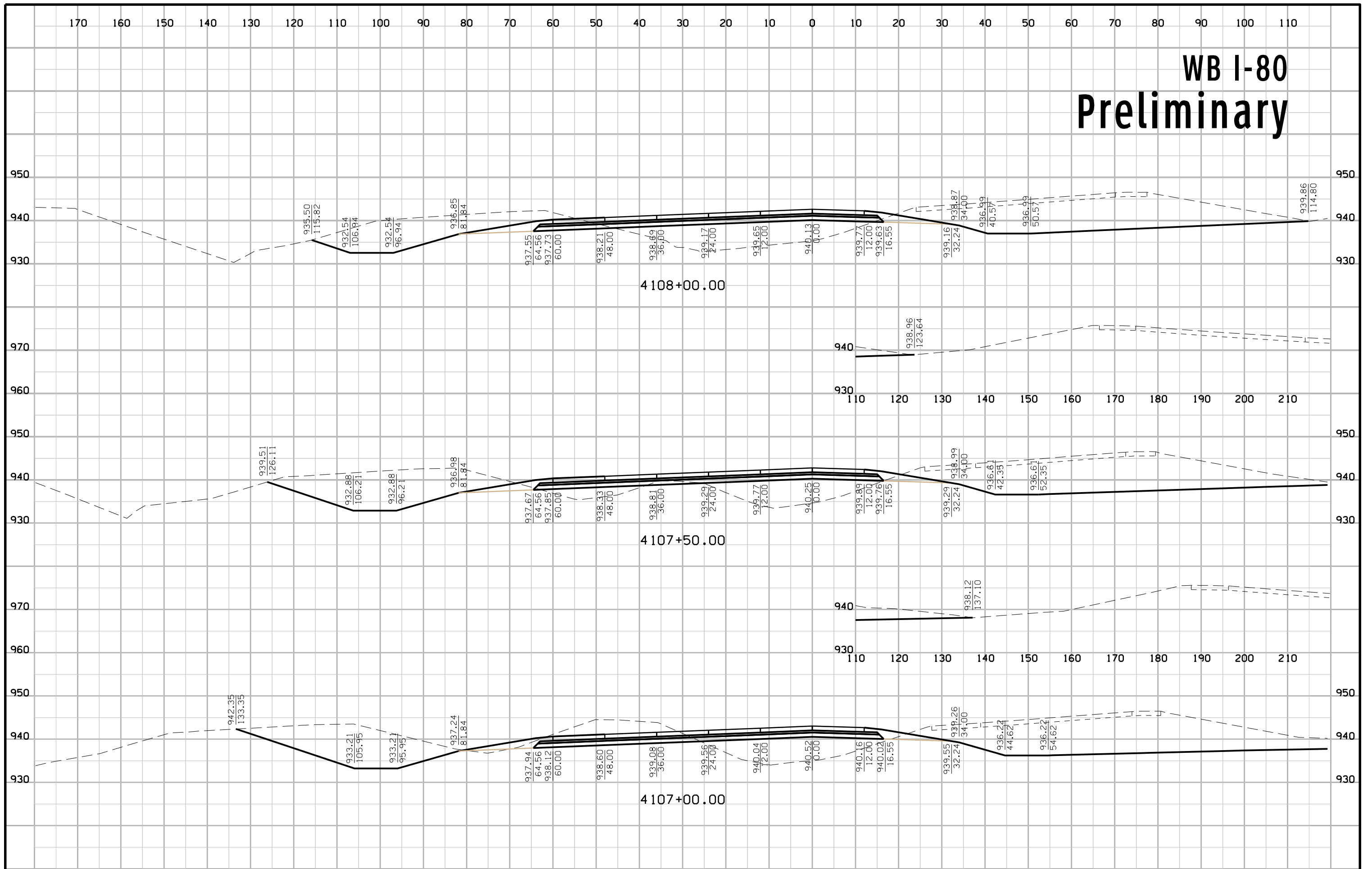


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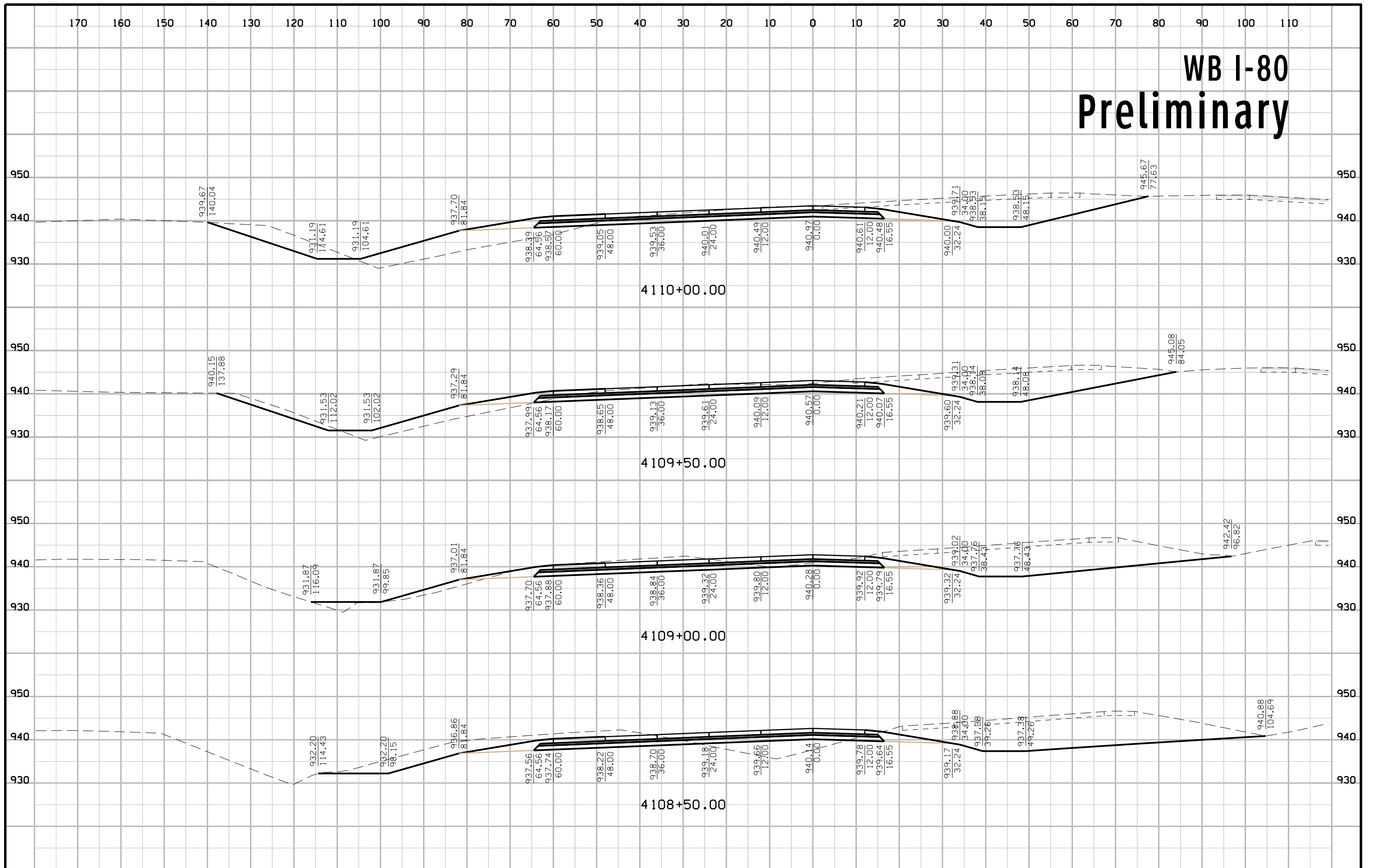




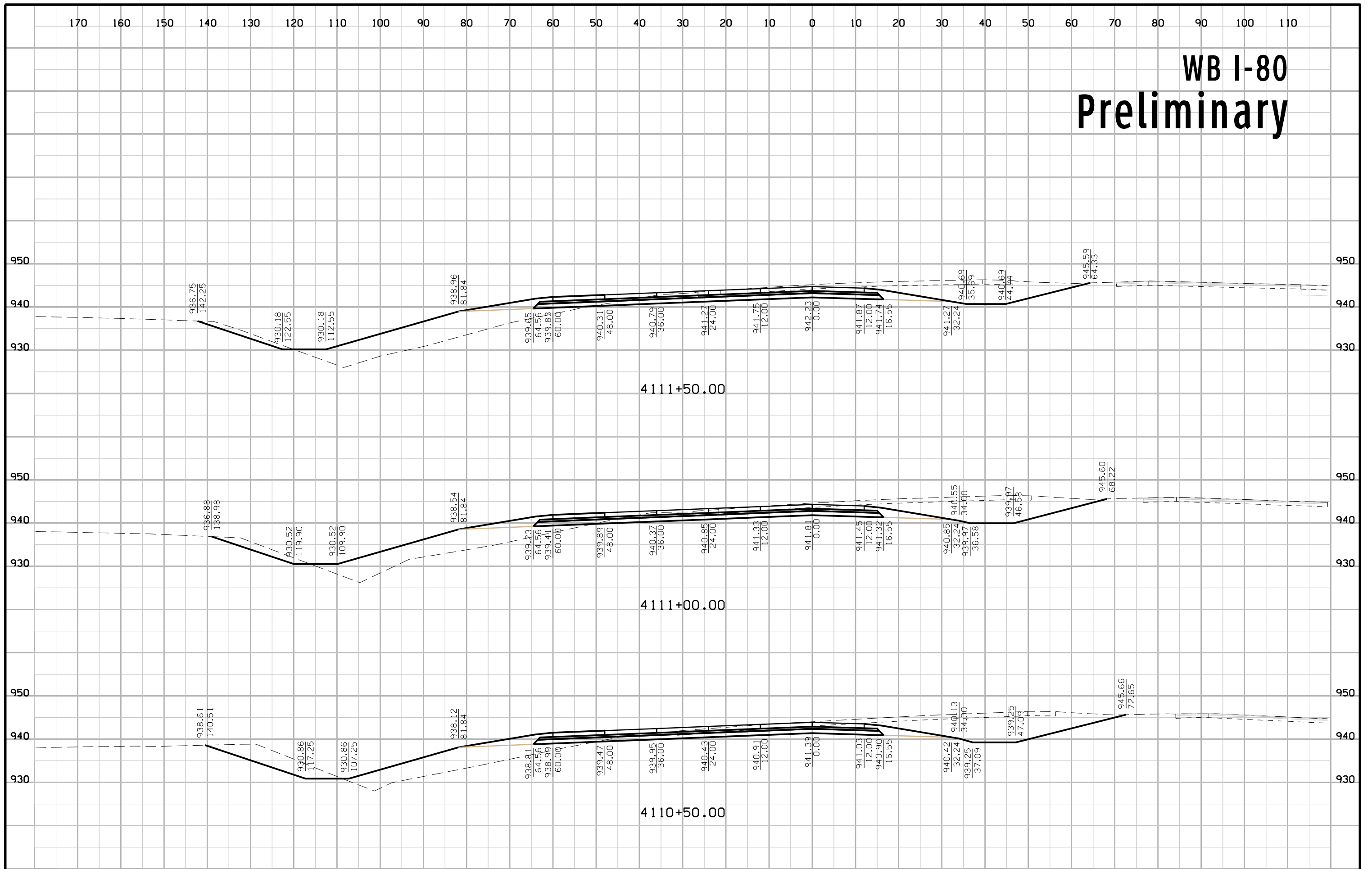
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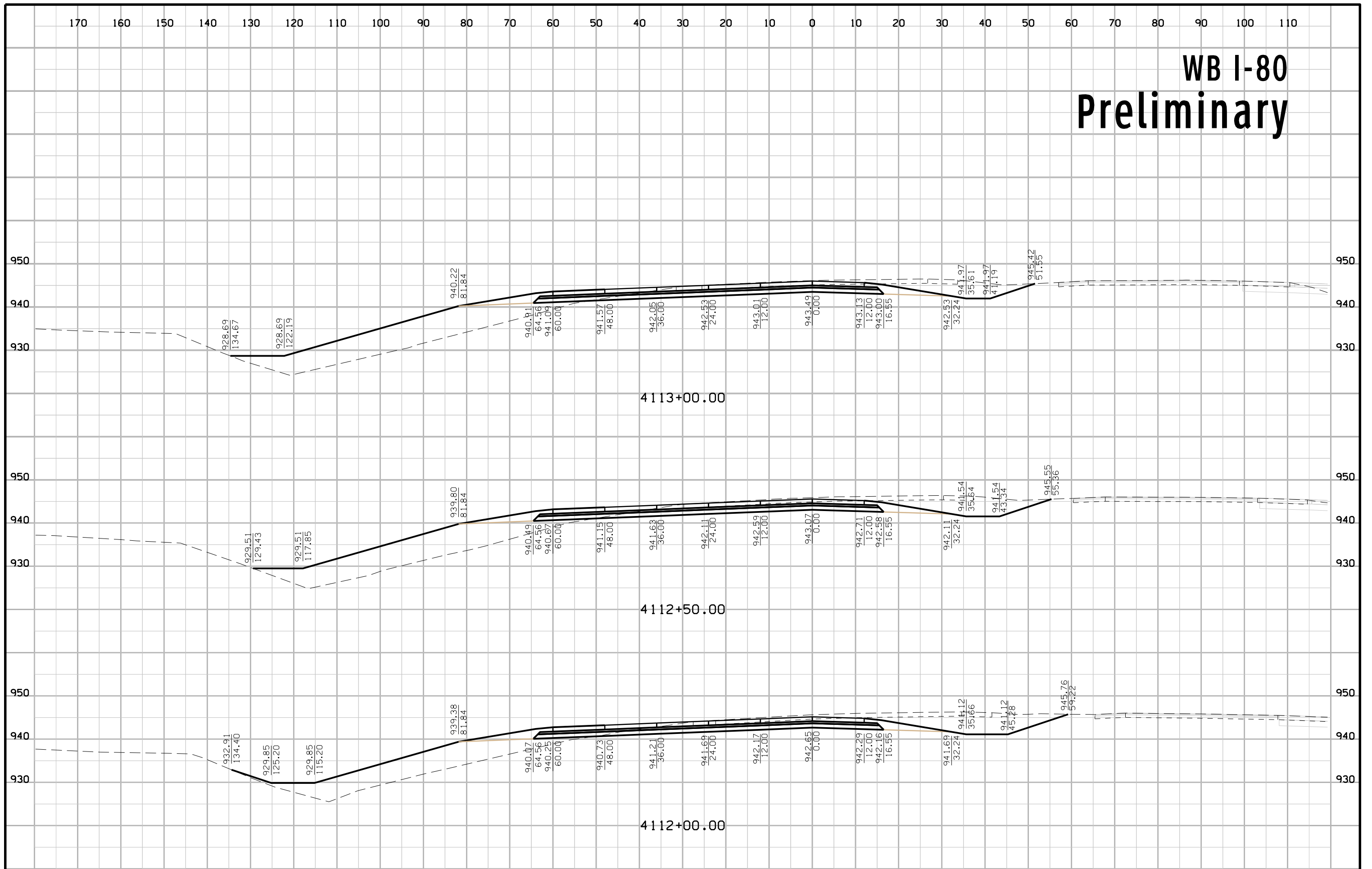
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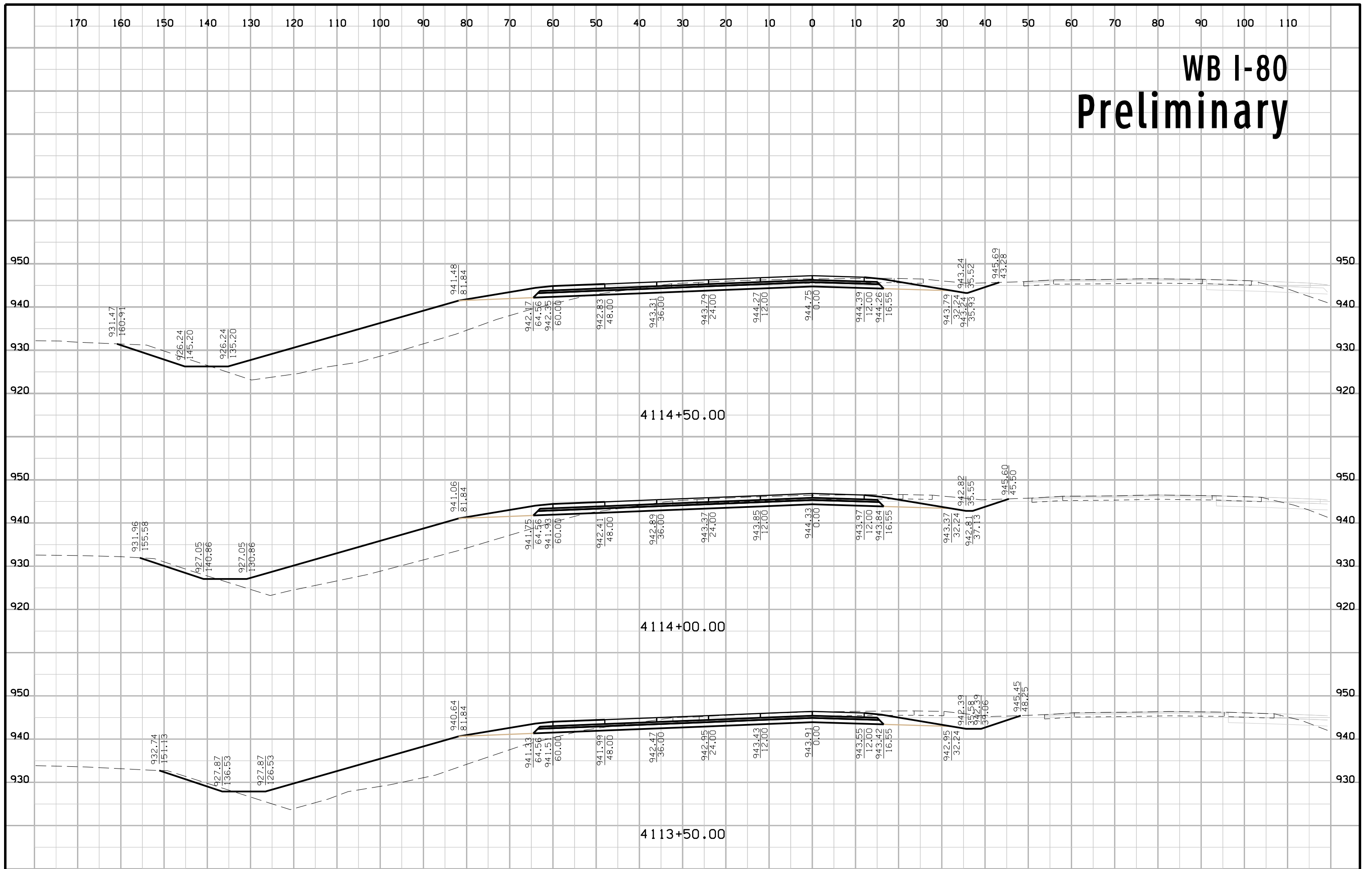
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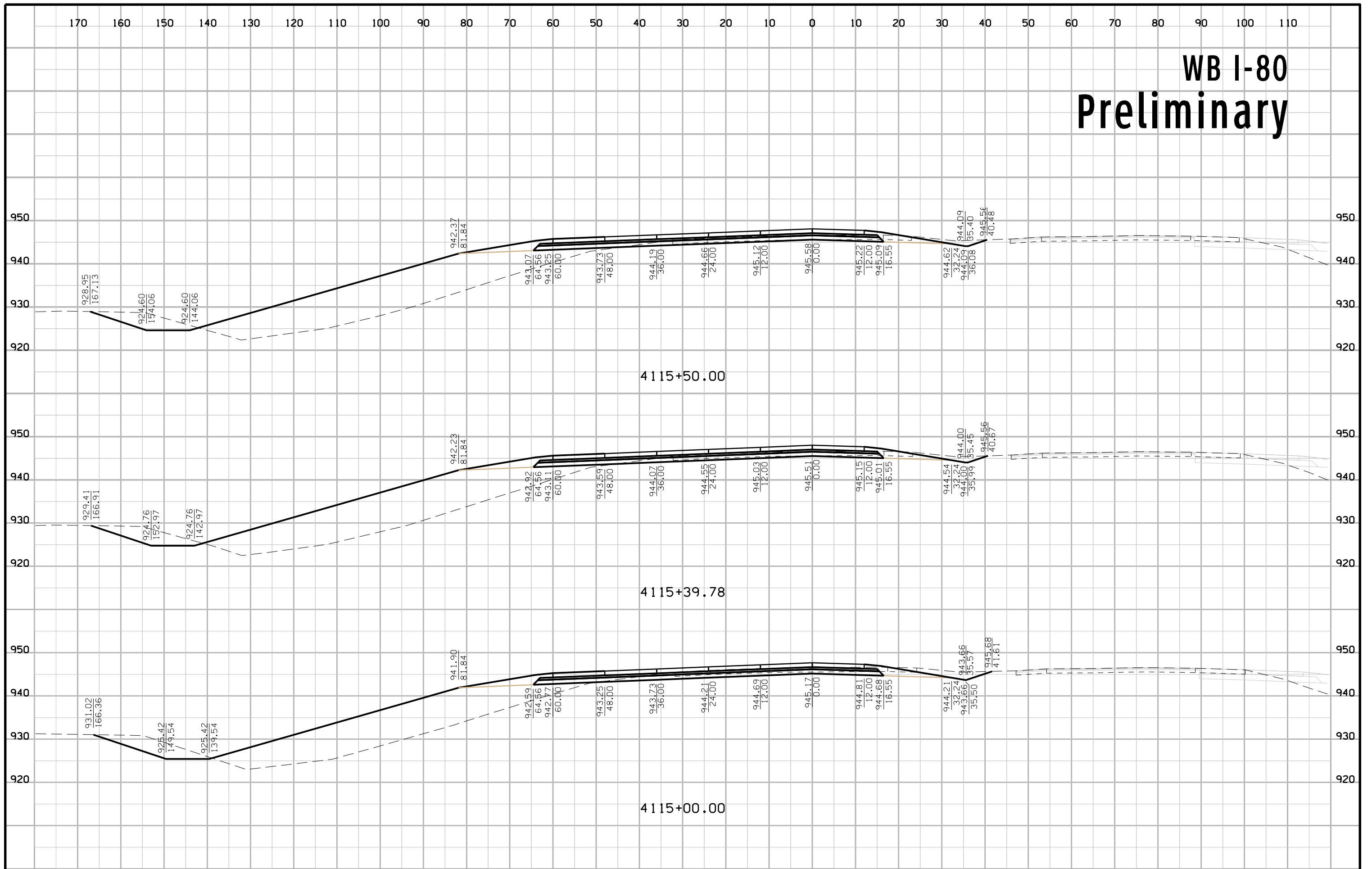
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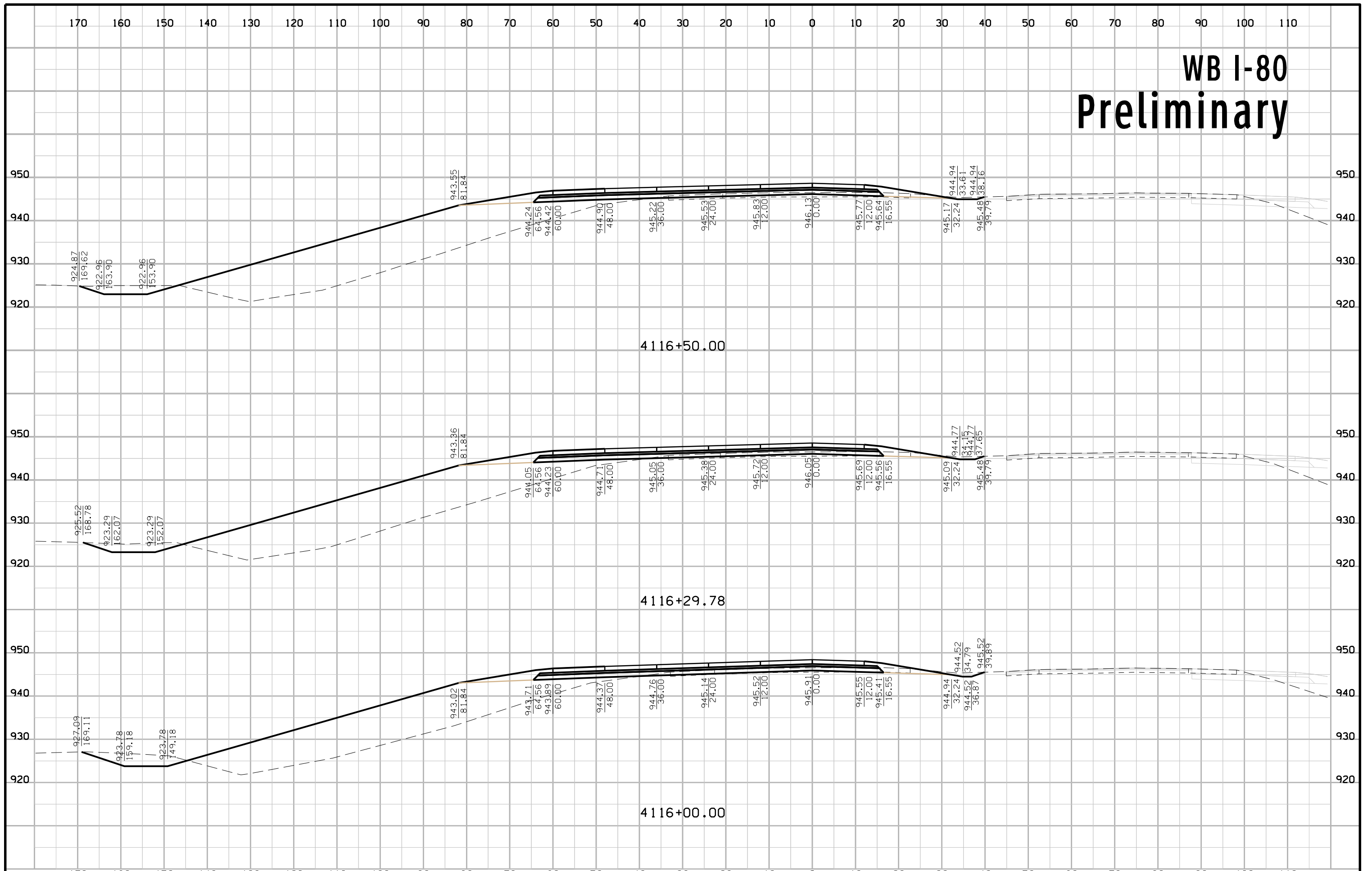
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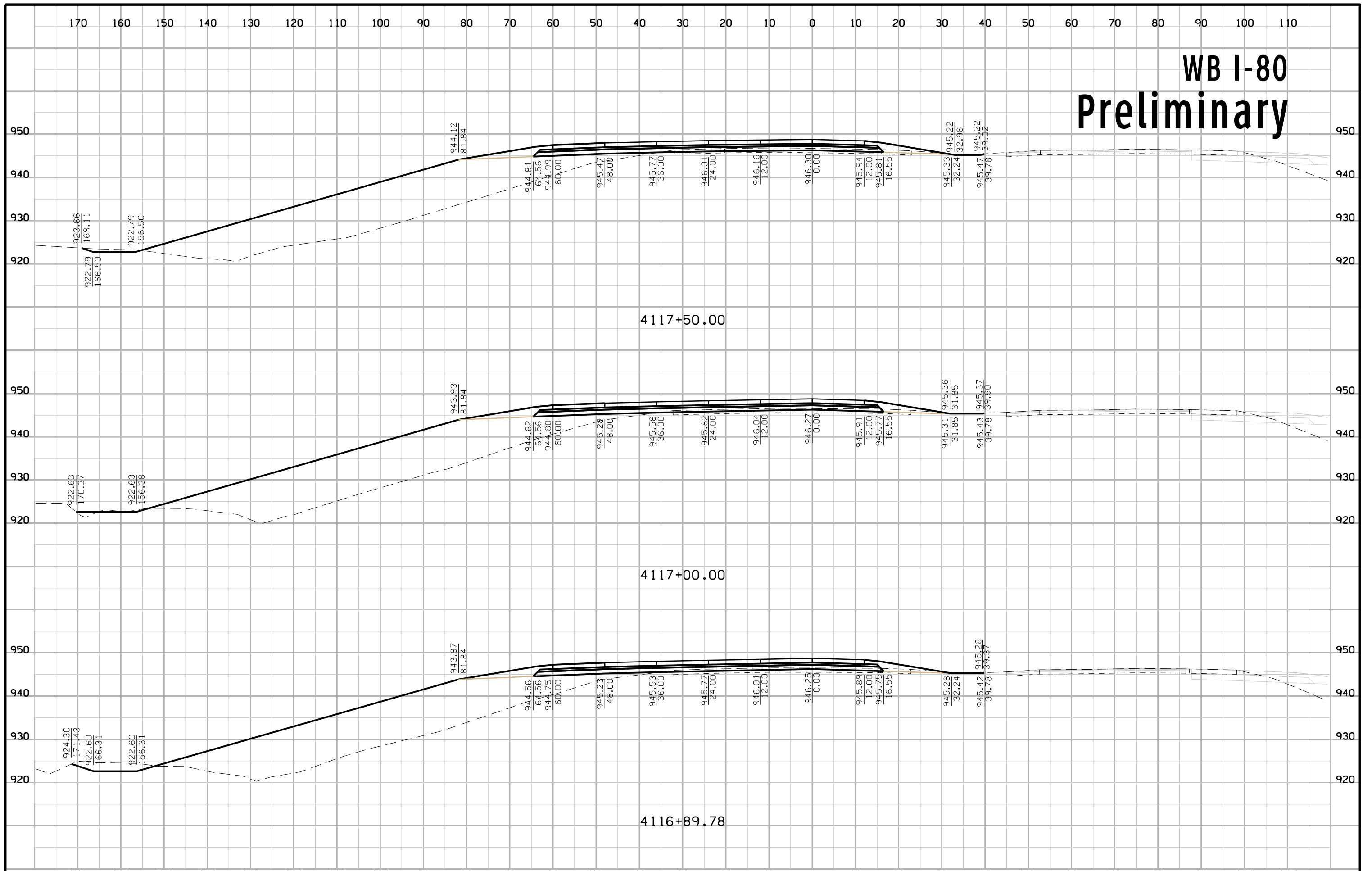
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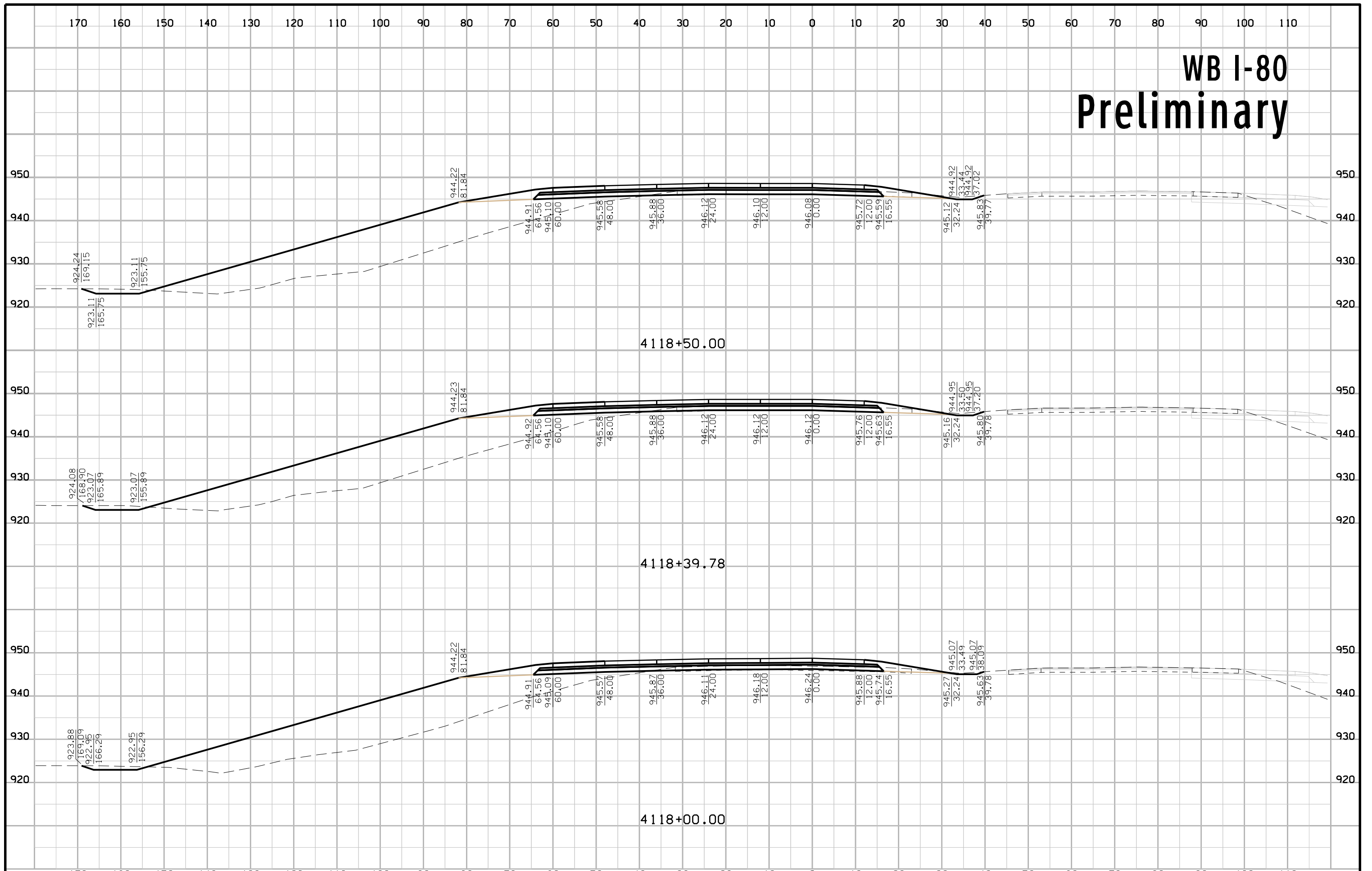
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WB I-80 Preliminary



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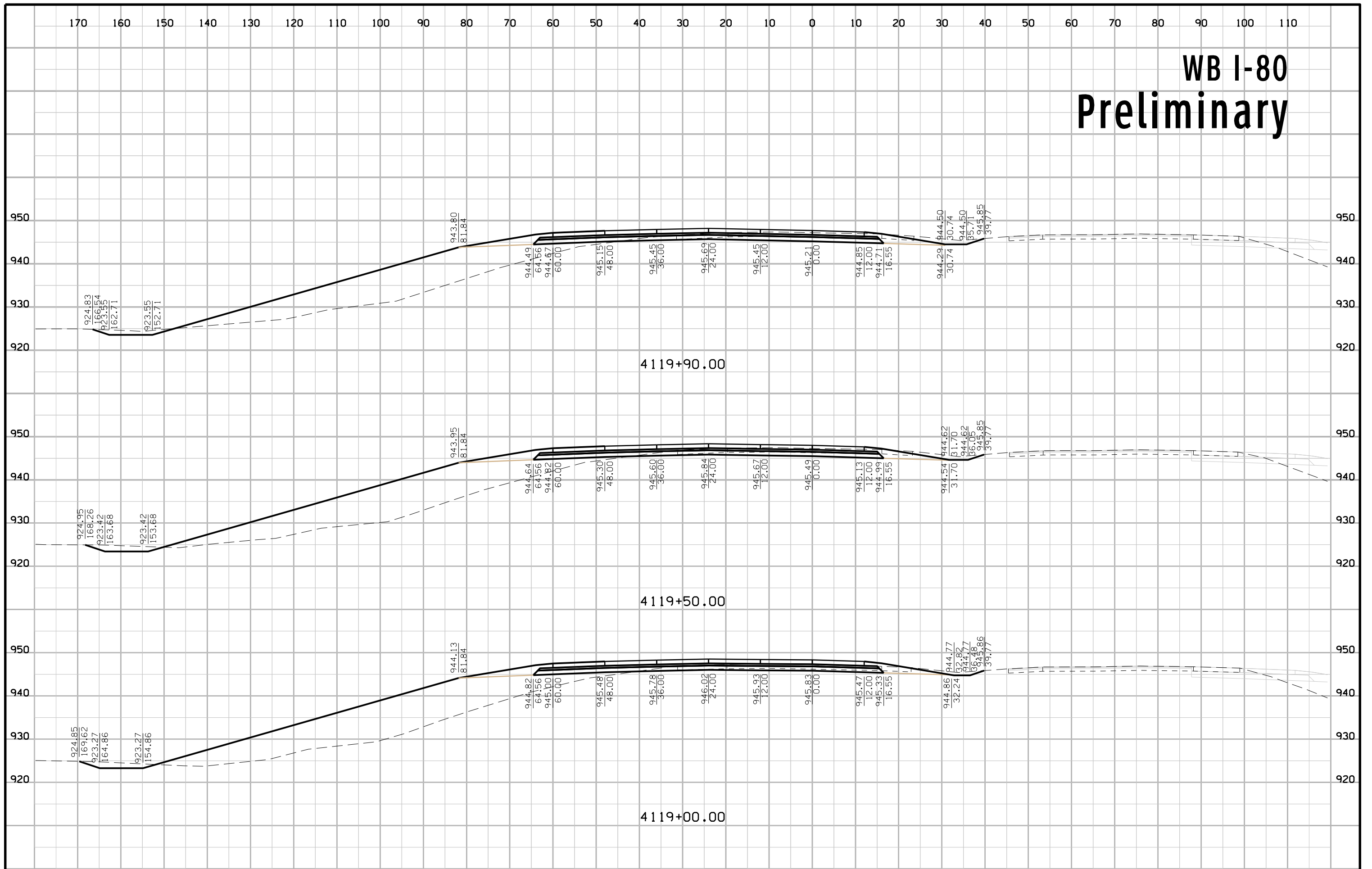


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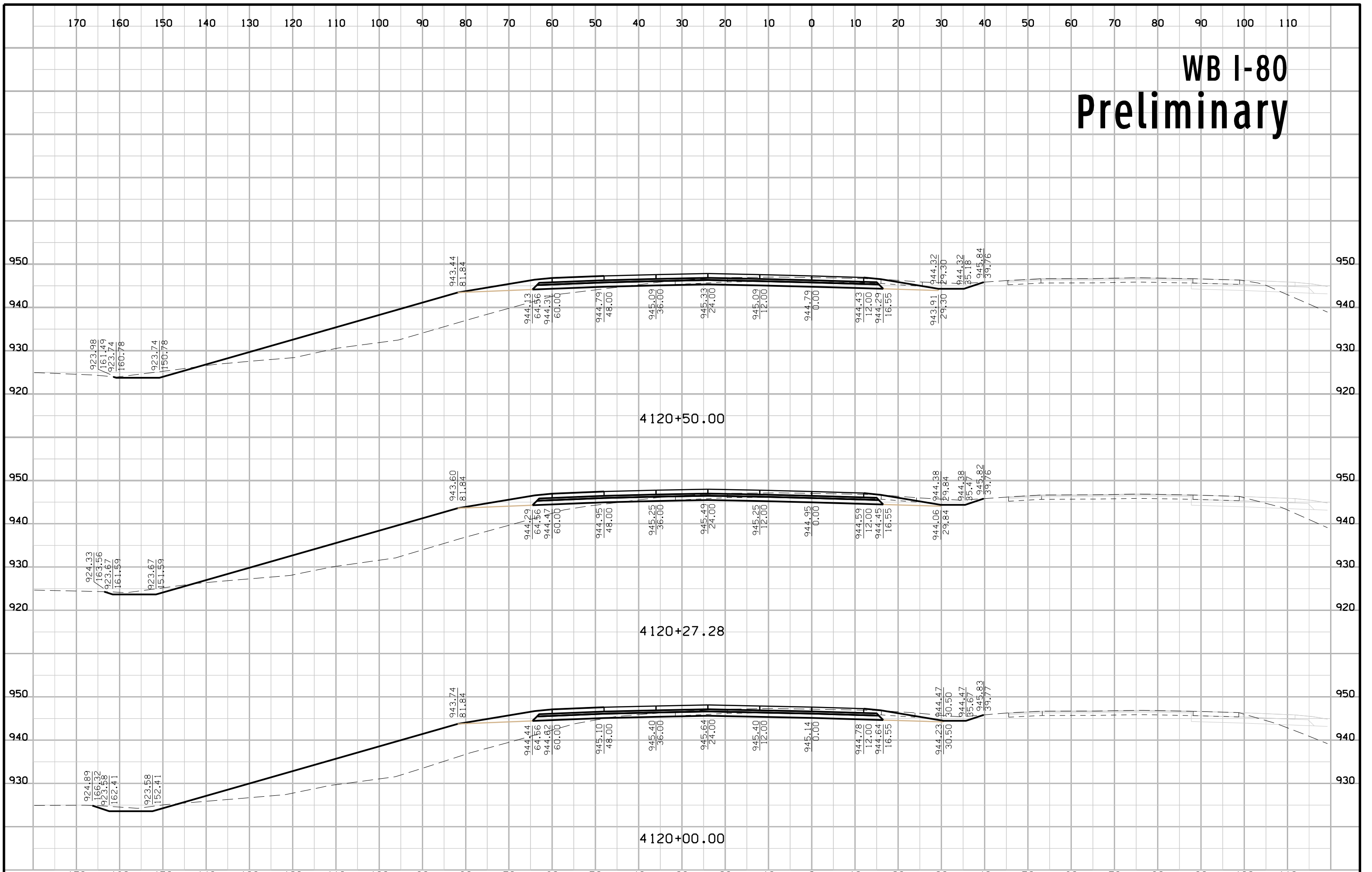
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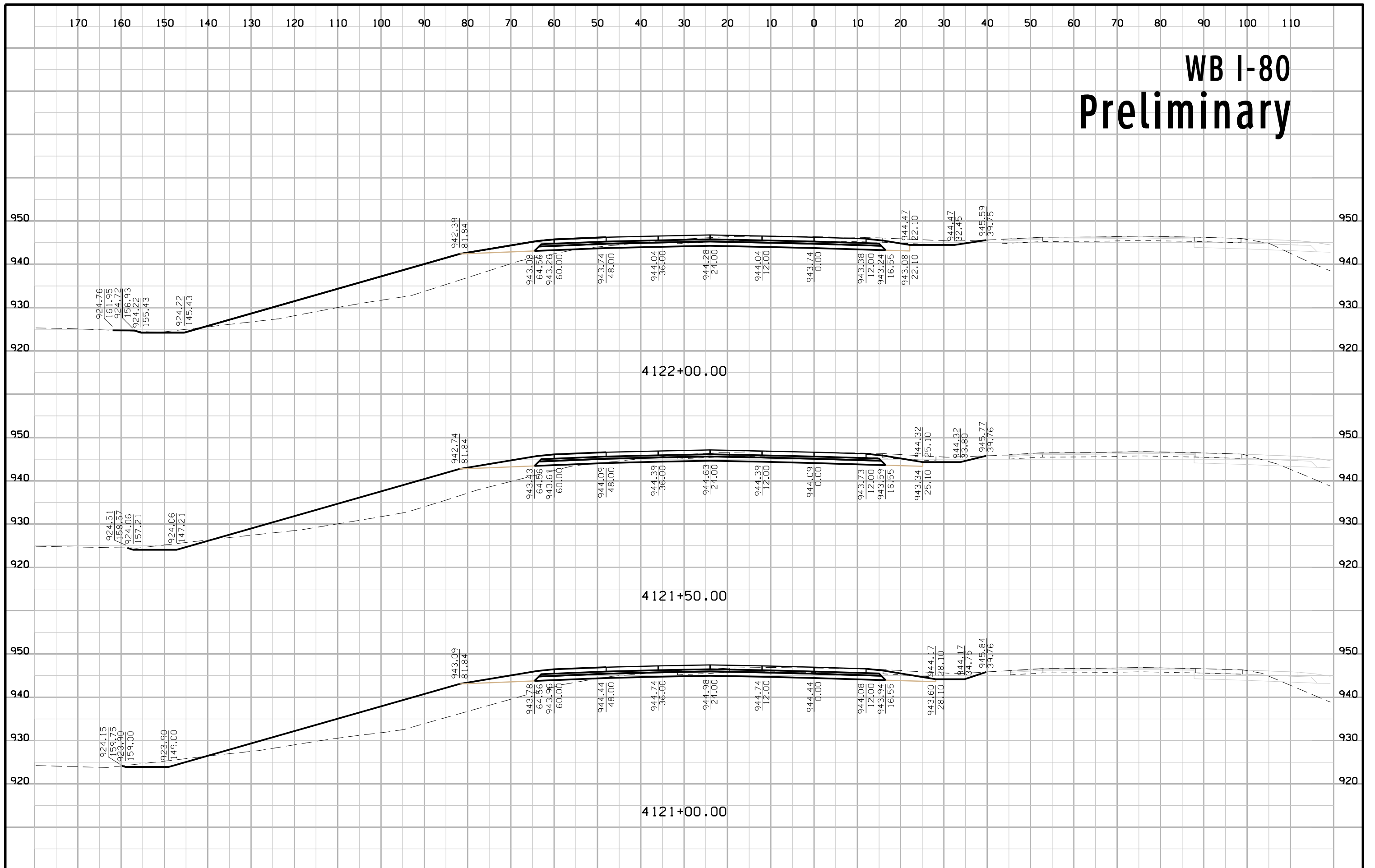
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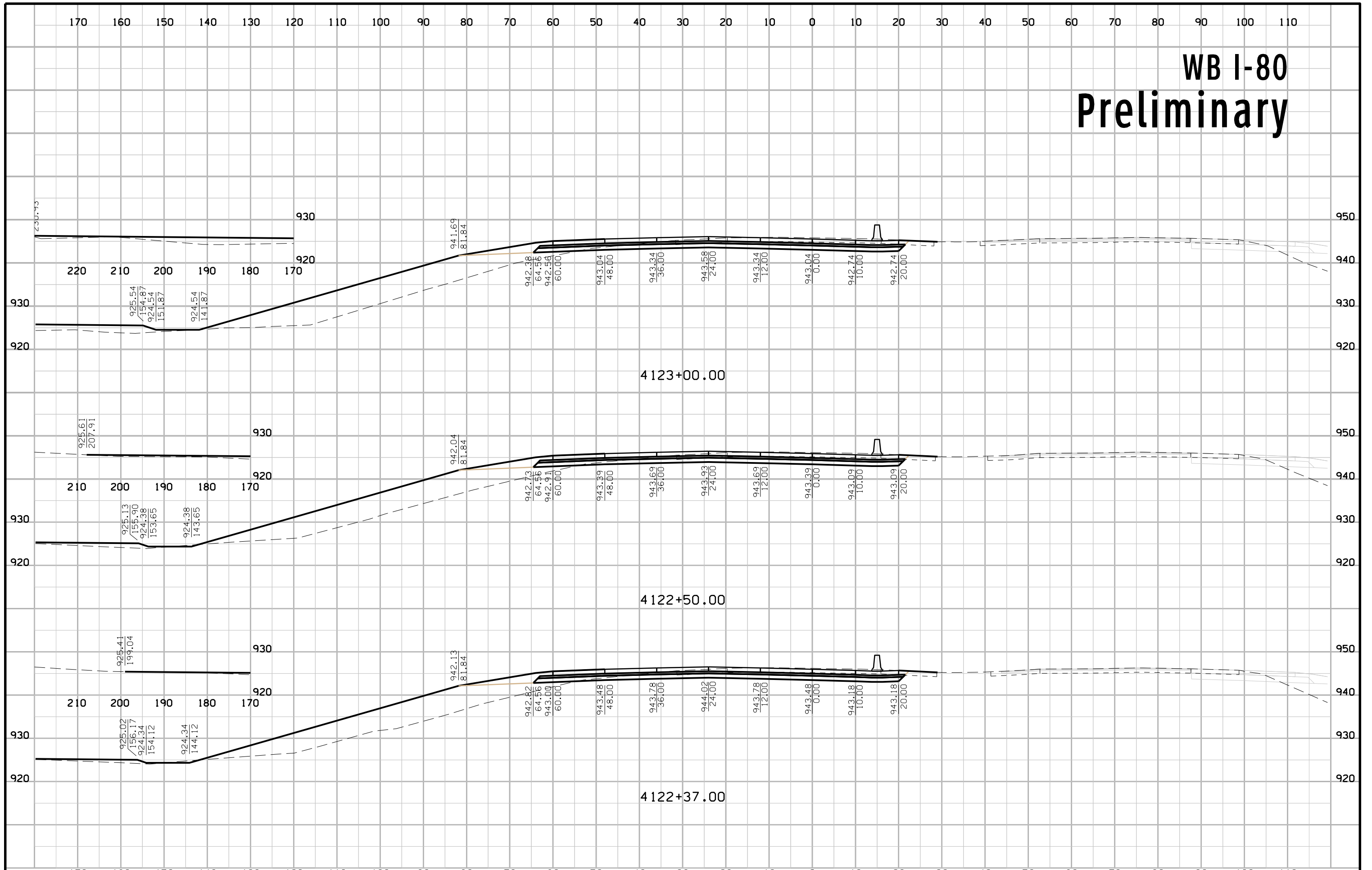
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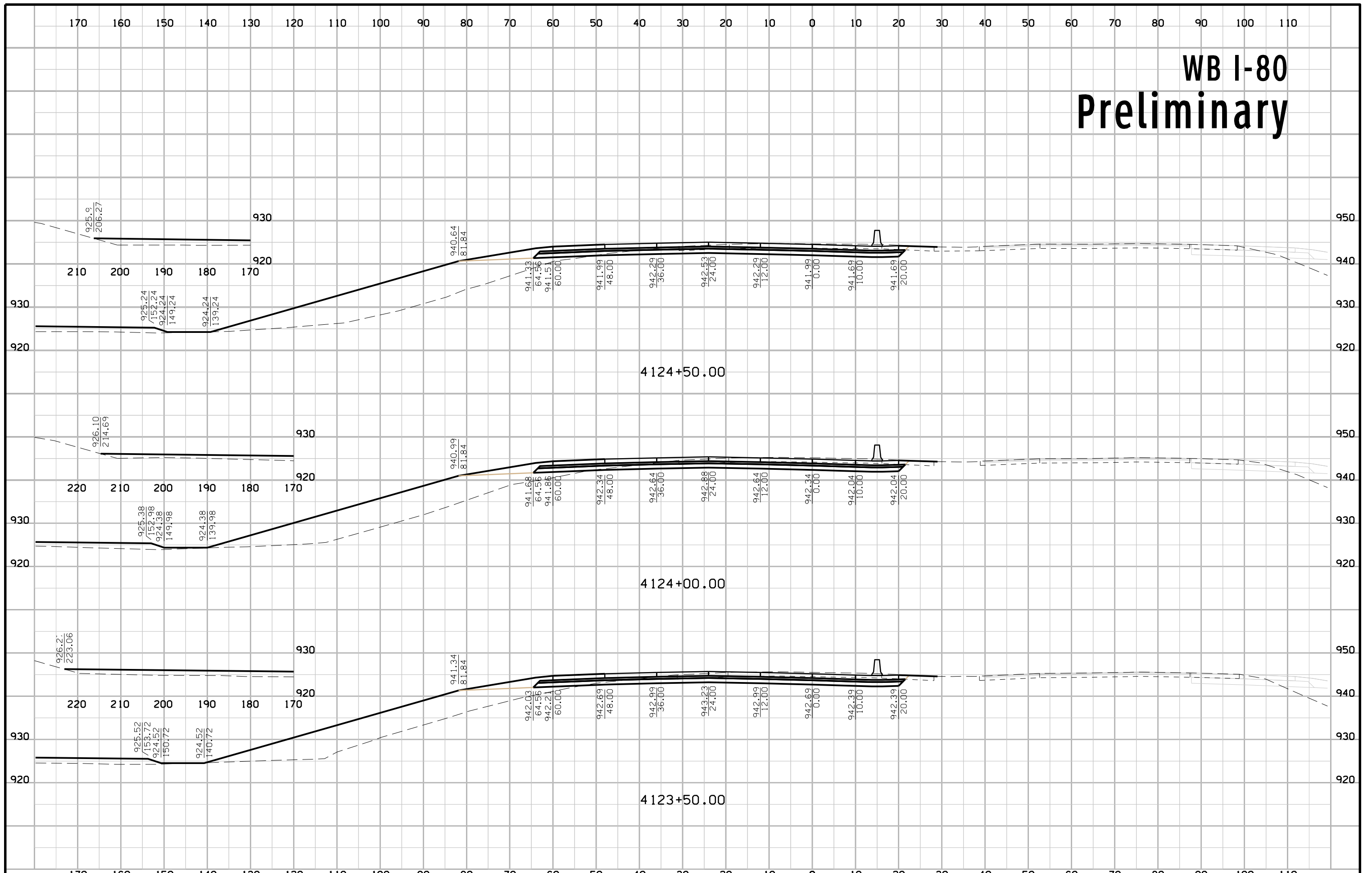
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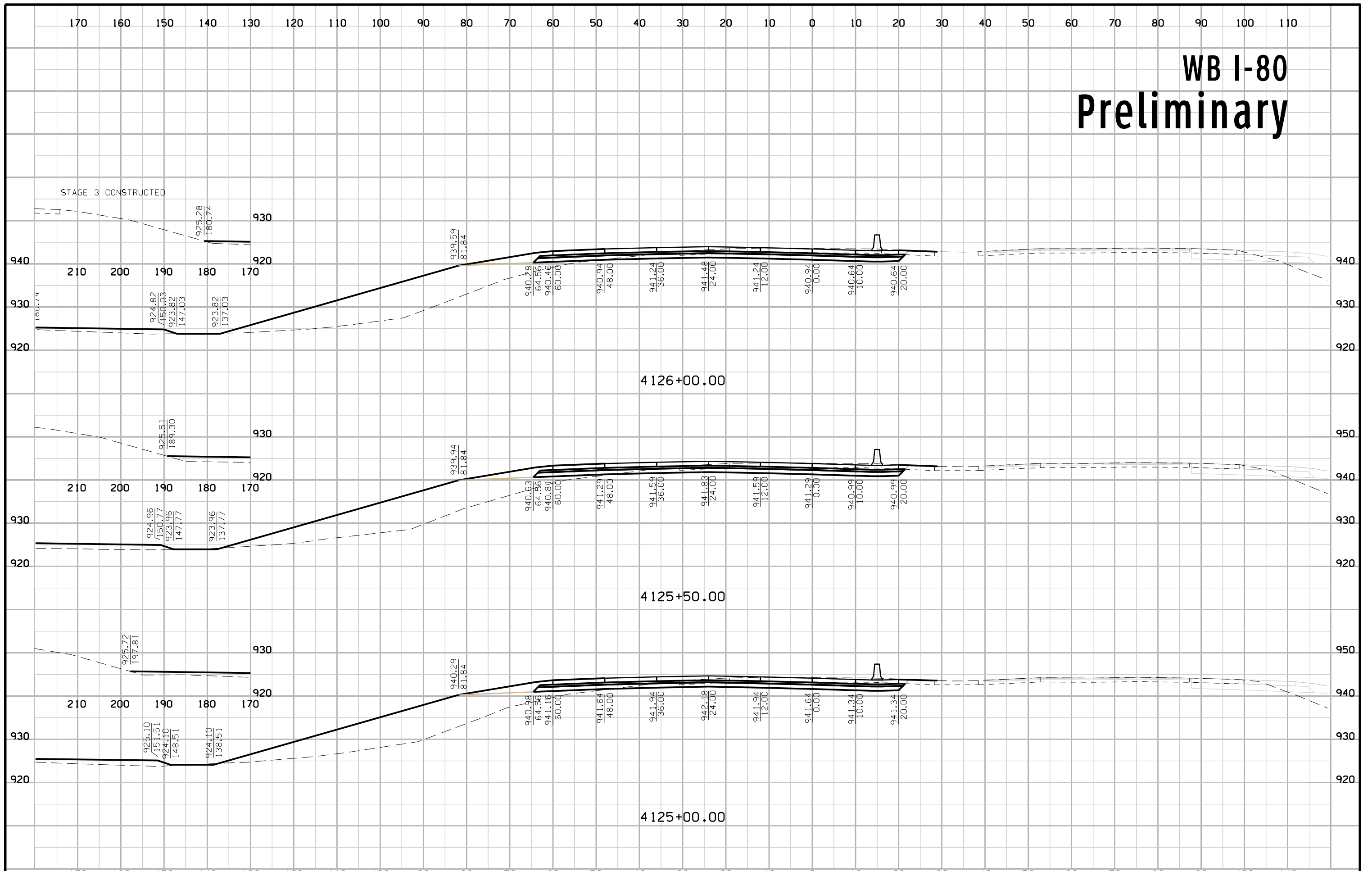
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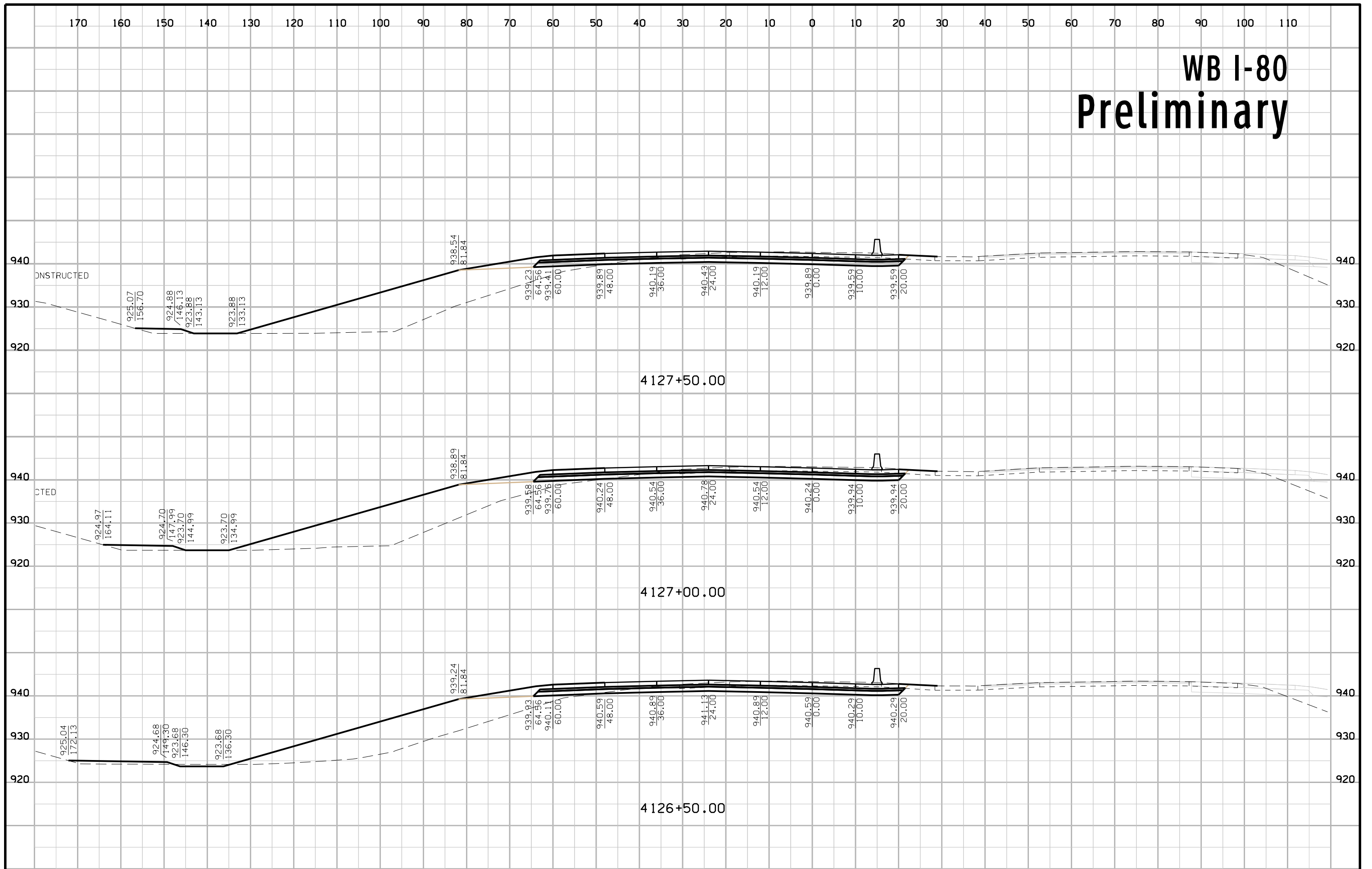
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WB I-80 Preliminary



