



Iowa Department of Transportation

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM

POLK COUNTY

PCC PAVEMENT - GRADE AND NEW

I80 and US65 Interchange (Mainline and Ramps)

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			
			105-1 09-27-94
Div.	Location	Lin. Ft.	Miles
1	RURAL		
	Sta. 1237+14.27 to Sta. 1369+14.87	13200.60	2.500
	Deduct Bridge at Sta. 1316+00.49	3120.00	0.059
	Total Length of Roadway in Division 1	12888.60	2.441
	Total Length of Bridge in Division 1	312.00	0.059
	Total Length of Division 1	13200.60	2.500

04-30-02 Oak Hill Road 101-4			
DESIGN DATA RURAL			
2008	AADT	3,600	V.P.D.
2034	AADT	9,000	V.P.D.
20	DHV	--	V.P.H.
	TRUCKS	--	%
Total			
Design ESALs			

04-30-02 US 65 101-4			
DESIGN DATA RURAL			
20	AADT	--	V.P.D.
20	AADT	--	V.P.D.
20	DHV	--	V.P.H.
	TRUCKS	--	%
Total			
Design ESALs			

04-30-02 180 101-4			
DESIGN DATA RURAL			
2009	AADT	64,100	V.P.D.
2029	AADT	118,500	V.P.D.
20	DHV	--	V.P.H.
	TRUCKS	18	%
Total			
Design ESALs		29,000,000	

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Paul W. Flattery	Primary Signature Block
C.??	David R. Claman	Hydraulic Design
C.??	Robert L. Stanley	Geotechnical Design

REVISIONS

TOTAL

380

PROJECT IDENTIFICATION NUMBER

94-77-080-180

PROJECT NUMBER

IM-080-5(275)142--13-77

R.O.W. PROJECT NUMBER

IMN-080-5(224)142--0E-77

INDEX OF SHEETS

No.	DESCRIPTION
J Sheets	Traffic Control and Staging Sheets
* J.1	Traffic Control Plan and Staging Notes
* J.2 - 10	Stage 1
* J.11 - 19	Stage 2
* J.20 - 28	Stage 3
* J.29 - 37	Stage 4
* J.38 - 46	Stage 5
* J.47 - 55	Stage 6
K Sheets	Interchange Sheets
* K.1 - 2	US 65 Bypass Interchange Layout Sheets
* K.3	Plan and Profile Sheets Ramp B
* K.4 - 5	US 65 /Hubbell Ave Interchange Layout Sheets
* K.6	Plan and Profile Sheets Ramp A
* K.7	Plan and Profile Sheets Ramp B
* K.8	Plan and Profile Sheets Ramp C
* K.9	Plan and Profile Sheets Ramp D
* K.10	Plan and Profile Sheets Loop E
U Sheets	500 Series, Mod.Stds. and Detail Sheets
U.1 - 4	Detail Sheet for Superelevation Details
V Sheets	Bridge and Culvert Situation Plans
V.1 - 2	Bridge Situation Plan Existing Oak Hill Road Bridge
V.3	Bridge Situation Plan Proposed Oak Hill Road Bridge
V.4	Bridge Situation Plan New EB I80 Bridge
V.5	Bridge Situation Plan Existing WB I80 Bridge
V.6	Bridge Situation Plan Proposed WB I80 Bridge
V.7	Bridge Situation Plan Existing EB I80 Bridge
W Sheets	Mainline Cross Sections
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W.73 - 145	Mainline Cross Sections - WB I80
X Sheets	Side Road Cross Sections
X.1 - 19	Side Road Cross Sections - Oak Hill Road/34th Ave NW
X.20 - 40	Side Road Cross Sections - NB US 65
X.41 - 58	Side Road Cross Sections - SB US 65
X.59 - 62	Side Road Cross Sections - Loop E Ditch 1
X.63 - 65	Side Road Cross Sections - Loop E Ditch 2
X.66 - 69	Side Road Cross Sections - Channel Relocation
Y Sheets	Ramp Cross Sections
Y.1 - 8	Cross Sections - Ramp A
Y.9 - 16	Cross Sections - Ramp B
Y.17 - 29	Cross Sections - Ramp C
Y.30 - 42	Cross Sections - Ramp D
Y.43 - 48	Cross Sections - Loop E

* Color Plan Sheets

D5 PLAN - Date: 2-4-2011

INDEX OF SHEETS

No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Symbols and Legends
B Sheets	Typical Cross Sections and Details
B.1 - 22	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1	Project Description
C.1	Estimated Project Quantities
C.1	Estimate Reference Information
C.1	Standard Road Plans
C.1	Index of Tabulations
C.1	Pollution Prevention Plan
C.1	General Notes
C.1	Tabulations (beg. with tab. of incidentals if needed)
D Sheets	Mainline Plan and Profile Sheets
* D.1 - 6	Plan and Profile Sheets I80
E Sheets	Side Road Plan and Profile Sheets
* E.1 - 2	Plan and Profile Sheets Oak Hill Road/34th Ave NW
* E.3 - 4	Plan and Profile Sheets US 65/Hubbell Ave
* E.5	Plan and Profile Sheets Loop E Ditches
* E.6	Plan and Profile Sheets Channel Relocation
F Sheets	Detour or Temporary Pavement Sheets
* F.1 - 3	Plan and Profile Sheets I80 Widening
G Sheets	Survey Sheets
G.1 - 2	Reference Ties and Bench Marks
G.3	Horizontal Control Tab. for Mainline and Side Roads

STA. 1369+14.87
END PROJECT

STA. 1237+14.27
BEGIN PROJECT



R-23W

LOCATION MAP SCALE



PCC PAVEMENT - GRADE AND NEW

POLK CO.

LETTING DATE
12/18/2012

IM-080-5(275)142--13-77

ENGLISH

IOWA DOT

DESIGN TEAM Flattery\Gansen

POLK COUNTY

PROJECT NUMBER

IM-080-5(275)142--13-77

SHEET NUMBER

A.1

STANDARD SYMBOLS

	Interstate Highway Symbol		Septic Tank
	U.S. Highway Symbol		Cistern
	Iowa Highway Symbol		L.P. Gas Tank (No Footing)
	County Road Highway Symbol		Underground Storage Tank
	Evergreen Tree		Latrine
	Deciduous Tree		Luminaire
	Fruit Tree		Traffic Signal
	Shrub (Bushes)		Traffic Signal with Luminaire
	Timber		Telephone Pedestal
	Hedge		TVP Television Pedestal
	Stump		Telephone Pole
	Swamp		Telephone Pole (Second Company)
	Rock Outcrop		Telephone Pole (Third Company)
	Broken Concrete		Telephone Pole (Fourth Company)
	Revetment (Rip Rap)		Telephone Pole (Fifth Company)
	Cemetery		Power Pole
	Grave		Power Pole (Second Company)
	Cave		Power Pole (Third Company)
	Sink Hole		Power Pole (Fourth Company)
	Board Fence		Power Pole (Fifth Company)
	Chain Link or Security Fence		Electrical Highline Tower (Metal or Concrete)
	Wire Fence		Telephone Riser Pole
	Terrace		Power Riser Pole
	Earth Dam or Dike (Existing)		Telegraph Pole
	Earth Dam or Dike (Proposed)		Satellite TV Dish
	Tile Outlet		Existing Water Line
	Edge of Water		Existing Water Line (Second Company)
	Existing Drainage		Existing Sanitary Sewer Line
	Proposed Drainage		Existing Telephone Line
	Right of Way Rail or Lot Corner		Existing Telephone Line (Second Company)
	Concrete Monument		Existing Fiber Optics Telephone Line
	Well		Existing Storm Sewer Line
	Windmill		Existing Gas Line
	Beehive Intake		Existing High Pressure Gas Line
	Existing Intake		Existing Gas Line (Second Company)
	Proposed Intake		Existing High Pressure Gas Line (Second Company)
	Existing Utility Access (Manhole)		Existing Power Line
	Proposed Utility Access (Manhole)		Existing Power Line (Second Company)
	Fire Hydrant		Cable Television Line
	Water Hydrant (Rural)		

	Guardrail (Beam or Cable)
	Guard Post (one or two)
	Guard Post (over two)
	Filler Pipe
	Gas Valve
	Water Valve
	Speed Limit Sign
	Mile Marker Post
	SIGN Sign
	Water Hook Up
	Radio Tower
	Tower Anchor
	Electric Box
	Traffic Signal Control Box
	Rail Road Signal Control Box
	Telephone Switch Box

	Shading - Proposed Paved Surface
	Shading - Proposed Granular Surface
	Shading - Other, with identification
	Shading - Clearing & Grubbing Area

IOWA 1-CALL# 1-800-292-8989

UTILITY LEGEND

	MID-AMERICAN ENERGY
	US WEST
	WORLD COMMUNICATIONS NETWORK
	MID-AMERICAN ENERGY
	CITY OF ALTOONA
	MID-AMERICAN ENERGY
	WILLIAMS BROTHERS PIPELINE
	KOCH PIPELINE COMPANY
	CITY OF ALTOONA
	CITY OF ALTOONA
	STATE OF IOWA

TABULATION OF UTILITIES

102-13
02-23-93

Lightcore Bob Sampson (314) 880-1617	Level 3 Communication Marsha Kidd (918) 547-0029
INS Jeff Klecko (515) 830-0445	Magellan Tim Kassen (918) 574-7351
MidAm Gas/Electric Eric Heikes (515) 252-6497	Koch John Whitaker (660) 878-6953
MCI Bob Warman (402) 573-2043	City of Altoona
Qwest Steve Parker (507) 285-2335	Des Moines Water Works Kyle Danley (515) 283-8795
Digital Teleport, Inc. ???	

RIGHT OF WAY LEGEND

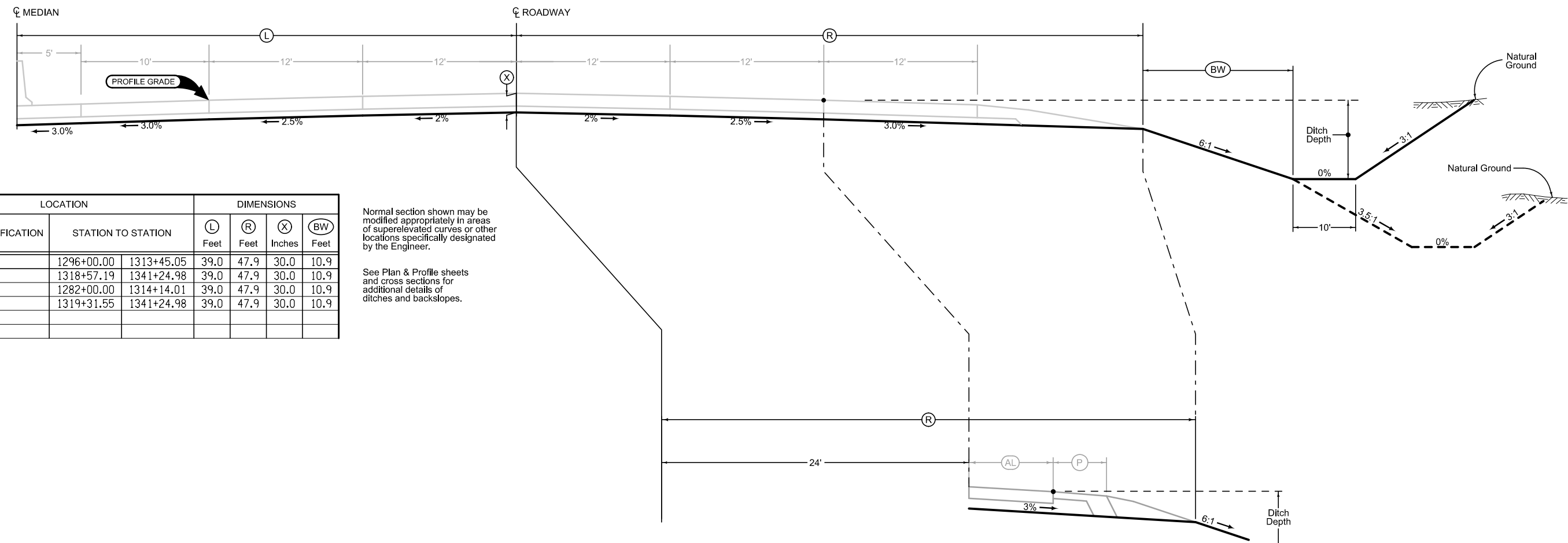
	Proposed Right of Way
	Existing Right of Way
	Existing and Proposed Right of Way
	Easement and Existing Right of Way
	Borrow
	Easement (Temporary)
	Easement
	Excess
	Property Line
	Access Control

CONVENTIONAL SIGNS

	Survey Line
	Section Corner
	Proposed Profile Grade
	Railroad
	Field Tile
	Culverts
	Stream

Legend And Symbol Information Sheet

(Symbols are Typical Only)



Direction of Travel	LOCATION		DIMENSIONS			
	ROAD IDENTIFICATION	STATION TO STATION	(L) Feet	(R) Feet	(X) Inches	(BW) Feet
EB	I80	1296+00.00 - 1313+45.05	39.0	47.9	30.0	10.9
EB	I80	1318+57.19 - 1341+24.98	39.0	47.9	30.0	10.9
WB	I80	1282+00.00 - 1314+14.01	39.0	47.9	30.0	10.9
WB	I80	1319+31.55 - 1341+24.98	39.0	47.9	30.0	10.9

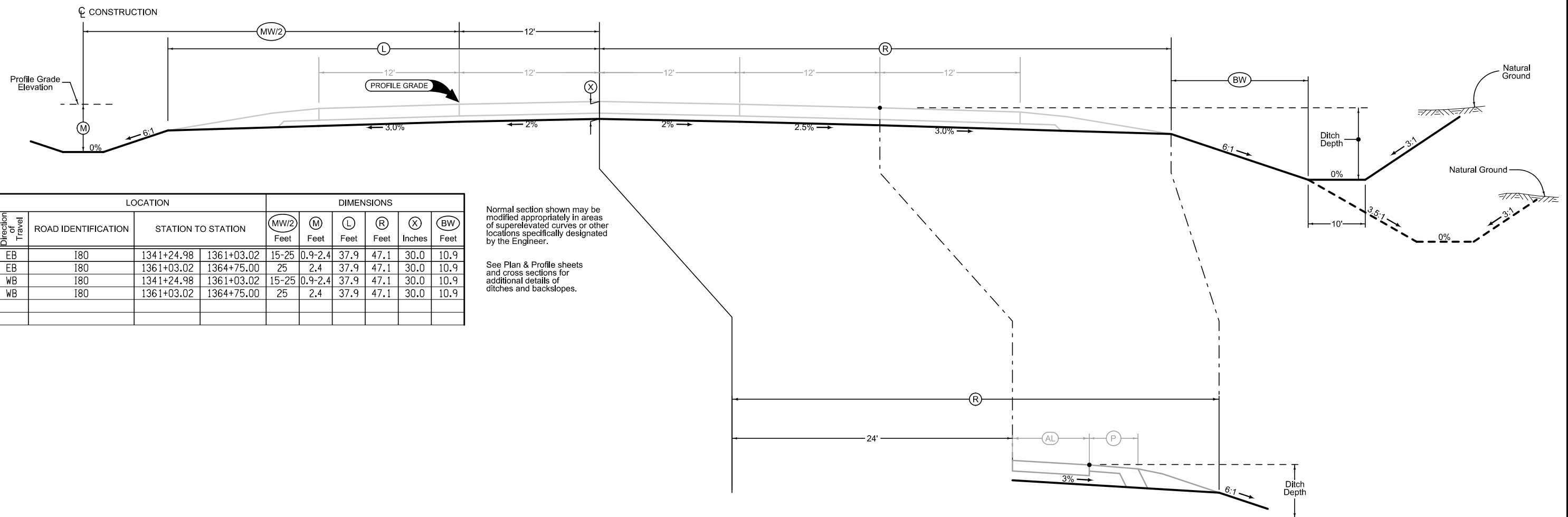
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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

Auxiliary Lane Grading

LOCATION			(R)
ROAD IDENTIFICATION	STATION TO STATION		Feet
I80 EB	1282+00.00	1298+51.60	59.9
I80 EB	1330+25.00	1341+24.98	54.4
I80 WB	1282+00.00	1306+50.00	59.9
I80 WB	1307+50.00	1310+50.00	47.9-54.4
I80 WB	1310+50.00	1314+14.01	54.4
I80 WB	1319+31.55	1323+98.67	54.4
I80 WB	1337+08.94	1341+24.98	54.4

**8 LANE GRADING
(Barnroof Section)**



Direction of Travel	LOCATION		DIMENSIONS						
	ROAD IDENTIFICATION	STATION TO STATION	MW/2 Feet	M Feet	L Feet	R Feet	X Inches	BW Feet	
EB	I80	1341+24.98 1361+03.02	15-25	0.9-2.4	37.9	47.1	30.0	10.9	
EB	I80	1361+03.02 1364+75.00	25	2.4	37.9	47.1	30.0	10.9	
WB	I80	1341+24.98 1361+03.02	15-25	0.9-2.4	37.9	47.1	30.0	10.9	
WB	I80	1361+03.02 1364+75.00	25	2.4	37.9	47.1	30.0	10.9	

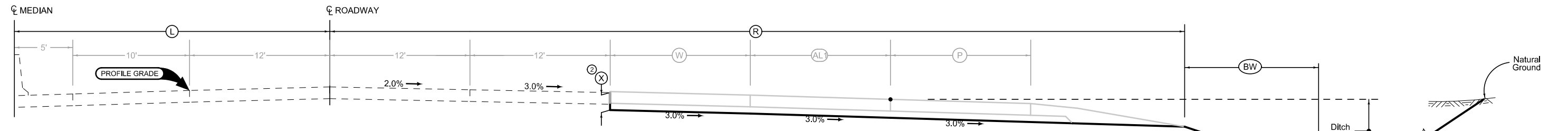
Normal section shown may be modified appropriately in areas of super-elevated curves or other locations specifically designated by the Engineer.

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

Auxiliary Lane Grading

LOCATION		R Feet
ROAD IDENTIFICATION	STATION TO STATION	
I80 EB	1341+24.98 1344+23.90	52.6-46.9
I80 EB	1344+23.90 1347+22.82	46.9
I80 WB	1341+24.98 1345+01.13	54.8-56.5
I80 WB	1345+01.13 1346+81.73	56.5-50.5
I80 WB	1346+81.73 1348+62.33	50.5

**6 LANE GRADING
(Barnroof Section)**



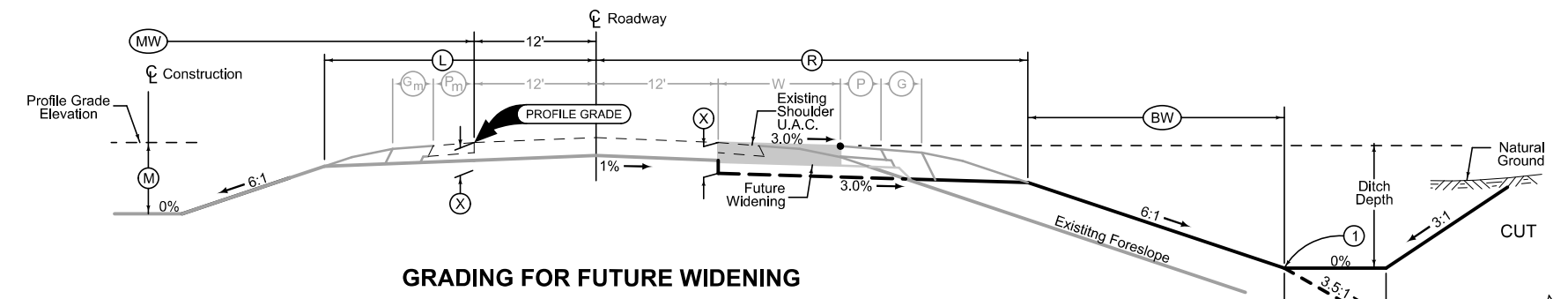
WIDENING WITH AUXILIARY LANE GRADING

ROAD IDENTIFICATION	STATION TO STATION	DIMENSIONS			
		L Feet	R Feet	X ⁽²⁾ Inches	BW Feet
180 EB	1261+67.12 - 1282+00.00	27	71.9	2.44	10.9
180 WB	1244+96.87 - 1282+00.00	27	71.9	2.44	10.9

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.

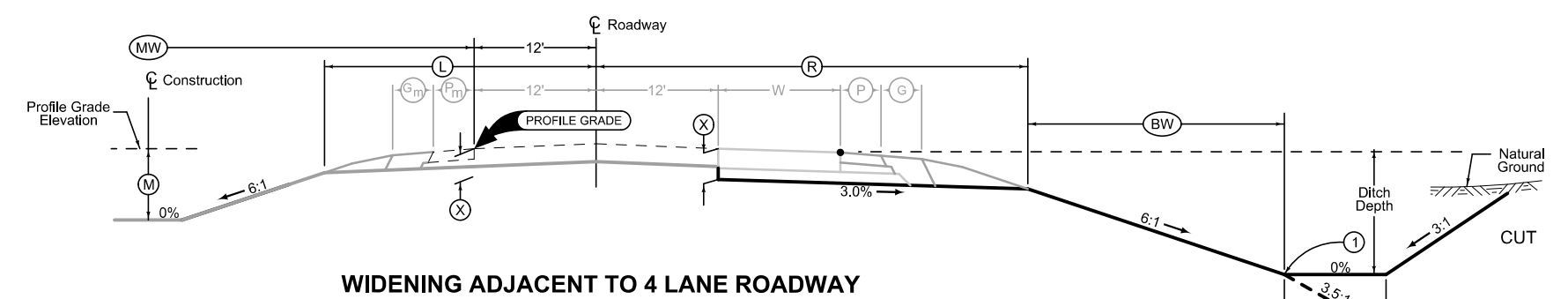
- ① Refer to project plan and cross sections for specific location of foreslope change.
- ② X distance based on existing pavement surface. Existing 3.0% cross slope in adjacent lane will be corrected to 2.5% as shown on other details in this plan.



GRADING FOR FUTURE WIDENING

ROAD IDENTIFICATION	STATION TO STATION	DIMENSIONS						
		L Feet	R Feet	X Inches	BW Feet	MW Feet	M Feet	
US 65 NB	7872+20.00 - 7879+80.00	U.A.C.	46	24	10.3	40	U.A.C.	
US 65 NB	7885+89.20 - 7888+97.00	U.A.C.	46	24	10.3	40	U.A.C.	
US 65 NB	7890+80.00 - 7900+50.00	U.A.C.	46	24	10.3	40	U.A.C.	
US 65 SB	7872+40.00 - 7891+60.00	U.A.C.	46	24	10.3	40	U.A.C.	

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

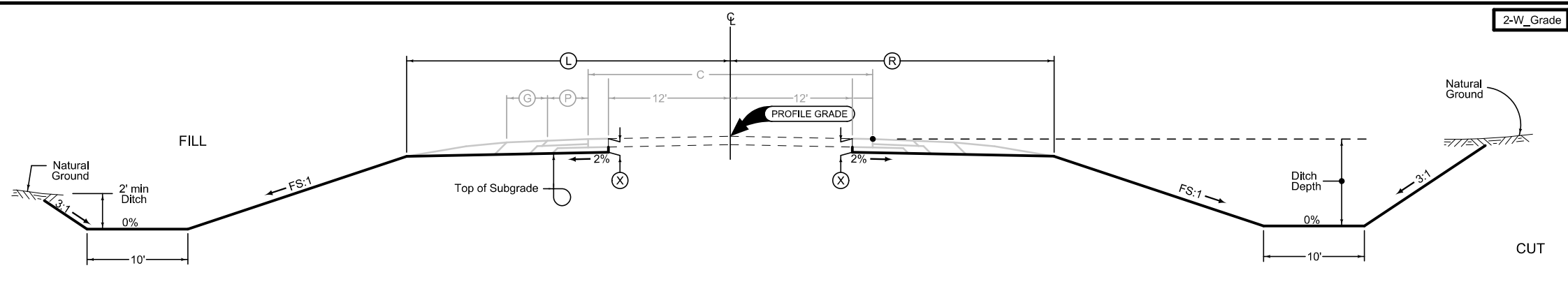


WIDENING ADJACENT TO 4 LANE ROADWAY

ROAD IDENTIFICATION	STATION TO STATION	DIMENSIONS						
		L Feet	R Feet	X Inches	BW Feet	MW Feet	M Feet	
US 65 NB	7866+60.00 - 7872+20.00	U.A.C.	46	24	10.3	40	U.A.C.	
US 65 NB	7879+80.00 - 7885+89.20	U.A.C.	46	24	10.3	40	U.A.C.	
US 65 NB	7888+97.00 - 7890+80.00	U.A.C.	46	24	10.3	40	U.A.C.	
US 65 SB	7869+40.00 - 7872+40.00	U.A.C.	46	24	10.3	40	U.A.C.	
US 65 SB	7891+60.00 - 7899+50.00	U.A.C.	46	24	10.3	40	U.A.C.	

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

LOCATION		DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	FS
Oak Hill Road	4554+04.45 4557+54.50	25.6	25.6	15	3
Oak Hill Road	4557+54.50 4560+57.32	25.6-32.5	25.6-32.5	15	3

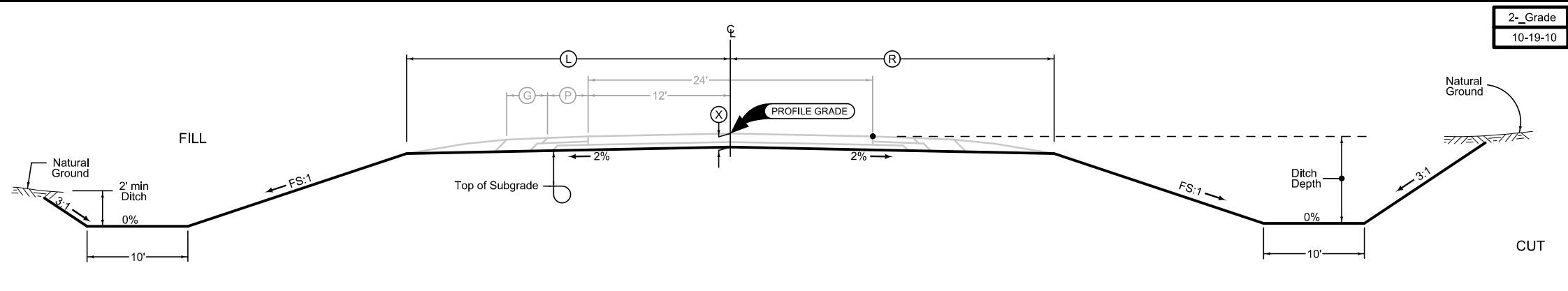


2 LANE GRADING FOR WIDENING

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.

LOCATION		DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	FS
Oak Hill Road	4561+60.00 4565+13.79	32.5	32.5	17	3
Oak Hill Road	4565+13.79 4566+80.20	43.7	32.5	17	3
Oak Hill Road	4566+80.20 4569+80.20	43.7-37.4	32.5-26.5	17	3
Oak Hill Road	4569+80.20 4571+60.02	37.4	26.5	17	3
Oak Hill Road	4576+09.04 4578+47.12	39-43.7	27.7-32.5	17	3
Oak Hill Road	4578+47.12 4584+11.39	43.7	32.5	17	3
Oak Hill Road	4584+11.39 4587+11.39	43.7-37.4	32.5-26.5	17	3

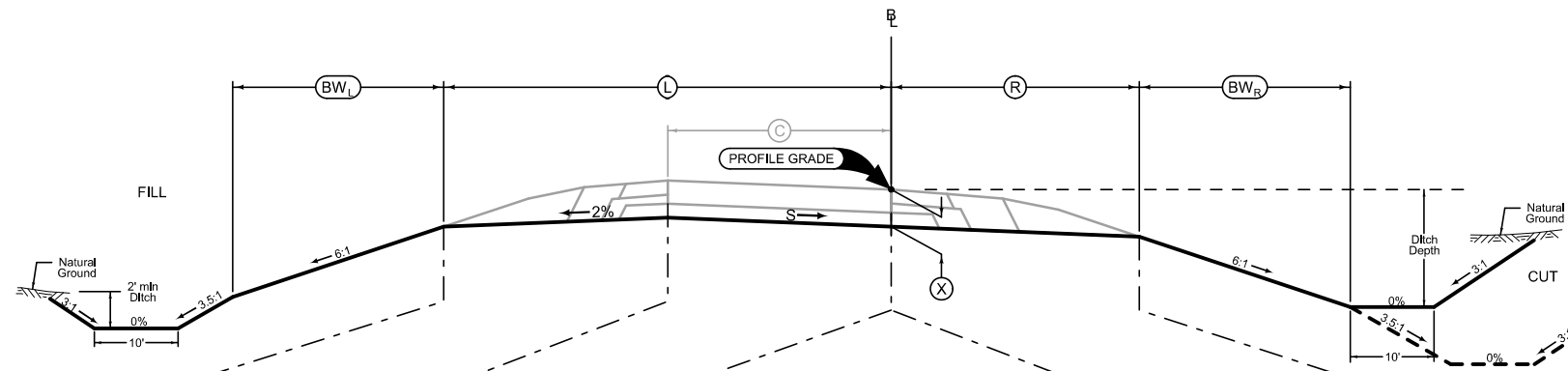


2 LANE GRADING

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

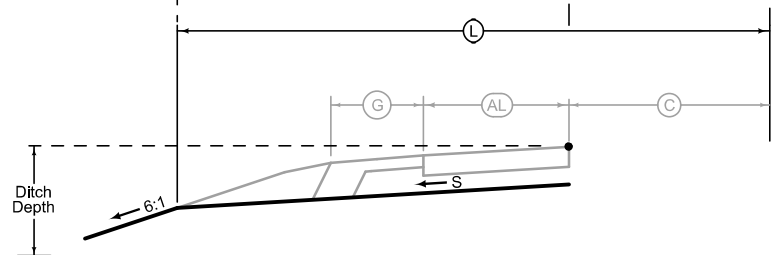
See plan & profile sheets and cross sections for additional details of ditches and backslopes.

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.



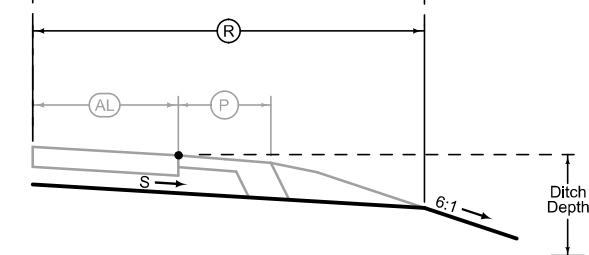
RAMP GRADING

LOCATION			DIMENSIONS							
INTERCHANGE	RAMP	STATION TO STATION	(L) Feet	(R) Feet	(C) Feet	(S) Percent	(X) Inches	(BW _L) Feet	(BW _R) Feet	
I80/Hubbell Ave.	A	11322+18.12 11326+30.00	30.8	22	12	2	24.0	16.7	9	
I80/Hubbell Ave.	A	11326+30.00 11337+10.00	34.8	22	16	2	24.0	16.7	9	
I80/Hubbell Ave.	B	2298+50.00 2312+43.27	44.5	20.2	24	3	24.0	15.4	12.4	
I80/Hubbell Ave.	C	3312+49.22 3333+93.46	35.2	23.0	16	2	24.0	15.8	13	
I80/Hubbell Ave.	D	4310+61.01 4330+25.78	34.8	23.0	16	2	24.0	17.3	13	
I80/Hubbell Ave.	D2	44312+20.33 44313+41.82			26.5-20.8	2	24.0			



Auxiliary Lane Grading

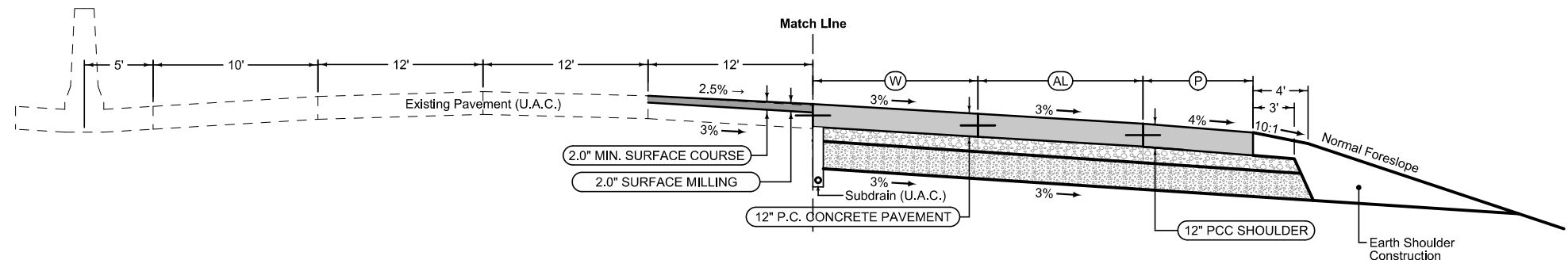
LOCATION		(L) Feet	S Percent
RAMP IDENTIFICATION	STATION TO STATION		
A	11322+18.12 11325+50.00	42.8	3
A	11325+50.00 11326+70.00	42.8-22	3
B	2304+80.00 2306+00.00	44.5-56.6	3
B	2306+00.00 2312+43.27	56.6	3
D	4313+41.22 4322+59.97	66.6-34.8	2



Auxiliary Lane Grading

LOCATION		(R) Feet	S Percent
RAMP IDENTIFICATION	STATION TO STATION		
A	11322+18.12 11325+50.00	30.8	2*
A	11325+50.00 11326+30.00	30.8-22	2*
B	2305+80.00 2307+00.00	20.2-32.2	3
B	2307+00.00 2312+43.27	32.2	3

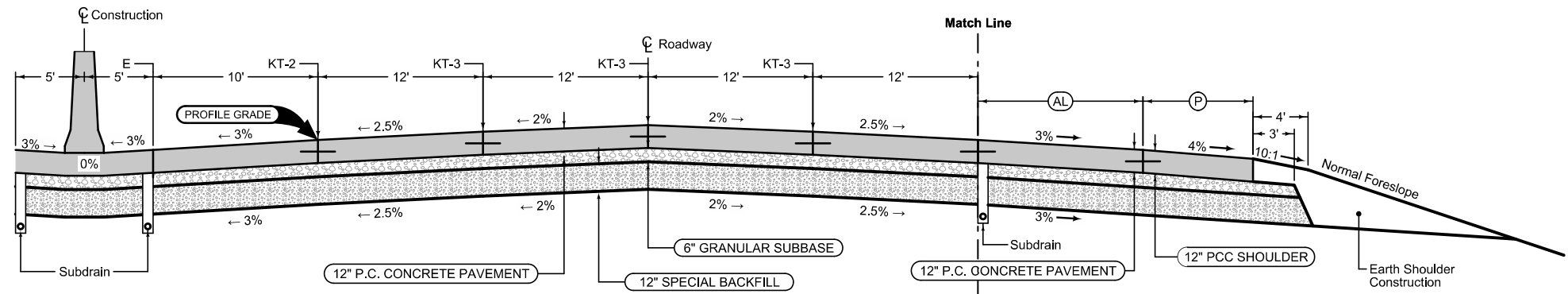
* Pavement slope is towards ramp.



Widening With Auxiliary Lane

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

Direction of Travel	BEGIN STATION	END STATION	(W) Feet	(AL) Feet	(P) Feet
EB	1261+67.12	1282+00.00	12	12	12
WB	1244+96.87	1282+00.00	12	12	12



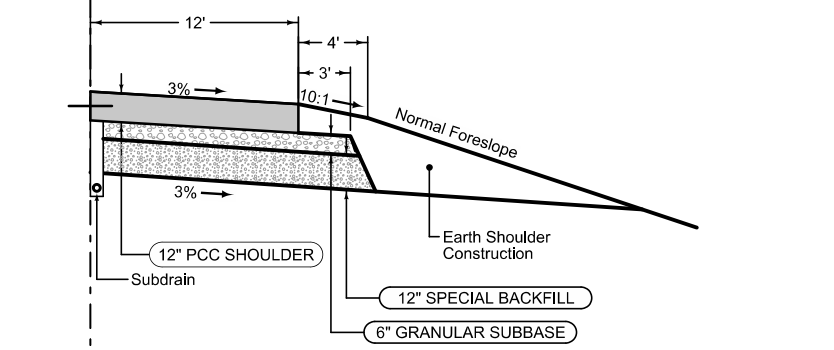
Auxiliary Lane

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet	(G) Feet
EB	1282+00.00	1298+51.60	12	12	0
EB	1330+25.00	1341+24.98	12	12	0
WB	1282+00.00	1306+50.00	12	12	0

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

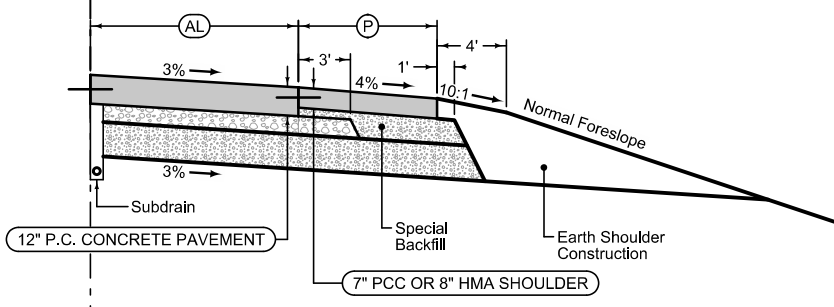
Direction of Travel	BEGIN STATION	END STATION
EB	1296+00.00	1313+45.05
EB	1318+57.19	1341+24.98
WB	1282+00.00	1314+14.01
WB	1319+31.55	1341+24.98



Full Depth PCC Shoulder

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

Direction of Travel	BEGIN STATION	END STATION
EB	1298+51.60	1313+45.05
EB	1318+57.19	1330+25.00
WB	1306+50.00	1307+50.00
WB	1323+98.67	1337+08.94



Auxiliary Lane

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

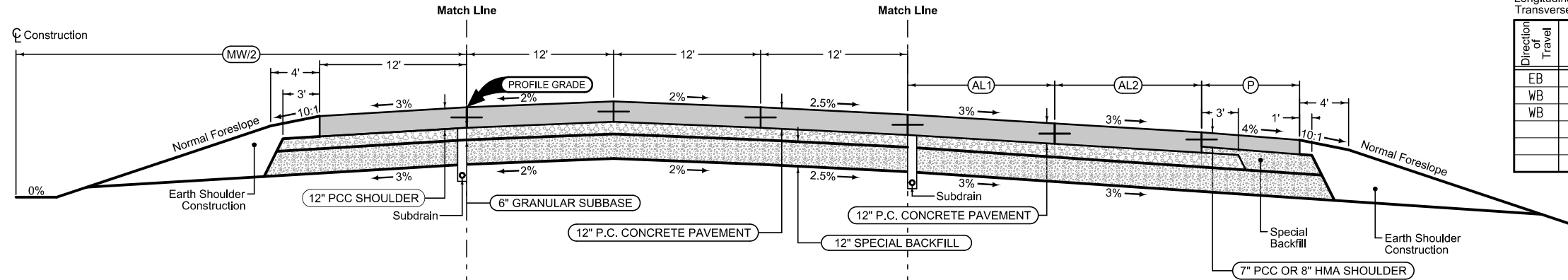
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet	(G) Feet
WB	1307+50.00	1310+50.00	0-12	6	0
WB	1310+50.00	1314+14.01	12	6	0
WB	1319+31.55	1323+98.67	12	6	0
WB	1337+08.94	1341+24.98	12	6	0

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

Full Depth PCC Shoulder

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

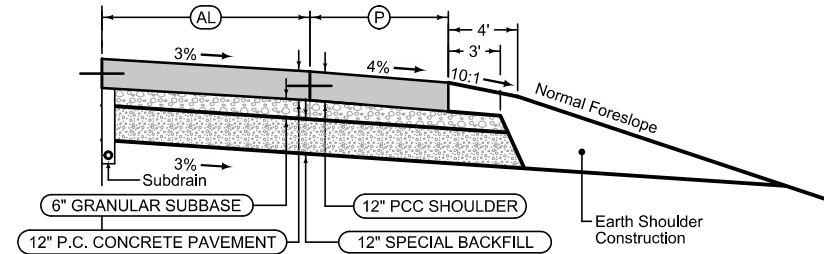
Direction of Travel	BEGIN STATION	END STATION
EB	1341+24.98	1365+55.00
WB	1341+24.98	1365+55.00



Section shown in the direction of traffic.

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

Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
EB	1341+24.98	1361+03.02	30-50
EB	1361+03.02	1365+55.00	50
WB	1341+24.98	1361+03.02	30-50
WB	1361+03.02	1365+55.00	50



Auxiliary Lanes

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

Direction of Travel	BEGIN STATION	END STATION	(AL1) Feet	(AL2) Feet	(P) Feet
EB	1341+24.98	1344+23.90	12	12-0	6
WB	1341+24.98	1345+01.13	12	12	6
WB	1345+01.13	1346+81.73	12	12-0	6

Auxiliary Lane

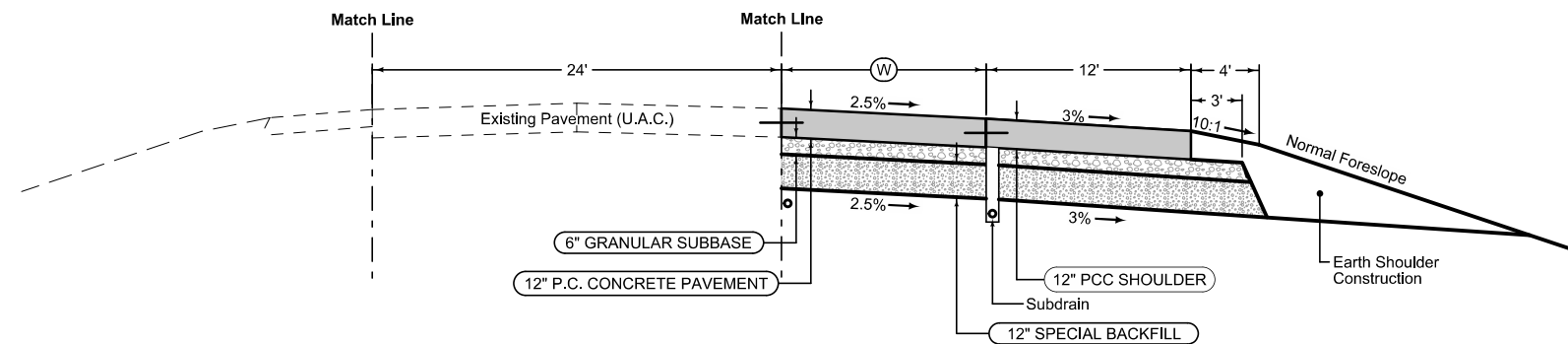
Longitudinal joint: L or KT
 Transverse joint: Match Mainline

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet	(G) Feet
EB	1344+23.90	1347+22.82	12	12	0
WB	1346+81.73	1348+62.33	12	12	0

Full Depth PCC Shoulder

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

Direction of Travel	BEGIN STATION	END STATION
EB	1347+22.82	1361+03.02
WB	1348+62.33	1361+03.02



Auxiliary Lane

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

Direction of Travel	BEGIN STATION	END STATION	(W) Feet
EB	1361+03.02	1378+00.00	12
WB	1361+03.02	1369+12.00	12

See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

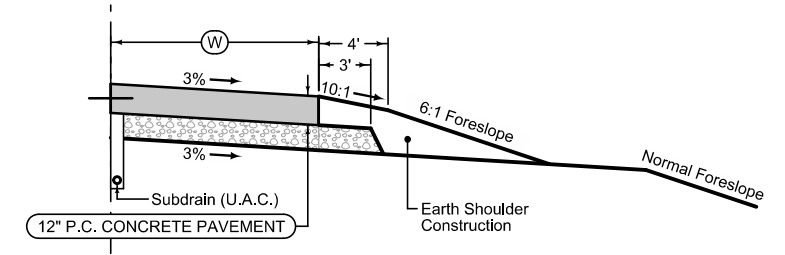
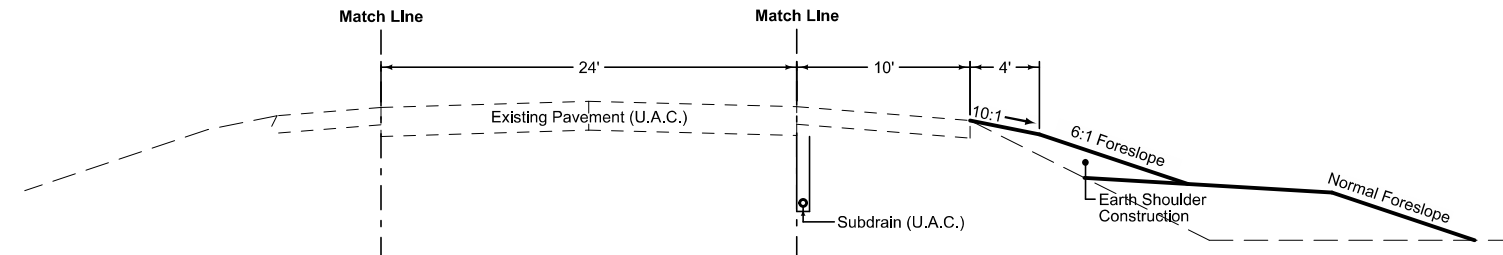
Fillet

Direction of Travel	BEGIN STATION	END STATION
NB	7872+20.00	7879+80.00
NB	7885+89.20	7888+97.00
NB	7890+80.00	7900+50.00
SB	7872+40.00	7891+60.00

Widening With Fillet

Longitudinal joint: L or KT
Transverse joint: Match Mainline

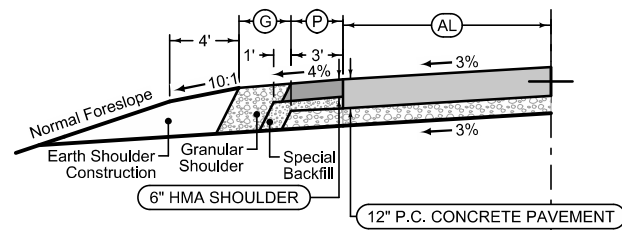
Direction of Travel	BEGIN STATION	END STATION	(W) Feet
NB	7866+60.00	7872+20.00	12.0
NB	7879+80.00	7885+89.20	12.0
NB	7888+97.00	7890+80.00	12.0
SB	7869+40.00	7872+40.00	12.0
SB	7891+60.00	7899+50.00	12.0



Left Turn Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

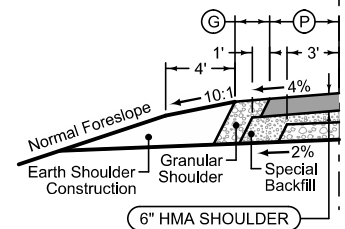
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet	(G) Feet
SB	7872+51.03	7874+05.00	17.5-12	4	2
SB	7874+05.00	7877+50.00	12	4	2
SB	7877+50.00	7878+70.00	12-0	4	2



Combination Shoulder

Shoulder Jointing:
Longitudinal joint: B

Direction of Travel	BEGIN STATION	END STATION	(P) Feet	(G) Feet
NB	7871+79.00	7871+79.00	4	2
NB	7872+51.03	7874+05.00	4	2
NB	7875+75.00	7882+93.00	4	2

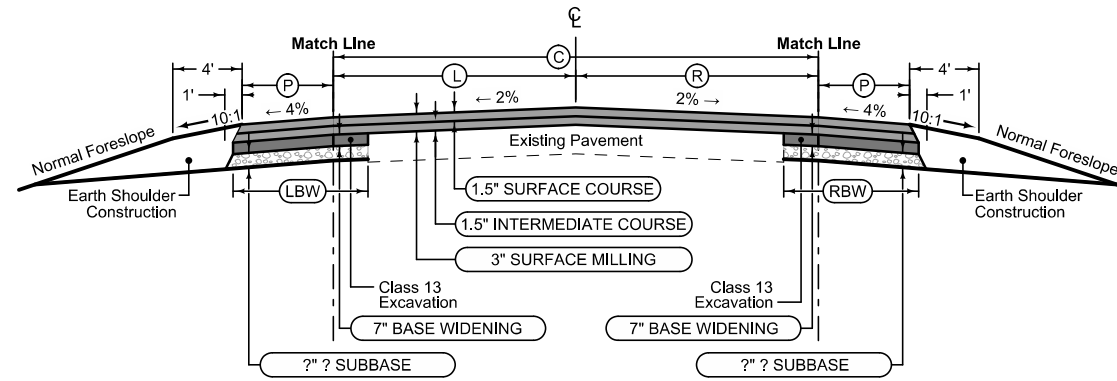


See Tab 100-24 for pavement quantities.
See Tab 112-9 for shoulder quantities.

US 65/HUBBELL AVE.

HMA Shoulder

STATION TO STATION		(P) Feet
4554+04.45	4560+57.32	6



STATION TO STATION		(C) Feet	(L) Feet	(R) Feet	(LBW) Feet	(RBW) Feet
4554+04.45	4557+54.50	24-36	12-18	12-18	0-6	0-6
4557+54.50	4560+57.32	36	18	18	6	6

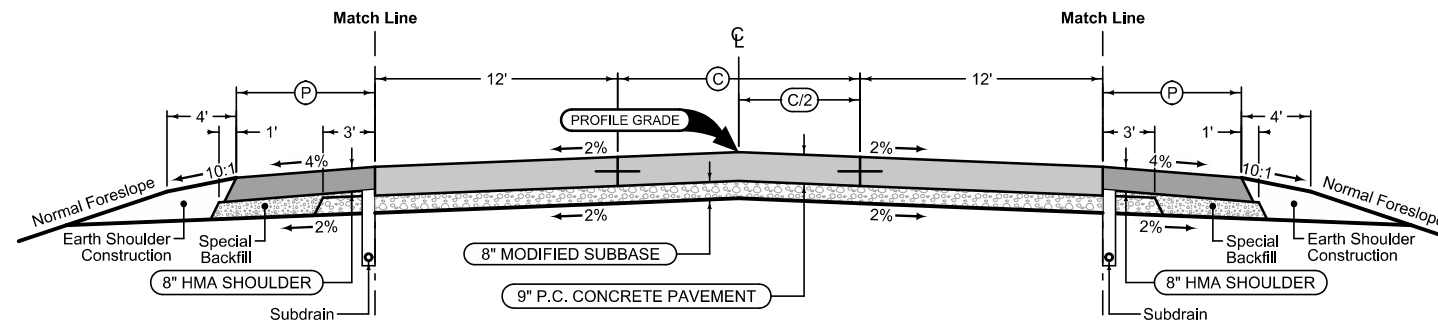
HMA Shoulder

STATION TO STATION		(P) Feet
4554+04.45	4560+57.32	6

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

STATION TO STATION		(P) Feet
4561+60.00	4565+13.79	6
4581+71.07	4587+11.39	6



STATION TO STATION		(C) Feet
4561+60.00	4566+80.20	12
4566+80.20	4569+80.20	12-0
4569+80.20	4571+60.02	0
4576+09.04	4578+47.12	2.5-12
4578+47.12	4584+11.39	12
4584+11.39	4587+11.39	12-0

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

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

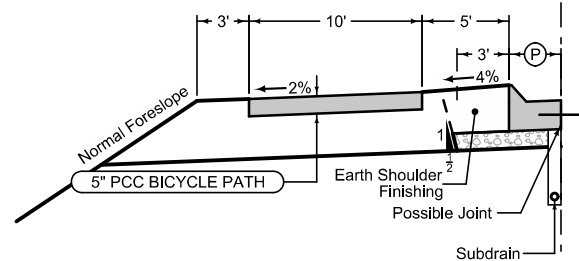
STATION TO STATION		(P) Feet
4561+60.00	4571+60.07	6
4576+09.04	4587+11.39	6

Curbed Shoulder With Bicycle Path

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15'

Single pour: L-2
Staged : KT-2
Transverse:C at 20' spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
4565+13.79	4571+60.07	2.5	6" Sloped
4576+09.04	4580+99.53	2.5	6" Sloped



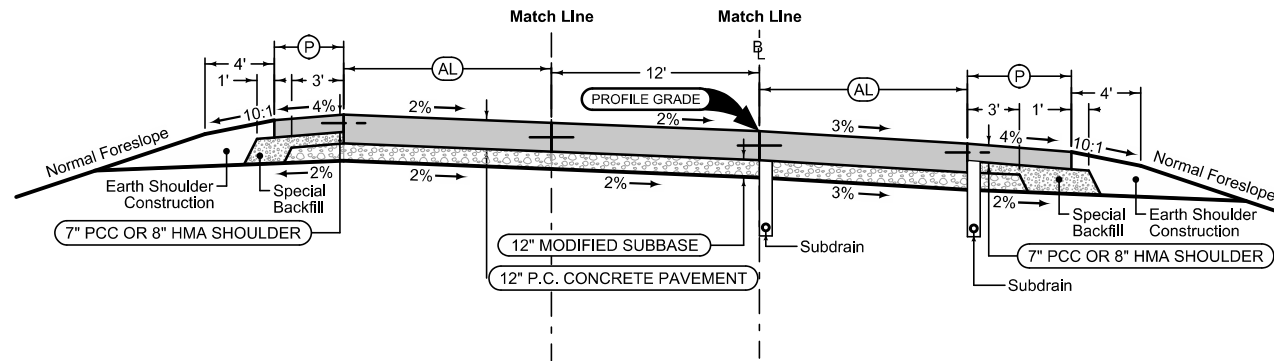
See Tab 100-24 for pavement quantities.
See Tab 112-9 for shoulder quantities.

OAK HILL ROAD/34TH AVE. NW

Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

RAMP	BEGIN STATION	END STATION	(AL) Feet	(P) Feet	(G) Feet
A	11322+18.12	11325+50.00	12	4	0
A	11325+50.00	11326+30.00	12-4	4	0



Section shown in the direction of traffic.

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

RAMP	BEGIN STATION	END STATION
A	11322+18.12	11326+30.00

Auxiliary Lane

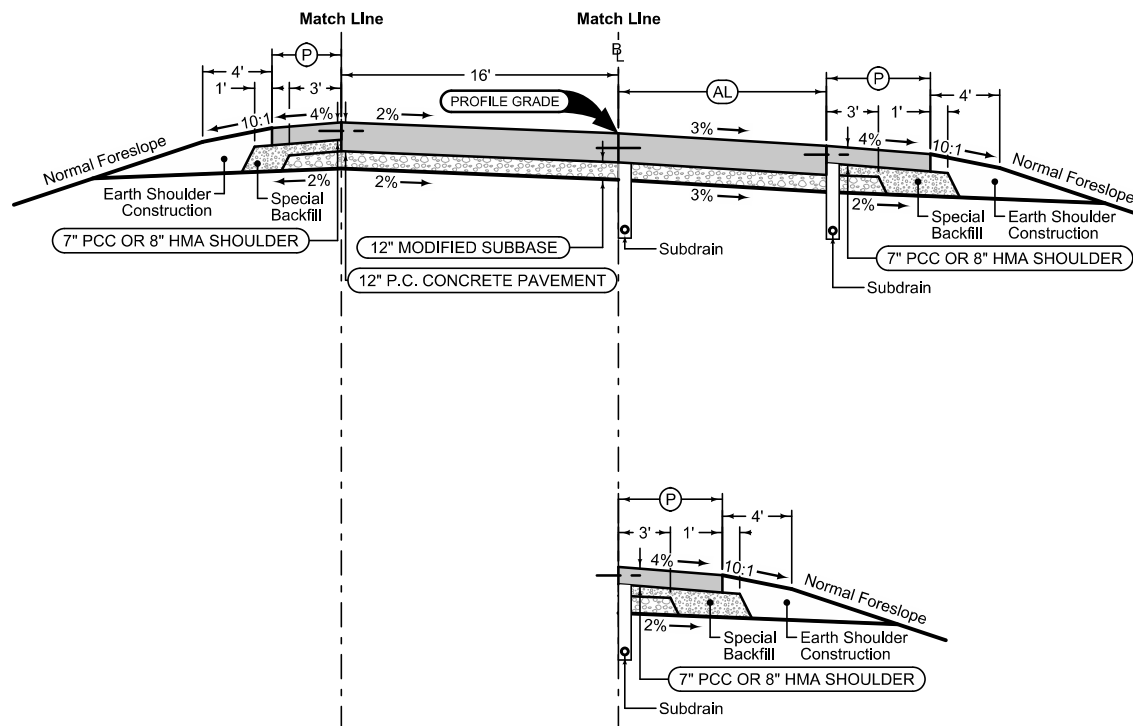
Longitudinal joint: L or KT
Transverse joint: Match Mainline

RAMP	BEGIN STATION	END STATION	(AL) Feet	(P) Feet	(G) Feet
A	11322+18.12	11325+50.00	12	6	0
A	11325+50.00	11326+30.00	12-4	6	0

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

RAMP	BEGIN STATION	END STATION	(P) Feet
A	11326+30.00	11337+10.00	4



Section shown in the direction of traffic.

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

RAMP	BEGIN STATION	END STATION
A	11326+30.00	11337+10.00

Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

RAMP	BEGIN STATION	END STATION	(AL) Feet	(P) Feet	(G) Feet
A	11326+30.00	11326+70.00	4-0	6	0

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

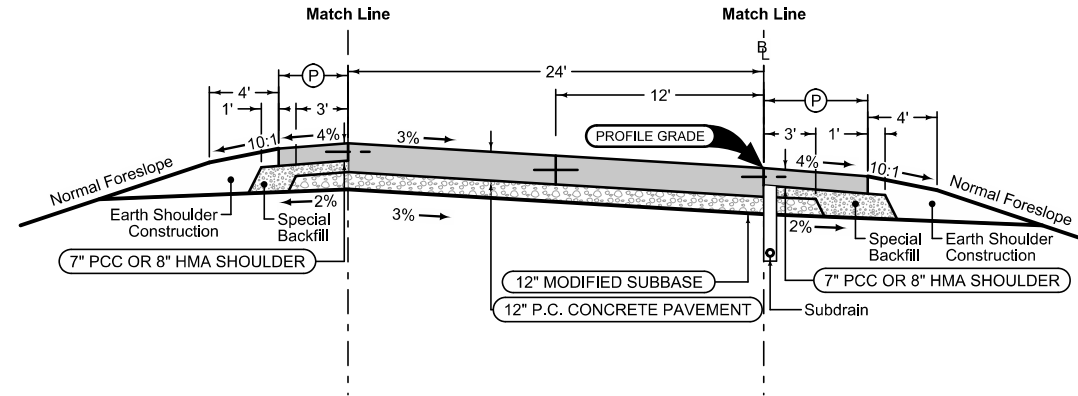
RAMP	BEGIN STATION	END STATION	(P) Feet
A	11326+70.00	11337+10.00	6

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

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

RAMP	BEGIN STATION	END STATION	(P) Feet
B	2298+50.00	2304+80.00	4



Section shown in the direction of traffic.

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

RAMP	BEGIN STATION	END STATION
B	2298+50.00	2312+43.27

Paved Shoulder Alternates

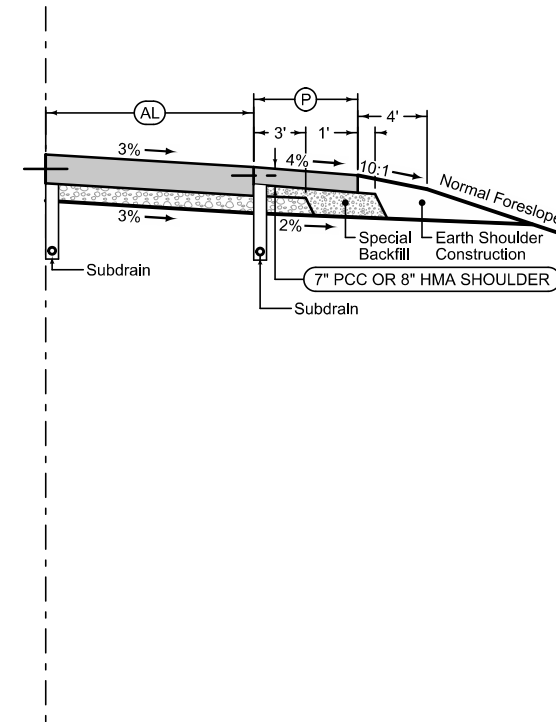
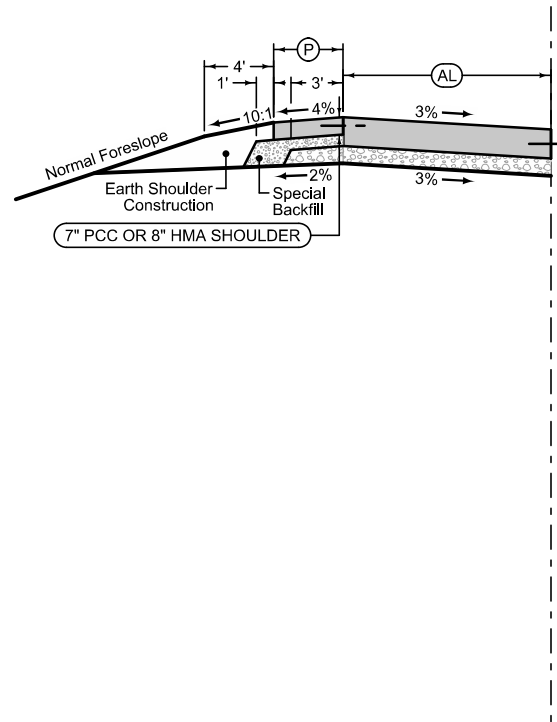
PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-3
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

RAMP	BEGIN STATION	END STATION	(P) Feet
B	2298+50.00	2305+80.00	6

Auxiliary Lane

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

RAMP	BEGIN STATION	END STATION	(AL) Feet	(P) Feet	(G) Feet
B	2304+80.00	2306+00.00	0-12	4	0
B	2306+00.00	2312+43.27	12	4	0



Auxiliary Lane

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

RAMP	BEGIN STATION	END STATION	(AL) Feet	(P) Feet	(G) Feet
B	2305+80.00	2307+00.00	0-12	6	0
B	2307+00.00	2312+43.27	12	6	0

See Tab 100-24 for pavement quantities.

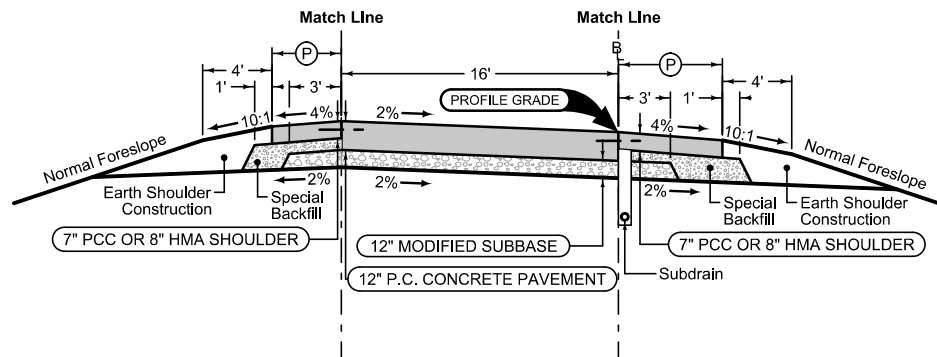
See Tab 112-9 for shoulder quantities.

180
HUBBELL AVE. INTERCHANGE

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

RAMP	BEGIN STATION	END STATION	(P) Feet
C	3312+49.22	3333+93.46	4



Section shown in the direction of traffic.

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

RAMP	BEGIN STATION	END STATION
C	3312+49.22	3333+93.46

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

RAMP	BEGIN STATION	END STATION	(P) Feet
C	3312+49.22	3333+93.46	6

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

180
HUBBELL AVE. INTERCHANGE

Paved Shoulder Alternates

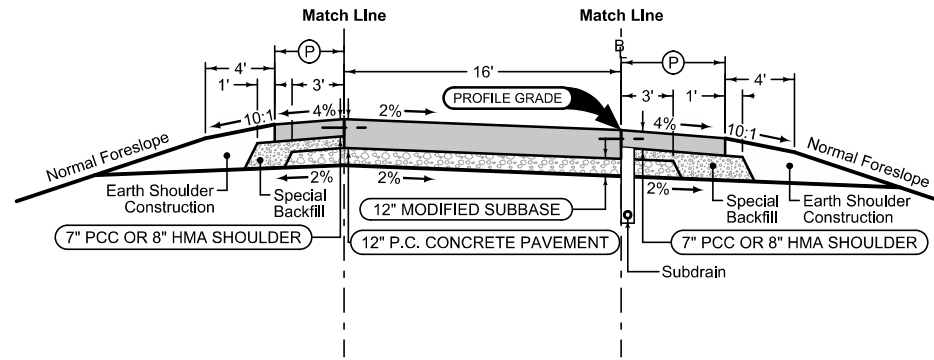
PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-3
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

RAMP	BEGIN STATION	END STATION	(P) Feet
D	4310+61.01	4313+41.22	4
D	4322+59.97	4330+25.78	4

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

RAMP	BEGIN STATION	END STATION	(P) Feet
D	4310+61.01	4330+25.78	6



Section shown in the direction of traffic.

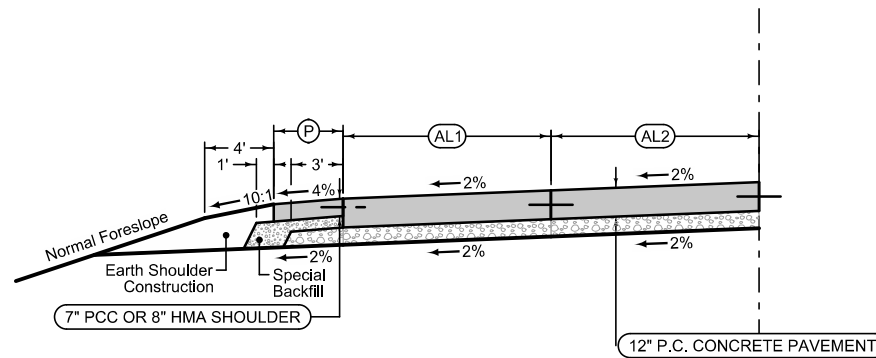
Ramp Jointing:
 Transverse joints: CD at 20' spacing.

RAMP	BEGIN STATION	END STATION
D	4310+61.01	4330+25.78

Auxiliary Lane

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

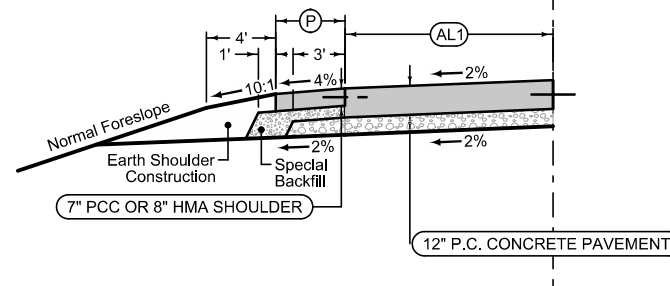
RAMP	BEGIN STATION	END STATION	(AL1) Feet	(AL2) Feet	(P) Feet	(G) Feet
D	4313+41.22	4313+72.13	18	12.6-12	4	0
D	4313+72.13	4316+59.67	20.8-18	12-2	4	0



Auxiliary Lane

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

RAMP	BEGIN STATION	END STATION	(AL1) Feet	(P) Feet	(G) Feet
D	4316+59.67	4322+59.97	20-0	4	0

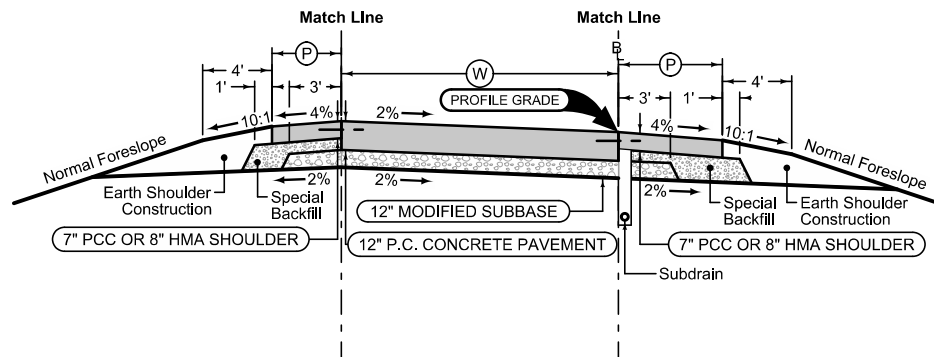


See Tab 100-24 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

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

RAMP	BEGIN STATION	END STATION	(P) Feet
D2	44312+20.33	44313+41.82	4



Section shown in the direction of traffic.

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

RAMP	BEGIN STATION	END STATION	(W) Feet
D2	44312+20.33	44313+41.82	26.5-20.8

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

RAMP	BEGIN STATION	END STATION	(P) Feet
D2	44312+20.33	44313+41.82	6

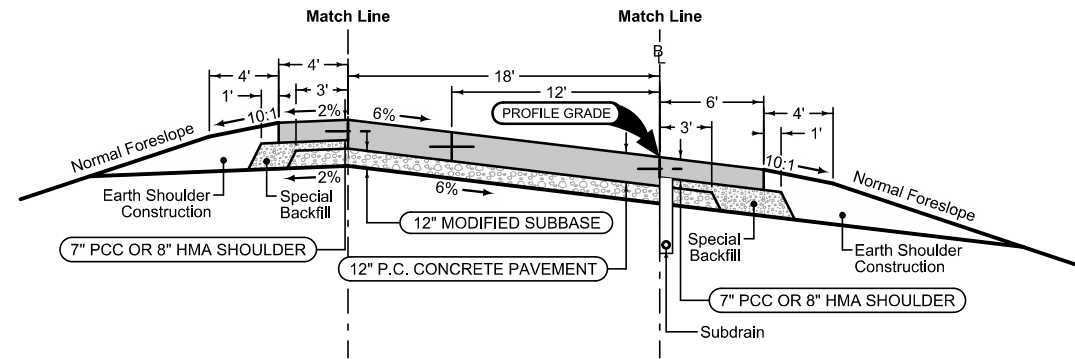
See Tab 100-24 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

180
HUBBELL AVE. INTERCHANGE

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

LOOP	BEGIN STATION	END STATION
E	5323+97.65	5333+88.33



Section shown in the direction of traffic.

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

LOOP	BEGIN STATION	END STATION
E	5323+97.65	5333+88.33

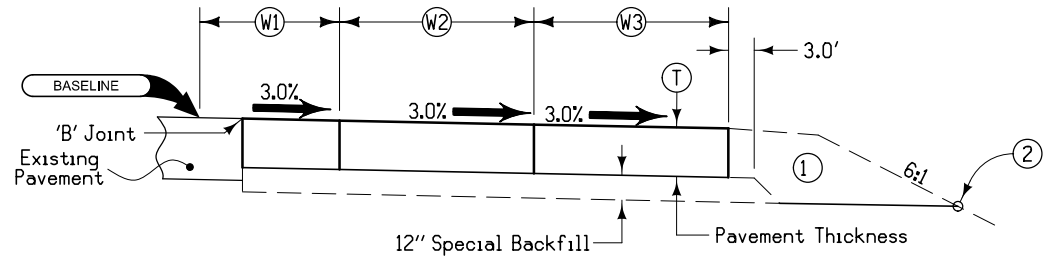
Paved Shoulder Alternates

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

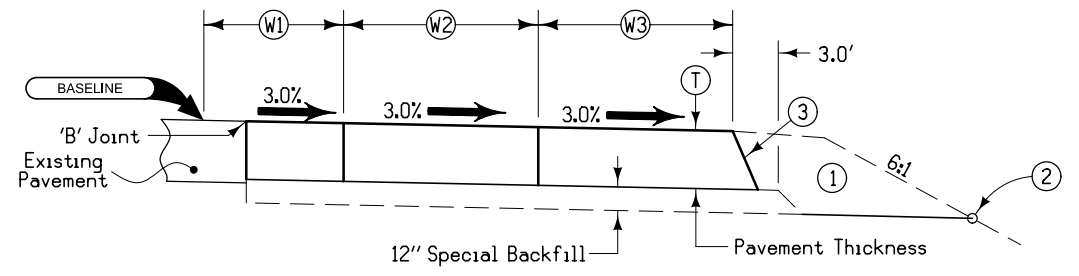
LOOP	BEGIN STATION	END STATION
E	5323+97.65	5333+88.33

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

180
HUBBELL AVE. INTERCHANGE



PCC OPTION

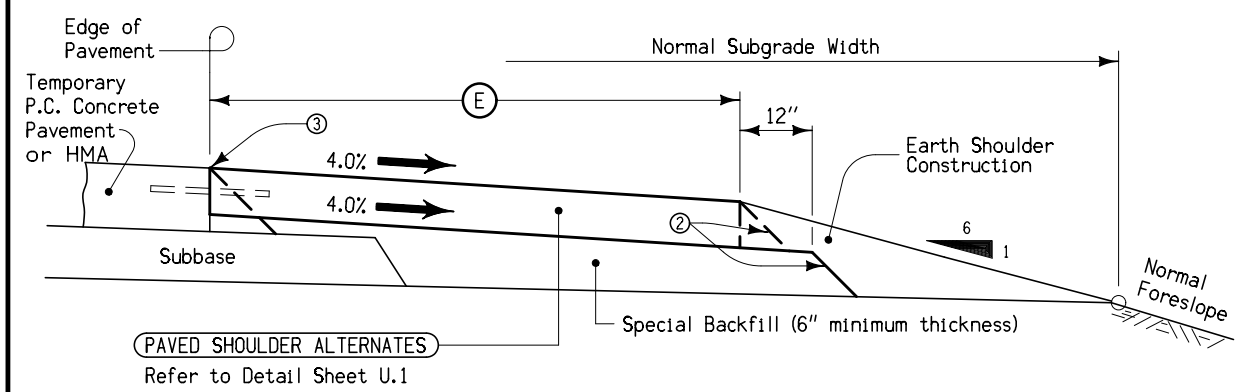


HMA OPTION

Location		Pavement Alternates								12" Special Backfill
Road Identification	Station To Station	HMA				PCC				Tons
		T Inches	W1 Feet	W2 Feet	W3 Feet	T Inches	W1 Feet	W2 Feet	W3 Feet	
EB 180	31281+93.49 31301+76.23	11	0	12	12	9	0	12	12	
EB 180	41330+61.20 41374+47.07	11	7	12	12	9	7	12	12	

- ① Refer to Typical 7119M for shoulder details.
- ② Subgrade Hinge Point
- ③ Possible 1:1 Slope
- ④ Per Location

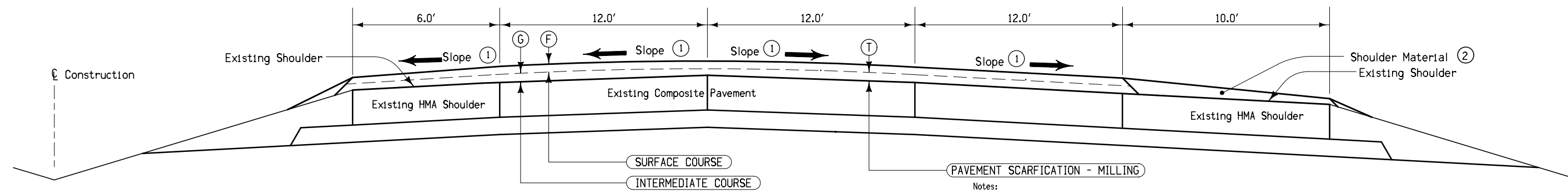
TYPICAL CROSS SECTION
TEMPORARY PAVEMENT ALTERNATES



- ① Per station per side. See Detail Sheet U.1 for basis of estimate.
- ② Approximately 1:1 Slope
- ③ See Standard Road Plan PV-1 for joint requirements.

LOCATION		E Feet	SIDE	QUANTITIES ①	
ROAD IDENTIFICATION	STATION TO STATION			PCC Tons	HMA Tons
EB 180	31281+93.49 31301+76.23	6.0	Rt.		
EB 180	41330+61.20 41374+47.07	6.0	Rt.		

TYPICAL SECTION
Paved Shoulder
Alternates
(8" HMA or 7" PCC)

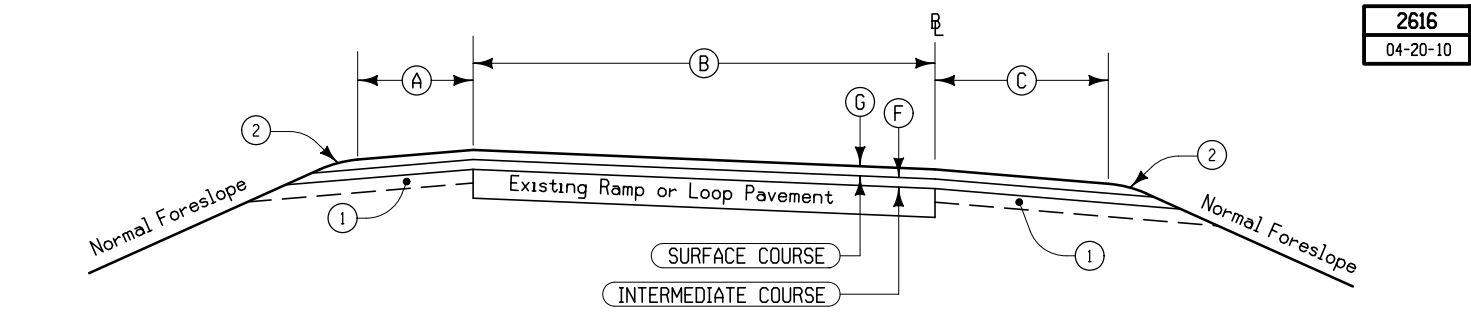


DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

TABLE OF DESIGN QUANTITIES								
LOCATION		F	G	T	TACK COAT	ASPHALT BINDER	HOT MIX ASPHALT (Tons)	
ROAD IDENTIFICATION	STATION TO STATION	Inches	Inches	Inches	Gallons (3)	Tons	SURFACE	INTERMEDIATE
180 EBL	1294+00.00 - 1296+00.00	1.5	Var.	-				
180 EBL	1342+50.00 - 1343+50.00	1.5	-	1.5				

- Notes:
- (1) Finished slope shall match existing pavement except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %. Section may be modified as directed by the Engineer through areas of special shaping.
 - (2) Refer to Typical 7137 for shoulder details.
 - (3) Tack Coat estimated for .2 applications.

**TYPICAL CROSS SECTION
HMA RESURFACING**



DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

INTERCHANGE	RAMP/ LOOP IDENT.	DENSITY			A	B	C	G	F
		94%	95%	96%	Feet	Feet	Feet	Inches	Inches
US 65	B		X		4.0	16.0	6.0	2-0	2-0

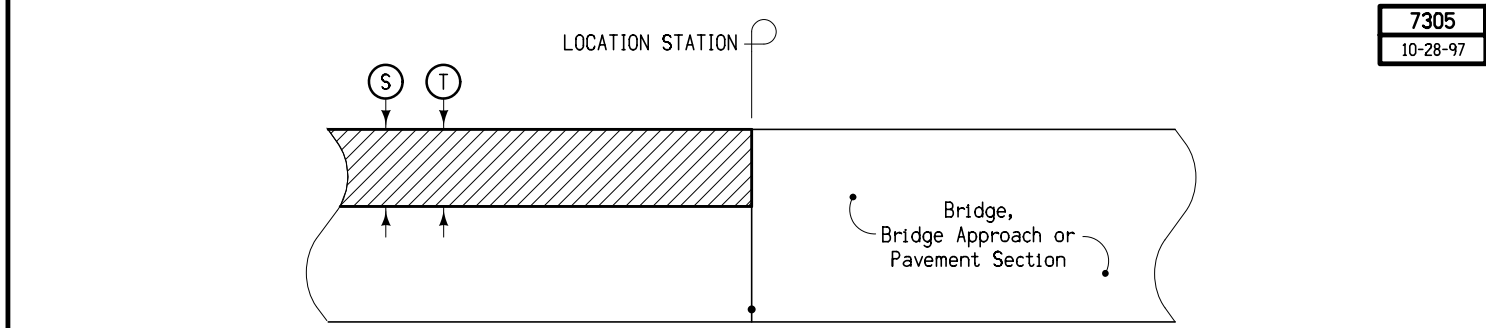
Normal section shown may be appropriately modified at areas specifically designated by the engineer, such as intersections or superelevated curves.

Section view is in the direction of traffic.

Refer to other drawings for details of shoulder design and construction.

(1) Existing Shoulder
(2) 6:1 typical, may vary to 4:1 maximum

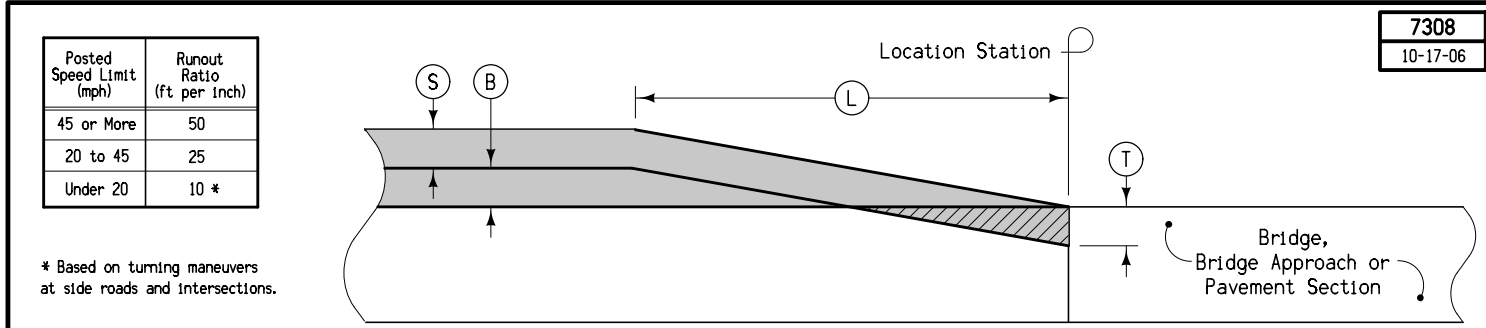
**TYPICAL CROSS SECTION
HMA RESURFACING
RAMP or LOOP**



LOCATION STATION	S	T
	Inches	Inches
1343+50.00	1.5	1.5

- (S) Surface Course
- (T) Milling (Avg. Depth)

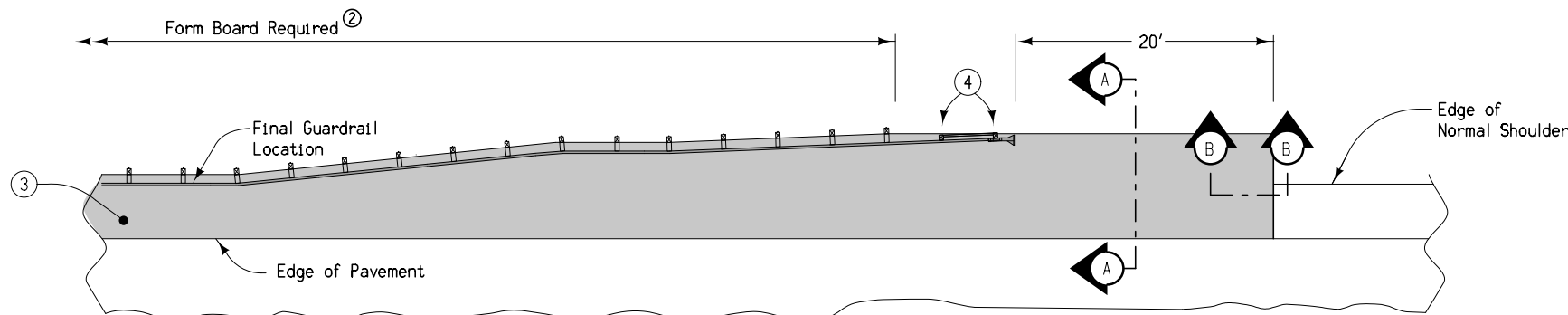
**NOTCH FOR SINGLE COURSE
RESURFACING OF MILLED AREAS**



Location Station	L	S	B	T	Remarks
	Feet	Inches	Inches	Inches	
2554+00.00	200	2.0	2.0	2.0	US 65 Ramp B
1294+00.00	150	1.5	Var.	1.5	180

- (S) Surface Course
- (B) Intermediate Course
- (T) Milling

**SURFACE NOTCH - INTERMEDIATE
RUNOUT FOR DOUBLE COURSE RESURFACING**

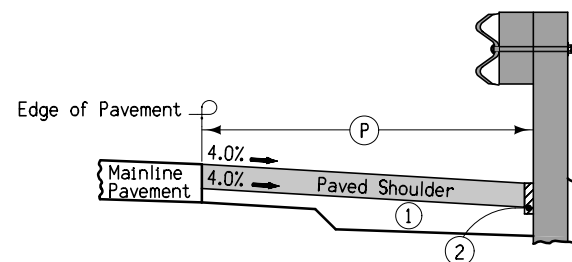


6" HMA Paved Shoulder at guardrail. 7" PCC may be substituted pending approval of jointing layout.

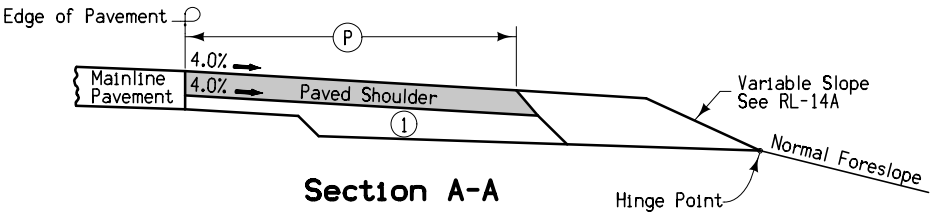
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal & reinstallation of guardrail will be allowed with no additional payment.

- ① 6" subgrade treatment.
- ② When guardrail posts are installed prior to construction of paved shoulder, nail 1" x 6" untreated form boards along the face of guardrail posts for the length shown. This board is to prevent shoulder material from contacting the sides of the posts and altering the function of the guardrail. Form board not required for final 2 posts.
- ③ Continue paved shoulder to existing paved shoulder or 20' beyond the end of guardrail.
- ④ Shoulder may be notched for final 2 posts or post sleeves may be installed through pavement.

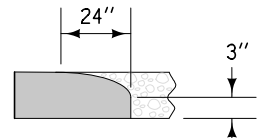
Location			P	Subgrade ^① Treatment		Paved Shoulder SY	Remarks
Road Identification	Station To Station	Side		Feet	Special Backfill Tons		



Typical Section with Form Board



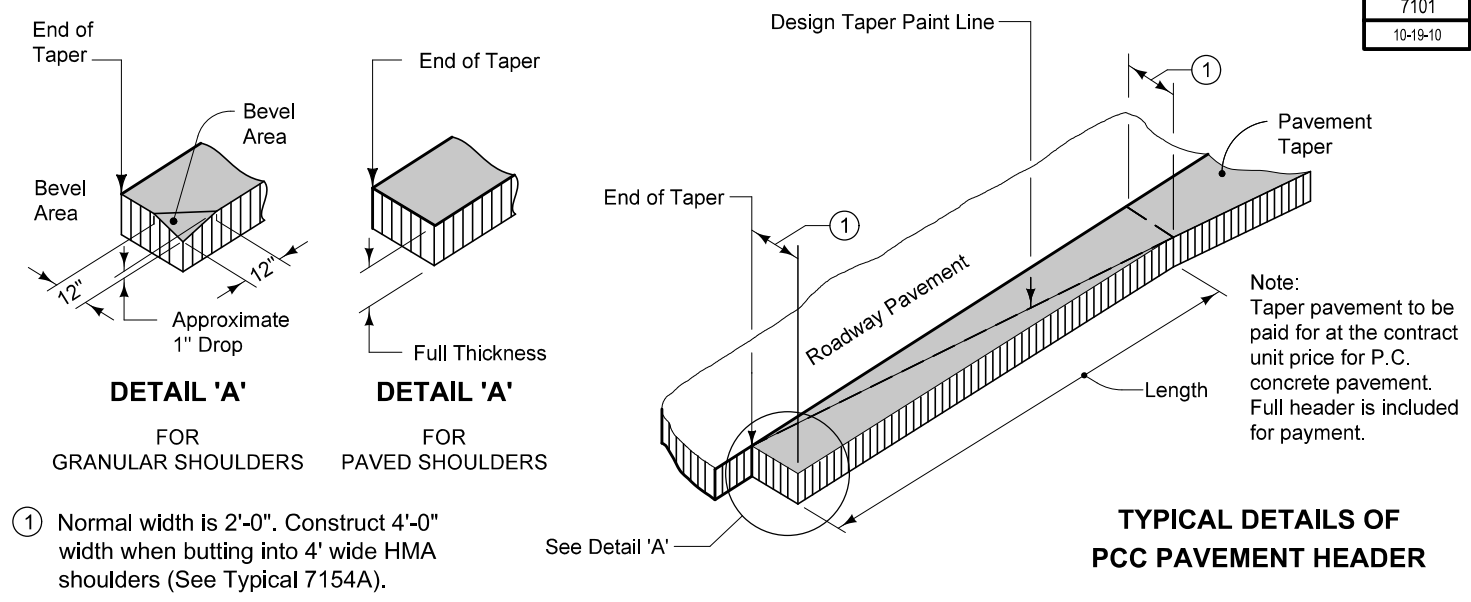
Section A-A



Section B-B

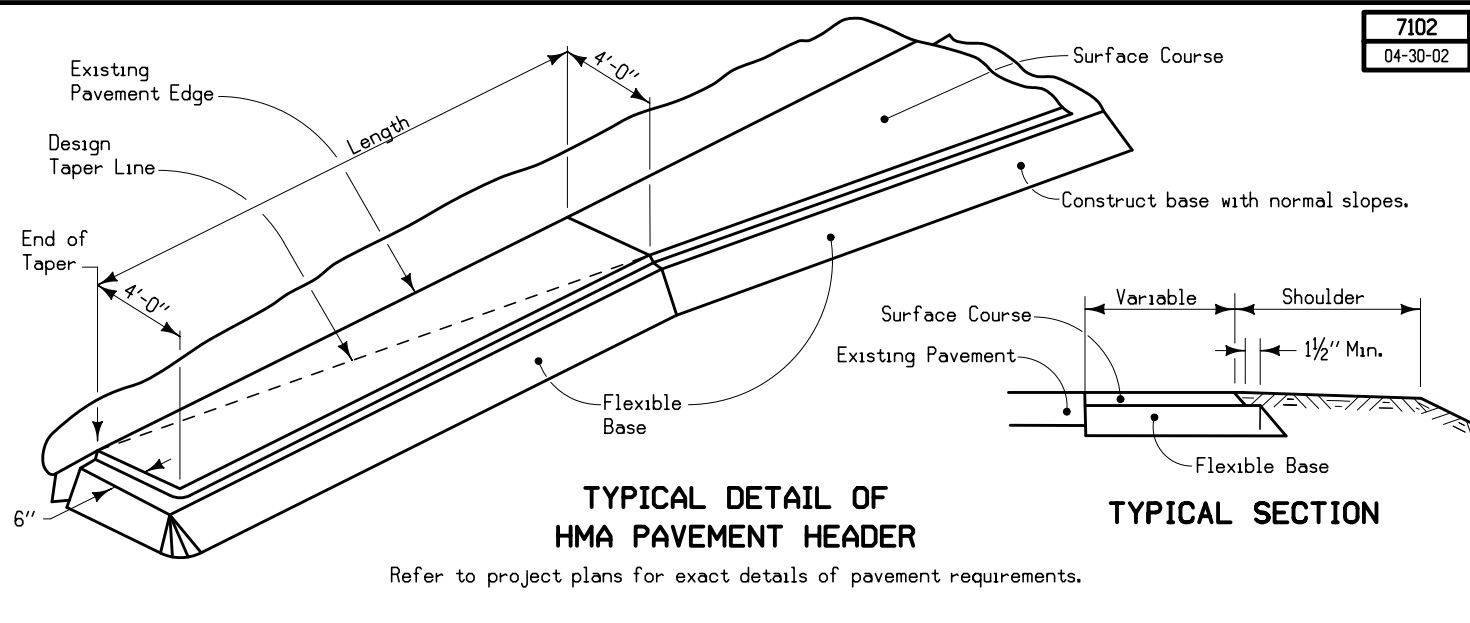
Roll down at granular shoulder or earth.

PAVED SHOULDER AT GUARDRAIL



TYPICAL DETAILS OF PCC PAVEMENT HEADER

- ① Normal width is 2'-0". Construct 4'-0" width when butting into 4' wide HMA shoulders (See Typical 7154A).

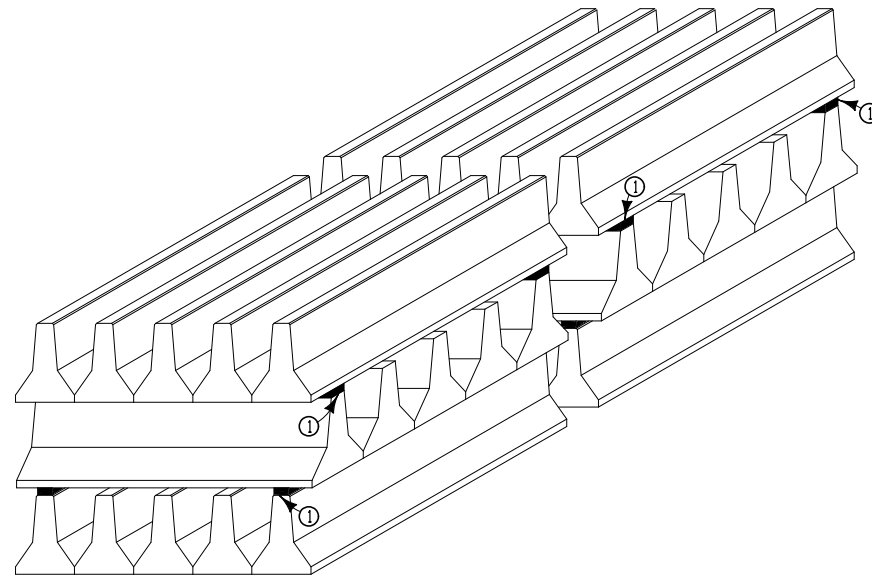


TYPICAL DETAIL OF HMA PAVEMENT HEADER

Refer to project plans for exact details of pavement requirements.

TYPICAL SECTION

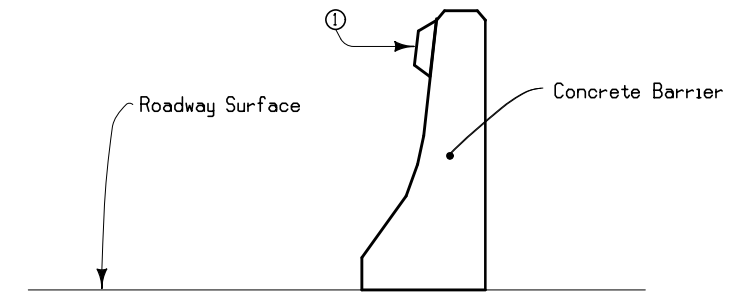
8207
10-28-97



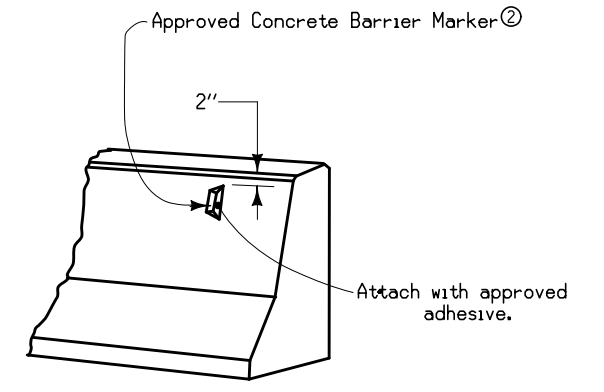
Notes:
At the completion of the project, the contractor shall stack the temporary barrier rail at locations designated in the plans.
Barrier sections shall be stacked 3 high in alternating layers or as modified by the Engineer.
The cost of hauling and stacking the temporary barrier rail shall be incidental to the item "Temporary Barrier Rail".
① 2x4 or scrap lumber.

STORAGE PLAN FOR BARRIER RAIL

8203
05-10-88

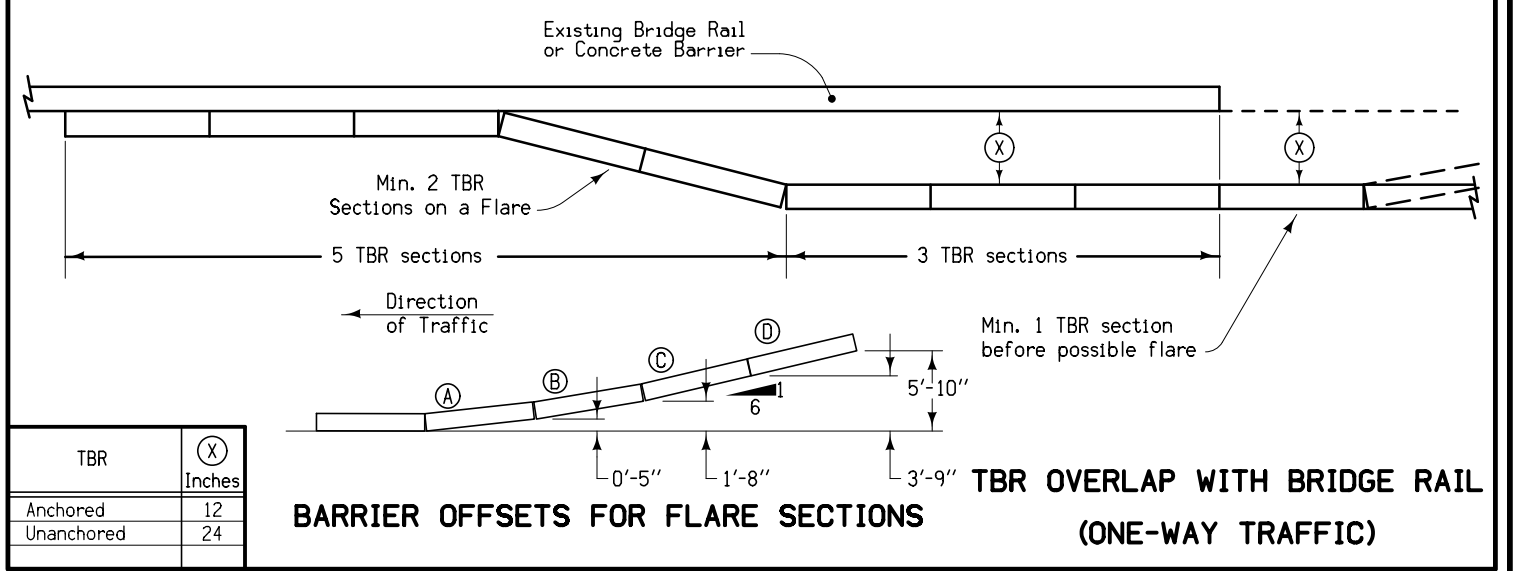


- ① Delineator color same color as edge line, when edge line exists, otherwise same color as edge line would be.
- ② See Materials Instructional Memorandums.



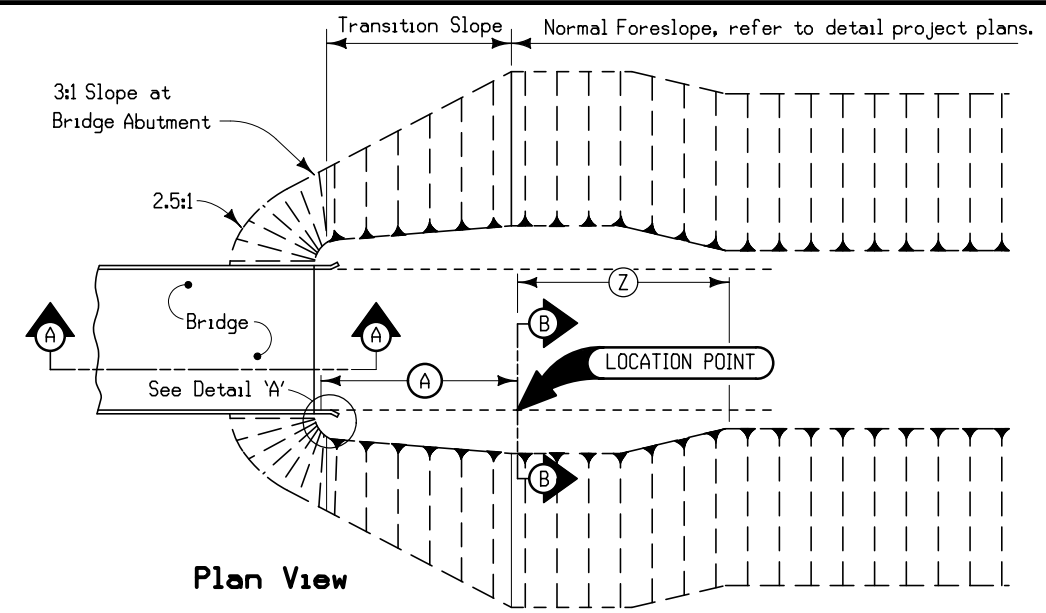
INSTALLATION DETAILS OF CONCRETE BARRIER MARKER

TBR 1

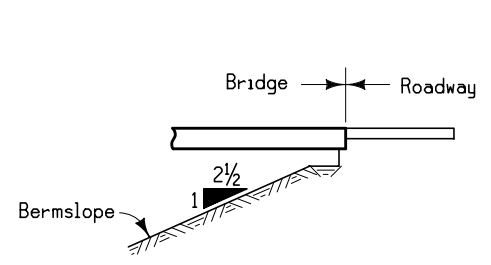


BARRIER OFFSETS FOR FLARE SECTIONS (ONE-WAY TRAFFIC)

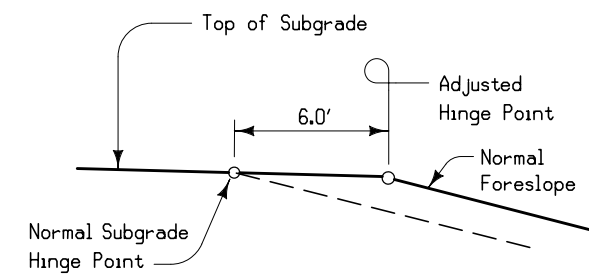
4303
04-20-04



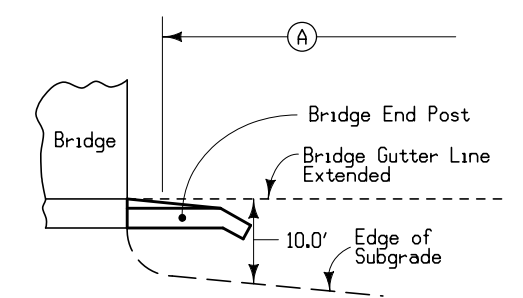
Plan View



Section A-A



Section B-B

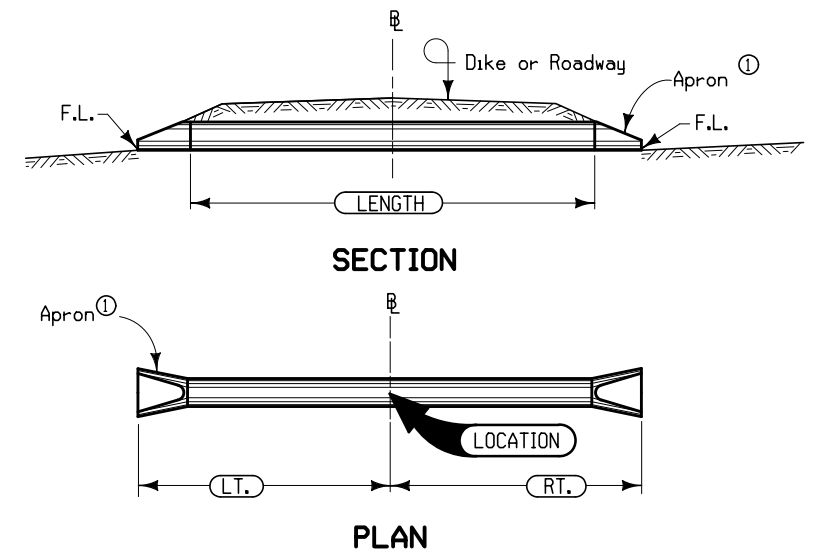


Detail "A"

FORESLOPE TRANSITION AT BRIDGE

Note:
Refer to tabulation 107-23 for listings of Location Points and Dimensions (A) and (Z).

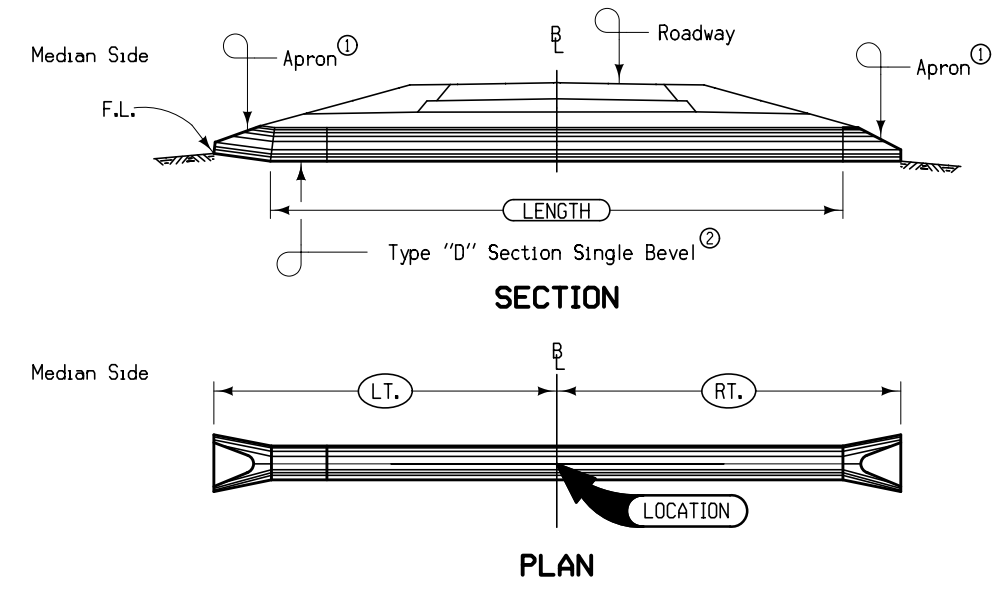
1101
04-30-02



Notes:
 B shall be C of roadway, dike, survey, or other; as detailed on plans.
 Skew angle is the angle which one end of the pipe is ahead (by stationing) of line perpendicular to the B (example skew Rt. ahead 30°).
 Refer to tabular listing and other plans for additional information.
 1 See Standard Road Plan RF-3 For Conc. or RF-5 for Metal.

PIPE CULVERT

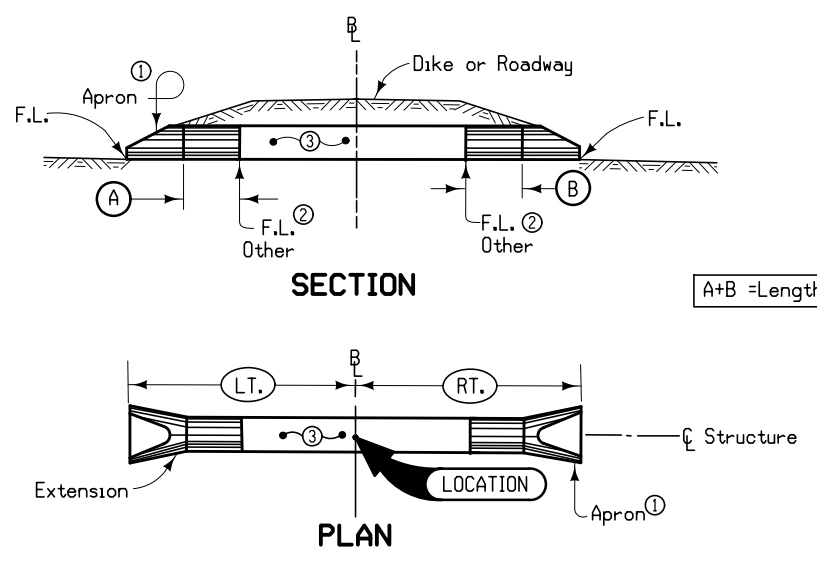
1103
04-30-02



Notes:
 B shall be C of roadway.
 1 See Standard Road Plan RF-3 for concrete, RF-5 for metal aprons.
 2 Type "D" section with single bevel. See Standard Road Plan RF-13 for details.

CONCRETE PIPE WITH "D" SECTION

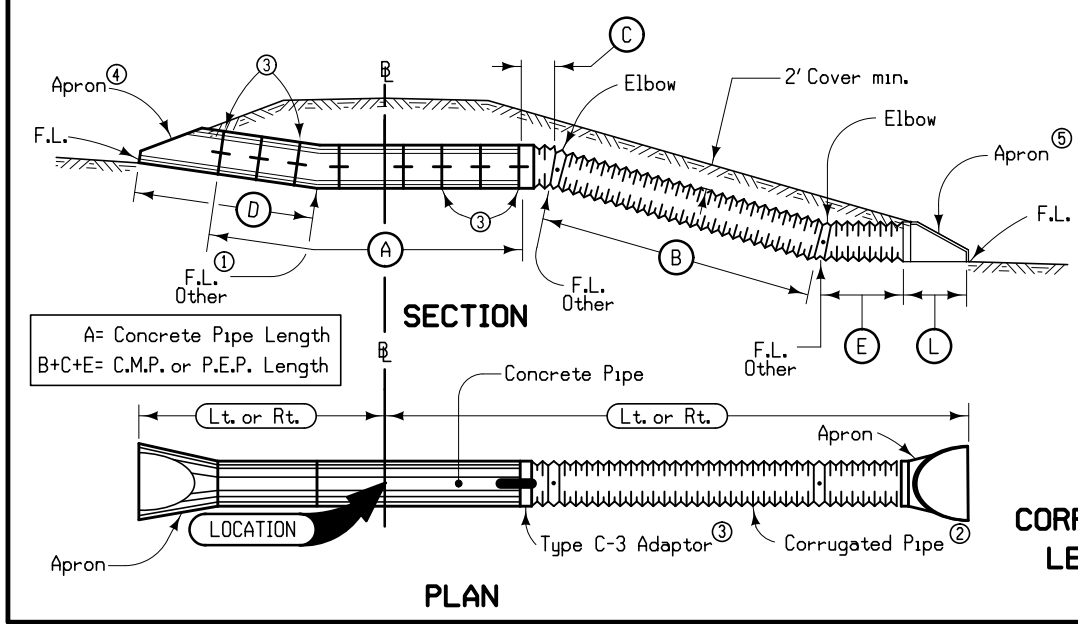
1301
10-03-00



Notes:
 B shall be C of roadway, dike, survey, or other; as detailed on plans.
 Extension shall be on line of existing structure to Lt., Rt. or both as specified. Adaptors may be required, see Standard Road Plan RF-2.
 Refer to tabular listing and other plans for additional information.
 1 See Standard Road Plan RF-3 for concrete, RF-5 for metal.
 2 Optional type "D" section only when specified in tabulation.
 3 Existing structure.

PIPE EXTENSION

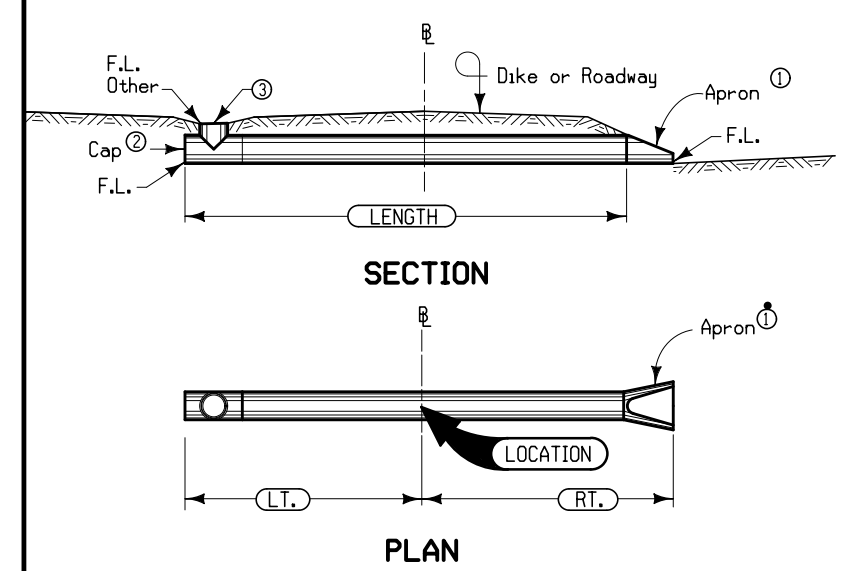
1501
04-20-10



B shall be C of roadway, dike, survey, or other; as detailed on plans.
 Skew angle is the angle which one end of the pipe is ahead (by stationing) of a line perpendicular to the B.
 Refer to Tabulation 104-3.
 1 Optional D section only when specified in tabulation.
 2 Standard type joint couplings are required. (See Materials I.M. 441)
 3 See RF-2 & RF-14.
 4 See RF-3.
 5 See RF-5 for Metal and Polyethylene.

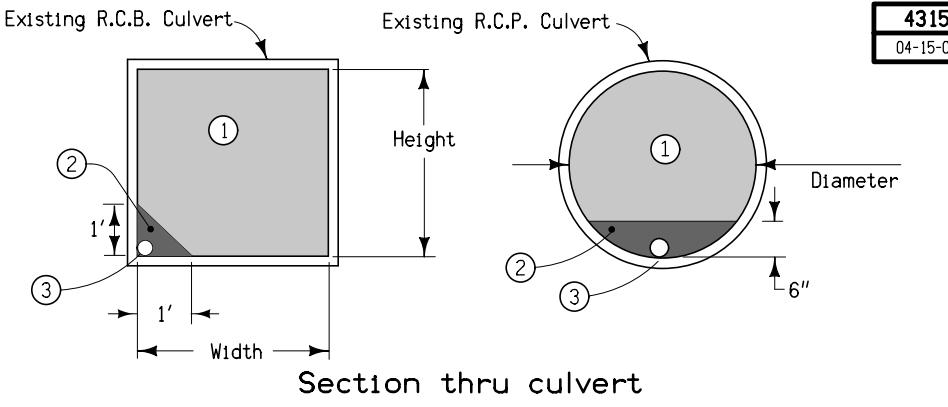
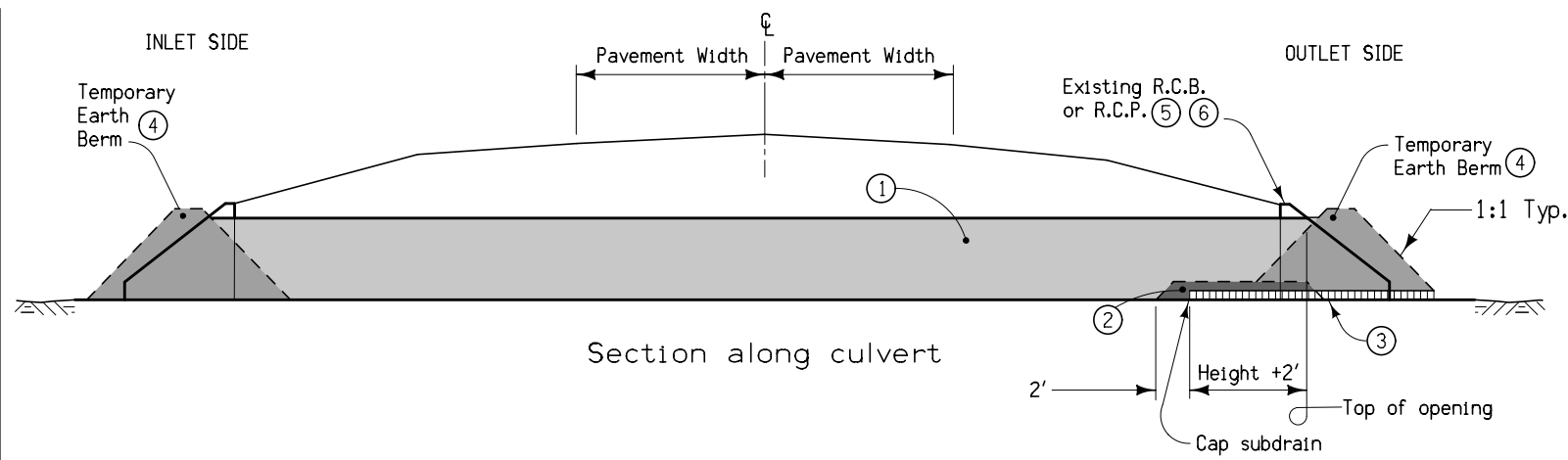
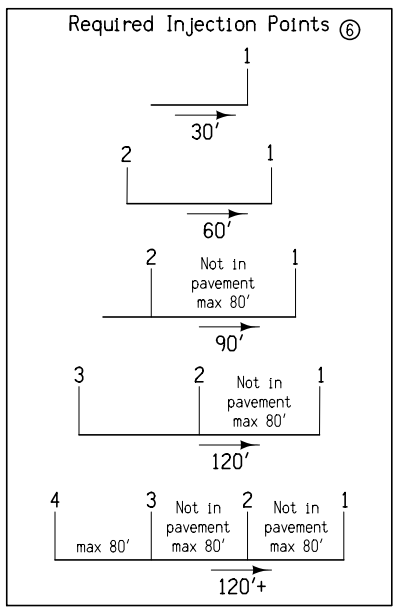
CORRUGATED PIPE - CONCRETE LETDOWN STRUCTURE WITH METAL APRON

PIPE 1



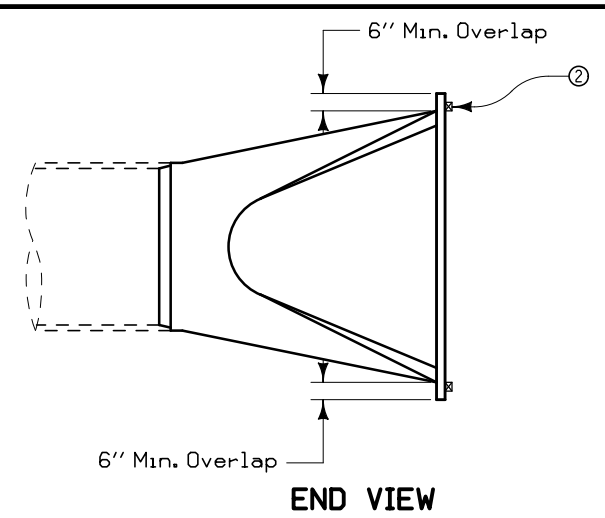
Notes:
 B shall be C of roadway, dike, survey, or other; as detailed on plans.
 Skew angle is the angle which one end of the pipe is ahead (by stationing) of line perpendicular to the B (example skew Rt. ahead 30°).
 Refer to tabular listing and other plans for additional information.
 1 See Standard Road Plan RF-3 For Conc. or RF-5 for Metal.
 2 See Standard Road Plan RF-21 For Pipe Cap Details.
 3 See Detail Sheet U.?? For Grate Details.

PIPE CULVERT WITH TEE INTAKE

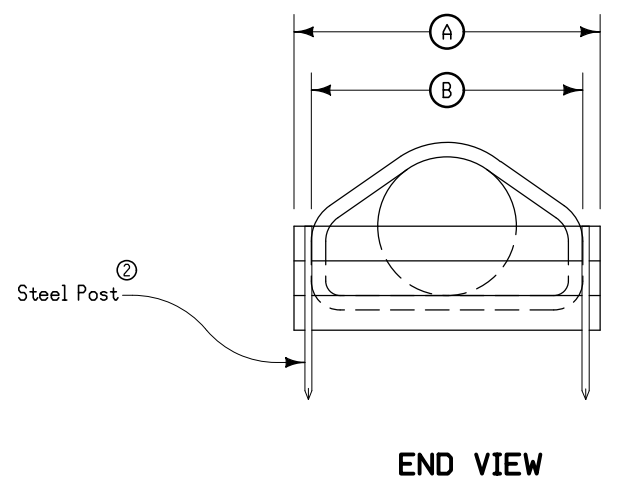
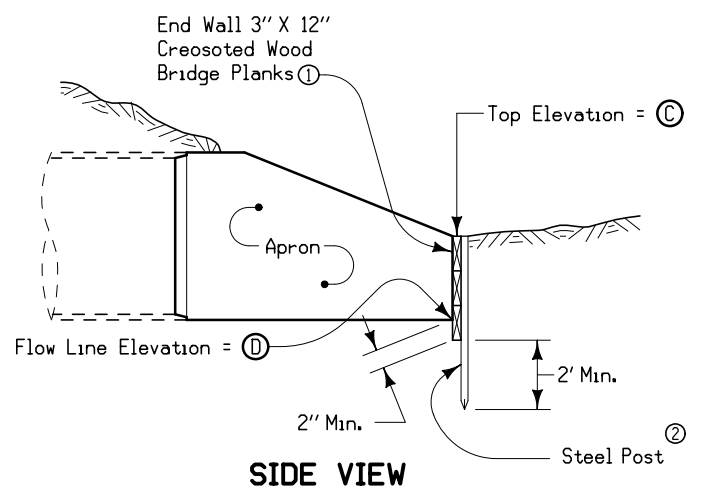


- ① Flowable Mortar.
- ② Granular Backfill.
- ③ 4" subdrain at flowline elevation of culvert shall be extended into the culvert a distance of 2' plus the height of the culvert. Granular Backfill covers subdrain and extends an additional 2'. Subdrain and granular backfill are incidental to flowable mortar.
- 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.)**

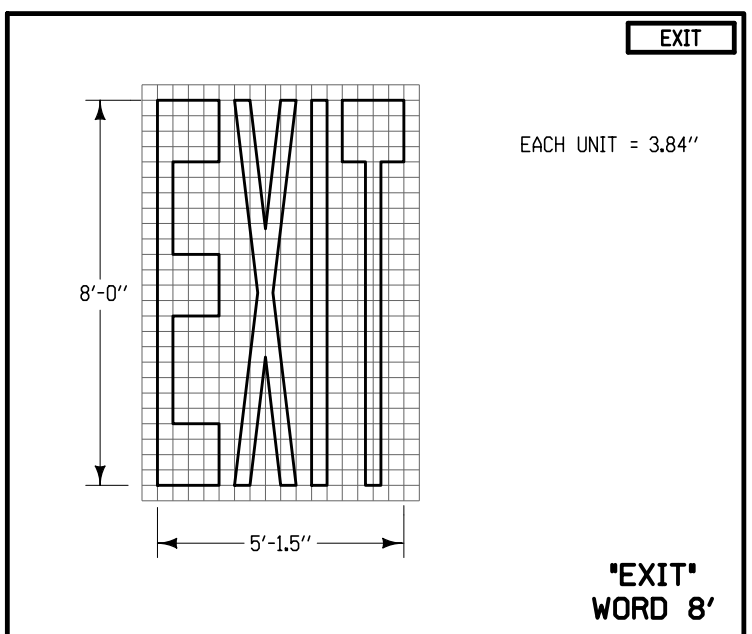


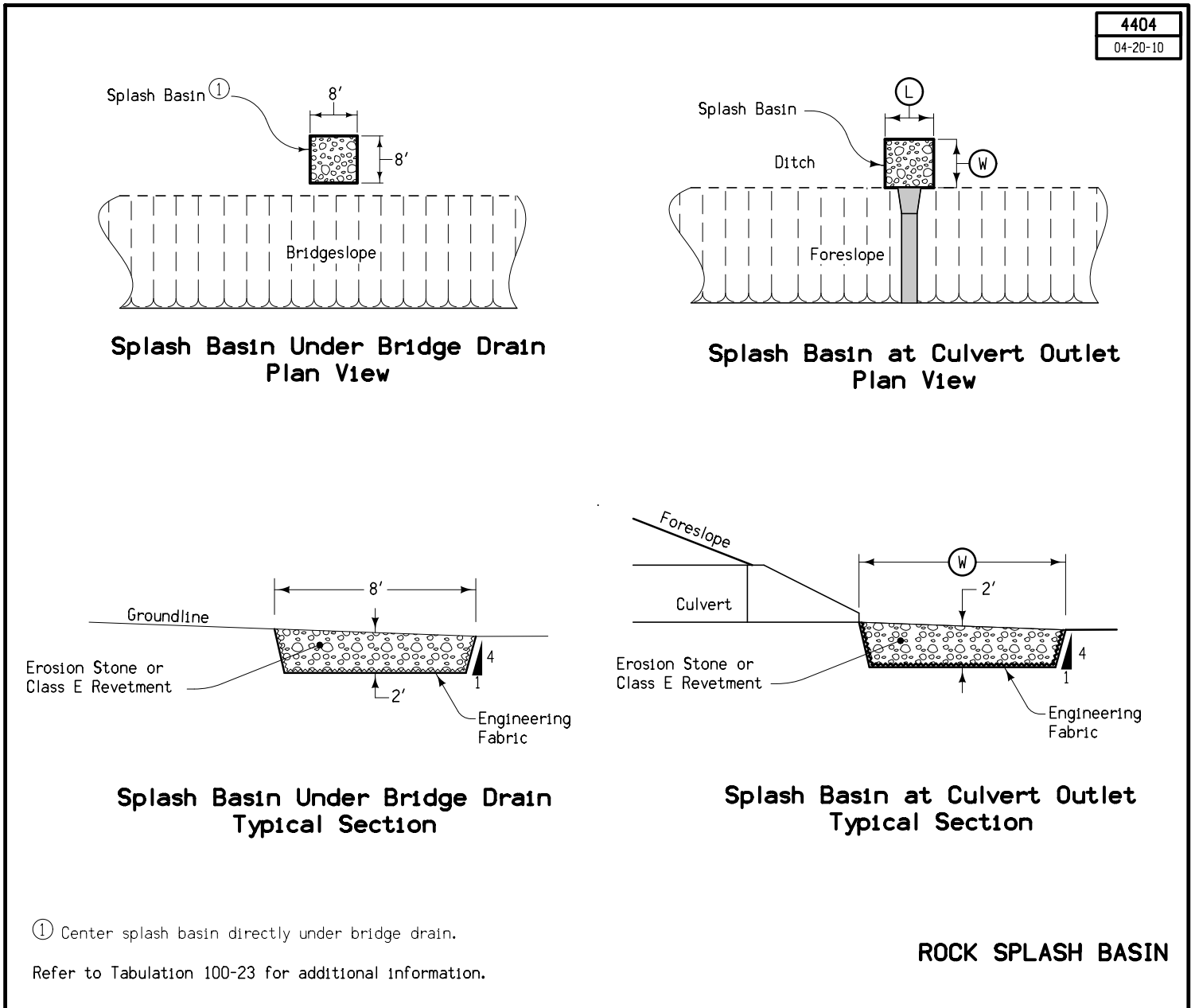
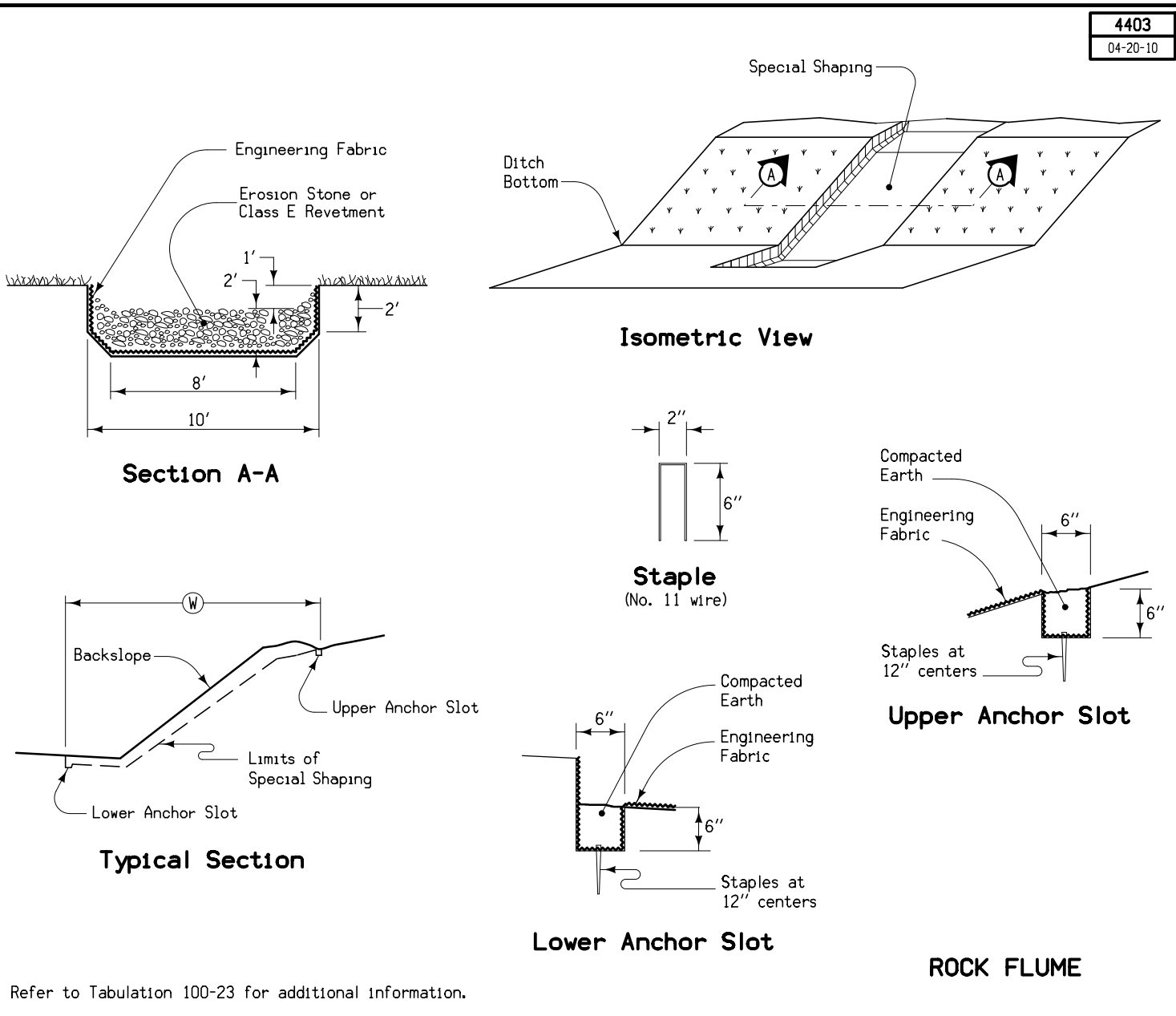
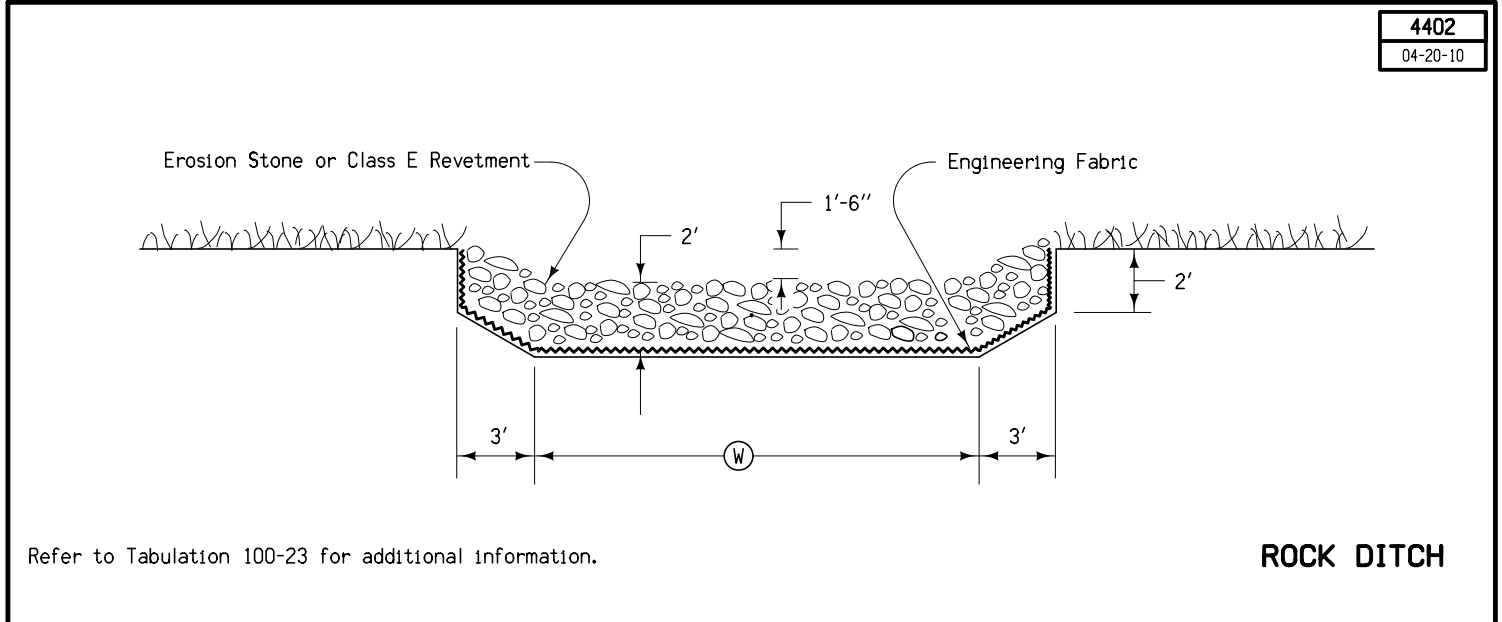
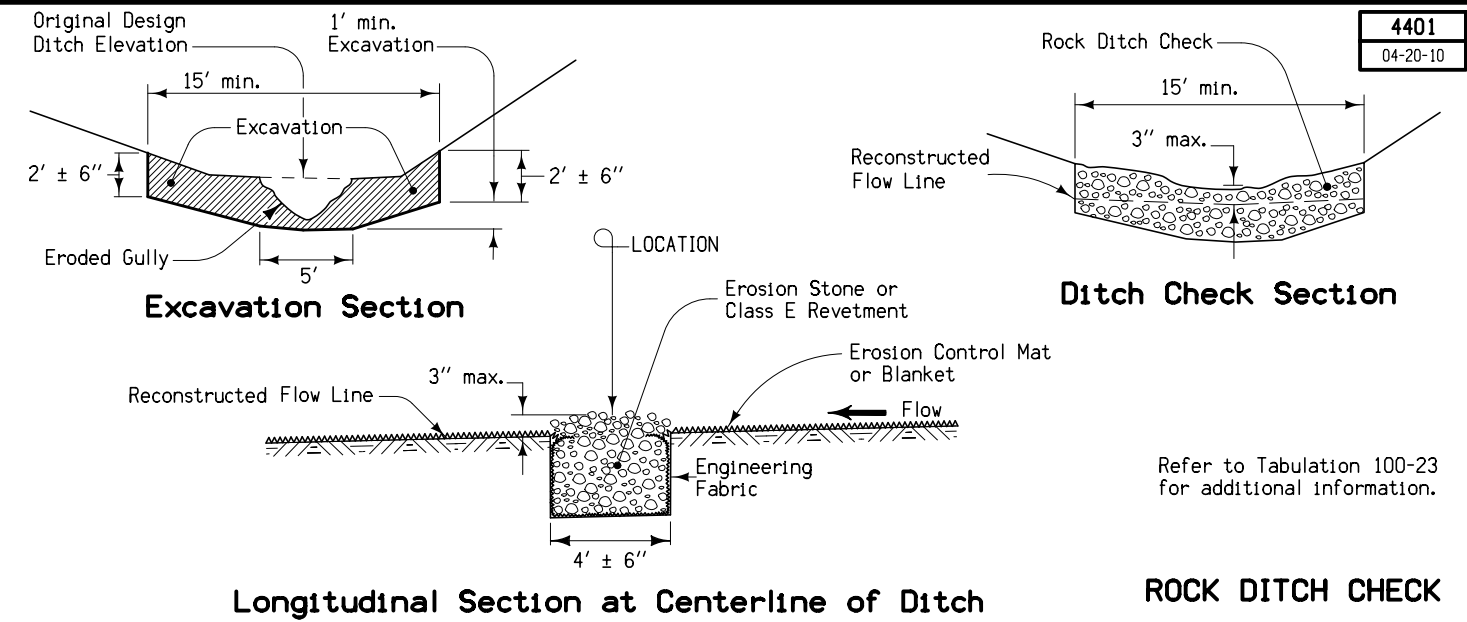
- NOTES:**
- The construction of the apron and wall as detailed hereon including wood planks, steel post and any excavation and backfill shall be considered incidental to the price bid for the apron.
 - ① Bridge plank shall be creosoted wood 3"x12" or other size if approved by the engineer.
 - ② Steel post to be driven flush to top of wood plank and have 2' minimum embedment below bottom of lower plank.



DETAIL OF SPECIAL END WALL

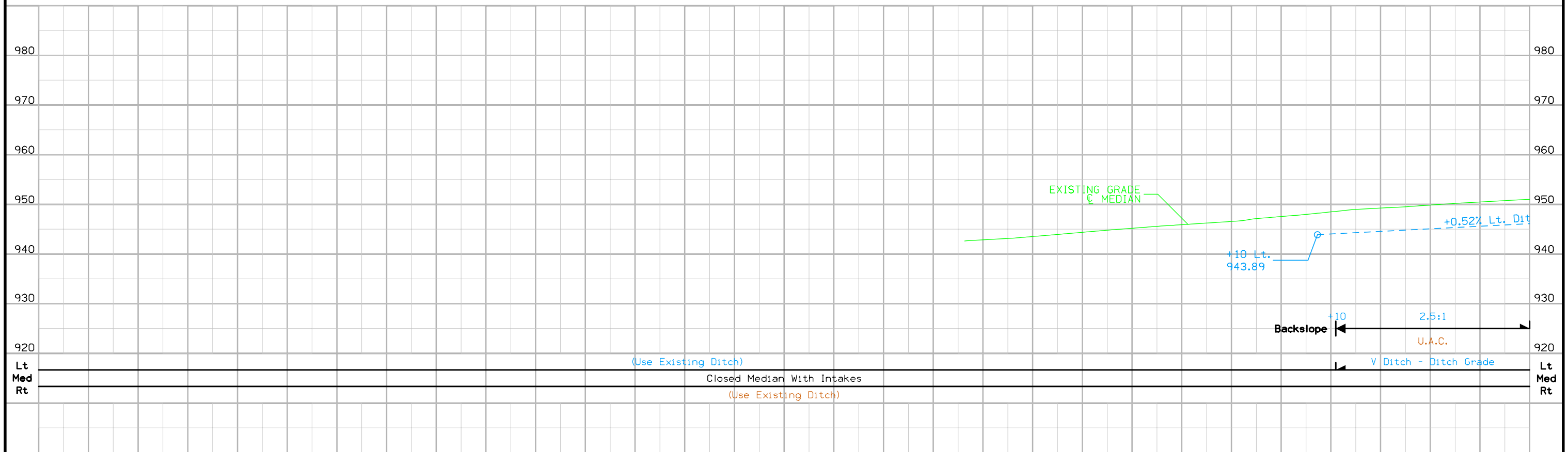
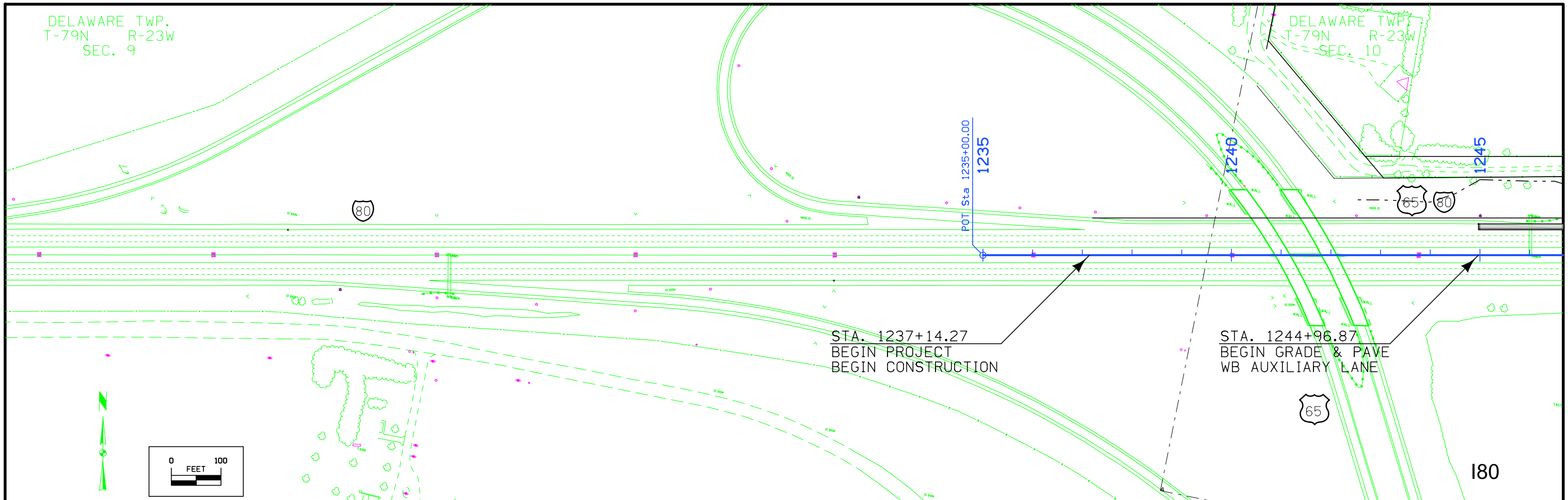
LOCATION			A	B	C	D	No. of Planks
ROAD IDENTIFICATION	STATION	SIDE	Feet	Feet	Feet	Feet	
180 EB	1363+40.00	Med.	5.5	4.5	956.83	956.12	2
US 65 NB	7897+00.00	Med.	5.5	4.5	974.79	974.20	2

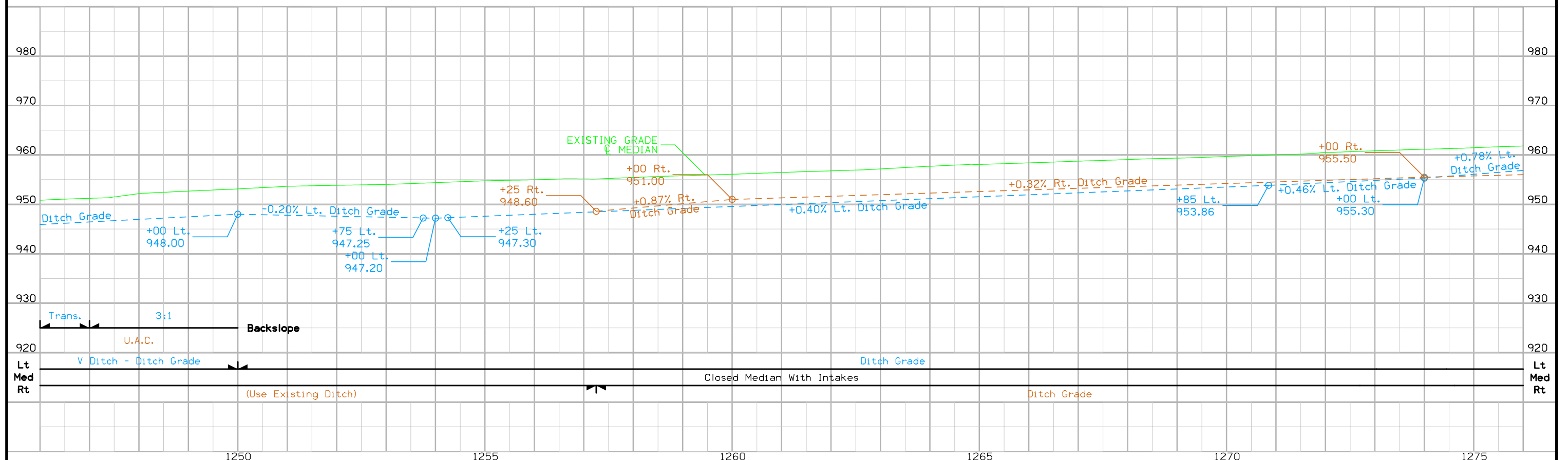
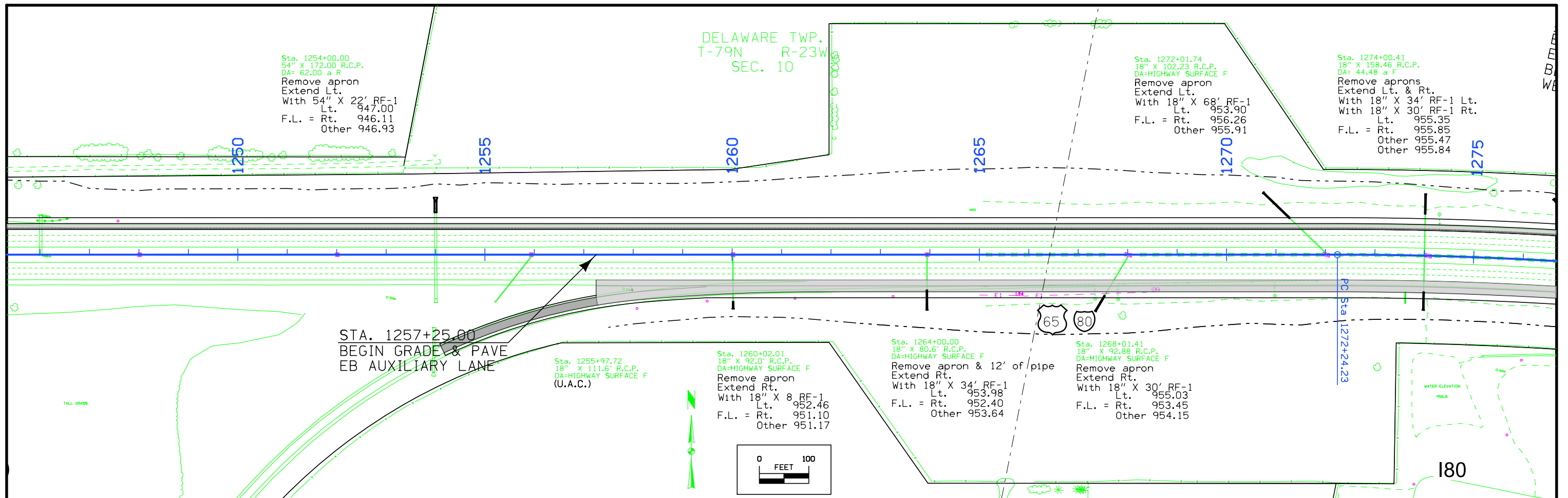




DELAWARE TWP.
T-79N R-23W
SEC. 9

DELAWARE TWP.
T-79N R-23W
SEC. 10





DELAWARE TWP.
T-79N R-23W
SEC. 10

For Bridge Situation Plan Refer to Sheet Nos. V.1 -V.3
For Side Road Details Refer to Sheet No. E.2

DELAWARE TWP.
T-79N R-23W
SEC. 11

STA. 1282+00.00
END GRADE & PAVE
EB & WB AUXILIARY LANES
BEGIN GRADE & PAVE
WB LANES

Sta. 1287+90.00
Install 24" X 226' RF-1
Lt. 959.40
Rt. 959.20

Sta. 1292+30.74
24" X 172.34 R.C.P.
DA=1.73 @ R-F
Remove Lt. Half
U.A.C. Rt. Half
(Remove In Future)

56 Street Bridge = #0558
227.00 X 24.02
Prestressed Concrete
Beam Bridge
REMOVE
Build 306'-0"X40'-0" PCCB
Design No. ????

Sta. 1294+19.00
Install 36" X 208' RF-1
Lt. 962.20
Rt. 960.90

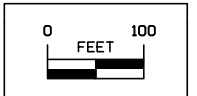
Sta. 1284+76.21
18" X 112.34 R.C.P.
DA=HIGHWAY SURFACE F
Remove apron
Extend Lt.
With 18" X 44' RF-1
Lt. 959.70
F.L. = Rt. 960.52
Other 959.94

POT Sta 1293+01.21 (ML)
= Sta 4573+84.54 (SR)

Sta. 1281+26.71
18" X 109.27 R.C.P.
DA=HIGHWAY SURFACE F
Remove apron
Extend Lt.
With 18" X 55.2' RF-1
Lt. 958.80
F.L. = Rt. 959.82
Other 959.22

Sta. 1277+26.61
18" X 114.07 R.C.P.
DA=HIGHWAY SURFACE F
Extend Lt.
With 18" X 52' RF-1
Lt. 957.30
F.L. = Rt. 958.75
Other 958.33

Curve Data
Δ = 12° 06' 52.08" (RT)
T = 810.65
L = 1,615.26
R = 7,639.44
E = 42.89
e = 2.8%
I = 221'
m = 64'
x = 197'



Sta. 1288+00.46
24" X 164.01 R.C.P.
DA=8.15 @ R-F
Remove Lt. Half
U.A.C. Rt. Half
(Remove In Future)

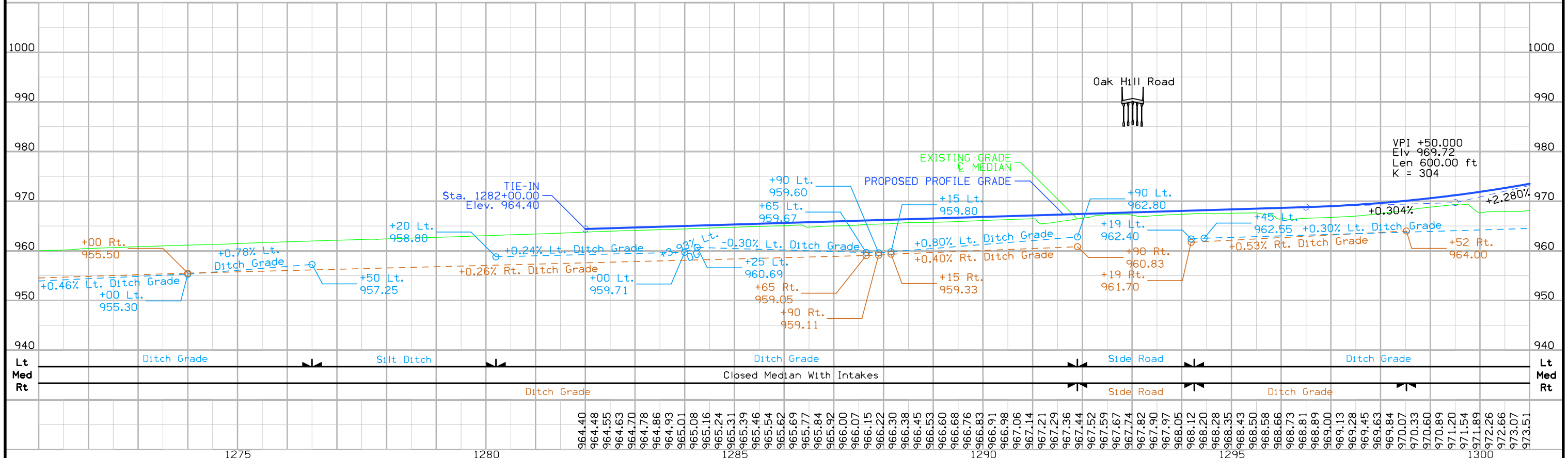
STA. 1296+00.00
BEGIN GRADE & PAVE
EB LANES

Sta. 1293+70.93
36" X 173.20 R.C.P.
DA=31.63 @ R-F
Remove Lt. Half
U.A.C. Rt. Half
(Remove In Future)

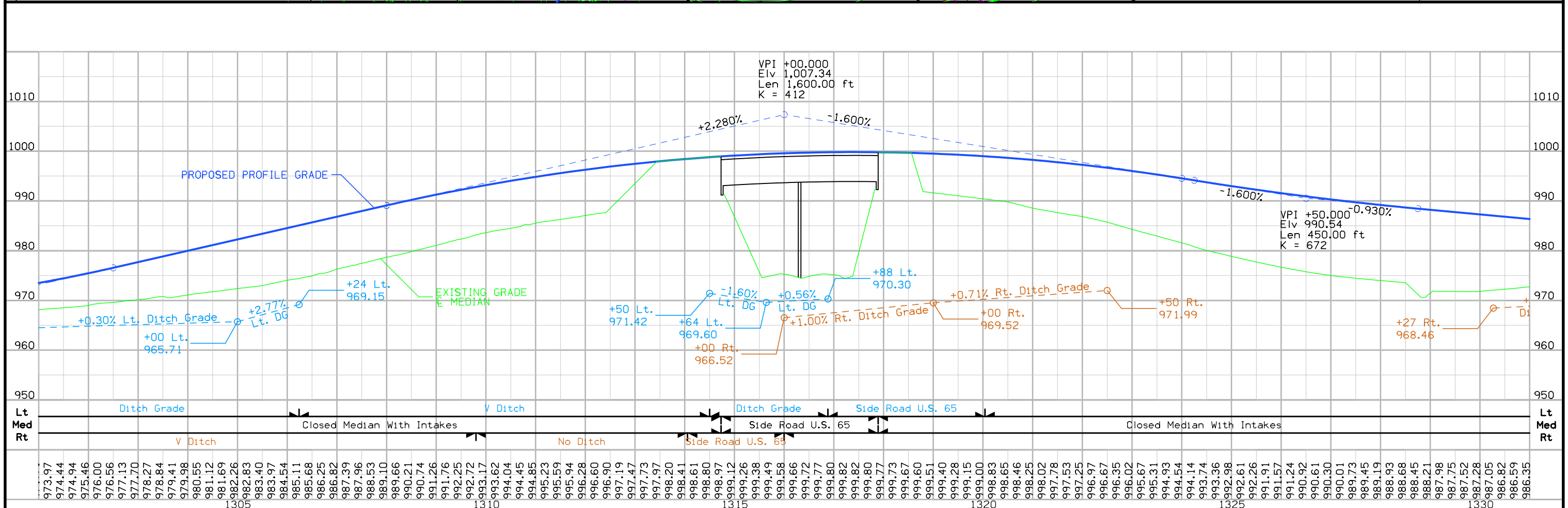
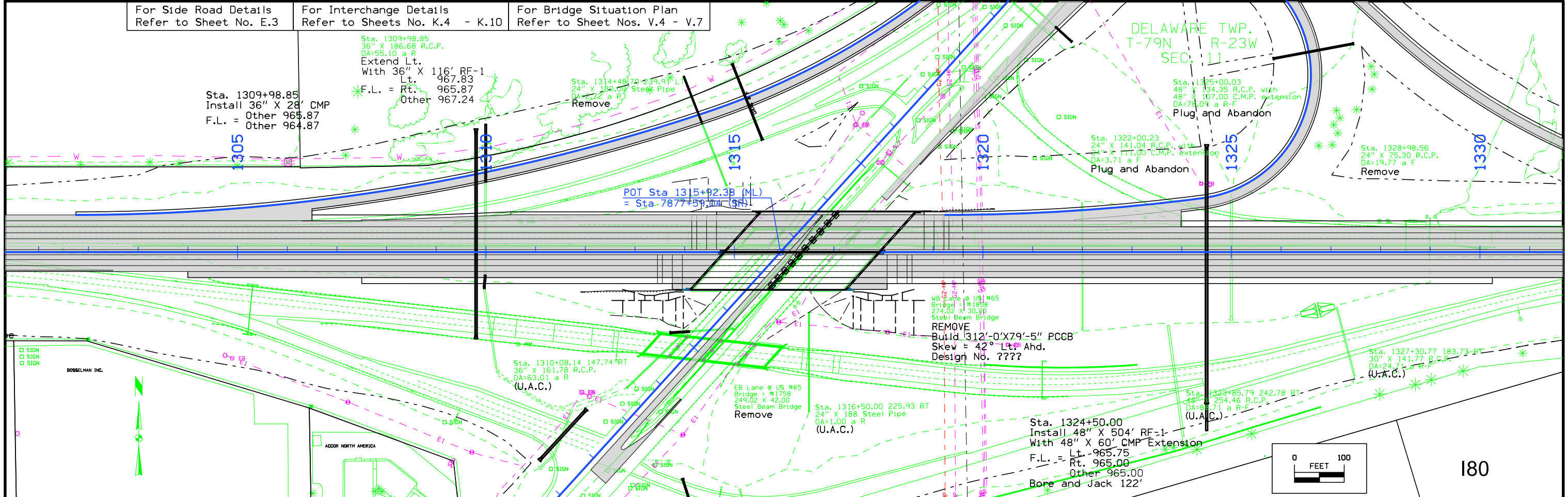
Sta. 1300+00.00 34.45 RT
18" X 71.03 R.C.P.
DA=1.48 @ R-F
Remove Lt. 36" of Pipe
U.A.C. Remainder
(Remove In Future)

Sta. 1295+01.64
12" X 275.43 C.M.P.
DA=MEDIAN ONLY F
U.A.C. Remove In Future

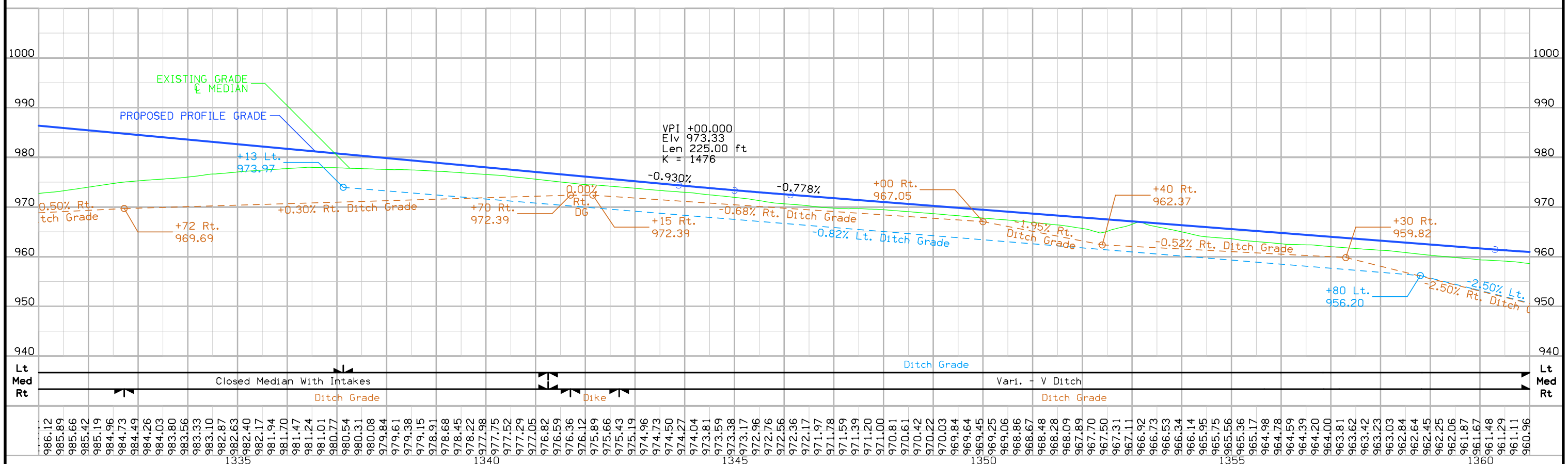
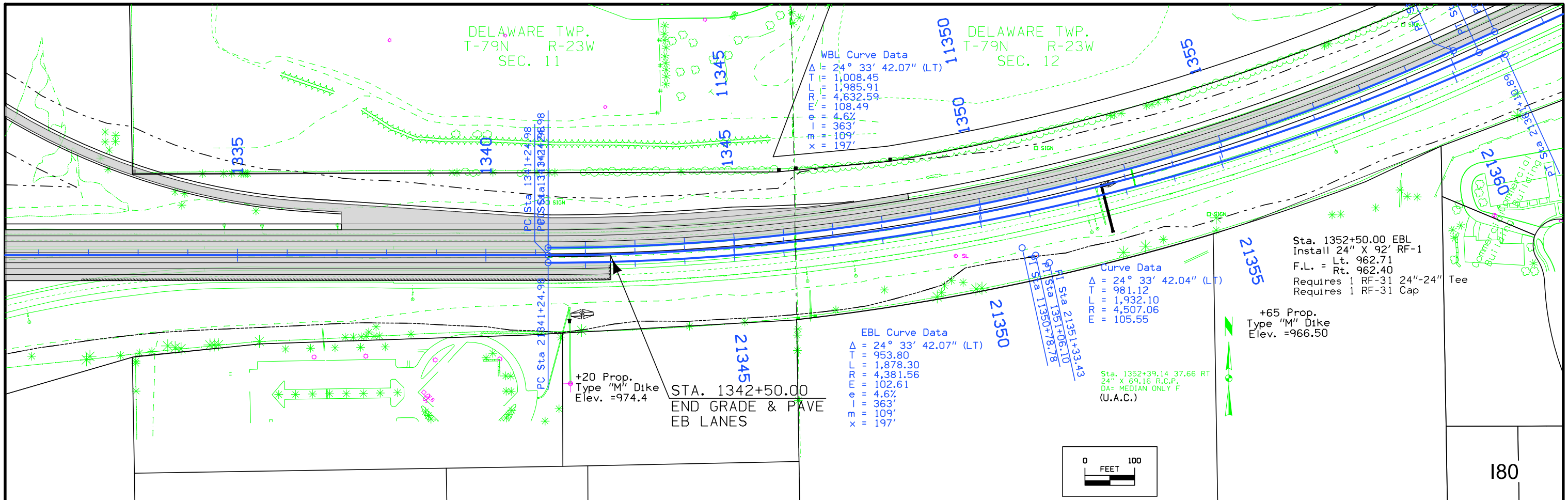
180

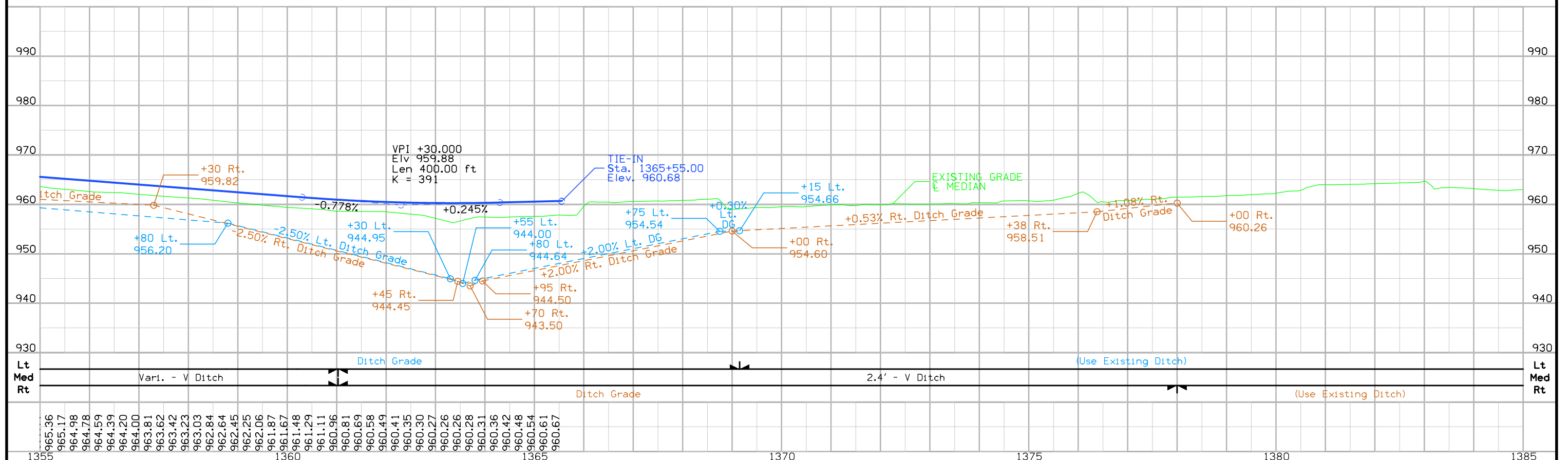
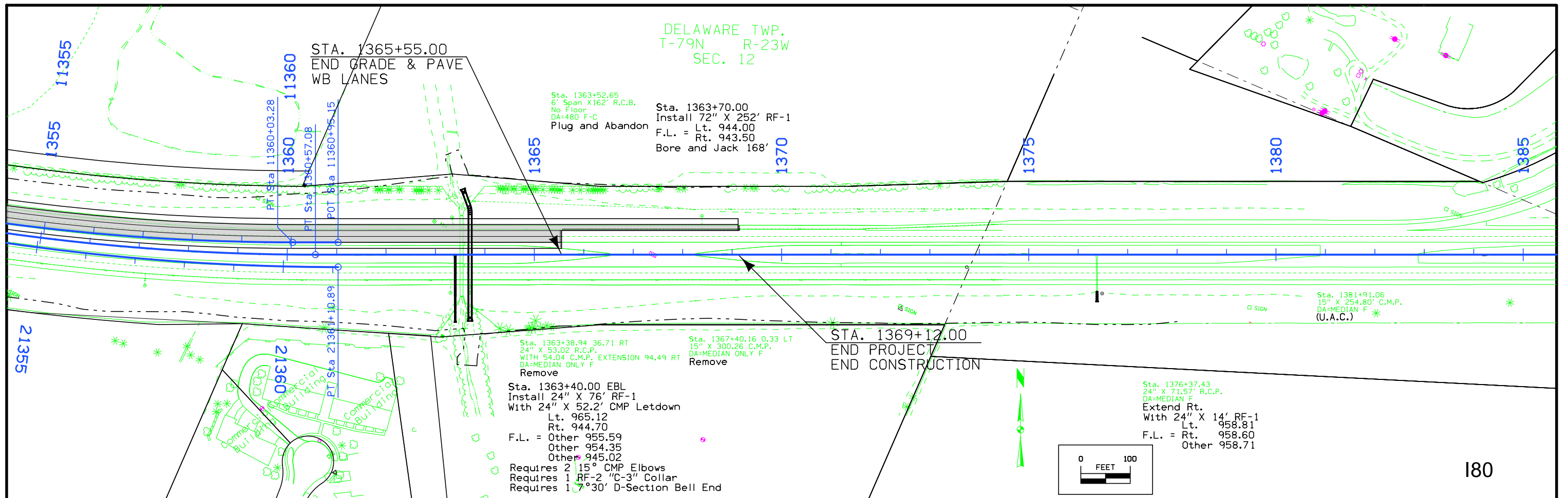


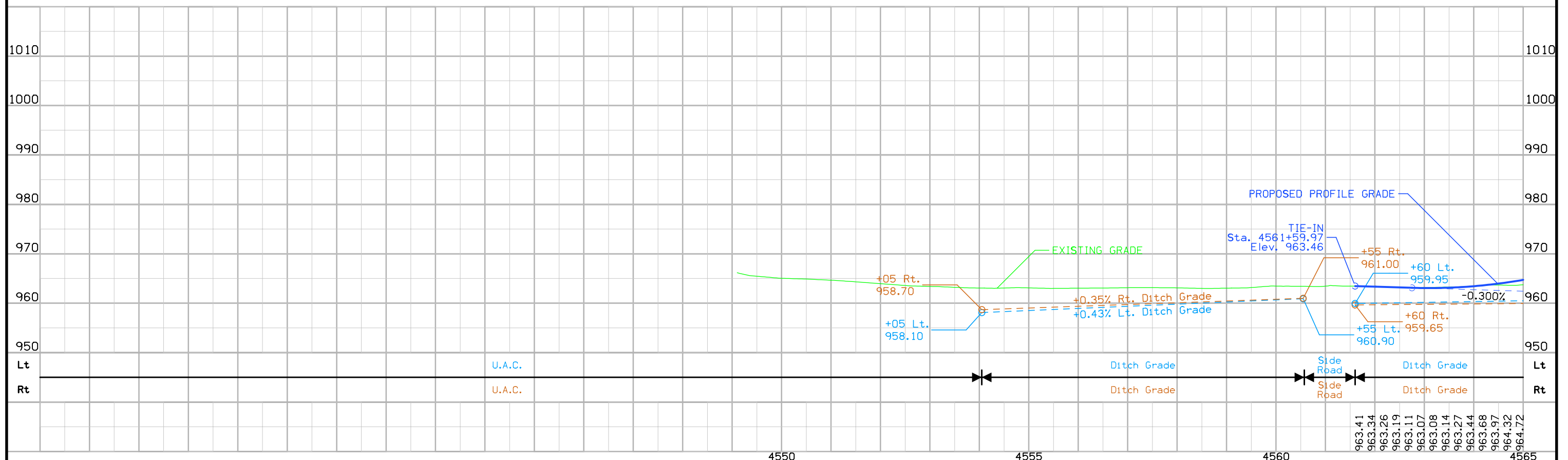
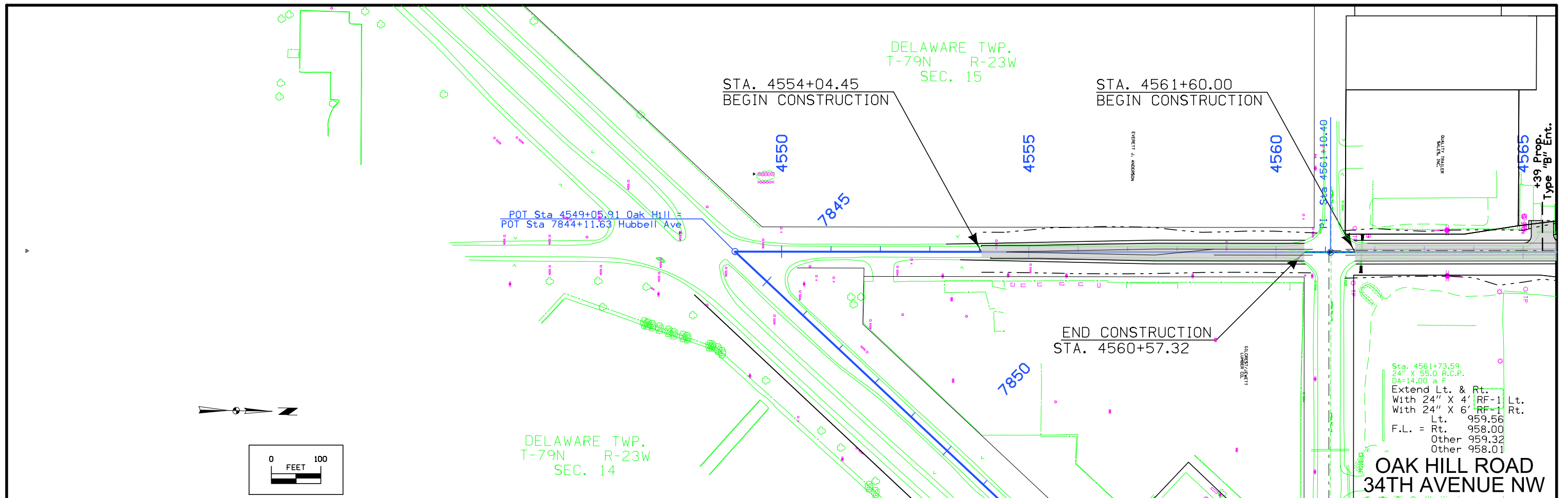
For Side Road Details Refer to Sheet No. E.3
 For Interchange Details Refer to Sheets No. K.4 - K.10
 For Bridge Situation Plan Refer to Sheet Nos. V.4 - V.7

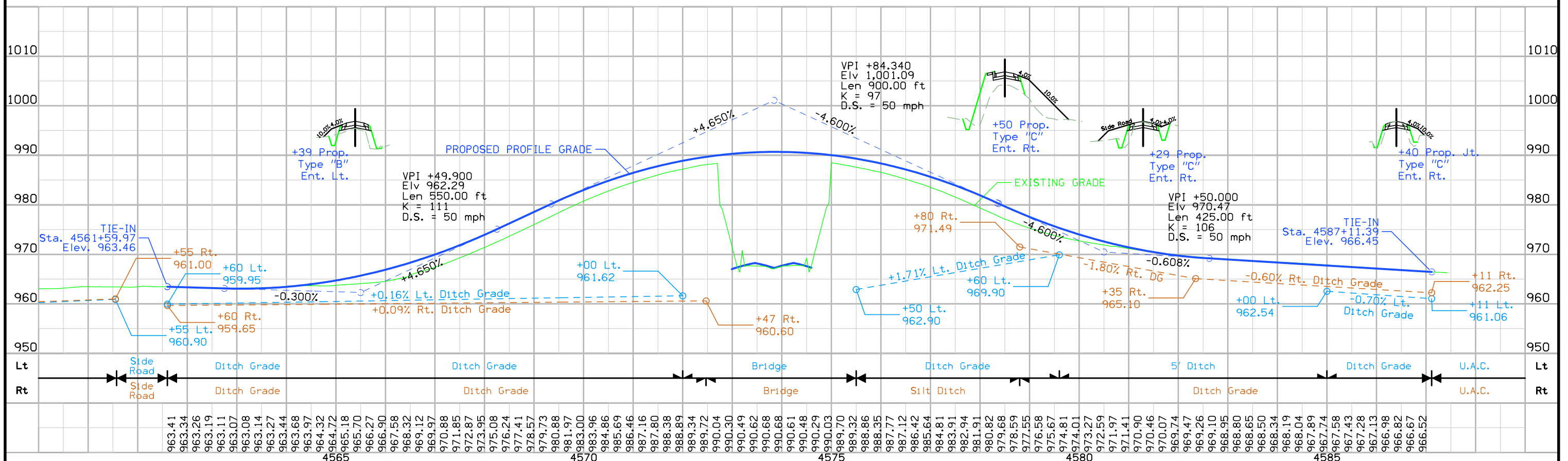
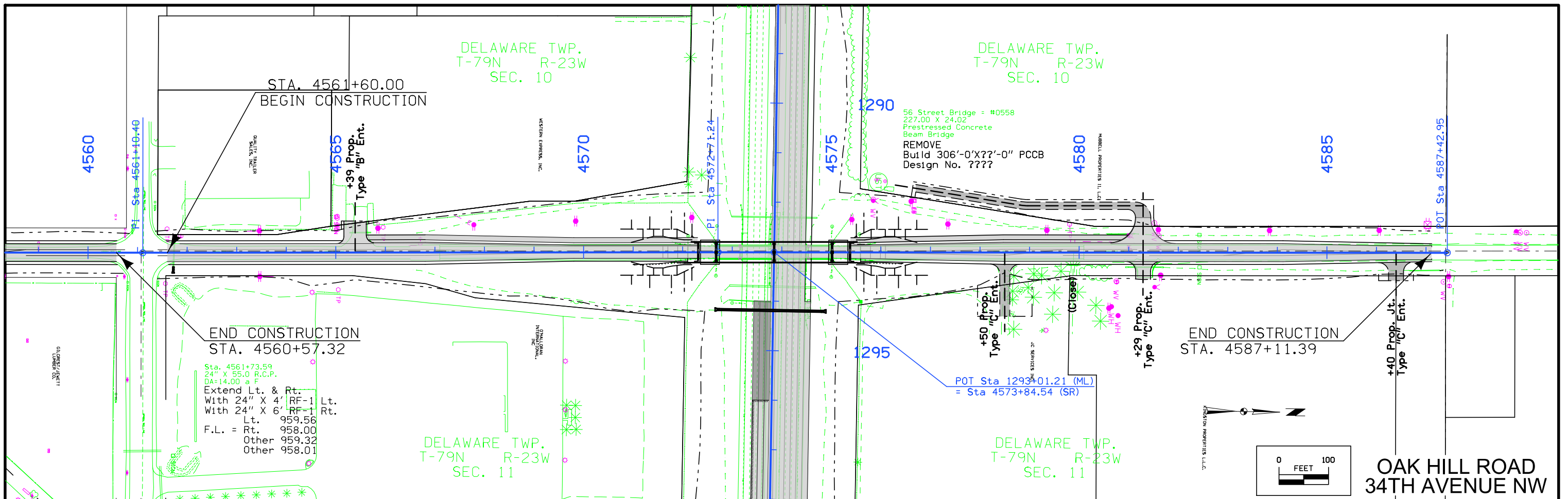


