

WARREN CO. PCC PAVEMENT-GRADE AND REPLACE

LETTING DATE
AUG, 18, 2015
IM-NHS-035-2(354)56--03-91

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PLANS OF PROPOSED IMPROVEMENT ON THE
INTERSTATE ROAD SYSTEM
WARREN COUNTY
PCC PAVEMENT-GRADE AND REPLACE
From Clanton Creek Approx. 2mi. South
of IA92 North through IA92 Interchange

SCALES: As Noted

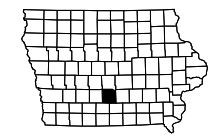
Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.15 of the Specifications.

MILEAGE SUMMARY			
Div.	Location	Lin. Ft.	Miles
	I-35 NORTHBOUND Sta. 625+29.00 to Sta. 822+46.00	19,717.00	3.734
	OMIT Middle River Bridge & Approaches Middle River - Sta. 714+74.94	474.00	0.090
	IA HIGHWAY 92 Sta. 672+36.00 to Sta. 718+68.00	4,632.00	0.877
	OMIT I-35 Bridge I-35 - Sta. 696+63.00	332.00	0.063
	RAMP A Sta. 1533+66.00 to Sta. 1547+00.00	1,334.00	0.253
	RAMP B Sta. 2521+75.00 to Sta. 2537+59.00	1,584.00	0.300
	RAMP C Sta. 3525+00.00 to Sta. 3534+97.00	997.00	0.189
	RAMP D Sta. 4536+03.00 to Sta. 4549+75.00	1,372.00	0.260
	Bridge Length Total	806.00	0.153
	TOTAL PROJECT LENGTH	28,830.00	5.460



For Project Location Map
Refer to Sheet A.2



IA 92	101-4 04-30-02	I-35	101-4 04-30-02
DESIGN DATA RURAL		DESIGN DATA RURAL	
2015 AADT	4,600 V.P.D.	2015 AADT	22,700 V.P.D.
2035 AADT	6,200 V.P.D.	2035 AADT	29,800 V.P.D.
20-- DHV	-- V.P.H.	20-- DHV	-- V.P.H.
TRUCKS	10 %	TRUCKS	25 %
Total Design ESALs	--	Total Design ESALs	--

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Gabriel A. Nelson	Primary Signature Block
CS.1	-----	Geotechnical Design
V.1	James S. Nelson	Structural 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.

GABRIEL A. NELSON
Date _____
License Number 17382
License Renewal Date is December 31, 2016

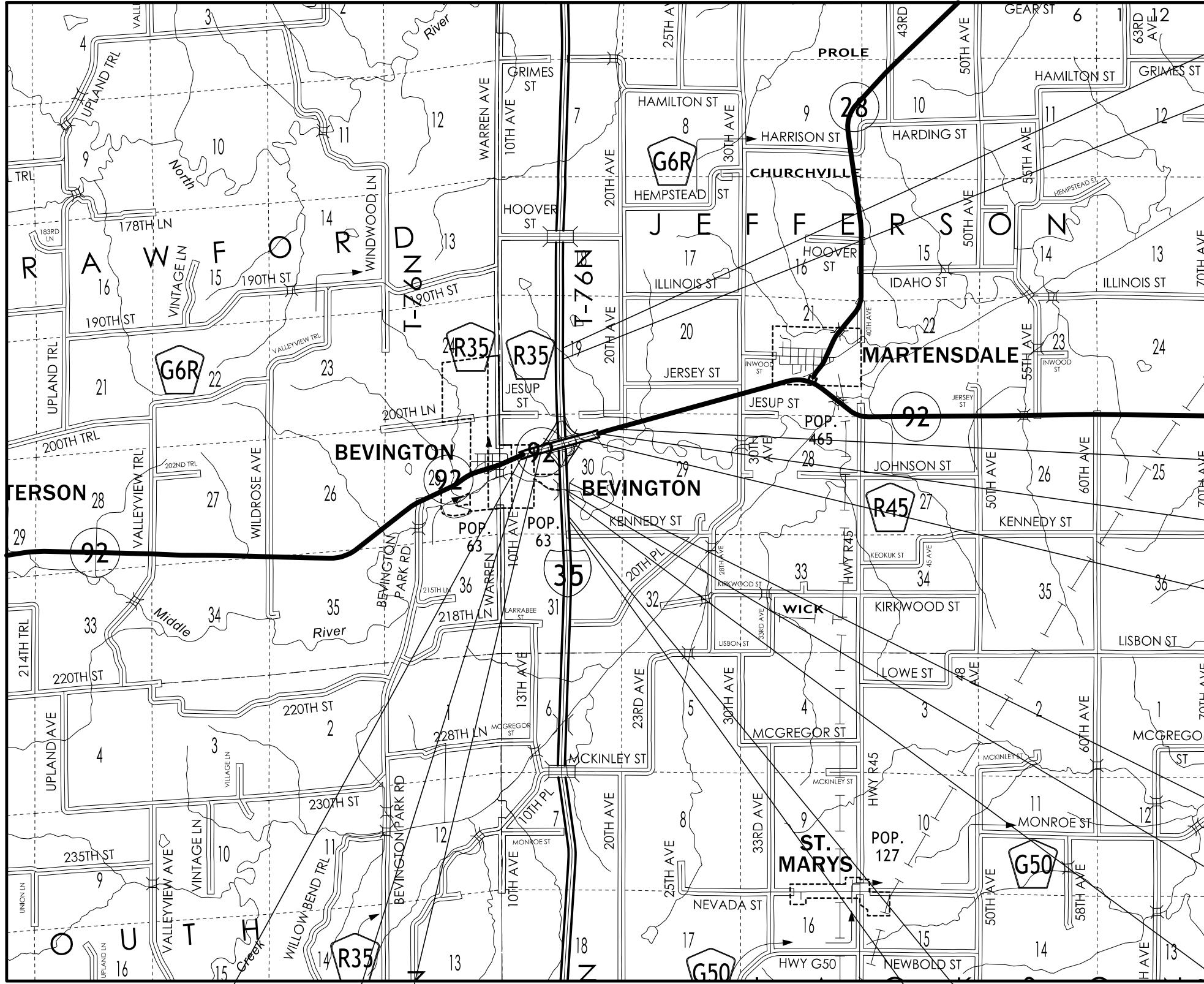
Pages or sheets covered by this seal:
ALL SHEETS EXCEPT CS.1, Q.1-?, And V.1-27

METHODS SUBMITTAL

REVISIONS	TOTAL
	400
PROJECT IDENTIFICATION NUMBER	
00-91-035-030-01	
PROJECT NUMBER	
IM-NHS-035-2(354)56--03-91	
R.O.W. PROJECT NUMBER	
IMN-035-2(286)65--0E-91	

T-76N

T-75N



STA. 822+46.00
 END I-35 NORTHBOUND PROJECT
 STA. 809+50.00
 END I-35 NORTHBOUND PAVEMENT

STA. 718+68.00
 END IA 92 PROJECT

STA. 716+00.03
 END IA 92 PAVEMENT

STA. 698+34.00
 RESUME IA 92 PAVEMENT

STA. 717+11.94
 RESUME I-35 NORTHBOUND PAVEMENT

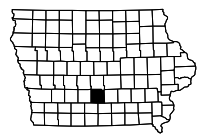
MIDDLE RIVER
 (BY OTHERS)
 BRFIM-035-2(291)56--13-91

STA. 712+37.22
 STOP I-35 NORTHBOUND PAVEMENT

STA. 629+45.95
 BEGIN I-35 NORTHBOUND PAVEMENT

STA. 625+29.00
 BEGIN I-35 NORTHBOUND PROJECT

STA. 672+36.00
 BEGIN IA 92 PROJECT
 STA. 674+99.97
 BEGIN IA 92 PAVEMENT
 STA. 695+02.00
 STOP IA 92 PAVEMENT



Paved Shoulder Alternates

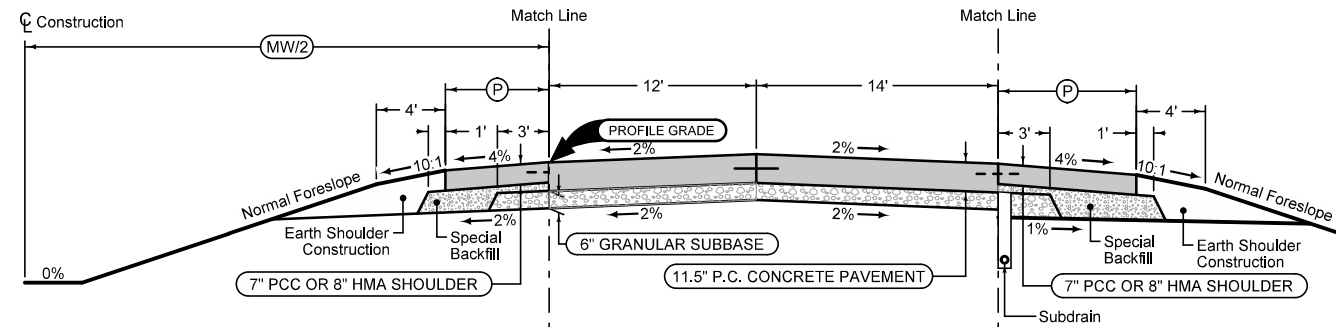
PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-3
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

4_P_ALT_10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
NB	629+46.00	684+56.00	6

Paved Shoulder Alternates

PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-3
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

4_P_ALT_10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
NB	629+46.00	690+34.12	10



Section shown in the direction of traffic.

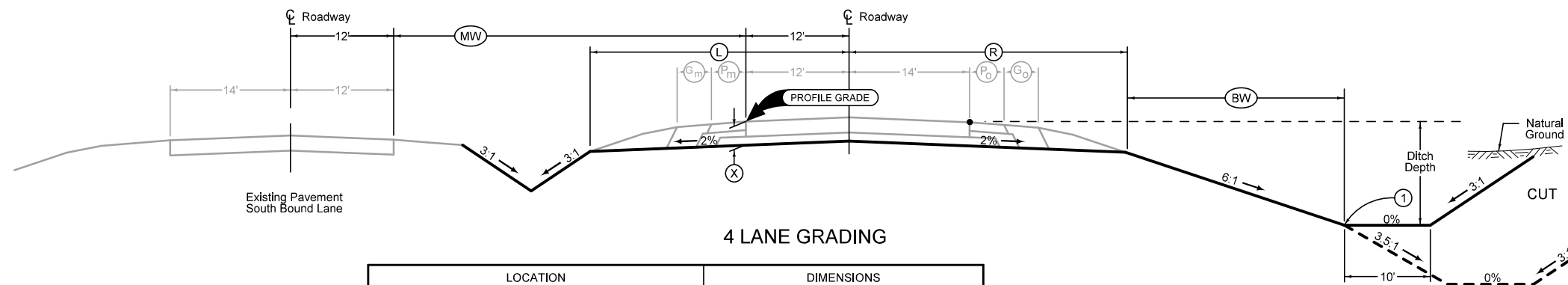
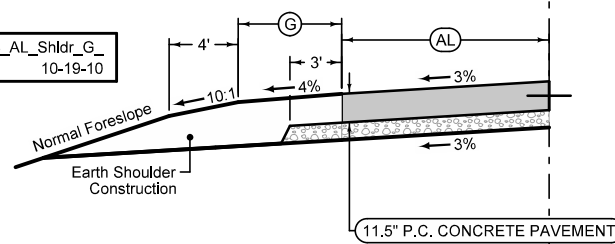
Mainline Jointing:
 Transverse joints: CD at 20' spacing
 Longitudinal joint: L-2

4DP_10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
NB	629+46.00	684+56.25	36
NB	684+56.25	690+34.12	VAR.

PCC Add Lane Add Lane Shoulder

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

4_AuxLane_PCC_10-19-10				4_AL_Shldr_G_10-19-10	
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(G) Feet	
NB	684+56.00	690+34.12	6-12	0-12	



4 LANE GRADING

ROAD IDENTIFICATION	LOCATION		DIMENSIONS					
	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(MW) Feet	(M) Feet
NB	632+50.00	649+00.00	28.09	33.54	17.5	19.65	36	1.97
NB	665+50.00	679+50.00	28.09	33.54	17.5	19.65	36	1.97

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.

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

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

I-35 ULTIMATE 4 Lane Section

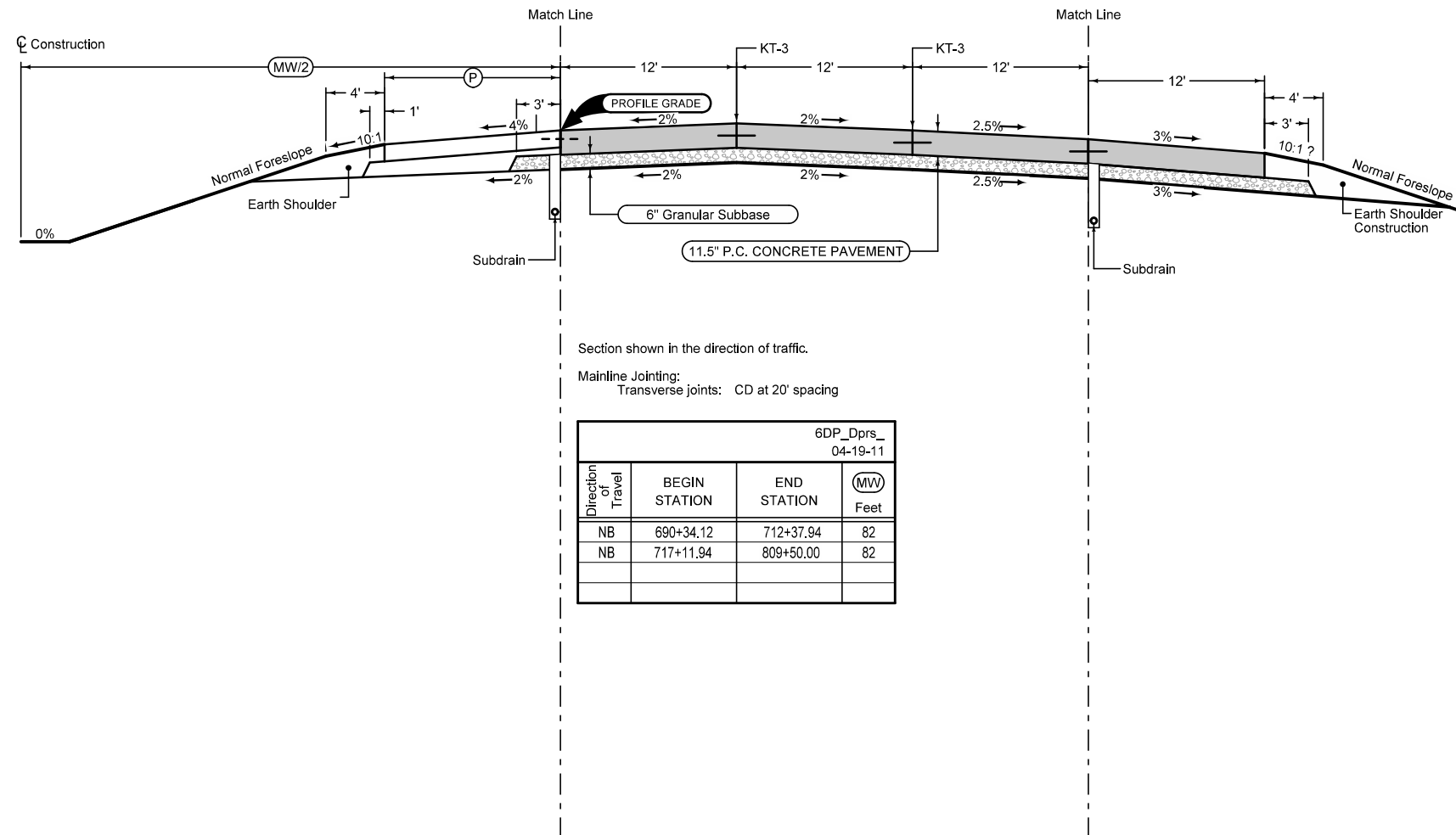
4D_Grade
 10-19-10

Shoulder

Ultimate shoulder will be 7" PCC or 8" HMA shoulder.
Upon completion of these projects this will be an earth shoulder

4_P_ALT_10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
NB	690+34.12	712+37.94	12
NB	717+11.94	809+50.00	12

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-3
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B



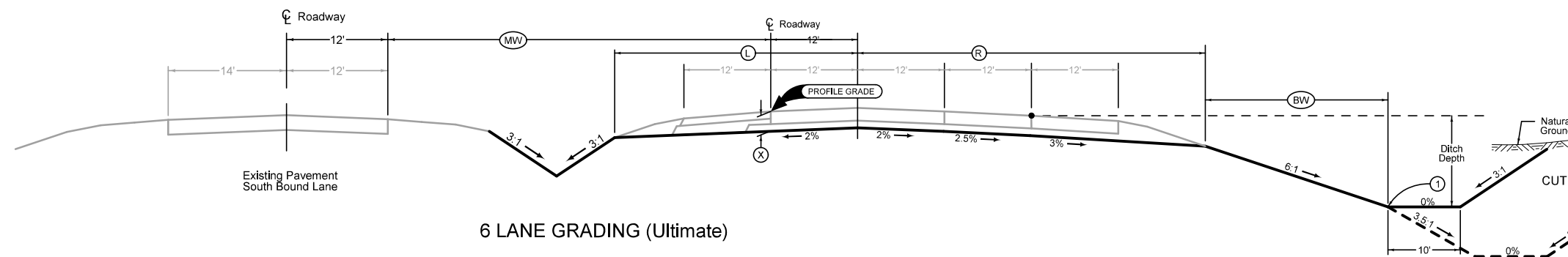
Section shown in the direction of traffic.
Mainline Jointing:
Transverse joints: CD at 20' spacing

6DP_Dprs_04-19-11			
Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
NB	690+34.12	712+37.94	82
NB	717+11.94	809+50.00	82

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

6D_Dprs_P_FullPCC_04-19-11		
Direction of Travel	BEGIN STATION	END STATION
NB	690+34.12	712+37.94
NB	721+75.00	747+45.00
NB	759+74.97	809+50.00



6 LANE GRADING (Ultimate)

ROAD IDENTIFICATION	LOCATION		DIMENSIONS						
	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(MW) Feet	(M) Feet	
NB	685+50.00	697+00.00	33.27	47.71	17.5	17.73	--	4	
NB	770+19.00	809+50.00	33.27	47.71	17.5	17.73	--	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.

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

I-35 ULTIMATE 6 Lane Section

6LaneGrade
MODIFIED

Combination Shoulder

Shoulder Jointing:
Longitudinal joint: B

		2_C_10-19-10	
STATION TO STATION	(P) Feet	(G) Feet	
675+00	716+00	4	6

Combination Shoulder

Shoulder Jointing:
Longitudinal joint: B

		2_C_10-19-10	
STATION TO STATION	(P) Feet	(G) Feet	
675+00	716+00	4	6

Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

		2_AuxLane_PCC_10-19-10	
STATION TO STATION	(AL) Feet		
703+15	708+15	12	
708+15	709+61.11	2-12	

Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

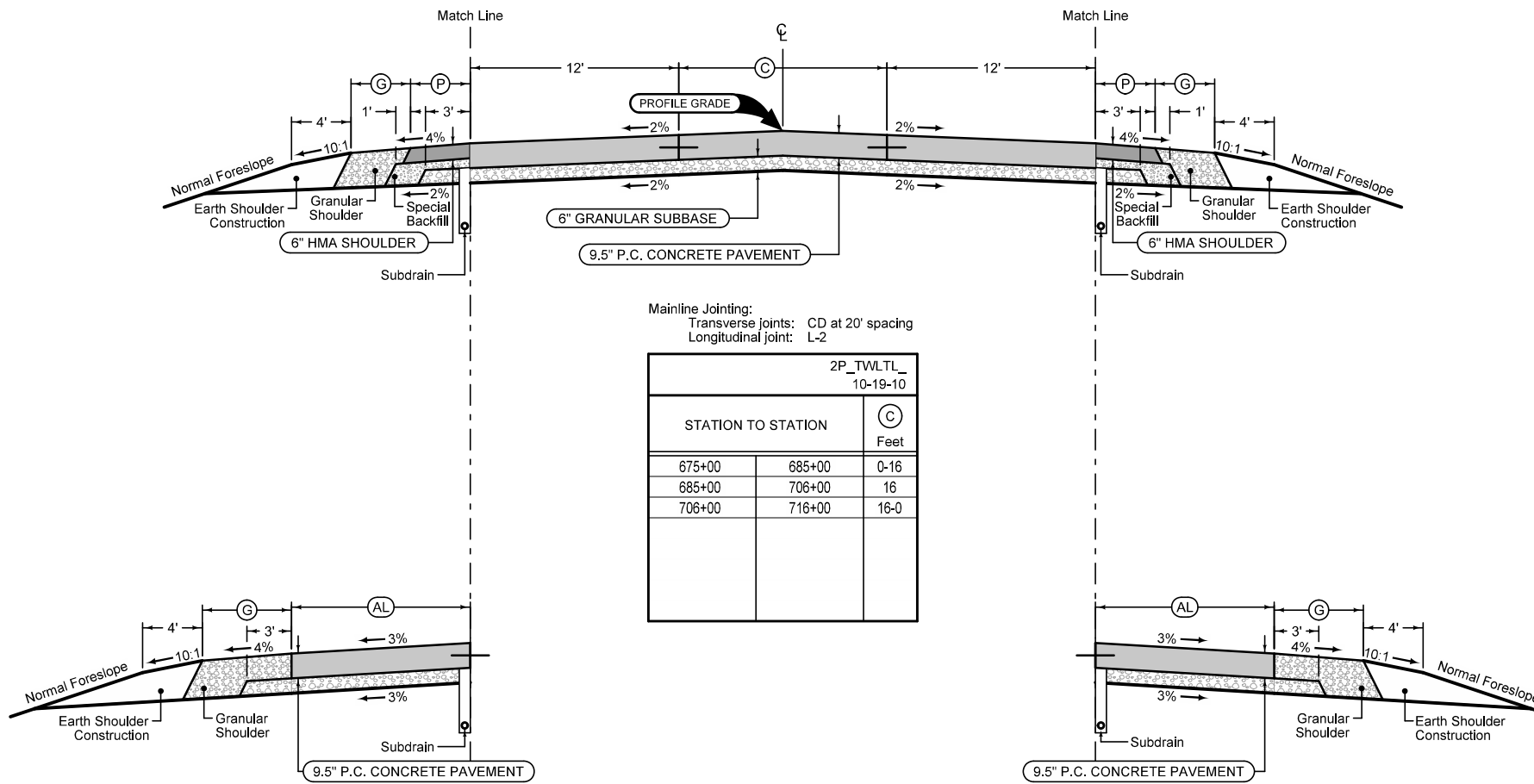
		2_AuxLane_PCC_10-19-10	
STATION TO STATION	(AL) Feet		
683+39.97	685+20	2-12	
685+20	690+20	12	

Auxiliary Lane Granular Shoulder

		2_AL_Shldr_G_10-19-10	
(G) Feet			
6			

Auxiliary Lane Granular Shoulder

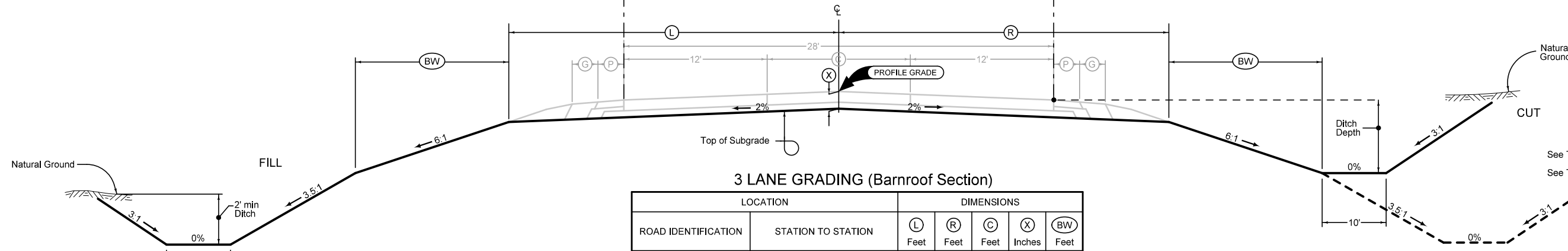
		2_AL_Shldr_G_10-19-10	
(G) Feet			
6			



Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

		2P_TWLTL_10-19-10	
STATION TO STATION	(C) Feet		
675+00	685+00	0-16	
685+00	706+00	16	
706+00	716+00	16-0	

2_Grade_BR
10-19-10



3 LANE GRADING (Barrroof Section)

ROAD IDENTIFICATION	LOCATION		DIMENSIONS				
	STATION TO STATION		(L) Feet	(R) Feet	(C) Feet	(X) Inches	(BW) Feet
Iowa 92	675+00.00	685+00.00	Var.	Var.	0-16	15.5	19.86
Iowa 92	685+00.00	706+00.00	38.12	38.12	16	15.5	19.86
Iowa 92	706+00.00	716+00.00	Var.	Var.	16-0	15.5	19.86

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

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

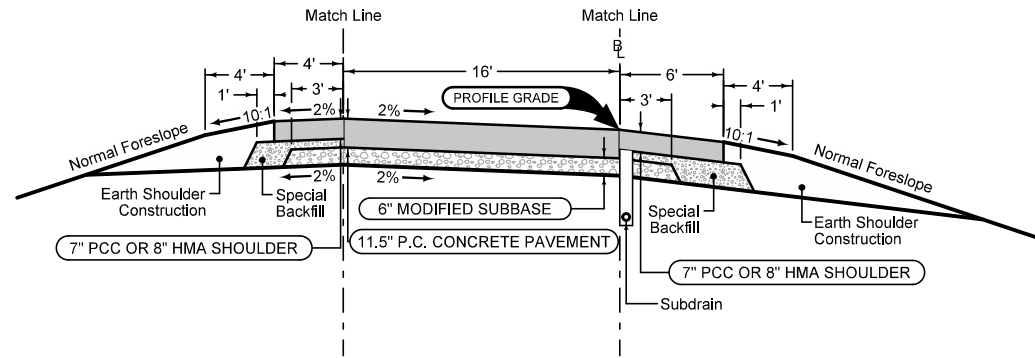
See Tab 100-24 for pavement quantities.
See Tab 112-9 for shoulder quantities.

IOWA 92

Paved Shoulder Alternates

PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-3
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

1L_P_ALT_ 10-19-10	
BEGIN STATION	END STATION
1533+66.16	1549+50.00
2521+75.00	2537+52.93
3523+28.66	3534+94.61
4536+16.15	4547+46.34



Section shown in the direction of traffic.

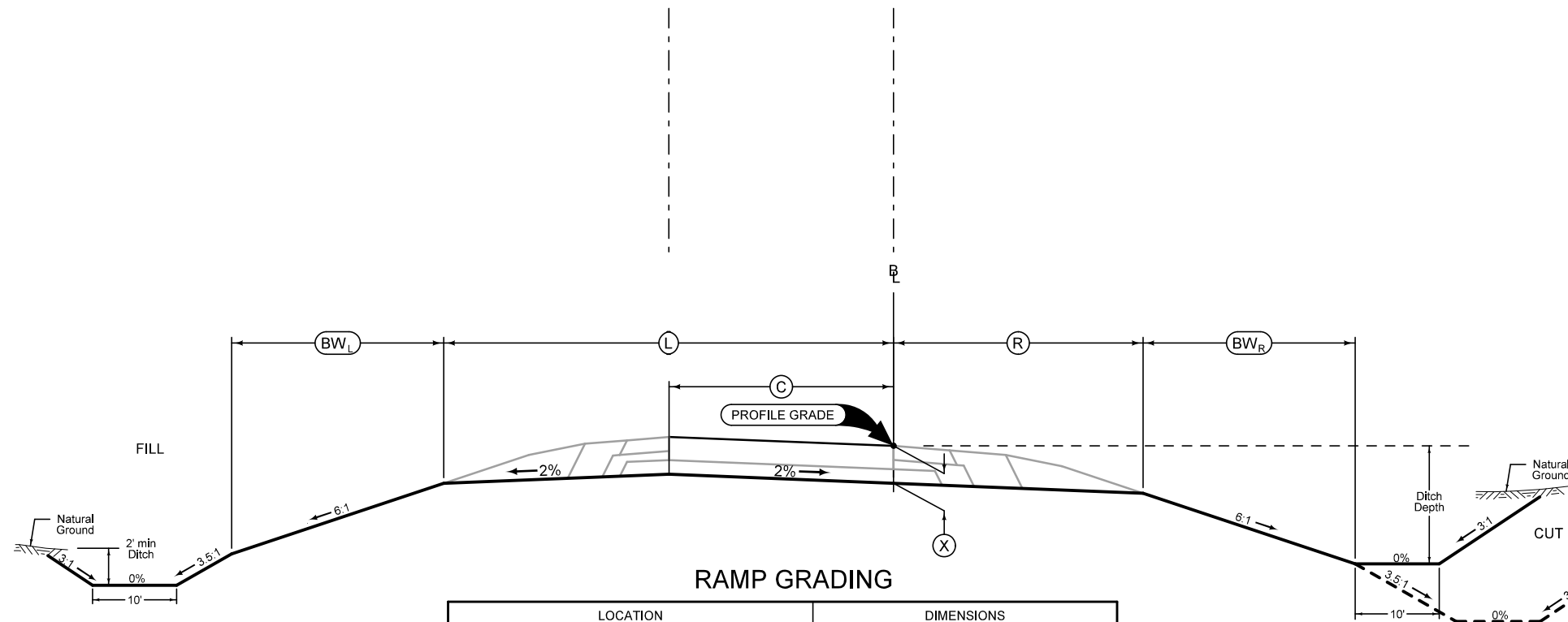
Ramp Jointing:
 Transverse joints: CD at 20' spacing.

1RP_ 10-19-10	
BEGIN STATION	END STATION
1533+66.16	1549+50.00
2521+75.00	2537+52.93
3523+28.66	3534+94.61
4536+16.15	4547+46.34

Paved Shoulder Alternates

PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-3
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

1L_P_ALT_ 10-19-10	
BEGIN STATION	END STATION
1533+66.16	1549+50.00
2521+75.00	2537+52.93
3523+28.66	3534+94.61
4536+16.15	4547+46.34



RAMP GRADING

LOCATION			DIMENSIONS					
INTERCHANGE	RAMP	STATION TO STATION	L	R	C	X	BW _L	BW _R
			Feet	Feet	Feet	Inches	Feet	Feet
Iowa 92	A	1533+66.16 - 1535+98.45	VAR.	16.09	VAR.	17.5	20.27	20.07
Iowa 92	A	1535+98.45 - 1549+50.00	30.36	16.09	16	17.5	20.27	20.07
Iowa 92	B	2521+75.00 - 2536+85.00	30.36	16.09	16	17.5	20.27	20.07
Iowa 92	B	2536+85.00 - 2537+52.93	VAR.	16.09	VAR.	17.5	20.27	20.07
Iowa 92	C	3523+28.66 - 3533+30.00	30.36	16.09	16	17.5	20.27	20.07
Iowa 92	C	3533+30.00 - 3534+94.61	VAR.	16.09	VAR.	17.5	20.27	20.07
Iowa 92	D	4536+16.15 - 4537+70.00	VAR.	16.09	VAR.	17.5	20.27	20.07
Iowa 92	D	4537+70.00 - 4547+46.34	30.36	16.09	16	17.5	20.27	20.07

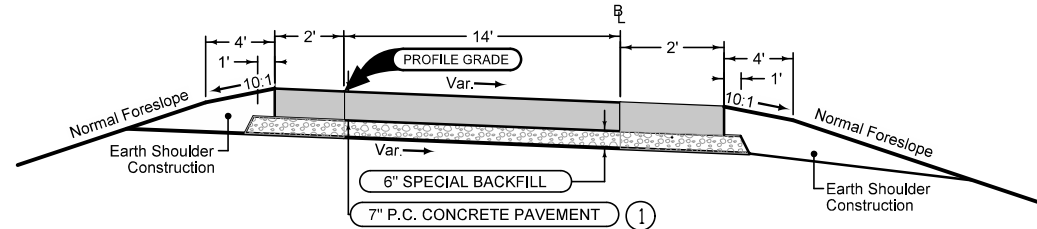
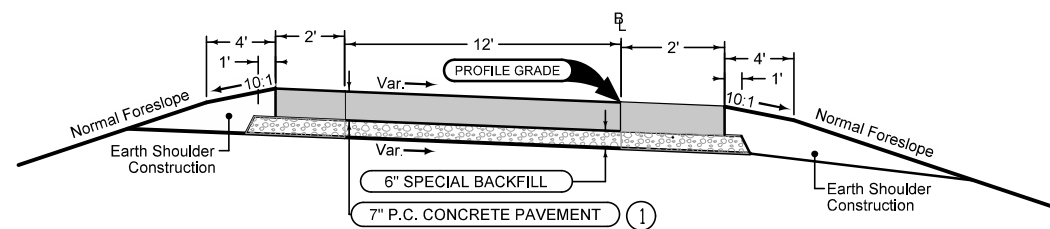
Section view is in direction of traffic.

Normal sections shown may be appropriately modified for areas specifically designated by the Engineer such as intersections or super-elevated curves.

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

IOWA 92 INTERCHANGE - RAMPS

1R_Grade
10-18-11



Section shown in the direction of traffic.

Ramp Jointing:
Transverse joints: CD at 20' spacing.

1RP_ 10-19-10		
BEGIN STATION	END STATION	QUANTITY (SY)
85+00.00	88+34.19	552
65+16.46	71+52.21	1295

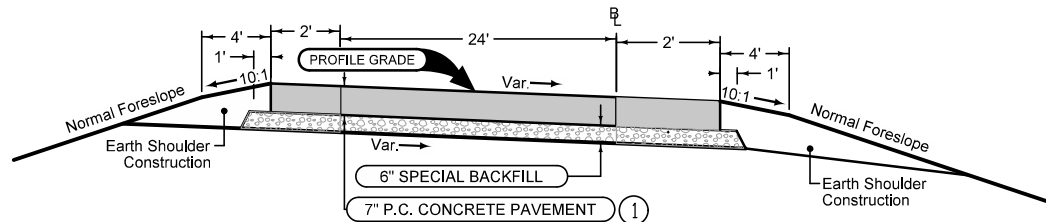
Section shown in the direction of traffic.

Ramp Jointing:
Transverse joints: CD at 20' spacing.

1RP_ 10-19-10		
BEGIN STATION	END STATION	QUANTITY (SY)
100+20.04	104+92.98	1777

① The Contractor may choose to use 7" P.C. Concrete or 8" HMA Pavment.

IOWA 92 TEMPORARY CONNECTIONS



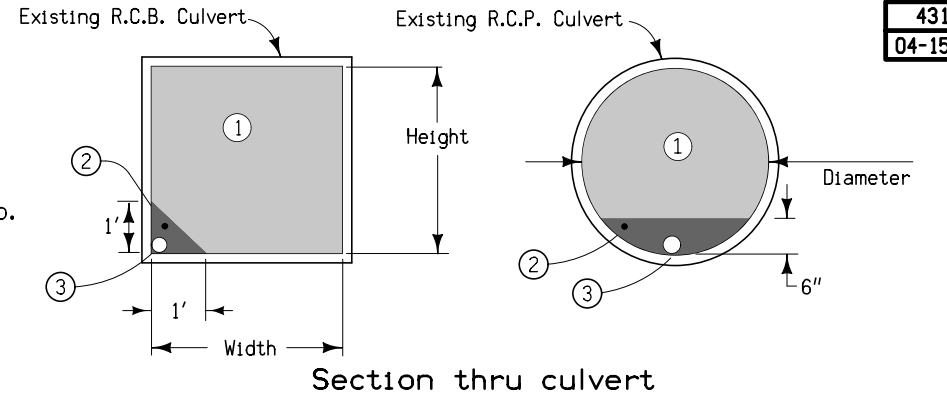
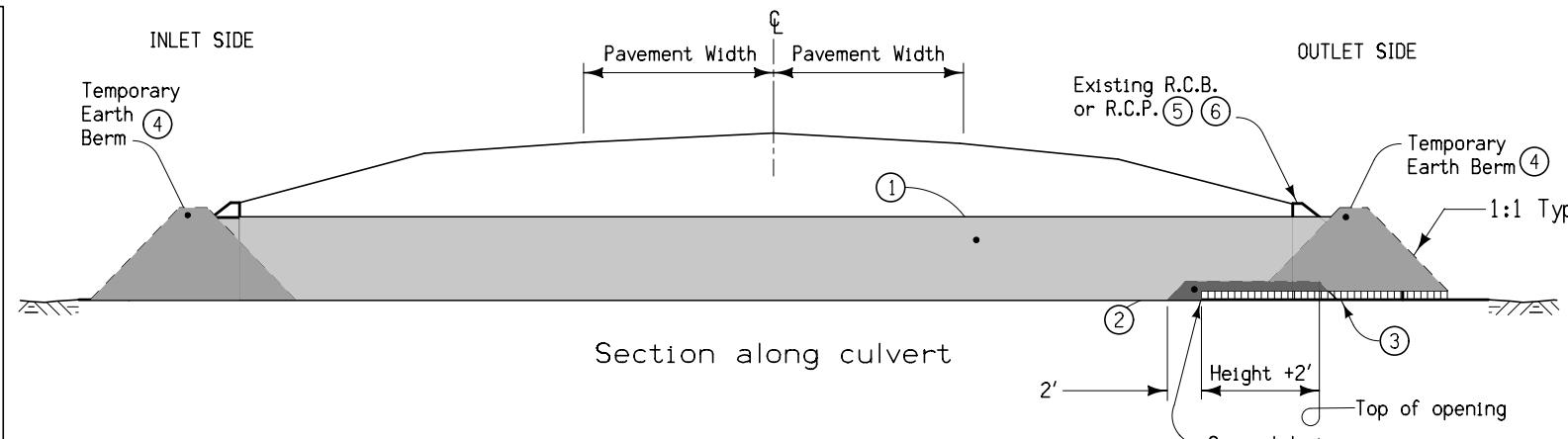
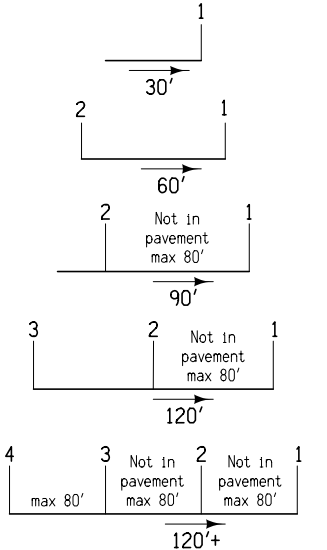
Section shown in the direction of traffic.

Ramp Jointing:
Transverse joints: CD at 20' spacing.

1RP_ 10-19-10		
BEGIN STATION	END STATION	QUANTITY (SY)
11+86.83	27+06.67	2807
100+31.52	110+00.83	1852

① The Contractor may choose to use 7" P.C. Concrete or 8" HMA Pavment.

Required Injection Points ⑥

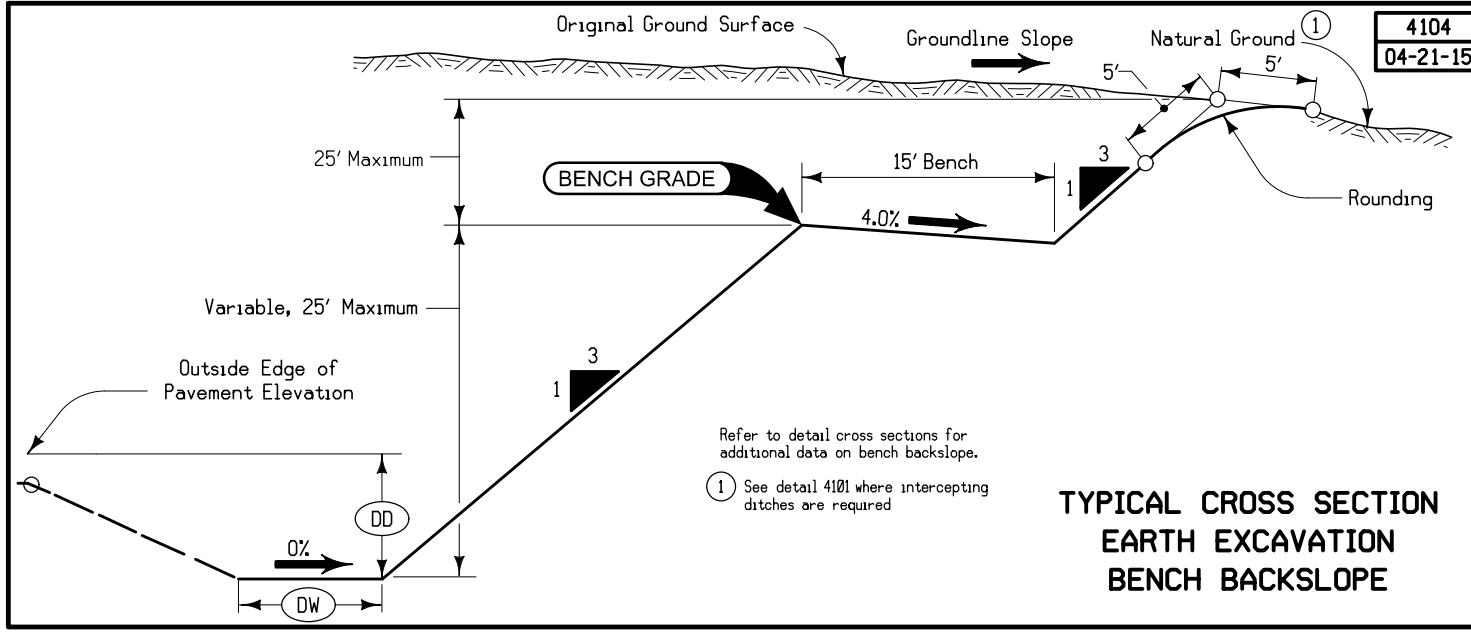


- ① Flowable Mortar.
- ② Granular Backfill.
- ③ 4" subdrain at flowline elevation of culvert shall be extended into the culvert a distance of 2' plus the height of the culvert. Granular Backfill covers subdrain and extends an additional 2'. Subdrain and granular backfill are incidental to flowable mortar.
- ④ Ends of culvert shall be plugged sufficiently to retain flowable mortar. Temporary earth berms are incidental to flowable mortar.
- ⑤ Removal of headwalls may be required.
- ⑥ Outlet shall be filled first. See Injection point detail for additional information.

DETAILS OF CULVERT ABANDONMENT WITH FLOWABLE MORTAR
 (Rectangular structures less than 8' in either height or width.
 Circular structures less than 10' Dia.)

4315
04-15-08

4104
04-21-15



PROJECT DESCRIPTION

100-1D
10-18-05

This project includes the grading and paving of the northbound lanes of I-35 north and south of the IA 92 interchange in Warren Co. The project also involves the grading and paving of IA Highway 92 and all 4 ramps at the IA Highway 92 interchange. The grading and paving of the southbound lanes through this area will be accomplished by a future grade and pave project.

**ESTIMATED PROJECT QUANTITIES
(1 DIVISION PROJECT)**

100-1A
07-15-97

Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2101-0850001	CLEARING AND GRUBBING	ACRE	86.1	
2	2102-0425046	SELECTED BACKFILL	CY		
3	2102-0425070	SPECIAL BACKFILL	TON	5798	
4	2102-2624980	CONTRACTOR FURNISH SELECT TREATMENT	CY		
5	2102-2625001	EMBANKMENT-IN-PLACE, CONTRACTOR FURNISH	CY	323541	
6	2102-2710070	EXCAVATION, CL 10, RDWY+BORROW	CY	421481	
7	2102-2710090	EXCAVATION, CL 10, WASTE	CY	23164	
8	2105-8425015	TOPSOIL, STRIP, SALVAGE+SPREAD	CY	105771	
9	2107-0875100	COMPACTION W/MOISTURE CONTROL	CY	473884	
10	2111-8174100	GRANULAR SUBBASE	SY	107617	
11	2113-0001100	SUBGRADE STABILIZATION MATERIAL, POLYMER GRID	SY	147	
12	2115-0100000	MODIFIED SUBBASE	CY	2980	
13	2121-7425010	GRANULAR SHLD, TYPE A	TON	4260	
14	2122-5190501	PAVED SHOULDER, PORTLAND CEMENT CONCRETE (PAVED SHOULDER PANEL FOR BRIDGE)	SY	145	
15	2122-5500060	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 6 IN.	SY	2325	
16	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	282	
17	2213-6745700	REMOVAL OF FLUMES	EACH	2	
18	2301-0690203	BRIDGE APPROACH, BR-203	SY	743	
19	2301-1003095	STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, QM-C, CLASS 3 D	SY	15863	
20	2301-1004115	STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, QM-C, CLASS 3 D	SY	92069	
21	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES	LS	1	
22	2304-0100000	DETOUR PAVEMENT	SY	7429	
23	2304-0101000	TEMPORARY PAVEMENT	SY	12369	
24	2315-8275025	SURFACING, DRIVEWAY, CLASS A CRUSHED STONE	TON	295	
25	2401-6745356	REMOVAL OF CONCRETE FOOTINGS OF LIGHT POLES	EACH	6	
26	2401-6745625	REMOVAL OF EXISTING BRIDGE	LS	1	
27	2401-6745650	REMOVAL OF EXISTING STRUCTURES	EACH	4	
28	2401-6745765	REMOVAL OF LIGHT POLES	EACH	19	
29	2402-0425040	FLOODED BACKFILL	CY	6433	
30	2402-2720100	EXCAVATION, CL 20, RDWY PIPE CULV	CY	11567	
31	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.	EACH	8	
32	2416-0100030	APRONS, CONCRETE, 30 IN. DIA.	EACH	4	
33	2416-0100042	APRONS, CONCRETE, 42 IN. DIA.	EACH	1	
34	2416-0100048	APRONS, CONCRETE, 48 IN. DIA.	EACH	2	
35	2416-0100060	APRONS, CONCRETE, 60 IN. DIA.	EACH	8	
36	2416-0102260	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 60 IN.	EACH	2	
37	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24"	LF	688	
38	2416-1180030	CULVERT, CONCRETE ROADWAY PIPE, 30"	LF	236	
39	2416-1180042	CULVERT, CONCRETE ROADWAY PIPE, 42"	LF	152	
40	2416-1180048	CULVERT, CONCRETE ROADWAY PIPE, 48"	LF	183	
41	2416-1180060	CULVERT, CONCRETE ROADWAY PIPE, 60"	LF	1009	
42	2416-1200260	CULVERT, LOW CLEARANCE CONCRETE ROADWAY PIPE, EQUIVALENT DIAMETER 60 IN.	LF	143	
43	2417-0225024	APRONS, METAL, 24 IN. DIA.	EACH	3	
44	2417-1060018	CULVERT, CORRUGATED METAL ROADWAY PIPE, 18 IN. DIA.	LF	97	
45	2417-1060024	CULVERT, CORRUGATED METAL ROADWAY PIPE, 24 IN. DIA.	LF	226	
46	2422-1723018	CULVERT, UNCLASSIFIED ROADWAY PIPE, 18"	LF	470	
47	2422-1723024	CULVERT, UNCLASSIFIED ROADWAY PIPE, 24"	LF	81	
48	2422-1723030	CULVERT, UNCLASSIFIED ROADWAY PIPE, 30"	LF	104	
49	2422-1723042	CULVERT, UNCLASSIFIED ROADWAY PIPE, 42"	LF	48	
50	2435-0256200	INTAKE, SW-562	EACH	7	
51	2502-6745952	REMOVAL OF SUBDRAIN	LF		
52	2502-8212024	SUBDRAIN, LONGITUDINAL, (BACKSLOPE) 4"	LF		
53	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHLD) 4"	LF		
54	2502-8221303	SUBDRAIN OUTLET (DR-303)	EACH		
55	2502-8221304	SUBDRAIN OUTLET (DR-304)	EACH		
56	2503-0500402	BRIDGE END DRAIN, DR-402	EACH	4	
57	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	1540	
58	2505-4008300	STEEL BEAM GUARDRAIL	LF	525	
59	2505-4008400	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION	EACH	7	
60	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	6	
61	2505-4021020	STEEL BEAM GUARDRAIL END ANCHOR, W-BEAM	EACH	1	
62	2505-4021700	STEEL BEAM GUARDRAIL END TERMINAL	EACH	6	
63	2506-4984000	FLOWABLE MORTAR	CY	106	
64	2507-3250005	ENGINEERING FABRIC	SY	1323	
65	2507-8029000	EROSION STONE	TON	1080	
66	2510-6745850	REMOVAL OF PAVEMENT	SY	148271	
67	2510-6750600	RMVL OF INTAKE+UTILITY ACCESS	EACH	13	
68	2518-6910000	SAFETY CLOSURE	EACH	30	
69	2519-2000010	FENCE, CHANNEL CROSS, TYPE A	LF	972	

**ESTIMATED PROJECT QUANTITIES
(1 DIVISION PROJECT)**

100-1A
07-15-97

Item No.	Item Code	Item	Unit	Total	As Built Qty.
70	2519-2000020	FENCE, CHANNEL CROSS, TYPE B	LF	732	
71	2519-3280000	FENCE, FIELD	LF	19062	
72	2519-3300400	FIELD FENCE BRACE PANEL	EACH	296	
73	2519-3750017	GATE, FIELD FENCE, 16'	EACH	2	
74	2526-8285000	CONSTRUCTION SURVEY	LS	1	
75	2527-9263109	PAINTED PAV'T MARK, WATERBORNE/SOLVENT	STA	4014	
76	2527-9263131	WET RETROREFLECTIVE REMOVABLE TAPE MARKINGS	STA	85	
77	2527-9263180	PAVEMENT MARKINGS REMOVED	STA	1083	
78	2527-9263137	PAINTED SYMBOL+LEGEND, WATERBORNE/SOLVNT	EACH	13	
79	2528-4983200	MONITORING WITH INCIDENT RESPONSE	CDAY		
80	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE	LF	1659	
81	2528-8400157	TEMPORARY FLOODLIGHTING LUMINAIRE	EACH	20	
82	2528-8445110	TRAFFIC CONTROL	LS	1	
83	2528-8445113	FLAGGER	EACH		
84	2533-4980005	MOBILIZATION	LS	1	
85	2551-0000110	TEMP CRASH CUSHION	EACH	6	
86	2590-0000020	PROJECT MANAGEMENT	LS	1	
87	2601-2634100	MULCH	ACRE	90.7	
88	2601-2636015	NATIVE GRASS SEEDING	ACRE	60.3	
89	2601-2636043	SEEDING AND FERTILIZING (RURAL)	ACRE	30.4	
90	2602-0000020	SILT FENCE	LF	78724	
91	2602-0000030	SILT FENCE FOR DITCH CHECKS	LF	11983	
92	2602-0000050	SILT BASIN	EACH	154	
93	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	46851	
94	2602-0000080	REMOVAL OF SILT BASINS	EACH	126	
95	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	4685	
96	2602-0000309	PERIMETER+SLOPE SEDIMENT CNTL DEVICE, 9"	LF	500	
97	2602-0000312	PERIMETER+SLOPE SEDIMENT CNTL DEVICE, 12"	LF	1000	
98	2602-0000320	PERIMETER+SLOPE SEDIMENT CNTL DEVICE, 20"	LF	1000	
99	2602-0000350	REMOVAL OF PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	LF	2500	
100	2602-0010010	MOBILIZATION, EROSION CONTROL	EACH		
101	2602-0010020	MOBILIZATION, EMERGENCY EROSION CONTROL	EACH		
		Alternative AA - Option 1			
102	2102-0425070	SPECIAL BACKFILL	CY	12155	
103	2122-5190006	PAVED SHOULDER, P.C. CONCRETE, 7 IN.	SY	16069	
		Alternative AA - Option 2			
104	2102-0425071	SPECIAL BACKFILL	CY	12015	
105	2122-5500080	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 8 IN.	SY	16660	

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2101-0850001	CLEARING AND GRUBBING Refer to Sheets U.1-U.5. Refer to Tab. 110-17.
2	2102-0425046	SELECTED BACKFILL ????????????????????????????????????????????????????????????
3	2102-0425070	SPECIAL BACKFILL Refer to typical sections for locations. ----- Refer to Tab 103-3 for Proposed Subgrade Treatment locations for areas needing additional Special Backfill.
4	2102-2624980	CONTRACTOR FURNISH SELECT TREATMENT ????????????????????????????????????????????????????????????
5	2102-2625001	EMBANKMENT-IN-PLACE, CONTRACTOR FURNISH Refer to Tab. 108-30. ----- Includes 323,541 cu. yds. of Class 10 to be borrowed, as per Article 1106.07 of the current specifications. Item includes an additional 23,164 cu. yds. to replace material wasted off-site. ----- Refer to "T" sheets.
6	2102-2710070	EXCAVATION, CL 10, RDWY+BORROW Includes 421,481 cu. yds. Of Class 10 Excavation. 23,164 CY to be wasted off-site. 315,710 cu. yds. of suitable material to be used in the roadway fill. ----- Refer to "T" sheets. ----- Overhaul will not be measured or paid for, but shall be considered incidental to roadway excavation on this project.
7	2102-2710090	EXCAVATION, CL 10, WASTE Item includes 23,164 CY to be wasted off-site. ----- Refer to cross sections.
8	2105-8425015	TOPSOIL, STRIP, SALVAGE+SPREAD The existing topsoil within the construction limits (cut and fill) shall be stripped, salvaged, and spread. Topsoil stockpile location shall be approved by the Engineer. This item is for the topsoil that will be disturbed during grading. ----- Refer to Tab. 103-4
9	2107-0875100	COMPACTION W/MOISTURE CONTROL Refer to Tab. 103-6. ----- Cubic yards shown on the contract documents as determined by the template fill volume. Shrinkage will not be included in the moisture control quantity.
10	2111-8174100	GRANULAR SUBBASE Refer to I-35 and Iowa 92 typical sections. Refer to Tab. 100-24.
11	2113-0001100	SUBGRADE STABILIZATION MATERIAL, POLYMER GRID Refer to Tab. 104-8A
12	2115-0100000	MODIFIED SUBBASE Refer to Iowa 92 ramp typical. Refer to Tab. 100-24 and 104-8A.
13	2121-7425010	GRANULAR SHLD, TYPE A Refer to Tabs. 112-8 & 112-9
14	2122-5190501	PAVED SHOULDER, PORTLAND CEMENT CONCRETE (PAVED SHOULDER PANEL FOR BRIDGE END DRAIN) Refer to Tab. 104-8A
15	2122-5500060	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 6 IN. Refer to Tab. 112-9.
16	2123-7450000	SHOULDER CONSTRUCTION, EARTH Refer to Tab. 112-9. No payment for overhaul allowed for this material. At least 4" of topsoil will be placed in areas of earth shoulder construction.
17	2213-6745700	REMOVAL OF FLUMES Refer to Tab. 110-3.
18	2301-0690203	BRIDGE APPROACH, BR-203 Refer to Tab. 112-6. ----- Bridge approach pavement shall be installed as shown on sheets U.06-U.08. Includes HMA composite pavement shown on detail sheets.
19	2301-1003095	STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, QM-C, CLASS 3 DURABILITY, 9.5 IN. Refer to Tab. 100-24 and typical for Iowa 92.

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
20	2301-1003115	STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, QM-C, CLASS 3 DURABILITY, 11.5 IN. Refer to Tab. 100-24 and typicals for I-35 and Iowa 92 ramps.
21	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES --
22	2304-0100000	DETOUR PAVEMENT Refer to Tab. 112-8 and Traffic Control Sheets. ----- Alternatives are 12" HMA (as per Section 2304.02.B.2 of the current specifications) or 9" PCC (as per Section 2304.02.A.1 of the current specifications). Quantities are based on the PCC Alternative.
23	2304-0101000	TEMPORARY PAVEMENT Refer to Iowa 92 Temporary Connections typical and Traffic Control and Staging Sheets. ----- Alternatives are 8" HMA (as per Section 2304.02.B.2 of the current specifications) or 7" PCC (as per Section 2304.02.A.1 of the current specifications). Quantities are based on the PCC Alternative. ----- Method of Measurement: Temporary Pavement shall be measured in Square Yards. ----- Basis of Payment: Payment for Temporary Pavement will be the contract unit price per square yard. Payment is full compensation for furnishing material, equipment, and labor to construct the temporary pavement in accordance with the contract documents.
24	2315-8275025	SURFACING, DRIVEWAY, CLASS A CRUSHED STONE Refer to Tab. 102-3. This item is for surfacing rural entrances on Iowa 92. Item includes an additional 20% for potential staging uses.
25	2401-6745356	REMOVAL OF CONCRETE FOOTINGS OF LIGHT POLES Refer to Tab. 110-16 ----- Method of Measurement: Each concrete footing of light pole removed shall be measured separately for payment. ----- Basis of Payment: The contractor will be paid the contract unit price for each concrete footing of light pole removed. Payment is full compensation for furnishing material, equipment, and labor to remove the concrete footing of light pole. Disposal of concrete footing shall be incidental to this item.
26	2401-6745625	REMOVAL OF EXISTING BRIDGE Remove existing eastbound Iowa Highway 92 bridge: 207'-1"x30' Pretensioned Prestressed Concrete Beam Bridge at approx. Sta. 695+30 on Iowa 92. During bridge removal operations, traffic may be redirected over ramps during the hours of 10:00 pm and 5:00 am per TC-454. Traffic control costs for TC-454 to be included in Traffic Control bid item.
27	2401-6745650	REMOVAL OF EXISTING STRUCTURES Refer to Tab. 110-2.
28	2401-6745765	REMOVAL OF LIGHT POLES Refer to Tab. 110-16 ----- Method of Measurement: Each light pole removed shall be measured separately for payment. ----- Basis of Payment: The contractor will be paid the contract unit price for each light pole removed. Payment is full compensation for furnishing material, equipment, and labor to remove the light pole. Light pole shall become property of the contractor.
29	2402-0425040	FLOODED BACKFILL Refer to Tab. 104-3. See Standard Road Plan DR-101 for details.
30	2402-2720100	EXCAVATION, CL 20, RDWY PIPE CULV Refer to Tab. 104-3.
31	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.
32	2416-0100030	APRONS, CONCRETE, 30 IN. DIA.
33	2416-0100042	APRONS, CONCRETE, 42 IN. DIA.
34	2416-0100048	APRONS, CONCRETE, 48 IN. DIA.
35	2416-0100060	APRONS, CONCRETE, 60 IN. DIA.
36	2416-0102260	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 60 IN.
37	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24"
38	2416-1180030	CULVERT, CONCRETE ROADWAY PIPE, 30"
39	2416-1180042	CULVERT, CONCRETE ROADWAY PIPE, 42"
40	2416-1180048	CULVERT, CONCRETE ROADWAY PIPE, 48"
41	2416-1180060	CULVERT, CONCRETE ROADWAY PIPE, 60"
42	2416-1200260	CULVERT, LOW CLEARANCE CONCRETE ROADWAY PIPE, EQUIVALENT DIAMETER 60 IN.
43	2417-0225024	APRONS, METAL, 24 IN. DIA.
44	2417-1060018	CULVERT, CORRUGATED METAL ROADWAY PIPE, 18 IN. DIA.
45	2417-1060024	CULVERT, CORRUGATED METAL ROADWAY PIPE, 24 IN. DIA.
46	2422-1723018	CULVERT, UNCLASSIFIED ROADWAY PIPE, 18"
47	2422-1723024	CULVERT, UNCLASSIFIED ROADWAY PIPE, 24"

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
48	2422-1723030	CULVERT, UNCLASSIFIED ROADWAY PIPE, 30"
49	2422-1723042	CULVERT, UNCLASSIFIED ROADWAY PIPE, 42" Refer to Tab. 104-3.
-	-	-
50	2435-0256200	INTAKE, SW-562 Refer to Tabs. 104-3 & 104-5A. ----- For bedding and backfill purposes, use material complying with Article 4120.04 (Class A Crushed Stone) of the current specifications for all bedding and backfill. Place and compact the material according to Article 2552.03, E.
-	-	-
51	2502-6745952	REMOVAL OF SUBDRAIN Refer to Tab. 104-9 on sheet CS.XX for existing lengths and locations. ----- Method of Measurement: The length of subdrain removed will be measured to the nearest lineal foot. ----- Basis of Payment: The contractor will be paid the contract unit price for each lineal foot of subdrain removed.
-	-	-
52	2502-8212024	SUBDRAIN, LONGITUDINAL, (BACKSLOPE) 4"
53	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHLD) 4"
54	2502-8221303	SUBDRAIN OUTLET (DR-303)
55	2502-8221304	SUBDRAIN OUTLET (DR-304) Refer to Tab. 104-9 on sheet CS.XX for locations and details.
-	-	-
56	2503-0500402	BRIDGE END DRAIN, DR-402 Refer to Tab. 104-8A. See Standard Road Plan DR-402 for details and materials incidental to this bid item.
-	-	-
57	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL Refer to Tab. 110-7A.
-	-	-
58	2505-4008300	STEEL BEAM GUARDRAIL
59	2505-4008400	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION
60	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED
61	2505-4021020	STEEL BEAM GUARDRAIL END ANCHOR, W-BEAM
62	2505-4021700	STEEL BEAM GUARDRAIL END TERMINAL Refer to Tab. 108-8A.
-	-	-
63	2506-4984000	FLOWABLE MORTAR Refer to Tabs. 104-3 & 110-9 ----- To fill and abandon culverts. See Typical 4315 on sheet B.5 for details.
-	-	-
64	2507-3250005	ENGINEERING FABRIC Refer to Tab. 100-23. ----- Engineering fabric shall be material as specified for embankment erosion control, Article 4196.01,A. Material shall be measured in sq. yds. of actual area covered. Refer to details. Bid item includes 30% additional quantity for other locations of erosion.
-	-	-
65	2507-8029000	EROSION STONE Refer to Tab. 100-23. ----- The tabulation includes estimated locations for placement of "Erosion Stone" to address erosion to be encountered during construction. Verify the specific location with the Engineer prior to beginning placement. Bid item includes 30% additional quantity for other locations of erosion.
-	-	-
66	2510-6745850	REMOVAL OF PAVEMENT Refer to Tabs. 102-5, 110-1, & 112-8. ----- Quantity includes removal of Detour Pavement and Temporary Pavement installed for staging purposes. Refer to Traffic Control Sheets for additional information.
-	-	-
67	2510-6750600	RMVL OF INTAKE+UTILITY ACCESS Refer to Tab. 110-15.
-	-	-
68	2518-6910000	SAFETY CLOSURE Refer to Tab. 108-13A.
-	-	-
69	2519-2000010	FENCE, CHANNEL CROSS, TYPE A
70	2519-2000020	FENCE, CHANNEL CROSS, TYPE B
71	2519-3280000	FENCE, FIELD
72	2519-3300400	FIELD FENCE BRACE PANEL
73	2519-3750017	GATE, FIELD FENCE, 16' Refer to Tab. 100-7.
-	-	-
74	2526-8285000	CONSTRUCTION SURVEY Construction survey shall be in accordance with Section 2526 of the current Specifications.
-	-	-
75	2527-9263109	PAINTED PAV'T MARK, WATERBORNE/SOLVENT
76	2527-9263131	WET RETROREFLECTIVE REMOVABLE TAPE MARKINGS
77	2527-9263180	PAVEMENT MARKINGS REMOVED
78	2527-9263137	PAINTED SYMBOL+LEGEND, WATERBORNE/SOLVNT

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
-	-	Refer to Tab. 108-22 and Traffic Control and Staging Sheets for locations and details.
-	-	-
79	2528-4983200	MONITORING WITH INCIDENT RESPONSE Refer to Tab. 254-1
-	-	-
80	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE Refer to Tab. 108-33 and Traffic Control and Staging Sheets.
-	-	-
81	2528-8400157	TEMPORARY FLOODLIGHTING LUMINAIRE Refer to Tab. 108-27.
-	-	-
82	2528-8445110	TRAFFIC CONTROL Refer to Traffic Control and Staging Sheets.
-	-	-
83	2528-8445113	FLAGGER --
-	-	-
84	2533-4980005	MOBILIZATION --
-	-	-
85	2551-0000110	TEMP CRASH CUSHION Refer to Tab. 108-30.
-	-	-
86	2590-0000020	PROJECT MANAGEMENT --
-	-	-
87	2601-2634100	MULCH Refer to Tab. XXX-XX
-	-	-
88	2601-2636015	NATIVE GRASS SEEDING All areas outside eight feet adjacent to shoulder shall be seeded with "Native Grass Seeding". ----- All seed for "Native Grass Seeding" will be supplied and mixed by the contractor according to Article 2601.03, B, 4, c and installed according to Article 2601.03, C, 5. ----- All forb seed will be applied through the native grass drill wildflower or small seed box. Forb seed will not be allowed to be mixed and applied with the native grass seed. ----- Cover crop will be required to be applied through the cool season or cover crop seed box. The cover crop seed will not be allowed to be mixed and applied with the native grass seed. ----- Drill shall be calibrated prior to operation at the project site to the specified seeding rate for the project and witnessed by the contracting authority. ----- The Engineer will review the limits prior to seeding with the Contractor.
-	-	-
89	2601-2636043	SEEDING AND FERTILIZING (RURAL) All areas 8 foot adjacent to the shoulder mainline, side roads and median shall be seeded and fertilized per Article 2601.03, C, 3. ----- Area between IA 92 shoulder and ROW line on north side of roadway from approx. Sta. 675+00 to Sta. 683+25 shall be seeded and fertilized per Article 2601.03, C, 3. ----- Area between IA 92 shoulder and ROW line on south side of roadway from approx. Sta. 675+00 to Sta. 683+10 shall be seeded and fertilized per Article 2601.03, C, 3. ----- All seed and fertilizer shall be applied with ground driven equipment.
-	-	-
90	2602-0000020	SILT FENCE Refer to Tab. 100-17. ----- The tabulation includes estimated locations for placement of "Silt Fence" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.
-	-	-
91	2602-0000030	SILT FENCE FOR DITCH CHECKS Refer to Tab. 100-18. ----- The tabulation includes estimated locations for placement of "Silt Fence for Ditch Checks" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 50% additional quantity for field adjustments and replacements.
-	-	-
92	2602-0000050	SILT BASIN Refer to Tab. 100-14. ----- The tabulation includes estimated locations for placement of "Silt Basin" to address erosion to be encountered during construction. Verify the specific loactions with the Engineer prior to beginning placement. Bid item includes 100% additional quantity for field adjustments and replacements.
-	-	-
93	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS Includes complete removal of "silt fence" and "silt fence for ditch checks" after project completion.
-	-	-
94	2602-0000080	REMOVAL OF SILT BASINS Includes complete removal of "silt basin" after project completion.

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
-	-	-
95	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK This item is included for clean-out and repair of the silt fence and silt fence for ditch checks during construction. Includes 10% of total silt fence installed.
-	-	-
96	2602-0000309	PERIMETER+SLOPE SEDIMENT CNTL DEVICE, 9"
97	2602-0000312	PERIMETER+SLOPE SEDIMENT CNTL DEVICE,12"
98	2602-0000320	PERIMETER+SLOPE SEDIMENT CNTL DEVICE,20" Refer to Tab. 100-19 and Standard Road Plan EC-204. ----- Item is included for temporary perimeter sediment control, inlet protection, and water velocity reduction on slopes or ditches at locations to be determined during construction. Verify specific locations with the Engineer prior to beginning placement.
-	-	-
99	2602-0000350	REMOVAL OF PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE Included for removal of perimeter and slope sediment control devices. All material shall become the property of the contractor.
-	-	-
100	2602-0010010	MOBILIZATION, EROSION CONTROL --
-	-	-
101	2602-0010020	MOBILIZATION, EMERGENCY EROSION CONTROL --
-	-	-
		ALTERNATE AA - OPTION 1
-	-	-
102	2102-0425071	SPECIAL BACKFILL
103	2122-5190007	PAVED SHOULDER, P.C. CONCRETE, 7 IN. Refer to Tab. 112-9. ----- Refer to I-35 ULTIMATE 4 Lane Section typical and ramp typical.
-	-	-
		ALTERNATE AA - OPTION 2
-	-	-
104	2102-0425071	SPECIAL BACKFILL
105	2122-5500080	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 8 IN. Refer to Tab. 112-9. ----- Refer to I-35 ULTIMATE 4 Lane Section typical and ramp typical.
-	-	-

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STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
BA-200	10-18-11	Steel Beam Guardrail Components
BA-201	10-19-10	Steel Beam Guardrail Barrier Transition Section
BA-202	10-21-14	Steel Beam Guardrail Bolted End Anchor
BA-203	10-18-11	Steel Beam Guardrail W-Beam End Anchor
BA-205	10-18-11	Steel Beam Guardrail End Terminal
BA-206	10-18-11	Steel Beam Guardrail Flared End Terminal For Cable Connection
BA-250	10-21-14	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post
BA-252	10-18-11	Steel Beam Guardrail Installation at Side Obstacle (One-Way Protection)
BA-351	04-20-10	High Tension Cable Guardrail
BA-401	04-16-13	Temporary Barrier Rail (Precast Concrete)
BR-102	04-21-15	Bridge Approach Section (Two-Lane, Abutting PCC Pavement)
BR-203	04-21-15	Double Reinforced 12" Approach
BR-213	04-21-15	Bridge Approach (Abutting Pavement)
DR-101	04-21-15	Pipe Culvert (Bedding and Backfill)
DR-102	04-21-15	Pipe Culvert (Cover and Camber)
DR-103	04-21-15	Pipe Culvert (Installation Details)
DR-104	04-21-15	Depth of Cover Tables for Concrete and Corrugated Pipe
DR-111	04-21-15	Box Culvert (Backfill)
DR-121	04-21-15	Connected Pipe Joints
DR-122	04-21-15	Construction of Type "C" Concrete Adaptors for Pipe Culvert Connections
DR-141	04-21-15	Pipe Bends and Half Pipe
DR-142	04-21-15	Culvert Pipe Tee Sections
DR-201	04-21-15	Concrete Aprons
DR-202	04-21-15	Low Clearance Concrete Pipe Aprons
DR-203	04-21-15	Metal Pipe Aprons and Beveled Ends
DR-205	04-21-15	Concrete Apron with End Wall
DR-212	04-21-15	Beveled Pipe and Guard
DR-213	04-21-15	Pipe Apron Guard
DR-303	04-21-15	Subdrains (Longitudinal)
DR-601	04-21-15	Reinforced Concrete Pipe Culvert
DR-621	04-21-15	Pipe Extension
DR-624	04-21-15	Pipe Extension Horizontal Bend with Flume
EC-101	04-21-15	Wood Excelsior Mat for Ditch Protection
EC-103	04-21-15	Wood Excelsior Mat for Slope Protection
EC-104	04-21-15	Turf Reinforced Mat (TRM)
EC-201	04-21-15	Silt Fence
EC-202	10-21-14	Floating Silt Curtain
EC-204	04-21-15	Perimeter and Slope Sediment Control Devices
EC-301	04-21-15	Rock Erosion Control (REC)
EC-502	04-21-15	Seeding in Rural Areas
EW-101	04-19-11	Embankment and Rebuilding Embankments
EW-102	10-21-14	Allowable Placement of Unsuitable Soil in Embankments
EW-103	10-15-13	Embankment Subgrade Treatment, Moisture Density Control and Special Compaction
EW-105	04-21-15	Reshaping Slopes and Ditches
EW-110	10-15-13	Ditch Blocks and Dikes
EW-201	10-21-14	Bridge Berm Grading without Recoverable Slope (Barnroof Section)
EW-211	04-21-15	Special Grading at Side Piers
EW-301	04-19-11	Guardrail Grading
EW-403	10-15-13	Temporary Erosion Control Measures
EW-501	10-15-13	Rural Entrance
LI-130	10-21-14	Temporary Floodlighting Luminaires
MI-101	04-20-10	Fencing Layout
MI-104	10-16-12	Fence Construction at Channel Crossings, Flood Plains, and Minor Ground Depressions
PM-110	04-16-13	Line Types
PM-111	04-21-15	Symbols and Legends
PM-310	04-16-13	Entrance and Exit Ramps
PM-550	04-19-11	Two-Lane Roadway with Two-Way Left Turn Lane
PM-561	04-19-11	Divided Multi-Lane Roadway with Right Turn Lanes
PM-760	04-19-11	Divided Multi-Lane Roadway Median
PV-3	10-18-11	Safety Edge
PV-101	10-21-14	Joints
PV-301	04-19-11	Superelevation Details Two Lane Roadway
PV-302	04-17-12	Superelevation Details Four Lane Roadway Depressed Median
PV-303	04-19-11	Superelevation Details Ramps
PV-410	10-18-11	Deceleration Taper for 16' Exit Ramp
PV-500	04-21-15	Median Crossover (50' Median)
PV-501	10-15-13	Median Crossover (50' Median) 16' Wide 1 Lane
PV-502	10-15-13	Median Crossover (50' Median) 28' Wide 2 Lane
SI-101	04-21-09	Locations - Type 'A' Signs
SI-102	10-20-09	Locations - Type 'B' Signs
SI-111	10-20-09	Support Structures - Wood Posts
SI-173	04-20-10	Object Markers
SI-211	10-19-10	Object Marker and Delineator Placement with Guardrail
SI-881	10-15-13	Special Signs for Workzones
SI-882	04-20-10	Special Signs for Restricted Width Traffic Control Zones
SW-512	10-21-14	Circular Area Intake
SW-538	04-21-15	Intake for Bridge End Drain
TC-1	04-16-13	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-61	04-21-15	Two-Lane, Two-way Operation
TC-63	04-16-13	Lane Closure at Two-Lane to Four-Lane Transition.
TC-202	04-21-15	Work Within 15 ft of Traveled Way
TC-233	10-21-14	Pavement Marking Operations Two-Lane
TC-252	04-21-15	Routes Closed to Traffic
TC-253	10-21-14	Paved On-Site Detour

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
TC-272	04-17-12	Unsignalized Equipment Crossing
TC-273	04-20-10	Construction Site Entrance
TC-402	04-21-15	Work Within 15 ft of Traveled Way
TC-416	04-17-12	Partial Lane Closure on Ramps
TC-417	04-16-13	Ramp Closure
TC-418	10-15-13	Lane Closure on Divided Highway
TC-420	04-21-15	Lane Closure at Ramps
TC-421	10-21-14	Lane Closure with TBR
TC-422	10-15-13	Closure of Two Adjacent Lanes on Divided Highway
TC-431	04-16-13	Slow Moving Vehicle Operating in the Traffic Lane
TC-433	10-21-14	Pavement Marking Operations
TC-454	10-16-12	Temporary Detour Using Ramps on Divided Highway

POLLUTION PREVENTION PLAN

This Base Pollution Prevention Plan (PPP) includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed per plan revisions or by contract modification, will be readily available for review.

All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The prime contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.

I. ROLES AND RESPONSIBILITIES

- A. Designer:
 1. Prepares Base PPP included in the project plan.
 2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
 3. Signature authority on the Base PPP and NOI.
- B. Contractor/Subcontractor:
 1. Affected contractors/subcontractors are co-permittees with the IDOT and will sign a certification statement adhering to the requirements of the NPDES permit and this PPP plan. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
 2. Submit a detailed schedule according to Article 2602 of the Specifications and any additional plan notes.
 3. Install and maintain appropriate controls.
 4. Supervise and implement good housekeeping practices.
 5. Conduct joint required inspections of the site with inspection staff.
 6. Signature authority on Co-Permittee Certification Statements and storm water inspection reports.
- C. RCE/Inspector:
 1. Update PPP whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the discharge of pollutants from the project.
 2. Maintain an up-to-date list that identifies contractors and subcontractors as co-permittees.
 3. Make these plans available to the DNR upon their request.
 4. Conduct joint required inspections of the site with the contractor/subcontractor.
 5. Complete an inspection report after each inspection.
 6. Signature authority on storm water inspection reports and Notice of Discontinuation (NOD).

II. PROJECT SITE DESCRIPTION

- A. This Pollution Prevention Plan (PPP) is for the construction of a *Describe Type Of Facility*.
- B. This PPP covers approximately 233 acres with an estimated 27.9 acres being disturbed. The portion of the PPP covered by this contract has 27.9 acres disturbed.
- C. The PPP is located in an area of one soil association (Sharpsburg-Shelby-Adair). The estimated average SCS runoff curve number for this PPP after completion will be 64.
- D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:
 1. Drainage patterns - Plan and Profile sheets and Situation plans.
 2. Proposed Slopes - Cross Sections.
 3. Areas of Soil Disturbance - construction limits shown on Plan and Profile sheets.
 4. Location of Structural Controls - Tabulations on C sheets.
 5. Locations of Non-structural Controls - Tabulations on C sheets.
 6. Locations of Stabilization Practices - generally within construction limits shown on Plan and Profile sheets.
 7. Surface Waters (including wetlands) - Plan and Profile sheets.
 8. Locations where storm water is discharged - Plan and Profile sheets.
- E. The base site map is amended by contract modifications and progress payments of completed erosion control work.
- F. Runoff from this work will flow into Middle River.

III. CONTROLS

- A. The contractor's work plan and sequence of operations specified in Article 2602.03 for accomplishment of storm water controls should clearly describe the intended sequence of major activities and for each activity define the control measure and the timing during the construction process that the measure will be implemented.
- B. Preserve vegetation in areas not needed for construction.
- C. Section 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water monitoring inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B.
 1. EROSION AND SEDIMENT CONTROLS
 - a. Stabilization Practices
 - 1) Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized.
 - 2) Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased.
 - 3) Temporary stabilizing seeding shall be completed as the disturbed areas are constructed. If construction activity is not planned to occur in a disturbed area for at least 21 days, the area shall be stabilized by temporary seeding or mulching within 14 days. Other stabilizing methods shall be used outside the seeding time period.
 - 4) Stabilization measures to be used for this project are located in the Estimated Project Quantities (100-1A) and Estimate Reference Information (100-4A) located on the C sheets of the plan. Additional items may be found in the Inspector's Daily Reports (IDR) or Contract Modifications.
 - b. Structural Practices
 - 1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
 - 2) Structural items to be used for this project are located in the Estimated Project Quantities (100-1A) and Estimate Reference Information (100-4A) located on the C sheets of the plan, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B sheets of the plan or are referenced in the Standard Road Plans Tabulation.
 - c. Storm Water Management
 - 1) Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

POLLUTION PREVENTION PLAN

- 2. OTHER CONTROLS
 - a. Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.
 - 1) Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
 - 2) Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
 - 3) Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
 - 4) Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
 - 5) Spill Prevention and Control - Implement procedures to contain and clean-up spills and prevent material discharges to the storm drain system and waters of the state.
 - 6) Concrete Residuals and Washout Wastes - Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located.
 - 7) Vehicle and Equipment Cleaning - Employ washing practices that prevent contamination of surface and ground water from wash water.
 - 8) Vehicle and Equipment Fueling and Maintenance - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site.
 - 9) Litter Management - Ensure employees properly dispose of litter.
- 3. APPROVED STATE OR LOCAL PLANS

During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

IV. MAINTENANCE PROCEDURES

The contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.

V. INSPECTION REQUIREMENTS

- A. Inspections shall be made jointly by the contractor and the contracting authority at least once every seven calendar days. Storm water monitoring inspections will include:
 1. Date of the inspection.
 2. Summary of the scope of the inspection.
 3. Name and qualifications of the personnel making the inspection.
 4. Rainfall amount.
 5. Review erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
 6. Major observations related to the implementation of the PPP.
 7. Identify corrective actions required to maintain or modify erosion and sediment control measures.
- B. Include storm water monitoring inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found and complete all actions within 3 calendar days of the inspection.

VI. NON-STORM WATER DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of patio blocks, Class A stone, erosion stone or other appropriate materials.

VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION

Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.

VIII. DEFINITIONS

- A. Base PPP - Initial Pollution Prevention Plan.
- B. Amended PPP - May include Plan Revisions or Contract Modifications for new items and fieldbook entries made by the inspector.
- C. IDR - Inspector's Daily Report - this contains the inspector's daily diary and item postings.
- D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials.
- E. Signature Authority - Representative from Designer, Contractor/Subcontractor, or RCE/Inspector authorized to sign various storm water documents.

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Printed or Typed Name

**UTILITIES
(POINT 25 PROJECT)**
262-5
10-18-05
This is a POINT 25 project and is subject to the provisions of IAC 761-115.25.

* Design shown for mandatory locations is the minimum allowed.

ROCK DITCH CHECKS/DITCHES/FLUMES/SPLASH BASINS/SLOPE PROTECTION
Refer to Typical 4401, 4402, 4403, 4404, and 4405

Location		Type						Material			Remarks				
Road Identification	Station	Side Lt./Rt.	Mandatory* Location (yes or no)	Rock Ditch Check	Rock Ditch	Rock Flume	Rock Splash Basin	Rock Slope Protection	L FT	W FT		Erosion Stone	Class E Revetment	Eng. Fabric	
												TON	TON	SY	
I-35 NB	629+13.00	Rt.	Yes				X		20.0	18.0	43.2		48.4	RCB OUTLET	
I-35 NB	632+00.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	638+00.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	639+31.00	Rt.	Yes				X		20.0	13.0	31.2		36.2	RCB OUTLET	
I-35 NB	644+00.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	649+44.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	649+09.64	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	650+00.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	653+05.00	Rt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT OUTLET	
I-35 NB	657+44.77	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	658+00.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	658+25.00	Rt.	Yes				X		20.0	14.0	33.6		38.7	RCB OUTLET	
I-35 NB	658+45.00	Rt.	Yes				X		15.0	12.0	21.6		26.0	RCB OUTLET	
I-35 NB	662+43.62	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	663+00.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	669+85.00	Rt.	Yes				X		10.0	9.0	10.8		14.2	CULVERT OUTLET	
I-35 NB	672+75.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	676+00.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	682+45.00	Rt.	Yes				X		12.0	10.0	14.4		18.2	RCB OUTLET	
I-35 NB	697+42.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	732+91.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	737+38.00	Rt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT OUTLET	
I-35 NB	737+45.00	Rt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT OUTLET	
I-35 NB	743+41.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	748+09.00	Rt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT OUTLET	
I-35 NB	770+19.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	770+42.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	775+68.00	Rt.	Yes				X		20.0	14.0	33.6		38.7	RCB OUTLET	
I-35 NB	778+42.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	795+41.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	797+80.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	801+69.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	803+38.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
I-35 NB	806+85.00	Rt.	Yes				X		10.0	10.0	12.0		15.6	CULVERT OUTLET	
I-35 NB	807+20.00	Rt.	Yes				X		10.0	8.0	9.6		12.9	CULVERT OUTLET	
RAMP A	1536+56.00	Rt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT INLET	
RAMP A	1536+56.00	Lt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT OUTLET	
RAMP A	1536+43.00	Rt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT INLET	
RAMP A	1536+43.00	Lt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT OUTLET	
RAMP B	2527+80.00	Rt.	Yes				X		10.0	10.0	12.0		15.6	CULVERT OUTLET	
RAMP C	3528+00.00	Rt.	Yes				X		10.0	10.0	12.0		15.6	CULVERT OUTLET	
RAMP D	4537+72.00	Rt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT OUTLET	
RAMP D	4537+72.00	Lt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT INLET	
RAMP D	4537+84.00	Rt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT OUTLET	
RAMP D	4537+84.00	Lt.	Yes				X		20.0	12.0	28.8		33.8	CULVERT INLET	
IOWA 92	711+47.00	Lt.	Yes				X		14.0	12.0	20.2		24.4	CULVERT INLET	
IOWA 92	711+47.00	Rt.	Yes				X		14.0	12.0	20.2		24.4	CULVERT OUTLET	
											Subtotals:	831.1	-	1017.8	
											+30%	249.3		305.3	
											Totals:	1080.5		1323.1	

INCIDENT MANAGEMENT
254-1
10-02-01
An incident management plan, provided by the District Office, will be discussed at the pre-construction conference.

**EROSION CONTROL
(RURAL SEEDING)**
232-3A
04-15-14
Following the completion of work in a disturbed area, place seed, fertilizer, and mulch on the disturbed area lying 8 feet adjacent to shoulder and median as follows:
Use seed mix and fertilizer meeting the requirements of Section 2601.03,C,3 of the Standard Specifications.
Use mulch meeting the requirements of Sections 2601.03,E,2,a and 4169.07,A of the Standard Specifications.
Preparing the seedbed and furnishing and applying seed, fertilizer, and mulch is incidental to mobilization and will not be paid for separately.

**EROSION CONTROL
(NATIVE GRASS SEEDING)**
232-3C
04-15-14
Following the completion of work in a disturbed area, place seed and mulch on the disturbed area lying 8 feet or more beyond the shoulder as follows:
SEED MIX:
Big bluestem (Andropogon gerardii) 6 lbs. PLS/Acre (7.0 kg/ha)
Indiangrass (Sorghastrum nutans) 6 lbs. PLS/Acre (7.0 kg/ha)
Little bluestem (Schizachyrium scoparium) 6 lbs. PLS/Acre (7.0 kg/ha)
Partridge Pea (Chamaecrista fasciculata) 4 lbs. PLS/Acre (4.5 kg/ha)
Sideoats grama (Bouteloua curtipendula) 4 lbs. PLS/Acre (4.5 kg/ha)
Canada wildrye (Elymus canadensis) 2 lbs. PLS/Acre (2.2 kg/ha)
Switchgrass (Panicum virgatum) 1 lbs. PLS/Acre (1.1 kg/ha)
Oats (Avena sativa) 32 lbs./Acre (36.0 kg/ha)
Furnish Big bluestem, Indiangrass, Canada wildrye and Little bluestem that is debarbed or equal to facilitate the application of seed.
Use mulch meeting the requirements of Sections 2601.03,E,2,a and 4169.07,A of the Standard Specifications.
Preparing the seedbed and furnishing and applying seed and mulch is incidental to mobilization and will not be paid for separately.

MEDIAN CROSSOVER
253-1
10-18-11
The Contractor is prohibited from using any established or other type median crossover on this project unless specifically designated for the Contractor's use by this plan.

**252-1
10-16-12
TEMPORARY CROSSINGS AND DETOURS**
Blading, shaping, and other work in preparation for maintaining temporary crossings or detours is incidental to other work. Furnish and spread additional granular surfacing needed for temporary crossings or detours during construction at the contract price.

**281-1
10-15-13
SECTION 404 PERMIT AND CONDITIONS**
Construct this project according to the requirements of U.S. Army Corps of Engineers _____, Permit No. _____. A copy of this permit is available from the Iowa DOT website (<http://envpermits.iowadot.gov/CMEPortalENV/Home.aspx>). The U.S. Army Corps of Engineers reserves the right to visit the site without prior notice.

**232-10
10-21-14
EMERALD ASH BORER**
Dispose of all wood material generated as a result of clearing and/or grubbing according to the Iowa Department of Agriculture and Land Stewardship's Emerald Ash Borer (EAB) Quarantine Order. For more information refer to http://www.iowatreepests.com/eab_regulations.html.

100-14 10-15-13		
SILT BASINS Refer to EW-403		
Location Station	Side	Remarks
628+87.80	Rt.	
629+35.40	Rt.	
631+93.00	Rt.	
632+05.40	Rt.	
637+94.00	Rt.	
638+05.80	Rt.	
639+20.60	Rt.	
639+43.00	Rt.	
643+95.45	Rt.	
644+05.10	Rt.	
649+38.90	Rt.	
649+50.80	Rt.	
649+94.70	Rt.	
650+04.75	Rt.	
652+99.00	Rt.	
653+11.00	Rt.	
657+42.10	Rt.	
657+48.90	Rt.	
657+94.60	Rt.	
658+04.17	Rt.	
658+15.90	Rt.	
658+52.39	Rt.	
662+40.50	Rt.	
662+47.40	Rt.	
662+95.50	Rt.	
663+05.00	Rt.	
669+25.00	Rt.	
669+45.00	Rt.	
672+68.70	Rt.	
672+80.80	Rt.	
675+92.40	Rt.	
676+02.60	Rt.	
681+74.00	Rt.	
681+83.20	Rt.	
697+37.40	Rt.	
697+45.16	Rt.	
705+40.00	Rt.	
705+45.00	Rt.	
710+64.16	Rt.	
711+15.36	Rt.	
724+26.23	Rt.	
724+60.95	Rt.	
732+88.00	Rt.	
732+97.30	Rt.	
738+01.93	Rt.	
743+36.90	Rt.	
743+45.60	Rt.	
747+98.00	Rt.	
748+19.11	Rt.	
752+33.90	Rt.	
752+50.25	Rt.	
770+14.00	Rt.	
770+23.60	Rt.	
770+38.00	Rt.	
770+45.00	Rt.	
775+58.00	Rt.	
775+81.00	Rt.	
778+38.00	Rt.	
778+45.00	Rt.	
795+37.50	Rt.	
795+47.30	Rt.	
797+74.57	Rt.	
797+85.05	Rt.	
801+64.00	Rt.	
801+75.00	Rt.	
803+35.00	Rt.	
803+43.00	Rt.	
806+78.00	Rt.	
806+92.50	Rt.	
807+06.75	Rt.	
807+15.30	Rt.	
2527+85.58	Rt.	
2527+74.20	Rt.	
2527+72.84	Rt.	
2527+85.55	Rt.	
4538+34.07	Rt.	
4537+70.32	Rt.	
TOTAL:	77	

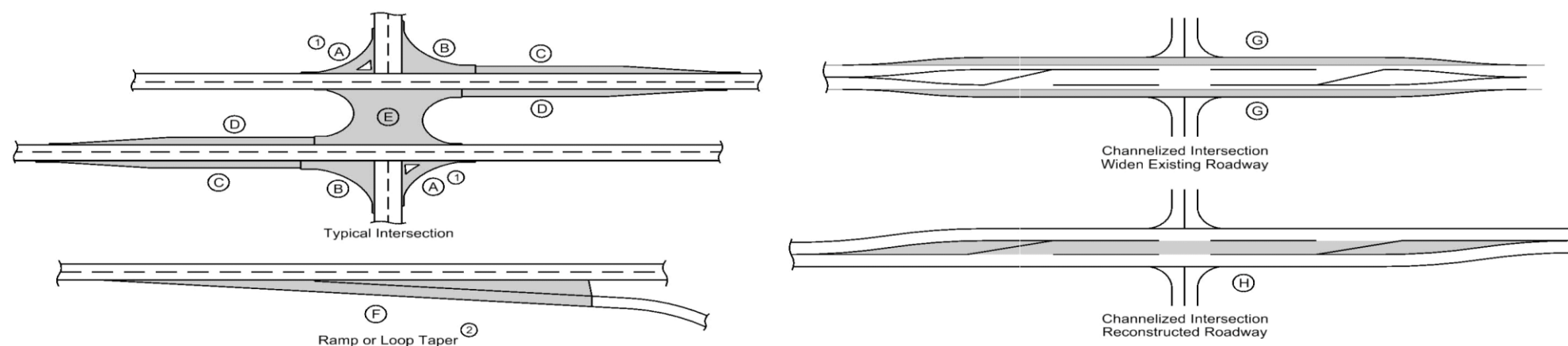
100-14 10-15-13		
SILT BASINS Refer to EW-403		
Location Station	Side	Remarks
+100%	77	
Bid Qty:	154	

100-17 04-20-10				
TABULATION OF SILT FENCES Refer to EC-201				
Location			Length	Remarks
Begin Station	End Station	Side		
629+45.66	713+50.00	RT	9244.0	Foreslope
629+45.66	630+50.00	RT	125.0	Foreslope
649+00.00	661+50.00	RT	1375.0	Foreslope
652+50.00	653+50.00	RT	120.0	Foreslope
658+00.00	659+50.00	RT	170.0	Foreslope
658+00.00	660+50.00	RT	270.0	Foreslope
682+00.00	696+00.00	RT	1540.0	Foreslope
685+50.00	693+00.00	RT	830.0	Foreslope
687+00.00	690+00.00	RT	340.0	Foreslope
716+20.00	721+75.00	RT	615.0	Foreslope
721+75.00	747+50.00	RT	2835.0	Foreslope
747+50.00	809+49.97	RT	6820.0	Foreslope
772+50.00	778+50.00	RT	660.0	Foreslope
797+00.00	807+97.00	RT	1217.0	Foreslope
629+45.66	653+50.00	RT	2645.0	Backslope
658+00.00	659+50.00	RT	170.0	Backslope
664+00.00	712+00.00	RT	5280.0	Backslope
671+50.00	680+00.00	RT	950.0	Backslope
672+50.00	680+00.00	RT	830.0	Backslope
676+00.00	679+50.00	RT	390.0	Backslope
681+50.00	684+00.00	RT	290.0	Backslope
681+50.00	682+50.00	RT	120.0	Backslope
717+50.00	748+25.00	RT	3395.0	Backslope
763+50.00	770+00.00	RT	730.0	Backslope
770+42.00	777+00.00	RT	738.0	Backslope
785+00.00	794+50.00	RT	1050.0	Backslope
799+00.00	807+00.00	RT	880.0	Backslope
675+00.00	695+00.00	RT	2200.0	Iowa 92 - Foreslope
689+75.00	695+00.00	RT	585.0	Iowa 92 - Foreslope
698+00.00	716+00.00	RT	1980.0	Iowa 92 - Foreslope
698+50.00	704+00.00	RT	610.0	Iowa 92 - Foreslope
675+00.00	695+00.00	RT	2200.0	Iowa 92 - Backslope
698+00.00	716+00.00	RT	1980.0	Iowa 92 - Backslope
675+00.00	695+50.00	LT	2270.0	Iowa 92 - Foreslope
689+25.00	695+00.00	LT	635.0	Iowa 92 - Foreslope
698+50.00	705+50.00	LT	780.0	Iowa 92 - Foreslope
698+50.00	716+00.00	LT	1930.0	Iowa 92 - Foreslope
675+00.00	695+00.00	LT	2200.0	Iowa 92 - Backslope
698+00.00	716+00.00	LT	1980.0	Iowa 92 - Backslope
	TOTAL:		62979.0	
	+25%		15744.8	
	Bid Qty		78723.8	

100-27 10-20-09						
PAVEMENT SMOOTHNESS + PCC TEXTURE						
Road Identification	Begin Station	End Station	Proposed Posted Speed			Remarks
			35 or less	40 - 45	over 45	
I-35	629+00.00	809+50.00			X	
I-35 Ramp A	1533+41.31	1549+50.00			X	
I-35 Ramp B	2521+75.00	2537+83.99			X	
I-35 Ramp C	3523+28.66	3535+25.59			X	
I-35 Ramp D	4536+27.41	4547+46.34			X	
Iowa 92	674+99.97	716+00.00			X	

100-19 10-16-12							
PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE Refer to EC-204							
Location			Length of Installation				Remarks
Begin Station	End Station	Side	6 inch Dia	9 inch Dia	12 inch Dia	20 inch Dia	
			LF	LF	LF	LF	
				500.0			Estimated for bidding purposes
					1000.0		Estimated for bidding purposes
						1000.0	Estimated for bidding purposes

PCC PAVEMENT



- ① Does not include island area or curb. Refer to tabulation 112-4 for quantities.
- ② Refer to PV-410, PV-411, PV-412, and PV-414.
- ③ Quantity includes Pavement Header.

Road Identification	Location		Mainline			Area ③								Total Area By Pavement Thickness		Special Backfill	Modified Subbase	Granular Subbase	Remarks				
	Direction of Travel	Station to Station		Width	Length	Area	ⓐ	ⓑ	ⓒ	ⓓ	ⓔ	ⓕ	ⓖ	ⓓ	SY					TONS	CY	SY	
							②	②	②	②	②	②	②	②	9.5 IN								11.5 IN
							SY	SY	SY	SY	SY	SY	SY	SY	SY								SY
I-35	NB	629+46.00	684+56.00	26.0	5510.0	15917.8									15917.8			19591.1					
I-35	NB	684+56.00	690+34.12	var	578.1	2248.2									2248.2			2248.2	transition Lt shoulder 6' to 12'				
I-35	NB	690+34.12	712+37.94	48.0	2203.8	11753.7									11753.7			13222.9					
I-35	NB	717+11.94	721+75.00	36.0	463.1	1852.2									1852.2			2160.9					
I-35	NB	721+75.00	747+45.00	48.0	2570.0	13706.7									13706.7			15420.0					
I-35	NB	747+45.00	753+74.75	36.0	629.8	2519.0									2519.0			2938.8					
I-35	NB	753+74.75	809+49.97	48.0	5575.2	29734.5									29734.5			33451.3					
I-35	Ramp A	1533+65.51	1547+00.00	16.0	1334.5	2372.4		396.8	96.0						2865.2		642.2						
I-35	Ramp B	2521+75.00	2537+63.29	16.0	1588.3	2823.6		298.6				1286.1			4408.3		964.0						
I-35	Ramp C	3525+00.00	3535+04.64	16.0	1004.6	1786.0		518.3							2304.3		513.0						
I-35	Ramp D	4536+06.04	4547+46.34	16.0	1140.3	2027.2		535.3				1447.9			4010.4		861.2						
Iowa 92	EB/WB	674+99.97	685+00.00	var	1000.0	3555.7			760.0						4315.7			5134.3					
Iowa 92	EB/WB	685+00.00	694+33.00	40.0	933.0	4146.7									4146.7			4768.7					
Iowa 92	EB/WB	699+03.00	706+00.00	40.0	697.0	3097.8									3097.8			3562.4					
Iowa 92	EB/WB	706+00.00	716+00.00	var	1000.0	3555.6			746.9						4302.5			5118.5					
Total:						101097.1									15862.6	92069.5	0.0	2980.4	107617.3				

DRAINAGE STRUCTURE BY ROAD CONTRACTOR

Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.

- * Not a bid item
- ① Diameter or equivalent diameter
- ② UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe

Drainage Area	Location	Type	Size ①	Kind Of Pipe ②	Length New Const. Bedding Class	Design Cover (H)	Camber* (DR-102)	Apron No.		Apron Guard* (DR-213)	Elbow* (DR-141)	Diaphragm* (DR-501)	Tee Section* (DR-142)	"D" Section* (DR-141)	Reducer*	Type 'C' Connections* (DR-122)	Connected Pipe Joint* (DR-121)	4" Perforated Subdrain*	Flow Line Elevations				Dimensions Lin. Ft.		Skew Ahead Degrees		Dike			Class 20 CY	Flowable Mortar CY	Floodable* Backfill CY (A)	Porous* Backfill CY (B)	Flooded Backfill CY (A+B)	Remarks				
								IN	OUT	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	Lt.	Rt.	Other	Other	Lt.	Rt.	Lt.	Rt.	Lt.	Rt.							Rt.	Location Station	Top Elevation	Type
								Total		Extensions		Lt.		Rt.		Lt.		Rt.		Lt.	Rt.	Lt.	Rt.	Lt.	Rt.	Lt.	Rt.	Lt.	Rt.							Lt.	Rt.		
24.0	INSTALL C-3 CONNECTION AND 53 LF OF 24" UNCL EXTENSION. TO BE PLUGGED AND ABANDONED IN I-35 SOUTHBOUND PAVING PROJECT.																																						
25.0	INSTALL C-3 CONNECTION AND 48 LF OF 18" UNCL EXTENSION. TO BE PLUGGED AND ABANDONED IN I-35 SOUTHBOUND PAVING PROJECT.																																						
26.0	INSTALL C-3 CONNECTION AND 40 LF OF 18" UNCL EXTENSION. TO BE PLUGGED AND ABANDONED IN I-35 SOUTHBOUND PAVING PROJECT.																																						
27.0	INSTALL C-3 CONNECTION AND 30 LF OF 18" UNCL EXTENSION. TO BE PLUGGED AND ABANDONED IN I-35 SOUTHBOUND PAVING PROJECT.																																						
28.0	INSTALL C-1 CONNECTION AND 44 LF OF 24" RCP EXTENSION PLUS PIPE APRON.																																						
29.0	REMOVE EXISTING APRON AND INSTALL C-1 CONNECTION AND 42 LF OF 24" RCP EXTENSION PLUS PIPE APRON.																																						
30.0	INSTALL C-3 CONNECTION AND 44 LF OF 18" UNCL EXTENSION. TO BE PLUGGED AND ABANDONED IN I-35 SOUTHBOUND PAVING PROJECT.																																						
31.0	INSTALL 146 LF OF 42" RCP PLUS PIPE APRON. REMAINING 156 LF OF RCP TO BE INSTALLED DURING SOUTHBOUND PAVING PROJECT.																																						
32.0	INSTALL C-3 CONNECTION AND 48 LF OF 42" UNCL EXTENSION. TO BE PLUGGED AND ABANDONED IN I-35 SOUTHBOUND PAVING PROJECT.																																						
33.0	INSTALL 166 LF OF 60" RCP PLUS TWO APRONS UNDER RAMP A																																						
34.0	INSTALL 166 LF OF 60" RCP PLUS TWO APRONS UNDER RAMP A. CLASS 20 QUANTITY IS INCLUDED WITH STA. 1536+44.00. FLOODABLE BACKFILL QUANTITY IS INCLUDED WITH STA. 1536+44.00.																																						
35.0	INSTALL 112 LF OF 30" RCP PLUS TWO APRONS UNDER RAMP B																																						
36.0	INSTALL 124 LF OF 30" RCP PLUS TWO APRONS UNDER RAMP C																																						
37.0	INSTALL 200 LF OF 60" RCP PLUS TWO APRONS UNDER RAMP D																																						
38.0	INSTALL 196 LF OF 60" RCP PLUS TWO APRONS UNDER RAMP D. CLASS 20 QUANTITY IS INCLUDED WITH STA. 4537+75.98. FLOODABLE BACKFILL QUANTITY IS INCLUDED IN STA. 4537+75.98.																																						
PIPE TOTALS			SIZE	TYPE	LENGTH	APRON TOTALS				SIZE	TYPE	TOTAL																											
			18	CMP	97					24	CMP	3																											
			18	UNCL	469.5					24	RCP	8																											
			24	CMP	226					30	RCP	4																											
			24	RCP	688					42	RCP	1																											
			24	UNCL	81					48	RCP	2																											
			30	RCP	236					60	RCP	8																											
			30	UNCL	104					60	LCP	2																											
			42	RCP	152																																		
			42	UNCL	48																																		
			48	RCP	183																																		
			60	LCP	143																																		
			60	RCP	1009																																		

DRAINAGE STRUCTURES BY CULVERT CONTRACTOR

* Not a Bid Item

Location	Design Number	Size Ft.	Kind	Lgth. New Const. Lin. Ft.	No. of Aprons	Flow Line Elevation				Dimensions - Lin. Ft.				Skew Ahead		By Road Contractor				Floodable* Backfill Cu. Yds. (A)	Porous* Backfill Cu. Yds. (B)	Flooded Backfill Cu. Yds. (A+B)	Remarks						
						Total		Extensions		Degrees		Rt.	Location Station	Top. Elev.	Type	Comp. Backfill Cu. Yds.													
						Left	Right	Other	Other	Left	Right						Left	Right	Lt.					Rt.					
I-35																													
629+72.18	215	0x10	RCB EXT	31			850.08			850.47					31	22°													NOTE 1
639+96.09	315	5x4	RCB EXT	70			877.14			877.20					6	30°													NOTE 2
658+25.00	415	6x4	RCB EXT	74			902.96								0	45°													NOTE 3
IOWA 92																													
711+47.51	515	8x6	RCB	84	832.10					831.42					84	30°													NOTE 5
711+47.51	515	8x6	RCB	45						831.42					45	30°													NOTE 6
NOTES:																													
1 REMOVE EXISTING HEADWAY AND INSTALL 31 LF OF 10' X 10' RCB PLUS A 41'3:1 FLUME AND 20' BASIN.																													
2 REMOVE EXISTING FLUME AND INSTALL 6 LF OF 42" RCP PLUS A 50' 3:1 FLUME AND 14' BASIN.																													
3 CONSTRUCT A 61' 3:1 FLUME AND 14' BASIN.																													
5 STAGE 1 OF INSTALLING RCB. REMOVE INLET HEADWALL AND 65' OF BARREL AND INSTALL 84' RCB.																													
6 STAGE 2 OF INSTALLING RCB. REMOVE OUTLET HEADWALL AND 83' OF BARREL AND INSTALL REMAINING 45' OF RCB PLUS NEW OUTLET HEADWALL.																													

PAVEMENT MARKING LINE TYPES

See PM-110

***MNY4 - Factor of 1.00 as value includes number of 4-inch passes to cover median nose area.

*BCY4 - Place on the same side of the roadway to match existing markings near the project.

**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.

BCY4: Broken Centerline (Yellow) @ 0.25

DCY4: Double Centerline (Yellow) @ 2.00

NPY4: No Passing Zone Line (Yellow) @ 1.25

BLW4: Broken Lane Line (White) @ 0.25

ELW4: Edge Line Right (White) @ 1.00

ELY4: Edge Line Left (Yellow) @ 1.00

CHY8: Channelizing Line (Yellow) @ 2.00

CHW8: Channelizing Line (White) @ 2.00

SLW2: Stop Line (White) @ 6.00

YLW2: Yield Line (White) @ 1.71

SLW4: Solid Lane Line (White) @ 1.00

DLW4: Dotted Line (White) @ 0.33

Main table with columns: Road ID, Station to Station, Dir. of Travel, Marking Type, Side (L, C, R), Length by Line Type (BCY4*, DCY4, NPY4**, BLW4, ELW4, ELY4, CHY8, CHW8, SLW2, YLW2, SLW4, DLW4, STA, STA, STA, STA, STA), Remarks. Includes summary rows for factored totals and bid quantities.

PAVEMENT MARKING SYMBOLS AND LEGENDS

Refer to PM-111

Table with columns: Road Identification, Location (Station, Side), Marking Symbols (STAW, RTAW, LTAW, CSRW, CSLW, CSTW, CRLW, FERW, LLRW, RLRW, RRCW, BLSW, WCSW, WPSB, SCHOOL, XING, STOP, AHEAD, ONLY, BIKE, LANE, EXIT, Groove Cuts), Remarks. Includes a Totals row.

CRASH CUSHIONS

* Bid Item
 ① Lane(s) to which the installation is adjacent.
 ② Complete this section when using the Temporary Crash Cushion bid item and Earthwork is needed for Sand Barrel placement. Refer to BA-500

No.	Direction of Traffic	Location Station	Side	Obstacle Width FT	Crash Cushion (Select One)*					Sand Barrel Details ②					Earthwork*		Spare Parts Kit (Select One)*		Obstacle Description	Remarks
					Temporary	Temporary Redirective	Temporary Severe Use	Permanent	Permanent Severe Use	V	W	X	Y	Z	Excavation Class 10 CY	Embankment in Place CY	Permanent EACH	Permanent Severe Use EACH		
										Length FT	Length FT	Length FT	Length FT	Length FT						
1	WB	628+79.54	Rt	1.88	X						24.25	5.25	3.25	12.00					For Stage 4	
2	WB	630+11.84	Rt	1.88	X						24.25	5.25	3.25	12.00					For Stage 4	
3	WB	734+01.27	Rt	3.75	X						25.00	12.25	10.00	38.00					For Stages 2A, 2B, 2C, 3	
4	WB	817+33.25	Rt	1.88	X						24.25	5.25	3.25	12.00					For Stage 4	
5	WB	818+67.11	Rt	1.88	X						24.25	5.25	3.25	12.00					For Stage 4	
6	WB	817+87.20	Rt	1.88	X						24.25	5.25	3.25	12.00					For Stages 2A, 2B, 2C, 3	

TEMPORARY BARRIER RAIL

Refer to BA-400 and BA-401

* Not a bid item. Anchorage requirements are based on TBR locations shown in the plans. TBR alignments that vary from what is shown in the plans may result in additional TBR sections requiring anchorage.

No.	Station to Station	Length LF	(Select One)		Anchored* (Y/N)	Remarks
			Steel BA-400	Concrete BA-401		
1	662+95.22	663+12.30	132.0	X	No	USE IN STAGE 4
2	716+75.00	717+10.21	134.0	X	No	USE IN STAGE 4
3	734+01.22	735+90.75	190.0	X	No	USE IN STAGE 2A, 2B, 2C
4	734+01.22	735+90.75	190.0	X	No	
5	817+87.20	821+46.71	360.0	X	No	USE IN STAGE 2A, 2B, 2C, 3
5	692+53.47	693+33.80	82.0	X	No	USE IN STAGE 2A, 2B, 2C, 3 - IOWA 92
6	693+33.80	695+25.80	192.0	X	No	USE IN STAGE 2A, 2B, 2C, 3 - IOWA 92
7	697+23.98	700+54.30	330.0	X	No	USE IN STAGE 2A, 2B, 2C, 3 - IOWA 92
8	700+54.30	701+02.72	49.0	X	No	USE IN STAGE 2A, 2B, 2C, 3 - IOWA 92
9	99+72.69	104+64.45	486.0	X	No	USE IN STAGE 2A, 2B, 2C - ALONG TEMP LOOP E
		Total:	1659.0			

REMOVAL OF EXISTING STRUCTURES

Location	Description	Remarks
I-35 MAINLINE		
629+72.18	10'X10' RCB	REMOVE HEADWALL AND EXTEND
776+55.51	8'X10' RCB	REMOVE HEADWALL AND EXTEND
Ex Iowa 92		
711+47.51 (North side)	8'X6'X65' RCB	Stage 1 - Remove inlet headwall and 65 feet of barrel
711+47.51 (South Side)	8'X6'X83' RCB	Stage 2 - Remove outlet headwall and 83 feet of barrel
696+30.00	Bridge	Stage 3 - Remove bridge

FLUME REMOVAL

No.	Station	Remove Slope Drain				Remarks
		Lin.Ft. Conc.		Lin.Ft. Metal		
		Left	Rt.	Left	Rt.	
1	629+72.18					
2	639+96.09					
		TOTAL:		2		

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5

* Not a Bid Item

Begin Station	End Station	Side	Pavement Type	Area	Saw Cut*	Remarks
				SY	LF	
629+46.00	713+12.44	I-35 NB	HMA	37184.2		
716+37.44	809+49.97	I-35 NB	HMA	41389.0		
1533+62.02	1549+50.00	Ramp A	HMA	7366.8		
2521+75.00	2537+63.28	Ramp B	HMA	5827.9		
2529+83.92	2536+04.35	Ramp B Loop	HMA	2771.8		
3523+28.66	3535+04.94	Ramp C	HMA	5121.3		
4536+03.41	4547+46.34	Ramp D	HMA	4290.7		
674+99.97	695+34.63	Iowa 92	HMA	13922.6		
697+21.91	716+00.00	Iowa 92	HMA	12785.2		
SUBTOTAL:				130659.4		
Temporary and Detour Pavement Removal						
625+29.34	633+54.34	I-35 median	PCC or HMA	1934.0		Temporary and Detour Pavement may be either PCC or HMA
698+37.05	706+49.81	I-35 median	PCC or HMA	1077.9		Temporary and Detour Pavement may be either PCC or HMA
704+71.06	708+97.27	I-35 median	PCC or HMA	678.0		Temporary and Detour Pavement may be either PCC or HMA
728+40.58	740+99.45	I-35 median	PCC or HMA	429.6		Temporary and Detour Pavement may be either PCC or HMA
735+16.77	736+01.75	I-35 median	PCC or HMA	355.9		Temporary and Detour Pavement may be either PCC or HMA
752+19.14	757+28.36	I-35 median	PCC or HMA	699.7		Temporary and Detour Pavement may be either PCC or HMA
756+66.66	763+35.07	I-35 median	PCC or HMA	1086.9		Temporary and Detour Pavement may be either PCC or HMA
813+90.36	822+45.93	I-35 median	PCC or HMA	1922.1		Temporary and Detour Pavement may be either PCC or HMA
1540+01.67	1533+41.31	Ramp A	PCC or HMA	1294.3		Temporary and Detour Pavement may be either PCC or HMA
2521+75.00	2536+73.97	Ramp B	PCC or HMA	1155.1		Temporary and Detour Pavement may be either PCC or HMA
2531+24.26	2537+11.88	Ramp B	PCC or HMA	621.8		Temporary and Detour Pavement may be either PCC or HMA
2535+11.21	2536+52.80	Ramp B	PCC or HMA	552.0		Temporary and Detour Pavement may be either PCC or HMA
667+82.17	638+07.04	Iowa 92 EB	PCC or HMA	2806.4		Temporary and Detour Pavement may be either PCC or HMA
684+34.87	685+69.97	Iowa 92 med	PCC or HMA	270.6		Temporary and Detour Pavement may be either PCC or HMA
687+51.62	689+07.18	Iowa 92 Ramp	PCC or HMA	363.3		Temporary and Detour Pavement may be either PCC or HMA
705+04.06	705+44.06	Iowa 92	PCC or HMA	162.4		Temporary and Detour Pavement may be either PCC or HMA
707+50.00	708+50.00	Iowa 92 med	PCC or HMA	284.0		Temporary and Detour Pavement may be either PCC or HMA
712+41.15	722+08.60	Iowa 92 med	PCC or HMA	1851.3		Temporary and Detour Pavement may be either PCC or HMA
713+33.70	714+82.85	Iowa 92 EB	PCC or HMA	66.3		Temporary and Detour Pavement may be either PCC or HMA
SUBTOTAL:				17611.6		
TOTAL:				148271.0		

110-9 10-18-11					
CULVERT ABANDONMENT					
Refer to Details 4315 and 4316					
* Not a bid item					
Location Station	Description	Fill Material		4"	Remarks
		Flowable Mortar	Granular Backfill*	Perforated Subdrain*	
		CY	TON	LF	
657+44.42	RCP	8.8	0.2	3.5	
662+43.42	RCP	6.4	0.2	3.5	
697+43.18	RCP	10.3	0.2	3.5	
705+43.55	RCP	11.7	0.2	3.5	
724+42.04	RCP	15.8	0.2	3.5	
732+91.47	RCP	10.6	0.2	3.5	
743+41.62	RCP	9.9	0.2	3.5	
770+42.42	RCP	8.2	0.2	3.5	
778+42.37	RCP	7.9	0.2	3.5	
795+41.82	RCP	6.8	0.2	3.5	
803+38.00	RCP	9.8	0.2	3.5	
	Totals:	106.1	2.2	38.5	

110-15 04-16-13			
REMOVAL OF INTAKES AND UTILITY ACCESSES			
No.	Location/Description	Type	Remarks
	I-35 MAINLINE		
1	631+45.79, 29' LT	Intakes	Remove after future culvert is installed
2	640+85.46, 29' Lt	Intakes	Remove after future culvert is installed
3	649+09.58, 29' Lt	Intakes	Remove after future culvert is installed
4	657+44.57, 29' Lt	Intakes	Remove after future culvert is installed
5	662+43.53, 29' Lt	Intakes	Remove after future culvert is installed
	IA-92		
6	685+76.58	Intakes	REMOVE DURING STAGING
7	690+76.89	Intakes	REMOVE DURING STAGING
8	692+76.66	Intakes	REMOVE DURING STAGING
9	700+77.06	Intakes	REMOVE DURING STAGING
10	702+46.78	Intakes	REMOVE DURING STAGING
	RAMP A		
11	1533+41.31	Intakes	REMOVE DURING REMOVAL OF EXISTING RAMP A
	RAMP B		
12	2536+89.53	Intakes	REMOVE DURING REMOVAL OF EXISTING RAMP B
	RAMP C		
13	3534+34.71	Intakes	REMOVE DURING REMOVAL OF EXISTING RAMP C
	TOTAL:	13	

110-7A 04-17-12					
REMOVAL OF STEEL BEAM GUARDRAIL					
① Lane(s) to which the installation is adjacent.					
② Includes length of End Terminals and End Anchors.					
No.	Direction of Traffic	Location		Side	Removal of Guardrail
		Station to Station			LF
1	NB	712+63.80	713+37.29	RT	77.0
2	NB	712+62.77	713+39.51	LT	161.1
3	NB	734+19.33	735+69.96	RT	150.9
4	NB/SB	734+14.23	736+07.11	LT/RT	398.8
5	SB	734+54.86	736+05.27	RT	150.7
6	WB	697+30.96	698+25.21	LT	189.5
7	WB	697+44.63	698+63.62	RT	119.6
8	EB	694+33.22	695+30.36	LT	195.2
9	EB	694+18.66	965+15.79	RT	97.5
				Total:	1540.3

CLEARING AND GRUBBING

Location		Work and Material Type	Trees, Stumps, and Logs and Down Timber Material Diameters											All Other Materials		Estimated Quantities			Remarks		
Station to Station or Milepost to Milepost or Description	Direction of Travel		3"-6"	>6"-9"	>9"-12"	>12"-15"	>15"-18"	>18"-24"	>24"-30"	>30"-36"	>36"-42"	>42"-48"	>48"-60"	>60"-72"	>72"	Length	Width	Units		Area	Herbicide Application
			FT	FT	Units	Acres	Each														
I-35																					
Sta. 628+94 to Sta. 701+93	NB	Trees - Clearing and Grubbing																	28.4		
Sta. 763+35 to Sta. 809+51	NB	Trees - Clearing and Grubbing																	14.5		
IA 92 & Interchange																					
Sta. 674+84 to Sta. 695+54	EB	Trees - Clearing and Grubbing																	8.9	Includes ramp and infield	
Sta. 694+75 to Sta. 716+20	EB	Trees - Clearing and Grubbing																	11.3	Includes ramp and infield	
Sta. 674+91 to Sta. 696+23	WB	Trees - Clearing and Grubbing																	12.5	Includes ramp and infield	
Sta. 699+01 to Sta. 716+11	WB	Trees - Clearing and Grubbing																	10.5	Includes ramp and infield	
TOTAL:																			86.1		

MEDIAN CROSSOVERS

Refer to PV-500 Series.

* Not a bid item

Road Ident.	Location Station	Standard Road Plan	Detour Pavement	Special Backfill	Granular Shoulder	Embankment in Place	Class 10 Excavation	Class 13 Excavation	Removal of Pavement		Saw Cut*	18" Unclassified Roadway Pipe	36" CMP Slotted Drain/ 6" Grate	Beveled Pipe and Guard	Remarks
									SY	LF					
I-35	629+46.00	PV-500	1914.2	1265.0	275.0				1090.3	1660.9					To Remain at Project Completion. See Sheet U.09 and U.10
I-35	702+50.00	PV-501	1077.9	555.0	200.0				615.2	933.9					See Sheet U.09 and U.10
I-35	707+50.00	PV-501	678.0	555.0	200.0				351.9	328.8					See Sheet U.09 and U.10
I-35	754+73.92		769.6	555.0	200.0				2181.5	835.1					See Sheet U.09 and U.10
I-35	759+00.00	PV-501	1087.0	555.0	200.0				628.2	963.0					To Remain at Project Completion. See Sheet U.09 and U.10
I-35	818+00.00	PV-500	1902.1	1265.0	275.0				1039.9	1670.7					See Sheet U.09 and U.10
Totals:			7428.8	4750.0	1350.0				5907.0	6392.4					

SHOULDERS

- ① Lane(s) to which the shoulder is adjacent.
- ② Bid Item
- ③ Applies only for Paved Shoulders constructed on project with existing granular shoulders.
- ④ Does not include shrink.

Calculations assume a HMA unit weight (lbs/cf) of 140, a Special Backfill unit weight (lbs/cf) of 140, and a Granular Shoulder unit weight (lbs/cf) of 140.

Road Identification	Direction Of Traffic	Location			Quantities																Remarks		
		Station to Station	Side	P Width FT	G Width FT	L Length FT	Class 13 Excavation CY	Hot Mix Asphalt		Binder TONS	Paved Shoulder SY	Reinforced Paved Shoulder SY	Special Backfill				Modified Subbase CY	Granular Shoulder		Earth Shoulder Construction Alternates			
								TON	TON/STA				HMA Alternate		PCC Alternate			TON	TON/STA	STA		HMA CY	PCC CY
													TON	TON/STA	TON	TON/STA							
6" HMA																							
I-92	WB	674+99.97	688+98.57	LT	4.0		1398.6																6" HMA
	WB	691+70.66	694+33.00	LT	4.0		262.3																6" HMA
	WB	699+90.00	701+68.42	LT	4.0		178.4																6" HMA
	WB	703+15.00	708+15.00	LT			500.0																6" HMA
	WB	708+15.00	709+18.13	LT			103.1																6" HMA
	WB	709+18.13	716+00.03	LT	4.0		681.9																6" HMA
I-92																							
	EB	674+99.97	684+00.00	RT	4.0		900.0																6" HMA
	EB	684+00.00	690+20.00	RT			620.0																6" HMA
	EB	691+66.31	694+33.00	RT	4.0		266.7																6" HMA
	EB	699+03.00	701+96.19	RT	4.0		293.2																6" HMA
	EB	703+50.10	716+00.03	RT	4.0		1249.9																6" HMA
Totals:										2324.9													6" HMA
7" PCC Option																							
Ramp A	SB	1533+41.31	1547+00.00	LT	6.0		1358.7																7" PCC Option
Ramp A	SB	1533+82.78	1547+00.00	RT	4.0		1317.2																7" PCC Option
Ramp B	NB	2521+75.00	2537+81.00	RT	6.0		1609.4																7" PCC Option
Ramp B	NB	2521+75.00	2539+41.27	LT	4.0		1541.4																7" PCC Option
Ramp C	SB	3525+00.00	3535+08.79	LT	6.0		1008.8																7" PCC Option
Ramp C	SB	3525+00.00	3534+79.97	RT	4.0		980.0																7" PCC Option
Ramp D	NB	4535+96.79	4547+46.34	RT	6.0		1150.5																7" PCC Option
Ramp D	NB	4536+31.71	4547+46.87	LT	4.0		1140.7																7" PCC Option
I-35	NB	629+46.00	684+56.00	LT	6.0		5510.0																7" PCC Option
I-35	NB	629+46.00	690+34.12	RT	10.0		6088.1																7" PCC Option
Totals:										16069.2													7" PCC Option
8" HMA Option																							
Ramp A	SB	1533+41.31	1549+50.00	LT	6.0		1757.9																8" HMA Option
Ramp A	SB	1533+82.78	1549+50.00	RT	4.0		1550.8																8" HMA Option
Ramp B	NB	2521+75.00	2537+81.00	RT	6.0		1609.4																8" HMA Option
Ramp B	NB	2521+75.00	2539+41.27	LT	4.0		1541.4																8" HMA Option
Ramp C	SB	3523+27.86	3535+08.79	LT	6.0		1215.6																8" HMA Option
Ramp C	SB	3523+28.66	3534+79.97	RT	4.0		1166.5																8" HMA Option
Ramp D	NB	4535+96.79	4547+46.34	RT	6.0		1150.5																8" HMA Option
Ramp D	NB	4536+31.71	4547+46.87	LT	4.0		1140.7																8" HMA Option
I-35	NB	629+46.00	684+56.00	LT	6.0		5510.0																8" HMA Option
I-35	NB	629+46.00	690+34.12	RT	10.0		6088.1																8" HMA Option
Totals:										16659.9													8" HMA Option

104-5A
10-15-13

INTAKES AND UTILITY ACCESSES

* Bid Item
** For SW-545

No.	Location Station	Type or Standard Road Plan*	Form Grade	Bottom Well	Extension Length**	Notes
			Elev.	Elev.	FT	
	632+00.00	SW-562	871.0	867.9		
	638+00.00	SW-562	879.0	875.9		
	644+00.00	SW-562	892.3	889.3		
	650+00.00	SW-562	905.4	902.3		
	658+00.00	SW-562	922.5	919.3		
	663+00.00	SW-562	932.7	929.5		
	676+00.00	SW-562	929.2	926.2		

110-16
04-16-13

REMOVAL OF LIGHT POLES AND CONCRETE FOOTINGS

No.	Location		Removal of Light Pole	Removal of Concrete Footing for Light Pole	Remarks	
	Station	Offset				
		Left				Right
1	721+80.00		41.3	1	1	
2	723+41.40		48.5	1	1	
3	724+80.30		64	1	1	
4	745+95.24	123.48		1	1	
5	747+33.80	108.5		1	1	
6	748+93.75	101.8		1	1	
7	684+61.09		98.7	1	Iowa 92	
8	686+25.61		105.8	1	Iowa 92	
9	687+78.82		127.5	1	Iowa 92	
10	689+11.87		90.74	1	Iowa 92	
11	690+77.14		88.2	1	Iowa 92	
12	688+65.62	30.2		1	Iowa 92	
13	689+31.72	148.8		1	Iowa 92	
14	690+40.35	30.6		1	Iowa 92	
15	698+76.42		115.9	1	Iowa 92	
16	702+62.60		88.2	1	Iowa 92	
17	705+77.85	48.7		1	Iowa 92	
18	707+28.04	42.2		1	Iowa 92	
19	708+98.40	34.1		1	Iowa 92	
			TOTAL:	19	6	

SURVEY SYMBOLS

- IN Storm Sewer Intake
- FW Wire Fence
- INB Storm Sewer Beehive Intake
- PR Electric Riser Pole
- GP Guard Post (Less Than 4 Posts)
- SIGN SL Speed Limit Sign
- SIGN SI Sign
- Tile TIL Tile Line
- GDL Guard Rail Steel
- LUM Luminaire
- UE Utility Elevation
- WV Water Valve
- GPR Guard Post (4 or More Posts)
- FP Filler Pipe
- OUT Tile Outlet
- MIS Miscellaneous
- PPA Power Pole Co. 1
- AST Above Ground Storage Tank
- LP L.P. Tank
- FLG Flag Poles
- WHD Water Hydrant
- WEL Well
- MH Utility Access (Manhole)
- TPD Telephone Pedestal
- MM Mile Marker Post
- FCL Chain Link and Security Fence
- EB Electrical Box
- TV Satellite TV Dish
- UB Utility Box
- UST Underground Tank
- GV Gas Valve
- WHU WHU RV Water Hook Up
- SEP Septic Tank
- FHD Fire Hydrants
- FWD Wood Fence
- RET Retaining Walls
- D Centerline Draw or Stream (Down)
- BNK Stream Bank
- RIP Rip-Rap
- EW Edge of Water
- DU Centerline Draw or Stream (Up)
- ENT Centerline BL of Entrance
- ENU Edge Unpaved Entrance & Parking
- EG Edge of Gravel Road
- SNP Unpaved Shoulder
- DIK Centerline of Dike or Dam
- F02 FOB Underground Fiber Optic Co. 2
- T1 TLA Underground Telephone Line Co. 1
- E1 ELA Underground Electric Line Co. 1
- F0 FOA Underground Fiber Optic Co. 1
- W WLA Underground Water Line Co. 1
- St.S.2 STB Storm Sewer Line Co. 2
- San. SAA Sanitary Sewer Line Co. 1
- E2 ELB Underground Electric Line Co. 2
- TV TVA Underground TV Cable Co. 1
- F03 FOC Underground Fiber Optic Co. 3

UTILITY LEGEND

- INDIANOLA MUNICIPAL UTILITY
- MID-AMERICAN ENERGY
- STATE OF IOWA
- MID-AMERICAN ENERGY
- VERIZON
- CENTURY LINK (LIGHT CORE)

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, Dark	(112)	Proposed Grade and Pave Shading "In conjunction with a paving project"
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

- Reference Point
- Station
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- High Tension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

- ### RIGHT-OF-WAY LEGEND
- 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

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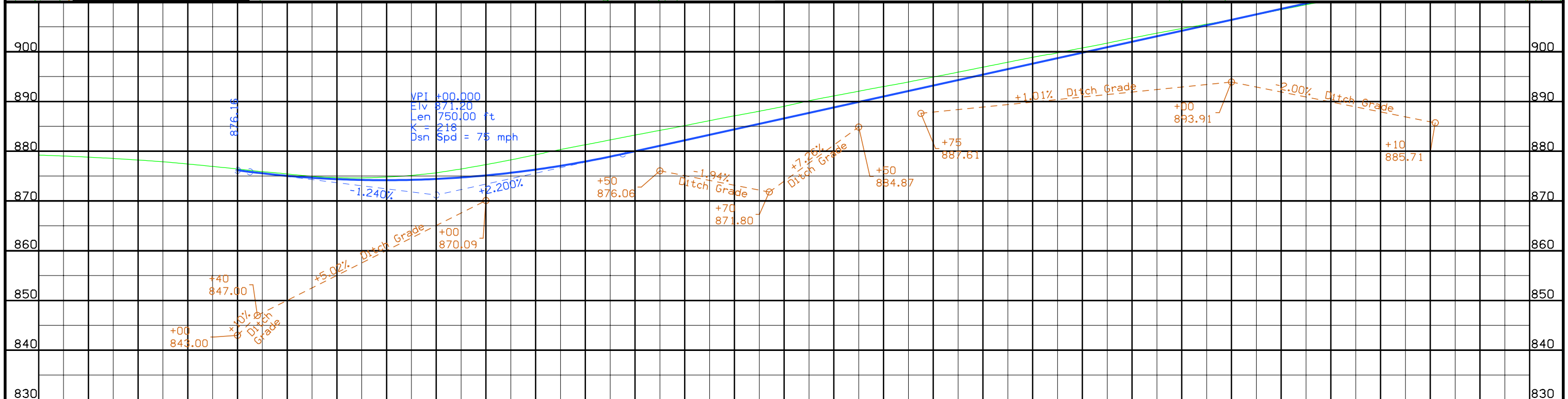
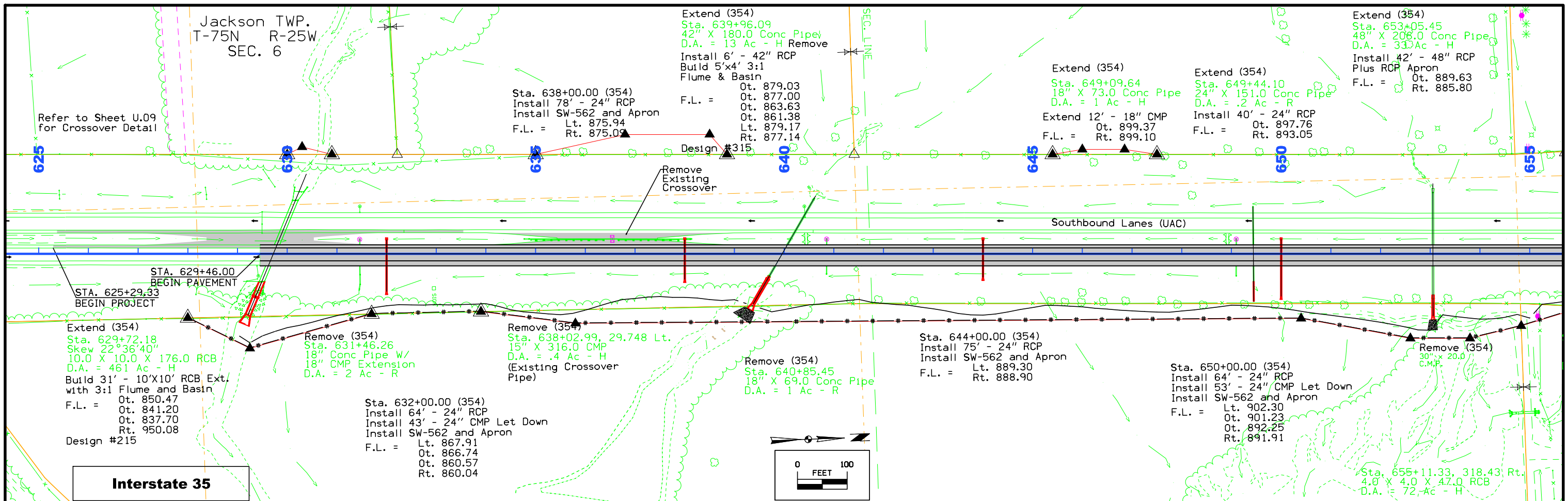
MCI/VERIZON
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MIDAMERICAN ENERGY
 Mike Fulton
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 mrfulton@midamerican.com

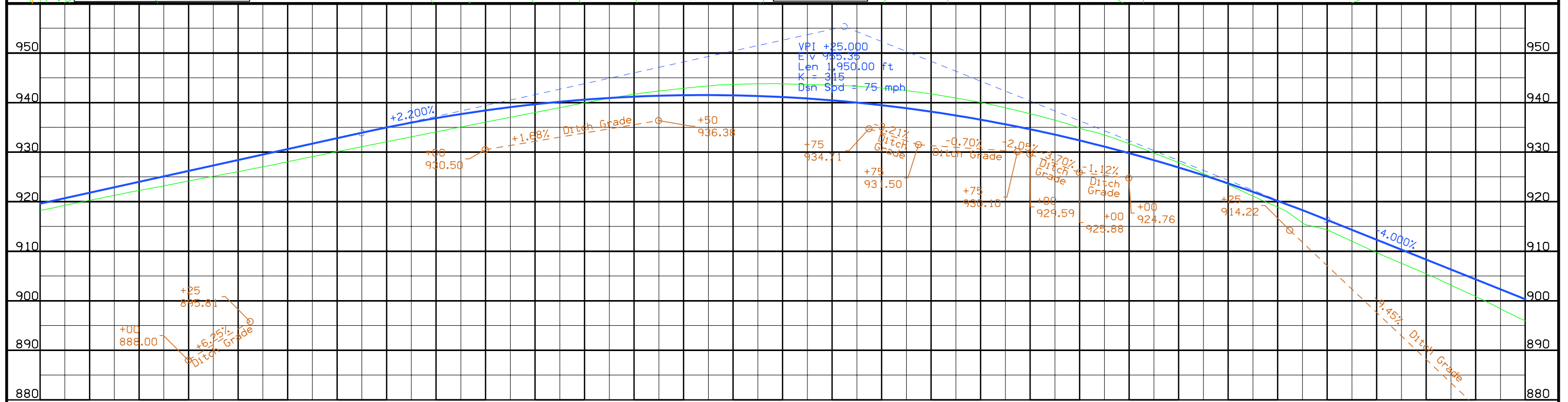
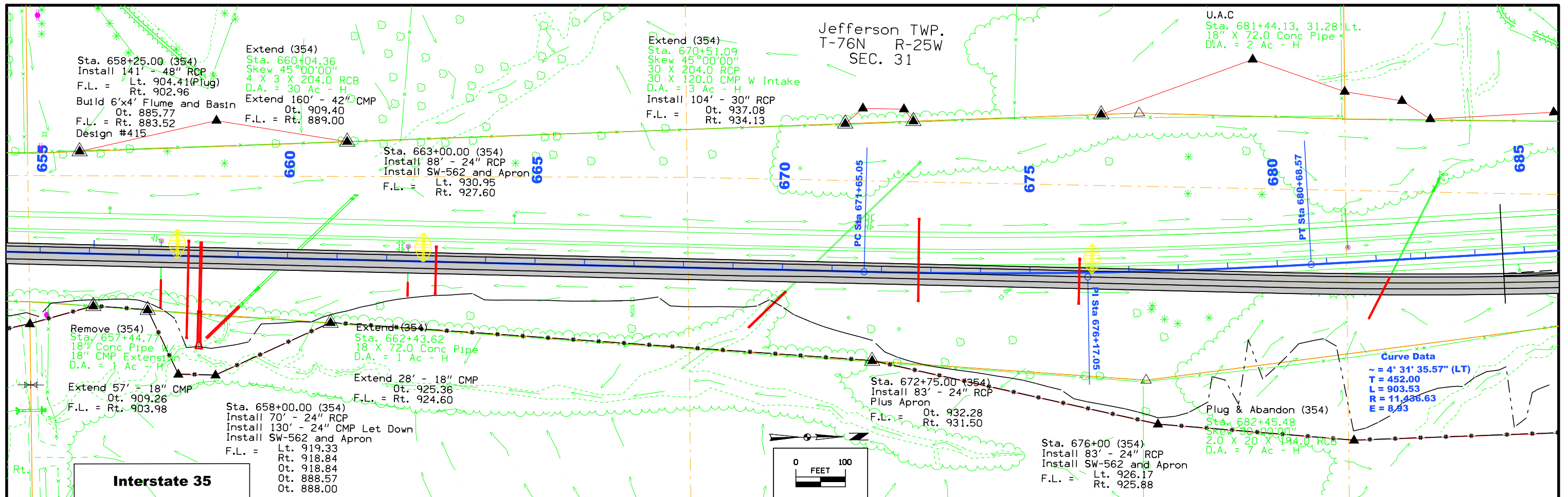
MIDAMERICAN ENERGY
 Austin Kitchen
 515-242-3902
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PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

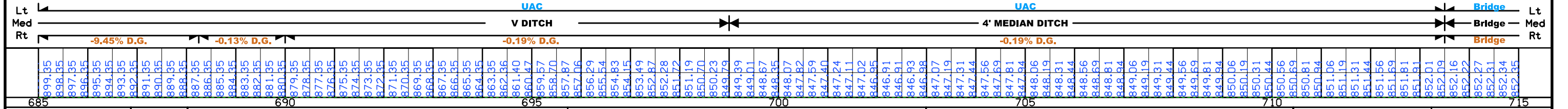
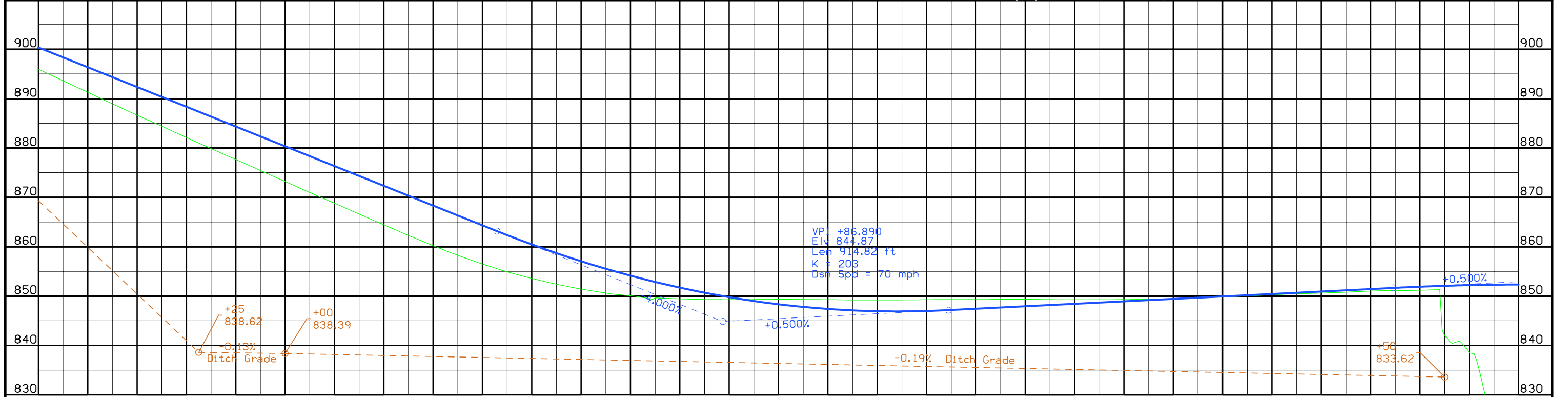
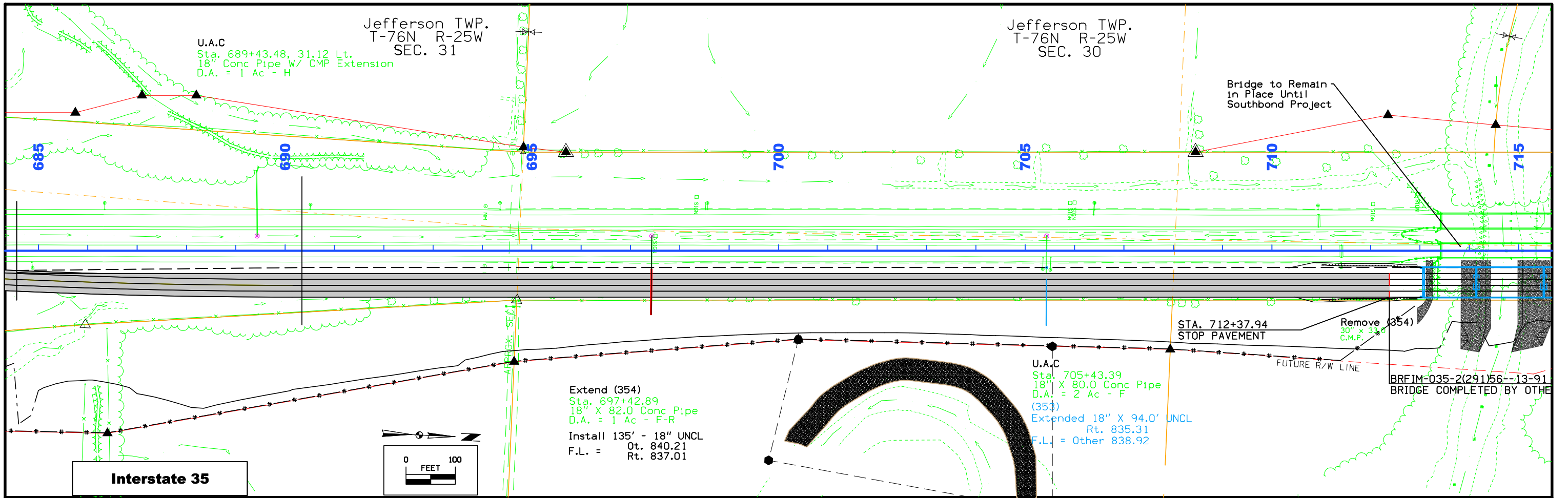
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Lt	Med	Rt	UAC		V DITCH		UAC		V DITCH		NO DITCH		Lt	Med	Rt																																																																																									
			+5.02% D.G.		5' DITCH		-1.94% D.G.		+7.26% D.G.		+1.01% D.G.		-2.00% D.G.		NO DITCH																																																																																									
			876.16	875.85	875.55	875.29	875.05	874.84	874.66	874.51	874.38	874.22	874.18	874.17	874.19	874.32	874.42	874.56	874.91	875.13	875.38	875.66	875.97	876.30	876.67	877.06	877.48	877.93	878.41	878.91	879.45	880.00	880.55	881.10	881.65	882.20	882.75	883.30	883.85	884.40	884.95	885.50	886.05	886.60	887.15	887.70	888.25	888.80	889.35	889.90	890.45	891.00	891.55	892.10	892.65	893.20	893.75	894.30	894.85	895.40	895.95	896.50	897.05	897.60	898.15	898.70	899.25	899.80	900.35	900.90	901.45	902.00	902.55	903.10	903.65	904.20	904.75	905.30	905.85	906.40	906.95	907.50	908.05	908.60	909.15	909.70	910.25	910.80	911.35	911.90	912.45	913.00	913.55	914.10	914.65	915.20	915.75	916.30	916.85	917.40	917.95	918.50	919.05	919.60

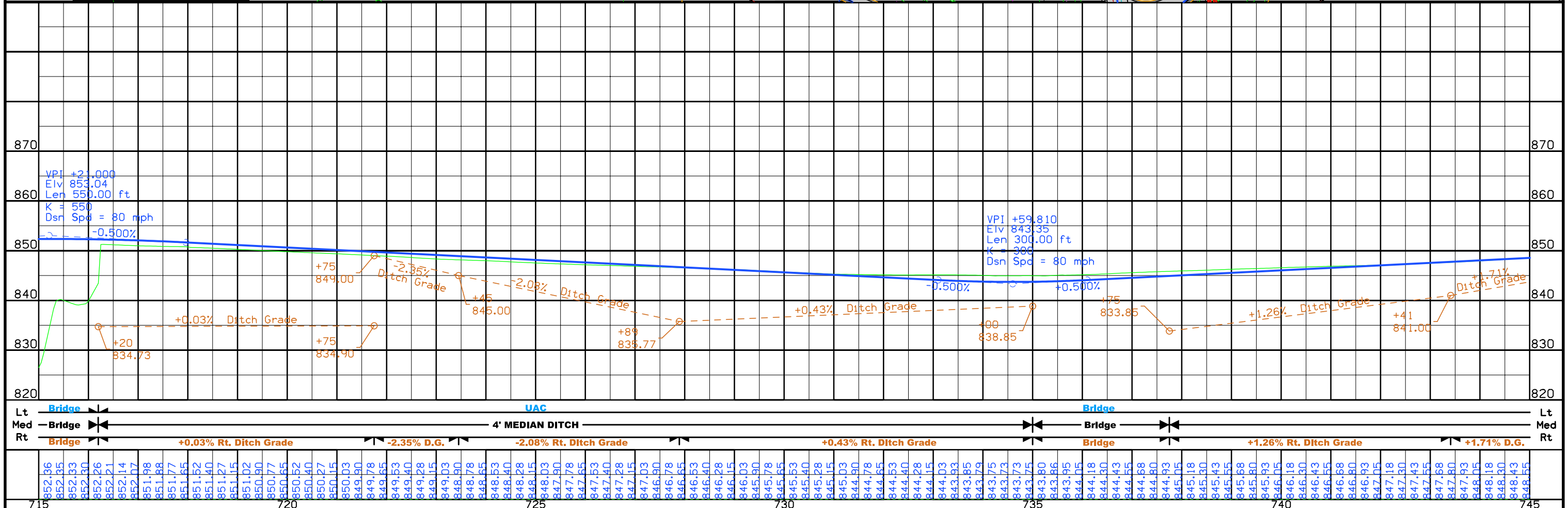
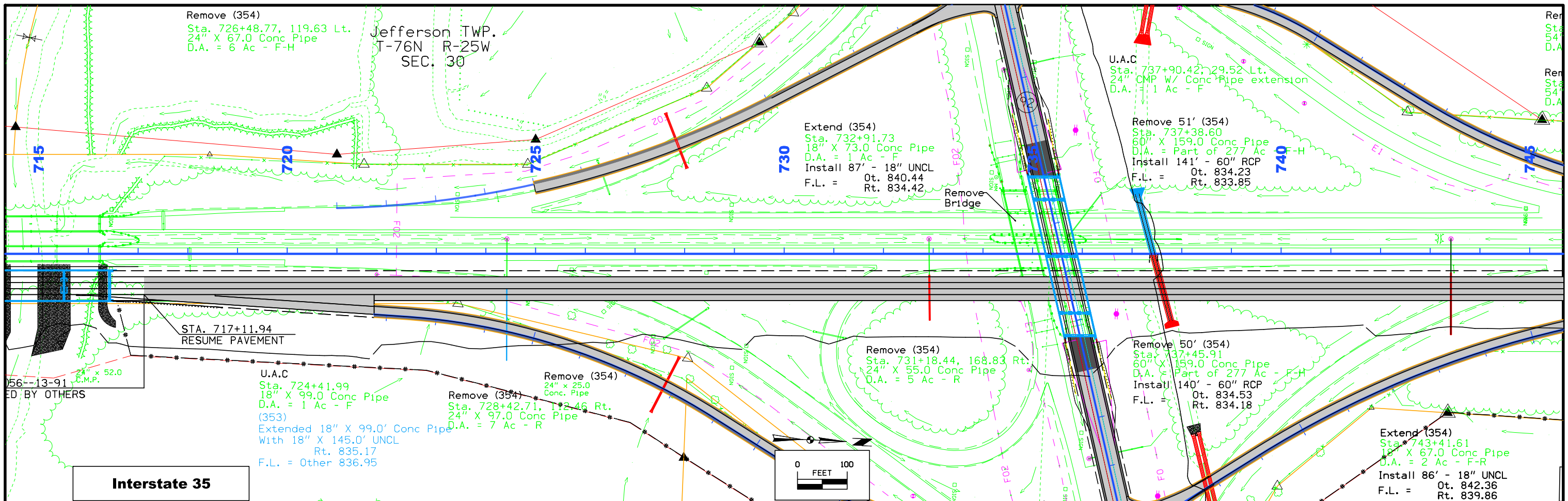


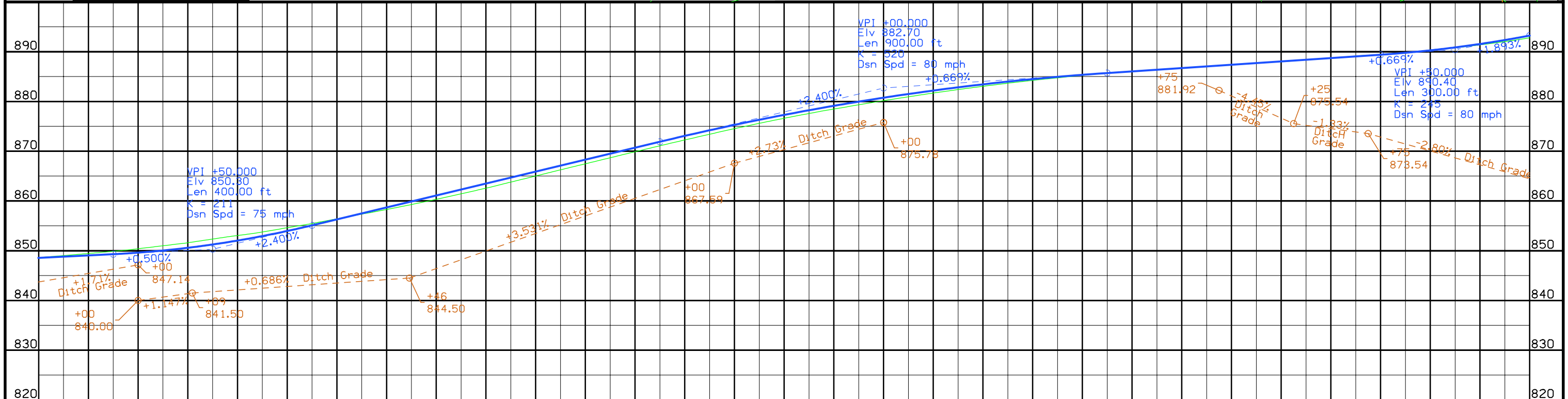
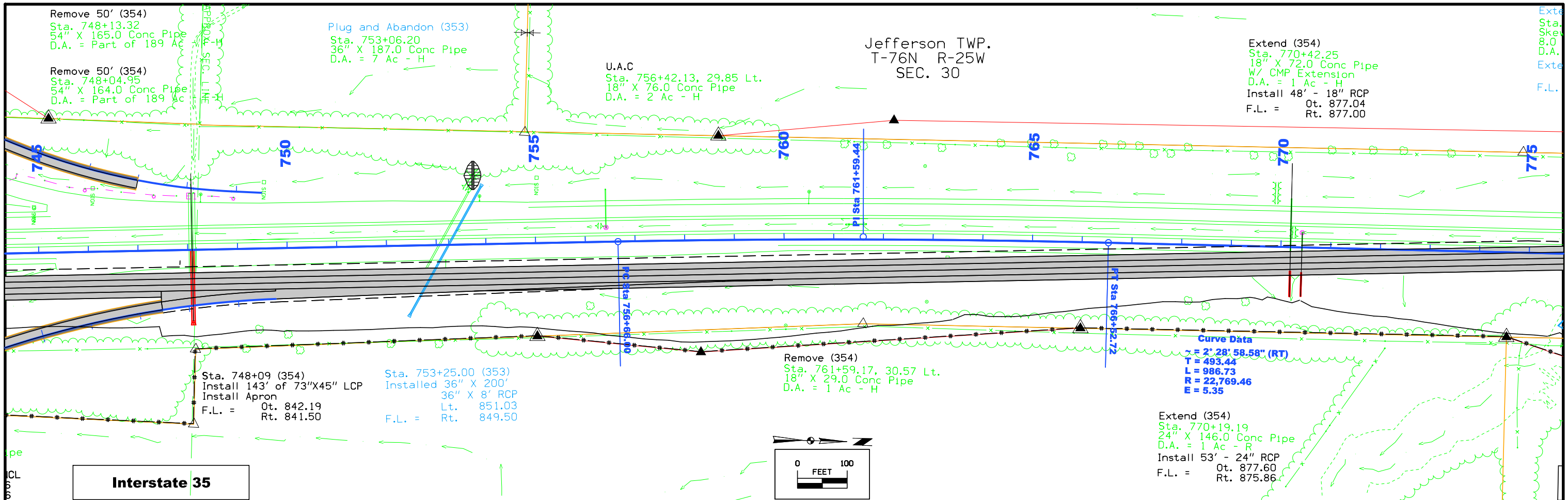
Lt															UAC															UAC															Lt																																																																								
Med															V DITCH															V DITCH															Med																																																																								
Rt															No Ditch															+1.68% D.G.															5' DITCH															Rt																																																									
No Ditch															+6.25% D.G.															No Ditch															+1.68% D.G.															5' DITCH															No Ditch															-9.45% D.G.																											
920.15	920.70	921.25	921.80	922.35	922.90	923.45	924.00	924.55	925.10	925.65	926.20	926.75	927.30	927.85	928.40	928.95	930.05	930.50	931.15	931.70	932.25	932.80	933.35	933.90	934.44	934.96	935.46	935.94	936.40	936.84	937.26	937.56	938.05	938.41	938.75	939.07	939.37	939.65	939.91	940.16	940.38	940.58	940.76	940.93	941.07	941.19	941.29	941.38	941.44	941.48	941.51	941.51	941.49	941.46	941.40	941.33	941.23	941.11	940.98	940.82	940.65	940.45	940.24	940.00	939.75	939.47	939.18	938.86	938.53	938.18	937.80	937.41	936.99	936.11	935.63	935.14	934.63	934.09	933.54	932.97	932.37	931.76	931.13	930.48	929.81	929.11	928.40	927.67	926.92	926.15	925.36	924.54	923.71	922.86	921.99	921.10	920.19	919.26	918.31	917.34	916.35	915.35	914.35	913.35	912.35	911.35	910.35	909.35	908.35	907.35	906.35	905.35	904.35	903.35	902.35	901.35	900.35



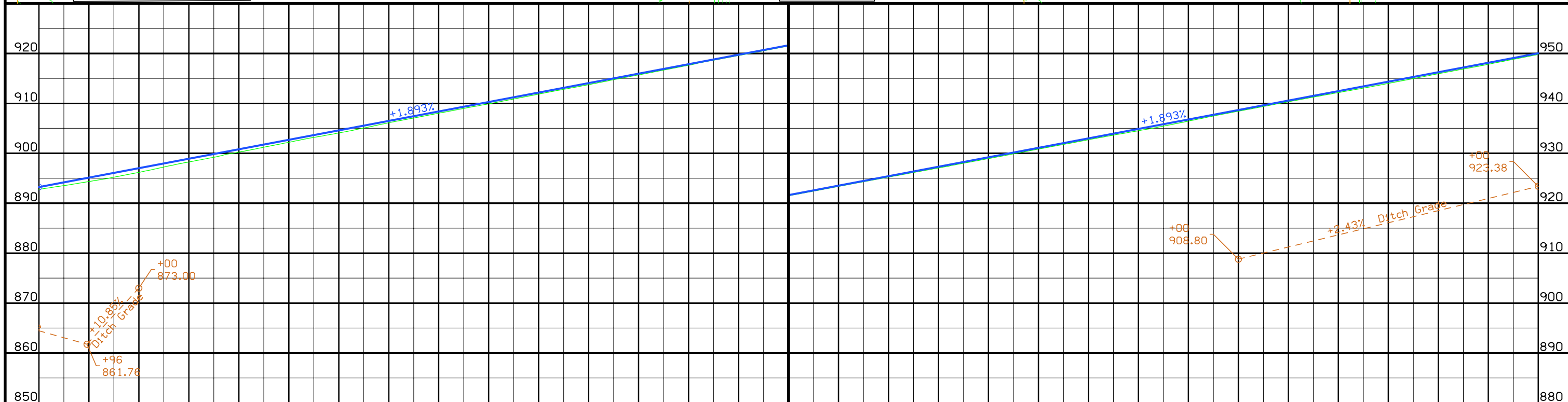
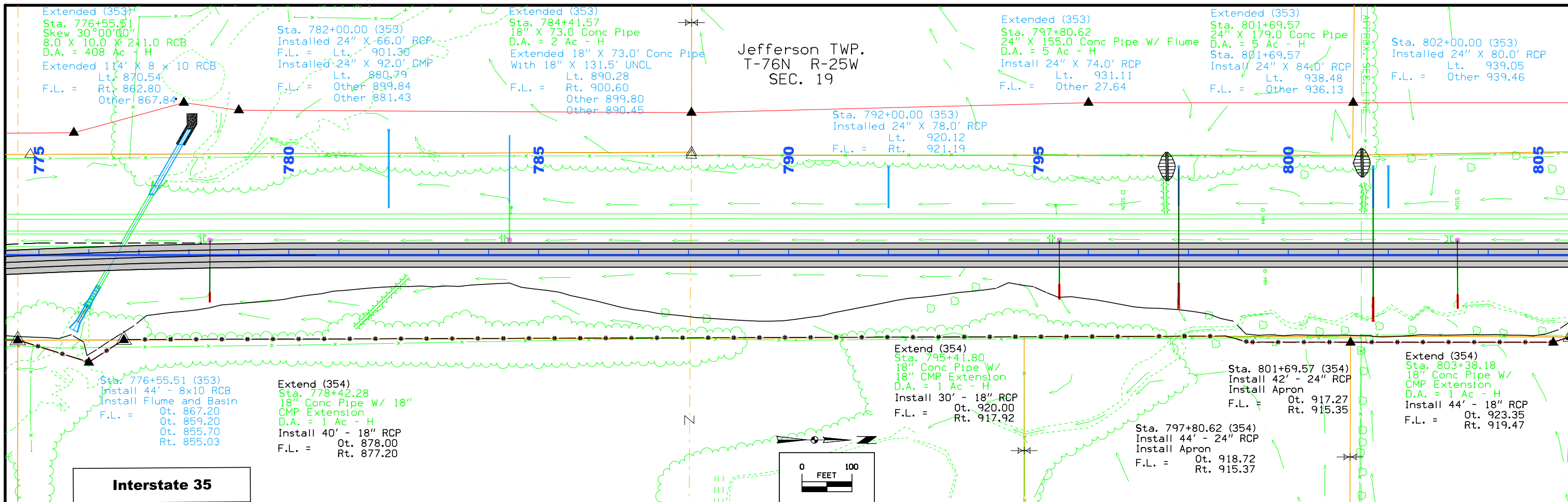
685	899.35	898.35	897.95	895.95	894.35	893.35	892.35	890.35	889.35	888.35	887.35	886.35	885.35	884.35	883.35	881.35	880.35	879.35	878.35	876.35	874.35	873.35	872.35	871.35	870.35	869.35	868.35	867.35	866.35	865.35	864.35	862.36	861.40	860.47	859.57	858.70	857.87	857.06	856.29	855.54	854.83	854.15	853.49	852.87	852.28	851.72	851.19	850.70	850.23	849.79	849.39	849.01	848.67	848.35	848.07	847.82	847.59	847.40	847.24	847.11	847.02	846.95	846.91	846.81	846.93	846.98	847.07	847.19	847.31	847.44	847.56	847.69	847.81	847.94	848.06	848.19	848.31	848.44	848.56	848.69	848.81	848.94	849.06	849.19	849.31	849.44	849.56	849.69	849.81	849.94	850.06	850.19	850.31	850.44	850.56	850.69	850.81	850.94	851.06	851.19	851.31	851.44	851.56	851.69	851.81	851.94	852.06	852.19	852.31	852.44	852.56	852.69	852.81	852.94	853.06	853.19
685																		690																		695																		700																		705																		710																		715								

10:28:01 AM 5/5/2015 KSB J:\2012_projects\112.0800F\Warren\Design_(354)_GradePave\91035354D04.sht

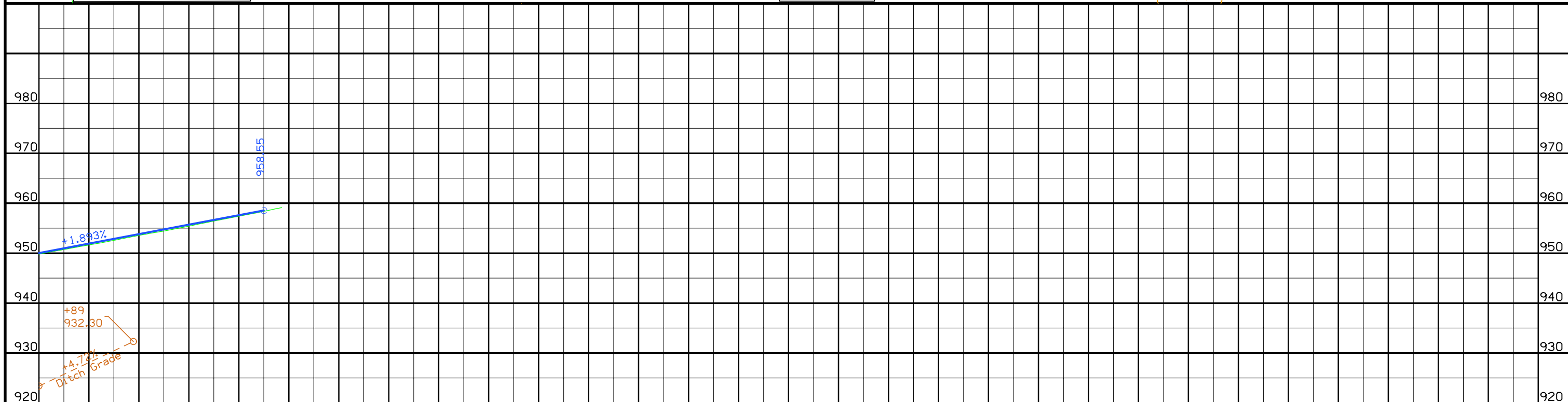
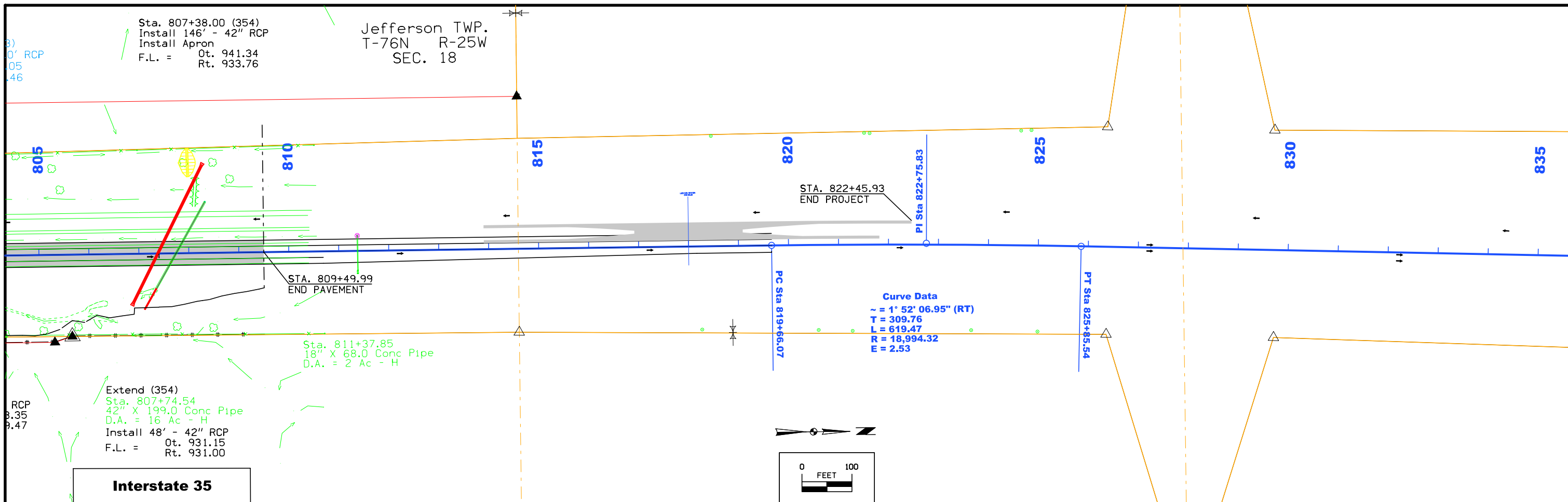




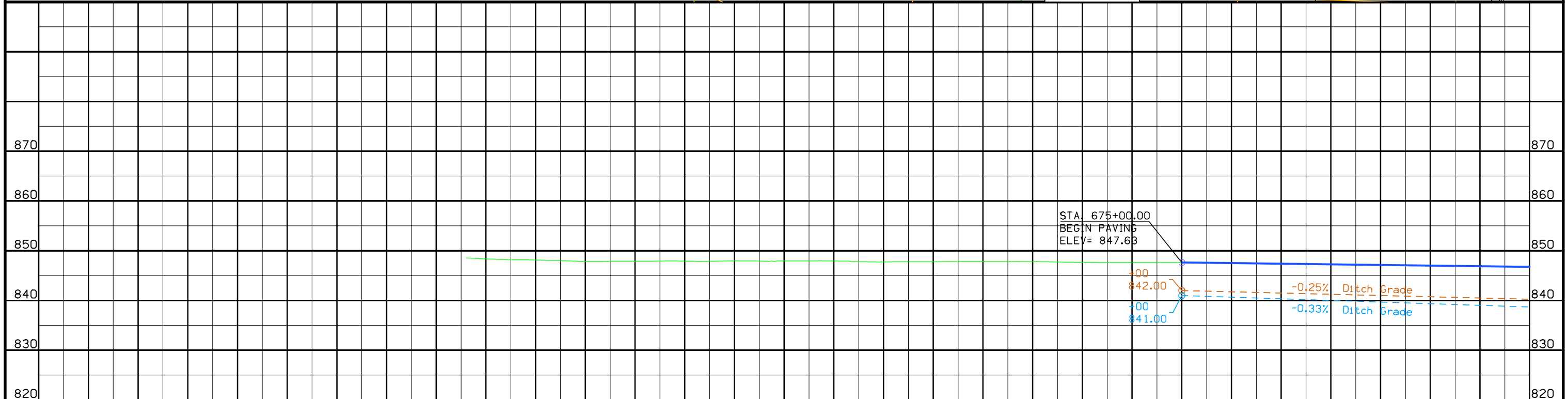
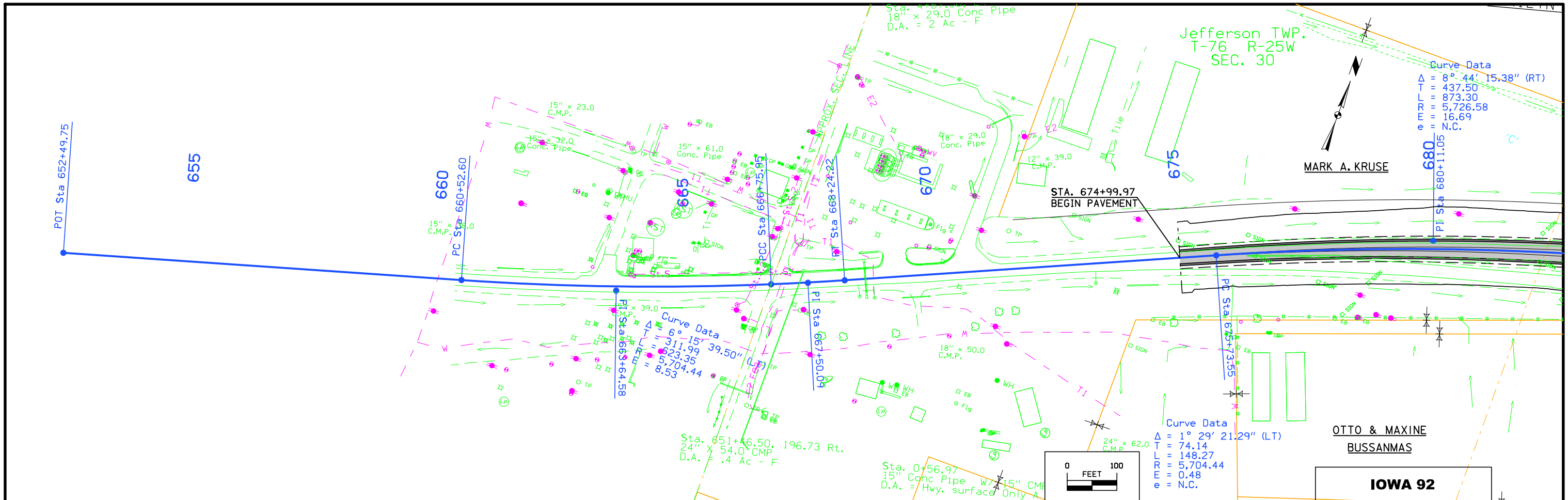
Lt	UAC																				UAC																				Lt																																																																													
Med	4' MEDIAN DITCH																				V DITCH																				Med																																																																													
Rt	+1.71% D.G.																				-4.45% 8.6.																				Rt																																																																													
	848.88	848.80	848.93	849.18	849.30	849.44	849.51	850.04	850.30	850.59	850.90	851.25	851.63	852.04	852.47	852.94	853.44	853.96	854.52	855.10	855.70	856.30	856.90	857.50	858.10	858.70	859.30	859.90	860.50	861.10	861.70	862.30	862.90	863.50	864.10	864.70	865.30	865.90	866.50	867.10	867.70	868.30	868.90	869.50	870.10	870.70	871.30	871.90	872.50	873.08	873.65	874.21	874.75	875.29	875.81	876.32	876.82	877.30	877.77	878.24	878.69	879.12	879.55	879.96	880.37	880.76	881.13	881.50	881.85	882.19	882.52	882.84	883.15	883.44	883.72	883.99	884.25	884.49	884.73	884.95	885.16	885.36	885.54	885.71	885.88	886.05	886.22	886.38	886.55	886.72	886.89	887.05	887.22	887.39	887.56	887.72	887.89	888.06	888.23	888.39	888.56	888.73	888.89	889.06	889.23	889.40	889.58	889.78	890.01	890.27	890.55	890.86	891.19	891.55	891.94	892.35	892.78	893.24



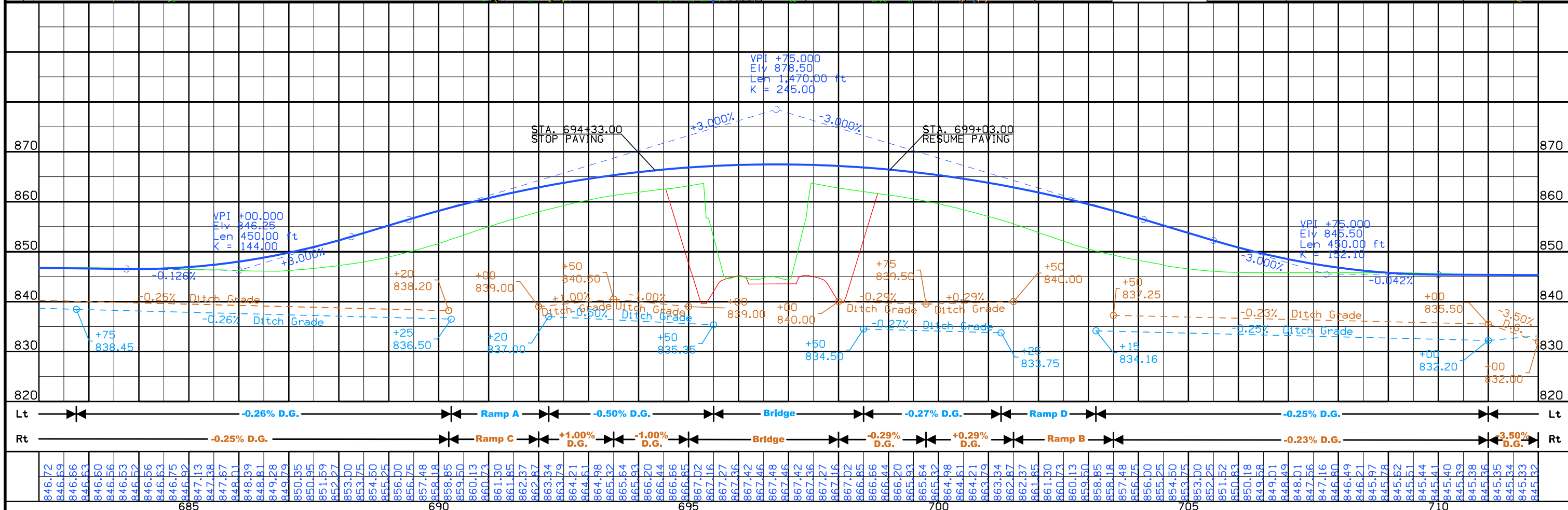
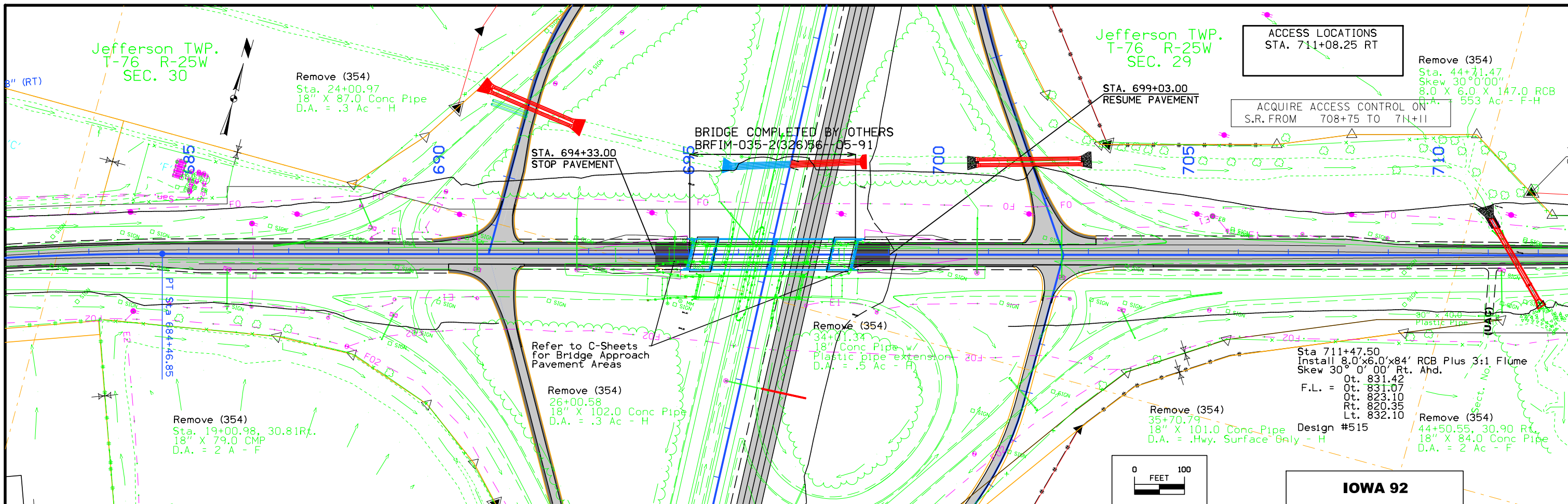
Lt	UAC																				Lt																																																																																																			
Med	V DITCH																				Med																																																																																																			
Rt	V DITCH																				Rt																																																																																																			
	-2.80% D.C.		10.85% D.C.		No Ditch										5\"/>																																																																																																									
	893.71	894.19	894.66	895.13	895.61	896.08	896.55	897.03	897.50	897.97	898.45	898.92	899.39	899.87	900.34	900.81	901.29	901.76	902.23	902.71	903.18	903.65	904.13	904.60	905.07	905.55	906.02	906.49	906.96	907.44	907.91	908.38	908.86	909.33	909.80	910.28	910.75	911.22	911.70	912.17	912.64	913.12	913.59	914.06	914.54	915.01	915.48	915.96	916.43	916.90	917.38	917.85	918.32	918.80	919.27	919.74	920.22	920.69	921.16	921.64	922.11	922.58	923.06	923.53	924.00	924.48	924.95	925.42	925.89	926.37	926.84	927.31	927.79	928.26	928.73	929.21	929.68	930.15	930.63	931.10	931.57	932.05	932.52	932.99	933.47	933.94	934.41	934.89	935.36	935.83	936.31	936.78	937.25	937.73	938.20	938.67	939.15	939.62	940.09	940.57	941.04	941.51	941.99	942.46	942.93	943.41	943.88	944.35	944.82	945.30	945.77	946.24	946.72	947.19	947.66	948.14	948.61	949.08	949.56	950.03



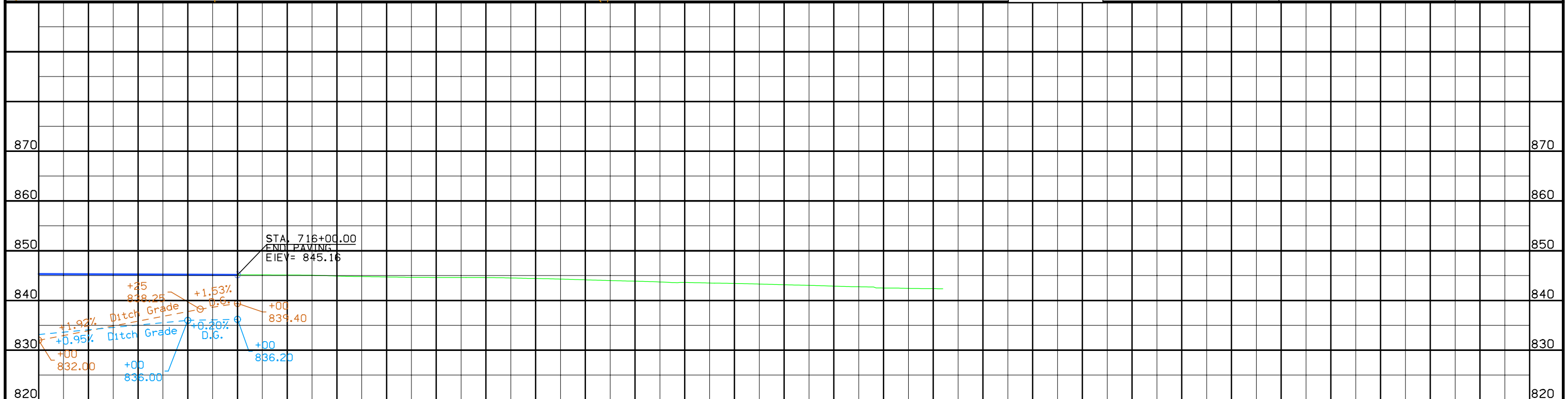
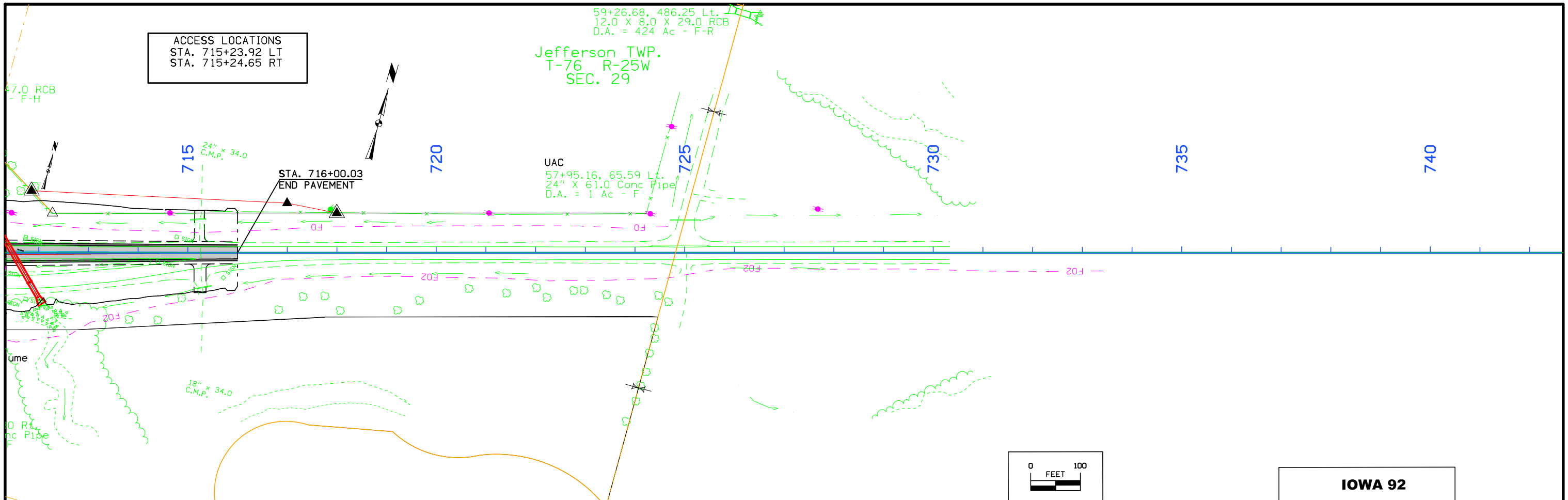
Lt	UAC		Lt
Med	V DITCH		Med
Rt	+4.72% D.G.	NO DITCH	Rt
950.50			
950.98			
951.45			
951.92			
952.40			
952.87			
953.34			
953.82			
954.29			
954.76			
955.24			
955.71			
956.18			
956.66			
957.13			
957.60			
958.08			
958.55			
959.02			
959.50			



Lt																					Lt																												
Rt																					Rt																												
	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680																							
																					847.63	847.60	847.57	847.54	847.51	847.47	847.44	847.41	847.38	847.35	847.32	847.29	847.25	847.22	847.19	847.16	847.13	847.10	847.07	847.04	847.00	846.97	846.94	846.91	846.88	846.85	846.82	846.78	846.75



685	690	695	700	705	710
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Lt	+0.95% D.G.		+0.20% D.G.		Lt										
Rt	+1.92% D.G.		+1.53% D.G.		Rt										
845.31	845.30	845.29	845.28	845.27	845.26	845.25	845.24	845.23	845.22	845.21	845.20	845.19	845.18	845.17	845.16

Point	Station	Offset	Elevation
1	11+86.83	12.00	848.06
2	11+86.83	16.00	847.98
3	13+48.40	14.00	847.48
4	17+27.02	14.00	846.83
5	18+01.03	-16.00	847.28
6	18+01.14	-14.00	847.24
7	20+80.78	-14.00	847.06
8	20+80.87	-16.00	847.10
9	23+58.17	14.00	846.44
10	24+14.18	14.00	846.38
11	26+52.96	11.28	846.39
12	27+06.07	14.00	846.43
13	27+06.49	18.00	846.31

STA. 19+06.26, 485.17' LT
 6526' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 846.48
 1/2 ELEV= 846.51
 3/4 ELEV= 846.36

STA. 19+40.78, 295.74' LT
 6498' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 847.17
 1/2 ELEV= 847.10
 3/4 ELEV= 847.03

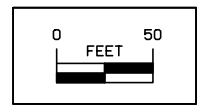
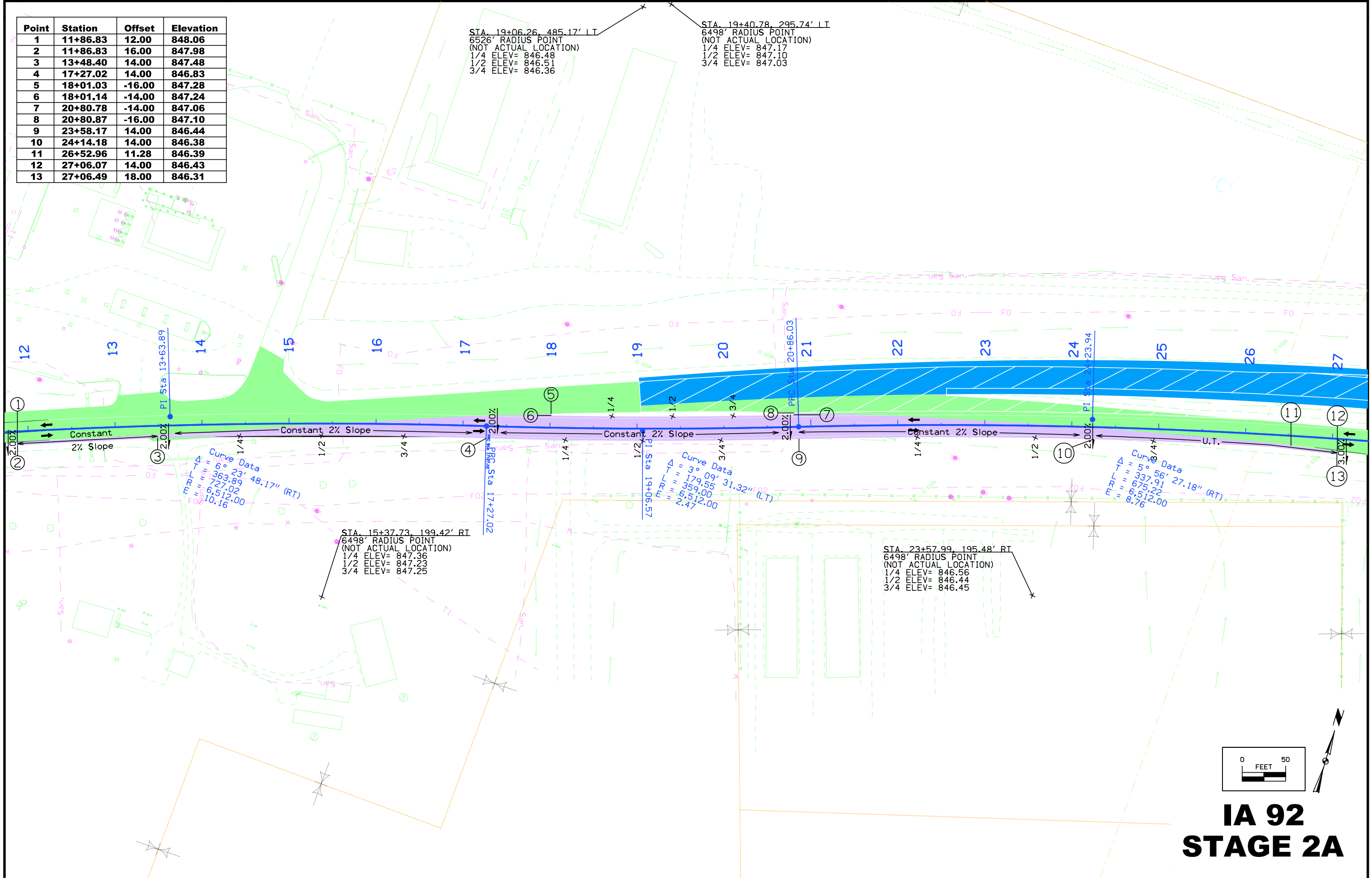
STA. 15+37.73, 199.42' RT
 6498' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 847.36
 1/2 ELEV= 847.23
 3/4 ELEV= 847.25

STA. 23+57.99, 195.48' RT
 6498' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 846.56
 1/2 ELEV= 846.44
 3/4 ELEV= 846.45

Curve Data
 $\Delta = 6^\circ 23' 48.17''$ (RT)
 $M = 363.89$
 $L = 727.02$
 $MPT = 13+48.40$
 $MPT - \Delta = 10.16$

Curve Data
 $\Delta = 3^\circ 09' 31.32''$ (LT)
 $M = 179.55$
 $L = 359.00$
 $MPT = 19+06.57$
 $MPT - \Delta = 2.47$

Curve Data
 $\Delta = 5^\circ 56' 27.18''$ (RT)
 $M = 337.56$
 $L = 675.22$
 $MPT = 23+58.17$
 $MPT - \Delta = 8.76$



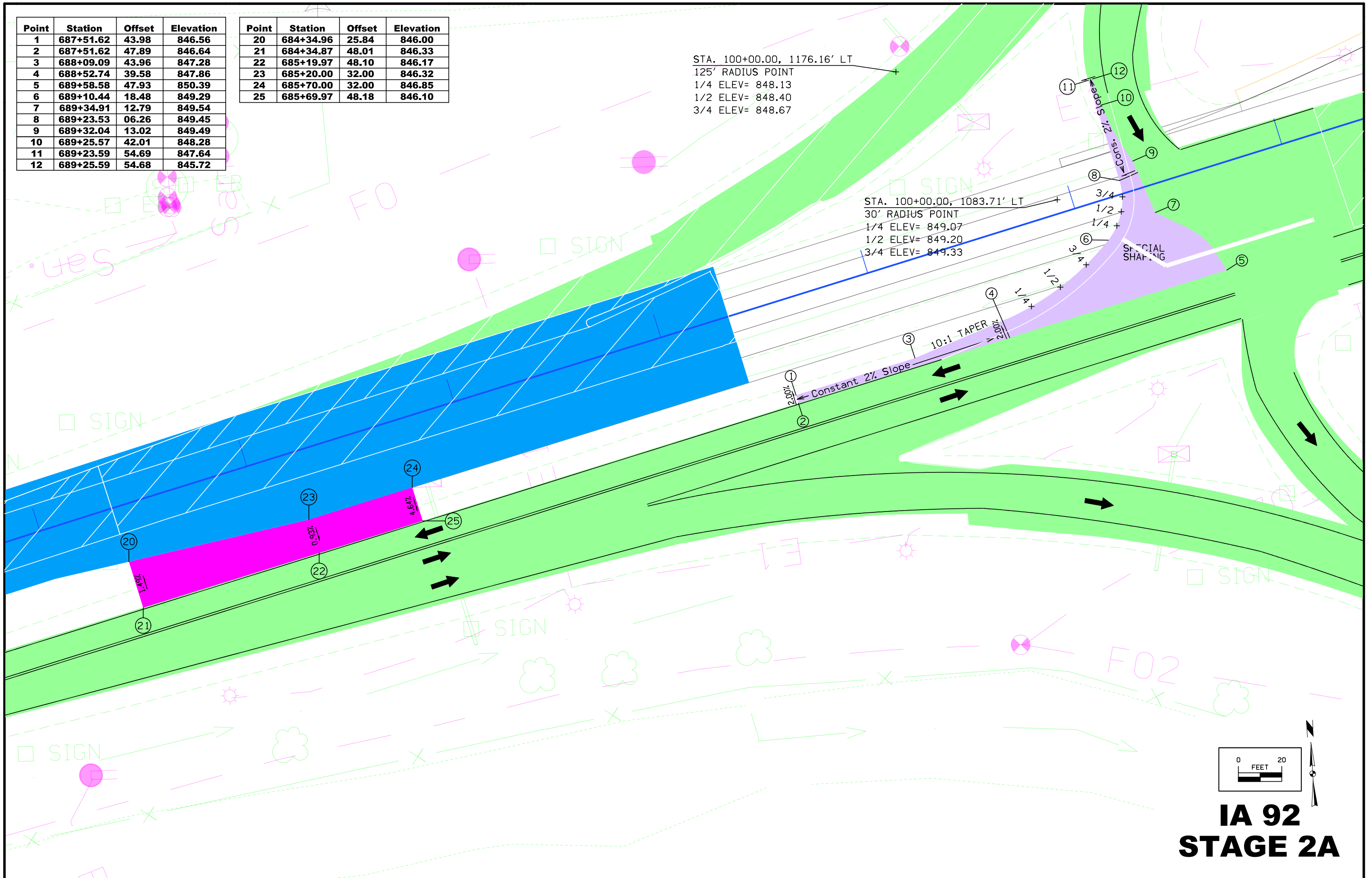
IA 92 STAGE 2A

Point	Station	Offset	Elevation
1	687+51.62	43.98	846.56
2	687+51.62	47.89	846.64
3	688+09.09	43.96	847.28
4	688+52.74	39.58	847.86
5	689+58.58	47.93	850.39
6	689+10.44	18.48	849.29
7	689+34.91	12.79	849.54
8	689+23.53	06.26	849.45
9	689+32.04	13.02	849.49
10	689+25.57	42.01	848.28
11	689+23.59	54.69	847.64
12	689+25.59	54.68	845.72

Point	Station	Offset	Elevation
20	684+34.96	25.84	846.00
21	684+34.87	48.01	846.33
22	685+19.97	48.10	846.17
23	685+20.00	32.00	846.32
24	685+70.00	32.00	846.85
25	685+69.97	48.18	846.10

STA. 100+00.00, 1176.16' LT
 125' RADIUS POINT
 1/4 ELEV= 848.13
 1/2 ELEV= 848.40
 3/4 ELEV= 848.67

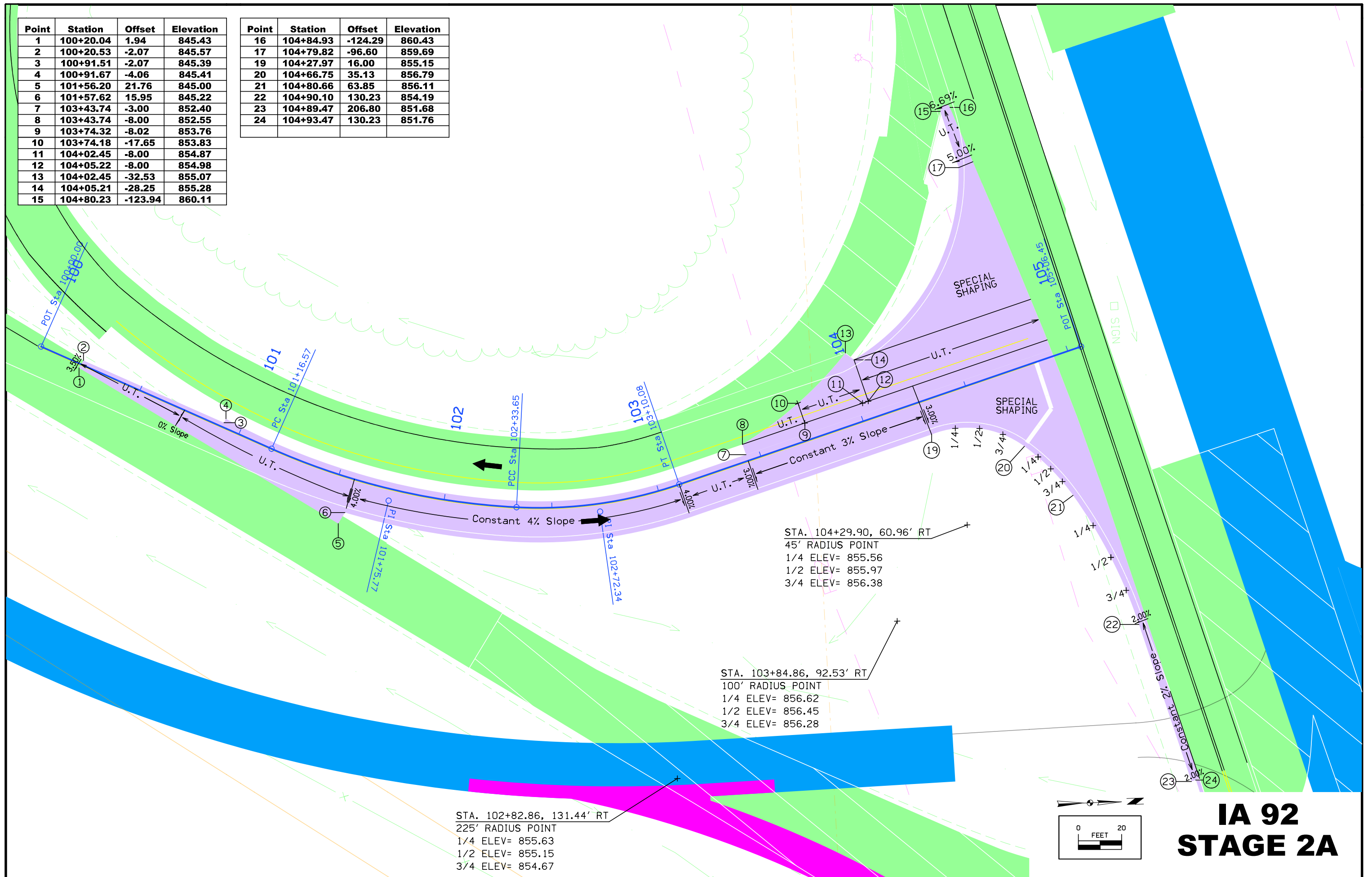
STA. 100+00.00, 1083.71' LT
 30' RADIUS POINT
 1/4 ELEV= 849.07
 1/2 ELEV= 849.20
 3/4 ELEV= 849.33



IA 92 STAGE 2A

Point	Station	Offset	Elevation
1	100+20.04	1.94	845.43
2	100+20.53	-2.07	845.57
3	100+91.51	-2.07	845.39
4	100+91.67	-4.06	845.41
5	101+56.20	21.76	845.00
6	101+57.62	15.95	845.22
7	103+43.74	-3.00	852.40
8	103+43.74	-8.00	852.55
9	103+74.32	-8.02	853.76
10	103+74.18	-17.65	853.83
11	104+02.45	-8.00	854.87
12	104+05.22	-8.00	854.98
13	104+02.45	-32.53	855.07
14	104+05.21	-28.25	855.28
15	104+80.23	-123.94	860.11

Point	Station	Offset	Elevation
16	104+84.93	-124.29	860.43
17	104+79.82	-96.60	859.69
19	104+27.97	16.00	855.15
20	104+66.75	35.13	856.79
21	104+80.66	63.85	856.11
22	104+90.10	130.23	854.19
23	104+89.47	206.80	851.68
24	104+93.47	130.23	851.76



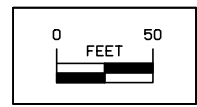
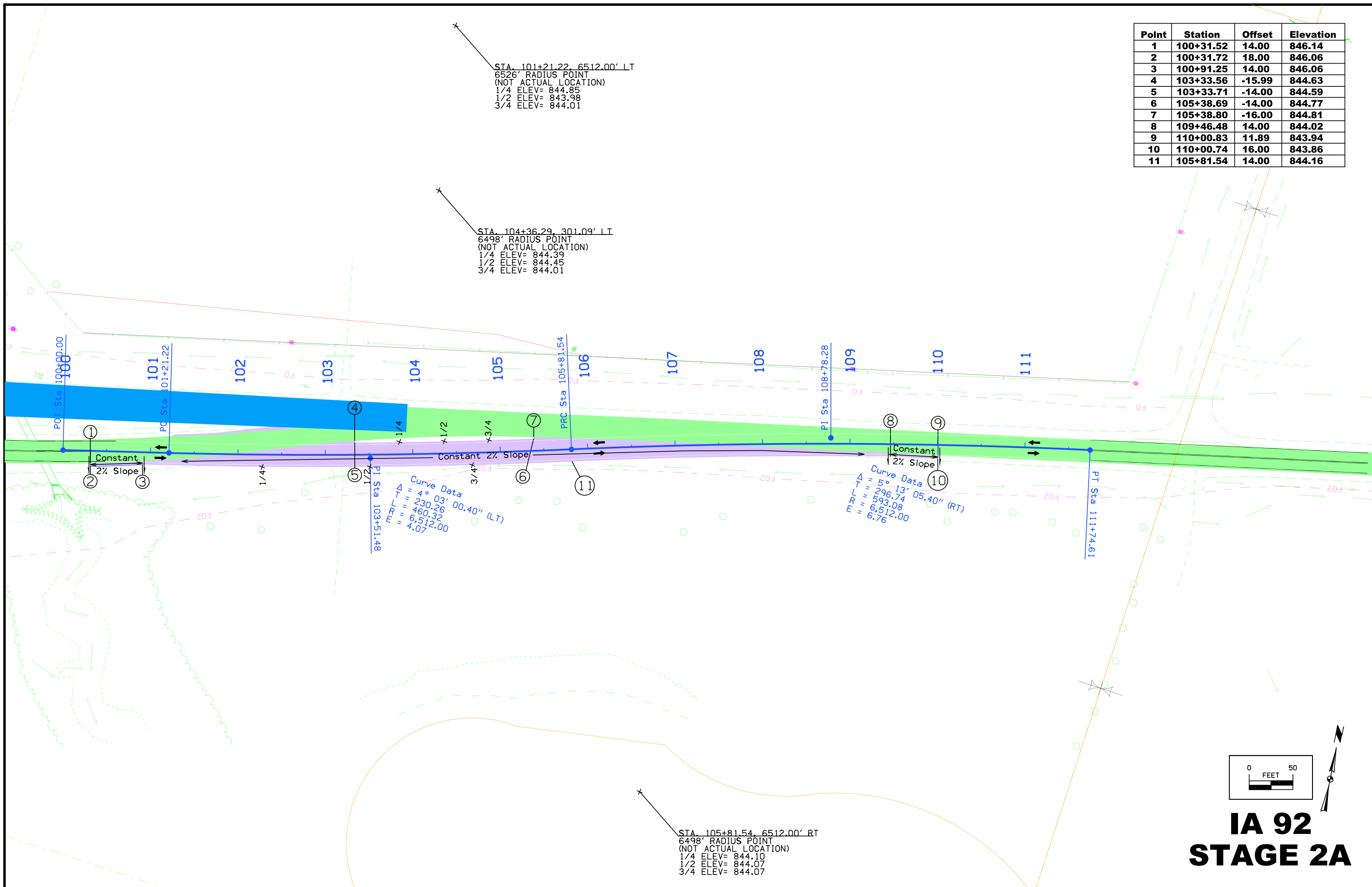
IA 92 STAGE 2A

Point	Station	Offset	Elevation
1	100+31.52	14.00	846.14
2	100+31.72	18.00	846.06
3	100+91.25	14.00	846.06
4	103+33.56	-15.99	844.63
5	103+33.71	-14.00	844.59
6	105+38.69	-14.00	844.77
7	105+38.80	-16.00	844.81
8	109+46.48	14.00	844.02
9	110+00.83	11.89	843.94
10	110+00.74	16.00	843.86
11	105+81.54	14.00	844.16

STA. 101+21.22, 6512.00' LT
 6526' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 844.85
 1/2 ELEV= 843.98
 3/4 ELEV= 844.01

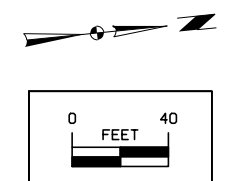
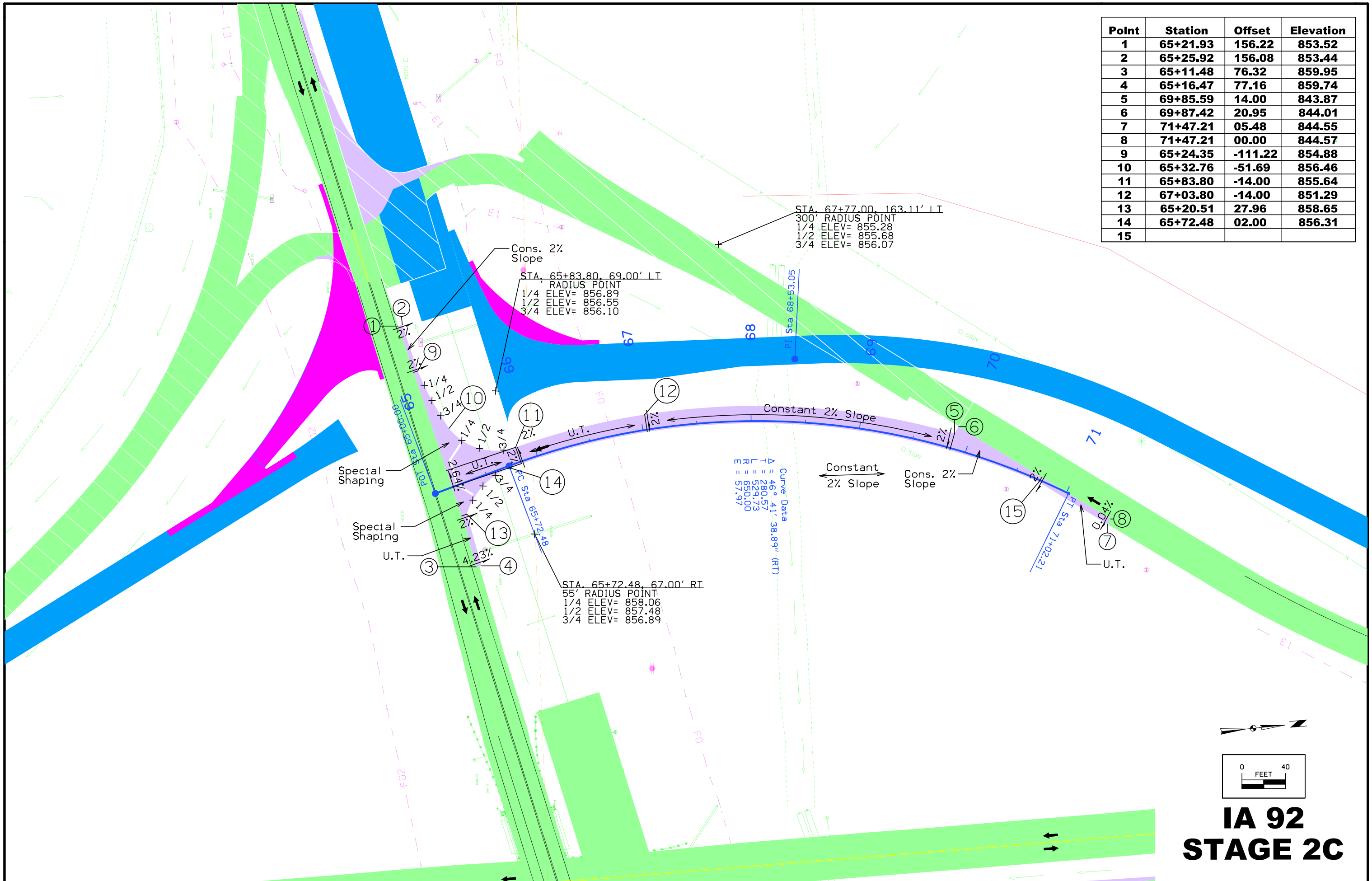
STA. 104+36.29, 301.09' LT
 6498' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 844.39
 1/2 ELEV= 844.45
 3/4 ELEV= 844.01

STA. 105+81.54, 6512.00' RT
 6498' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 844.10
 1/2 ELEV= 844.07
 3/4 ELEV= 844.07



IA 92 STAGE 2A

Point	Station	Offset	Elevation
1	65+21.93	156.22	853.52
2	65+25.92	156.08	853.44
3	65+11.48	76.32	859.95
4	65+16.47	77.16	859.74
5	69+85.59	14.00	843.87
6	69+87.42	20.95	844.01
7	71+47.21	05.48	844.55
8	71+47.21	00.00	844.57
9	65+24.35	-111.22	854.88
10	65+32.76	-51.69	856.46
11	65+83.80	-14.00	855.64
12	67+03.80	-14.00	851.29
13	65+20.51	27.96	858.65
14	65+72.48	02.00	856.31
15			



IA 92 STAGE 2C

Point	Station	Offset	Elevation
1	3532+11.78	6.00	854.93
2	3532+11.78	0.00	855.17
3	3532+60.51	6.00	855.93
4	3533+14.29	23.22	856.62
5	3533+19.23	8.00	856.94
7	3533+19.23	6.00	856.98
9	3533+49.23	0.31	857.64
10	3533+49.04	6.31	857.40
11	3534+00.62	-34.06	855.61
12	3534+37.87	-36.80	855.03
13	3534+51.77	-20.46	855.02
14	3534+55.64	-19.45	855.10
15	3534+53.92	-28.72	854.74
16	3534+28.67	-87.46	853.24
17	3534+88.31	-162.95	850.17
18	3534+97.91	-202.68	849.17
19	3535+01.86	-202.04	849.25

Point	Station	Offset	Elevation
20	1533+53.01	-86.24	857.94
21	1533+56.71	-87.77	857.86
22	1533+63.44	-71.76	858.27
23	1534+54.35	-10.00	858.75
24	1534+69.90	-10.00	858.51
25	1534+69.90	-6.00	858.59

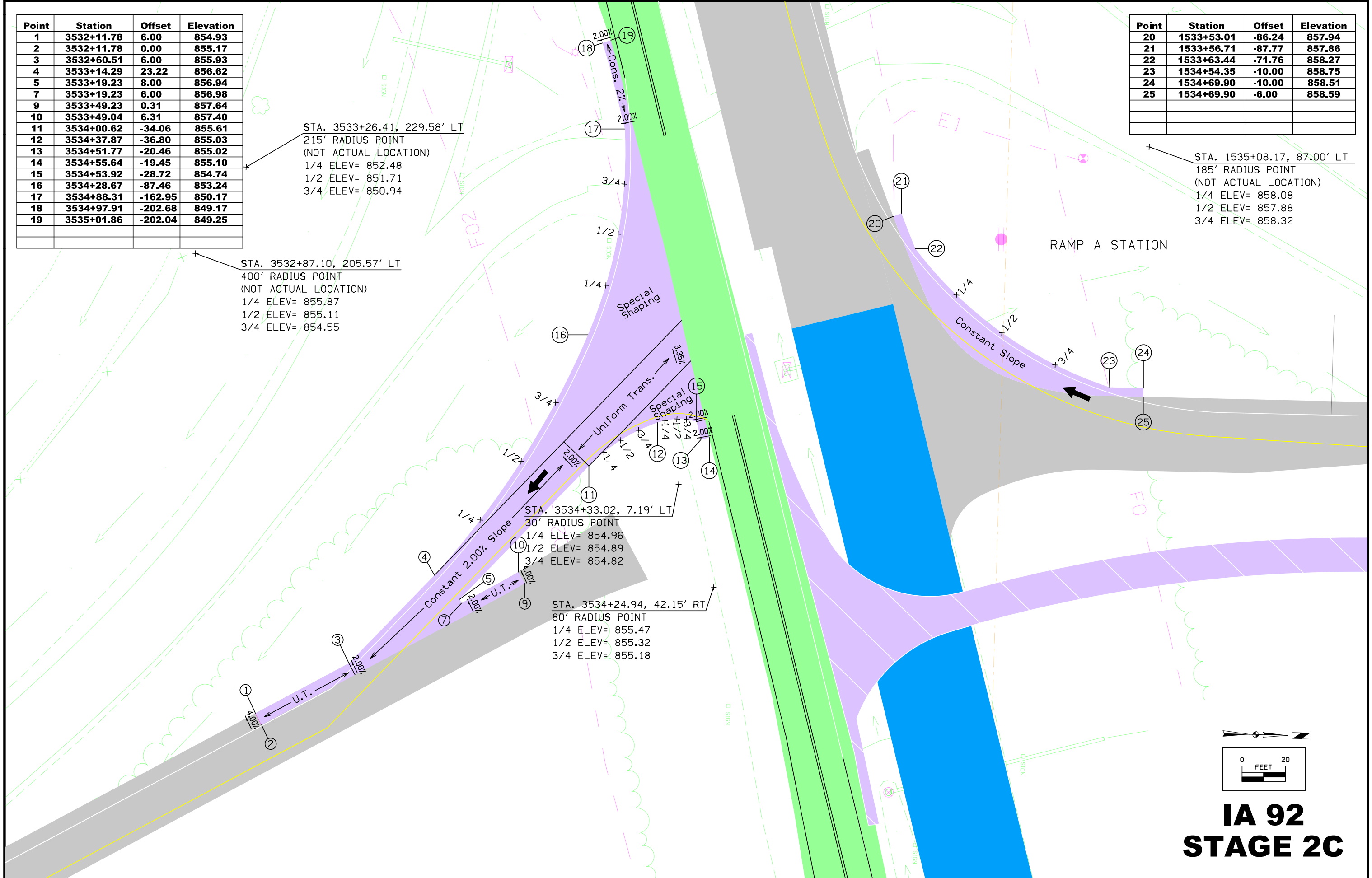
STA. 3533+26.41, 229.58' LT
 215' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 852.48
 1/2 ELEV= 851.71
 3/4 ELEV= 850.94

STA. 3532+87.10, 205.57' LT
 400' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 855.87
 1/2 ELEV= 855.11
 3/4 ELEV= 854.55

STA. 3534+33.02, 7.19' LT
 30' RADIUS POINT
 1/4 ELEV= 854.96
 1/2 ELEV= 854.89
 3/4 ELEV= 854.82

STA. 3534+24.94, 42.15' RT
 80' RADIUS POINT
 1/4 ELEV= 855.47
 1/2 ELEV= 855.32
 3/4 ELEV= 855.18

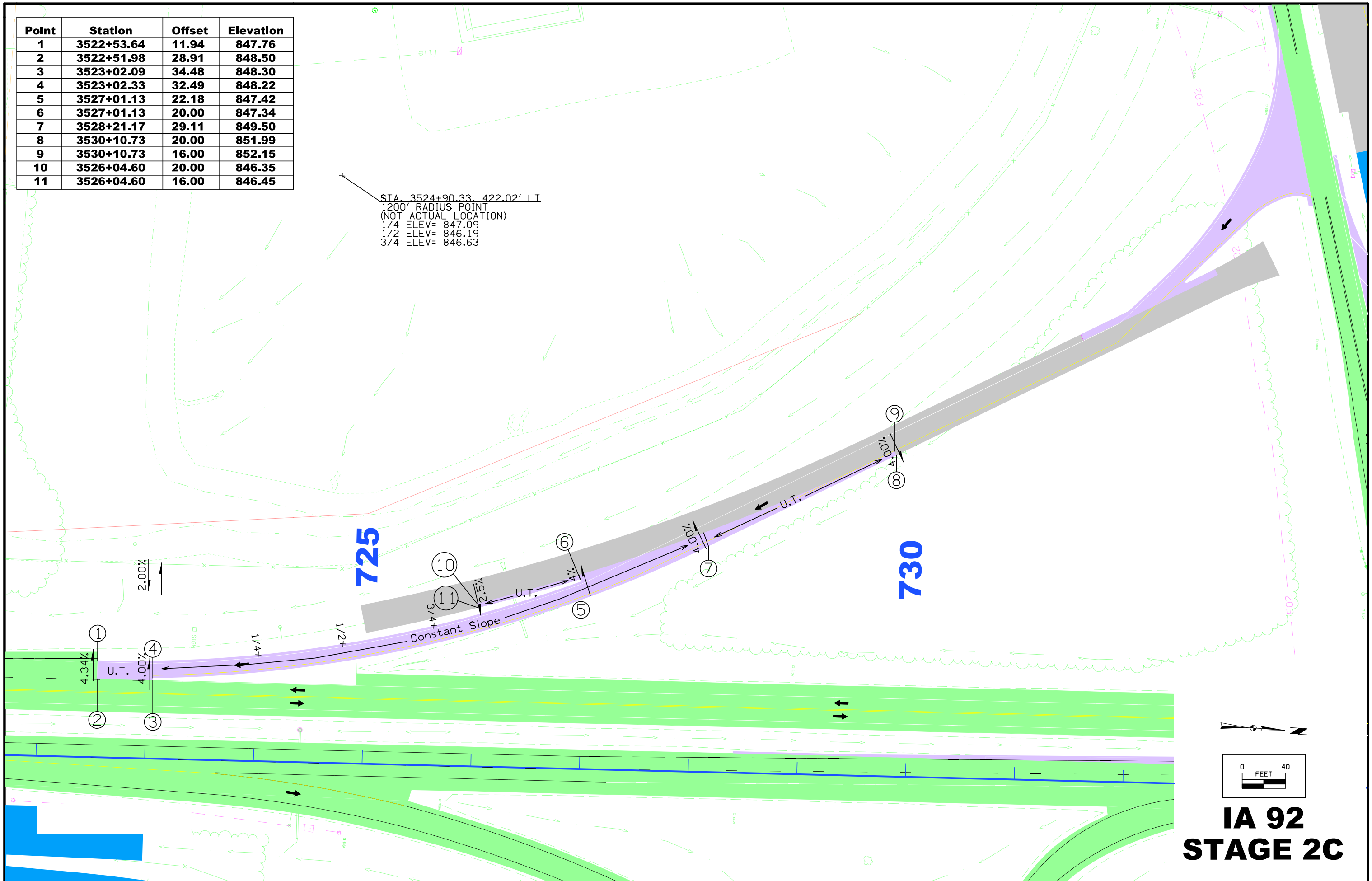
STA. 1535+08.17, 87.00' LT
 185' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 858.08
 1/2 ELEV= 857.88
 3/4 ELEV= 858.32



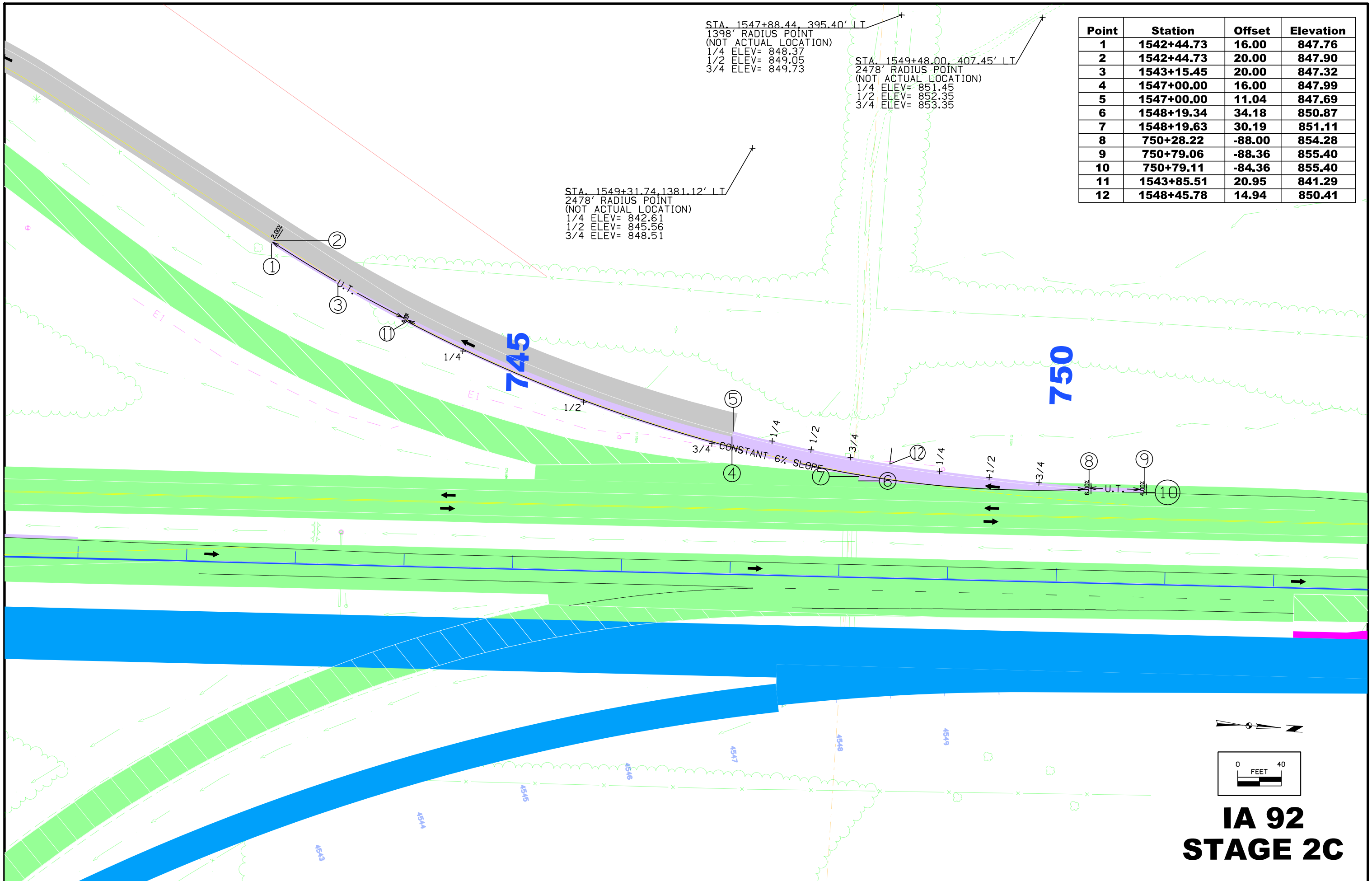
IA 92 STAGE 2C

Point	Station	Offset	Elevation
1	3522+53.64	11.94	847.76
2	3522+51.98	28.91	848.50
3	3523+02.09	34.48	848.30
4	3523+02.33	32.49	848.22
5	3527+01.13	22.18	847.42
6	3527+01.13	20.00	847.34
7	3528+21.17	29.11	849.50
8	3530+10.73	20.00	851.99
9	3530+10.73	16.00	852.15
10	3526+04.60	20.00	846.35
11	3526+04.60	16.00	846.45

STA 3524+90.33 422.02' LT
 1200' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 847.09
 1/2 ELEV= 846.19
 3/4 ELEV= 846.63



IA 92 STAGE 2C



STA. 1547+88.44, 395.40' LT
 1398' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 848.37
 1/2 ELEV= 849.05
 3/4 ELEV= 849.73

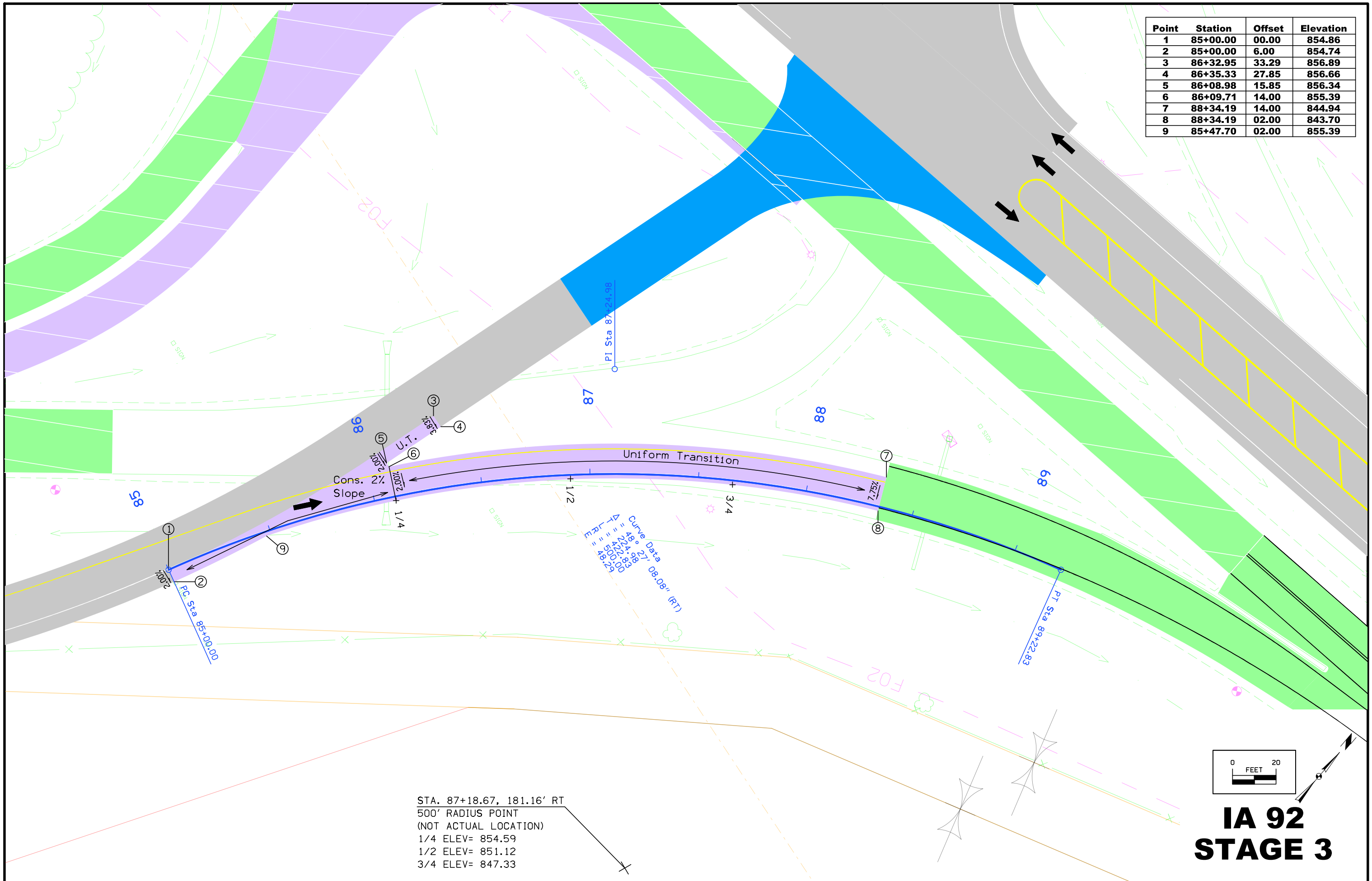
STA. 1549+48.00, 407.45' LT
 2478' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 851.45
 1/2 ELEV= 852.35
 3/4 ELEV= 853.35

STA. 1549+31.74, 1381.12' LT
 2478' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 842.61
 1/2 ELEV= 845.56
 3/4 ELEV= 848.51

Point	Station	Offset	Elevation
1	1542+44.73	16.00	847.76
2	1542+44.73	20.00	847.90
3	1543+15.45	20.00	847.32
4	1547+00.00	16.00	847.99
5	1547+00.00	11.04	847.69
6	1548+19.34	34.18	850.87
7	1548+19.63	30.19	851.11
8	750+28.22	-88.00	854.28
9	750+79.06	-88.36	855.40
10	750+79.11	-84.36	855.40
11	1543+85.51	20.95	841.29
12	1548+45.78	14.94	850.41

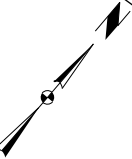
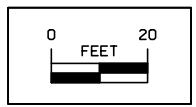
**IA 92
 STAGE 2C**

Point	Station	Offset	Elevation
1	85+00.00	00.00	854.86
2	85+00.00	6.00	854.74
3	86+32.95	33.29	856.89
4	86+35.33	27.85	856.66
5	86+08.98	15.85	856.34
6	86+09.71	14.00	855.39
7	88+34.19	14.00	844.94
8	88+34.19	02.00	843.70
9	85+47.70	02.00	855.39



Curve Data
 Δ = 49° 27' 08.08" (RT)
 R = 181.16'
 L = 48.09'
 ΔI = 42° 24' 08.33"
 ΔE = 48.229'

STA. 87+18.67, 181.16' RT
 500' RADIUS POINT
 (NOT ACTUAL LOCATION)
 1/4 ELEV= 854.59
 1/2 ELEV= 851.12
 3/4 ELEV= 847.33



IA 92 STAGE 3

Survey Information

General Information

Measurement units for this survey are US survey feet. This survey is for proposed improvement along I-35 from just north of Clanton Creek to just south of Hoover St. Project datum and control information is provided by Design Survey Office. This project is a field survey for the digital terrain model. Aerial coverage will be added at a later date.