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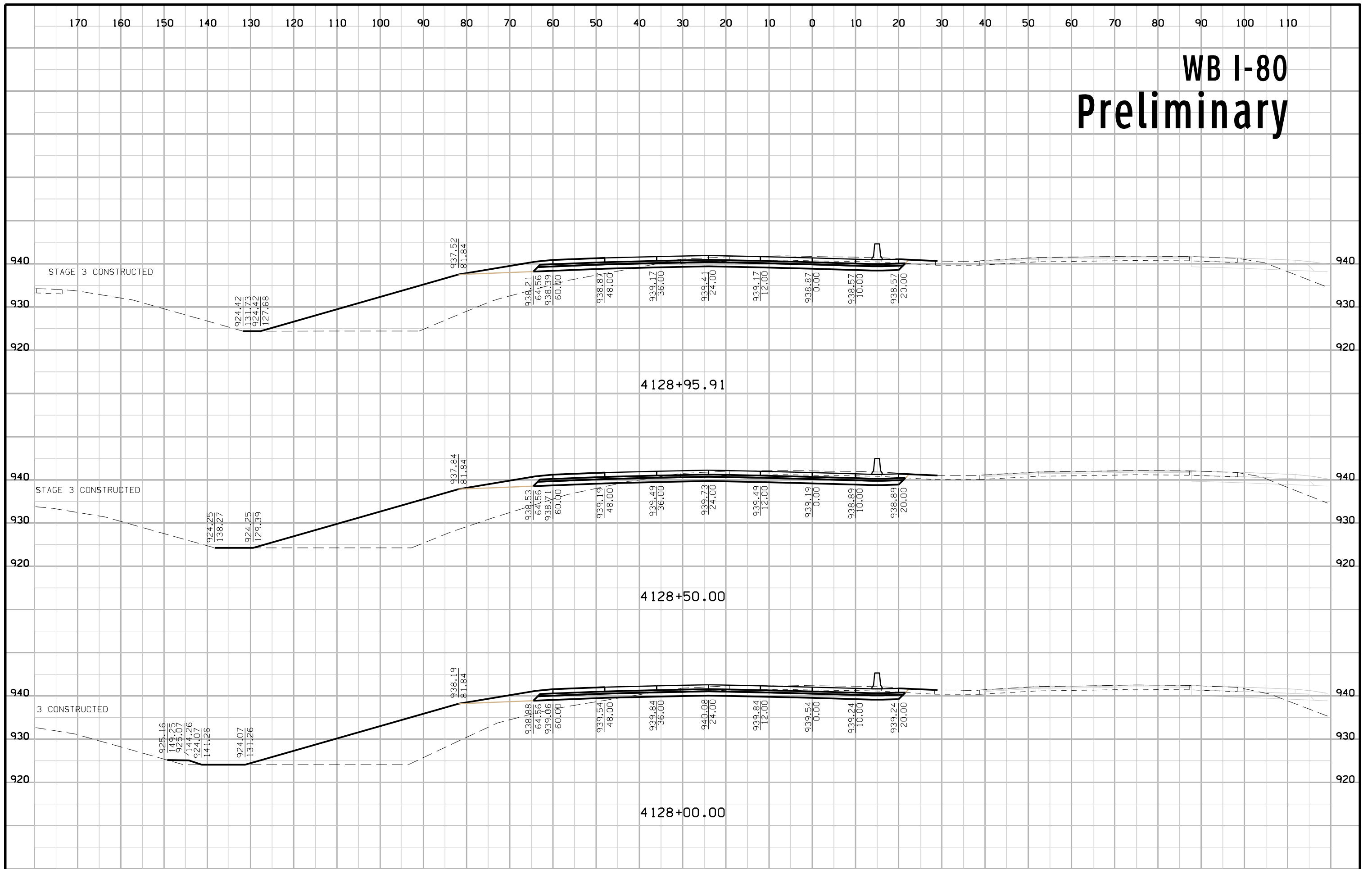


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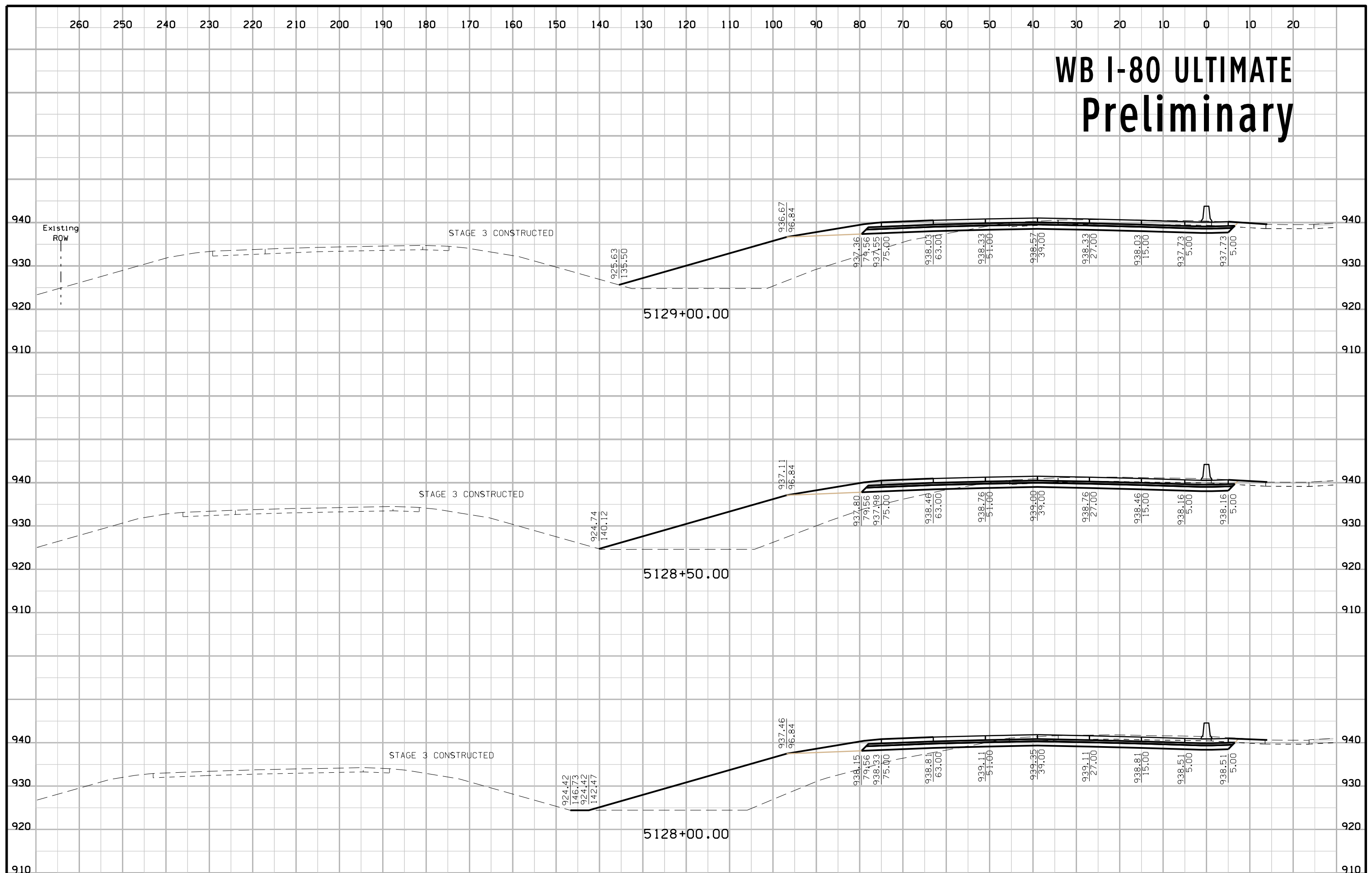
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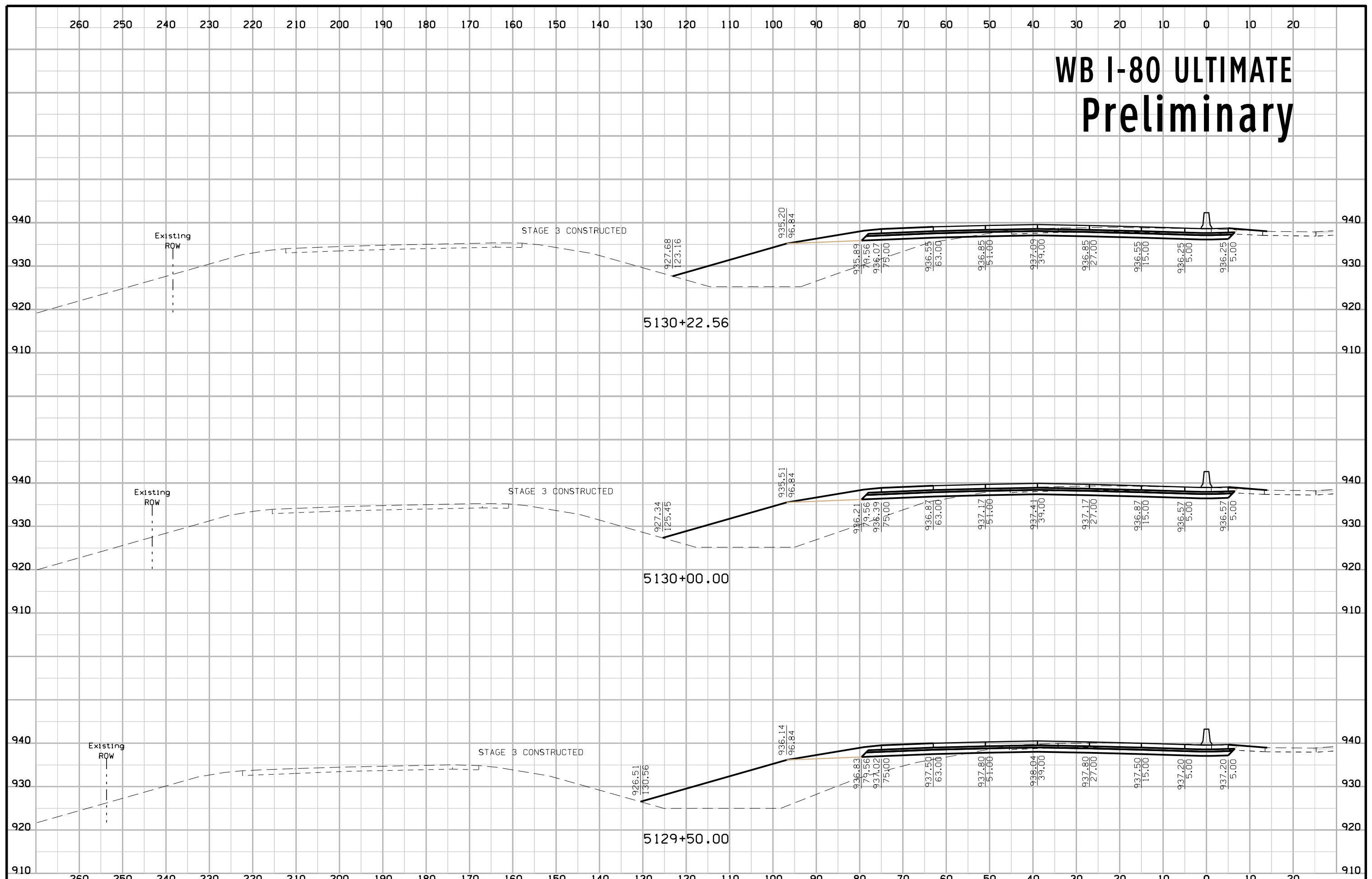
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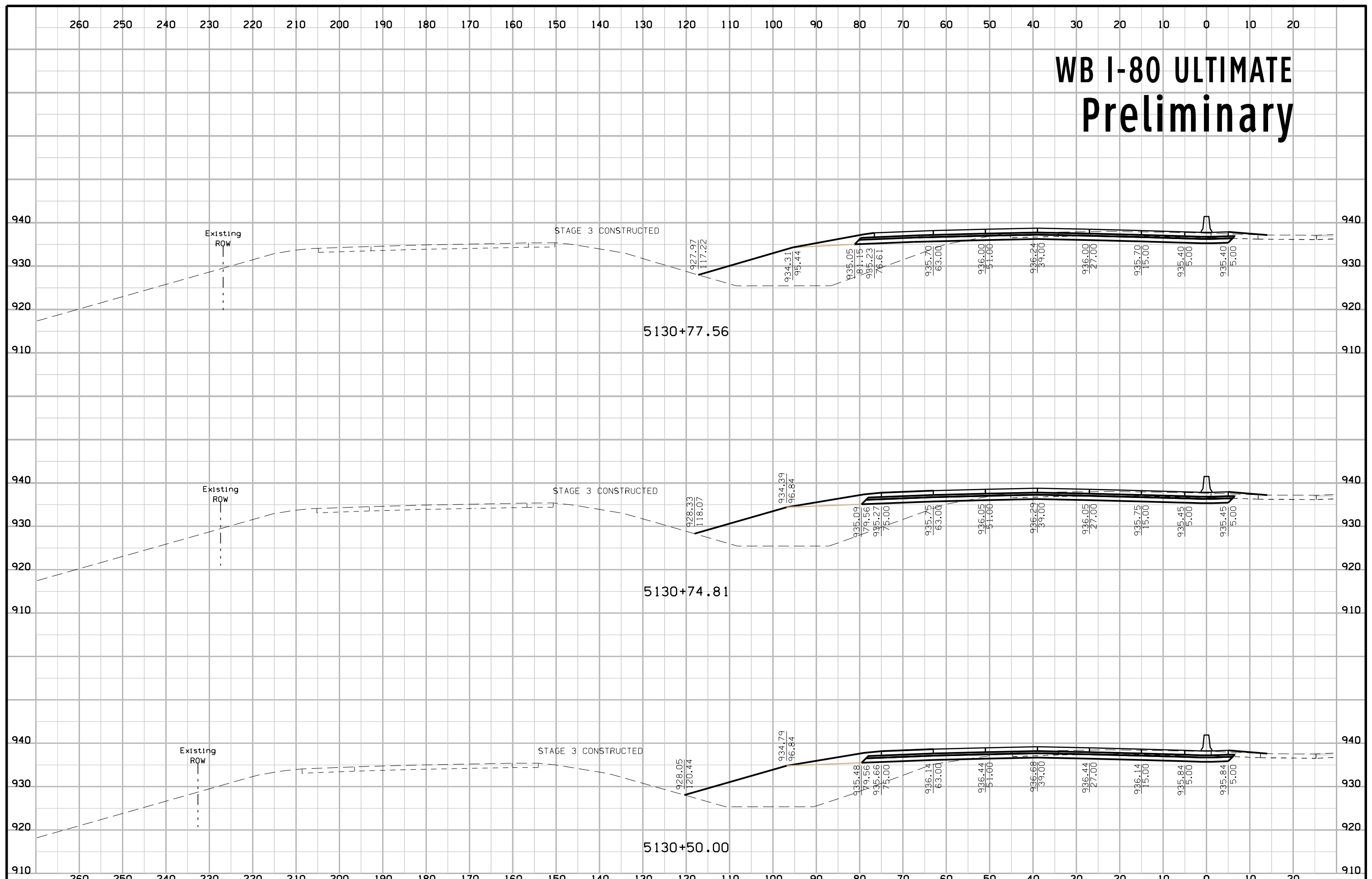
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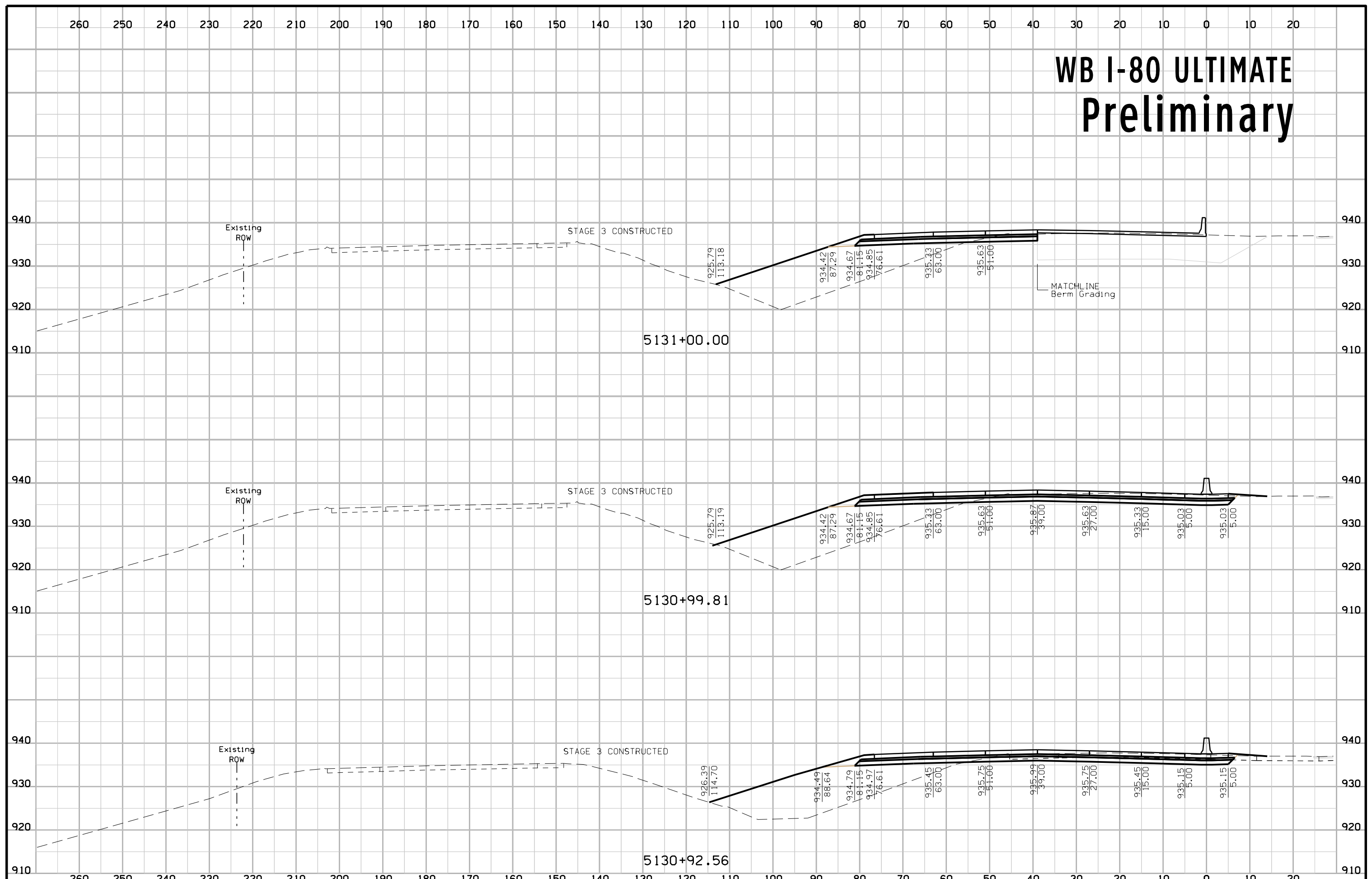
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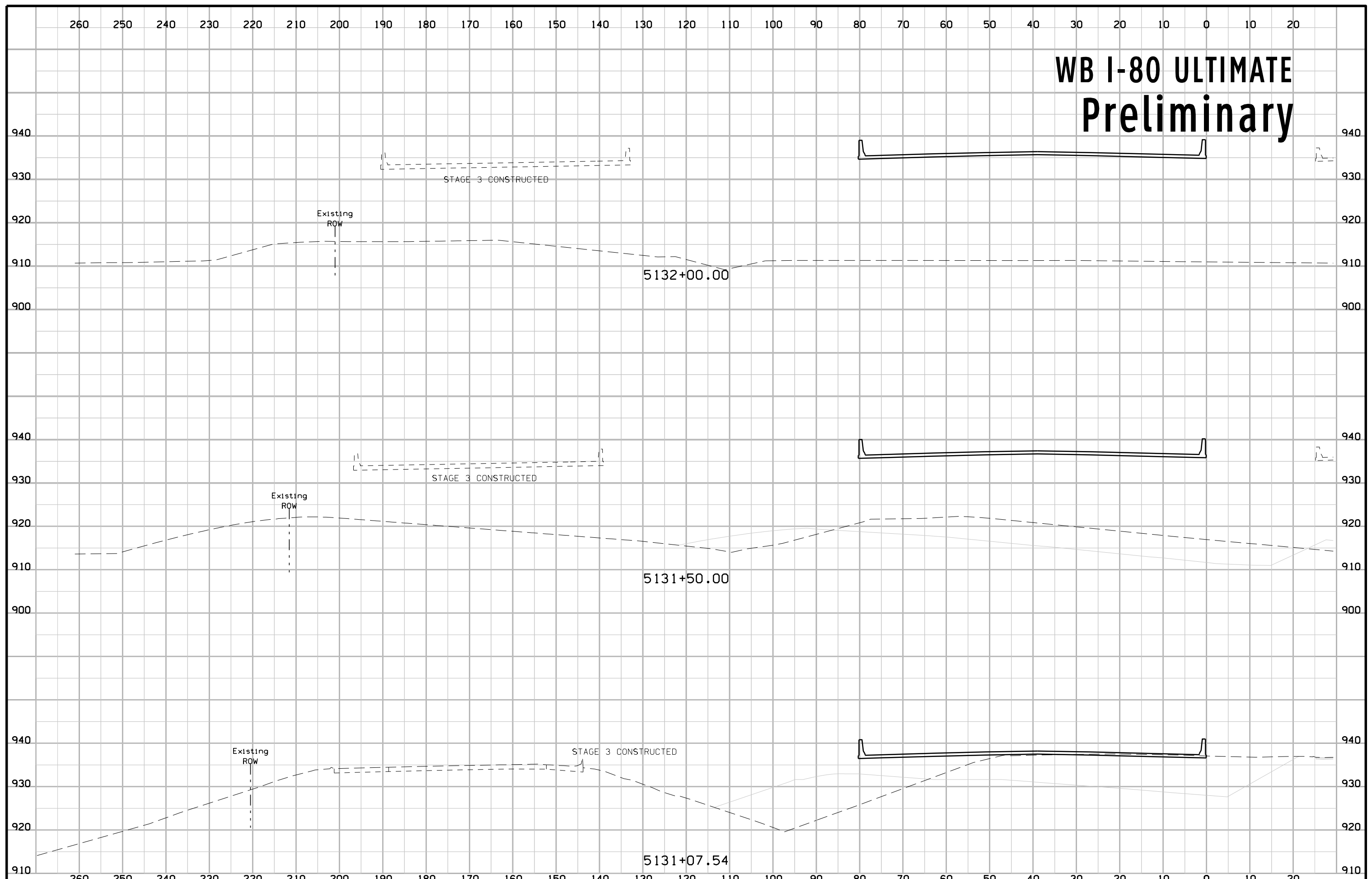
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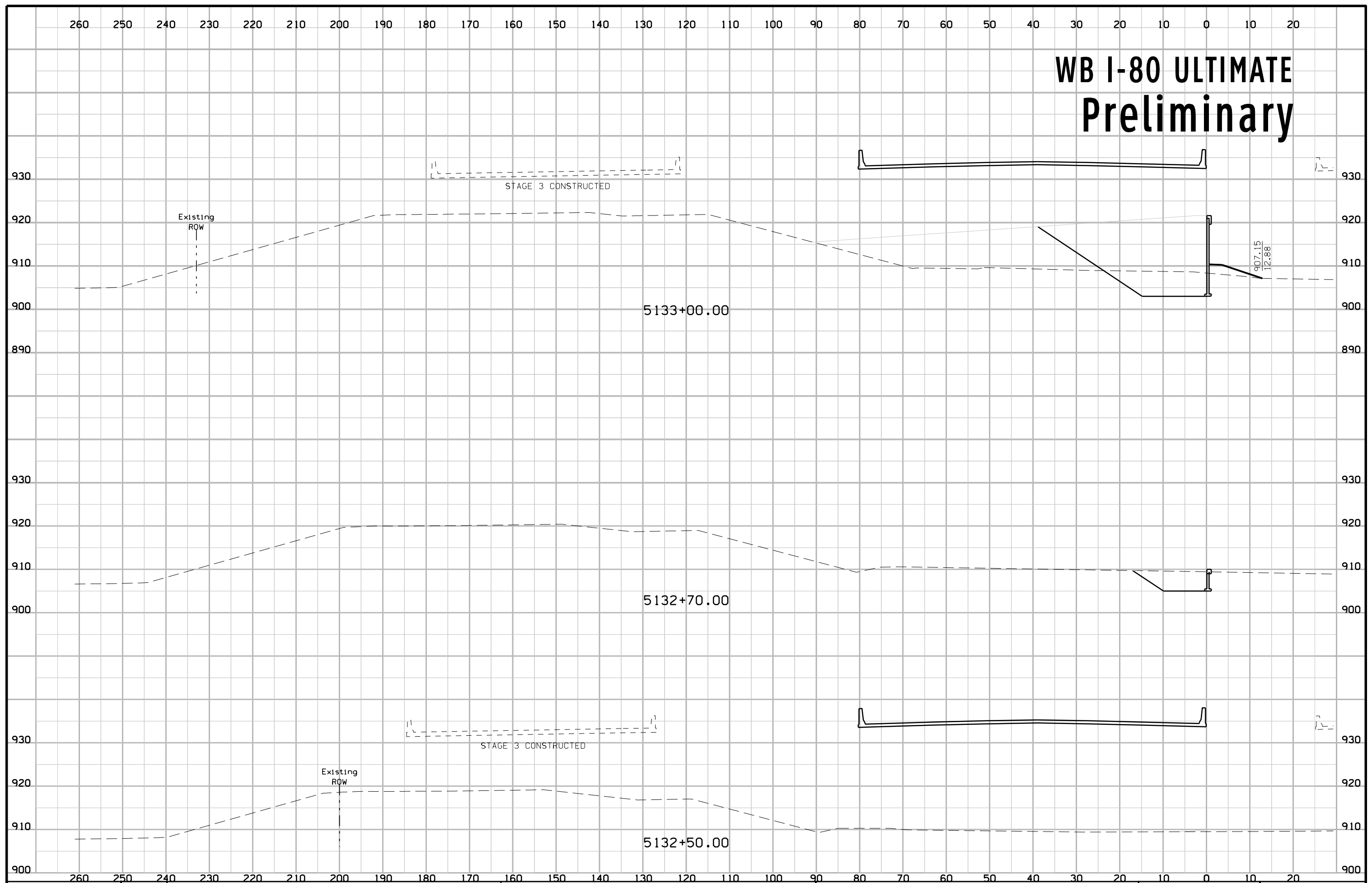
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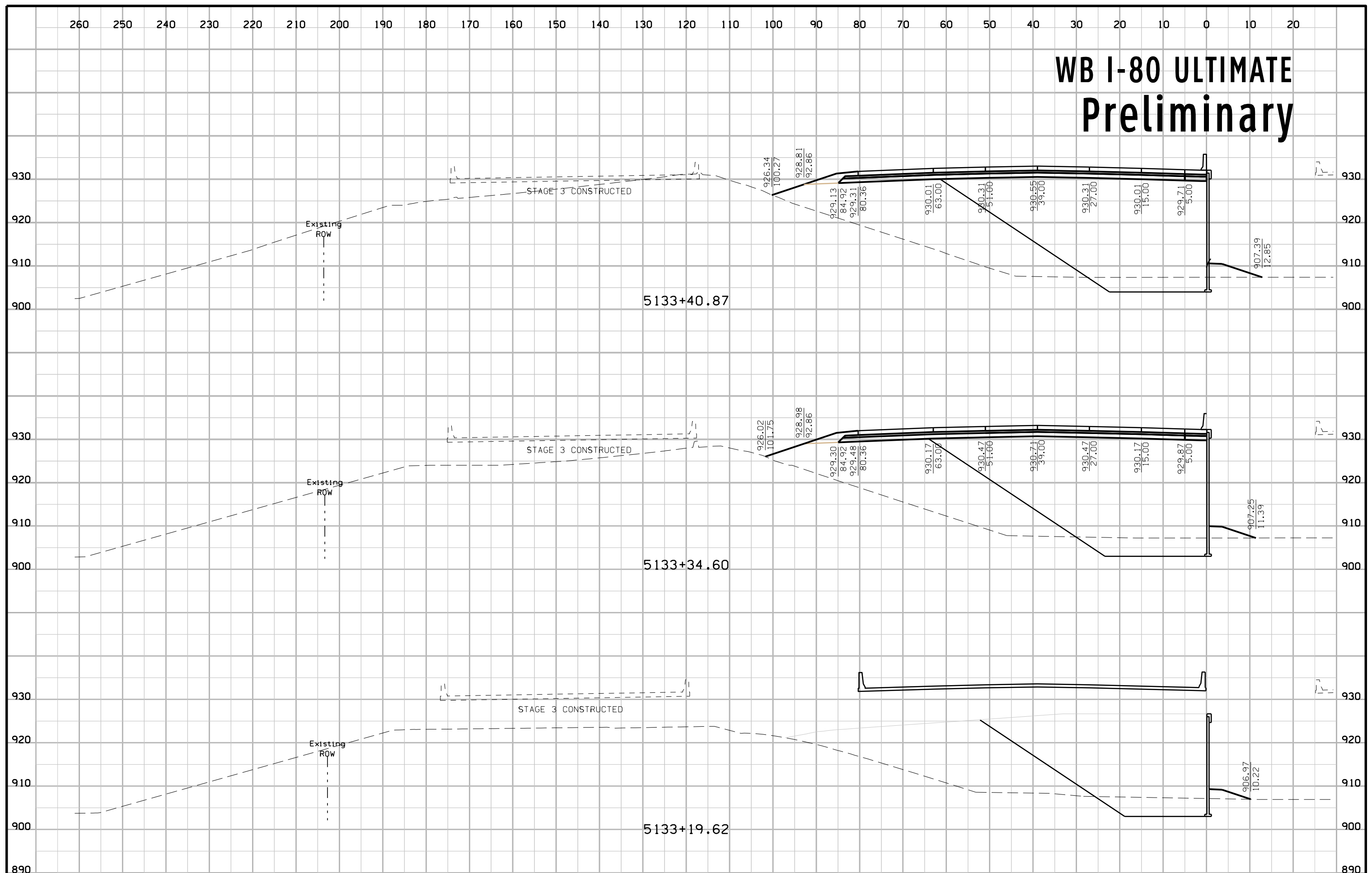
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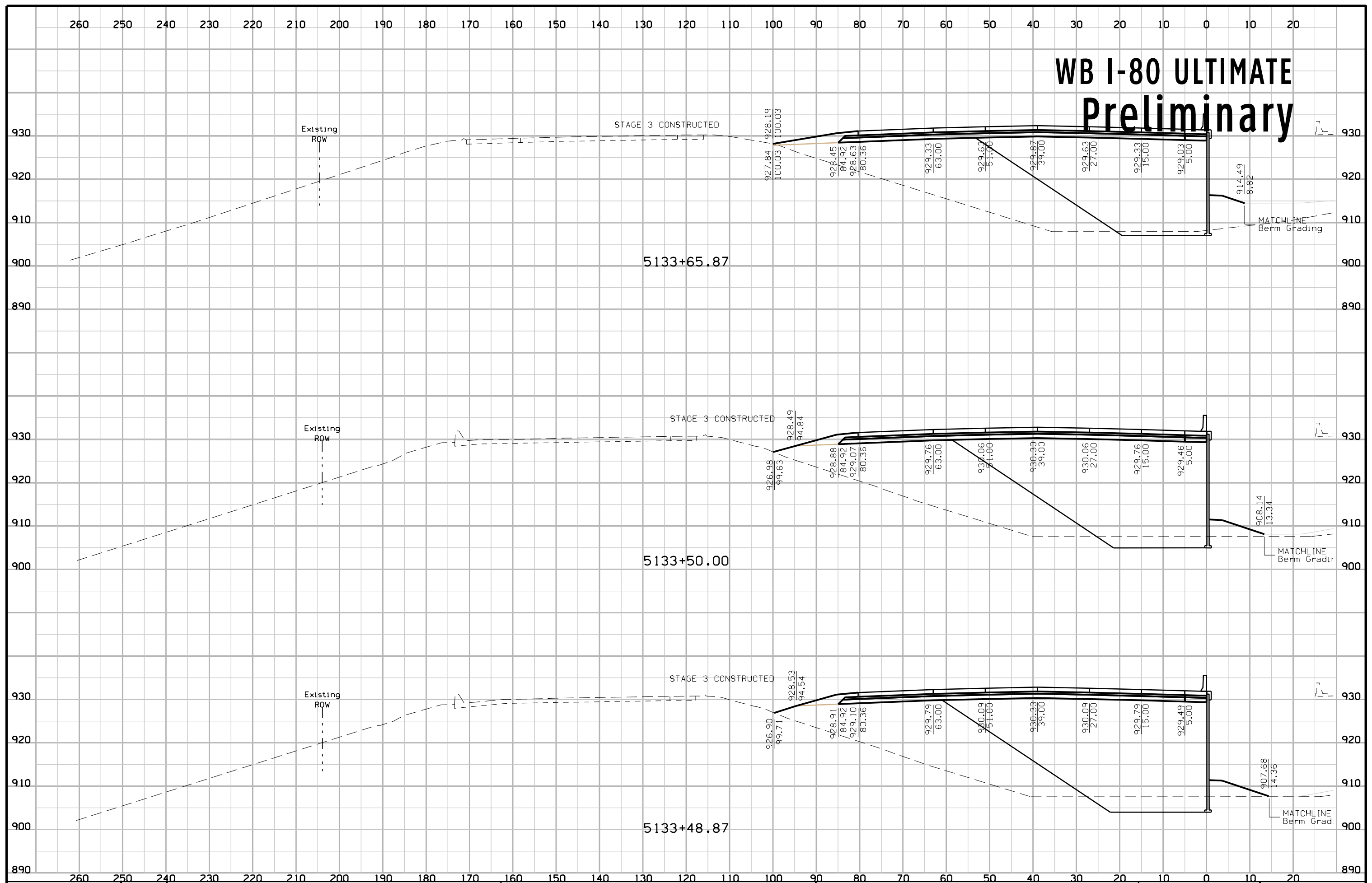
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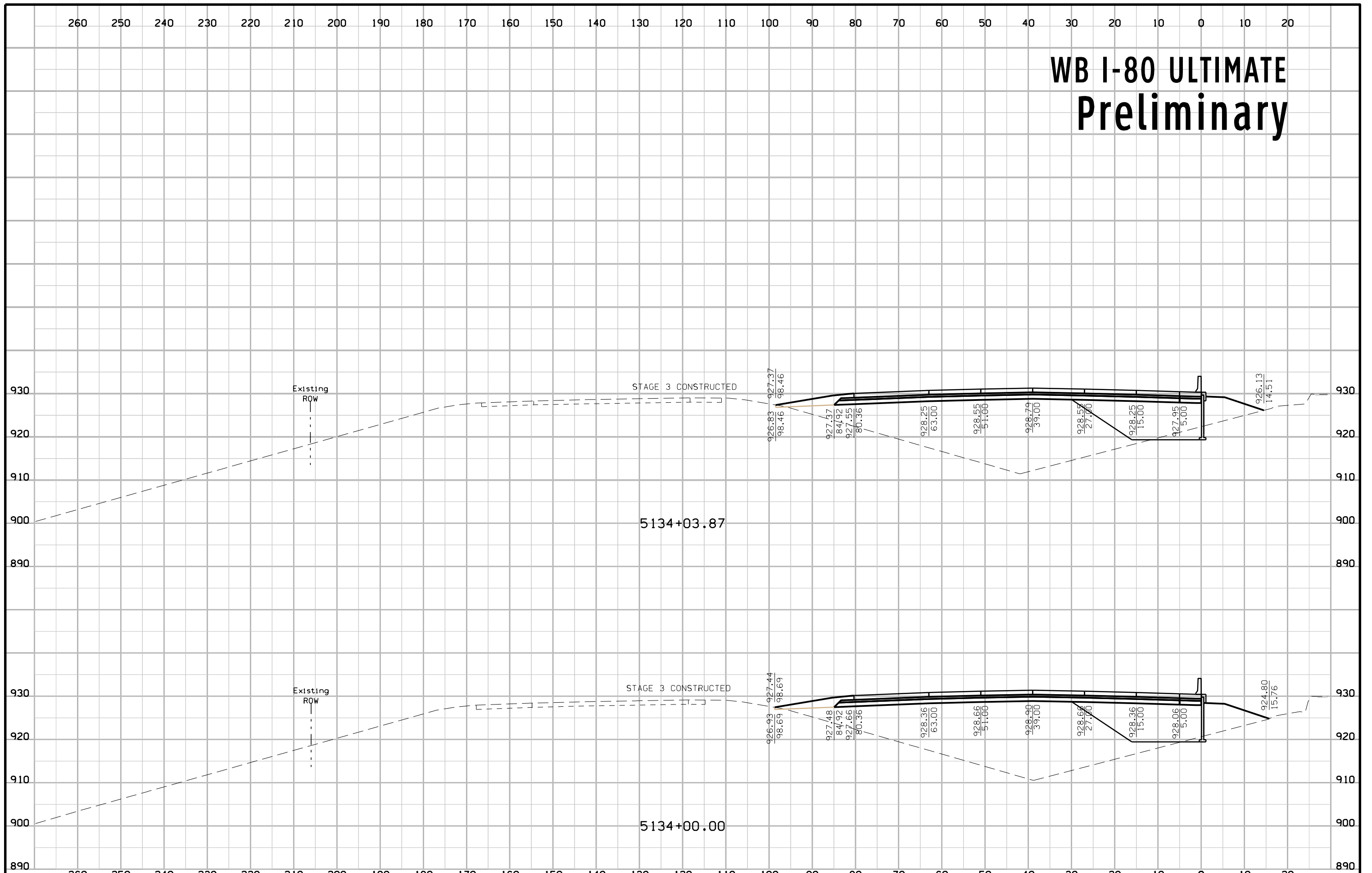
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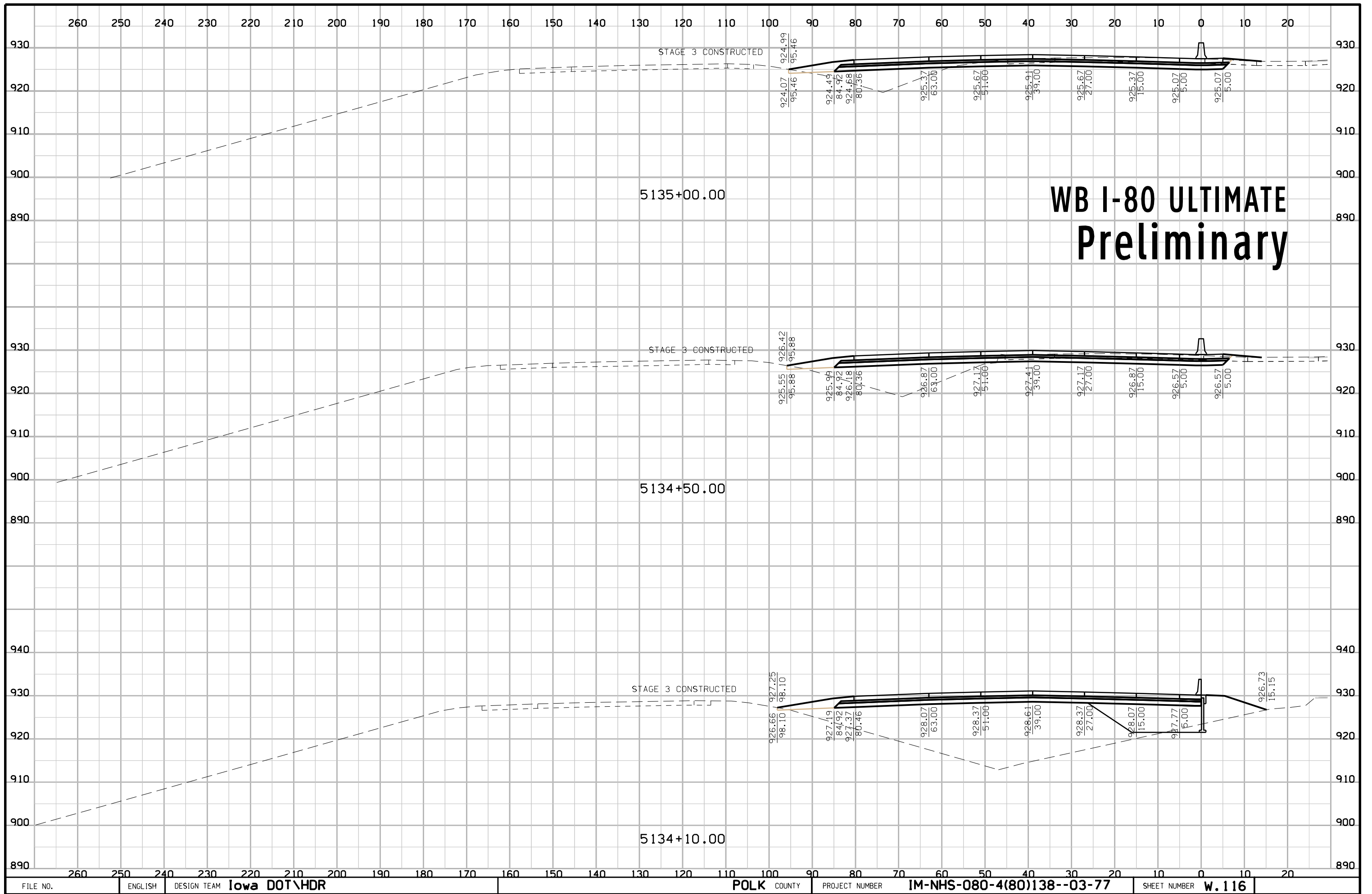


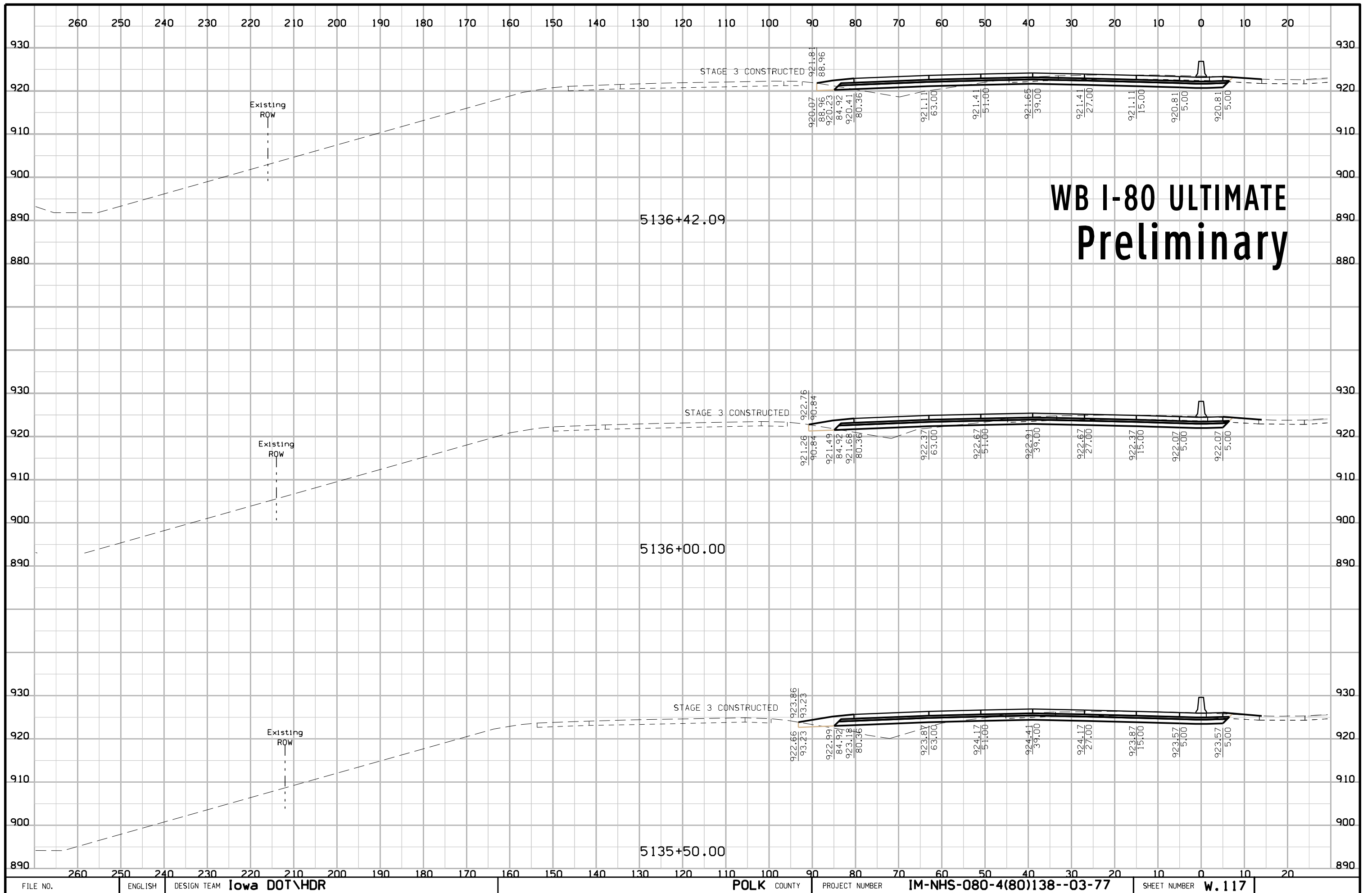
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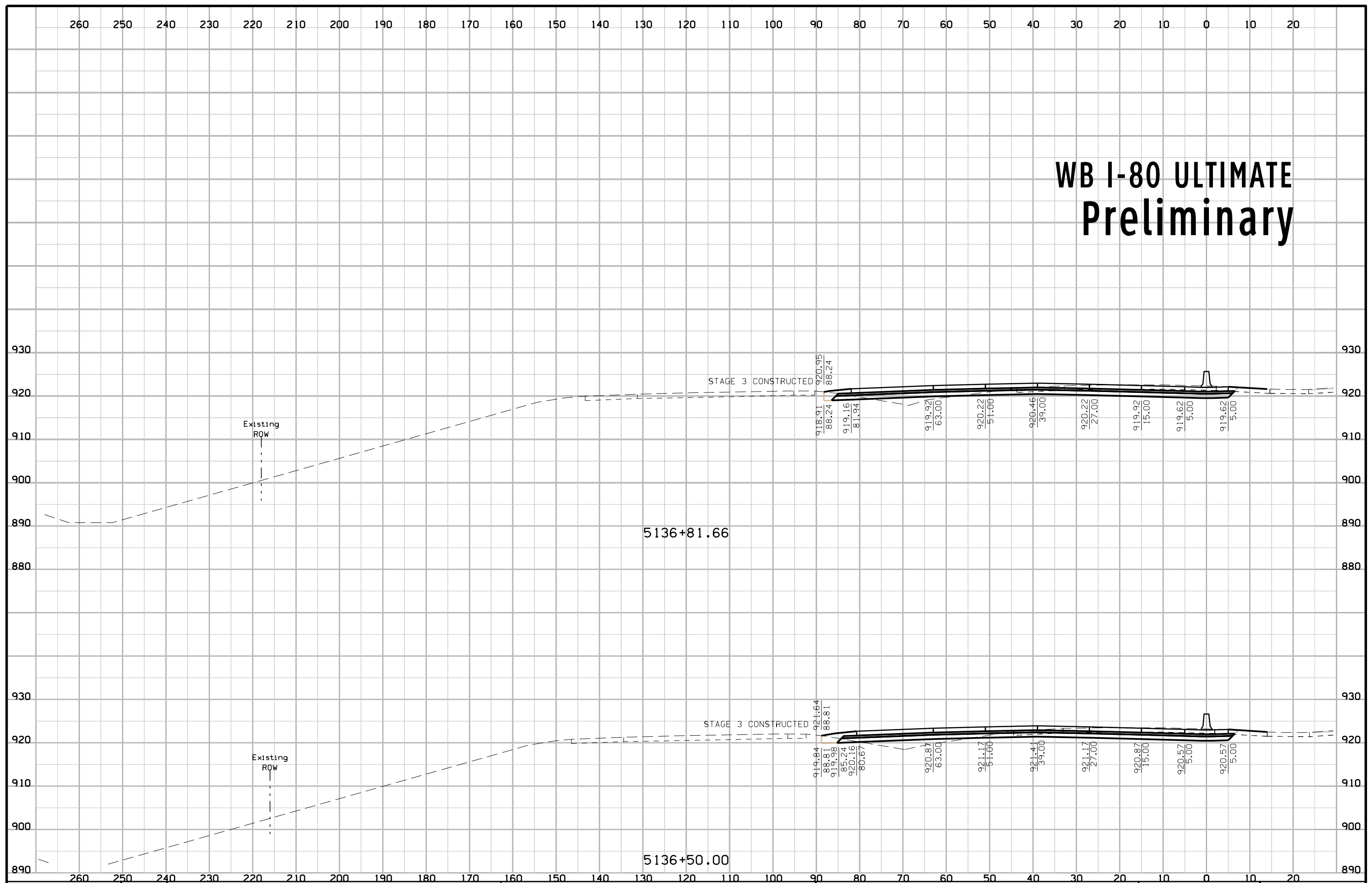
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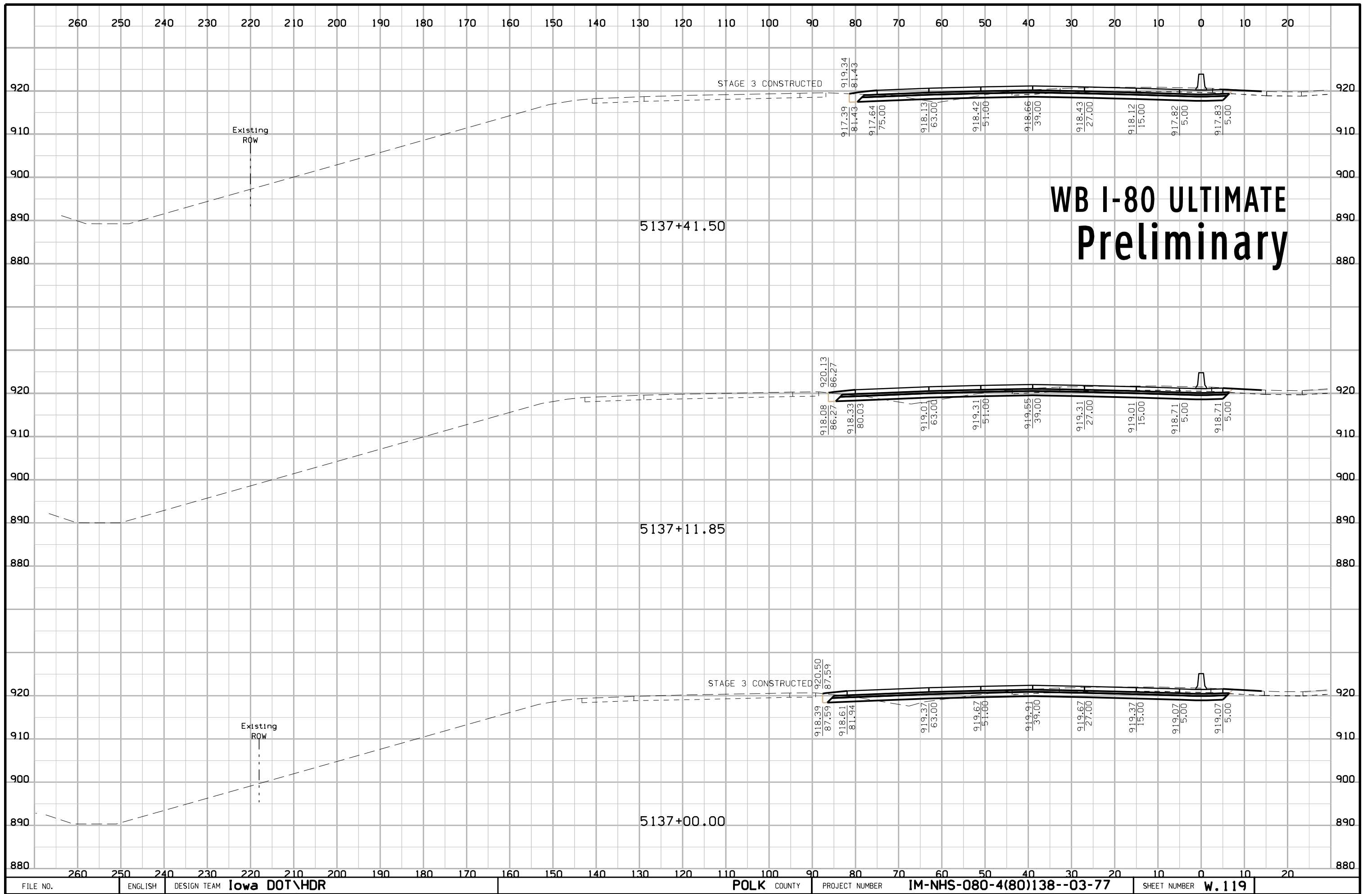


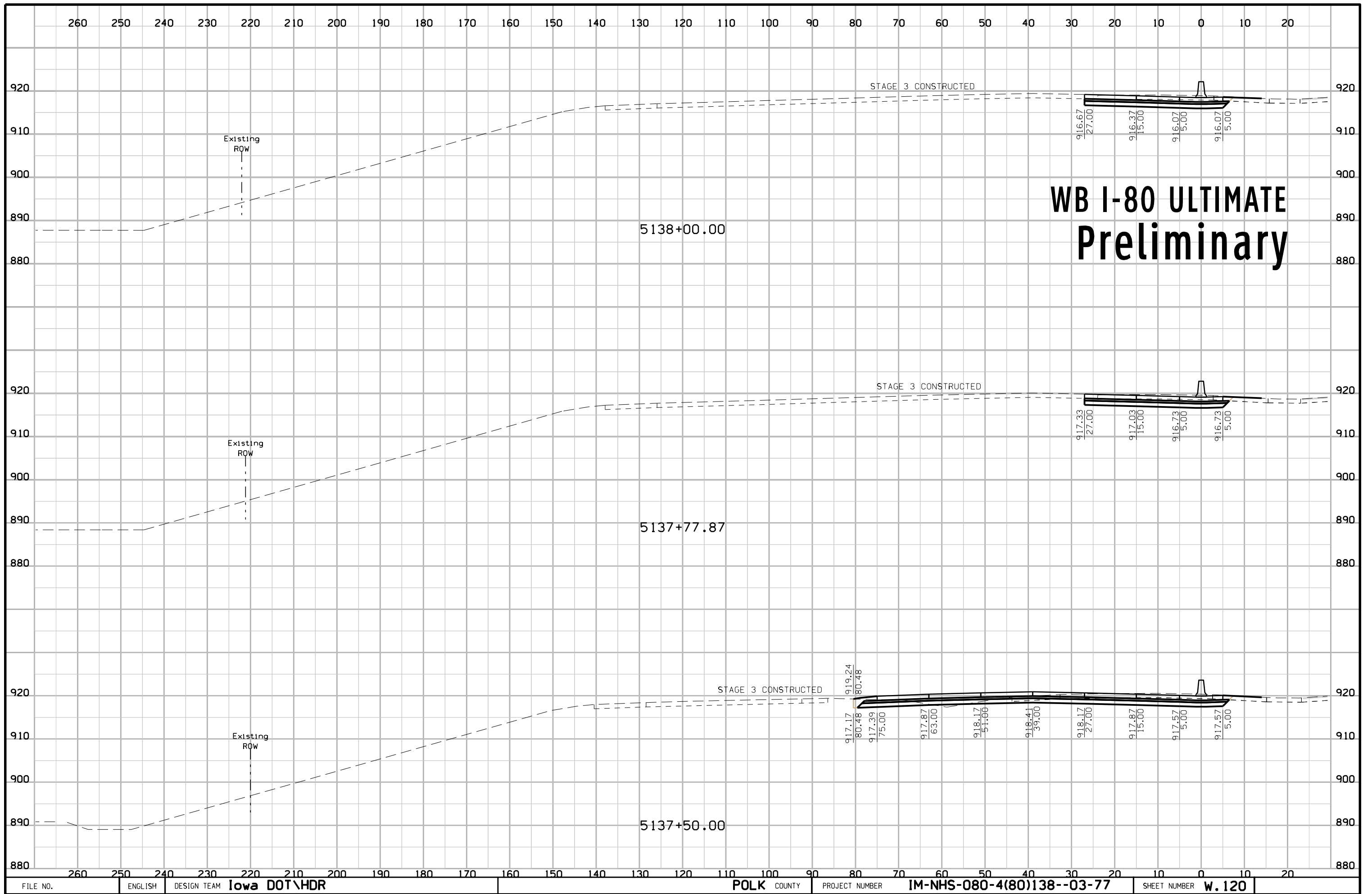


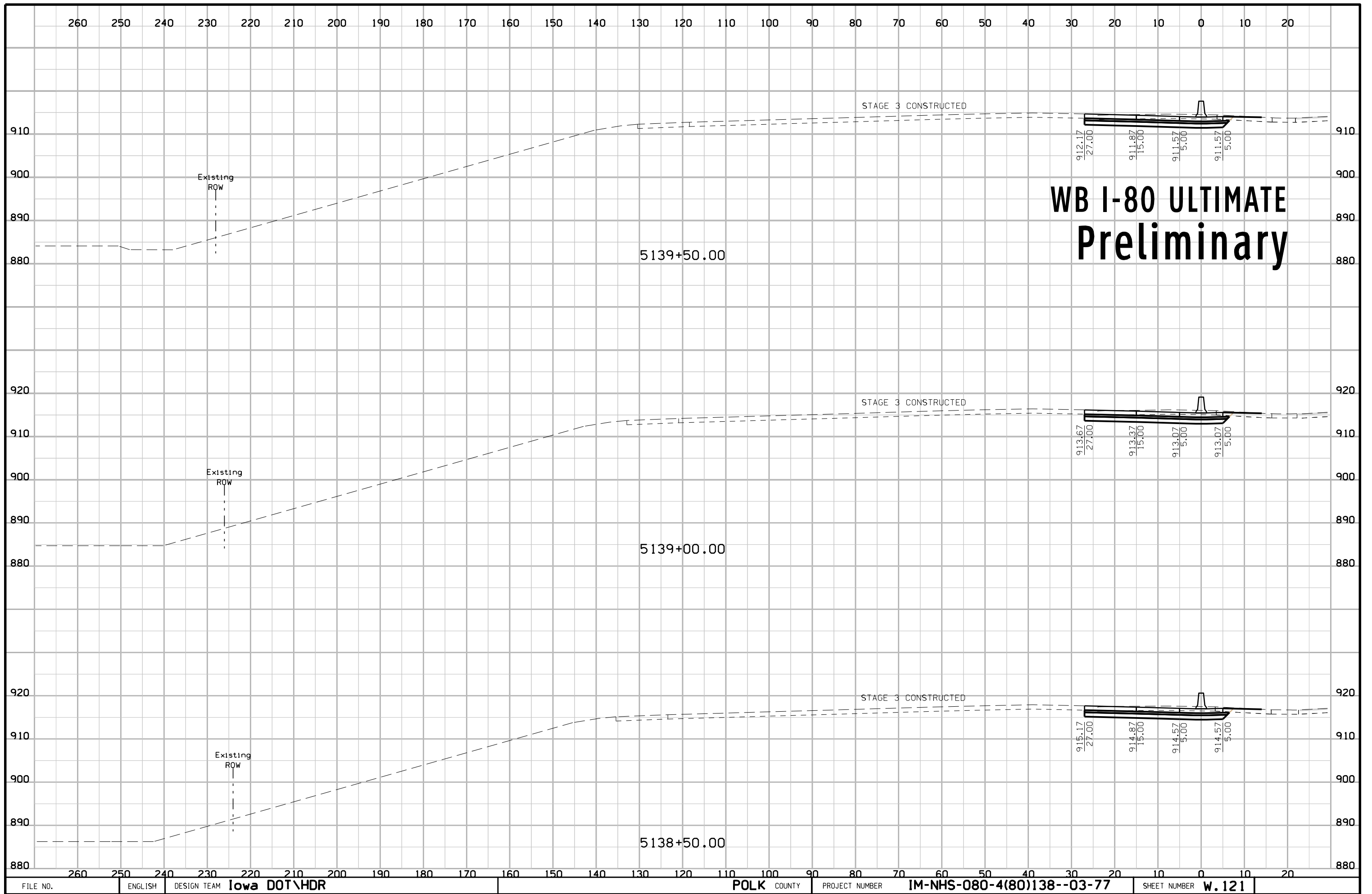


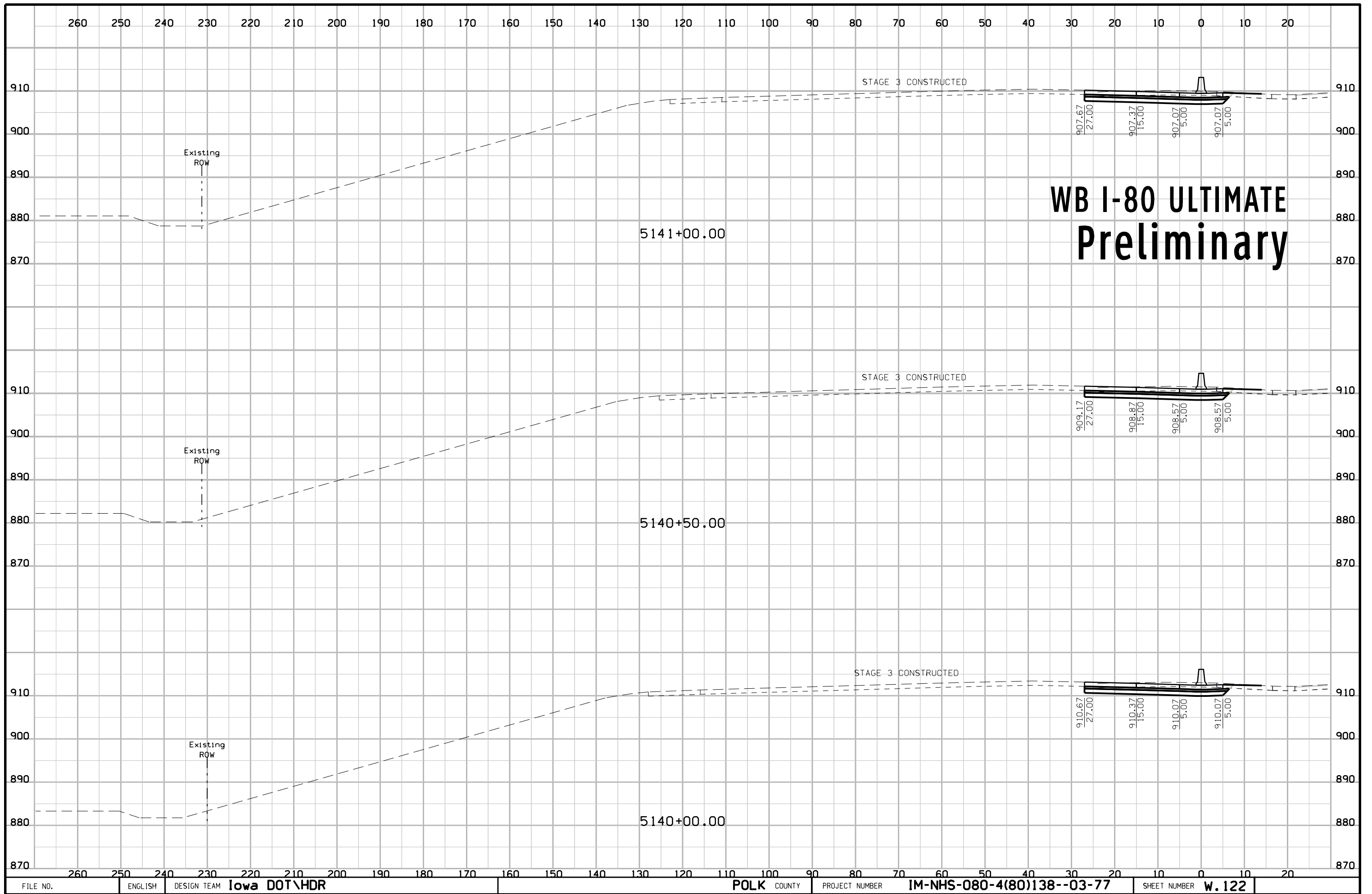
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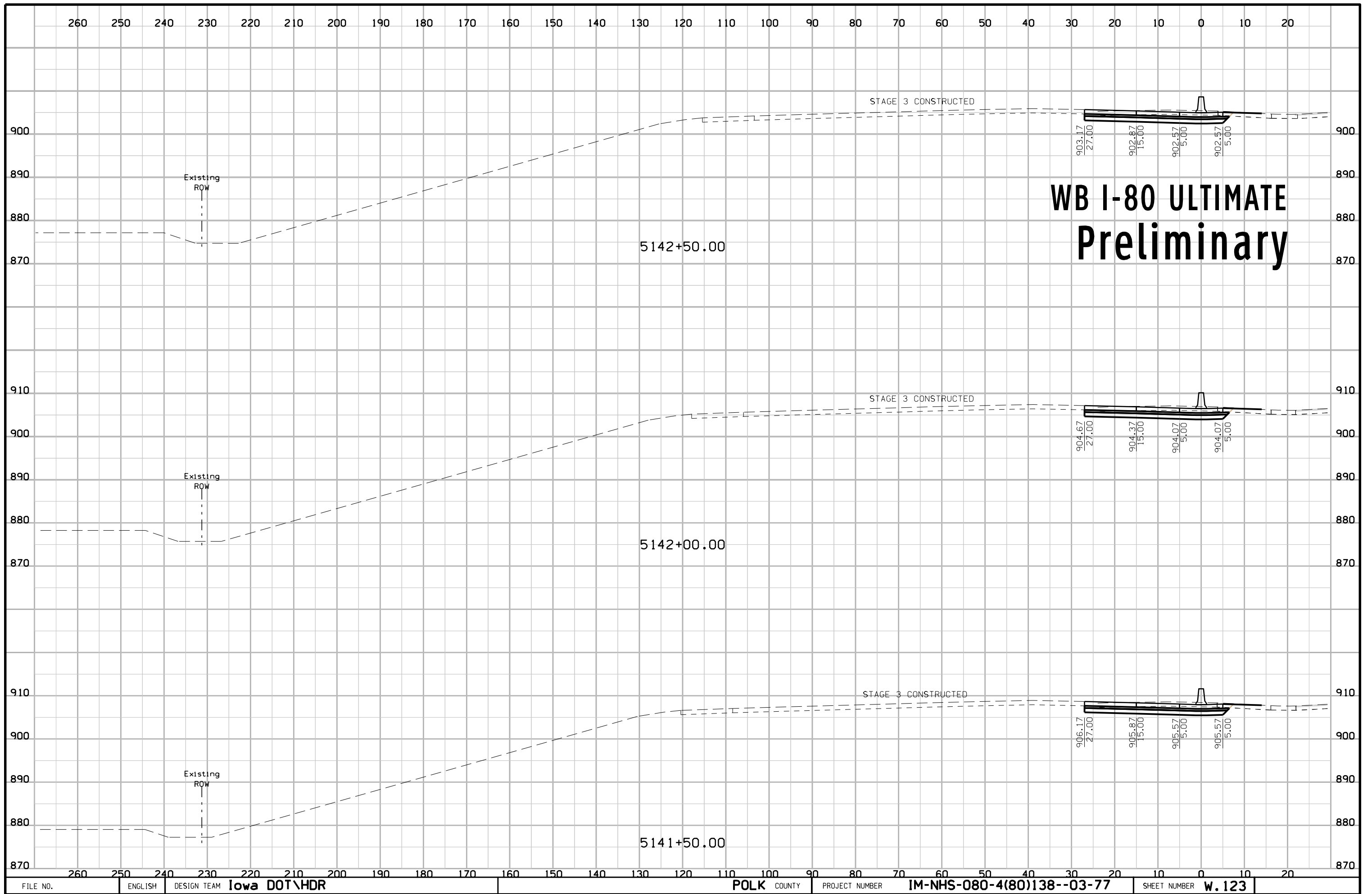