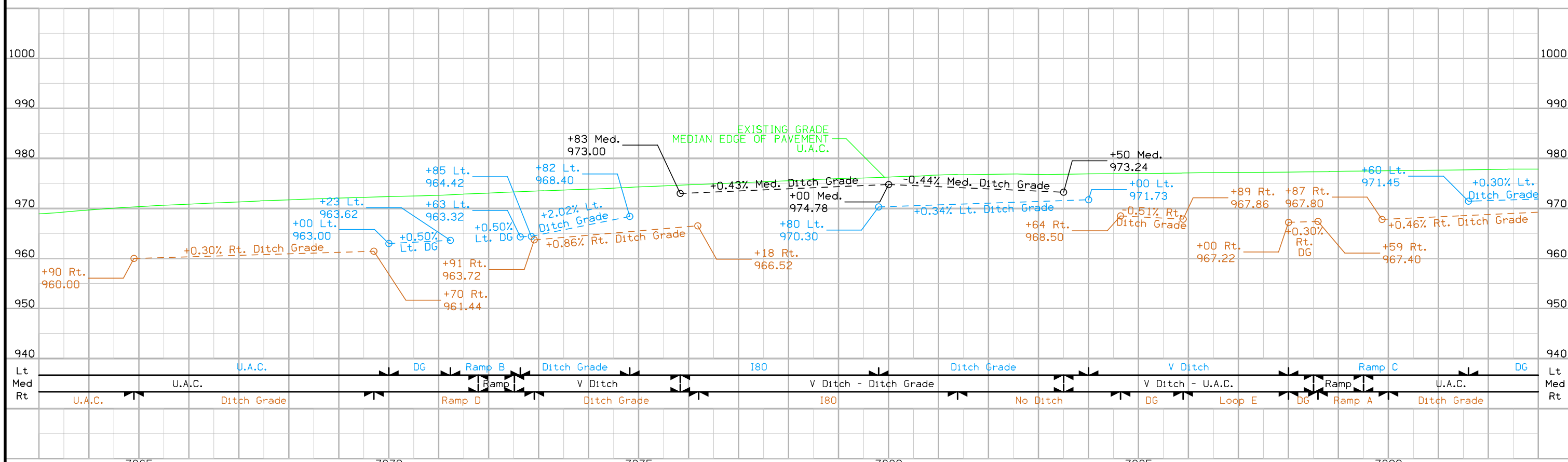
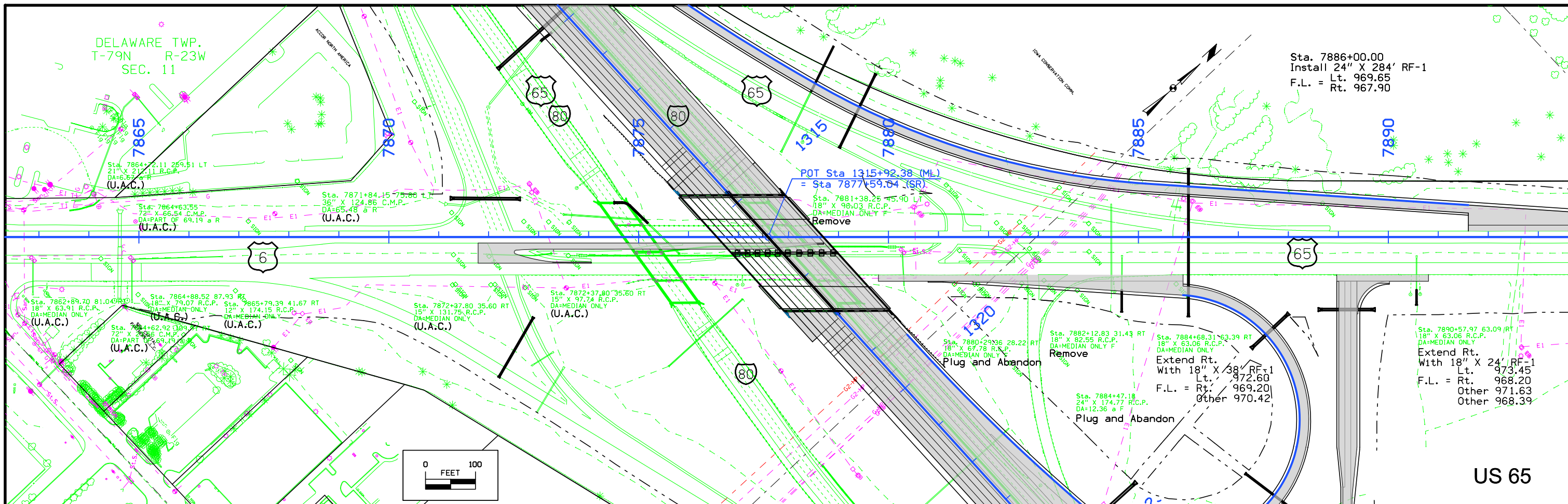
ENGLISH	IOWA DOT	DESIGN TEAM	Flattery\Gansen	POLK COUNTY	PROJECT NUMBER	IM-080-5(275)142--13-77	SHEET NUMBER	D.4
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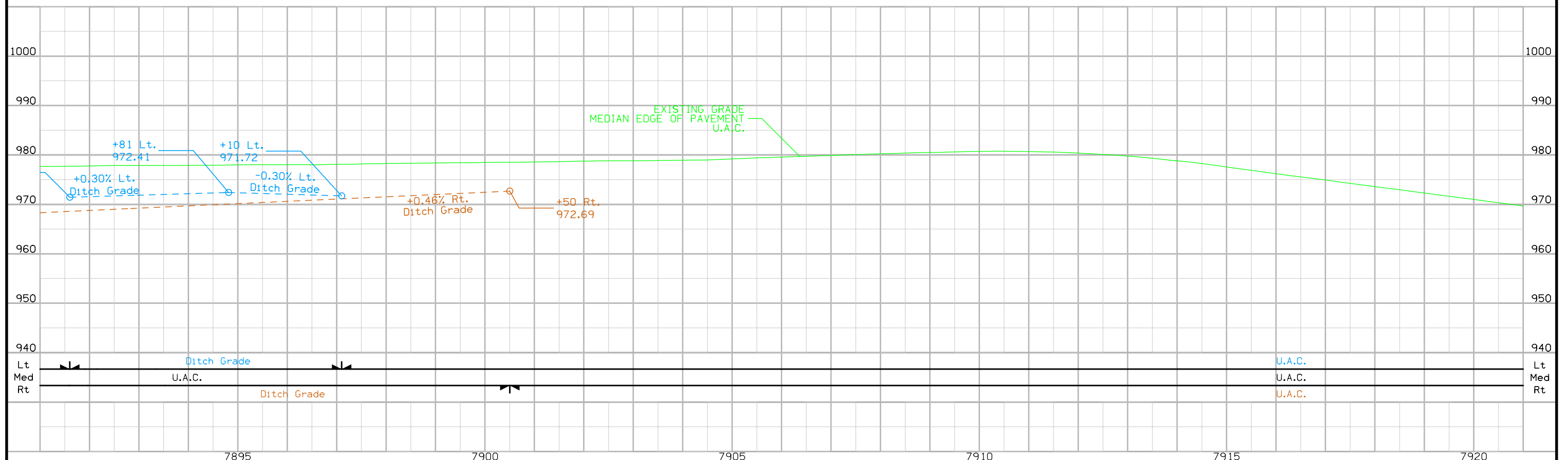
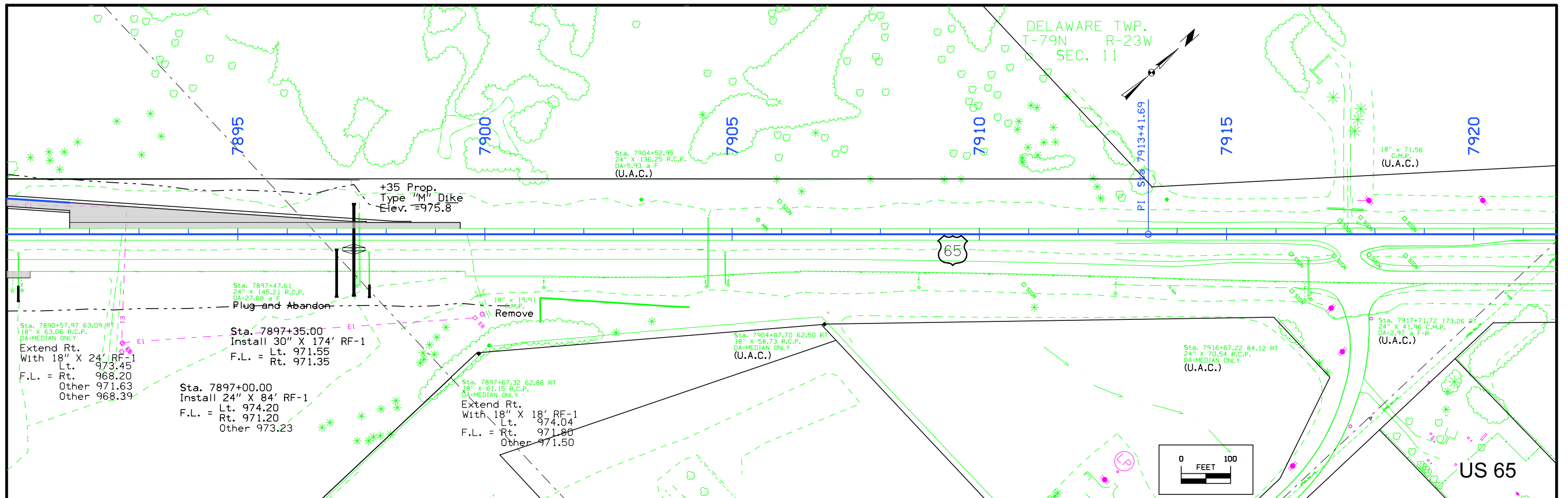


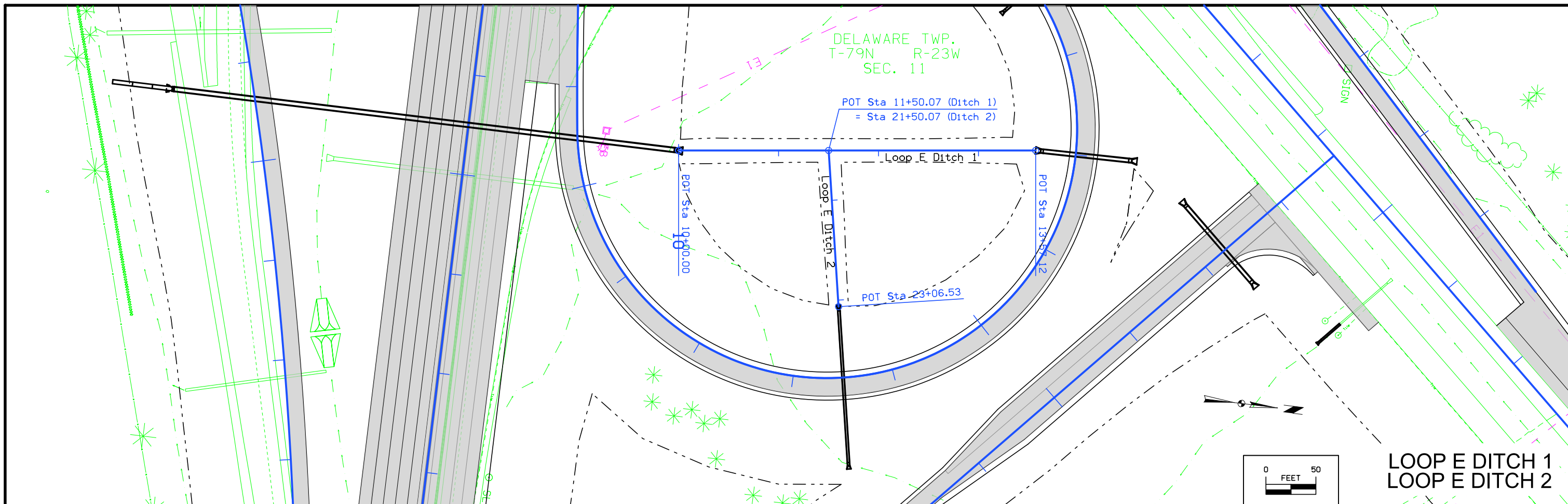






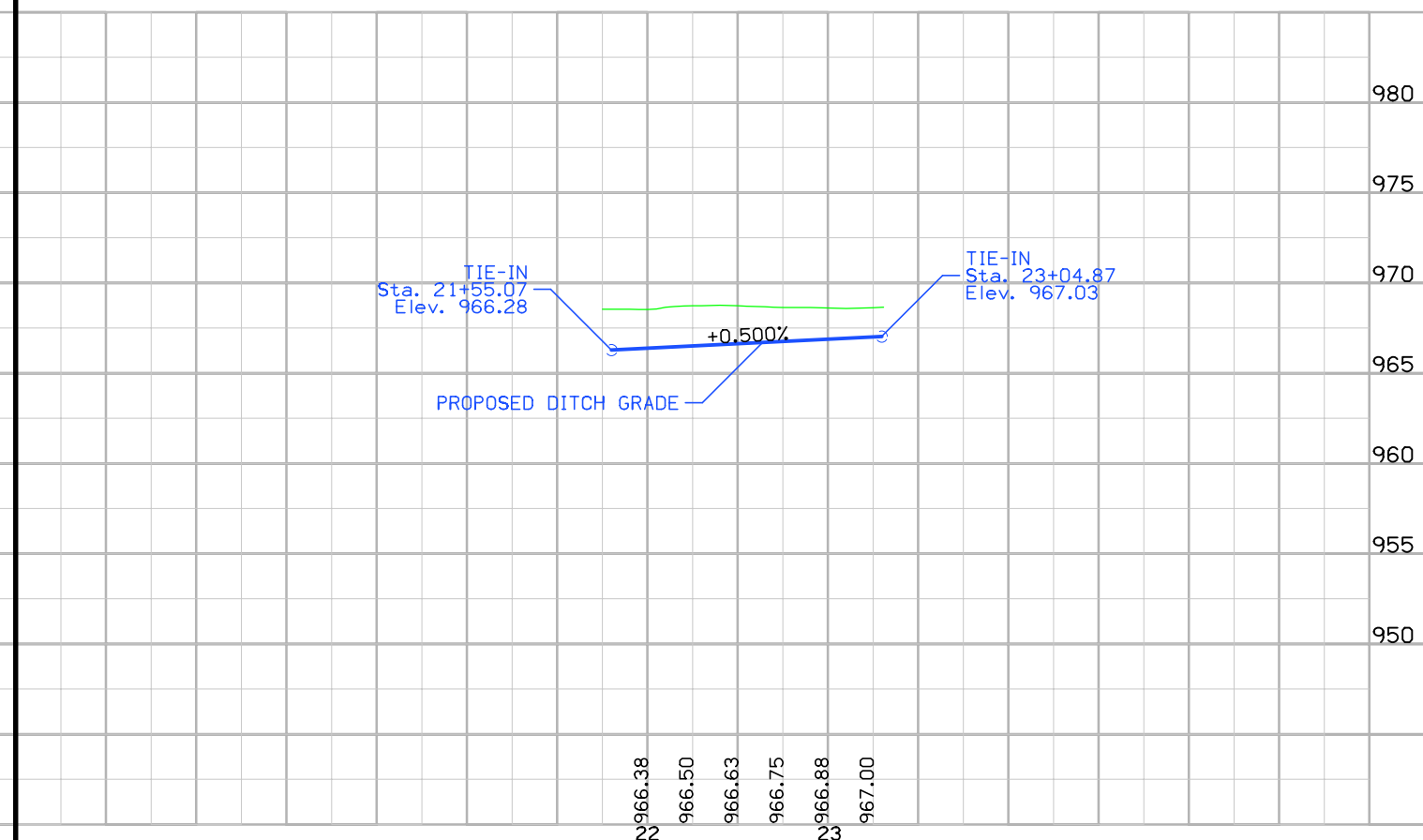
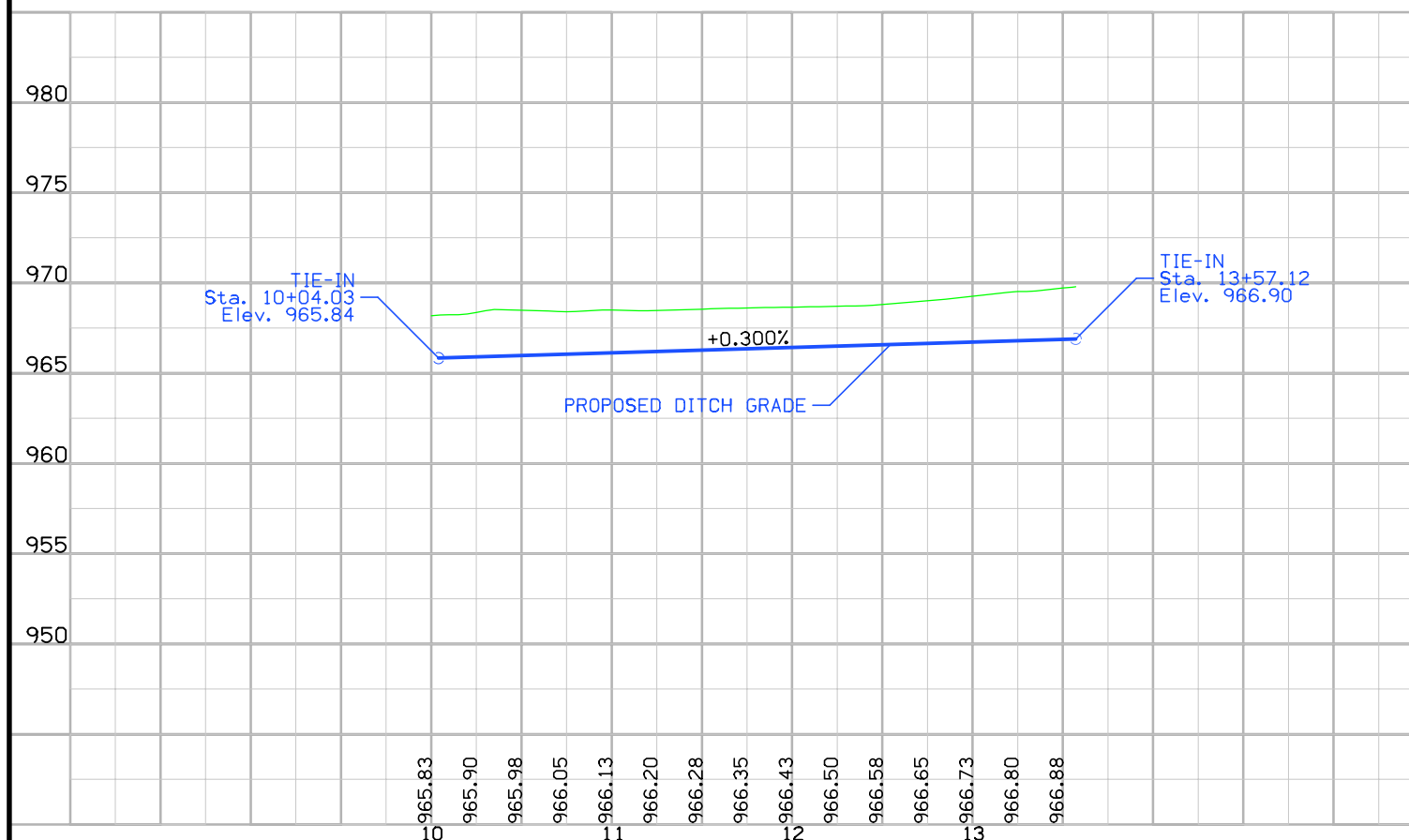






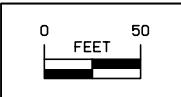
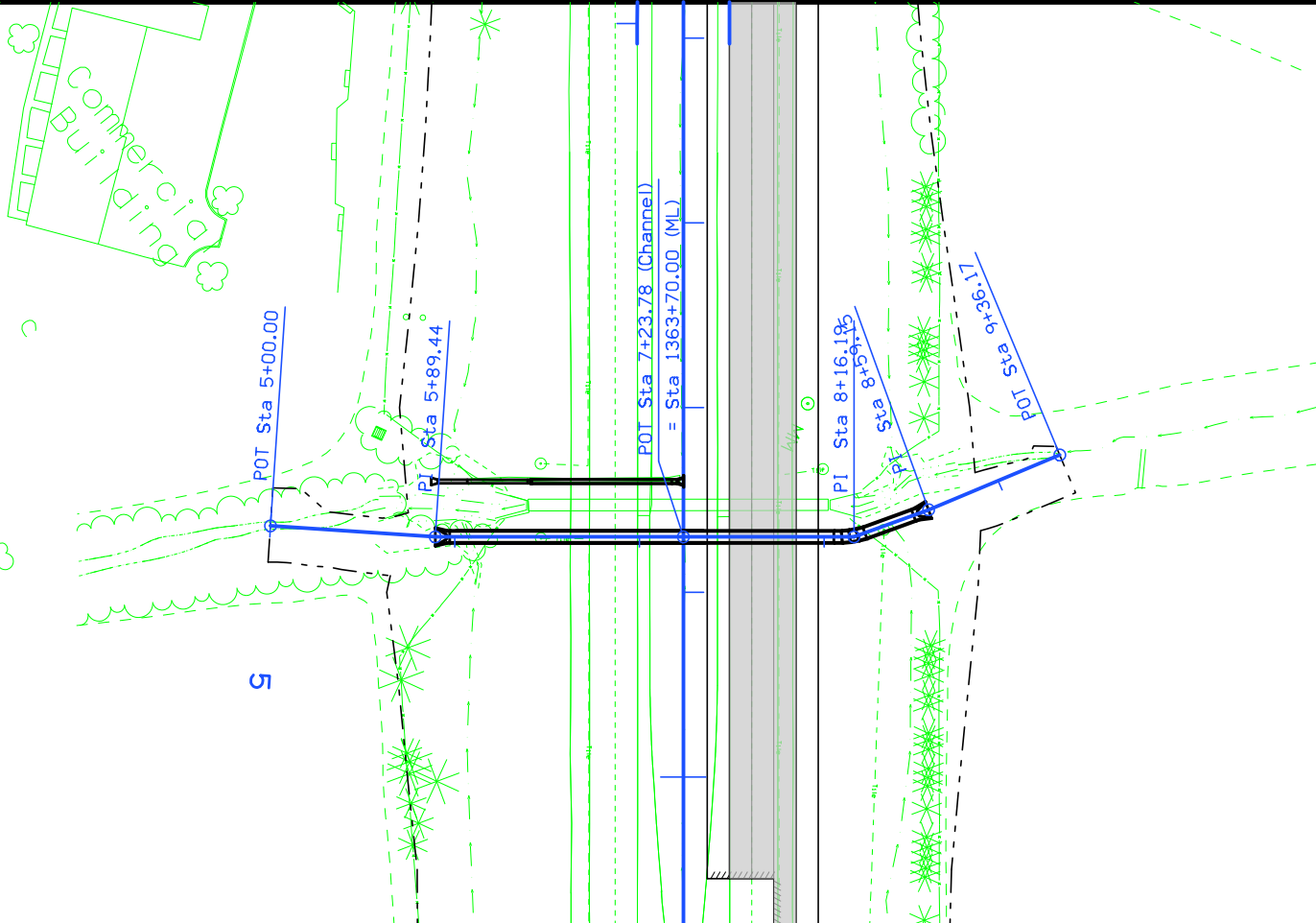
LOOP E DITCH 1

LOOP E DITCH 2

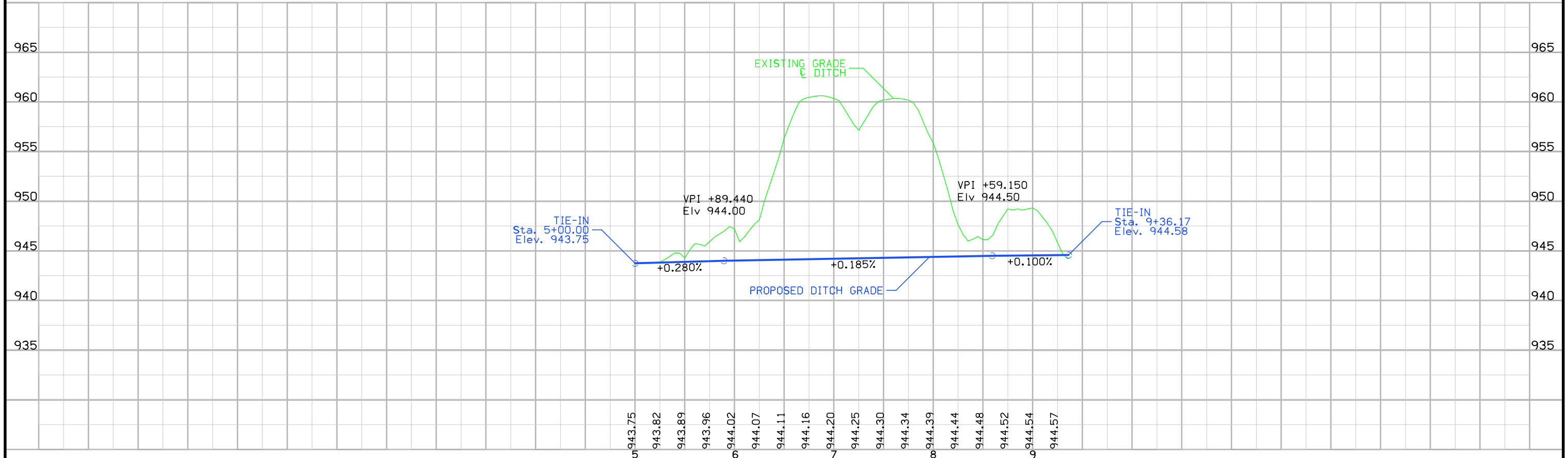


DELAWARE TWP.
T-79N R-23W
SEC. 12

DELAWARE TWP.
T-79N R-23W
SEC. 12



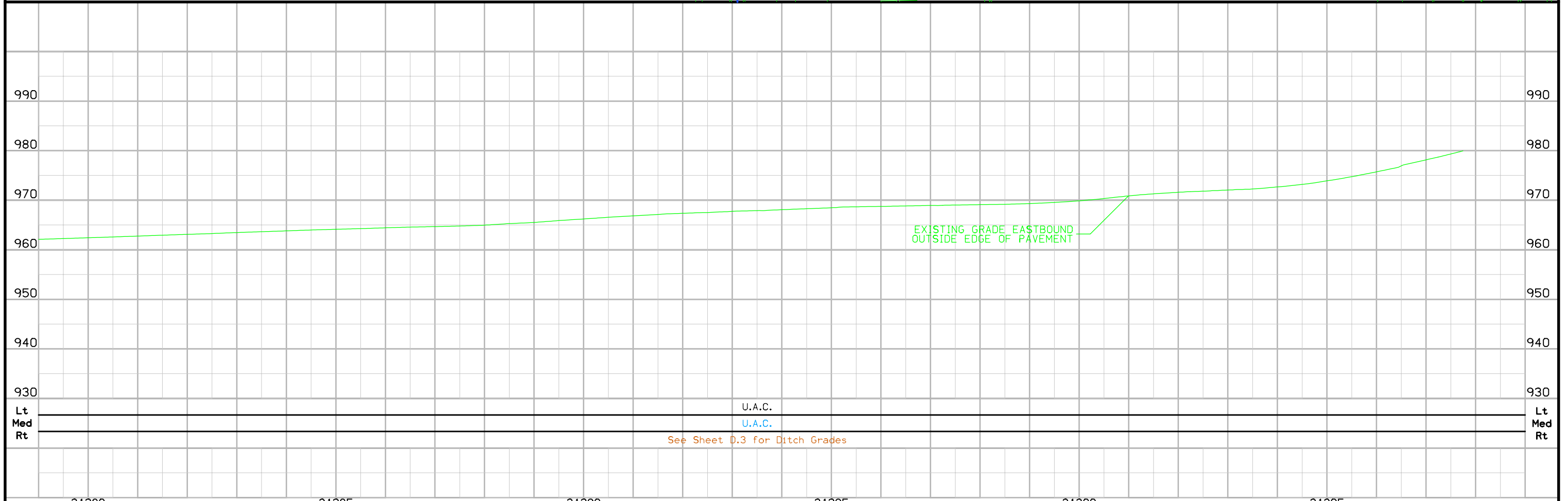
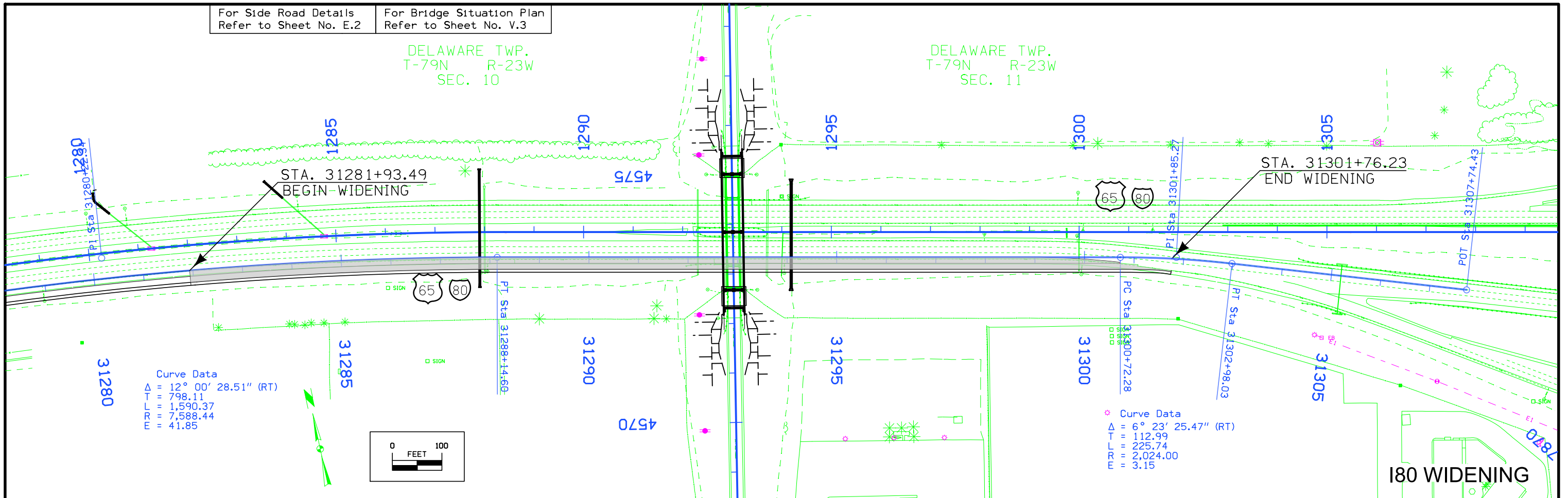
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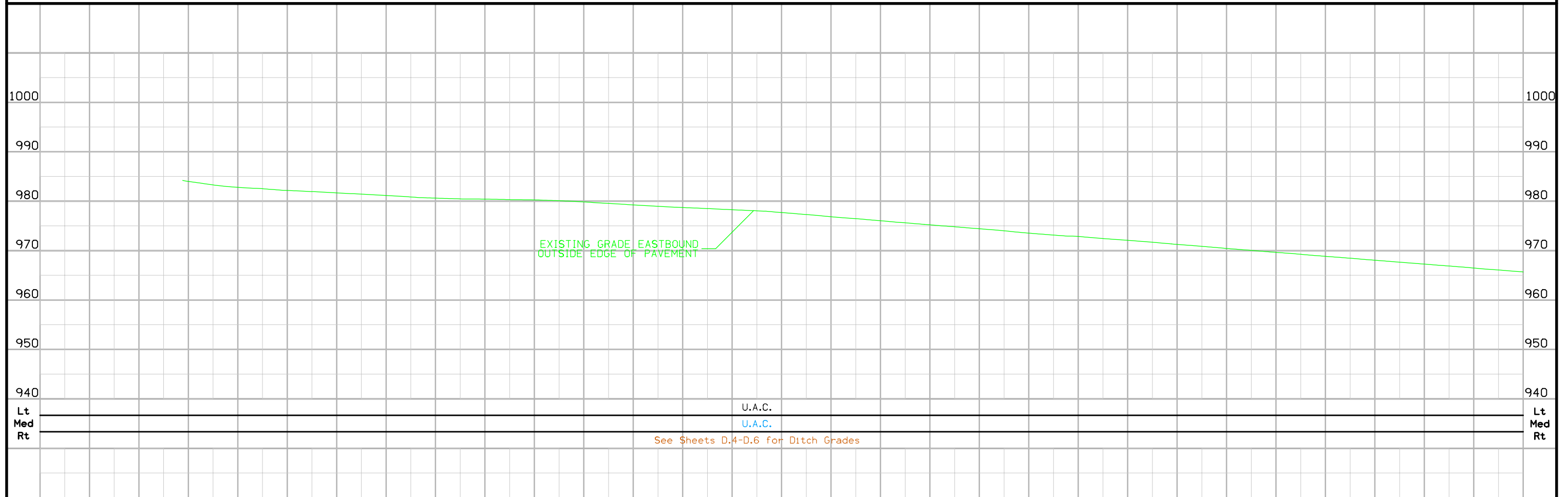
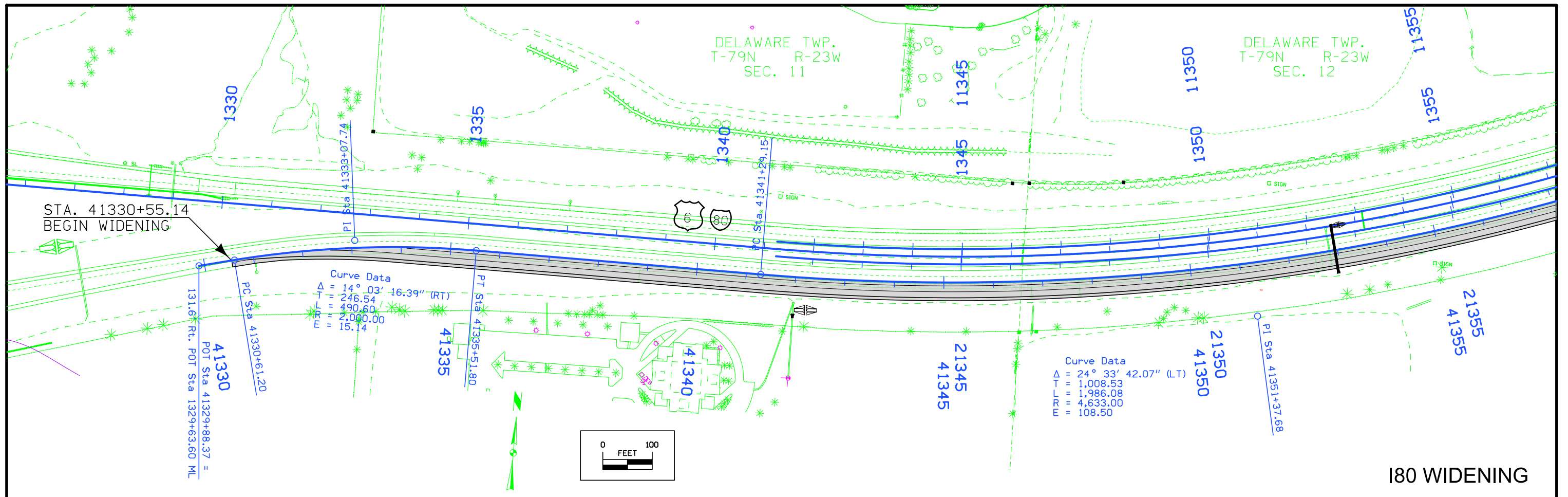


For Side Road Details Refer to Sheet No. E.2
 For Bridge Situation Plan Refer to Sheet No. V.3

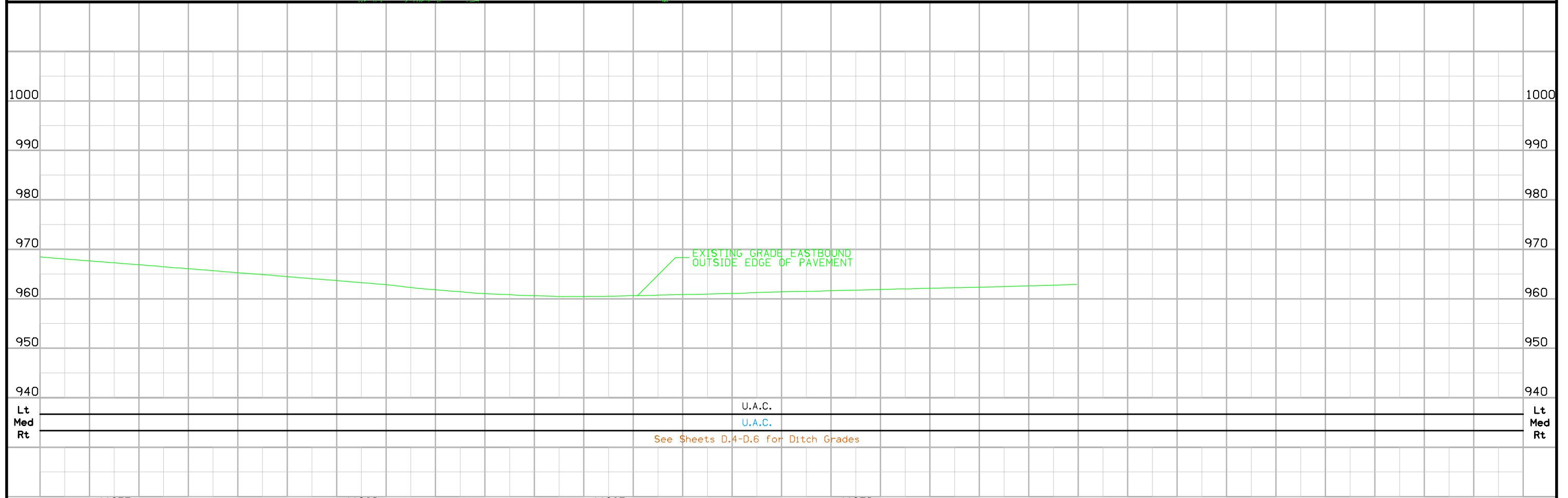
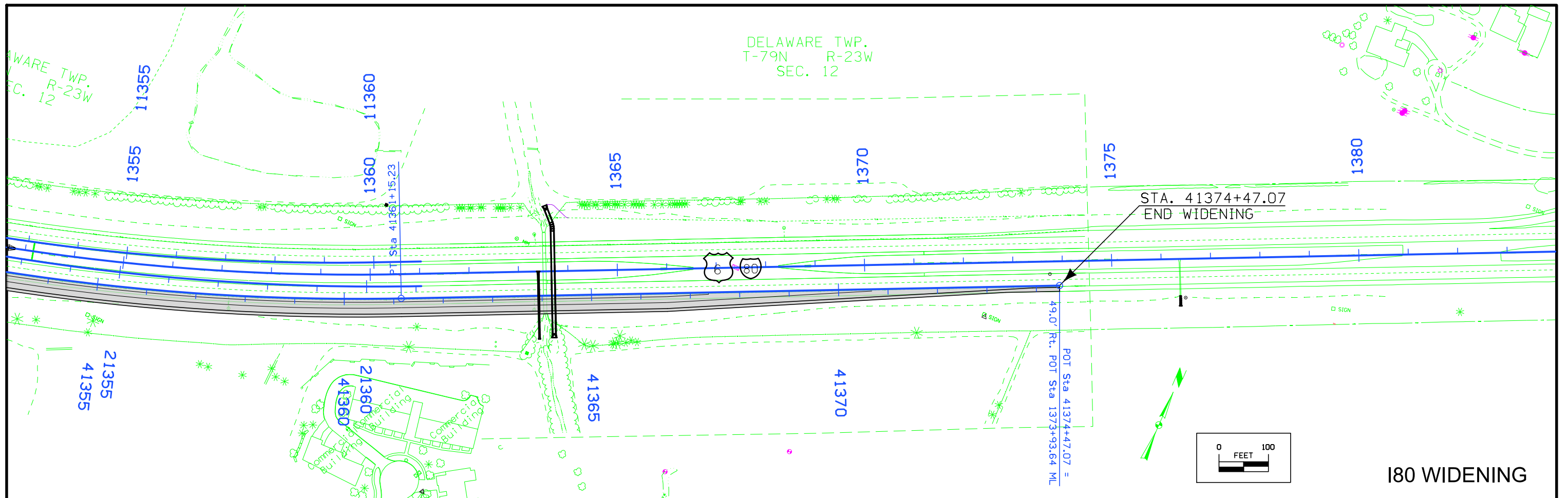
DELAWARE TWP.
 T-79N R-23W
 SEC. 10

DELAWARE TWP.
 T-79N R-23W
 SEC. 11





41330	41335	41340	41345	41350	41355
ENGLISH	IOWA DOT	DESIGN TEAM	POLK COUNTY PROJECT NUMBER		SHEET NUMBER
Flattery\Gansen			IM-080-5(275)142--13-77		F.2



GENERAL INFORMATION
 THIS SURVEY WAS CONVERTED TO ENGLISH UNITS. THE ORIGINAL SURVEY WAS IN METRIC UNITS. THE DATUM PLANE FOR THIS SURVEY IS THE SAME AS THAT OF JOHN ADAMS FEB-1996 @ APR-1996 SURVEY ON EAST BOUND OFF RAMP @ EAST BOUND ON RAMP ON I-80 AT THE US # 65 INTERCHANGE. PROJ # IM-80-5(181)--13-77

BM # 503 THIS CONVERTED SURVEY ELEVATION 972.642
 = BM # 503 JOHN ADAMS FEB @ APR 1996 SURVEY ELEVATION 296.462

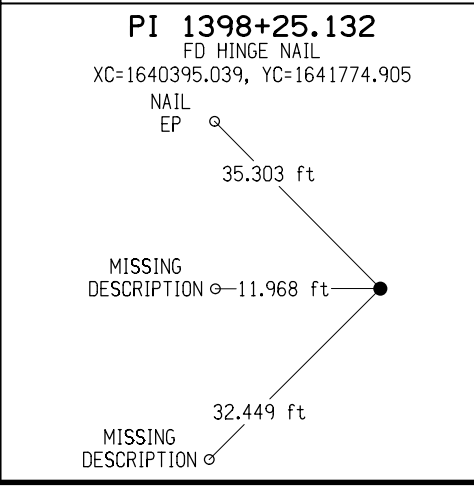
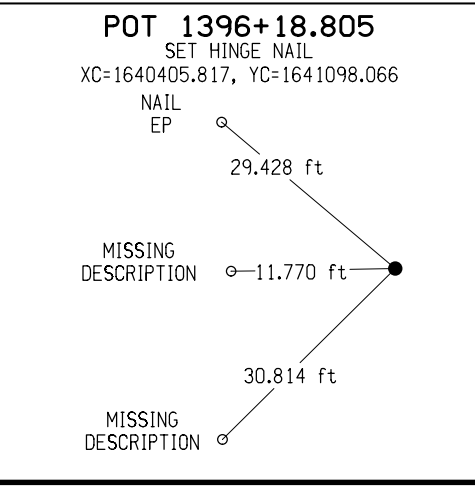
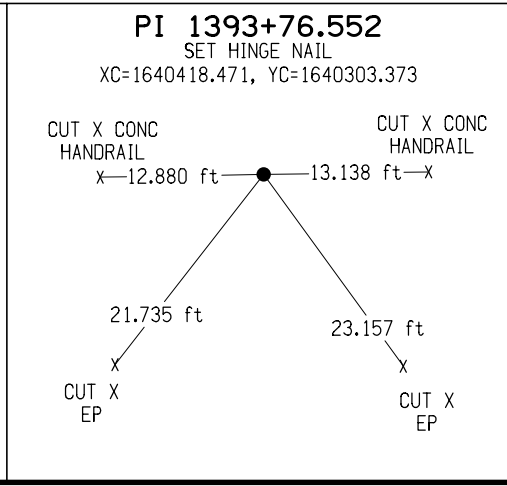
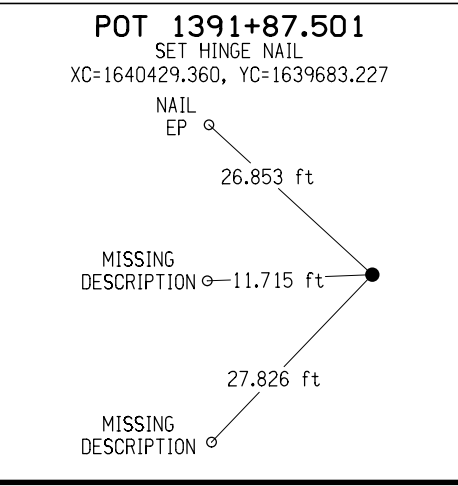
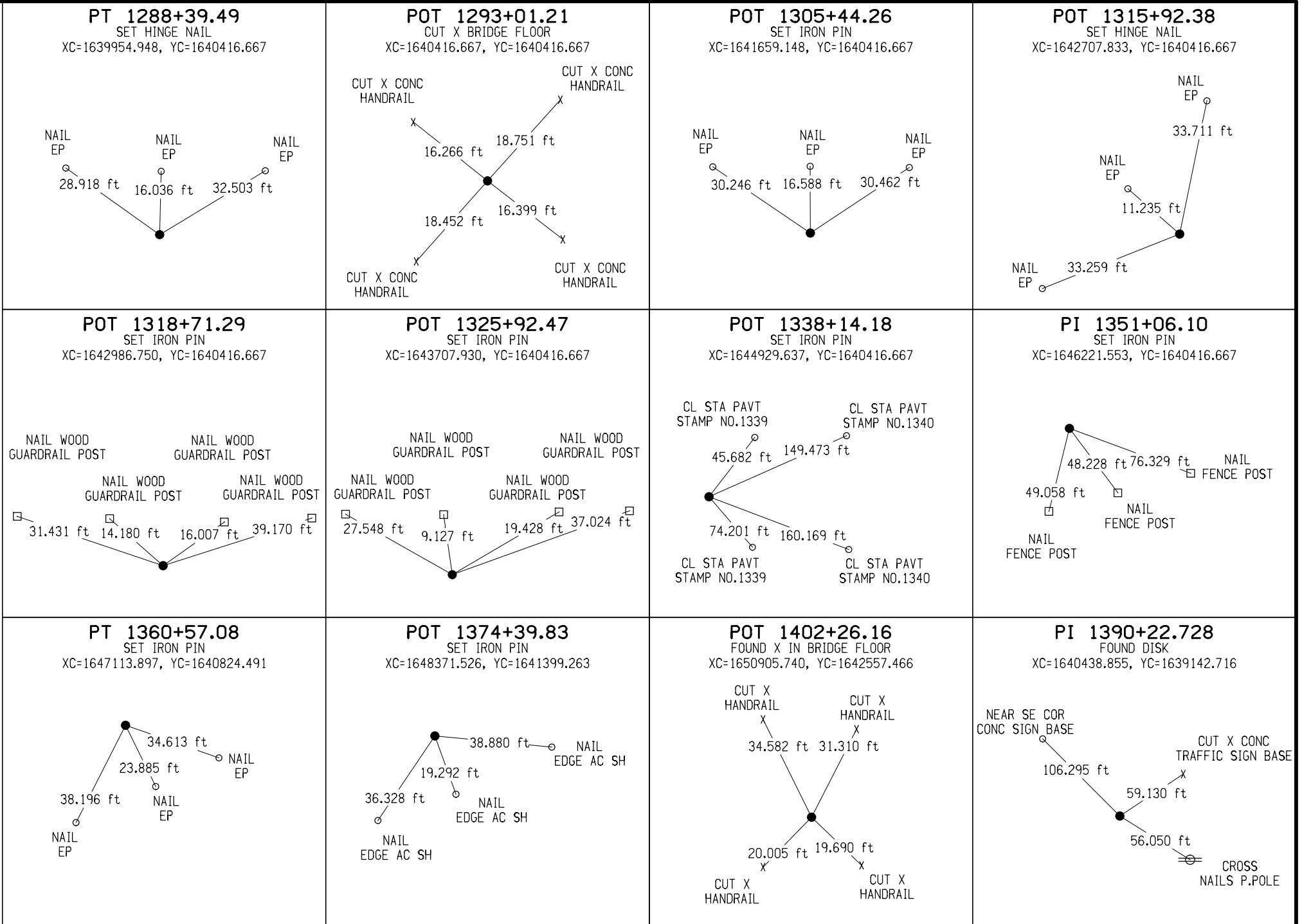
BM # 504 THIS SURVEY ELEVATION 995.067
 = BM # 504 JOHN ADAMS FEB @ APR 1996 SURVEY ELEVATION 303.297

THIS SURVEY IS A RETRACE OF THE CENTERLINE OF THE MEDIAN OF I-80

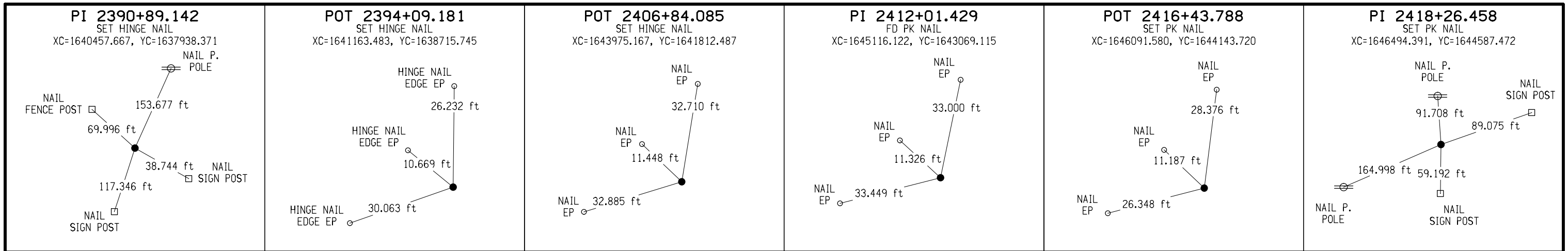
THE DATUM STATIONING FOR THIS SURVEY WAS OBTAINED BY FINDING POT STA 1293+01.21 (ENGLISH) CENTERLINE OAK HILL ROAD
 = POT STA 1293+01.21 (ENGLISH) THIS SURVEY
 THIS STATIONING WAS CARRIED THROUGHOUT THIS SURVEY ON I-80.

POT STA 1293+01.21 THIS SURVEY (ENGLISH)
 = POT 1293+01.21 (ENGLISH) I-80 I-16-80-4(2)142 ASBUILT PLANS
 YC 1640416.666 XC 1640416.666 WAS USED FOR ASSUMED COORDINATES ON THIS POINT

BENCHMARKS	ELEVATION
No. 505 Sta. 1268+53.159 71.38 Rt. CUT X S. BOLT OF FIRST LIGHT PO WEST OF OAK HILL BRIDGE	958.325
No. 506 Sta. 1278+01.622 74.38 Rt. CUT X CONC BASE OF FIRST OVERHEAD SIGN W. OF THE OAK HILL BRG	964.558
No. 503 Sta. 1304+75.025 206.13 Rt. N. BOLT FIRST STEEL LAMP POLE W. OF THE HWY 65 & OFFRAMP I-80 E.BOUND	972.642
No. 510 Sta. 1315+12.867 11.15 Lt. FD IHC BM SW WING OF THE W.BOUND BRG OVER HWY 65	994.795
No. 504 Sta. 1326+19.237 26.13 Rt. FD IHC SW WING HWY 65 N. BRG OVER I-80 W.BOUND	995.067
No. 515 Sta. 1341+24.319 97.92 Lt. CUT X FIRST CONC SIGN BASE E. OF THE HWY 65 N. BRG	971.629
No. 516 Sta. 1363+52.857 84.33 Rt. CUT X OUTLET HDWL 1.83 X 1.83 RCB???????	951.399
No. 517 Sta. 1382+46.744 138.19 Rt. SET (2)60DD NAIL COR POST	970.077
No. 507 Sta. 4572+73.234 14.60 Lt. CUT X SW WING OAK HILL BRG OVER I-80	988.489
No. 508 Sta. 7868+11.387 149.95 Rt. CUT X CONC BASE LAMP POLE	964.253
No. 509 Sta. 7874+18.247 67.44 Lt. FD IHC BM SW WING OF E.BOUND BRG OVER HWY 65	992.600
No. 511 Sta. 7892+65.519 239.19 Rt. CUT X E.BOLT STEEL LAMP POLE	973.522
No. 512 Sta. 7906+79.873 166.63 Rt. SET (2)60DD NAIL COR POST	979.604
No. 513 Sta. 7917+87.813 67.34 Lt. SET RR SPK E.SIDE P.POLE	972.557
No. 514 Sta. 7926+16.081 67.67 Lt. SET RR SPK E.SIDE P.POLE	959.614



DETAILS OF REFERENCE INFORMATION
 All References Plumb Distances
 (unless otherwise noted)



DETAILS OF REFERENCE INFORMATION

**All References Plumb Distances
(unless otherwise noted)**

ALIGNMENT COORDINATES

101-16
10-20-09

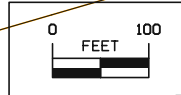
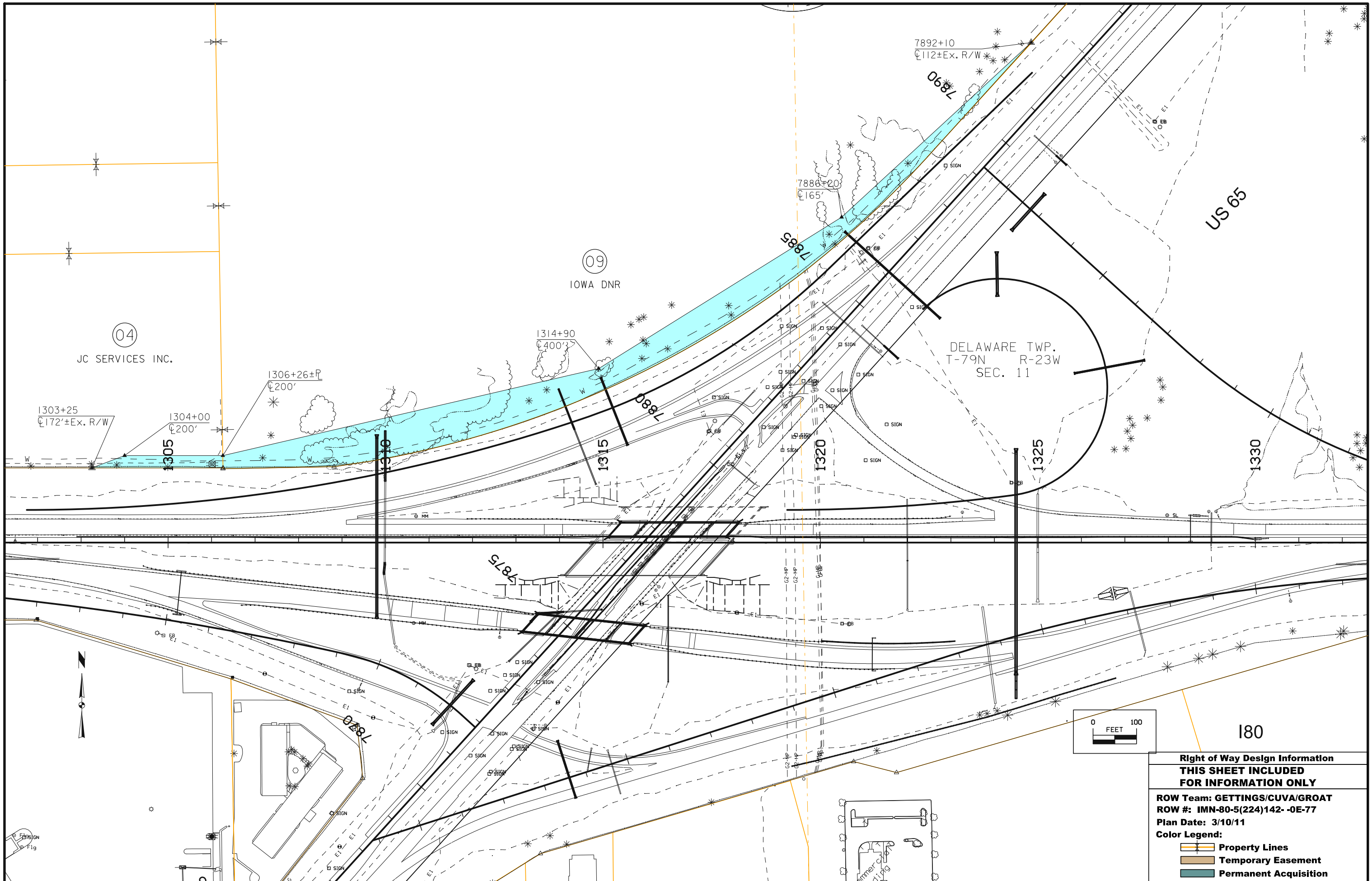
Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)




SPIRAL OR CIRCULAR CURVE DATA

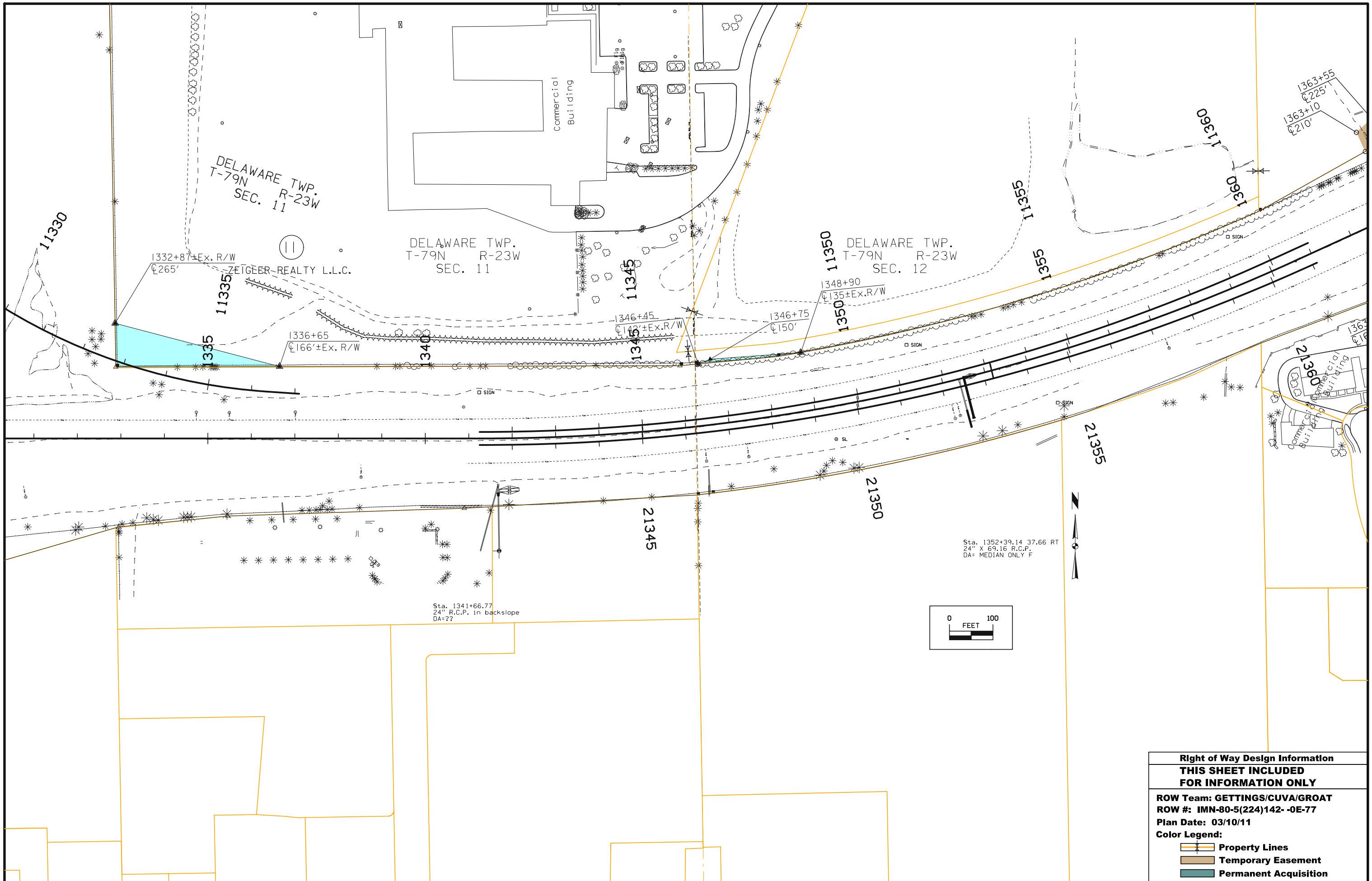
101-17
10-20-09

Name	Location	Δ_{scs}	Horizontal Alignment Data													Superelevation Data		
			Spiral Data						Curve Data				Superelevation Data					
			θ_s	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	Δ_c	T	L	R	E	e	L	x

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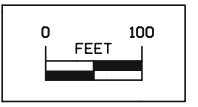





Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: GETTINGS/CUVA/GROAT	
ROW #: IMN-80-5(224)142--0E-77	
Plan Date: 3/10/11	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

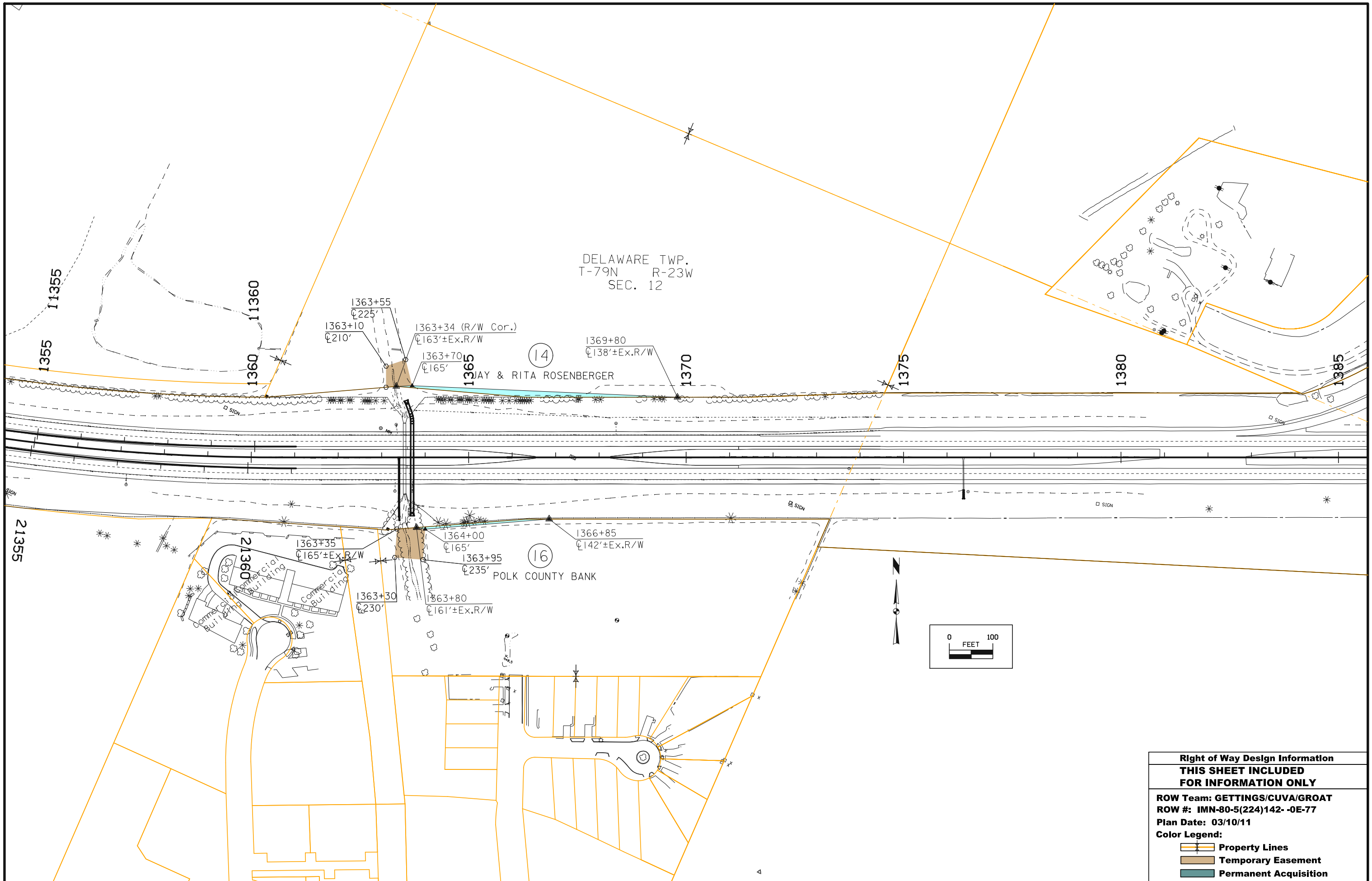


Sta. 1341+66.77
24" R.C.P. in backslope
DA=??

Sta. 1352+39.14 37.66 RT
24" X 69.16 R.C.P.
DA= MEDIAN ONLY F



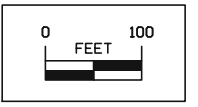
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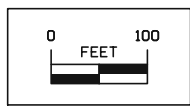
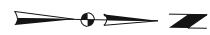
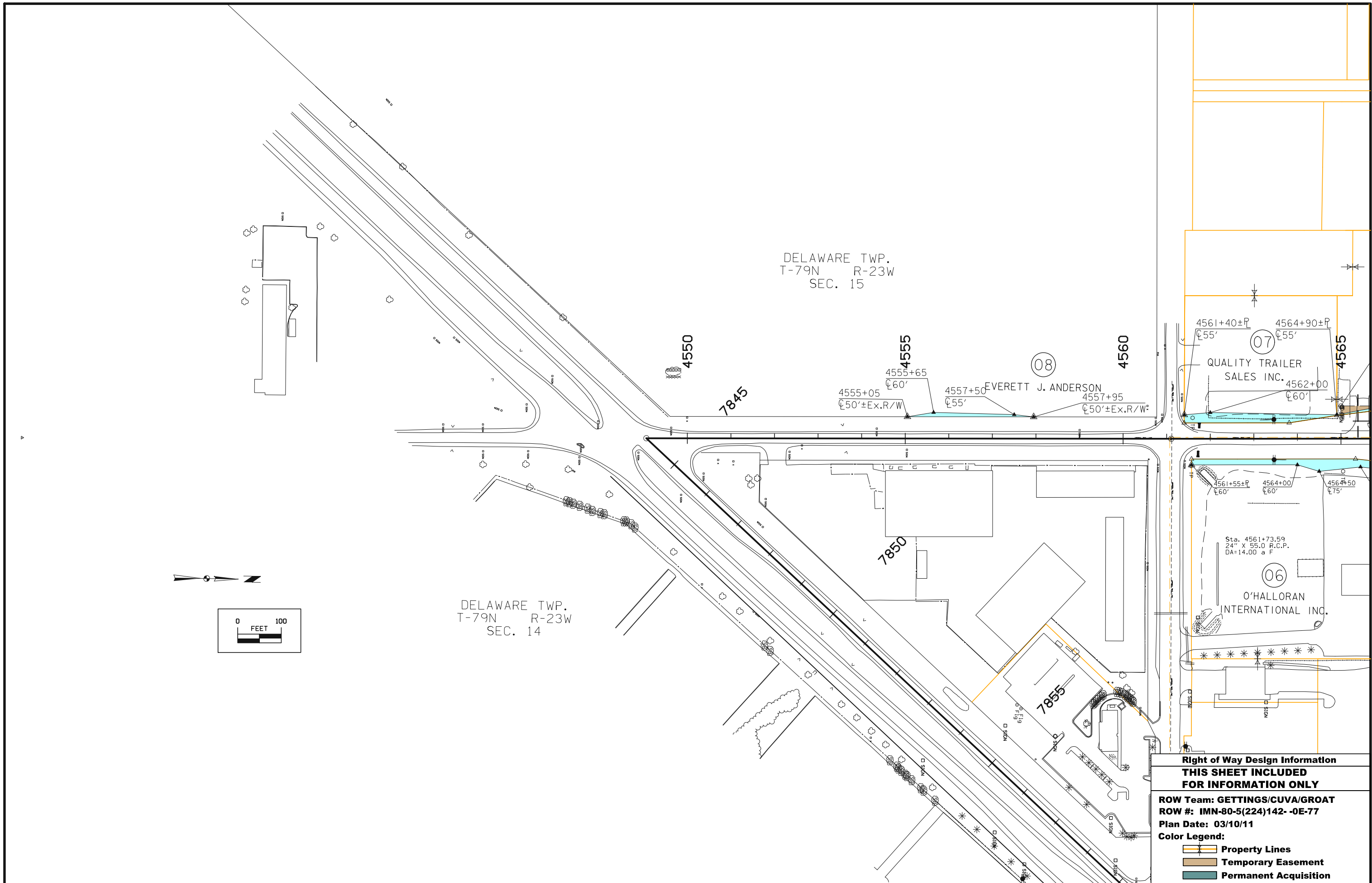
DELAWARE TWP.
T-79N R-23W
SEC. 12

14
JAY & RITA ROSENBERGER

16
POLK COUNTY BANK



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: GETTINGS/CUVA/GROAT	
ROW #: IMN-80-5(224)142--0E-77	
Plan Date: 03/10/11	
Color Legend:	
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	Temporary Easement
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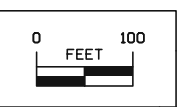
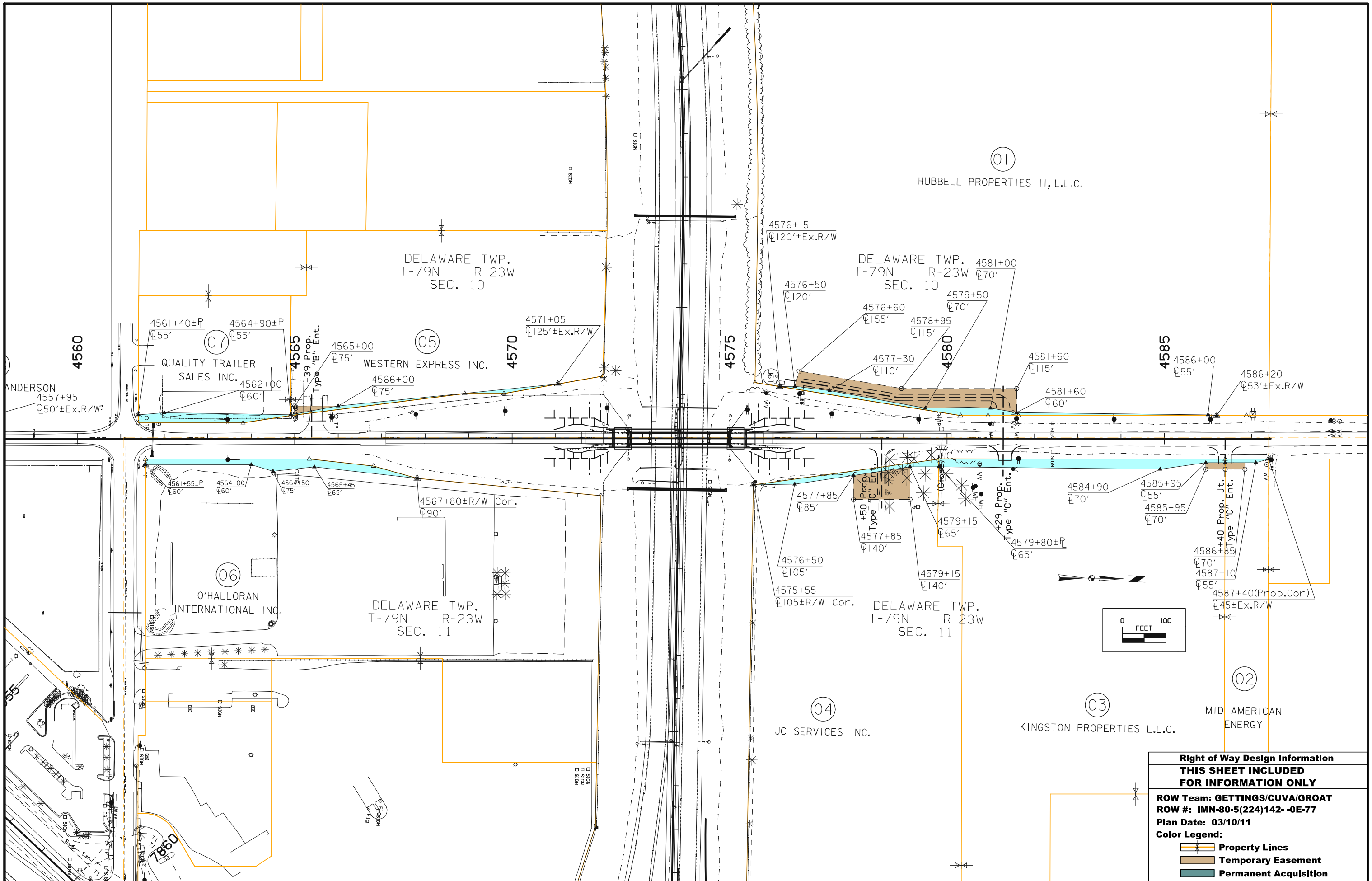


Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: GETTINGS/CUVA/GROAT
ROW #: IMN-80-5(224)142- -0E-77
Plan Date: 03/10/11

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: GETTINGS/CUVA/GROAT	
ROW #: IMN-80-5(224)142--0E-77	
Plan Date: 03/10/11	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

TABULATION OF SPECIAL EVENTS

102-15
10-29-02

Event	Location	Date
District to provide this information		

TRAFFIC CONTROL PLAN

108-23
04-04-89

1. Traffic shall be maintained on I80, US 65, US 6, Hubbell Ave., and Oak Hill Road at all times except as noted below.
2. Two lanes of traffic shall be maintained on I80 at all times except for night time lane closures for the shoulder strengthening.
3. Night time work will only be allowed on I80 for the strengthening of the eastbound shoulder. Work will only be allowed from 9:00 p.m. on Sunday to 6:00 a.m. on Monday and from 8:00 p.m. to 6:00 a.m. Monday through Thursday, beginning at 9:00 p.m. Sunday and ending at 6:00 a.m. on Friday.

On each allowed work day, no traffic control devices shall be placed before 9:00 p.m. on Sunday or 8:00 p.m. Monday through Thursday. All traffic control devices shall be removed before 6:00 a.m. each working day.
4. I80 will be closed and detoured at night for the removal of the Oak Hill Road bridge and the existing westbound bridge.

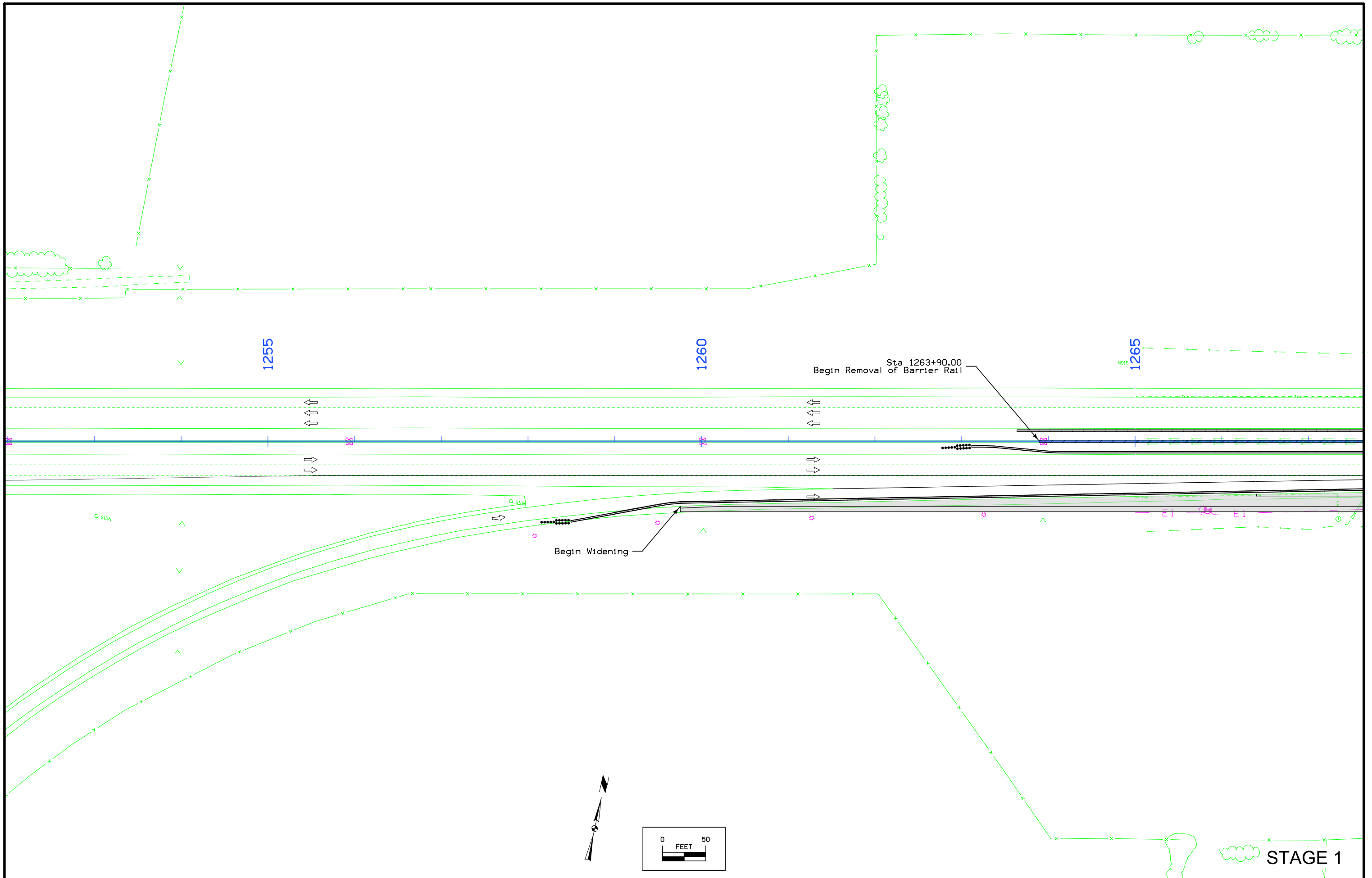
The IDOT will be responsible for signing the detour during the closure of I80 for the removal of Oak Hill Road Bridge and the westbound I80 bridge.
5. Short term night closures on I80 will be allowed for the setting of bridge beams on the Oak Hill Road Bridge and the new westbound bridge.
6. Lane closures on Hubbell Ave will not be allowed from 7:00 AM to 9:00 AM and from 3:00 PM to 6:00 PM.
7. Oak Hill Road will be closed during the duration of the bridge removal and replacement. Detour???
8. Traffic control on this project shall be in accordance with Standard Road Plans listed in Tab 104-5 in the C Sheets and the J Sheets in this plan.

For additional complimentary information refer to Part 6 of the Manual on Uniform Traffic Control Devices and to the current Standard Specifications.

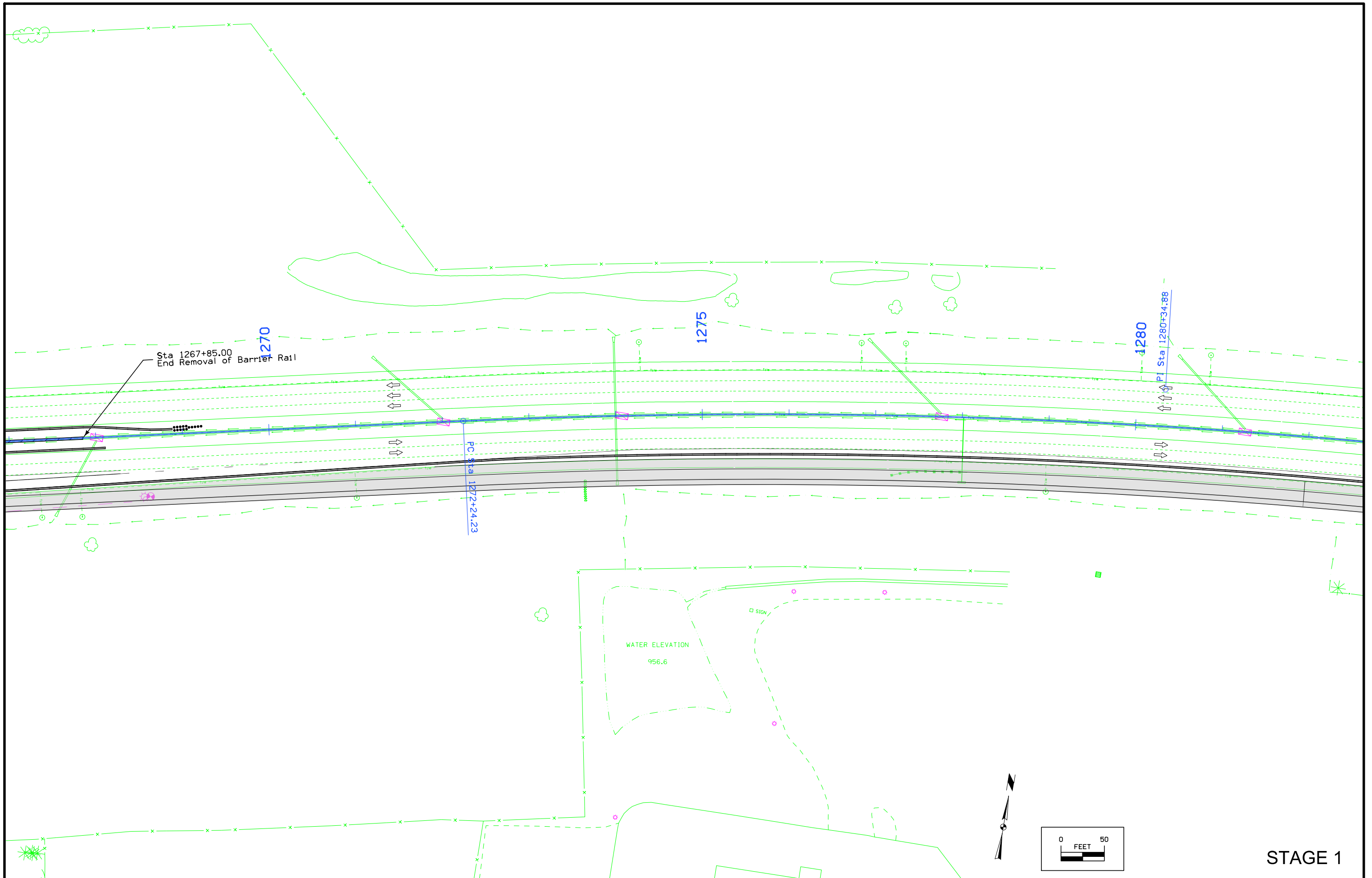
STAGING NOTES

108-26
08-30-88

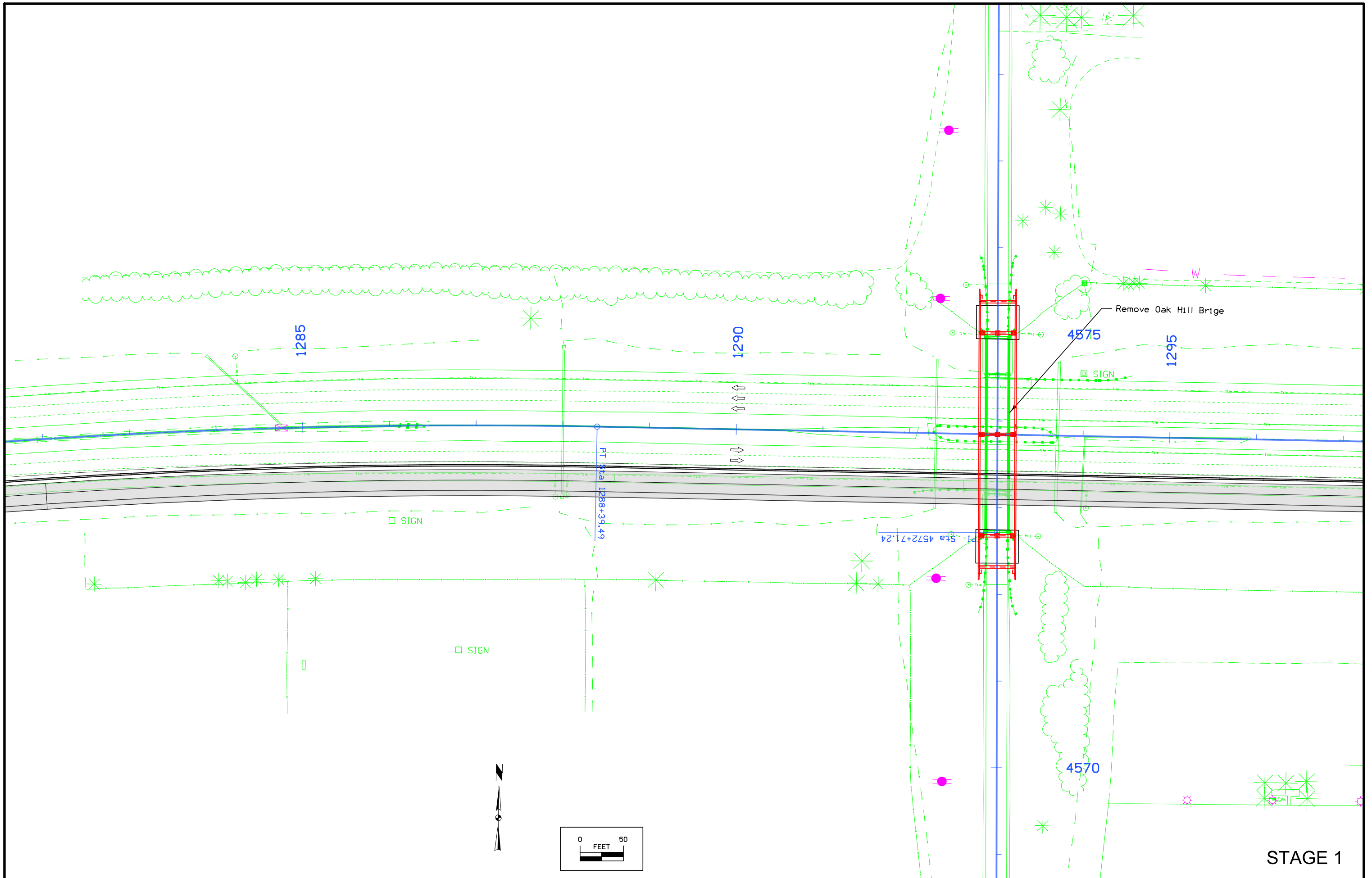
- Stage 1: (Refer to Sheets J.2 - J.10)
1. Strengthen median shoulder of the eastbound lanes from Sta. E1319+37.88 to Sta. 1379+54.57. Shift eastbound traffic on to strengthened shoulder and construct widening of the eastbound lanes.
 2. Remove Oak Hill Road bridge. Open Oak Hill Road to traffic when bridge is complete.
 3. Construct new Oak Hill Road Bridge.
 4. Begin grading Ramps A and C.
- Stage 2: (Refer to Sheets J.11 - J.19)
1. Install median intakes and storm sewer as shown on the M Sheets.
 2. Grade and pave new eastbound pavement.
 3. Construct new eastbound bridge approach.
 4. Continue grading Ramps A and C.
- Stage 3: (Refer to Sheets J.20 - J.28)
1. Pave Ramps A and C.
 2. Grade and Pave mainline as shown on Sheets J.23 and J.25.
- Stage 4: (Refer to Sheets J.29 - J.37)
1. Move westbound traffic to the new eastbound lanes and open new Ramps A and C.
 2. Remove existing westbound bridge.
 3. Grade new westbound bridge berms.
 4. Construct new westbound bridge.
 5. Install median intakes and storm sewer as shown on the M Sheets.
 6. Grade and Pave the remaining portions of the westbound lanes.
 7. Grade and Pave Loop E.
- Stage 5: (Refer to Sheets J.38 - J.46)
1. Move westbound traffic to the new westbound lanes and open Loop E.
 2. Move eastbound traffic to the new eastbound lanes.
 3. Grade remaining portion of the forslopes and ditch on the eastbound mainline.
- Stage 6: (Refer to Sheets J.45 - J.54)
1. Remove TBR along finished forslopes.

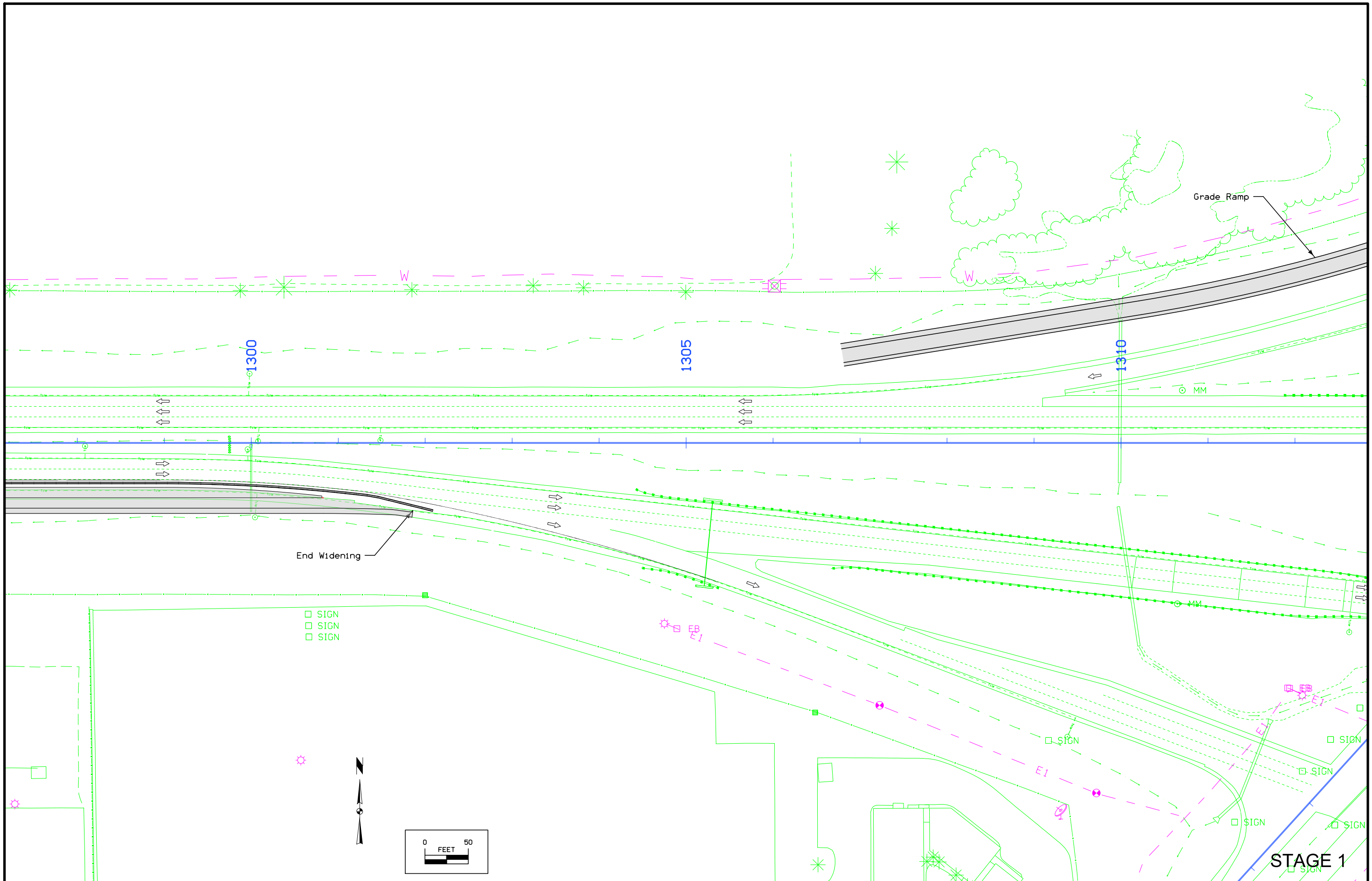


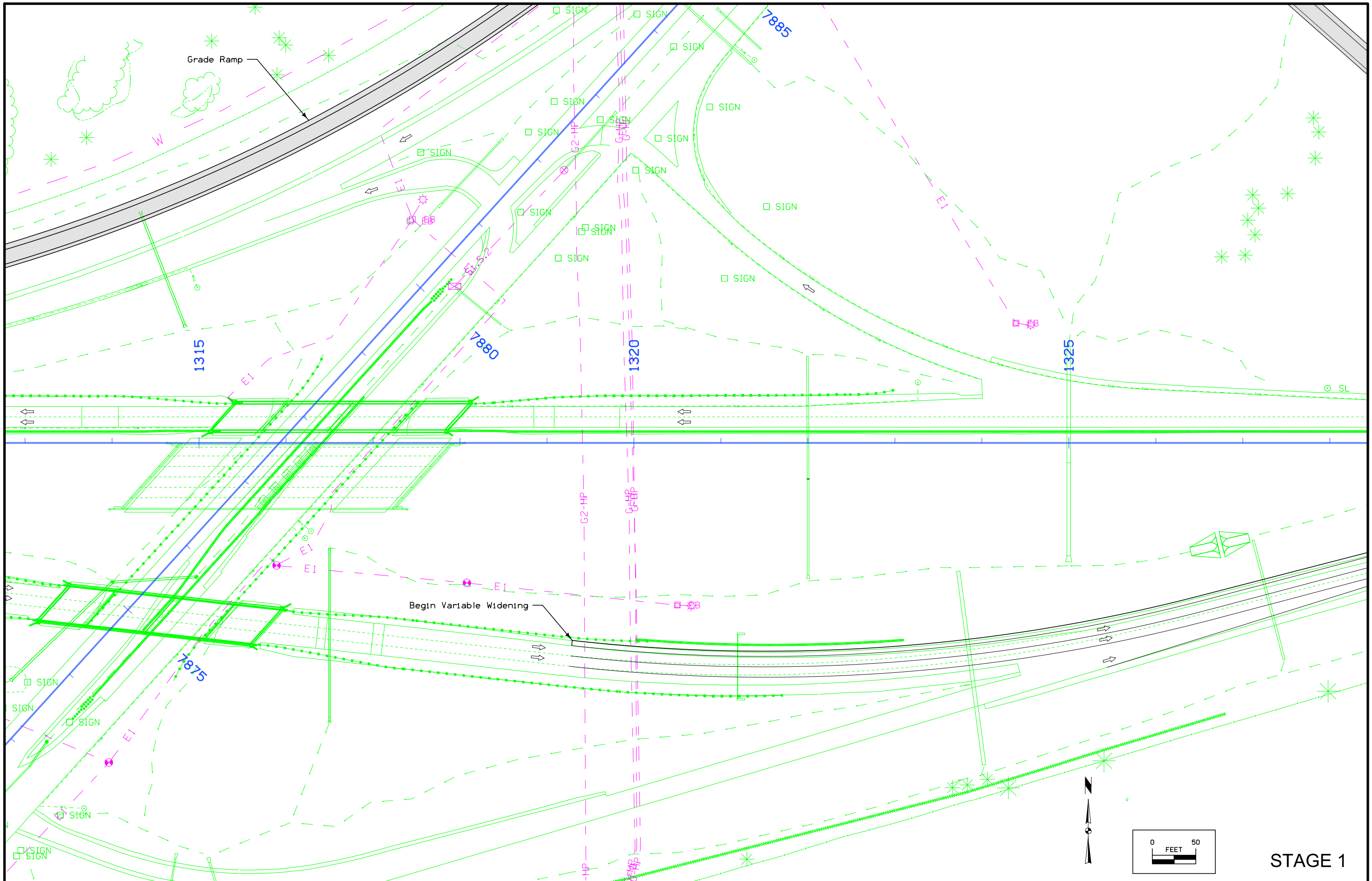
STAGE 1



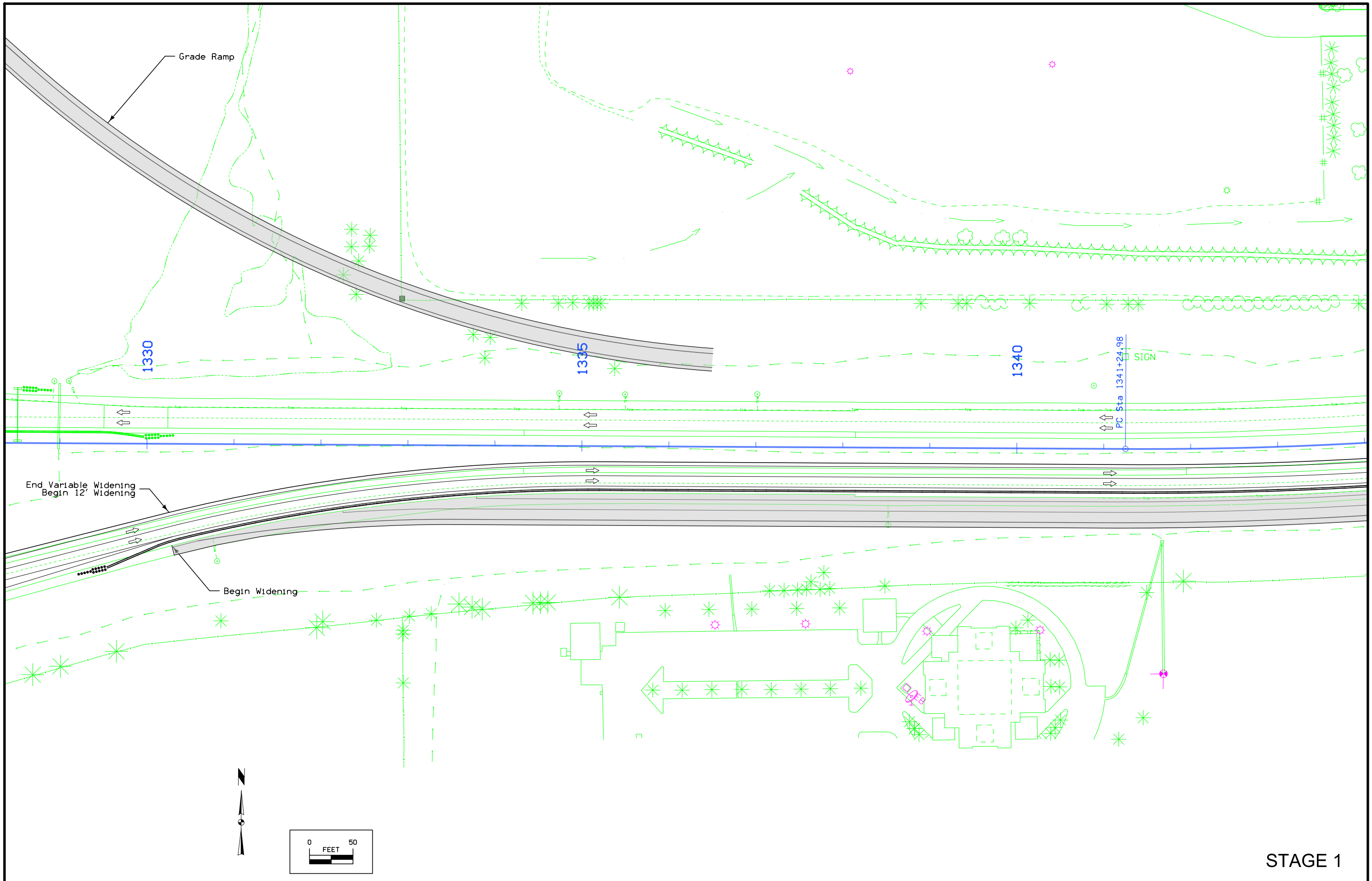
STAGE 1



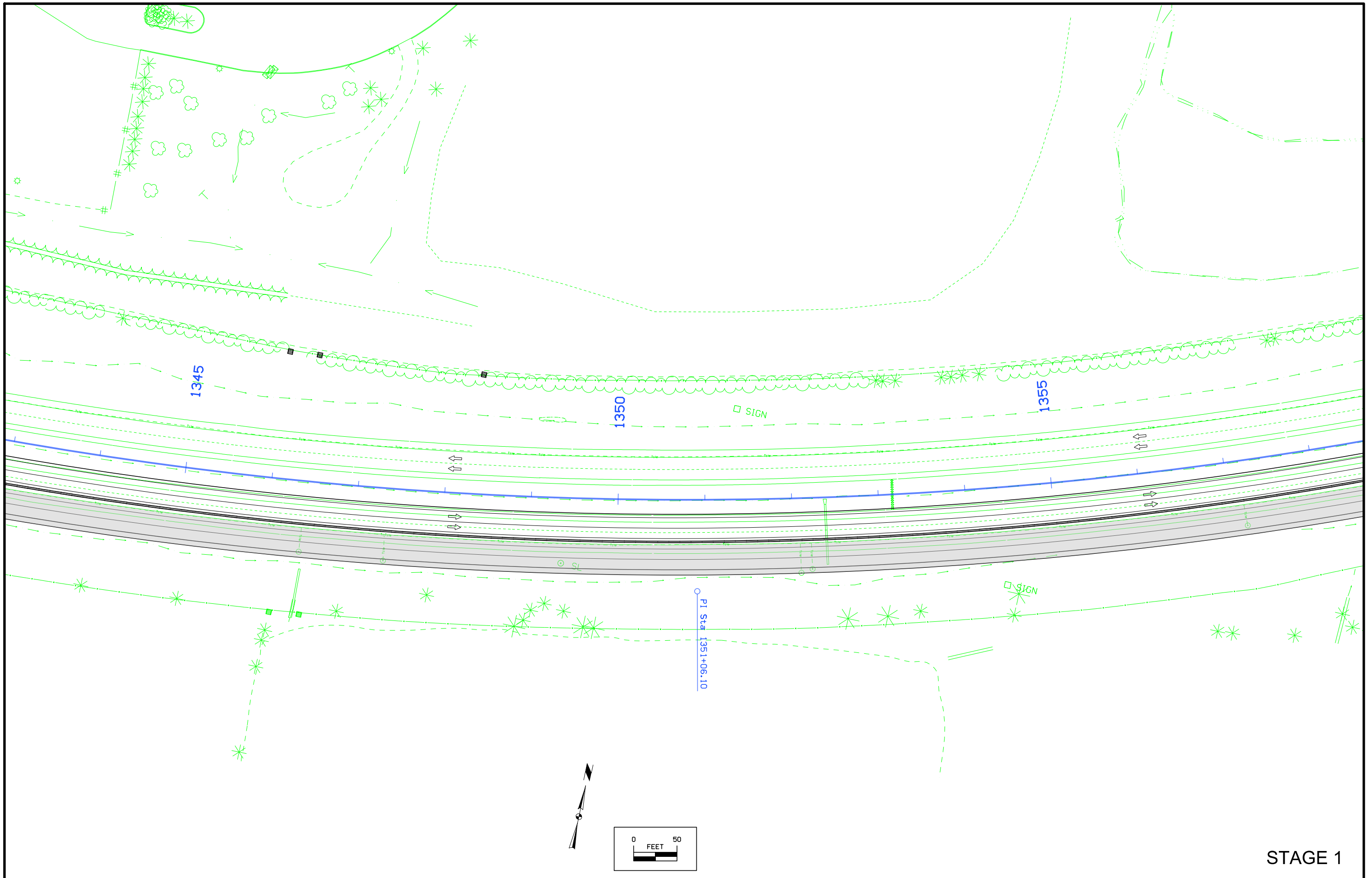




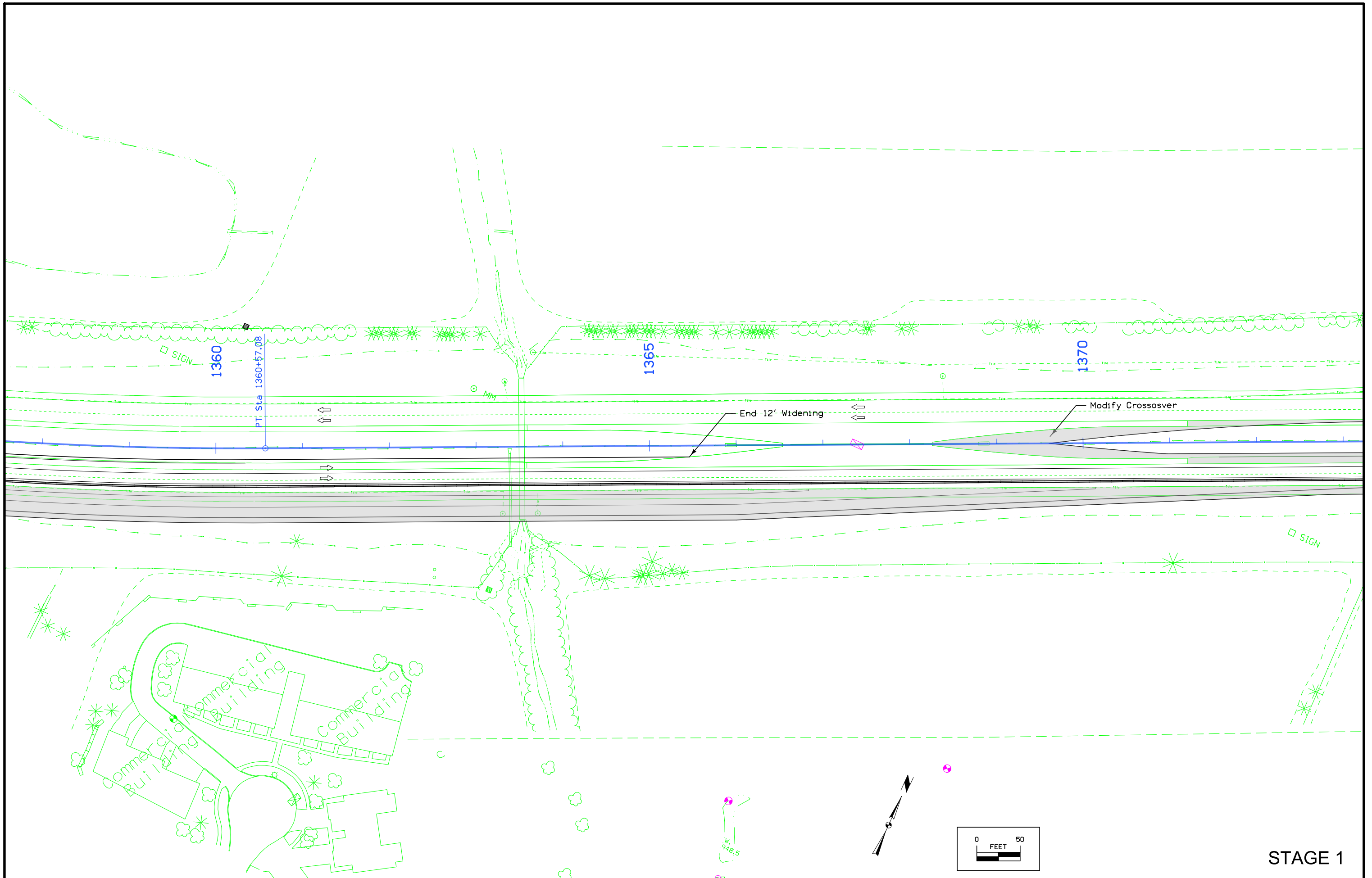
STAGE 1



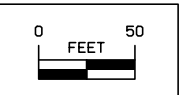
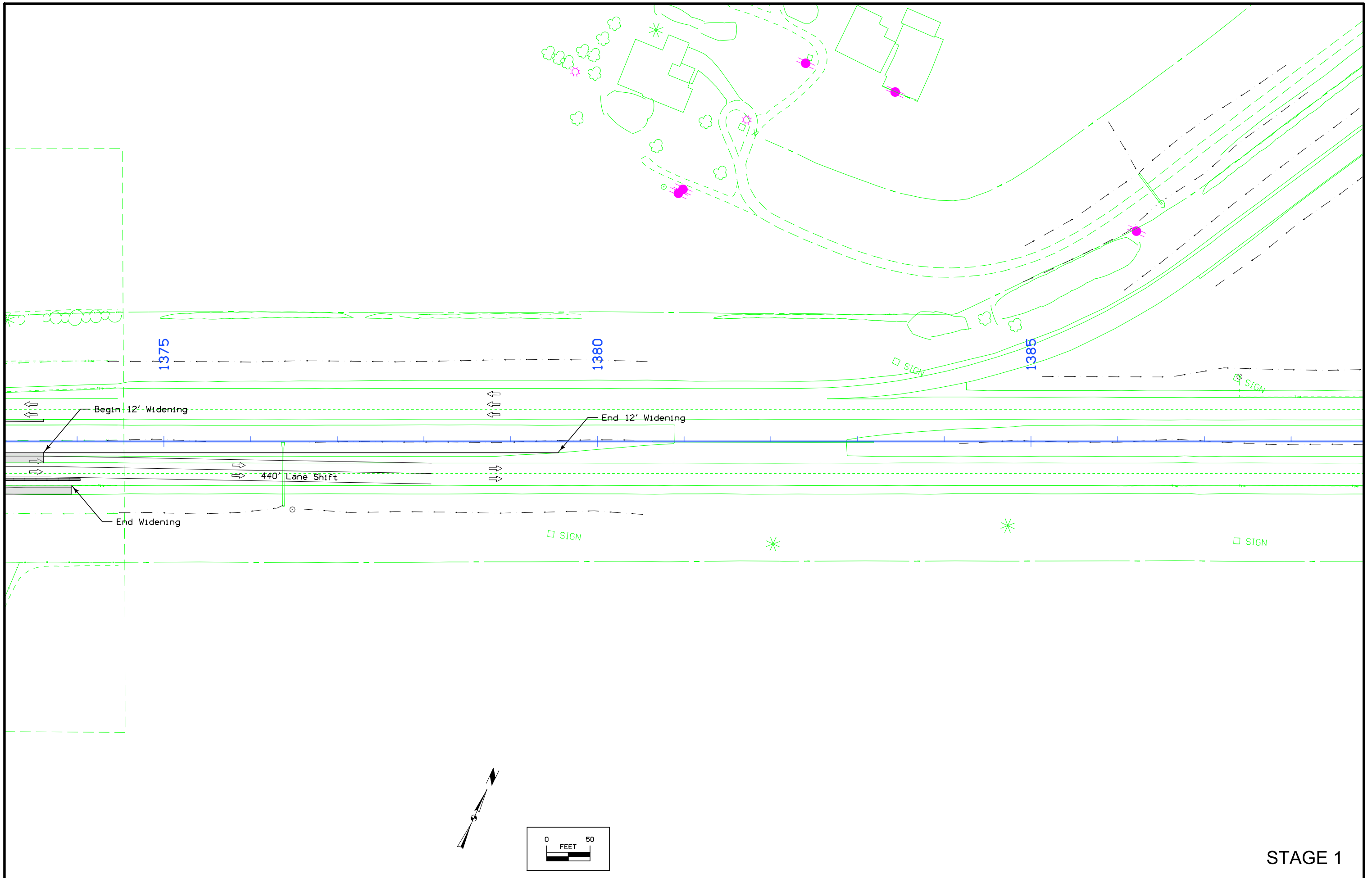
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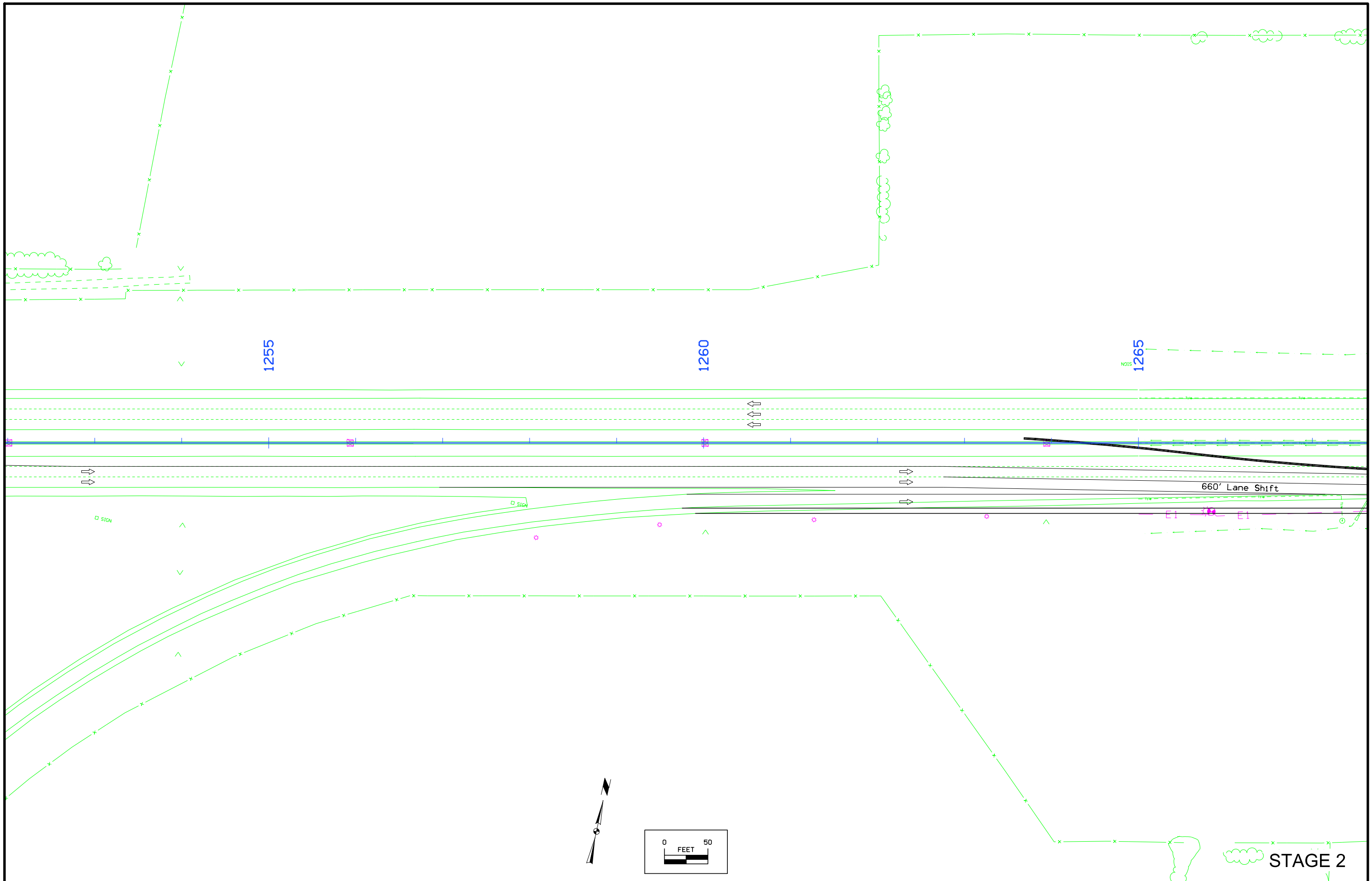
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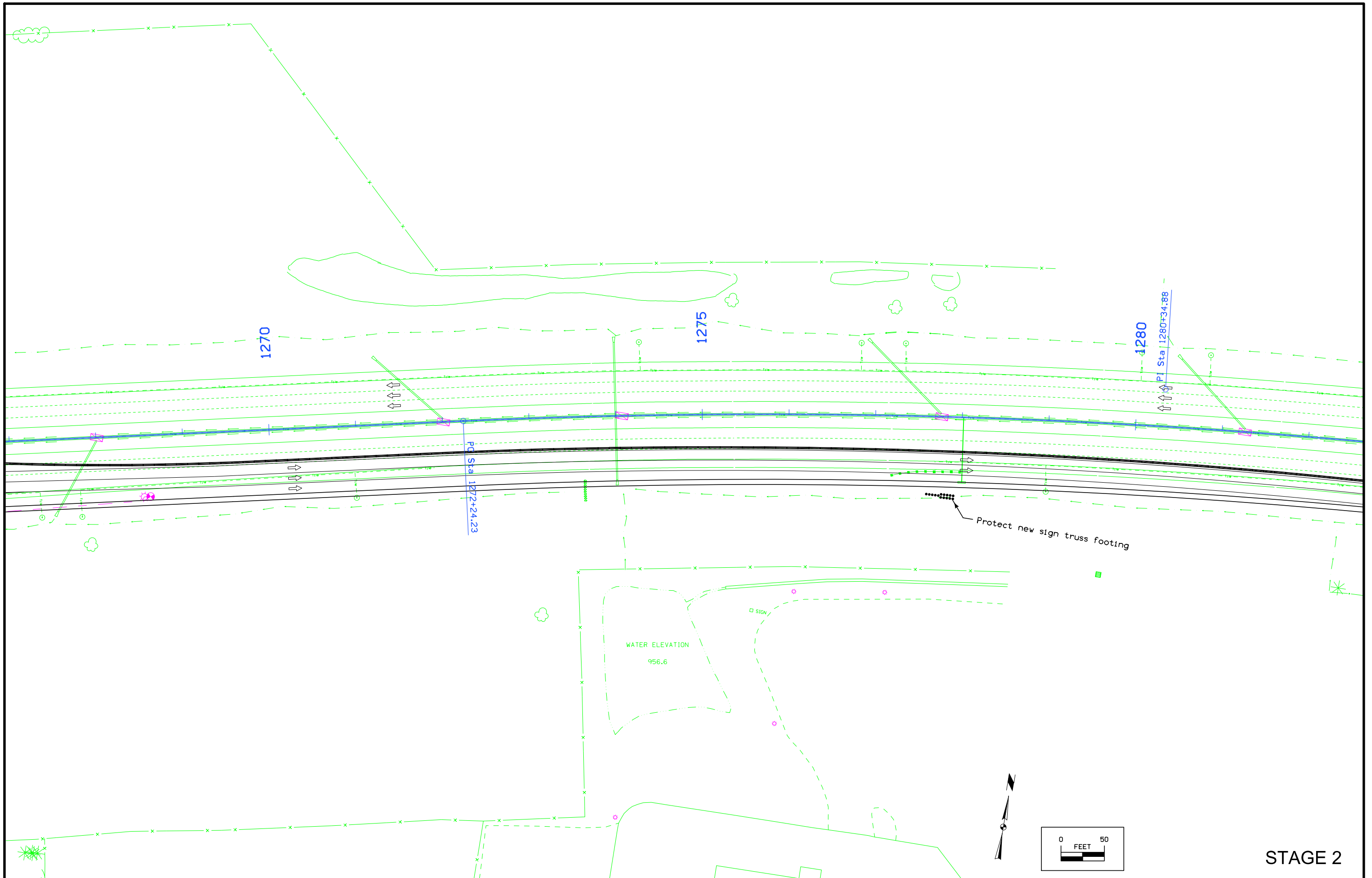


STAGE 1

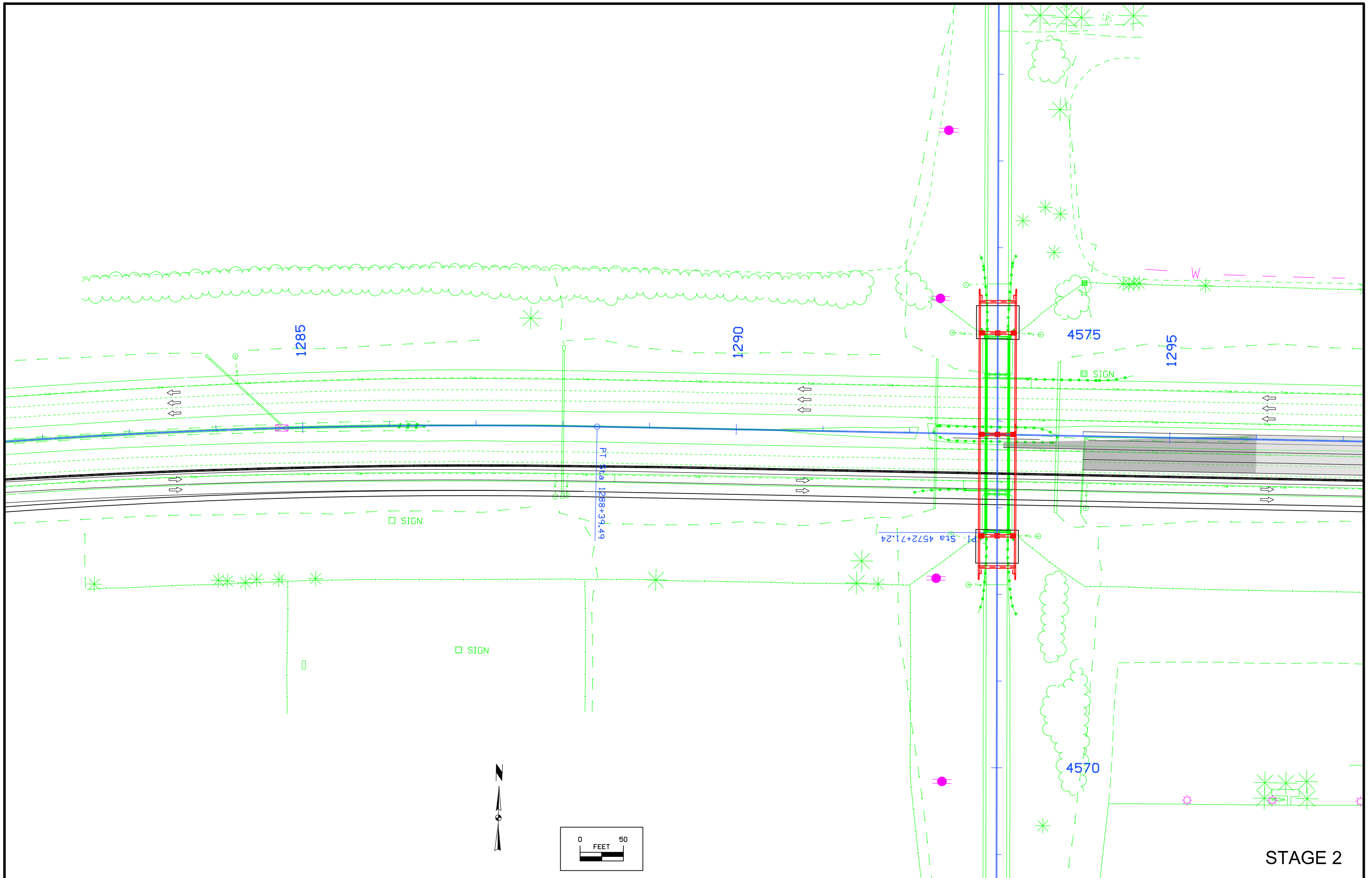


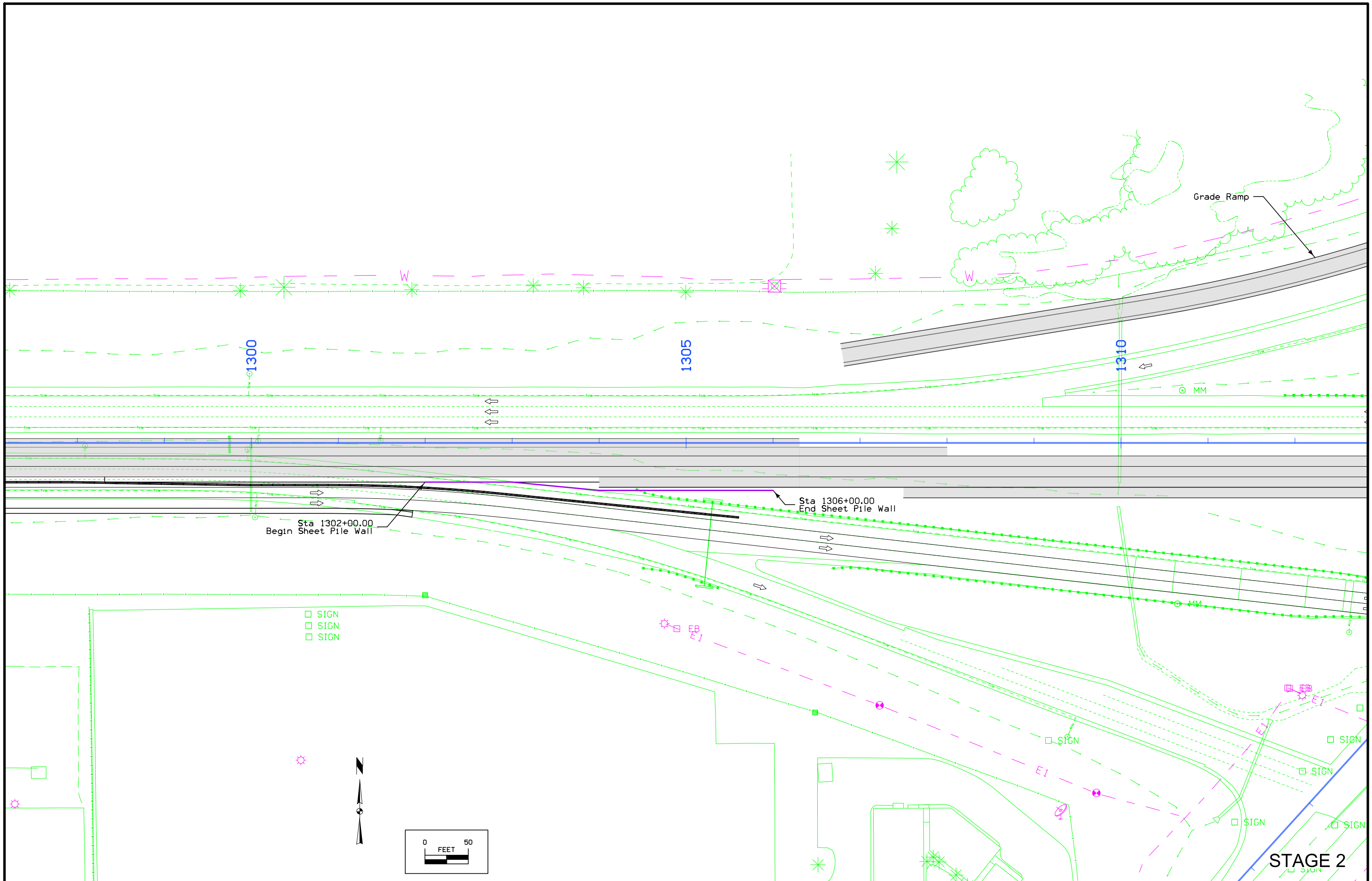
STAGE 1





STAGE 2



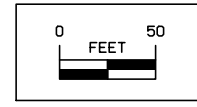


Sta 1302+00.00
Begin Sheet Pile Wall

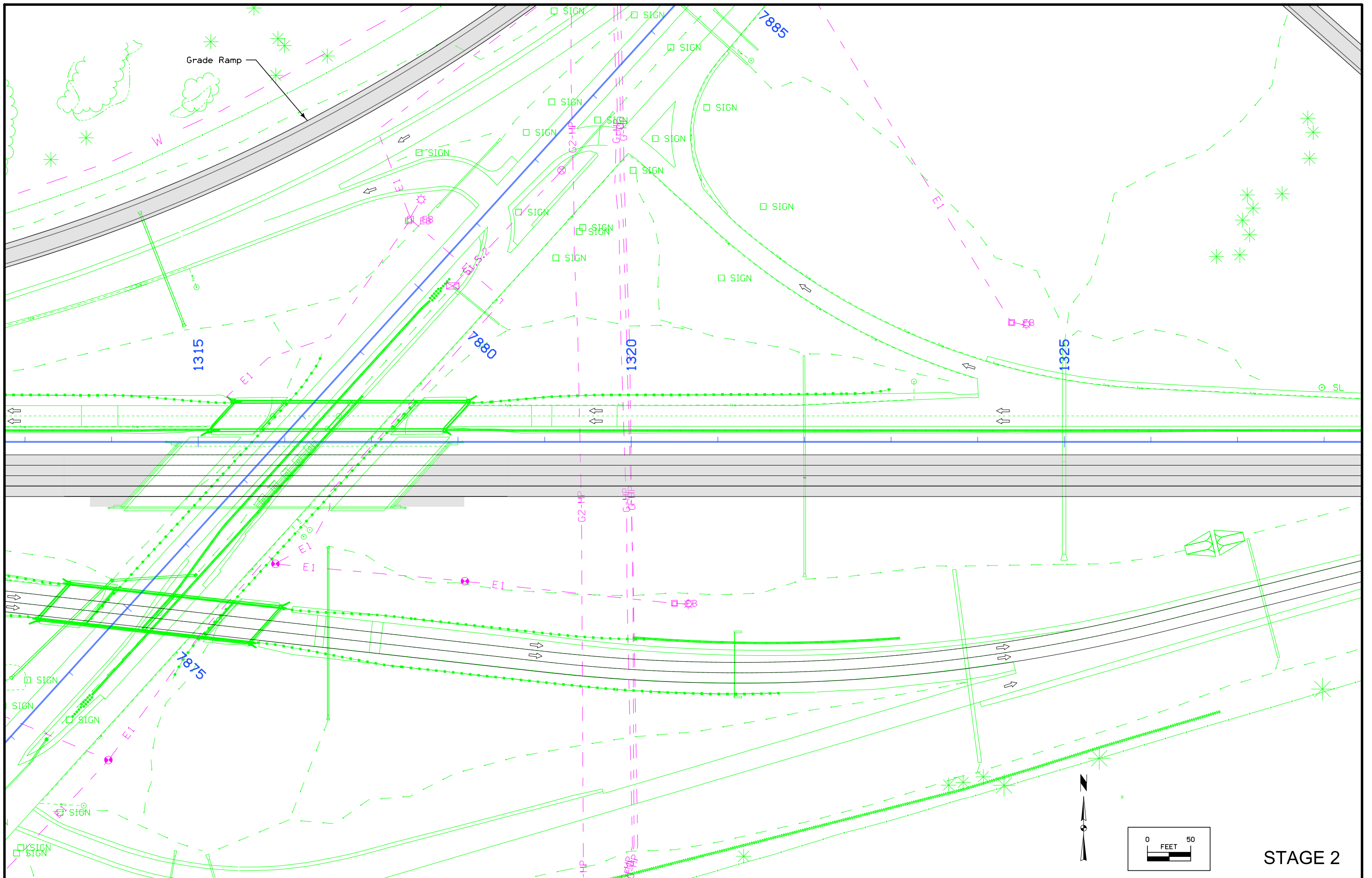
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End Sheet Pile Wall

Grade Ramp

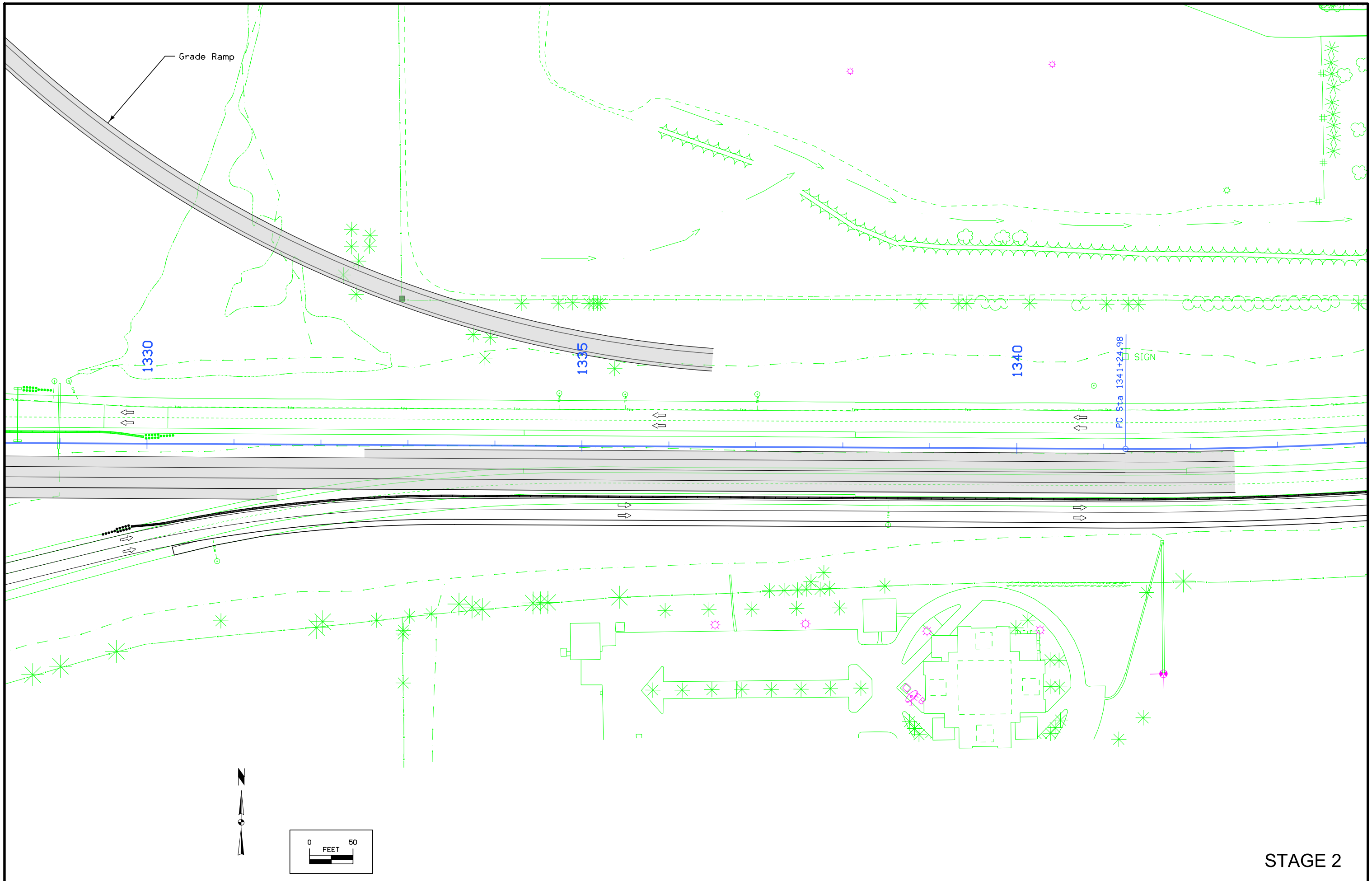
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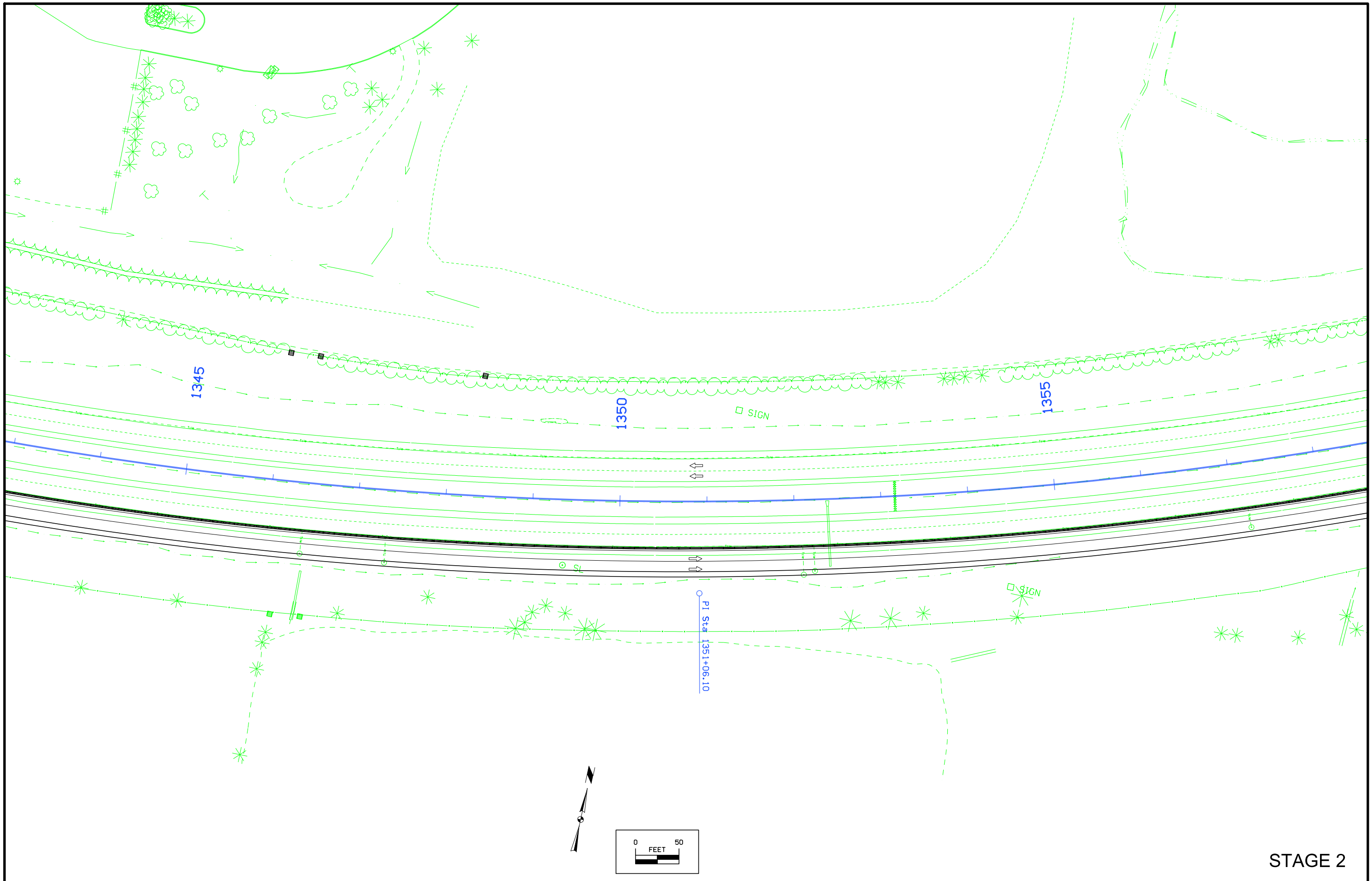


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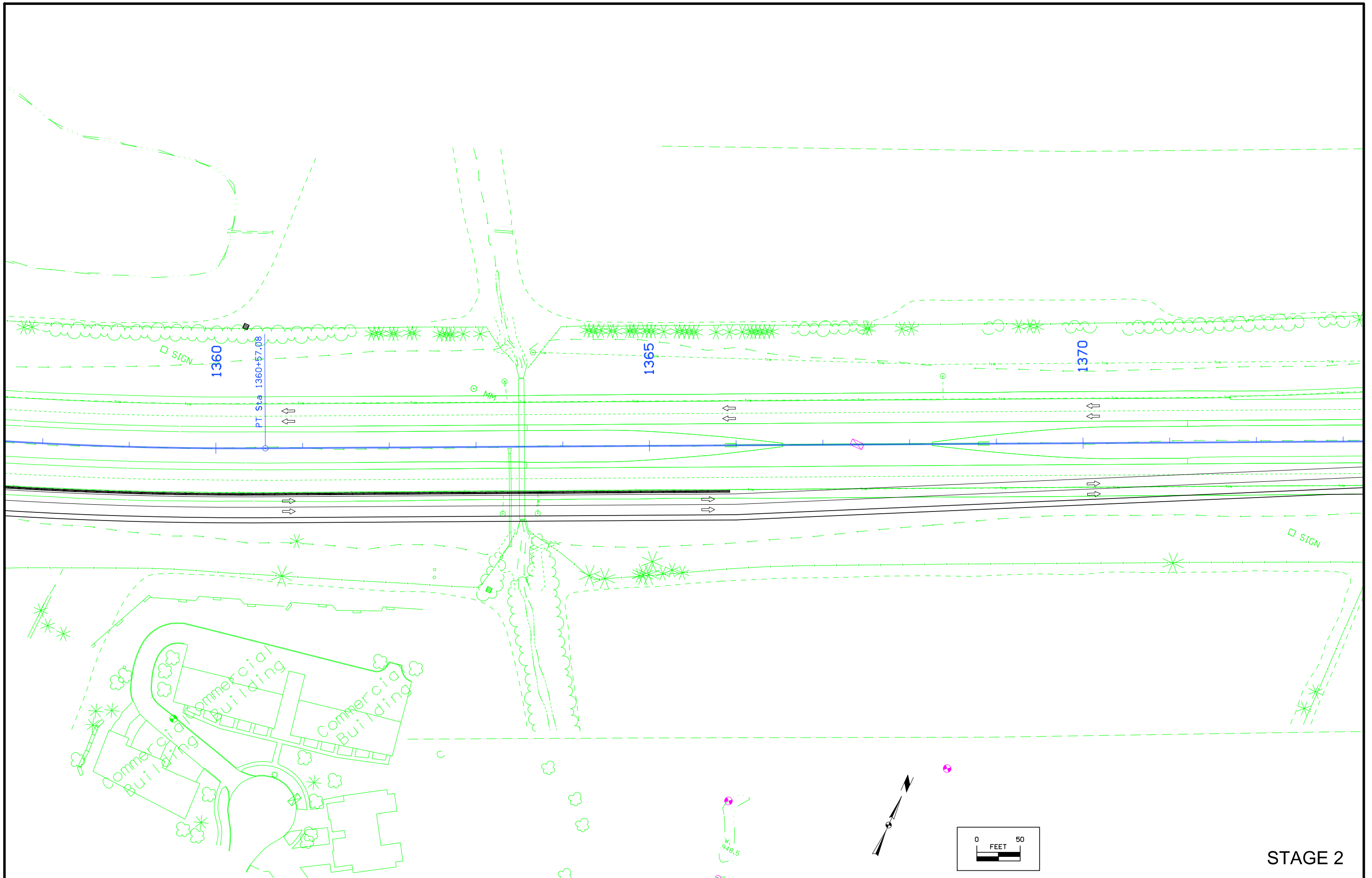


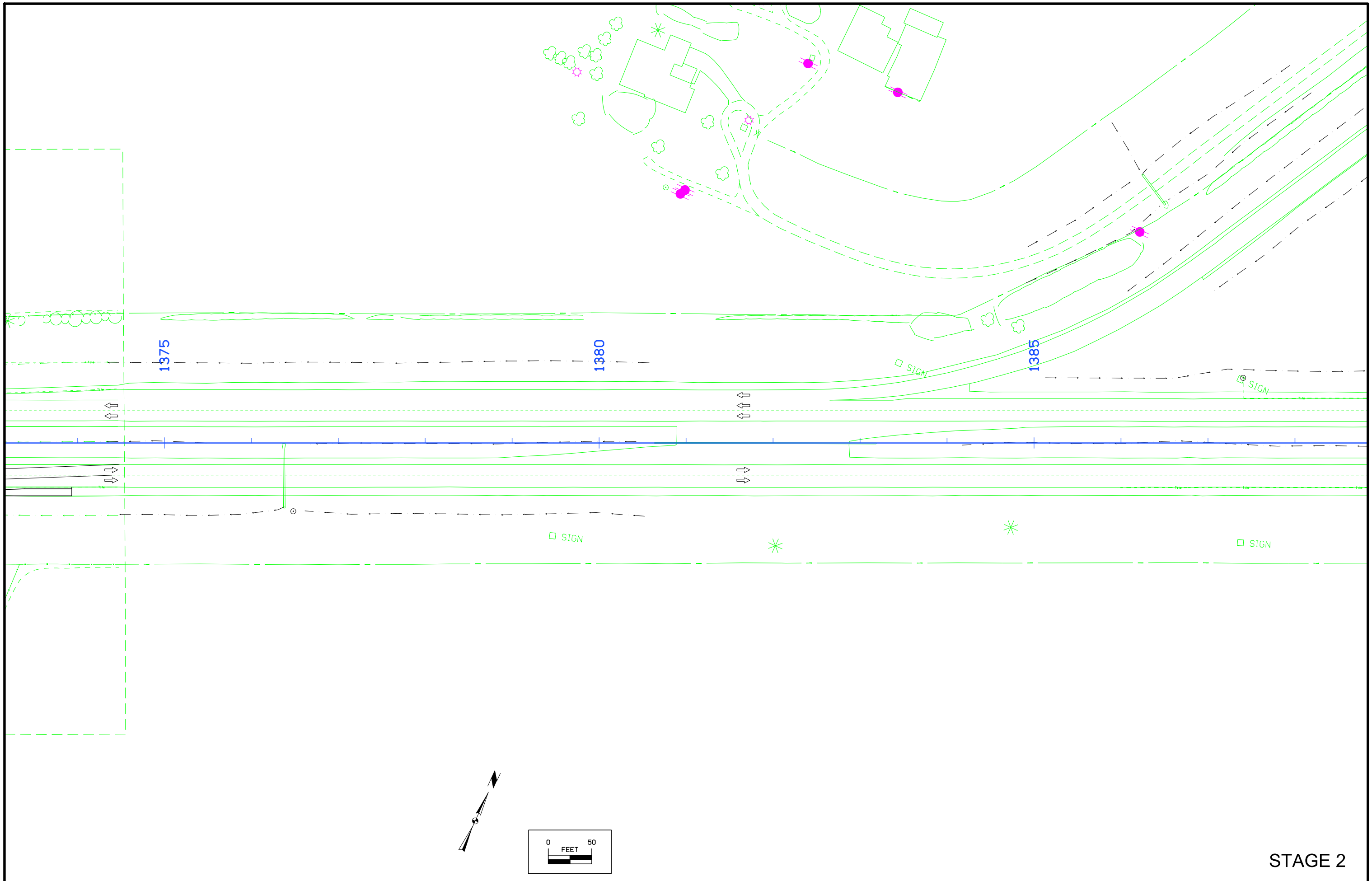
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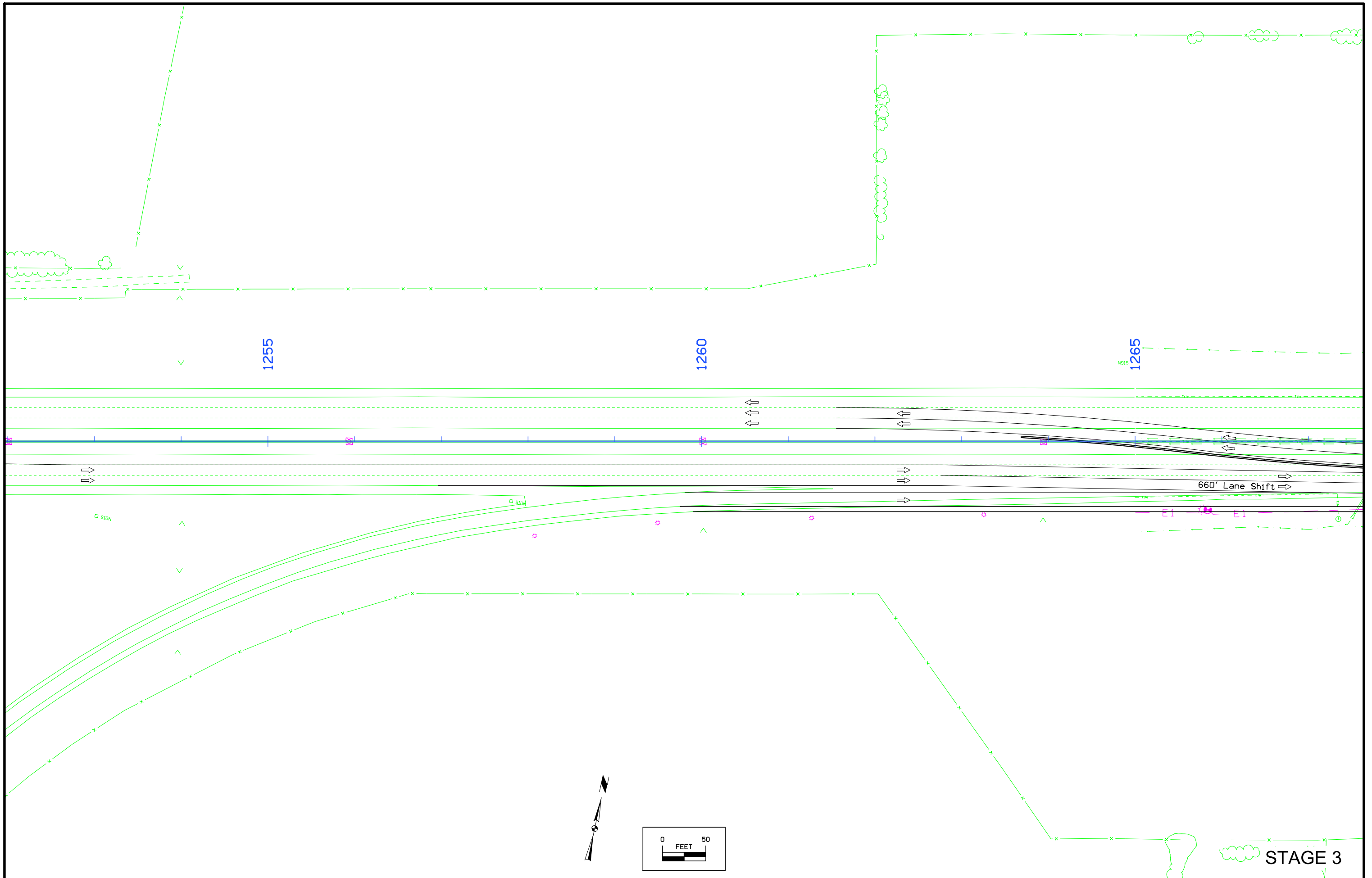


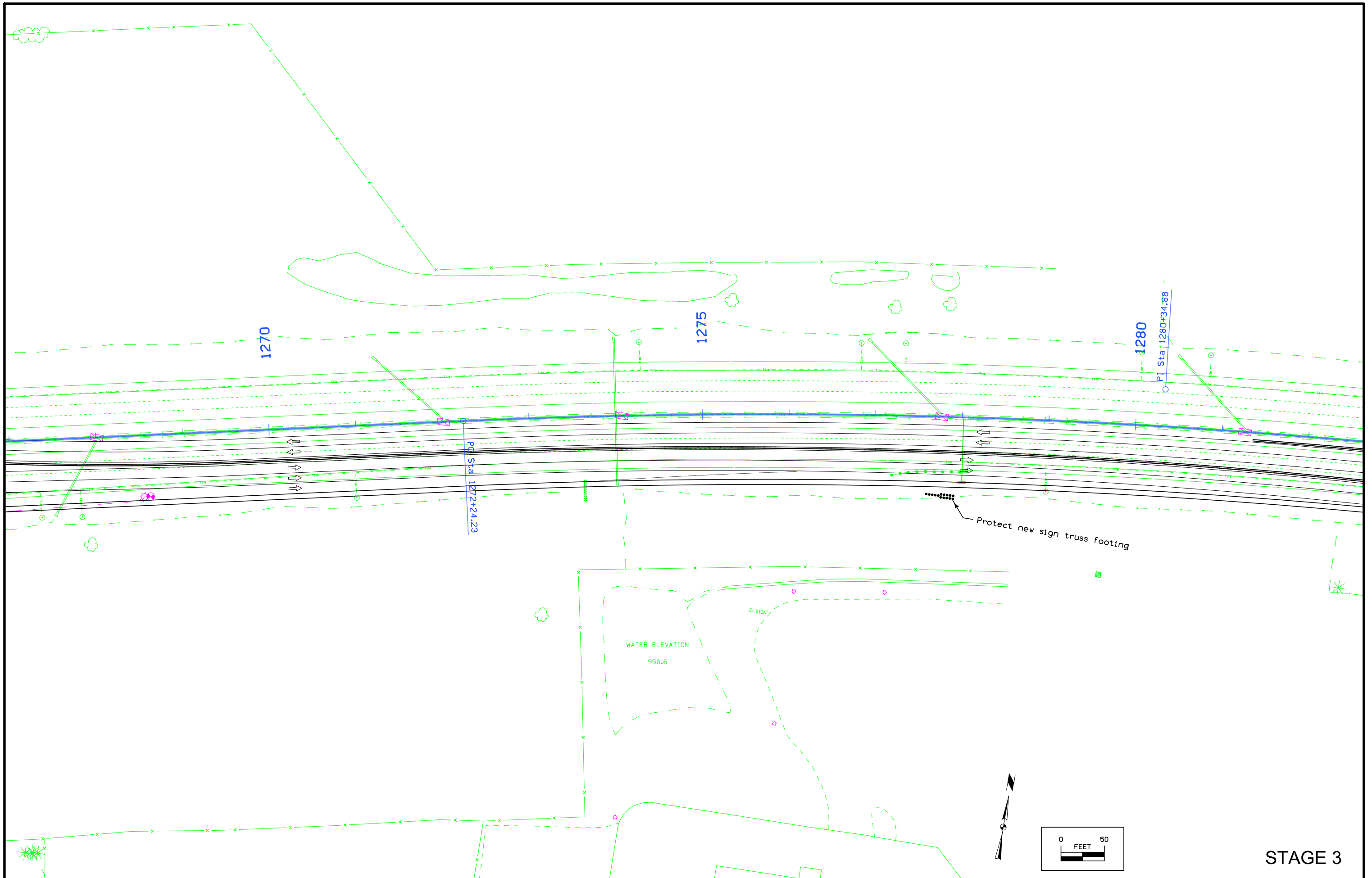
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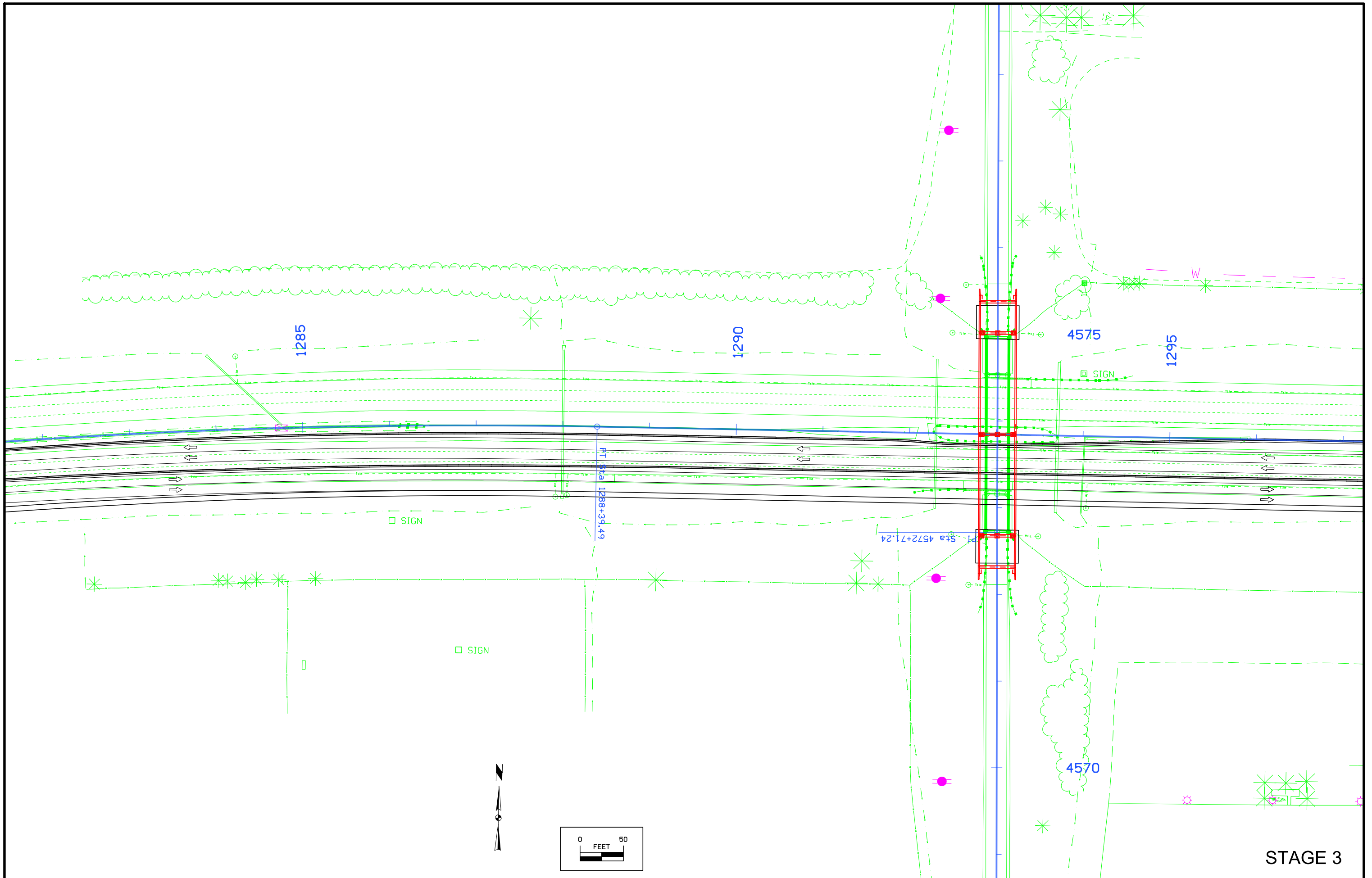


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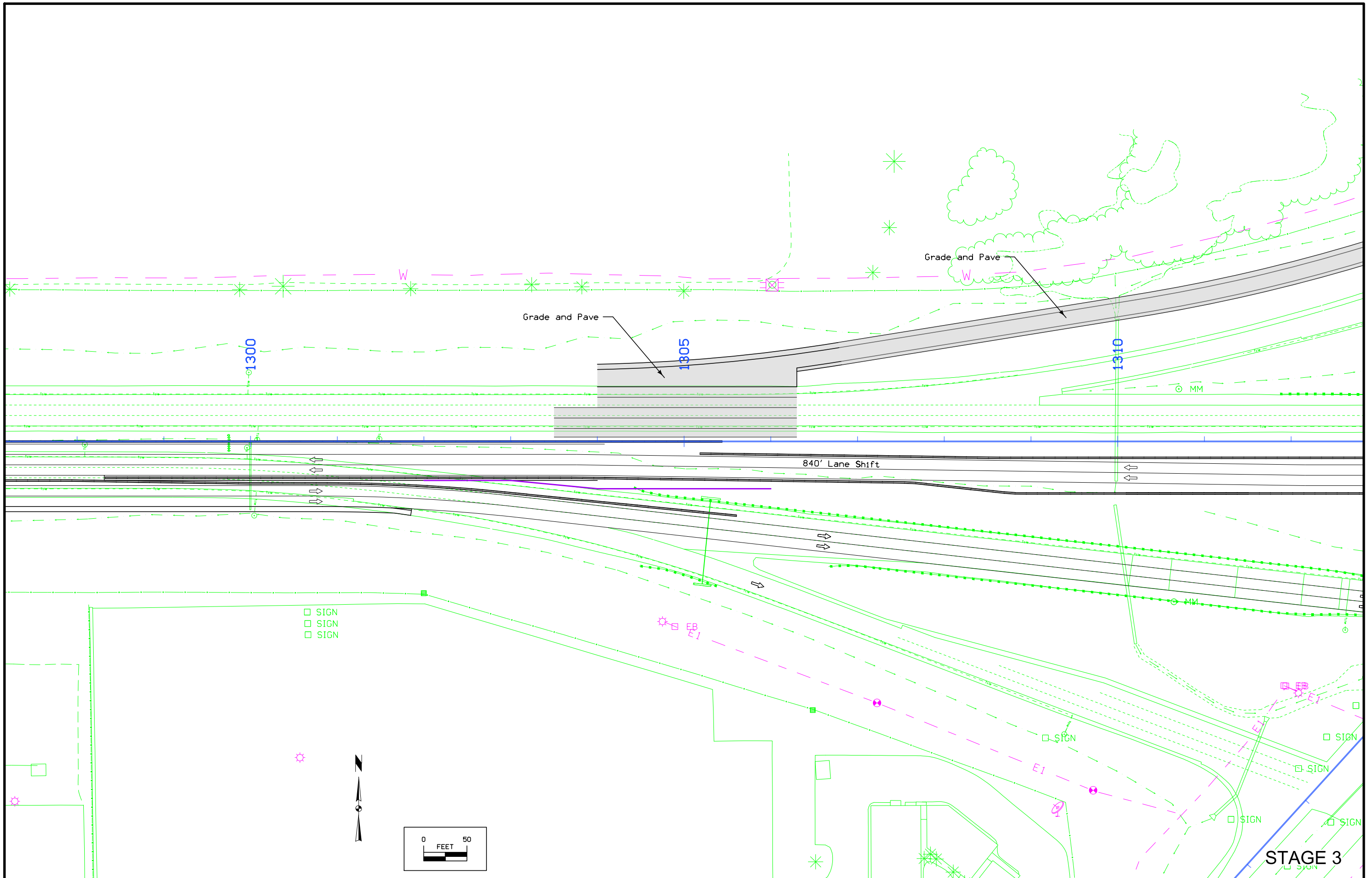