Vertical Control

Vertical datum for this survey is relative to NAVD88.

This survey is relative to NAVD88 vertical datum. A three wire bench level run was run through this project in 2003. I-35 benches were established. The first run originated at BM # 500 a Posted code "A" Vertical Order BM Stamped L 116 1935(PID# MH0304)in St. Charles. A Circuit was ran from St. Charles easterly to I-35, northerly to Grand Ave., easterly to Commerce to BM# 625,a 1st order USGS stamped Q-155 1950.PID#MH0433. The second bench circuit began at BM# 625 in Commerce and went northerly along 50th St., westerly along I-235,southernly along I-35 And easterly along Grand Ave. returning to BM # 625 in Commerce. Additional Bench circuits were also completed at County road G-14, Grand Ave. and I-35 between I-235 and University Ave. Benches were established along all Bench Runs. Additional three wire level loops were needed for this survey.

Vertical equations are as follows:

Datum Benchmark

BM # 500 this survey = (NGS BM L 116) = Elevation = 1066.33 NAVD 1988
= Elevation = 1066.21 NGVD 1929

No As Built Plan benchmarks could not be located.
Vertical Equation are as follows

N. B. Middle River Brg S. Abutment this survey Elev.= 844.81(NAVD88)
= N. B. Bridge South Abutment AB Plans IN-1G-853(3) Elev. = 844.61

Horizontal Control

GENERAL INFORMATION FOR GPS PROJECT This network starts at the Clark Co Line thence North to Just North of W Mixmaster along I-35 - From G-14 North to Just North of W Mixmaster - Sap unknown at time of survey for network points Between Clark Co Line To G-14

STATE PLANE COORDINATE ZONE 1402 (IOWA SOUTH LAMBERT)

STATE PLANE COORDINATES HELD AT POINT G070

AVERAGE PROJECT LATITUDE = 41 23 9.10531

RESULTING RADIUS = 6363347.975 (METERS)

MEAN PROJECT ELEVATION = 272.000 (METERS)

SEA LEVEL FACTOR = 0.999957257

AVERAGE PROJECT SCALE FACTOR = 0.999956524

COMBINED FACTOR (GRID) = 0.999913783

1 / GRID = 1.000086224

<> HORIZONTAL DATUM = NAD 83(1996)

VERTICAL DATUM = NAVD 88

Local Project Plane Coordinate Conversion Equation:

- a. Local Project Coord y = [(State Plane y - hold point y) 1/grid factor] + hold point y
- b. Local Project Coord x = [(State Plane x - hold point x) 1/grid factor] + hold point x

ALL COORDINATES CONVERTED TO ENGLISH UNITS

	COORD (Y)	COORD (X)	FACTOR	COORD (Y)	COORD (X)	HEIGHT
G070	513358.35	1563703.57	0.99995493	513358.35	1563703.57	945.42

Alignment Information

I-35 Alignment Information

The I-35 alignment for this survey is a retrace of As-built Plans No. I-35-2(93)43—01-91, 853 (5), 853 (10), & IN-ING-853-(8), Survey stationing was equated to the plan at PI Sta. 1281+39.80 and run back and ahead without equation throughout the survey.

Equations are as follows:

PI Sta. 676+17.05 This Survey
= PI Sta. 675+72.9 As-built Plans Project No. I-35-2(93)43—01-91

PI Sta. 761+59.44 This Survey
= PI Sta. 761+17.2 As-built Plans Project No. 853 (5)

PI Sta. 822+75.84 This Survey
= PI Sta. 822+37.0 As-built Plans Project No. 853 (5)

PI Sta. 914+07.78 This Survey
= PI Sta. 913+82.0 As-built Plans Project No. 853 (5)

PI Sta. 994+55.30 This Survey
= PI Sta. 994+35.4 As-built Plans Project No. 853 (5)

PI Sta. 1052+33.22 This Survey
= PI Sta. 1052+17.7 As-built Plans Project No. 853 (5)

PI Sta. 1095+41.49 This Survey
= PI Sta. 1095+30.7 As-built Plans Project No. 853 (5)

PI Sta. 1135+92.05 This Survey
= PI Sta. 1135+85.0 As-built Plans Project No. 853 (5)

PI Sta. 1281+39.80 This Survey
= PI Sta. 1281+39.80 As-built Plans Project No. 853 (10)

PI Sta. 1410+94.02 This Survey
= PI Sta. 171+42.4 I As-built Plans Project No. IN-ING-853-(8)

PI Sta. 1548+04.27 This Survey(PI#114)
= PI Sta. 308+52.8 As-built Plans Project No. IN-ING-853-(8)

IA Hwy. 92 Alignment Information

The IA Hwy. 92 alignment for this survey is a retrace of As-built Plans No. 764 & 365. Survey stationing was equated to the plan at PI Sta. 13+35.10 and run back and ahead throughout the survey. A compound curve was created for this alignment at the curve for PI STA. 650+12.8 As Built (Project # 764), due to a station equation on the curve at the approximate Madison/Warren County line.

Equations are as follows:

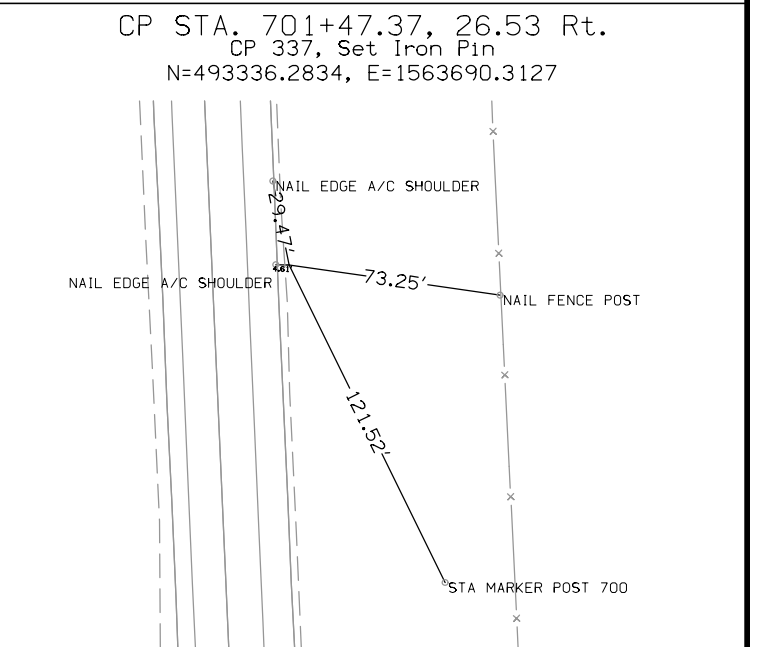
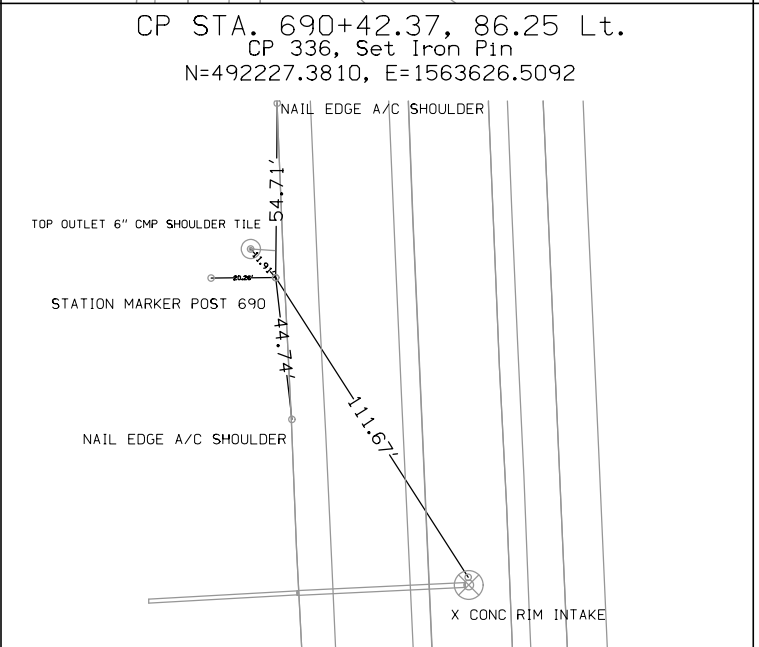
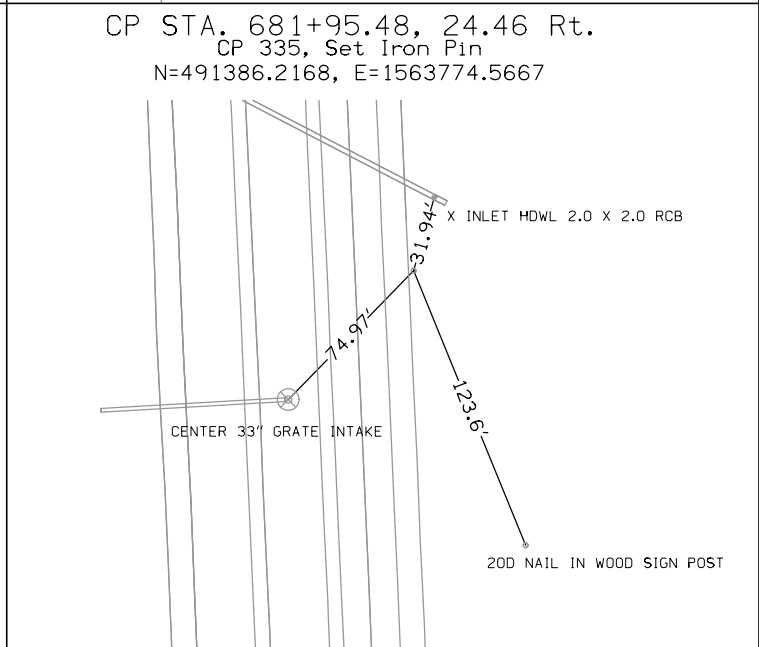
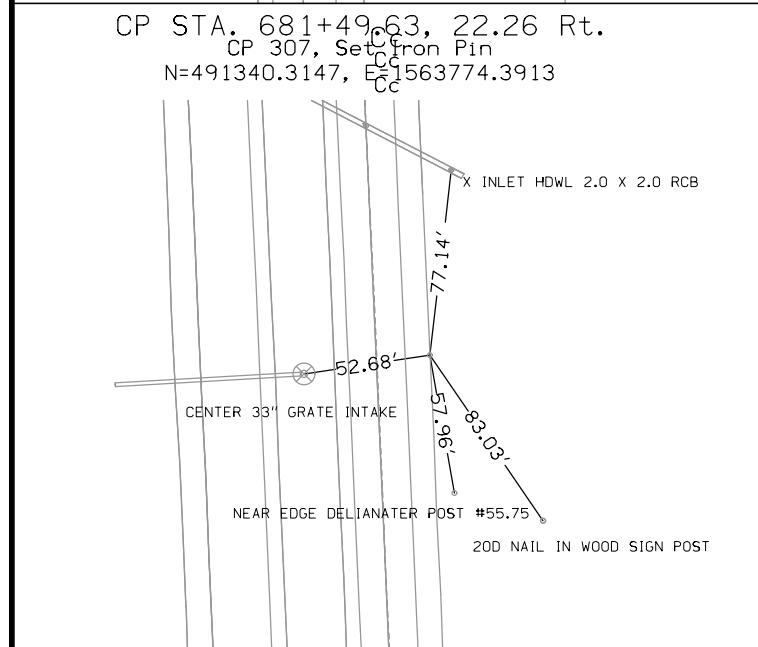
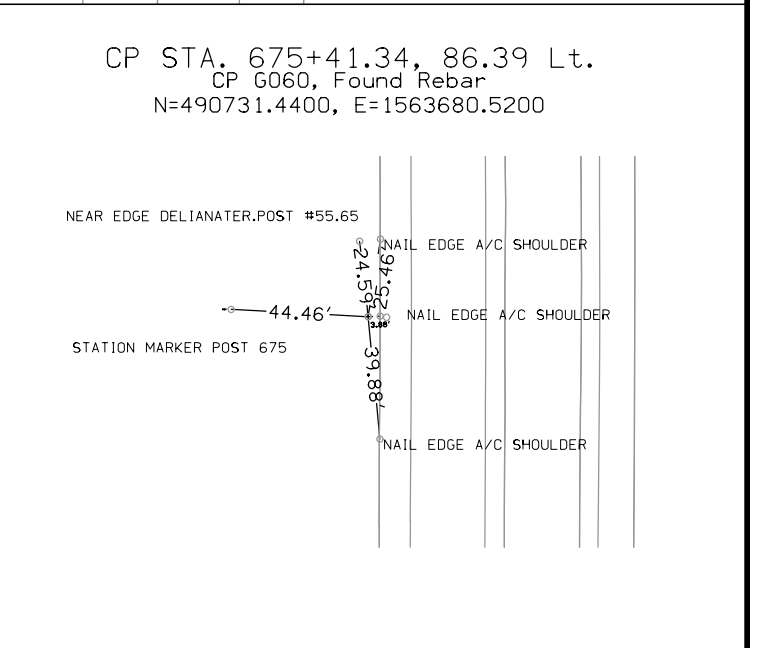
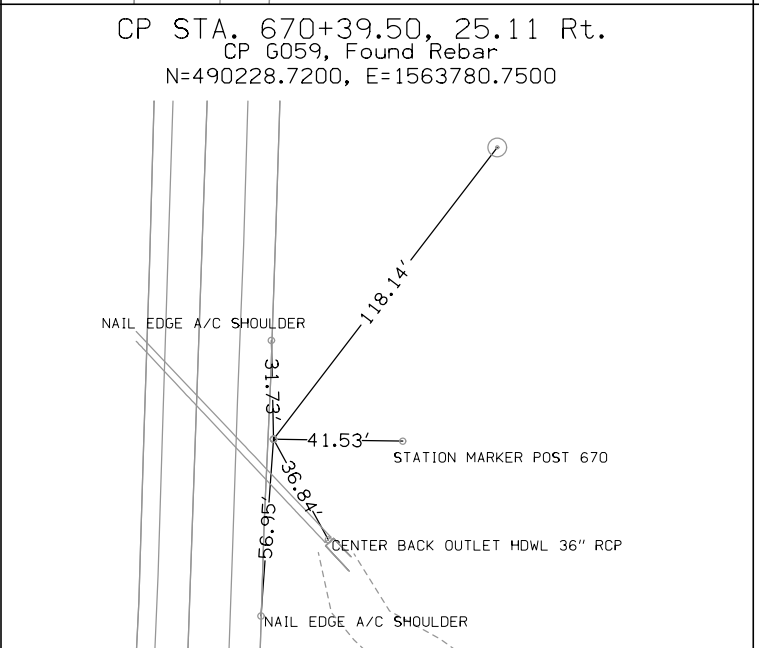
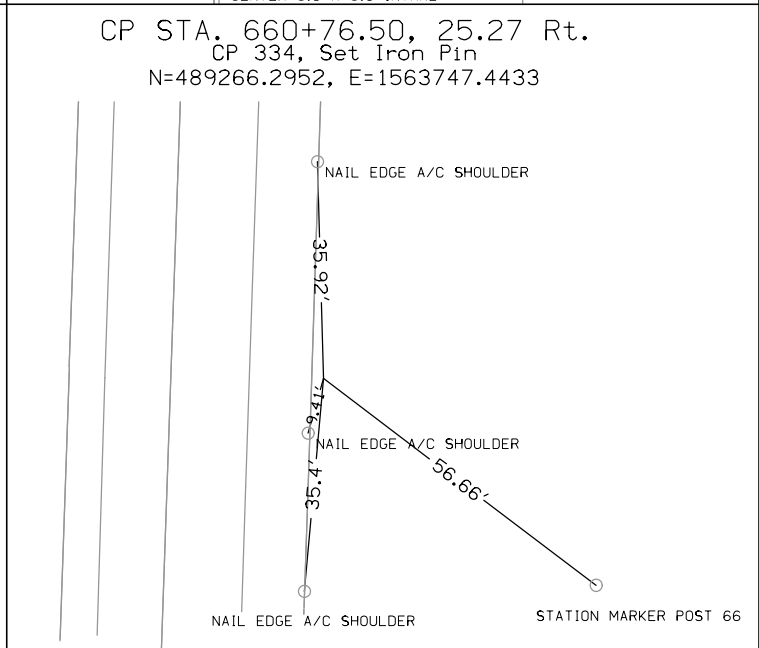
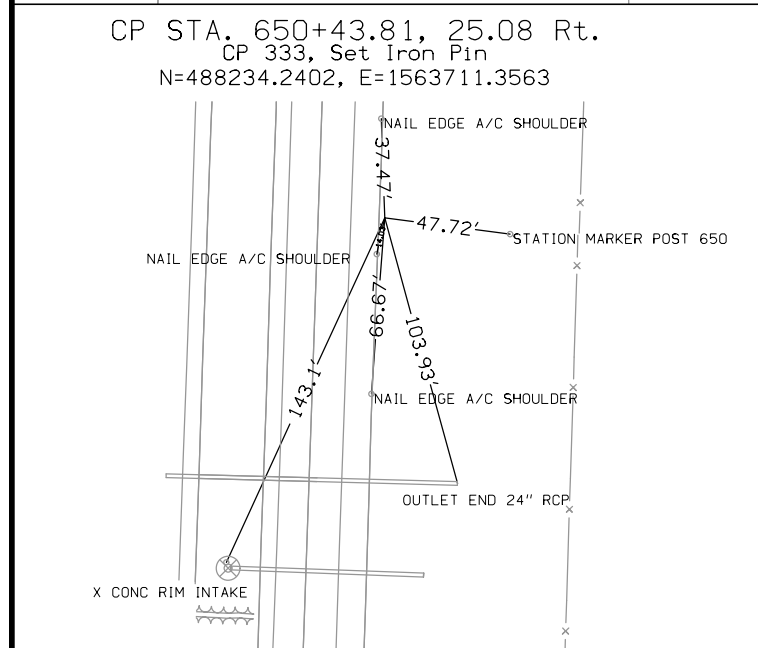
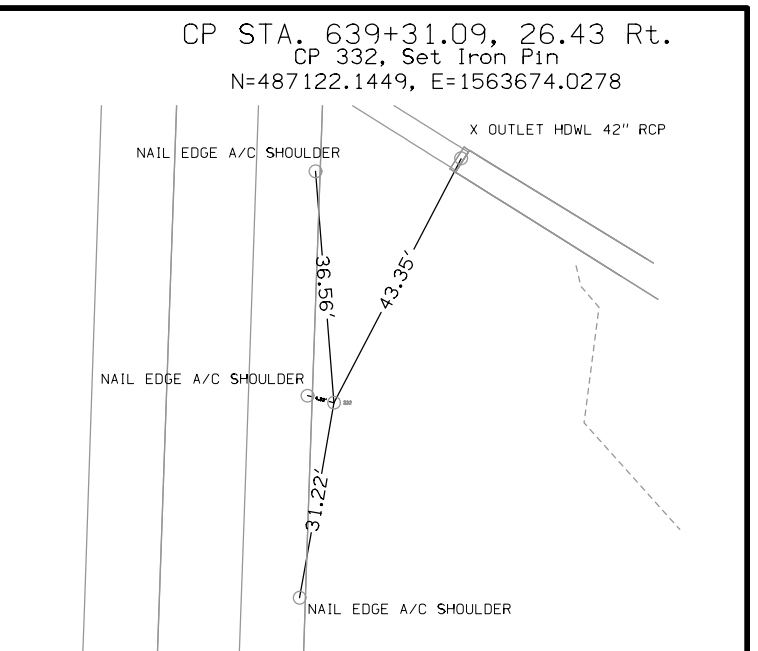
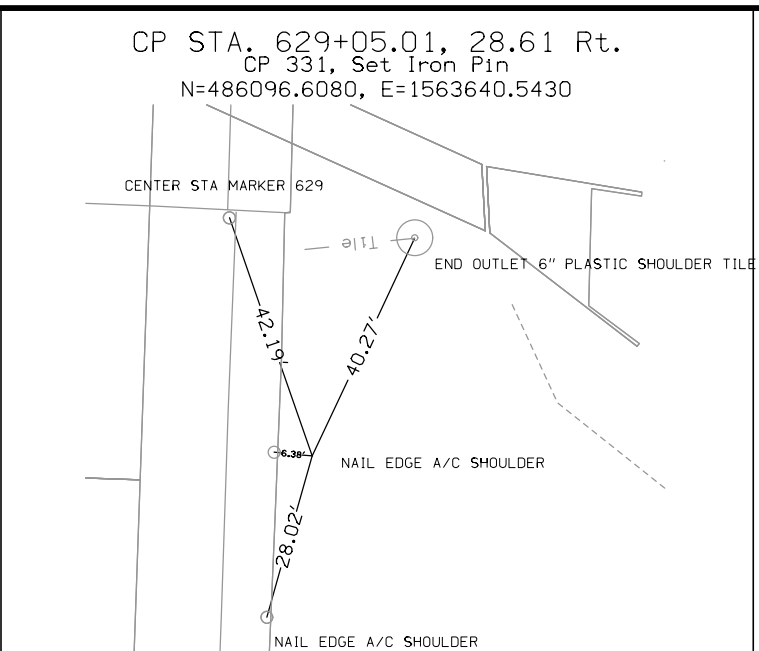
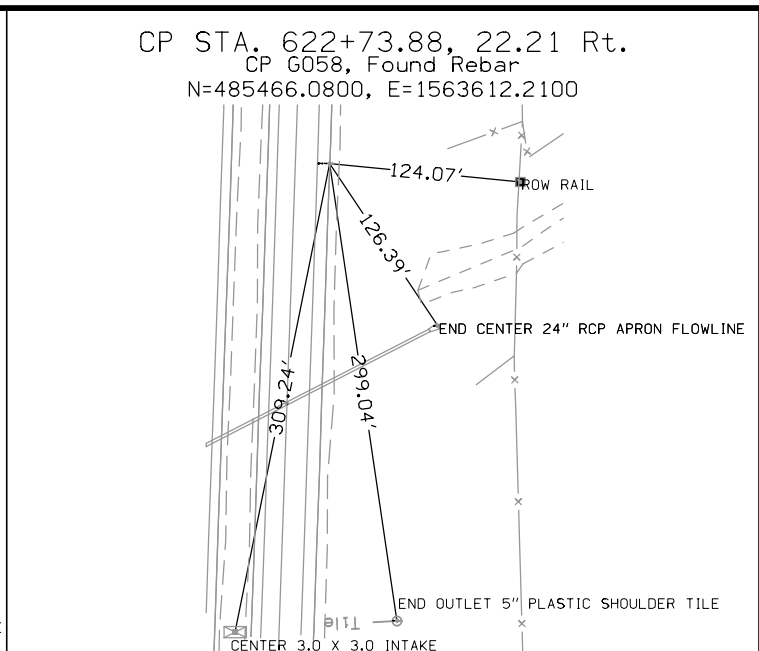
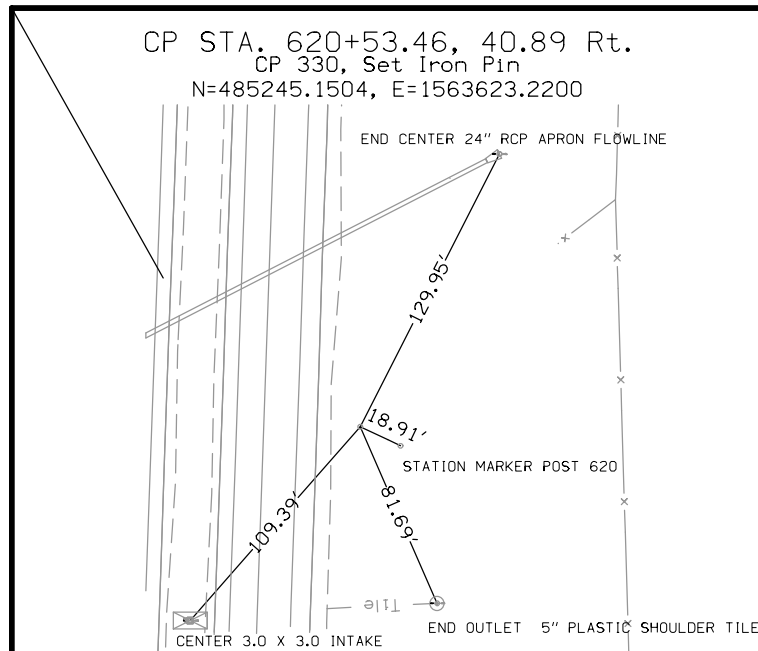
POC Sta. 652+49.75 This Survey
= POC Sta. 652+50.0 As-built Plans Project No. 764
= POC Sta. 0+00.00 As-built Plans Project No. 365

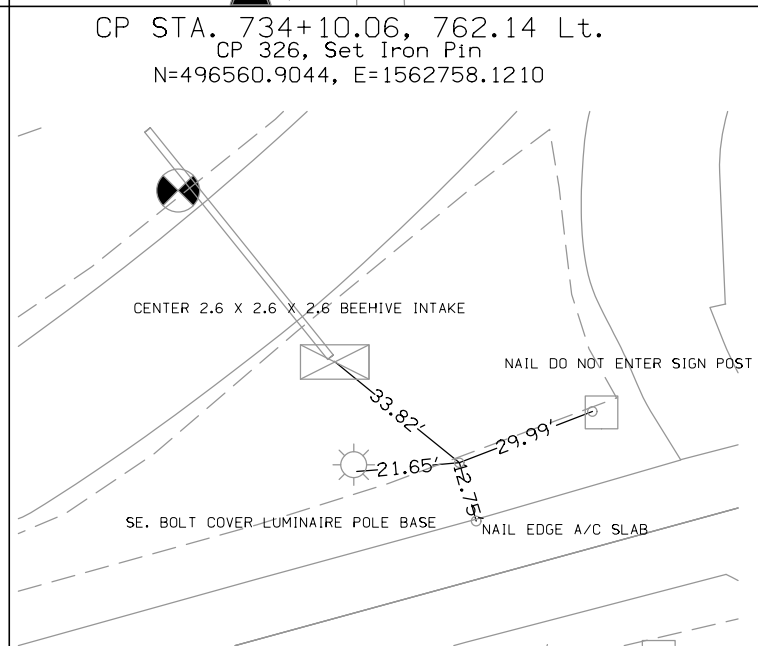
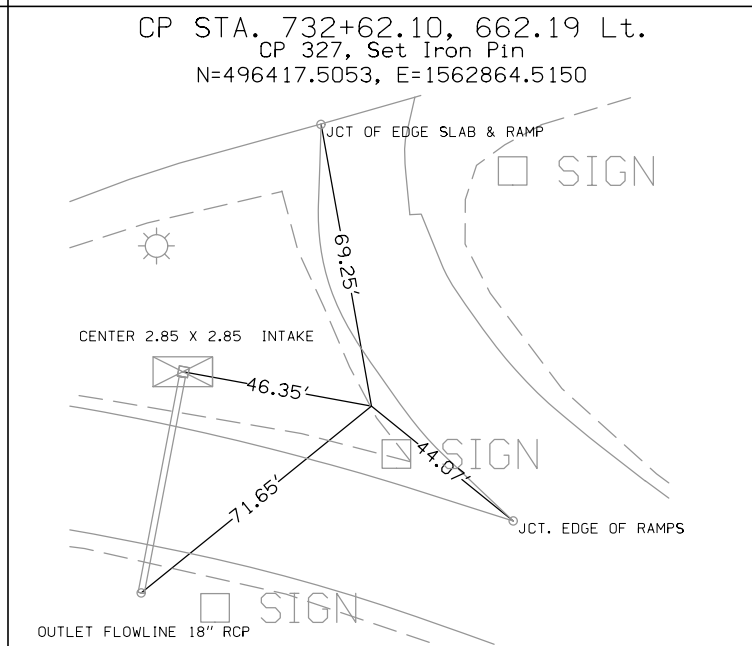
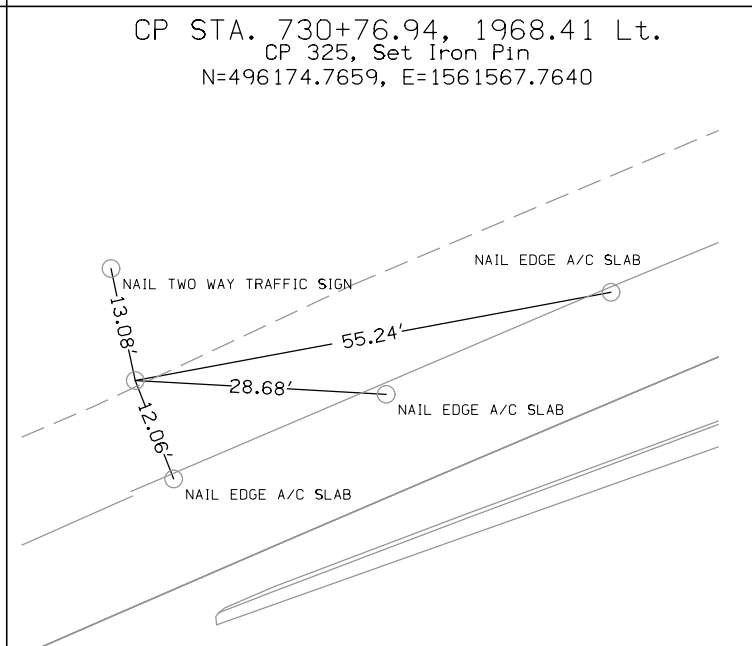
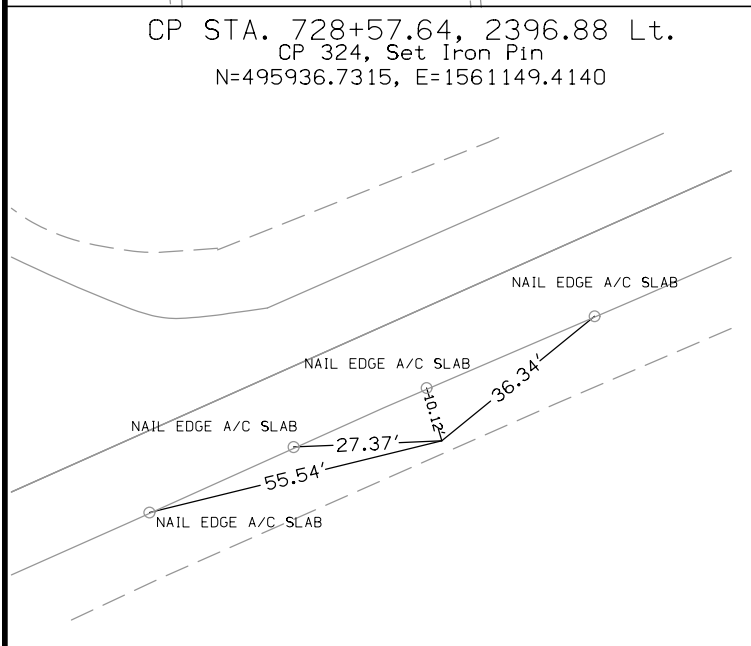
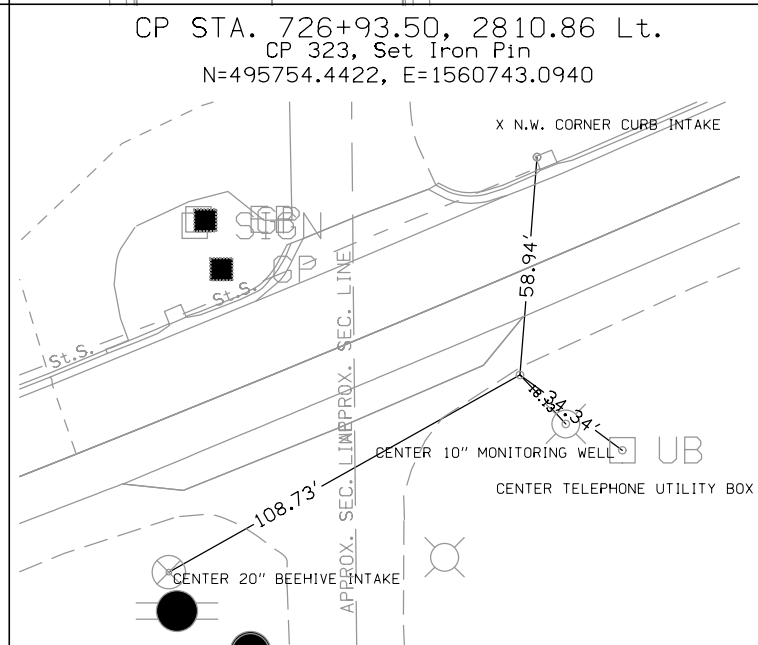
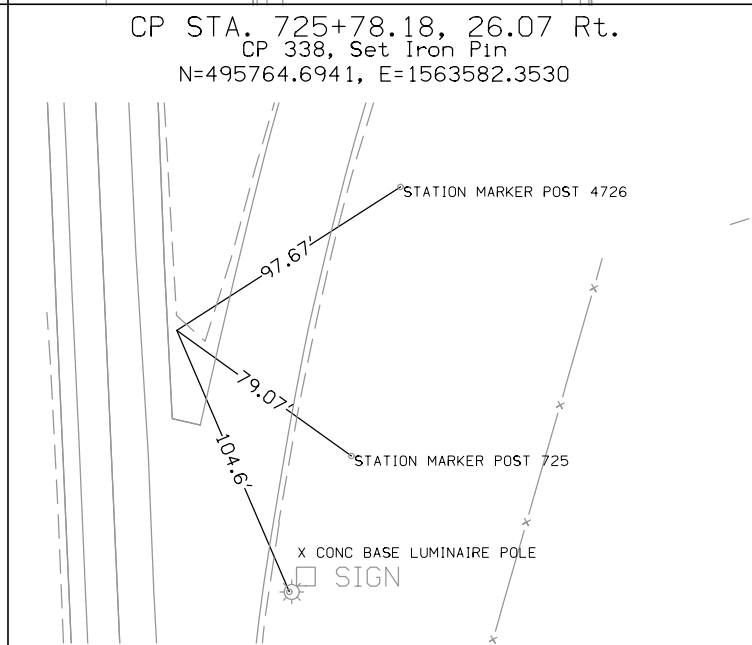
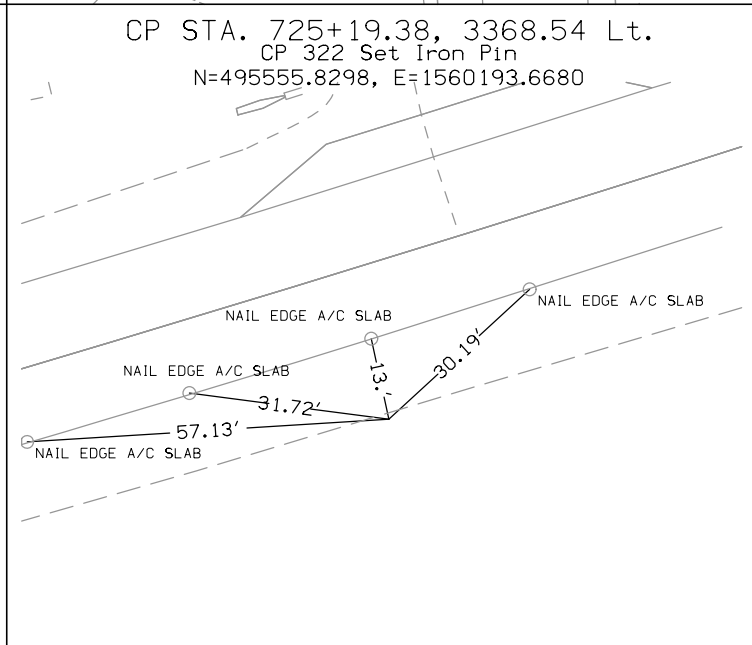
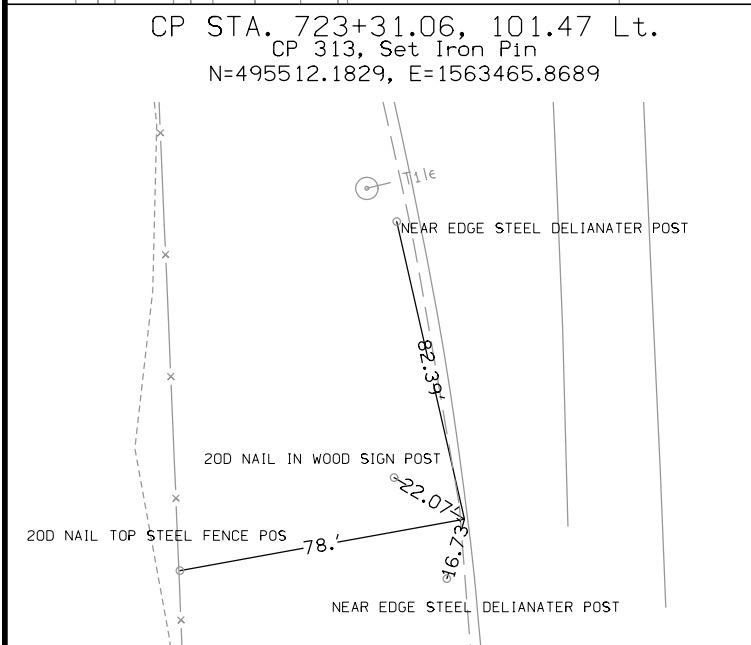
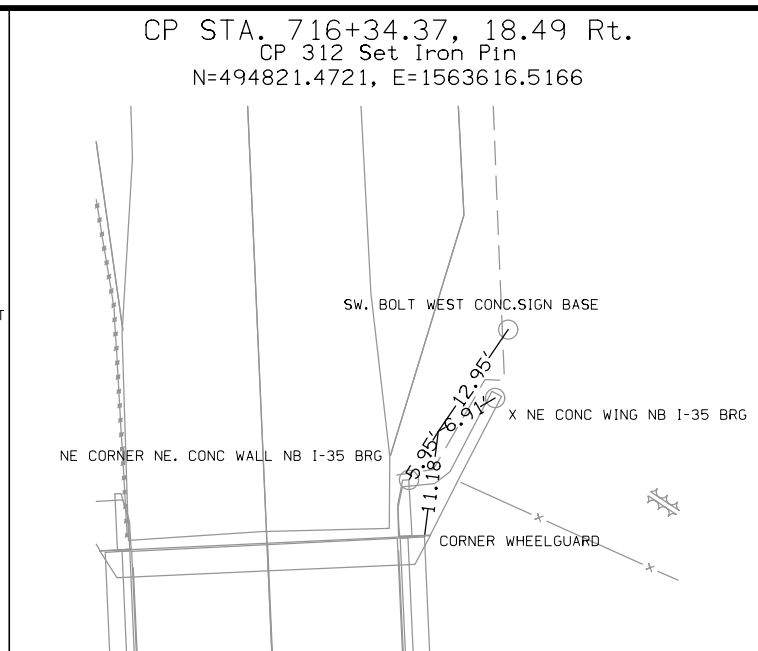
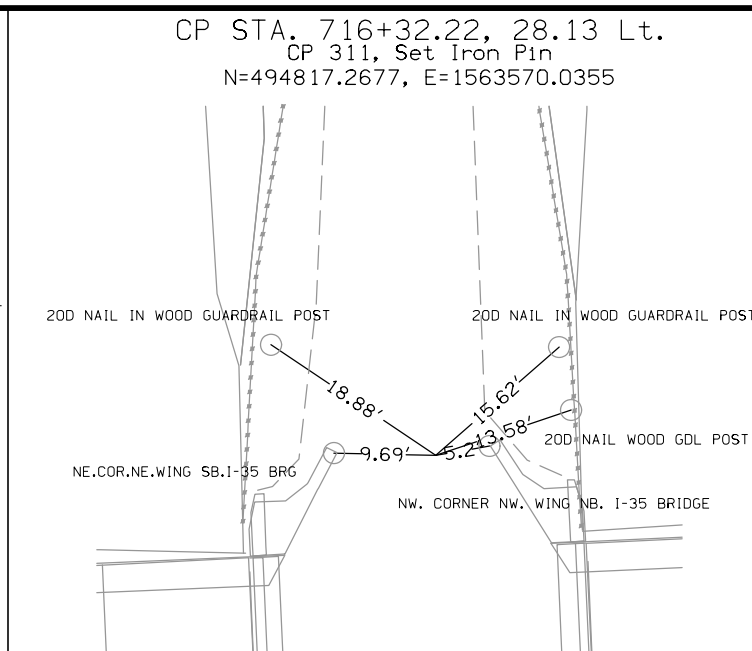
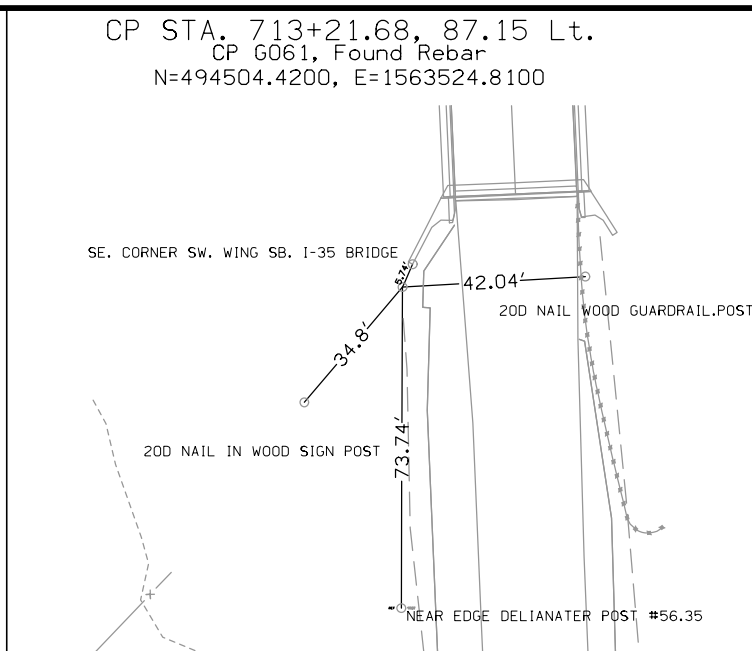
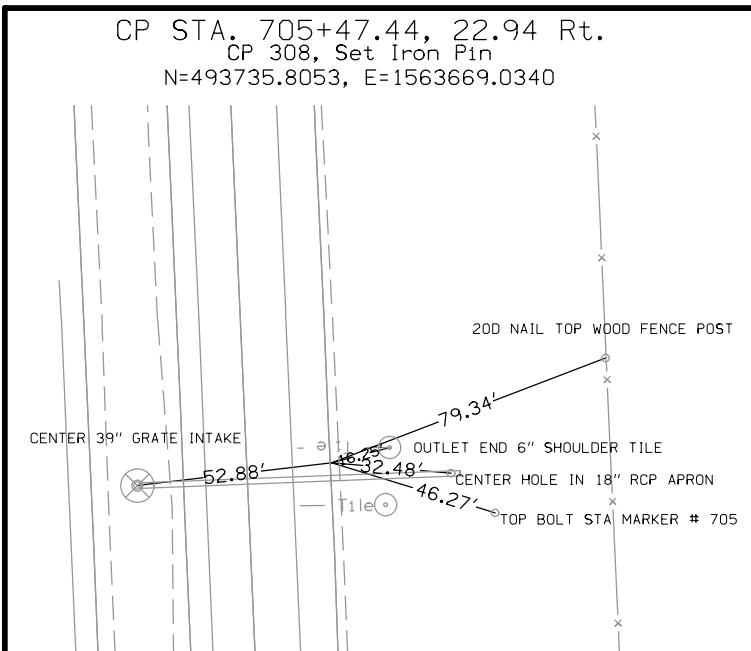
PI Sta. 13+35.1 This Survey
= PI Sta. 13+35.1 As-built Plans Project No. 365

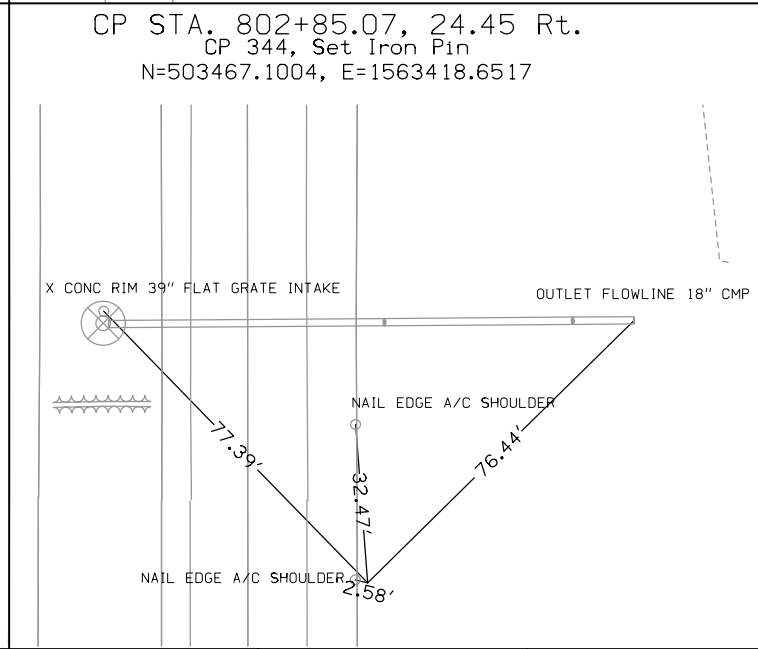
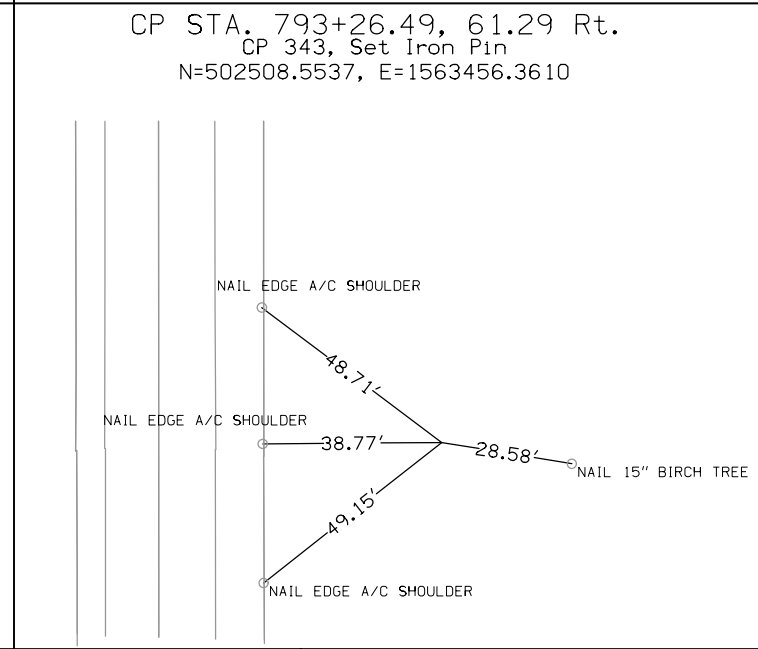
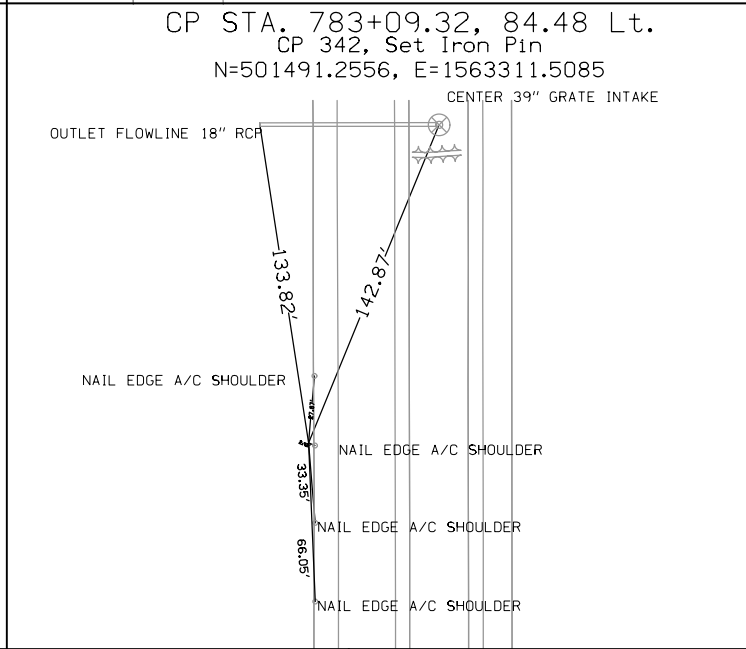
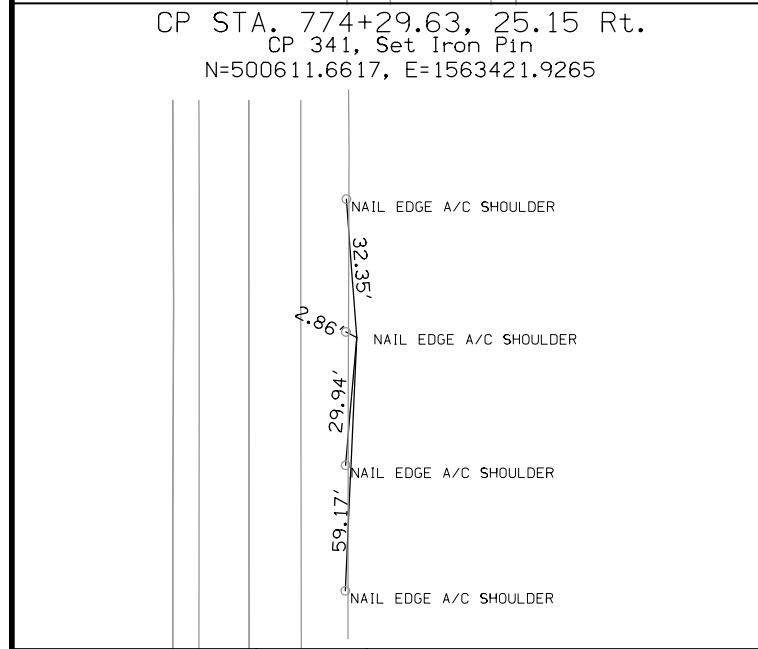
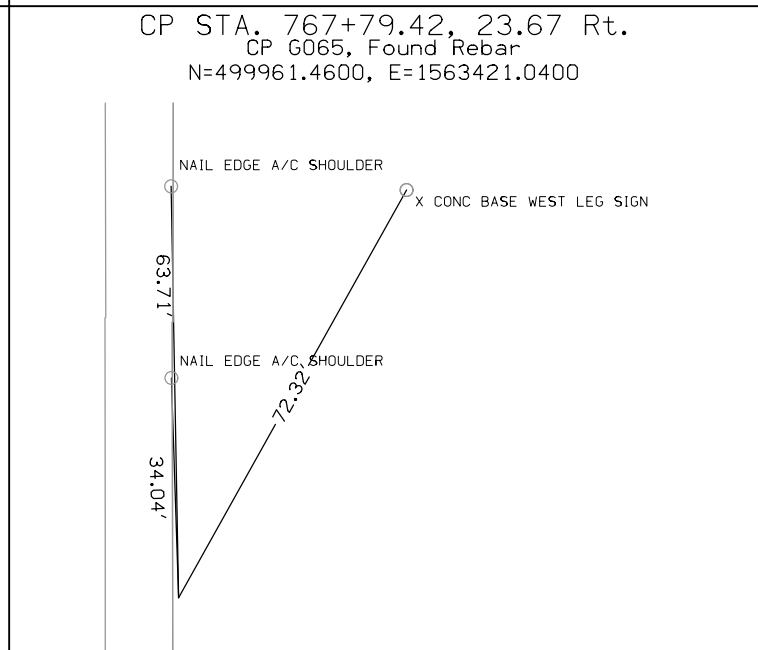
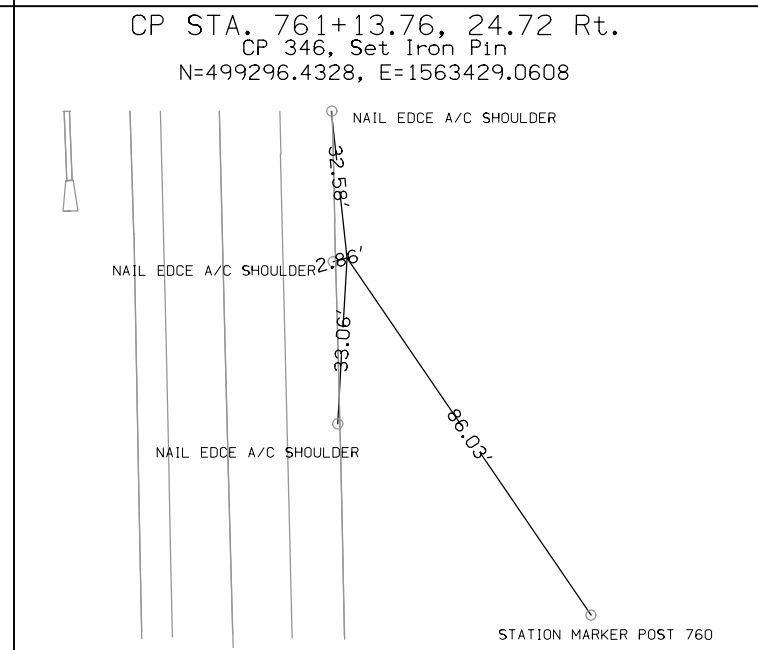
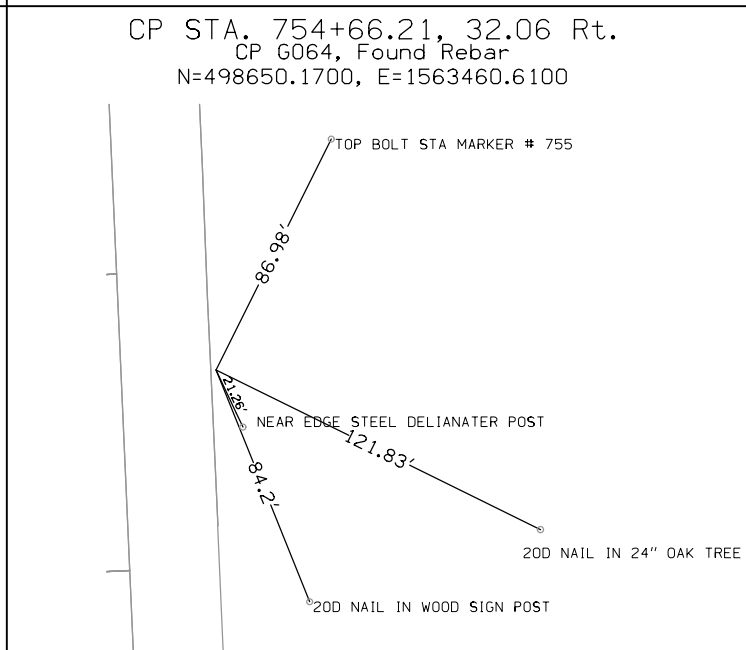
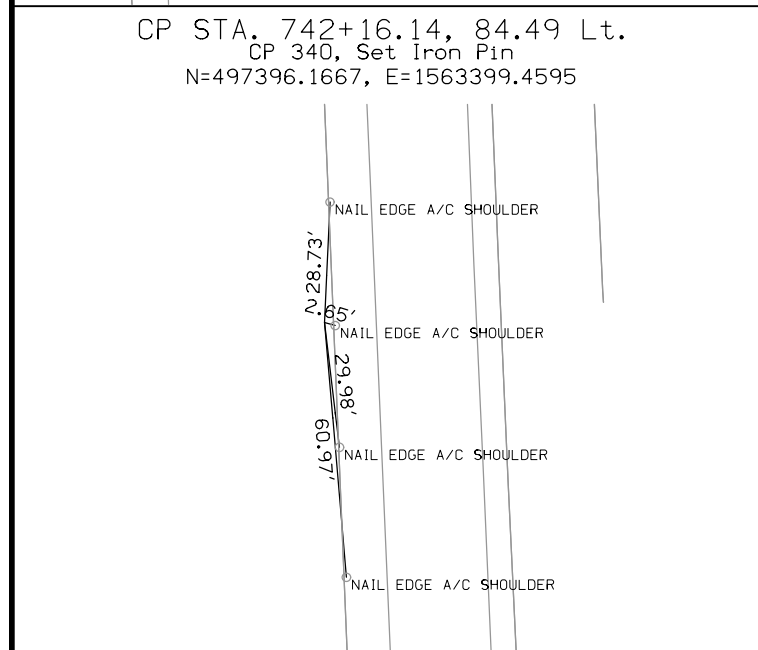
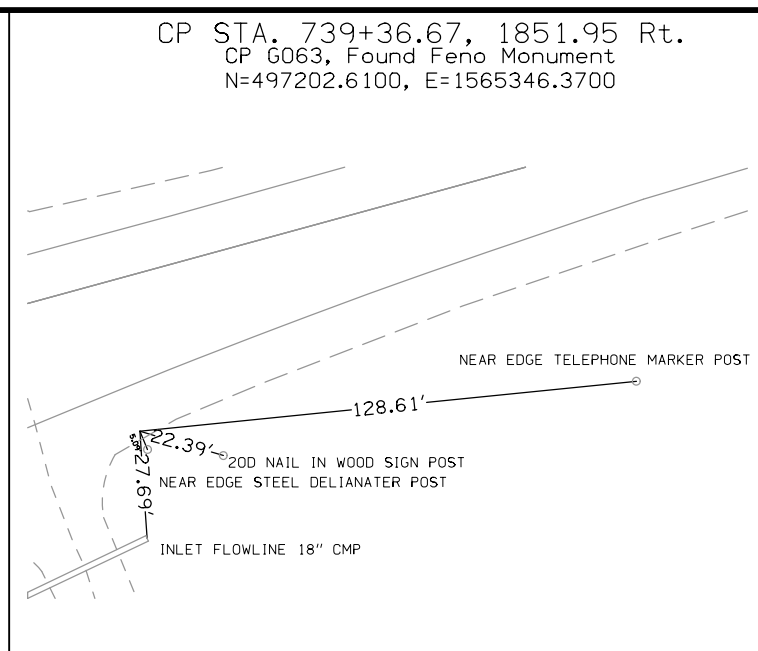
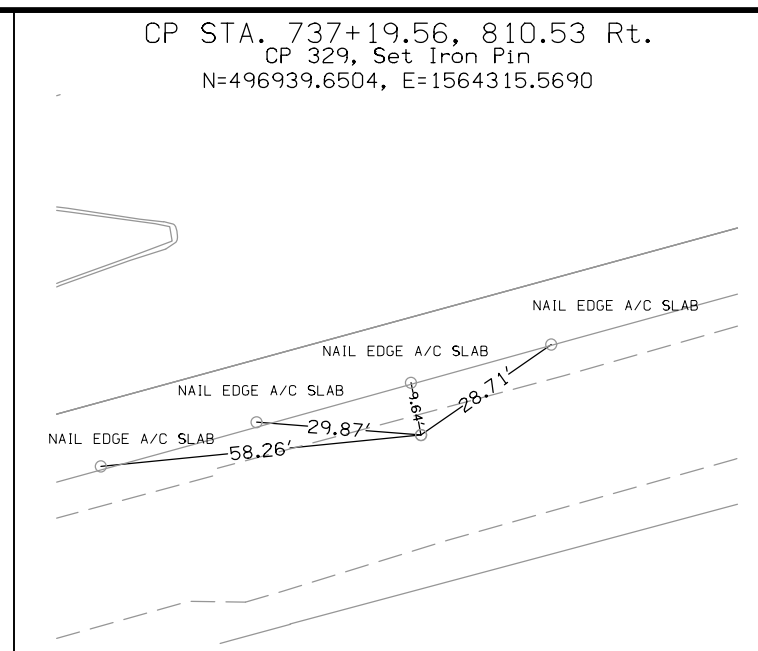
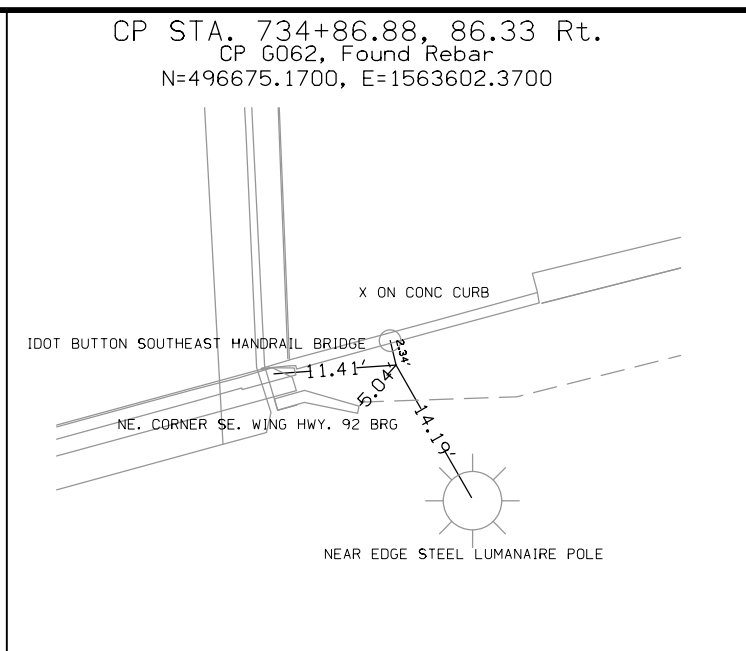
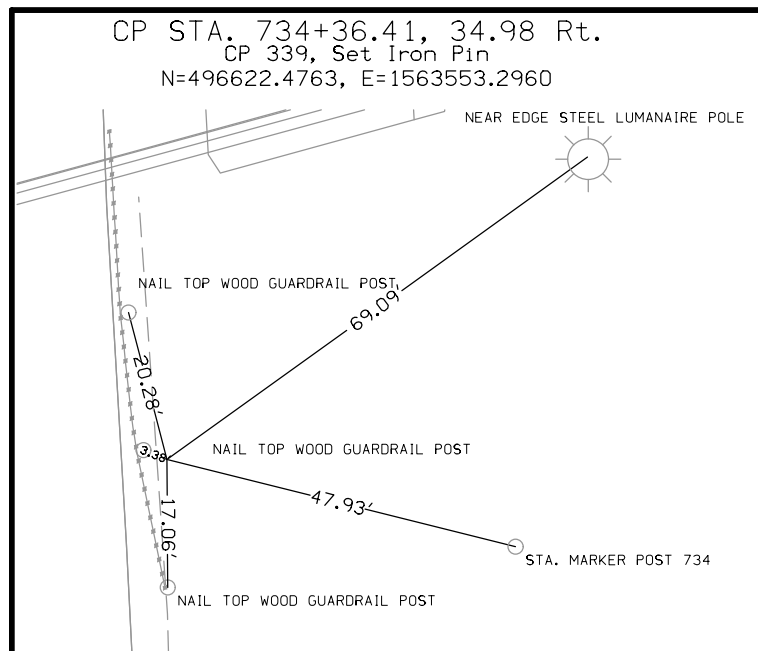
PI Sta. 85+56.53 This Survey
= PI Sta. 85+54.5 As-built Plans Project No. 365

VERTICAL CONTROL

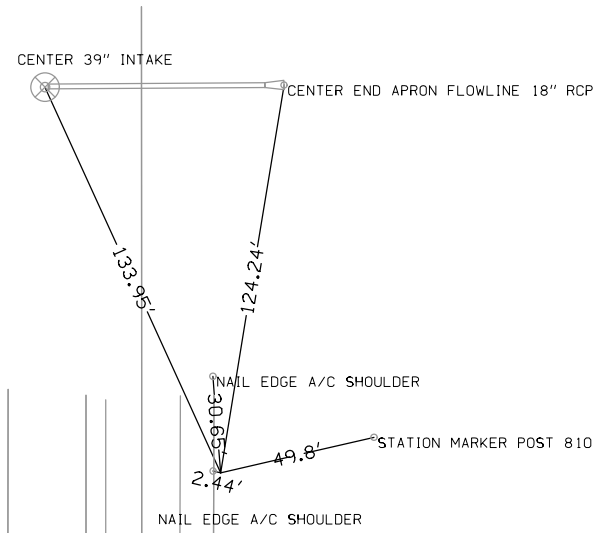
Point	North	East	Elevation	Station	Offset	Feature	Description
650	485705.8516	1563397.9480	890.2751	625+06.06	-200.2597	BM	SET RR/SPK E.SIDE FENCE POS
521	486218.0128	1563508.6797	865.0530	630+21.76	-107.3962	BM	IHCBM INLET HDWL 10.0 X 10.0 RCB 522 FROM PROJECT # IMN-35-2(314)67-0E-77
522	487160.5984	1563694.0503	881.9560	639+70.21	45.1006	BM	CUT X OUTLET HDWL 42" RCP FROM PROJECT # IMN-35-2(314)67-0E-77
651	488104.2335	1563651.5583	903.8872	649+11.80	-30.1639	BM	CUT X CONC RIM INTAKE
652	488938.4708	1563680.7606	920.1584	657+46.55	-29.9751	BM	CUT X CONC RIM INTAKE
524	489886.3295	1563805.6030	940.4430	666+98.18	61.8468	BM	FD "X" CONC BASE WEST SIGN POST FROM PROJECT # IMN-35-2(314)67-0E-77
525	490632.3753	1563809.6830	938.0020	674+42.89	43.3814	BM	FD "X" CONC BASE WEST SIGN POST FROM PROJECT # IMN-35-2(314)67-0E-77
526	491417.0004	1563783.2257	901.0640	682+25.85	34.4734	BM	FOUND X INLET HDWL 2.0 X 2.0 RCB FROM PROJECT # IMN-35-2(314)67-0E-77
653	492133.4291	1563686.8608	873.2333	689+45.84	-30.1136	BM	CUT X N.SIDE CONC RIM INTAKE
654	493017.1901	1563574.1270	843.1660	698+33.73	-103.6533	BM	CUT X E. SIDE EAST LEG CONC SIGN BASE
655	493773.8331	1563547.9799	844.5590	705+90.78	-96.3127	BM	CUT X E. SIDE CONC SIGN BASE SPEED LIMIT SIGN
528	494525.0214	1563630.0066	851.8320	713+37.61	18.8546	BM	CUT "X" SE WING N.BOUND MIDDLE RIVER BRG FROM PROJECT # IMN-35-2(314)67-0E-77
529	494809.6339	1563523.2394	853.7410	716+26.67	-75.2213	BM	CUT "X" NW WING WALL S. BOUND MIDDLE RIVER BRIDGE FROM PROJECT # IMN-35-2(314)67-0E-77
656	495668.6112	1563623.6900	843.0519	724+80.36	63.1188	BM	CUT X W. SIDE CONC BASE LUMINAIRE POLE
530	495660.2858	1563381.9054	844.2600	724+82.74	-178.7974	BM	SET RR. SPIKE EAST SIDE BRACE POST FROM PROJECT # IMN-35-2(314)67-0E-77
642	495686.5560	1560341.5970	845.3527	726+43.44	-3214.9695	BM	CUT X N.E. CONER UMBRELLA INTAKE
643	495813.2053	1560747.7040	847.5193	727+52.00	-2803.6588	BM	FOUND X N.W. CORNER CURB INTAKE
644	496011.7780	1561058.7790	847.4743	729+36.62	-2484.1064	BM	SET R/R SPK SOUTH SIDE POWER POLE
645	496152.1605	1561818.6000	844.1843	730+43.27	-1718.8204	BM	FOUND R/R SPK NORTH SIDE POWER POLE
646	496385.1048	1562692.8720	841.0590	732+37.32	-835.1020	BM	CUT X S. SIDE CONC BASE LUMINAIRE POLE
531	496674.3635	1563591.0520	866.1840	734+86.57	74.9915	BM	FD\IHC BM SE WING WALL E.BOUND IA 92 BRIDGE OVER I-35 FROM PROJECT # IMN-35-2(314)67-0E-77
532	496724.0917	1563386.6620	866.4160	735+45.29	-126.9993	BM	FD\IHC BM NW WING WALL W.BOUND IA 92 BRIDGE OVER I-35
647	497029.3210	1564382.7520	842.0040	738+06.17	881.6148	BM	CUT X S. SIDE CONC BASE LUMINAIRE POLE
648	497159.8665	1564918.4500	841.5007	739+12.90	1422.5619	BM	IHC BM INLET HDWL 8.0 X 6.0 RCB
649	497462.7108	1565848.0930	841.9057	741+74.33	2364.6885	BM	SET RR/SPK S. POWER POLE
657	497397.6371	1563202.7955	842.5433	742+26.31	-280.8987	BM	CUT X E. CONC BASE SIGN
664	497645.8095	1566485.6886	839.7690	743+29.05	3009.7577	BM	SET RR SPIKE NORTH SIDE POWER POLE
663	497757.7351	1567036.0160	835.2958	744+16.53	3564.4965	BM	FD IHC BM INLET HDWL 10.0 X 8.0 RCB= BM 631 PROJECT # STP-092-5(46)--2C-91
533	498072.3545	1563353.2623	851.4110	748+93.71	-100.7402	BM	FOUND X S.E. BOLT LUMINAIRE POLE FROM PROJECT # IMN-35-2(314)67-0E-77
658	499189.7906	1563580.0489	891.0636	760+02.59	172.7736	BM	CONC MONUMENT
659	500024.5859	1563456.3274	886.6145	768+42.52	59.0168	BM	CUT X CONC BASE WEST LEG SIGN
535	500906.8857	1563275.1905	881.8720	777+24.98	-121.3230	BM	FD IHC BM ON INLET HDWL 8.0 X 10.0 RCB FROM PROJECT # IMN-35-2(314)67-0E-77
660	501625.7480	1563366.2573	908.0083	784+43.76	-29.6068	BM	CUT X CONC RIM OF MEDIAN INTAKE
661	502725.9481	1563364.4949	928.5213	795+43.96	-30.3754	BM	CUT X CONC RIM OF MEDIAN INTAKE
662	503522.6278	1563364.7450	943.7922	803+40.64	-29.4056	BM	CUT X CONC RIM OF MEDIAN INTAKE
538	504918.9526	1563268.7150	975.4340	817+37.05	-124.1741	BM	CUT X CONC BASE EAST SIGN POST FROM PROJECT # IMN-35-2(314)67-0E-77
539	505965.3225	1563277.4060	1003.2270	827+79.35	-131.0278	BM	FD\IHC BM SW WINGWALL COUNTY RD BRG OVER I-35 FROM PROJECT # IMN-35-2(314)67-0E-77
551	517252.4154	1563536.1756	849.2050	940+77.56	-76.2111	BM	CUT "X" NW WING WALL SB BRIDGE NORTH RIVER
555	521994.4669	1563558.7750	933.7160	988+17.41	69.9330	BM	FD "X" ON E END OF S HANDRAIL FILLMORE ST. OVERPASS BRIDGE OF I-35 FROM PROJECT # IMN-35-2(314)67-0E-77
561	528890.2479	1563816.3160	896.2380	1057+22.31	37.0995	BM	CUT "X" OUTLET HDWL FLUME 42" R.C.P. FROM PROJECT # IMN-35-2(314)67-0E-77
562	530250.9641	1563668.2510	854.8730	1070+85.81	-82.3883	BM	CUT "X" SW WING SOUTH BOUND BRIDGE BADGER CREEK I-35
563	530451.1912	1563726.3607	849.5310	1072+84.78	-20.0908	BM	FD "X" NW WING OF NORTHBOUND BRIDGE BADGER CREEK I-35 FROM PROJECT # IMN-35-2(314)67-0E-77
565	533777.2827	1563752.9990	861.2010	1106+10.61	60.0547	BM	CUT "X" WEST SIGN POST CONC BASE FROM PROJECT # IMN-35-2(314)67-0E-77



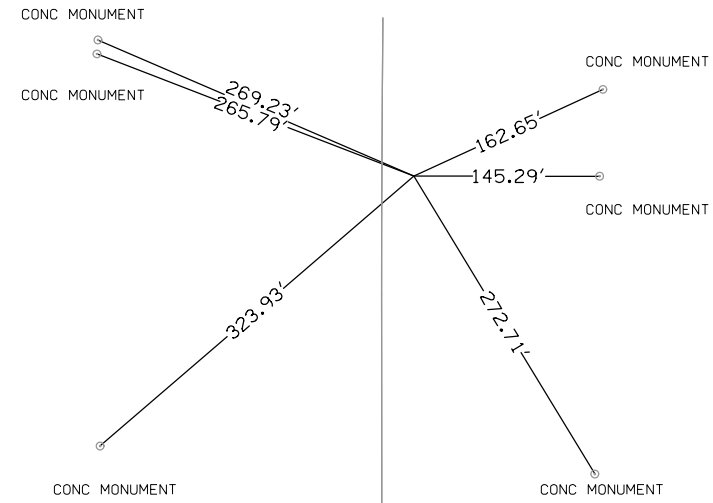




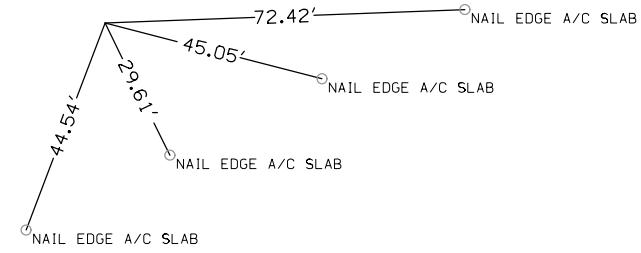
CP STA. 810+15.49, 24.89 Rt.
 CP 345, Set Iron Pin
 N=504197.5269, E=1563418.4347



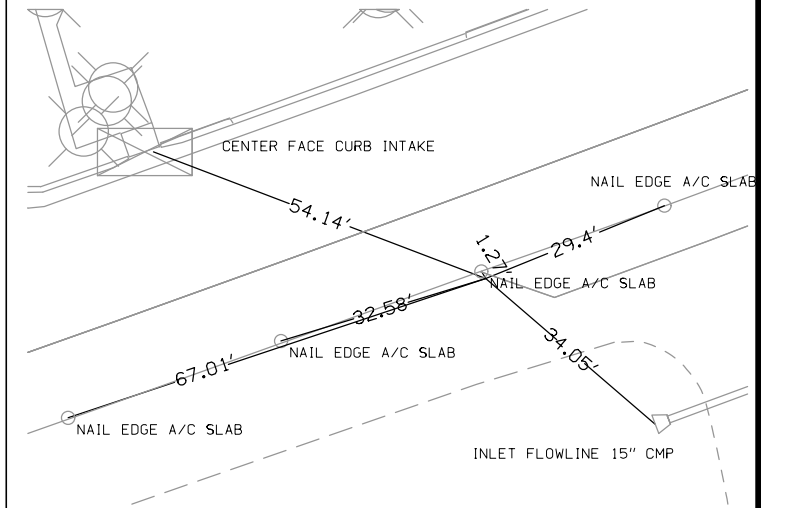
CP STA. 820+58.53, 25.09 Rt.
 CP 6065, Found Rebar
 N=499961.4600, E=1563421.0400



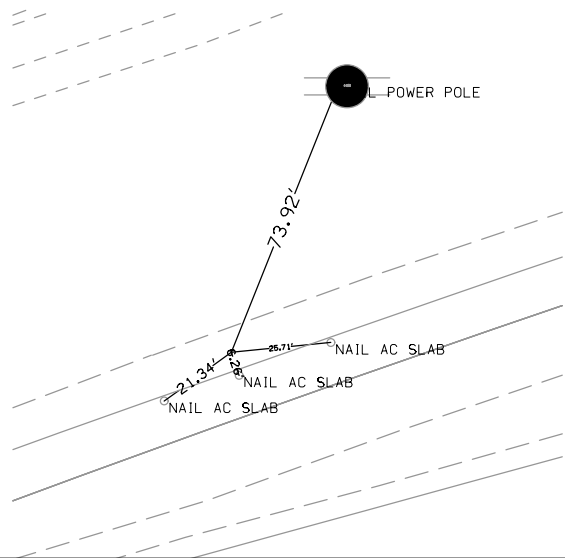
CP PI STA. 638+35.3 AB PLANS
 CP 218, Found Rebar
 N=495331.1229, E=1559339.7762



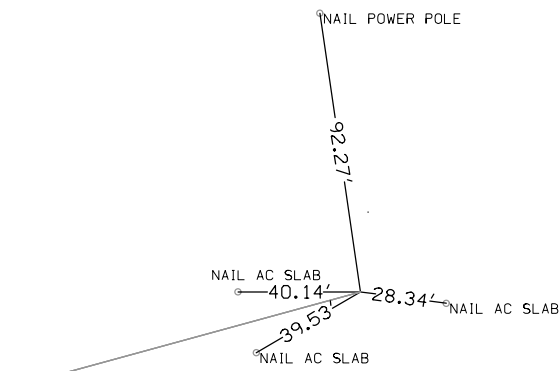
CP PI STA. 650+12.8 AB PLANS
 CP 219, Found Rebar
 N=495664.6778, E=1560481.2873



CP PI STA. 13+35.10 AB PLANS
 CP 220, Found Rebar
 N=496305.5413, E=1561918.0690



CP PI STA. 85+54.5 AB PLANS
 CP 222, Found Hnge Nail
 N=498211.6795, E=1568885.1521



ALIGNMENT COORDINATES

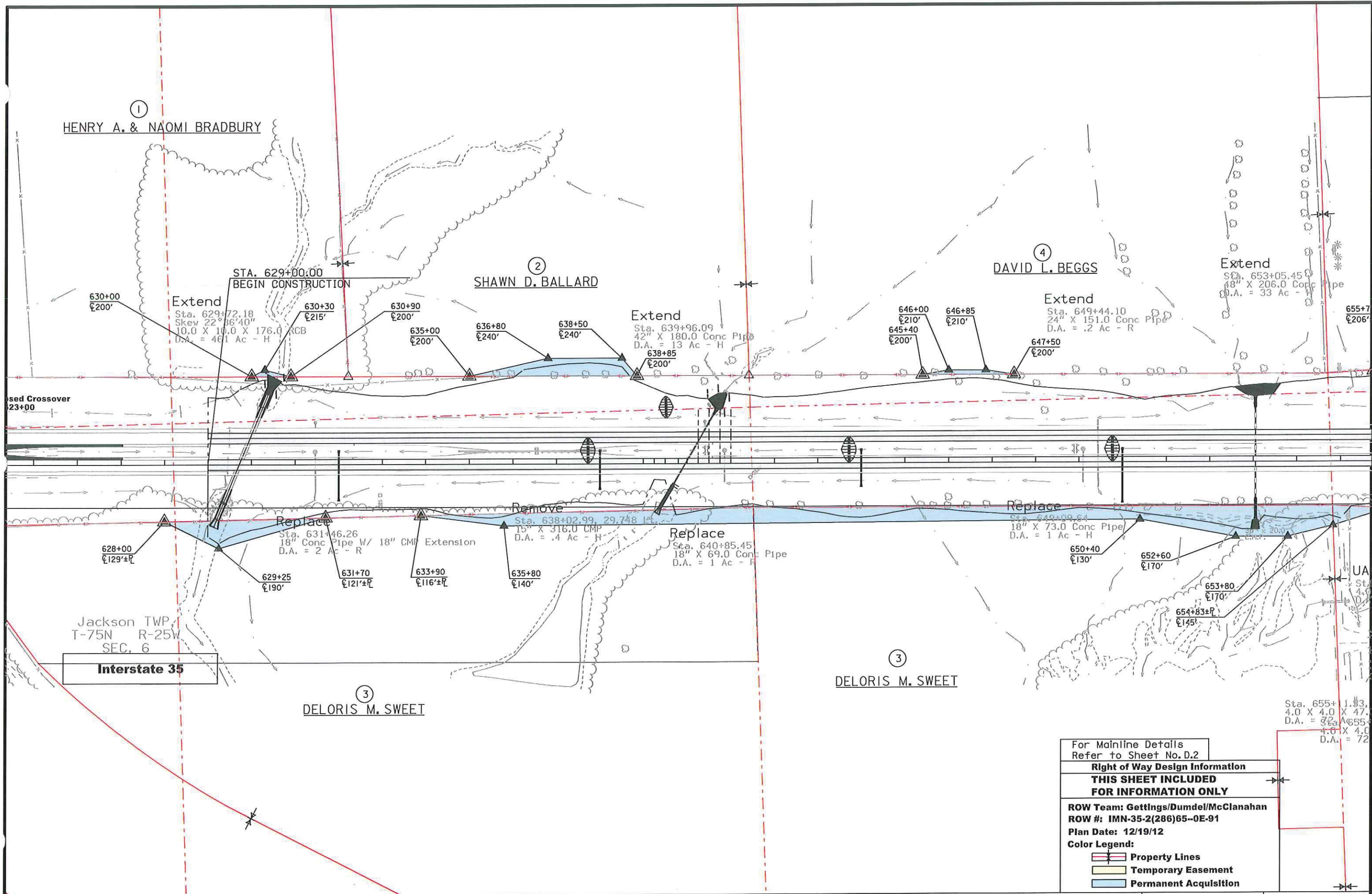
101-16
10-20-09

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)
200	I-35	603+44.13	483,538.27	1,563,522.94															
CUR1	I-35						671+65.05	490,355.07	1,563,760.02	676+17.05	490,806.79	1,563,775.73	680+68.57	491,258.35	1,563,755.74				
CUR2	I-35						756+66.00	498,848.34	1,563,419.75	761+59.44	499,341.30	1,563,397.93	766+52.72	499,834.74	1,563,397.48				
CUR3	I-35						819+66.07	505,148.09	1,563,392.68	822+75.83	505,457.85	1,563,392.40	825+85.54	505,767.45	1,563,402.22				
CUR4	I-35						909+11.30	514,089.03	1,563,666.19	914+07.78	514,585.26	1,563,681.93	919+03.99	515,081.57	1,563,668.99				
CUR5	I-35						989+93.29	522,168.47	1,563,484.28	994+55.29	522,630.32	1,563,472.25	999+16.79	523,091.62	1,563,497.61				
CUR6	I-35						1047+36.82	527,904.37	1,563,762.24	1052+33.22	528,400.03	1,563,789.50	1057+29.14	528,896.32	1,563,779.08				
CUR7	I-35						1092+41.49	532,407.89	1,563,705.40	1095+41.49	532,707.83	1,563,699.10	1098+41.48	533,007.82	1,563,697.38				
CUR8	I-35						1132+92.05	536,458.34	1,563,677.50	1135+92.05	536,758.33	1,563,675.77	1138+92.04	537,058.33	1,563,677.12				
C11	I-35						1193+49.33	542,515.56	1,563,701.62	1196+49.33	542,815.56	1,563,702.98	1199+49.33	543,115.56	1,563,702.44				
S3B	I-35				1272+28.92	550,395.14	1,563,689.28			1273+62.26	550,528.48	1,563,689.04				1274+28.92	550,595.12	1,563,691.24	
S3	I-35						1274+28.92	550,595.12	1,563,691.24	1281+32.64	551,298.45	1,563,714.53	1288+09.03	551,910.94	1,564,061.04				
S3A	I-35				1288+09.03	551,910.94	1,564,061.04			1288+75.71	551,968.98	1,564,093.87				1290+09.03	552,082.67	1,564,163.54	
C12	I-35						1312+15.15	553,963.72	1,565,316.19	1321+90.57	554,795.42	1,565,825.83	1330+95.46	555,765.31	1,565,722.05				
C13	I-35						1407+90.68	563,416.85	1,564,903.32	1410+94.02	563,718.47	1,564,871.04	1413+97.05	564,021.70	1,564,862.79				
C14	I-35						1542+34.02	576,853.92	1,564,513.37	1548+04.27	577,423.96	1,564,497.84	1553+74.09	577,993.77	1,564,520.14				
C15	I-35						1598+76.85	582,493.08	1,564,696.17	1602+47.59	582,863.54	1,564,710.66	1606+18.27	583,234.27	1,564,713.16				
216	I-35	1627+32.57	585,348.52	1,564,727.44															
218	HWY 92	652+49.75	495,331.12	1,559,339.78															
CUR9-1	HWY 92						660+52.60	495,556.30	1,560,110.40	663+64.58	495,643.81	1,560,409.86	666+75.95	495,763.45	1,560,697.99				
CUR9-2	HWY 92						666+75.95	495,763.45	1,560,697.99	667+50.09	495,791.88	1,560,766.47	668+24.22	495,822.08	1,560,834.17				
CUR10	HWY 92						675+73.55	496,127.32	1,561,518.51	680+11.05	496,305.54	1,561,918.07	684+46.85	496,420.99	1,562,340.06				
222	HWY 92	752+32.48	498,211.68	1,568,885.15															
34000	RAMP A	1533+41.31	496,593.36	1,562,970.06															
34001	RAMP A						1536+65.02	496,917.07	1,562,968.36	1538+33.58	497,085.63	1,562,967.47	1539+94.73	497,232.94	1,563,049.39				
34002	RAMP A						1543+44.73	497,451.43	1,563,170.89	1545+73.85	497,739.07	1,563,330.84	1548+90.00	498,068.11	1,563,338.18				
34003	RAMP A	1549+50.00	498,128.09	1,563,339.52															
35000	RAMP B	2521+75.00	495,366.15	1,563,696.02															
35001	RAMP B						2522+35.00	495,426.14	1,563,697.36	2525+72.27	495,763.33	1,563,704.89	2528+95.62	496,056.18	1,563,872.19				
35002	RAMP B						2531+45.62	496,273.26	1,563,996.20	2533+18.15	496,423.06	1,564,081.78	2534+82.74	496,595.59	1,564,080.88				
35003	RAMP B	2537+83.99	496,896.83	1,564,079.29															
36000	RAMP C	3521+00.00	495,281.76	1,563,485.54															
36001	RAMP C						3521+00.00	495,281.76	1,563,485.54	3522+40.23	495,421.70	1,563,476.54	3523+80.00	495,559.02	1,563,448.10				
36002	RAMP C						3523+80.00	495,559.02	1,563,448.10	3526+98.00	495,870.41	1,563,383.60	3530+10.73	496,146.44	1,563,225.71				
36003	RAMP C	3535+25.59	496,593.36	1,562,970.06															
37000	RAMP D	4535+82.23	496,896.83	1,564,079.29															
37001	RAMP D						4538+99.73	497,158.54	1,563,899.53	4543+02.69	497,490.96	1,563,671.38	4546+95.00	497,885.28	1,563,589.65				
37002	RAMP D						4546+95.00	497,885.27	1,563,589.65	4548+35.23	498,022.59	1,563,561.21	4549+75.00	498,162.53	1,563,552.21				
37003	RAMP D	4549+75.00	498,162.53	1,563,552.21															
37004	RAMP D	4558+74.16	499,059.84	1,563,494.47															
CUR W_DETOUR-1	W_DETOUR						10+00.00	495,728.94	1,560,625.20	13+63.89	495,882.84	1,560,954.94	17+27.02	495,999.05	1,561,299.77				
CUR W_DETOUR-2	W_DETOUR						17+27.02	495,999.05	1,561,299.77	19+06.57	496,056.38	1,561,469.92	20+86.03	496,123.01	1,561,636.65				
CUR W_DETOUR-3	W_DETOUR						20+86.03	496,123.01	1,561,636.65	24+23.94	496,248.40	1,561,950.43	27+61.24	496,340.64	1,562,275.51				
CUR E_DETOUR-1	E_DETOUR						101+21.22	497,131.15	1,565,135.14	103+51.48	497,196.43	1,565,355.95	105+81.54	497,277.14	1,565,571.60				
CUR E_DETOUR-2	E_DETOUR						105+81.54	497,277.14	1,565,571.60	108+78.28	497,381.15	1,565,849.51	111+74.61	497,459.46	1,566,135.74				
70	TEMP_RAMP_W	65+00.00	496,566.17	1,563,095.26															
71	TEMP_RAMP_W	65+72.48	496,634.92	1,563,072.31															
CUR TEMP_RAMP_W-1	TEMP_RAMP_W						65+72.48	496,634.92	1,563,072.31	68+53.05	496,901.05	1,562,983.48	71+02.21	497,148.23	1,563,116.22				
CUR TEMP_RAMP_E-1	TEMP_RAMP_E						85+00.00	496,488.72	1,564,072.50	87+24.98	496,710.76	1,564,108.71	89+22.83	496,830.94	1,564,298.91				
65	TEMP_LOOP_E	100+00.00	496,301.96	1,563,862.13															
CUR TEMP_LOOP_E-1	TEMP_LOOP_E						101+16.57	496,405.75	1,563,915.19	101+75.77	496,458.47	1,563,942.14	102+33.65	496,517.34	1,563,948.44				
CUR TEMP_LOOP_E-2	TEMP_LOOP_E						102+33.65	496,517.34	1,563,948.44	102+72.34	496,555.80	1,563,952.56	103+10.08	496,593.03	1,563,942.04				

SUPERELEVATION DATA

See PV-300 Series

Road Identification	Circular Curve or Spiral Curve Name	Radius	Superelevation Data			Standard Road Plan	Section A-A	Section B-B	Section C-C	Section D-D	Section E-E	Section F-F	Case A	Case B	Case C	Case S	Case T	Case U	Remarks
			e %	L FT	x FT														
RAMP A	34001	643	6.0	155	52	PV-303	1535+04.52	1535+56.52	1536+65.02	1537+11.52					1536+08.19	1537+11.52			
							1541+55.23	1541+03.23	1539+94.73	1539+48.23					1540+51.56	1539+48.23			
RAMP A	34002	1330	6.0	186	62	PV-303	1541+76.53		1542+44.73	1543+00.53					1541+76.53	1543+00.53			
							1549+58.20		1548+90.00	1548+34.20					1549+58.20	1548+34.20			
RAMP B	35001	1330	6.0	186	62	PV-303	2521+66.80		2522+35.00	2522+90.80					2521+66.80	2522+90.80			
							2529+63.82		2528+95.62	2528+39.82					2529+63.82	2528+39.82			
RAMP B	35002	643	6.0	155	52	PV-303	2529+85.12	2530+37.12	2531+45.62	2531+92.12					2530+88.79	2531+92.12			
							2536+43.24	2535+91.24	2534+82.74	2534+36.24					2535+39.57	2534+36.24			
RAMP C	36001	2000	5.4	168	62	PV-303													
									3523+80.00	3523+29.60					3524+35.38				Full Super - Refer to PV-411
RAMP C	36002	2000	5.4	168	62	PV-303			3523+80.00	3524+30.40					3523+24.62				Full Super - Refer to PV-411
									3530+10.73	3529+60.33					3530+66.11				
RAMP D	37001	2000	5.4	168	62	PV-303													
									4546+95.00	4546+44.60					4547+50.38				Full Super - Refer to PV-411
RAMP D	37002	2000	5.4	168	62	PV-303			4546+95.00	4547+45.40					4546+39.62				Full Super - Refer to PV-411
									4549+75.00	4549+24.60					4550+30.38				

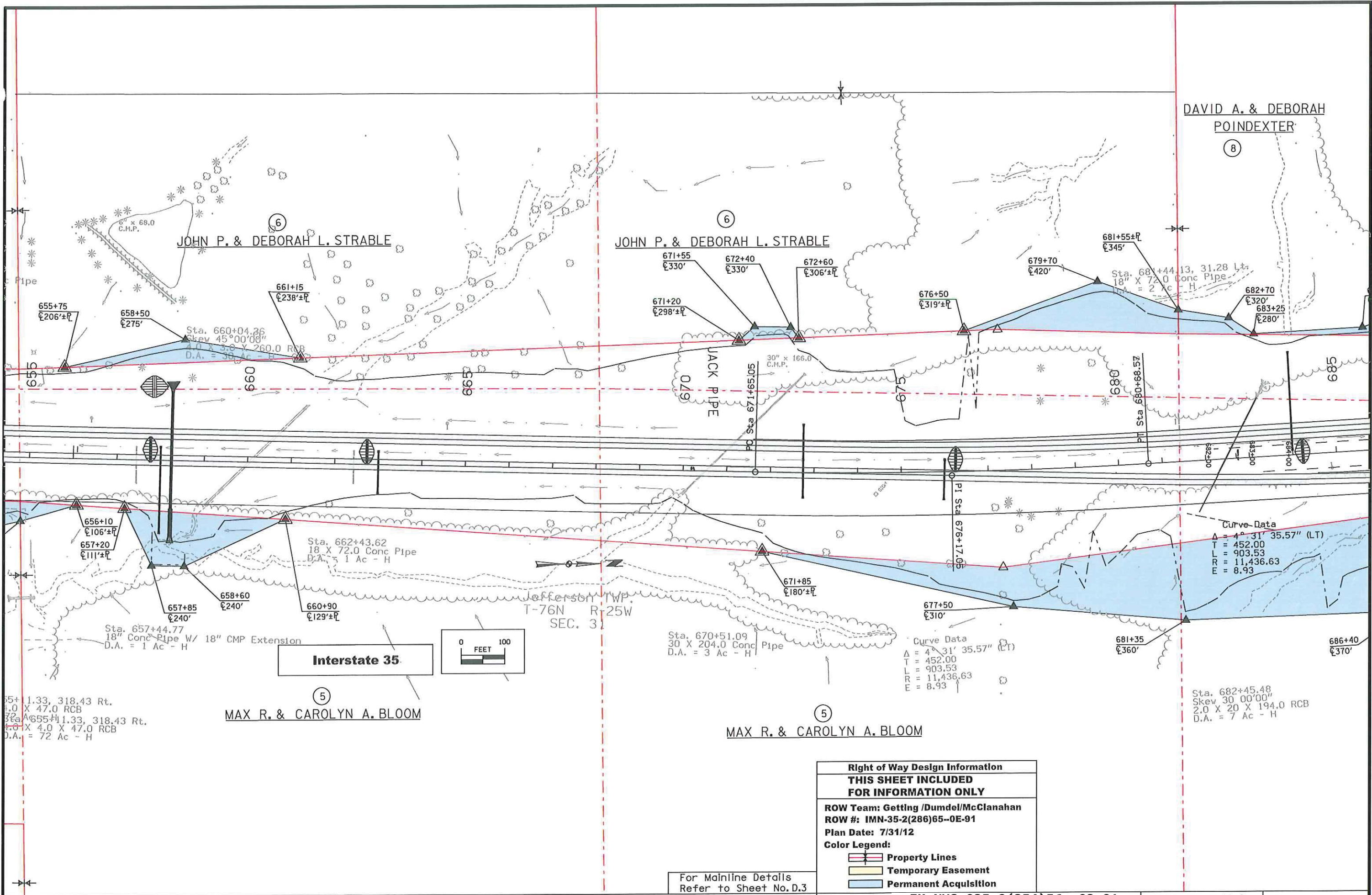


For Mainline Details
Refer to Sheet No. D.2

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Gettings/Dumdel/McClanahan
ROW #: IMN-35-2(286)65-0E-91
Plan Date: 12/19/12

Color Legend:
 [Red Line] Property Lines
 [Yellow Area] Temporary Easement
 [Blue Area] Permanent Acquisition



DAVID A. & DEBORAH POINDEXTER
 (8)

JOHN P. & DEBORAH L. STRABLE
 (6)

JOHN P. & DEBORAH L. STRABLE
 (6)

MAX R. & CAROLYN A. BLOOM
 (5)

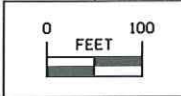
MAX R. & CAROLYN A. BLOOM
 (5)

Jefferson TWP.
 T-76N R-25W
 SEC. 3

Curve Data
 $\Delta = 4^{\circ} 31' 35.57''$ (LT)
 T = 452.00
 L = 903.53
 R = 11,436.63
 E = 8.93

Curve Data
 $\Delta = 4^{\circ} 31' 35.57''$ (LT)
 T = 452.00
 L = 903.53
 R = 11,436.63
 E = 8.93

Interstate 35

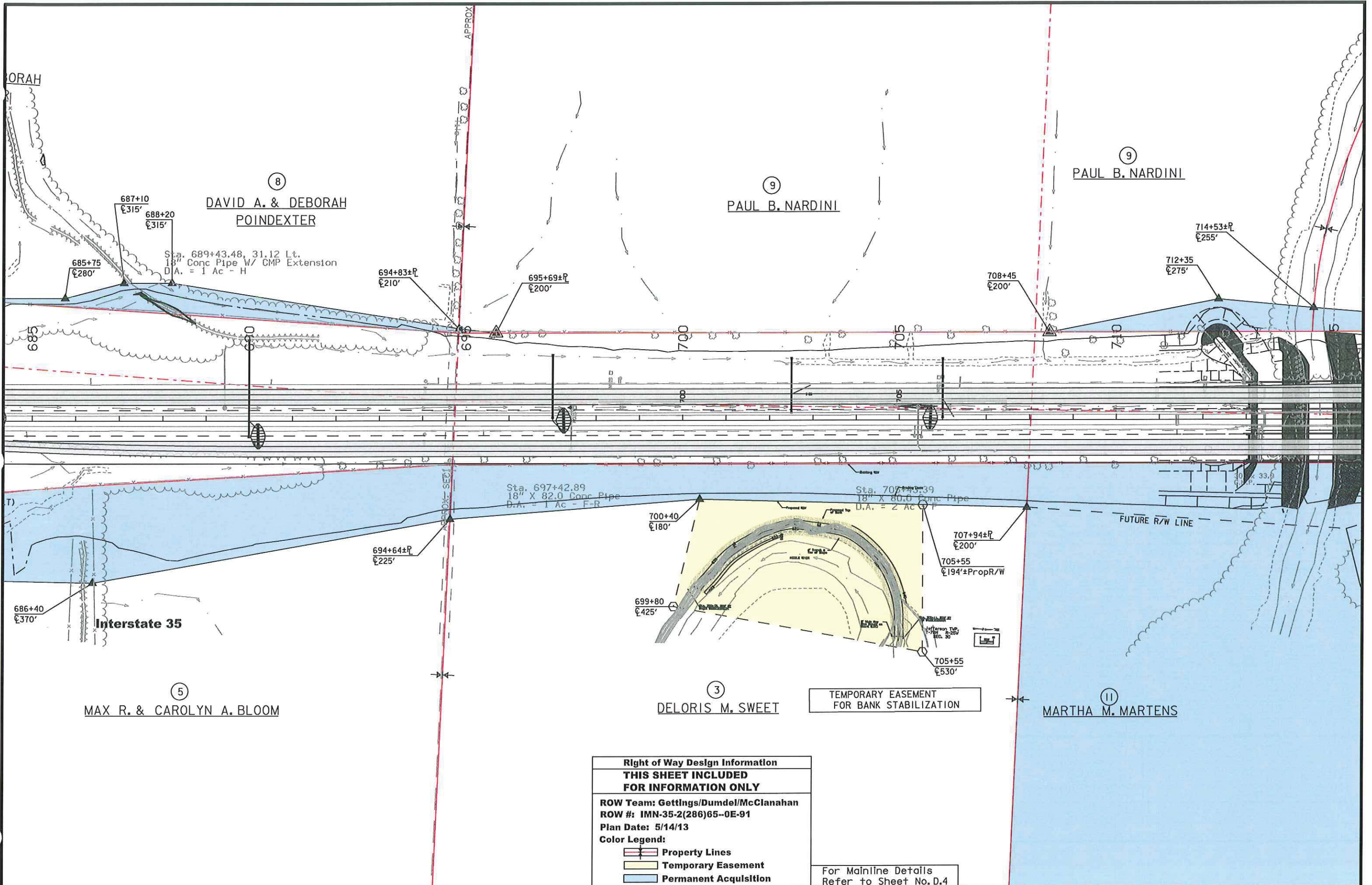


Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Gettling /Dumdel/McClanahan
 ROW #: IMN-35-2(286)65--0E-91
 Plan Date: 7/31/12

Color Legend:
 [Red Line] Property Lines
 [Yellow Area] Temporary Easement
 [Blue Area] Permanent Acquisition

For Mainline Details
 Refer to Sheet No. D.3



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Gettlings/Dumdel/McClanahan	
ROW #: IMN-35-2(286)65-0E-91	
Plan Date: 5/14/13	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

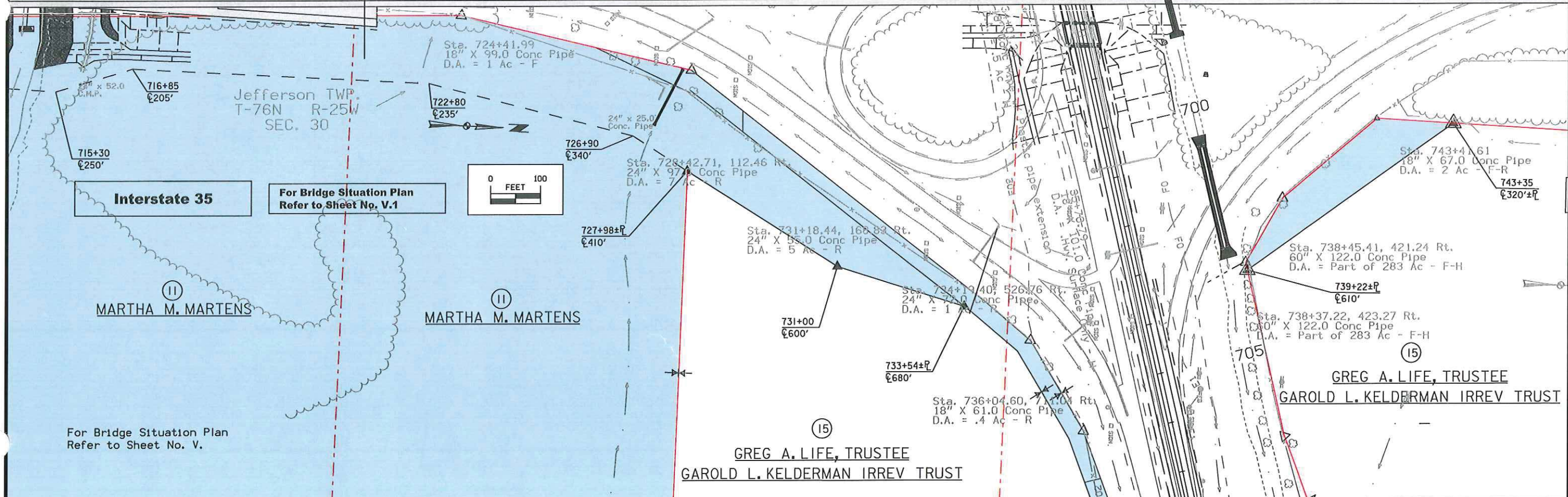
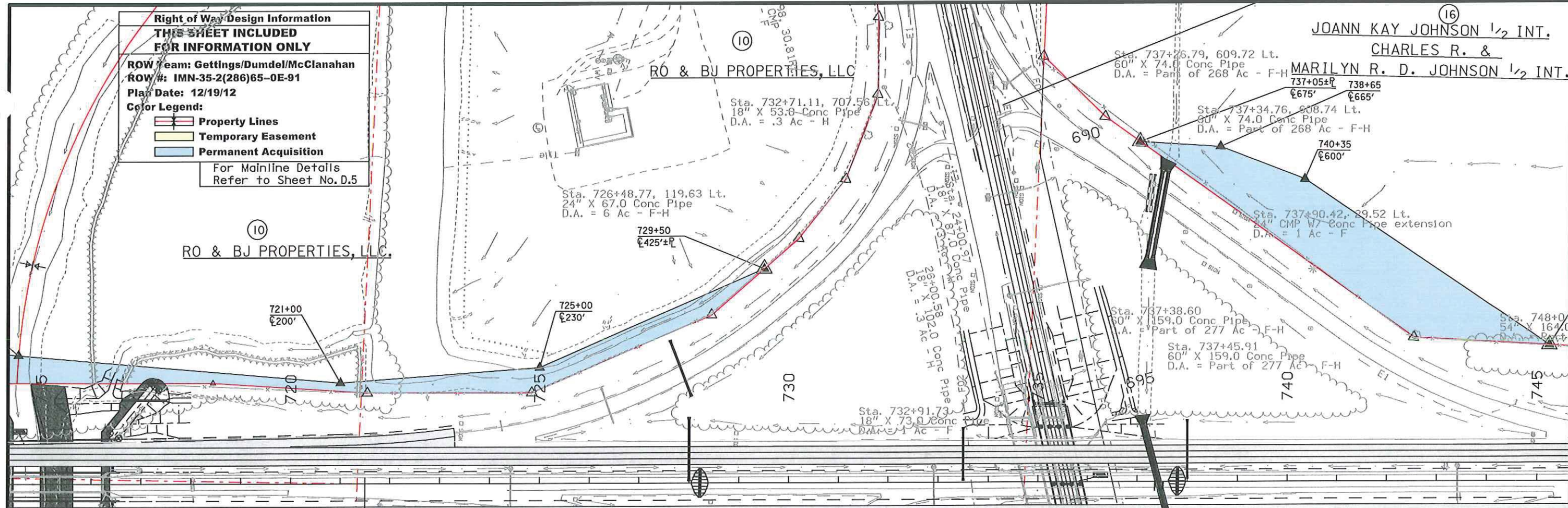
For Mainline Details Refer to Sheet No. D.4

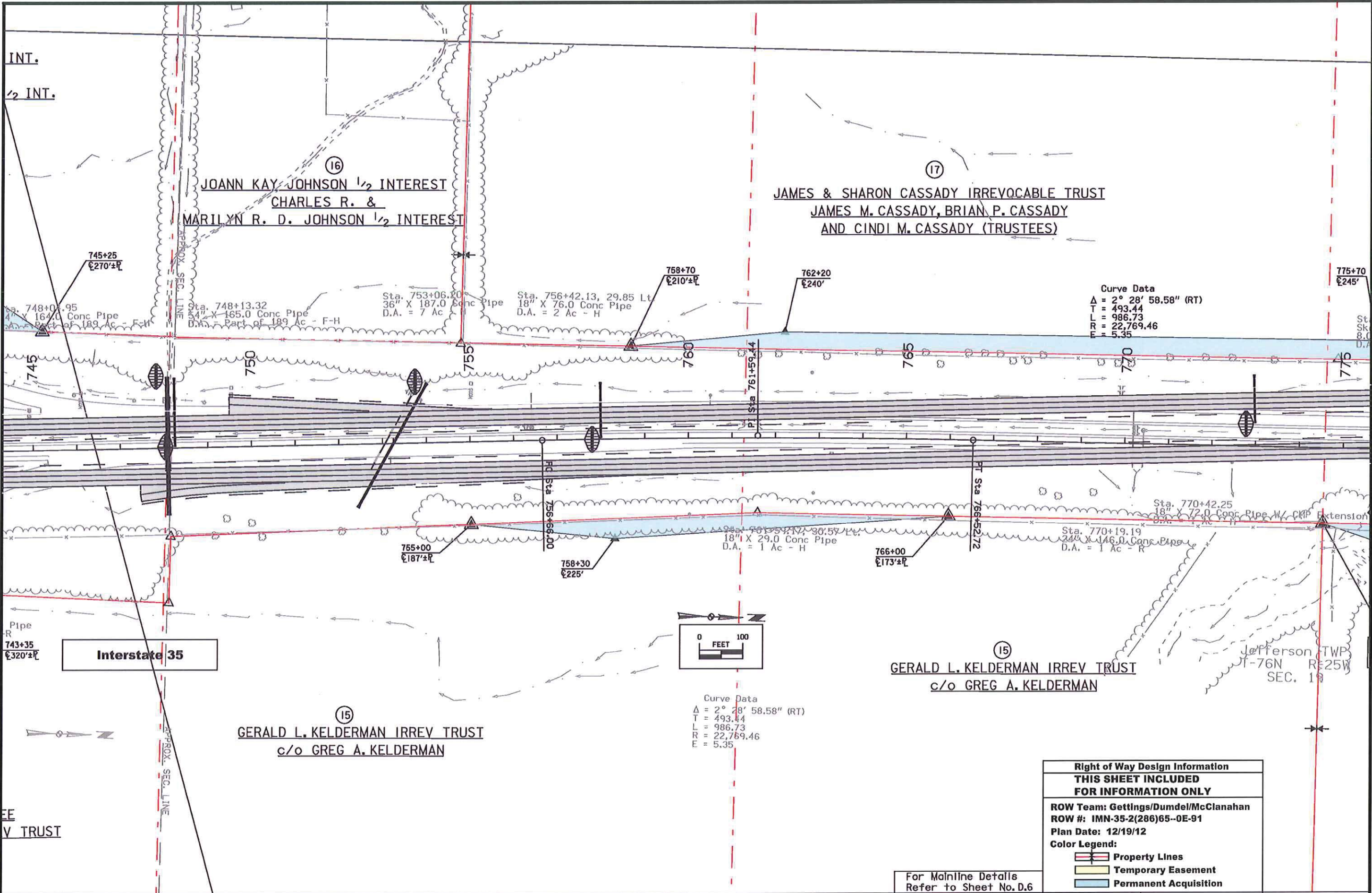
Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Gettings/Dumdel/McClanahan
 ROW #: IMN-35-2(286)65-0E-91
 Plan Date: 12/19/12
 Color Legend:

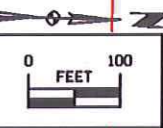
- Property Lines
- Temporary Easement
- Permanent Acquisition

For Mainline Details
 Refer to Sheet No. D.5





Curve Data
 $\Delta = 2^\circ 28' 58.58''$ (RT)
 $T = 493.44$
 $L = 986.73$
 $R = 22,769.46$
 $E = 5.35$



Curve Data
 $\Delta = 2^\circ 28' 58.58''$ (RT)
 $T = 493.44$
 $L = 986.73$
 $R = 22,769.46$
 $E = 5.35$

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Gettings/Dumdel/McClanahan	
ROW #: IMN-35-2(286)65--0E-91	
Plan Date: 12/19/12	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

For Mainline Details
Refer to Sheet No. D.6

JAMES & SHARON CASSADY IRREVOCABLE TRUST
JAMES M. CASSADY, BRIAN P. CASSADY
AND CINDI M. CASSADY (TRUSTEES)

ROBERT P. CASSADY, THOMAS V. CASSADY
DIANE MARIE CASSADY (MCCAULEY) & JANE CASSADY

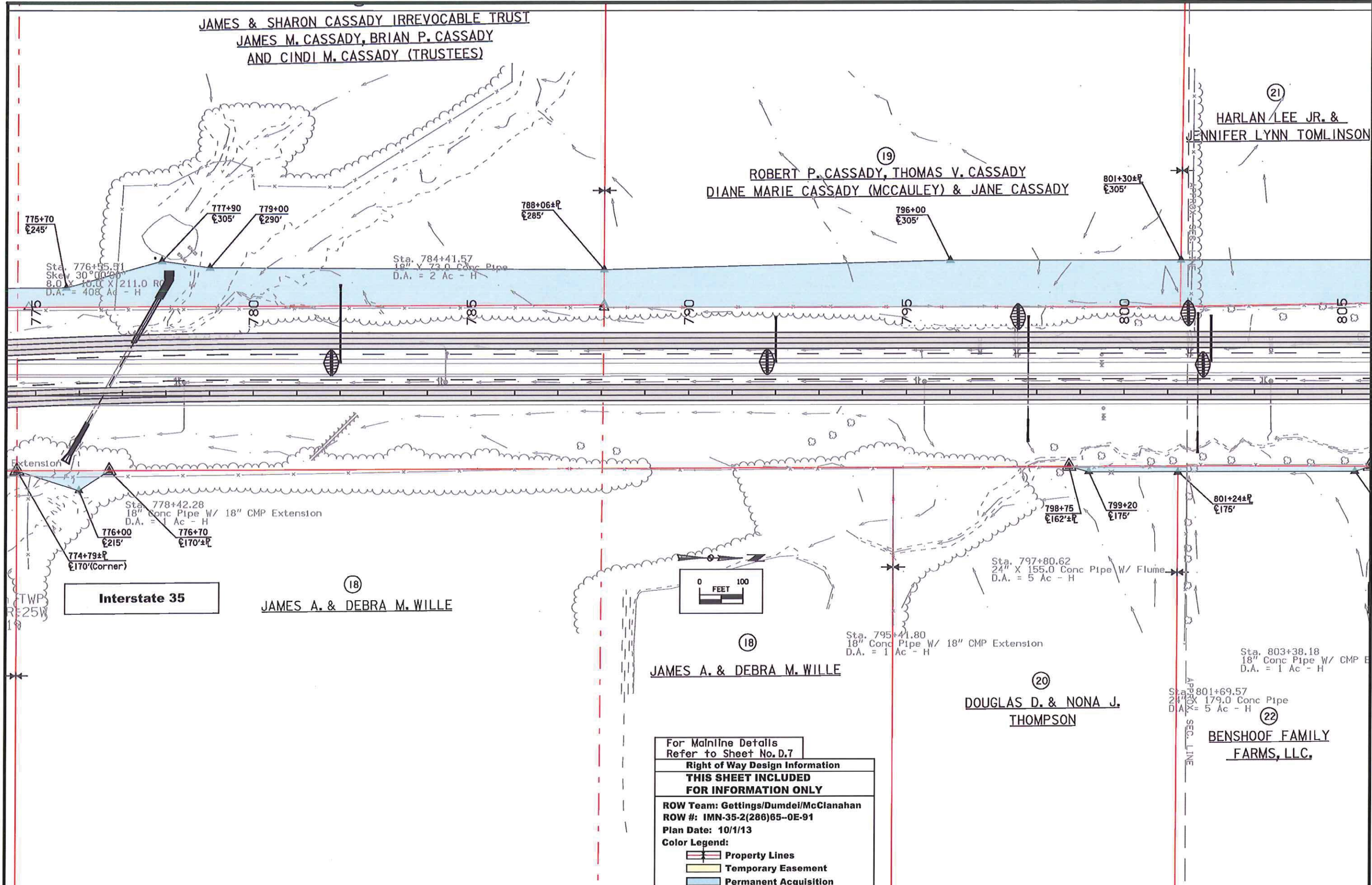
HARLAN LEE JR. &
JENNIFER LYNN TOMLINSON

JAMES A. & DEBRA M. WILLE

JAMES A. & DEBRA M. WILLE

DOUGLAS D. & NONA J.
THOMPSON

BENSHOOF FAMILY
FARMS, LLC.

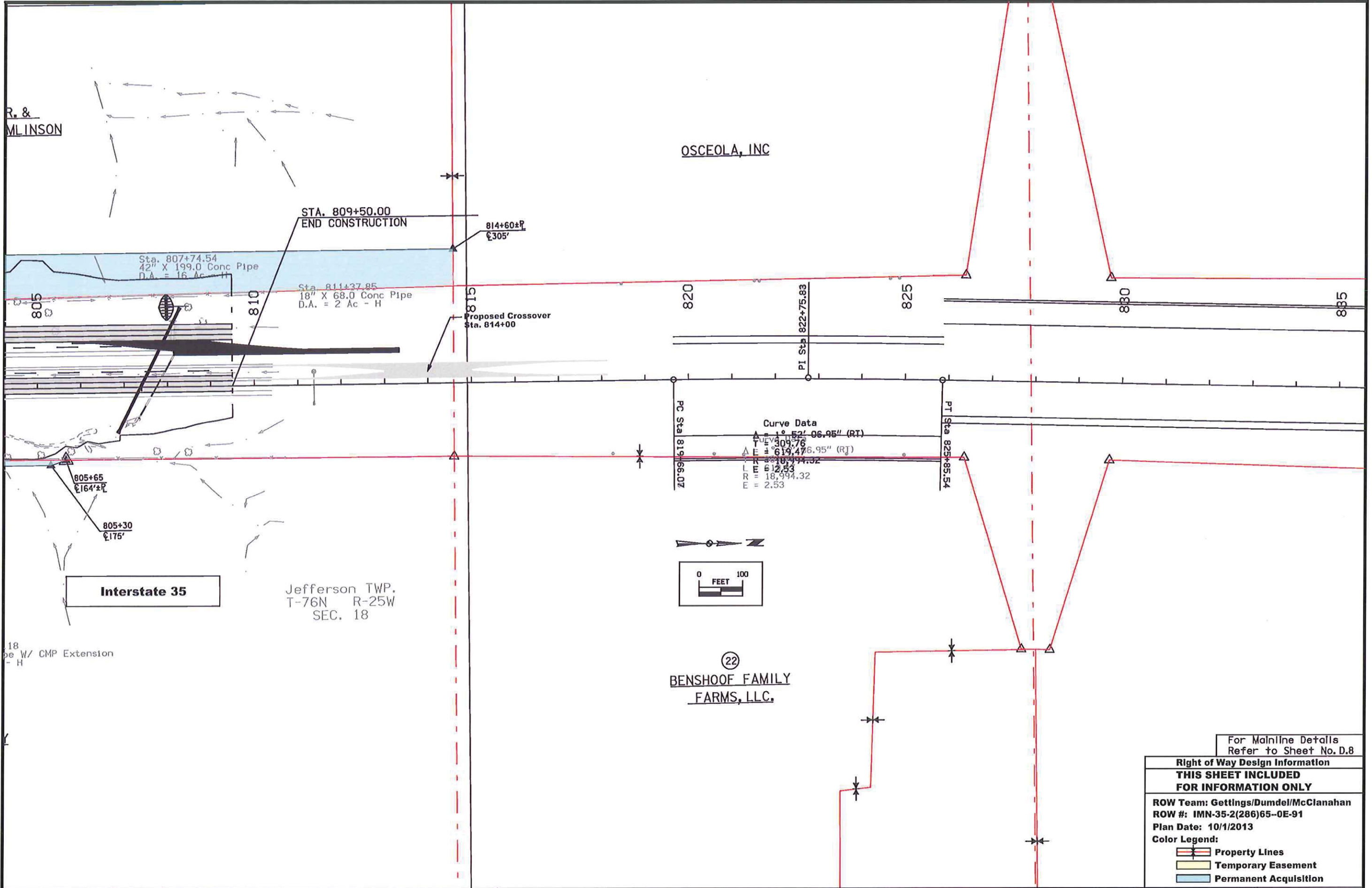


For Mainline Details
Refer to Sheet No. D.7

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Gettings/Dumdei/McClanahan
ROW #: IMN-35-2(286)65-0E-91
Plan Date: 10/1/13

Color Legend:
 Property Lines
 Temporary Easement
 Permanent Acquisition



R. &
MLINSON

OSCEOLA, INC

STA. 809+50.00
END CONSTRUCTION

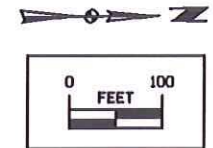
814+60±P
±305'

Sta. 807+74.54
42" X 199.0 Conc Pipe
D.A. = 16 Ac - H

Sta. 811+37.85
18" X 68.0 Conc Pipe
D.A. = 2 Ac - H

Proposed Crossover
Sta. 814+00

Curve Data
 Δ = 1° 52' 06.95" (RT)
 T ELEV = 309.76
 Δ E = 619.476.95" (RJ)
 L E N = 612.53
 R = 18,994.32
 E = 2.53



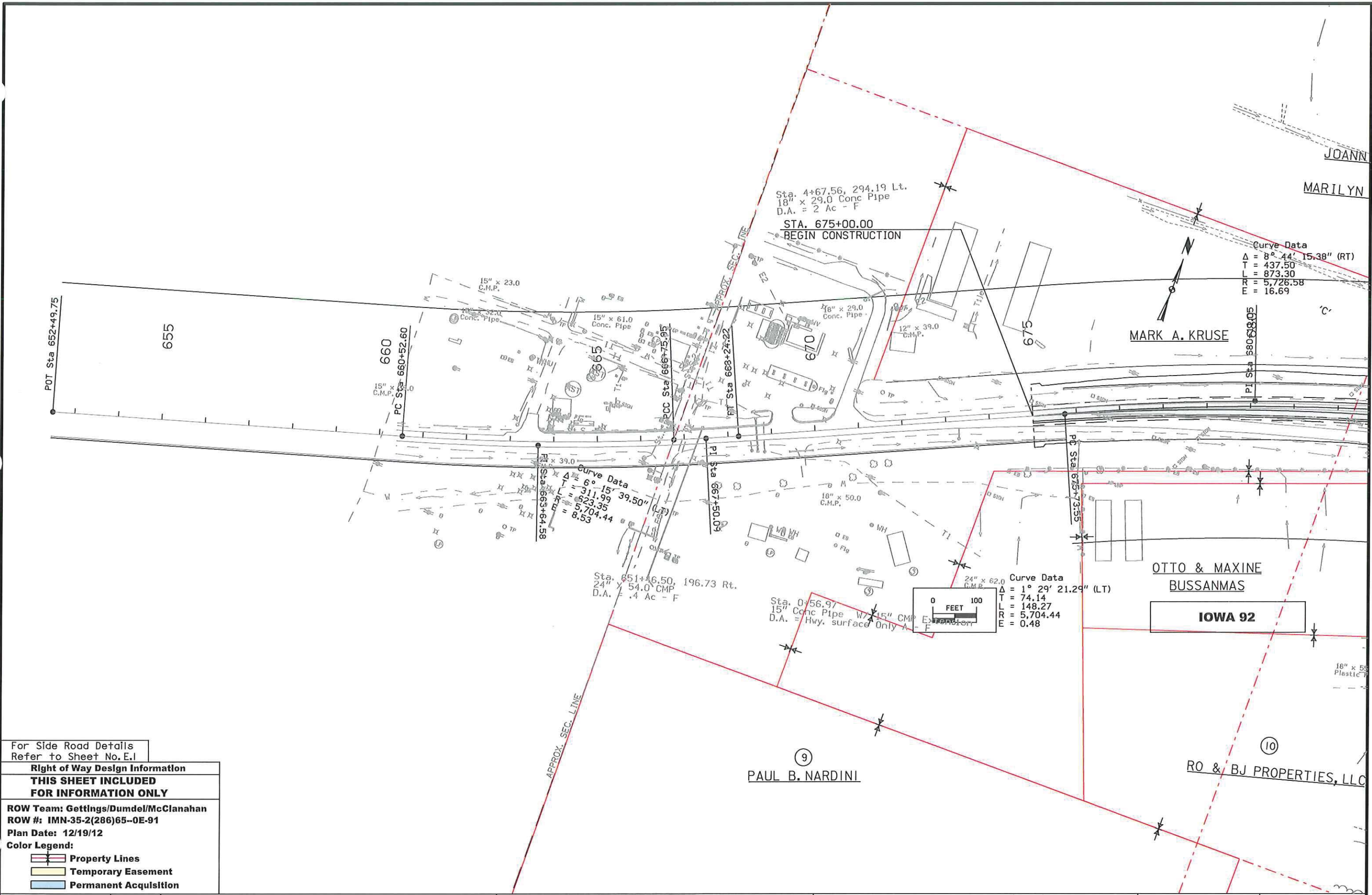
(22)
BENSHOOF FAMILY
FARMS, LLC.

Interstate 35

Jefferson TWP.
T-76N R-25W
SEC. 18

For Mainline Details
Refer to Sheet No. D.8

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Gettings/Dumdel/McClanahan	
ROW #: IMN-35-2(286)65-0E-91	
Plan Date: 10/1/2013	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



For Side Road Details
Refer to Sheet No. E.1

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

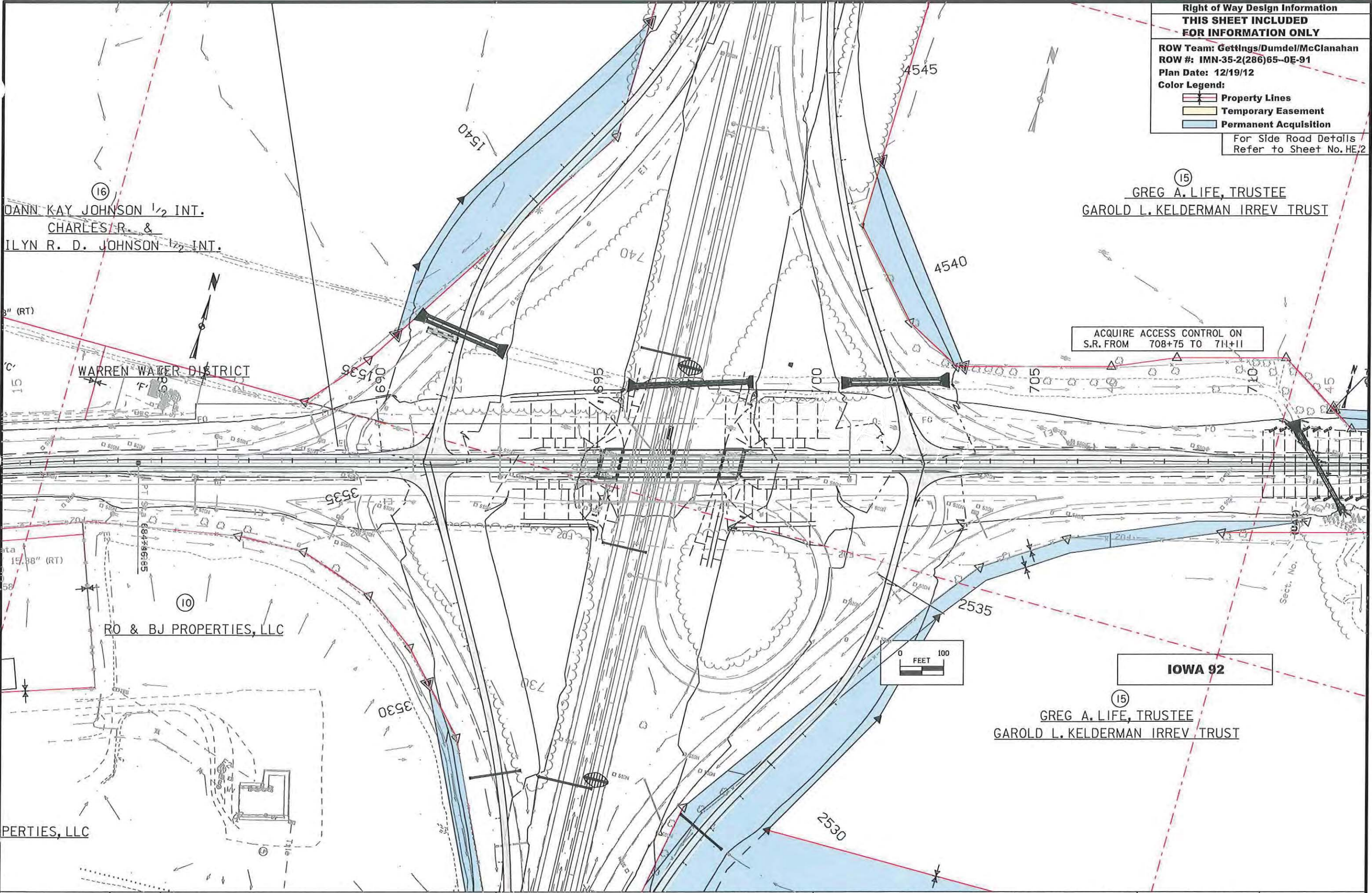
ROW Team: Gettings/Dumdel/McClanahan
ROW #: IMN-35-2(286)65--0E-91
Plan Date: 12/19/12

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY
 ROW Team: Gettings/Dumdel/McClanahan
 ROW #: IMN-35-2(286)65-0E-91
 Plan Date: 12/19/12
 Color Legend:
 [Red dashed line] Property Lines
 [Yellow shaded area] Temporary Easement
 [Blue shaded area] Permanent Acquisition

For Side Road Details
 Refer to Sheet No. HE.2



(16)
 DANN KAY JOHNSON 1/2 INT.
 CHARLES R. &
 ILYN R. D. JOHNSON 1/2 INT.

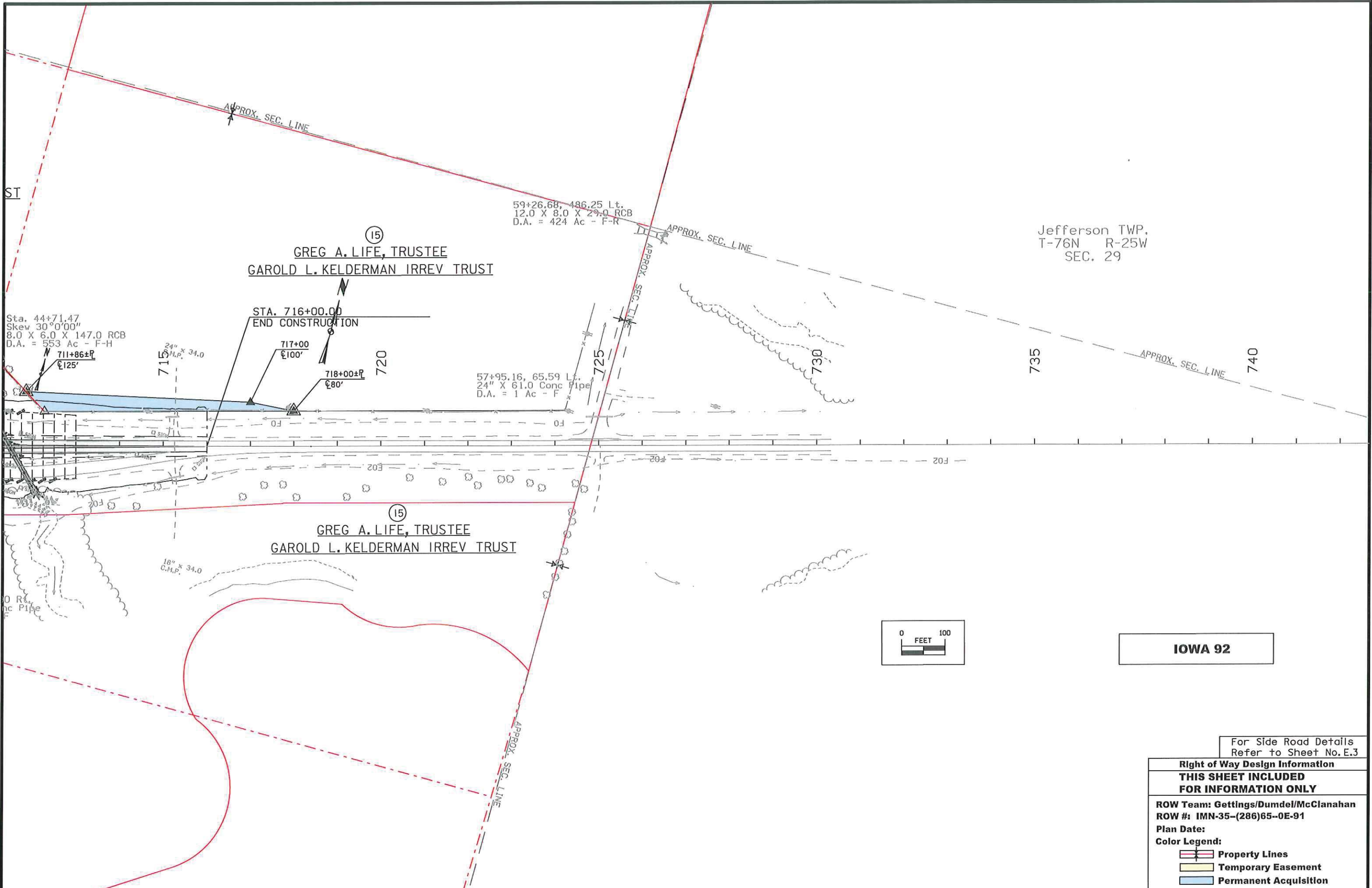
(15)
 GREG A. LIFE, TRUSTEE
 GAROLD L. KELDERMAN IRREV TRUST

ACQUIRE ACCESS CONTROL ON
 S.R. FROM 708+75 TO 711+11

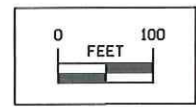
(10)
 RO & BJ PROPERTIES, LLC

IOWA 92
 (15)
 GREG A. LIFE, TRUSTEE
 GAROLD L. KELDERMAN IRREV TRUST

PERTIES, LLC



Jefferson TWP.
T-76N R-25W
SEC. 29



IOWA 92

For Side Road Details
Refer to Sheet No. E.3

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Gettings/Dumdel/McClanahan	
ROW #: IMN-35-(286)65-0E-91	
Plan Date:	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

TRAFFIC CONTROL PLAN

Refer to Tab 108-26A (Staging Notes) for traffic control specifics.

I-35

Maintain a minimum of one lane of Northbound and Southbound traffic at all times.

Maintain existing off and on ramps at the IA HWY 92 interchange at all time, except when stated in Tab 108-26A.

IA 92

Maintain a minimum of one lane of Westbound and Eastbound traffic at all times.

Contractor shall coordinate traffic control with other projects in the area. Refer to Tab 111-01.

STAGING NOTES

Interstate 35 is a high volume roadway. Construction activity in the area will disrupt traffic on Interstate 35, IA 92, and other local roadways. Therefore, it is advisable to adopt a construction sequence that directs activities in an orderly manner and minimizes disruptions to traffic patterns as much as practical.

It is not the intent of the sequence of construction to confine the contractors' activities to the areas of suggest stages alone. It is understood that some of the various steps may occur simultaneously. Therefore, the contractor may conduct several operations concurrently on the project, provided that traffic is maintained and that these operations do not conflict with the staging operations indicated herein.

It is recognized that as the various activities related to construction progress, certain situations may arise which will preclude adhering to the original construction sequence or which, in the opinion of the contractor, should result in more efficient staging operations. Should the contractor desire to deviate from the original plan, they shall submit a written alternate plan to the Resident Construction Engineer for approval.

General Notes:

1. Access to properties along IA 92 shall be maintained at all times.
2. The contractor shall coordinate traffic control with Iowa DOT projects listed in Tabulation 111-01.

Stage 1 - Traffic**I-35**

- Northbound and southbound traffic will be shifted to the outside lanes to accommodate for the construction of median crossovers. Refer to Standard Road Plan TC-418.

IA 92

- Traffic will remain in existing lanes.

Ramps

- Traffic will remain in existing lanes.

Stage 1 - Construction**I-35**

- Grade and pave bidirectional median crossovers at location stations 629+46.00 and 818+00.00. Refer to Standard Road Plan PV-500.
- Grade and pave one-lane median crossovers at location stations 702+50.00 and 758+00.00. Refer to Standard Road Plan PV-501.

IA 92

- Grade and pave temporary connections at the east and west ends of IA 92 so that tie-ins at the project limits can be properly constructed.
- Remove pavement from Sta. 687+32.72 to Sta. 689+32.00. Construct a temporary connection from Sta. 687+51.62 to Sta. 689+58.58 for traffic exiting southbound I-35 given the capability to turn westbound onto IA 92 utilizing the eastbound section of the existing exit ramp.

Ramps

- In quadrant B remove pavement on the left shoulder of the existing loop from Sta. 2531+28.89 to Sta. 2535+61.24 and from the left shoulder of the existing ramp in the same quadrant from Sta. 2531+24.15 to Sta. 2532+87.94 for traffic entering IA 92 from I-35.

Stage 2 - Construction

The following tasks may be constructed at the contractors' convenience throughout stage 2, but must be completed by the the stage noted alongside the task:

I-35

- Construct median crossovers at location stations 707+50.00 and 754+74.10 connecting the proposed and existing northbound lanes. Remove the east northbound lane and shoulder from Sta. 752+19.14 to Sta. 760+00.00 to construct the crossover at 754+74.10. (Stage 3)
- Remove pavement and grade and pave from Sta. 706+00.00 to Sta. 712+37.94, from Sta. 717+11.94 to Sta. 723+00.00, and from Sta. 736+00.00 to Sta. 755+00.00 (Stage 3).
- Remove pavement from Sta. 629+45.85 to Sta. 700+00.00 and from Sta. 760+00.00 to Sta. 809+50.00 (Stage 4).
- Grade and pave from Sta. 629+45.85 to Sta. 706+00.00 and from Sta. 755+00.00 to Sta. 809+50.00 (Stage 4).
- Mill and use an HMA overlay from Sta. 809+50.00 to Sta. 813+50.00 to match the proposed profile grade to the existing profile grade in the northbound lanes (Stage 4).

IA 92

- Remove pavement from Sta. 684+34.72 to Sta. 687+32.72. Construct a temporary slab connection between the proposed and existing pavement from Sta. 684+35.00 to Sta. 685+70.00. (Stage 2C)
- Remove the existing westbound lanes from Sta. 675+00.00 to Sta. 684+34.72 and the existing eastbound lanes from Sta. 675+00.00 to Sta. 679+56.50 (refer to plan view staging sheets for limits). Remove the existing westbound lanes from Sta. 701+00.00 to Sta. 716+00.00 and existing eastbound lanes from approximately 714+52.00 to 716+00.00. (Stage 3)
- Construct a temporary slab connection between the proposed and existing pavement from Sta. 707+50.00 to Sta. 708+50.00 for traffic exiting I-35 northbound and entering IA 92 (Stage 3).

STAGING NOTES**Ramps**

- Remove pavement in quadrant B from Sta. 2533+75.00 to Sta. 2536+59.00 of the ramp's eastbound leg to it's connection with the existing westbound lanes for the westbound leg (Stage 3).
- Construct the proposed ramp B to Sta. 2536+00 and a temporary connection from this ramp to the existing portion connected to IA 92 (Stage 3).
- Remove the existing ramp in quadrant D. Grade and pave ramp D in its entirety. (Stage 3)

Stage 2A - Traffic**I-35**

- Northbound traffic will use a temporary median crossover and merge to two-way traffic on the existing southbound lanes and another temporary median crossover to convert back to a two-lane divided roadway.

IA 92

- Temporary connections will be utilized at the east and west limits of the project so that tie-ins can be constructed.

Ramps

- Northbound I-35 traffic wishing to exit to Iowa 92 will use a temporary median crossover at location station 702+50.00. Traffic will exit using the existing ramp and the newly constructed temporary leg in quadrant B to go either eastbound or westbound on Iowa 92.
- Southbound I-35 traffic wishing to enter IA 92 will use the existing ramp in quadrant A and only the left leg of the portion closest to IA 92 to go either westbound or eastbound. Westbound traffic will cross over the temporary slab in this area.
- Traffic entering I-35 north from IA 92 will use the newly constructed connection to the existing loop in quadrant B. This includes eastbound traffic, as the leg of the ramp that was previously used will be removed. The median crossover at location station 759+00.00 will be used to merge traffic back into two-way traffic on the existing southbound I-35 lanes.
- Iowa 92 traffic wishing to proceed southbound on I-35 will use the existing ramp in quadrant C.

Stage 2A - Construction**I-35**

- Refer to "Stage 2 - Construction".

IA 92

- Remove pavement in the existing westbound lanes on IA 92 from Sta. 690+19.70 to Sta. 692+55.00.

Ramps

- Remove pavement in quadrant A at the existing westbound leg of the ramp from Sta. 684+34.72 to Sta. 689+22.93.
- Grade and pave a temporary ramp in quadrant A connecting the existing ramp to the existing eastbound side of IA 92 for traffic exiting southbound I-35.
- Remove pavement on the existing loop from Sta. 698+38.22 to Sta. 700+06.26. Grade and pave ramp B from the proposed northbound lanes to Sta. 2536+00.00.

Stage 2B - Traffic**I-35**

- Two-way traffic will remain on the existing southbound lanes.

IA 92

- Traffic will continue to utilize temporary connections at the east and west ends of the project.

Ramps

- Northbound I-35 traffic wishing to exit to Iowa 92 will use a temporary median crossover at location station 702+50.00. Traffic will exit using the existing ramp and the constructed temporary leg in quadrant B to go either eastbound or westbound on Iowa 92.
- Southbound I-35 traffic wishing to enter IA 92 will use the existing ramp in quadrant A and the newly constructed ramp connection with IA 92 to go either westbound or eastbound.
- Traffic entering I-35 north from IA 92 will use the constructed connection to the existing loop in quadrant B. The median crossover at location station 759+00.00 will be used to merge traffic back into two-way traffic on the existing southbound I-35 lanes.
- Iowa 92 traffic wishing to proceed southbound on I-35 will follow a detour, which will direct them northbound on I-35.

Stage 2B - Construction**I-35**

- Refer to "Stage 2 - Construction".

IA 92

- Remove pavement on IA 92 from Sta. 684+34.72 to Sta. 687+32.72. Construct a temporary slab connection between the proposed and existing pavement on IA 92 from Sta. 684+35.00 to Sta. 685+70.00.
- Remove pavement from Sta. 689+33.49 to Sta. 690+19.20.

Ramps

- Remove the existing ramp in the quadrant C. Grade and pave ramp C from Sta. 3524+00.00 to Sta. 3534+00.00. Construct a temporary ramp connecting the existing eastbound IA 92 lanes to the proposed ramp C so that all traffic, eastbound and westbound, can access the ramp. Construct a temporary ramp connecting the proposed ramp C to the southbound IA 92 lanes.
- Remove the existing ramp A from IA 92 to Sta. 1538+13.85. Remove the temporary connection between this ramp and the existing eastbound IA 92.
- Grade and pave ramp A from Sta. 1533+66.16 to Sta. 1547+00.00. Construct a temporarily widened radius at the west end of this connection. Construct a temporary ramp connection from the existing southbound I-35 lanes to Ramp A.
- Remove existing westbound Iowa 92 lanes from Sta. 675+00.00 to Sta. 690+19.20 and grade and pave the remaining, western portion of Iowa 92.

Stage 2C - Traffic**I-35**

- Two-way traffic will remain on the existing southbound lanes.

IA 92

- Traffic on Iowa 92 will use the temporary connections on the east and west ends of the project so that tie-ins can be made.

STAGING NOTES

- Ramps
- Northbound I-35 traffic wishing to exit to Iowa 92 will use a temporary median crossover at location station 702+50.00. Traffic will exit using the existing ramp and the constructed temporary leg in quadrant B to go either eastbound or westbound on Iowa 92.
 - Southbound I-35 traffic wishing to enter IA 92 will use the newly constructed ramp in quadrant A. Traffic will head westbound on the newly constructed section of IA 92 and use the temporary slab connecting the proposed lanes to the existing eastbound lanes on IA 92 to go either westbound or eastbound.
 - Traffic entering I-35 north from IA 92 will use the constructed connection to the existing loop in quadrant B. The median crossover at location station 759+00.00 will be used to merge traffic back into two-way traffic on the existing southbound I-35 lanes.
 - Iowa 92 traffic wishing to proceed southbound on I-35 will use the newly constructed ramp C and the temporary connections to IA 92 and I-35.

Stage 2C - Construction

- Ramps
- Remove the remaining portion of the existing ramp A. Remove the temporary connection between this ramp and the existing eastbound IA 92.

Construction of the following shall be completed by the end of Stage 2C:

- I-35
- Grade and pave from Sta. 706+00.00 to Sta. 712+37.94, from Sta. 717+11.94 to Sta. 723+00.00, and from Sta. 746+00.00 to Sta. 755+00.00.
 - Construct median crossovers at location stations 707+50.00 and 754+74.10 connecting the proposed northbound I-35 lanes to the existing northbound I-35 lanes. Remove mainline pavement from the right edge of the left northbound lane on I-35 from Sta. 752+19.14 to Sta. 760+00.00 to construct the crossover at Sta. 754+74.10.

- IA 92
- Remove the existing westbound lanes from Sta. 675+00.00 to Sta. 684+34.72 and the existing eastbound lanes from Sta. 675+00.00 to Sta. 679+56.50 (not full width due to transition to temporary pavement). Remove the existing westbound lanes from Sta. 701+00.00 to Sta. 716+00.00 and existing eastbound lanes from approximately 714+52.00 to 716+00.00.
 - Construct a temporary slab connection between the proposed and existing pavement on IA 92 from Sta. 707+50.00 to Sta. 708+50.00 for traffic exiting I-35 northbound entering IA 92.

- Ramps
- Remove pavement in quadrant B from Sta. 2533+75.00 to Sta. 2536+59.00 of the eastbound leg and to its connection with the existing westbound Iowa 92 lanes for the westbound leg.
 - Construct the proposed ramp B to Sta. 2536+00.00 and a temporary connection from this ramp to the existing portion connected to IA 92.
 - Remove the existing ramp in quadrant D and grade and pave ramp D in its entirety.

Stage 3 - Traffic

- I-35
- Two-way traffic will remain on the existing southbound lanes.
 - Northbound traffic will utilize back-to-back crossovers to access IA 92 and also to access I-35 from IA 92.

- IA 92
- Iowa 92 traffic will now use the newly constructed Iowa 92 lanes.

- Ramps
- Traffic on Iowa 92 wishing to travel northbound on I-35 will use the newly constructed ramp D. This traffic will use a median crossover at location station 754+74.10 to the existing northbound lanes and then another median crossover at location station 758+00.00.00 to travel northbound on the existing southbound lanes.
 - Traffic traveling southbound on I-35 wishing to exit eastbound/westbound on Iowa 92 will use the previously constructed ramp A.
 - Traffic on Iowa 92 wishing to travel southbound on I-35 will use a temporary connection to the existing eastbound lanes of IA 92 west of ramps A and C. Traffic will make turn south then east on the existing eastbound IA 92 lanes and use the existing temporary ramp to enter the previously constructed ramp C.

Stage 3 - Construction

- IA 92
- Remove remaining existing Iowa 92 pavement and temporary connections and grade remaining areas south of the newly constructed Iowa 92 lanes. The existing eastbound bridge shall remain in place.

- Ramps
- Remove the existing ramp, loop, and temporary connection in quadrant C. Pave the Ramp C connection from Sta. 3534+00.00 to its connection with the newly constructed Iowa 92 lanes.
 - Remove a small portion of the temporary connection entering the newly constructed ramp B. Pave the new ramp B connection from Sta. 2536+00.00 to its connection with the newly constructed Iowa 92 lanes.

Construction of the following shall be completed by the end of Stage 3:

- I-35
- Remove pavement on I-35 from Sta. 629+45.85 to Sta. 700+00.00 and from Sta. 760+00.00 to Sta. 809+50.00.
 - Mill and overlay from Sta. 809+50.00 to Sta. 813+50.00 to match the proposed roadway to the existing roadway on I-35.
 - Remove I-35 mainline pavement from Sta. 629+45.85 to Sta. 700+00.00 and from Sta. 760+00.00 to Sta. 809+50.00. Grade and pave northbound lanes from Sta. 629+00.00 to Sta. 809+50.00.

Stage 4 - Traffic

- I-35
- Traffic will revert back to a two-lane divided roadway with northbound traffic on the newly constructed lanes.

- IA 92
- Traffic will continue to use the newly constructed three-lane undivided roadway.

- Ramps
- All newly constructed ramps and connections will be utilized between I-35 and IA 92.

Stage 4 - Construction

I-35

STAGING NOTES

- Remove the four (4) one-lane median crossovers and the portions of existing northbound lanes from Sta. 700+00.00 to 708+47.23 and from Sta. 752+19.14 to Sta. 760+00.00. The two (2) bidirectional median crossovers will remain in place for the future construction of the southbound lanes.
- IA 92
- Remove south Iowa 92 bridge.
 - Remove existing eastbound lanes from Sta. 683+05.87 to Sta. 689+93.26 and from Sta. 705+04.07 to Sta. 710+00.00.
- Ramps
- Remove temporary ramp connection in quadrant C.
 - Remove temporary ramp connection and the portion of the existing ramp in quadrant B.

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
IMN-035-2(446)58--0E-91	HMA Resurfacing with Milling
MPIN-035-5(710)43--0N-91	HMA Paved Shoulder - Fog Seal
IMN-035-1(139)--0E-27	PCC Patching
IMN-035-2(443)58--0E-91	Bridge Beam Repair
IMN-035-1(140)--0E-27	PCC Patching
IM-035-2(291)56--13-91	Bridge
IM-035-2(353)54--13-91	Grading
BRFIM-035-2(326)56--05-91	Bridge
IM-035-2(379)56--13-91	Traffic Signs
IM-035-2(380)56--13-91	Lighting

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Existing Temporary Pavement Shading
Brown, Med	(237)	Future Proposed Pavement Shading
Magenta	(5)	Proposed Temporary Pavement Shading

CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

	Pavement Removal		Proposed Granular Shoulder
	HMA Milling and Overlay		Temporary Shoulder
	Proposed Granular Subbase		Existing Shoulder Strengthening
	Proposed Special Backfill		Permanent Barrier Rail
	Temporary Barrier Rail		Channelizing Device

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Proposed Granular Surface Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Existing Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Magenta	(5)	Proposed Temporary Pavement Shading
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

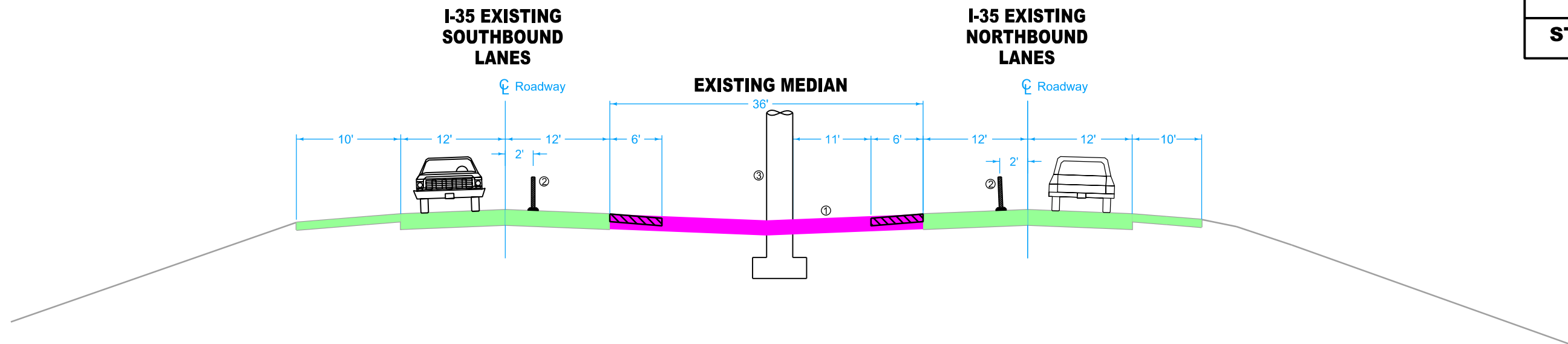
PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

●	Channelizing Device	■	Crash Cushion
✕	Drum	○→	Traffic Signal
■	Temporary Lane Separator	■	Flagger
◆	Tubular Marker	○→	Temporary Floodlighting
◆	Channelizer Marker	†	Traffic Sign
△	Concrete Barrier Marker	‡	Type III Barricade
<	Delineator	☀	Type A Warning Light
≡	Temporary Barrier Rail	←	Direction of Traffic
	Pavement Removal		Safety Closure
	ARROW BOARD		

NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

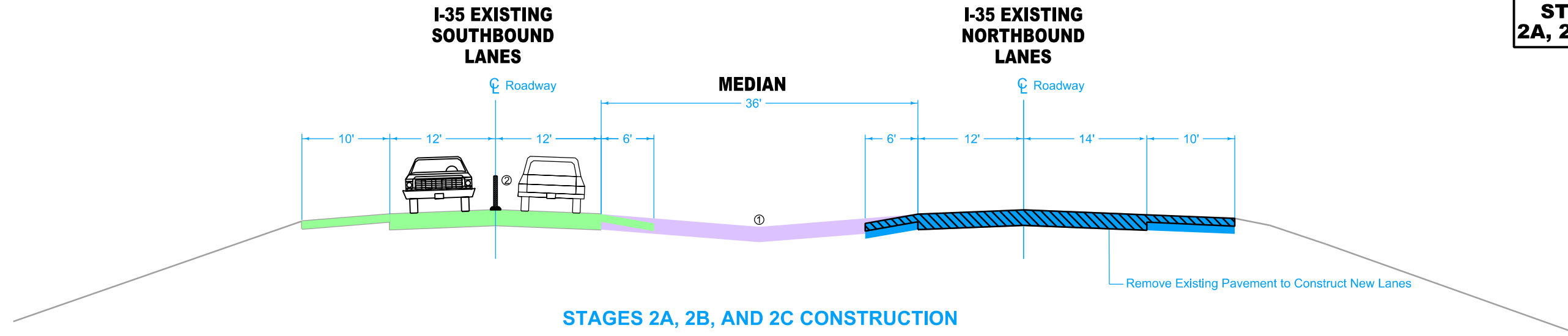
TRAFFIC CONTROL AND STAGING

(COVERS SHEET SERIES J)



STAGE 1 CONSTRUCTION
STA. 625+29.33 to STA. 822+45.93
Temporary Median Crossover Construction
Traffic in Existing Outside Northbound Lane and Existing Outside Southbound Lanes

- NOTES:
 ① Median Crossovers at Location Stations: 629+46.00, 702+50.00, 759+00.00, and 818+00.00
 ② 42" Channelizer
 ③ Existing Bridge Pier From Sta. 734+60.88 to Sta. 735+07.83
 ④ Refer to Standard Road Plan TC-418 for Lane Closure on Divided Highway

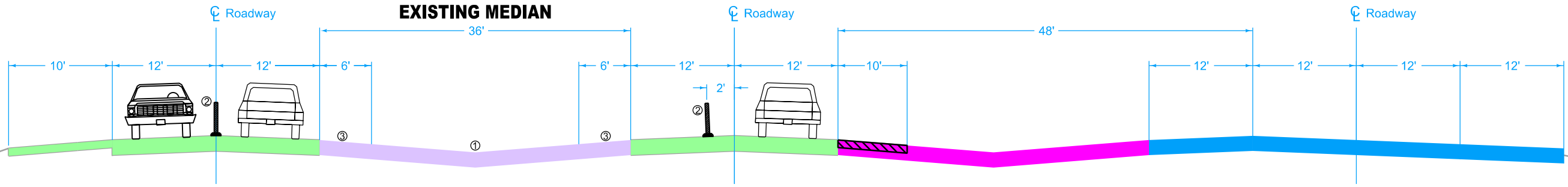


STAGES 2A, 2B, AND 2C CONSTRUCTION
STA. 625+29.33 to STA. 681+37.61
And From STA. 766+91.26 to STA. 822+45.93
Proposed Roadway Construction
Two -Way Traffic in Existing Southbound Lanes

- NOTES:
 ① Median Crossover at Location Station 629+46.00
 ② 42" Channelizer

**I-35 EXISTING
SOUTHBOUND
LANES**

**I-35 EXISTING
NORTHBOUND
LANES**



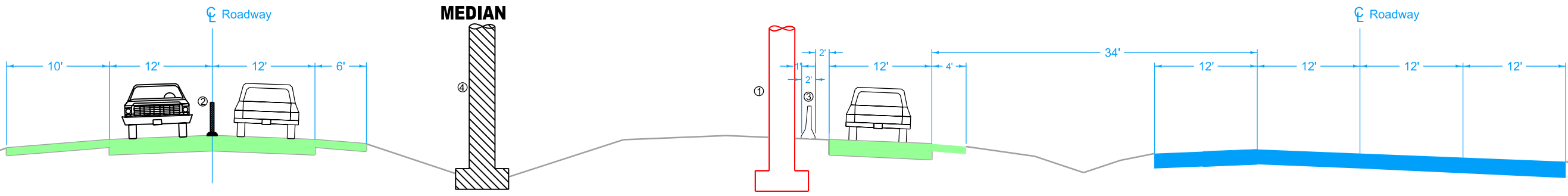
STAGES 2A, 2B, AND 2C CONSTRUCTION
STA. 681+37.61 to STA. 731+85.50
Temporary Median Crossover

Two -Way Traffic in Existing Southbound Lanes with Traffic Exiting to Iowa 92

- NOTES:
 ① Median Crossover at Location Station 629+46.00
 ② 42" Channelizer
 ③ 6' Shoulder Outside of Median Crossovers

**I-35 EXISTING
SOUTHBOUND
LANES**

**I-35 EXISTING
NORTHBOUND
LANES**

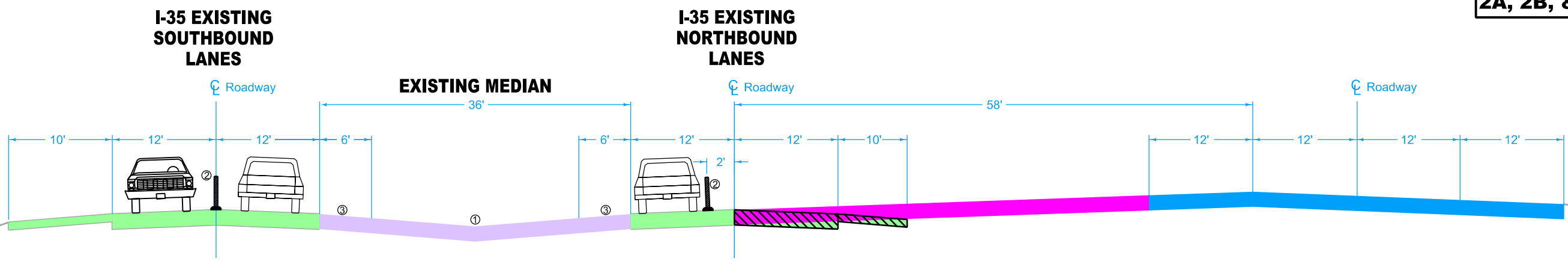


STAGES 2A, 2B, AND 2C CONSTRUCTION
STA. 731+85.50 to STA. 739+87.37
Bridge Piers

Two -Way Traffic in Existing Southbound Lanes
with Traffic Entering From Iowa 92

- NOTES:
 ① Previously Constructed Bridge Pier From Sta. 735+26.25 to Sta. 735+91.00
 ② 42" Channelizer
 ③ Temporary Barrier Rail - Pinned to Pavement.
 ④ Existing Bridge Pier From Sta. 734+60.88 to Sta. 735+07.83

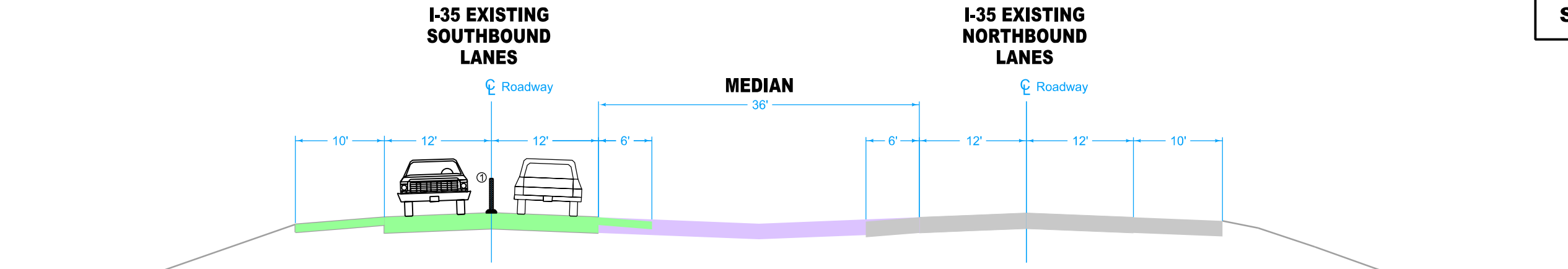
I-35
STAGES
2A, 2B, & 2C



STAGES 2A, 2B, AND 2C CONSTRUCTION
STA. 739+87.37 to STA. 766+91.26
Temporary Median Crossover
Two -Way Traffic in Existing Southbound Lanes with Traffic Exiting to Iowa 92

NOTES:
 ① Median Crossover at Location Station 754+74.10
 ② 42" Channelizer
 ③ 6' Shoulder Outside of Median Crossover

I-35
STAGE 3

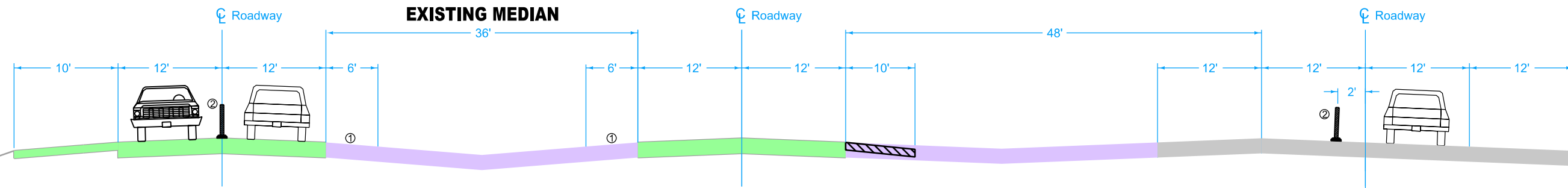


STAGE 3 CONSTRUCTION
STA. 625+29.33 to STA. 681+37.61
And From STA. 766+91.26 to STA. 822+45.93
Proposed Roadway Construction
Two -Way Traffic in Existing Southbound Lanes

NOTES:
 ① 42" Channelizer

I-35 EXISTING SOUTHBOUND LANES

I-35 EXISTING NORTHBOUND LANES

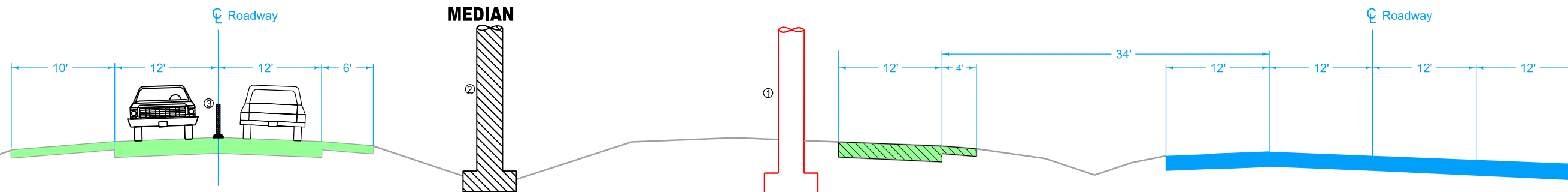


STAGE 3 CONSTRUCTION
STA. 681+37.61 to STA. 731+85.50
And From STA. 739+87.37 to STA. 766+91.26
Temporary Median Crossover
Two -Way Traffic in Existing Southbound Lanes with Traffic Exiting to Iowa 92

NOTES:
 ① 6' Shoulder Outside of Median Crossovers
 ② 42" Channelizer

I-35 EXISTING SOUTHBOUND LANES

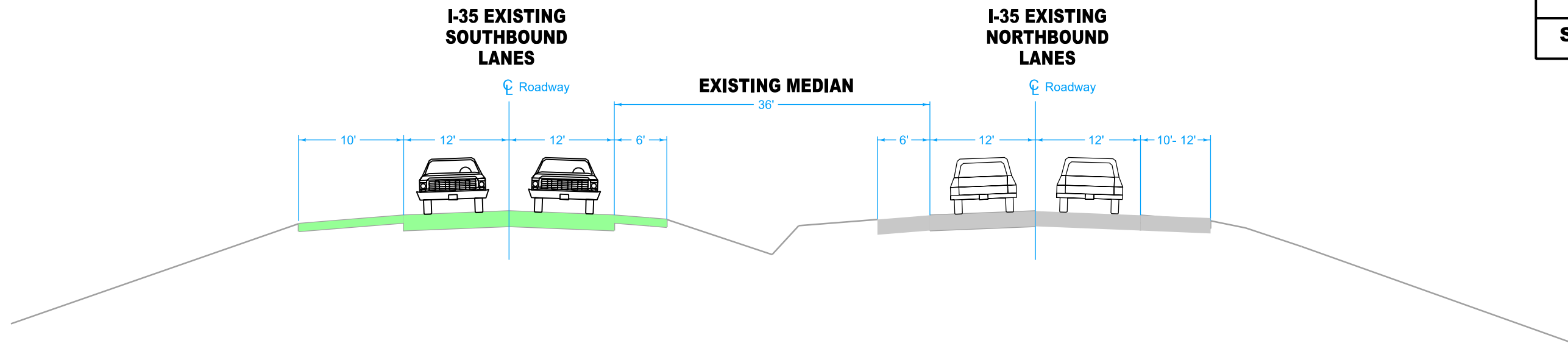
I-35 EXISTING NORTHBOUND LANES



STAGE 3 CONSTRUCTION
STA. 731+85.50 to STA. 739+87.37
Bridge Piers
Two -Way Traffic in Existing Southbound Lanes

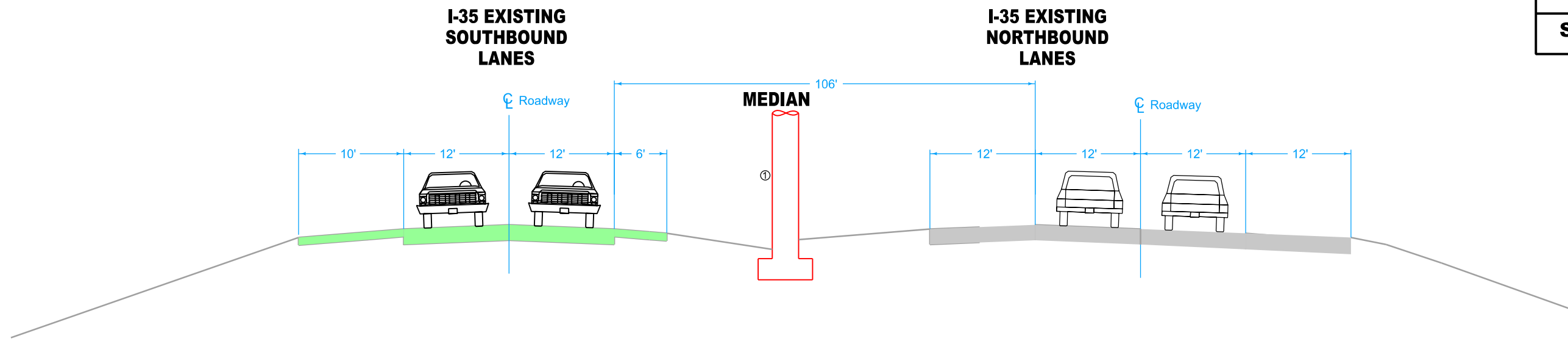
NOTES:
 ① Previously Constructed Bridge Pier From Sta. 735+26.25 to Sta. 735+91.00
 ② Existing Bridge Pier From Sta. 734+60.88 to Sta. 735+07.83
 ③ 42" Channelizer

I-35
STAGE 4



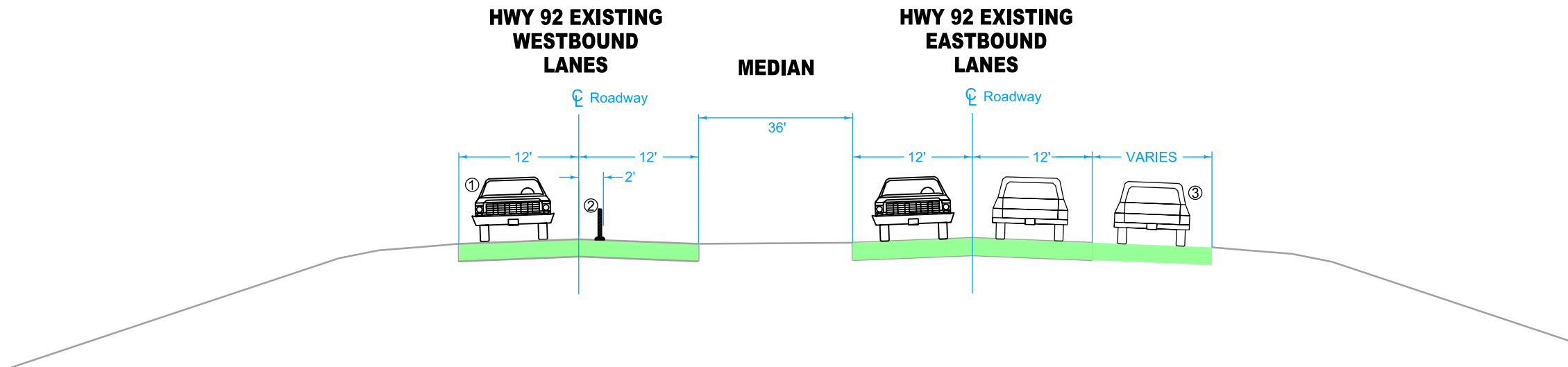
STAGE 4 CONSTRUCTION
STA. 629+46.00 to STA. 686+19.62
Ultimate Four Lane Section
Traffic in Existing Southbound Lanes and Previously Constructed Northbound Lanes

I-35
STAGE 4



STAGE 4 CONSTRUCTION
STA. 686+19.62 to STA. 809+50.00
Ultimate Six-Lane Section
Traffic in Existing Southbound Lanes and Previously Constructed Northbound Lanes

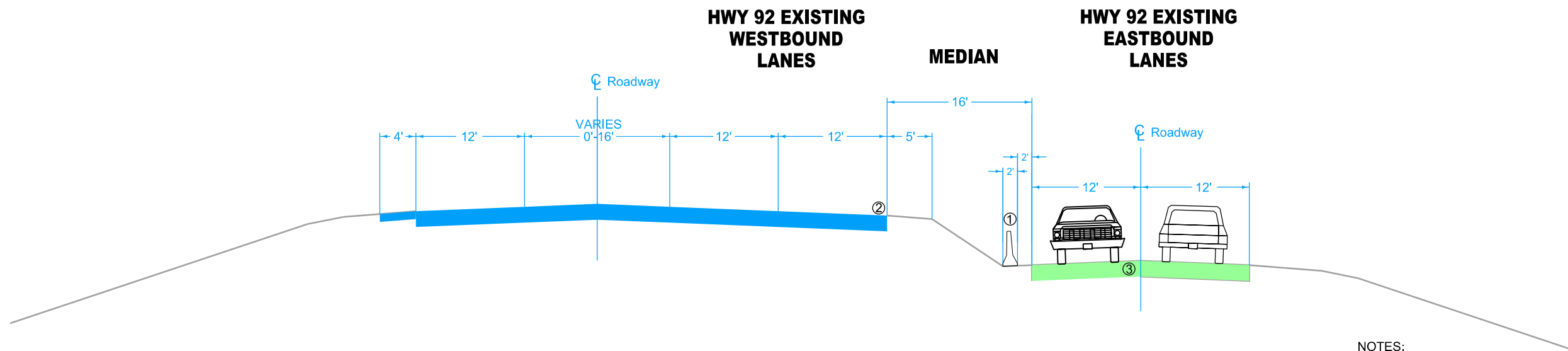
NOTES:
① Previously Constructed Bridge Piers From Sta. 735+26.25 to Sta. 735+91.00



STAGE 1 CONSTRUCTION
STA. 676+12.59 to STA. 715+67.16
Existing Conditions

Two-Way Traffic in Existing Eastbound Lanes with Ramp Traffic in Outside Lanes

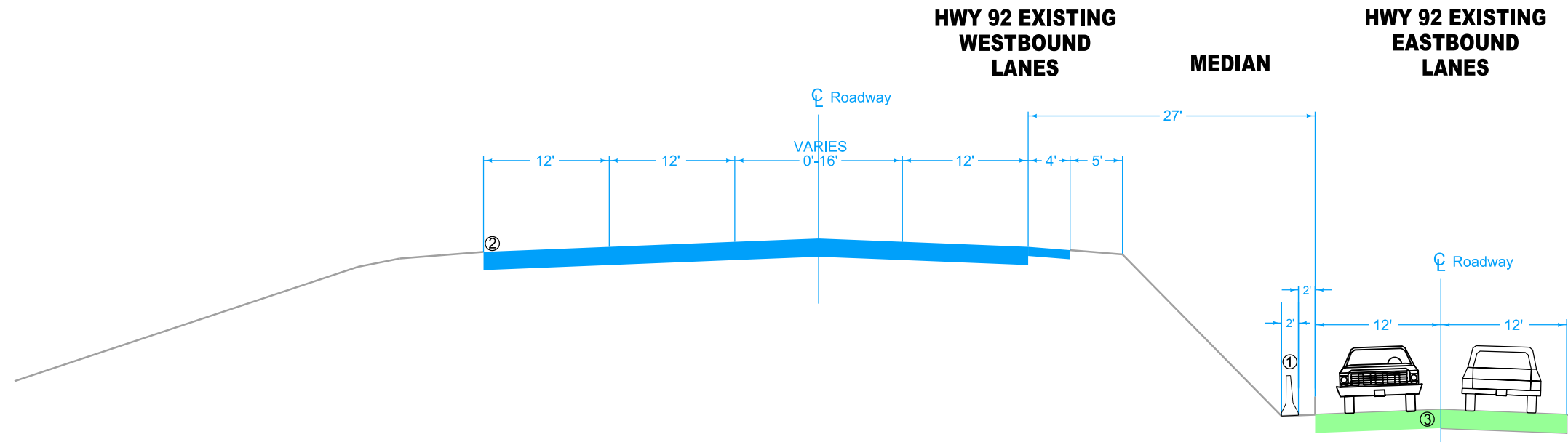
- NOTES:
 ① Lane used From Sta. 676+12.59 to Sta. 686+01.81 for Traffic Exiting SB I-35 and From Sta. 705+77.17 to Sta. 715+67.16 for Traffic Entering NB I-35
 ② 42" Channelizer
 ③ Deceleration Lanes Used From Sta. 682+53.00 to Sta. 686+55.26 and From Sta. 692+21.54 to Sta. 698+58.56



STAGES 2A, 2B, AND 2C CONSTRUCTION
STA. 675+00.00 to STA. 696+67.00
Traffic In Existing Eastbound Lane

- NOTES:
 ① Temporary Barrier Rail
 ② Temporary Pavement From Sta. 675+00.00 to Sta. 683+38.70

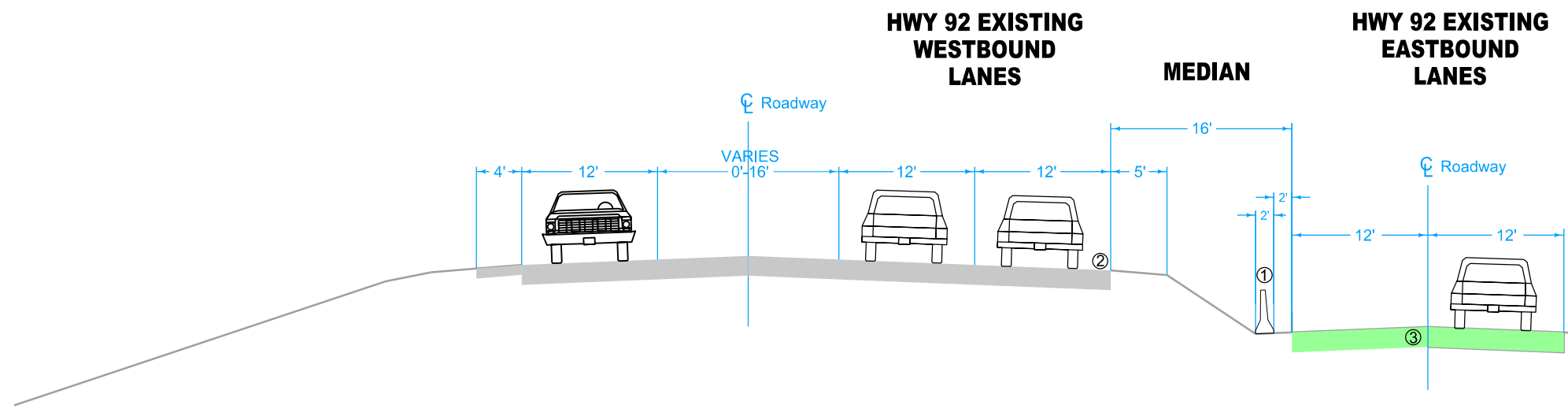
IA 92
STAGES
2A, 2B, & 2C



STAGES 2A, 2B, AND 2C CONSTRUCTION
STA. 696+67.00 to STA. 716+00.00
Traffic In Existing Eastbound Lane

- NOTES:
 ① Temporary Barrier Rail
 ② Westbound Right Turn Lane From Sta. 703+15.00 to Sta. 709+61.08
 ③ Temporary Pavement From Sta. 711+31.69 to Sta. 716+00.00

IA 92
STAGE 3



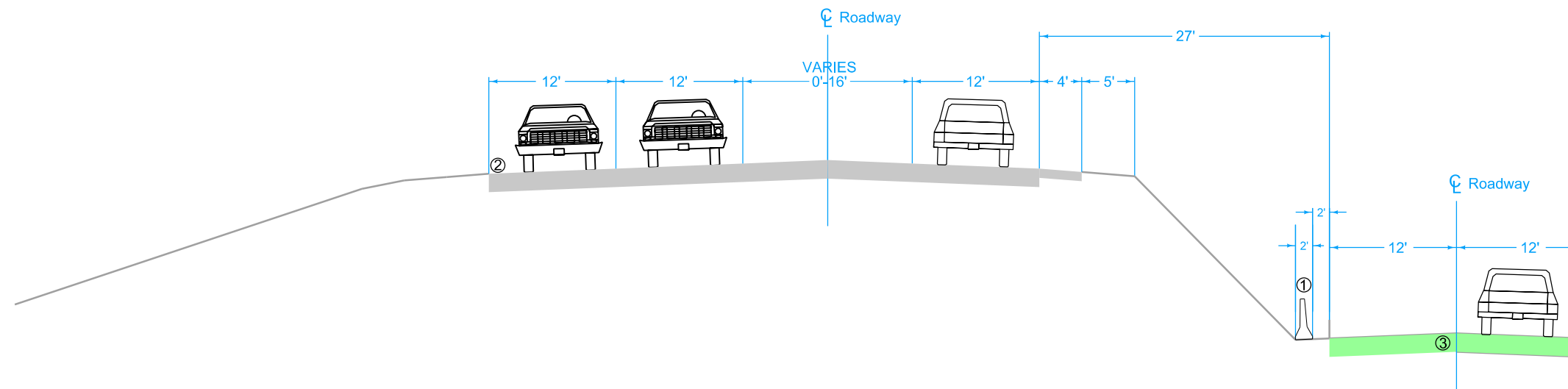
STAGE 3 CONSTRUCTION
STA. 675+00.00 to STA. 696+67.00
Traffic In Existing Eastbound Lane

- NOTES:
 ① Temporary Barrier Rail
 ② Eastbound Right Turn Lane From Sta. 683+48.97 to Sta. 690+20.00
 ③ Existing Pavement From Sta. 684+34.81 to Sta. 689+93.26

HWY 92 EXISTING WESTBOUND LANES

MEDIAN

HWY 92 EXISTING EASTBOUND LANES

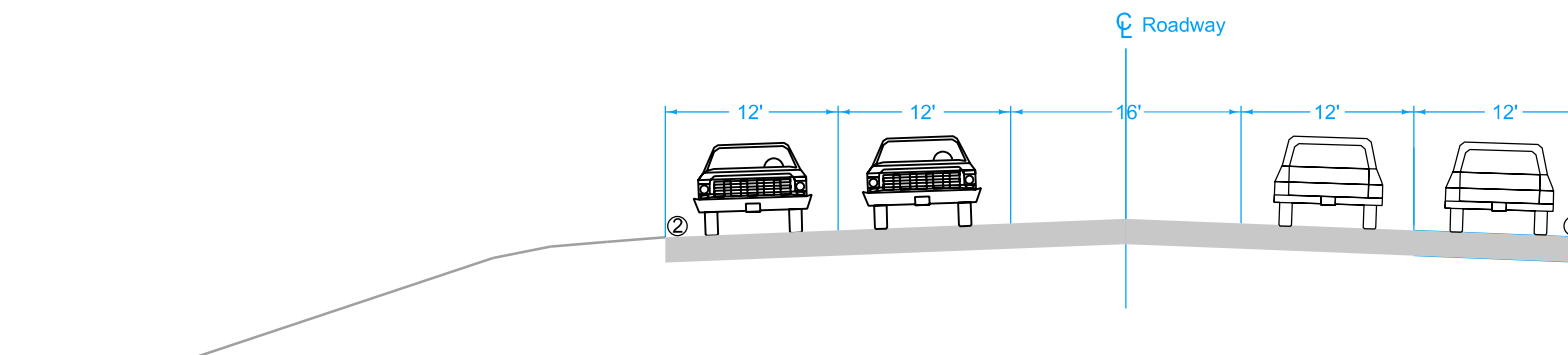


STAGE 3 CONSTRUCTION
STA. 696+67.00 to STA. 716+00.00

Traffic in Previously Constructed Lanes and Existing Eastbound Lane

- NOTES:
- ① Temporary Barrier Rail
 - ② Westbound Right Turn Lane From Sta. 703+15.00 to Sta. 709+61.08
 - ③ Existing Pavement From Sta. 705+04.08 to Sta. 708+50.13