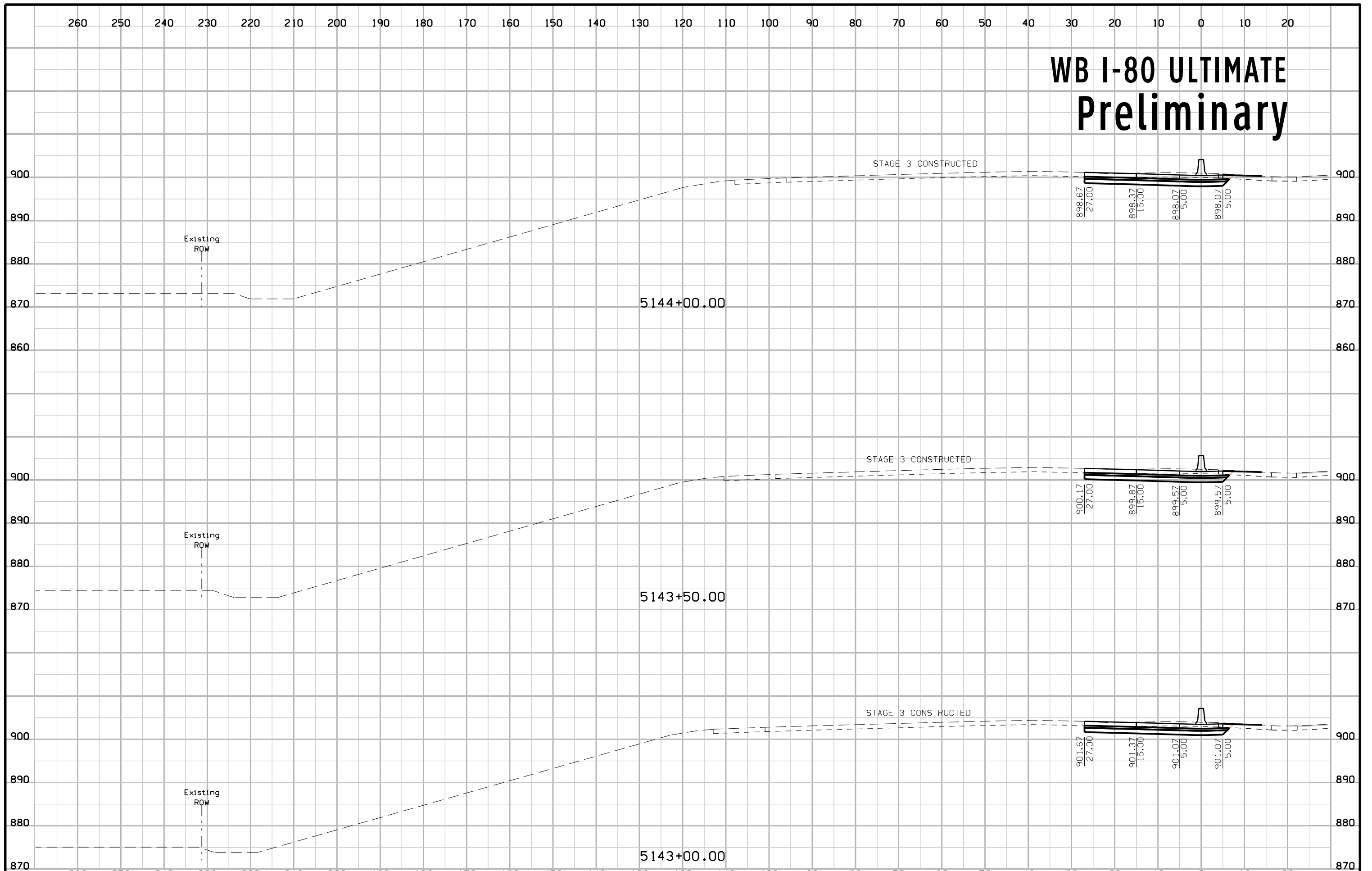


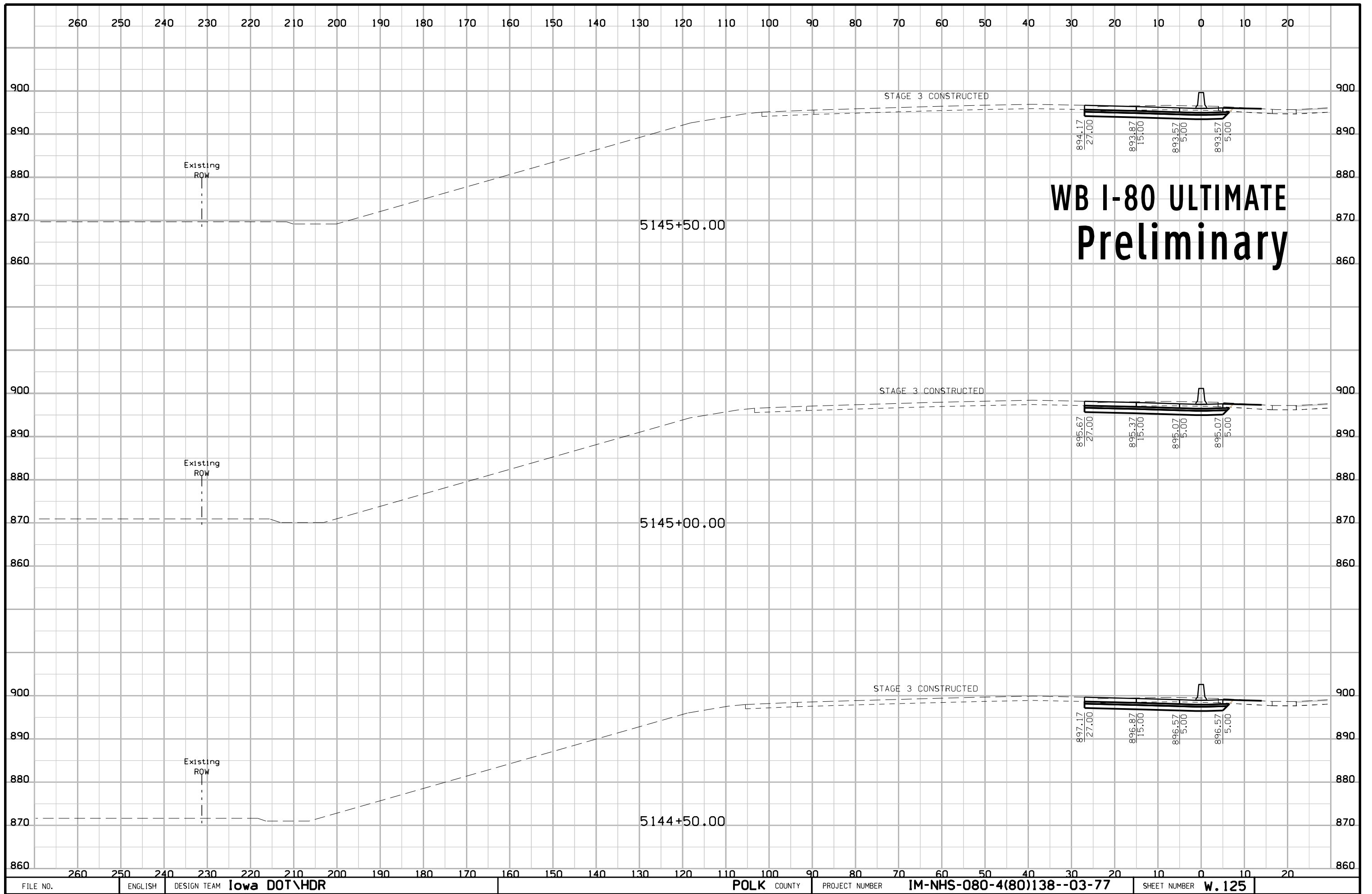




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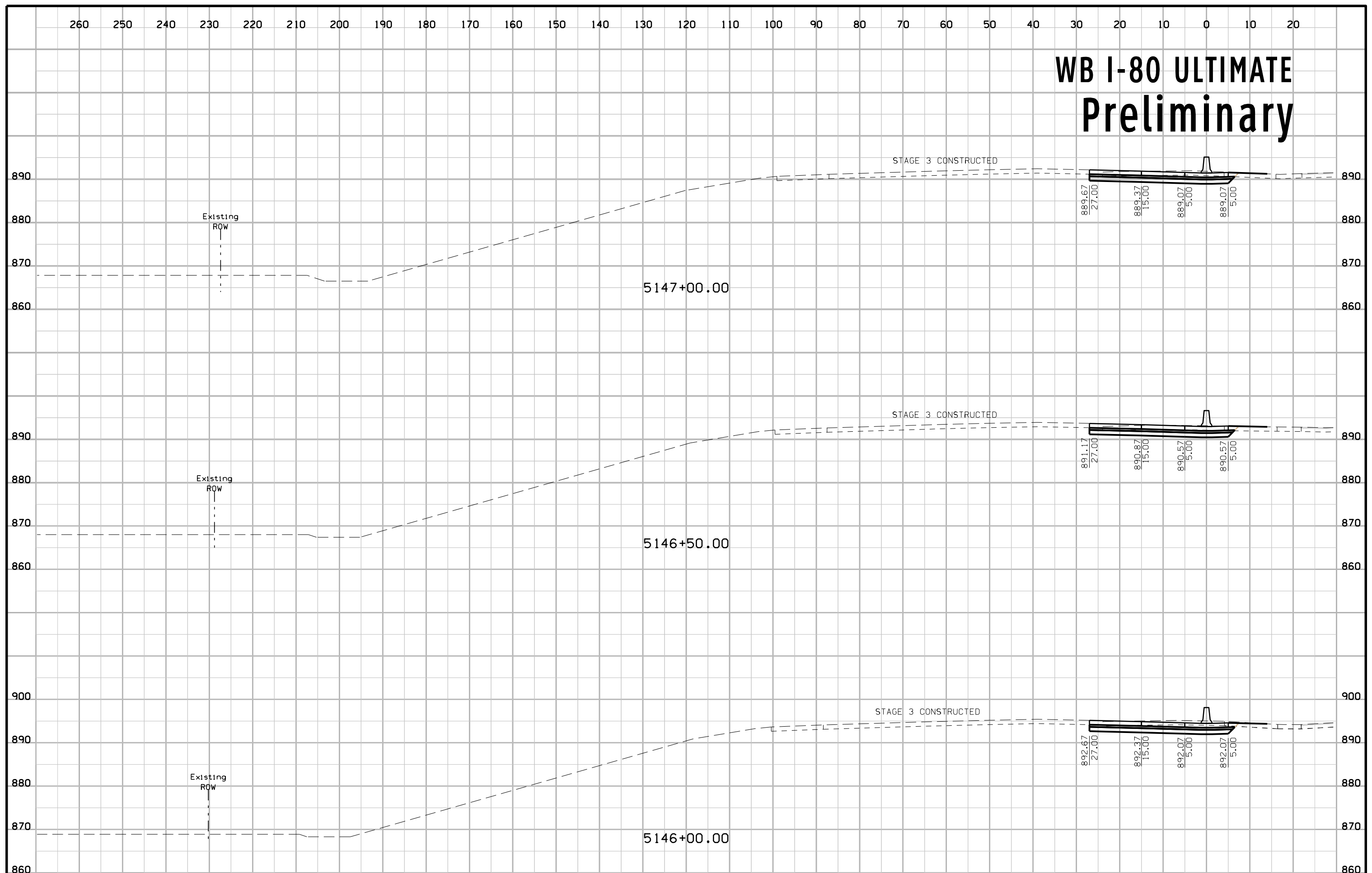
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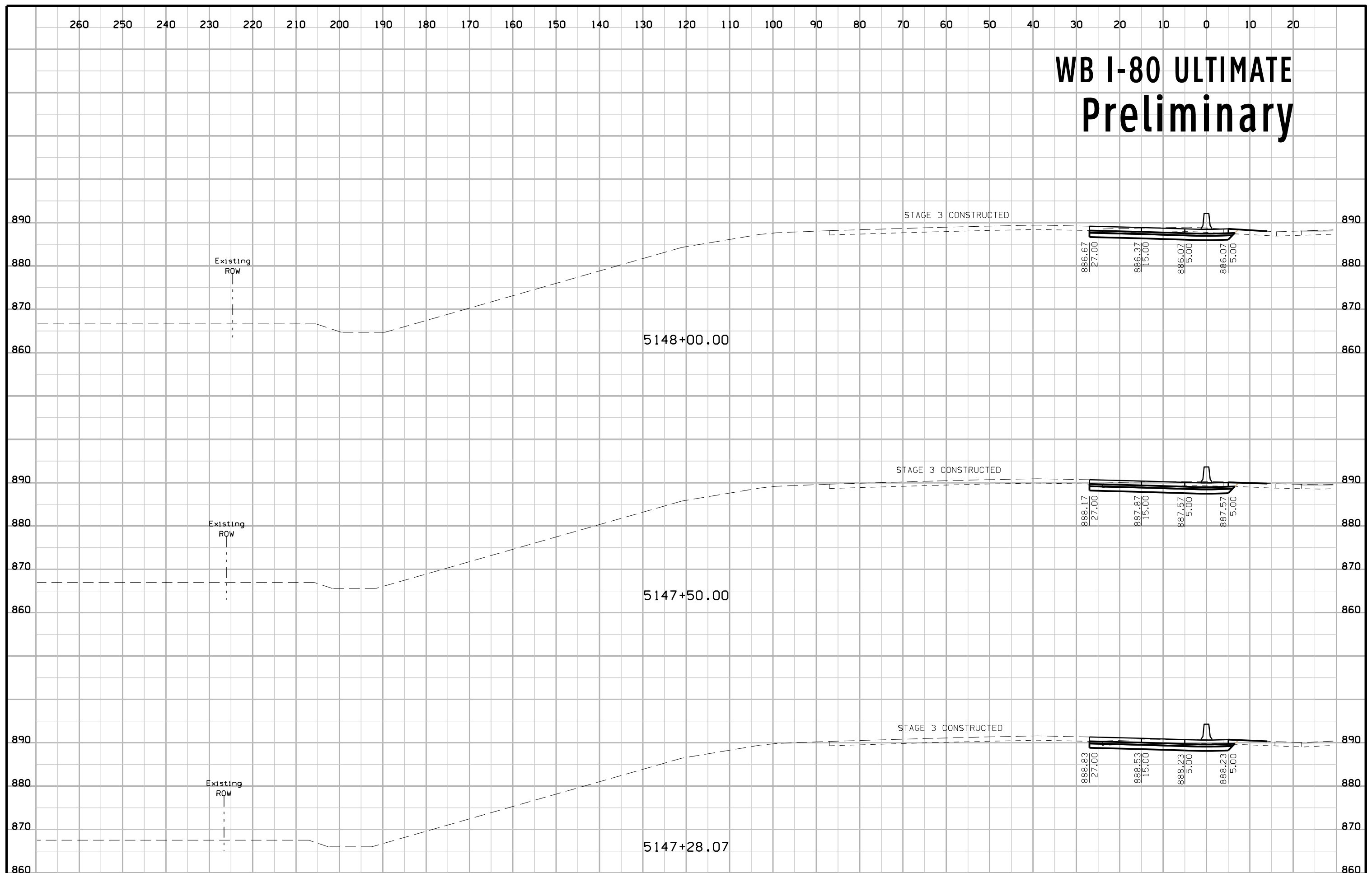


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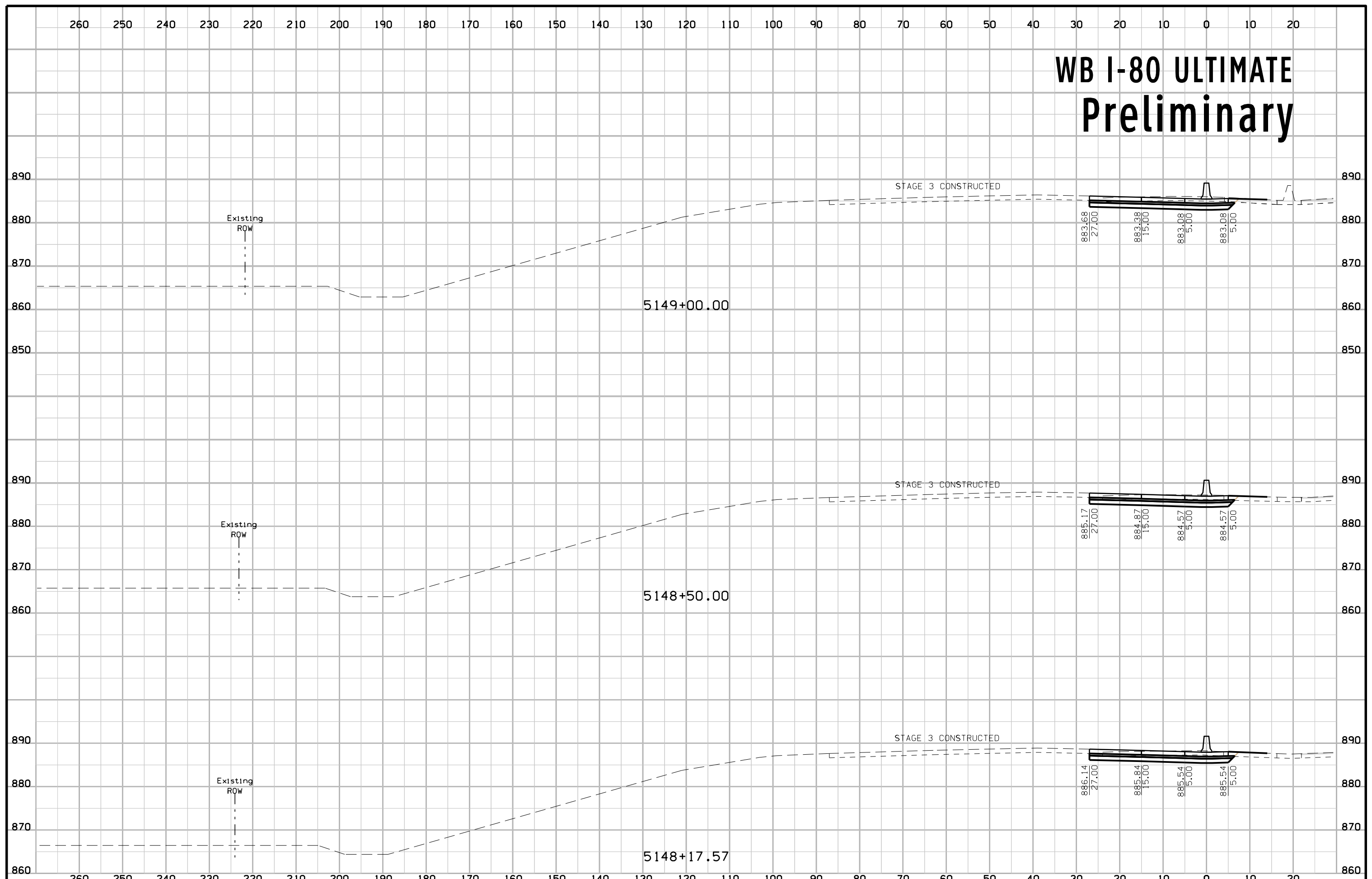
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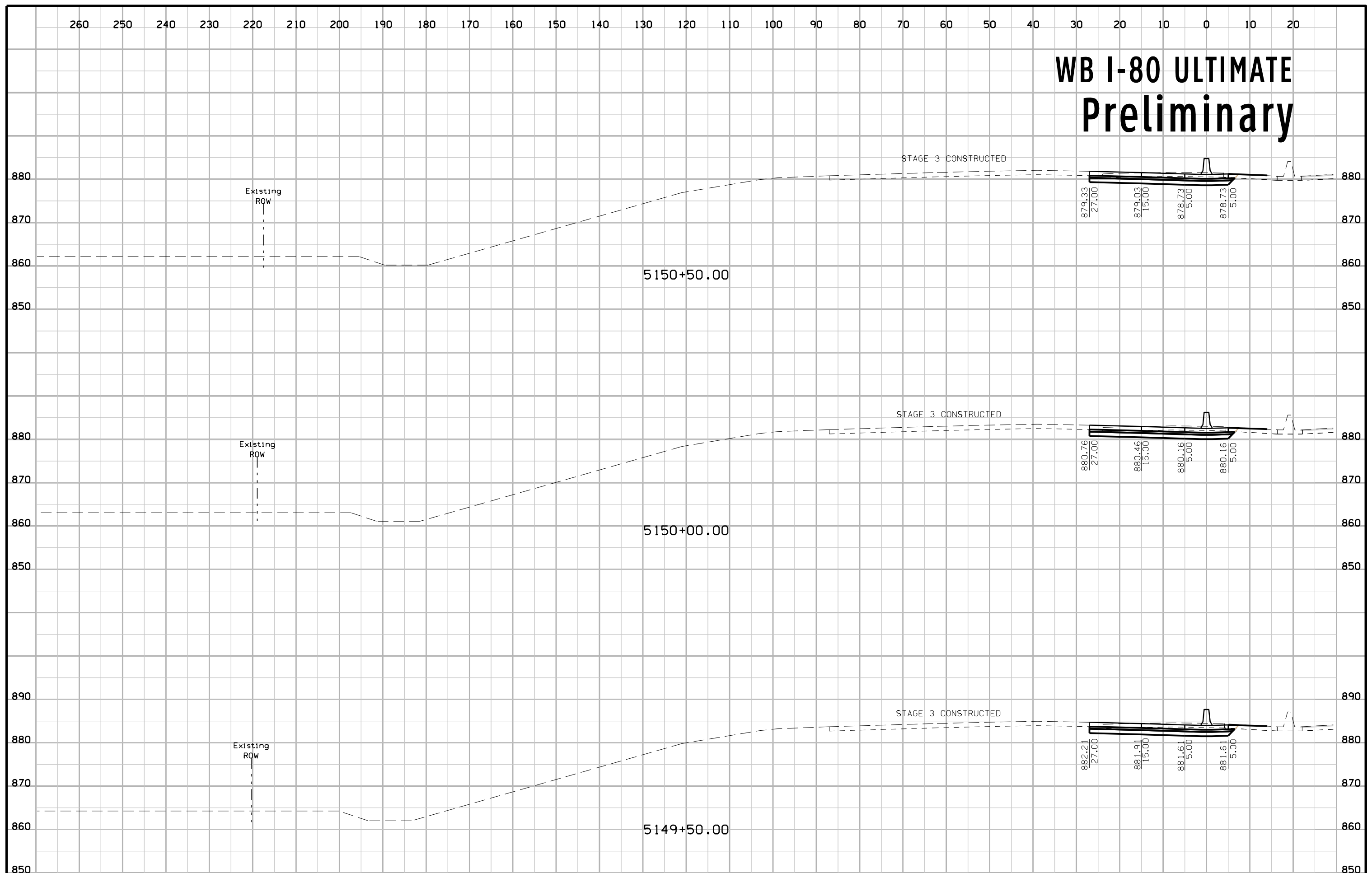
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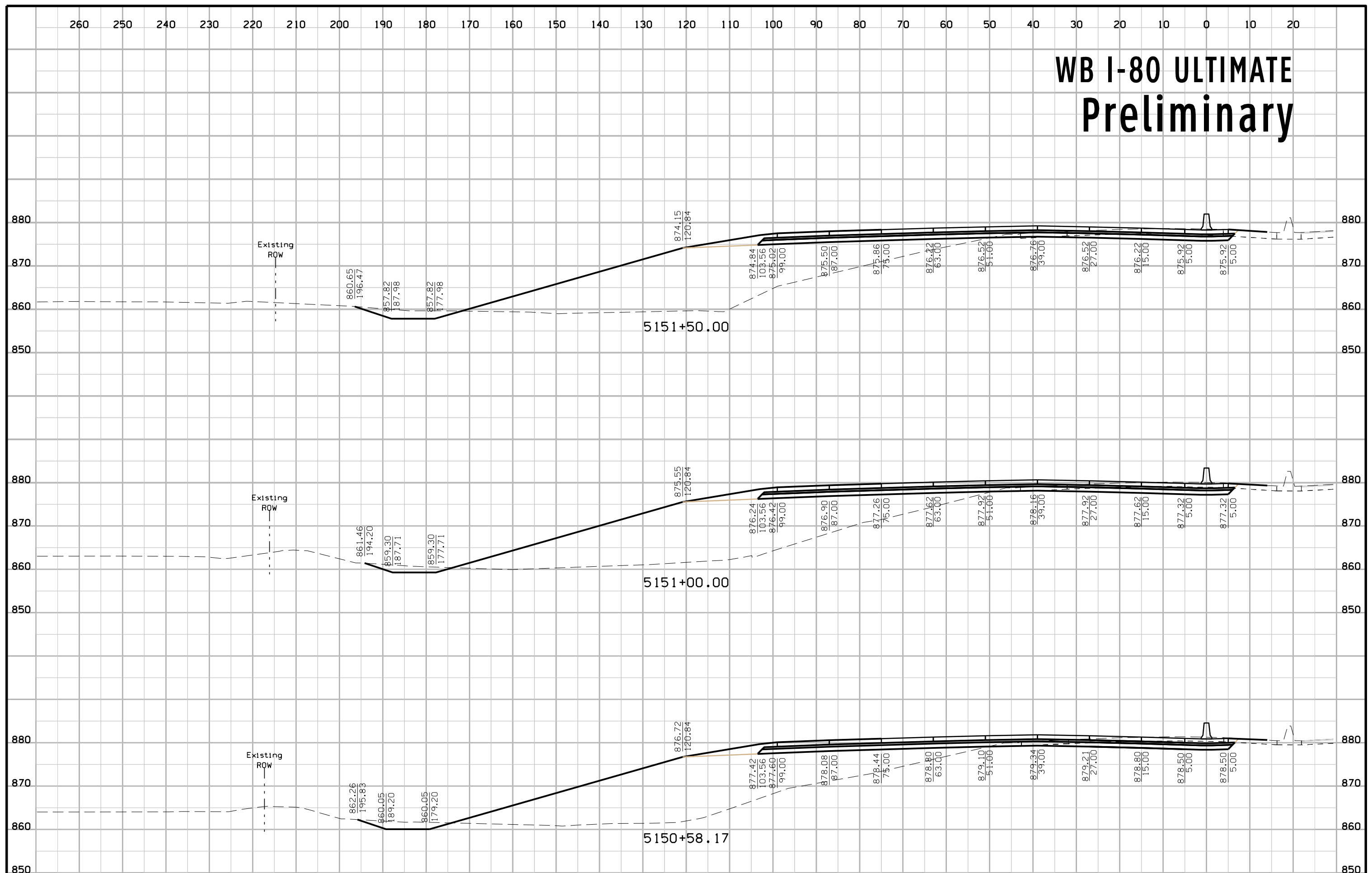
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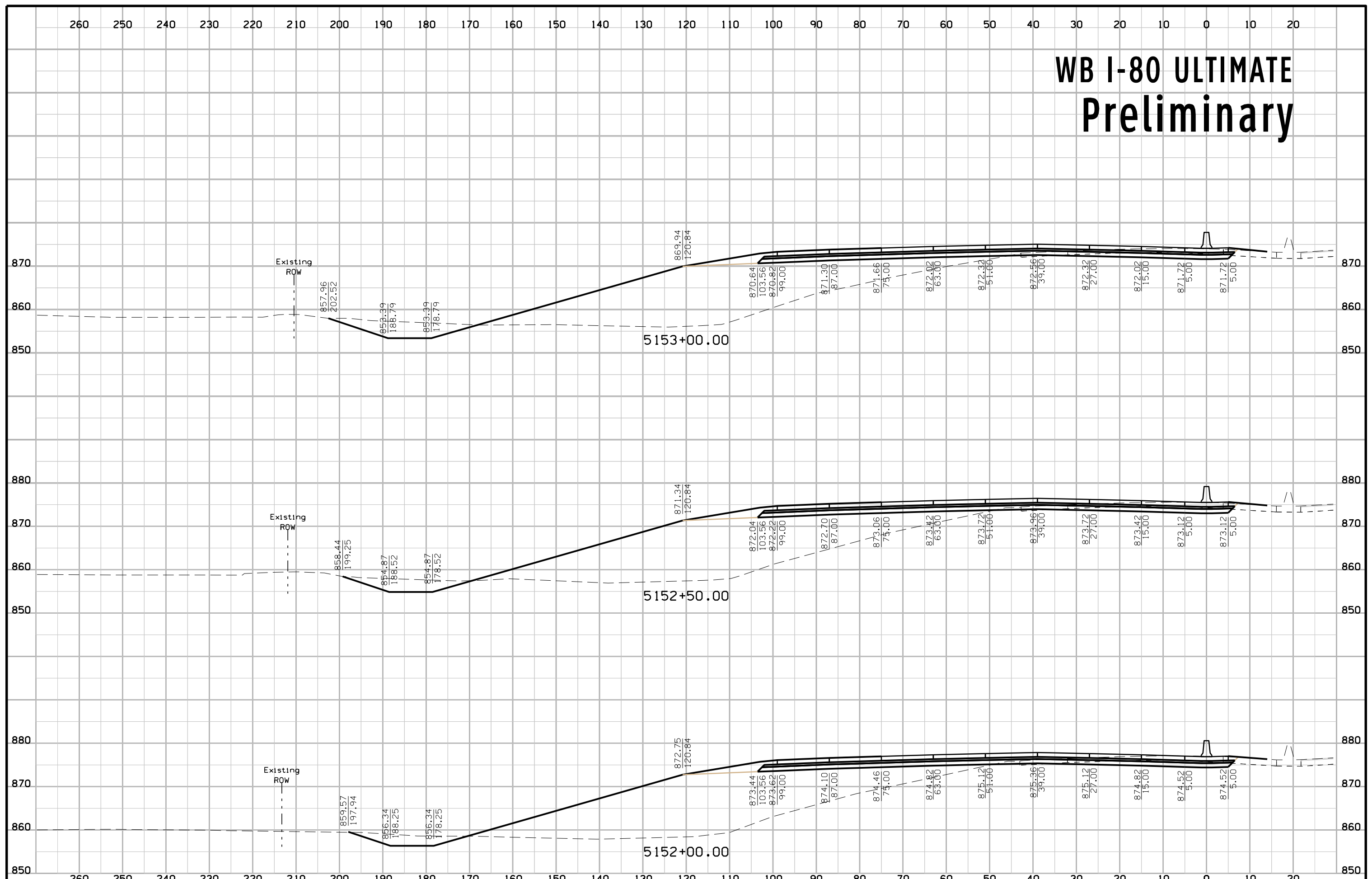
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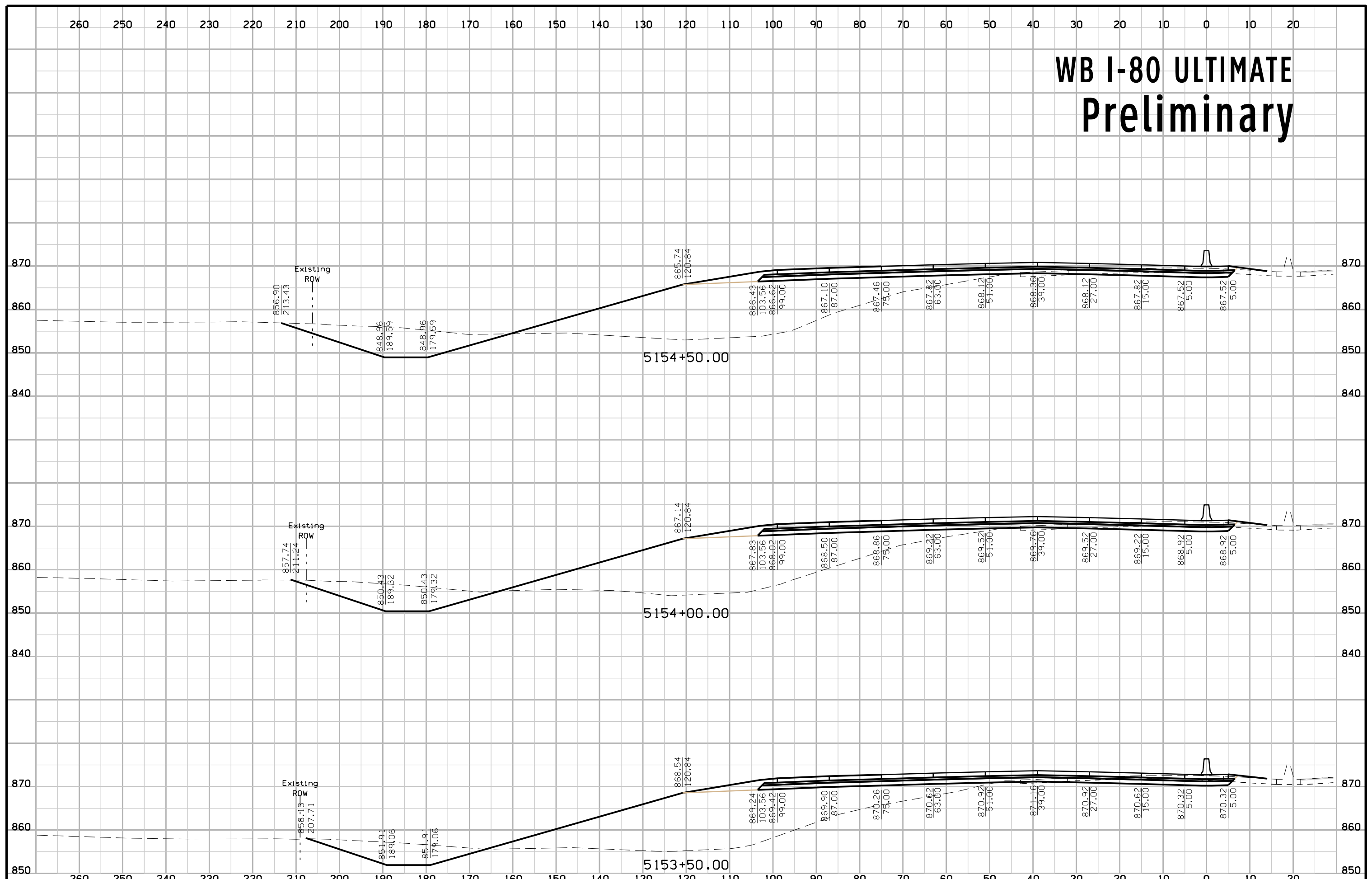
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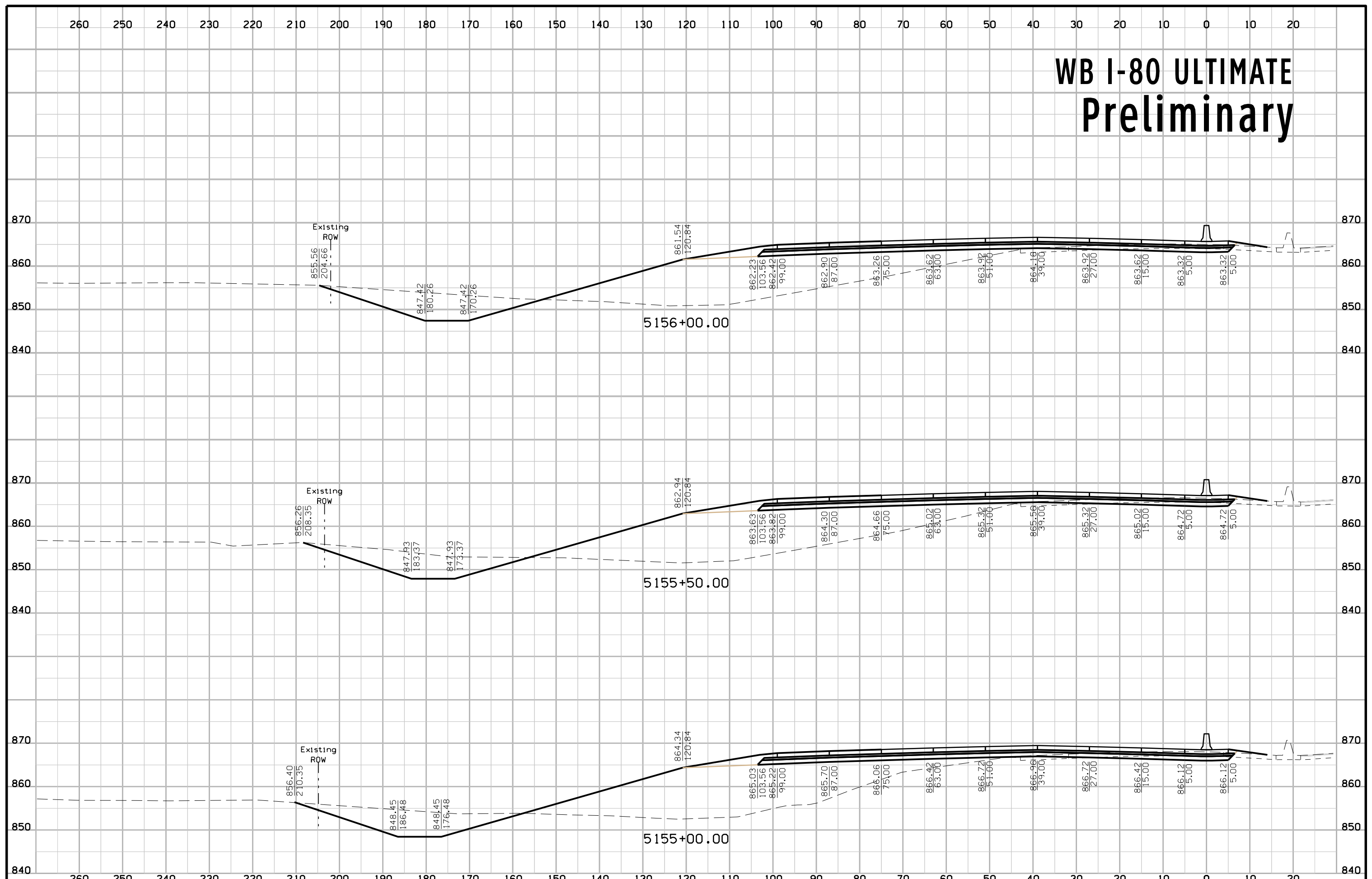
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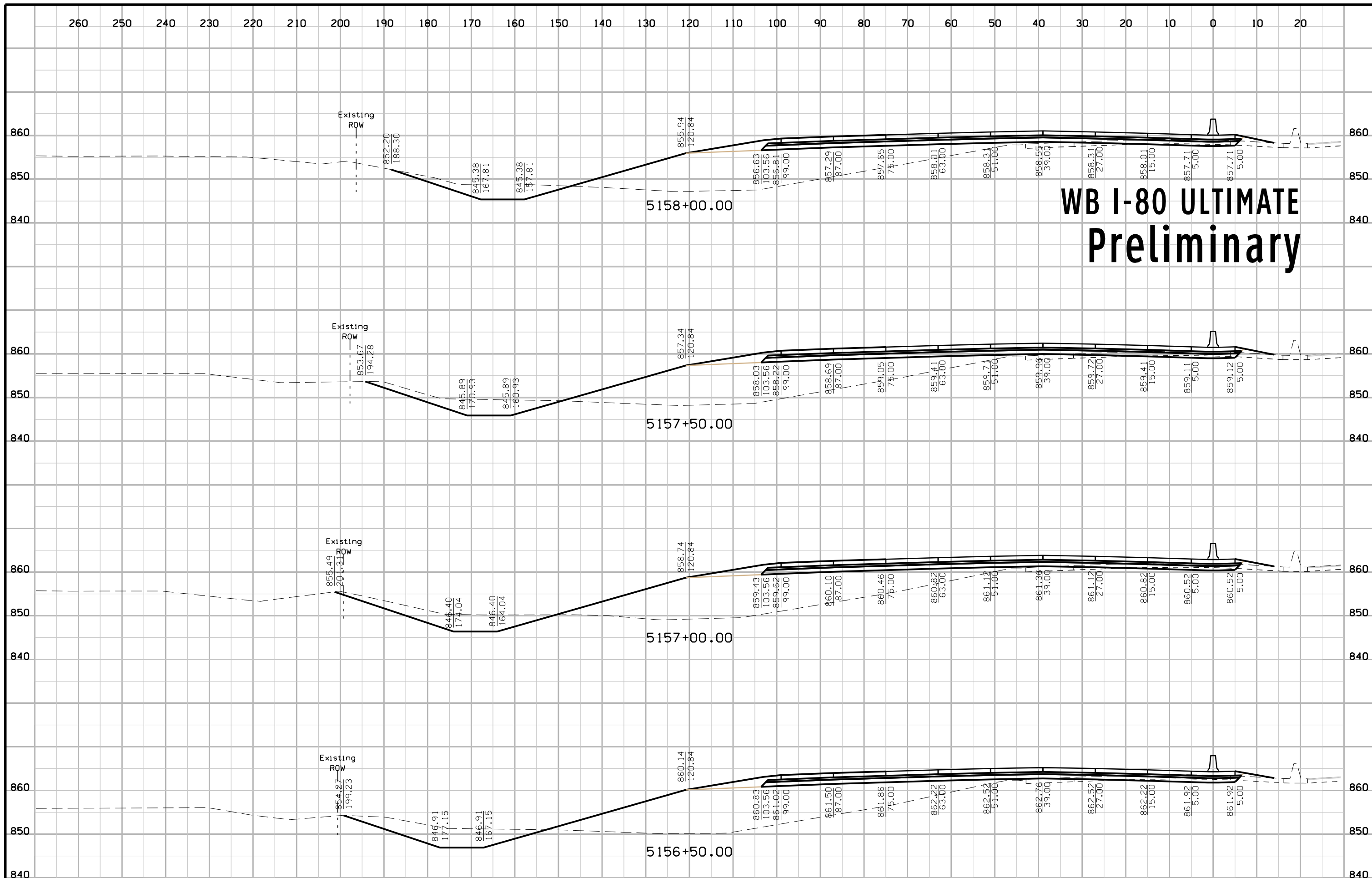


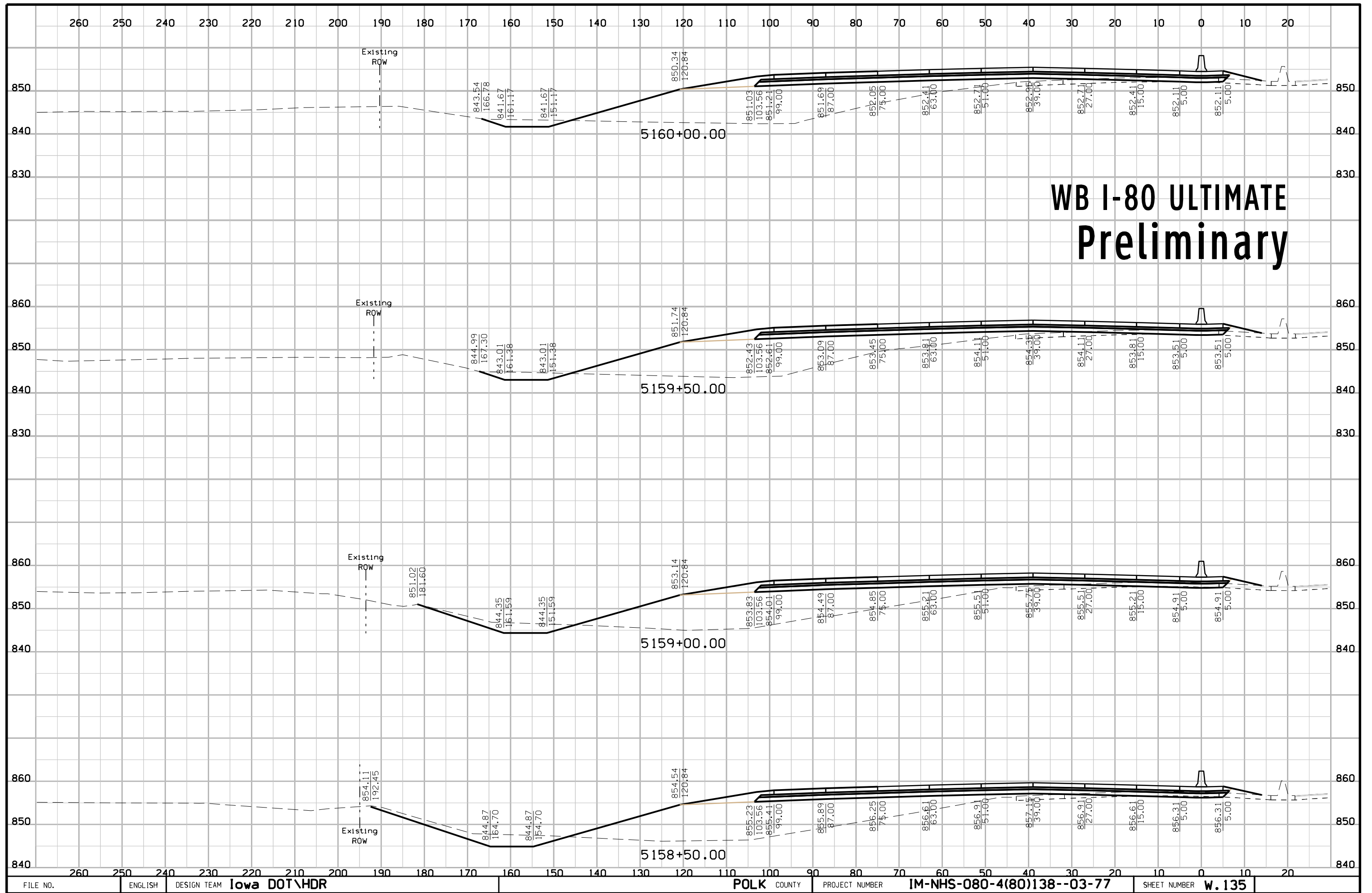
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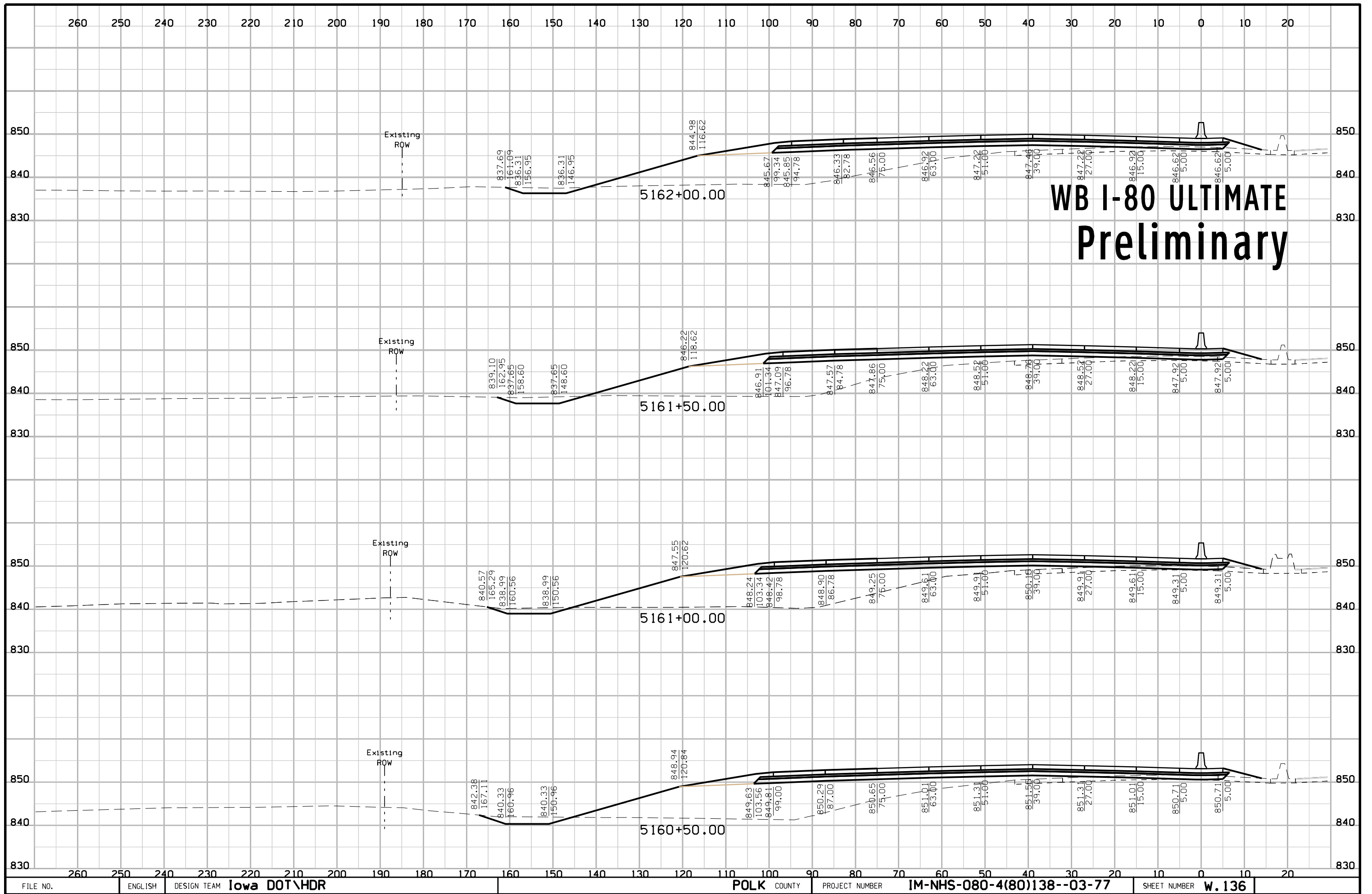


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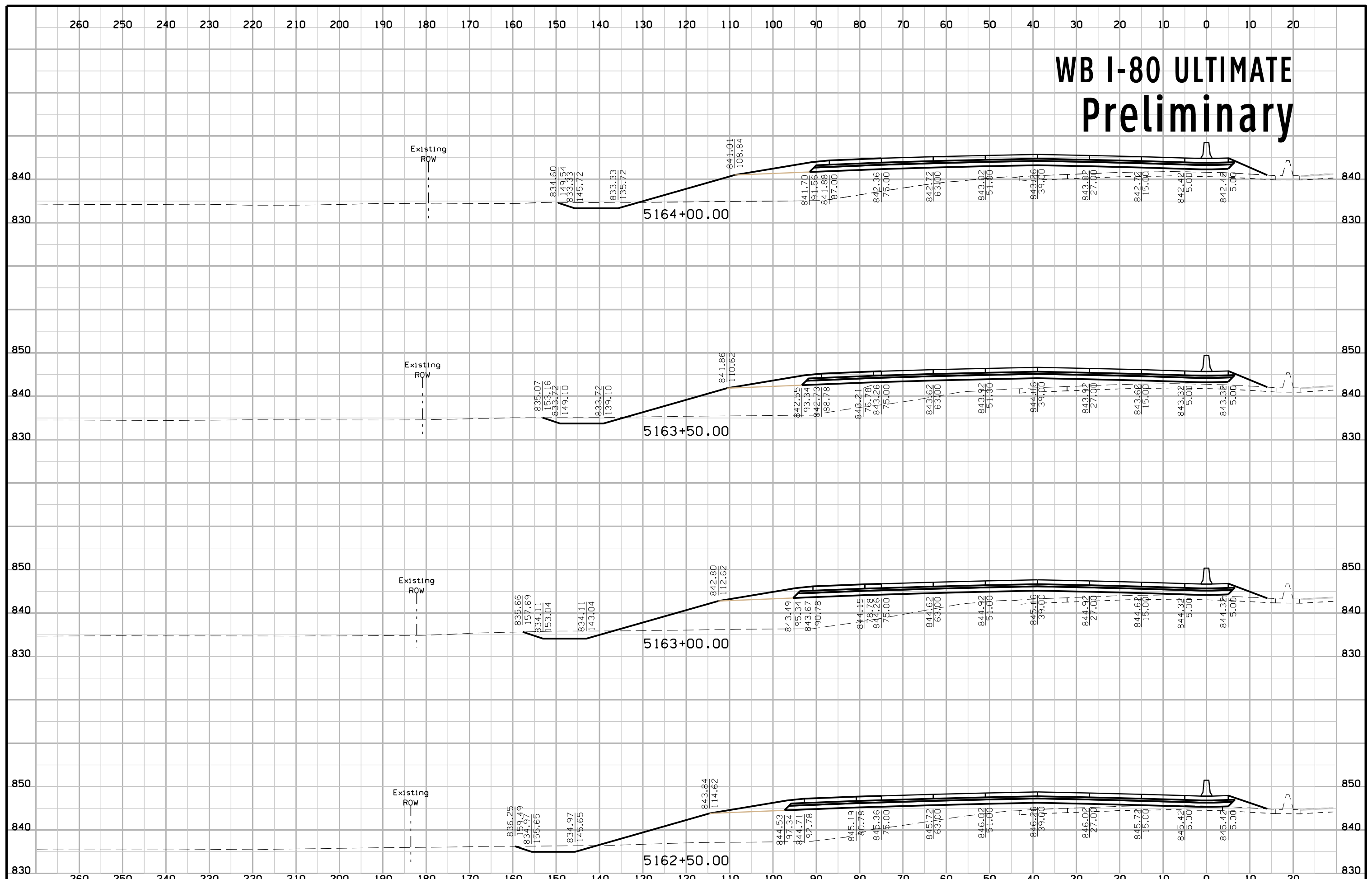