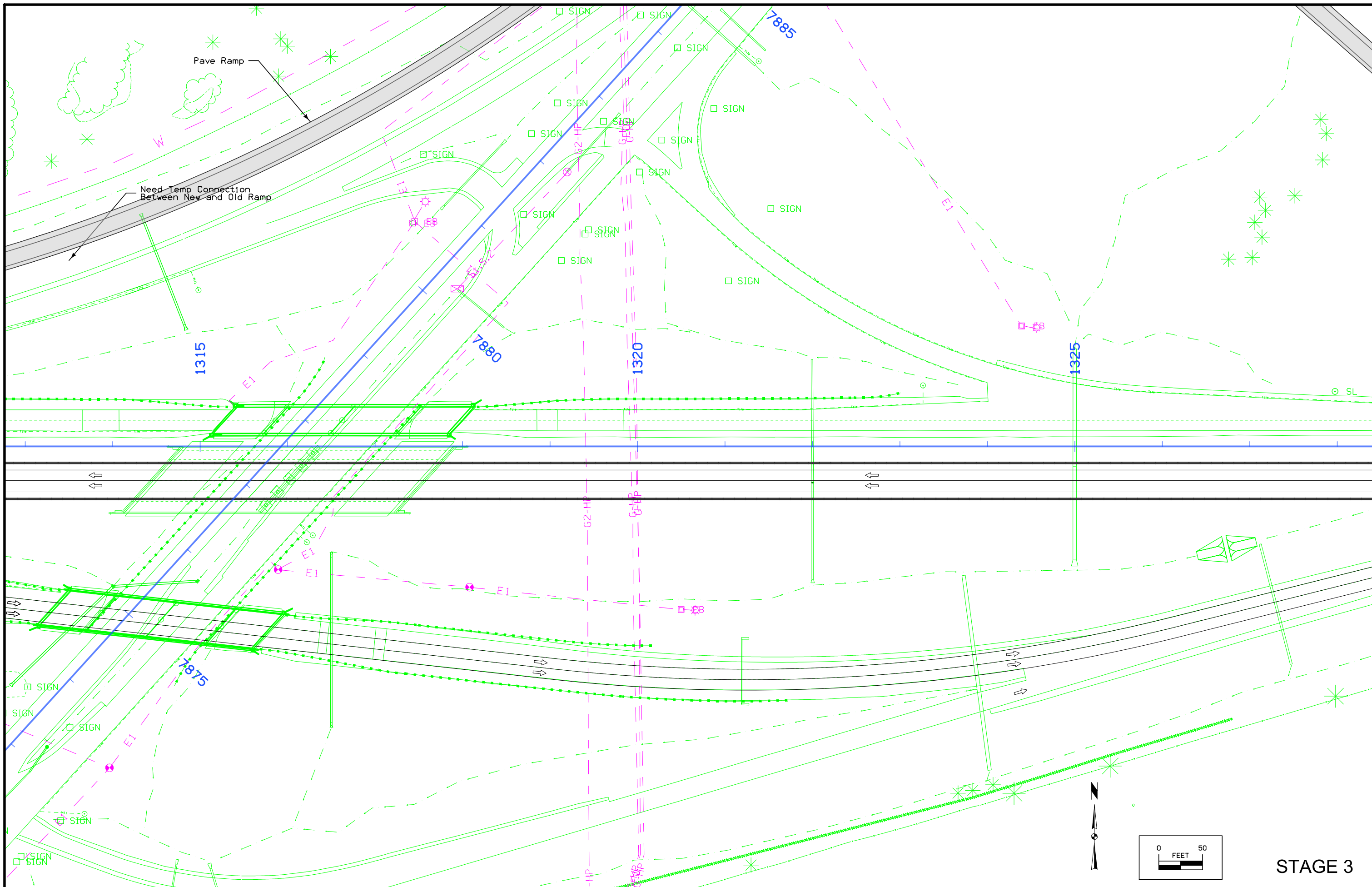
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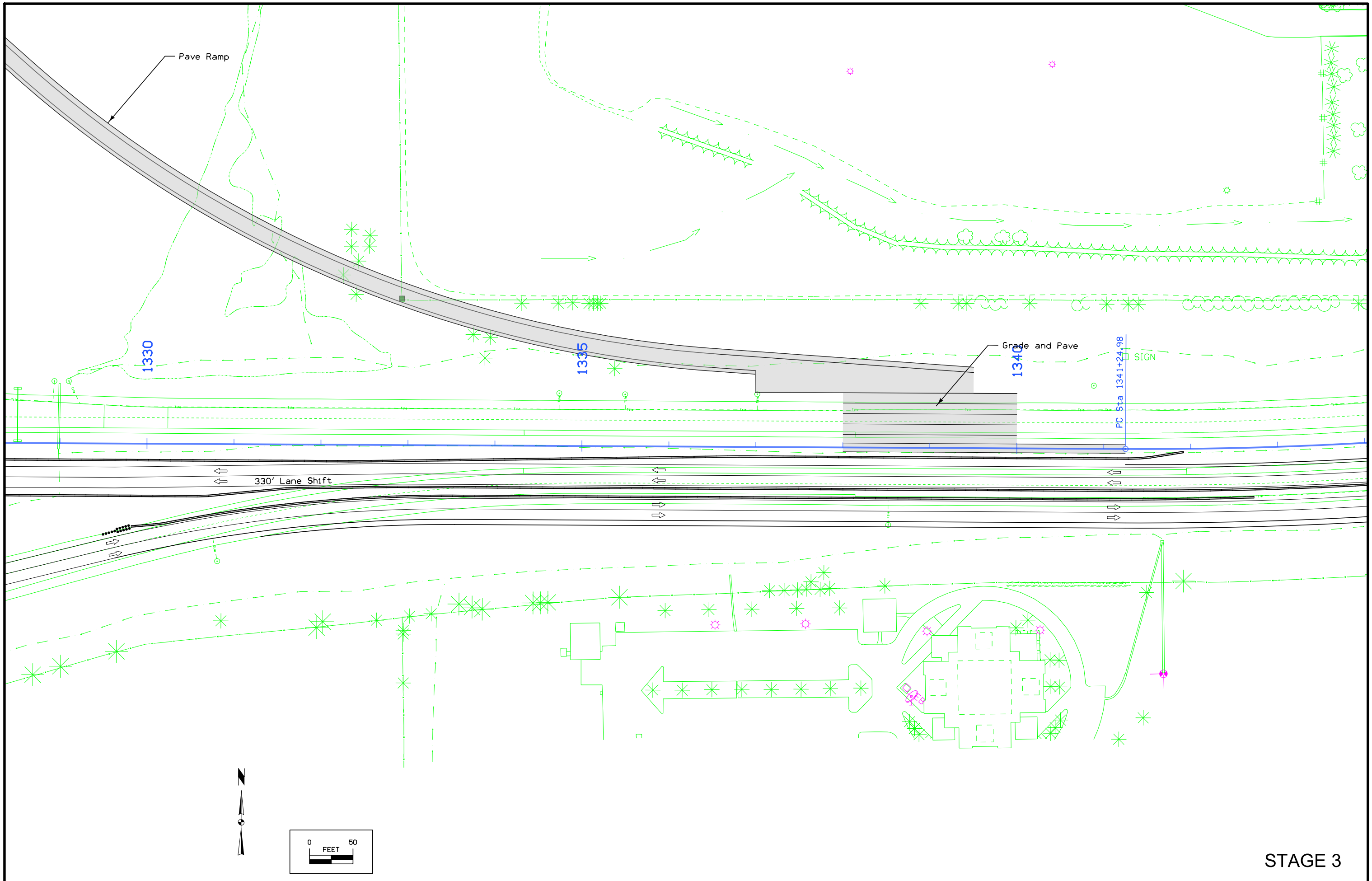
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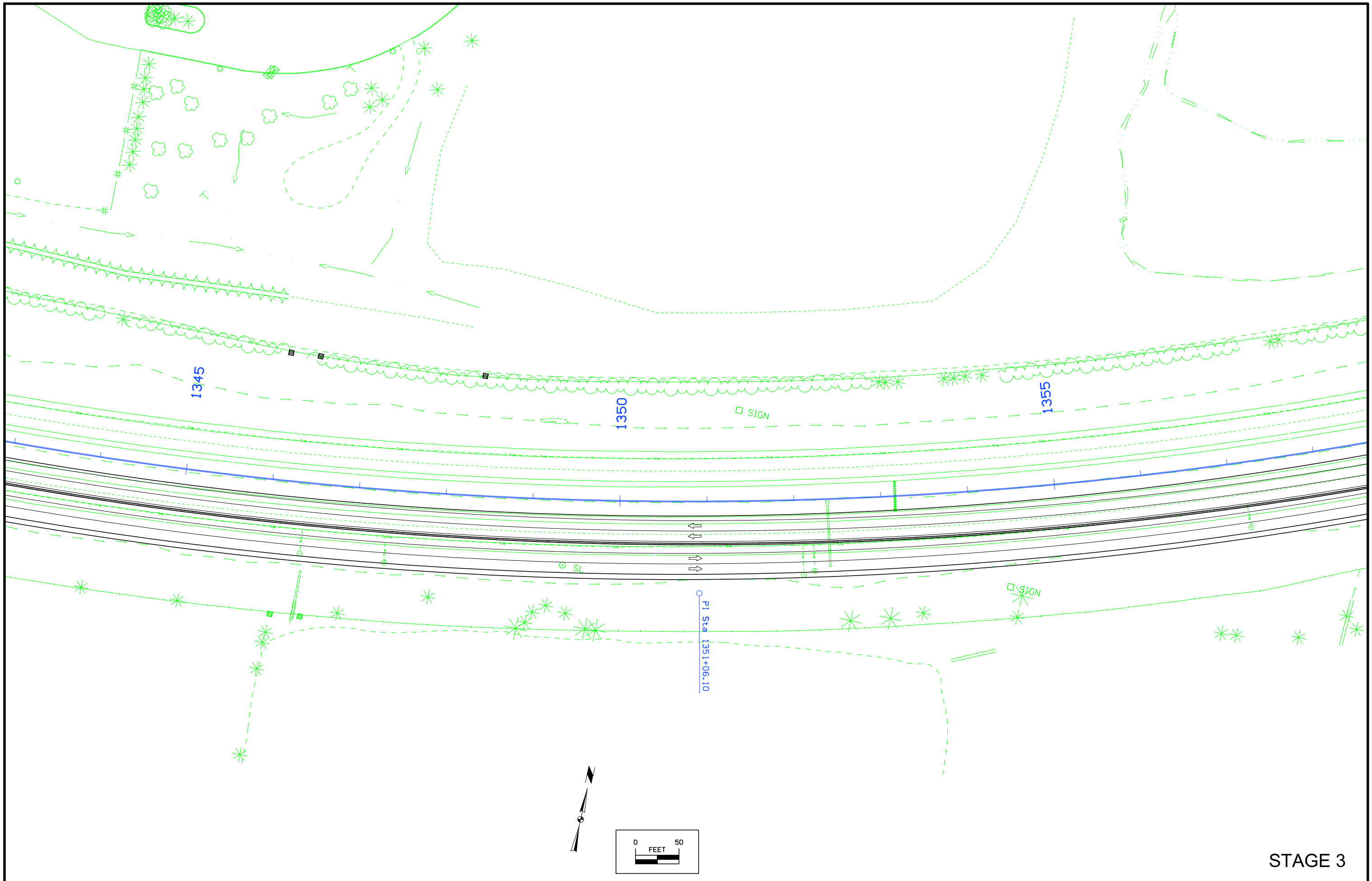
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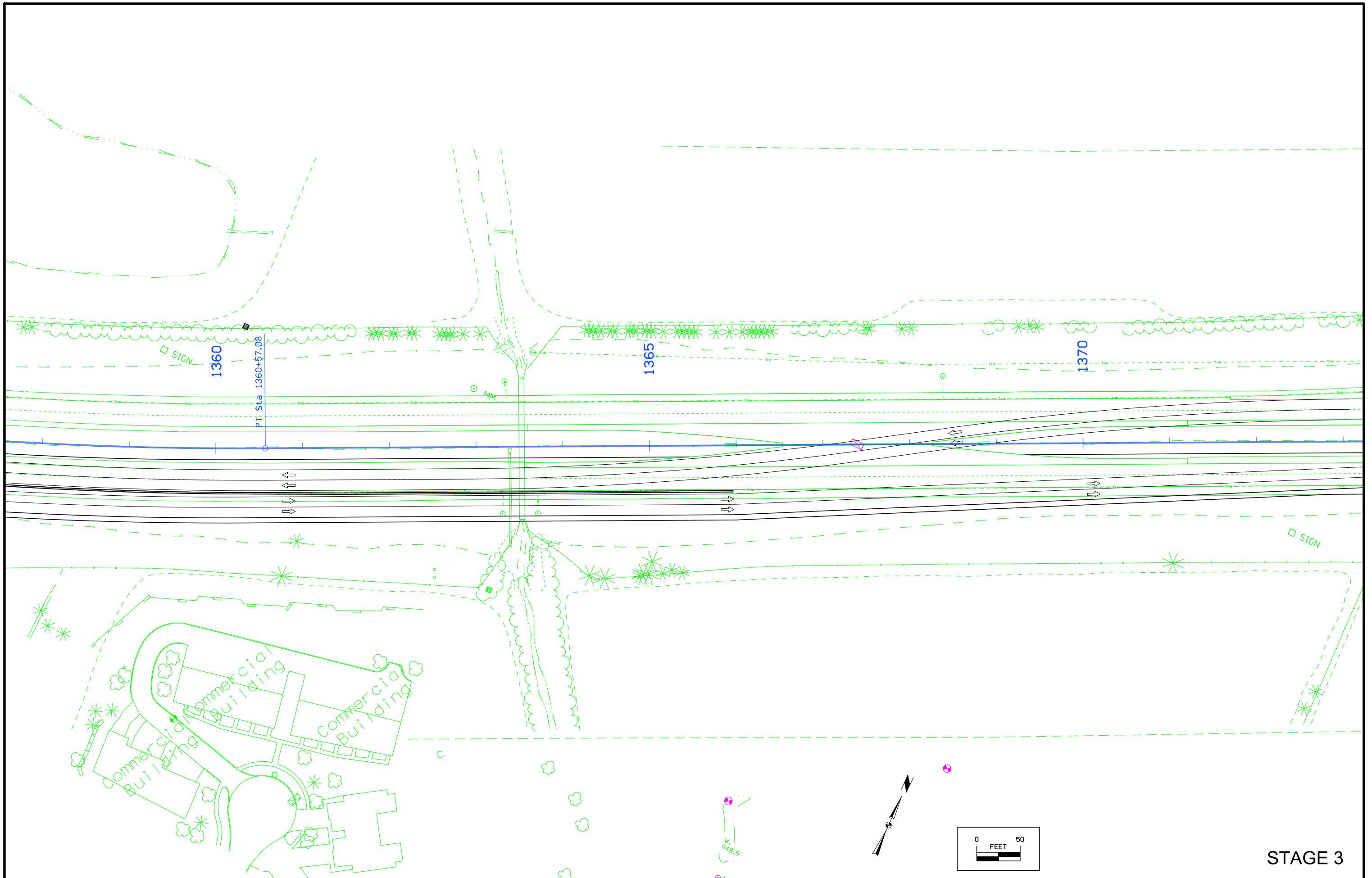
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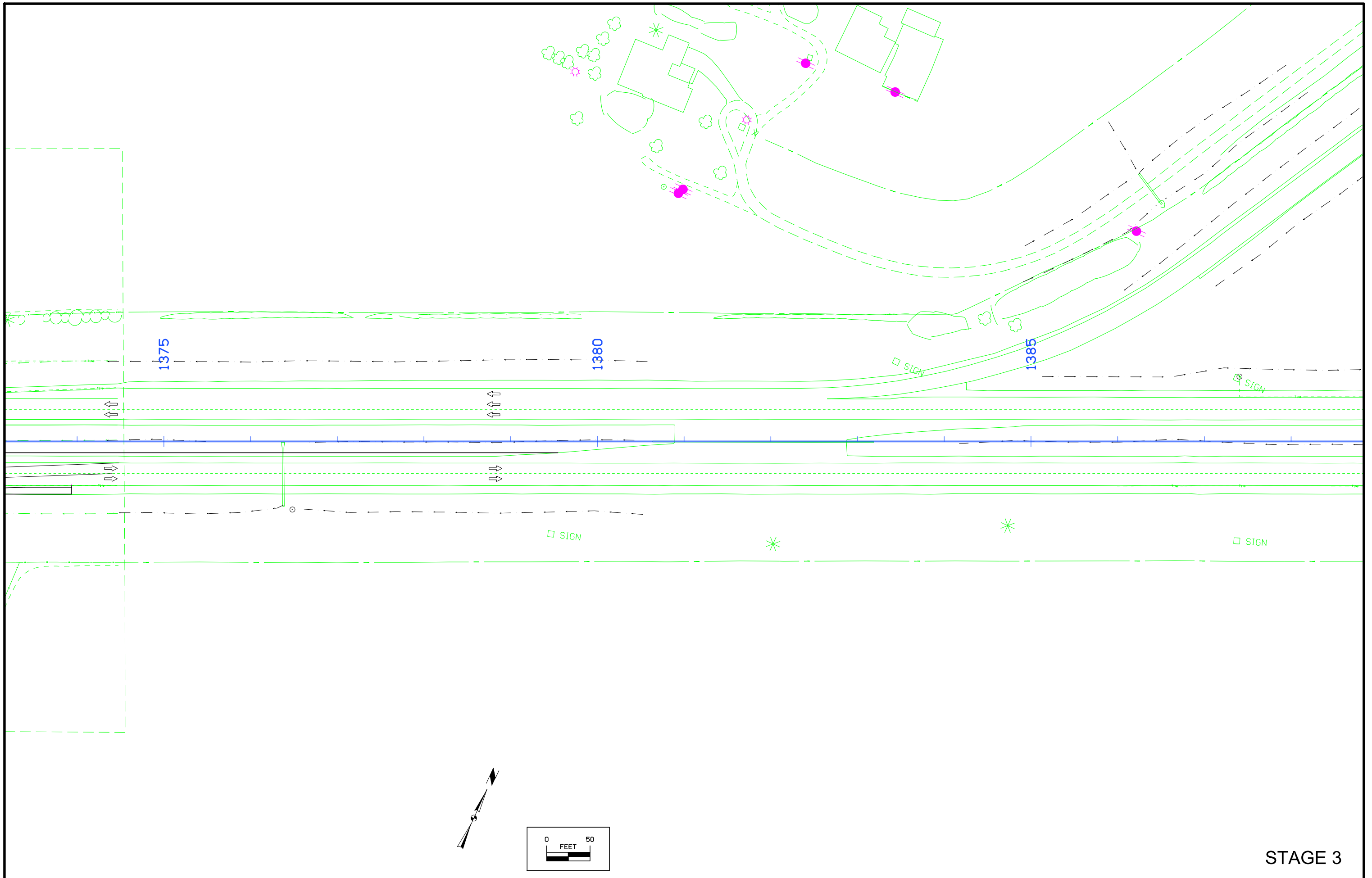
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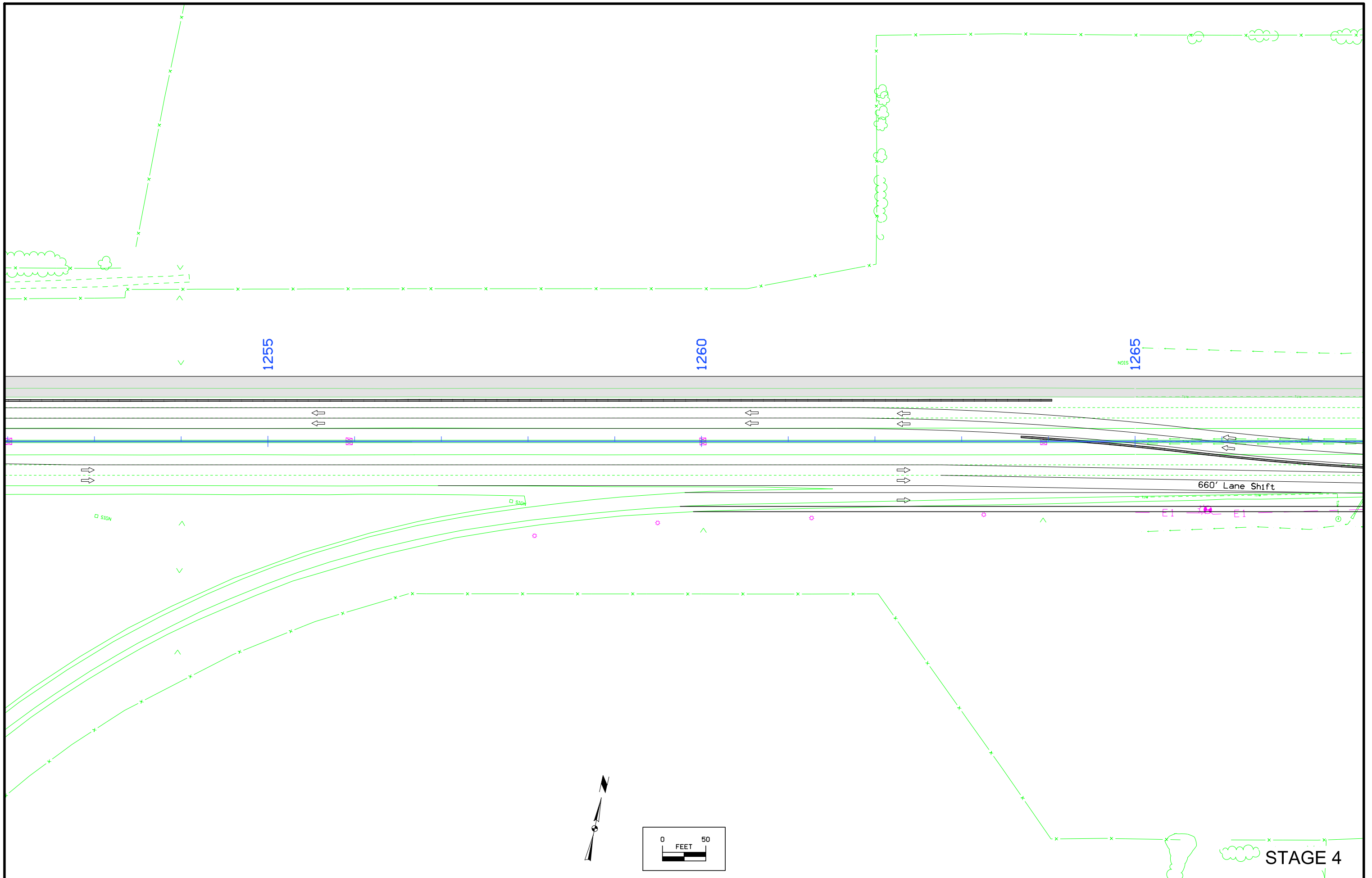
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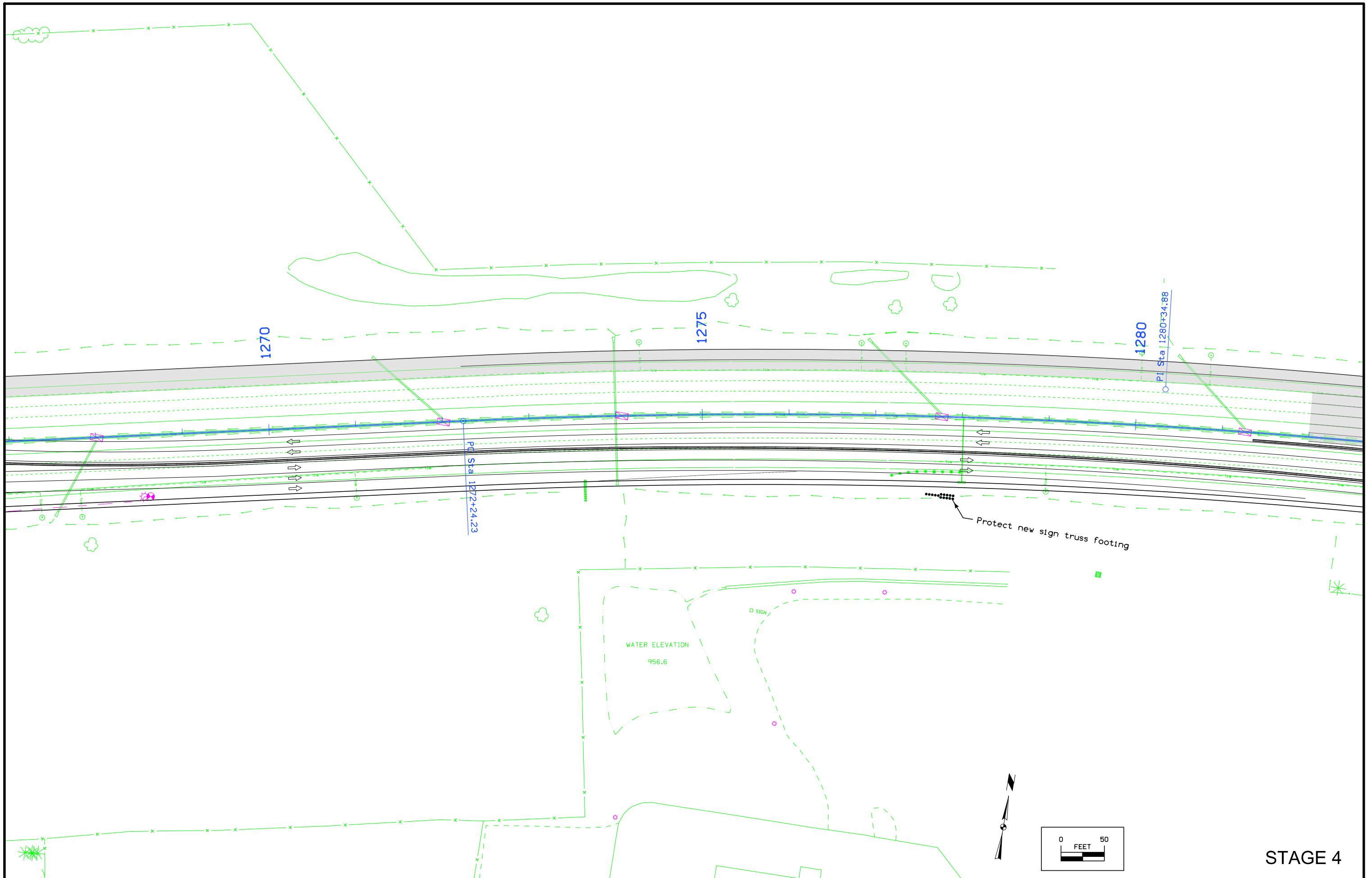


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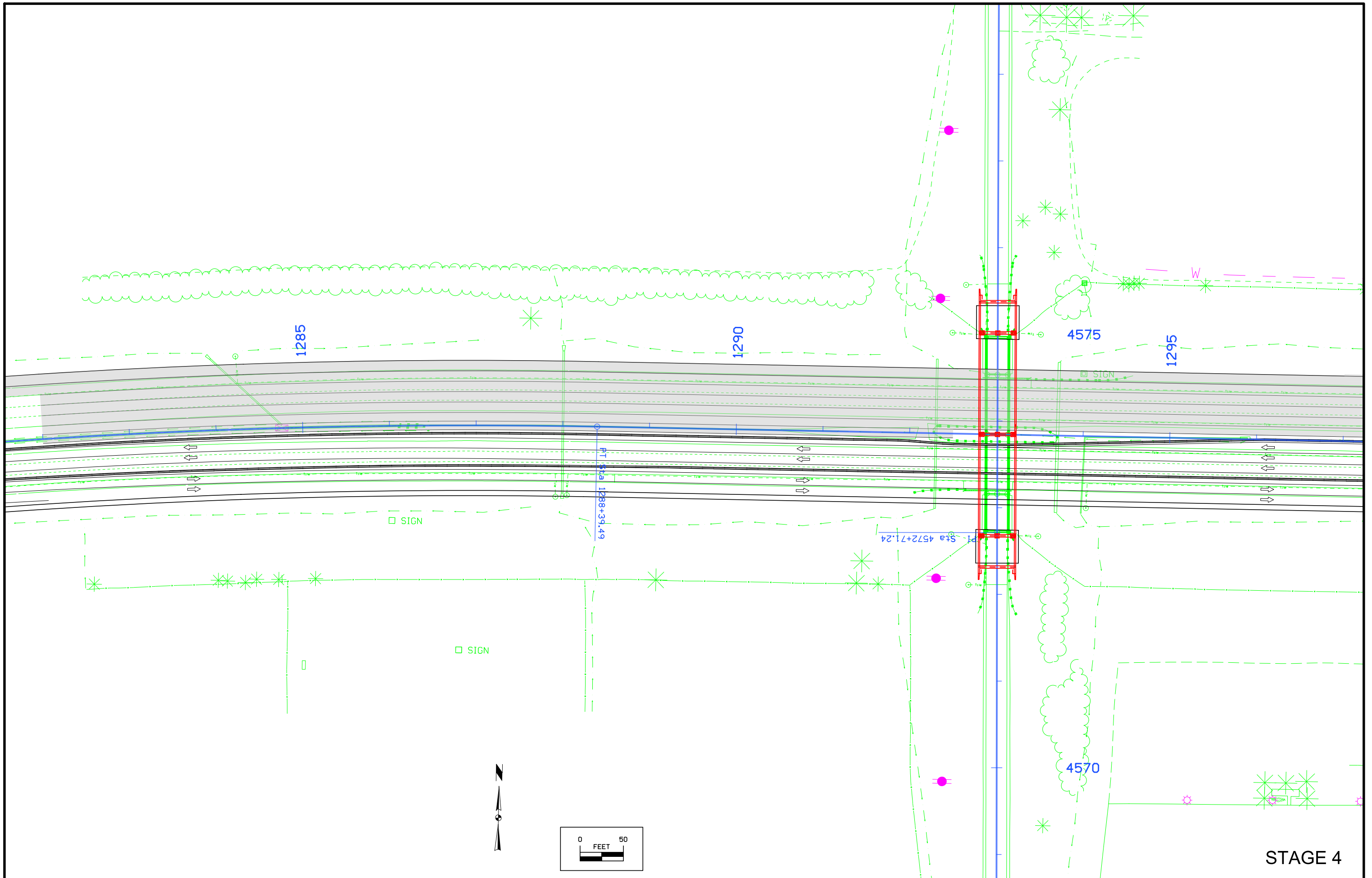


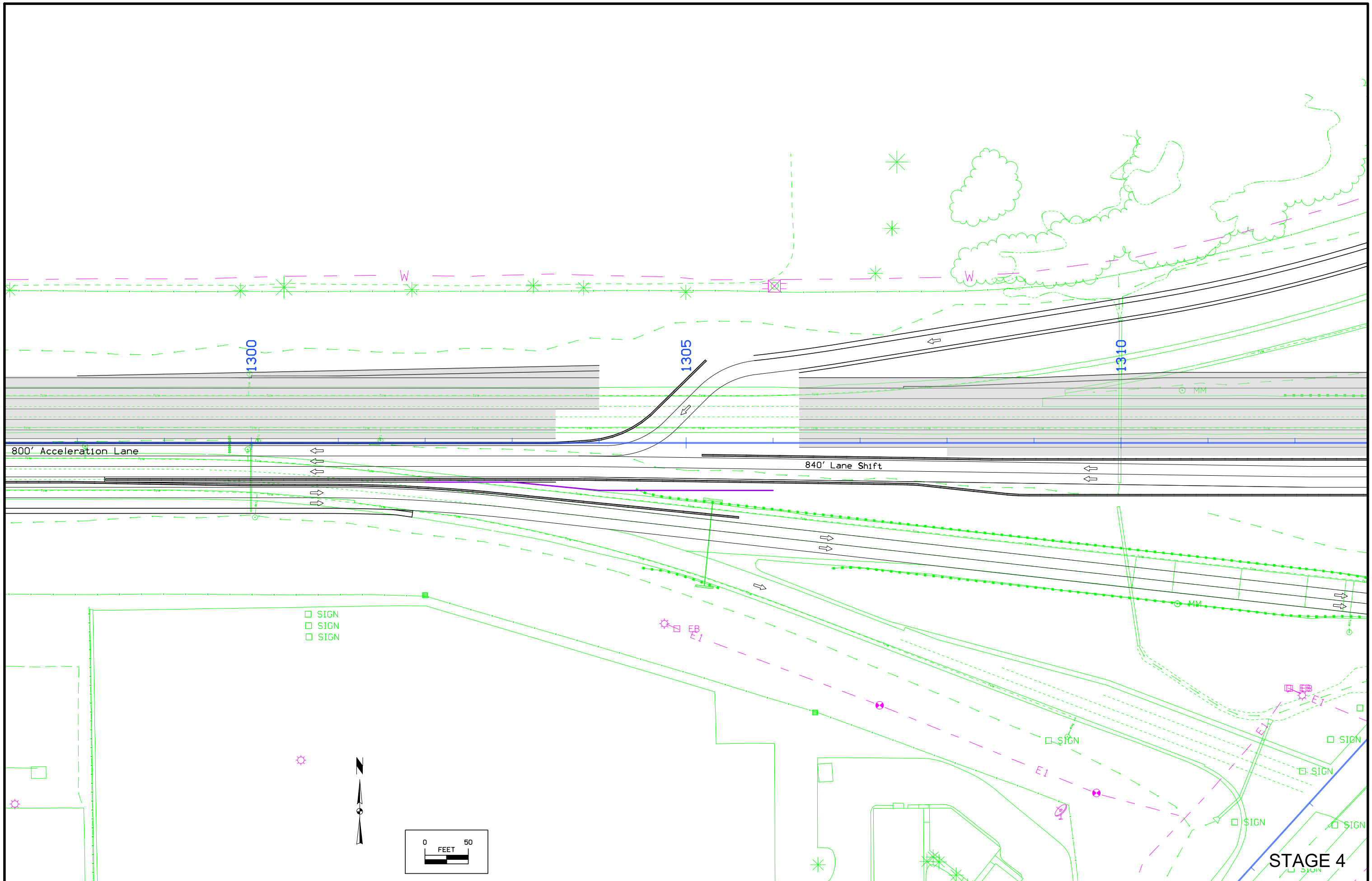
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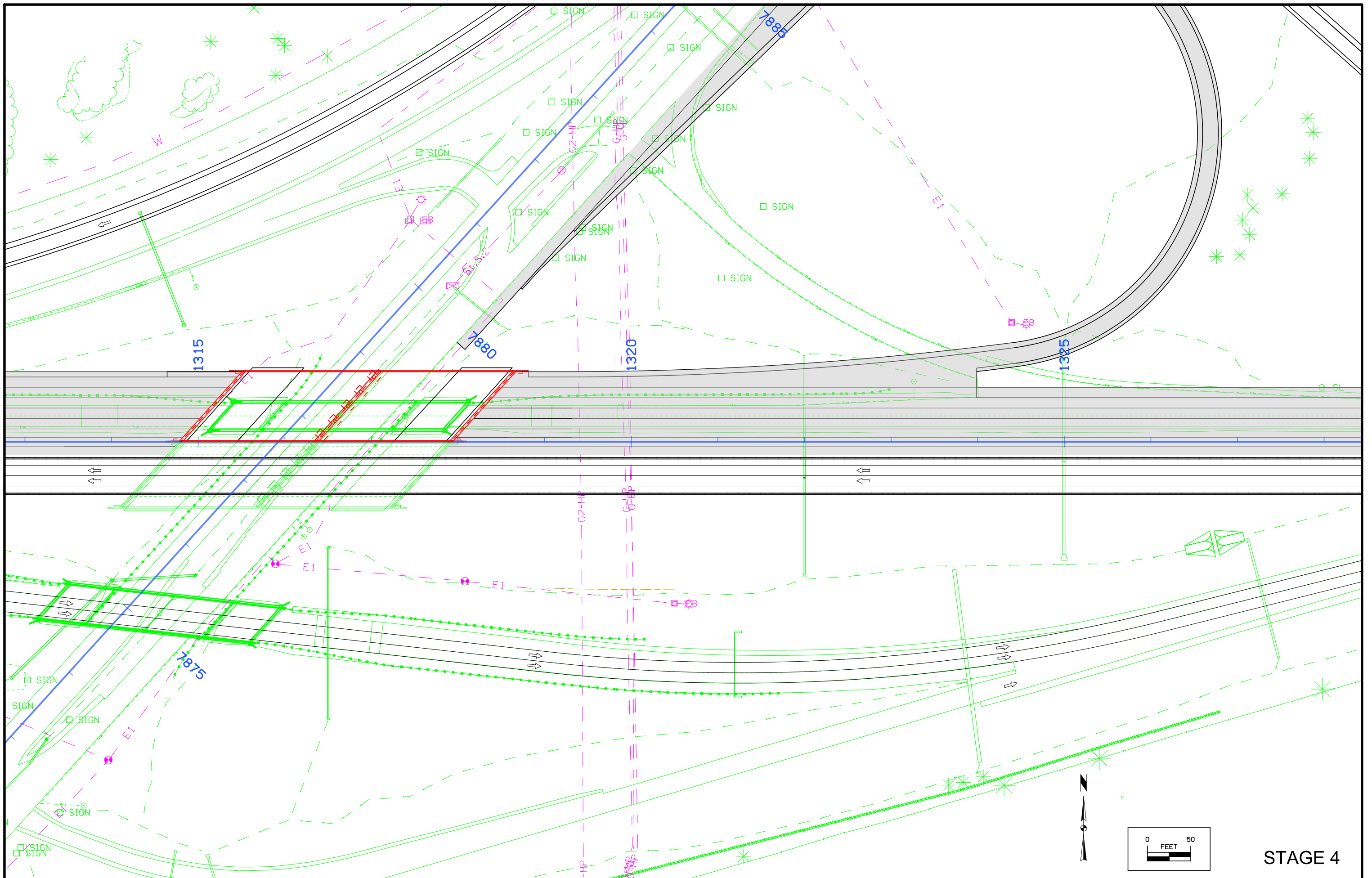


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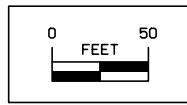
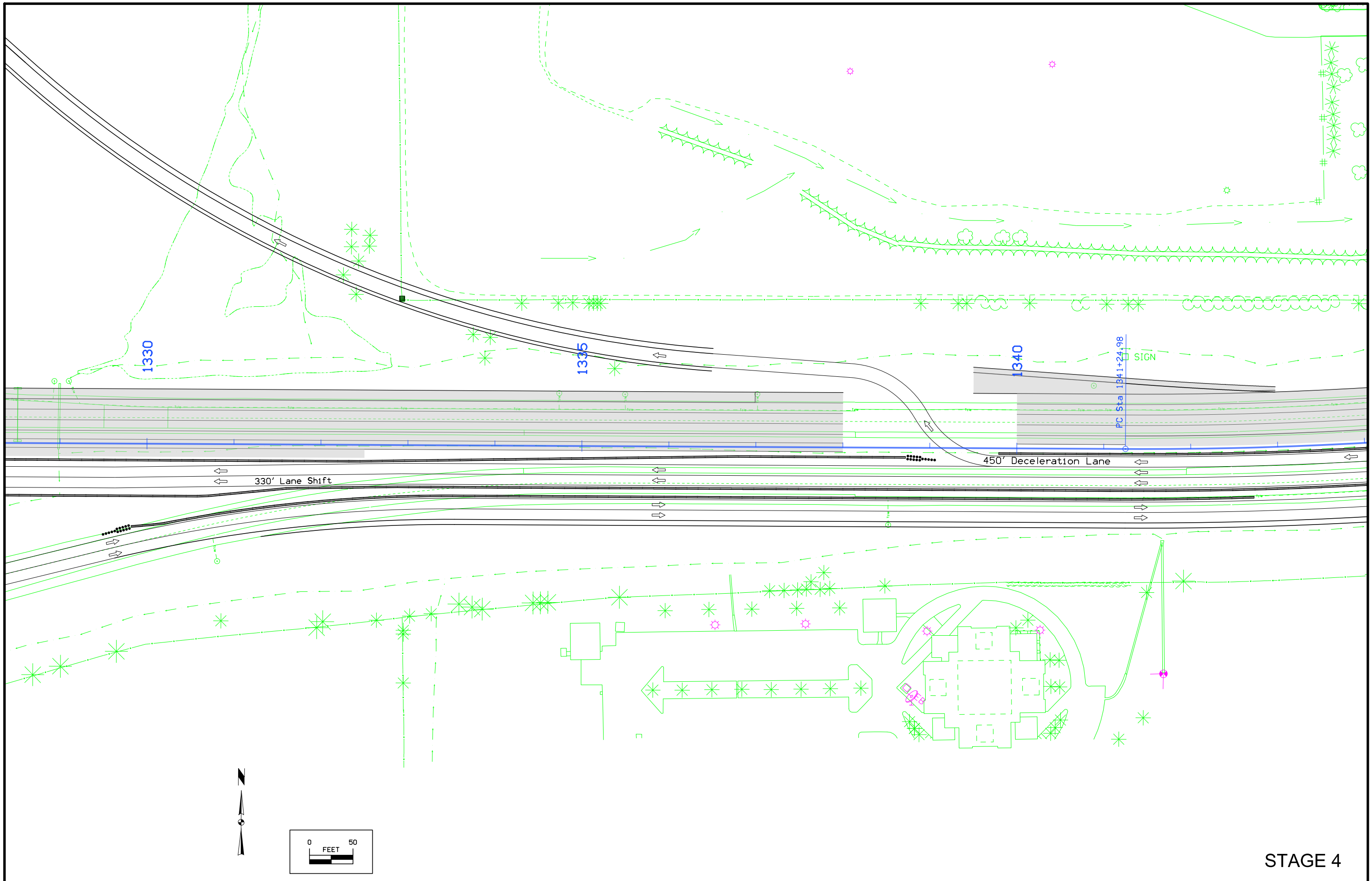




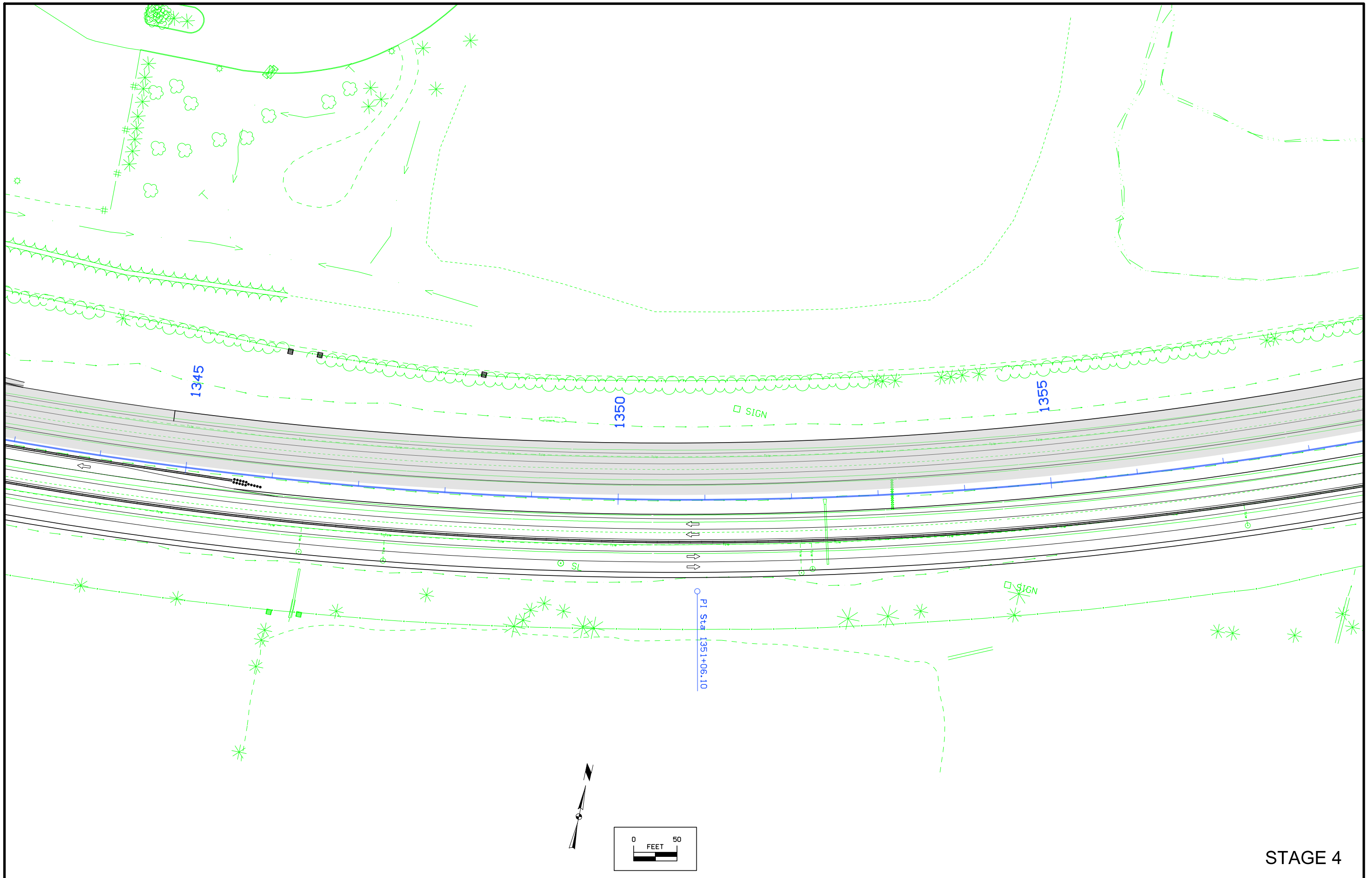
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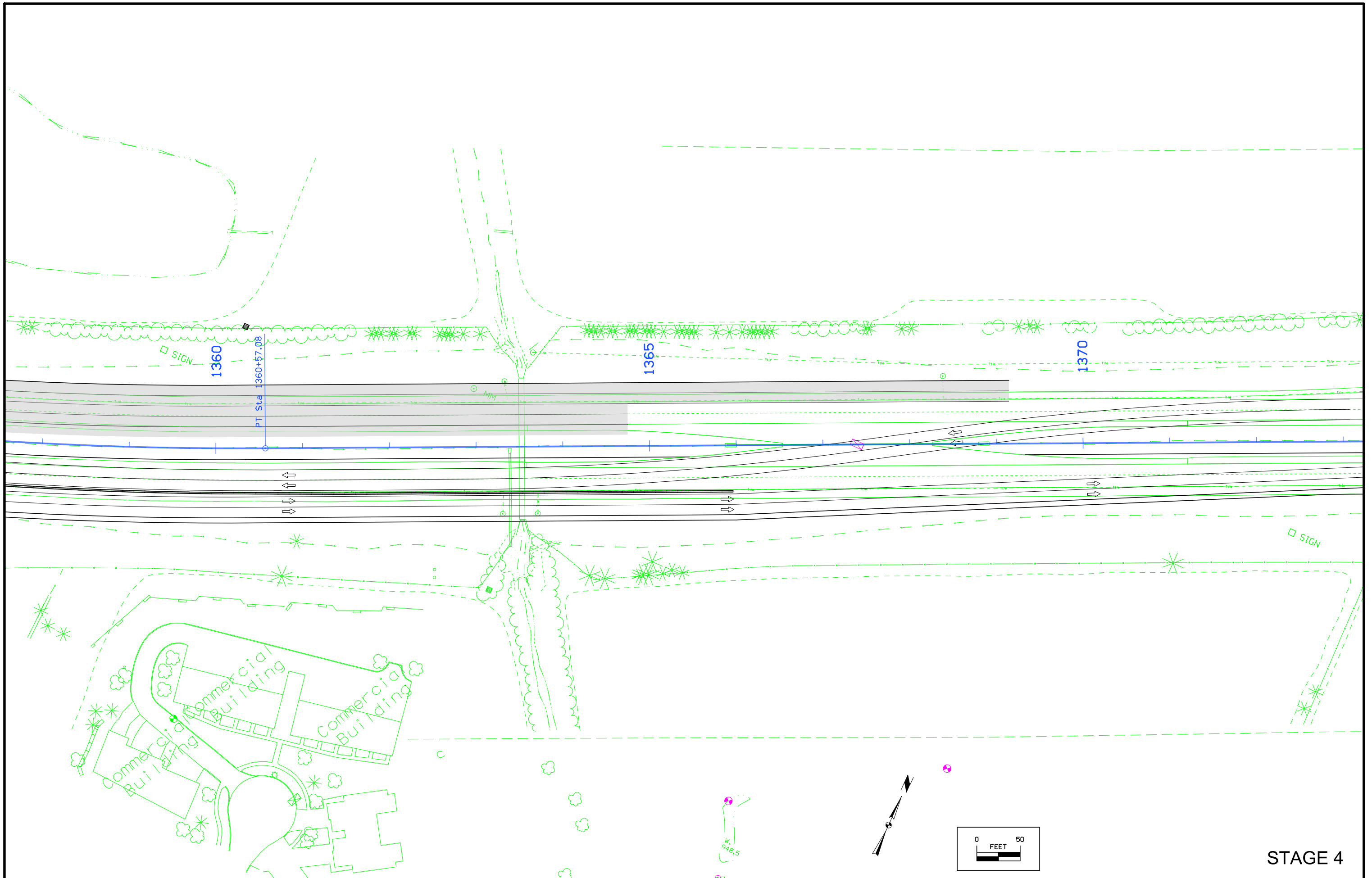
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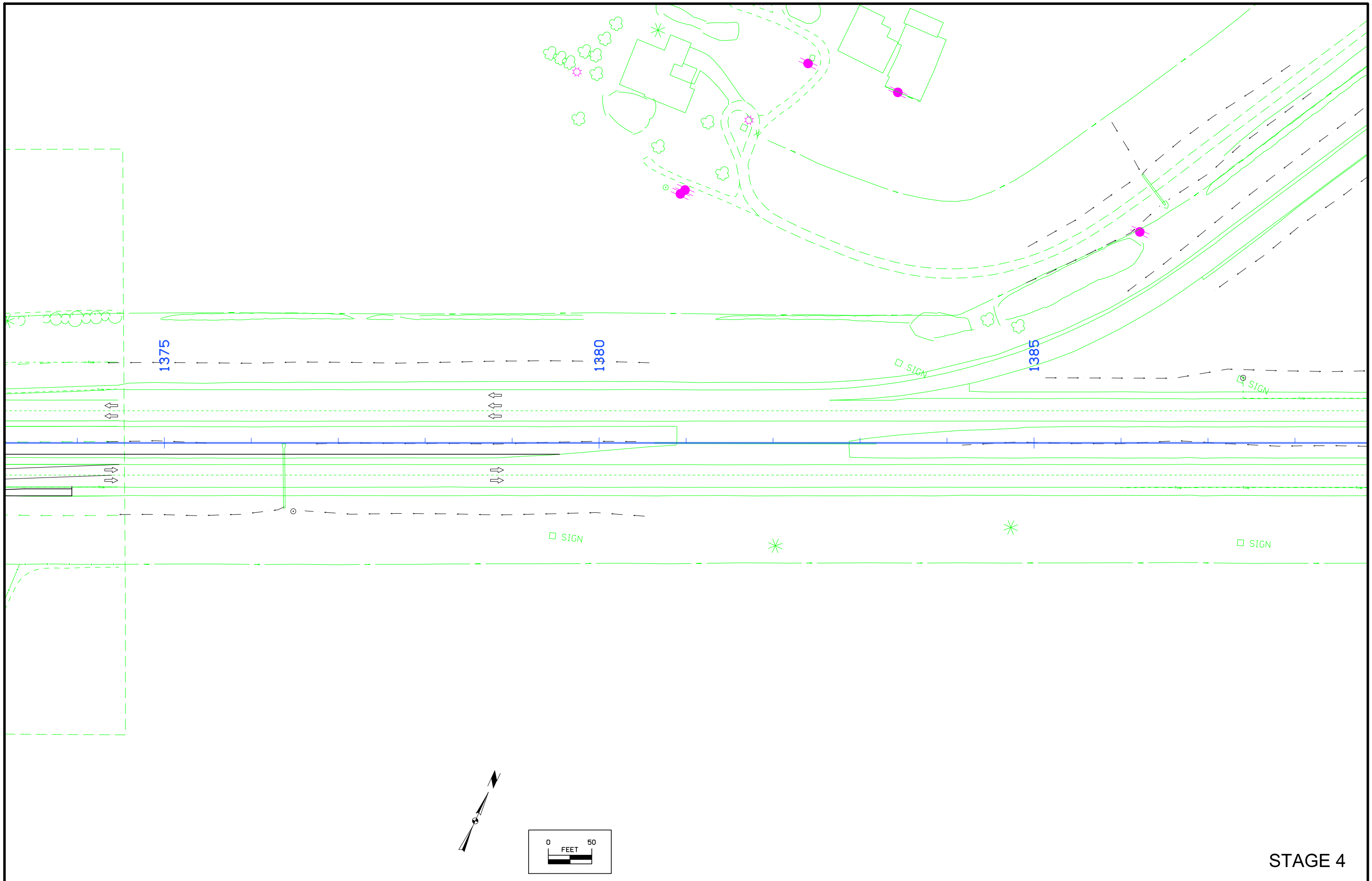
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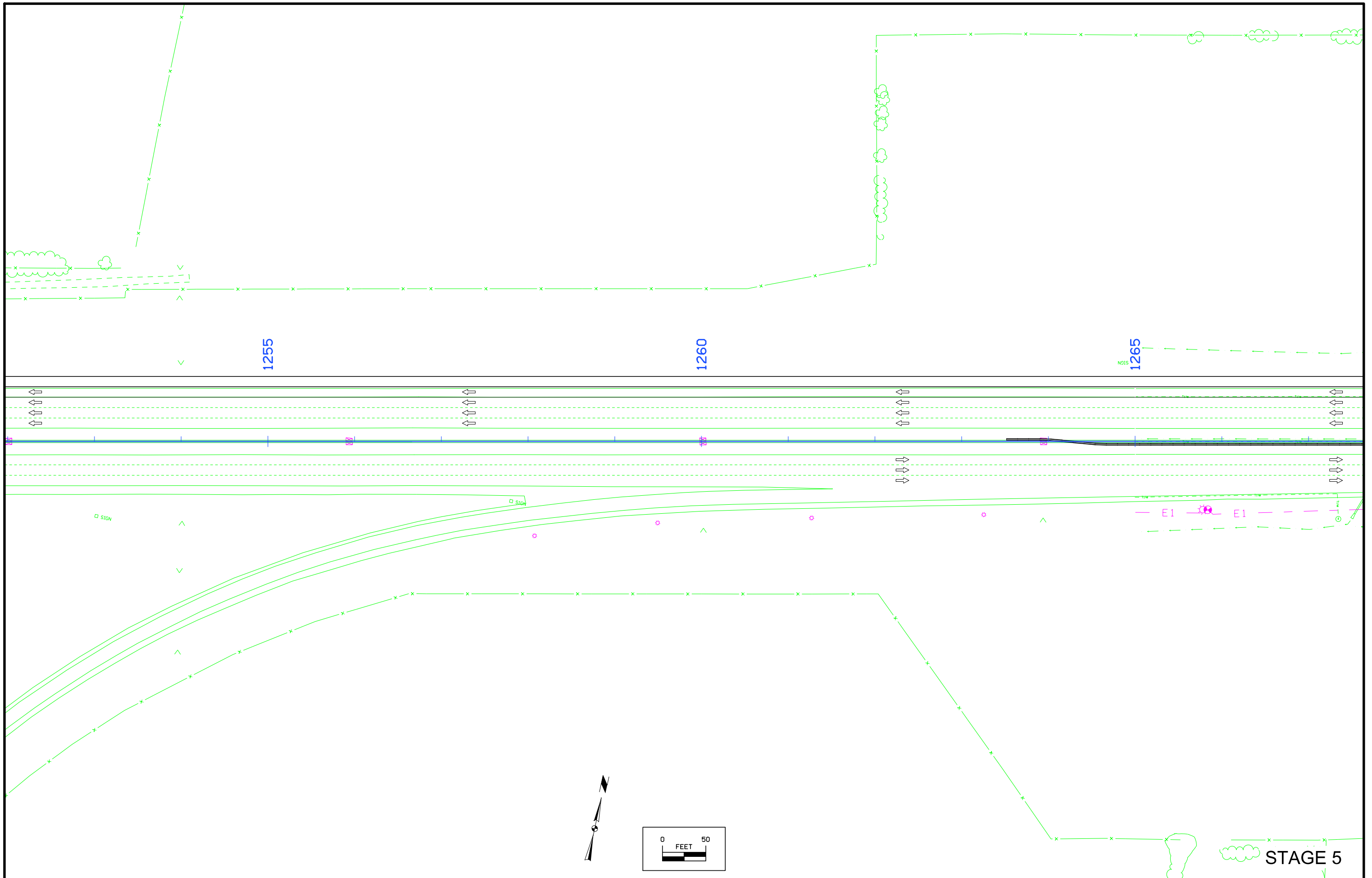
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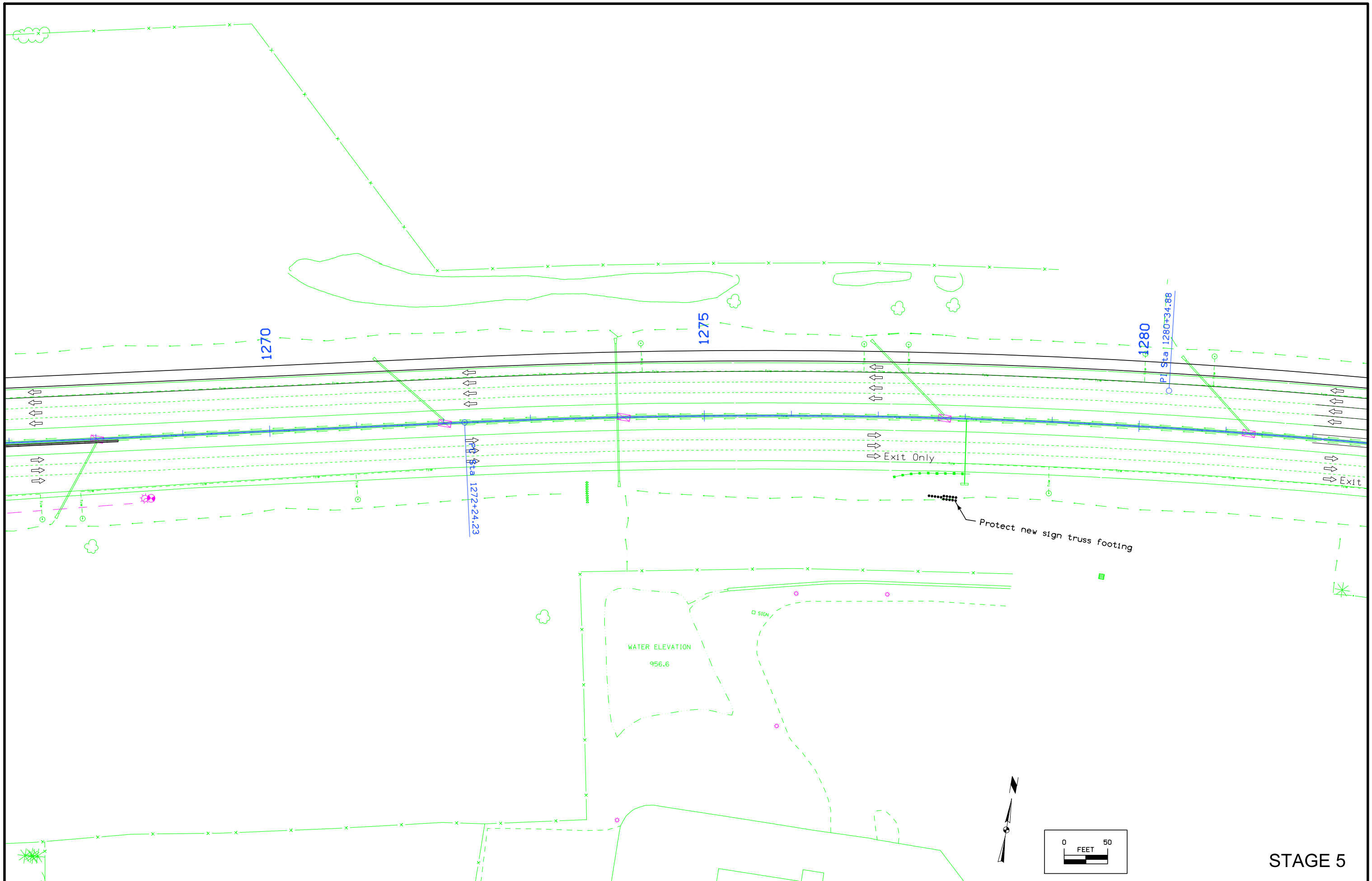


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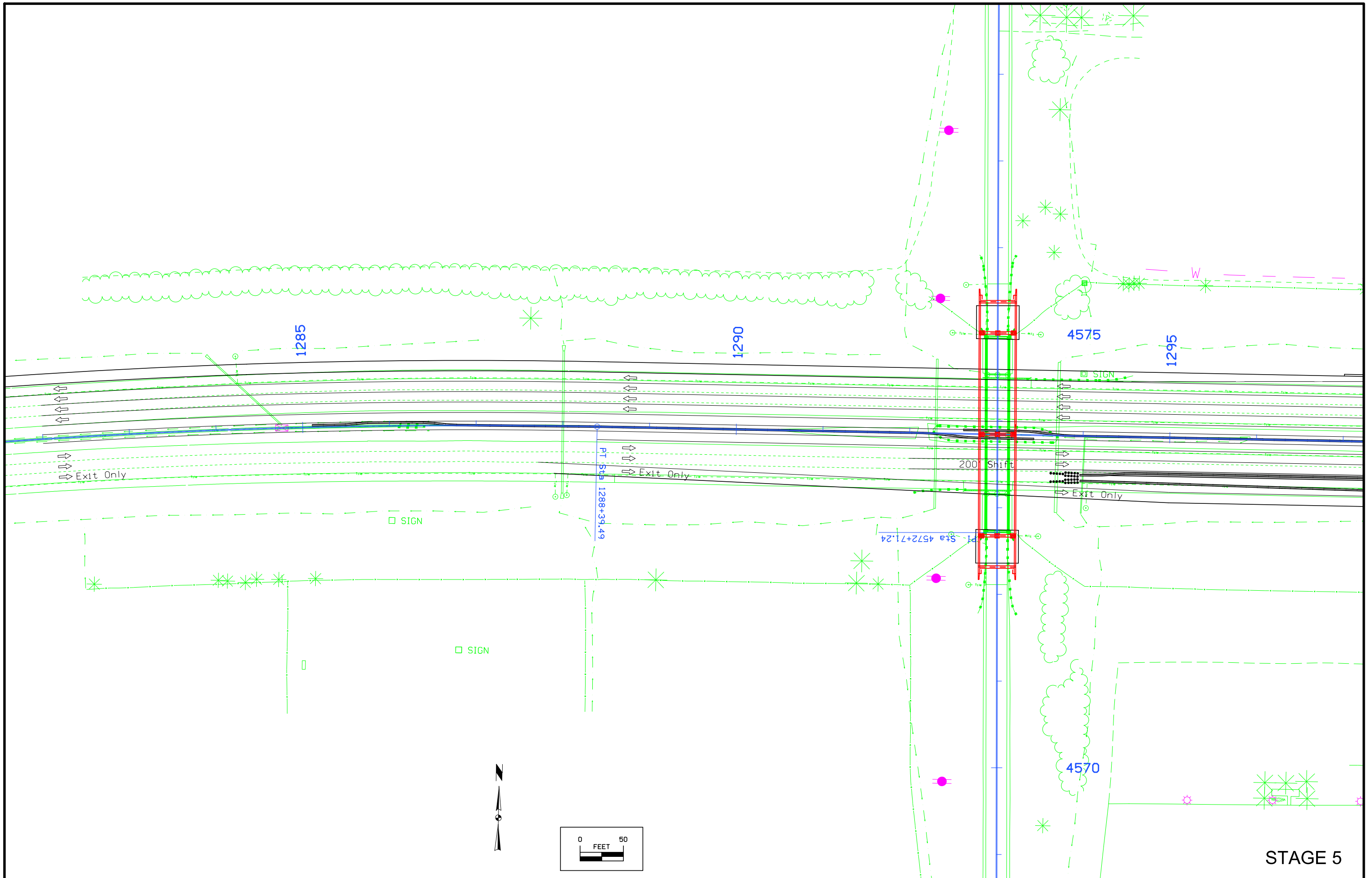


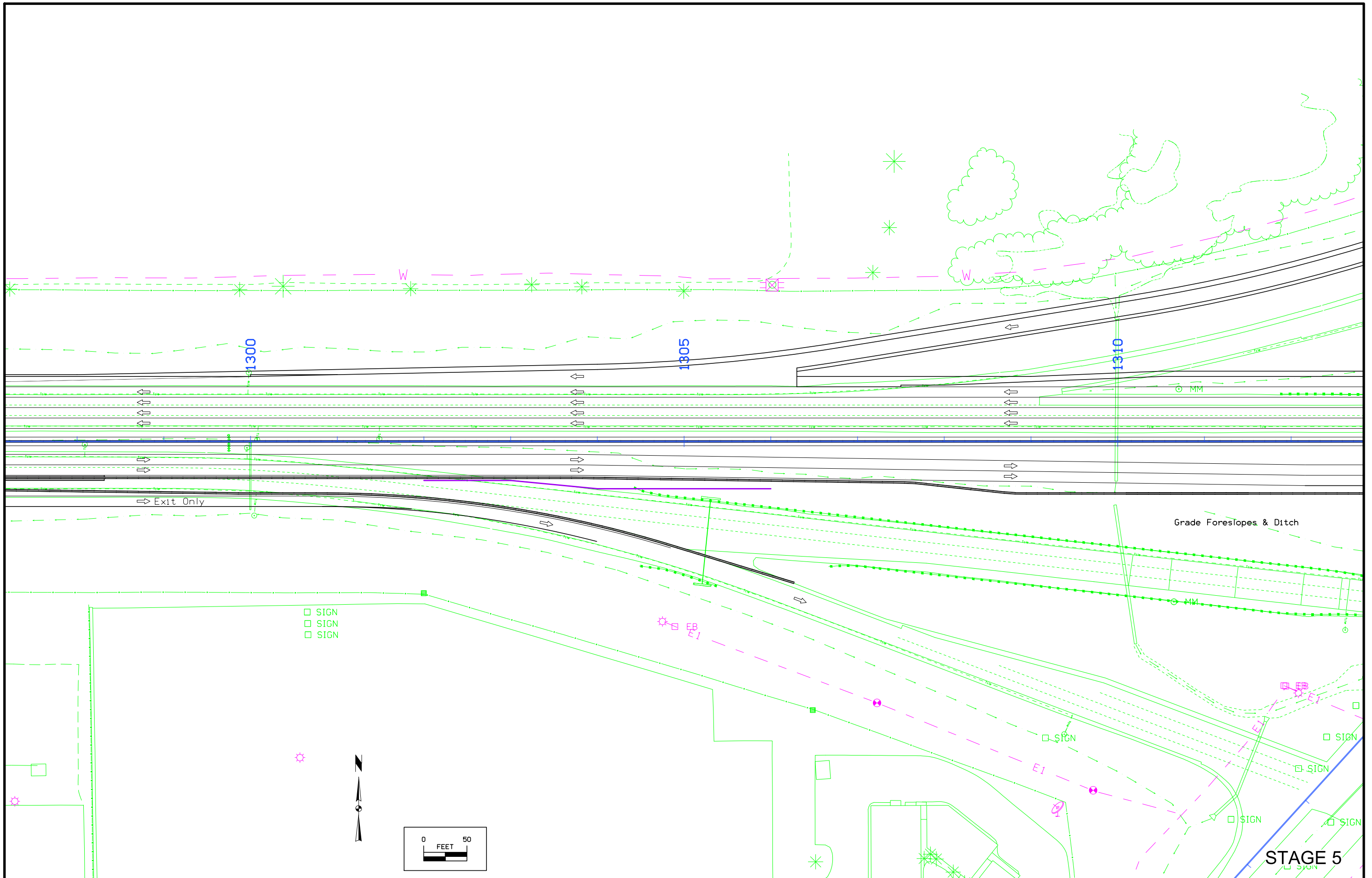
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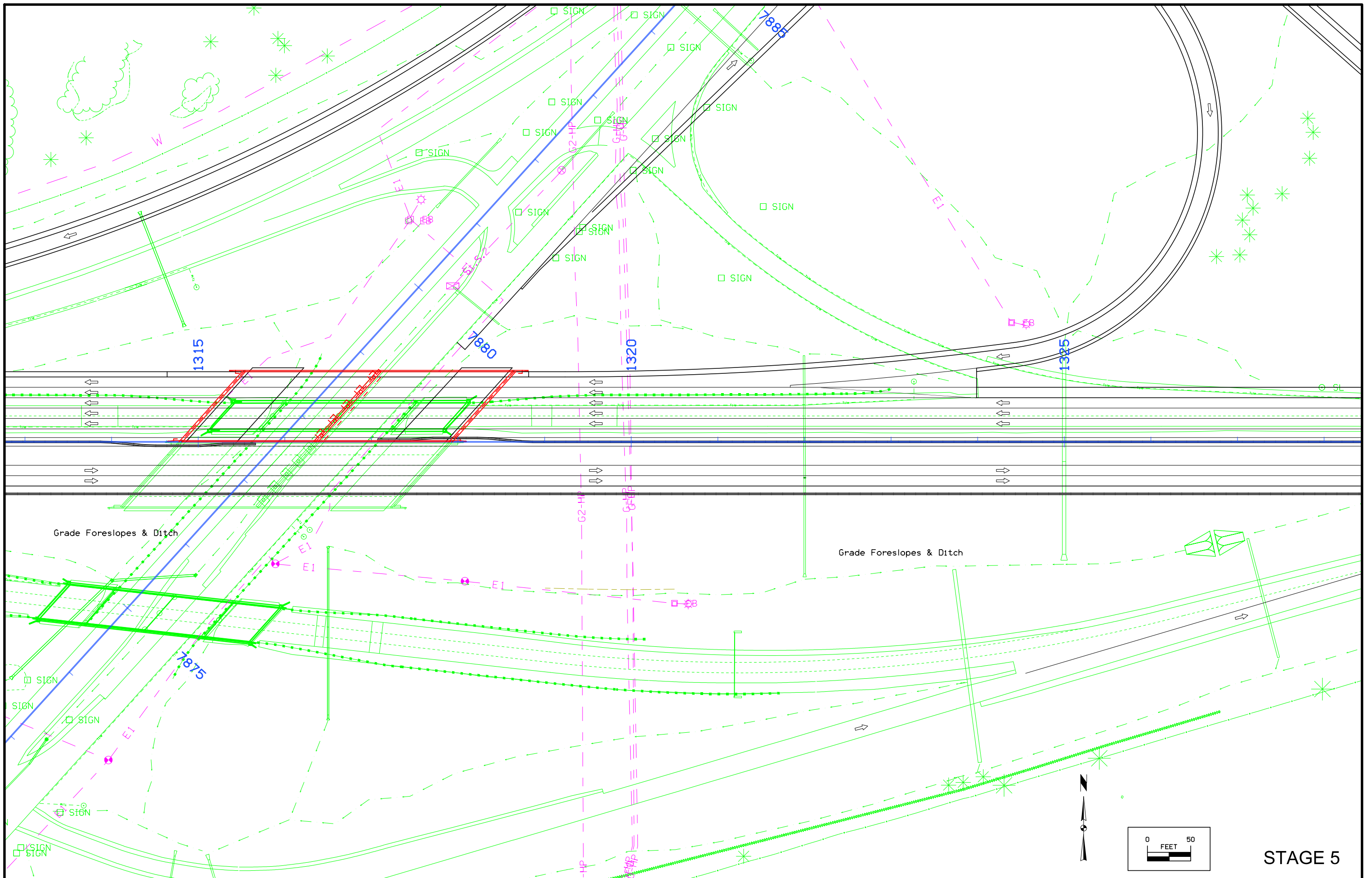




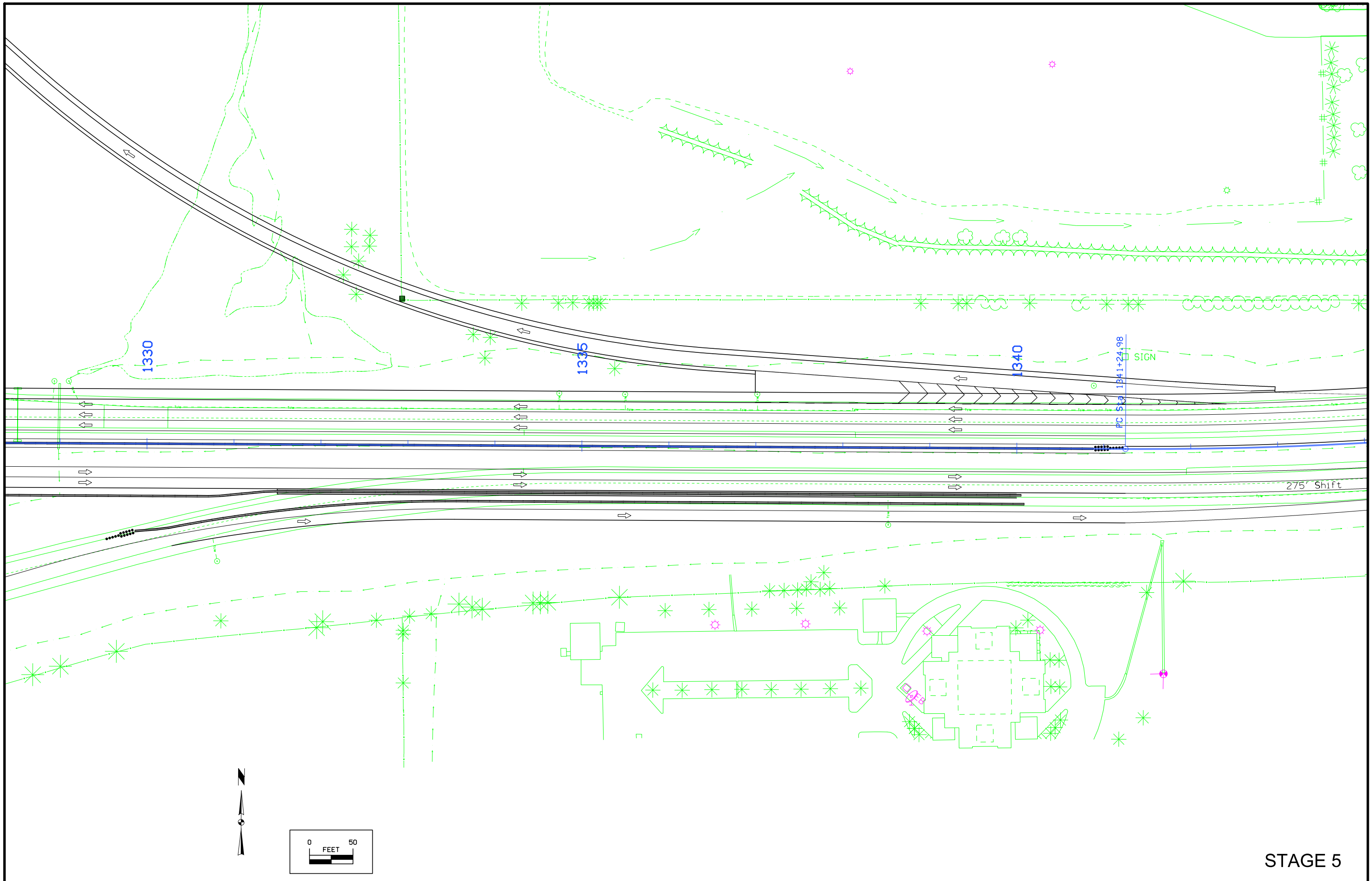
STAGE 5



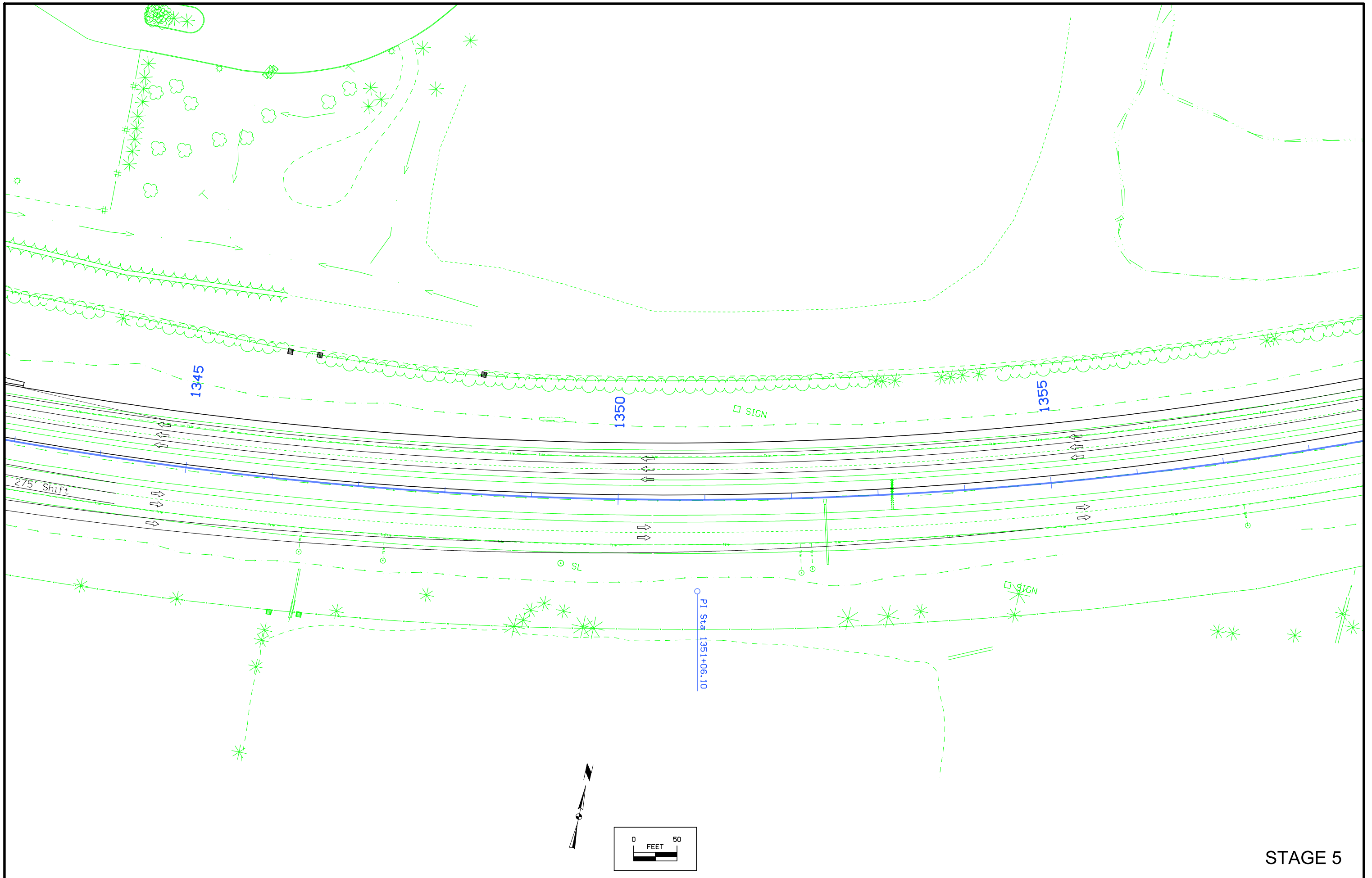




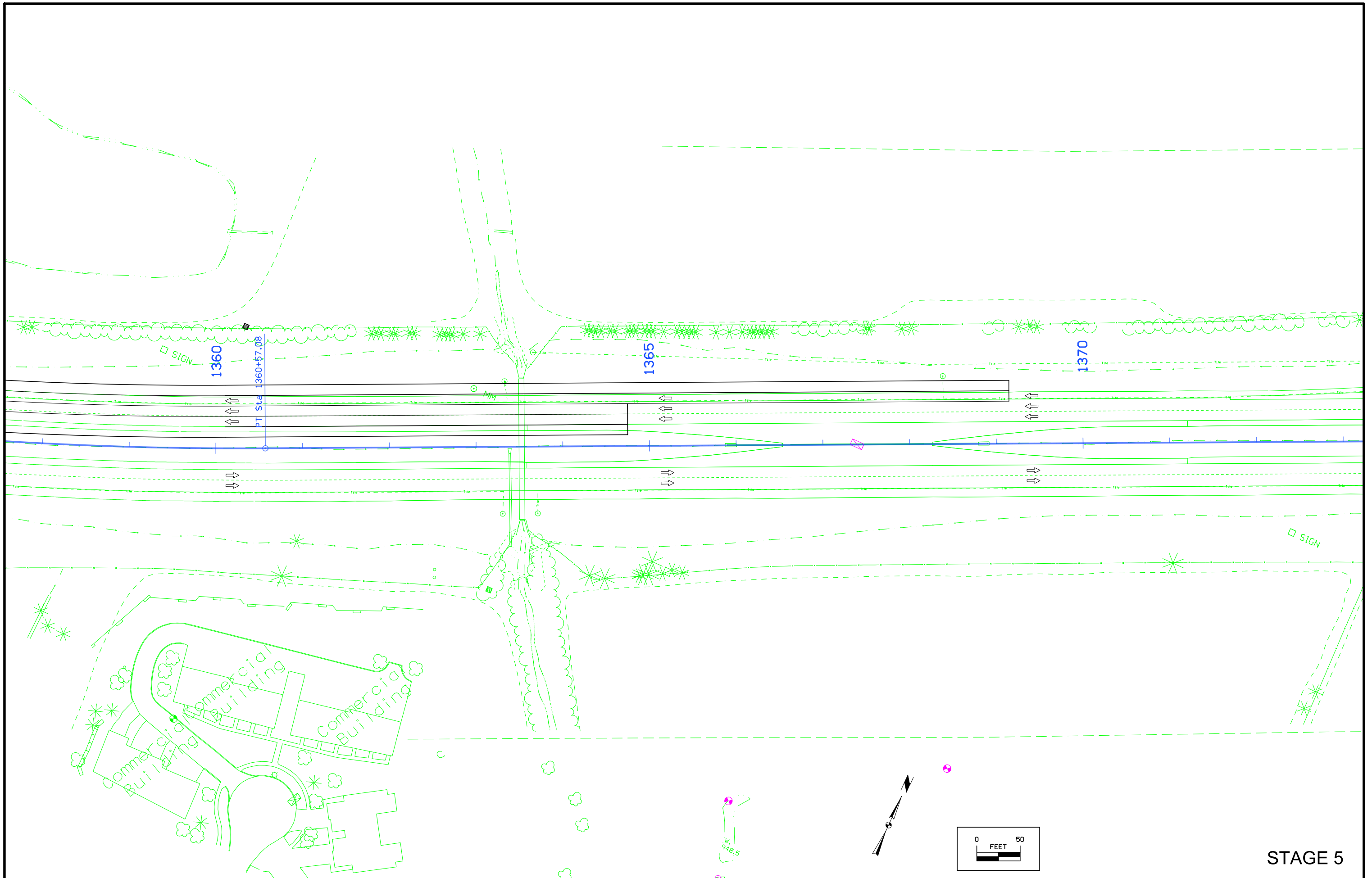
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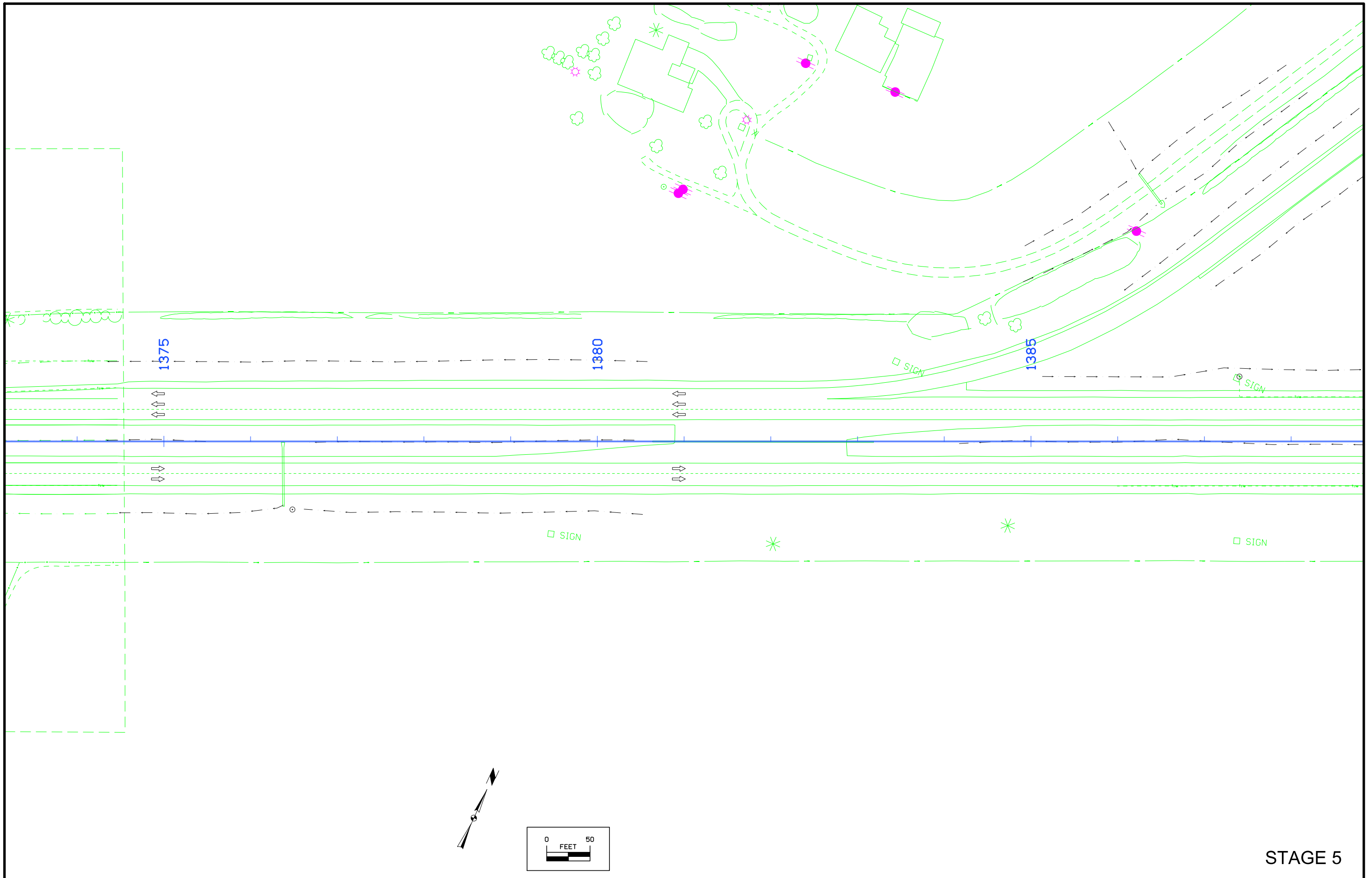
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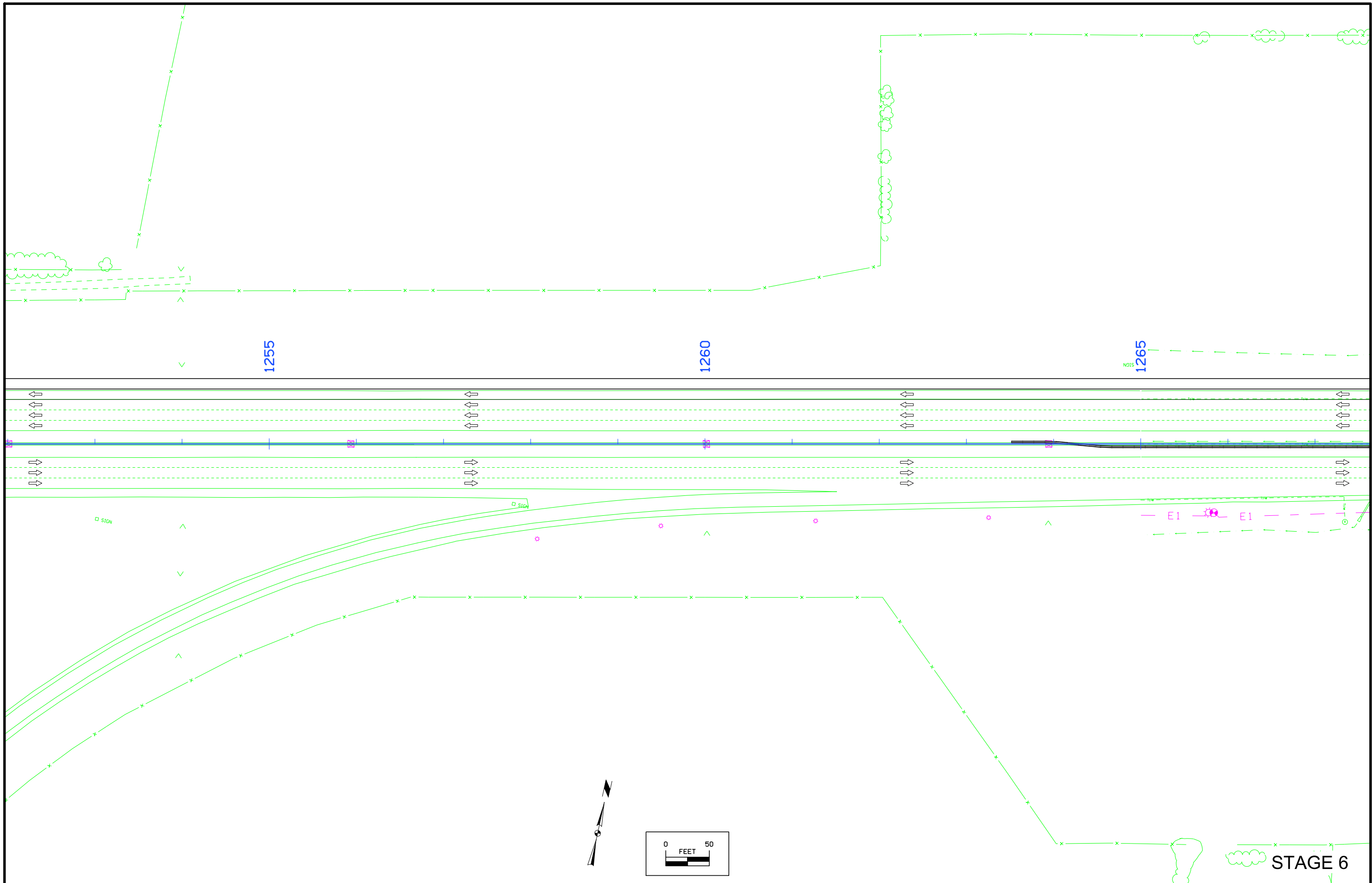
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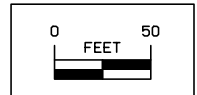
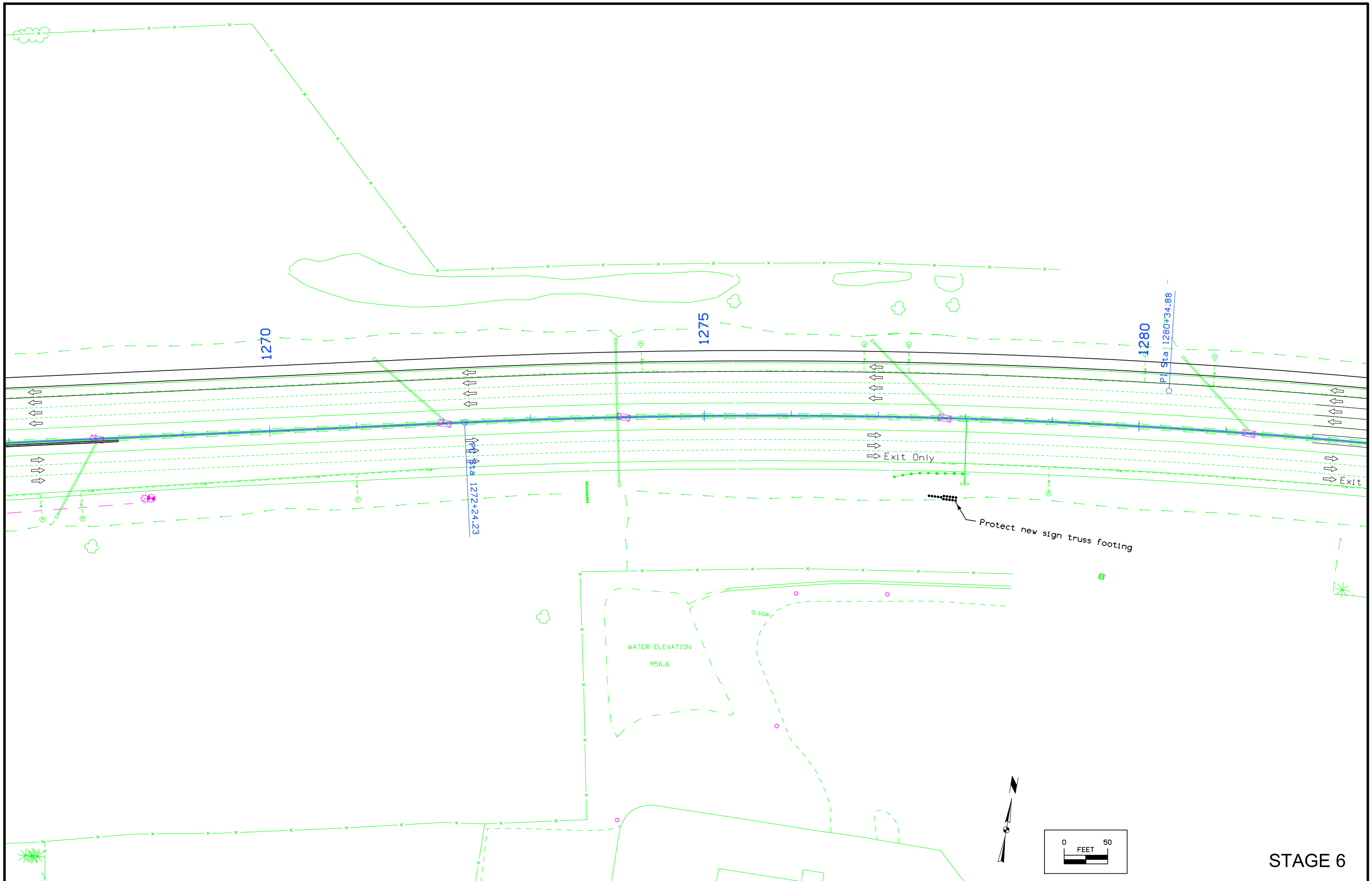


STAGE 5

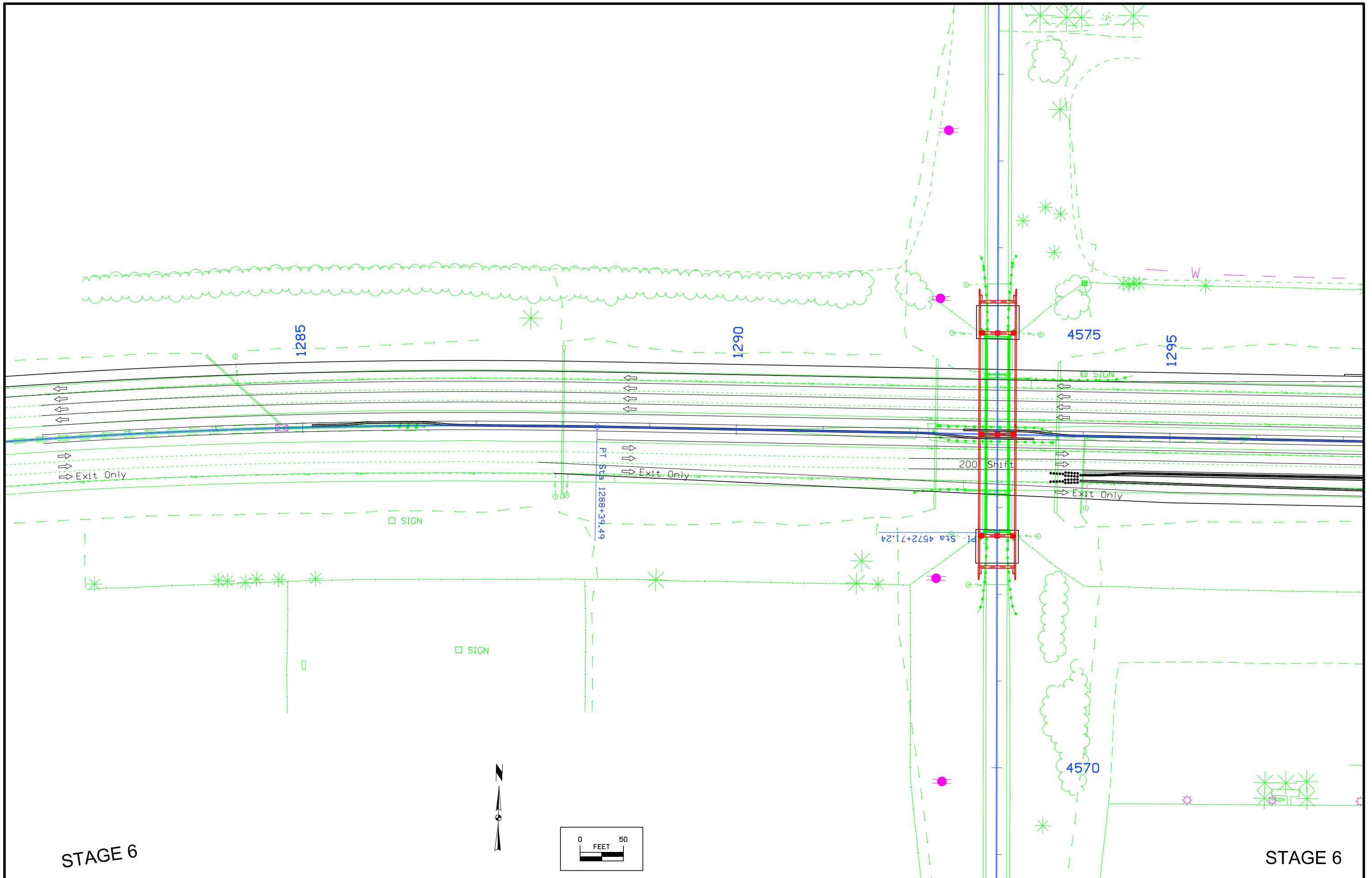


STAGE 5



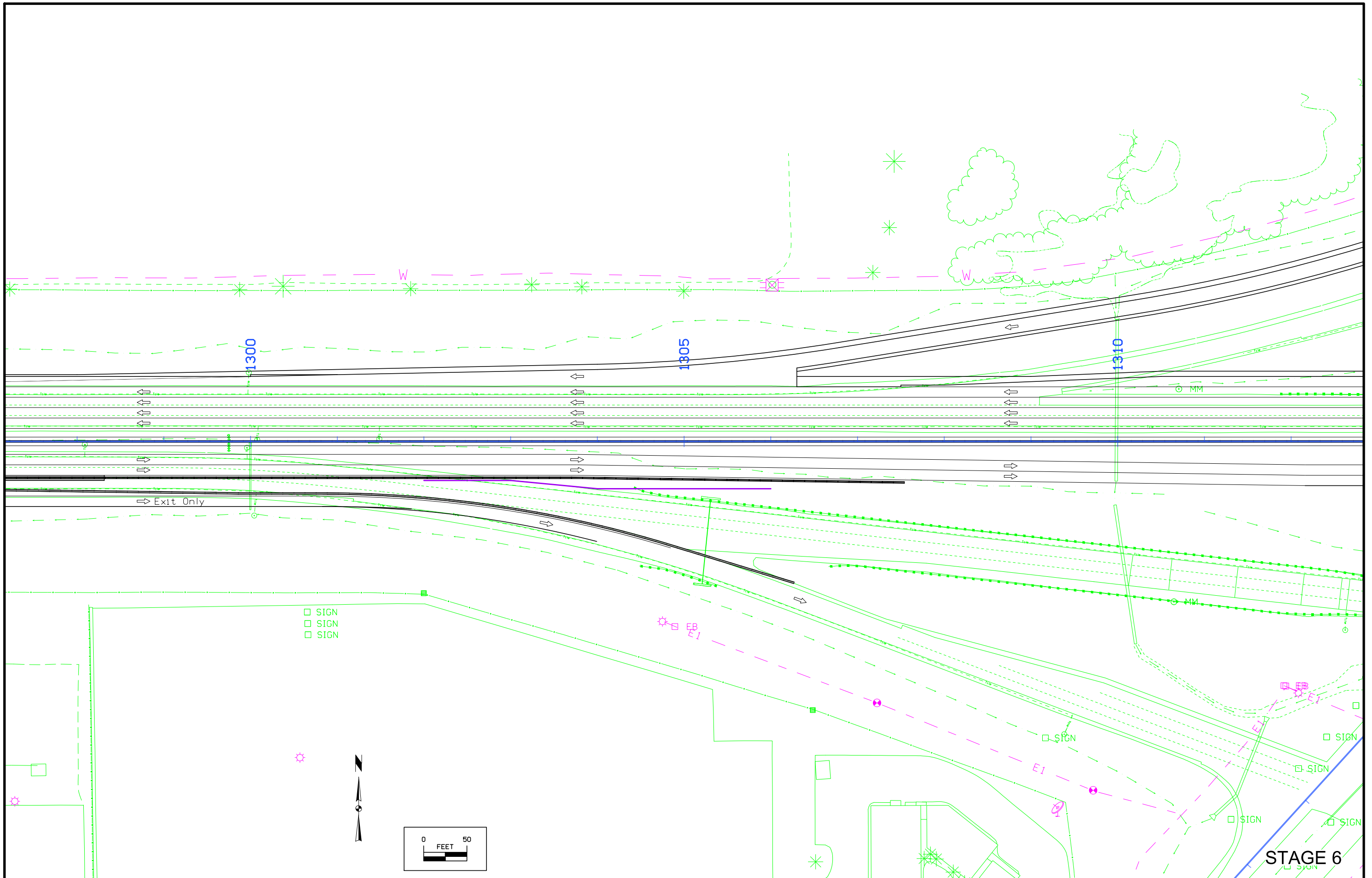


STAGE 6

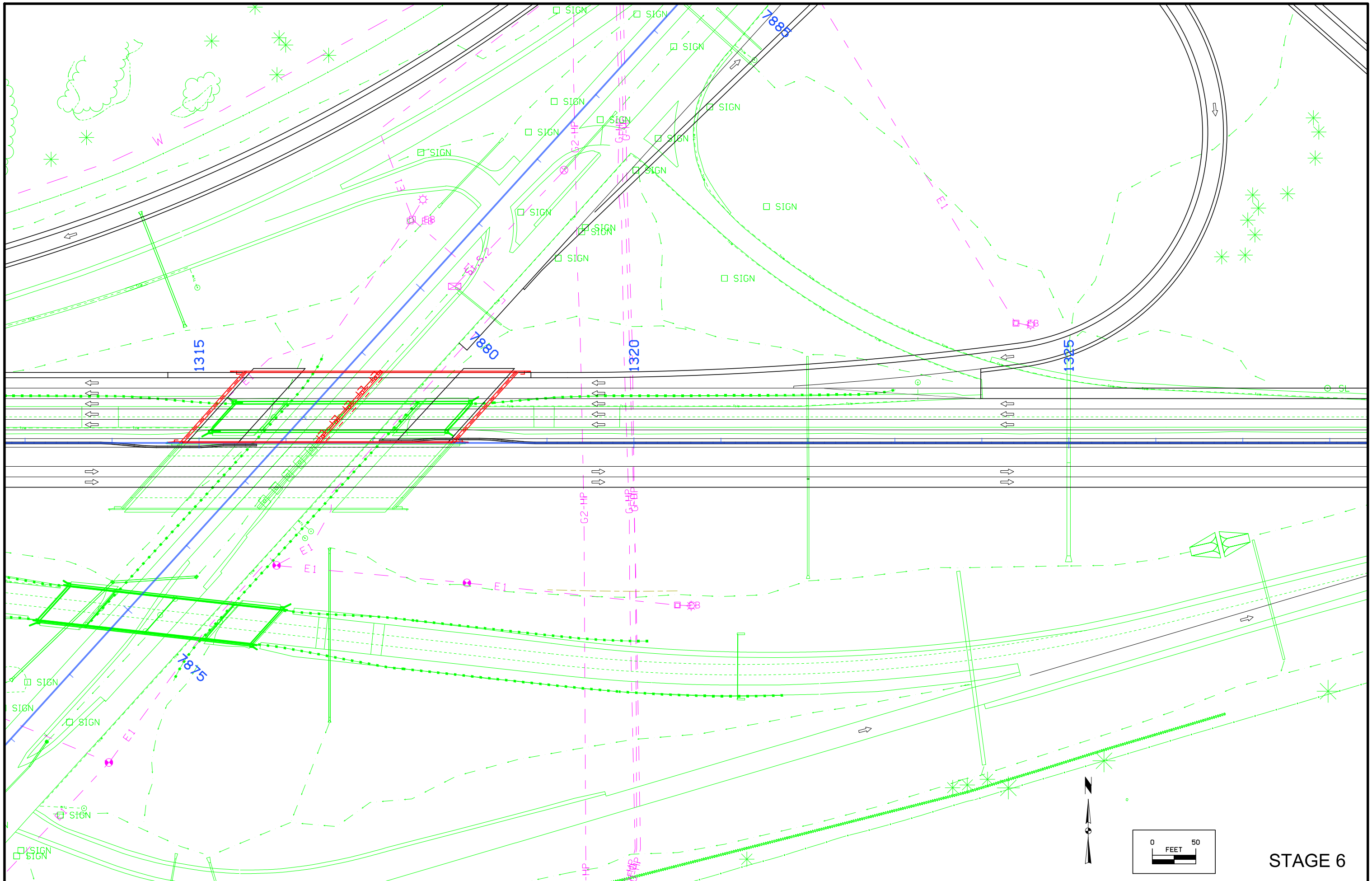


STAGE 6

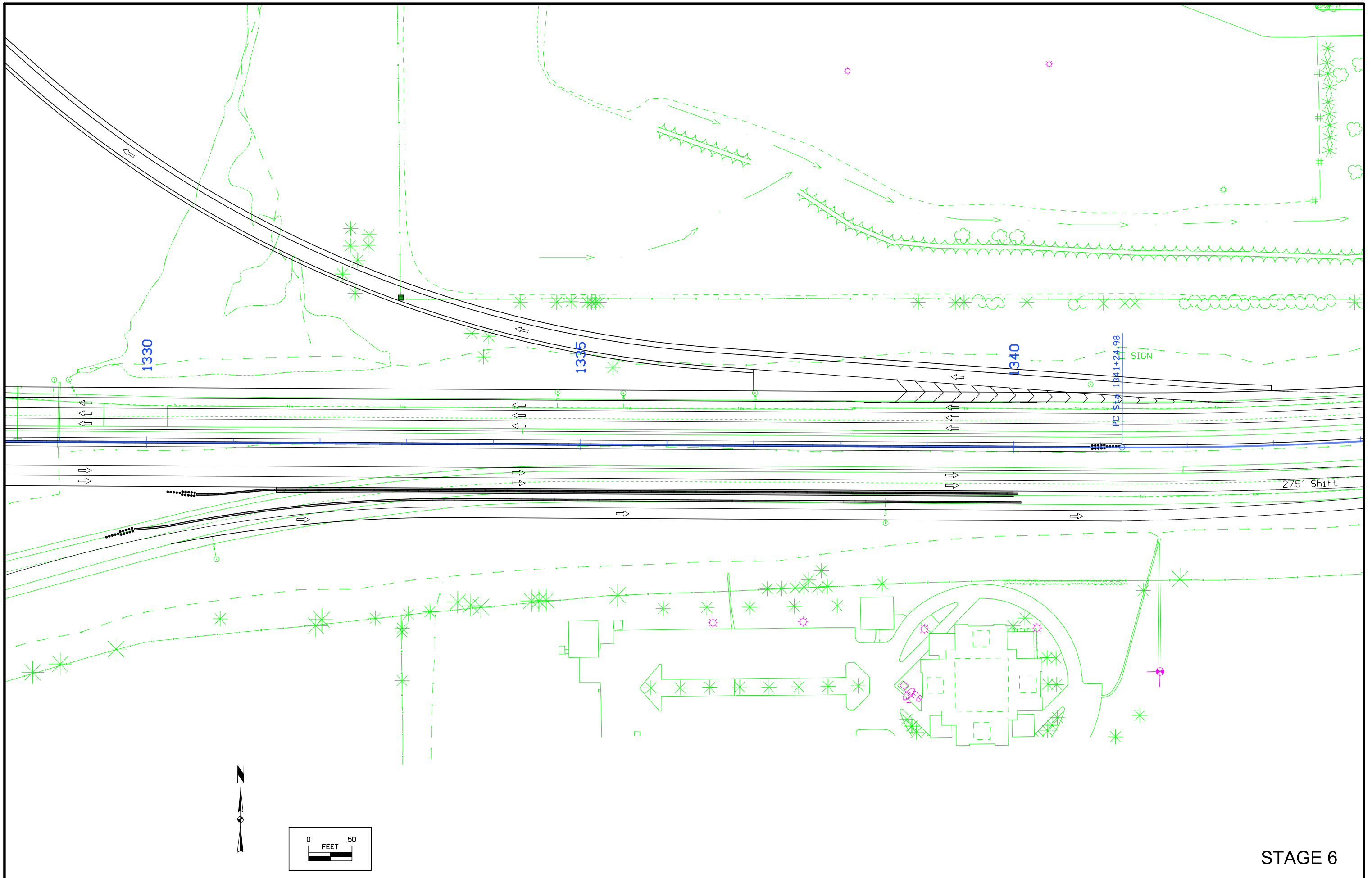
STAGE 6



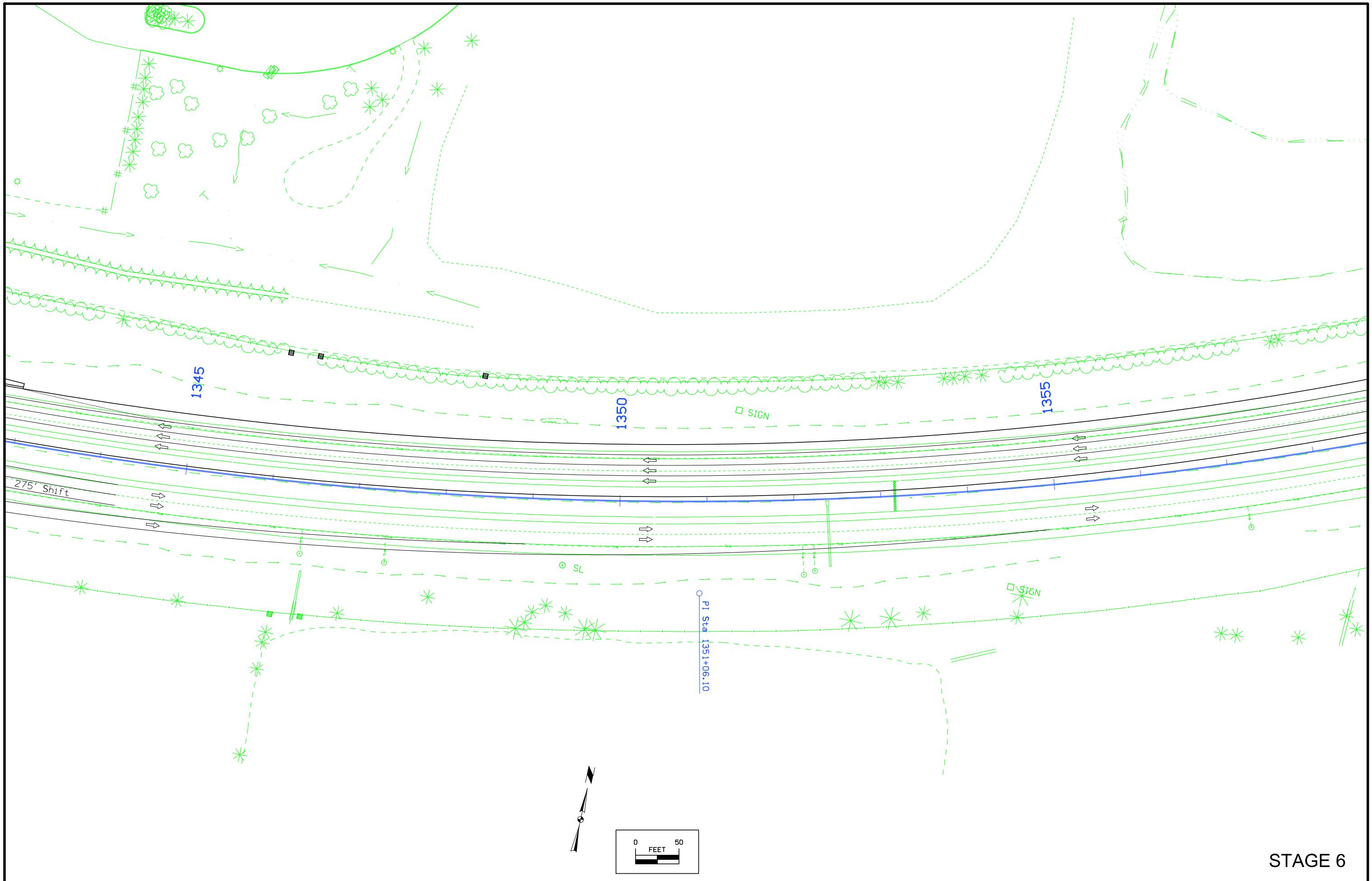
STAGE 6



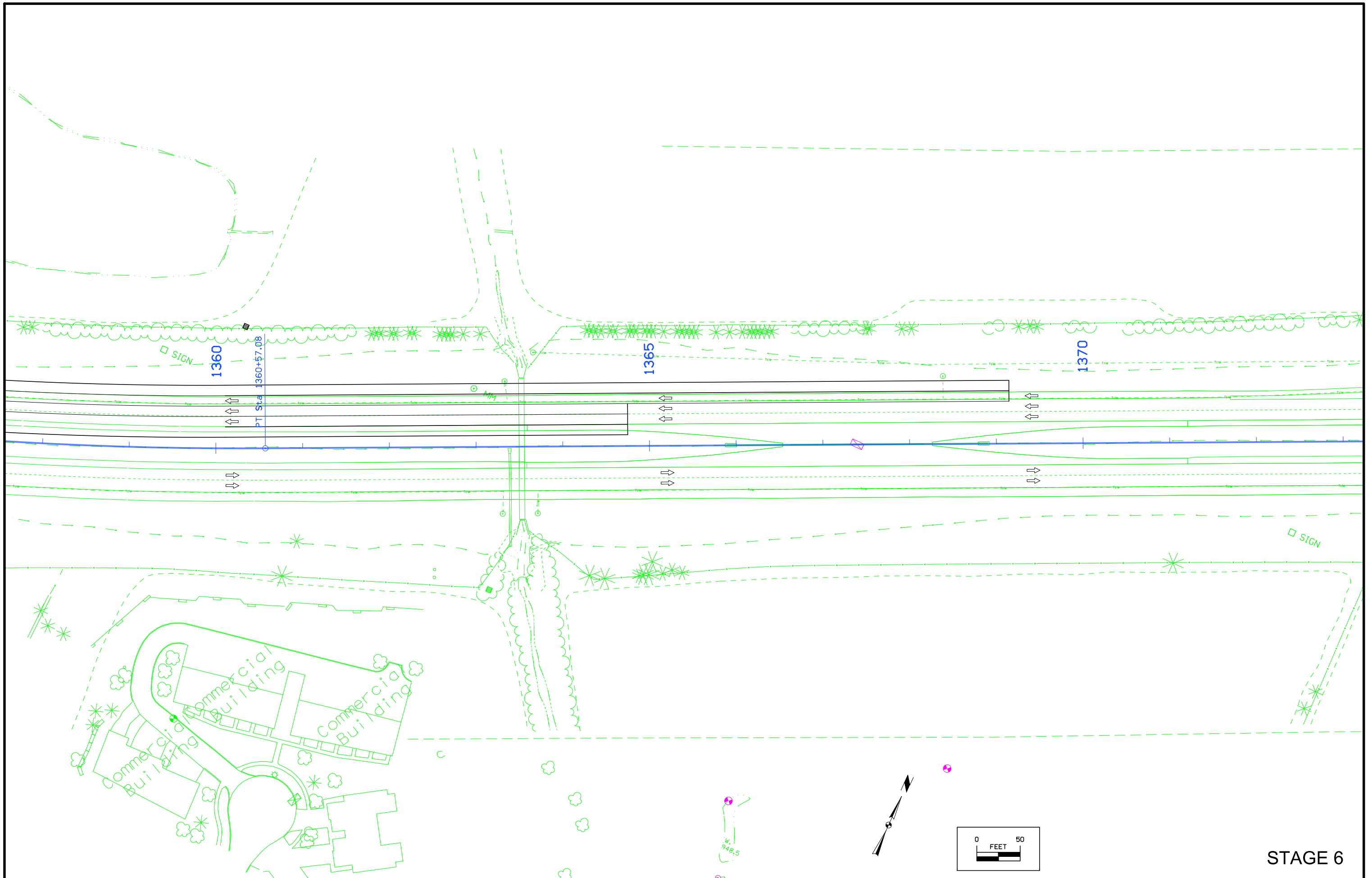
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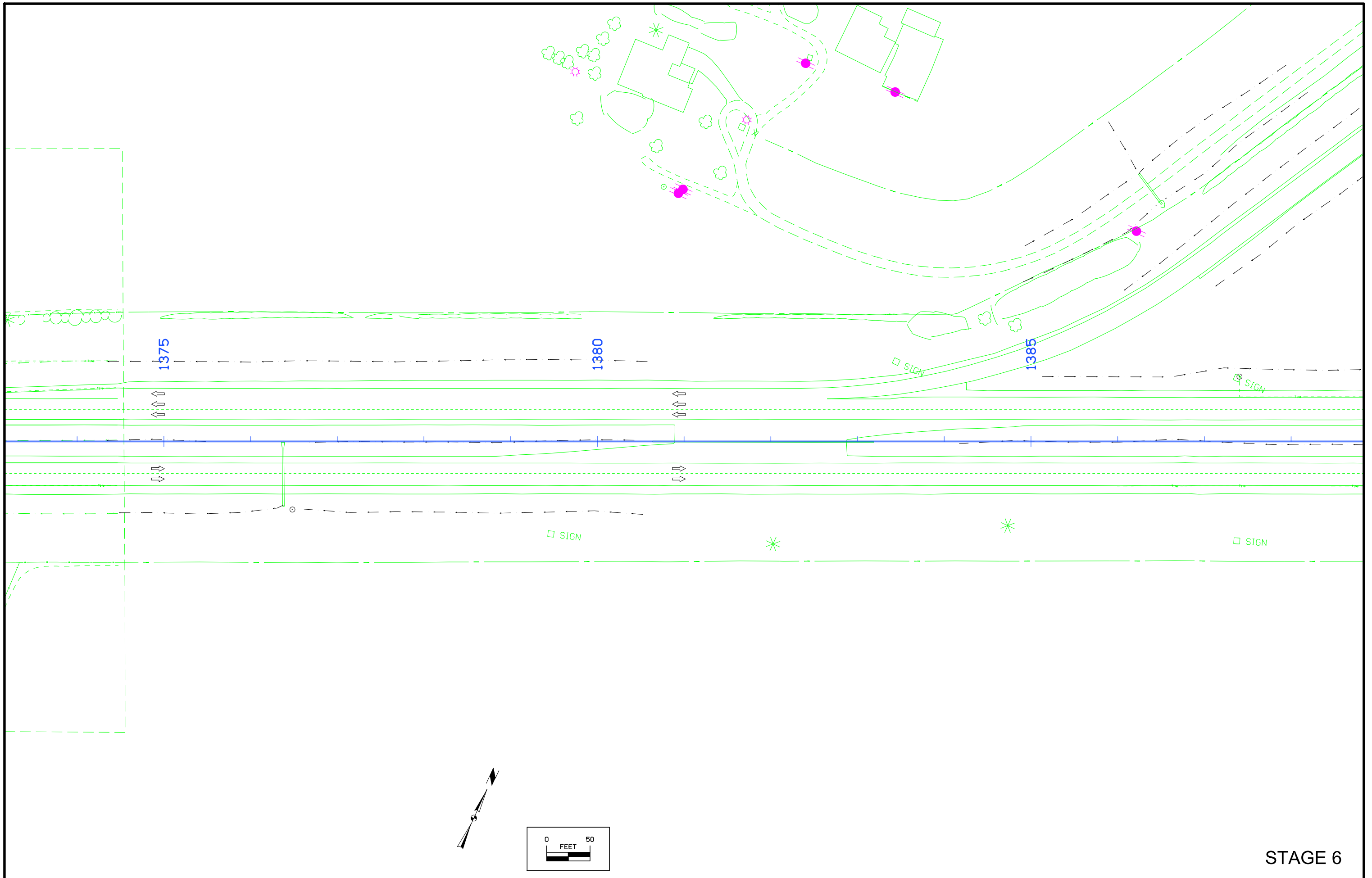


STAGE 6



STAGE 6

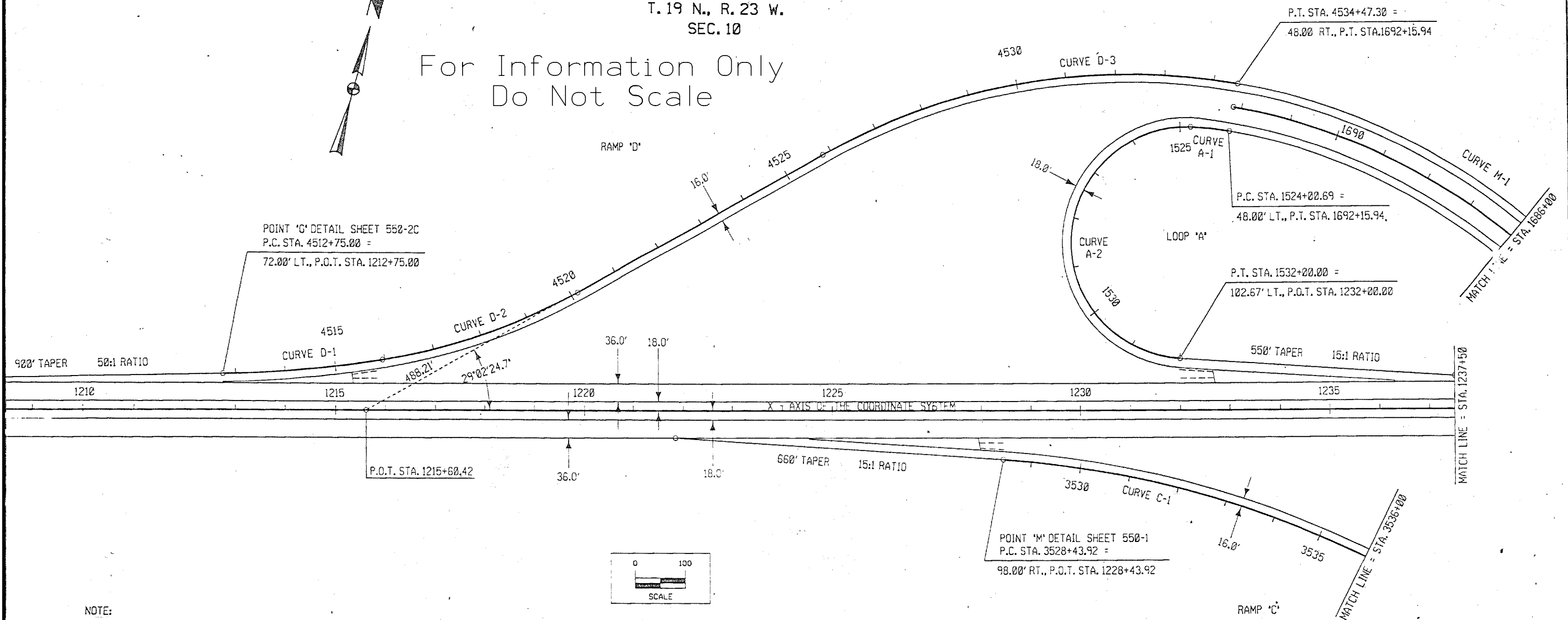
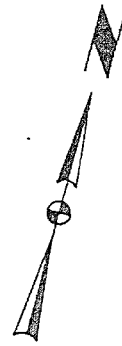




STAGE 6

DELAWARE TWP.
T. 19 N., R. 23 W.
SEC. 10

For Information Only
Do Not Scale

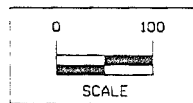


POINT 'G' DETAIL SHEET 550-2C
P.C. STA. 4512+75.00 =
72.00' LT., P.O.T. STA. 1212+75.00

P.C. STA. 1524+00.69 =
48.00' LT., P.T. STA. 1692+15.94

P.T. STA. 1532+00.00 =
102.67' LT., P.O.T. STA. 1232+00.00

POINT 'M' DETAIL SHEET 550-1
P.C. STA. 3528+43.92 =
98.00' RT., P.O.T. STA. 1228+43.92



NOTE:

This sheet shows some proposed construction to be built by others under a separate contract. The IM-80-5(145)137--13-77 contractor will construct the ramp tapers. See Sheets U.09 through U.13 for details.

CIRCULAR CURVE COORDINATES									101-10A	CIRCULAR CURVE DATA									SUPER-ELEVATION DATA			
NO.	P.C.		P.I.		P.T.		NO.	Δ	D	T	L	E	R	e	L	m	x					
	Station	Coordinates	Station	Coordinates	Station	Coordinates												Station	Coordinates	Station	Coordinates	Station
A-1	1524+00.69	-872.92	555.01	1524+39.76	-911.34	562.13	1524+78.71	-950.36	563.97	A-1	7°48'06.5"	10°00'00.0"	39.07	78.02	1.33	572.96	0.080	.	.	.		
A-2	1524+78.71	-950.36	563.97	--	--	--	1532+00.00	-976.59	102.67	A-2	178°52'49.1"	24°48'00.0"	--	721.29	--	231.03	0.080	189	56.7	47		
C-1	3528+43.92	-1332.67	-98.00	3541+38.94	-40.52	-184.14	3551+19.93	357.64	-1416.44	C-1	68°16'48.6"	3°00'00.0"	1295.02	2276.01	397.66	1909.86	0.068	222	66.6	65		
D-1	4512+75.00	-2901.59	72.00	4514+35.26	-2741.36	75.20	4515+95.00	-2583.14	100.68	D-1	8°00'00.0"	2°30'00.0"	160.26	320.00	5.60	2291.83	0.061	199	59.7	65		
D-2	4515+95.00	-2583.14	100.68	4518+06.54	-2374.28	134.30	4520+13.83	-2189.33	236.99	D-2	19°53'40.0"	4°45'00.0"	211.54	416.83	18.41	1206.23	0.080	261	78.3	65		
D-3	4525+81.83	-1692.74	512.71	4530+32.59	-1298.65	731.52	4534+47.30	-855.43	649.41	D-3	39°32'11.0"	4°34'05.6"	450.76	865.47	78.54	1254.23	0.080	261	78.3	65		
M-1	1678+95.02	71.07	-235.00	1686+30.49	-141.01	468.23	1692+15.94	-864.18	602.21	M-1	62°44'37.7"	4°45'00.0"	735.47	1320.92	206.54	1206.23	0.080	261	78.3	65		
		X	Y		X	Y		X	Y													

GEOMETRIC PLAN
PROPOSED INTERCHANGE
OF
RELOC. U.S. 65
WITH
I-80

CIRCULAR CURVE COORDINATES

101-10A
09-23-86

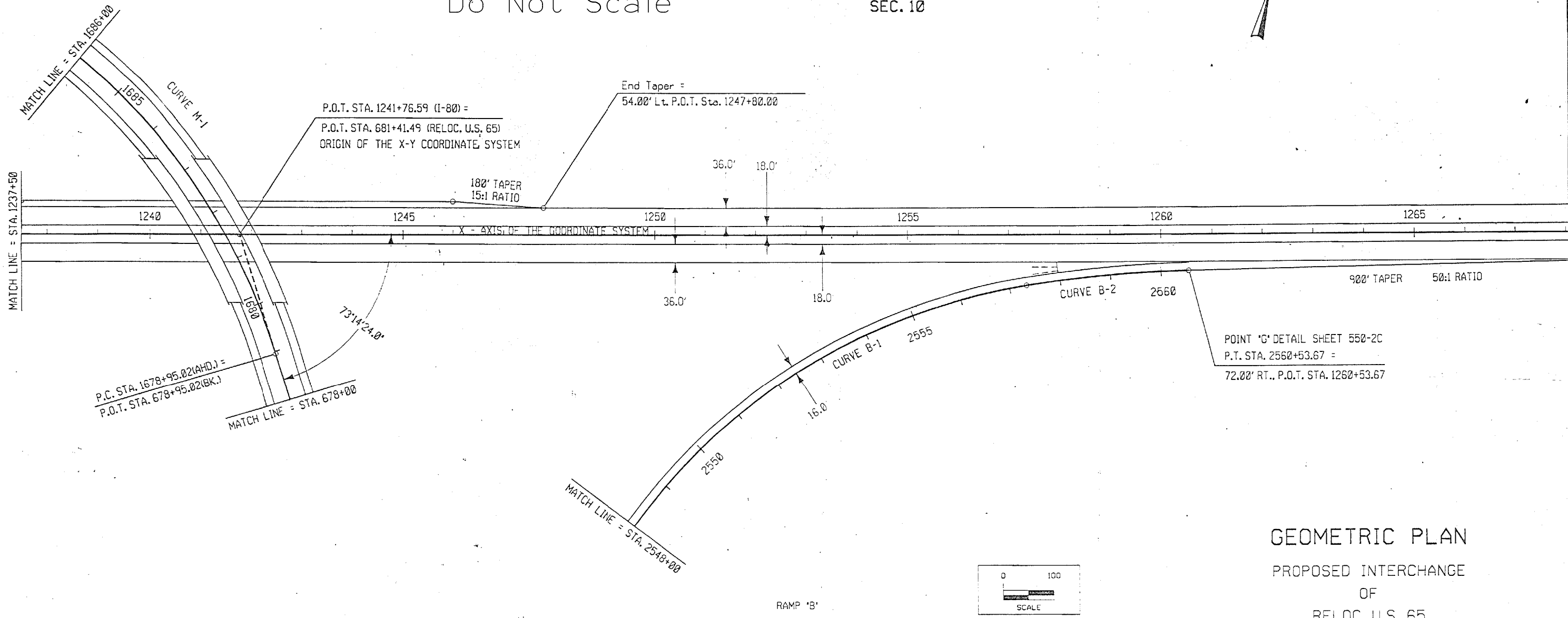
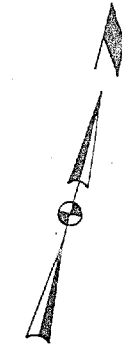
CIRCULAR CURVE DATA

SUPER-ELEVATION DATA
101-10B
04-01-86

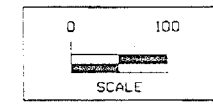
NO.	P.C.		P.I.		P.T.		NO.	Δ	D	T	L	E	R	SUPER-ELEVATION DATA			
	Station	Coordinates	Station	Coordinates	Station	Coordinates								e	L	m	x
B-1	2537+58.93	574.78 -1561.80	2550+47.93	286.01 -305.56	2557+33.67	1558.62 -100.68	B-1	93°48'00.6"	4°45'00.0"	1289.01	1974.74	559.14	1206.23	0.080	261	78.3	65
B-2	2557+33.67	1558.62 -100.68	2558+93.93	1716.85 -75.20	2560+53.67	1877.08 -72.00	B-2	8°00'00.0"	2°30'00.0"	160.26	320.00	5.60	2291.83	0.061	199	59.7	65
M-1	1678+95.02	71.07 -236.00	1686+30.49	-141.01 468.23	1692+15.94	-864.18 602.21	M-1	62°44'37.7"	4°45'00.0"	735.47	1320.92	206.54	1206.23	0.080	261	78.3	65
		X Y	X Y	X Y	X Y	X Y											

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DELAWARE TWP.
T. 19 N., R. 23 W.
SEC. 10

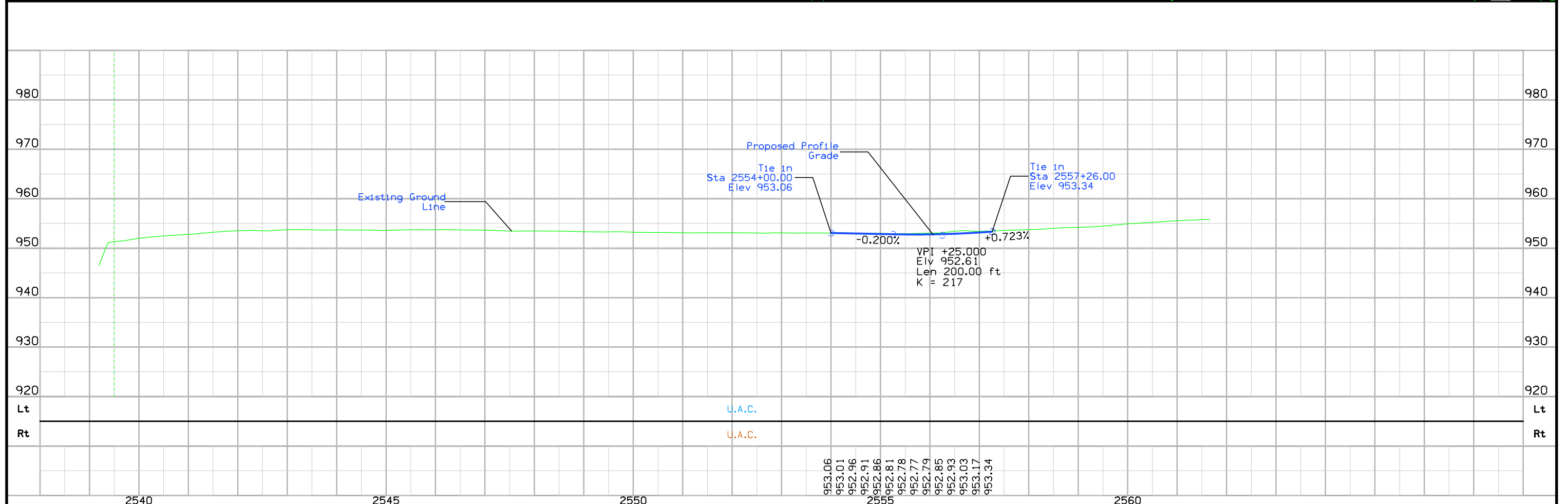
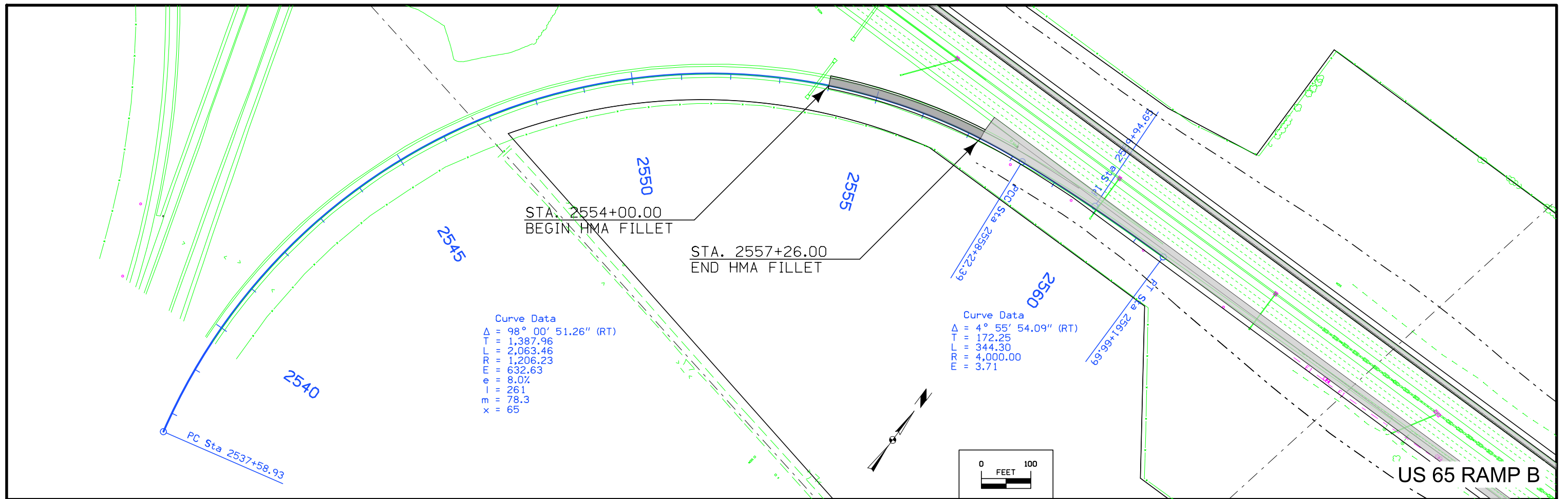


POINT 'G' DETAIL SHEET 550-2C
P.T. STA. 2560+53.67 =
72.00' RT., P.O.T. STA. 1260+53.67

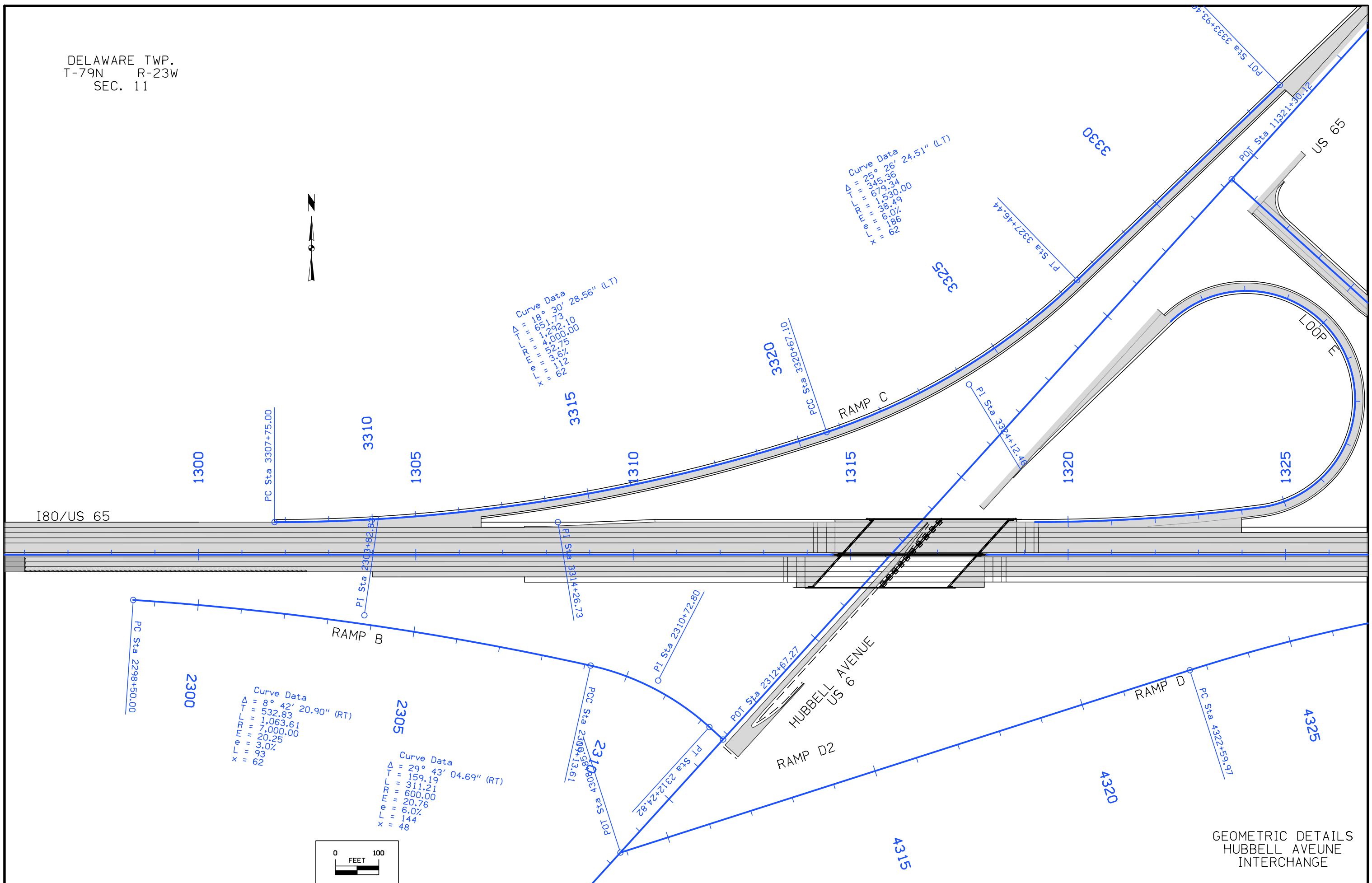


GEOMETRIC PLAN
PROPOSED INTERCHANGE
OF
RELOC. U.S. 65
WITH
I-80

NOTE:
This sheet shows some proposed construction to be built by others under a separate contract. The IM-80-5(145)137--13-77 contractor will construct the ramp tapers. See Sheets U.09 through U.13 for details.



DELAWARE TWP.
T-79N R-23W
SEC. 11

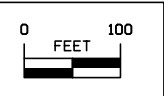


Curve Data
 $\Delta = 8^\circ 42' 20.90''$ (RT)
 532.83
 1,063.61
 7,000.00
 20.25
 3.0%
 62

Curve Data
 $\Delta = 29^\circ 43' 04.69''$ (RT)
 159.19
 311.21
 600.00
 20.76
 6.0%
 144
 48

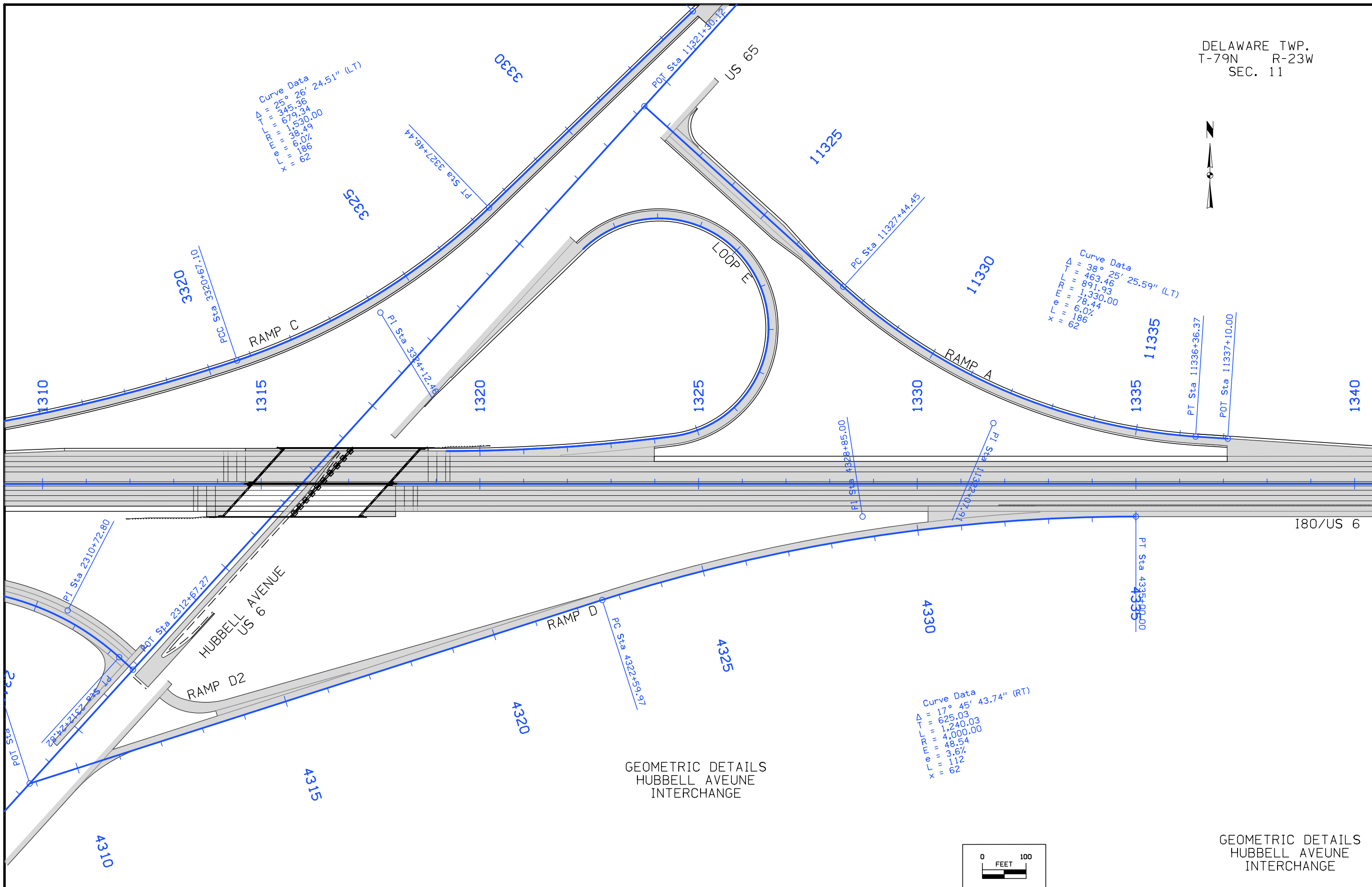
Curve Data
 $\Delta = 25^\circ 26' 24.51''$ (LT)
 345.36
 679.36
 1,530.34
 38.49
 1807.99
 62

Curve Data
 $\Delta = 18^\circ 30' 28.56''$ (LT)
 651.73
 1,292.10
 4,000.00
 3.6%
 62



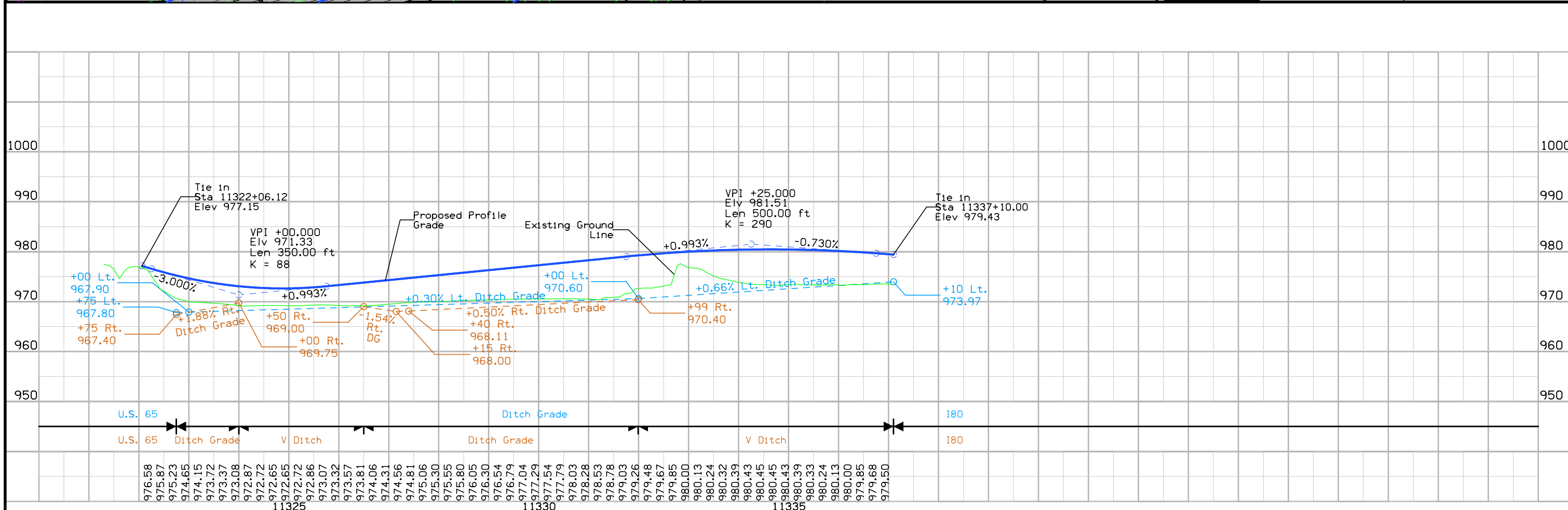
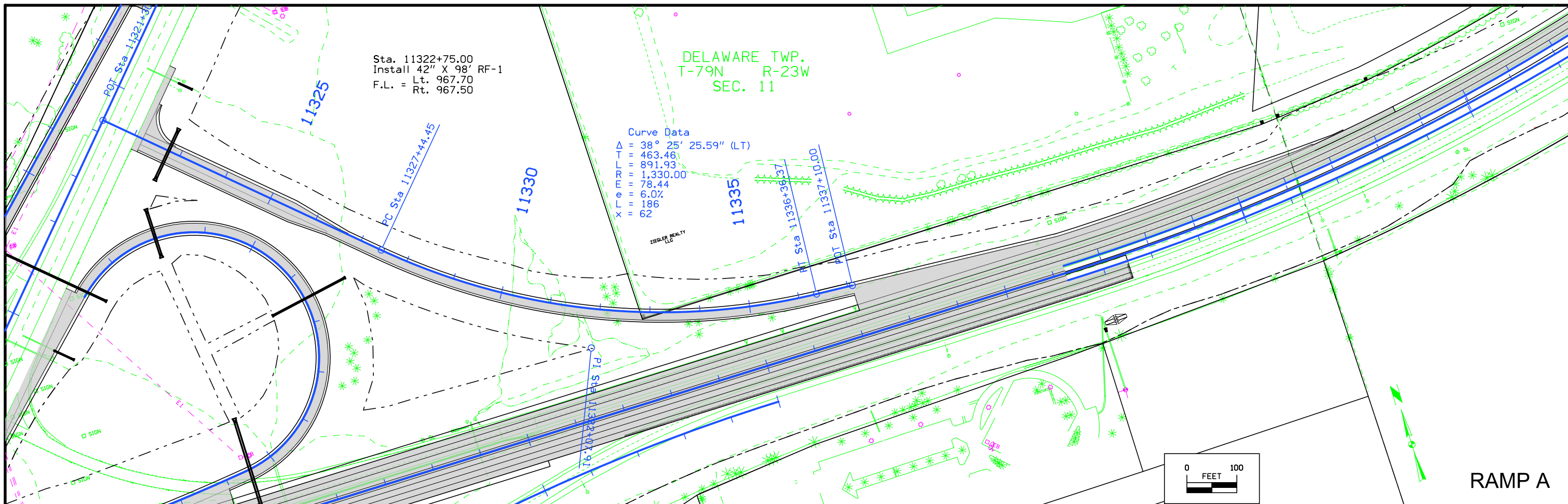
GEOMETRIC DETAILS
HUBBELL AVENUE
INTERCHANGE

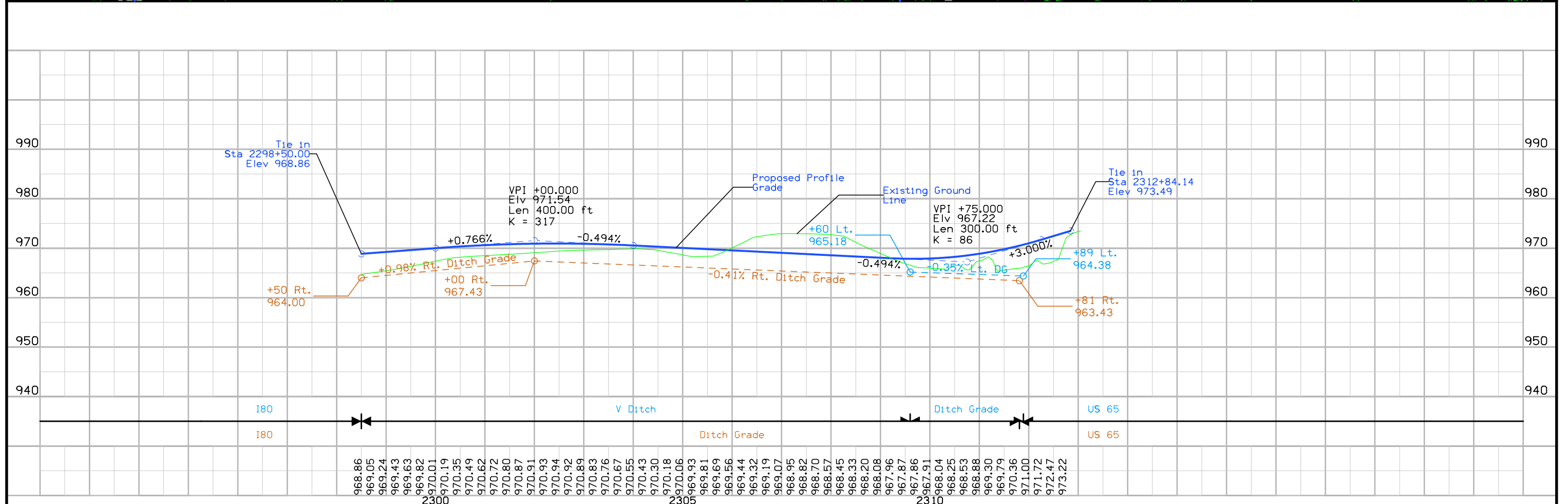
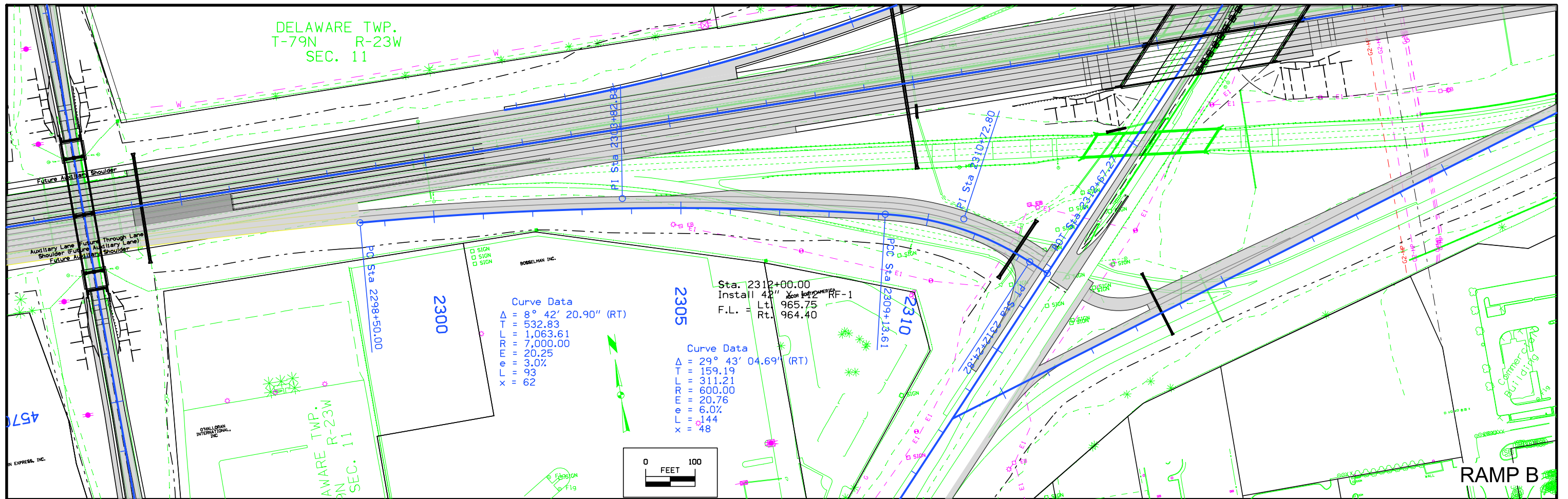
DELAWARE TWP.
T-79N R-23W
SEC. 11



GEOMETRIC DETAILS
HUBBELL AVENUE
INTERCHANGE

GEOMETRIC DETAILS
HUBBELL AVENUE
INTERCHANGE





DELAWARE TWP.
T-79N R-23W
SEC. 11

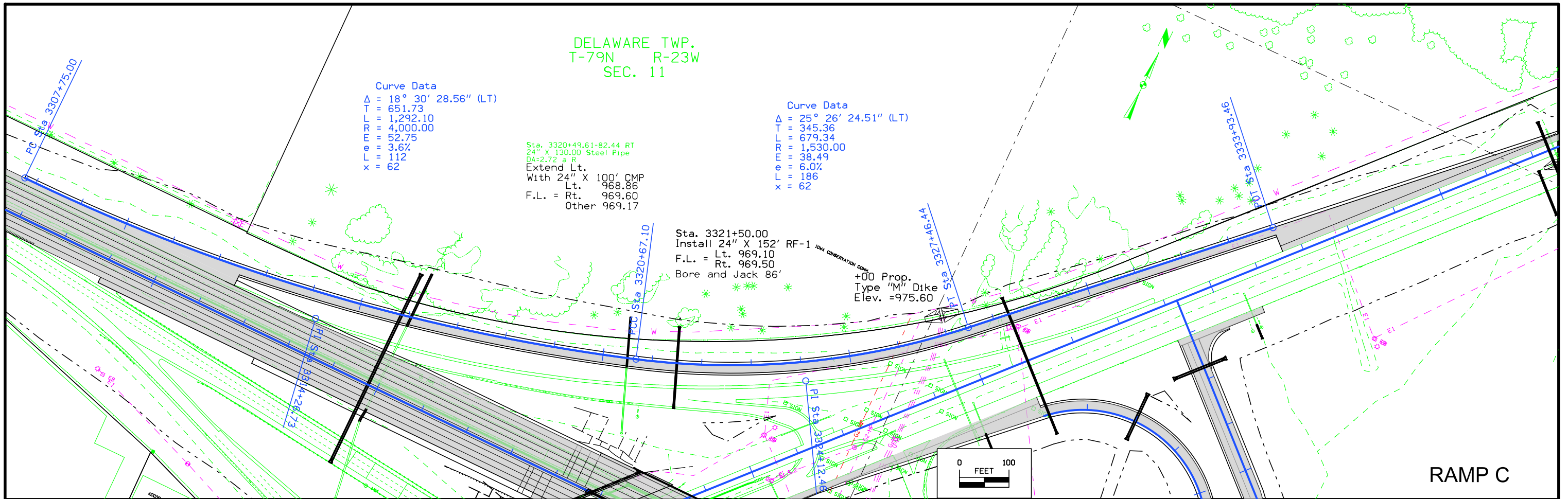
Curve Data
 $\Delta = 18^\circ 30' 28.56''$ (LT)
 $T = 651.73$
 $L = 1,292.10$
 $R = 4,000.00$
 $E = 52.75$
 $e = 3.6\%$
 $L = 112$
 $x = 62$

Sta. 3320+49.61-82.44 RT
 24" X 130.00 Steel Pipe
 DA=2.72 @ R
 Extend Lt.
 With 24" X 100' CMP
 Lt. 968.86
 Rt. 969.50
 F.L. = Rt. 969.60
 Other 969.17

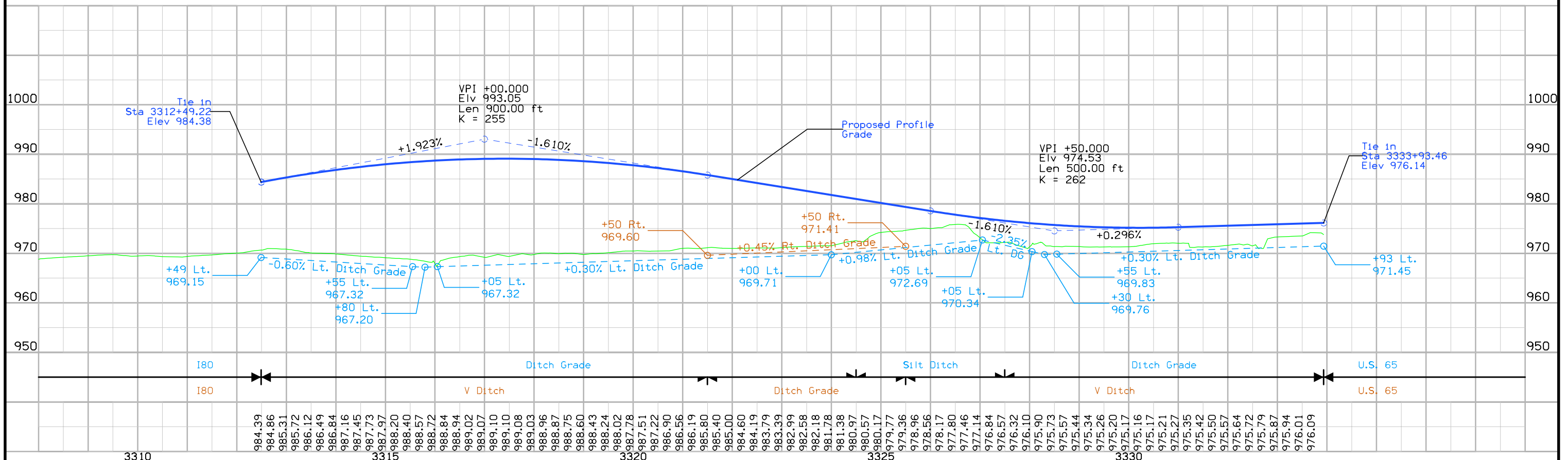
Curve Data
 $\Delta = 25^\circ 26' 24.51''$ (LT)
 $T = 345.36$
 $L = 679.34$
 $R = 1,530.00$
 $E = 38.49$
 $e = 6.0\%$
 $L = 186$
 $x = 62$

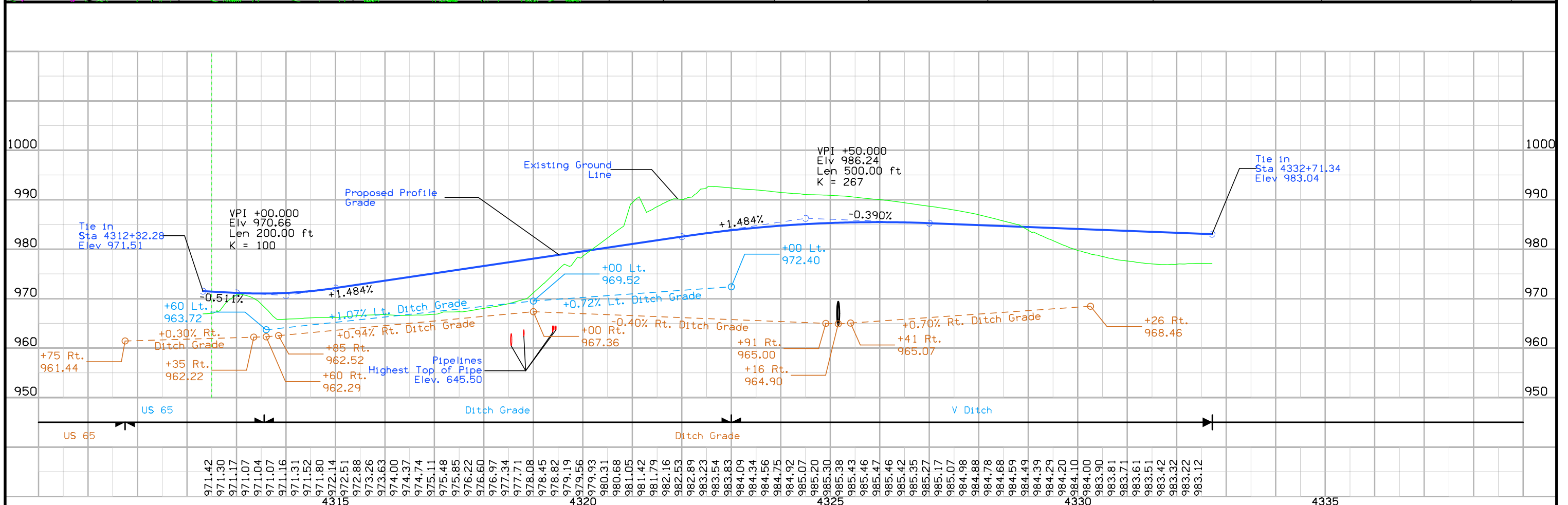
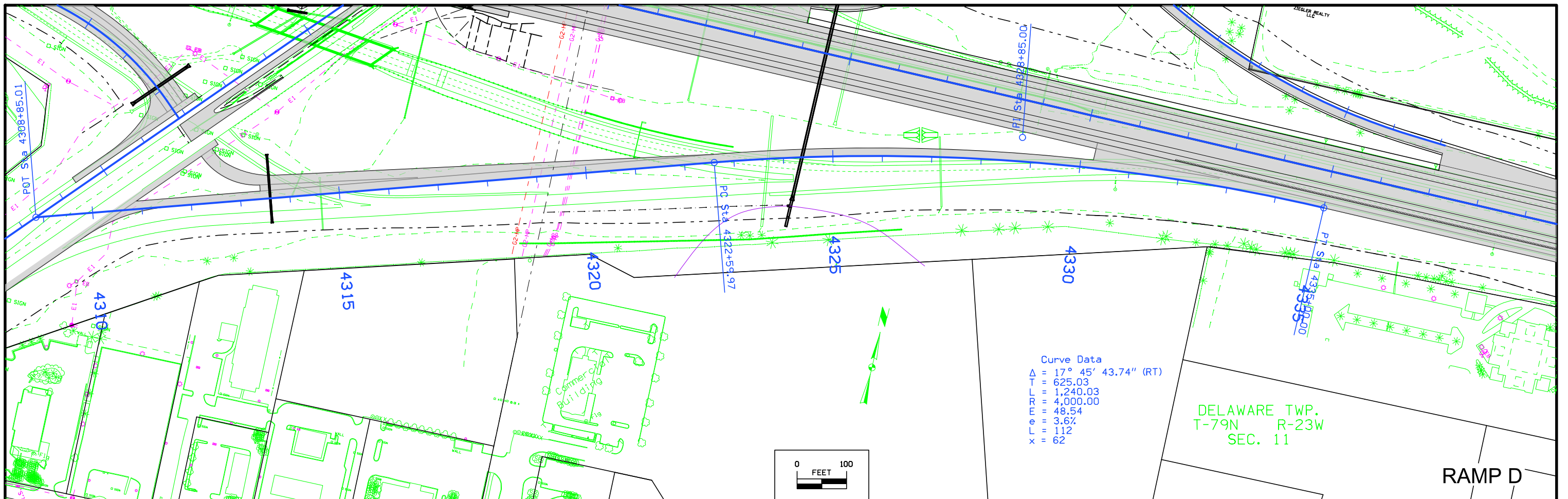
Sta. 3321+50.00
 Install 24" X 152' RF-1
 F.L. = Lt. 969.10
 Rt. 969.50
 Bore and Jack 86'

+00 Prop.
 Type "M" Dike
 Elev. =975.60

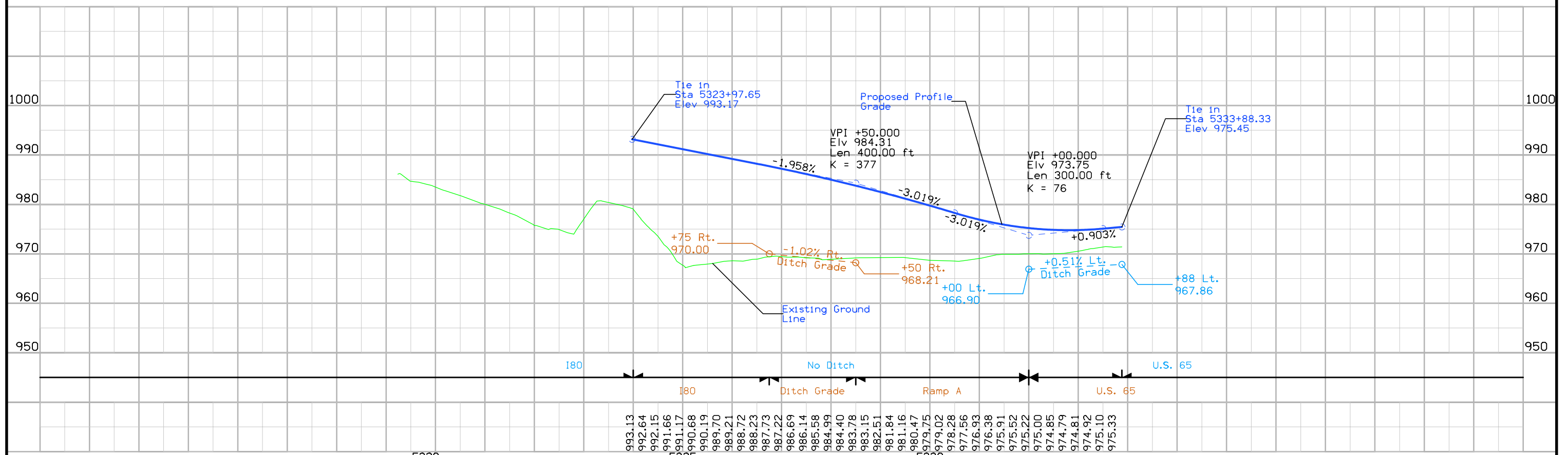
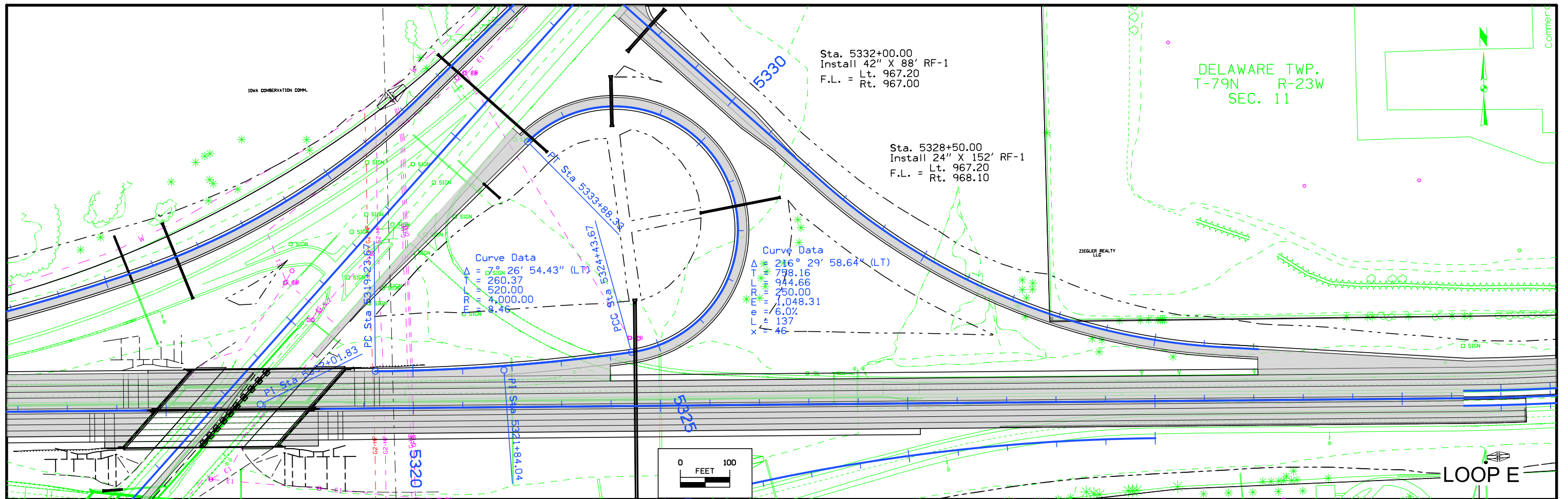


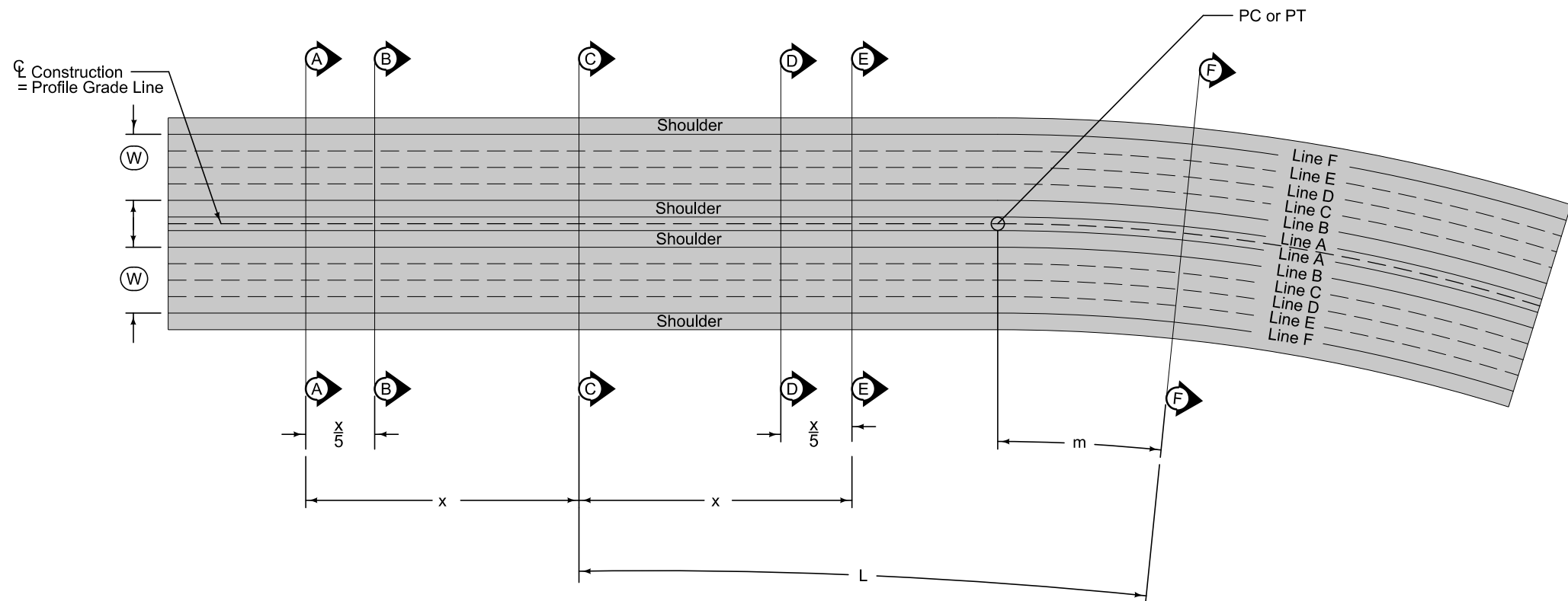
RAMP C





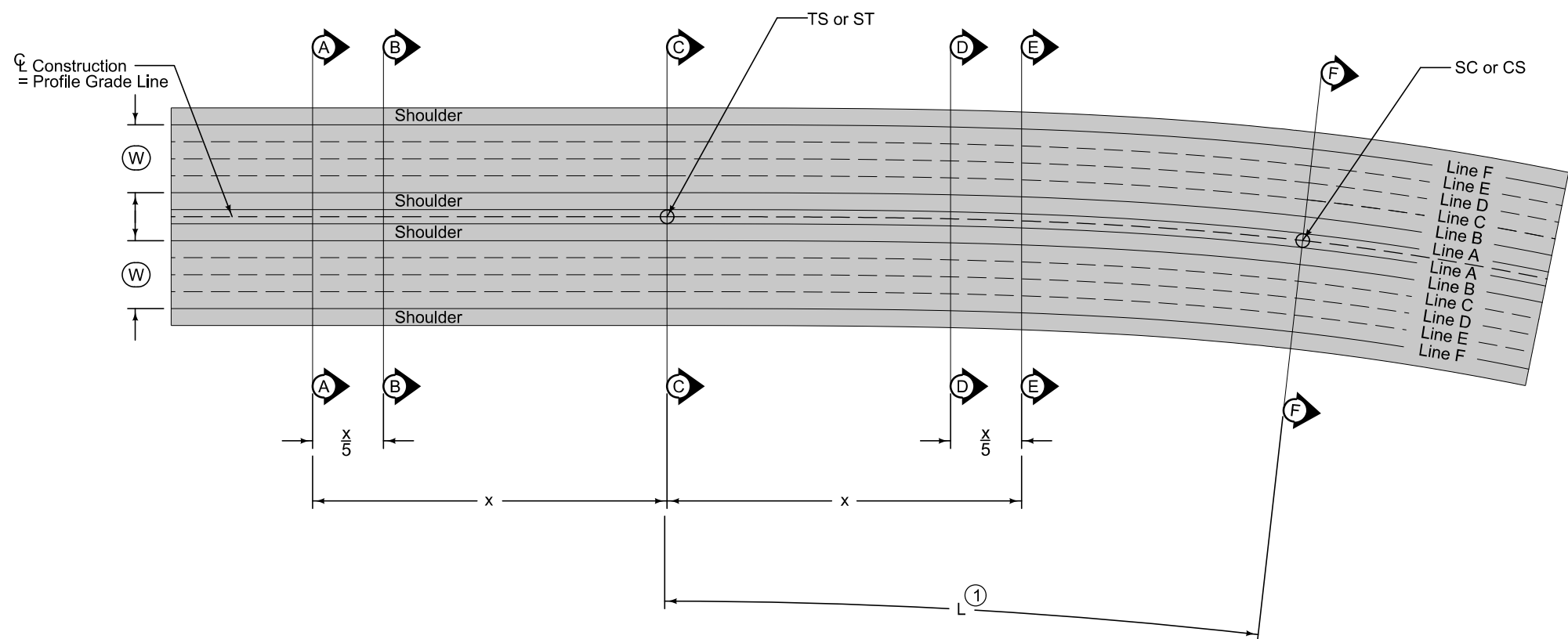
971.42	971.30	971.17	971.07	971.04	971.16	971.31	971.52	971.80	972.14	972.51	972.88	973.26	973.63	974.00	974.37	974.74	975.11	975.48	975.85	976.22	976.60	976.97	977.34	977.71	978.08	978.45	978.82	979.19	979.56	979.93	980.31	980.68	981.05	981.42	981.79	982.16	982.53	982.89	983.23	983.54	983.83	984.09	984.34	984.56	984.75	984.92	985.07	985.20	985.30	985.38	985.43	985.46	985.47	985.46	985.42	985.35	985.27	985.17	985.07	984.98	984.88	984.78	984.68	984.59	984.49	984.39	984.29	984.20	984.10	984.00	983.90	983.81	983.71	983.61	983.51	983.42	983.32	983.22	983.12
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TRANSITION DETAILS - TANGENT TO CURVE

Modify to show PGL at median edge of pavement



TRANSITION DETAILS - SPIRAL CURVE

Refer to specific curve data contained in project plans for tangent runout length (x), runoff length (L) and full superelevation (e).

When spiral curve transitions are not required:
Place 70% of full superelevation at the P.C. and P.T.
Place 30% of the runoff length within the curve.

Unless otherwise specified, all lengths are measured along the centerline of construction.

Superelevations on this standard are shown for curves to the right. Curves to the left are a mirror image of what is shown.

Smooth curves should be established at the time of construction at sections A-F along the profile edges of lines A-F.

See Detail A for profile grade location.

m = 30% of Runoff Length (L)

\textcircled{W} = 48'

g = Normal Cross Slope (2.5%)

L = Distance to Change Cross Slope from 0% to e

e = Superelevation Rate

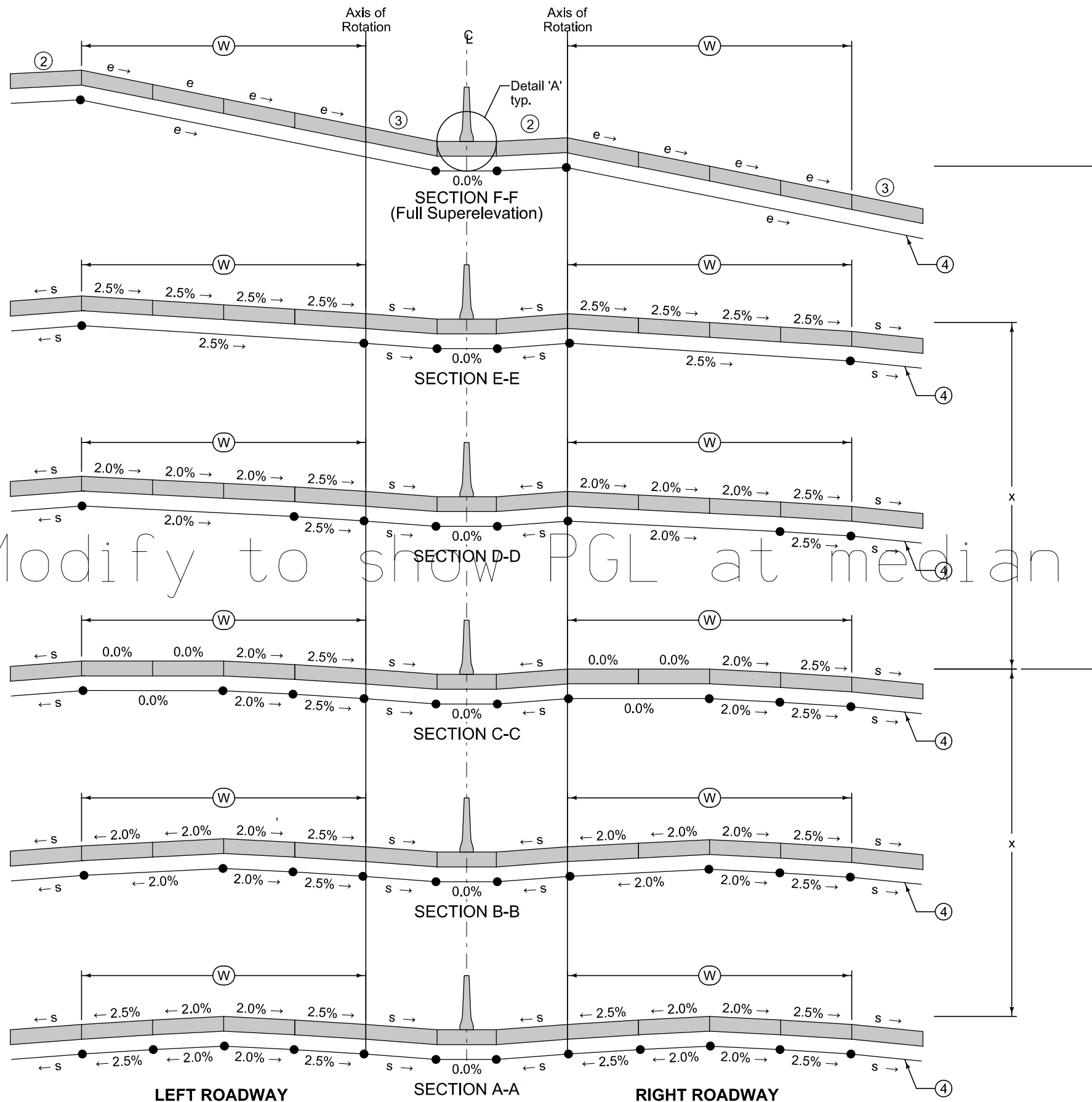
x = Distance to Change Cross Slope from 0% to 2.5%

s = Normal Shoulder Slope

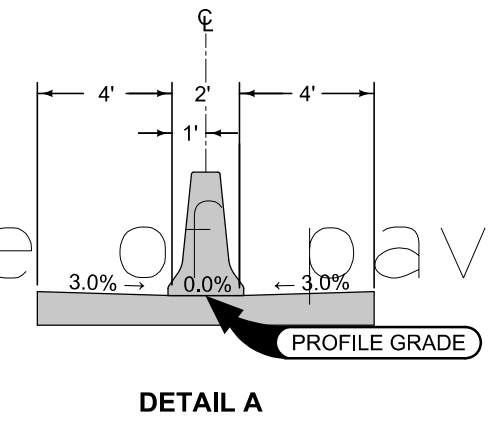
① Spiral curve length coincides with runoff length (L)

Possible Tabulation:
101-18

MODIFIED	REVISION	
	New	04-19-11
STANDARD ROAD PLAN	PV-306	
	SHEET 1 of 4	
REVISIONS: Changed		
APPROVED BY DESIGN METHODS ENGINEER		
SUPERELEVATION DETAILS EIGHT LANE ROADWAY CLOSED MEDIAN		

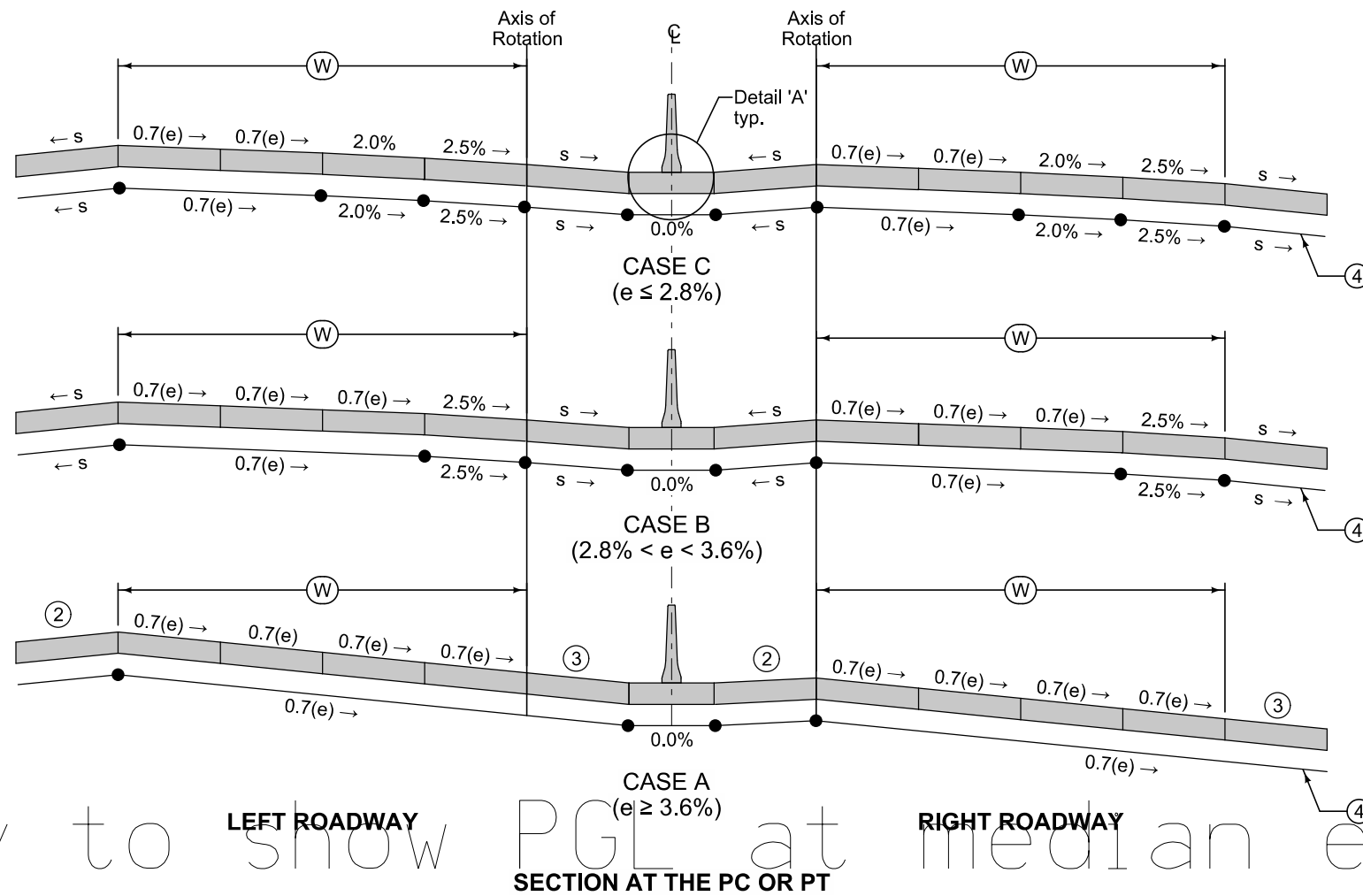


- ② High Side Shoulder: Maintain normal shoulder cross slope (s) until the cross slope break with the adjacent pavement reaches 8.0%, then slope the shoulder at the same rate as the adjacent pavement maintaining an 8% cross slope breakover.
- ③ Low Side Shoulder: Maintain normal shoulder cross slope (s) until the adjacent pavement slope equals s, then slope the shoulder at the same cross slope as the adjacent pavement.
- ④ Subgrade Surface: Subgrade surface cross slope parallel to pavement surface cross slope.