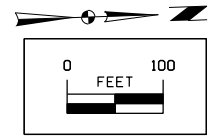
HWY 92 EXISTING WESTBOUND LANES



STAGE 4 CONSTRUCTION
STA. 675+00.00 to STA. 716+00.00

Traffic in Previously Constructed Lanes and Existing Eastbound Lane

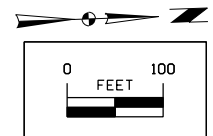
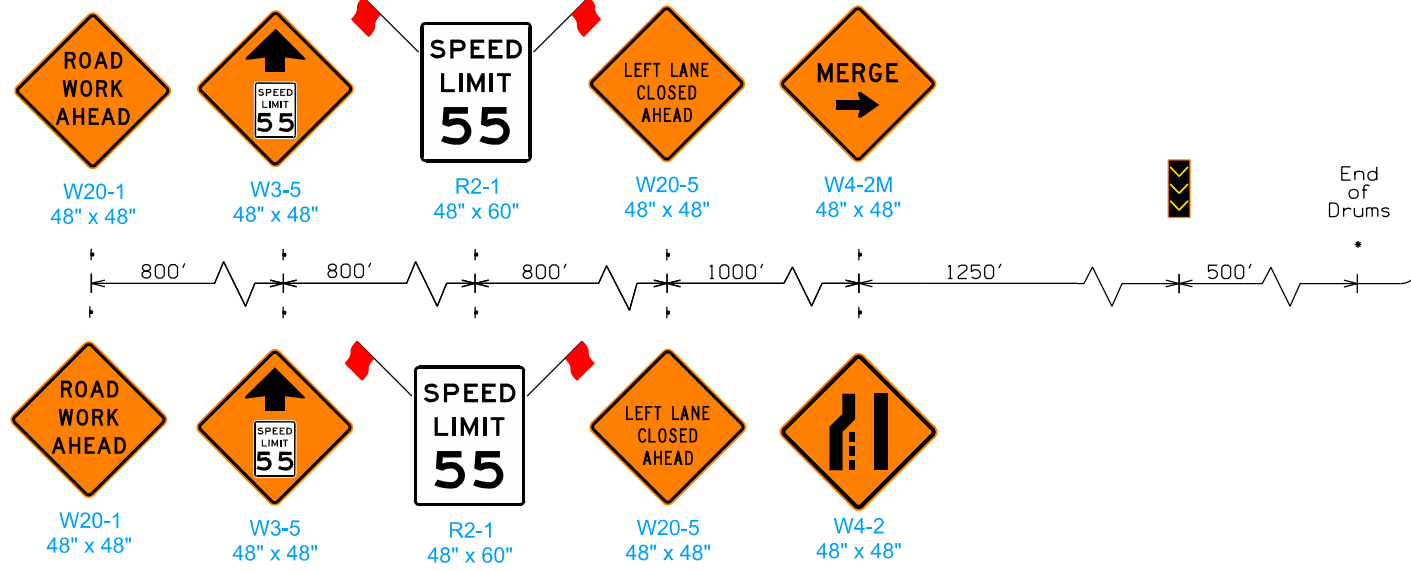
- NOTES:
- ① Eastbound Right Turn Lane From Sta. 683+48.97 to Sta. 690+20.00
 - ② Westbound Right Turn Lane From Sta. 703+15.00 to Sta. 709+61.08



605

610

65' Spacing



END ROAD WORK
G20-2A
48\" x 24\"

620

625

630

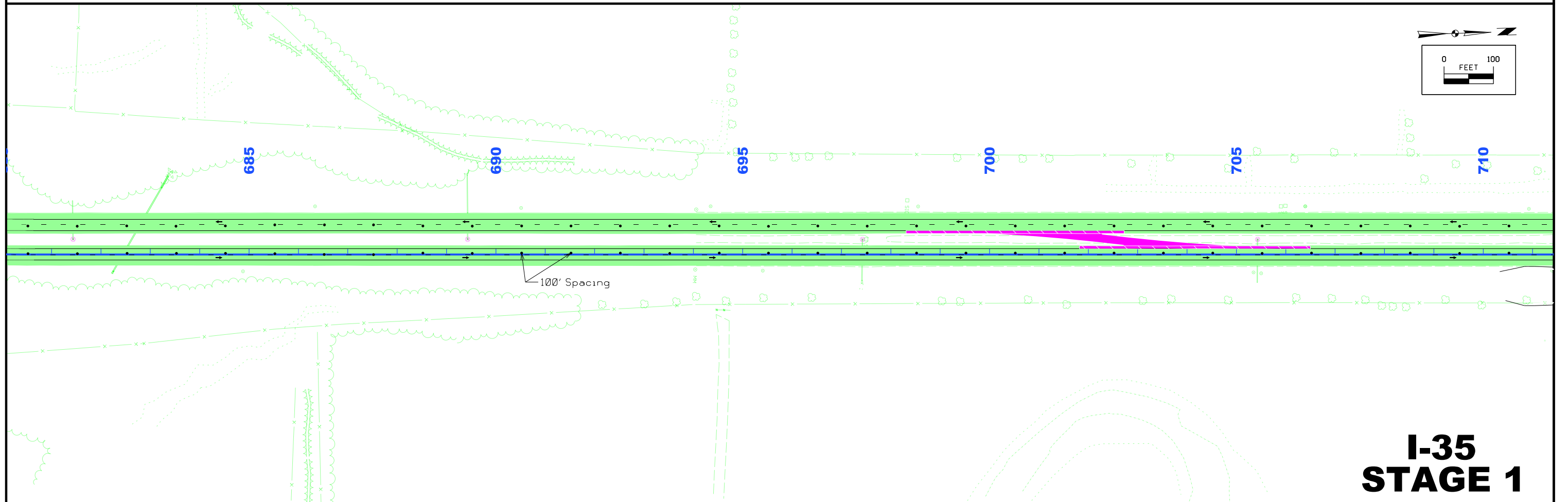
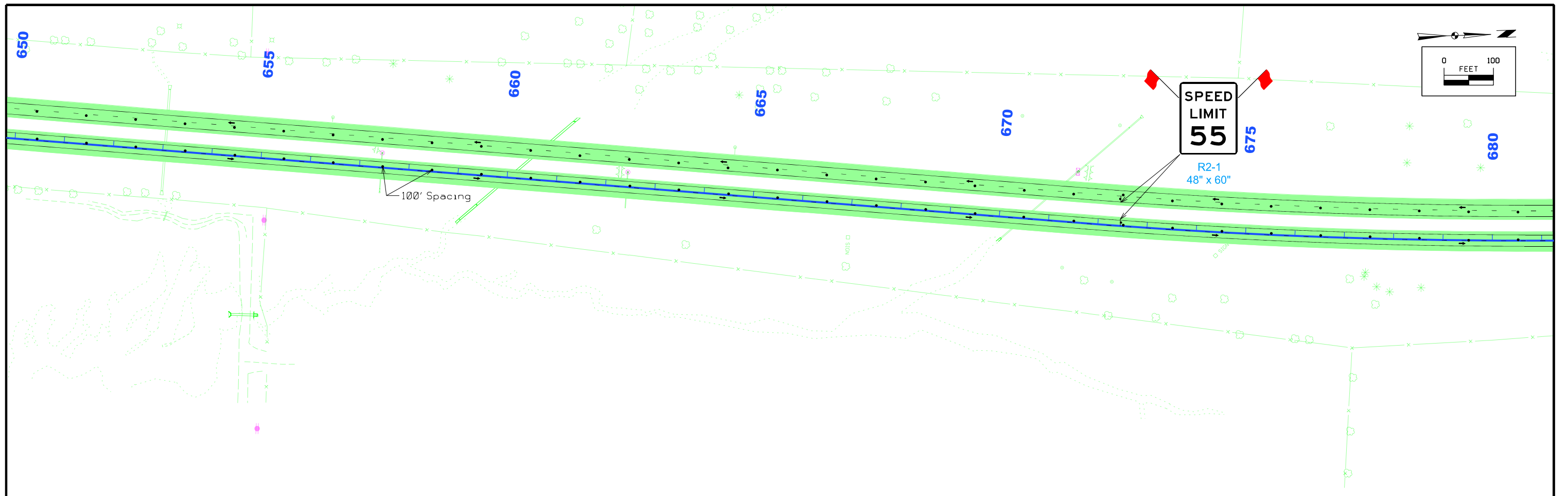
635

640

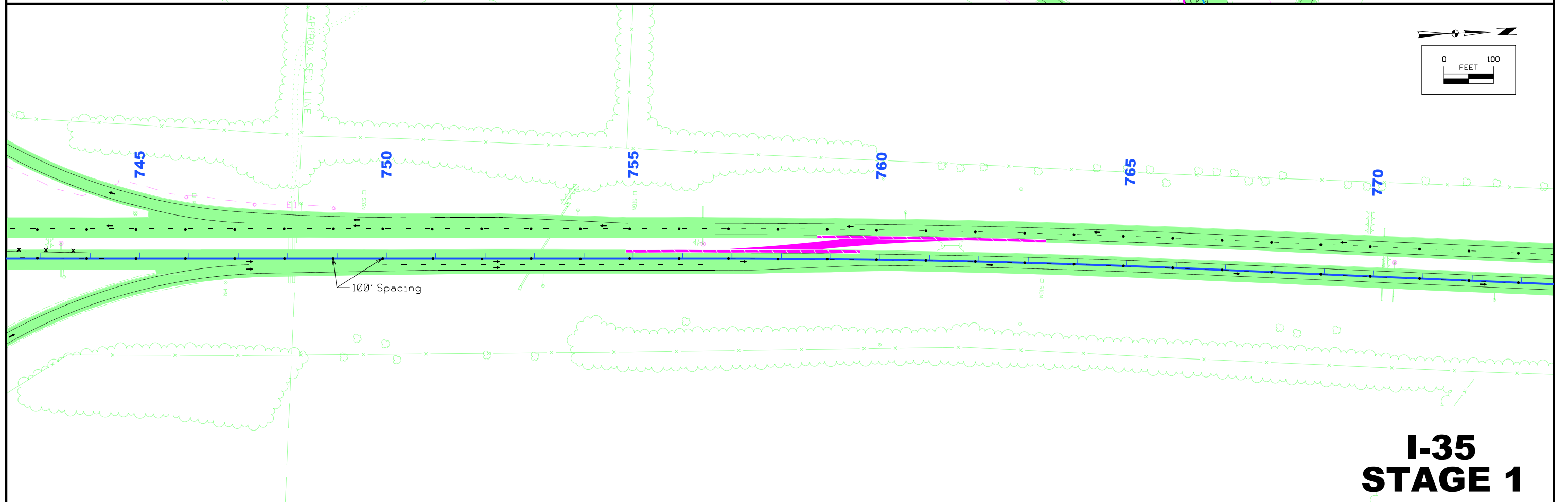
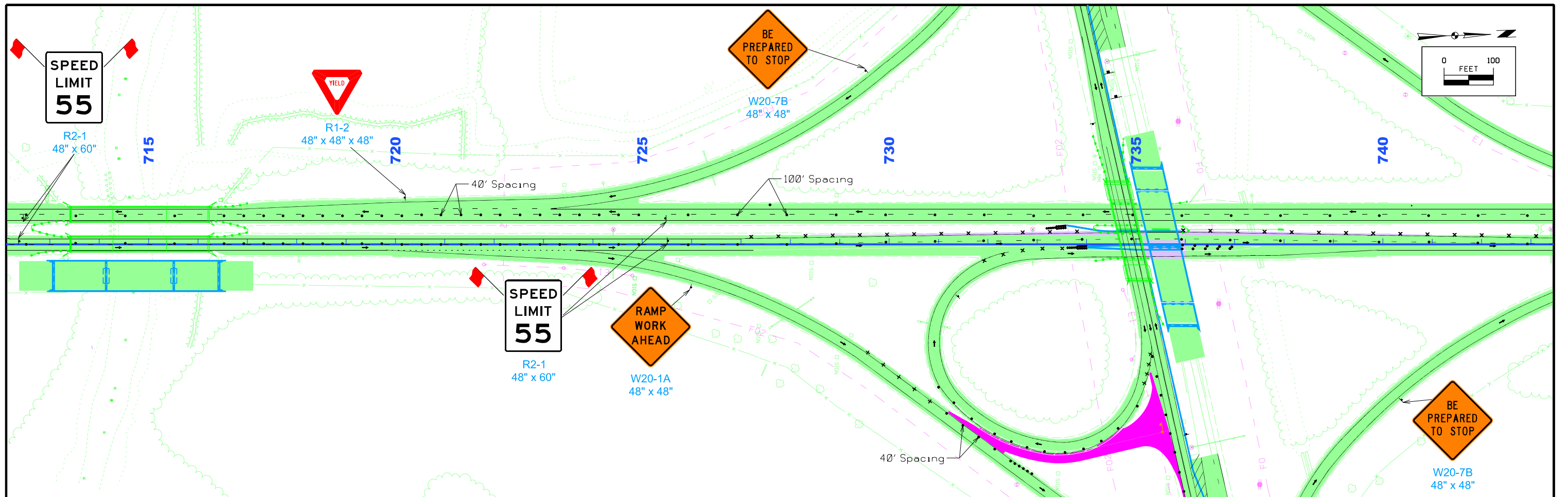
20' Spacing

100' Spacing

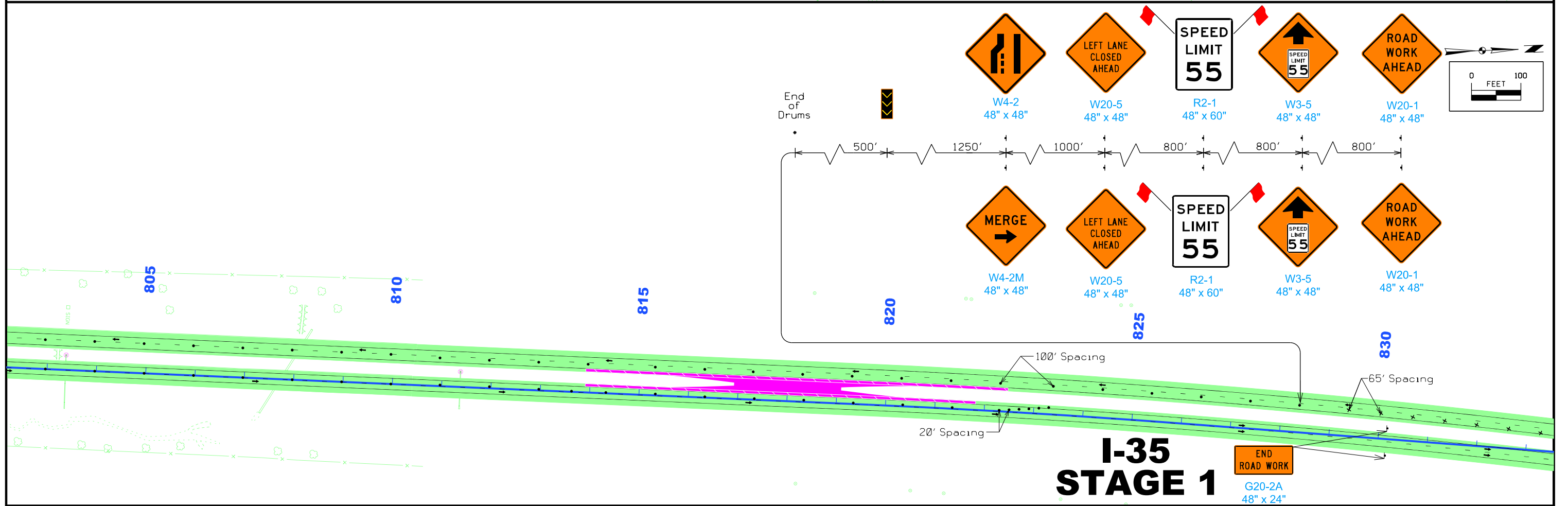
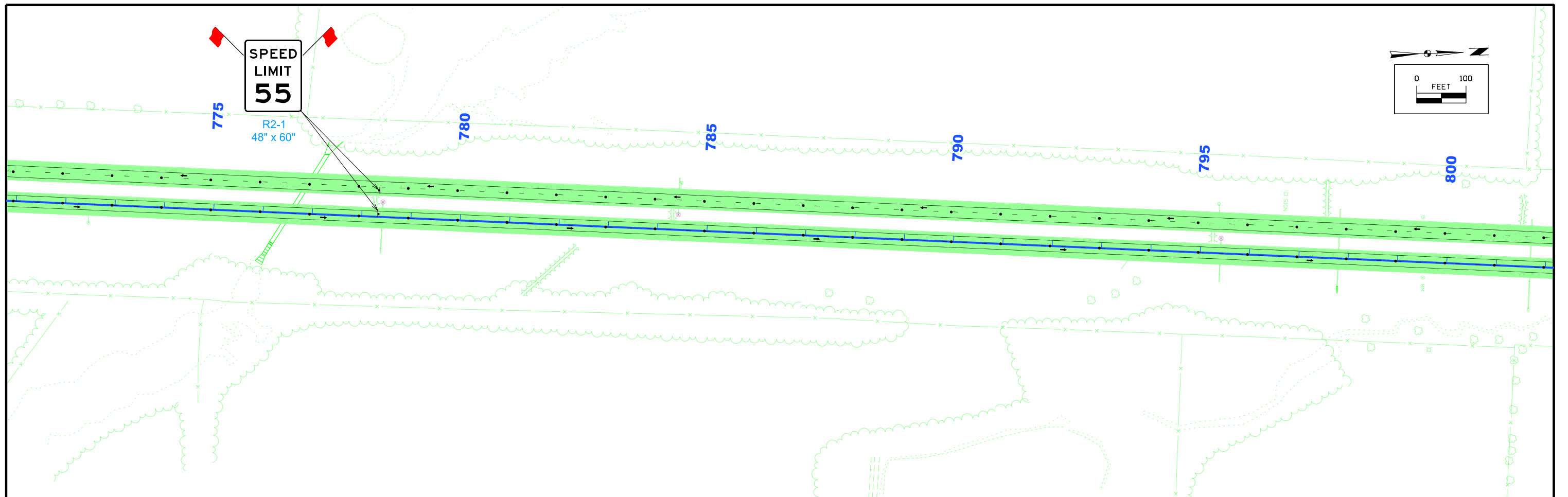
I-35 STAGE 1



I-35 STAGE 1

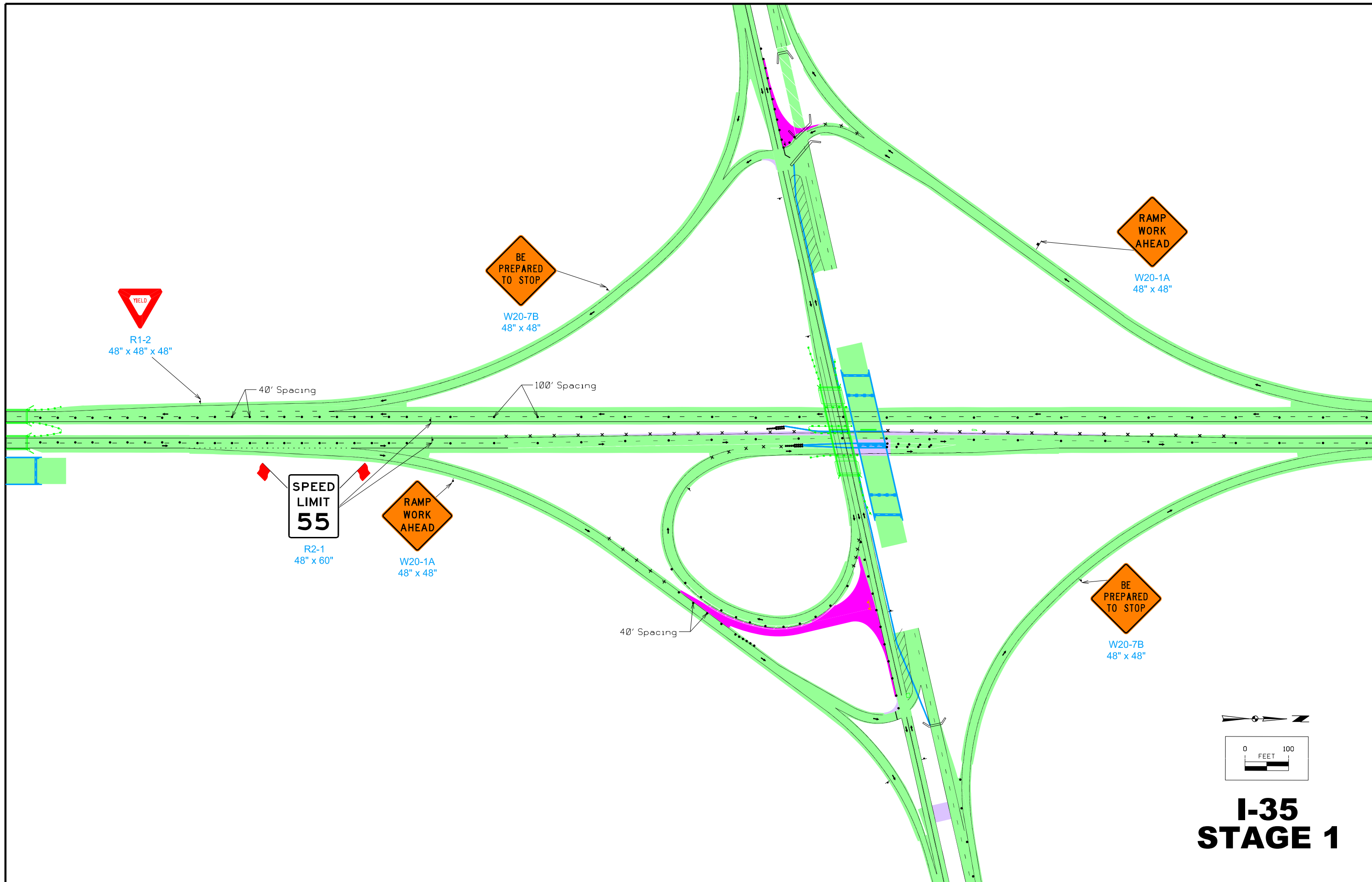


I-35 STAGE 1



I-35 STAGE 1

END
ROAD WORK
G20-2A
48" x 24"



YIELD
R1-2
48" x 48" x 48"

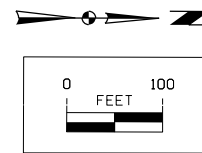
BE
PREPARED
TO STOP
W20-7B
48" x 48"

RAMP
WORK
AHEAD
W20-1A
48" x 48"

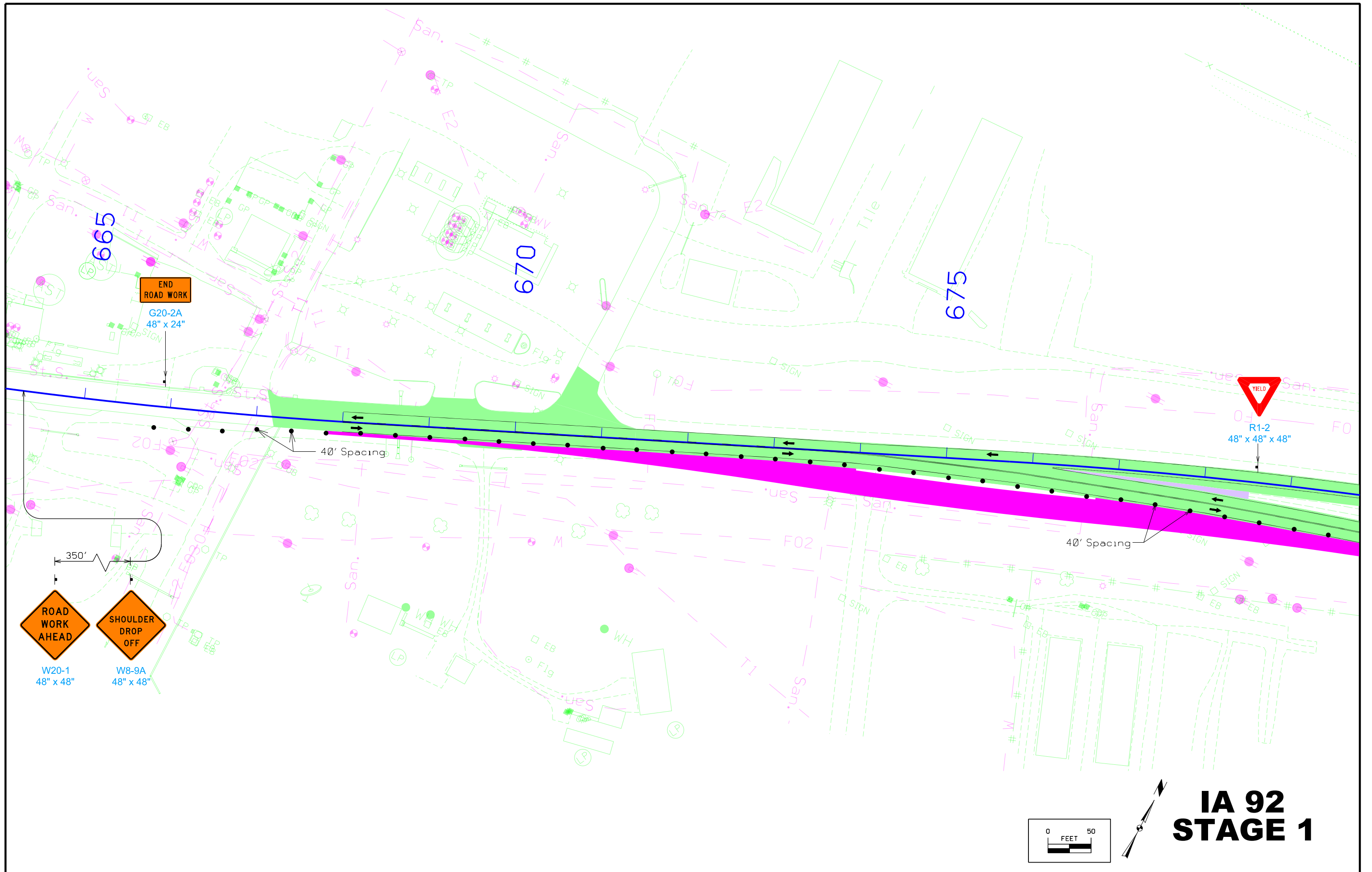
SPEED
LIMIT
55
R2-1
48" x 60"

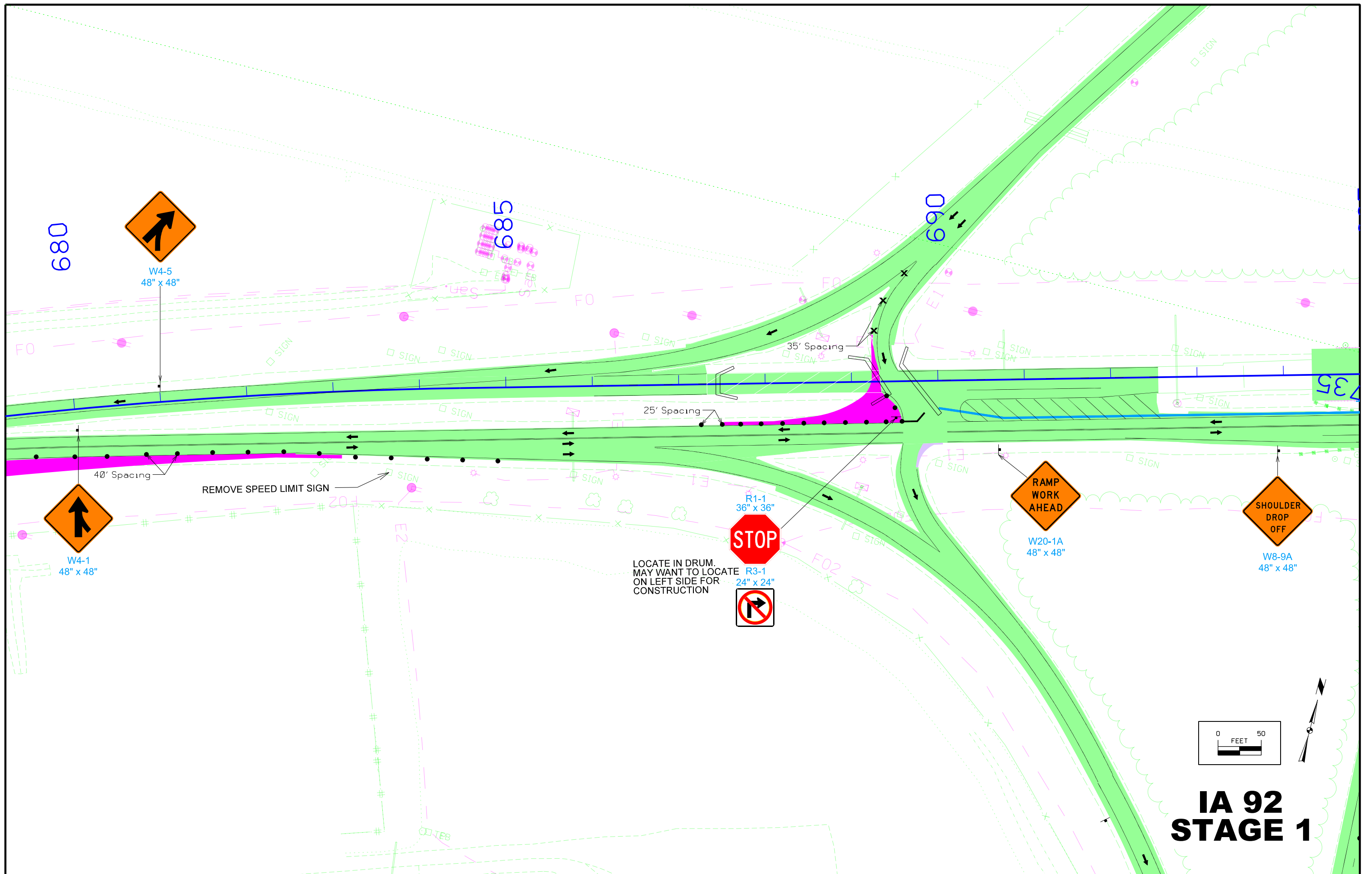
RAMP
WORK
AHEAD
W20-1A
48" x 48"

BE
PREPARED
TO STOP
W20-7B
48" x 48"

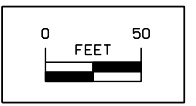
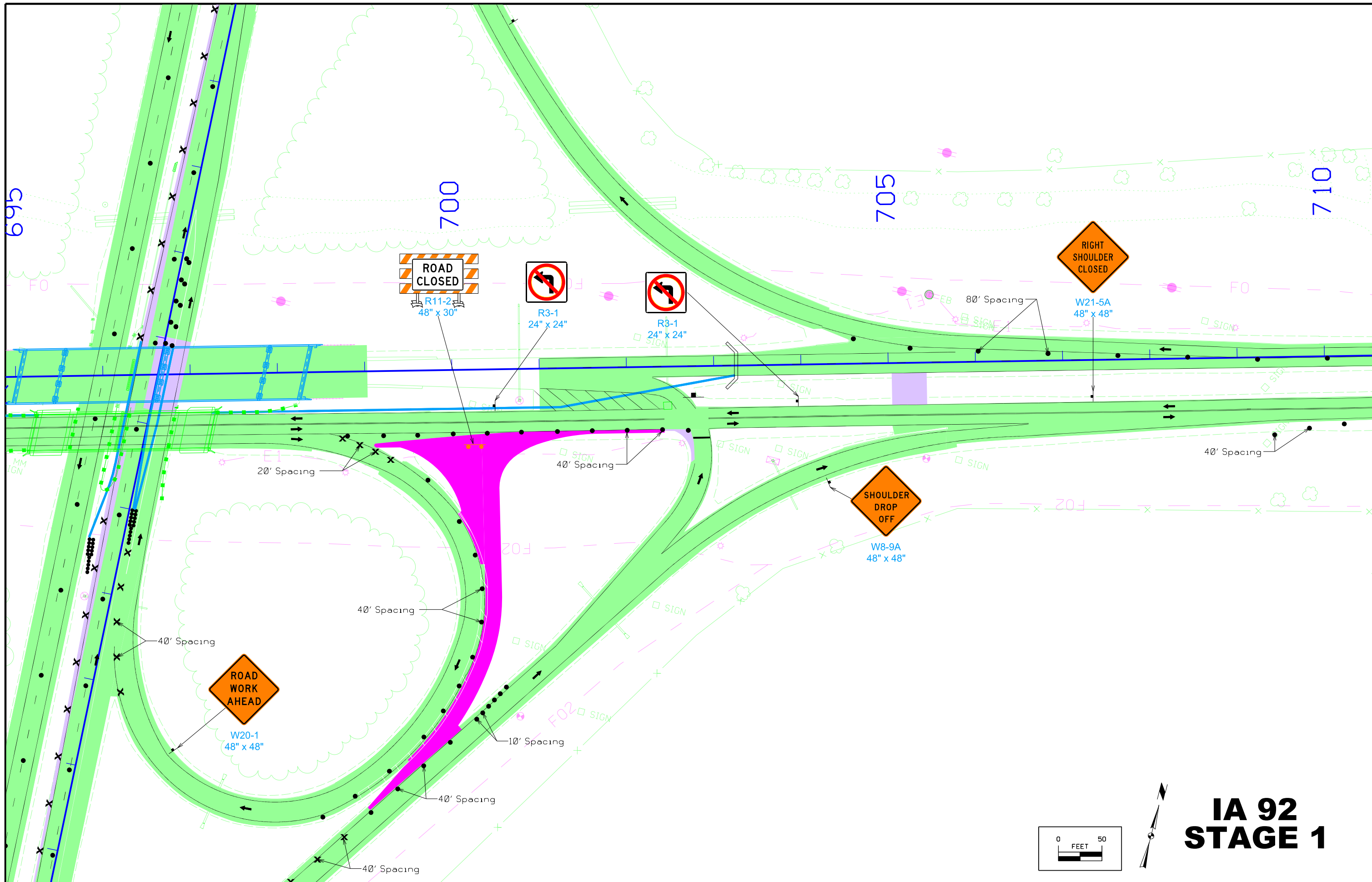


I-35 STAGE 1

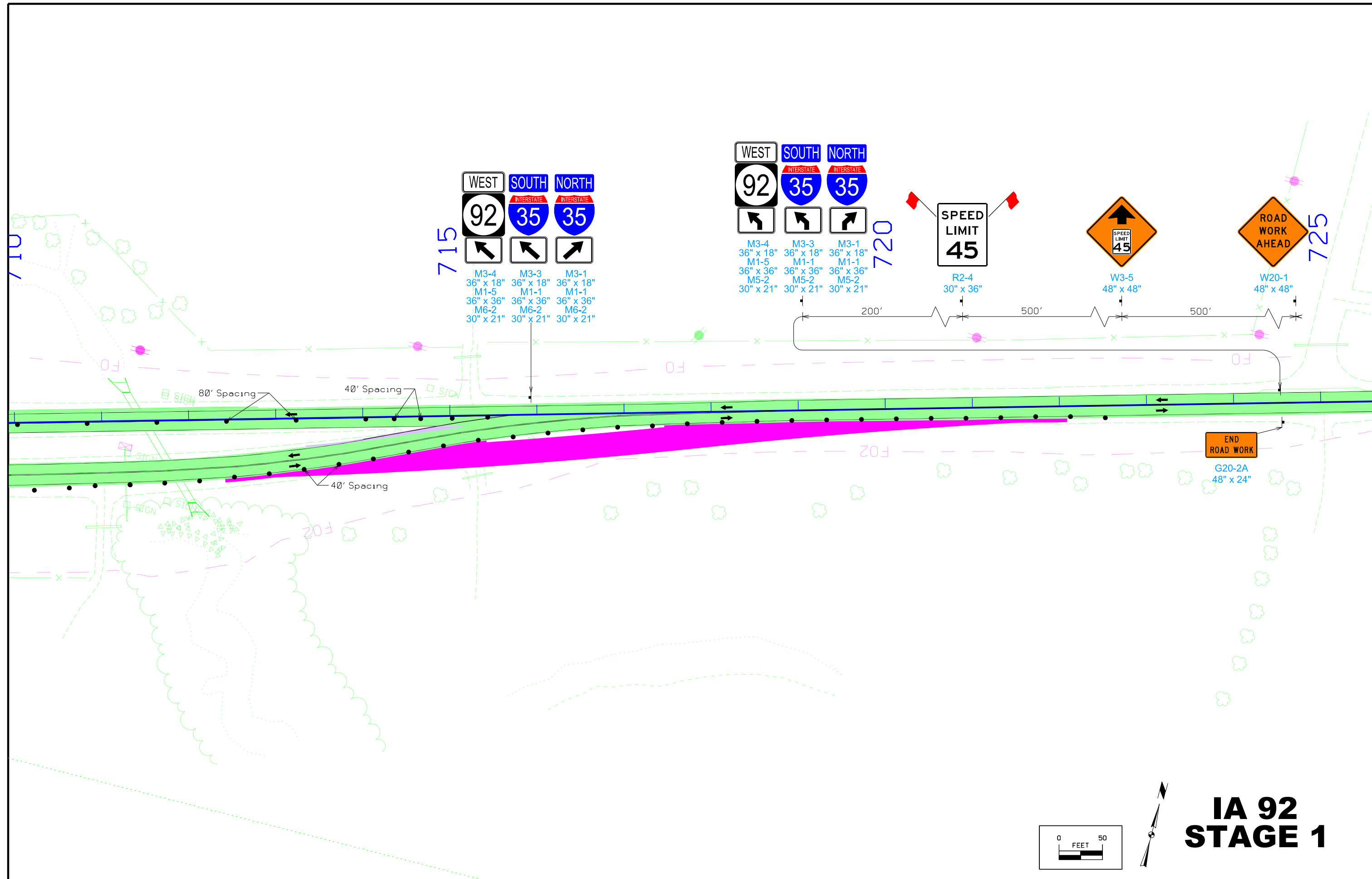




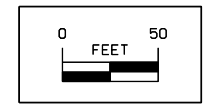
IA 92 STAGE 1

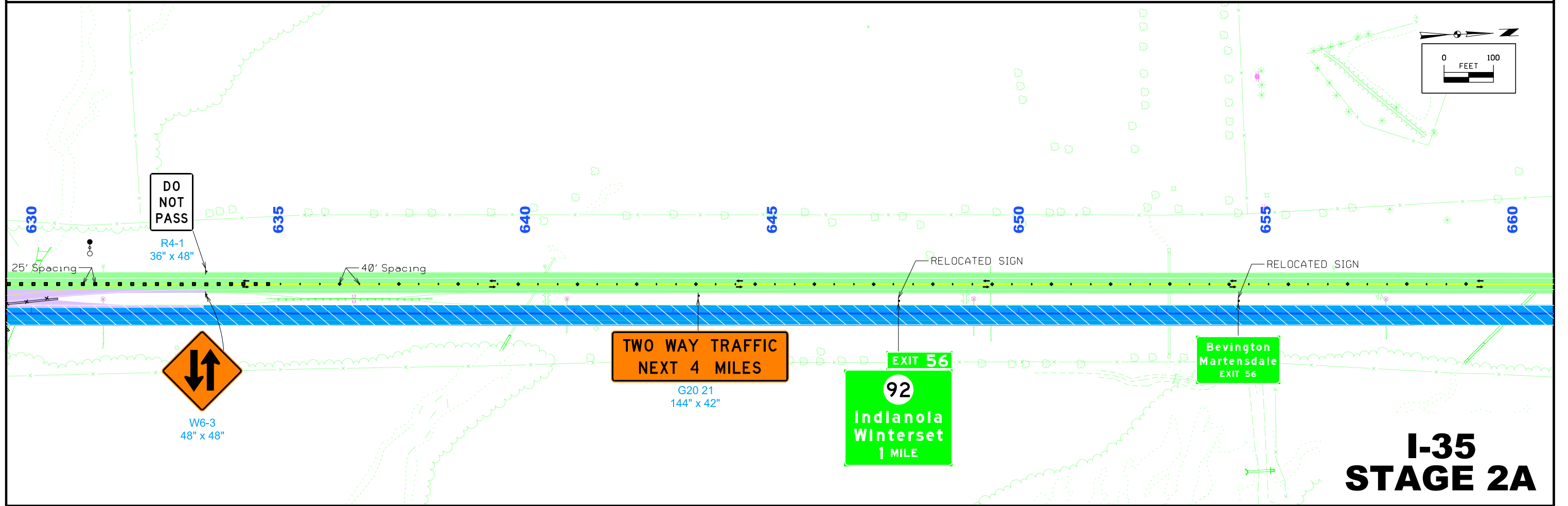
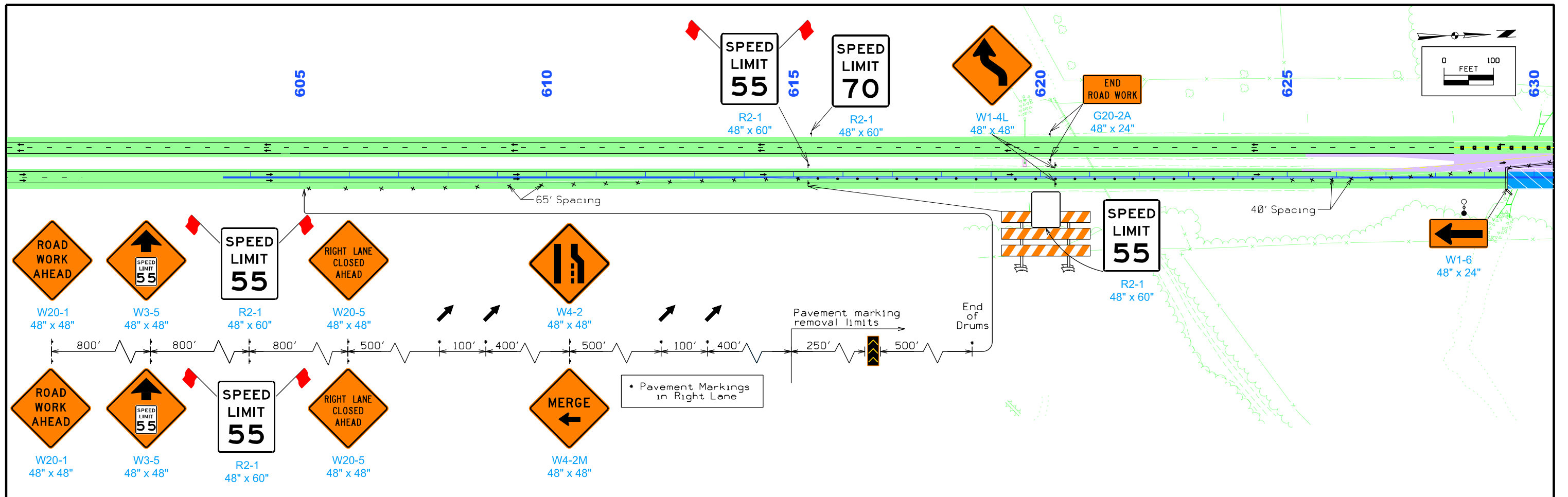


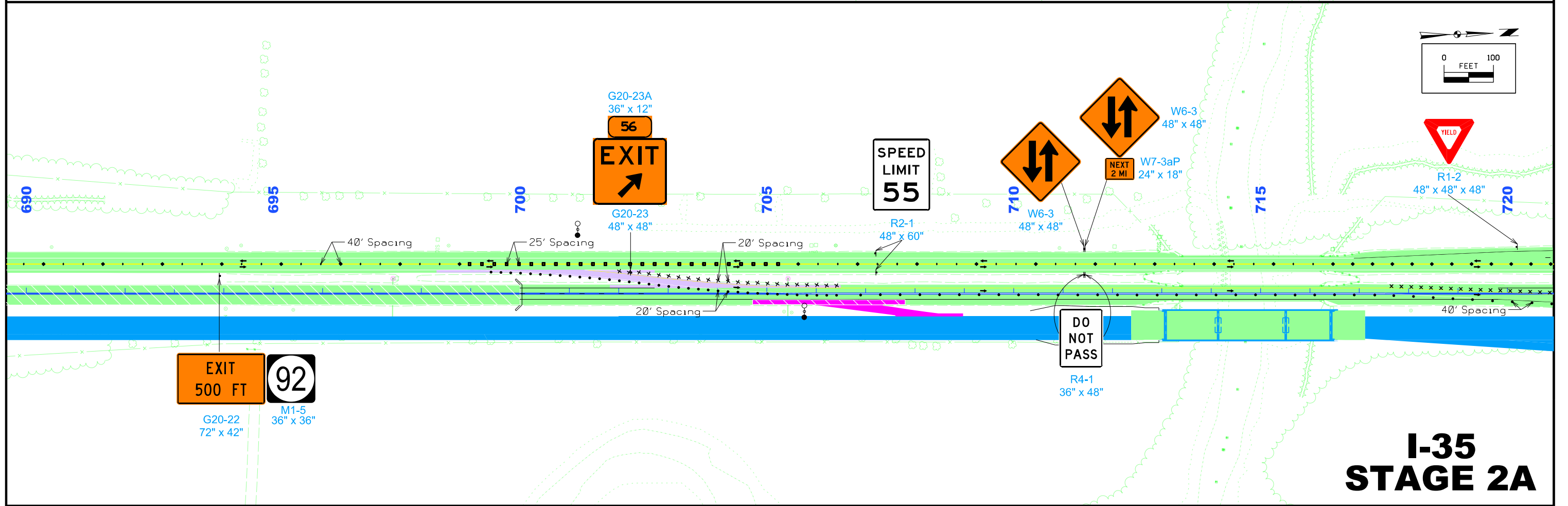
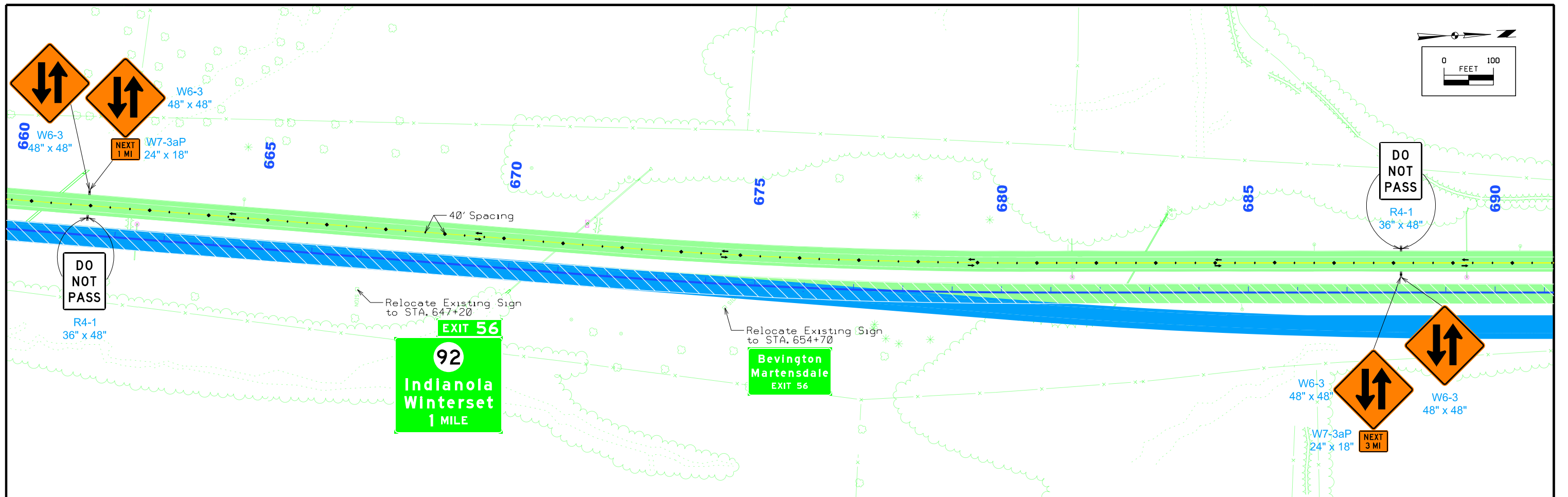
IA 92 STAGE 1



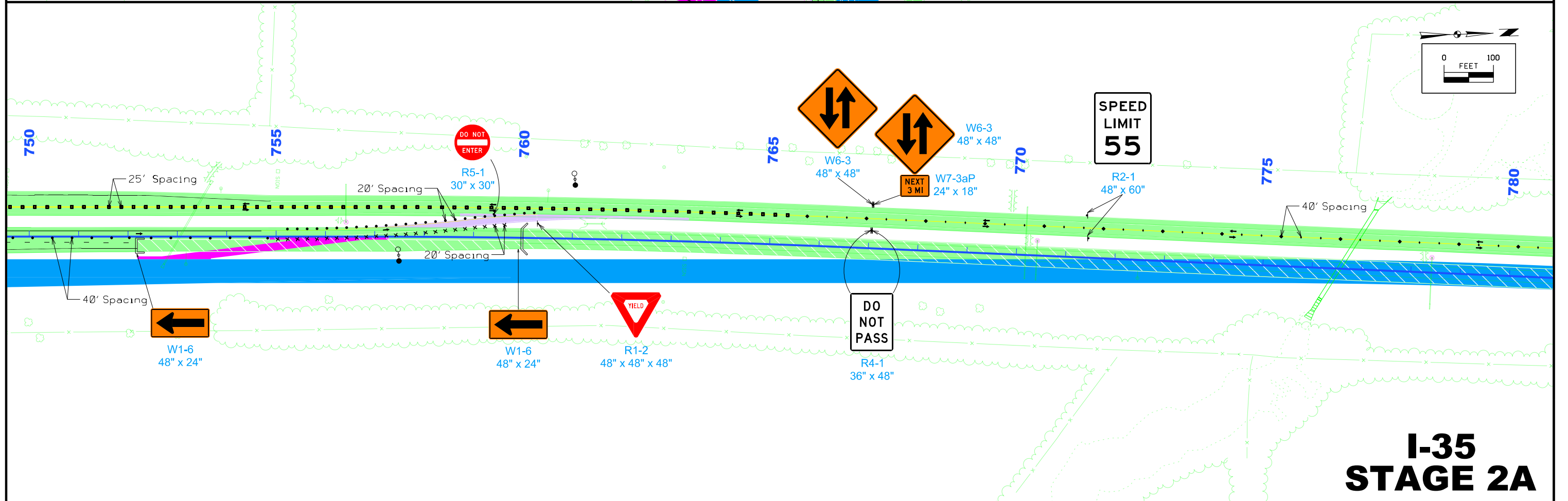
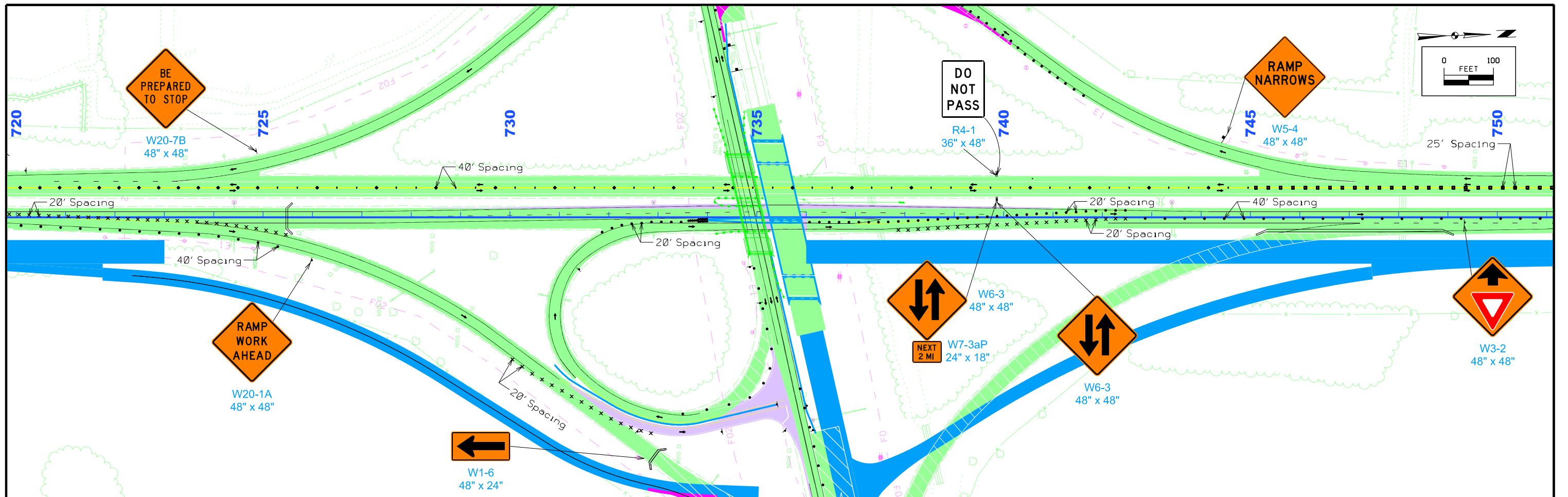
IA 92 STAGE 1



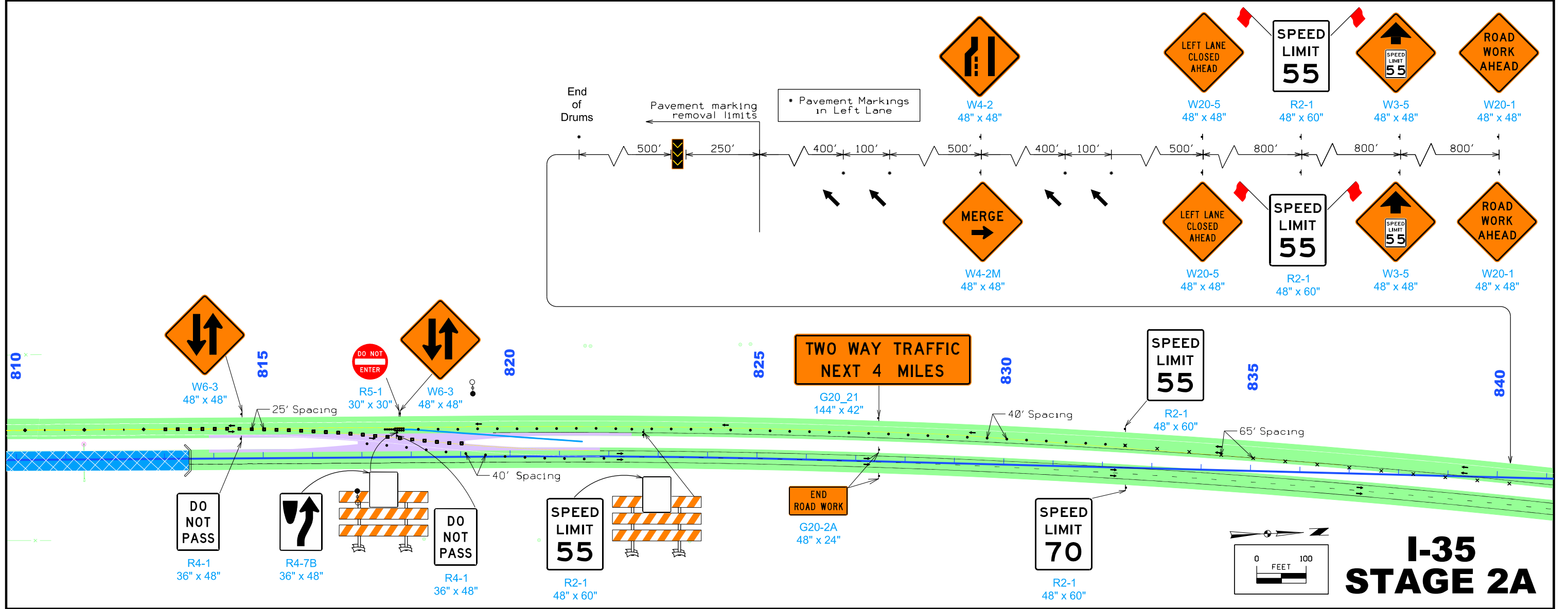
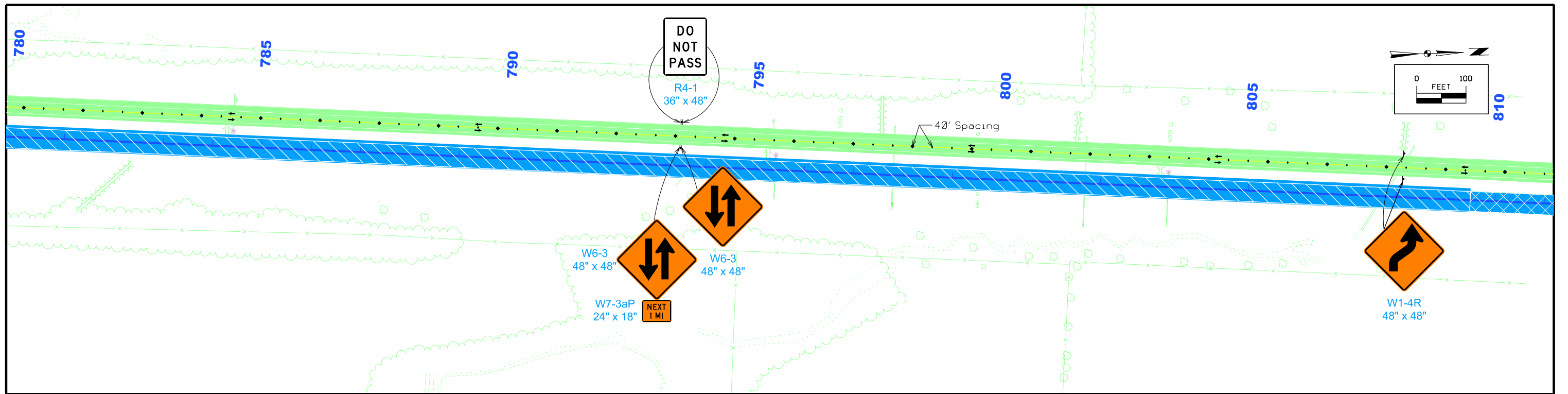


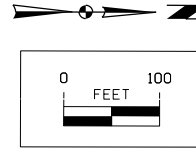
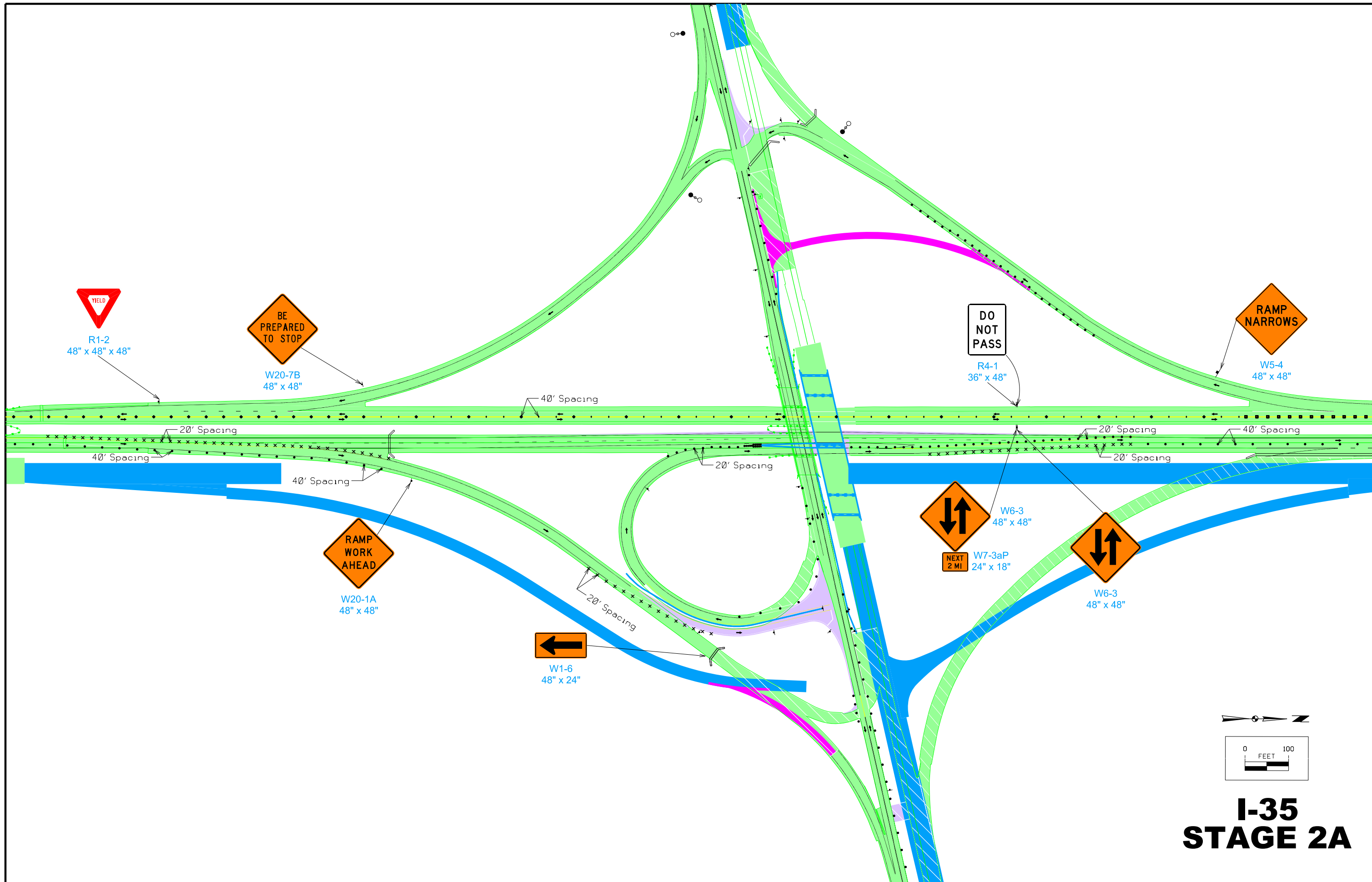


**I-35
STAGE 2A**

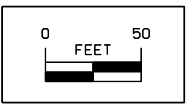
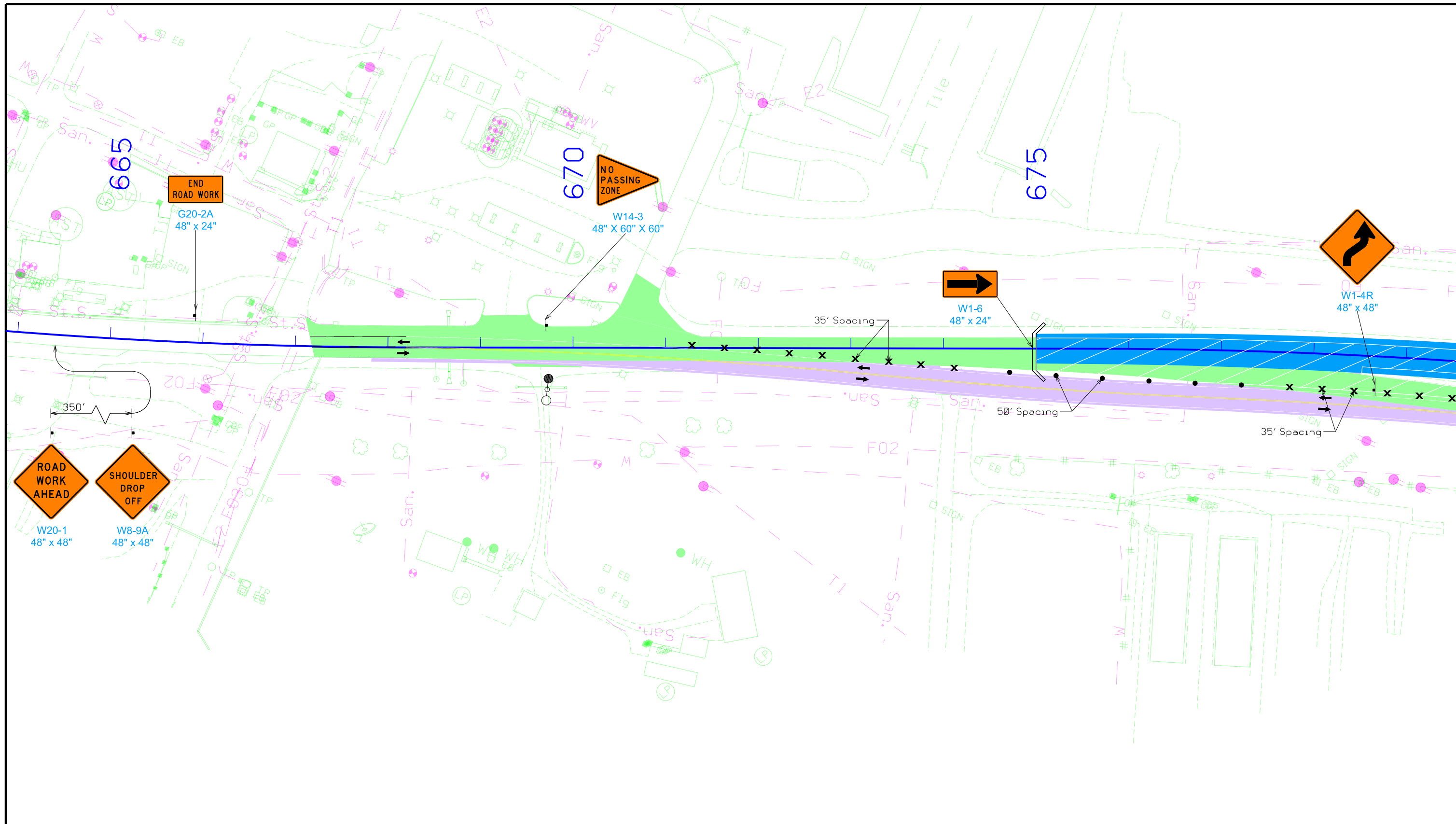


I-35 STAGE 2A

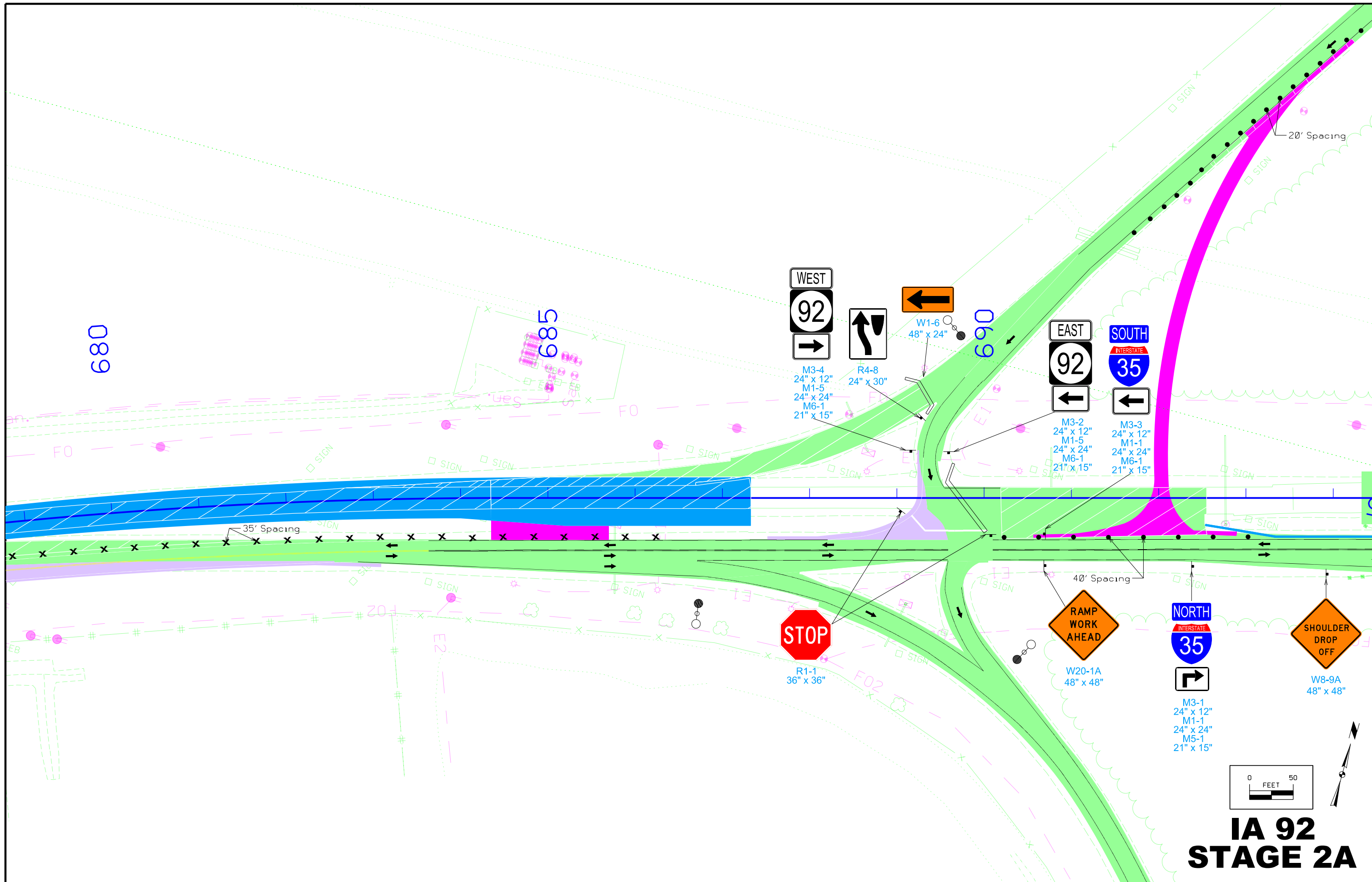




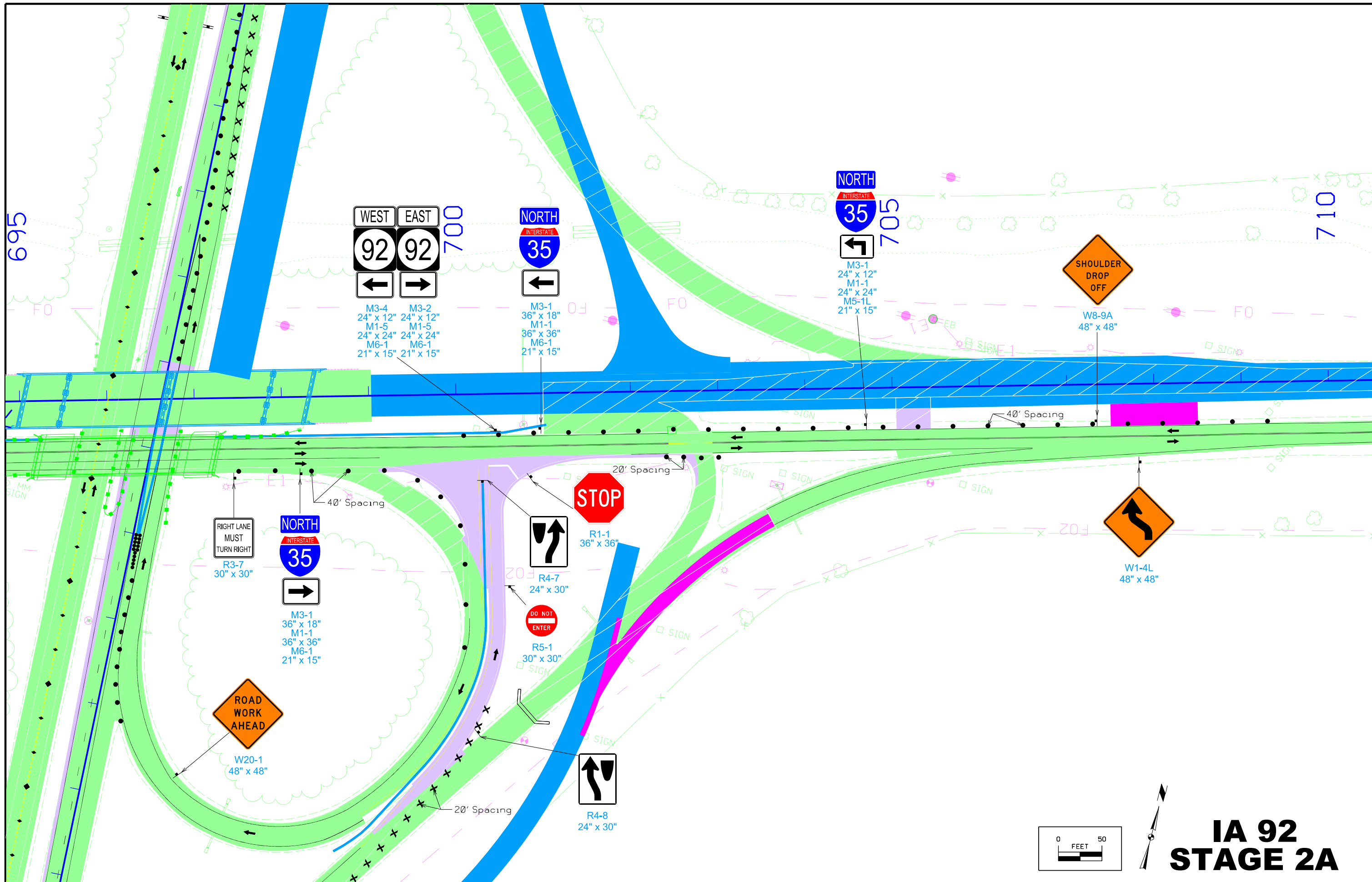
I-35 STAGE 2A



IA 92 STAGE 2A



IA 92 STAGE 2A



WEST EAST
92 **92**
 ← →

M3-4 24" x 12"
 M1-5 24" x 24"
 M6-1 21" x 15"

M3-2 24" x 12"
 M1-5 24" x 24"
 M6-1 21" x 15"

NORTH
 INTERSTATE
35
 ←

M3-1 36" x 18"
 M1-1 36" x 36"
 M6-1 21" x 15"

NORTH
 INTERSTATE
35
 ↙

M3-1 24" x 12"
 M1-1 24" x 24"
 M5-1L 21" x 15"

RIGHT LANE
 MUST
 TURN RIGHT

NORTH
 INTERSTATE
35
 →

M3-1 36" x 18"
 M1-1 36" x 36"
 M6-1 21" x 15"

STOP

R1-1 36" x 36"

R4-7 24" x 30"

DO NOT
 ENTER

R5-1 30" x 30"

R4-8 24" x 30"

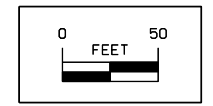
SHOULDER
 DROP
 OFF

W8-9A
 48" x 48"

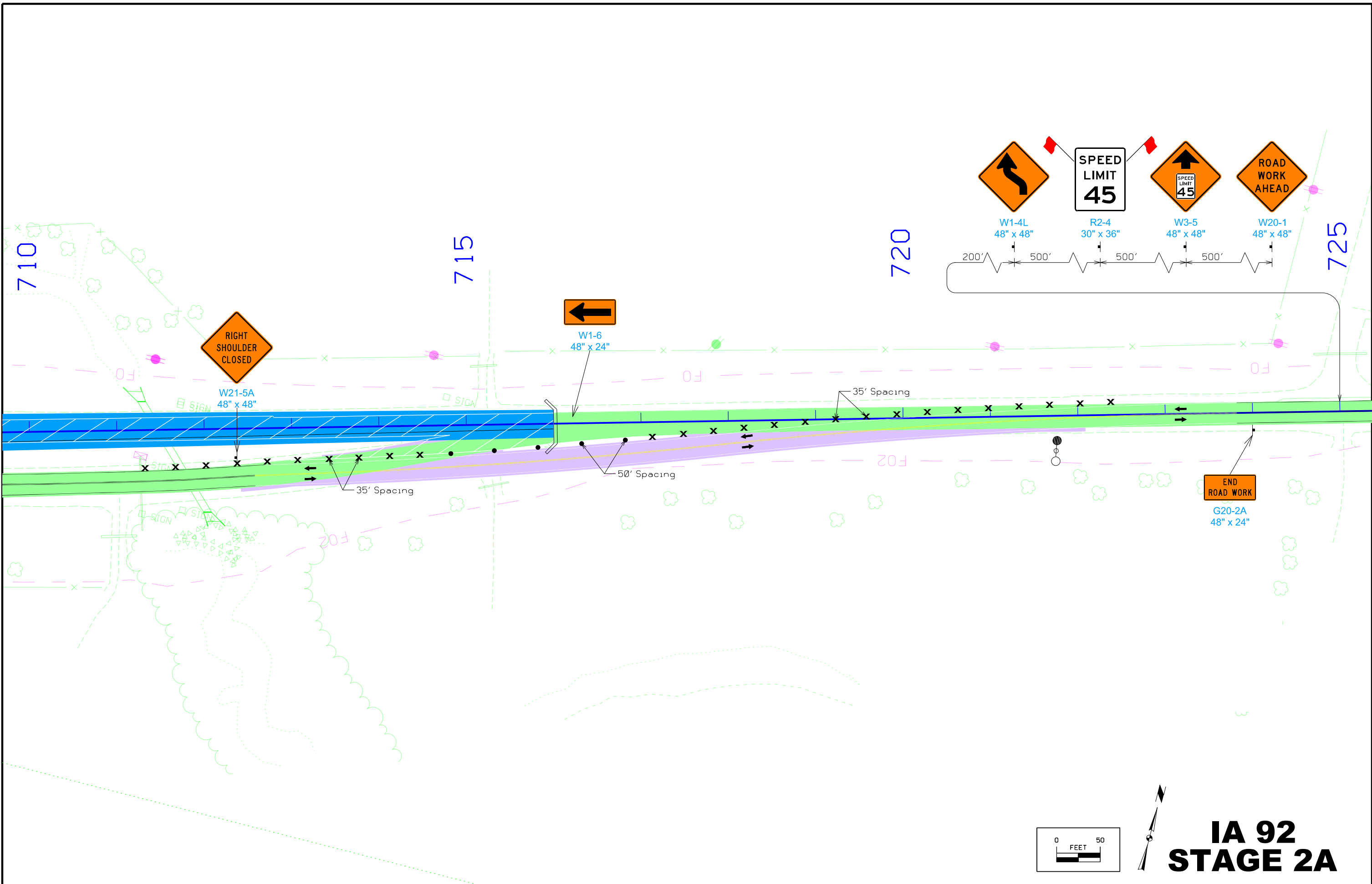
W1-4L
 48" x 48"

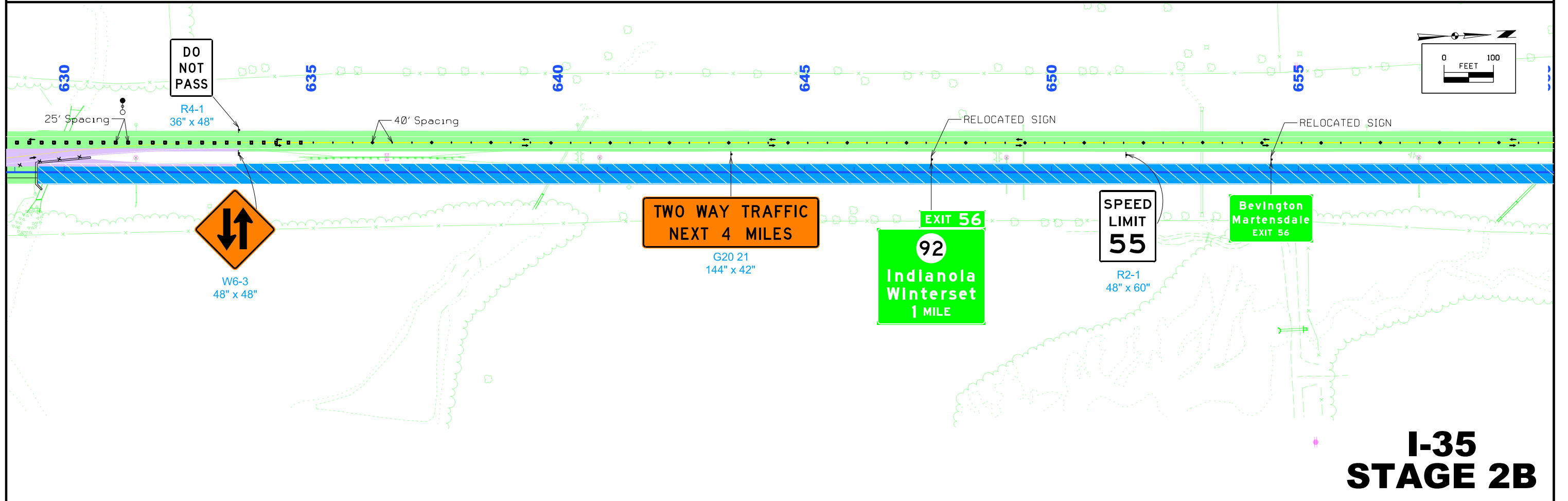
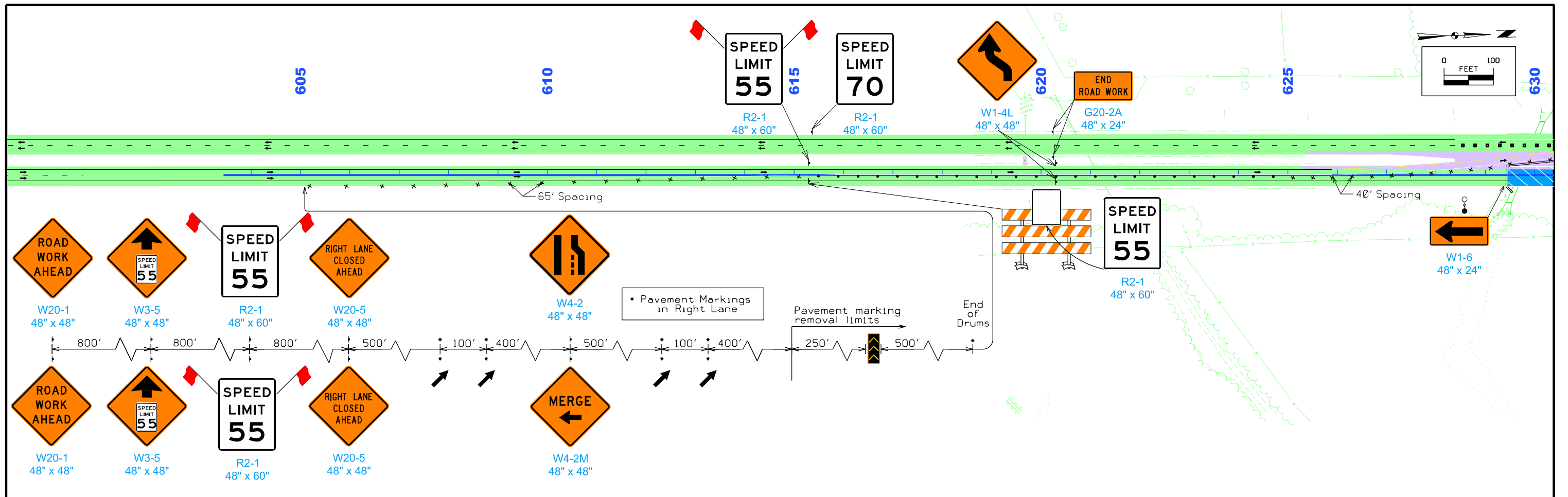
ROAD
 WORK
 AHEAD

W20-1
 48" x 48"

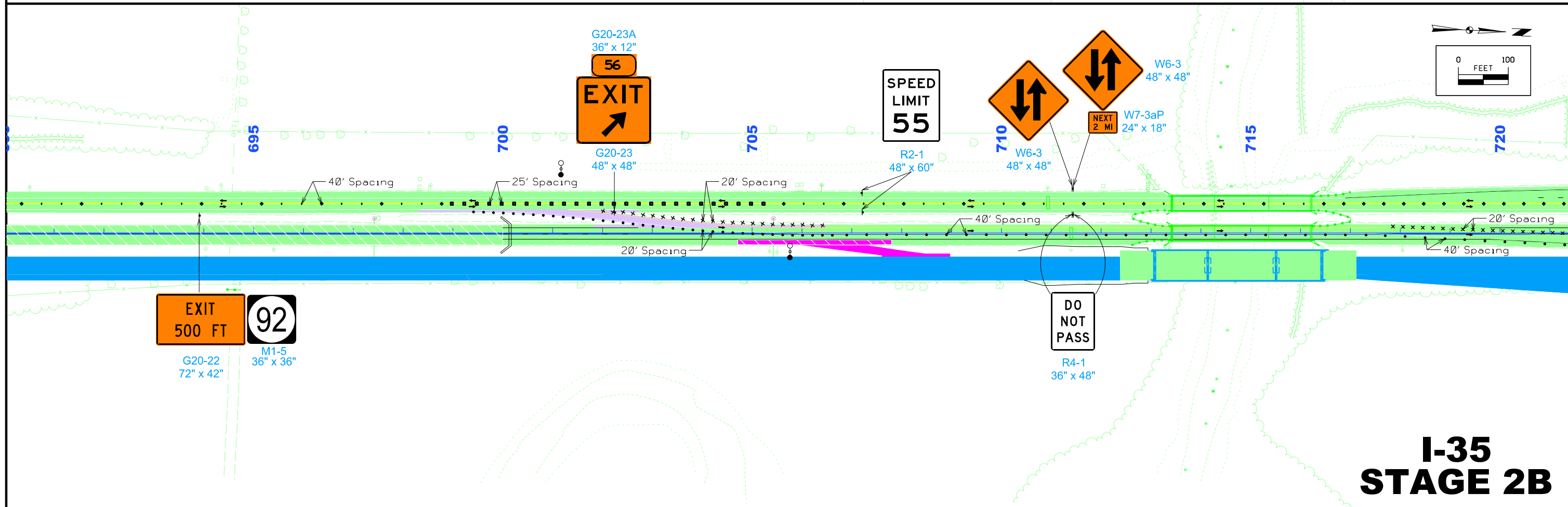
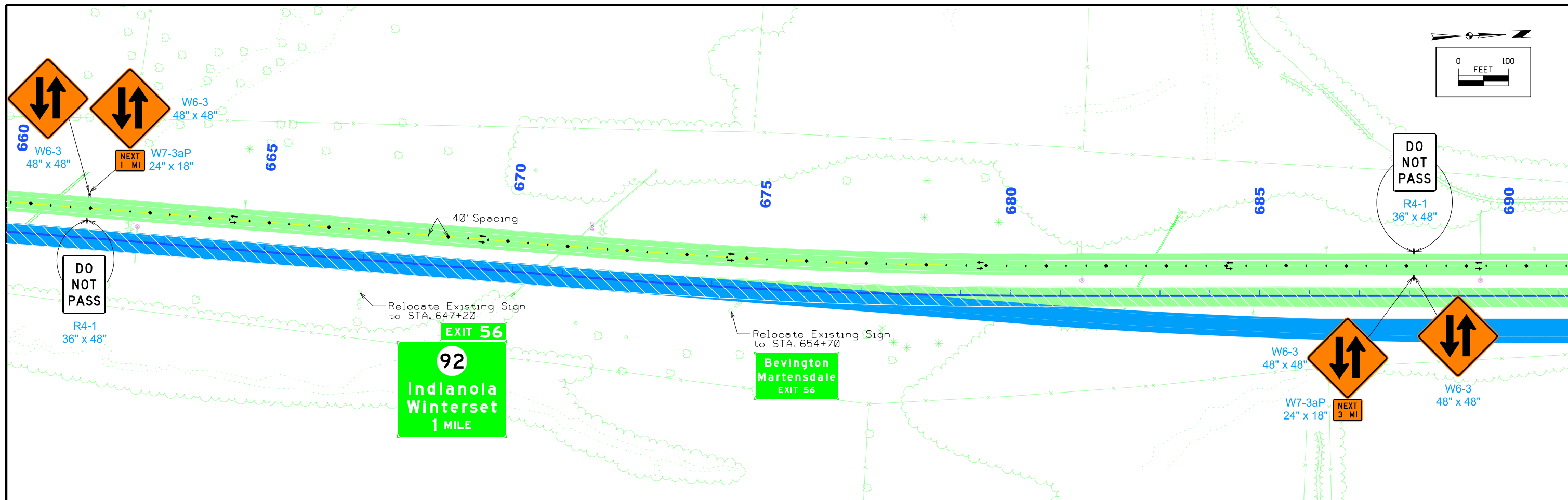


IA 92 STAGE 2A

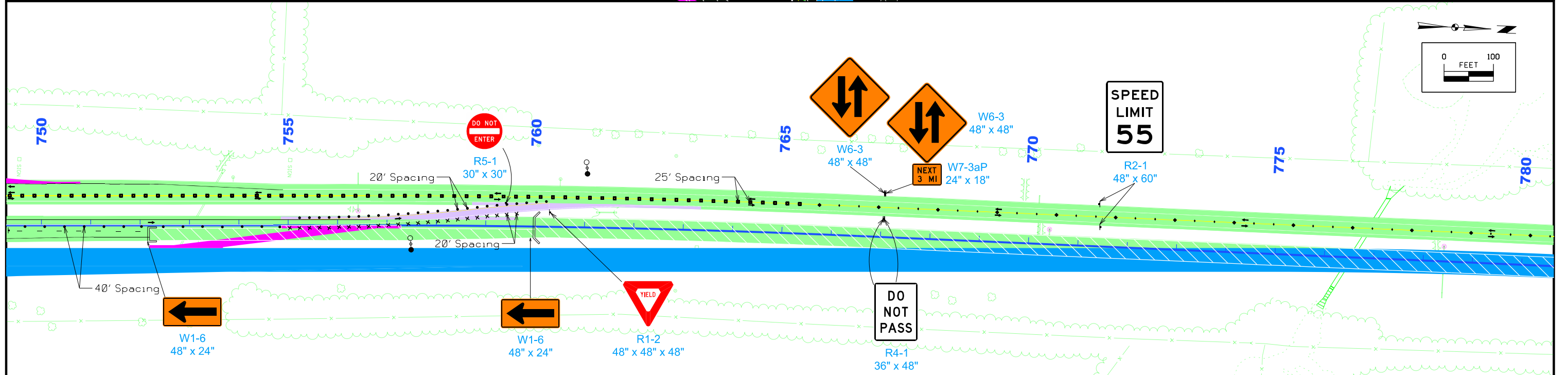
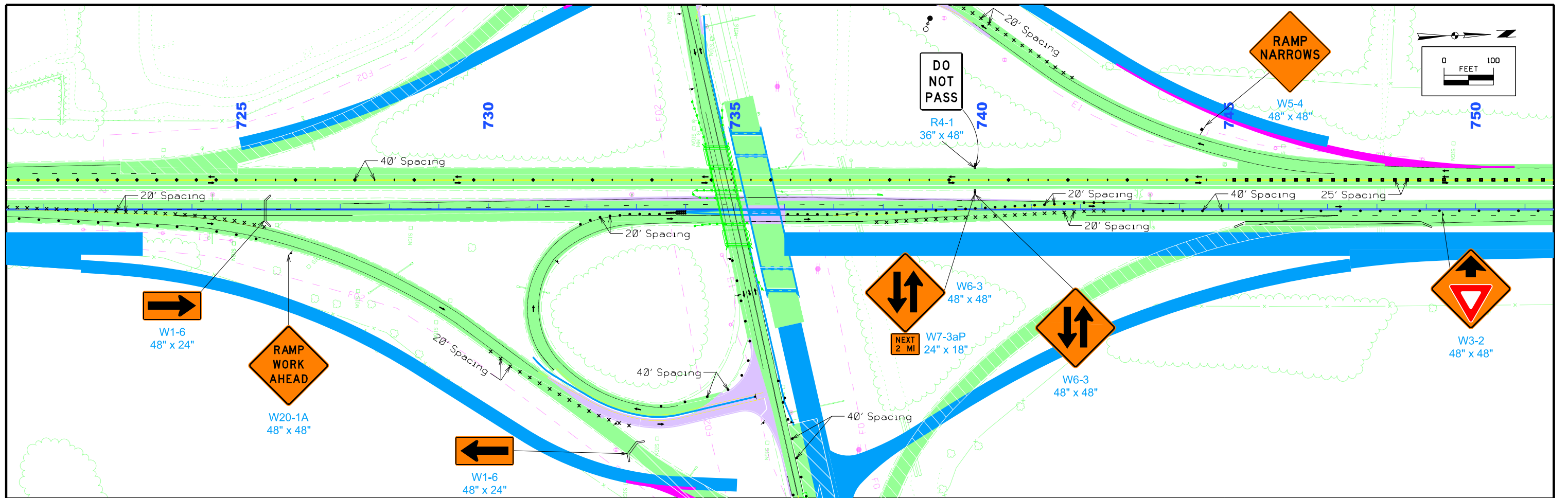




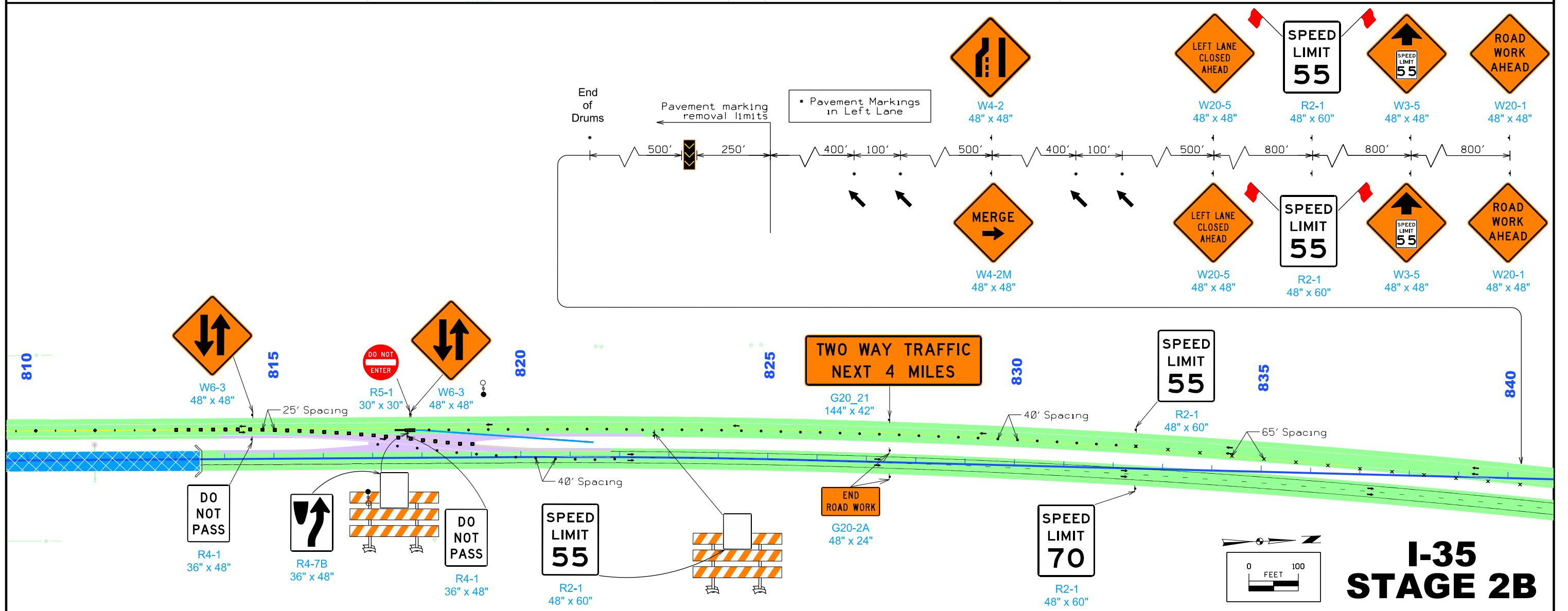
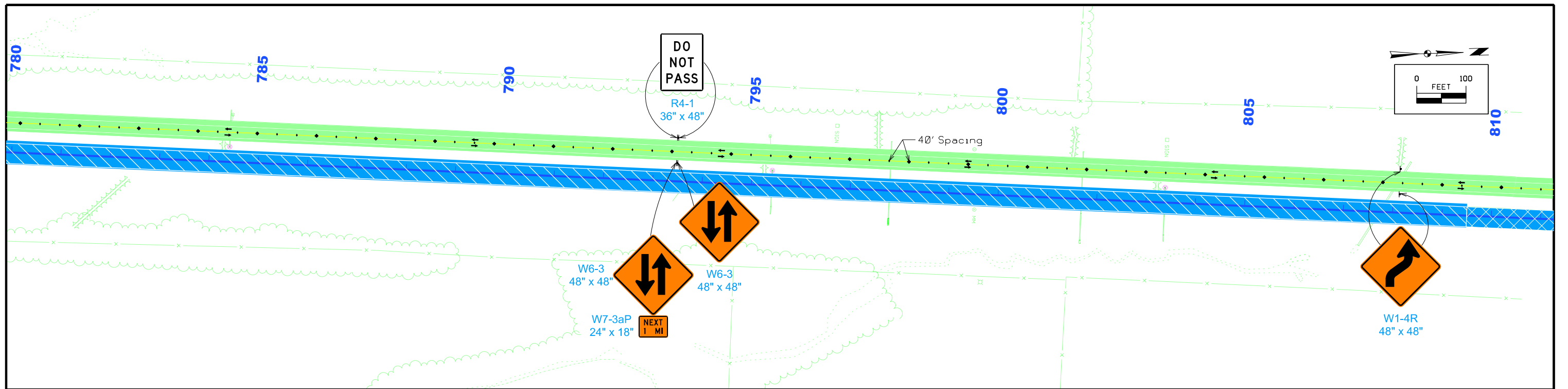
I-35 STAGE 2B

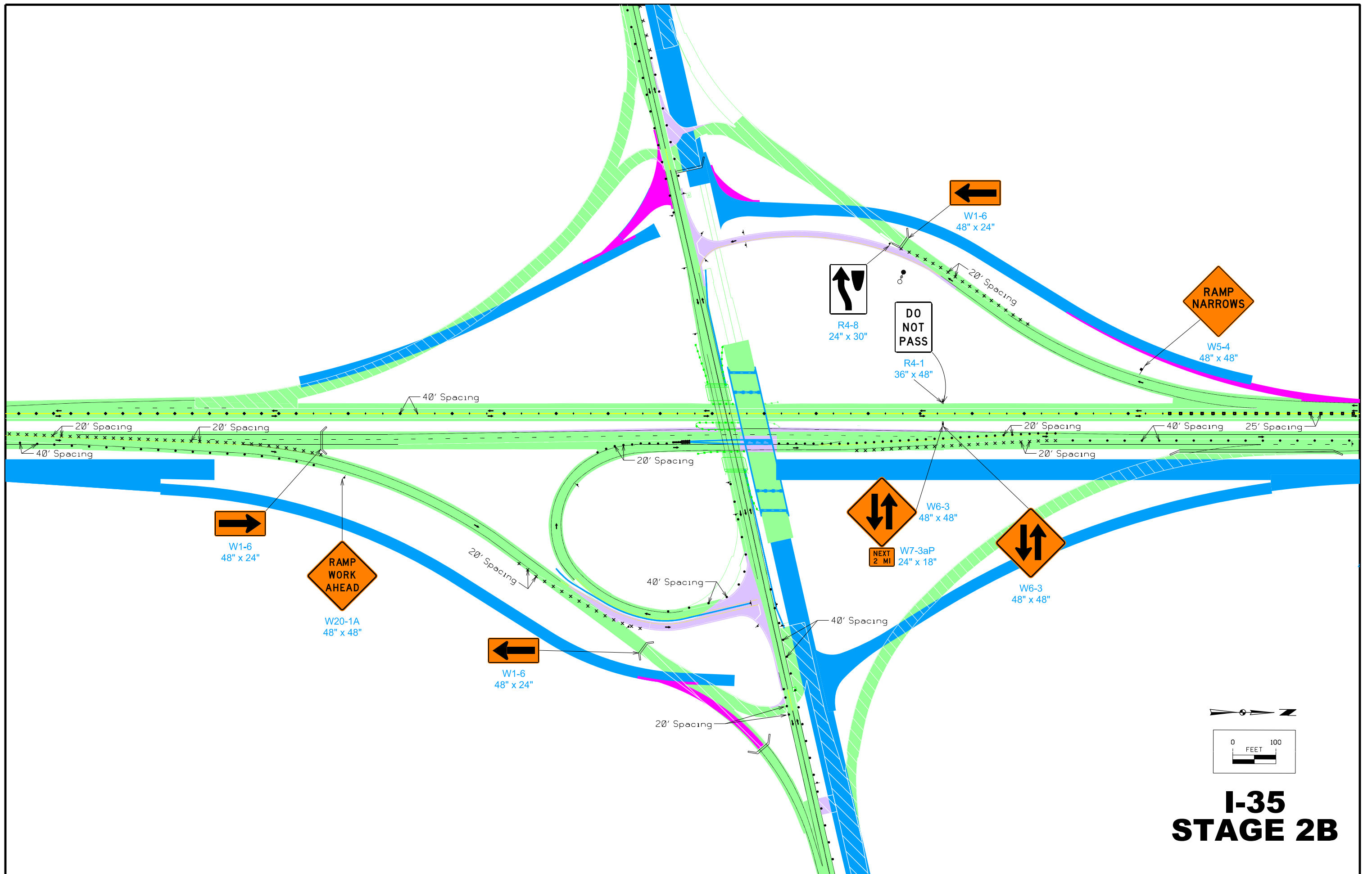


I-35 STAGE 2B

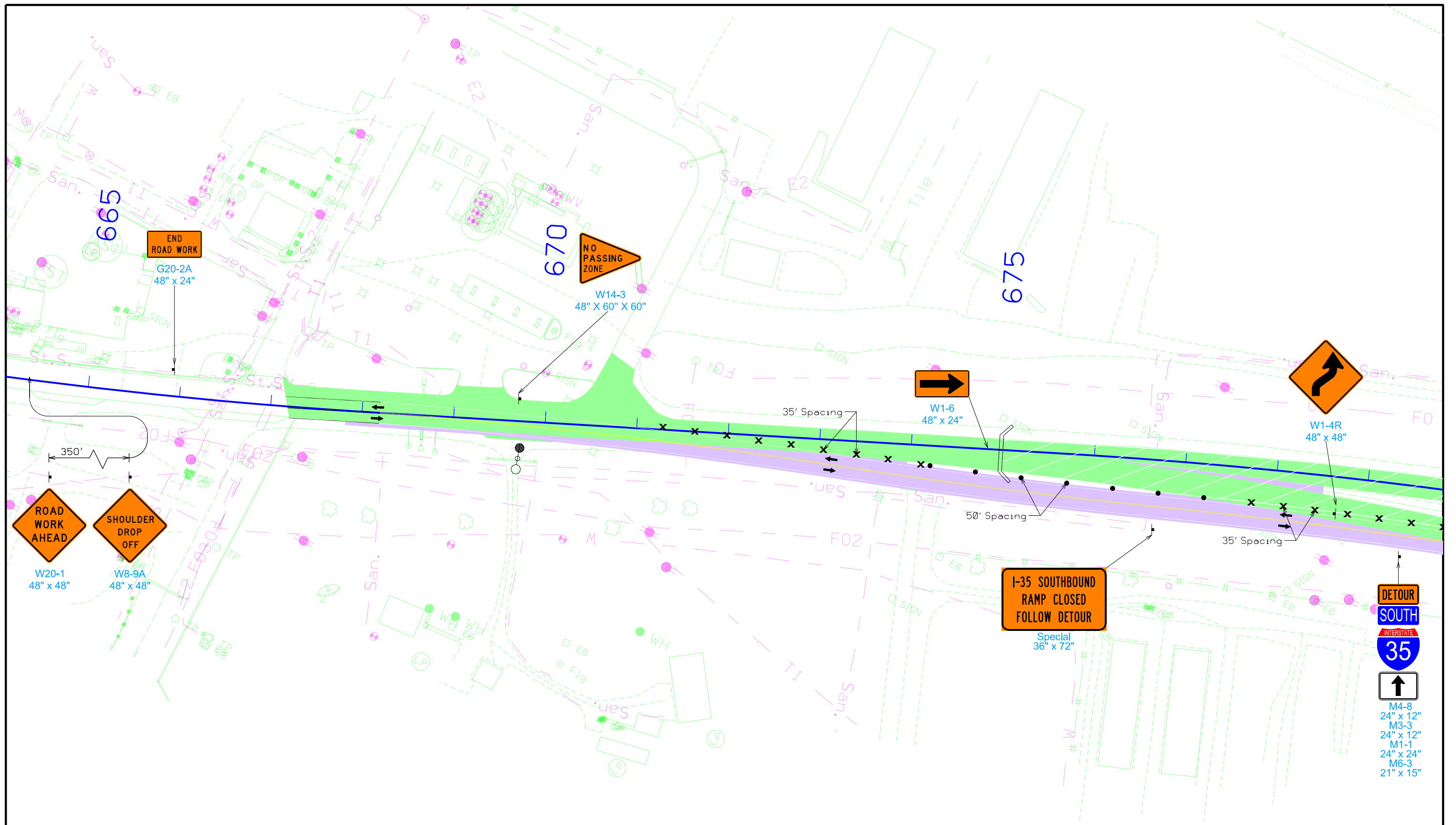


I-35 STAGE 2B





I-35 STAGE 2B



ROAD WORK AHEAD
W20-1
48" x 48"

SHOULDER DROP OFF
W8-9A
48" x 48"

END ROAD WORK
G20-2A
48" x 24"

NO PASSING ZONE

W14-3
48" X 60" X 60"

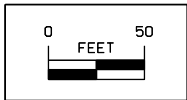
W1-6
48" x 24"

W1-4R
48" x 48"

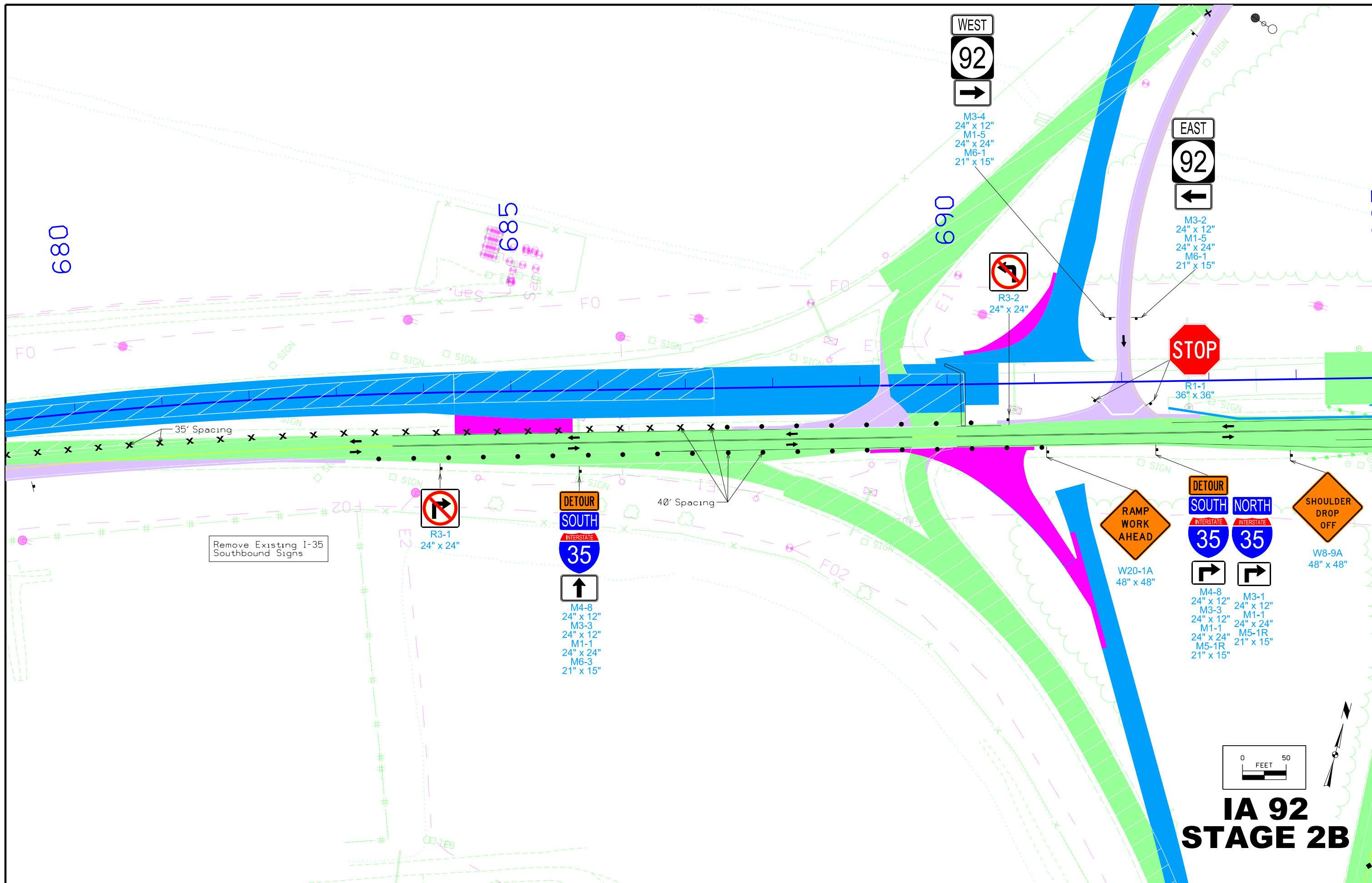
I-35 SOUTHBOUND RAMP CLOSED FOLLOW DETOUR
Special
36" x 72"

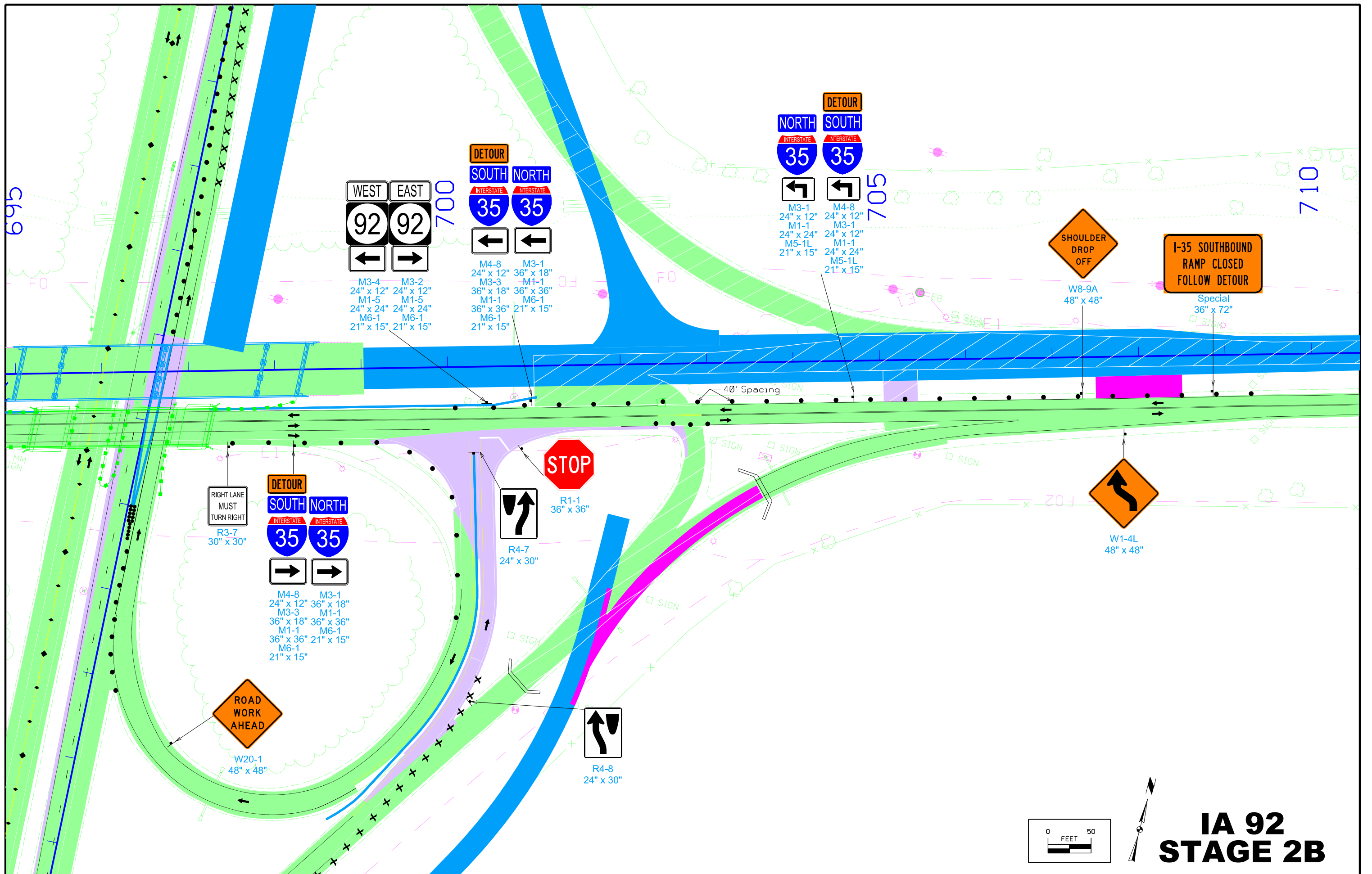
DETOUR SOUTH INTERSTATE 35

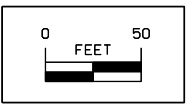
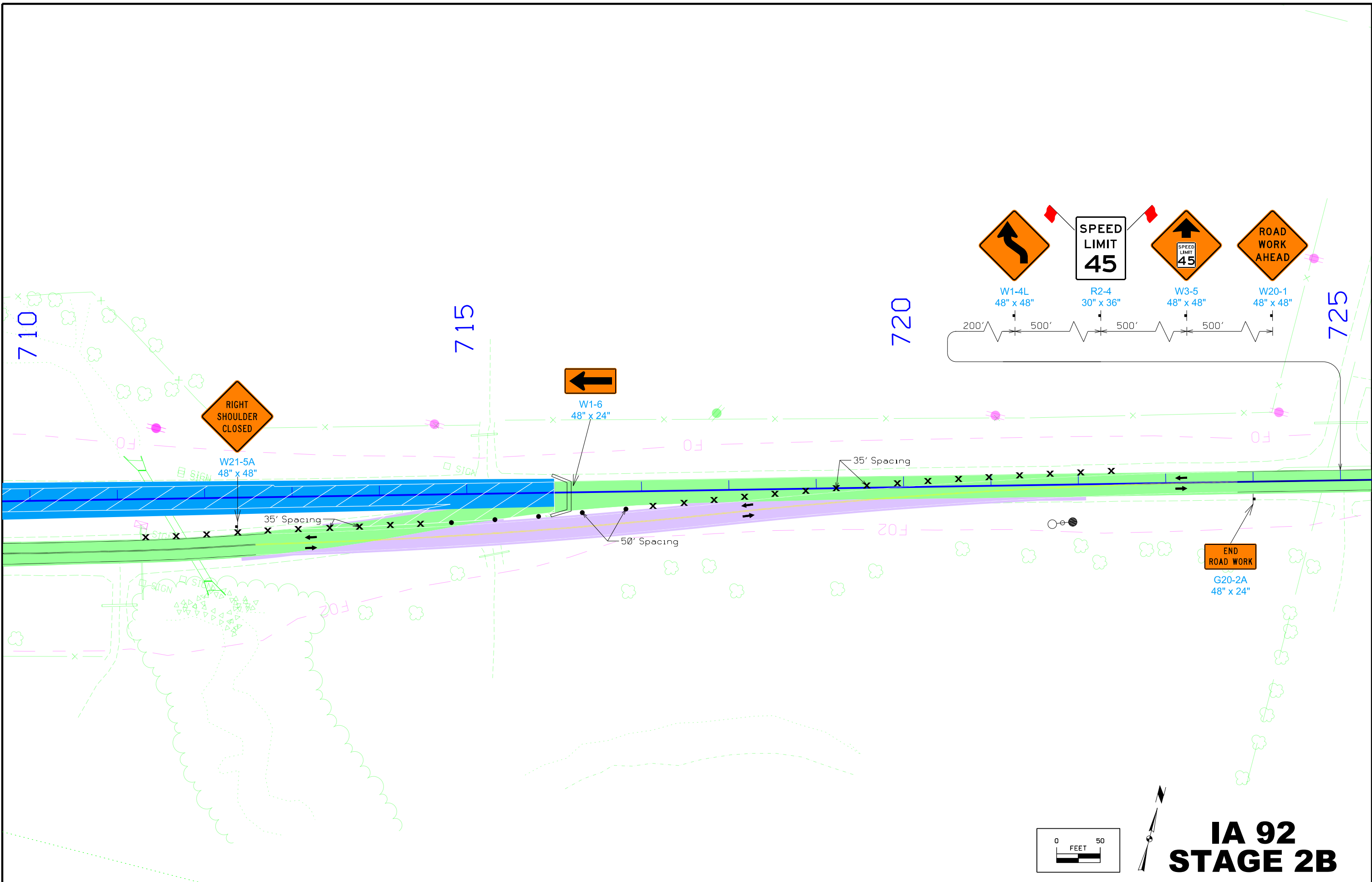
M4-8
24" x 12"
M3-3
24" x 12"
M1-1
24" x 24"
M6-3
21" x 15"



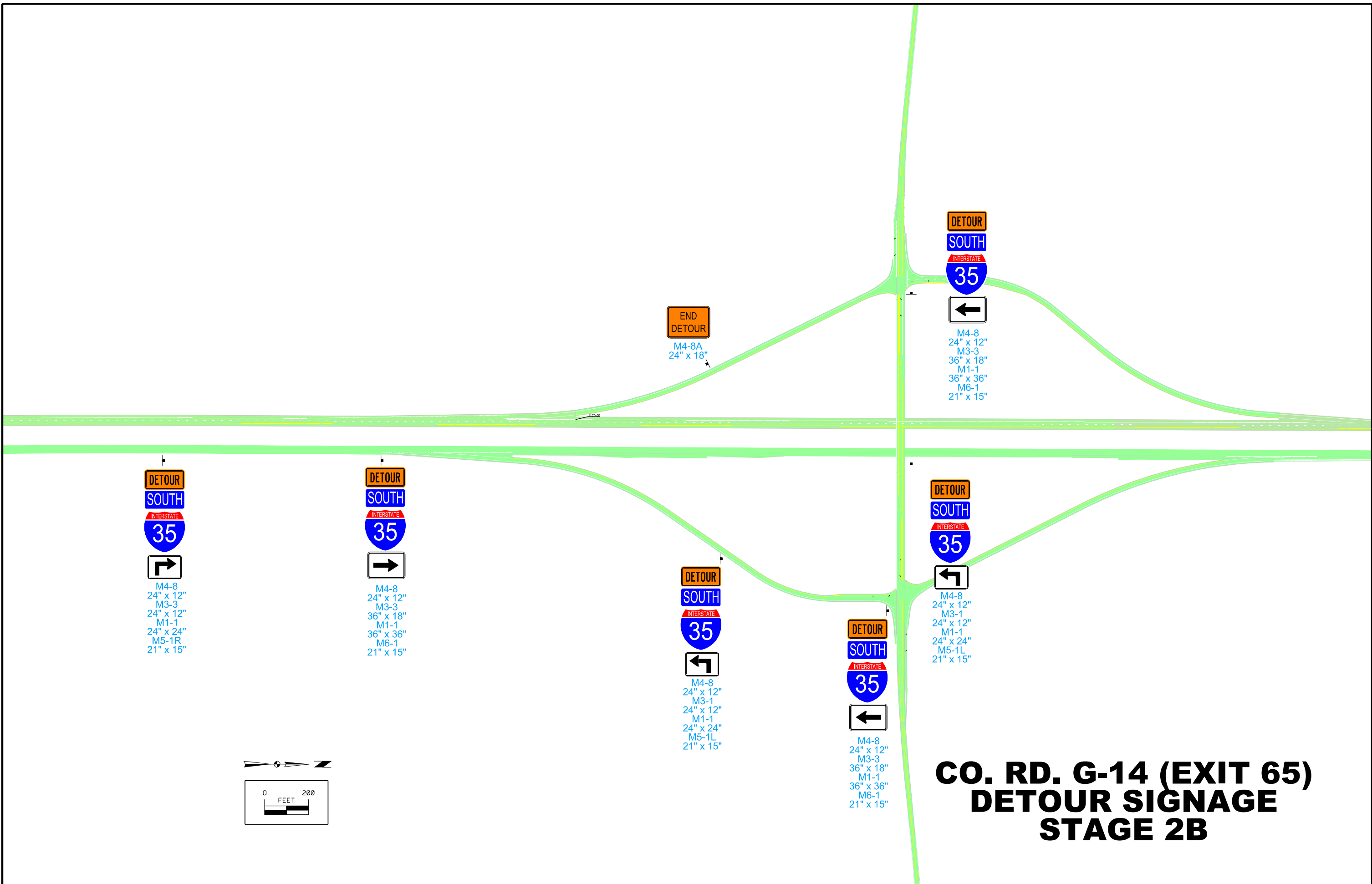
IA 92 STAGE 2B



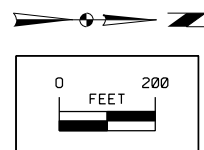


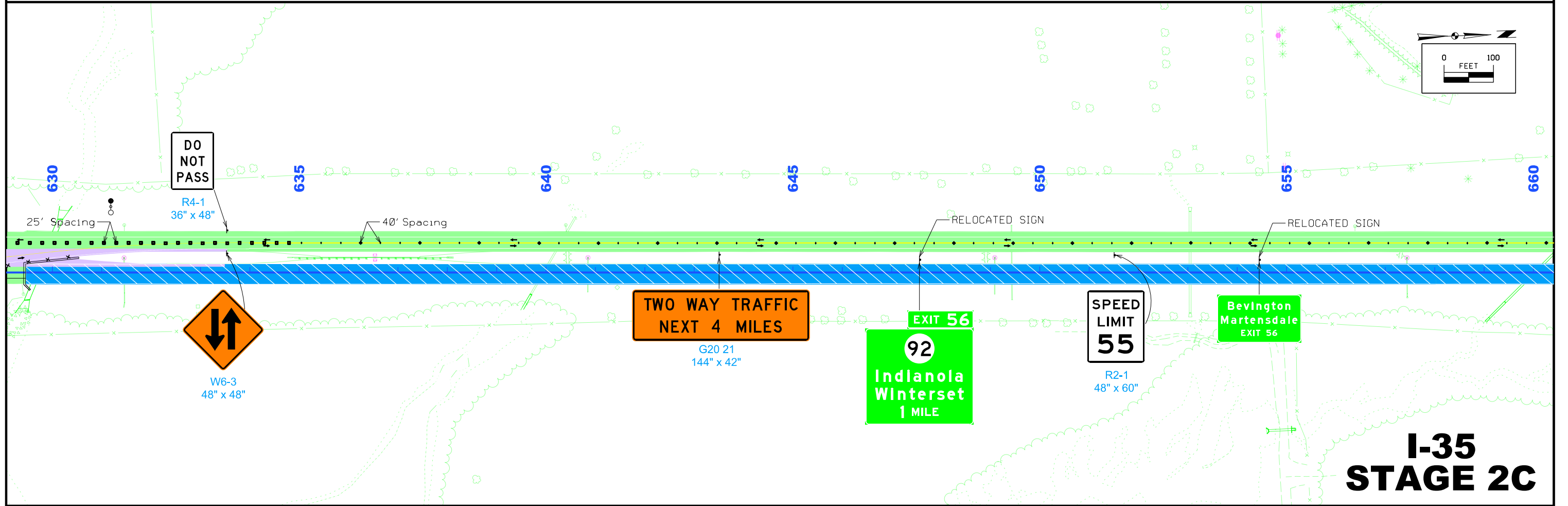
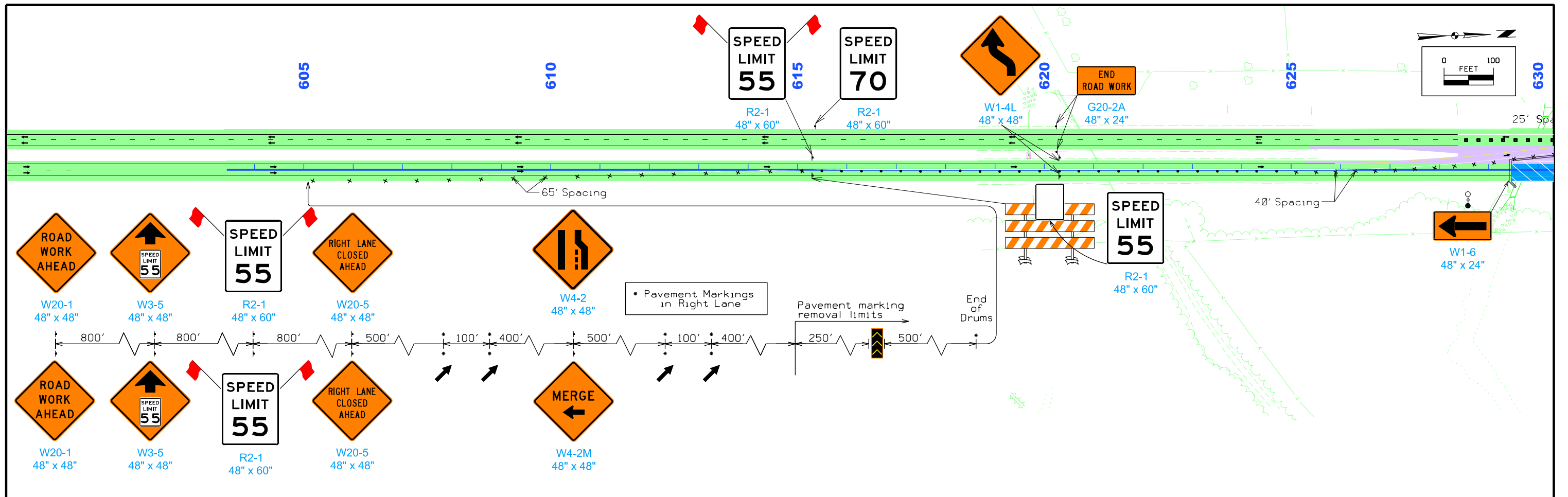


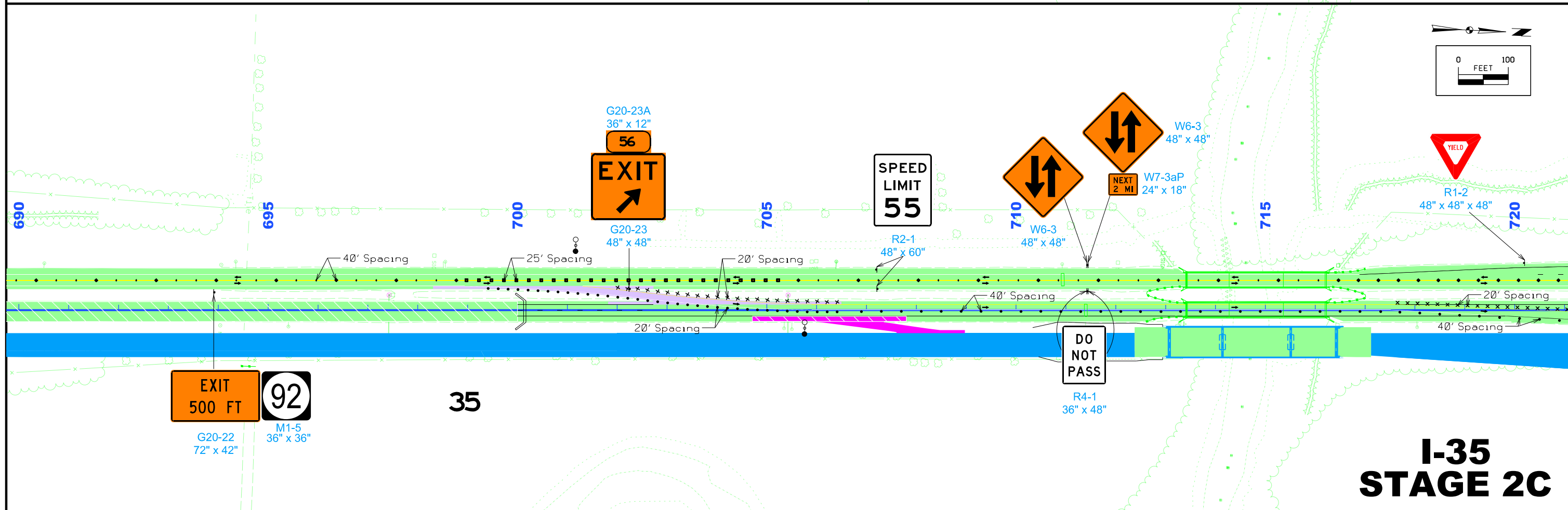
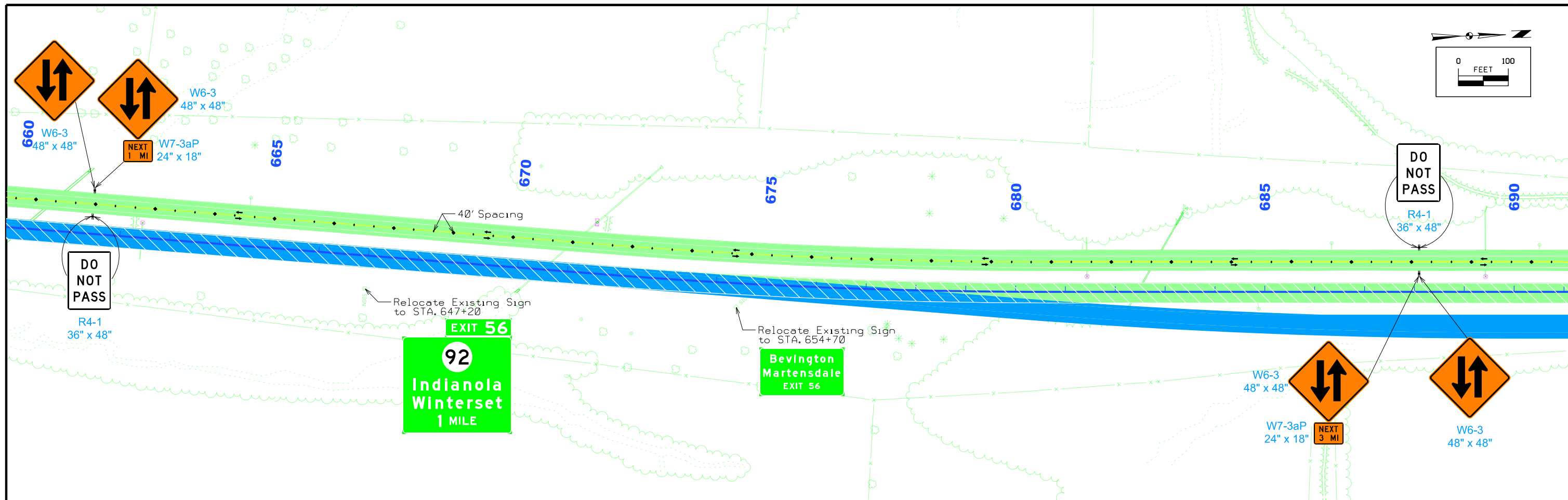
IA 92 STAGE 2B



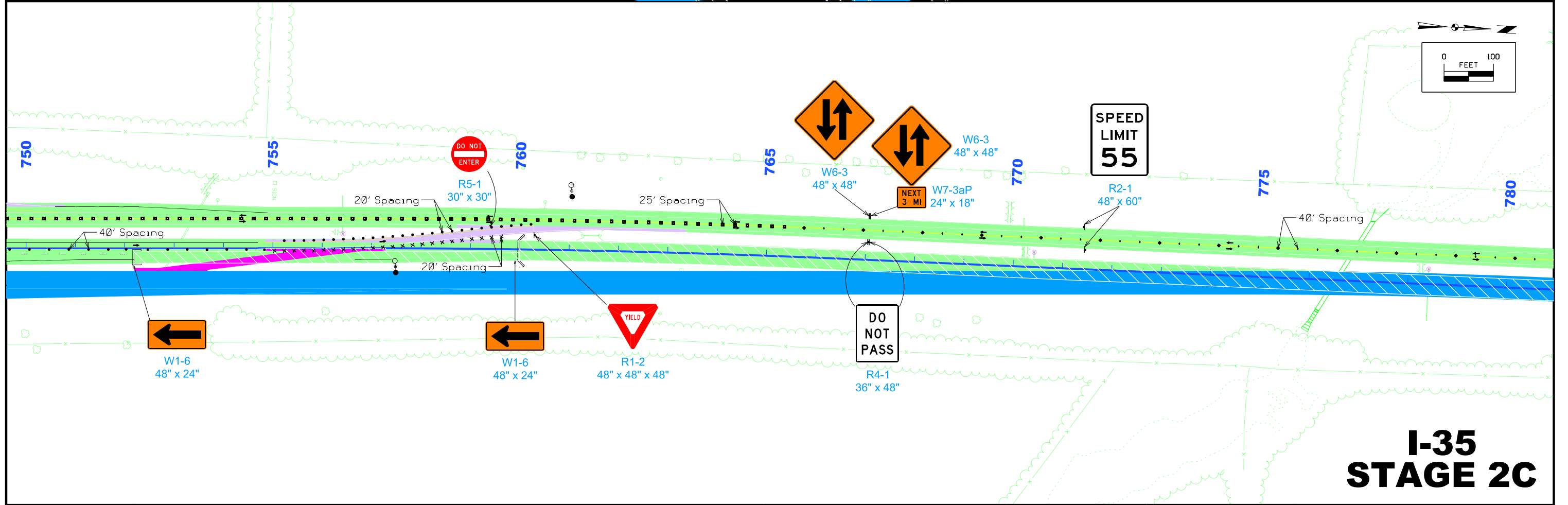
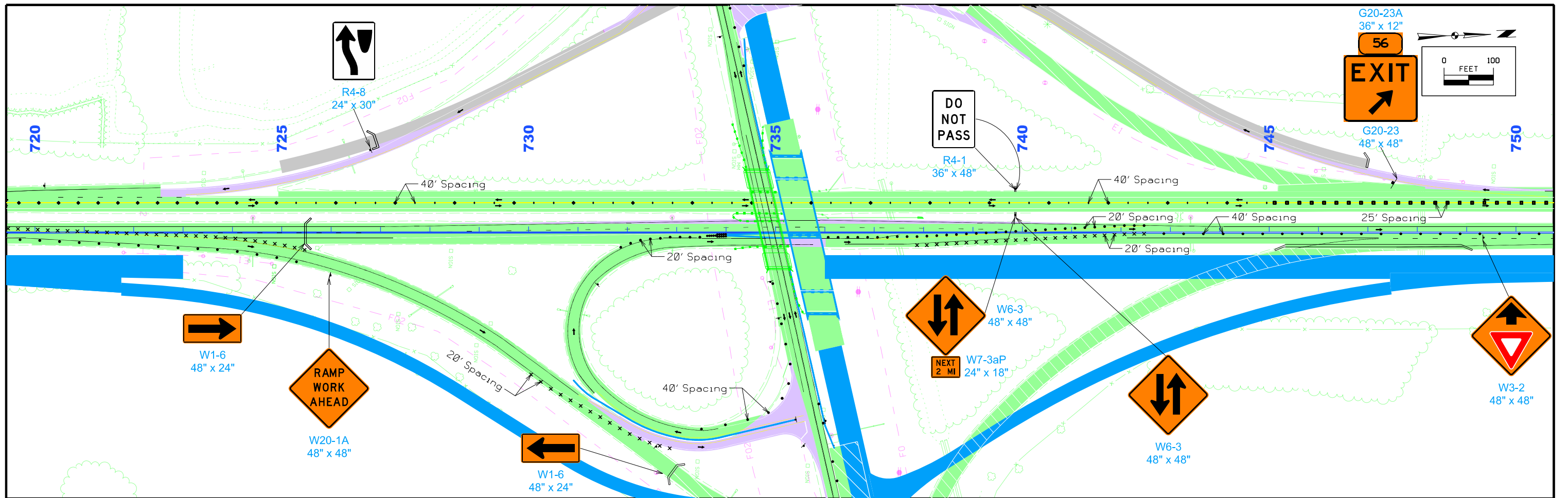
**CO. RD. G-14 (EXIT 65)
DETOUR SIGNAGE
STAGE 2B**



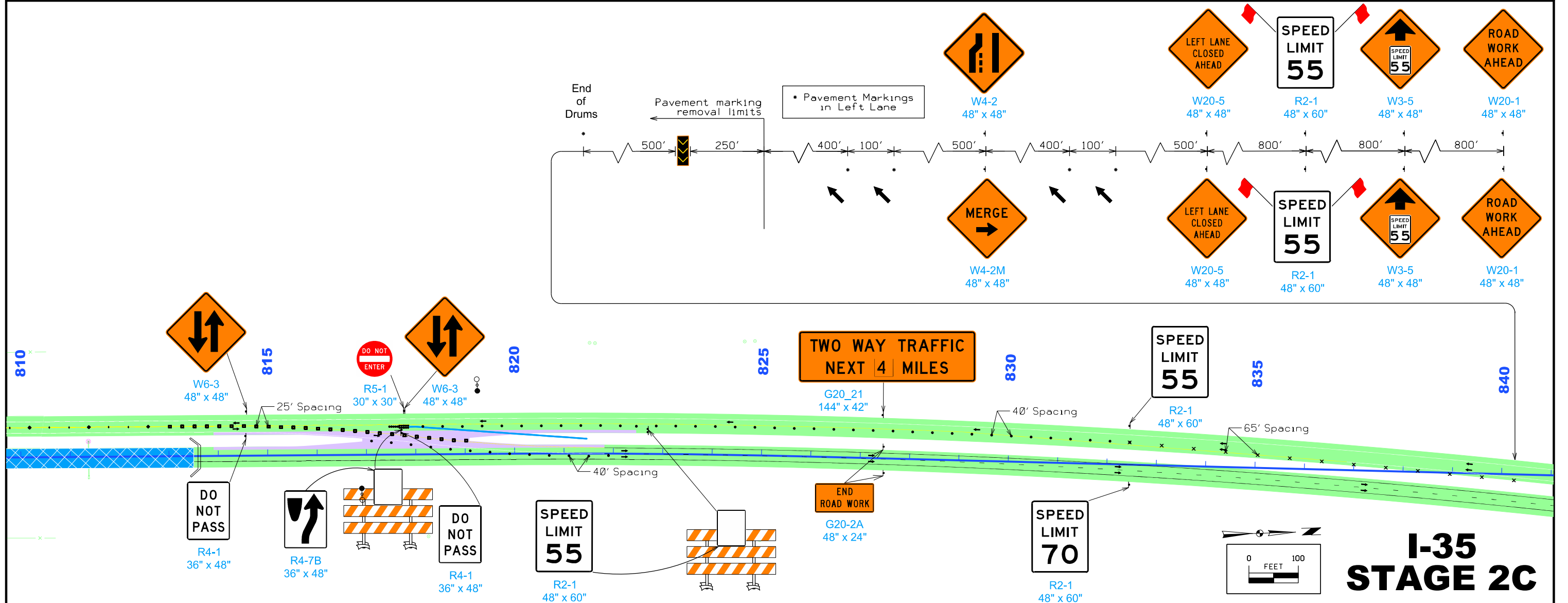
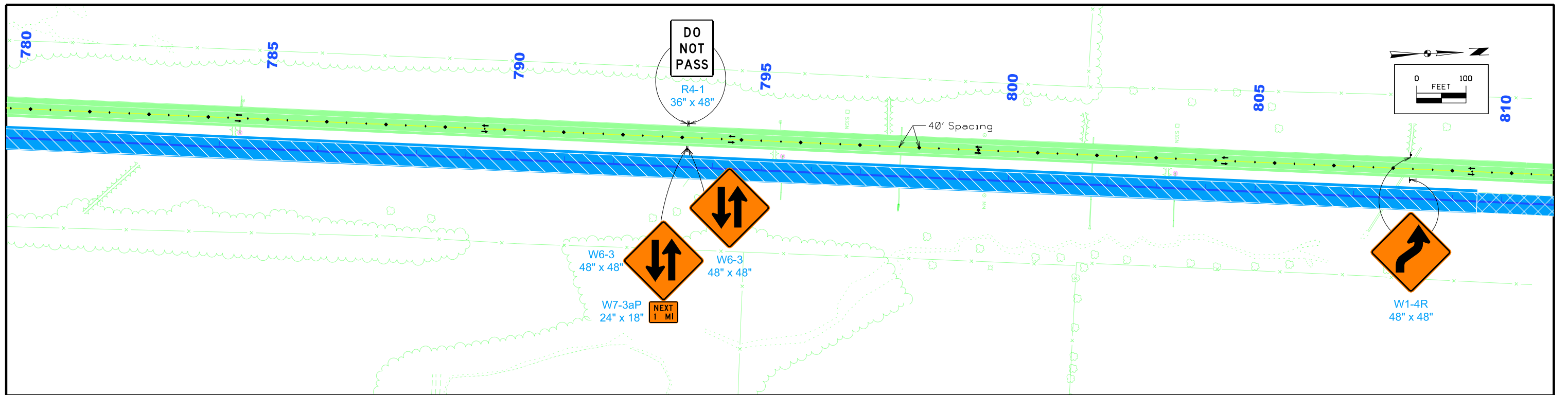


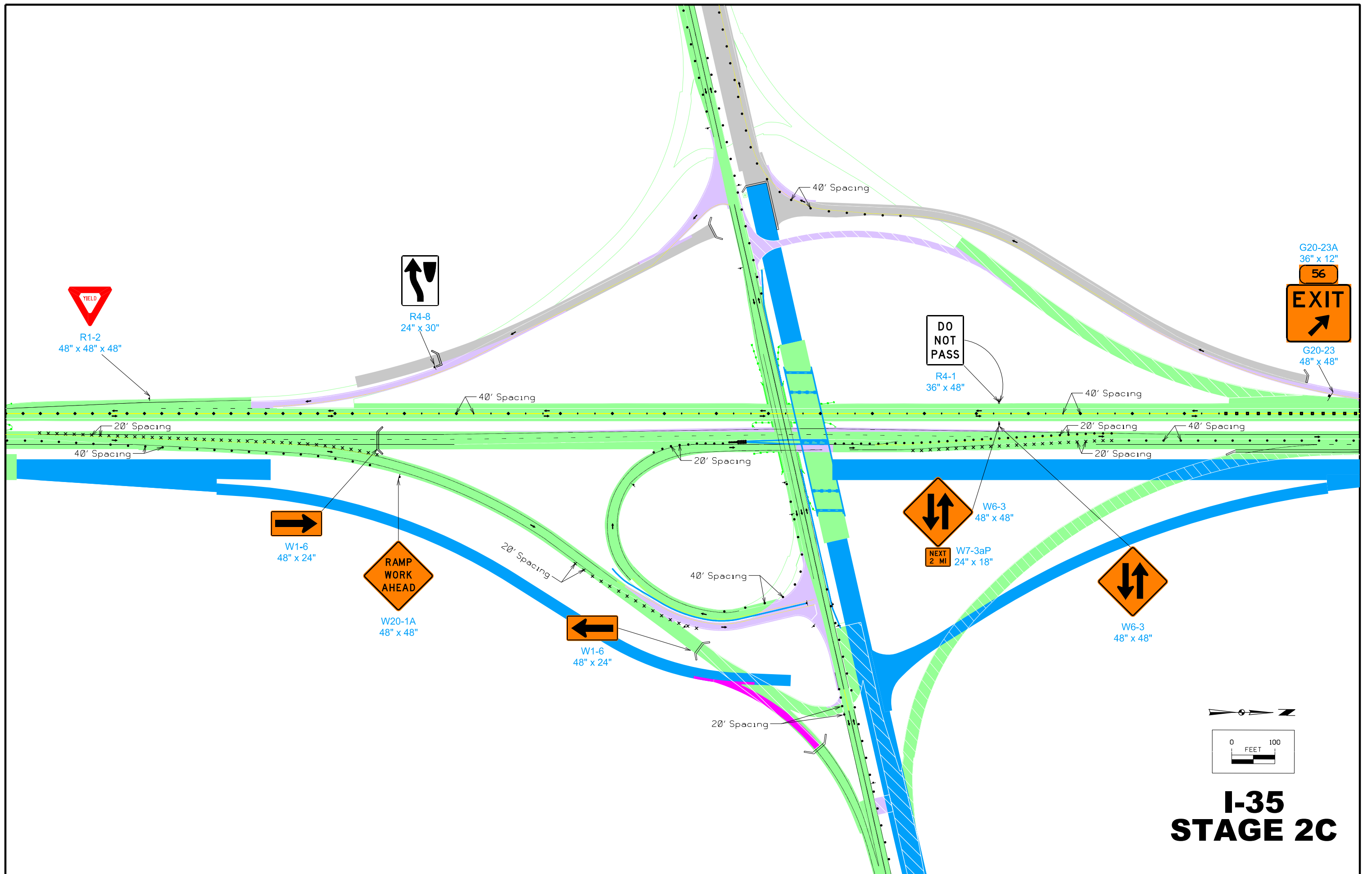


**I-35
STAGE 2C**

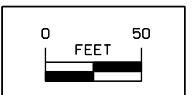
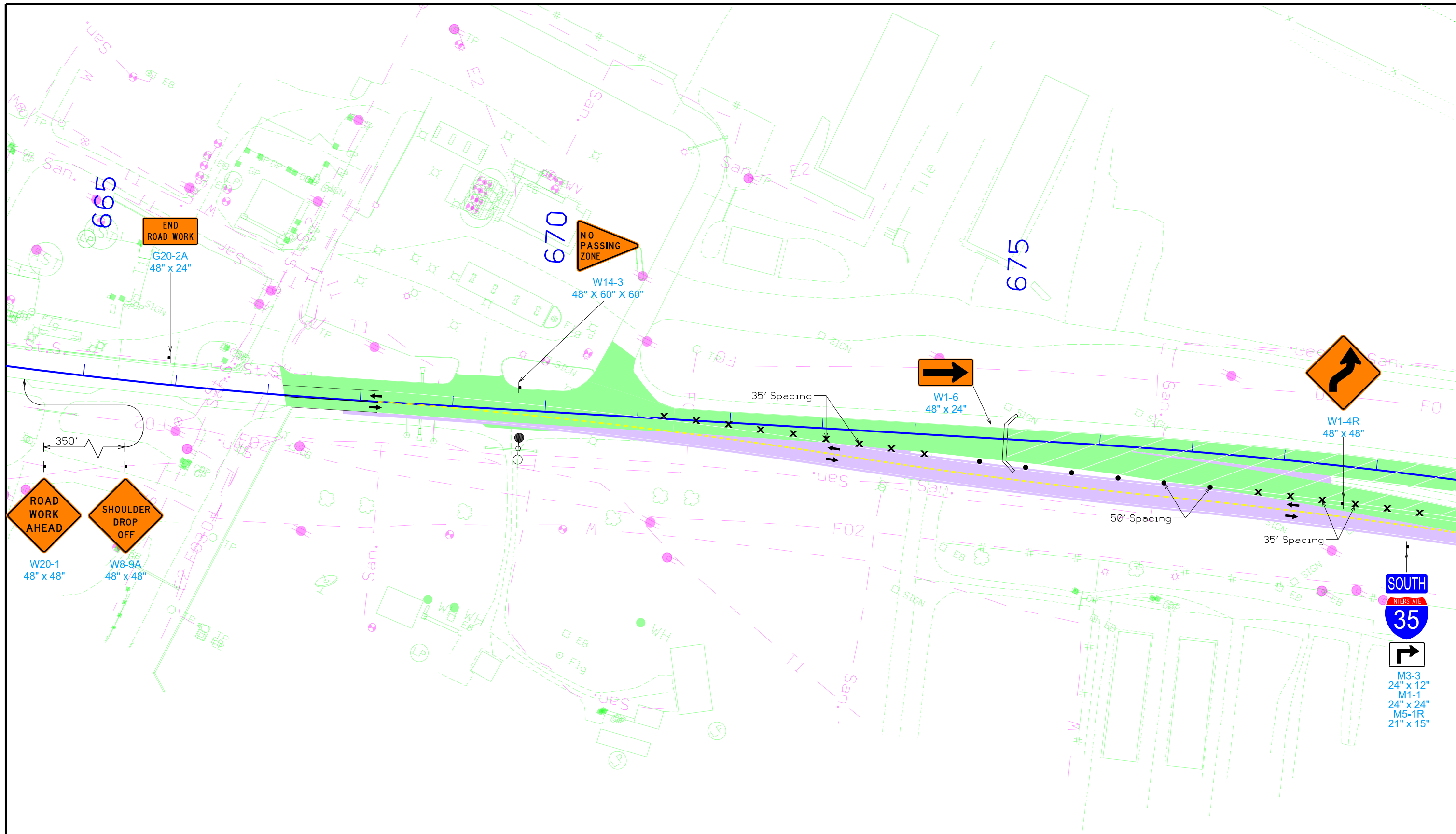


I-35 STAGE 2C

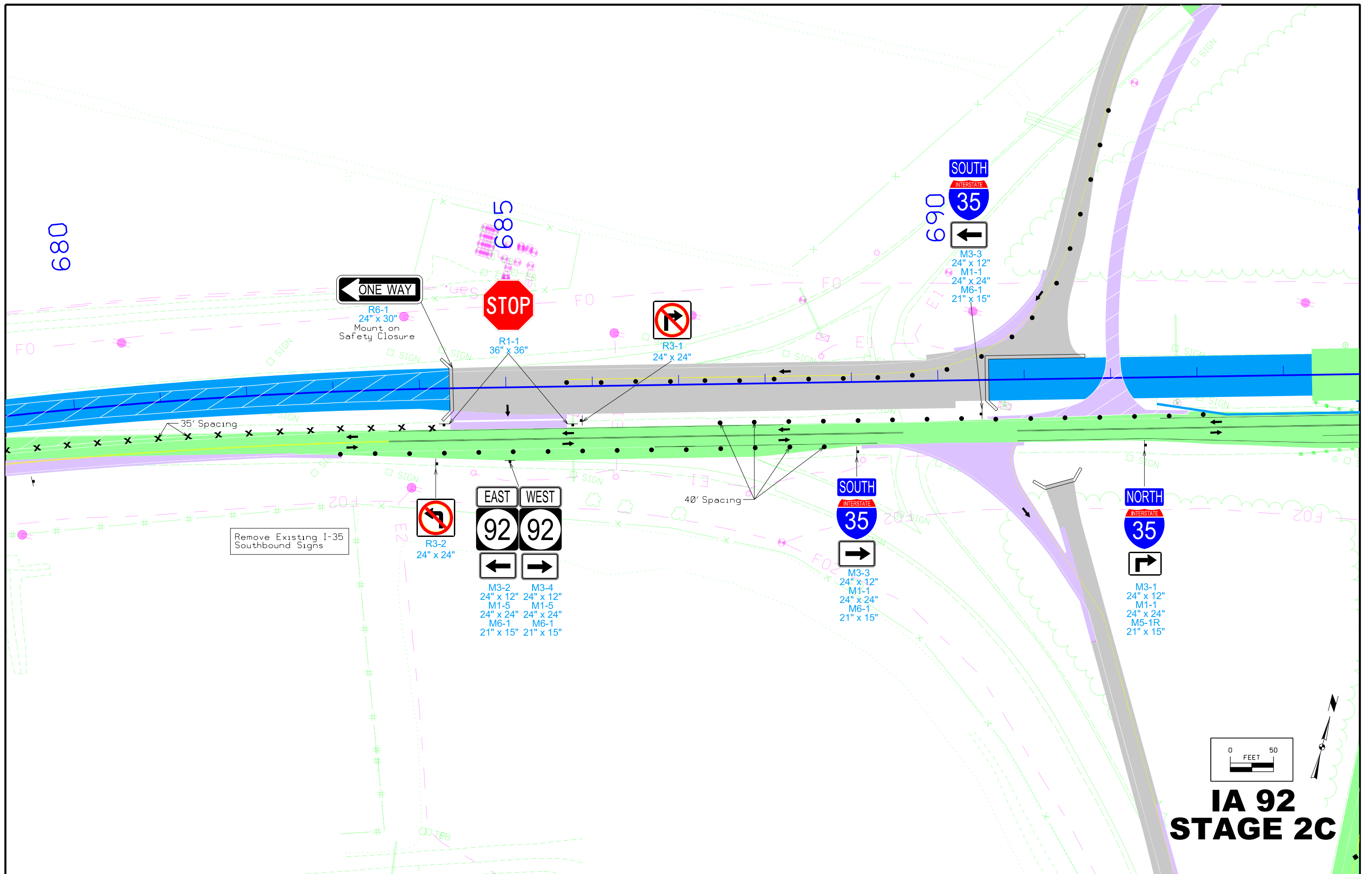




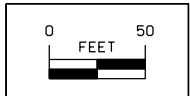
I-35 STAGE 2C



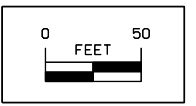
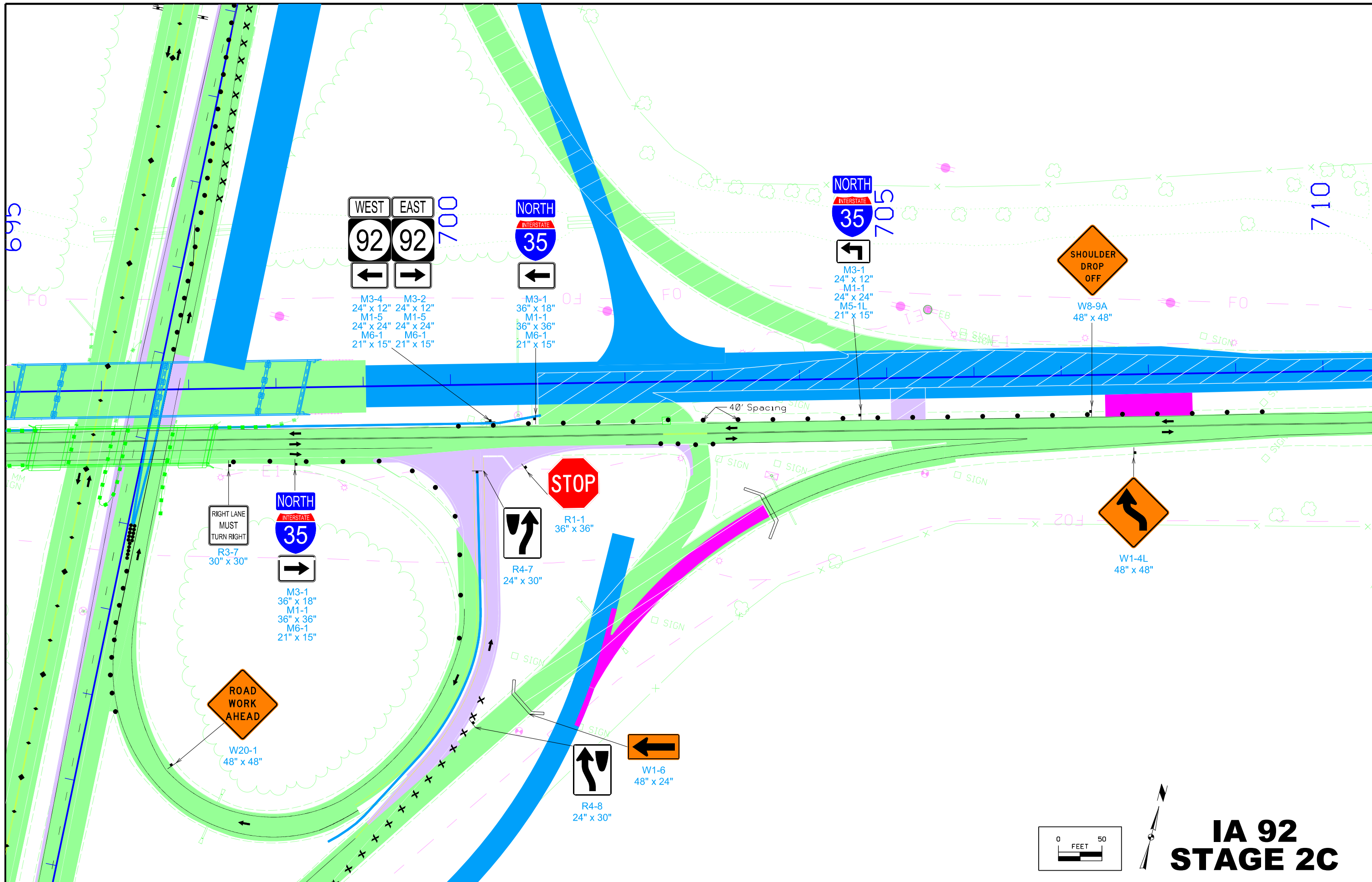
IA 92 STAGE 2C



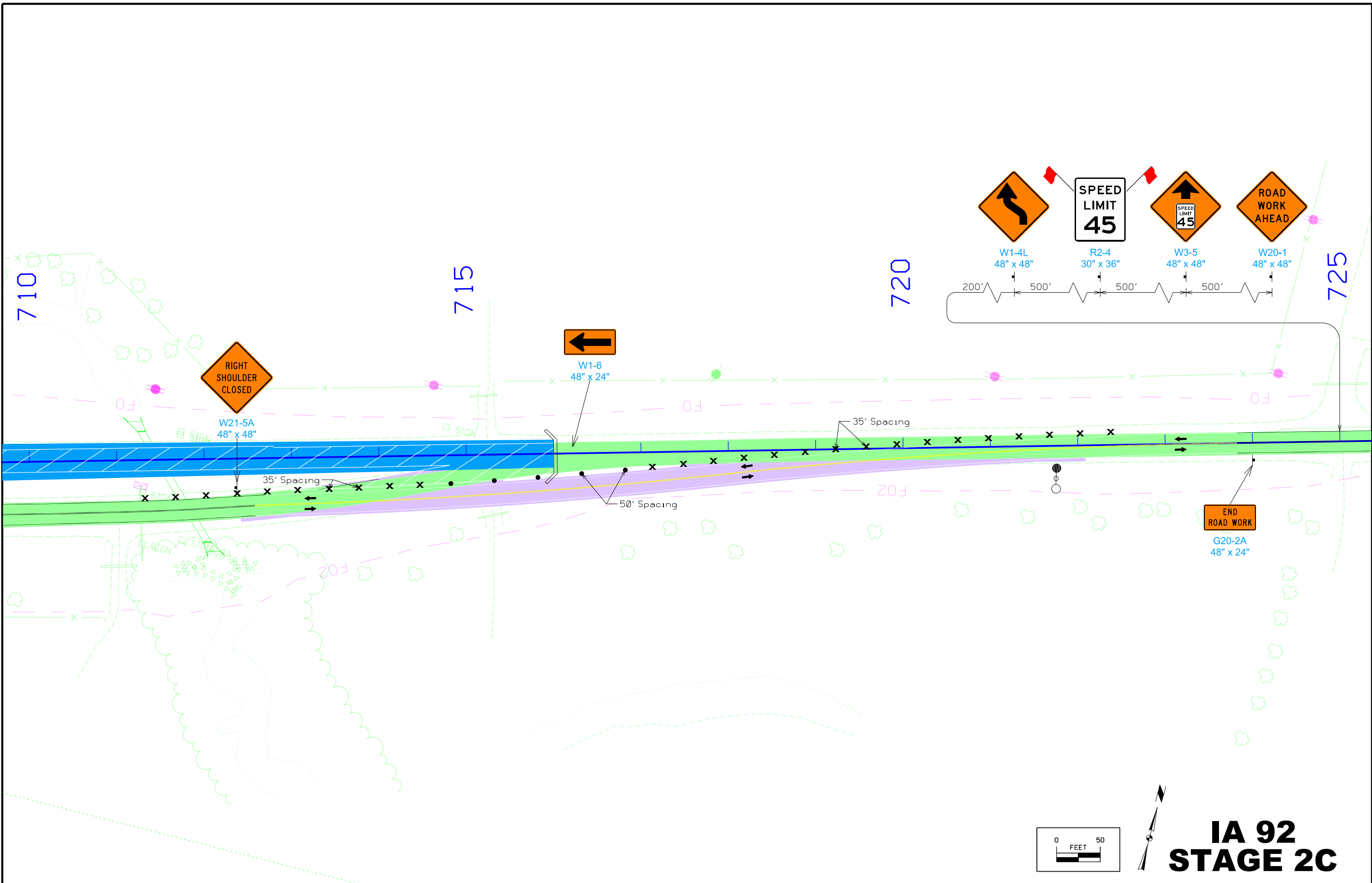
Remove Existing I-35 Southbound Signs

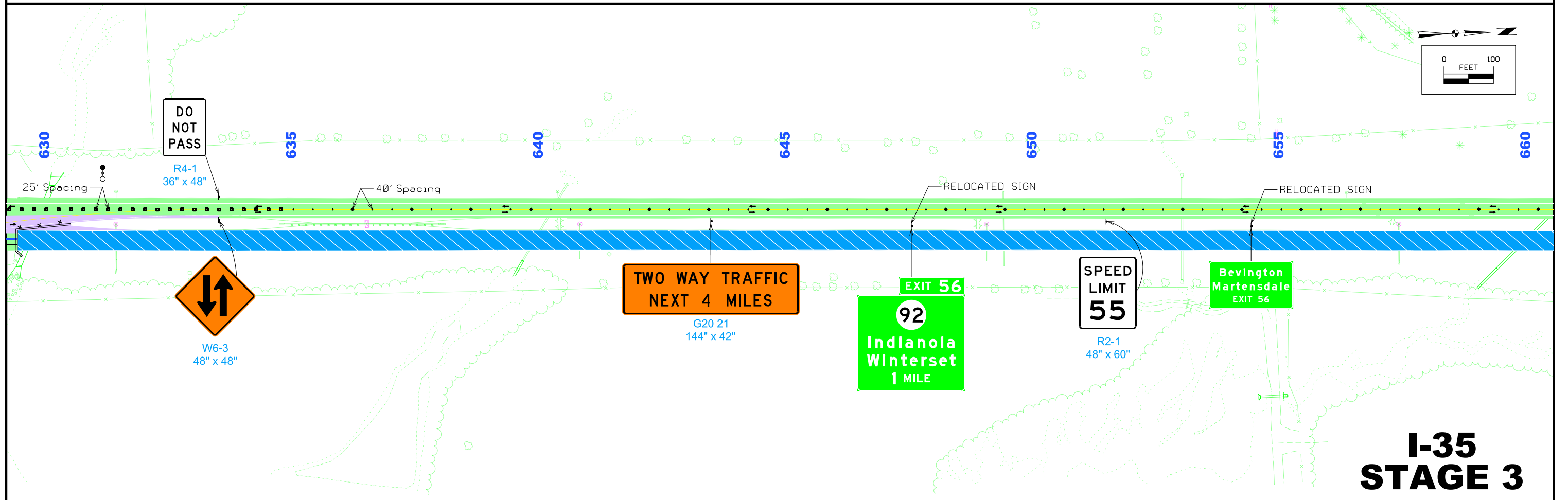
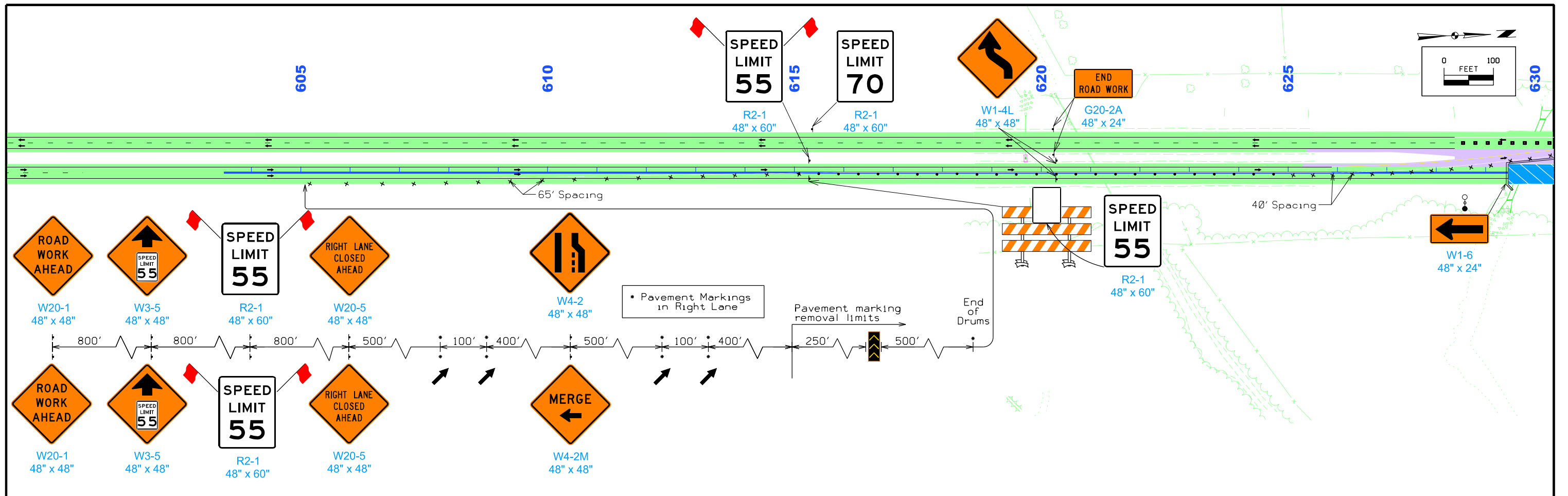


IA 92 STAGE 2C

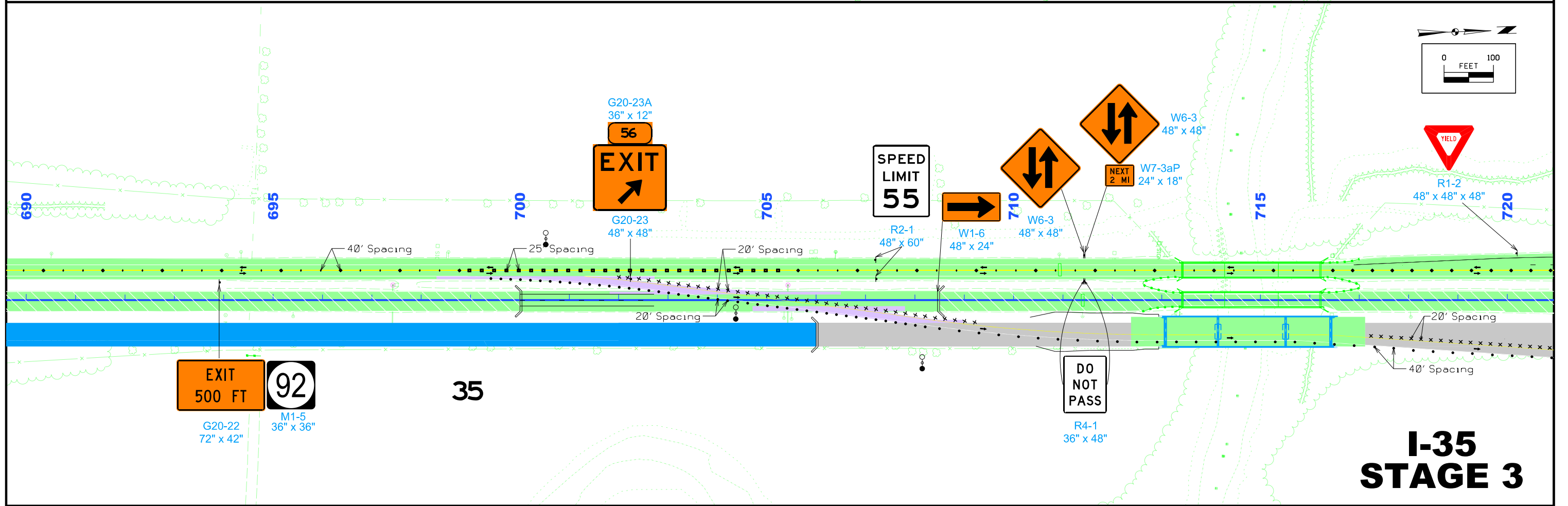
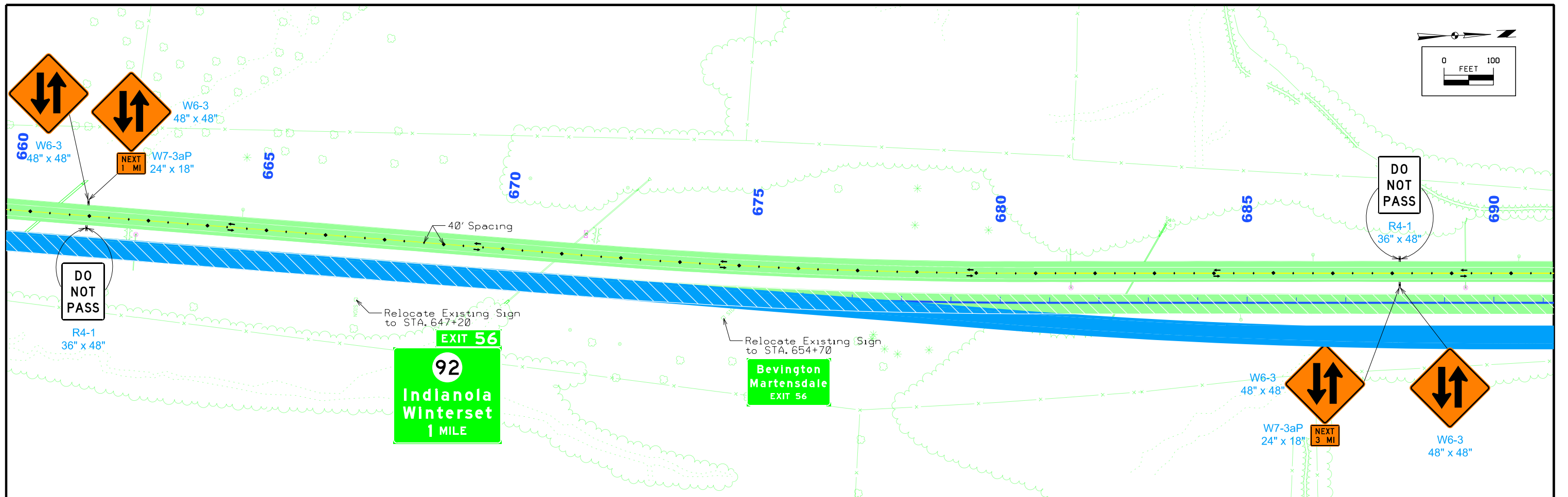


IA 92 STAGE 2C

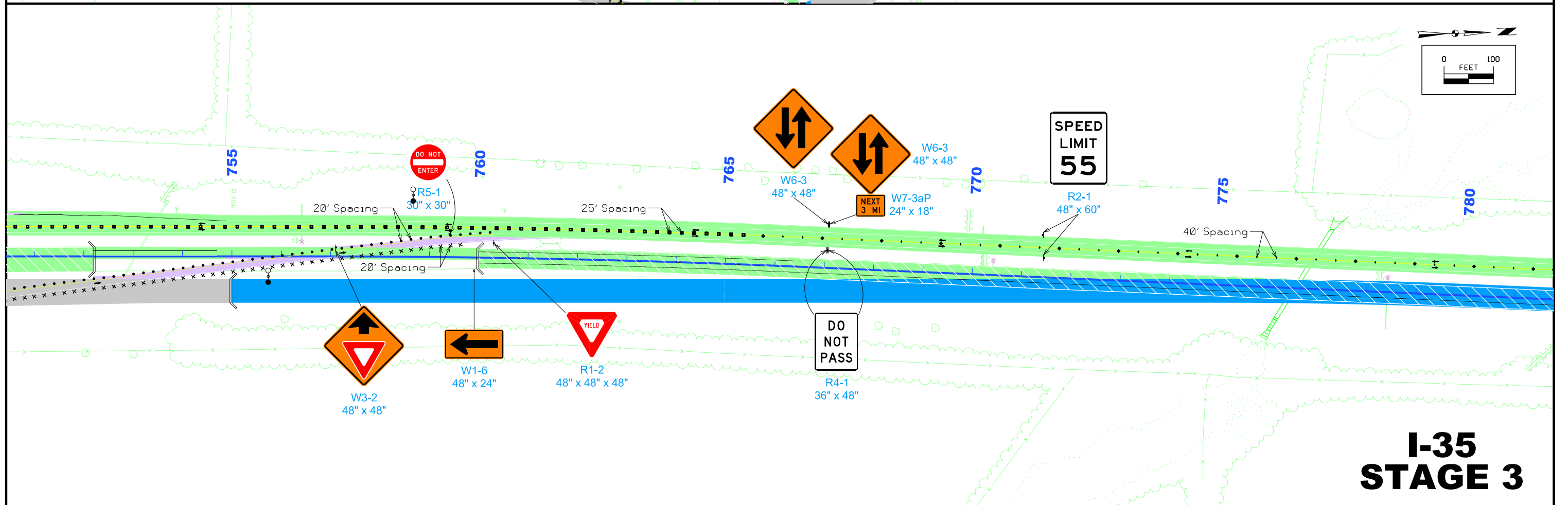
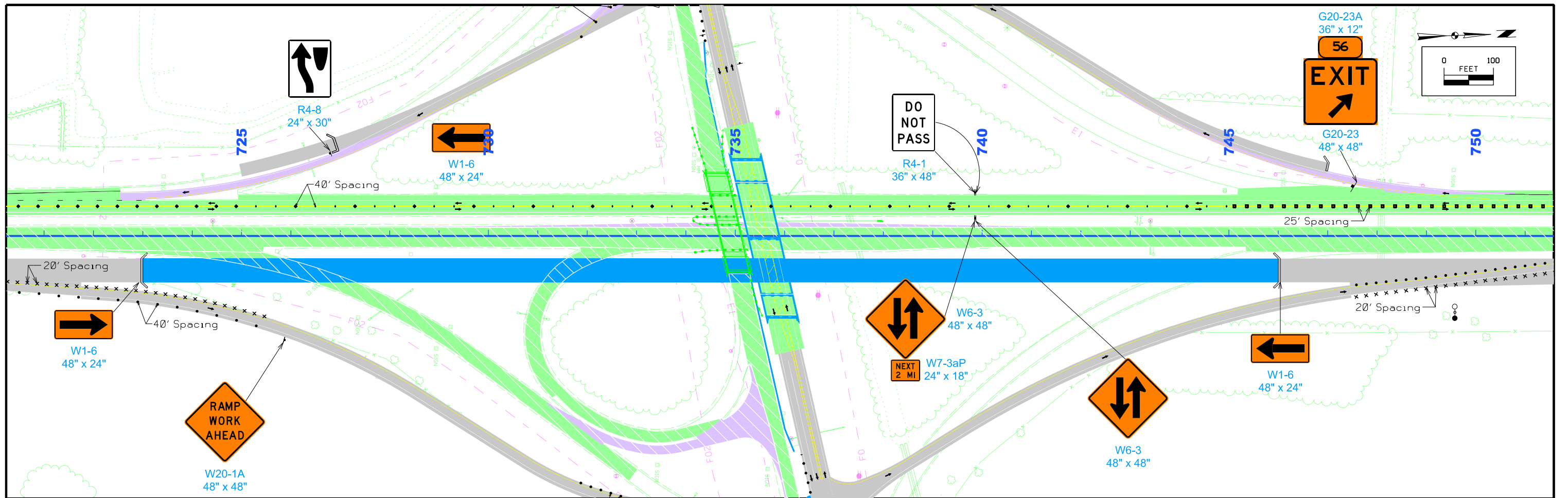




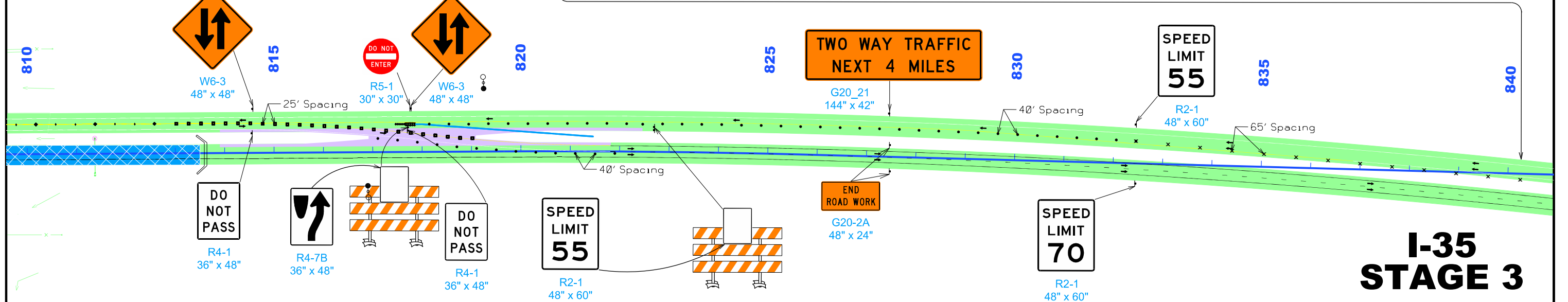
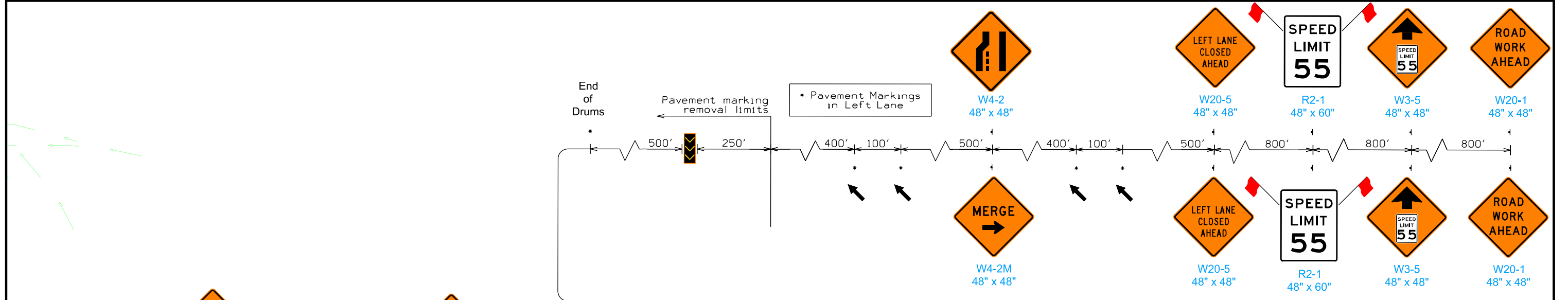
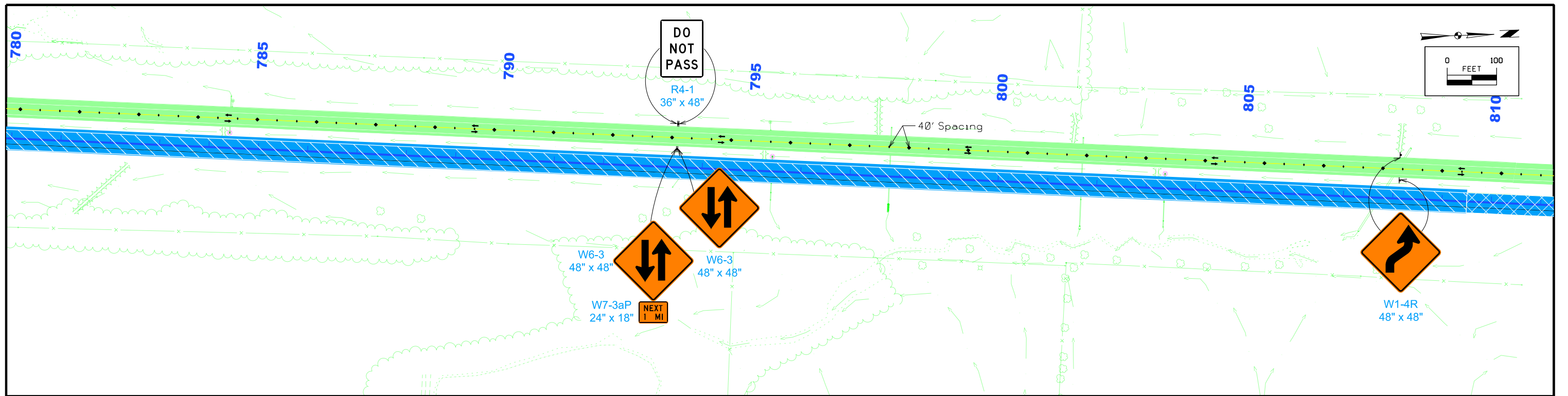
I-35 STAGE 3



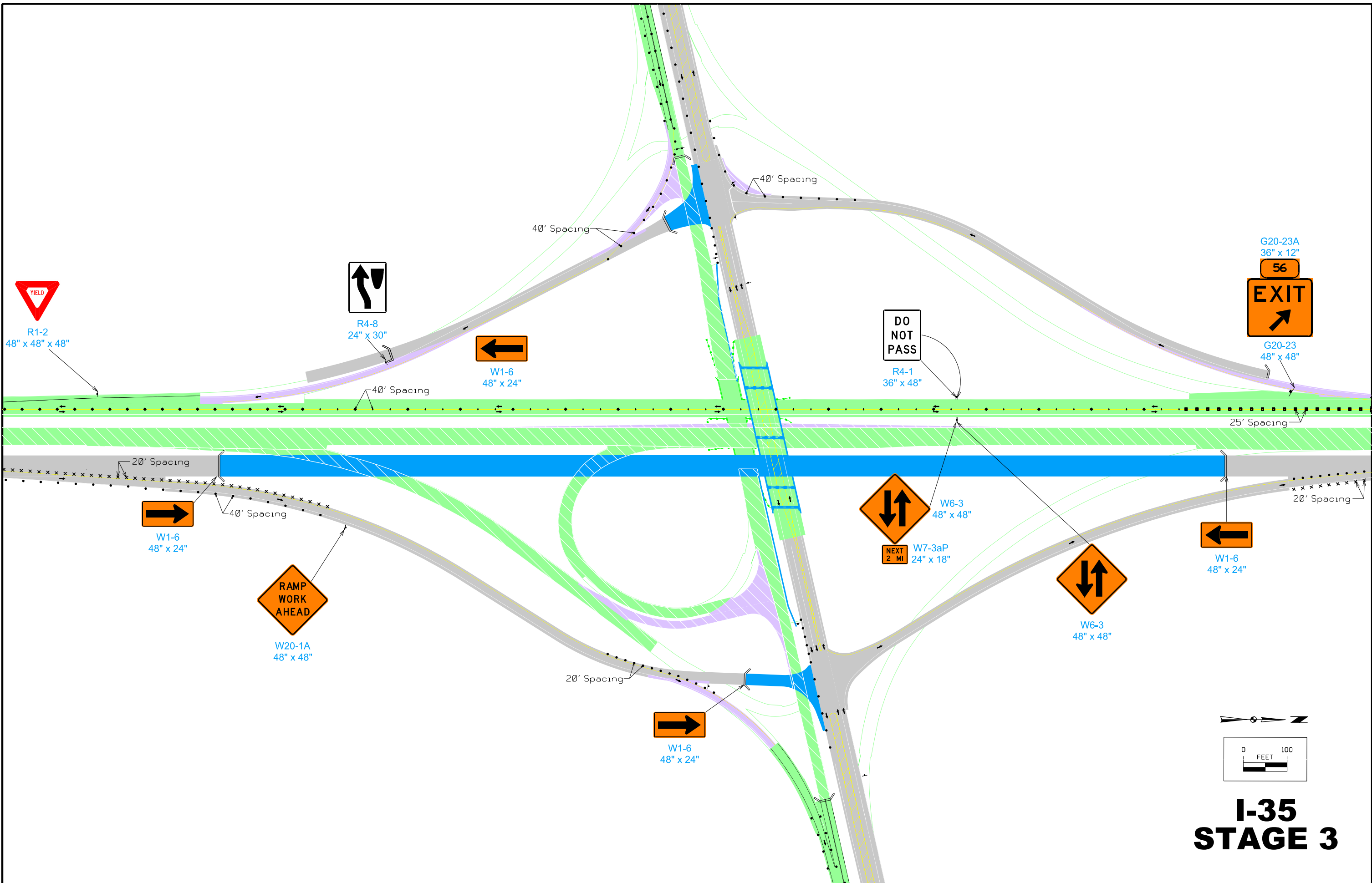
**I-35
STAGE 3**



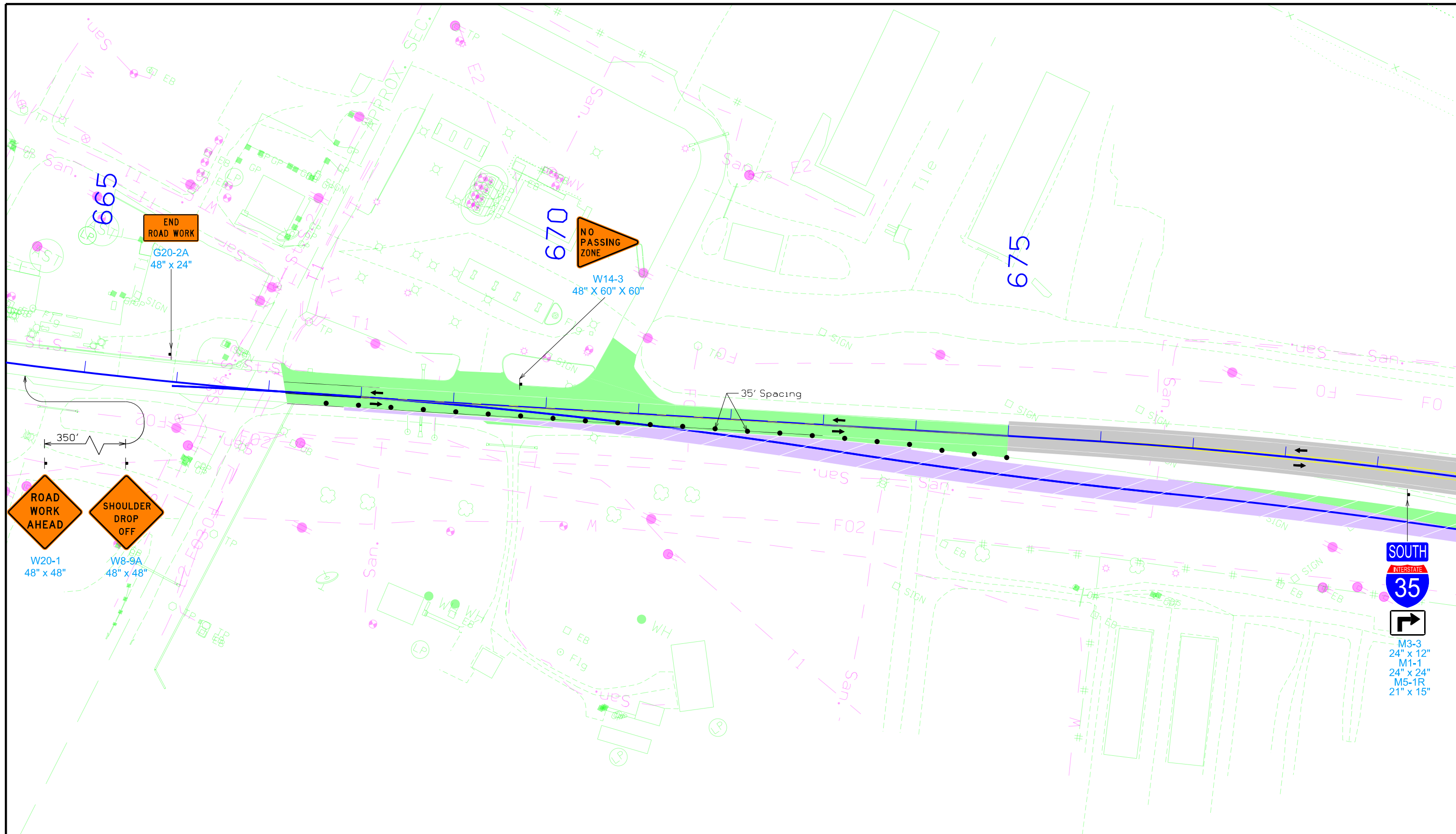
I-35 STAGE 3



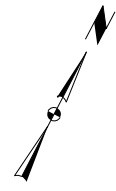
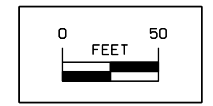
I-35 STAGE 3



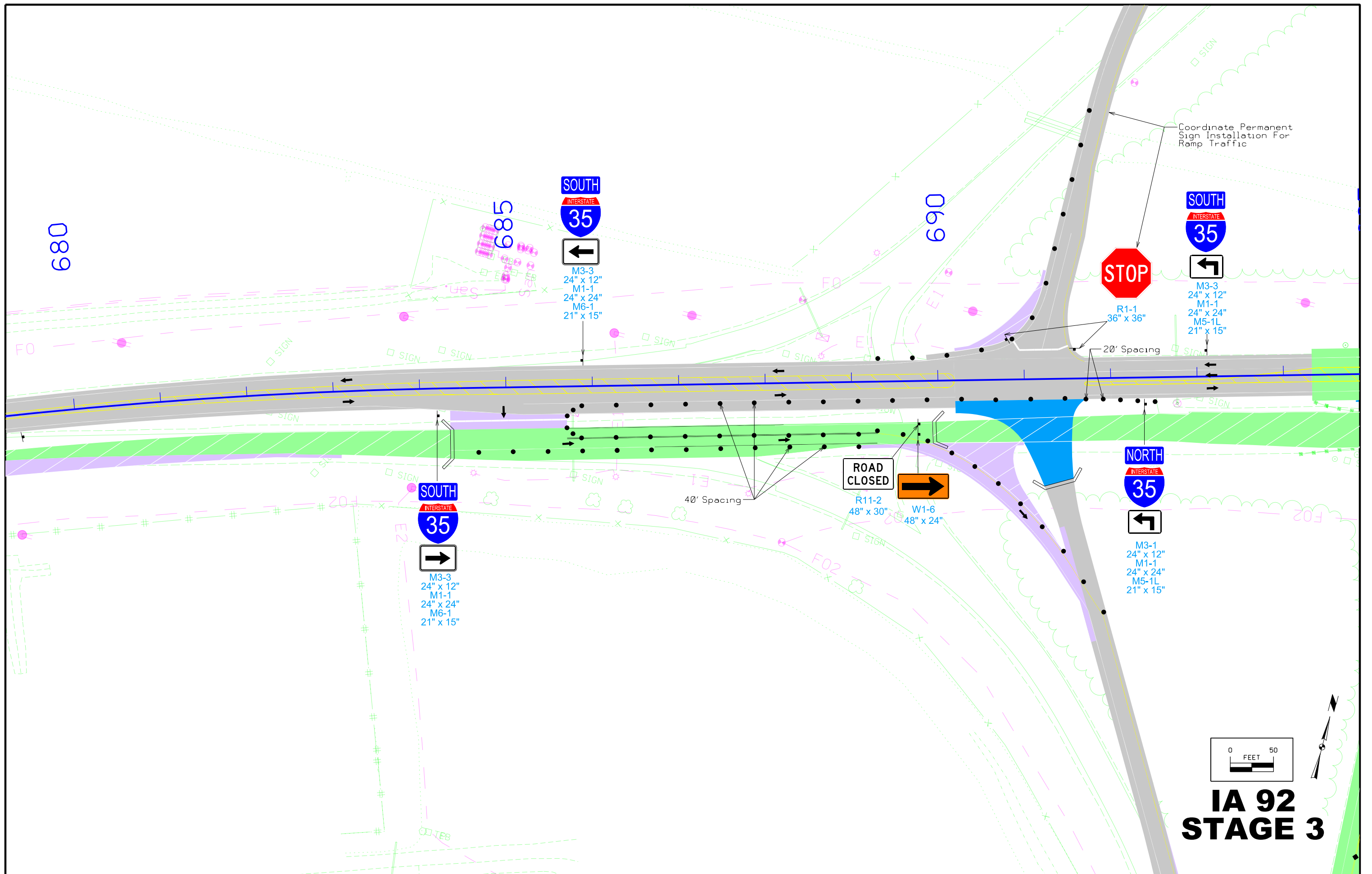
I-35 STAGE 3



M3-3
24" x 12"
M1-1
24" x 24"
M5-1R
21" x 15"



IA 92 STAGE 3



Coordinate Permanent Sign Installation For Ramp Traffic

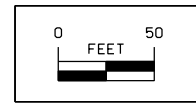
SOUTH
INTERSTATE
35
←
M3-3
24" x 12"
M1-1
24" x 24"
M6-1
21" x 15"

SOUTH
INTERSTATE
35
←
M3-3
24" x 12"
M1-1
24" x 24"
M5-1L
21" x 15"

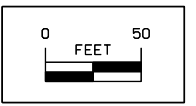
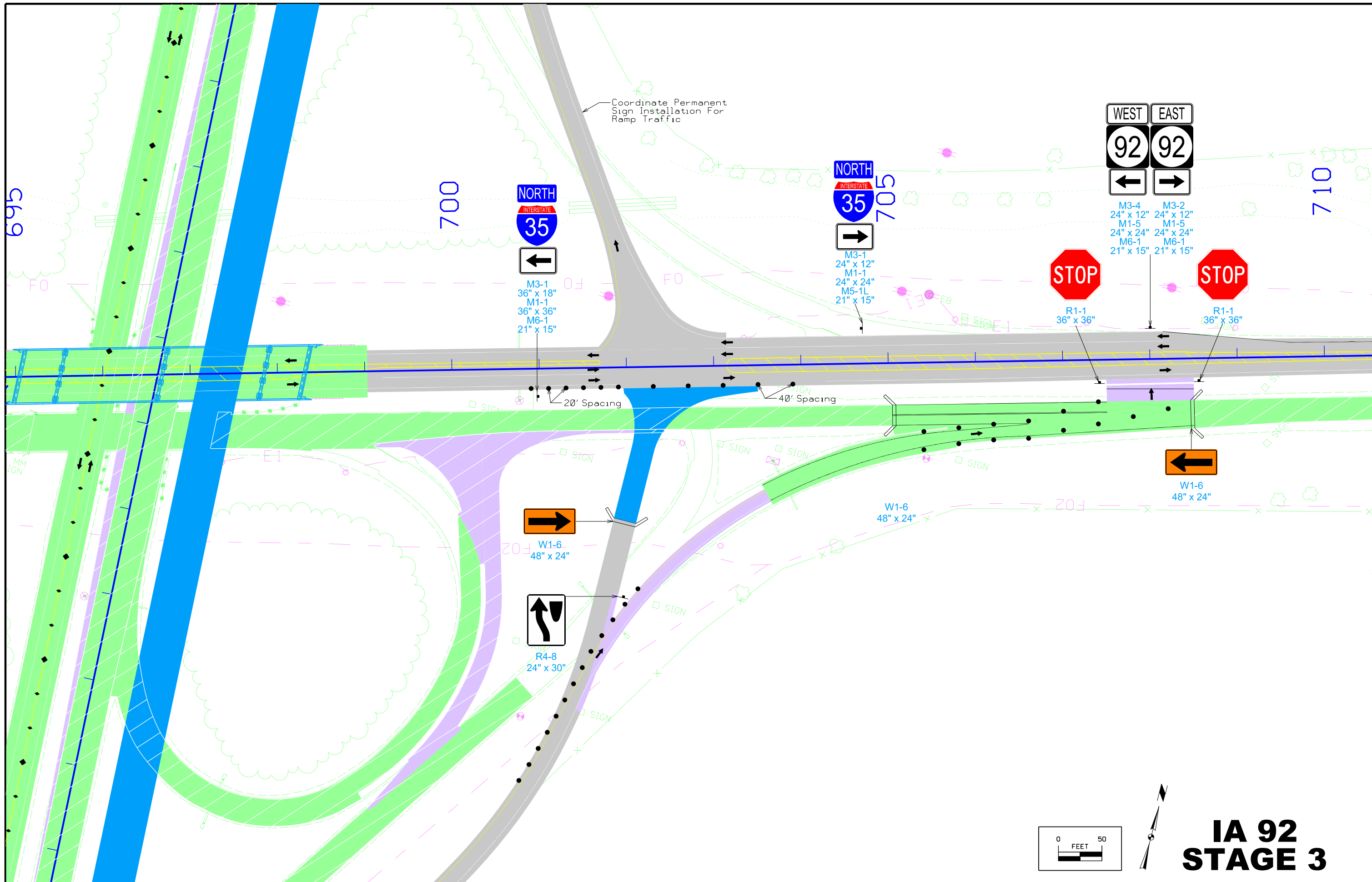
SOUTH
INTERSTATE
35
→
M3-3
24" x 12"
M1-1
24" x 24"
M6-1
21" x 15"

NORTH
INTERSTATE
35
←
M3-1
24" x 12"
M1-1
24" x 24"
M5-1L
21" x 15"

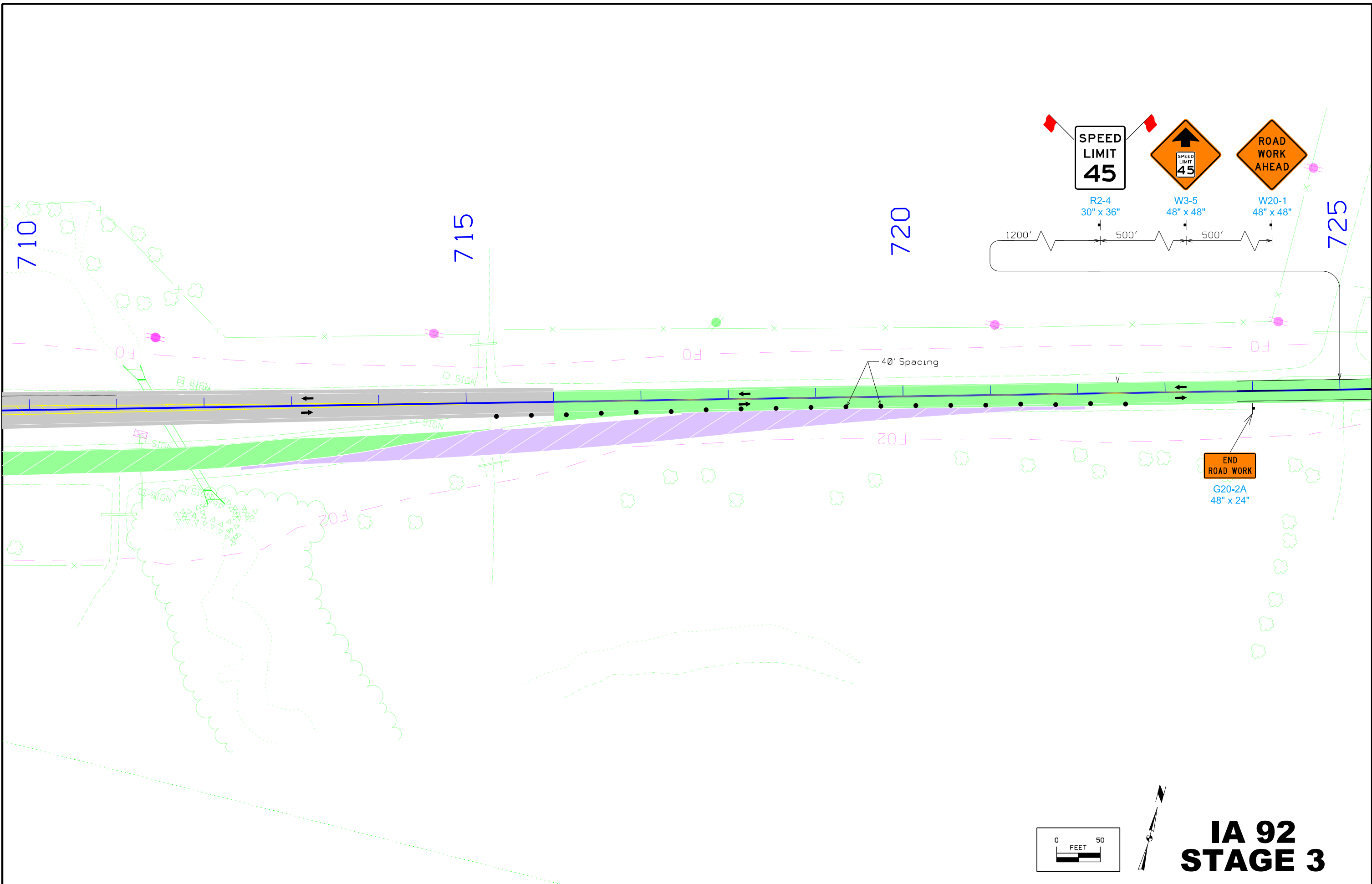
ROAD CLOSED
→
R11-2
48" x 30"
W1-6
48" x 24"

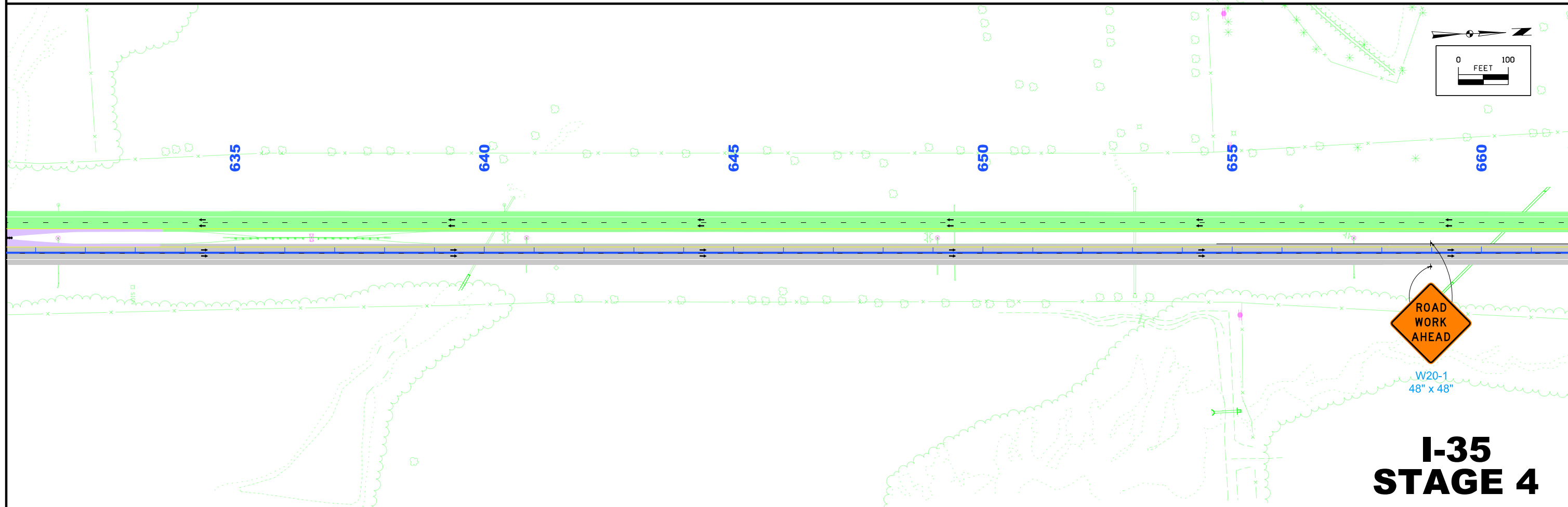
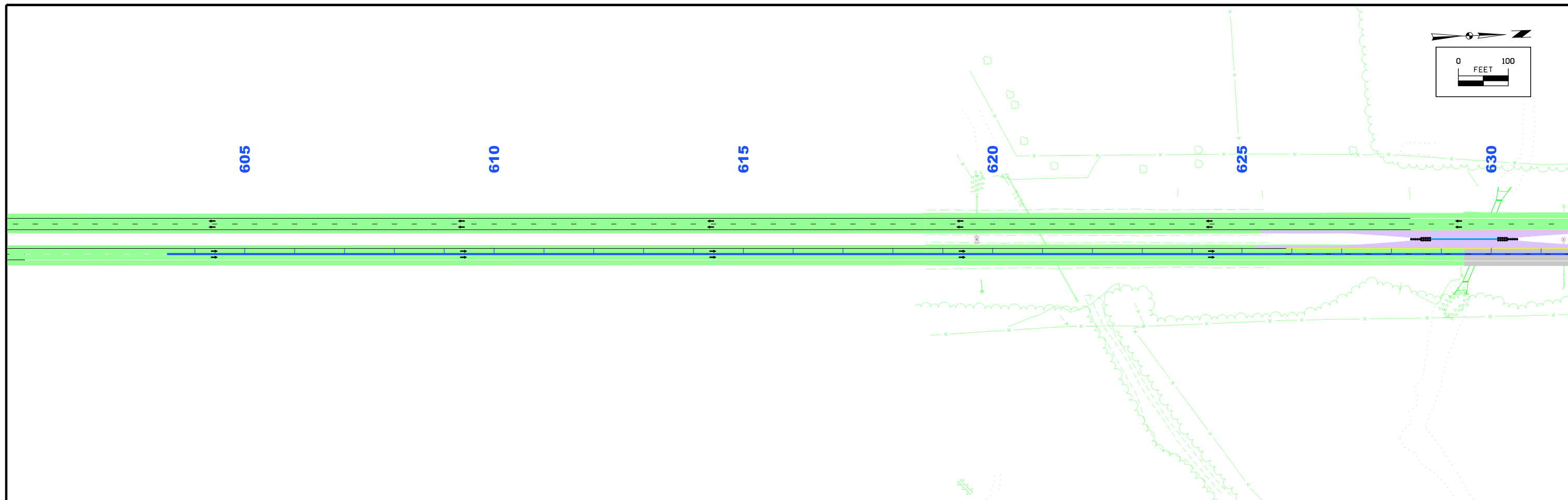