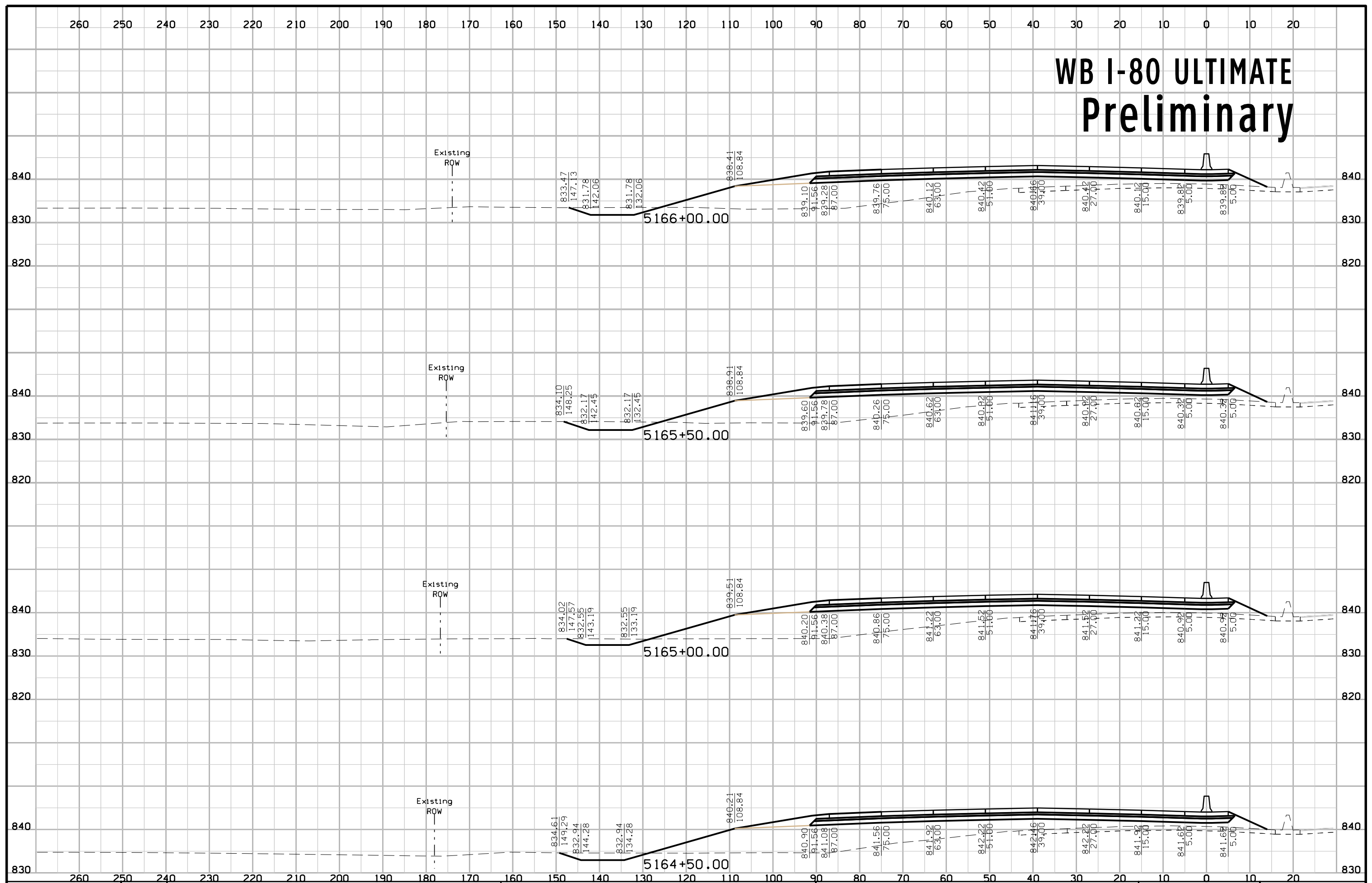


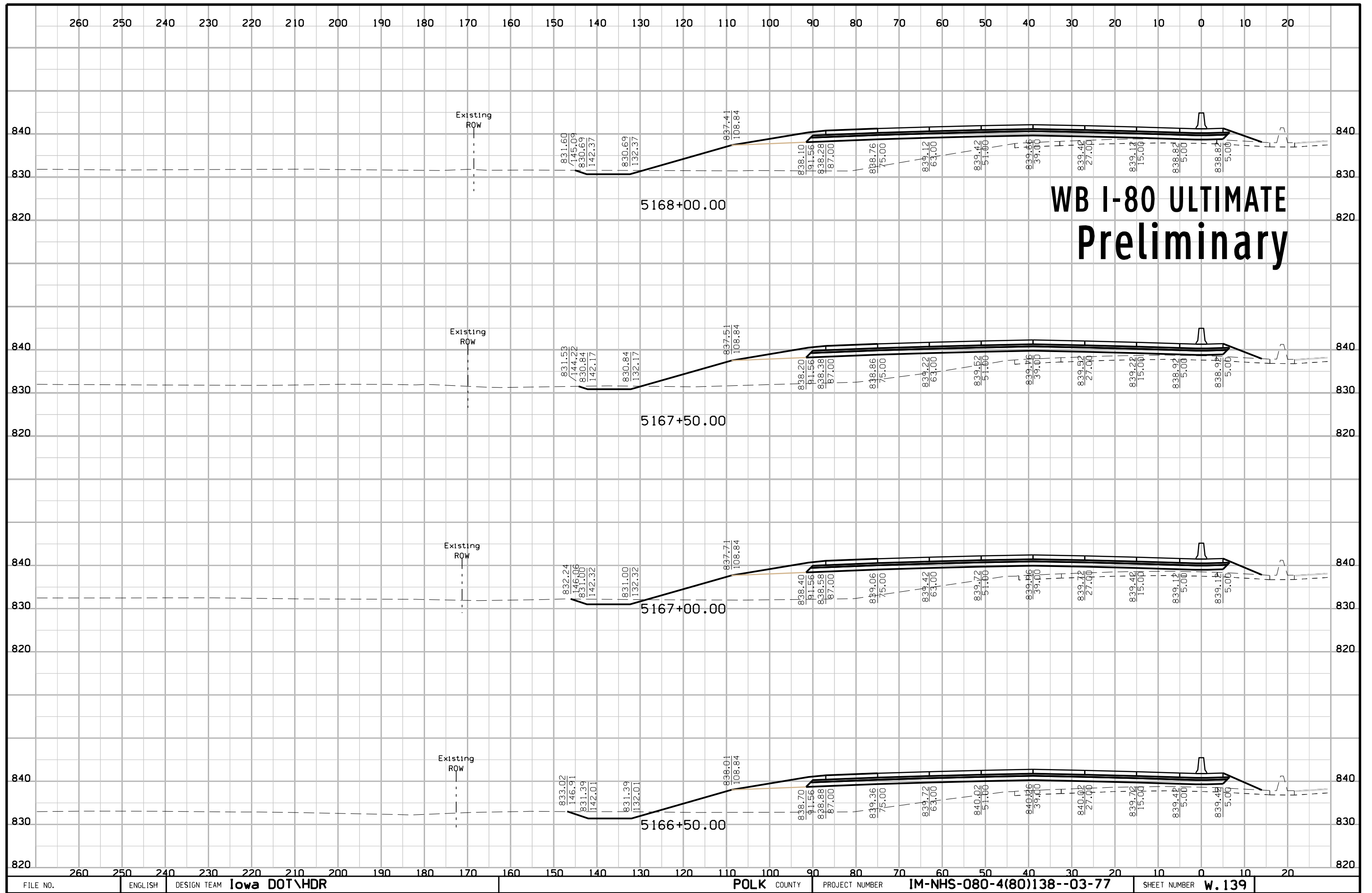


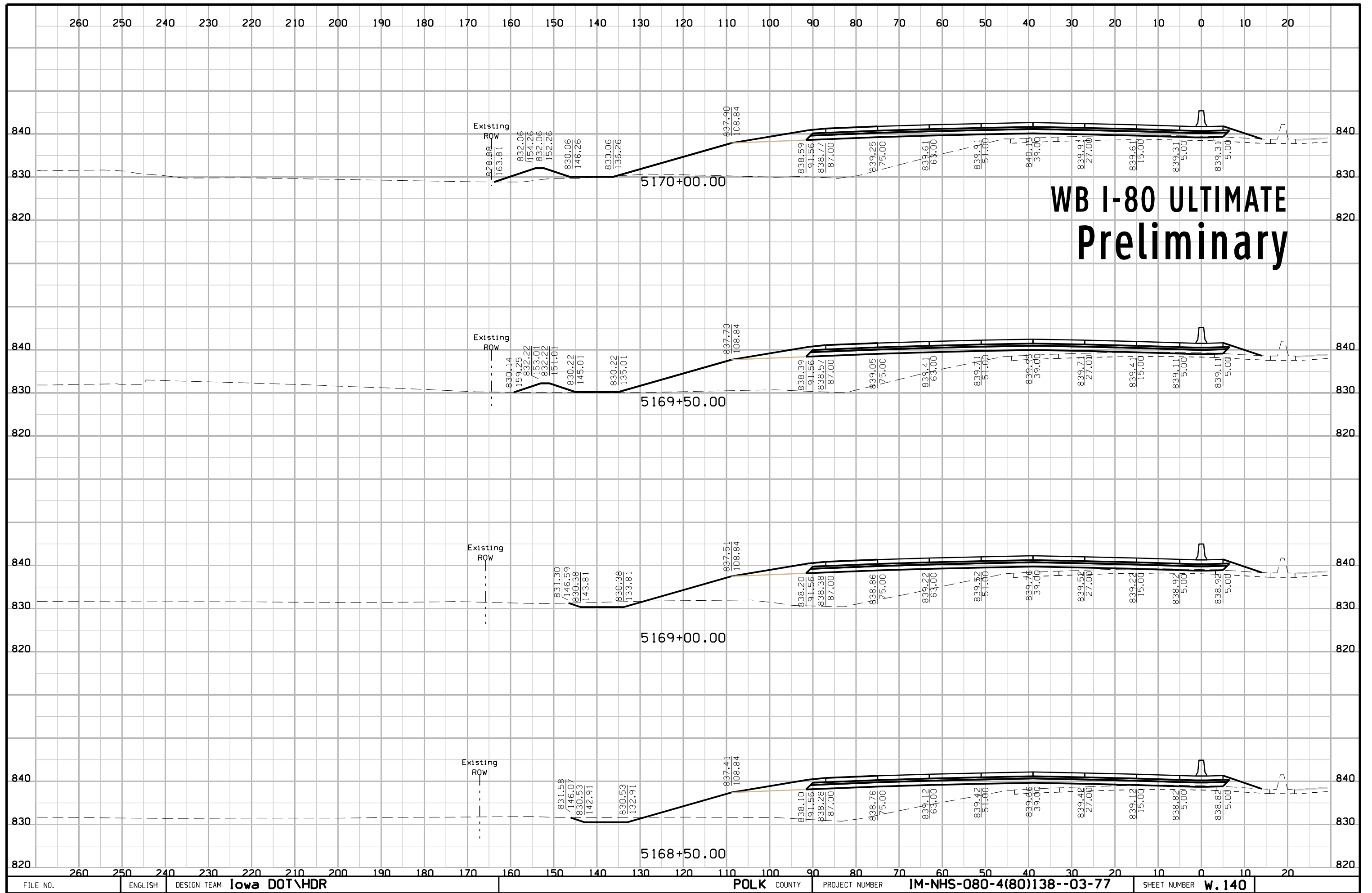
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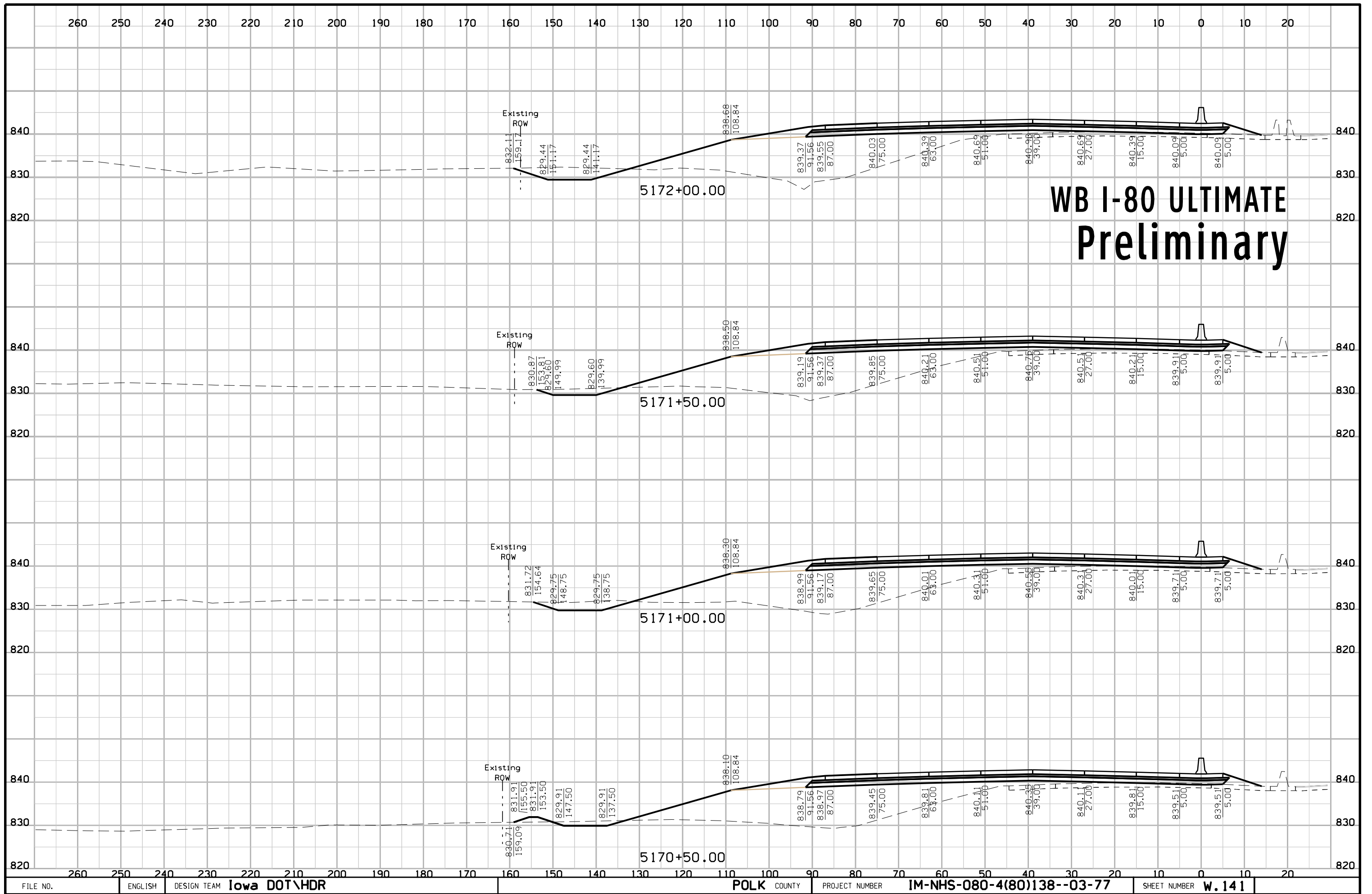


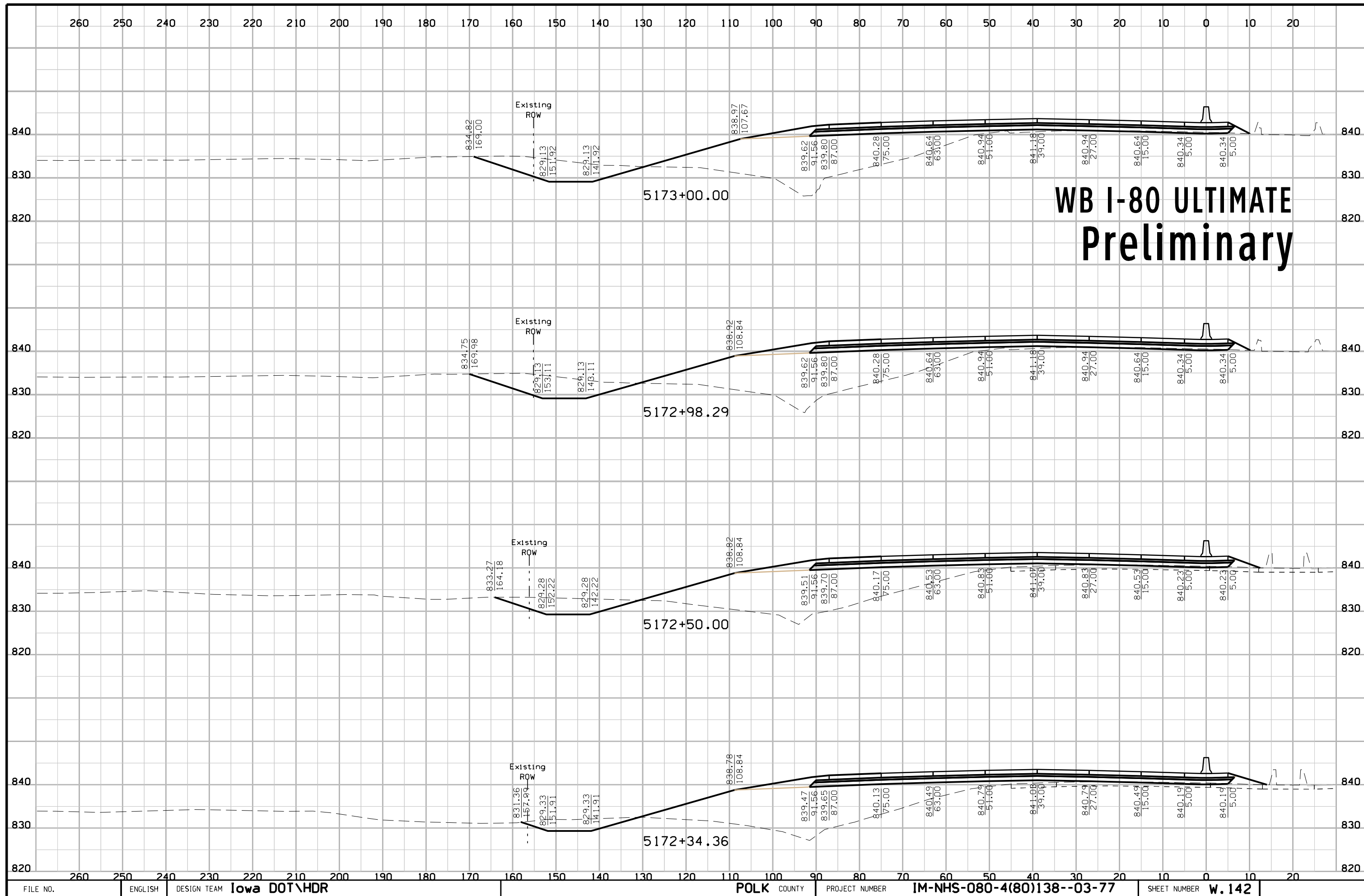
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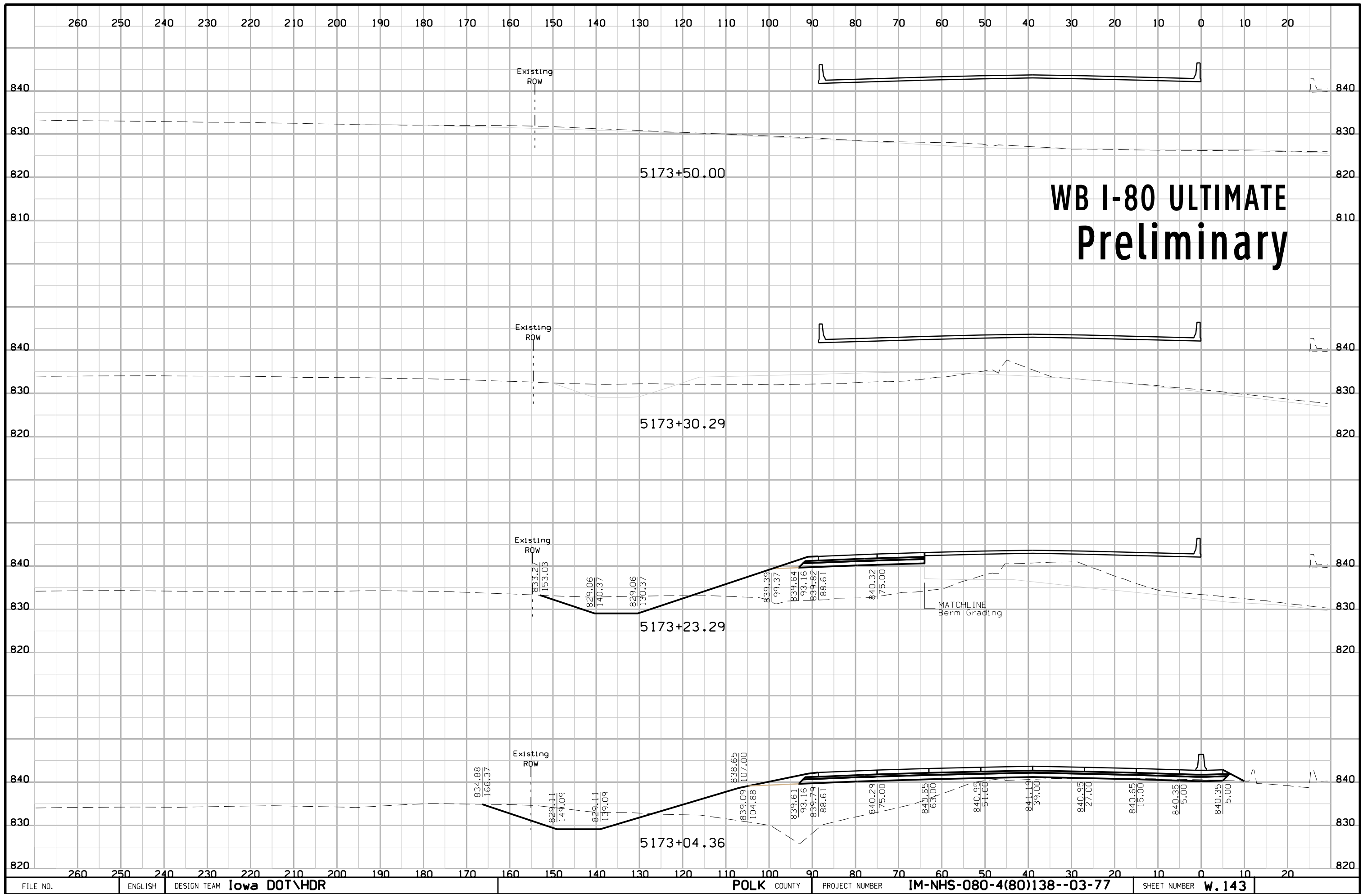




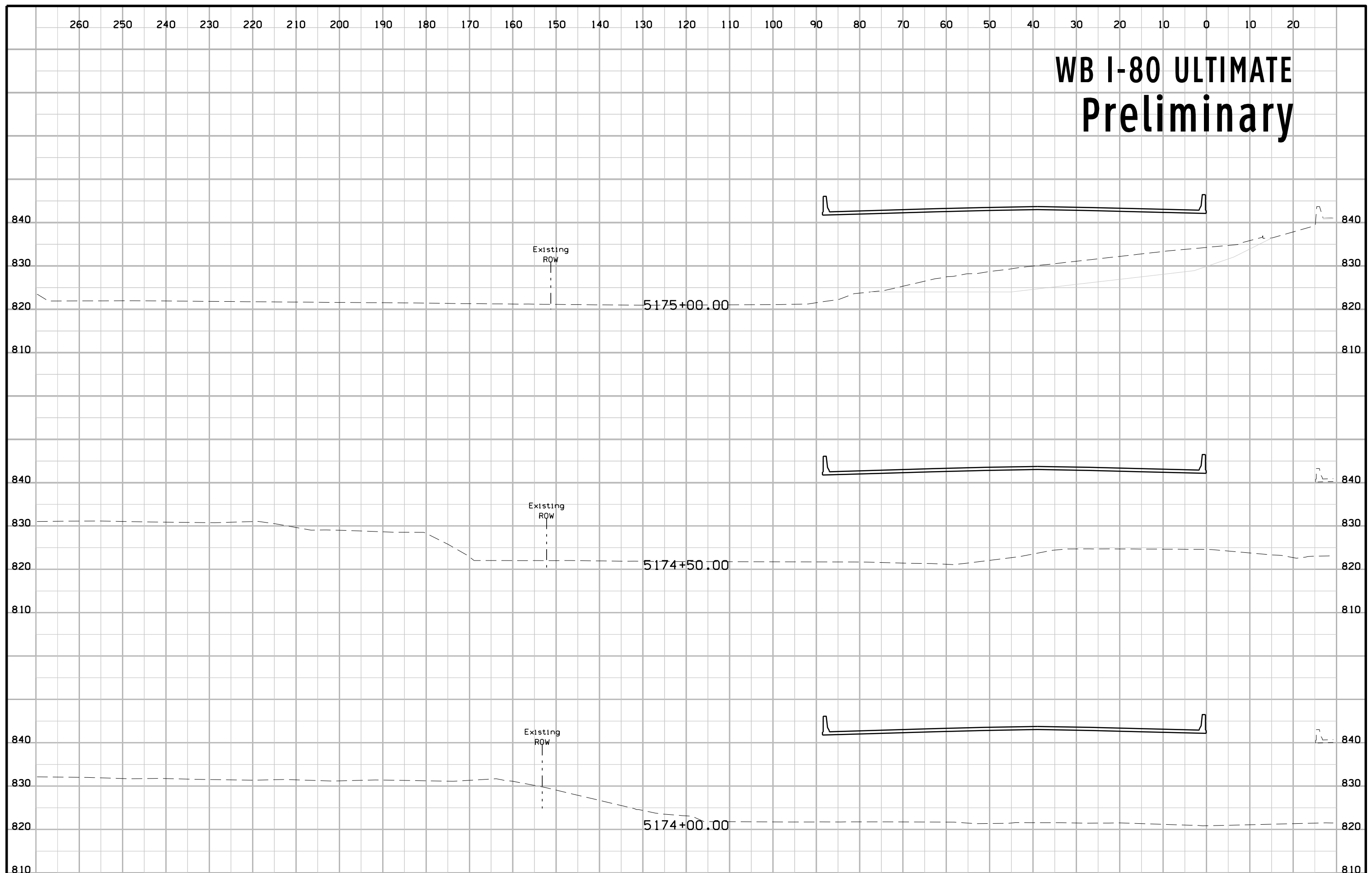




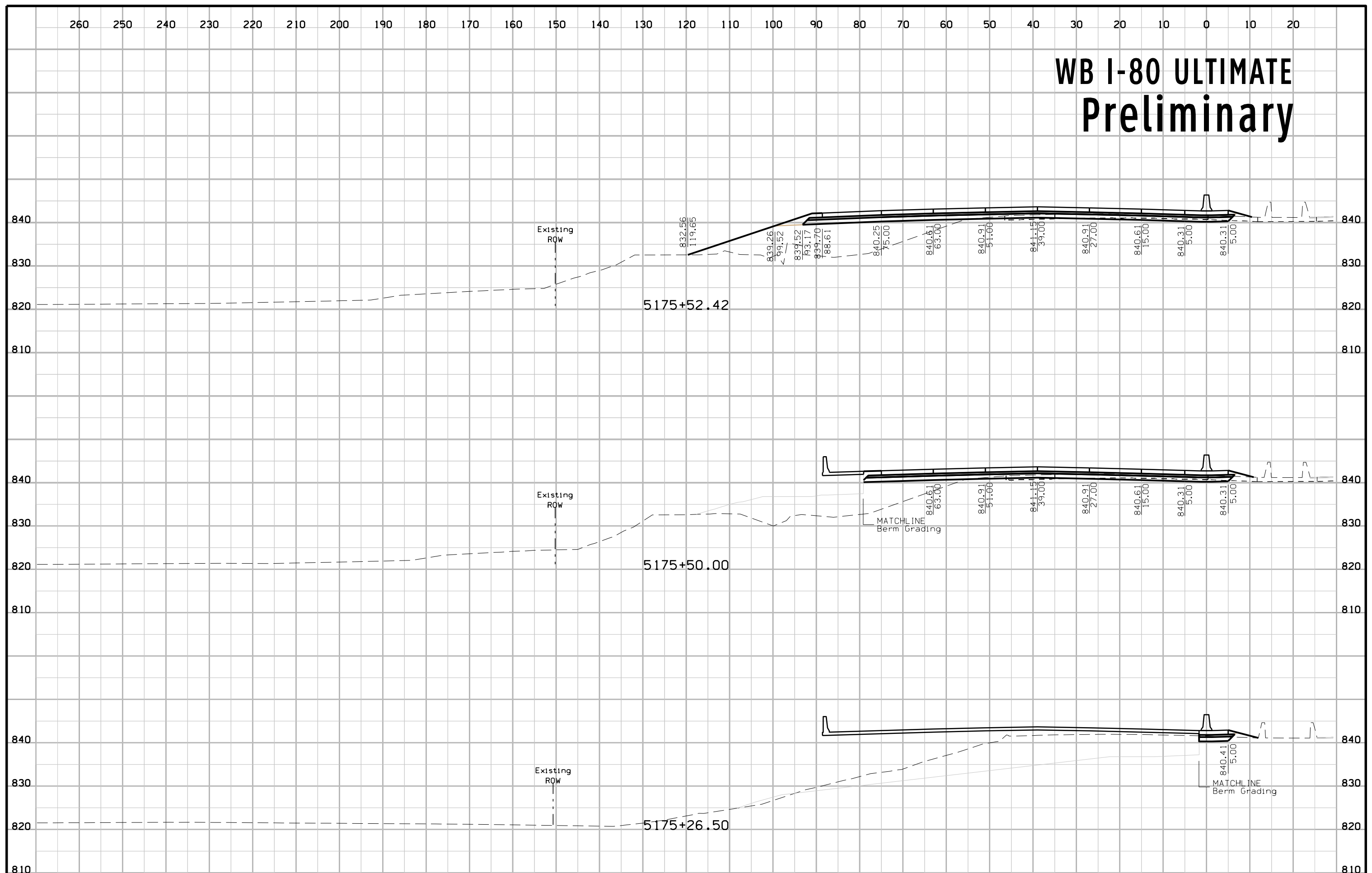


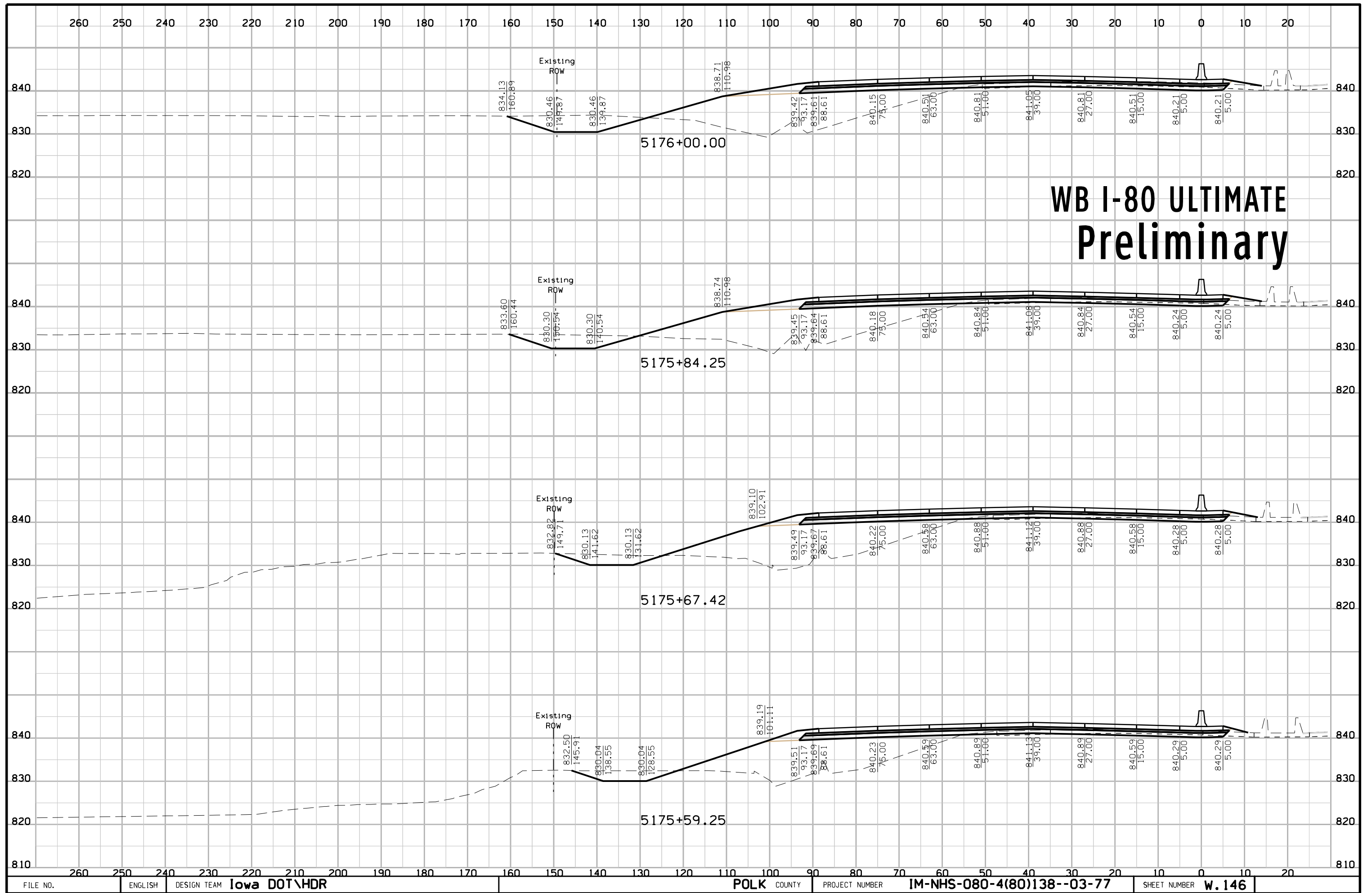


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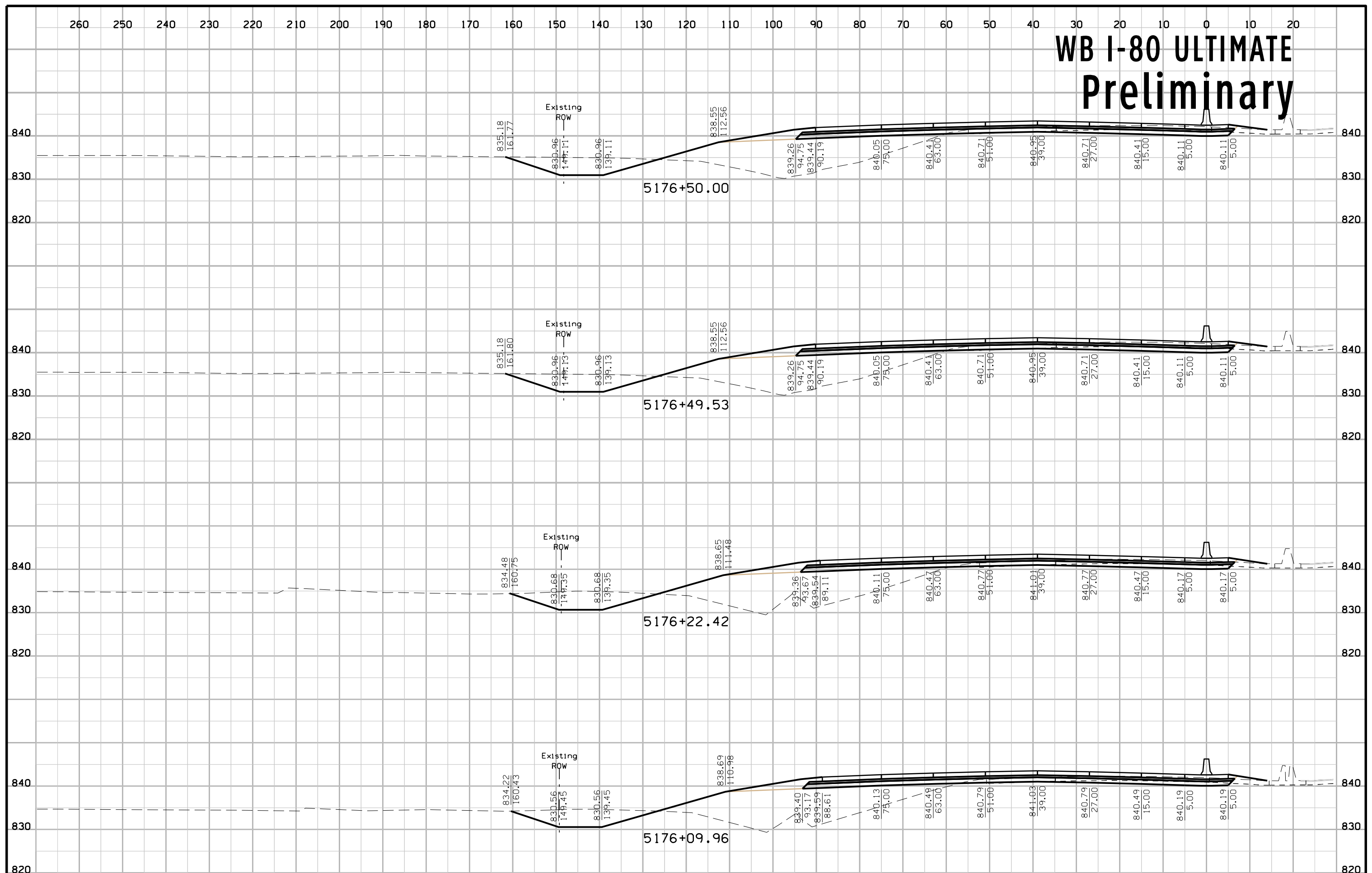


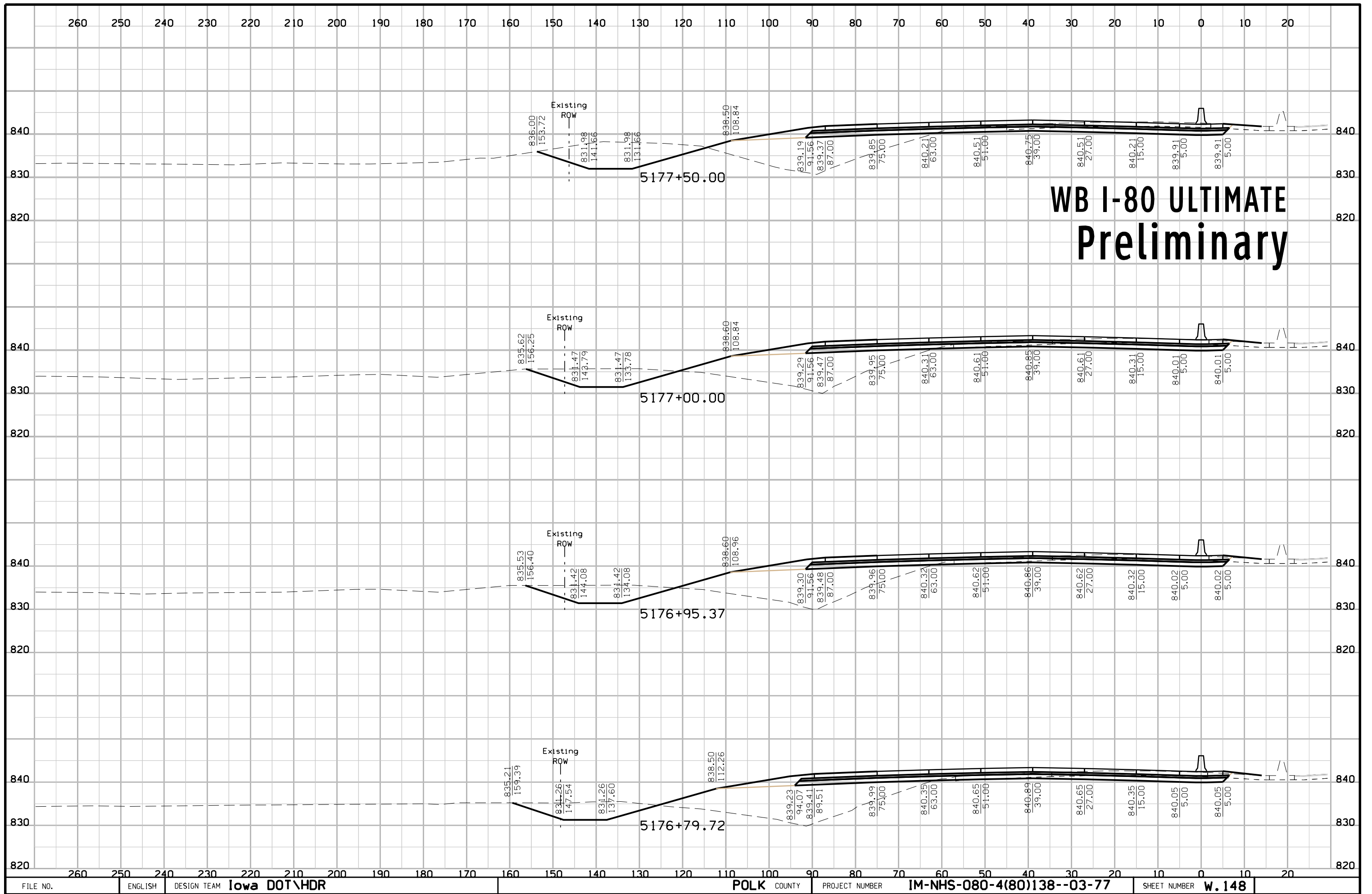
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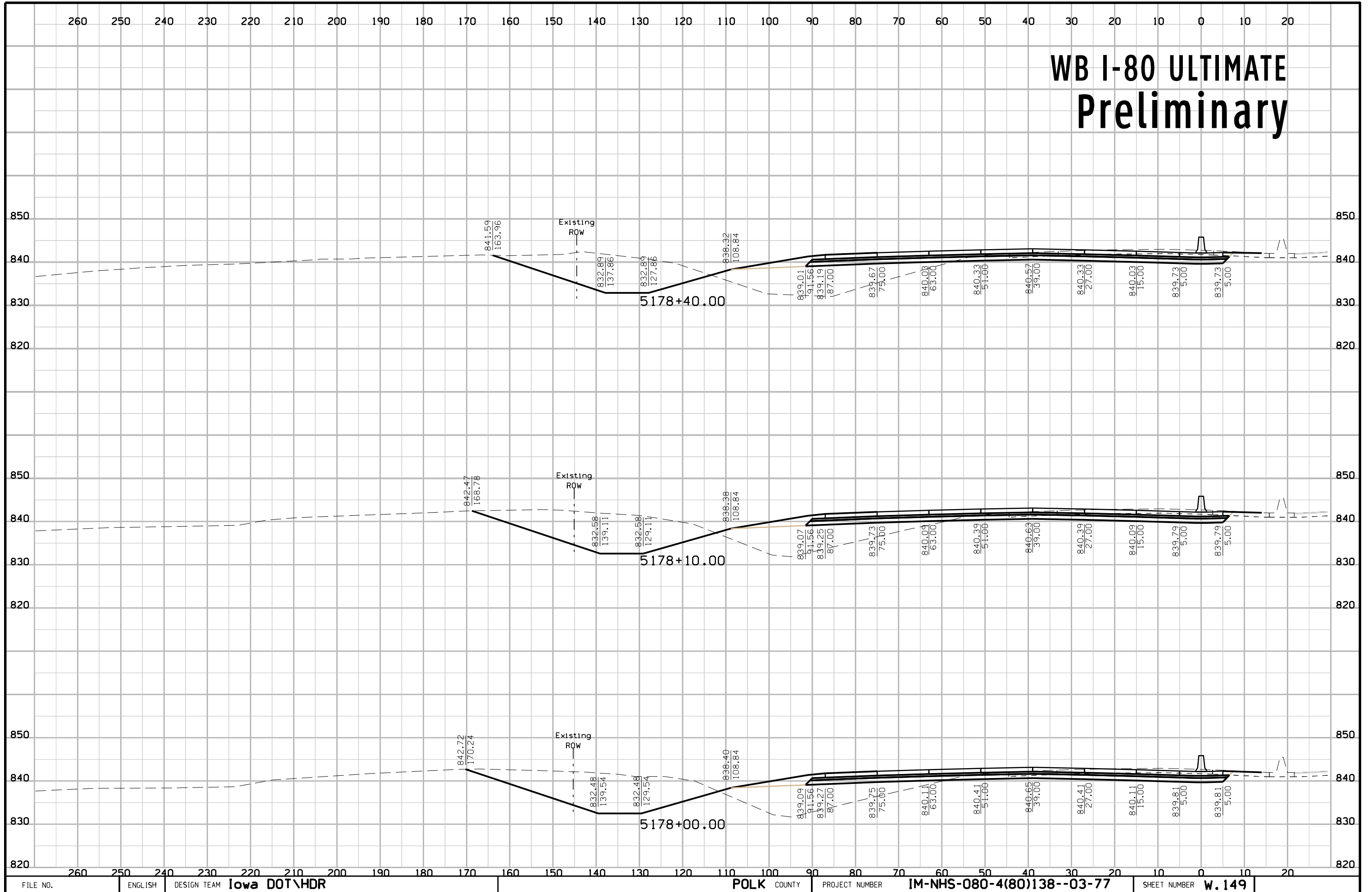


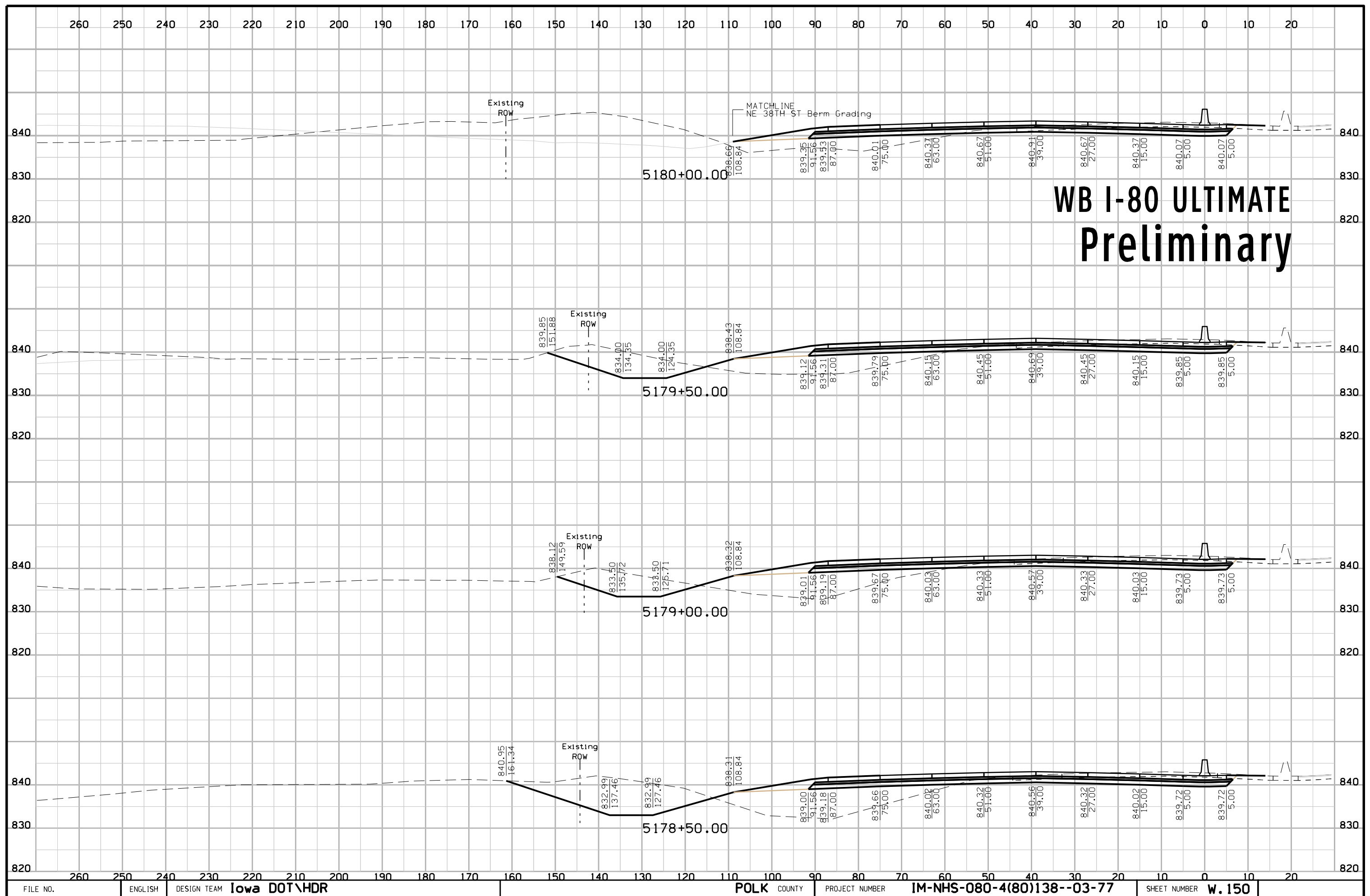
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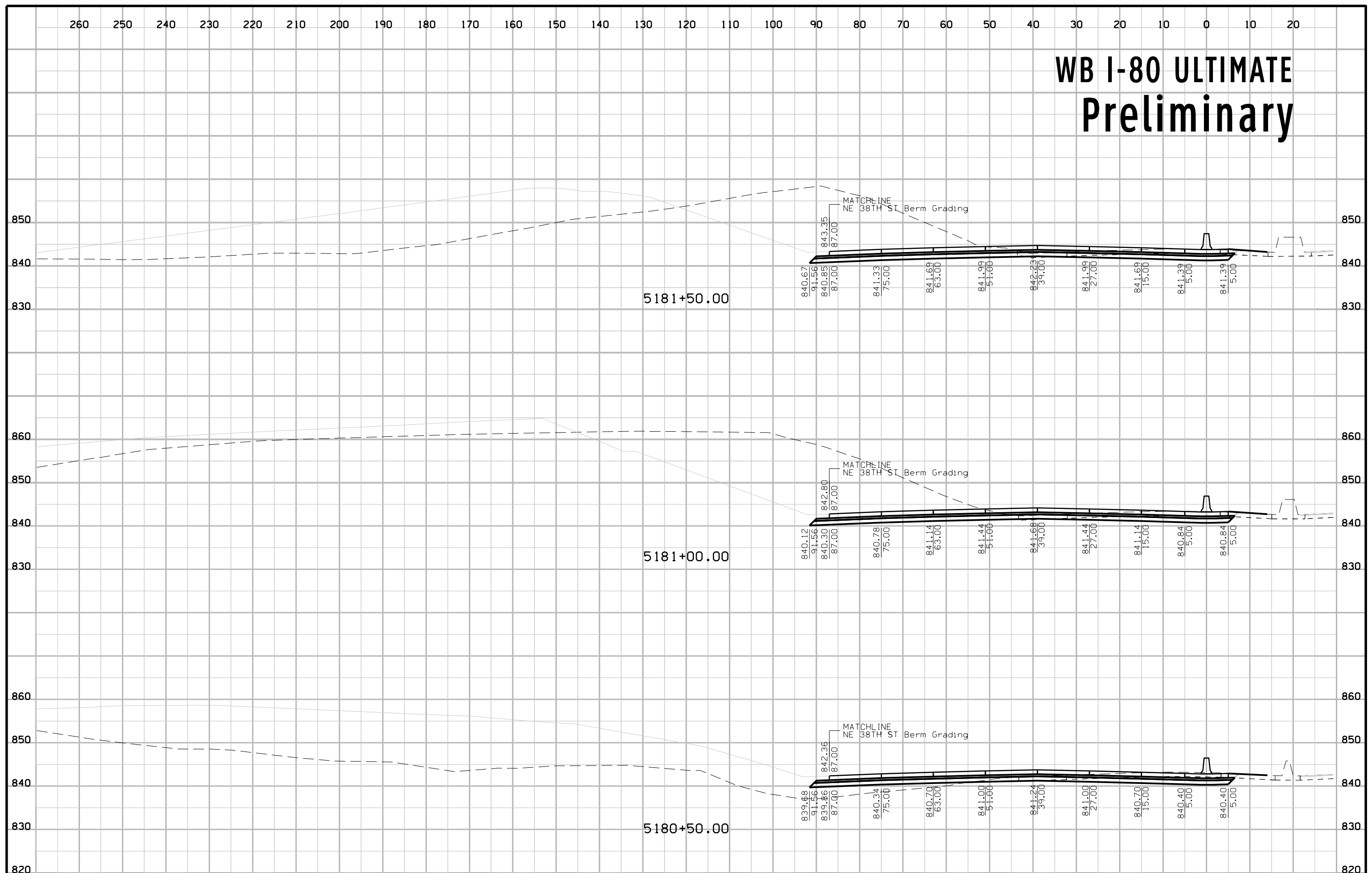


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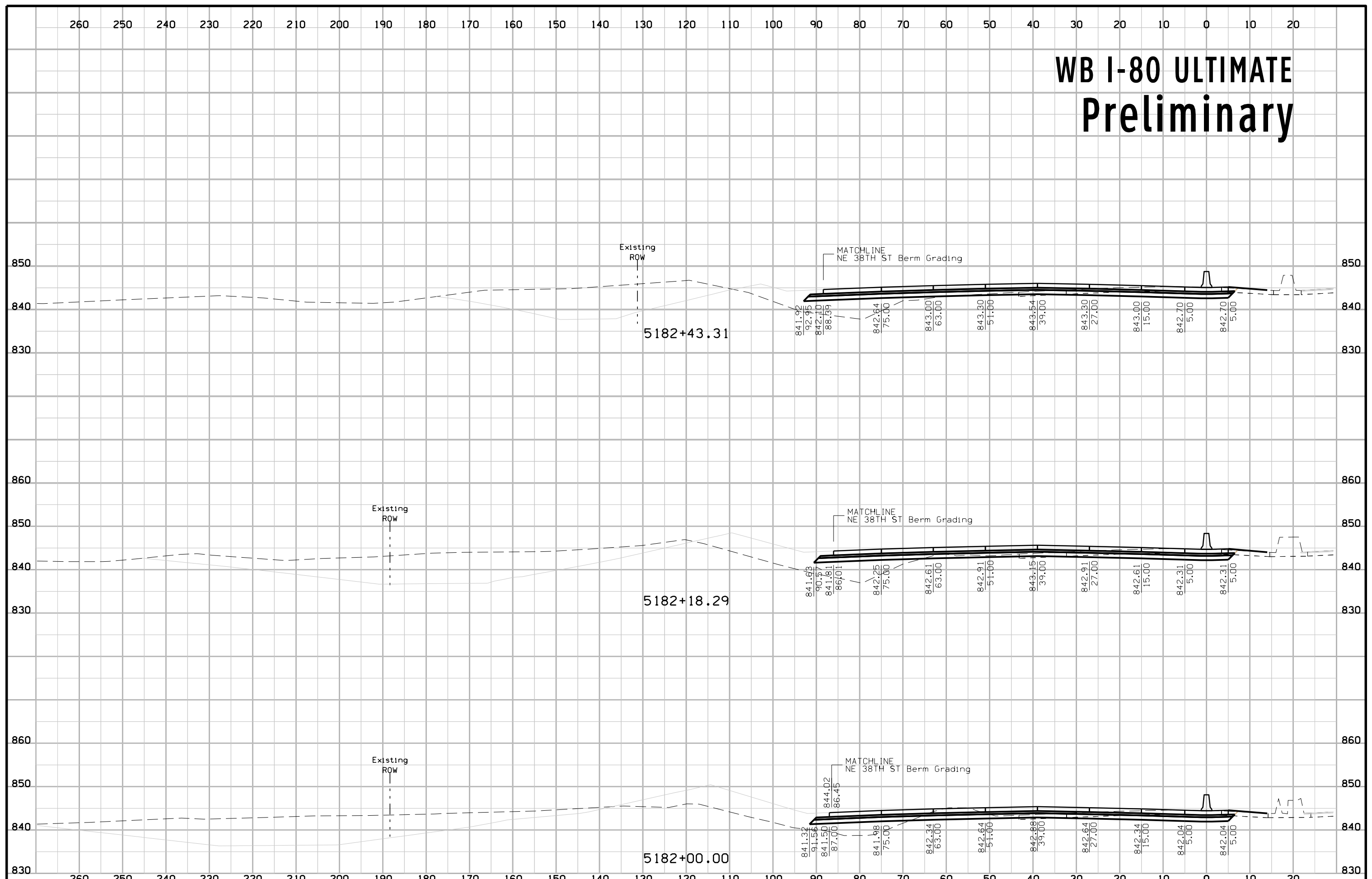




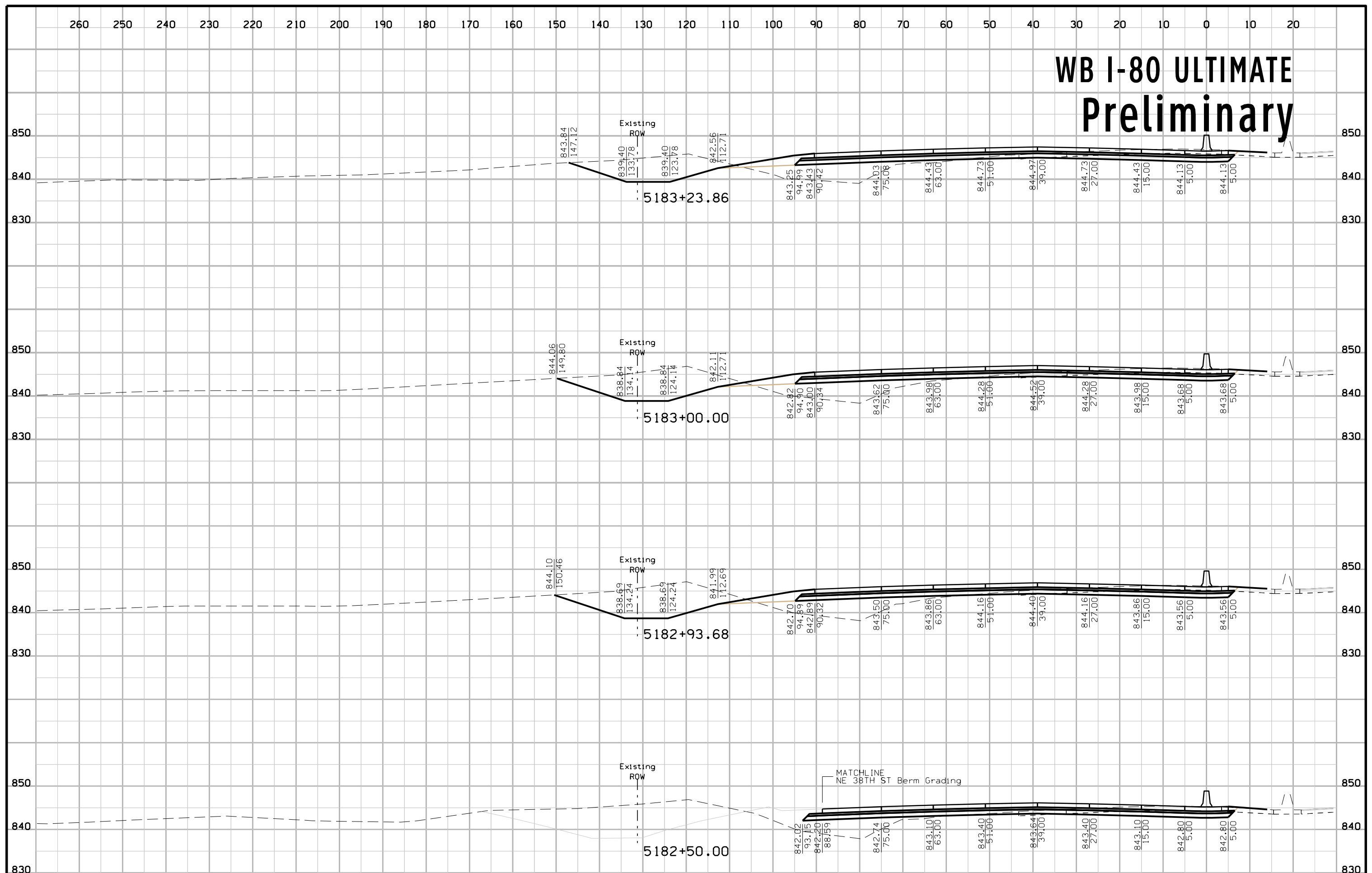
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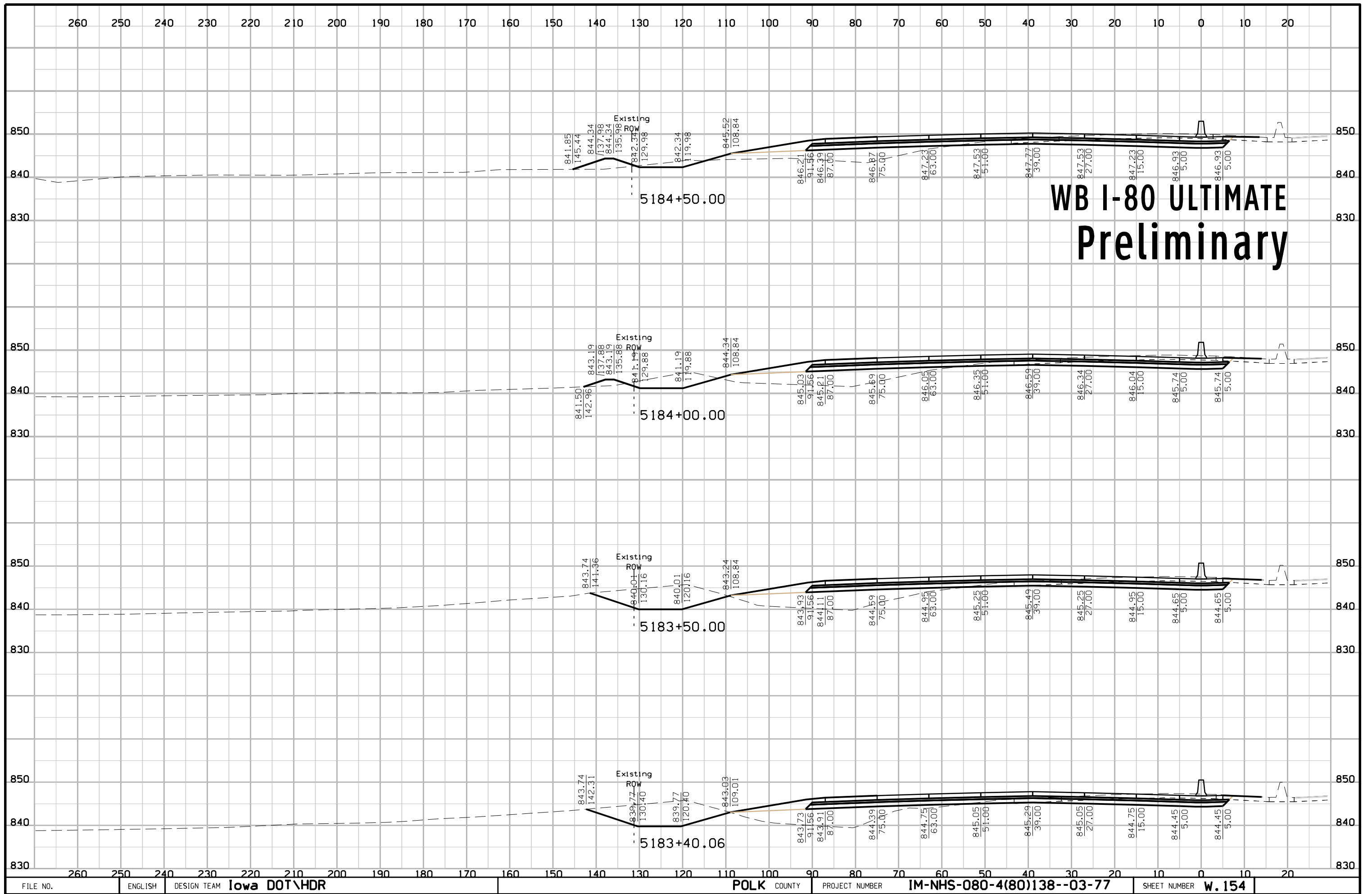