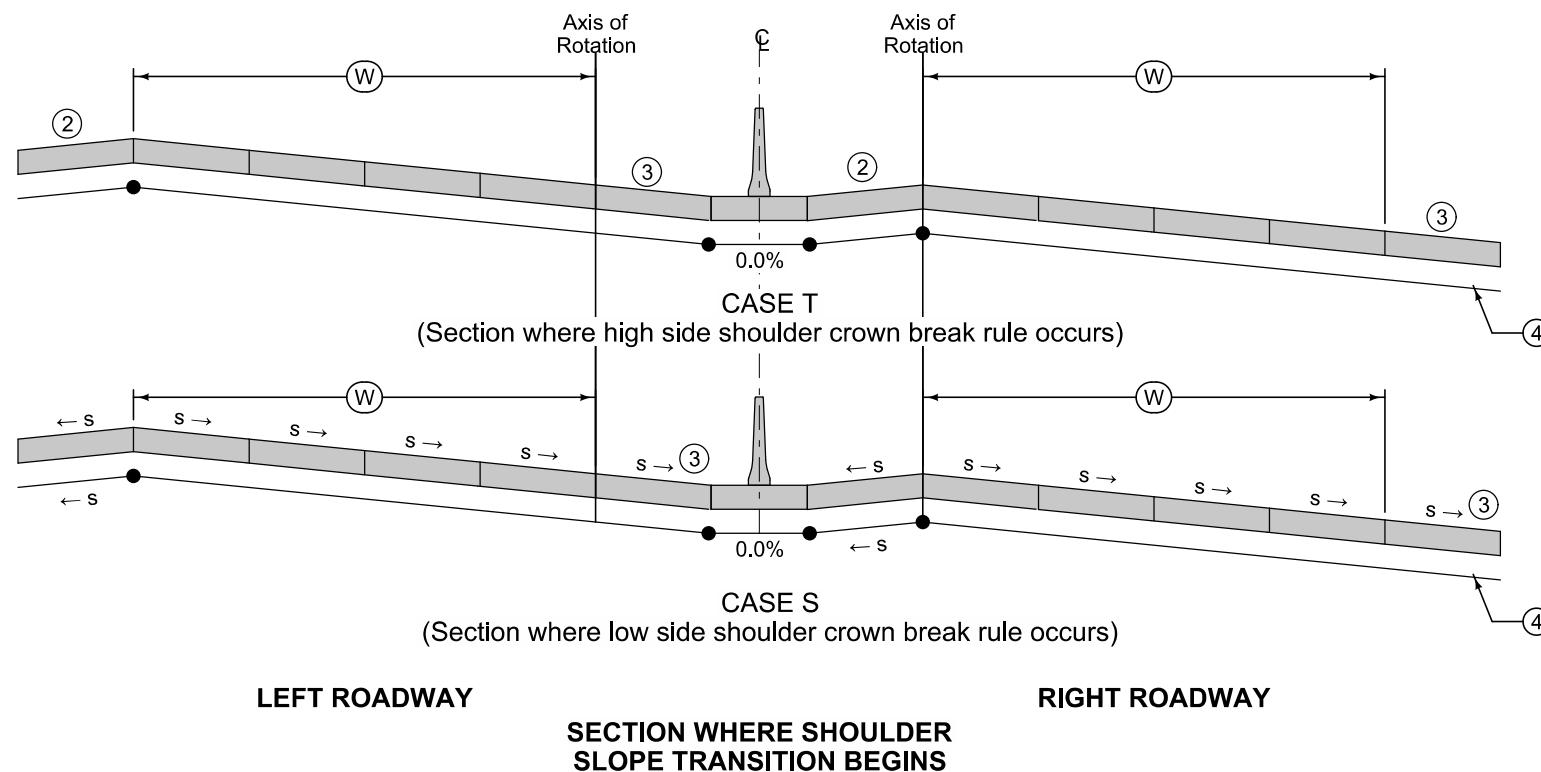
Modify to show PGL at median edge of pavement

MODIFIED	REVISION	
	New	04-19-11
STANDARD ROAD PLAN	PV-306	
	SHEET 2 of 4	
REVISIONS: Changed		
APPROVED BY DESIGN METHODS ENGINEER		
SUPERELEVATION DETAILS EIGHT LANE ROADWAY CLOSED MEDIAN		



Modify to show PGL at median edge of pavement

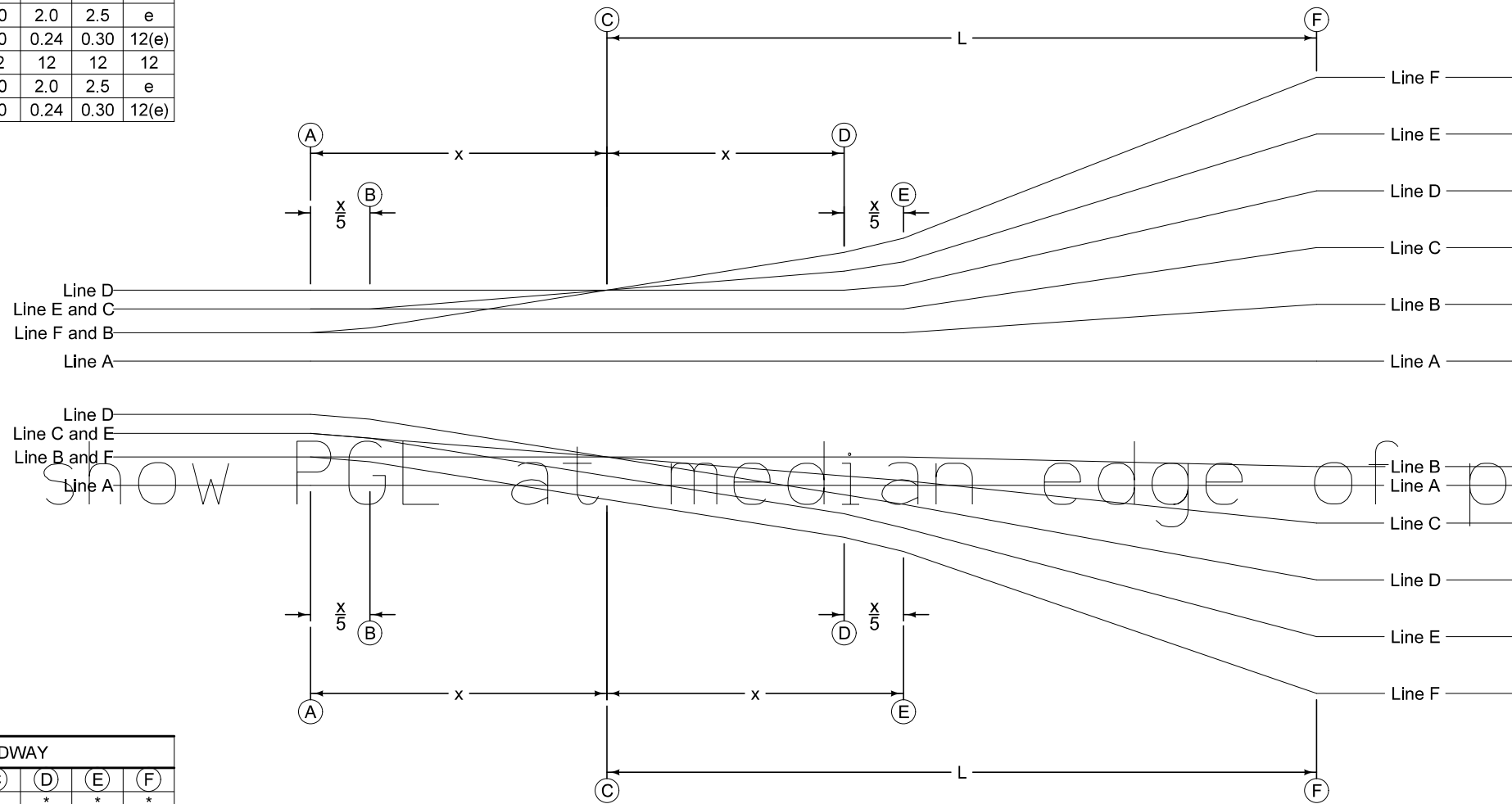
- ② High Side Shoulder: Maintain normal shoulder cross slope (s) until the cross slope break with the adjacent pavement reaches 8.0%, then slope the shoulder at the same rate as the adjacent pavement maintaining an 8% cross slope breakover.
- ③ Low Side Shoulder: Maintain normal shoulder cross slope (s) until the adjacent pavement slope equals s, then slope the shoulder at the same cross slope as the adjacent pavement.
- ④ Subgrade Surface: Subgrade surface cross slope parallel to pavement surface cross slope.



MODIFIED	REVISION	
	New	04-19-11
STANDARD ROAD PLAN	PV-306	
	SHEET 3 of 4	
REVISIONS: Changed		
APPROVED BY DESIGN METHODS ENGINEER		
SUPERELEVATION DETAILS EIGHT LANE ROADWAY CLOSED MEDIAN		

TABLE OF OFFSETS AND DROPS FOR LEFT ROADWAY							
Location of Cross Sections		(A)	(B)	(C)	(D)	(E)	(F)
From Line A To Line B	Offset (Ft.)	*	*	*	*	*	*
	Slope (%)	s	s	s	s	s	(3)
	Drop (Ft.)						
From Line B To Line C	Offset (Ft.)	12	12	12	12	12	12
	Slope (%)	2.5	2.5	2.5	2.5	2.5	e
	Drop (Ft.)	0.30	0.30	0.30	0.30	0.30	12(e)
From Line C To Line D	Offset (Ft.)	12	12	12	12	12	12
	Slope (%)	2.0	2.0	2.0	2.0	2.5	e
	Drop (Ft.)	0.24	0.24	0.24	0.24	0.30	12(e)
From Line D To Line E	Offset (Ft.)	12	12	12	12	12	12
	Slope (%)	-2.0	-2.0	0.0	2.0	2.5	e
	Drop (Ft.)	-0.24	-0.24	0.0	0.24	0.30	12(e)
From Line E To Line F	Offset (Ft.)	12	12	12	12	12	12
	Slope (%)	-2.5	-2.0	0.0	2.0	2.5	e
	Drop (Ft.)	-0.30	-0.24	0.0	0.24	0.30	12(e)

* Refer to plan details for shoulder width



Modify to show PGL at median edge of pavement

TABLE OF OFFSETS AND DROPS FOR RIGHT ROADWAY							
Location of Cross Sections		(A)	(B)	(C)	(D)	(E)	(F)
From Line A To Line B	Offset (Ft.)	*	*	*	*	*	*
	Slope (%)	s	s	s	s	s	(2)
	Drop (Ft.)						
From Line B To Line C	Offset (Ft.)	12	12	12	12	12	12
	Slope (%)	2.5	2.0	0.0	-2.0	-2.5	-e
	Drop (Ft.)	0.30	0.24	0.0	-0.24	-0.30	-12(e)
From Line C To Line D	Offset (Ft.)	12	12	12	12	12	12
	Slope (%)	2.0	2.0	0.0	-2.0	-2.5	-e
	Drop (Ft.)	0.24	0.24	0.0	-0.24	-0.30	-12(e)
From Line D To Line E	Offset (Ft.)	12	12	12	12	12	12
	Slope (%)	-2.0	-2.0	-2.0	-2.0	-2.5	-e
	Drop (Ft.)	-0.24	-0.24	-0.24	-0.24	-0.30	-12(e)
From Line E To Line F	Offset (Ft.)	12	12	12	12	12	12
	Slope (%)	-2.5	-2.5	-2.5	-2.5	-2.5	-e
	Drop (Ft.)	-0.30	-0.30	-0.30	-0.30	-0.30	-12(e)

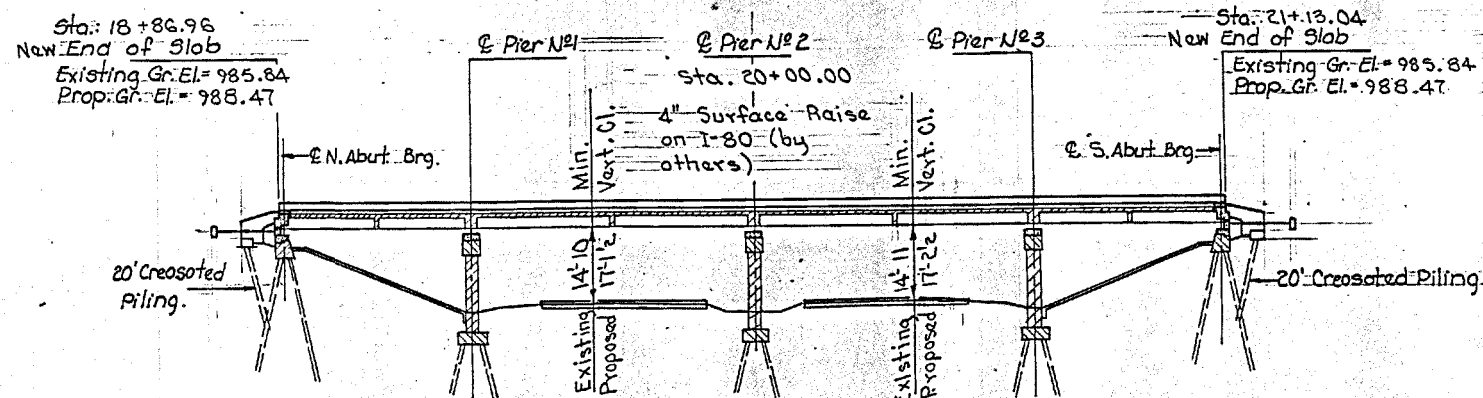
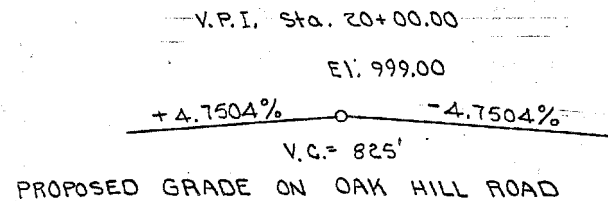
* Refer to plan details for shoulder width

DIAGRAMMATIC PROFILES OF THE PAVEMENT EDGE LINES

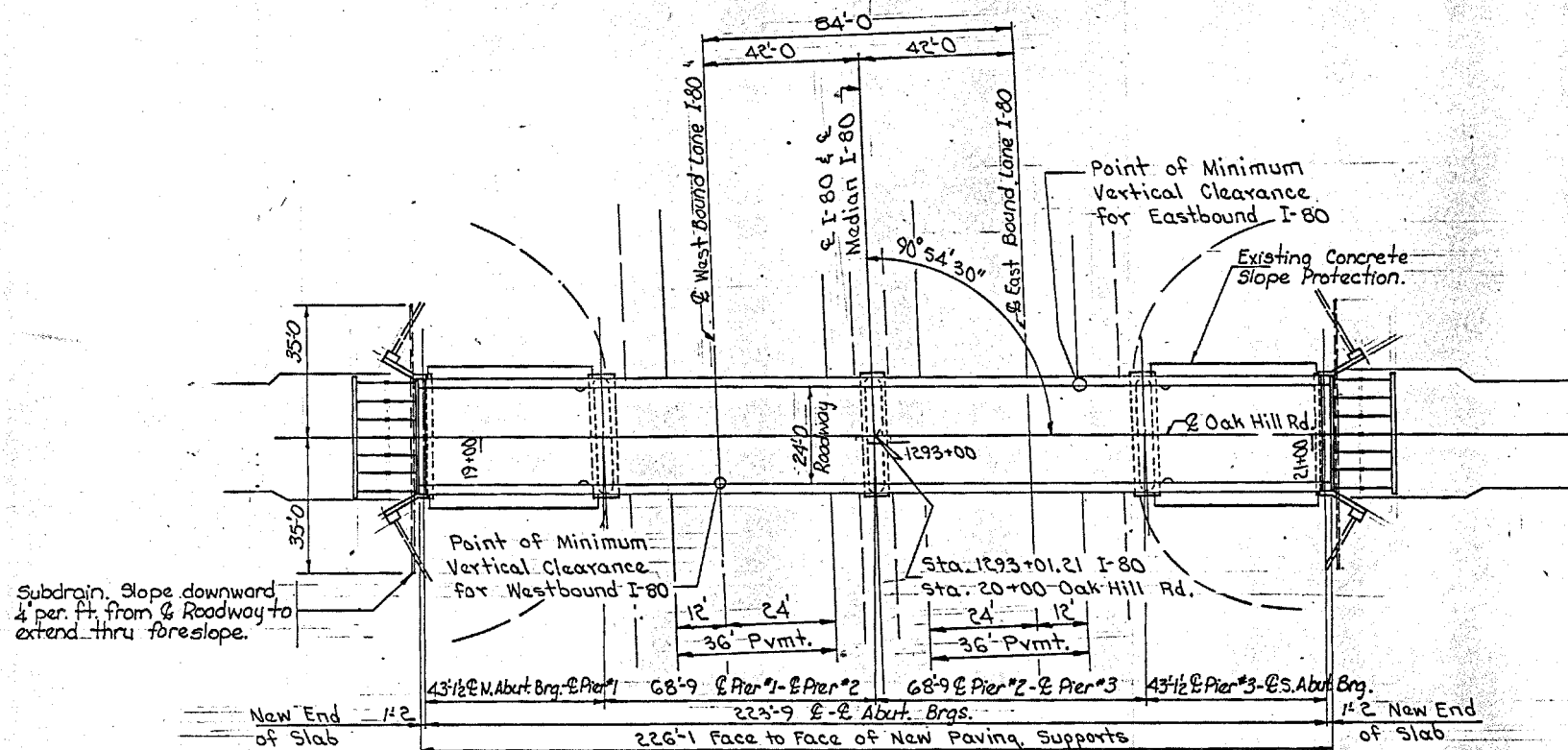
MODIFIED	REVISION	
	New	04-19-11
STANDARD ROAD PLAN	PV-306	
	SHEET 4 of 4	

APPROVED BY DESIGN METHODS ENGINEER

SUPERELEVATION DETAILS
EIGHT LANE ROADWAY
CLOSED MEDIAN



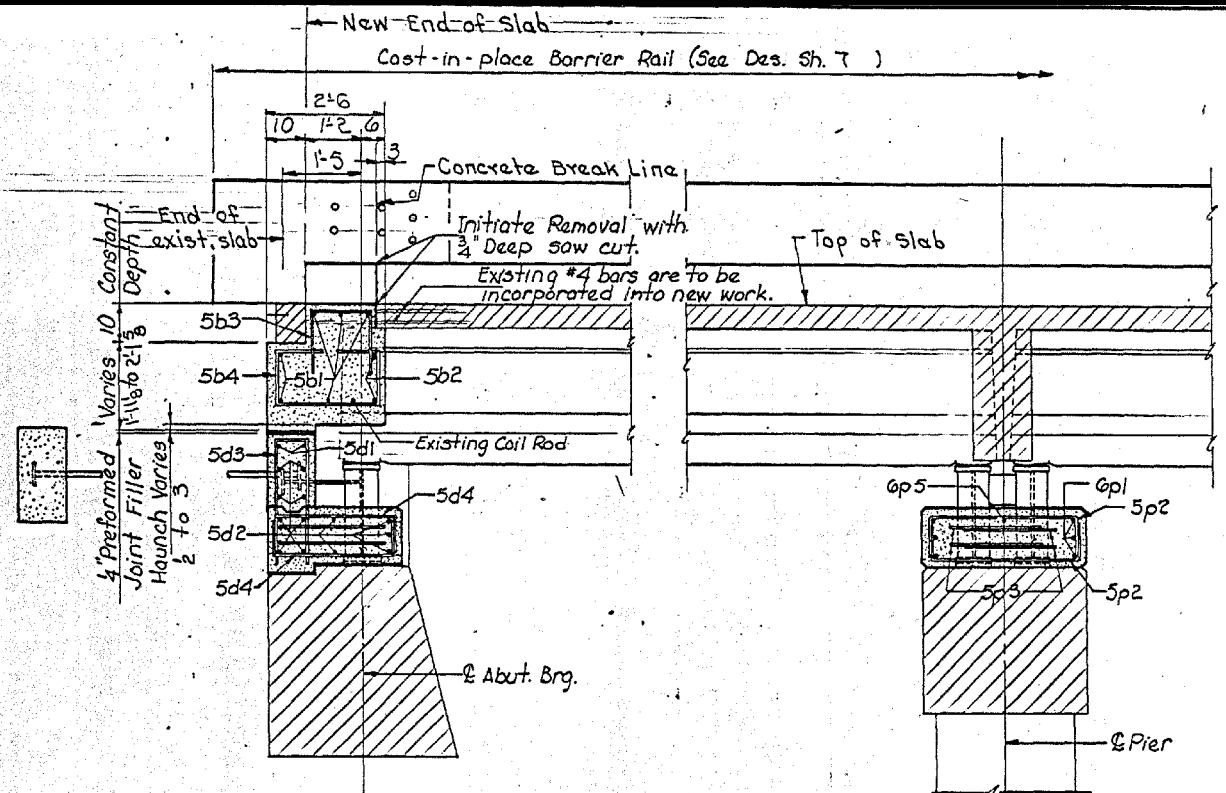
LONGITUDINAL SECTION ALONG $\&$ ROADWAY



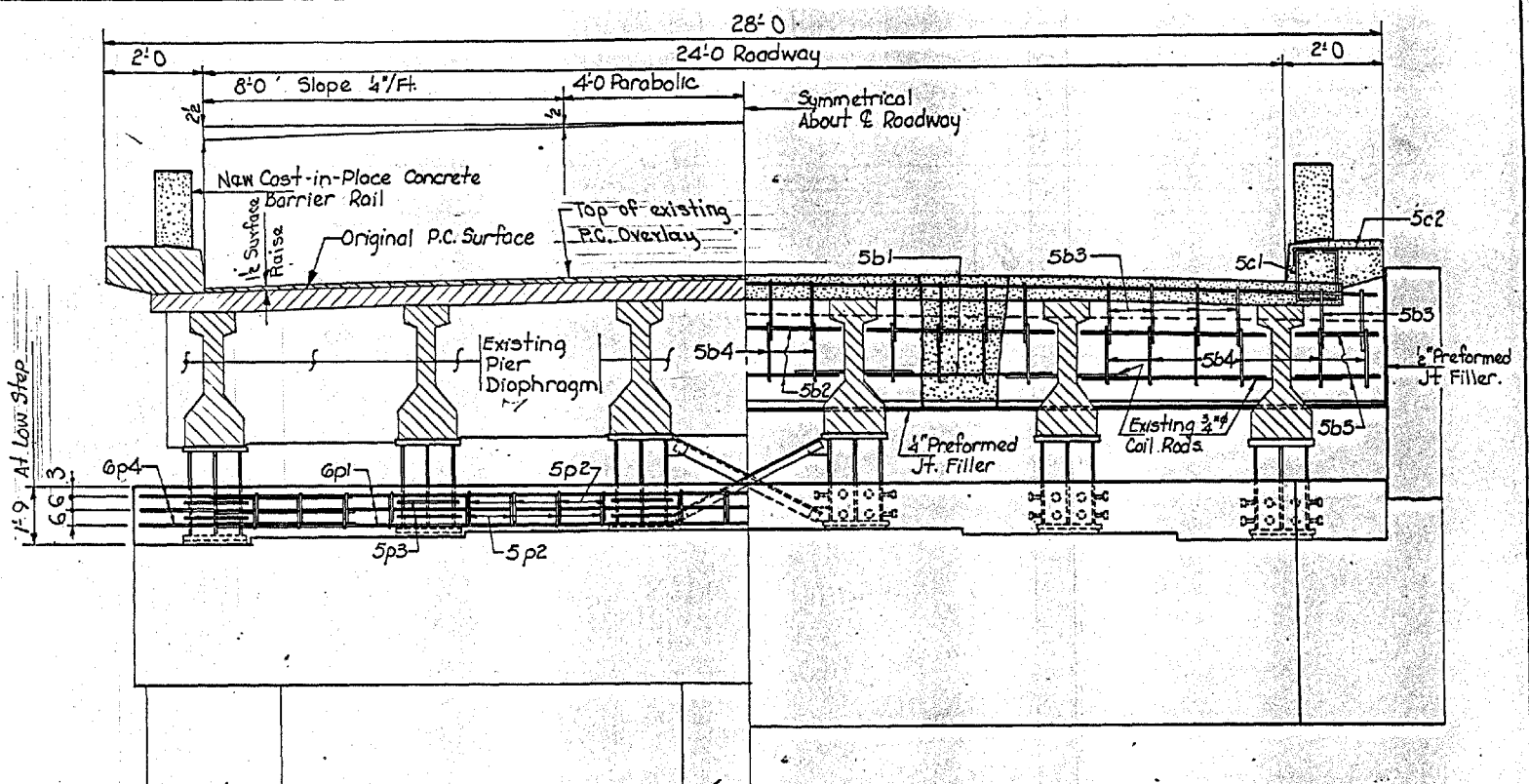
SITUATION PLAN

Design For Raising And Repairs To A
**223'-9" x 24' PRETENSIONED PRESTRESSED
 CONCRETE BEAM BRIDGE**
 43' 1/2" End Spans 2-68'-9" Interior Spans
SITUATION PLAN
 Sta. 1293+01.21 on I-80
 Sta. 20+00 Oak Hill Road Nov. 1994
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
 Design Sheet No. 2 OF 14 File No. 28428 Design No. 1495

For Information Only

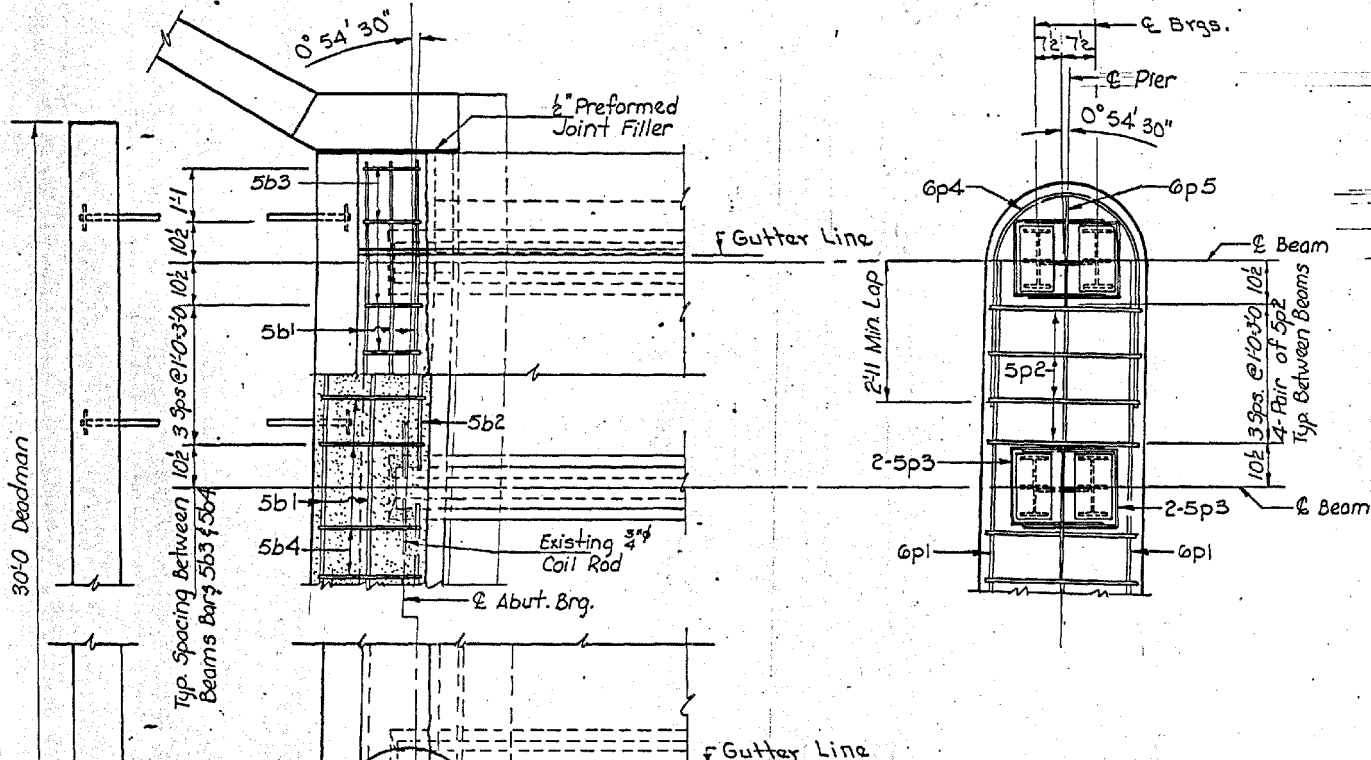


PART LONGITUDINAL SECTION NEAR CURB

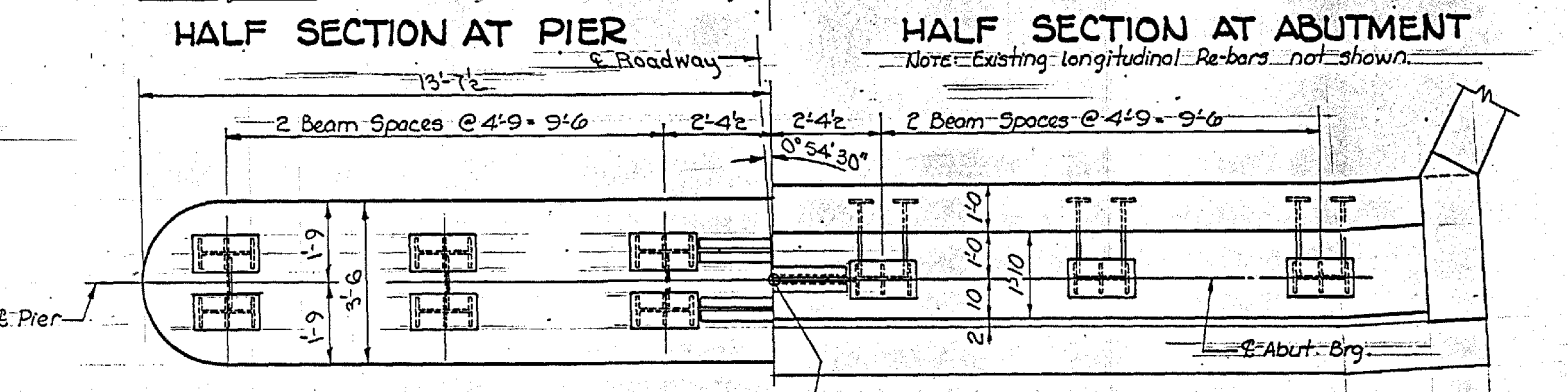


HALF SECTION AT PIER

HALF SECTION AT ABUTMENT



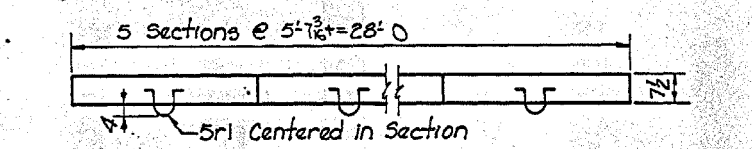
PART PLAN VIEW



HALF PIER BRIDGE SEAT PLAN

HALF ABUTMENT BRIDGE SEAT PLAN

Note: Existing longitudinal Re-bars not shown.

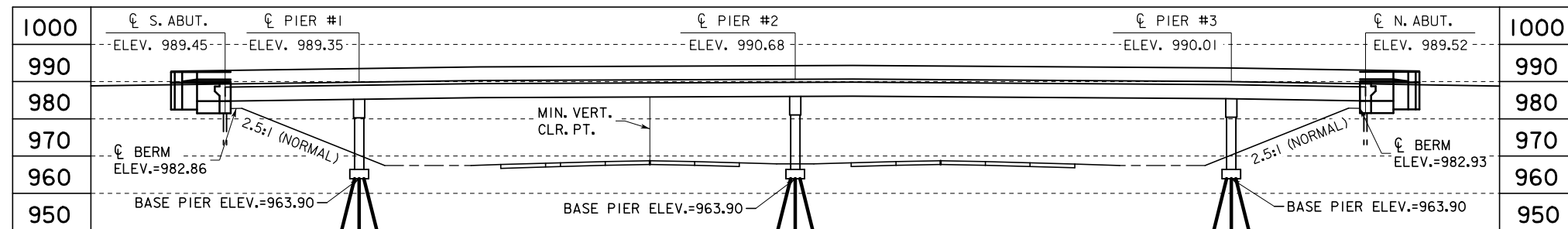


PLAN OF TEMPORARY PAVING BLOCK

Note: Line paving patch with tarpaper before placing the temporary paving block.

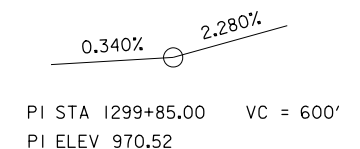
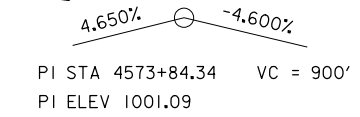
For Information Only

Design For Raising And Repairs To A
22'-9\"/>



LONGITUDINAL SECTION ALONG CL ROADWAY

PROPOSED PROFILE GRADE ON NE 56TH STREET (OAK HILL ROAD)



PROPOSED PROFILE GRADE ON I-80

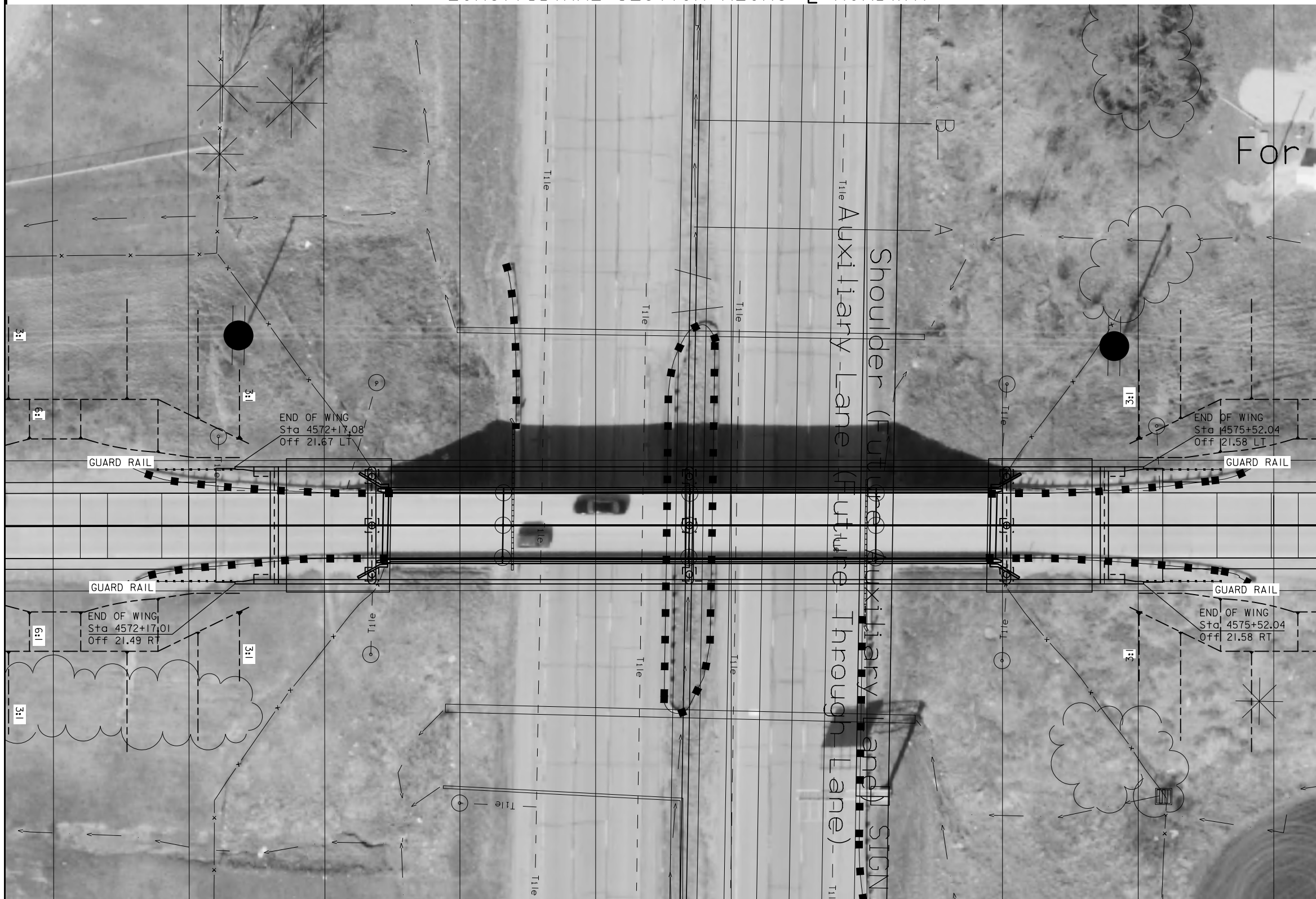
For Information Only

TRAFFIC ESTIMATE

A.A.D.T. = ? VPD (20??)
 A.A.D.T. = ? VPD (20??)
 D.H.V. = ? VPH (20??)
 % TRUCKS
 TOTAL DESIGN ESAL's = ?

MINIMUM VERTICAL CLEARANCE

OVERHEAD STATION=4573+45.22, 20' RT
 CALCULATED OVERHEAD PGL ELEVATION=990.60
 DEPTH OF SUPERSTRUCTURE=4.99
 UNDERPASS STATION=1293+21.84, 39' RT
 UNDERPASS ELEVATION=968.81
 MINIMUM VERTICAL CLEARANCE=16.80



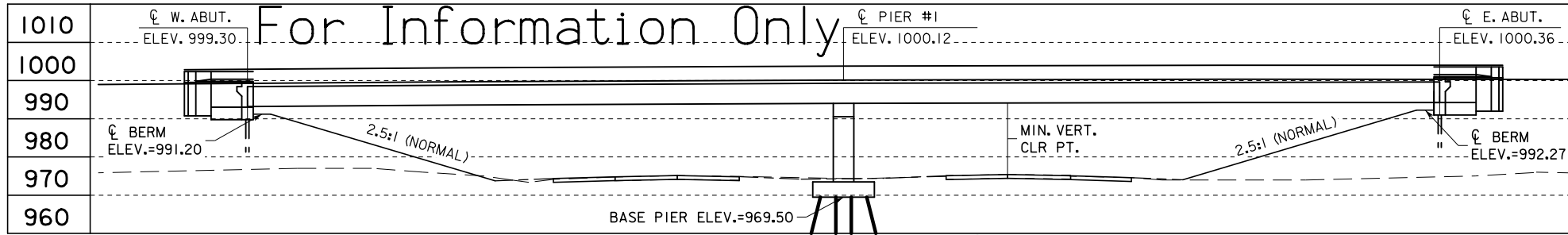
LOCATION

NE 56TH STREET (OAK HILL ROAD) OVER I-80
 T 79 N R 23 W
 SECTION 10/11
 DELAWARE TOWNSHIP
 POLK COUNTY
 BRIDGE MAINT. NO. X



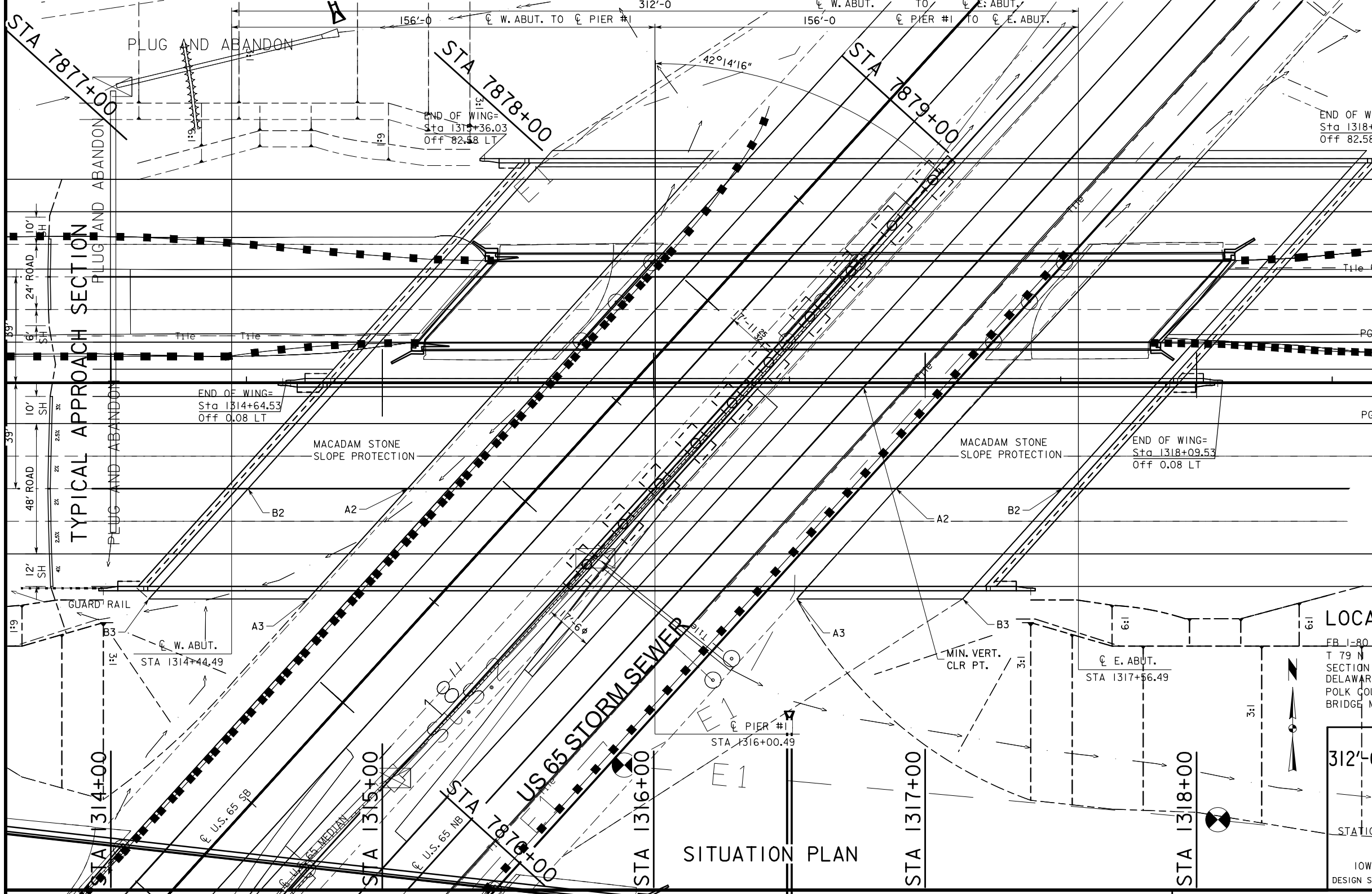
DESIGN FOR 0° SKEW
306'-0 X 40' PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
 36'-0 END SPANS 2 117'-0 CENTER SPANS

SITUATION PLAN
 STATION: 4573+84.54 BTC BM
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. ____ OF ____ FILE NO. ____ DESIGN NO. ____



BERM SLOPE LOCATION TABLE							
	WEST ABUTMENT			EAST ABUTMENT			
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	
1010	*	*	*	*	*	*	
1000	A1	1315+09.34	0	974.02	1316+89.34	0	974.54
990	A2	1314+72.65	40.58	973.79	1316+52.78	40.58	974.30
980	B1	*	*	*	*	*	
970	B2	1314+50.54	0	991.20	1317+50.43	0	992.27
960	B3	1314+14.00	40.58	991.20	1317+13.89	40.58	992.27
	*TIE TO EXISTING WB BERM						

LONGITUDINAL SECTION ALONG ϕ EB ROADWAY



2.280% ϕ -1.600%
 PI STA 1316+00.00 VC = 1600'
 PI ELEV 1007.34

PROPOSED PROFILE GRADE ON I-80

PROFILE GRADE LINE (PGL) IS AT INSIDE EDGE OF LANES. ADD 0.54 TO CALCULATED VALUES TO GET ϕ ELEVATIONS.

0.420% ϕ 0.100%

PI STA 7881+00.00 VC = 300'
 PI ELEV 976.81

PROPOSED PROFILE GRADE ON U.S. 65

PROFILE GRADE LINE (PGL) IS AT ϕ OF LANES.

TRAFFIC ESTIMATE

A.A.D.T. = 64,000 VPD (2009)
 A.A.D.T. = 118,500 VPD (2029)
 D.H.V. = ? VPH (202?)
 18% TRUCKS
 TOTAL DESIGN ESAL's = ?

MAXIMUM BTE BEAM SPANS USED.
 5-FT. SNOW STORAGE NOT PROVIDED.

MINIMUM VERTICAL CLEARANCE

OVERHEAD STATION=1316+77.39, 1.58' RT
 CALCULATED OVERHEAD PGL ELEVATION=999.77
 DEPTH OF SUPERSTRUCTURE=6.43
 UNDERPASS STATION=7878+14.13, 64' RT
 UNDERPASS ELEVATION=975.60
 MINIMUM VERTICAL CLEARANCE=17.73
 MINIMUM FOR BRIDGES =17.32' AT WB BRIDGE

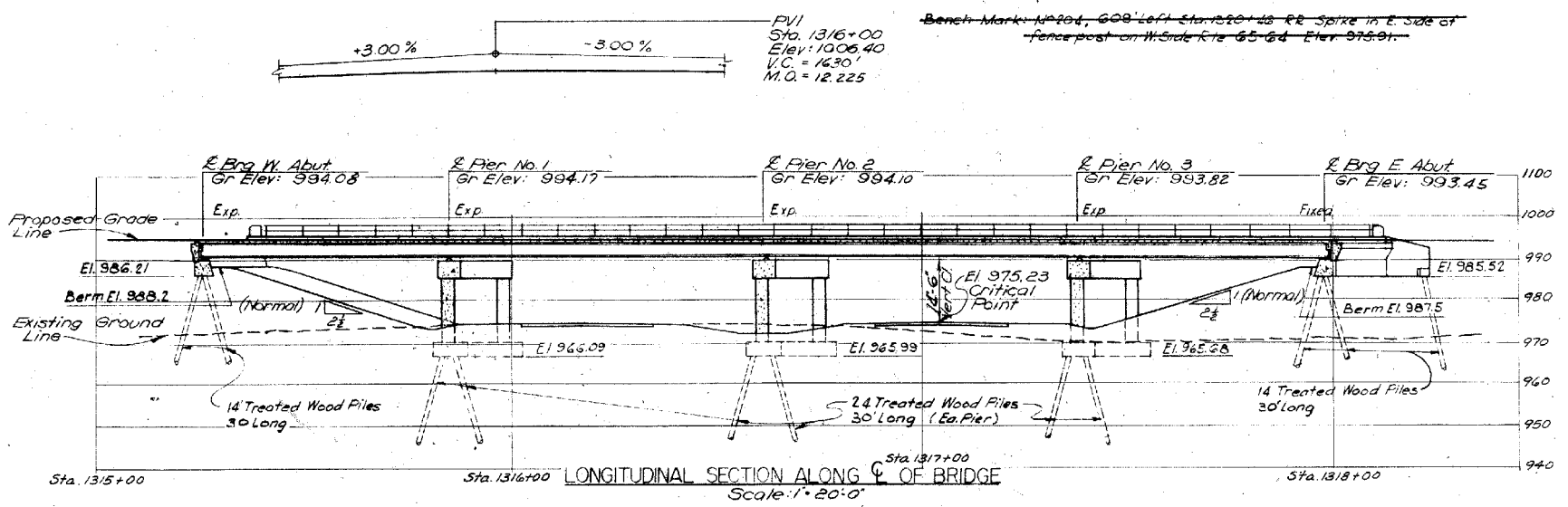
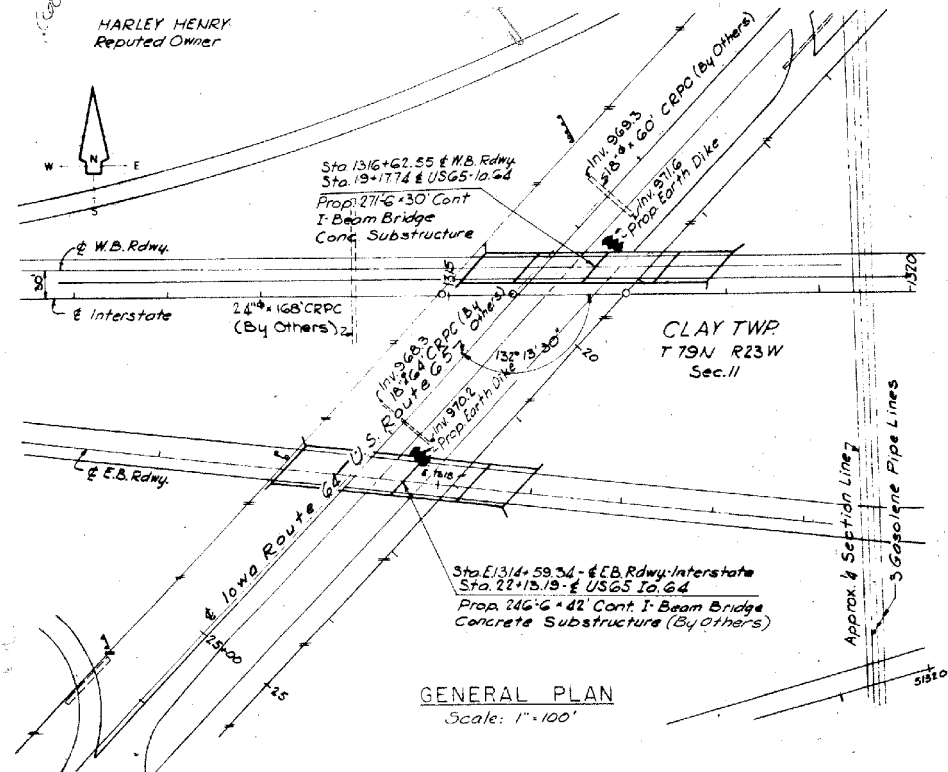
ULTIMATE GRADING PER RL-15
 ONLY MINIMAL GRADING PROVIDED IN THIS PROJECT.
 SEE WB BRIDGE FOR COMPLETE BSLT AND RBLT.

LOCATION

FB I-80 OVER U.S. 65
 T 79 N R 23 W
 SECTION II
 DELAWARE TOWNSHIP
 POLK COUNTY
 BRIDGE MAINT. NO. 7742.17080
 PRELIMINARY



DESIGN FOR 42° LA SKEW
312'-0" X 73'-5" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
 156'-0" END SPANS
SITUATION PLAN
 STATION: STA 1316+00.49 BTE BM
POLK COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. OF FILE NO. 29841 DESIGN NO. 1010



Test Hole No.	Station	Surface Elevation	Bottom Hole Elevation
Test Hole No. 1	Sta. 1315+27	Surface El. 969.5	Bottom Hole El. 928.0
Test Hole No. 2	Sta. 1316+37	Surface El. 974.5	Bottom Hole El. 927.0
Test Hole No. 3	Sta. 1317+40	Surface El. 972.8	Bottom Hole El. 937.5
Test Hole No. 4	Sta. 1317+98	Surface El. 971.6	Bottom Hole El. 930.1

SOUNDING DATA
Scale 1" = 20' 0"
Dated January 3, 1958

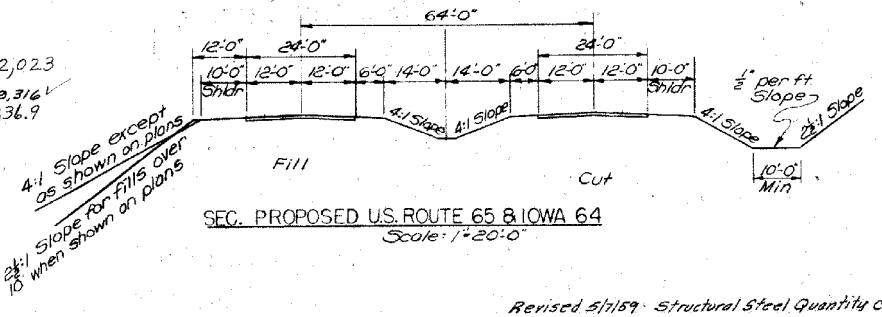
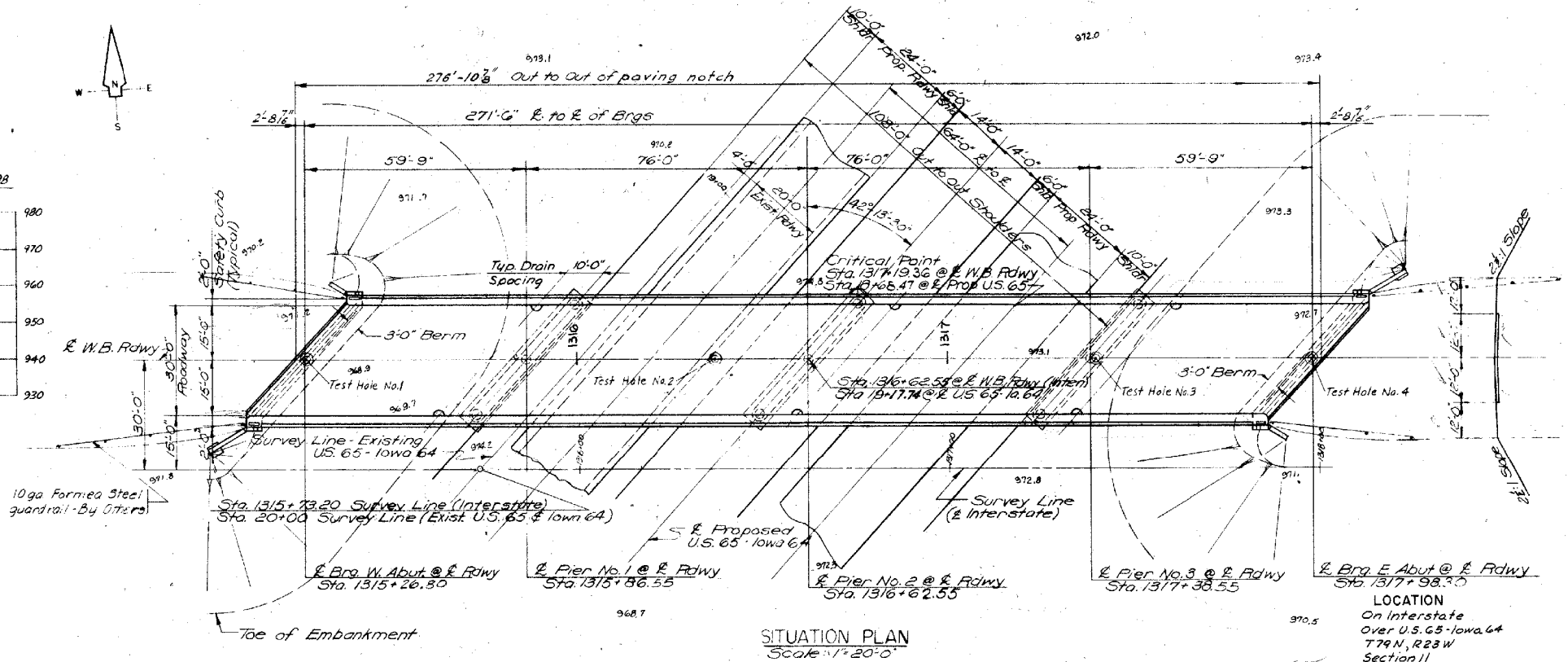
GENERAL NOTES
This bridge is designed for H20-516-44 loading and Alternate Loading designated in BPR's RRM-20-4 Section C plus an allowance of 19 lbs. per square foot of roadway for future wearing surface and with modifications as shown on Sheet # 6.
The approach fills are not a part of this estimate, but are to be in place before abutment piles are driven. The Bridge Contractor is to level off and shape the berms to the elevations shown.
Excavation for pier assumed from finished ground line.
Abutment concrete is not to be placed until one month before anticipated delivery date of superstructure elements to the job site.

SPECIFICATIONS
Design: A.A.S.H.O., Series of 1953, with modifications as noted.
Construction: Standard Specifications of the Iowa State Highway Commission, Series of 1956, plus current Special Provisions.

In Charge of: RHW
Made by: DJY
Checked by: RK

TOTAL ESTIMATED QUANTITIES					
Item	Unit	2 Abuts	3 Piers	Superstr.	Total
Concrete	Cu Yds	78.8	206.4	205.6	550.8
Reinforcing Steel	Lbs.	9076	33,237	64,227	107,440
Structural Steel	Lbs.	797.2	20,397	232,970	234,164
Treated Wood Piles	Lin Ft.	830	2,166		3,000
Excavation, Class 20	Cu Yds	120	368		488
Lighting Conduit 2"	Lin Ft.			295	295
Rock (footing)	Tons		89.1		89.1

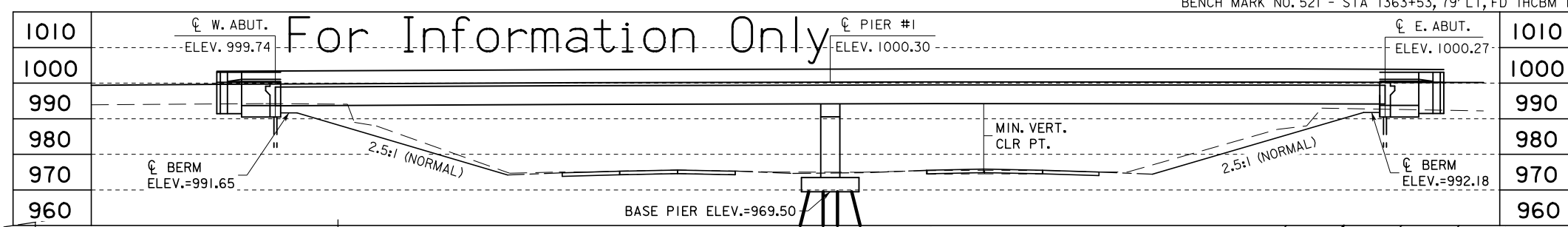
*Includes Lighting Details quantities.



DESIGN NO. 1858 FOR 42° 13' 30" SKEW FILE NO. 18856
271'-6" x 30' CONTINUOUS I-BEAM BRIDGE
INTERSTATE W.B. RDWY. OVER U.S. RTE. 65 & IA. RTE. 64
2 - 59'-9" END SPANS 2 - 76'-0" INTERMEDIATE SPANS
CONCRETE FLOOR AND SUBSTRUCTURE STEEL RAIL

GENERAL & SITUATION PLANS
STATION 1316+62.55 PROJECT NO. I-16-01-4(2)
POLK COUNTY PROJECT NO. I-16-80-4(2)142
DESIGNED BY BROWN & BLAUVELT, NEW YORK, N.Y. FOR
IOWA STATE HIGHWAY COMMISSION
MARCH 1958 SHEET 1 OF 7

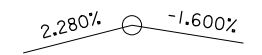
Revised 5/15/59 - Structural Steel Quantity Changed



TRAFFIC ESTIMATE

A.A.D.T. = 64,000 VPD (2009)
 A.A.D.T. = 118,500 VPD (2029)
 D.H.V. = ? VPH (202?)
 18% TRUCKS
 TOTAL DESIGN ESAL'S = ?

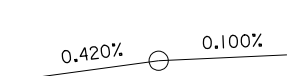
WB Lane @ US #65
 Bridge = #1858
 274.02 X 30.00
 Steel Beam Bridge



PI STA 1316+00.00 VC = 1600'
 PI ELEV 1007.34

PROPOSED PROFILE GRADE ON I-80

PROFILE GRADE LINE (PGL) IS AT INSIDE EDGE OF LANES.
 ADD 0.54 TO CALCULATED VALUES TO GET ELEVATIONS.



PI STA 7881+00.00 VC = 300'
 PI ELEV 976.81

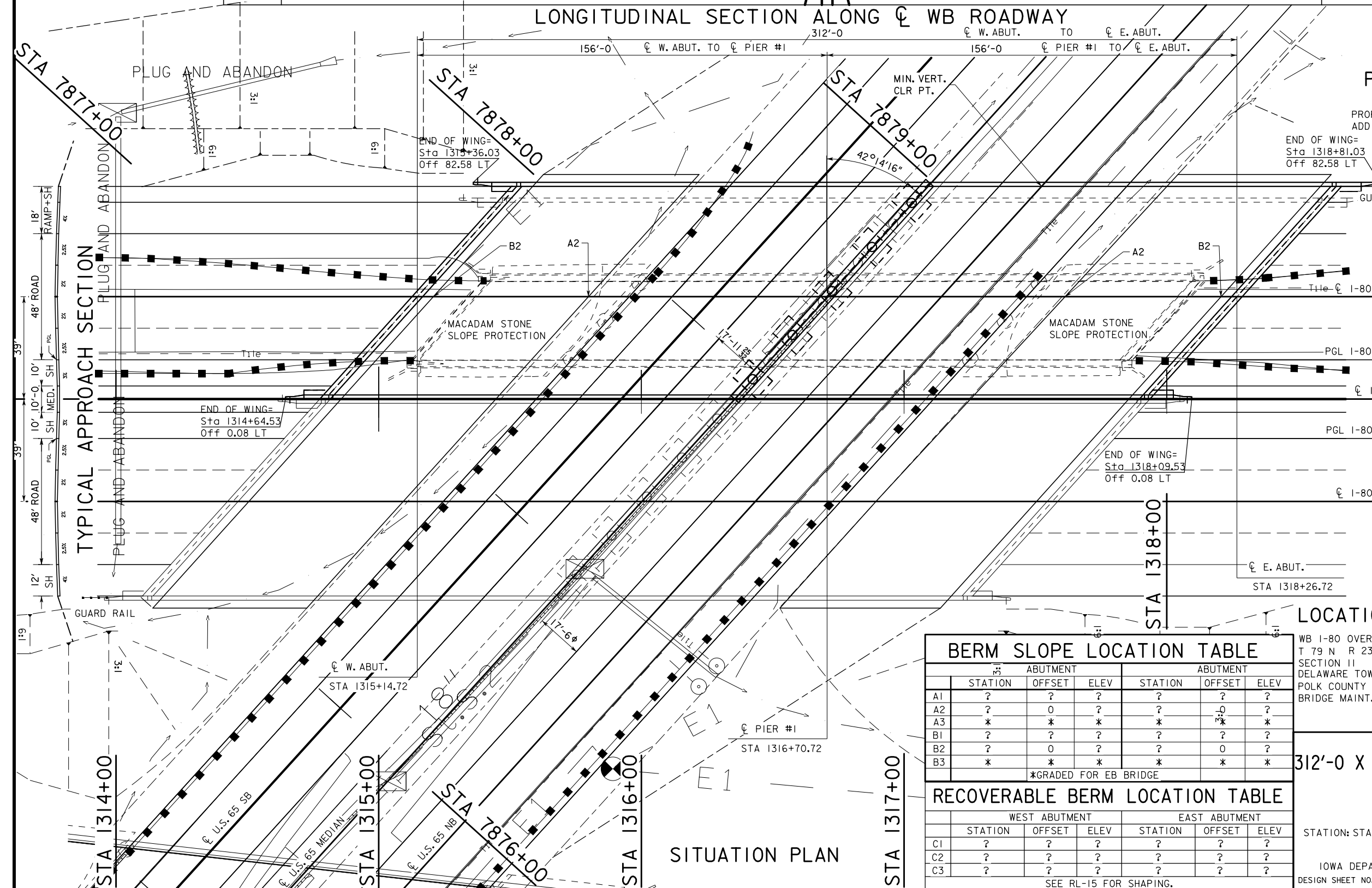
PROPOSED PROFILE GRADE ON U.S. 65

PROFILE GRADE LINE (PGL) IS AT E. OF LANES.

MINIMUM VERTICAL CLEARANCE

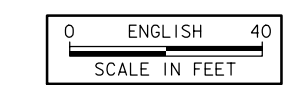
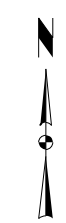
OVERHEAD STATION=1317+52.37, 81' LT
 CALCULATED OVERHEAD PGL ELEVATION=999.82
 DEPTH OF SUPERSTRUCTURE=6.82
 UNDERPASS STATION=7879+26.56, 64' RT
 UNDERPASS ELEVATION=976.08
 MINIMUM VERTICAL CLEARANCE=16.92
 3% CROSS-SLOPE BREAK USED.

MAXIMUM BTE BEAM SPANS USED.
 5-FT. SNOW STORAGE NOT PROVIDED.



LOCATION

WB I-80 OVER U.S. 65
 T 79 N R 23 W
 SECTION II
 DELAWARE TOWNSHIP
 POLK COUNTY
 BRIDGE MAINT. NO. ?



BERM SLOPE LOCATION TABLE

ABUTMENT	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
A1	?	?	?	?	?	?
A2	?	0	?	?	0	?
A3	*	*	*	*	*	*
B1	?	?	?	?	?	?
B2	?	0	?	?	0	?
B3	*	*	*	*	*	*

*GRADED FOR EB BRIDGE

RECOVERABLE BERM LOCATION TABLE

ABUTMENT	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
C1	?	?	?	?	?	?
C2	?	?	?	?	?	?
C3	?	?	?	?	?	?

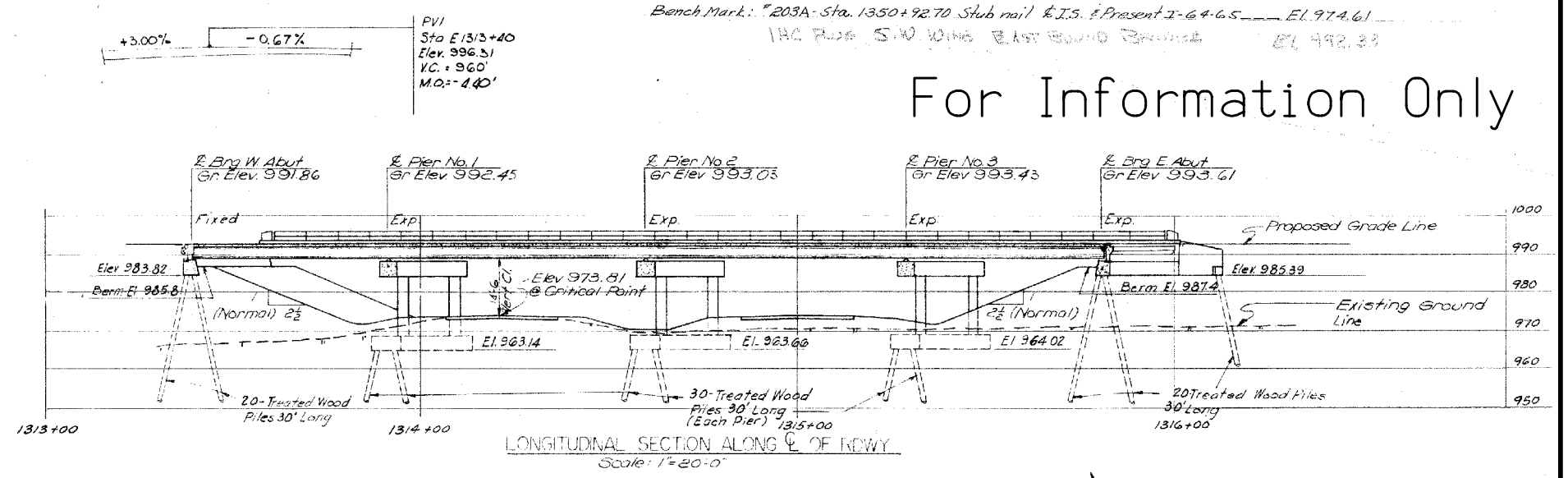
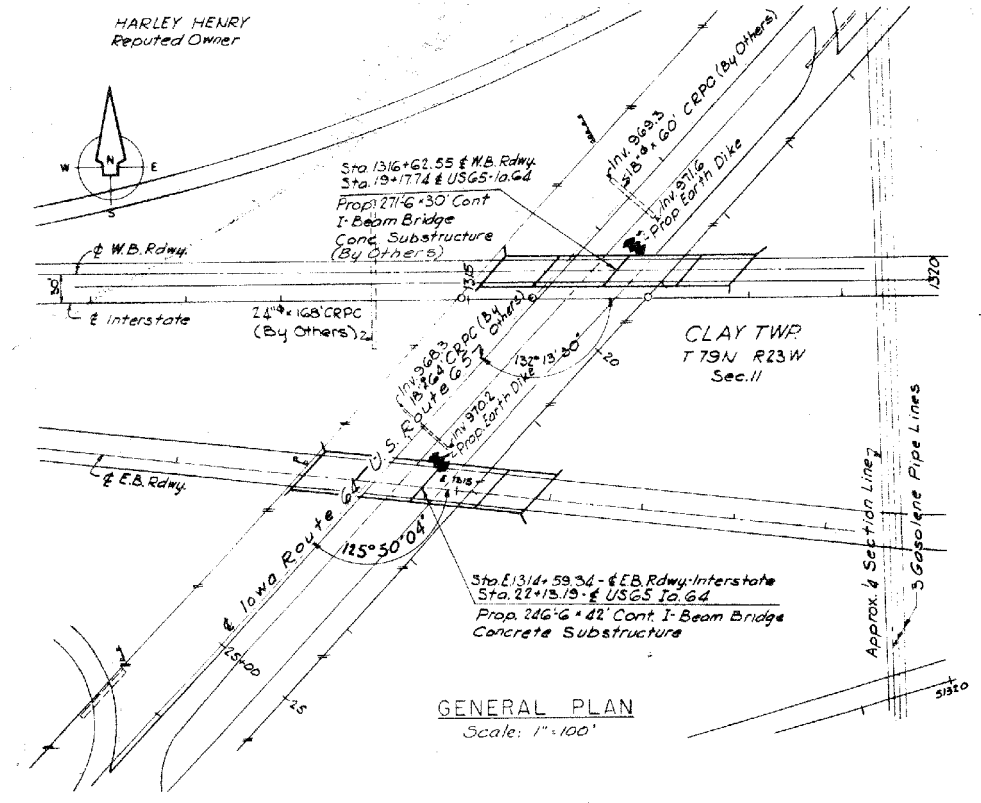
SEE RL-15 FOR SHAPING.

PRELIMINARY

DESIGN FOR 42° LA SKEW
312'-0 X 79'-5 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
 156'-0 END SPANS

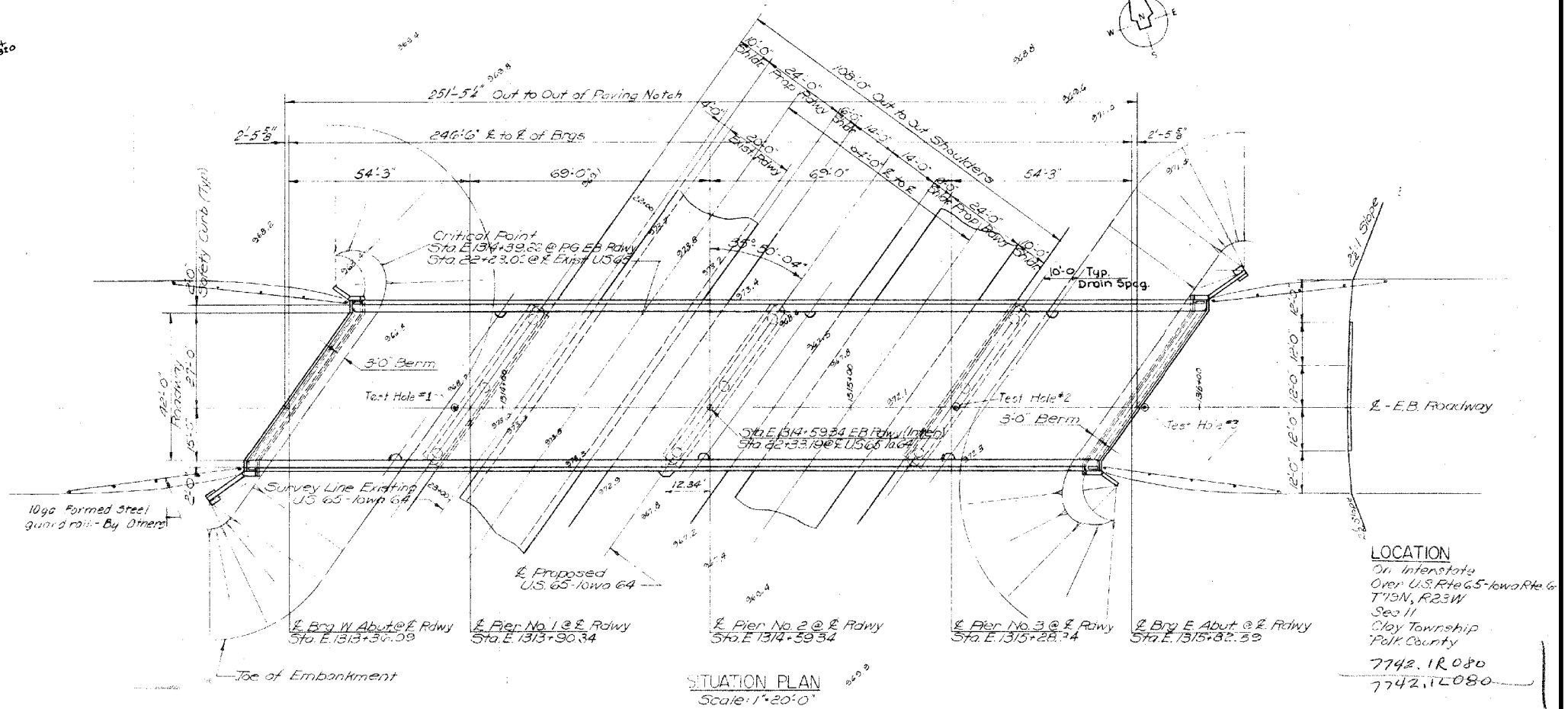
SITUATION PLAN
 STATION: STA 1316+70.72
POLK COUNTY
 BTE BM

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. ___ OF ___ FILE NO. 29841 DESIGN NO. ?



SOUNDING DATA
Scale: 1"=20'
Dated January 3, 1958

Test Hole #	Station	Surf Elevation	Soil Description	Elevation
Test Hole #1	Sta 1313+06	@ E.B. Rdwy Surf E1 9630	Firm Silty Clay Looming	970
Test Hole #2	Sta 1315+30	@ E.B. Rdwy Surf E1 9721	Firm Silty Clay Looming	960
Test Hole #3	Sta 1315+64	@ E.B. Rdwy Surf E1 9718	Firm Silty Clay Looming	950
			Gravelly Sand-Occ. Thin Clay Layer	940
			Firm to very Firm Glacial Clay	930
			Very Firm Glacial Clay-Occ. Boulder	



GENERAL NOTES

This bridge is designed for H20-S16-44 loading and Alternate Loading designated in BPR's PPM 20-4 Section C plus an allowance of 19 lbs per square foot of roadway for future wearing surface, and with modifications as shown on Sheet #7.

The approach fills are not a part of this estimate, but are to be in place before abutment piles are driven. The Bridge Contractor is to level off and shape the berms to the elevations shown.

Excavation for pier assumed from finished ground line. Abutment concrete is not to be placed until one month before anticipated delivery date of superstructure elements to the job site.

SPECIFICATIONS

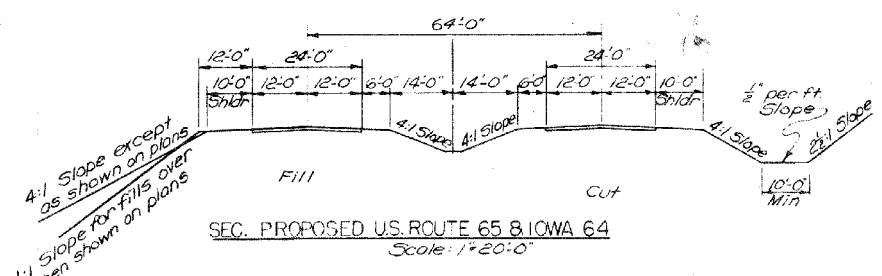
Design: A.A.S.H.O. Series of 1952 with modifications as noted.

Construction: Standard Specifications of the Iowa State Highway Commission, Series of 1956, plus current Special Provisions.

TOTAL ESTIMATED QUANTITIES

Item	Unit	2 Abuts	3 Piers	Superstr.	Total
Concrete	Cu Yds	93.4	255.6	327.3	676.3
Reinforcing Steel	Lbs.	10,924	50,490	76,131	137,545
Structural Steel	Lbs.			285,084	285,084
Treated Wood Piles	Lin Ft.	1200	2700		3900
Excavation, Class 20	Cu Yds	148	413		561
Lighting Conduit 2"	Lin Ft.				280

*Includes Lighting Details quantities



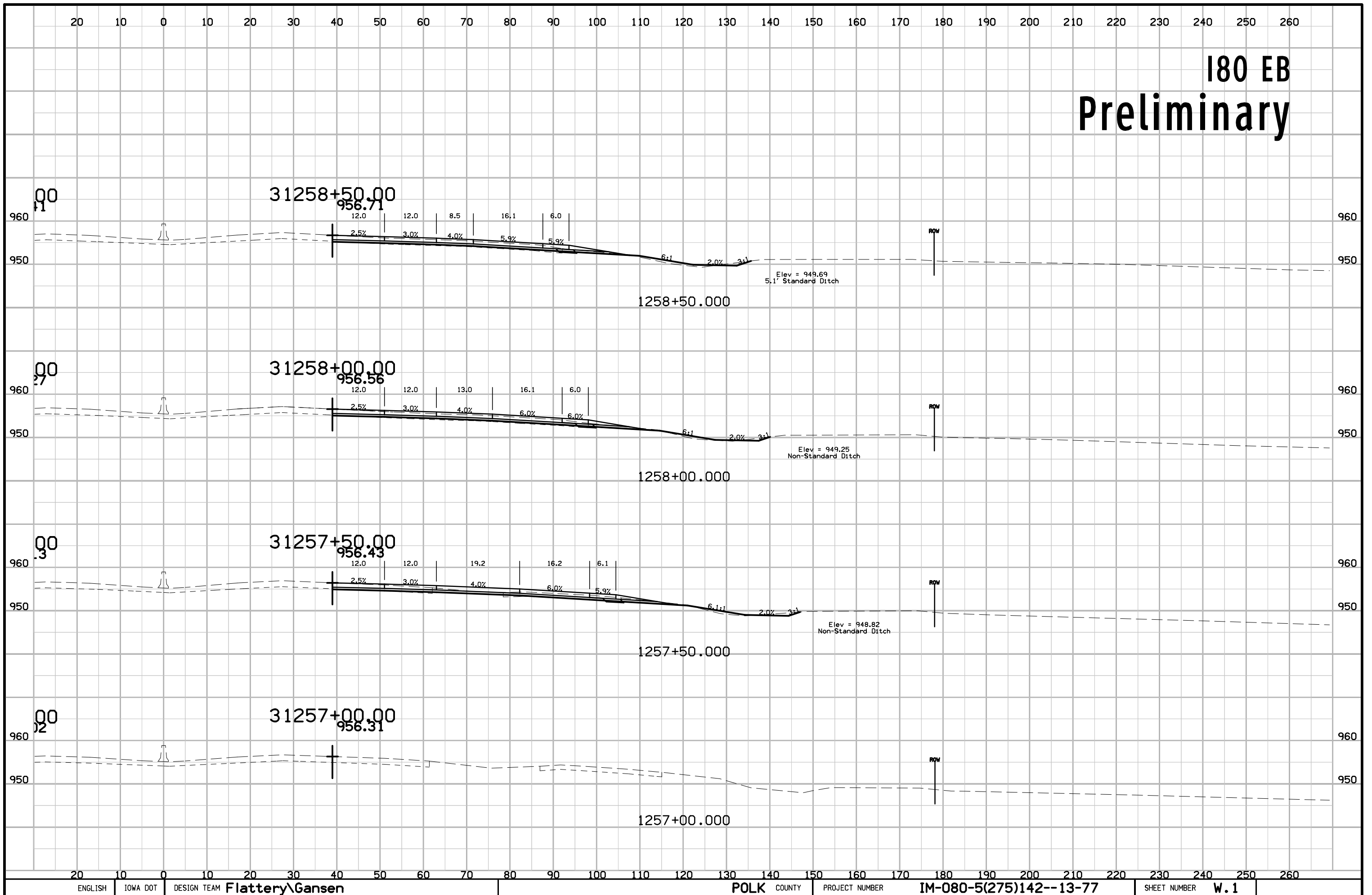
DESIGN FOR 35°50'04" SKEW #1758
246'6" x 42' CONTINUOUS I-BEAM BRIDGE
INTERSTATE E.B. RDWY. OVER U.S. RTE. 65 & IA. RTE. 64
2-54'-3" END SPANS 2-69'-0" INTERMEDIATE SPANS
CONCRETE FLOOR AND SUBSTRUCTURE STEEL RAIL

GENERAL & SITUATION PLANS

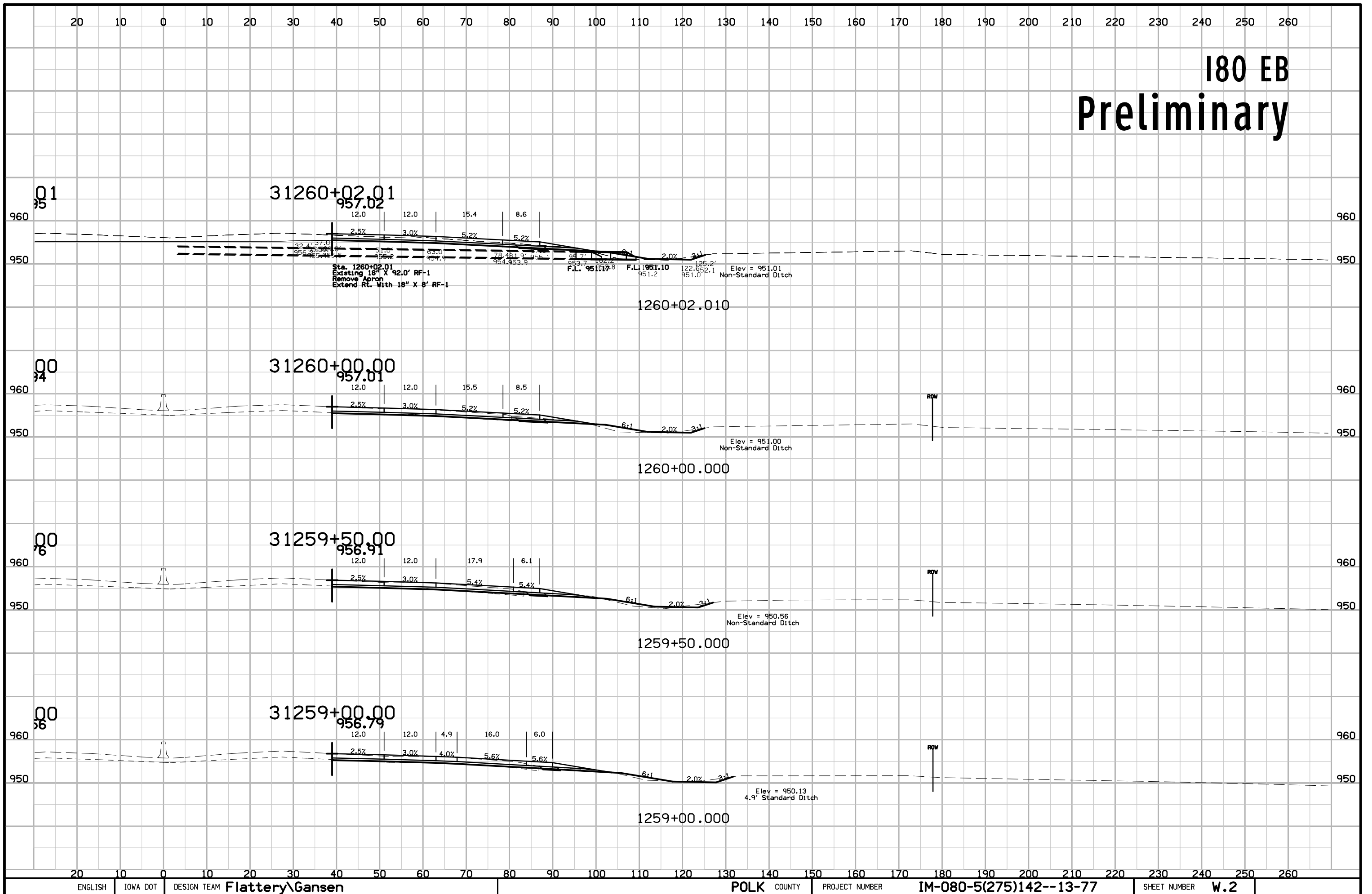
STATION 1314+59.34 PROJECT NO. IIG-01-4(2)
PROJECT NO. IIG-80-4(2)142
POLK COUNTY
DESIGNED BY BROWN & BLAUVELT, NEW YORK, N.Y. FOR
IOWA STATE HIGHWAY COMMISSION
MAY 1958 SHEET 1 OF 8