IA 92 STAGE 3

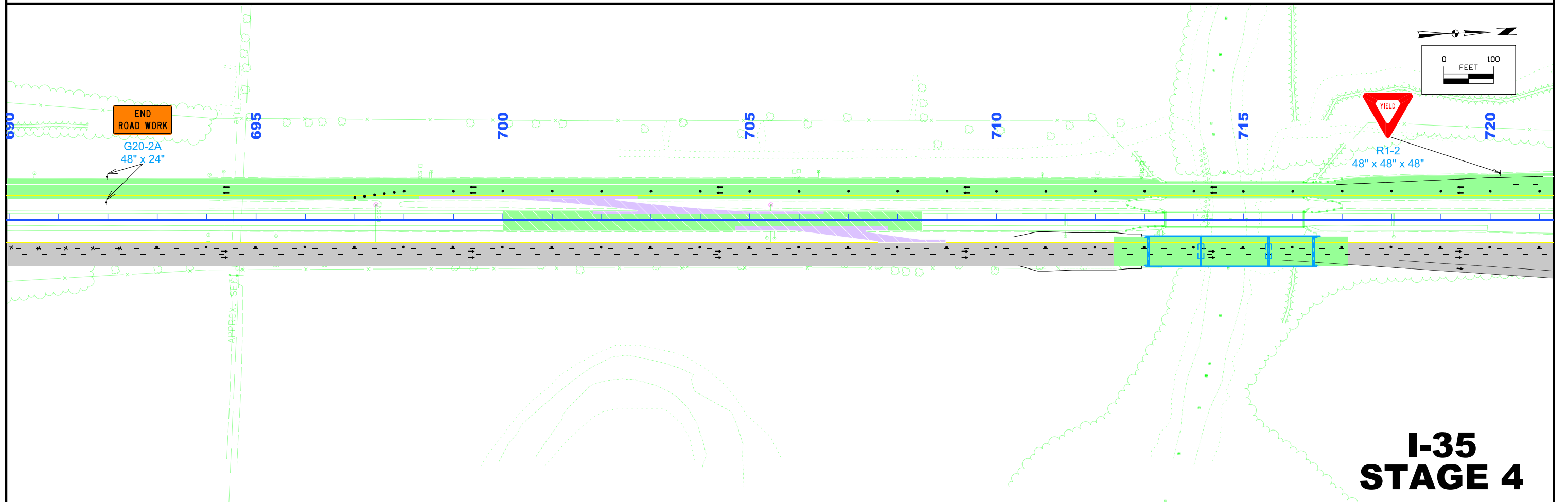
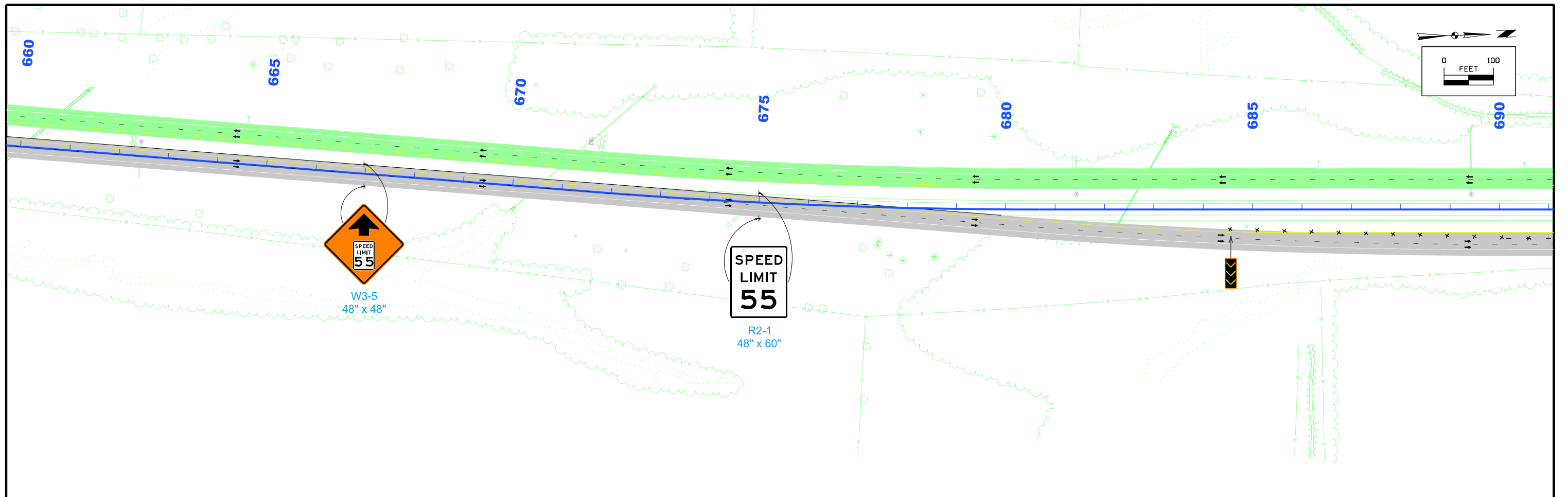


IA 92 STAGE 3

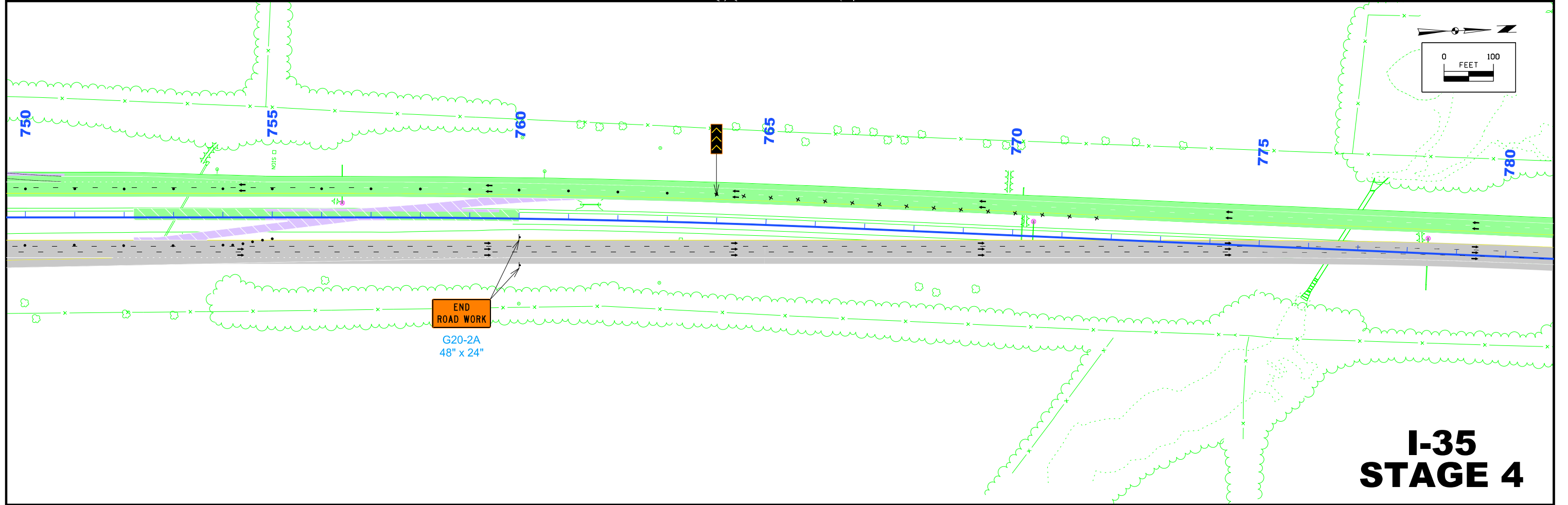
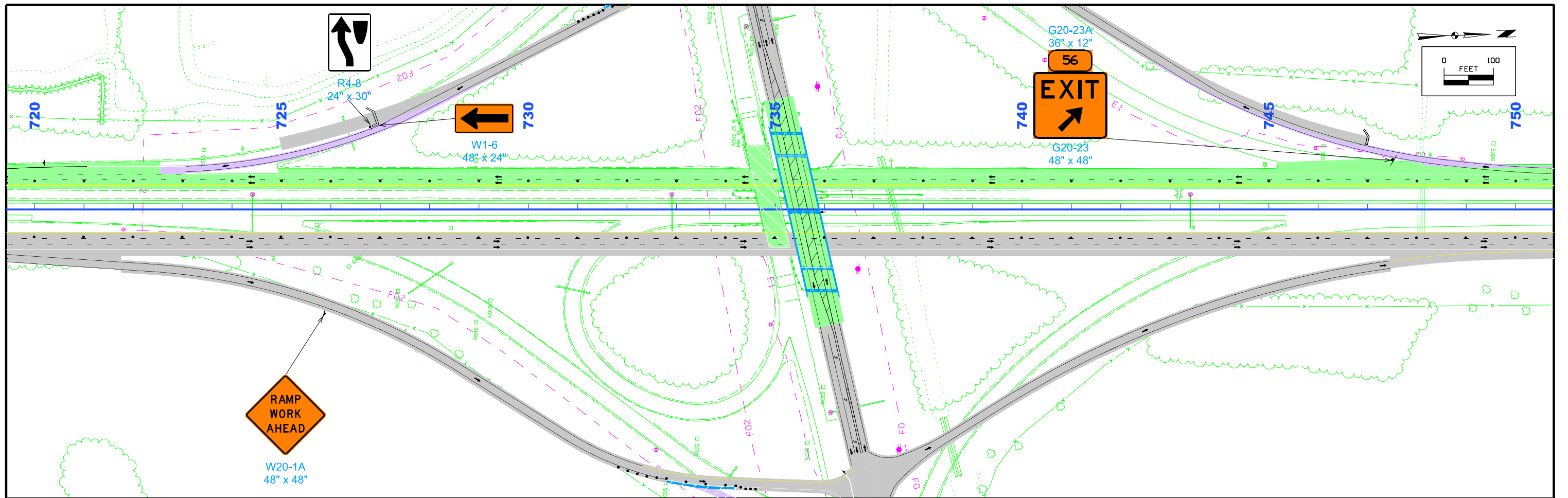




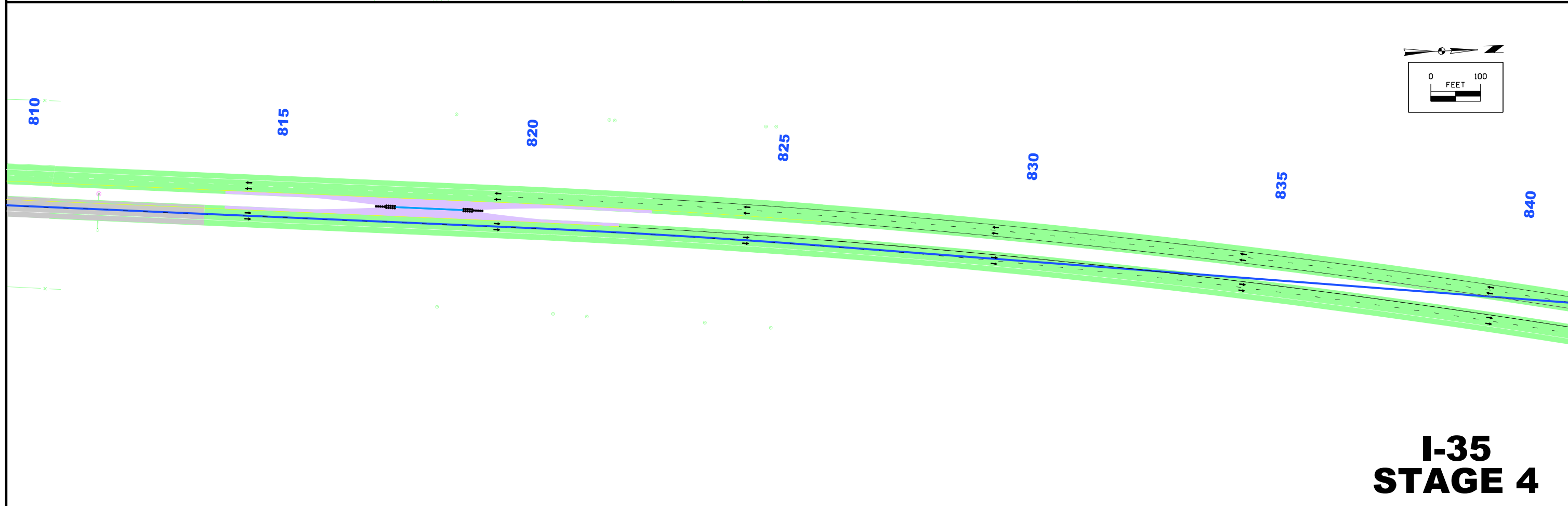
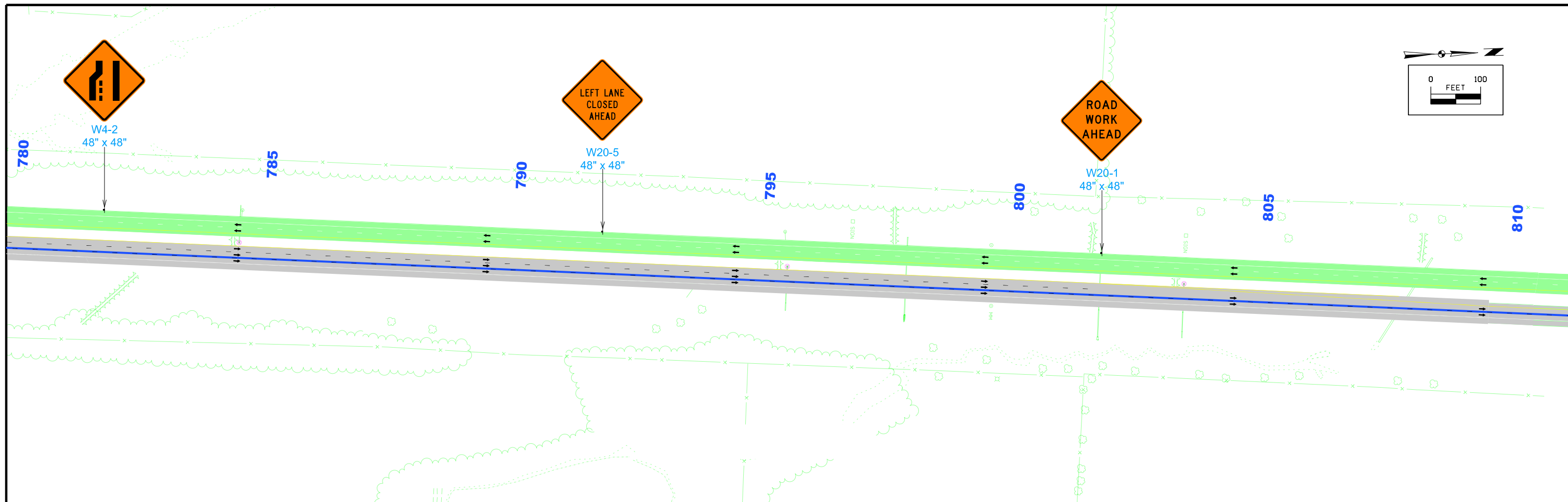
I-35 STAGE 4



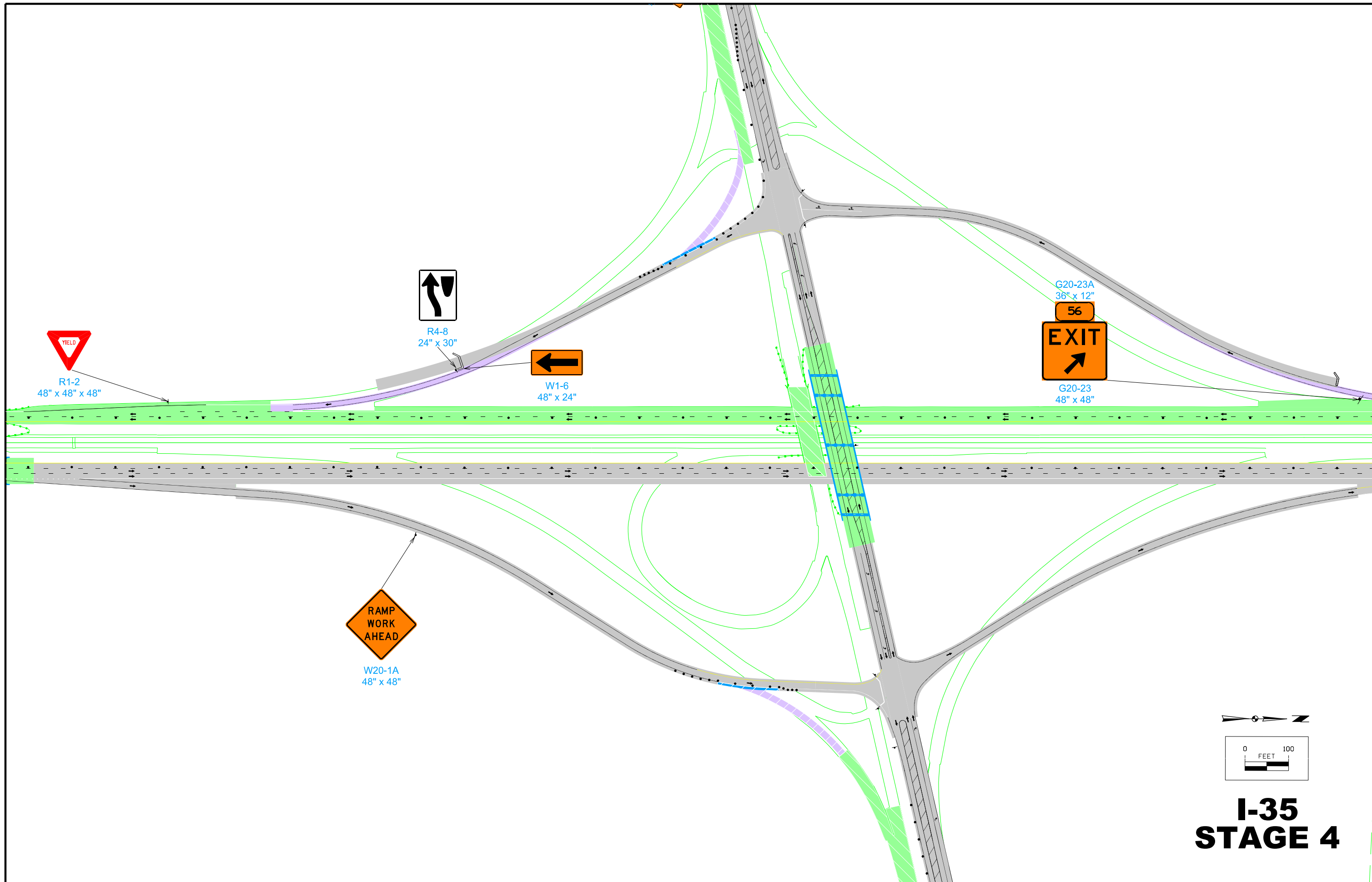
I-35 STAGE 4



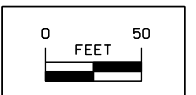
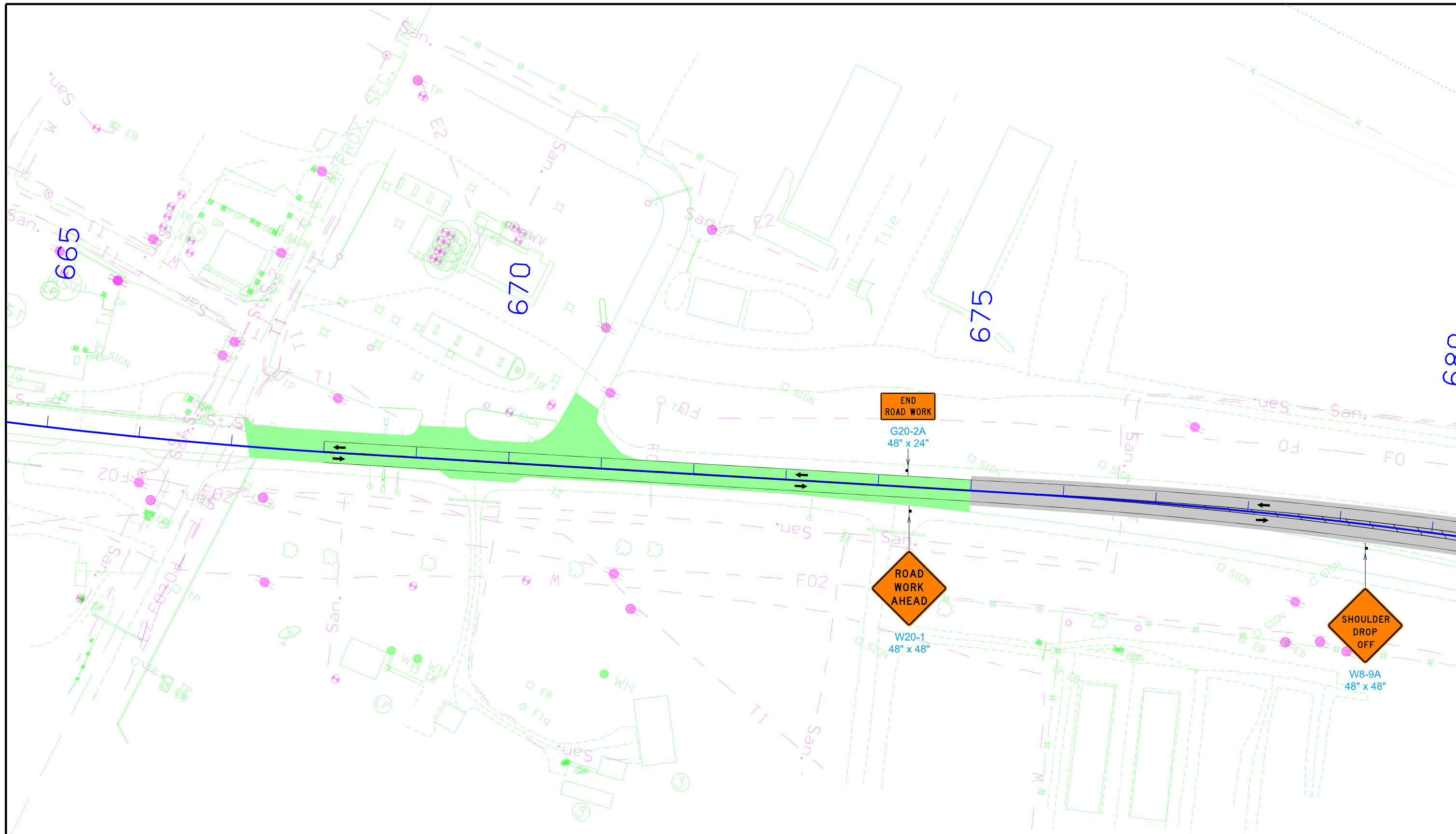
I-35 STAGE 4



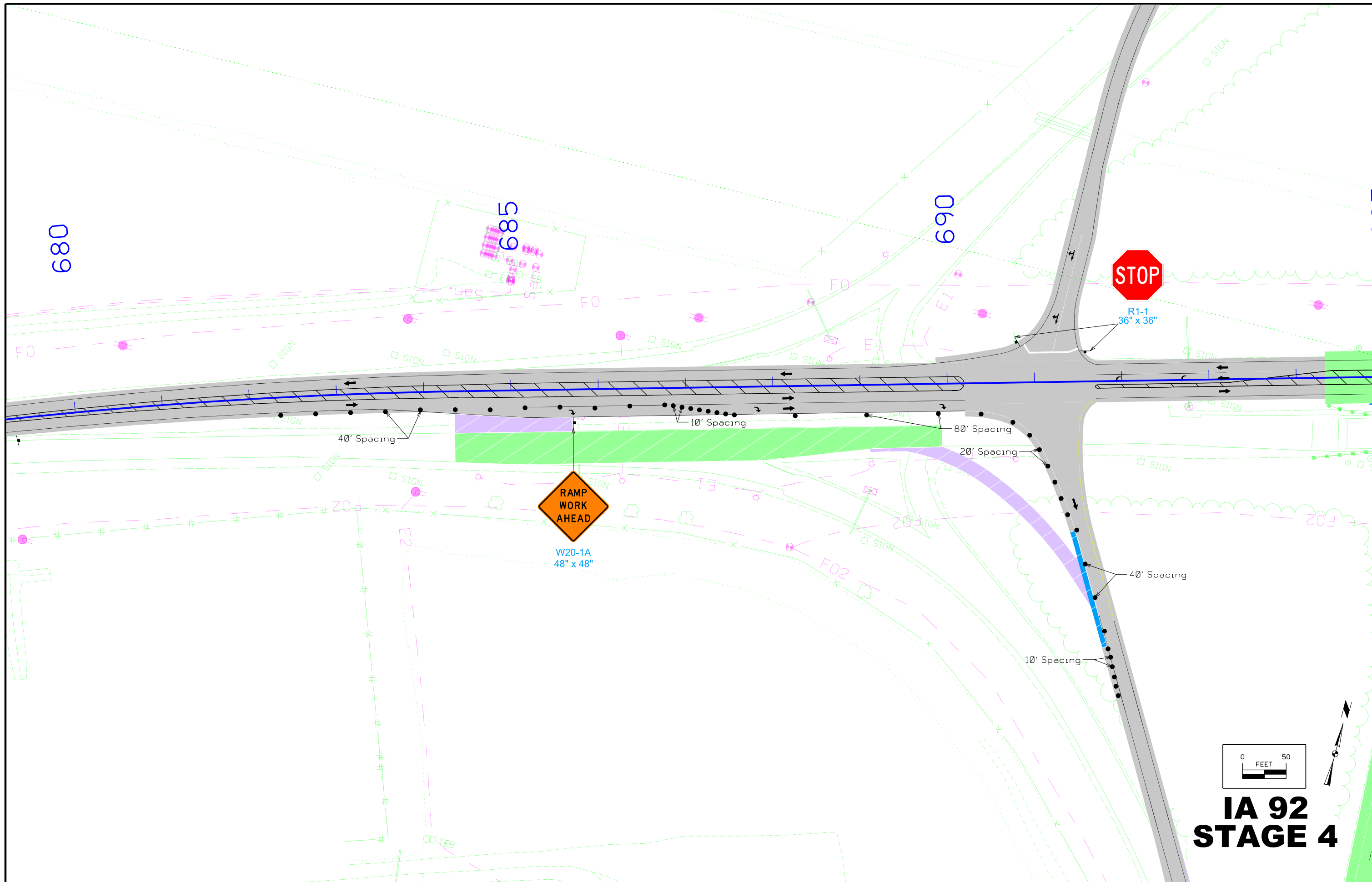
I-35 STAGE 4



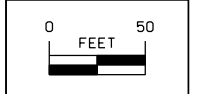
I-35 STAGE 4

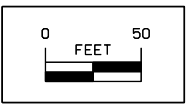
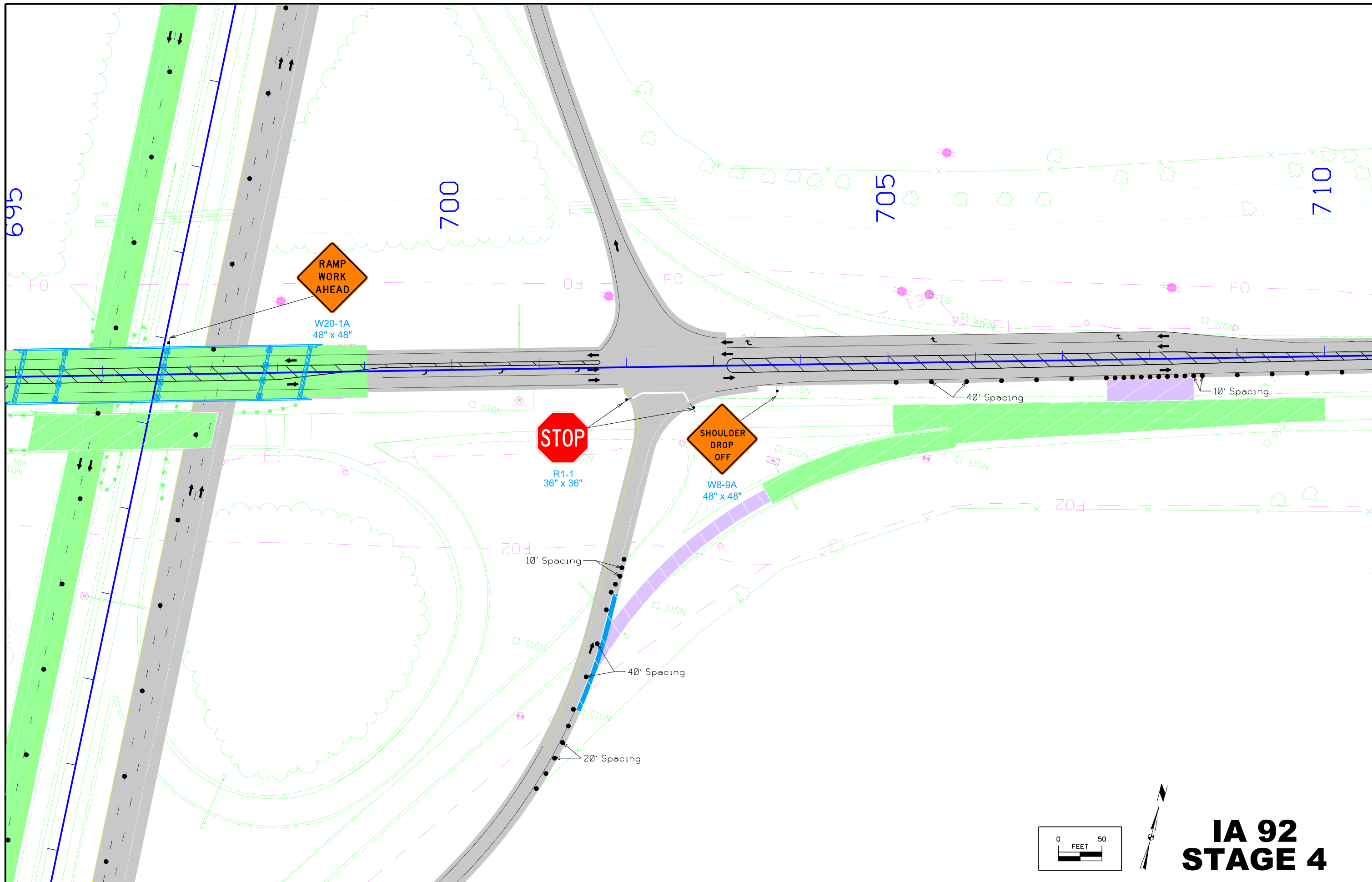


IA 92 STAGE 4

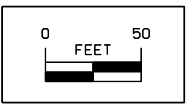
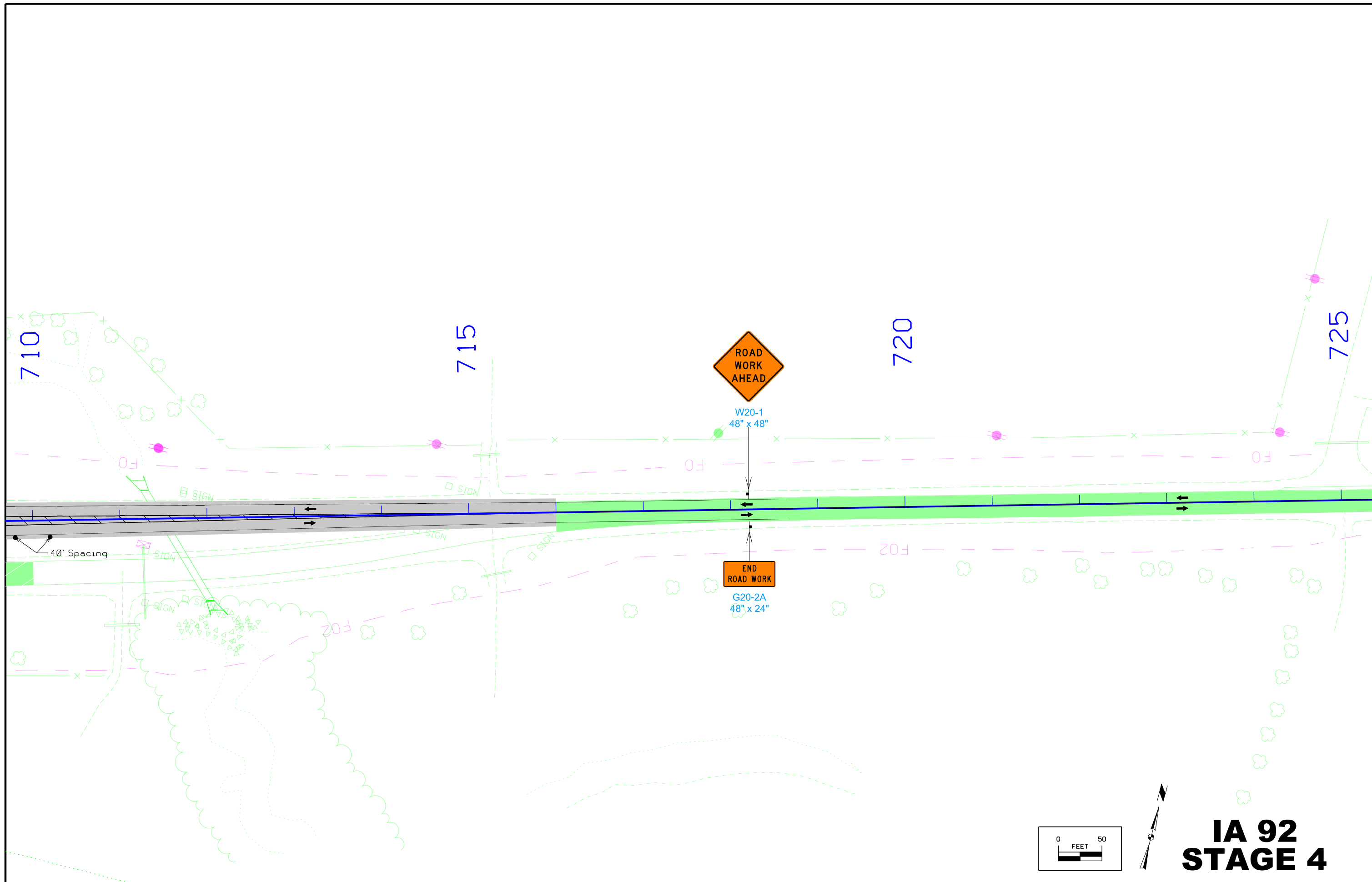


**IA 92
STAGE 4**





IA 92 STAGE 4



IA 92 STAGE 4

JEFFERSON TWP.
T-76N R-25W
SEC. 30

Curve Data
 $\Delta = 18^\circ 04' 08.33''$ (LT)
 $T = 318.00$
 $L = 630.73$
 $R = 2,000.00$
 $E = 25.12$
 $e = 5.4\%$
 $L = 168'$
 $x = 62'$

Curve Data
 $\Delta = 8^\circ 01' 17.07''$ (LT)
 $T = 140.23$
 $L = 280.00$
 $R = 2,000.00$
 $E = 4.91$
 $e = 5.4\%$
 $L = 168'$
 $x = 62'$

POT Sta. 691+00.00 (SUR092)
 = PI Sta 1533+41.31 (IA92A)
 = PI Sta 3535+25.59 (IA92C)

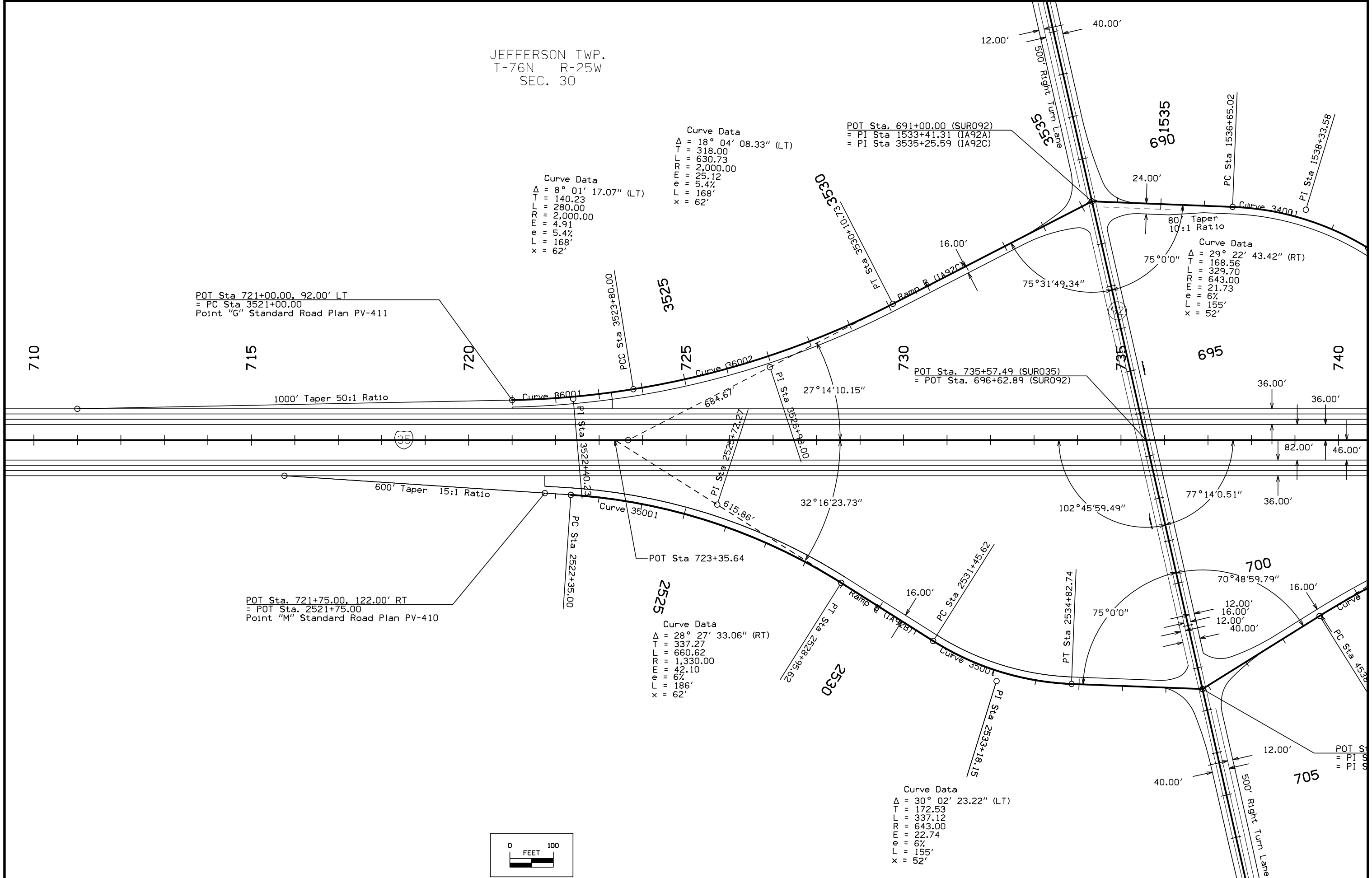
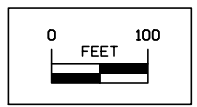
Curve Data
 $\Delta = 29^\circ 22' 43.42''$ (RT)
 $T = 168.56$
 $L = 329.70$
 $R = 643.00$
 $E = 21.73$
 $e = 6\%$
 $L = 155'$
 $x = 52'$

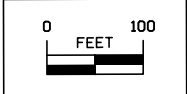
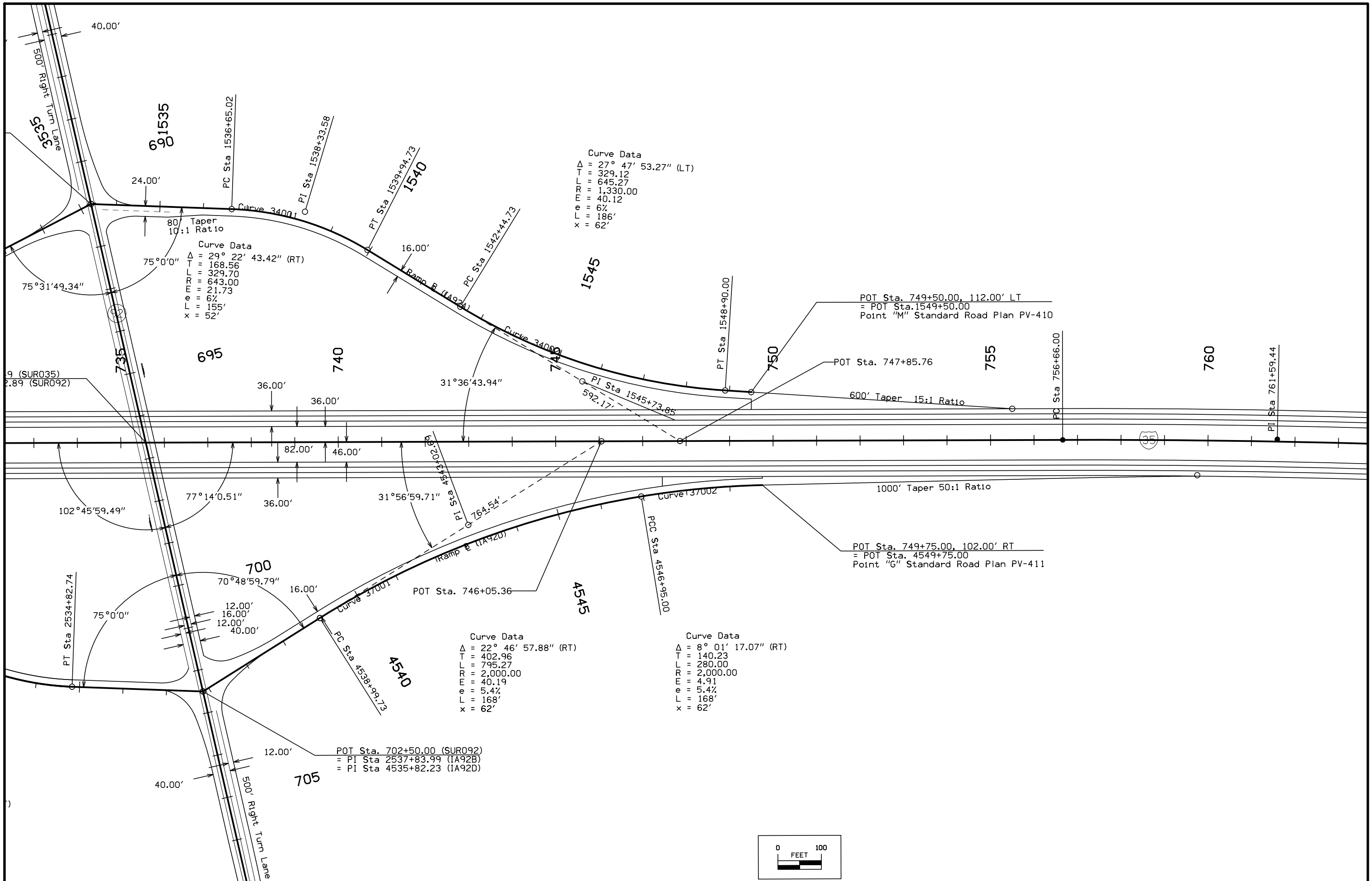
Curve Data
 $\Delta = 28^\circ 27' 33.06''$ (RT)
 $T = 337.27$
 $L = 660.62$
 $R = 1,330.00$
 $E = 42.10$
 $e = 6\%$
 $L = 186'$
 $x = 62'$

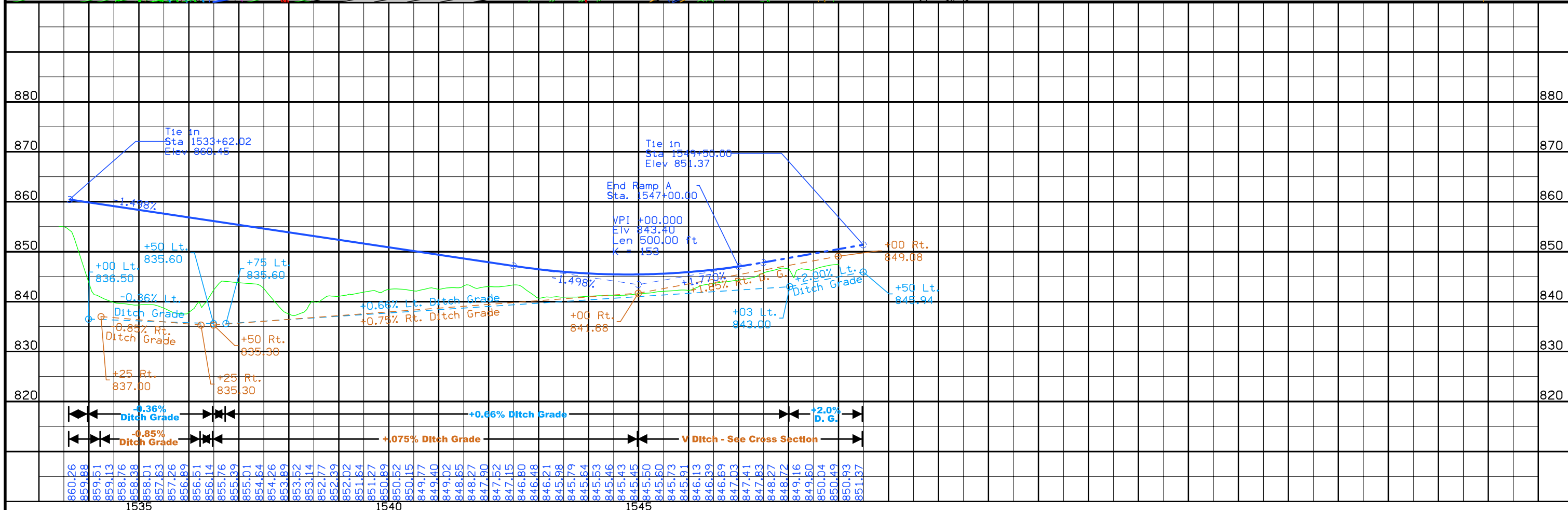
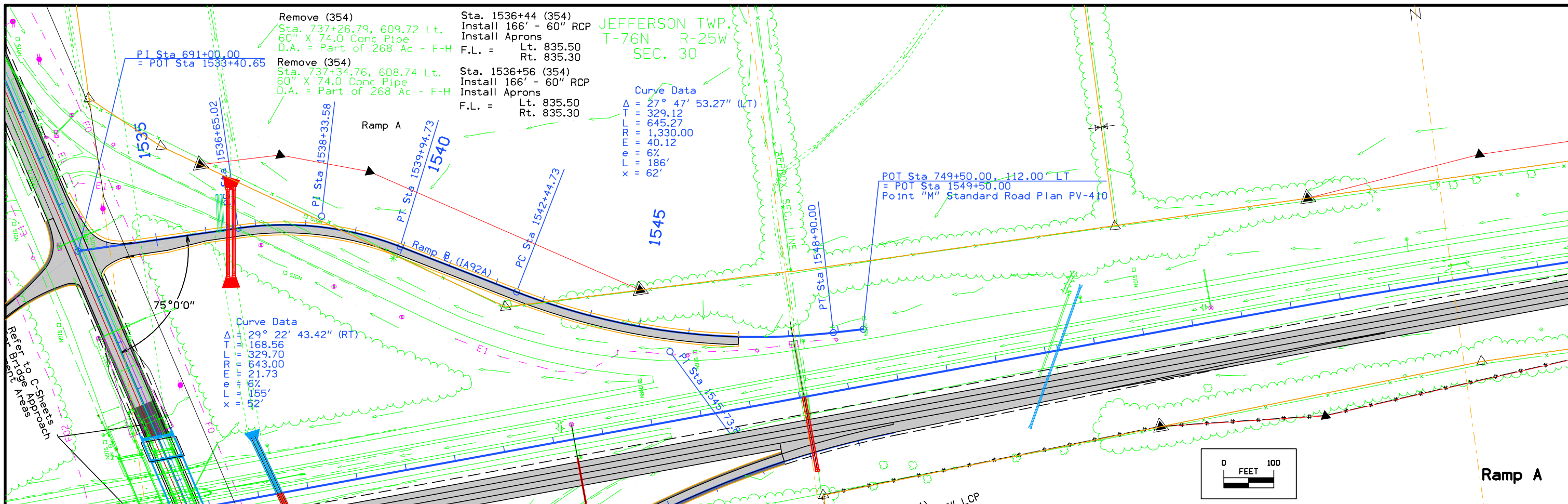
Curve Data
 $\Delta = 30^\circ 02' 23.22''$ (LT)
 $T = 172.53$
 $L = 337.12$
 $R = 643.00$
 $E = 22.74$
 $e = 6\%$
 $L = 155'$
 $x = 52'$

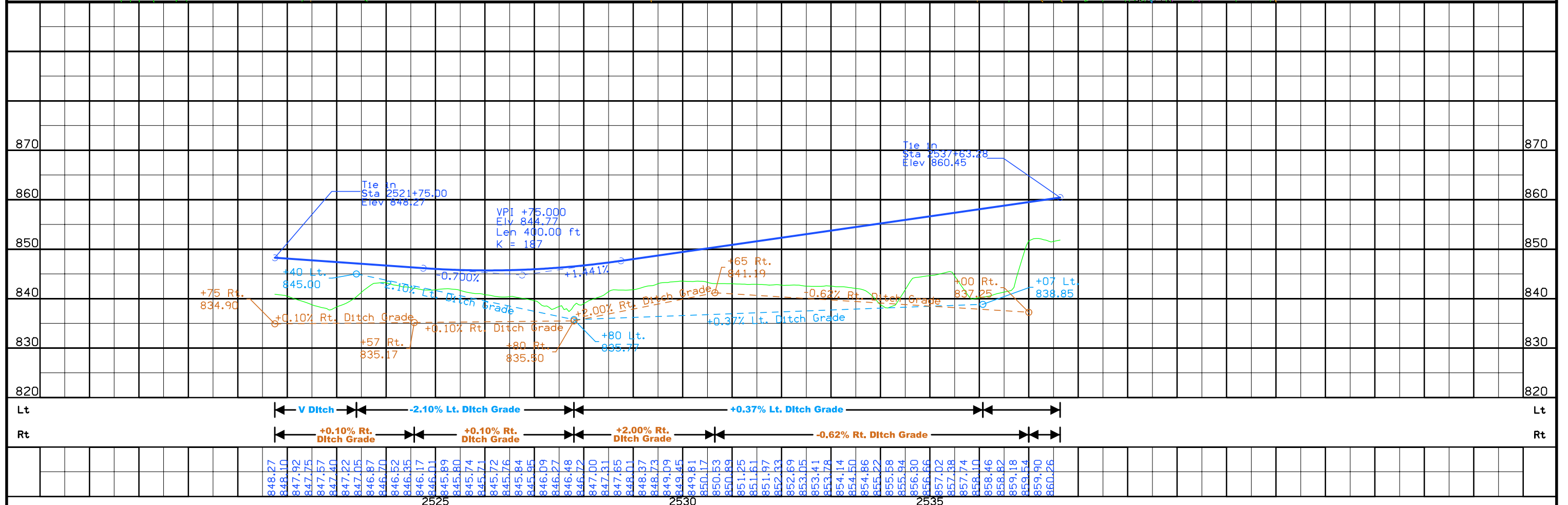
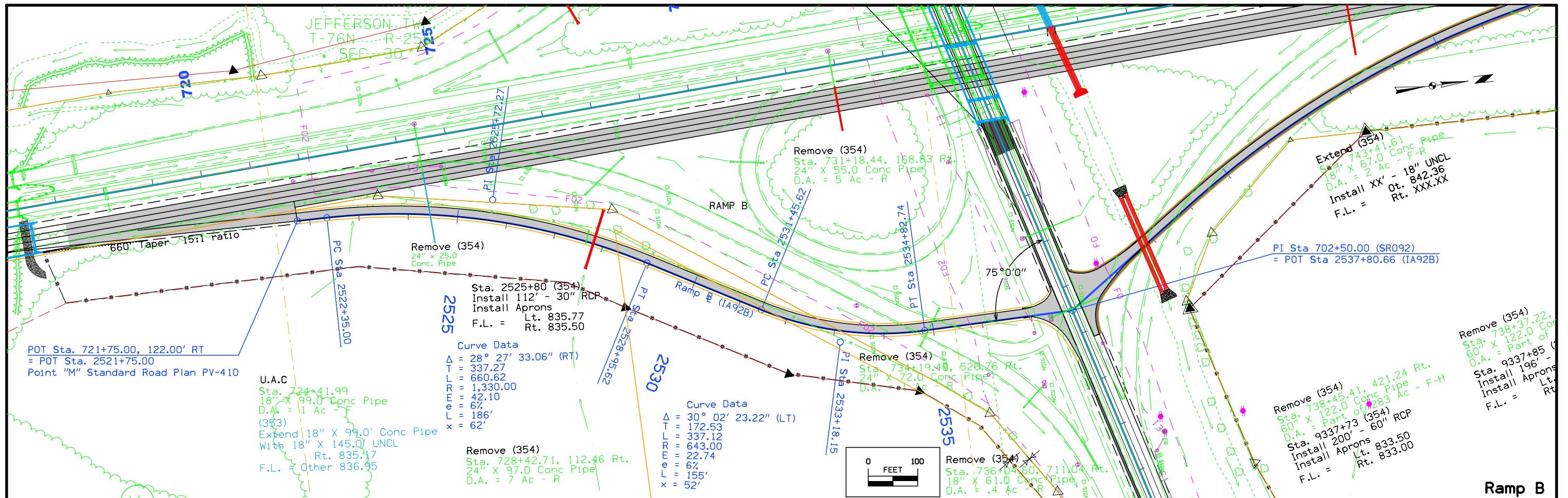
POT Sta 721+00.00, 92.00' LT
 = PC Sta 3521+00.00
 Point "G" Standard Road Plan PV-411

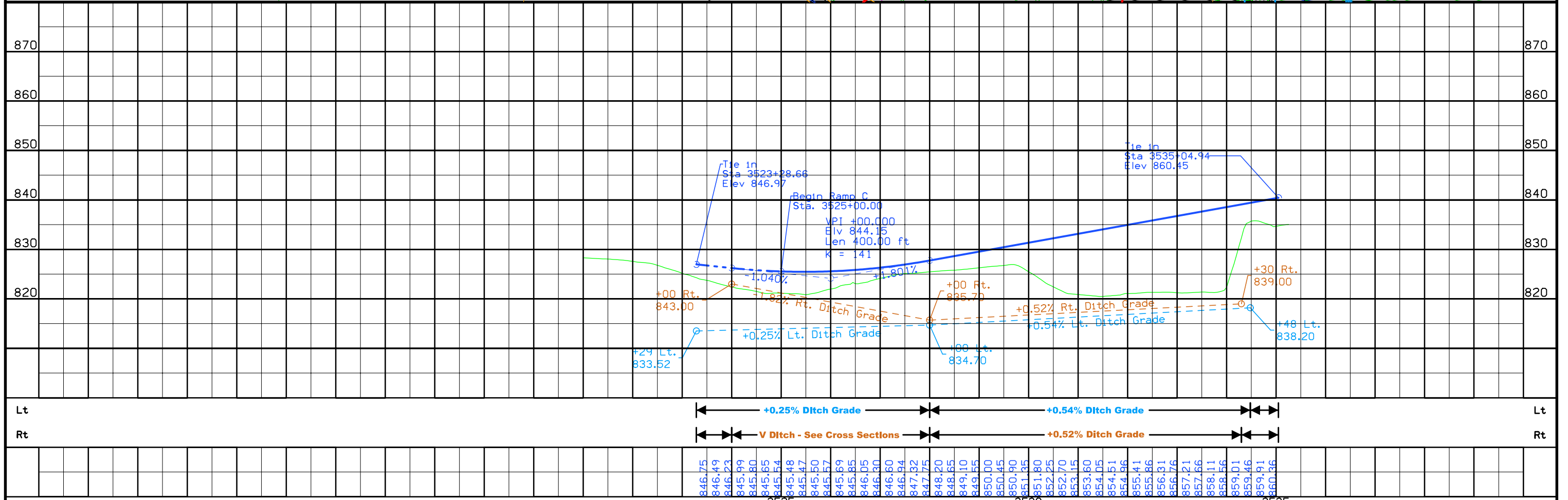
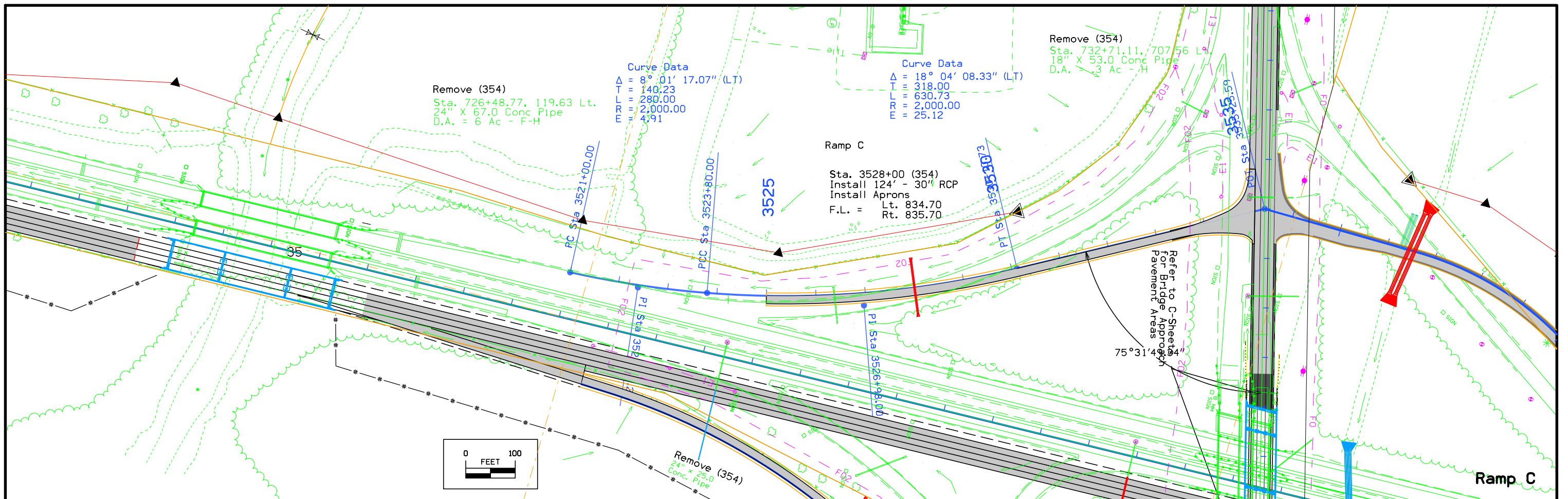
POT Sta. 721+75.00, 122.00' RT
 = POT Sta. 2521+75.00
 Point "M" Standard Road Plan PV-410

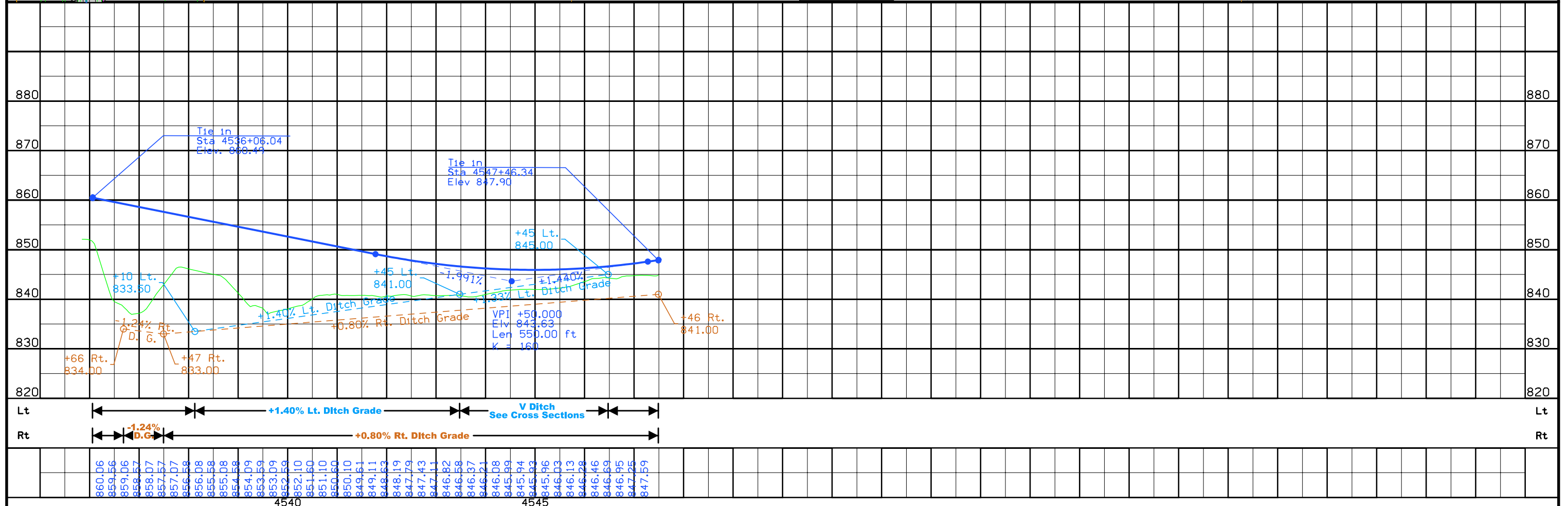
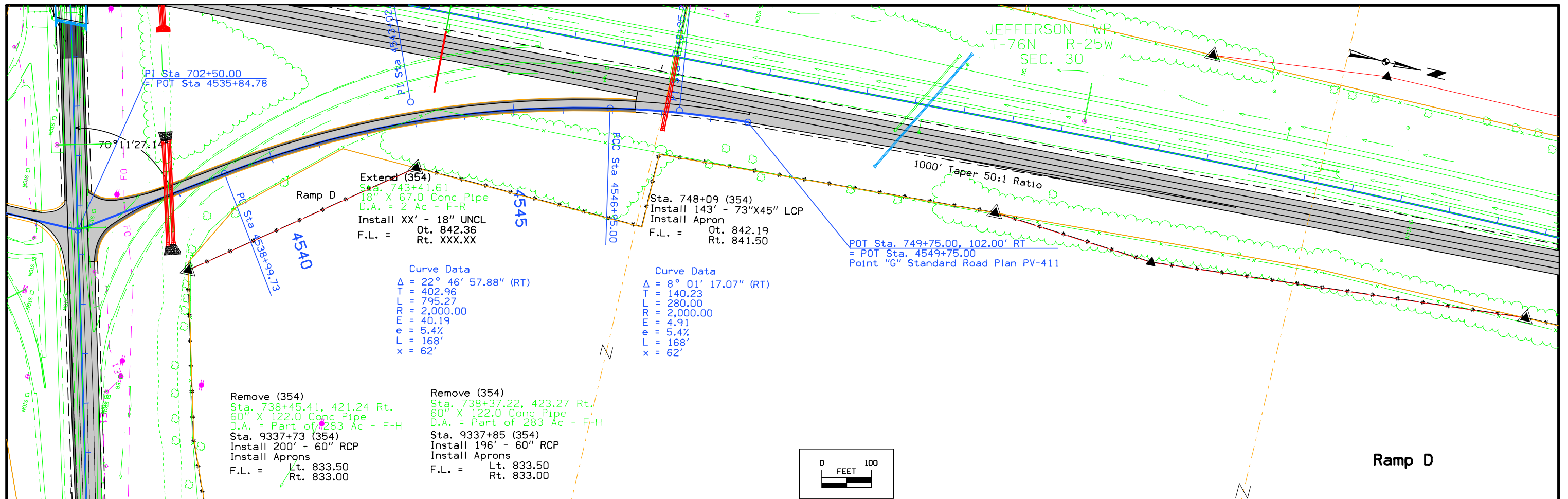








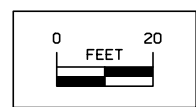
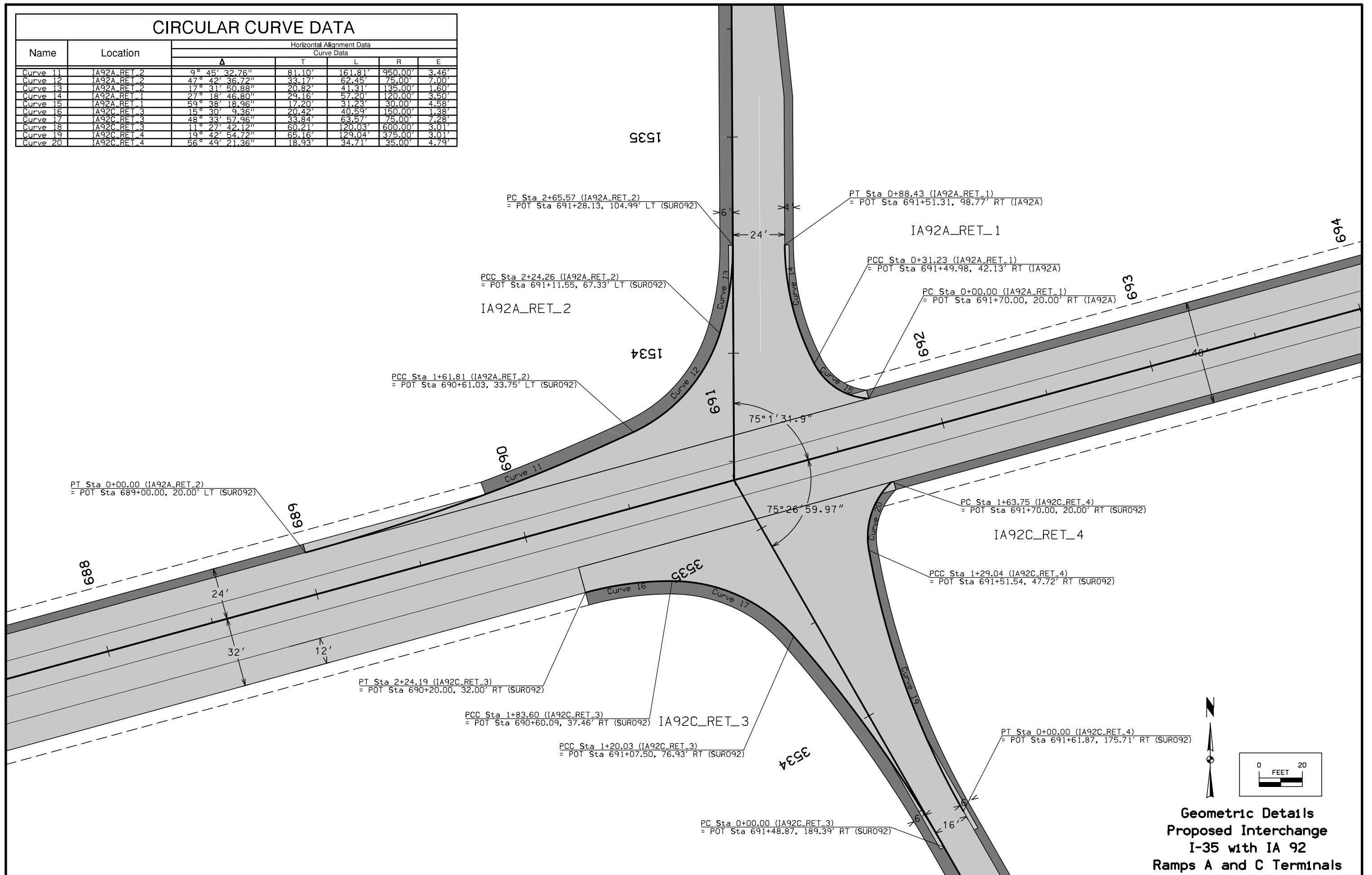




860.06	859.56	859.06	858.57	858.07	857.57	857.07	856.58	856.08	855.58	855.08	854.58	854.09	853.59	853.09	852.10	851.60	851.10	850.60	850.10	849.61	849.11	848.63	848.19	847.79	847.43	847.11	846.82	846.58	846.37	846.21	846.08	845.99	845.94	845.93	845.96	846.03	846.13	846.28	846.46	846.78	847.05	847.25	847.59
															4540																4545												

CIRCULAR CURVE DATA

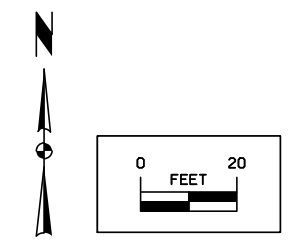
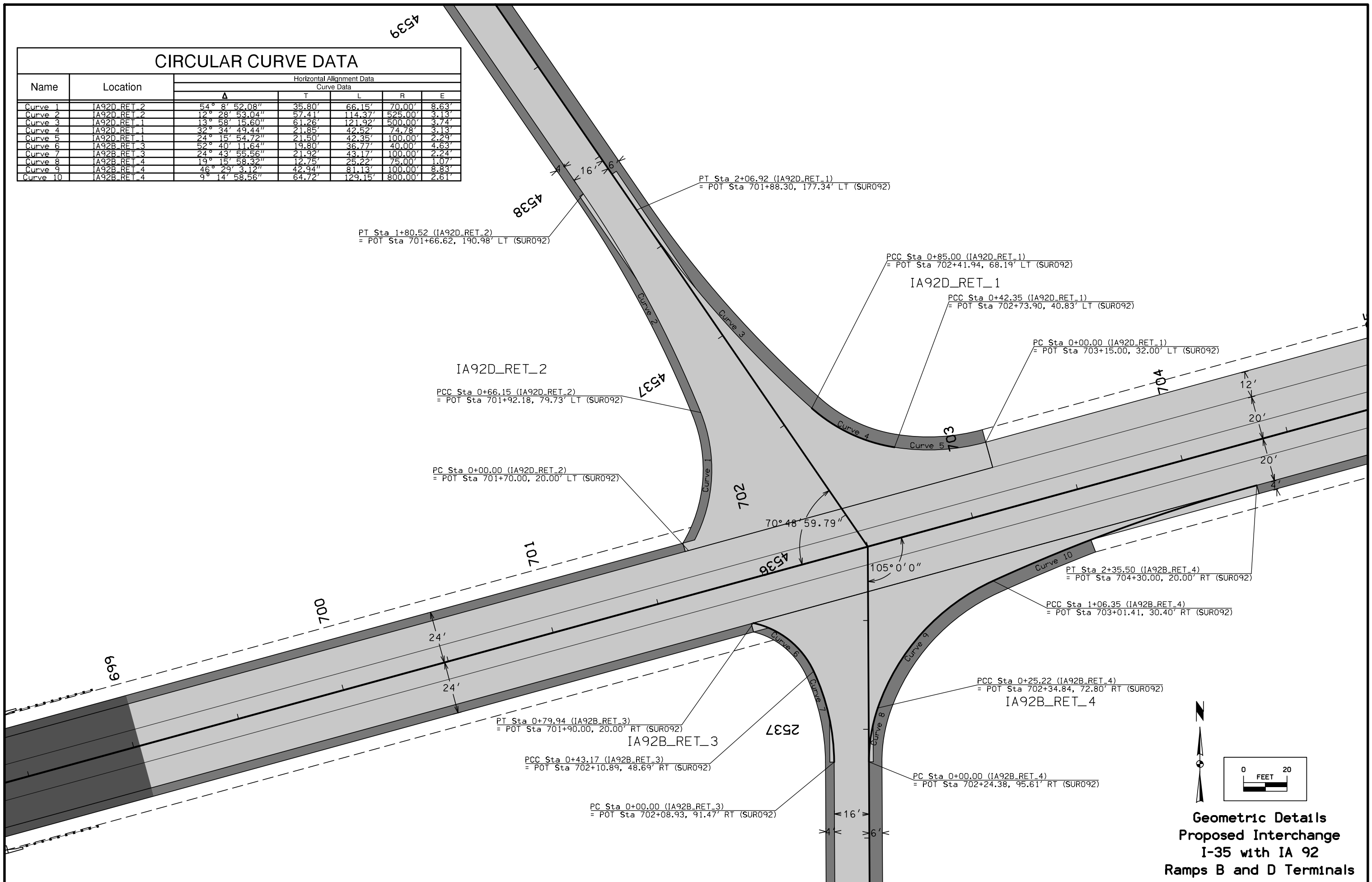
Name	Location	Horizontal Alignment Data				
		Curve Data				
		Δ	T	L	R	E
Curve 11	IA92A_RET_2	9° 45' 32.76"	81.10'	161.81'	950.00'	3.46'
Curve 12	IA92A_RET_2	47° 42' 36.72"	33.17'	62.45'	75.00'	7.00'
Curve 13	IA92A_RET_2	17° 31' 50.88"	20.82'	41.31'	135.00'	1.60'
Curve 14	IA92A_RET_1	27° 18' 46.80"	29.16'	57.20'	120.00'	3.50'
Curve 15	IA92A_RET_1	59° 38' 18.96"	17.20'	31.23'	30.00'	4.58'
Curve 16	IA92C_RET_3	15° 30' 9.36"	20.42'	40.59'	150.00'	1.38'
Curve 17	IA92C_RET_3	48° 33' 57.96"	33.84'	63.57'	75.00'	7.28'
Curve 18	IA92C_RET_3	11° 27' 42.12"	60.21'	120.03'	600.00'	3.01'
Curve 19	IA92C_RET_4	19° 42' 54.72"	65.16'	129.04'	375.00'	3.01'
Curve 20	IA92C_RET_4	56° 49' 21.36"	18.93'	34.71'	35.00'	4.79'



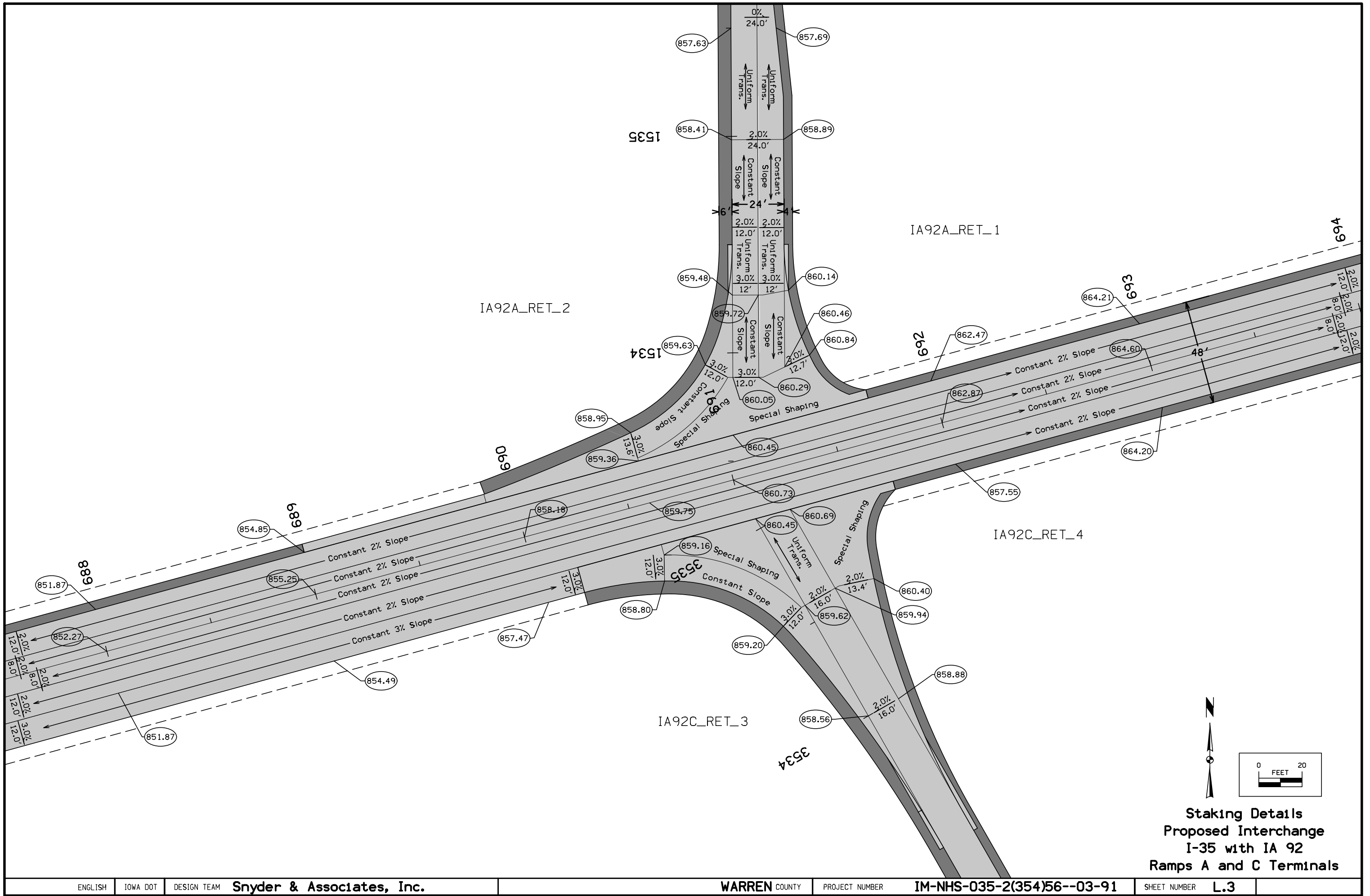
**Geometric Details
Proposed Interchange
I-35 with IA 92
Ramps A and C Terminals**

CIRCULAR CURVE DATA

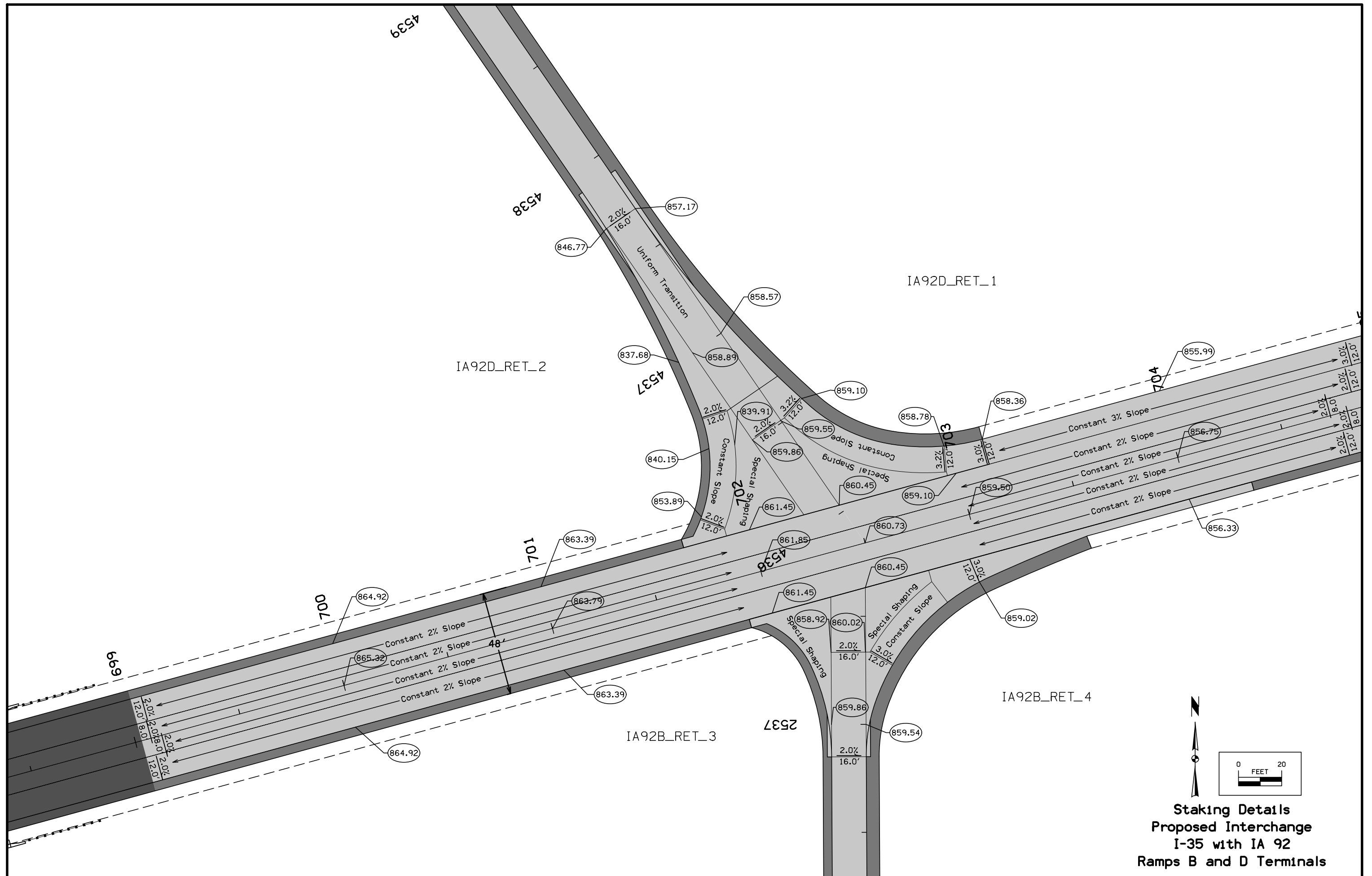
Name	Location	Horizontal Alignment Data				
		Δ	T	L	R	E
Curve 1	IA92D_RET_2	54° 8' 52.08"	35.80'	66.15'	70.00'	8.63'
Curve 2	IA92D_RET_2	12° 28' 53.04"	57.41'	114.37'	525.00'	3.13'
Curve 3	IA92D_RET_1	13° 58' 15.60"	61.26'	121.92'	500.00'	3.74'
Curve 4	IA92D_RET_1	32° 34' 49.44"	21.85'	42.52'	74.78'	3.13'
Curve 5	IA92D_RET_1	24° 15' 54.72"	21.50'	42.35'	100.00'	2.29'
Curve 6	IA92B_RET_3	52° 40' 11.64"	19.80'	36.77'	40.00'	4.63'
Curve 7	IA92B_RET_3	24° 43' 55.56"	21.92'	43.17'	100.00'	2.24'
Curve 8	IA92B_RET_4	19° 15' 58.32"	12.75'	25.22'	75.00'	1.07'
Curve 9	IA92B_RET_4	46° 29' 3.12"	42.94'	81.13'	100.00'	8.83'
Curve 10	IA92B_RET_4	9° 14' 58.56"	64.72'	129.15'	800.00'	2.61'



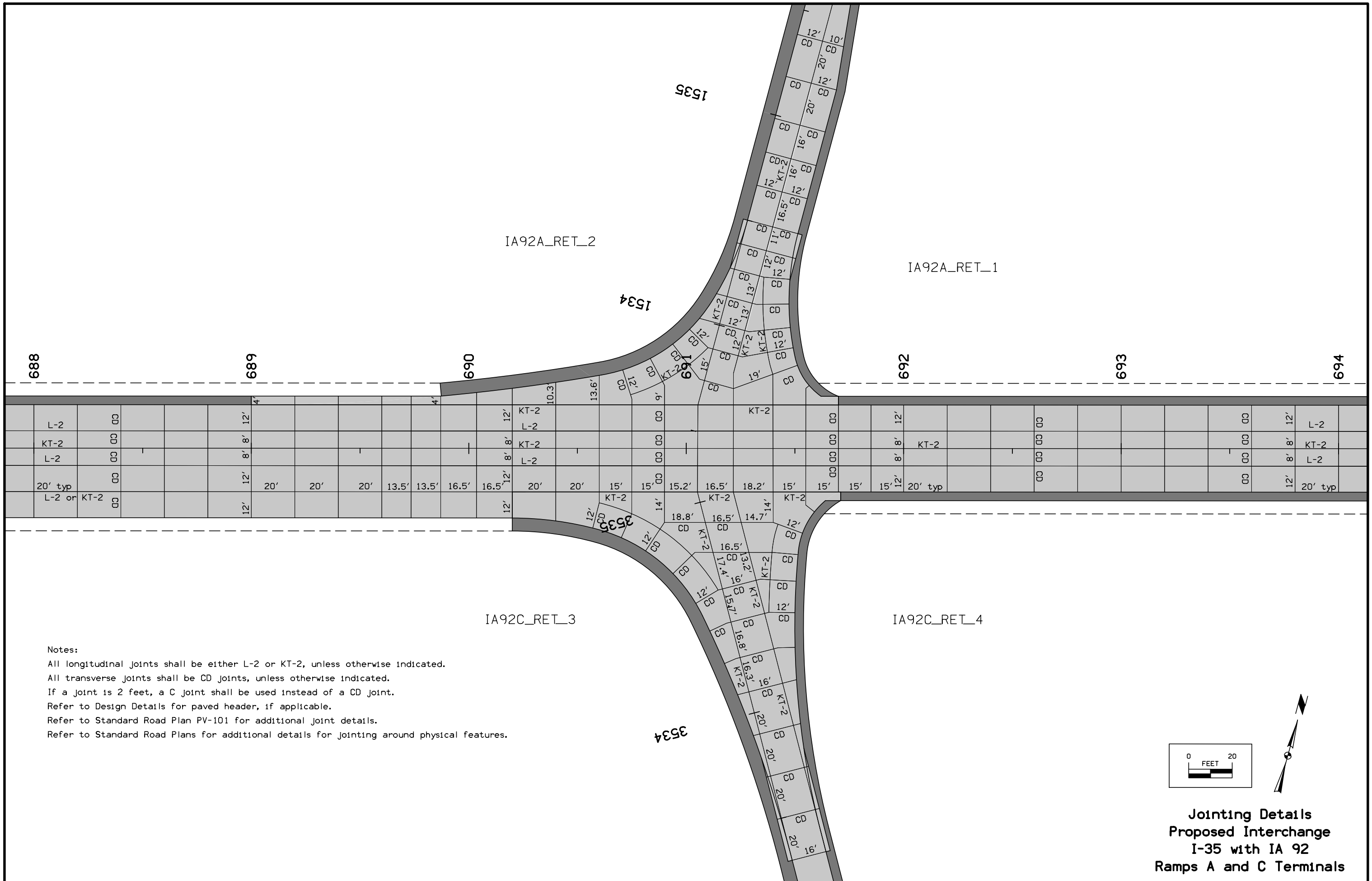
**Geometric Details
Proposed Interchange
I-35 with IA 92
Ramps B and D Terminals**



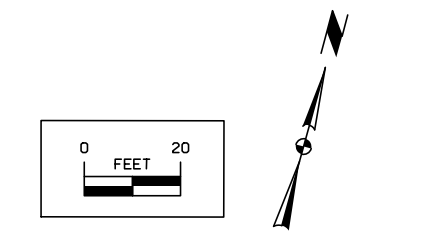
Staking Details
 Proposed Interchange
 I-35 with IA 92
 Ramps A and C Terminals



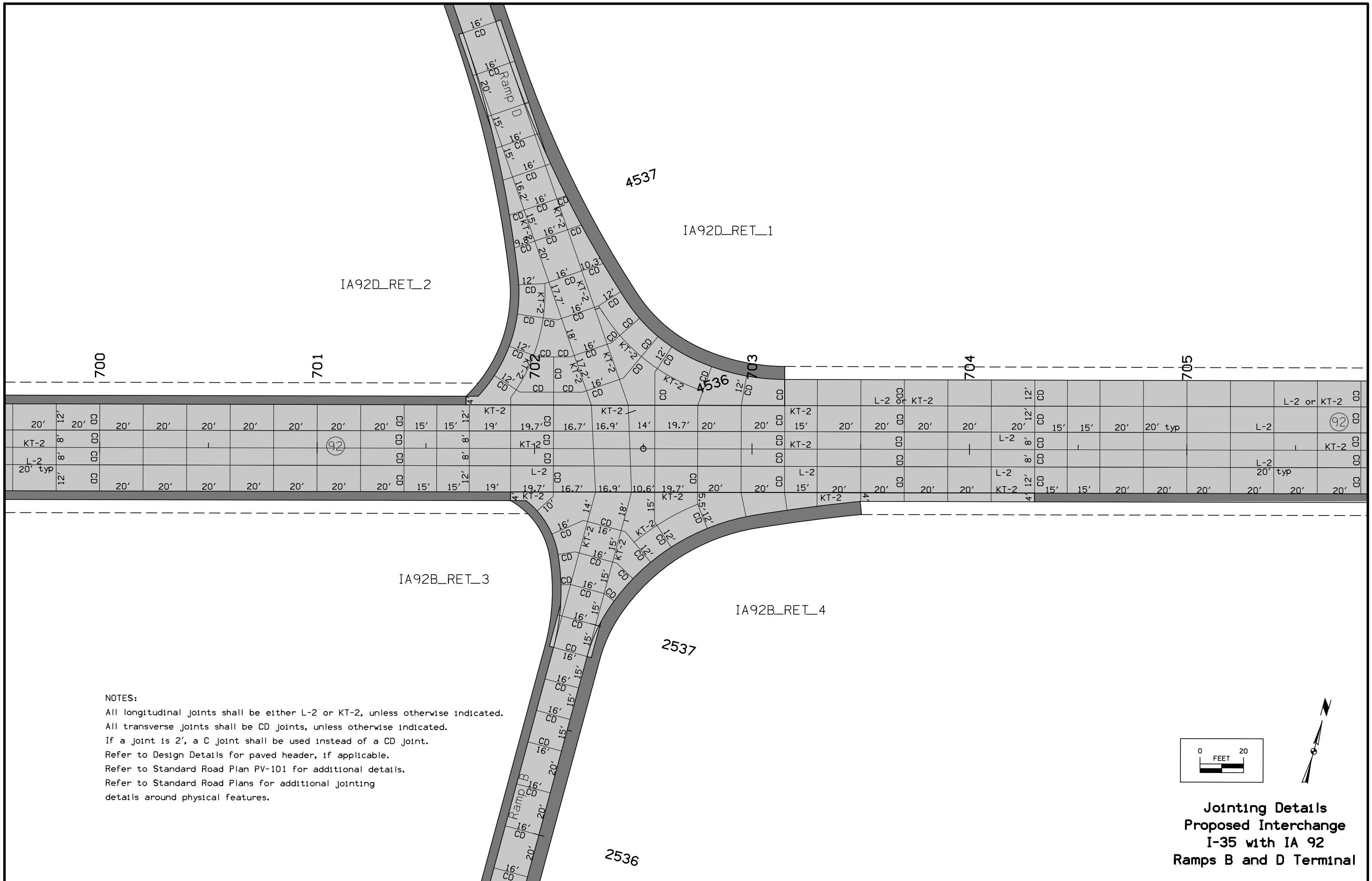
Staking Details
 Proposed Interchange
 I-35 with IA 92
 Ramps B and D Terminals



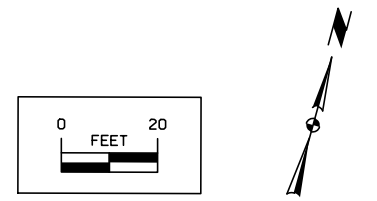
Notes:
 All longitudinal joints shall be either L-2 or KT-2, unless otherwise indicated.
 All transverse joints shall be CD joints, unless otherwise indicated.
 If a joint is 2 feet, a C joint shall be used instead of a CD joint.
 Refer to Design Details for paved header, if applicable.
 Refer to Standard Road Plan PV-101 for additional joint details.
 Refer to Standard Road Plans for additional details for jointing around physical features.



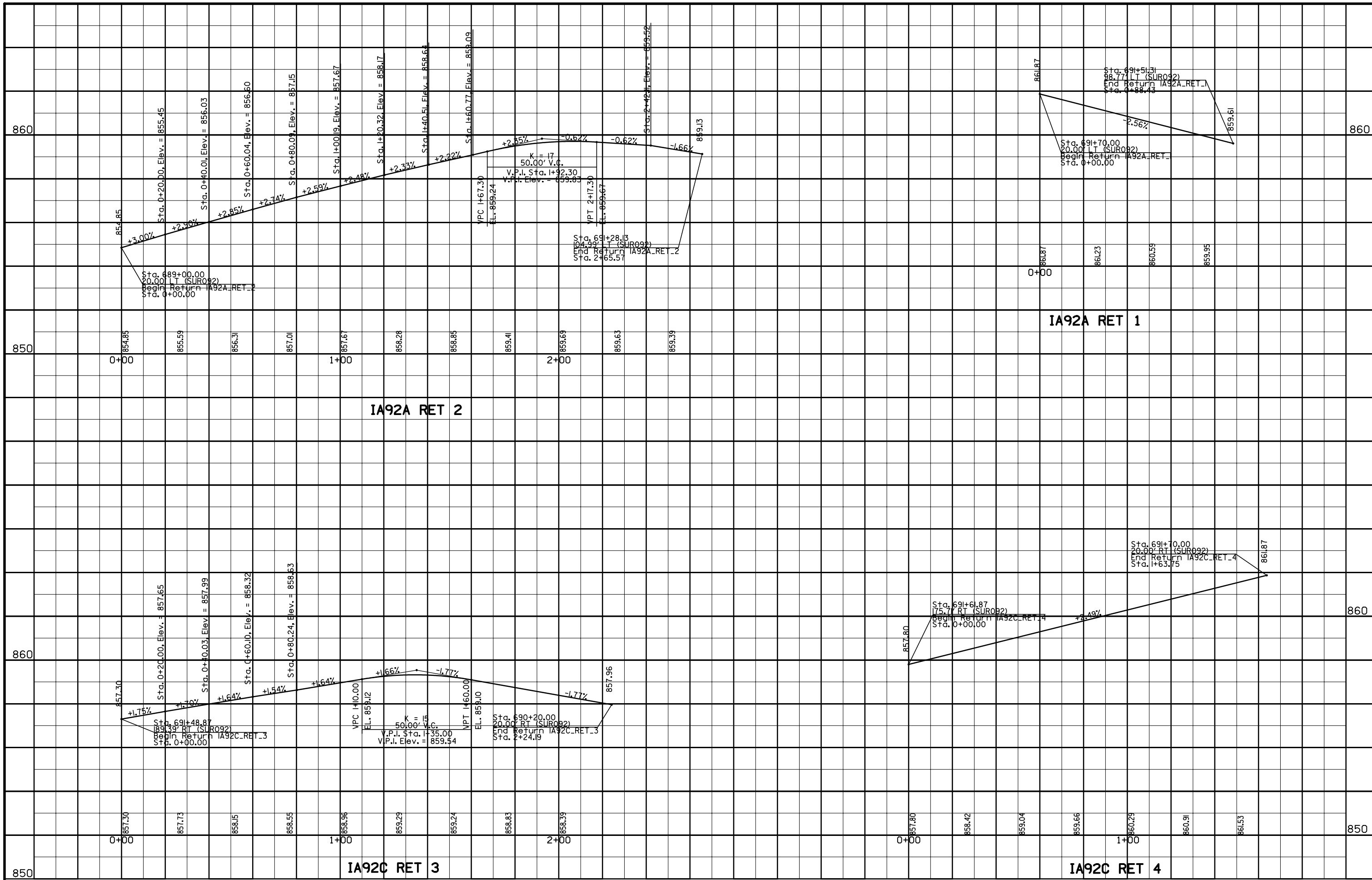
**Jointing Details
 Proposed Interchange
 I-35 with IA 92
 Ramps A and C Terminals**

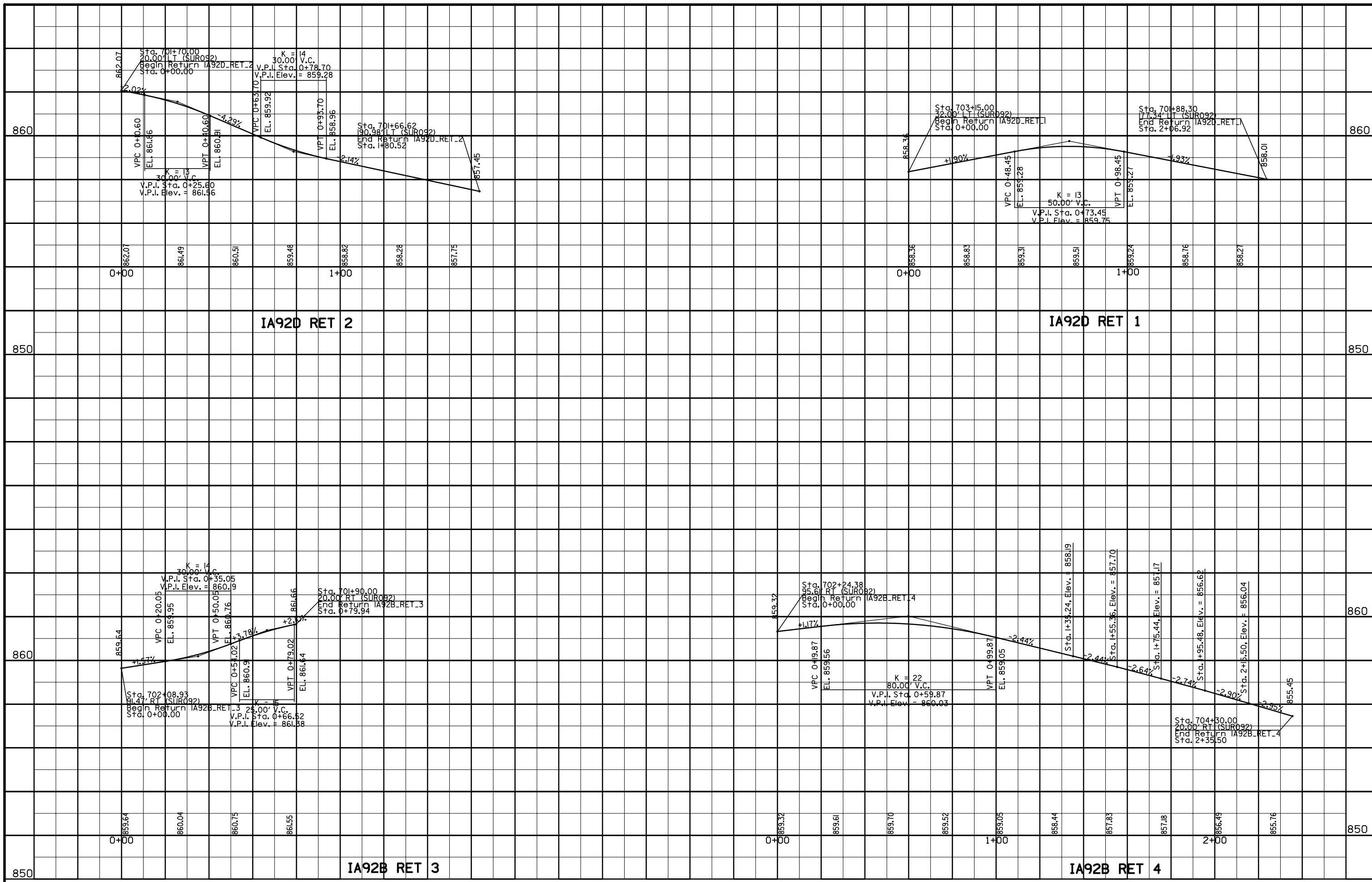


NOTES:
 All longitudinal joints shall be either L-2 or KT-2, unless otherwise indicated.
 All transverse joints shall be CD joints, unless otherwise indicated.
 If a joint is 2', a C joint shall be used instead of a CD joint.
 Refer to Design Details for paved header, if applicable.
 Refer to Standard Road Plan PV-101 for additional details.
 Refer to Standard Road Plans for additional jointing details around physical features.



**Jointing Details
 Proposed Interchange
 I-35 with IA 92
 Ramps B and D Terminal**





TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Refer to Standard Plan EW-101 and RL-1B.

STATION	TOTAL CUT	TOPSOIL CLASS 10 SAVED -C	UNSUIT TYPE B CUT	UNSUIT TYPE C CUT	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK					STATION	TOTAL CUT	TOPSOIL CLASS 10 SAVED -C	UNSUIT TYPE B CUT	UNSUIT TYPE C CUT	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK					
Mainline														657+50.00														
629+45.66	33	7			26	26	52	68	68					658+00.00	188	27			161	161	1086	1412	1412					
629+50.00	203	26			177	177	682	887	887					658+25.02	179	23			156	156	689	896	896					
629+72.10	192	32			160	160	605	787	787					659+00.00	101	19			82	82	767	997	997					
630+00.00	511	77			434	434	224	291	291					659+50.00	109	34			75	75	1779	2313	2313					
630+50.00	431	74			357	357	122	159	159					660+00.00	13	17			-4	-4	1715	2230	2230					
631+00.00	374	67			307	307	92	120	120					660+04.81	13	1			-1	-1	1398	1817	1817					
631+50.00	378	61			317	317	67	87	87					660+50.00	120	25			95	95	1957	2544	2544					
632+00.00	492	76			416	416	17	22	22					661+00.00	2	2					1048	1362	1362					
632+50.00	717	99			618	618	1	1	1					661+50.00	2	2					823	1070	1070					
633+00.00	963	109			854	854								662+00.00	2	2					613	797	797					
633+50.00	1083	107			976	976								662+50.00	2	2					457	594	594					
634+00.00	1259	115			1144	1144								663+00.00	2	2					349	454	454					
634+50.00	1590	127			1463	1463								663+50.00	2	2					273	355	355					
635+00.00	1851	134			1717	1717								664+00.00	15	8			7	7	221	287	287					
635+50.00	1884	131			1753	1753								664+50.00		15			-15	-15	162	211	211					
636+00.00	1647	114			1533	1533								665+00.00		17			-17	-17	111	144	144					
636+50.00	1384	98			1286	1286								665+50.00	47	20			27	27	73	95	95					
637+00.00	1224	89			1135	1135								666+00.00	123	26			97	97	41	53	53					
637+50.00	1150	88			1062	1062								666+50.00	211	30			181	181	20	26	26					
638+00.00	1110	92			1018	1018								667+00.00	294	64			230	230	7	9	9					
638+50.00	912	91			821	821								667+50.00	340	86			254	254								
639+00.00	621	53			568	568								668+00.00	490	65			425	425								
639+50.00	504	25			479	479	221	287	287					668+50.00	679	54			625	625								
639+96.04	61	6			55	55	19	25	25					669+00.00	755	50			705	705								
640+00.00	1011	112			899	899								669+50.00	790	48			742	742								
640+50.00	728	76			652	652								670+00.00	719	43			676	676	7	9	9					
640+85.44	240	30			210	210								670+50.00	986	56			930	930	7	9	9					
641+00.00	944	99			845	845								670+51.09	29	2			27	27								
641+50.00	995	101			894	894								670+51.31	4				4	4								
642+00.00	1098	109			989	989								670+51.38														
642+50.00	1249	117			1132	1132								671+00.00	1349	59	41		1249	1290	19	25	25					
643+00.00	1489	128			1361	1361								671+50.00	2045	91	205		1749	1954								
643+50.00	1657	137	4	43	1473	1520								672+00.00	2606	110	413		2083	2496								
644+00.00	1681	135	235	43	1268	1546	37	48	48					672+50.00	3459	132	661		2666	3327								
644+50.00	1476	125	658		693	1351	37	48	48					672+75.00	2091	73	393		1625	2018								
645+00.00	1246	116	674		456	1130								673+00.00	2238	75	354		1809	2163								
645+50.00	1250	115	314		821	1135								673+50.00	4590	155	528		3907	4435								
646+00.00	1336	120	66		1150	1216								674+00.00	4476	162	339		3975	4314								
646+50.00	1418	125			1293	1293								674+50.00	4476	169	294		4013	4307								
647+00.00	1476	129			1347	1347								675+00.00	4860	177	336		4347	4683								
647+50.00	1417	130			1287	1287								675+50.00	5589	188	444		4957	5401								
648+00.00	1166	124			1042	1042								676+00.00	6524	206	429		5889	6318								
648+50.00	756	99			657	657	16	21	21					676+50.00	7069	222	381		6466	6847								
649+00.00	399	85			314	314	86	112	112					677+00.00	7201	232	211		6758	6969								
649+44.00														677+50.00	7516	244			7272	7272								
649+44.14	38	7	6		25	31	13	17	17					678+00.00	7341	246			7095	7095								
649+50.00	314	57	118		139	257	127	165	165					678+50.00	5926	209			5717	5717	2	3	3					
650+00.00	305	57	95		153	248	185	241	241					679+00.00	4438	194			4244	4244	15	20	20					
650+50.00	264	52	26		186	212	321	417	417					679+50.00	3441	202			3239	3239	33	43	43					
651+00.00	198	47			151	151	501	651	651					680+00.00	2700	160			2540	2540	57	74	74					
651+50.00	156	40			116	116	678	881	881					680+50.00	1978	109			1869	1869	87	113	113					
652+00.00	147	37			110	110	803	1044	1044					681+00.00	1272	82			1190	1190	173	225	225					
652+50.00	167	43			124	124	855	1112	1112					681+50.00	2605	148			2457	2457	410	533	533					
653+00.00	20	5			15	15	99	129	129					682+00.00	6339</													

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Refer to Standard Plan EW-101 and RL-1B.

STATION	TOTAL CUT	TOPSOIL CLASS 10 SAVED -C	UNSUIT TYPE B CUT	UNSUIT TYPE C CUT	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK					STATION	TOTAL CUT	TOPSOIL CLASS 10 SAVED -C	UNSUIT TYPE B CUT	UNSUIT TYPE C CUT	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK				
687+00.00	203	40			163	163	7960	10348	10348					722+00.00	51	105			-54	-54	237	308	308				
687+50.00	197	40			157	157	8679	11283	11283					722+50.00	19	74			-55	-55	208	270	270				
688+00.00	192	39			153	153	9154	11900	11900					723+00.00	25	78			-53	-53	206	268	268				
688+50.00	103	31			72	72	9346	12150	12150					723+50.00	31	82			-51	-51	203	264	264				
689+00.00	33	25	32		-24	8	9245	12019	12019					724+00.00	30	71			-41	-41	171	222	222				
689+50.00	4	21	57		-74	-17	8945	11629	11629					724+41.99													
690+00.00		21	49		-70	-21	8539	11101	11101					724+42.03		7			-7	-7	25	33	33				
690+50.00	3	22	56		-75	-19	8116	10551	10551					724+50.00	40	82			-42	-42	197	256	256				
691+00.00	8	22	60		-74	-14	7608	9890	9890					725+00.00	47	78			-31	-31	184	239	239				
691+50.00	9	22	60		-73	-13	7090	9217	9217					725+50.00	58	94			-36	-36	170	221	221				
692+00.00	9	22	61		-74	-13	6636	8627	8627					726+00.00	173	97			76	76	279	363	363				
692+50.00	8	22	60		-74	-14	6148	7992	7992					726+50.00	219	95			124	124	341	443	443				
693+00.00	20	24	70		-74	-4	5593	7271	7271					727+00.00	347	116			231	231	427	555	555				
693+50.00	37	26	85		-74	11	4855	6312	6312					727+50.00	642	91			551	551	650	845	845				
694+00.00	40	25	88		-73	15	4148	5392	5392					728+00.00	733	101			632	632	876	1139	1139				
694+50.00	35	25	84		-74	10	3751	4876	4876					728+50.00	505	144			361	361	1008	1310	1310				
695+00.00	40	25	89		-74	15	3431	4460	4460					729+00.00	192	131			61	61	975	1268	1268				
695+50.00	45	26	94		-75	19	3044	3957	3957					729+50.00	96	117			-21	-21	924	1201	1201				
696+00.00	47	26	95		-74	21	2646	3440	3440					730+00.00	106	115			-9	-9	845	1099	1099				
696+50.00	54	27	49		-22	27	2273	2955	2955					730+50.00	344	120			224	224	619	805	805				
696+99.94							3	4	4					731+00.00	373	119			254	254	245	319	319				
697+00.00	103	73	45		-15	30	1770	2301	2301					731+50.00	192	94			98	98	170	221	221				
697+42.89							3	4	4					732+00.00	208	85			123	123	316	411	411				
697+42.97	11	4	8		-1	7	264	343	343					732+50.00	162	79			83	83	287	373	373				
697+50.00	74	29	119		-74	45	1680	2184	2184					732+91.47							2	3	3				
698+00.00	81	29	124		-72	52	1426	1854	1854					732+91.72	26	11			15	15	52	68	68				
698+50.00	97	31	93		-27	66	1227	1595	1595					733+00.00	167	67			100	100	257	334	334				
699+00.00	120	33	64		23	87	1056	1373	1373					733+49.98													
699+50.00	322	83	33		206	239	1083	1408	1408					733+50.00	243	101			142	142	186	242	242				
700+00.00	533	131			402	402	1142	1485	1485					734+00.00	879	50			829	829	105	137	137				
700+50.00	431	131			300	300	915	1190	1190					734+50.00	2964				2964	2964	59	77	77				
701+00.00	323	130			193	193	713	927	927					735+00.00	2532				2532	2532	19	25	25				
701+50.00	437	125			312	312	345	449	449					735+50.00	514				514	514							
702+00.00	483	119	17		347	364	19	25	25					736+00.00	346				346	346							
702+50.00	369	119	17		233	250	53	69	69					736+50.00	200				200	200	58	75	75				
703+00.00	271	120			151	151	55	72	72					737+00.00	69				69	69	483	628	628				
703+50.00	209	121			88	88	73	95	95					737+38.74	8				8	8	161	209	209				
704+00.00	171	122			49	49	129	168	168					737+45.91	4				4	4	79	103	103				
704+50.00	144	123			21	21	170	221	221					737+50.00	131	60			71	71	723	940	940				
705+00.00	85	82			3	3	138	179	179					738+00.00	244	120			124	124	631	820	820				
705+43.39							1	1	1					738+50.00	212	120			92	92	648	842	842				
705+43.56	17	18			-1	-1	27	35	35					739+00.00	176	119			57	57	659	857	857				
705+50.00	133	140	8		-15	-7	207	269	269					739+50.00	149	118			31	31	662	861	861				
706+00.00	128	142	8		-22	-14	209	272	272					740+00.00	130	119			11	11	667	867	867				
706+50.00	123	143			-20	-20	210	273	273					740+50.00	119	118			1	1	644	837	837				
707+00.00	120	145			-25	-25	212	276	276					741+00.00	113	115			-2	-2	597	776	776				
707+50.00	691	147			544	544	783	1018	1018					741+50.00	169	123			46	46	588	764	764				
708+00.00	1215	150			1065	1065	1308	1700	1700					742+00.00	342	130			212	212	580	754	754				
708+50.00	1192	151			1041	1041	1284	1669	1669					742+50.00	438	123			315	315	513	667	667				
709+00.00	1224	153			1071	1071	1314	1708	1708					743+00.00	261	73			188	188	306	398	398				
709+50.00	679	155			524	524	768	998	998					743+41.62													
710+00.00	126	155			-29	-29	215	280	280					743+41.64	40	18			22	22	51	66	66				
710+50.00	127	157			-30	-30	216	281	281					743+50.00	141	102			39	39	233	303	303				
711+00.00	128	158	20		-50	-30	217	282	282					744+00.00	54	95			-41	-41	200	260	260				
711+50.00	130	160	38		-68	-30	217	282	282					744+50.00	101	93			8	8	118	153	153				
712+00.00	341	1260	141		-1060	-919	461	599	599					745+00.00	150	72	84		-6	78	13	17	17				
717+50.00	145	150			-5	-5	247	321	321					745+50.00	162	73	163		-74	89	30	39	39				
718+00.00	154	147			7	7	256	333	333					746+00.00	205	148	131		-74	57	76	99	99				
718+50.00	154	150			4	4	267	347	347					746+50.00	234	207	75		-48	27	105	137	137				
719+00.00	155	151			4	4	275	358	358					747+00.00	257	215	61		-19	42	80	104	104				
719+50.00	157	153			4	4	280	364	364					747+50.00	289	232	75		-18	57	39	51	51				
720+00.00	189	184			5	5	286	372	372					748+00.00	30	44	7		-21	-14	5	7	7				
720+50.00	191	184			7</																						

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

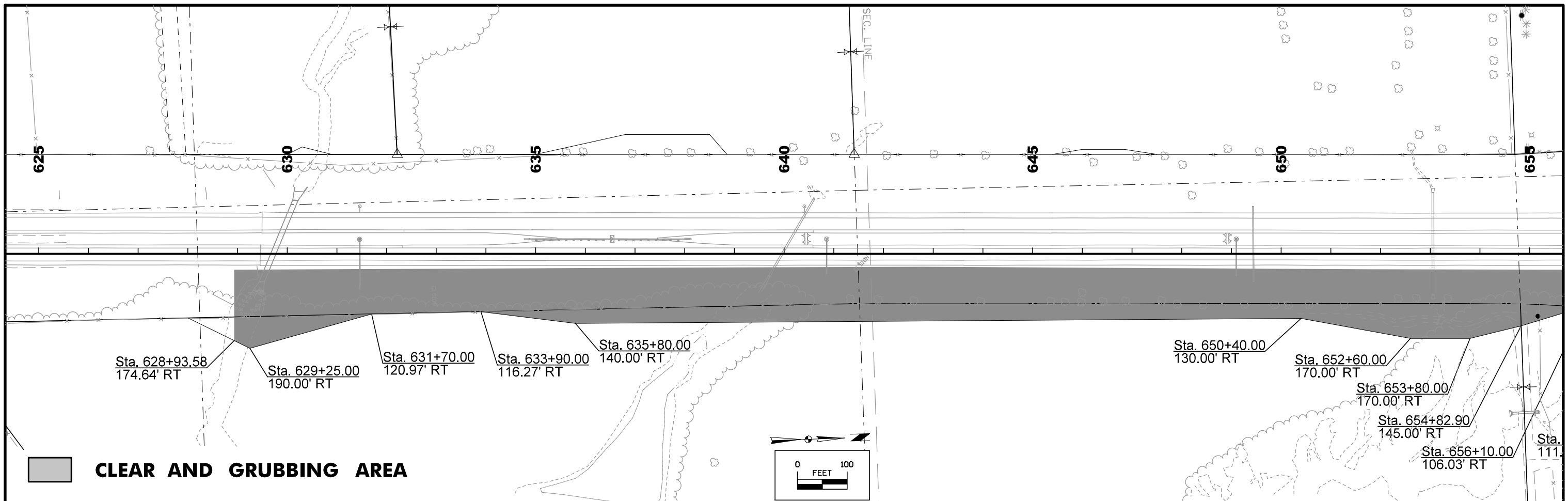
Refer to Standard Plan EW-101 and RL-1B.

STATION	TOTAL CUT	TOPSOIL CLASS 10 SAVED -C	UNSUITS TYPE B CUT	UNSUITS TYPE C CUT	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK					STATION	TOTAL CUT	TOPSOIL CLASS 10 SAVED -C	UNSUITS TYPE B CUT	UNSUITS TYPE C CUT	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK				
749+00.00	273	224	4		45	49	99	129	129				778+00.00	51	70				-19	-19	808	1050	1050				
749+50.00	275	229	5		41	46	68	88	88				778+42.23								1	1	1				
750+00.00	278	235	2		41	43	51	66	66				778+42.28	19	23				-4	-4	144	187	187				
750+50.00	278	239	5		34	39	52	68	68				778+50.00	123	143				-20	-20	775	1008	1008				
751+00.00	278	244	11		23	34	26	34	34				779+00.00	121	134				-13	-13	596	775	775				
751+50.00	277	249	55		-27	28	26	34	34				779+50.00	117	125				-8	-8	469	610	610				
752+00.00	277	253	94		-70	24	27	35	35				780+00.00	110	112				-2	-2	367	477	477				
752+50.00	272	253	51		-32	19	28	36	36				780+50.00	96	98				-2	-2	294	382	382				
753+00.00	156	111	13		32	45	10	13	13				781+00.00	84	86				-2	-2	241	313	313				
753+25.00	154	109	13		32	45	10	13	13				781+50.00	49	44				5	5	167	217	217				
753+50.00	245	241	6		-2	4	119	155	155				782+00.00	50	41				9	9	144	187	187				
754+00.00	228	234			-6	-6	131	170	170				782+50.00	87	76				11	11	161	209	209				
754+50.00	222	229			-7	-7	52	68	68				783+00.00	86	74				12	12	146	190	190				
755+00.00	217	223			-6	-6	52	68	68				783+50.00	81	69				12	12	136	177	177				
755+50.00	211	218			-7	-7	51	66	66				784+00.00	38	30				8	8	73	95	95				
756+00.00	205	213			-8	-8	49	64	64				784+41.39														
756+50.00	199	208			-9	-9	49	64	64				784+41.57	12	10				2	2	18	23	23				
757+00.00	194	203			-9	-9	47	61	61				784+50.00	92	74				18	18	139	181	181				
757+50.00	452	397			55	55	96	125	125				785+00.00	162	94				68	68	141	183	183				
758+00.00	194	203			-9	-9	48	62	62				785+50.00	285	112				173	173	91	118	118				
759+00.00	202	211			-9	-9	49	64	64				786+00.00	465	134				331	331	67	87	87				
759+50.00	204	210			-6	-6	54	70	70				786+50.00	654	155				499	499	105	137	137				
760+00.00	208	209			-1	-1	57	74	74				787+00.00	800	171				629	629	114	148	148				
760+50.00	215	206			9	9	57	74	74				787+50.00	896	182				714	714	111	144	144				
761+00.00	220	202			18	18	55	72	72				788+00.00	976	190				786	786	97	126	126				
761+50.00	220	193			27	27	61	79	79				788+50.00	1043	197				846	846	46	60	60				
762+00.00	229	189			40	40	154	200	200				789+00.00	1081	201				880	880	47	61	61				
762+50.00	246	190			56	56	151	196	196				789+50.00	1086	201				885	885	56	73	73				
763+00.00	435	217			218	218	128	166	166				790+00.00	1008	193				815	815	57	74	74				
763+50.00	565	241			324	324	195	254	254				790+50.00	879	178				701	701	57	74	74				
764+00.00	597	239			358	358	202	263	263				791+00.00	743	159				584	584	54	70	70				
764+50.00	698	237			461	461	209	272	272				791+50.00	571	124				447	447	30	39	39				
765+00.00	711	226			485	485	195	254	254				792+00.00	441	107				334	334	27	35	35				
765+50.00	683	214			469	469	178	231	231				792+50.00	362	111				251	251	49	64	64				
766+00.00	600	203			397	397	174	226	226				793+00.00	269	101				168	168	49	64	64				
766+50.00	503	193			310	310	169	220	220				793+50.00	175	90				85	85	52	68	68				
767+00.00	425	182			243	243	170	221	221				794+00.00	109	75				34	34	76	99	99				
767+50.00	375	174			201	201	172	224	224				794+50.00	93	74				19	19	114	148	148				
768+00.00	359	170			189	189	178	231	231				795+00.00	51	36				15	15	158	205	205				
768+50.00	279	161			118	118	233	303	303				795+41.79														
769+00.00	212	162			50	50	390	507	507				795+41.81	21	18				3	3	57	74	74				
769+50.00	218	174			44	44	624	811	811				795+50.00	131	116				15	15	390	507	507				
770+00.00	80	65			15	15	329	428	428				796+00.00	143	128				15	15	672	874	874				
770+19.00	1				1	1	3	4	4				796+50.00	154	143				11	11	832	1082	1082				
770+19.19	69	44			25	25	385	501	501				797+00.00	163	154				9	9	784	1019	1019				
770+42.00							1	1	1				797+50.00	56	49				7	7	487	633	633				
770+42.06	30	18			12	12	120	156	156				797+80.62														
770+50.00	308	195			113	113	717	932	932				797+80.63	69	63				6	6	335	436	436				
771+00.00	362	201			161	161	641	833	833				798+00.00	190	172				18	18	832	1082	1082				
771+50.00	395	206			189	189	639	831	831				798+50.00	256	214				42	42	964	1253	1253				
772+00.00	403	212			191	191	659	857	857				799+00.00	617	251	323			43	366	1465	1905	1905				
772+50.00	436	221			215	215	689	896	896				799+50.00	646	254	393			-1	392	1602	2083	2083				
773+00.00	507	233			274	274	718	933	933				800+00.00	398	256	193			-51	142	1346	1750	1750				
773+50.00	557	244			313	313	795	1034	1034				800+50.00	405	255	123			27	150	1346	1750	1750				
774+00.00	570	254			316	316	930	1209	1209				801+00.00	372	254				118	118	1314	1708	1708				
774+50.00	18	8			10	10	31	40	40				801+50.00	143	101				42	42	511	664	664				
774+51.54	457	252			205	205	1106	1438	1438				801+69.55														
775+00.00	327	263			64	64	1478	1921	1921				801+69.56	120	41				79	79	673	875	875				
775+50.00	552	295	109		148	257	2280	2964	2964				802+00.00	304	163				141	141	1141	1483	1483				
776+00.00	599	296	109		194	303	2205	2867	2867				802+50.00	398	255				143	143	1184	1539	1539				
776+50.00	18	16			2	2	266	346	346				803+00.00	305	195				110	110	930	1209	1209				
776+55.53					-1	-1	17	22	22				803+38.18	1					1	1	3	4	4				
776+55.77	207	242			-35	-35	2211	2874	2874				803+38.30	74	38				36	36	267	347	347				

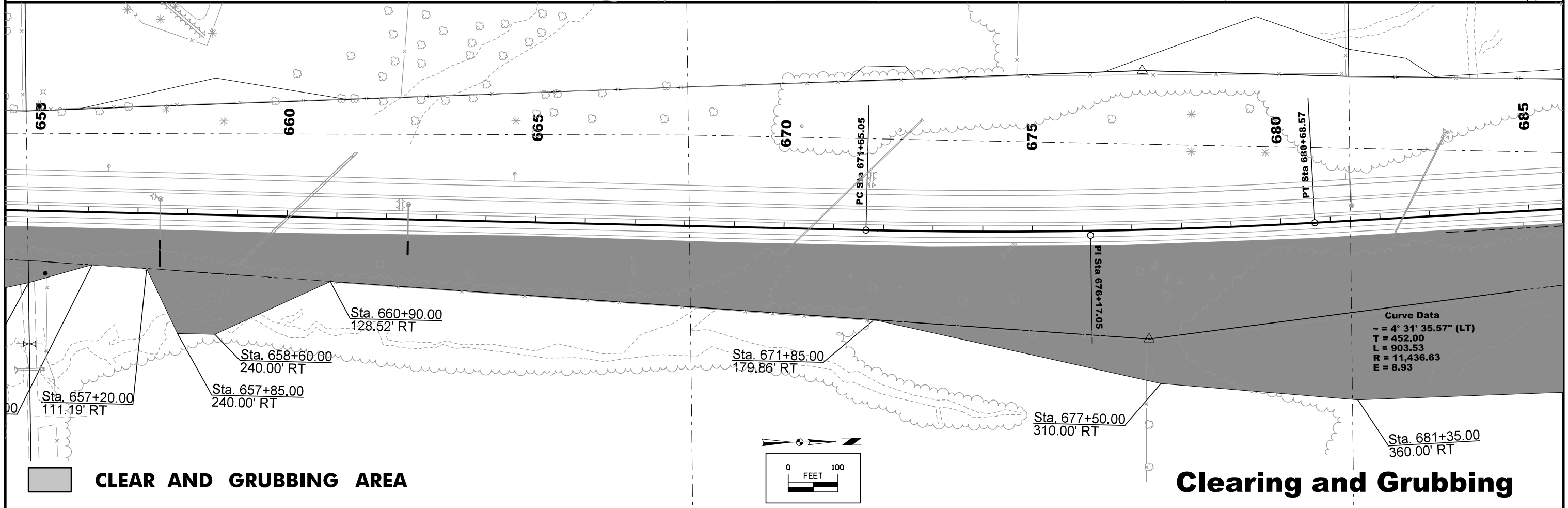
TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Refer to Standard Plan EW-101 and RL-1B.

STATION	TOTAL CUT	TOPSOIL CLASS 10 SAVED -C	UNSUIT TYPE B CUT	UNSUIT TYPE C CUT	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK					STATION	TOTAL CUT	TOPSOIL CLASS 10 SAVED -C	UNSUIT TYPE B CUT	UNSUIT TYPE C CUT	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK				
804+50.00	421	256			165	165	1075	1398	1398					685+75.00	17	1			16	16	5	7	7				
805+00.00	358	243			115	115	998	1297	1297					685+76.61	248	10			238	238	82	107	107				
805+50.00	266	216			50	50	988	1284	1284					686+00.00	261	10			251	251	117	152	152				
806+00.00	225	198			27	27	971	1262	1262					686+25.00	250	10			240	240	153	199	199				
806+50.00	202	175			27	27	936	1217	1217					686+50.00	241	9			232	232	192	250	250				
807+00.00	79	62			17	17	700	910	910					686+75.00	242	9			233	233	233	303	303				
807+38.00	4	3			1	1	39	51	51					687+00.00	249	10			239	239	273	355	355				
807+40.13	33	31			2	2	178	231	231					687+25.00	255	10			245	245	305	397	397				
807+50.00	47	39			8	8	449	584	584					687+50.00	262	10			252	252	331	430	430				
807+74.54	43	34			9	9	376	489	489					687+75.00	286	12			274	274	371	482	482				
807+97.00	4	3			1	1	15	20	20					688+00.00	335	12			323	323	428	556	556				
807+98.00	7	6			1	1	29	38	38					688+25.00	266	6			260	260	330	429	429				
808+00.00	94	74			20	20	557	724	724					688+42.25	129	2			127	127	159	207	207				
808+50.00	31	6			25	25	328	426	426					688+50.00	303	5			298	298	390	507	507				
809+00.00	34	7			27	27	214	278	278					688+67.33	140	2			138	138	186	242	242				
809+50.00														688+75.00	213	2			211	211	279	363	363				
Subtotal:	271581	44279	11156	86	216060	227302	279213	362992	362992					688+86.21	77	1			76	76	95	124	124				
Iowa 92														688+89.88	216	2			214	214	260	338	338				
675+00.00	136	23	114		-1	113	25	33	33					689+00.00	215	1			214	214	233	303	303				
675+25.00	146	23	123			123	22	29	29					689+10.00	363	1			362	362	314	408	408				
675+50.00	157	22	135			135	22	29	29					689+25.00	763				763	763	509	662	662				
675+75.00	161	21	140			140	24	31	31					689+50.00	533				533	533	564	733	733				
676+00.00	166	20	146			146	28	36	36					689+69.72	145				145	145	163	212	212				
676+25.00	175	20	155			155	31	40	40					689+75.00	803	26			777	777	719	935	935				
676+50.00	181	20	161			161	34	44	44					690+00.00	567	77			490	490	835	1086	1086				
676+75.00	188	19	82			87	36	47	47					690+25.00	402	94			308	308	873	1135	1135				
677+00.00	197	17			180	180	37	48	48					690+50.00	345	84	77		184	261	906	1178	1178				
677+25.00	203	16			187	187	41	53	53					690+75.00	26	6	6		14	20	73	95	95				
677+50.00	206	16			190	190	42	55	55					690+76.97	324	80			244	244	836	1087	1087				
677+75.00	211	15			196	196	43	56	56					691+00.00	813	165			648	648	1776	2309	2309				
678+00.00	219	16			203	203	45	59	59					691+50.00	440	74			366	366	885	1151	1151				
678+25.00	229	16			213	213	51	66	66					691+75.00	423	64			359	359	887	1153	1153				
678+50.00	235	15			220	220	55	72	72					692+00.00	437	62			375	375	1703	2214	2214				
678+75.00	239	15			224	224	59	77	77					692+25.00	484	72	204		208	412	1713	2227	2227				
679+00.00	244	15			229	229	63	82	82					692+50.00	510	70	204		236	440	963	1252	1252				
679+25.00	249	15			234	234	67	87	87					692+75.00	23	3			20	20	45	59	59				
679+50.00	251	14			237	237	70	91	91					692+76.10	504	60	229		215	444	917	1192	1192				
679+75.00	255	14	9		232	241	74	96	96					693+00.00	573	80	239		254	493	895	1164	1164				
680+00.00	261	15	9		237	246	80	104	104					693+25.00	640	134			506	506	933	1213	1213				
680+25.00	266	16			250	250	85	111	111					693+50.00	683	161			522	522	967	1257	1257				
680+50.00	270	16			254	254	88	114	114					693+75.00	719	140			579	579	947	1231	1231				
680+75.00	272	17			255	255	88	114	114					694+00.00	762	129			633	633	924	1201	1201				
681+00.00	276	17			259	259	90	117	117					694+25.00	804	146			658	658	933	1213	1213				
681+25.00	279	17			262	262	91	118	118					694+50.00	882	125			757	757	906	1178	1178				
681+50.00	282	17			265	265	91	118	118					694+75.00	1074	113			961	961	775	1008	1008				
681+75.00	286	17			269	269	87	113	113					695+00.00	2110	241			1869	1869	1427	1855	1855				
682+00.00	291	17			274	274	81	105	105					698+50.00	835	102	84		649	733	880	1144	1144				
682+25.00	298	18			280	280	82	107	107					698+75.00	840	113	181		546	727	1057	1374	1374				
682+50.00	306	18			288	288	83	108	108					699+00.00	969	123	246		600	846	1108	1440	1440				
682+75.00	313	19			294	294	76	99	99					699+25.00	1073	101	316		656	972	1123	1460	1460				
683+00.00	318	19			299	299	71	92	92					699+50.00	651	77	167		407	574	1137	1478	1478				
683+25.00	328	20			308	308	66	86	86					699+75.00	635	81			554	554	1151	1496	1496				
683+50.00	337	20			317	317	58	75	75					700+00.00	841	104			737	737	1126	1464	1464				
683+75.00	342	20			322	322	49	64	64					700+25.00	481	98	138		245	383	1147	1491	1491				
684+00.00	345	20			325	325	43	56	56					700+50.00	357	86	266		5	271	1226	1594	1594				
684+25.00	340	18			322	322	38	49	49					700+75.00	39	10	14		15	29	141	183	183				
684+50.00	332	16			316	316	32	42	42					700+77.82	290	75			215	215	1104	1435	1435				
684+75.00	321	15			306	306	33	43	43					701+00.00	245	67			178	178	1234	1604	1604				
685+00.00	306	13			293	293	37	48	48					701+25.00	167	49			118	118	1252	1628	1628				
685+25.00	291	11			280	280	43	56	56					701+50.00	170	45			125	125	1286	1672	1672				
685+50.00	274	10			264	264	61	79	79					701+75.00	338	44			294	294	1322	1719	1719				
685+75.00														702+00.00	1371	120			1								



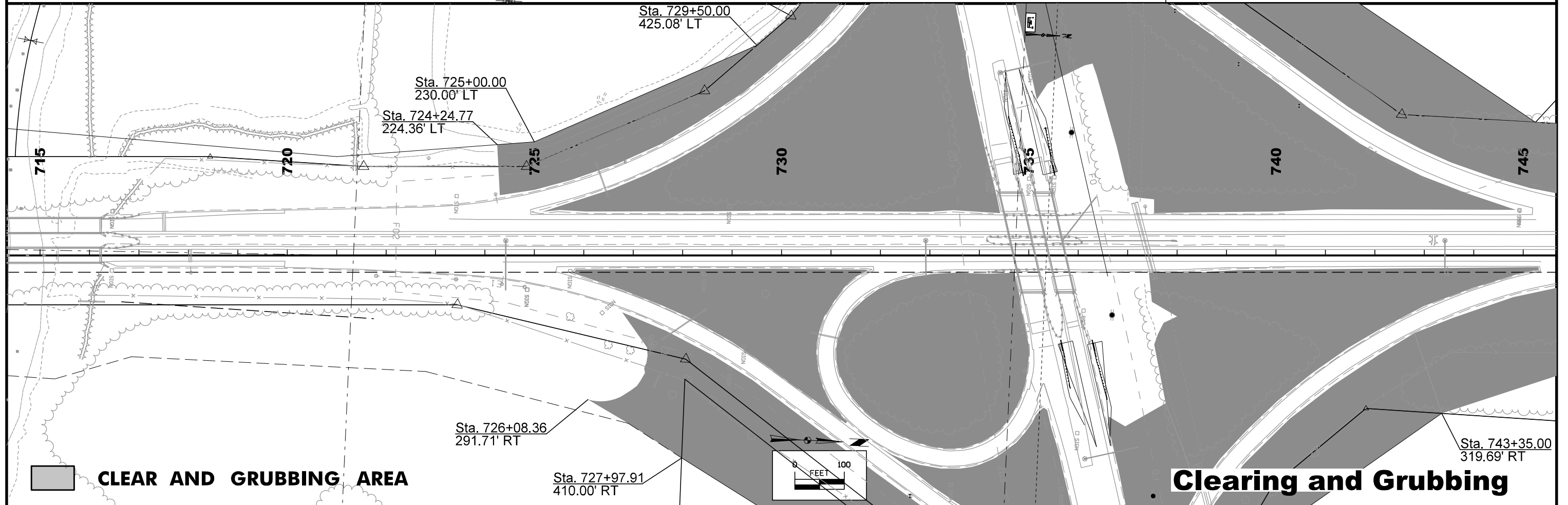
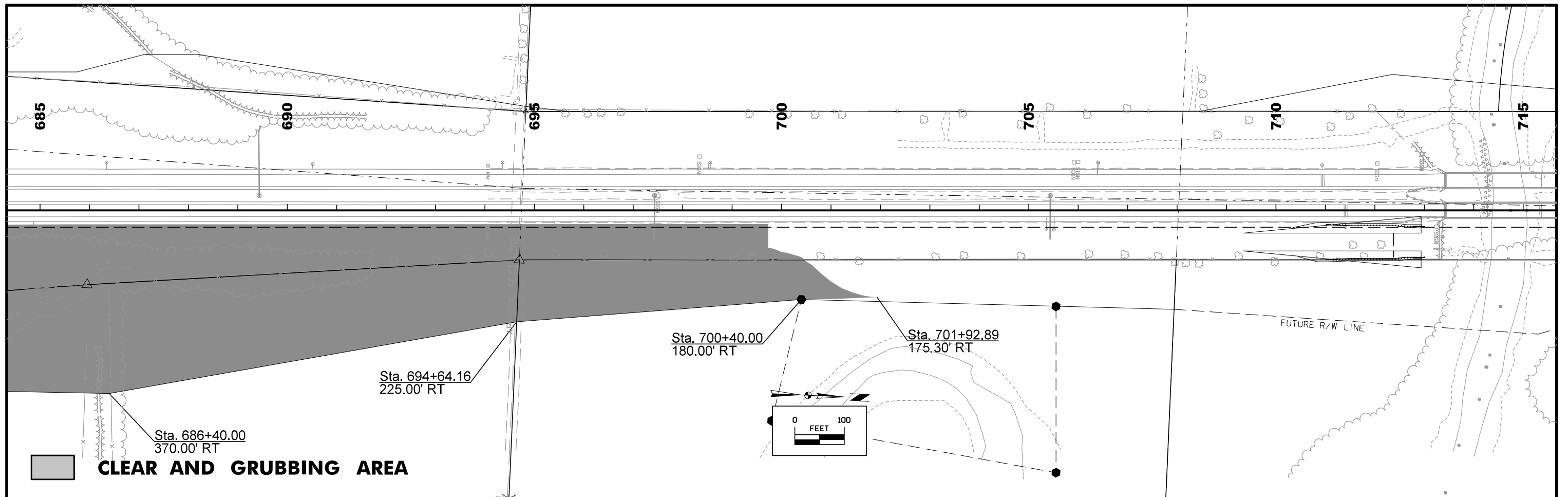
CLEAR AND GRUBBING AREA

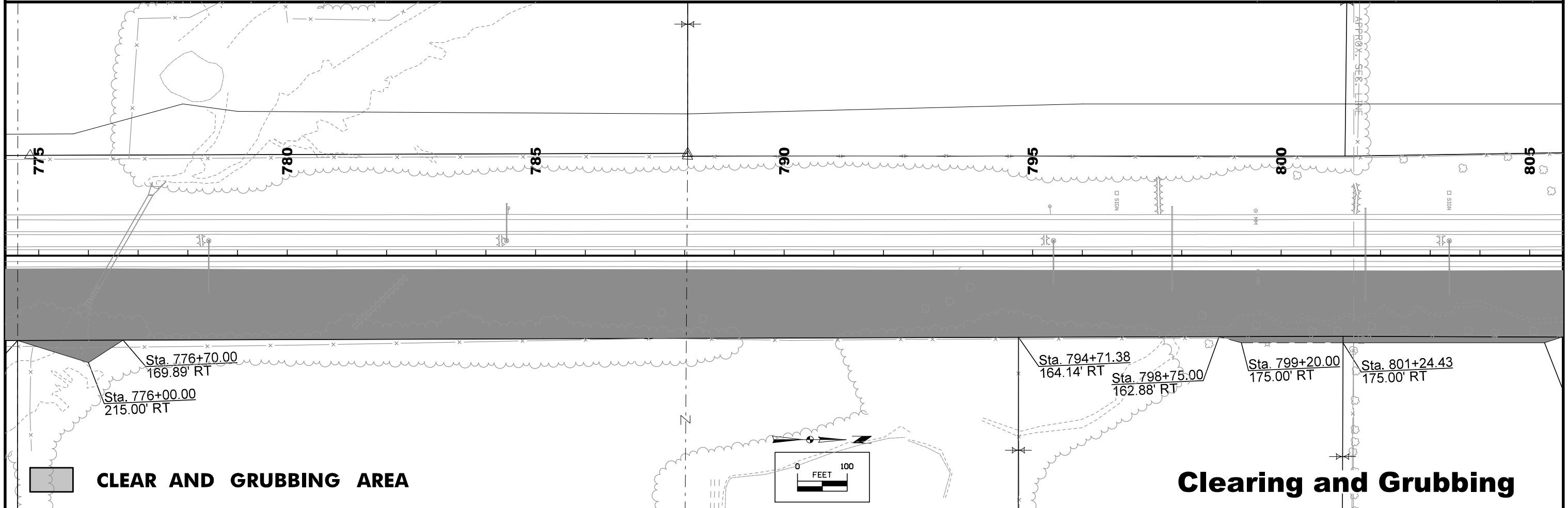
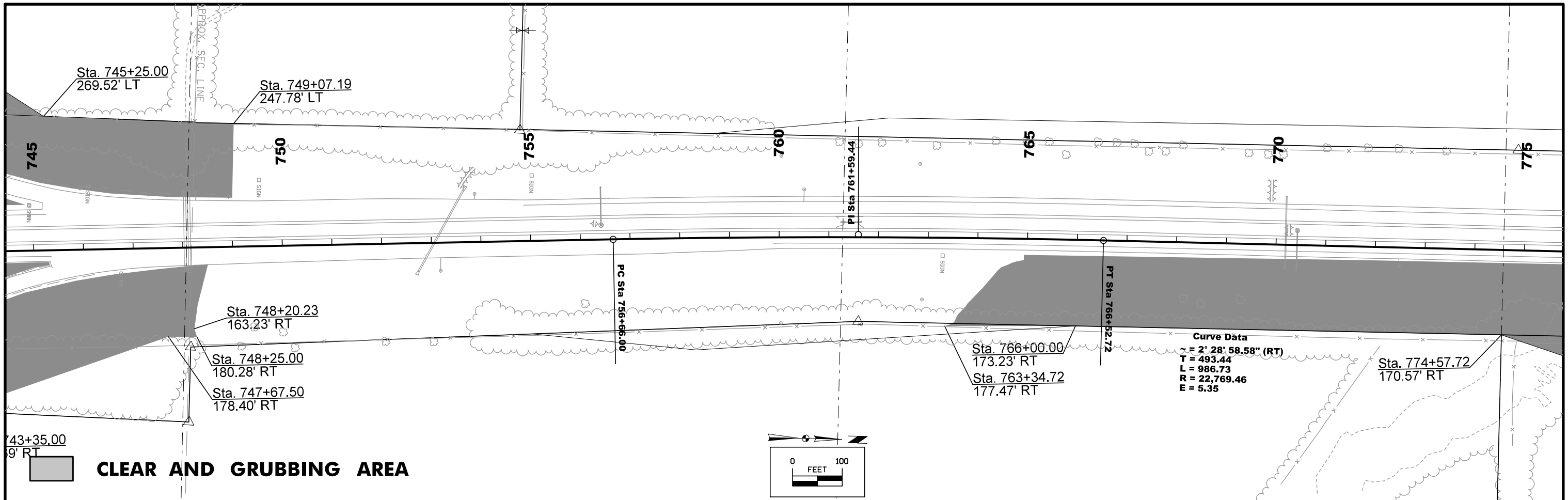


CLEAR AND GRUBBING AREA

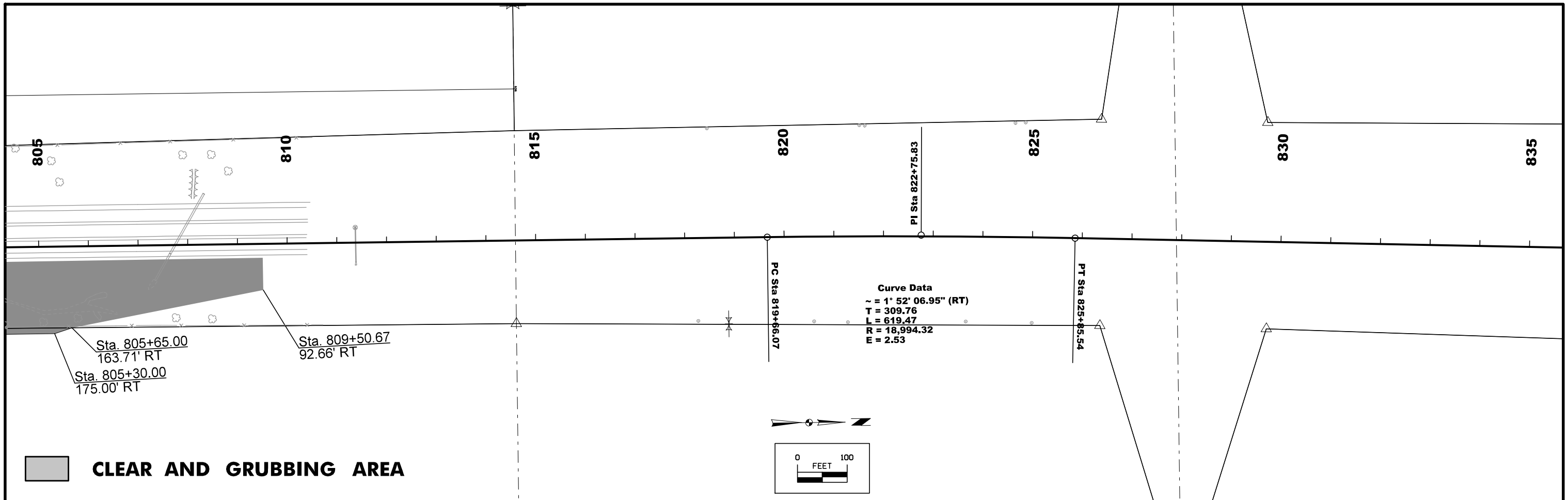
Curve Data
 Δ = 4° 31' 35.57" (LT)
 T = 452.00
 L = 903.53
 R = 11,436.63
 E = 8.93

Clearing and Grubbing





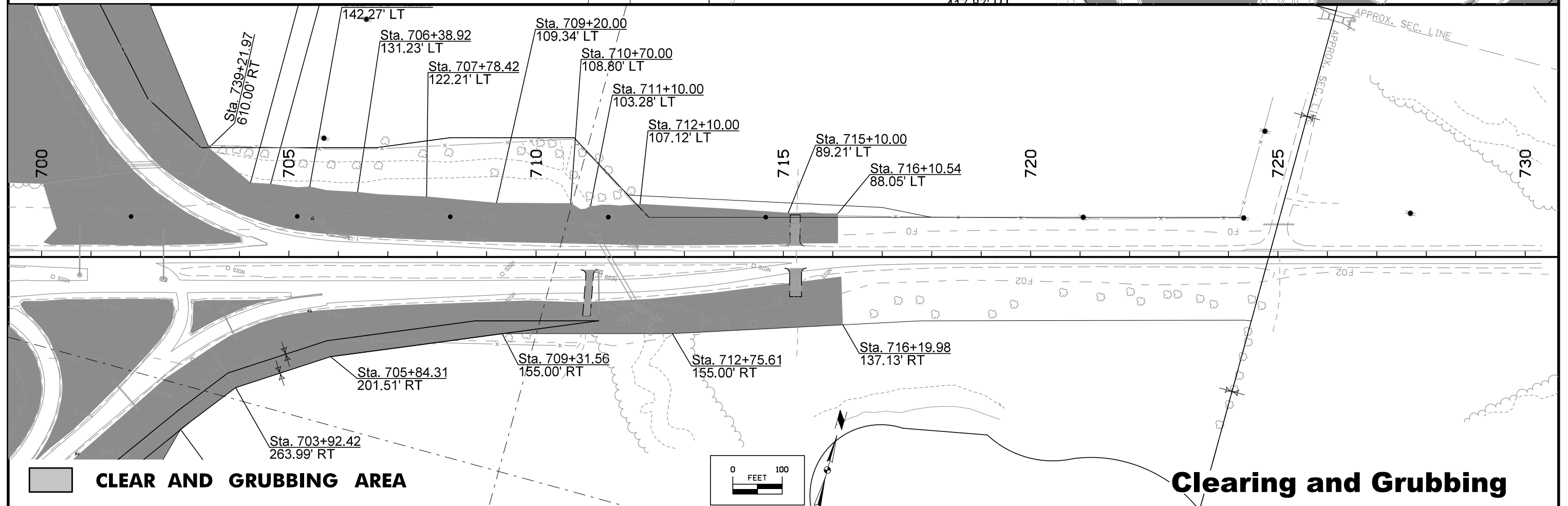
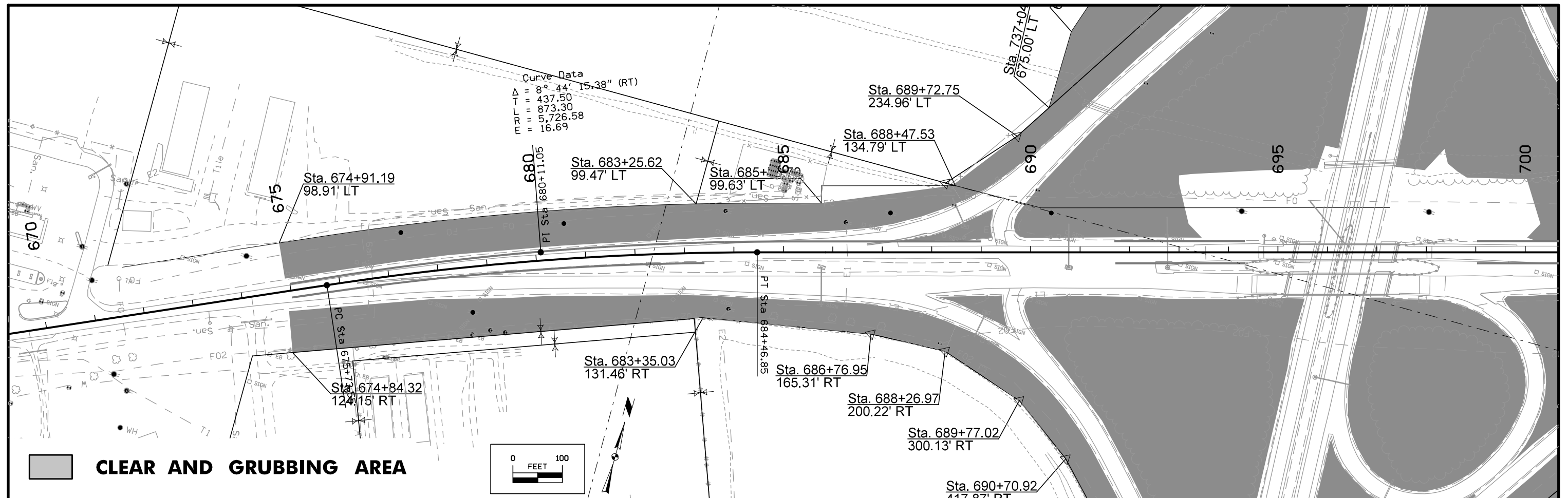
Clearing and Grubbing



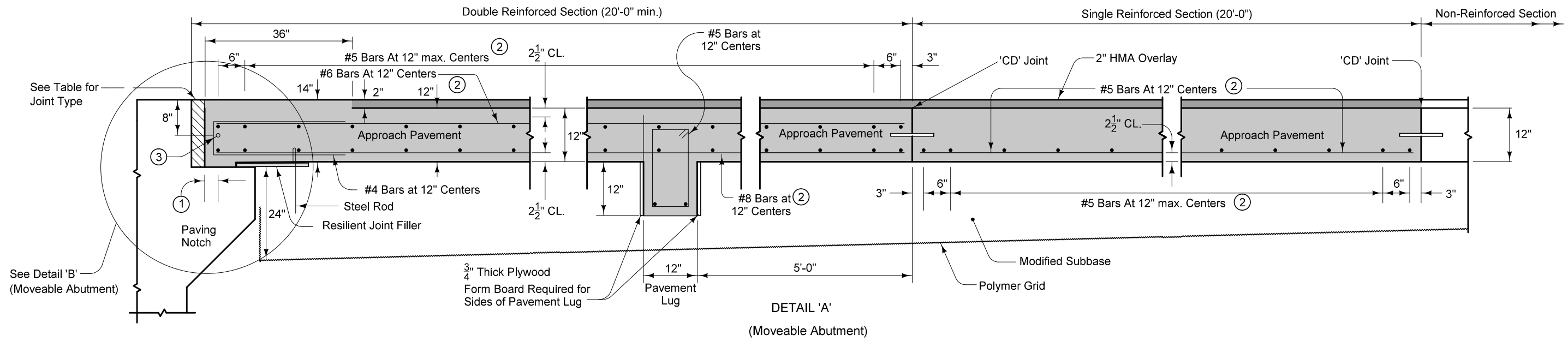
 **CLEAR AND GRUBBING AREA**

 **CLEAR AND GRUBBING AREA**

Clearing and Grubbing

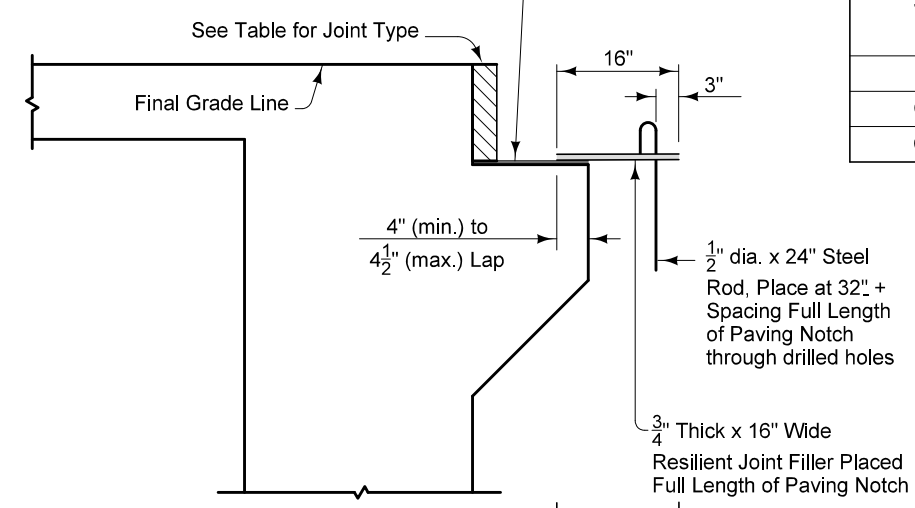


Clearing and Grubbing



DETAIL 'A'
(Moveable Abutment)

Debond paving notch with two (2) layers of 30# asphaltic felt paper full length of paving notch



DETAIL 'B' (Moveable Abutment)

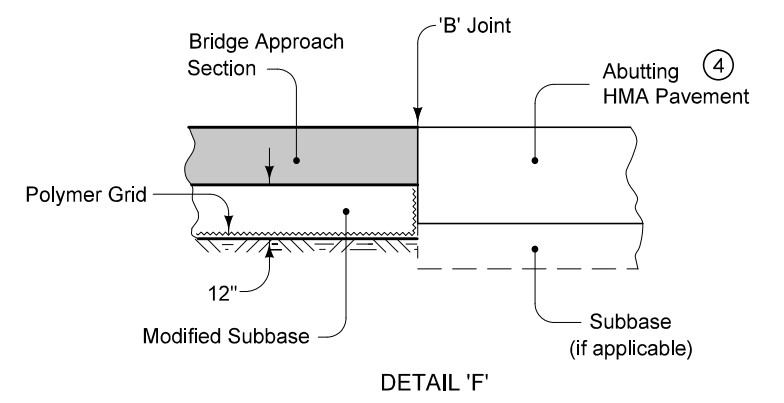
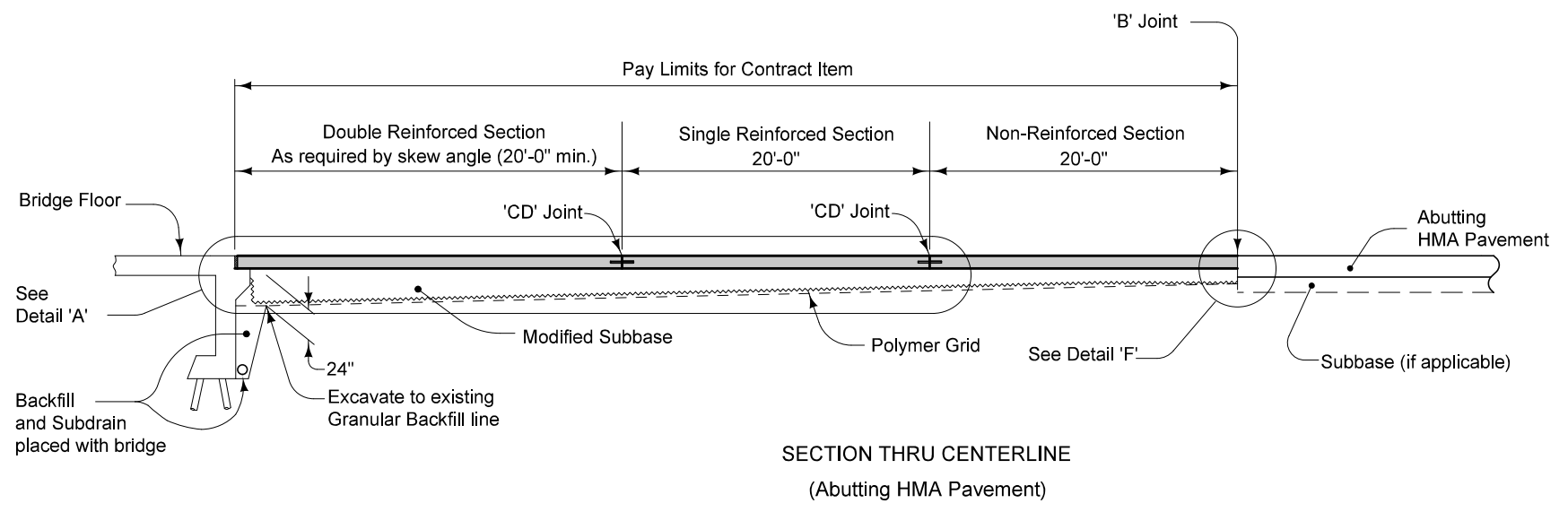
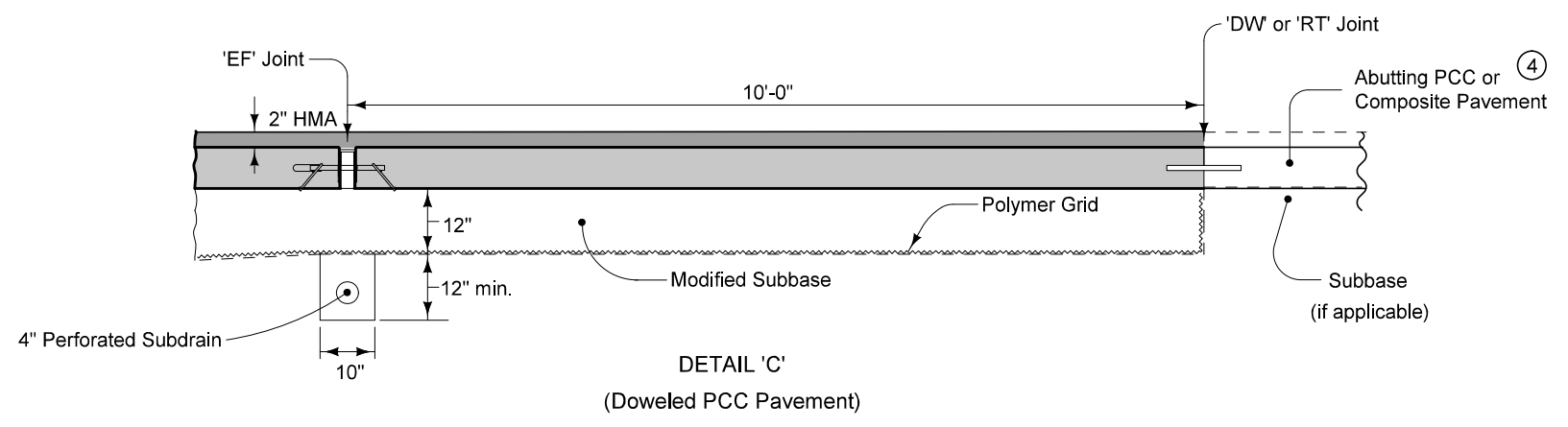
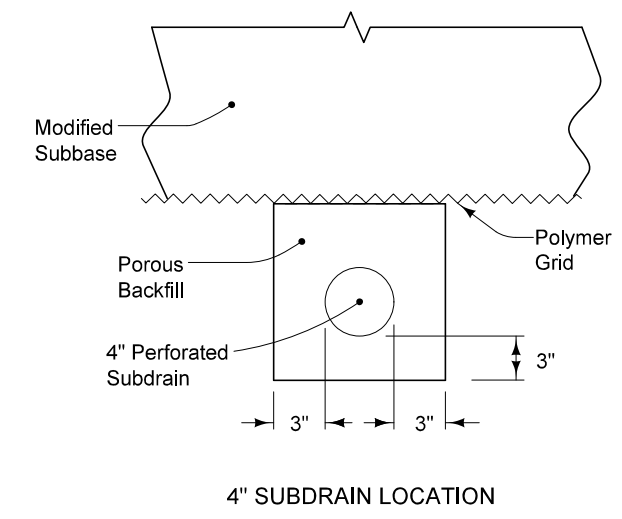
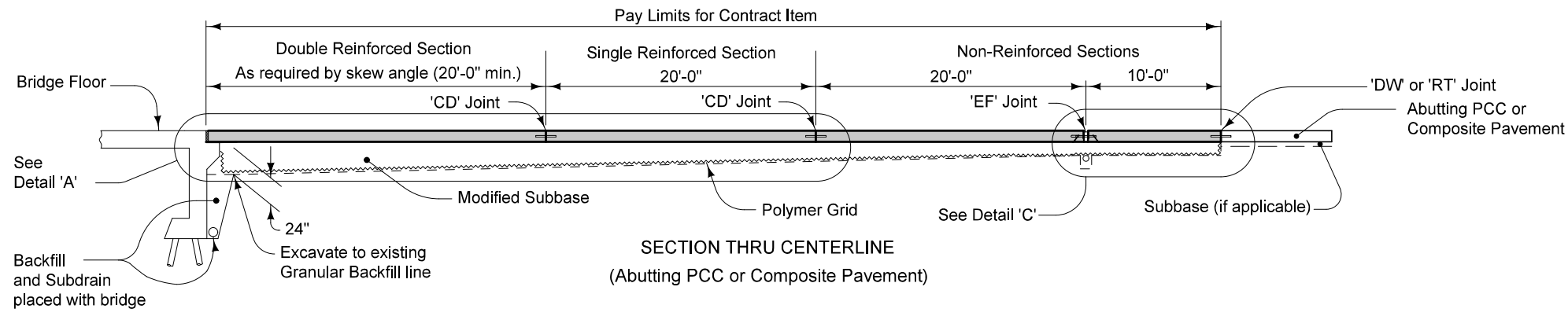
JOINT TYPE FOR MOVEABLE ABUTMENT BRIDGES		
Joint	Maximum Bridge Length	
	Concrete Beam or Slab	Steel Girder
CF-1	370'	250'
CF-2	465'	320'
CF-3	575'	400'

- ① 2" min. to 2 1/2" max. clear to bent bar.
- ② Minimum lap length: #5 Bars - 18"
#6 Bars - 27"
#8 Bars - 48"
- ③ If bridge is skewed, place additional #5 bar parallel to skewed face.

For joint details, refer to PV-101.
For curb details, see Detail 'G'.

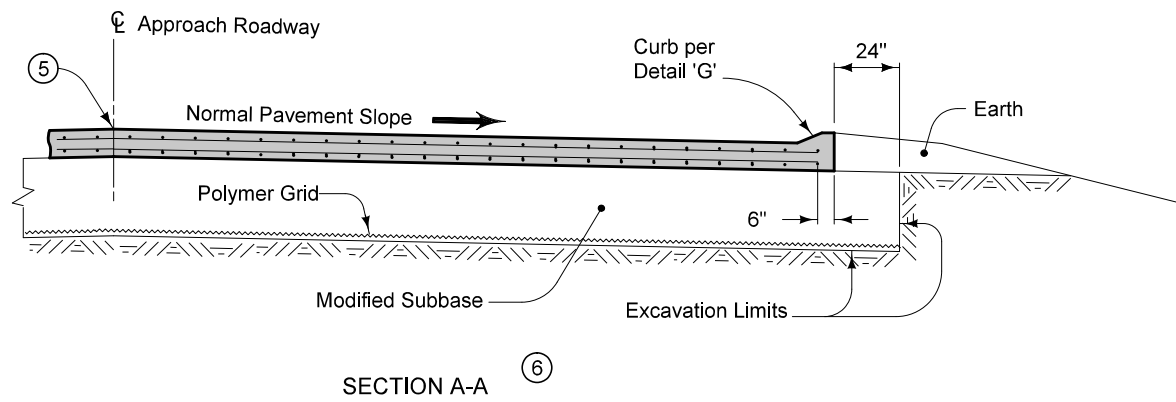
All transverse bars are #5.

MODIFIED STANDARD ROAD PLAN	REVISION	
	12	10-21-14
RK-20		
SHEET 1 of 3		
MODIFICATIONS: Modified 14" Paving Notch to accommodate 2" HMA overlay.		
DOUBLE REINFORCED 14" COMPOSITE APPROACH PAVEMENT		

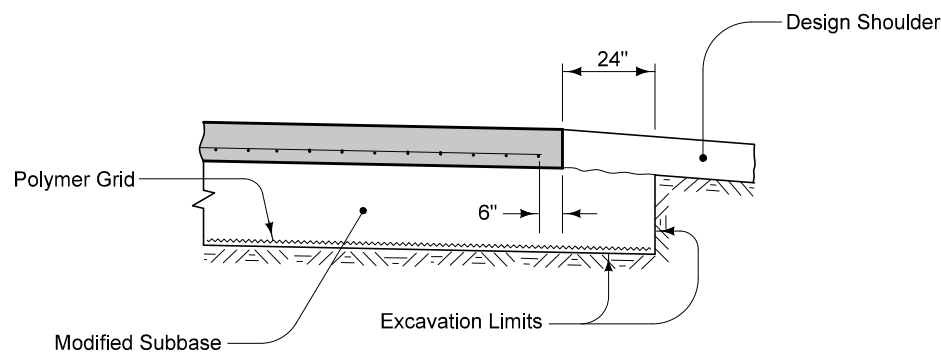


④ If abutting pavement (PCC or HMA) is not in place, refer to RK-30.

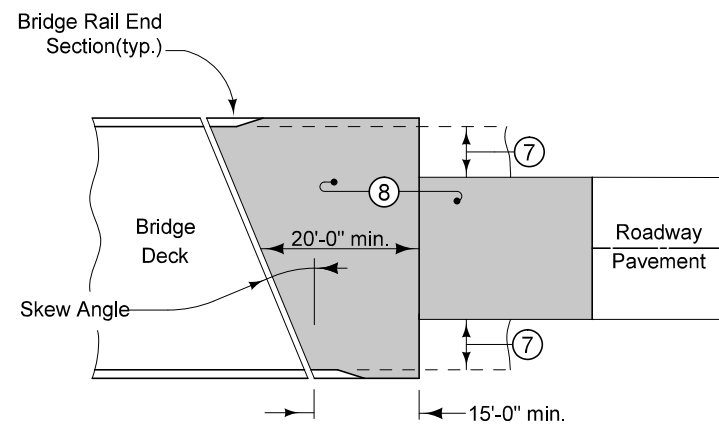
<h1>MODIFIED STANDARD ROAD PLAN</h1>	REVISION	
	12	10-21-14
	<h2>RK-20</h2>	
SHEET 2 of 3		
MODIFICATIONS: Modified 14" Paving Notch to accommodate 2" HMA overlay.		
<h3>DOUBLE REINFORCED 14" COMPOSITE APPROACH PAVEMENT</h3>		



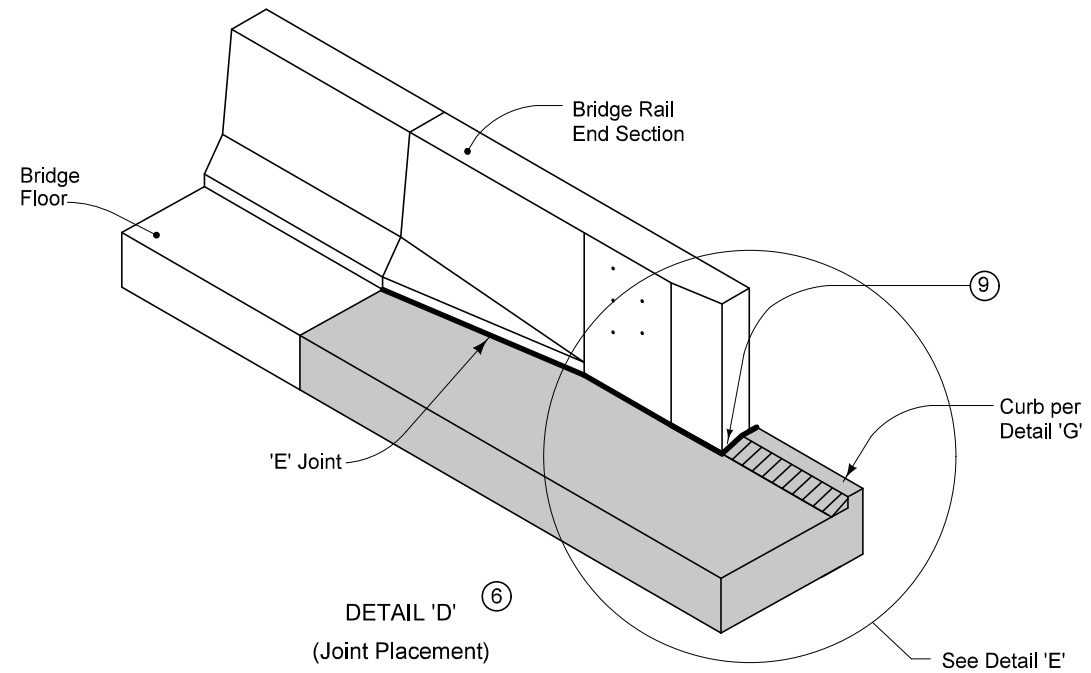
SECTION A-A (6)



SECTION B-B (6)



APPROACH PAVEMENT LAYOUT AT A SKEW

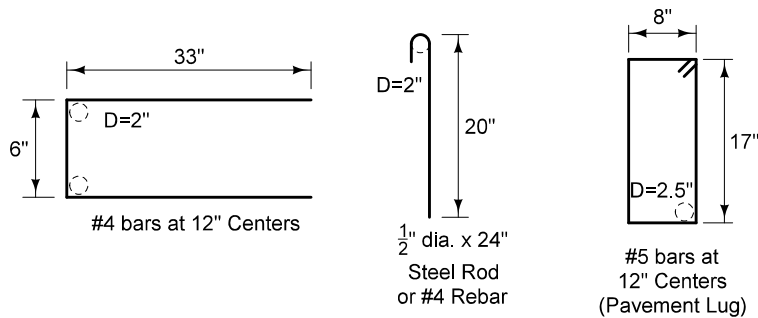


DETAIL 'D' (6)
(Joint Placement)

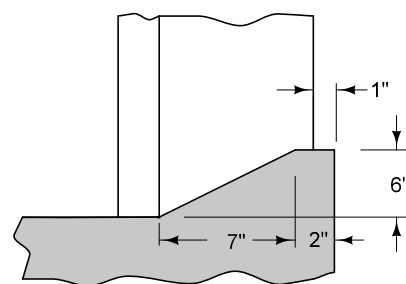
- (5) Longitudinal Joint: (PV-101)
Single pour - Saw cut joint per Detail B.
Two pours - Use 'KS-2' Joint
- (6) Refer to RK-21, RK-22, or RK-23.
- (7) Design shoulder width.
- (8) Reinforced bridge approach section.
- (9) Expansion joint at end of Bridge Rail End Section: Place joint filler the full depth of the bridge approach pavement. In areas with curb, place full depth of pavement plus curb and shape material to fit the shape of the curb per Section B-B of PV-101. Seal joint per Detail F of PV-101.

- Fixed Abutment Bridges: Type 'E' Joint

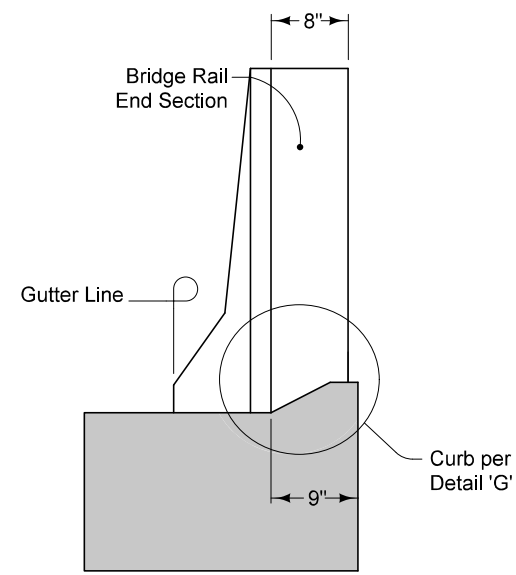
- Moveable Abutment Bridges: Flexible Foam Expansion Joint Filler in accordance with Specification Section 4136. Minimum filler width is the abutment 'CF' joint width. Joint length as required to completely fill from back side of curb to front face of bridge wing.



BENT BAR SHAPES

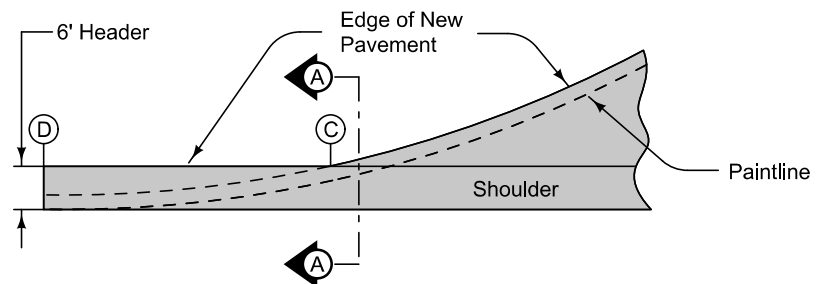


DETAIL 'G'

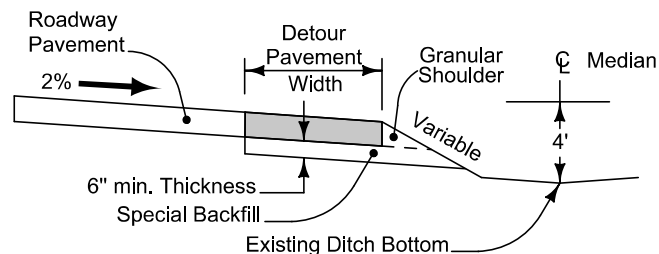


DETAIL 'E'
(Back of Curb Placement)

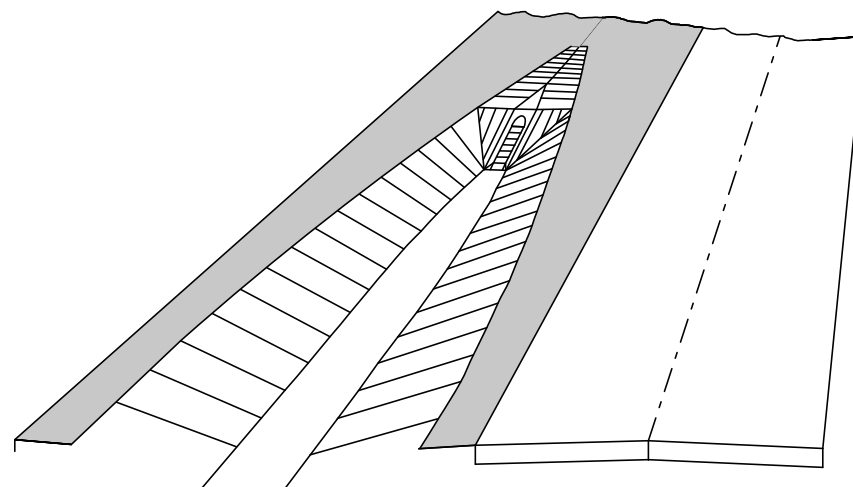
MODIFIED STANDARD ROAD PLAN	REVISION	
	12	10-21-14
RK-20		
SHEET 3 of 3		
MODIFICATIONS: Modified 14" Paving Notch to accommodate 2" HMA overlay.		
DOUBLE REINFORCED 14" COMPOSITE APPROACH PAVEMENT		



DETAIL 'A'



SECTION A-A



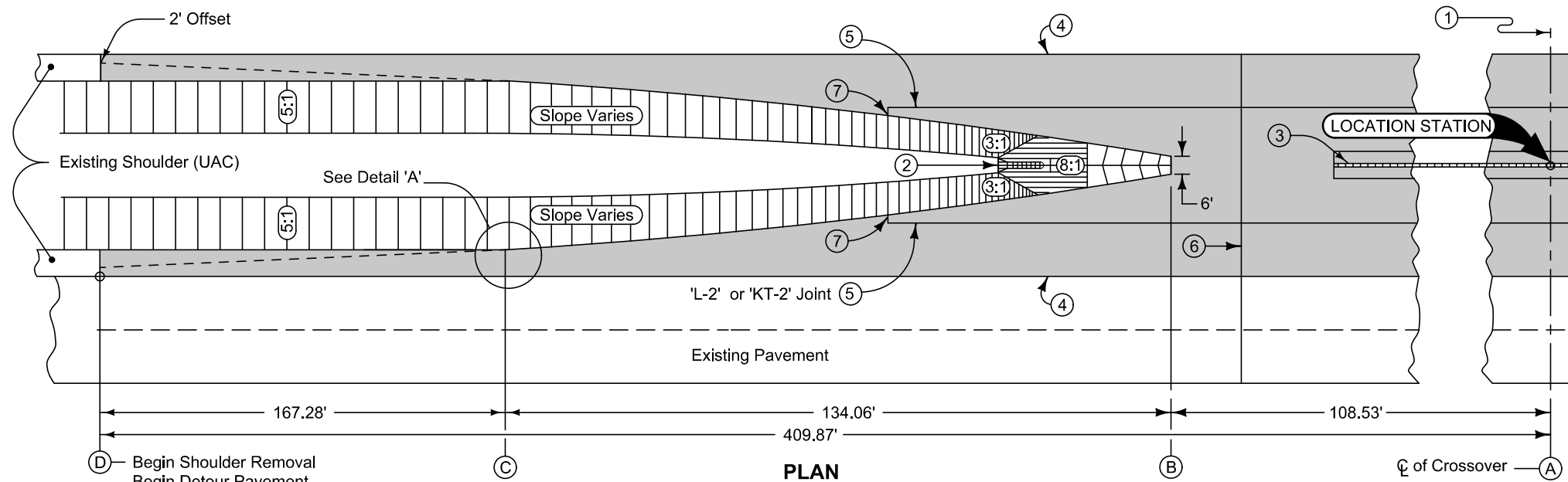
PERSPECTIVE VIEW
DITCH SLOPE AND BEVELED PIPE

Detour Pavement options: 9" PCC or 12" HMA

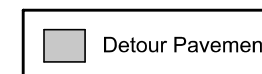
For joint details, see PV-101.

- ① Median crossover is symmetrical about centerline.
- ② Beveled pipe and guard. See DR-212.
- ③ Slotted drain for median crossover. See DR-502.
- ④ 'KT-2' or 'L-2' joint if mainline pavement is new construction. Bend bars out. 'BT-3' joint if mainline pavement is existing. 'B' joint if Detour Pavement is HMA.
- ⑤ For PCC Detour Pavement, 'KT-2' or 'L-2' spaced at one-quarter median width.
- ⑥ For PCC Detour Pavement, match existing roadway joints. 'CD' joints are required.
- ⑦ For PCC Detour Pavement, 2 foot 'C' Joint.

REFER TO TABULATION 112-8
FOR QUANTITIES



PLAN

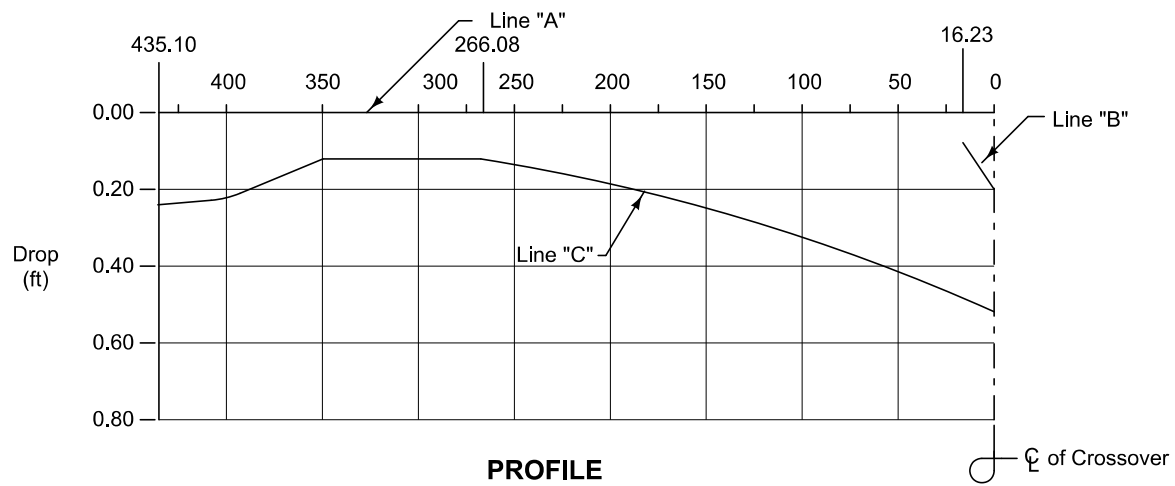
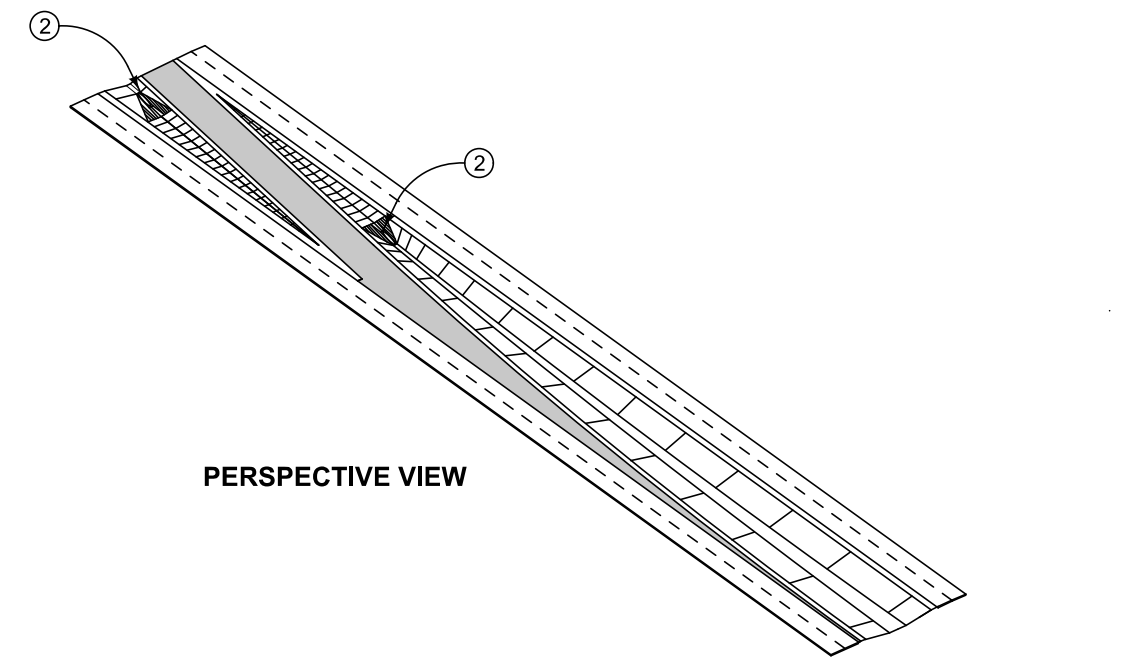
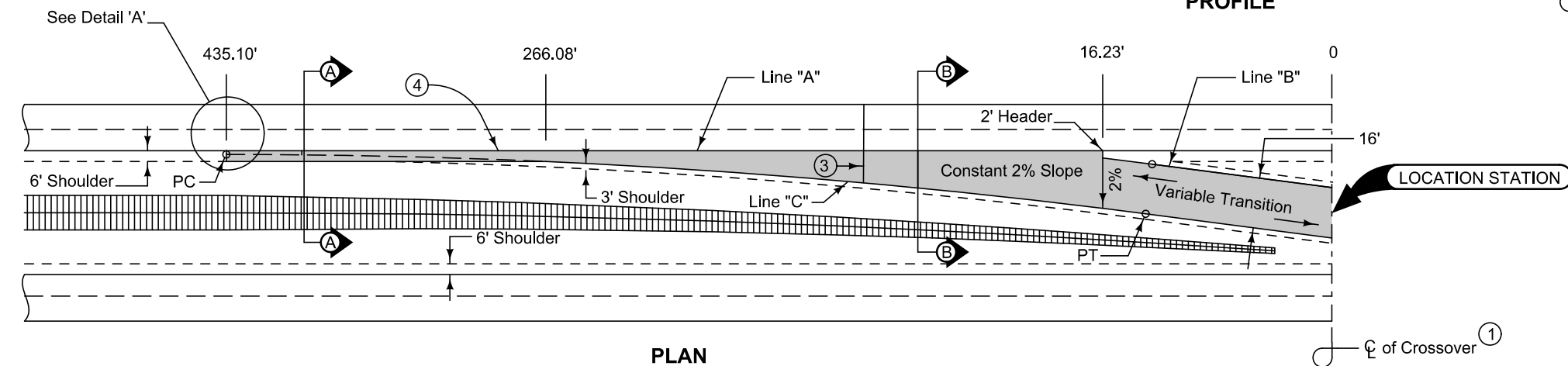
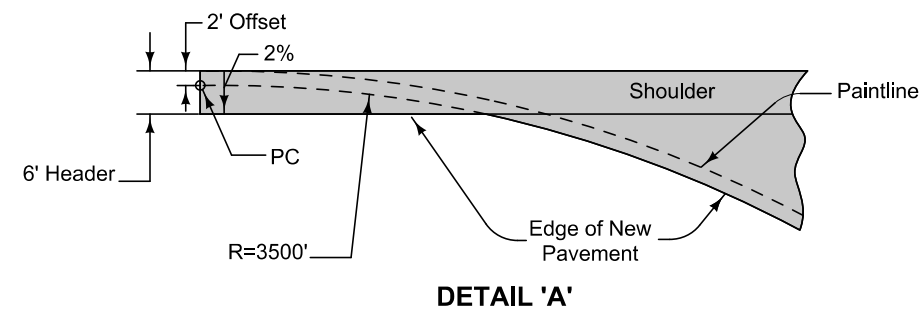
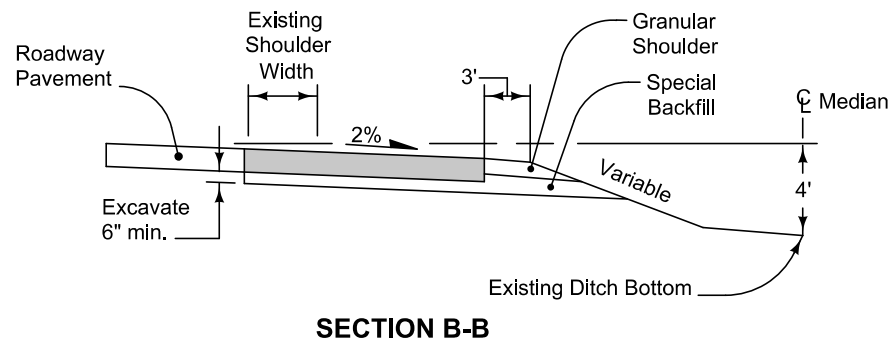
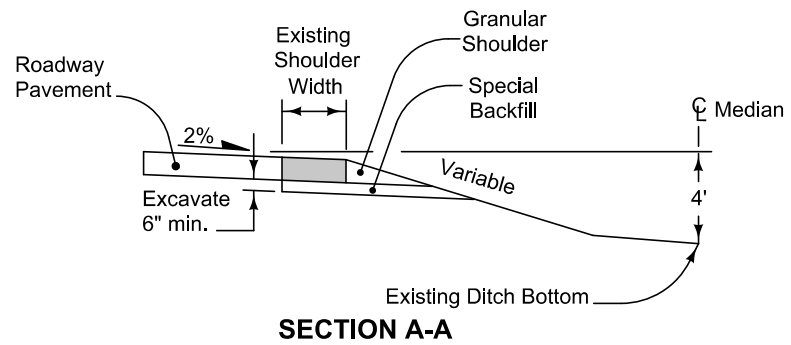


Distance from Location Station (Feet)	409.87	400	375	350	325	300	275	250	242.59	225	200	175	150	125	108.53	100	75	50	25	0
Offset from inside edge of Pavement (Feet)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.89	8.30	9.89	11.66	13.61	15.00	18.00	18.00	18.00	18.00	18.00
Cross-Slope from inside edge of Pavement	4.00%	3.68%	2.84%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Drop from inside edge of Pavement (Feet)	0.24	0.22	0.17	0.12	0.12	0.12	0.12	0.12	0.12	0.14	0.17	0.20	0.23	0.27	0.30	0.36	0.36	0.36	0.36	0.36
POINT LOCATION	(D)								(C)						(B)					(A)

MODIFIED STANDARD ROAD PLAN	REVISION	
	5	04-21-15
	PV-500	
SHEET 1 of 1		

MODIFICATIONS: Changed dimensions for 36'-wide median

MEDIAN CROSSOVER (36' MEDIAN)



REFER TO TABULATION 112-8 FOR QUANTITIES

Detour Pavement

- Detour Pavement options: 9" PCC or 12" HMA
For joint details, see PV-101.
- ① Median crossover is symmetrical about centerline.
 - ② Median pipe for crossover. See Detail 500-19.
 - ③ For PCC Detour Pavement, match existing roadway joints. 'CD' joints are required.
 - ④ 'KT-2' or 'L-2' joint if mainline pavement is new construction. Bend bars out. 'BT-3' joint if mainline pavement is existing. 'B' joint if Detour Pavement is HMA.

TABLE OF OFFSETS AND DROPS																				
Distance (Feet)	435.10	400	375	350	325	300	275	266.08	250	225	200	175	150	125	100	75	50	25	16.23	0
Offset A to C (Feet)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.60	7.81	9.26	10.65	12.52	14.23	16.46	18.54	20.79	23.22	24.09	25.84
Drop A to C (Feet)	0.24	0.22	0.17	0.12	0.12	0.12	0.12	0.12	0.13	0.16	0.19	0.21	0.25	0.28	0.33	0.37	0.42	0.46	0.48	0.52
Drop A to B (Feet)																			0.08	0.20

<h2>MODIFIED STANDARD ROAD PLAN</h2>	REVISION	
	3	10-15-13
	PV-501	
SHEET 1 of 1		
REVISIONS: Modified note 4.		
<h3>MEDIAN CROSSOVER</h3> <p>(36' MEDIAN) 16' WIDE 1 LANE</p>		

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\R/CB
- Proposed Pipe\R/CB
- Proposed Dike
- All Elements Associated with Proposed Entrances

LINE STYLE LEGEND OF CROSS SECTION SHEETS (SOILS)

- TS——— Topsoil (Class 10)
- TS A——— Topsoil (Type A Disposal)
- TS B——— Topsoil (Type B Disposal)
- TS C——— Topsoil (Type C Disposal)
- 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.