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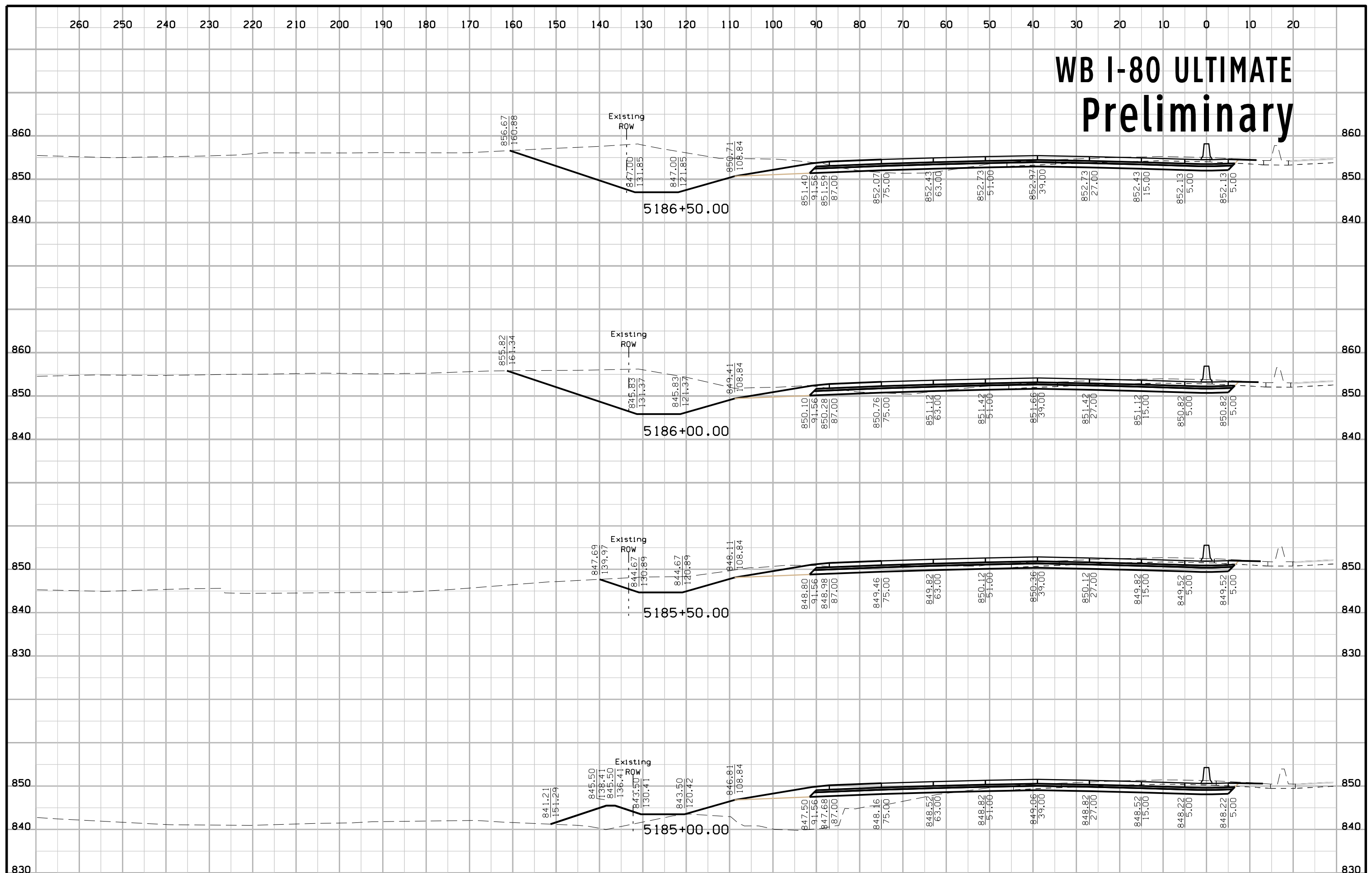


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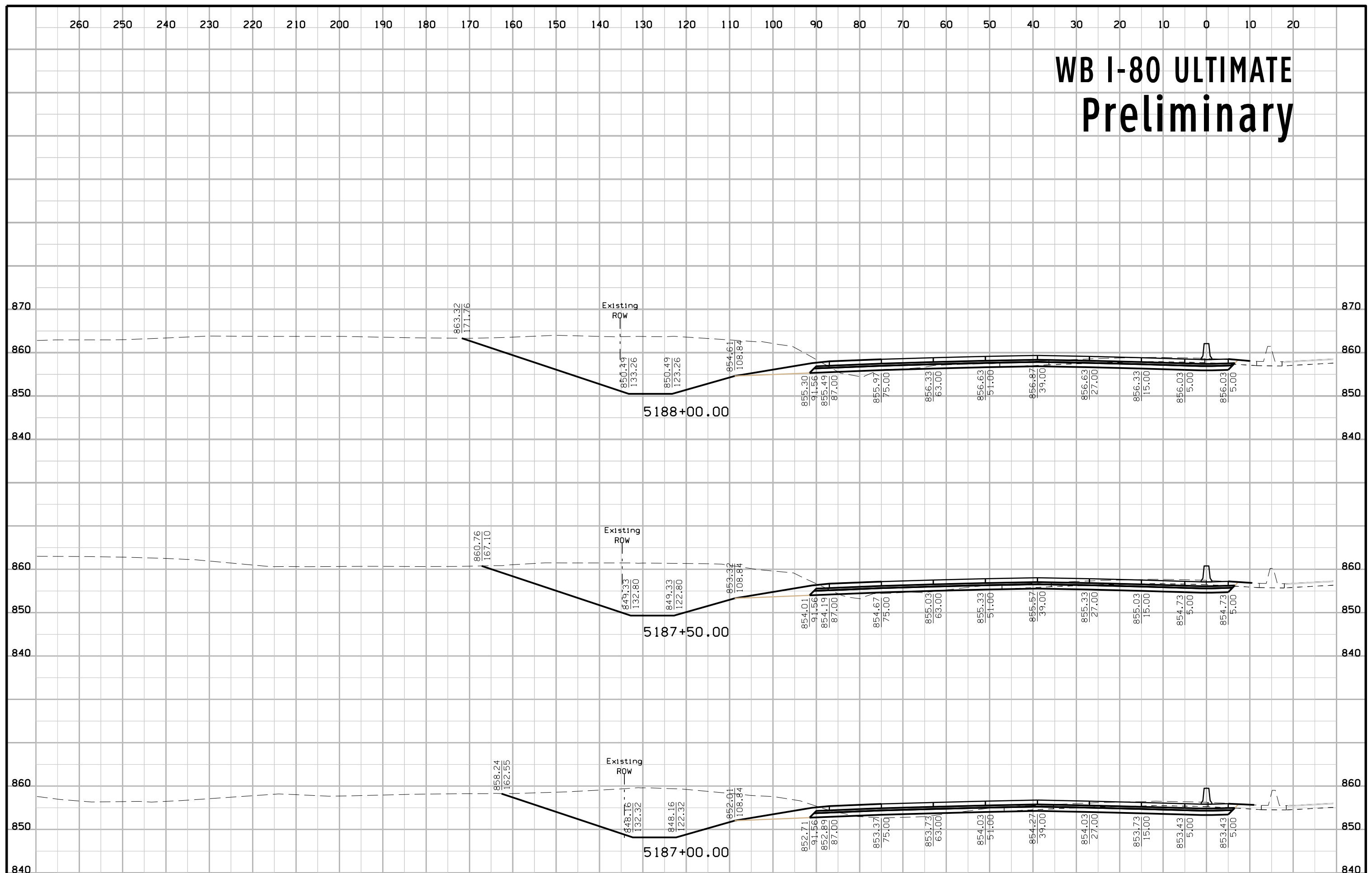




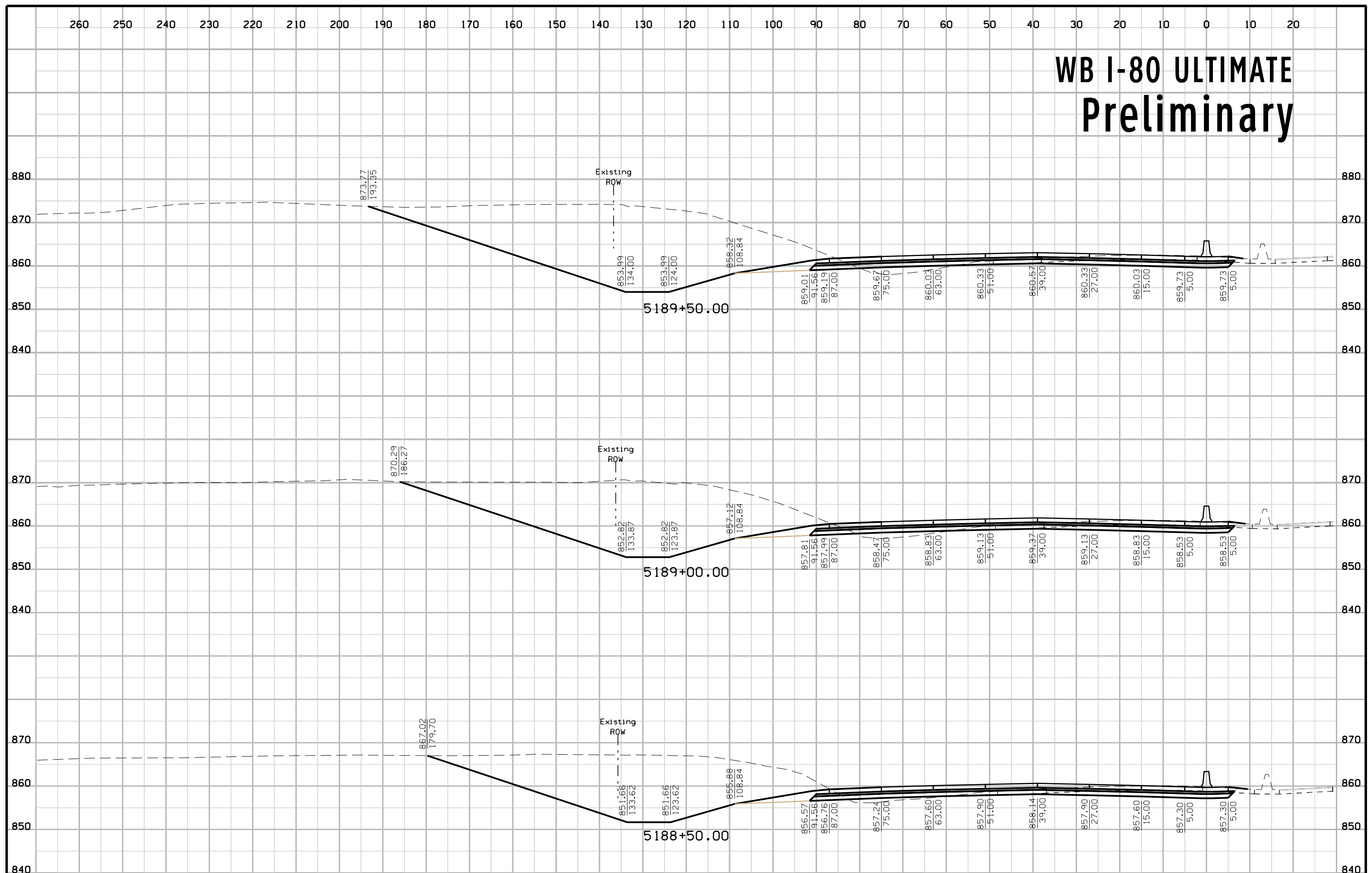
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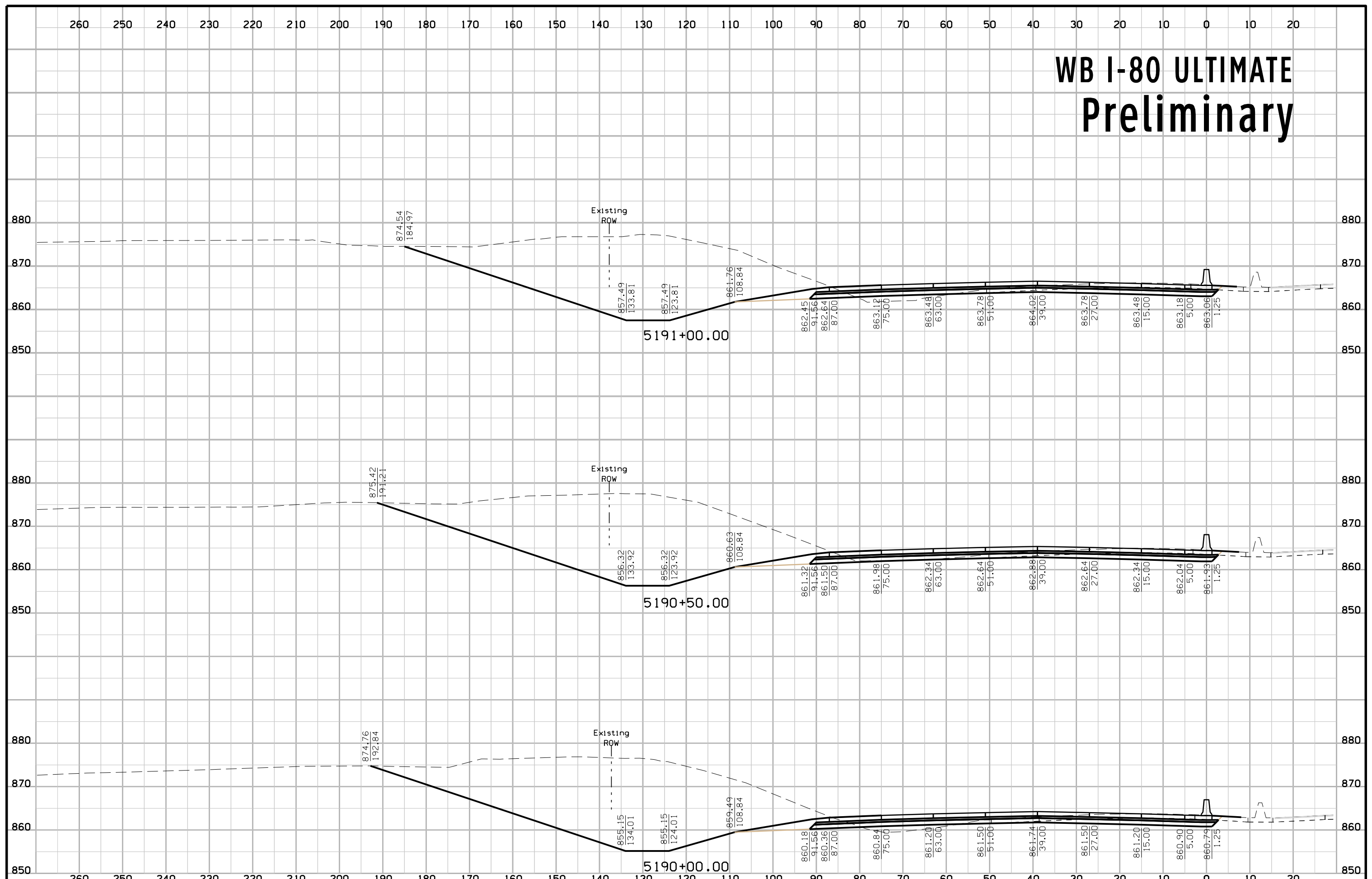
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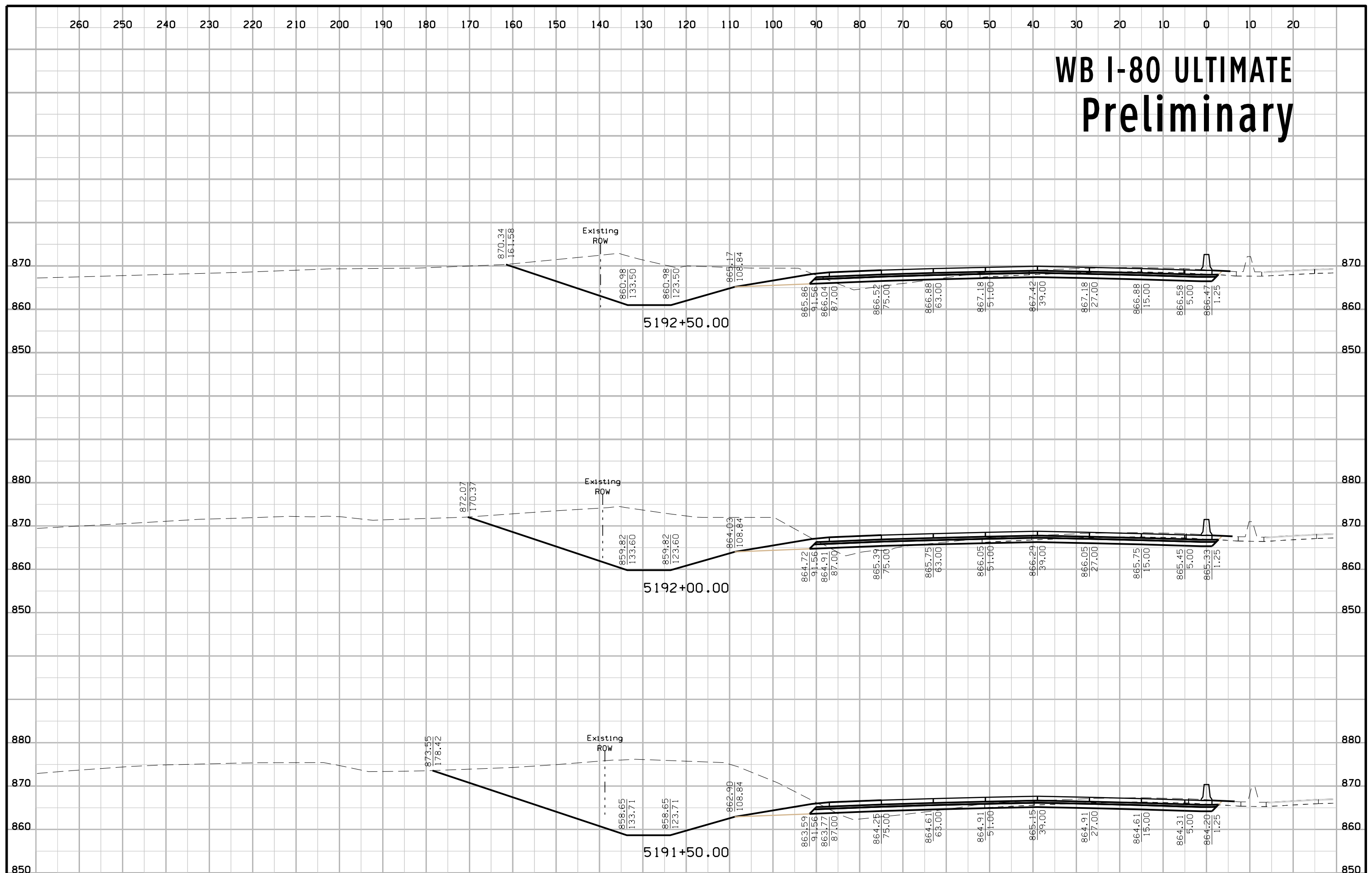
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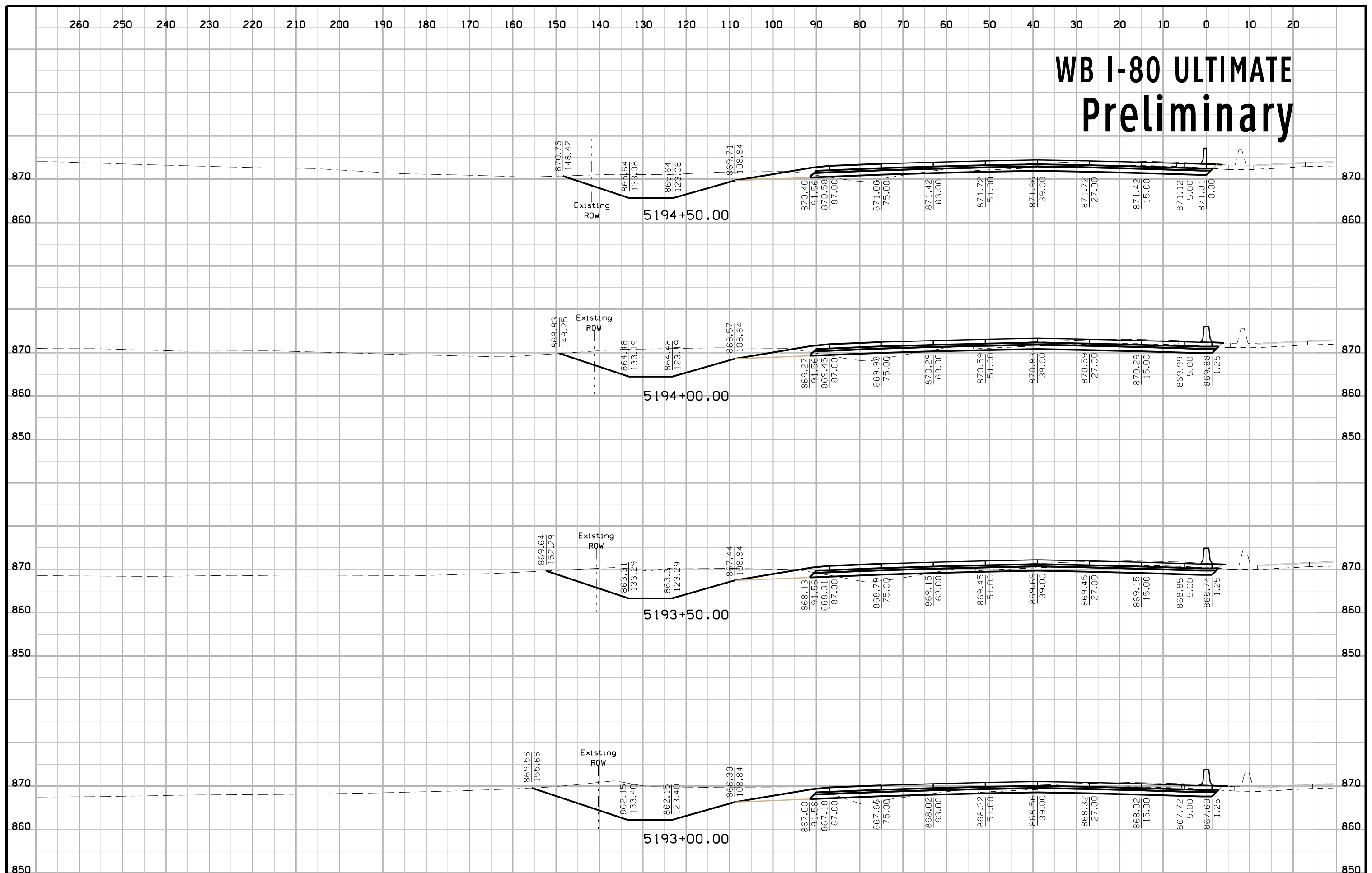
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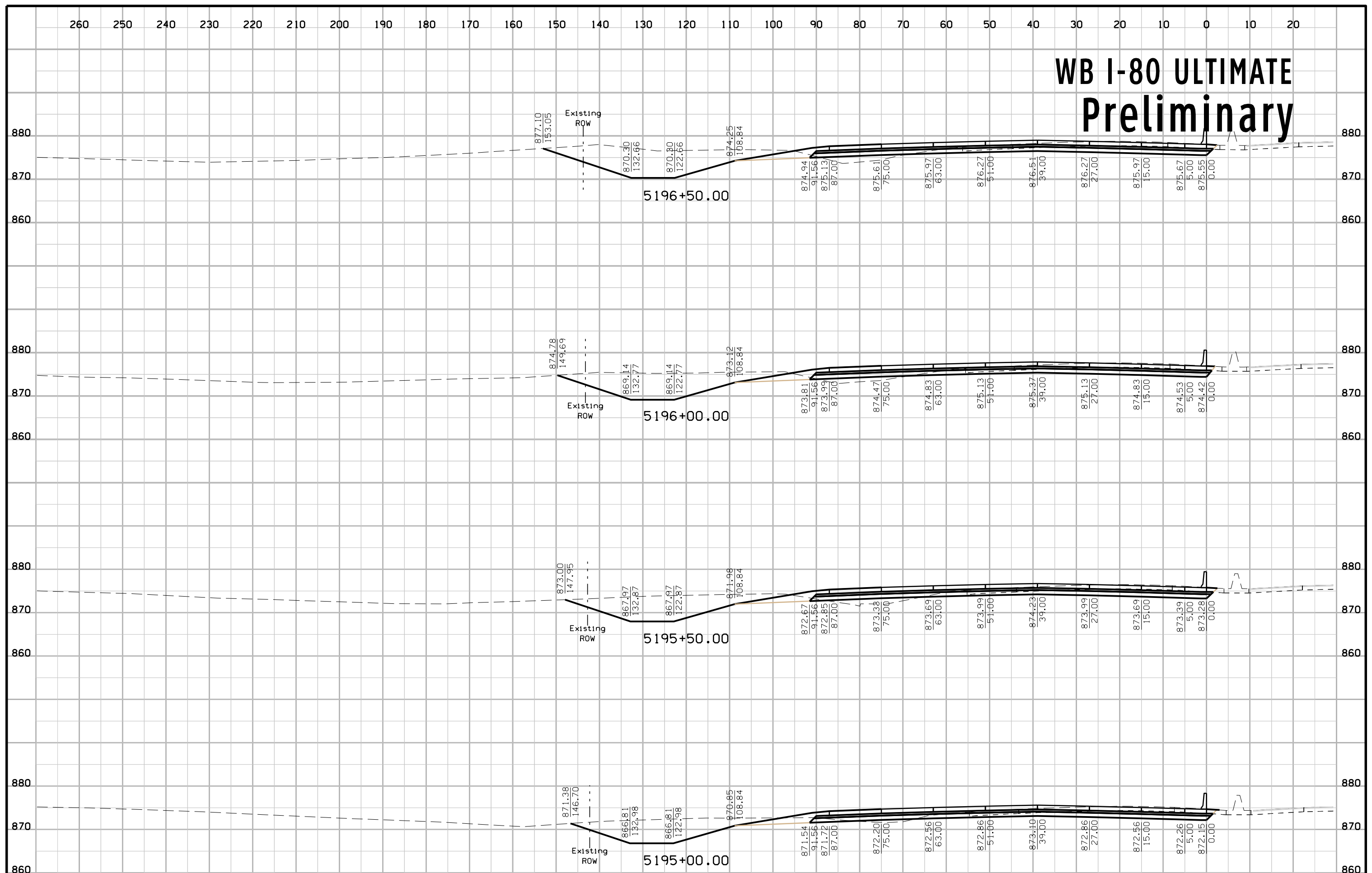
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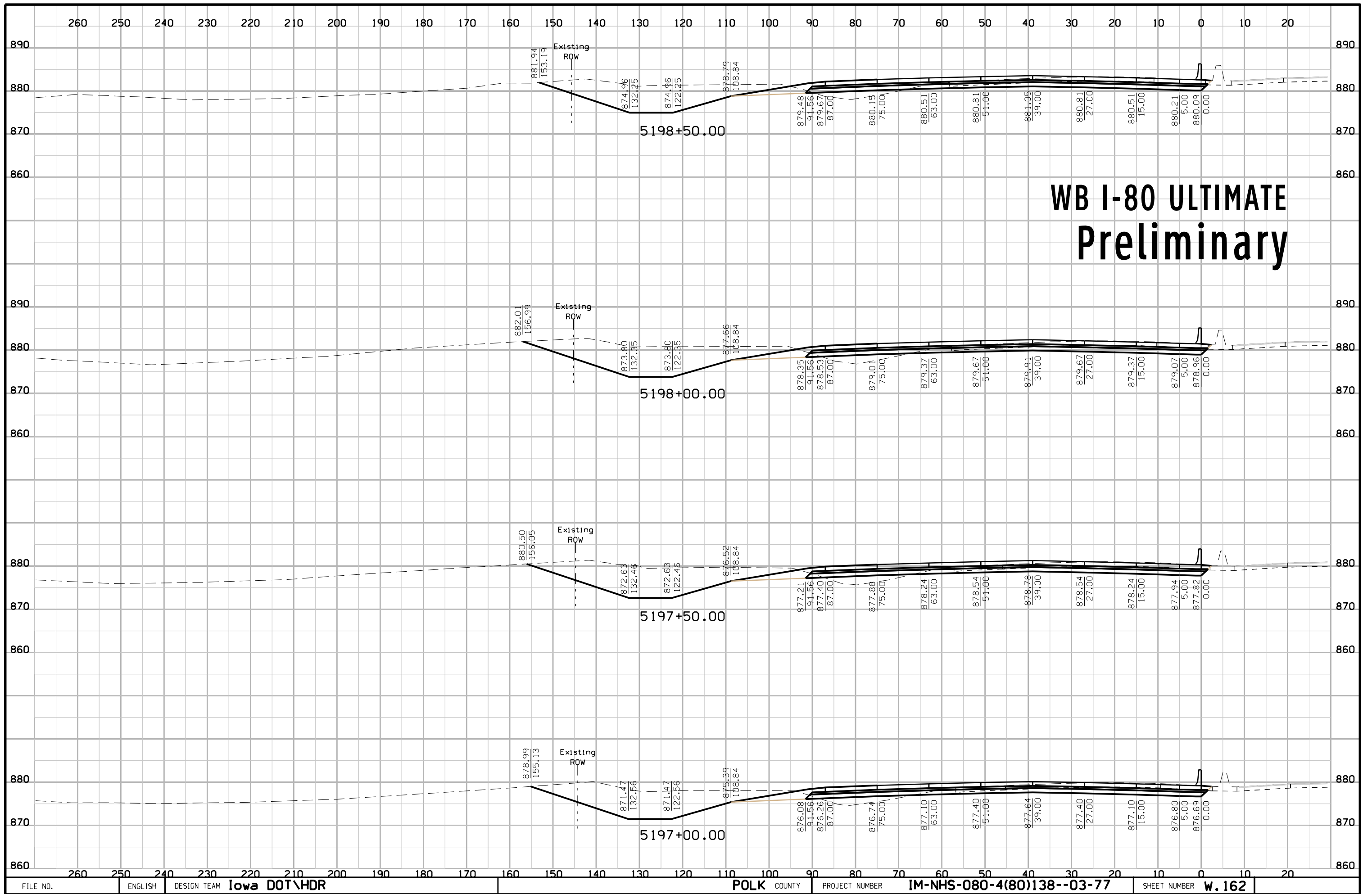


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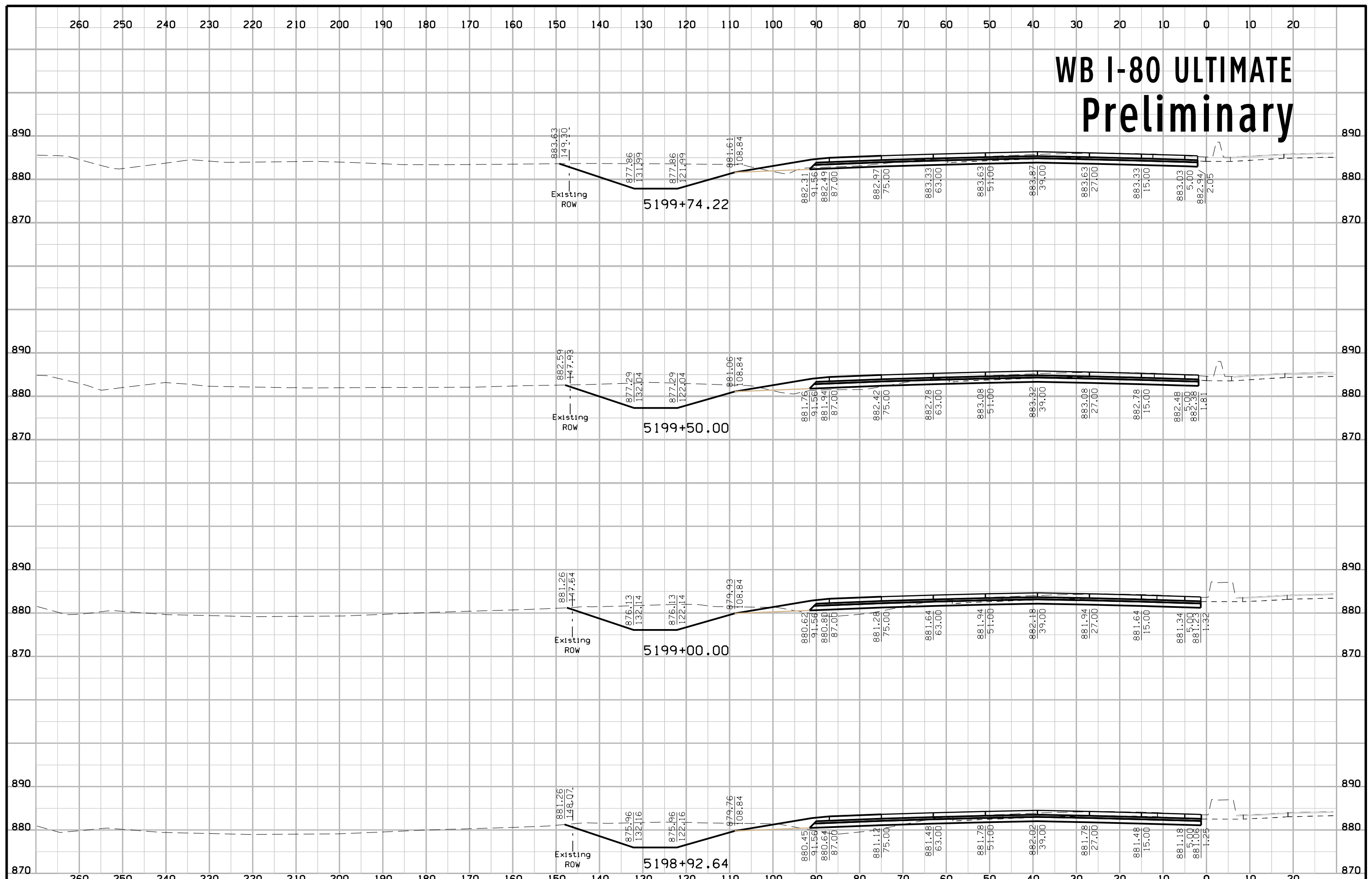


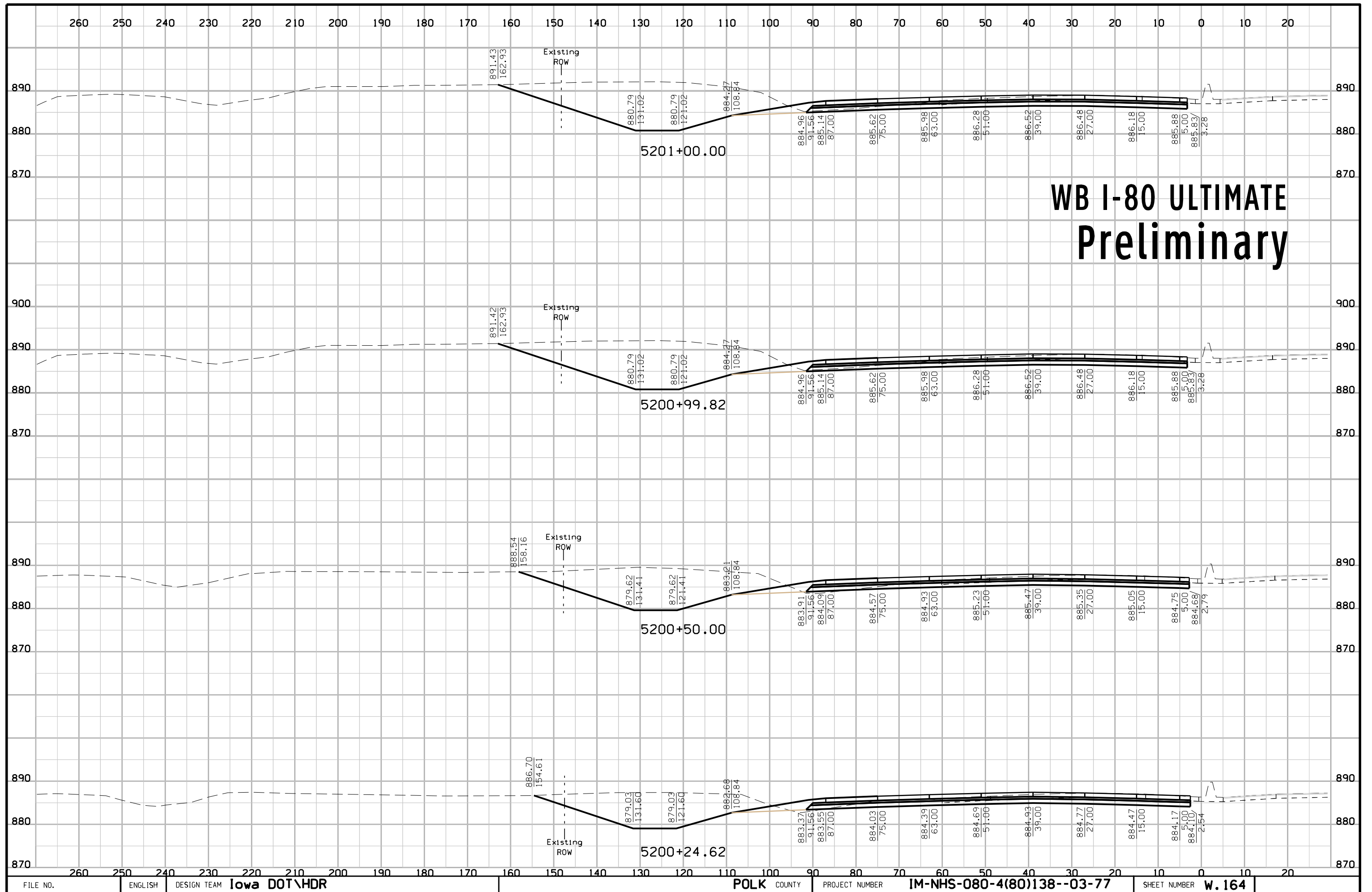
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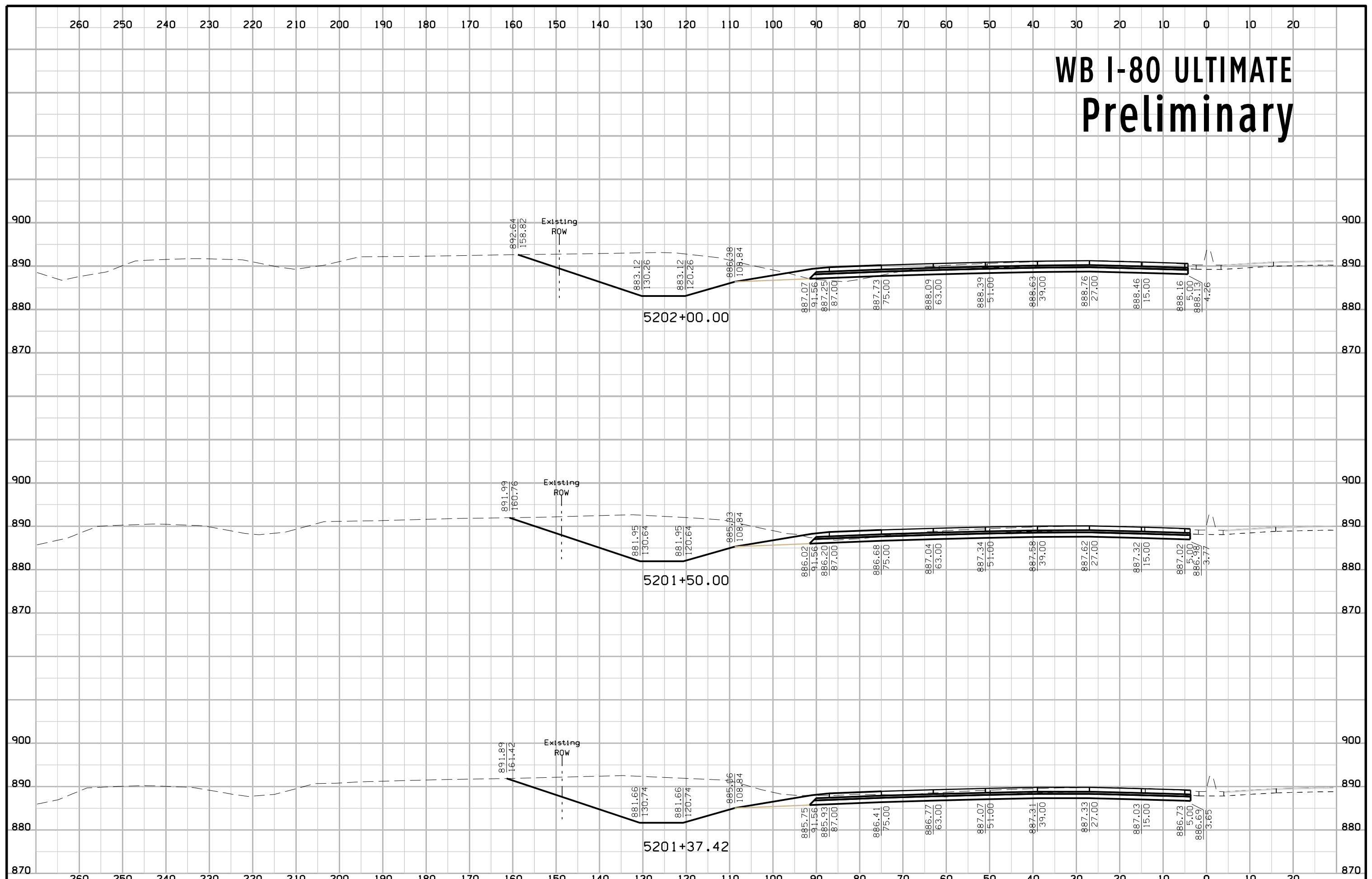


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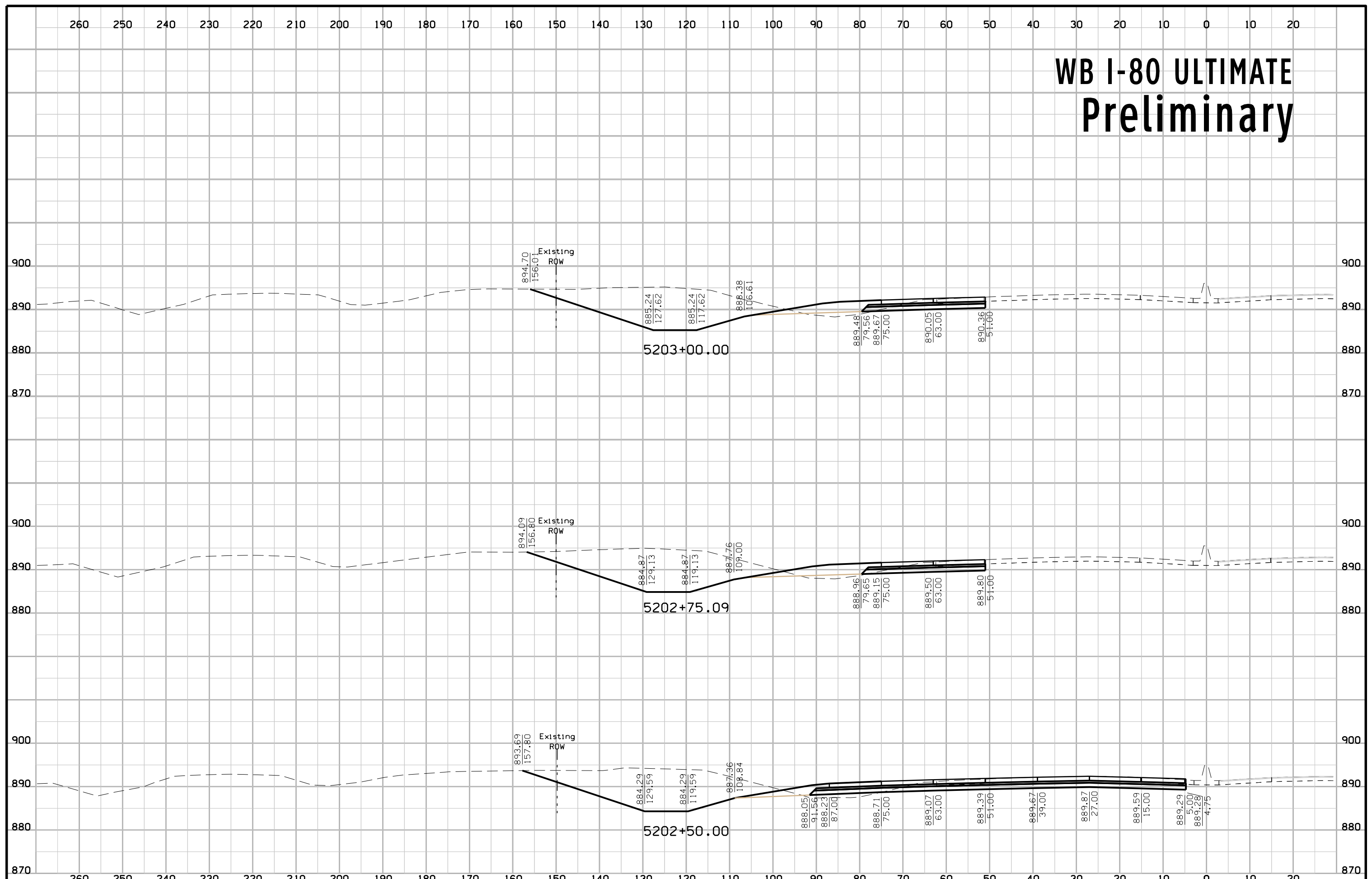




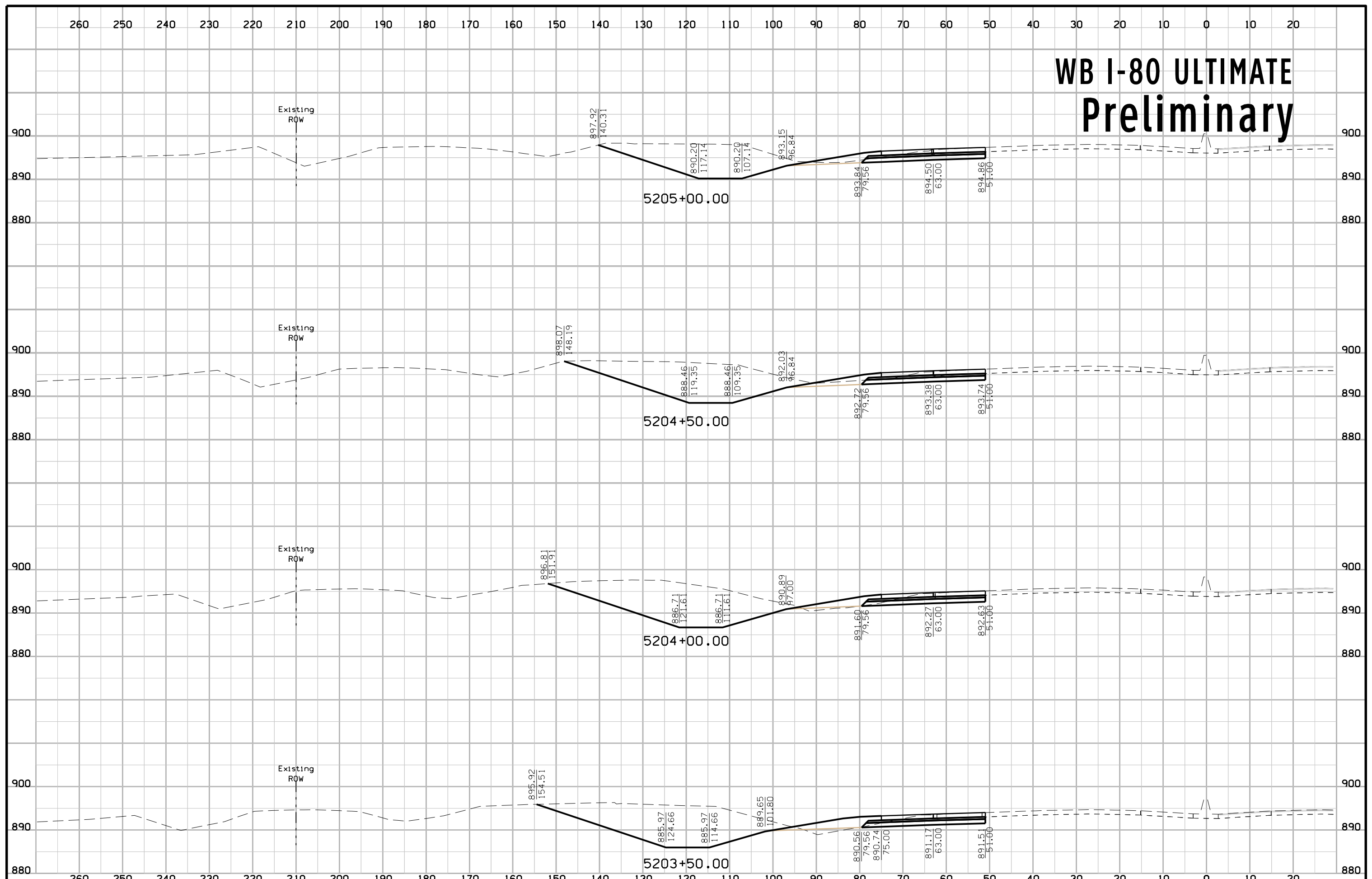
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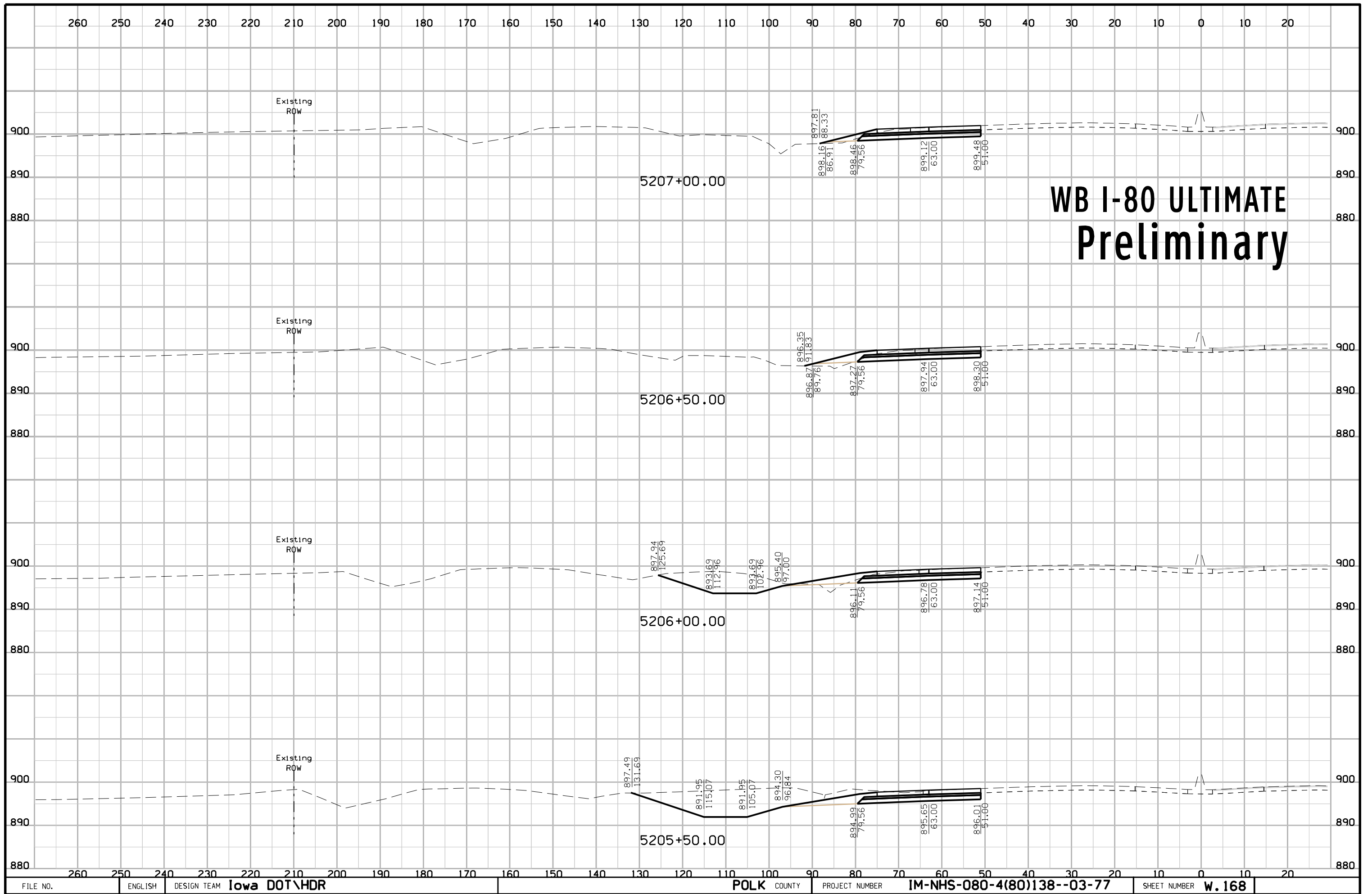


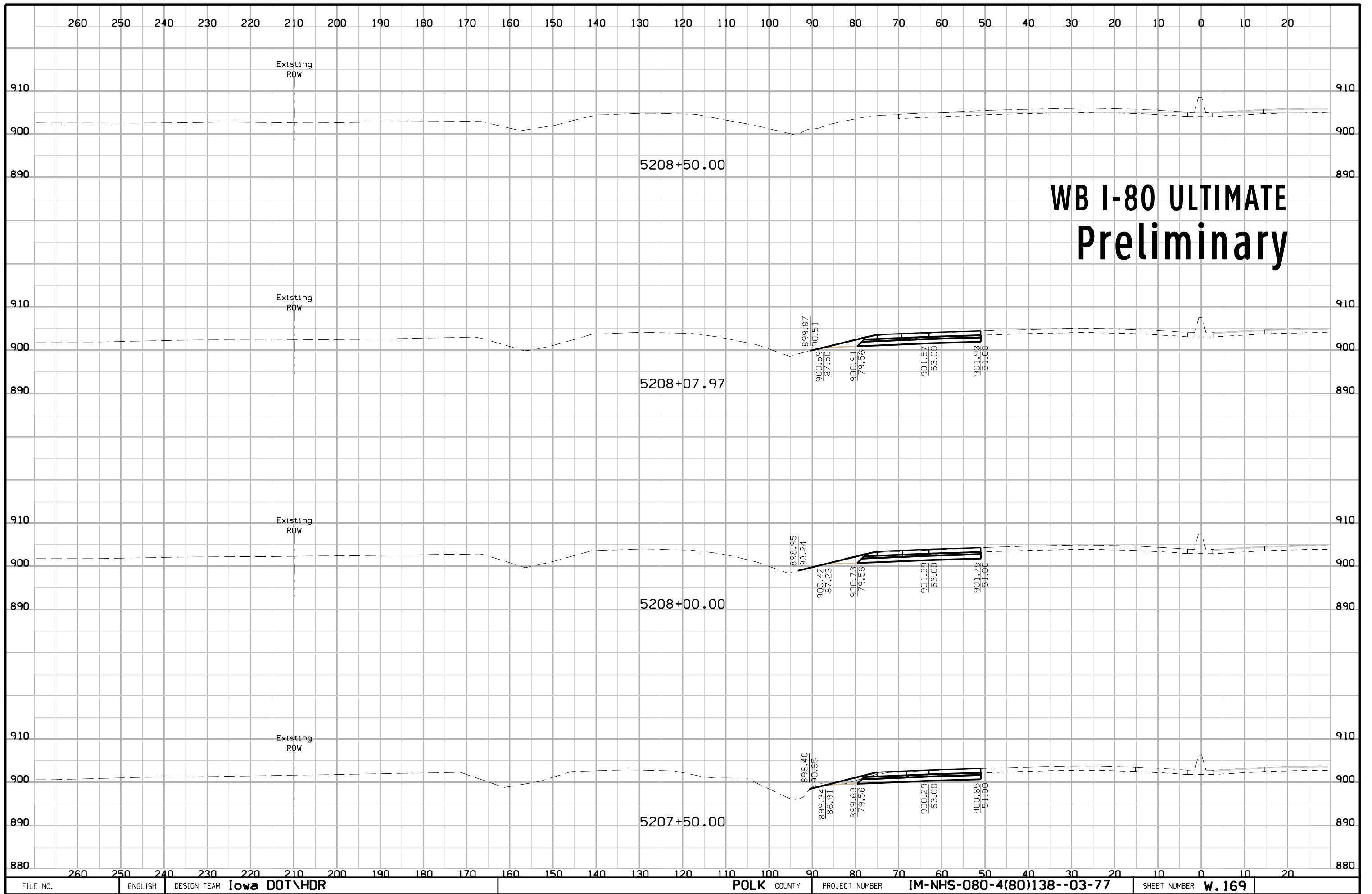
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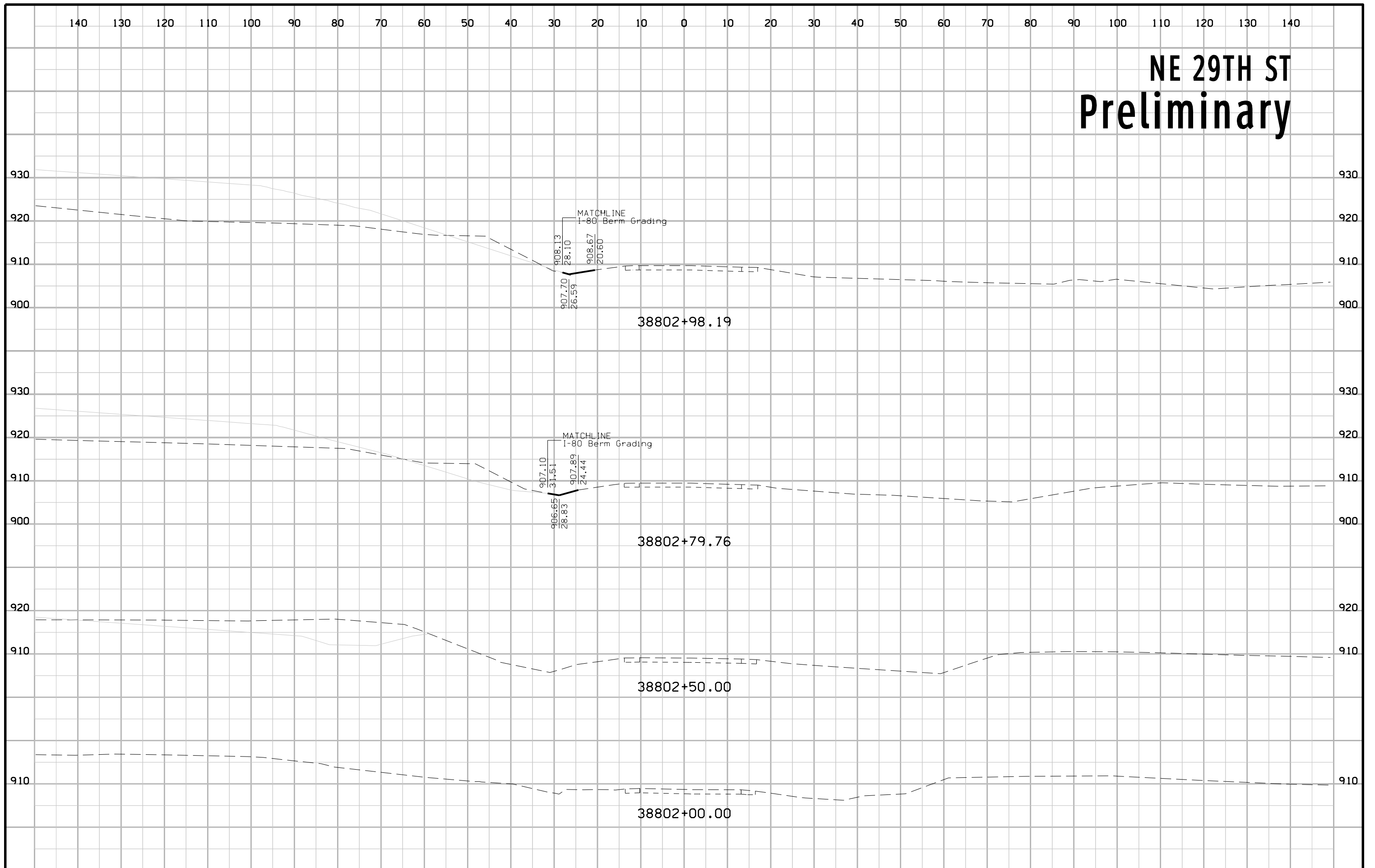
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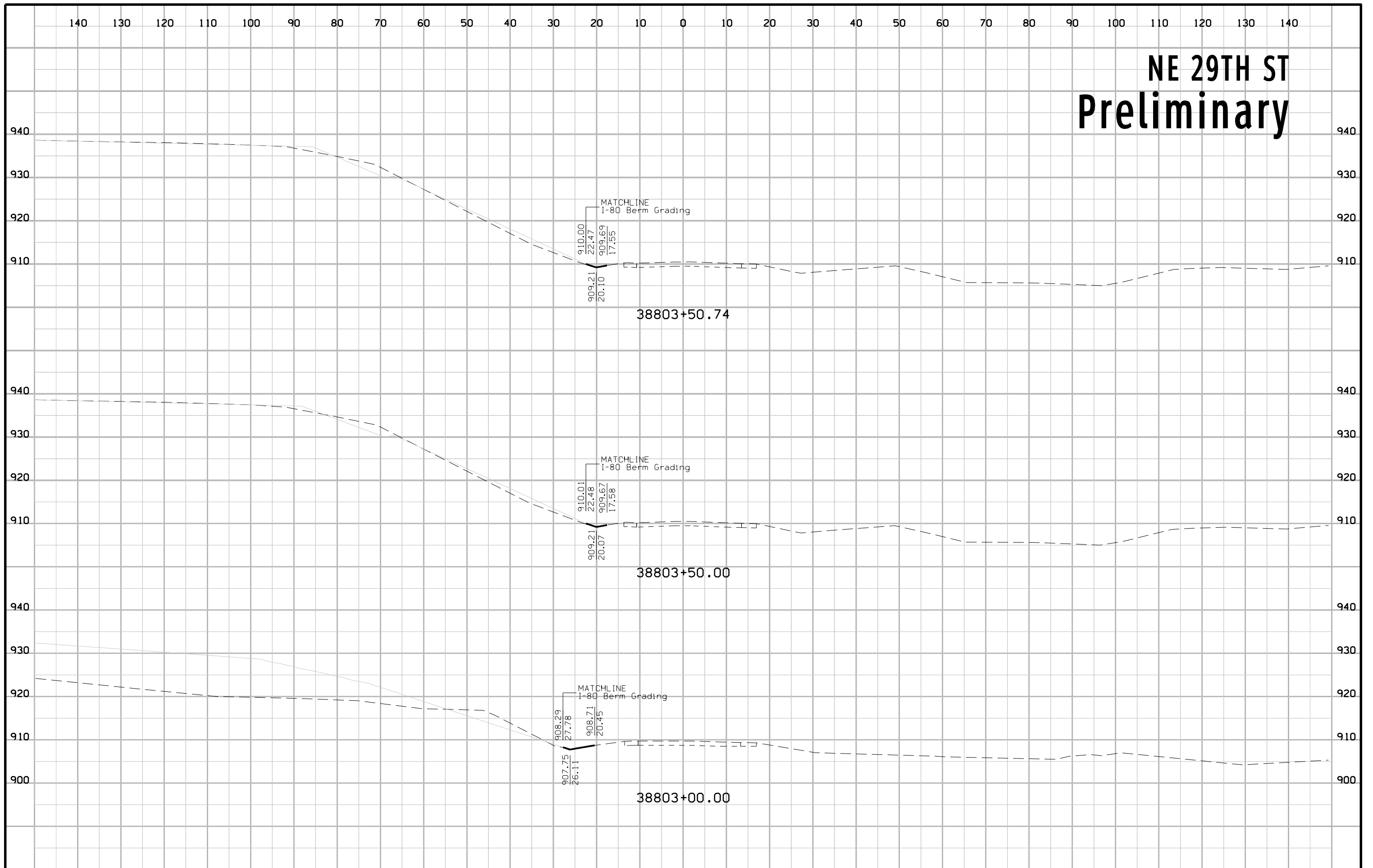