IN CHARGE OF RHW
MADE BY RK
TRACED BY SF
CHECKED BY DIV

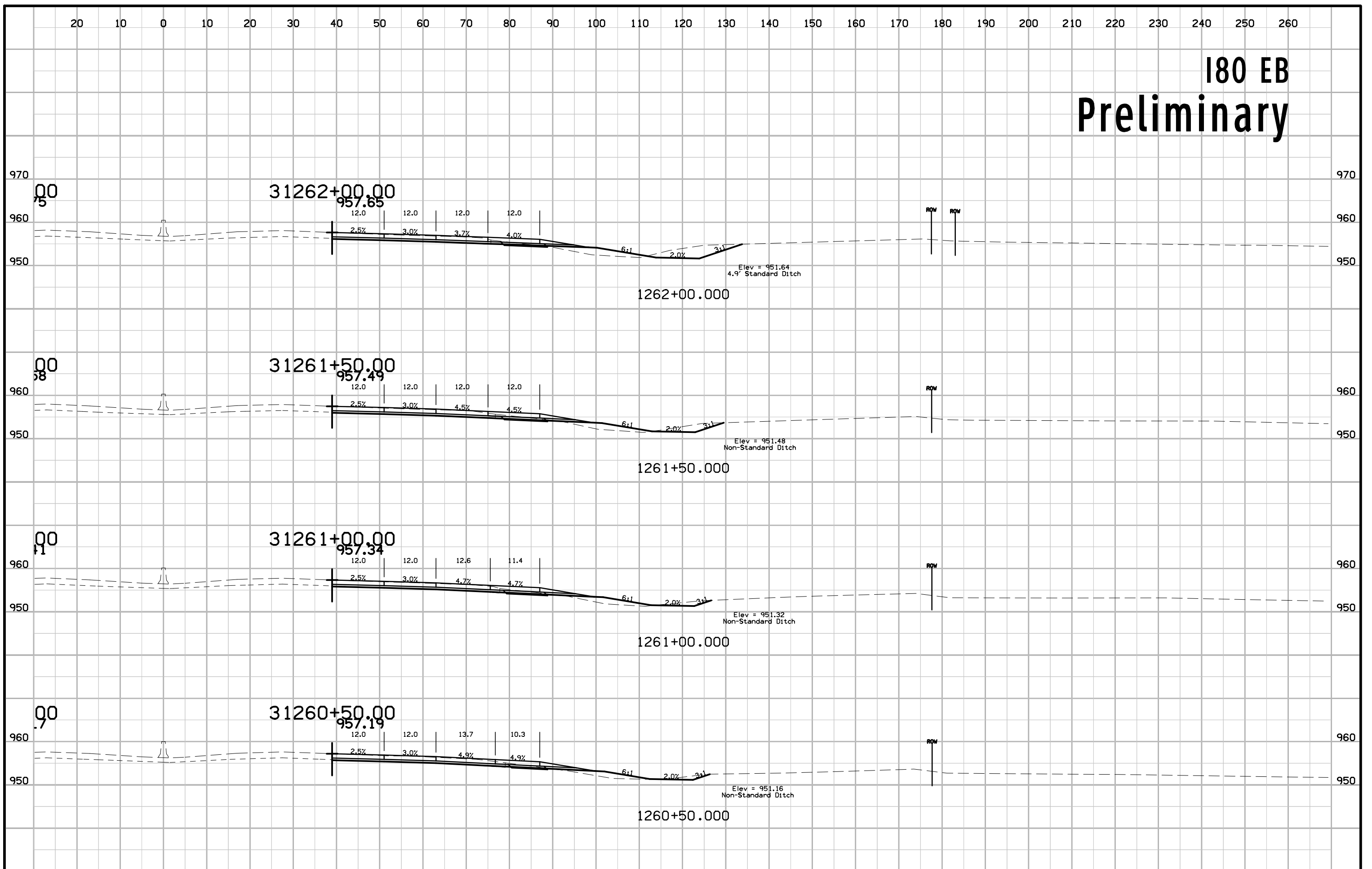
180 EB Preliminary



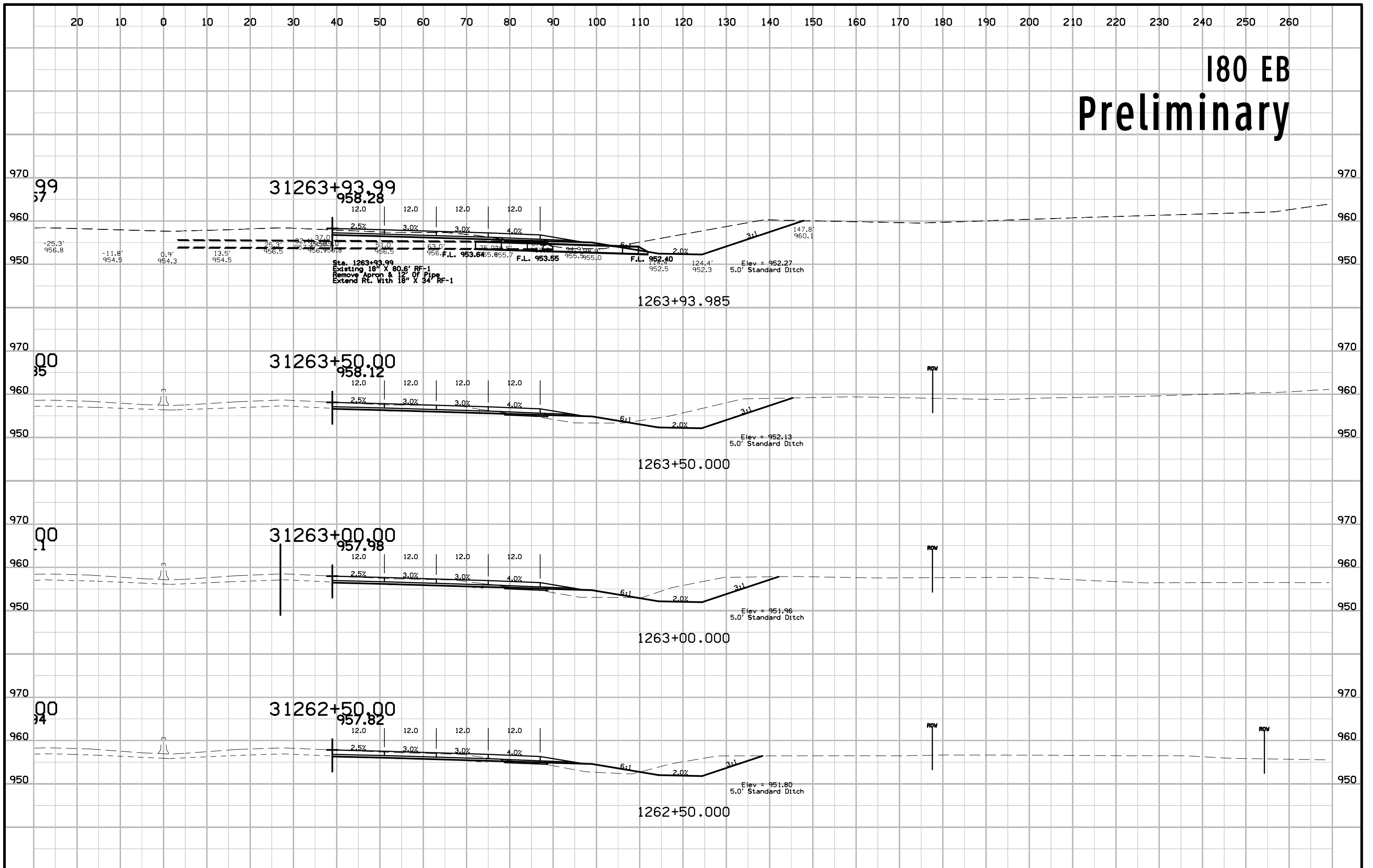
180 EB Preliminary



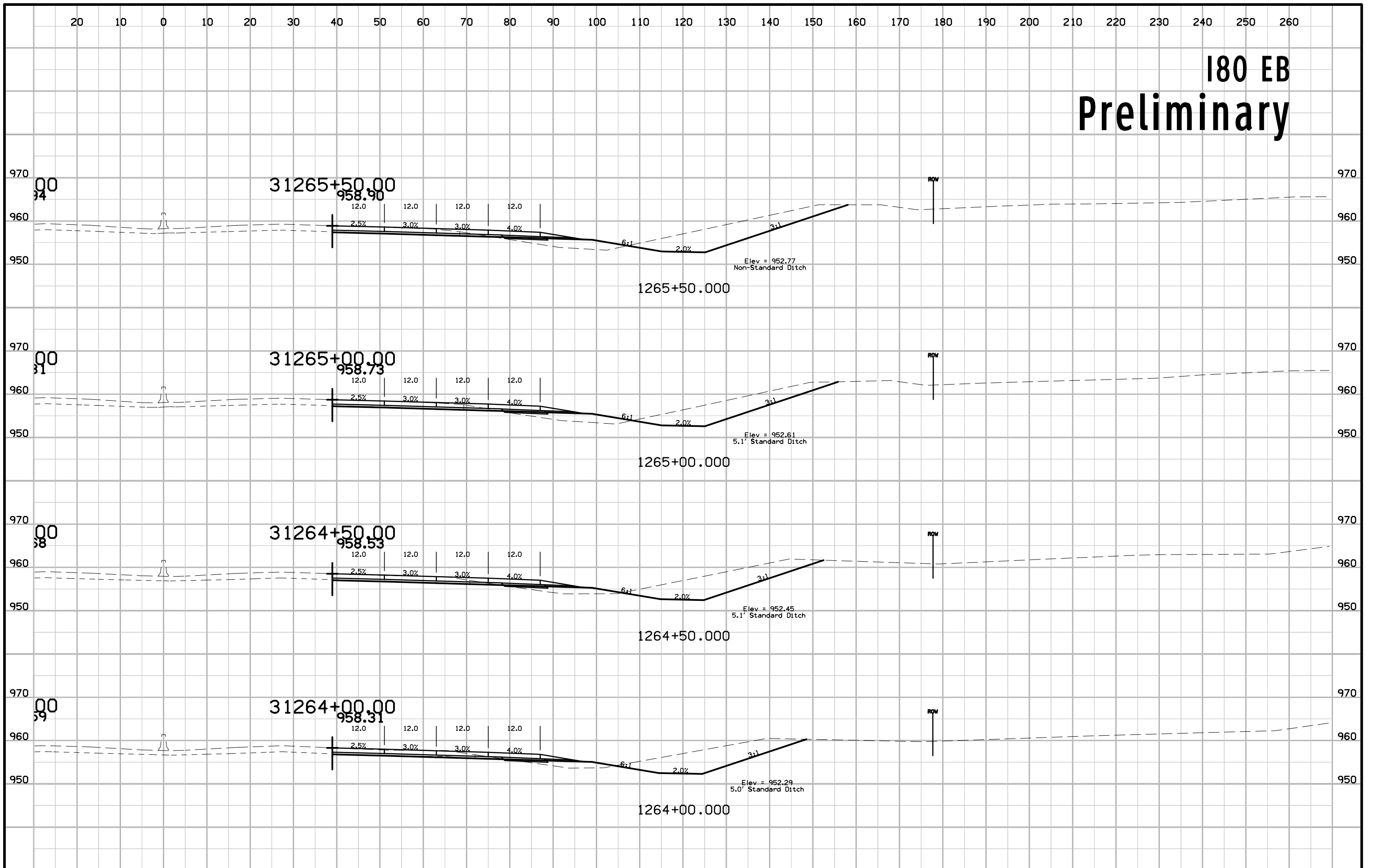
180 EB Preliminary



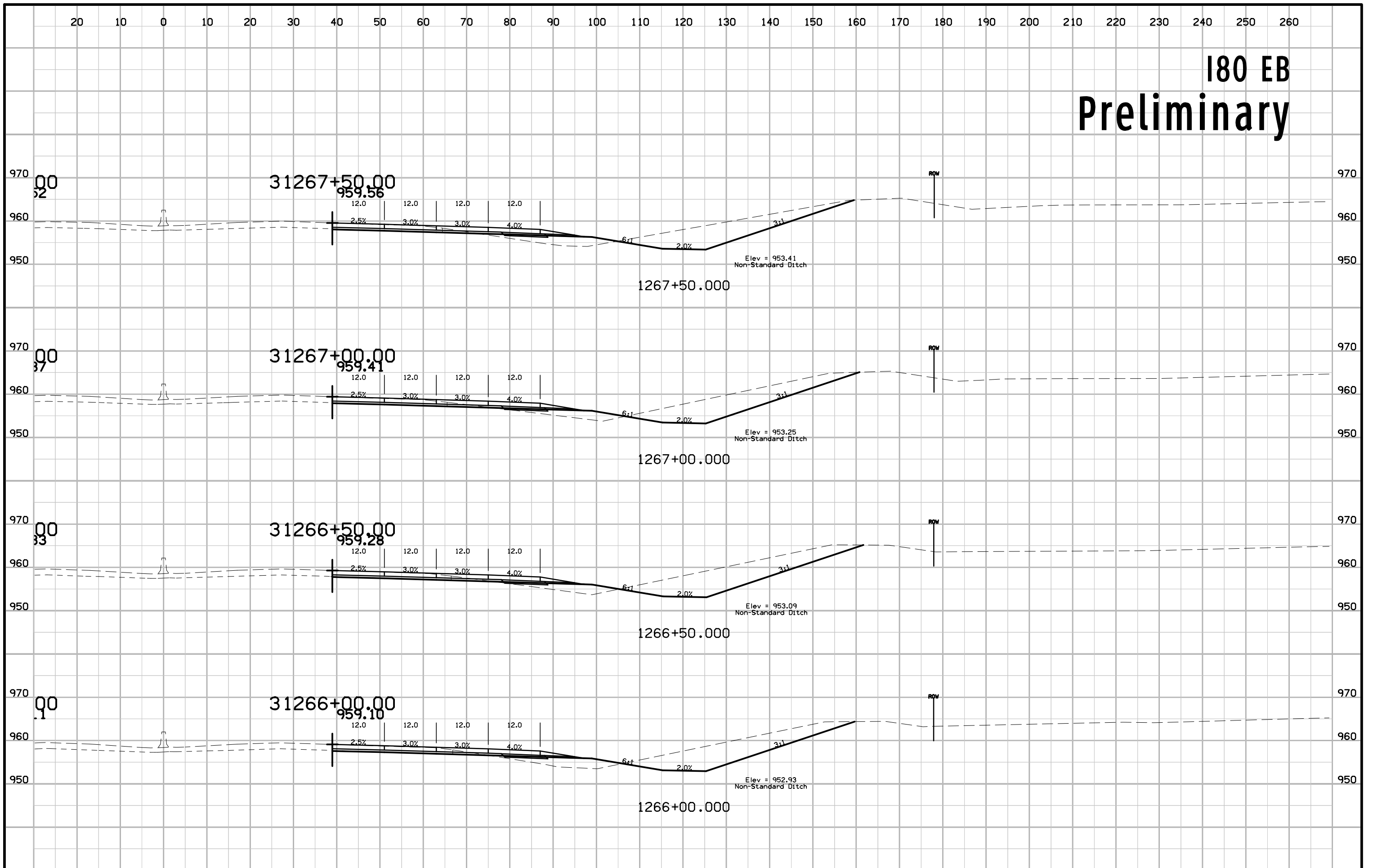
180 EB Preliminary



180 EB Preliminary

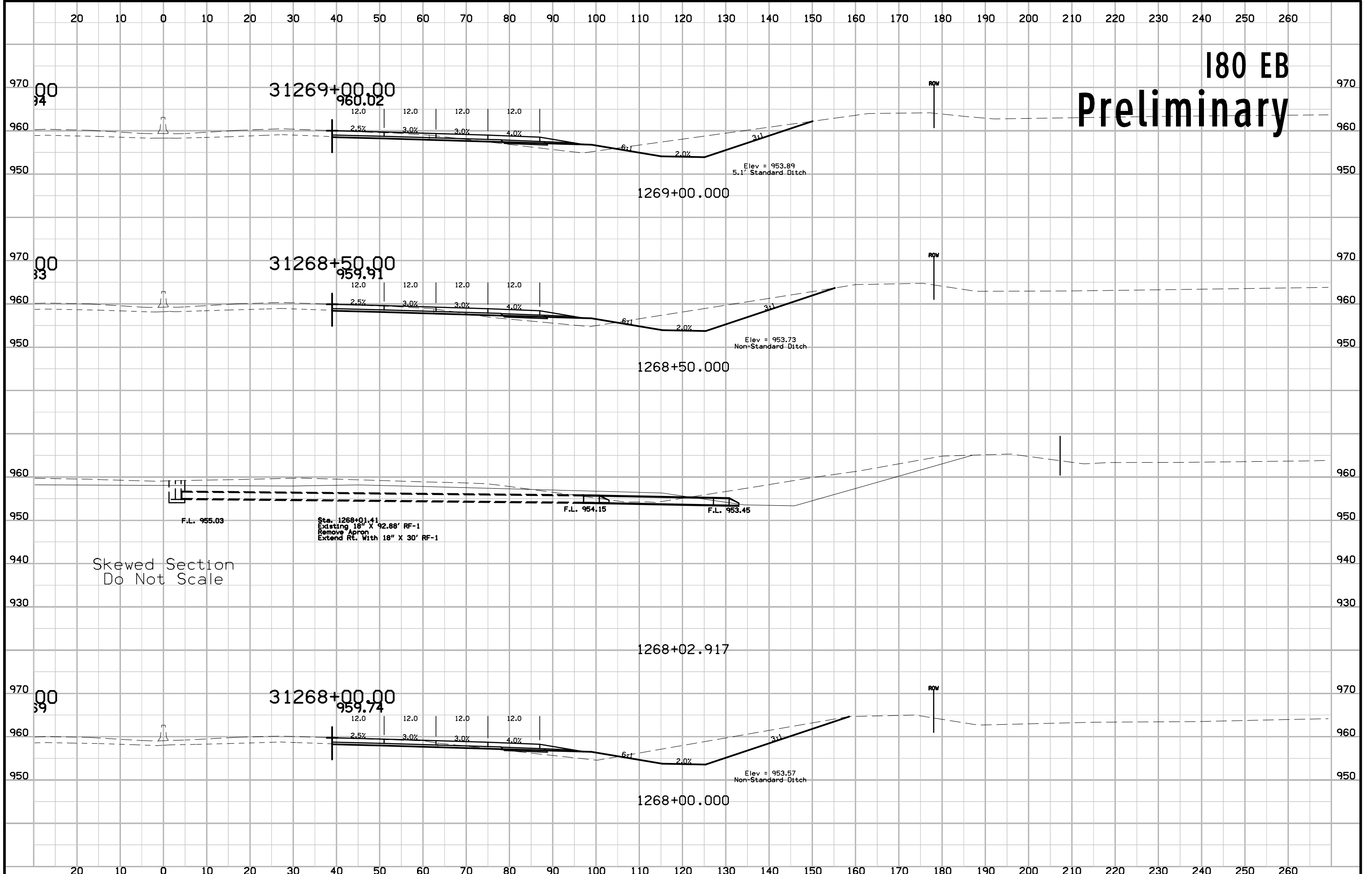


180 EB Preliminary

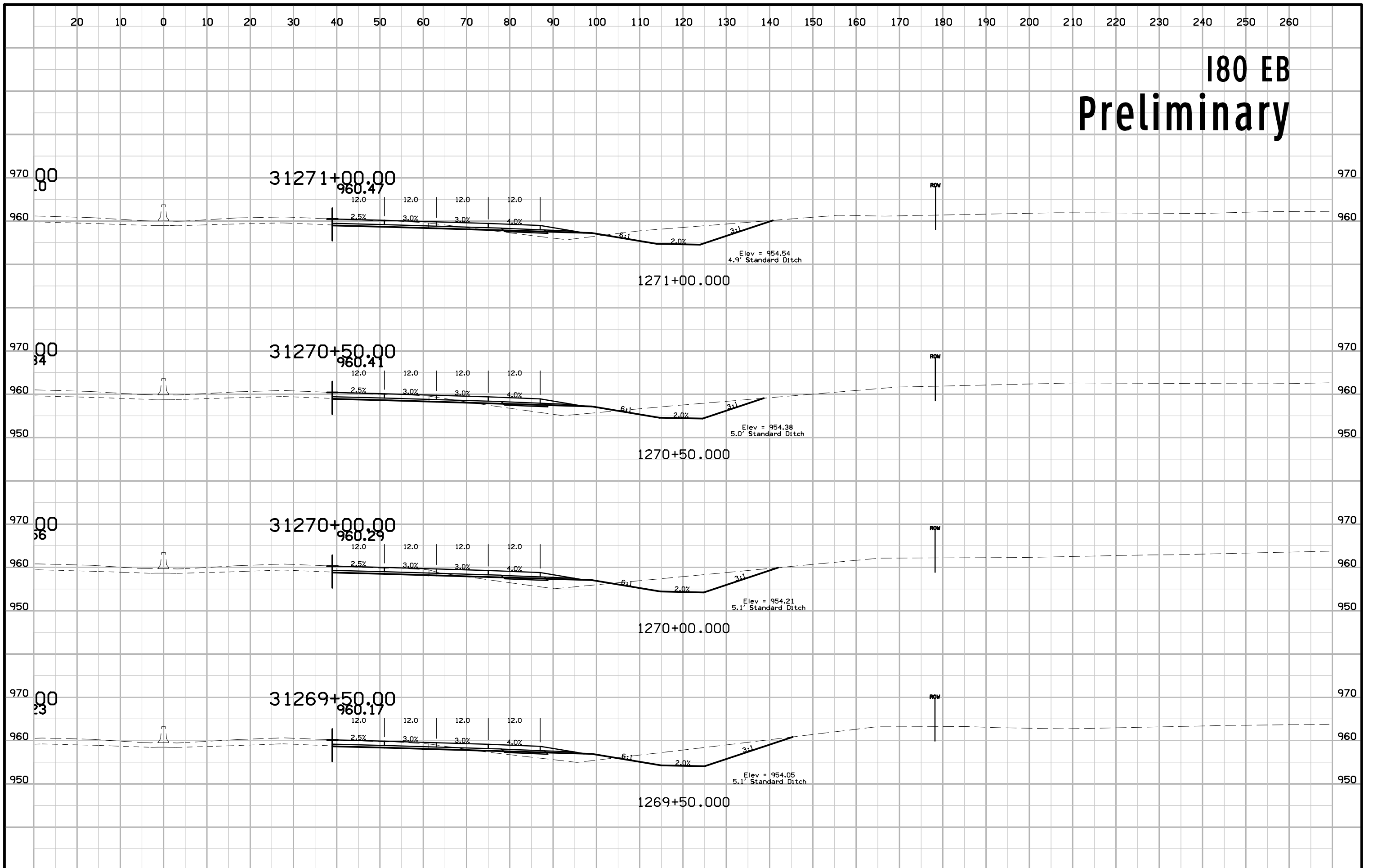


180 EB

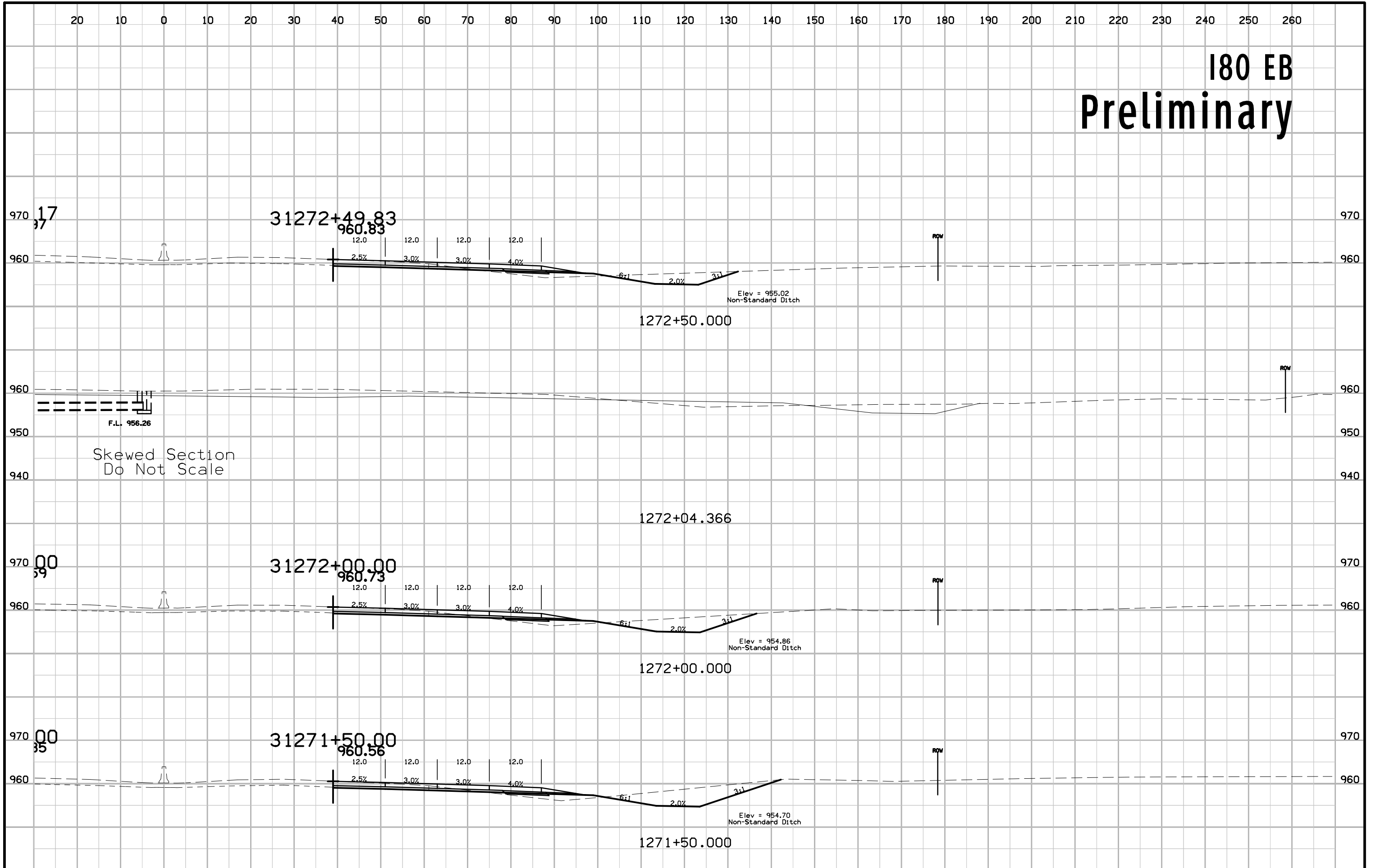
Preliminary



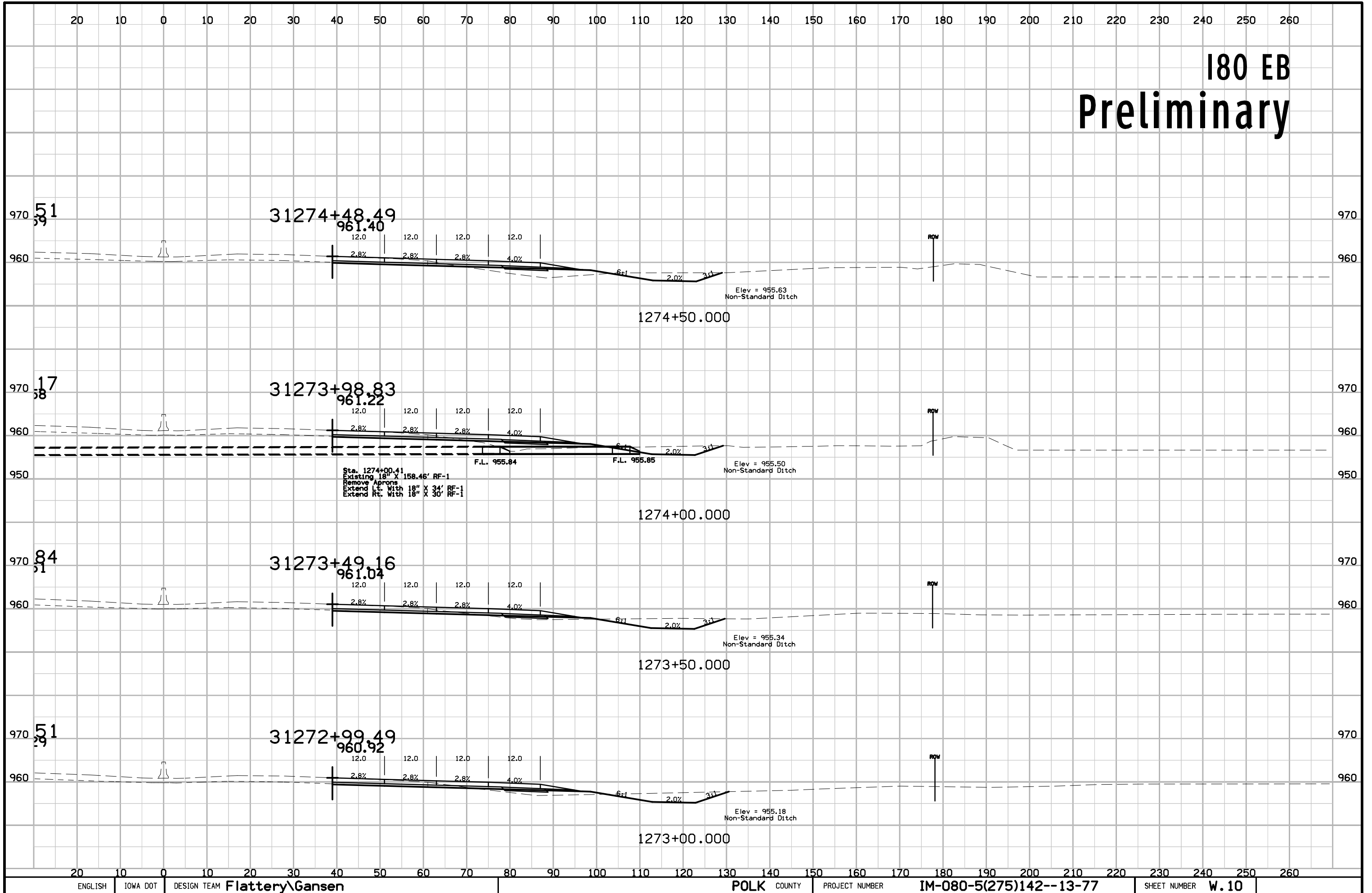
180 EB Preliminary



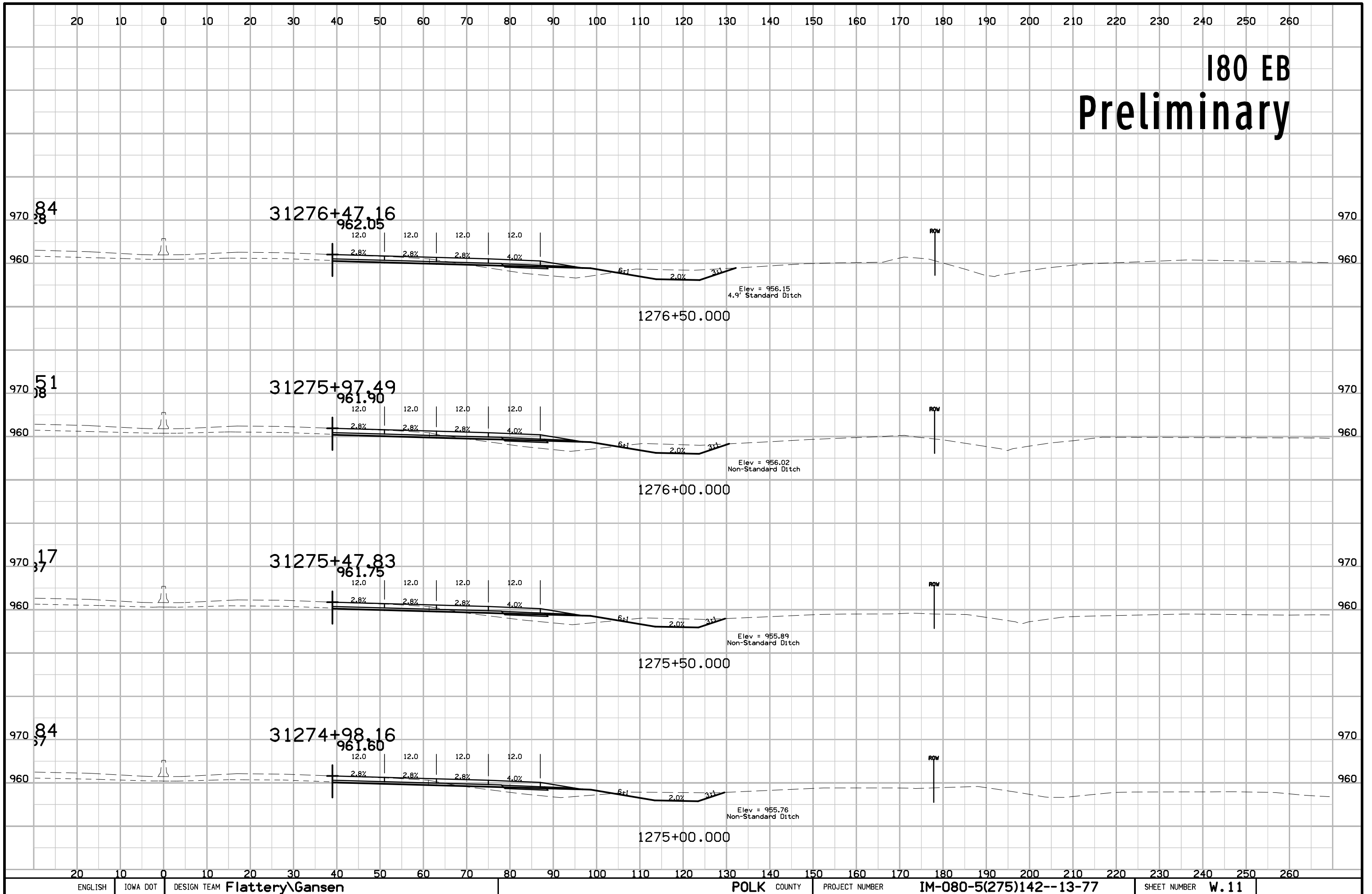
180 EB Preliminary



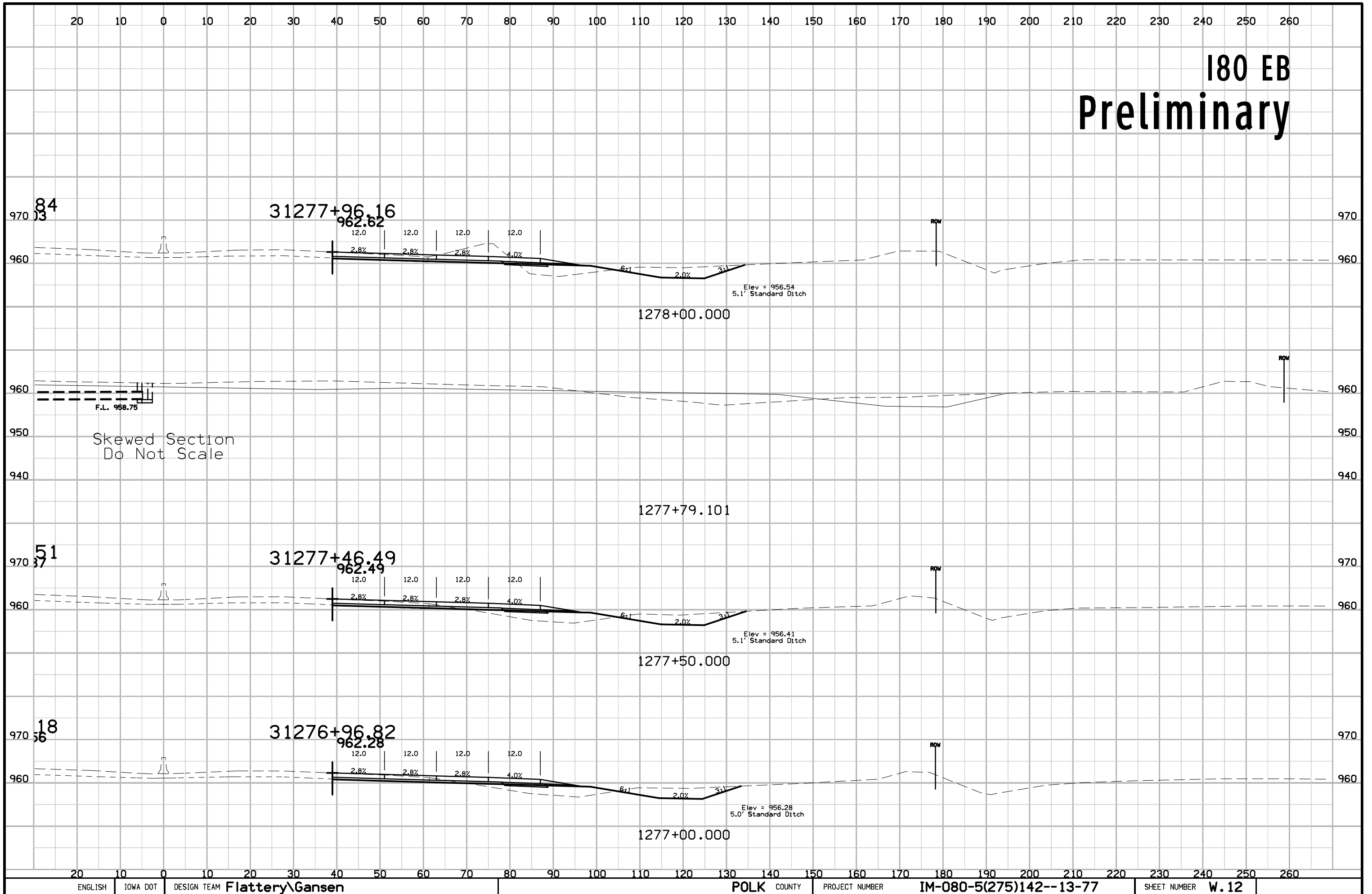
180 EB Preliminary



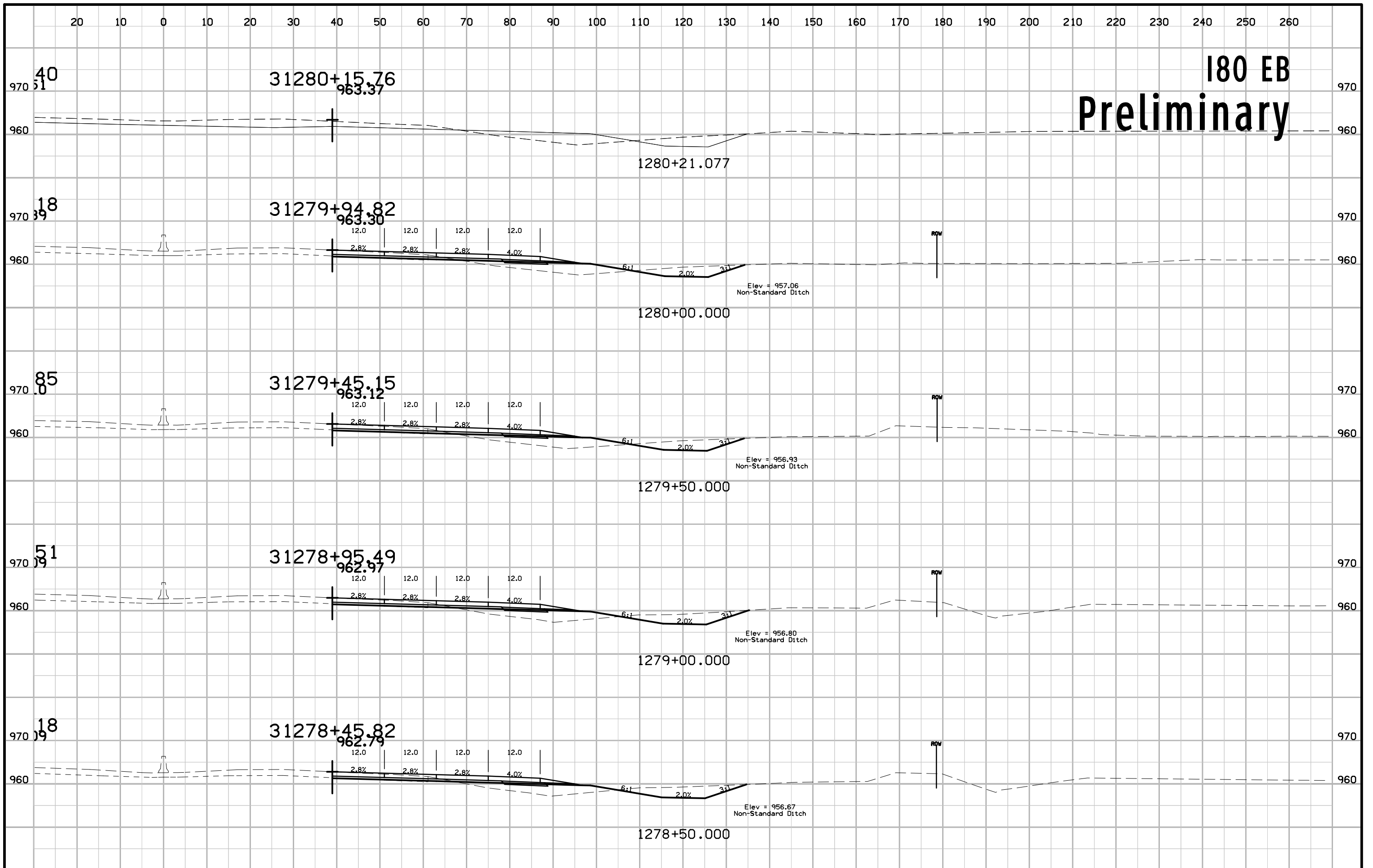
180 EB Preliminary



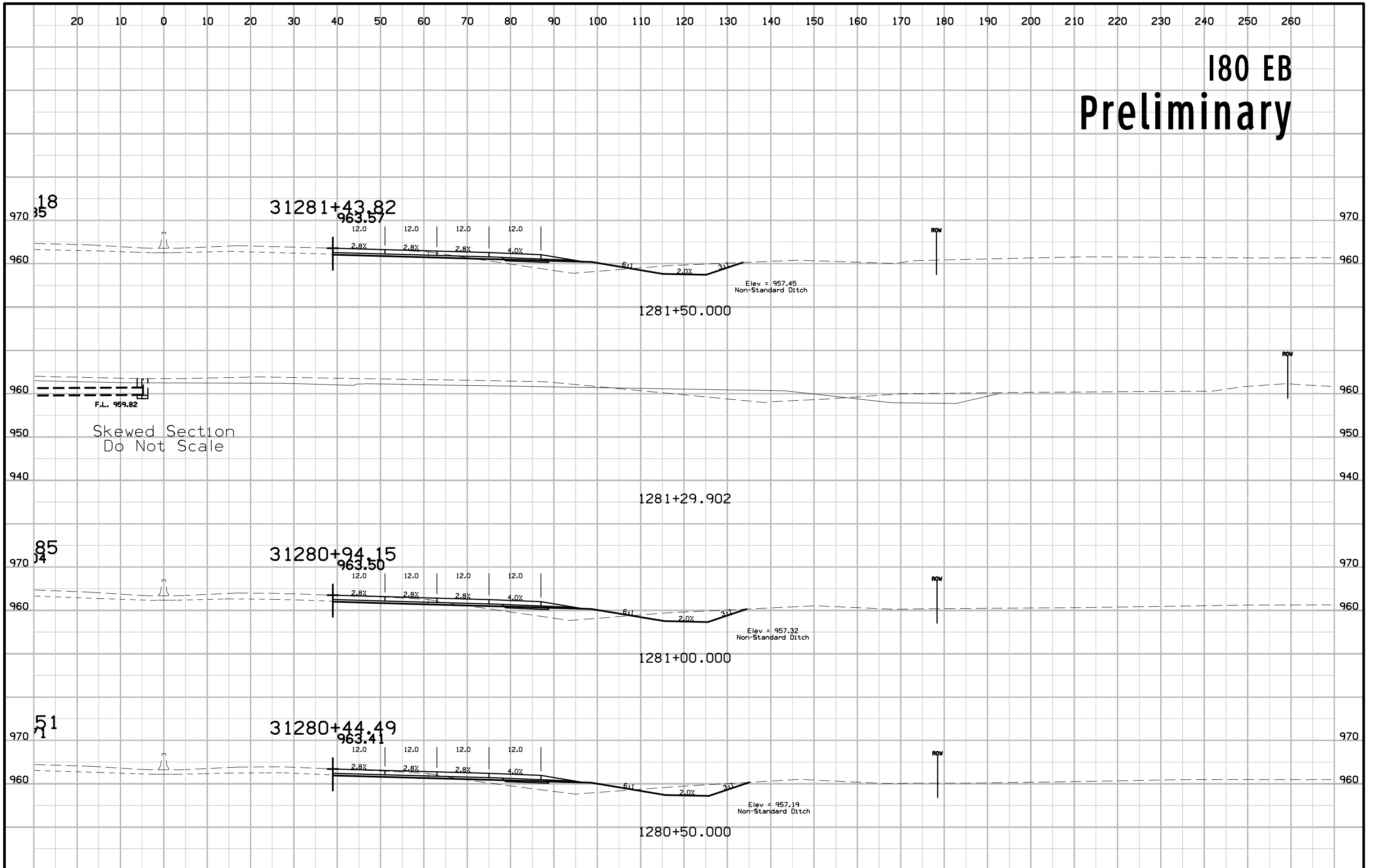
180 EB Preliminary



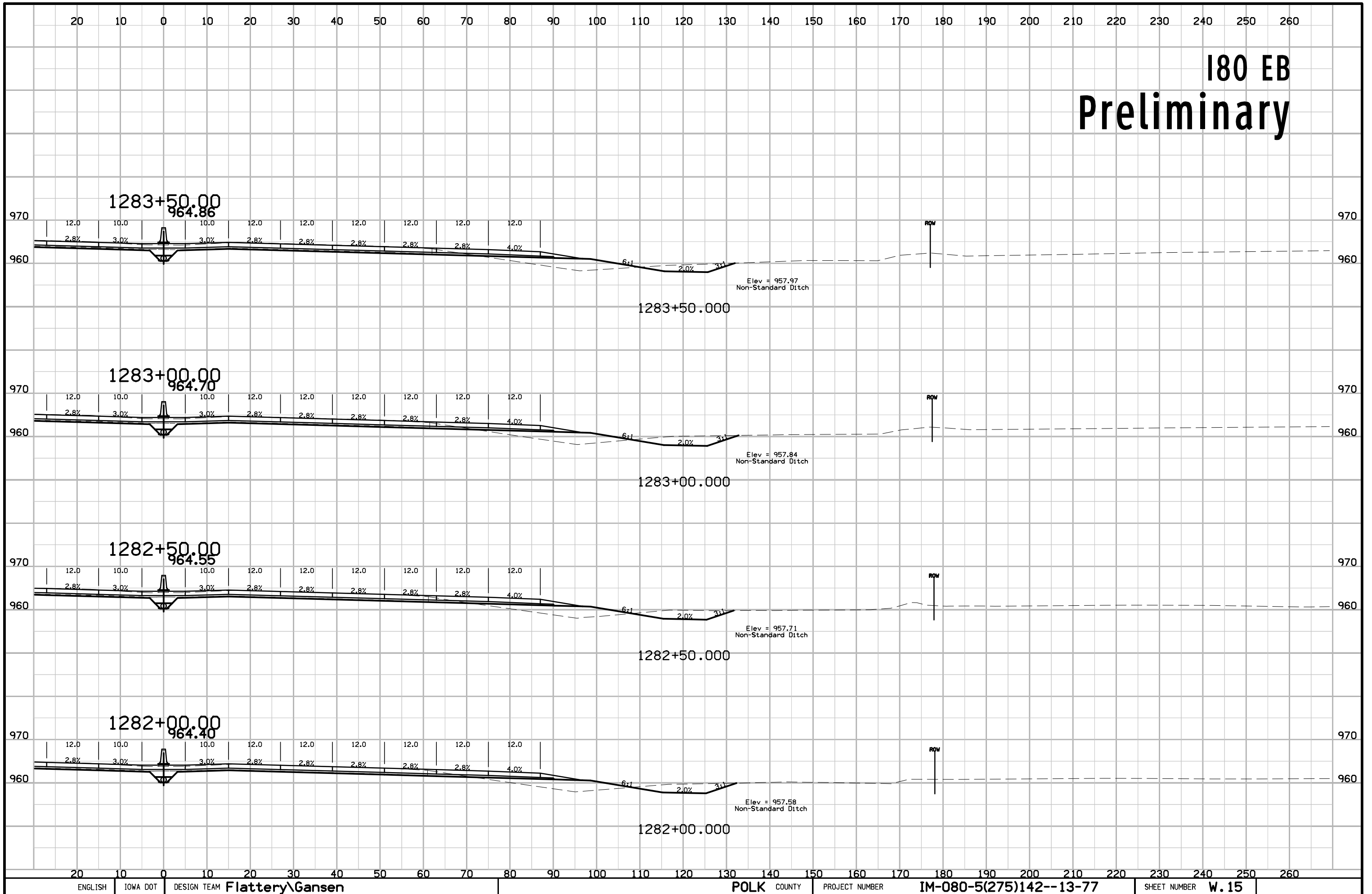
180 EB Preliminary



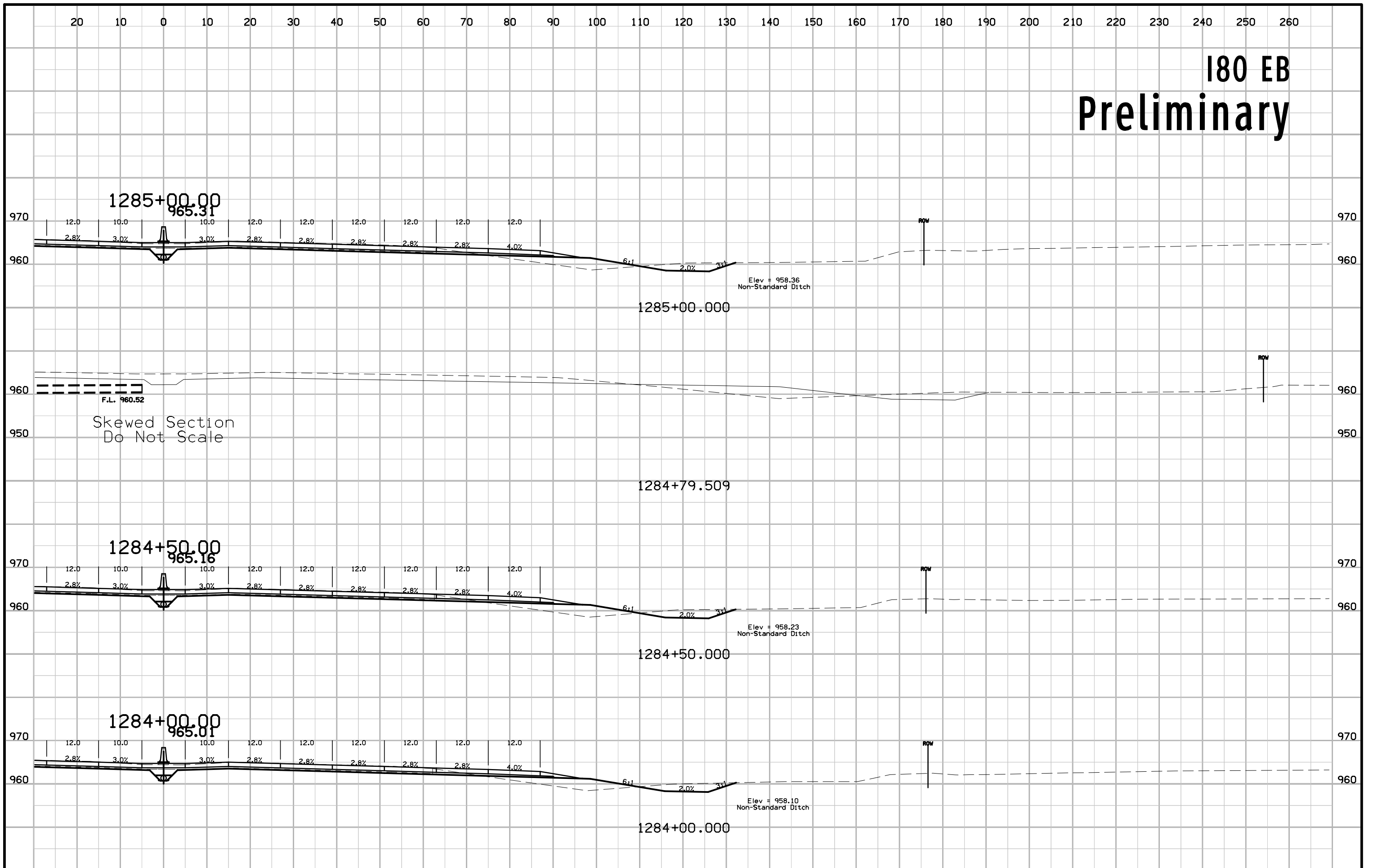
180 EB Preliminary



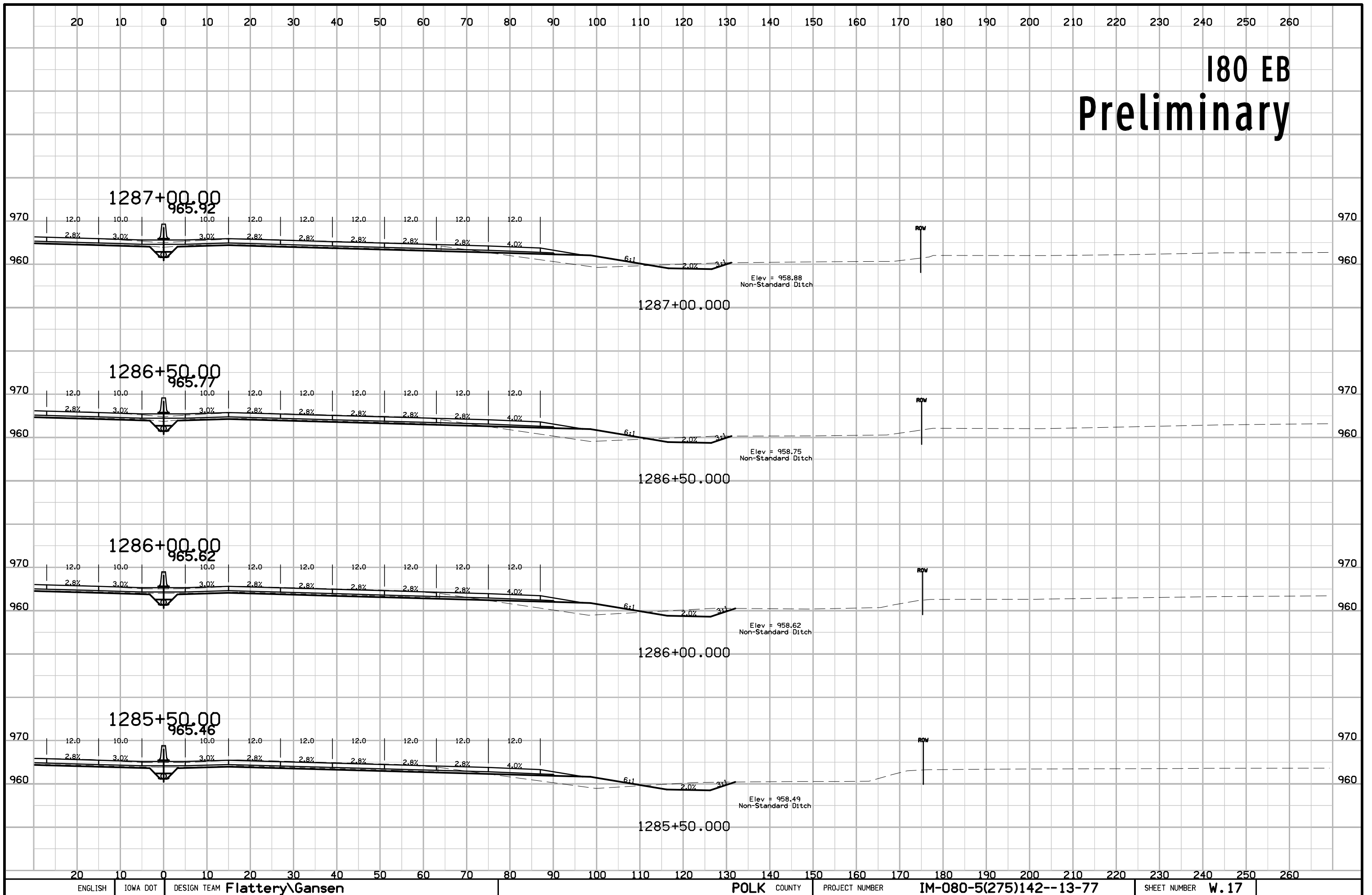
180 EB Preliminary



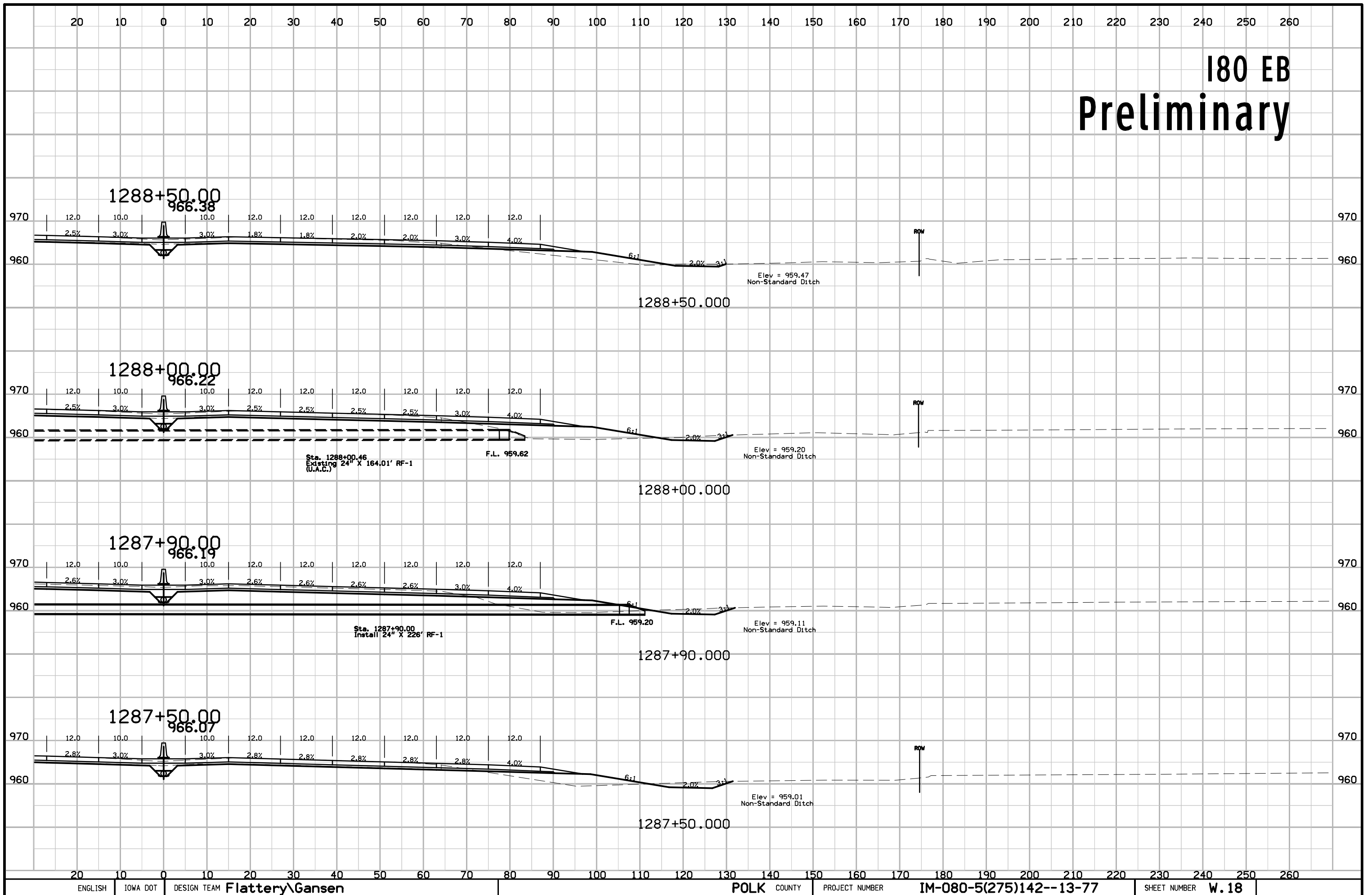
180 EB Preliminary



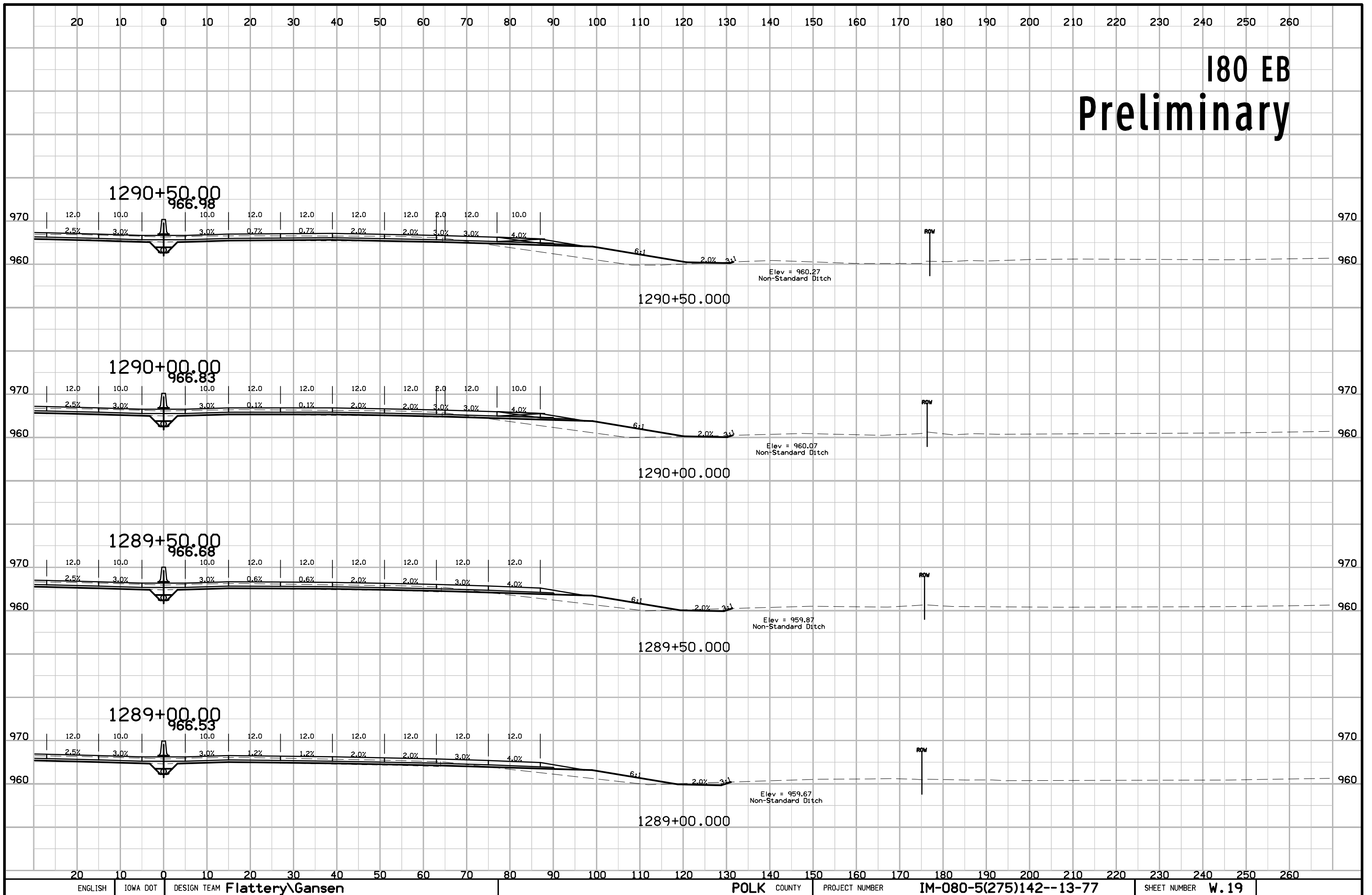
180 EB Preliminary



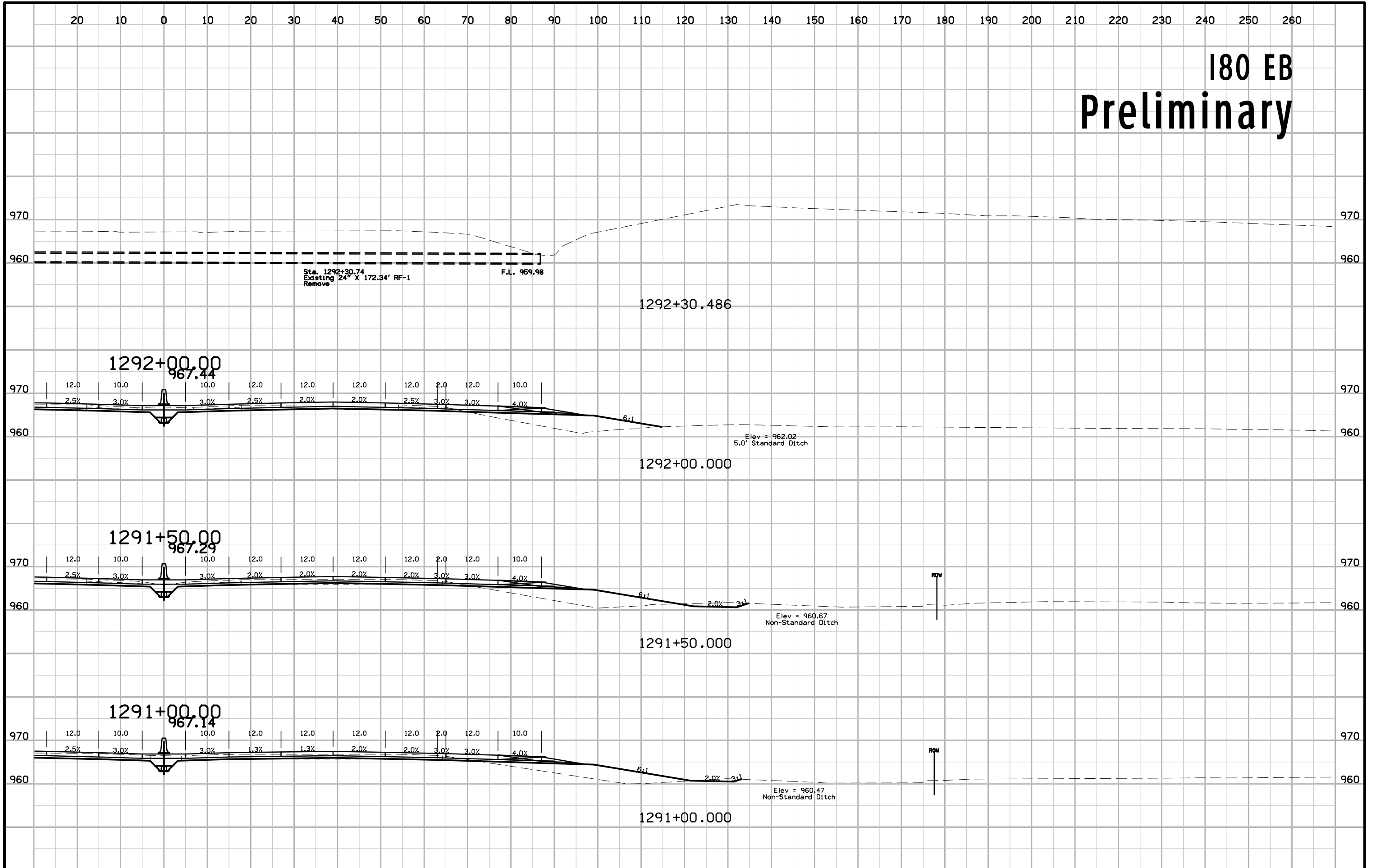
180 EB Preliminary



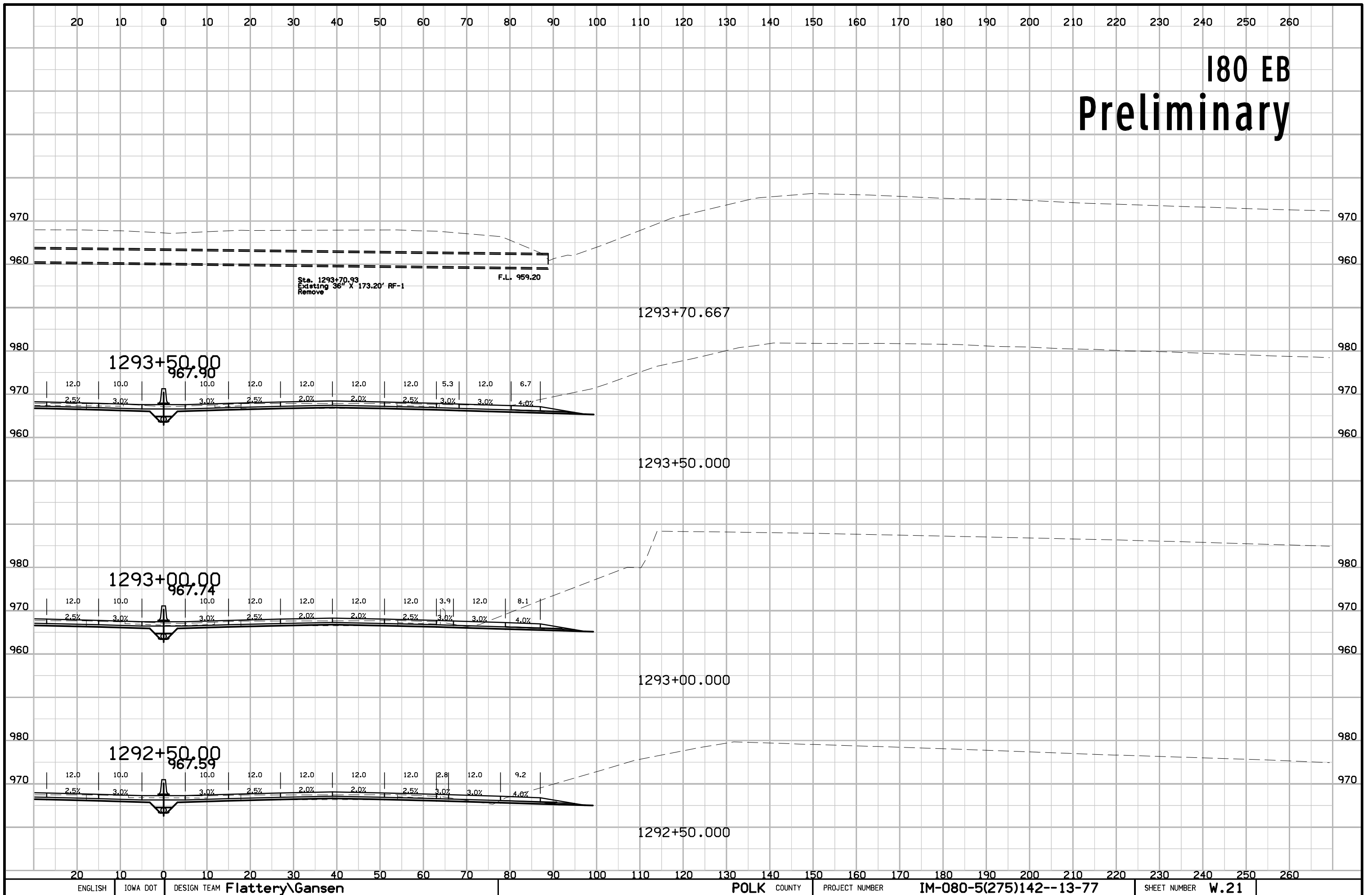
180 EB Preliminary



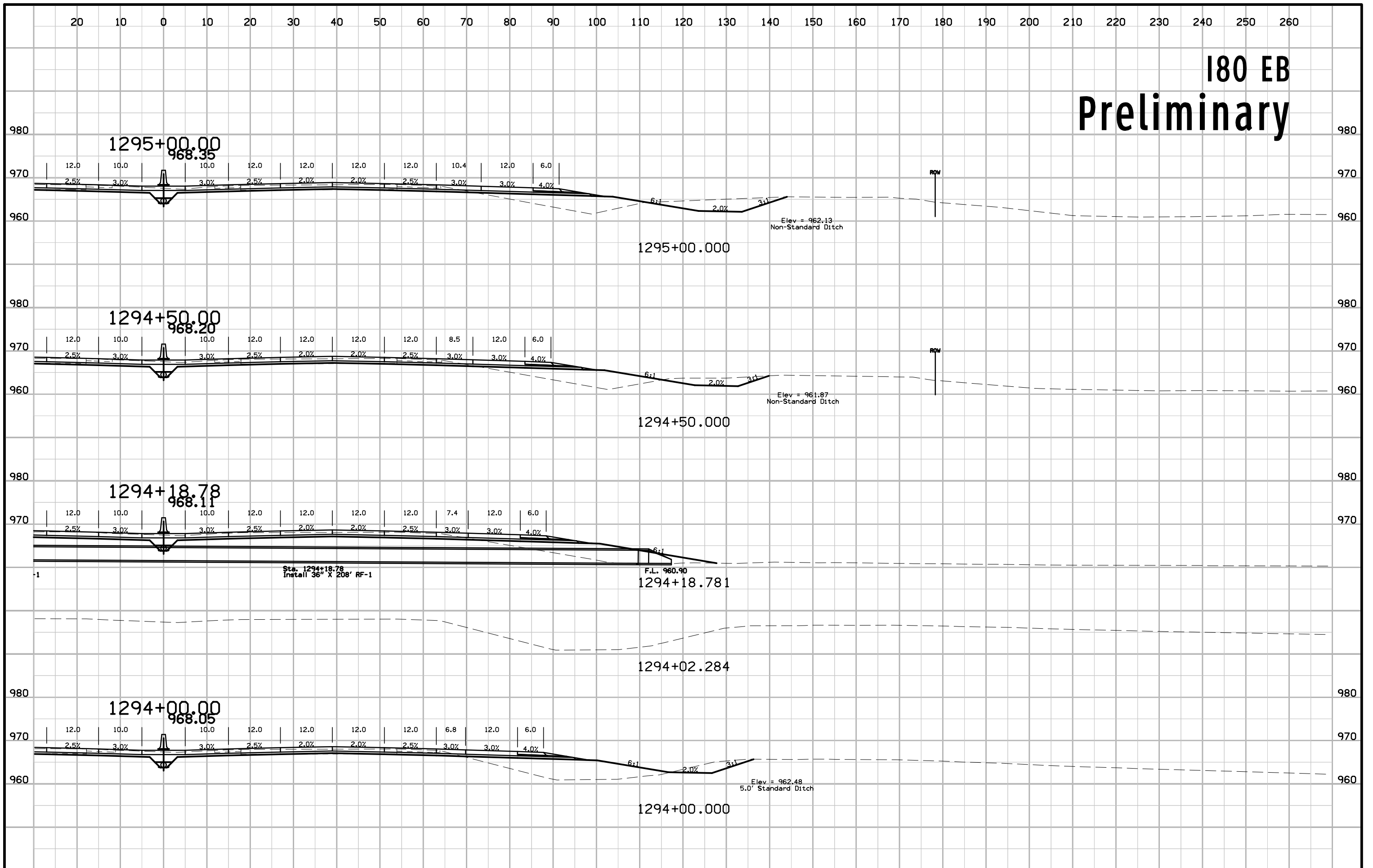
180 EB Preliminary



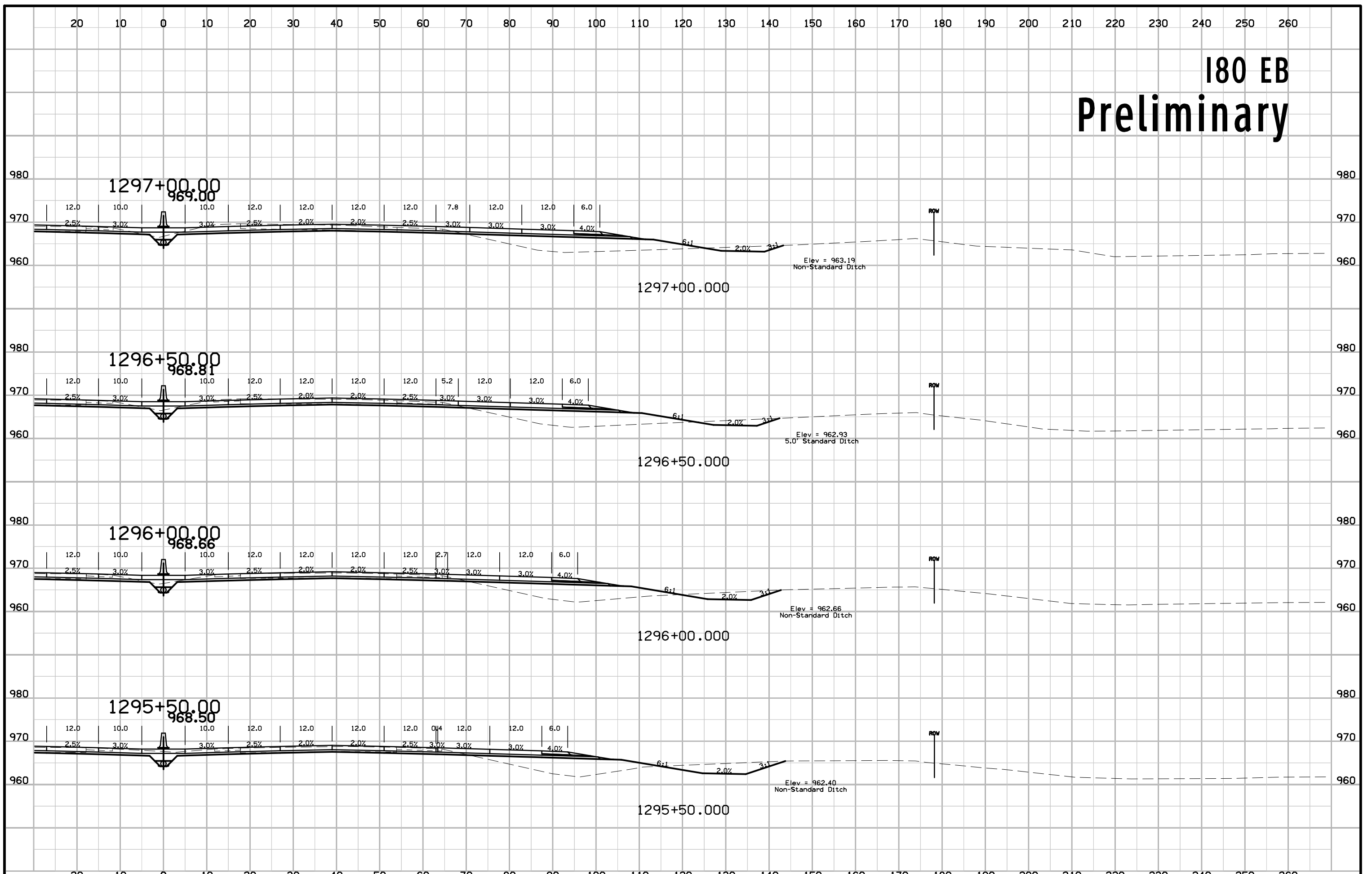
180 EB Preliminary



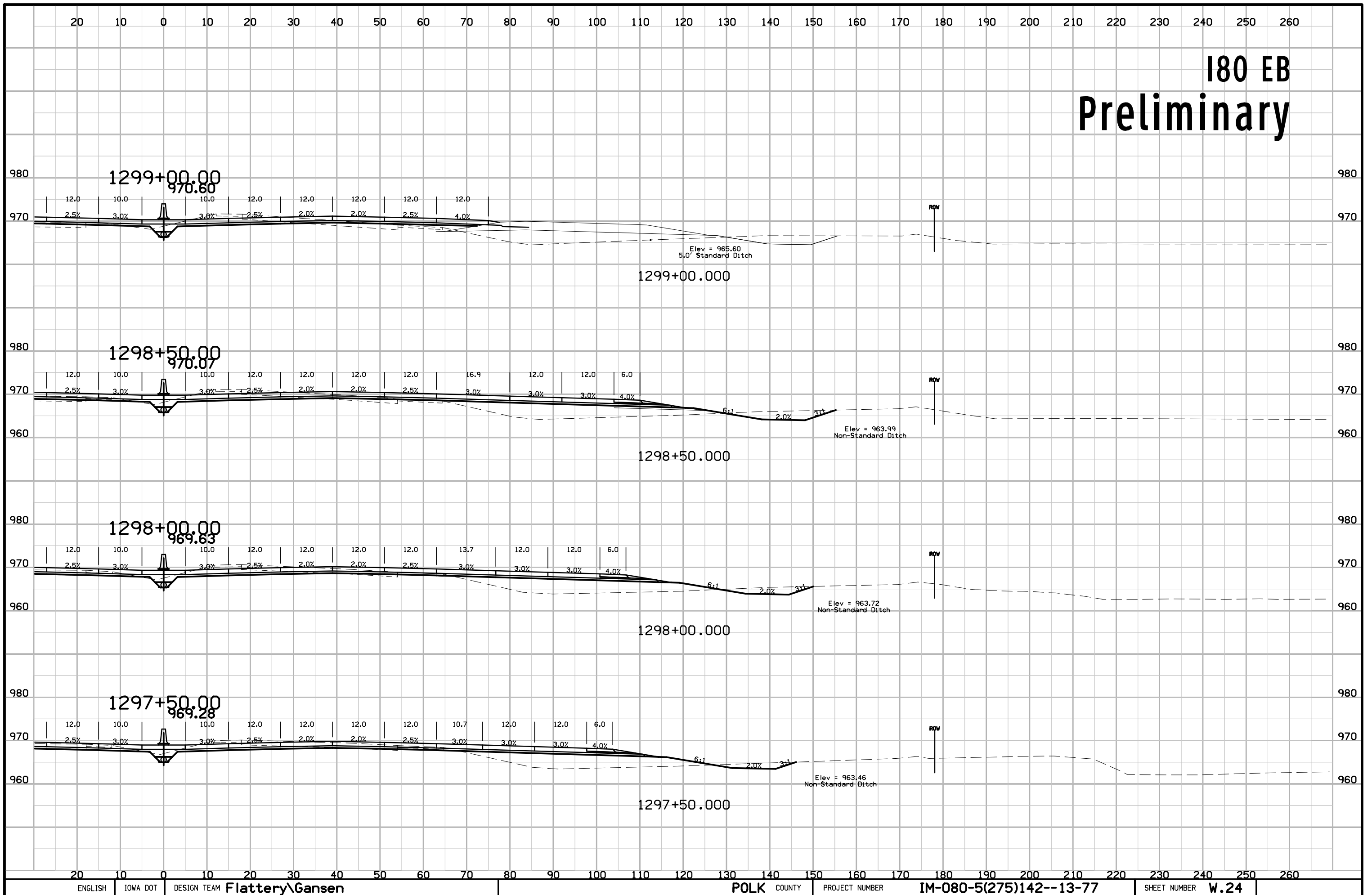
180 EB Preliminary



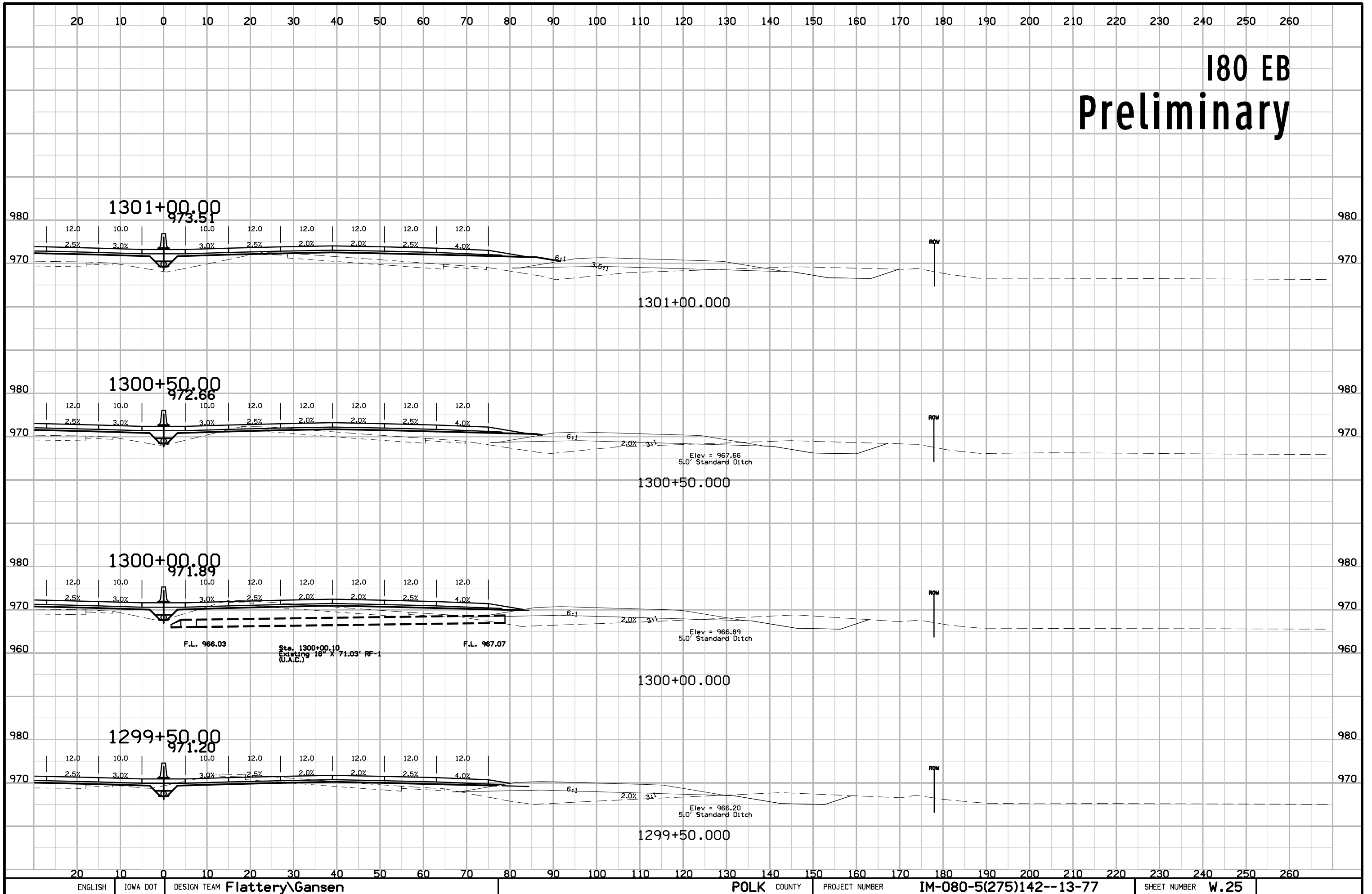
180 EB Preliminary



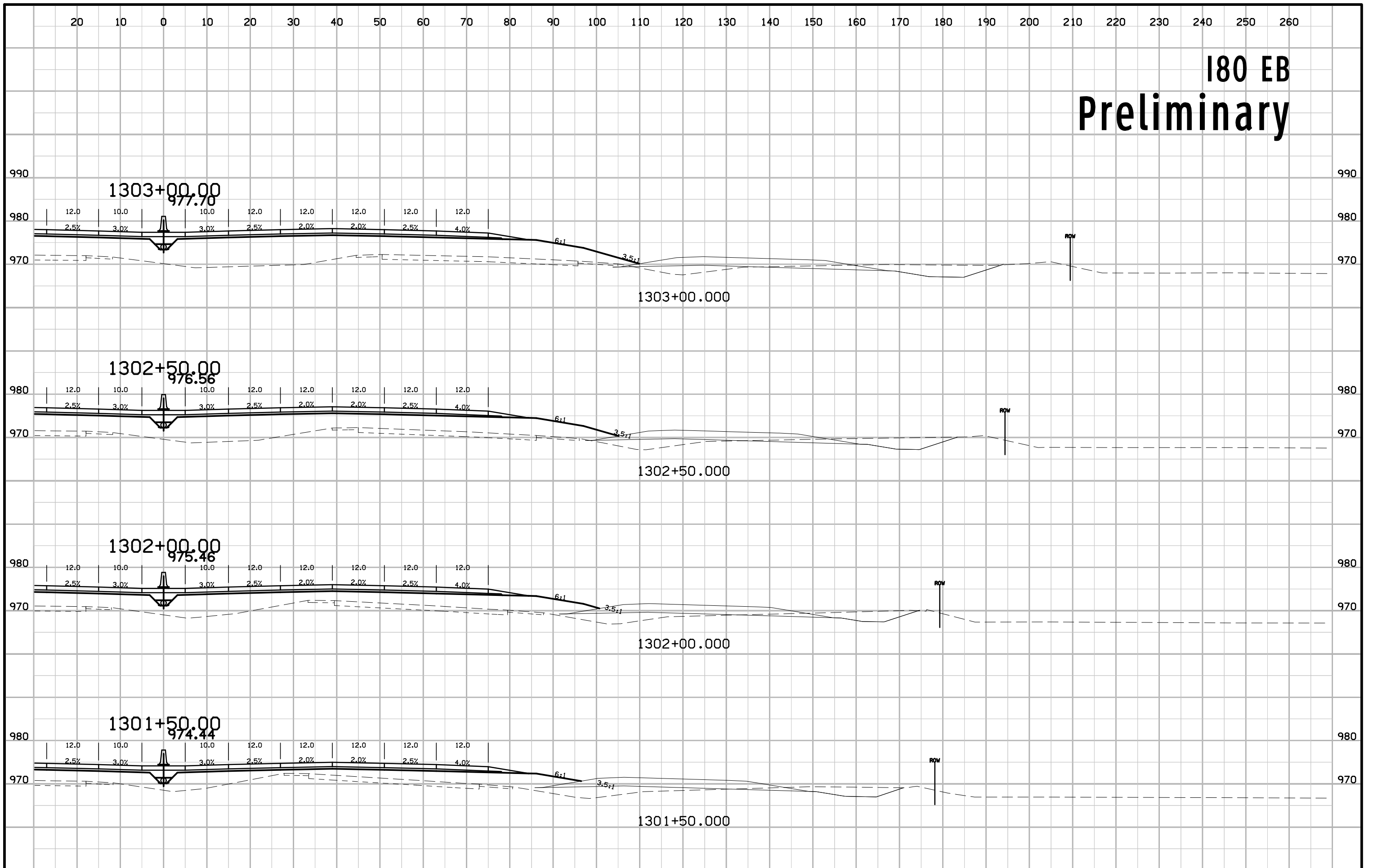
180 EB Preliminary



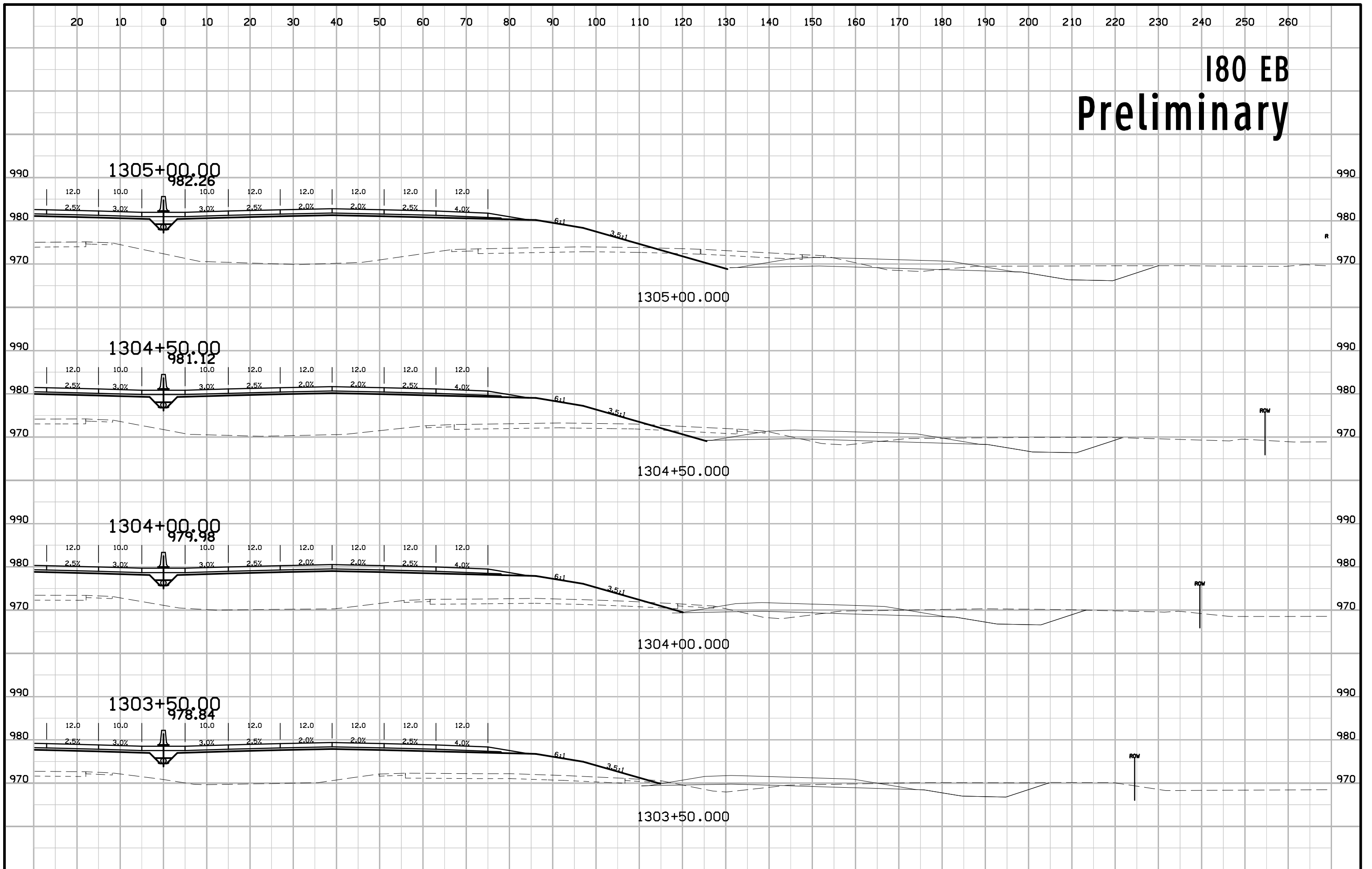
180 EB Preliminary

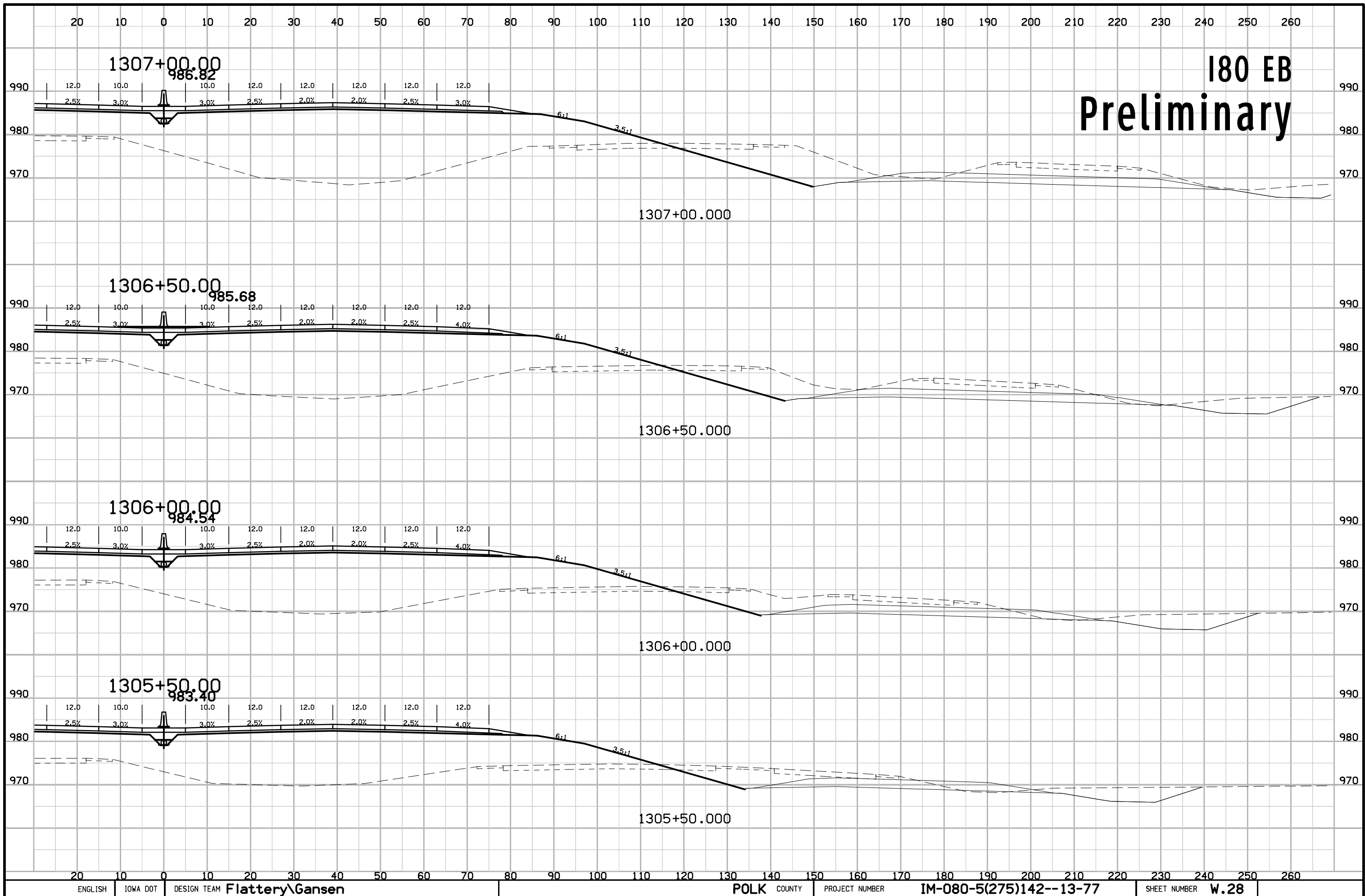


180 EB Preliminary

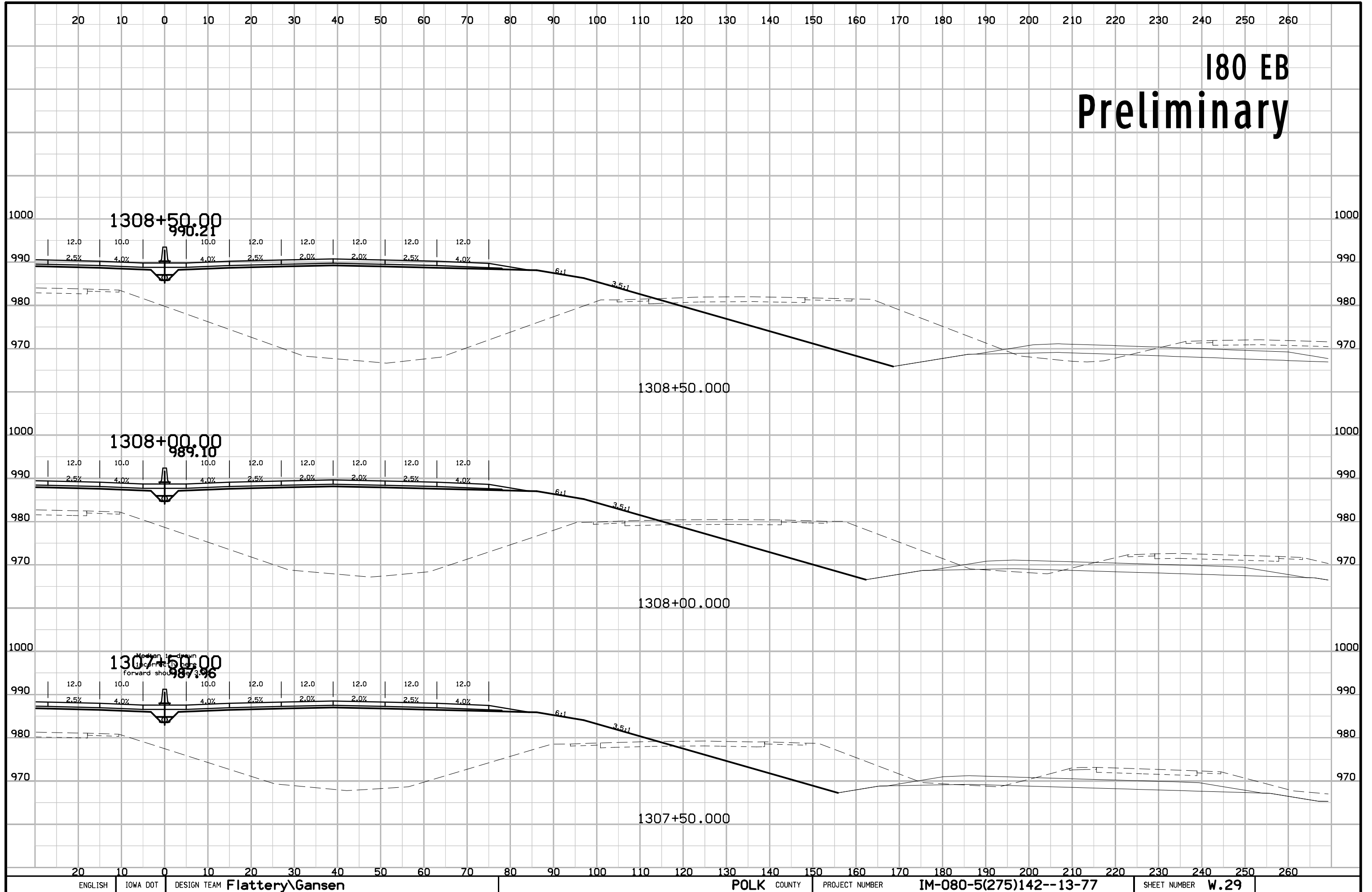


180 EB Preliminary

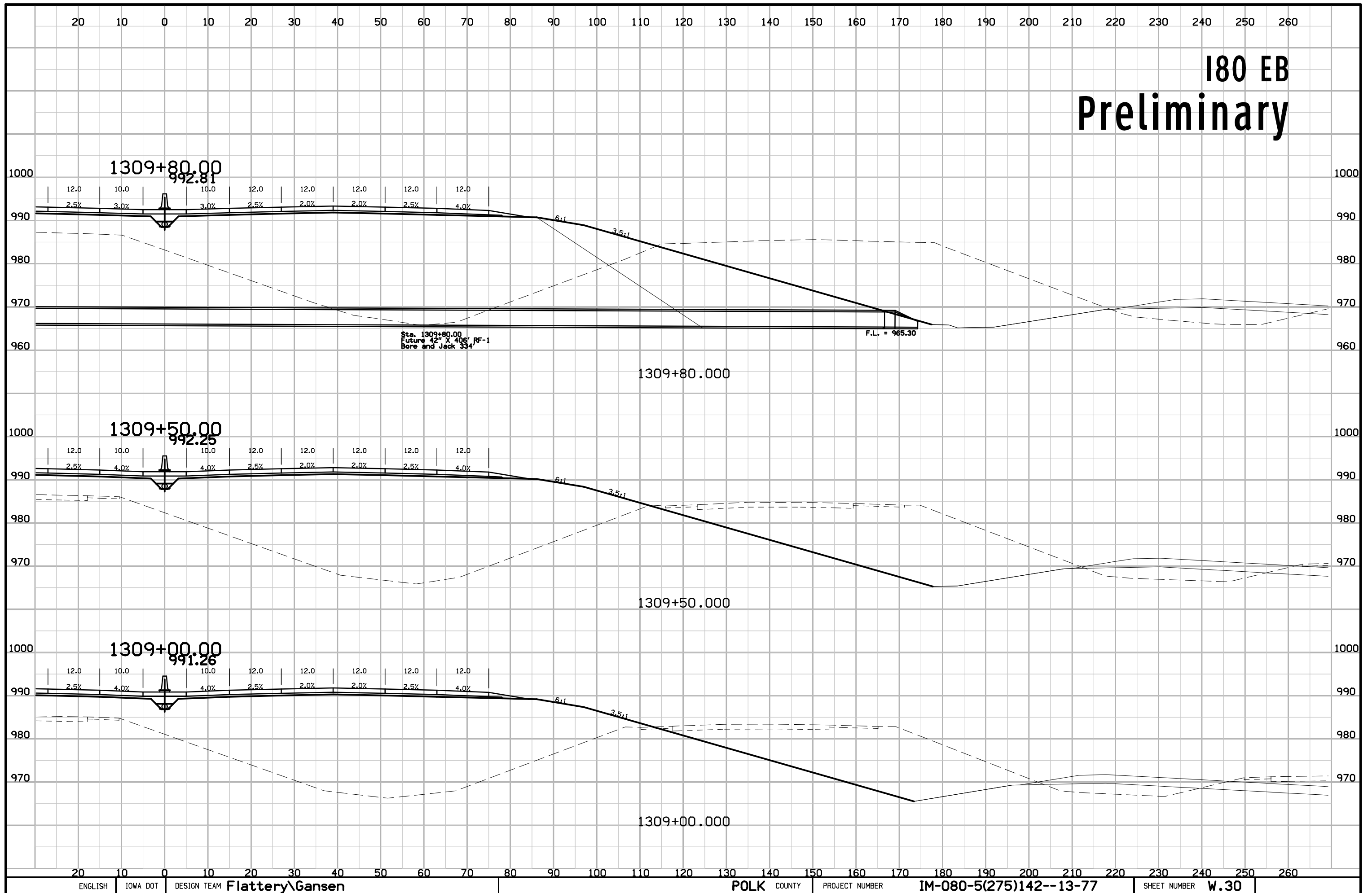




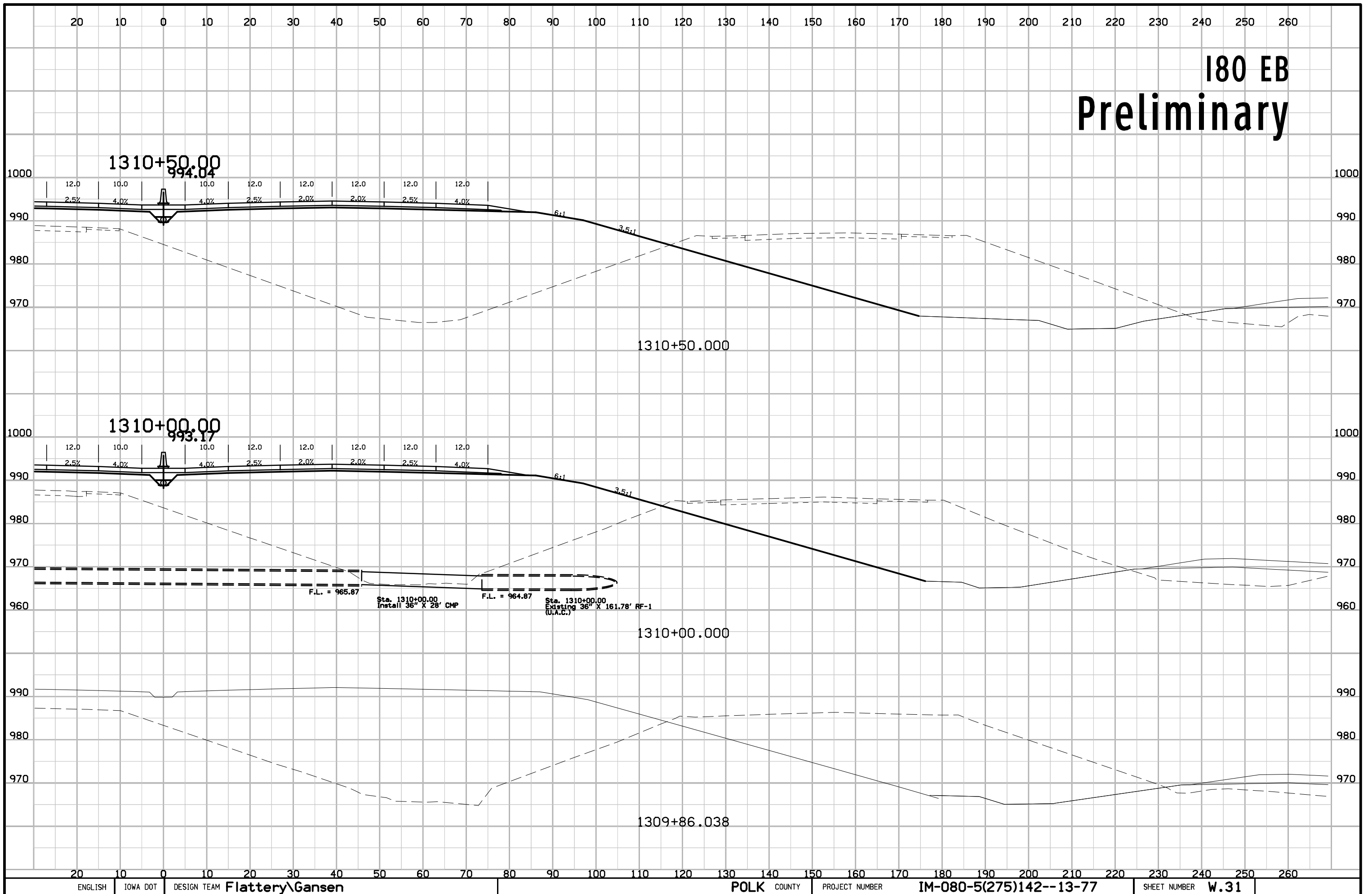
180 EB Preliminary



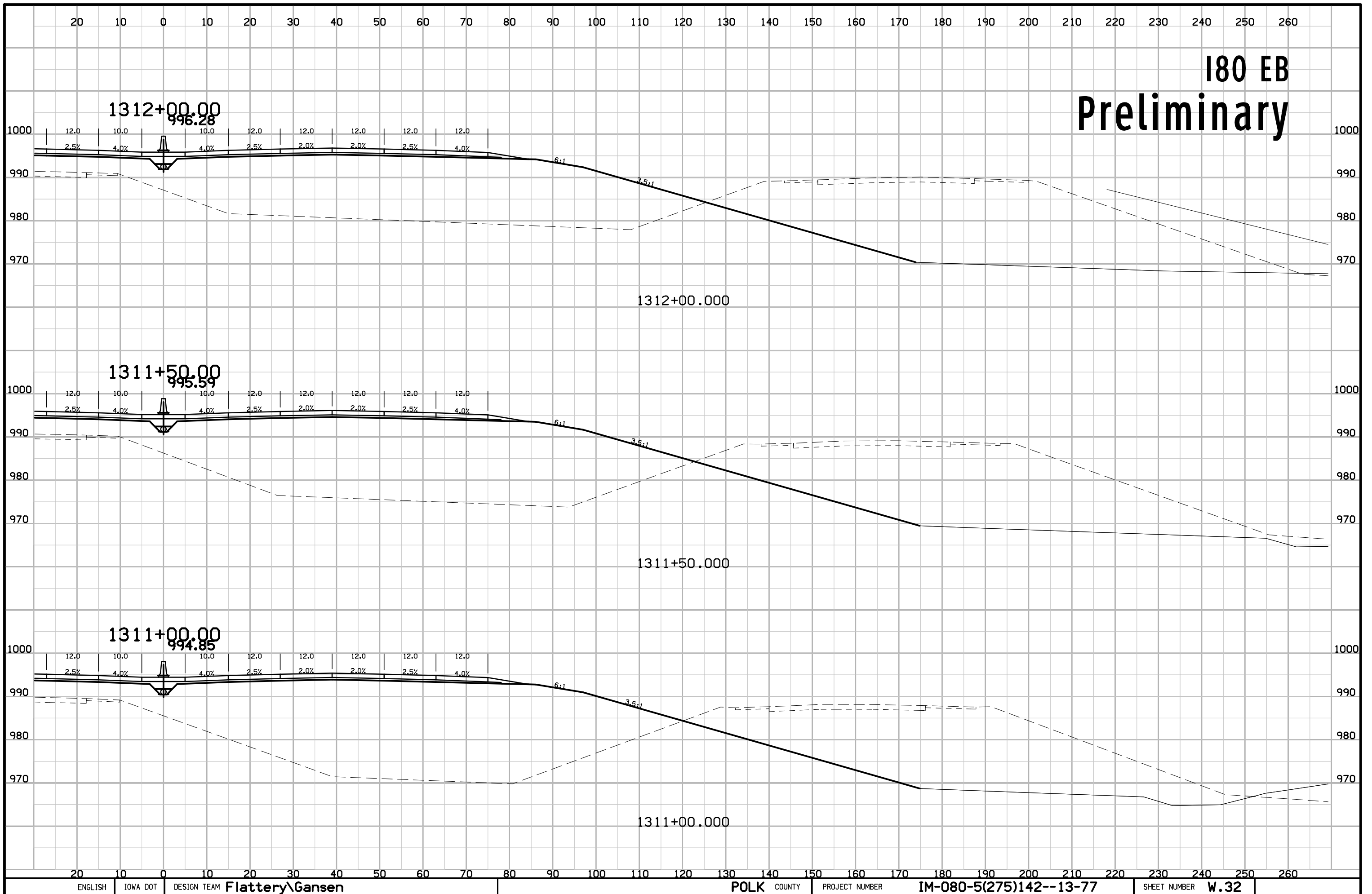
180 EB Preliminary



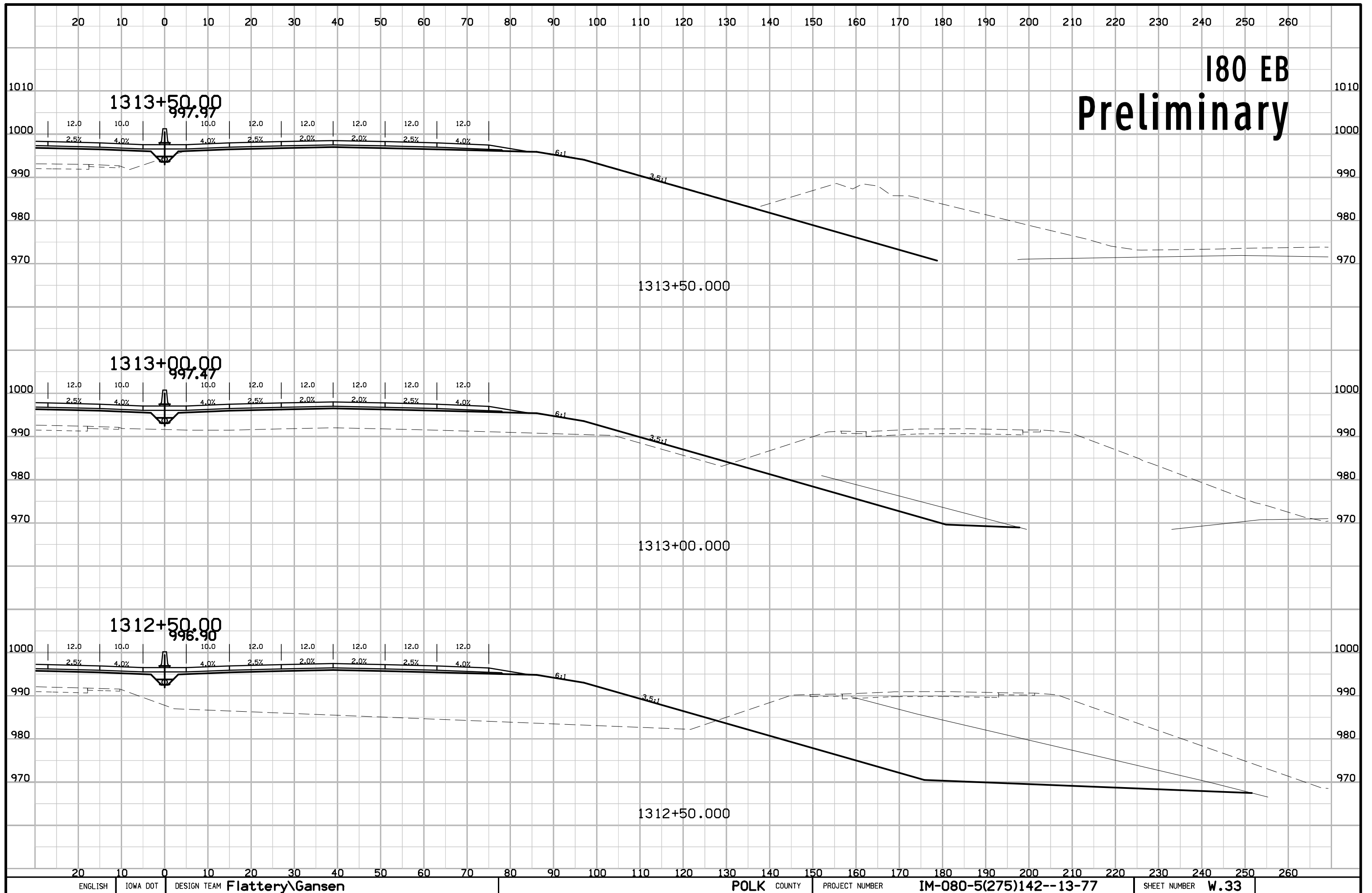
180 EB Preliminary



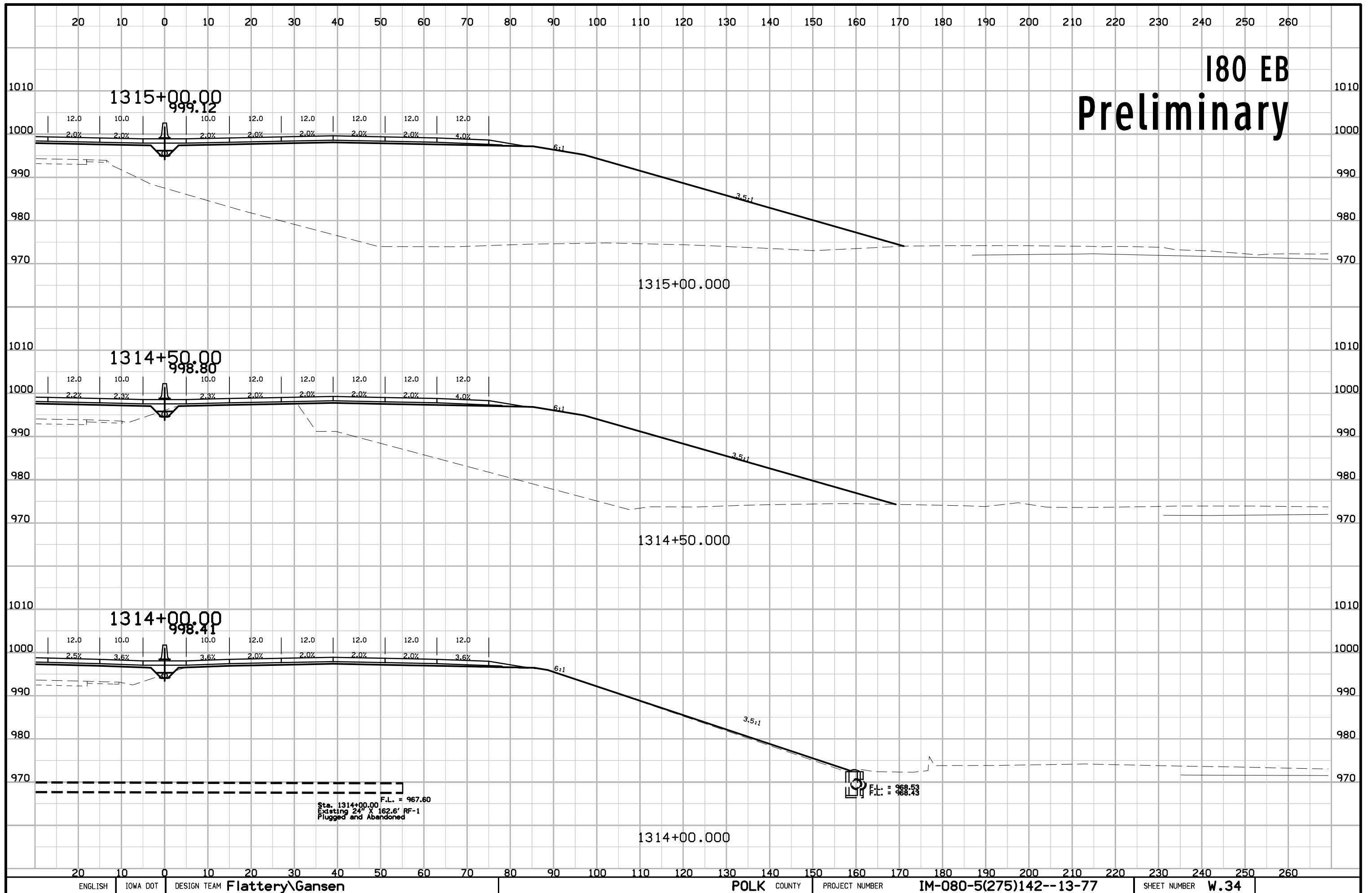
180 EB Preliminary



180 EB Preliminary



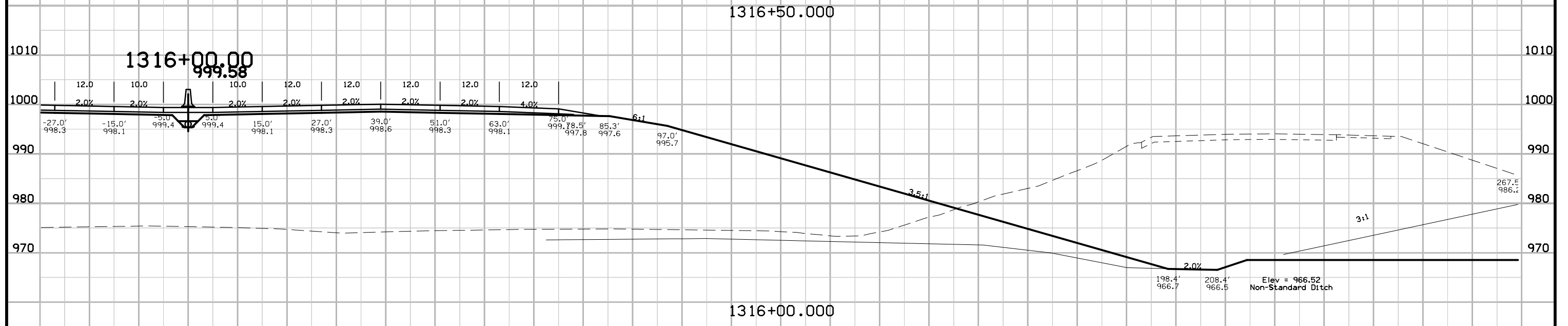
180 EB Preliminary



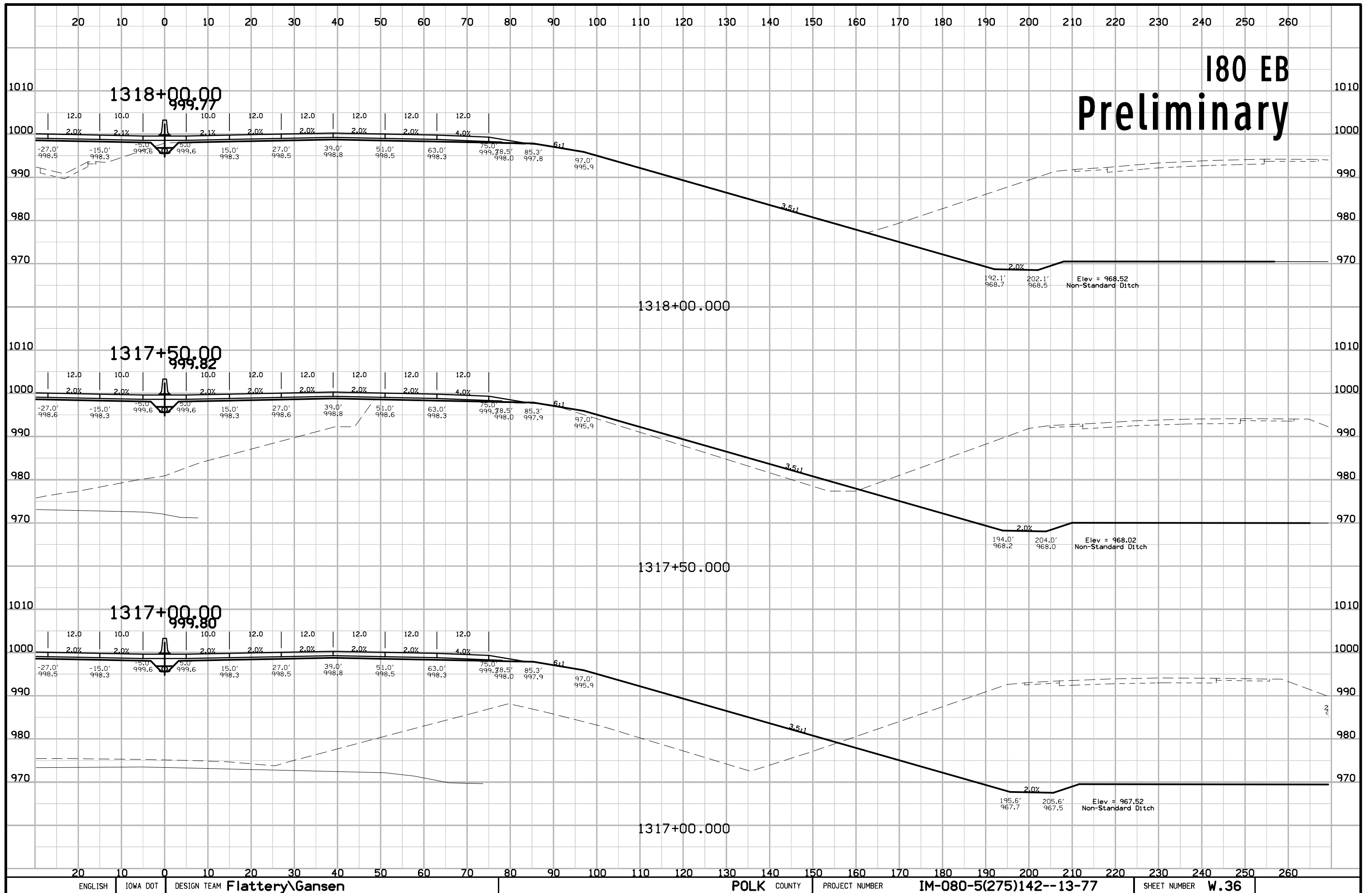
Sta. 1314+00.00 F.L. = 967.60
Existing 24" X 162.6' RF-1
Plugged and Abandoned

F.L. = 968.53
F.L. = 968.43

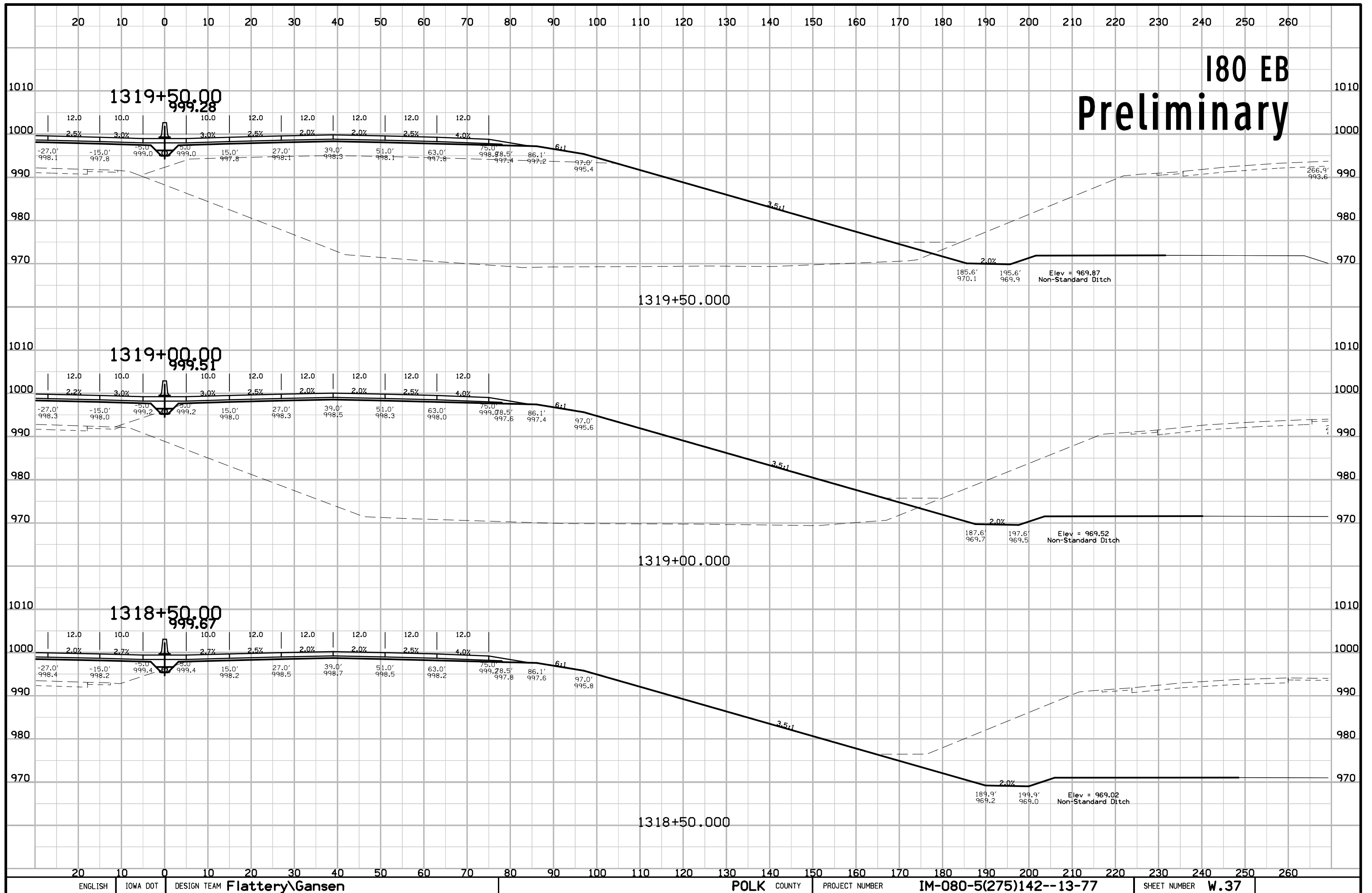
180 EB Preliminary



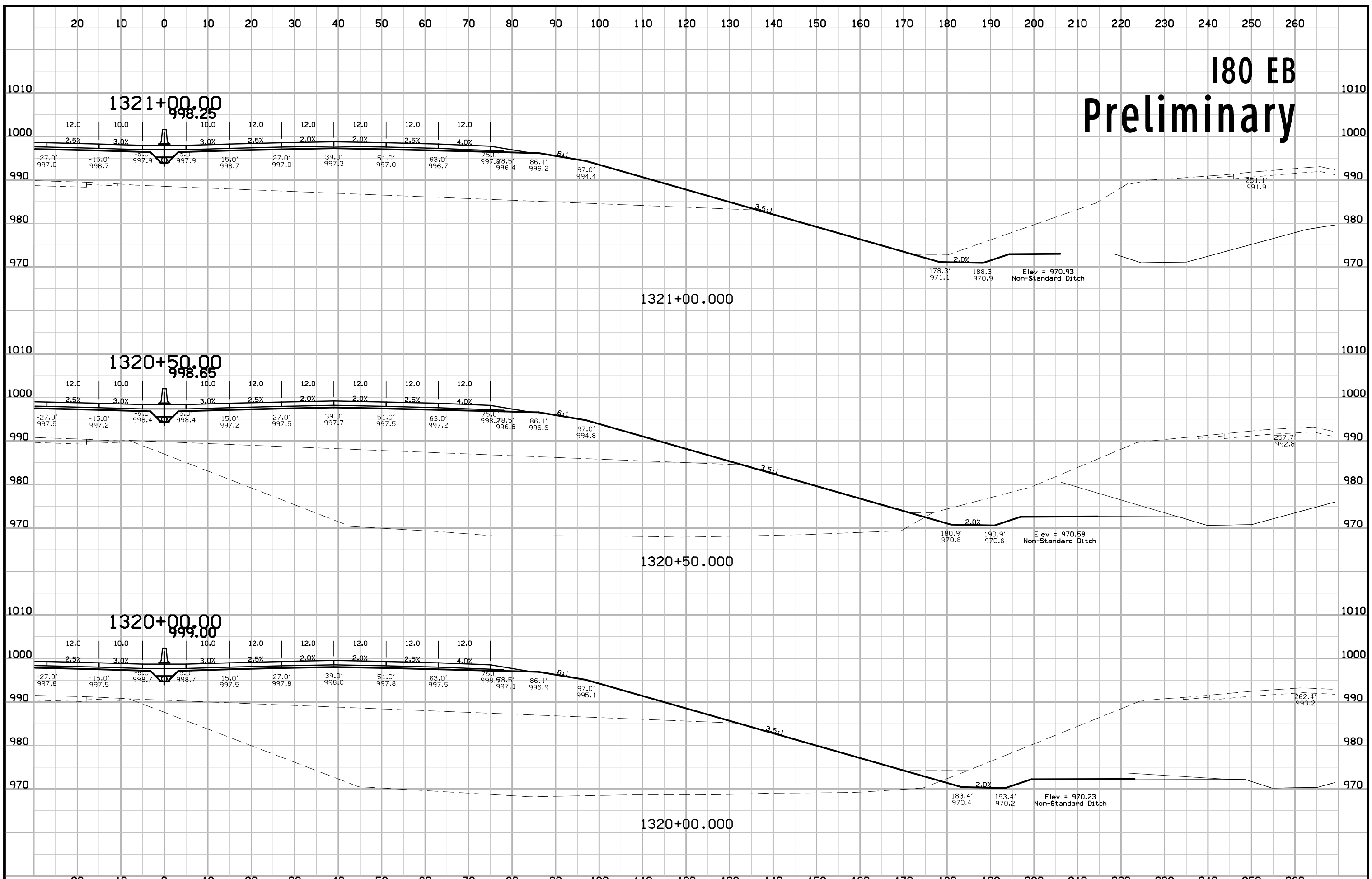
180 EB Preliminary



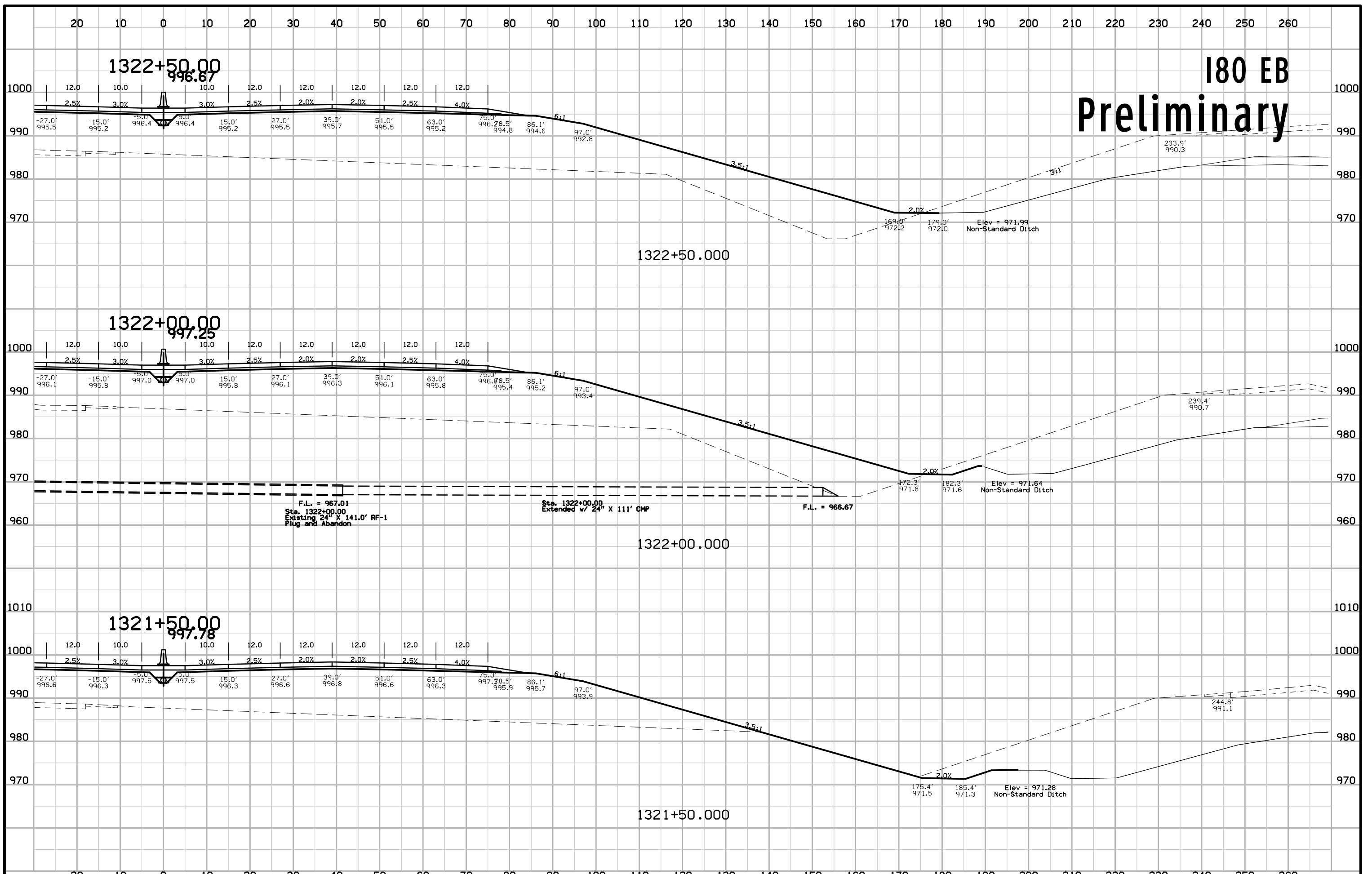
180 EB Preliminary



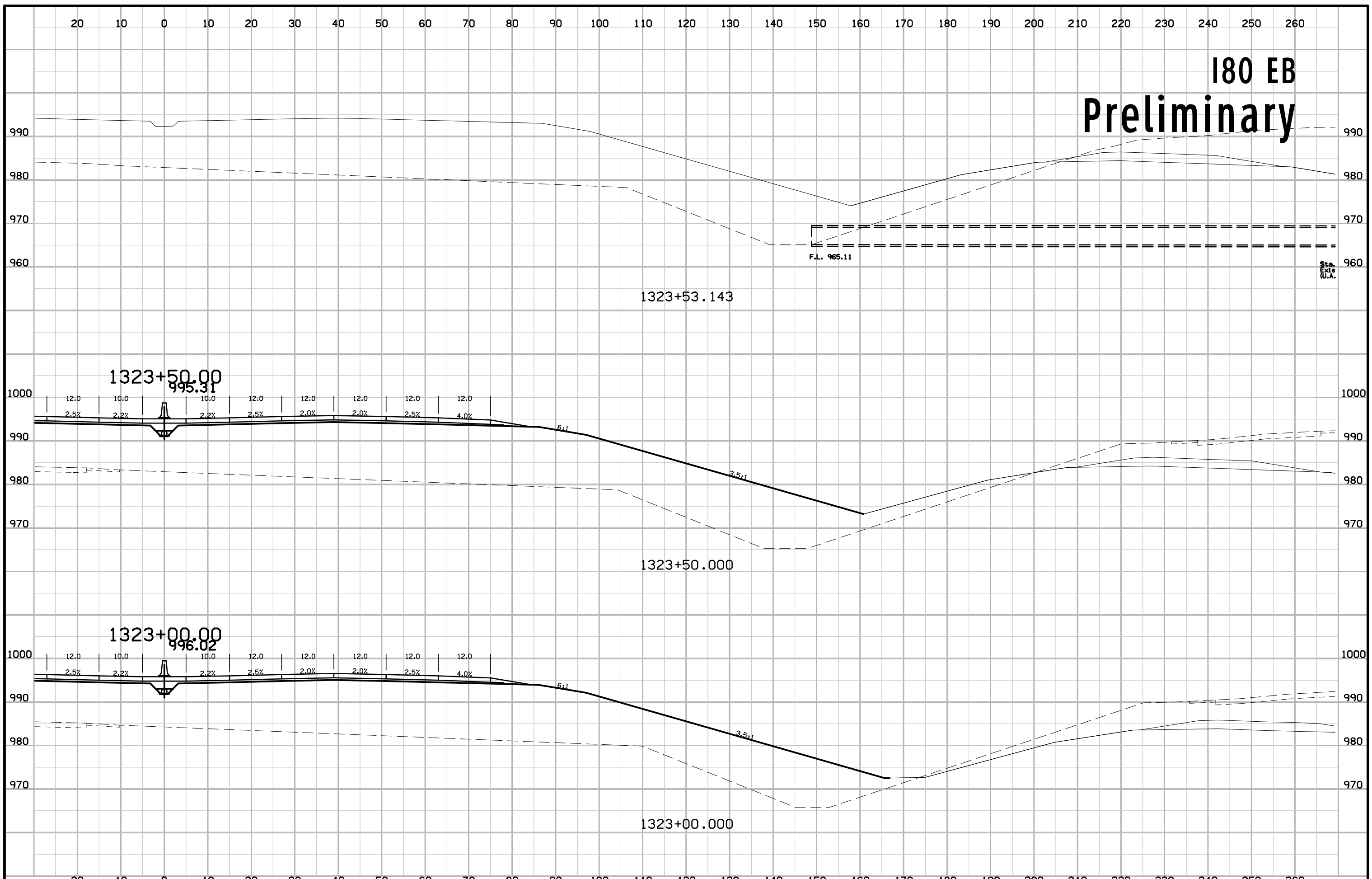
180 EB Preliminary



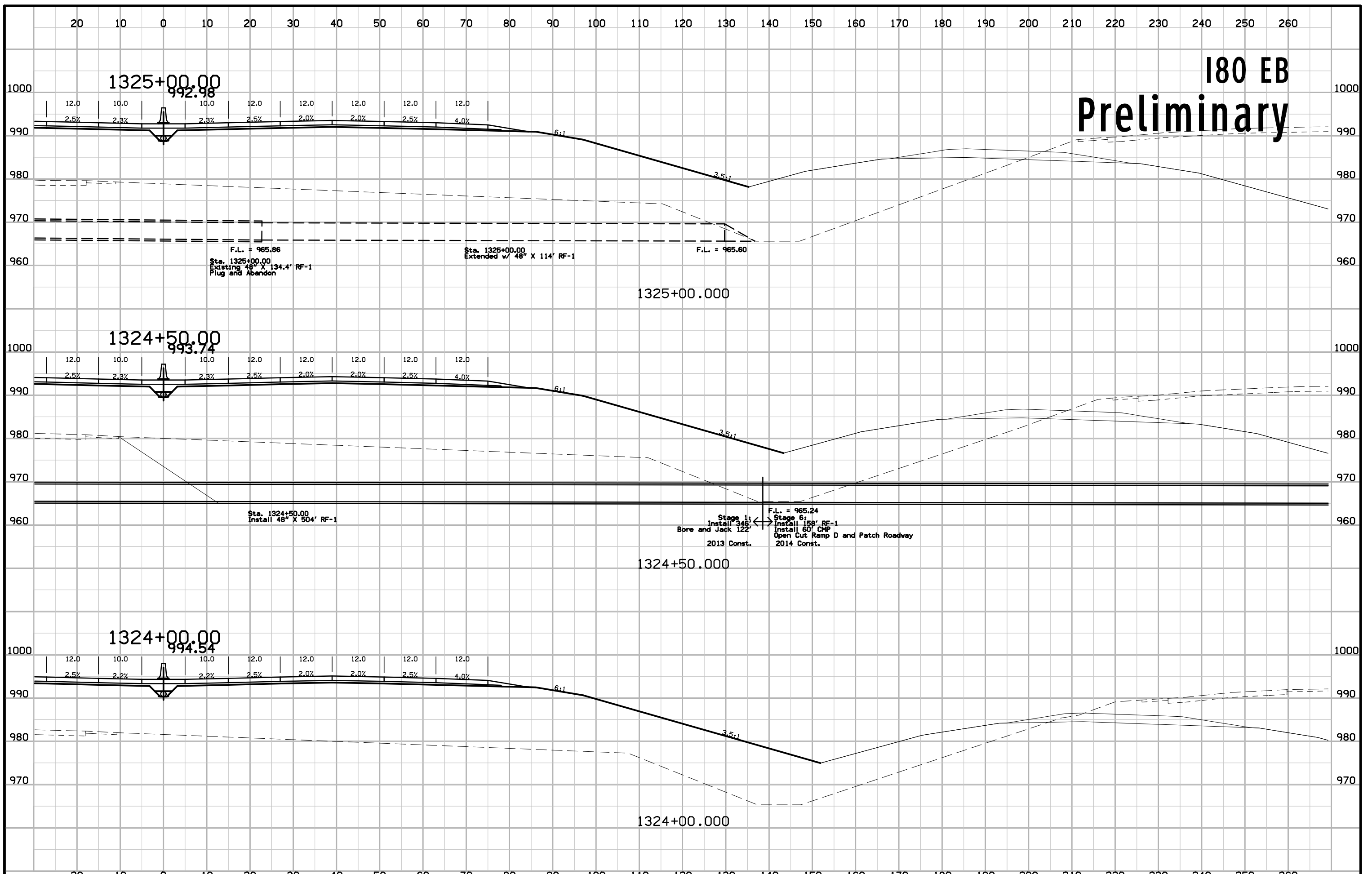
180 EB Preliminary

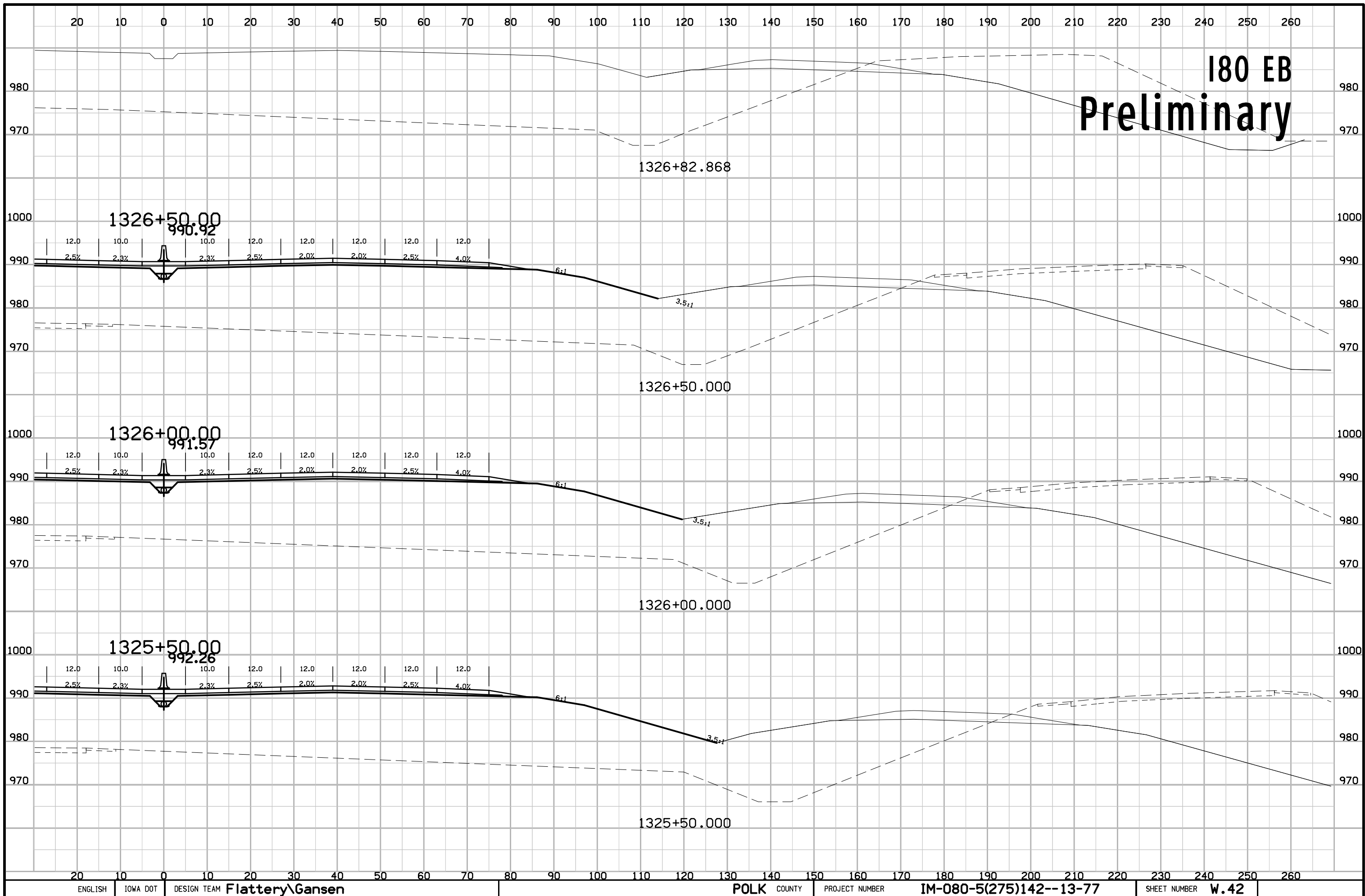


180 EB Preliminary

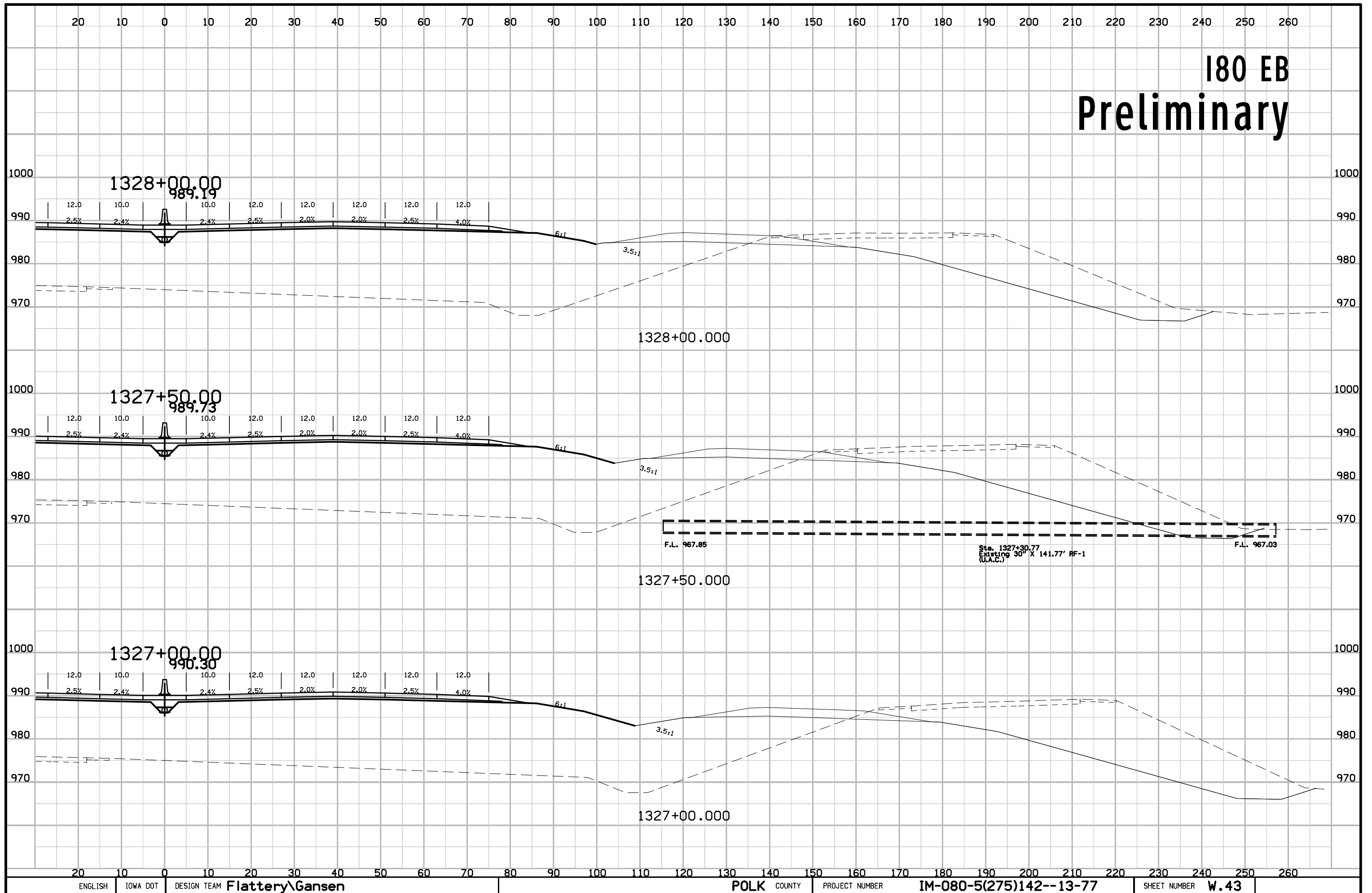


180 EB Preliminary

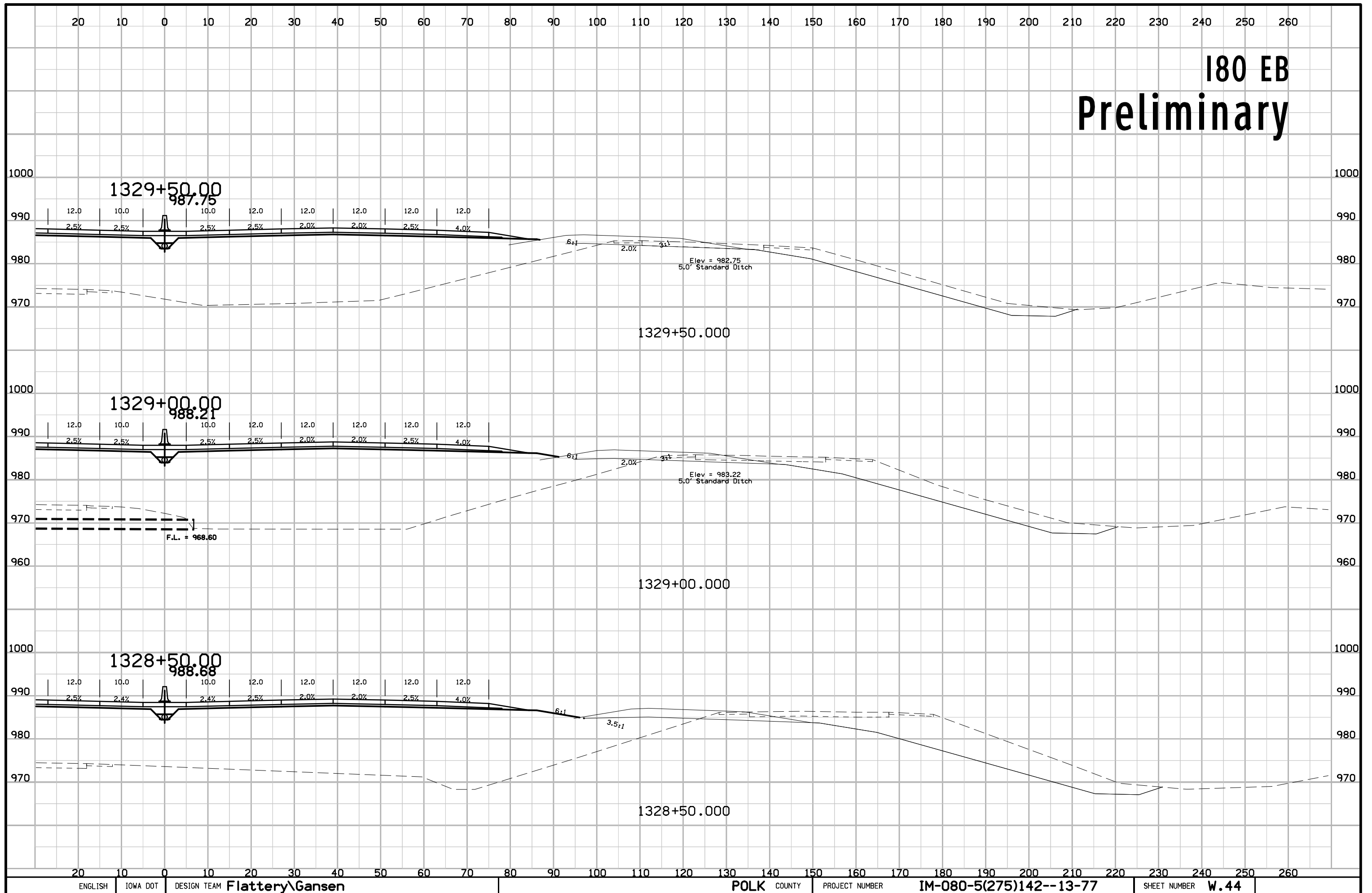




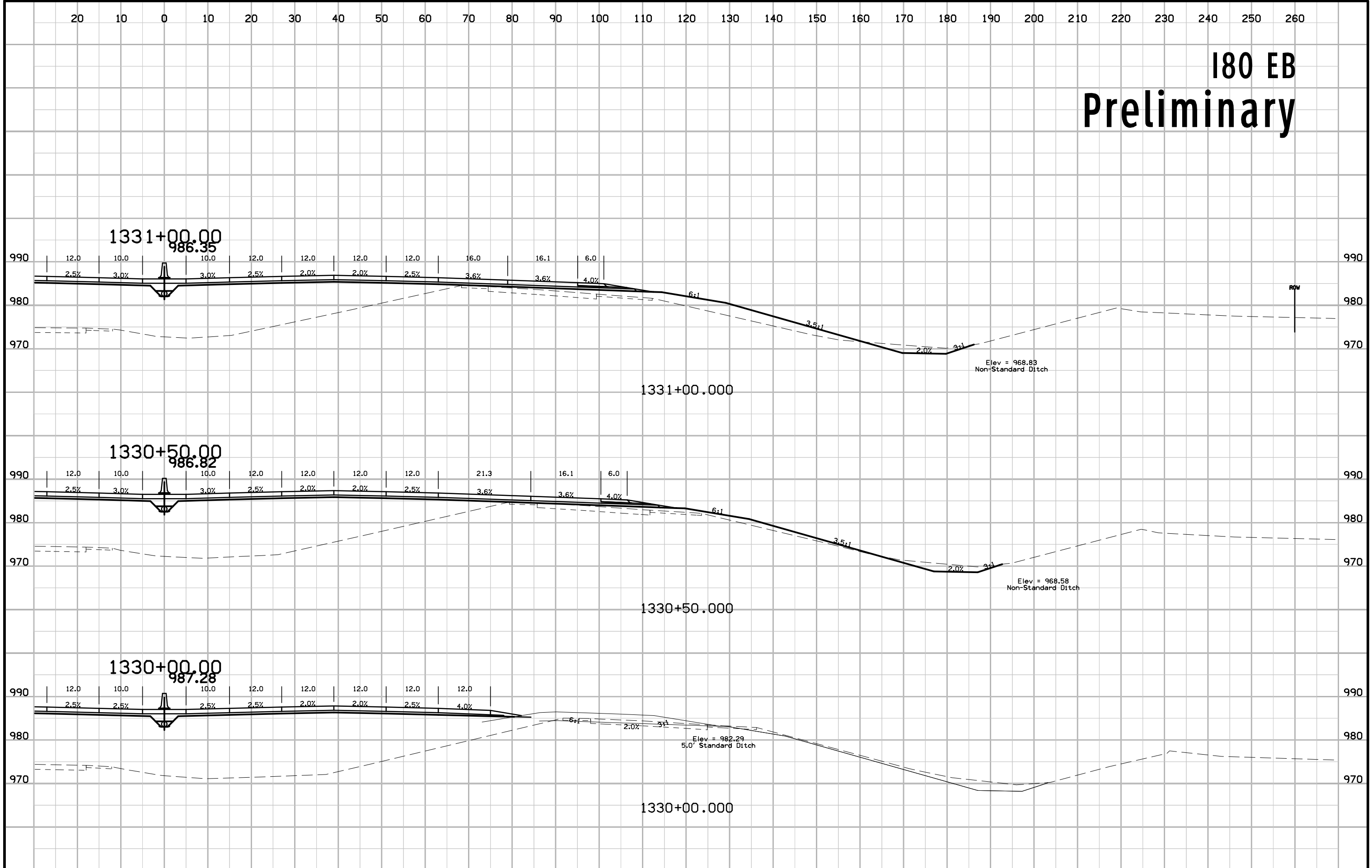
180 EB Preliminary



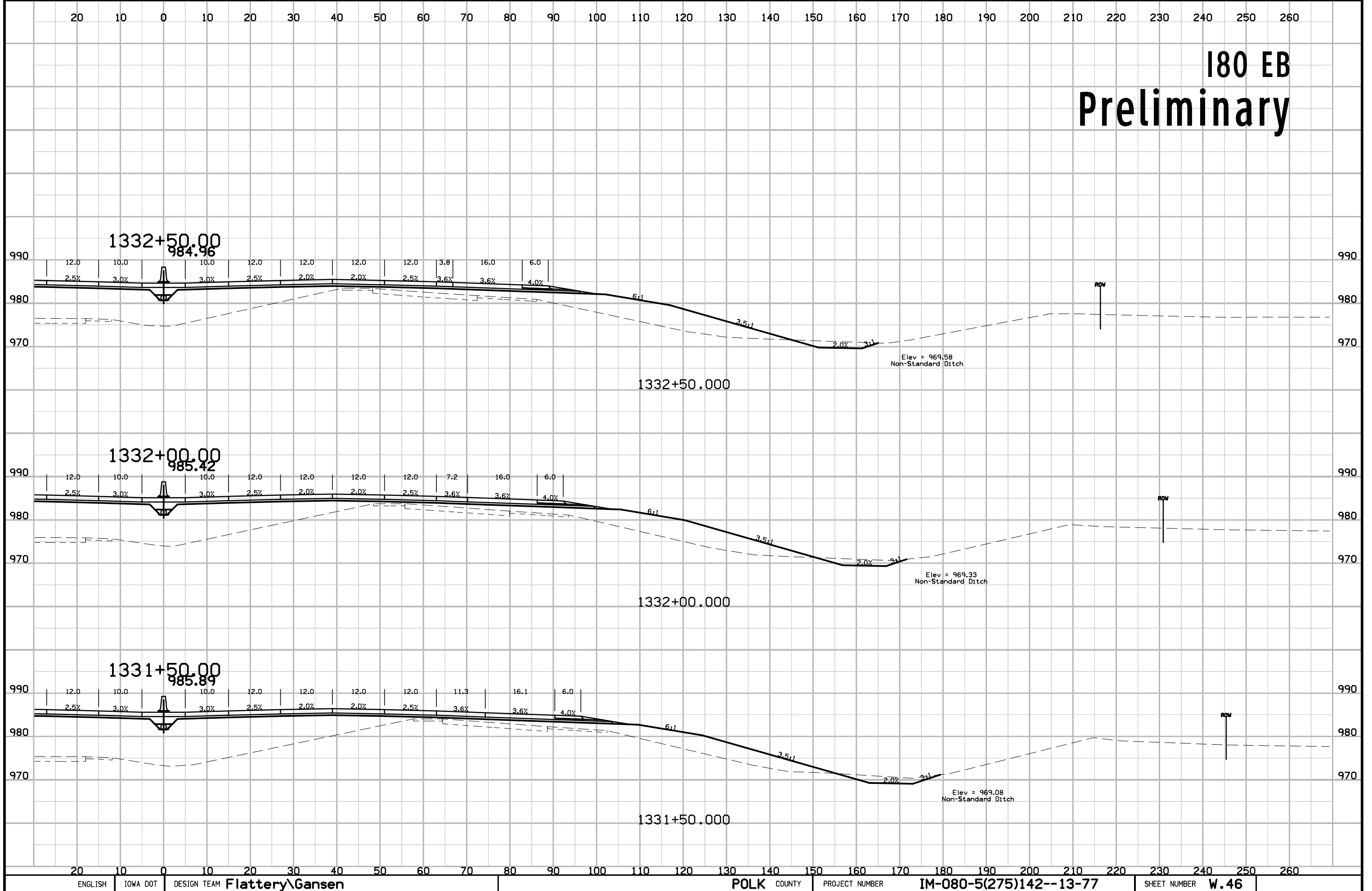
180 EB Preliminary



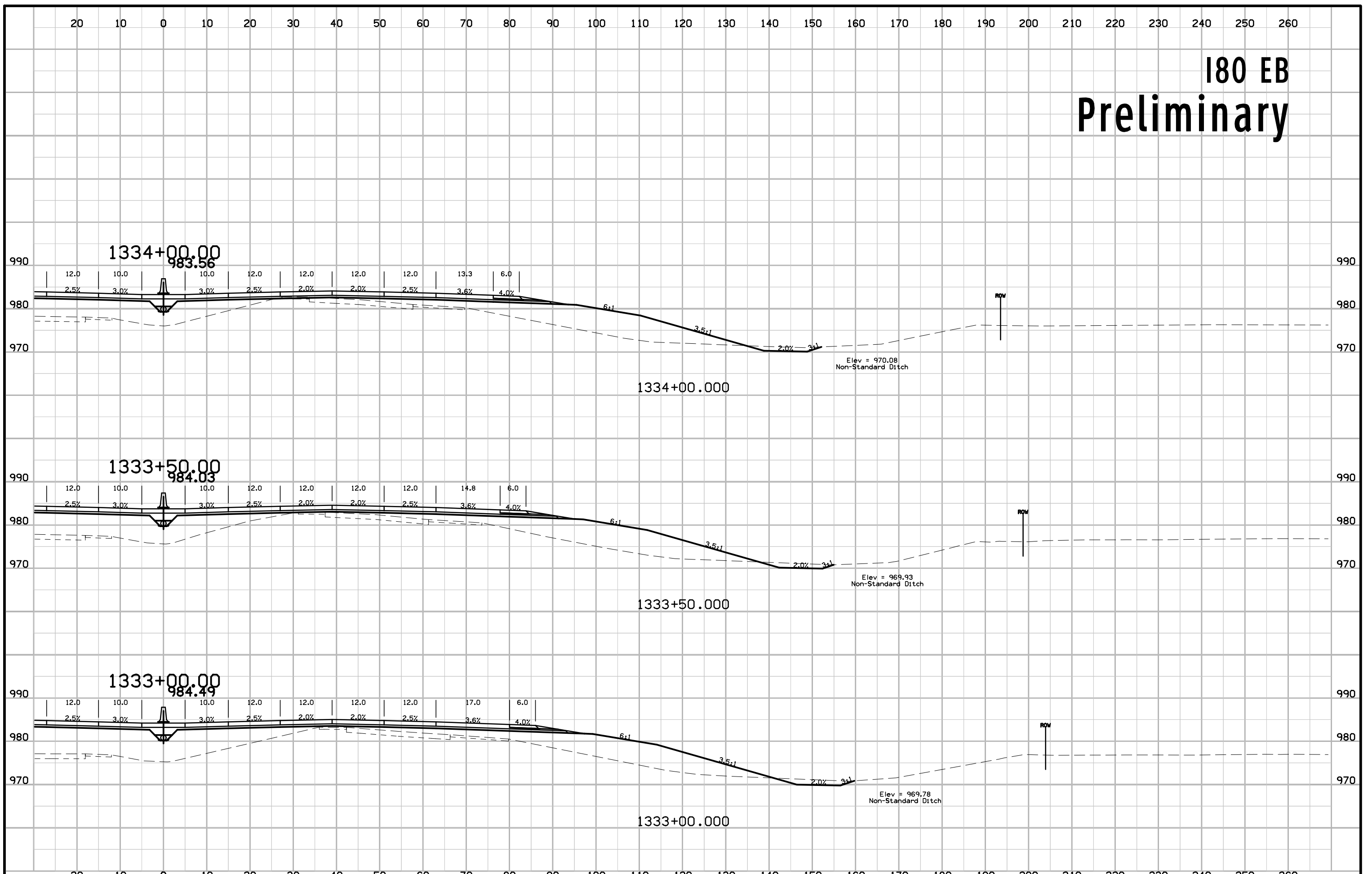
180 EB Preliminary



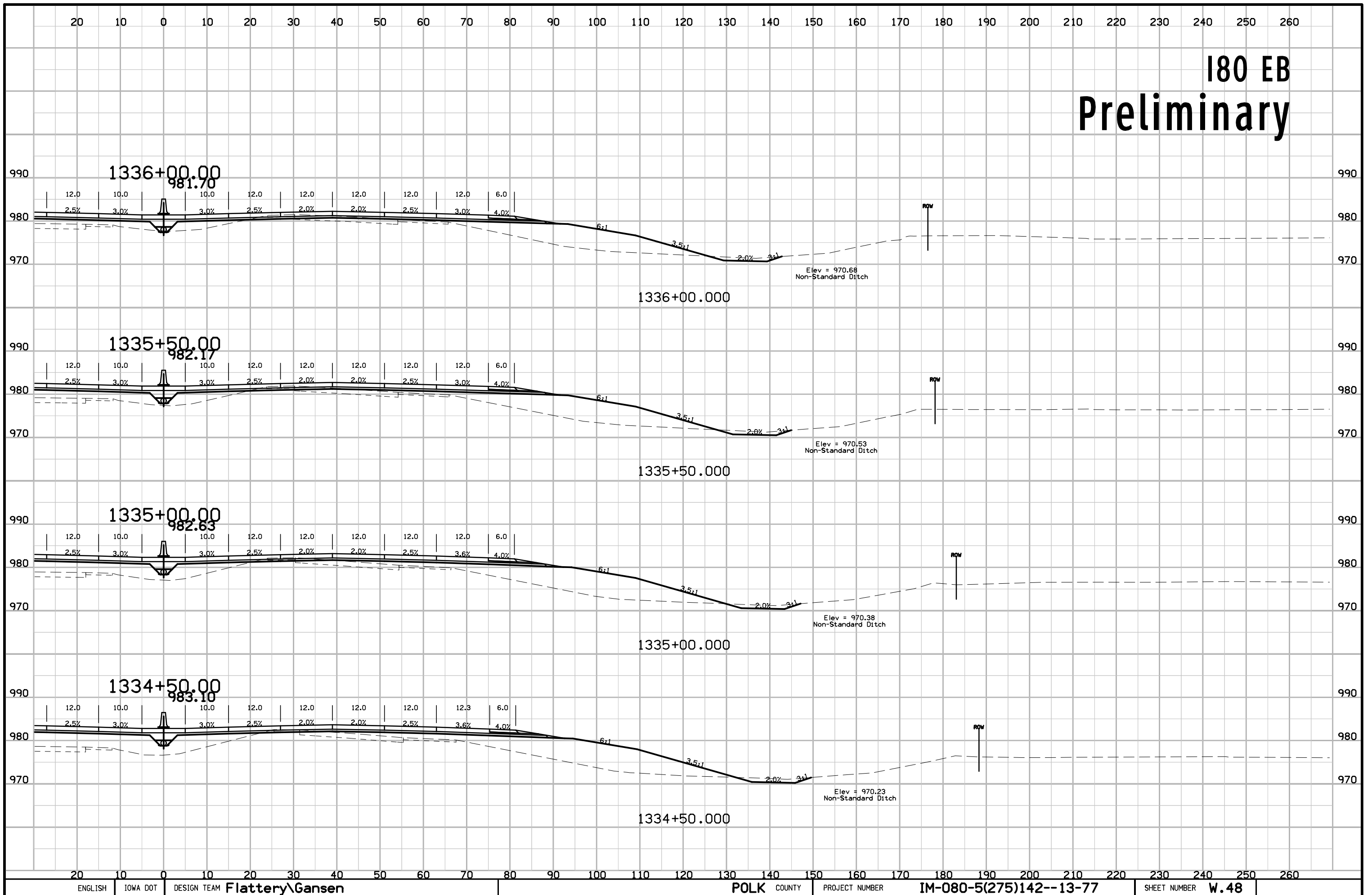
180 EB Preliminary



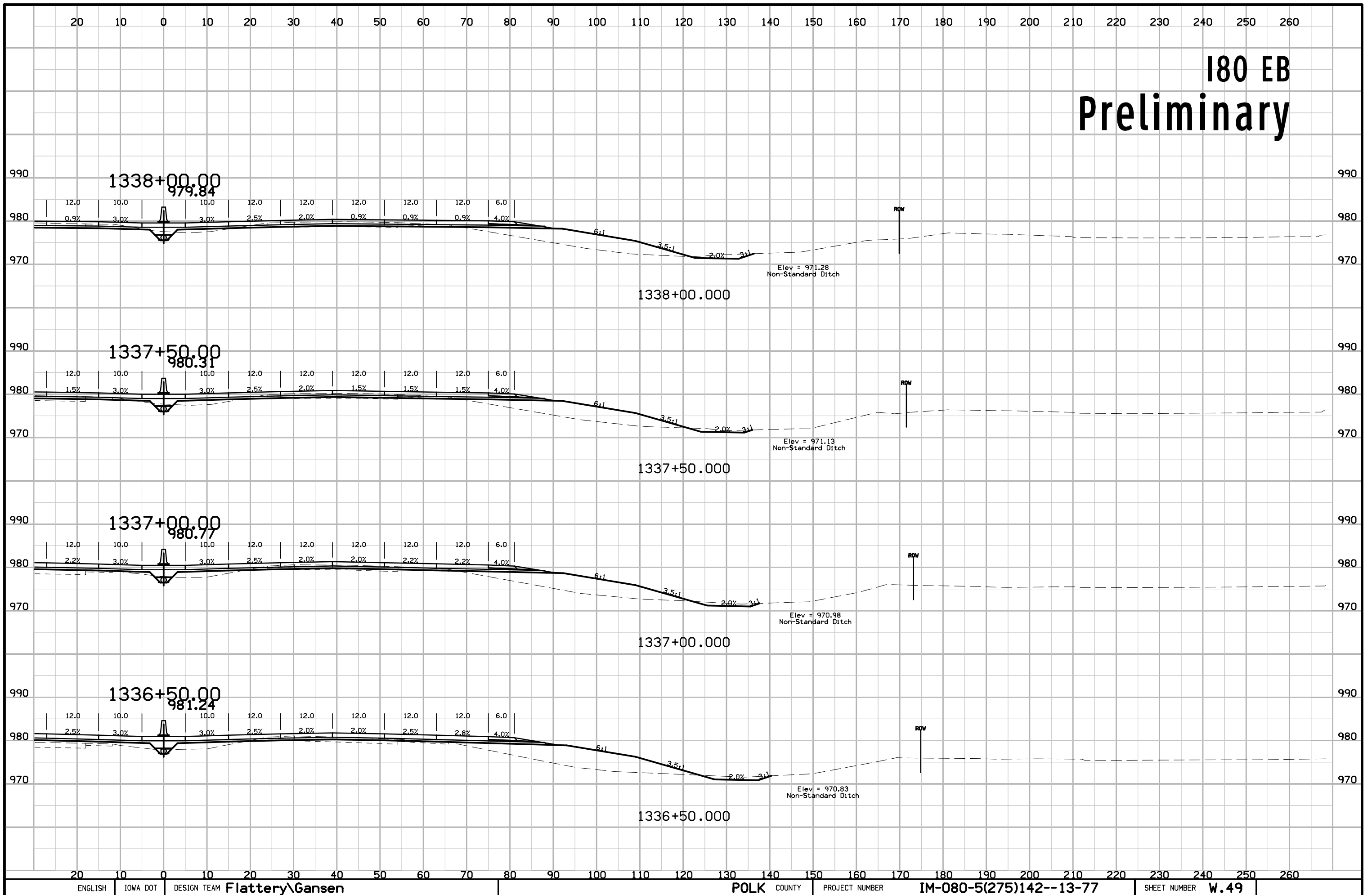
180 EB Preliminary



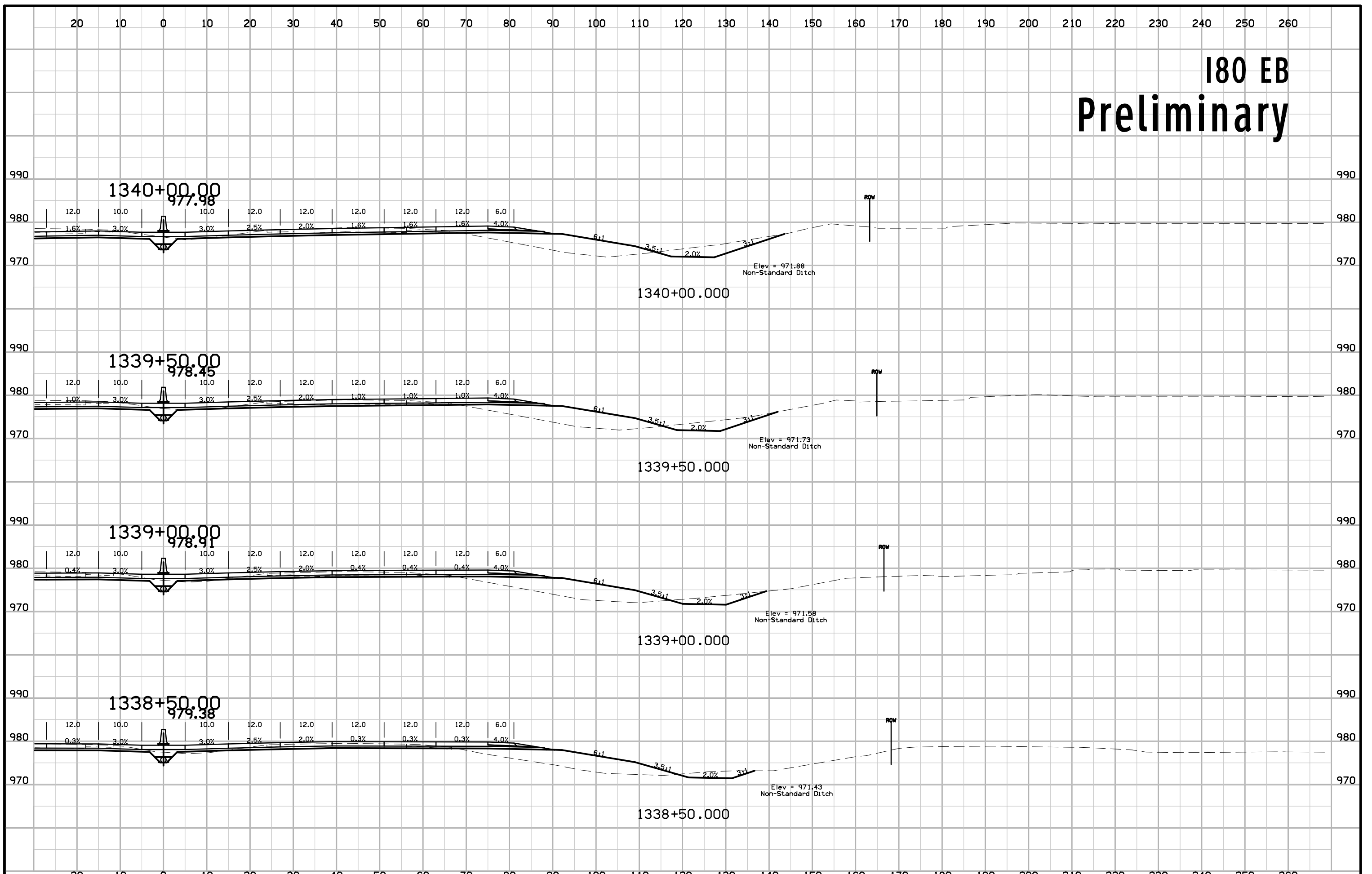
180 EB Preliminary



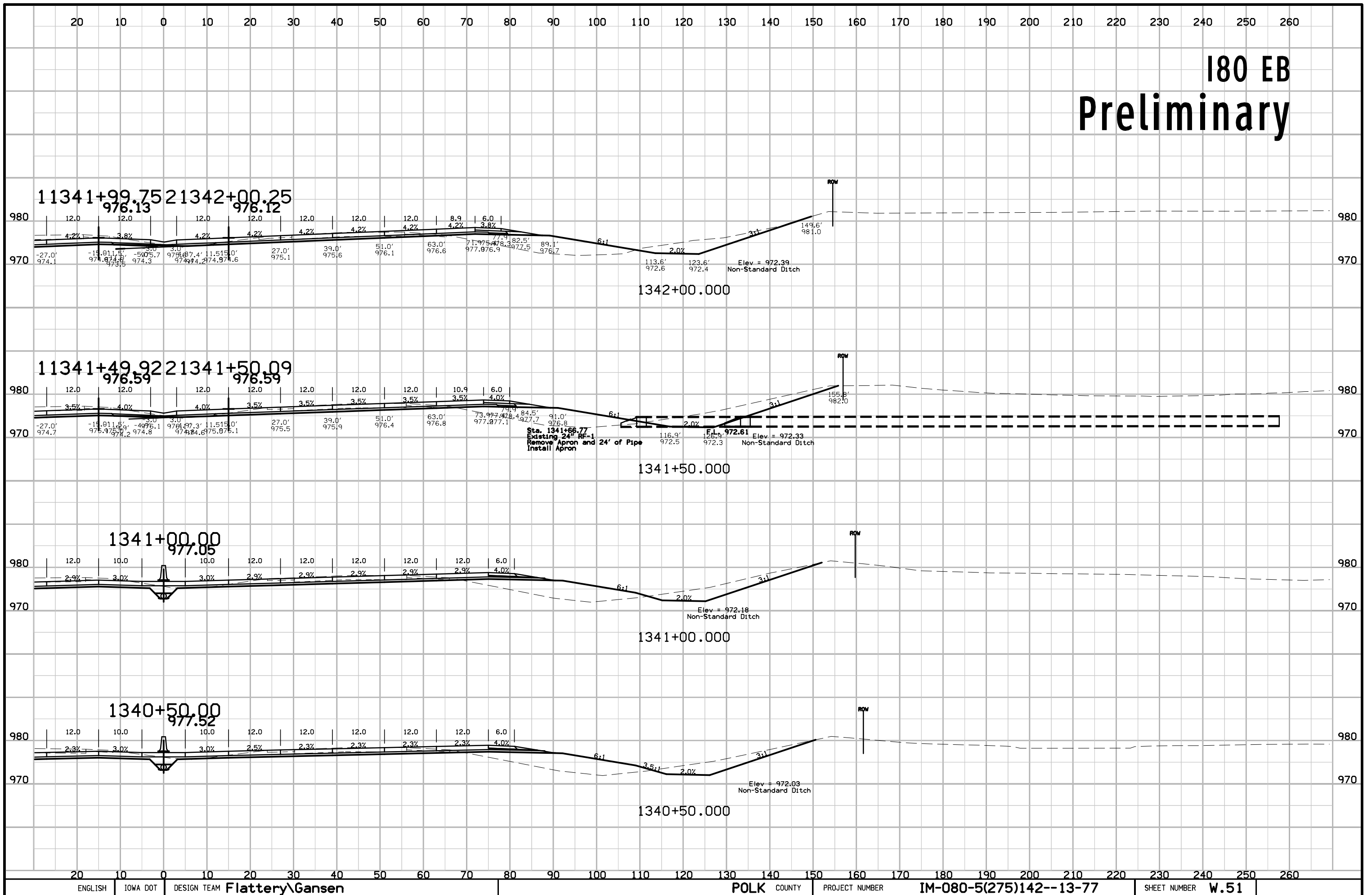
180 EB Preliminary



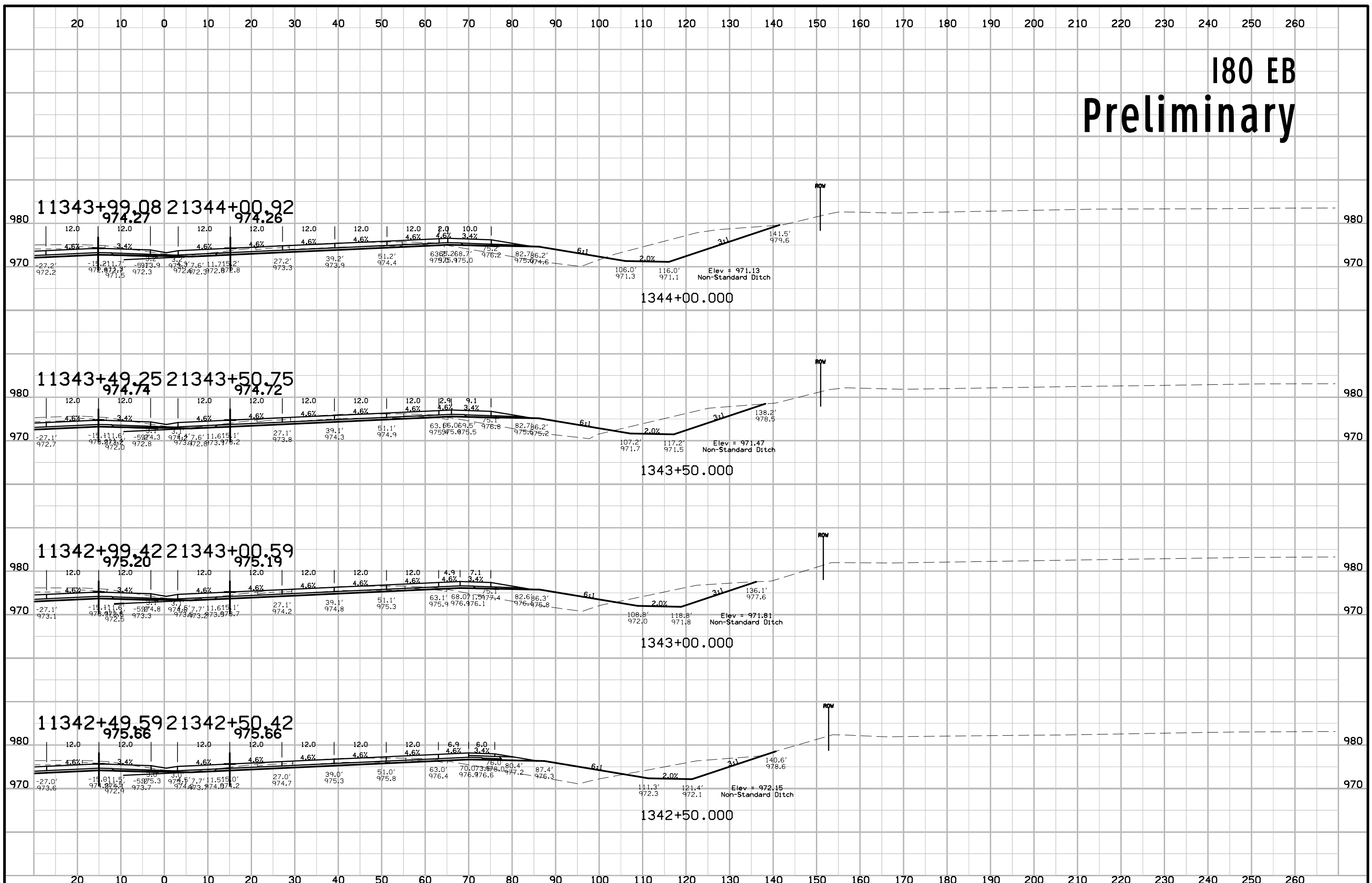
180 EB Preliminary



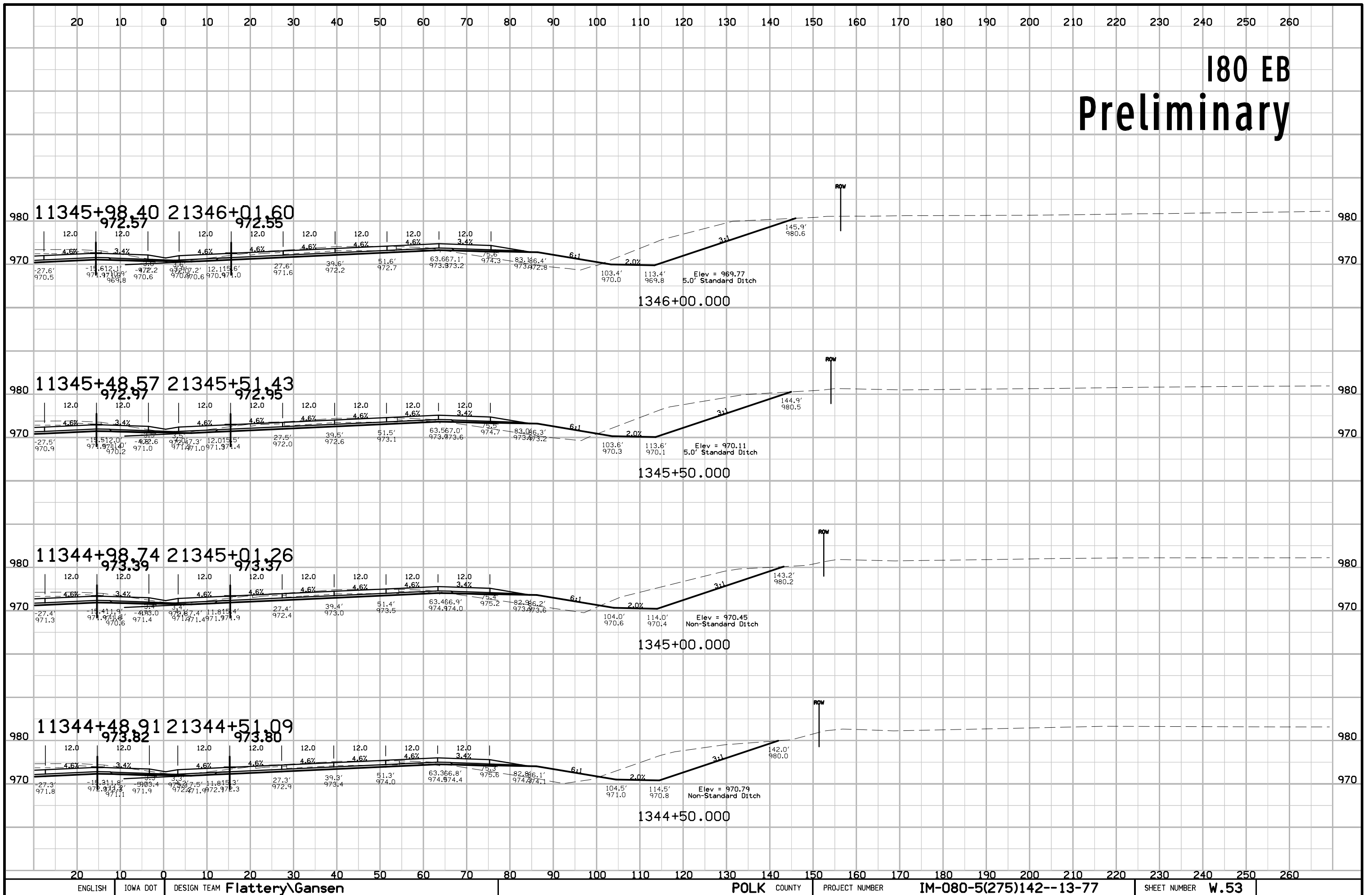
180 EB Preliminary



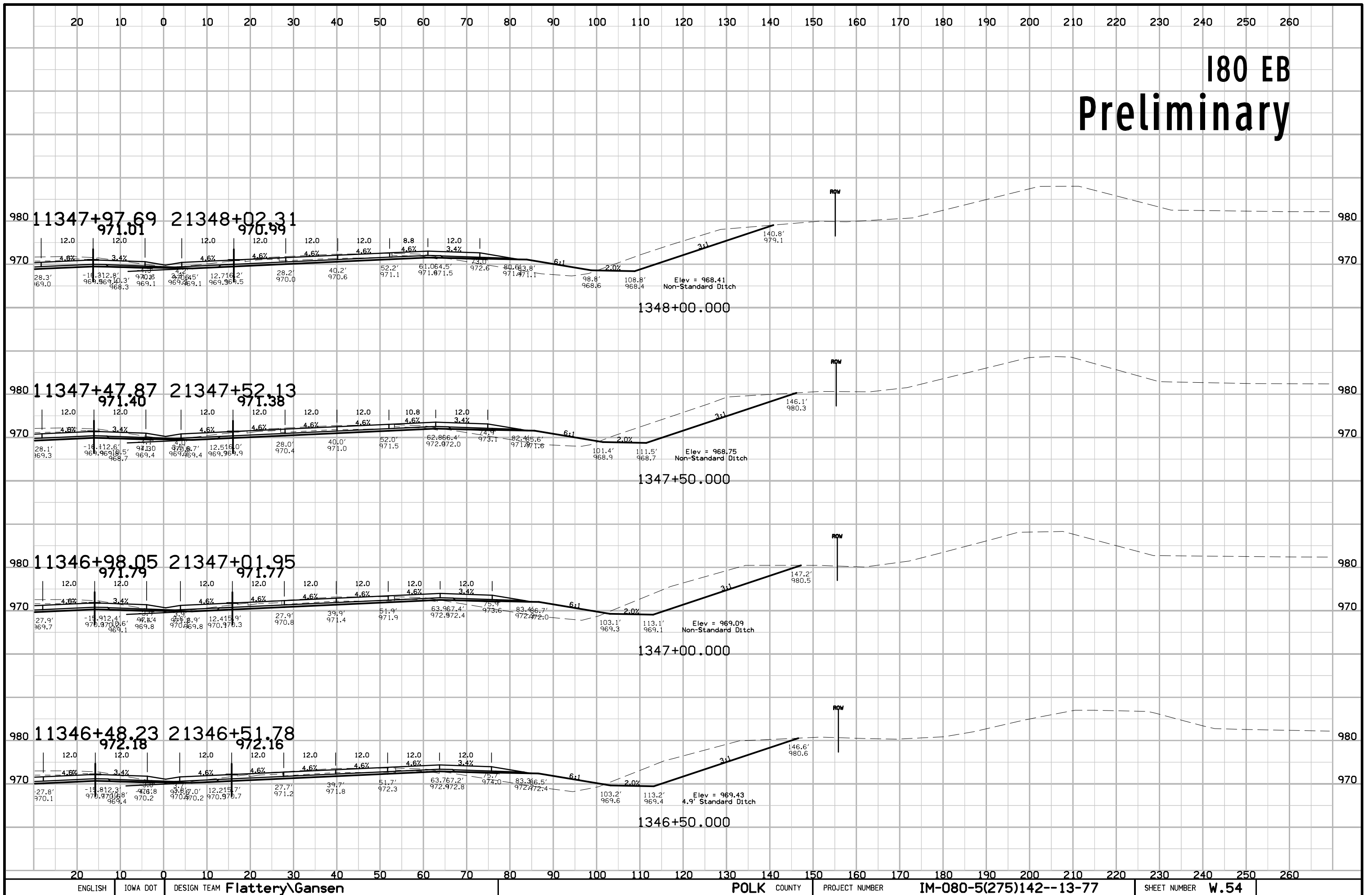
180 EB Preliminary



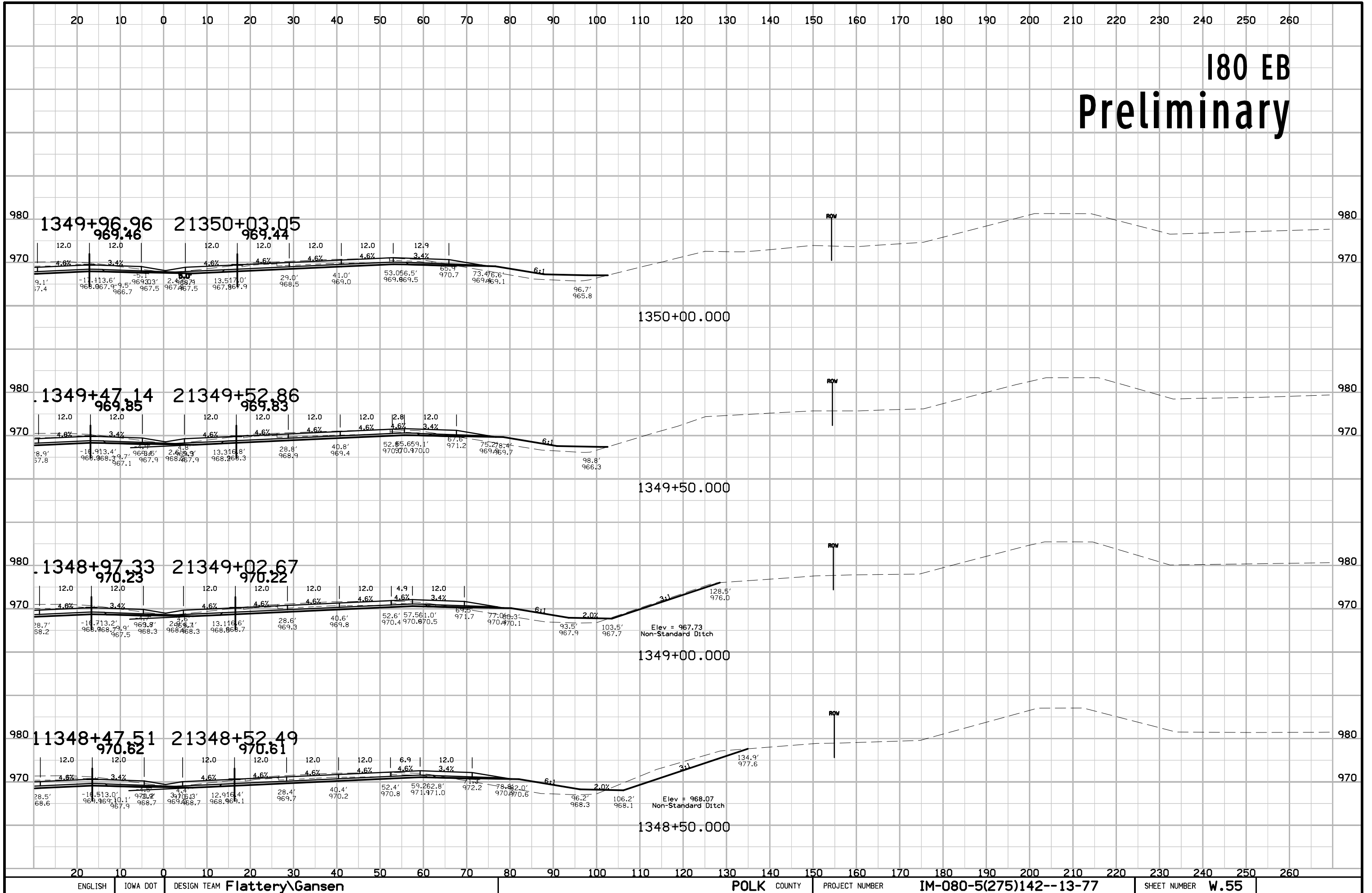
180 EB Preliminary

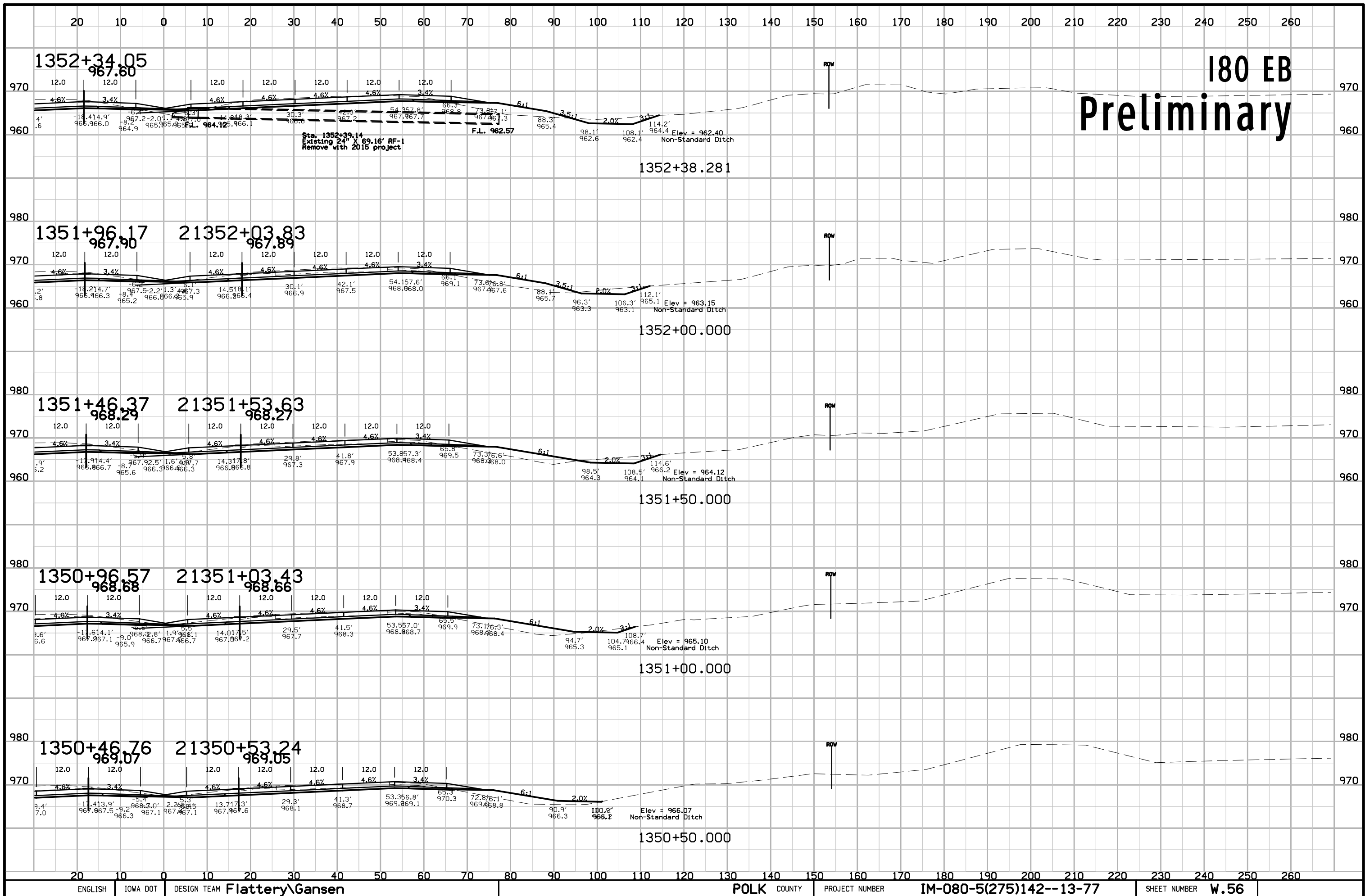


180 EB Preliminary



180 EB Preliminary





180 EB
Preliminary

Sta. 1352+39.14
Existing 24" X 69.16' RF-1
Remove with 2015 project

1352+38.281

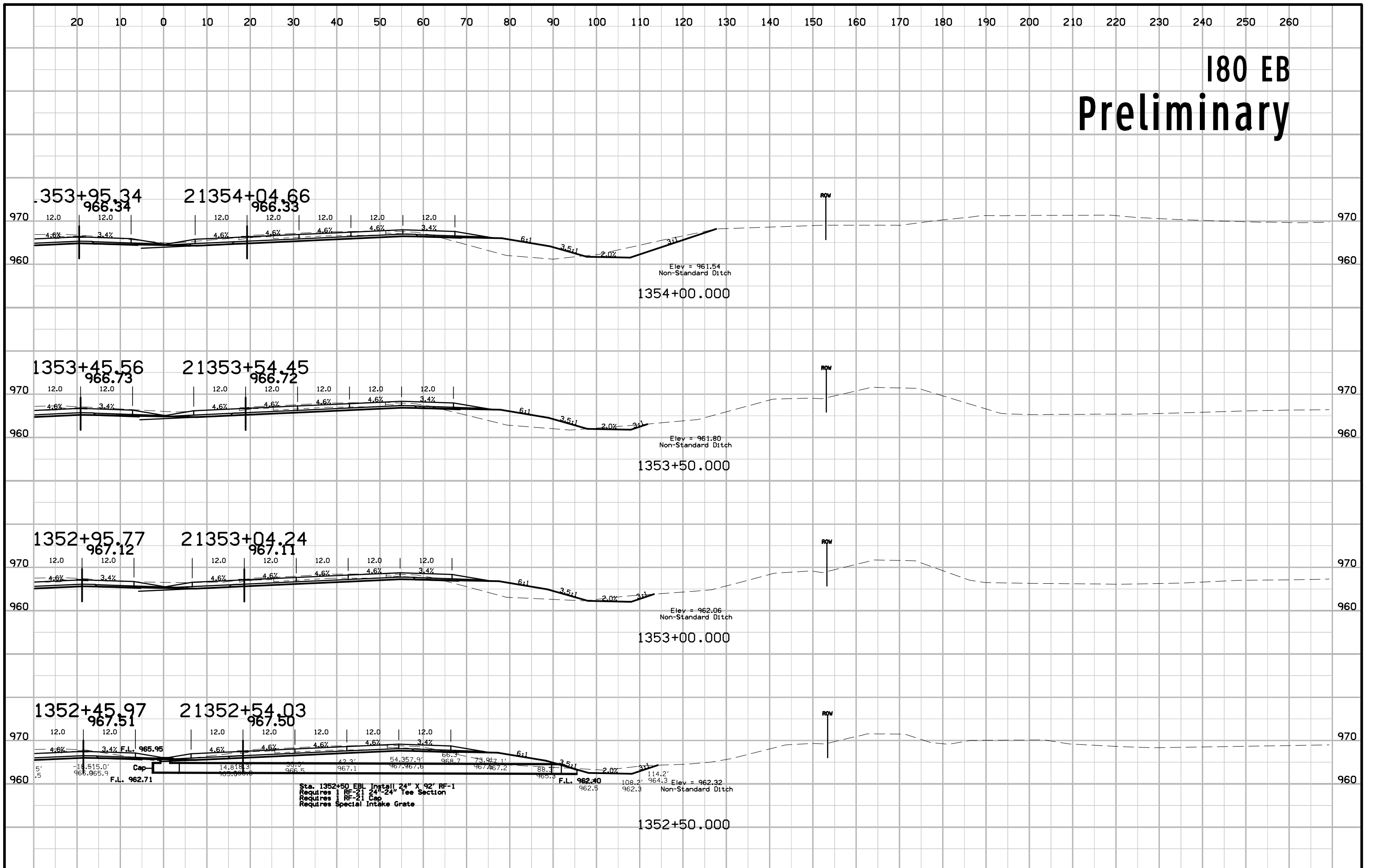
1352+00.000

1351+50.000

1351+00.000

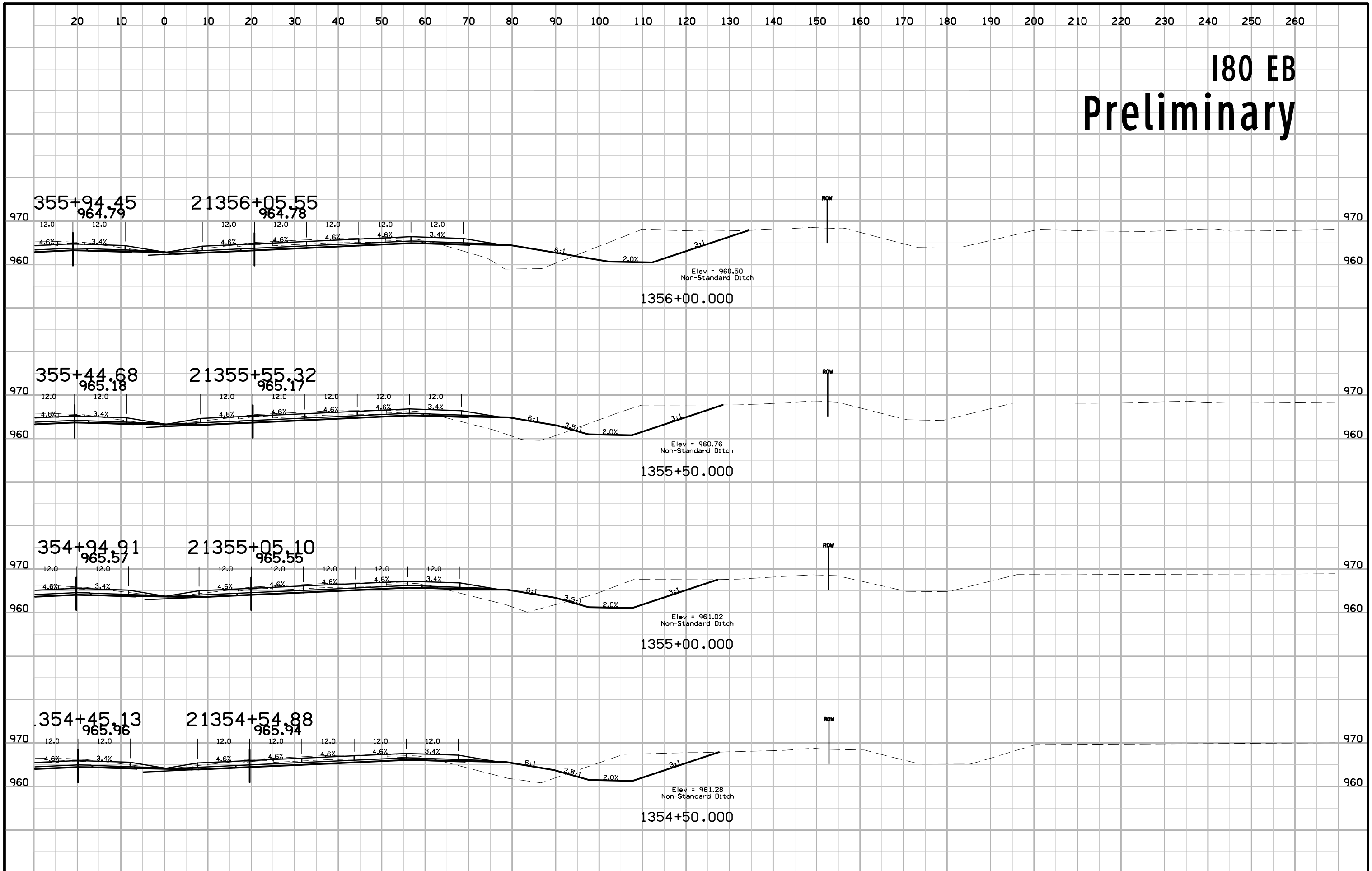
1350+50.000

180 EB Preliminary

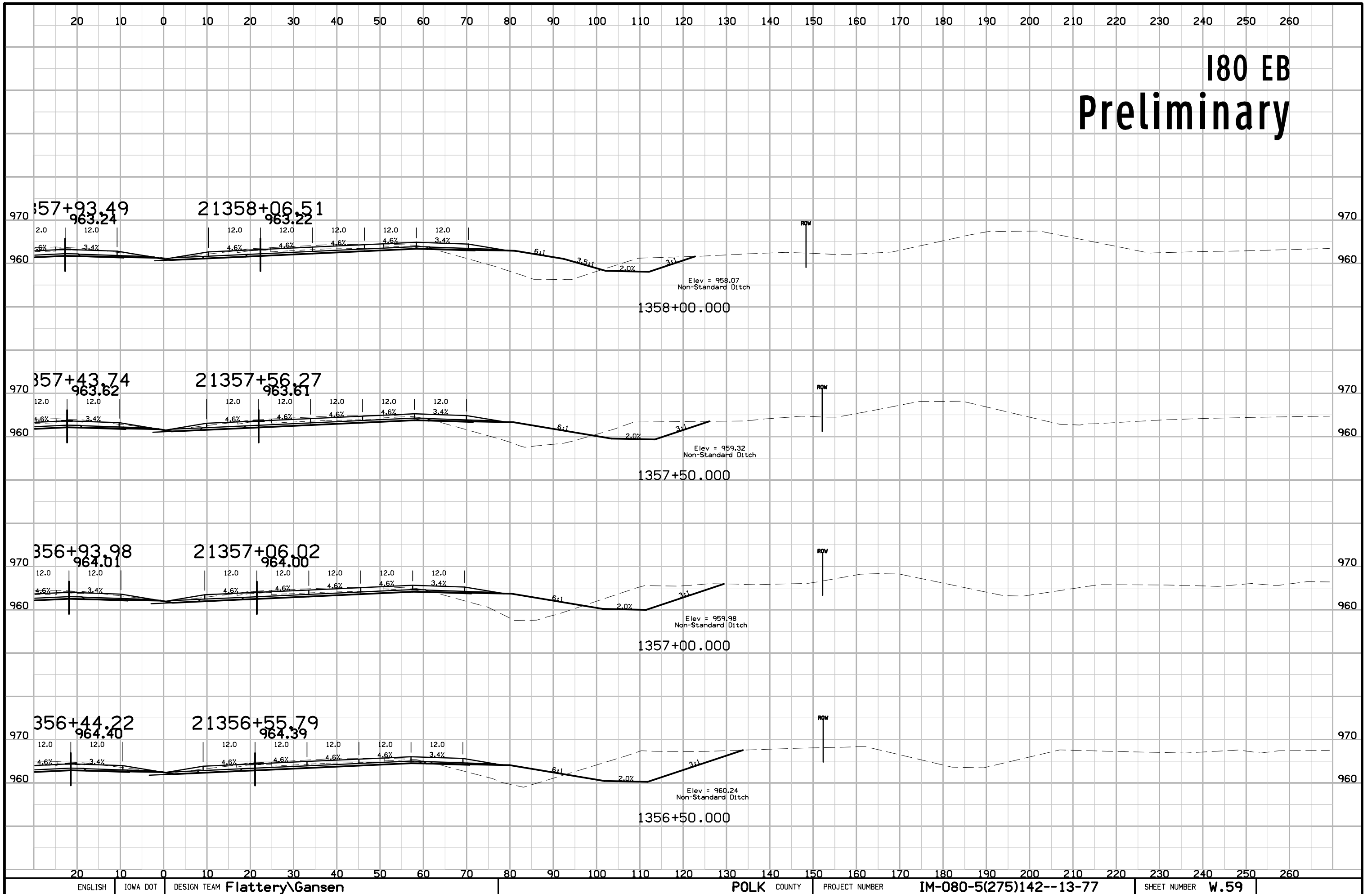


Sta. 1352+50 EBL Install 24" X 92' RF-1
Requires 1 RF-21 24"-24" Tee Section
Requires 1 RF-21 Cap
Requires Special Intake Grate