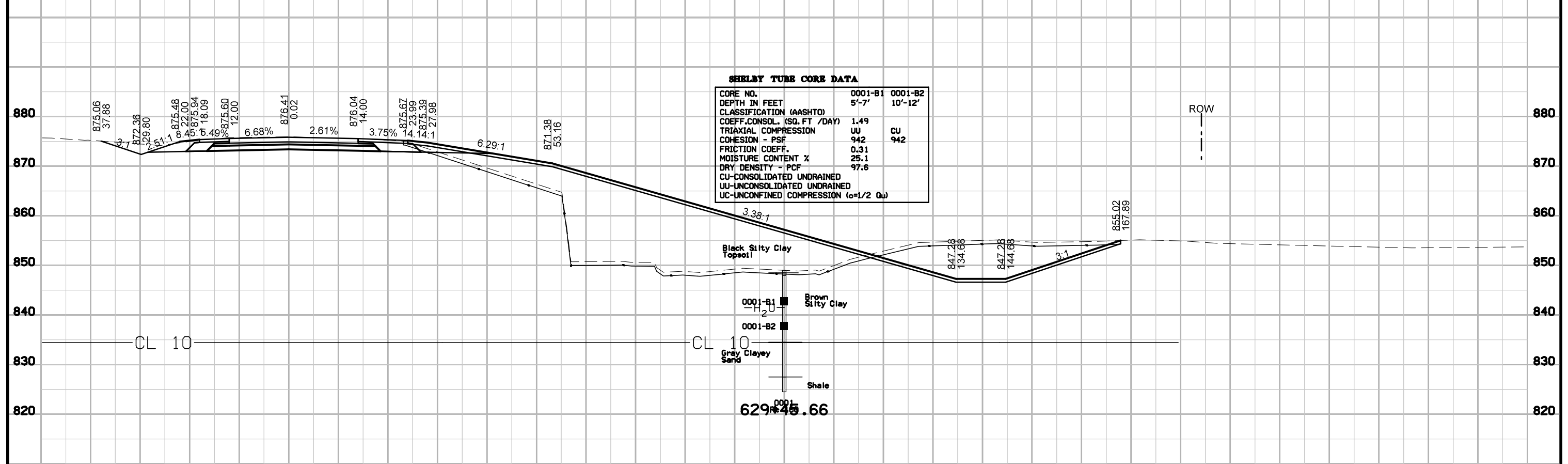
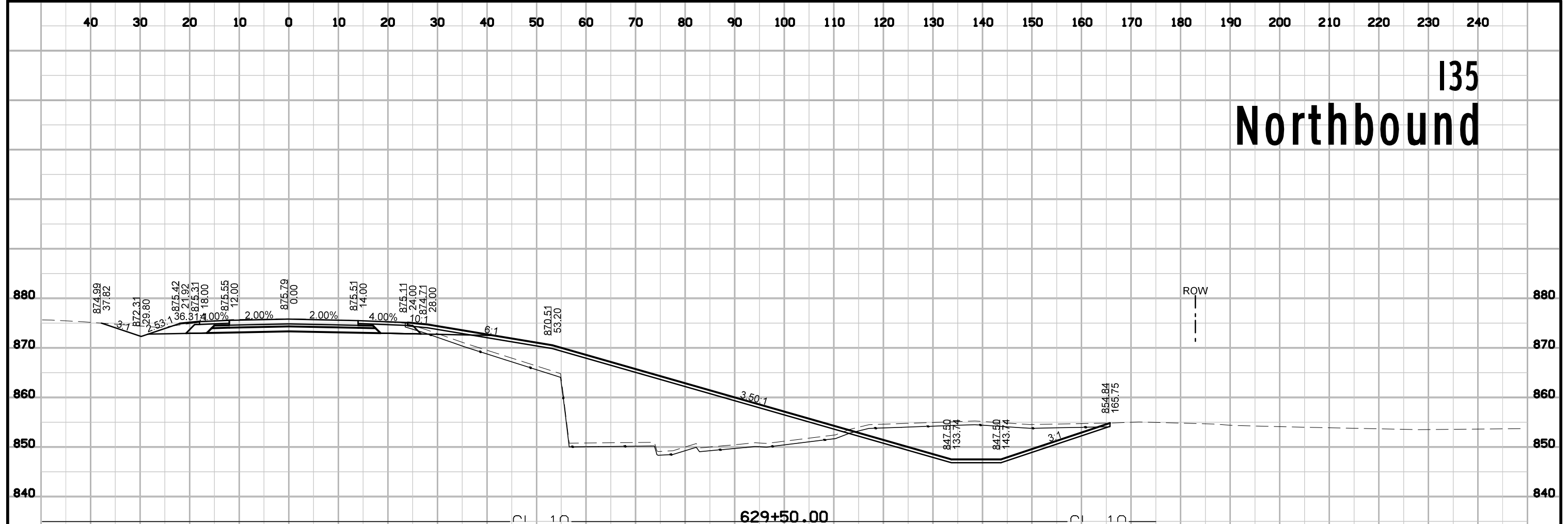
SYMBOL LEGEND OF CROSS SECTION SHEETS

- 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**

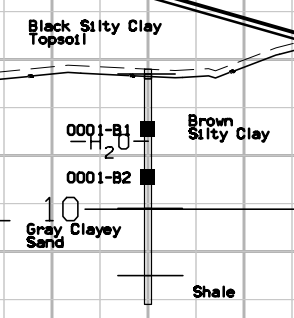
(COVERS SHEET SERIES W, X, Y, & Z)

135 Northbound

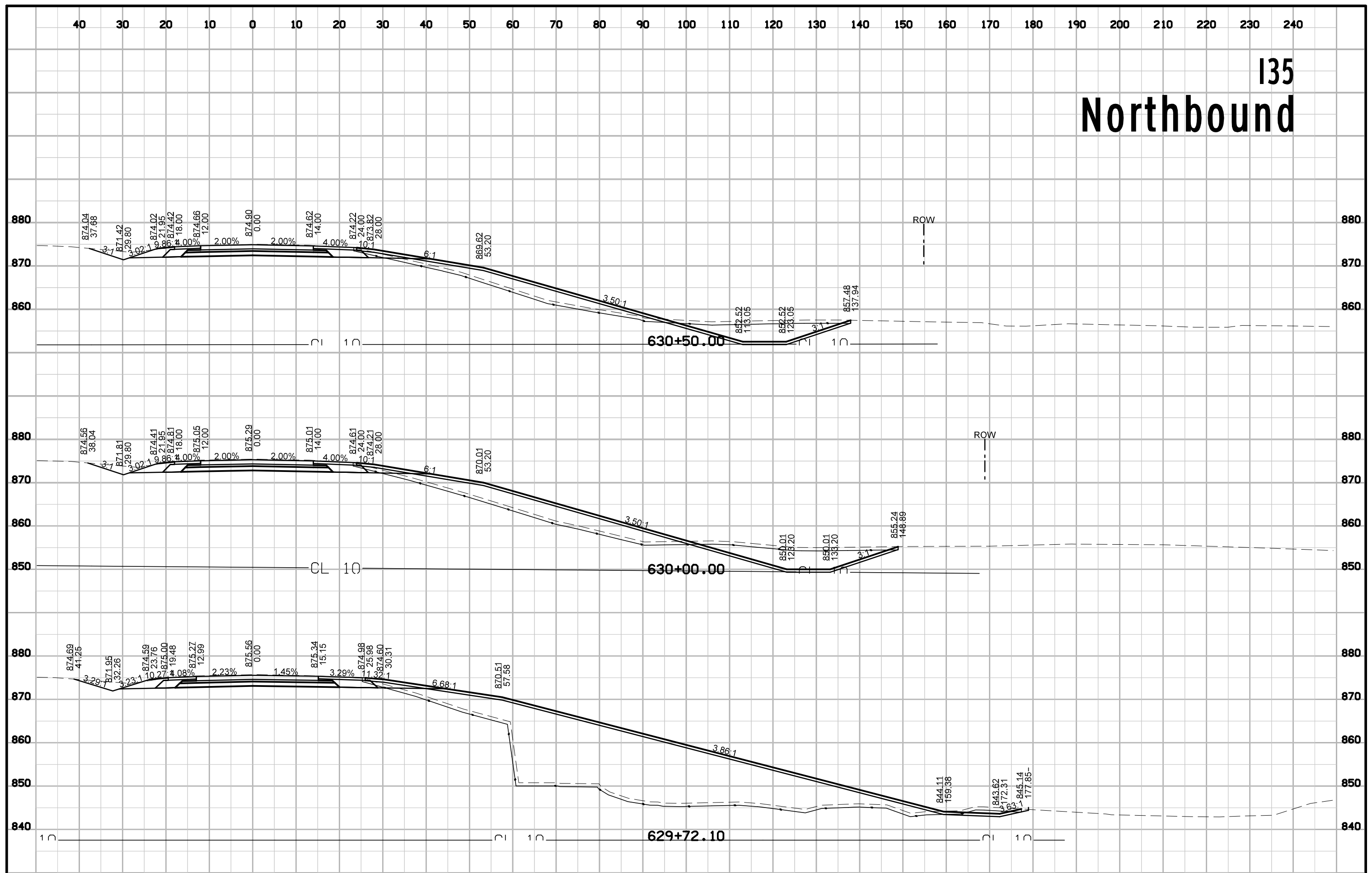


SHELBY TUBE CORE DATA

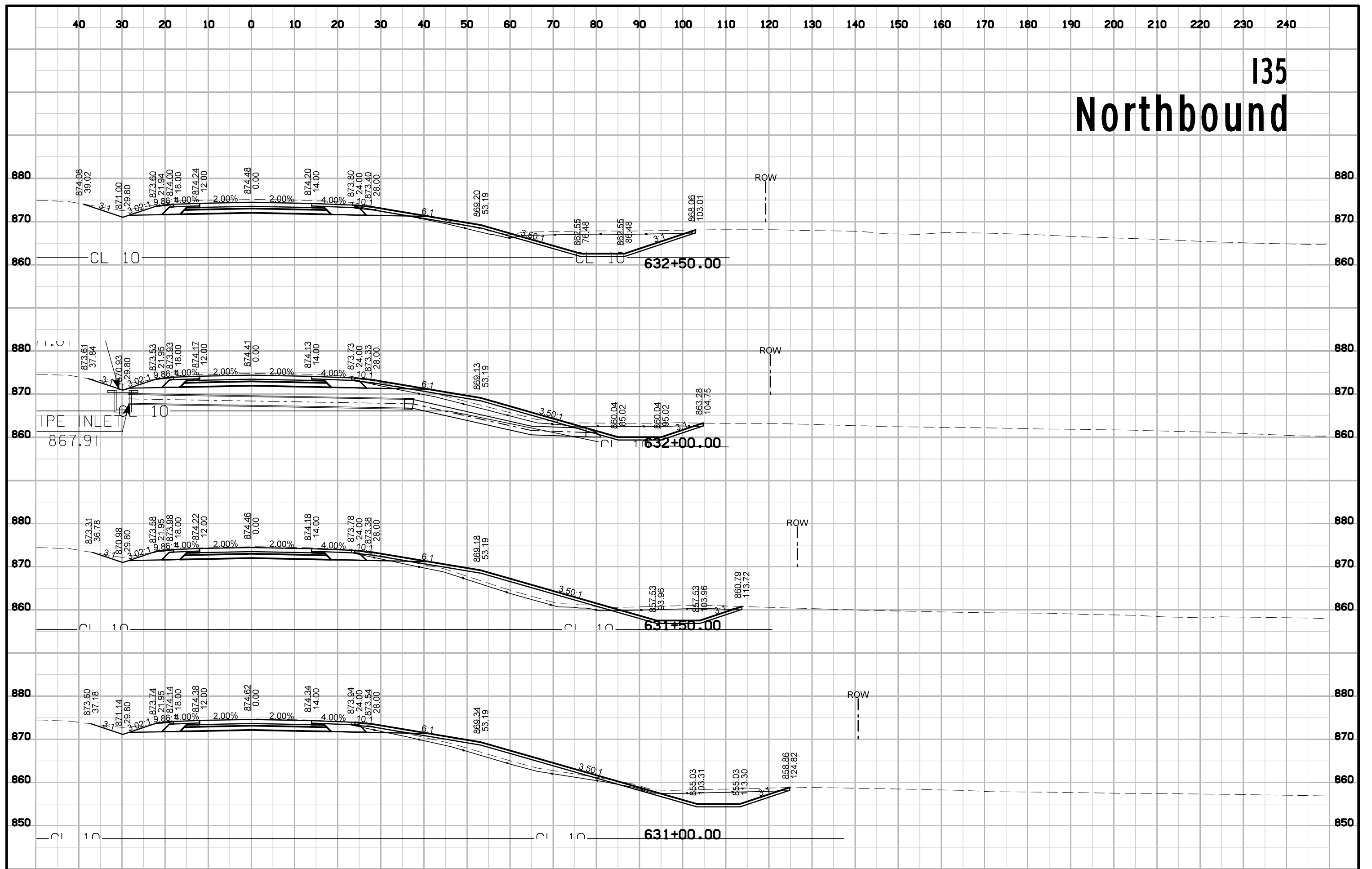
CORE NO.	0001-B1	0001-B2
DEPTH IN FEET	5'-7'	10'-12'
CLASSIFICATION (AASHTO)		
COEFF. CONSOL. (SQ. FT / DAY)	1.49	
TRIAxIAL COMPRESSION	UU	CU
COHESION - PSF	942	942
FRICTION COEFF.	0.31	
MOISTURE CONTENT %	25.1	
DRY DENSITY - PCF	97.6	
CU-CONSOLIDATED UNDRAINED		
UU-UNCONSOLIDATED UNDRAINED		
UC-UNCONFINED COMPRESSION (σ=1/2 σ _w)		



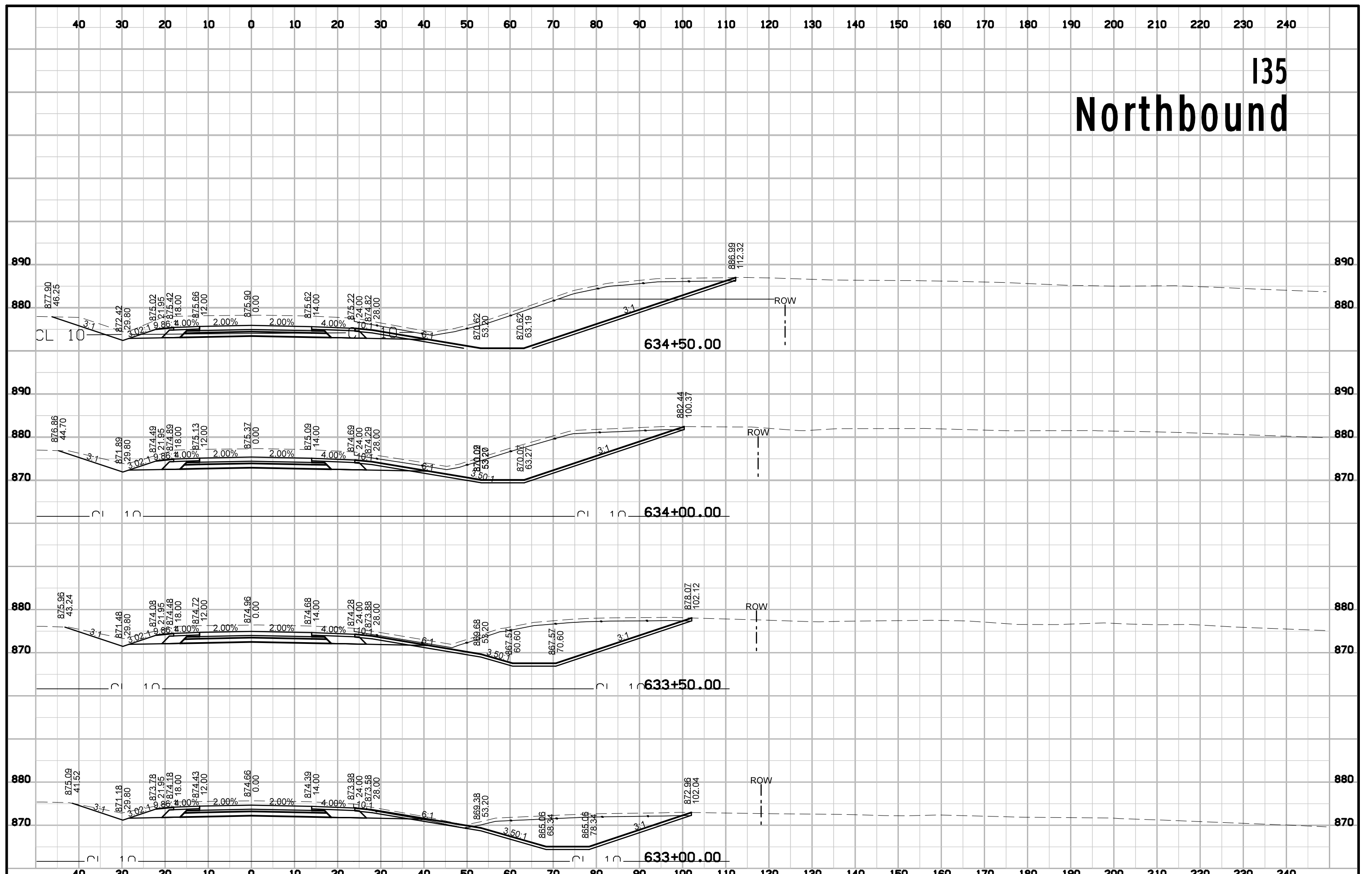
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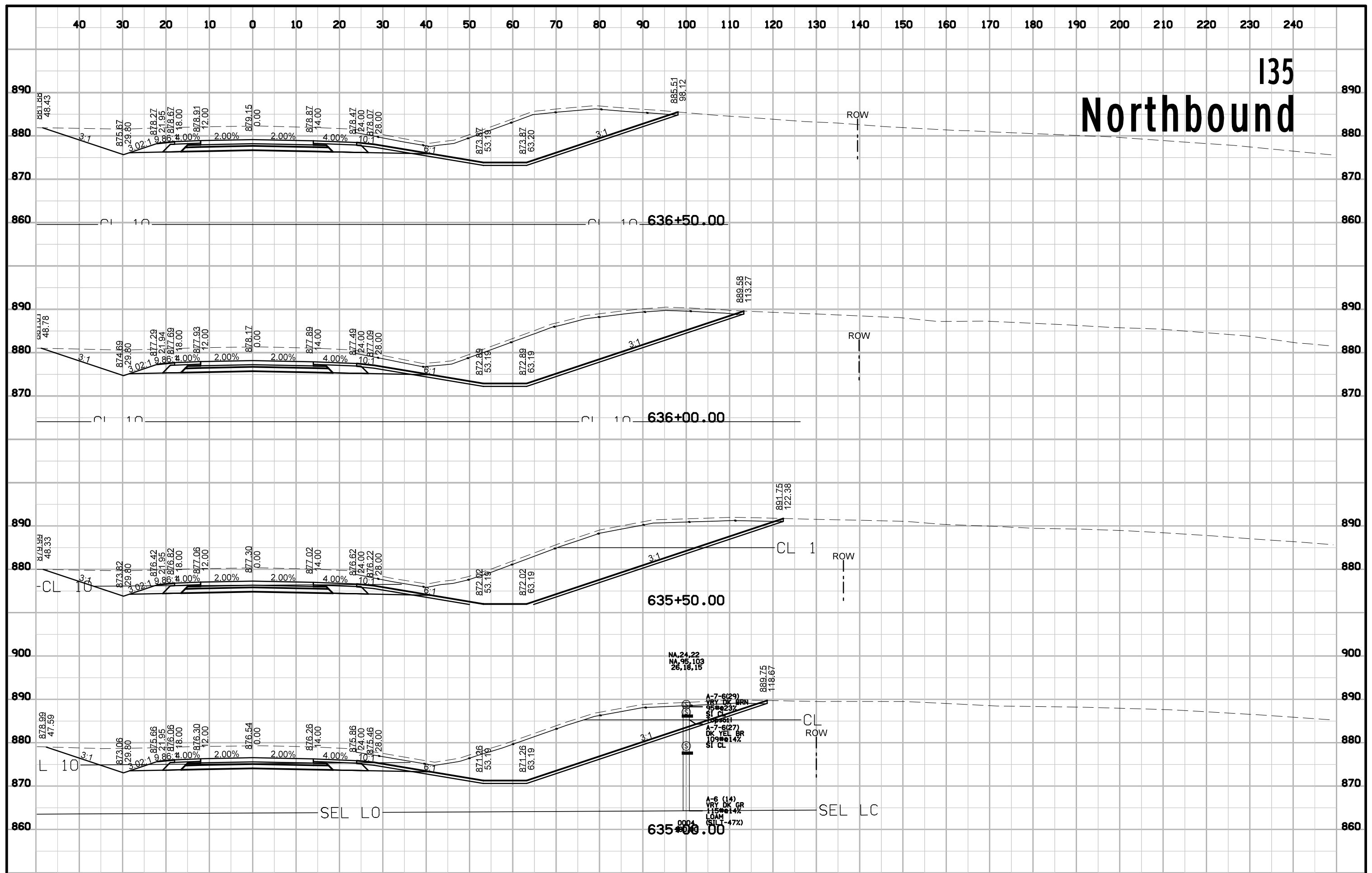
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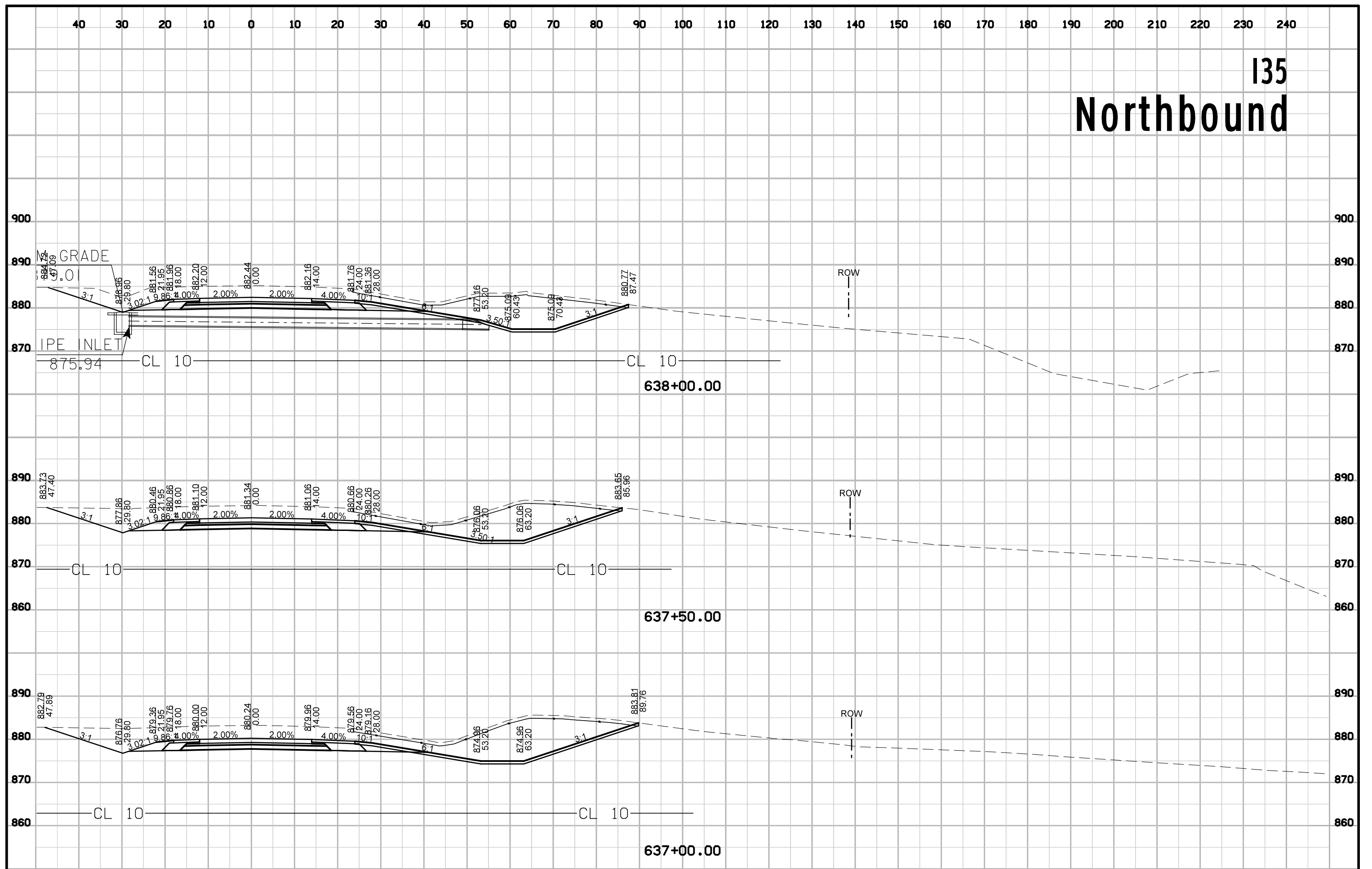
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I35 Northbound



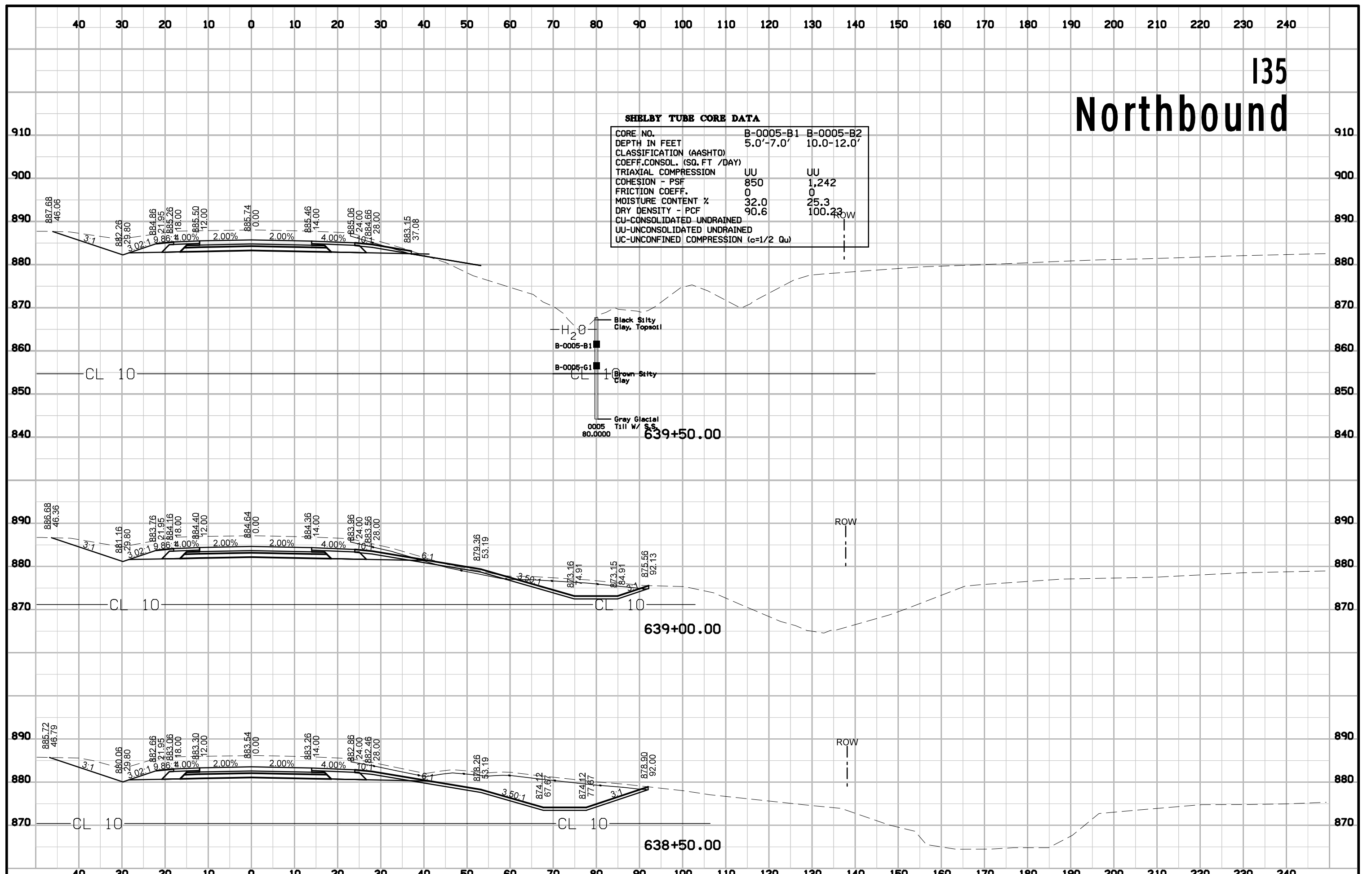
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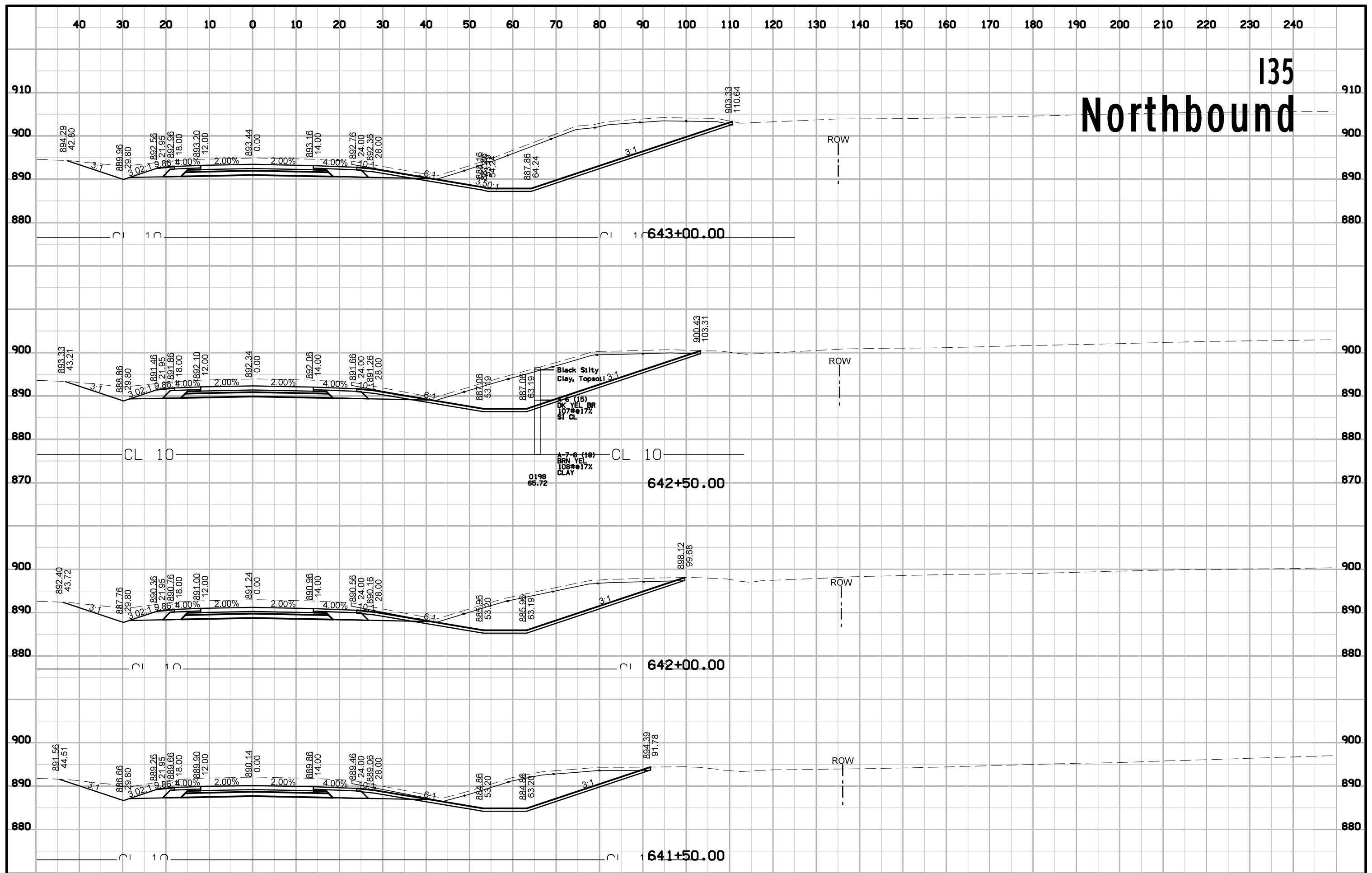
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SHELBY TUBE CORE DATA

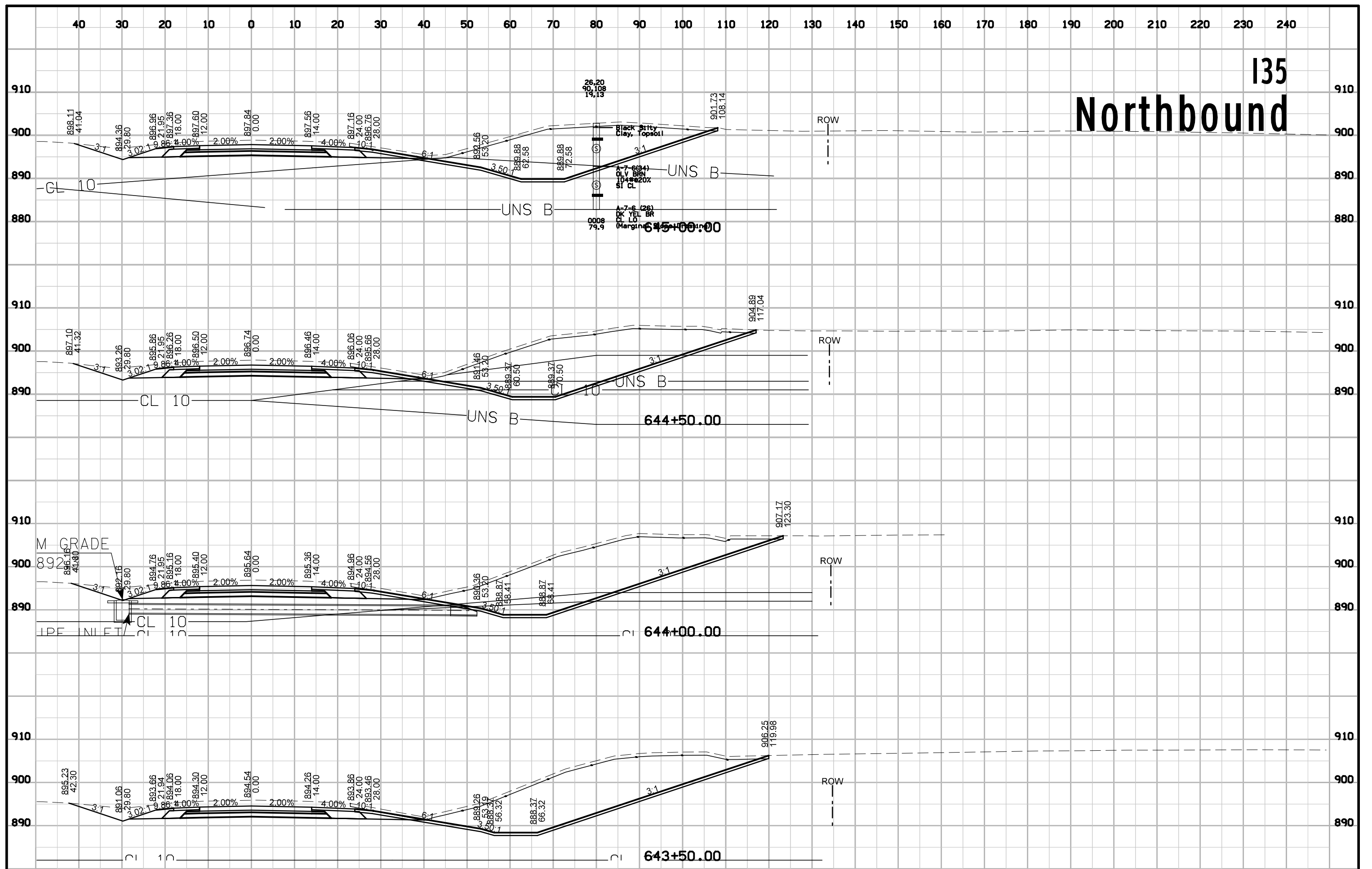
CORE NO.	B-0005-B1	B-0005-B2
DEPTH IN FEET	5.0'-7.0'	10.0-12.0'
CLASSIFICATION (AASHTO)		
COEFF. CONSOL. (SQ. FT / DAY)		
TRIAxIAL COMPRESSION	UU	UU
COHESION - PSF	850	1,242
FRICTION COEFF.	0	0
MOISTURE CONTENT %	32.0	25.3
DRY DENSITY - PCF	90.6	100.23
CU-CONSOLIDATED UNDRAINED		
UU-UNCONSOLIDATED UNDRAINED		
UC-UNCONFINED COMPRESSION (c=1/2 Qu)		



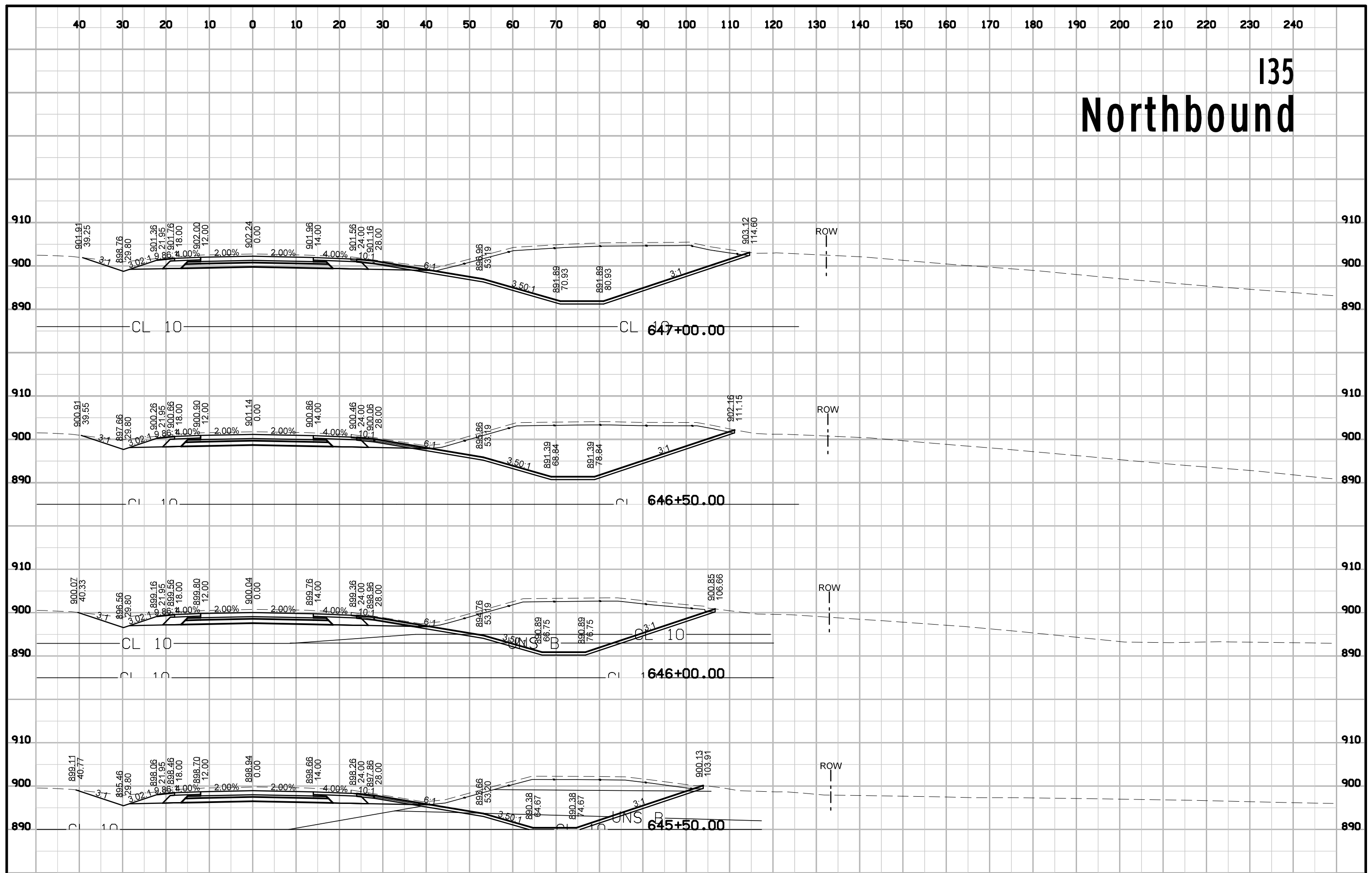
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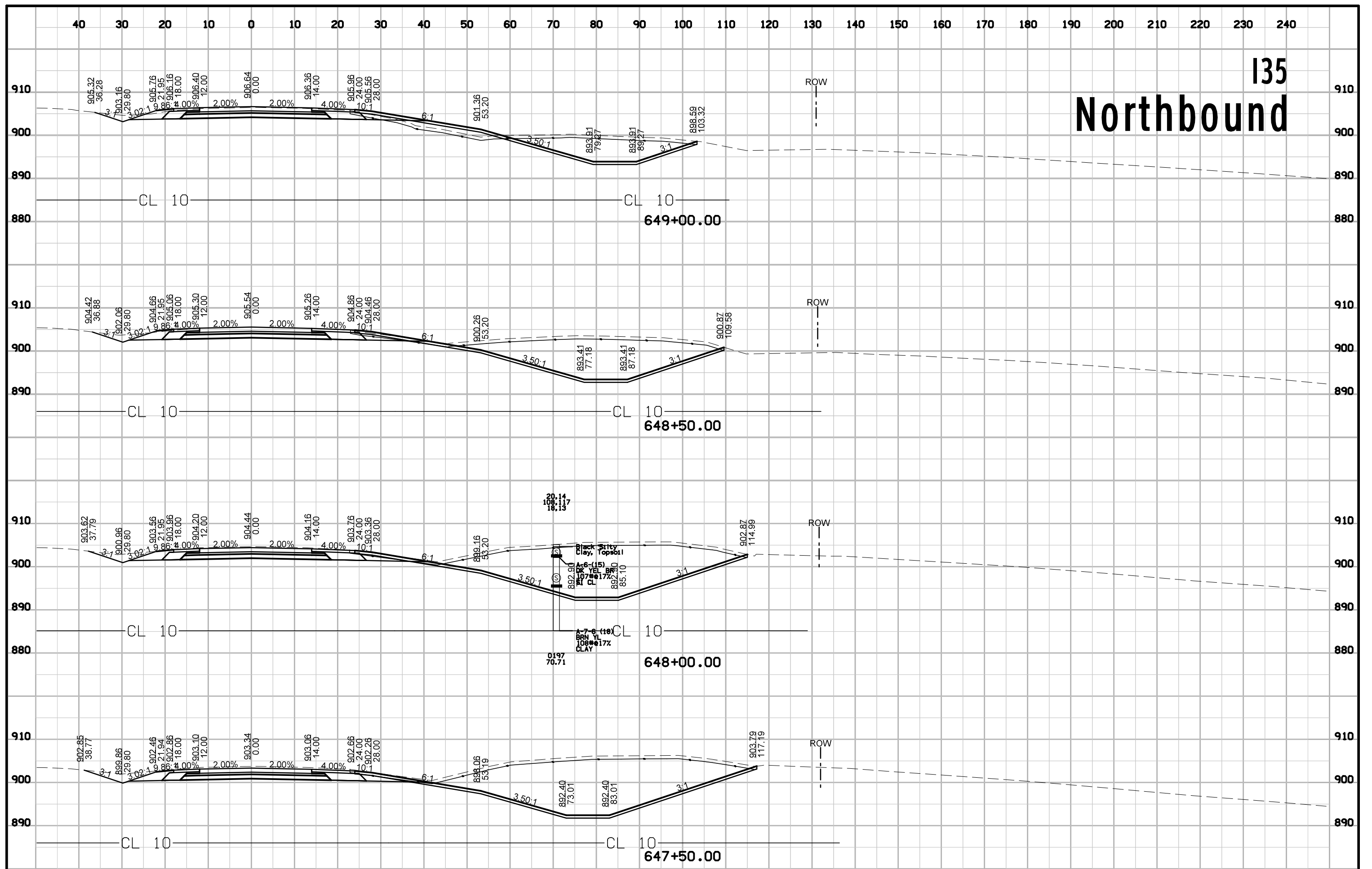
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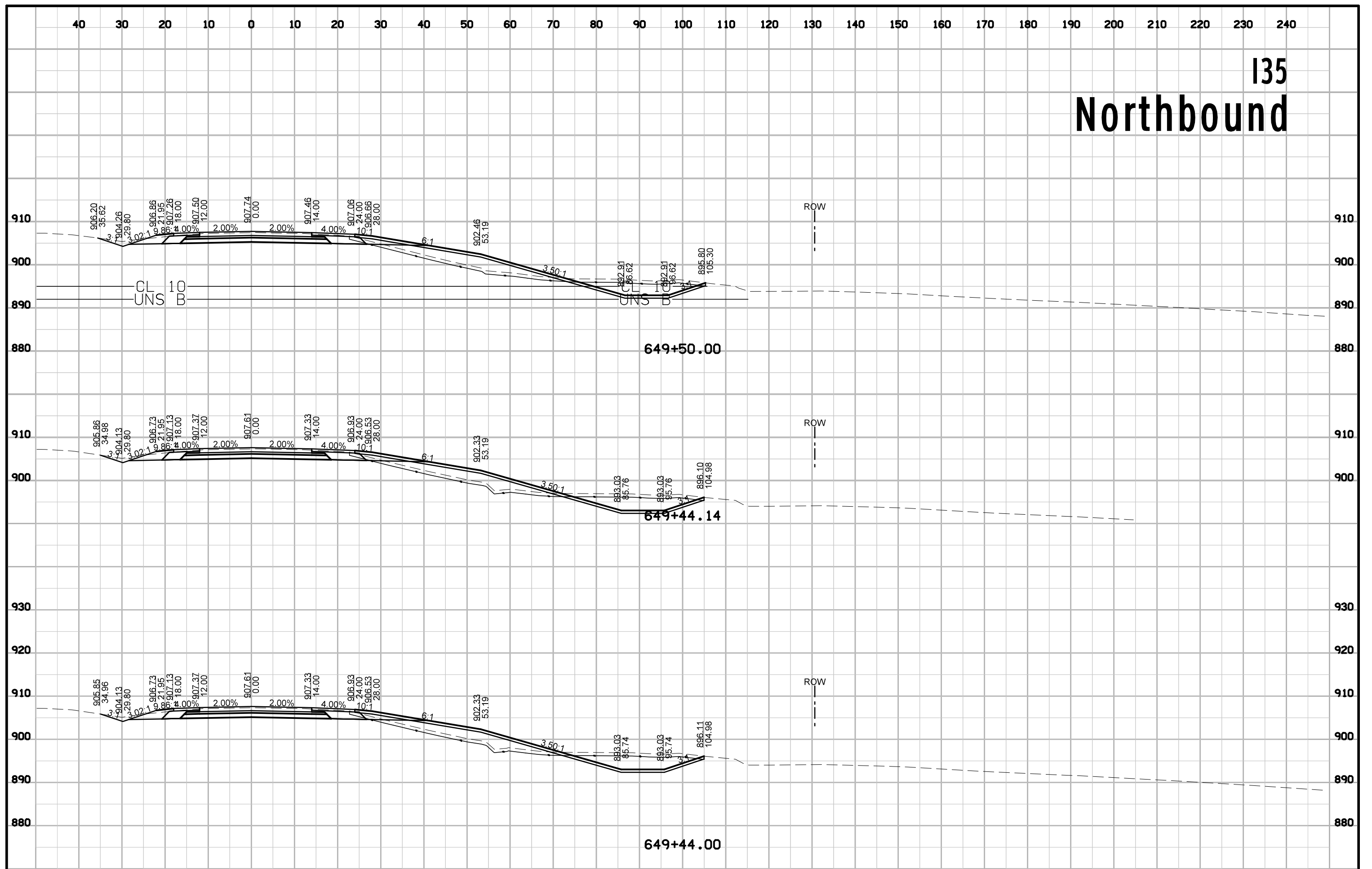
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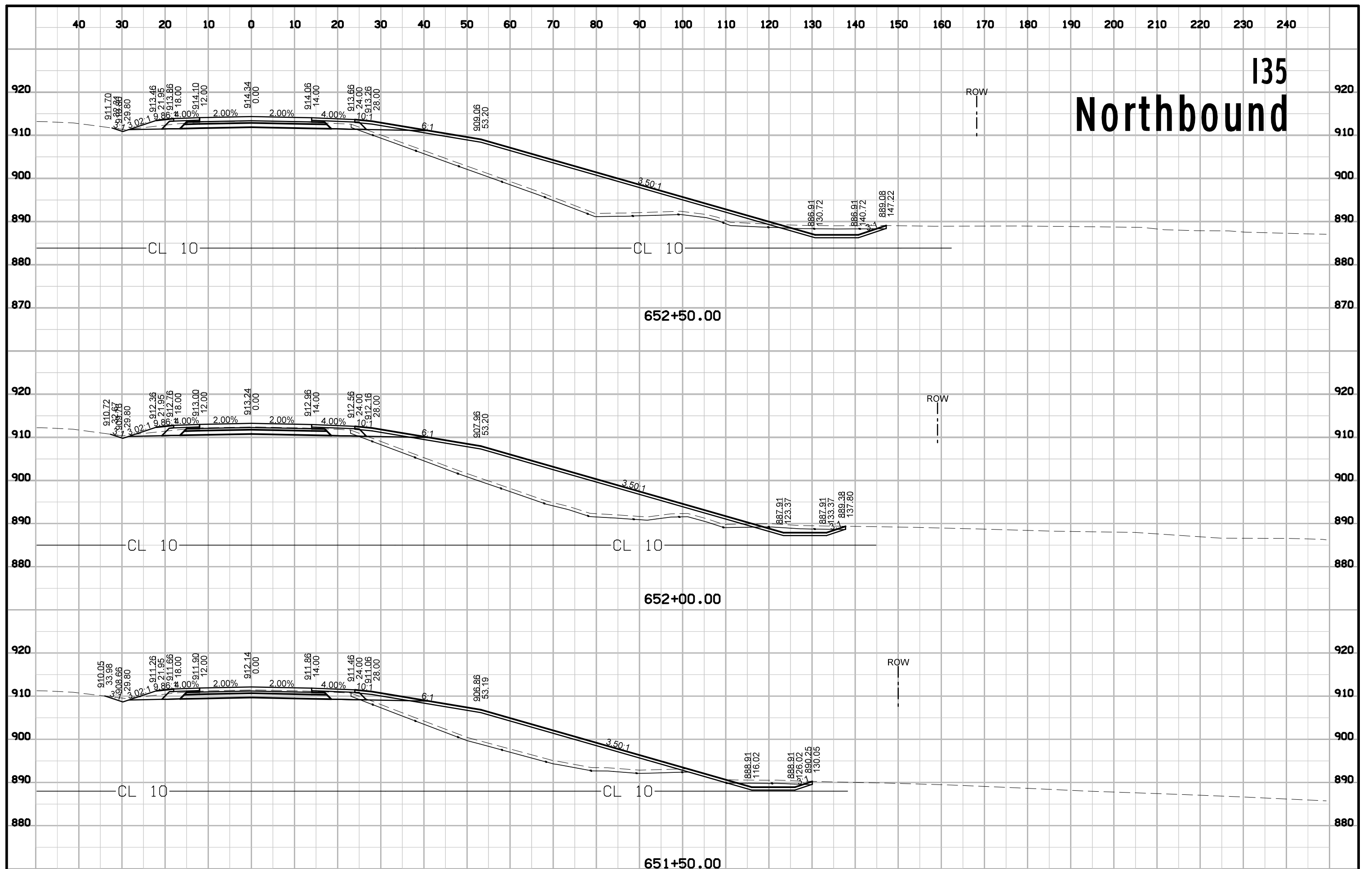
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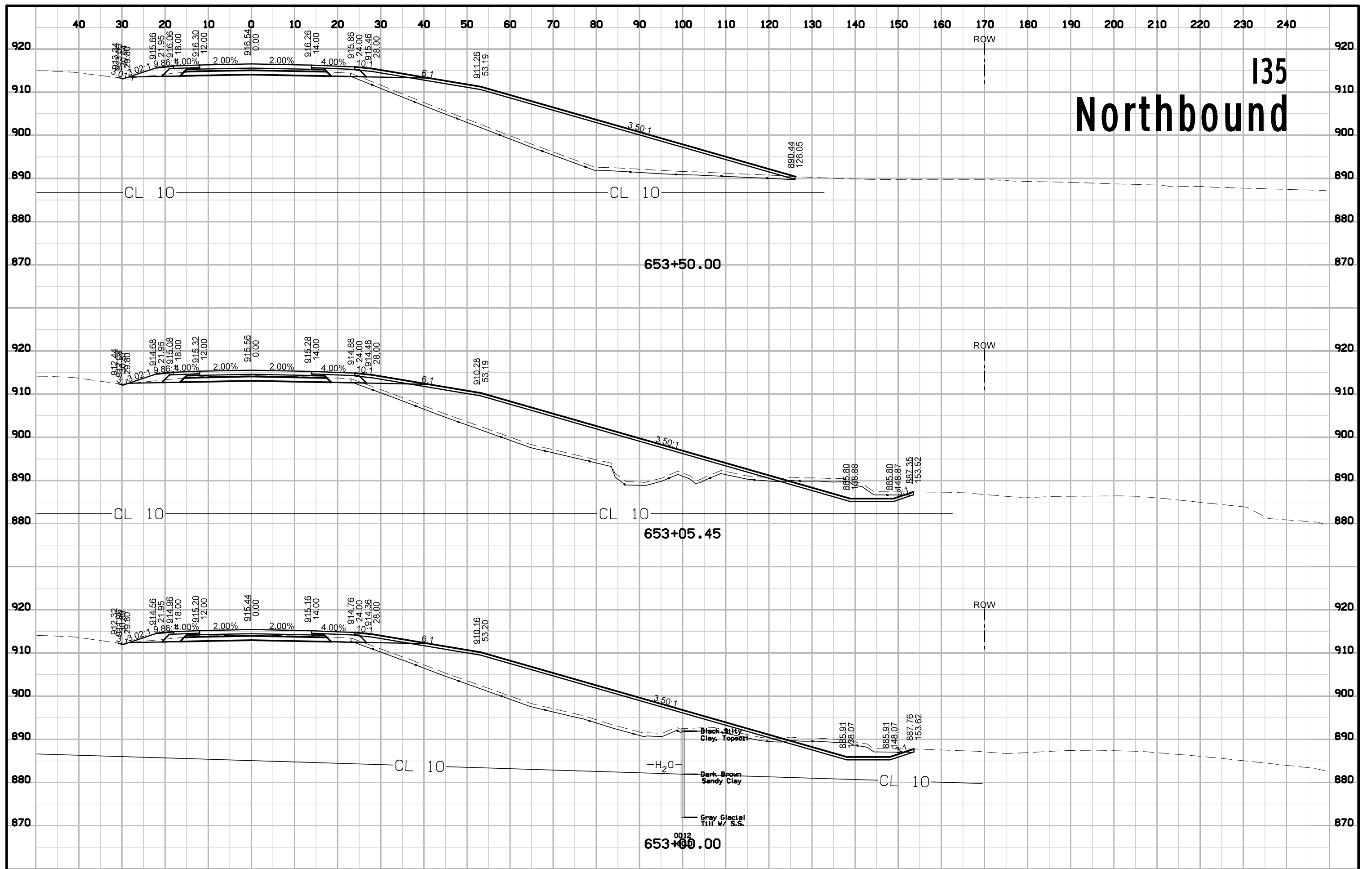
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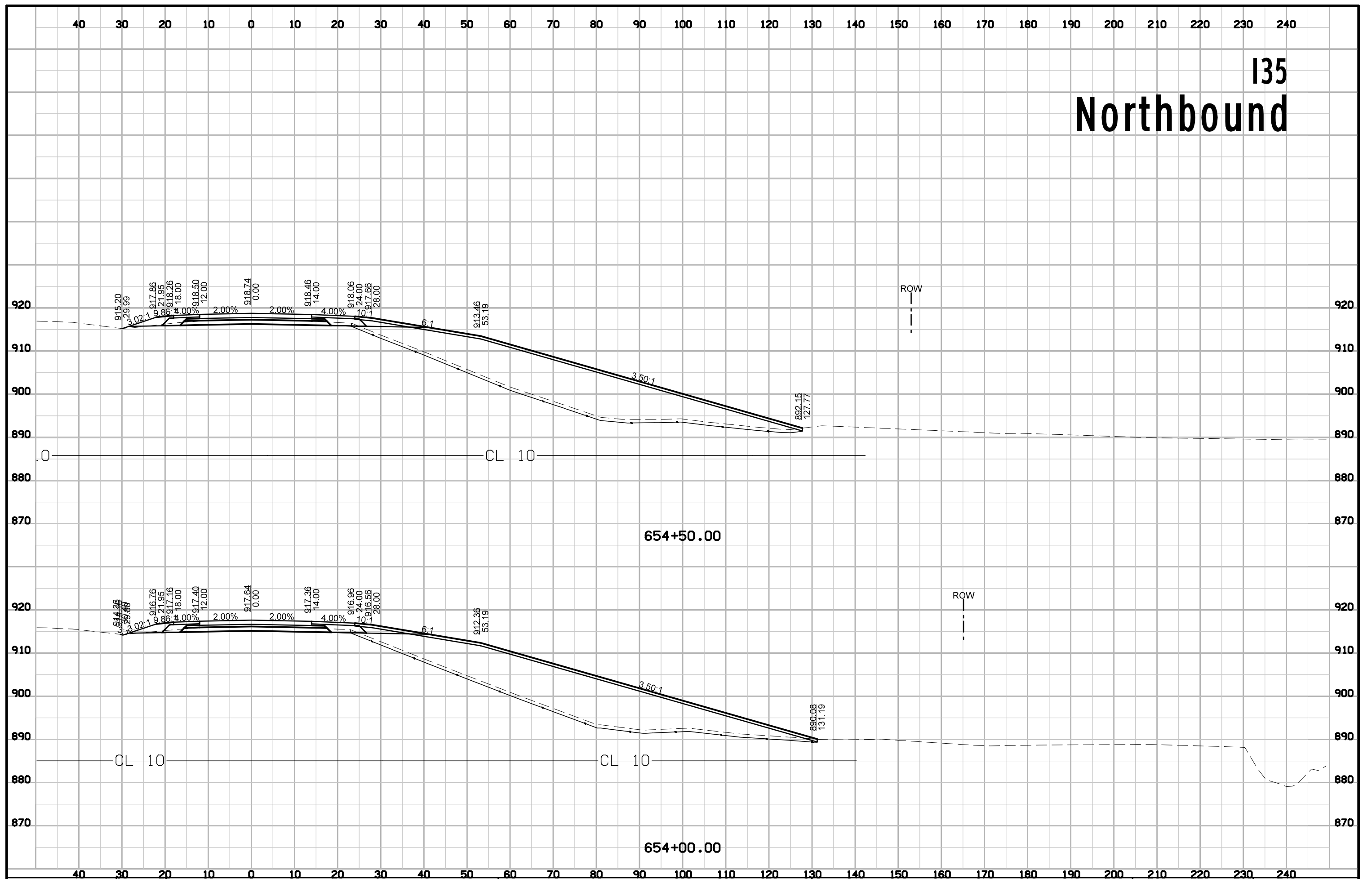
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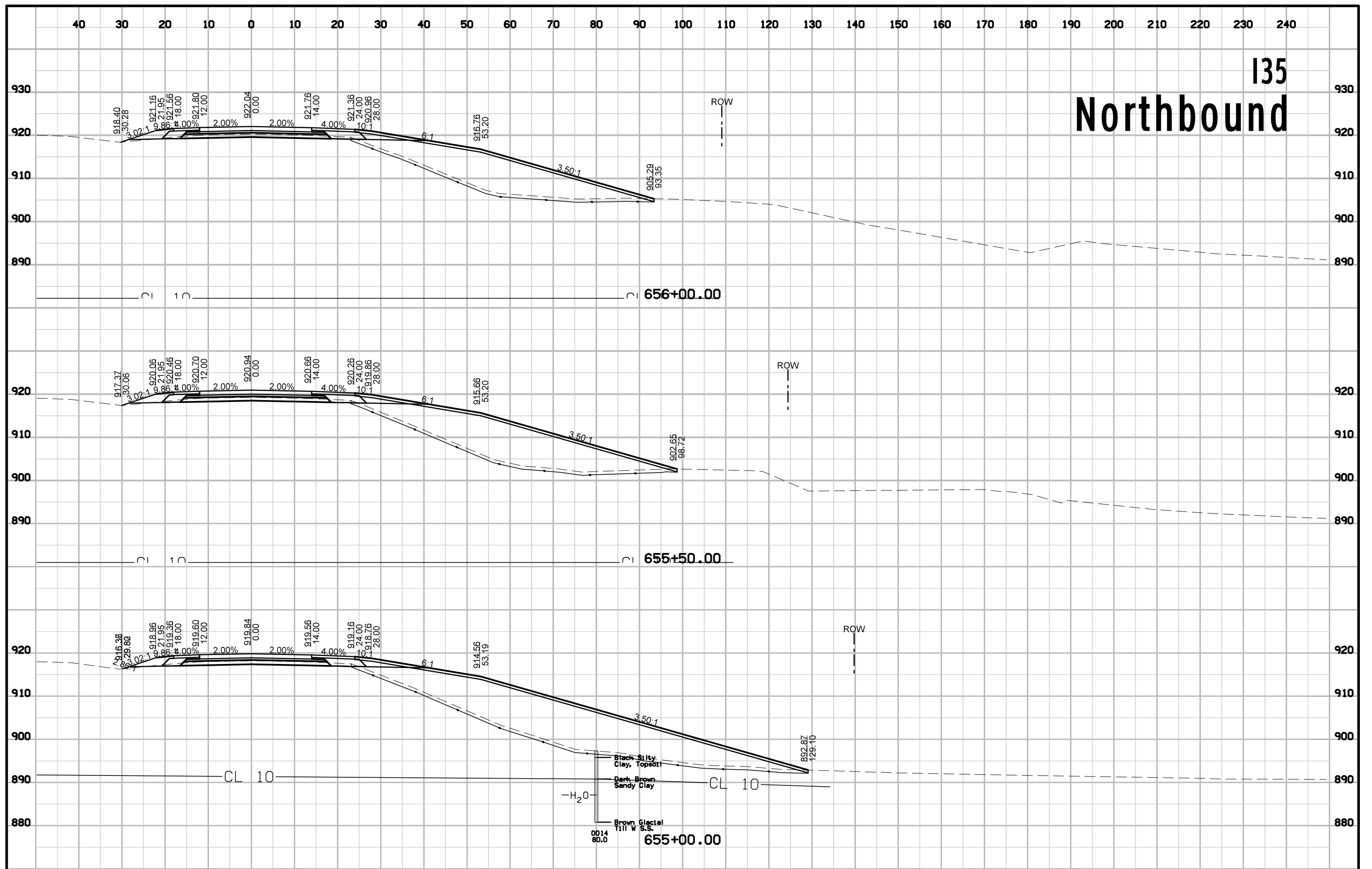
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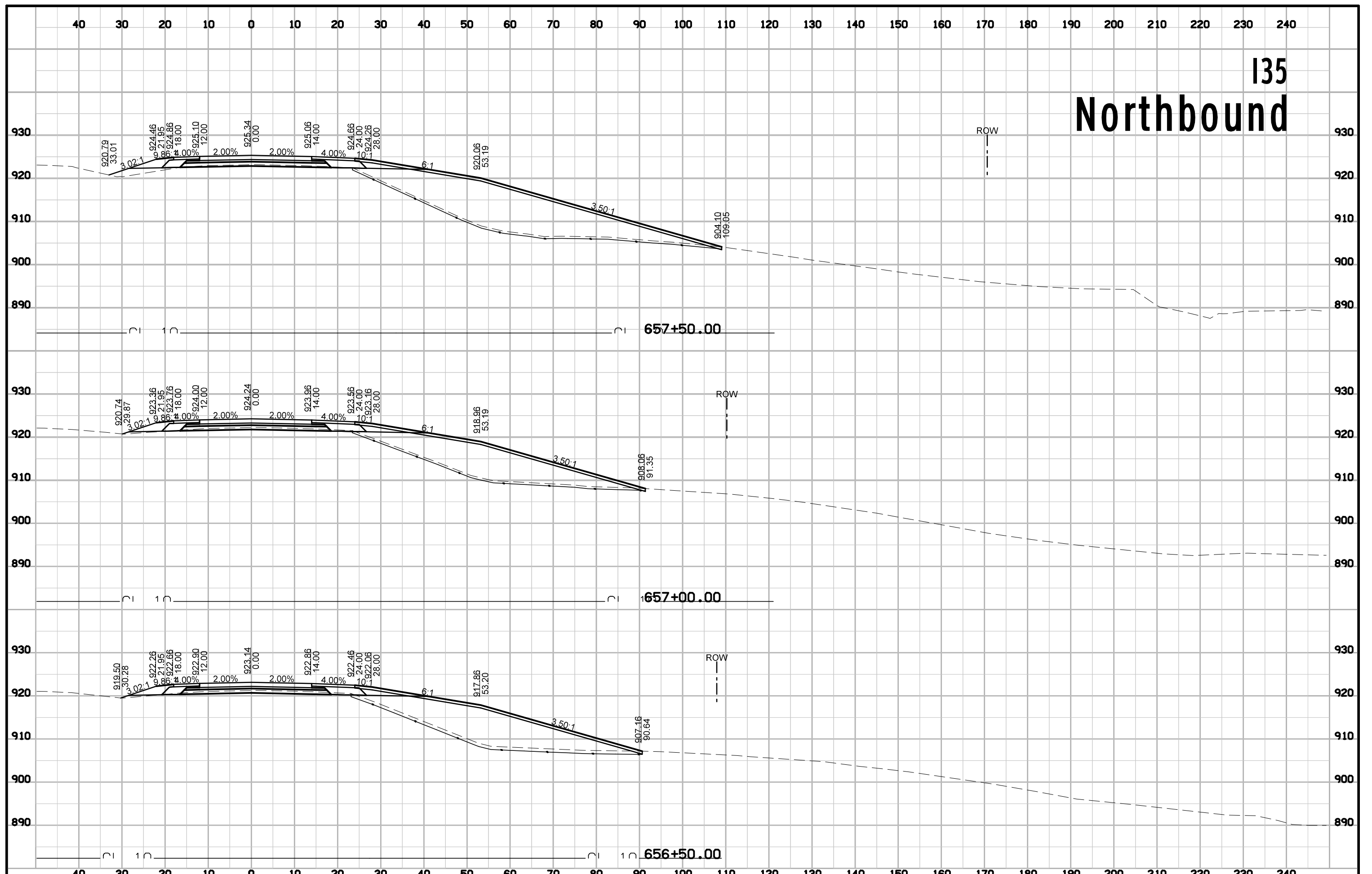
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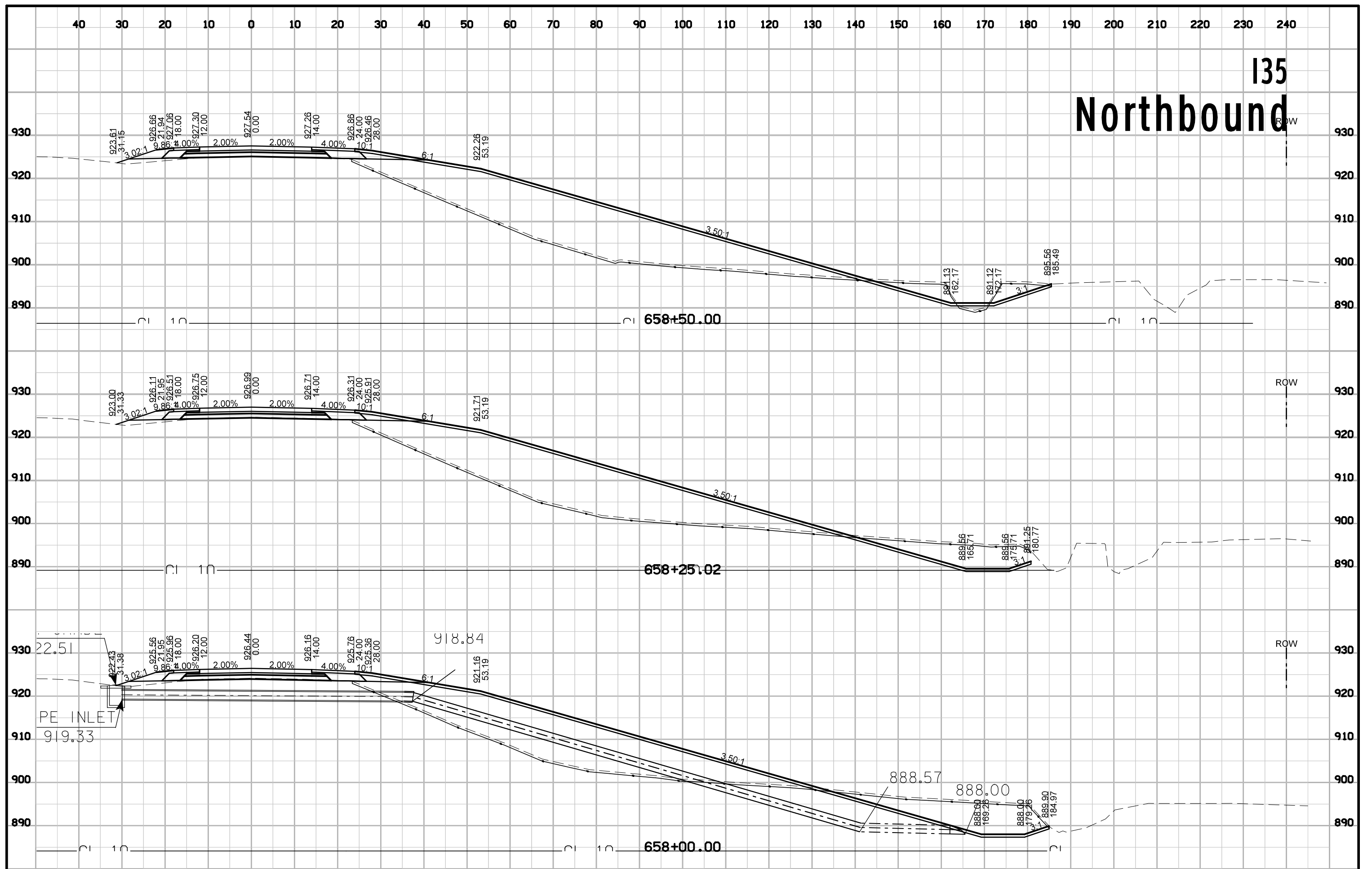
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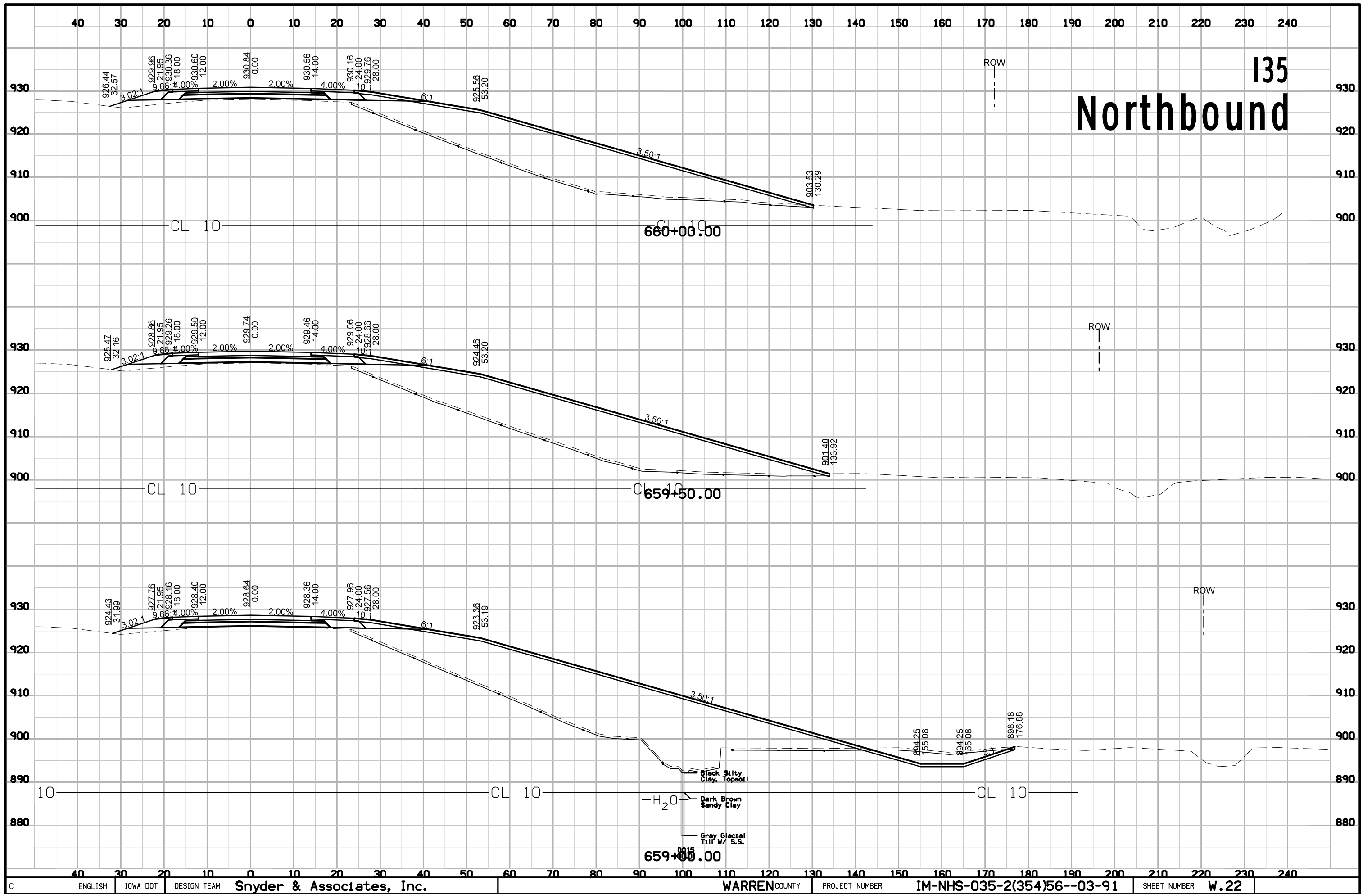


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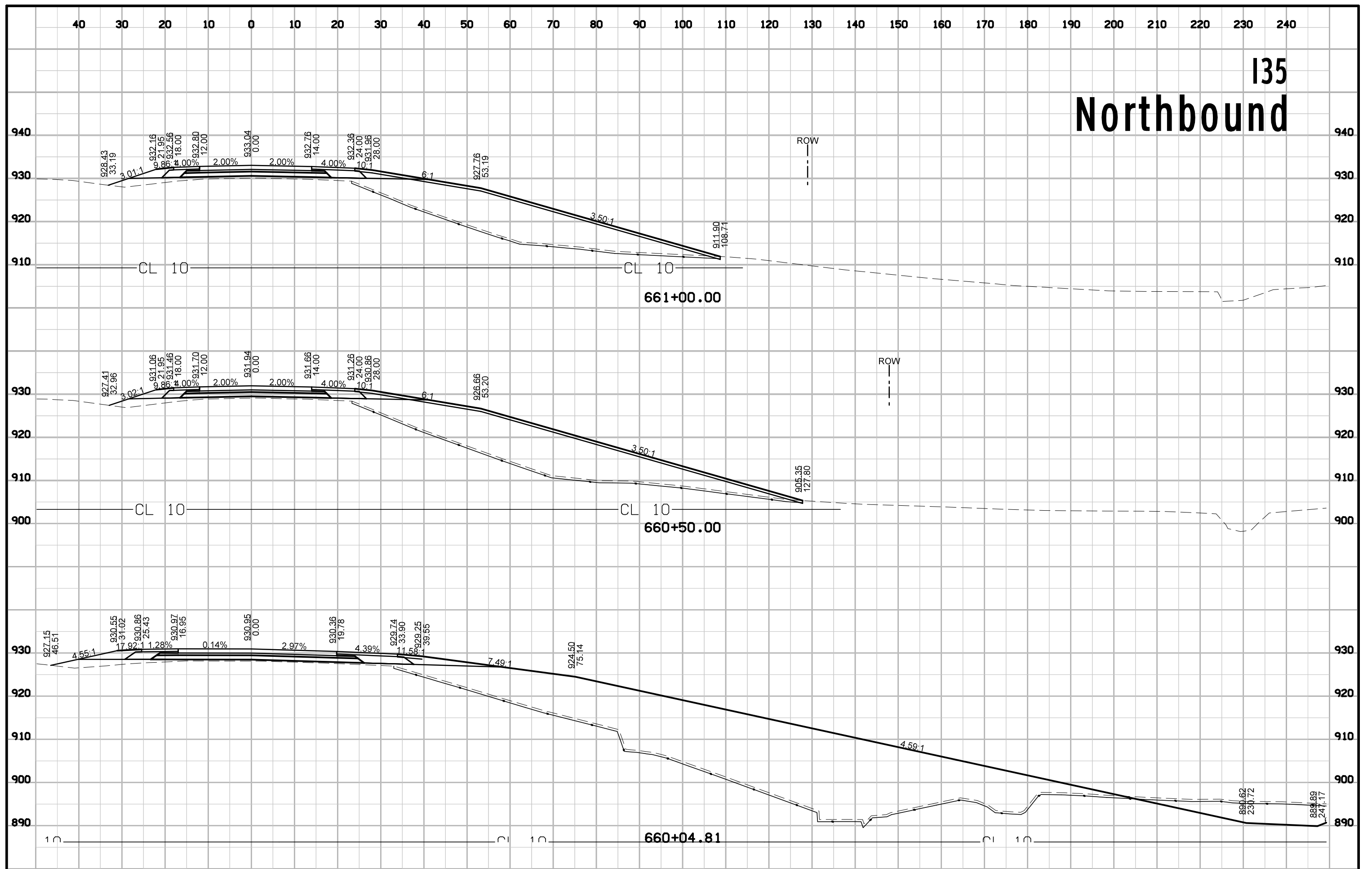


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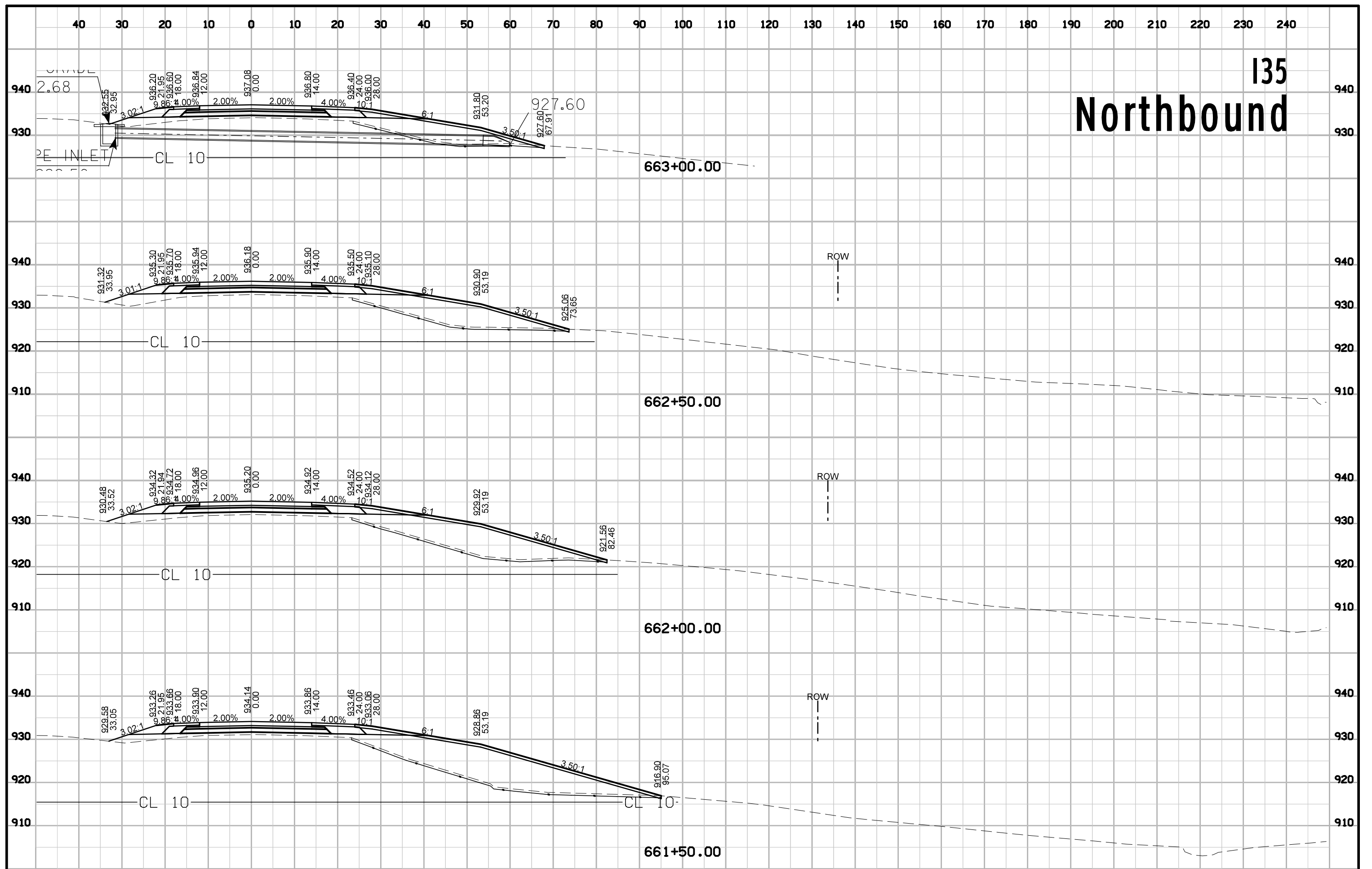




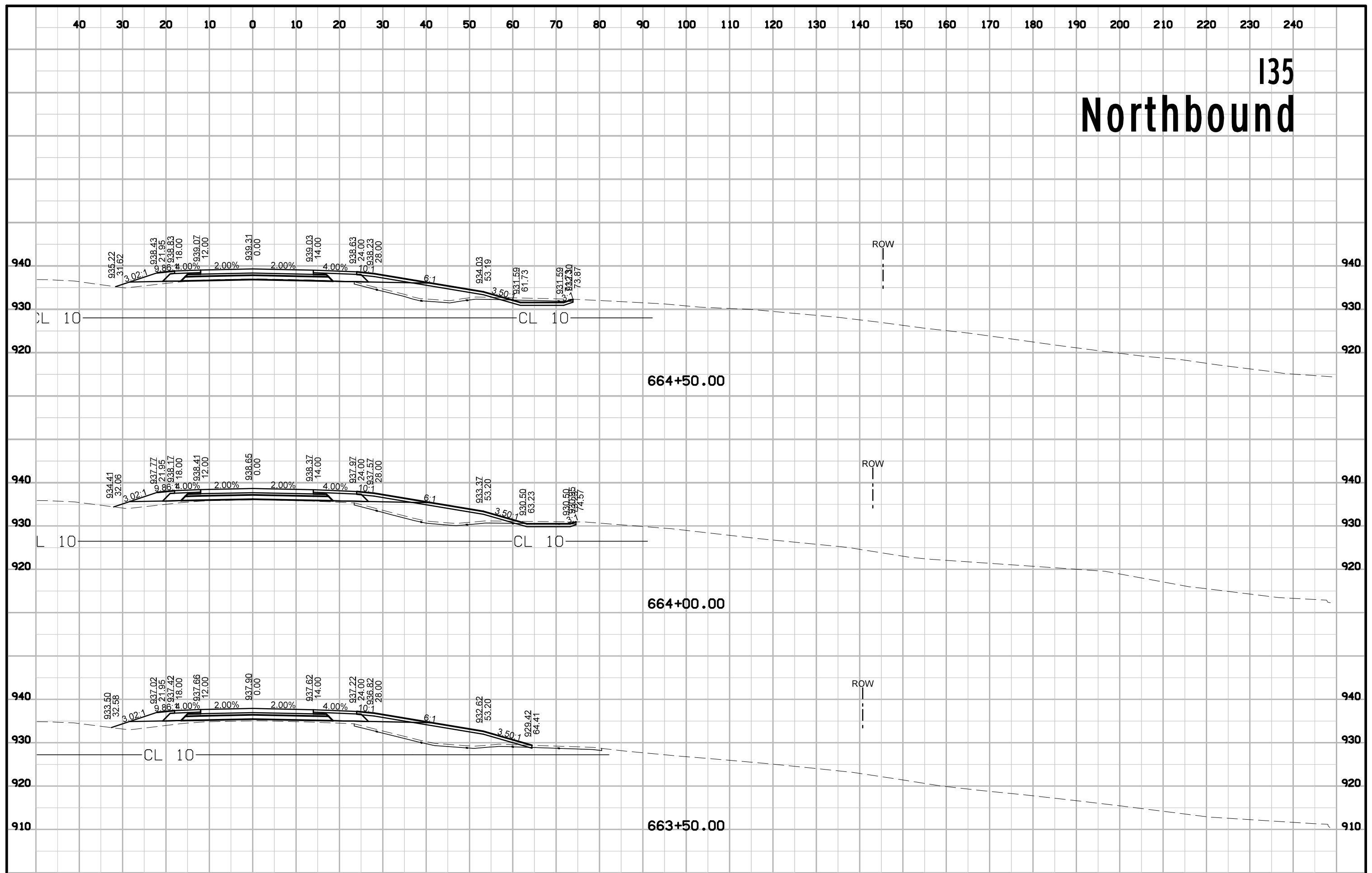
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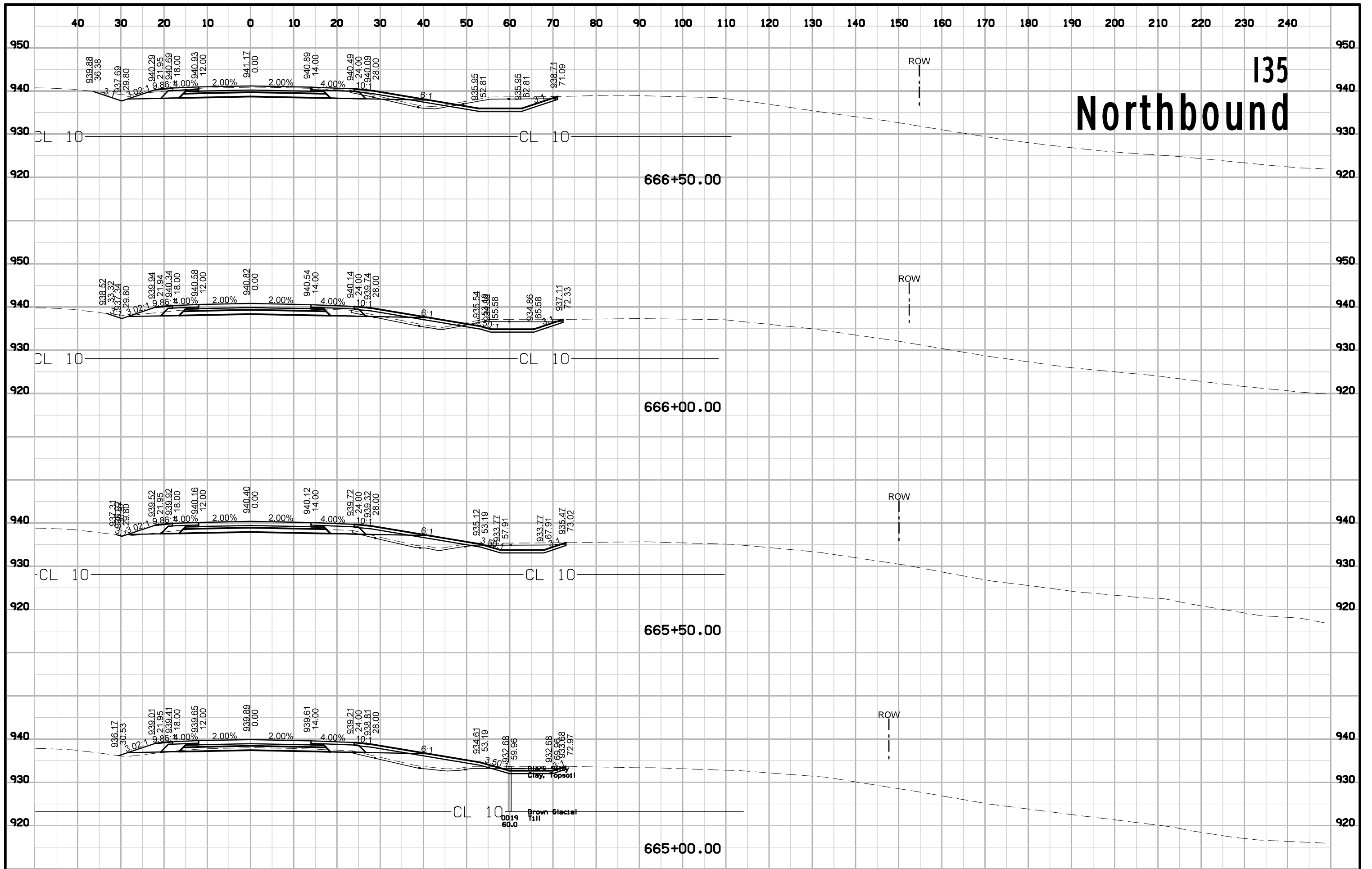


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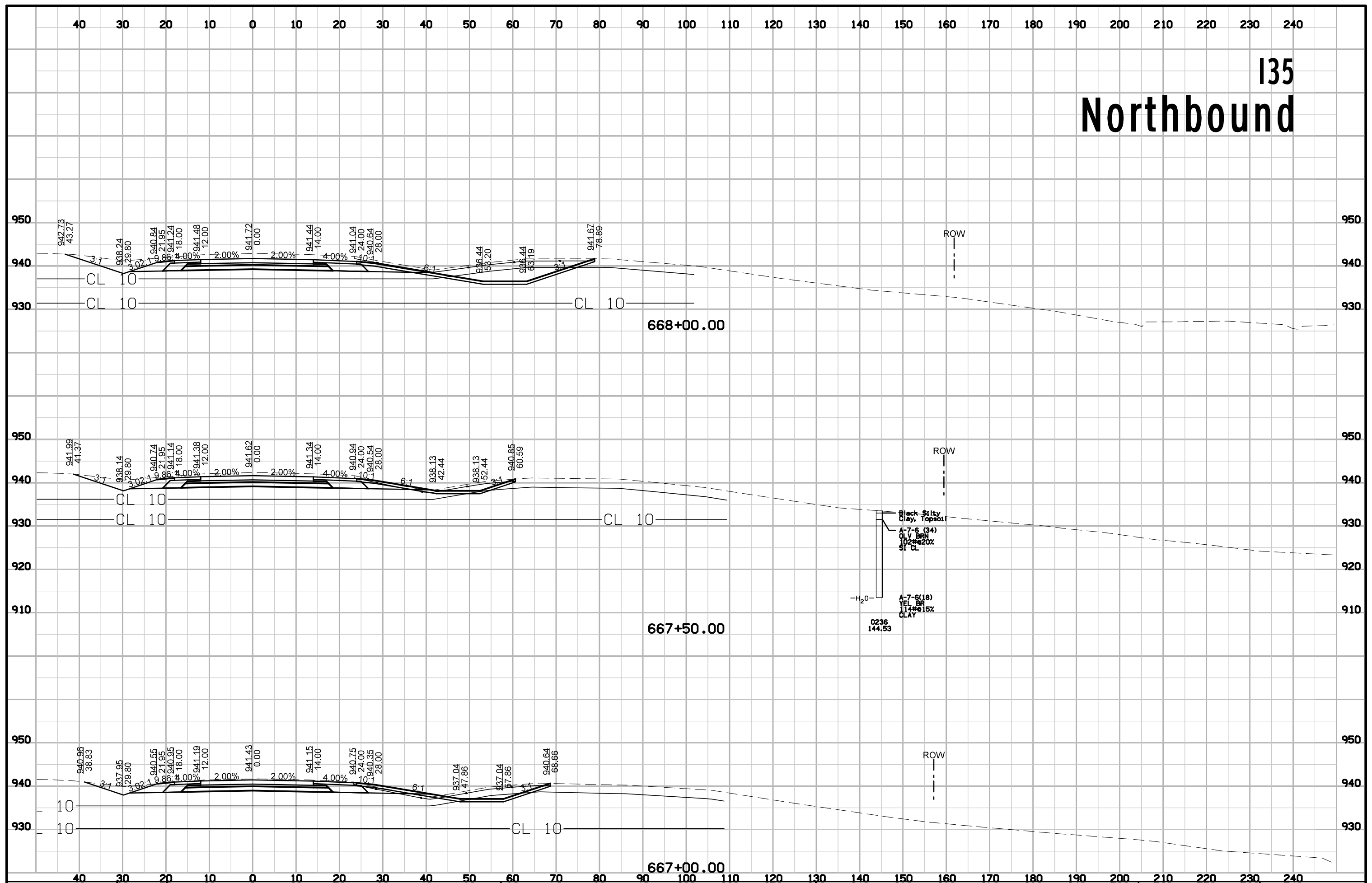


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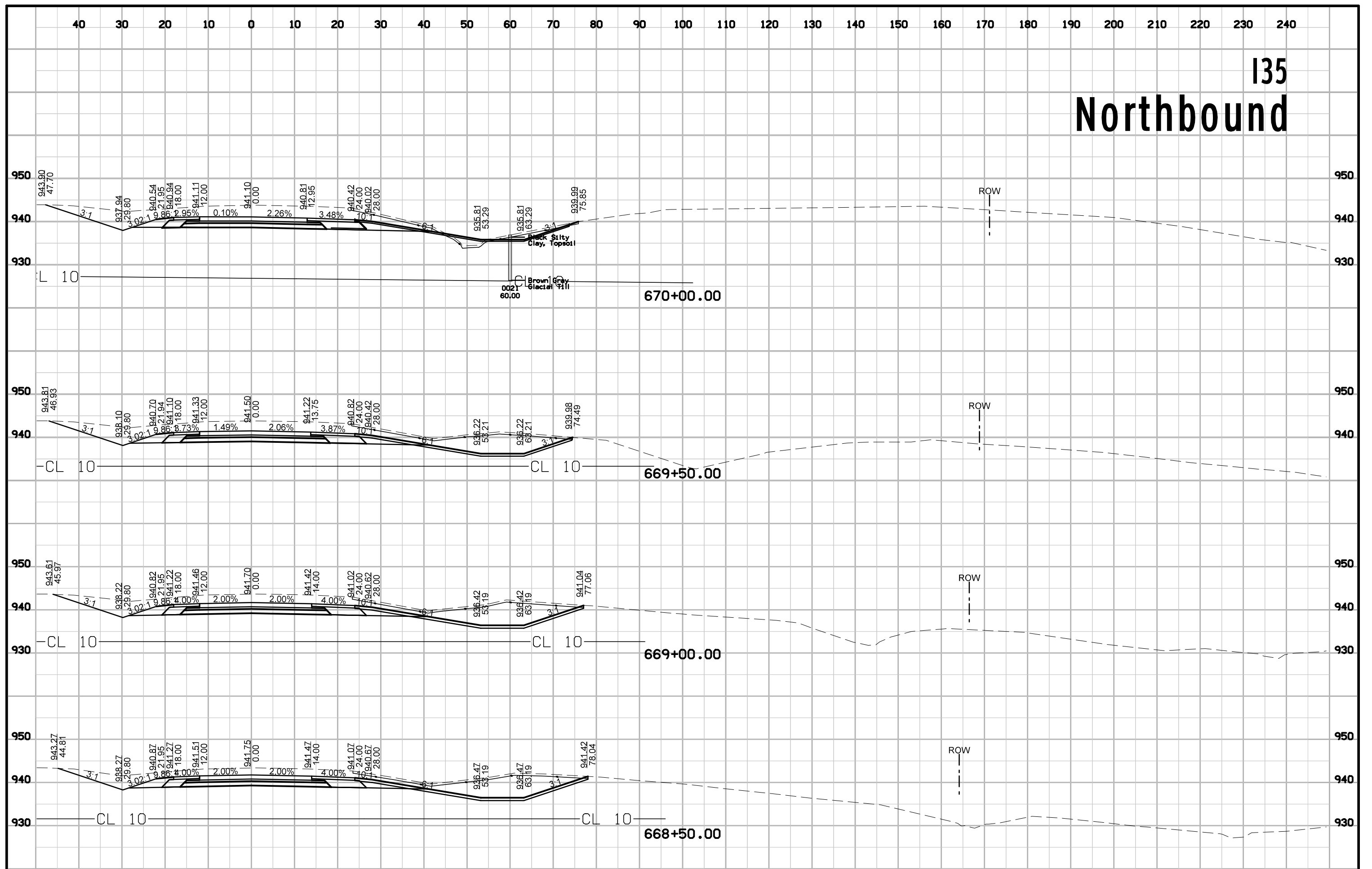


Black Silty Clay, Topsoil
 A-7-6 (34)
 OL V BRN
 102% 20%
 ST CL

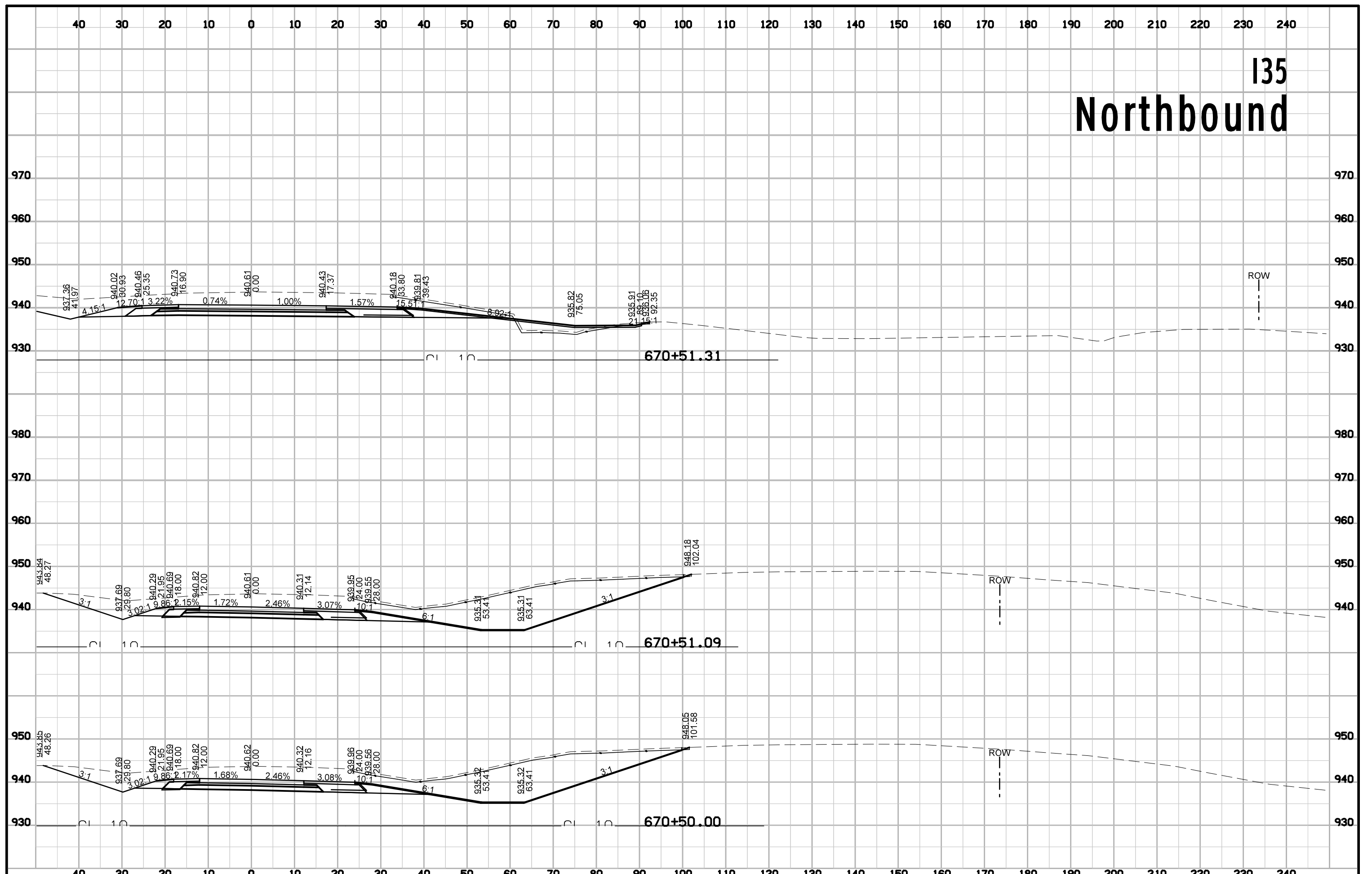
-H₂O-
 A-7-6(18)
 YEL BR
 114% 15%
 CLAY

0236
 144.53

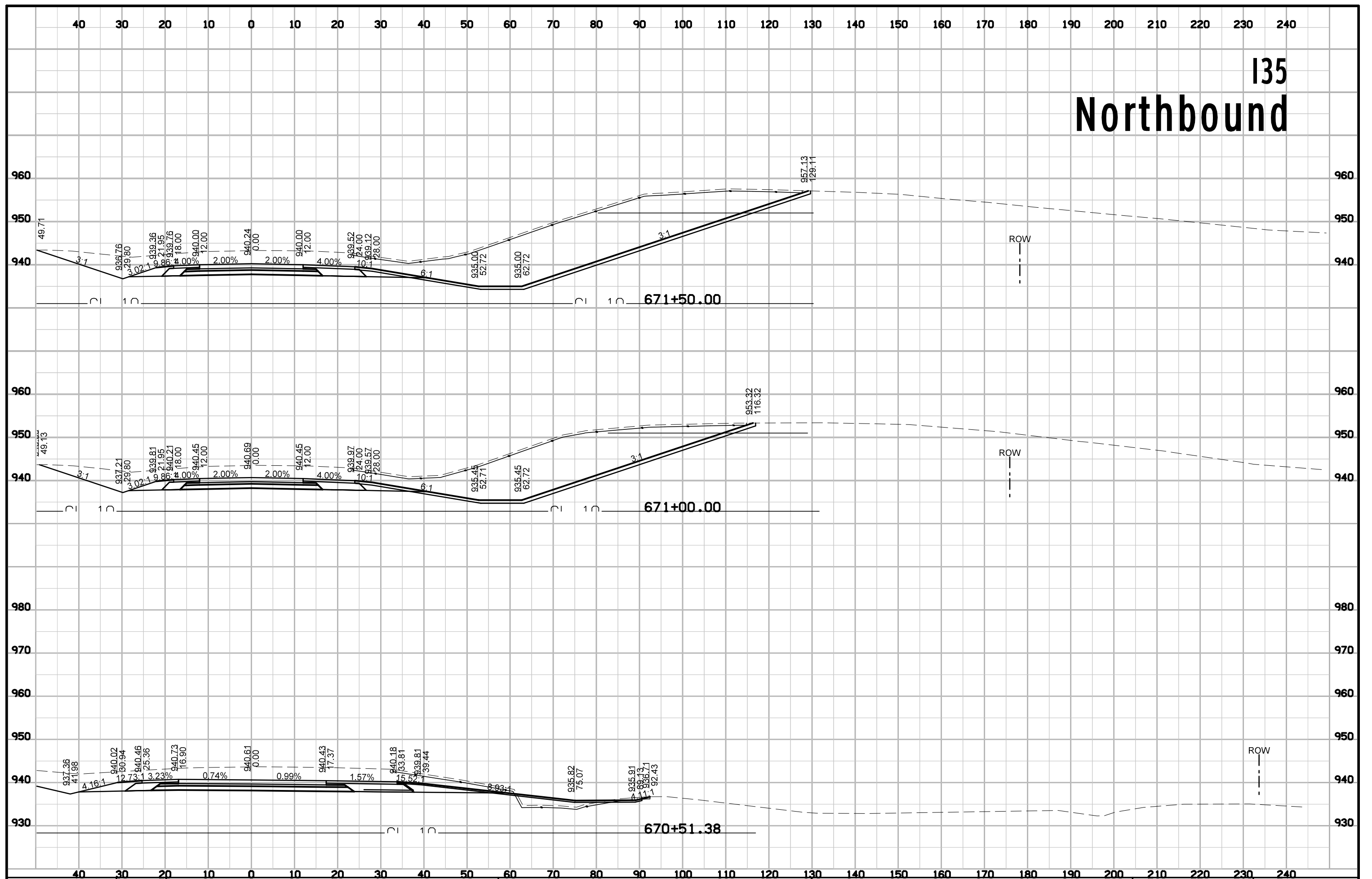
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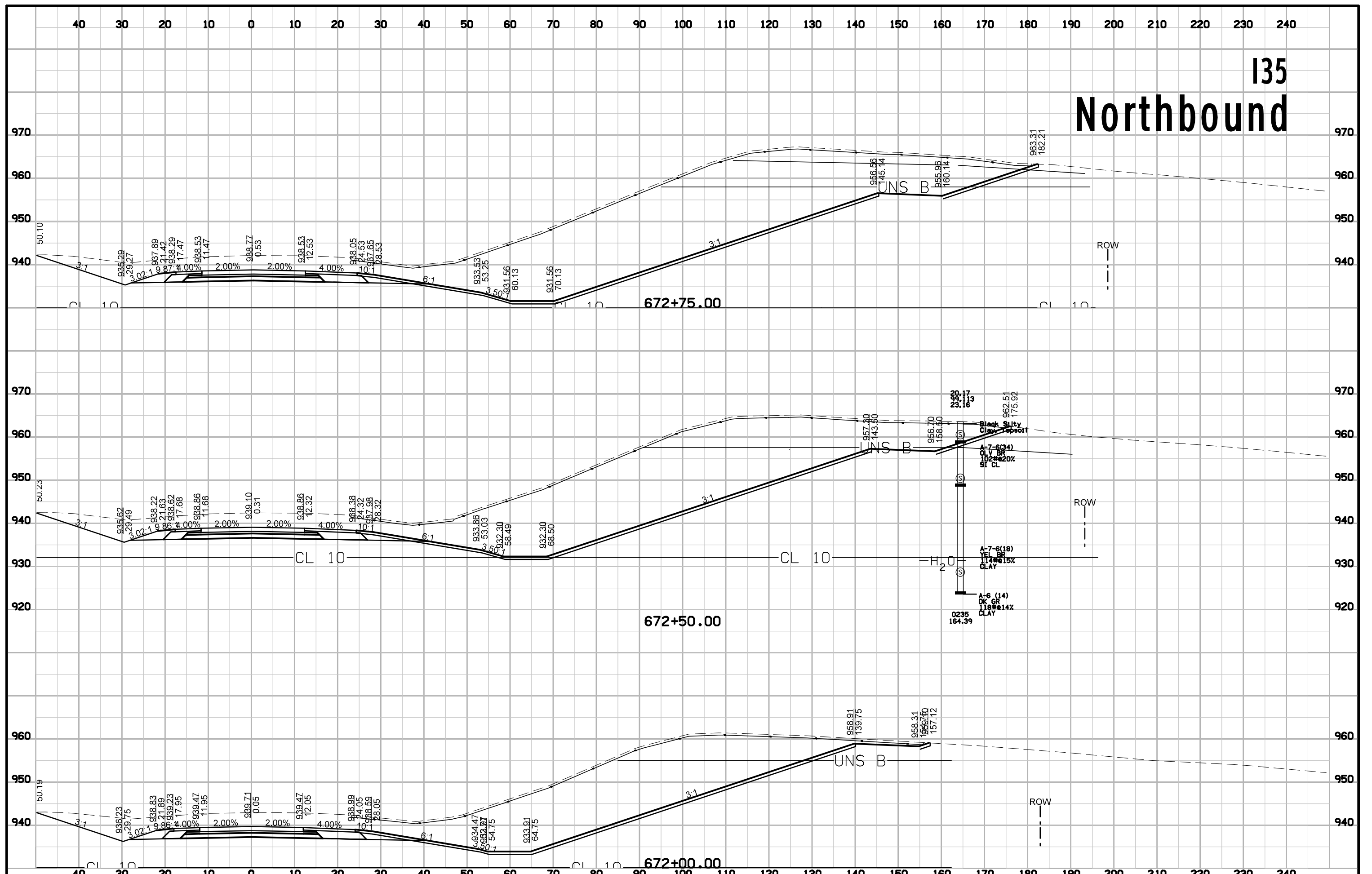
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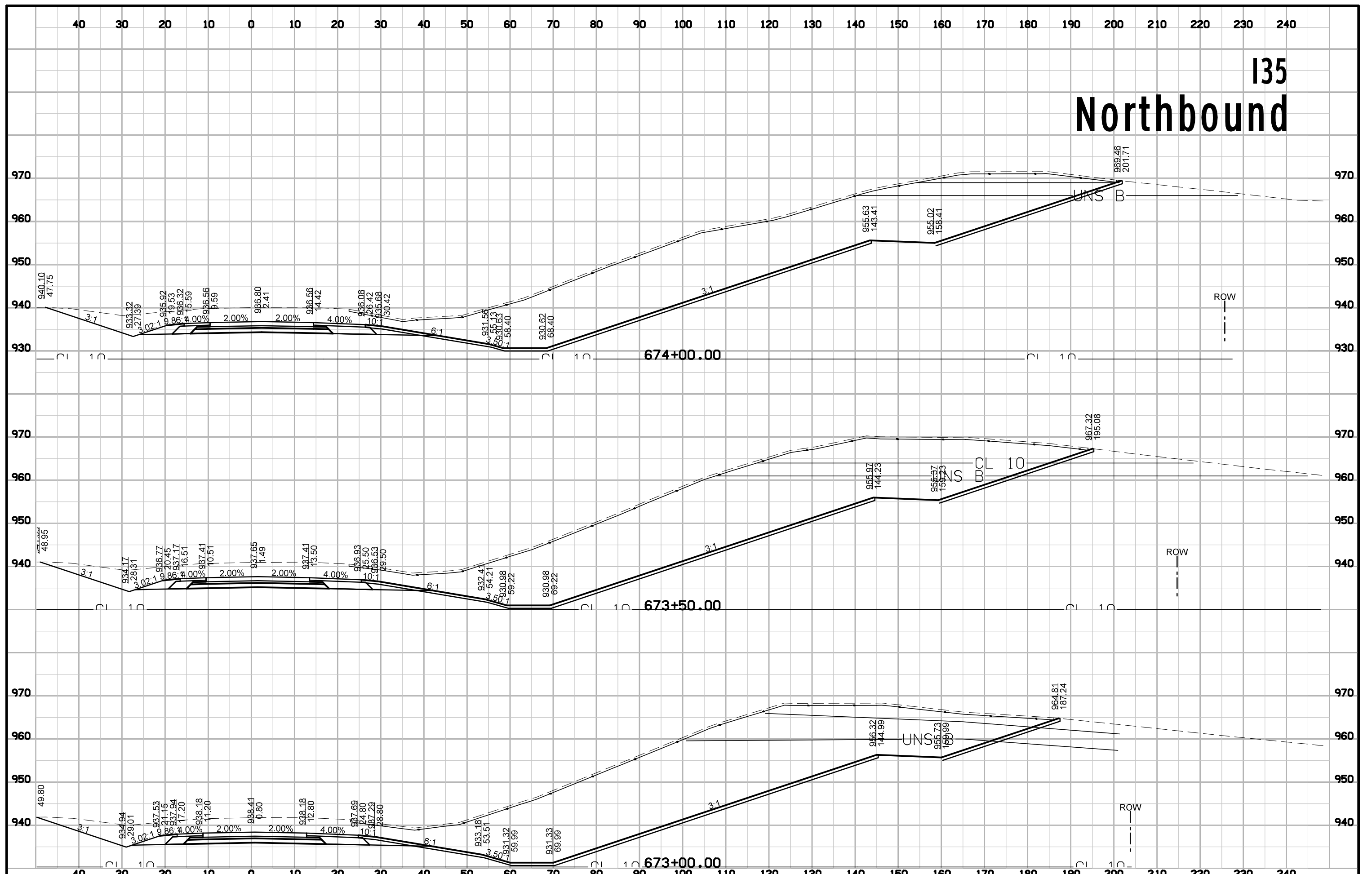
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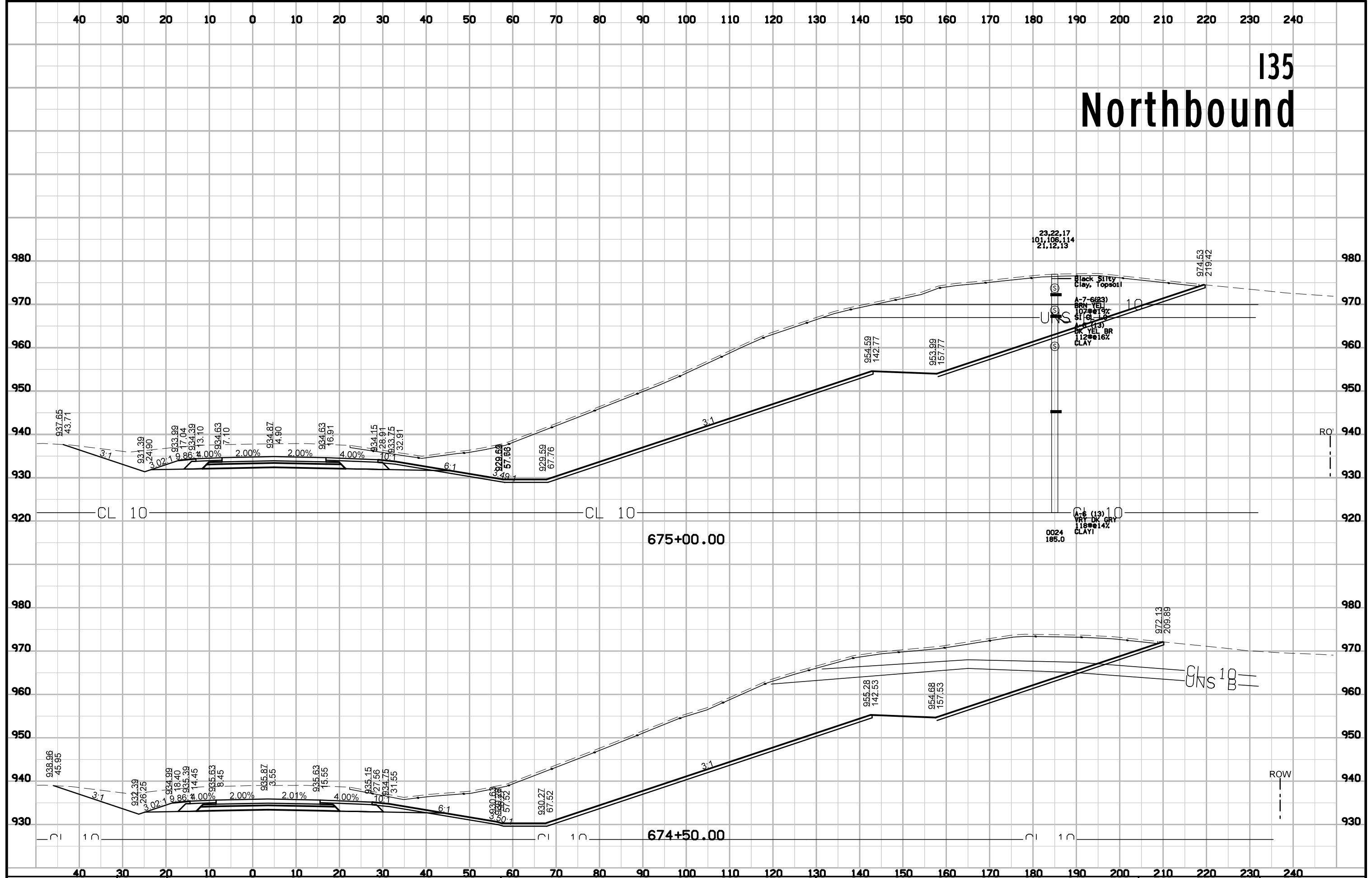
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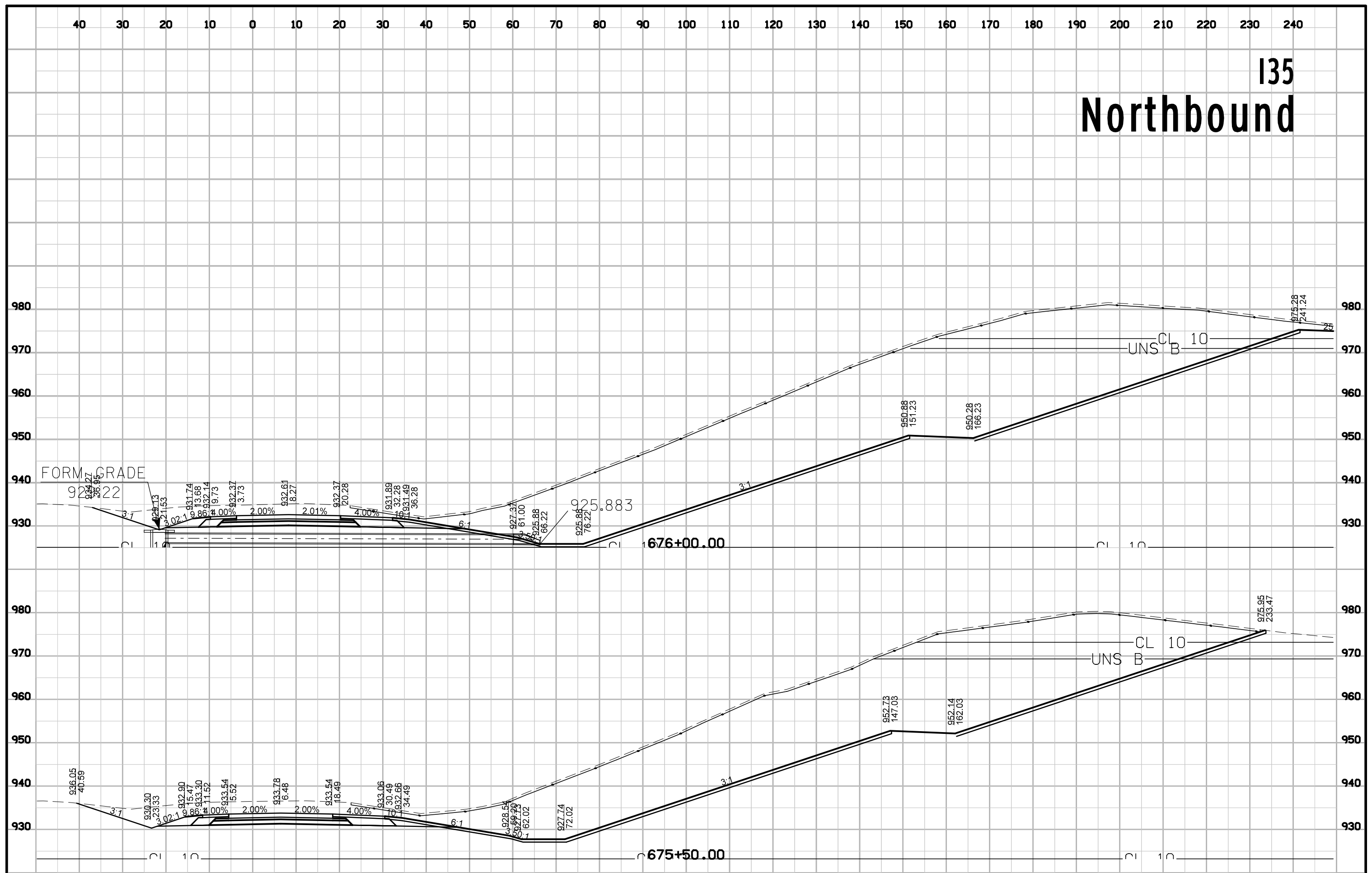
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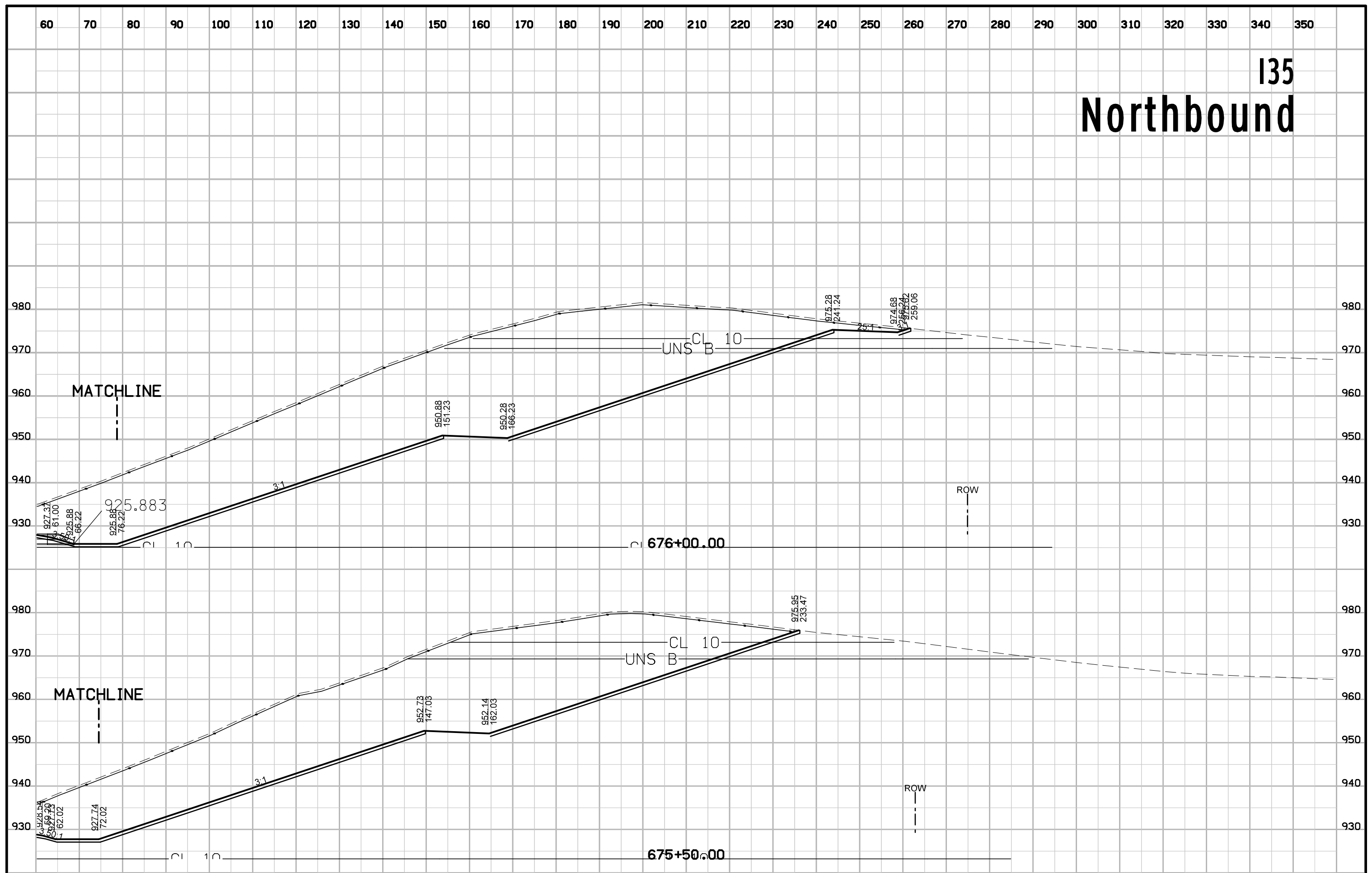
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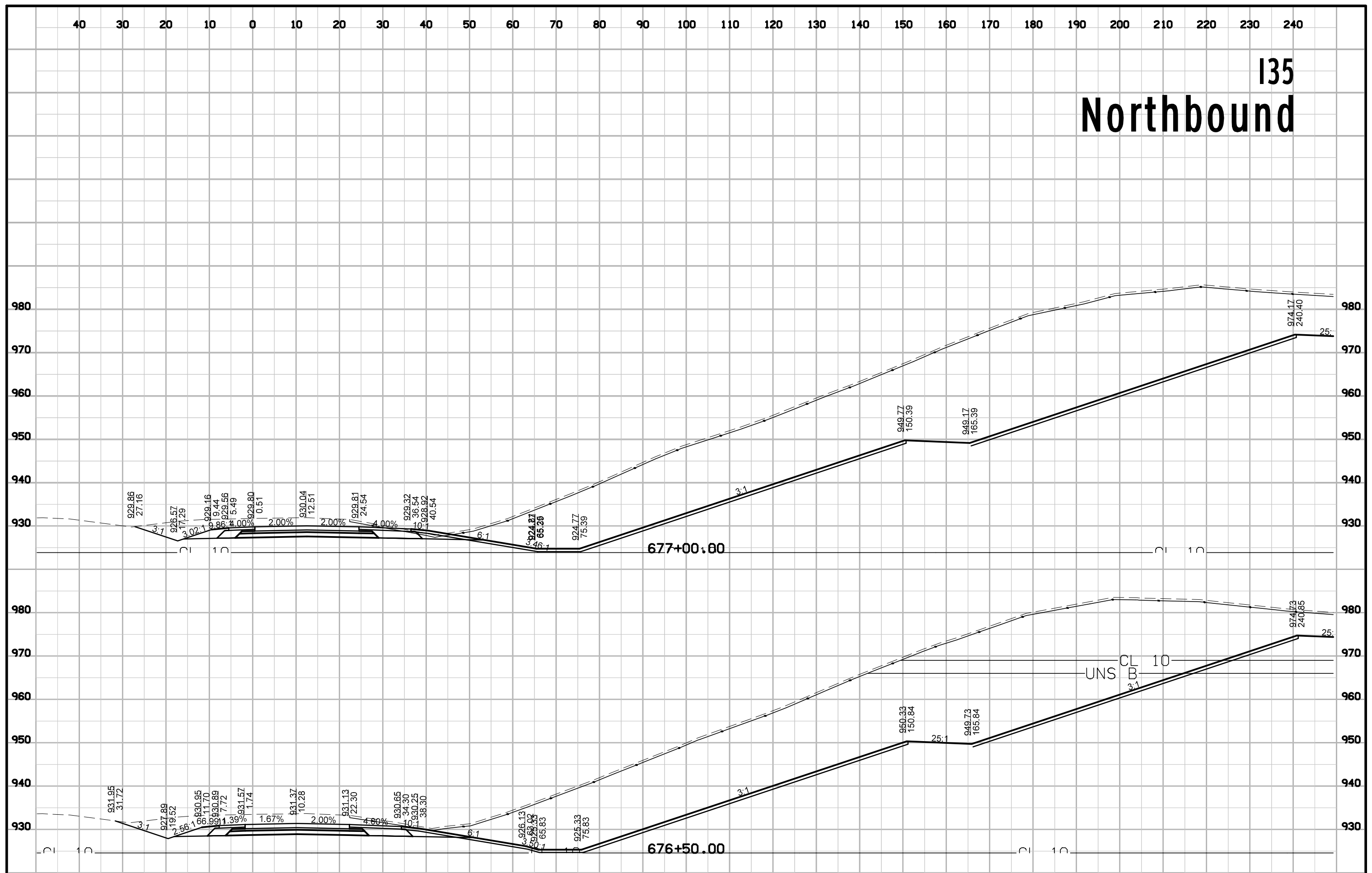
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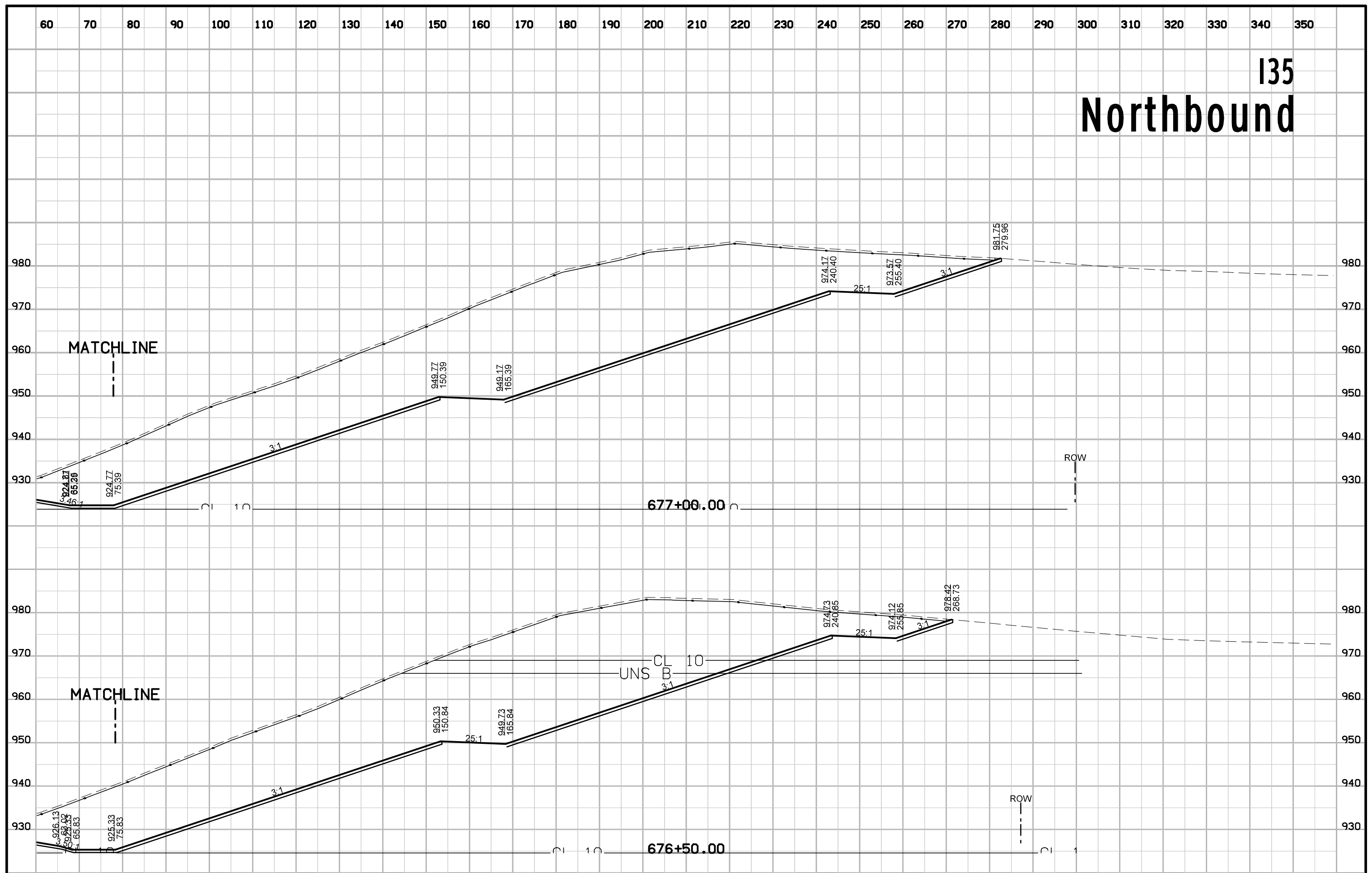
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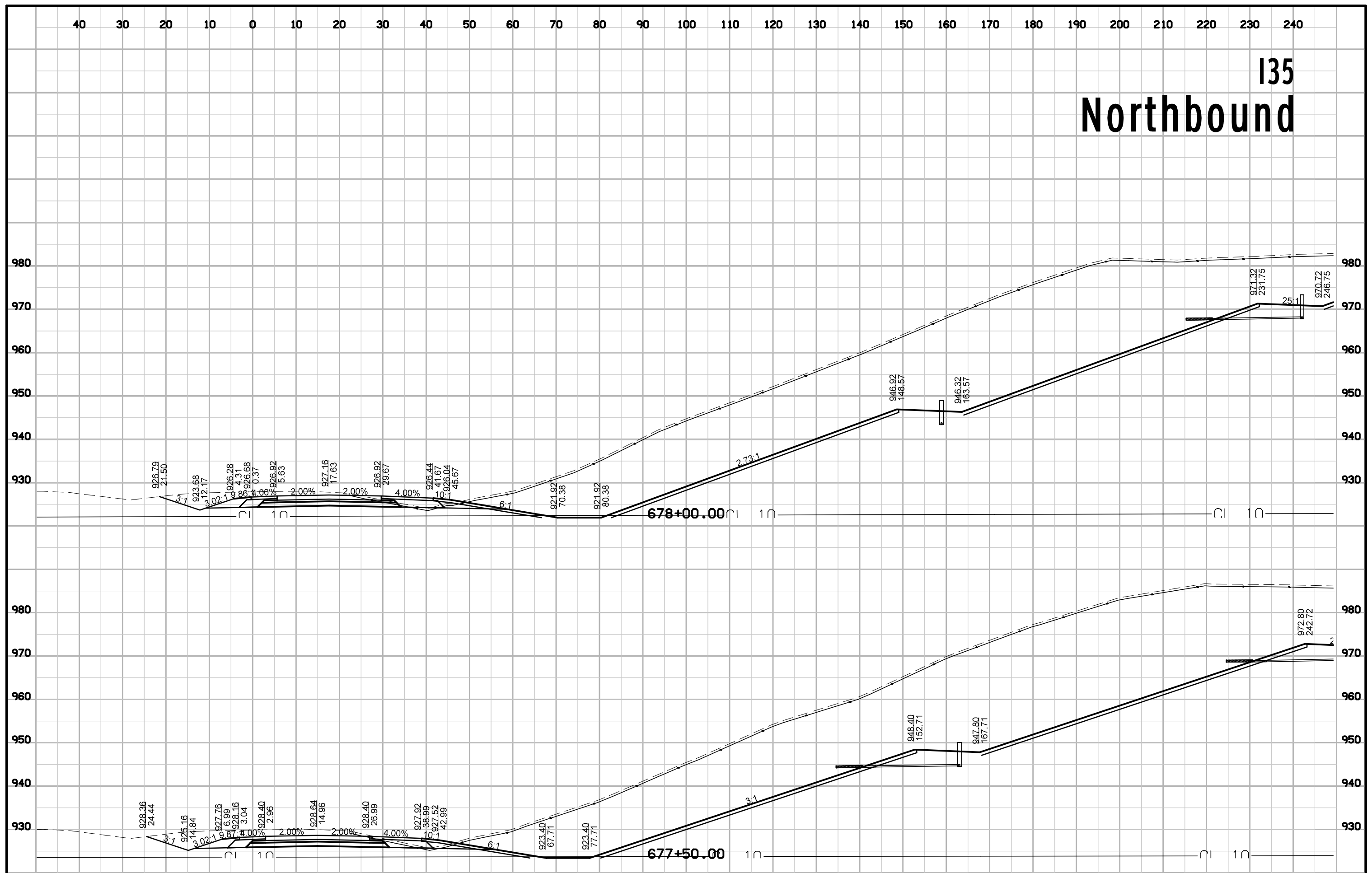
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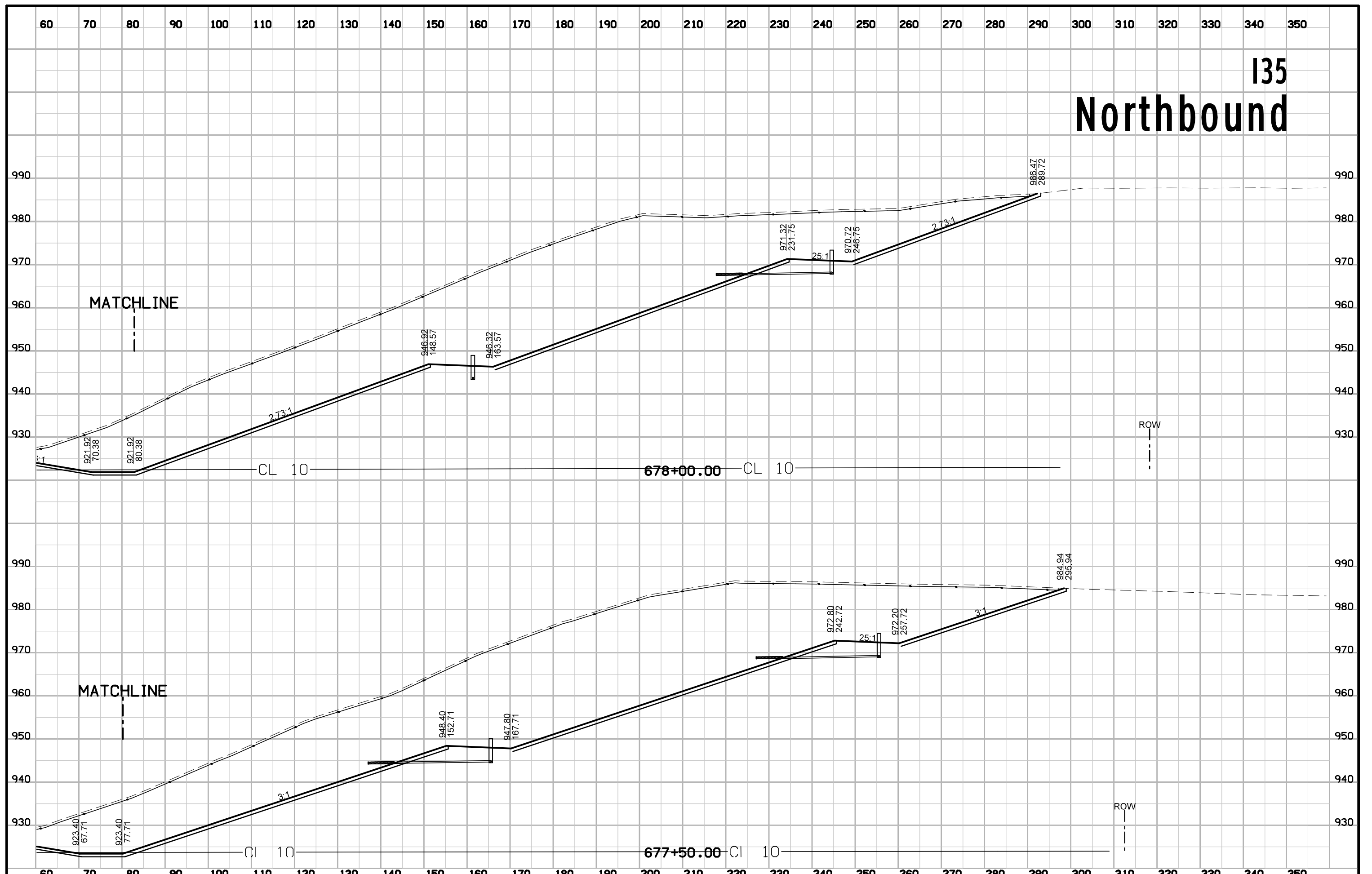
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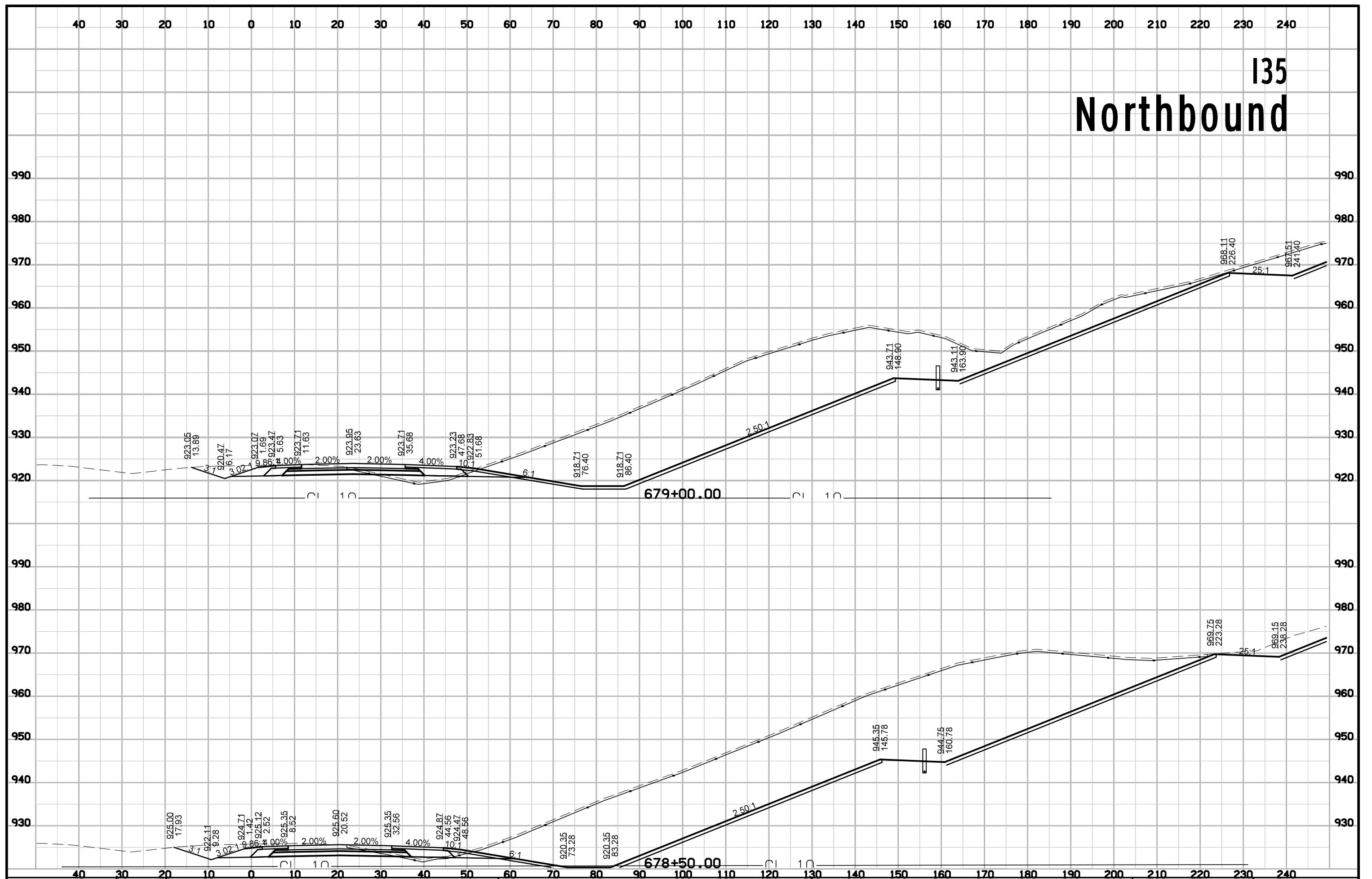
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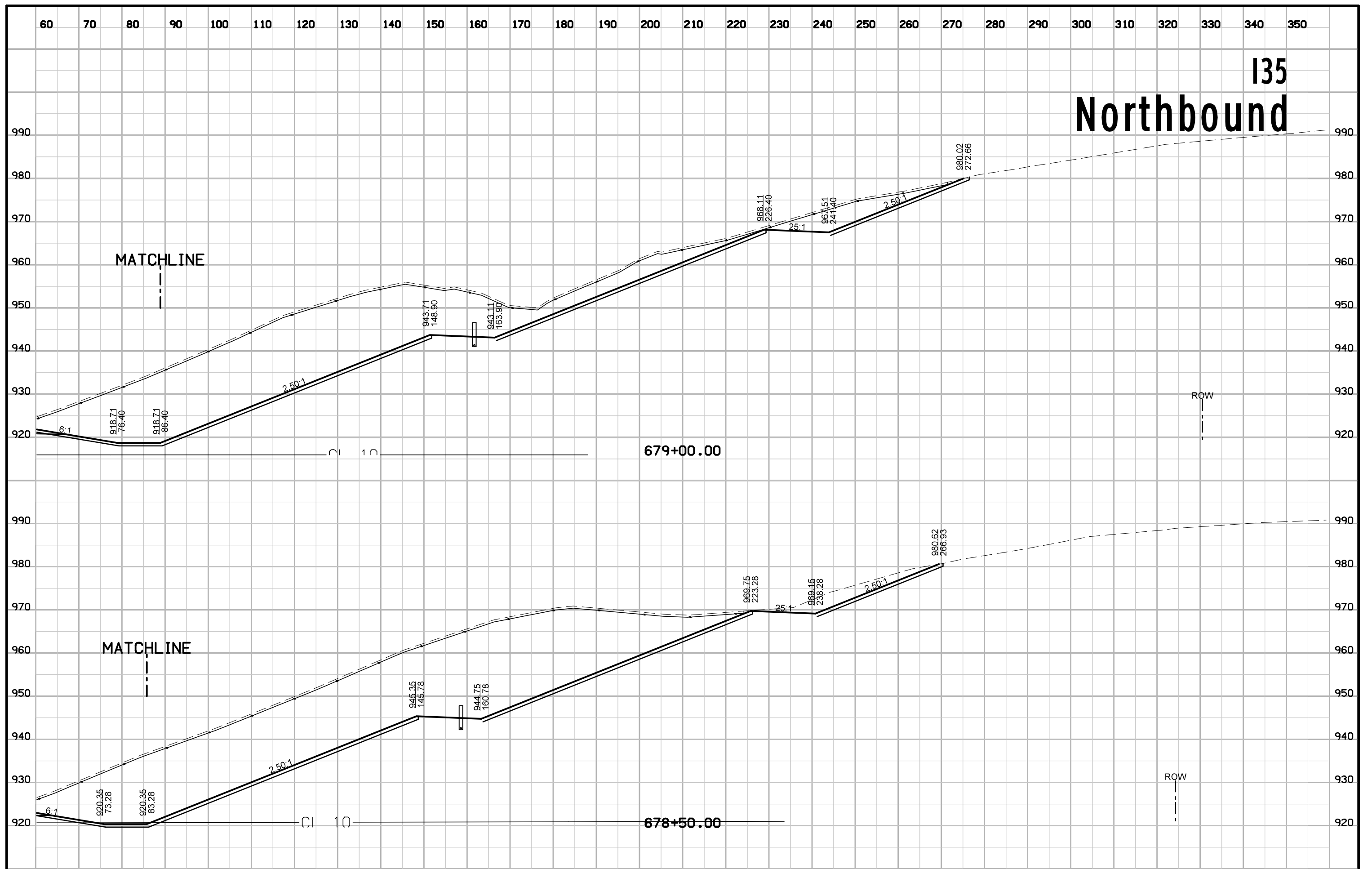
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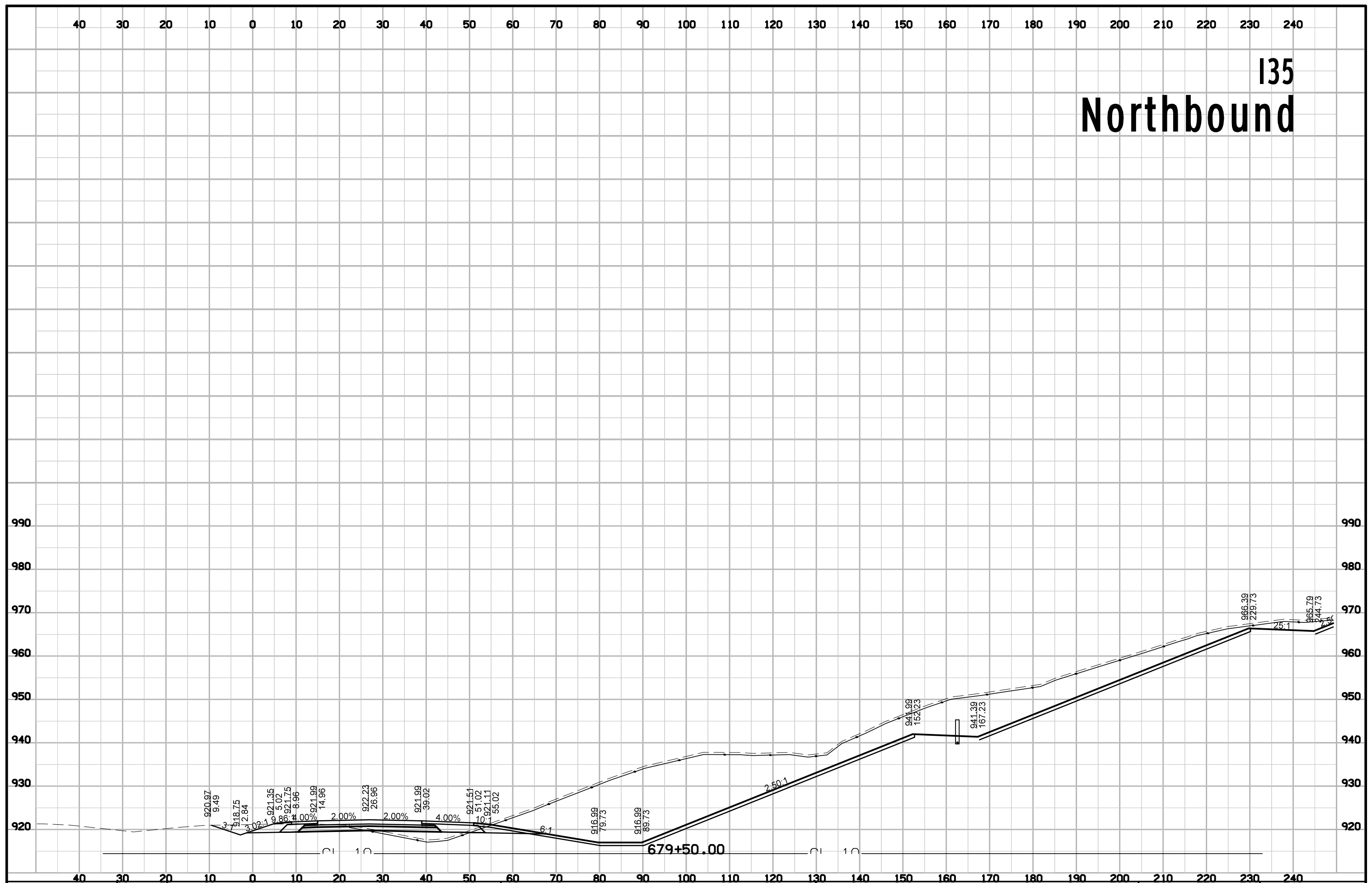
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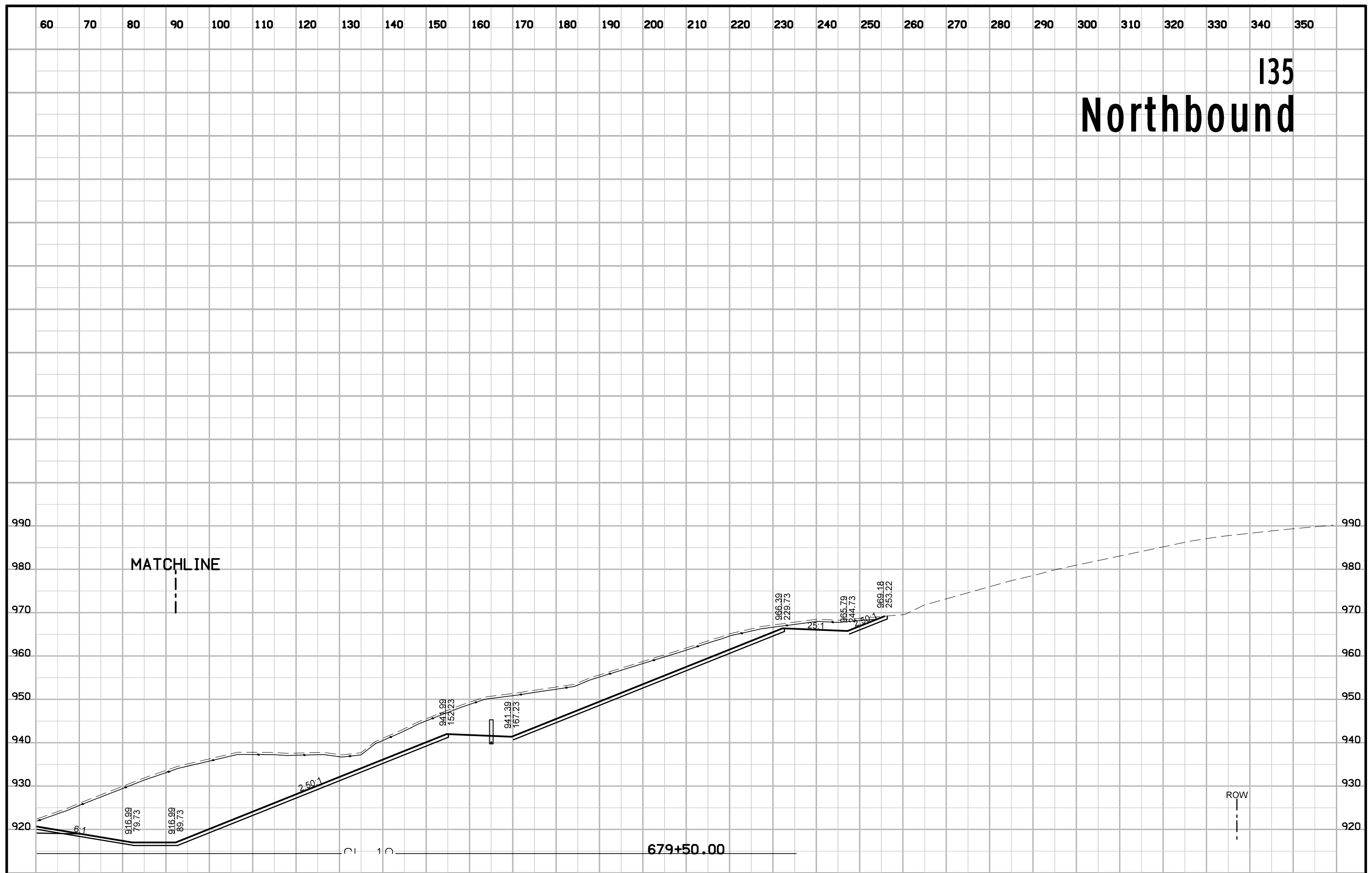
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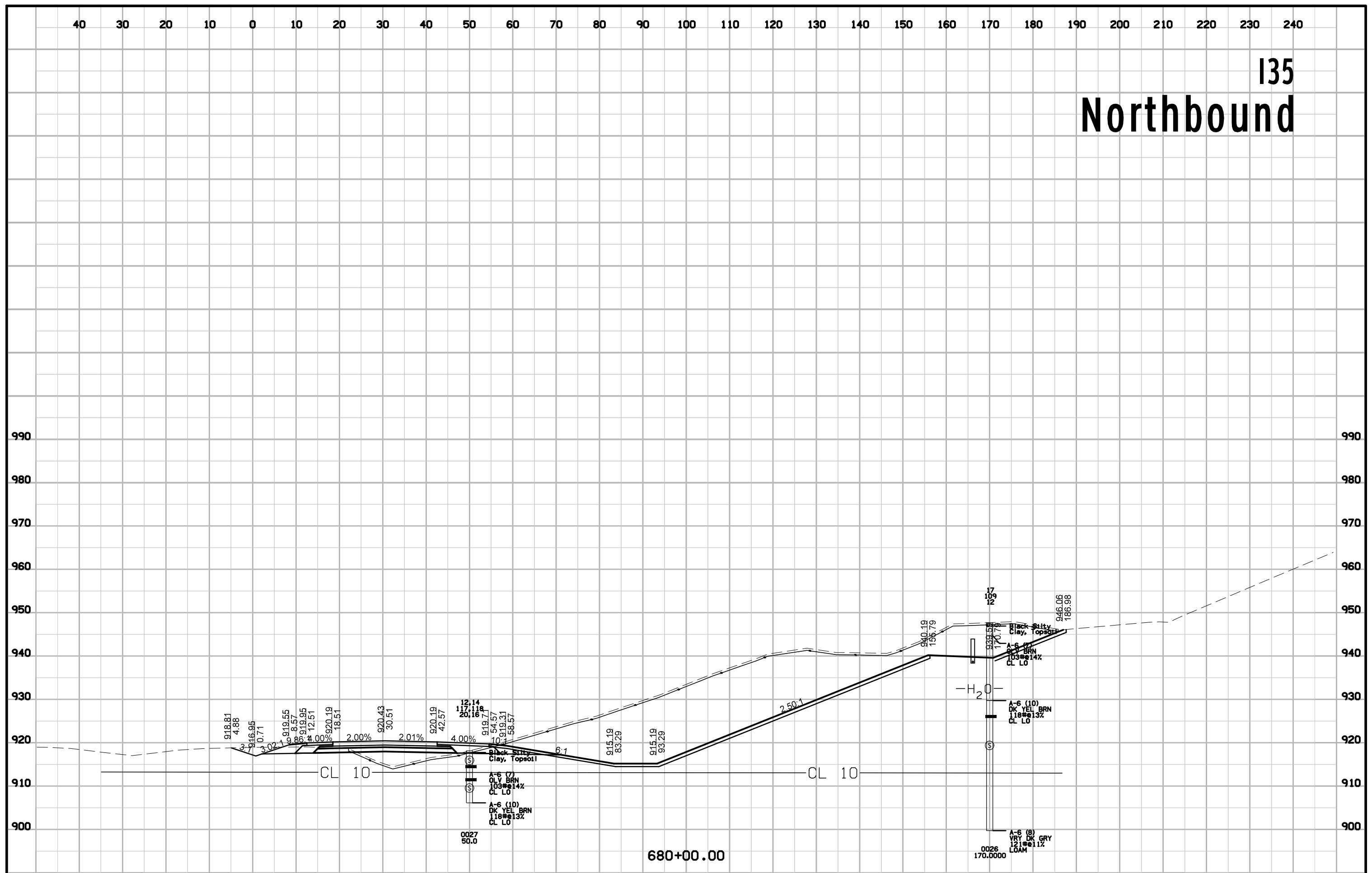
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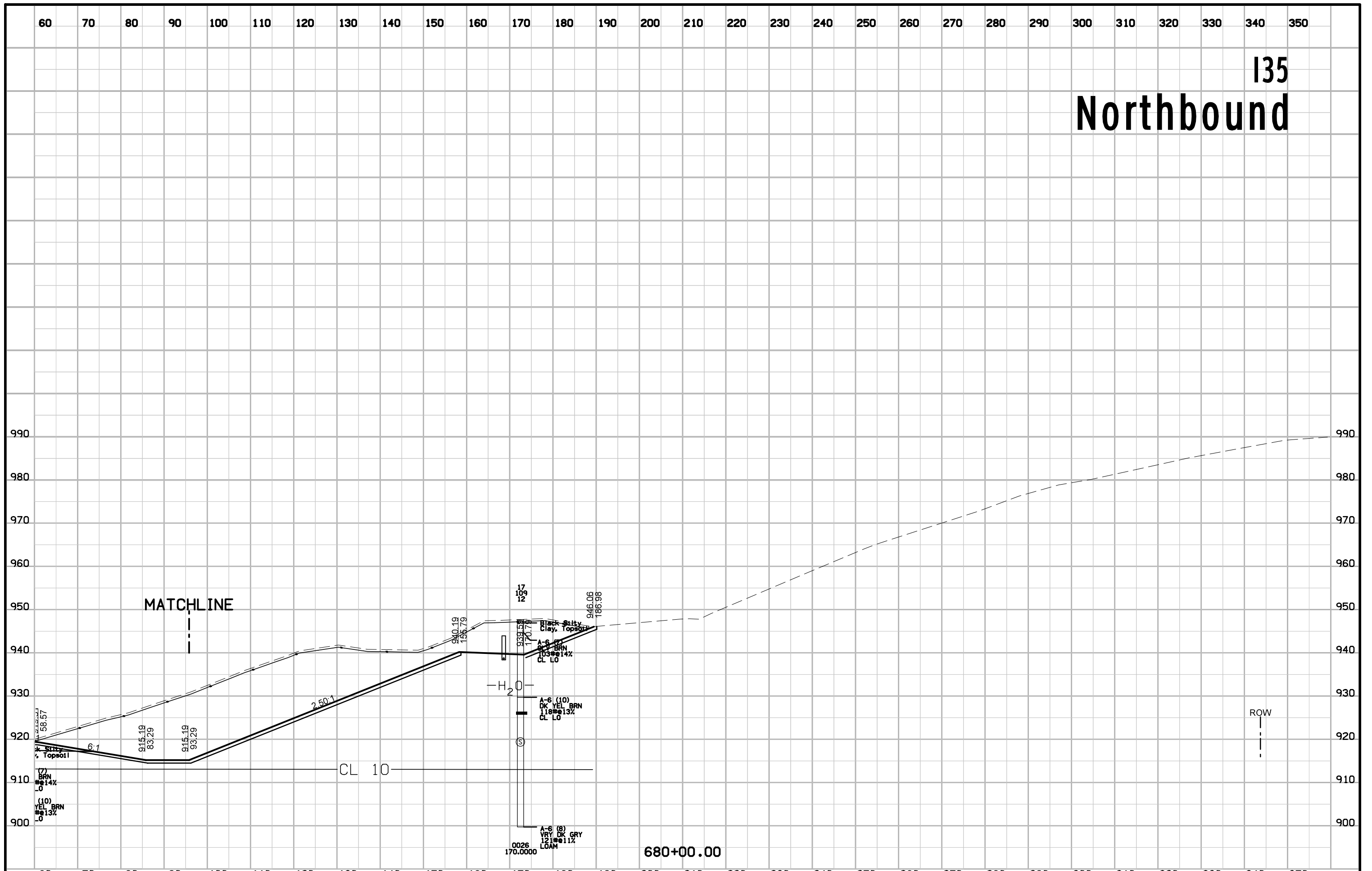
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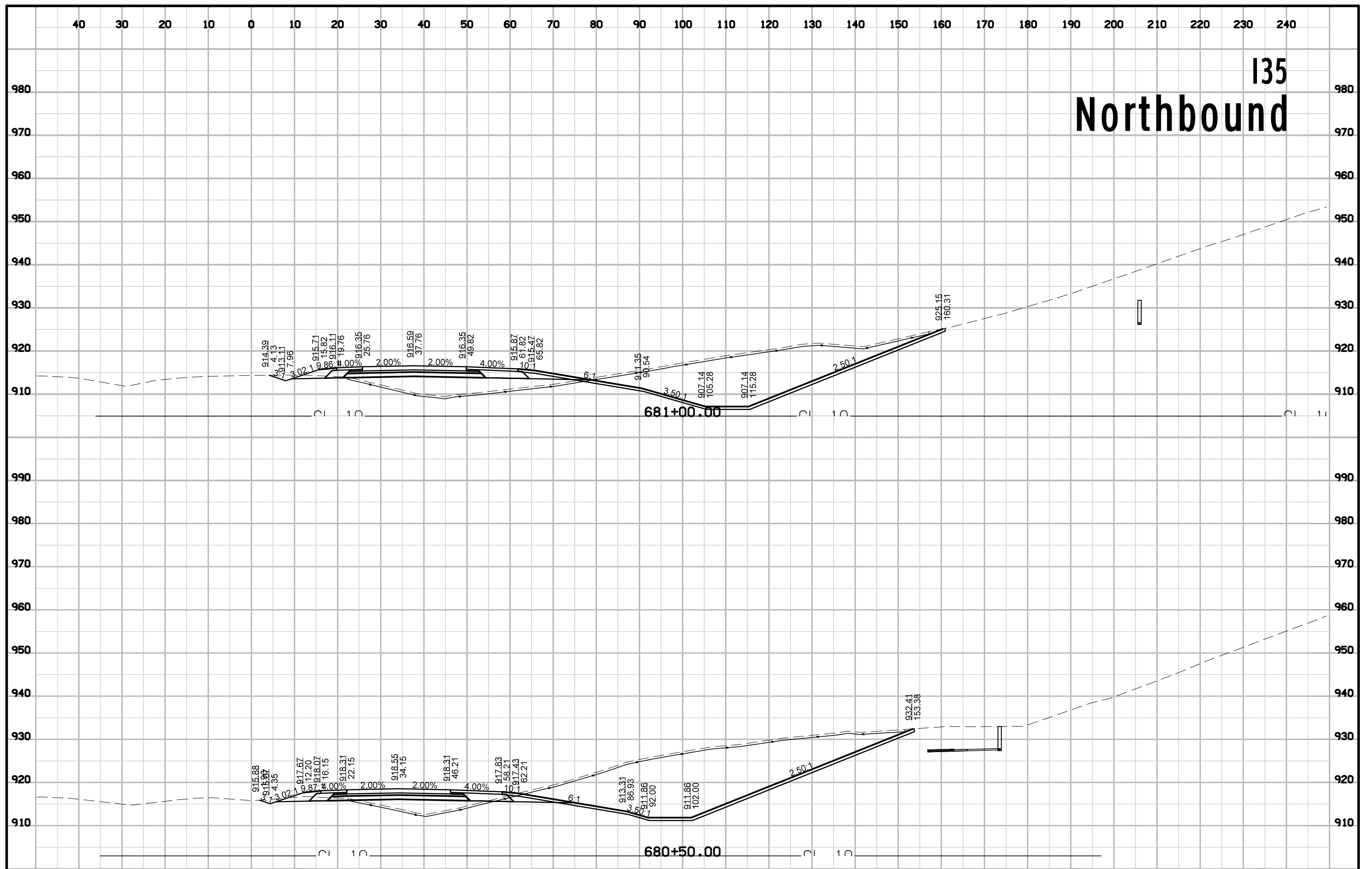
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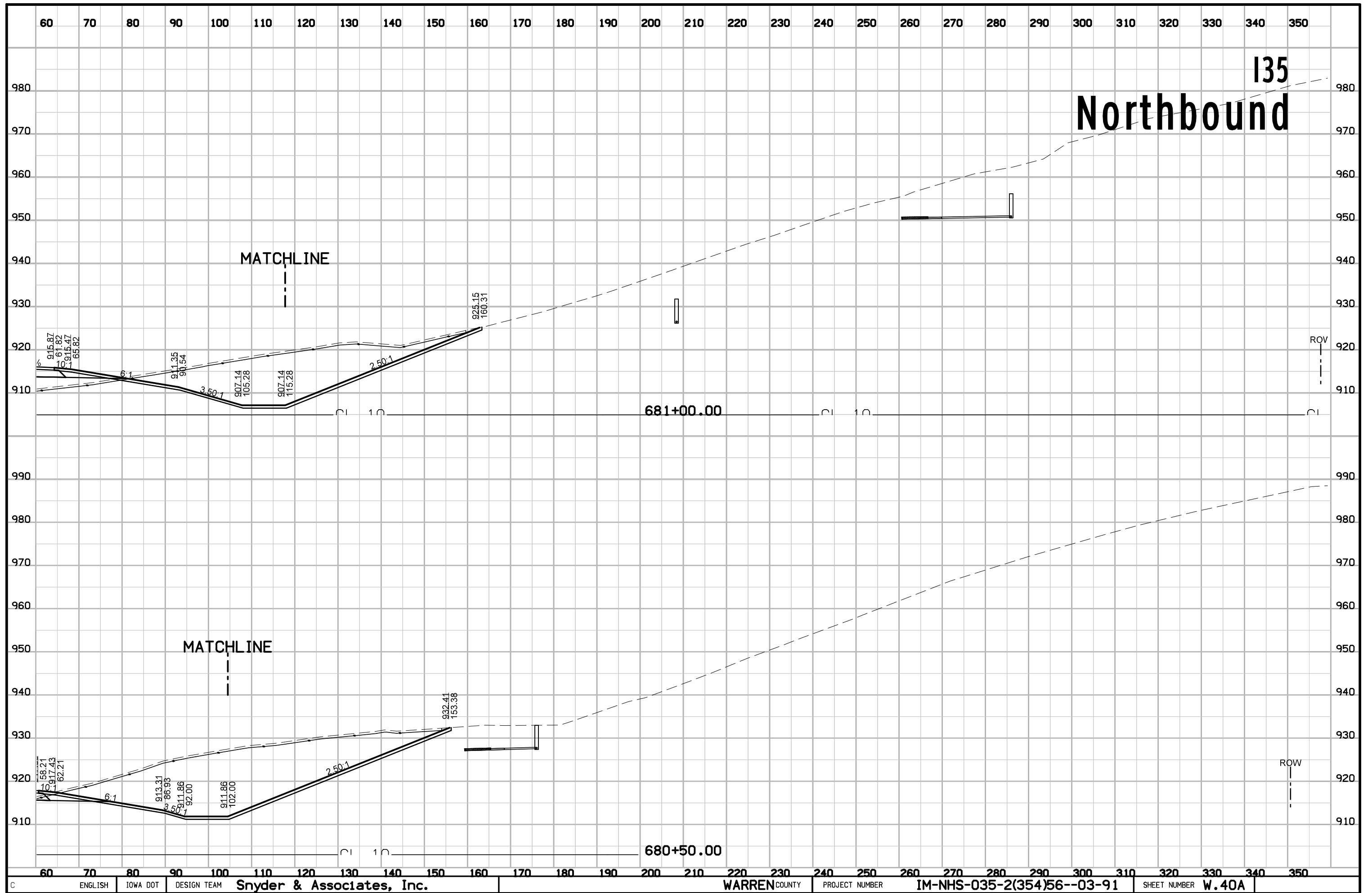


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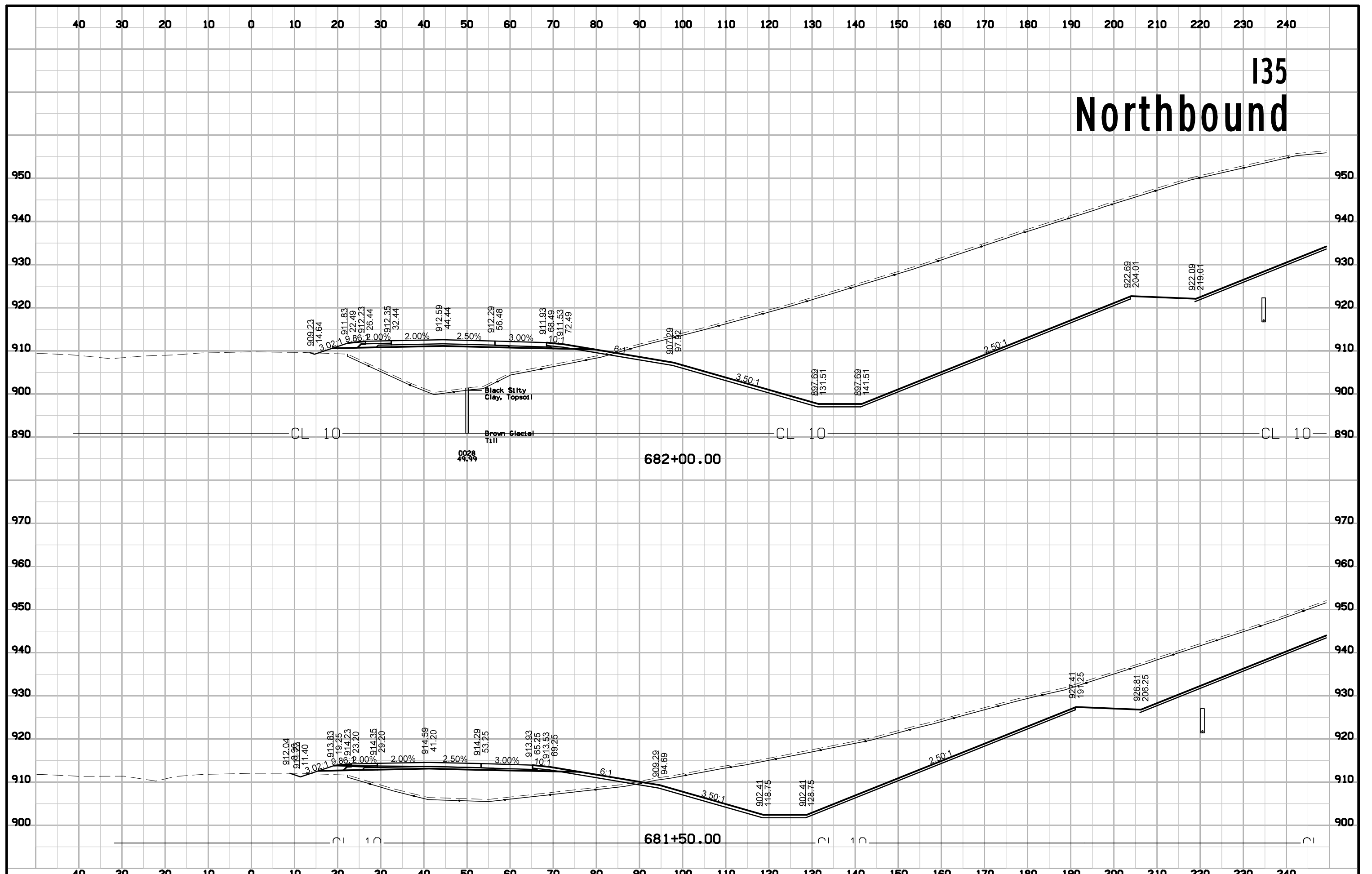


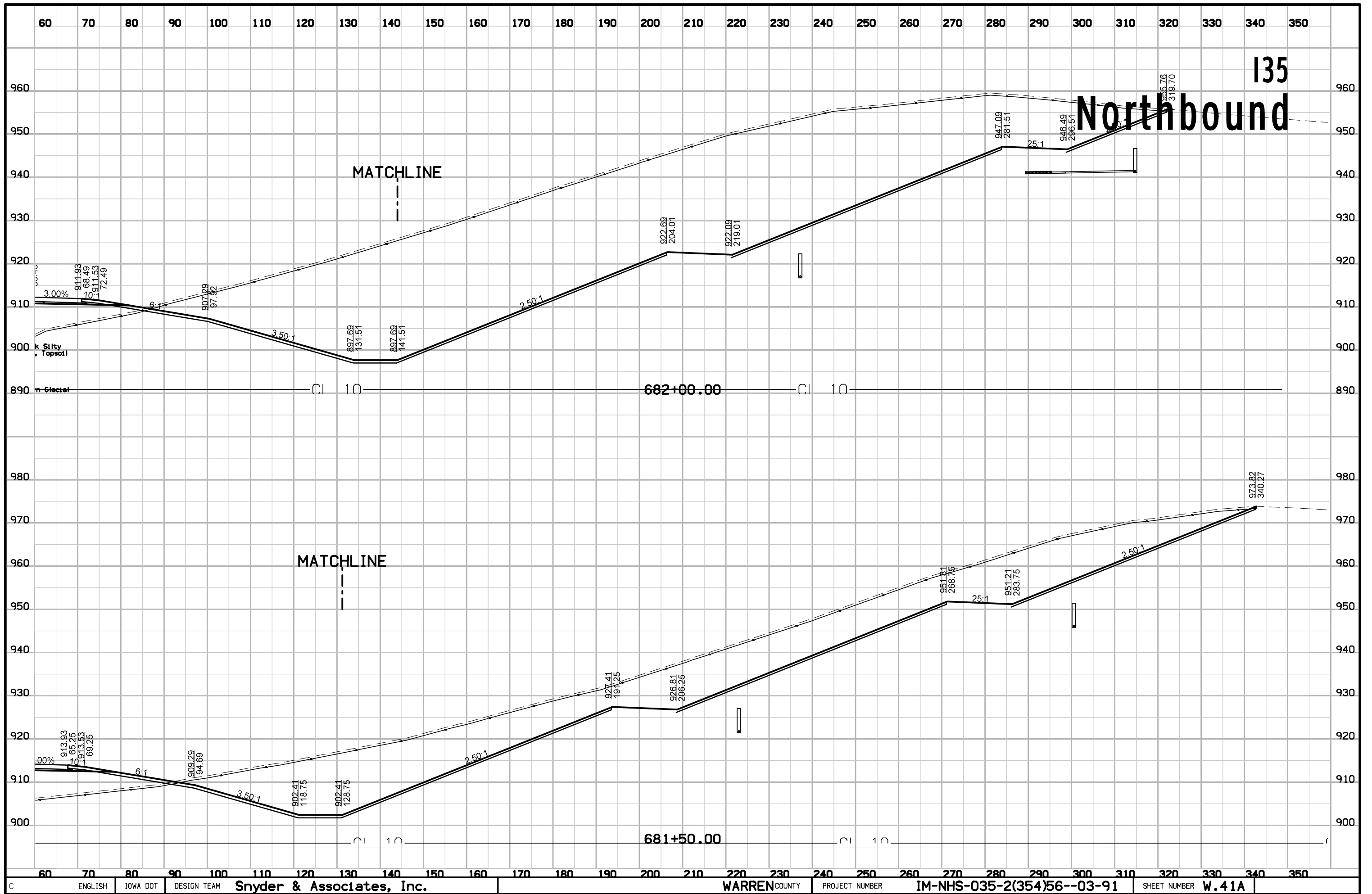
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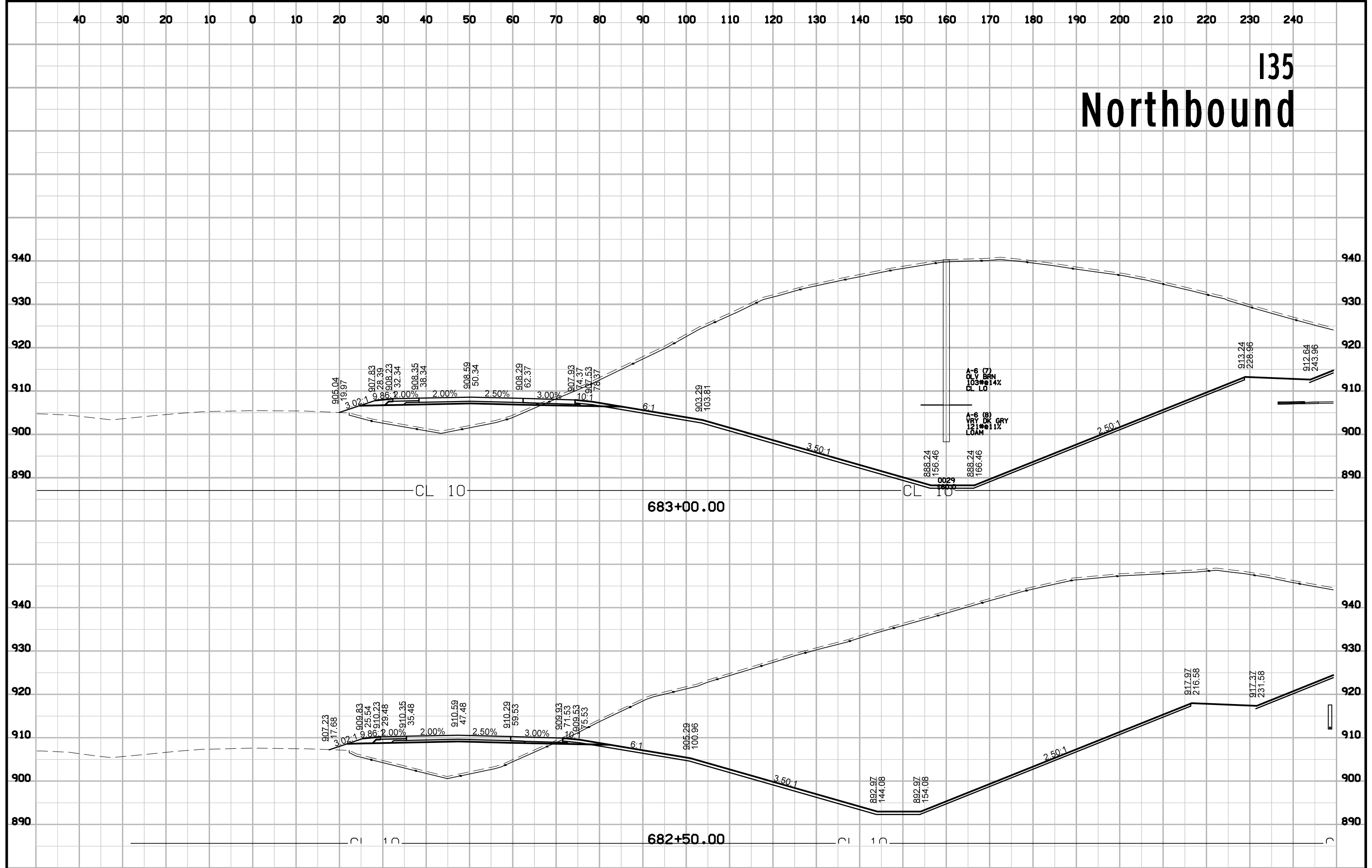


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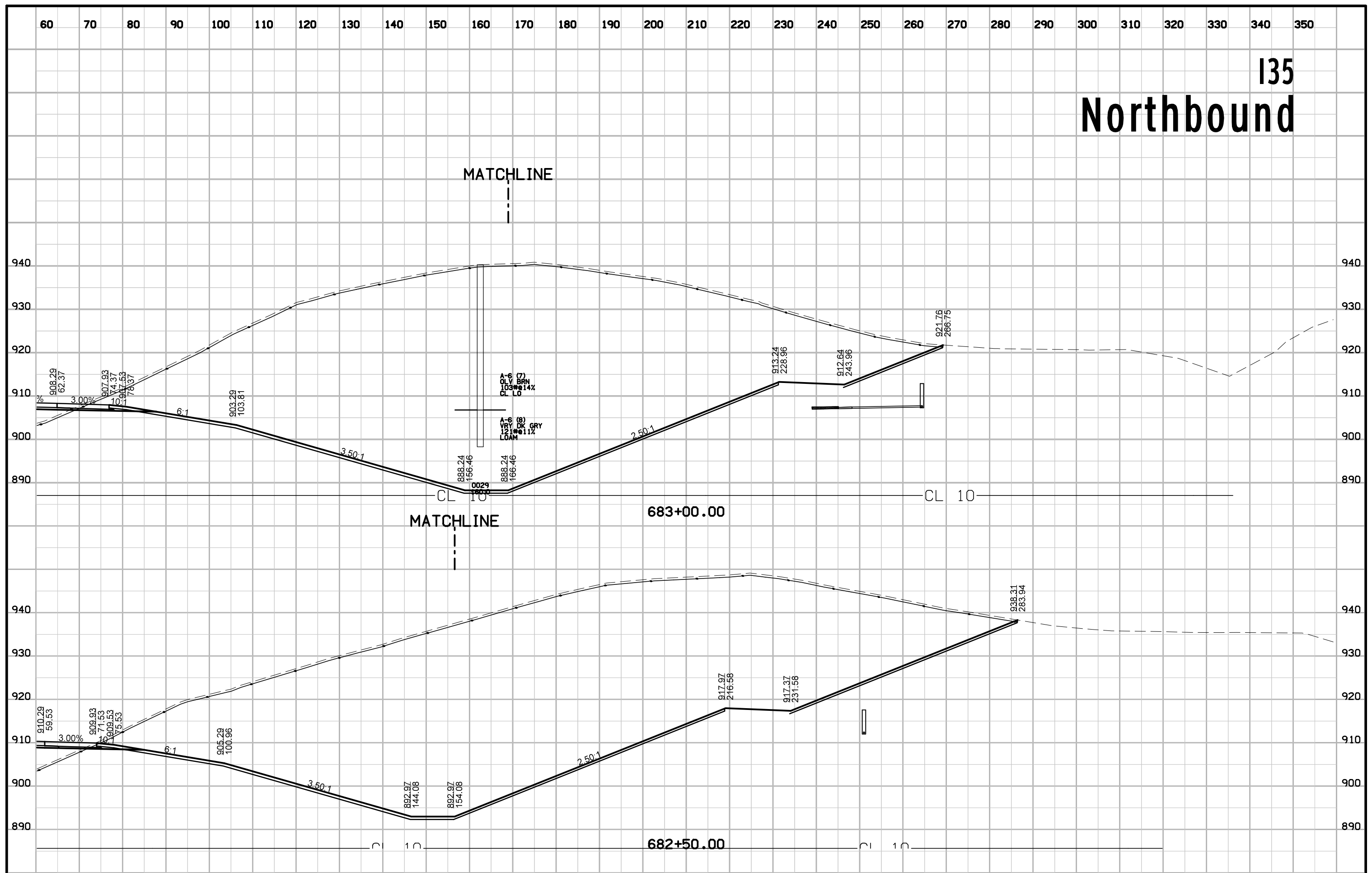




135 Northbound



135 Northbound



MATCHLINE

MATCHLINE

683+00.00

682+50.00

CL 10

CL 10

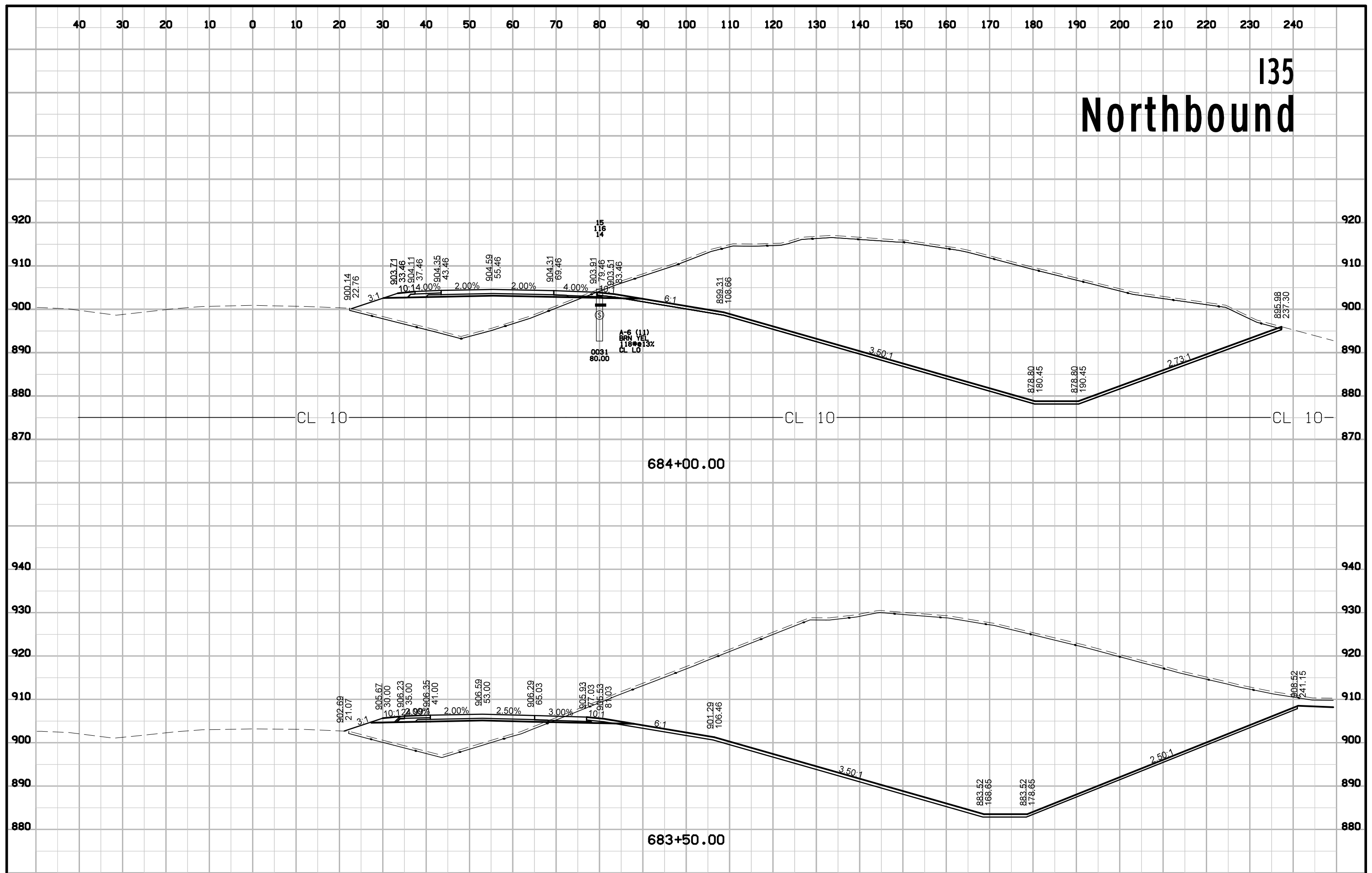
CL 10

CL 10

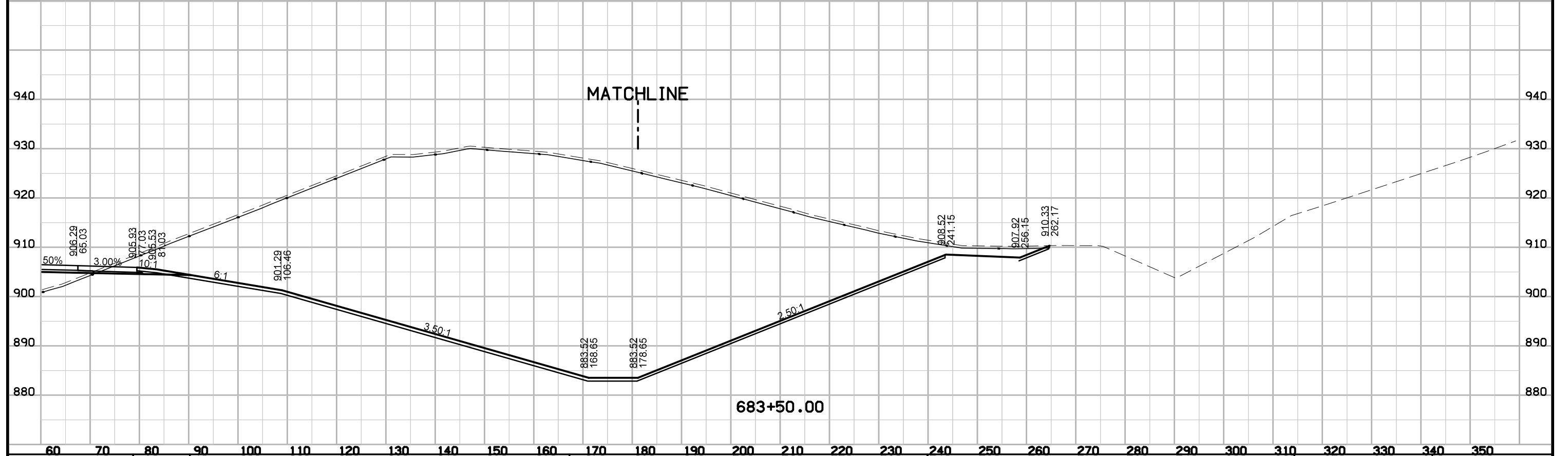
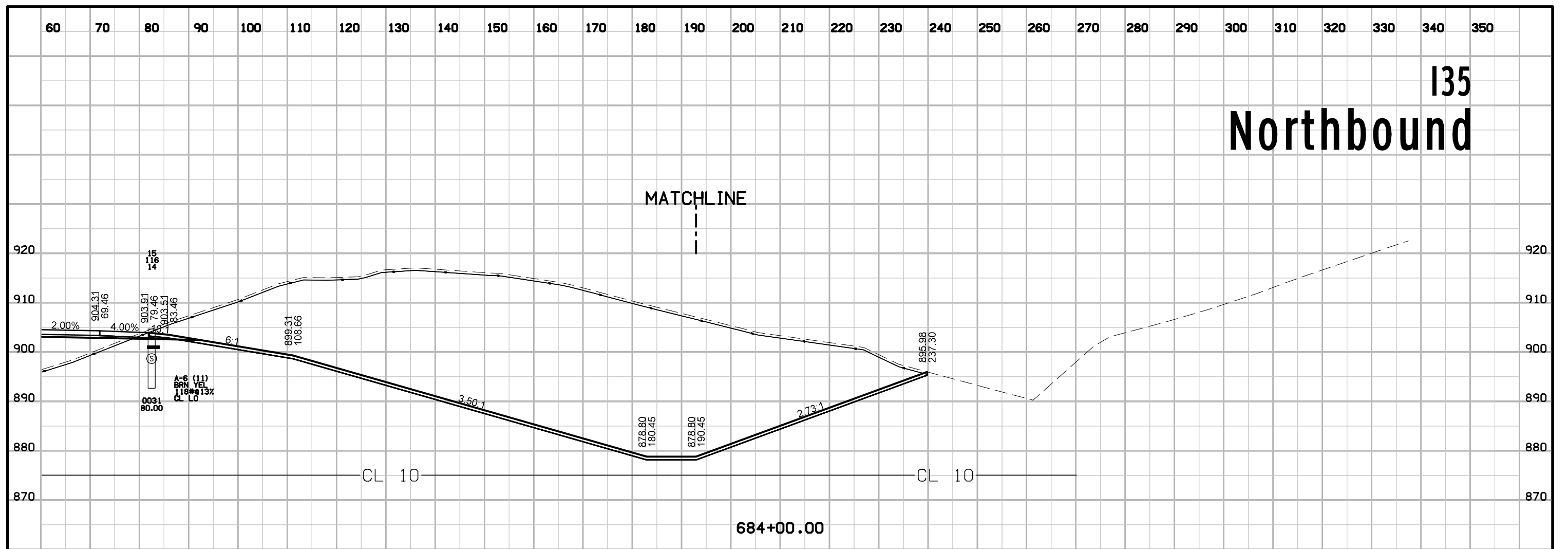
A-6 (7)
OLV BRN
103#@14%
CL LO