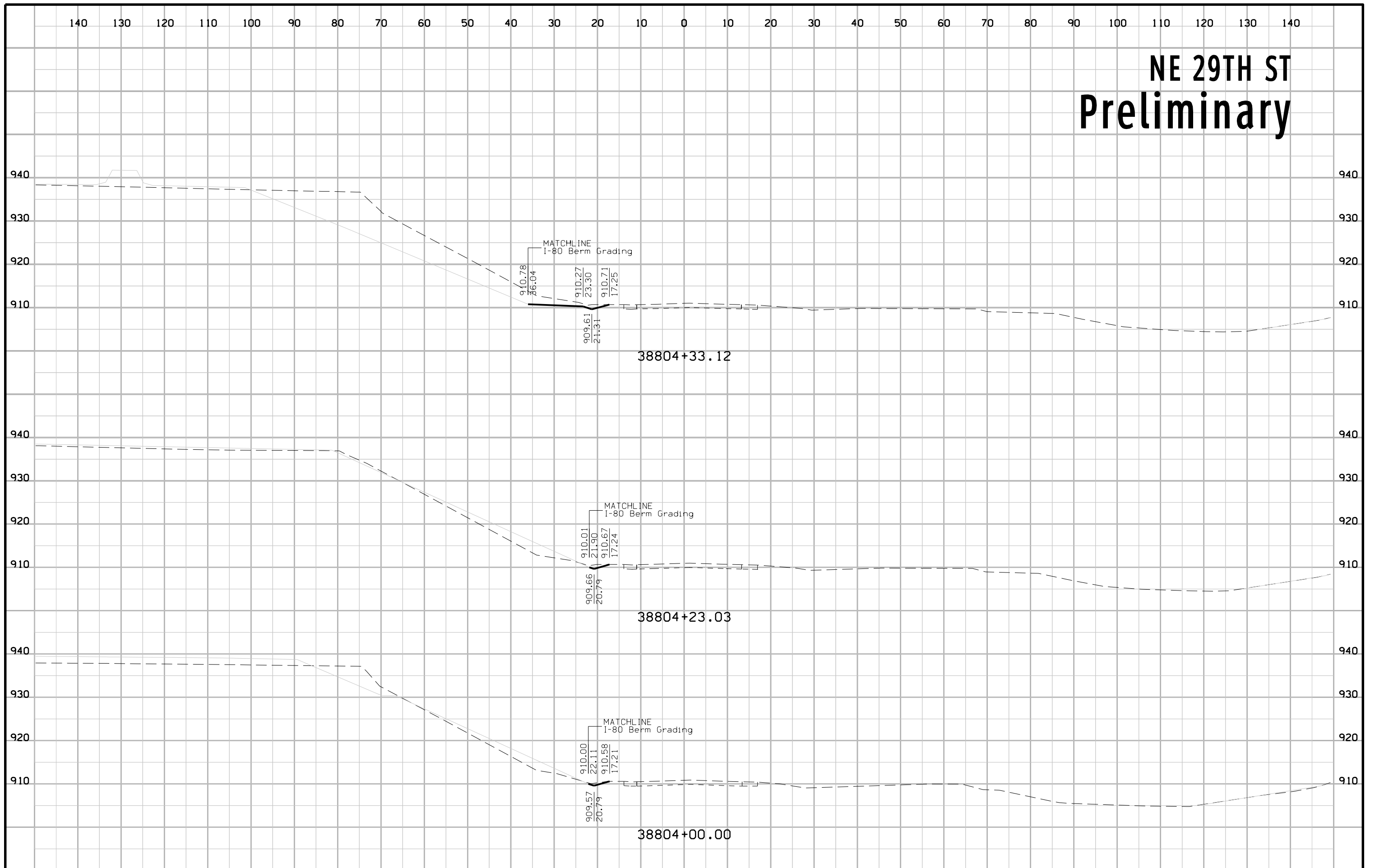
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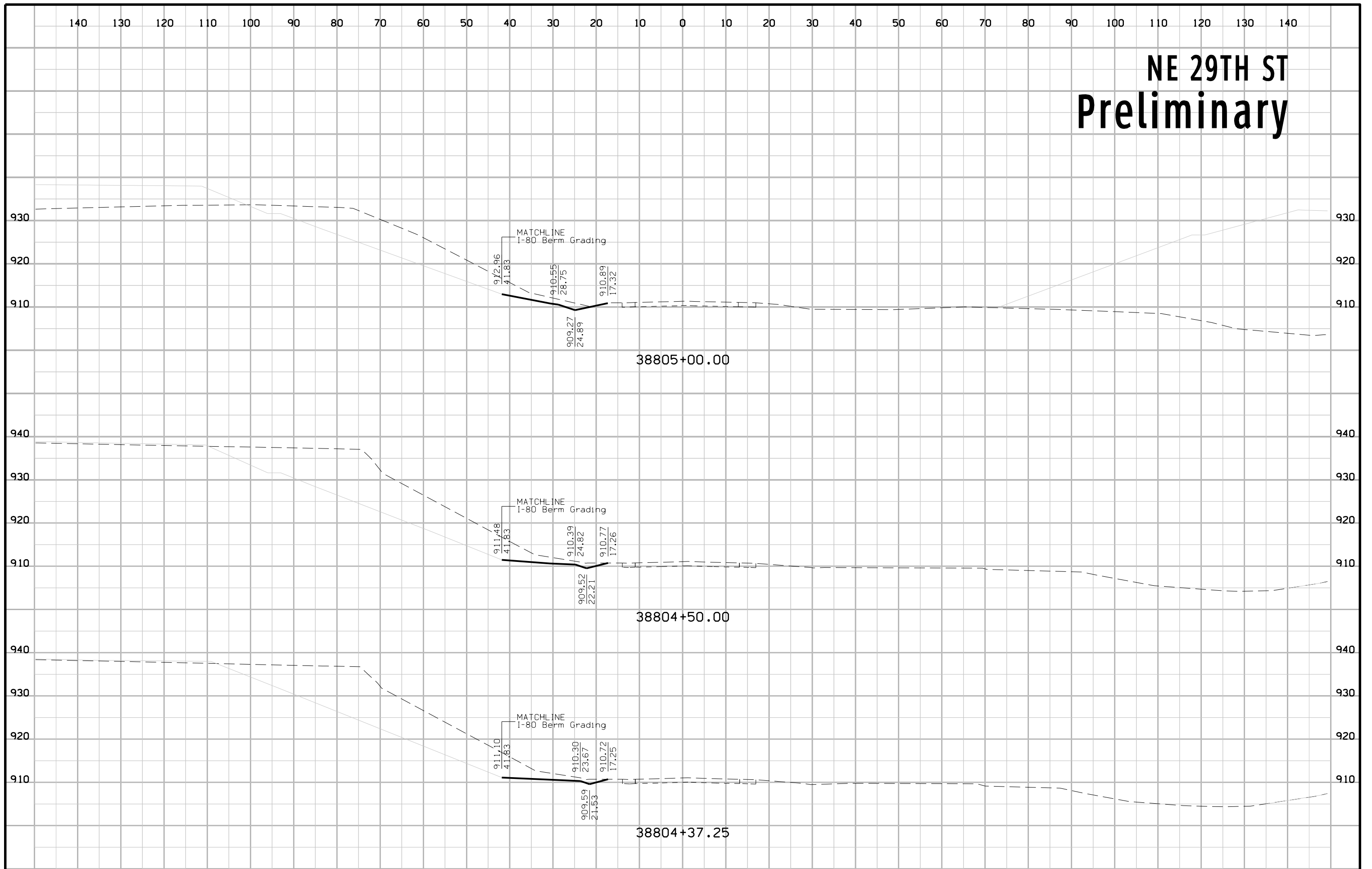
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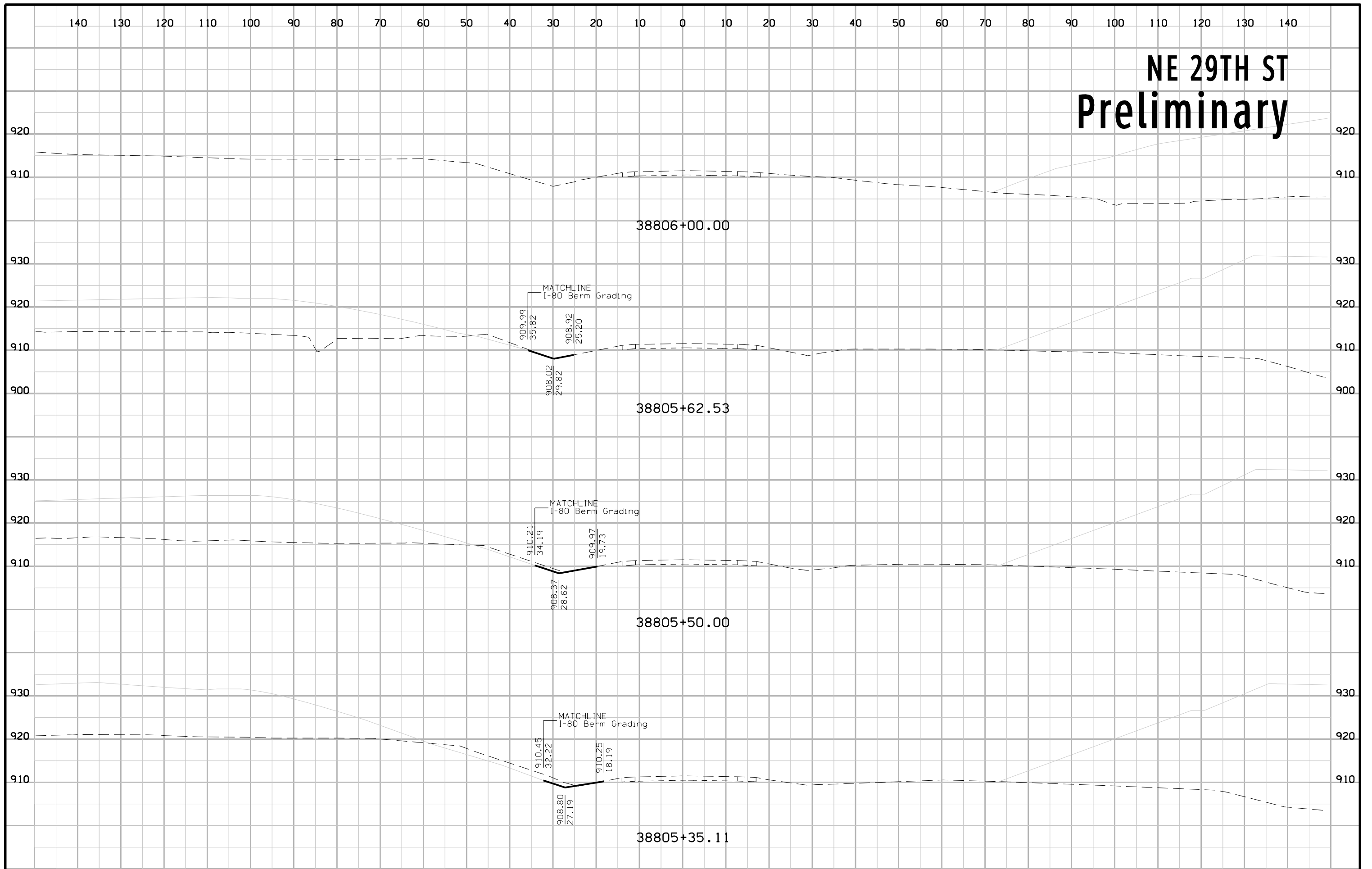
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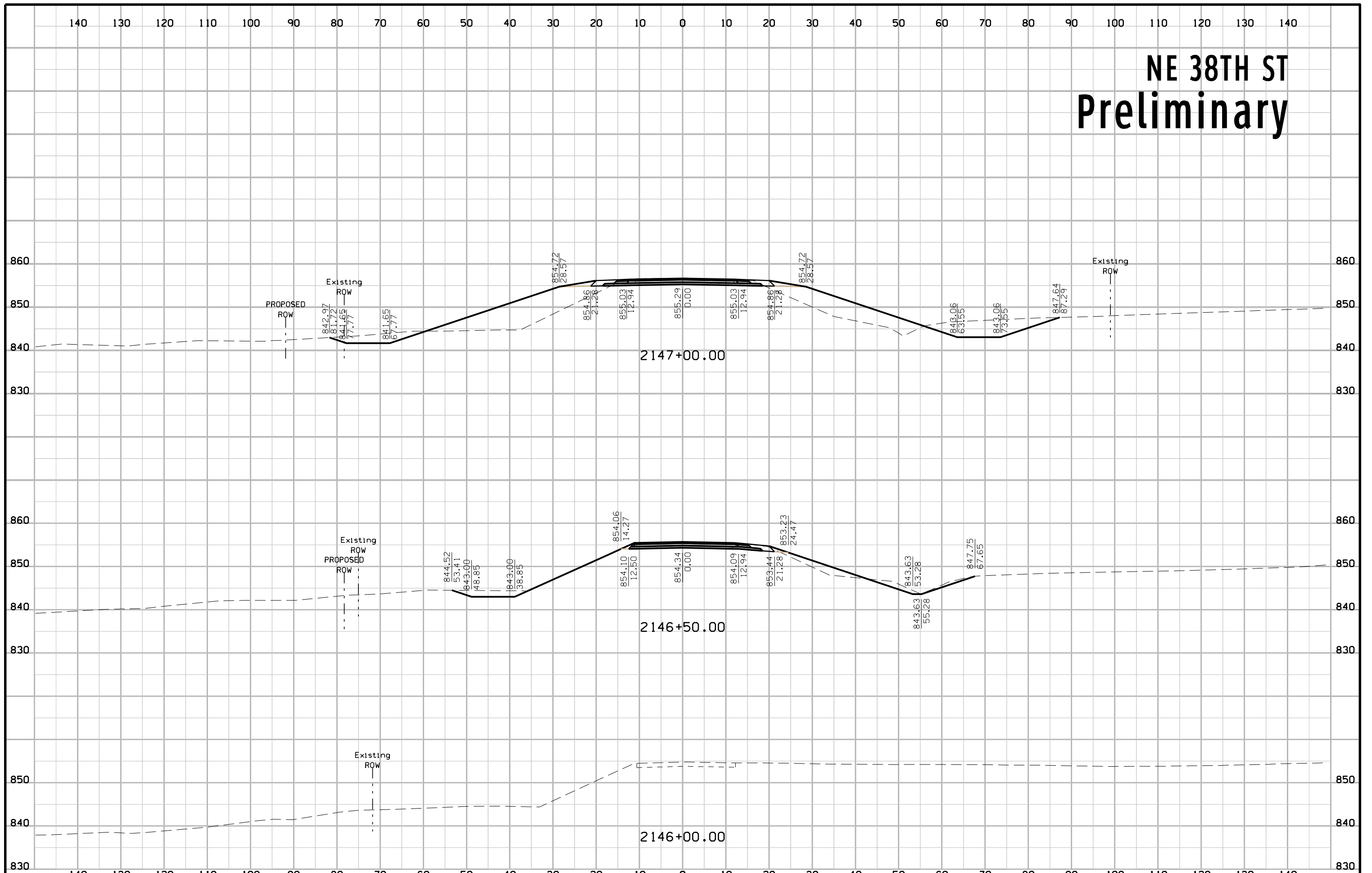
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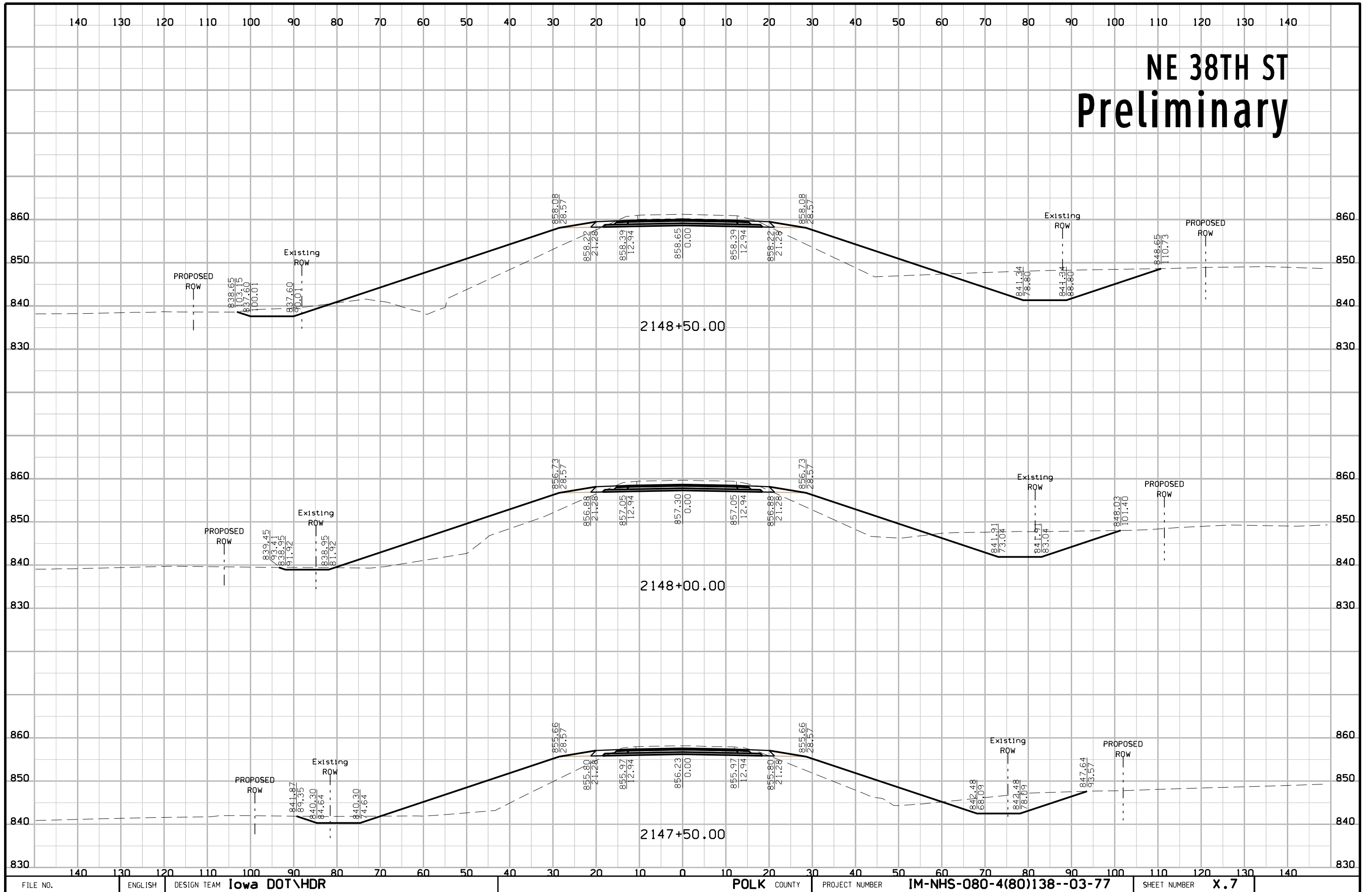
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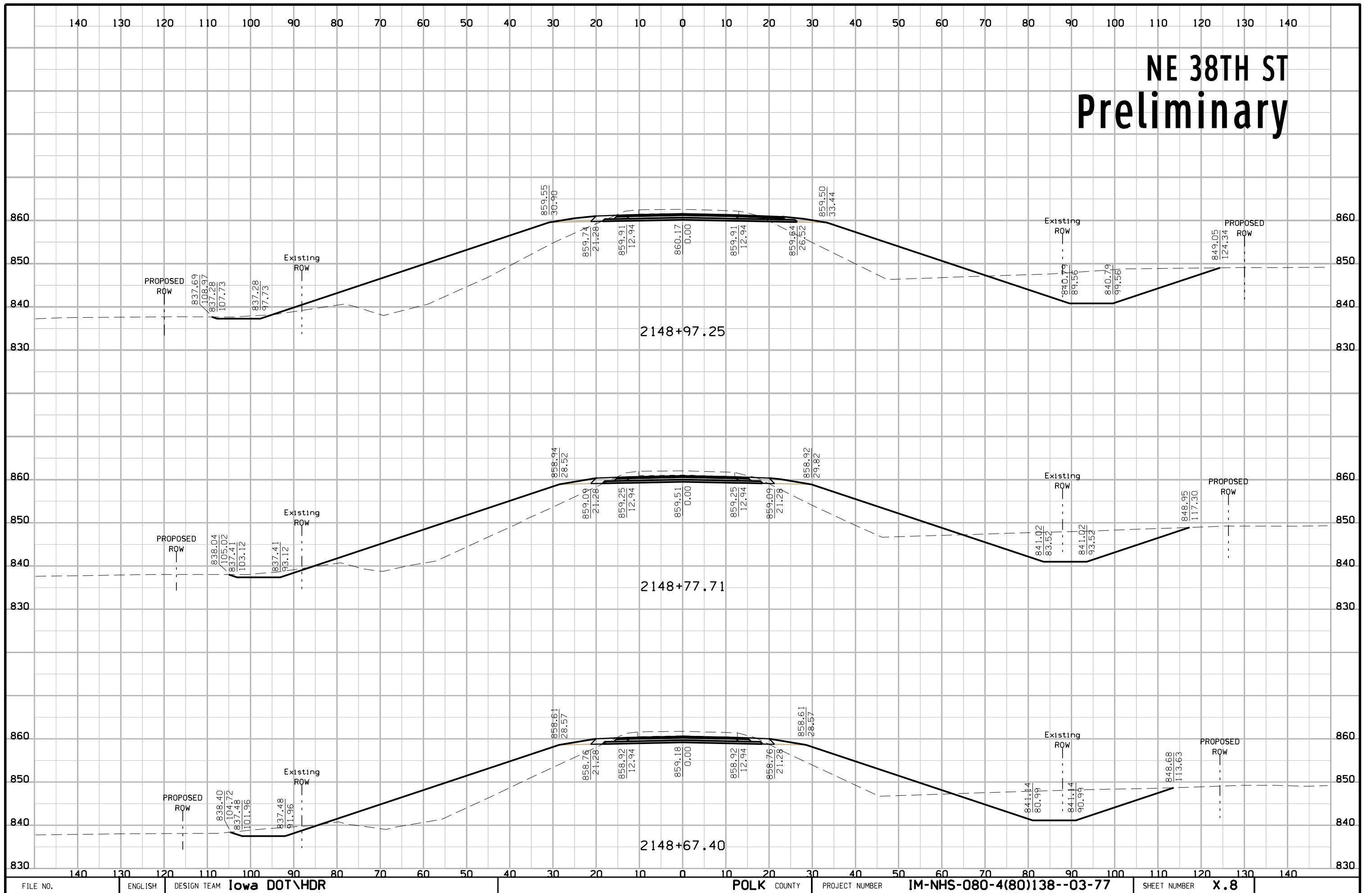
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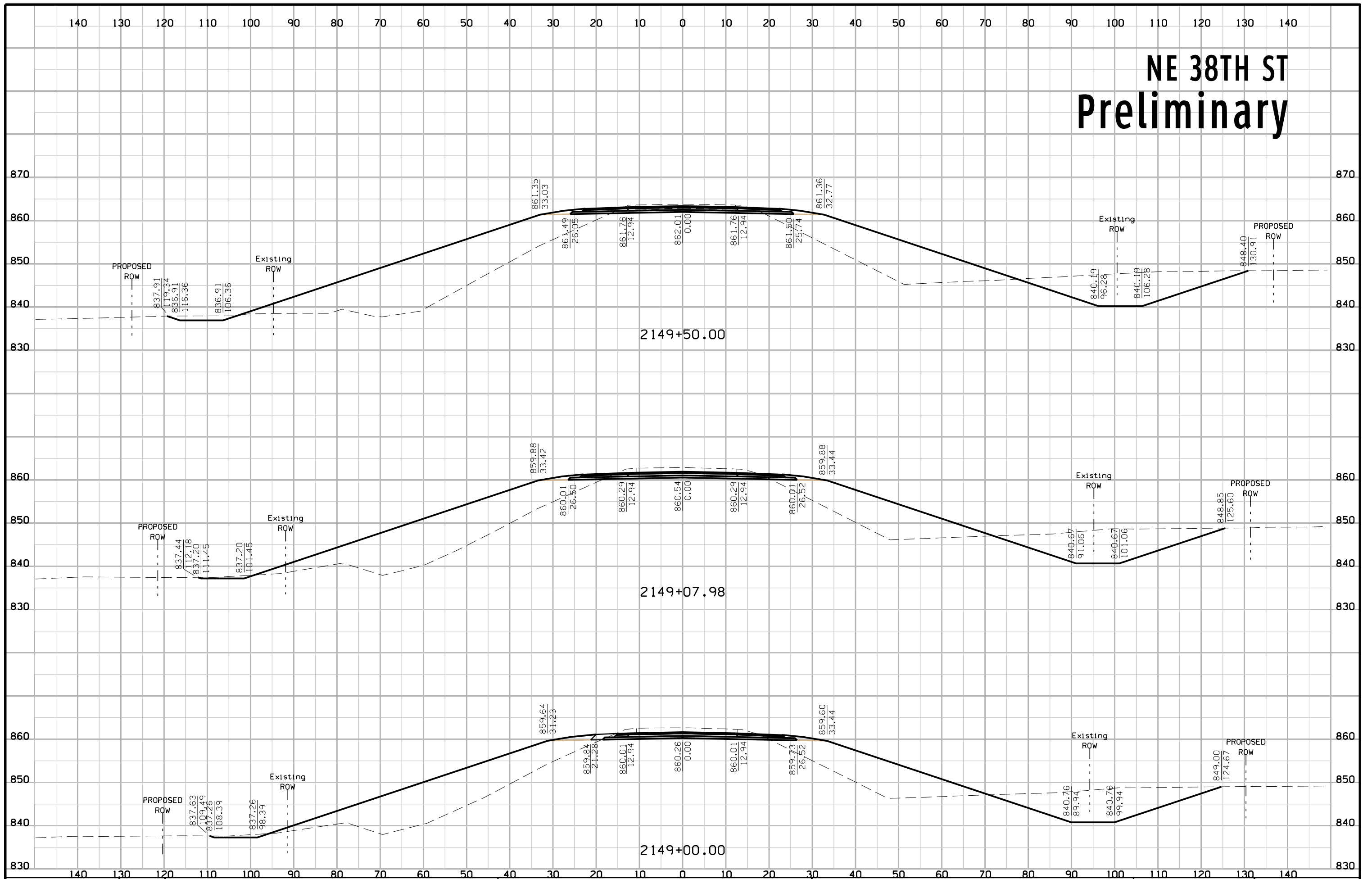
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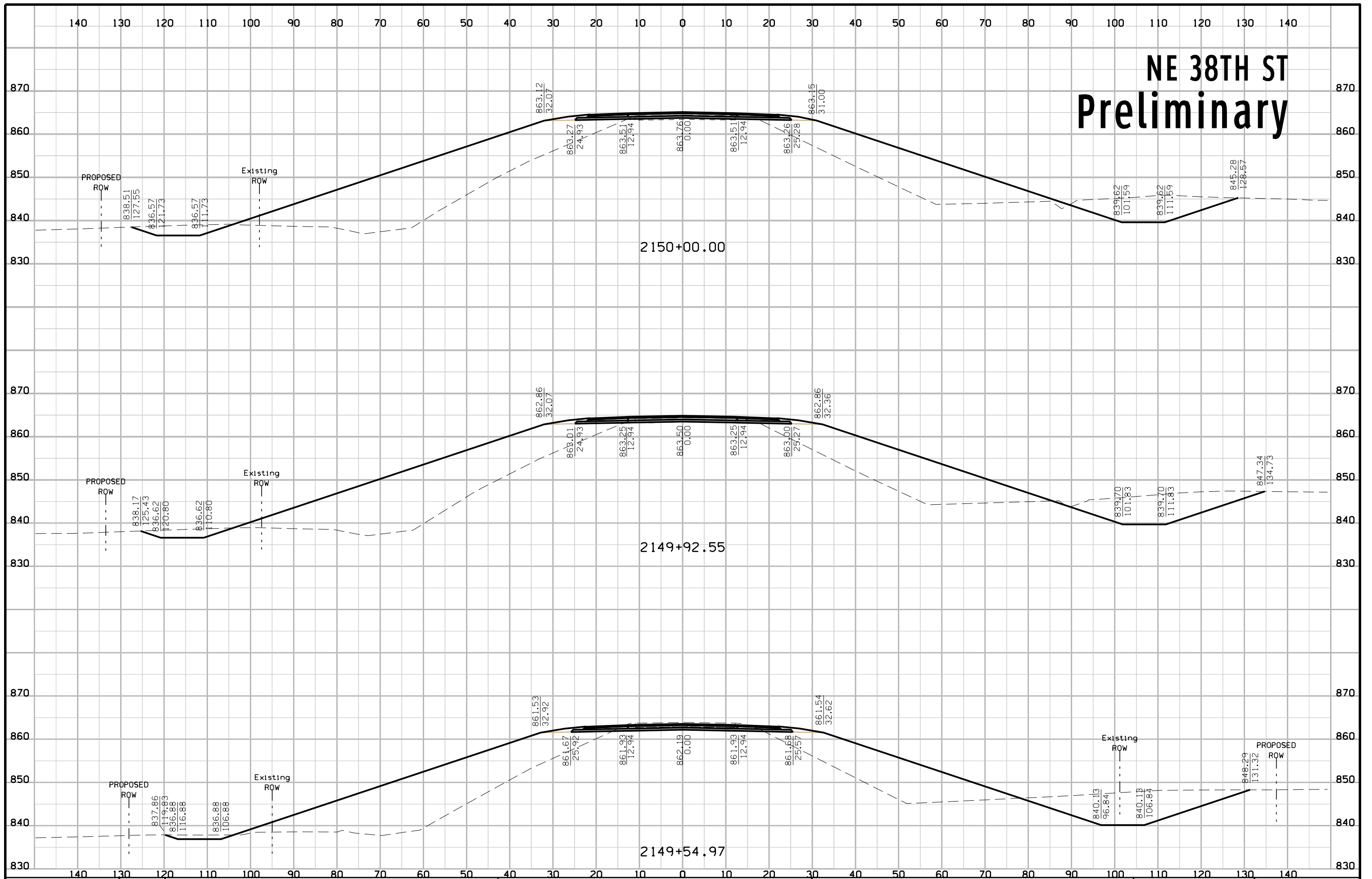
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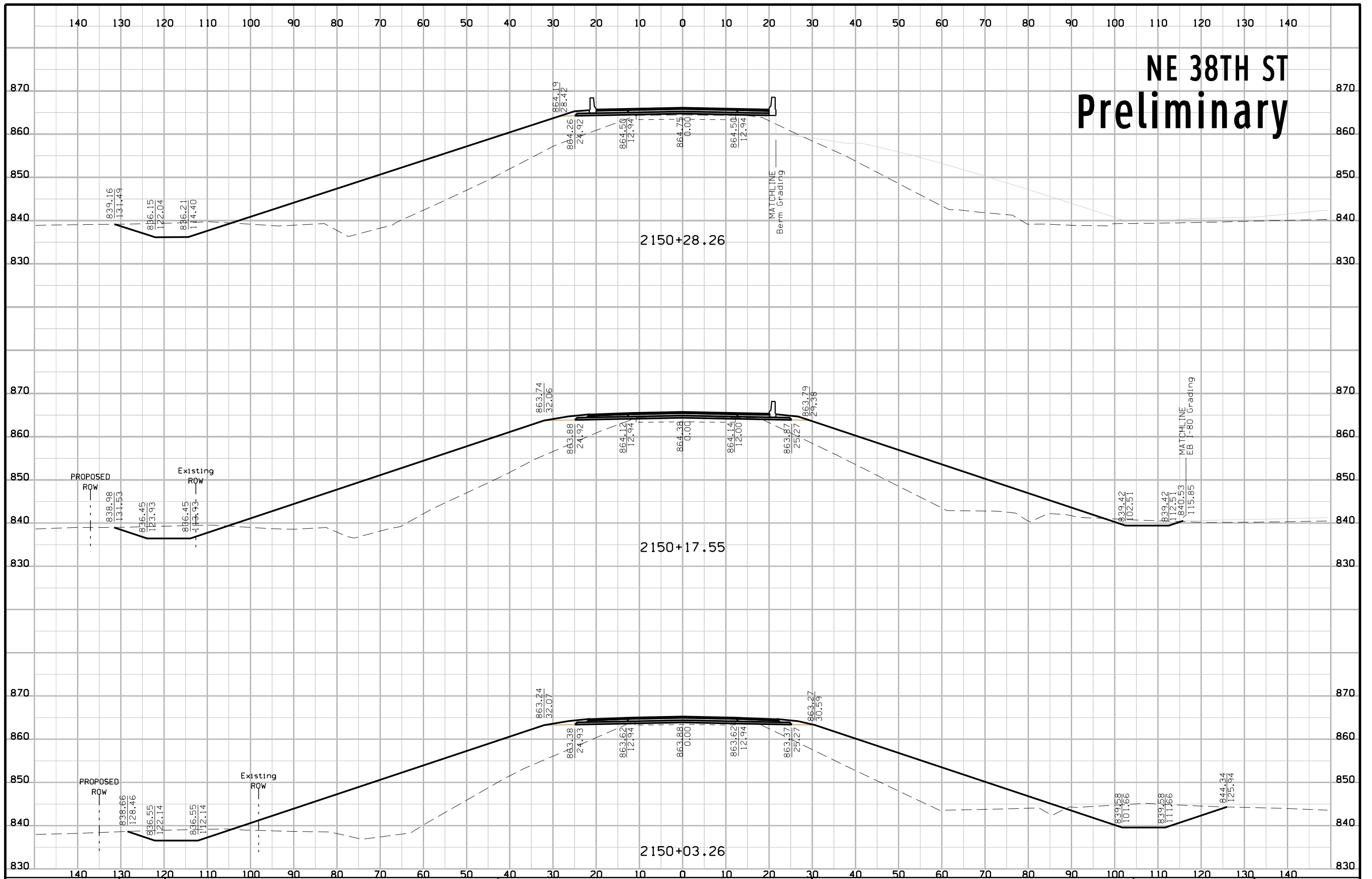
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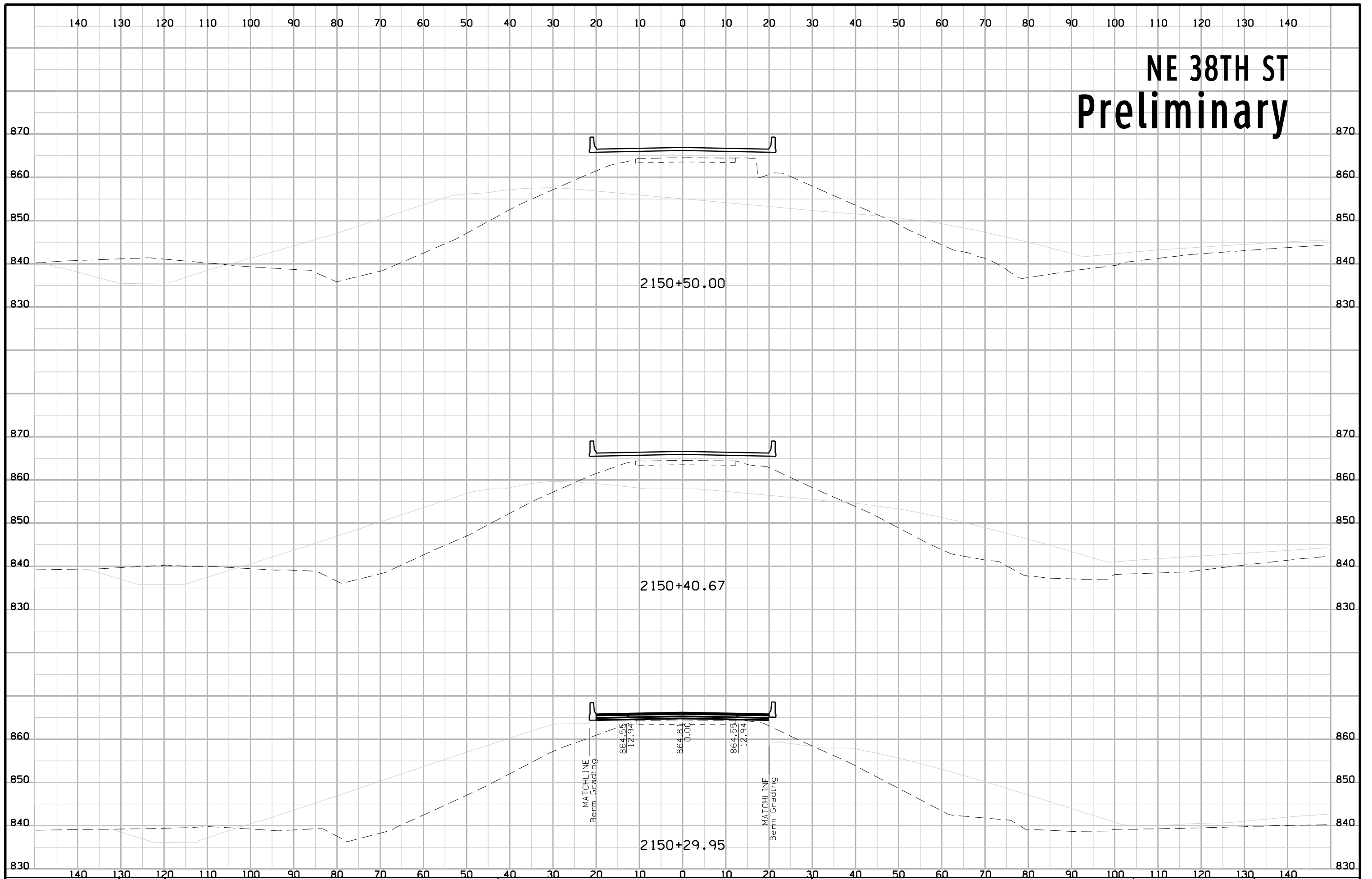
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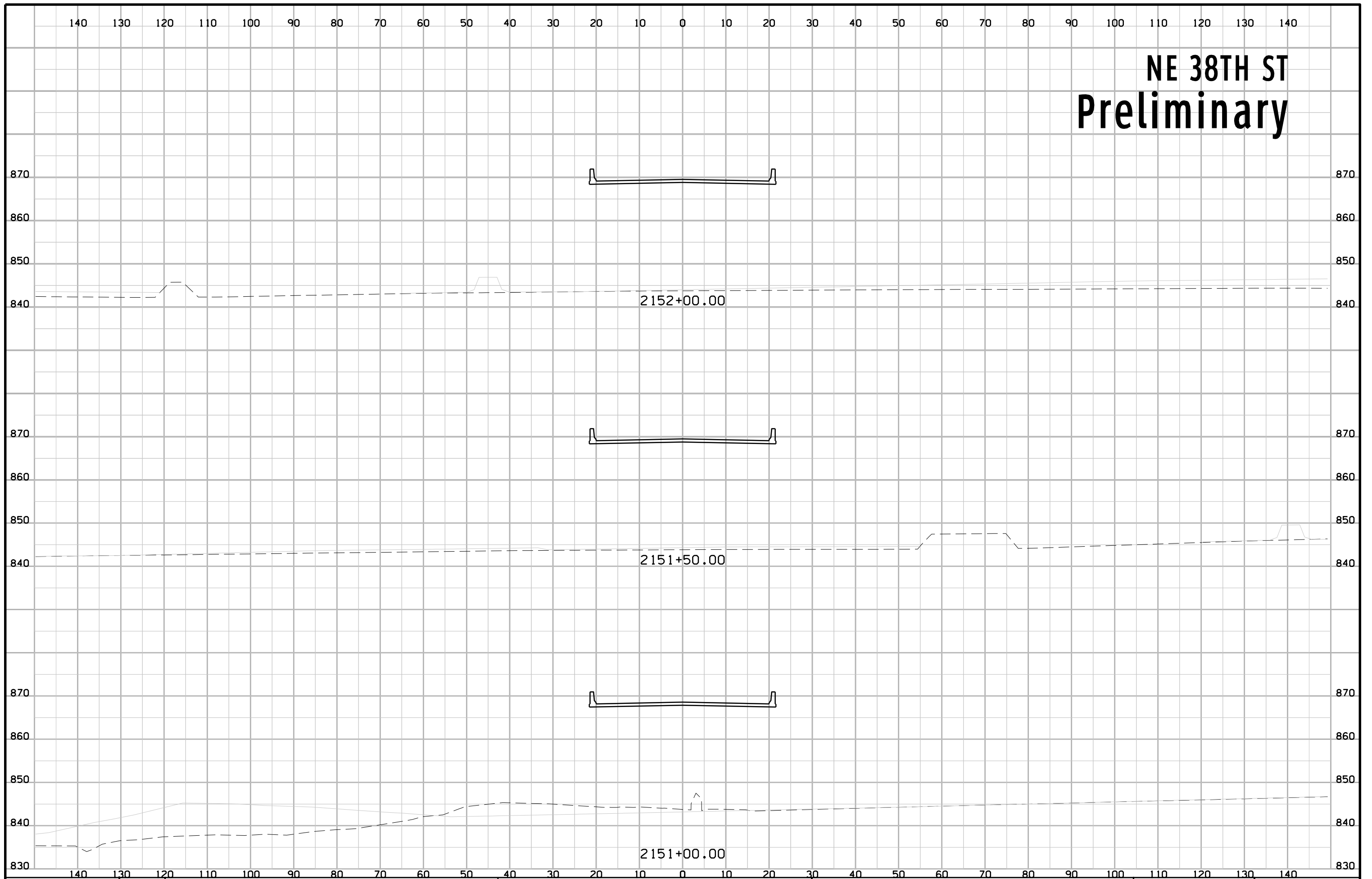
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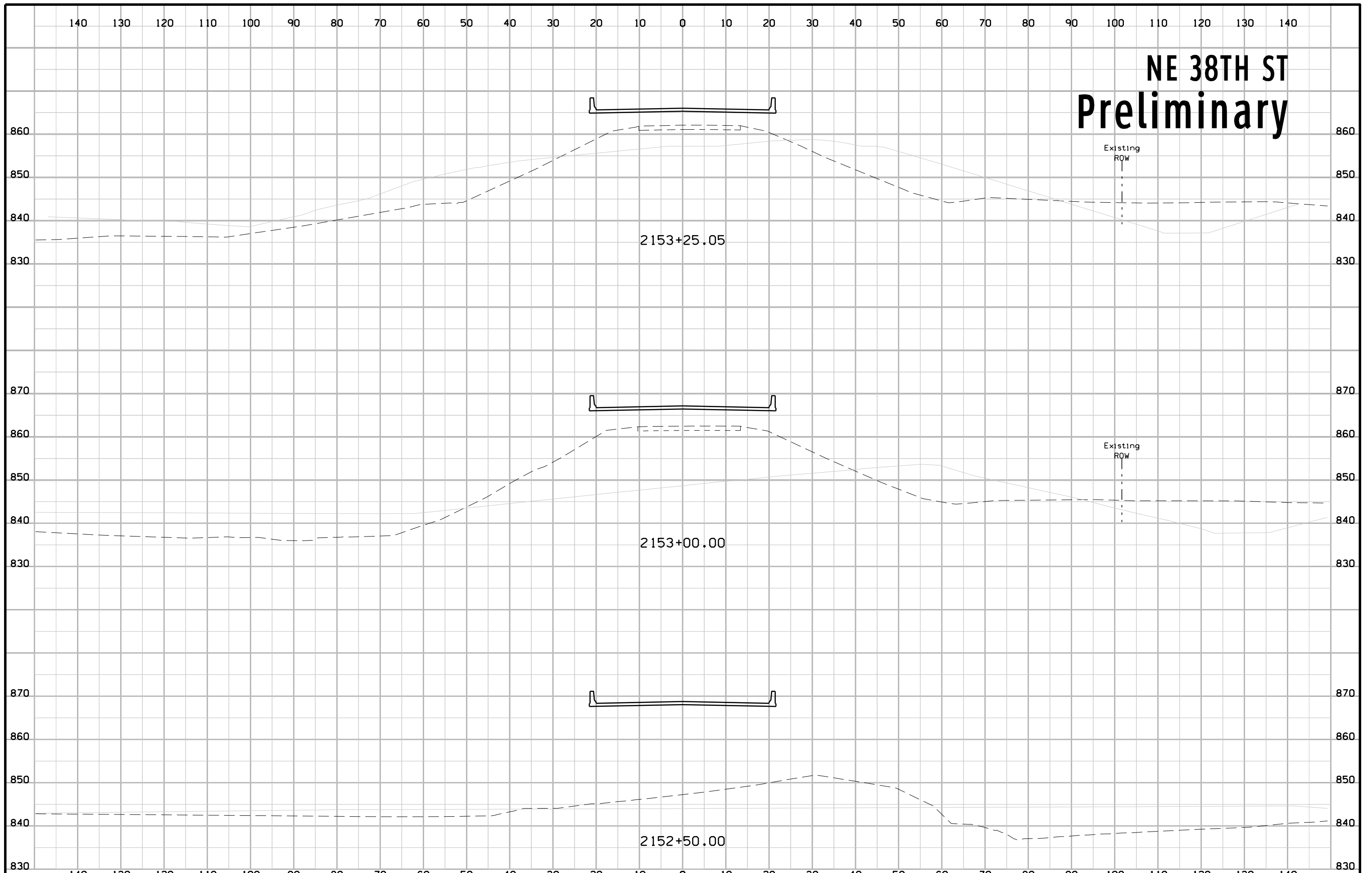
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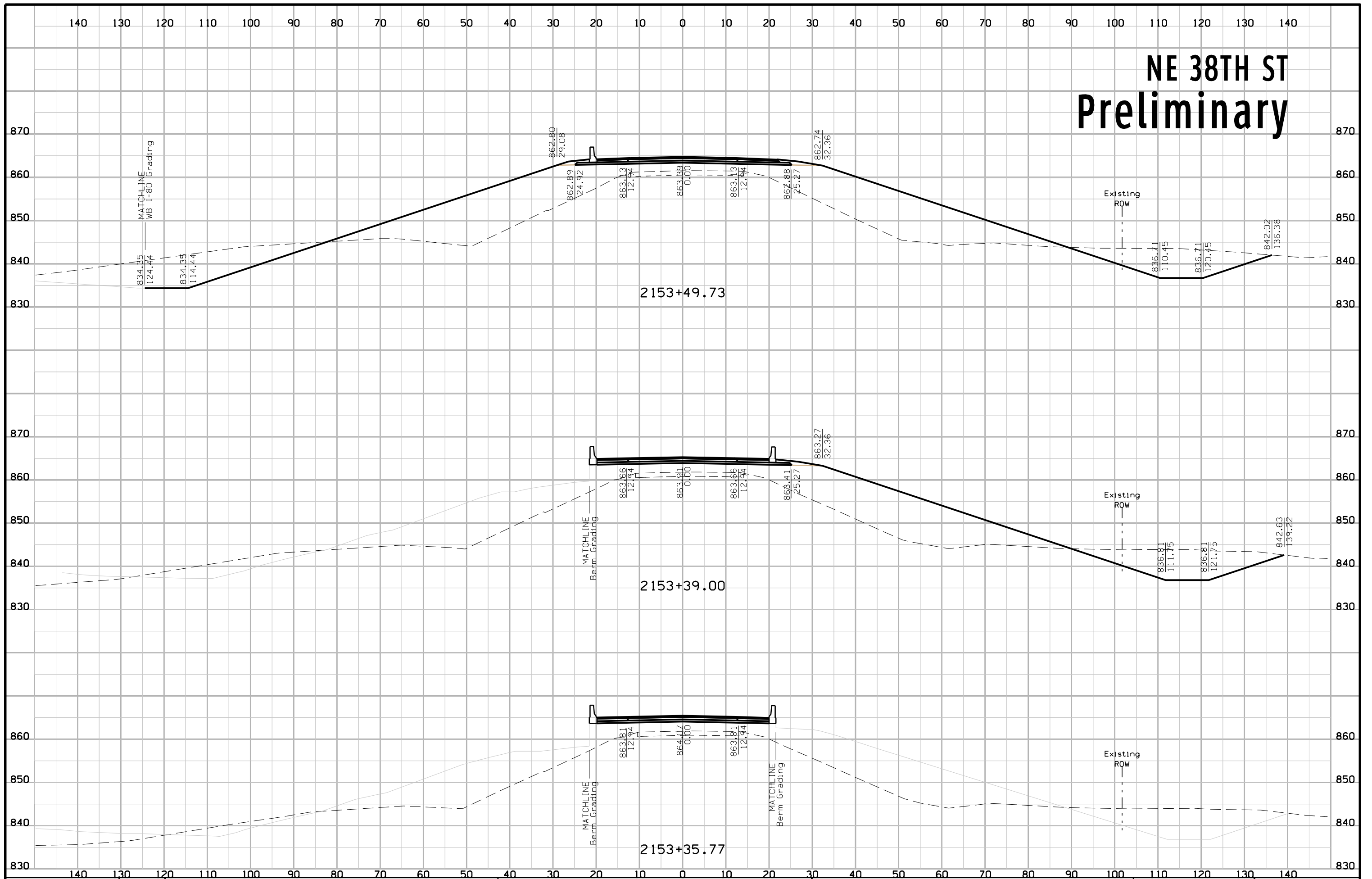
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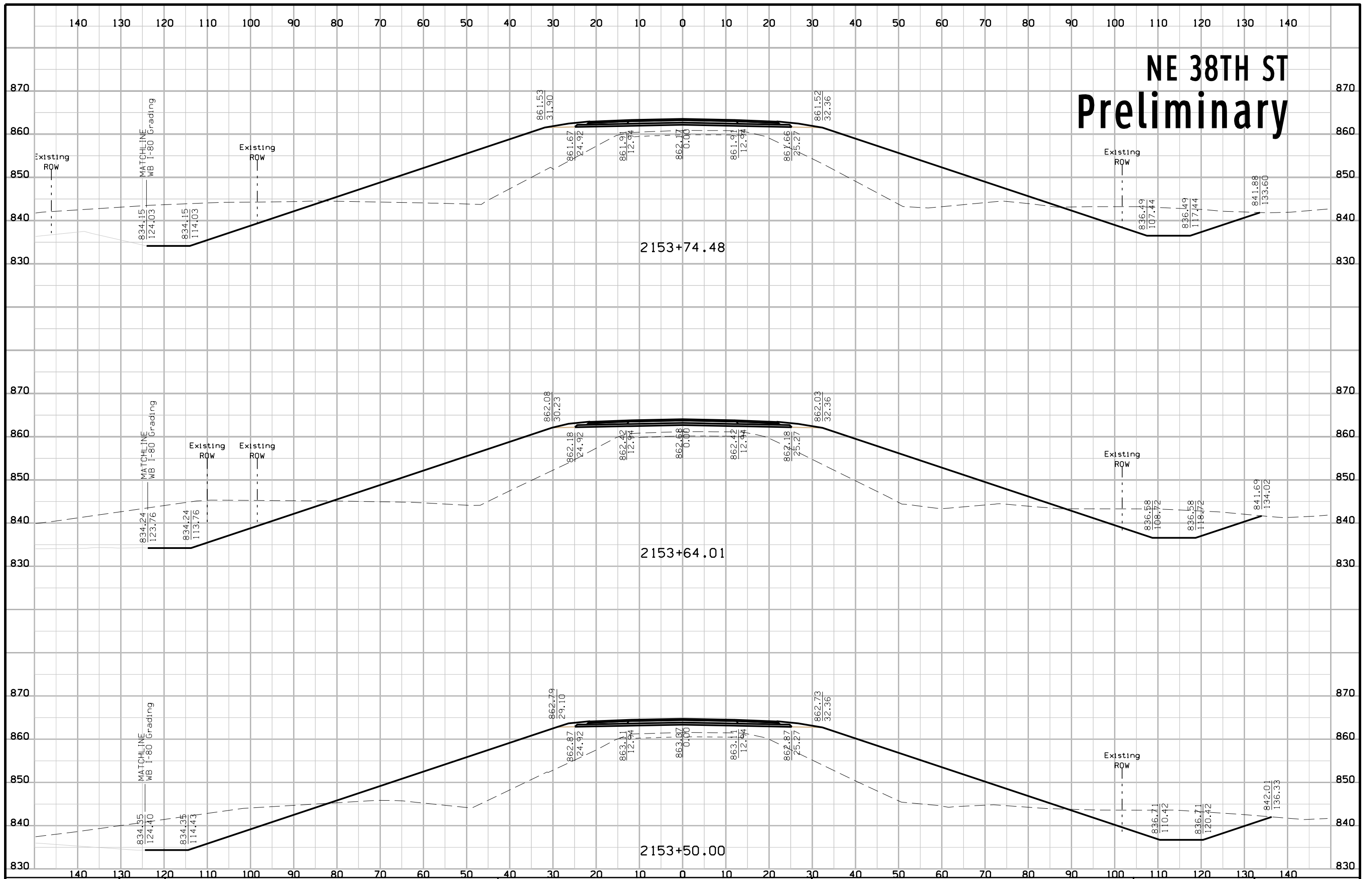
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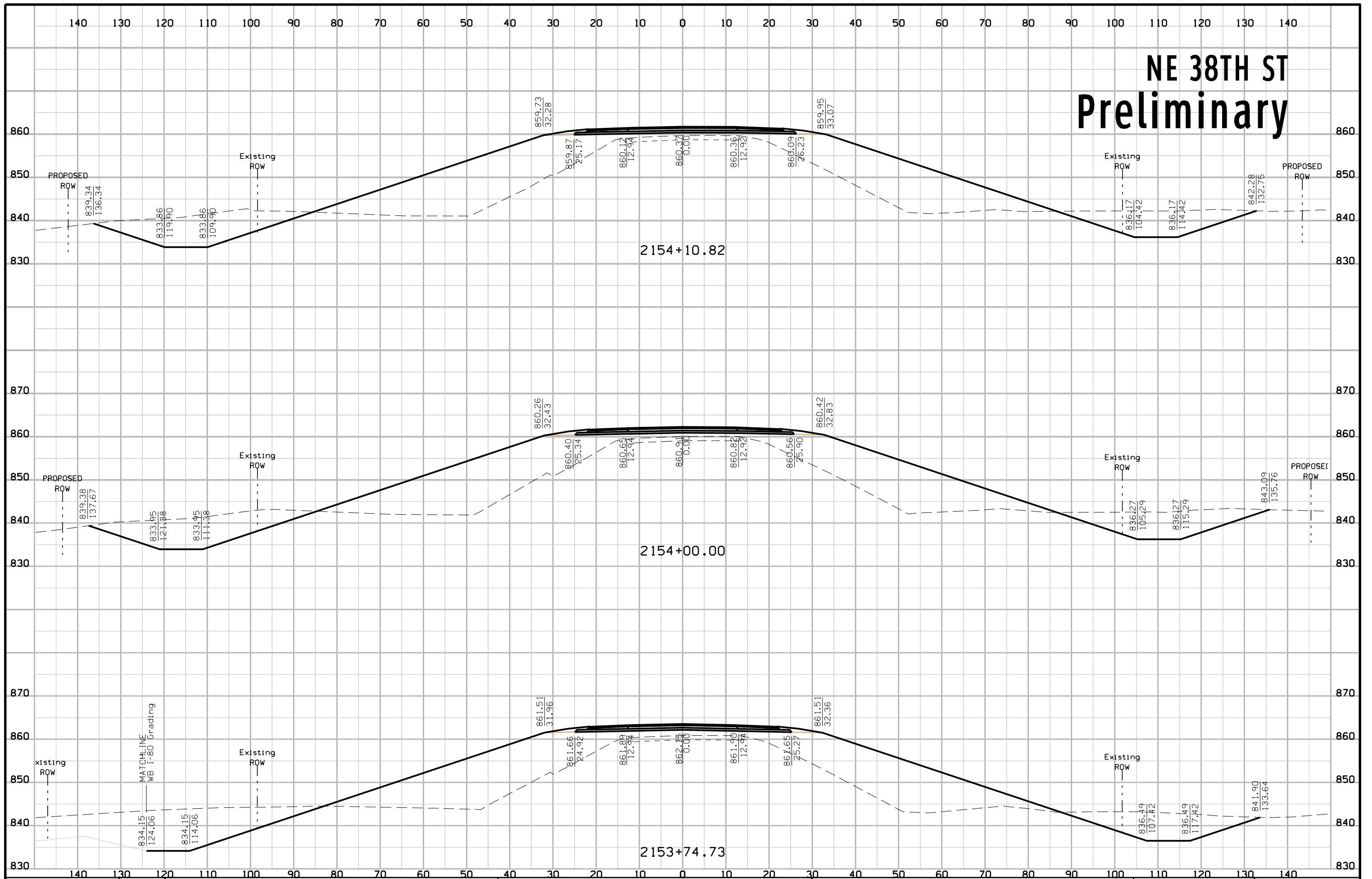
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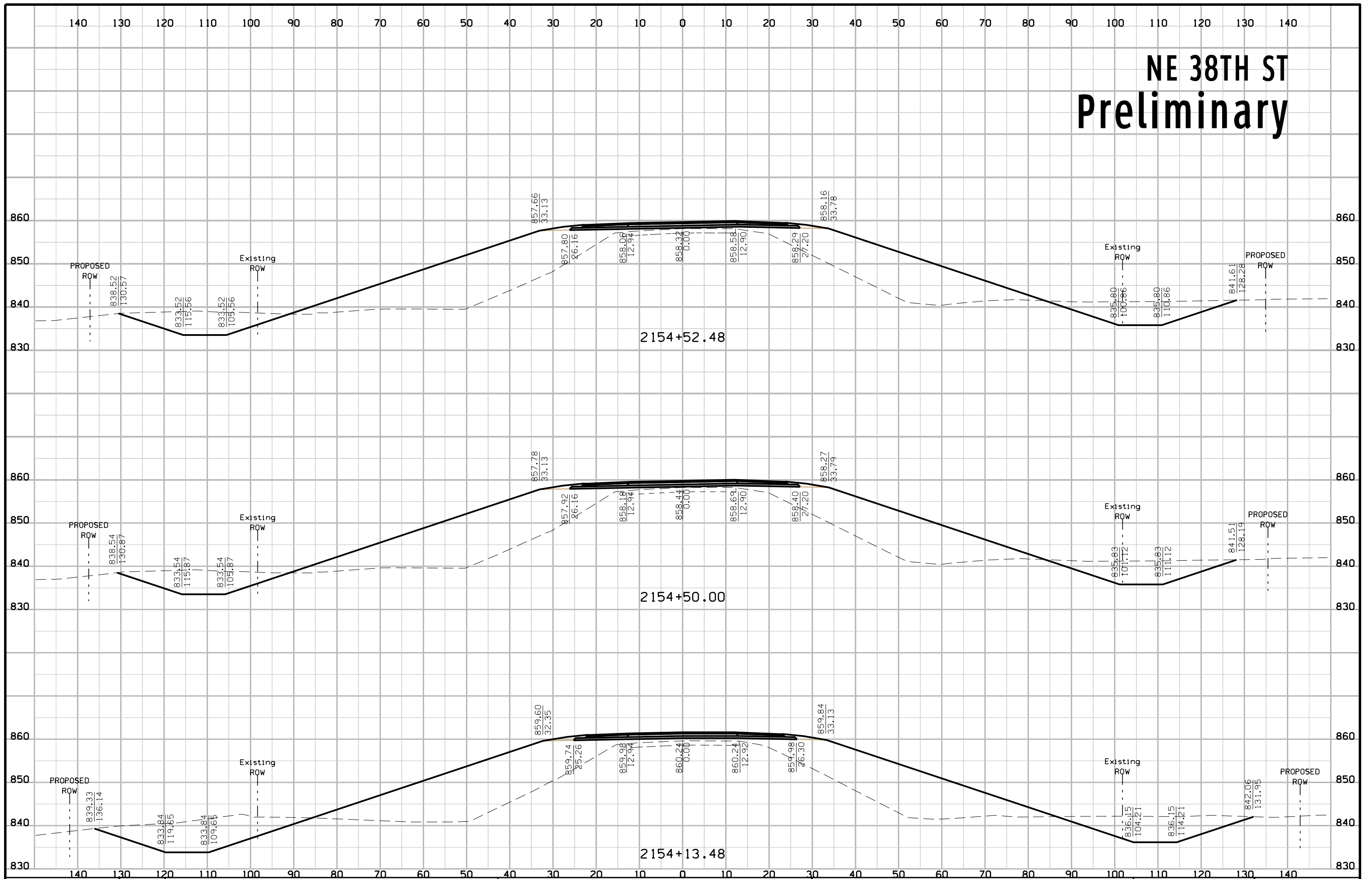
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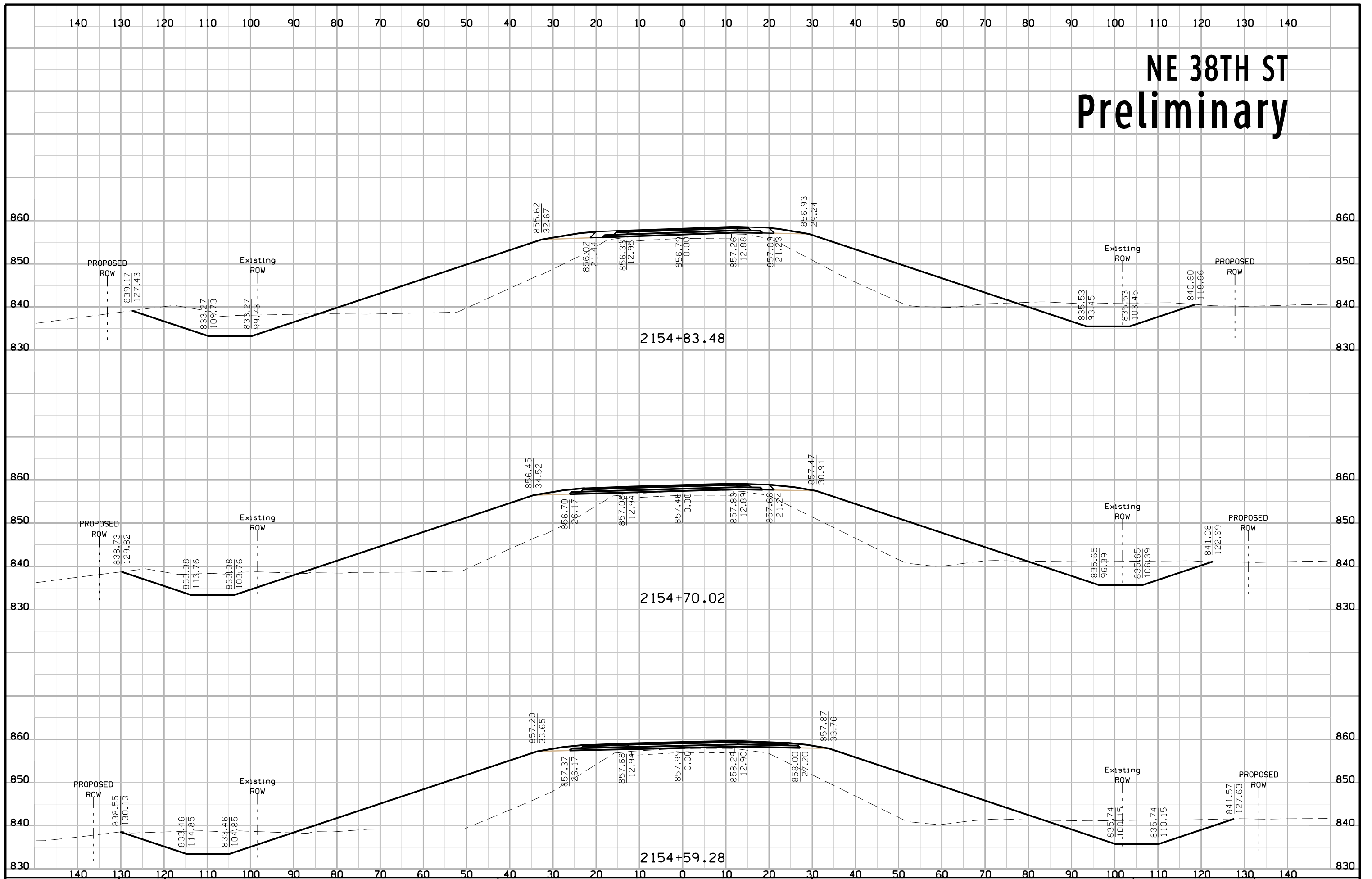
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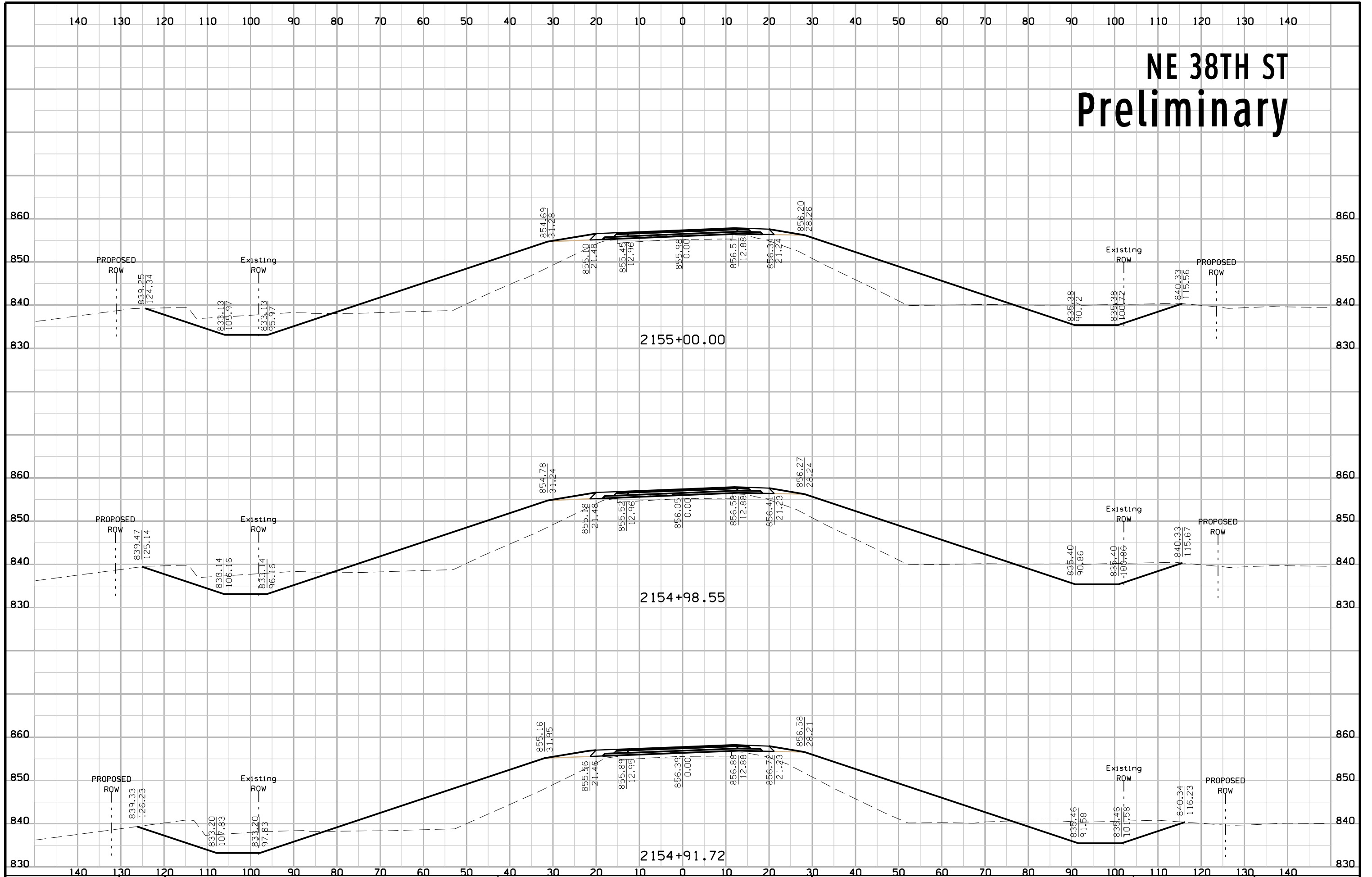
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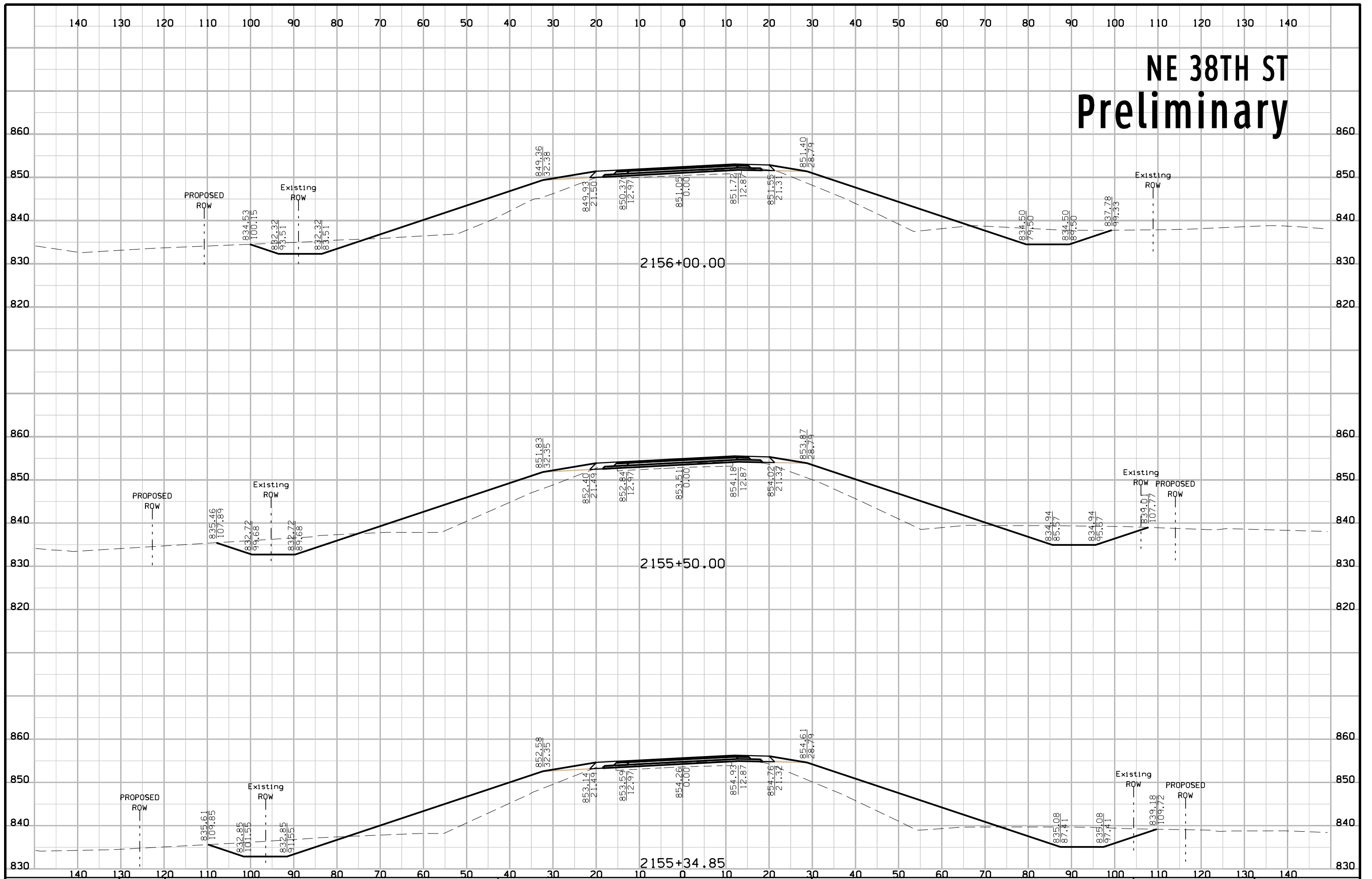
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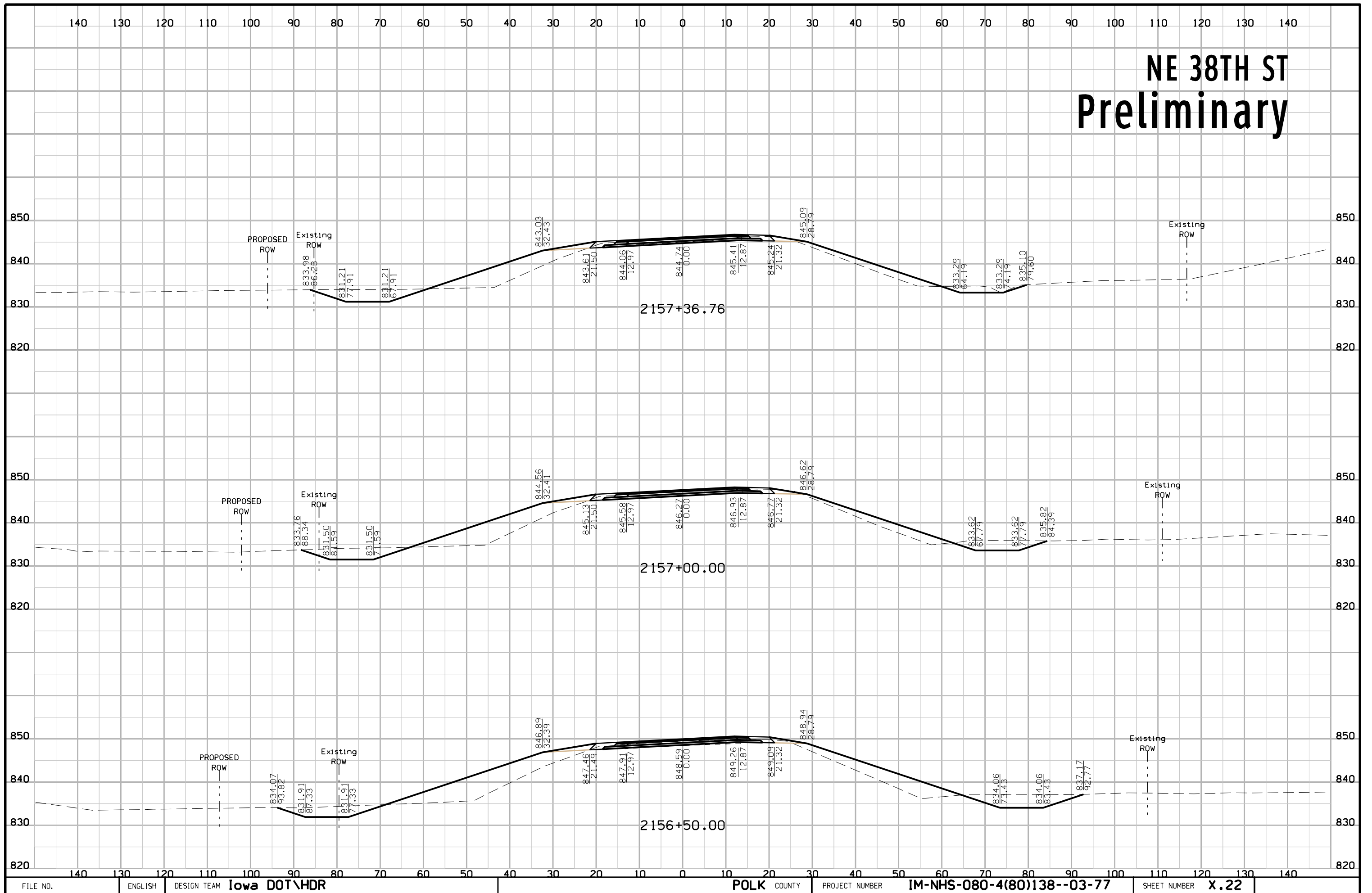
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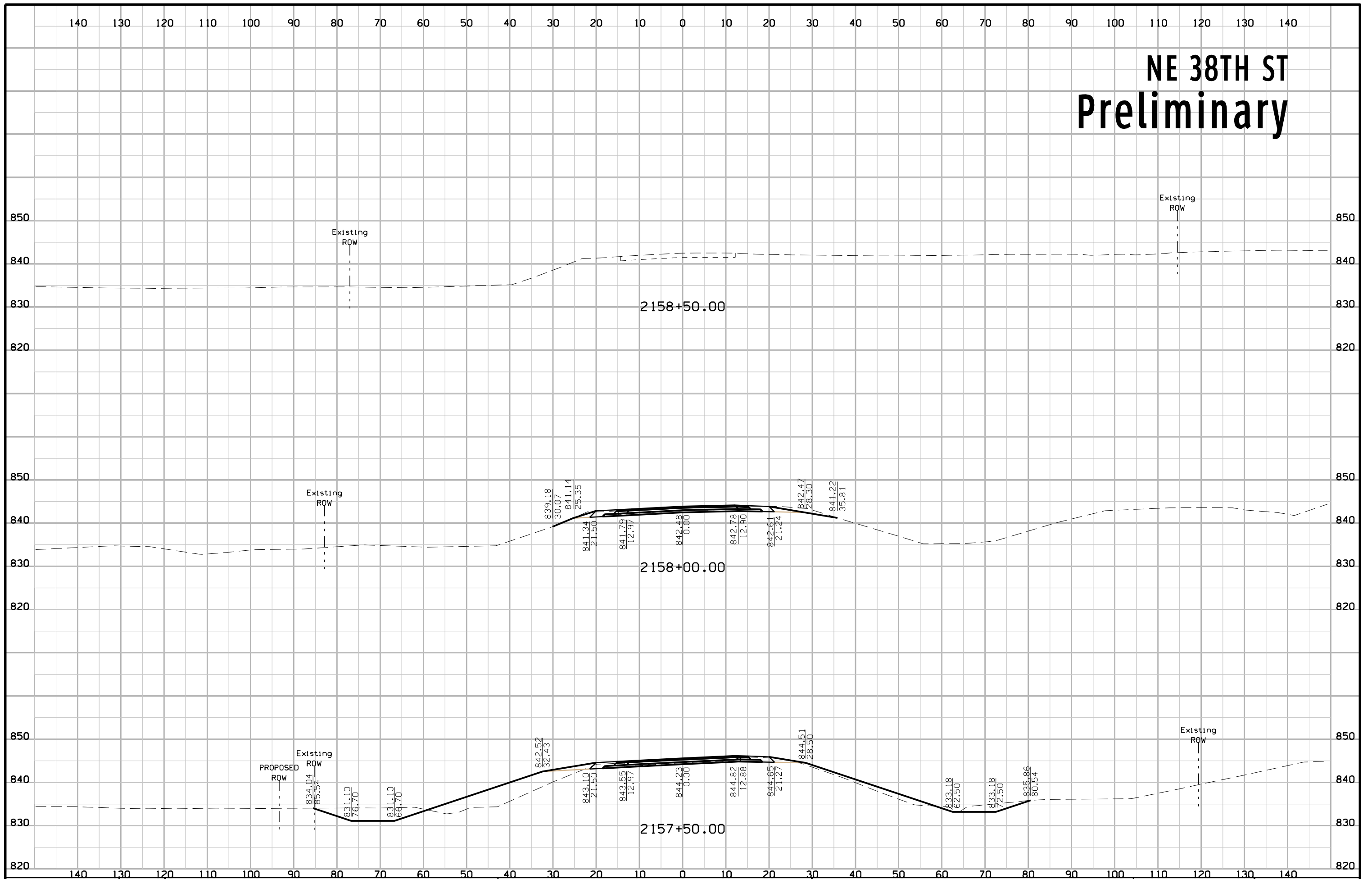
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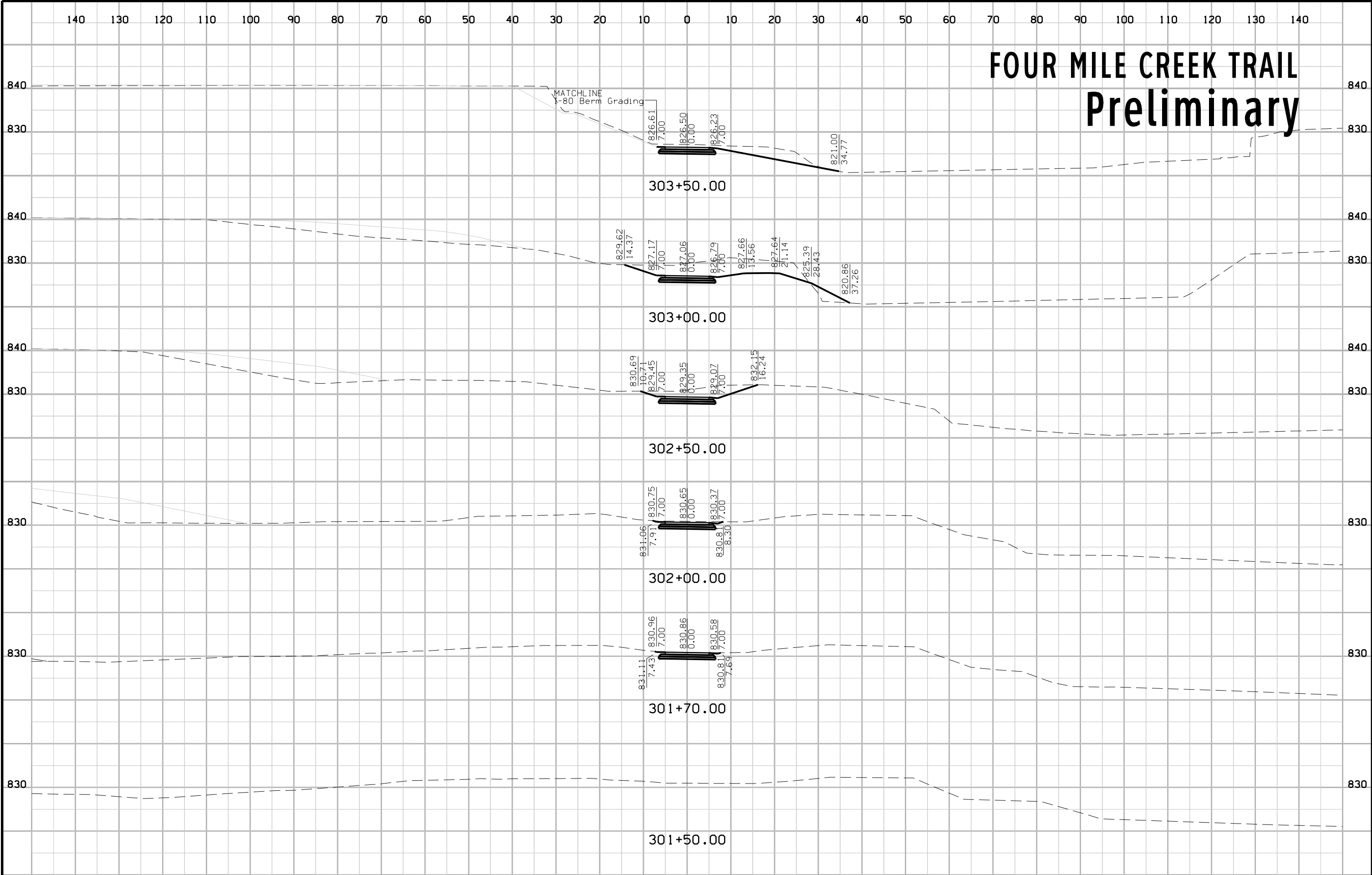
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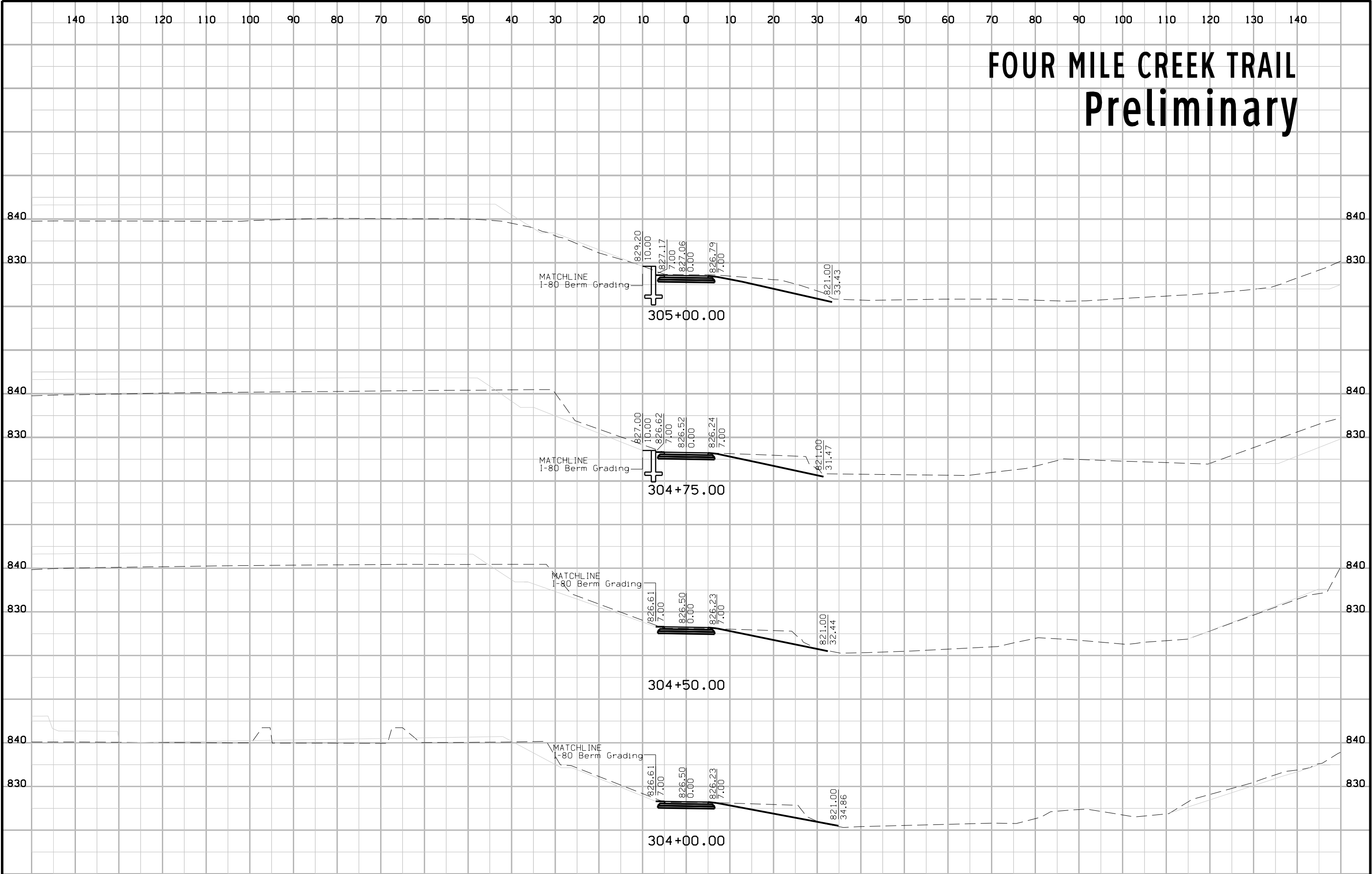
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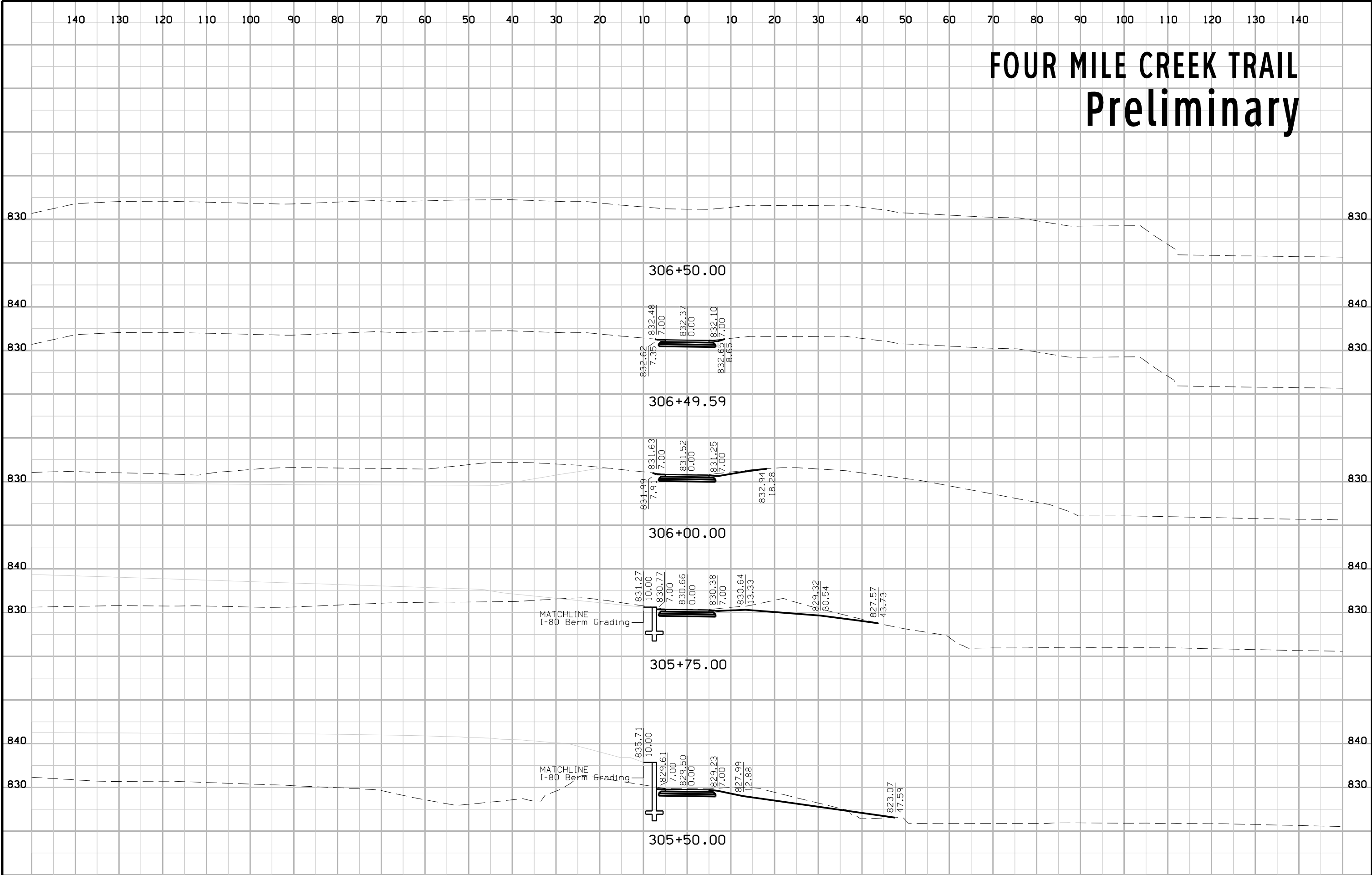
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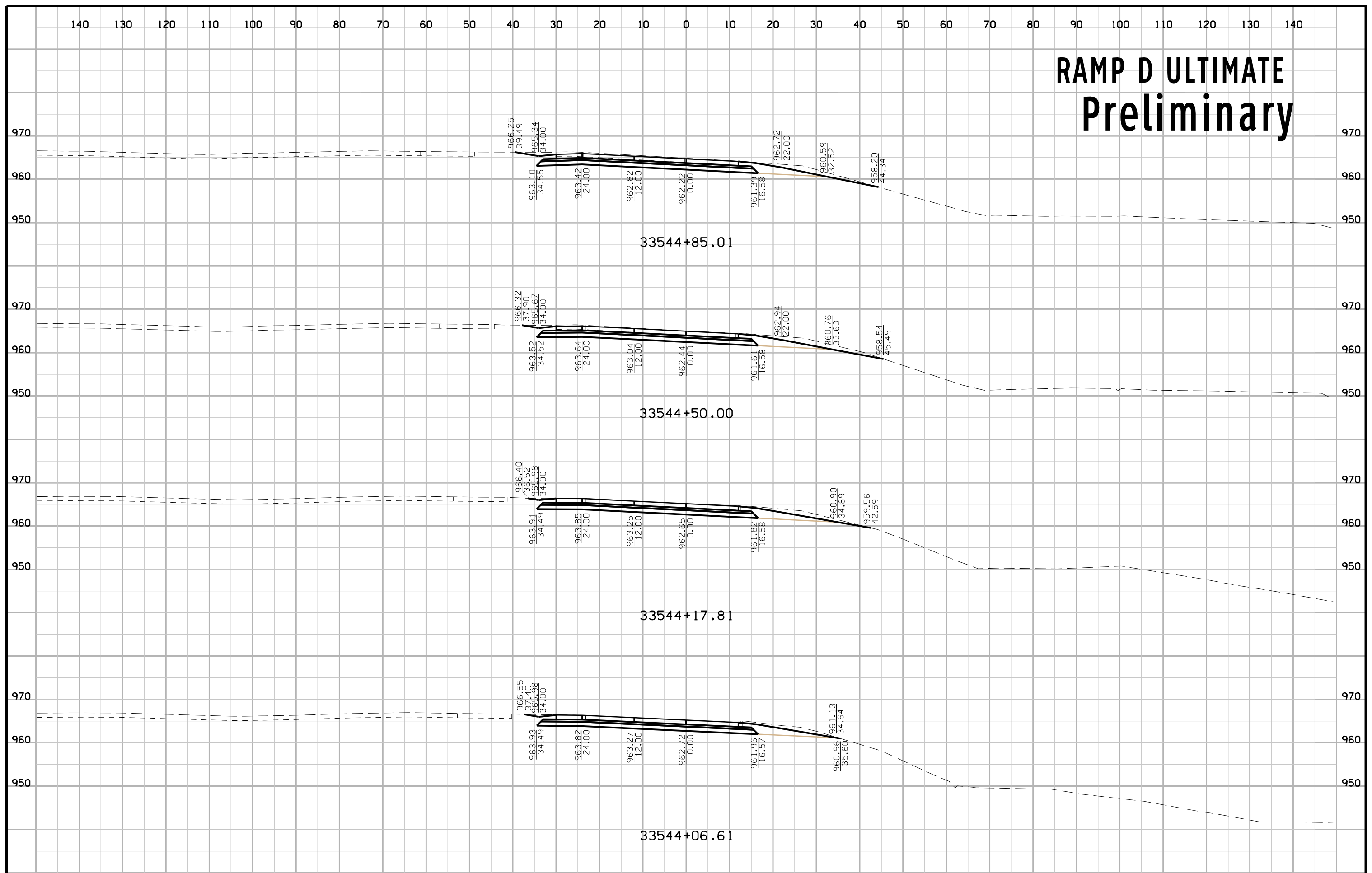
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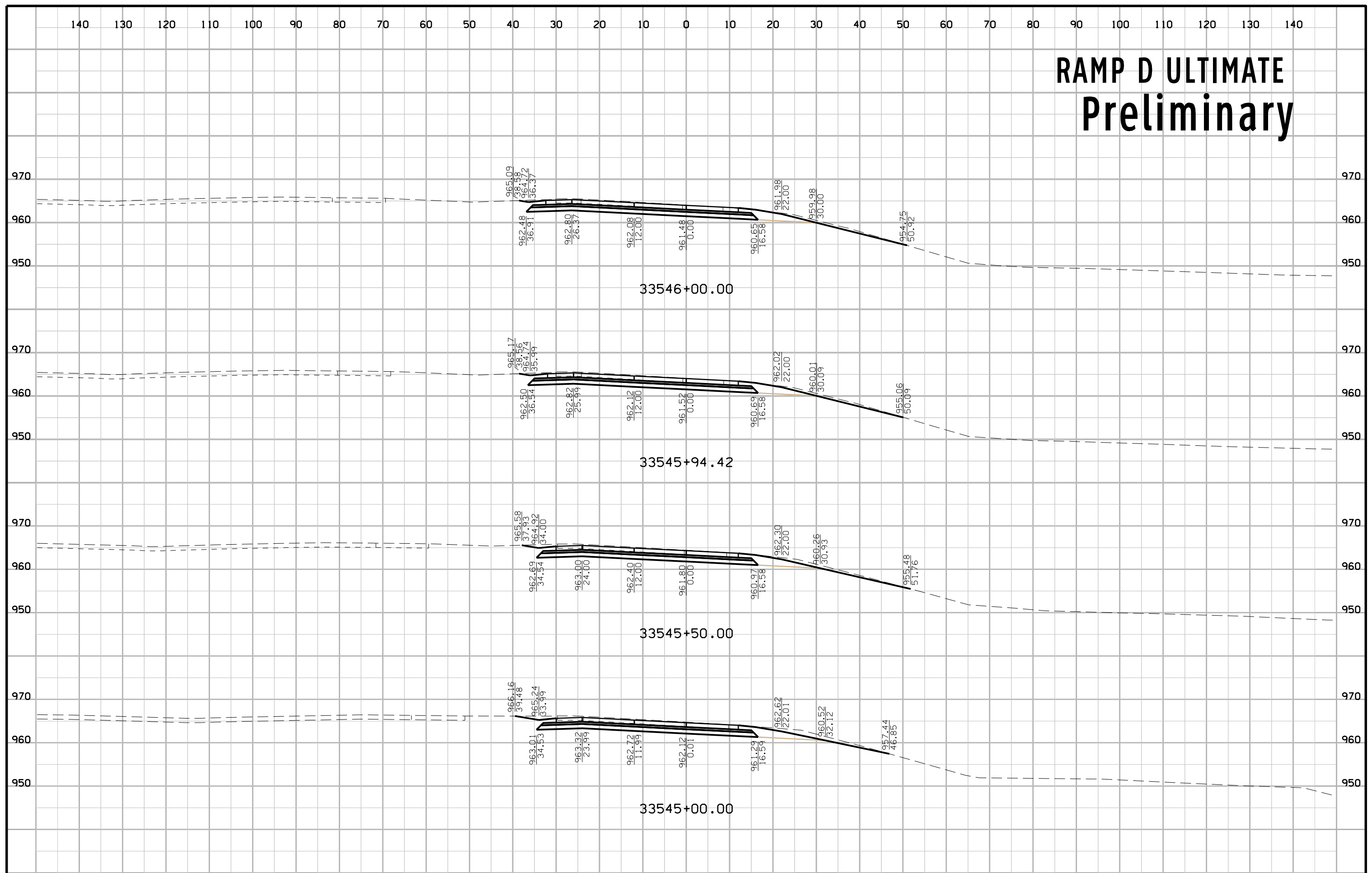
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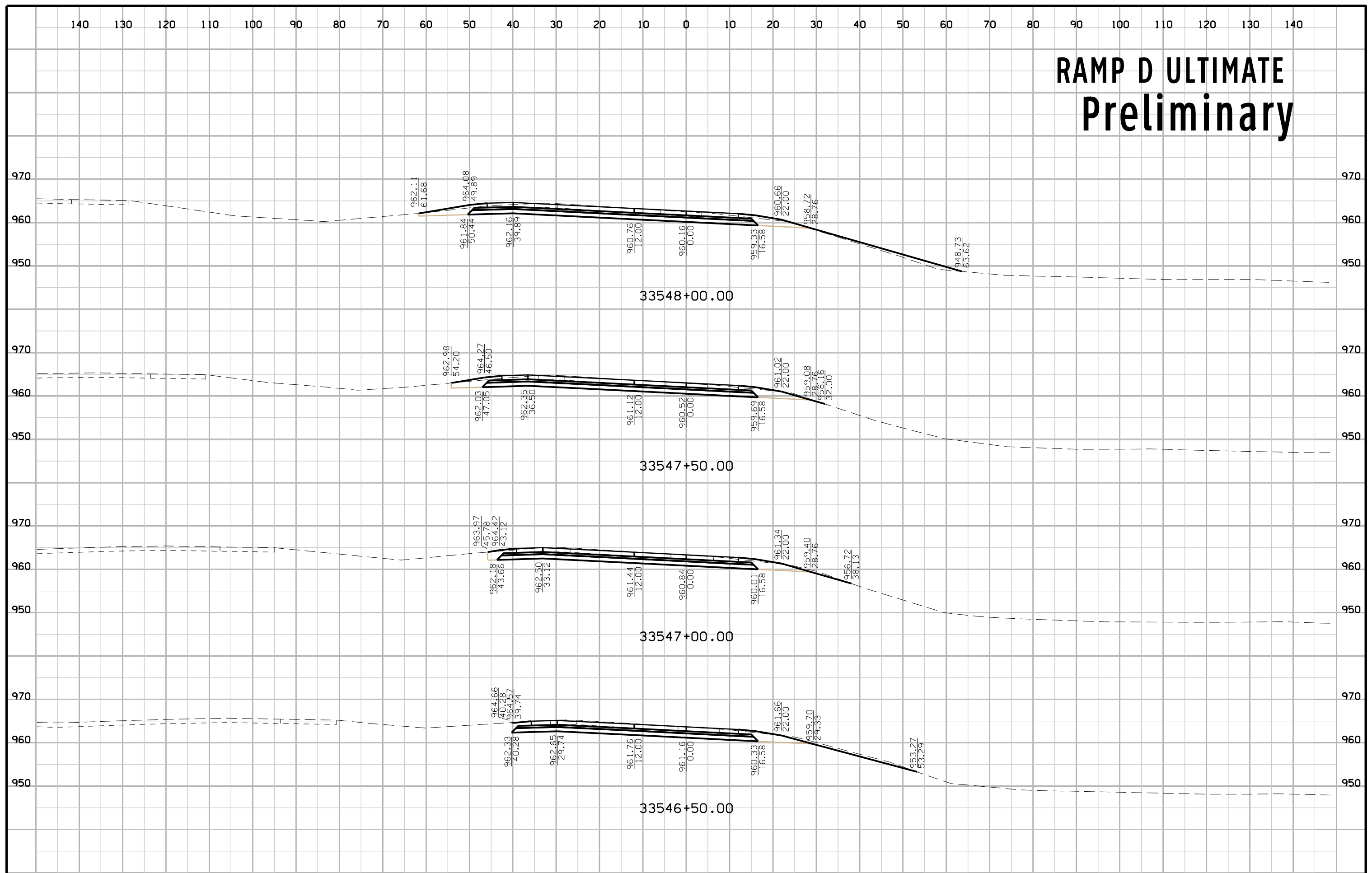
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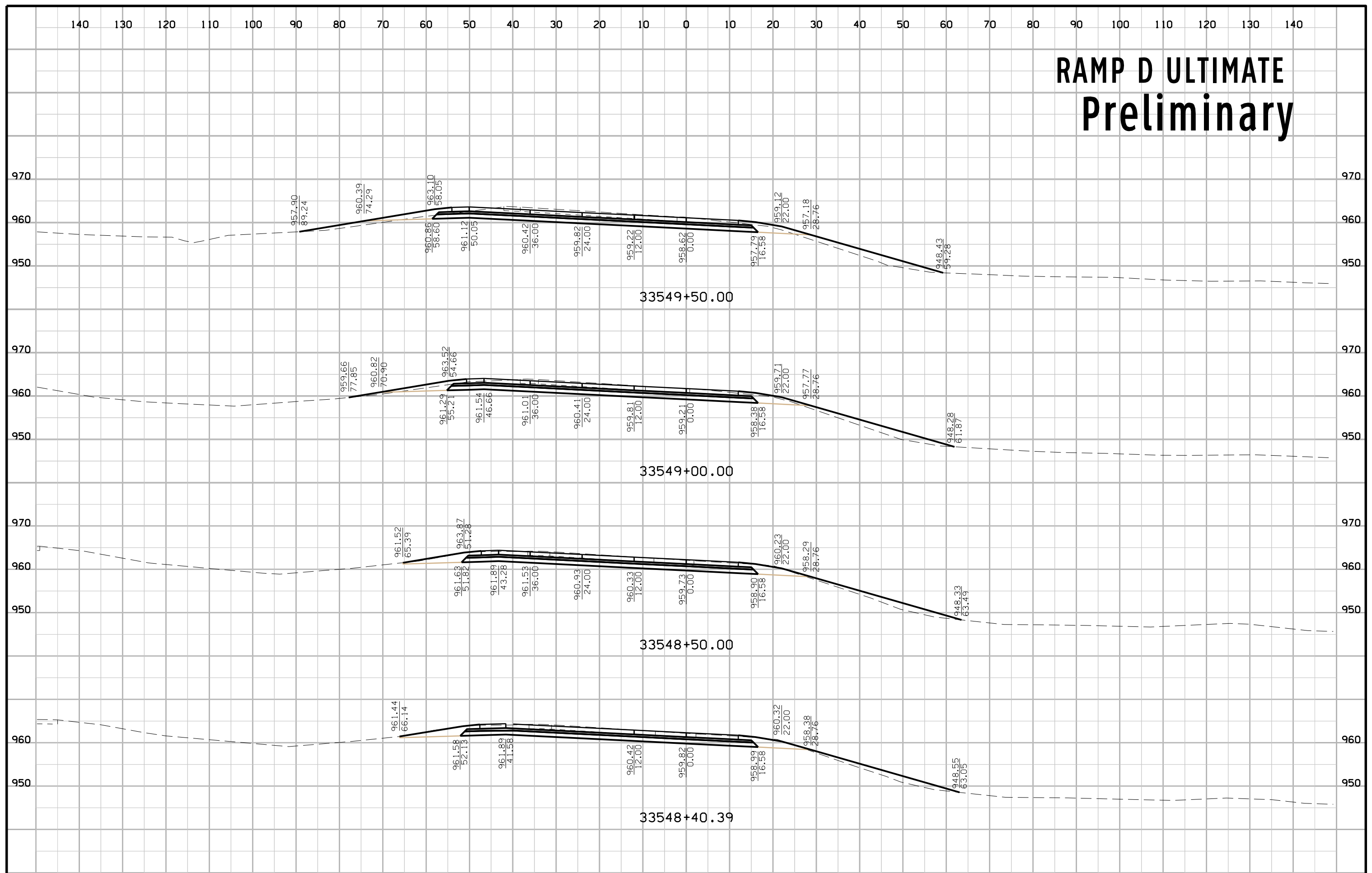
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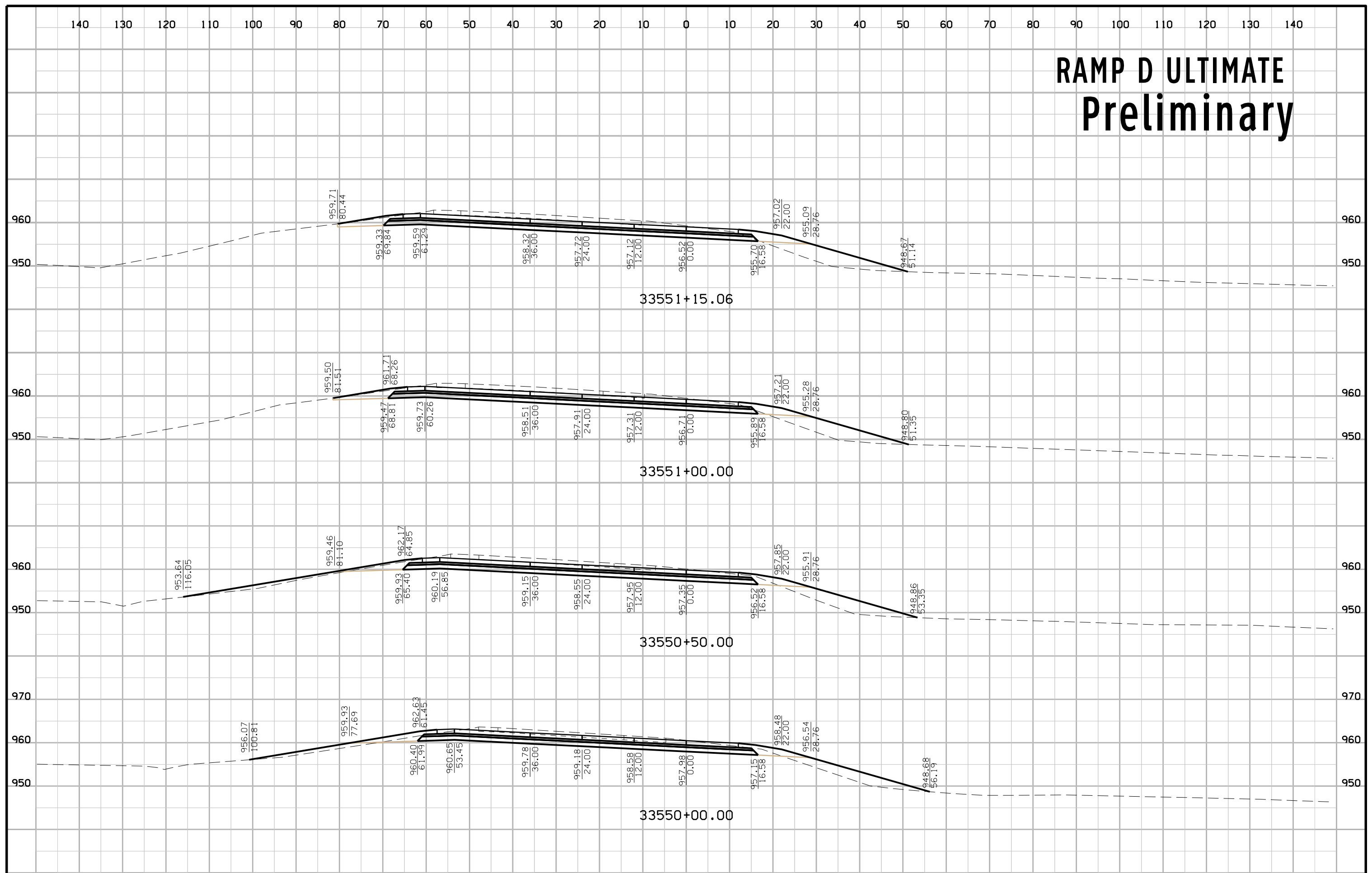
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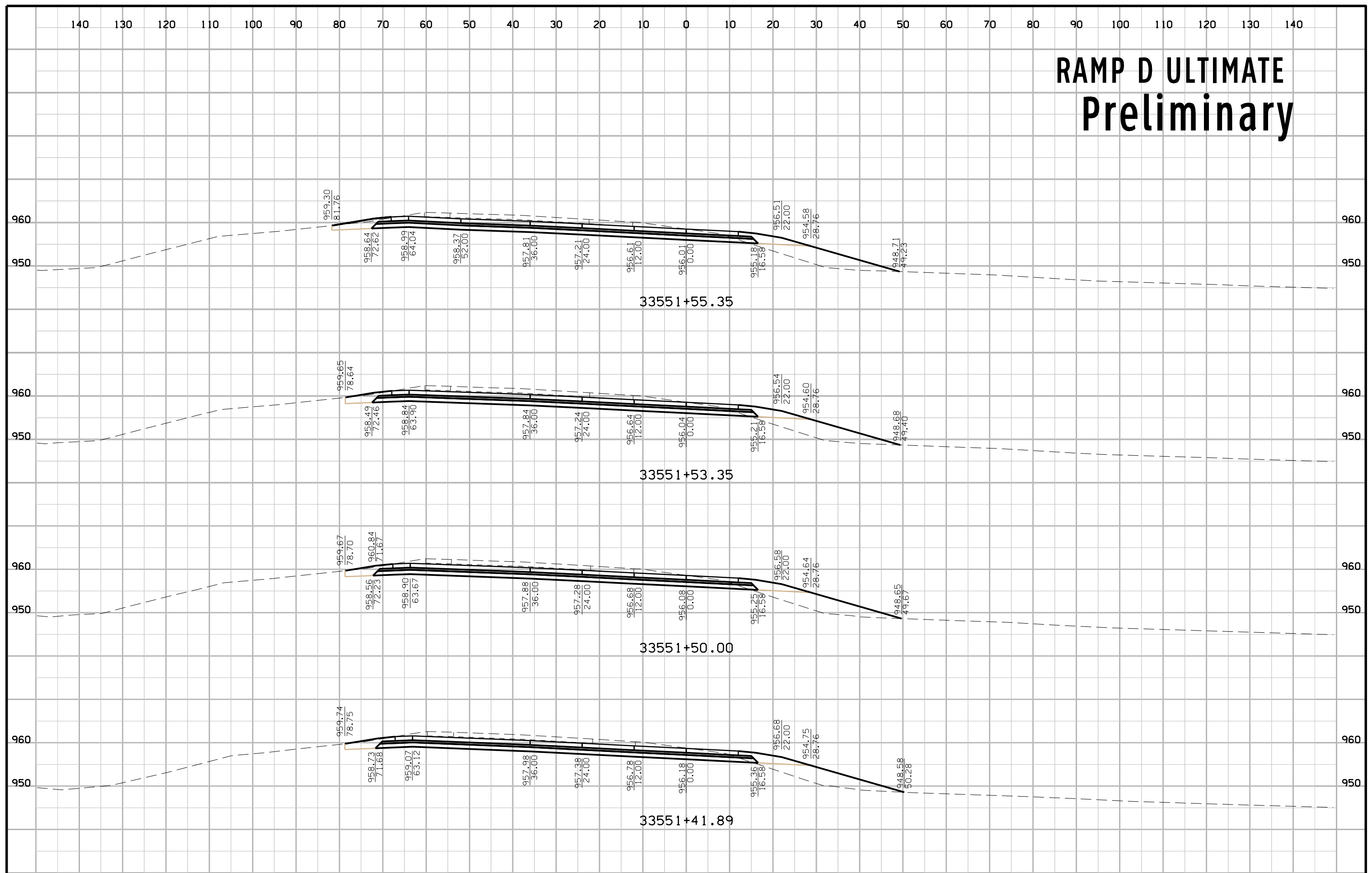
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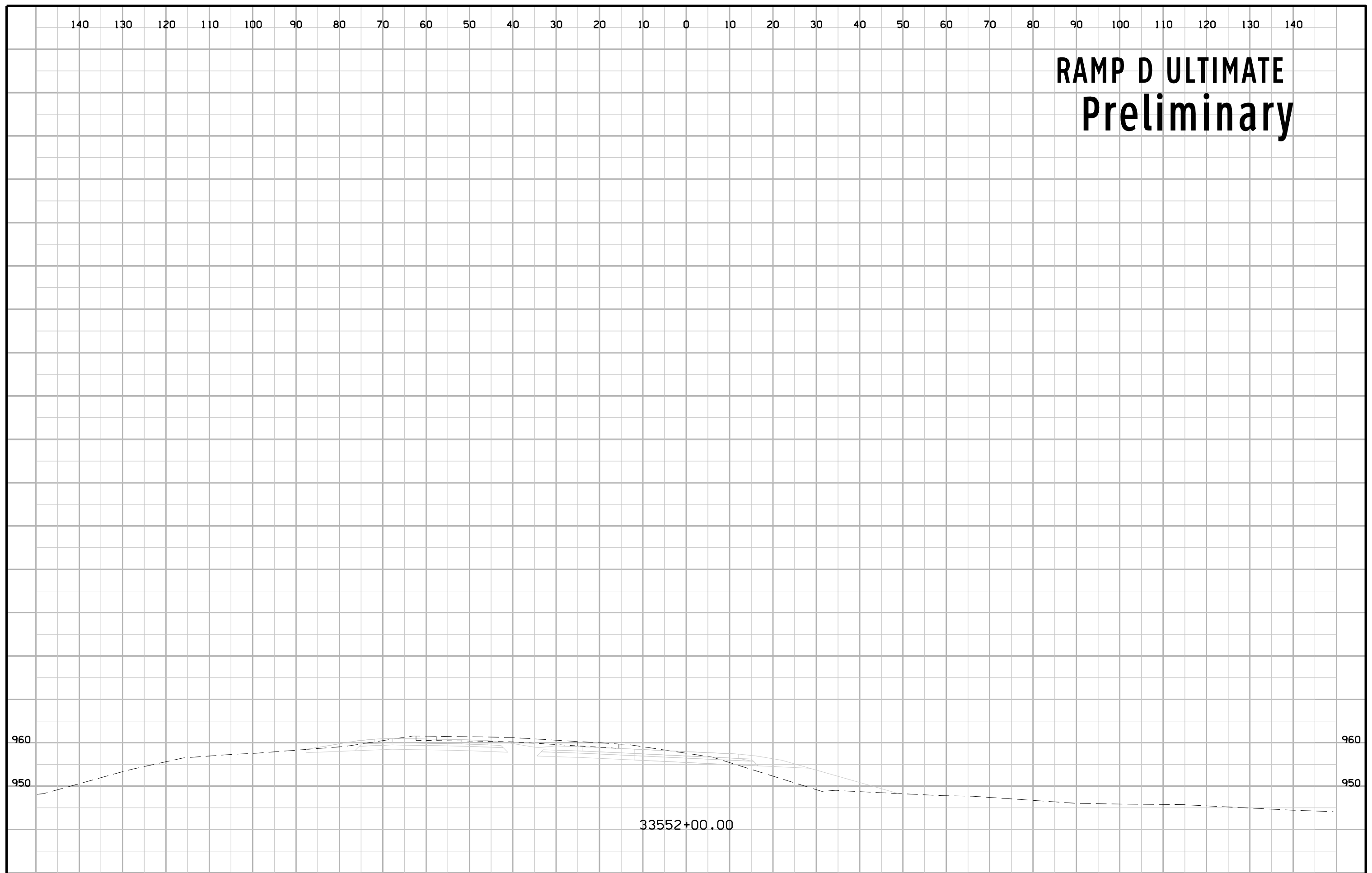
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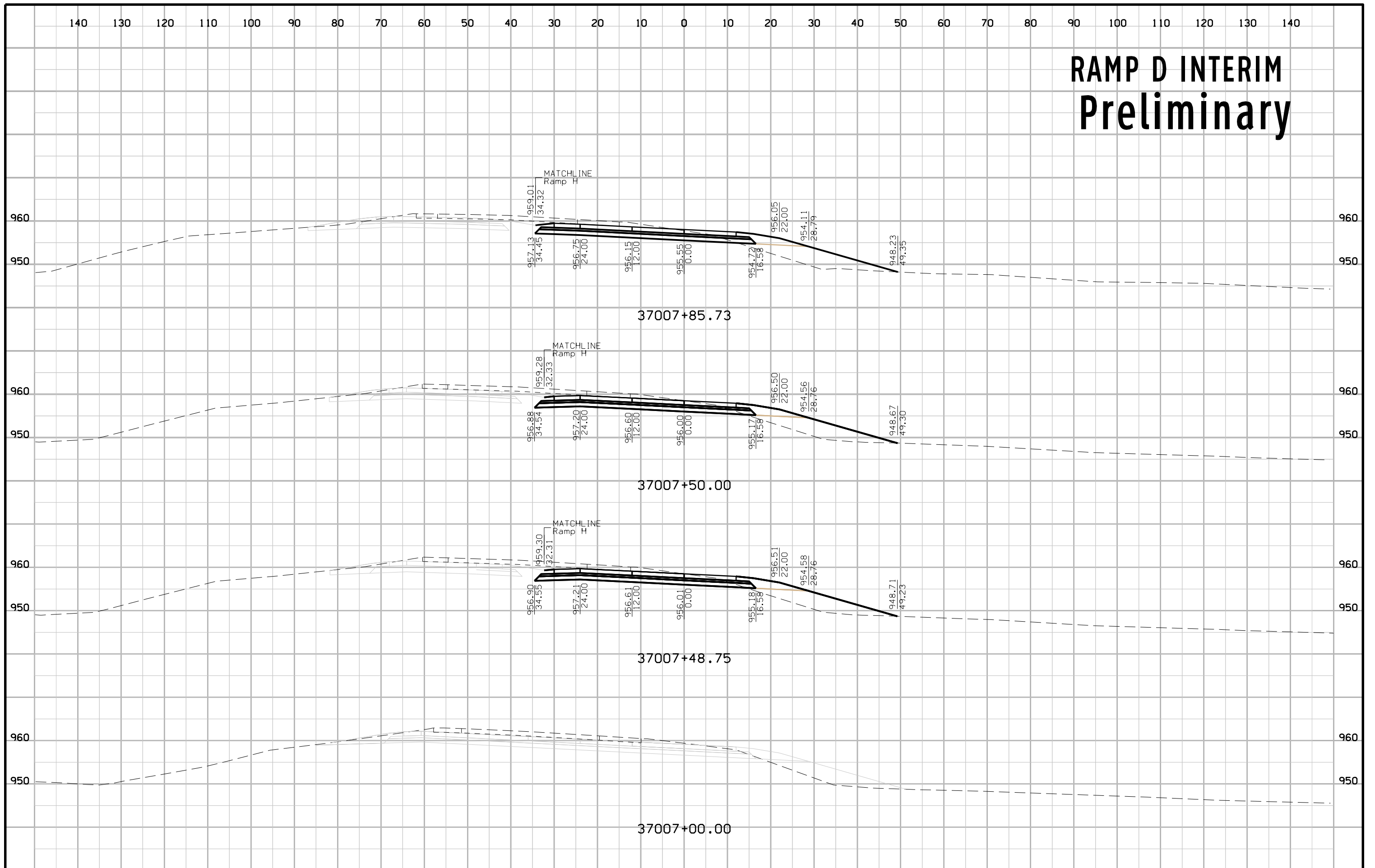