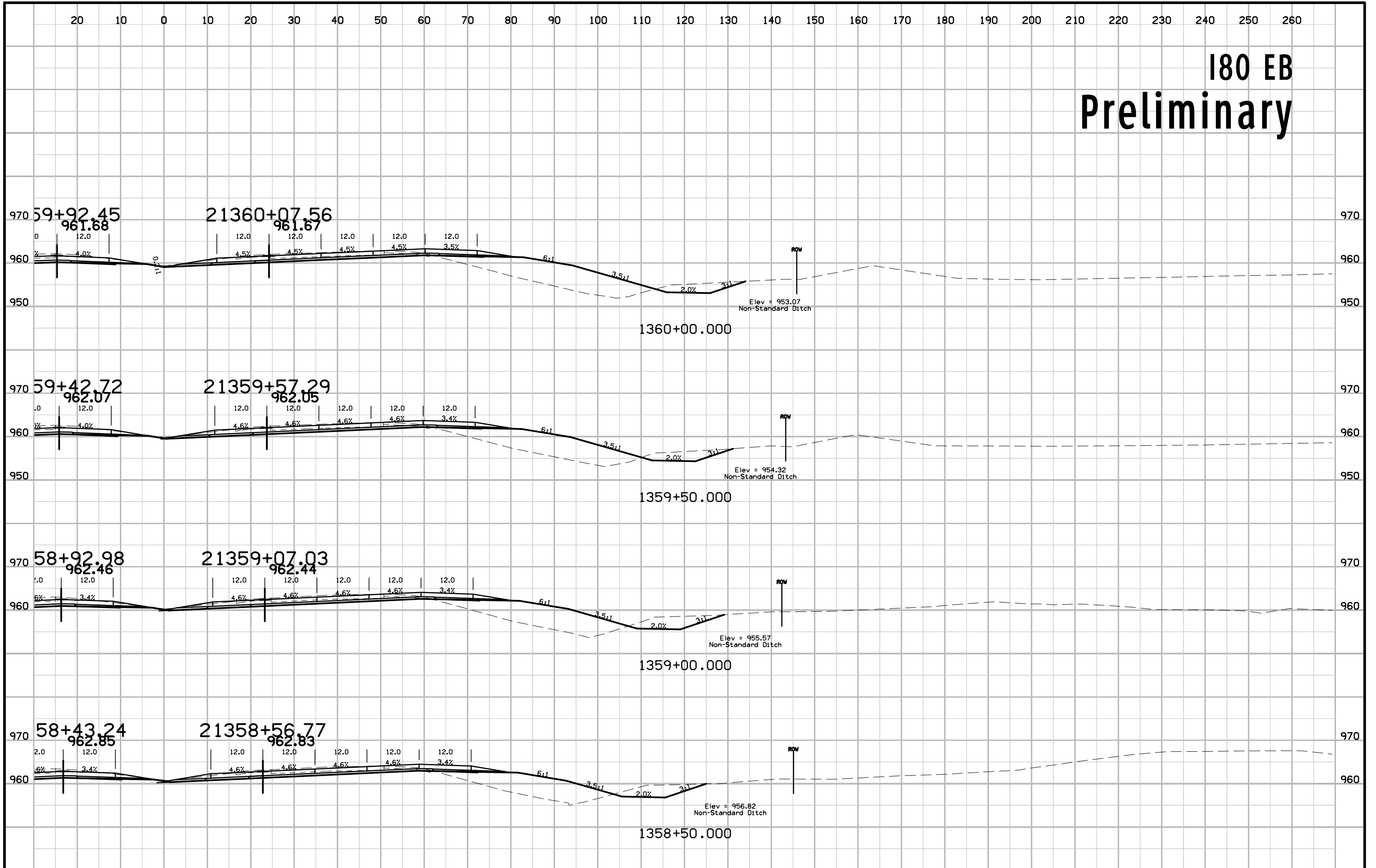
180 EB Preliminary



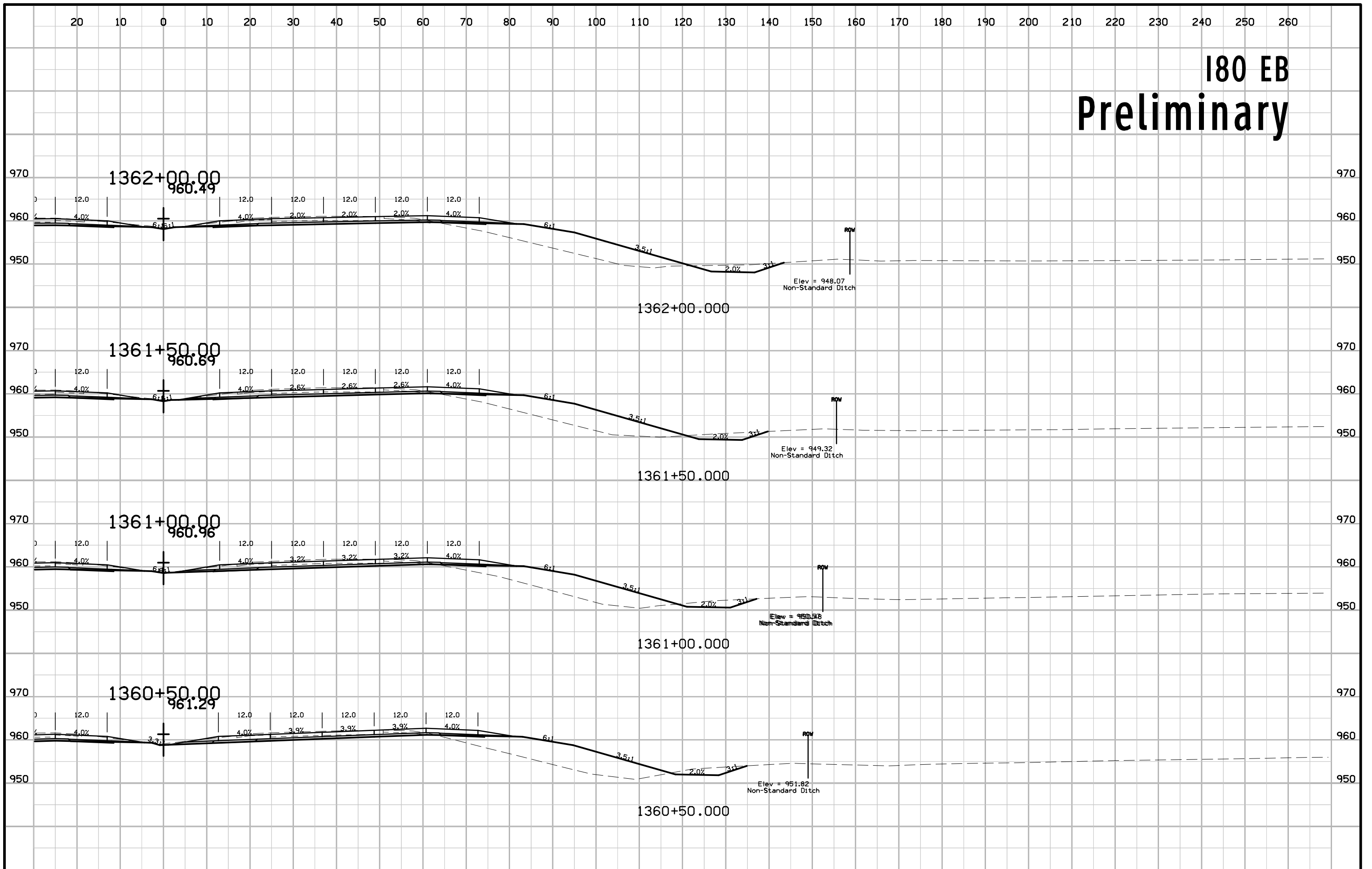
180 EB Preliminary



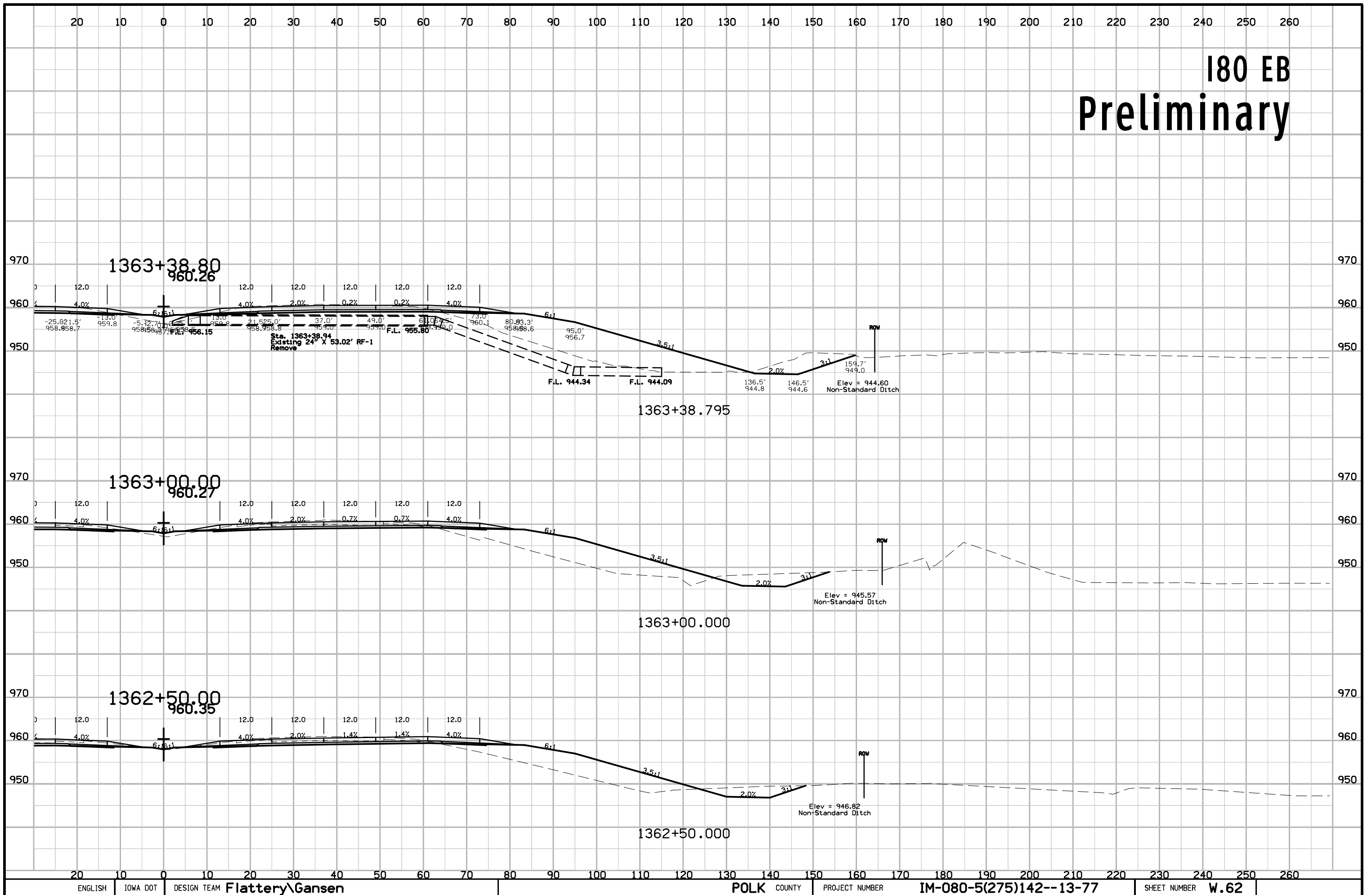
180 EB Preliminary



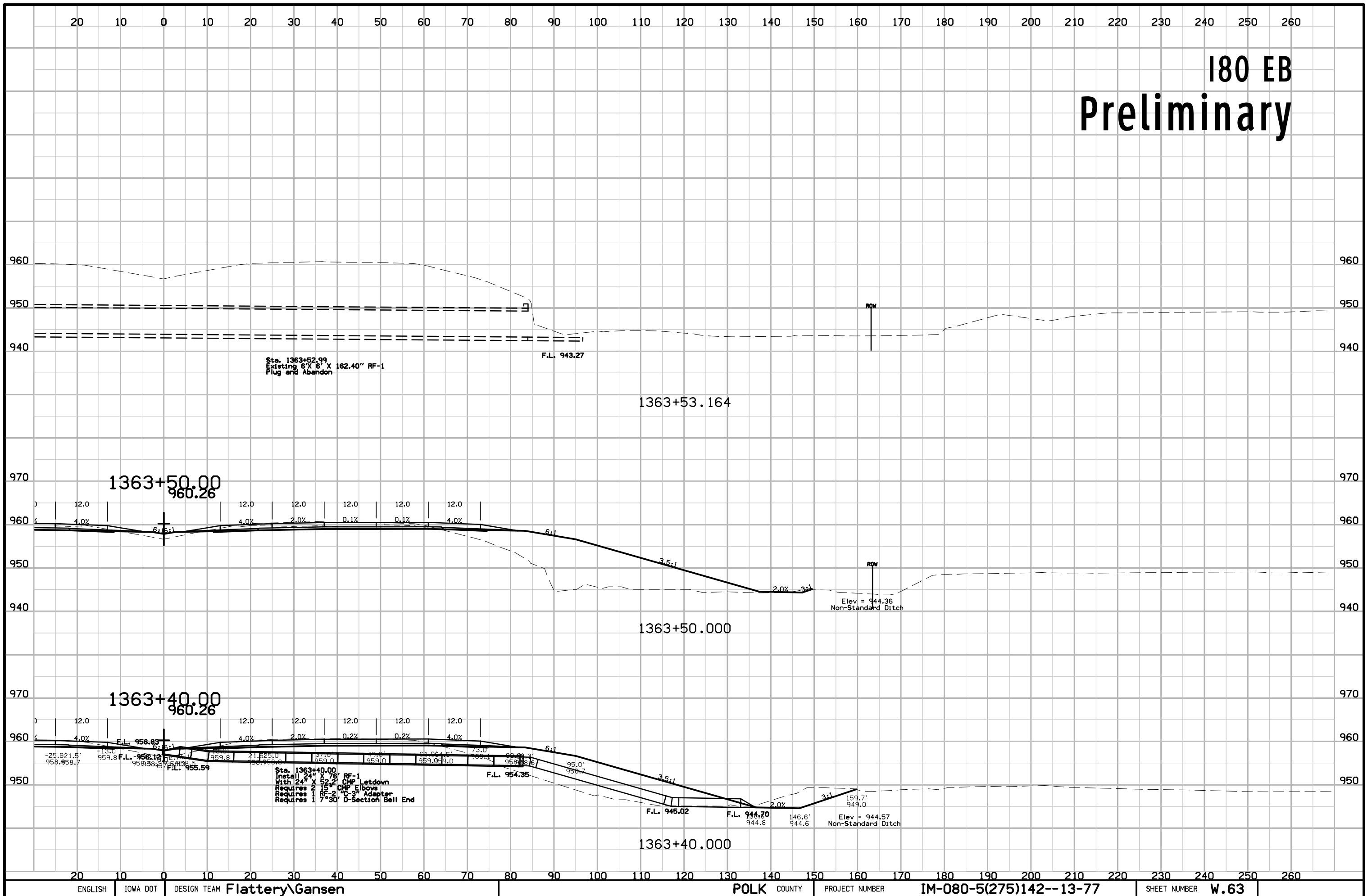
180 EB Preliminary



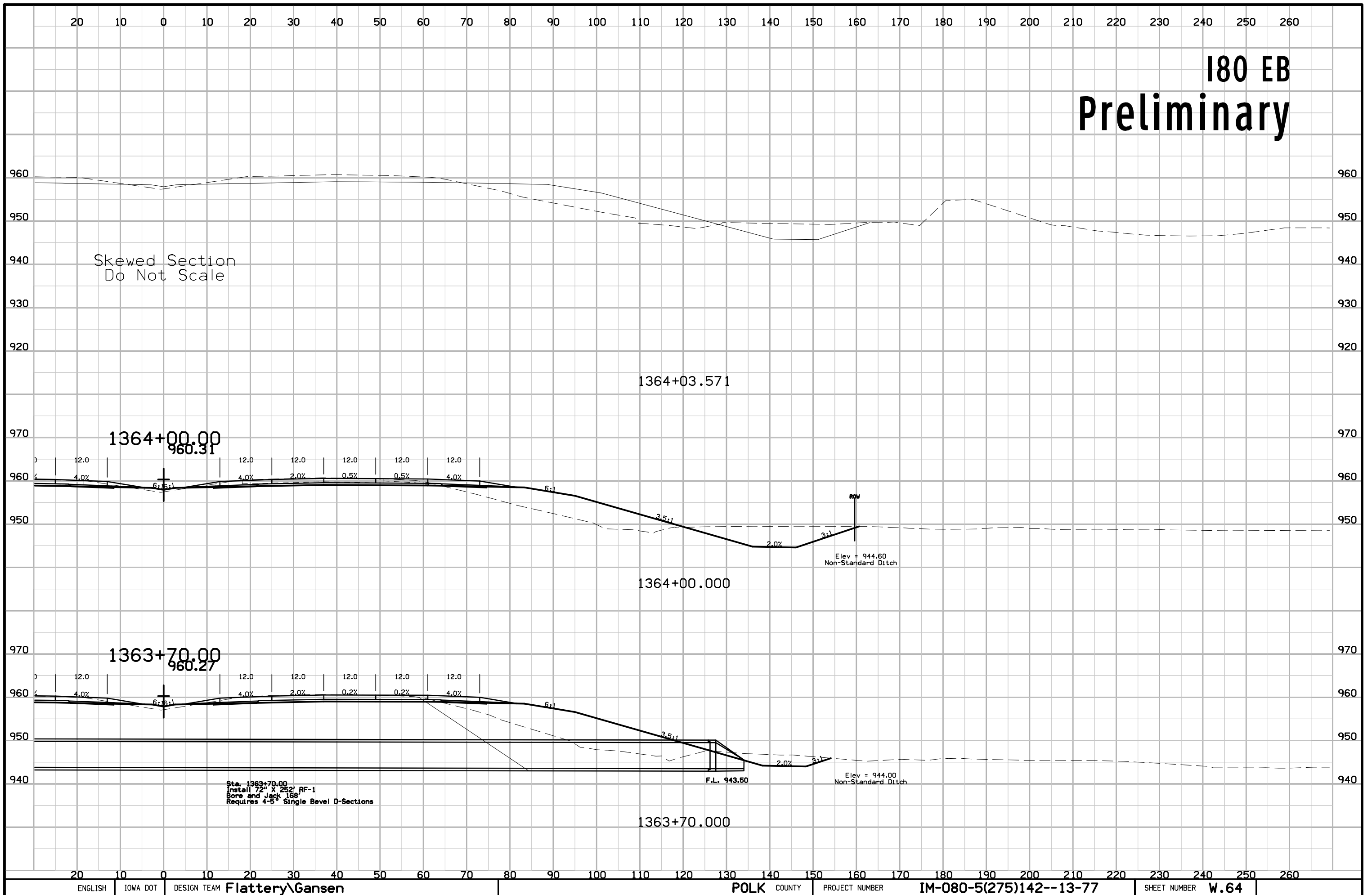
180 EB Preliminary



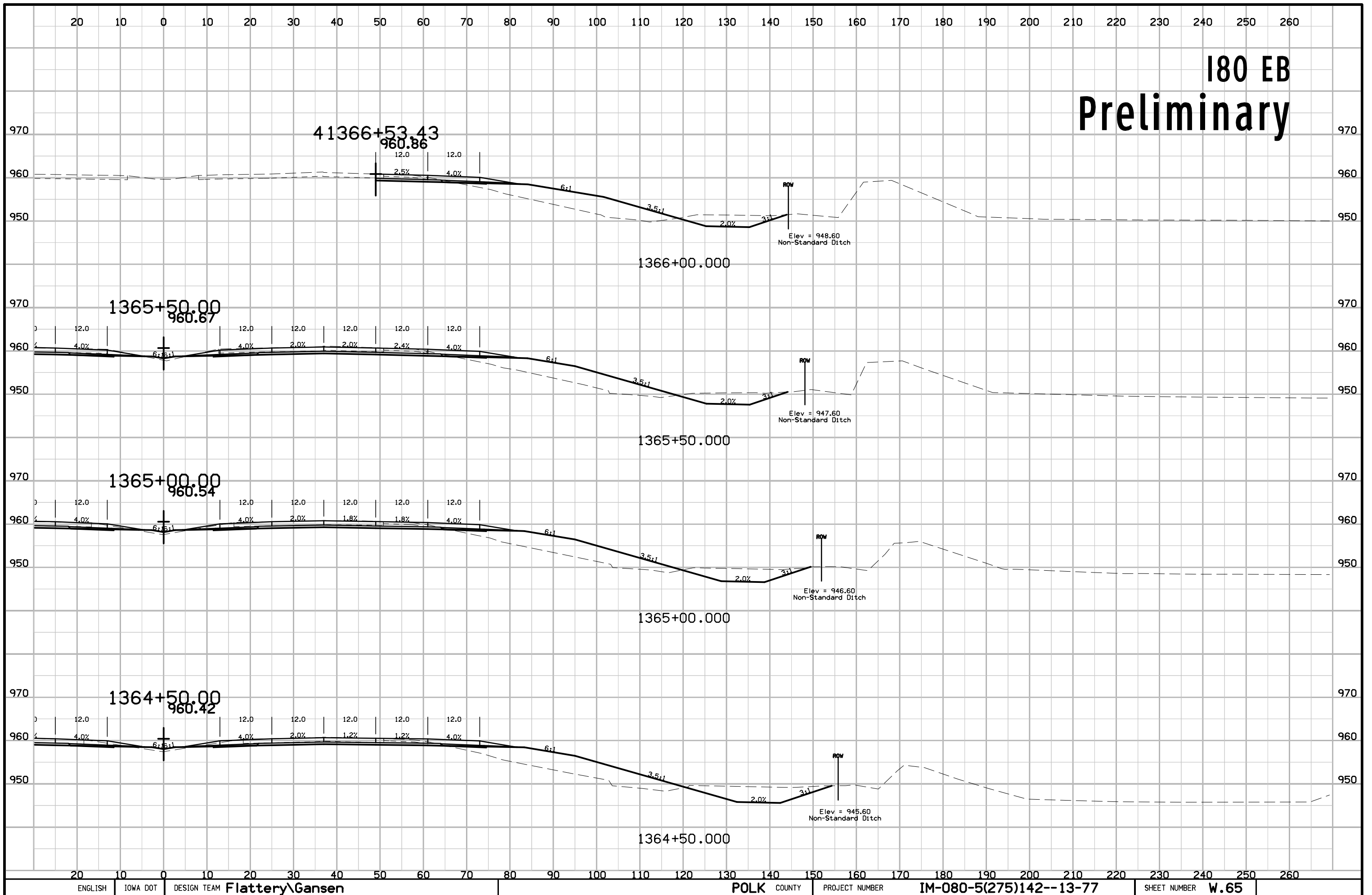
180 EB Preliminary



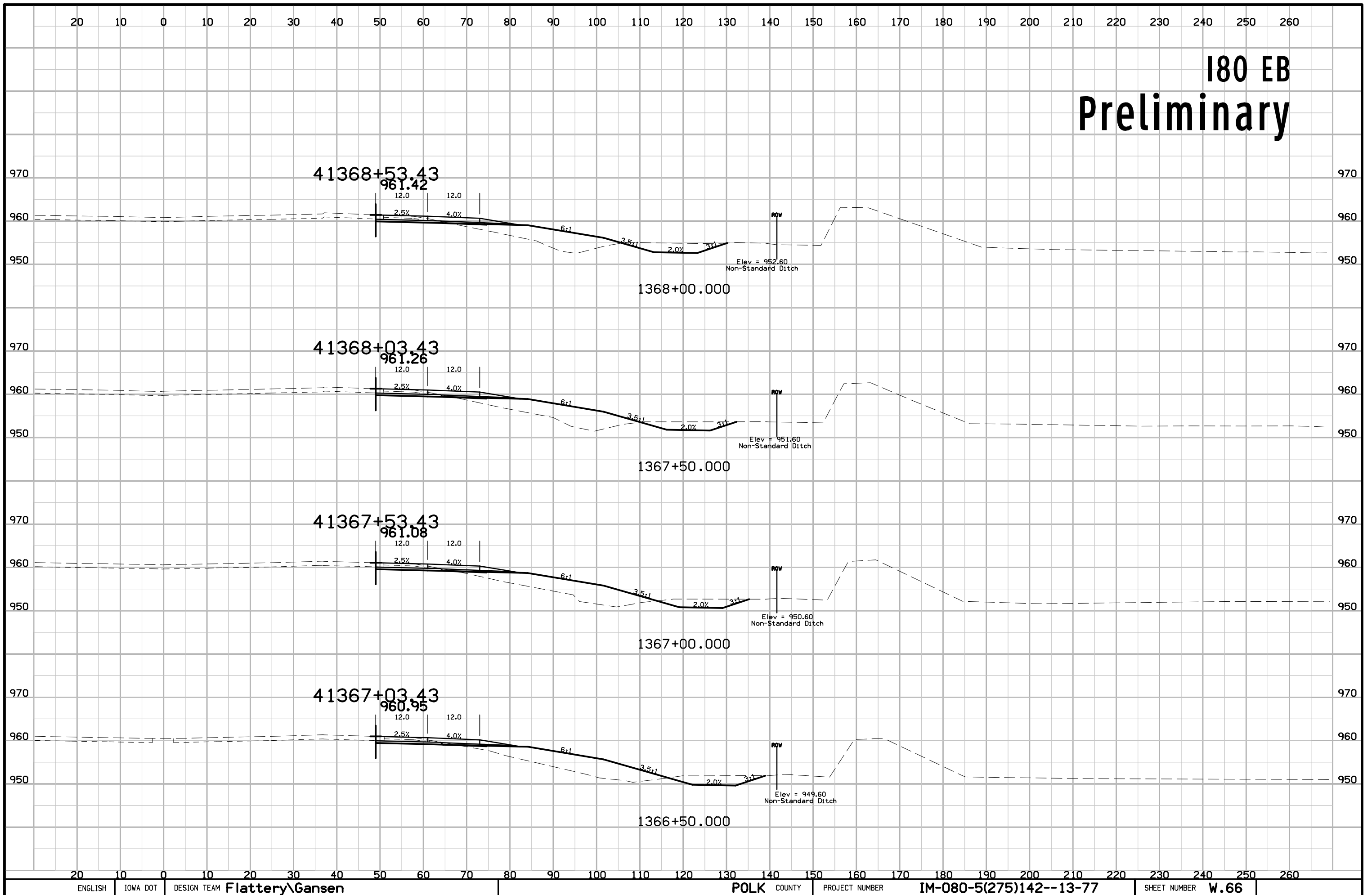
180 EB Preliminary



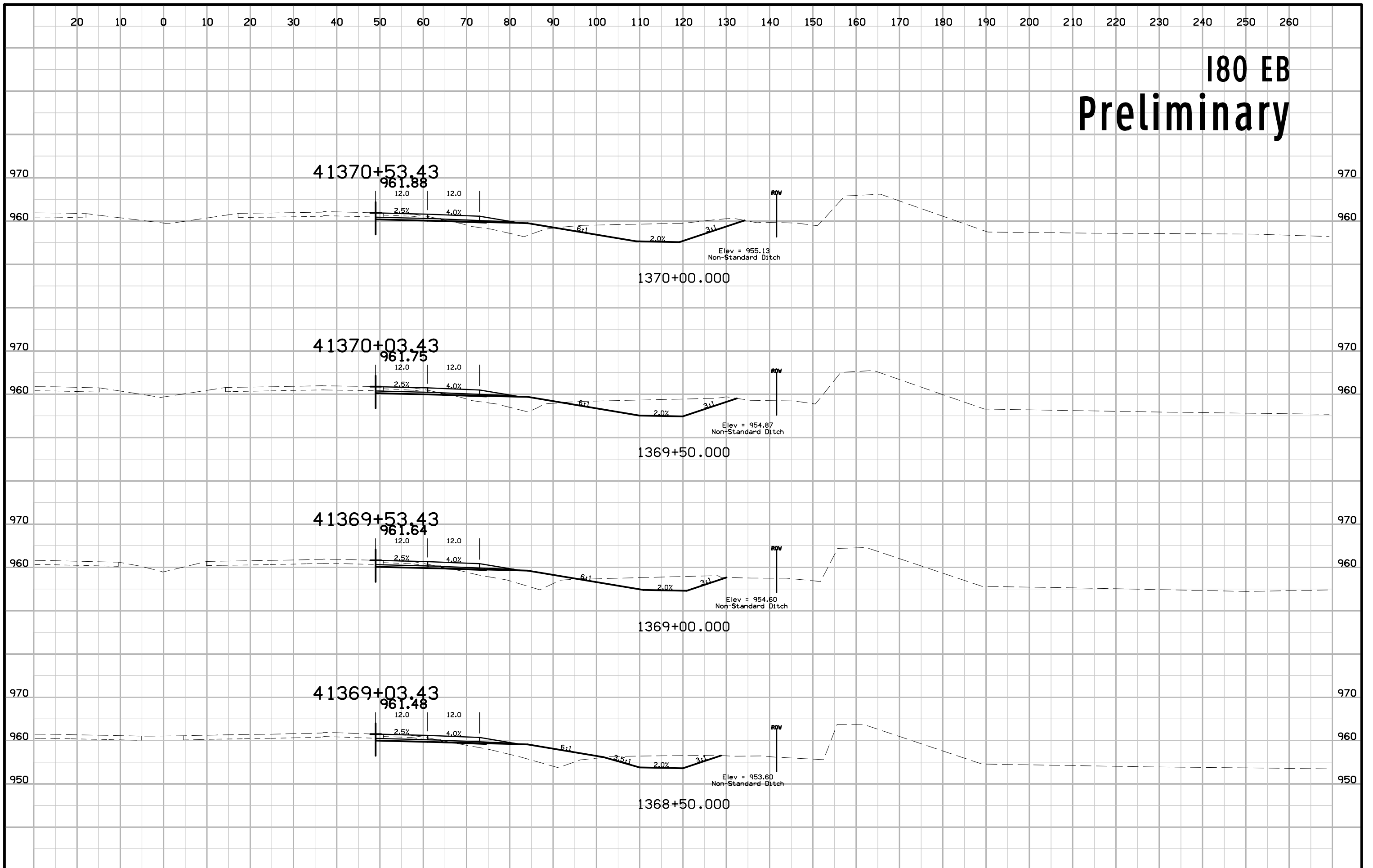
180 EB Preliminary



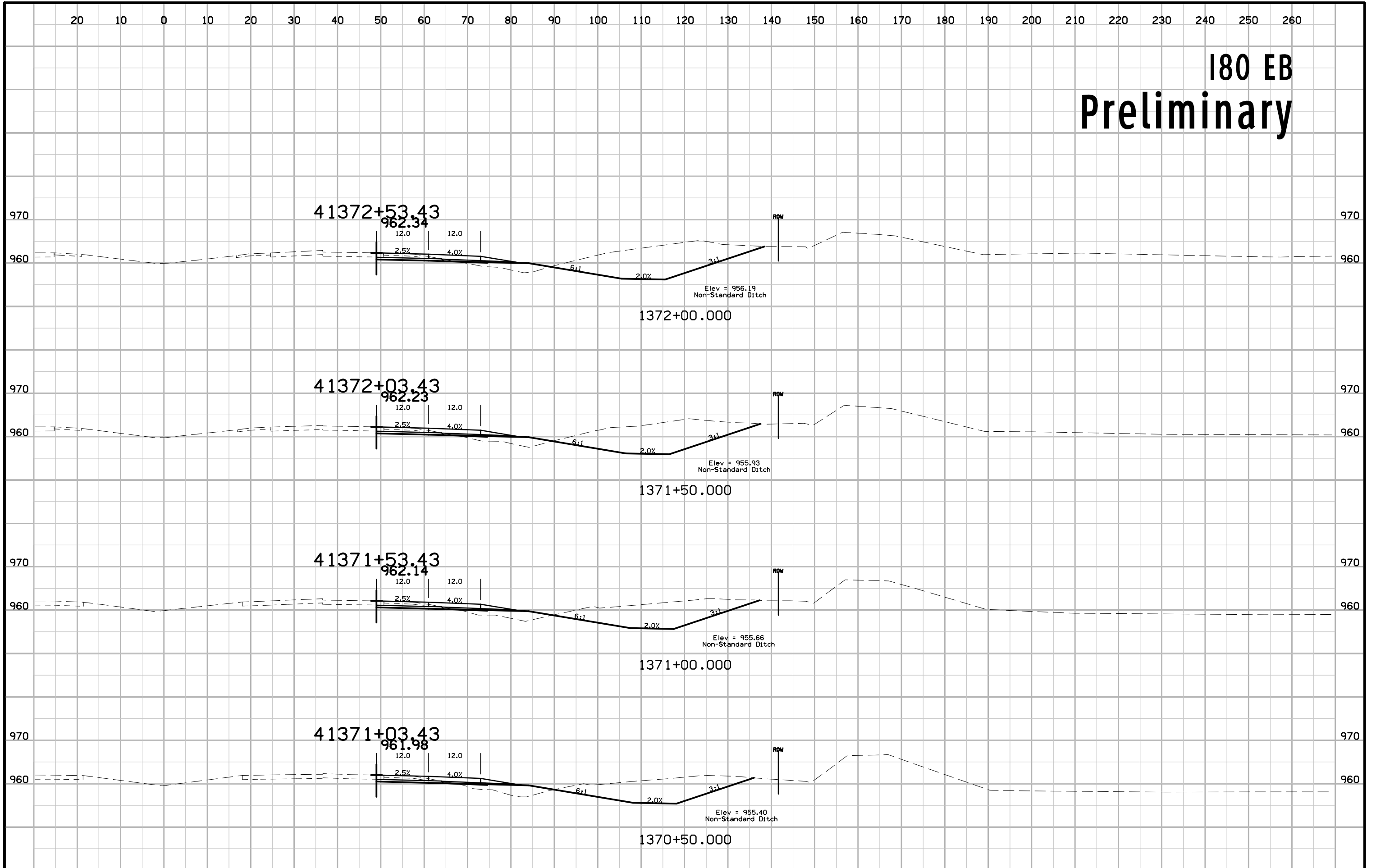
180 EB Preliminary



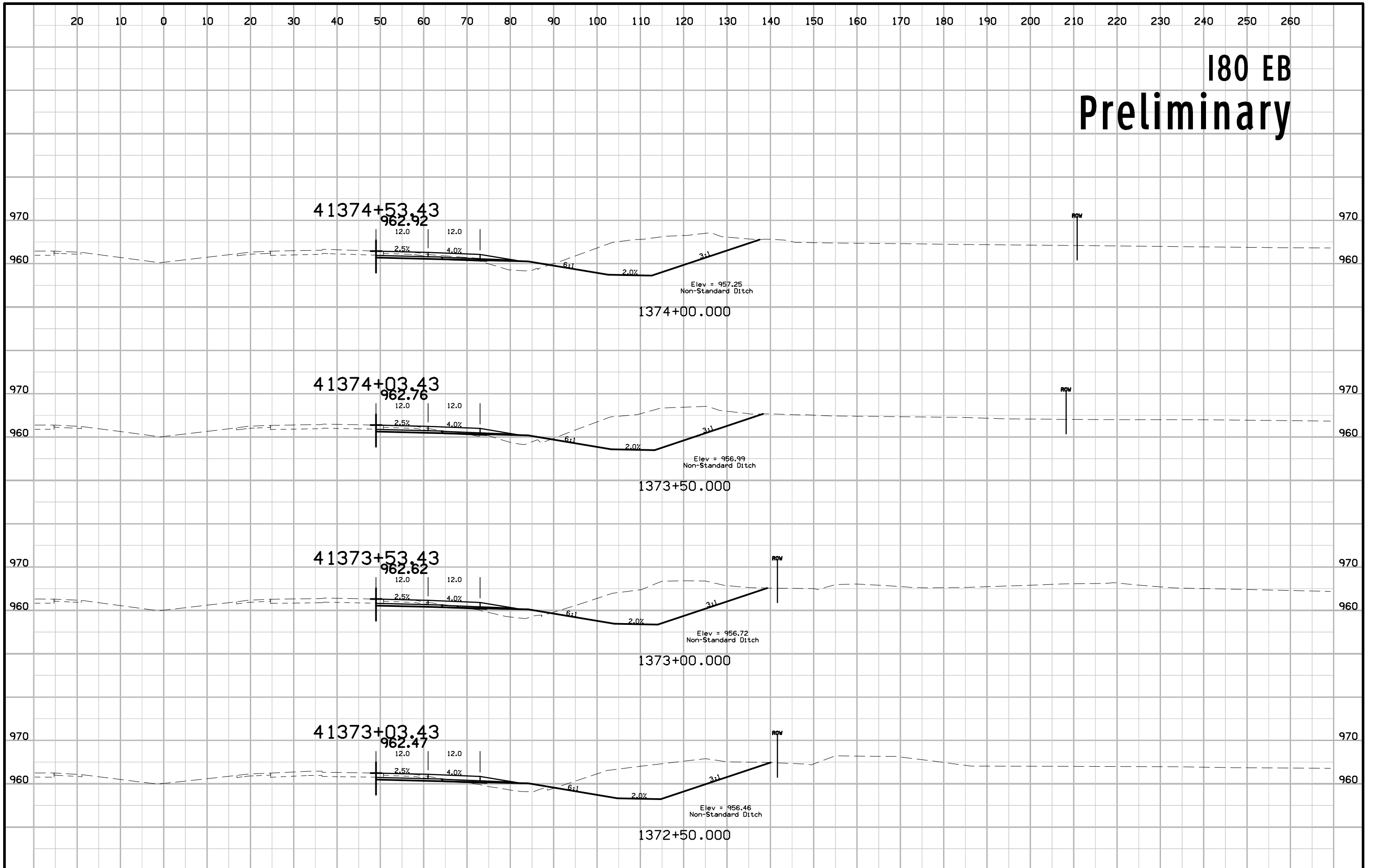
180 EB Preliminary



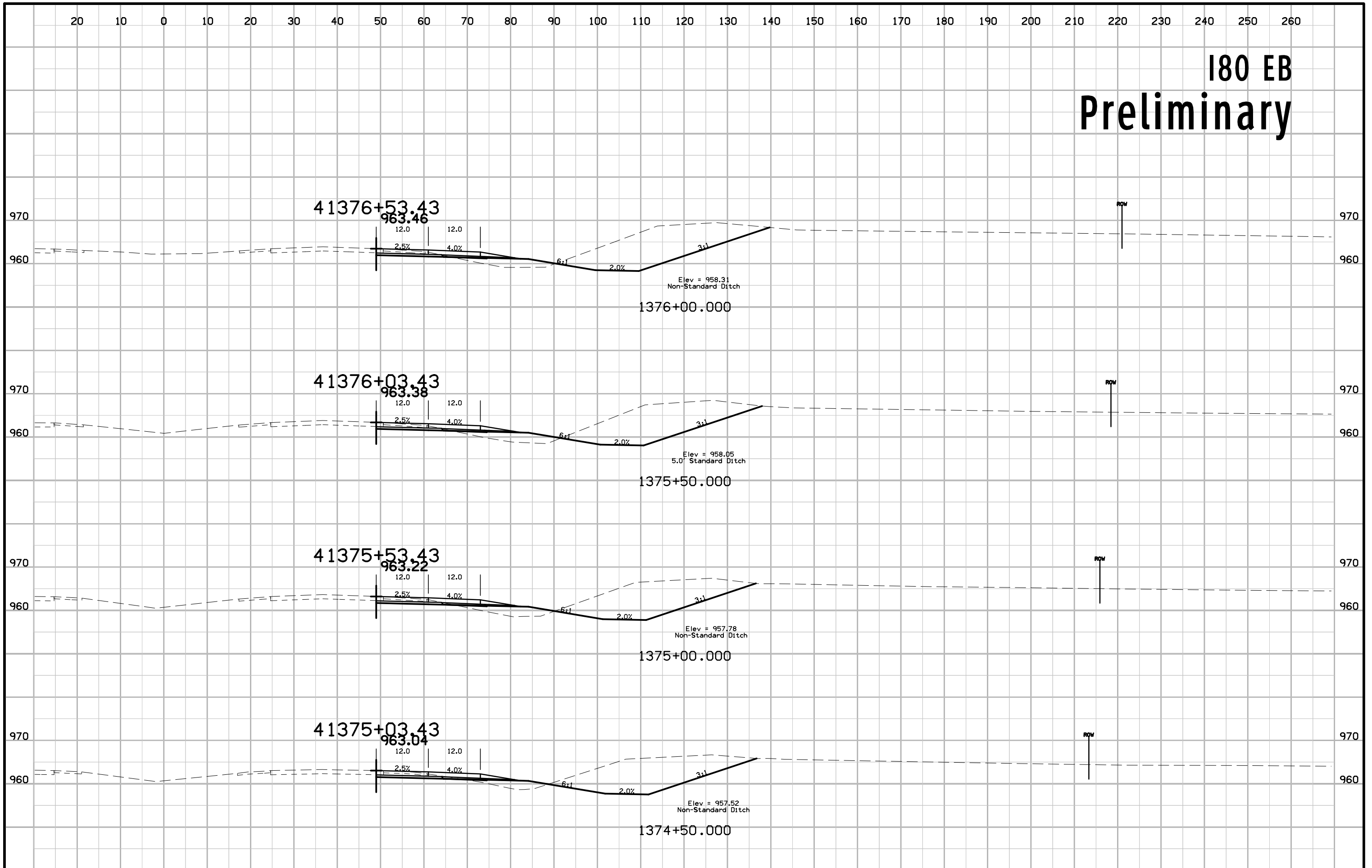
180 EB Preliminary



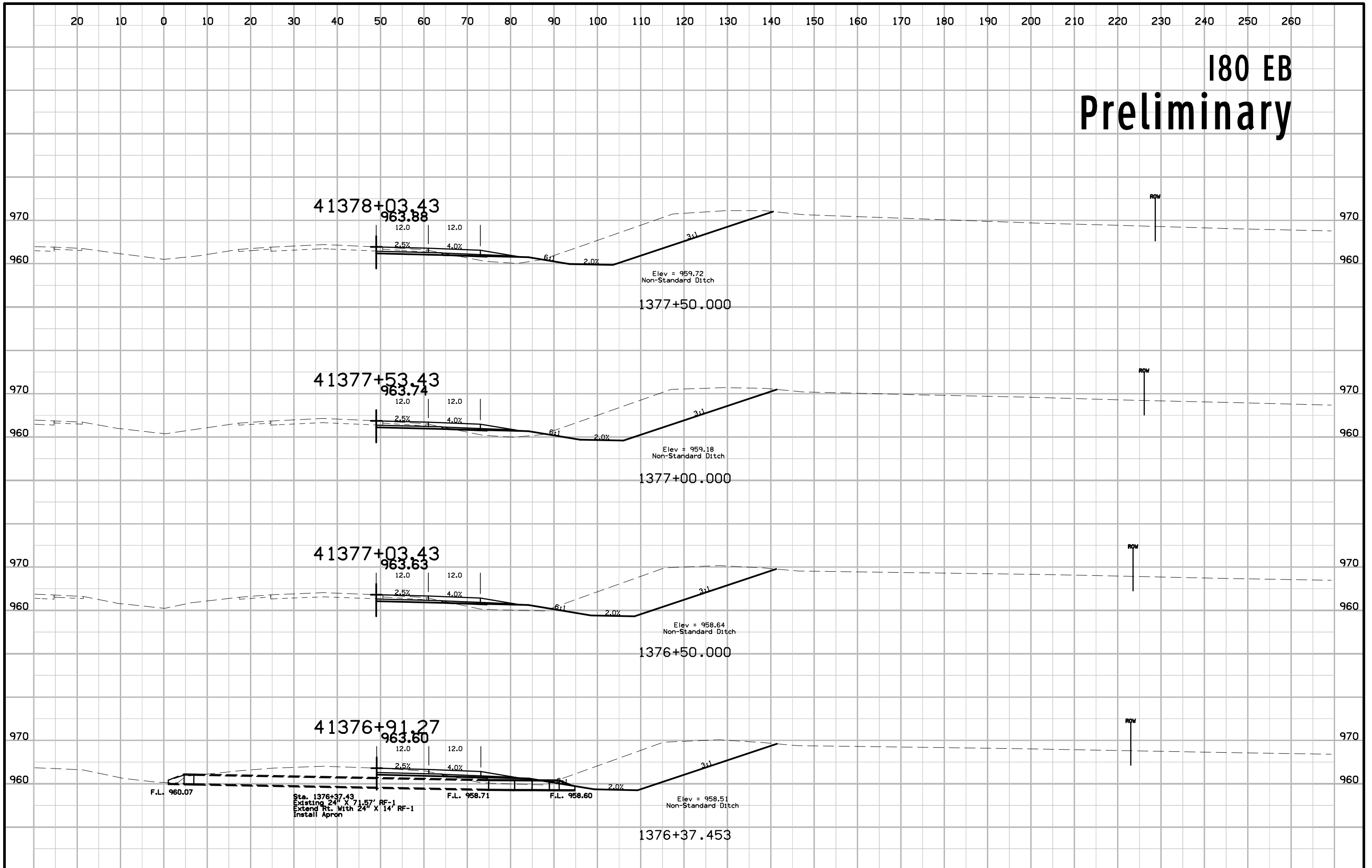
180 EB Preliminary



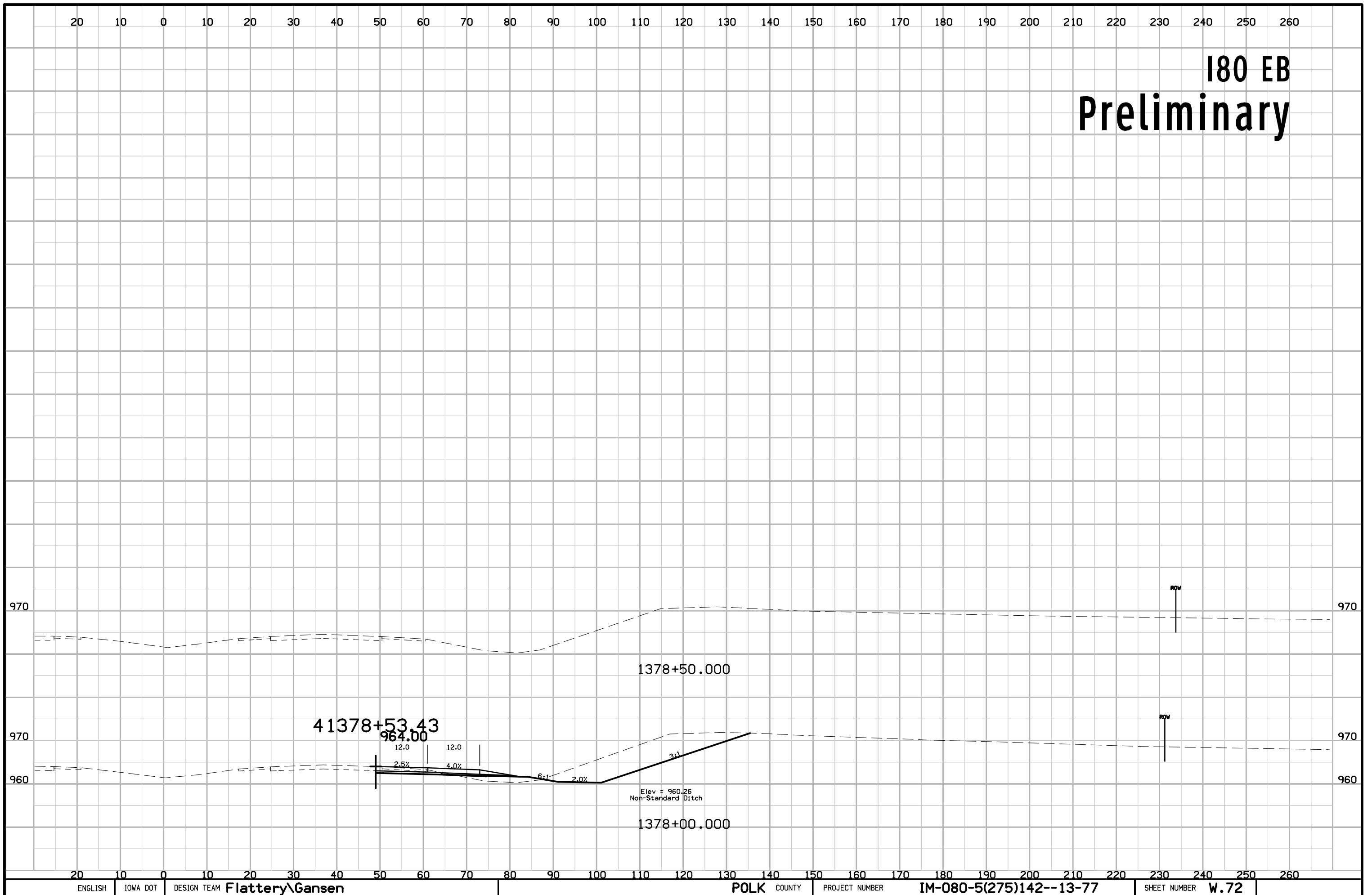
180 EB Preliminary

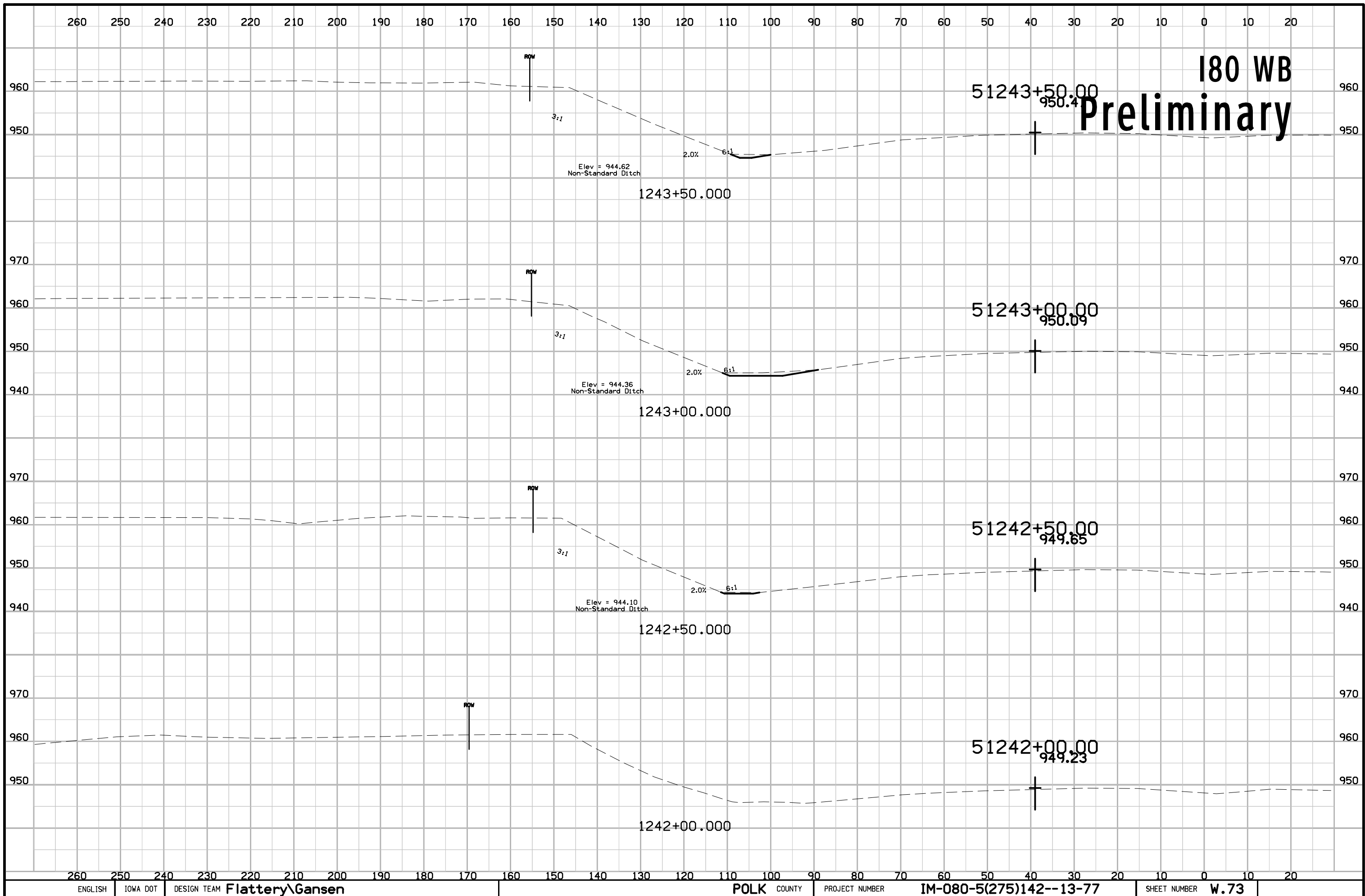


180 EB Preliminary

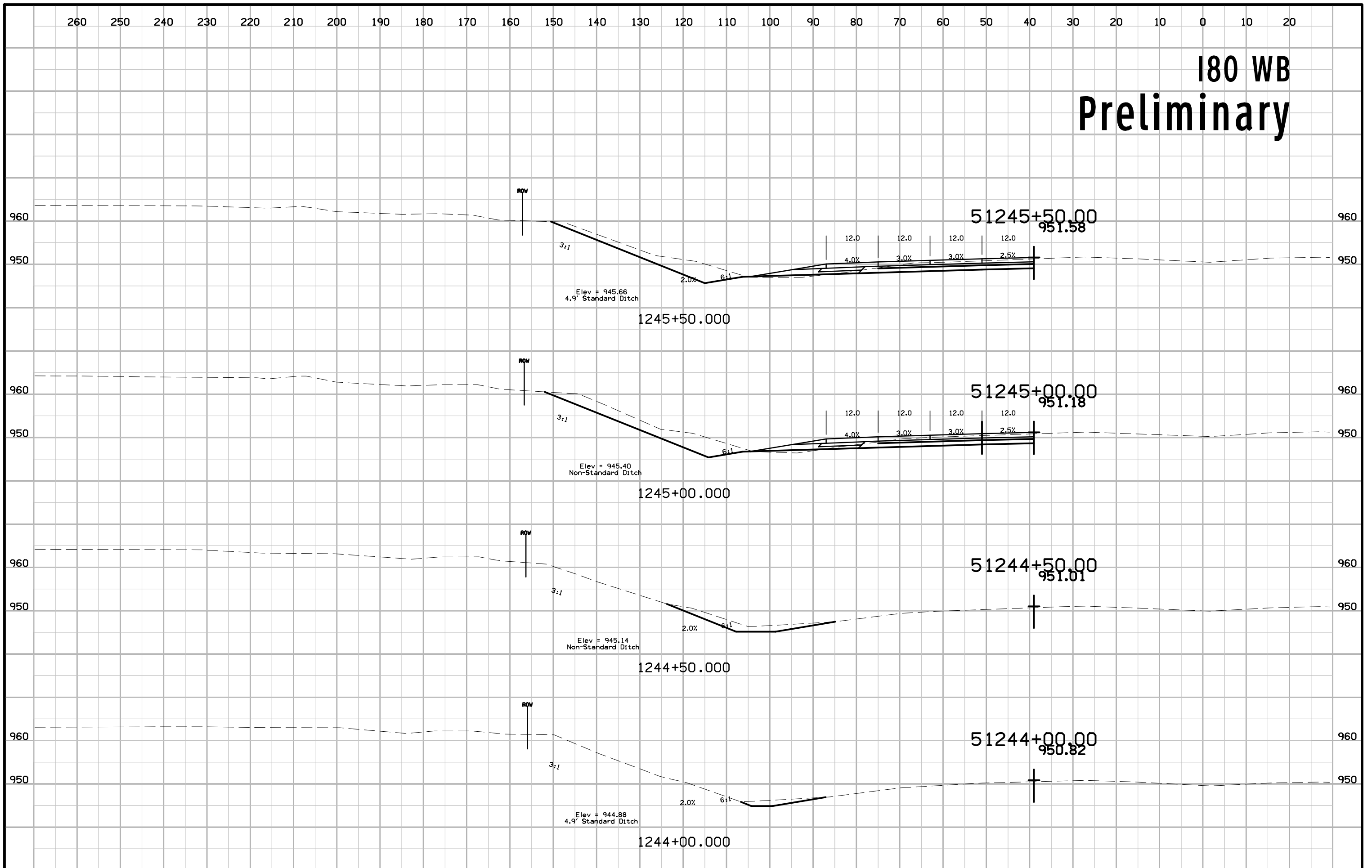


180 EB Preliminary

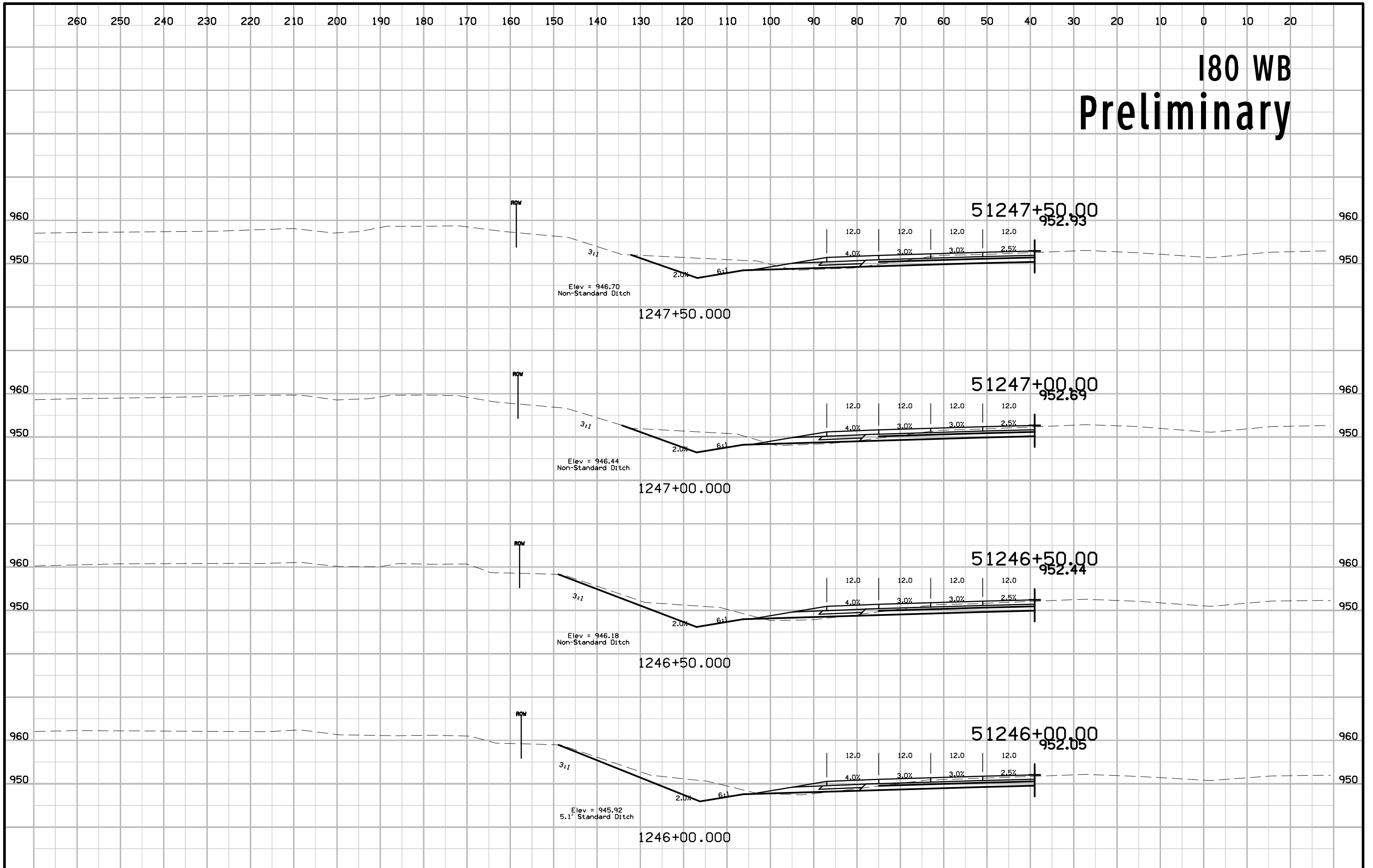




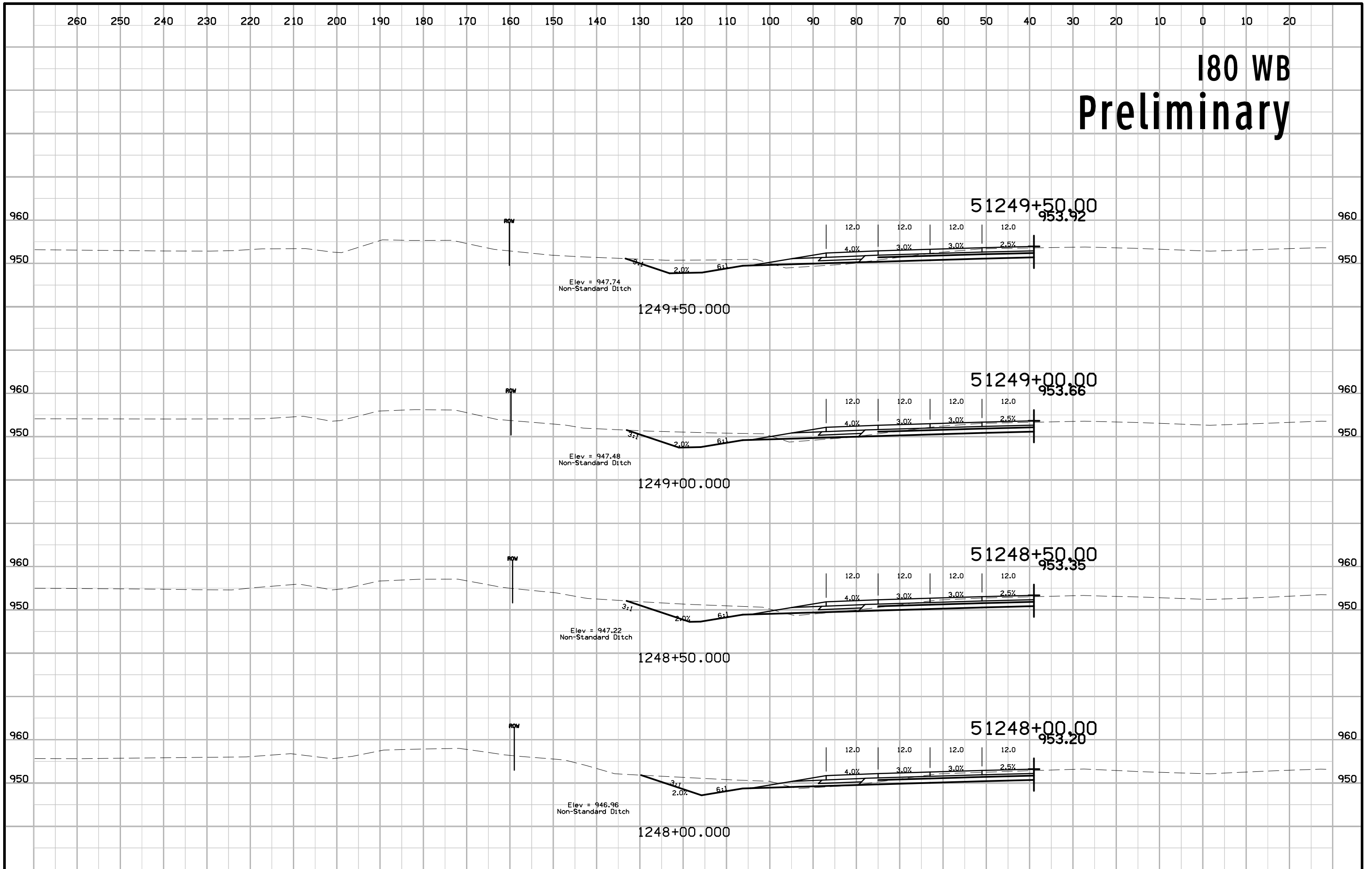
180 WB Preliminary



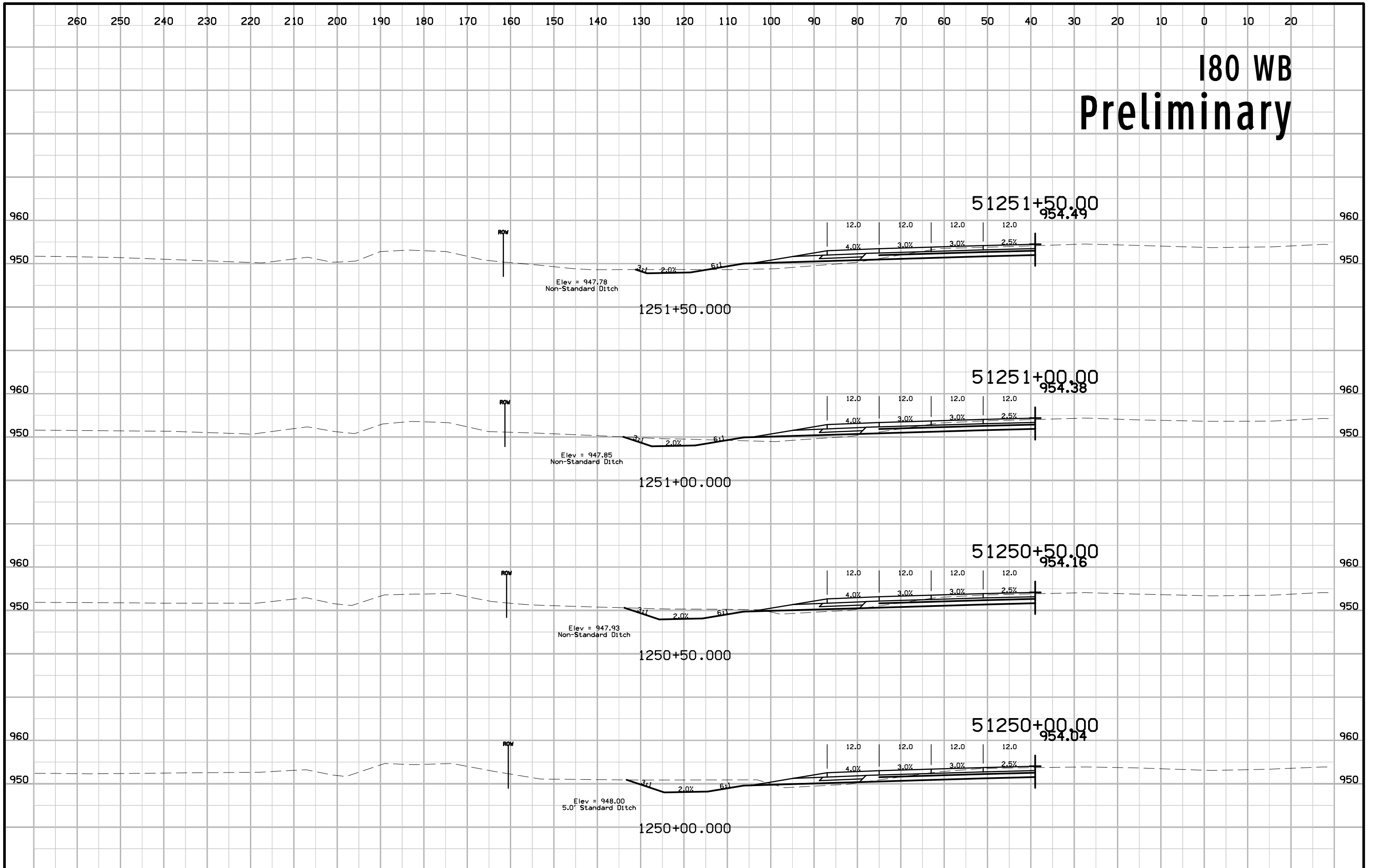
I80 WB Preliminary



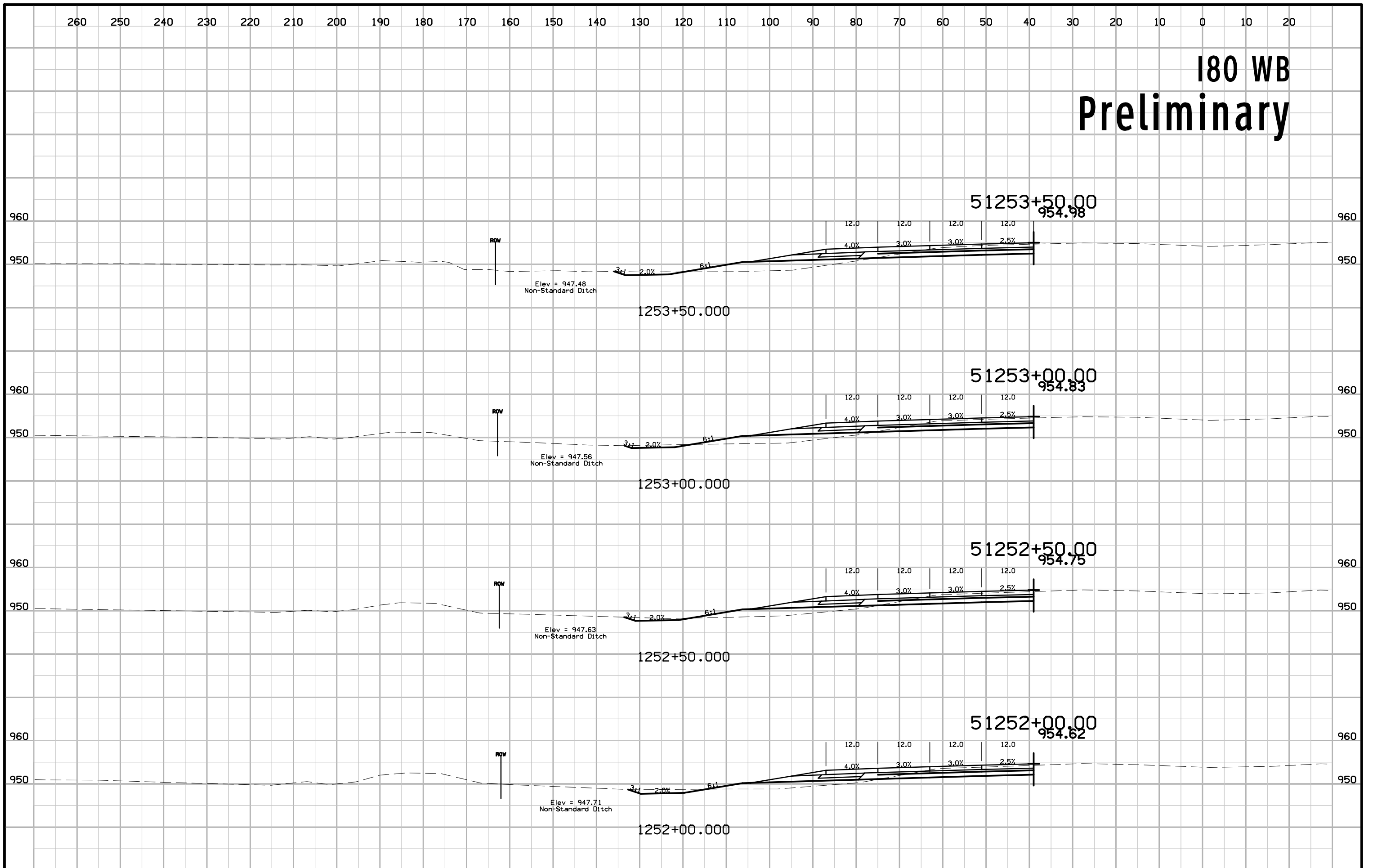
I80 WB Preliminary



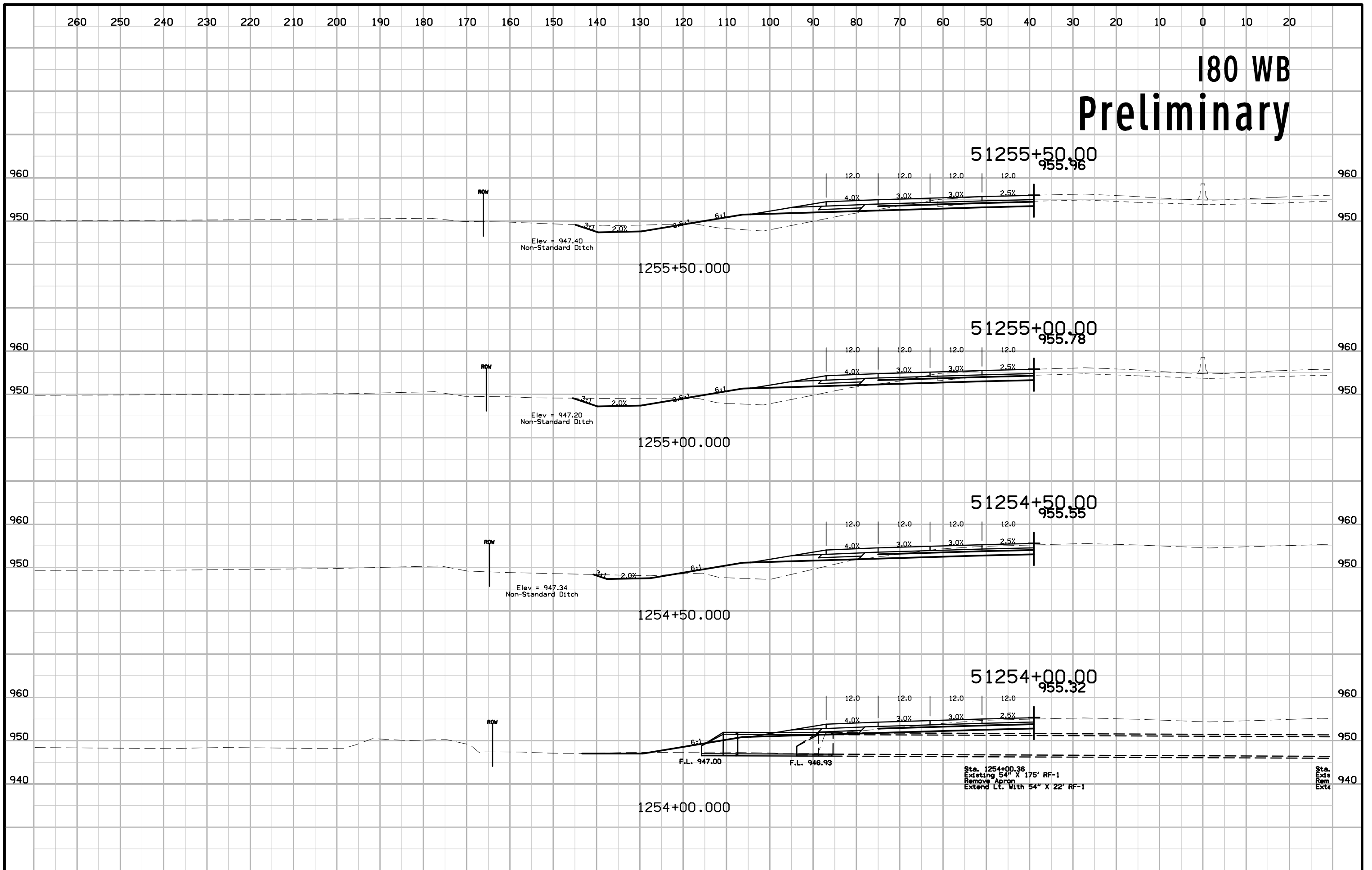
I80 WB Preliminary



I80 WB Preliminary



180 WB Preliminary



5 1255+50.00
955.96

Elev = 947.40
Non-Standard Ditch

1255+50.00

5 1255+00.00
955.78

Elev = 947.20
Non-Standard Ditch

1255+00.00

5 1254+50.00
955.55

Elev = 947.34
Non-Standard Ditch

1254+50.00

5 1254+00.00
955.32

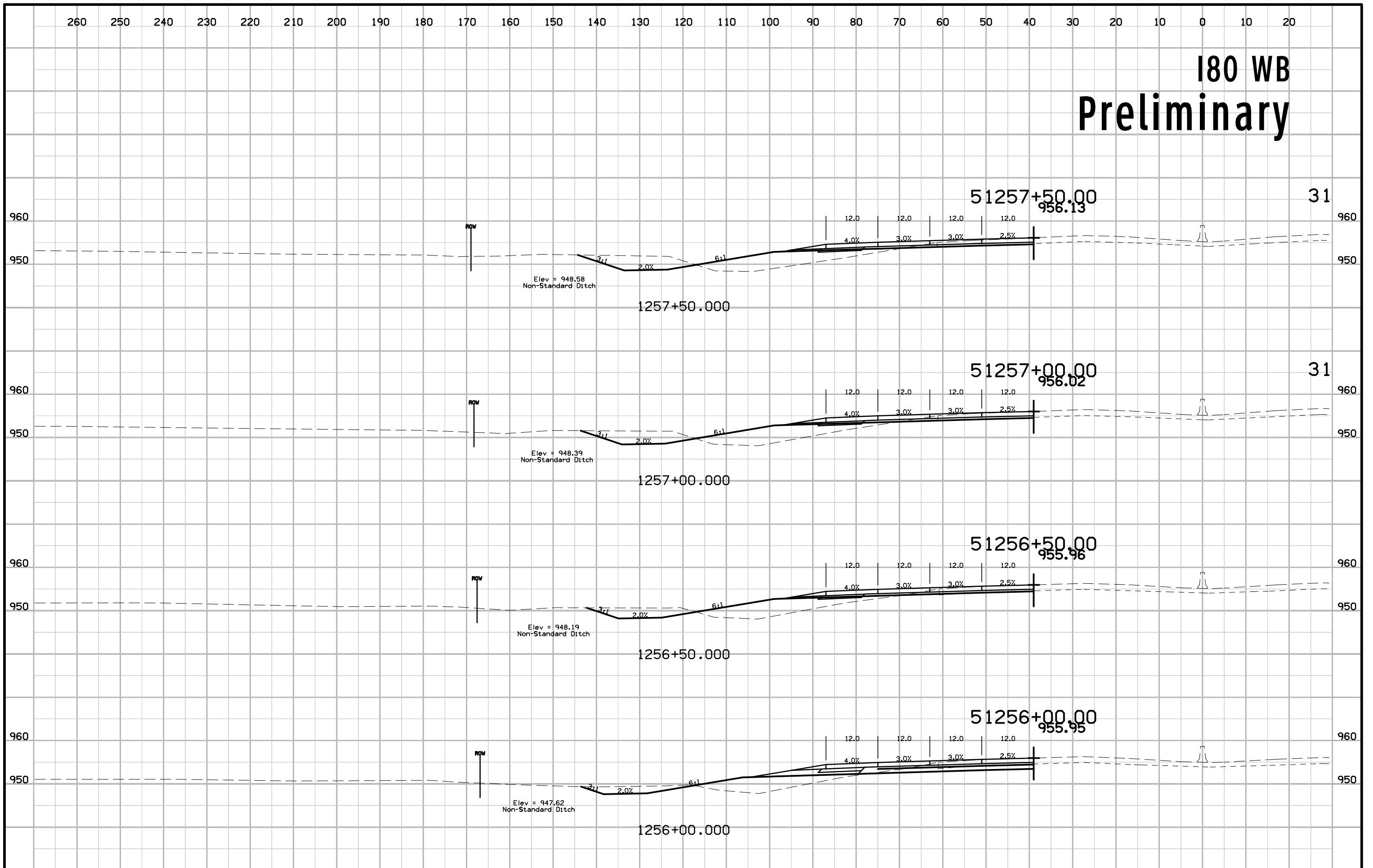
F.L. 947.00 F.L. 946.93

Sta. 1254+00.36
Existing 54" X 175' RF-1
Remove Apron
Extend Lt. With 54" X 22' RF-1

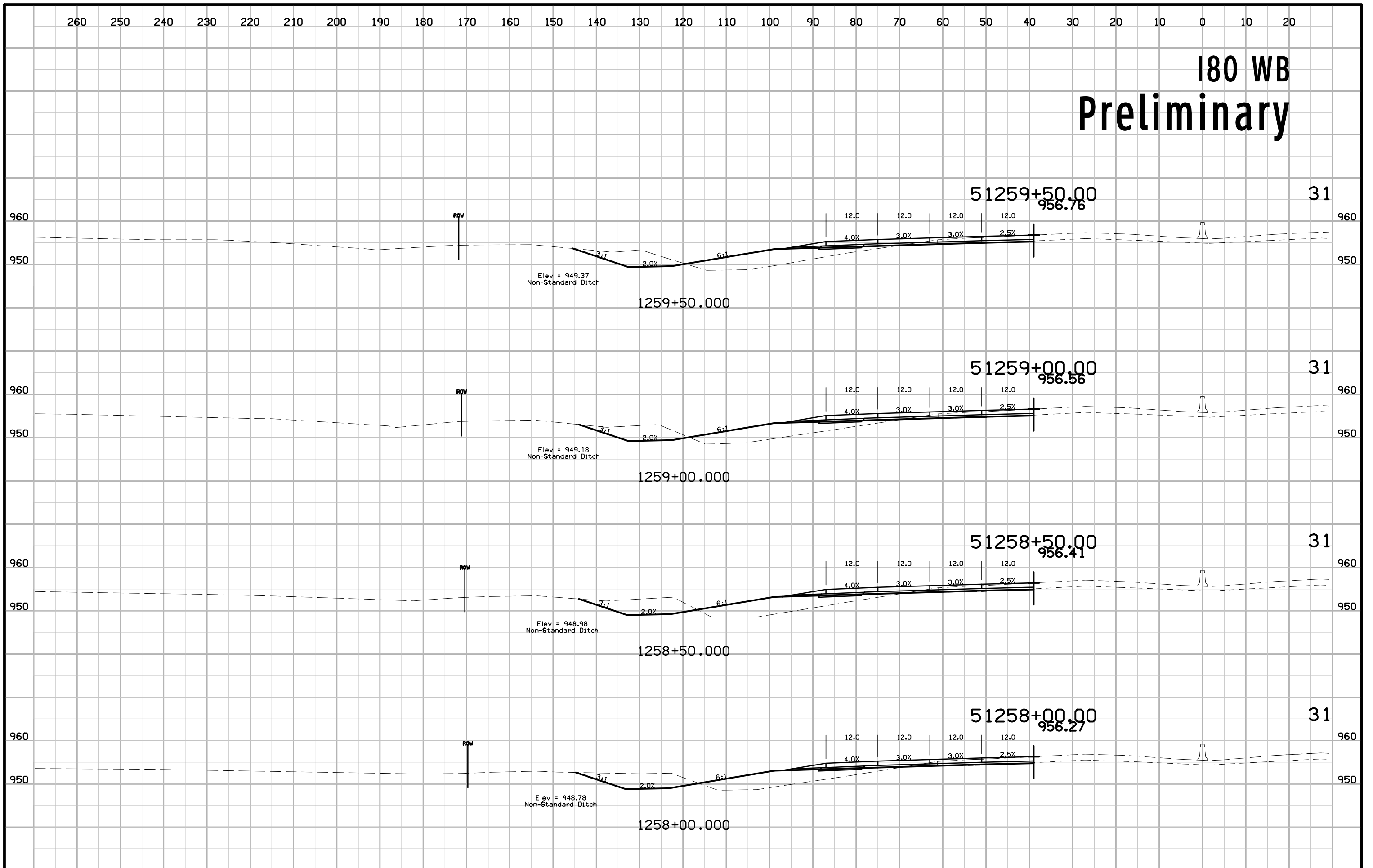
1254+00.00

Sta.
Exds
Rem
Extc

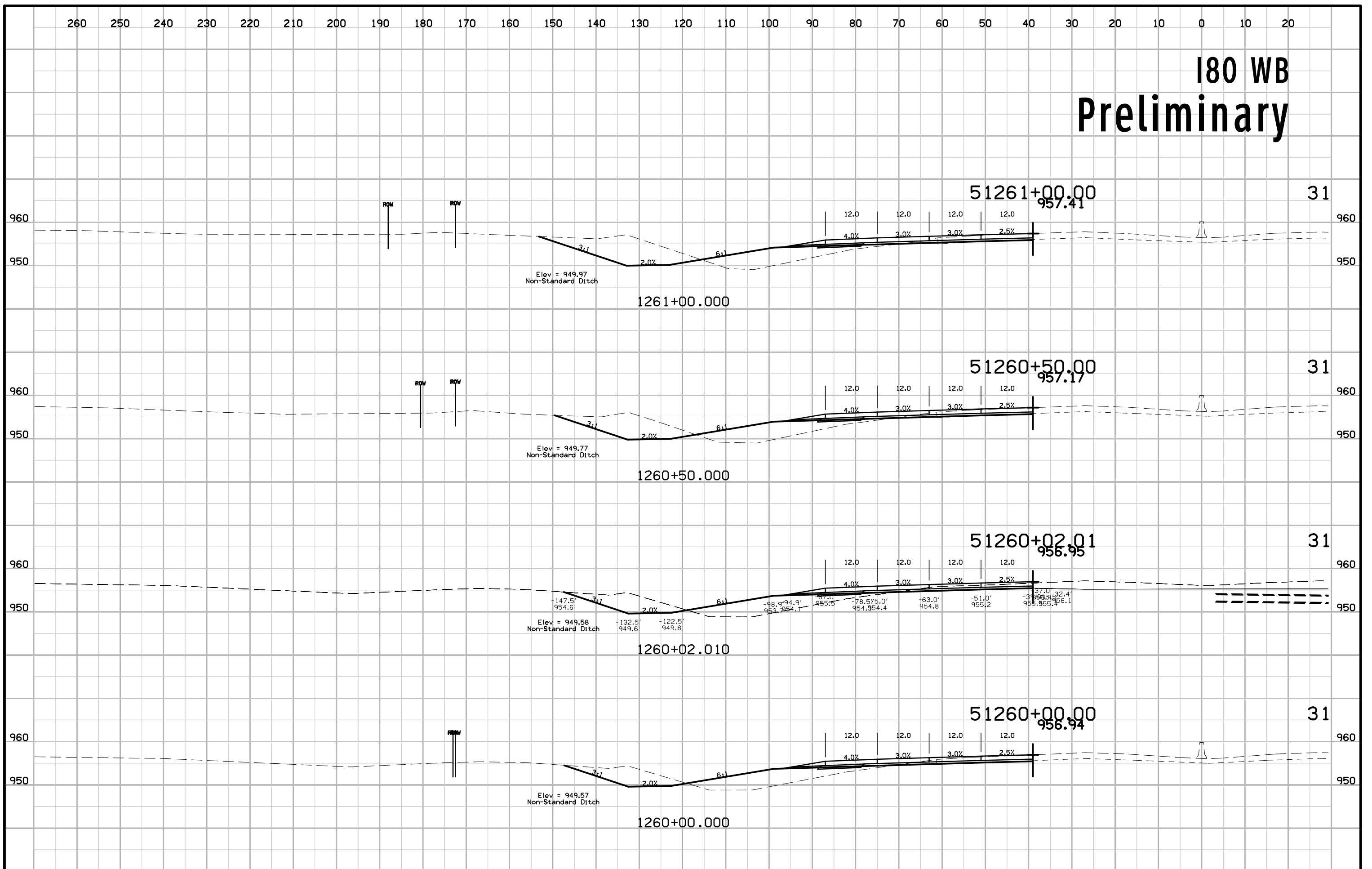
180 WB Preliminary



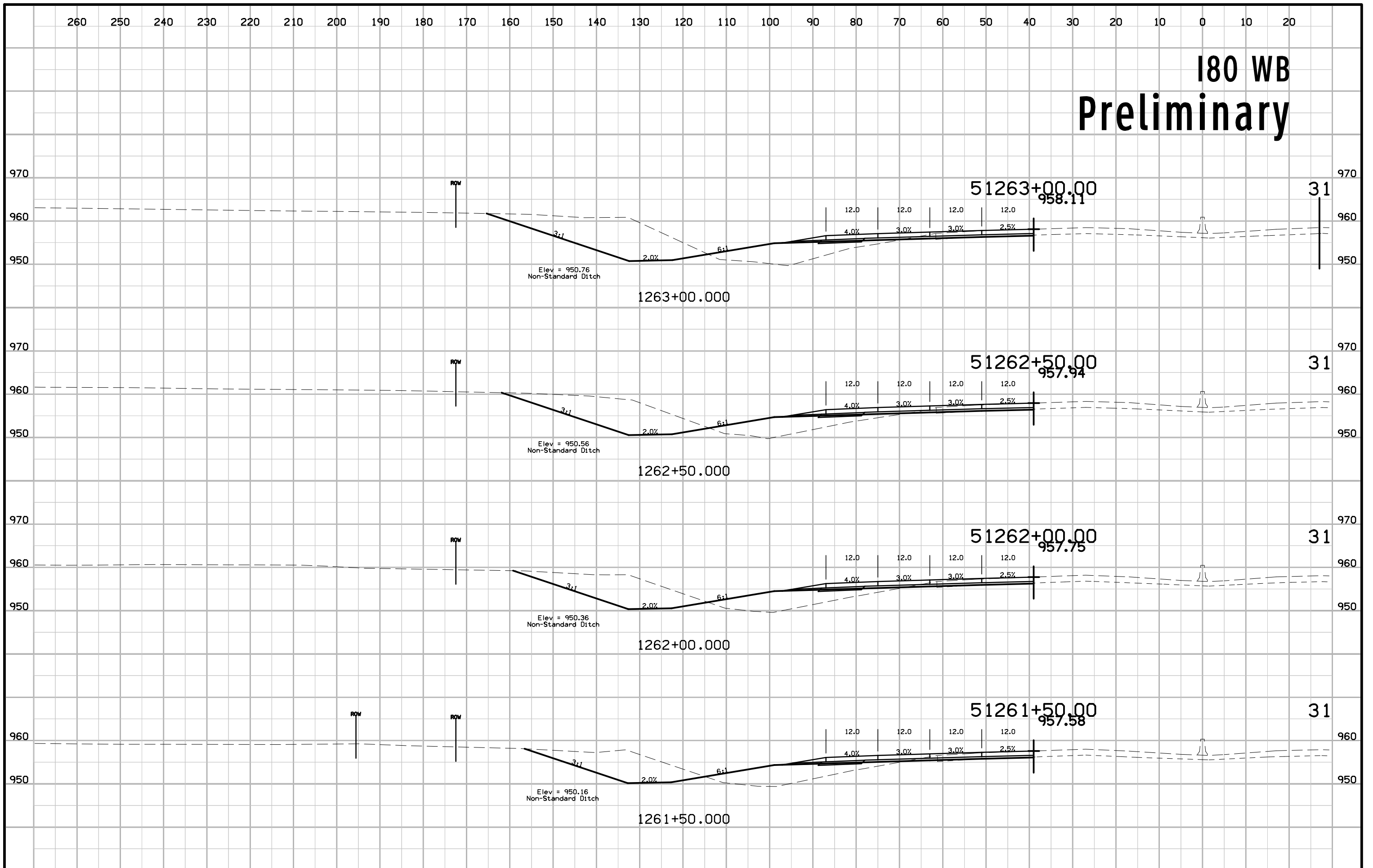
I80 WB Preliminary



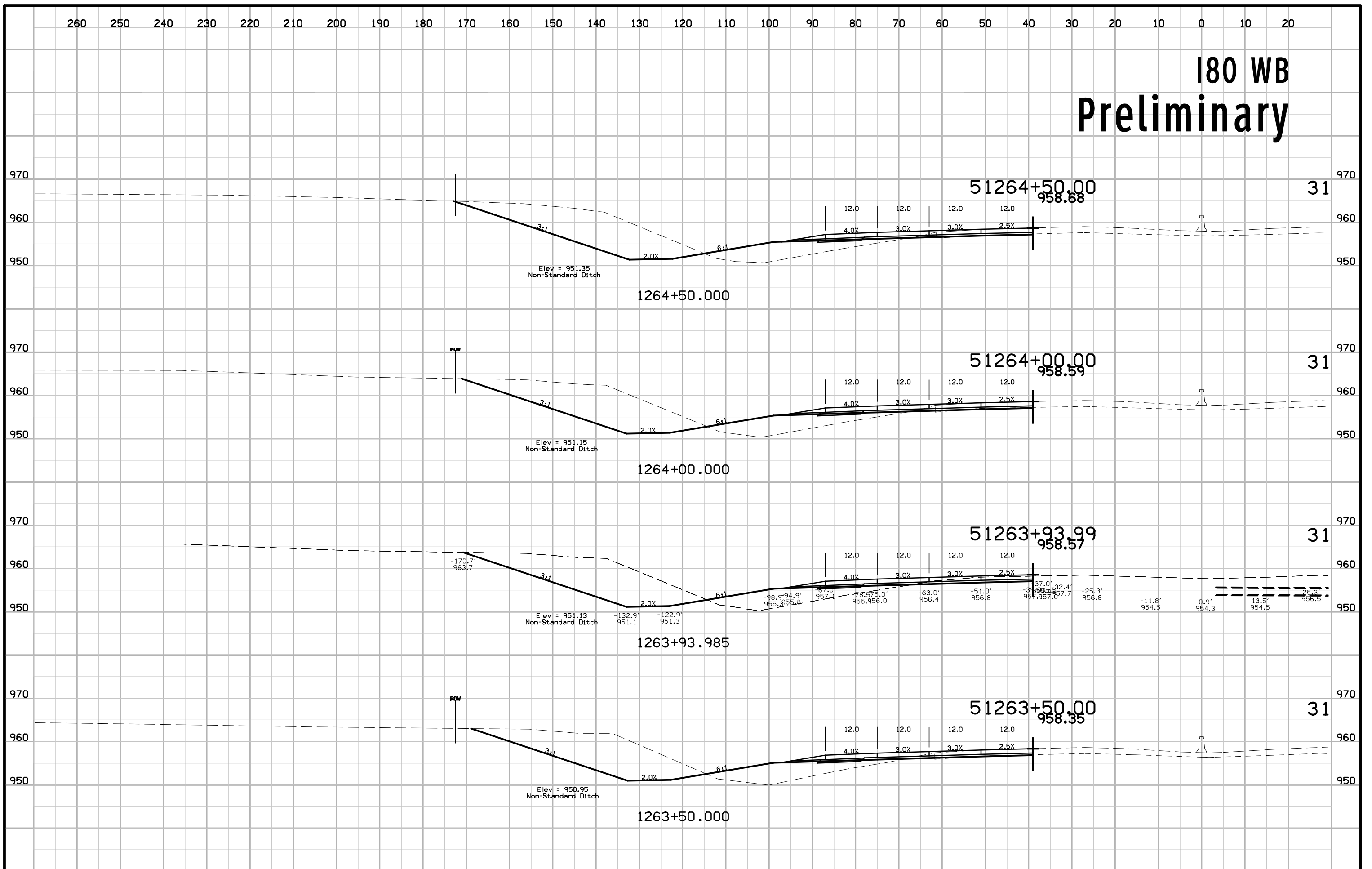
180 WB Preliminary



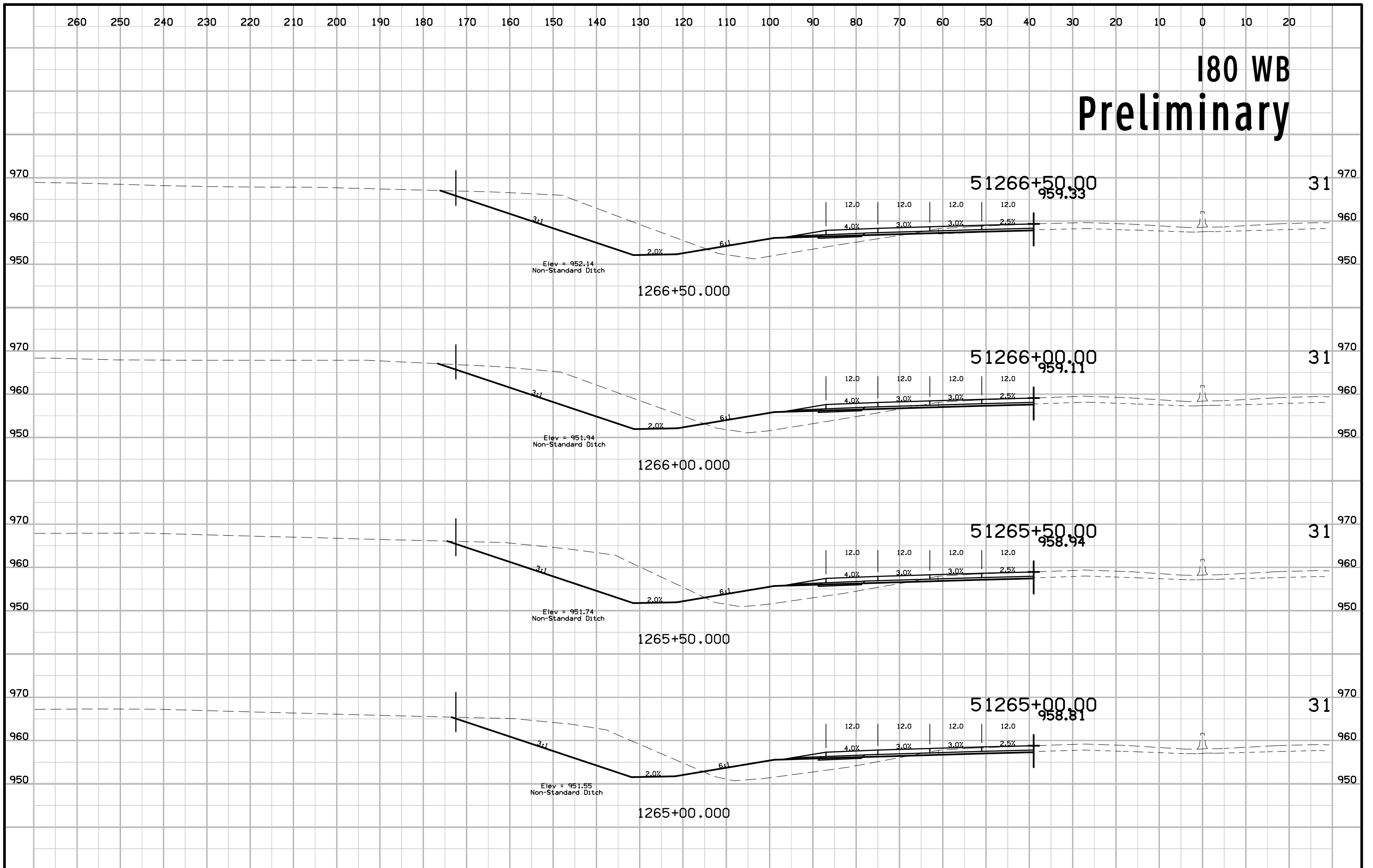
180 WB Preliminary



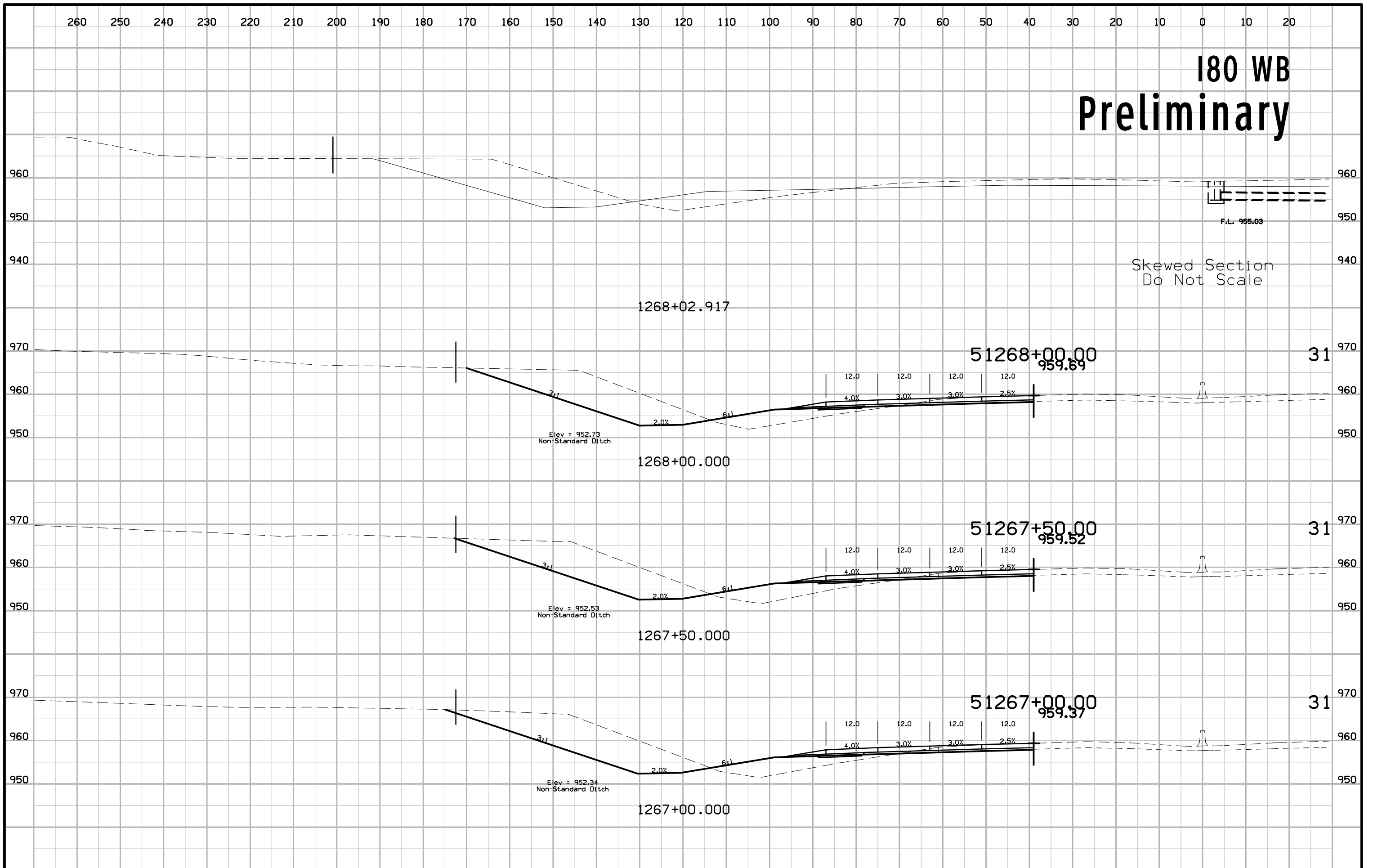
180 WB Preliminary



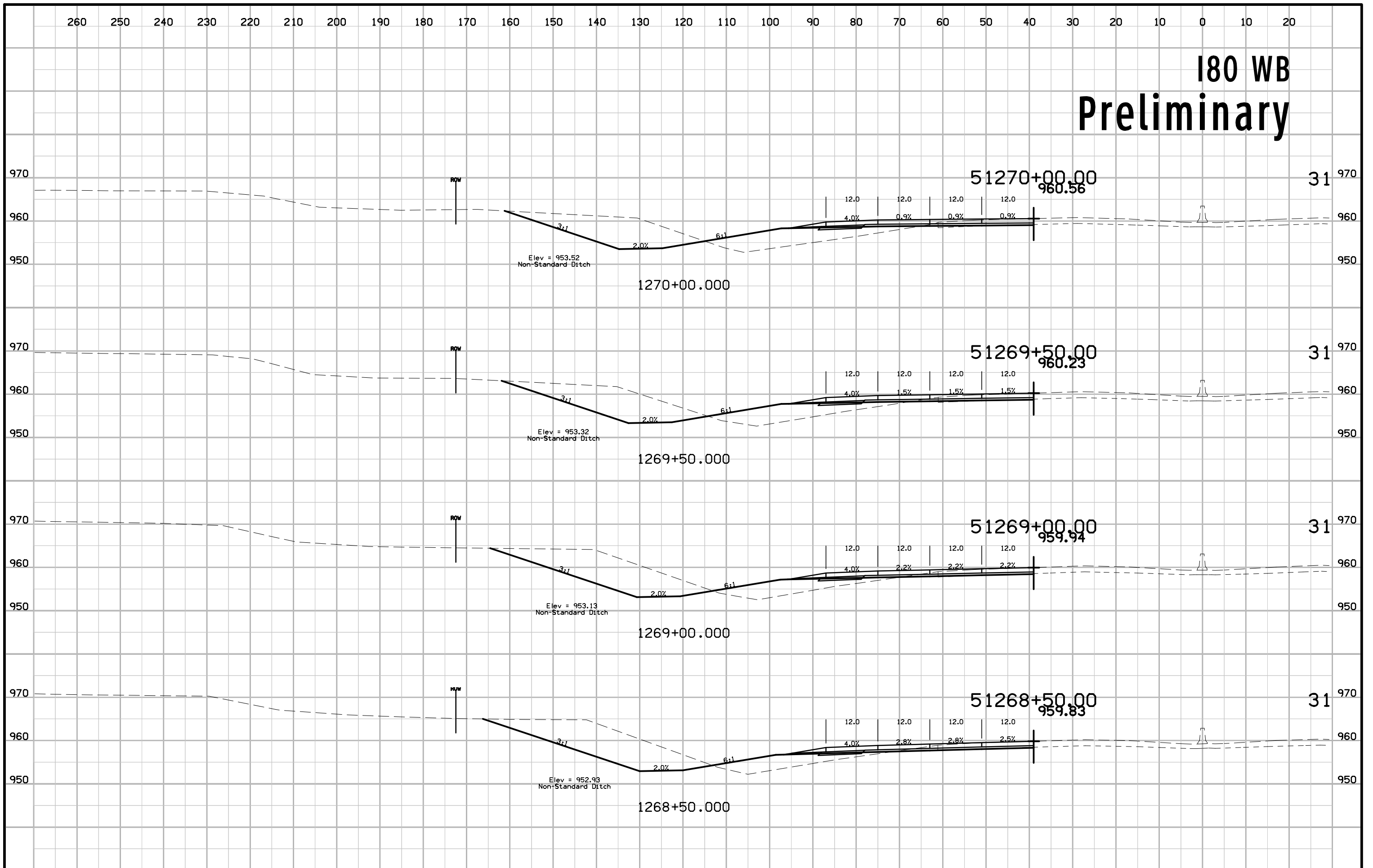
180 WB Preliminary



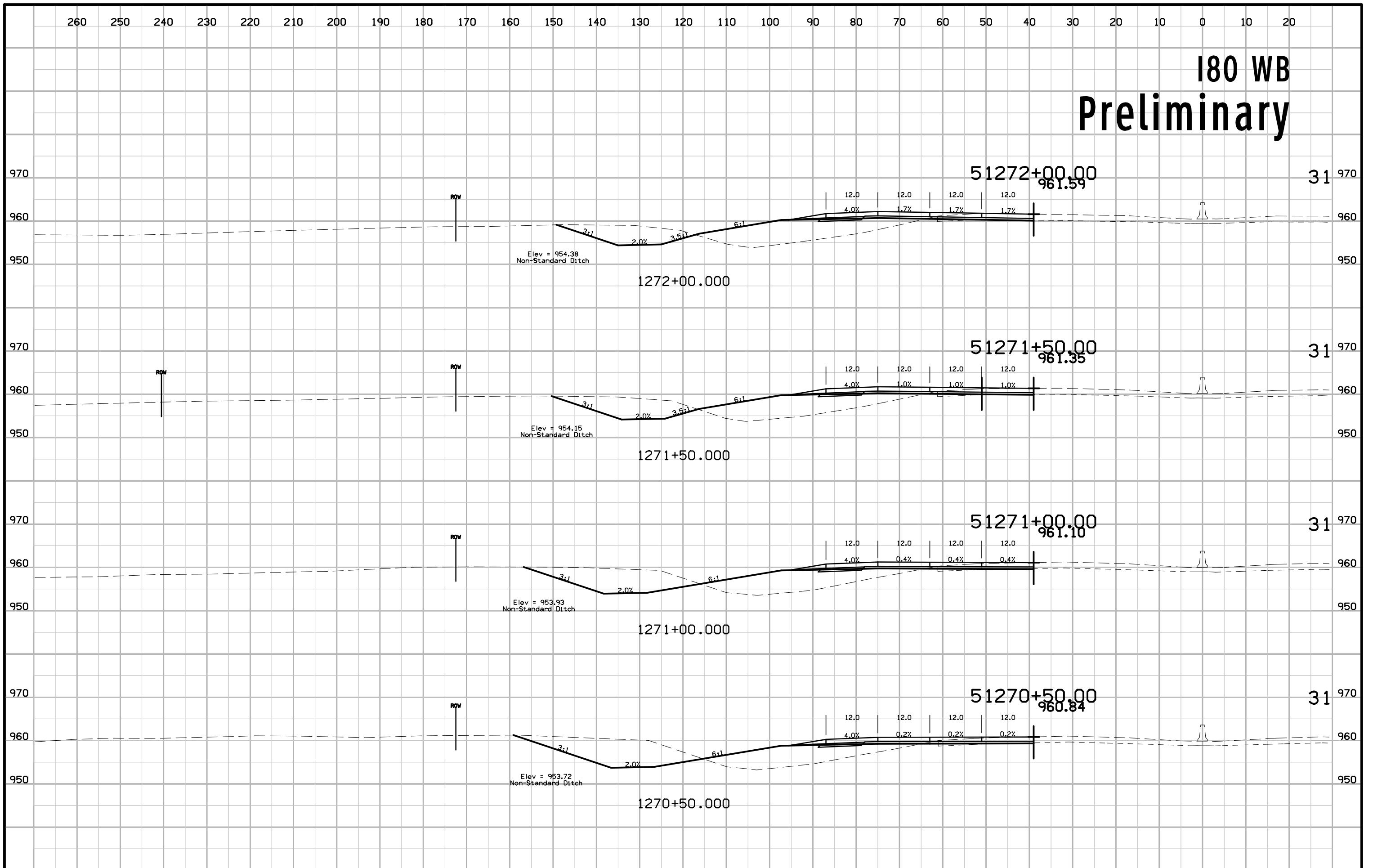
180 WB Preliminary



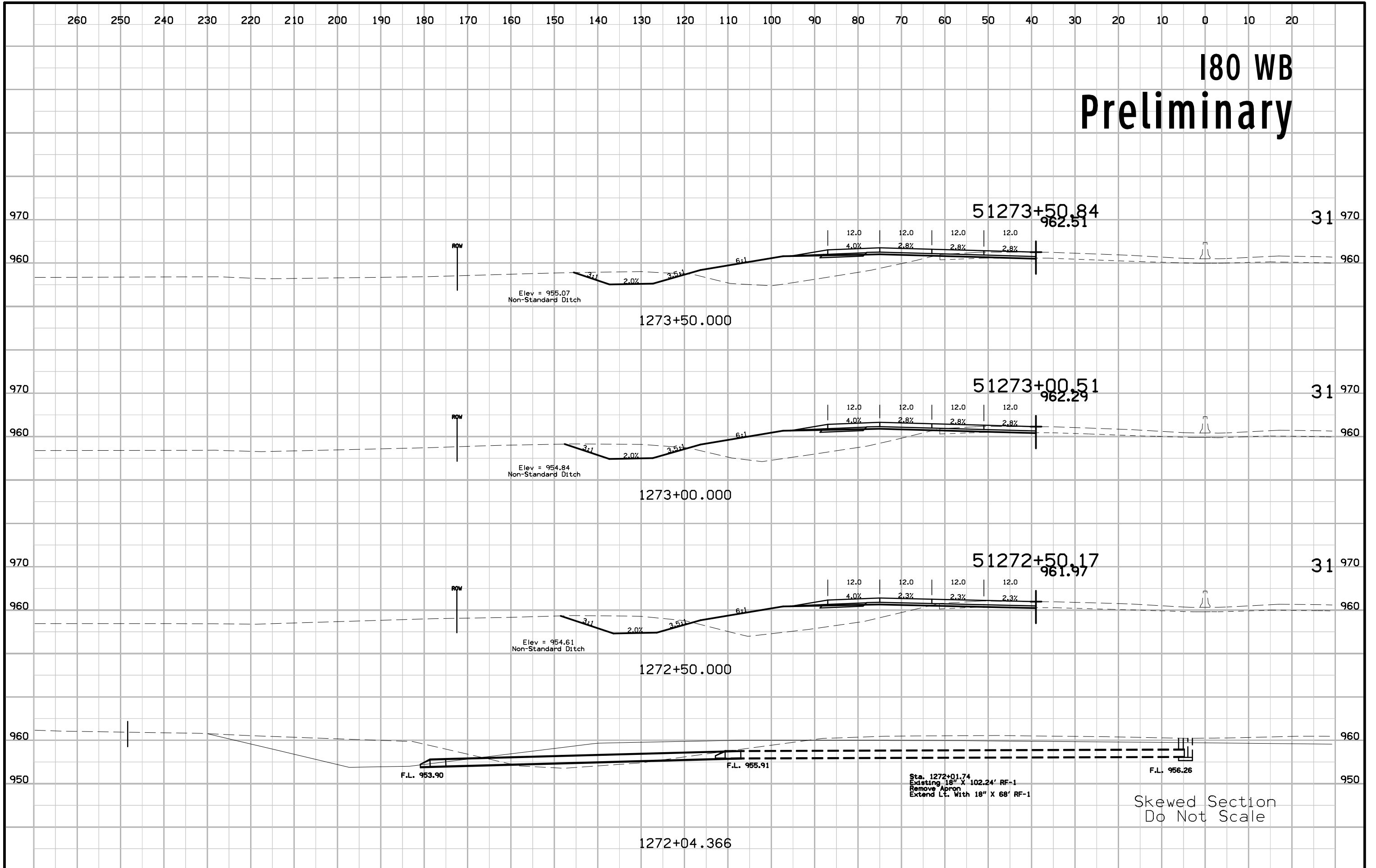
180 WB Preliminary



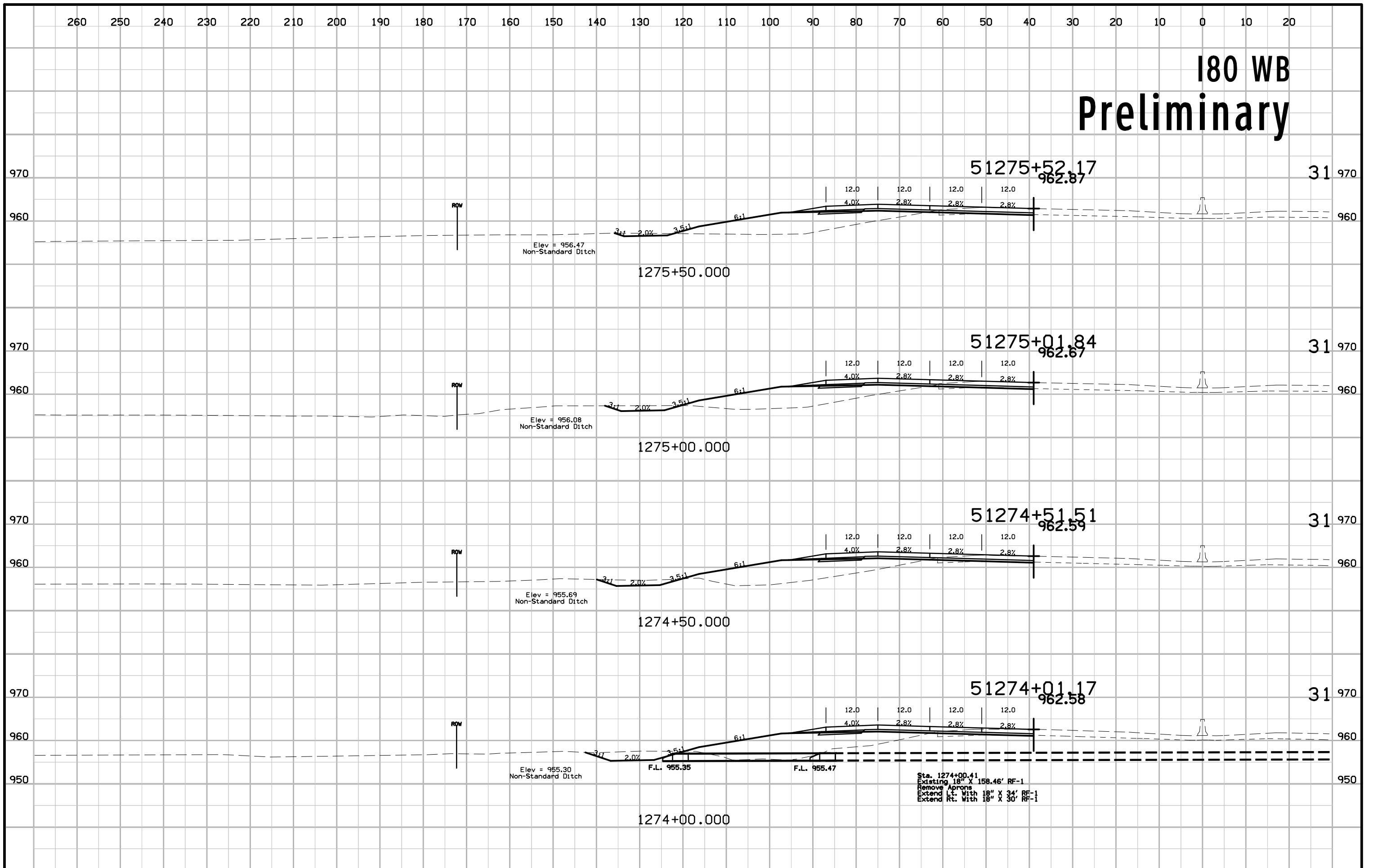
180 WB Preliminary



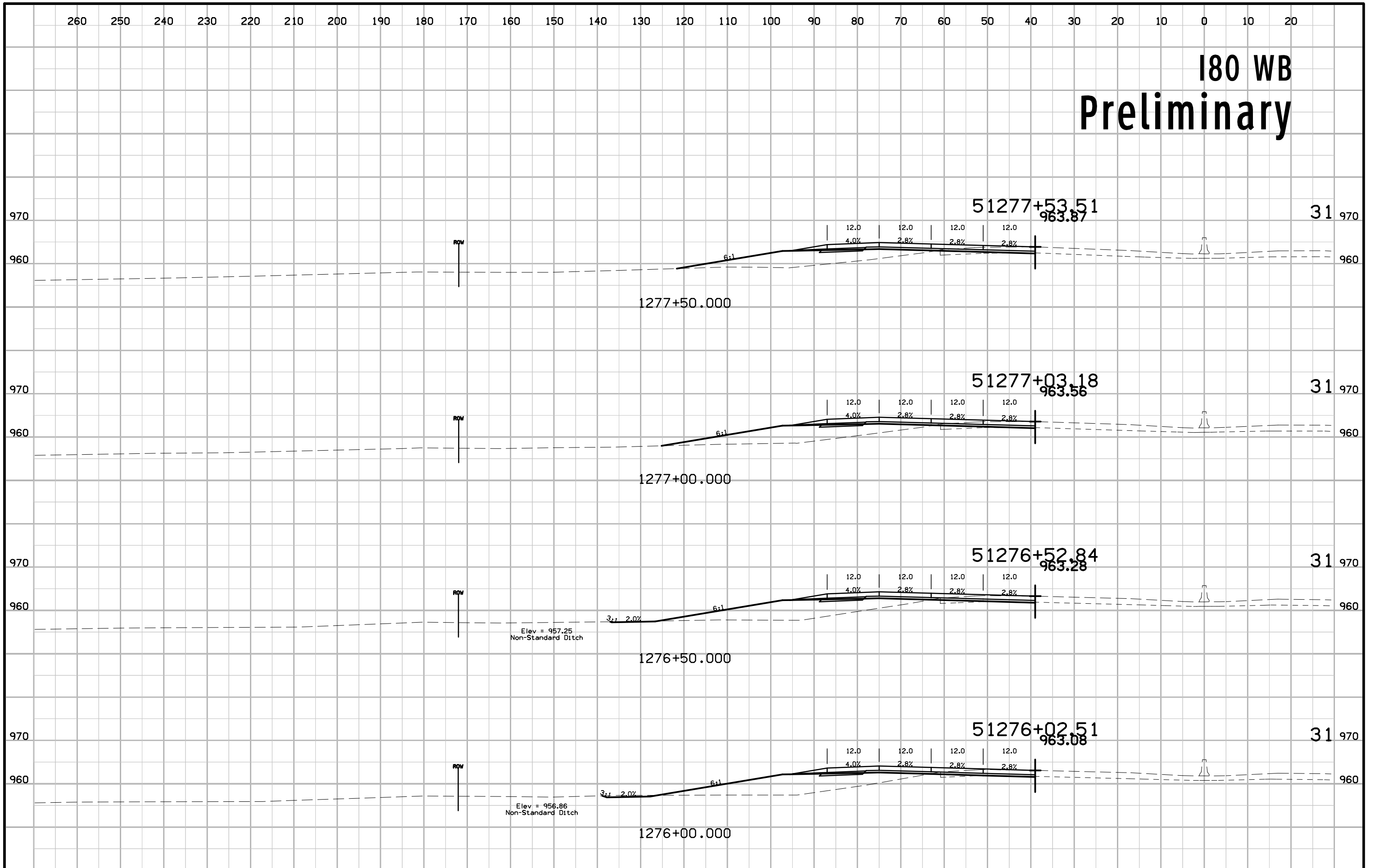
180 WB Preliminary

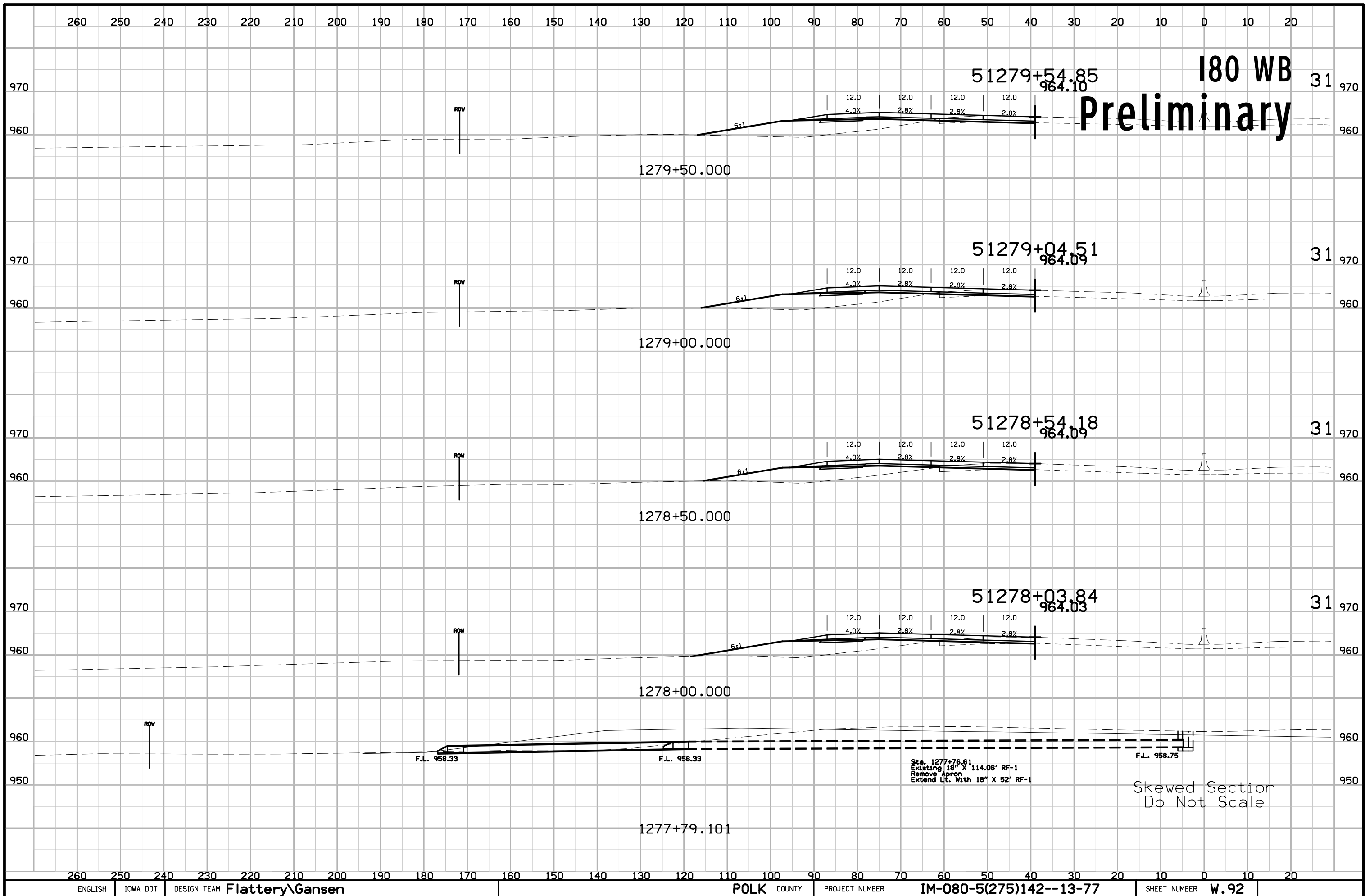


180 WB Preliminary

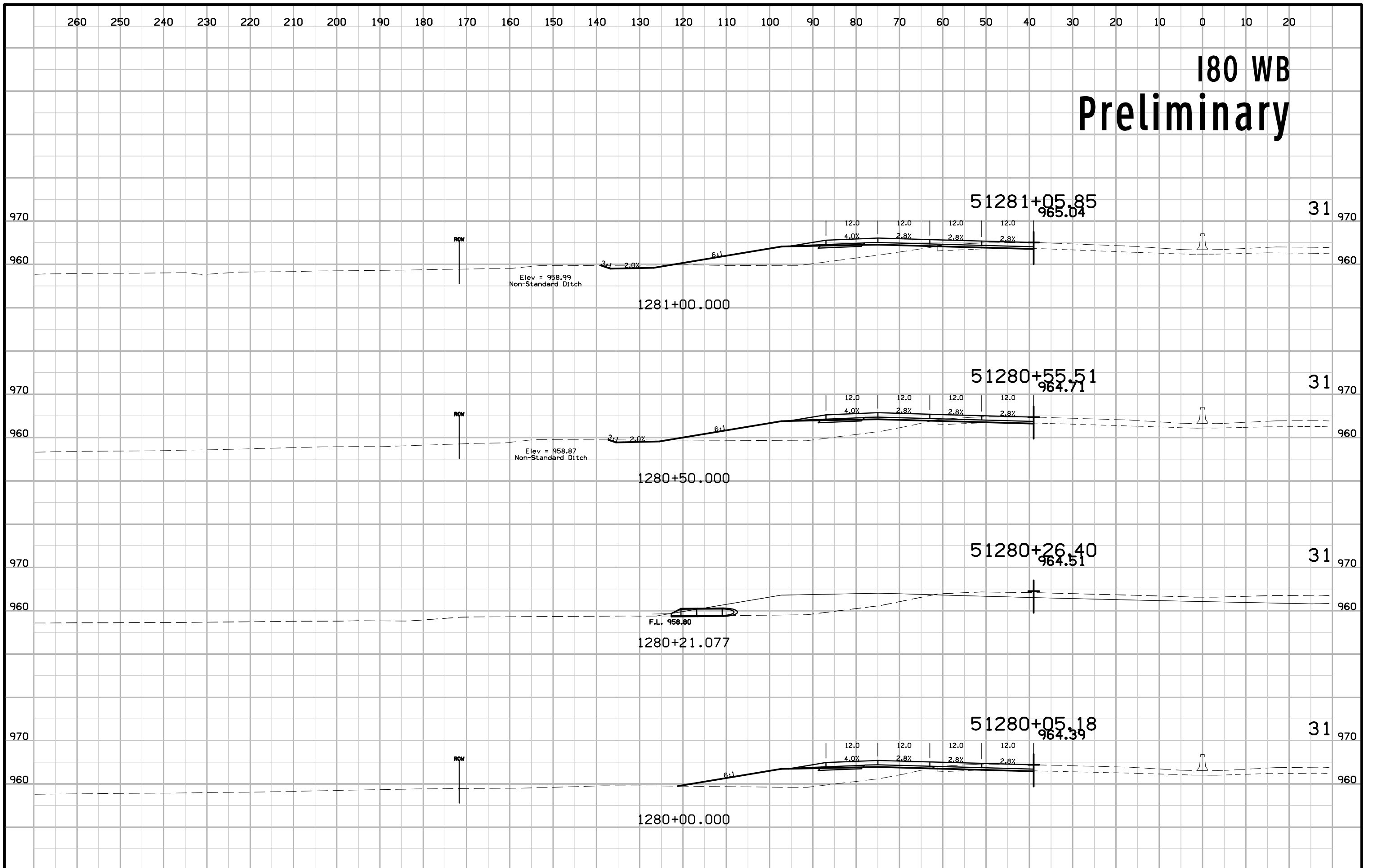


I80 WB Preliminary

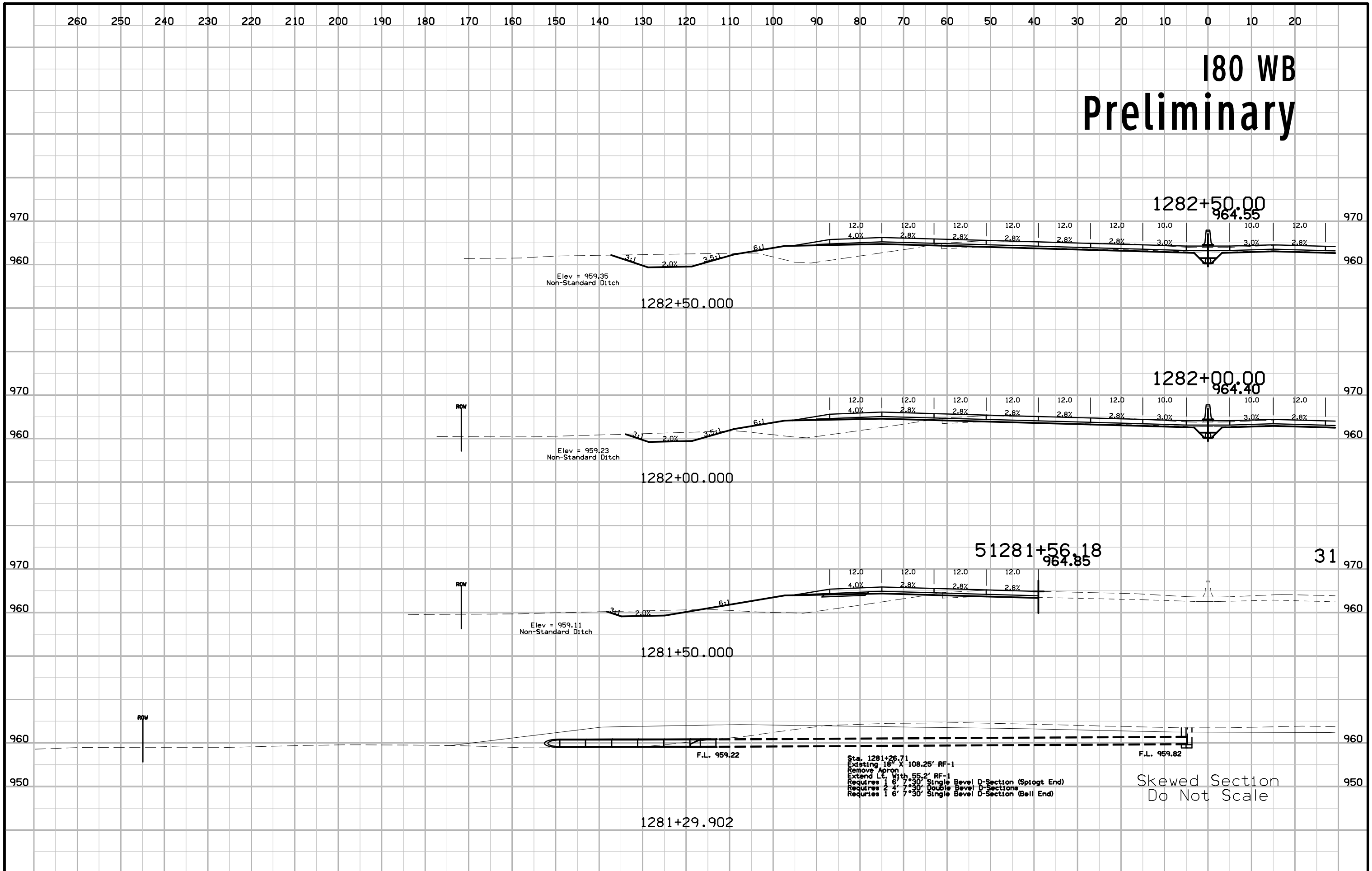




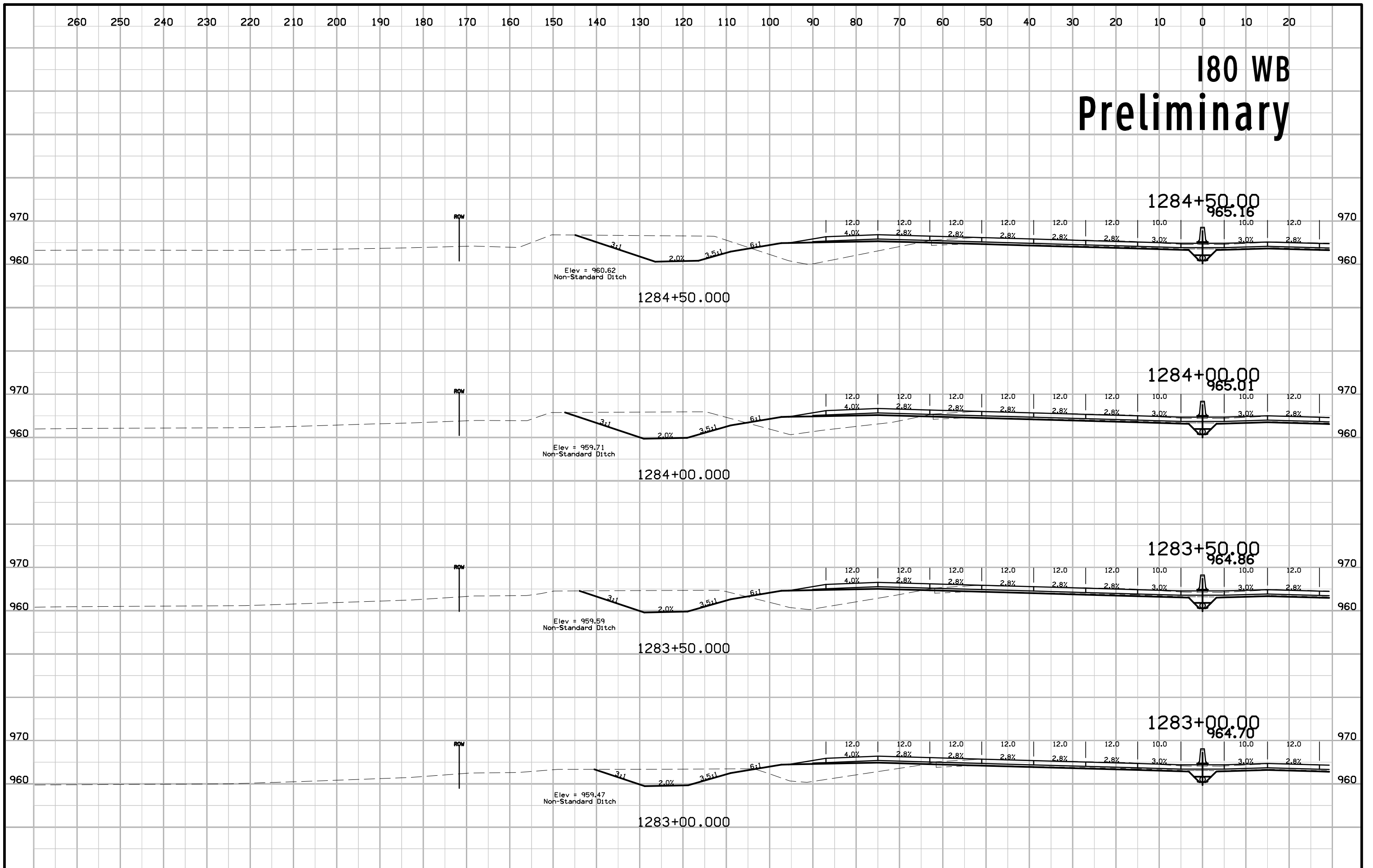
I80 WB Preliminary



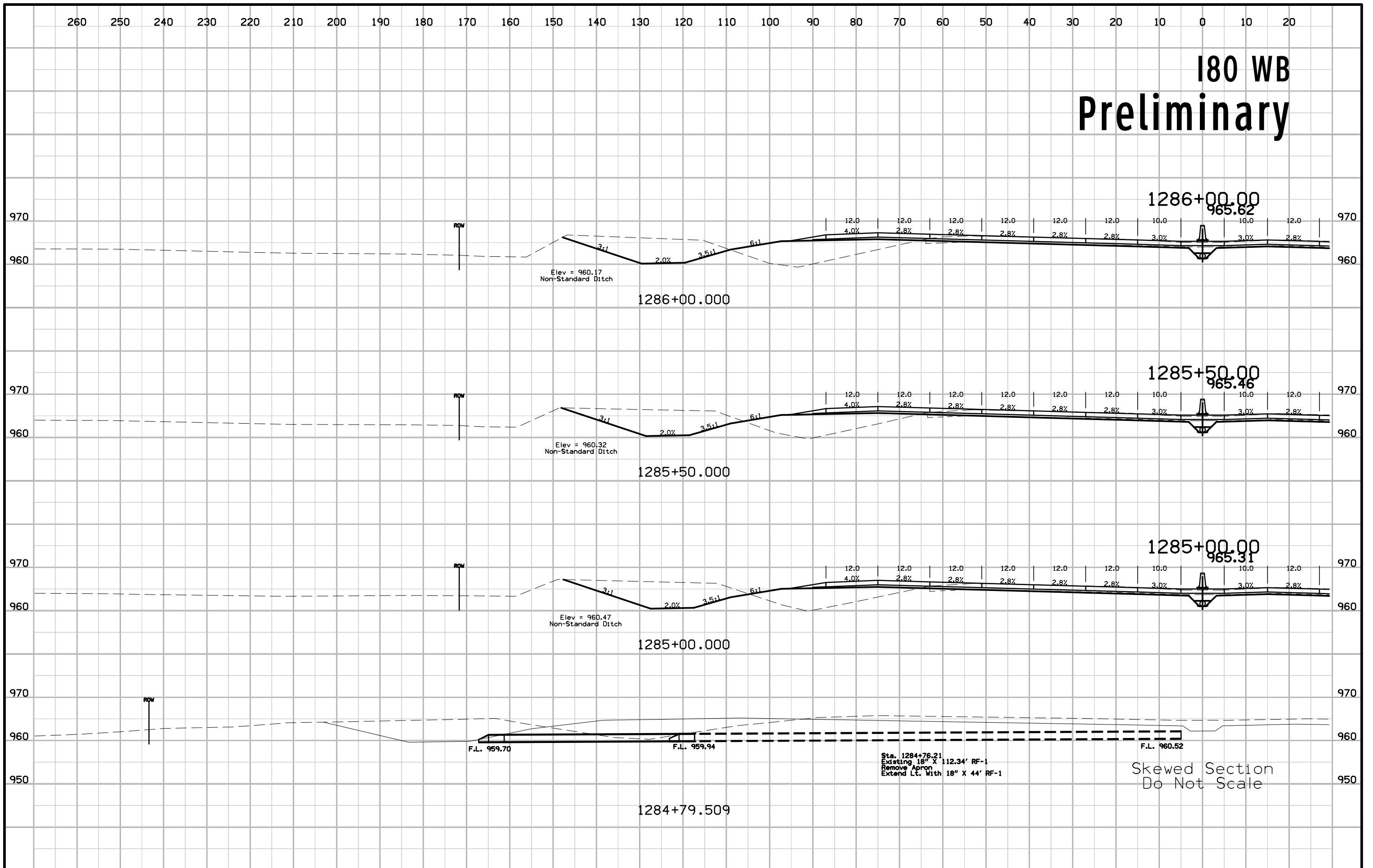
180 WB Preliminary



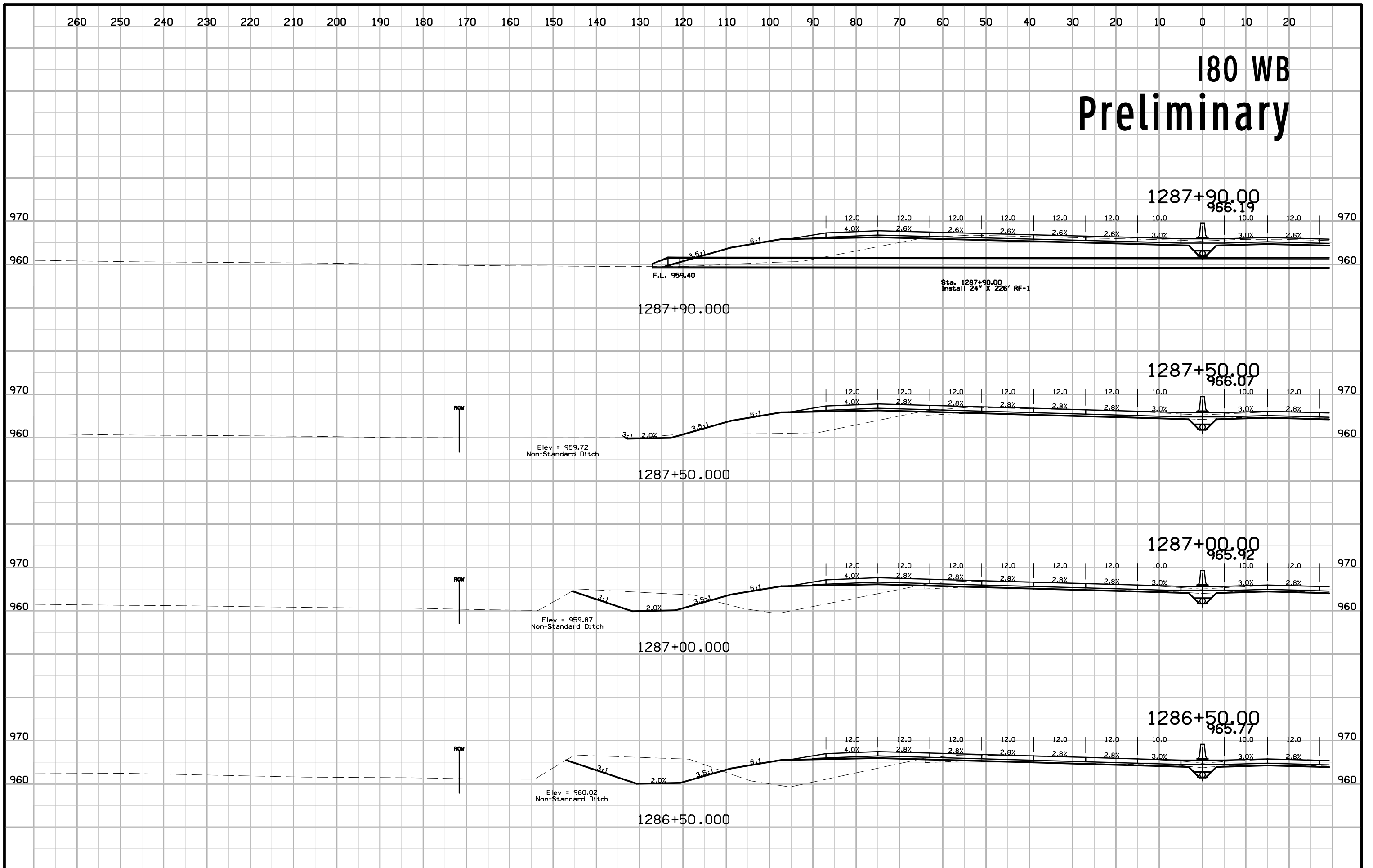
180 WB Preliminary



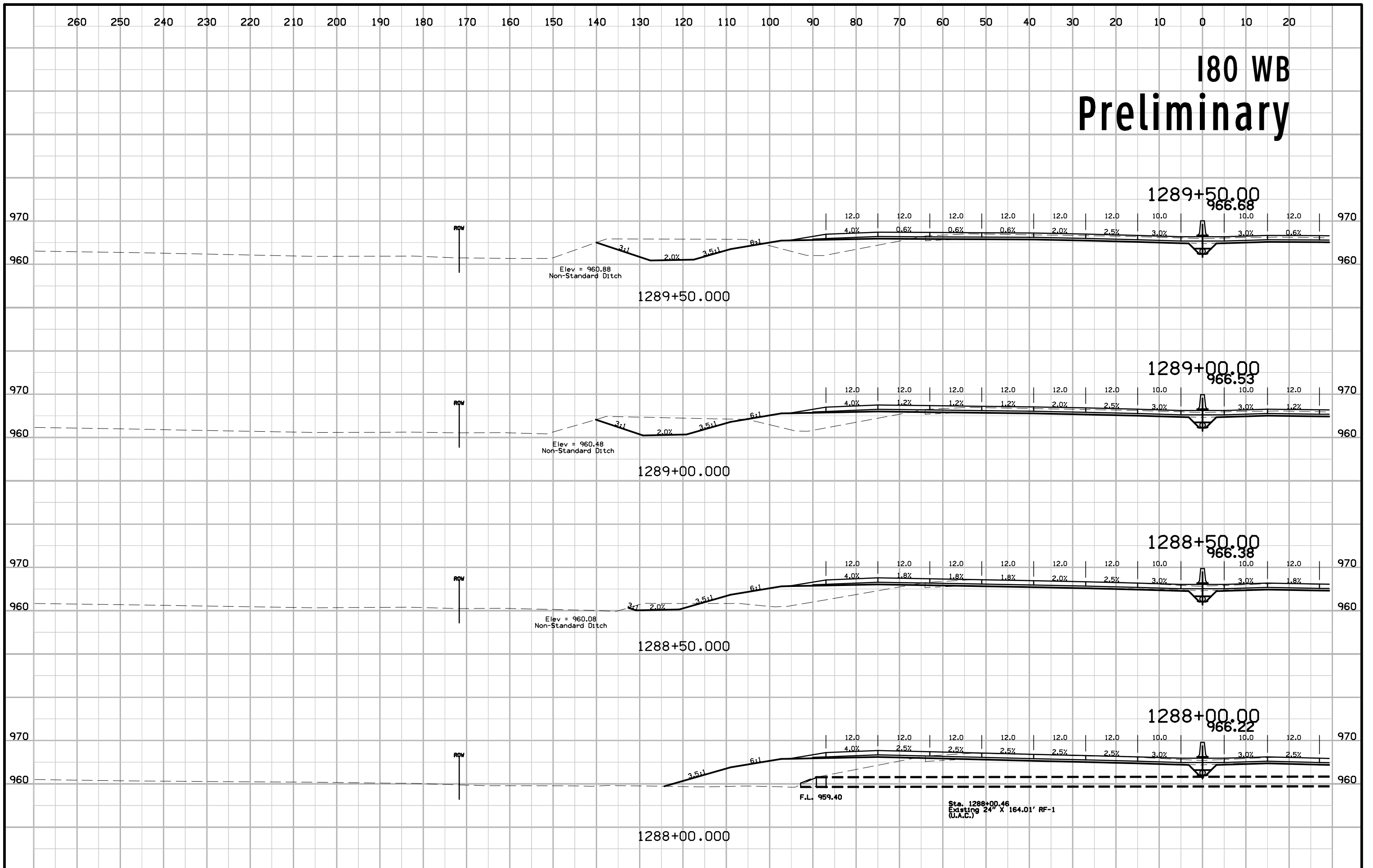
180 WB Preliminary

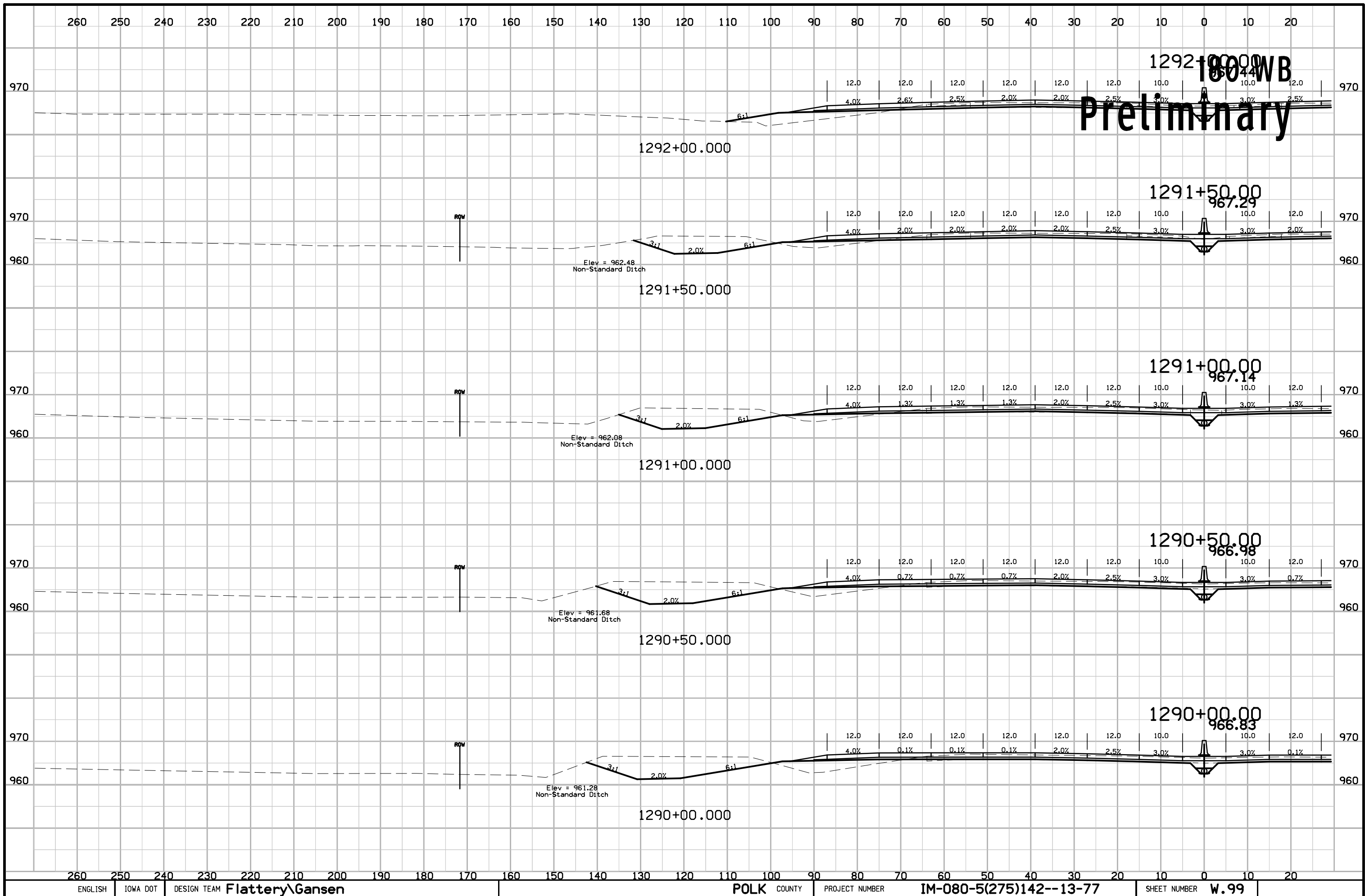


180 WB Preliminary



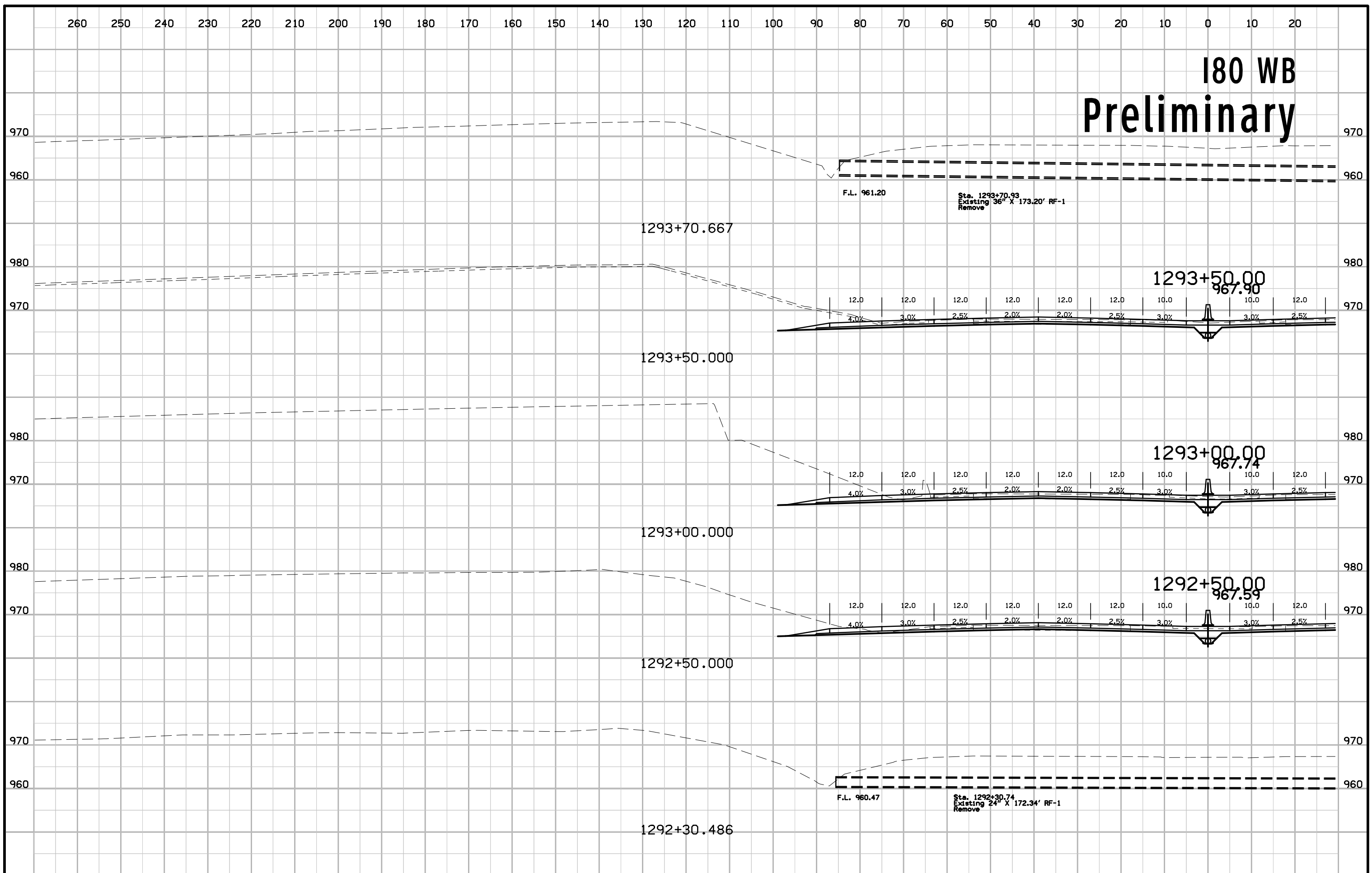
180 WB Preliminary





1292+00.00 WB
 969.44
Preliminary

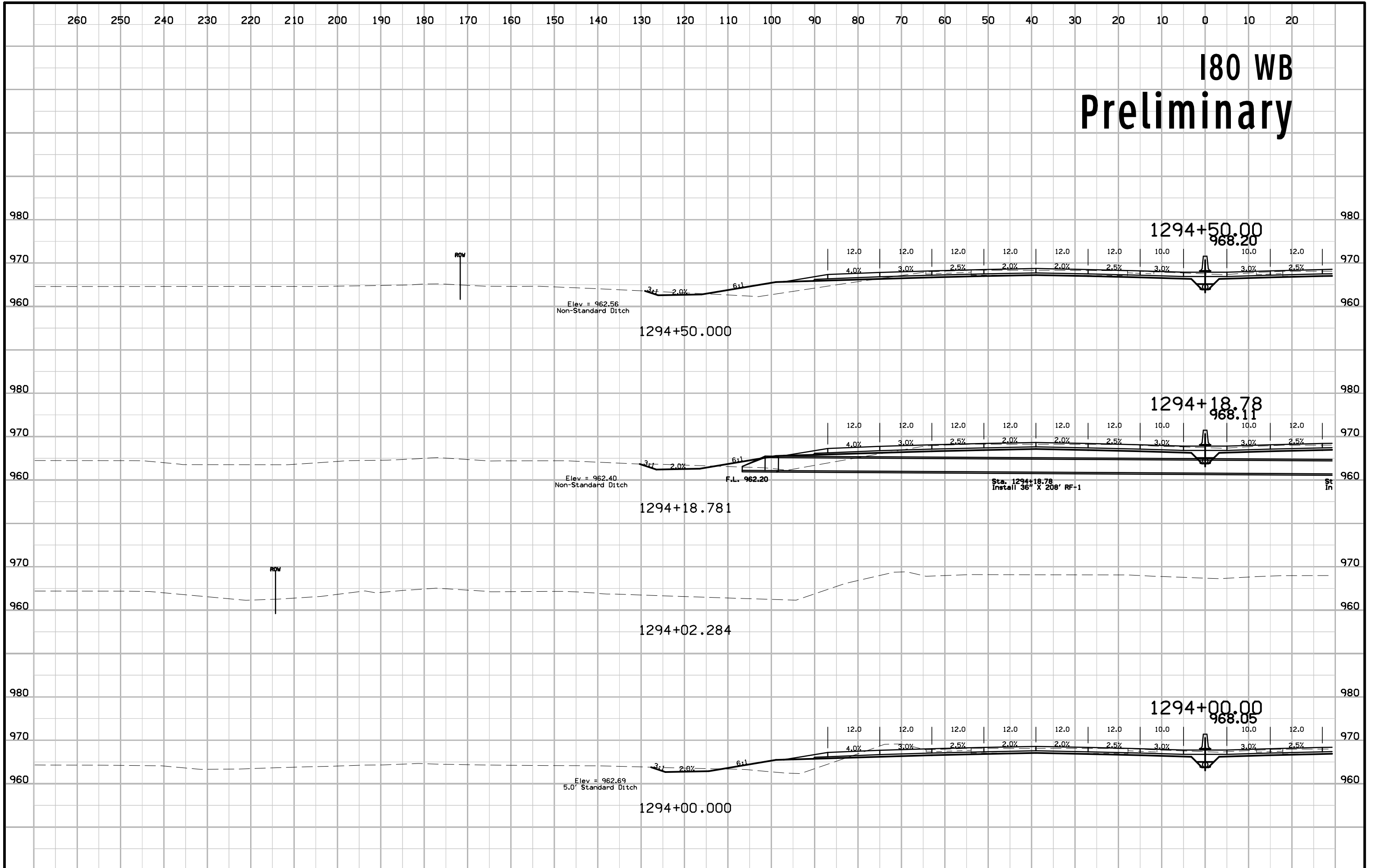
180 WB Preliminary



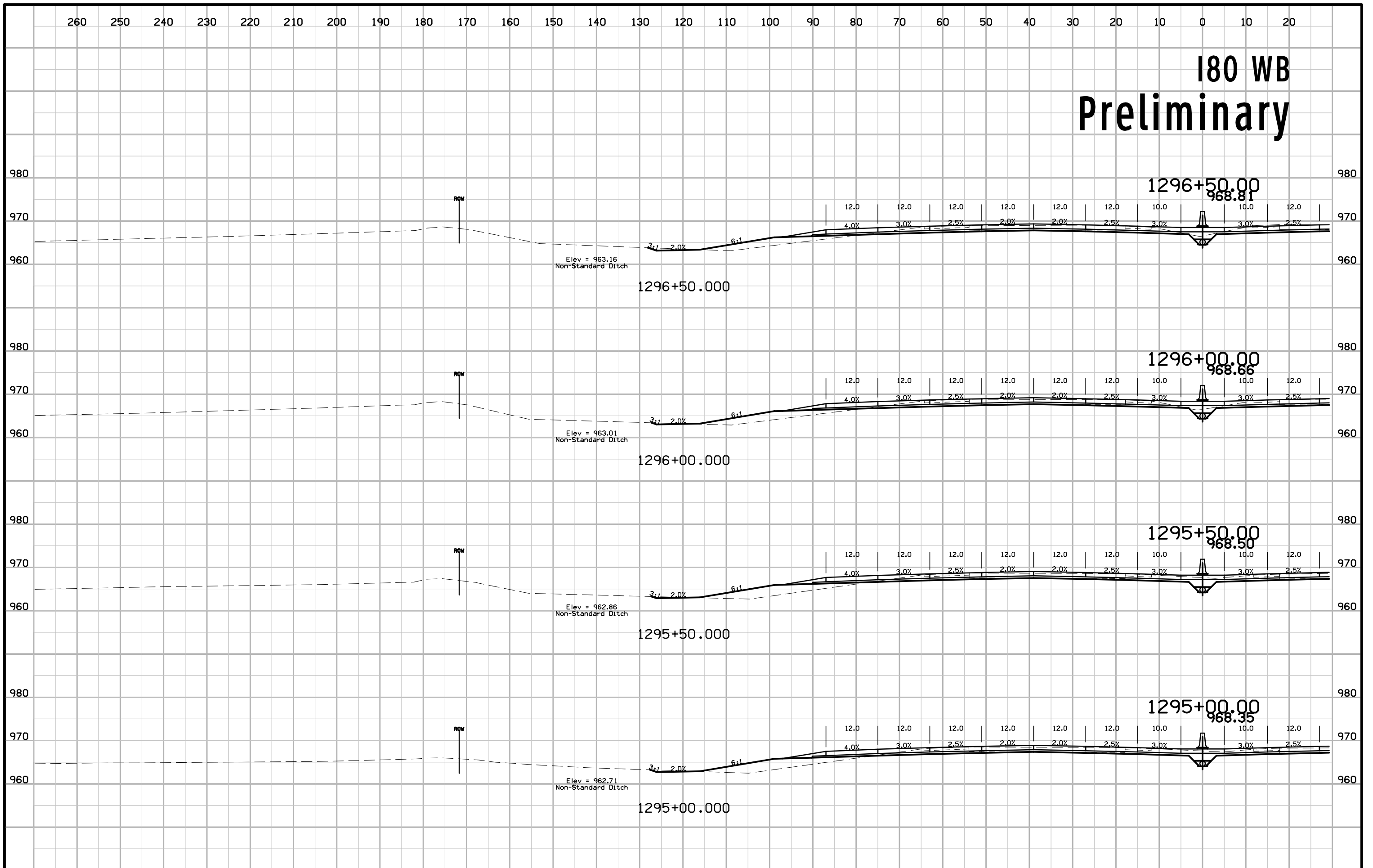
F.L. 961.20
Sta. 1293+70.93
Existing 36' X 173.20' RF-1
Remove

F.L. 960.47
Sta. 1292+30.74
Existing 24' X 172.34' RF-1
Remove

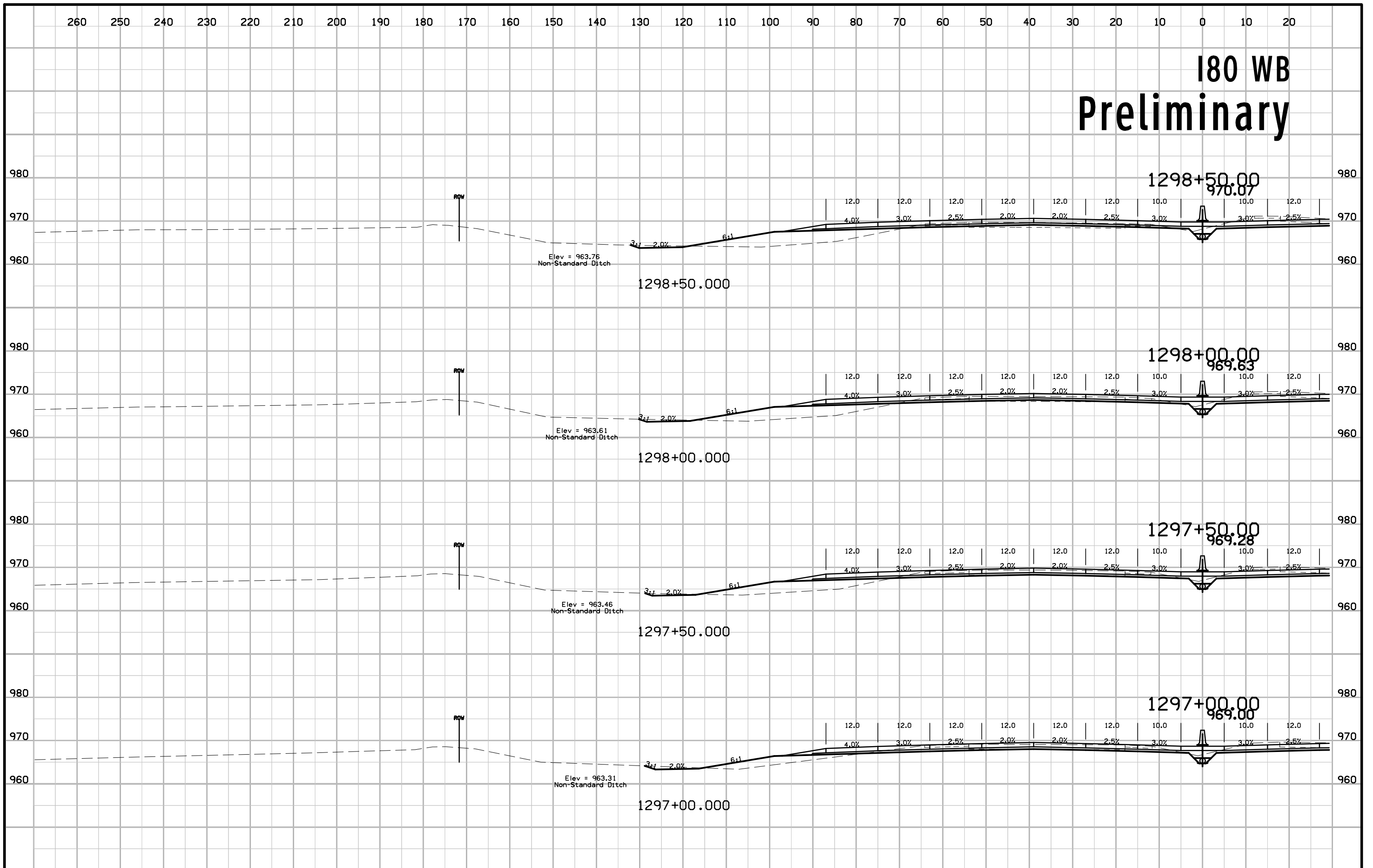
180 WB Preliminary



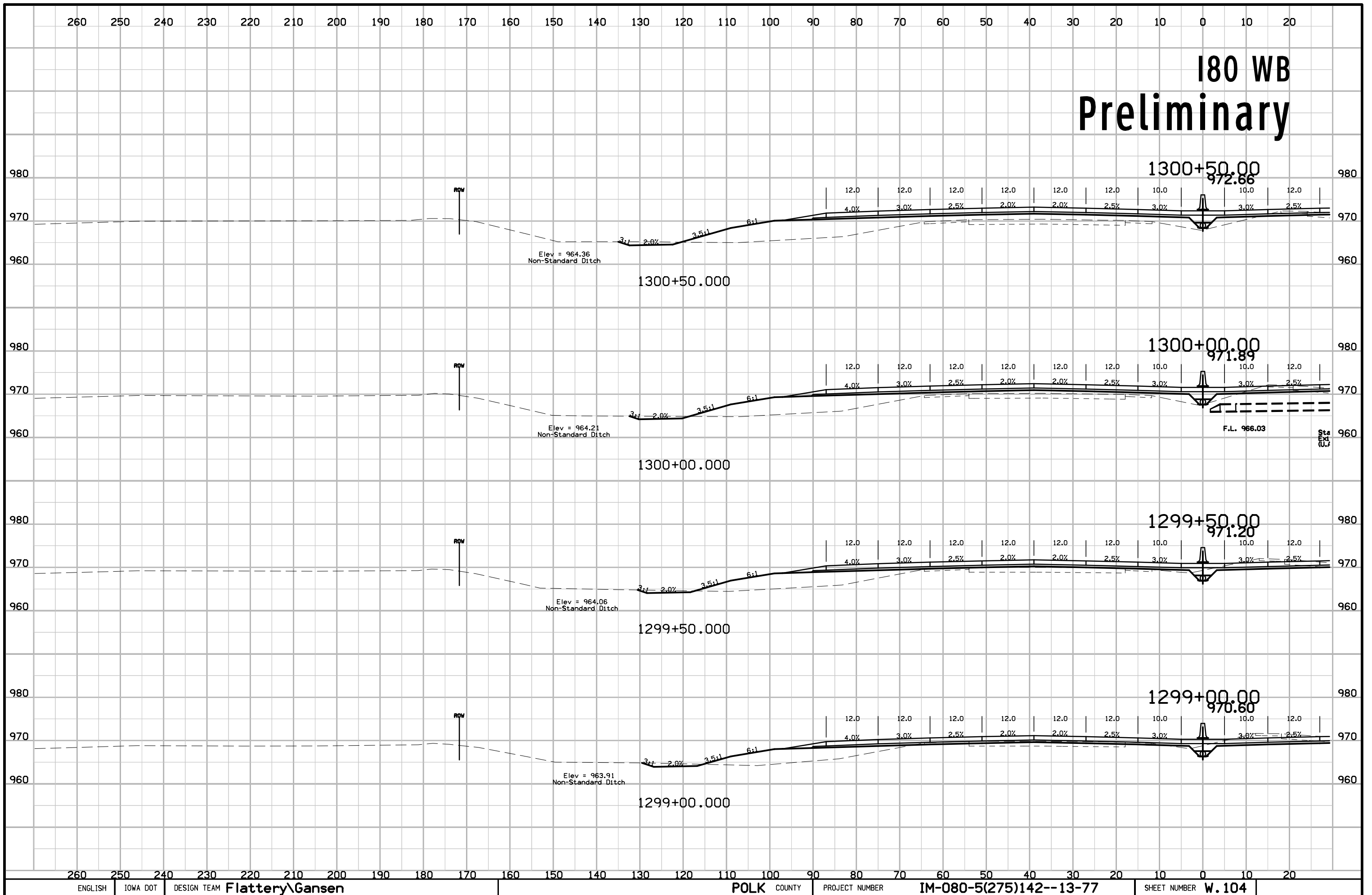
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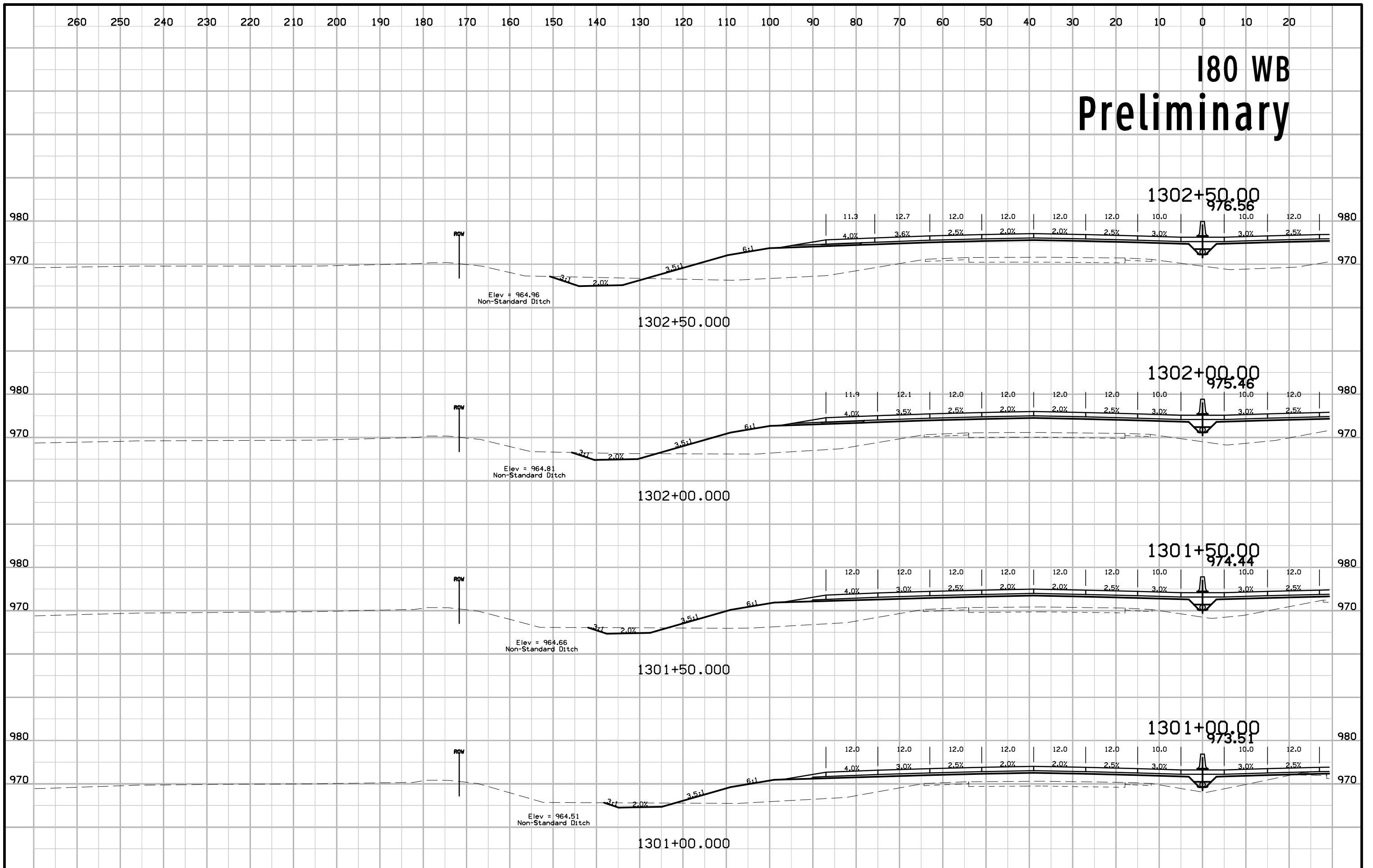
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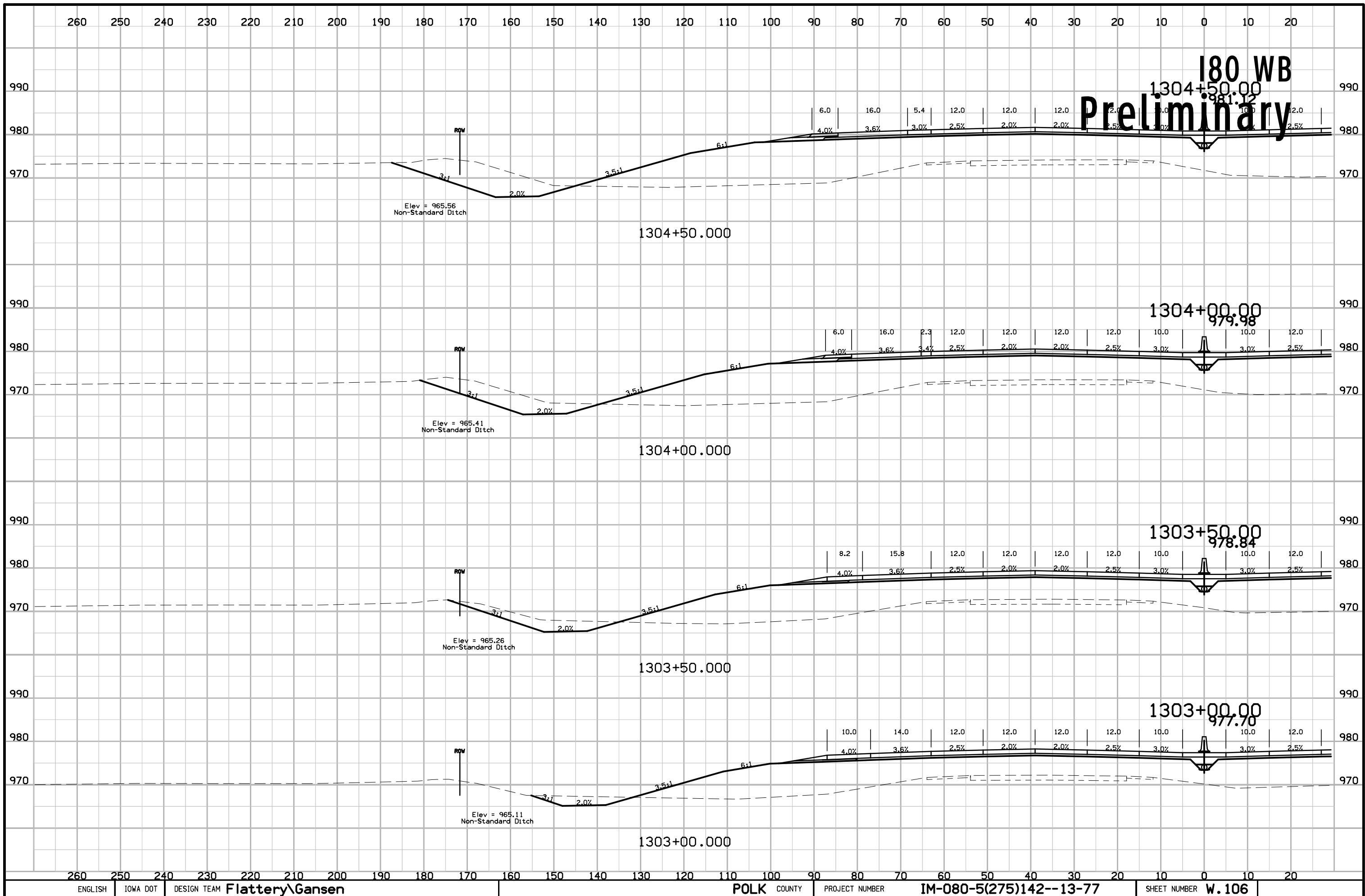


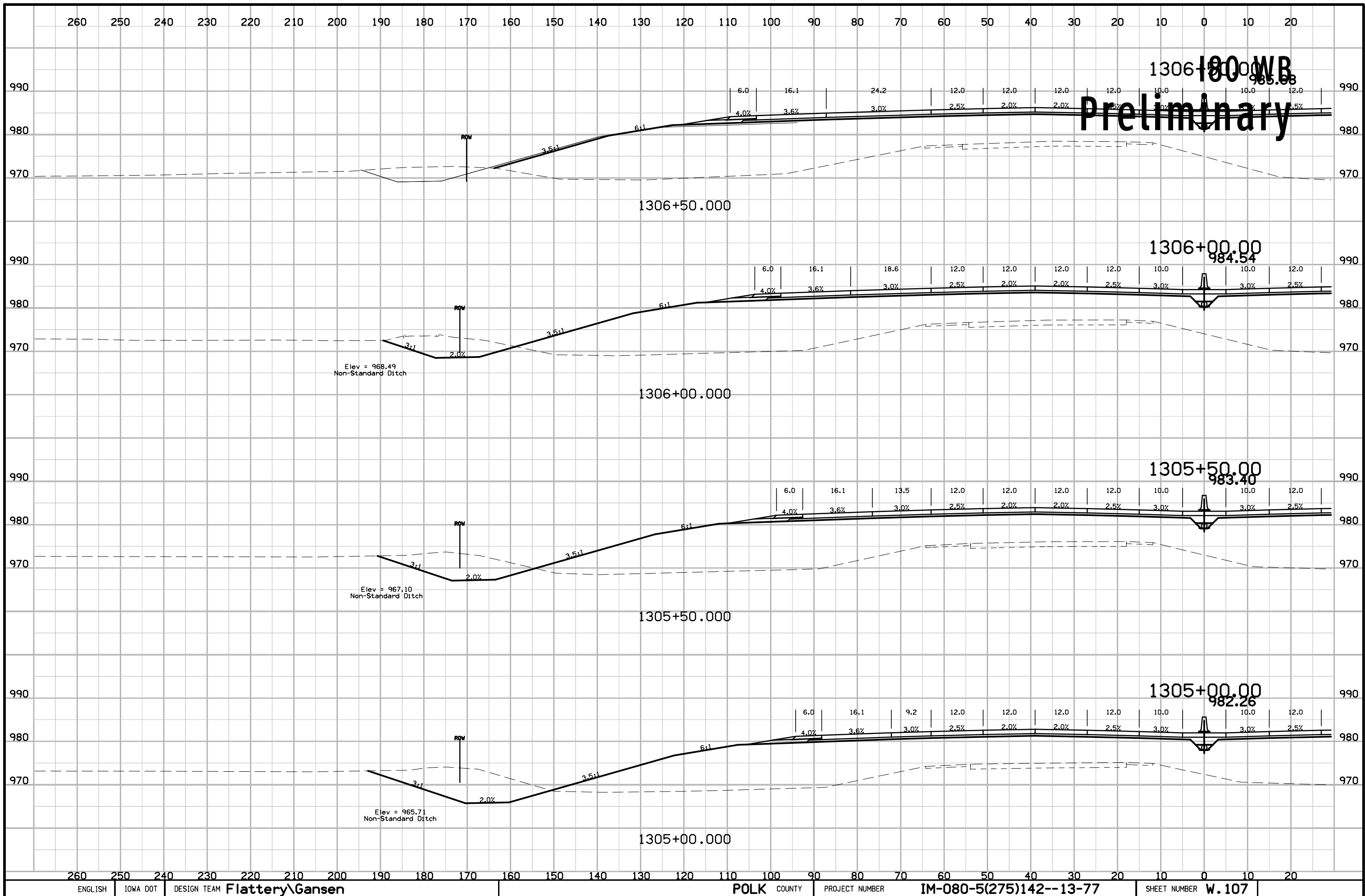
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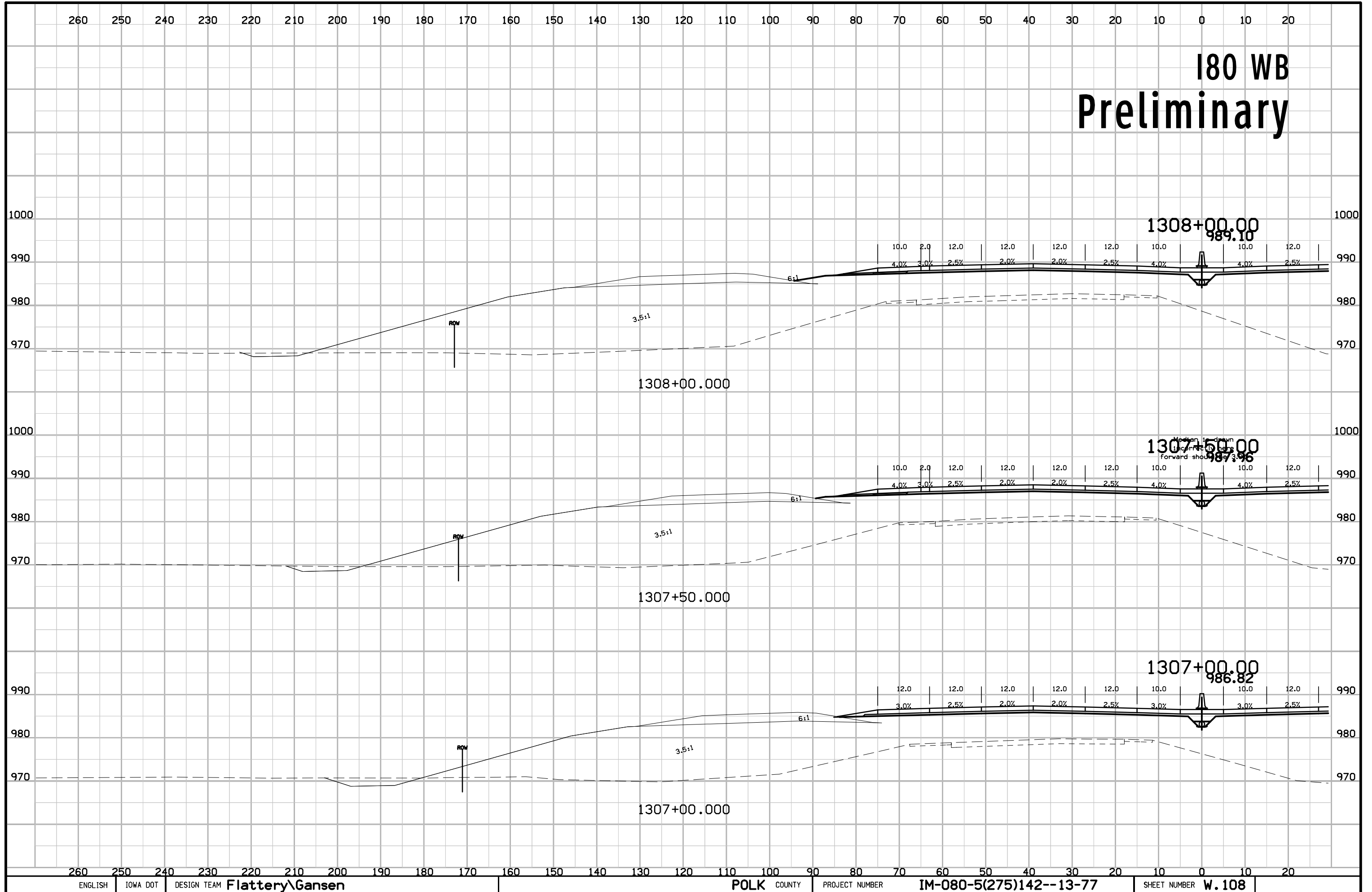
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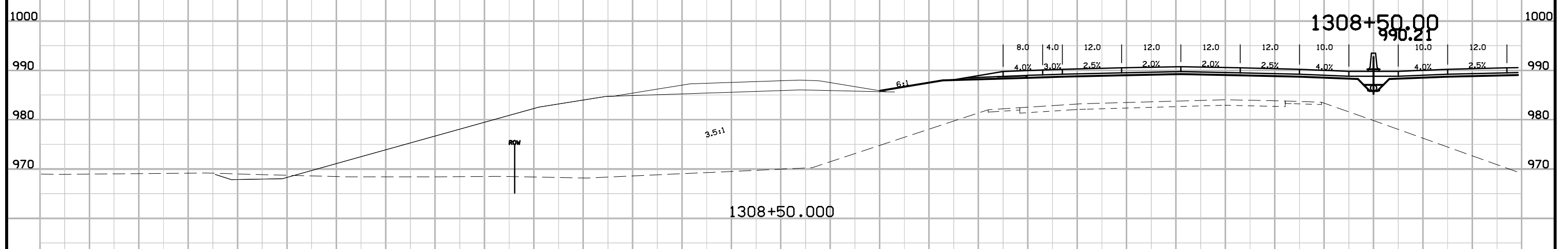
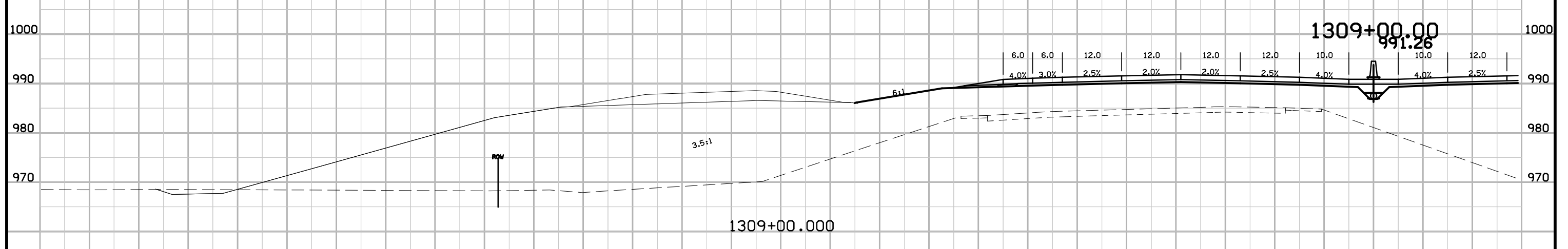
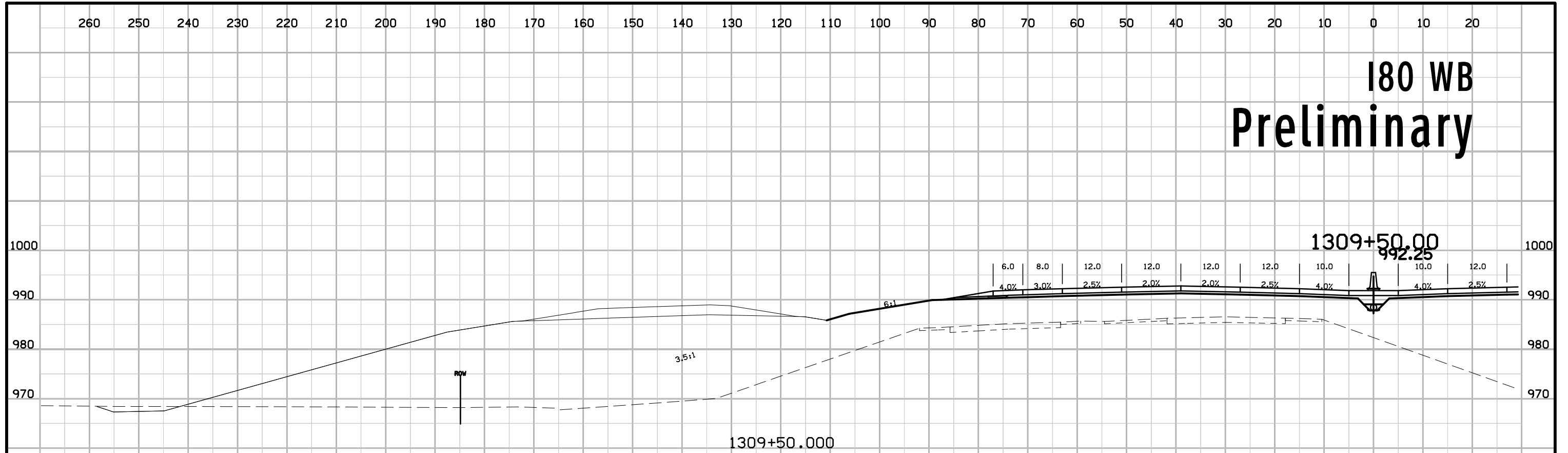




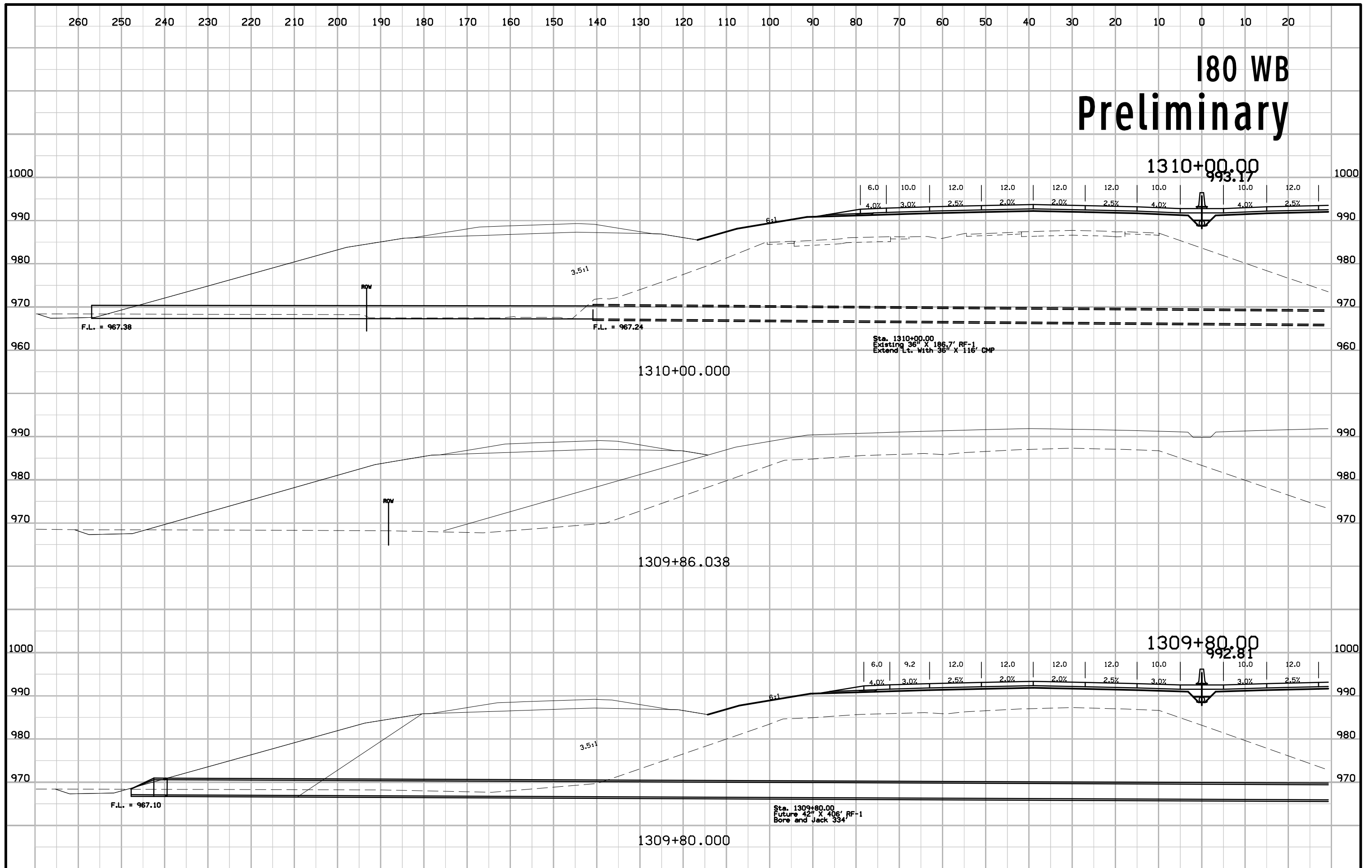
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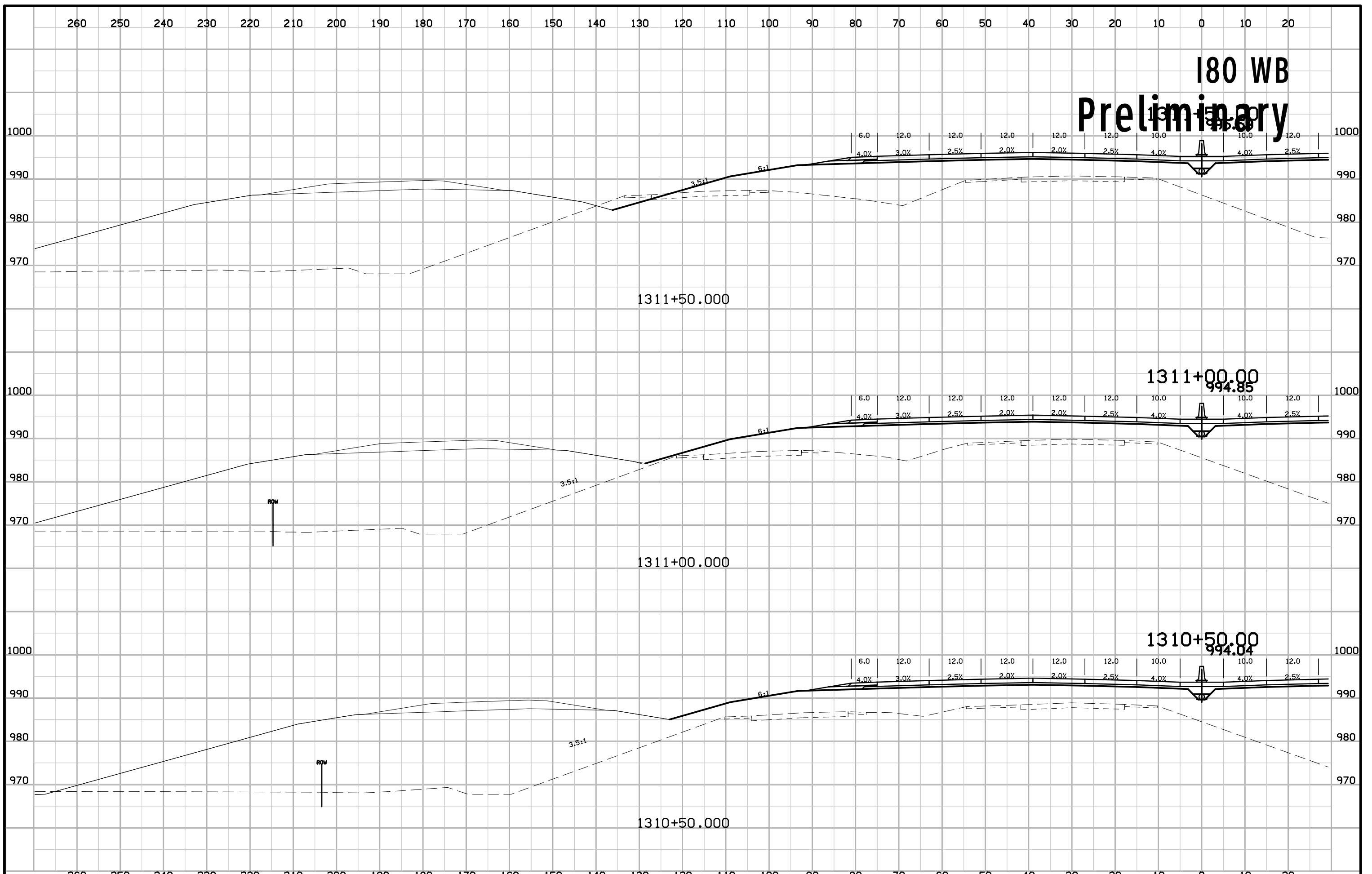
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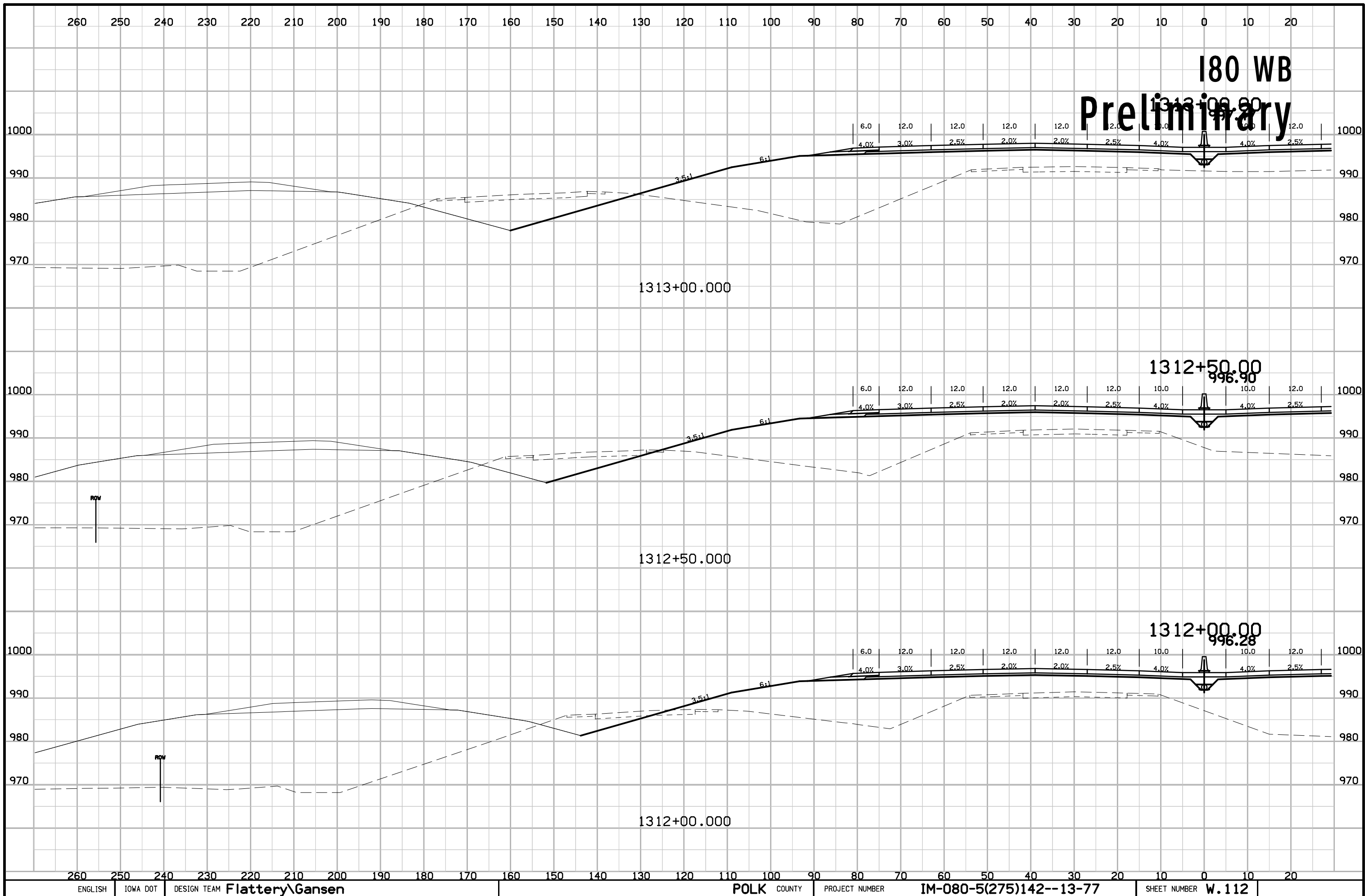


180 WB Preliminary



180 WB Preliminary





180 WB
Preliminary

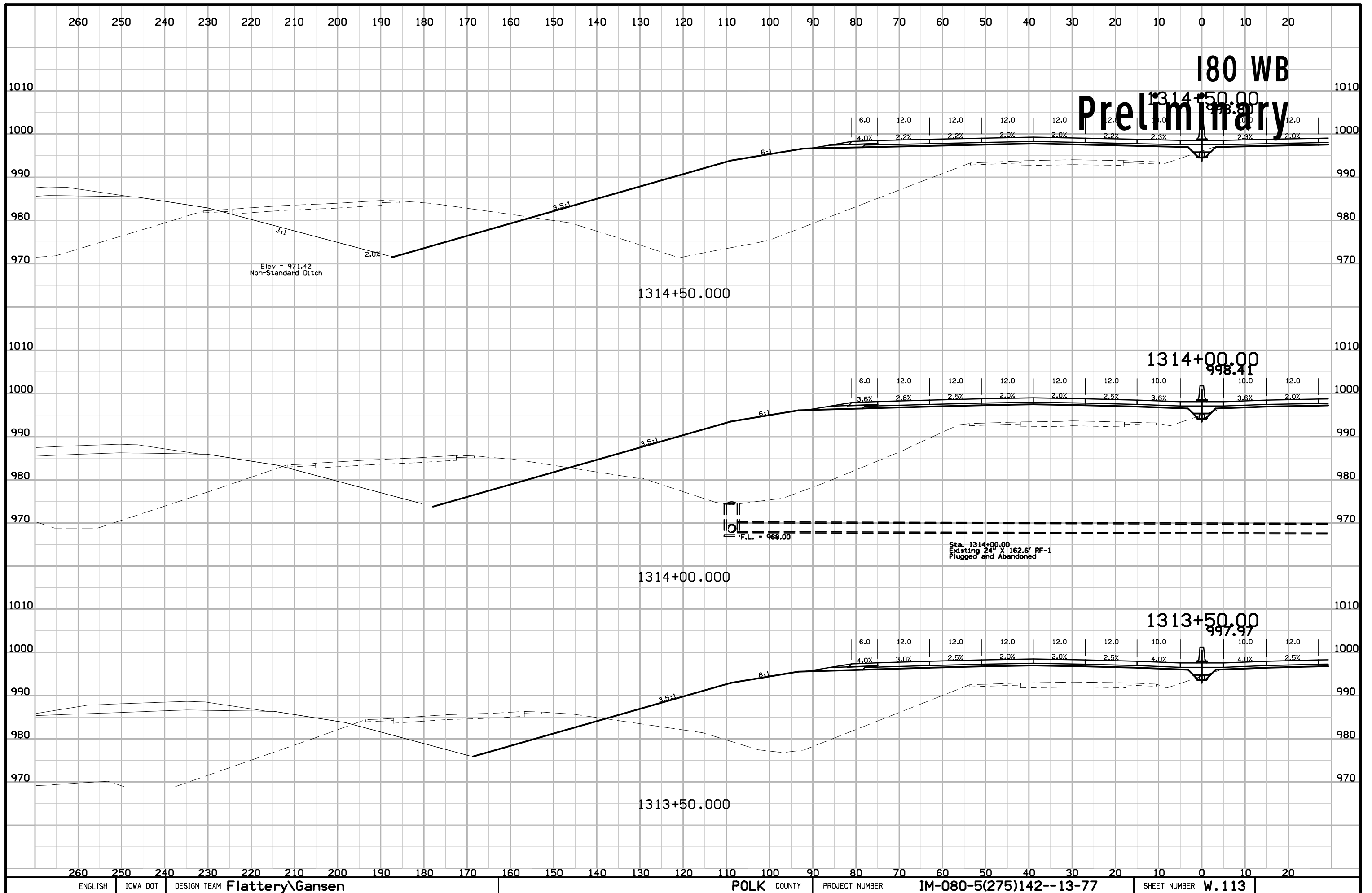
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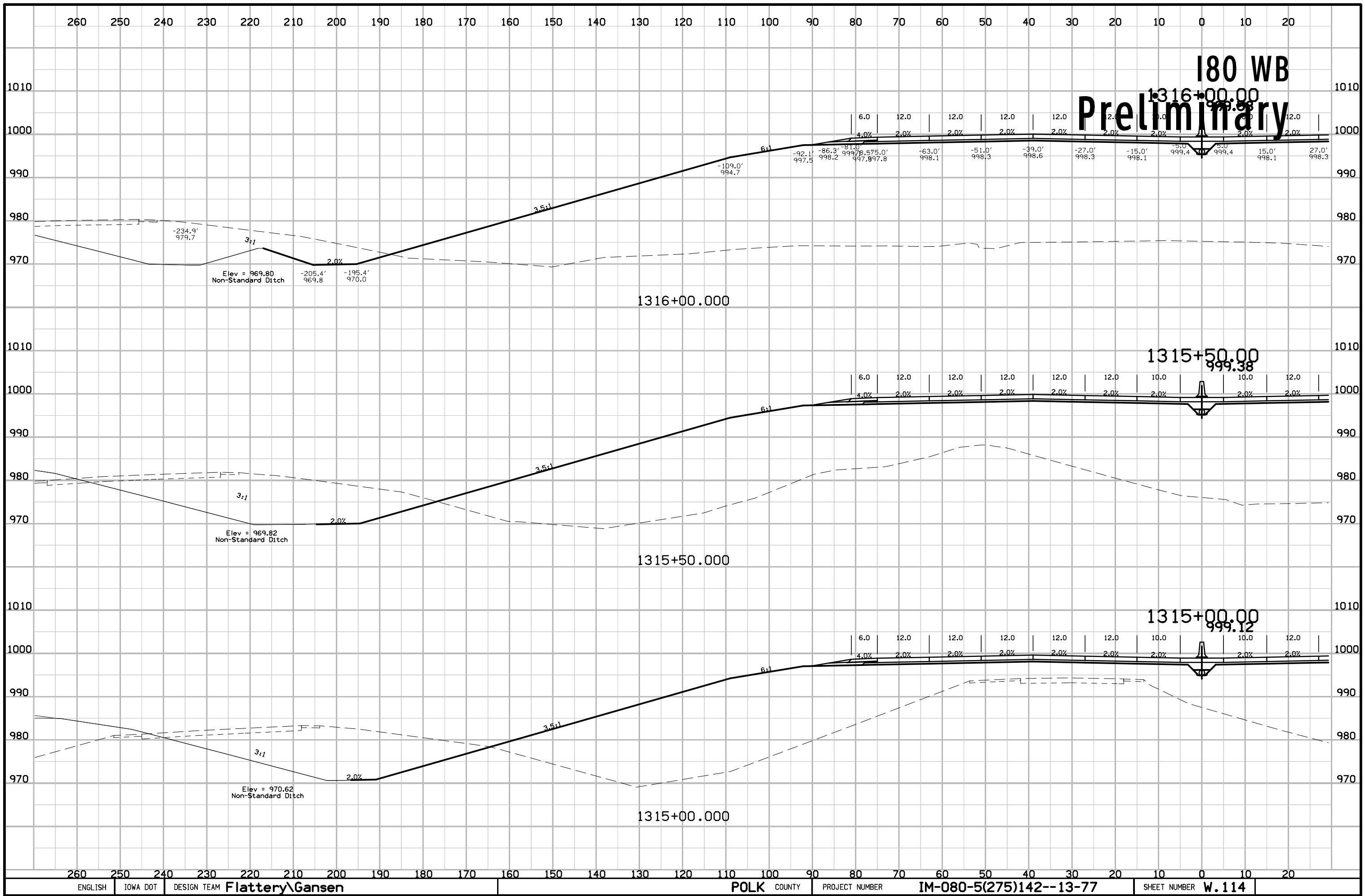
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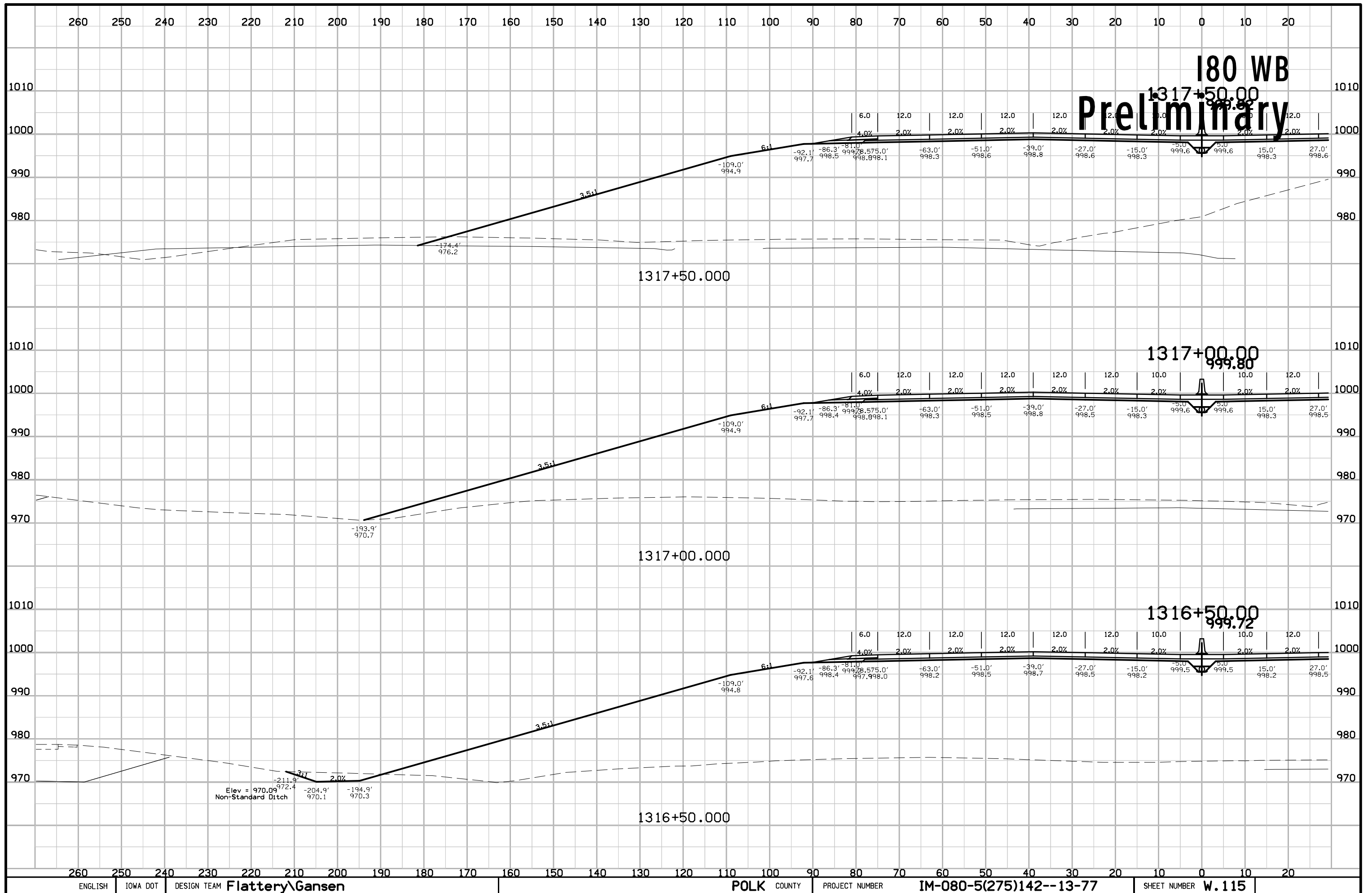
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1312+00.00
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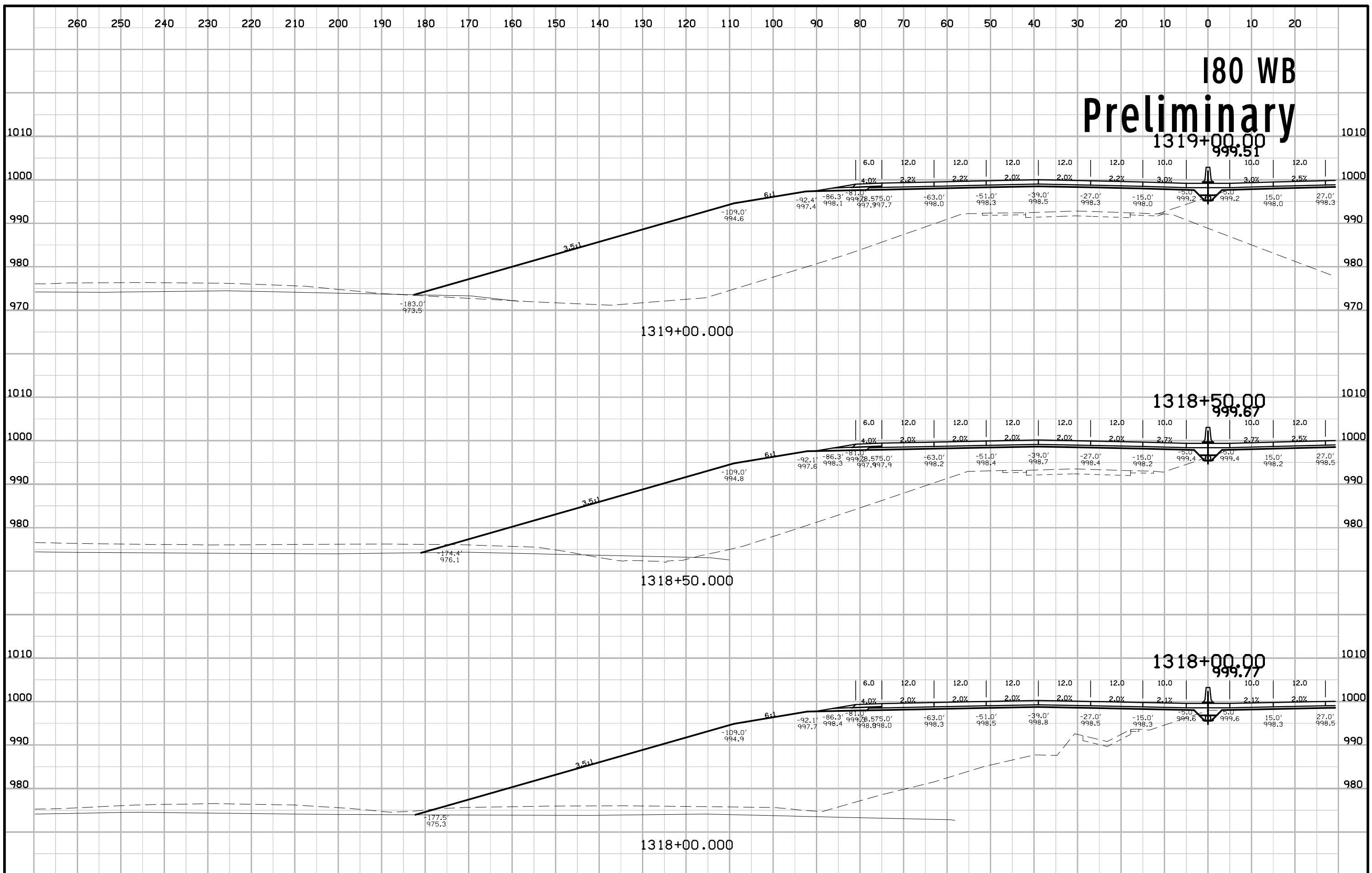
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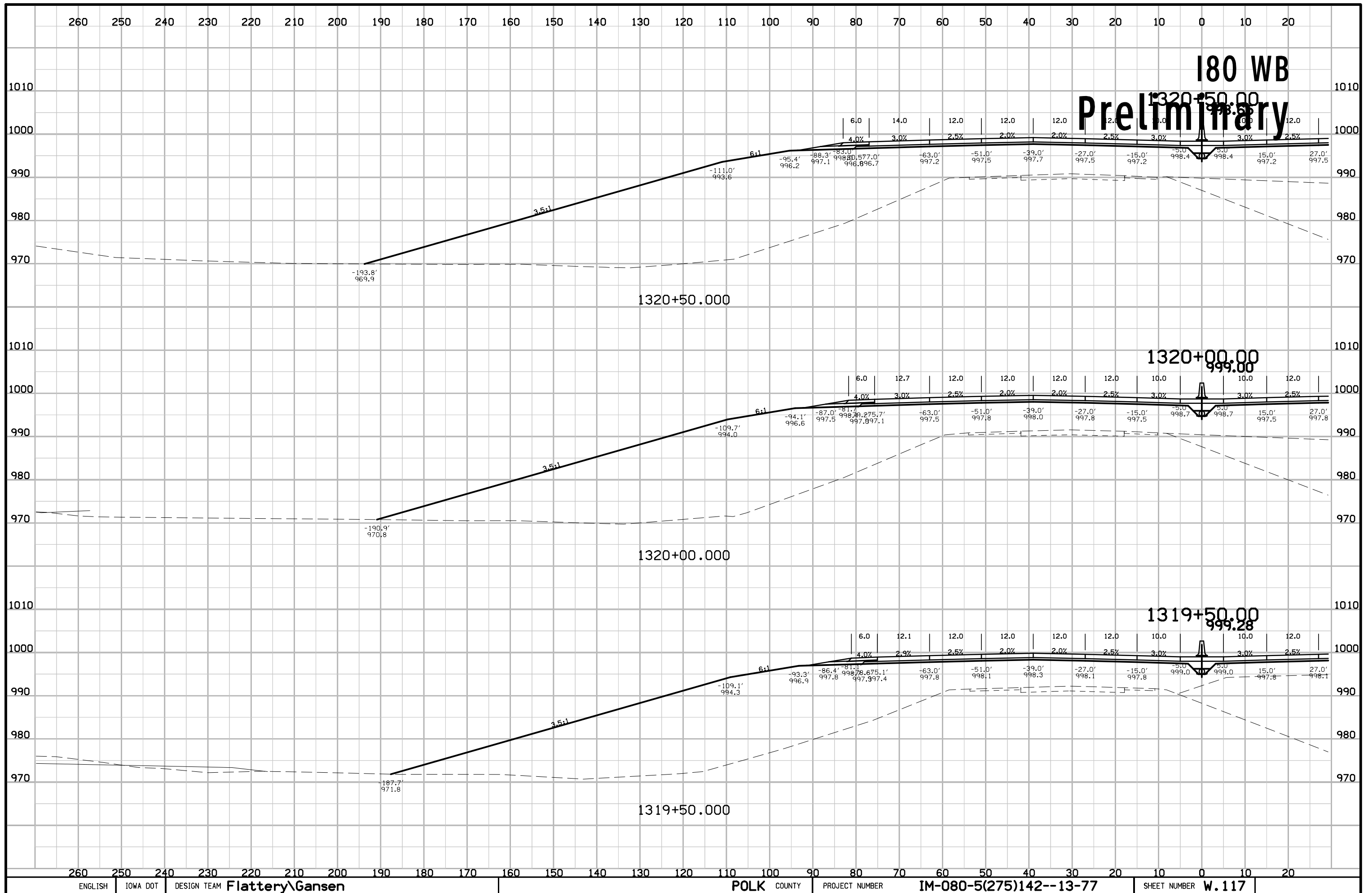