A-6 (8)
VRY DK GRY
121#@11%
LOAM

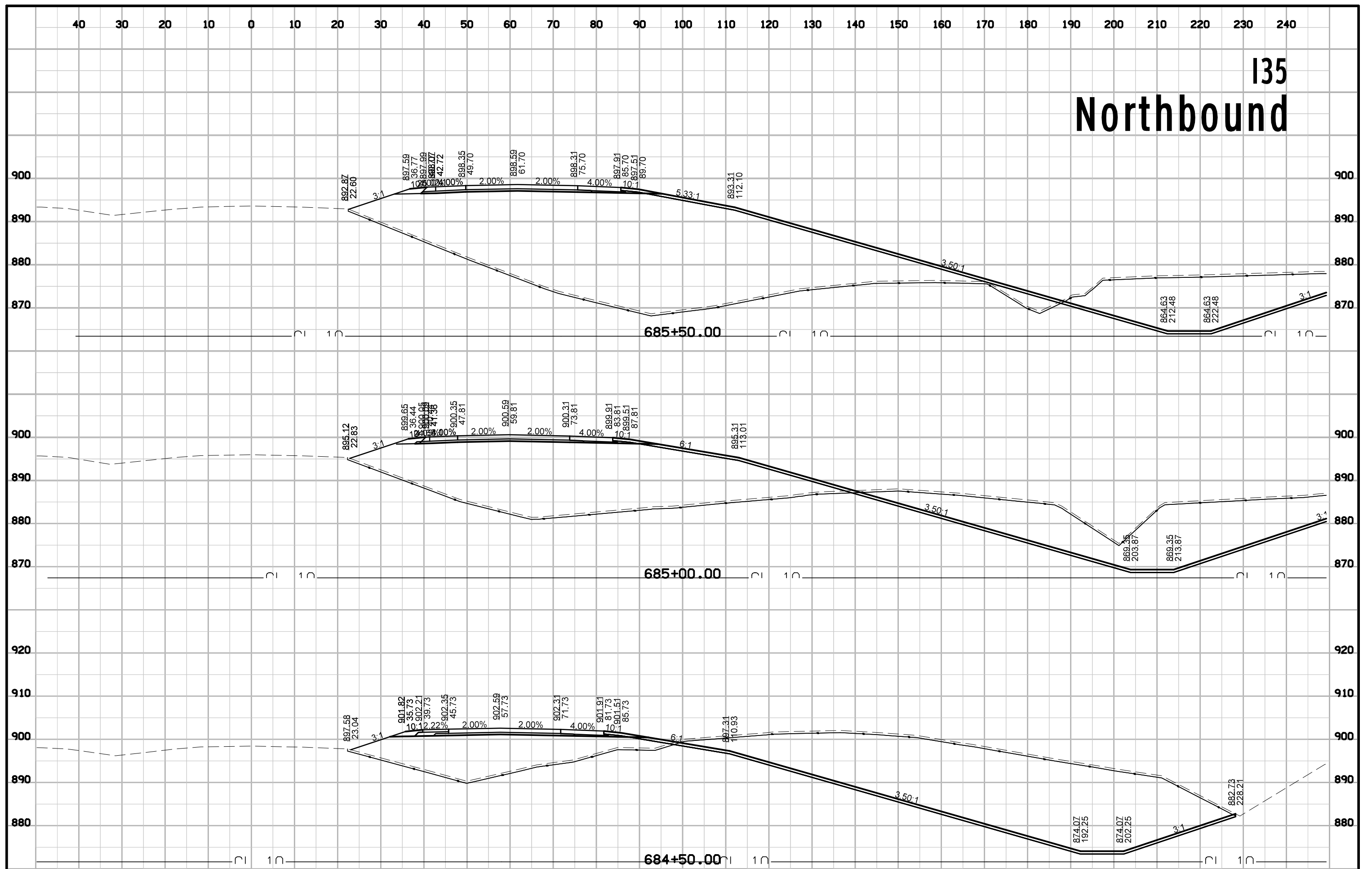
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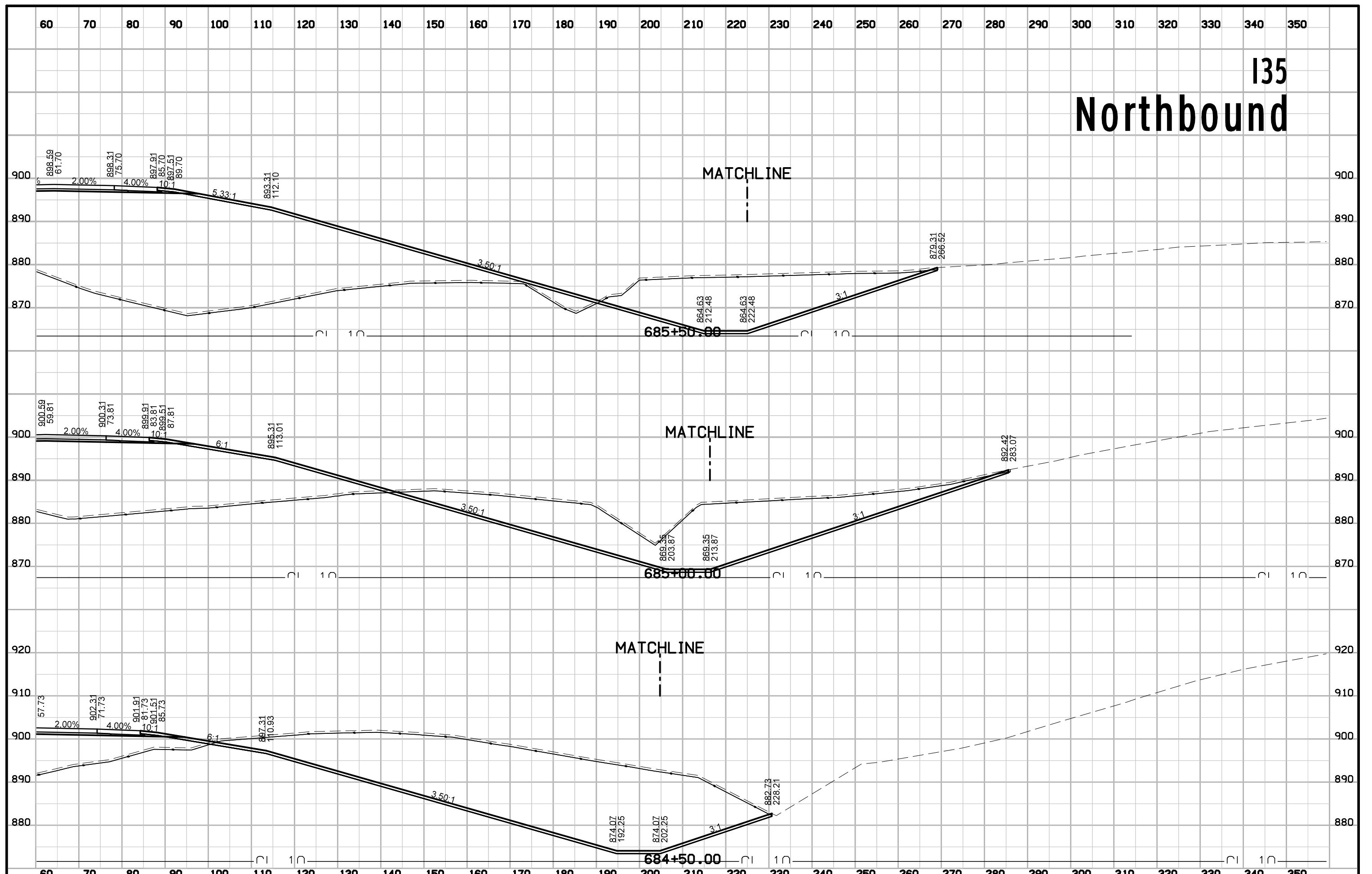
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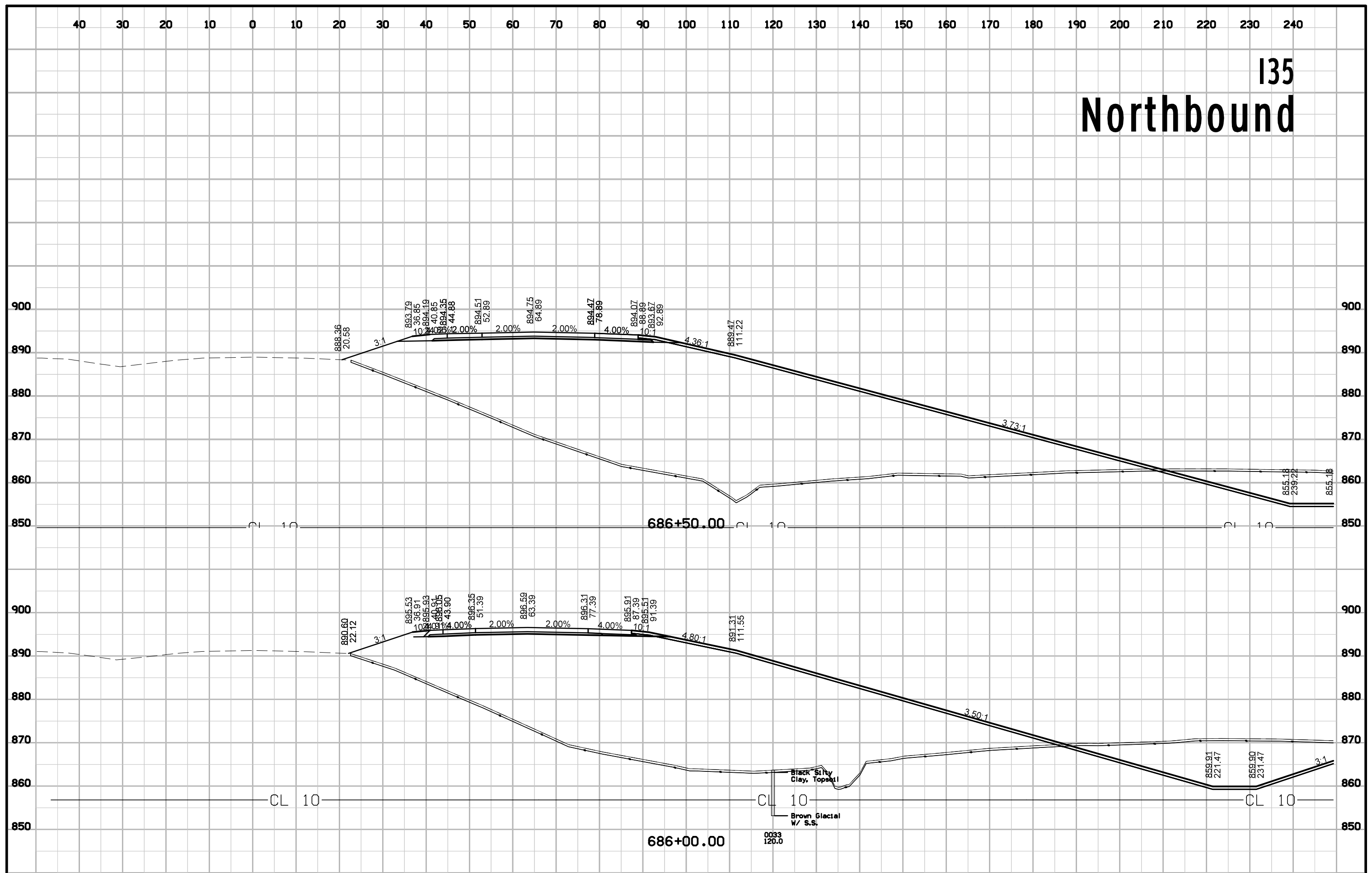
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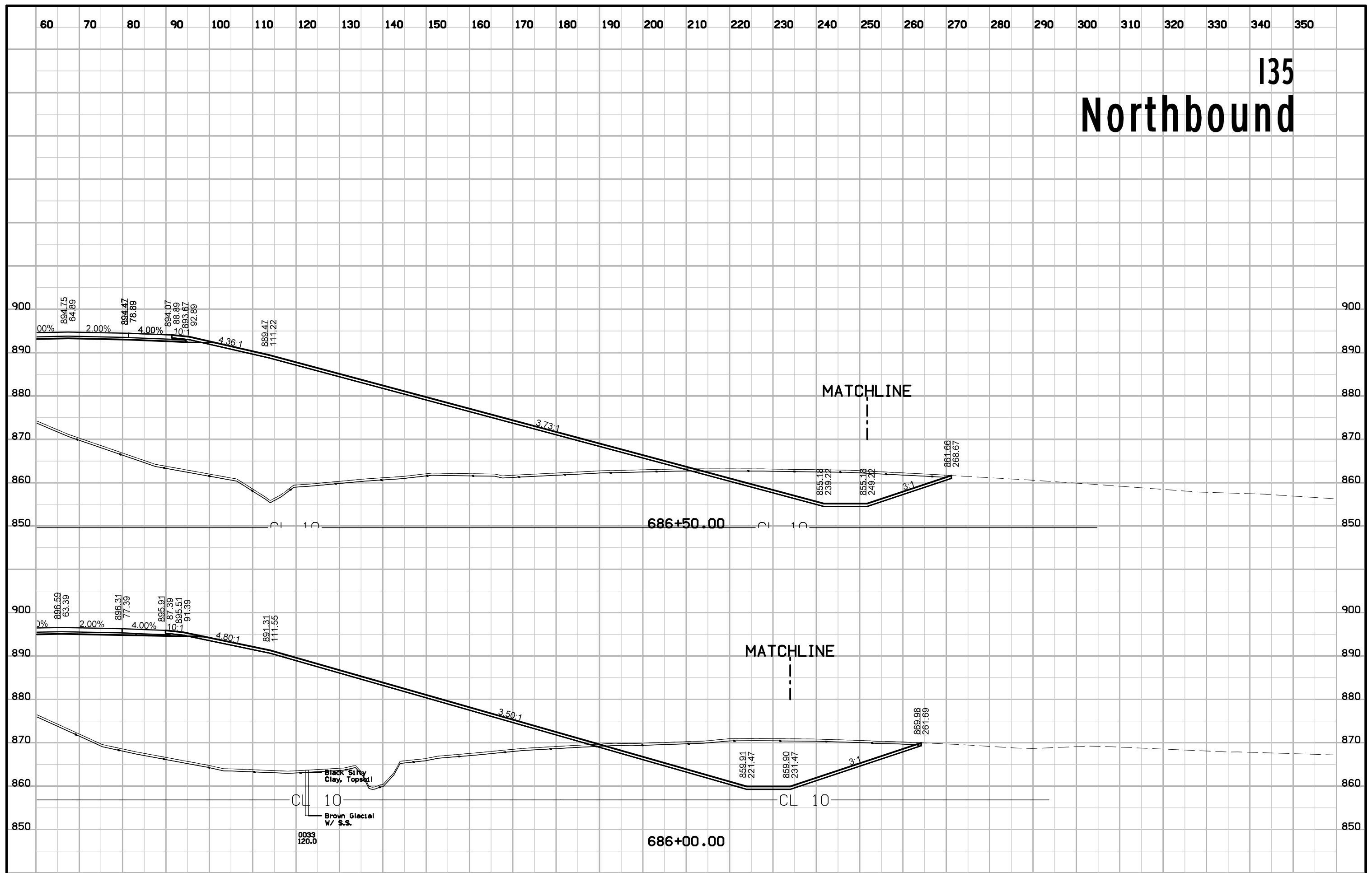
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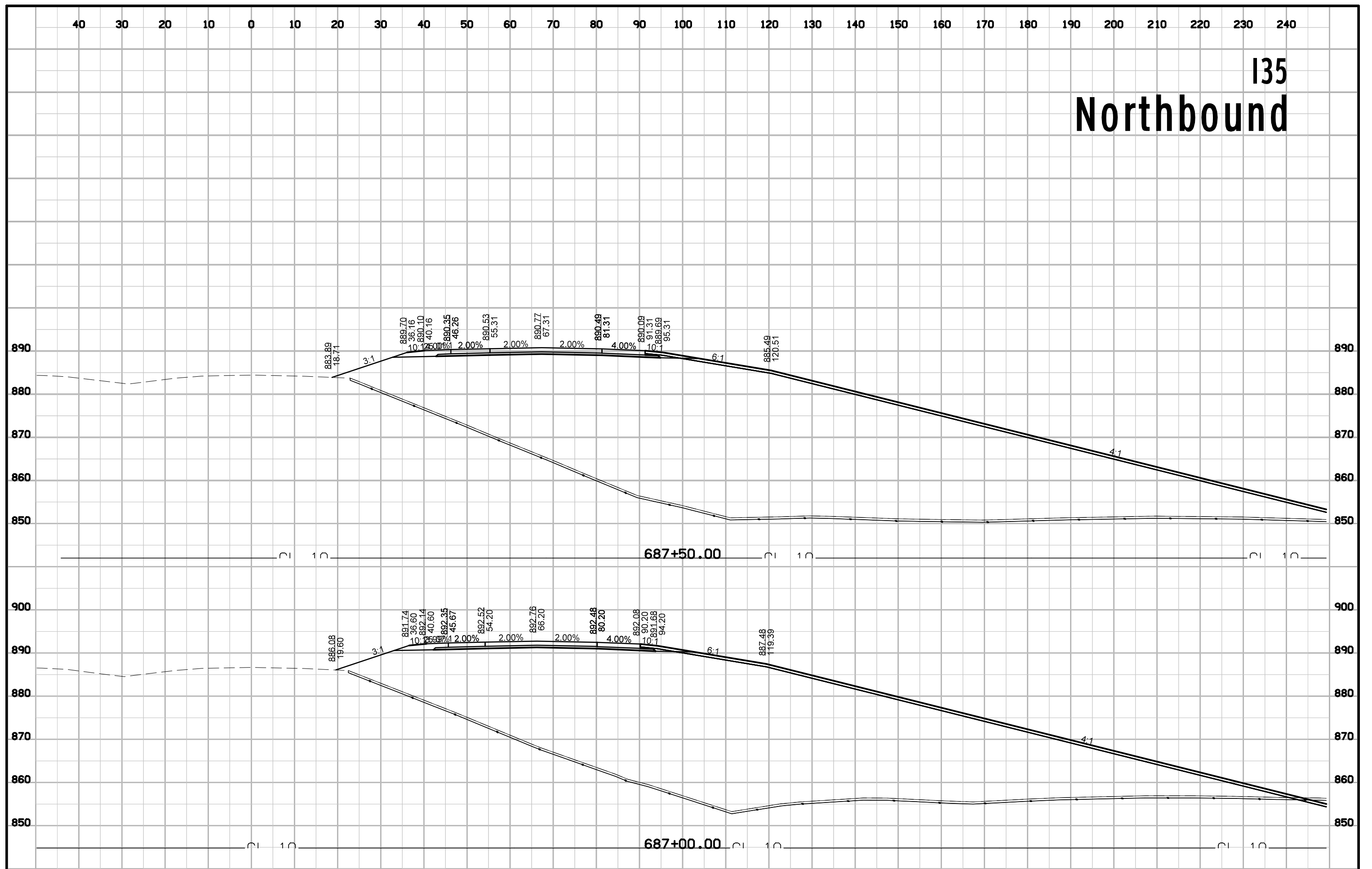
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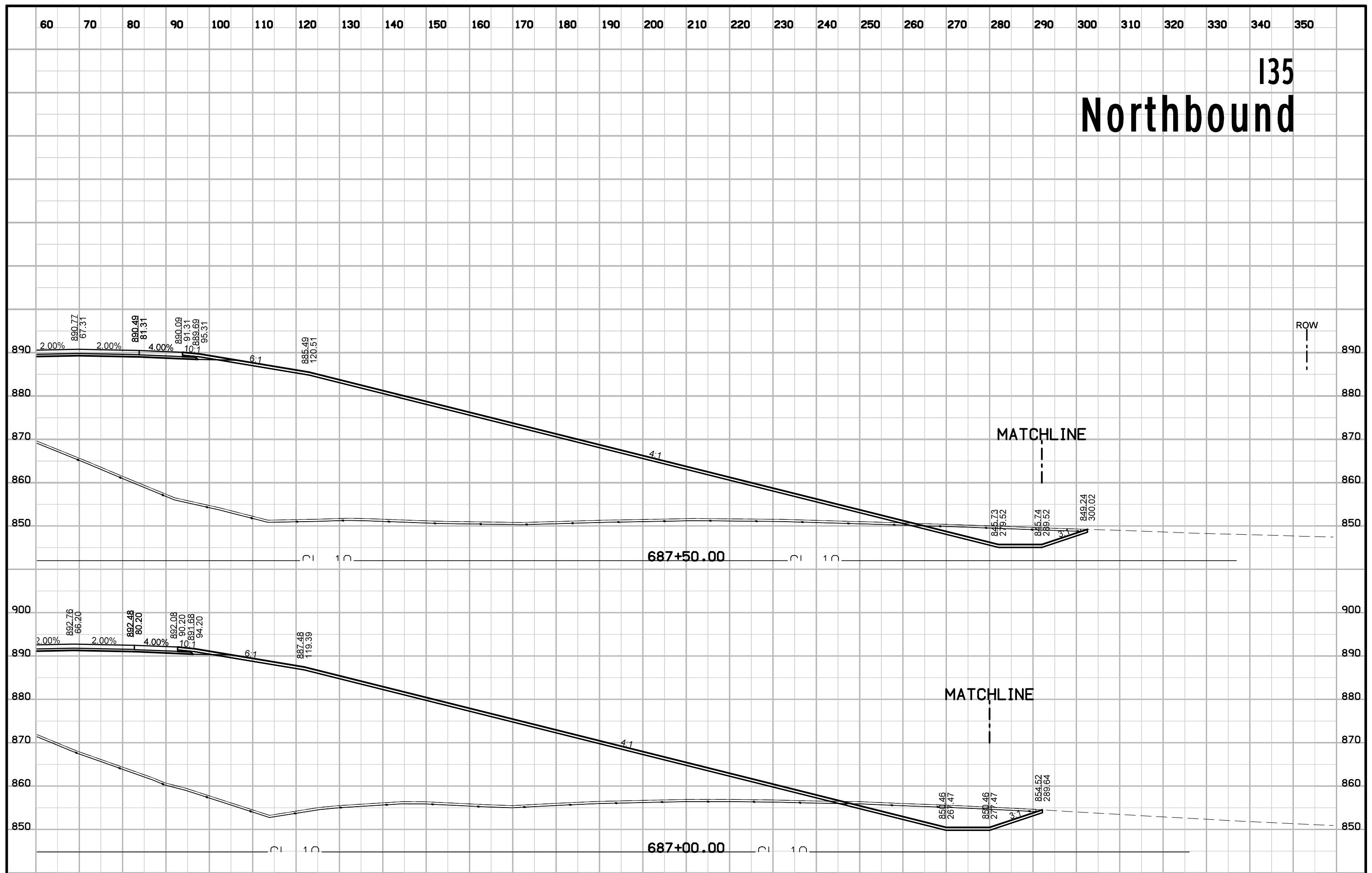
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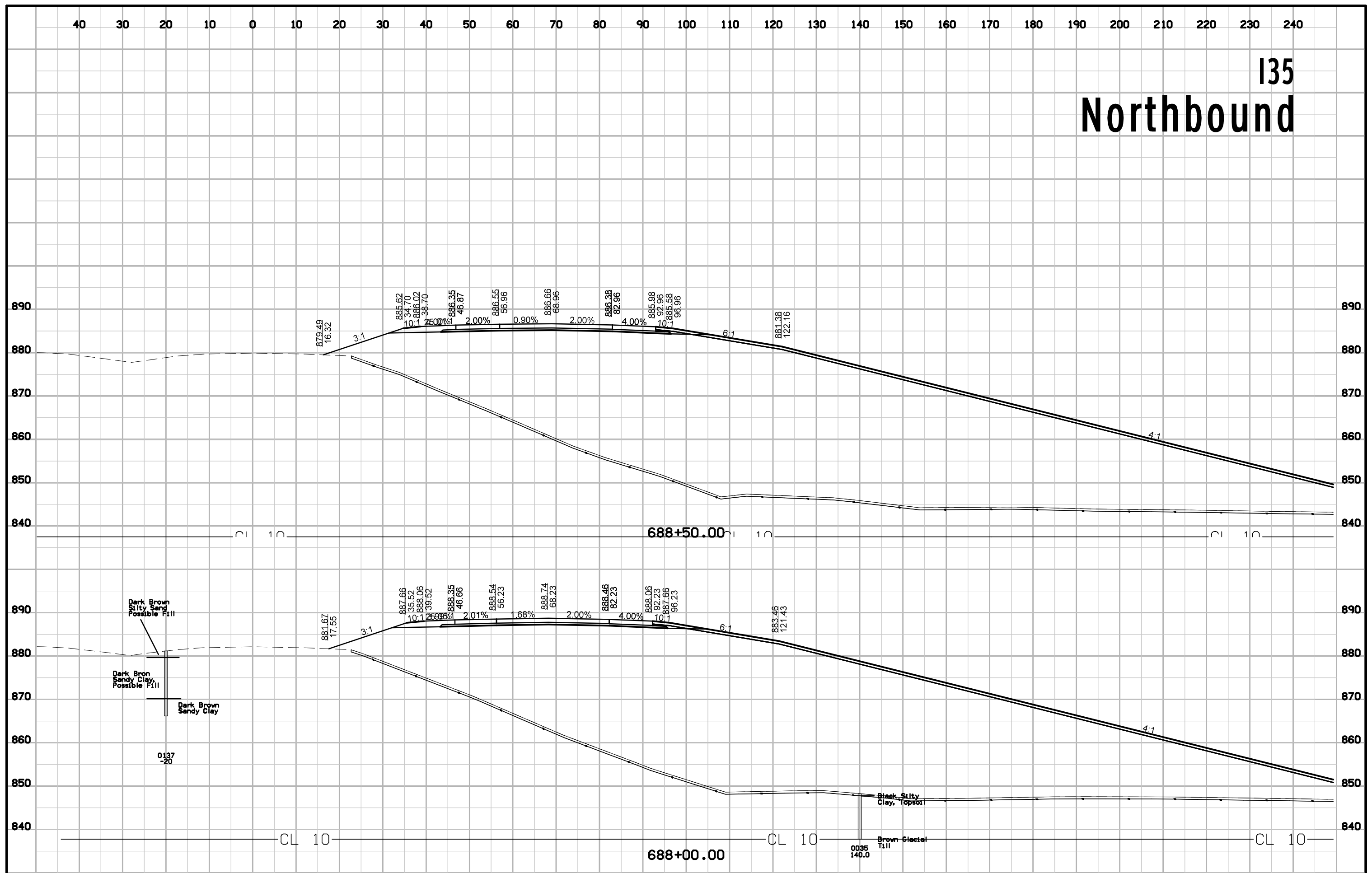
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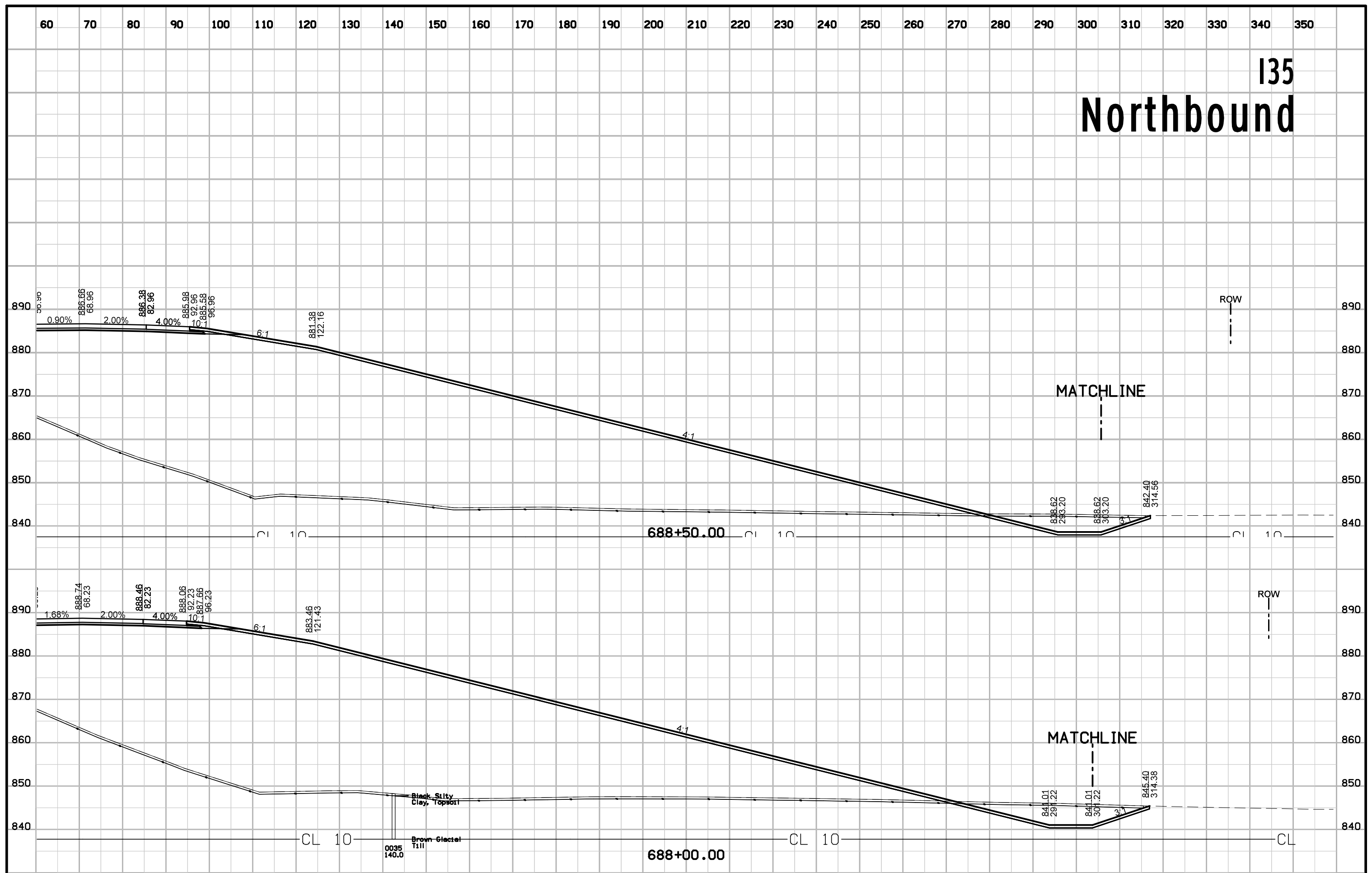
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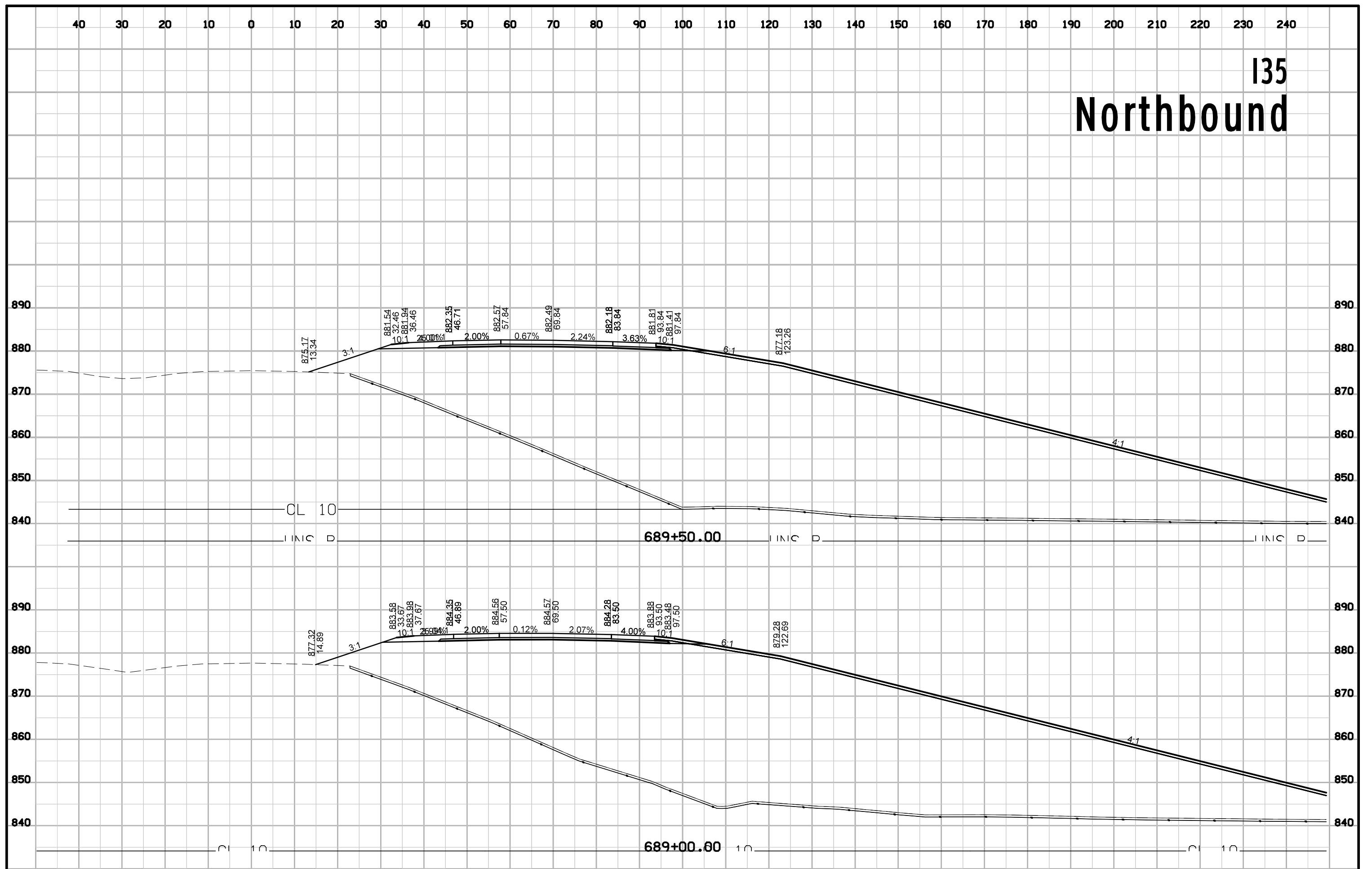
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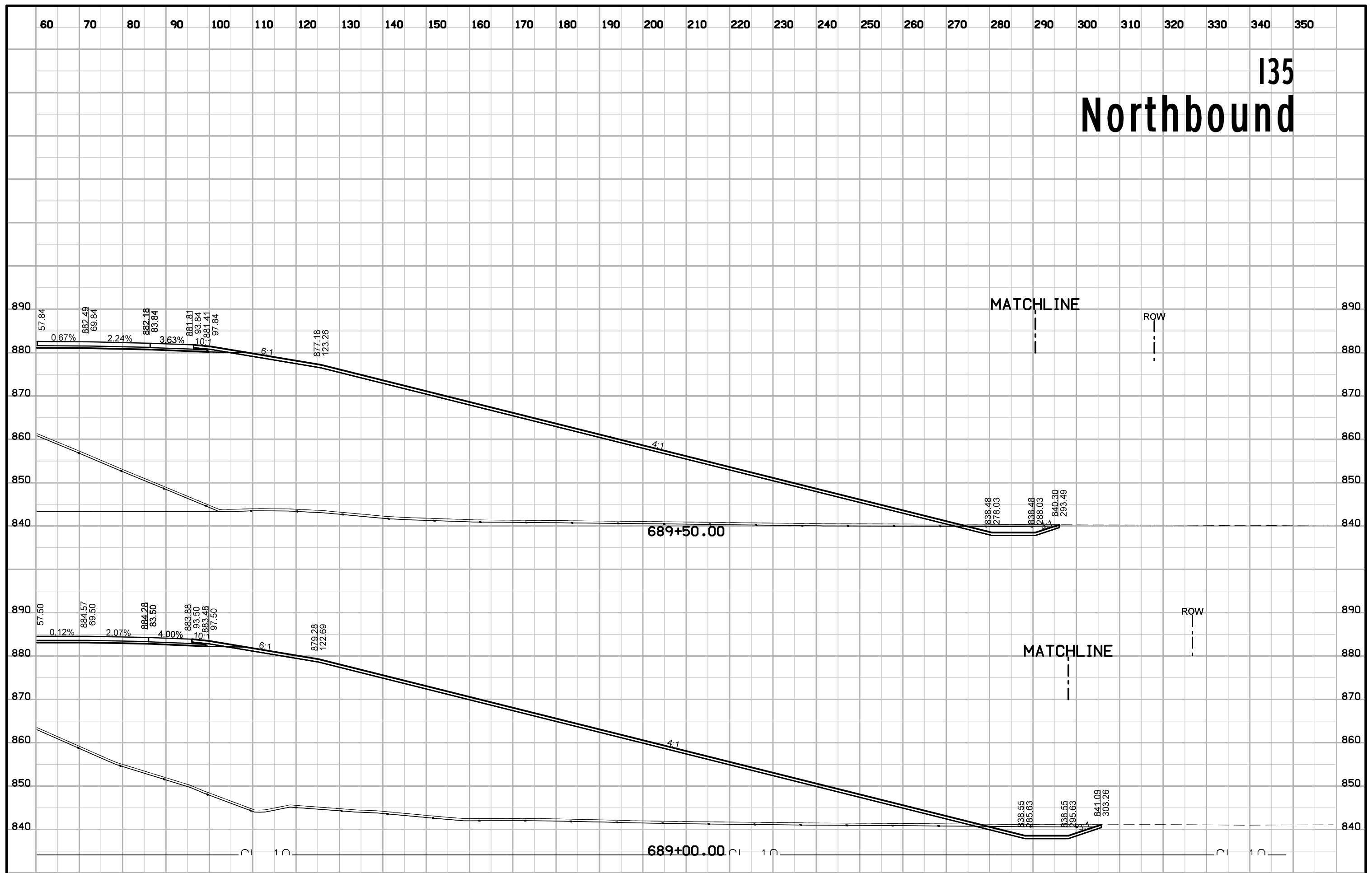
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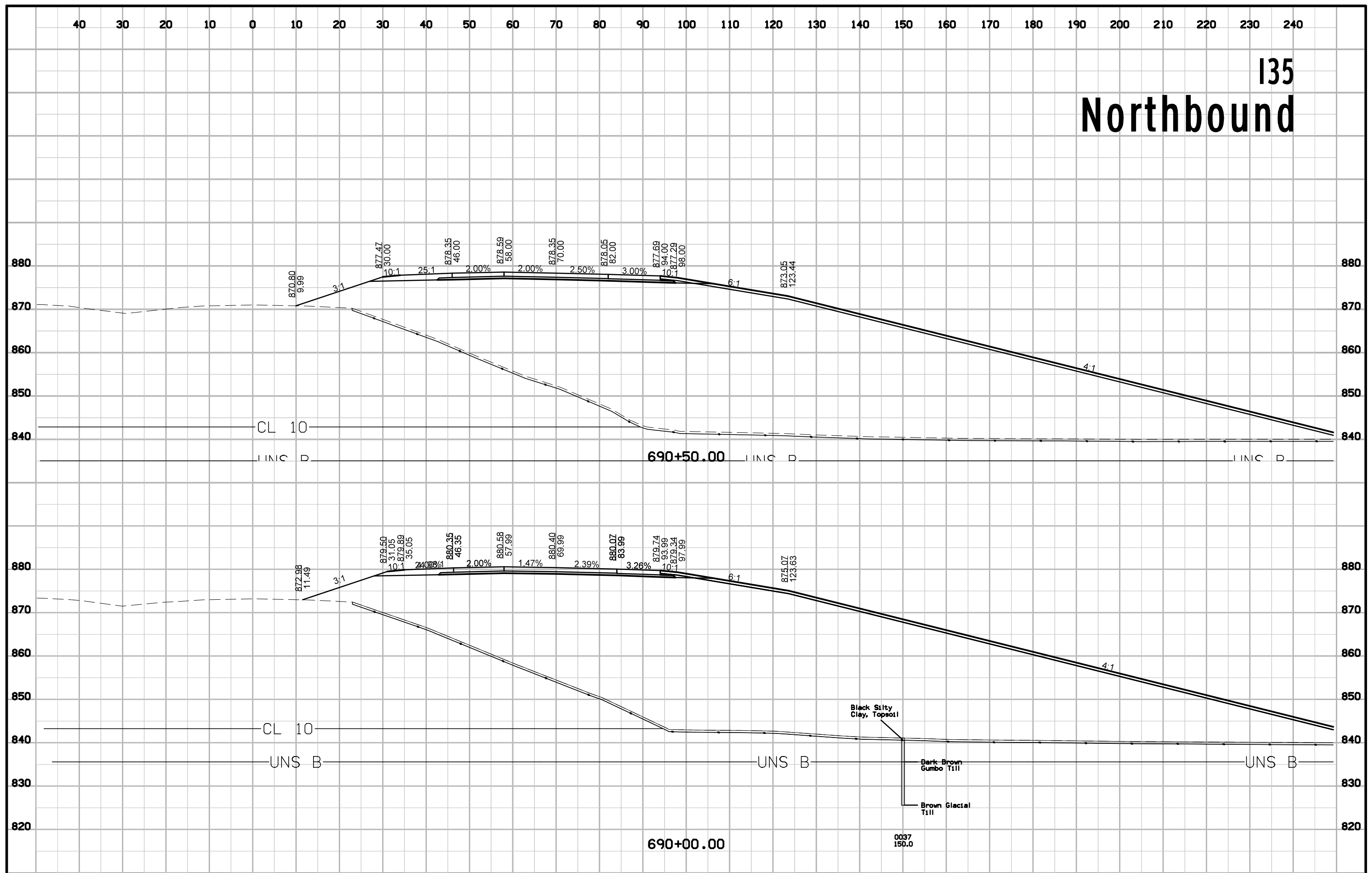
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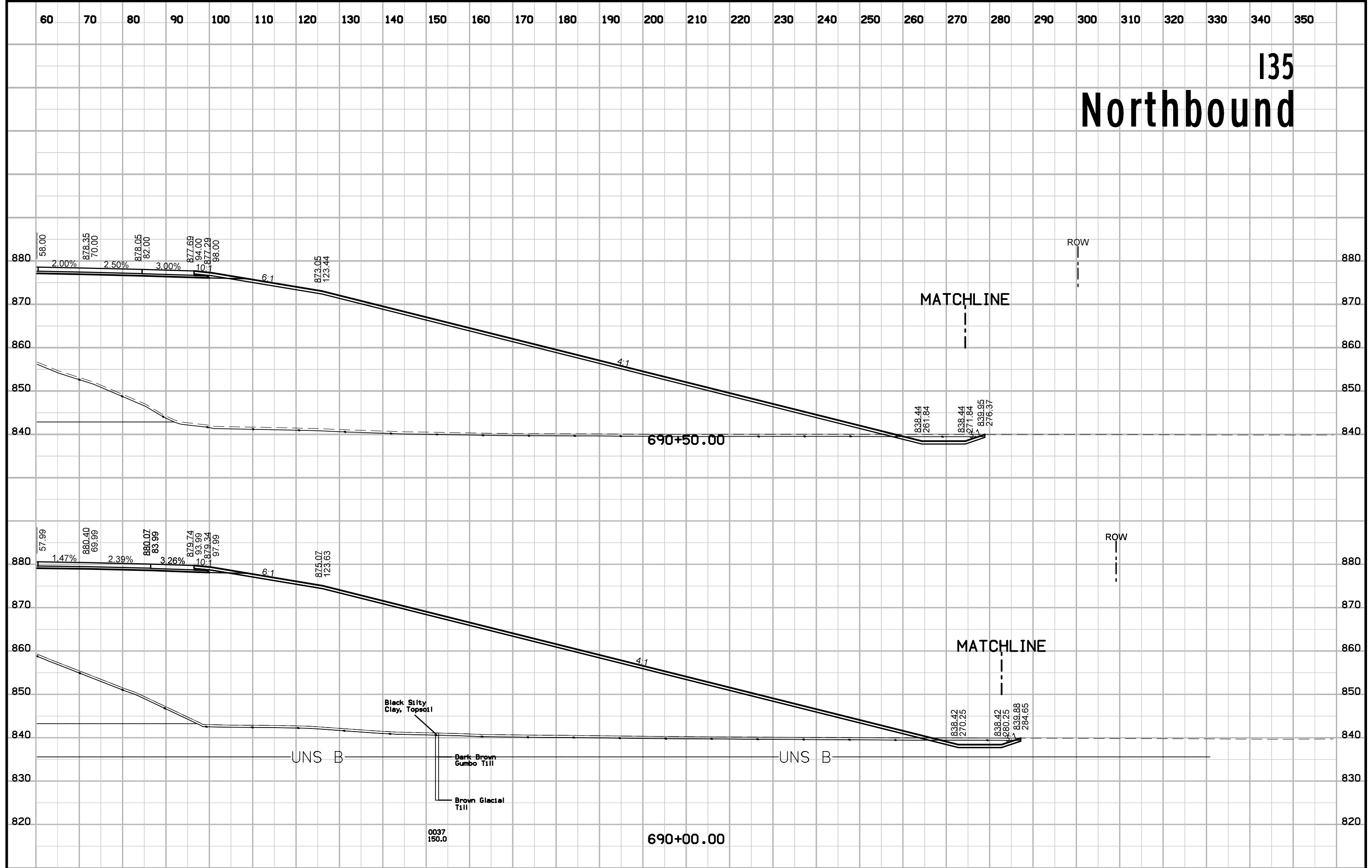
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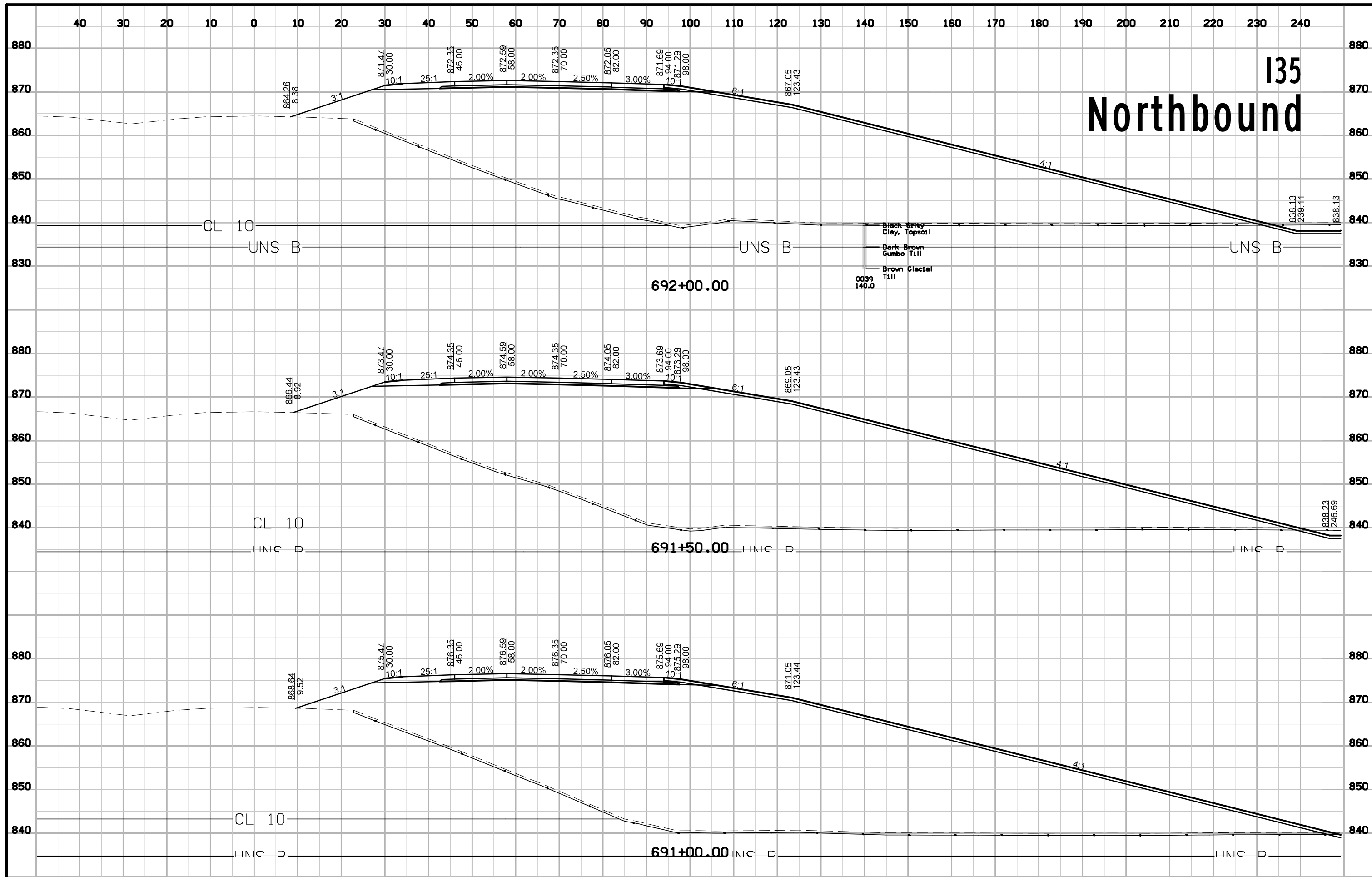


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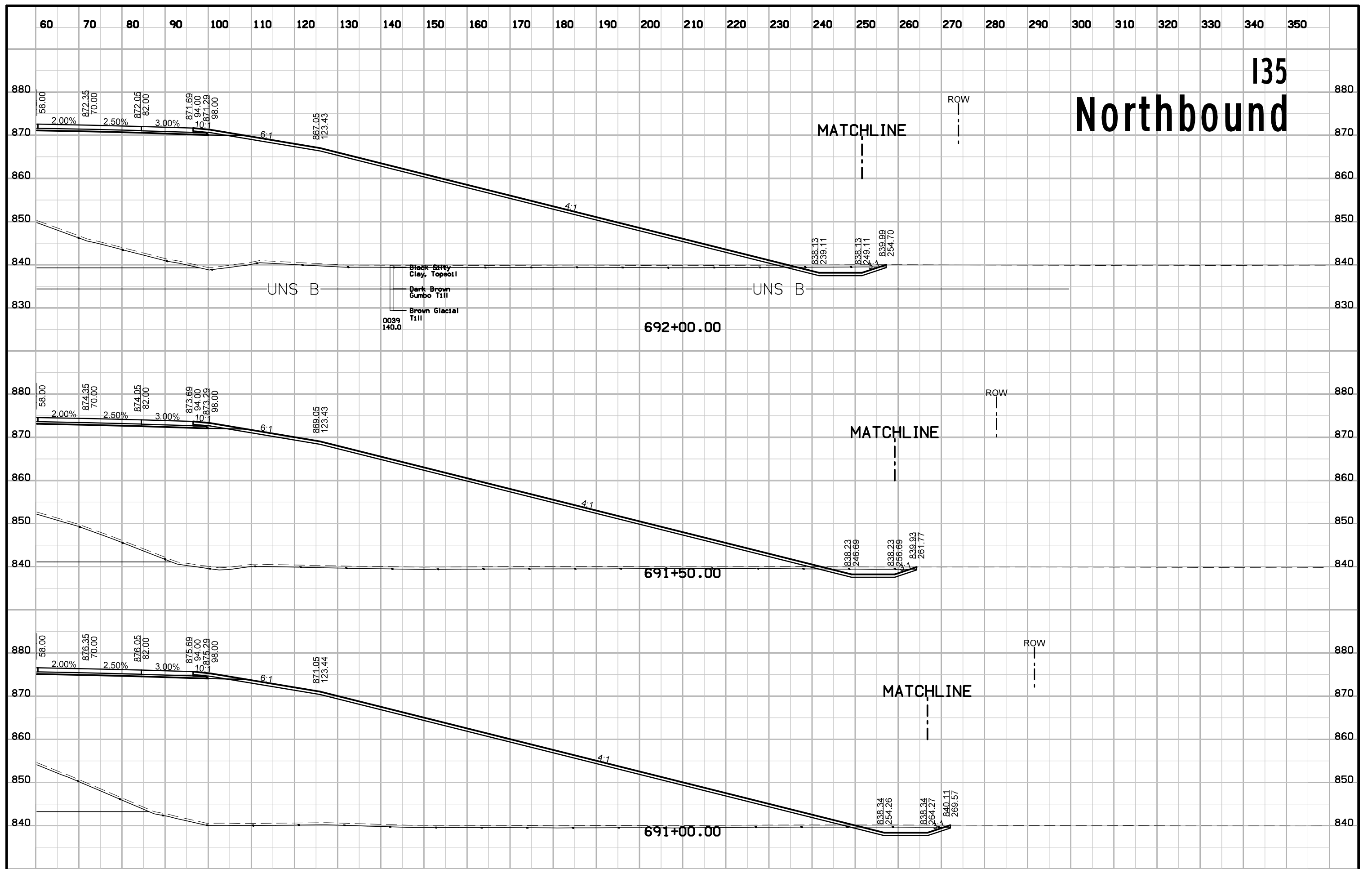


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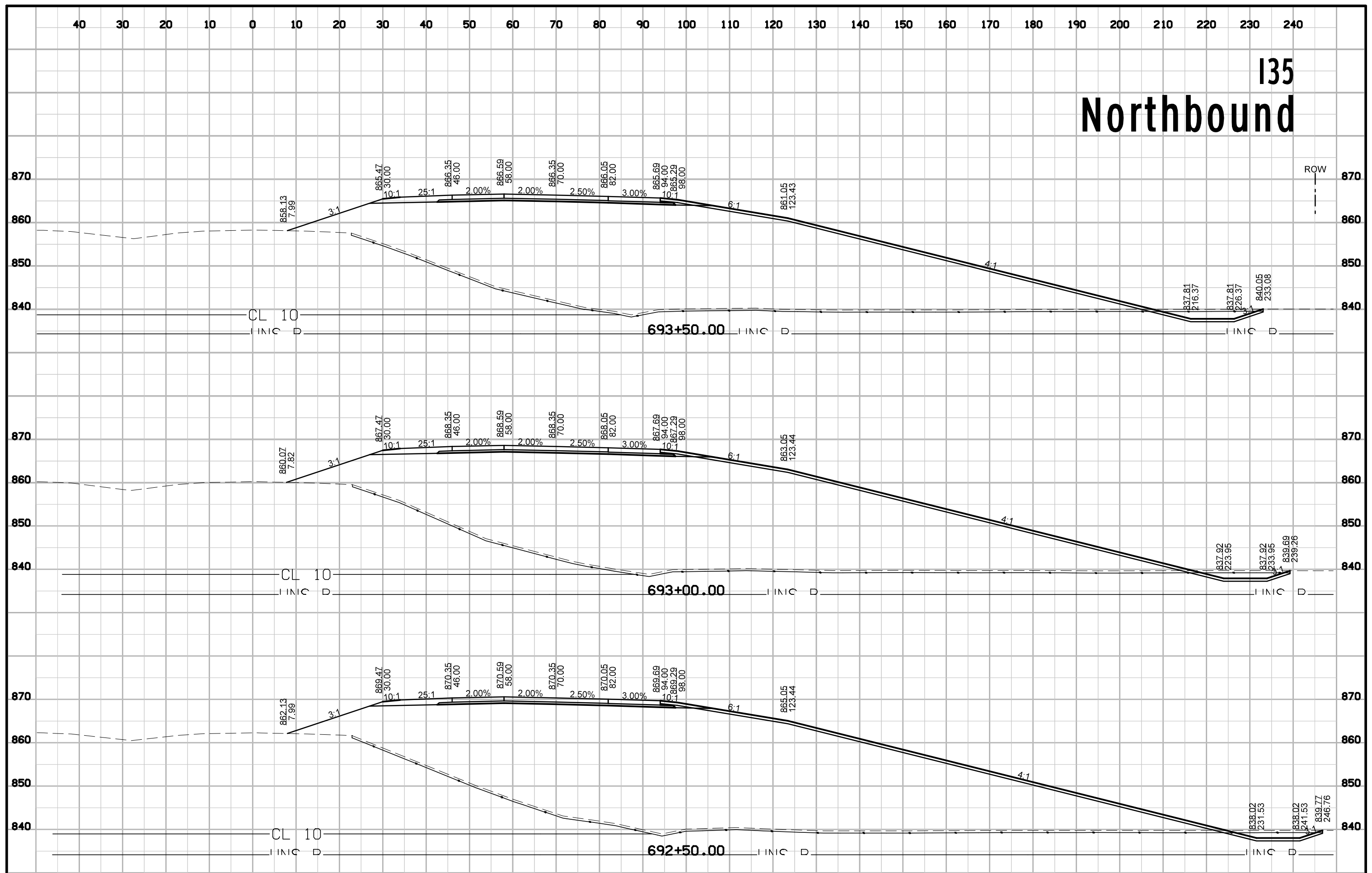




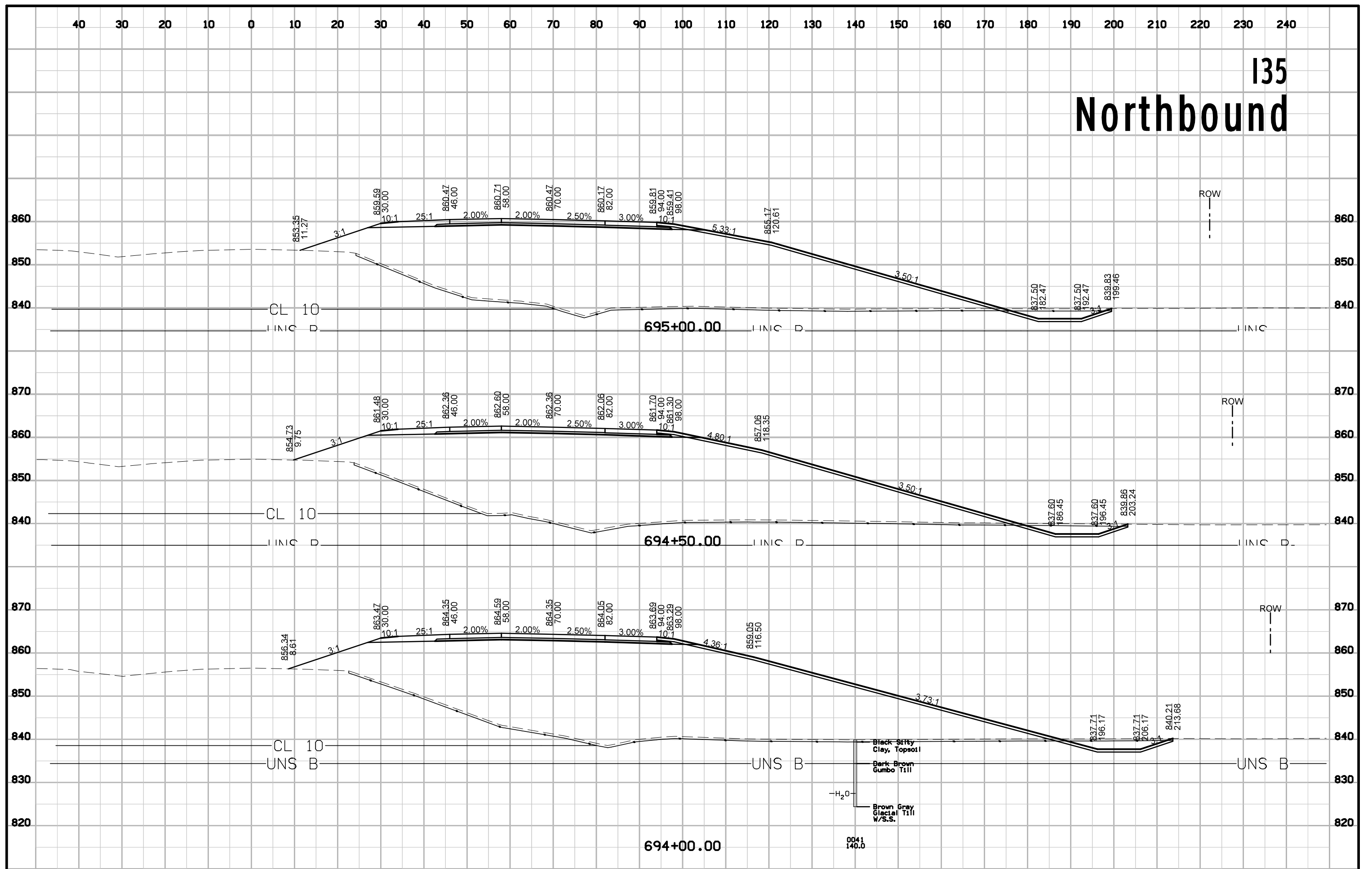
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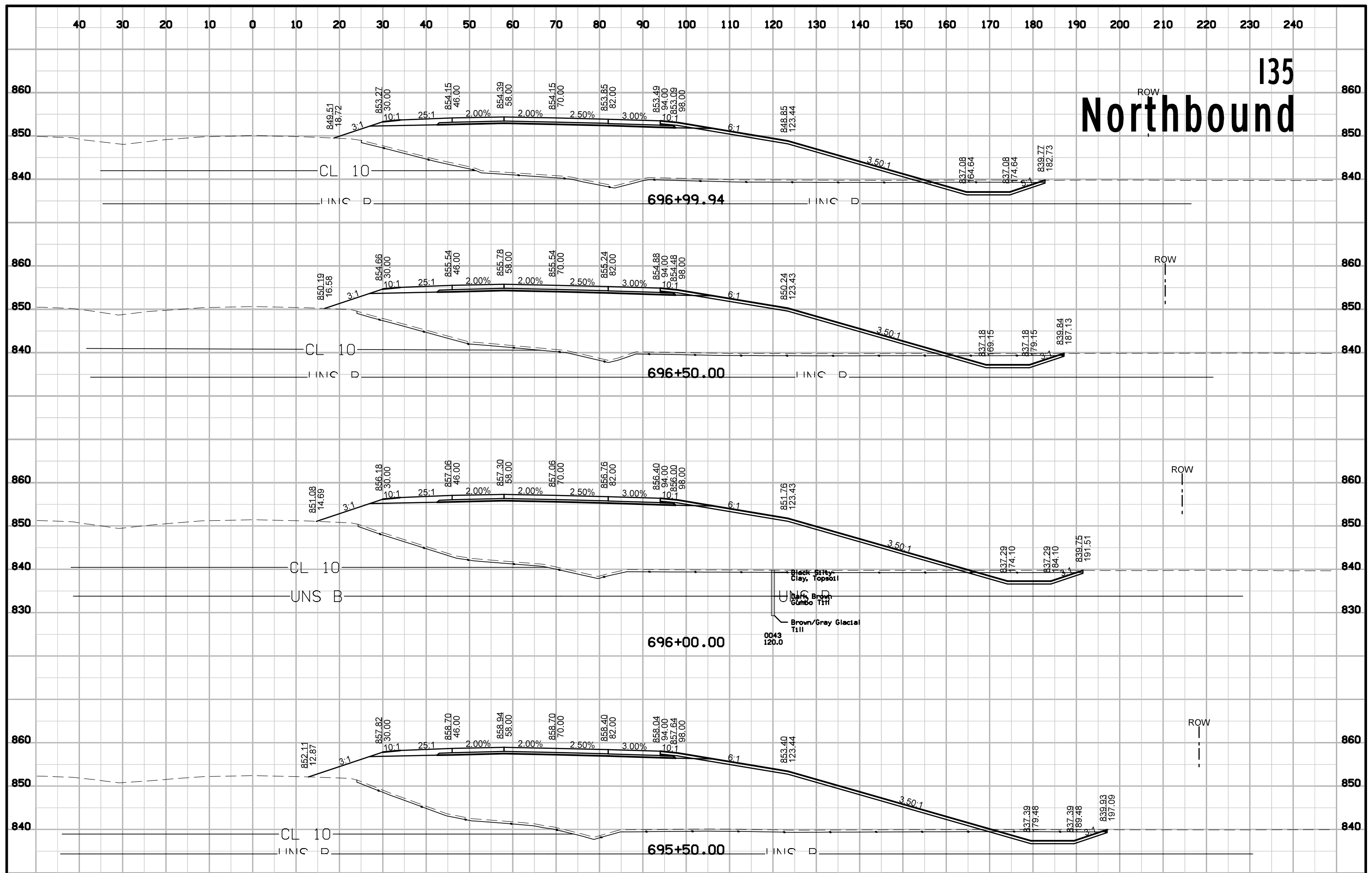


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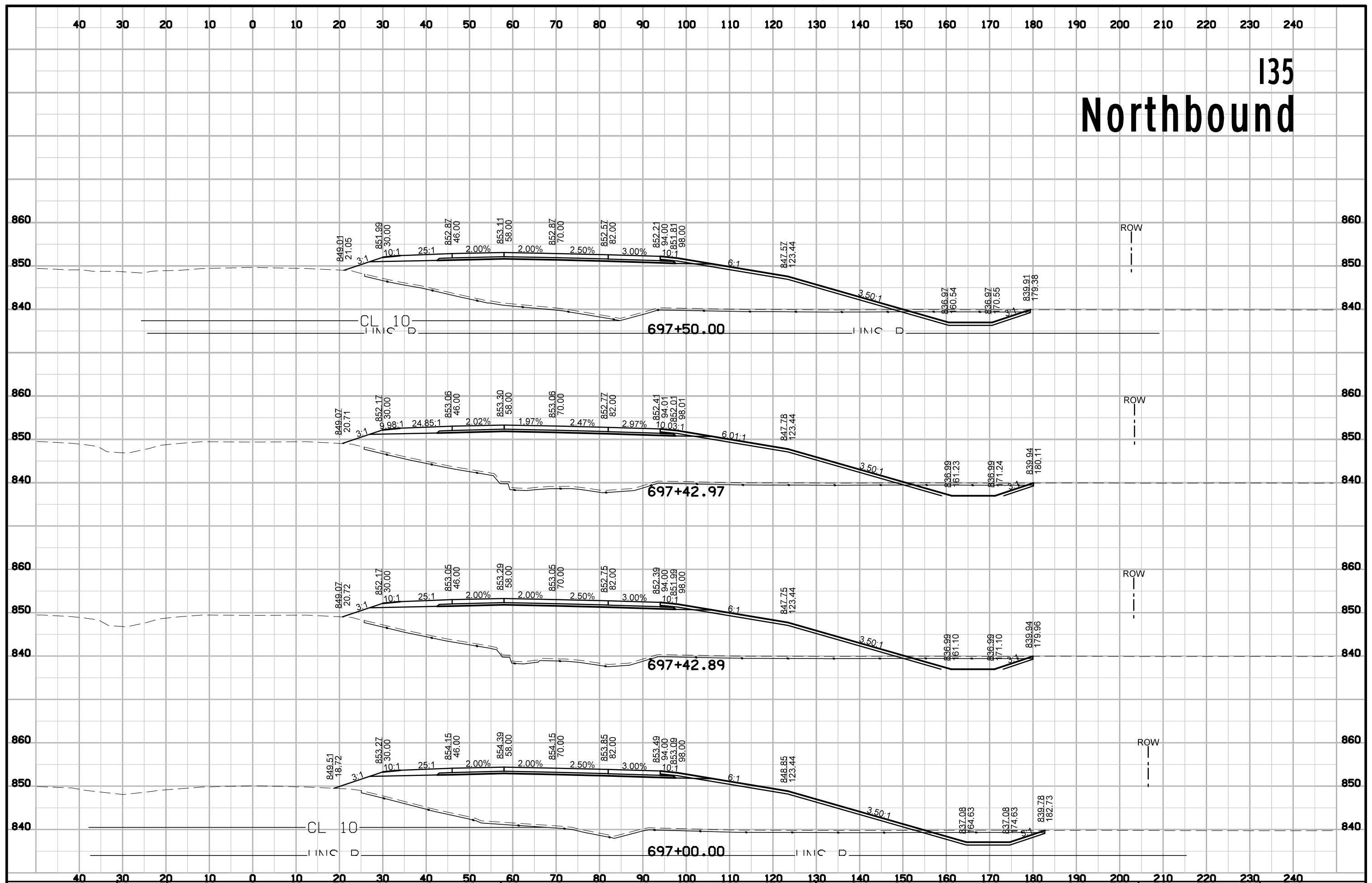


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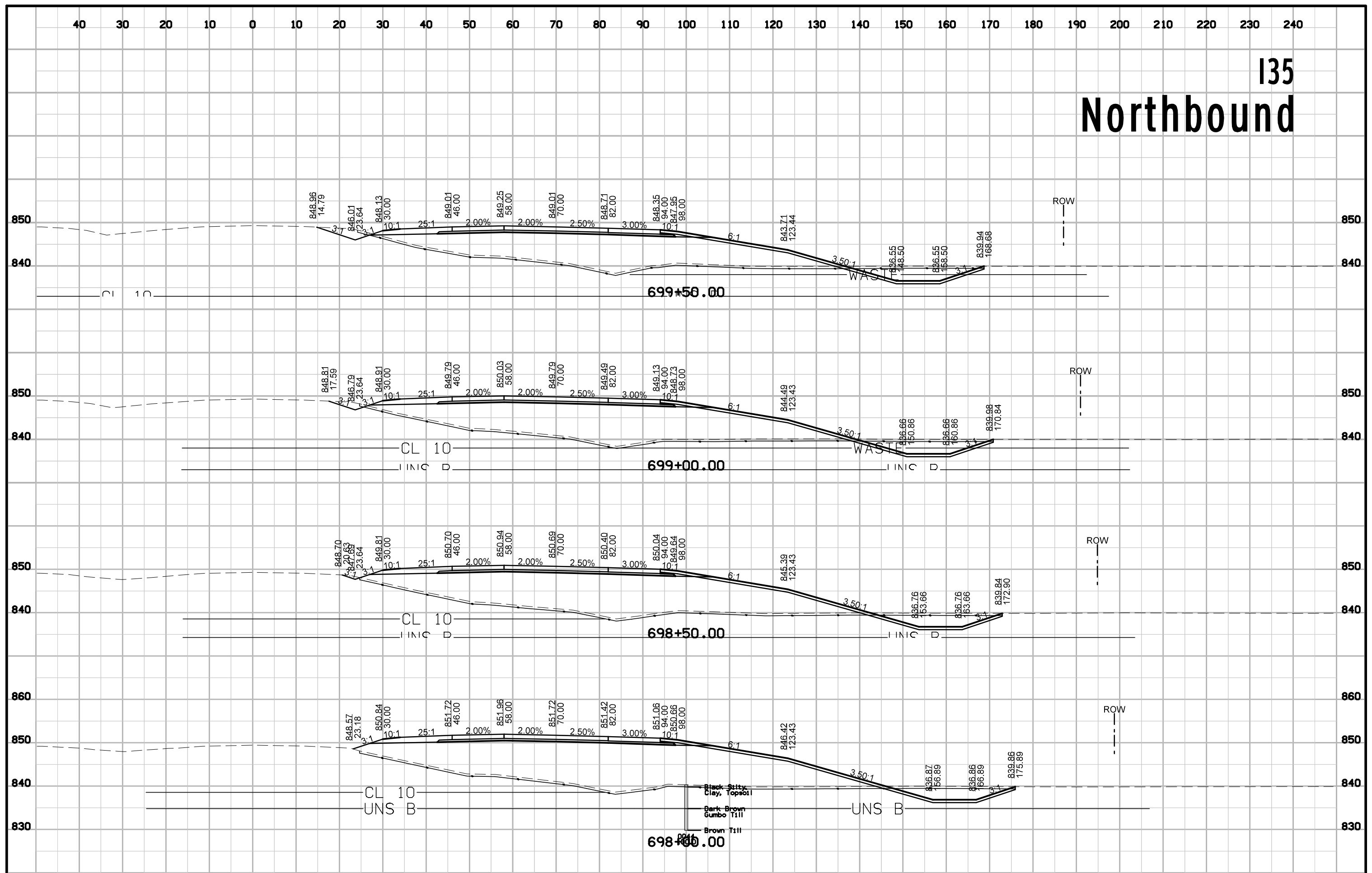


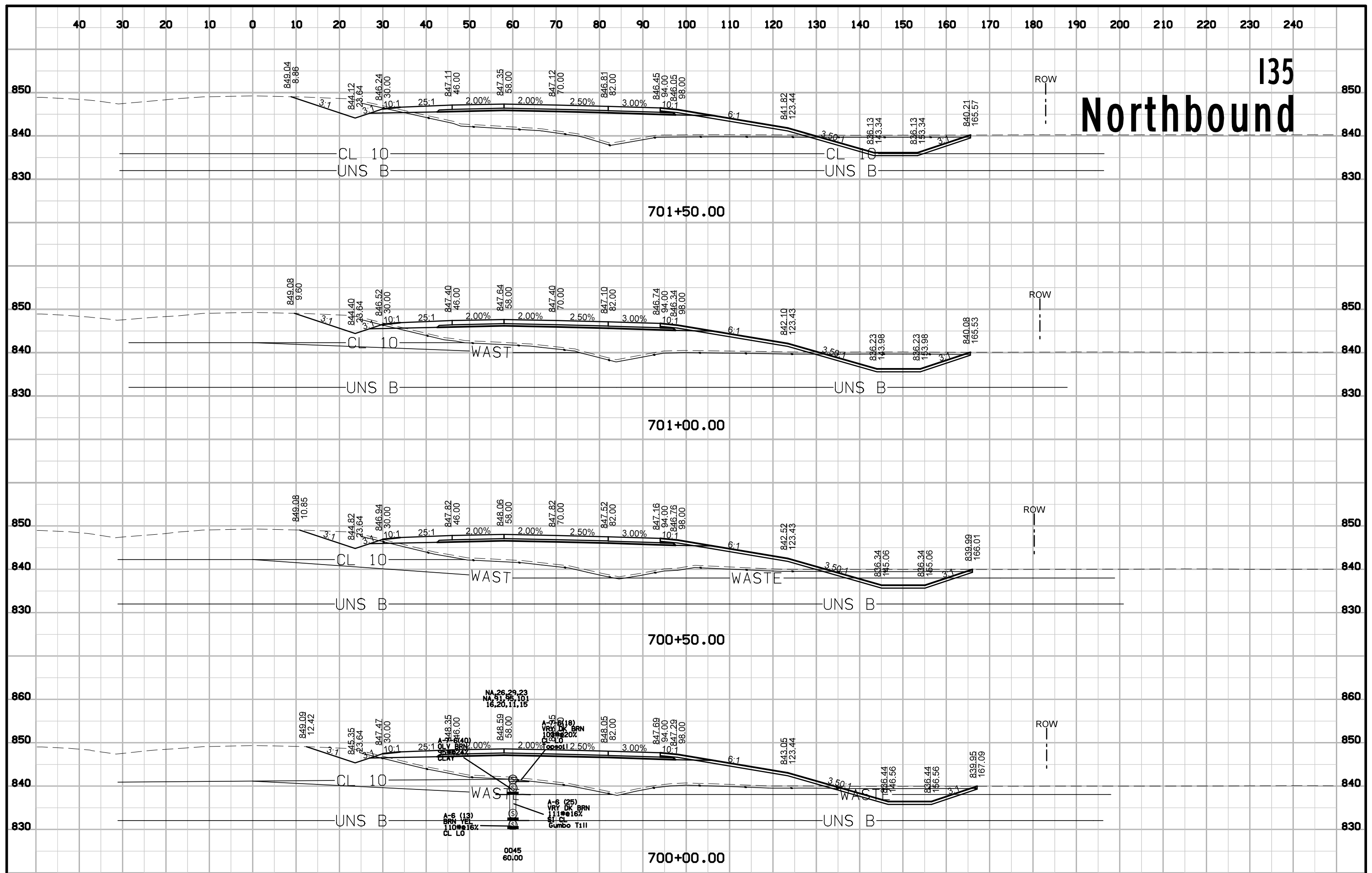


I35 Northbound



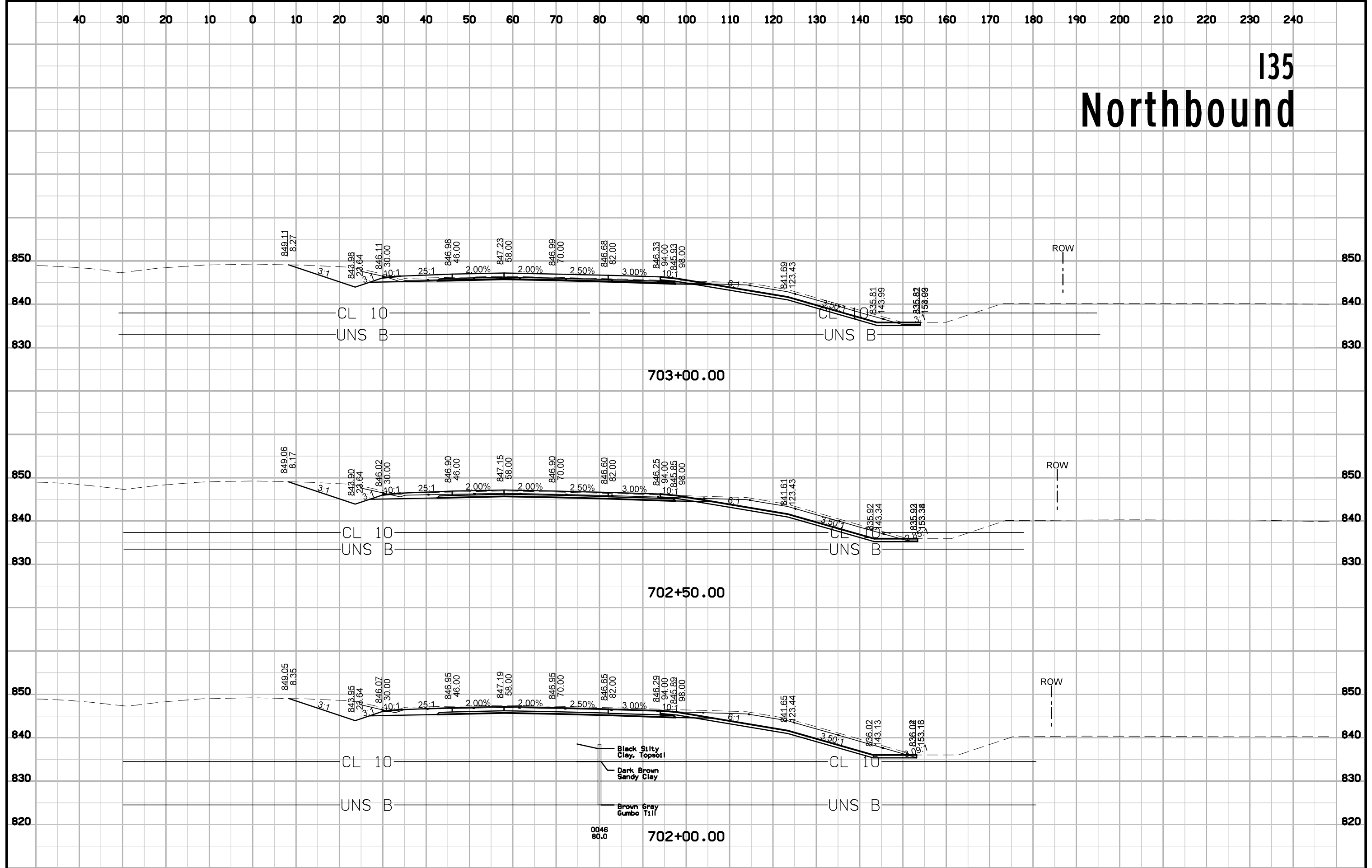
135 Northbound



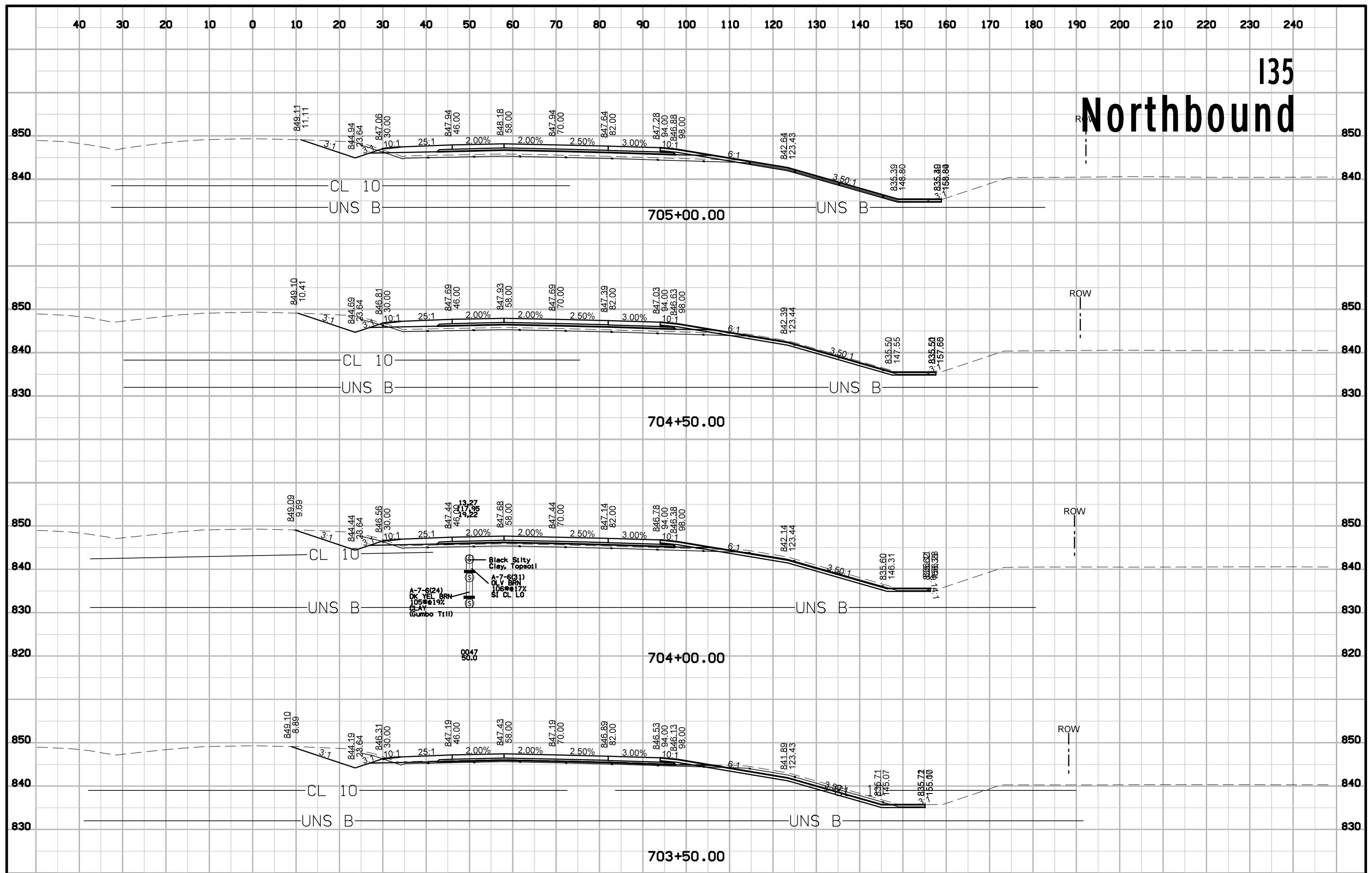


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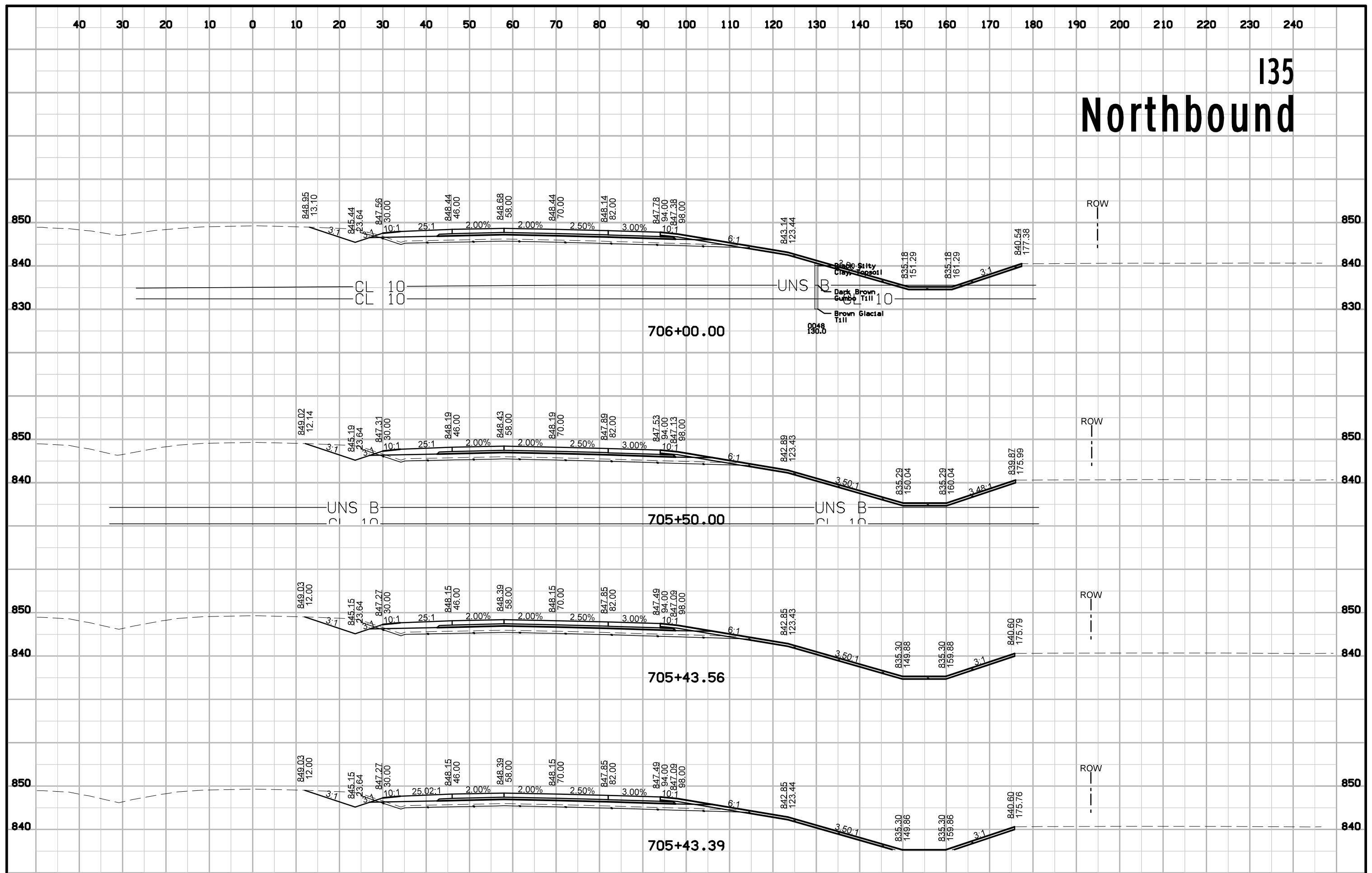
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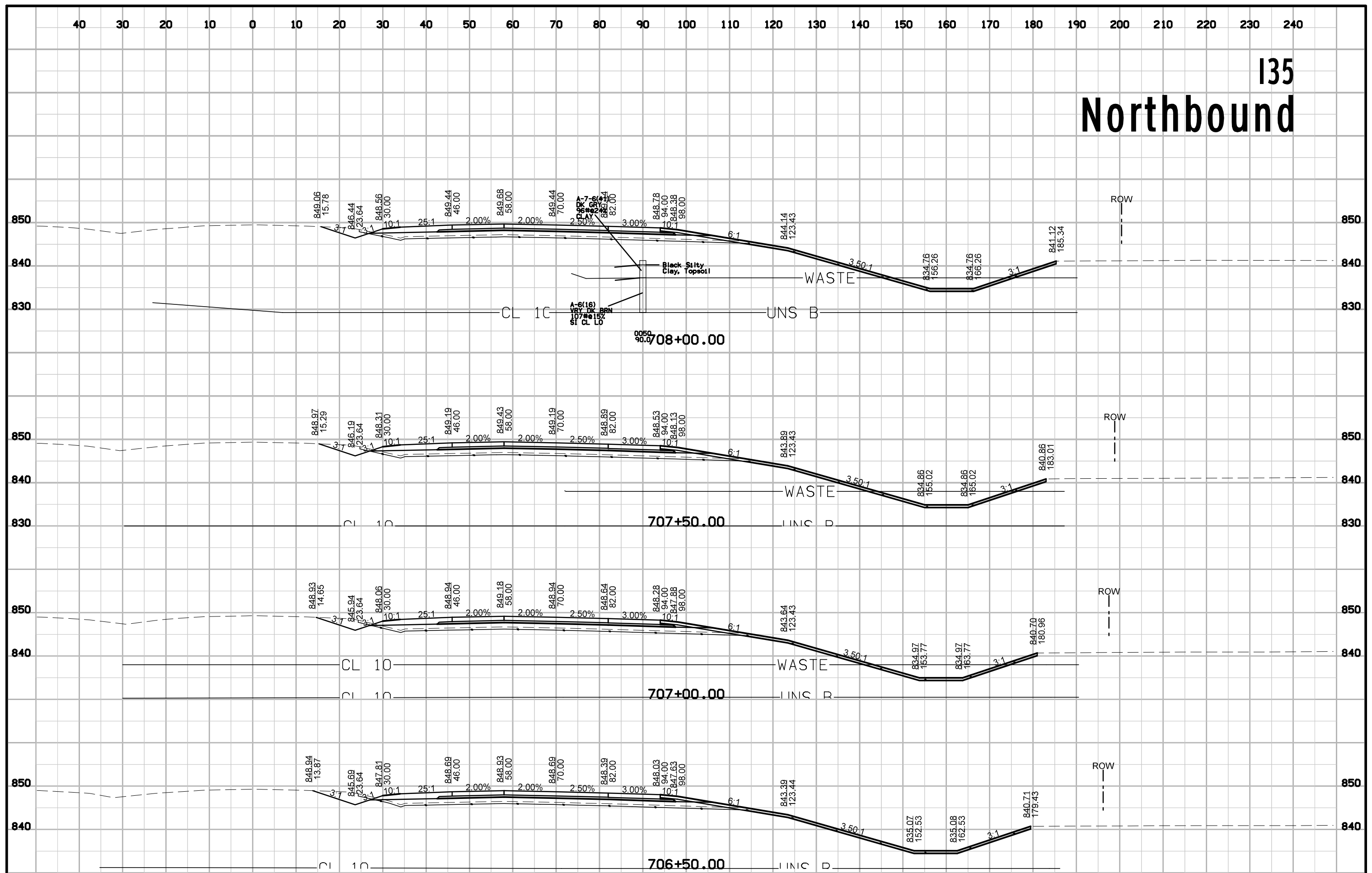
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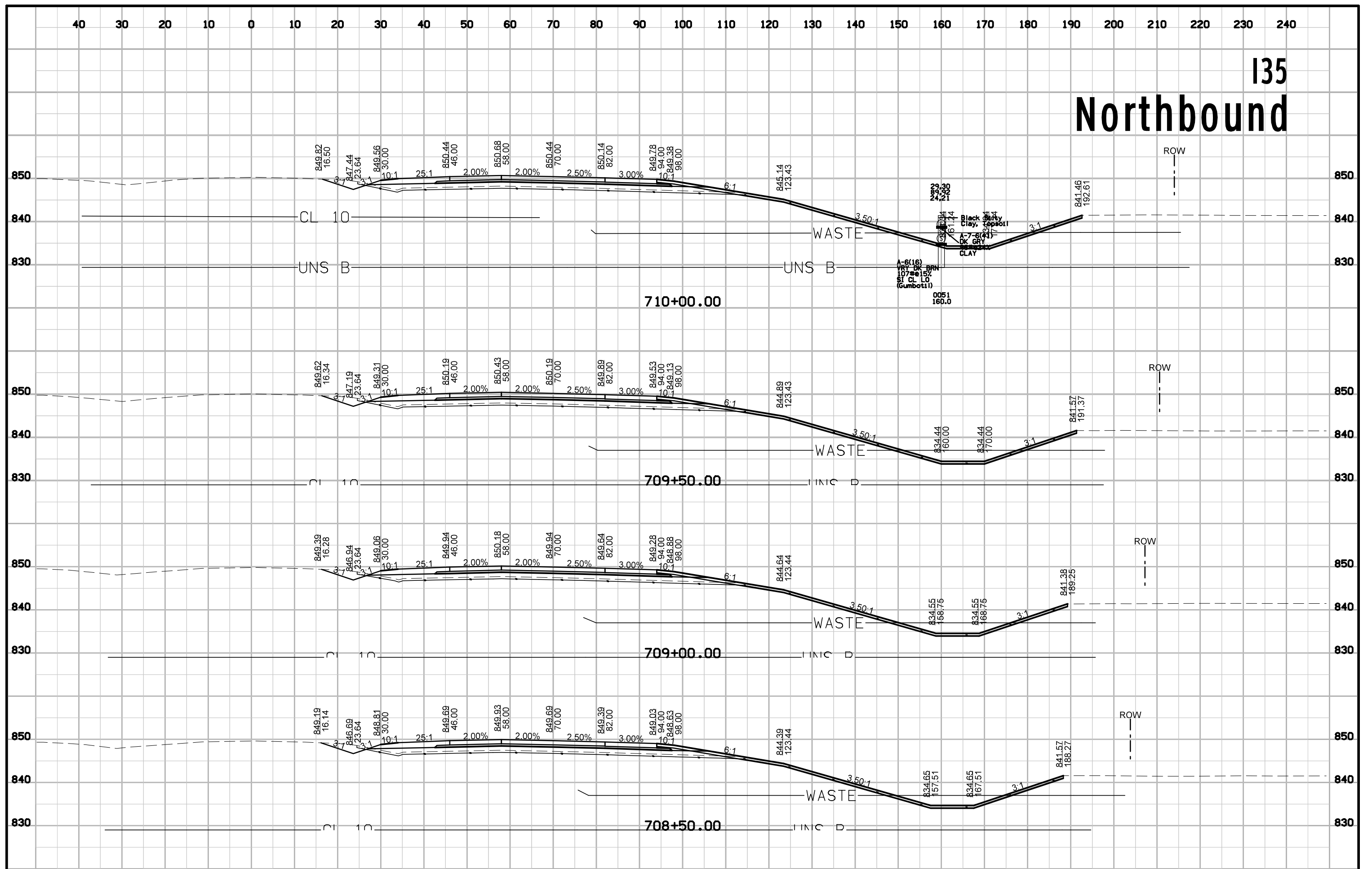
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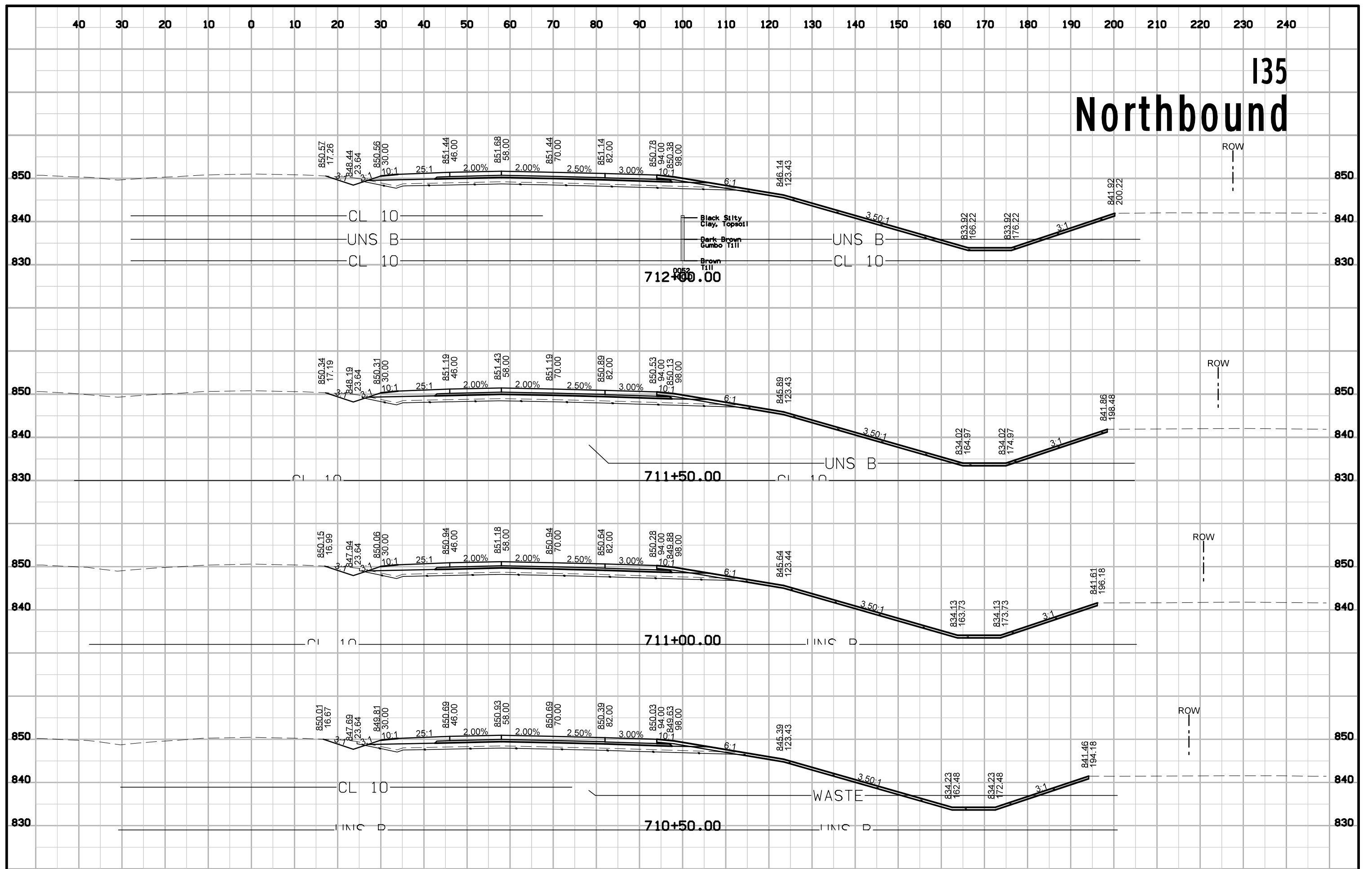
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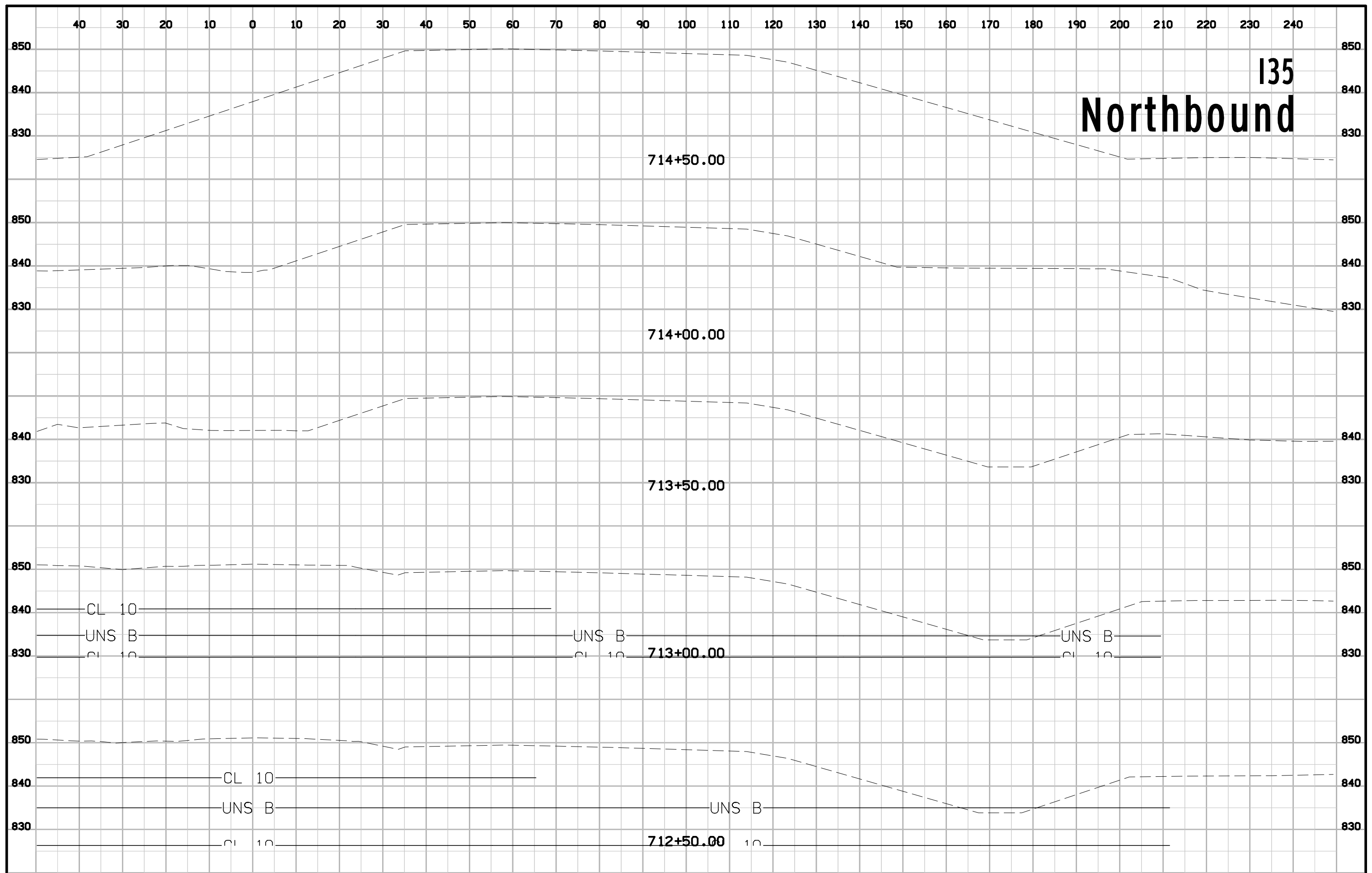


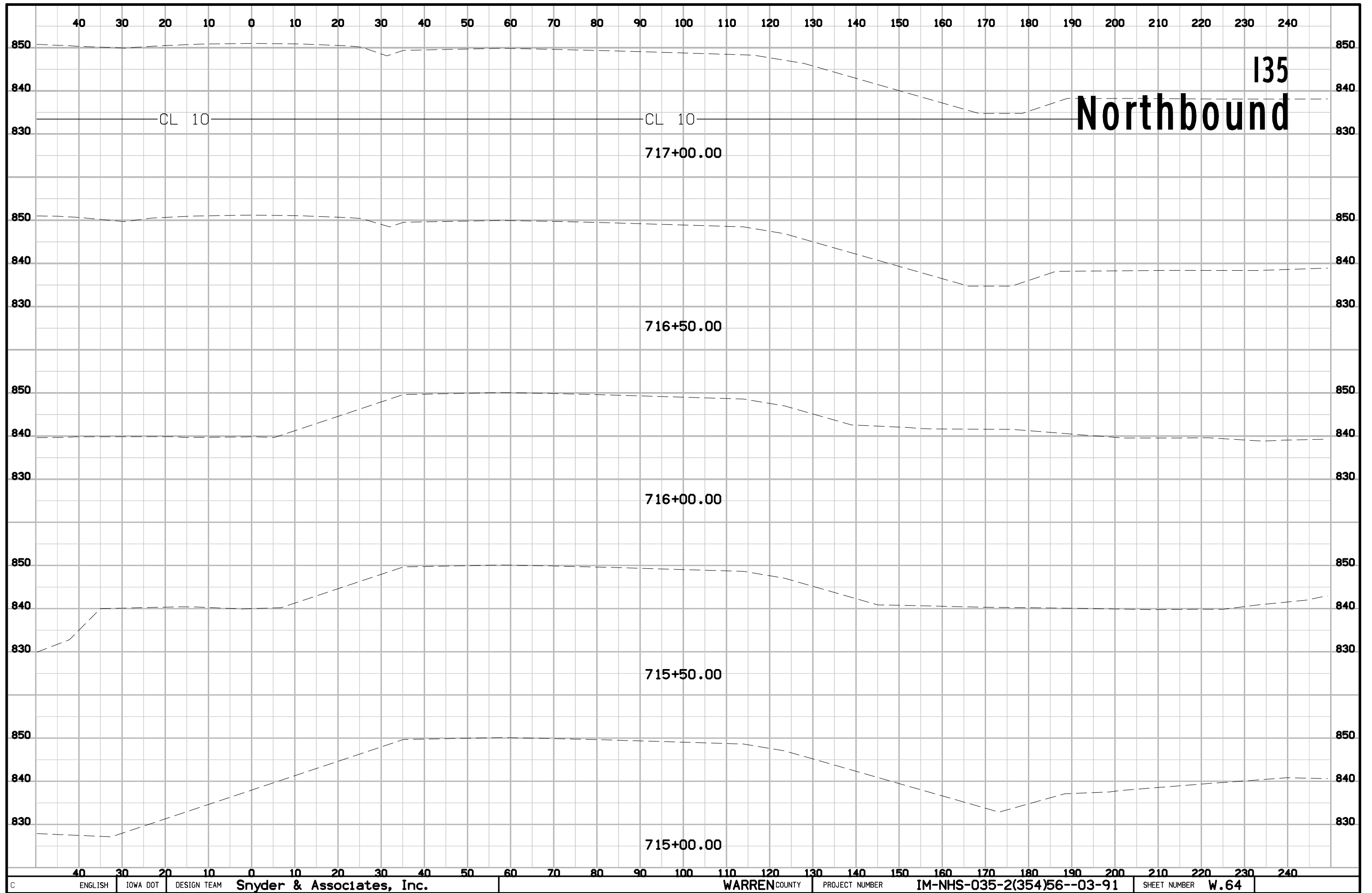
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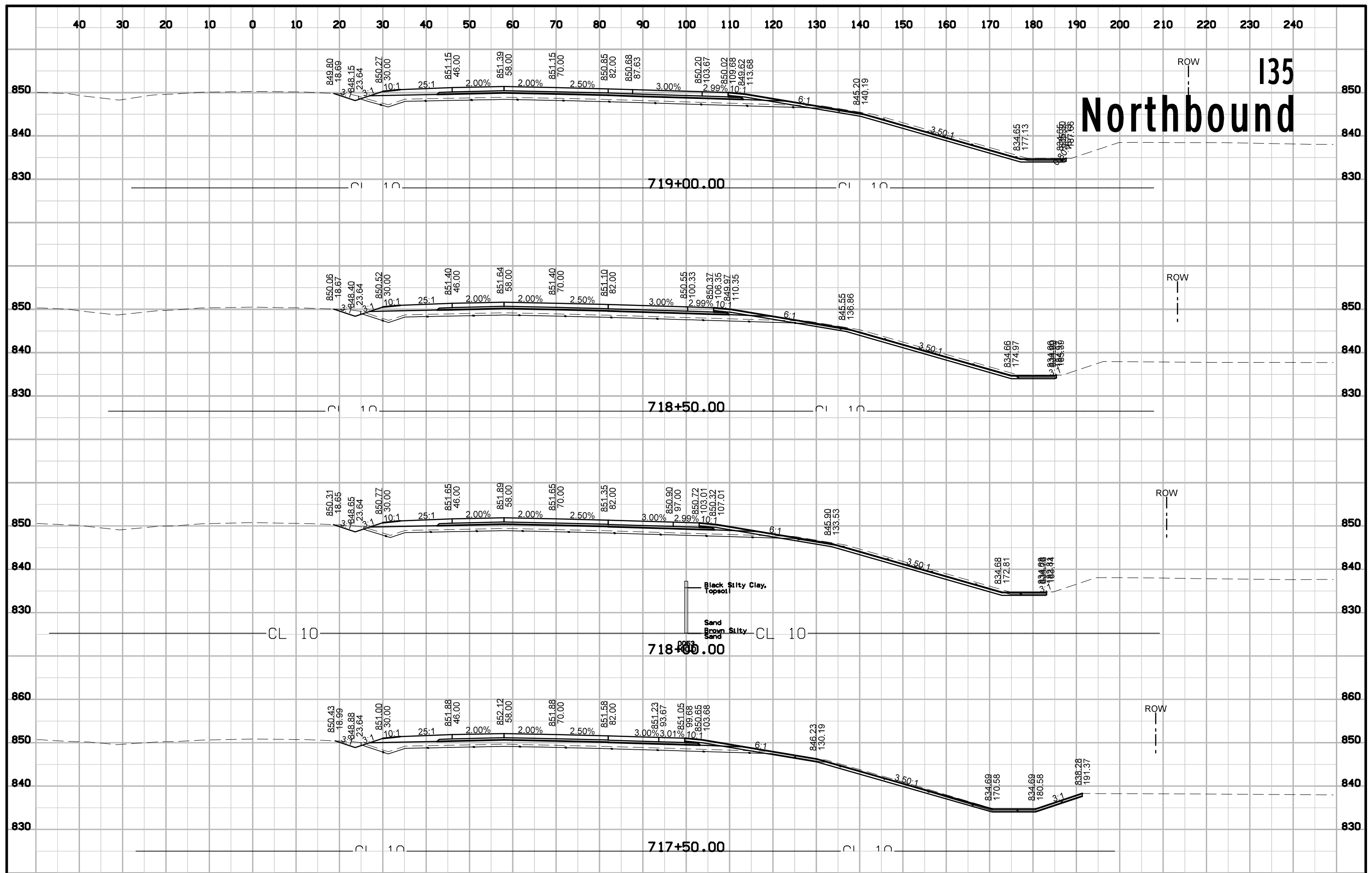


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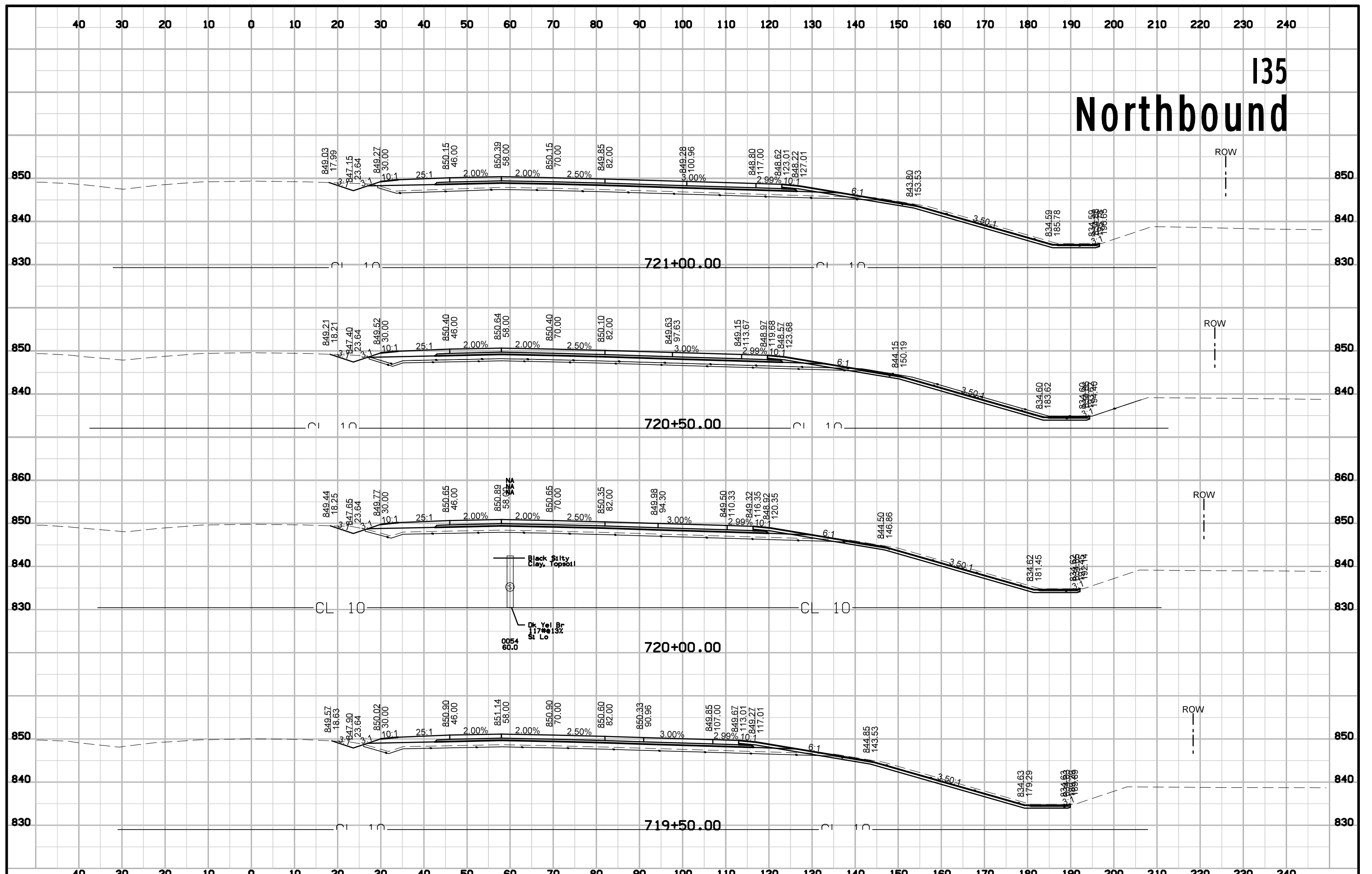




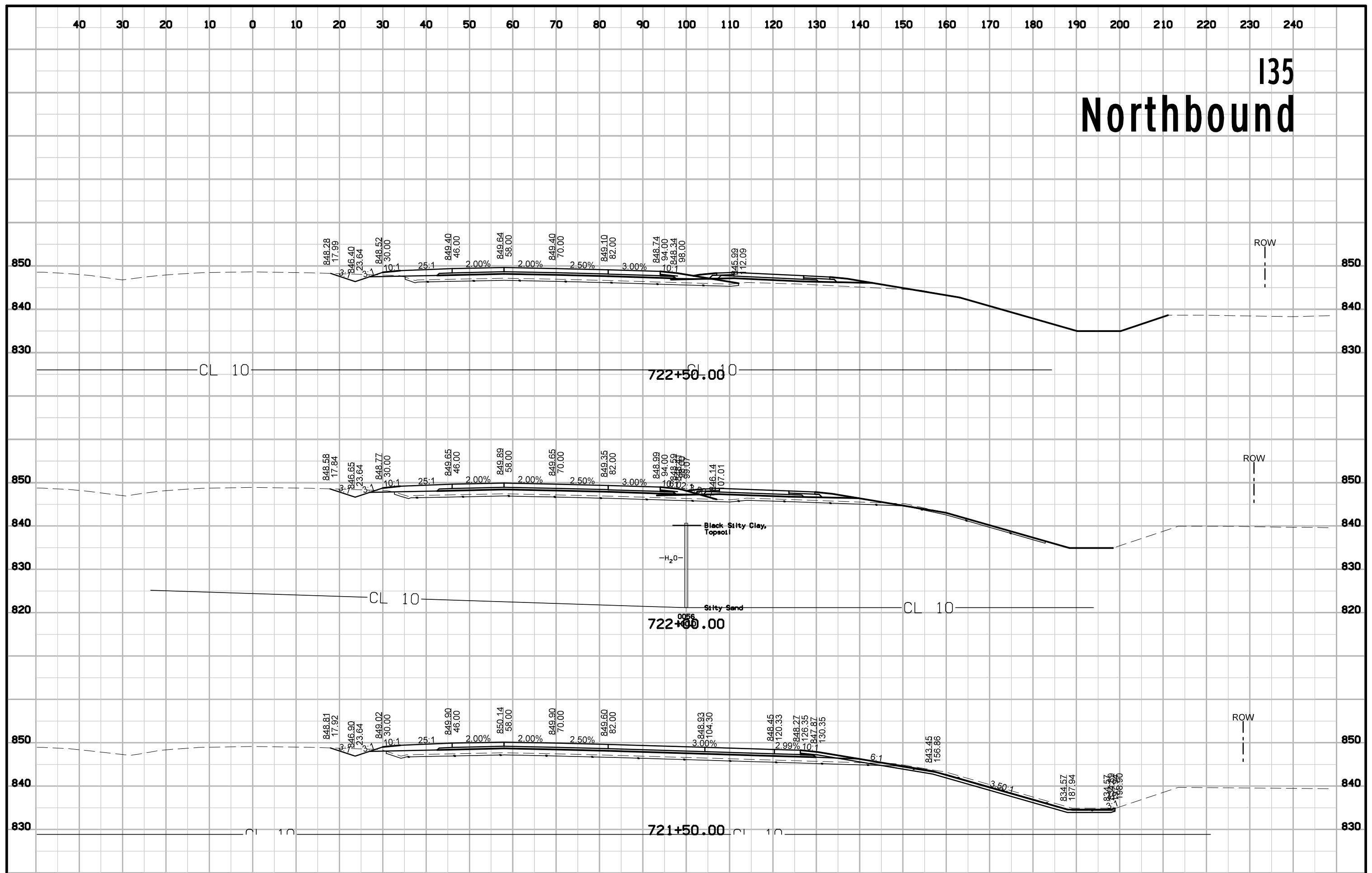




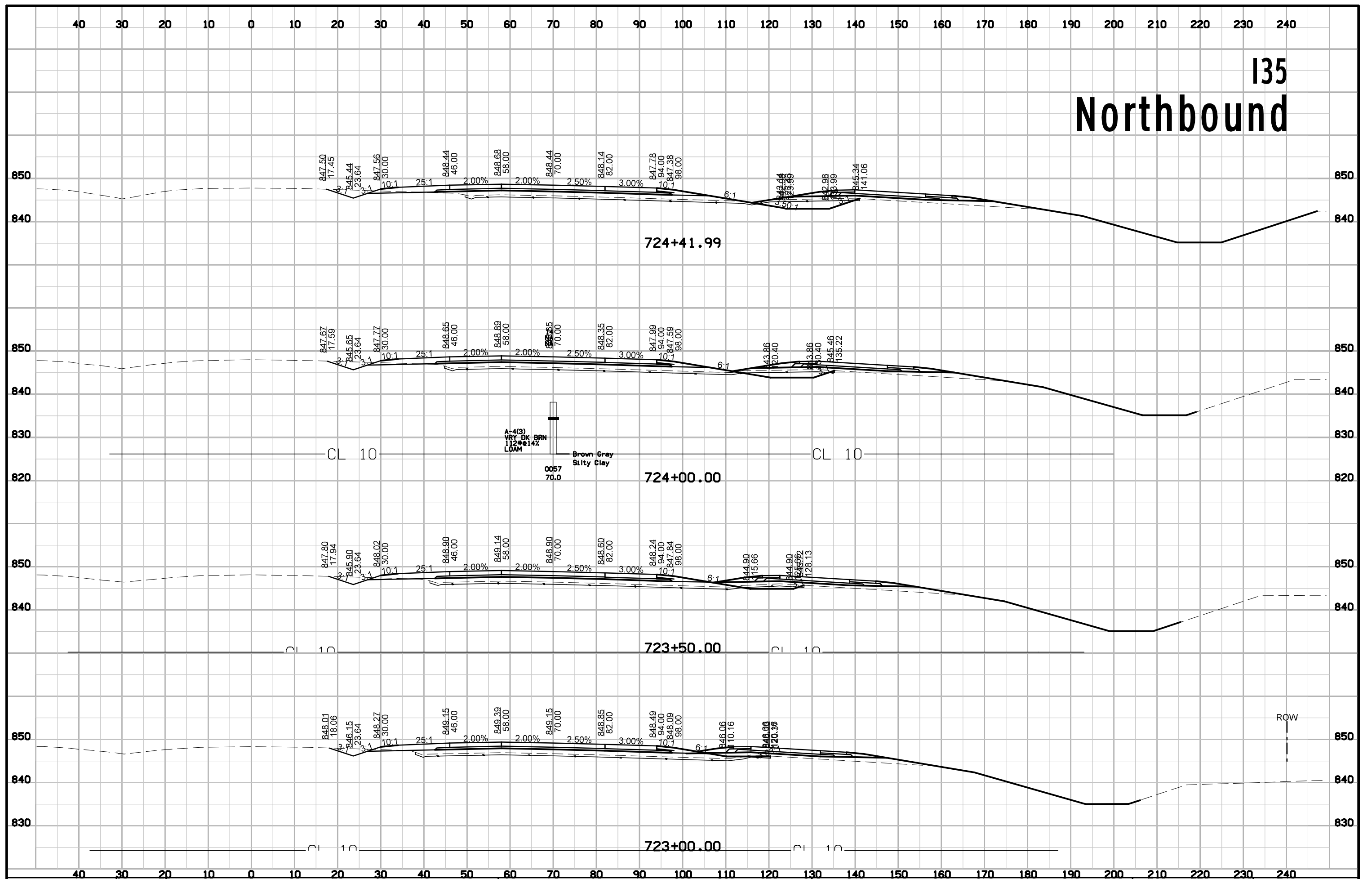
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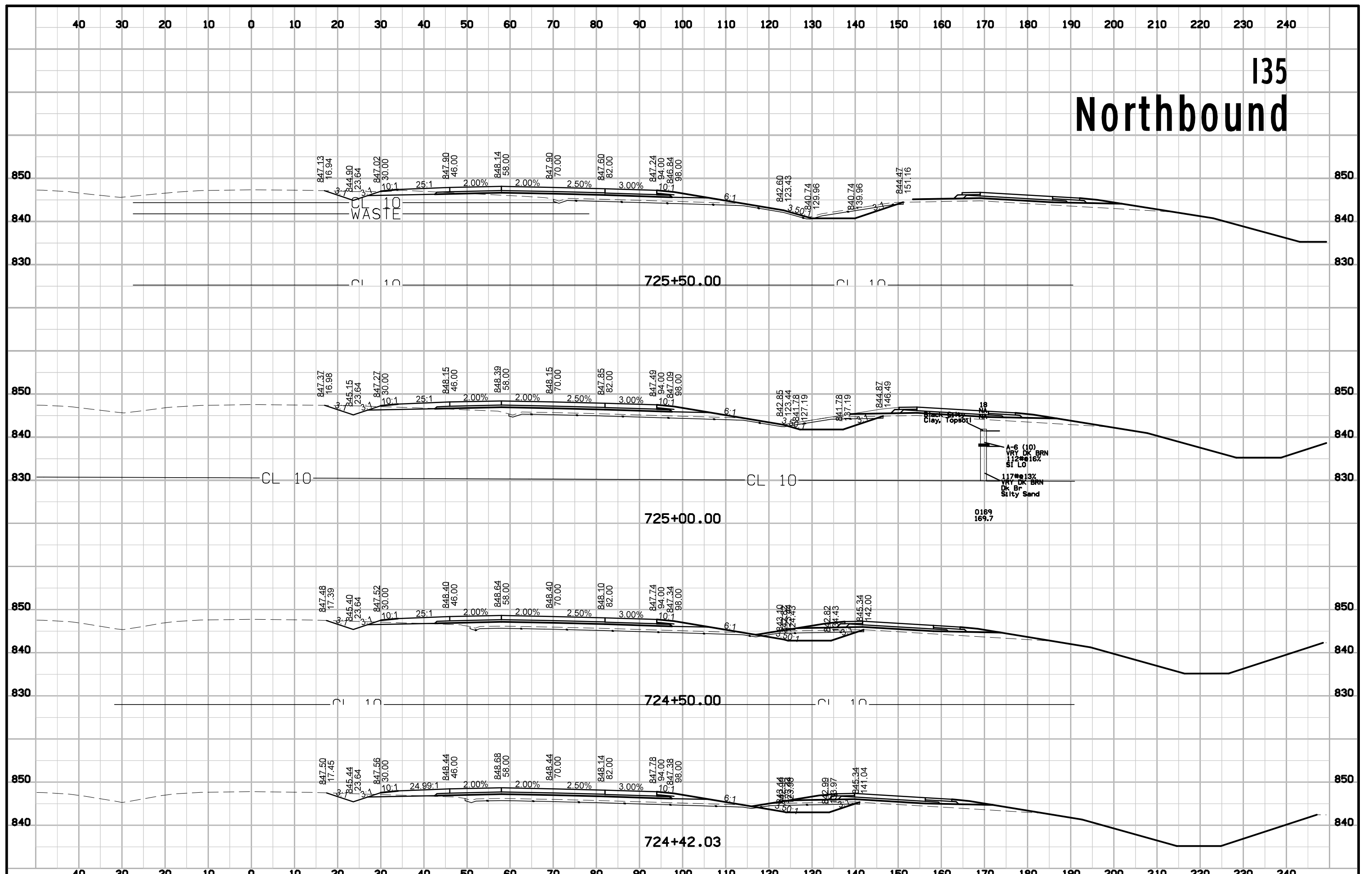
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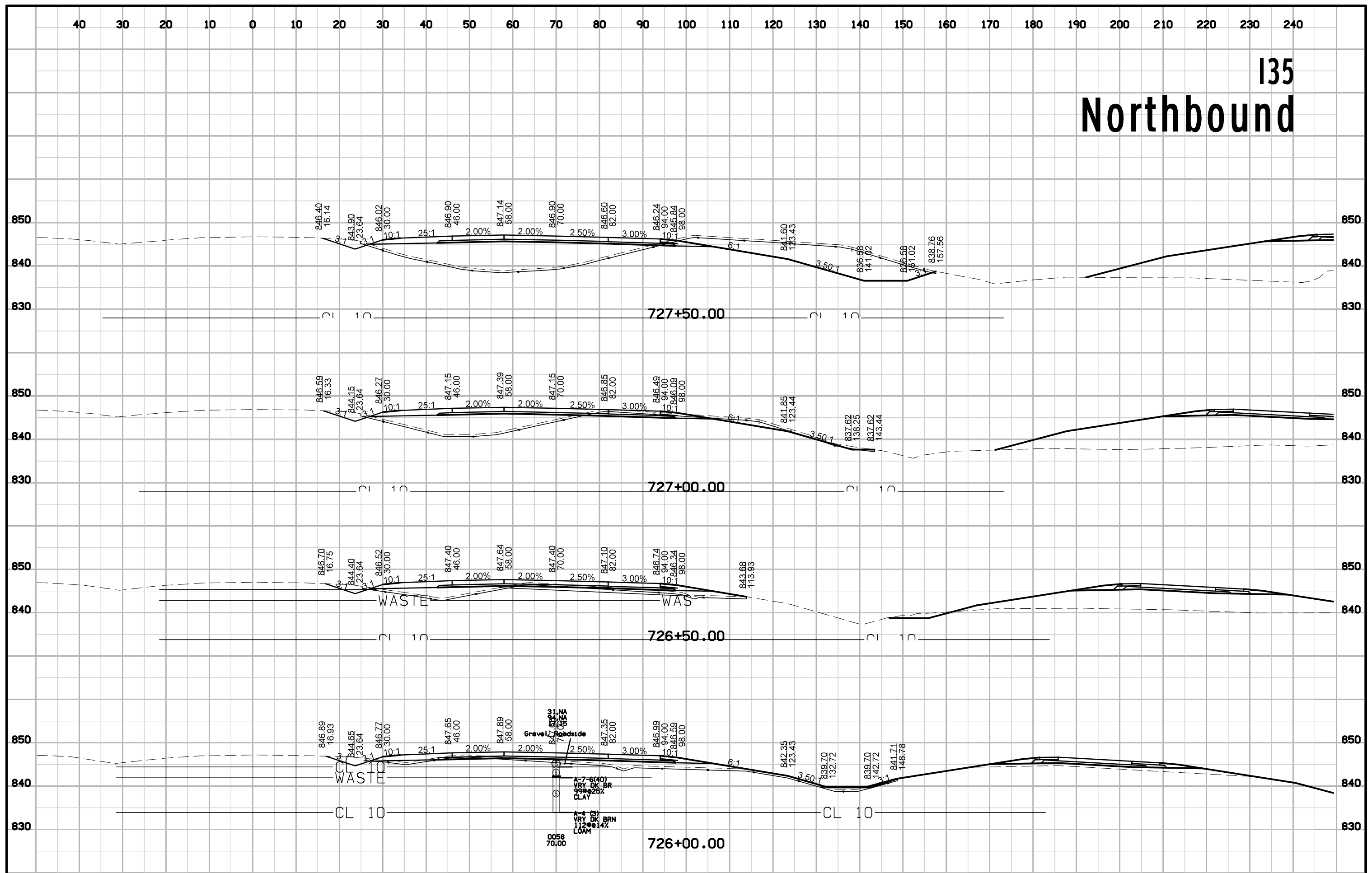
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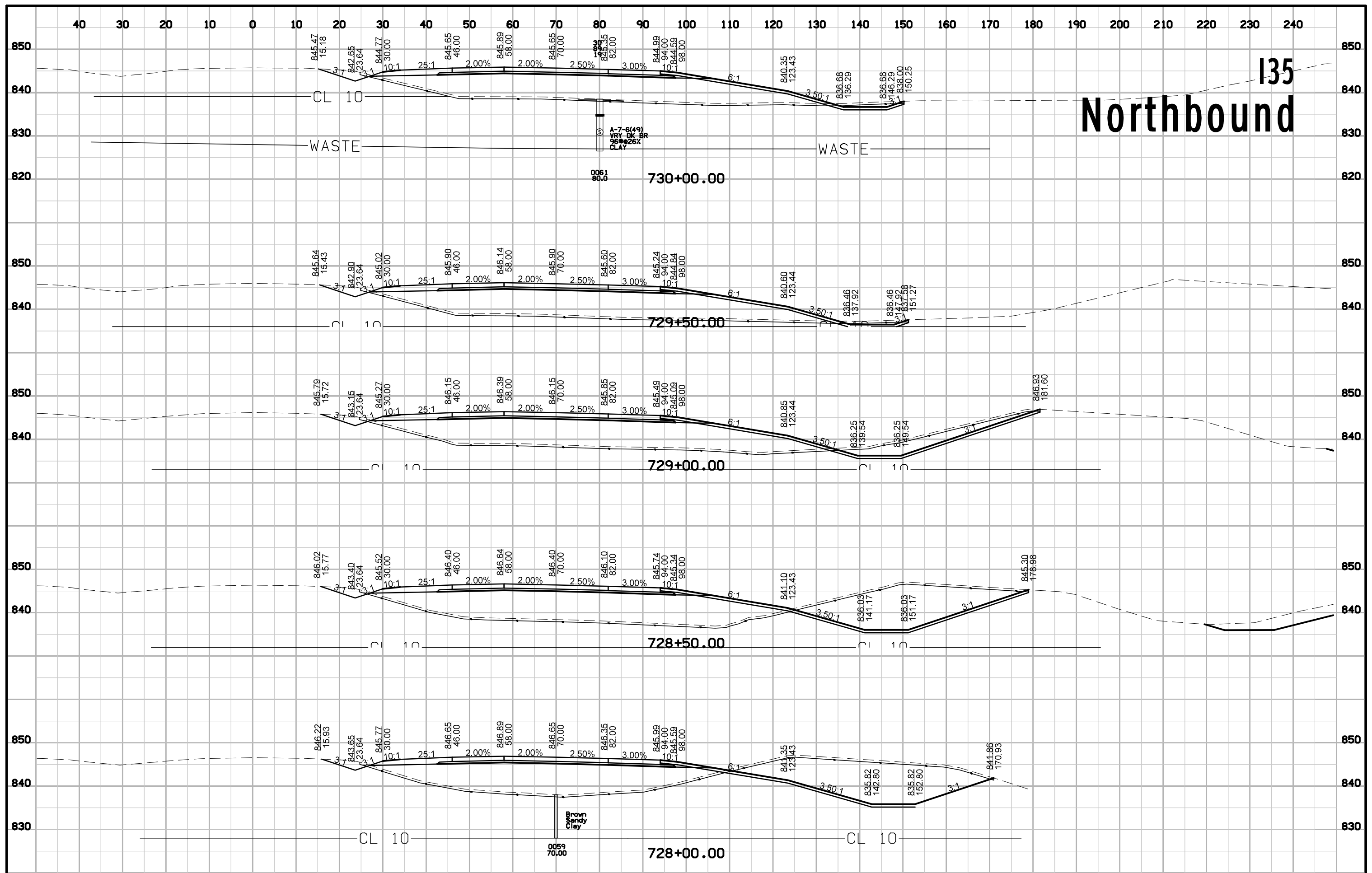


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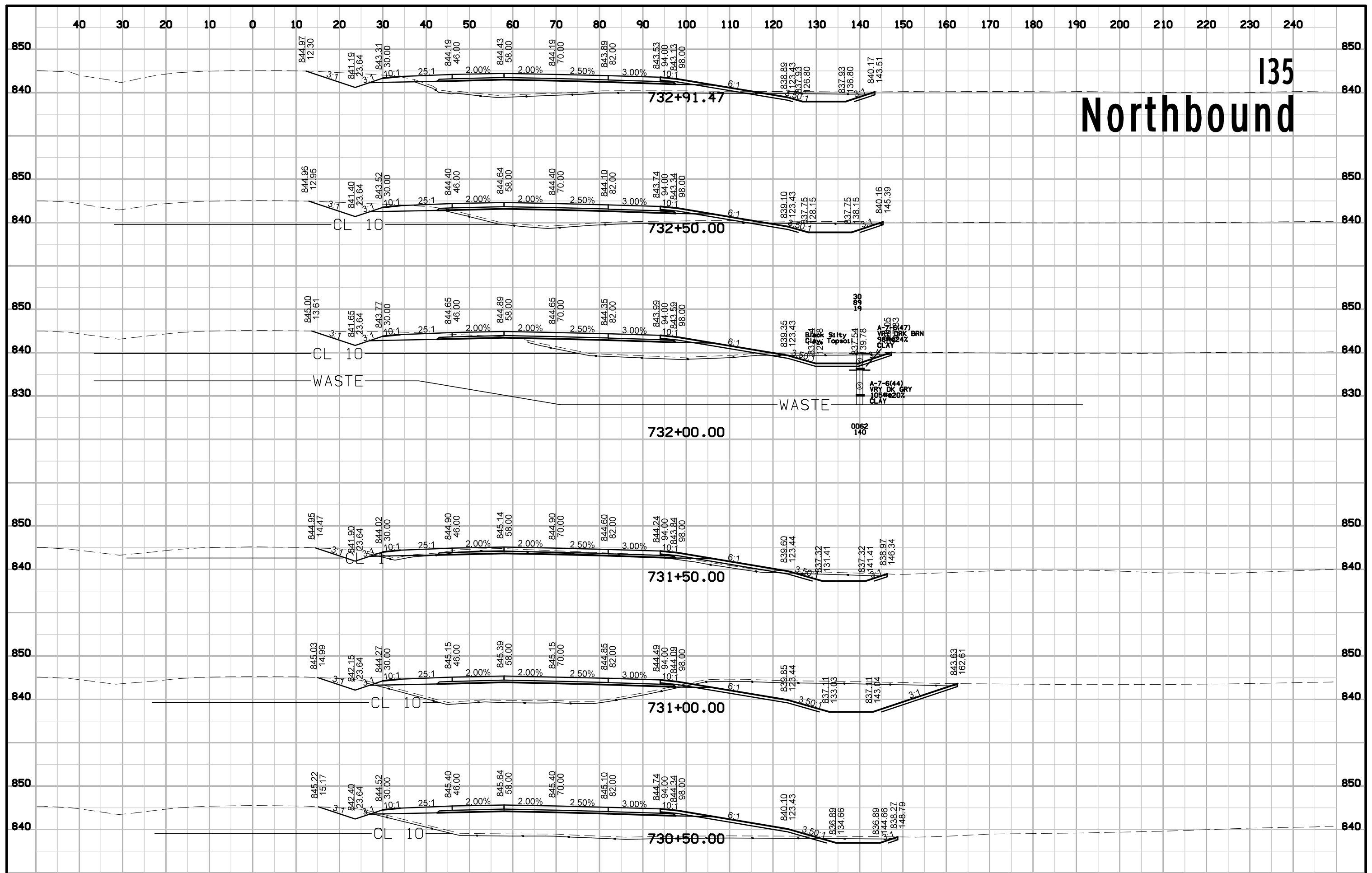


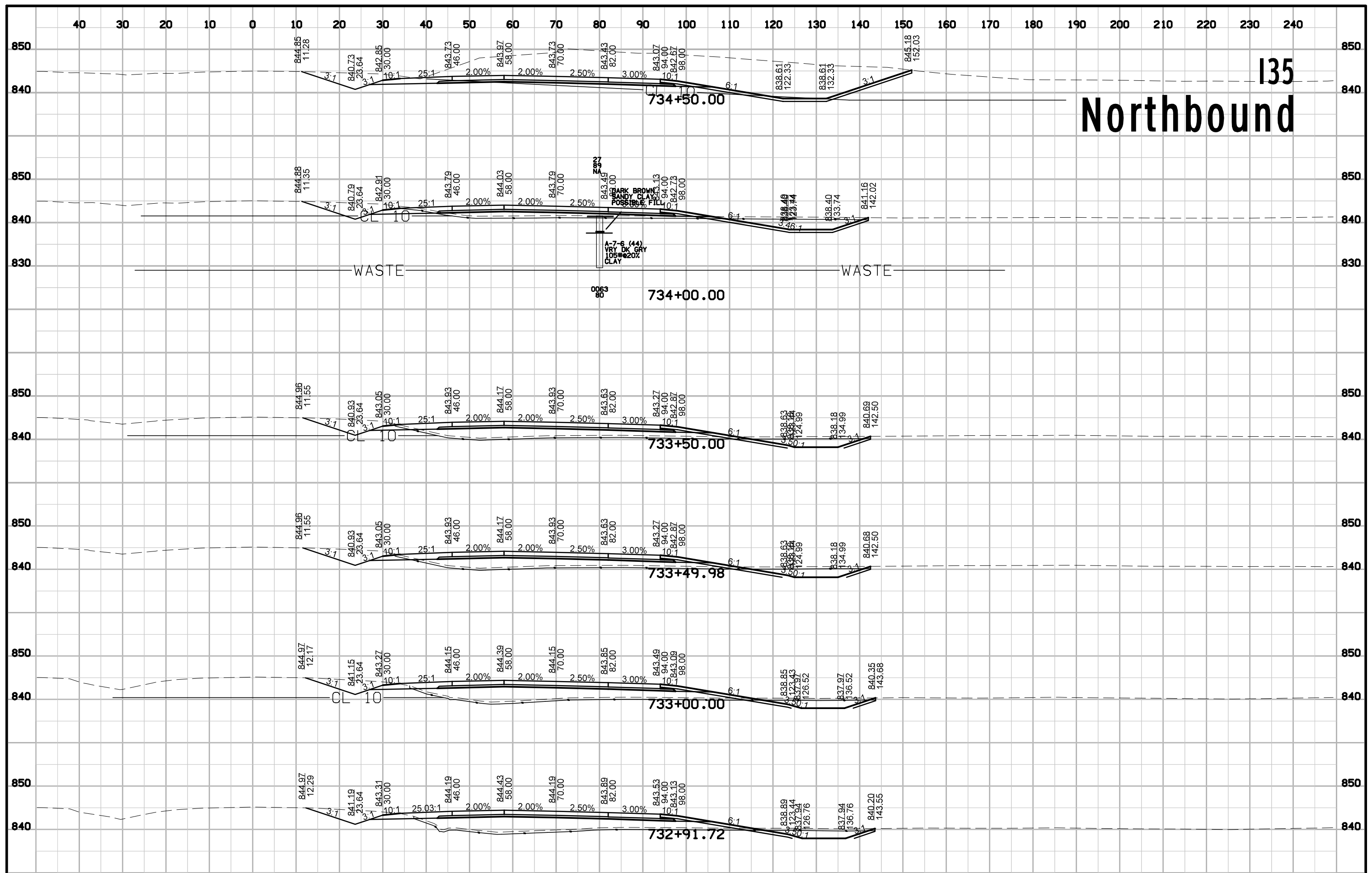
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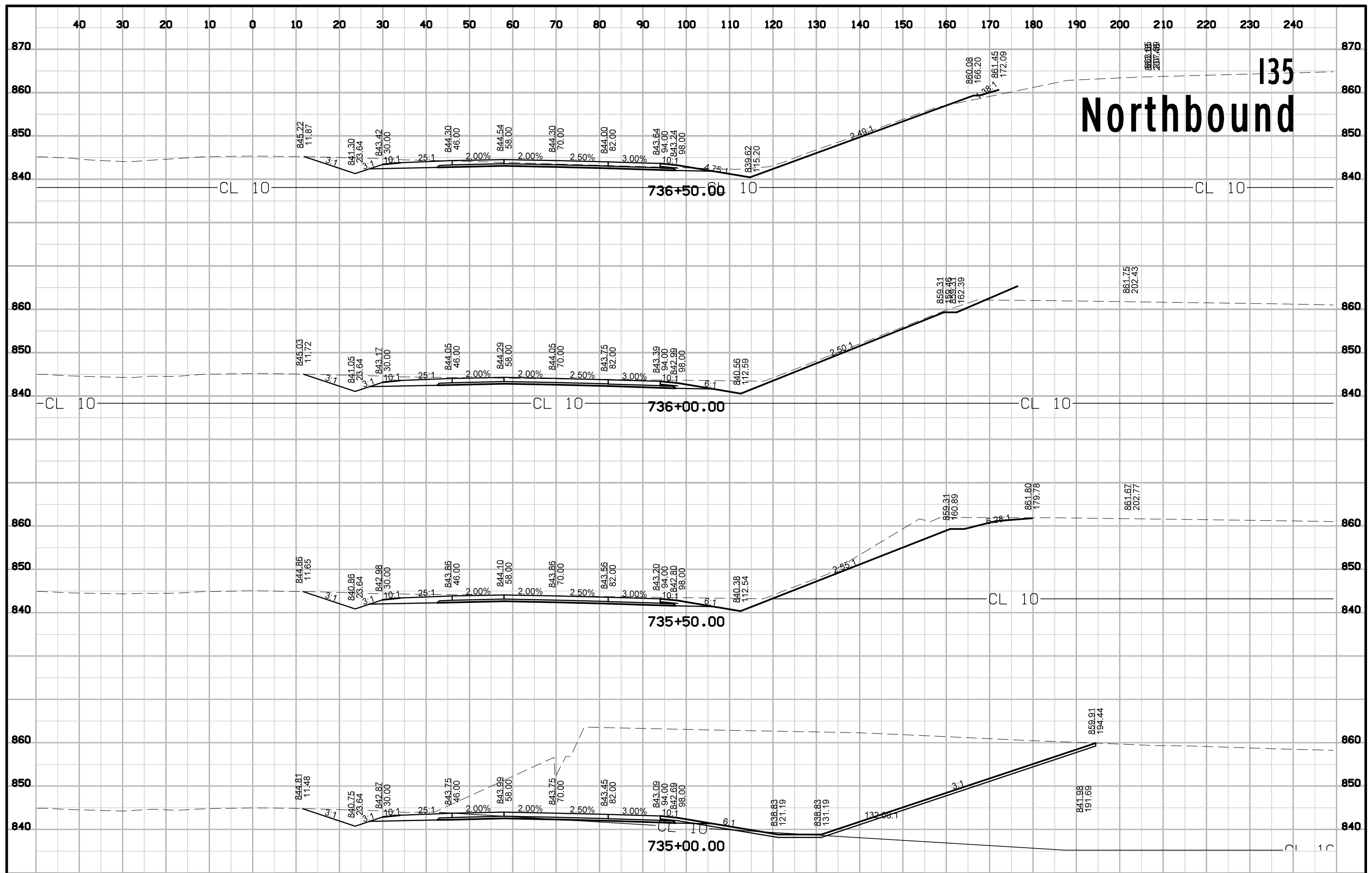


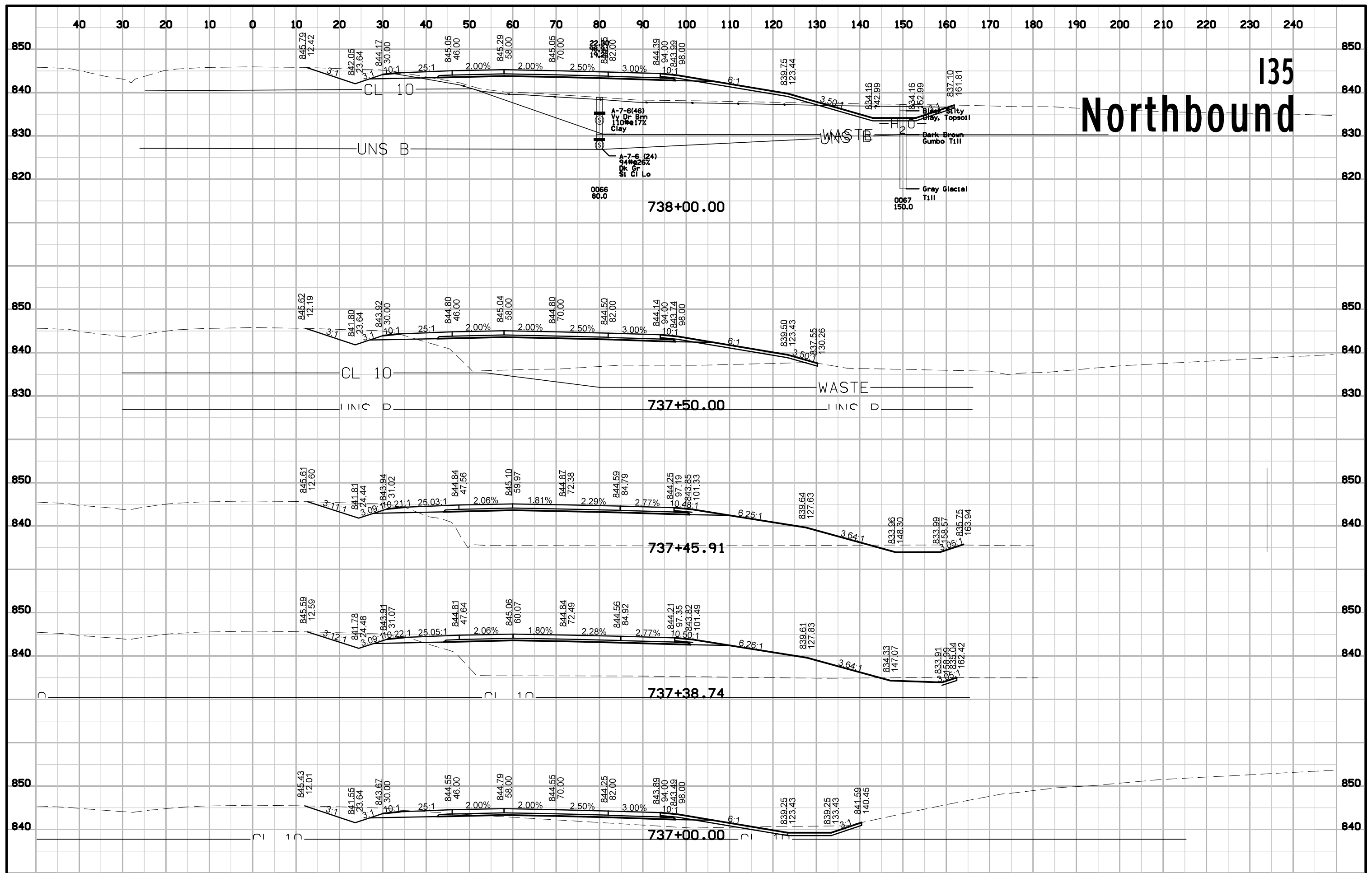
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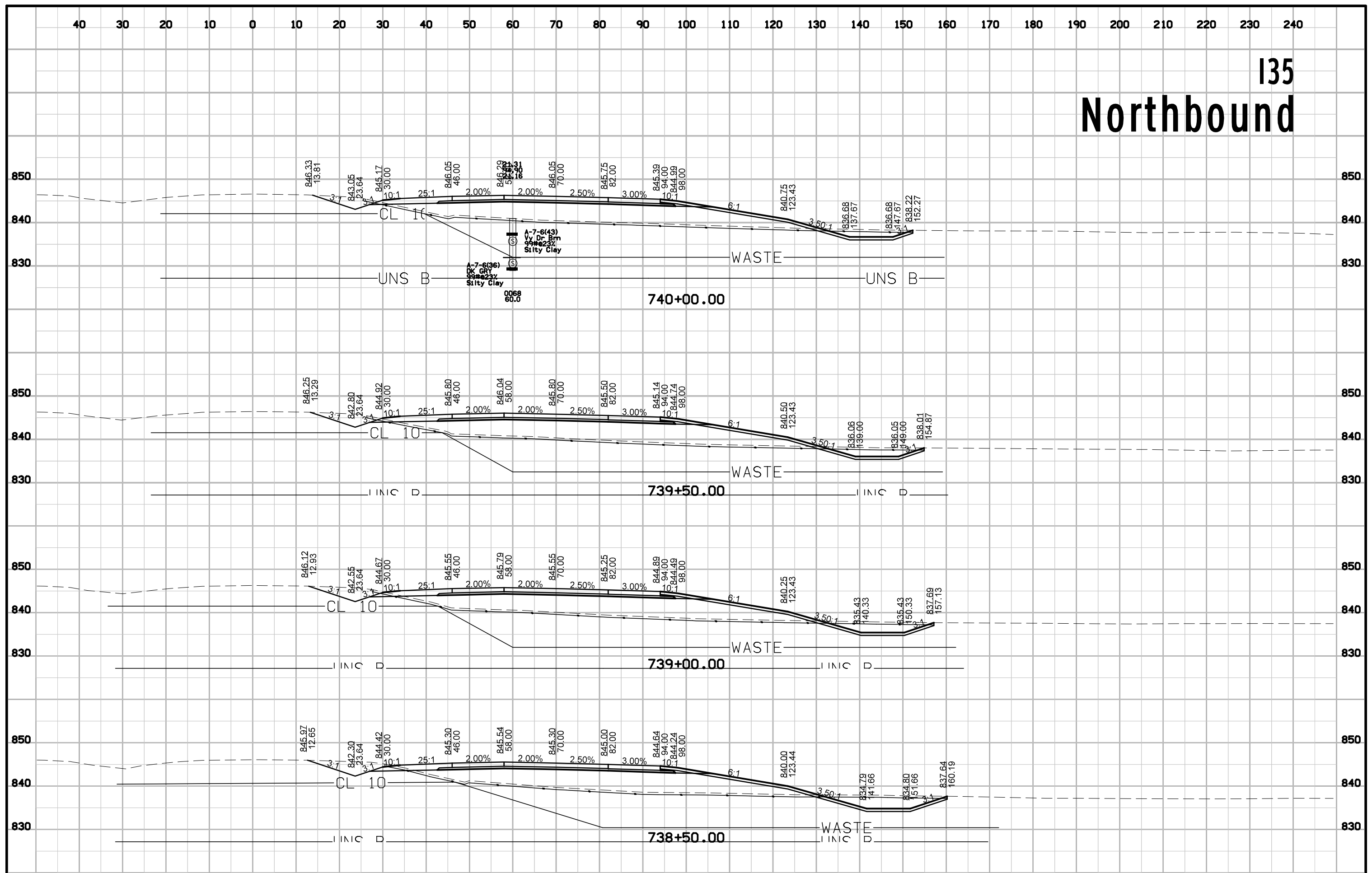
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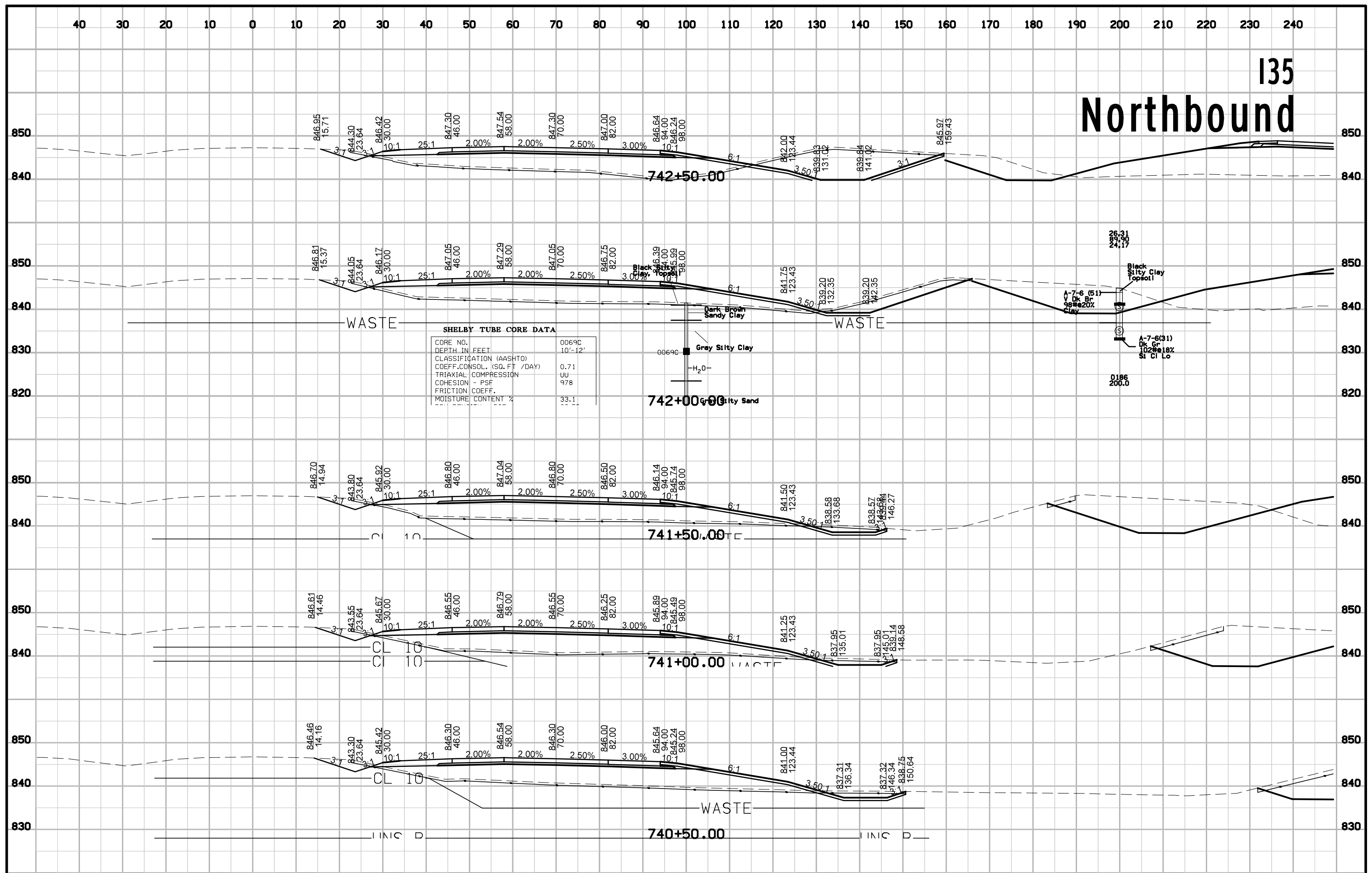


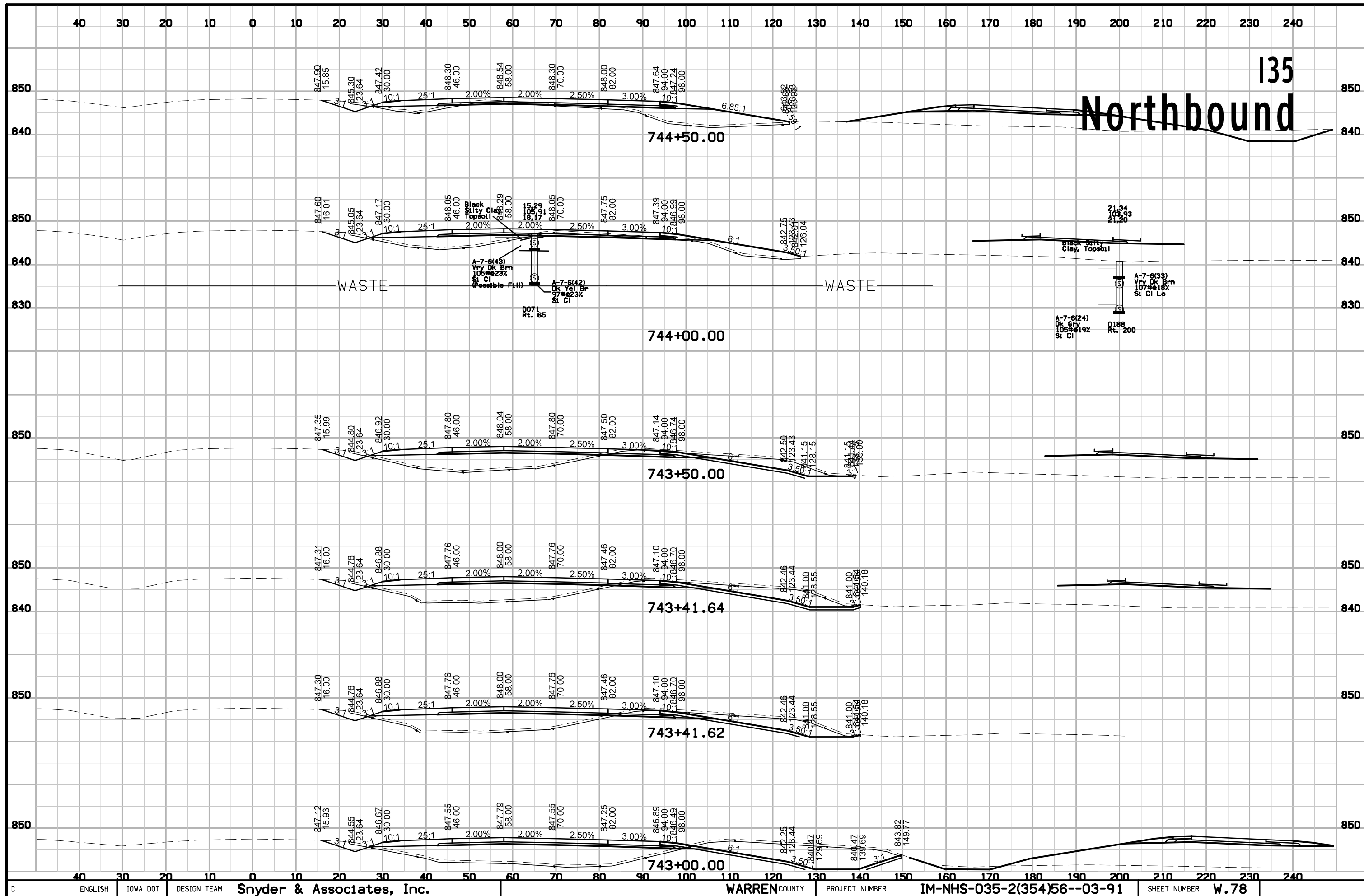
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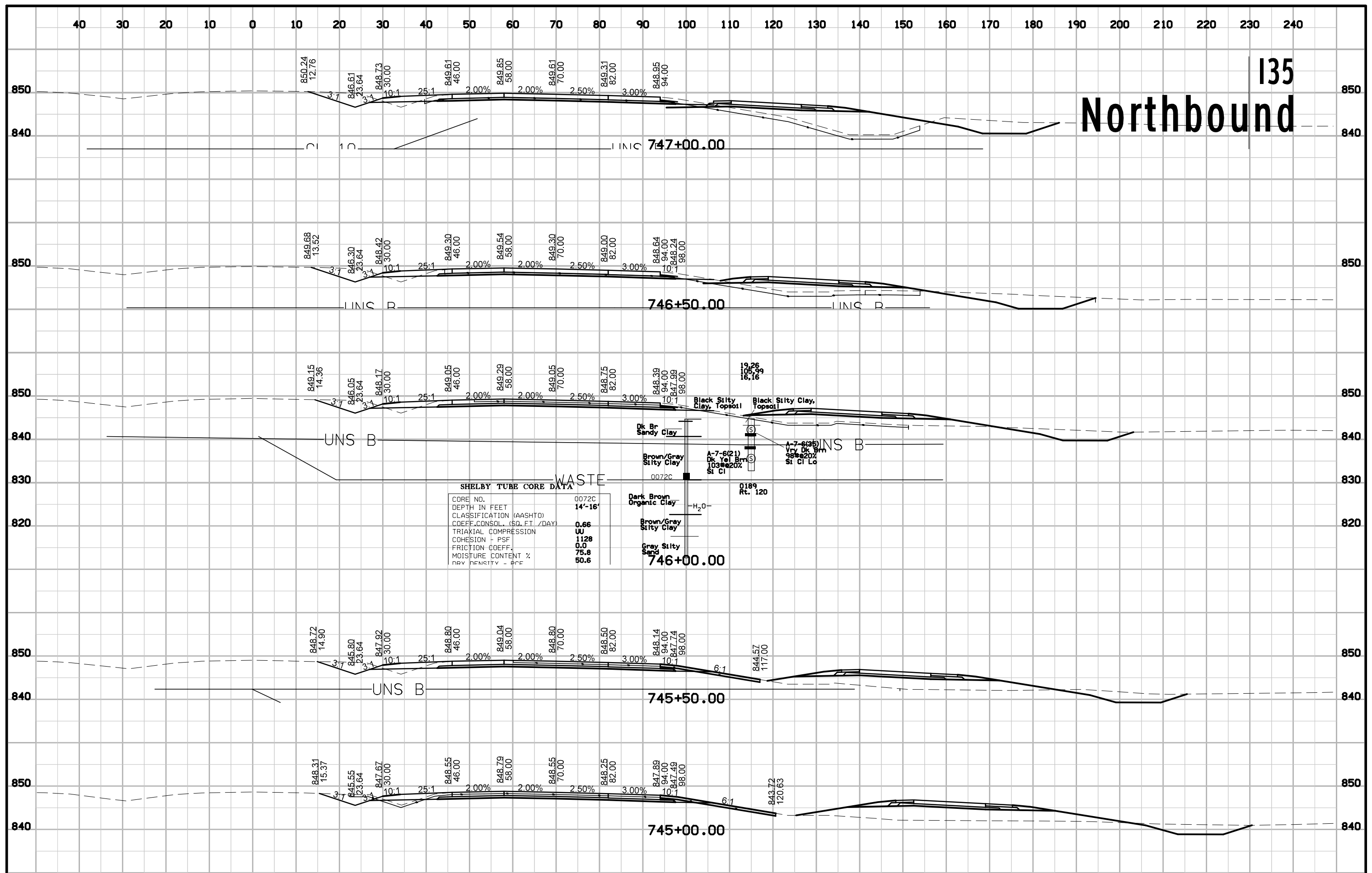
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135 Northbound





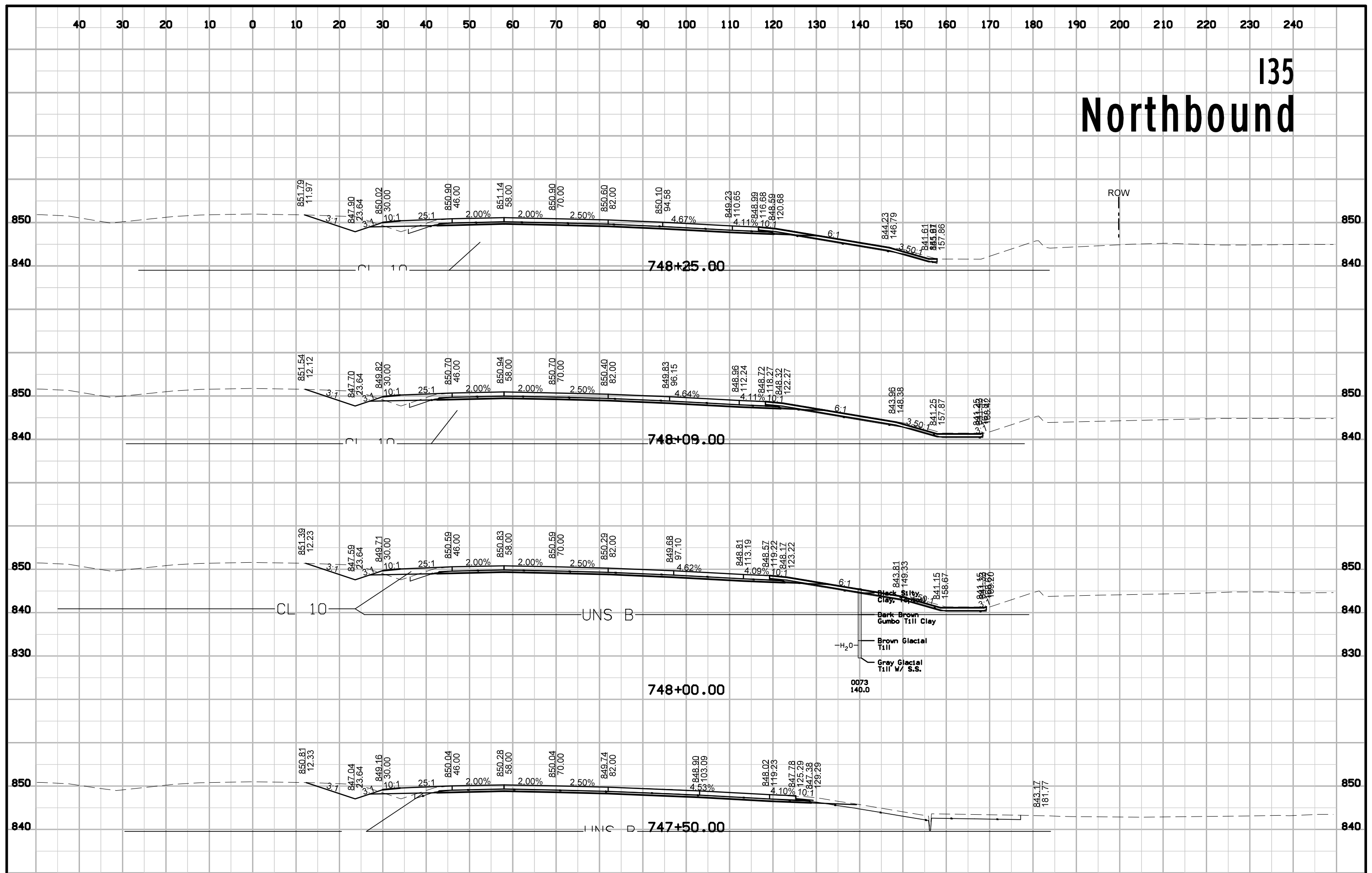


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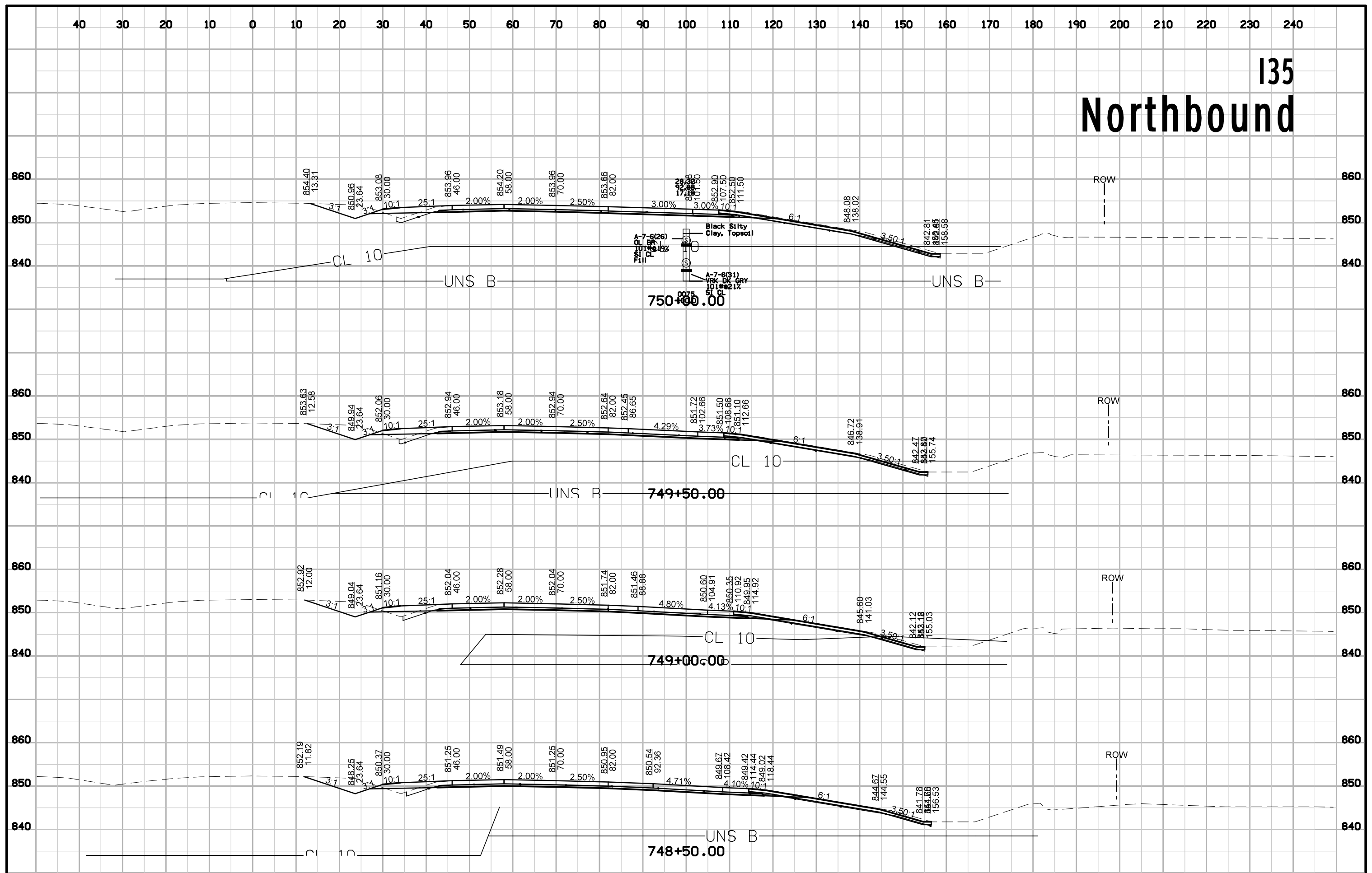
SHELBY TUBE CORE DATA

CORE NO.	0072C
DEPTH IN FEET	14'-16'
CLASSIFICATION (AASHTO)	
COEFF. CONSOL. (SQ. FT. / DAY)	0.66
TRIAxIAL COMPRESSION	UU
COHESION - PSF	1128
FRICTION COEFF.	0.0
MOISTURE CONTENT %	75.8
DRY DENSITY - PCF	50.6

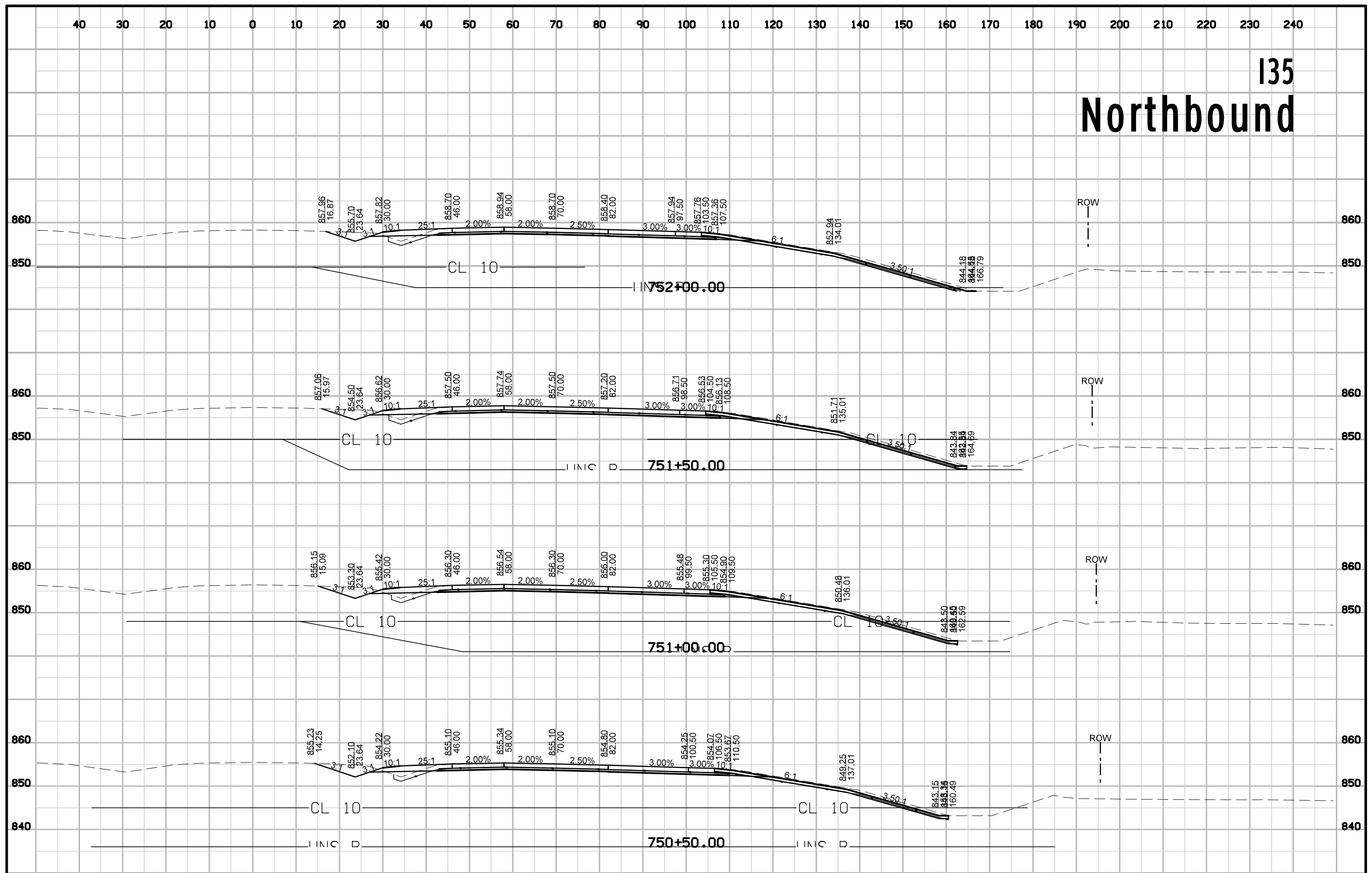
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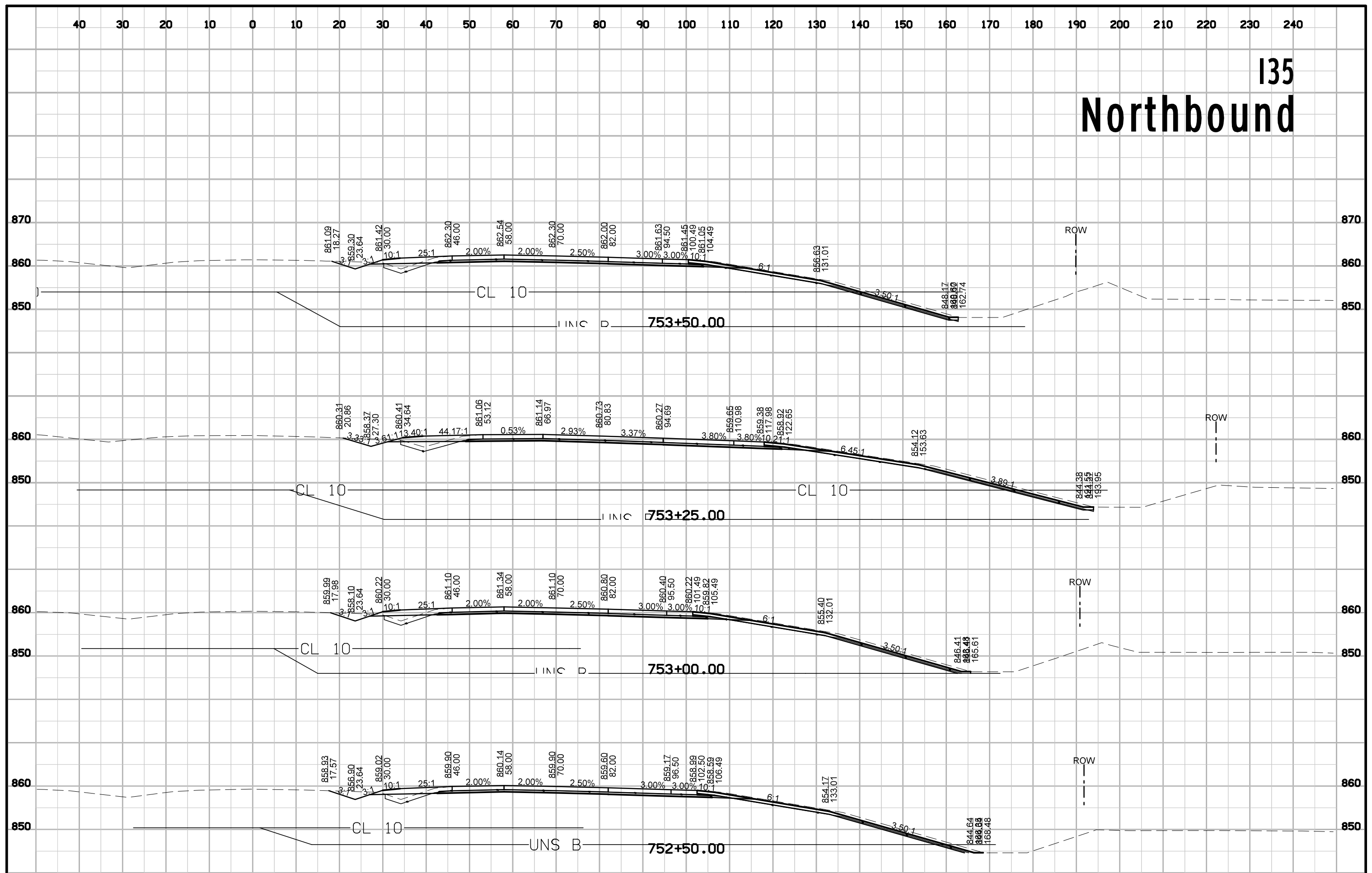
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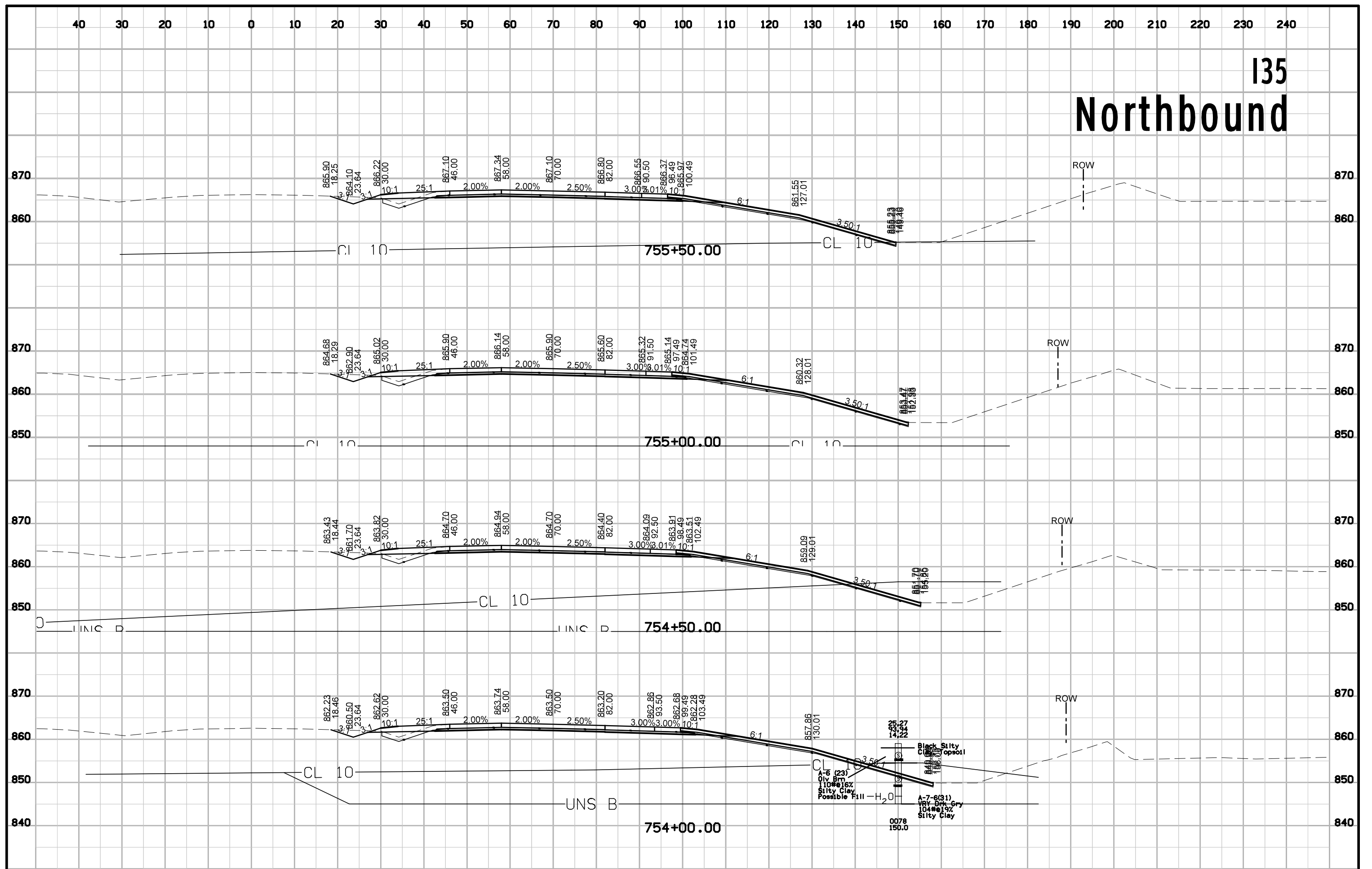
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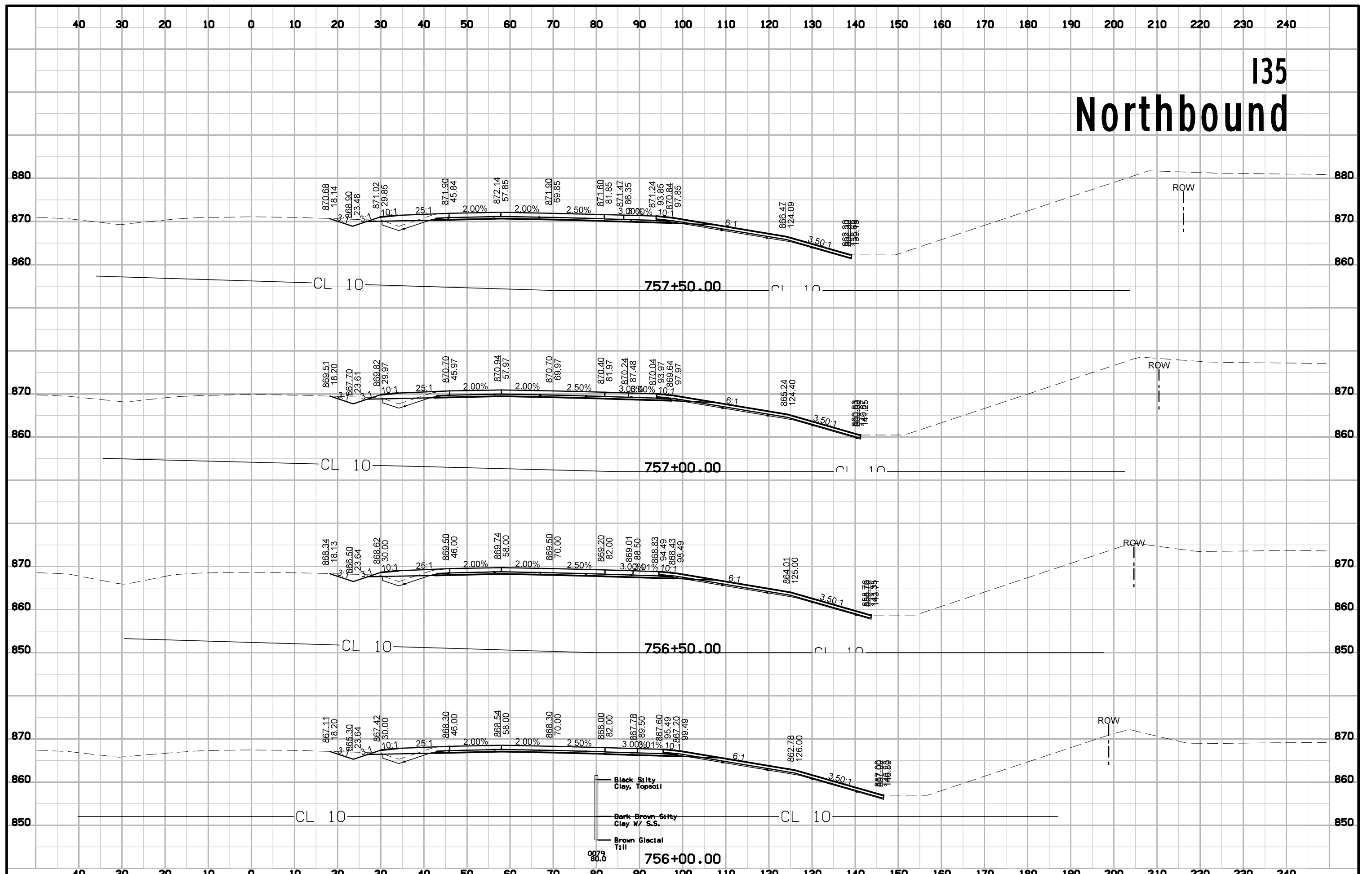
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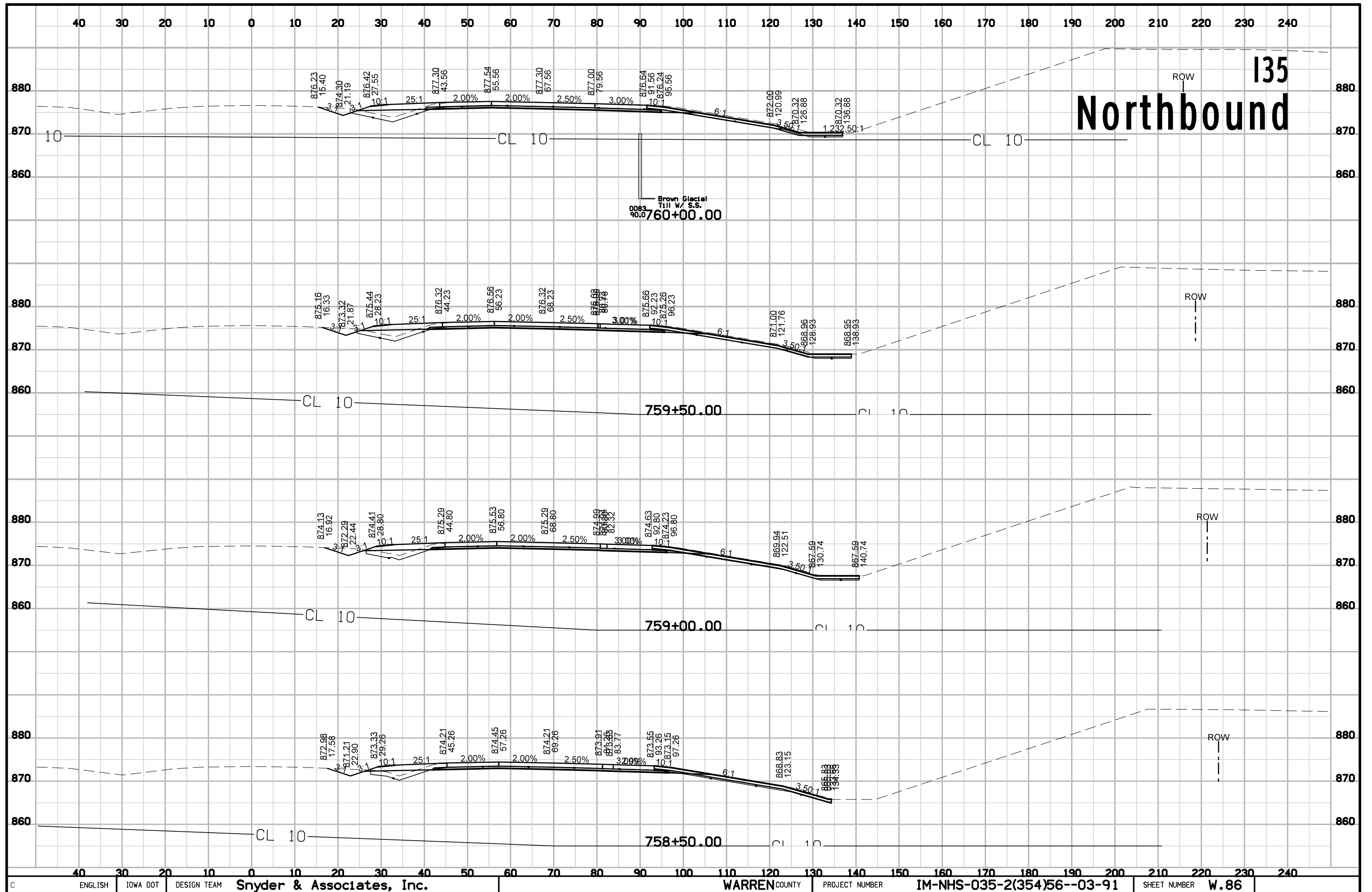


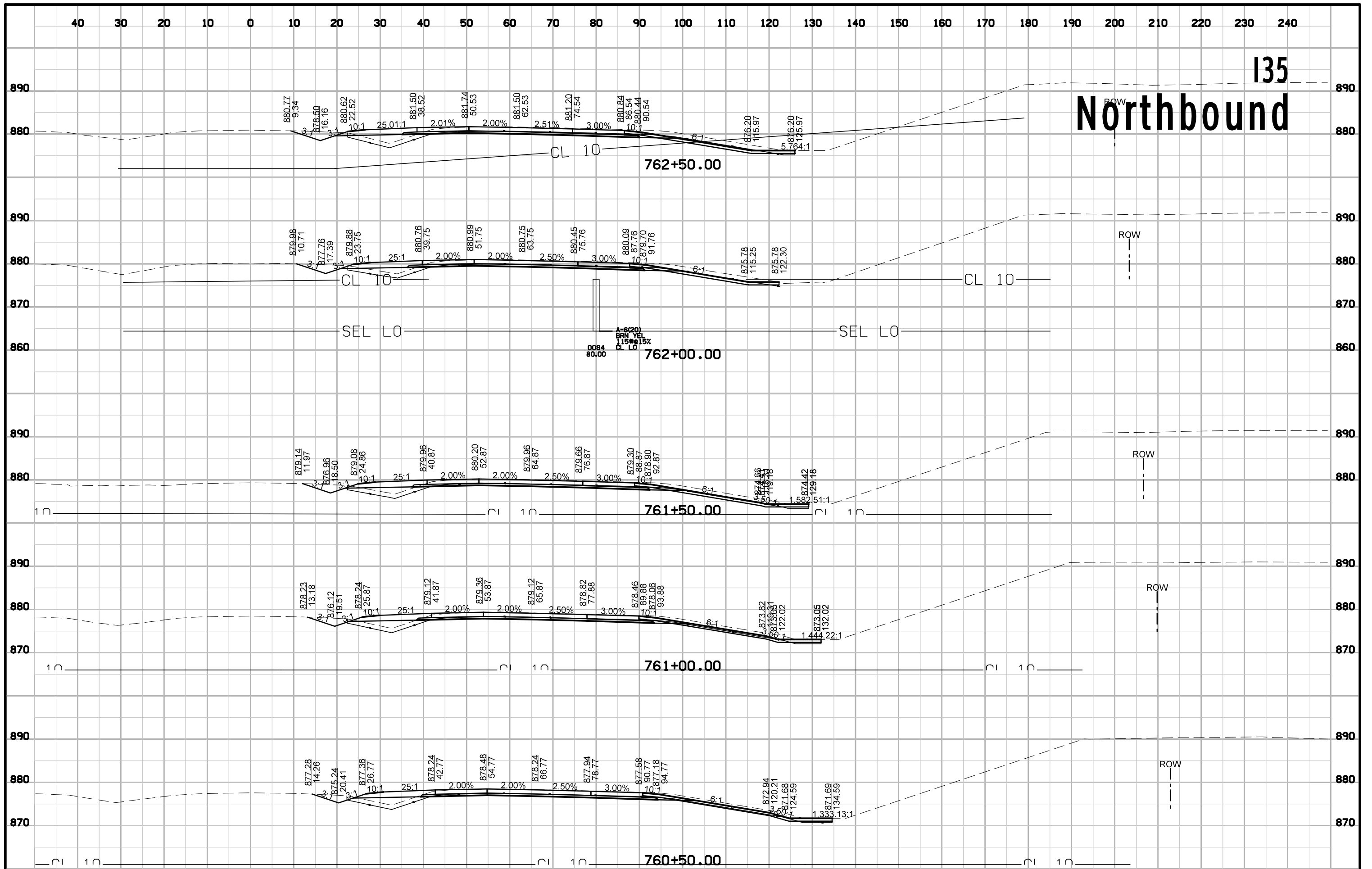
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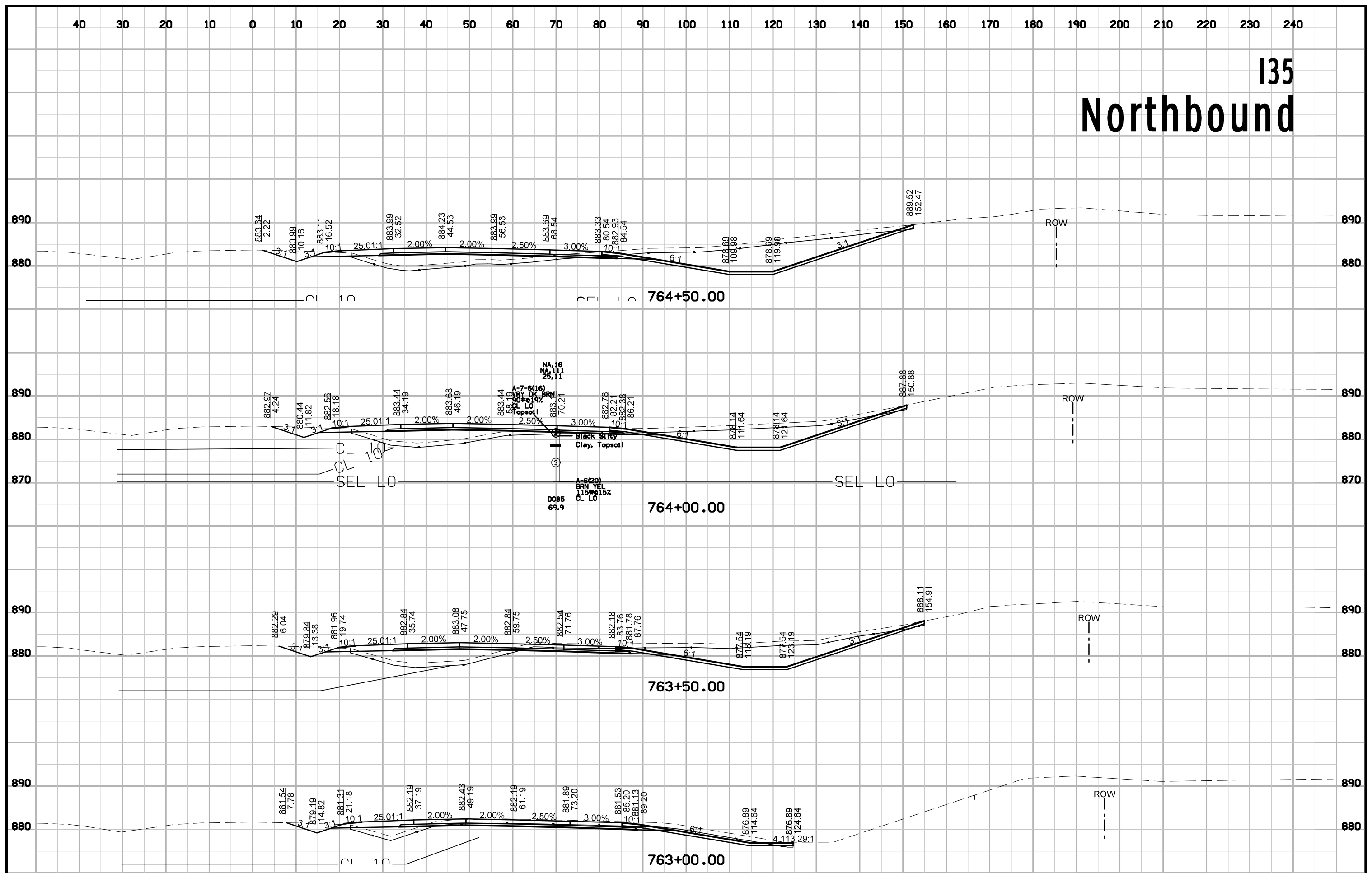
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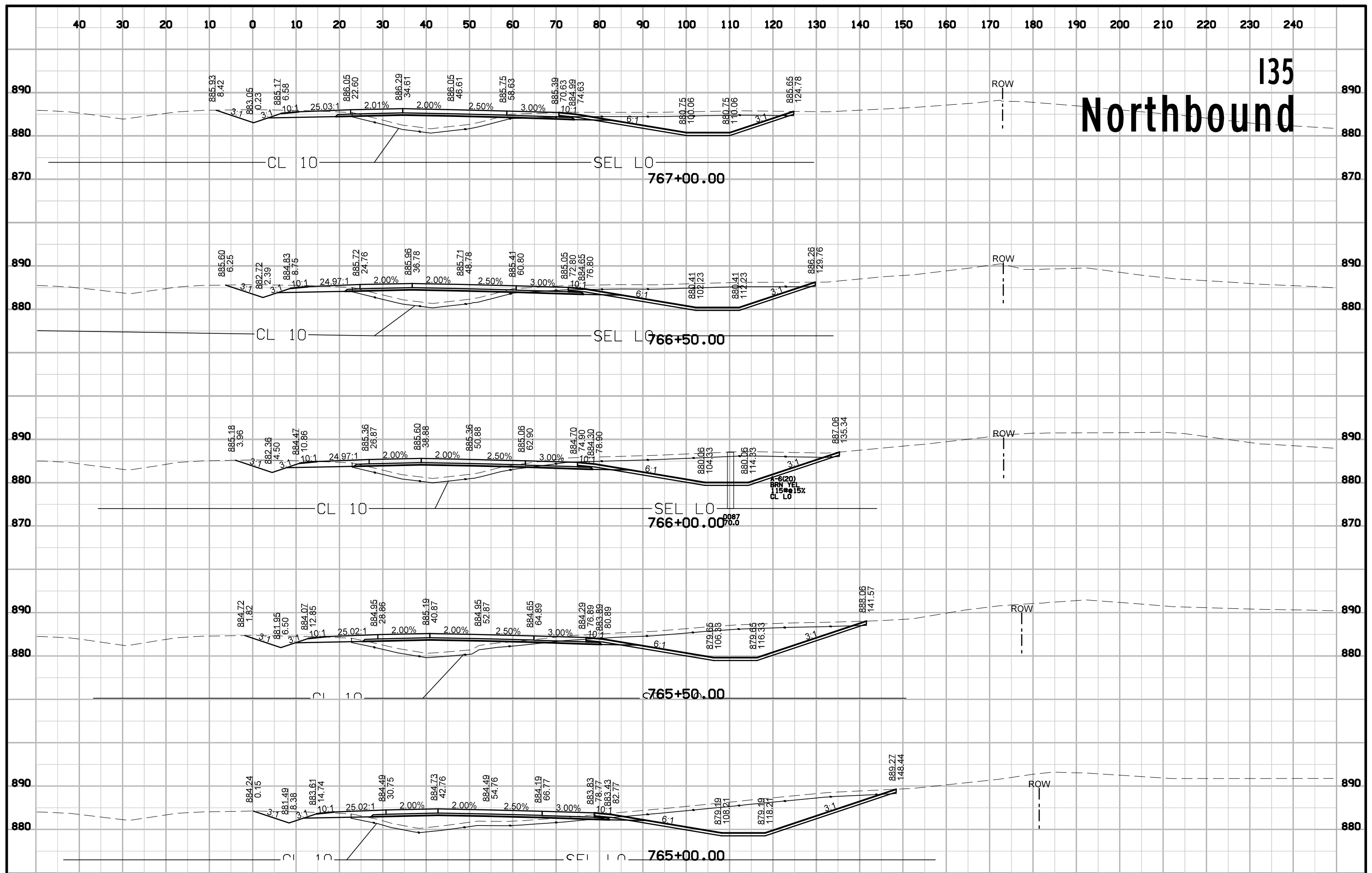




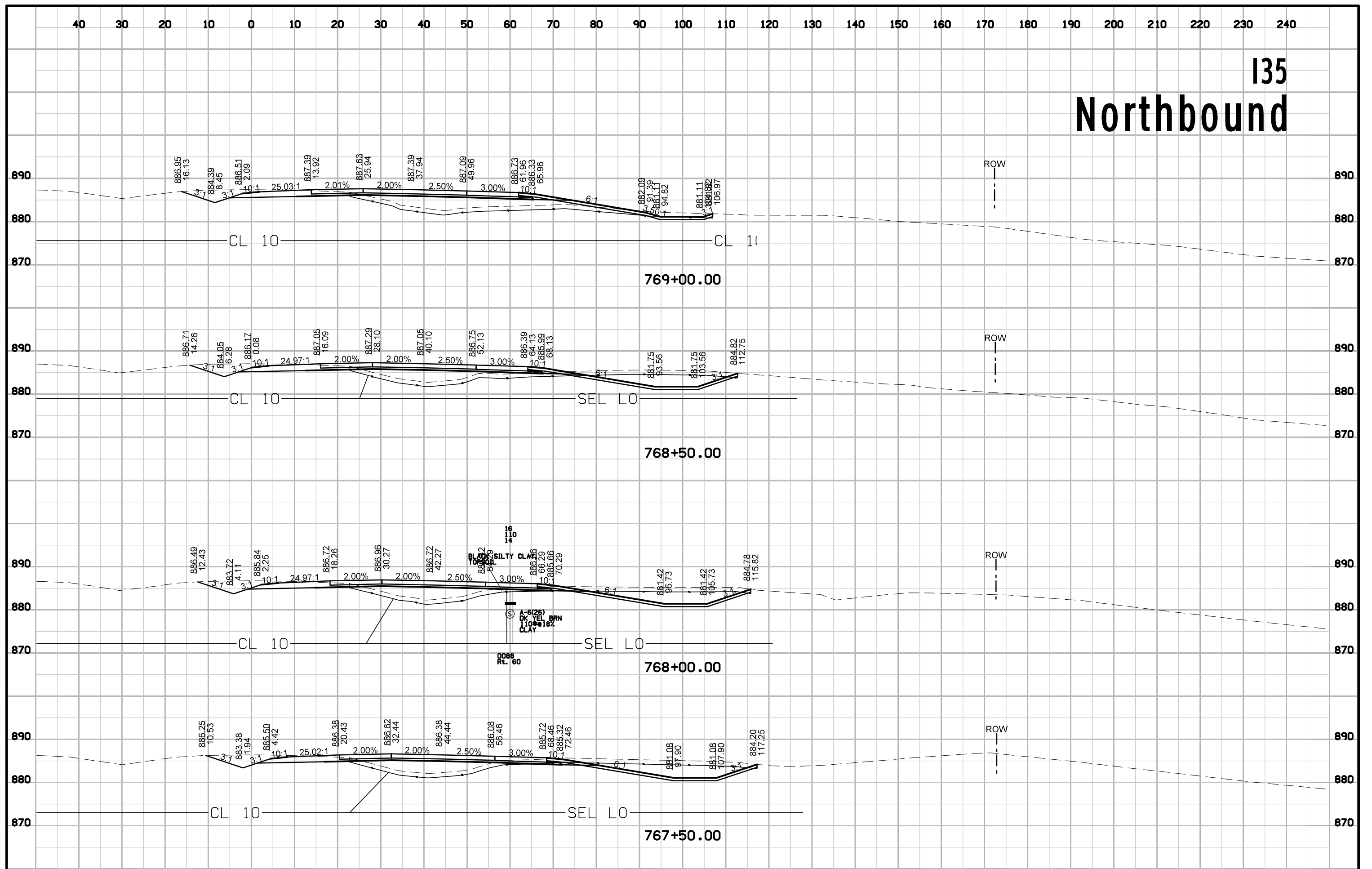


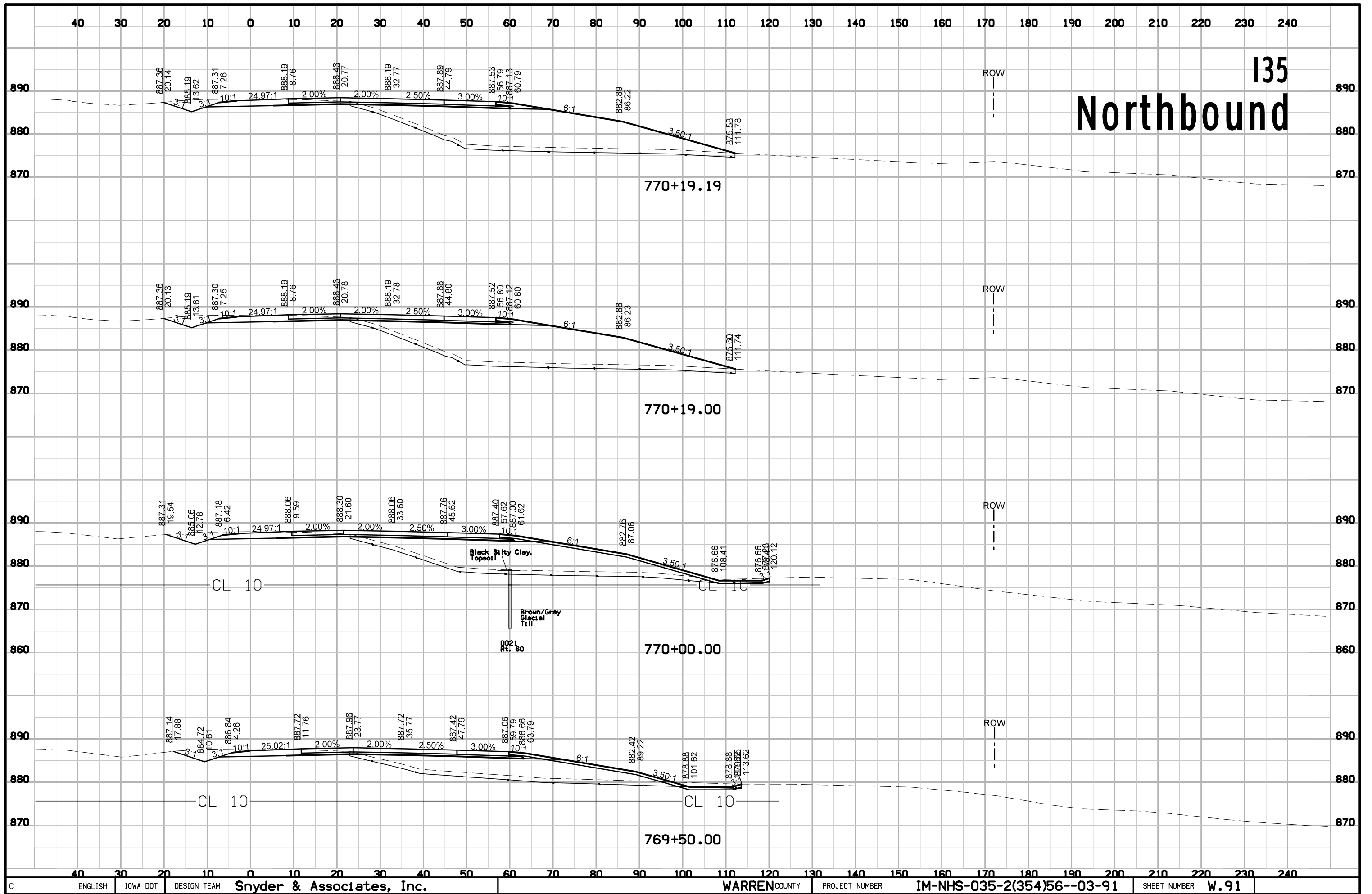
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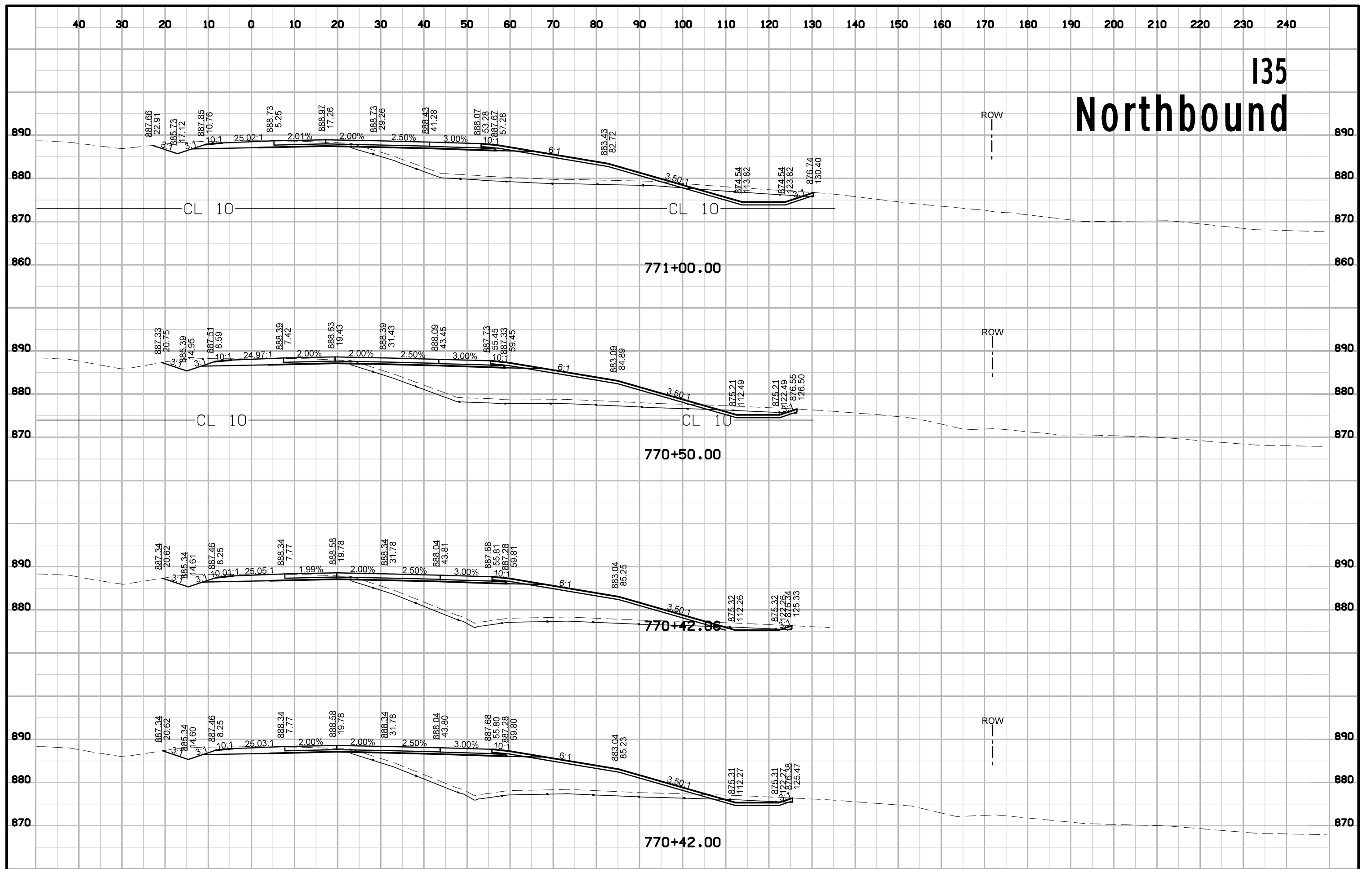


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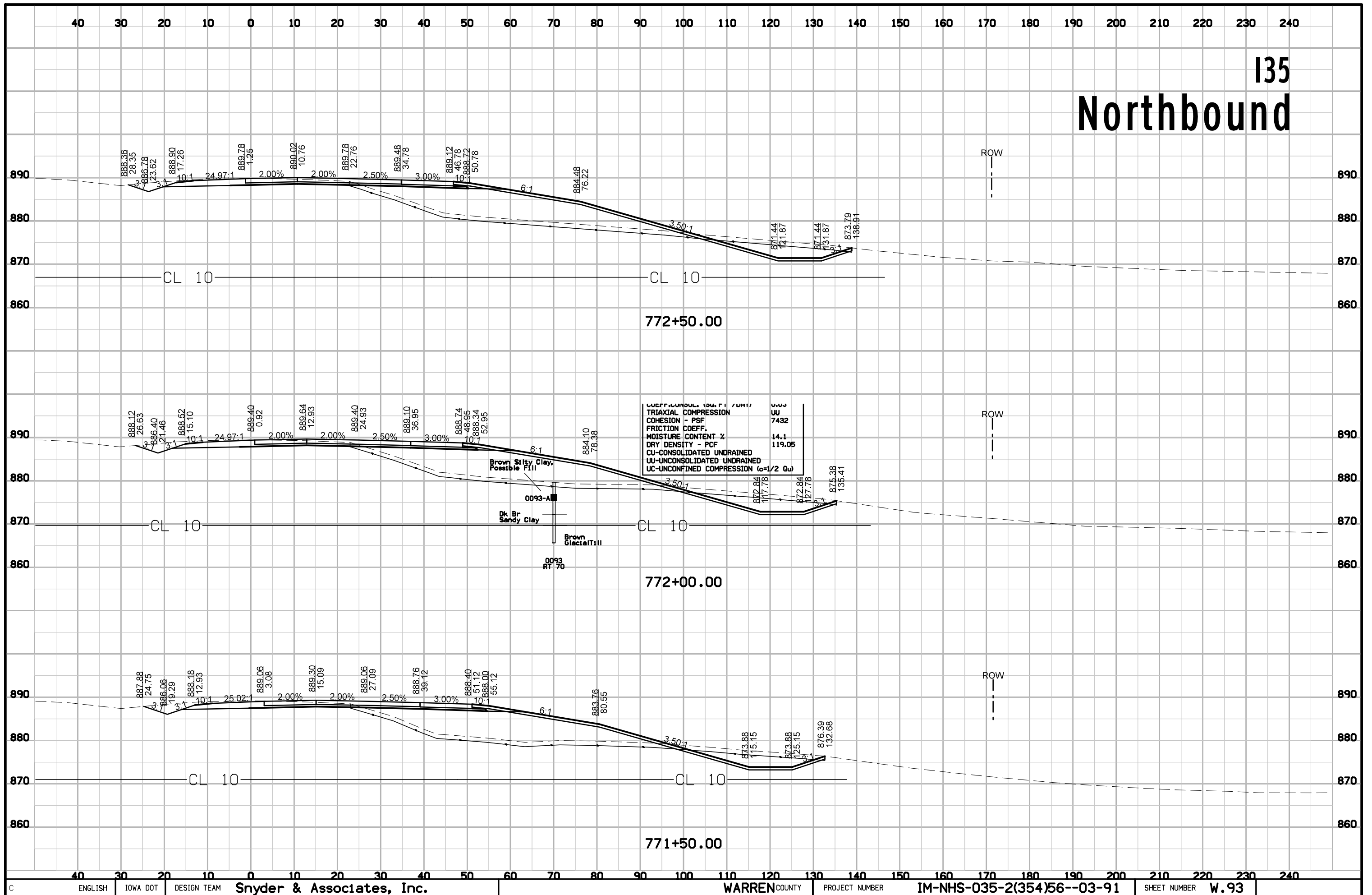




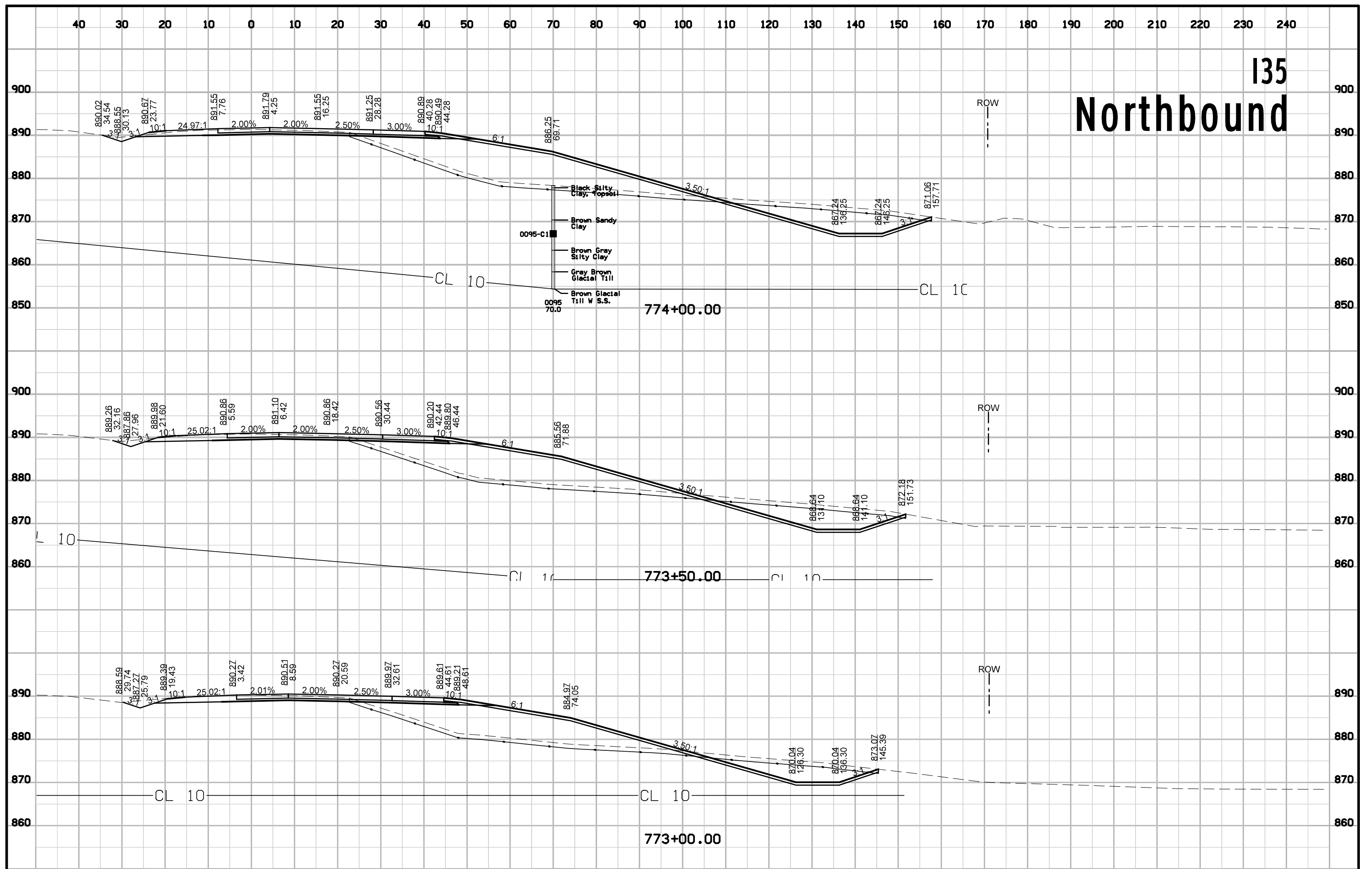
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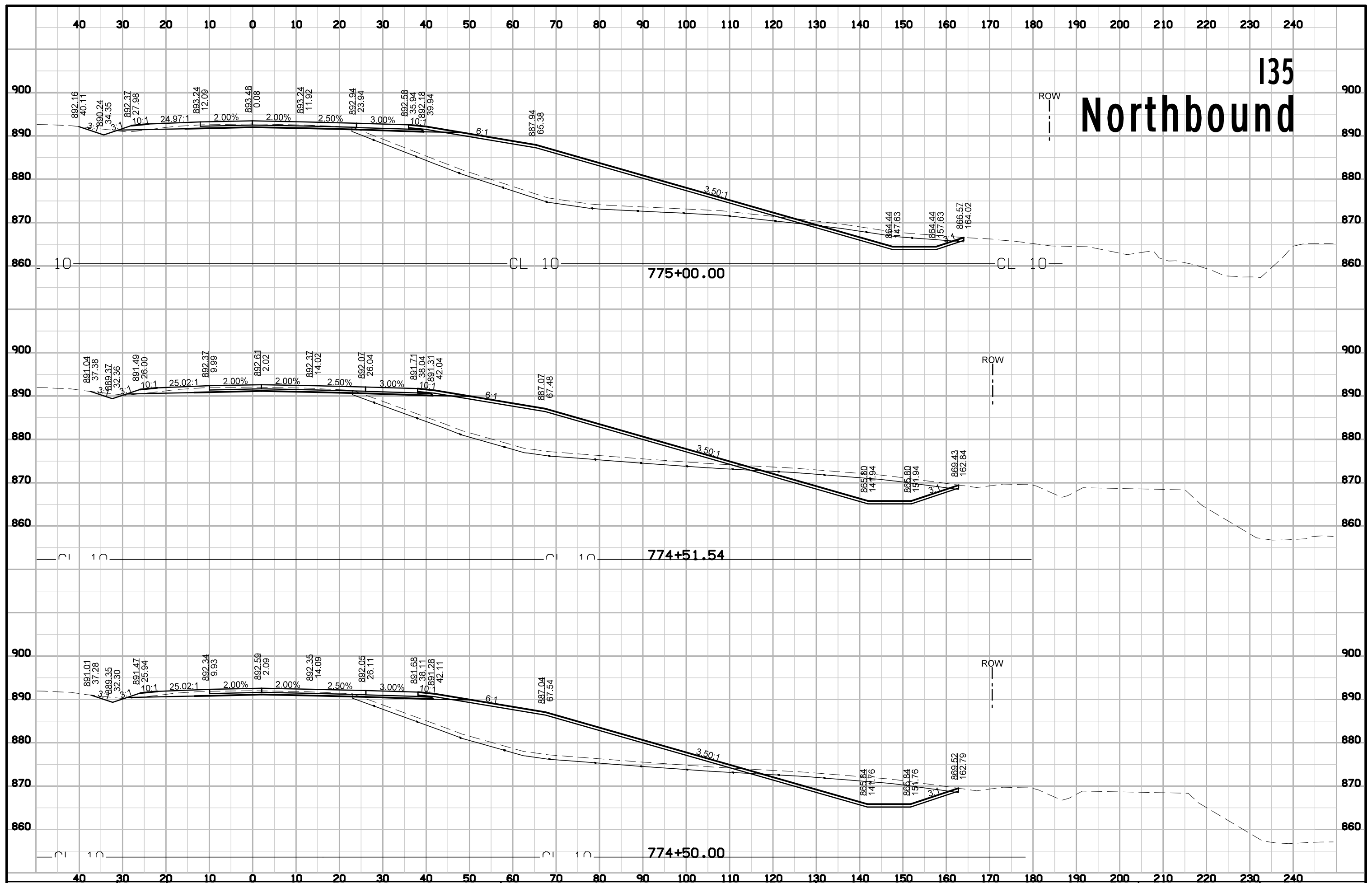