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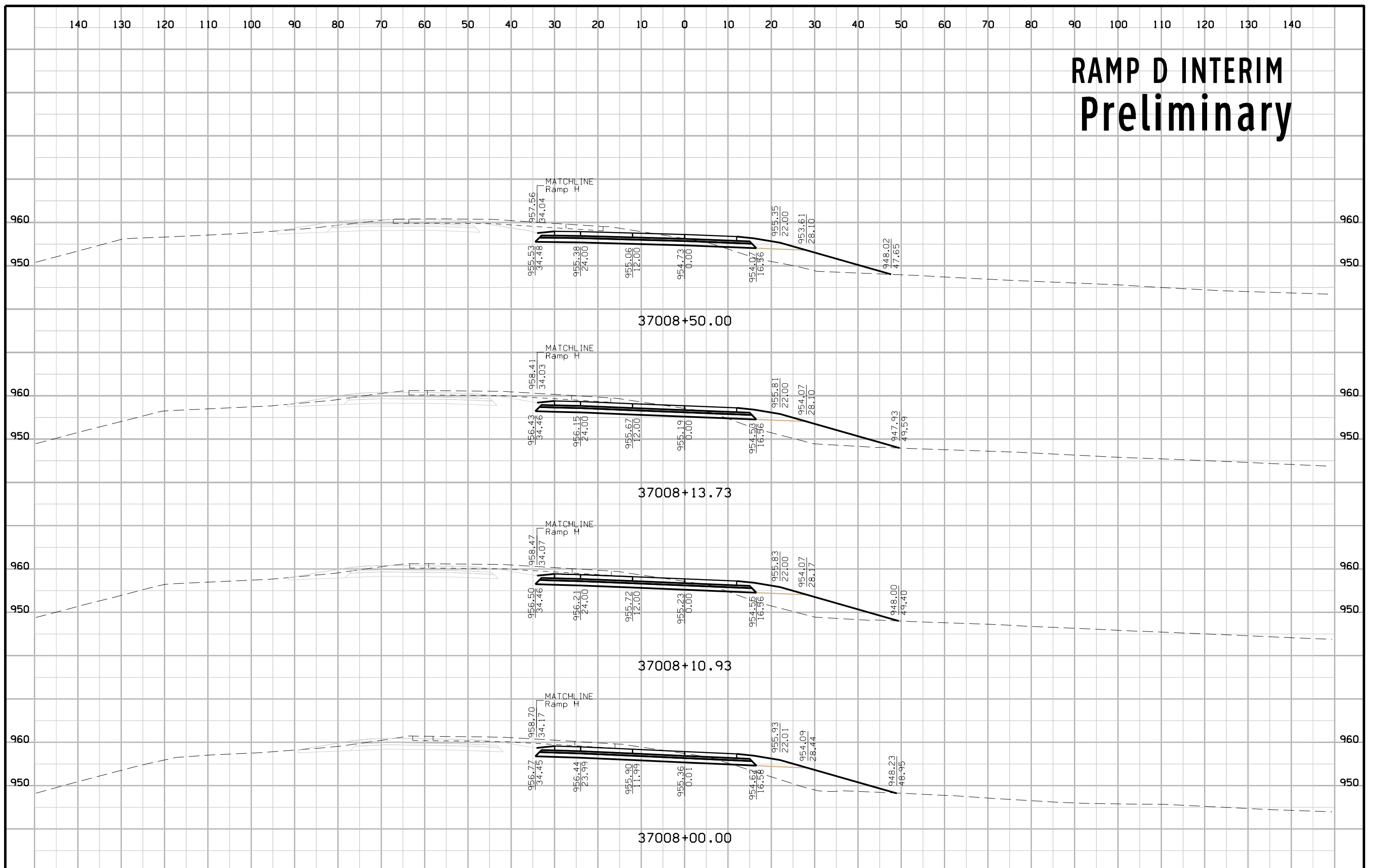