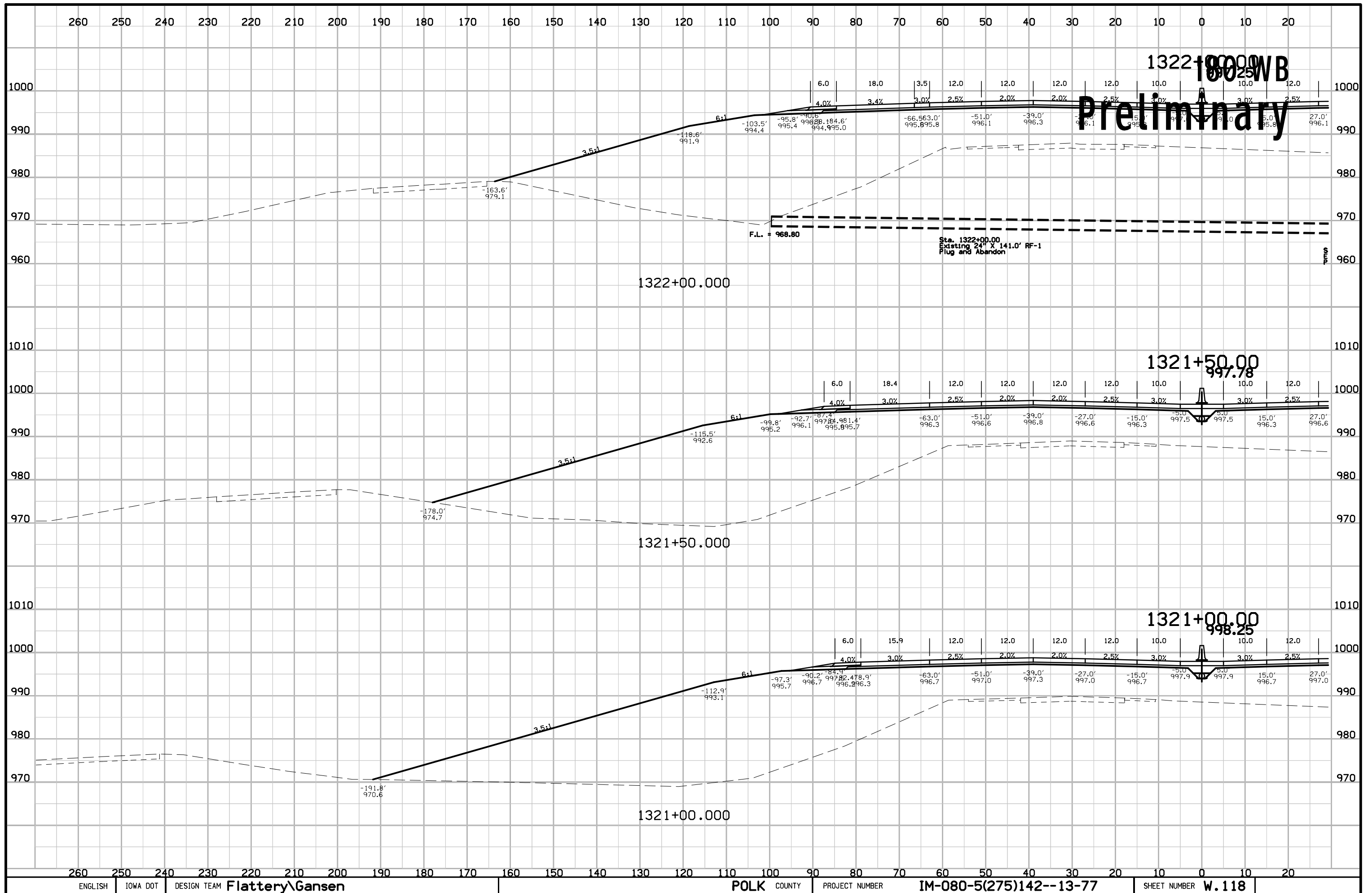




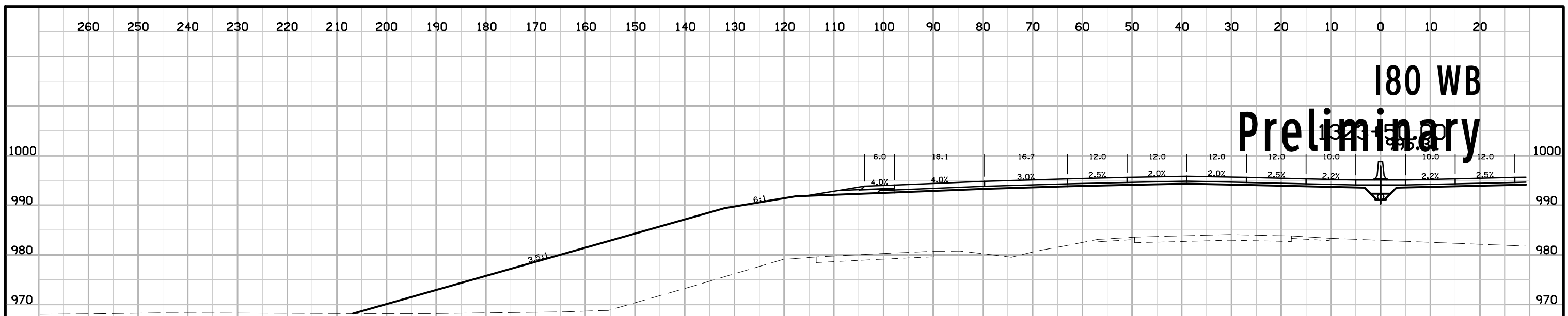
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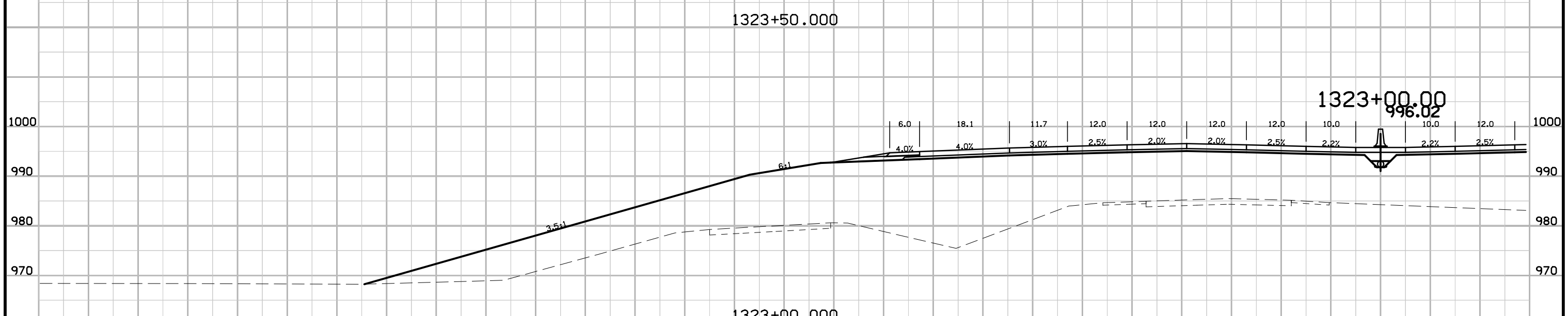




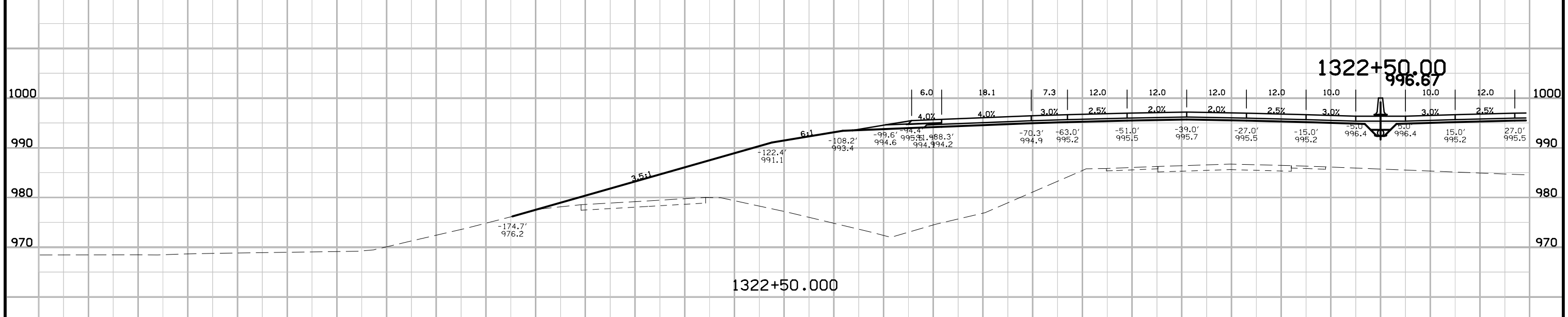
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1323+50.00

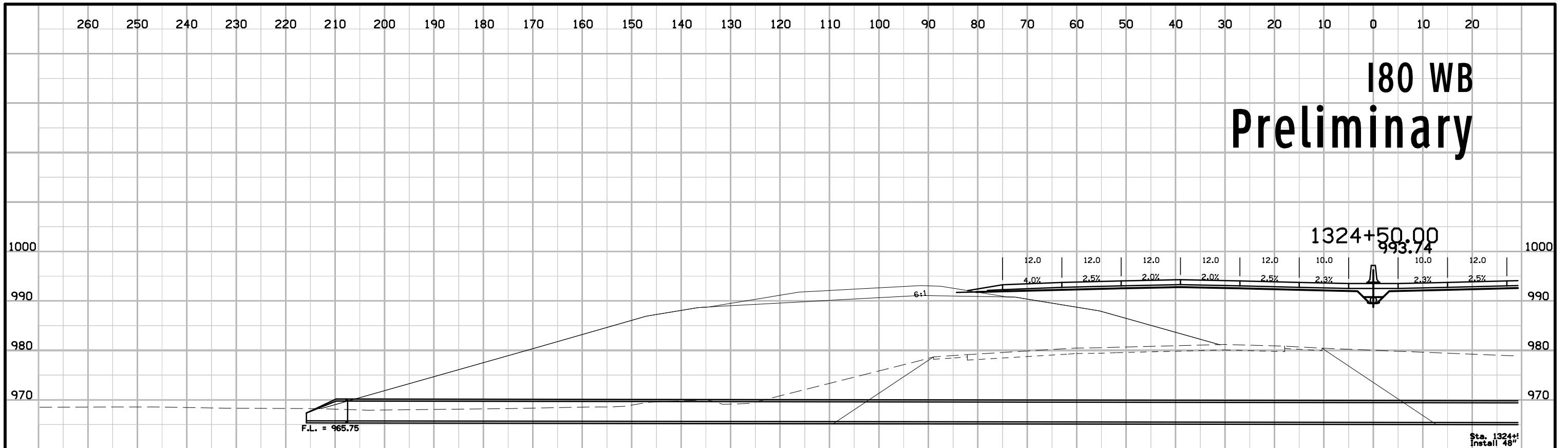


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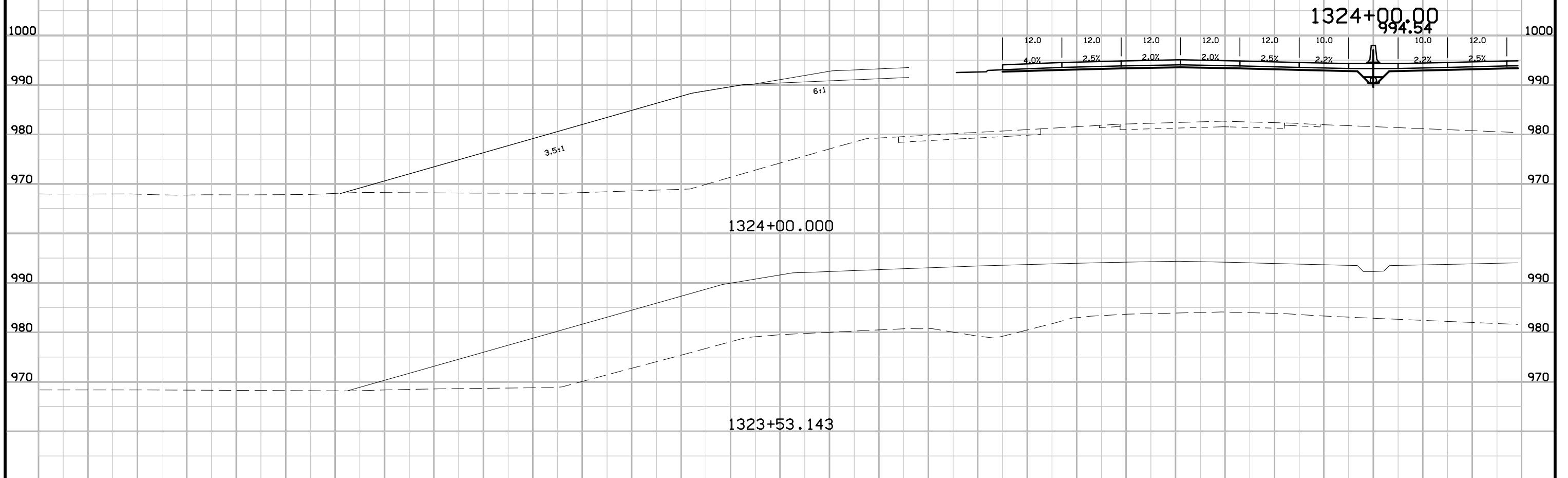


1322+50.00

I80 WB Preliminary



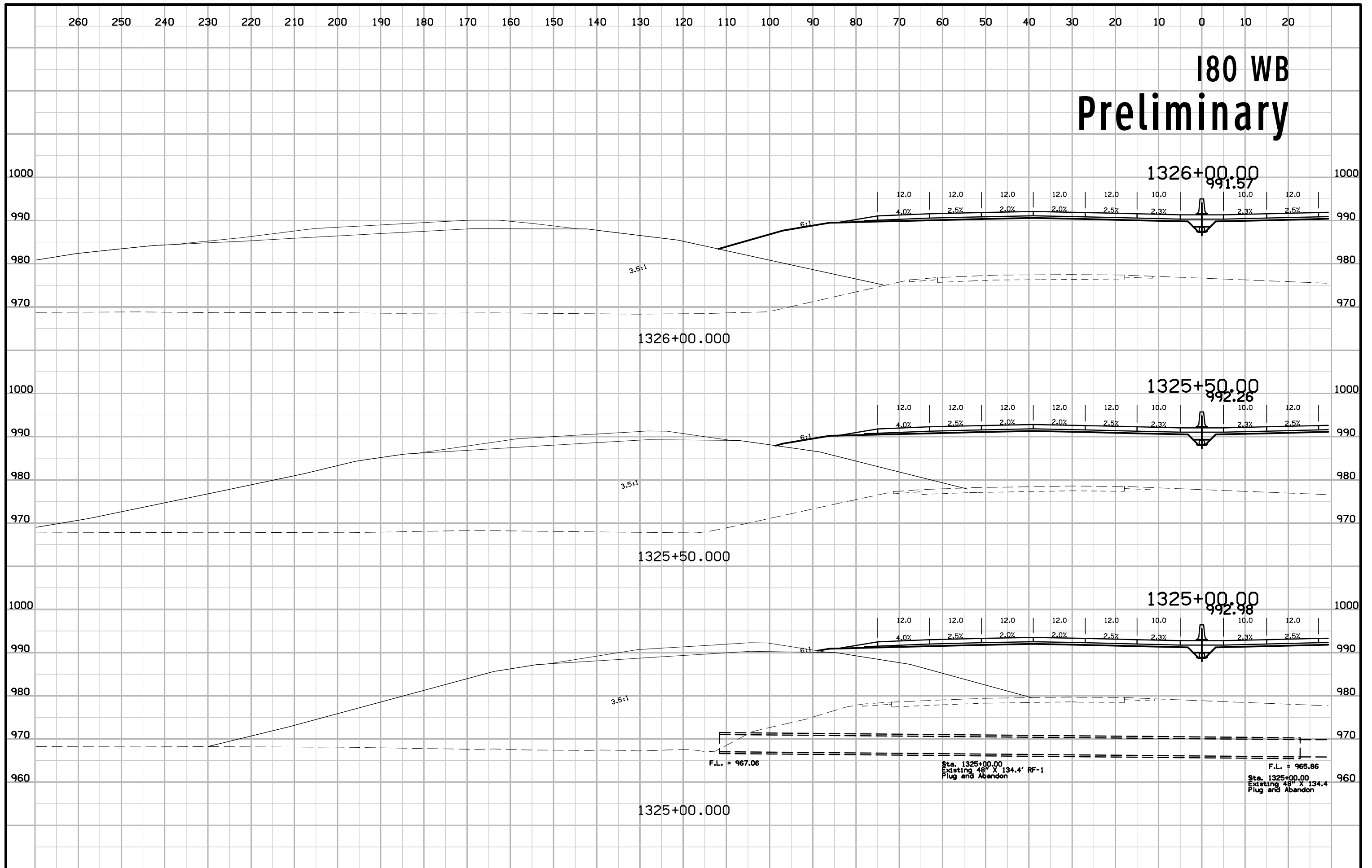
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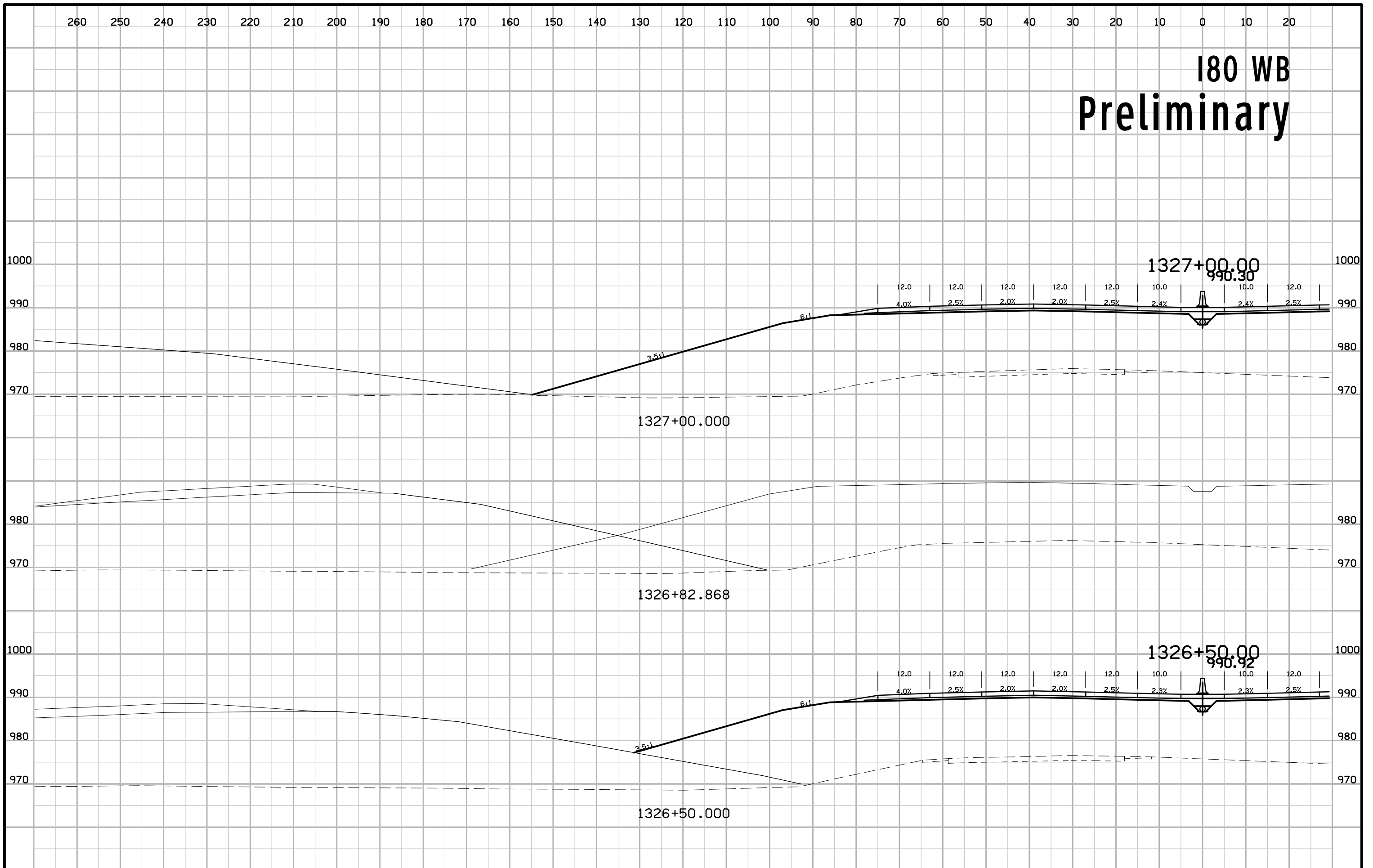
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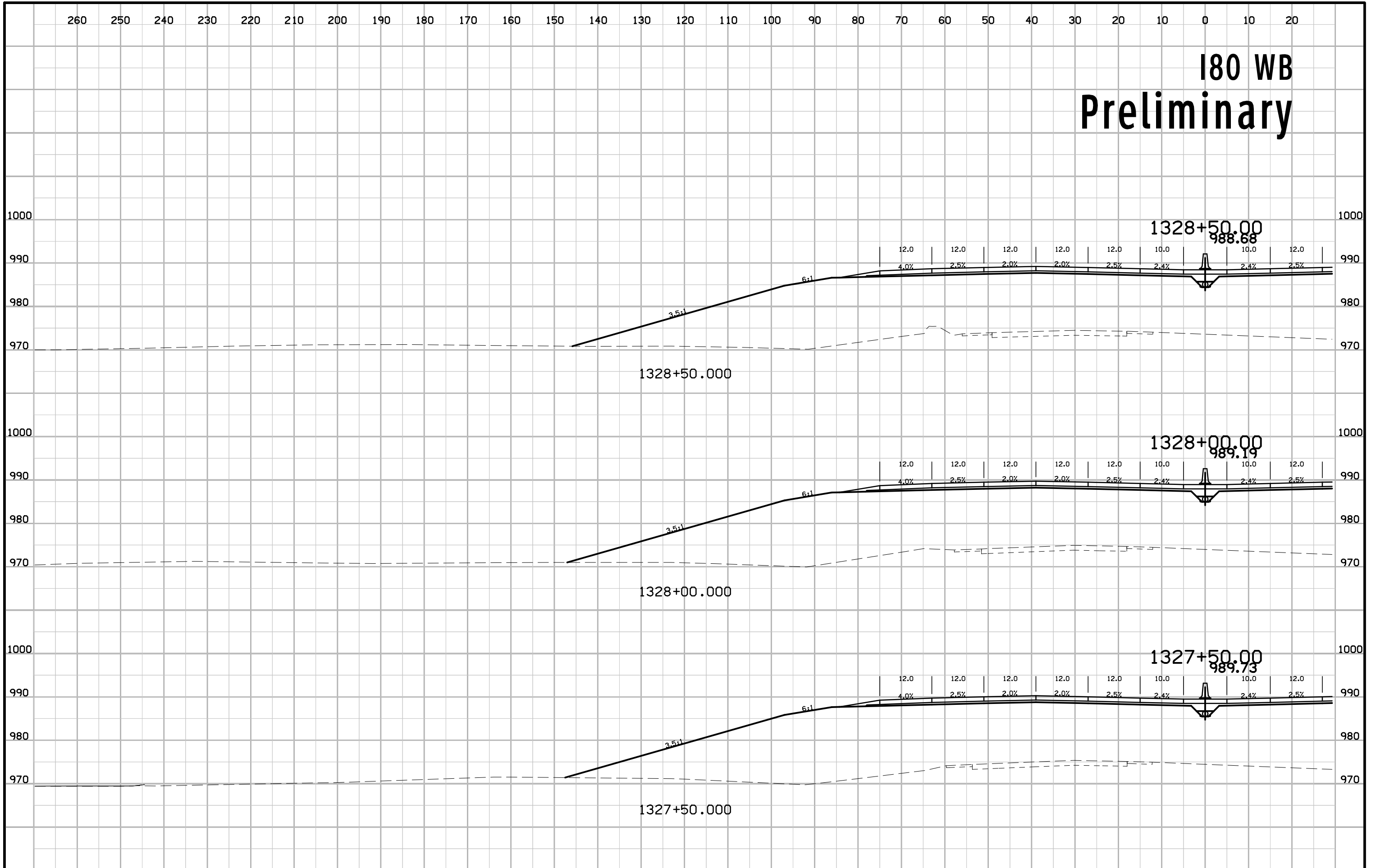
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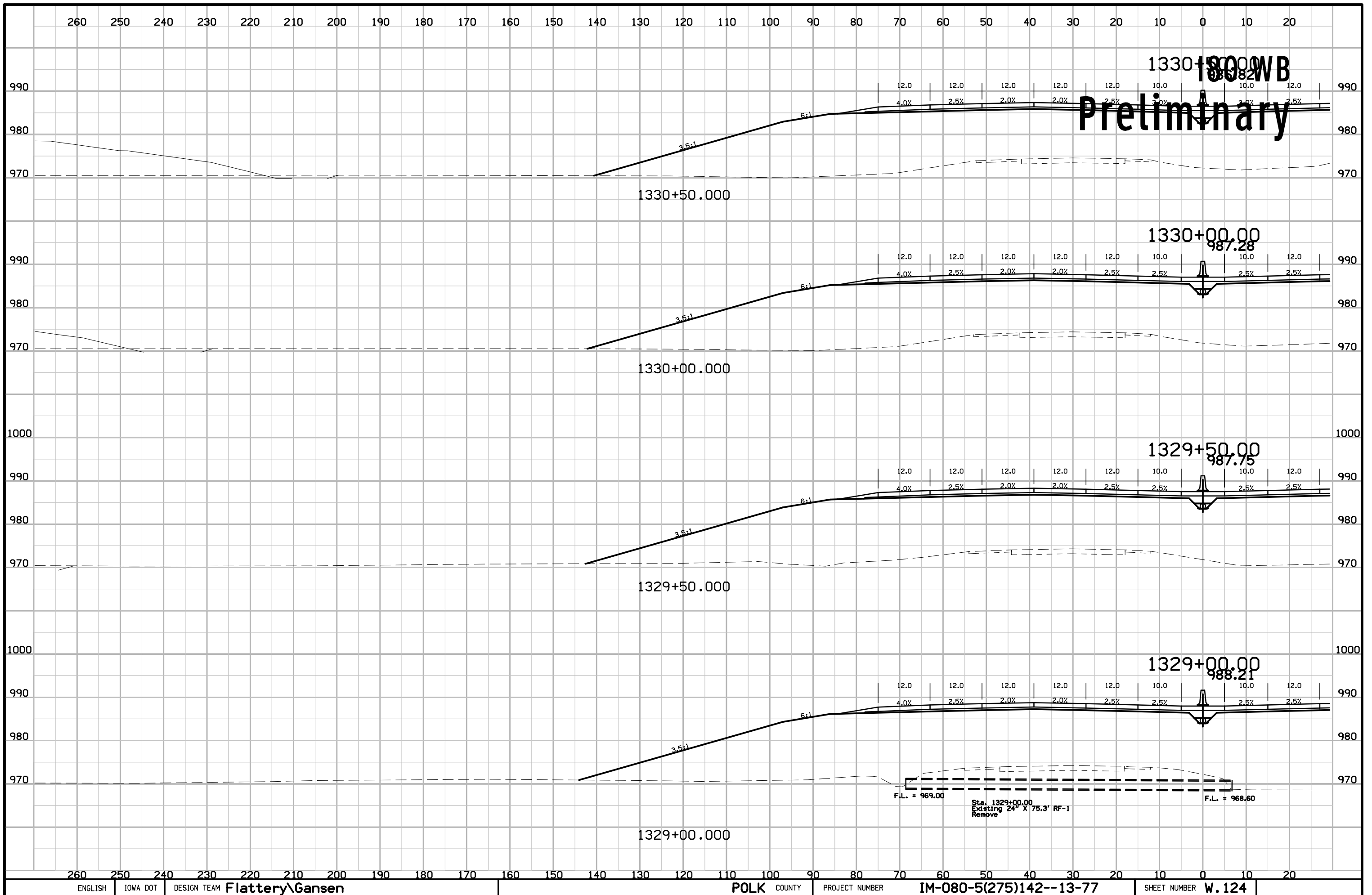


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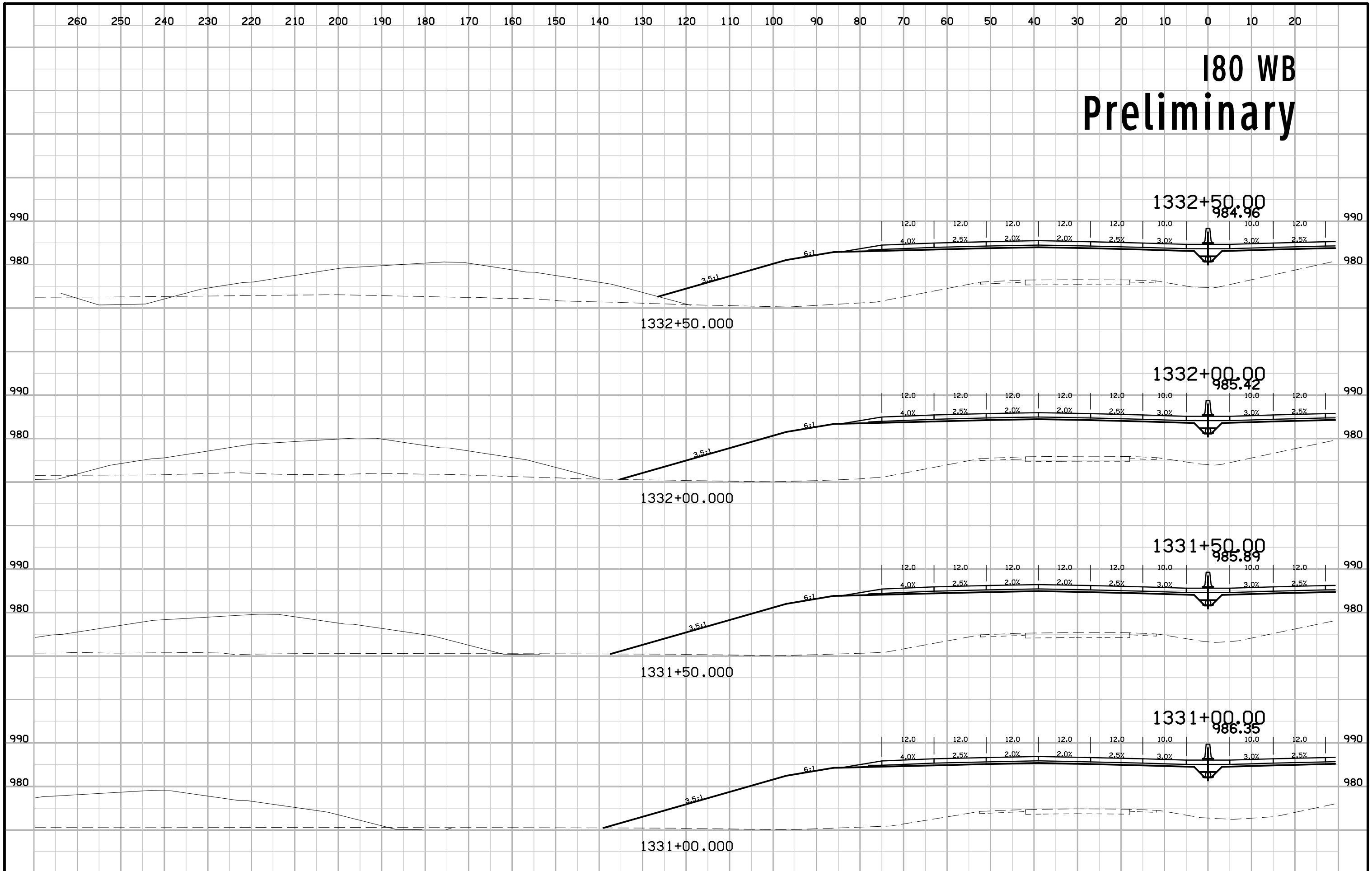


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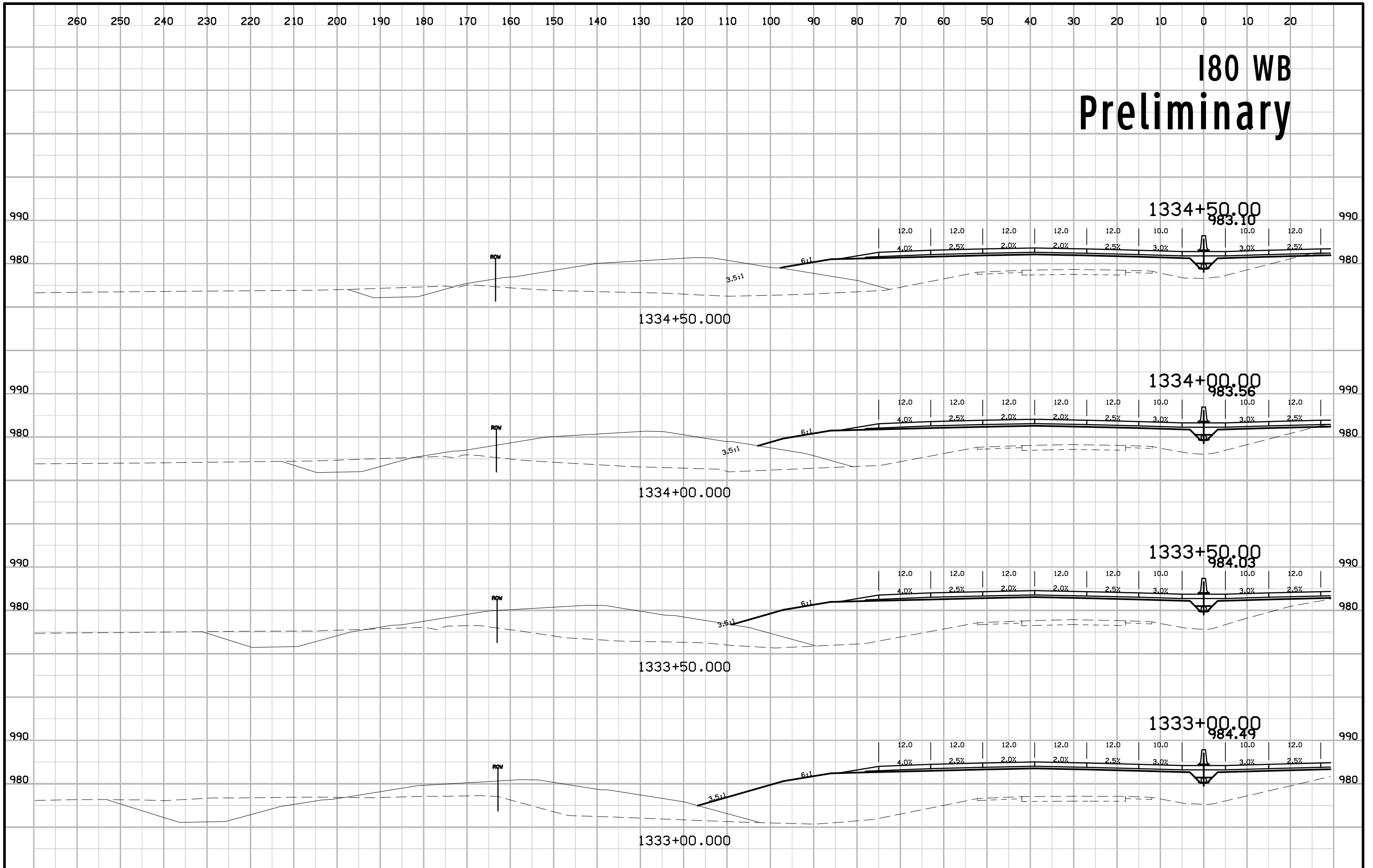




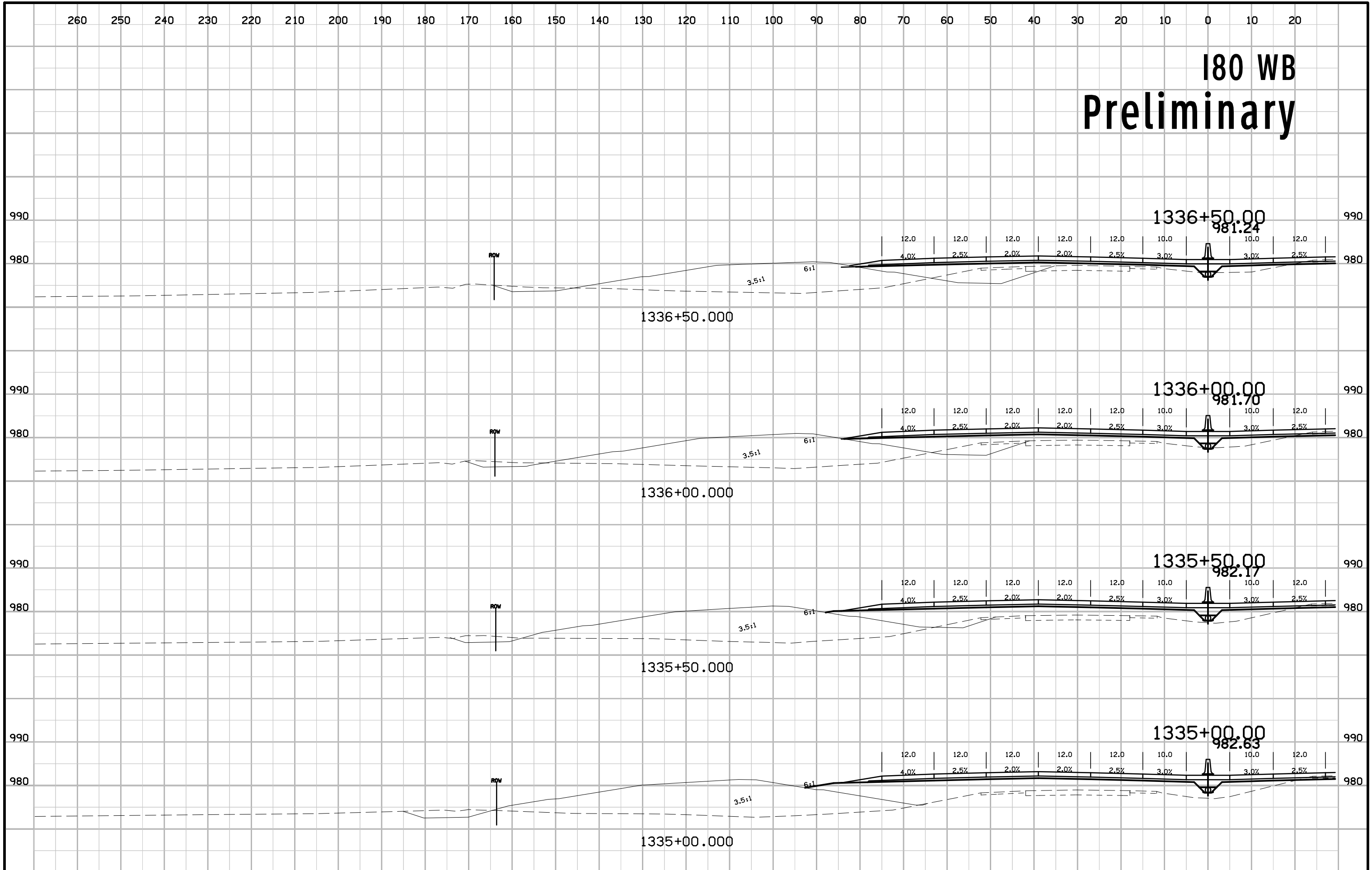
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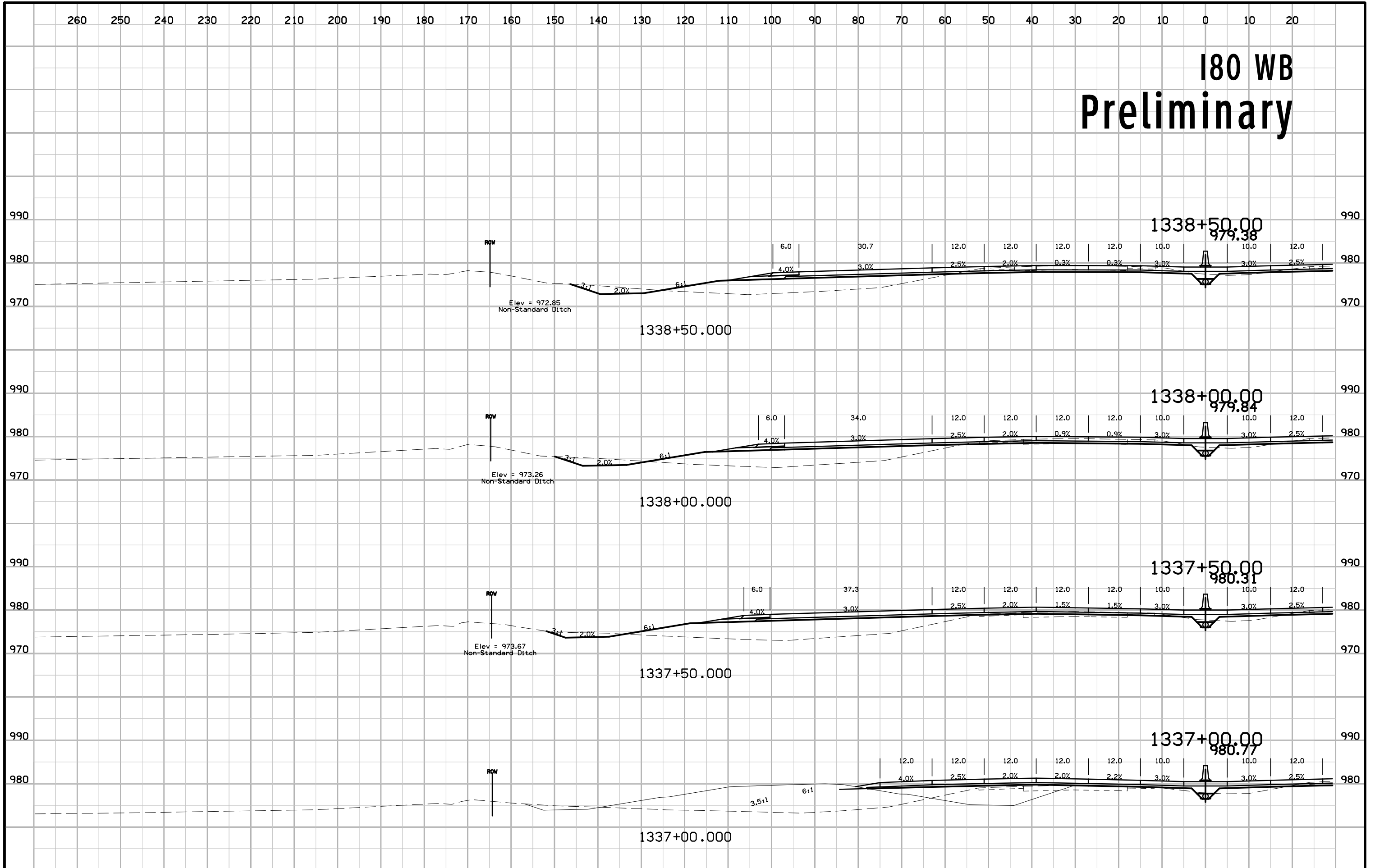
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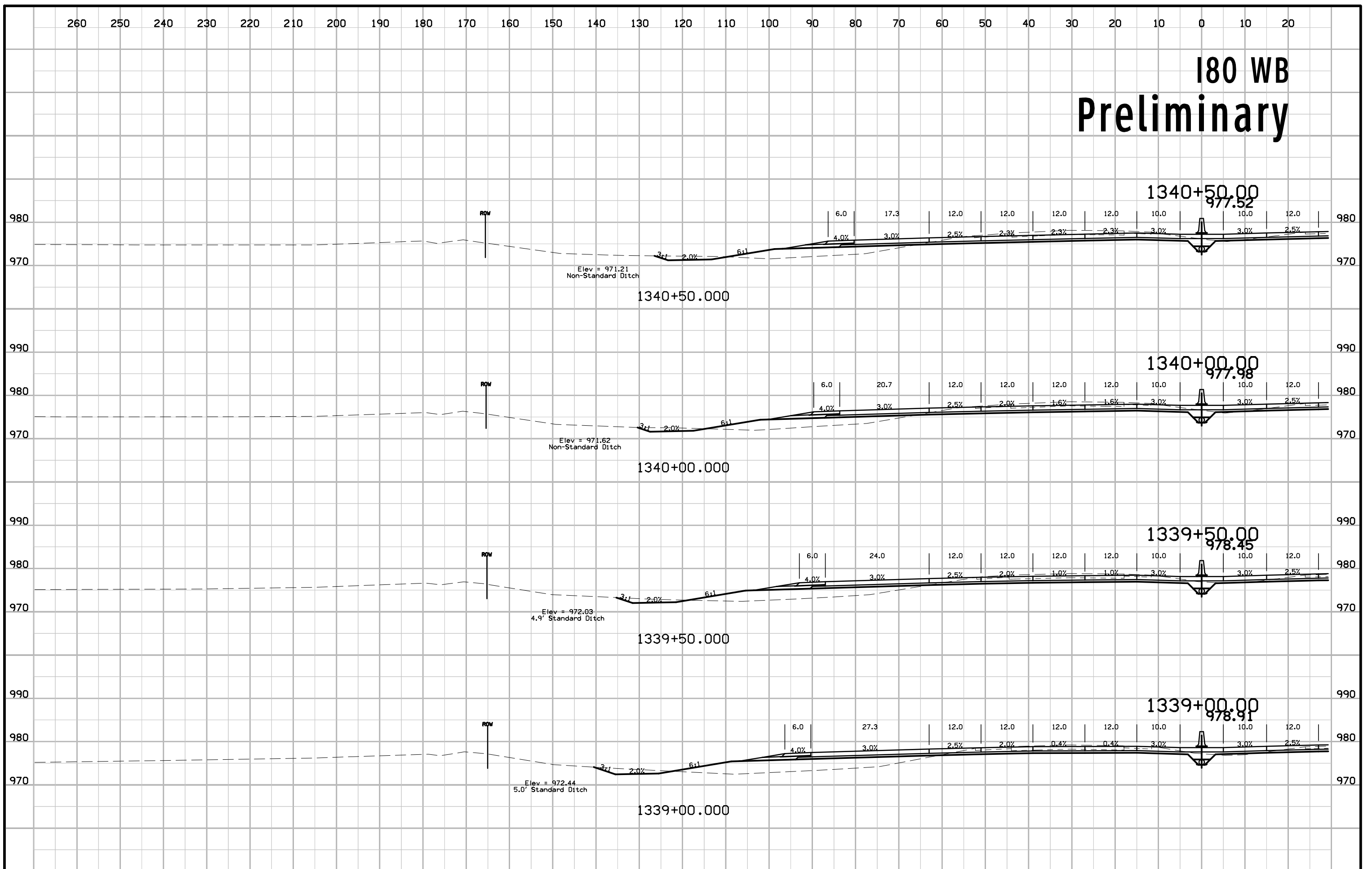
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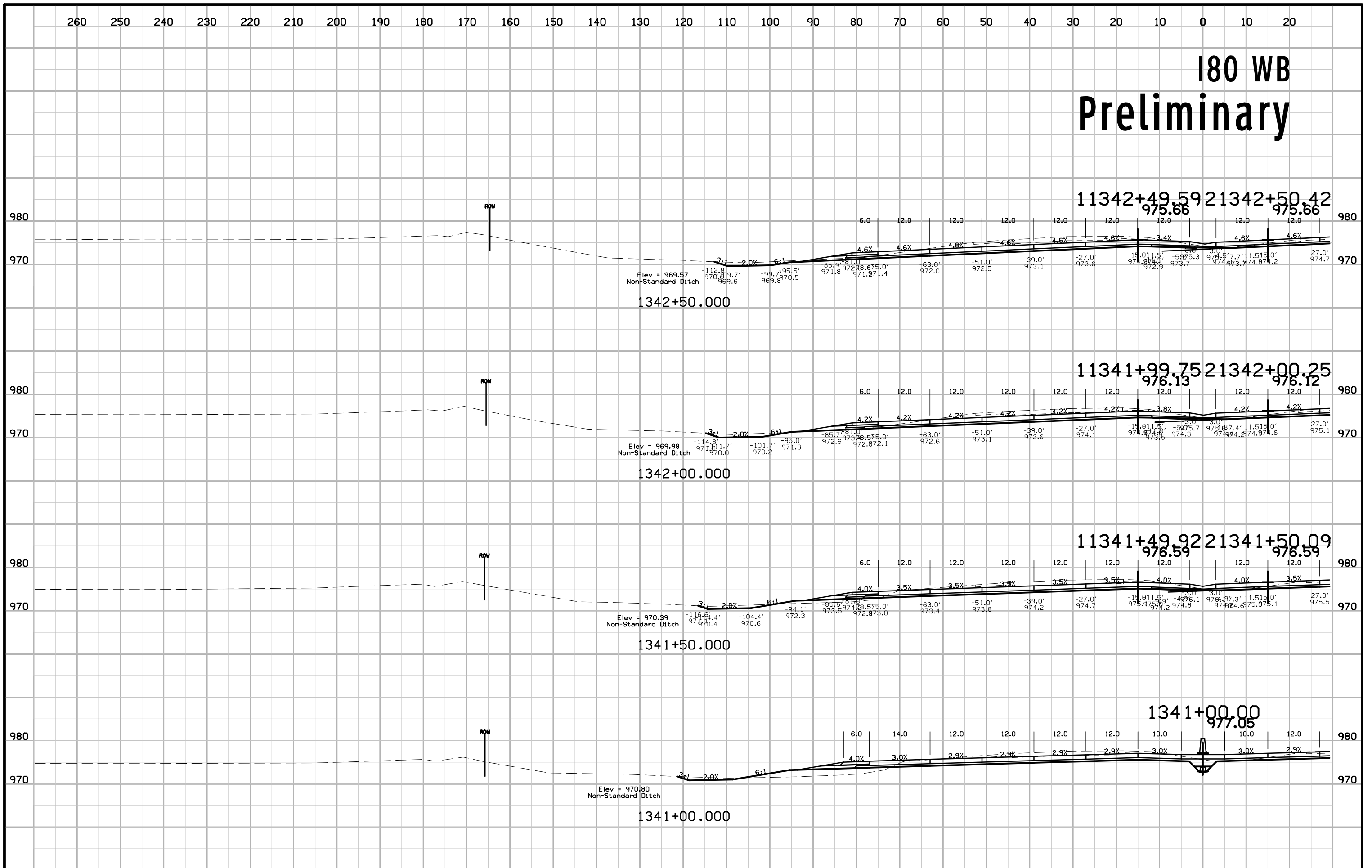
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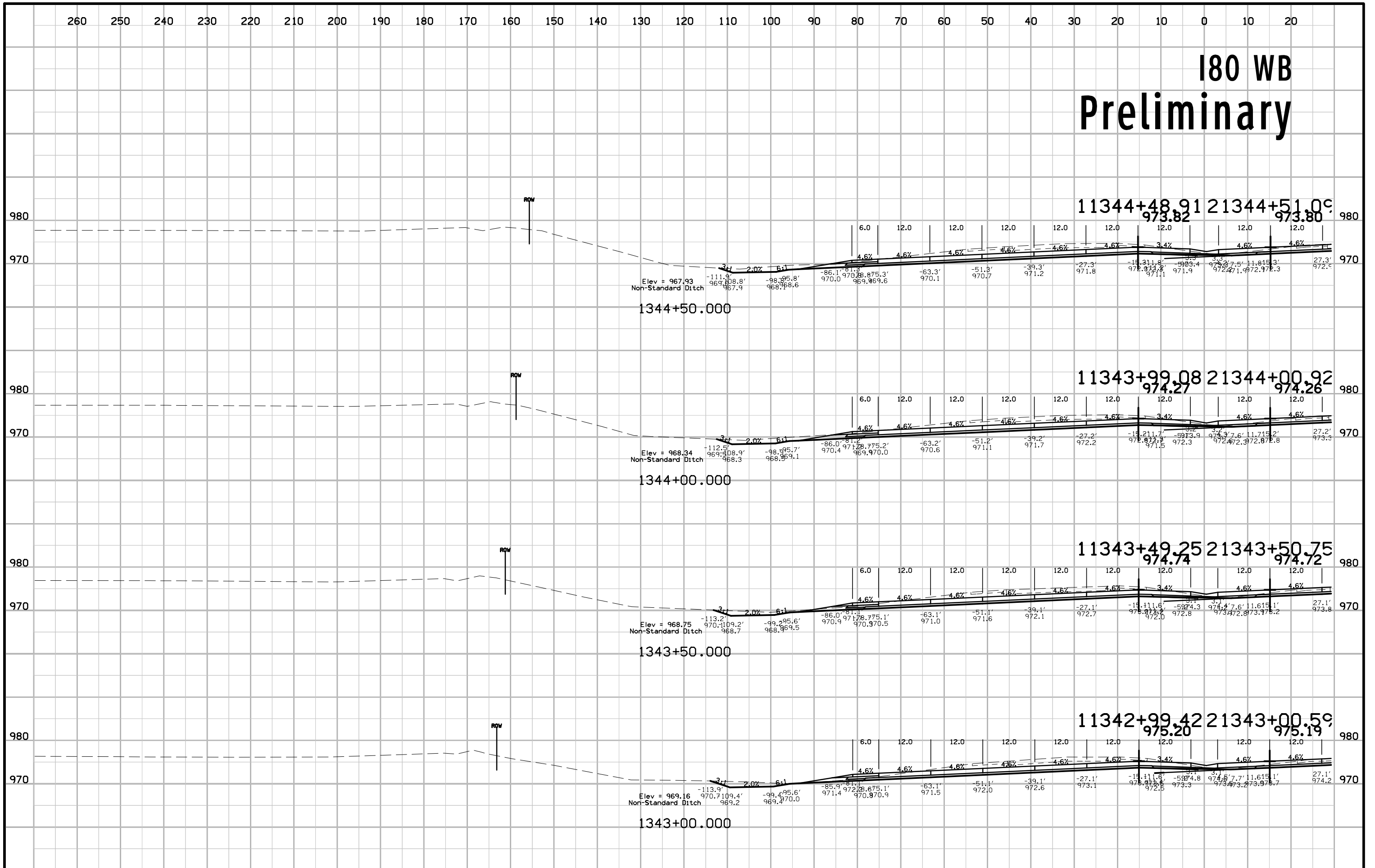
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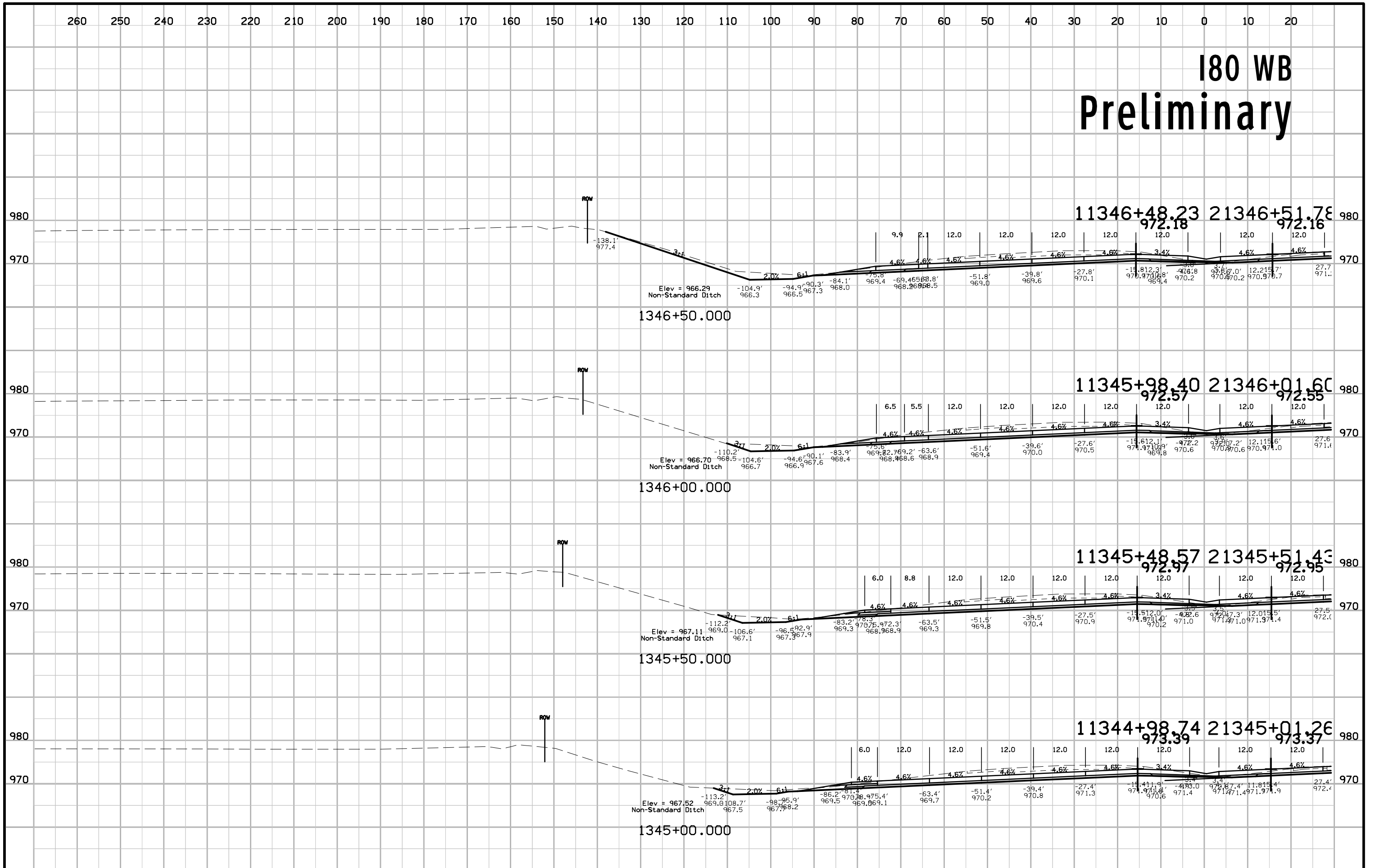
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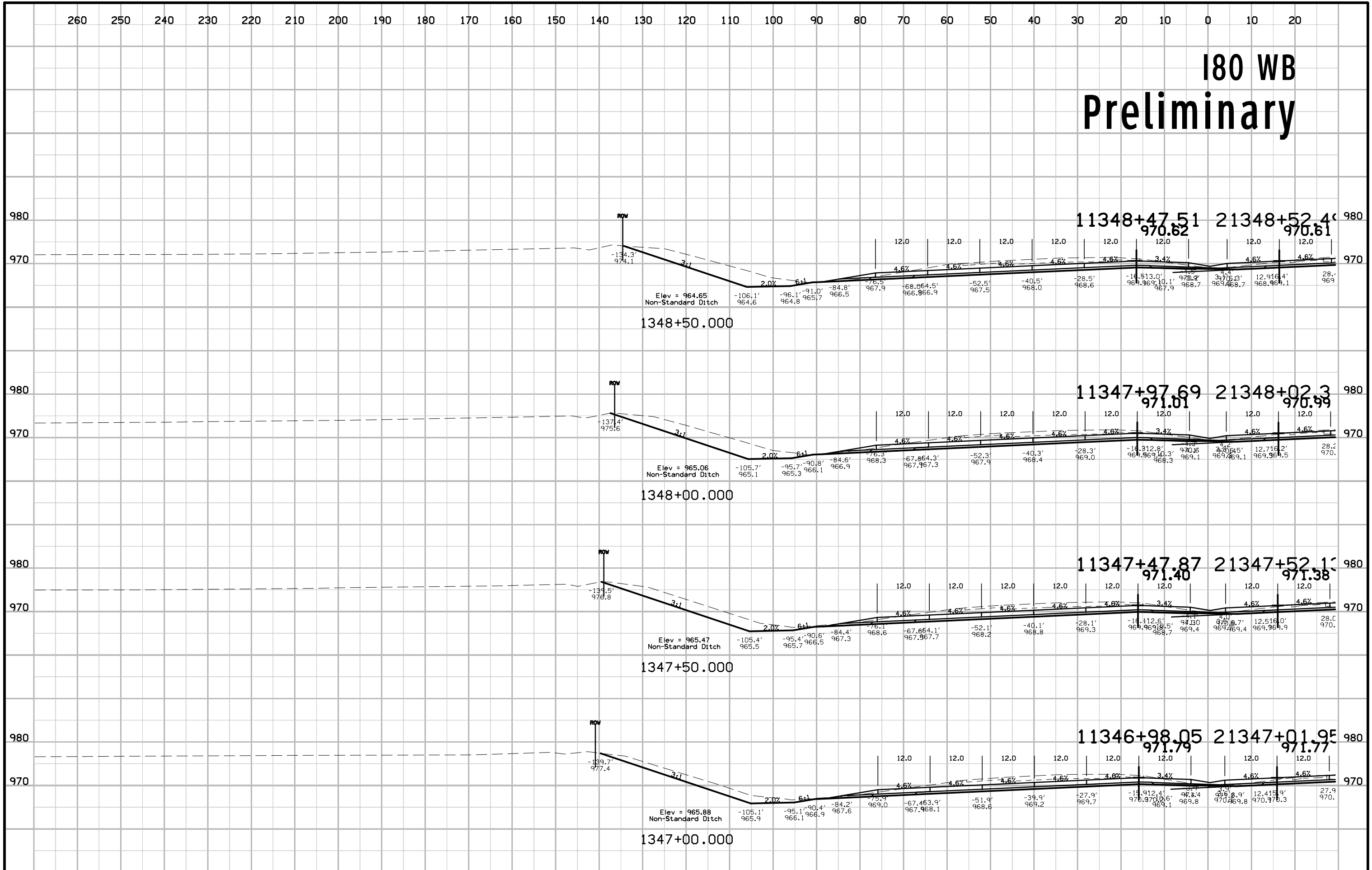
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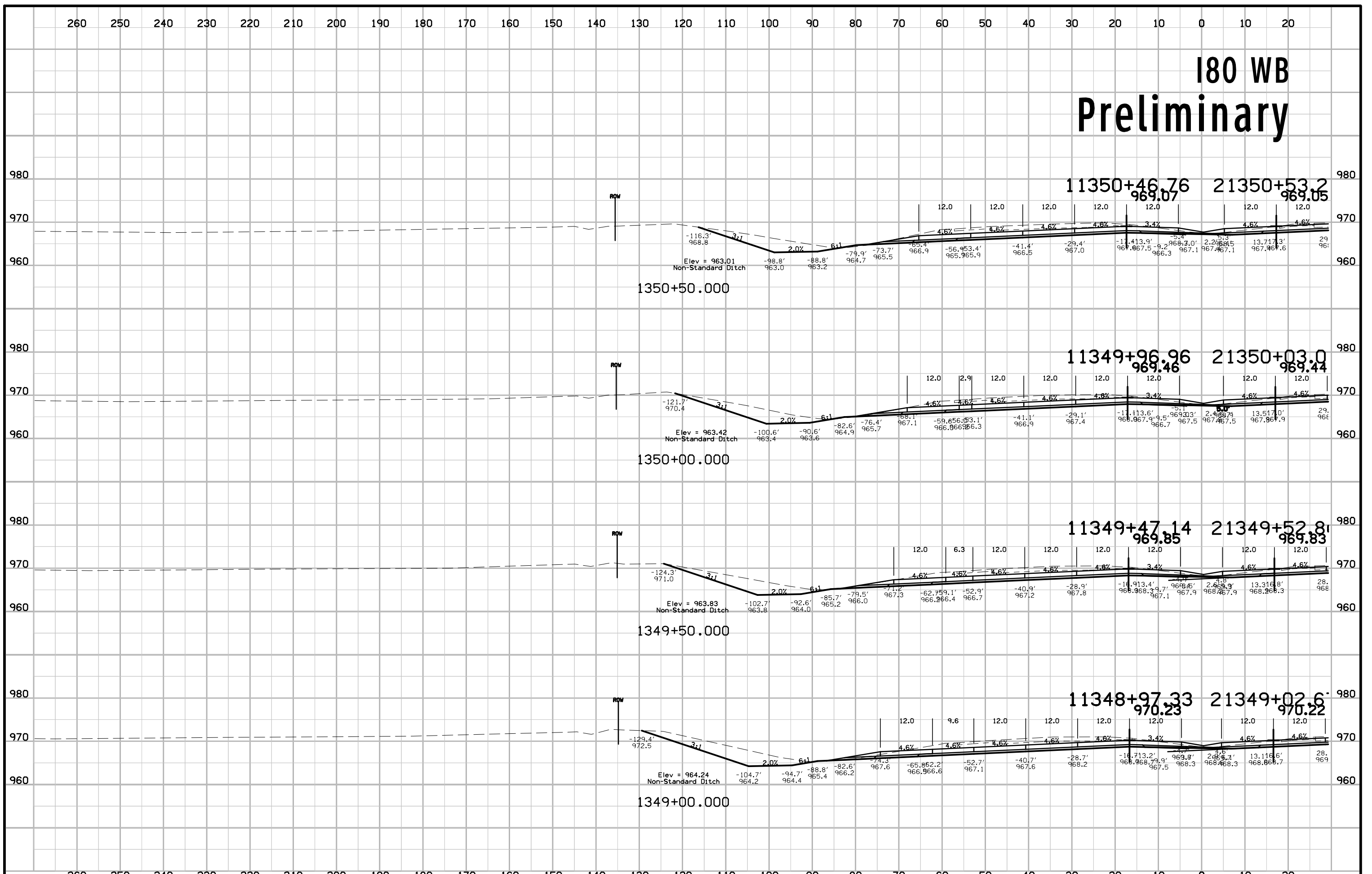
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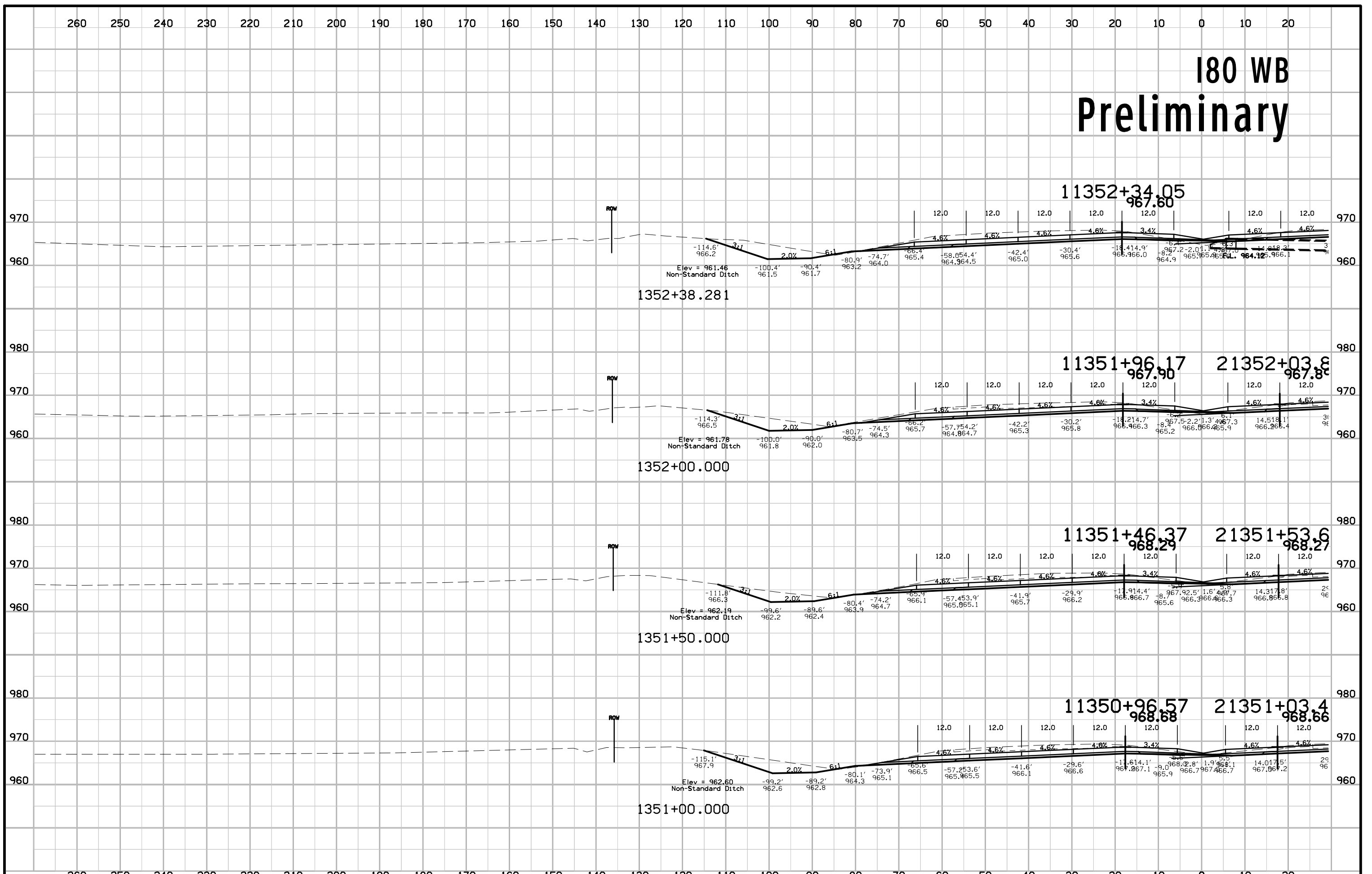
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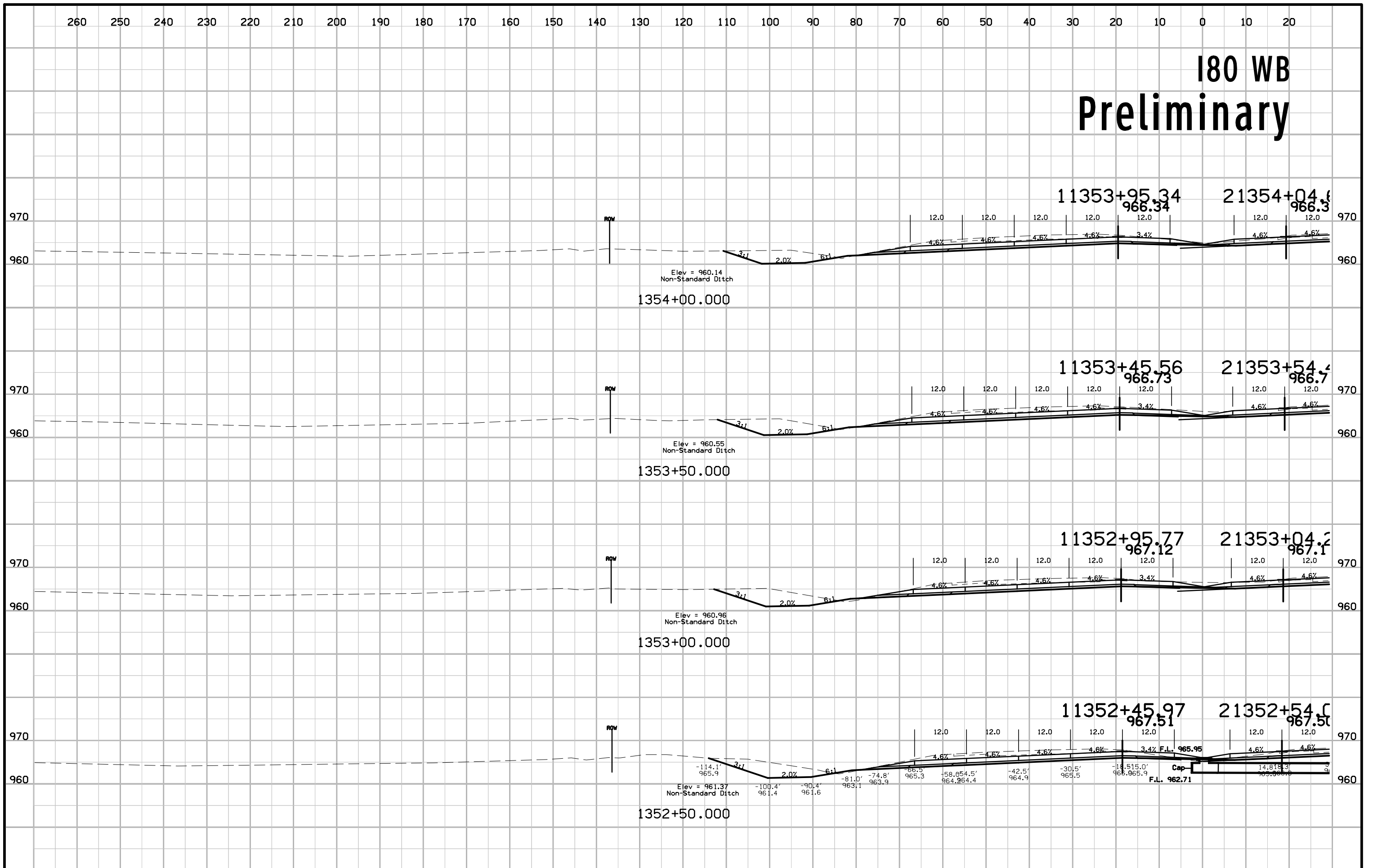
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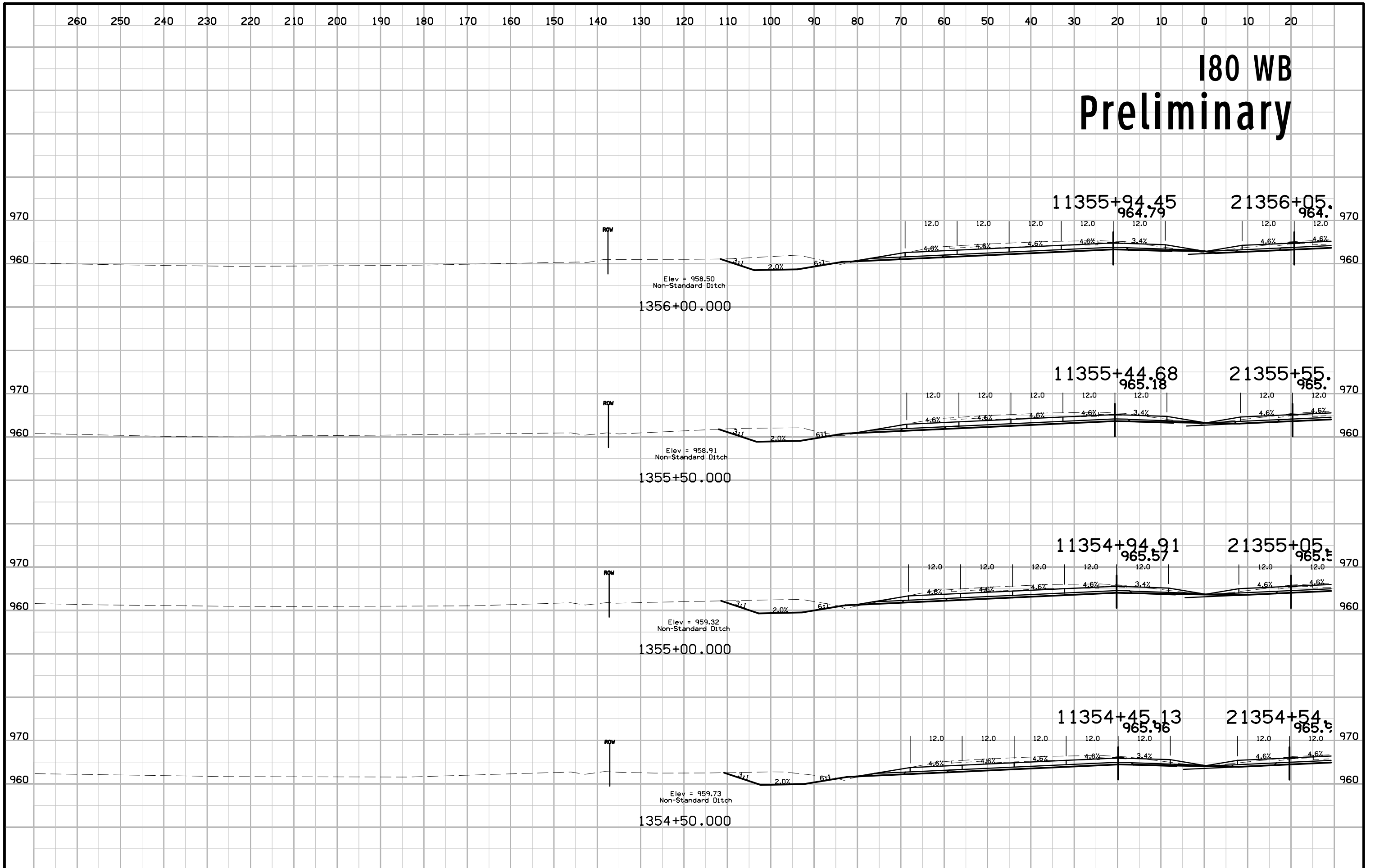
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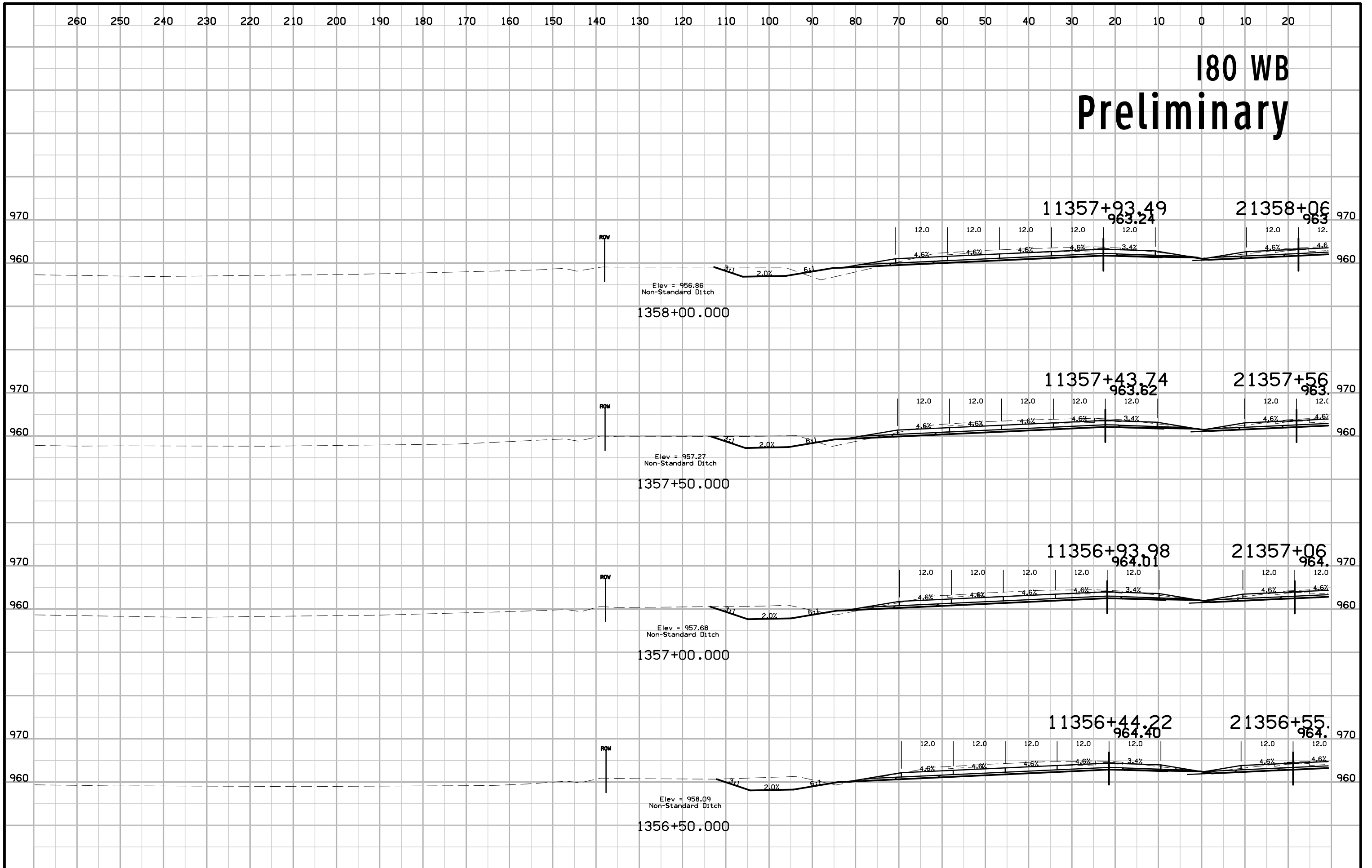
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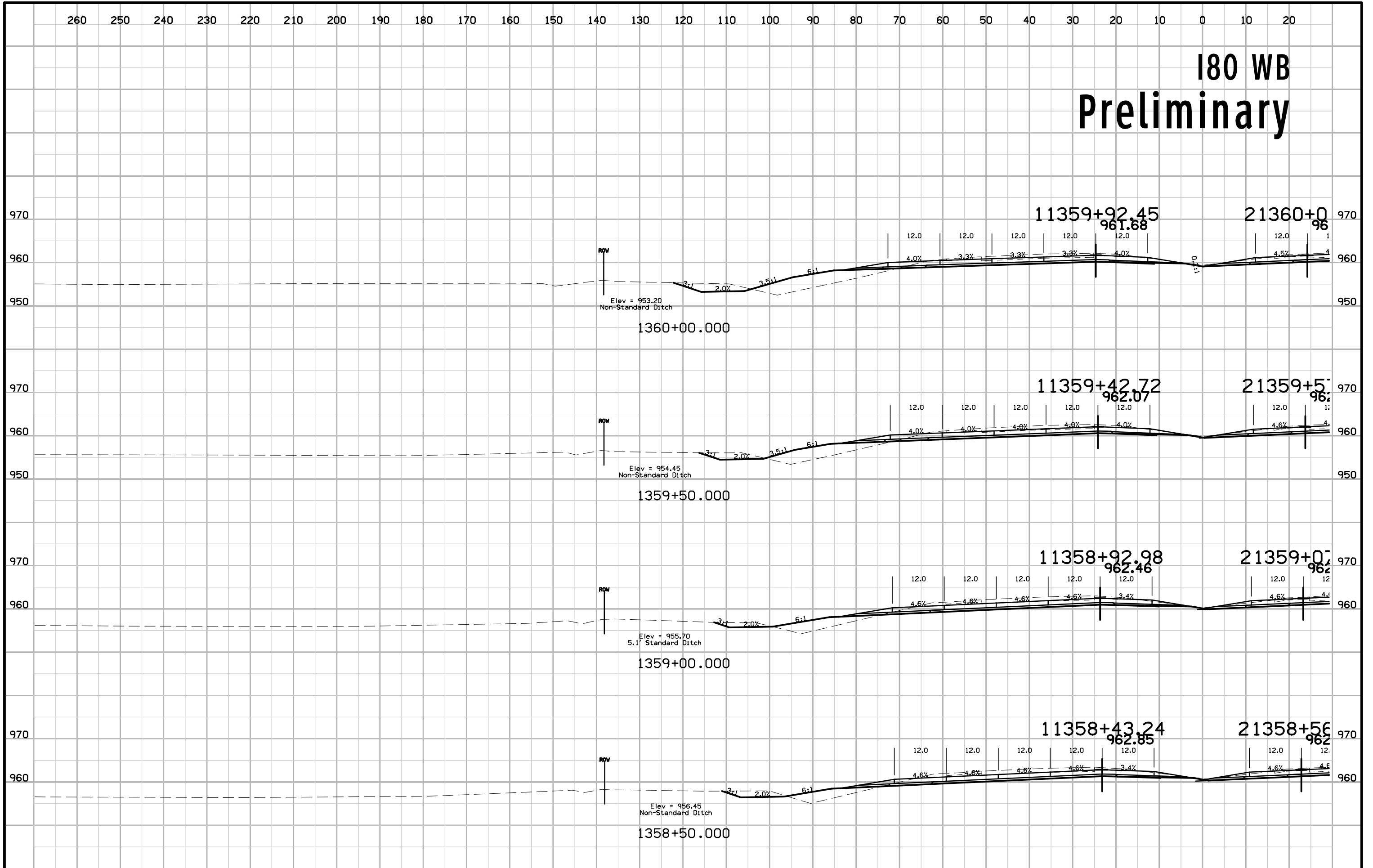
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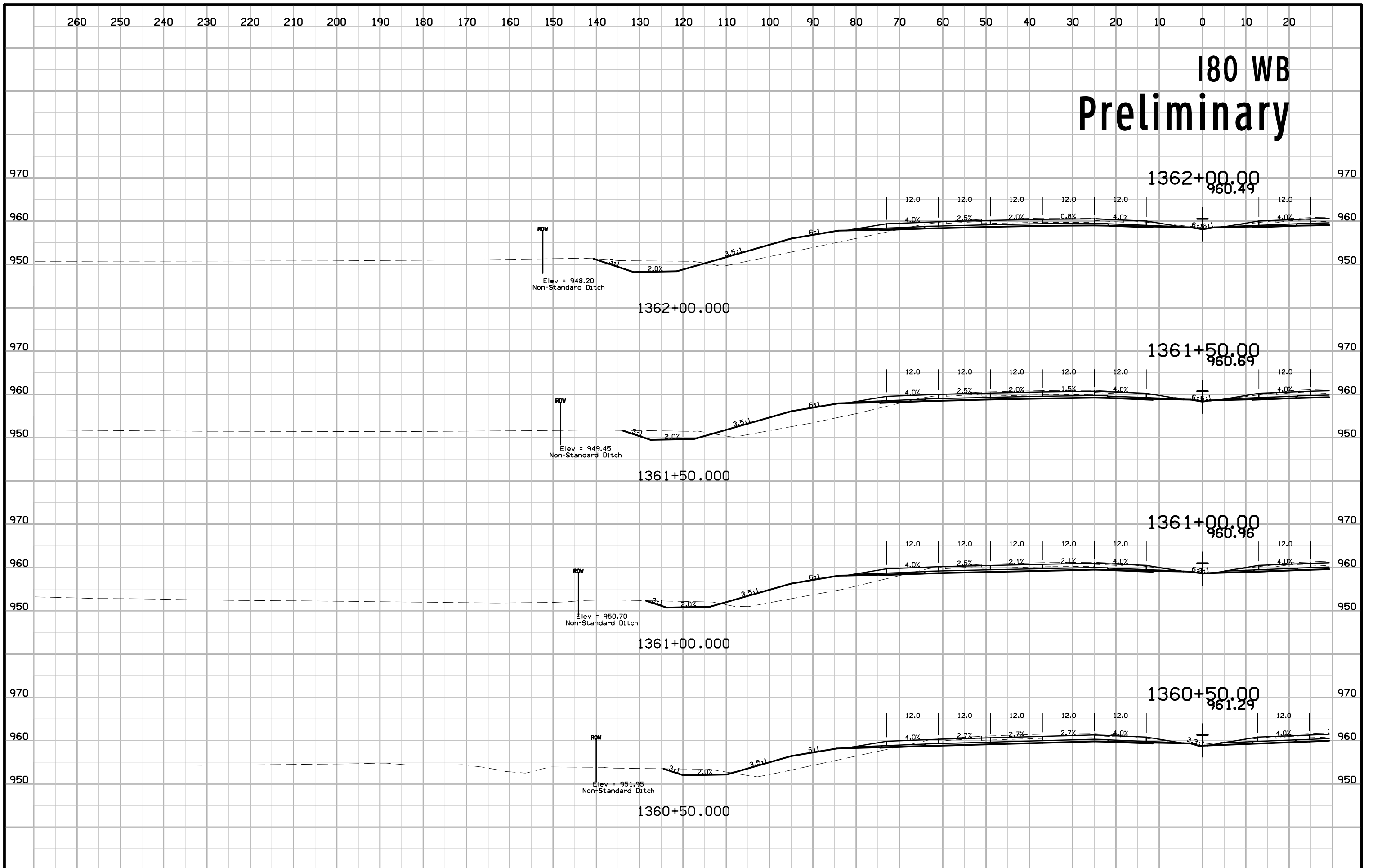
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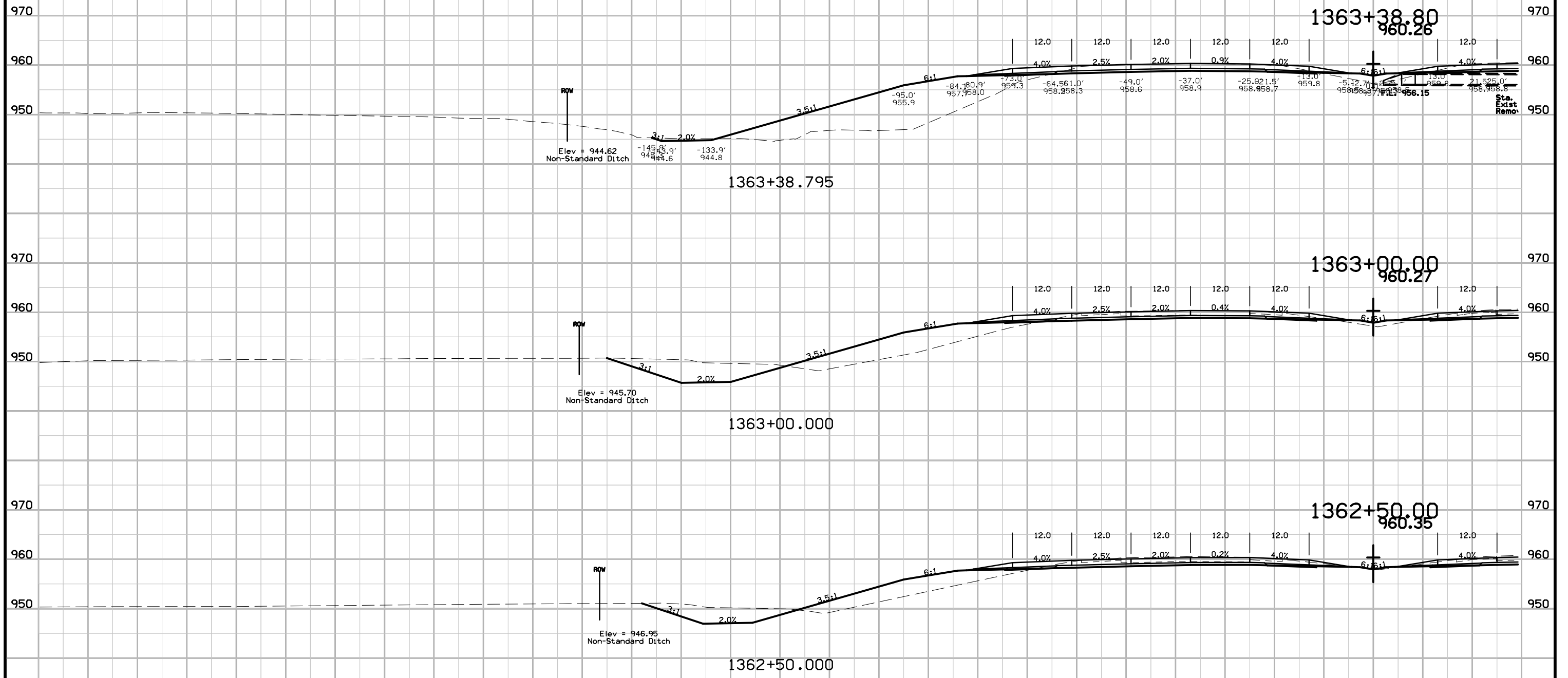
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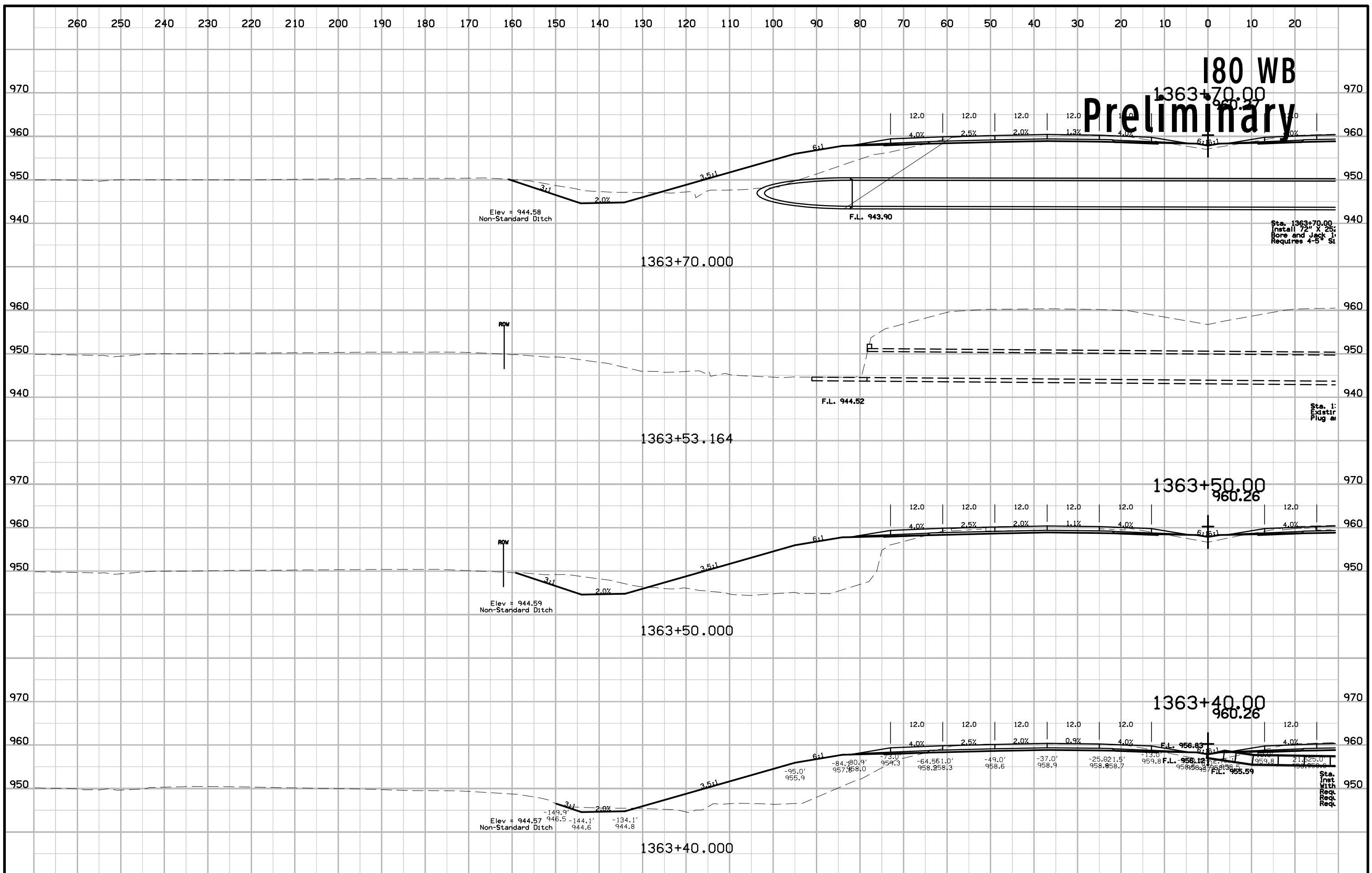
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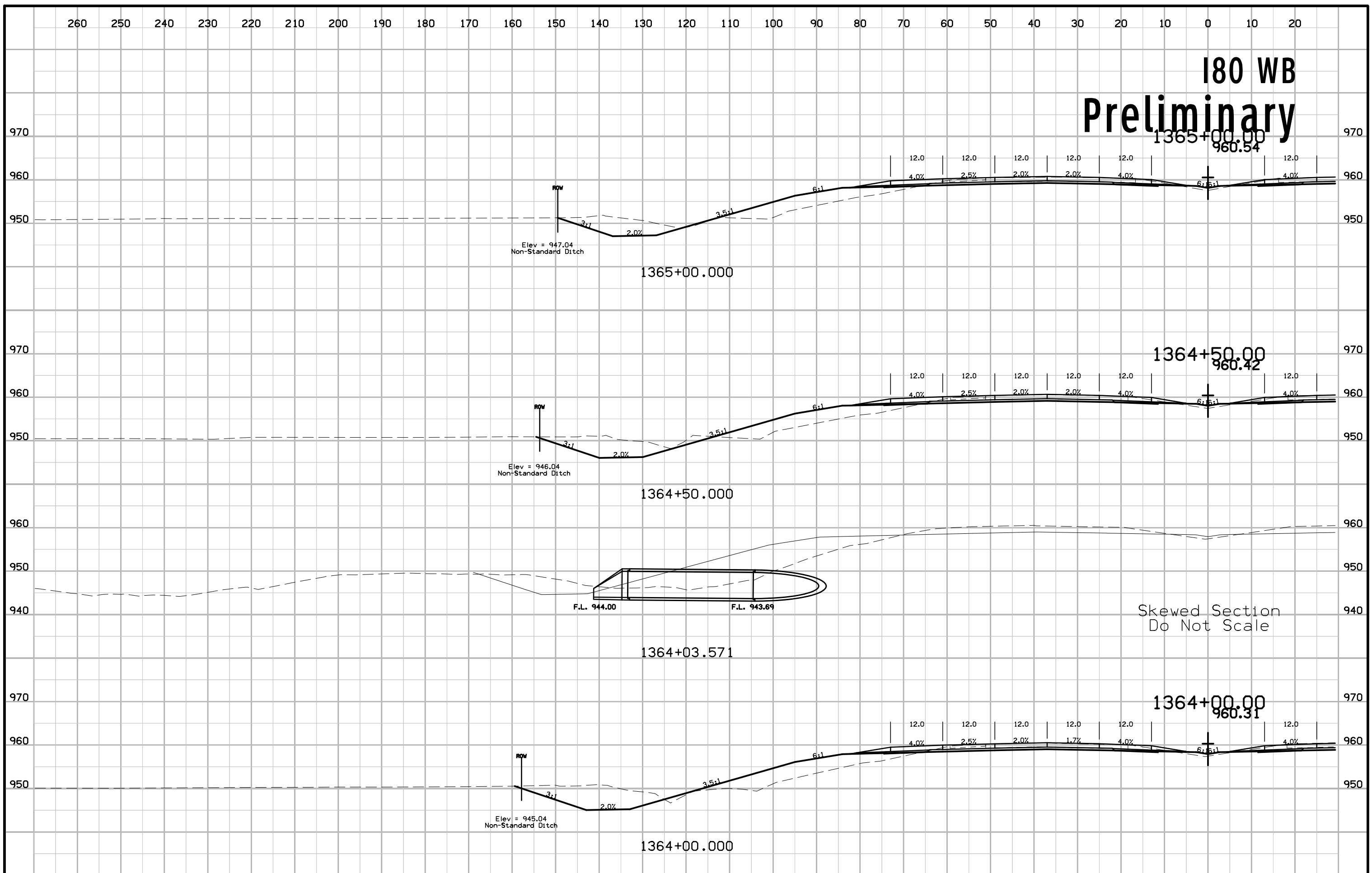
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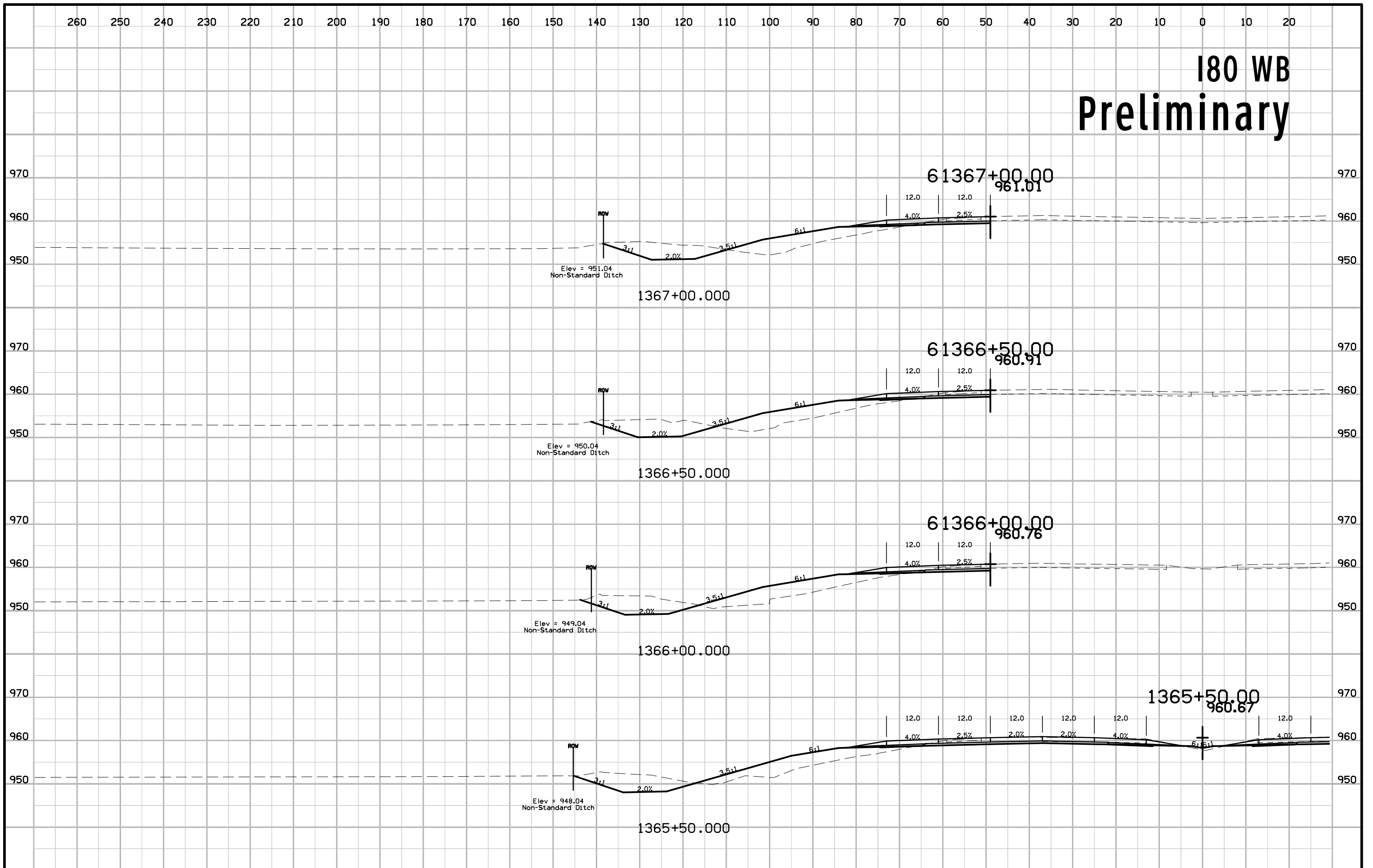
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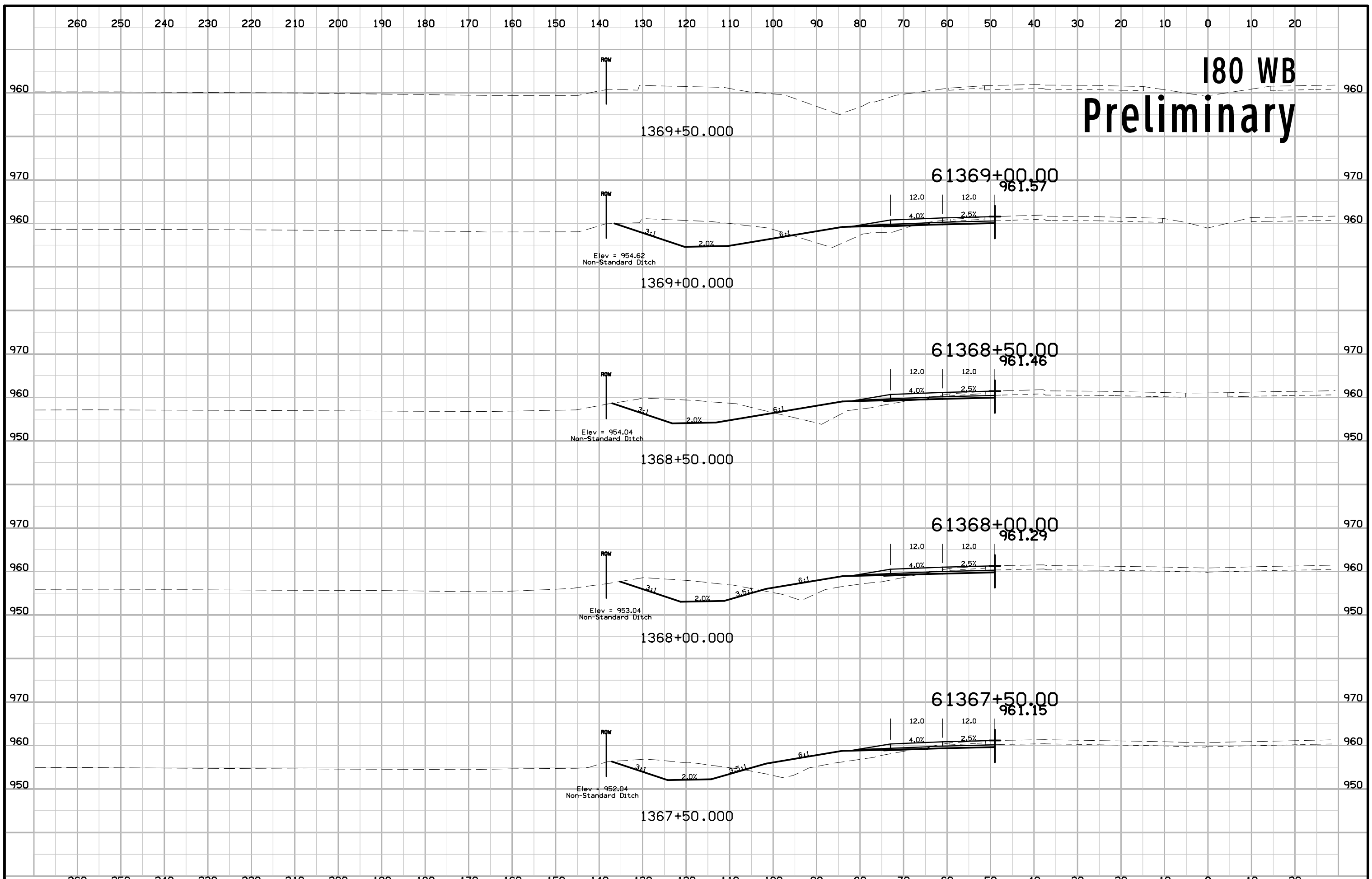
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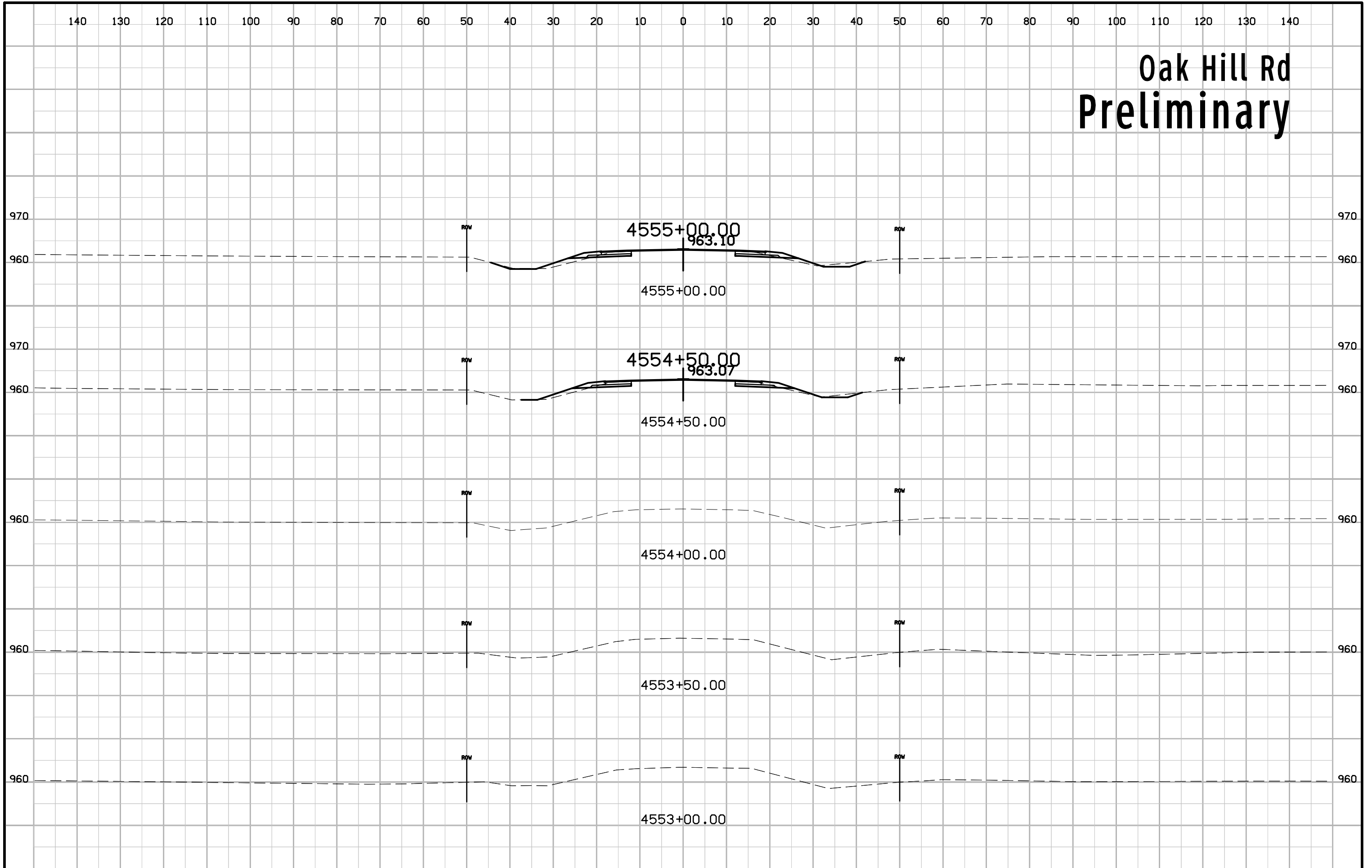
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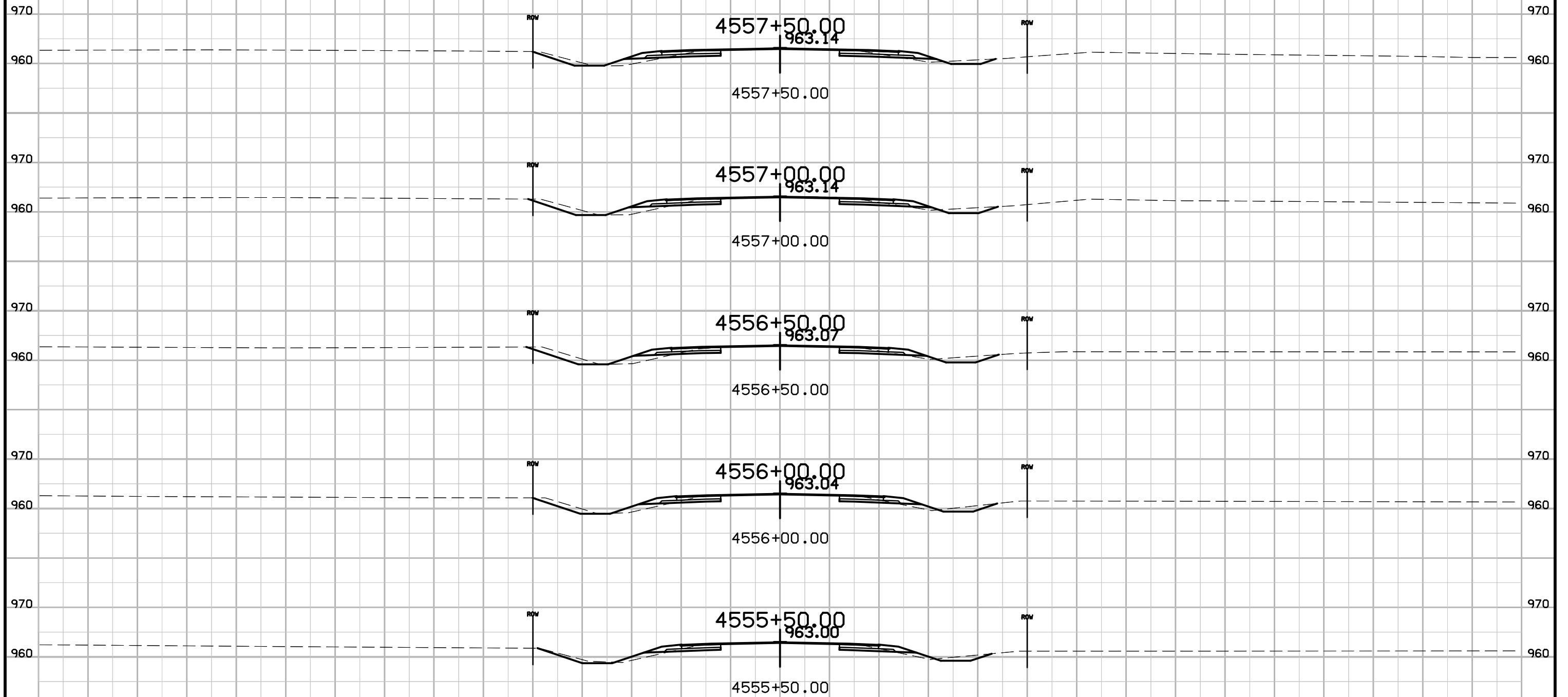
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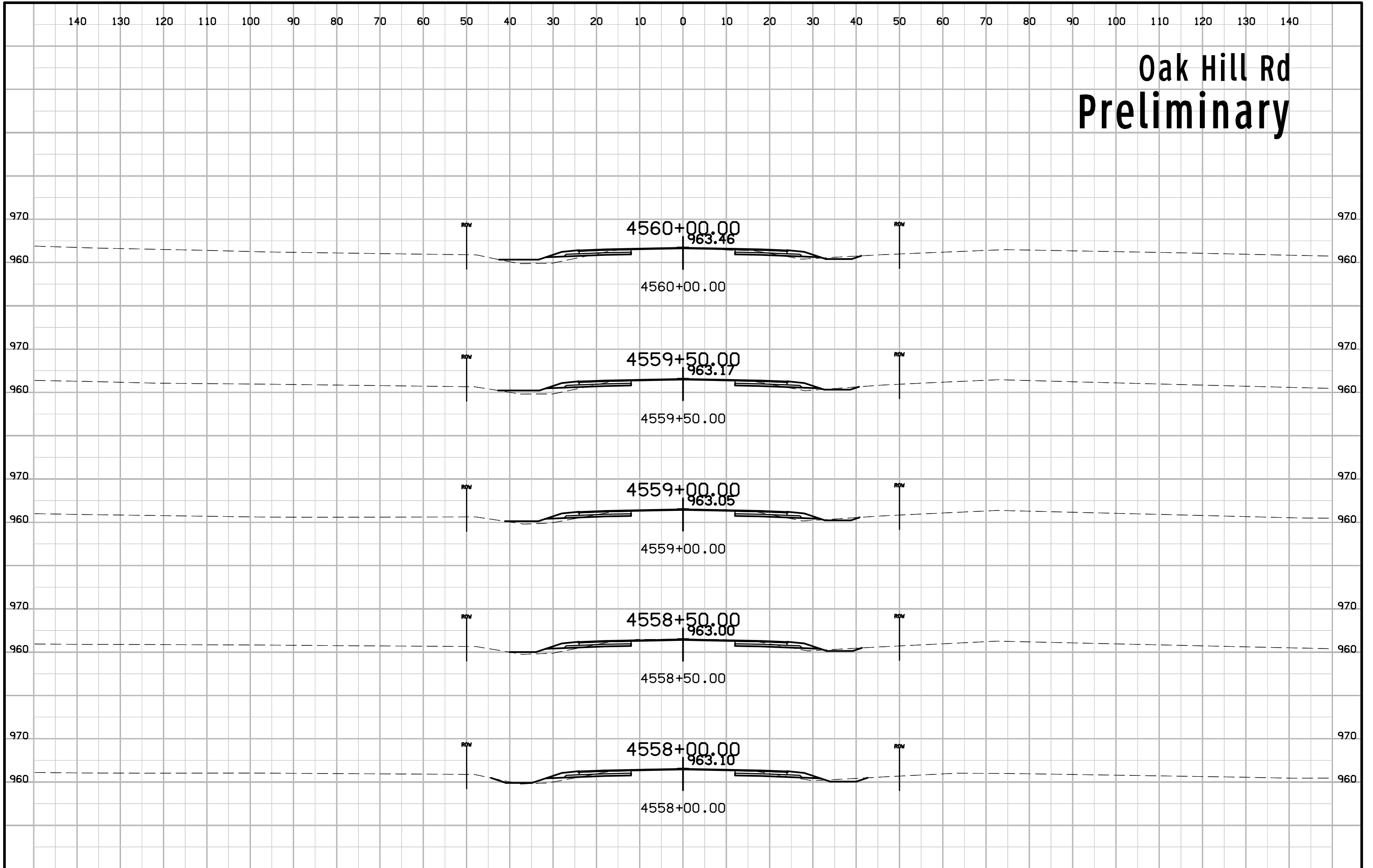
Oak Hill Rd Preliminary



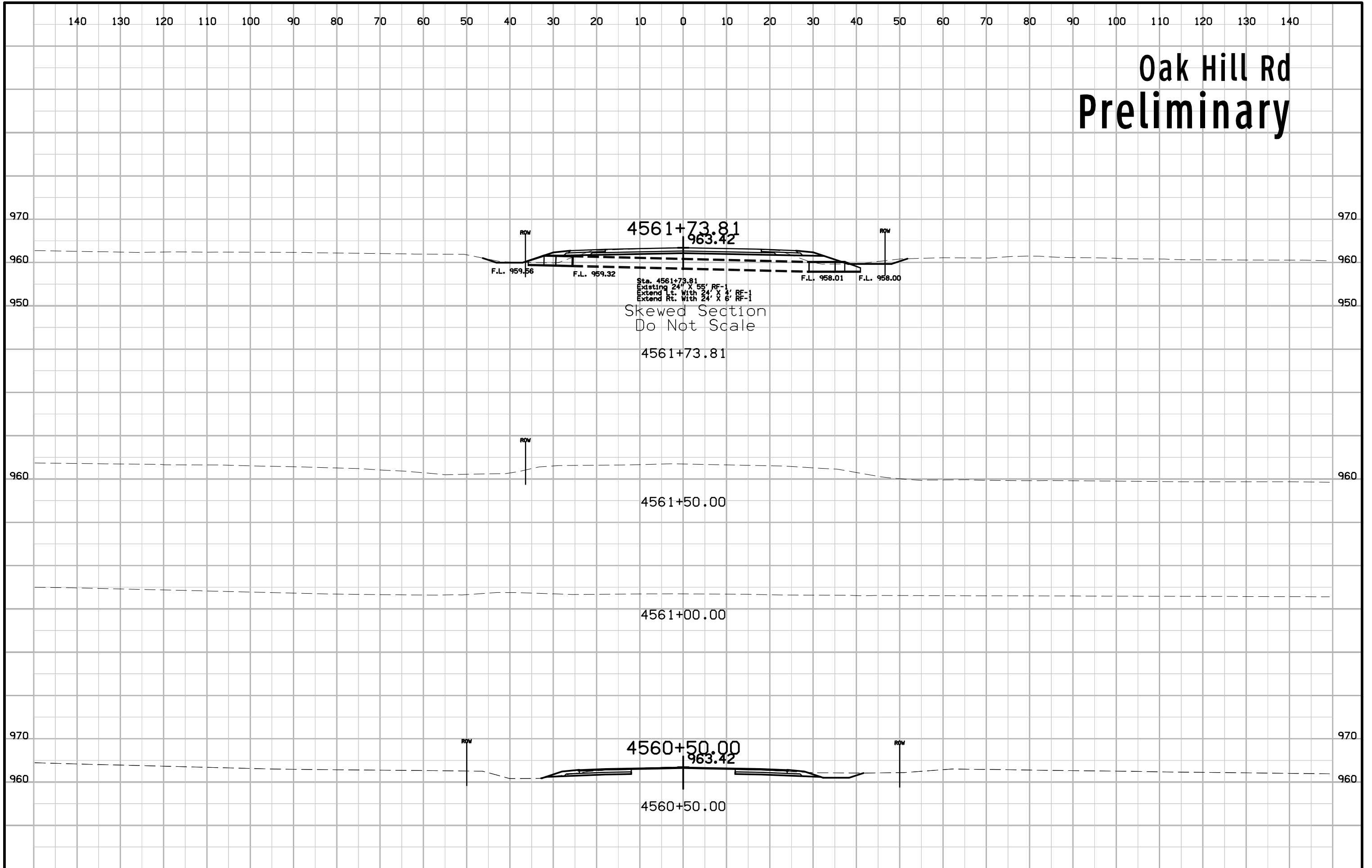
Oak Hill Rd Preliminary



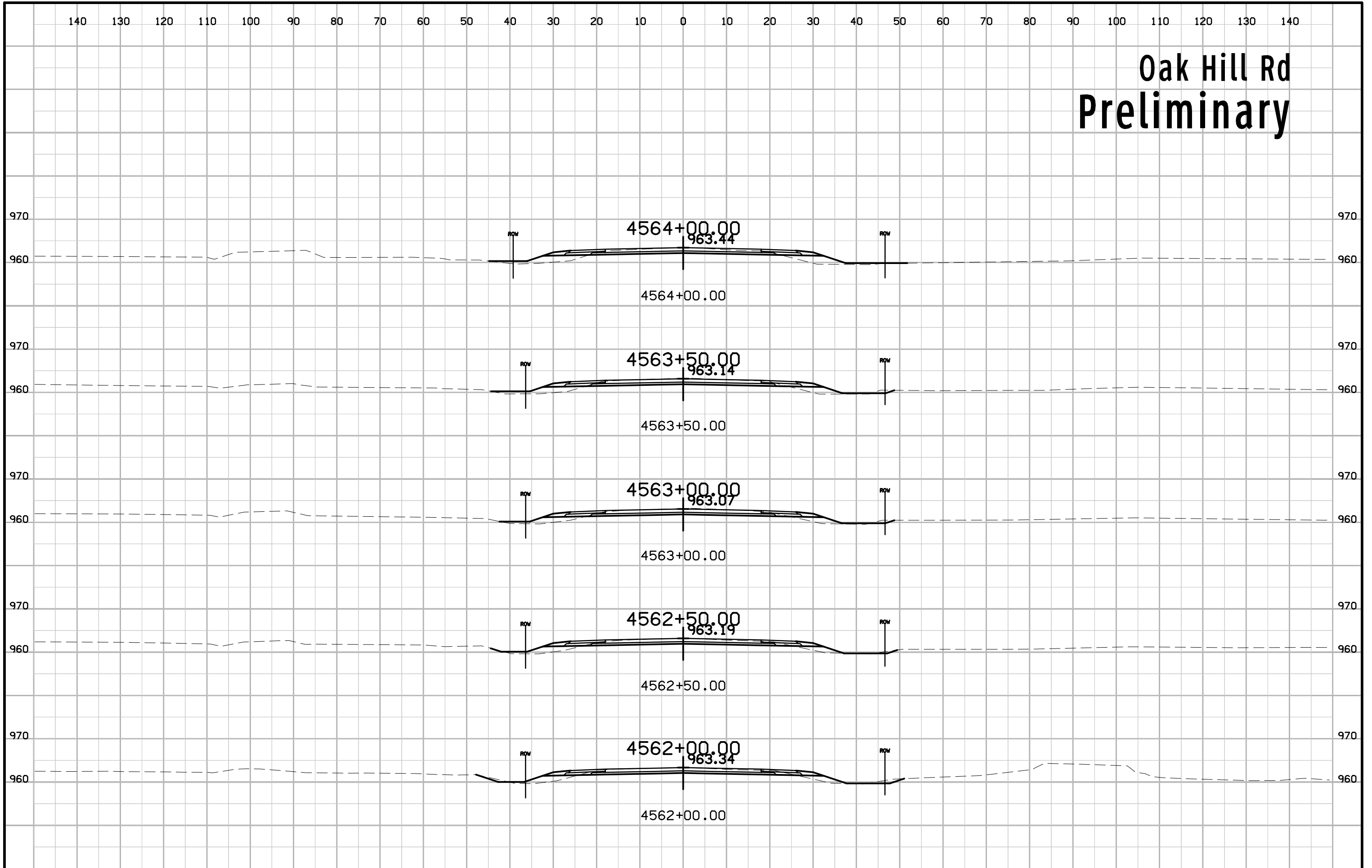
Oak Hill Rd Preliminary



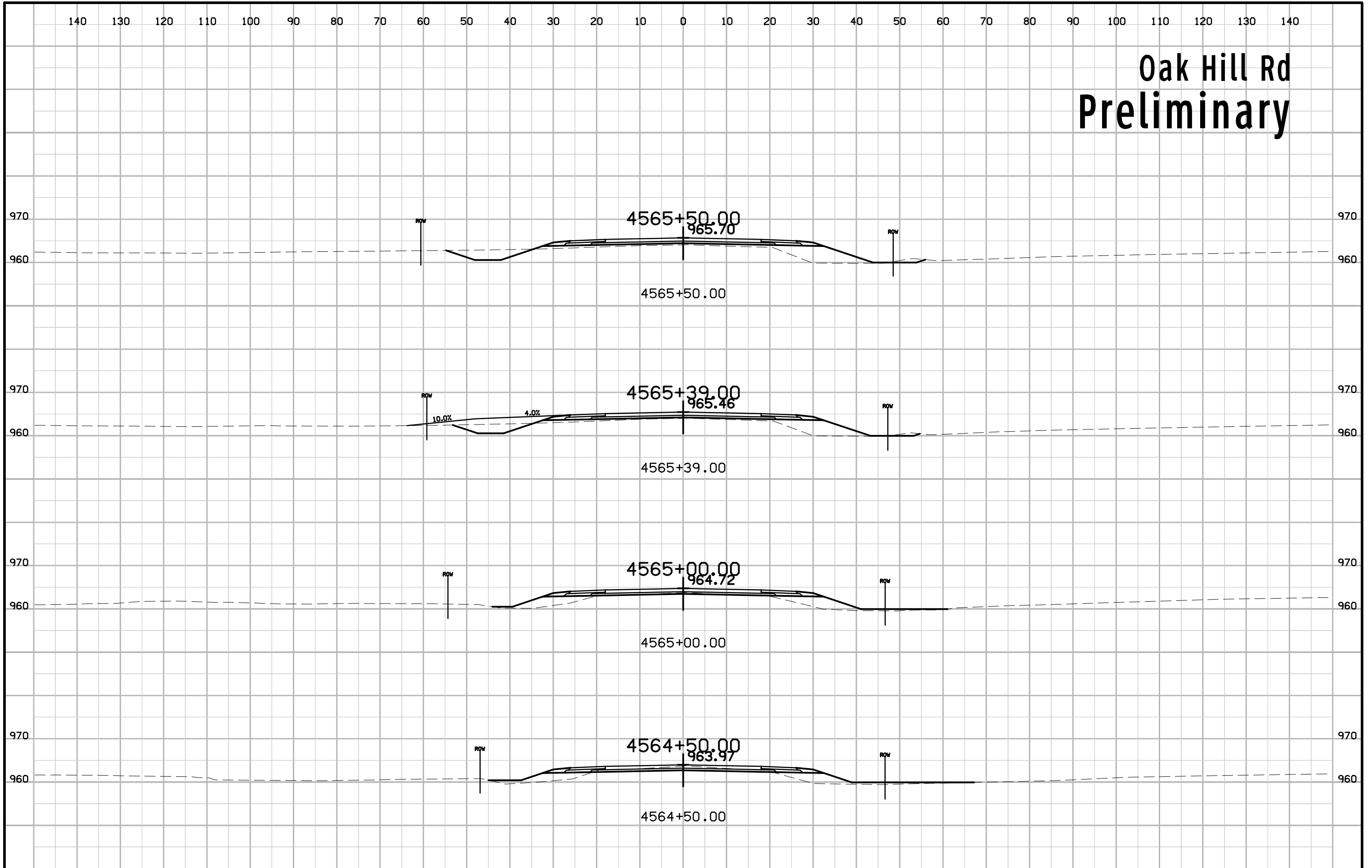
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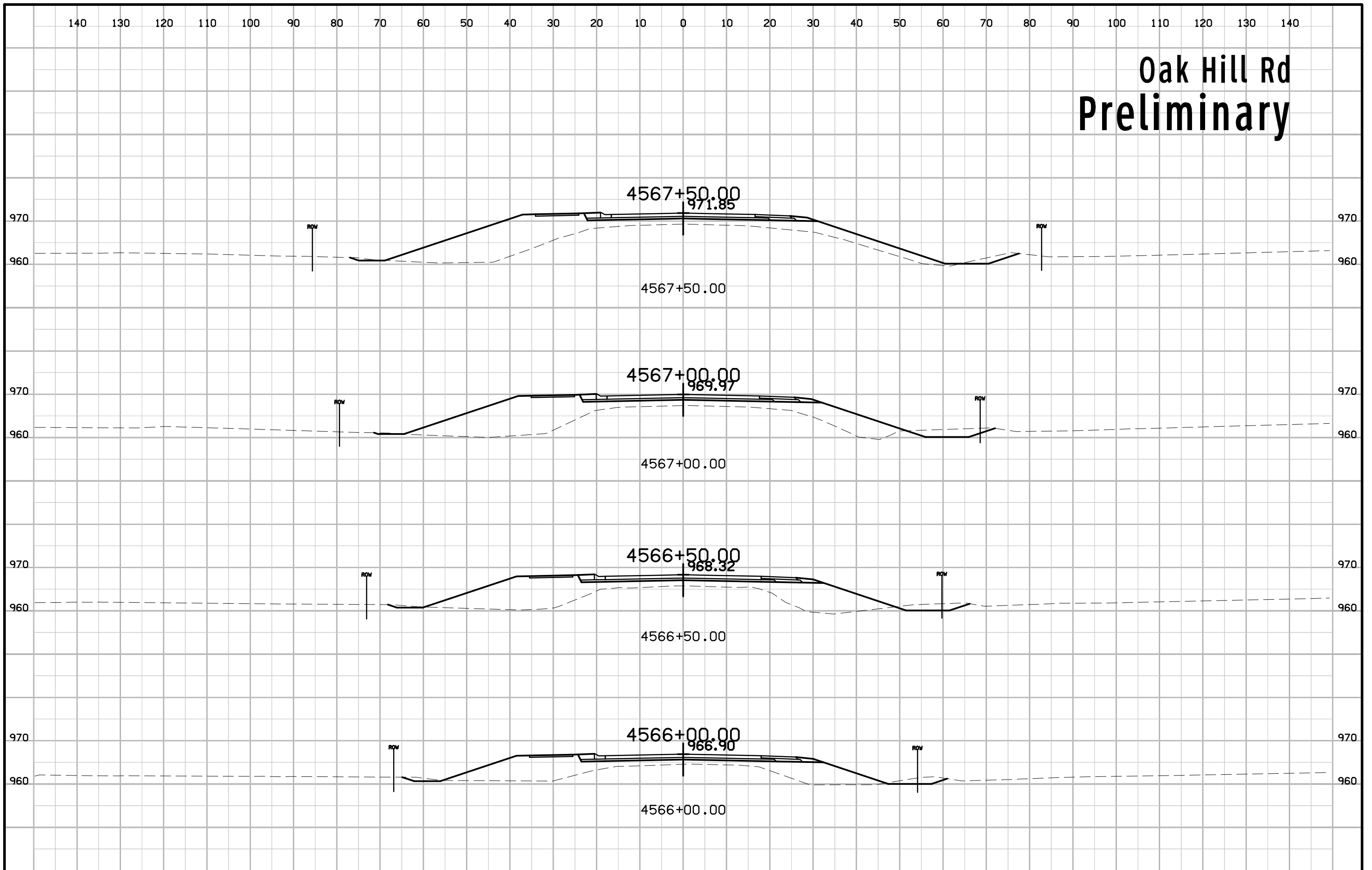
Oak Hill Rd Preliminary



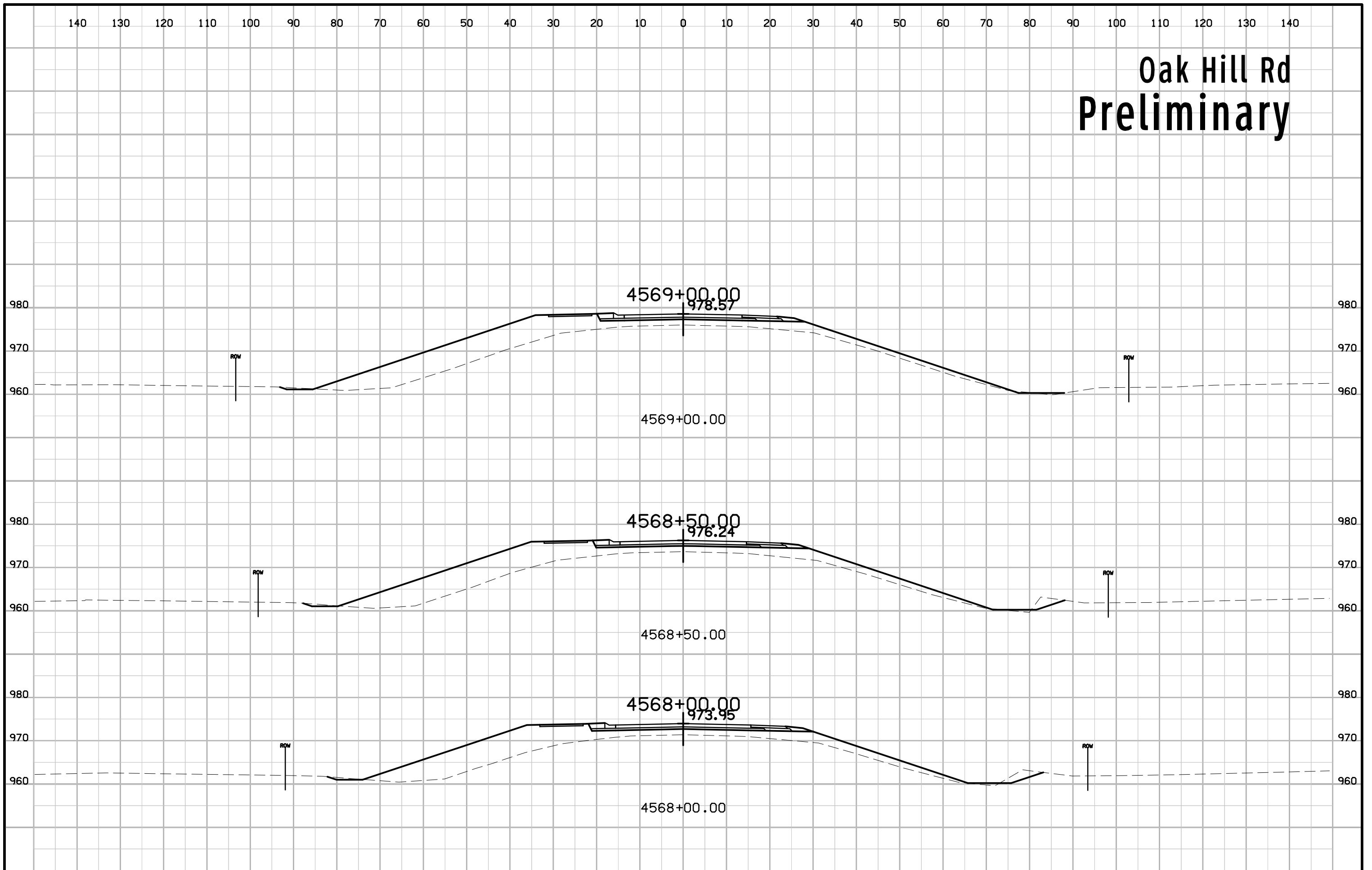
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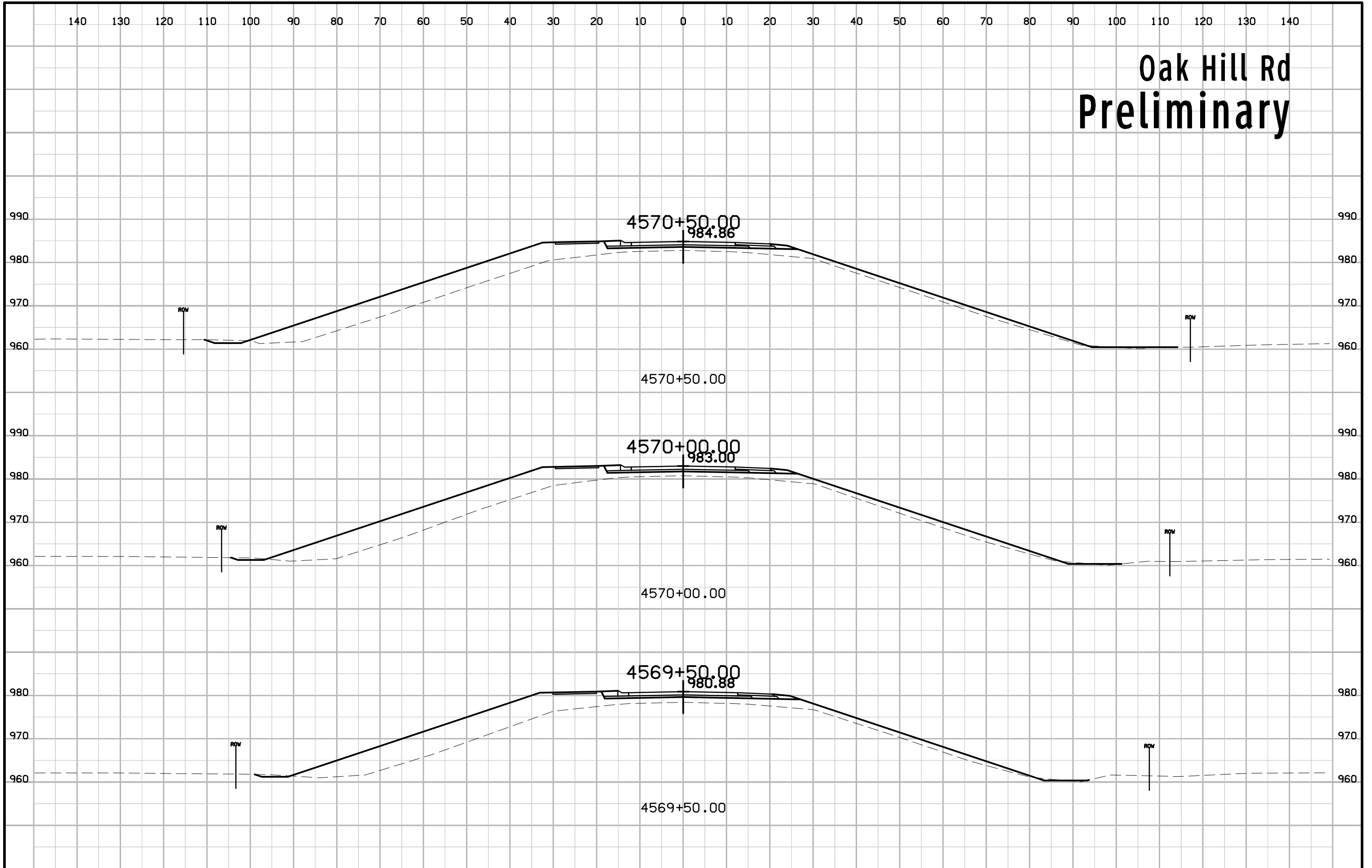
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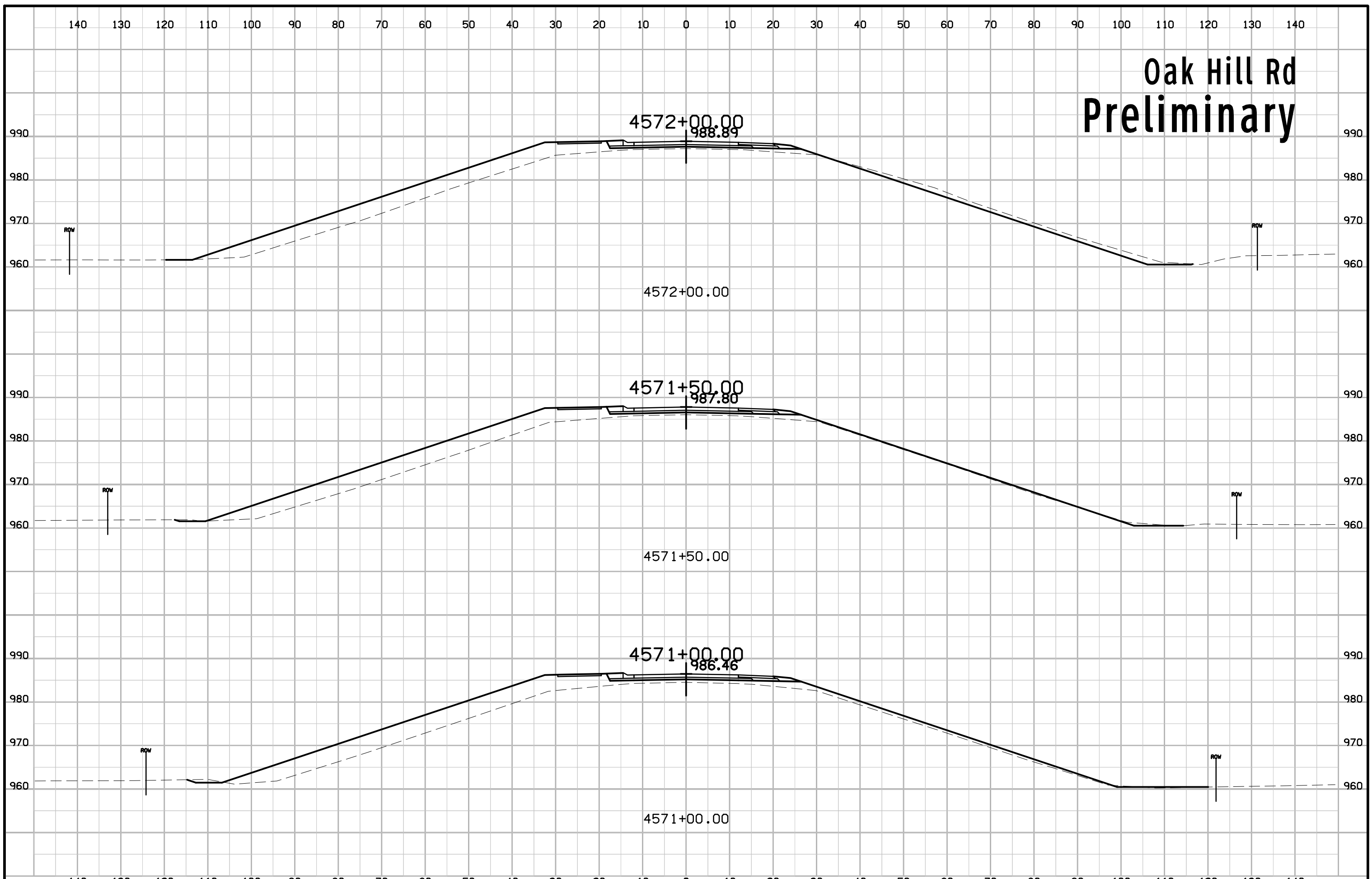
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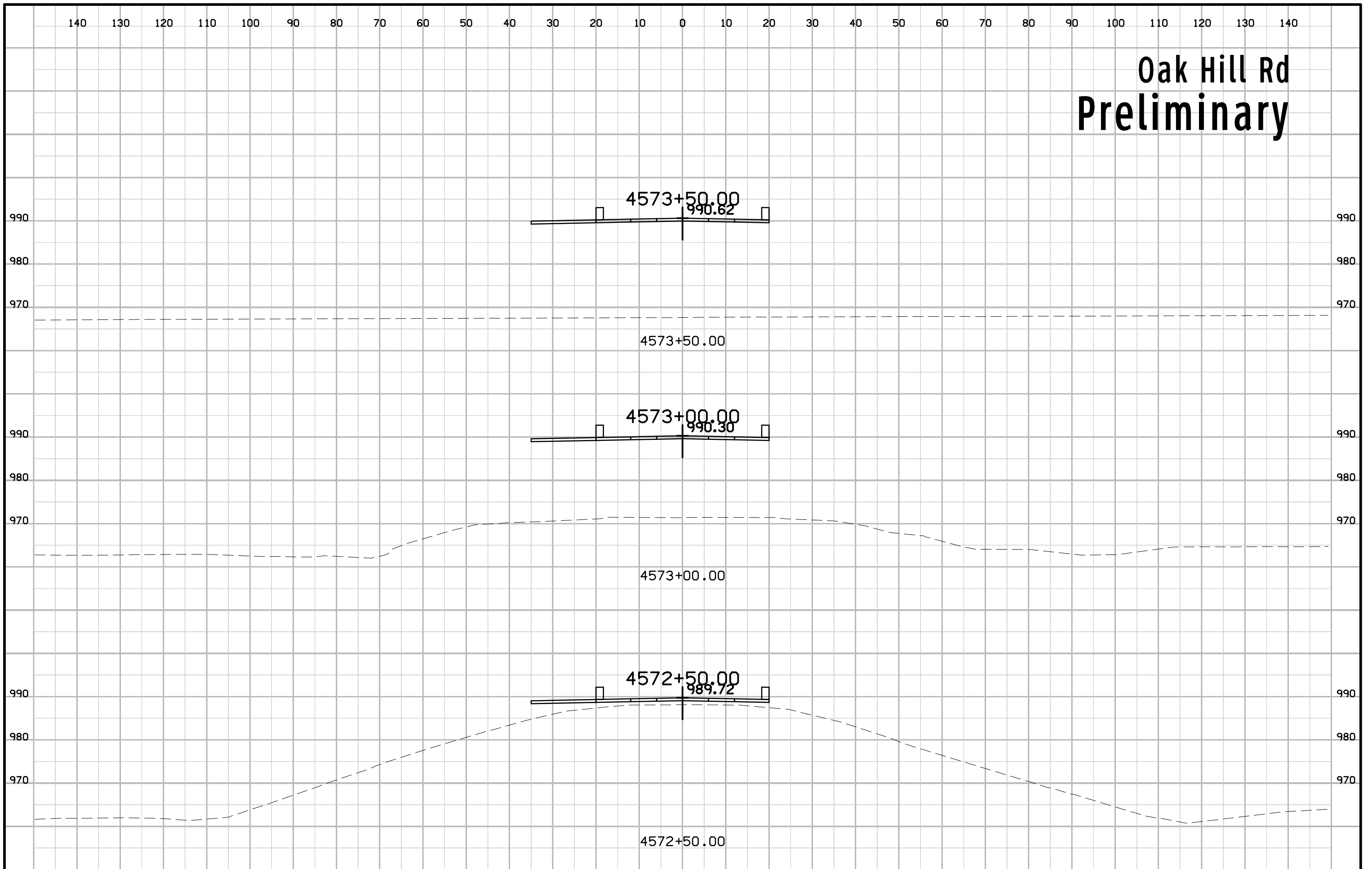
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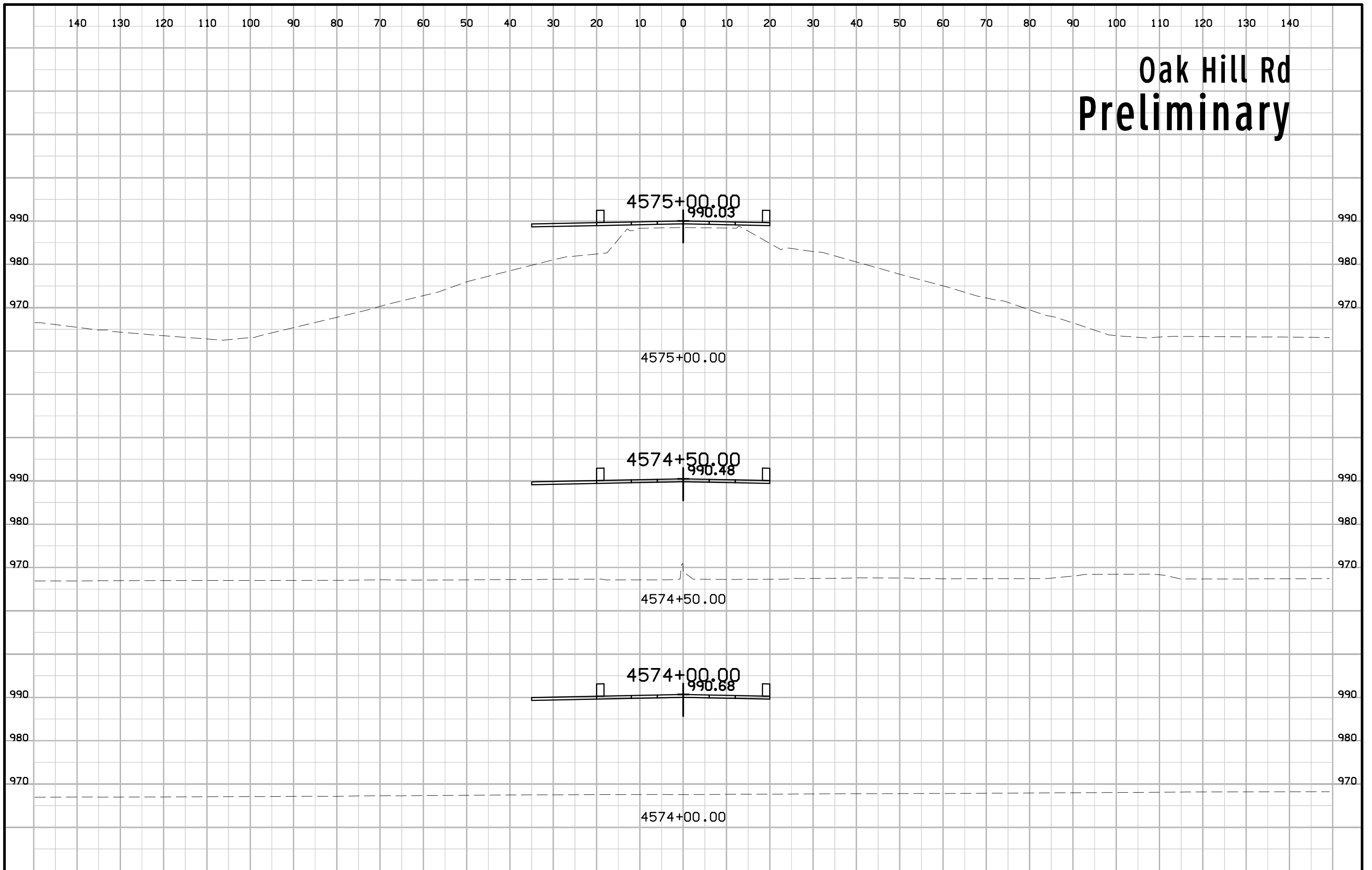
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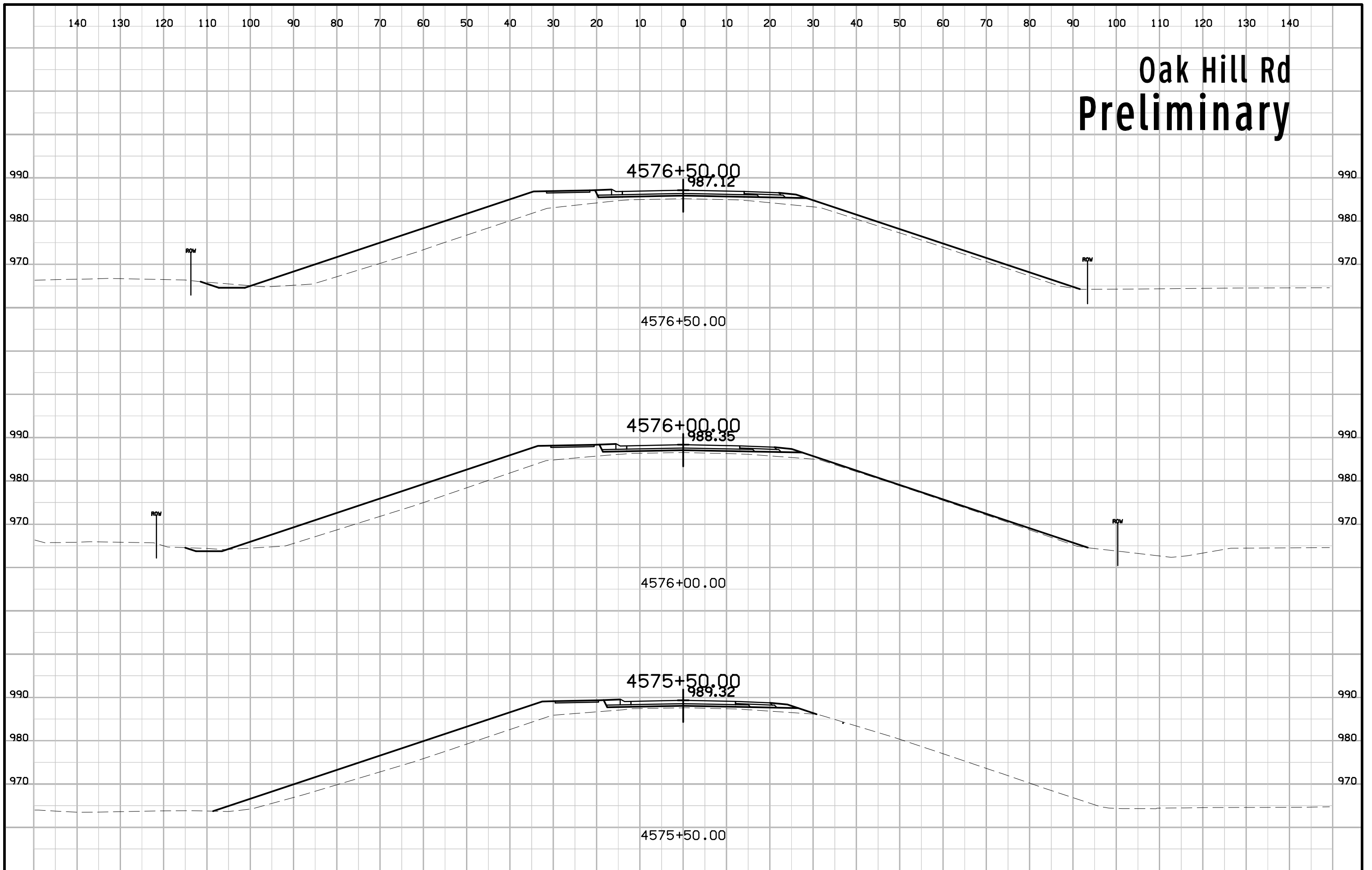
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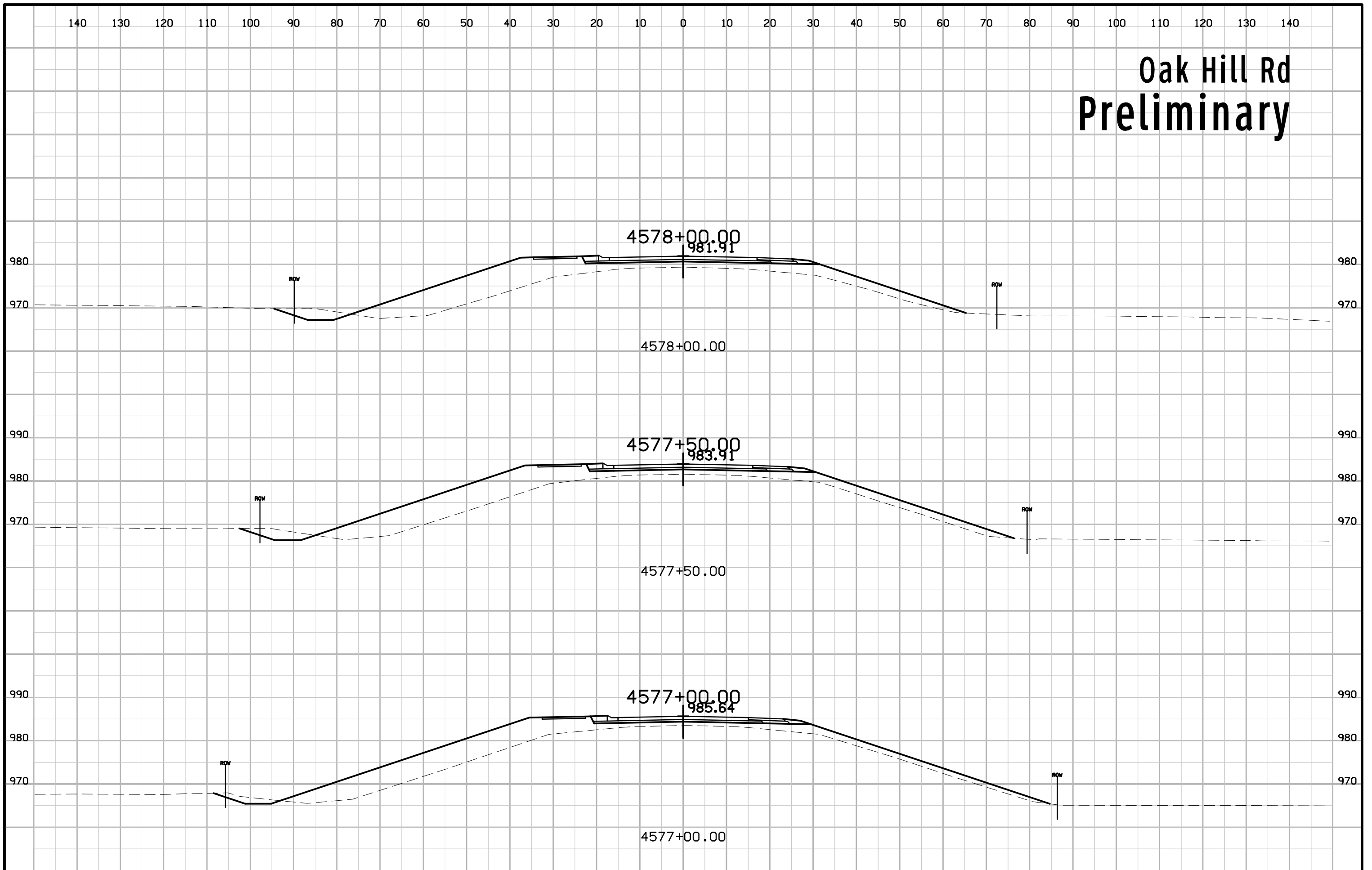
Oak Hill Rd Preliminary



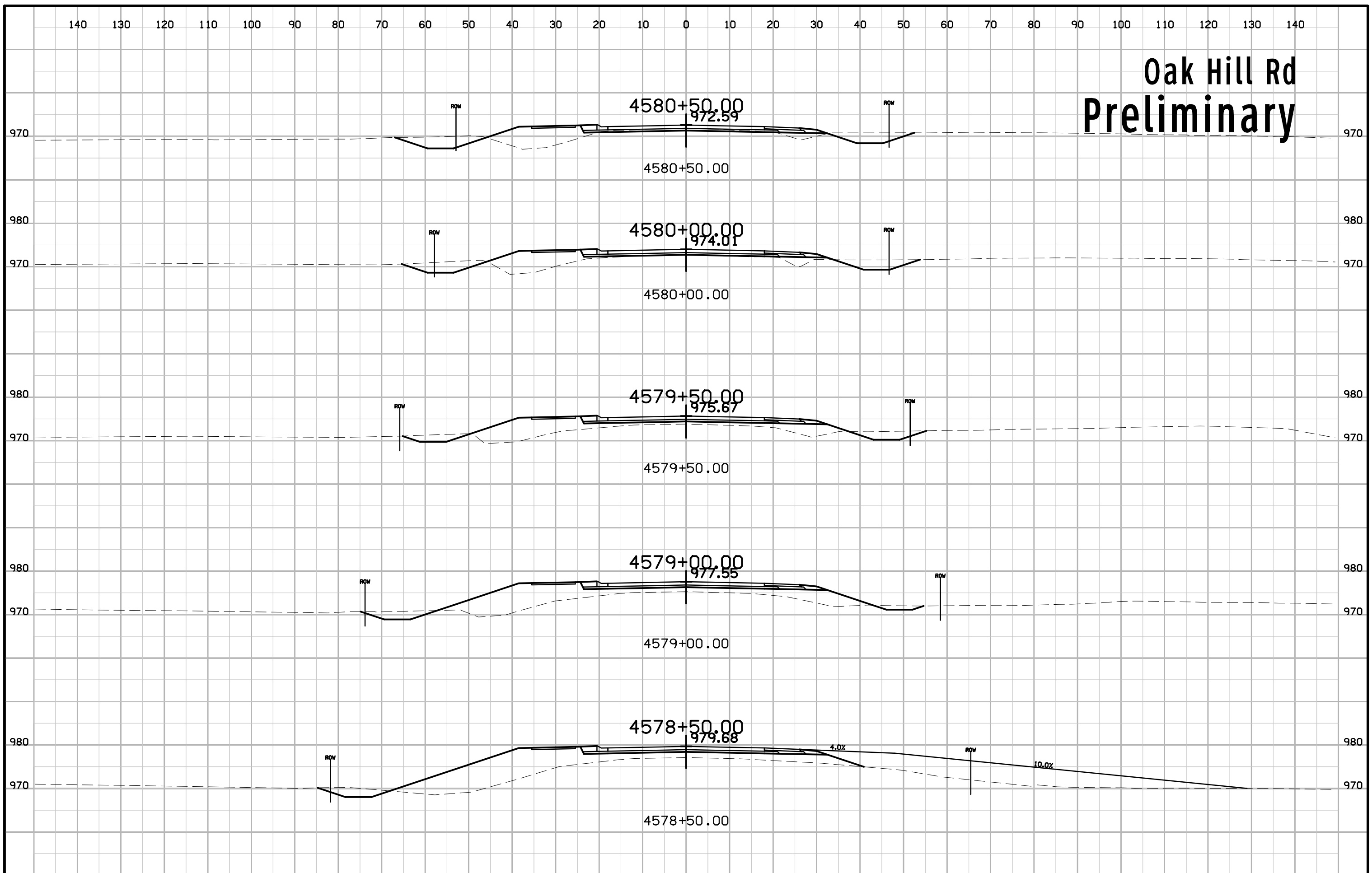
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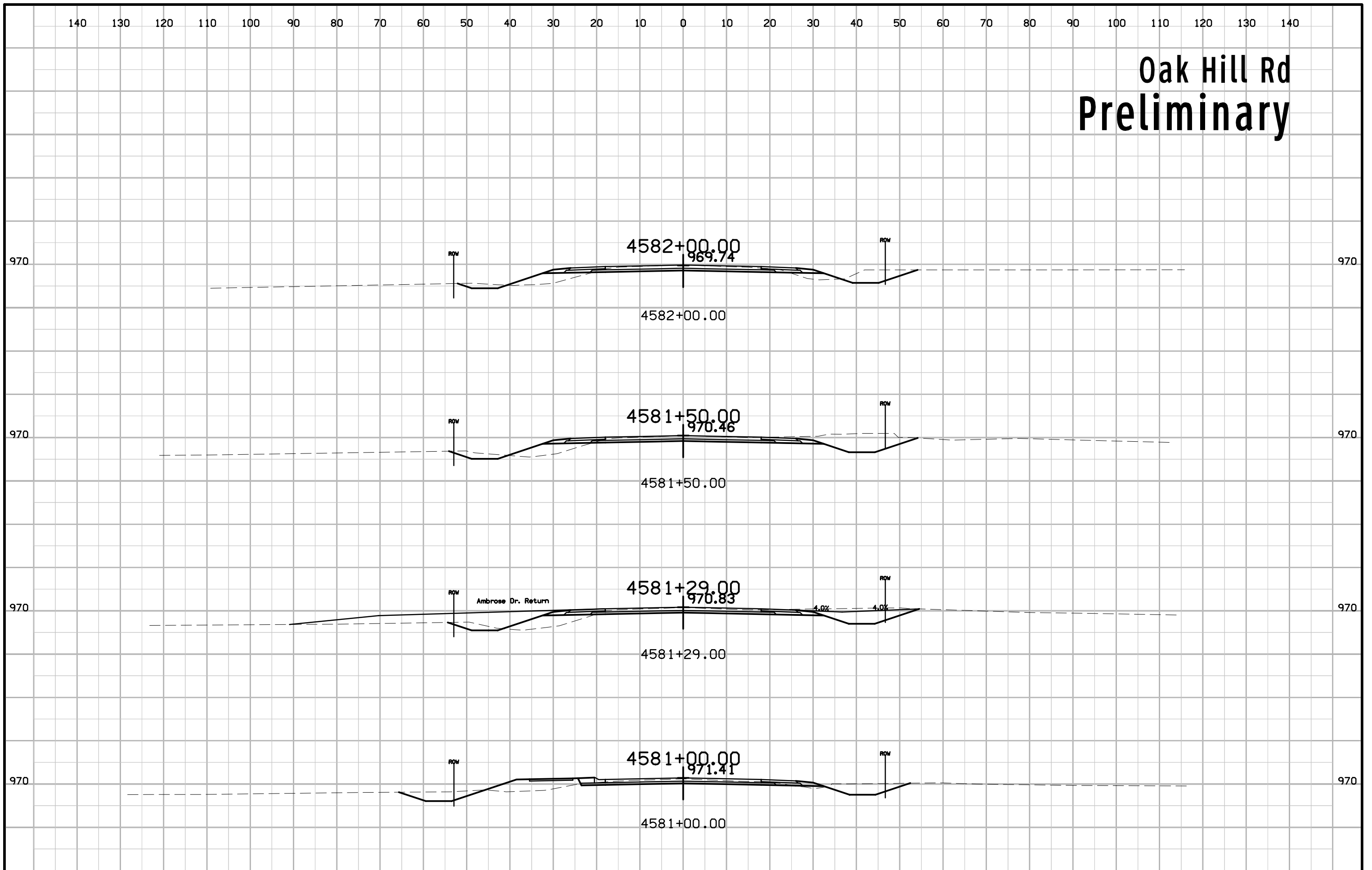
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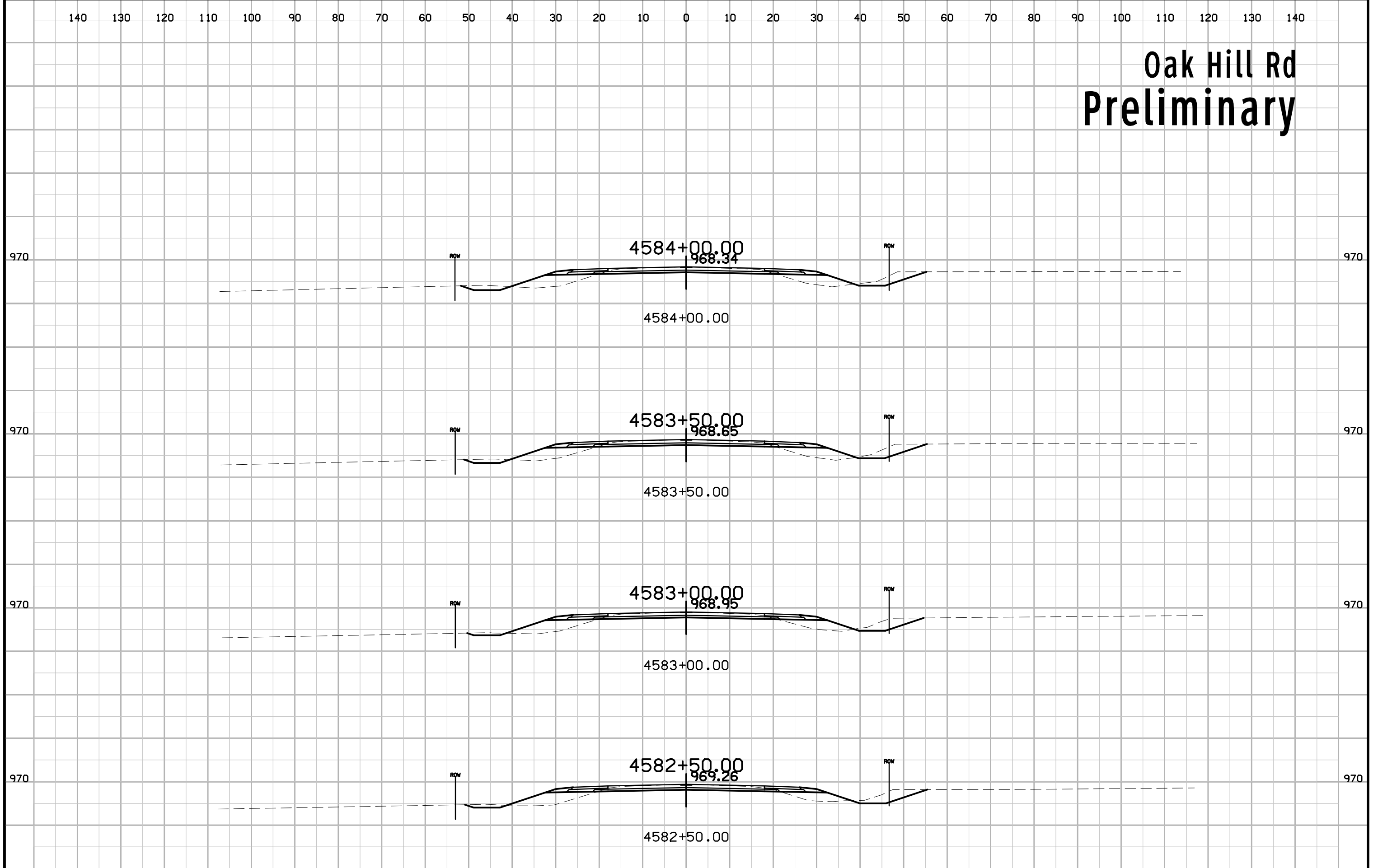
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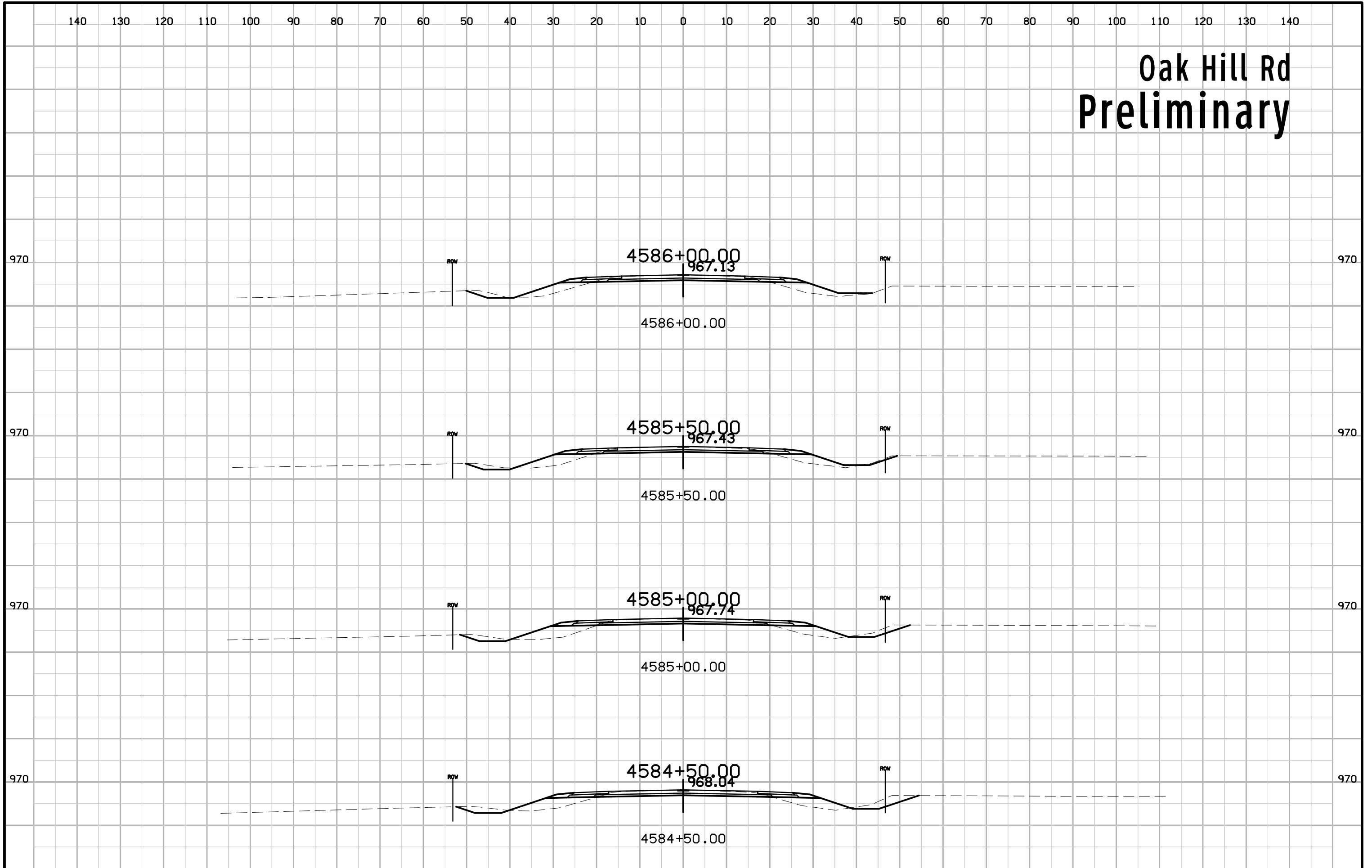
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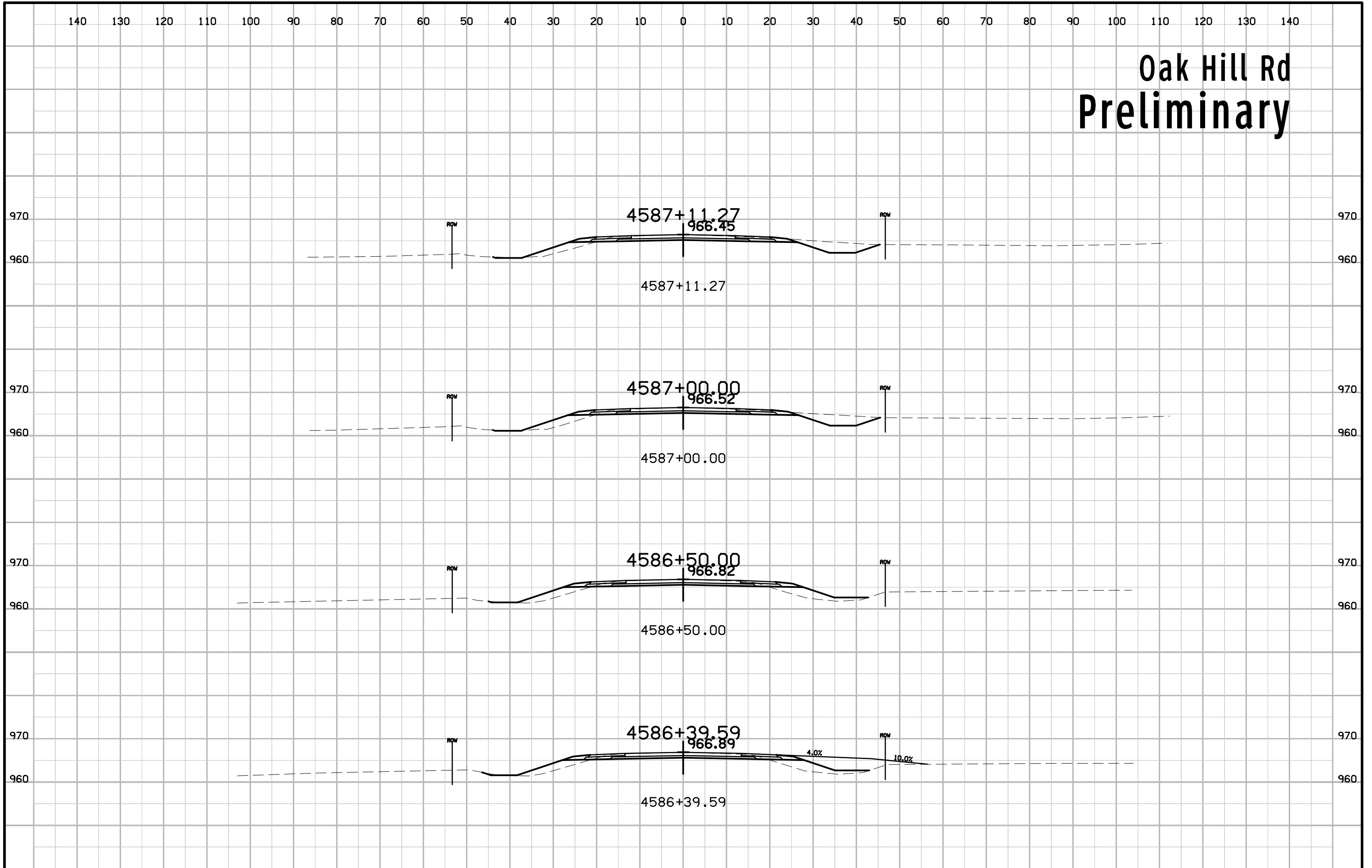
Oak Hill Rd Preliminary