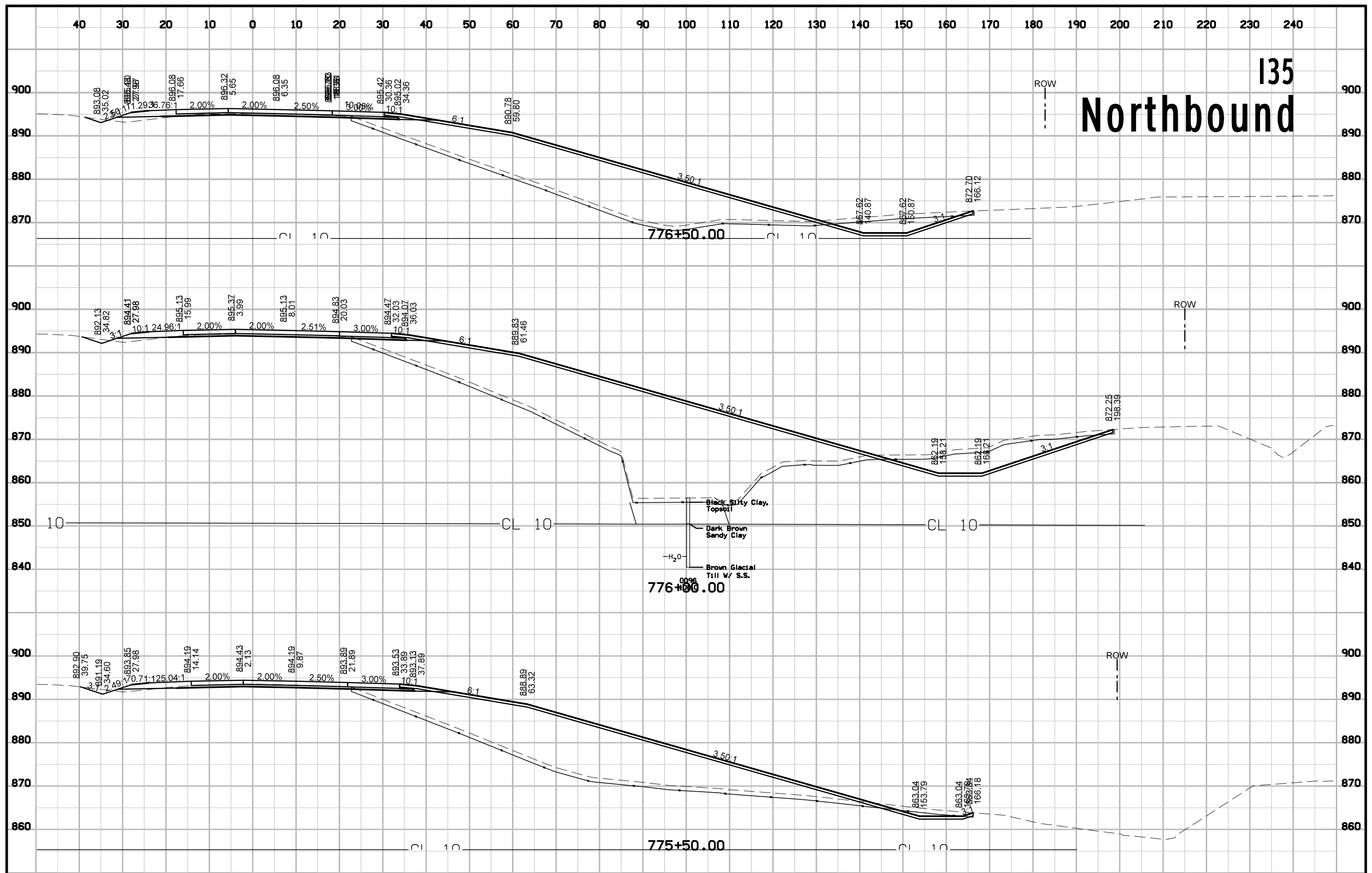
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I35 Northbound

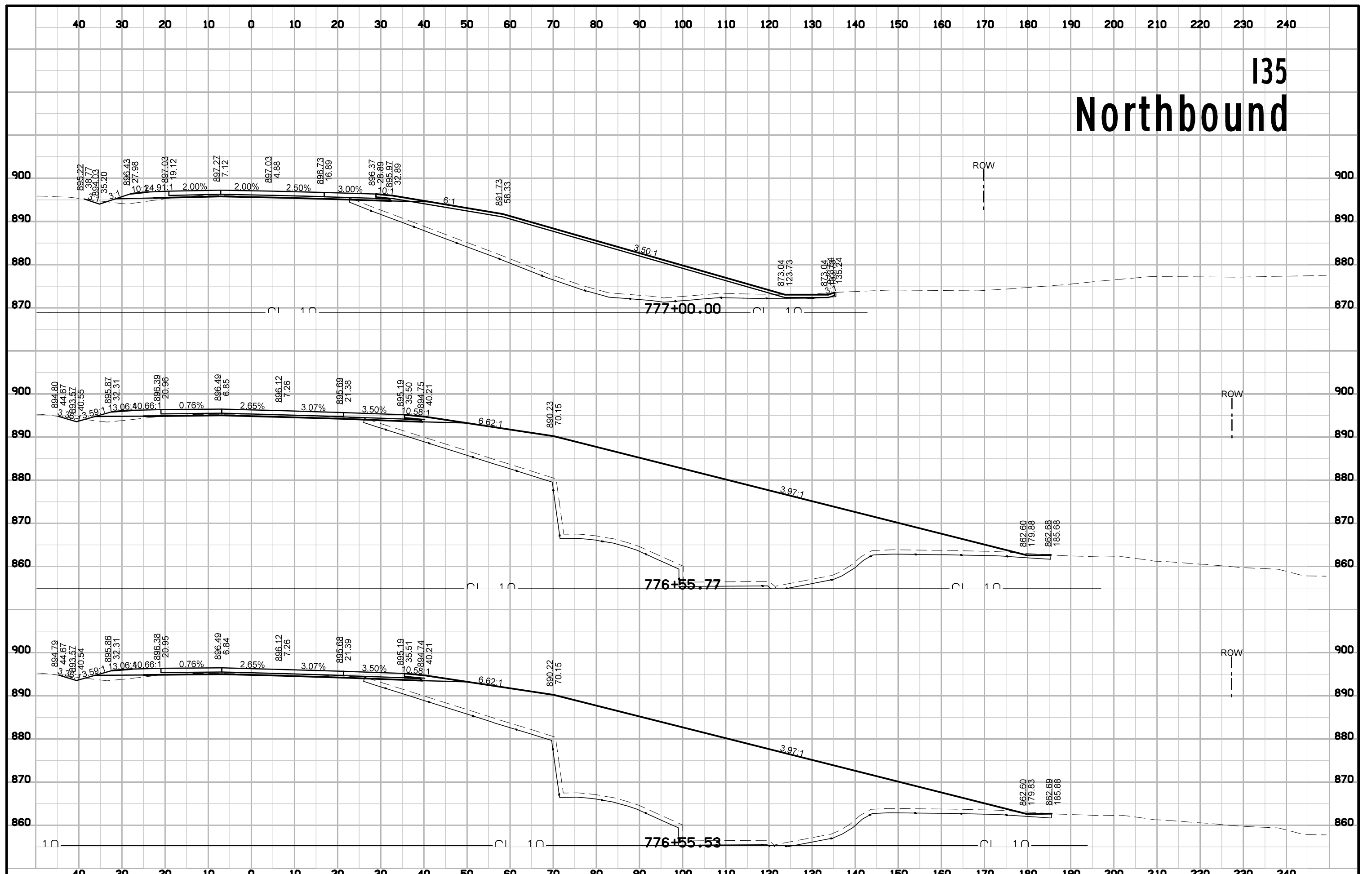




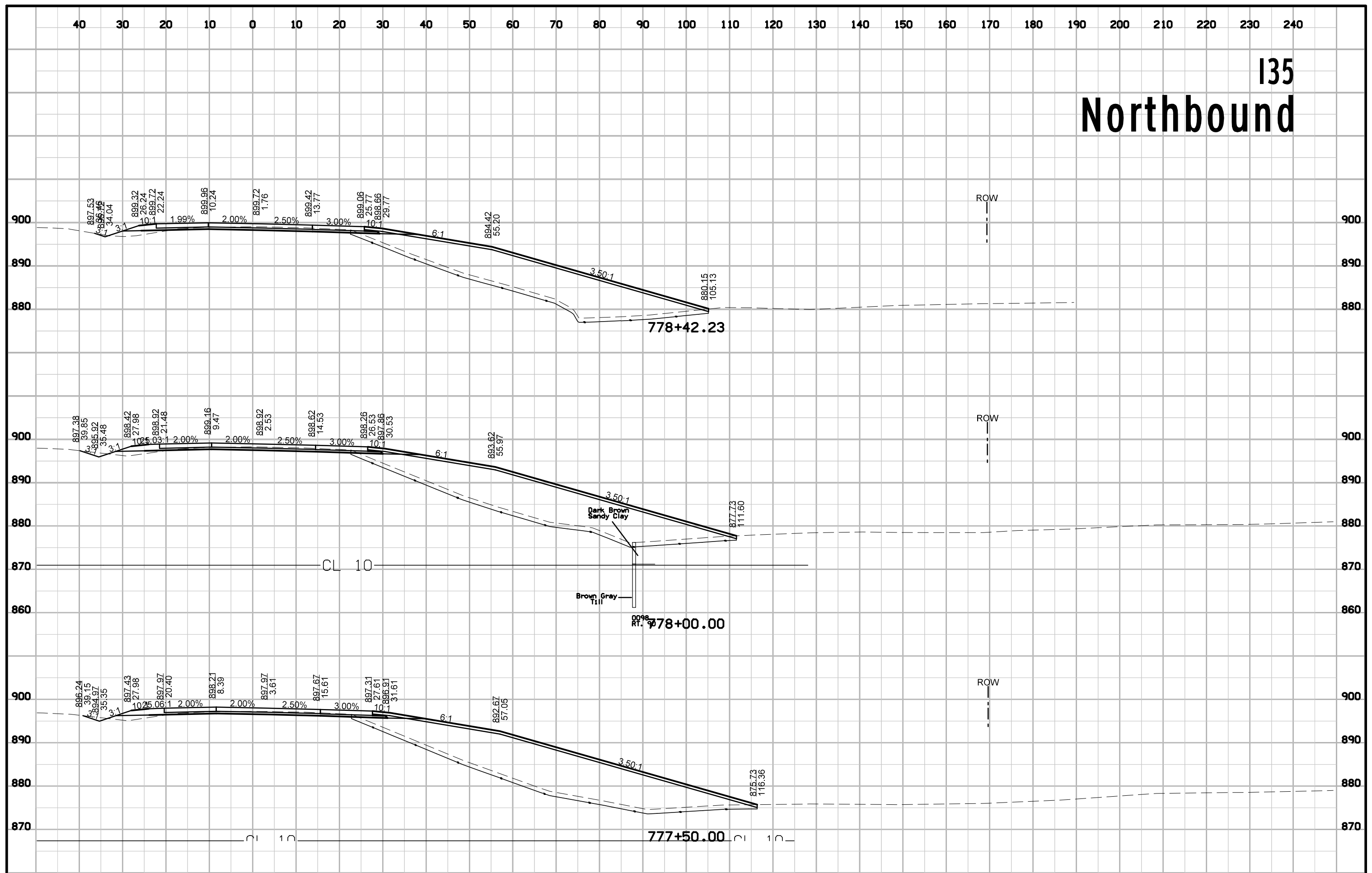


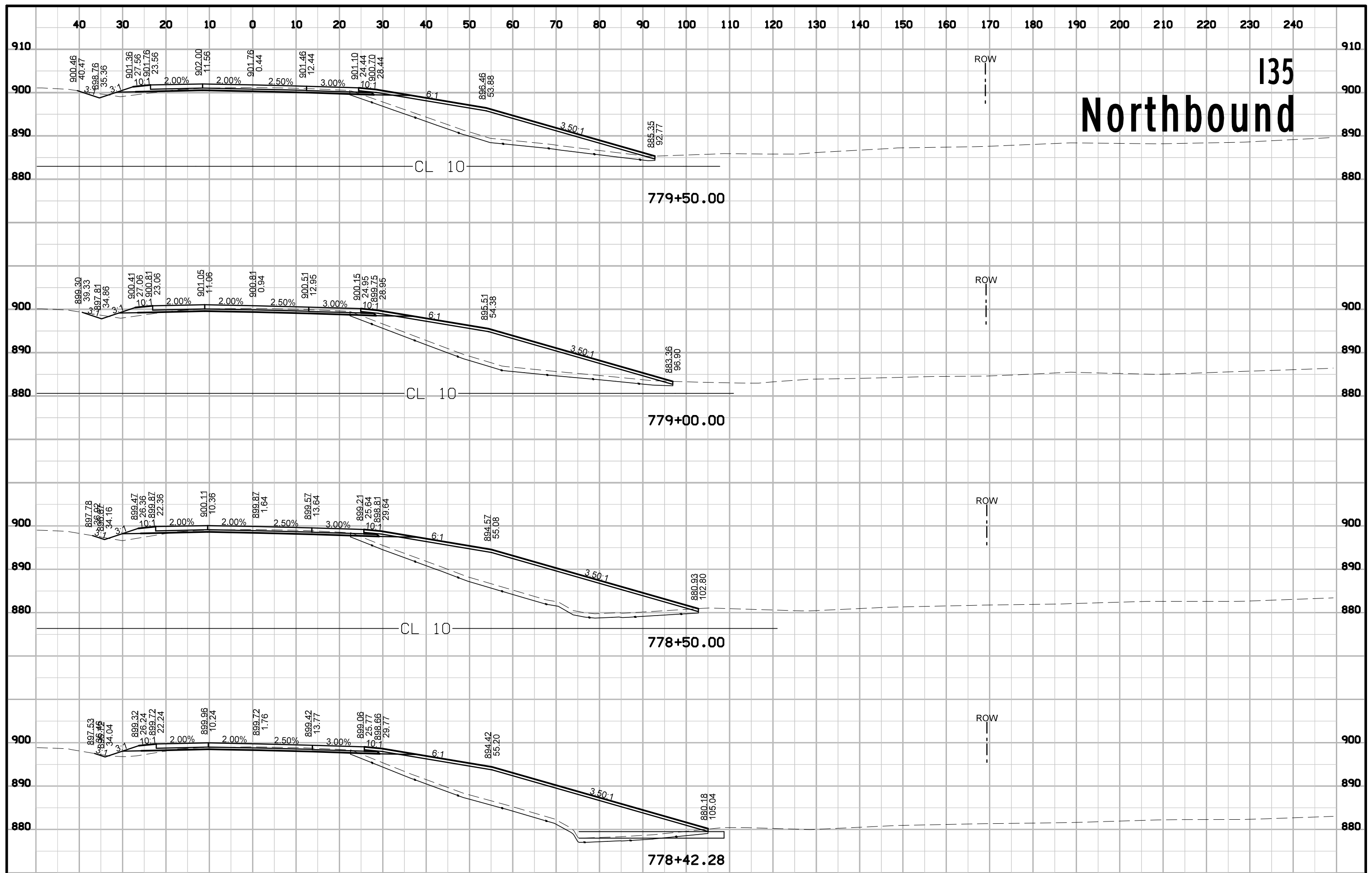
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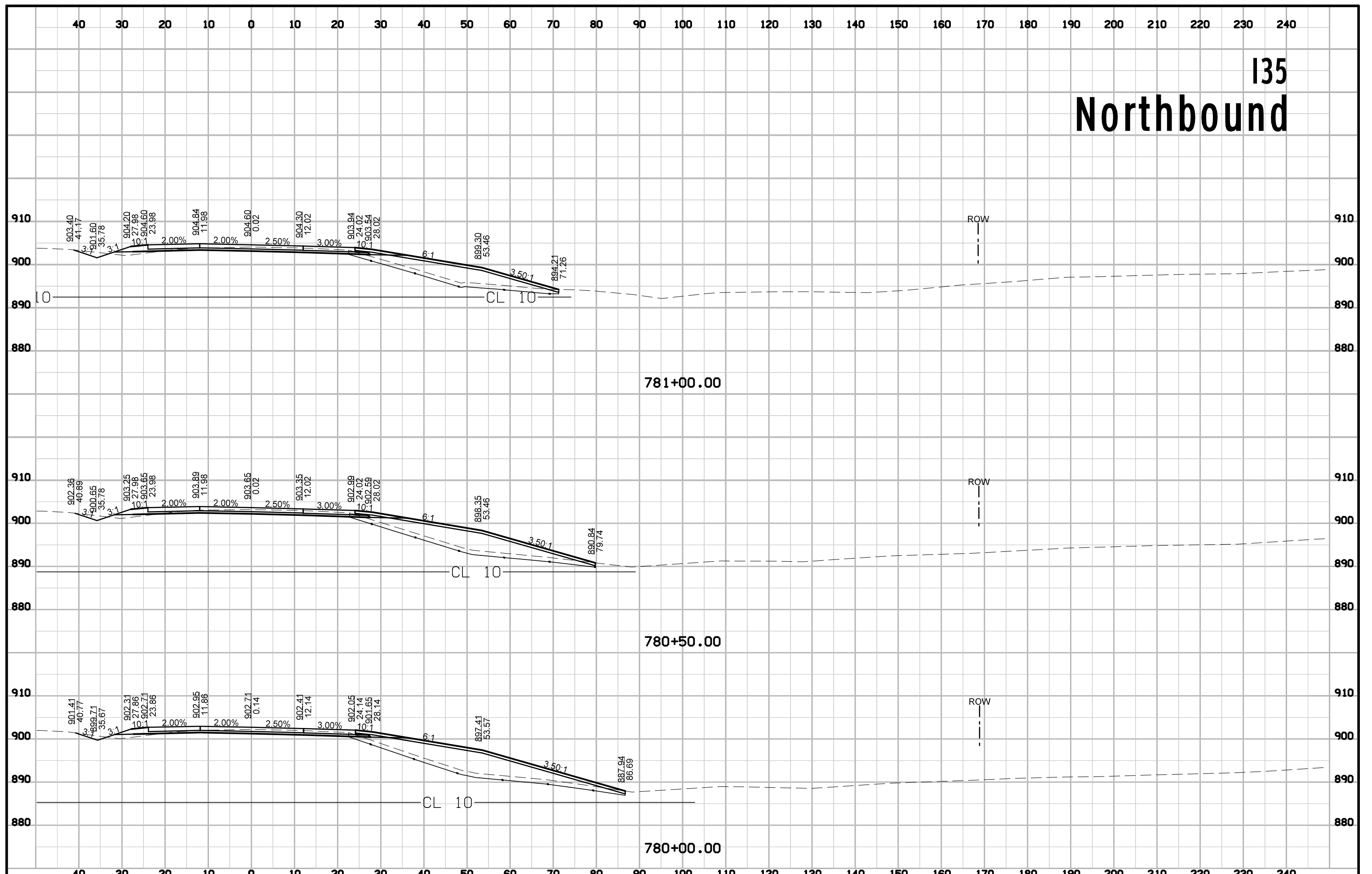


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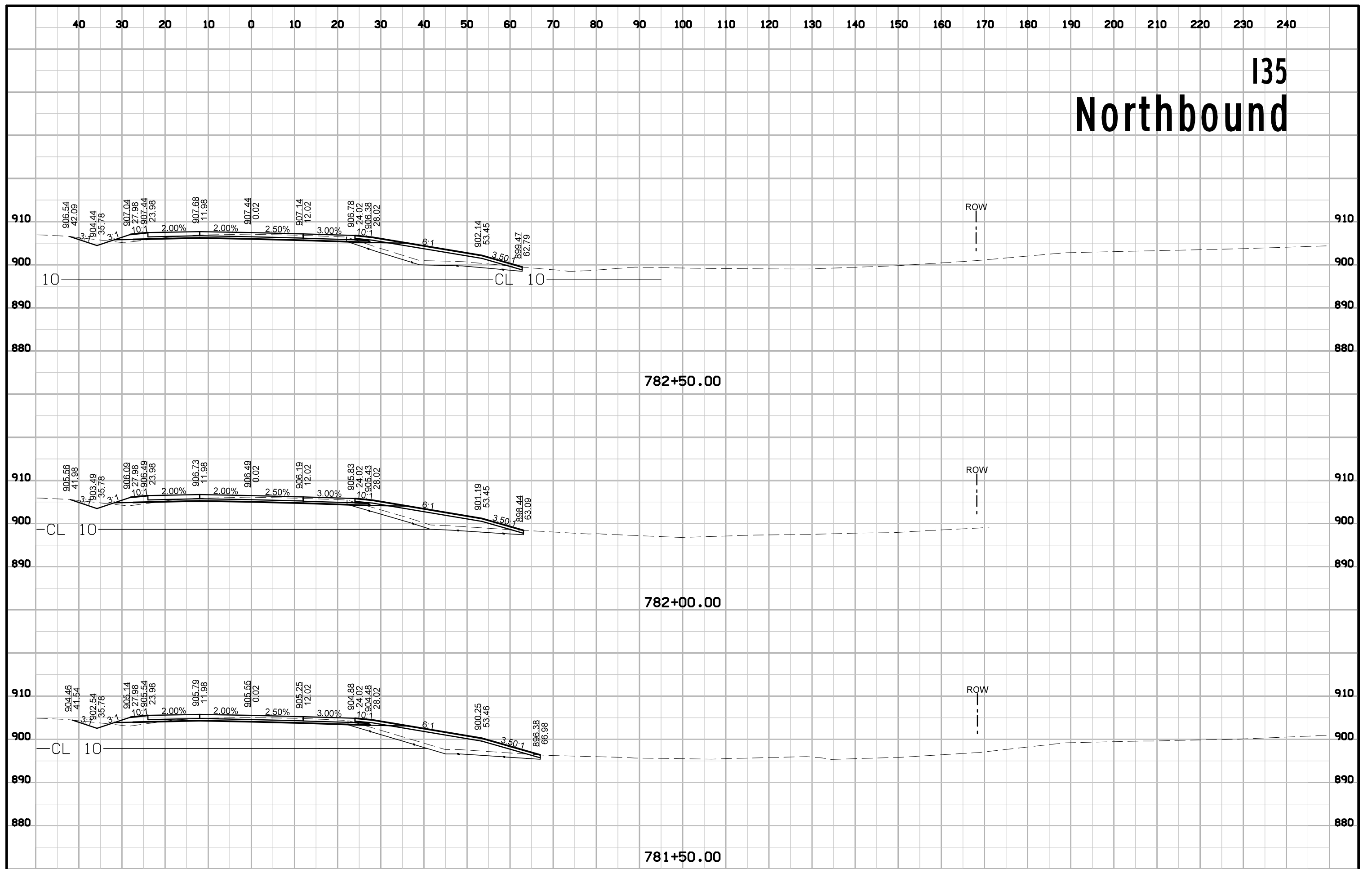




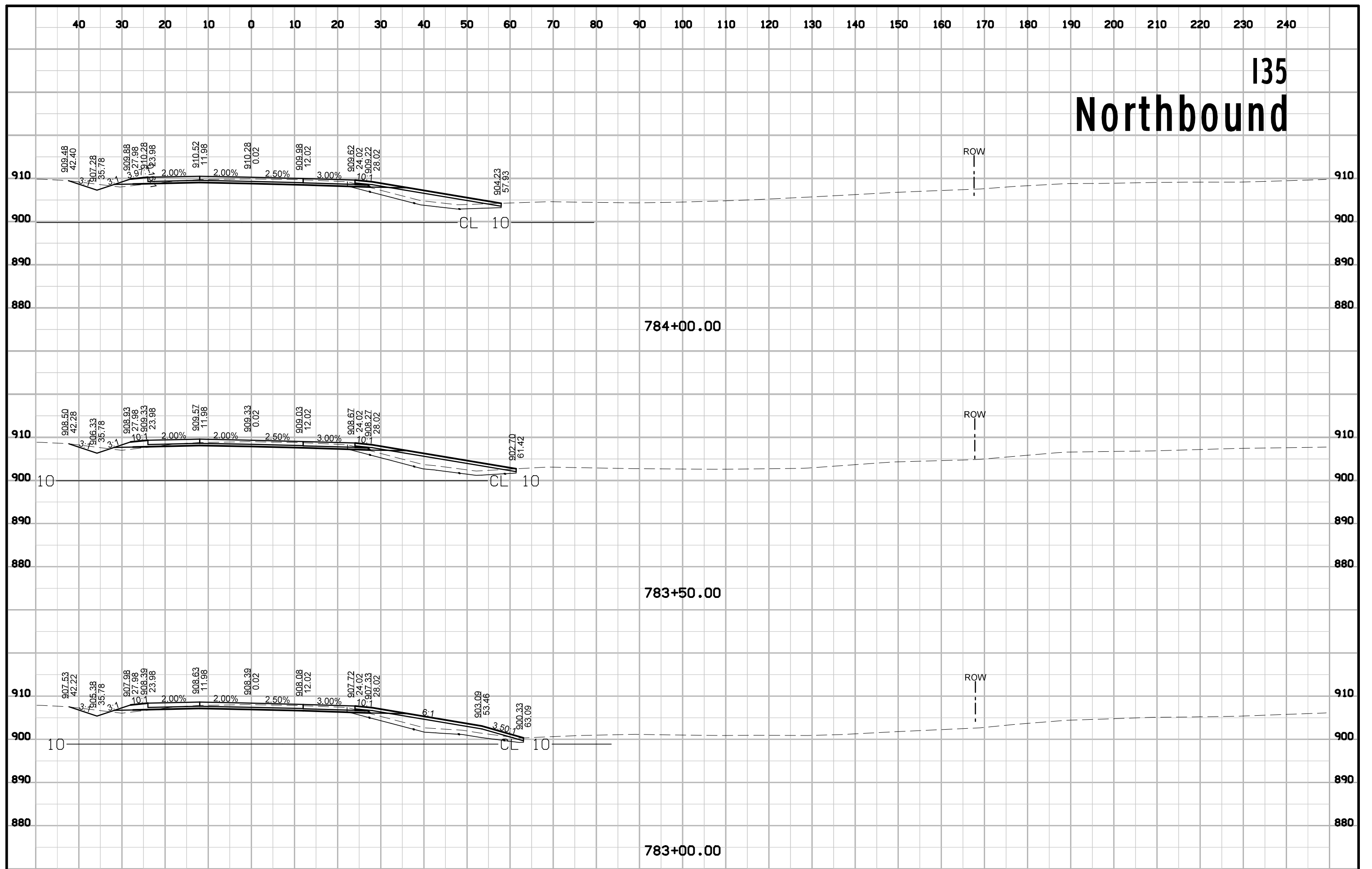
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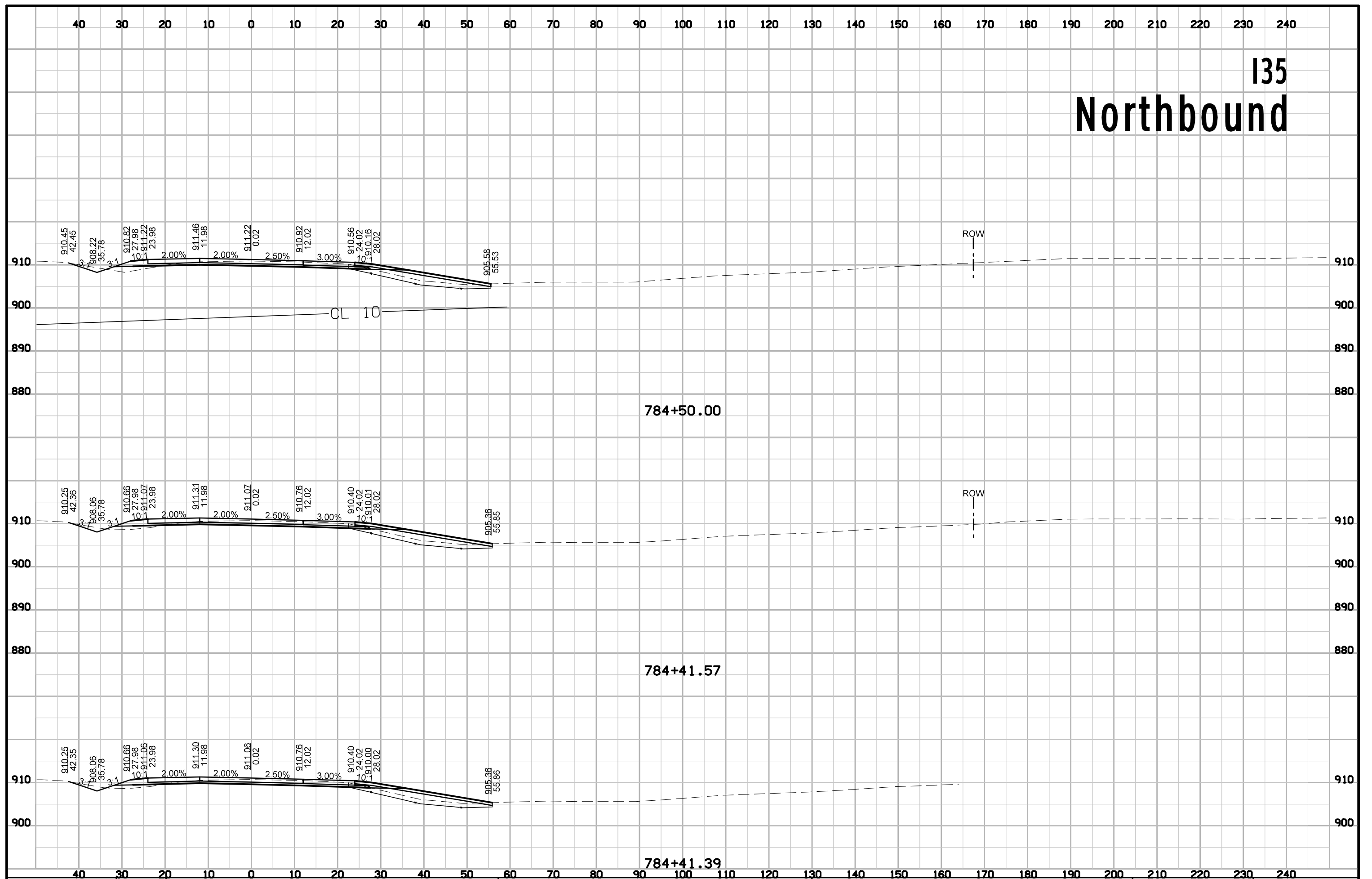
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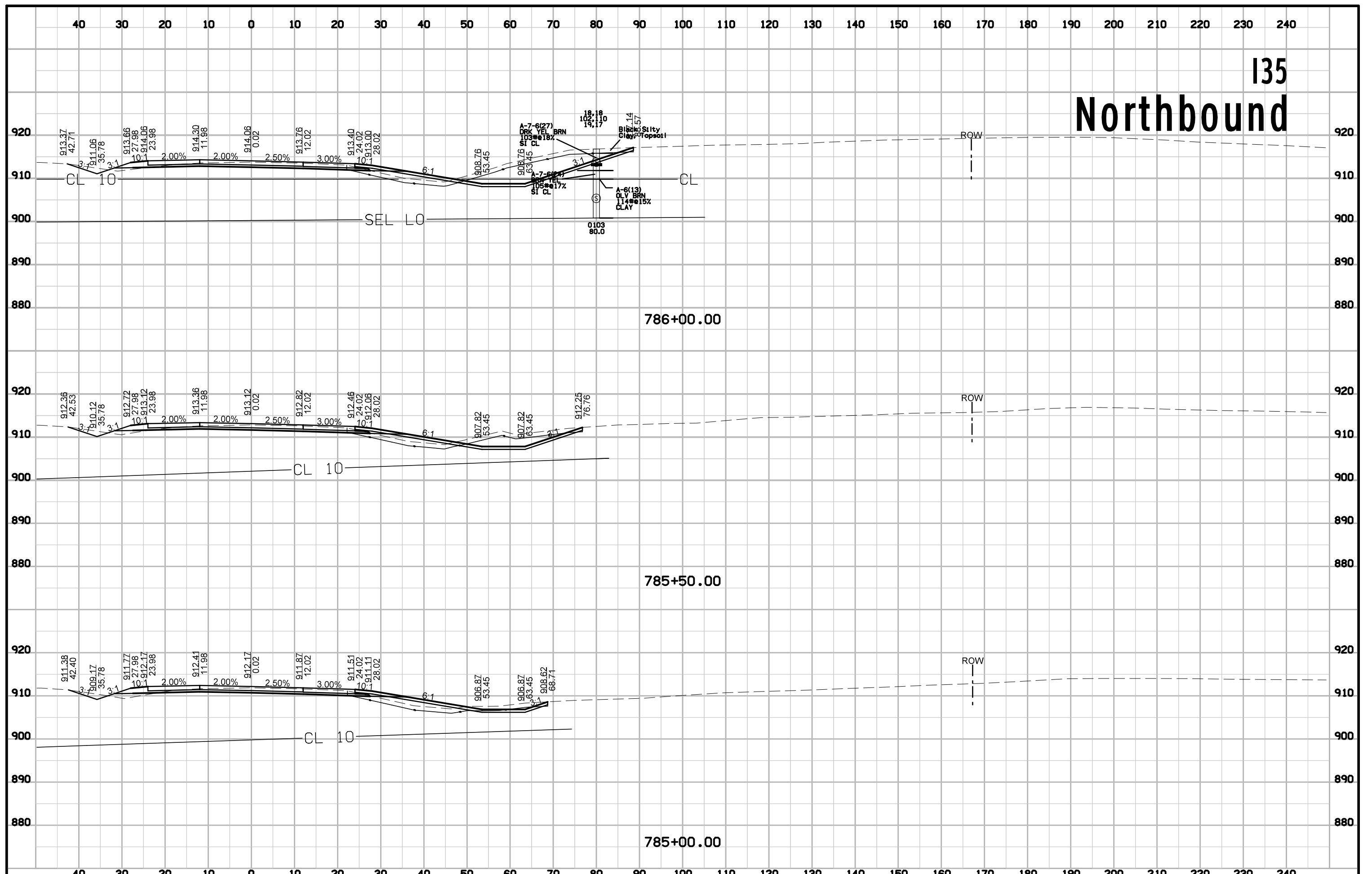
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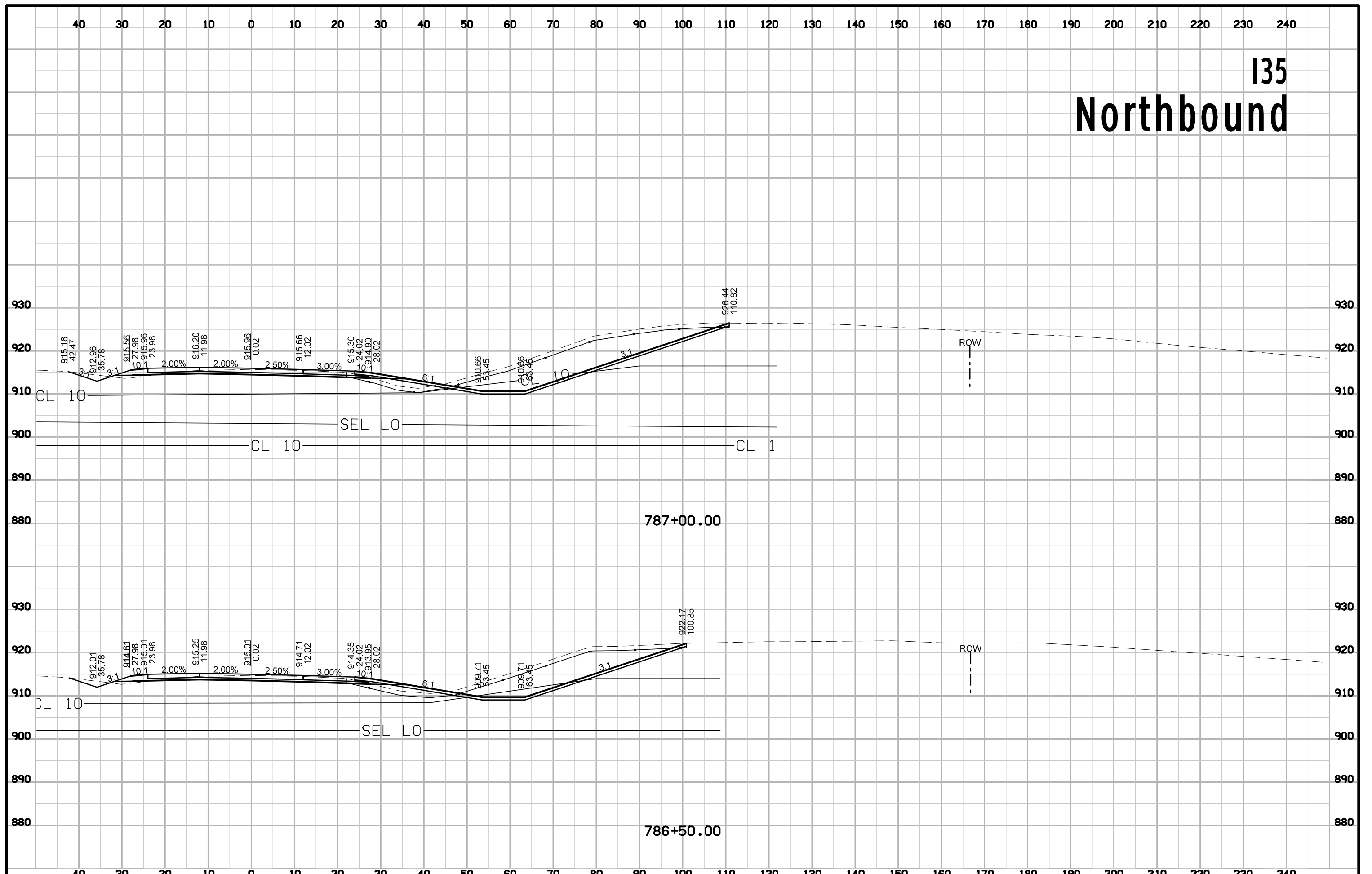
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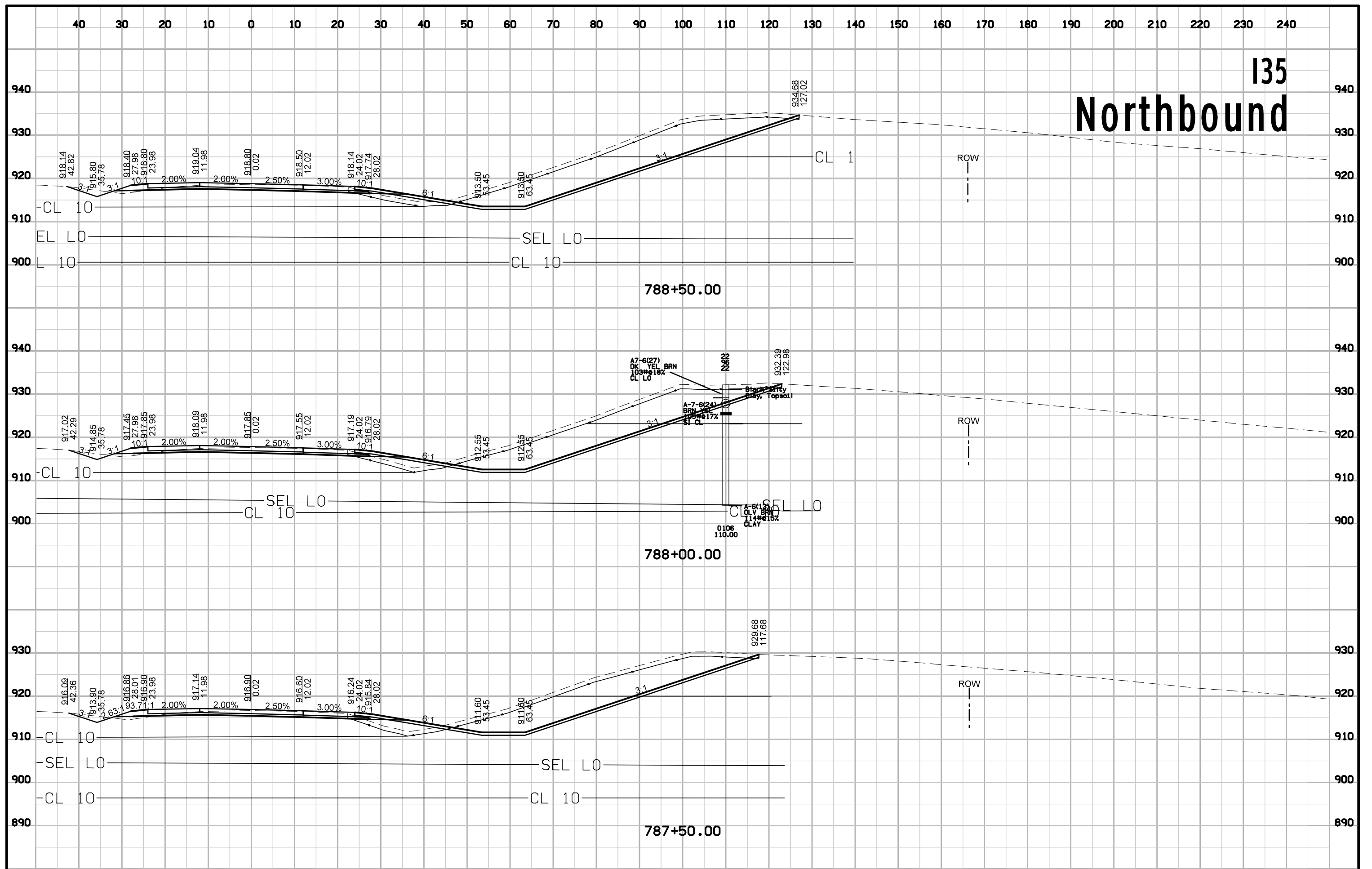
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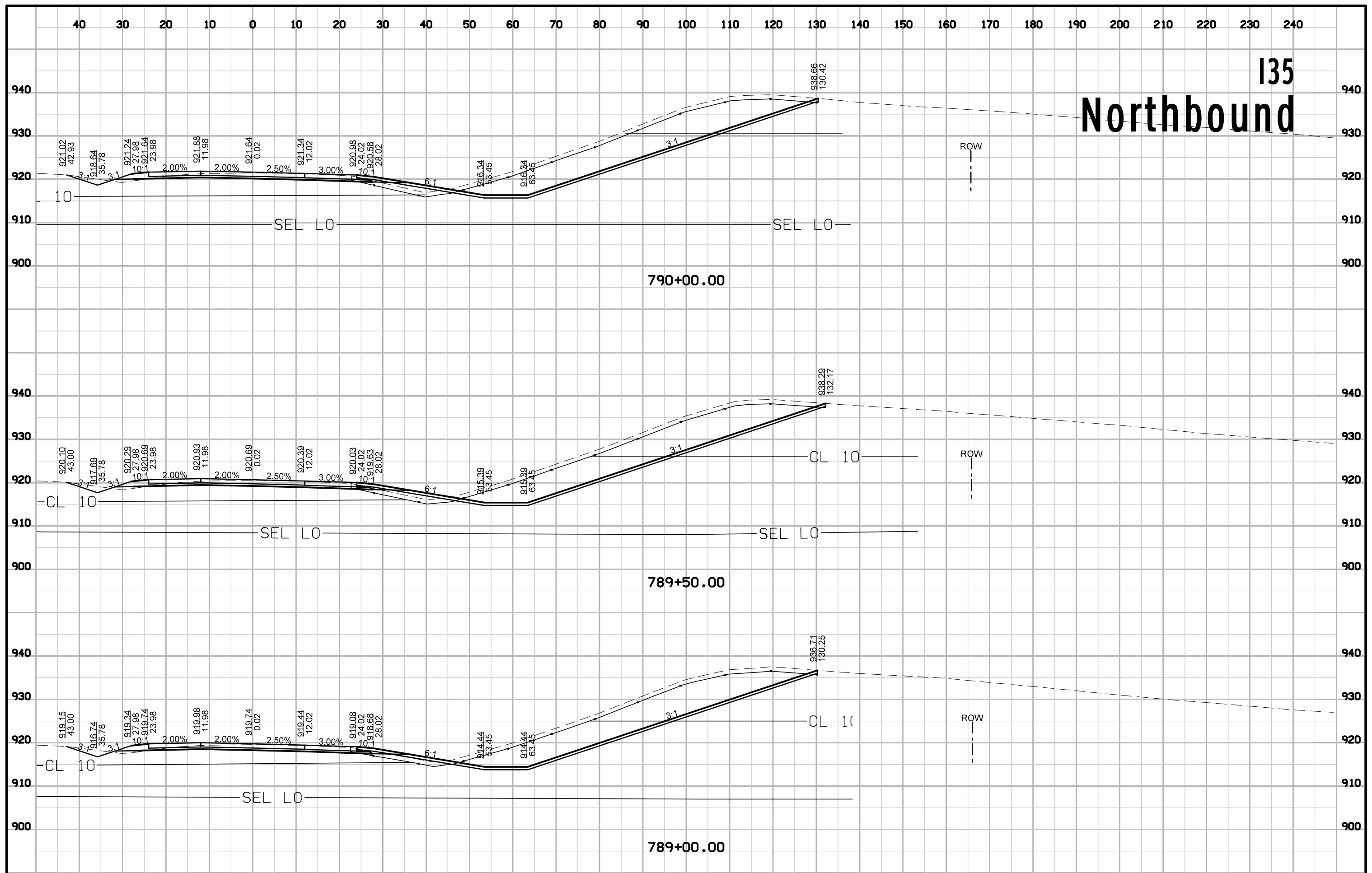


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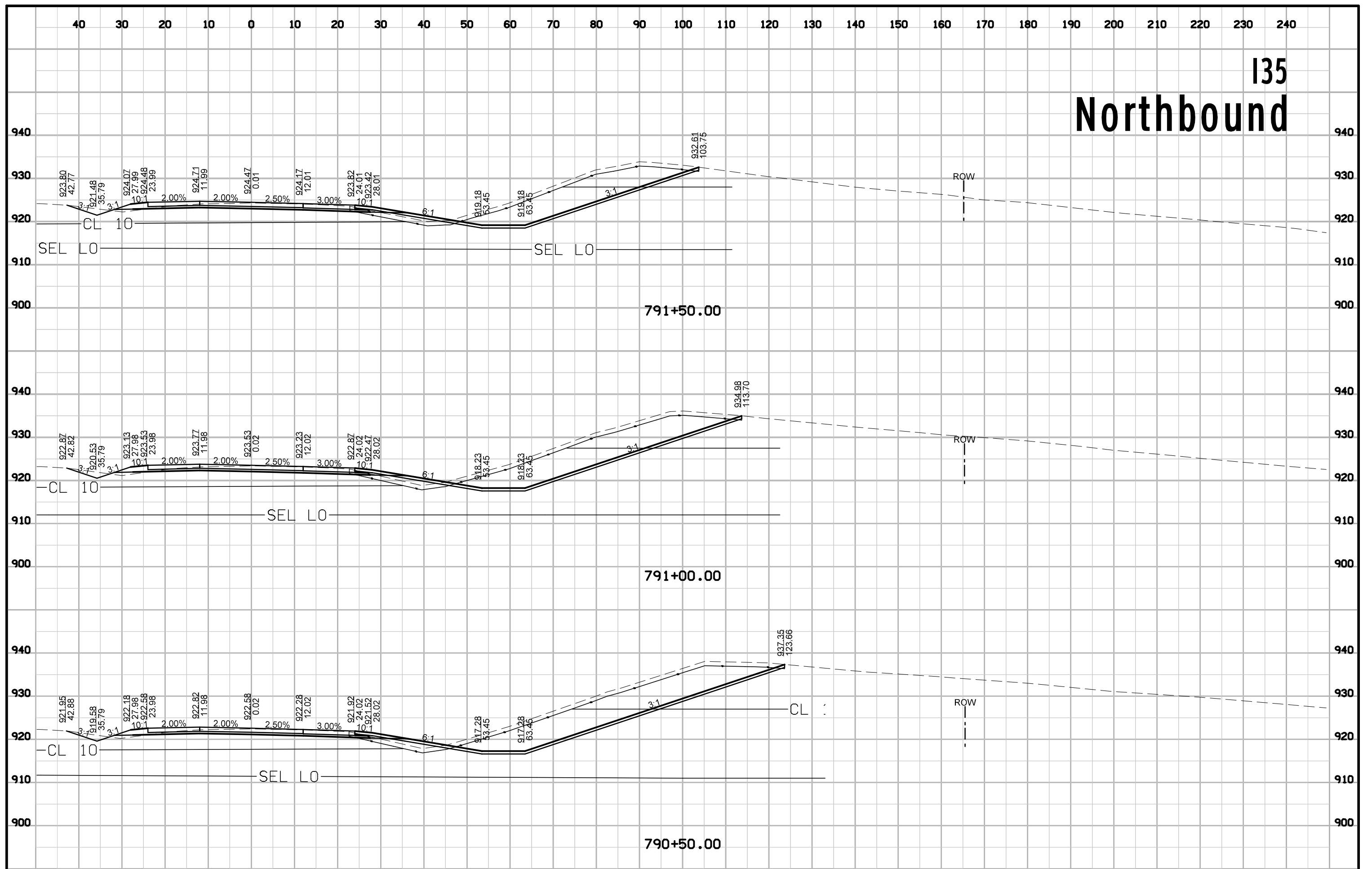


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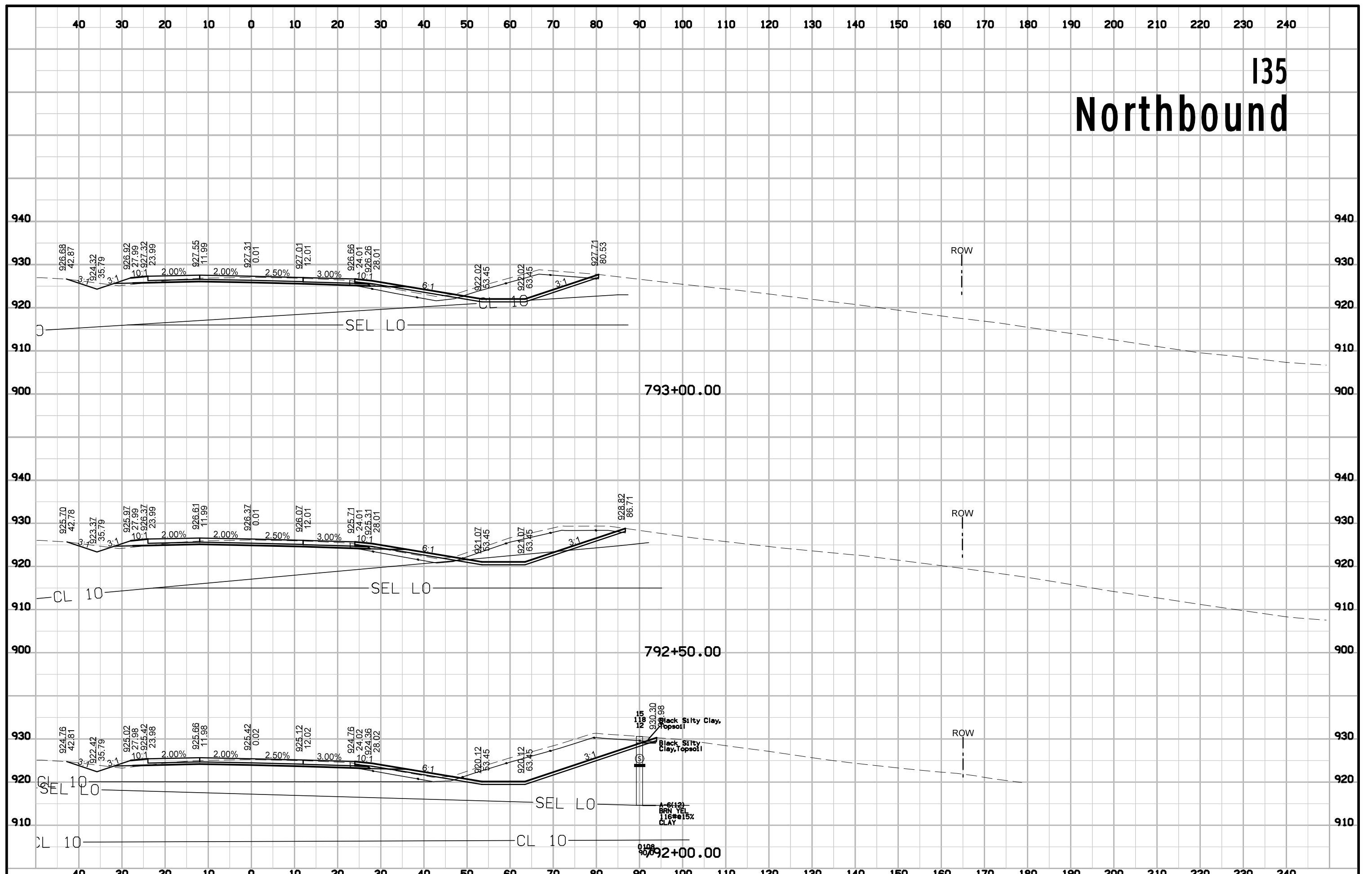




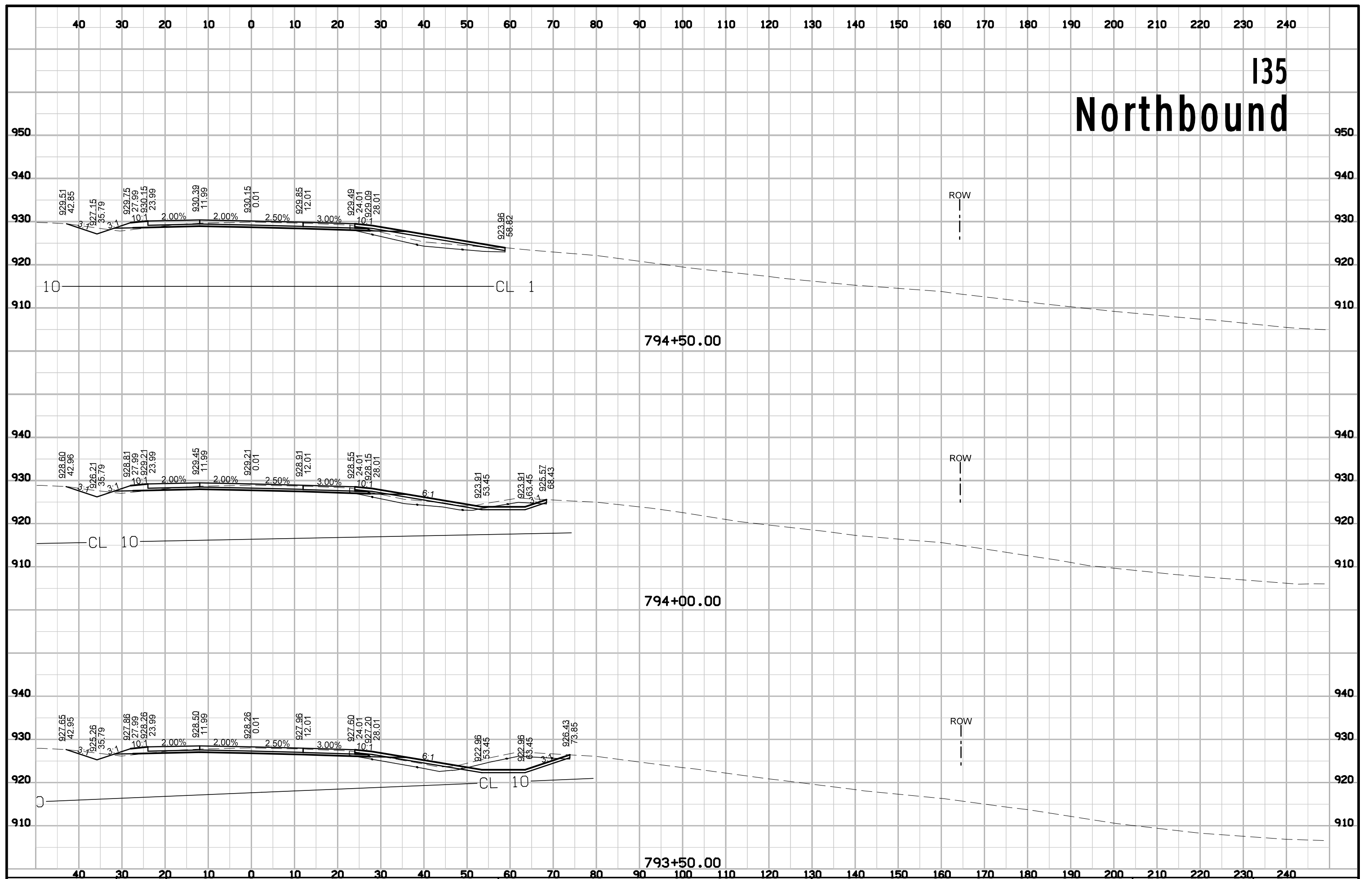
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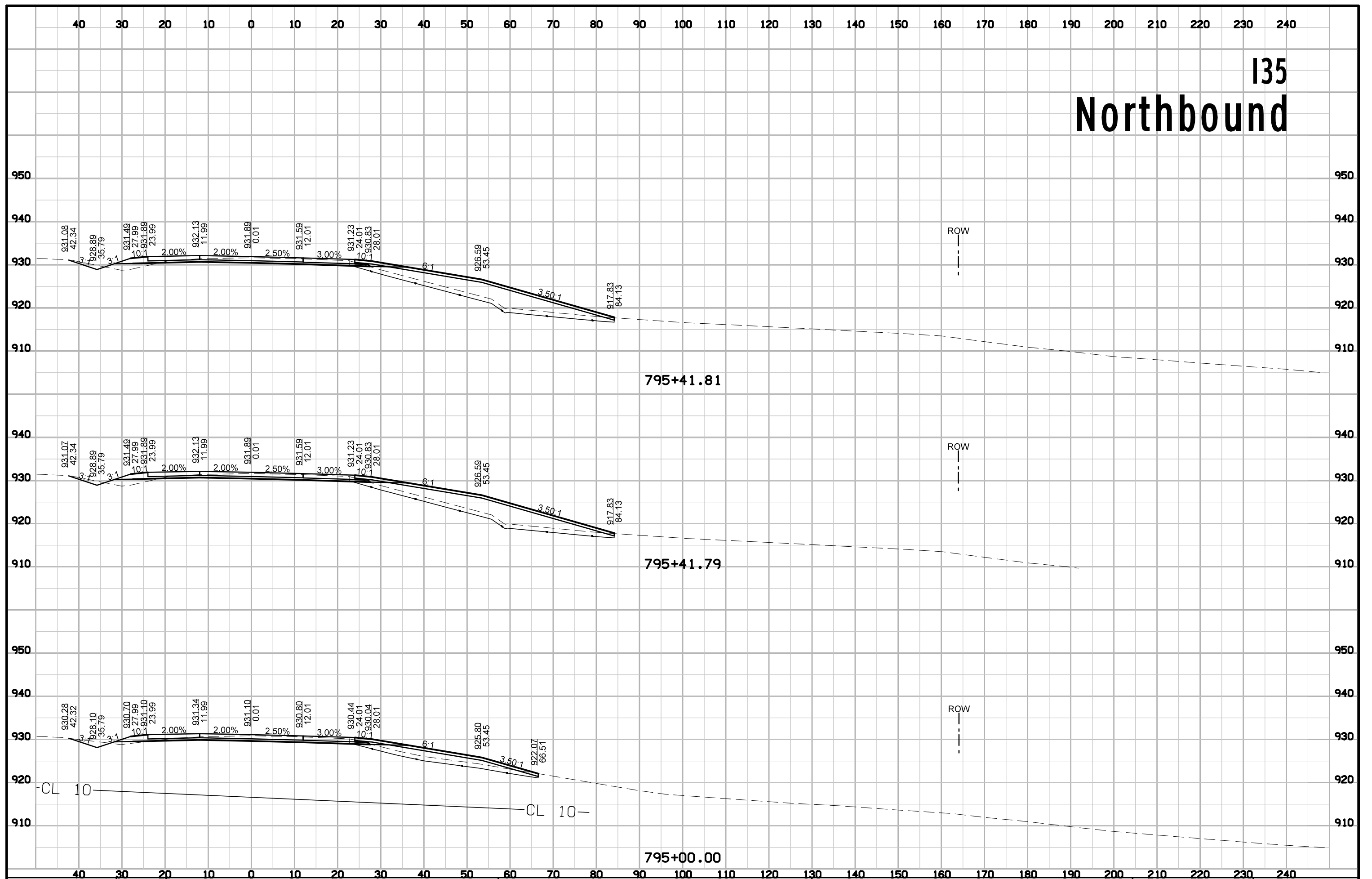
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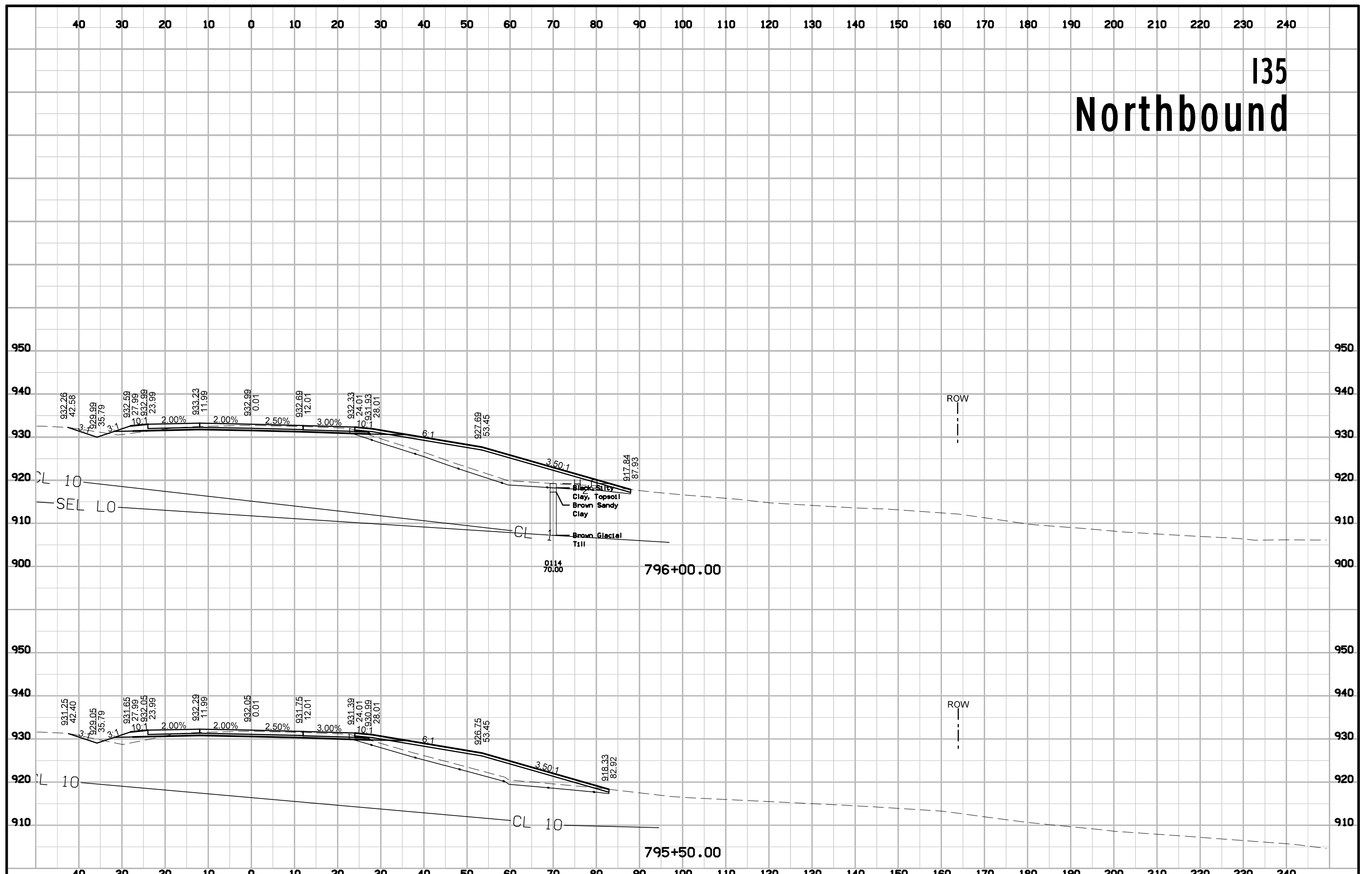
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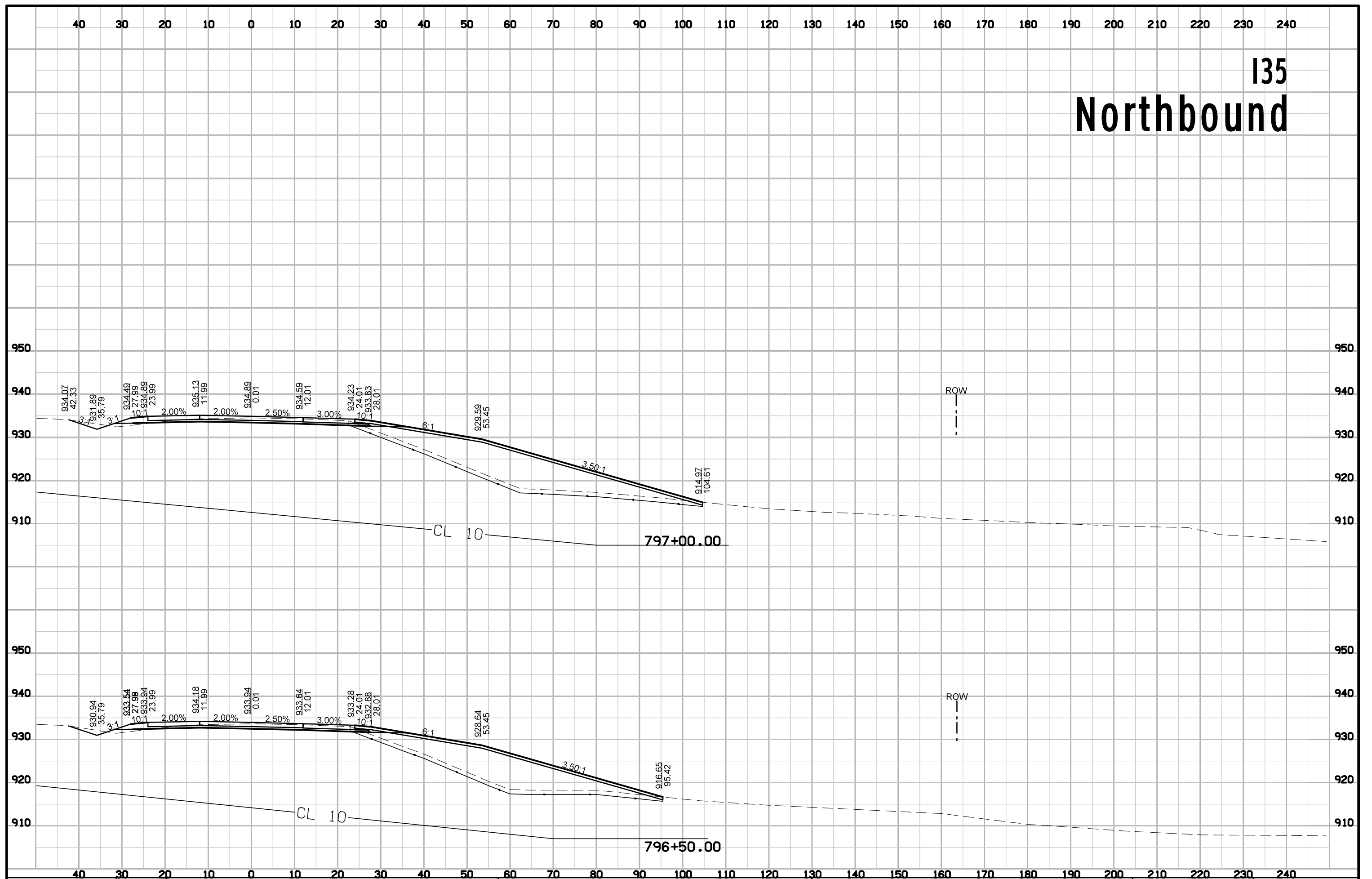
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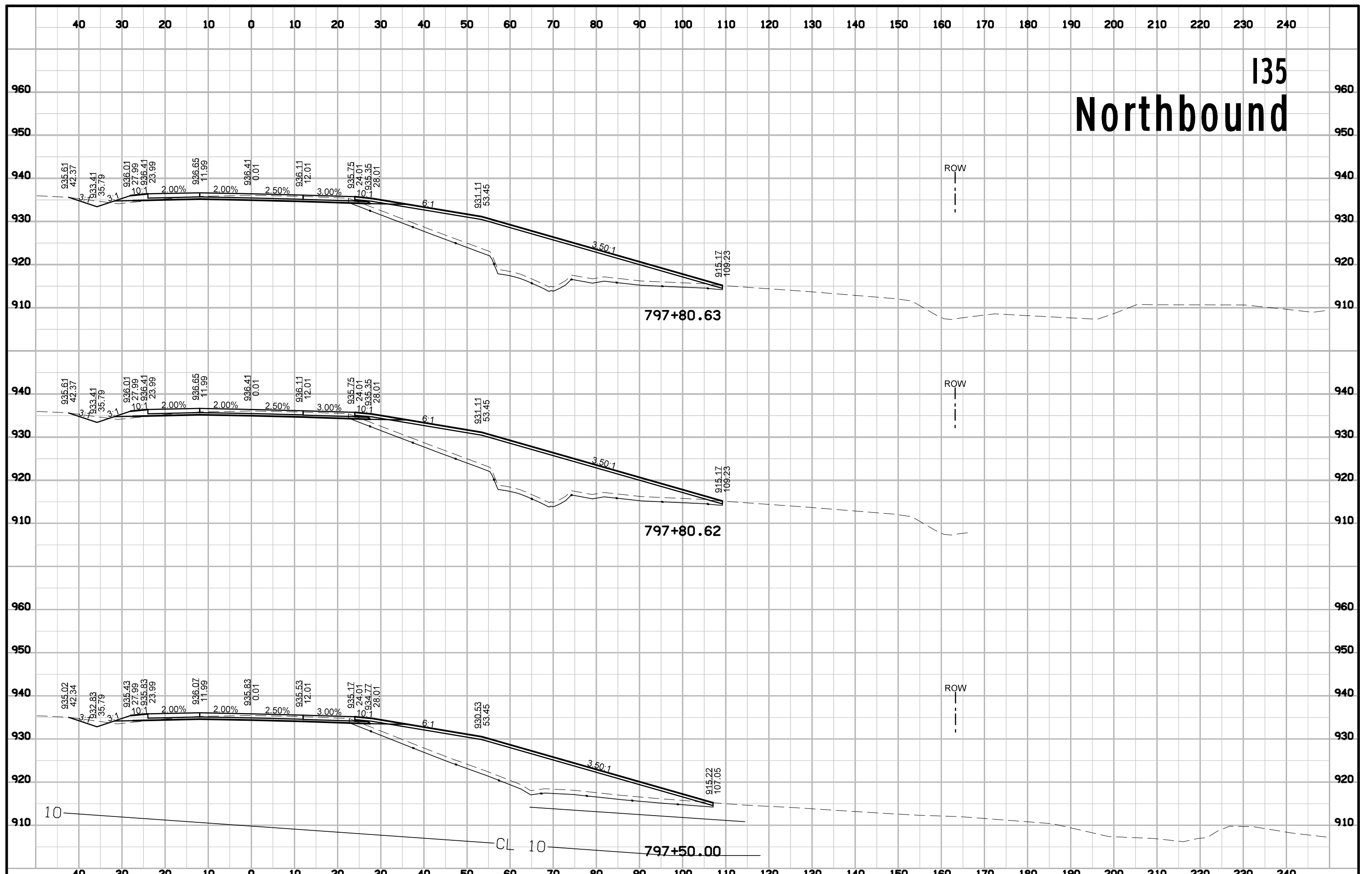
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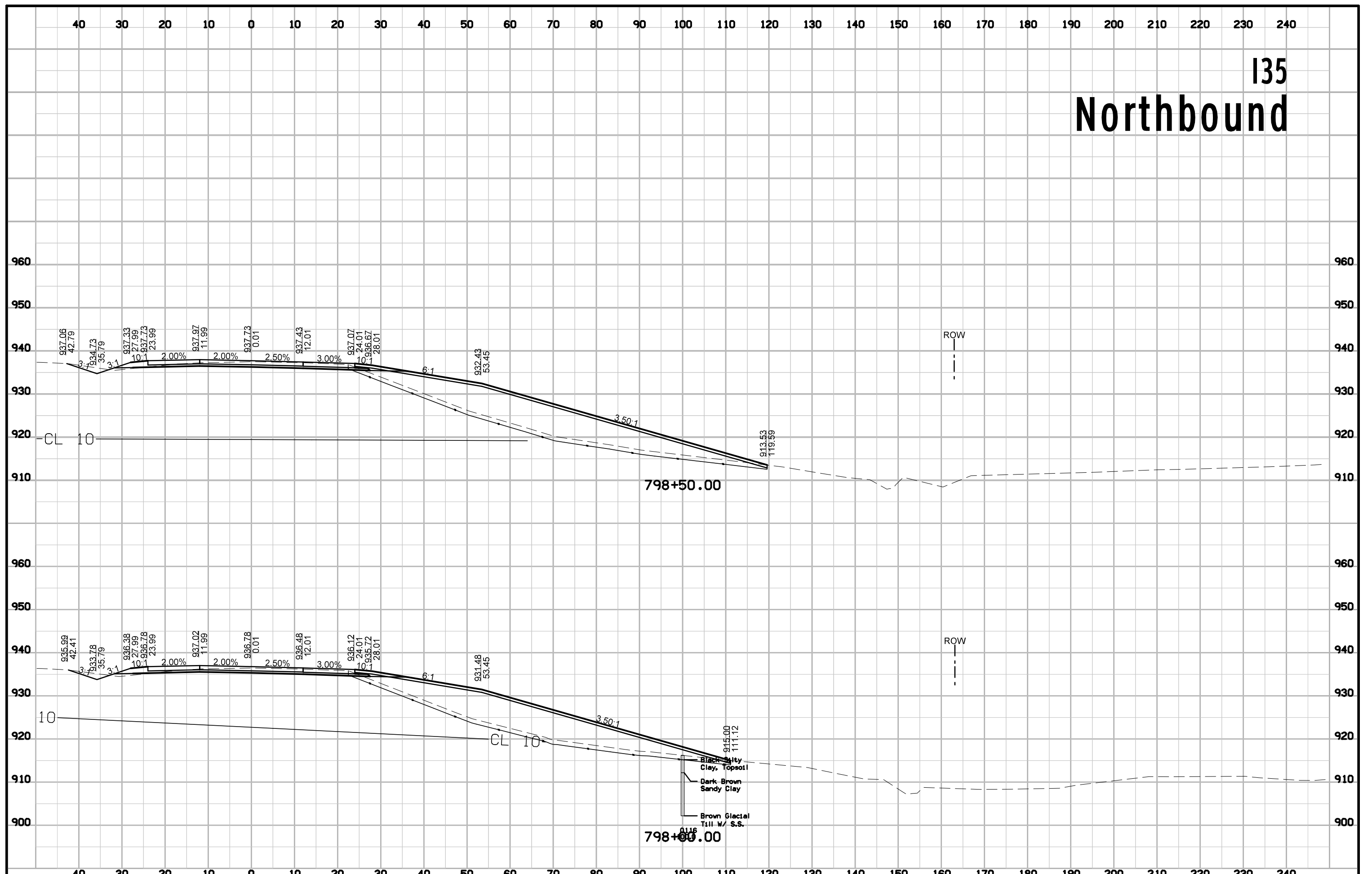
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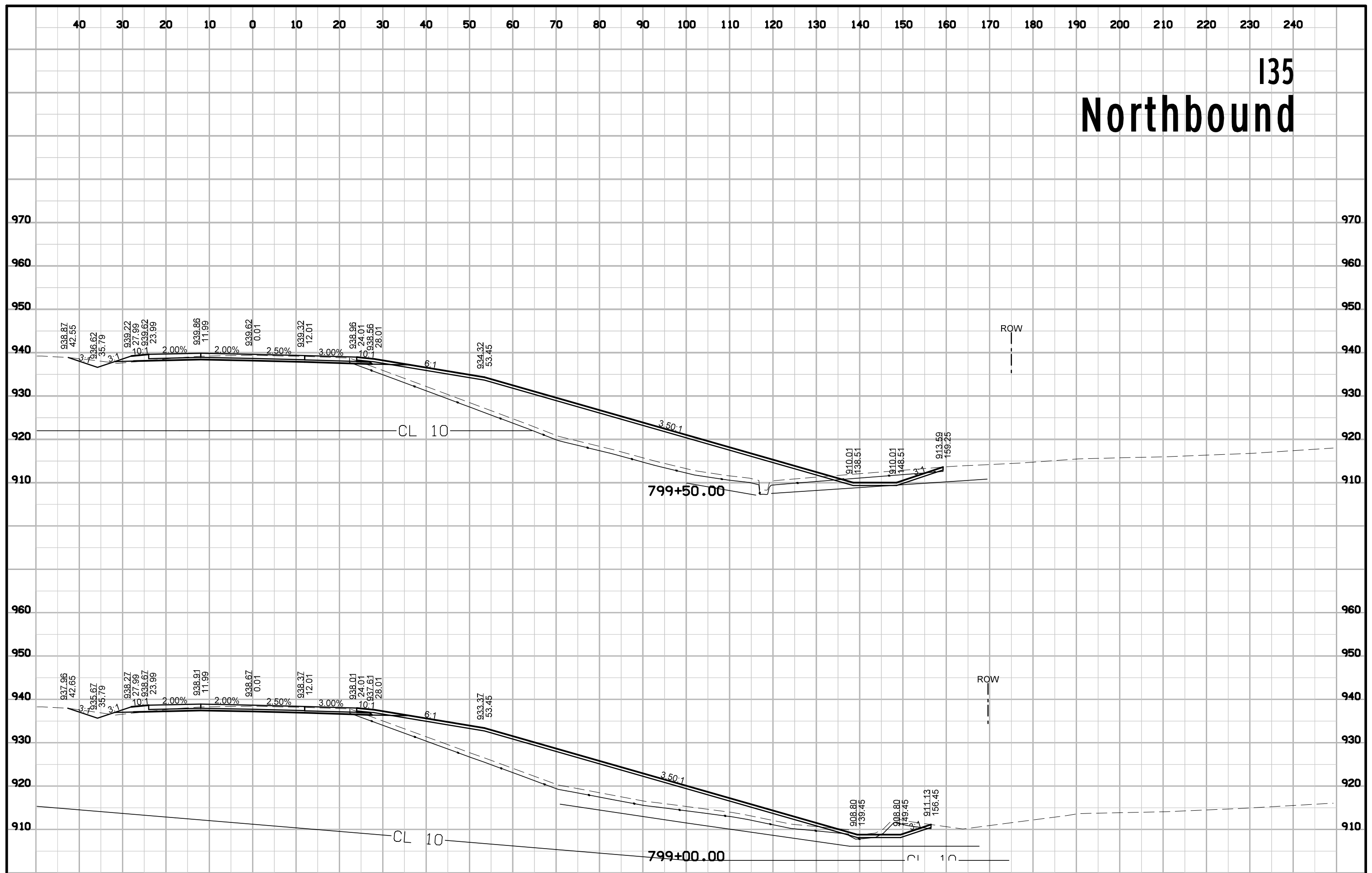
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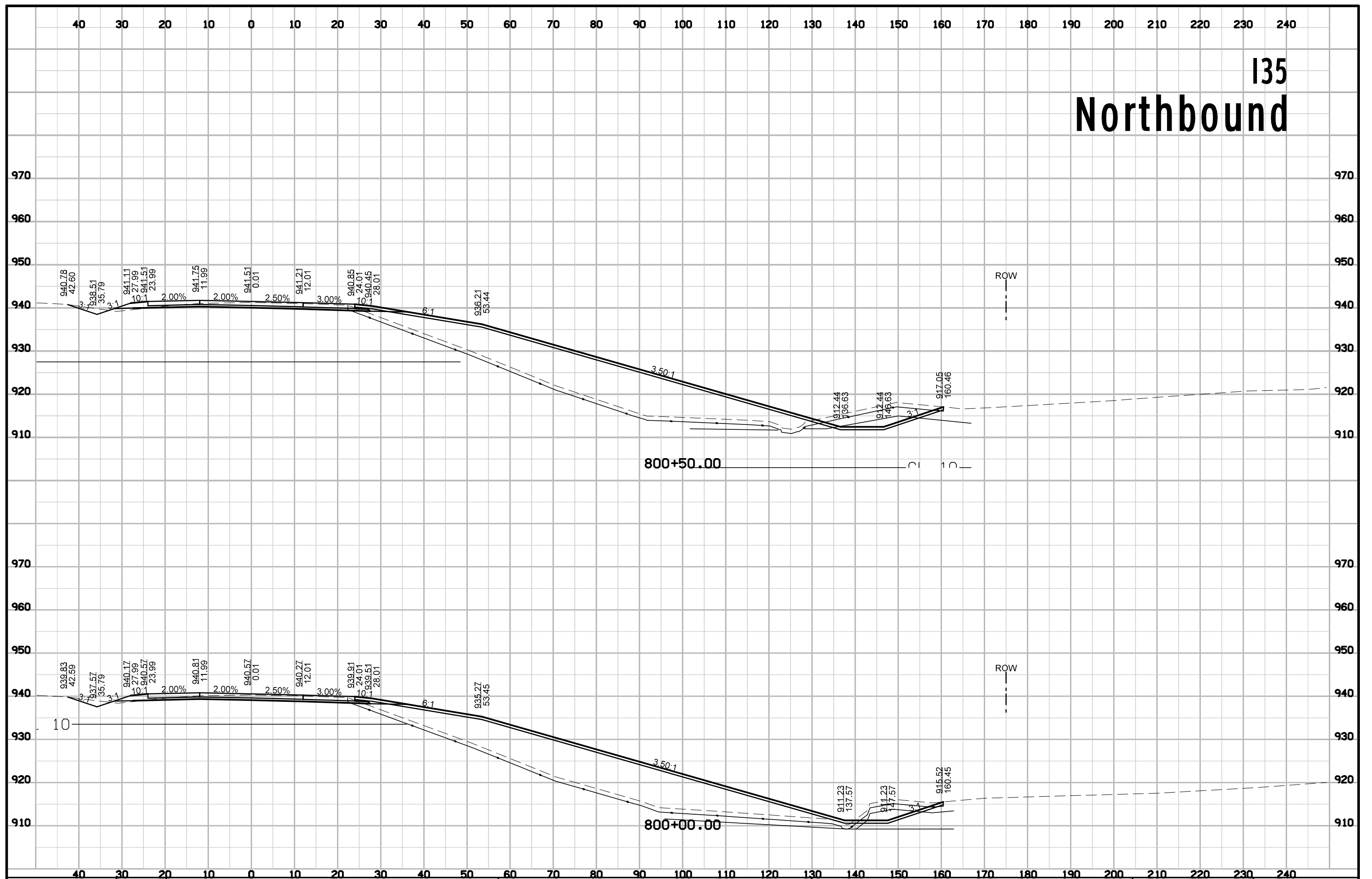
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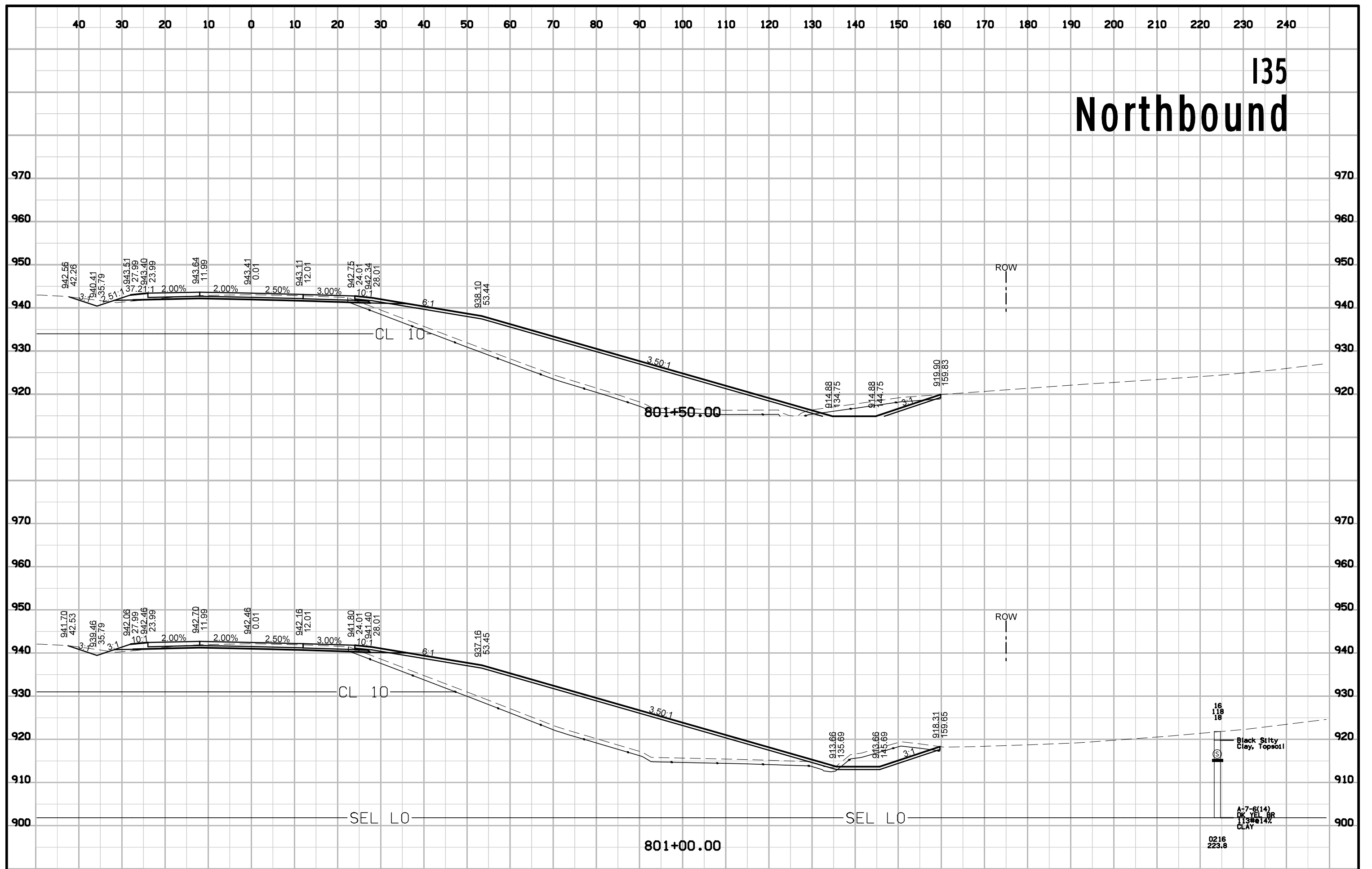
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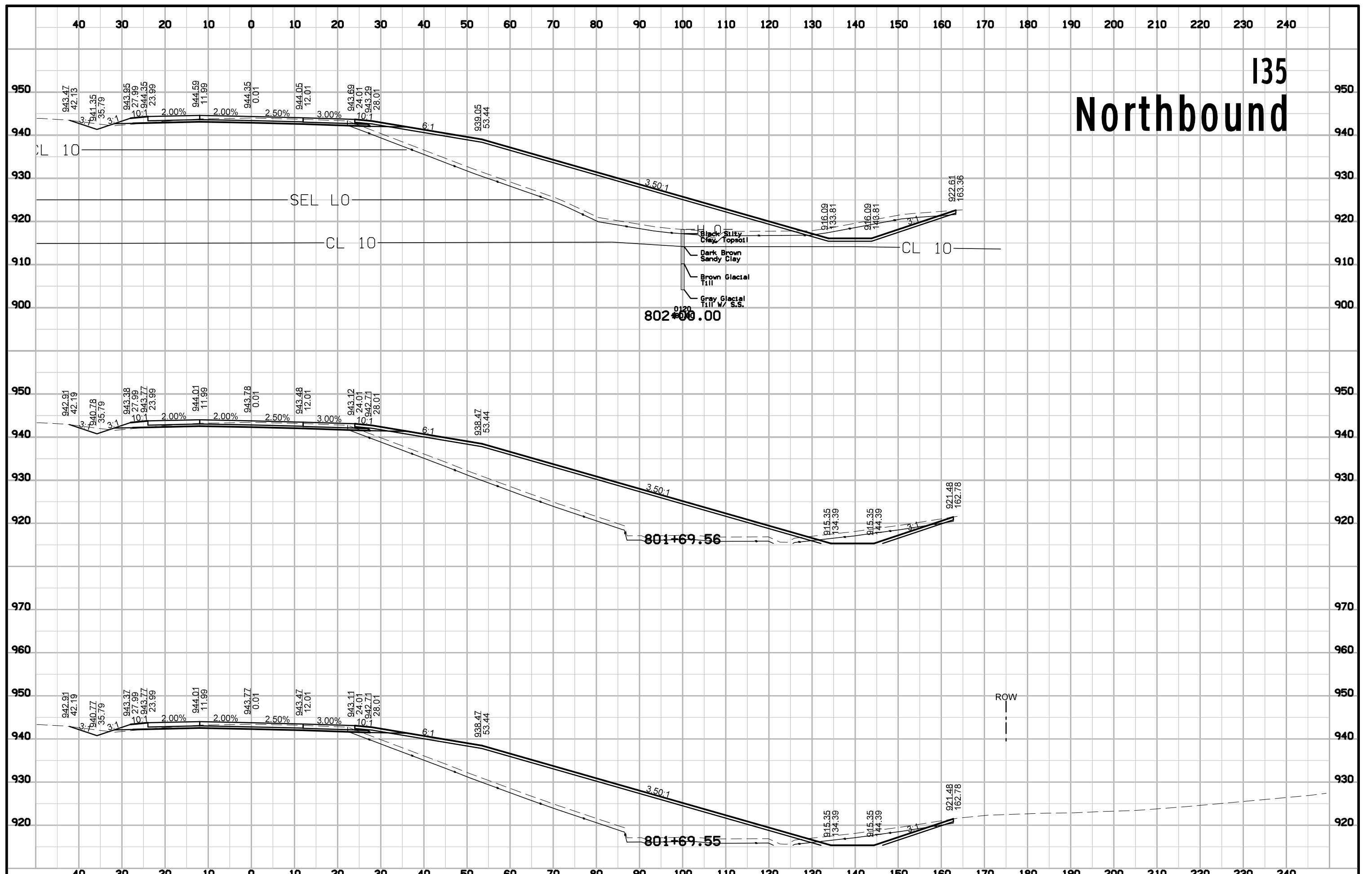
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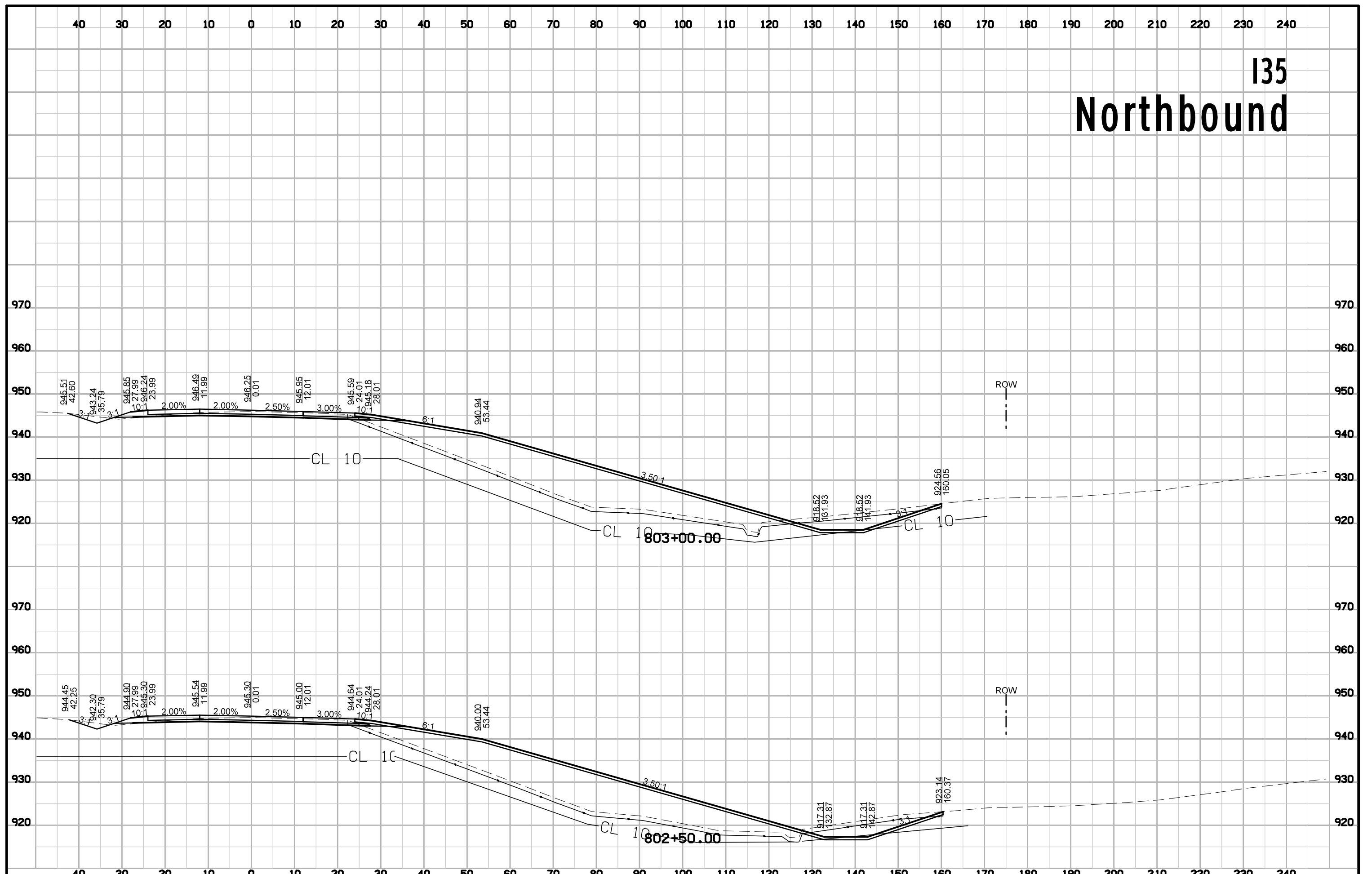
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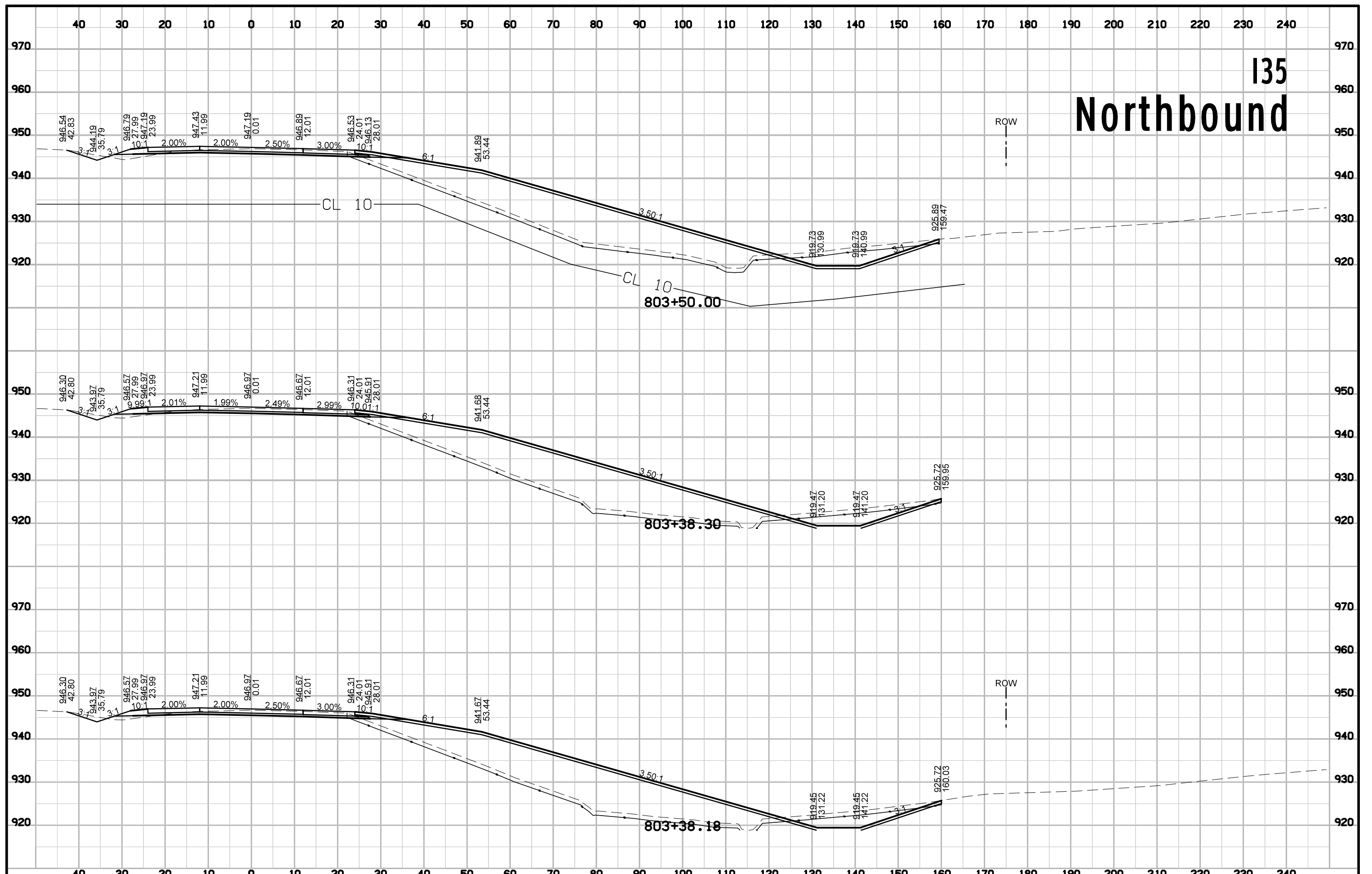
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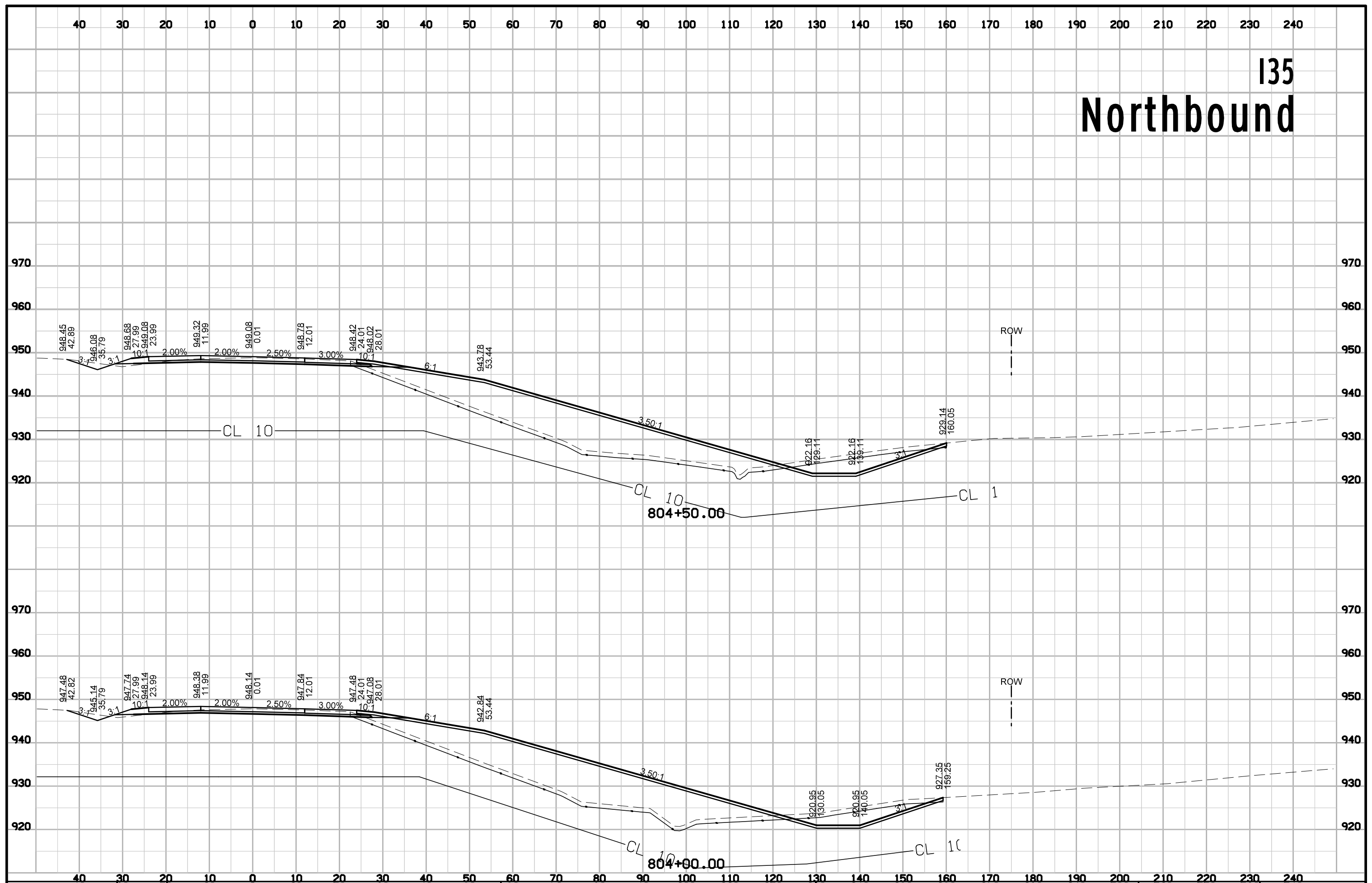
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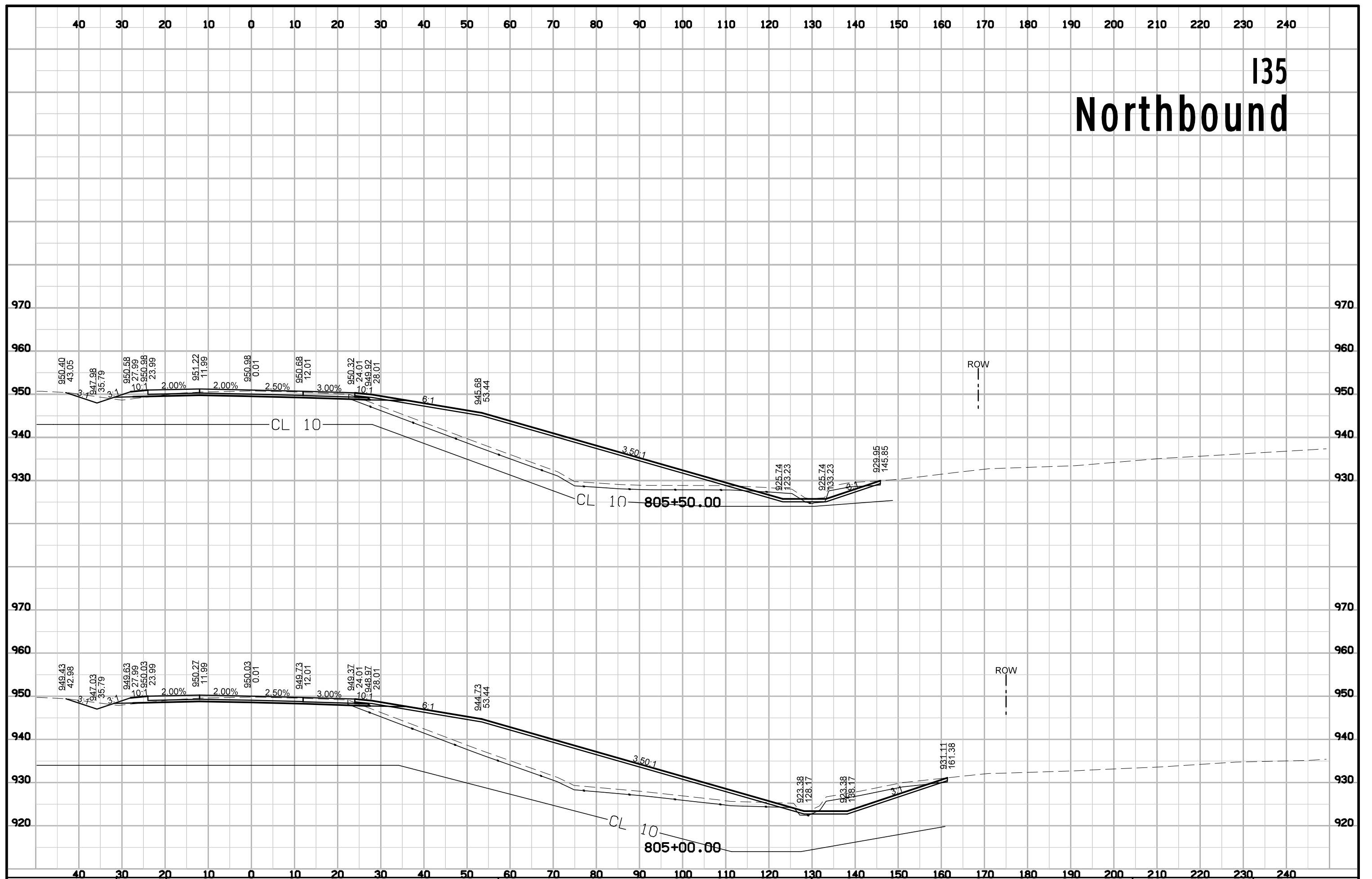
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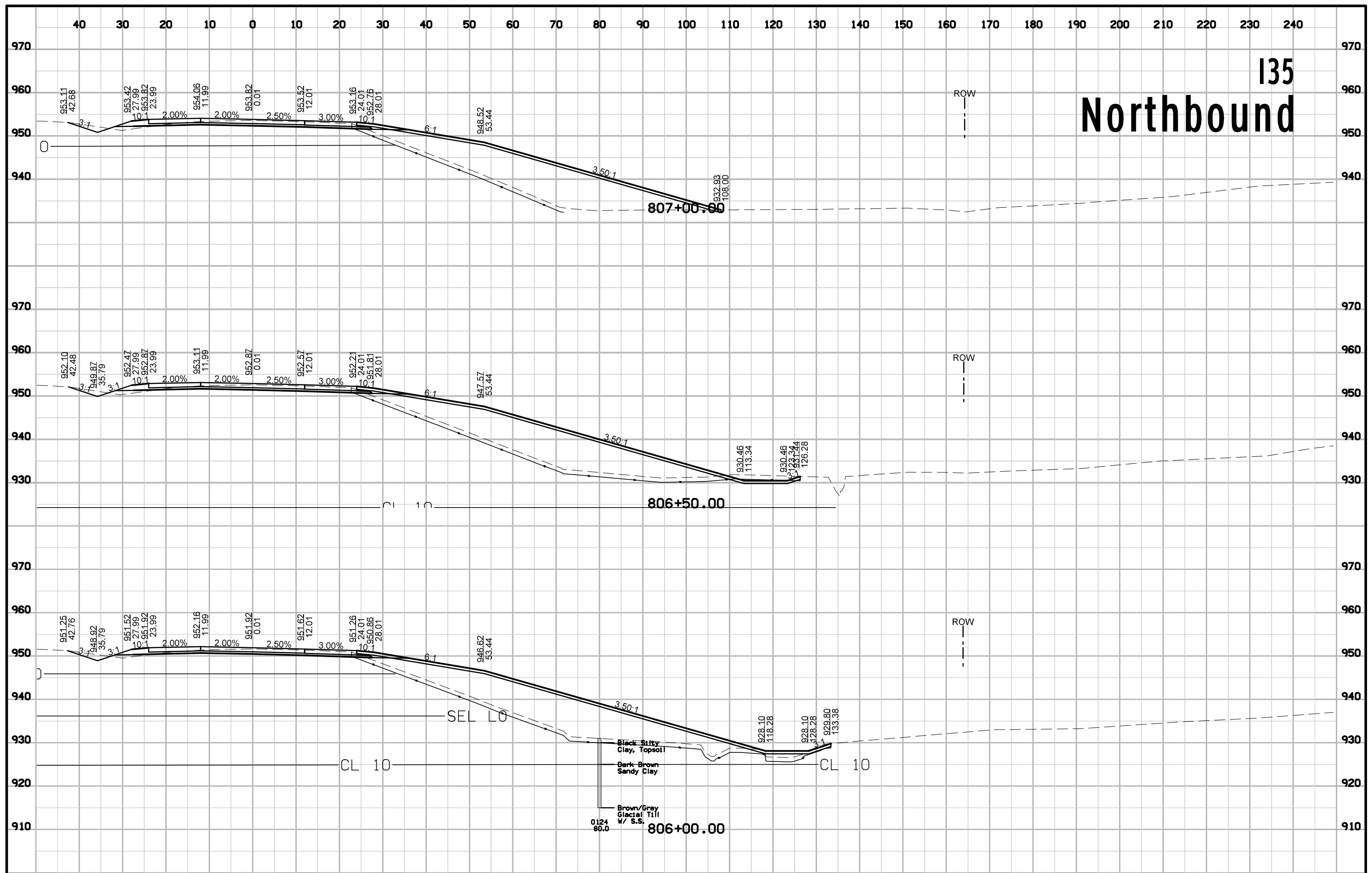


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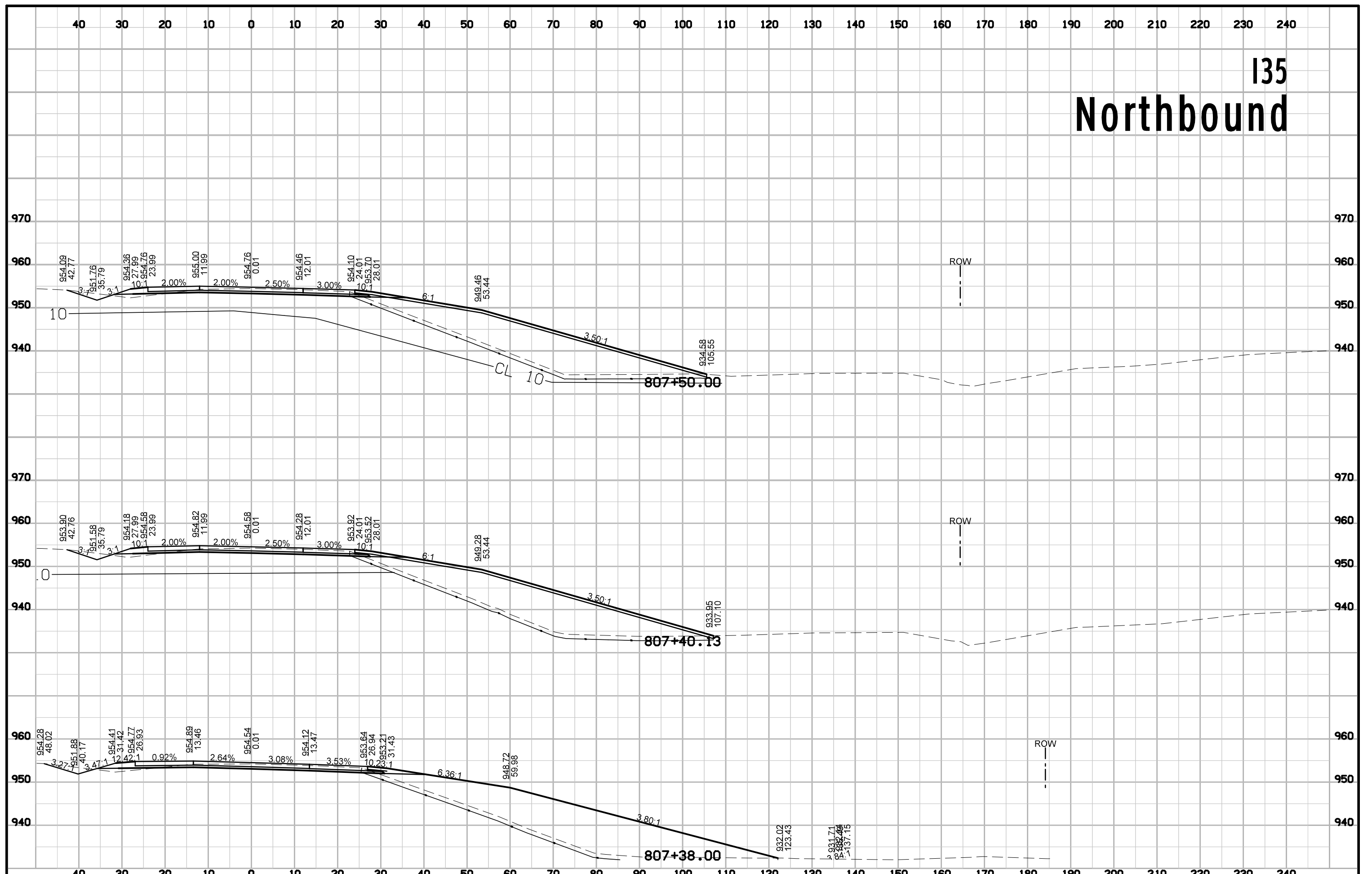
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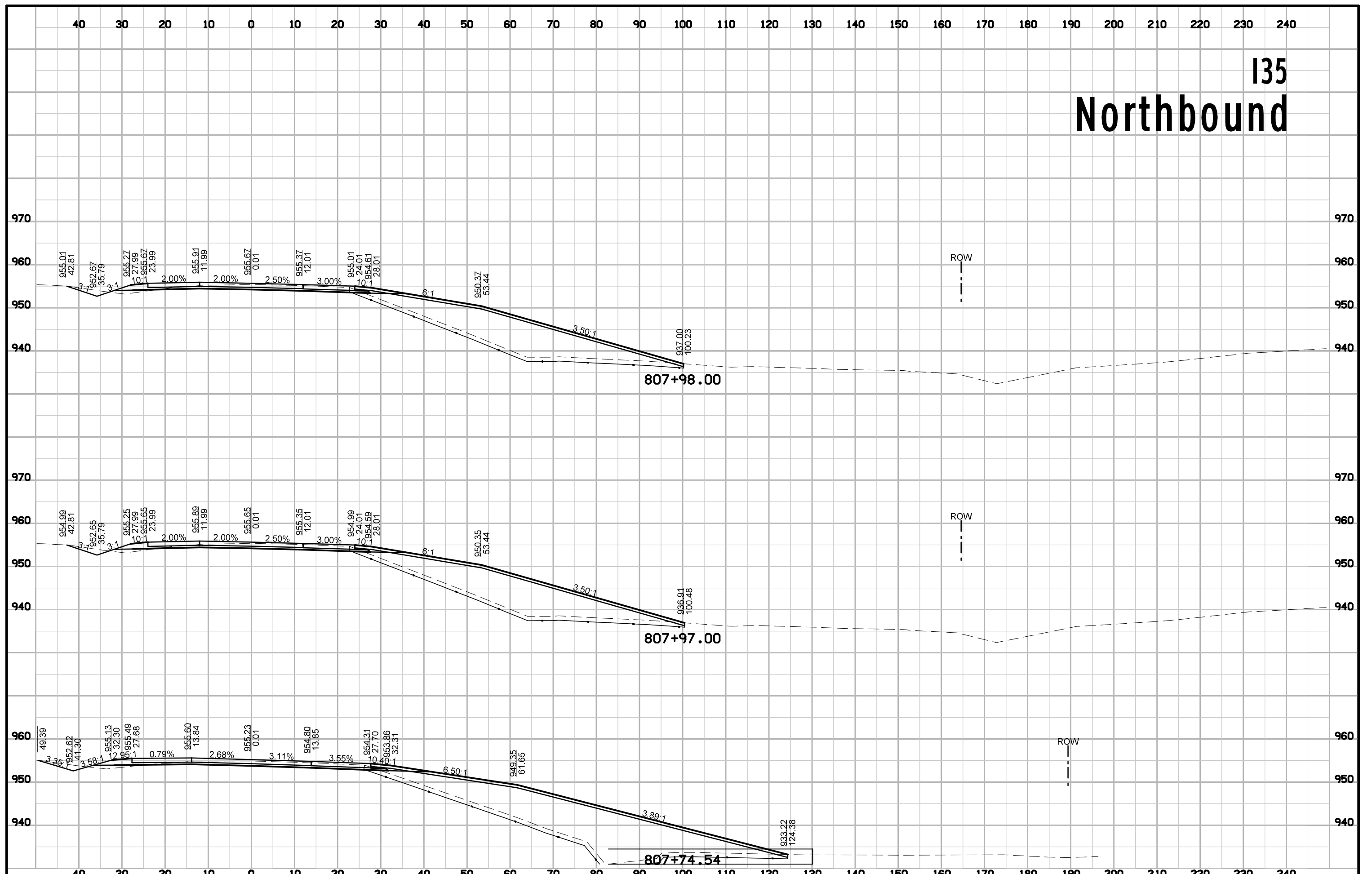


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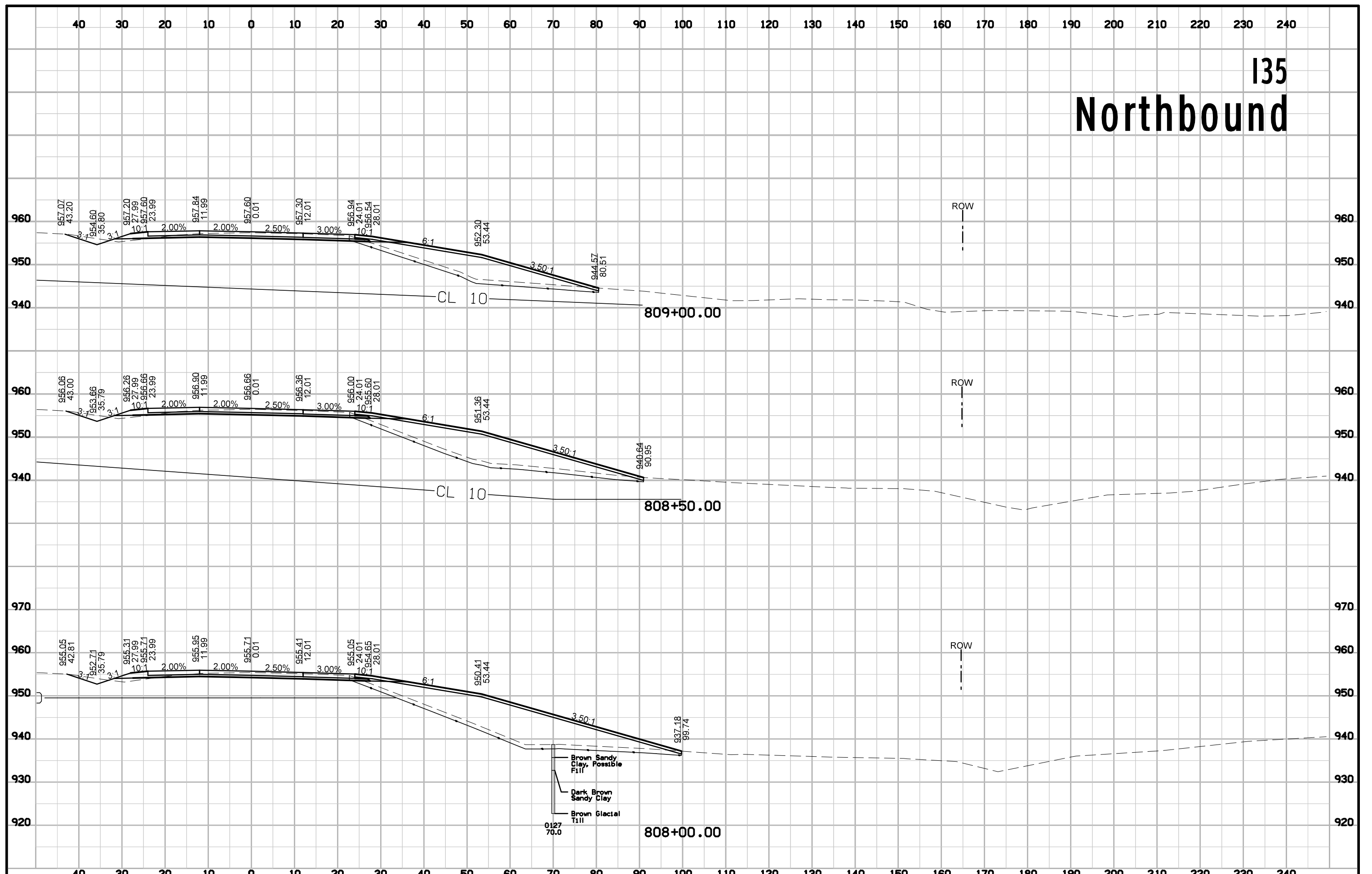
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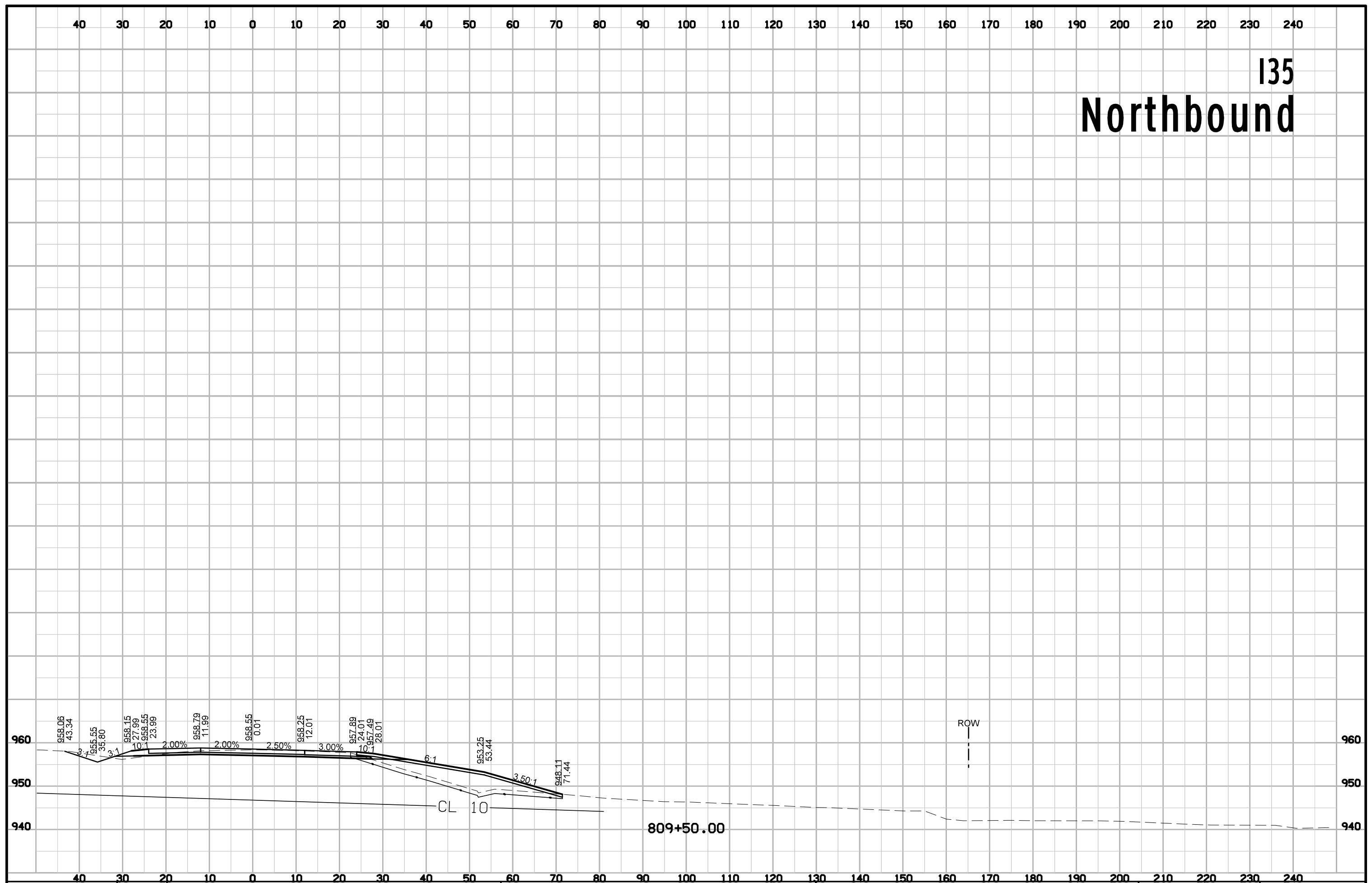
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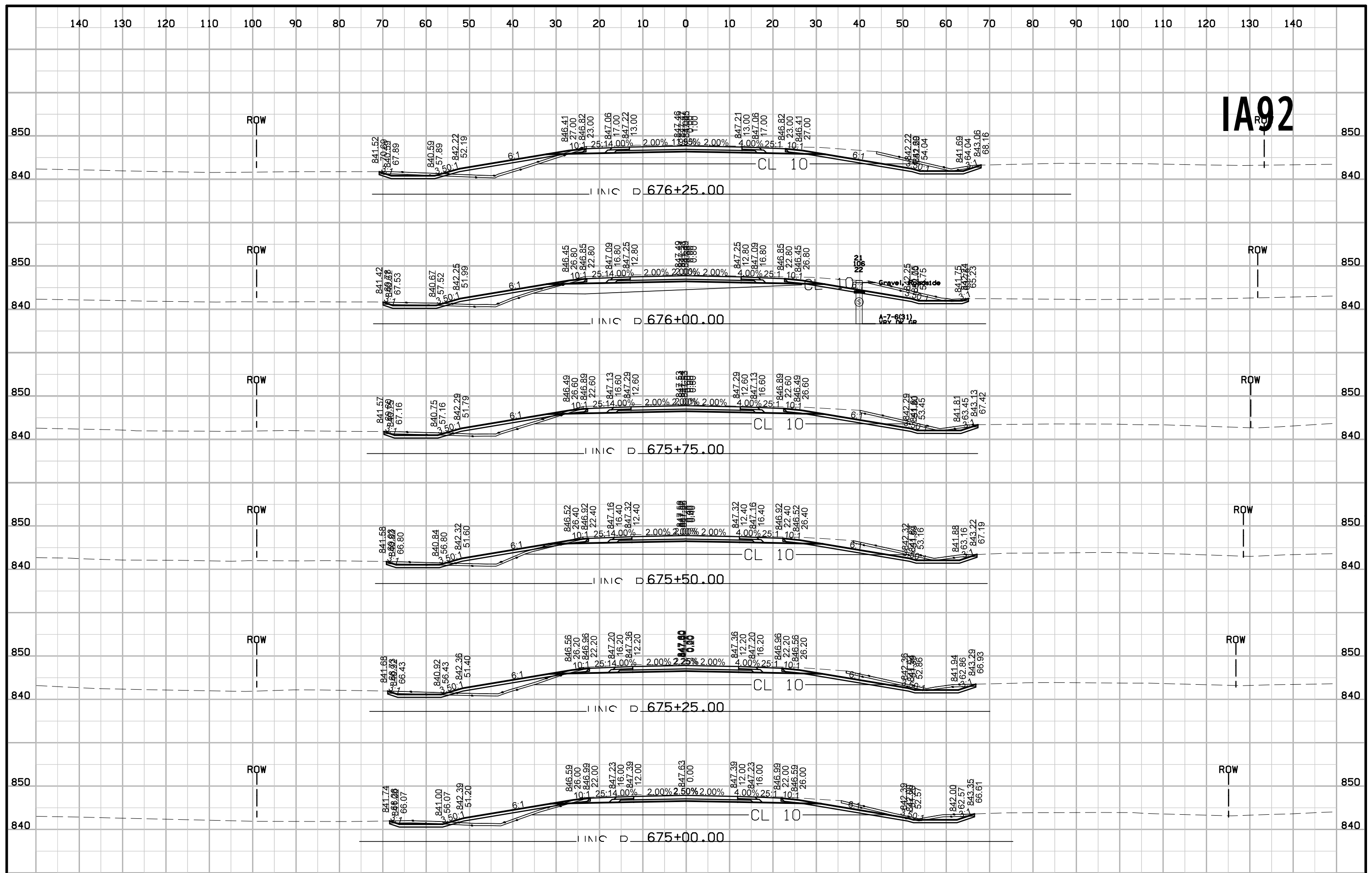
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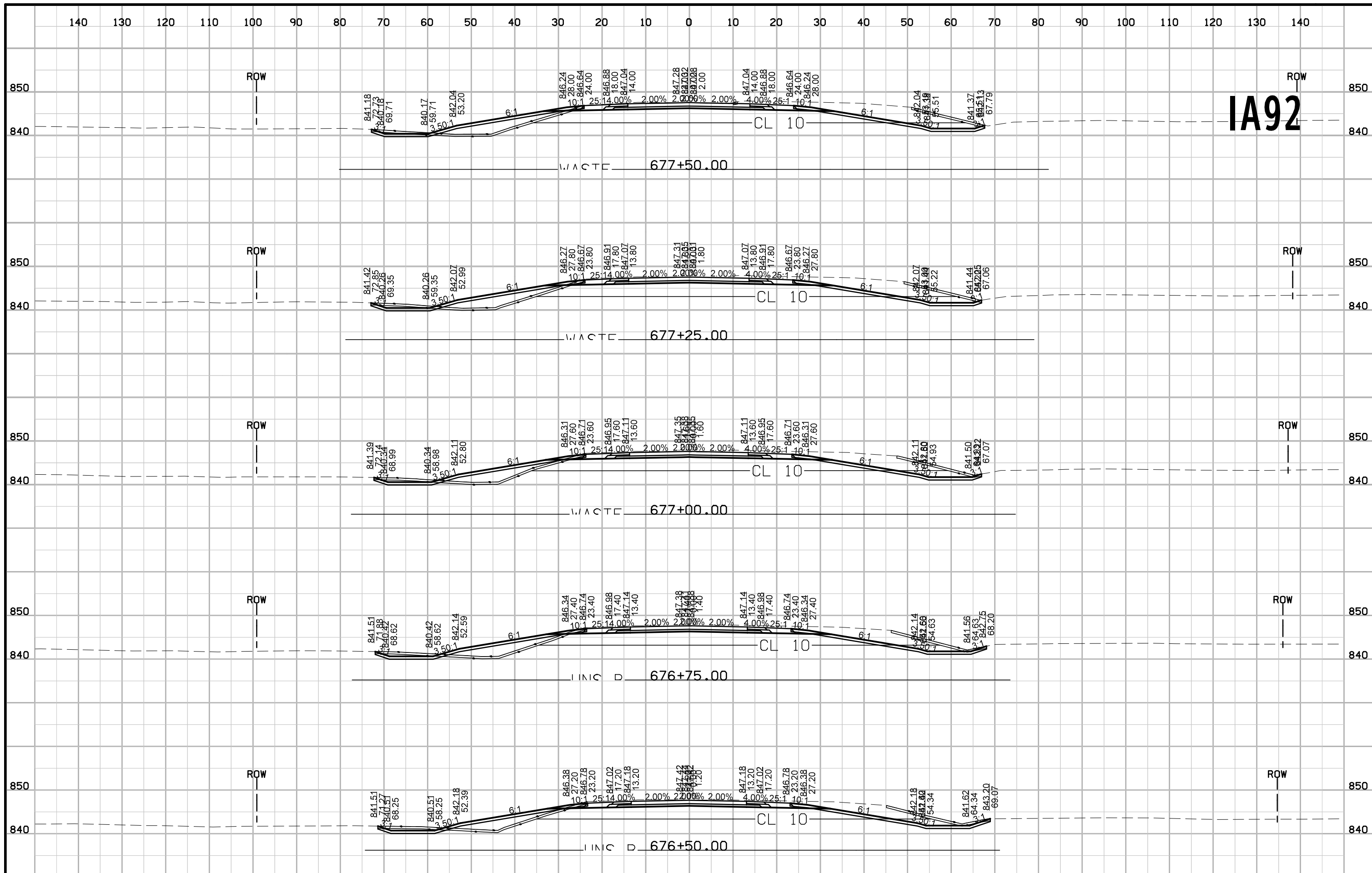


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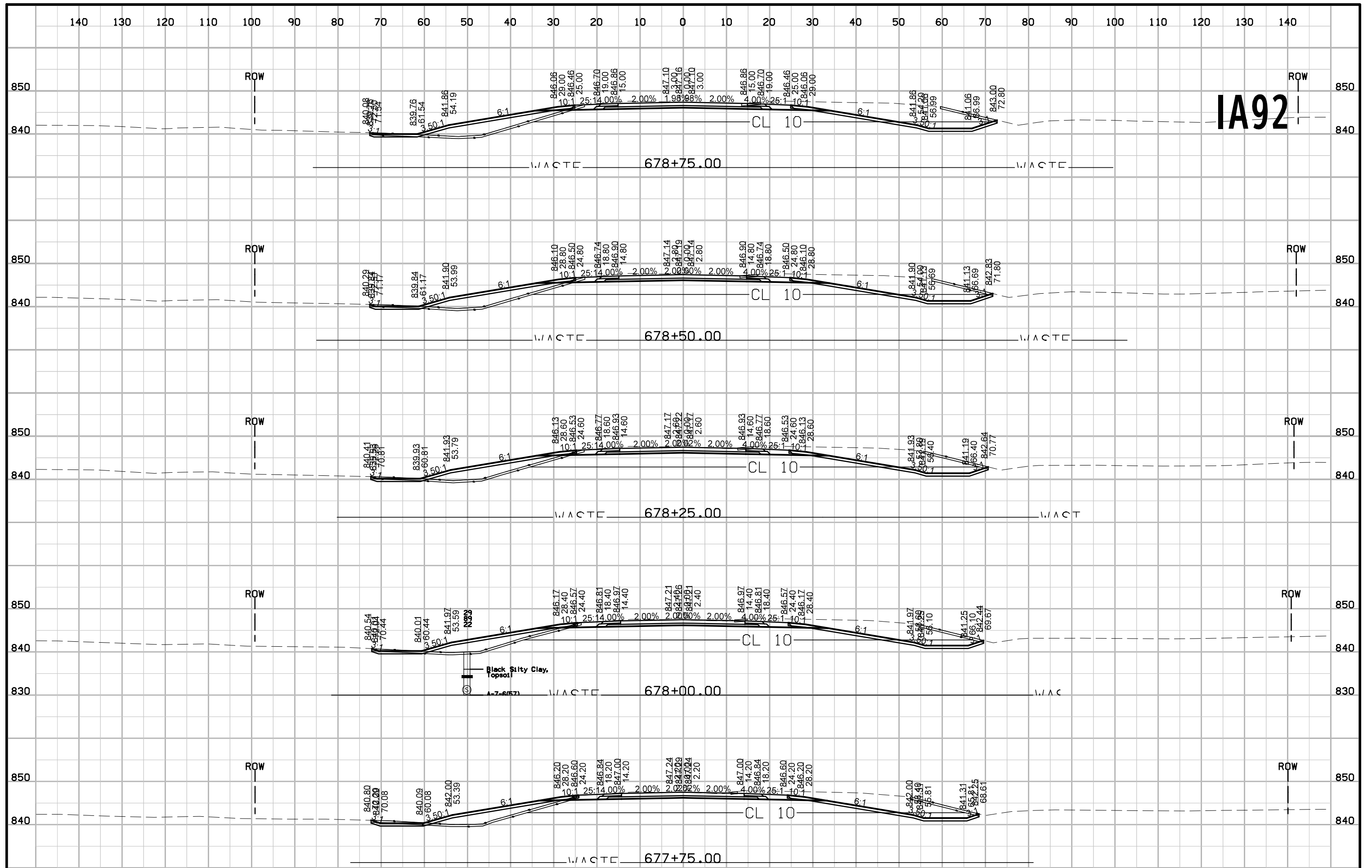


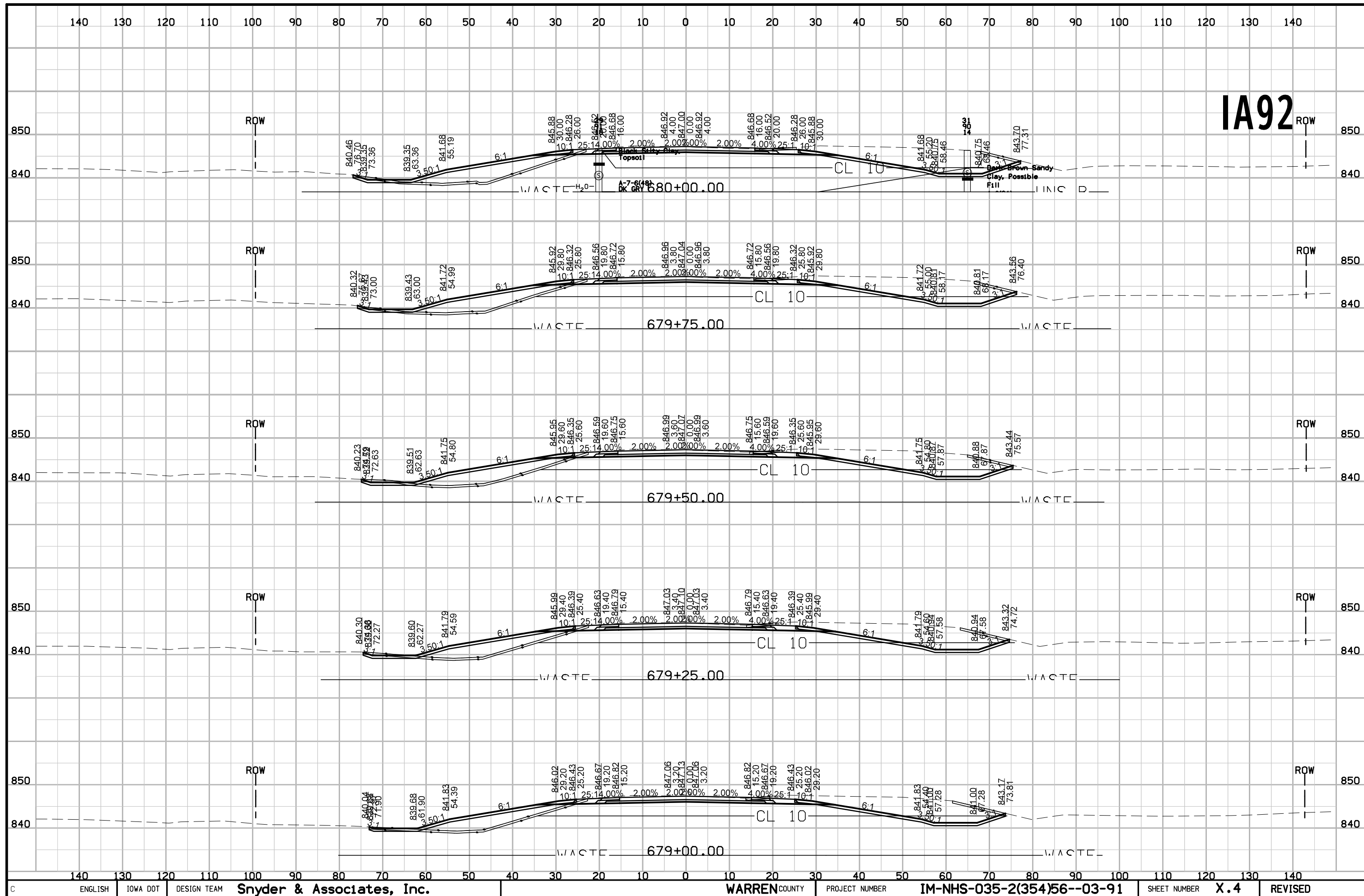
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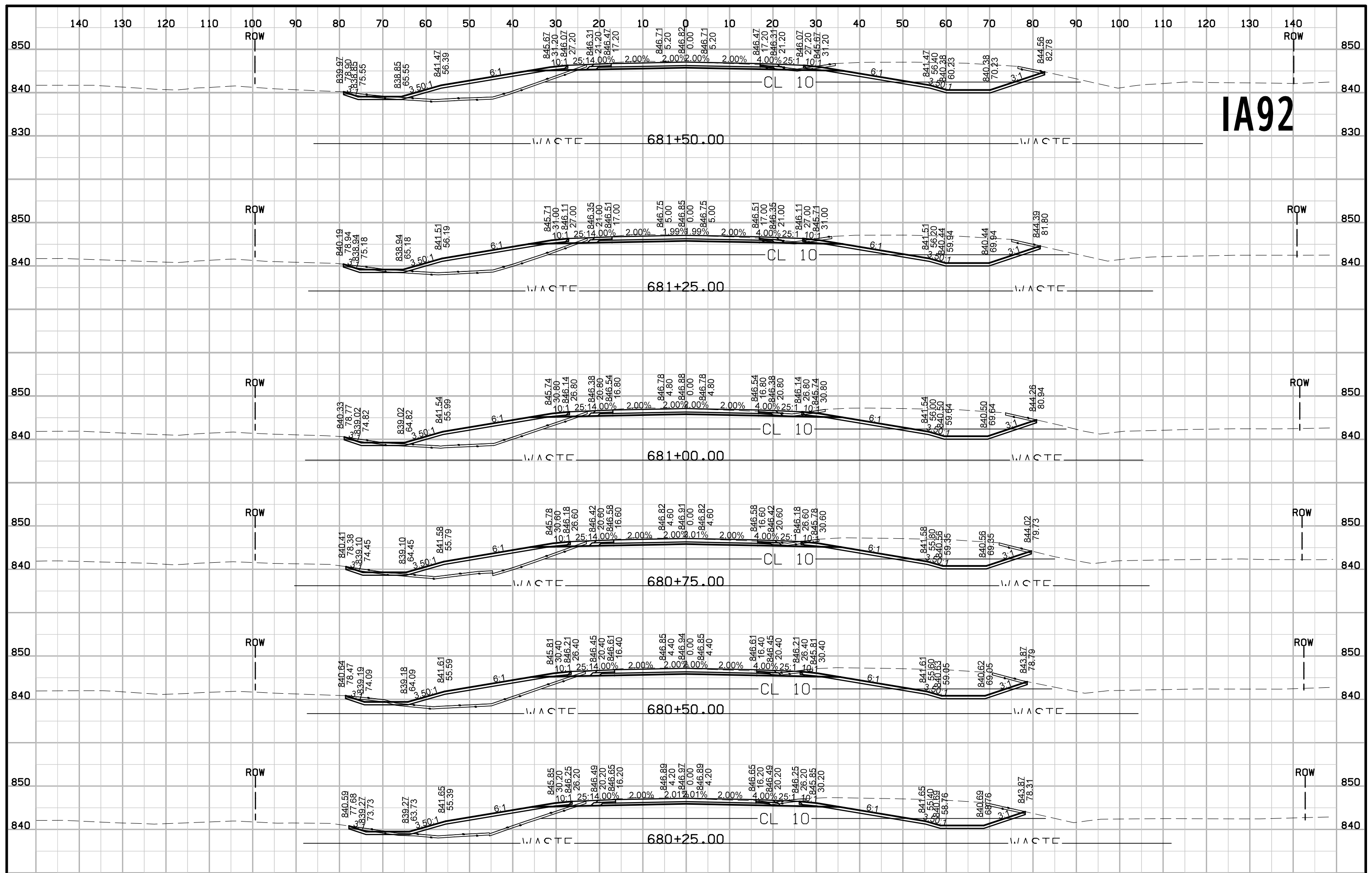


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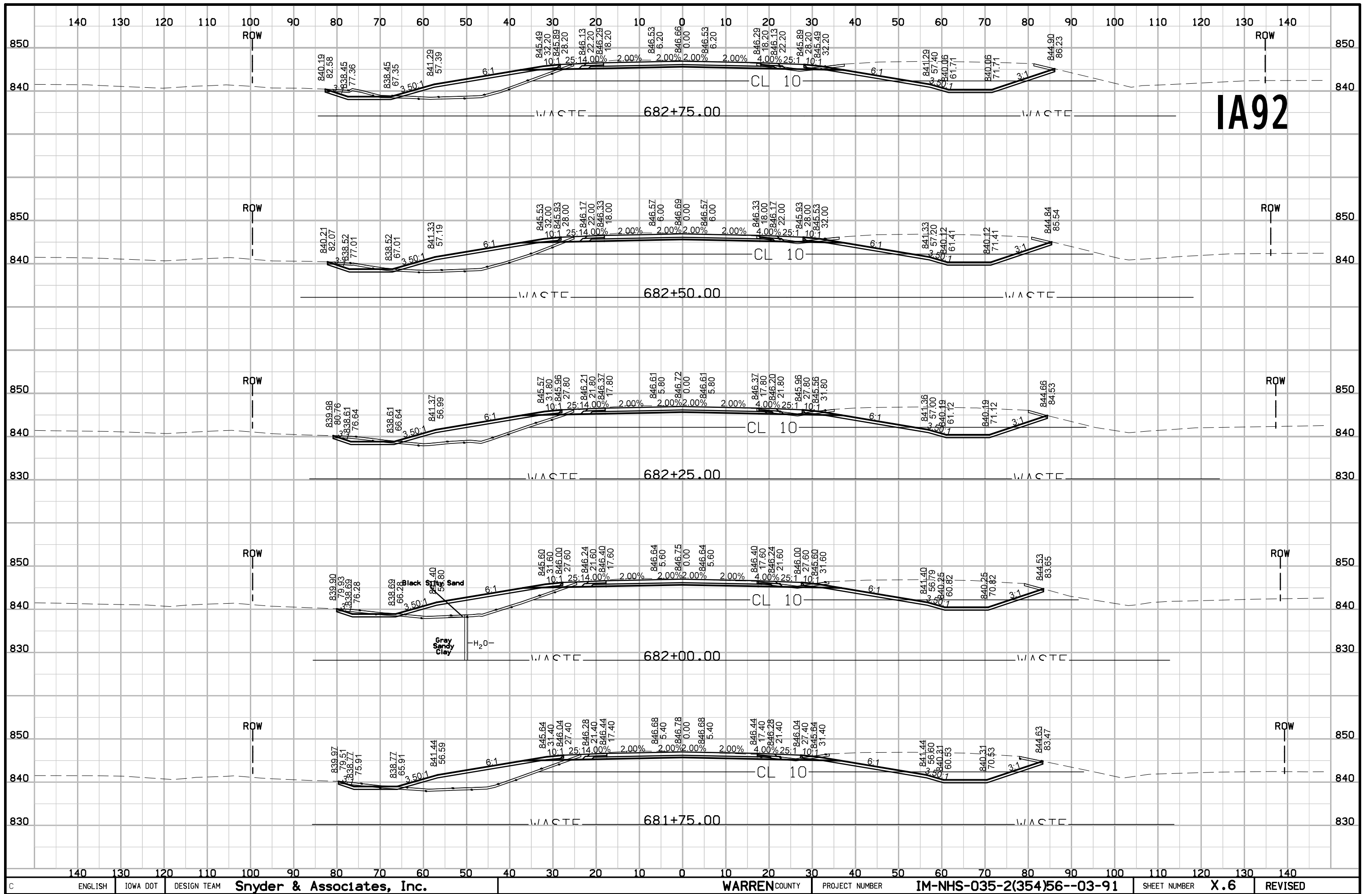


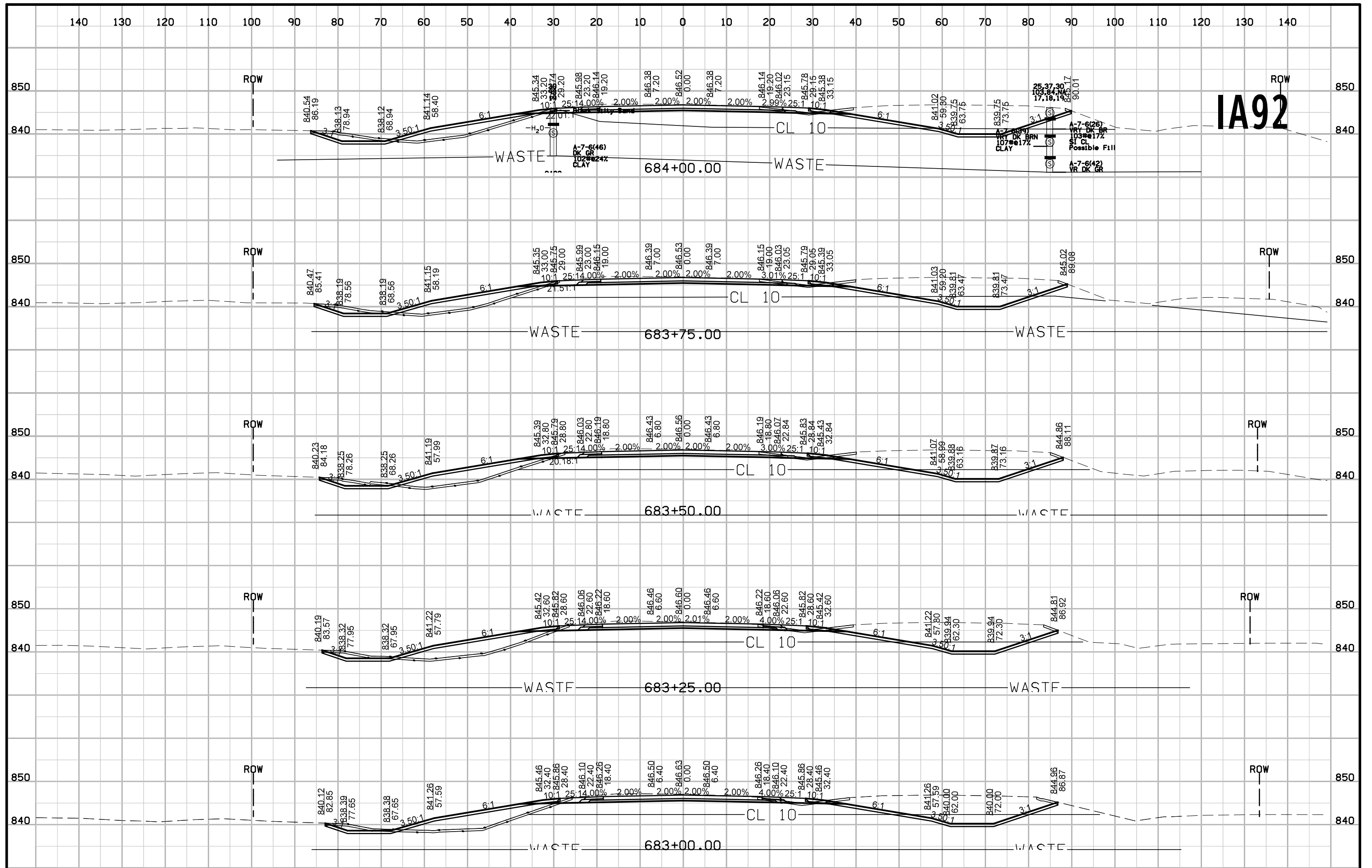


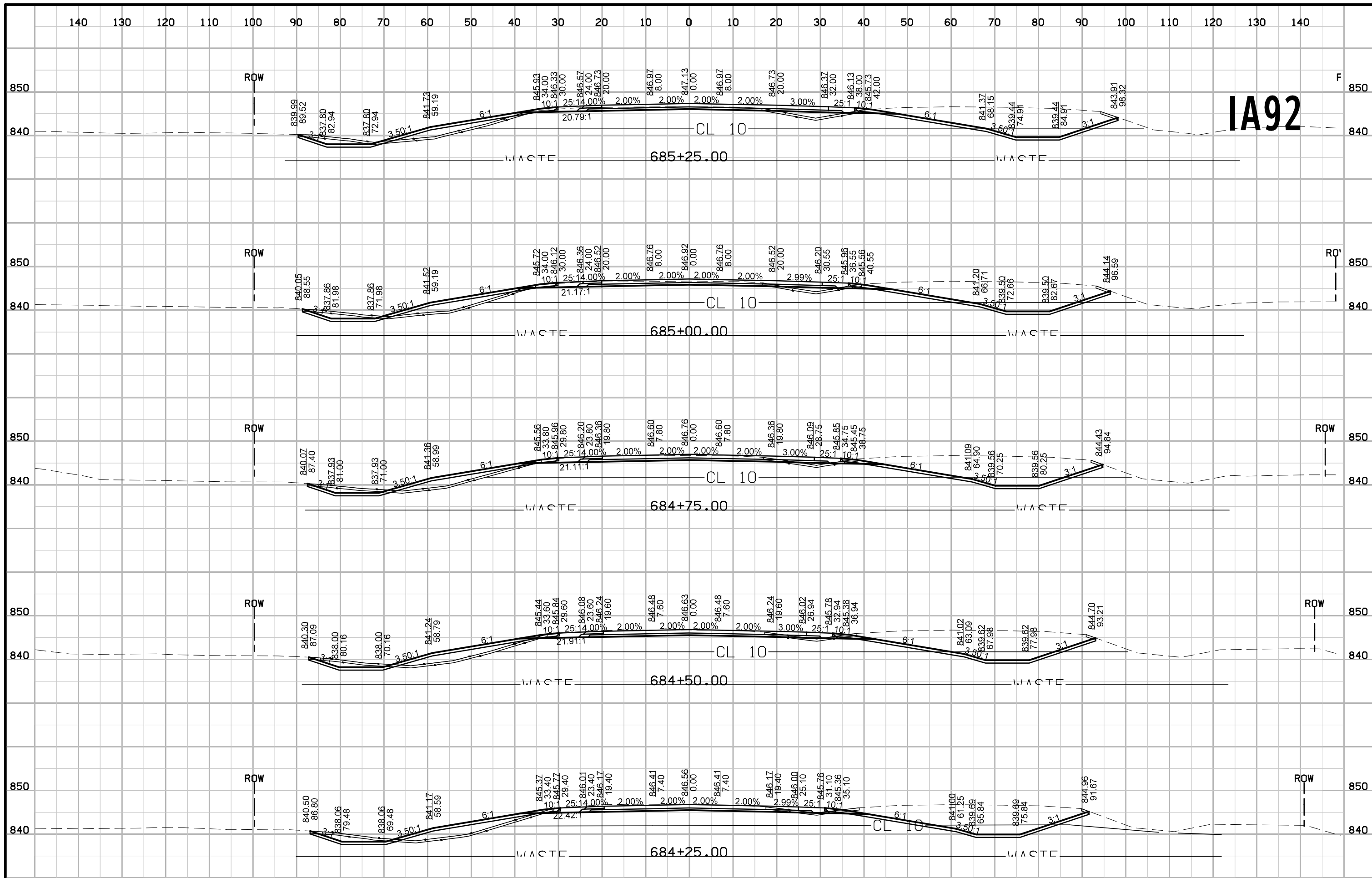
IA92



IA92

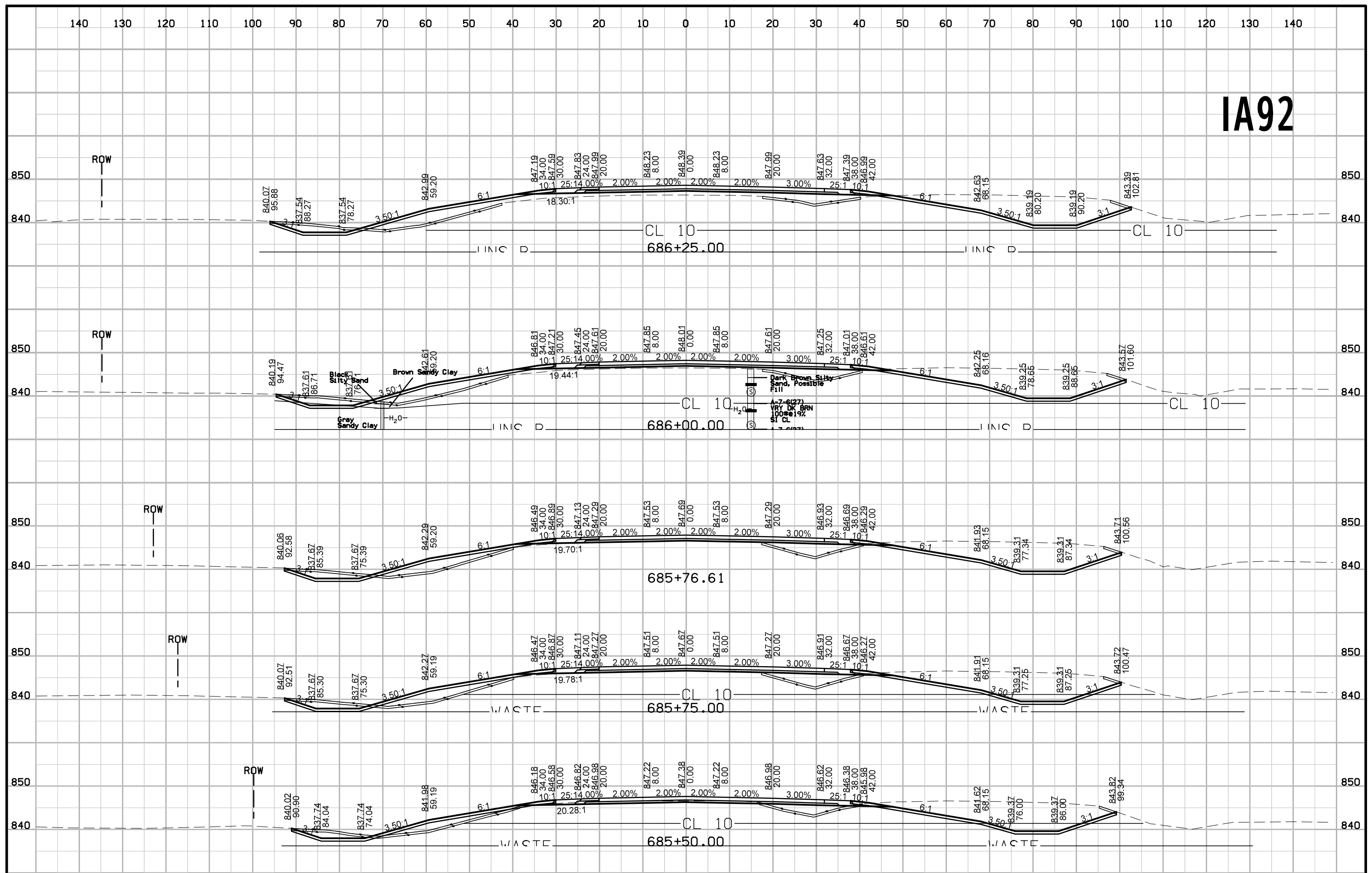


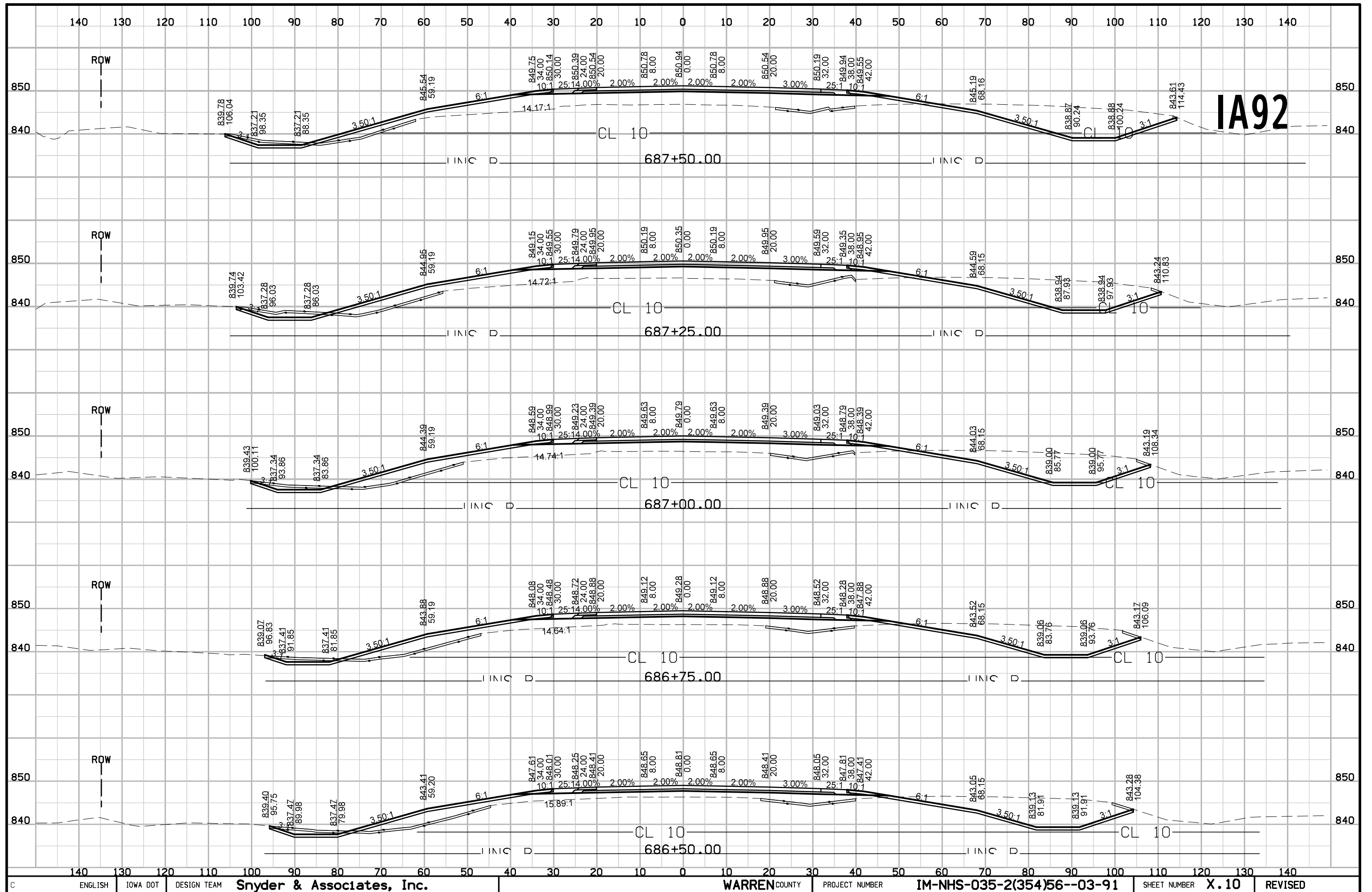




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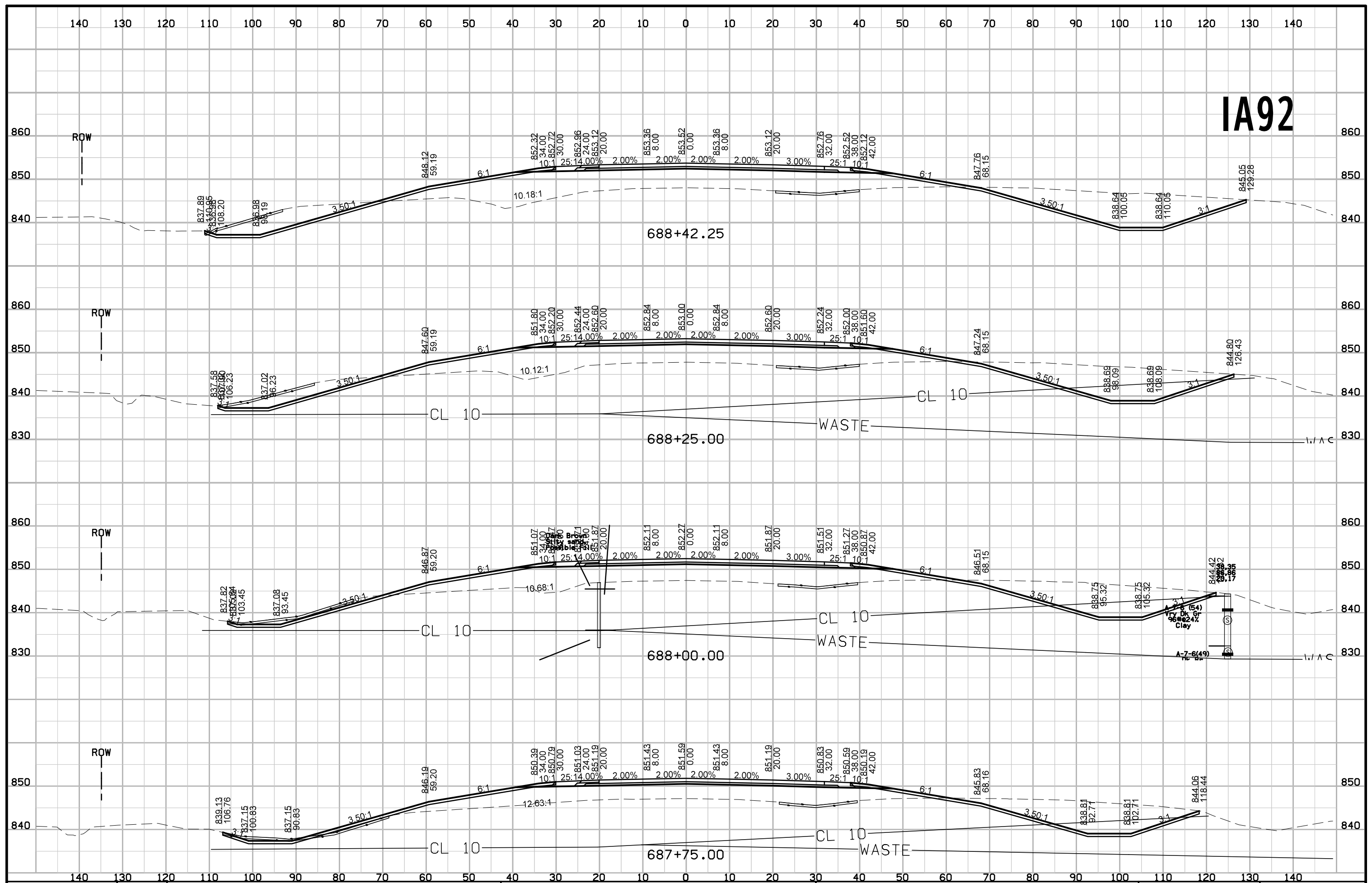
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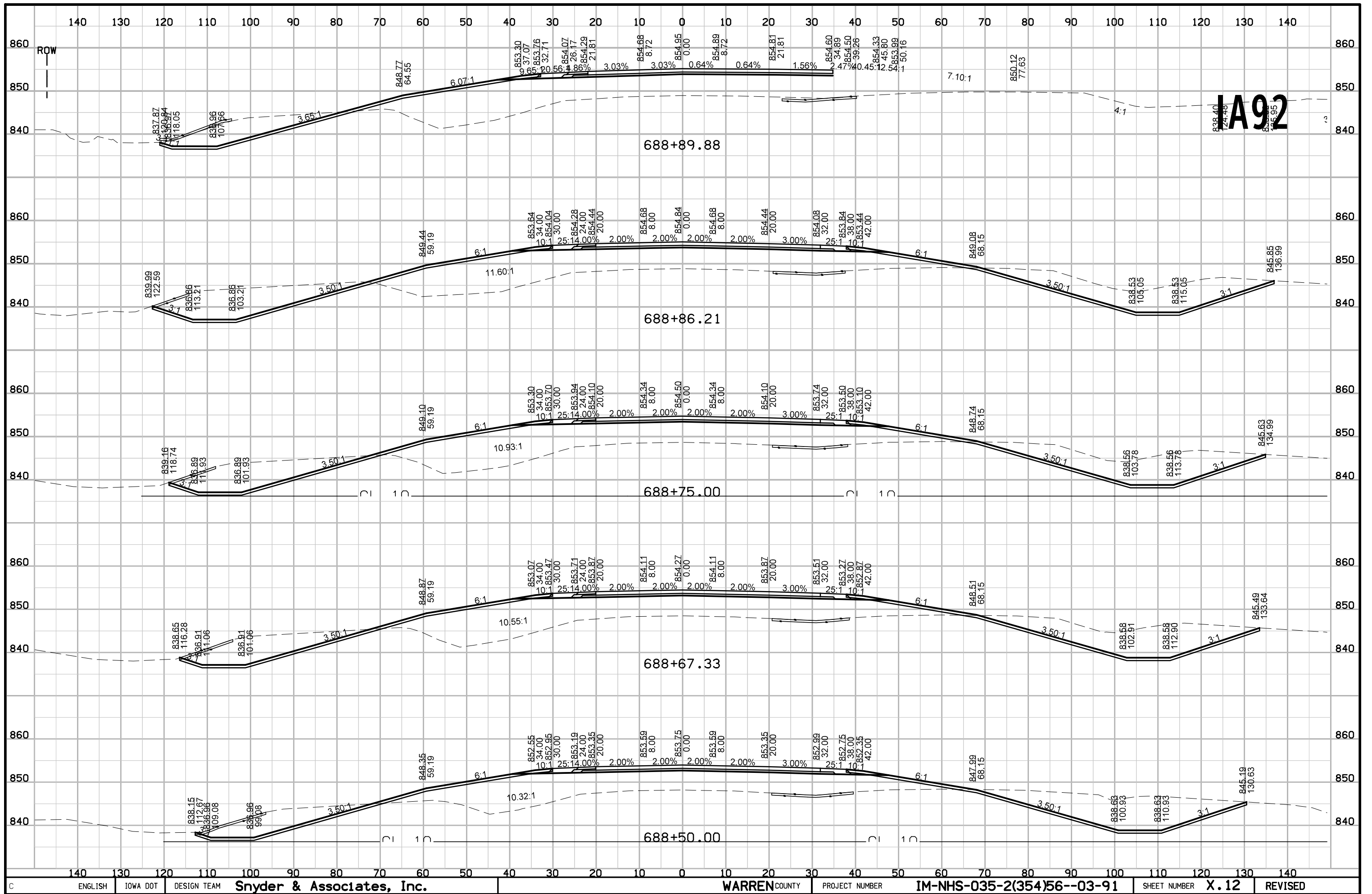




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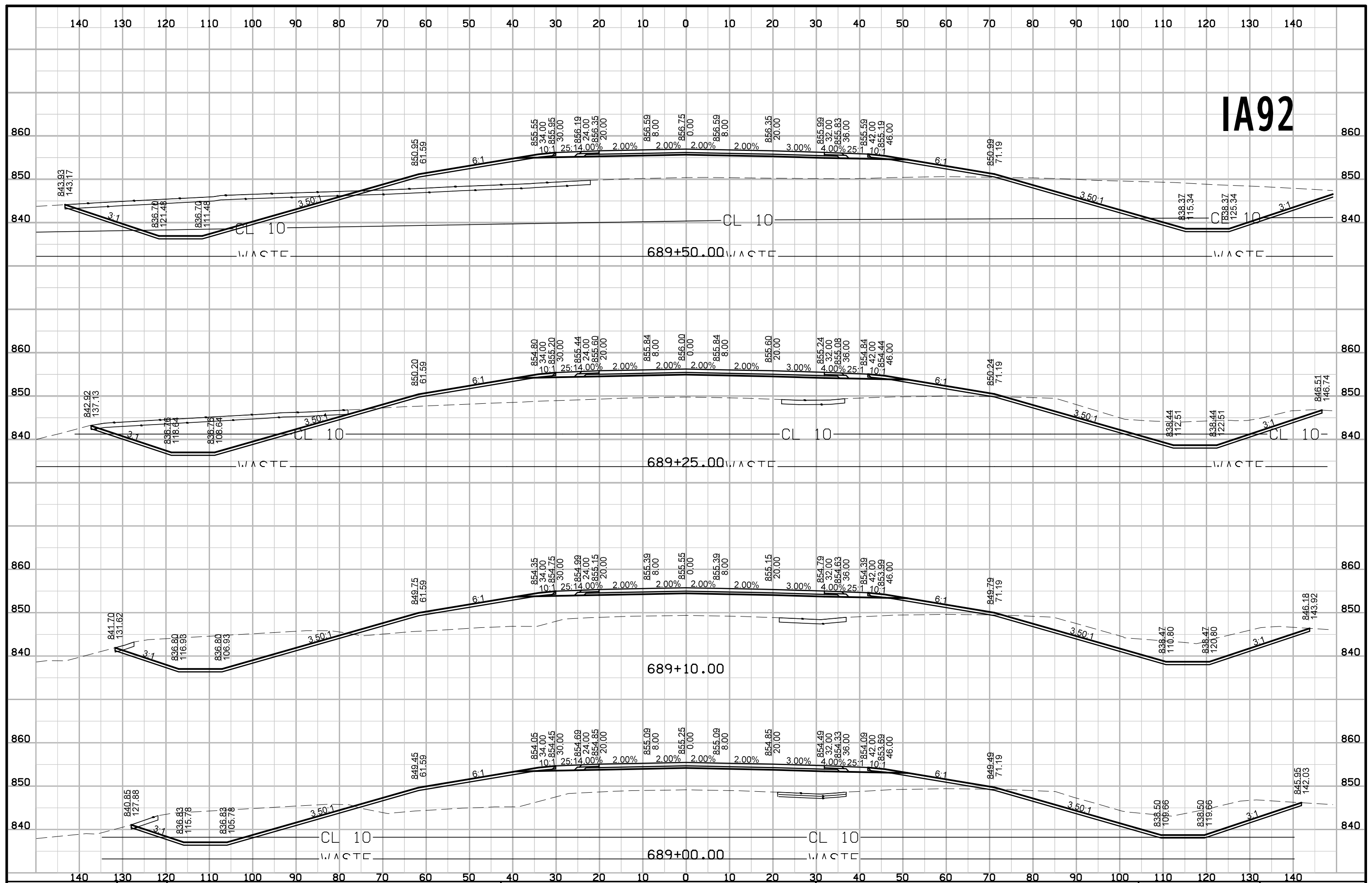
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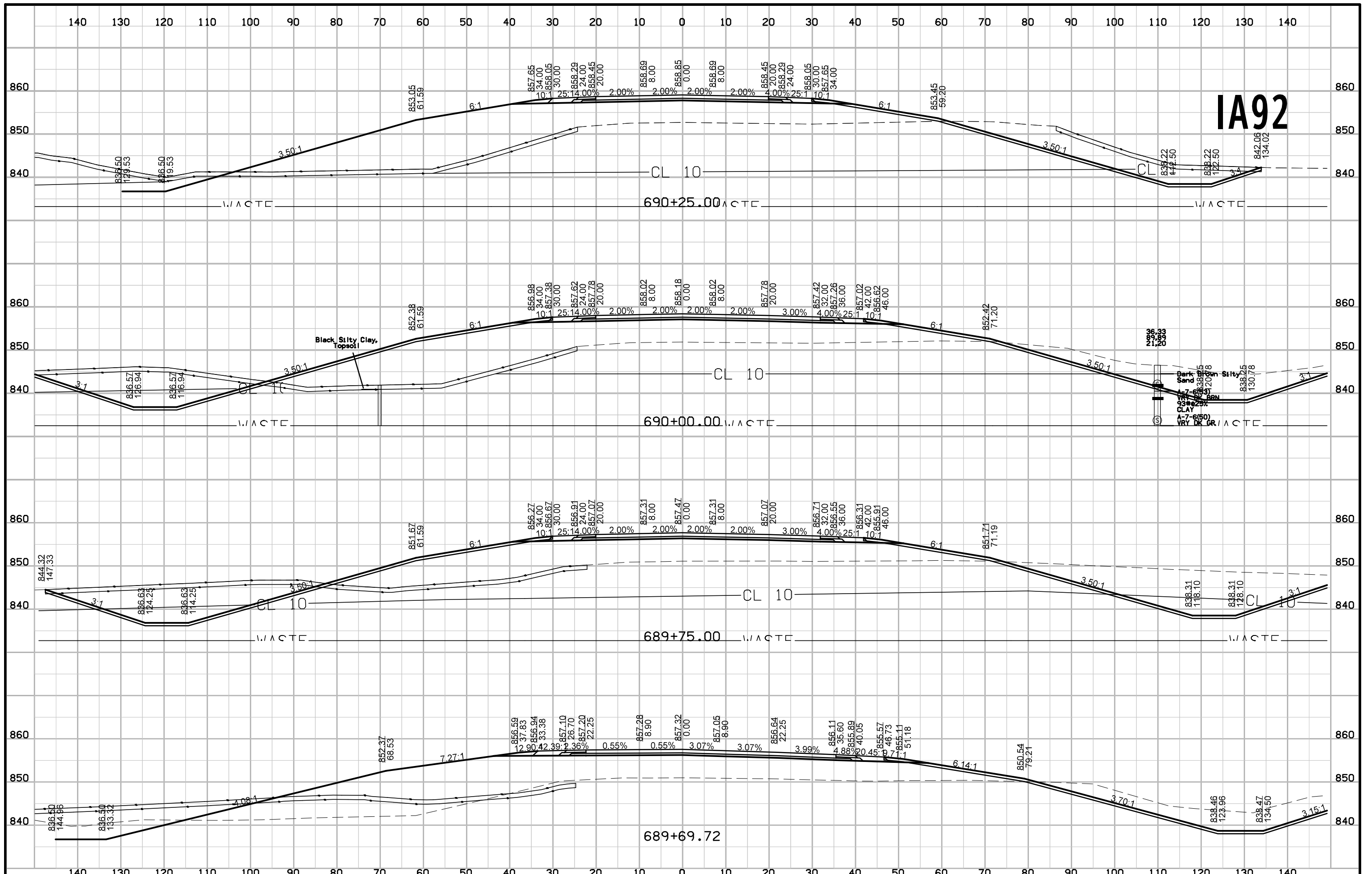


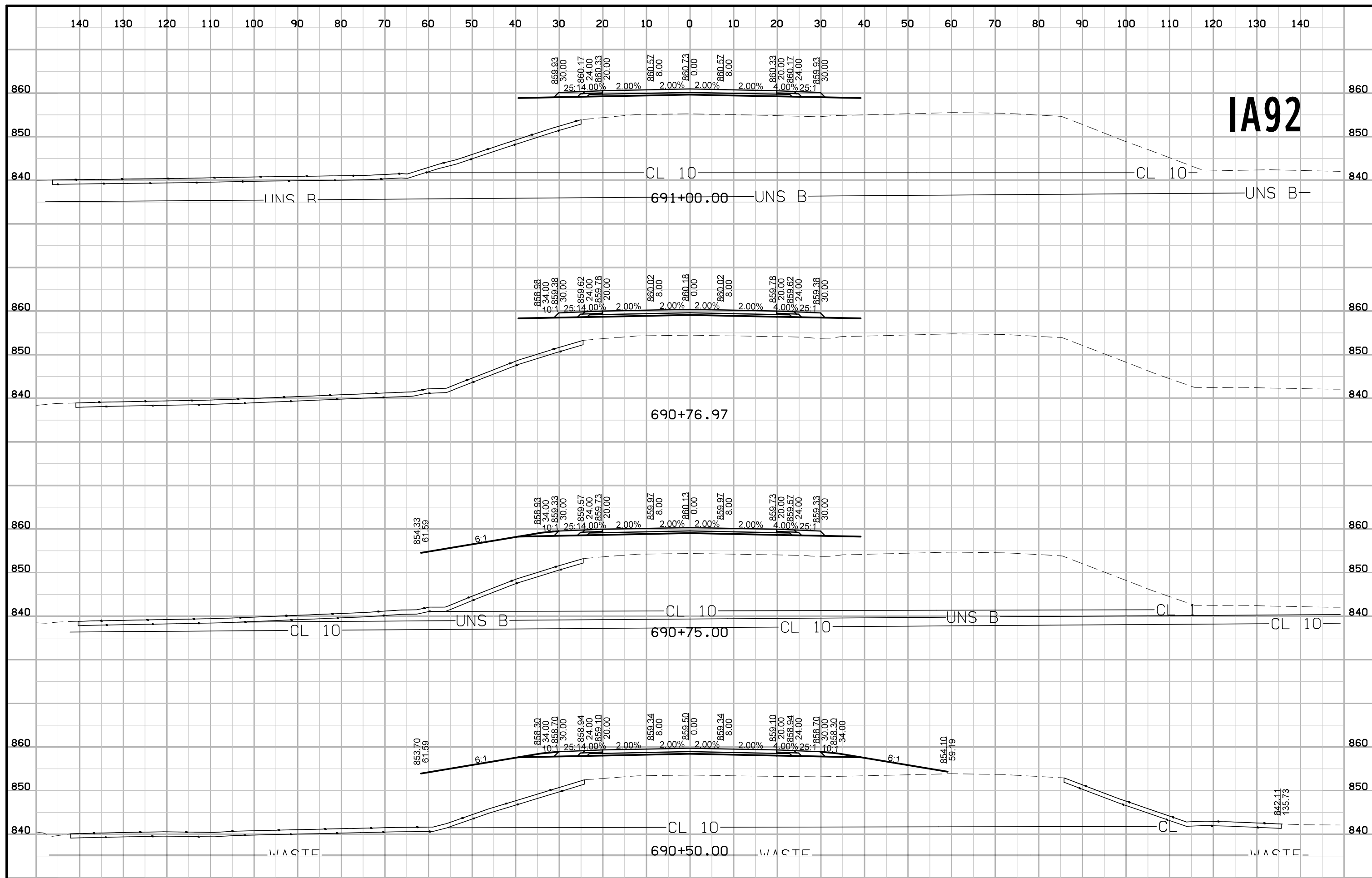


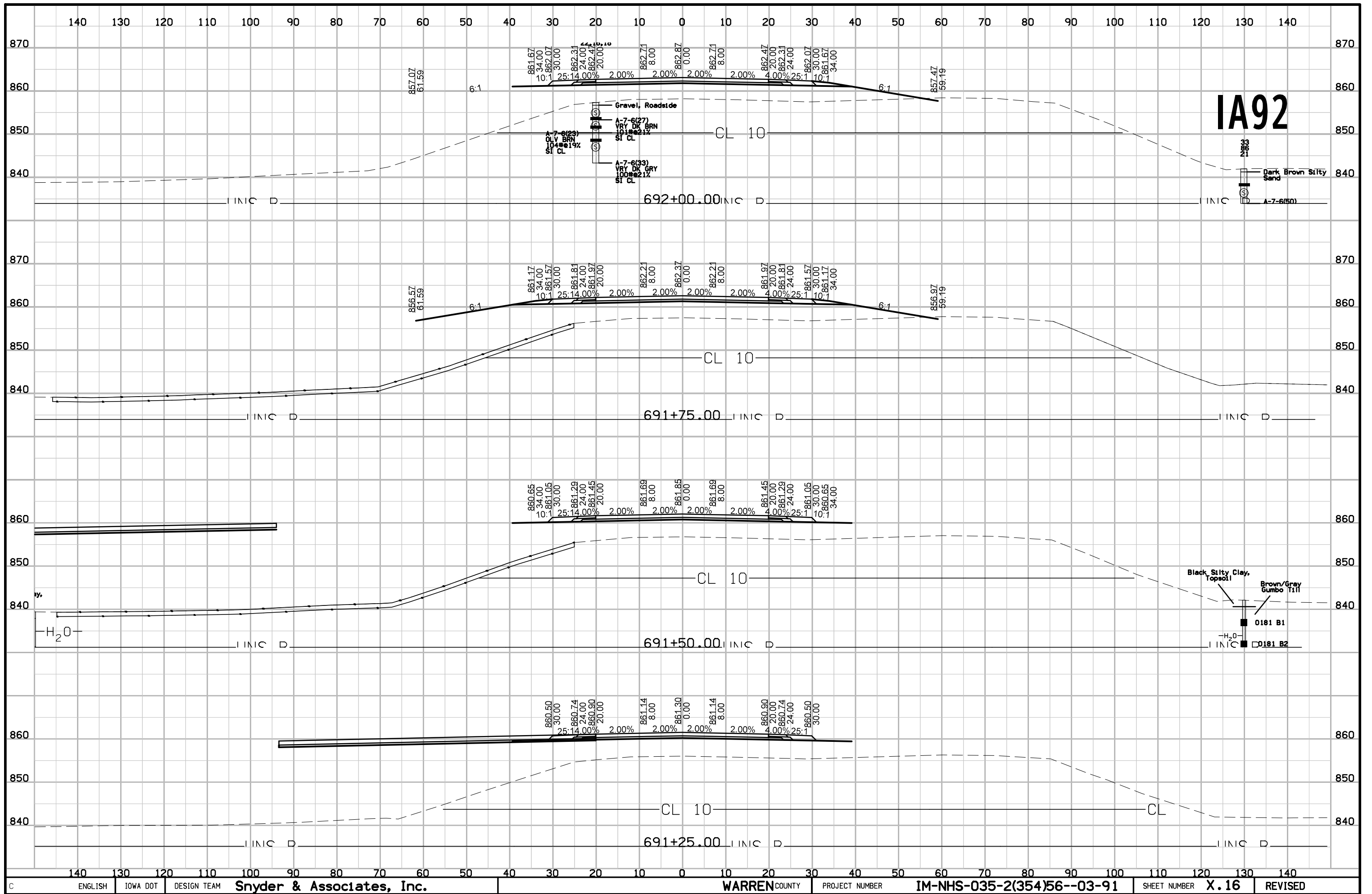
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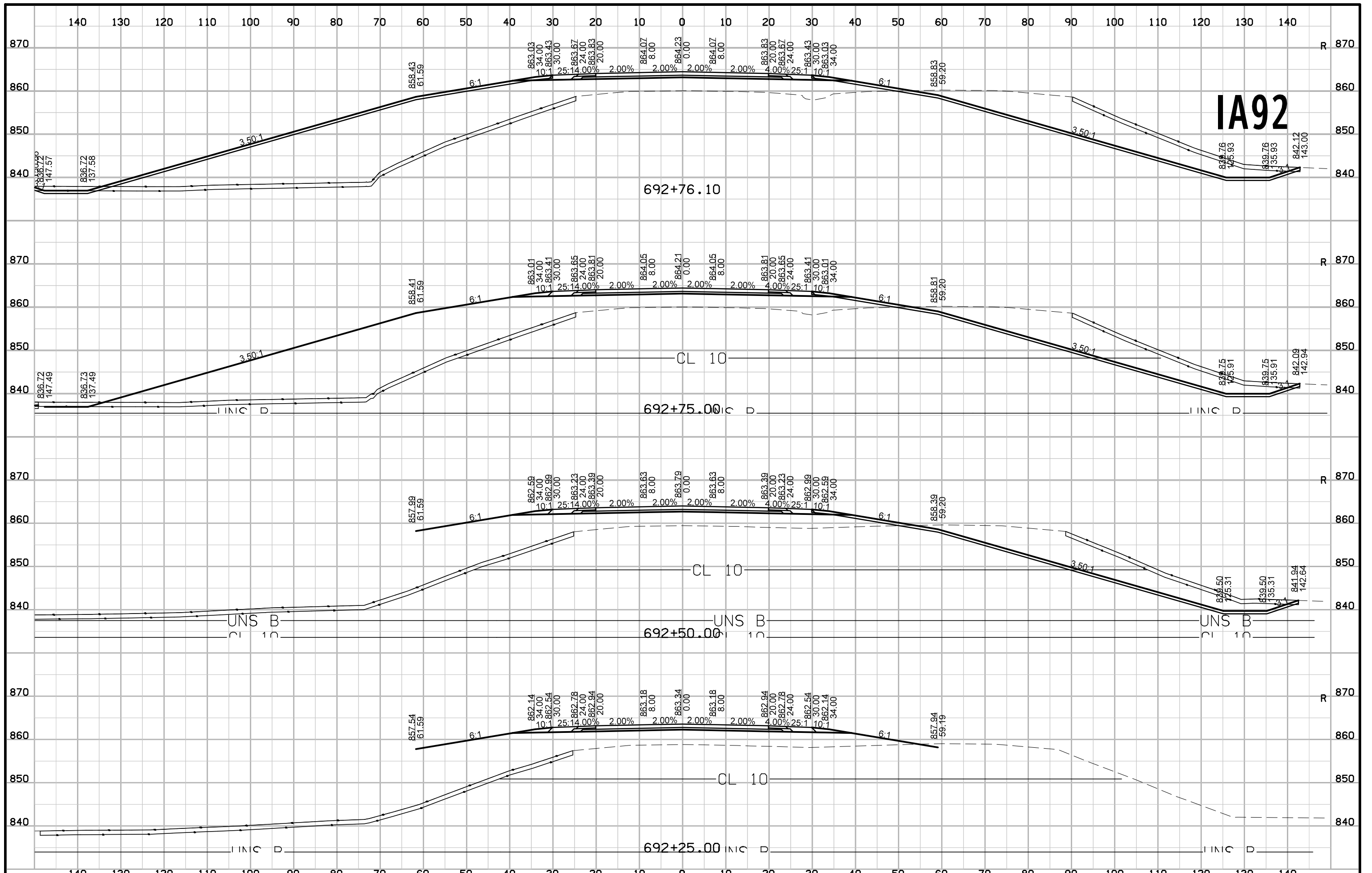




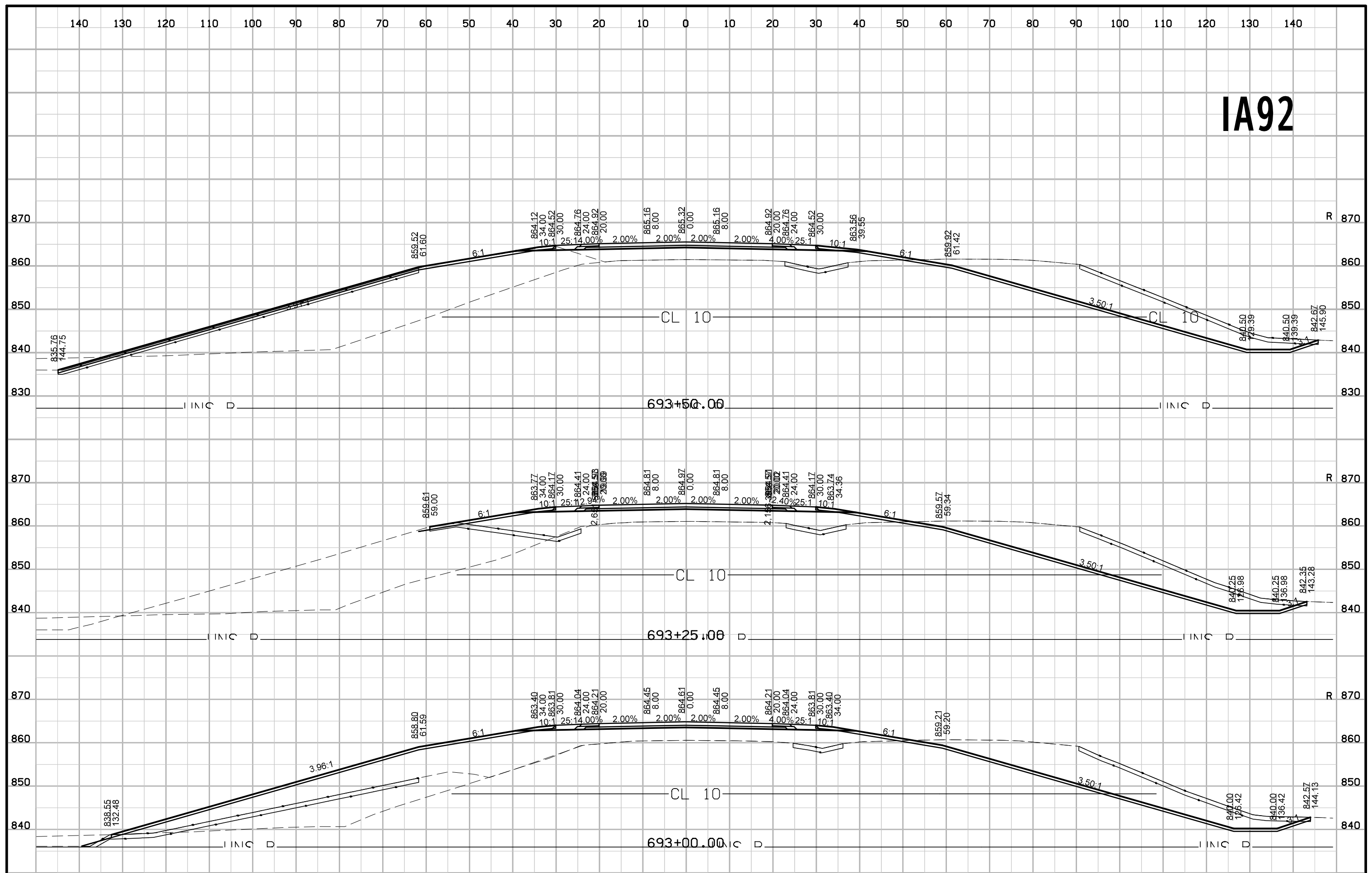




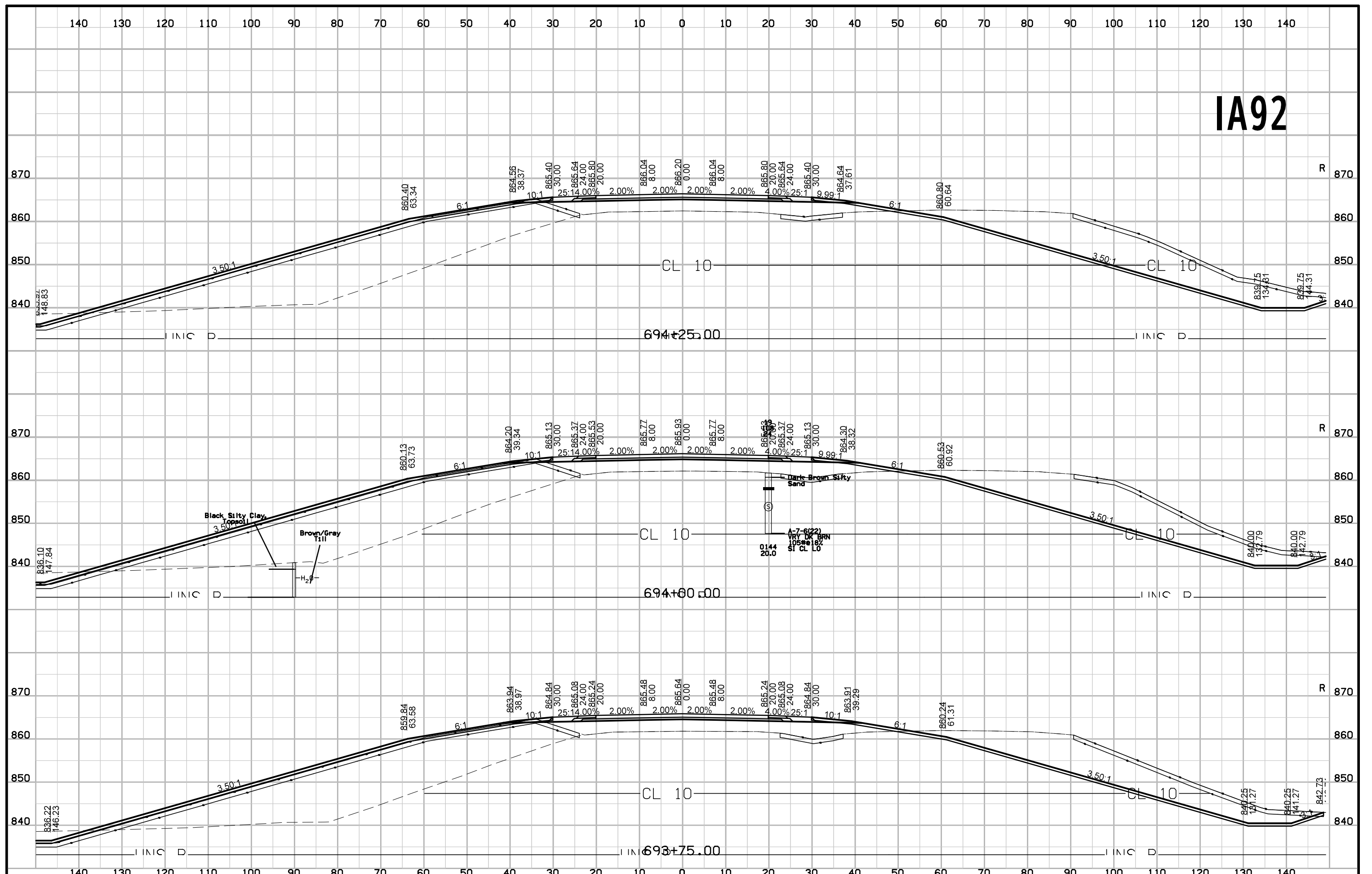
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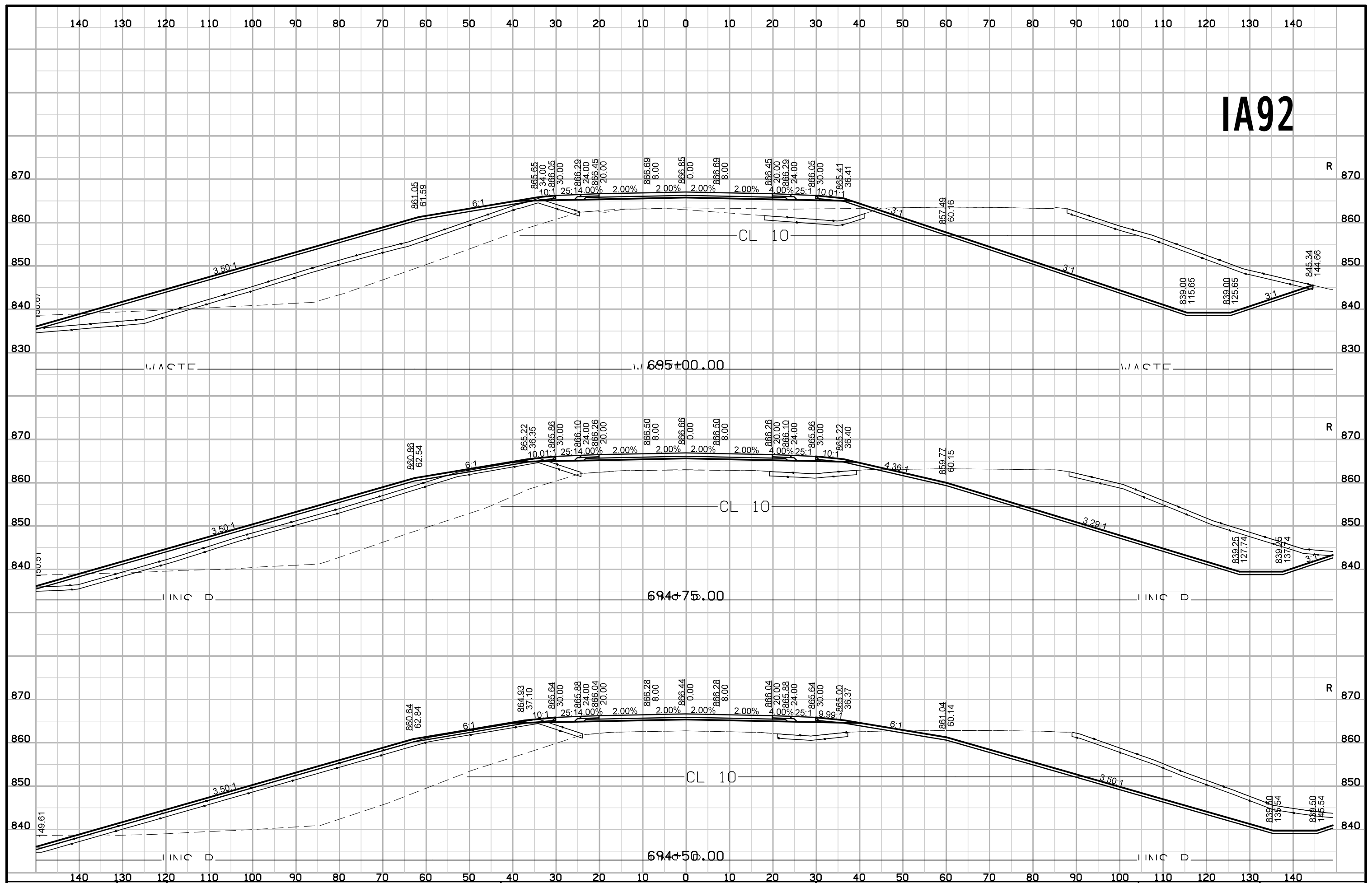
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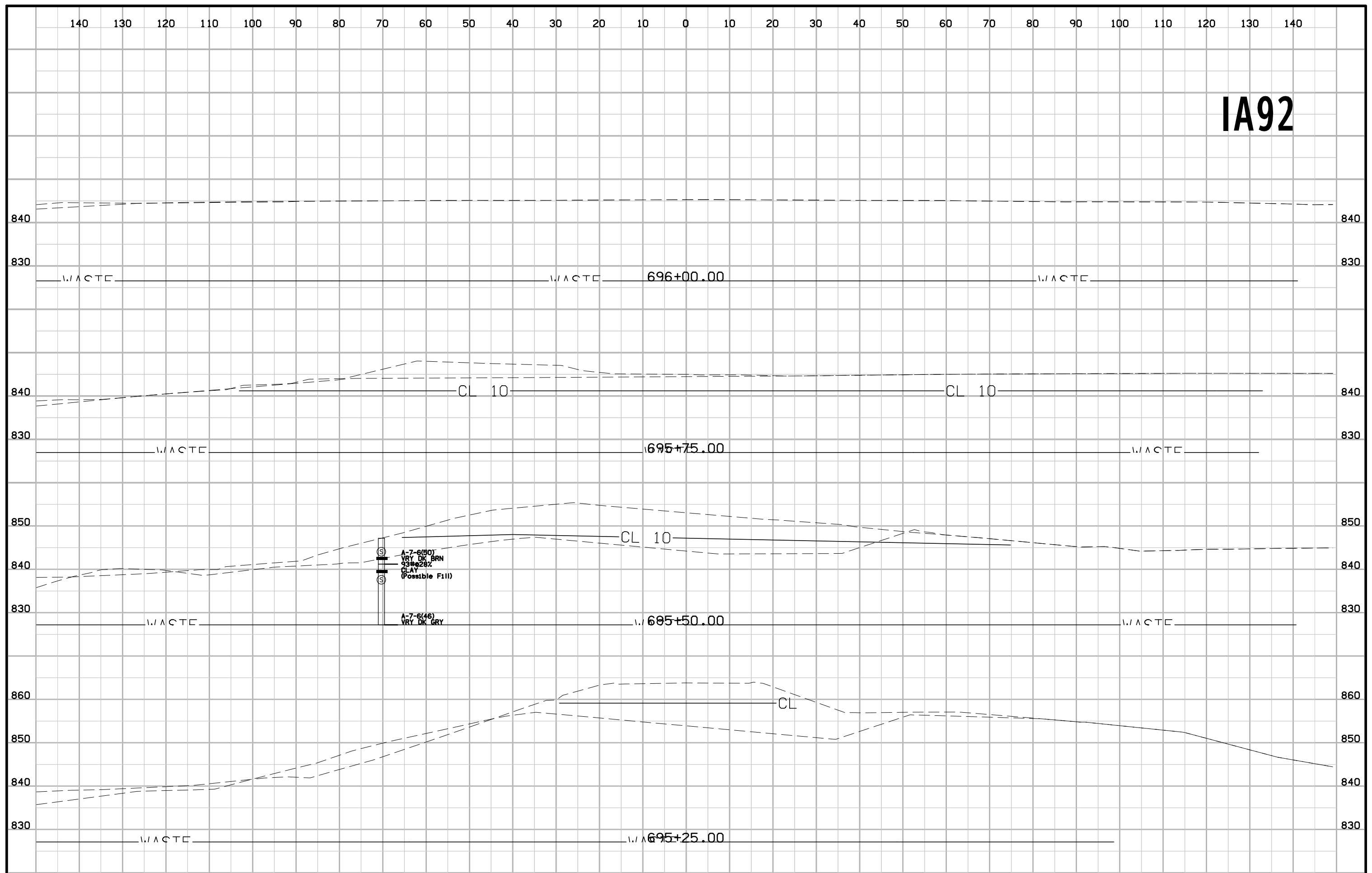
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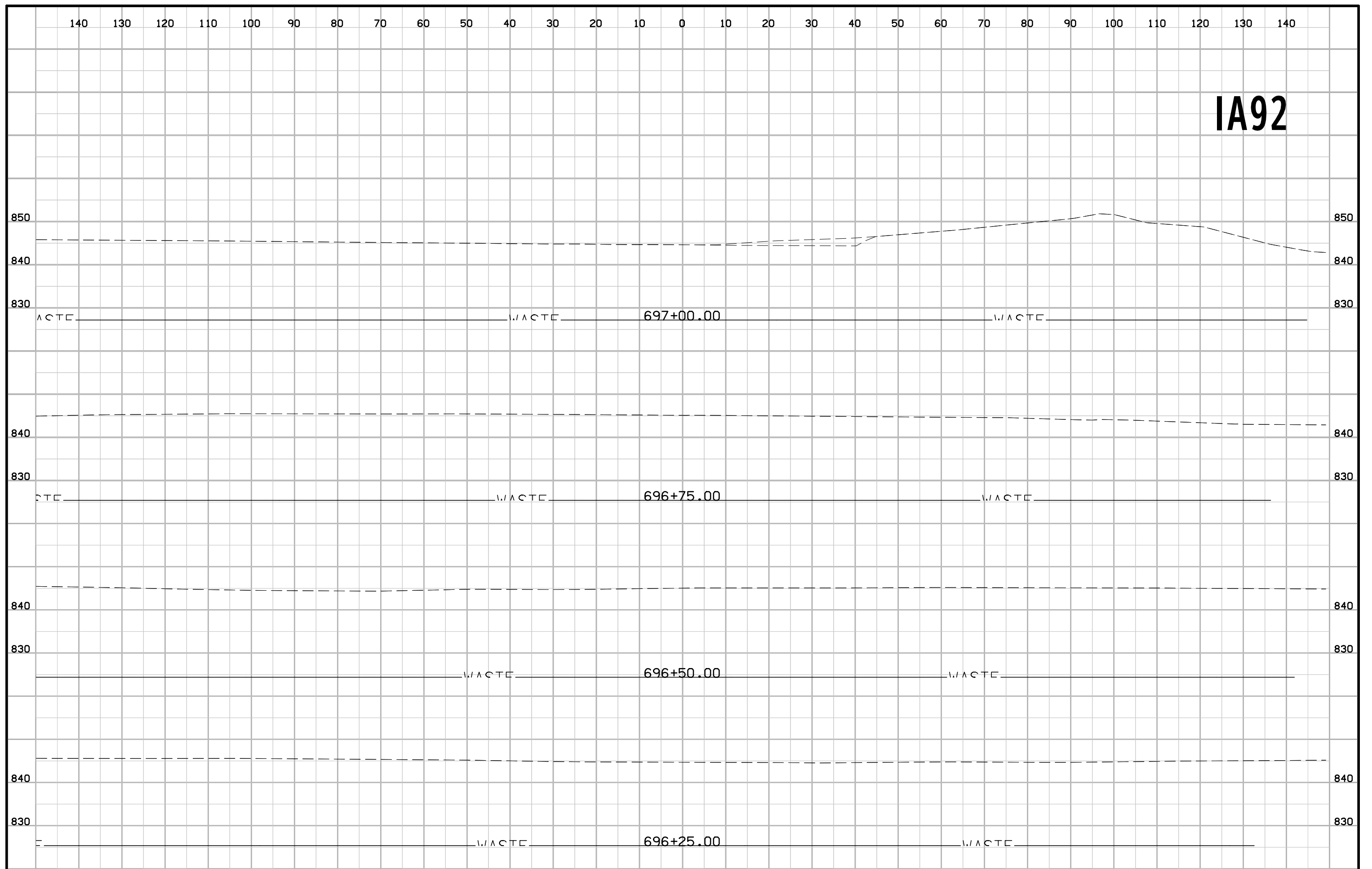
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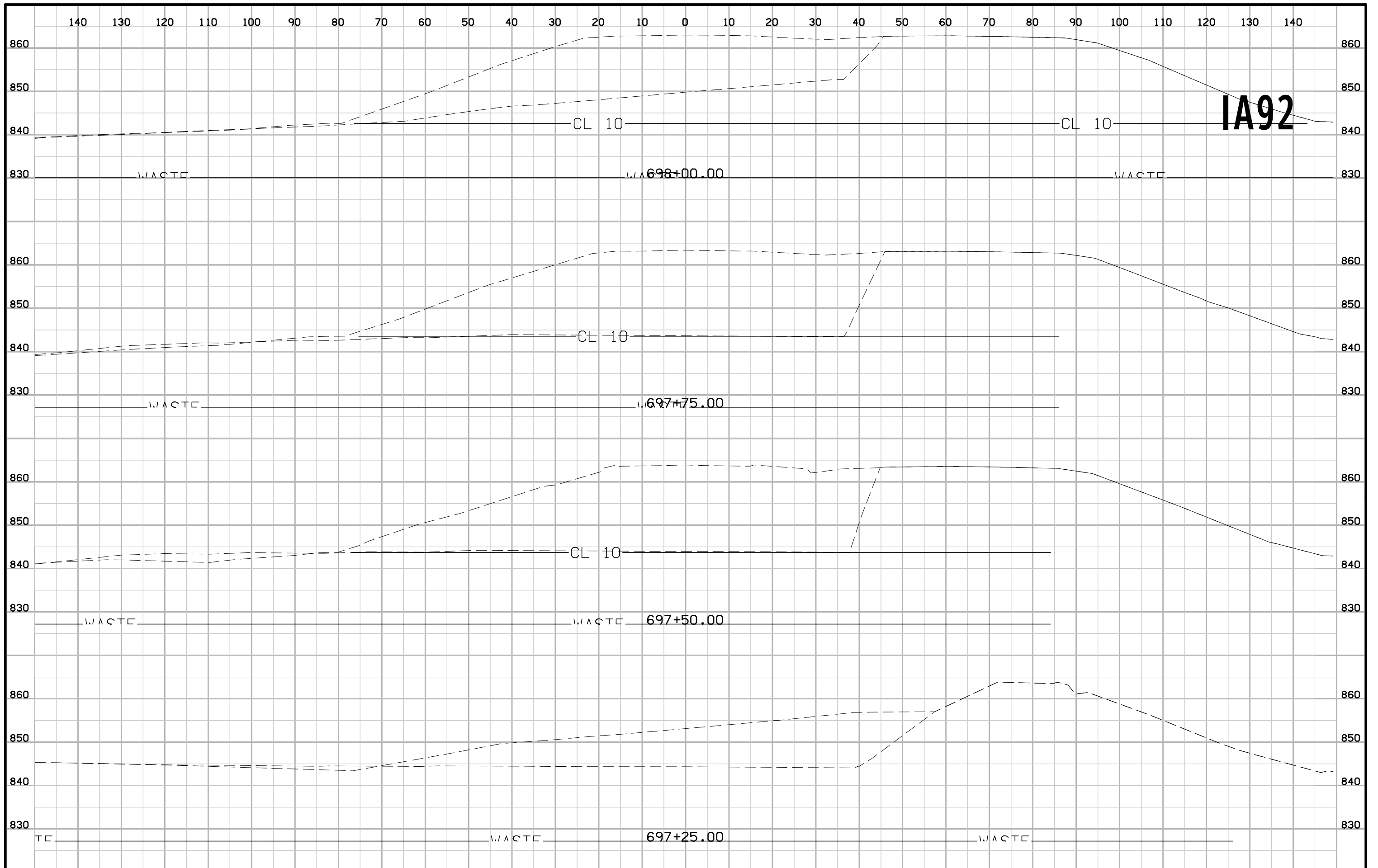