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-NHS-080-4(80)138--03-77	SHEET NUMBER	Y.7
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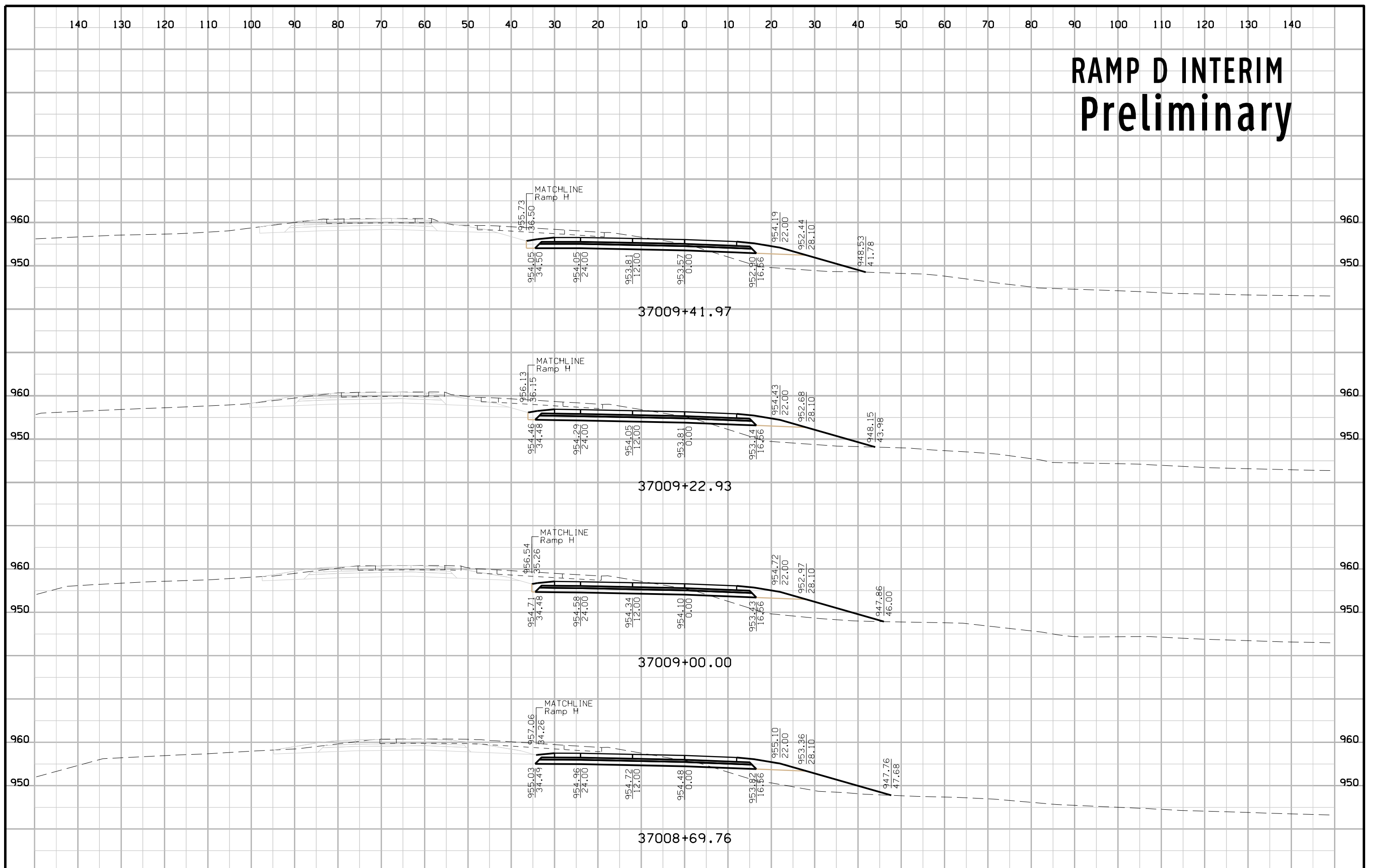
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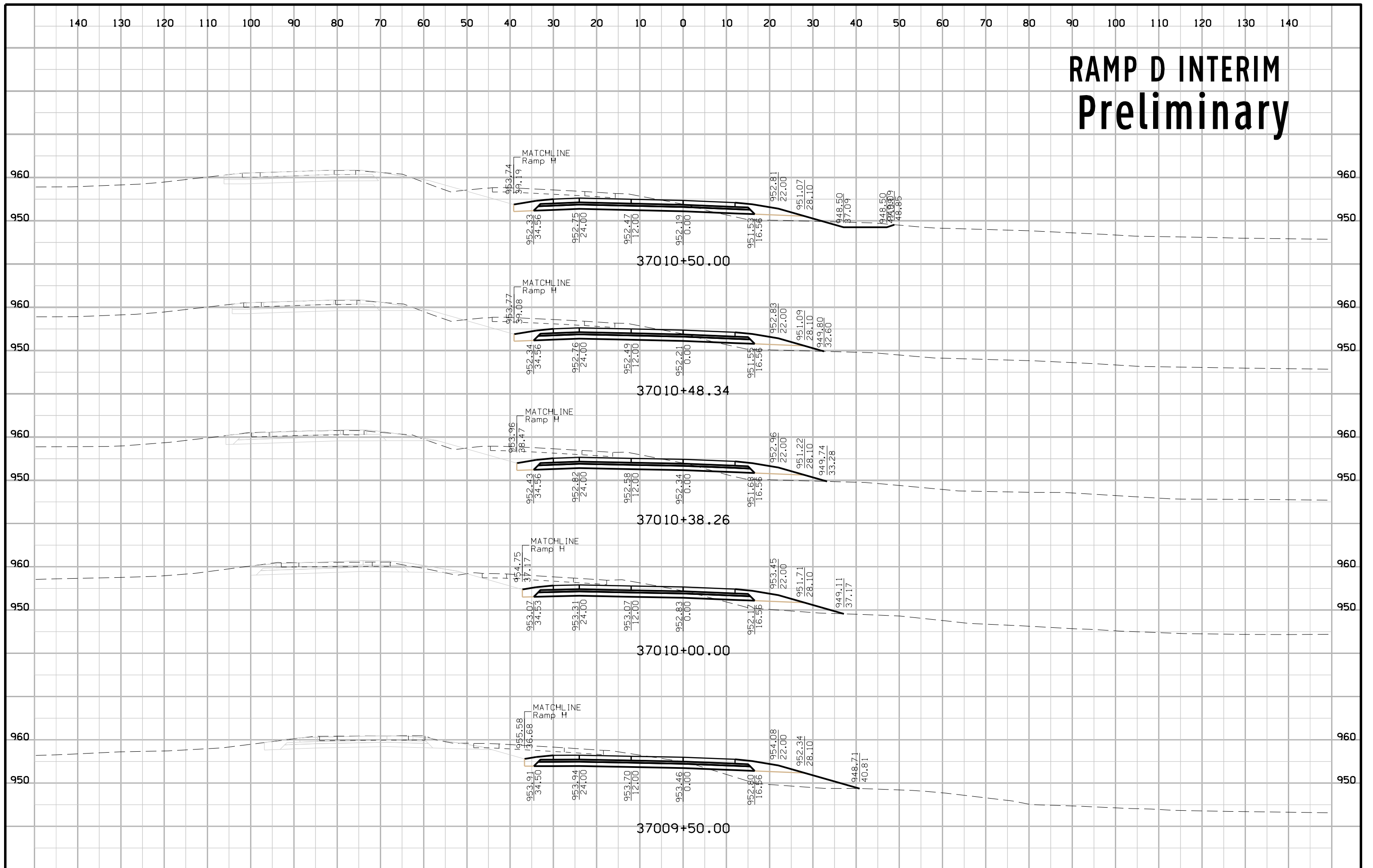
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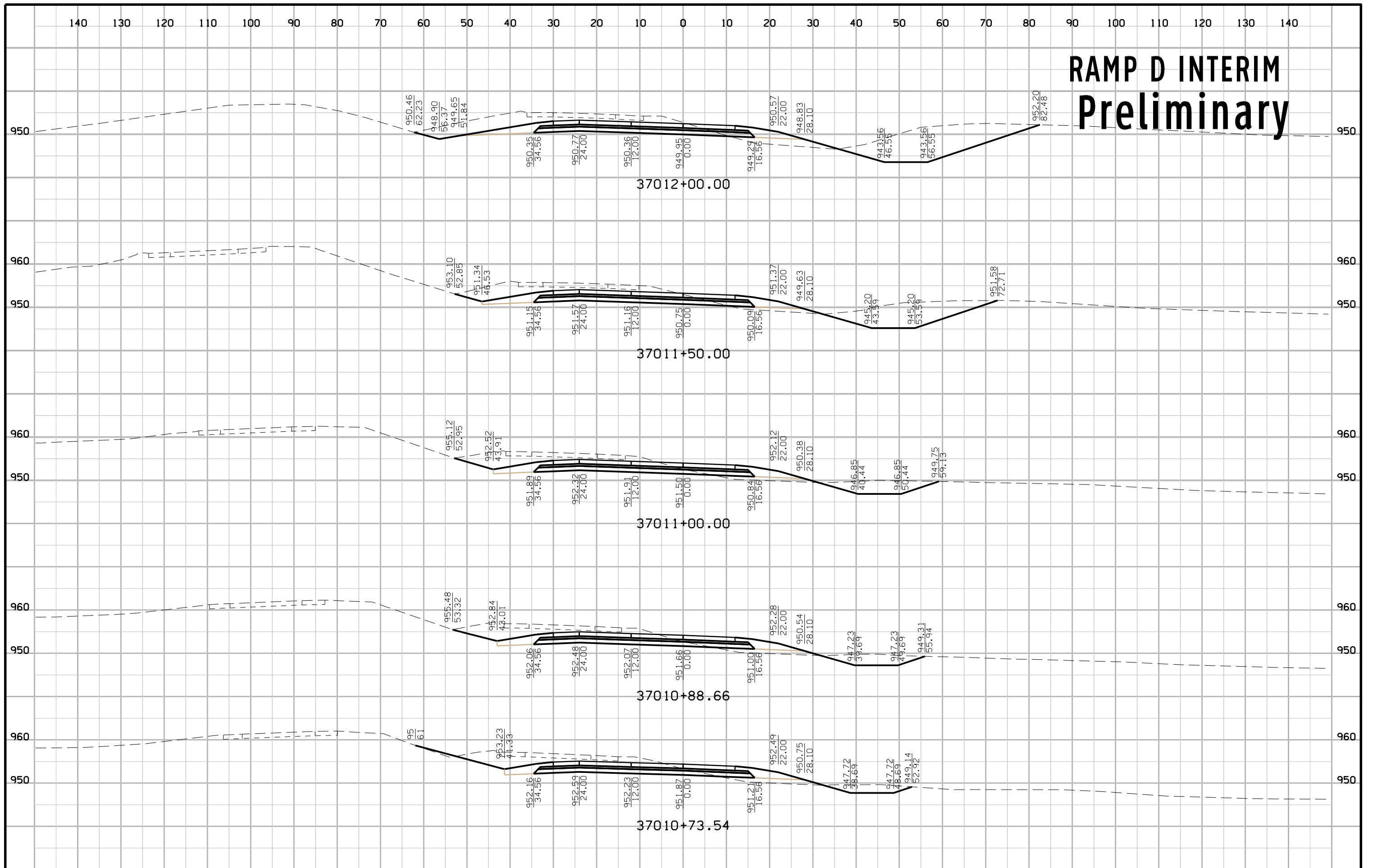
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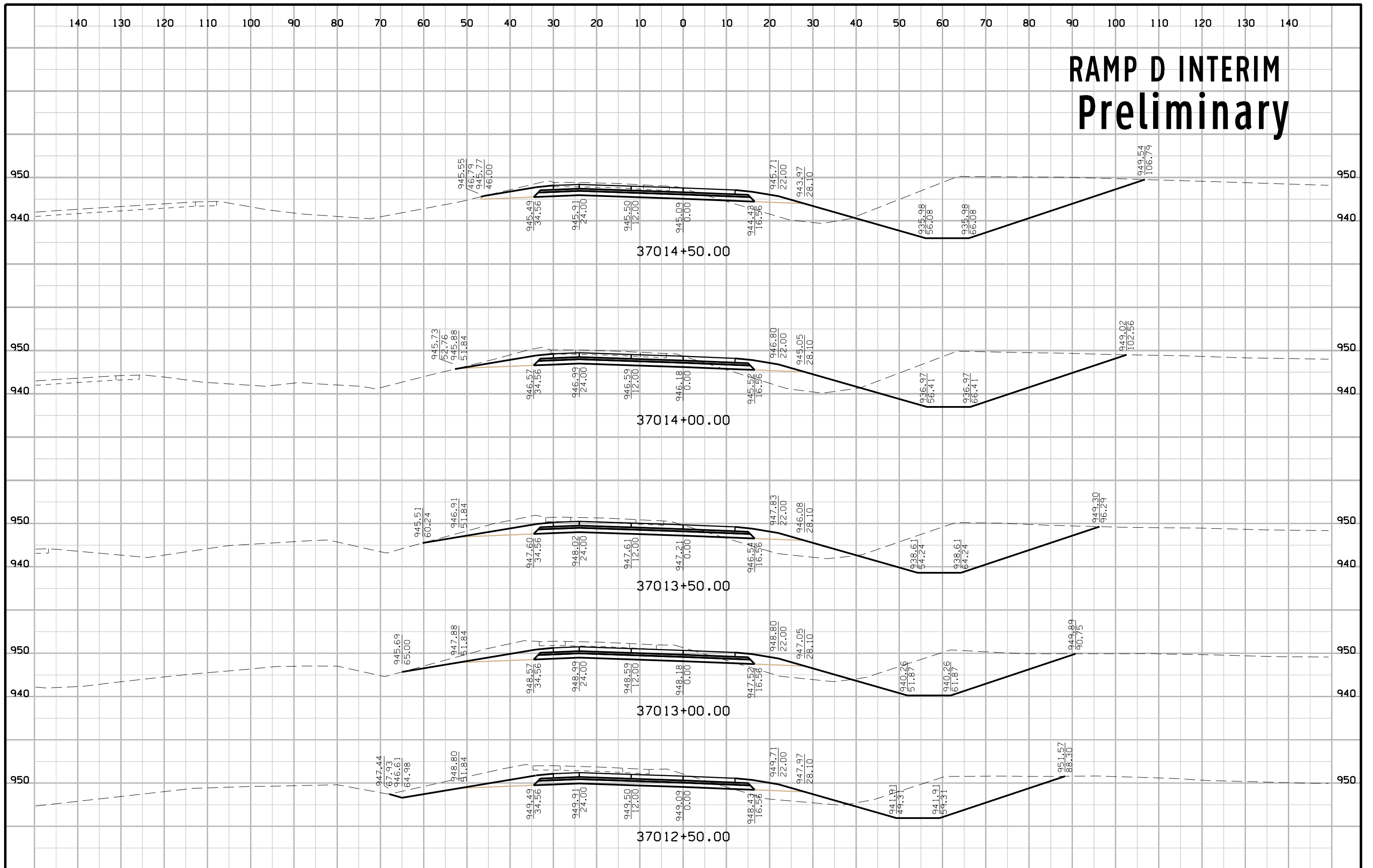
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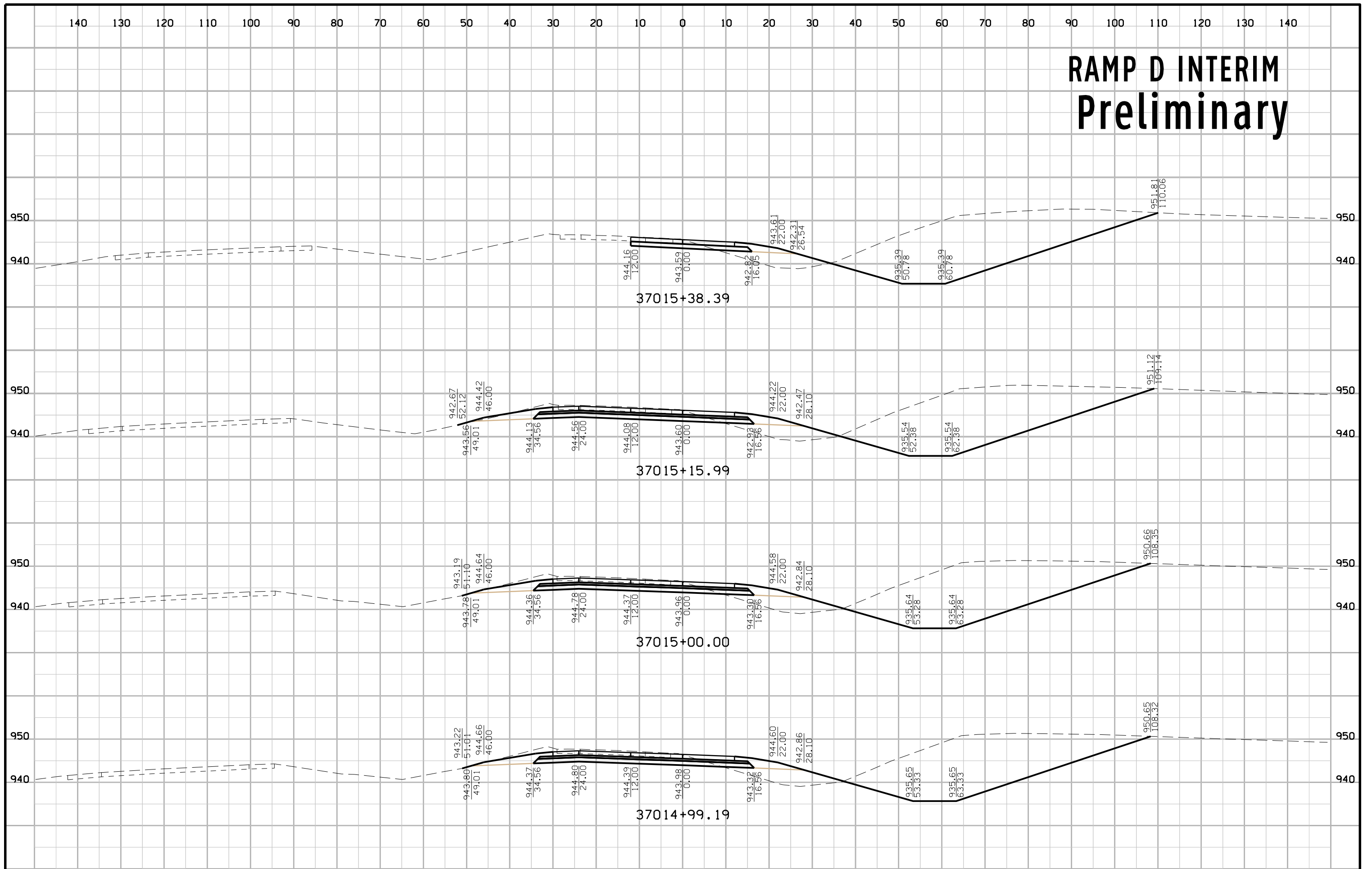
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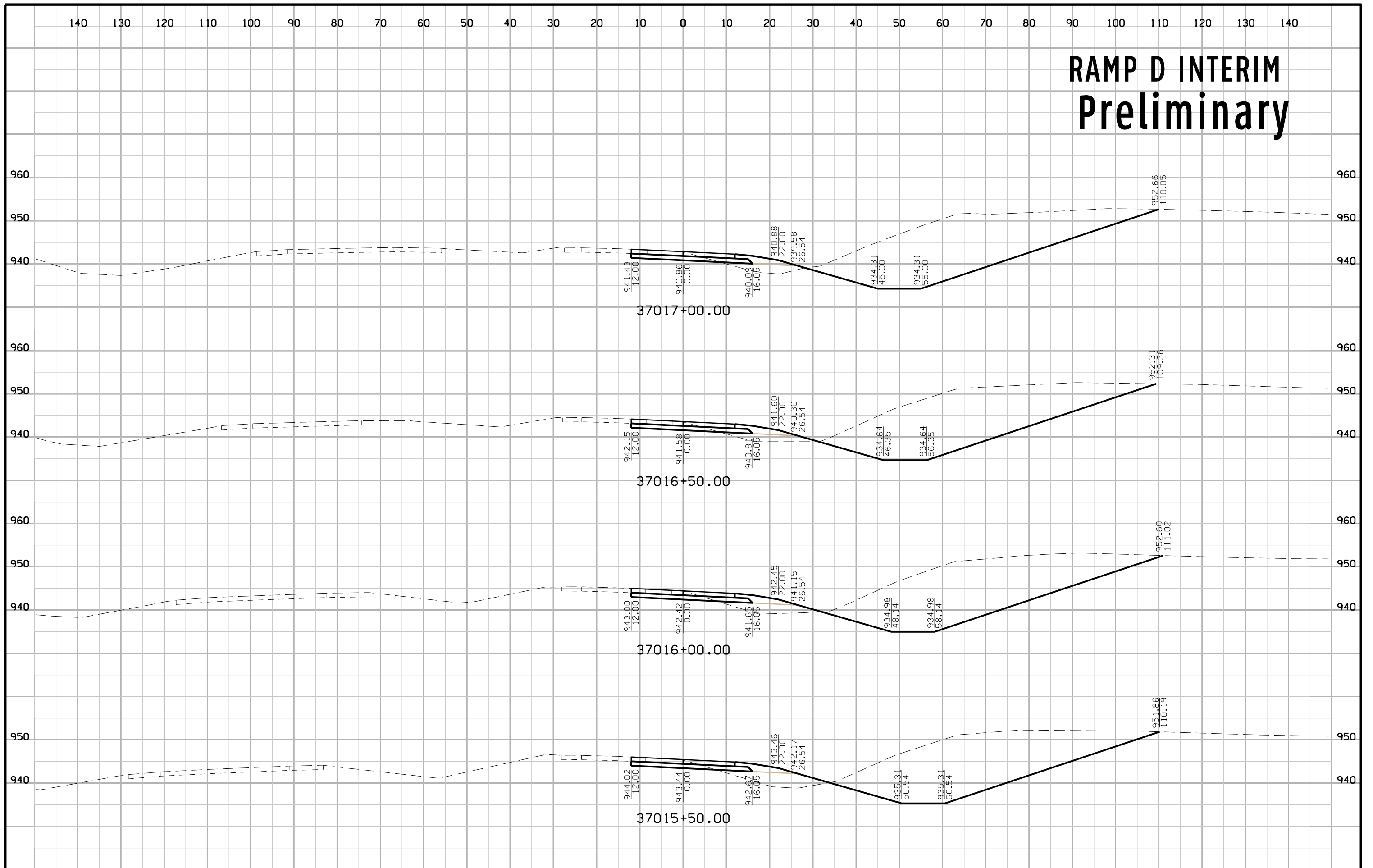
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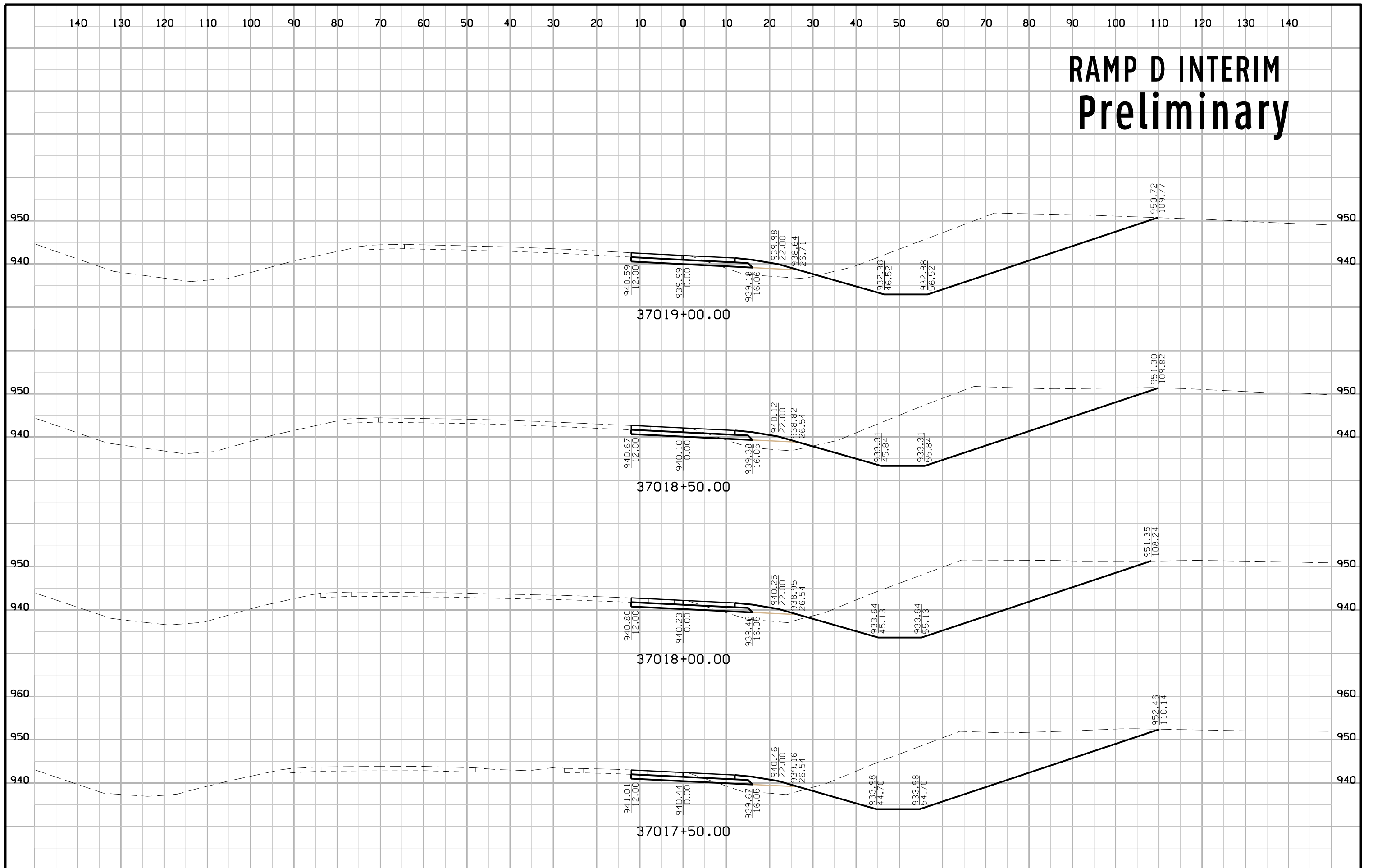
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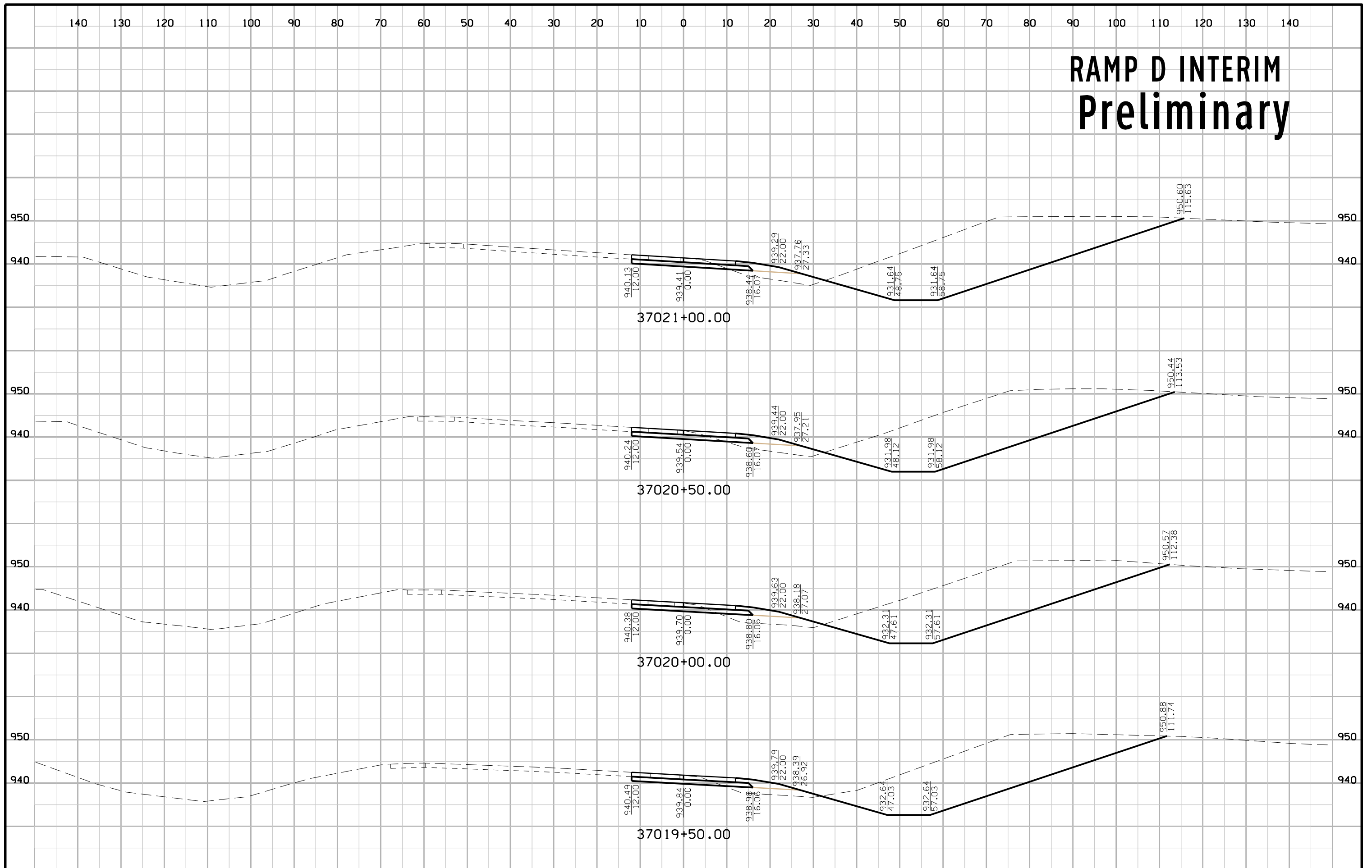
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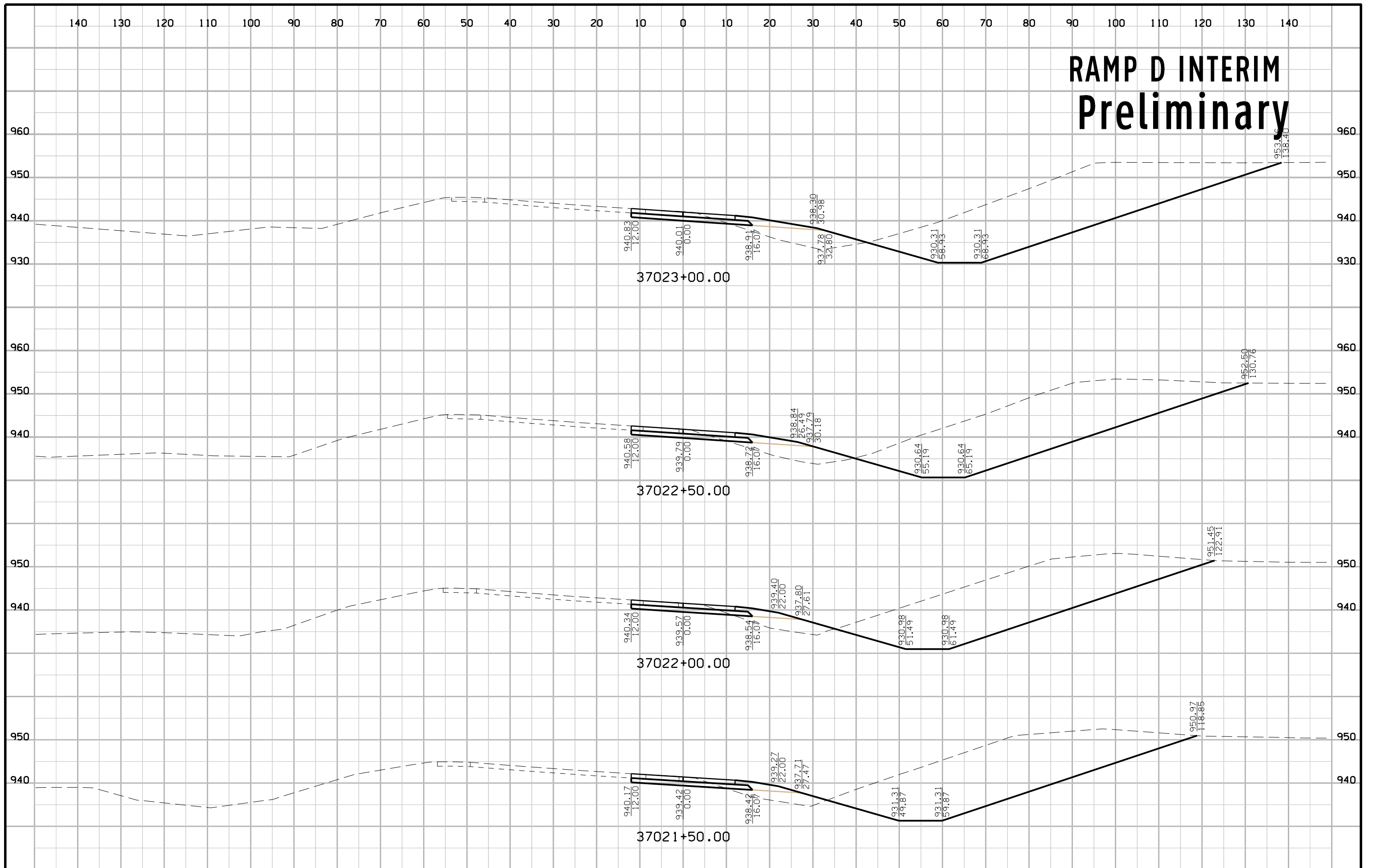
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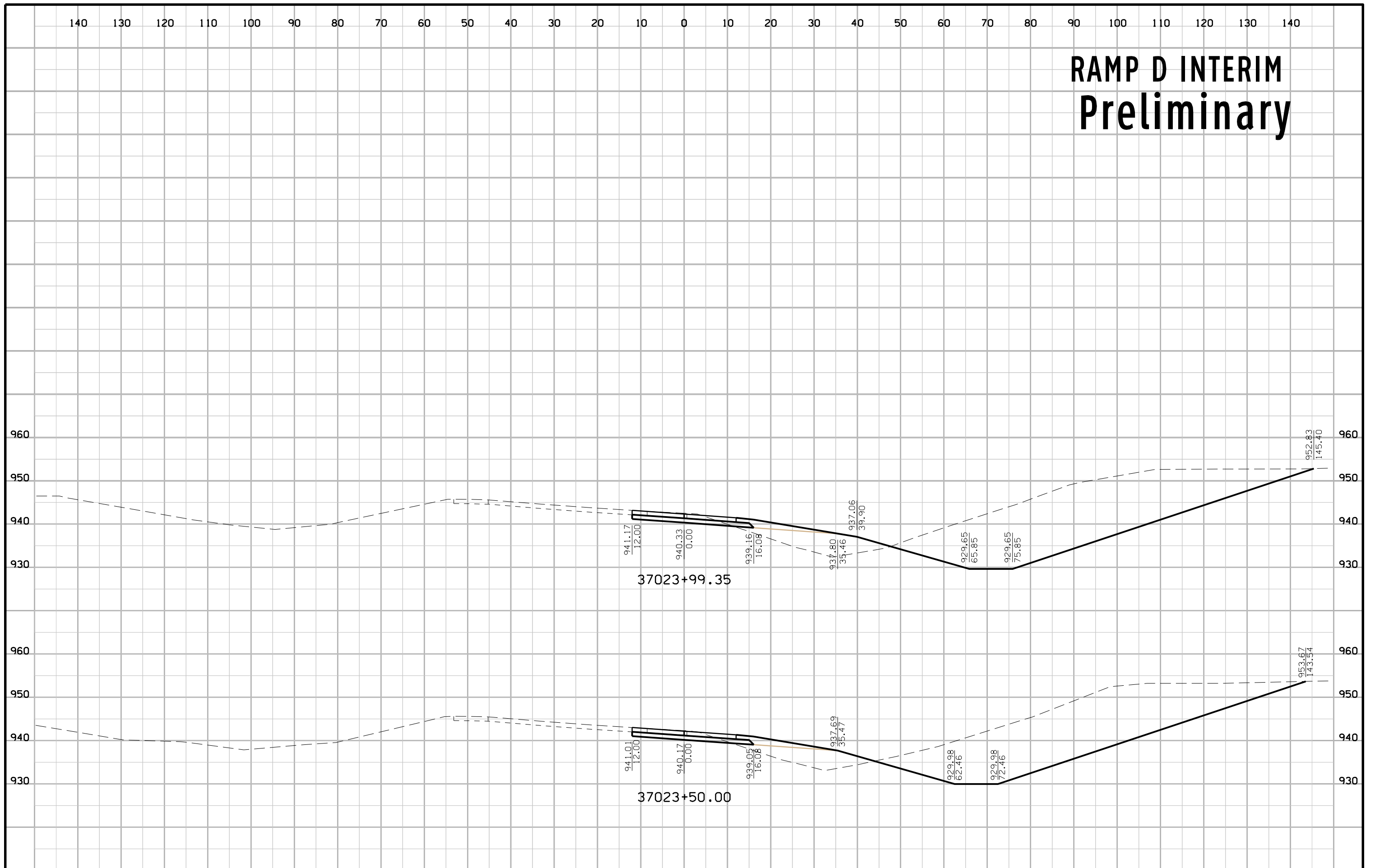
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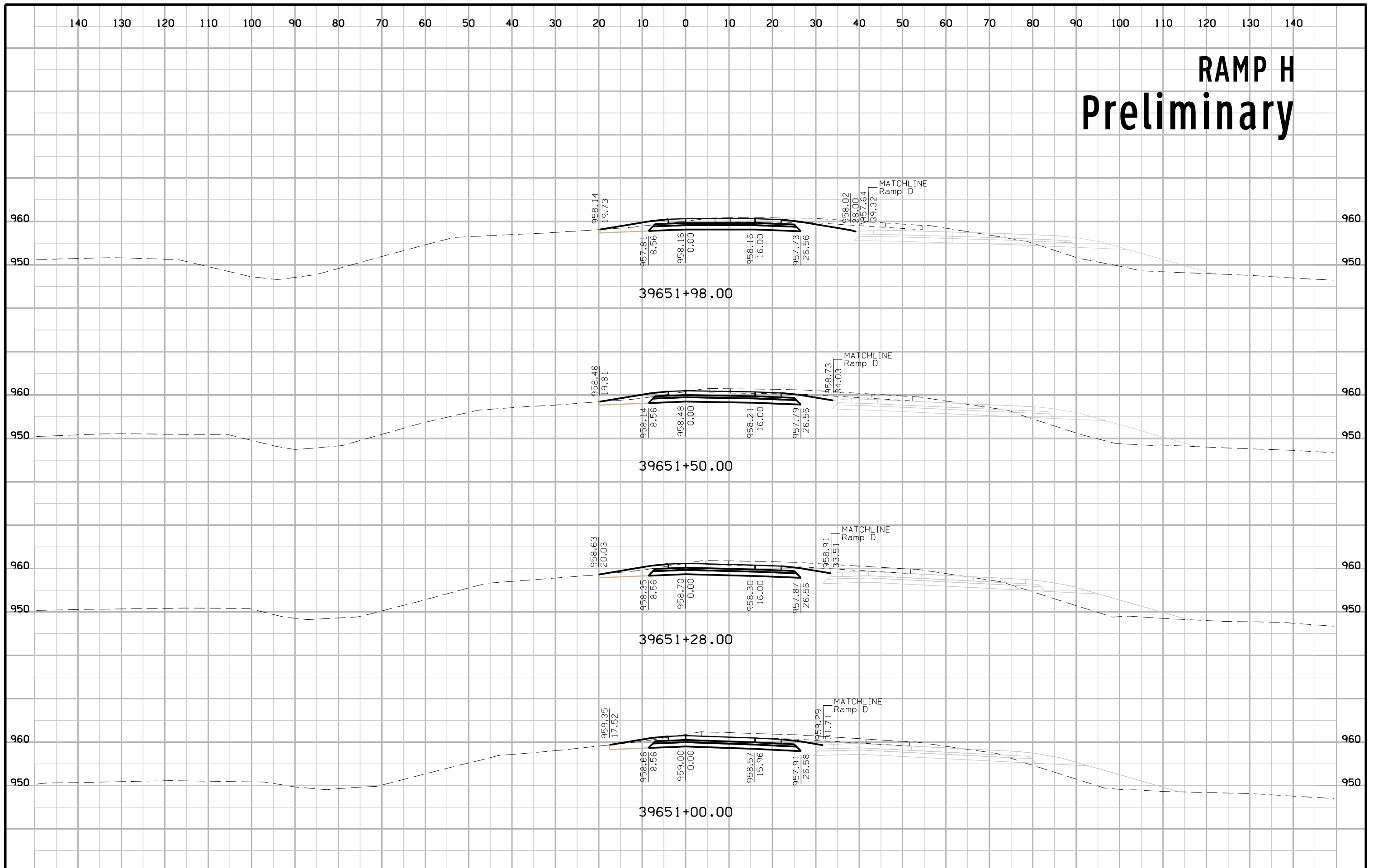
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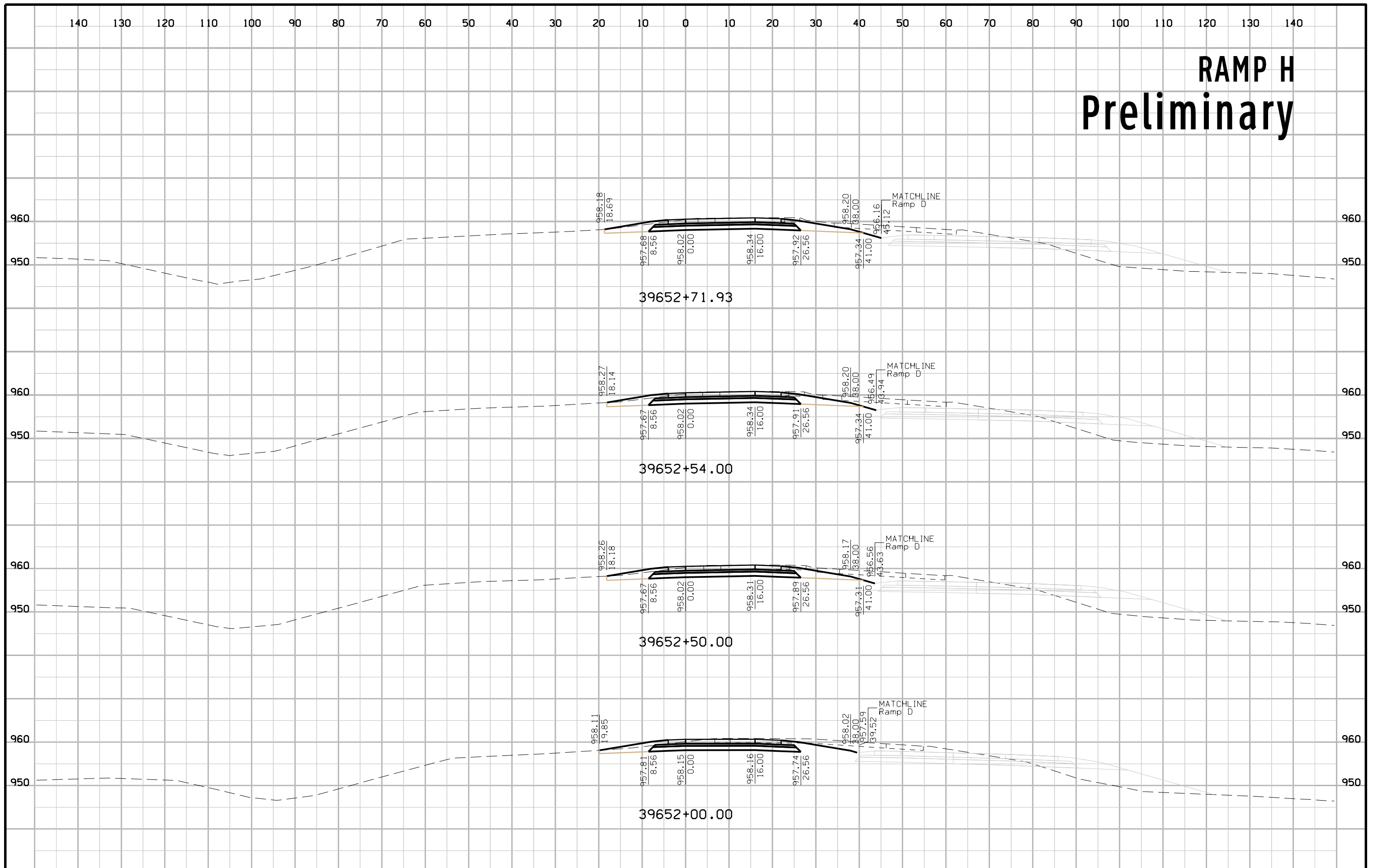
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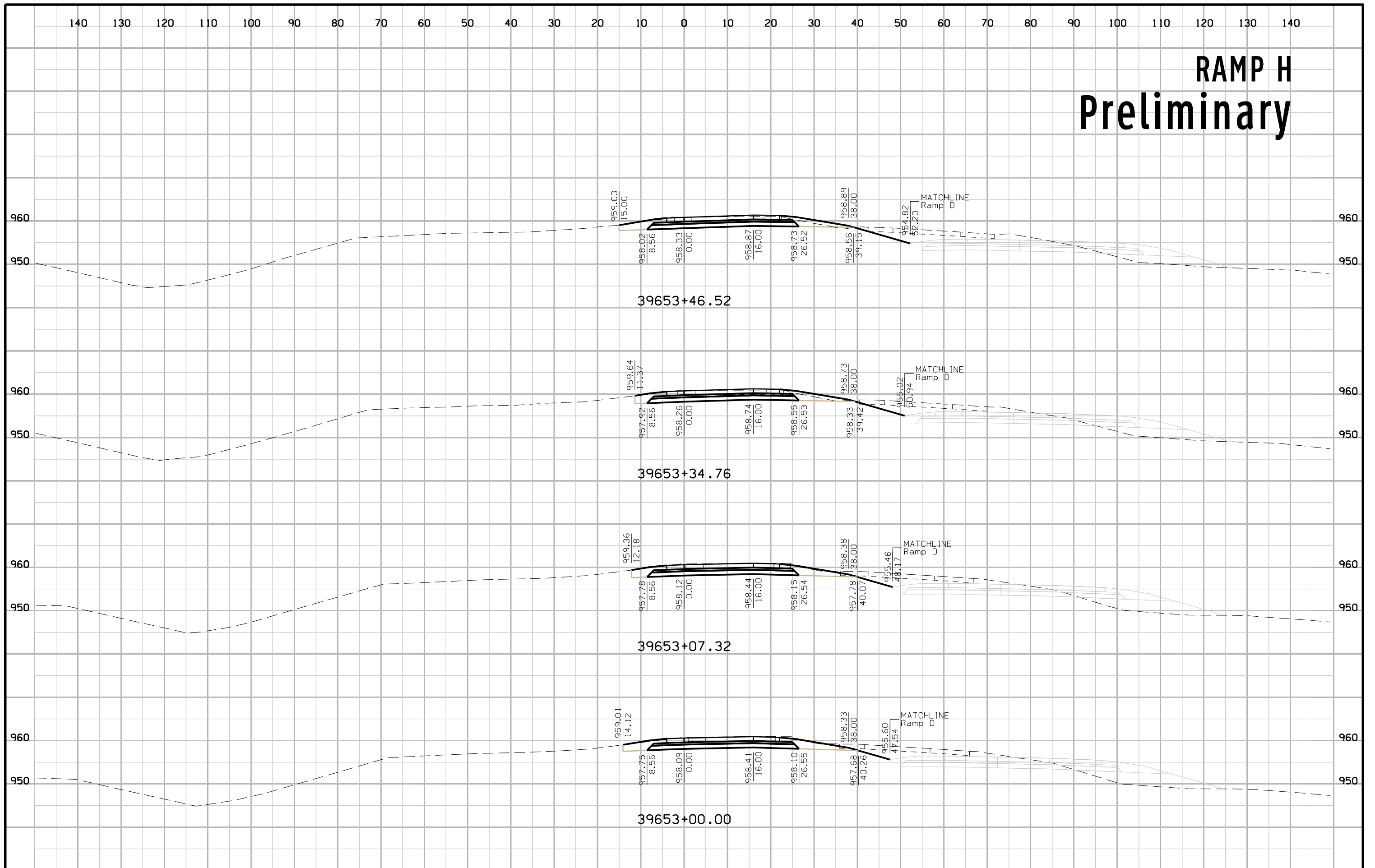
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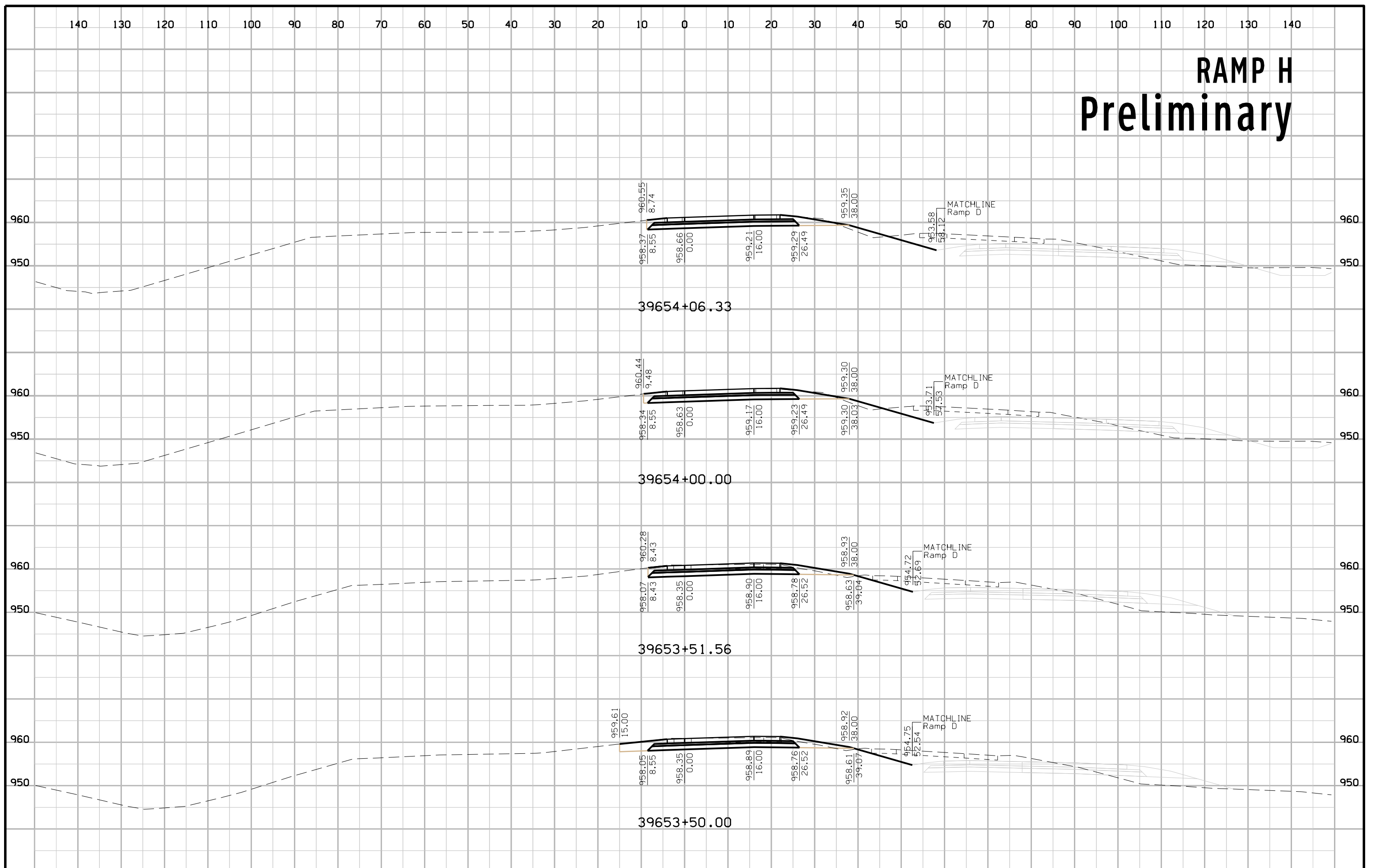
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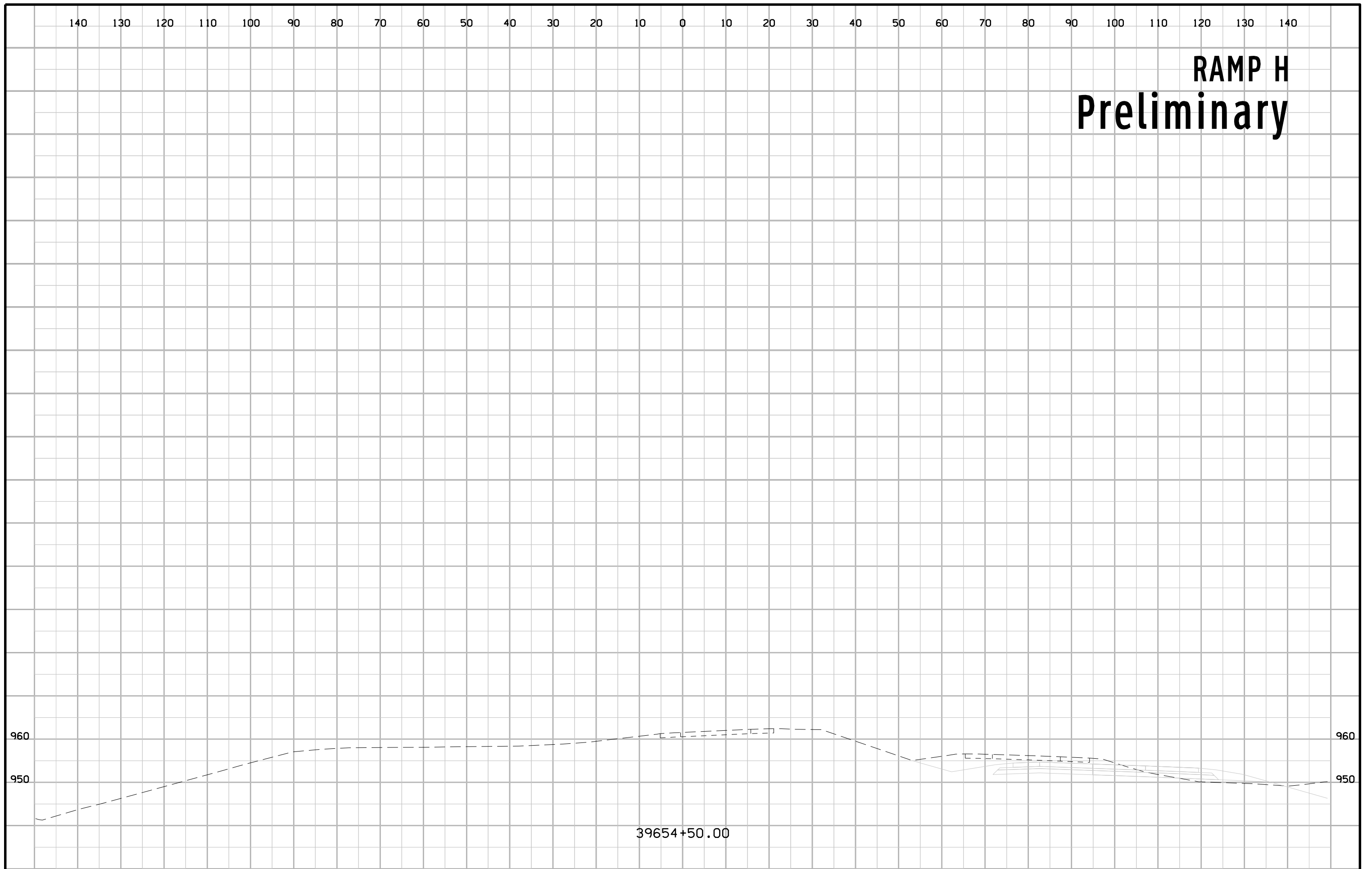
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RAMP H Preliminary



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