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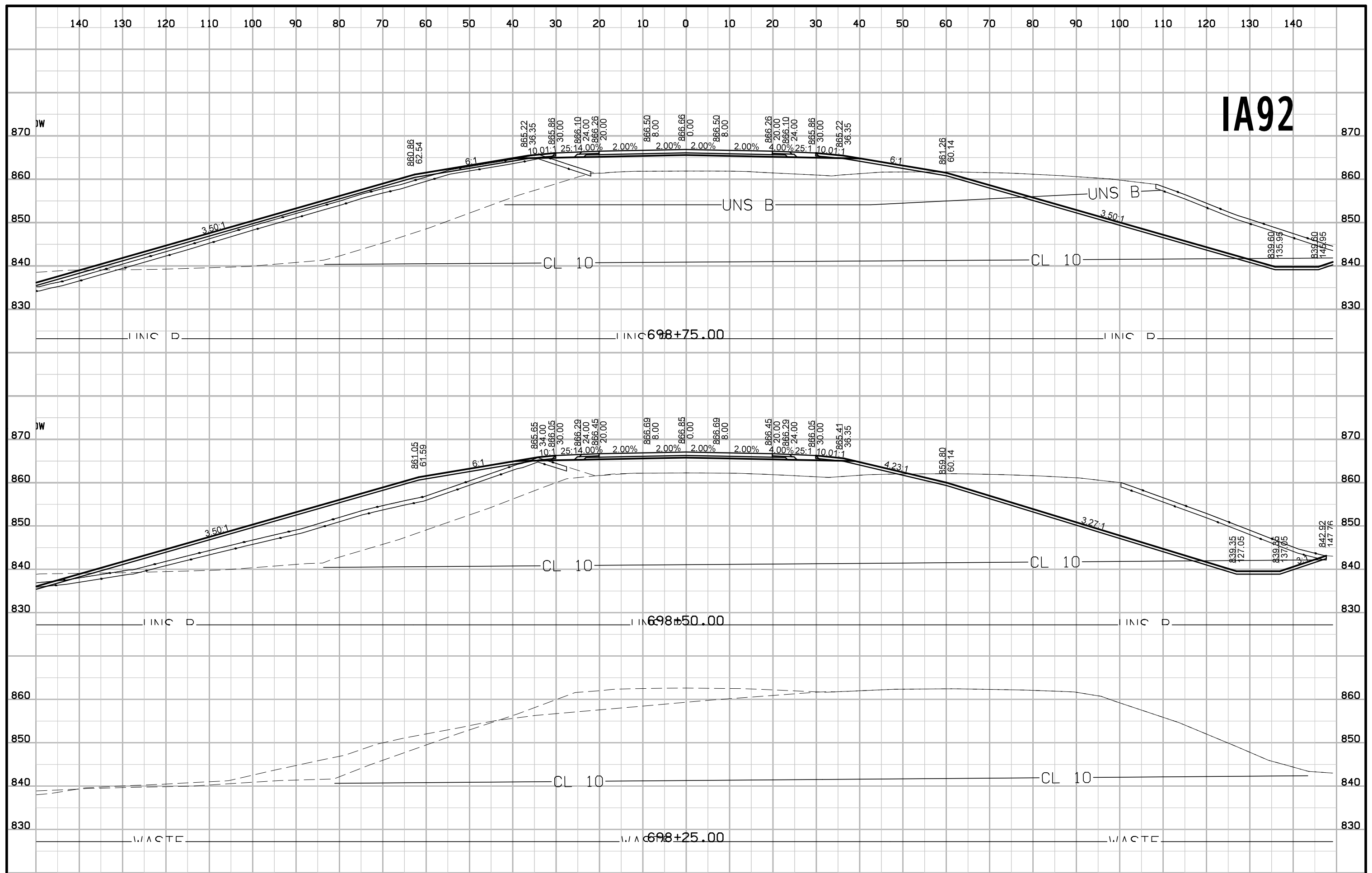


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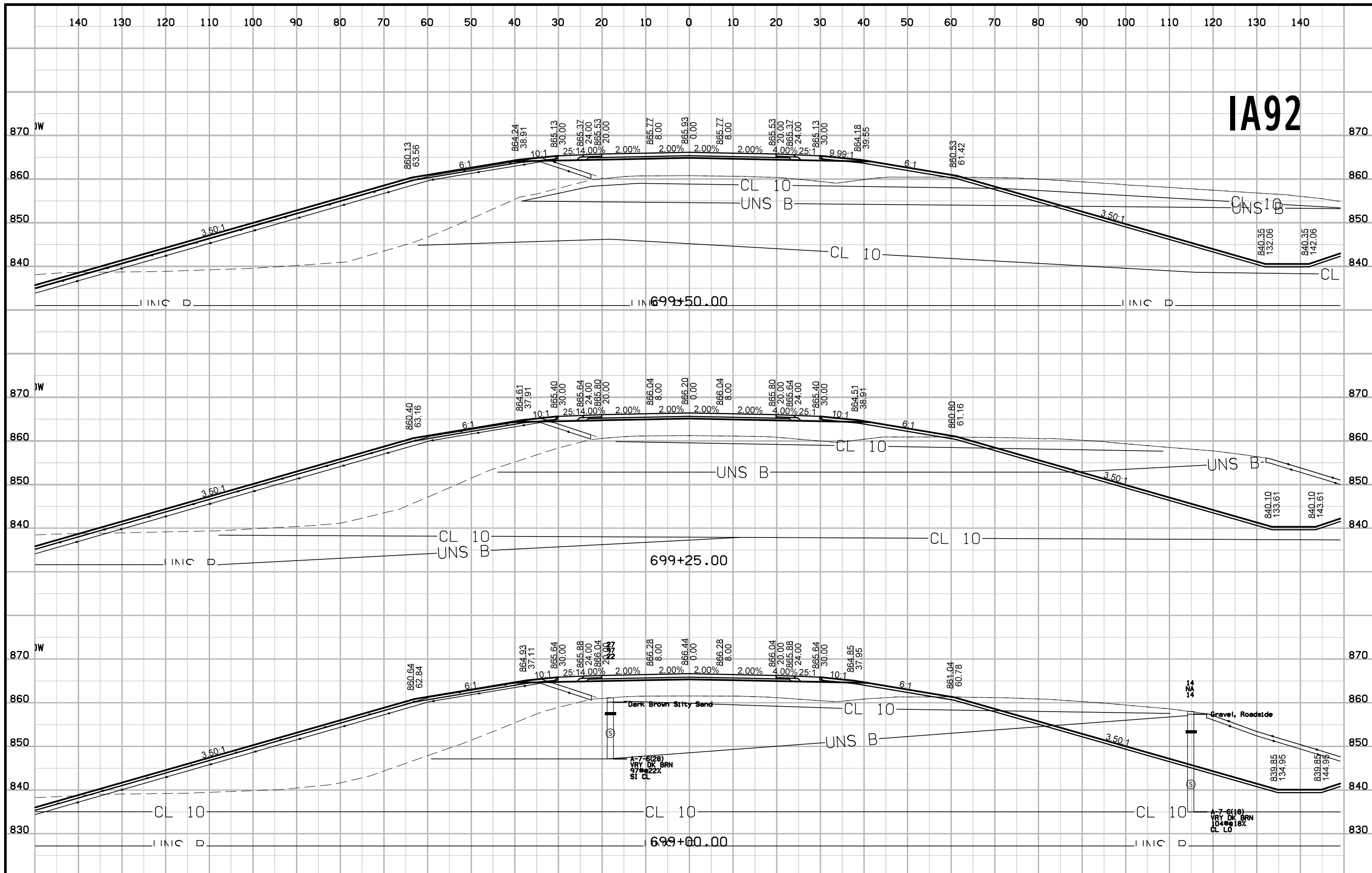




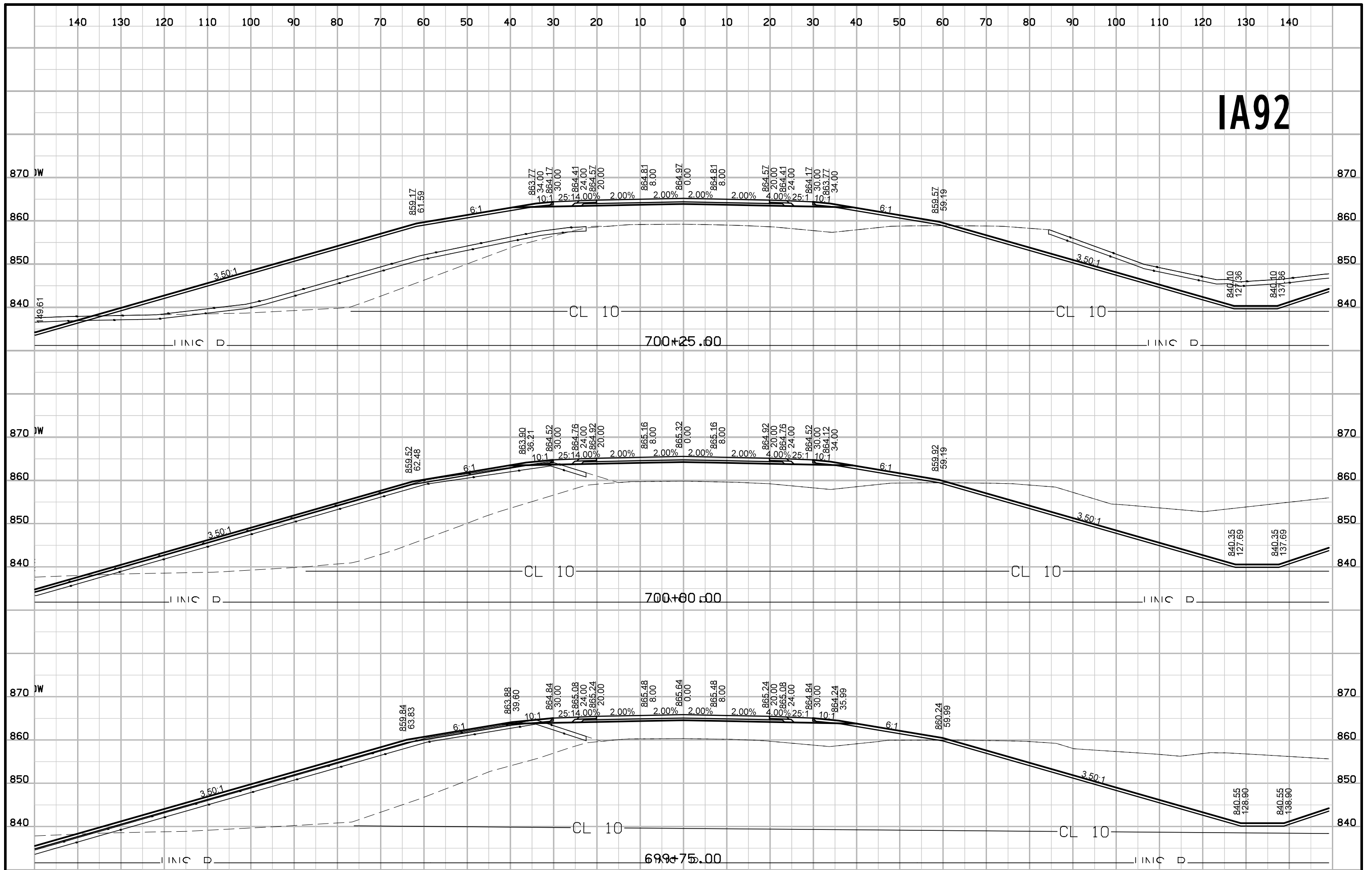
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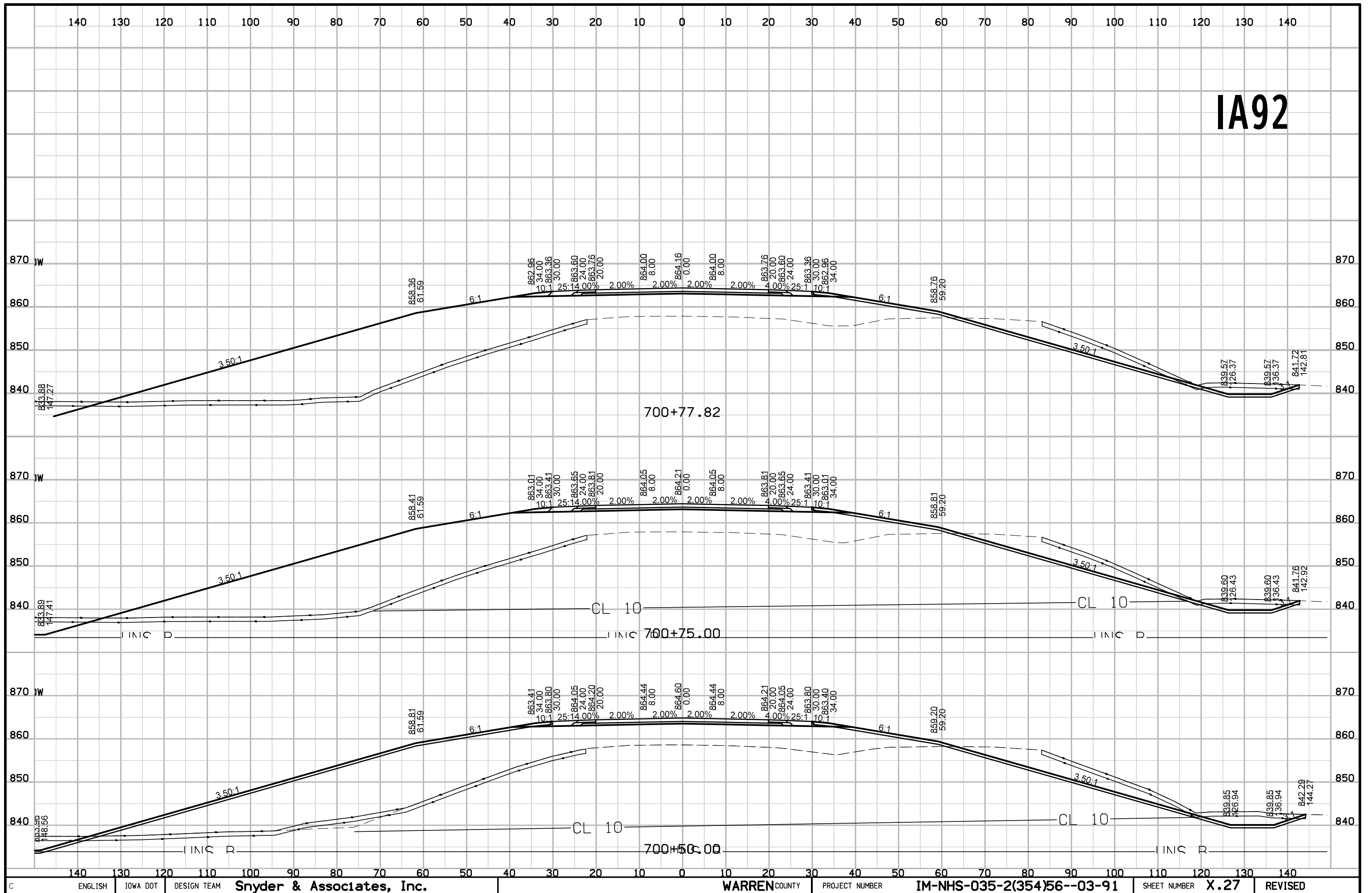
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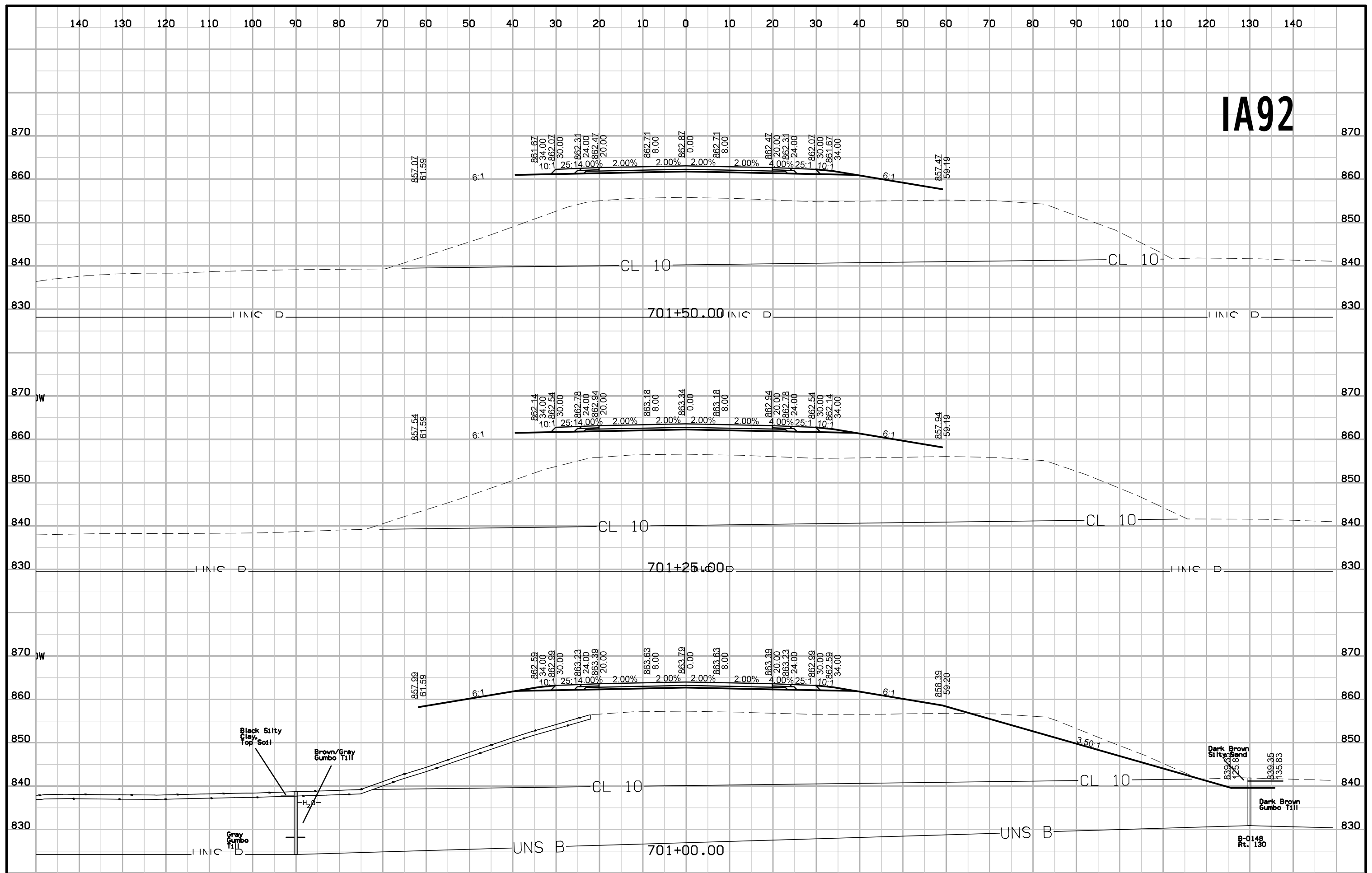
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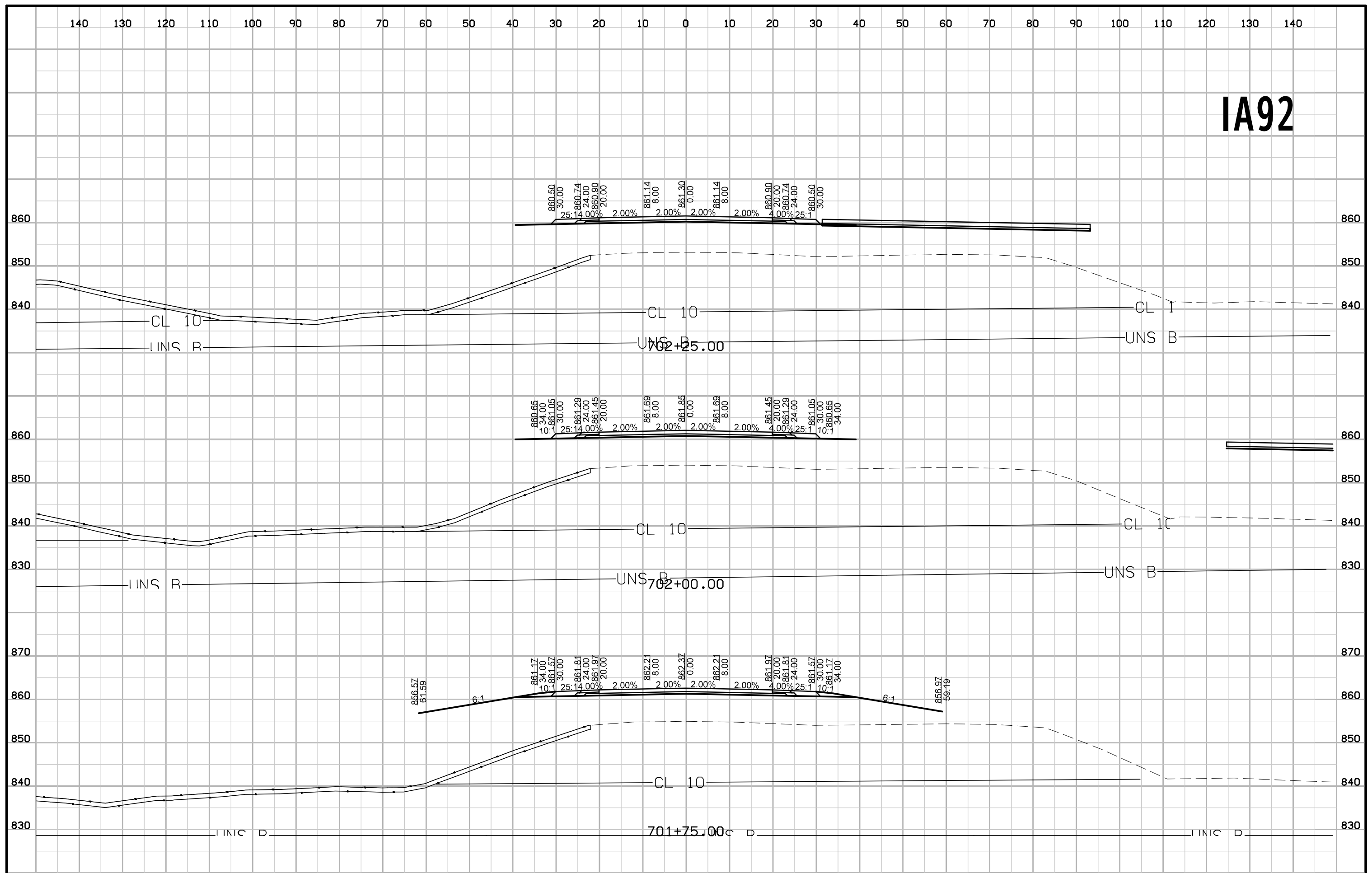
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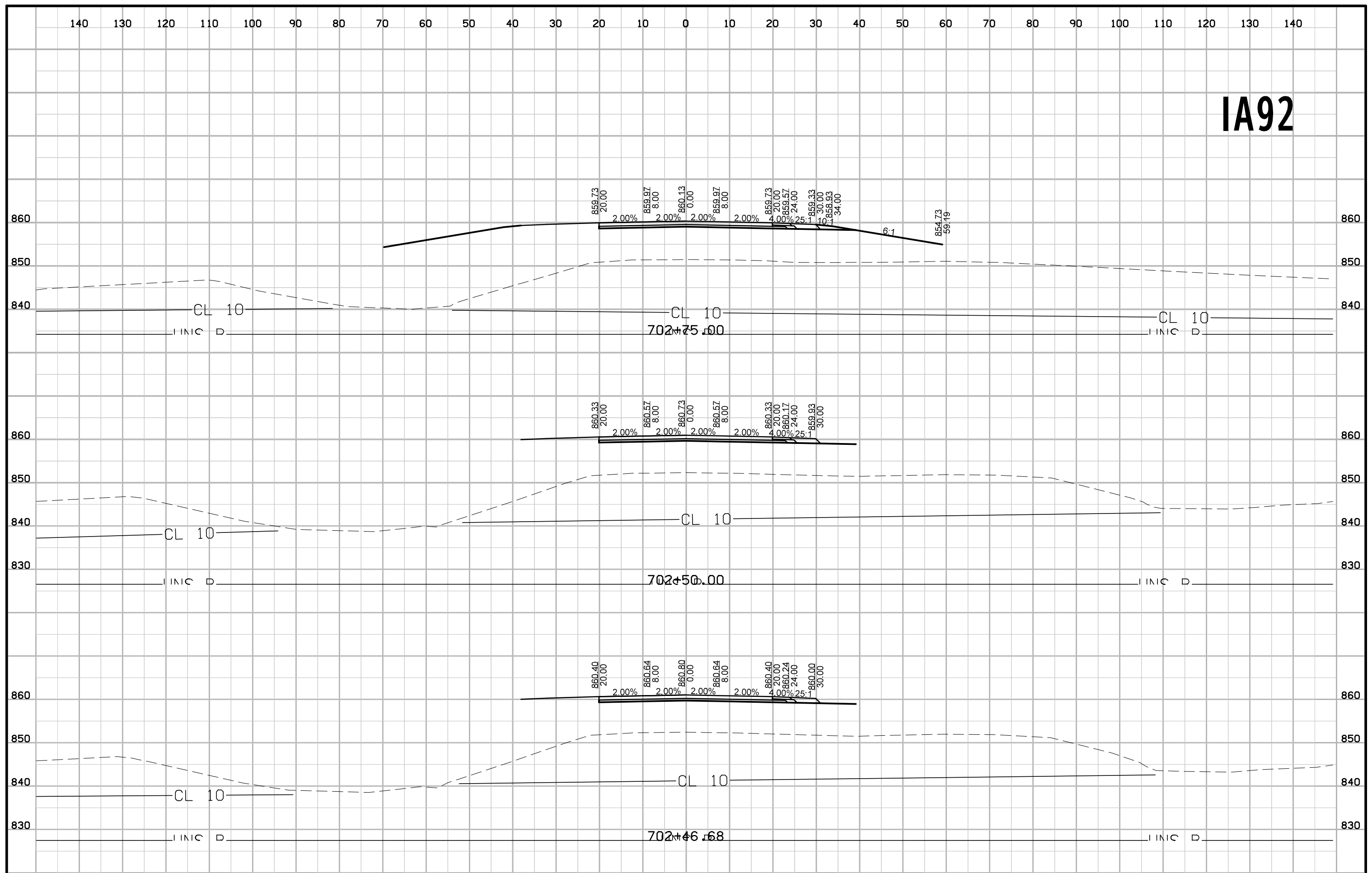
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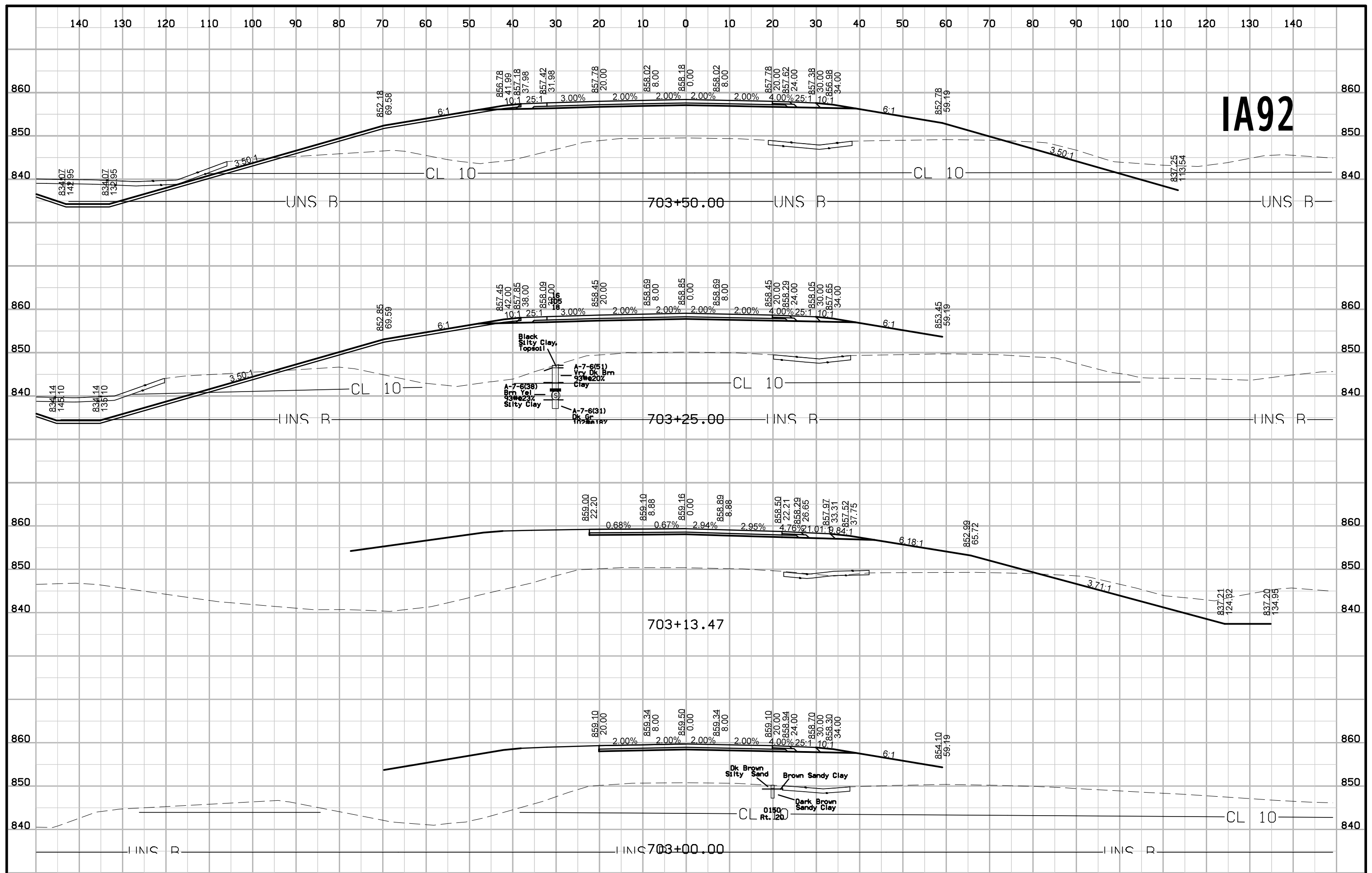
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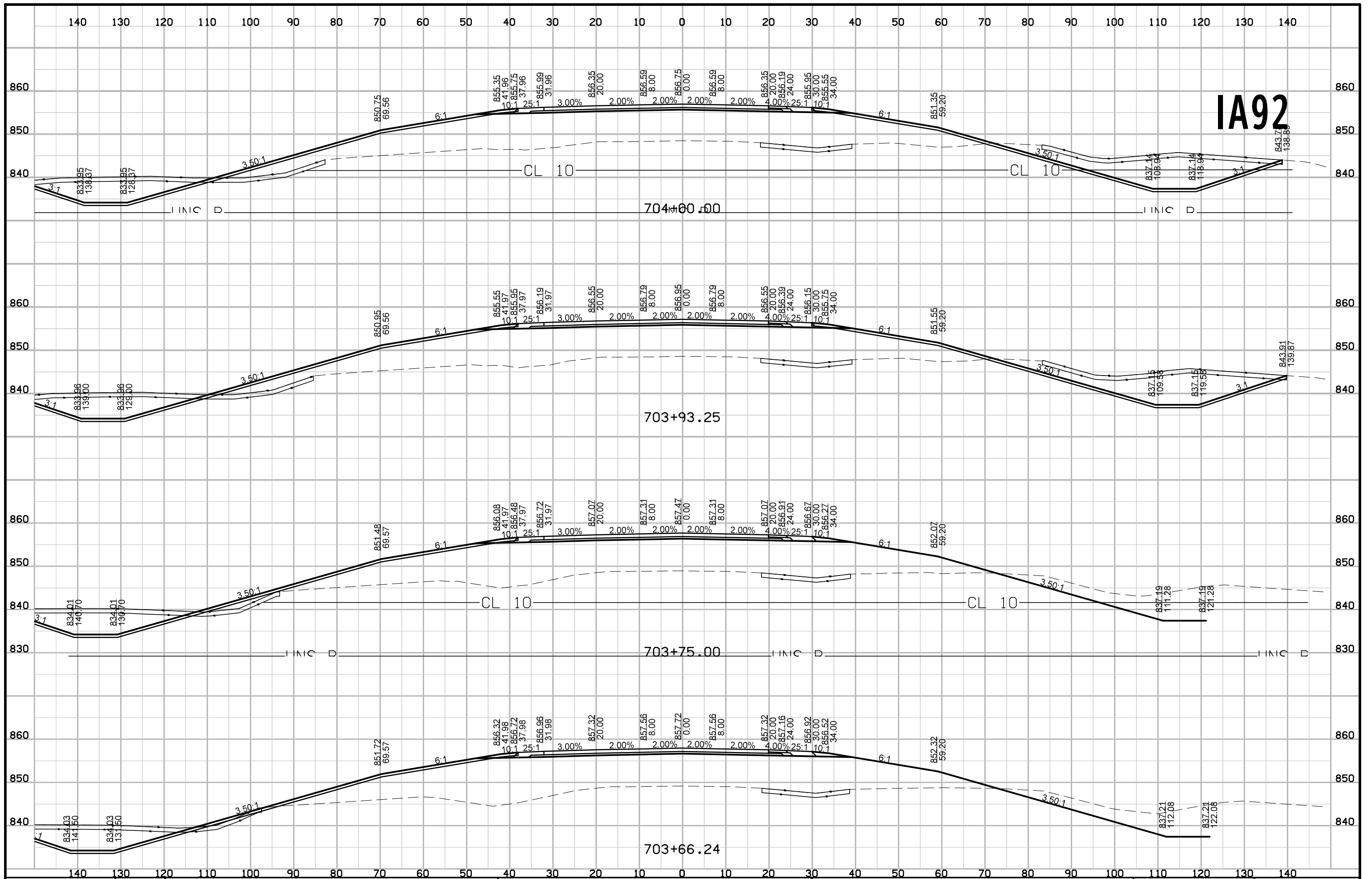


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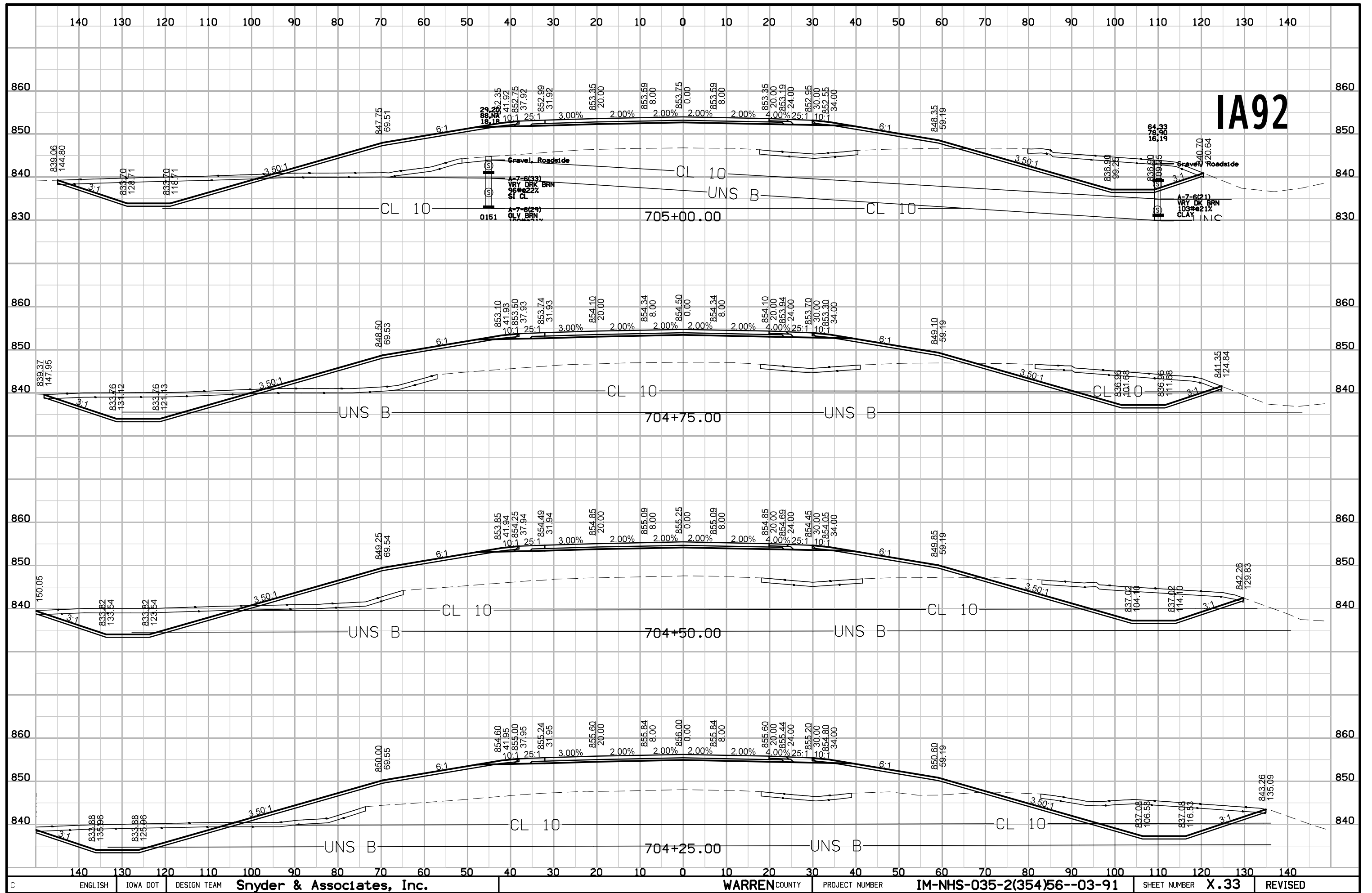


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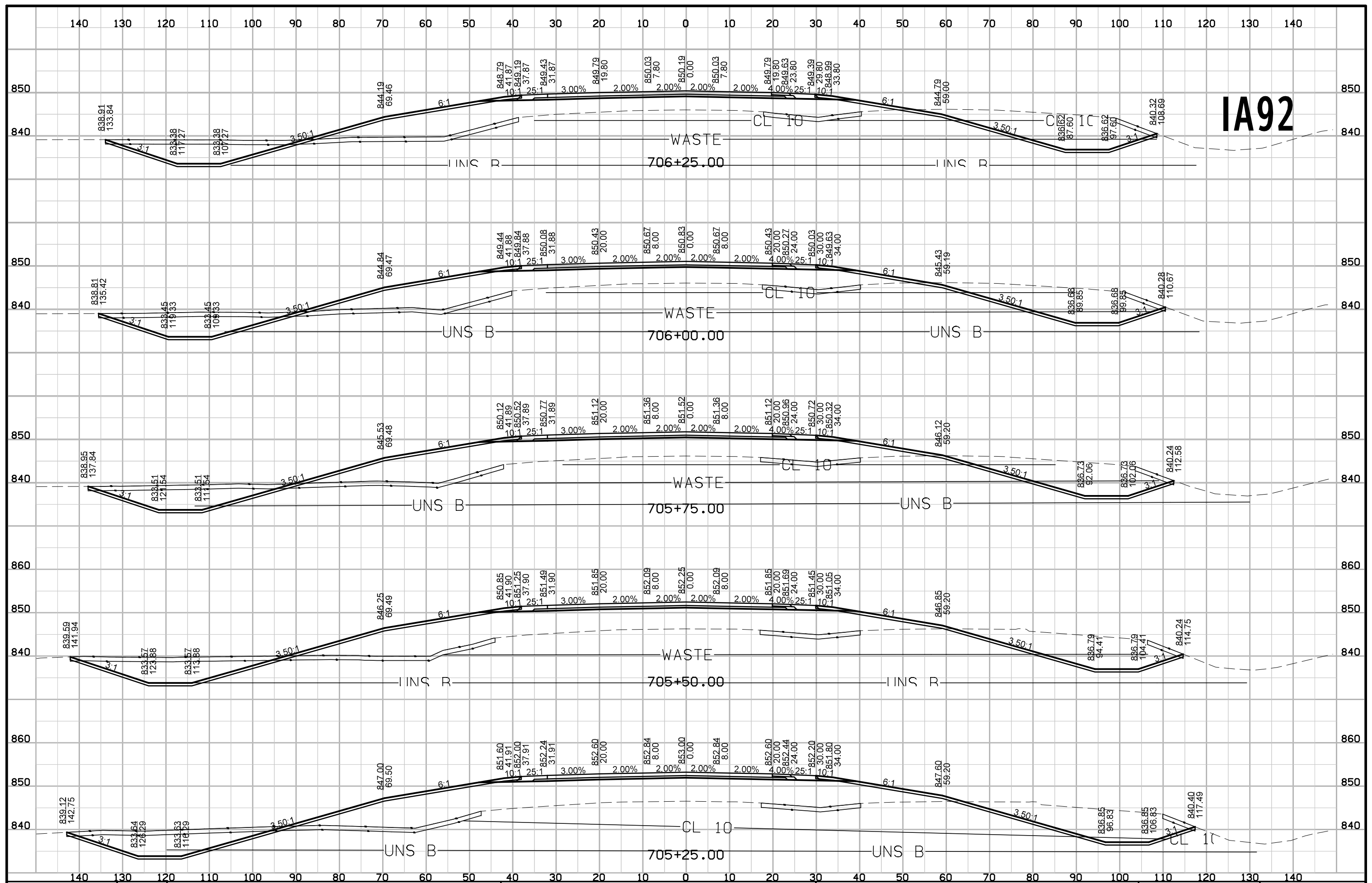


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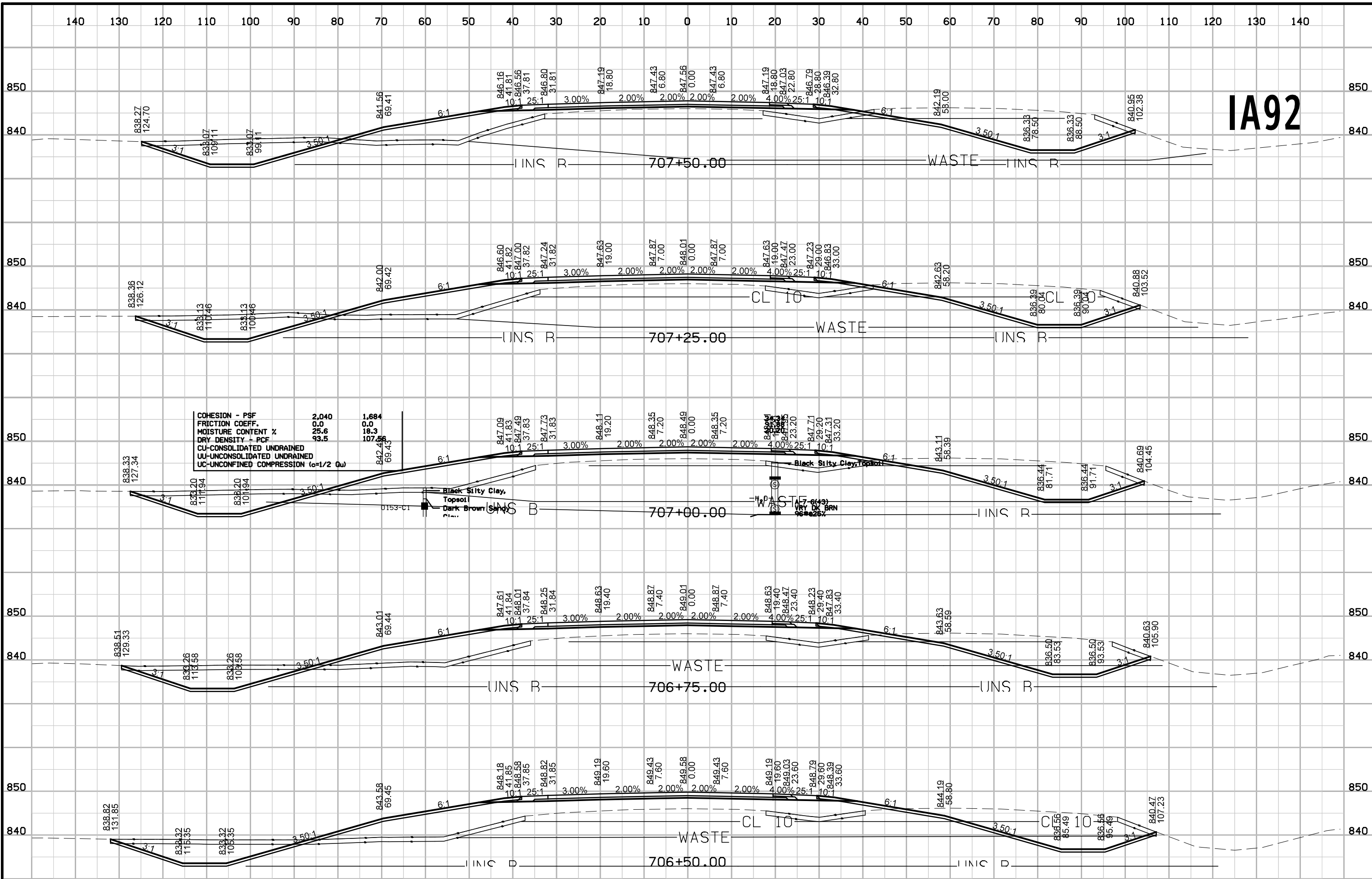


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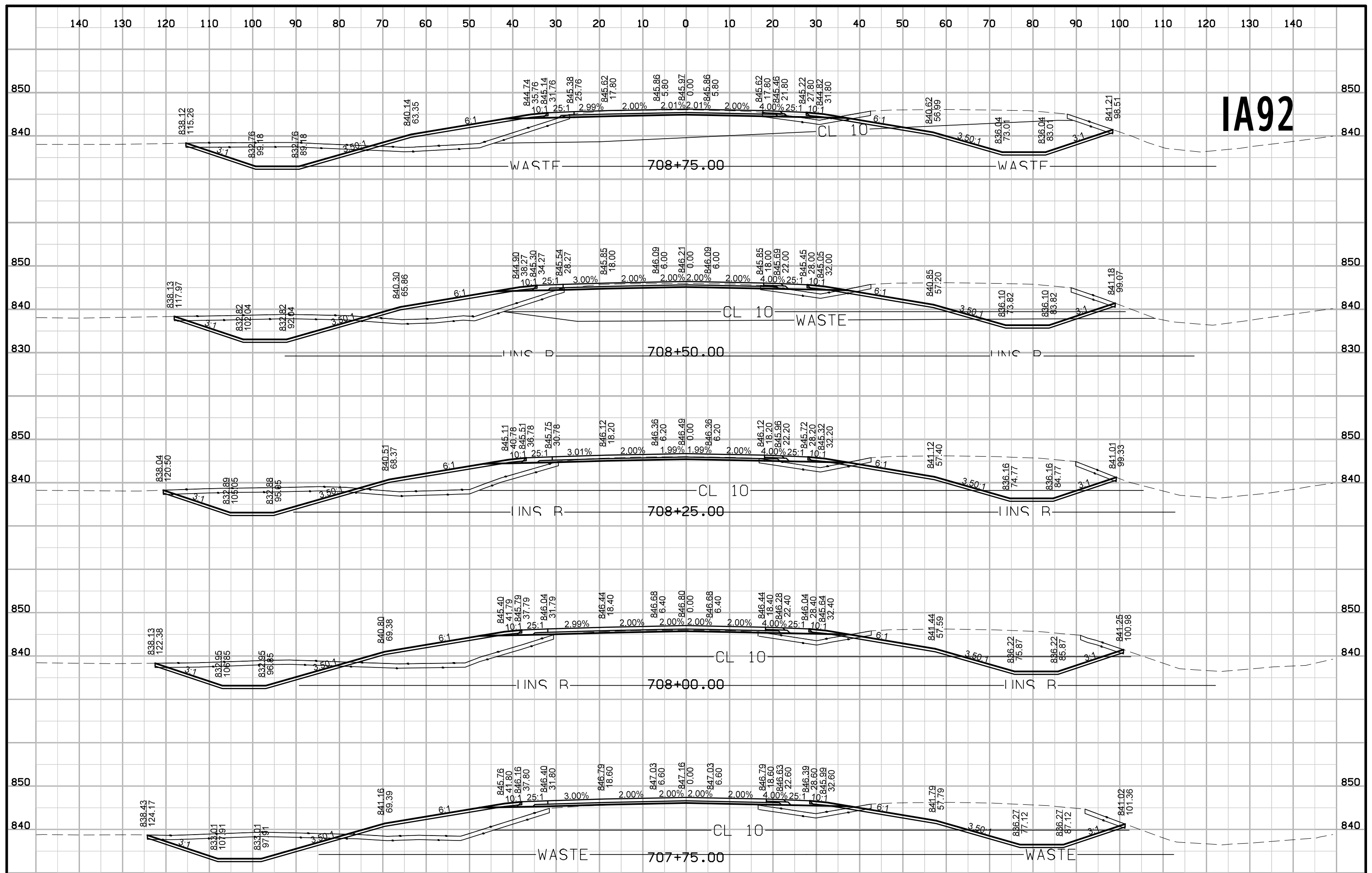
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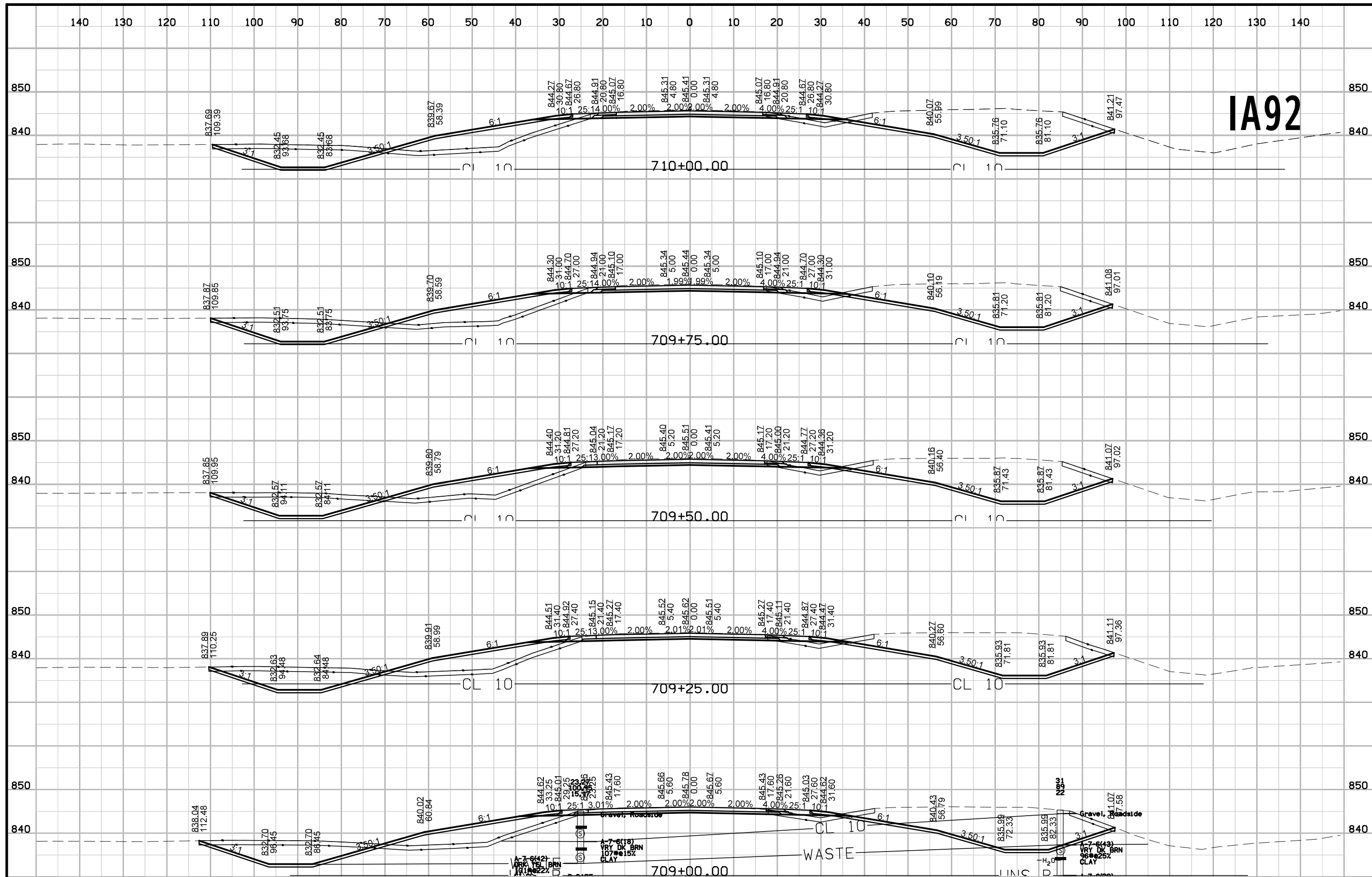


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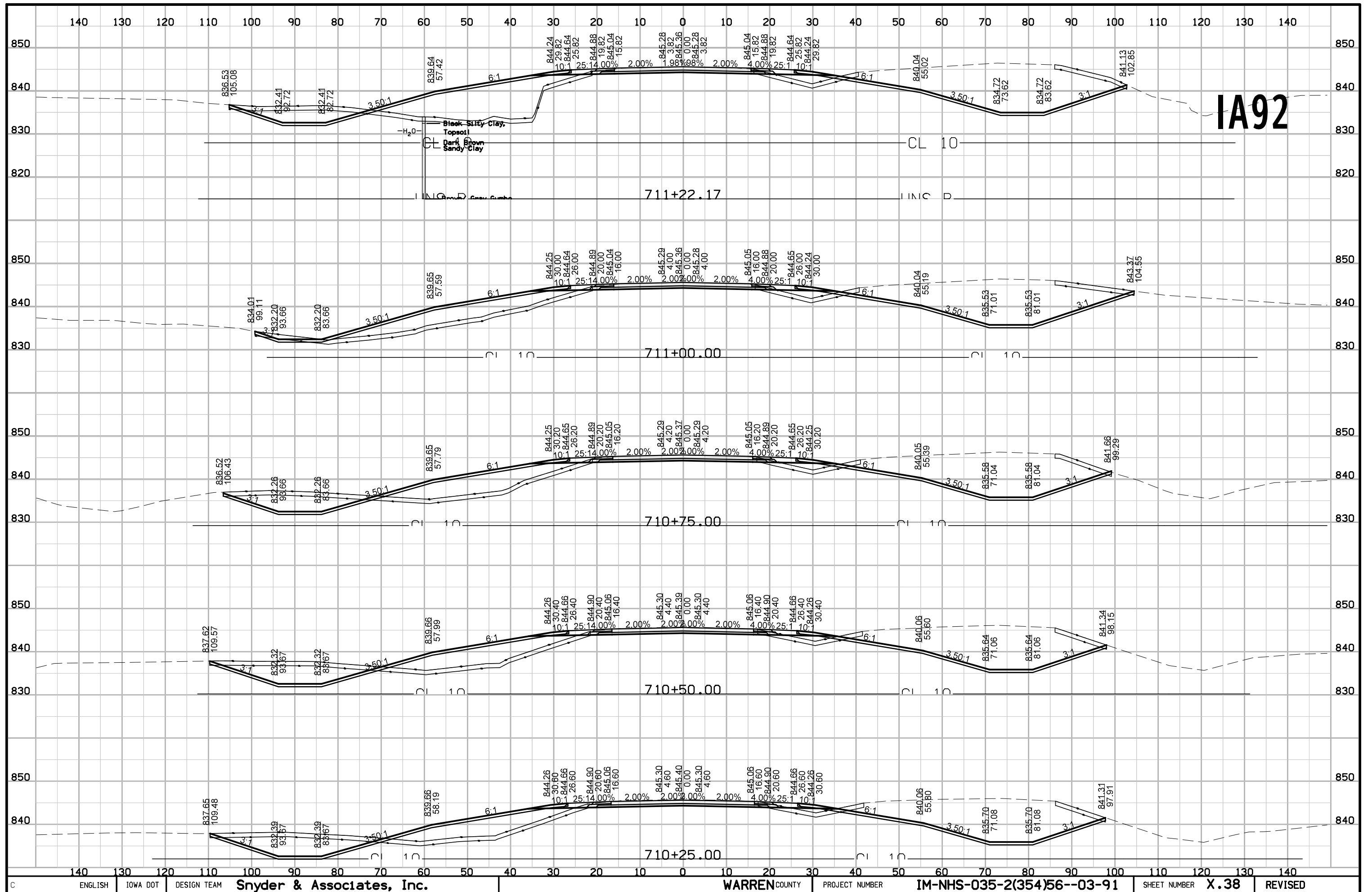


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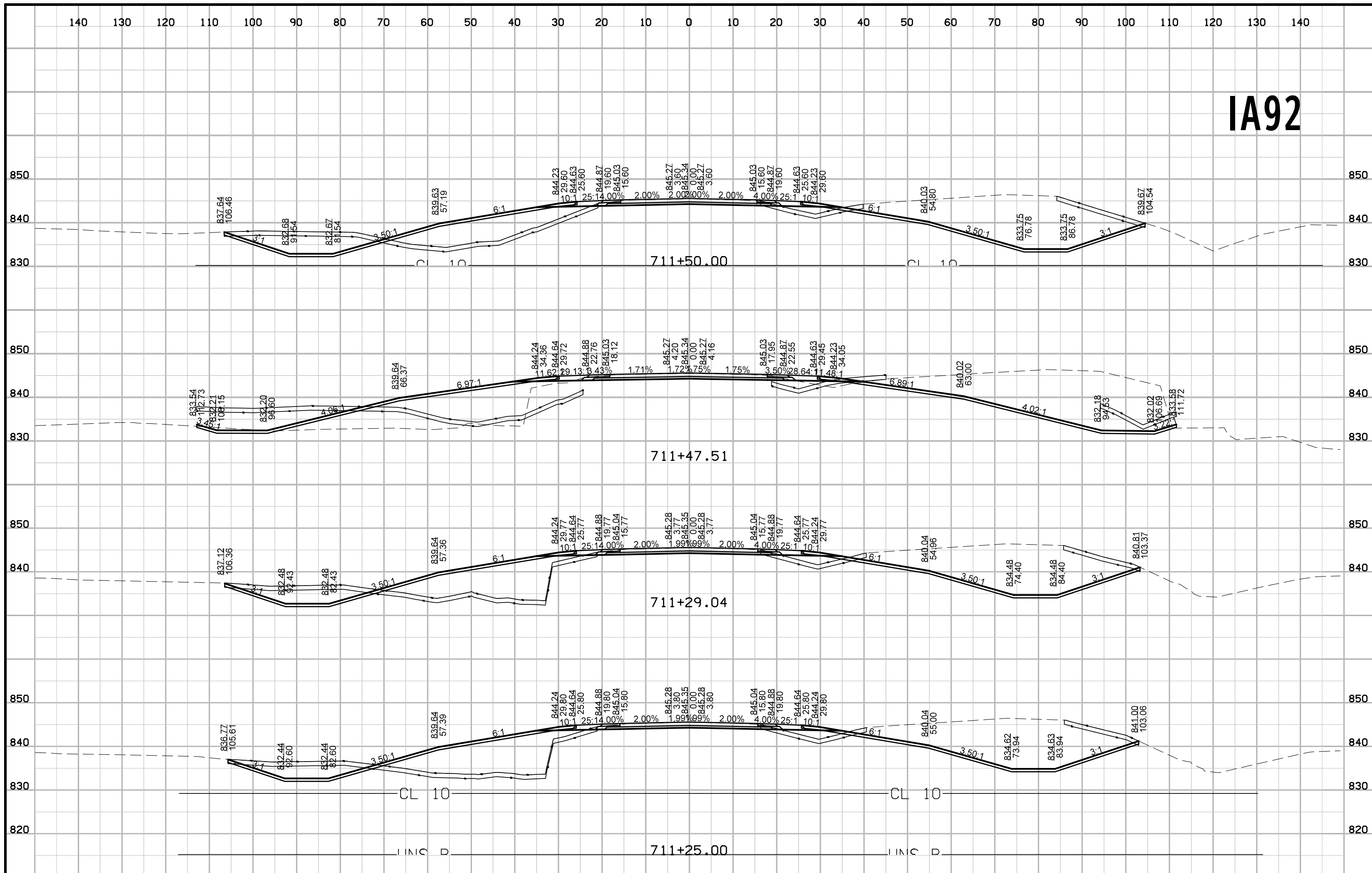


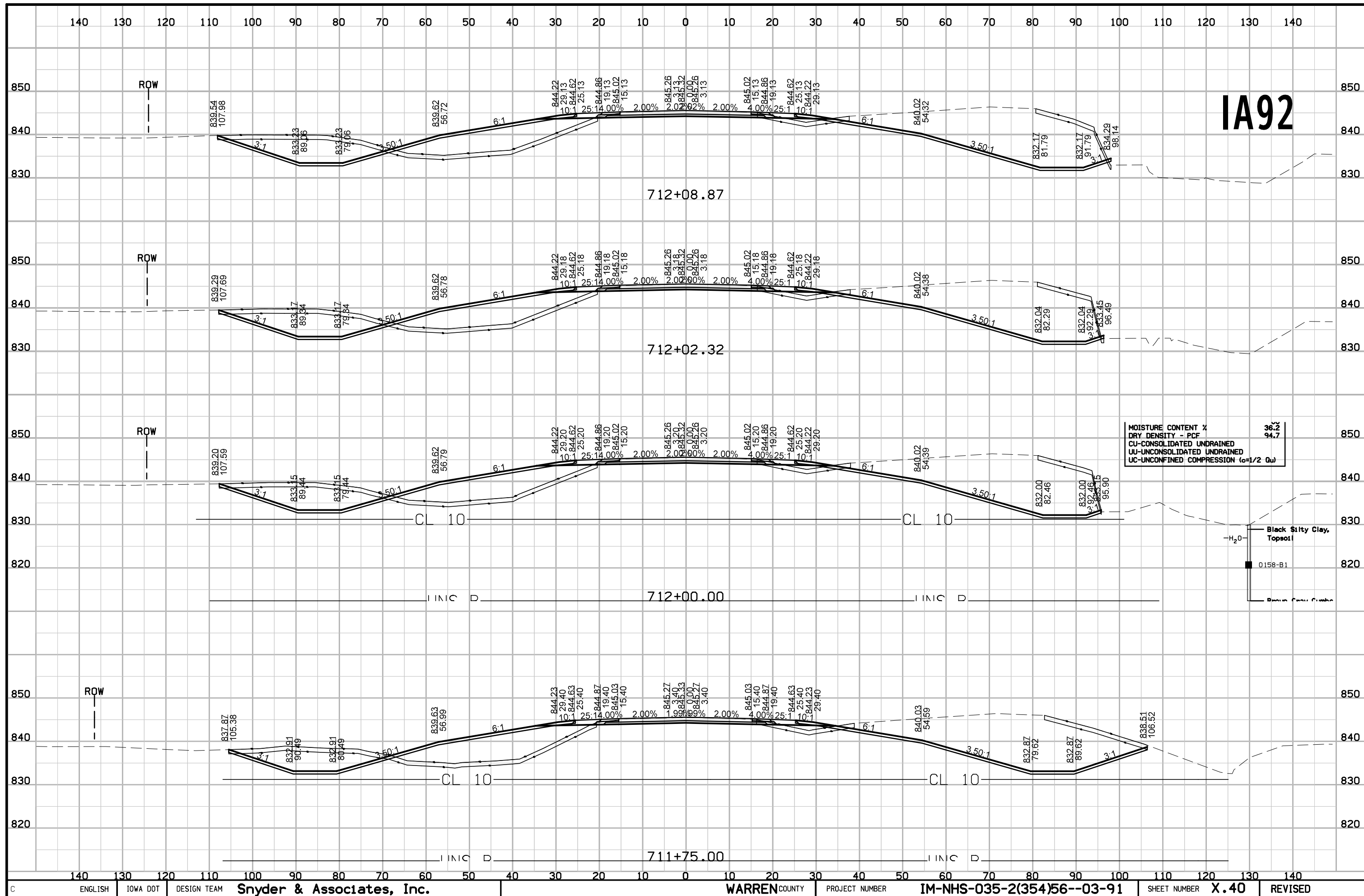


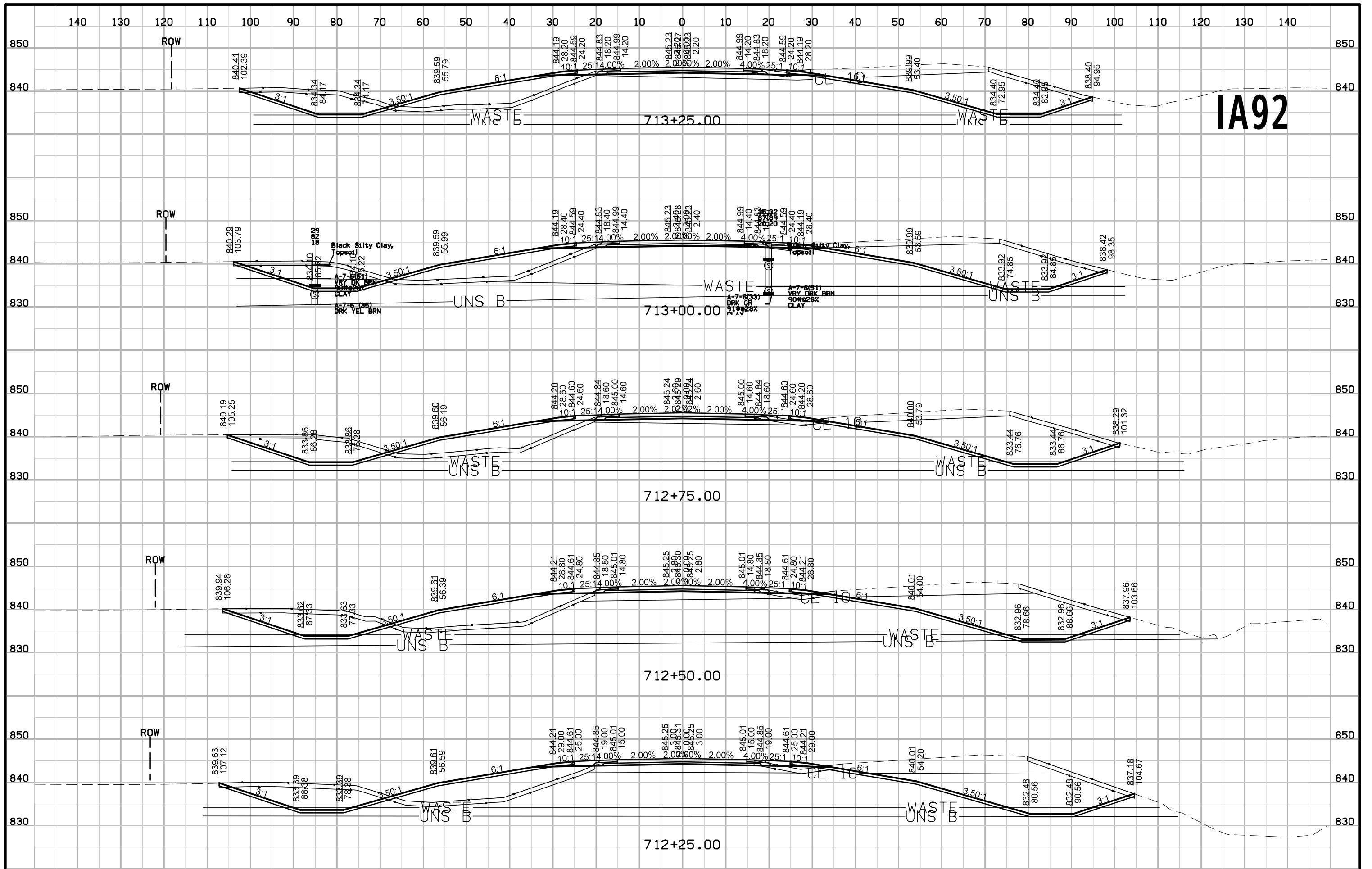
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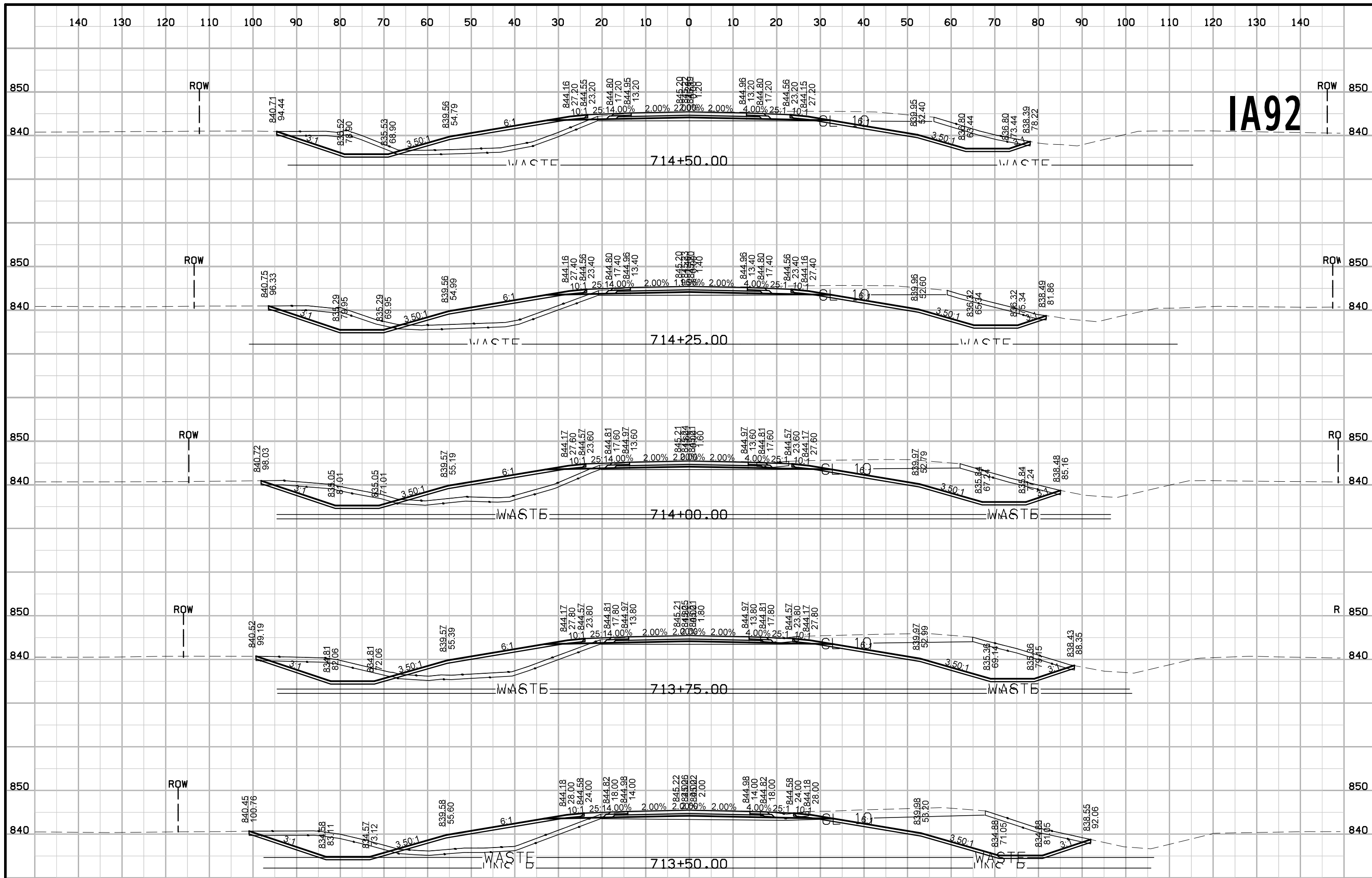
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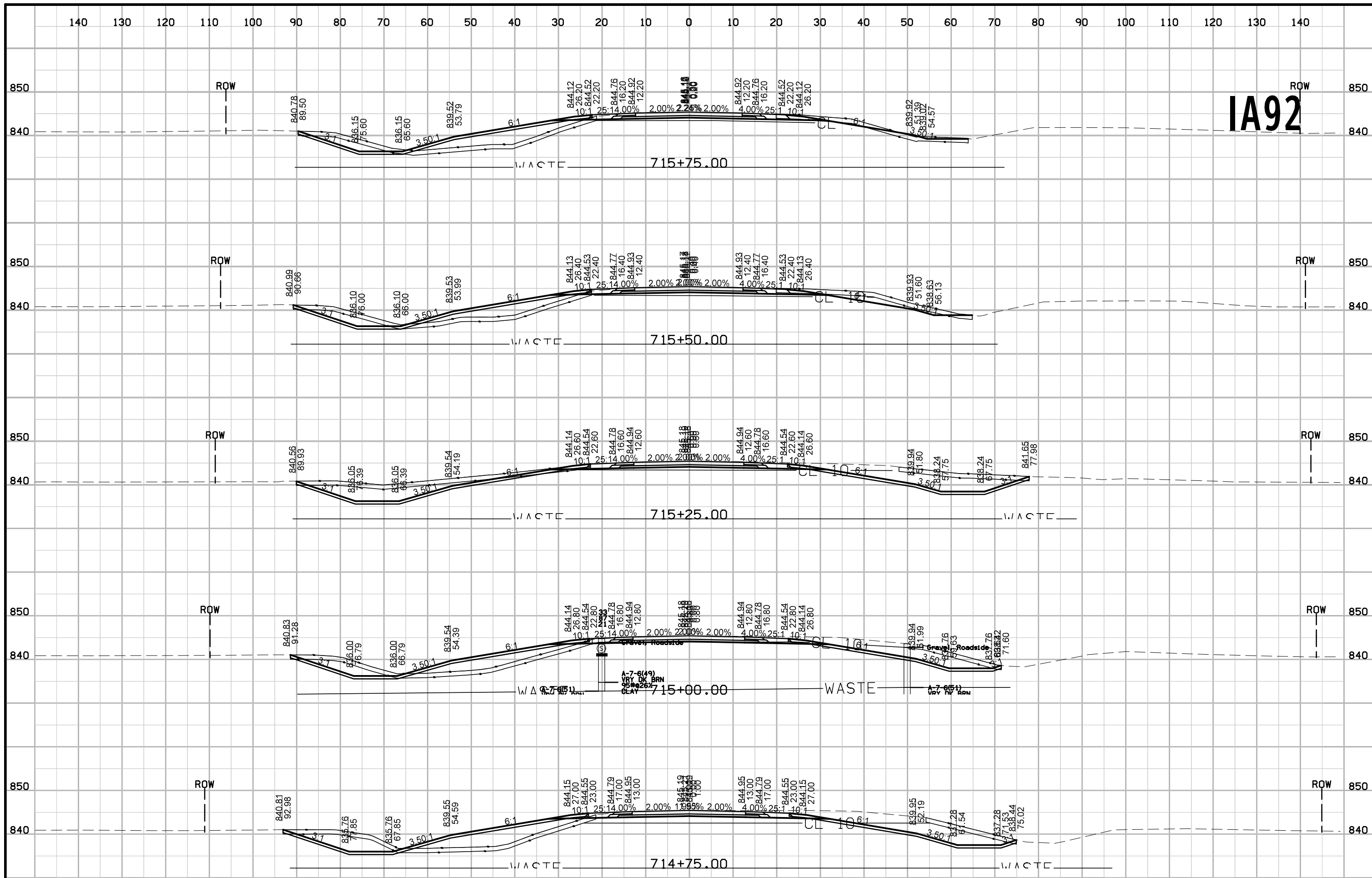




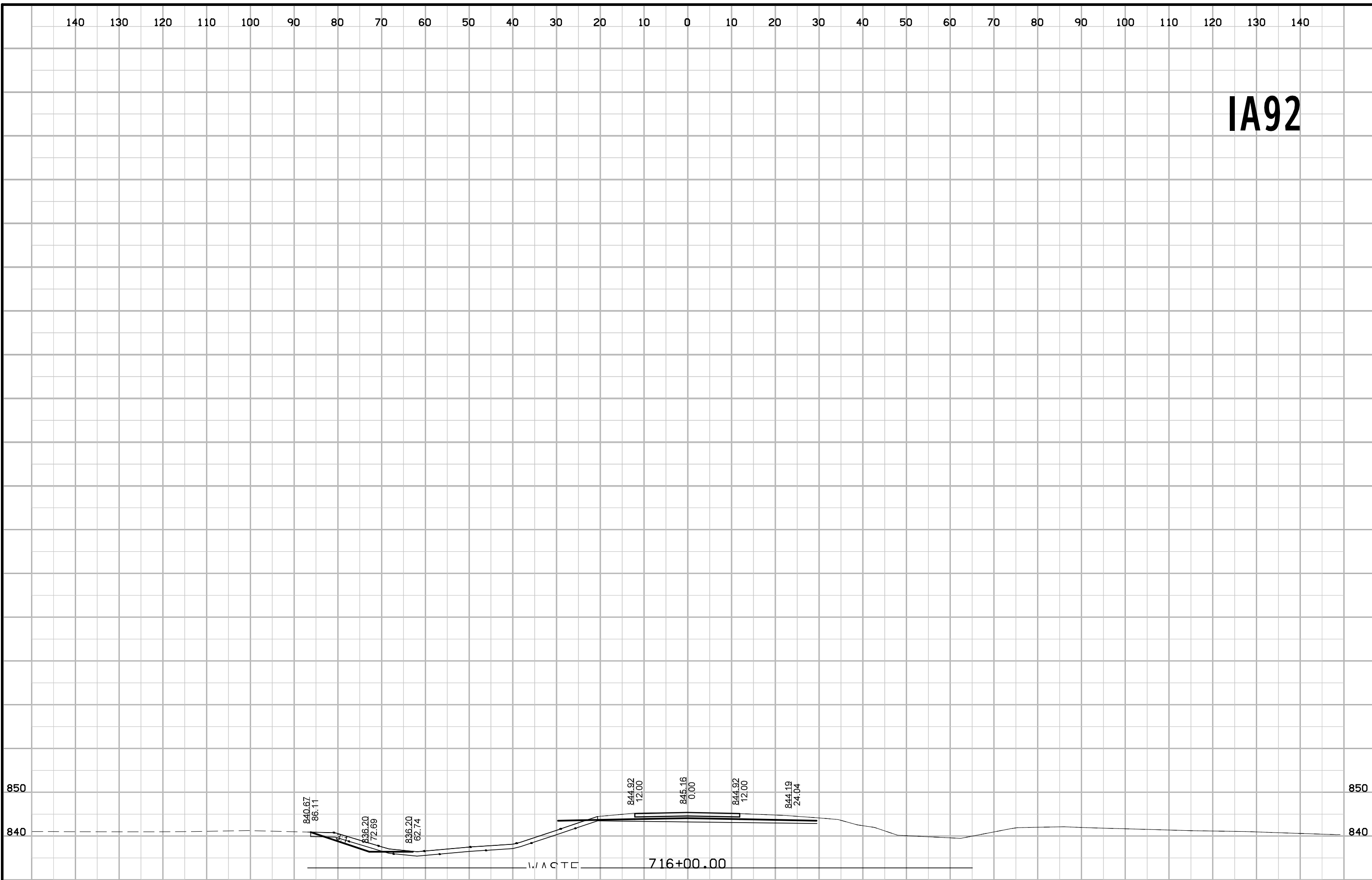
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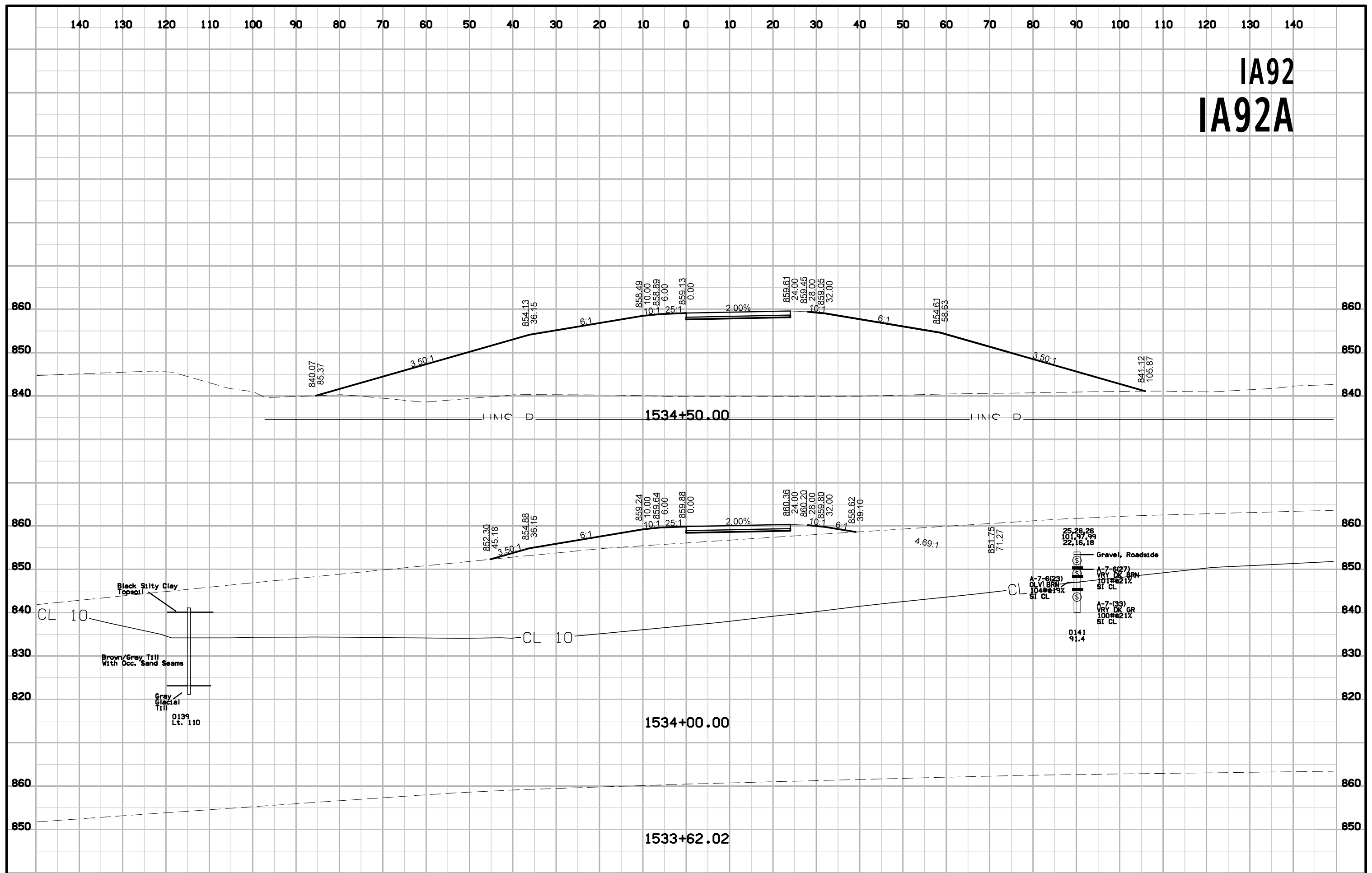
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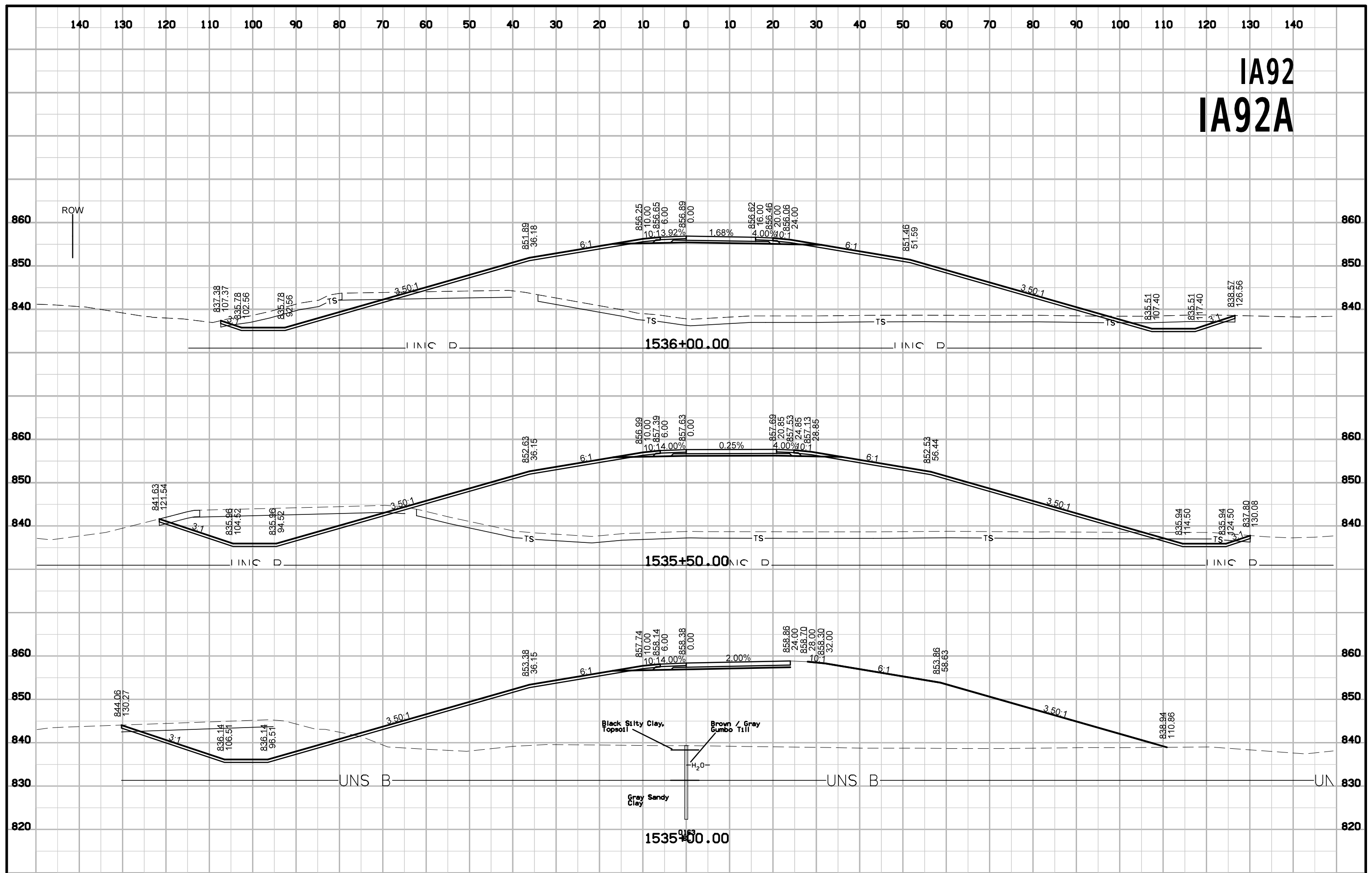
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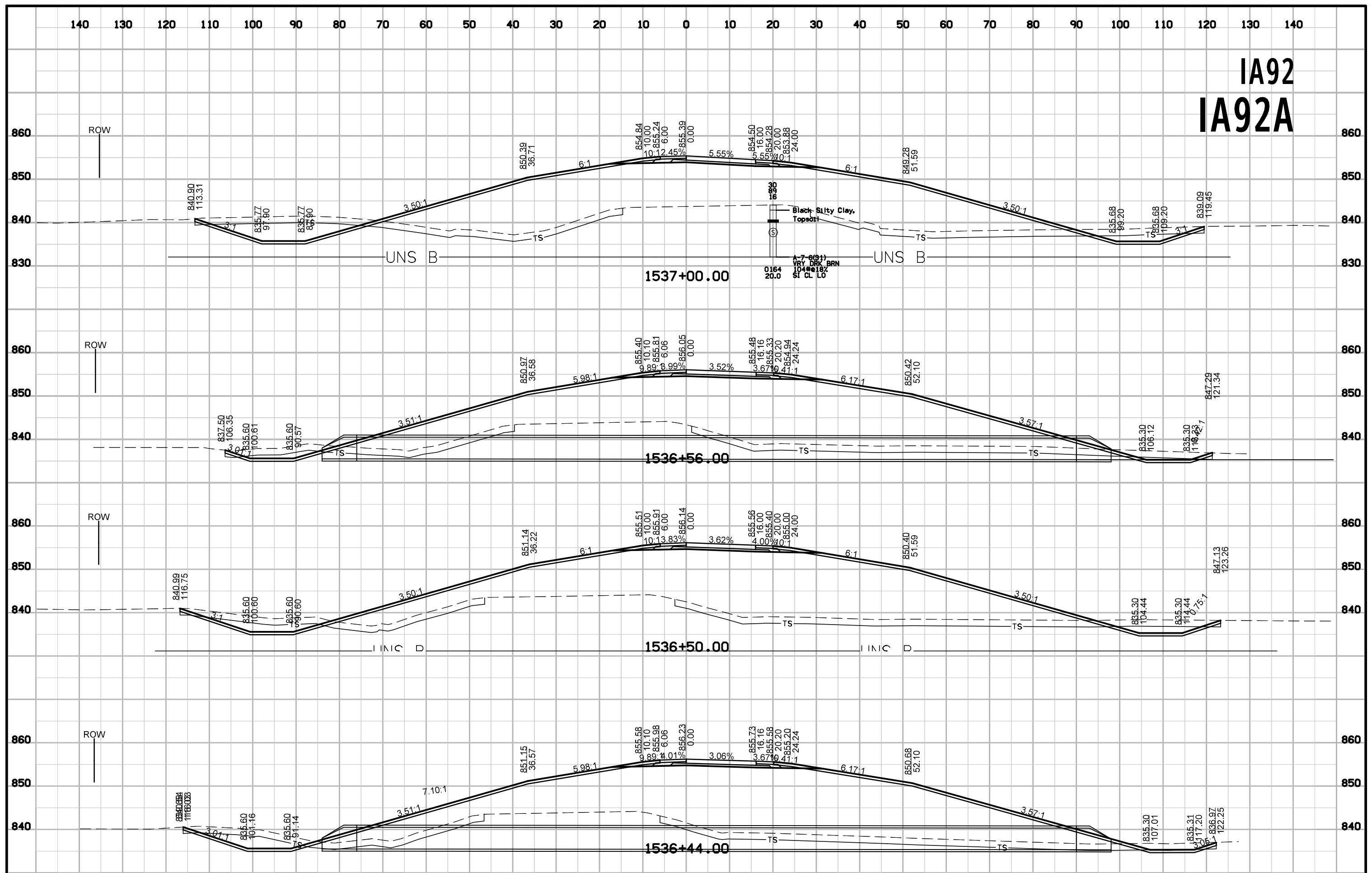
IA92 IA92A



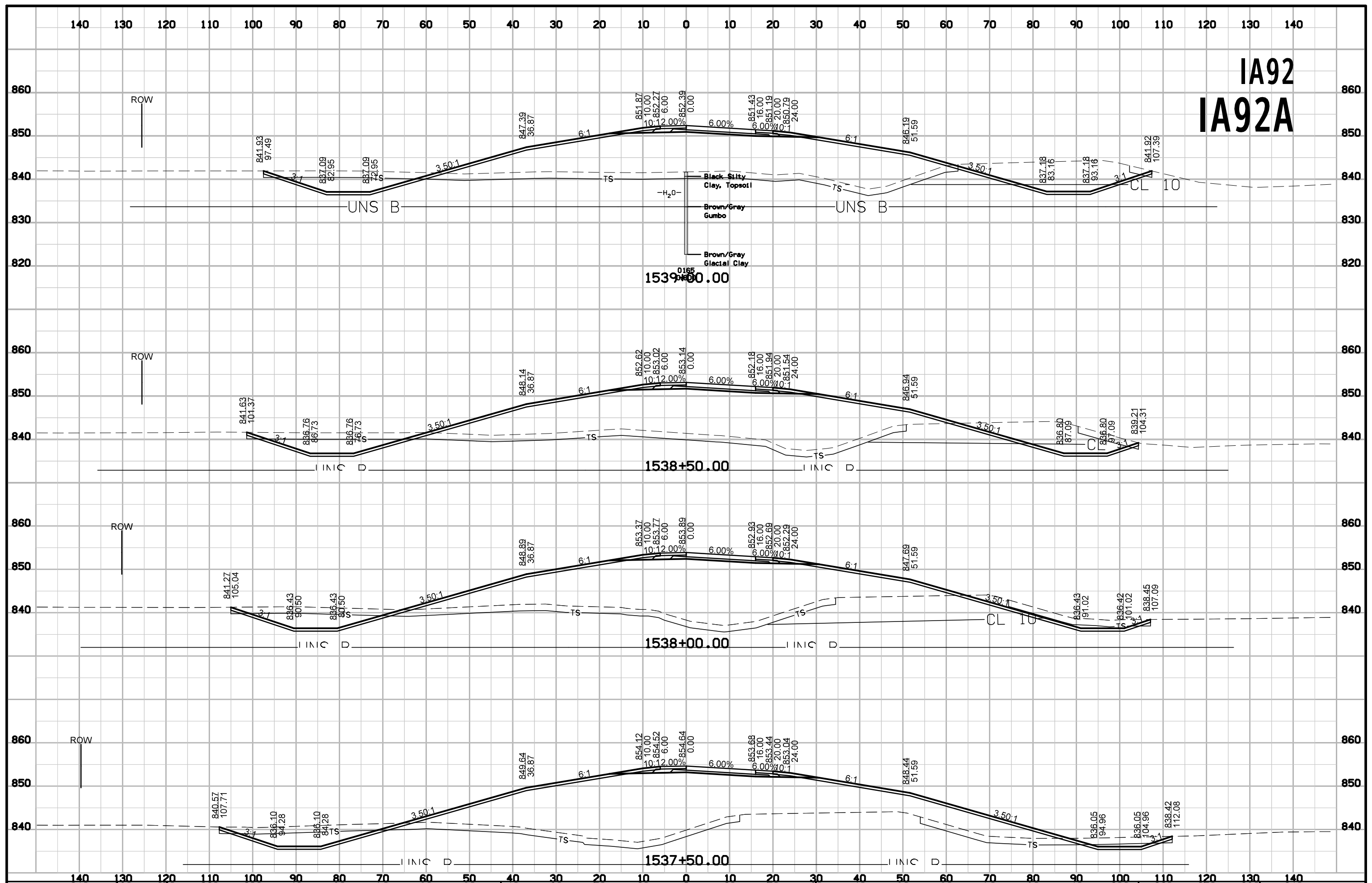
IA92 IA92A

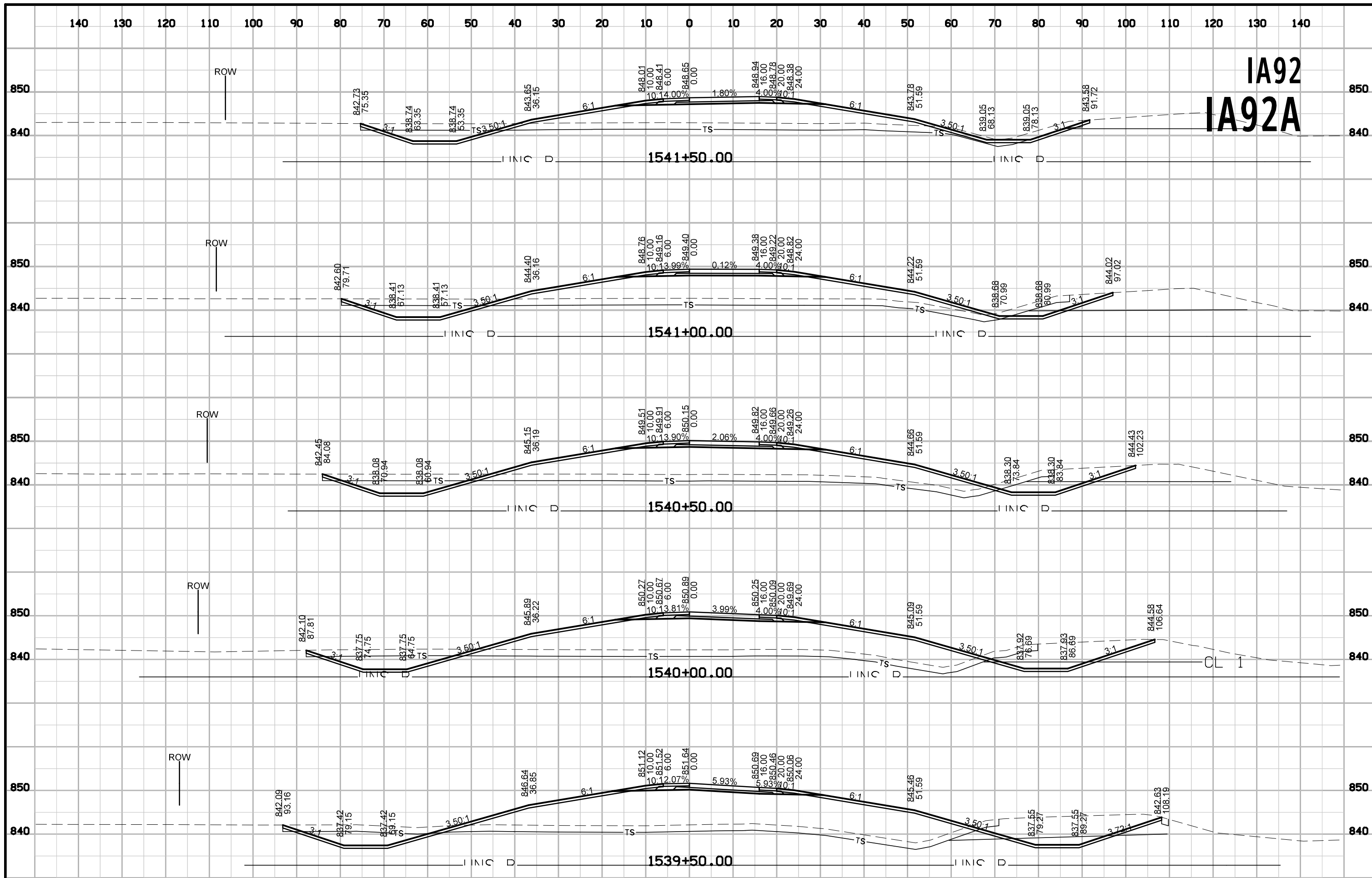


IA92 IA92A



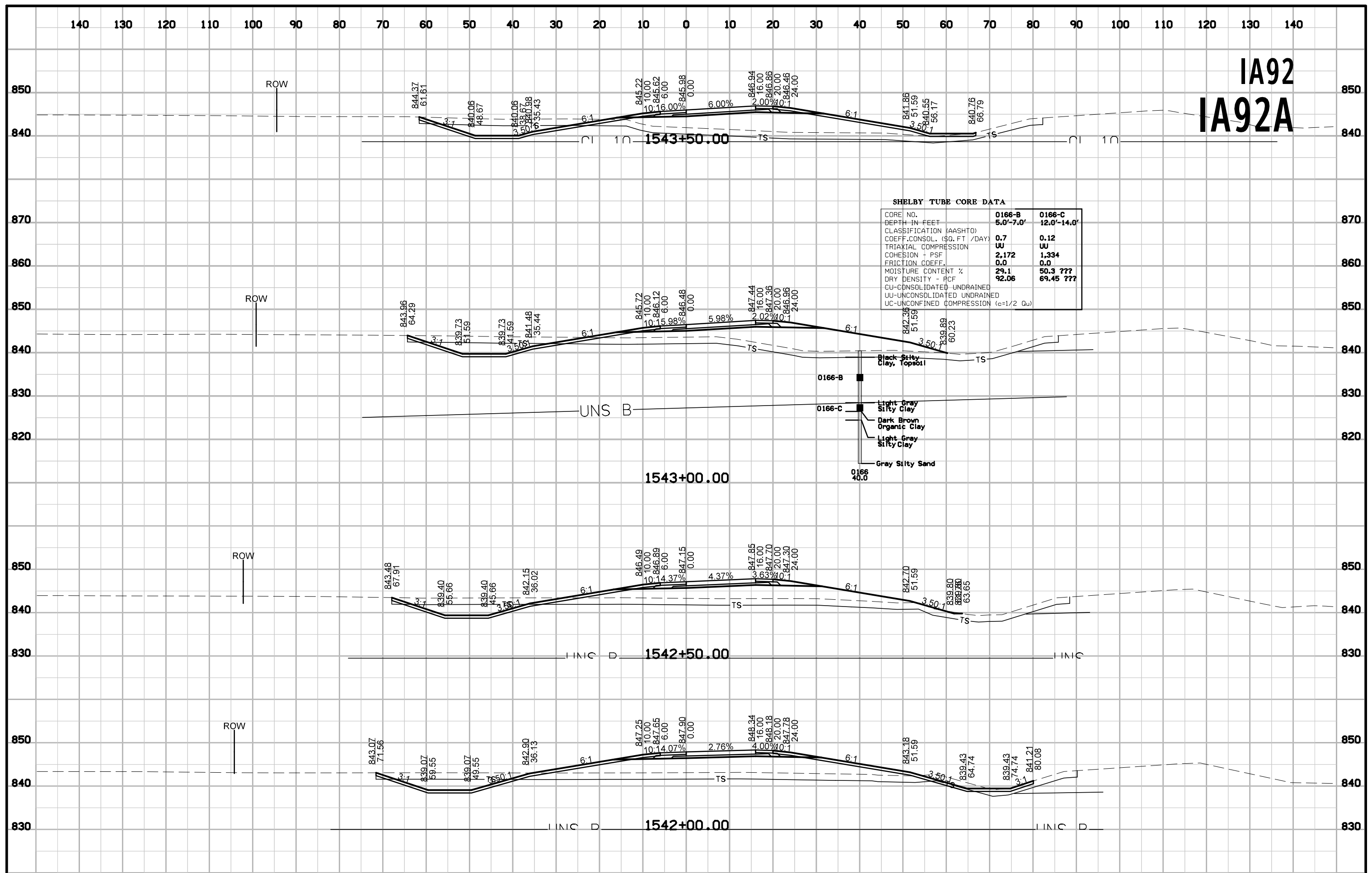
IA92 IA92A





IA92
IA92A

IA92 IA92A



SHELBY TUBE CORE DATA

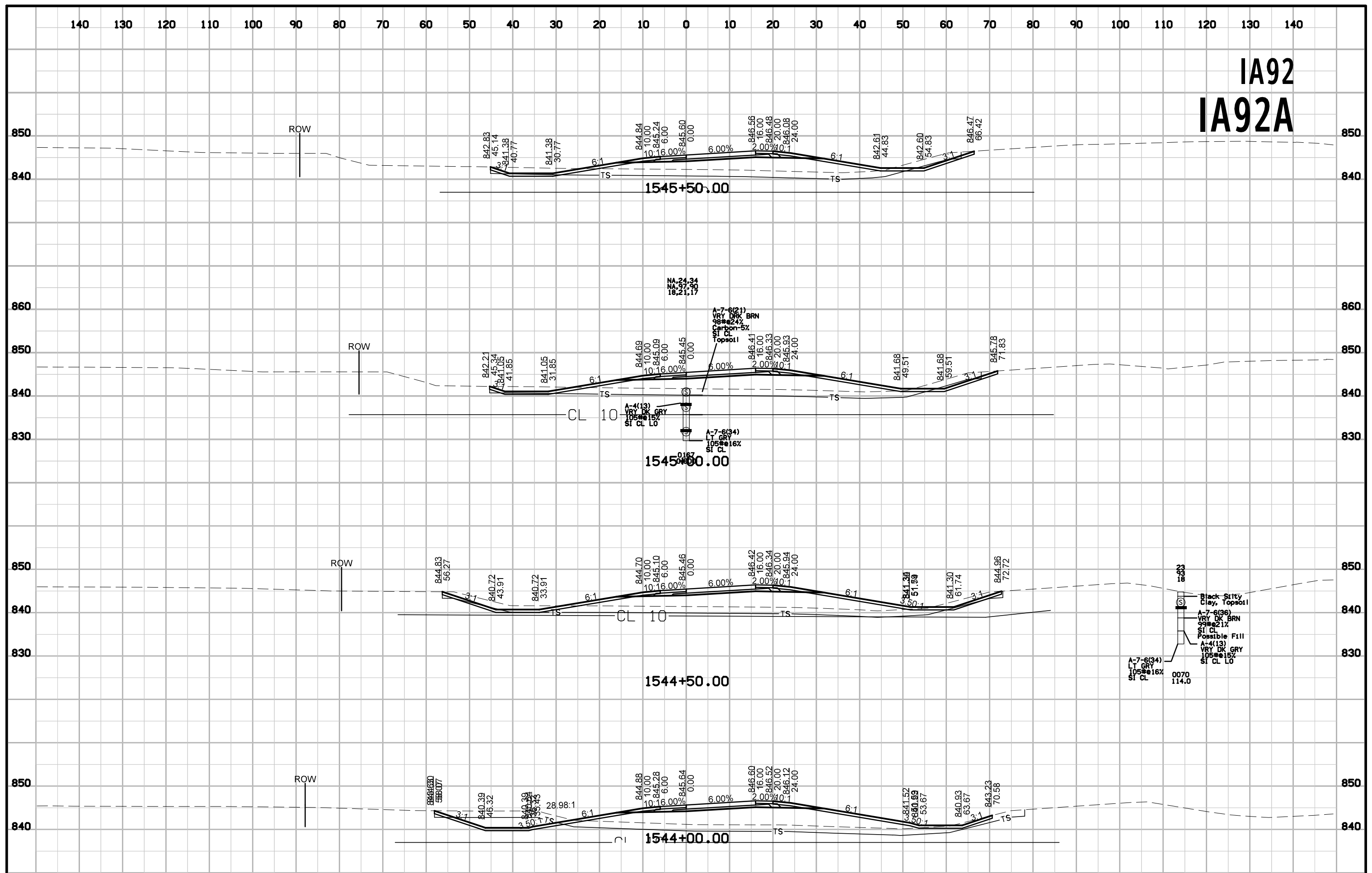
CORE NO.	0166-B	0166-C
DEPTH IN FEET	5.0'-7.0'	12.0'-14.0'
CLASSIFICATION (AASHTO)		
COEFF. CONSOL. (SQ. FT / DAY)	0.7	0.12
TRIAxIAL COMPRESSION	UU	UU
COHESION - PSF	2,172	1,334
FRICTION COEFF.	0.0	0.0
MOISTURE CONTENT %	29.1	50.3 ???
DRY DENSITY - PCF	92.06	69.45 ???
CU-UNCONSOLIDATED UNDRAINED		
UU-UNCONSOLIDATED UNDRAINED		
UC-UNCONSOLIDATED COMPRESSION (c=1/2 Qu)		

0166-B
Black Silty Clay, Topsoil

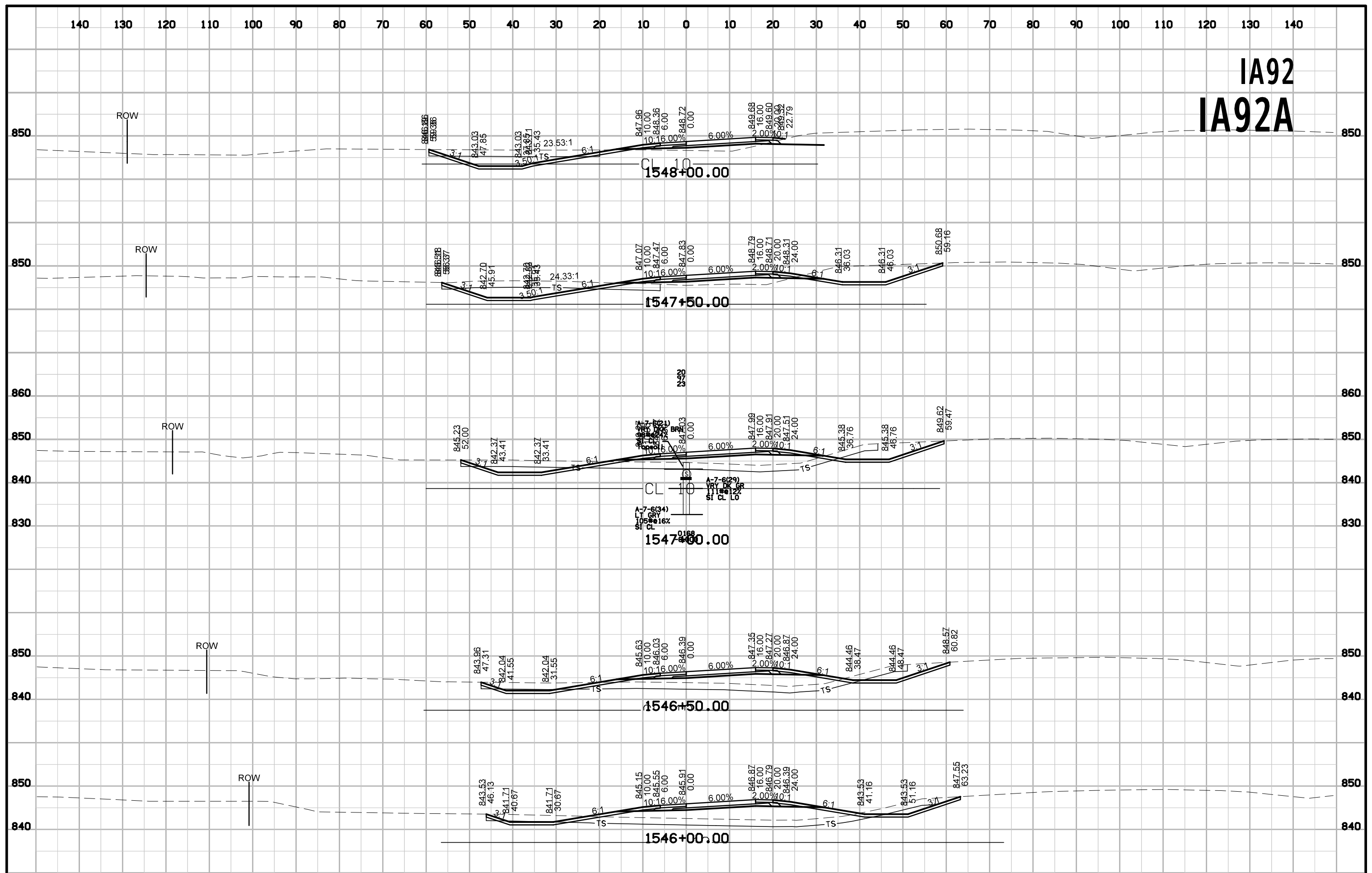
0166-C
Light Gray Silty Clay
Dark Brown Organic Clay
Light Gray Silty Clay
Gray Silty Sand

0166
40.0

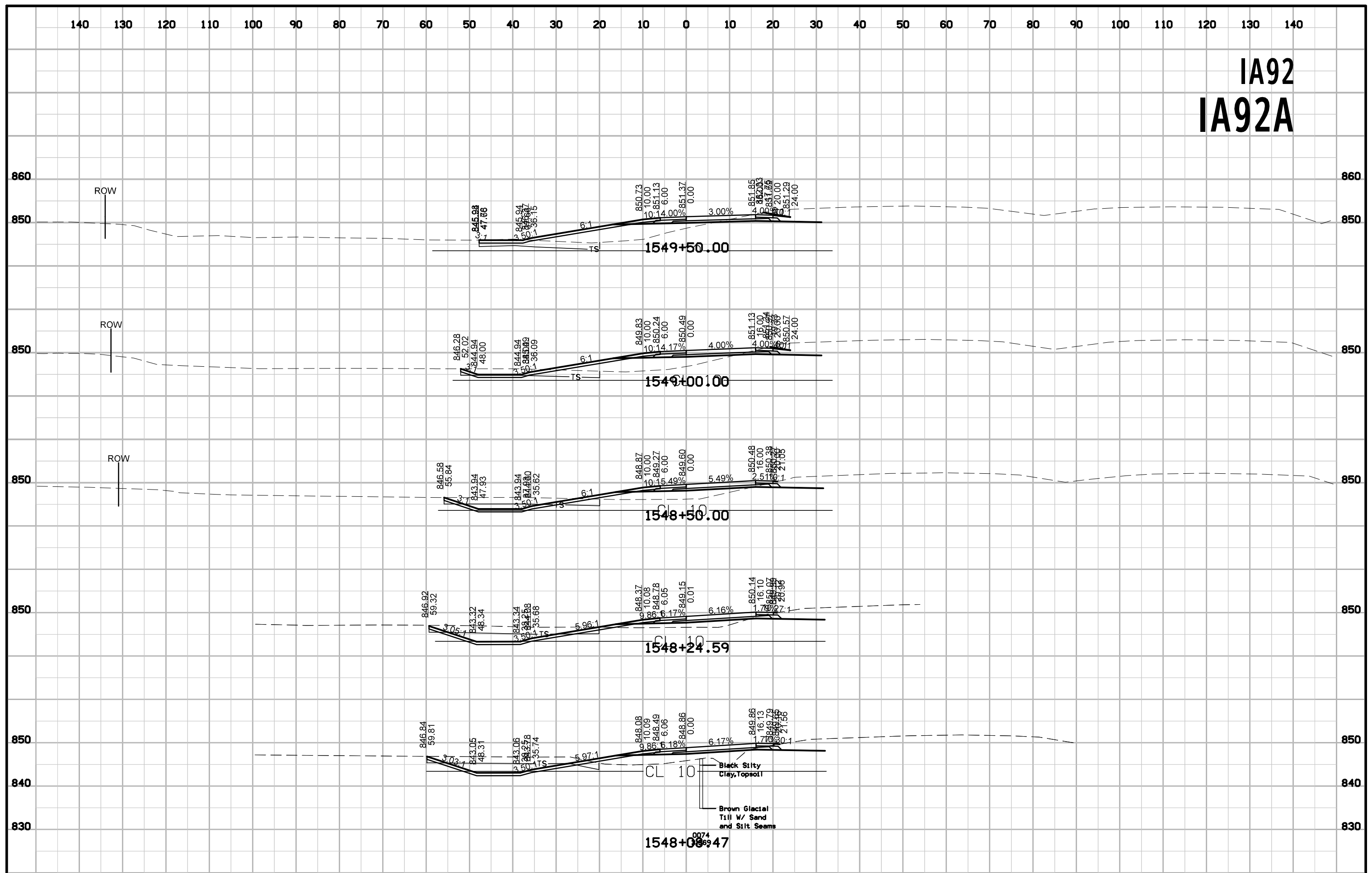
IA92 IA92A



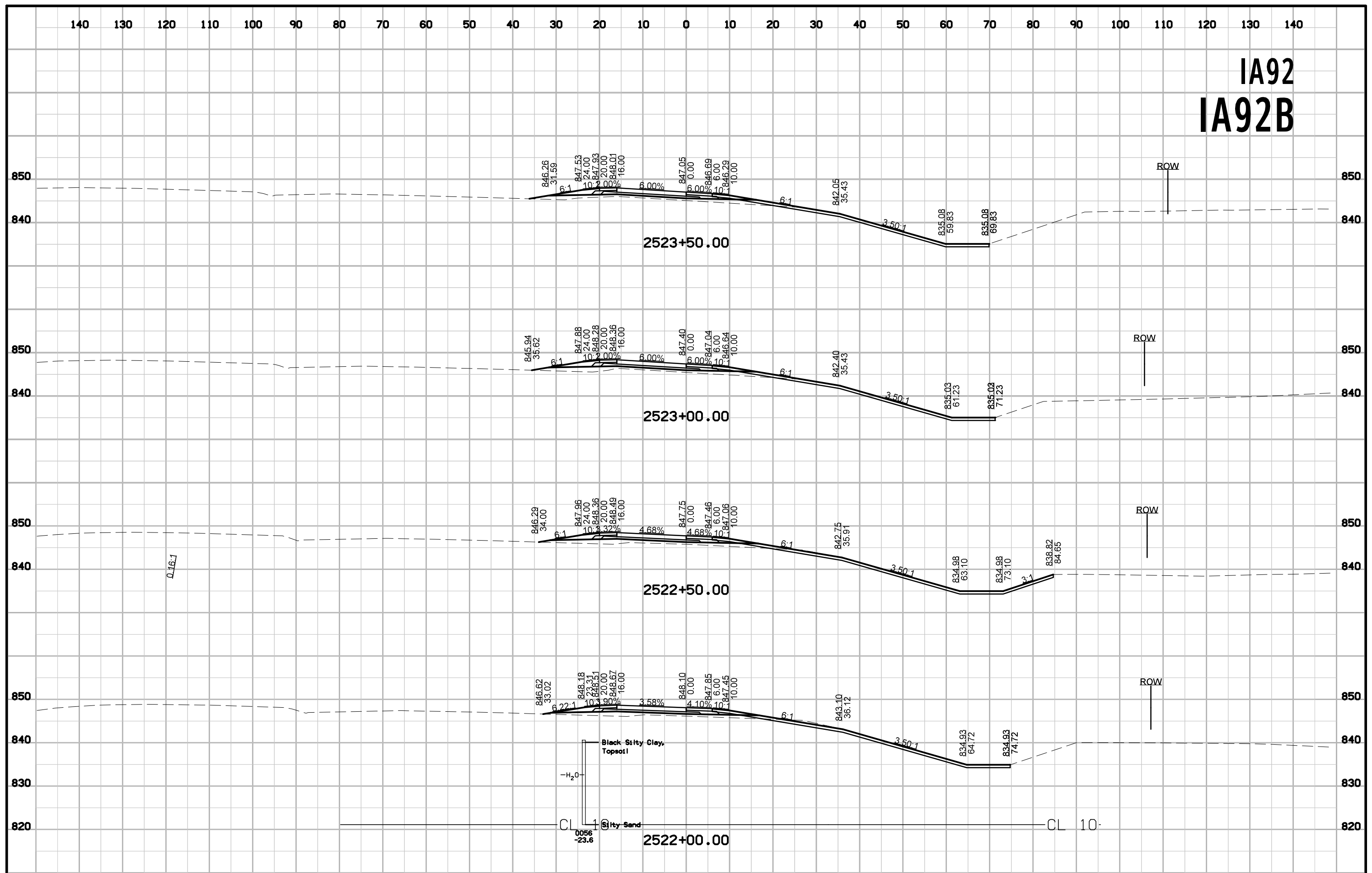
IA92 IA92A

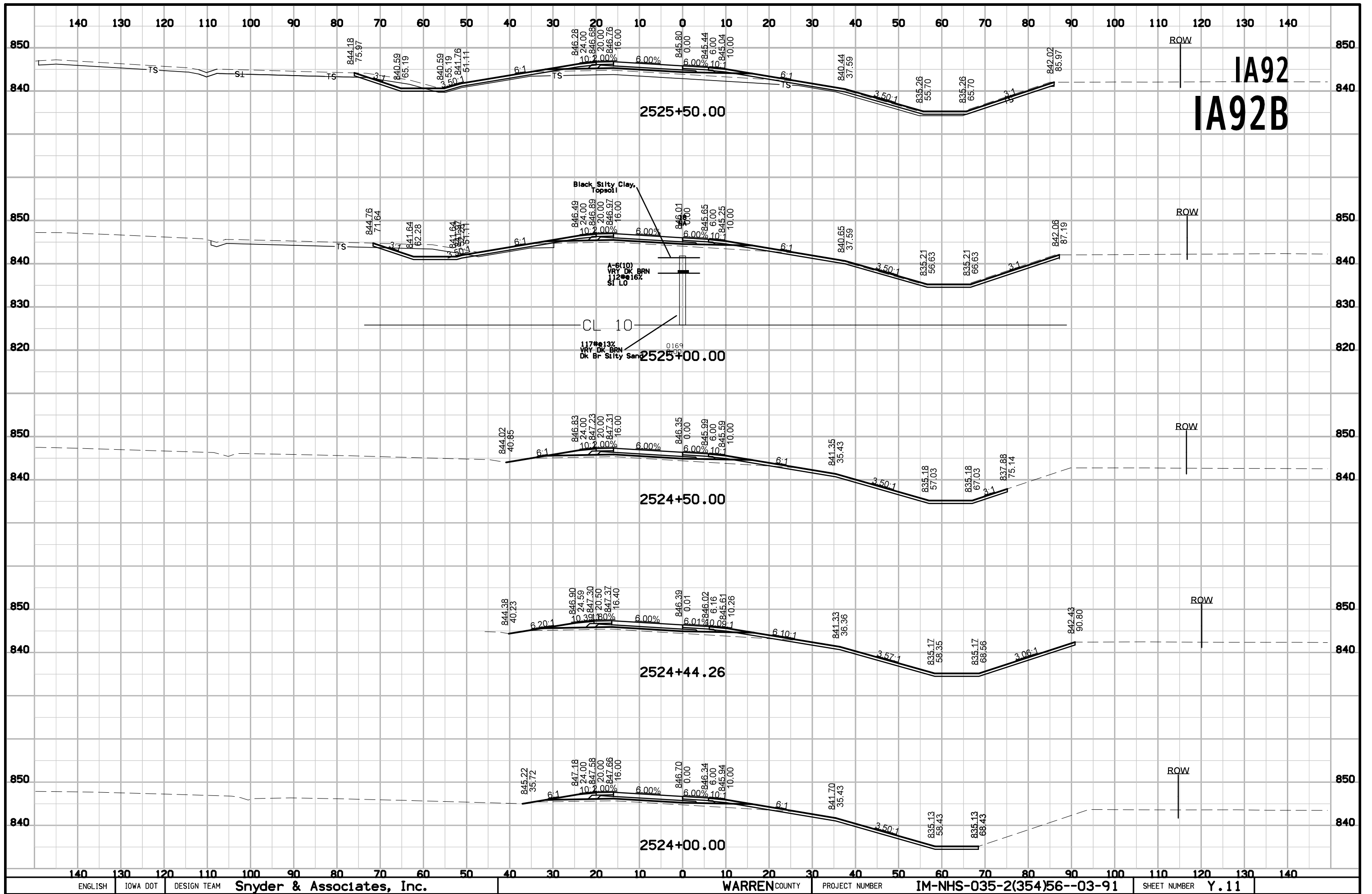


IA92 IA92A



IA92 IA92B





IA92
IA92B

2525+50.00

2525+00.00

2524+50.00

2524+44.26

2524+00.00

ROW

ROW

ROW

ROW

ROW

Black Silty Clay,
Topsoil

A-6(10)
VRY DK BRN
112#16%
SI LO

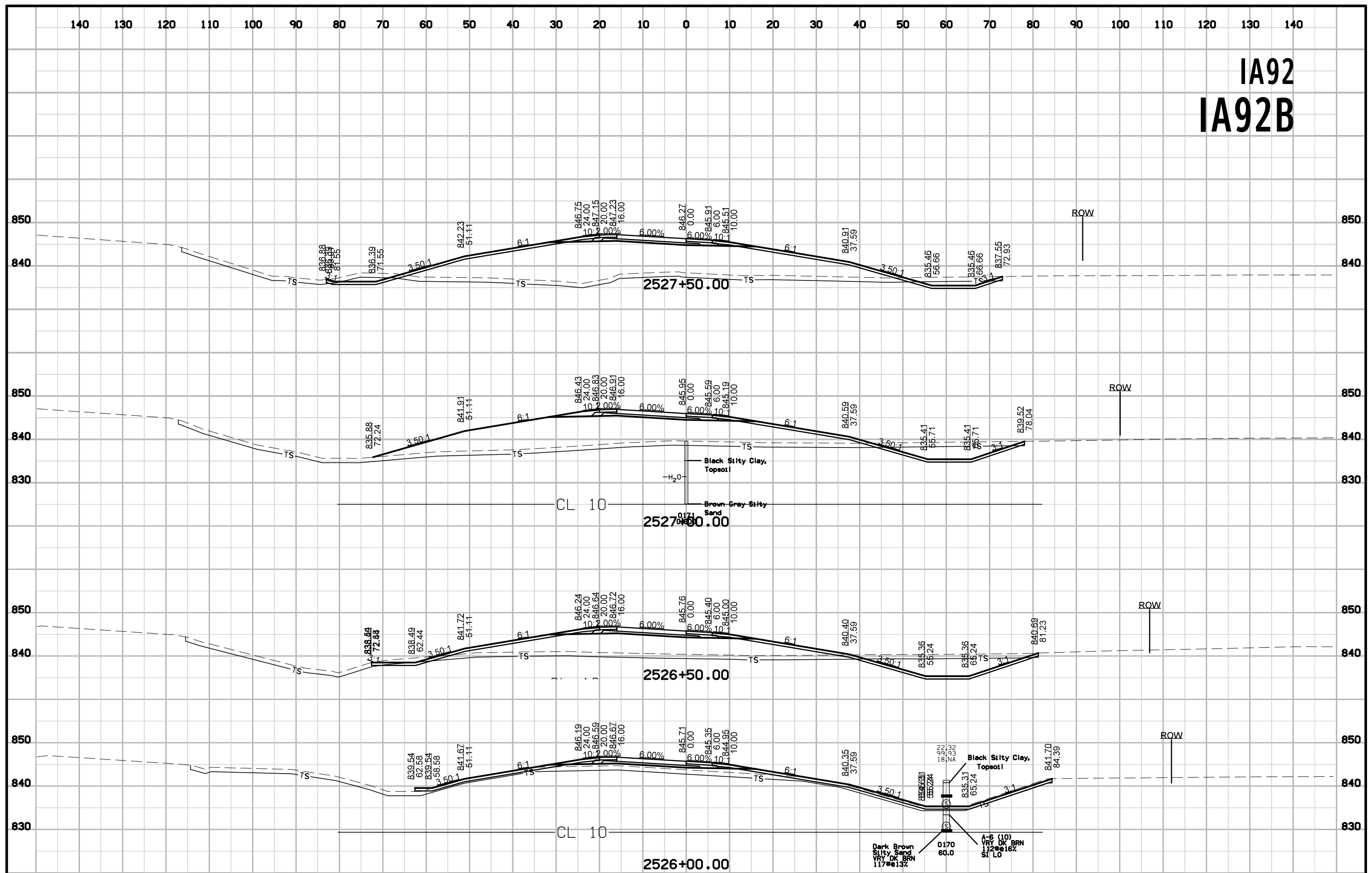
117#13%
DRY DK BRN
DR Br Silty Sand

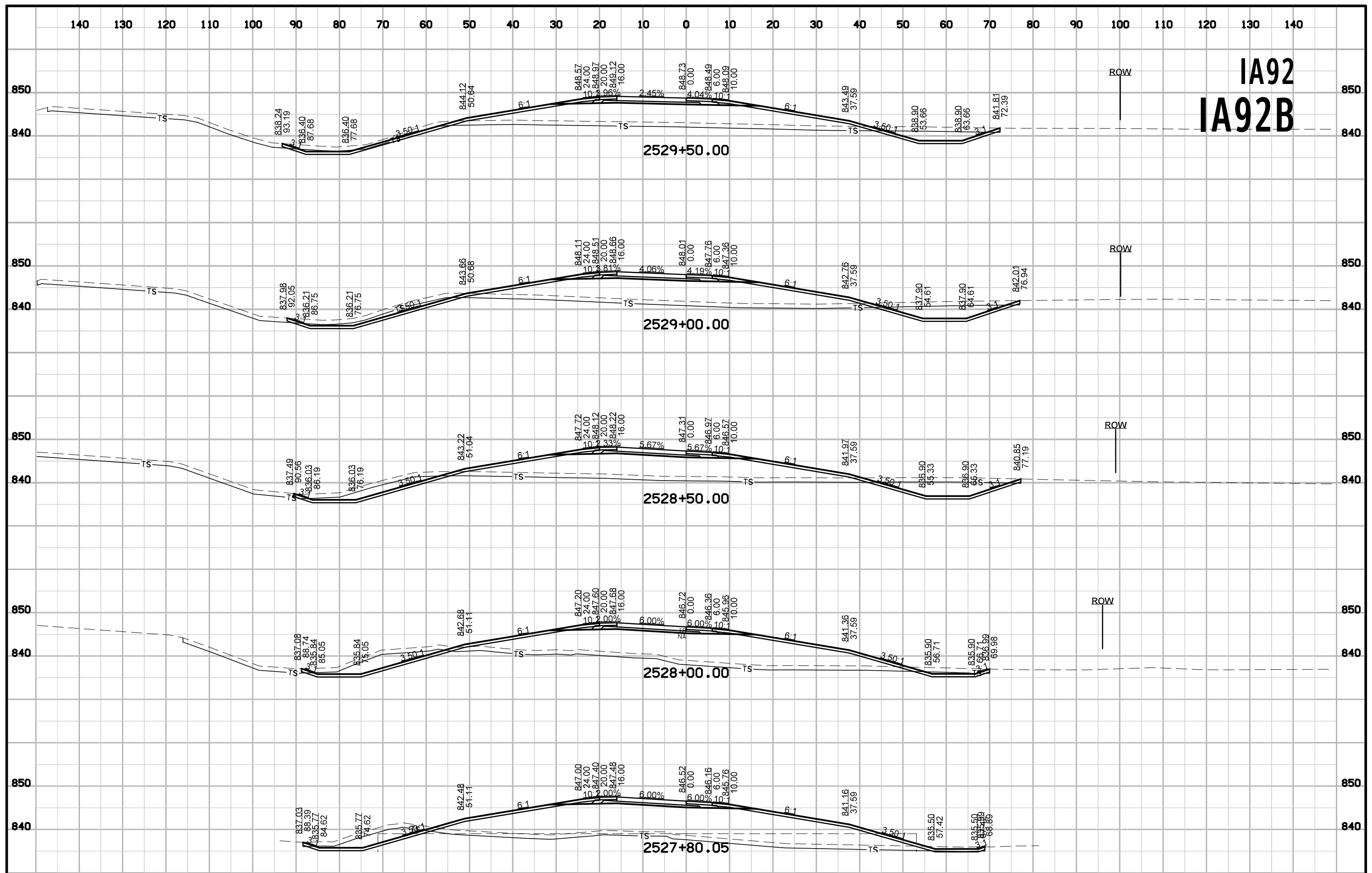
CL 10

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

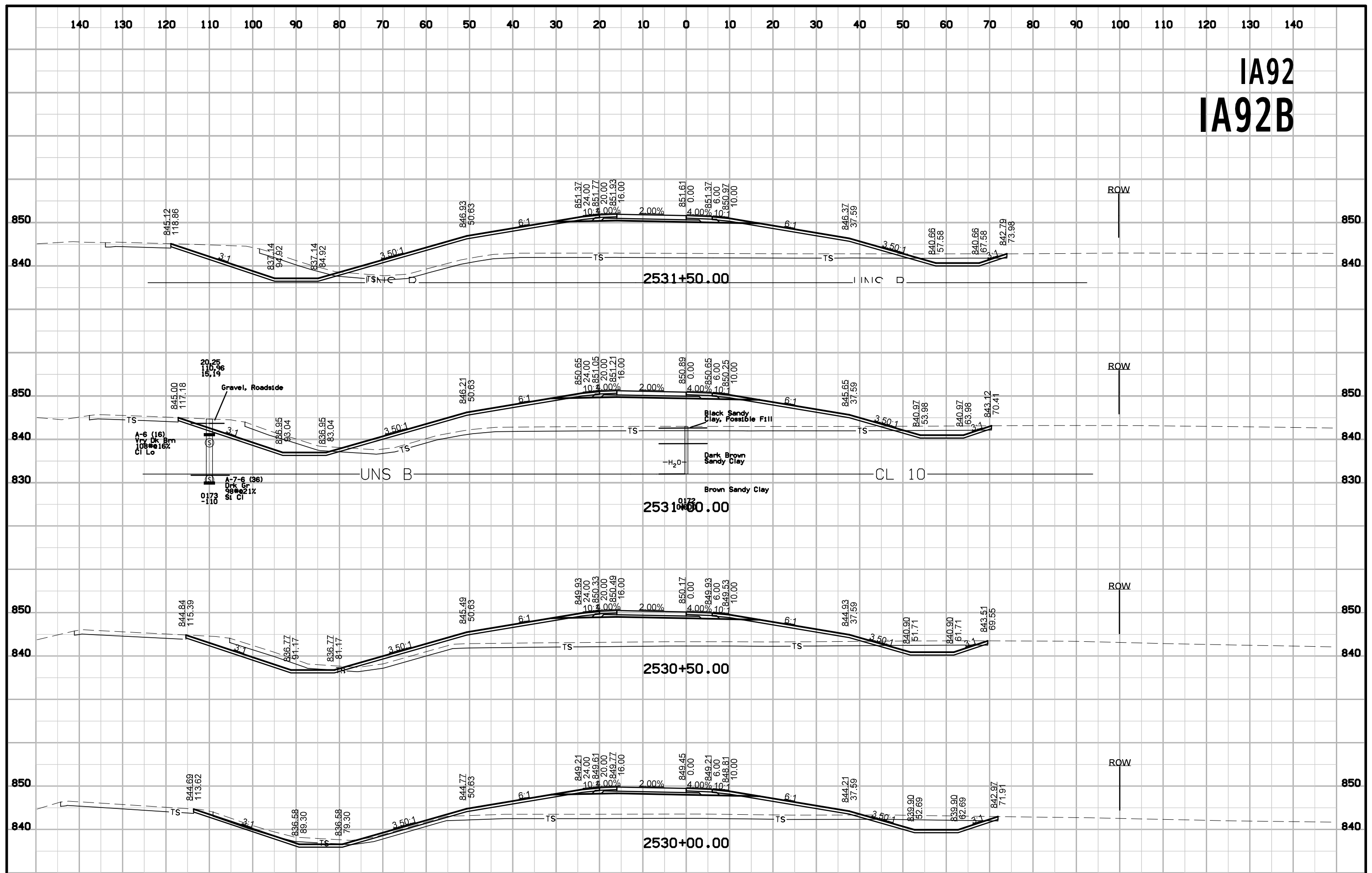
IA92 IA92B



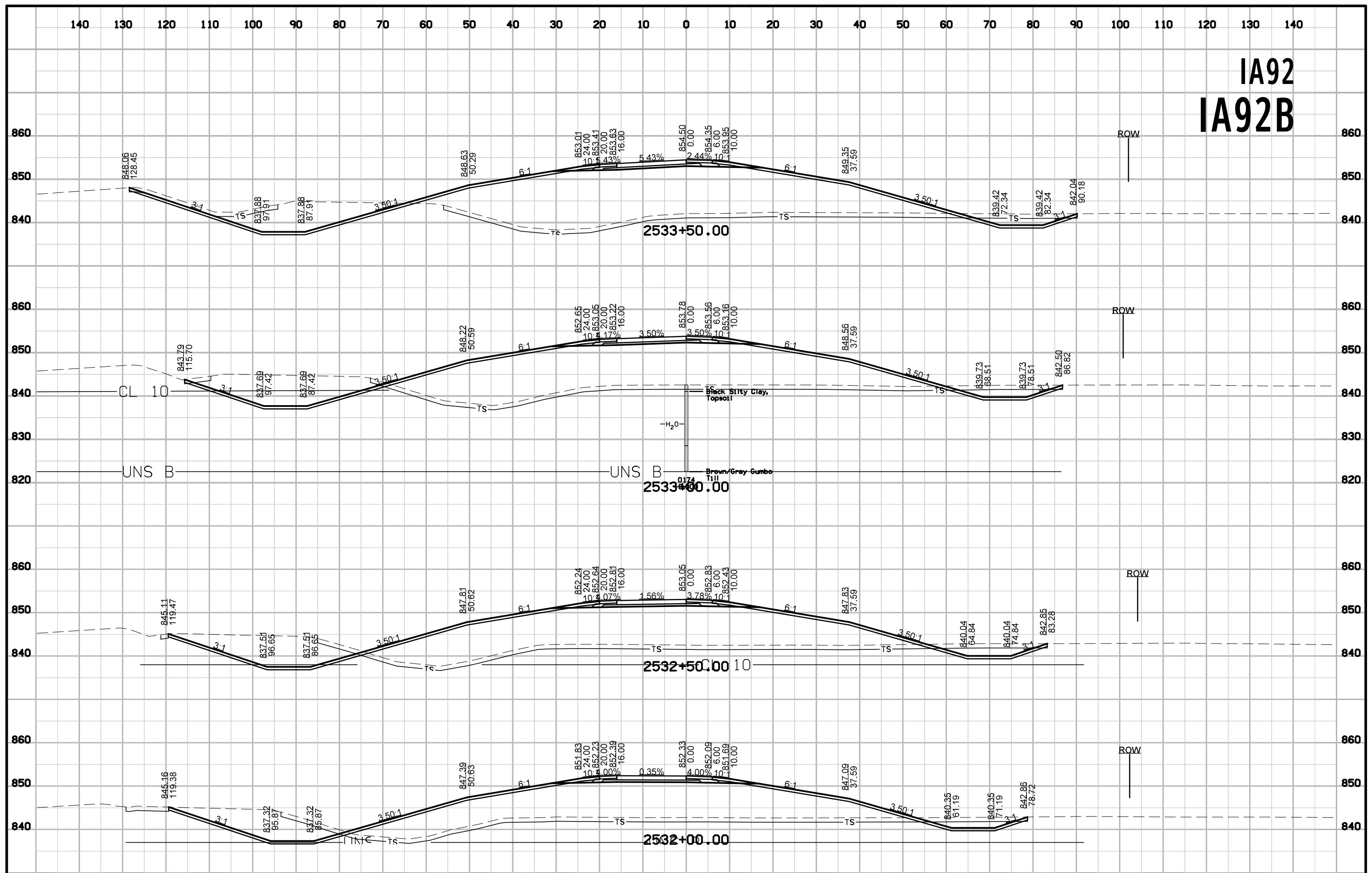


IA92
IA92B

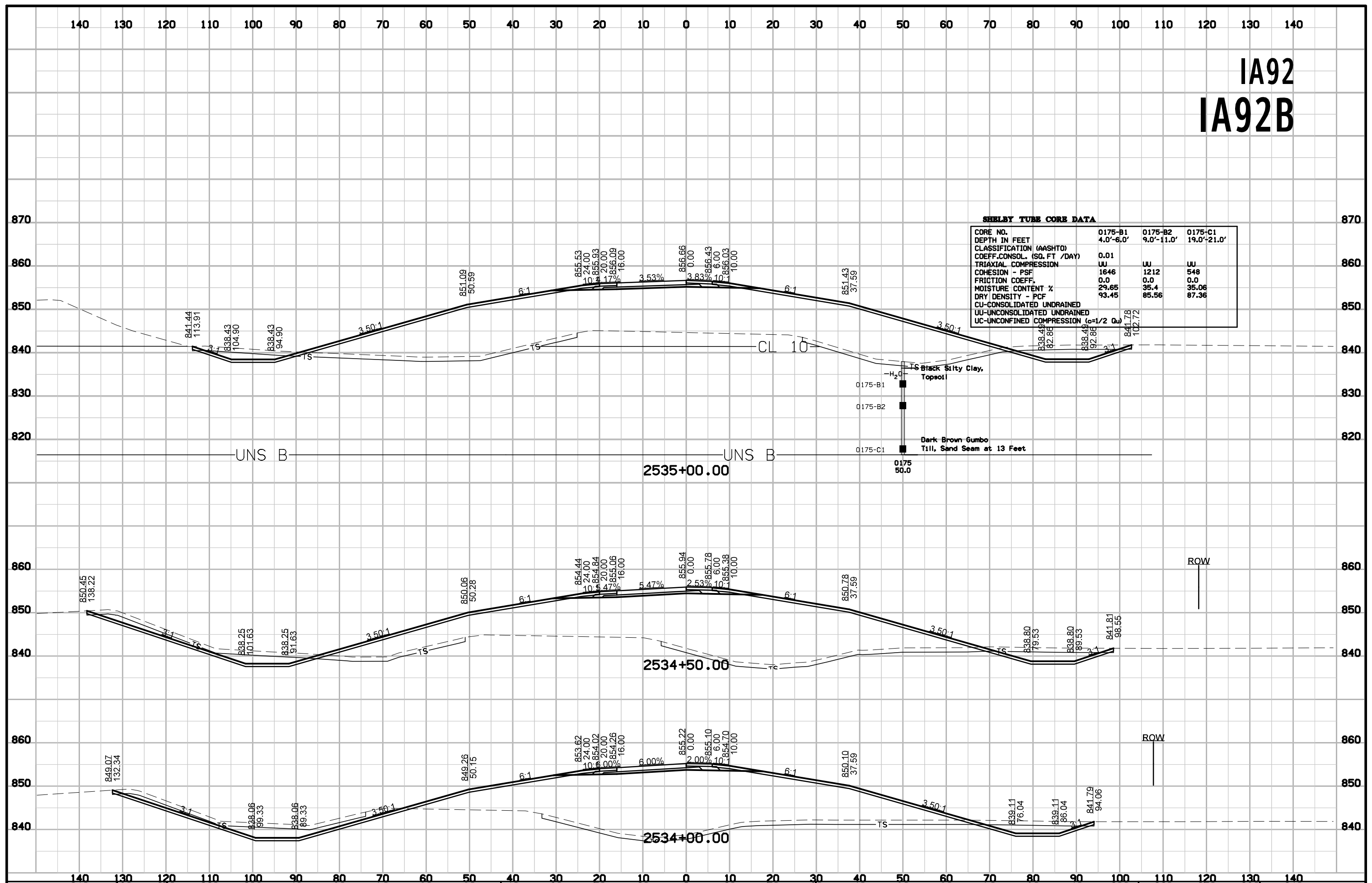
IA92 IA92B



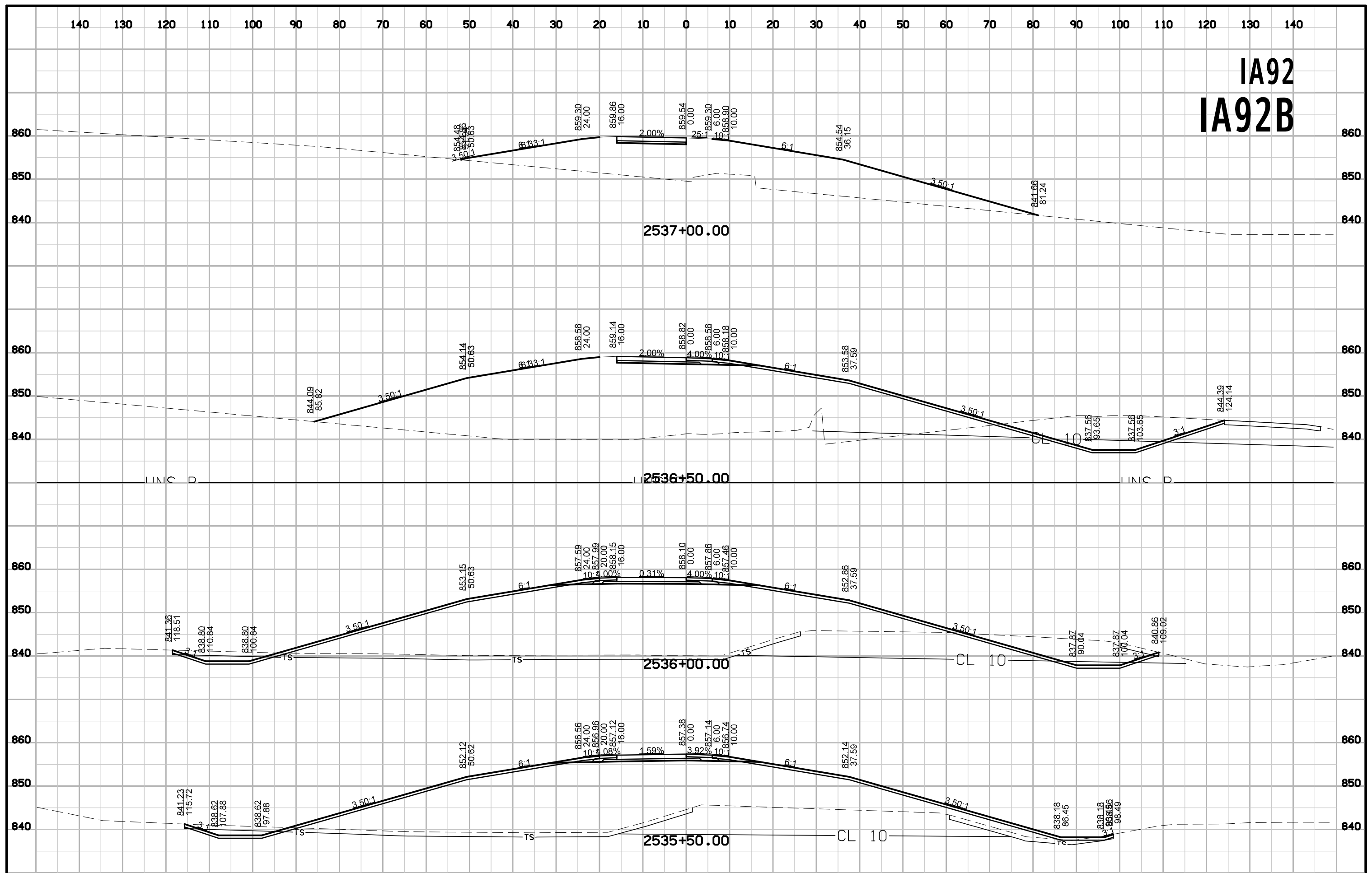
IA92 IA92B



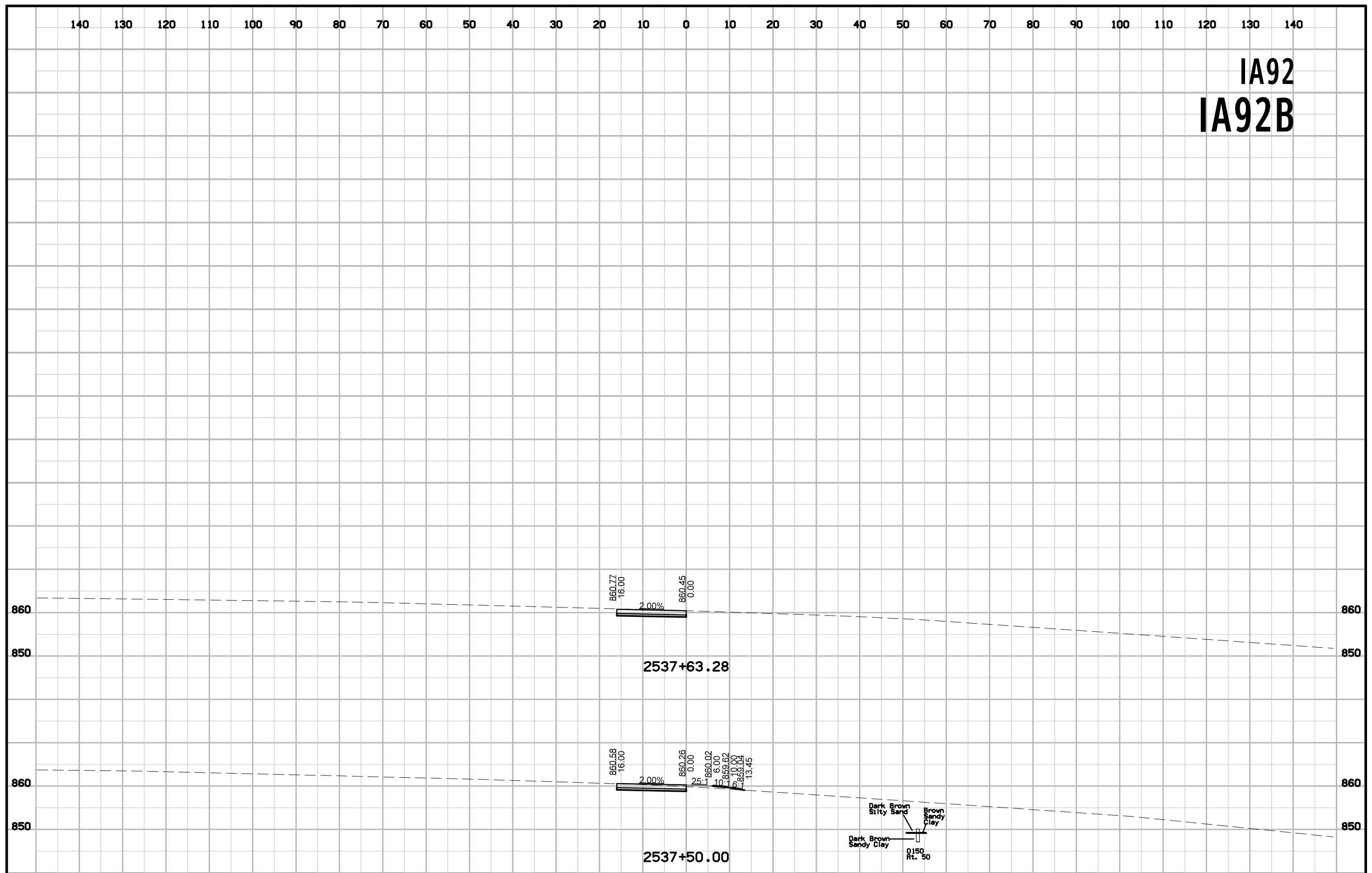
IA92 IA92B



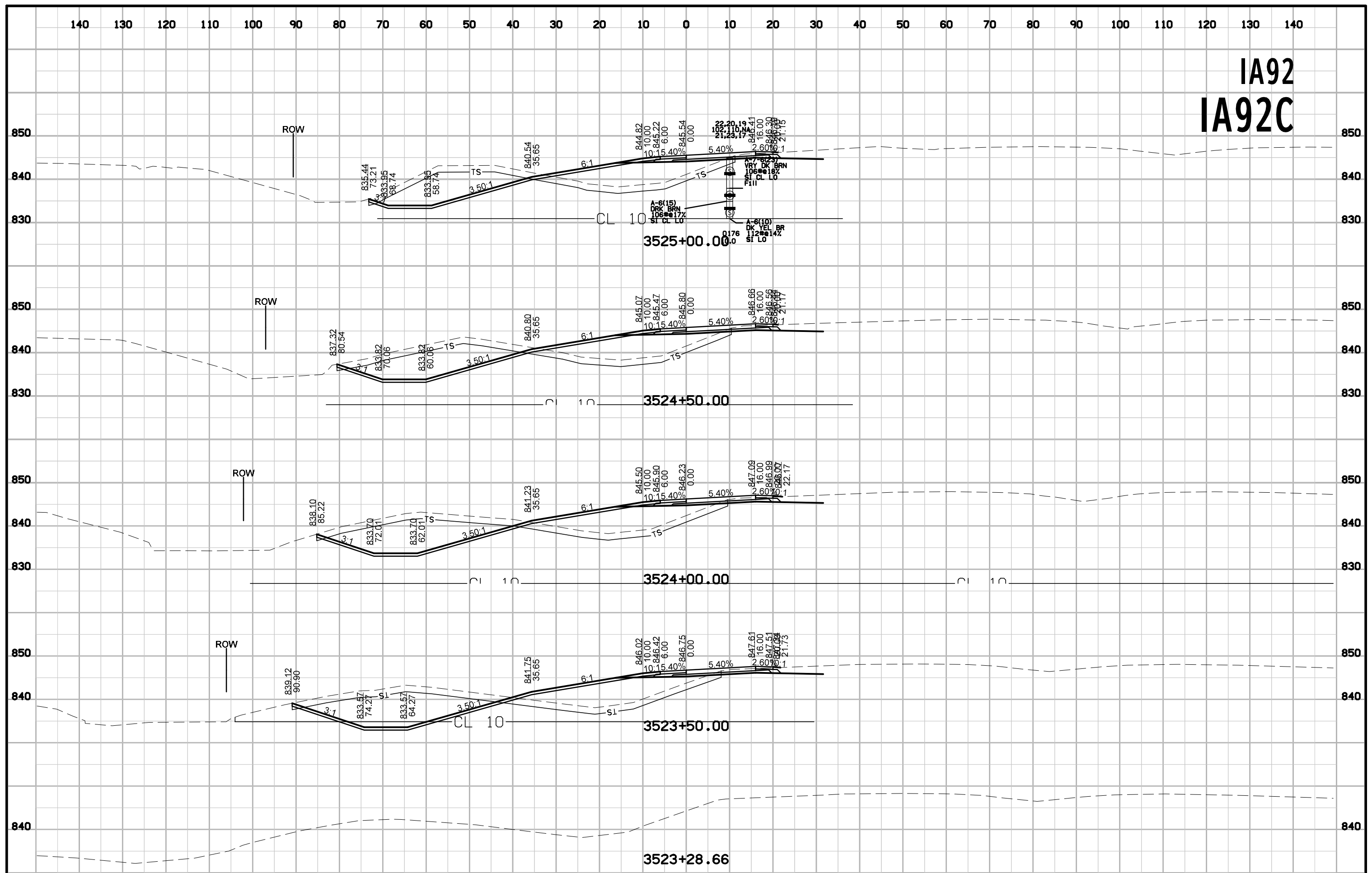
IA92 IA92B



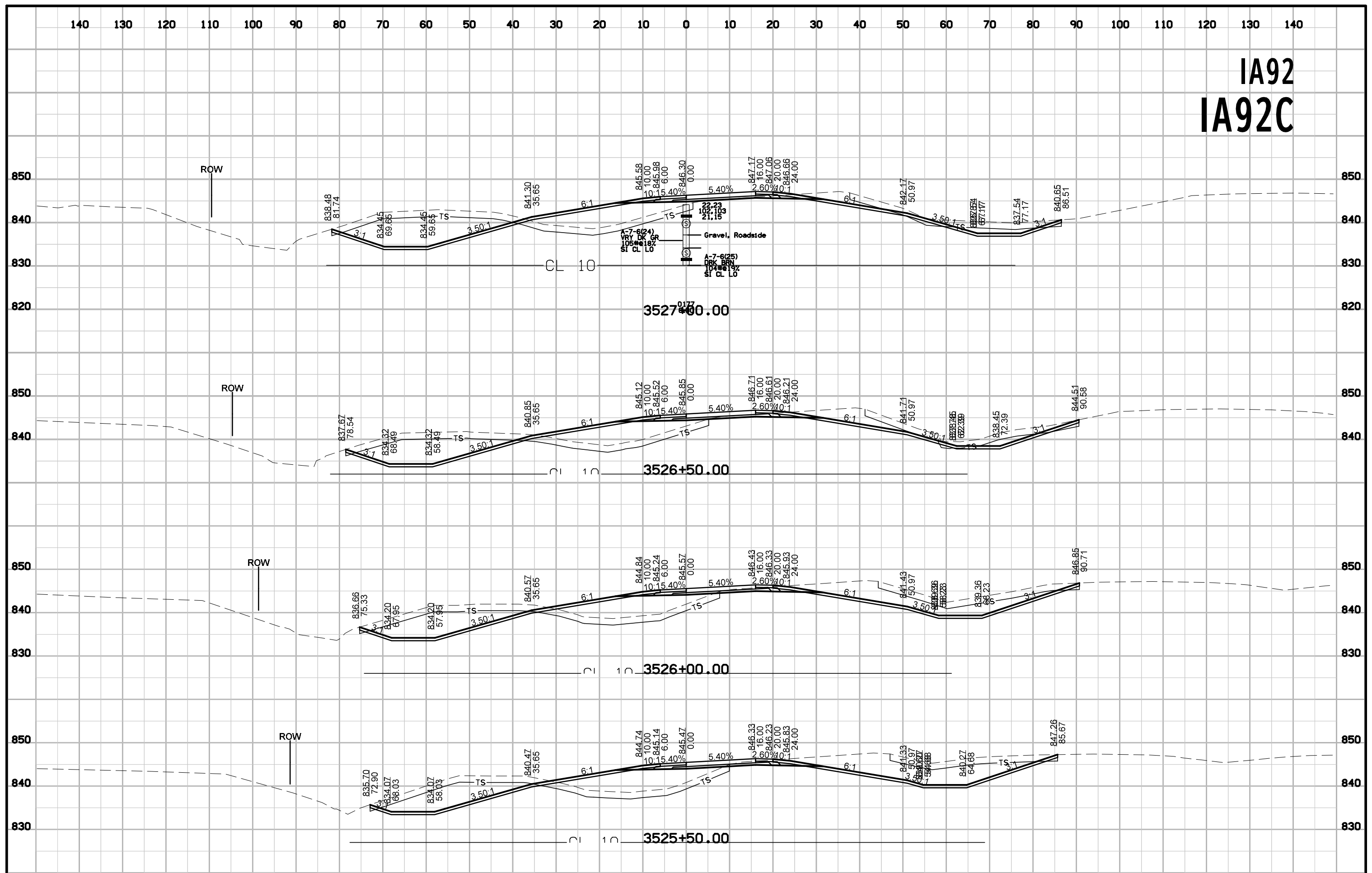
IA92 IA92B



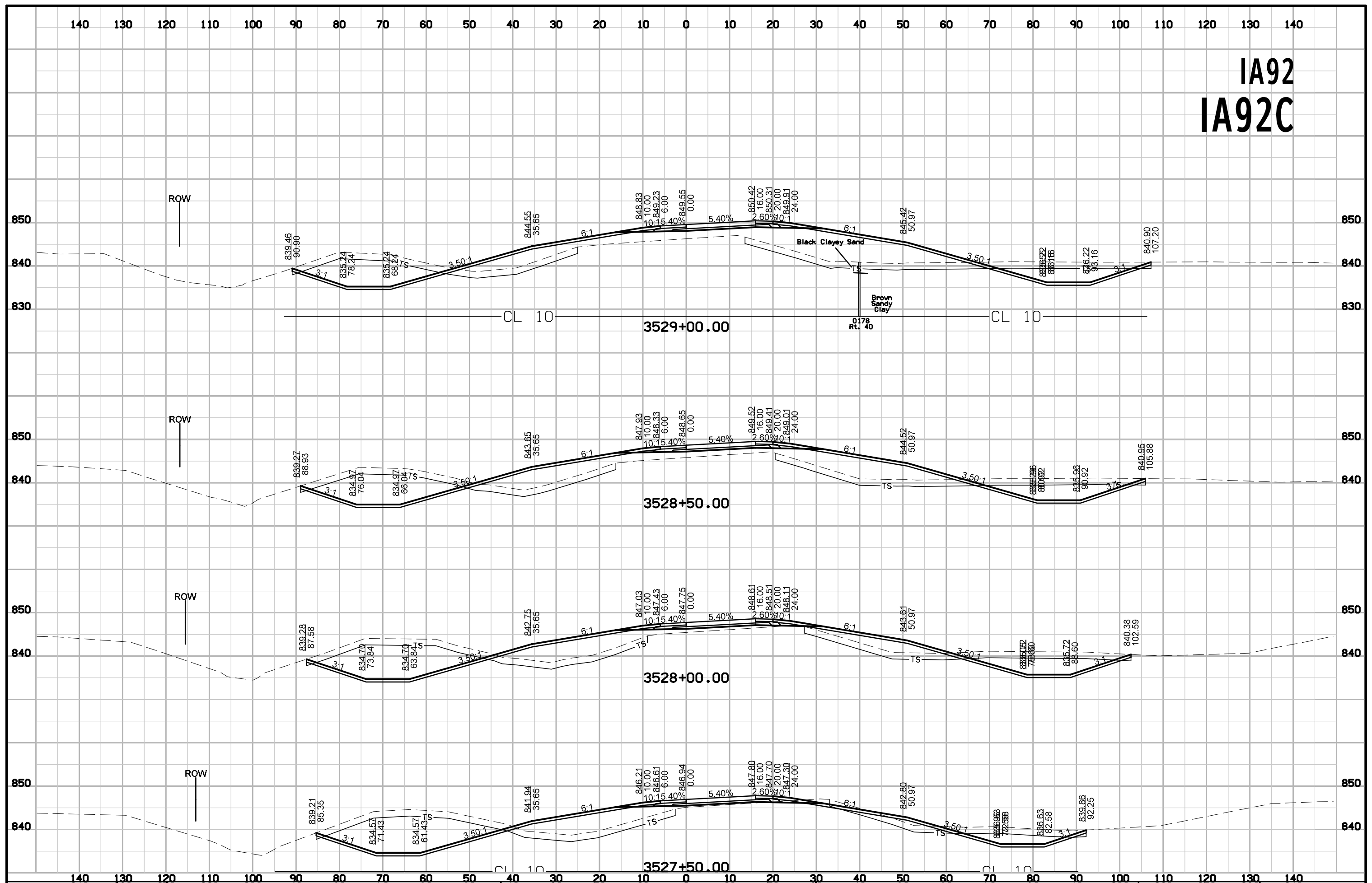
IA92 IA92C



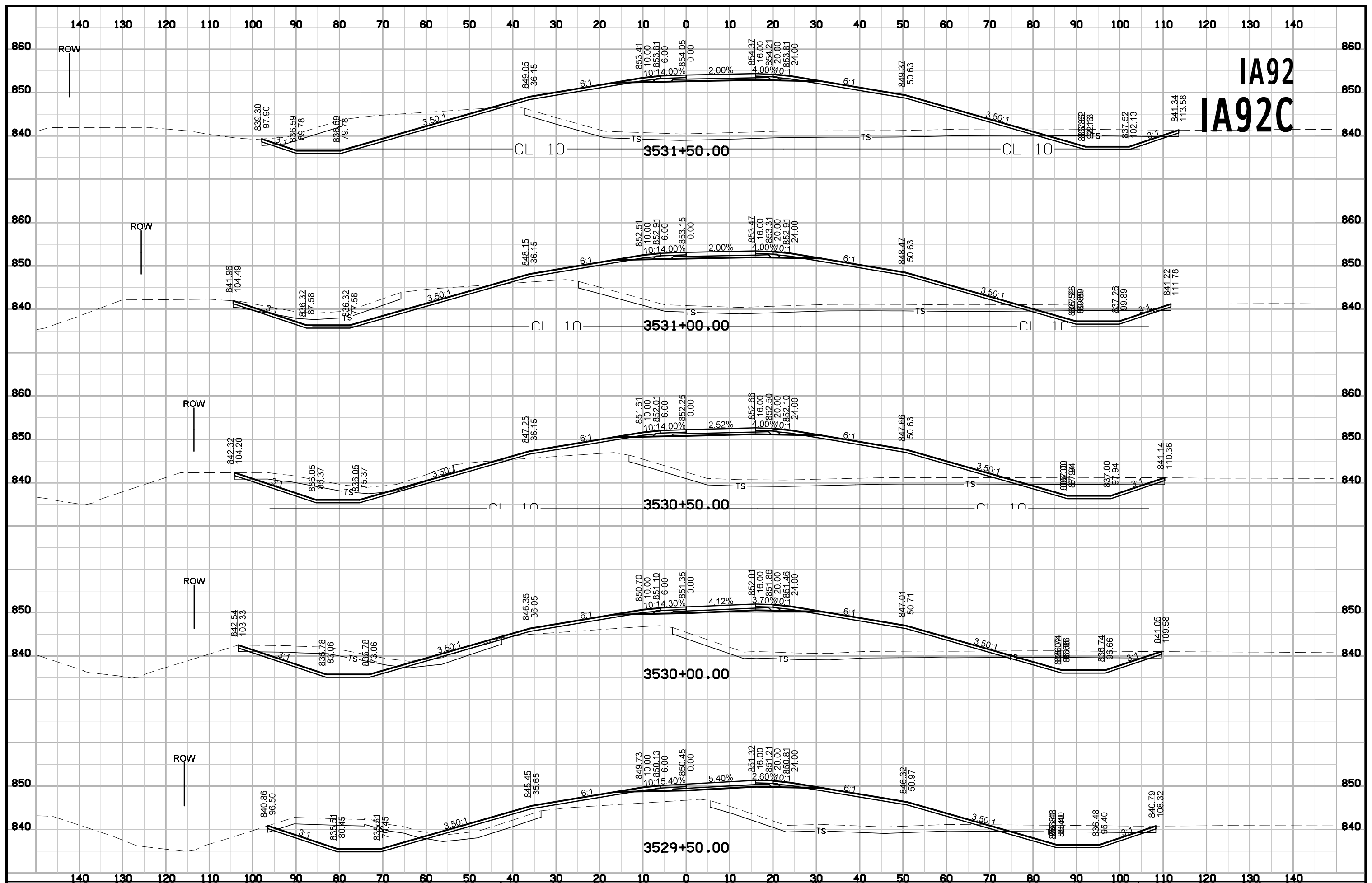
IA92 IA92C



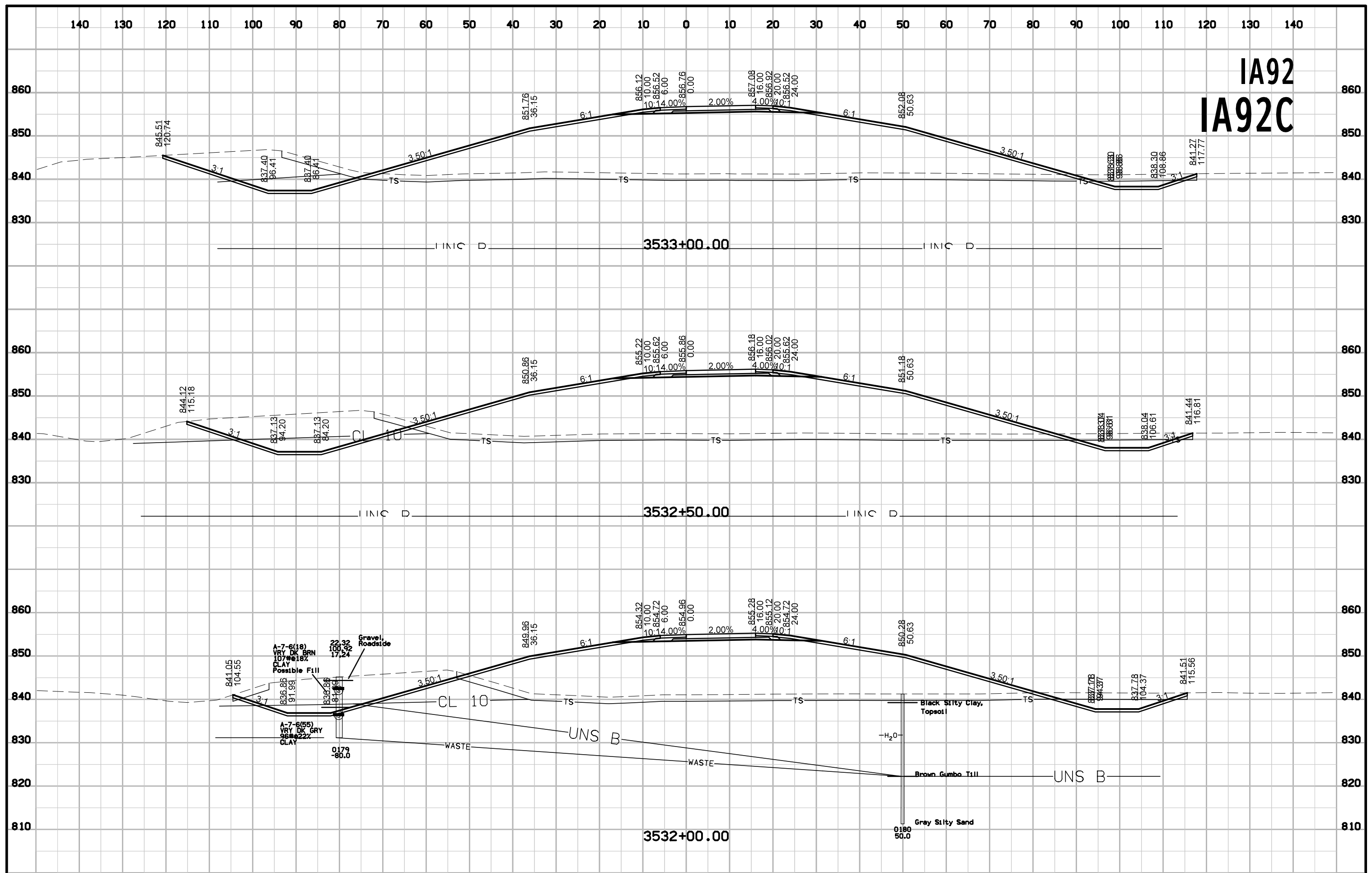
IA92 IA92C



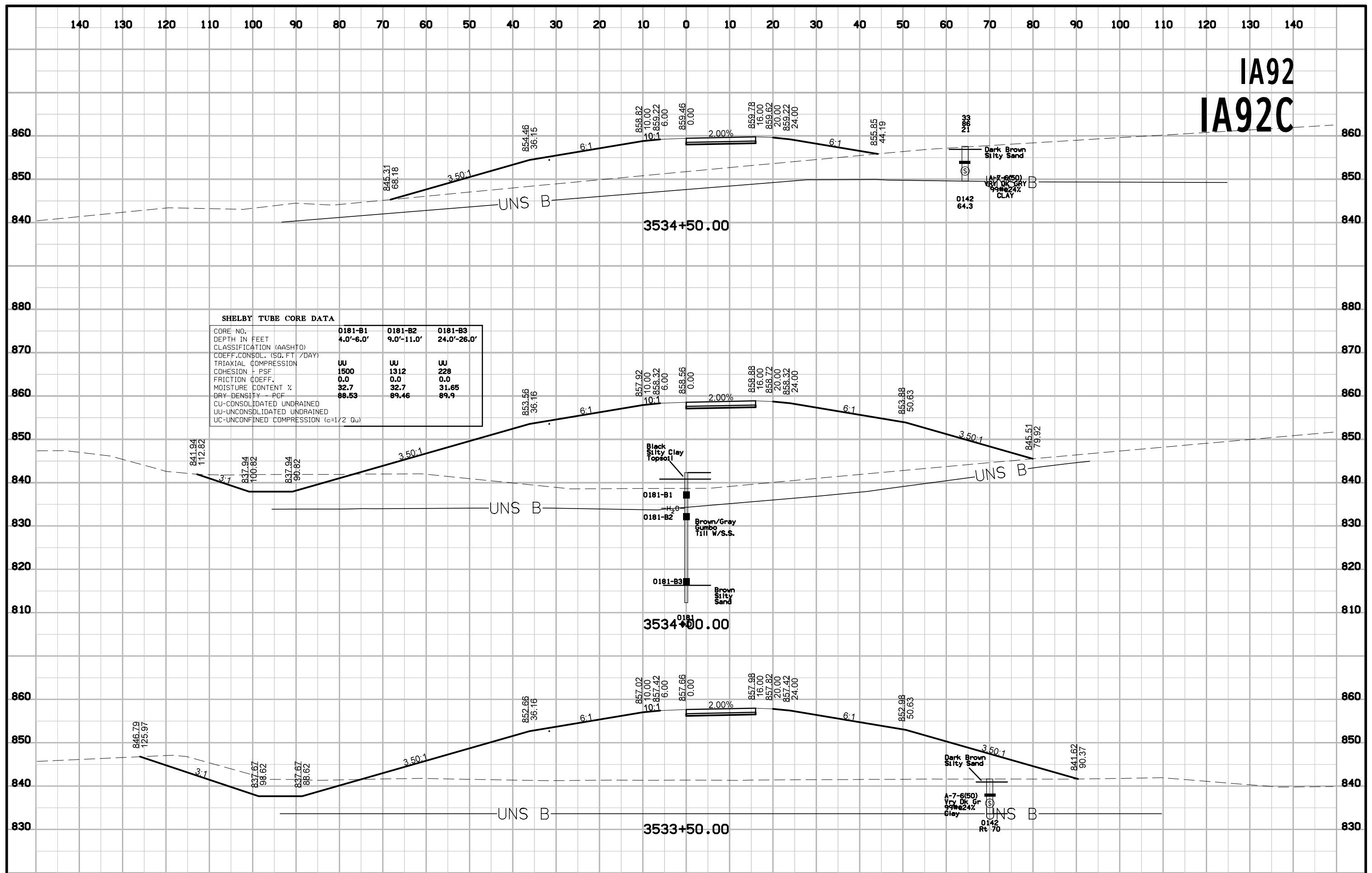
IA92 IA92C



IA92 IA92C



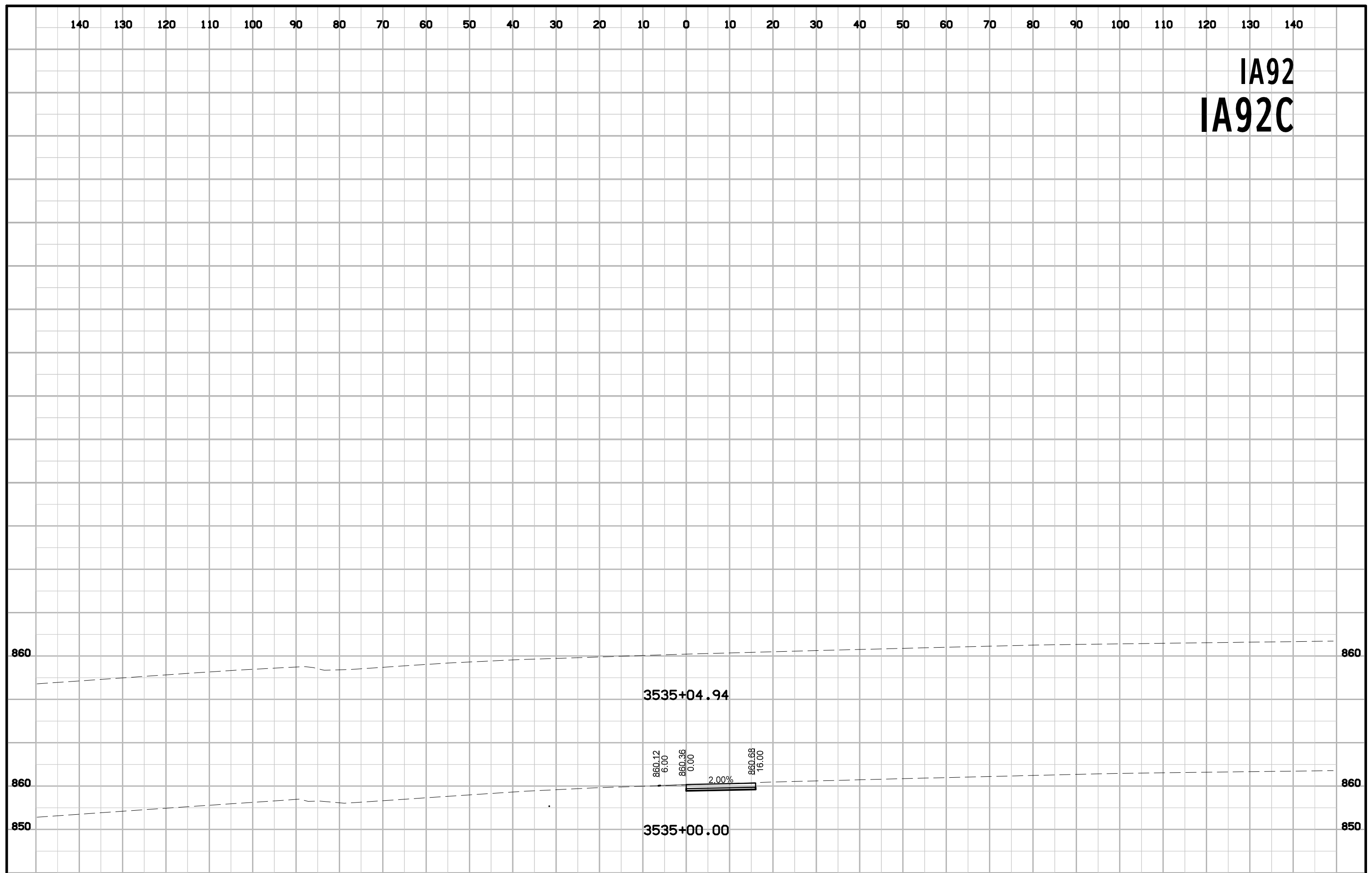
IA92 IA92C



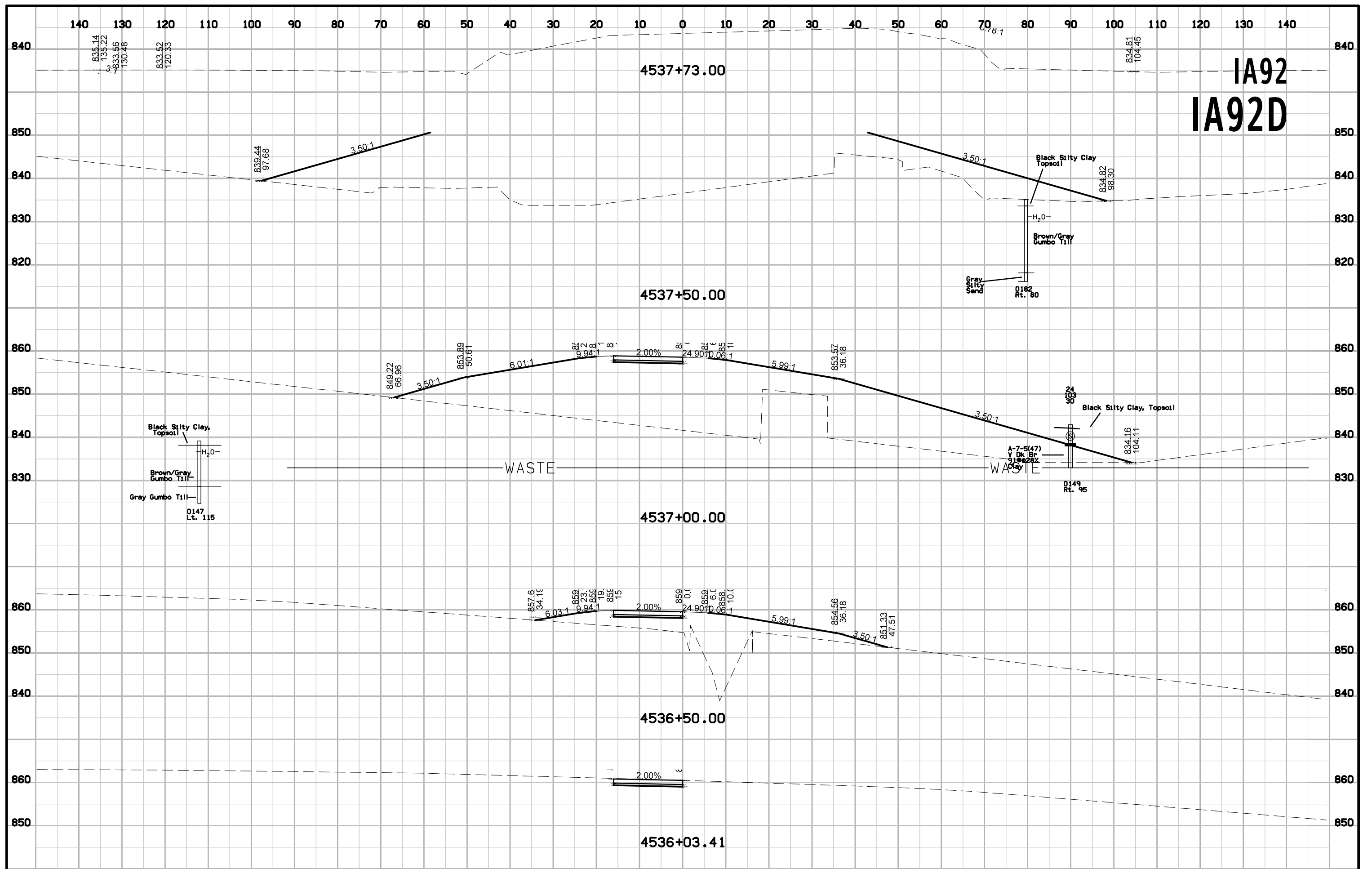
SHELBY TUBE CORE DATA

CORE NO.	0181-B1	0181-B2	0181-B3
DEPTH IN FEET	4.0'-6.0'	9.0'-11.0'	24.0'-26.0'
CLASSIFICATION (AASHTO)			
COEFF. CONSOL. (SQ. FT / DAY)			
TRIAxIAL COMPRESSION	UU	UU	UU
COHESION - PSF	1500	1312	228
FRICTION COEFF.	0.0	0.0	0.0
MOISTURE CONTENT %	32.7	32.7	31.65
DRY DENSITY - PCF	98.53	89.46	89.9
CU-CONSOLIDATED UNDRAINED			
UU-UNCONSOLIDATED UNDRAINED			
UC-UNCONFINED COMPRESSION (c=1/2 Qu)			

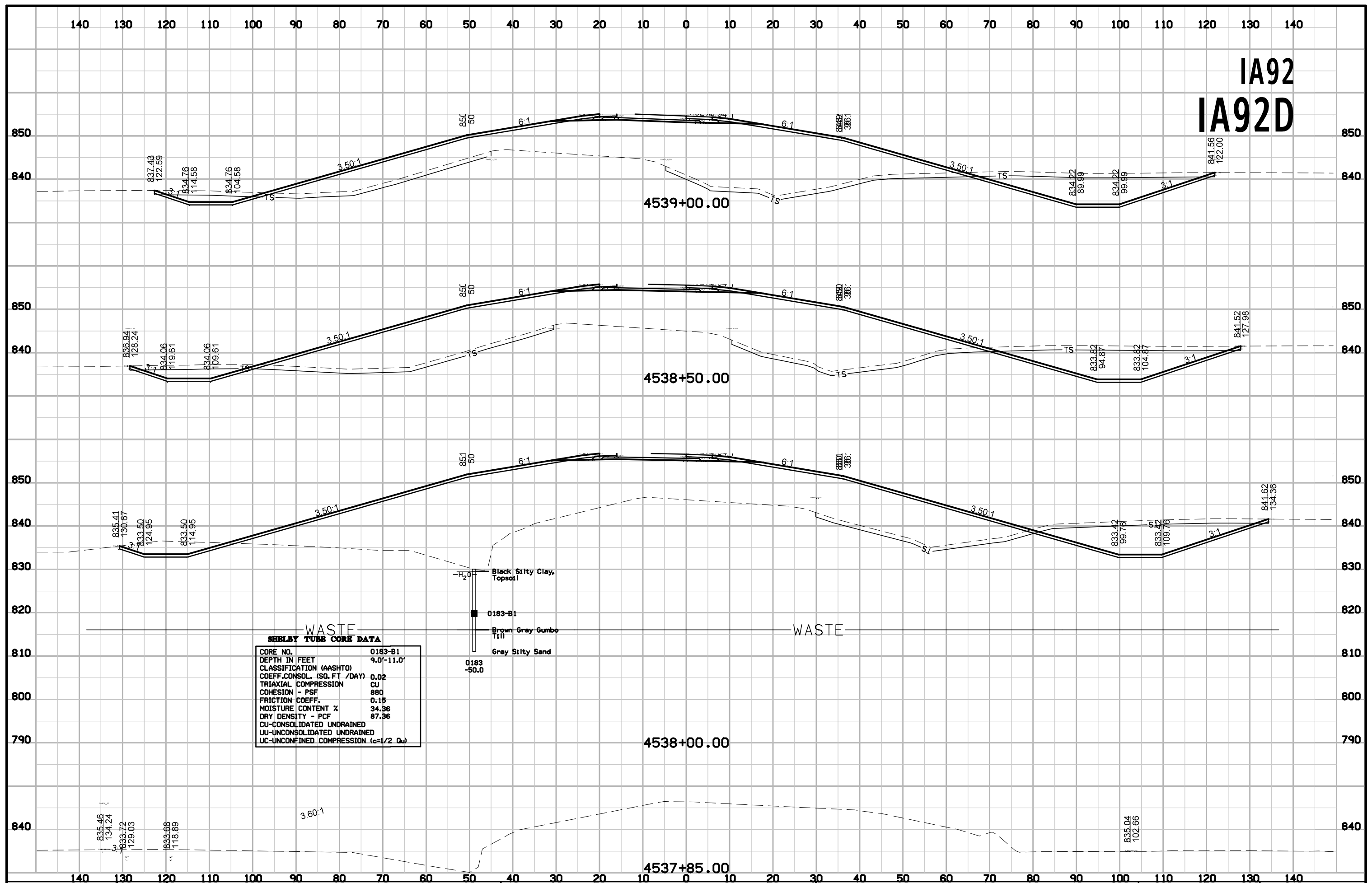
IA92 IA92C



IA92 IA92D



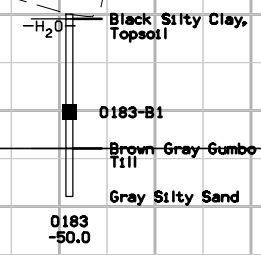
IA92 IA92D



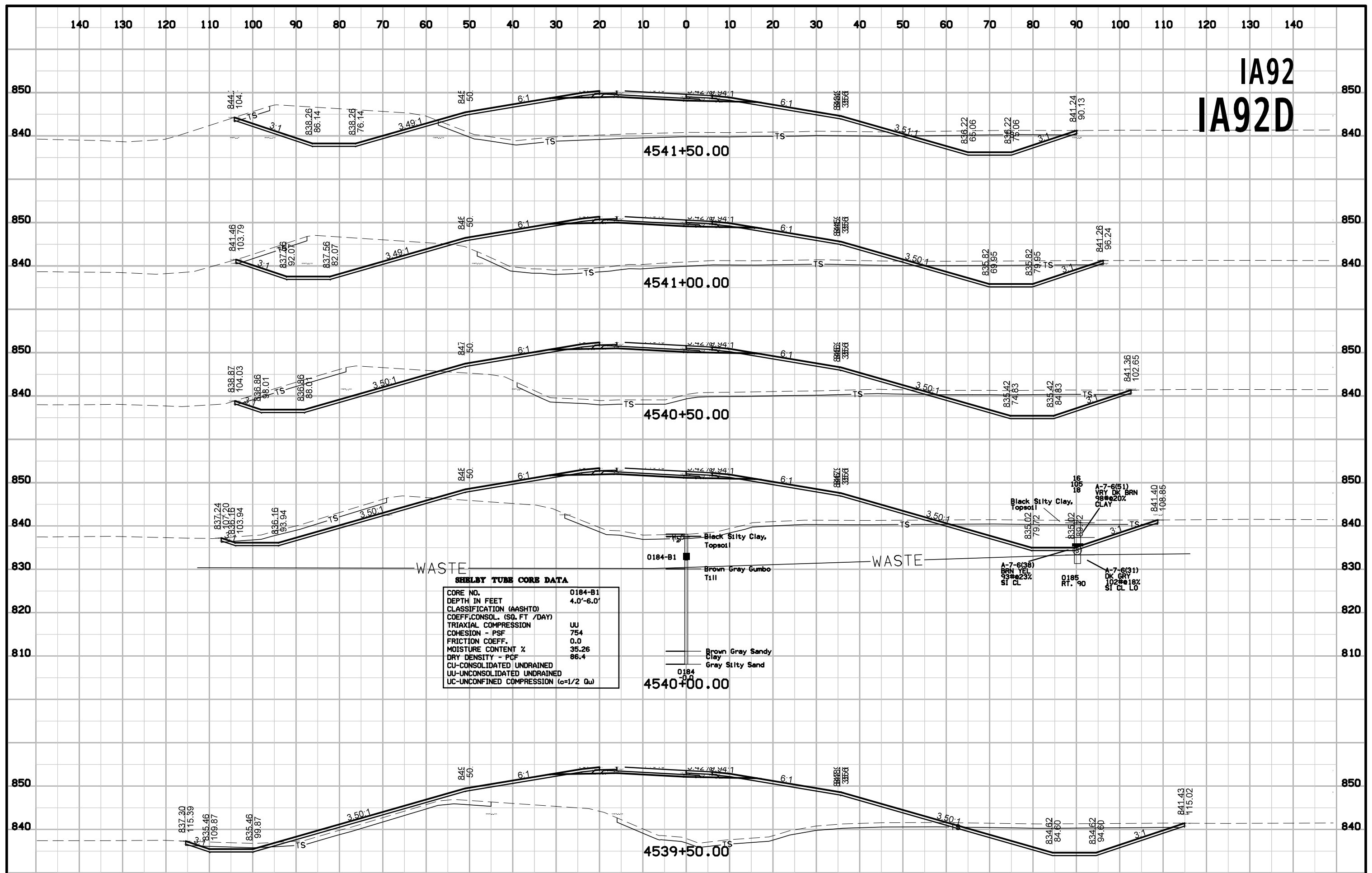
WASTE

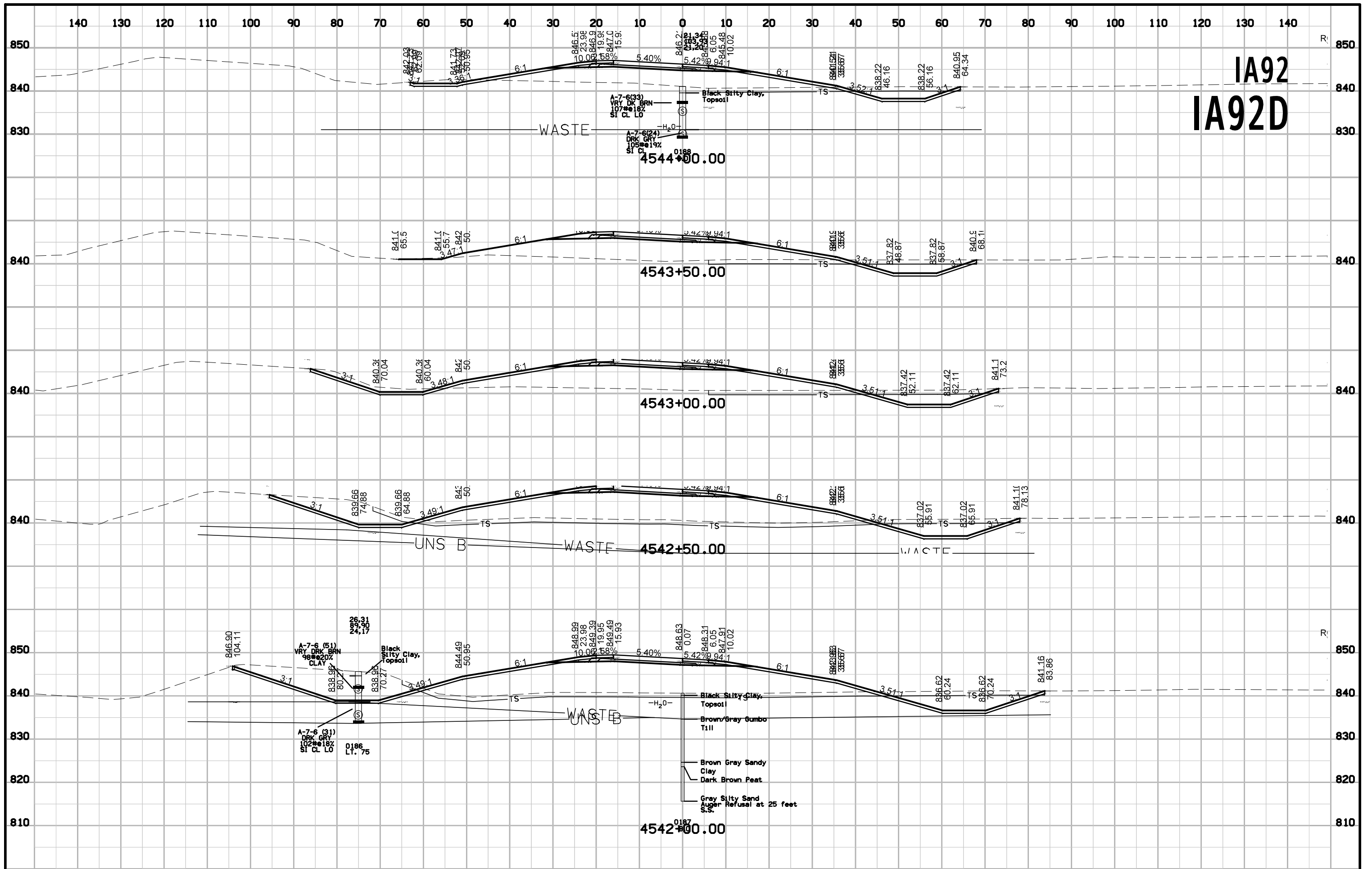
SHELBY TUBE CORE DATA

CORE NO.	0183-B1
DEPTH IN FEET	9.0'-11.0'
CLASSIFICATION (AASHTO)	
COEFF. CONSOL. (SQ. FT. / DAY)	0.02
TRIAxIAL COMPRESSION	CU
COHESION - PSF	880
FRICTION COEFF.	0.15
MOISTURE CONTENT %	34.36
DRY DENSITY - PCF	87.96
CU-CONSOLIDATED UNDRAINED	
UU-UNCONSOLIDATED UNDRAINED	
UC-UNCONFINED COMPRESSION (σ=1/2 Qu)	



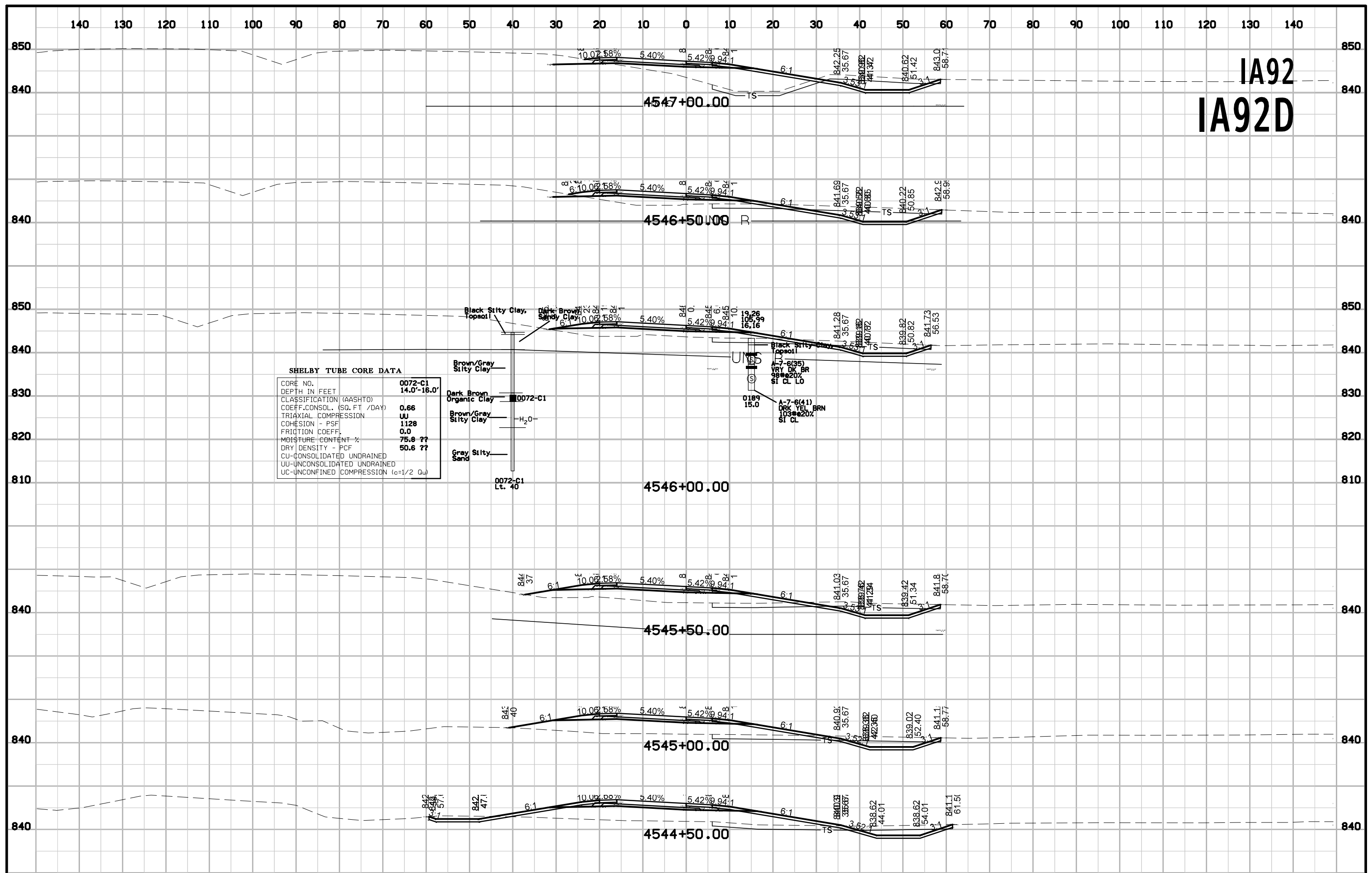
IA92 IA92D





IA92
IA92D

IA92 IA92D



IA92 IA92D