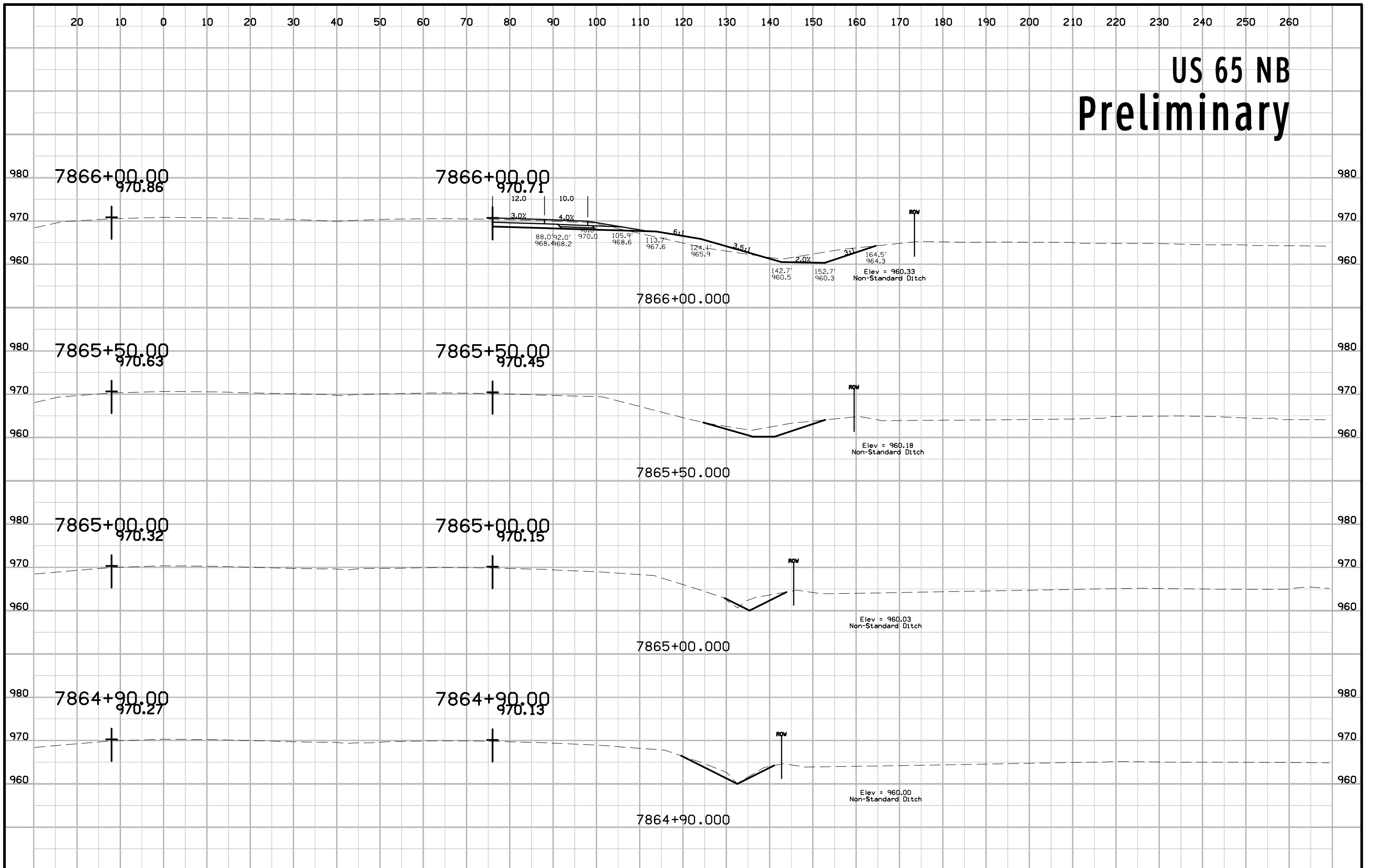
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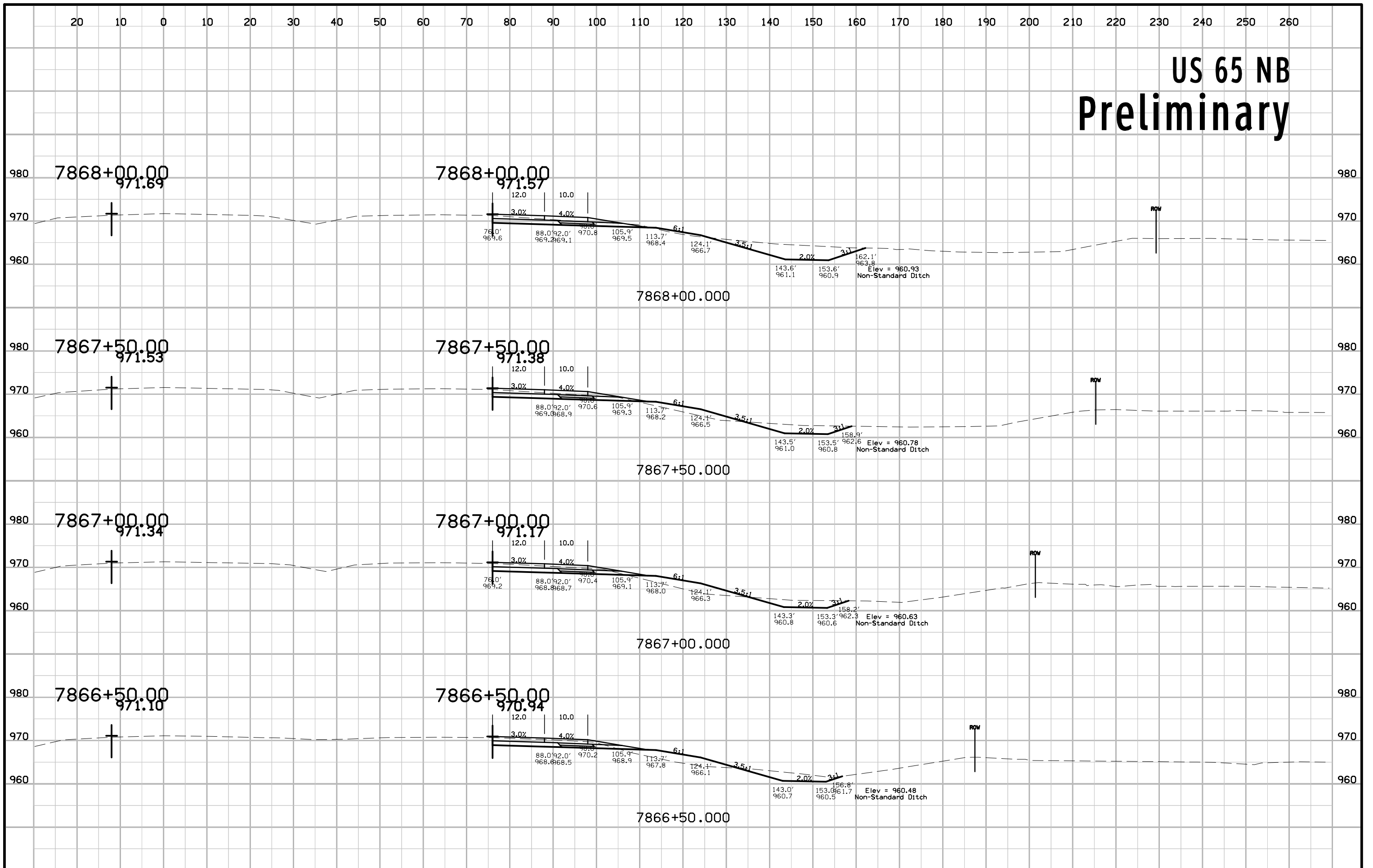
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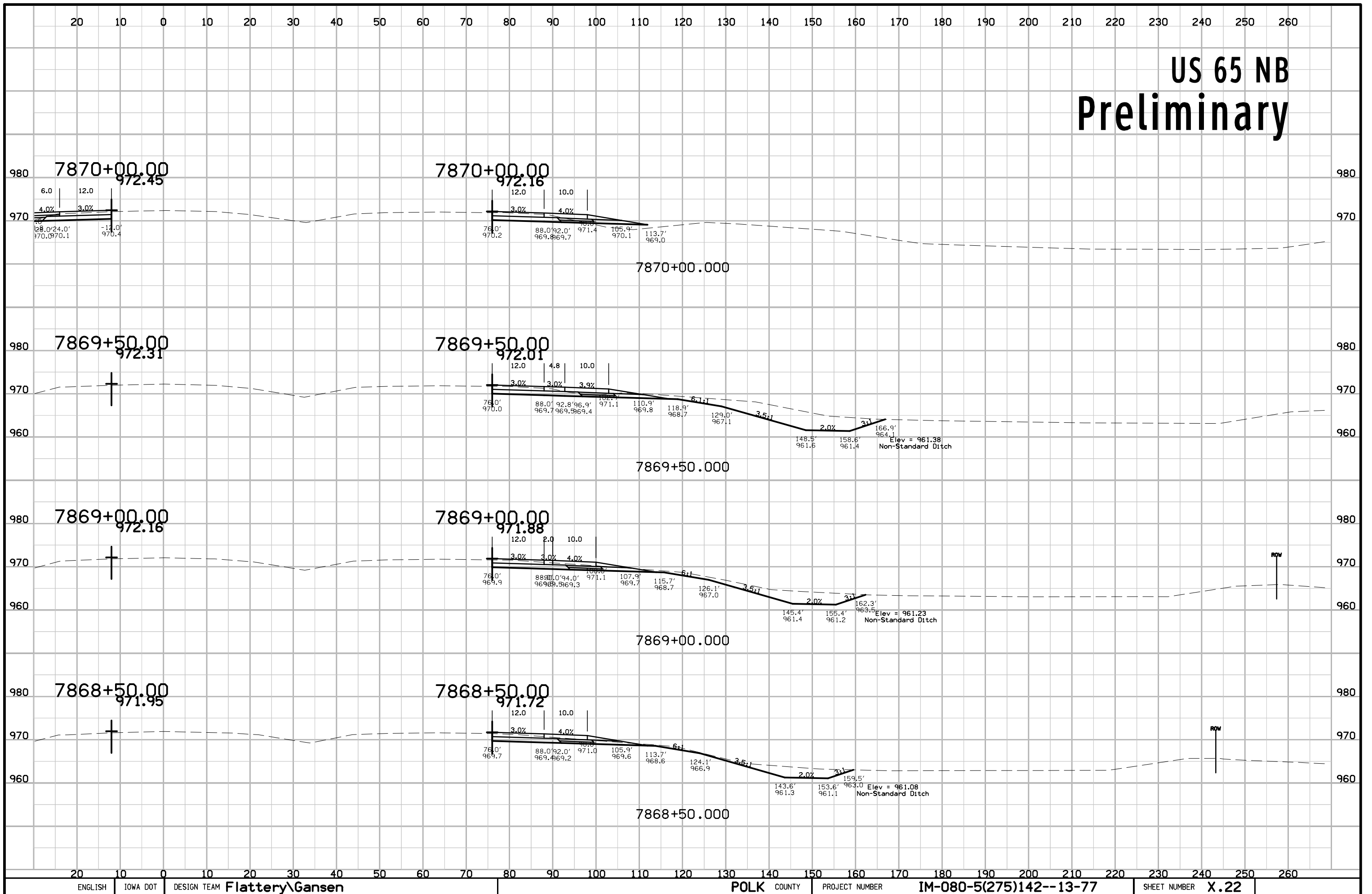
US 65 NB Preliminary



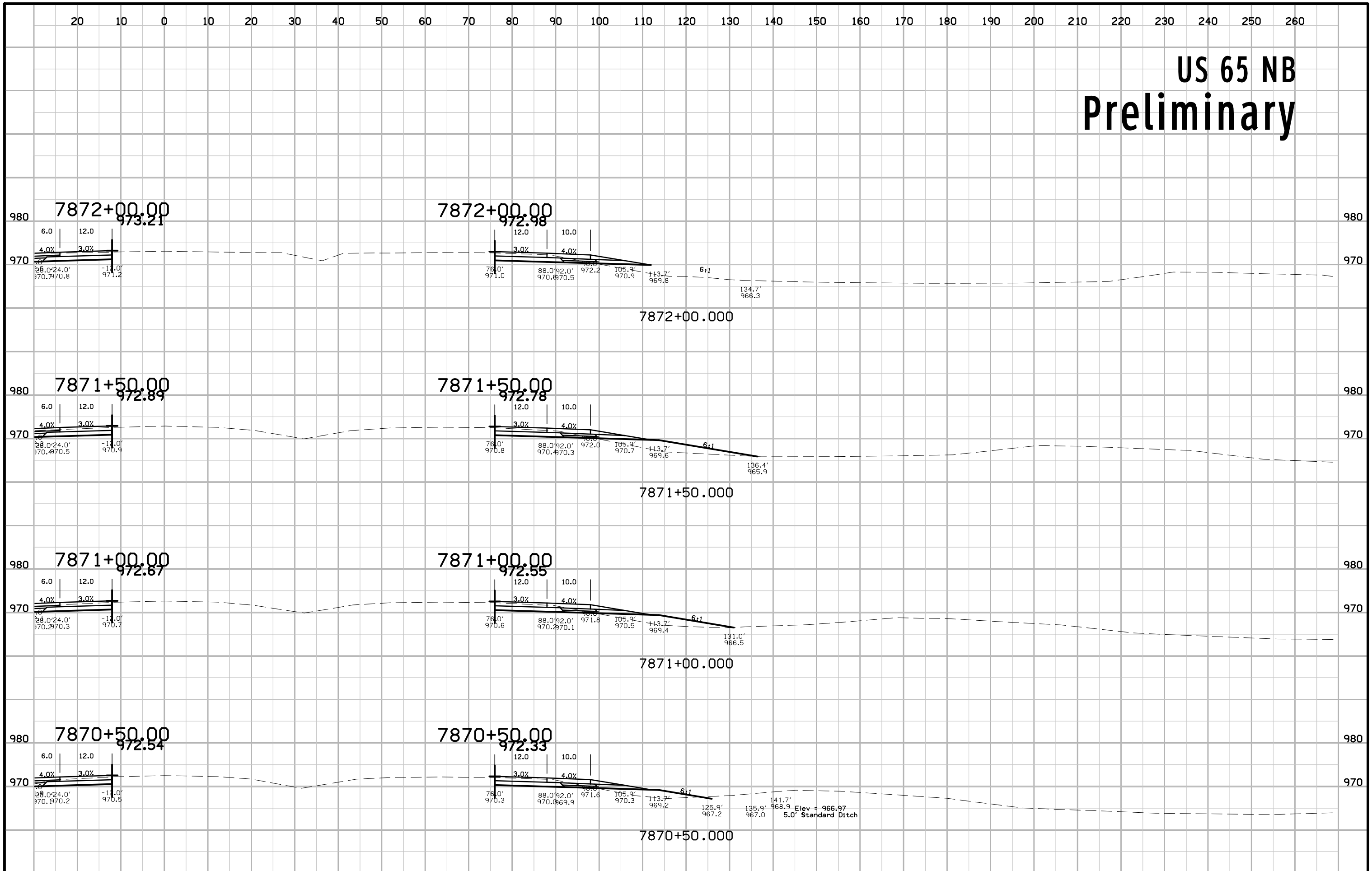
US 65 NB Preliminary



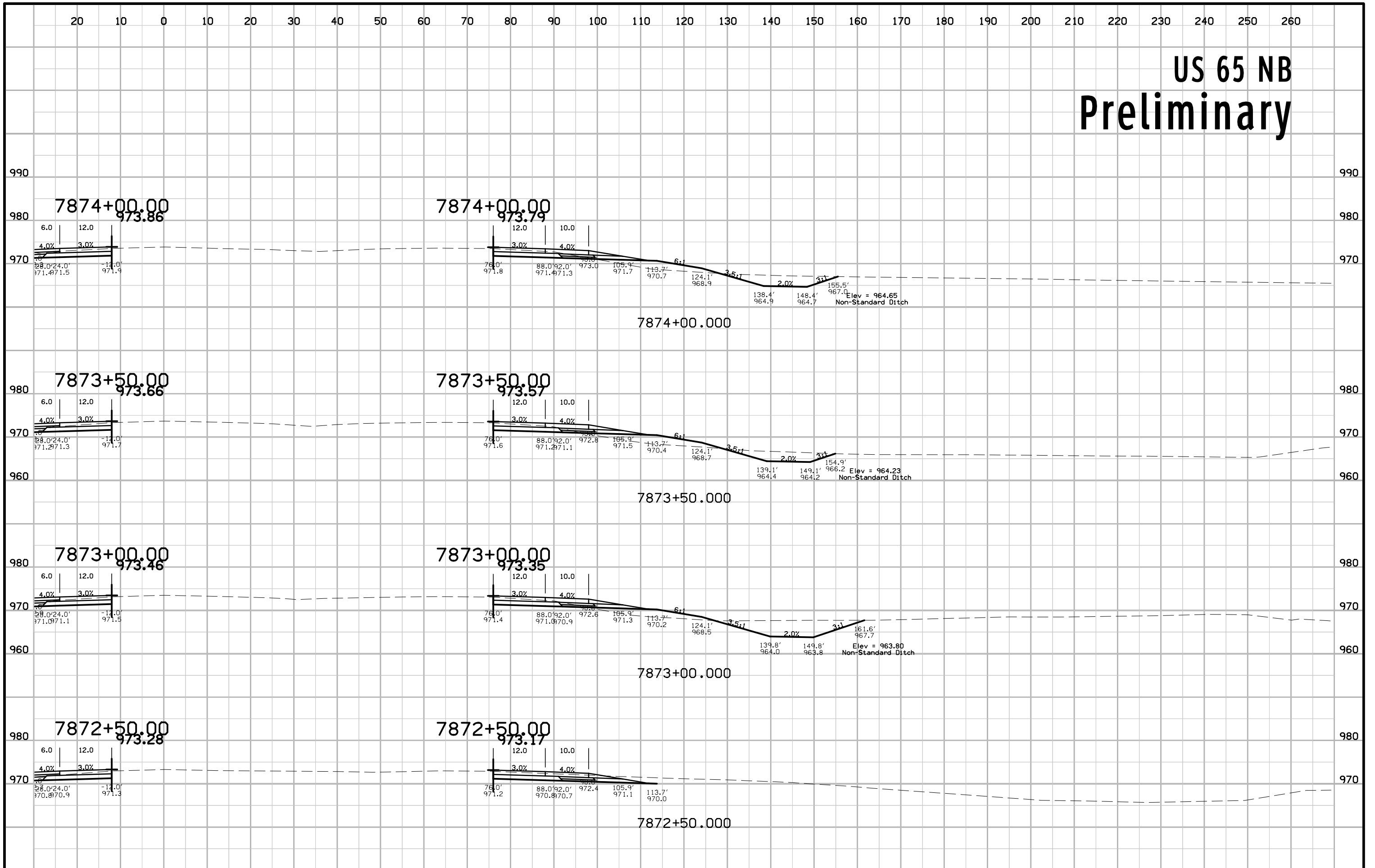
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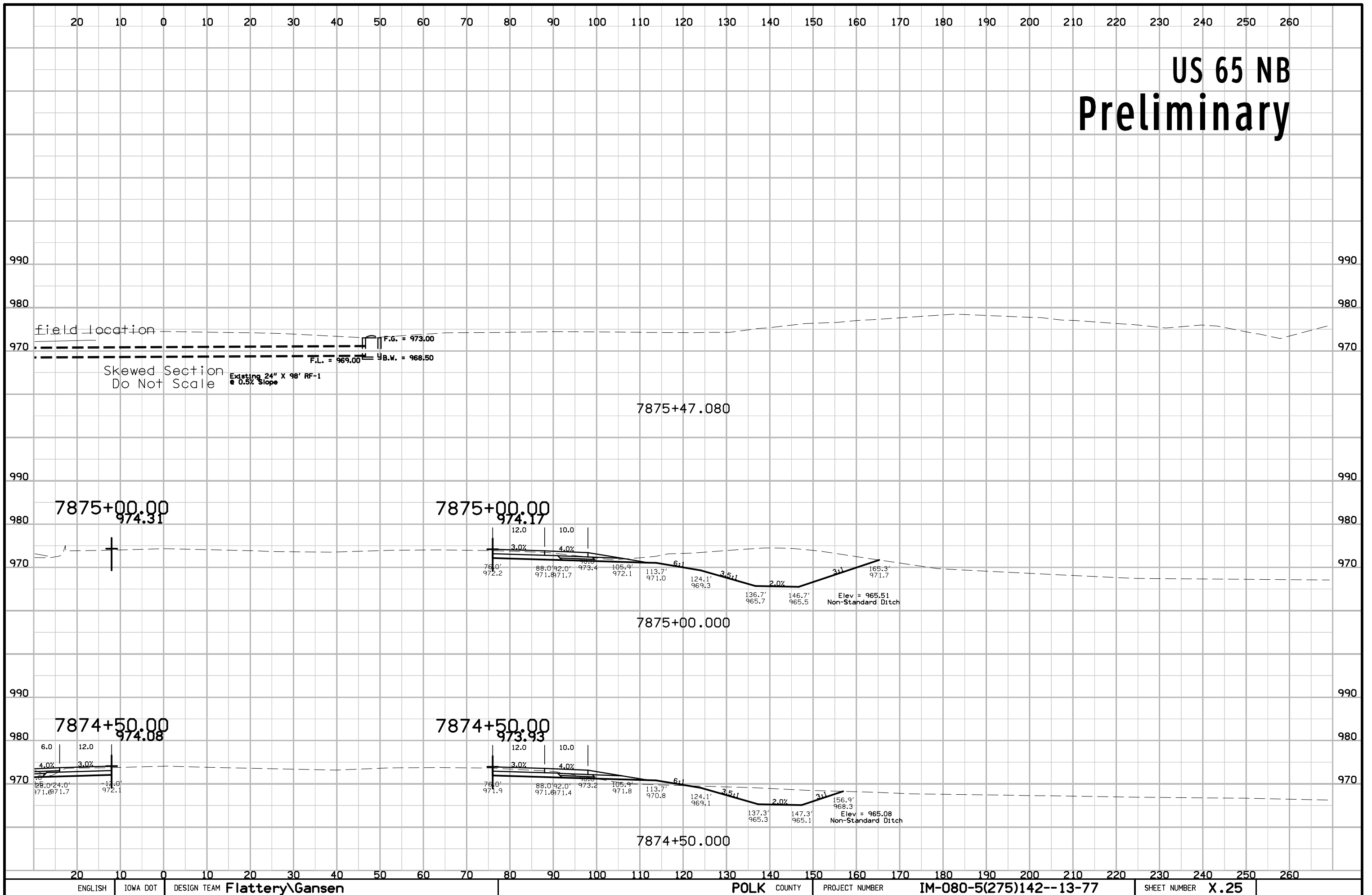
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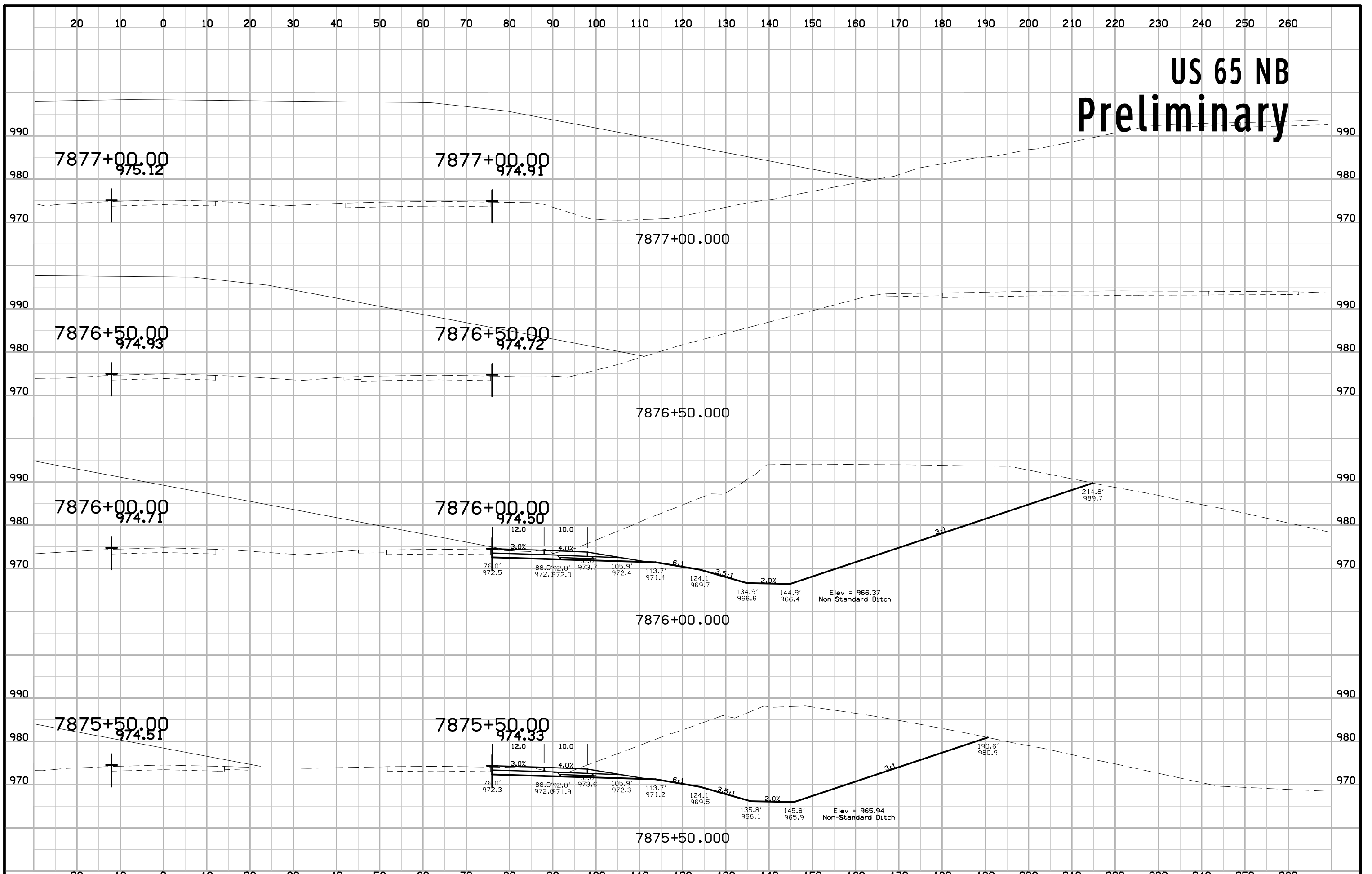
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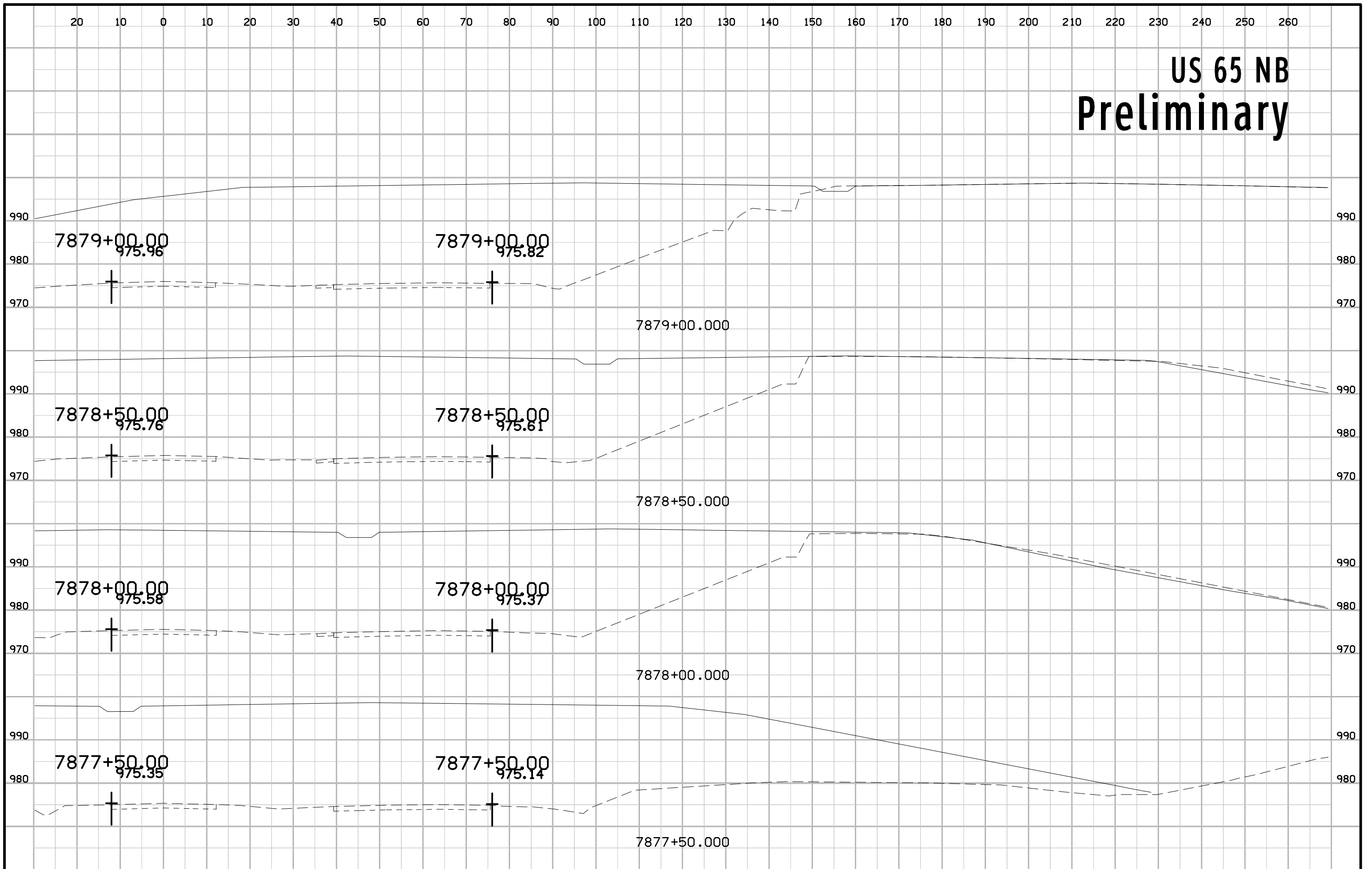
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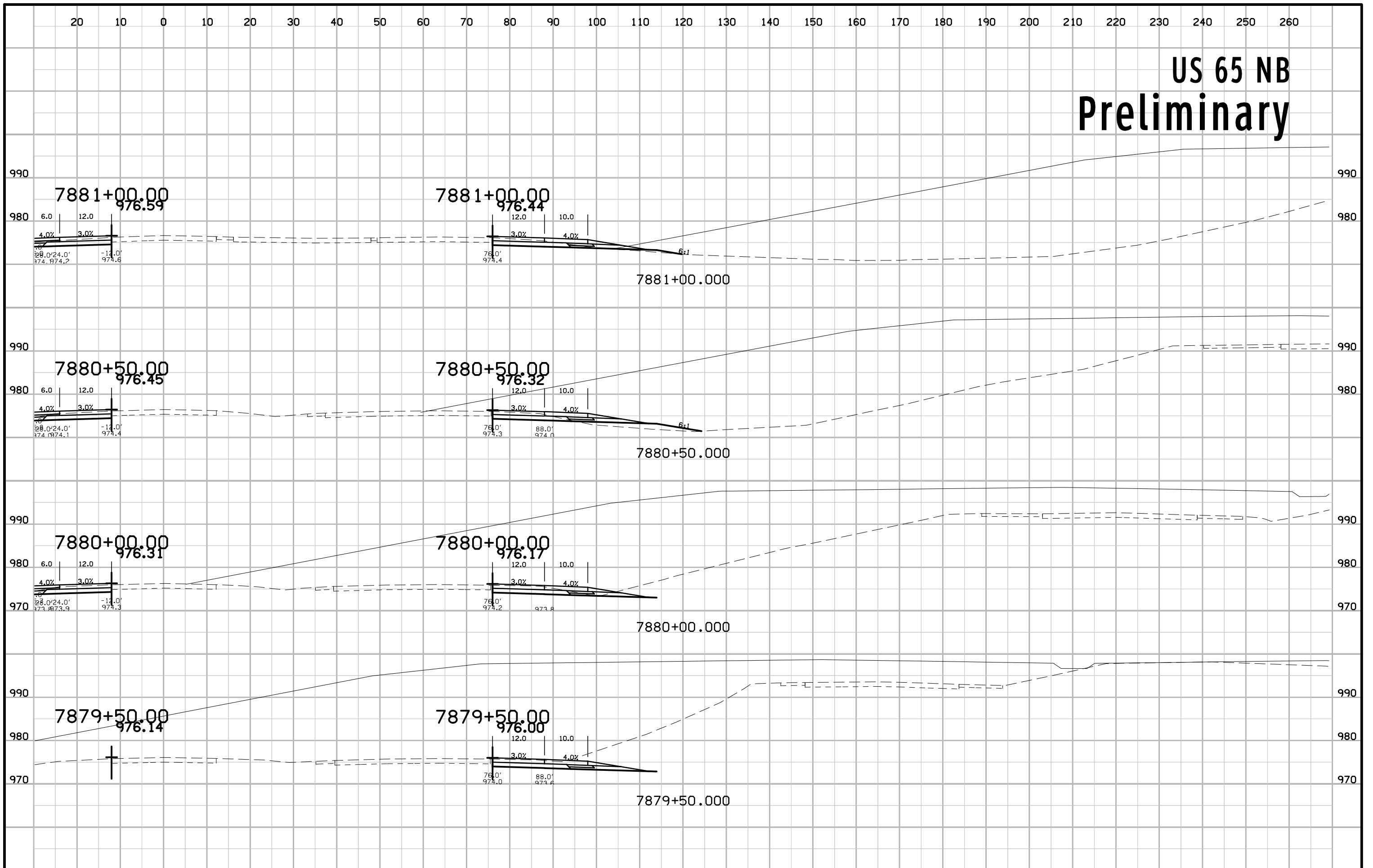
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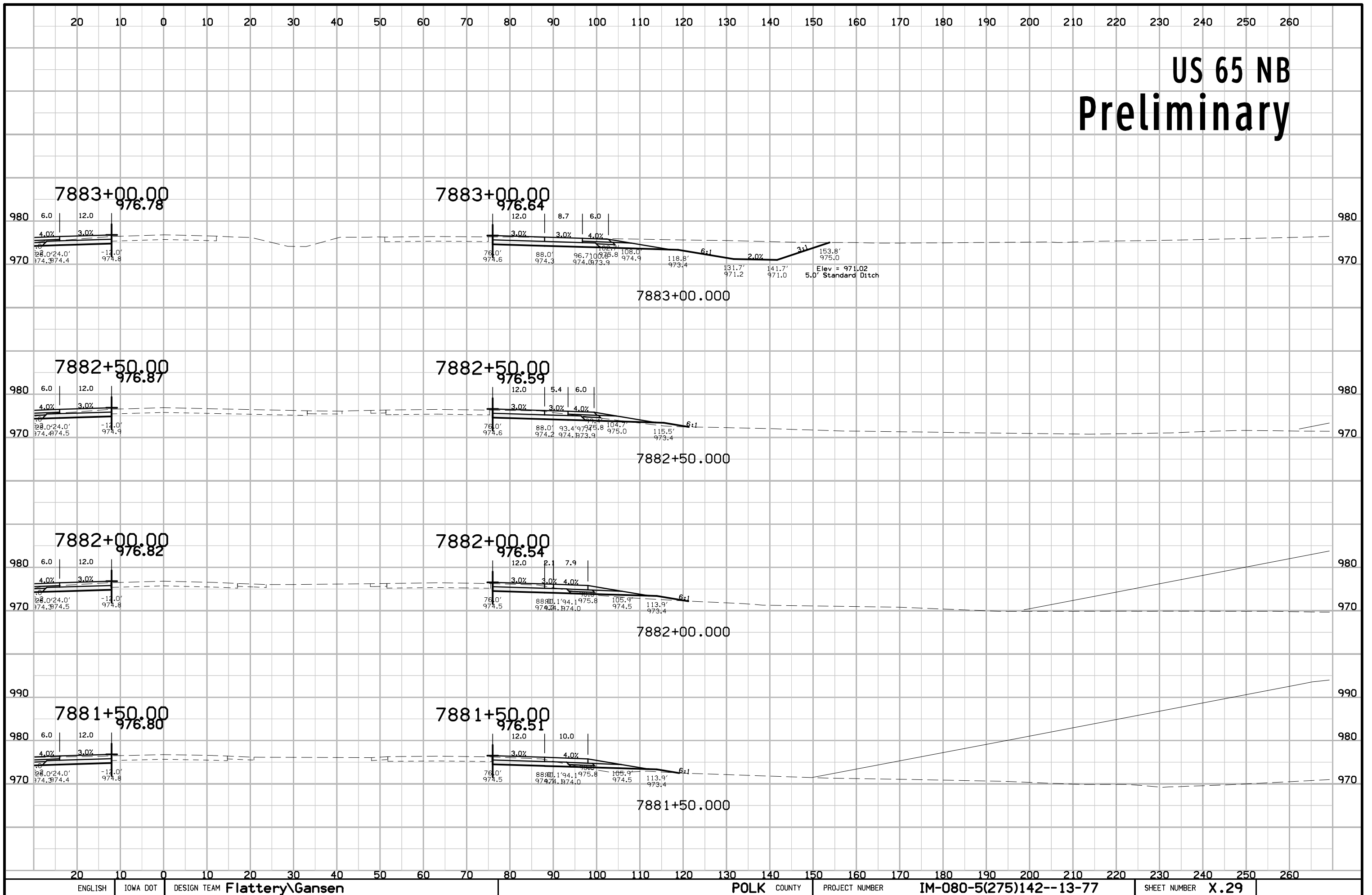
US 65 NB Preliminary



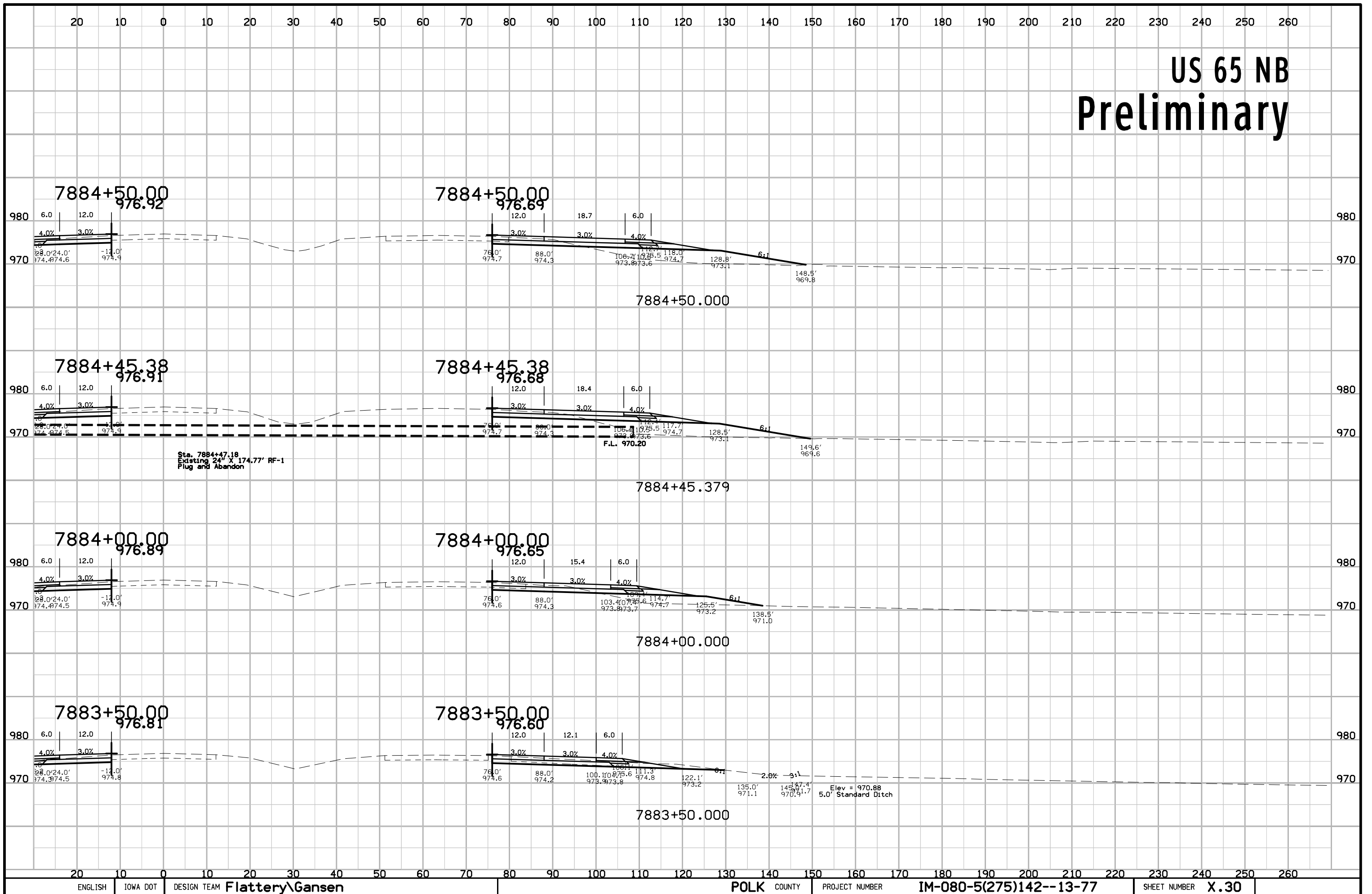
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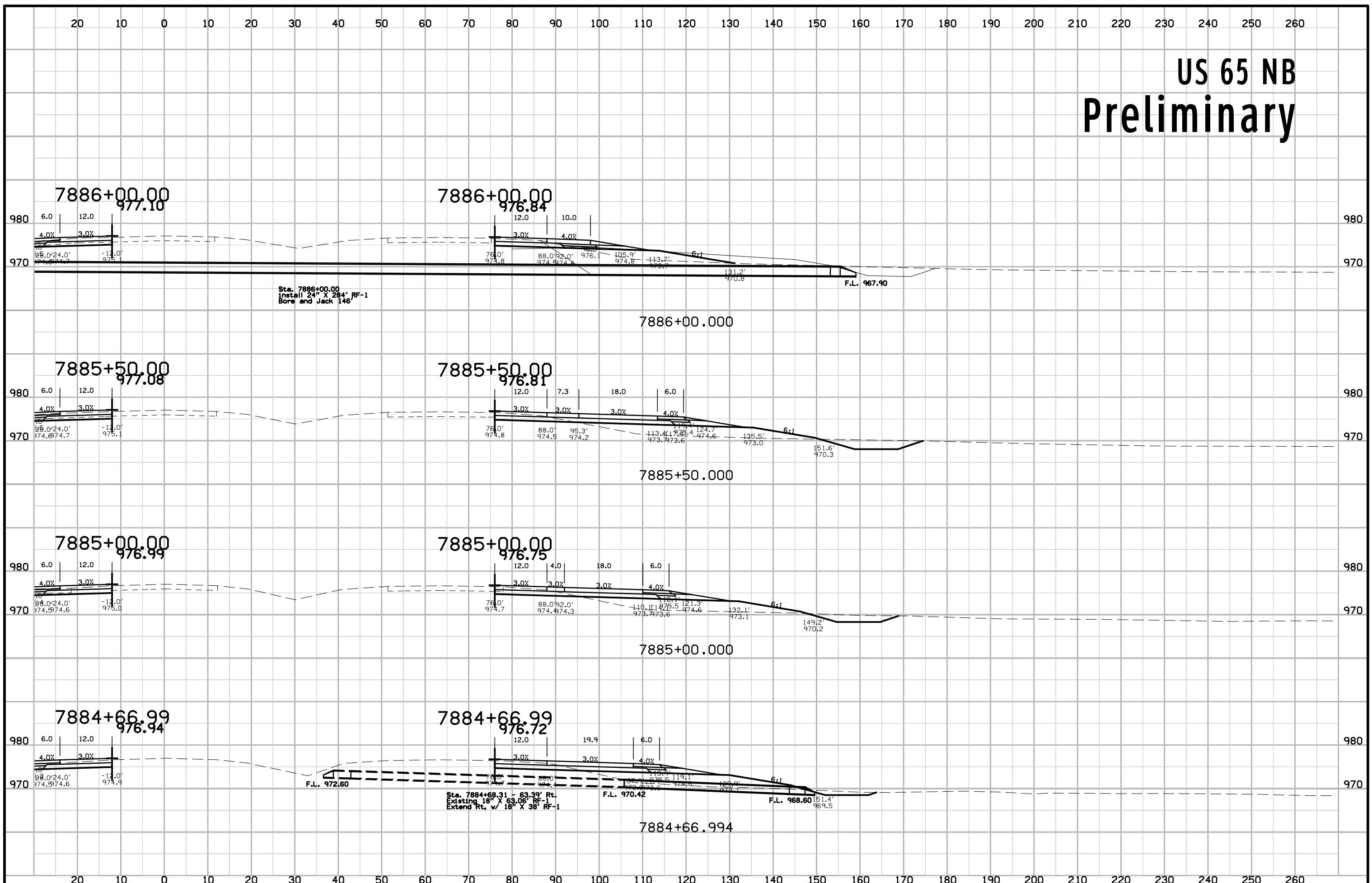
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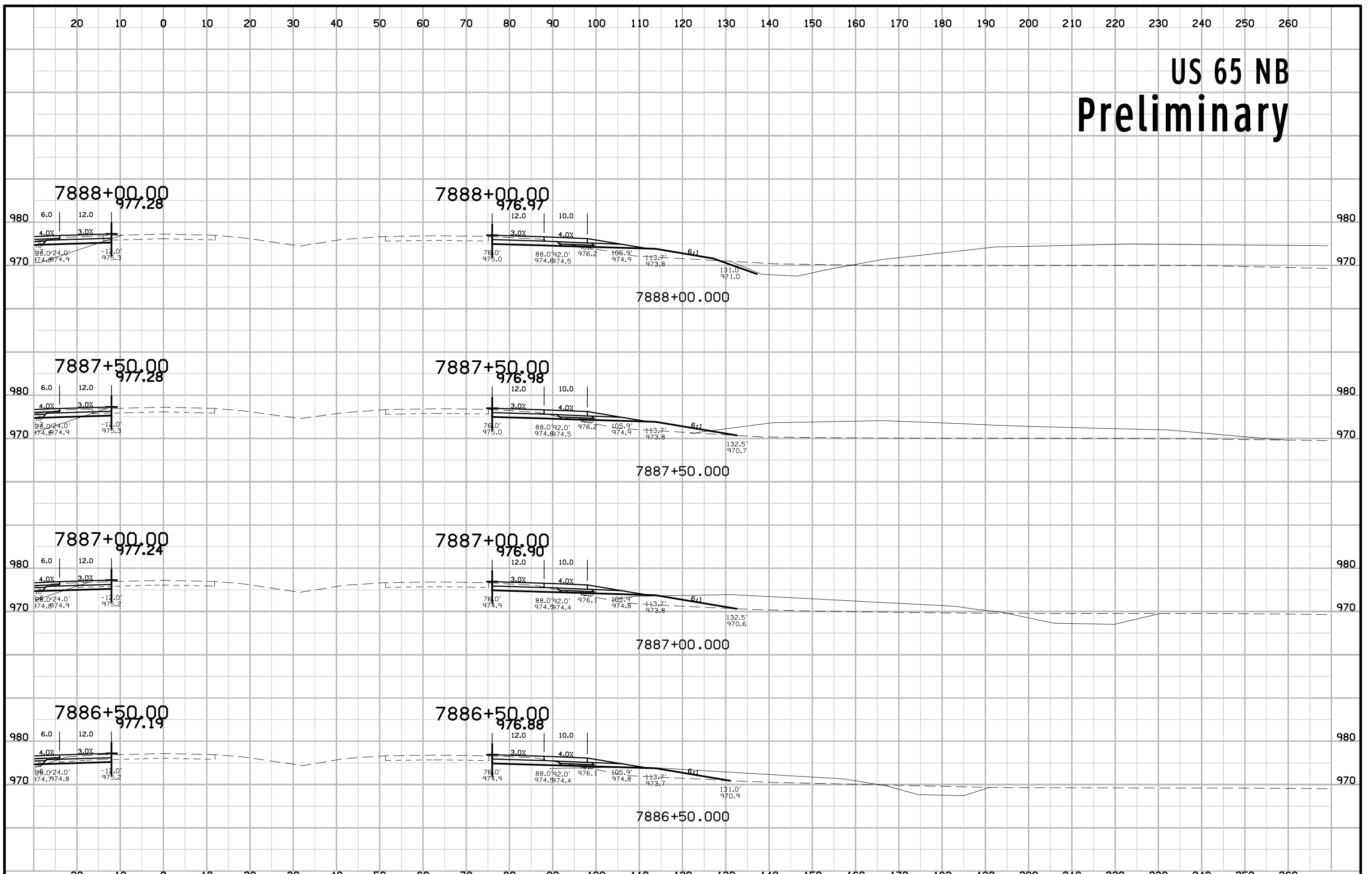
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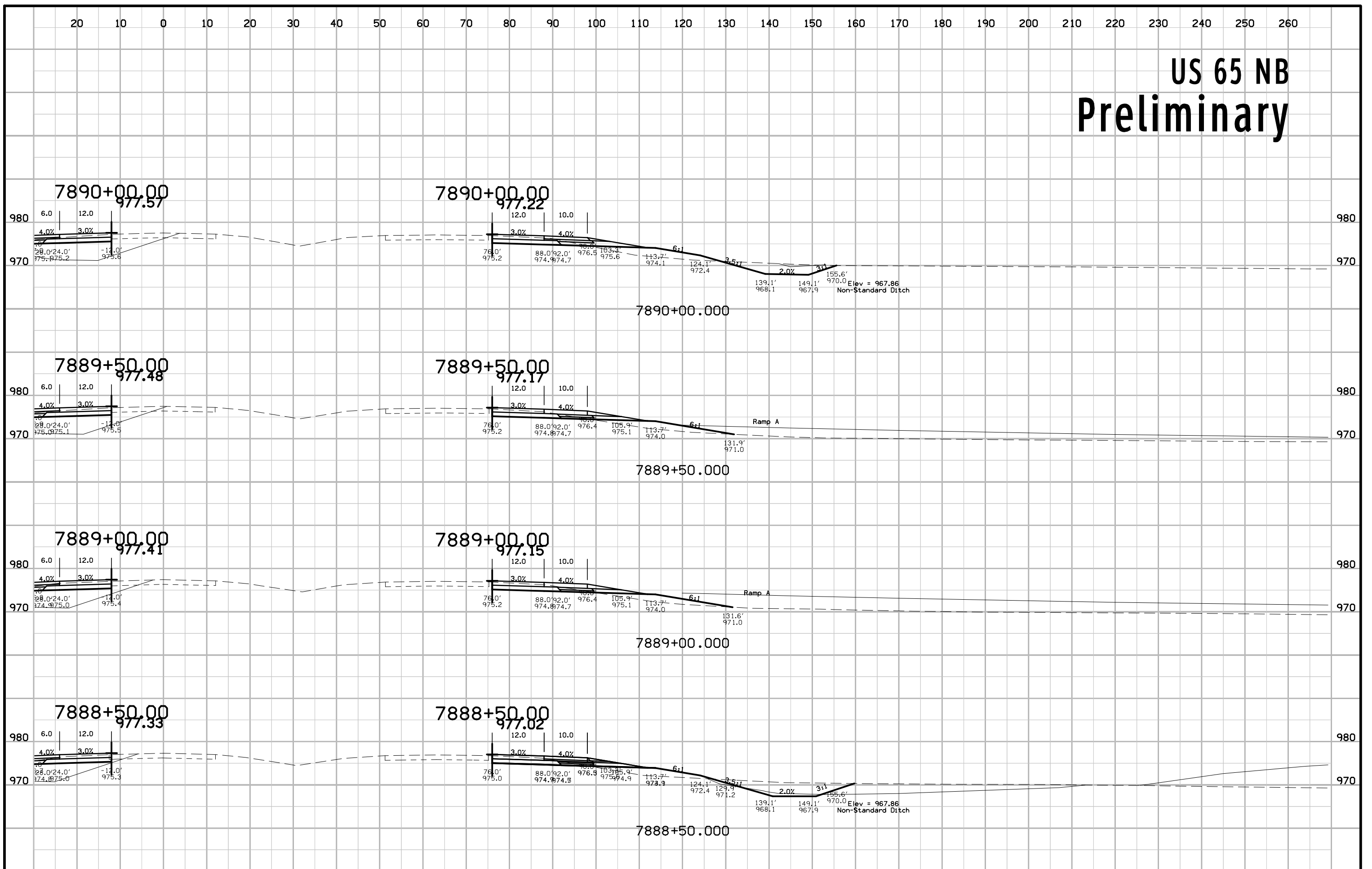
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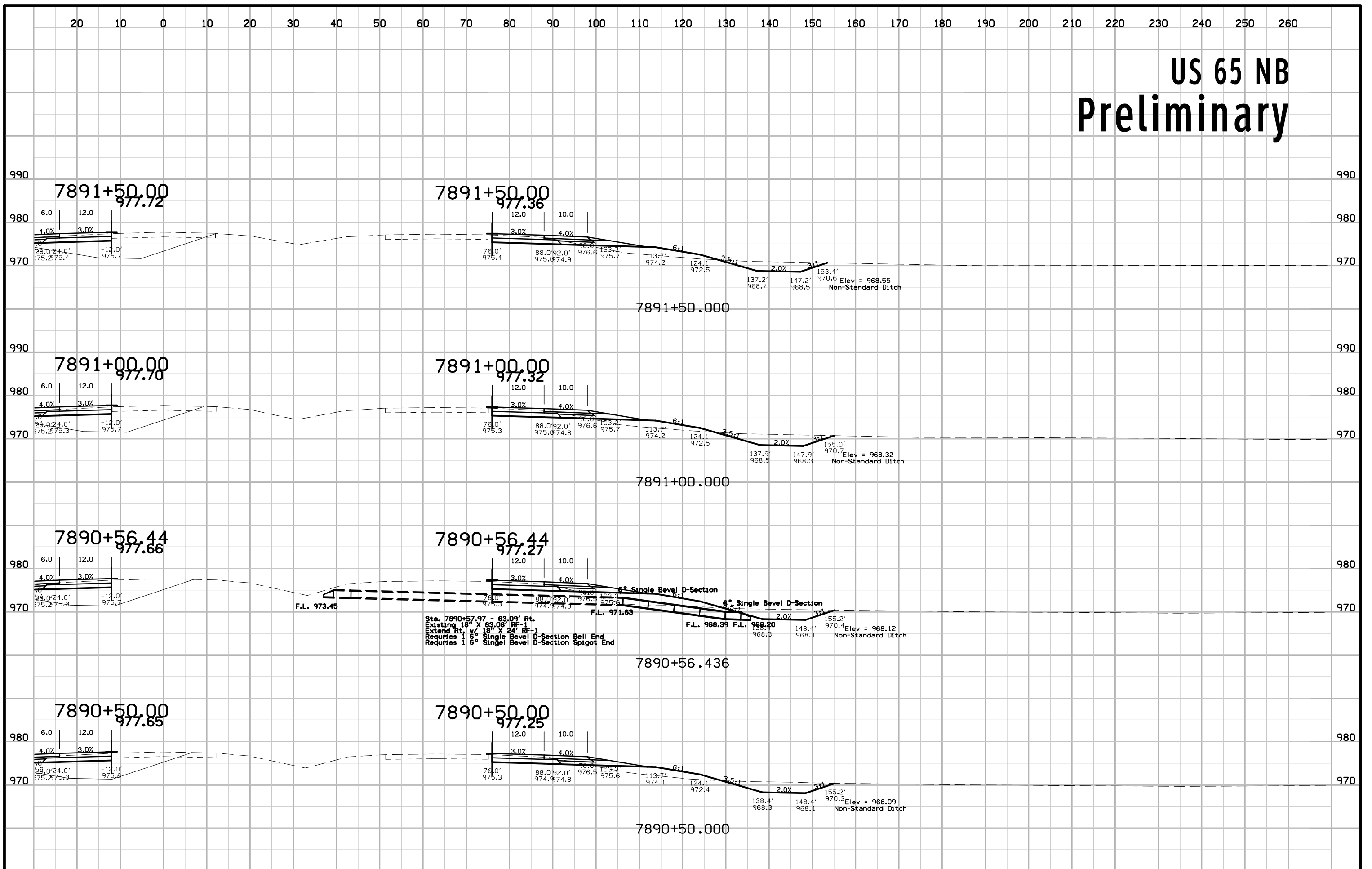
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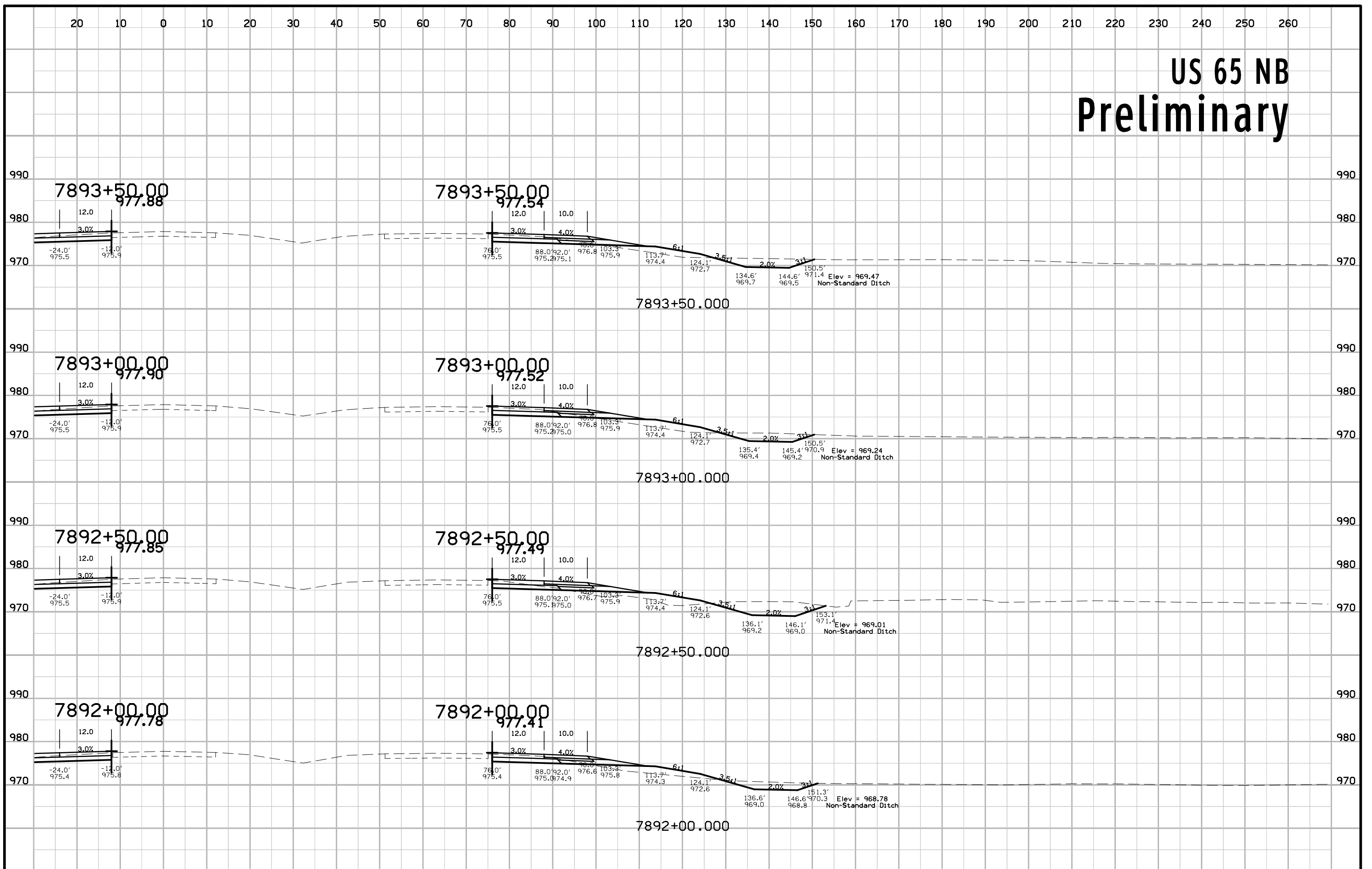
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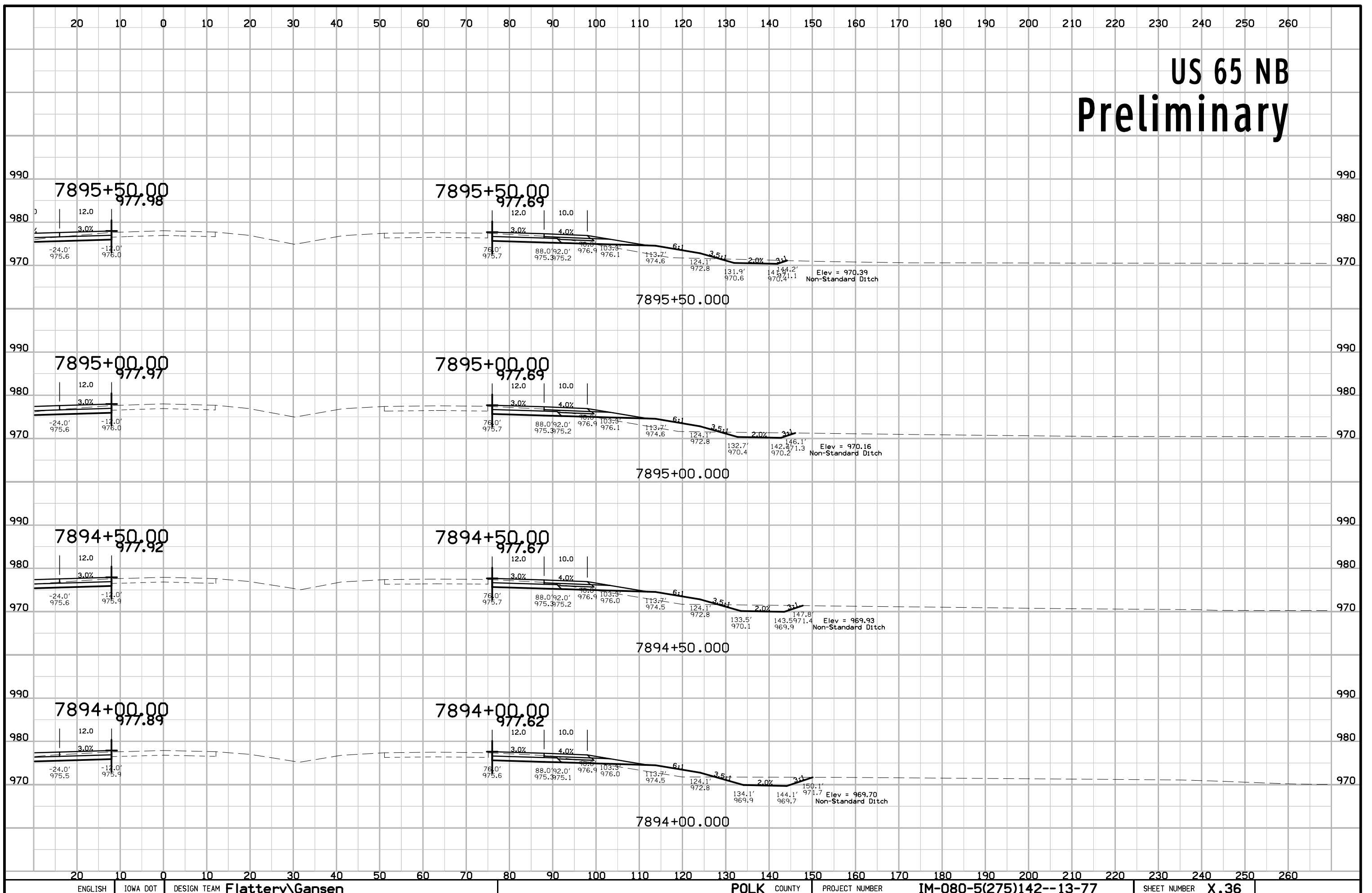
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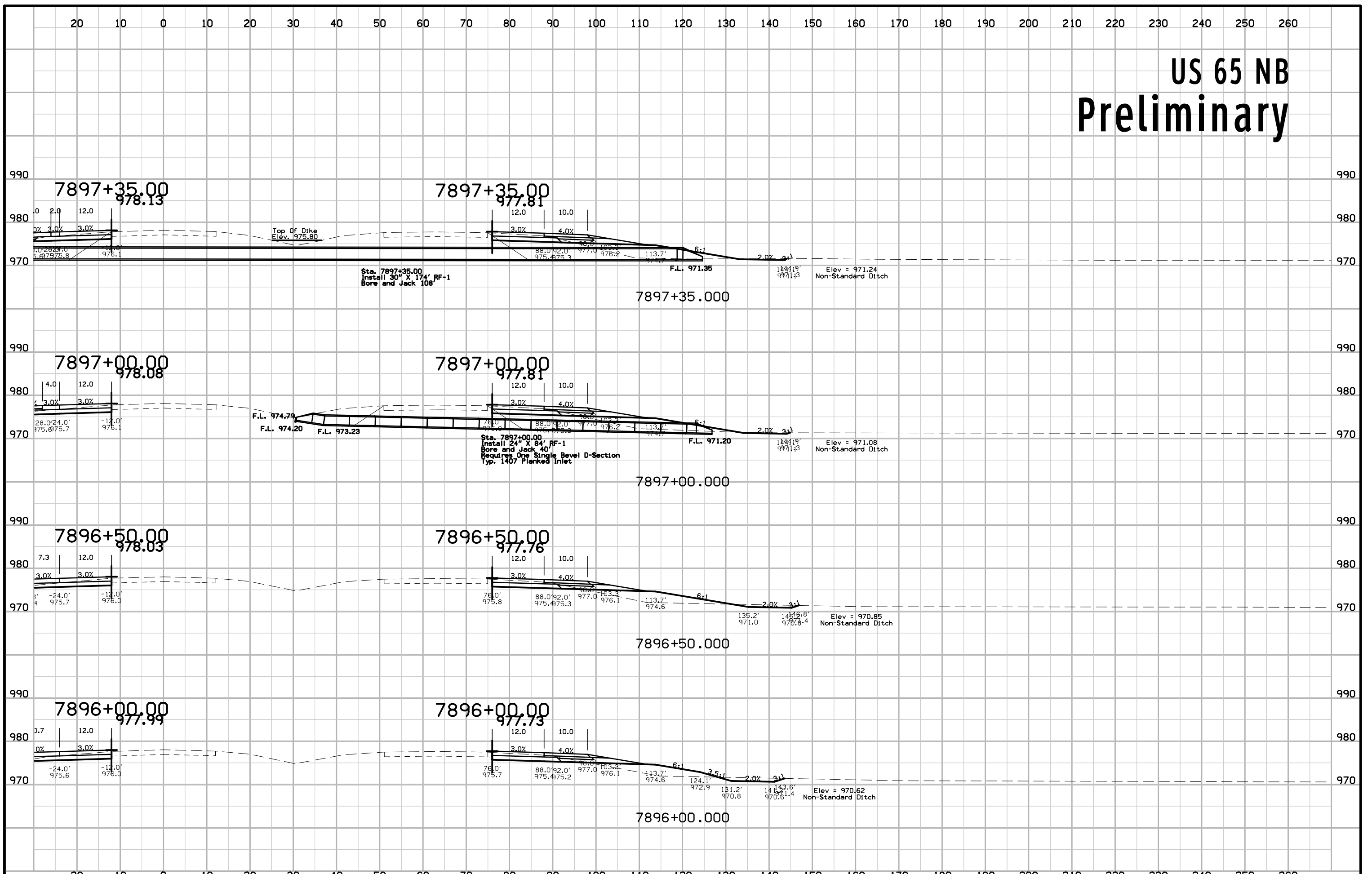
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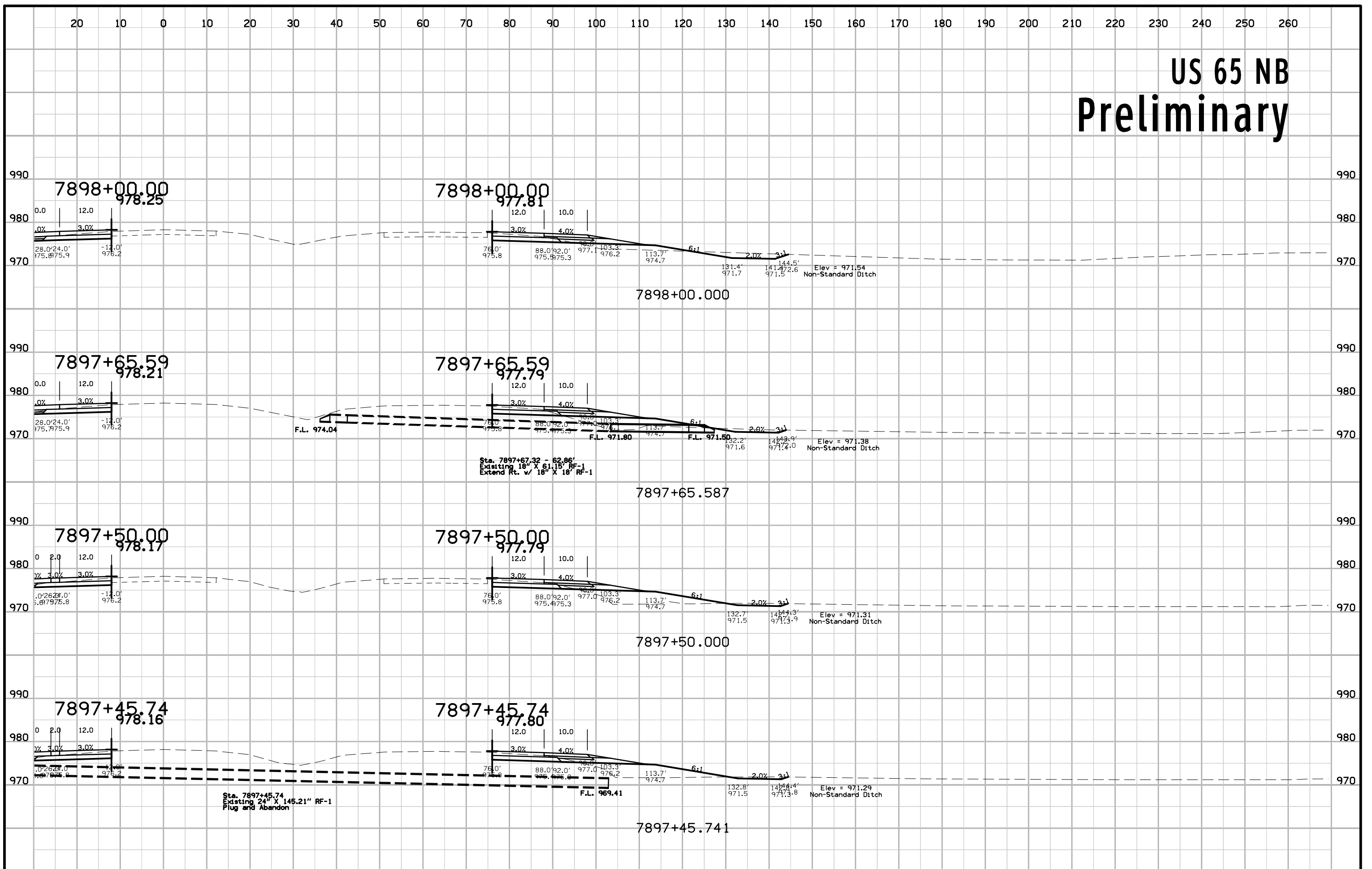
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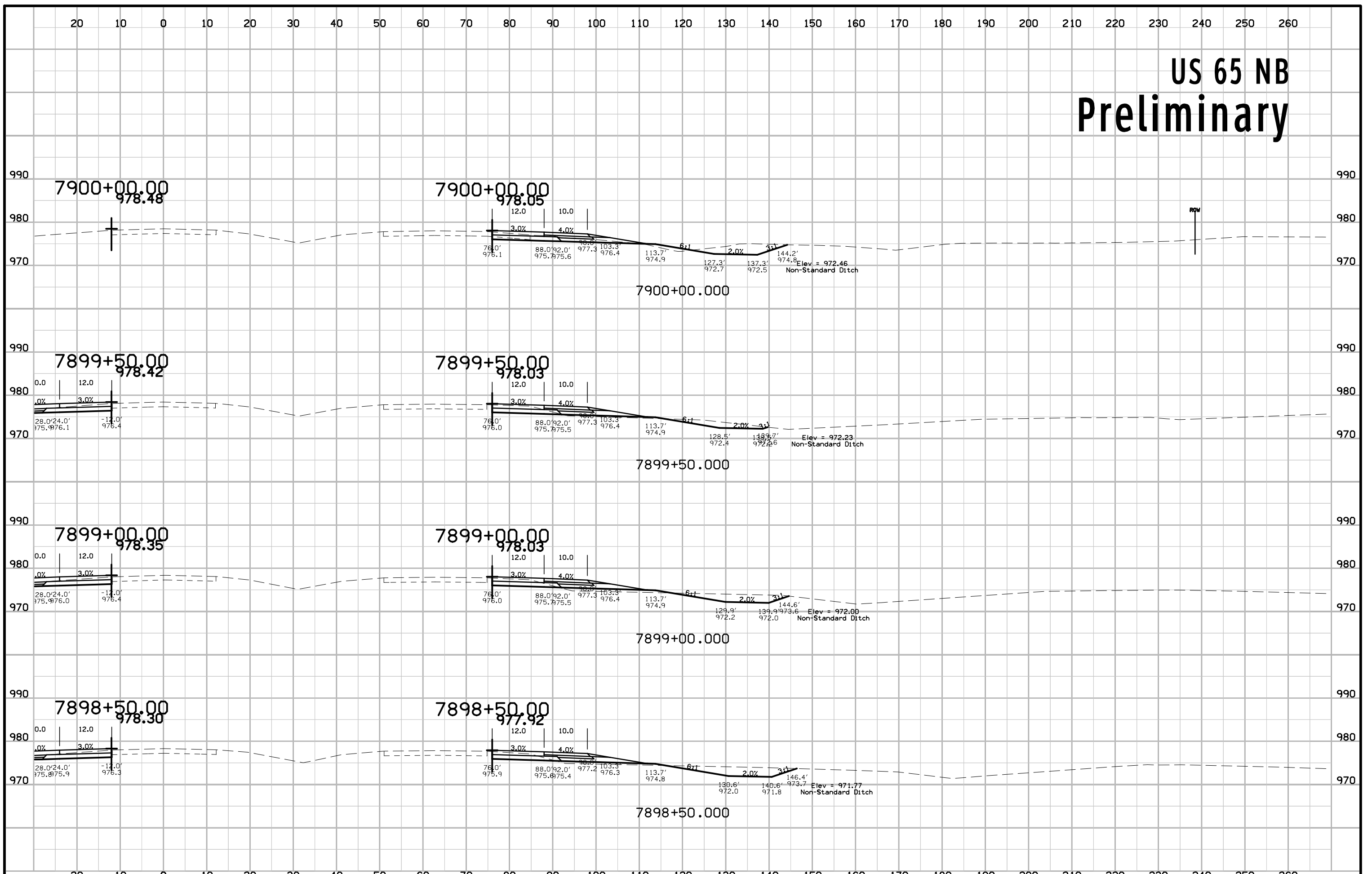
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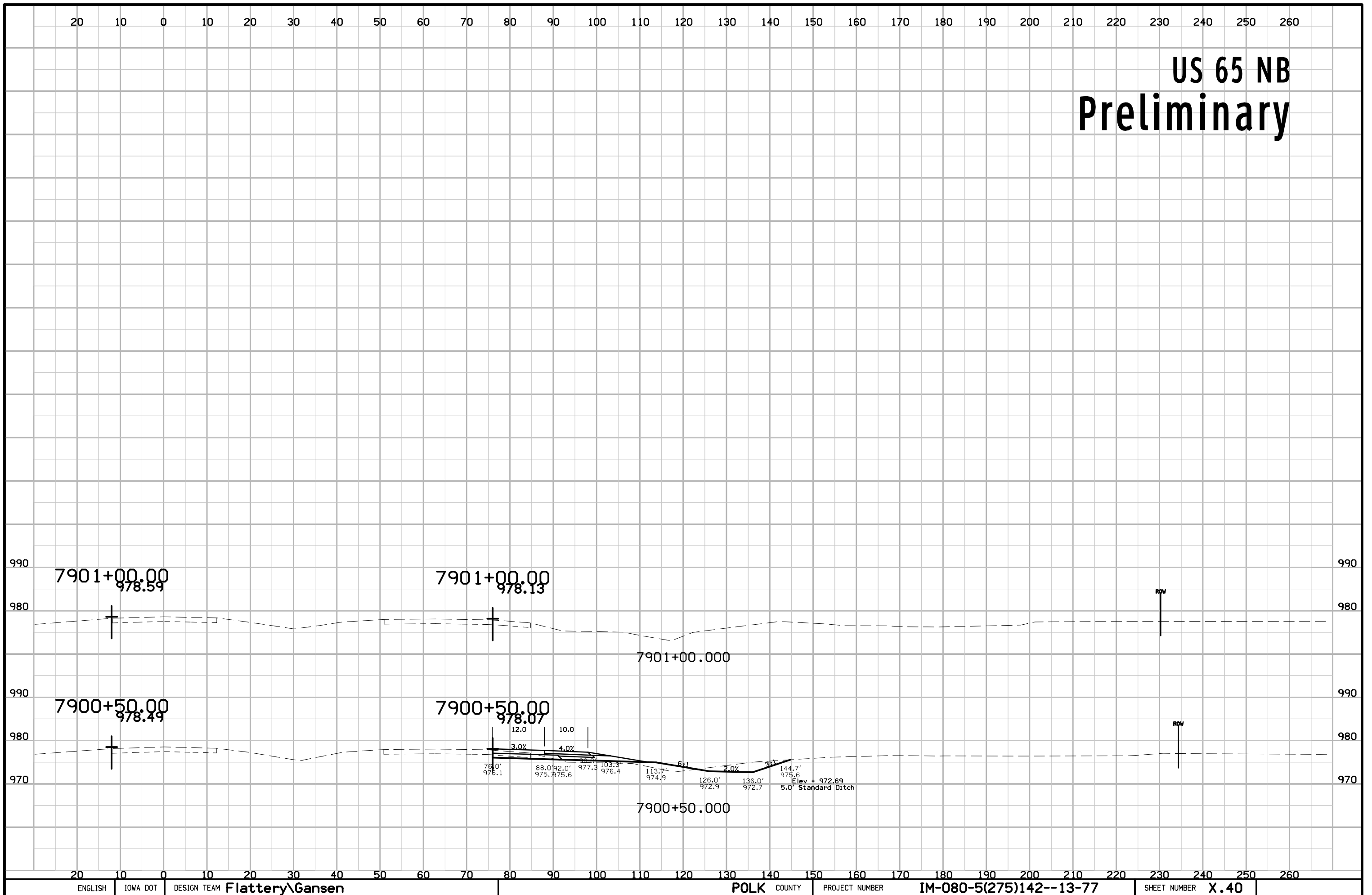
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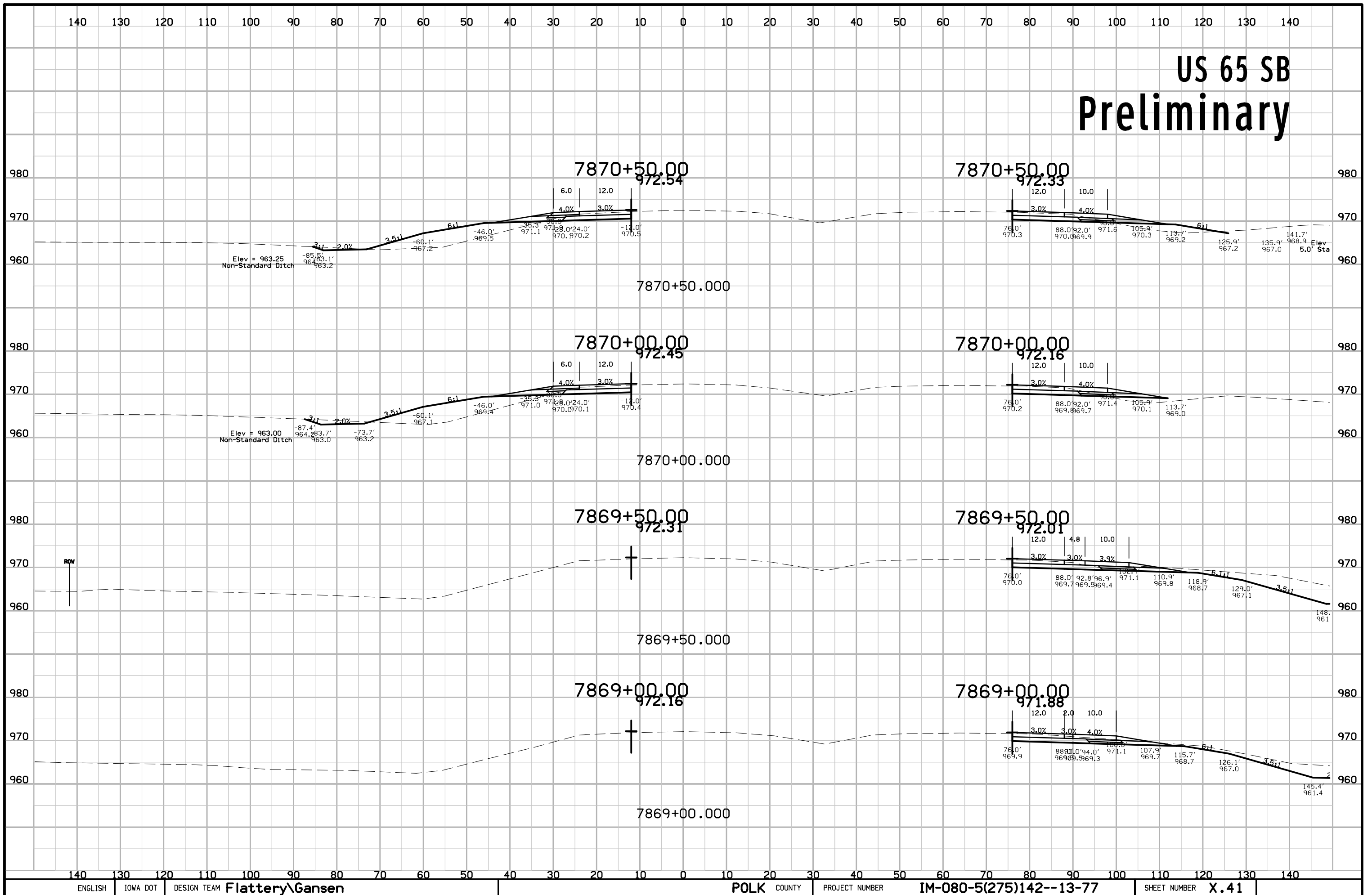
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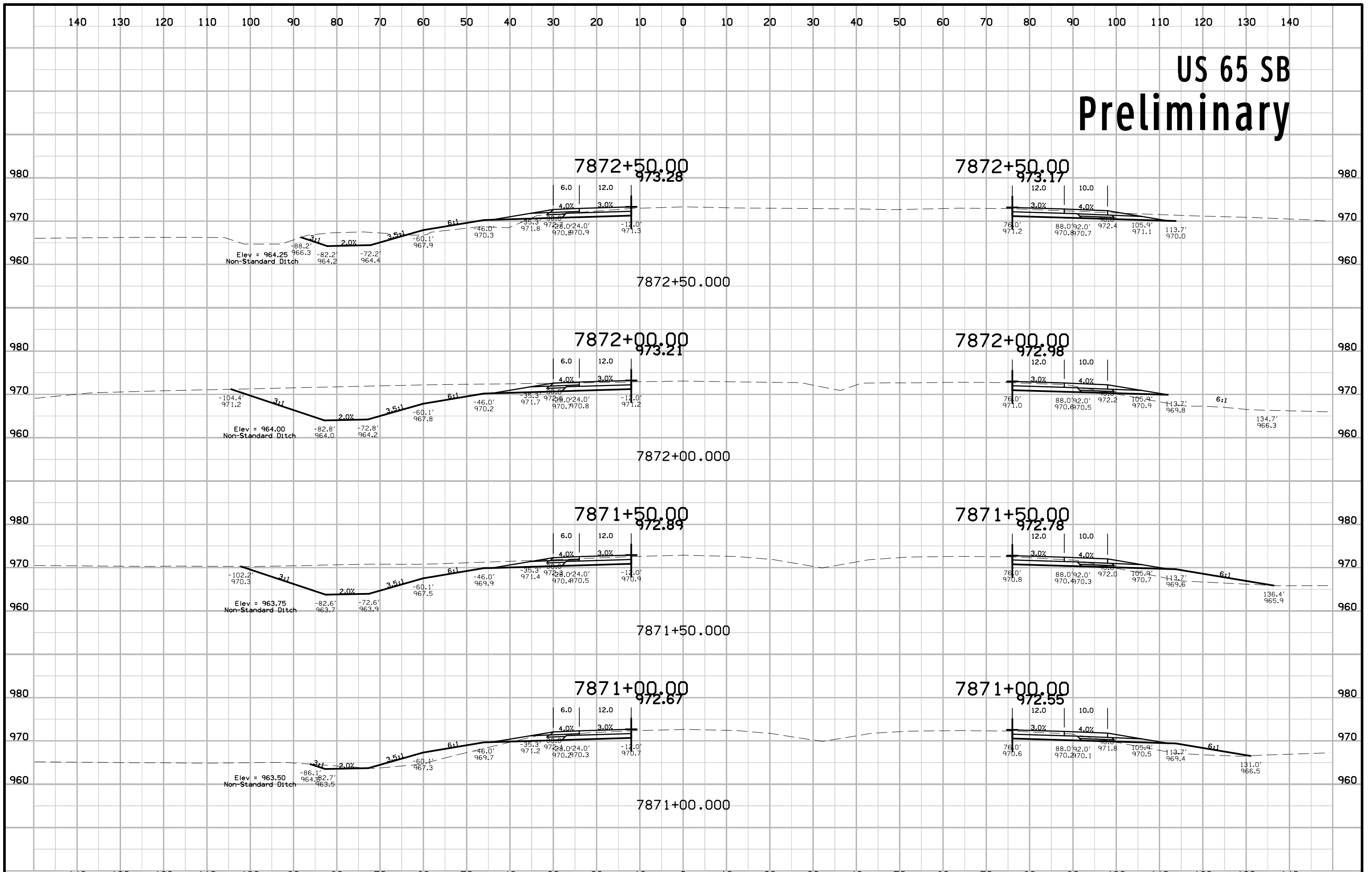
US 65 NB Preliminary



US 65 SB Preliminary

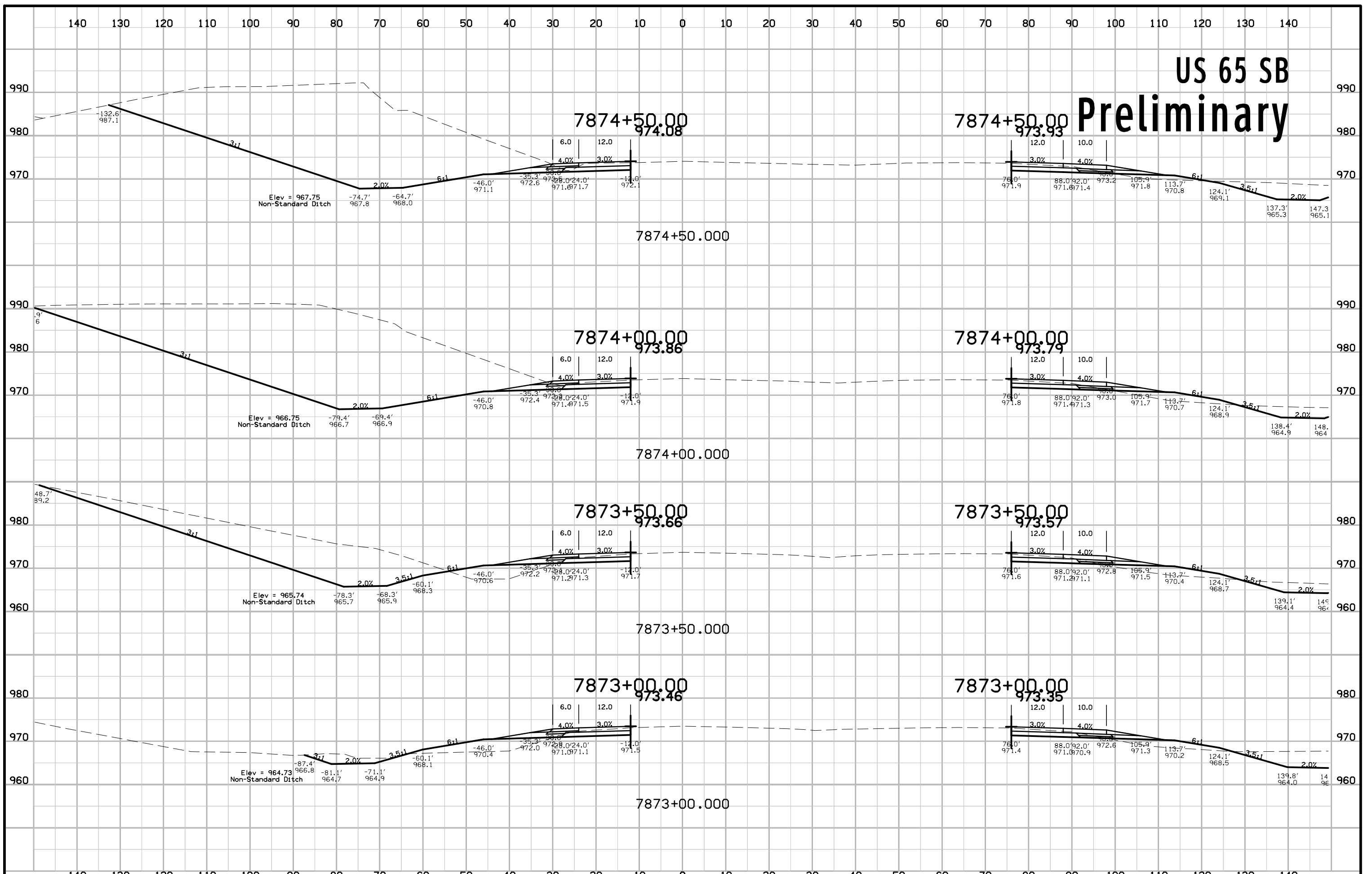


US 65 SB Preliminary

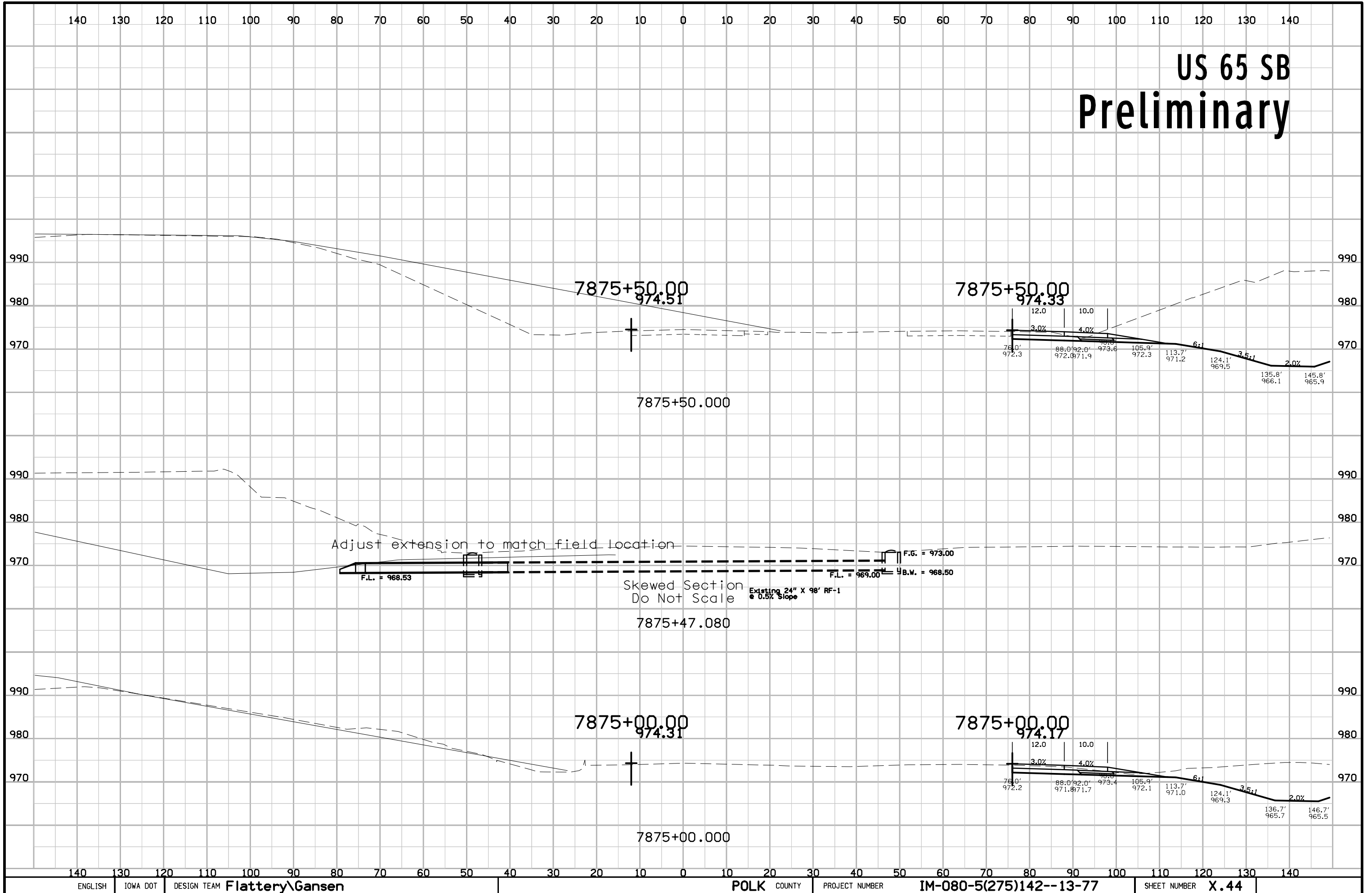


US 65 SB

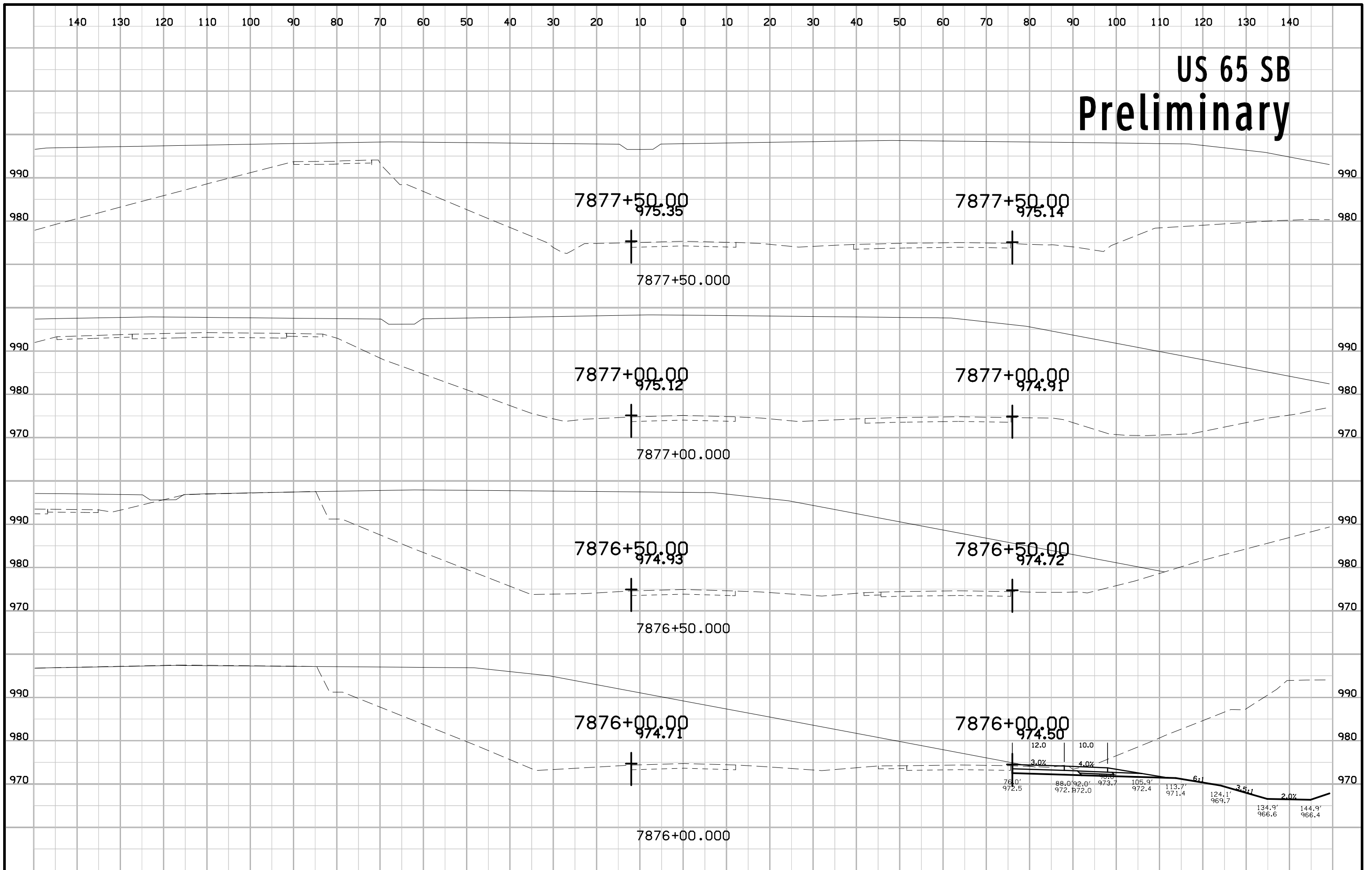
Preliminary



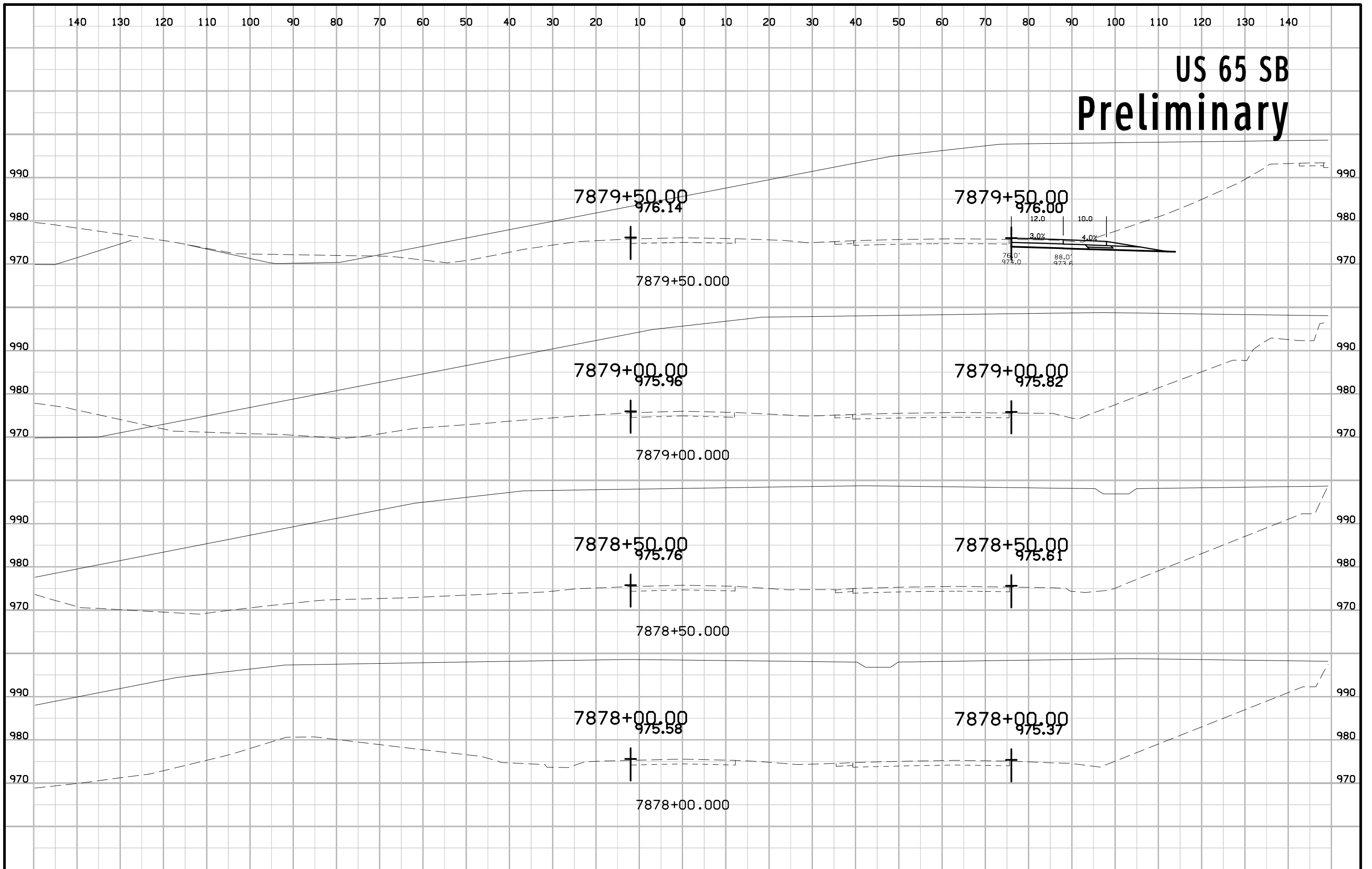
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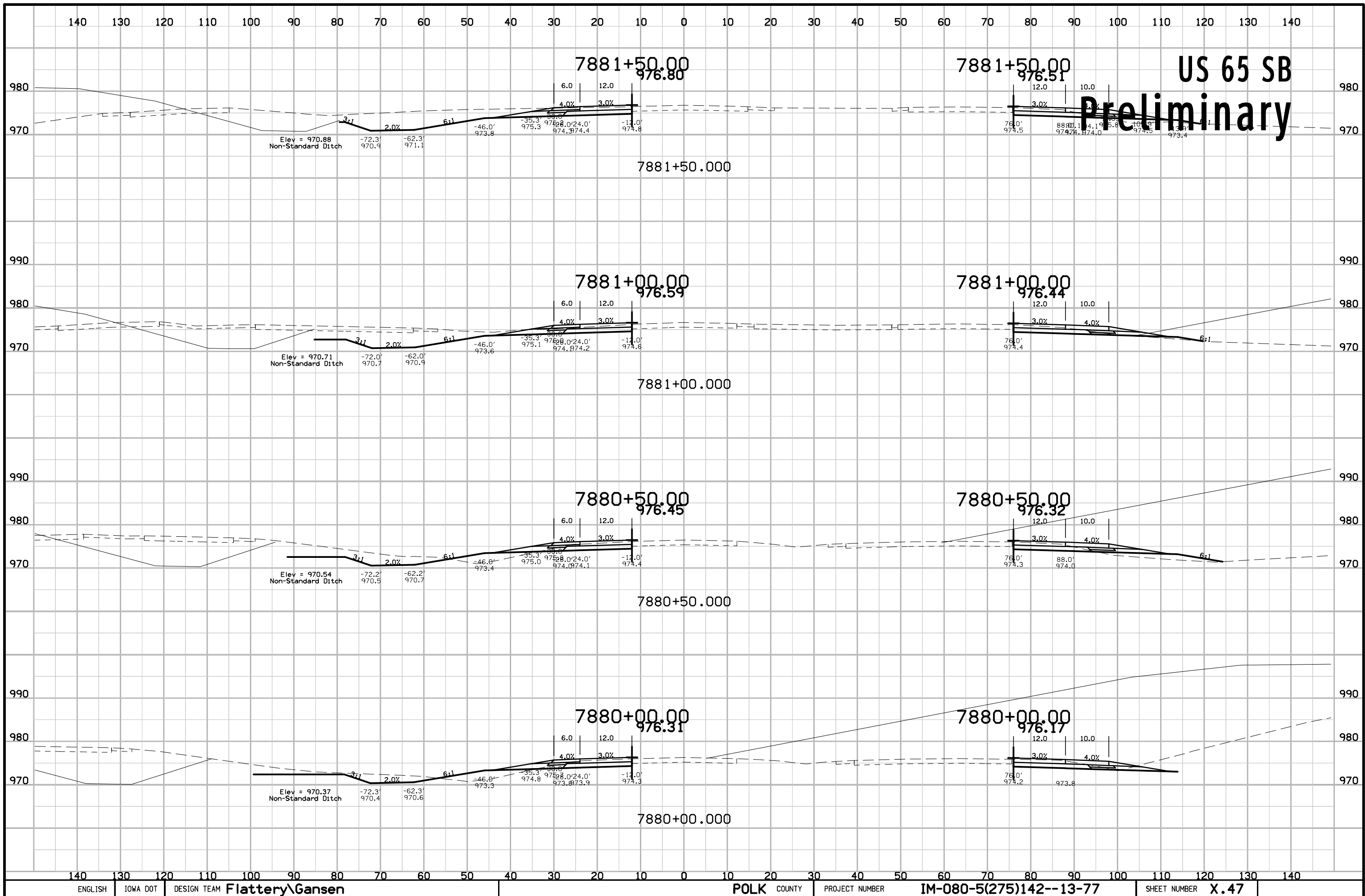


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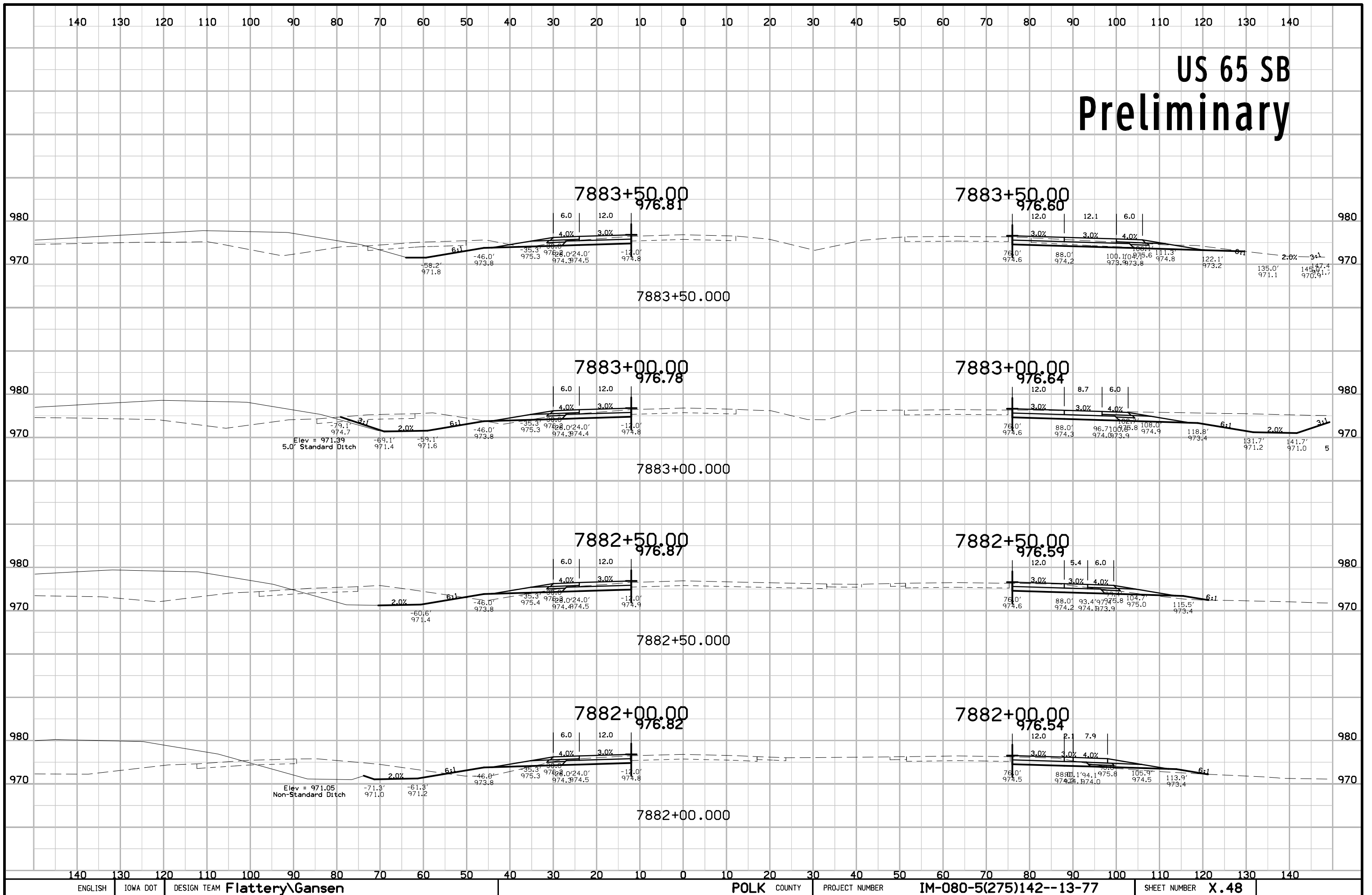


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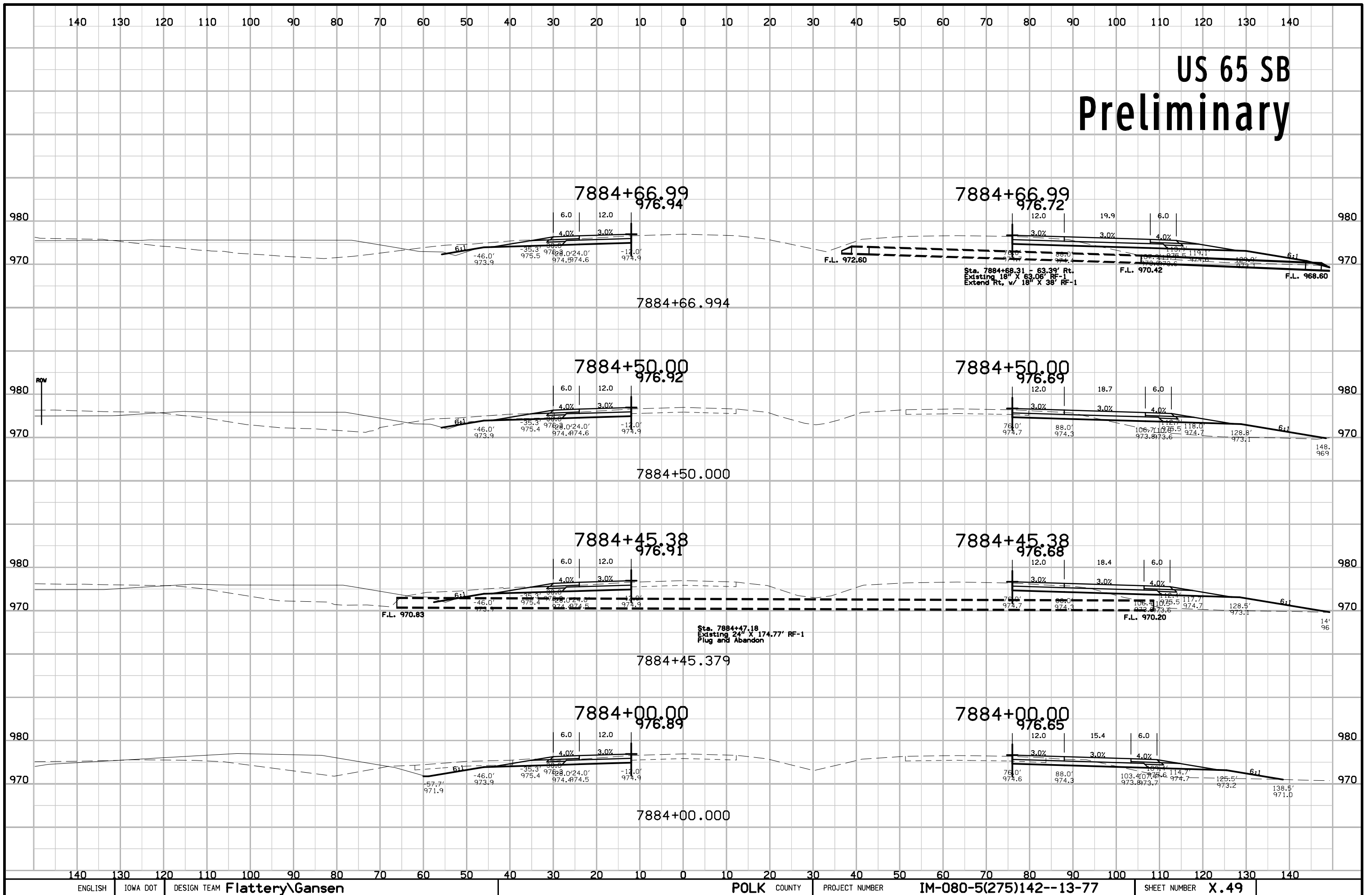




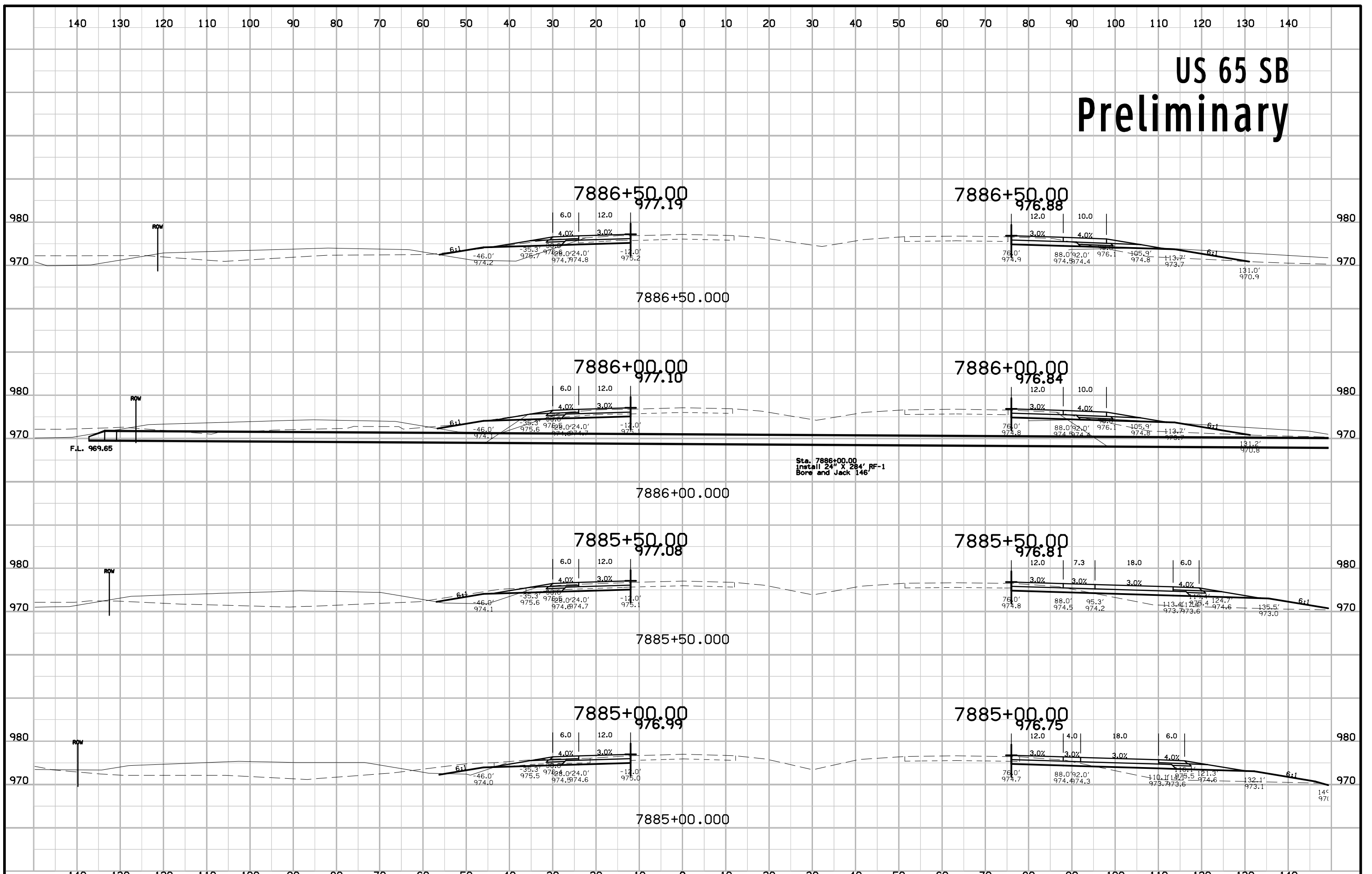
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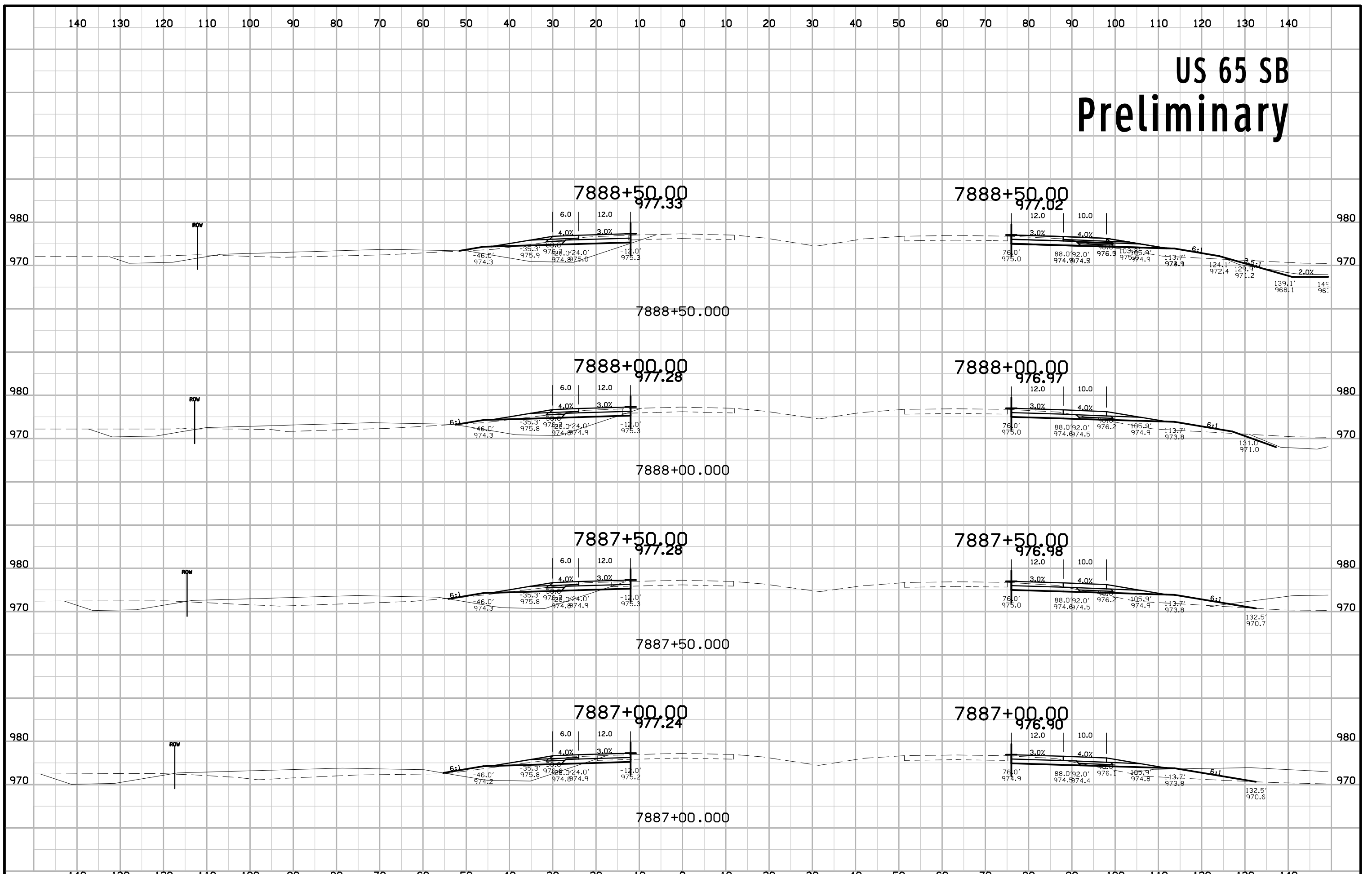
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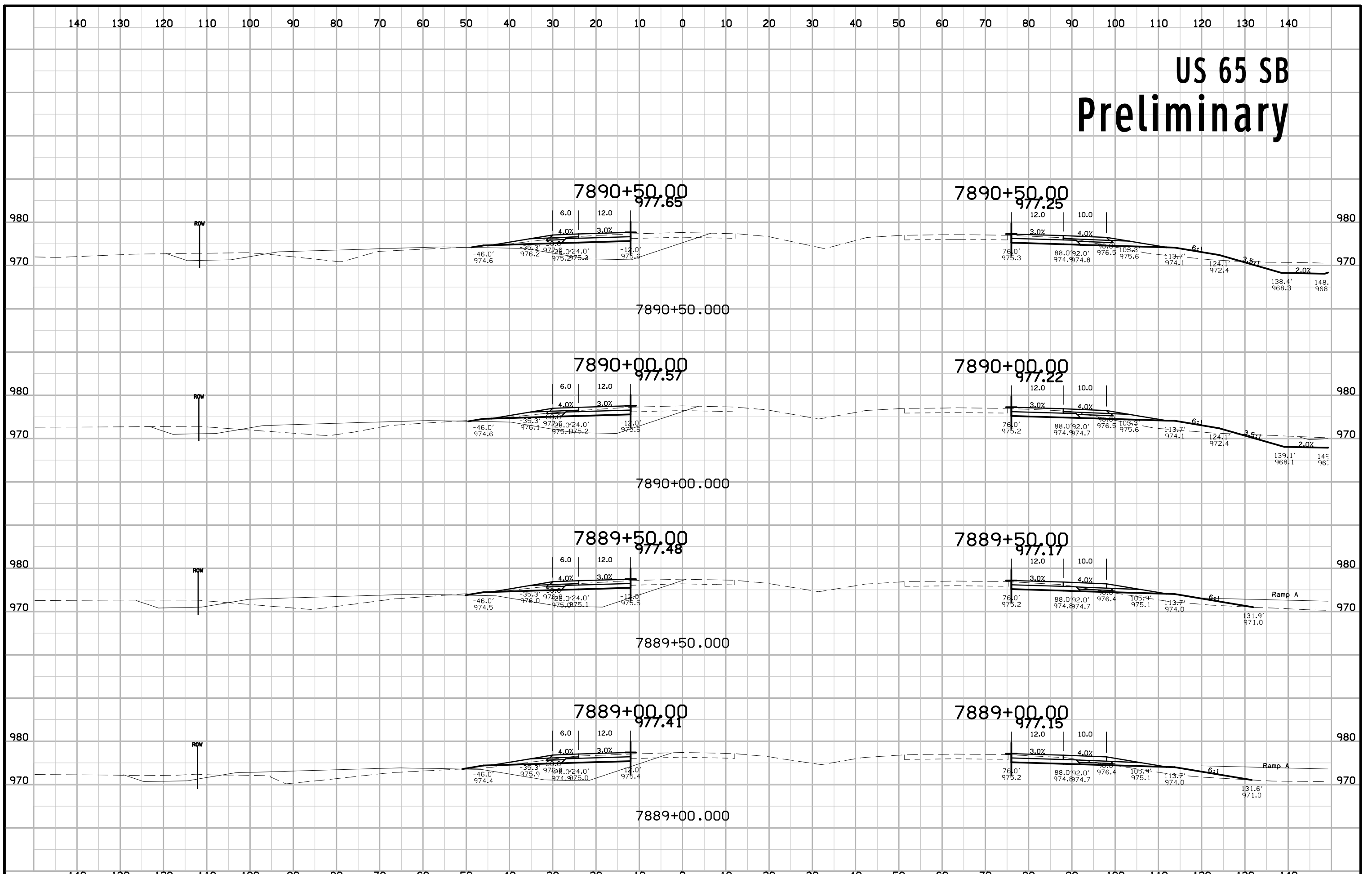
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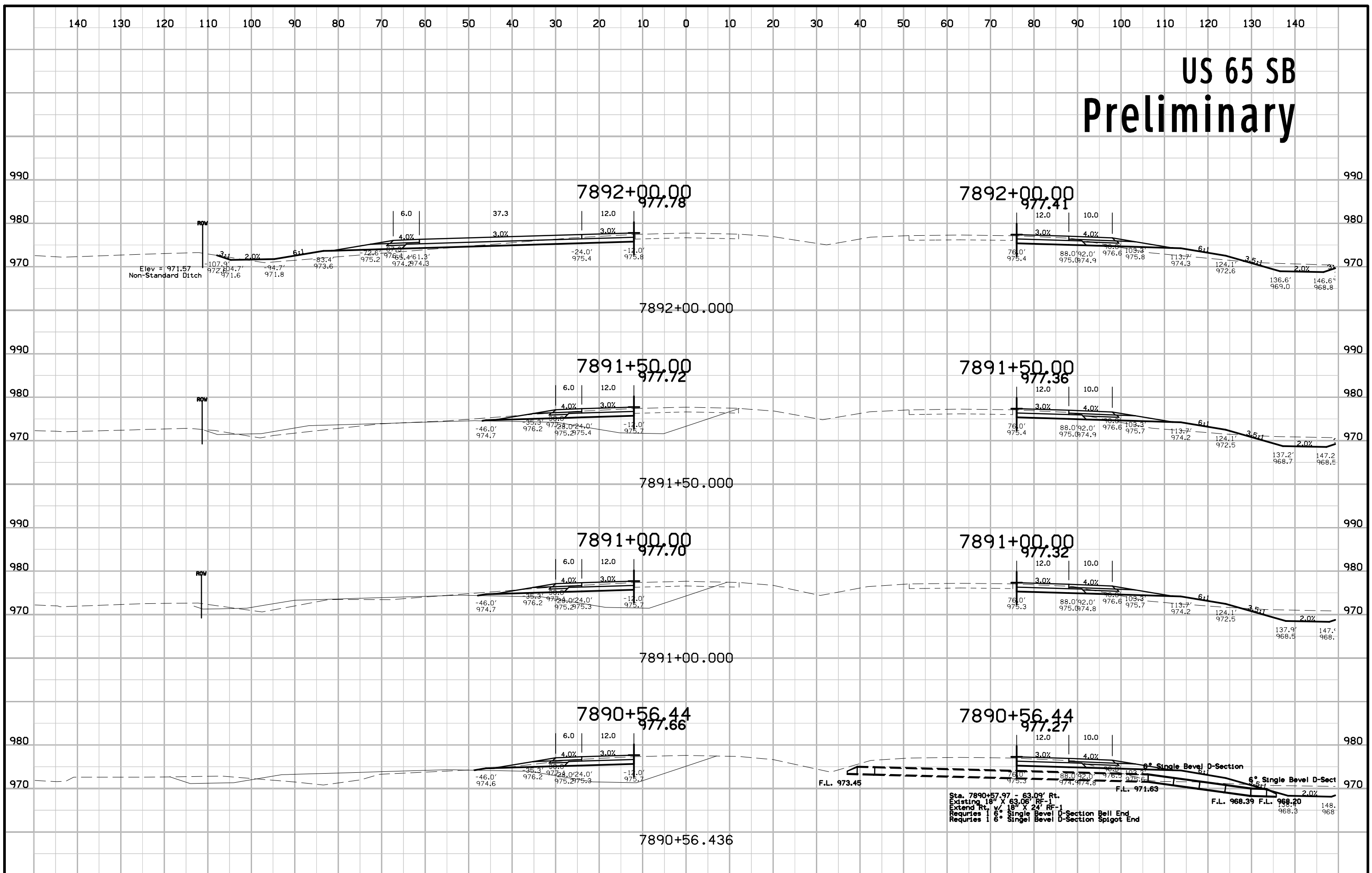
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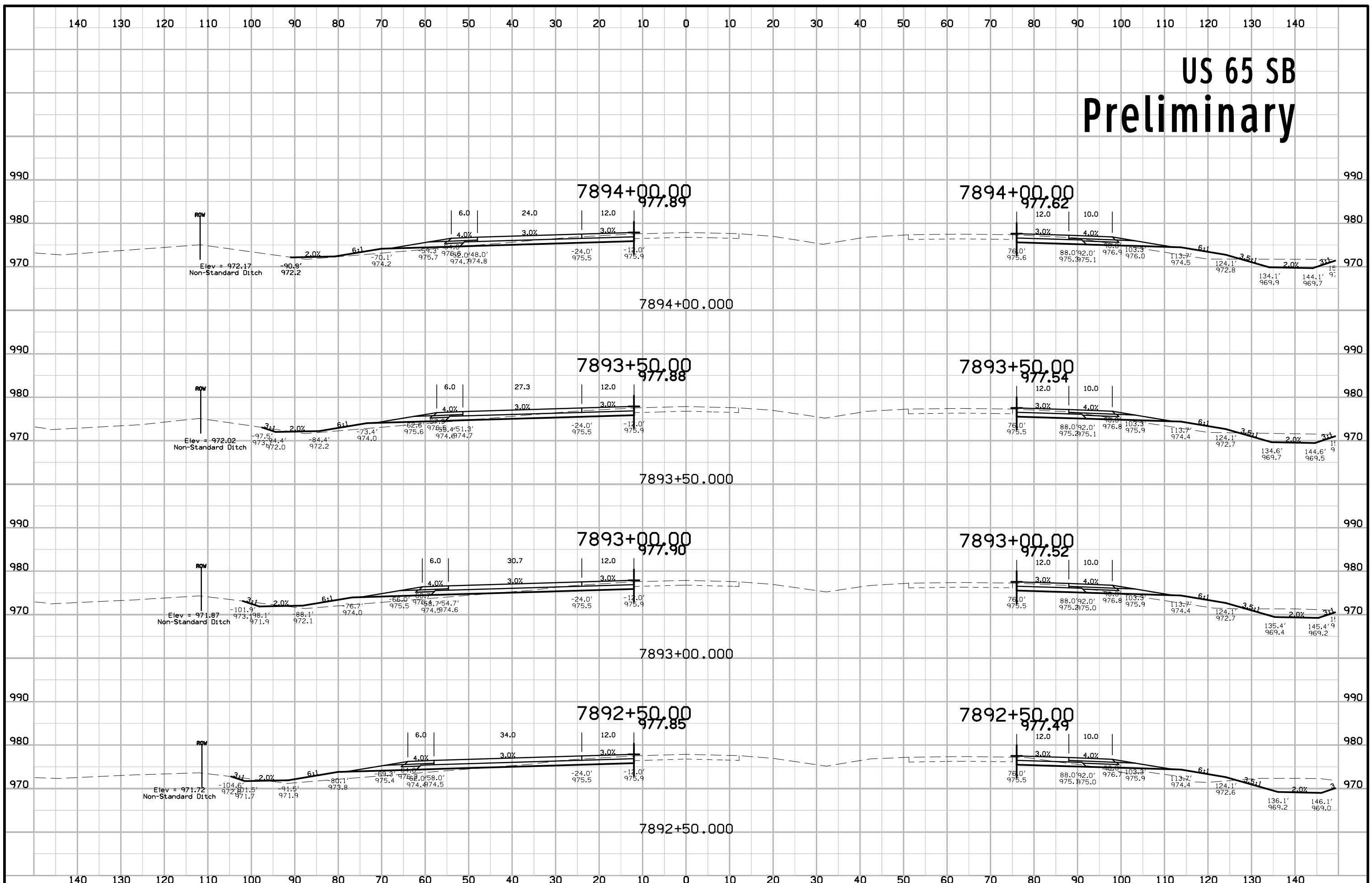


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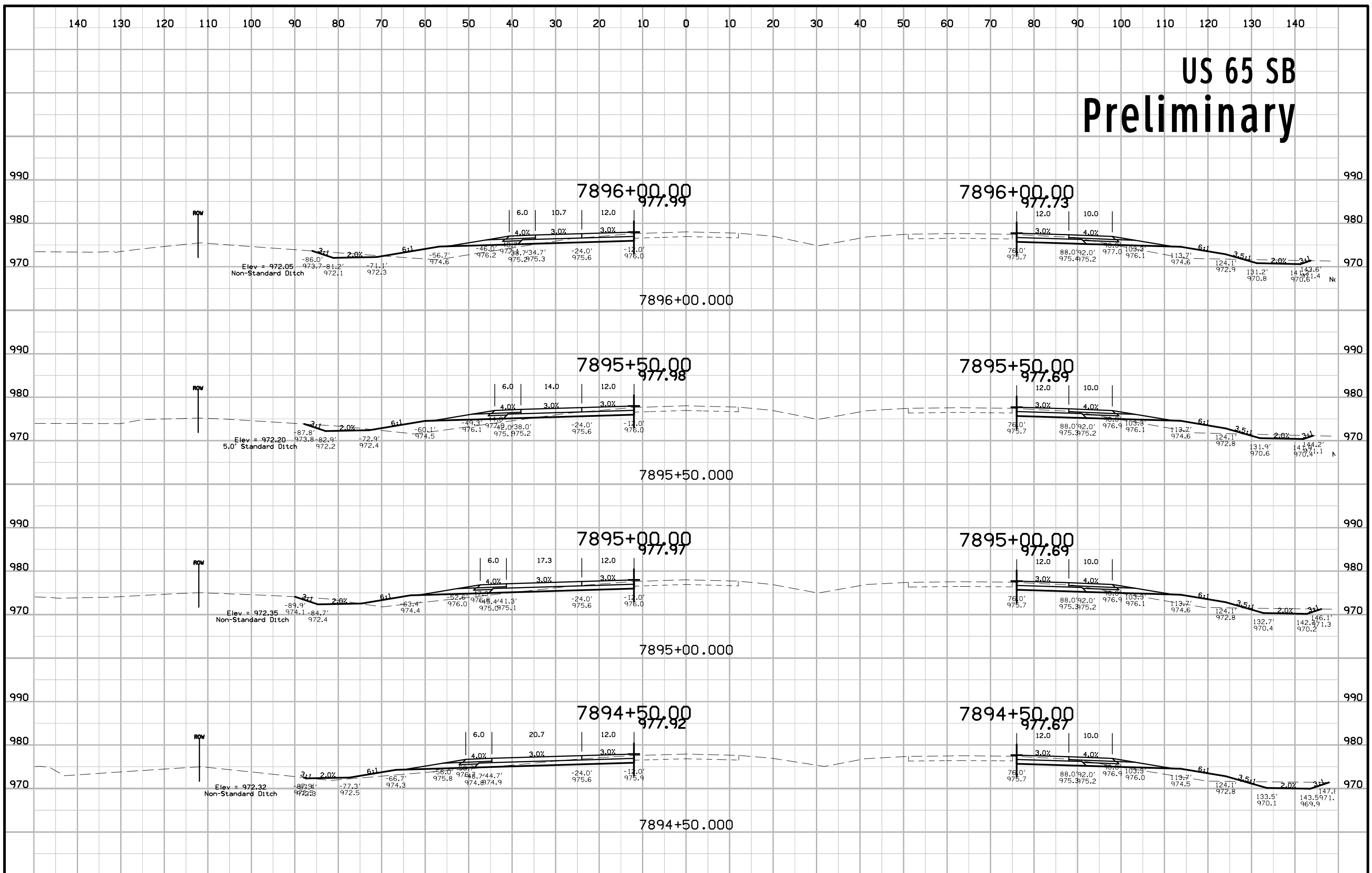


Sta. 7890+57.97 - 63.09' Rt.
 Existing 18" X 63.06' RR-1
 Extend Rt. 1/4" Single Bevel D-Section Bell End
 Requires 1/4" Single Bevel D-Section Spigot End

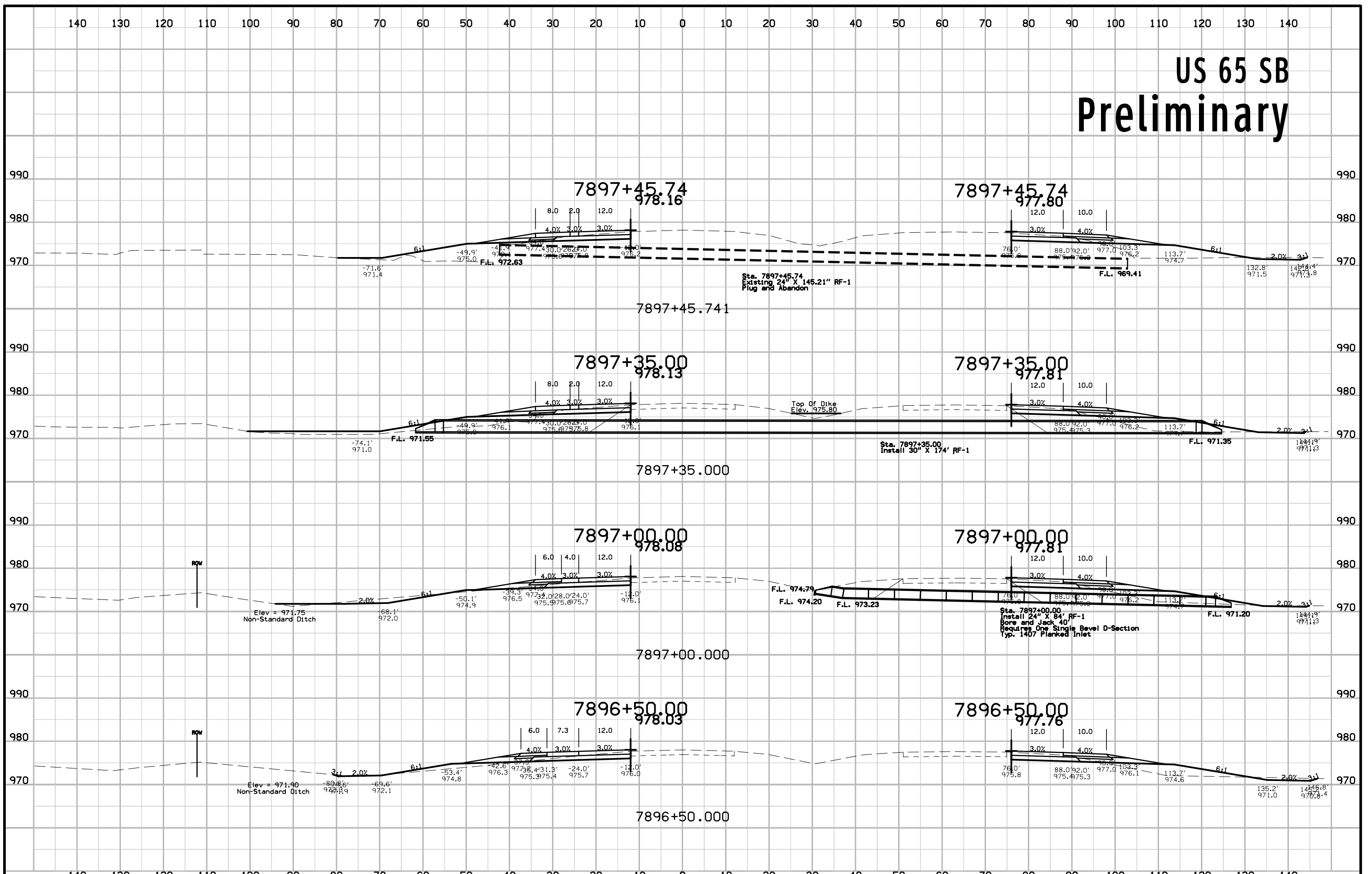
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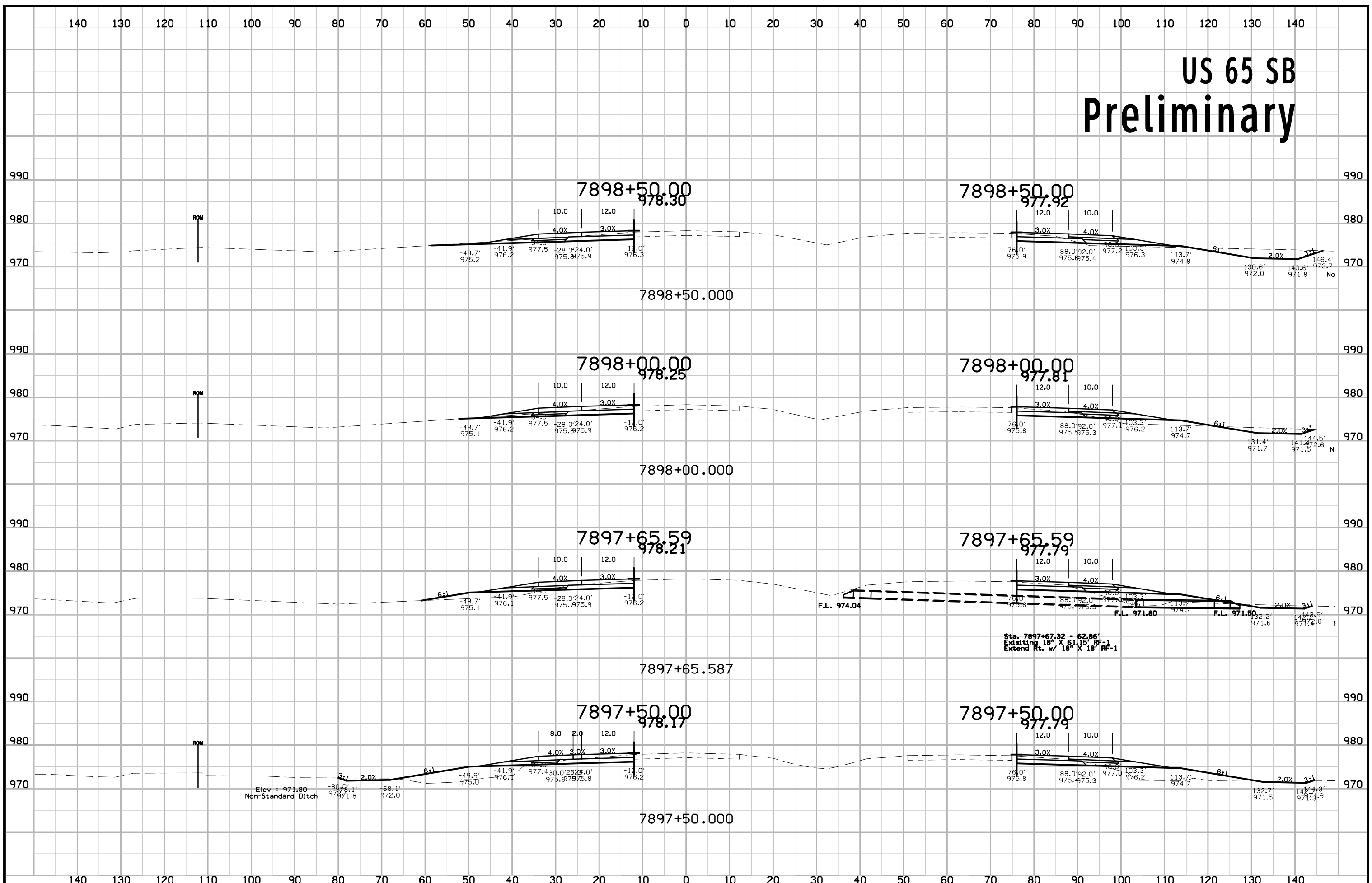
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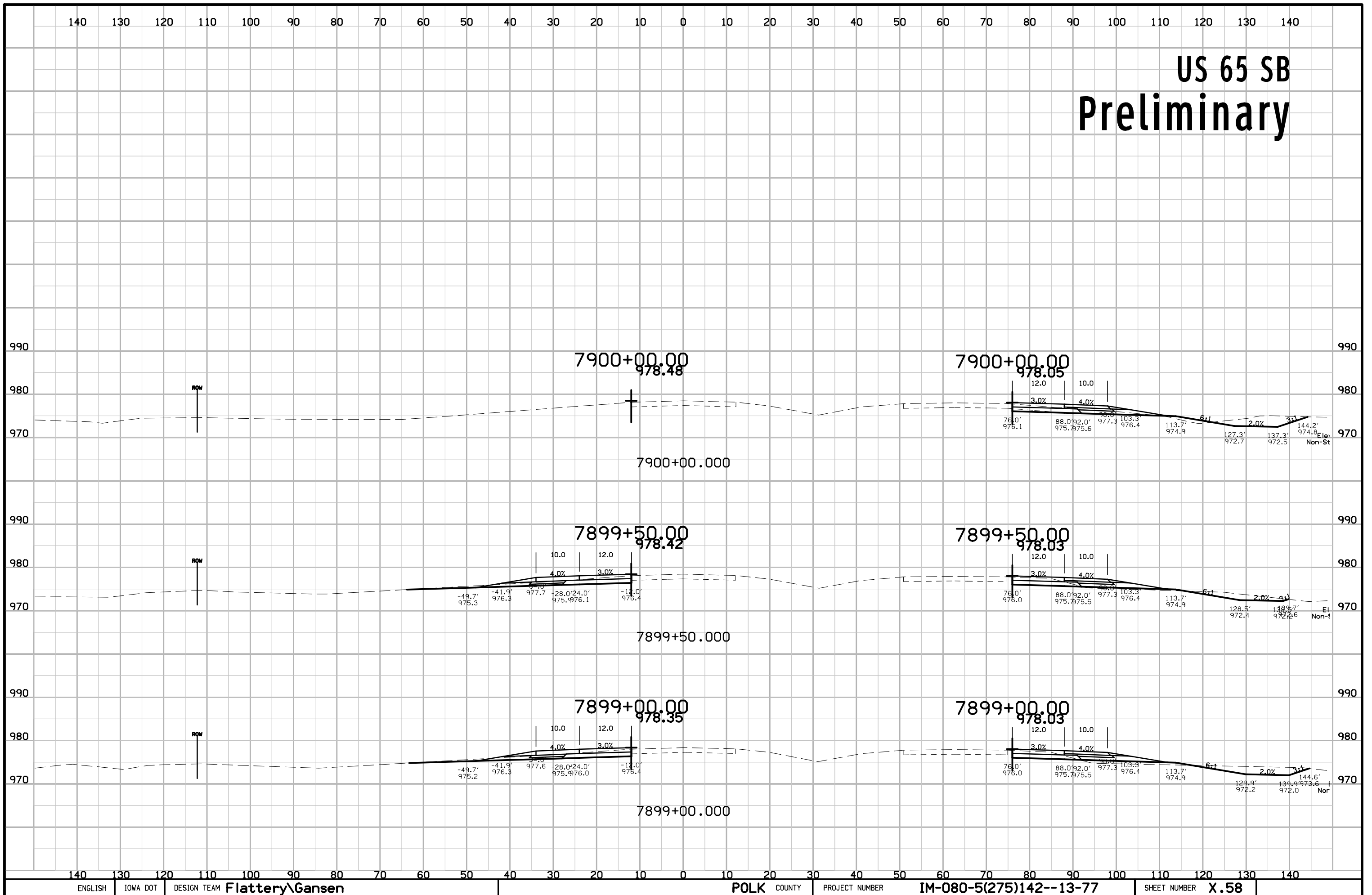
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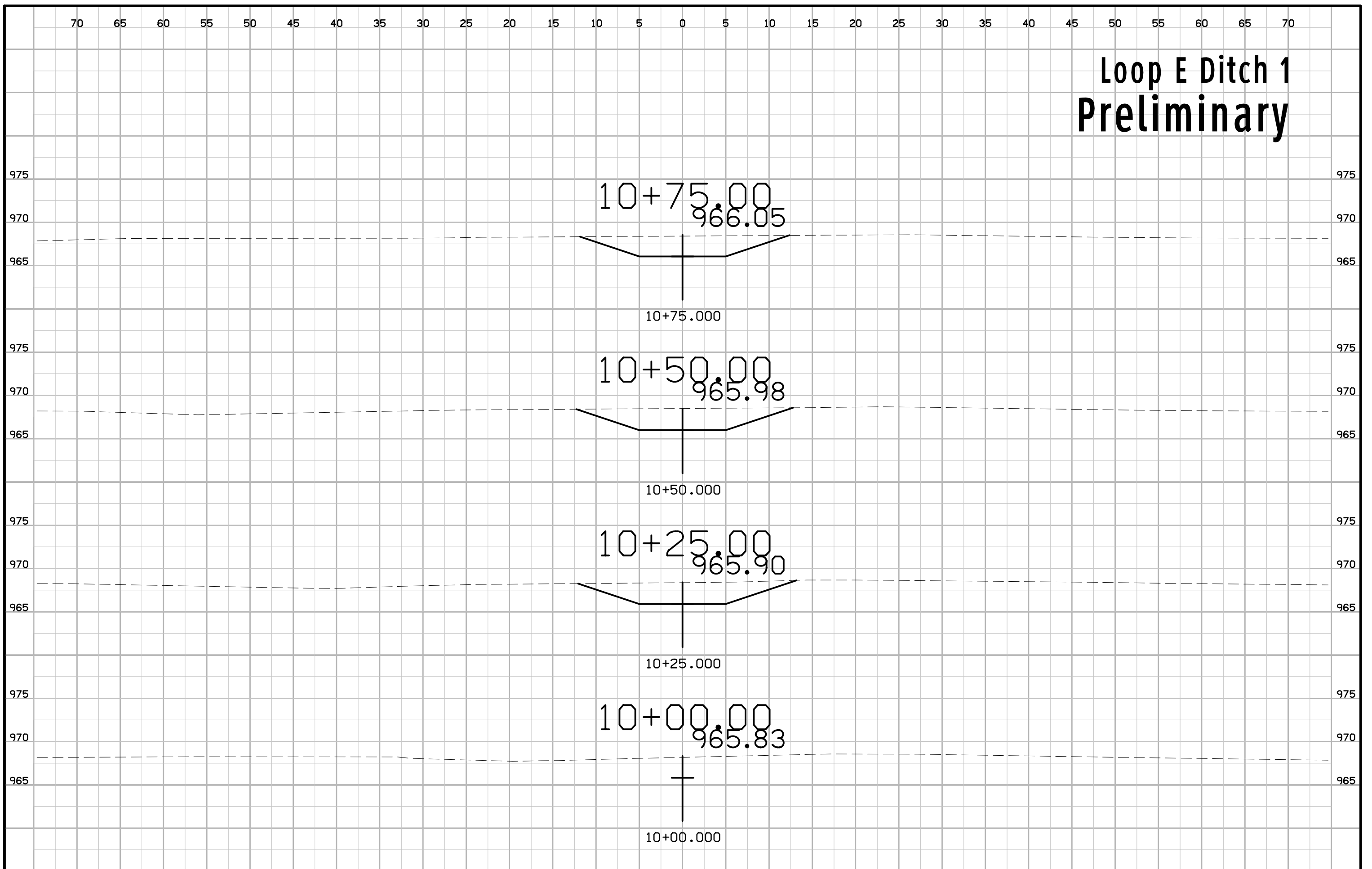
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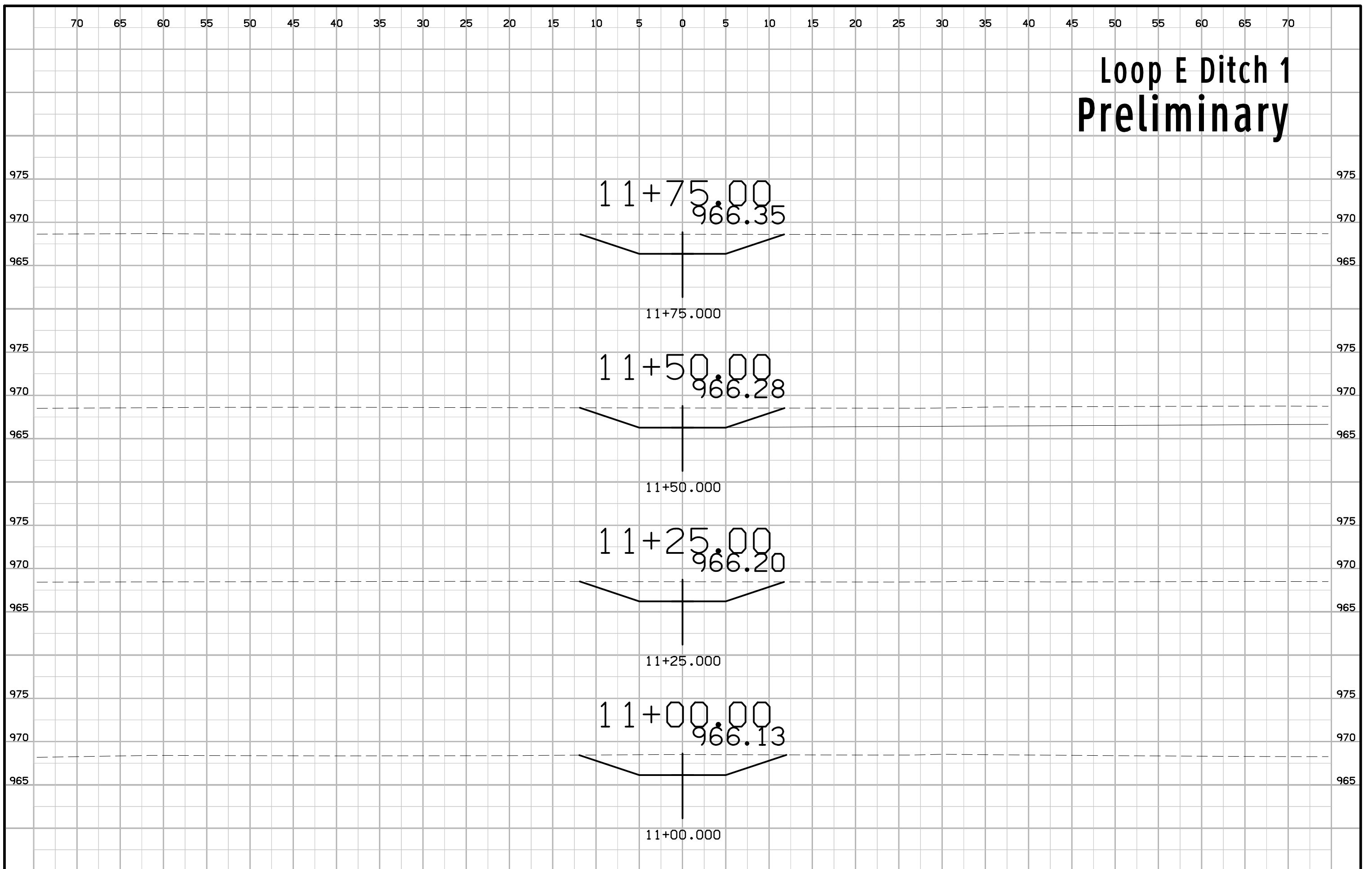
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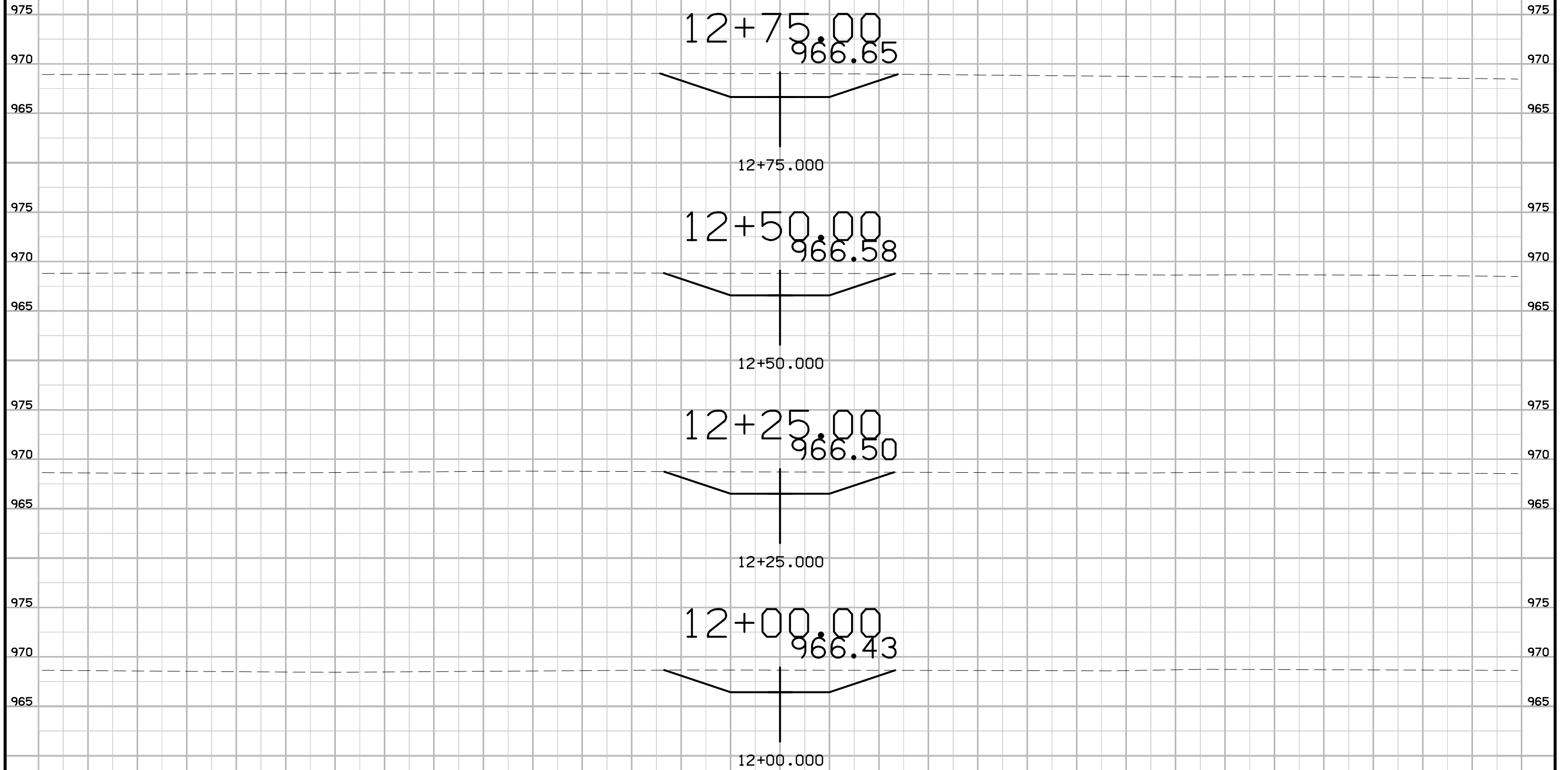
Loop E Ditch 1 Preliminary



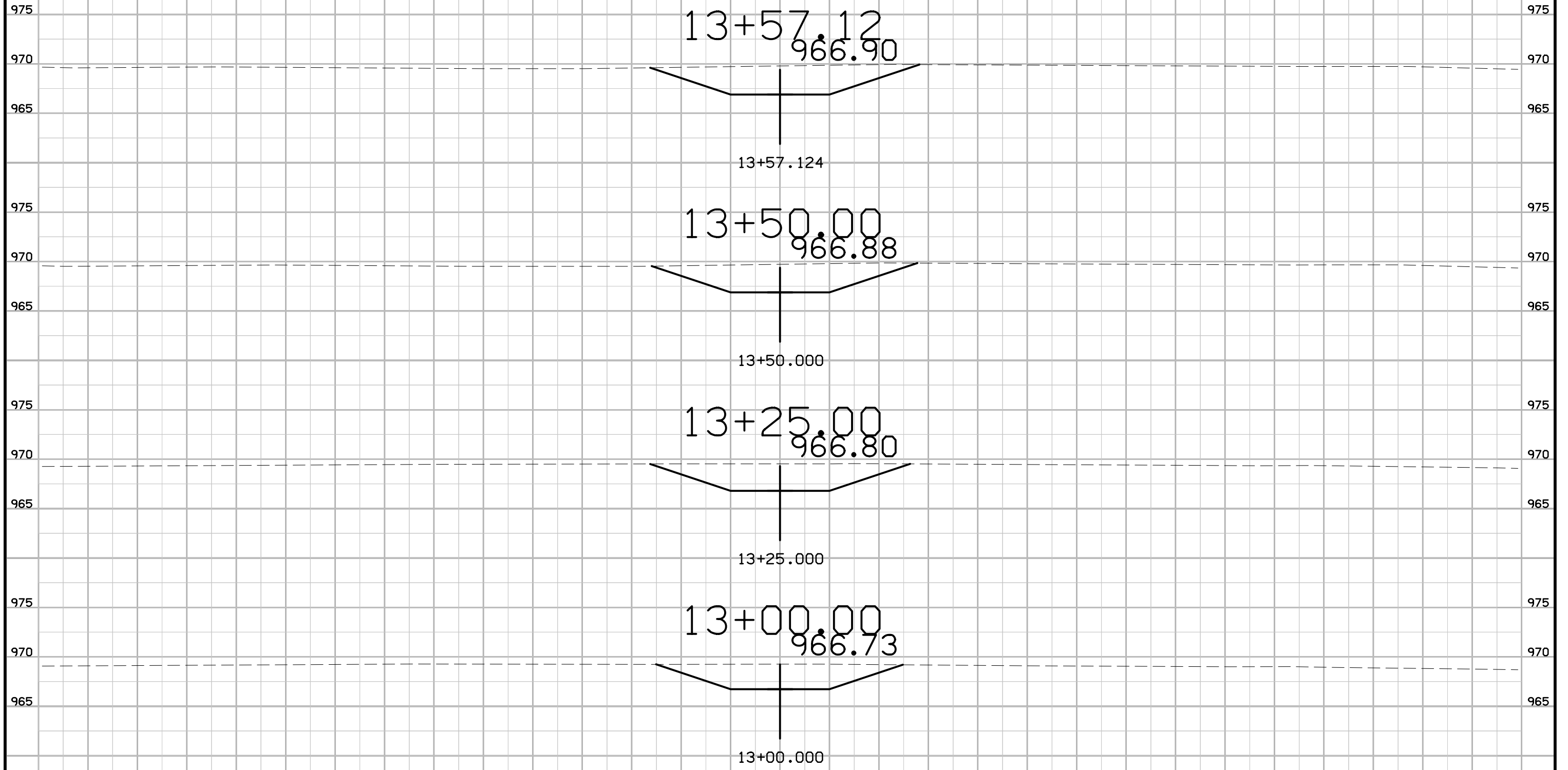
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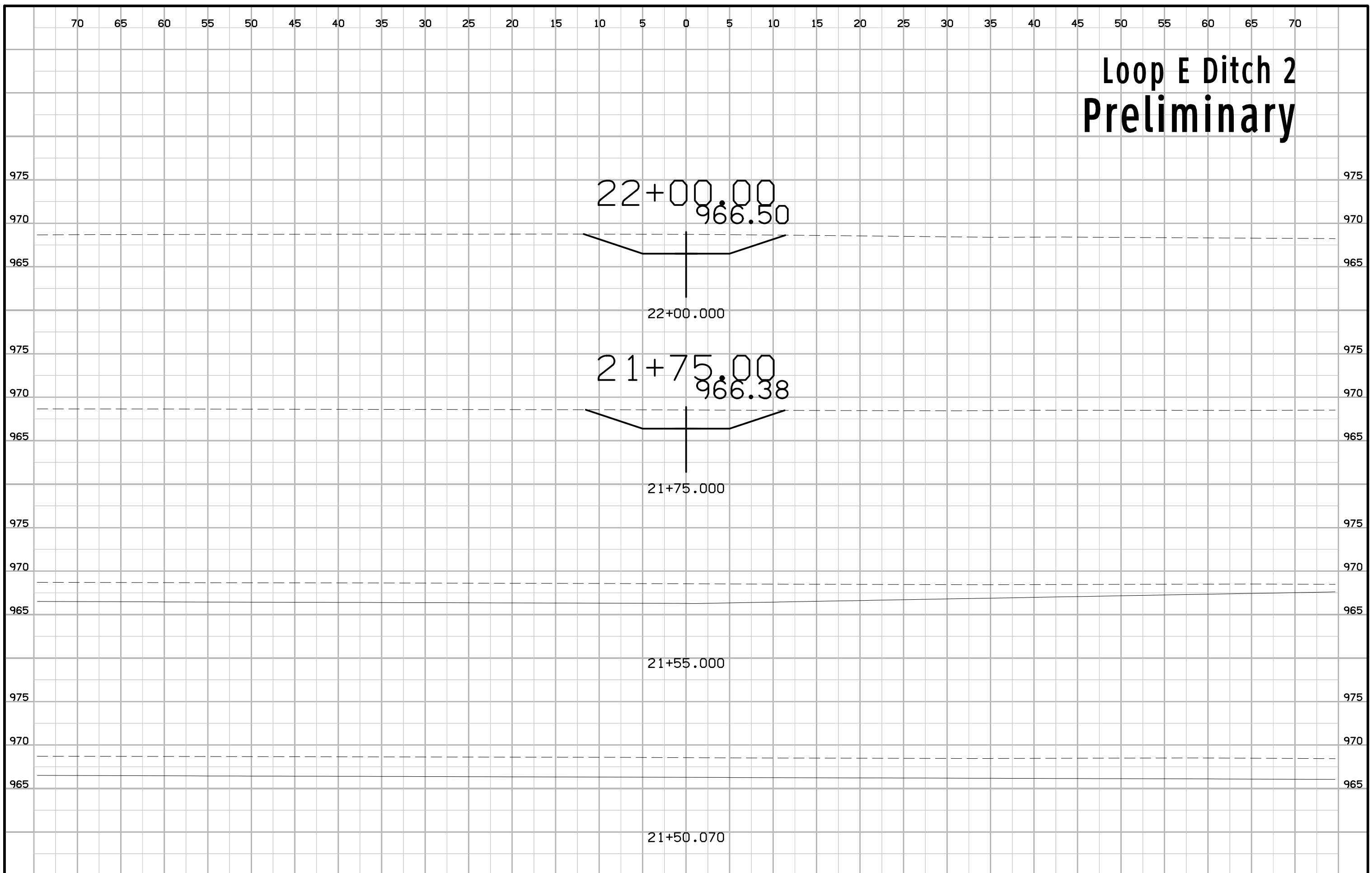
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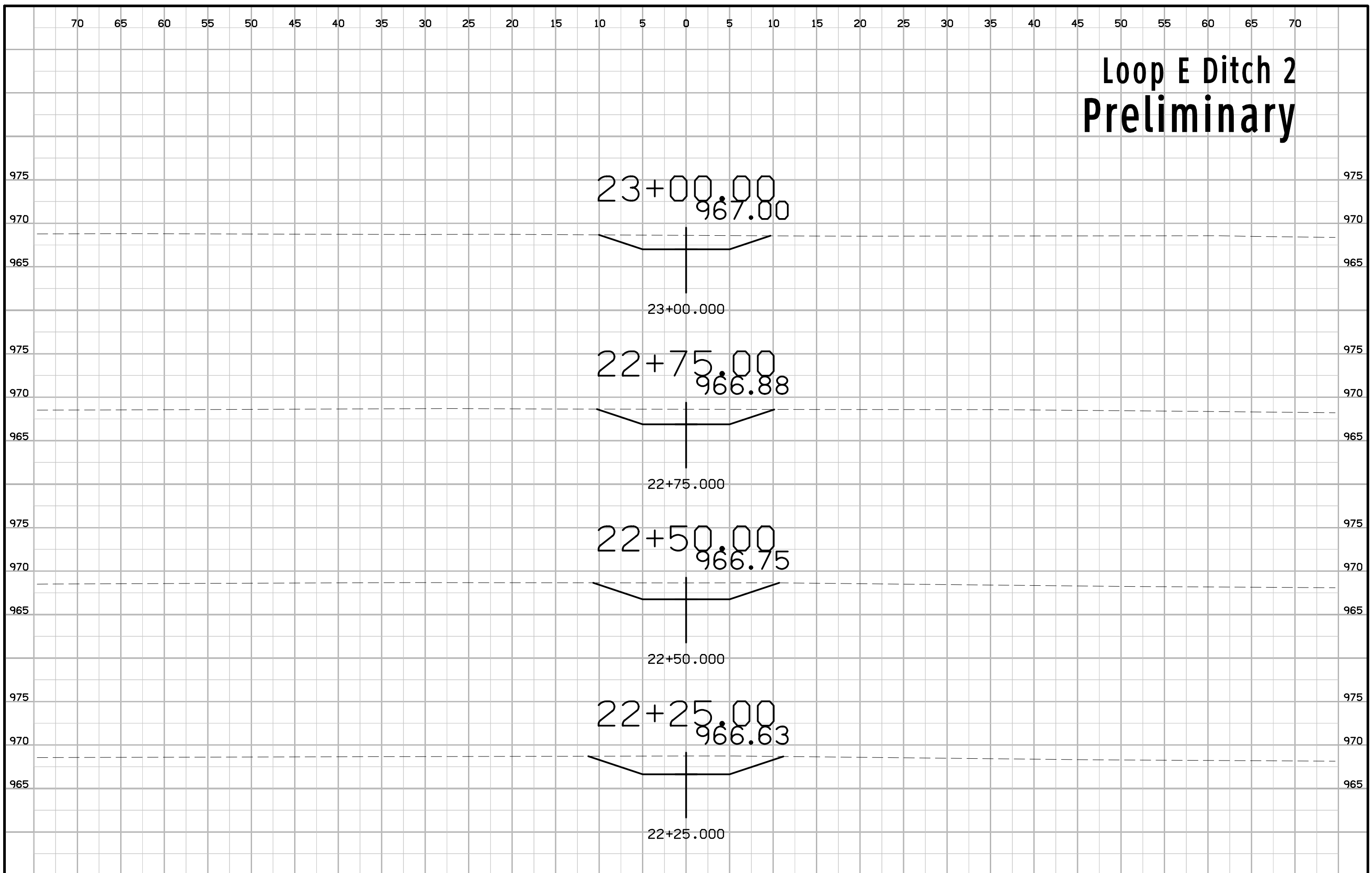
Loop E Ditch 1 Preliminary



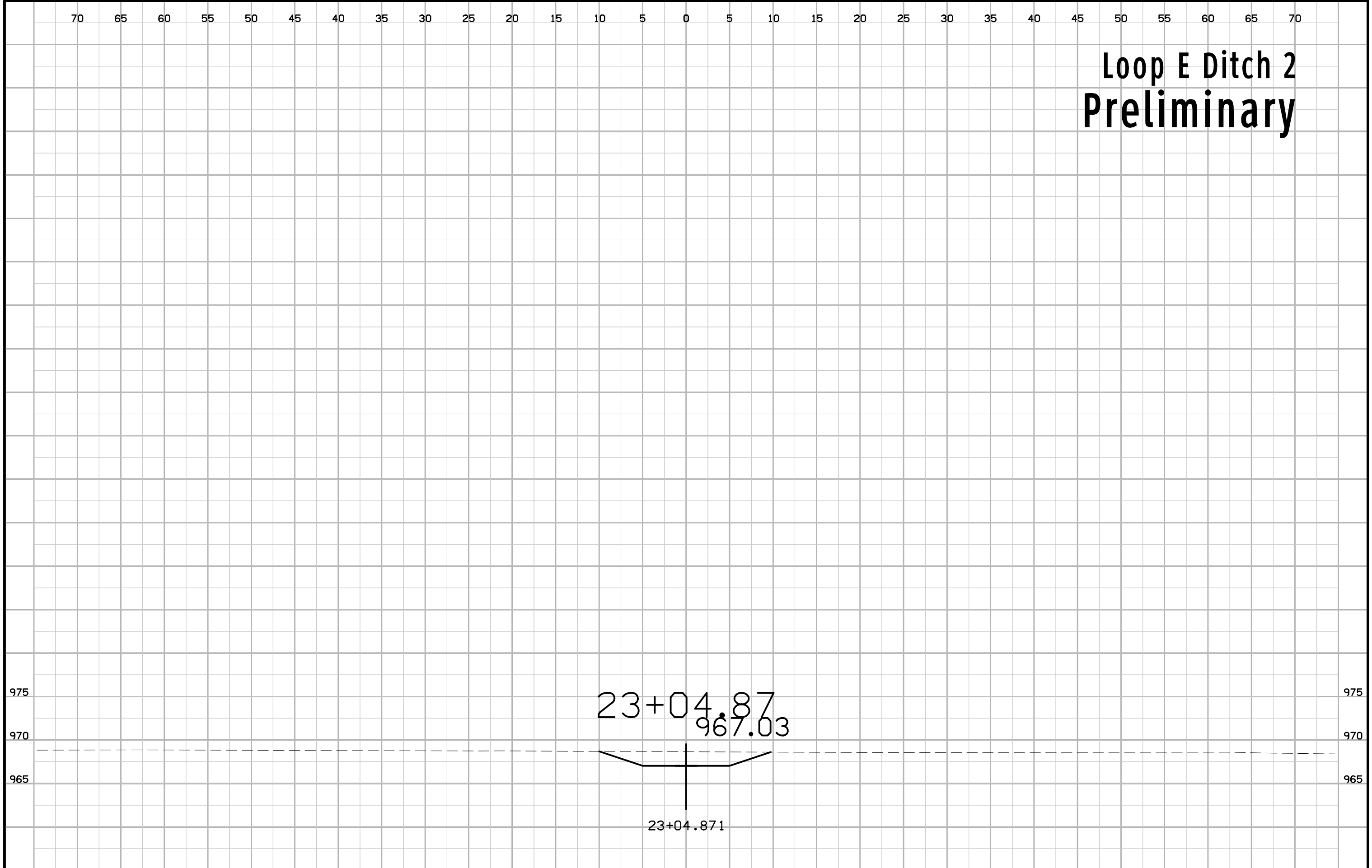
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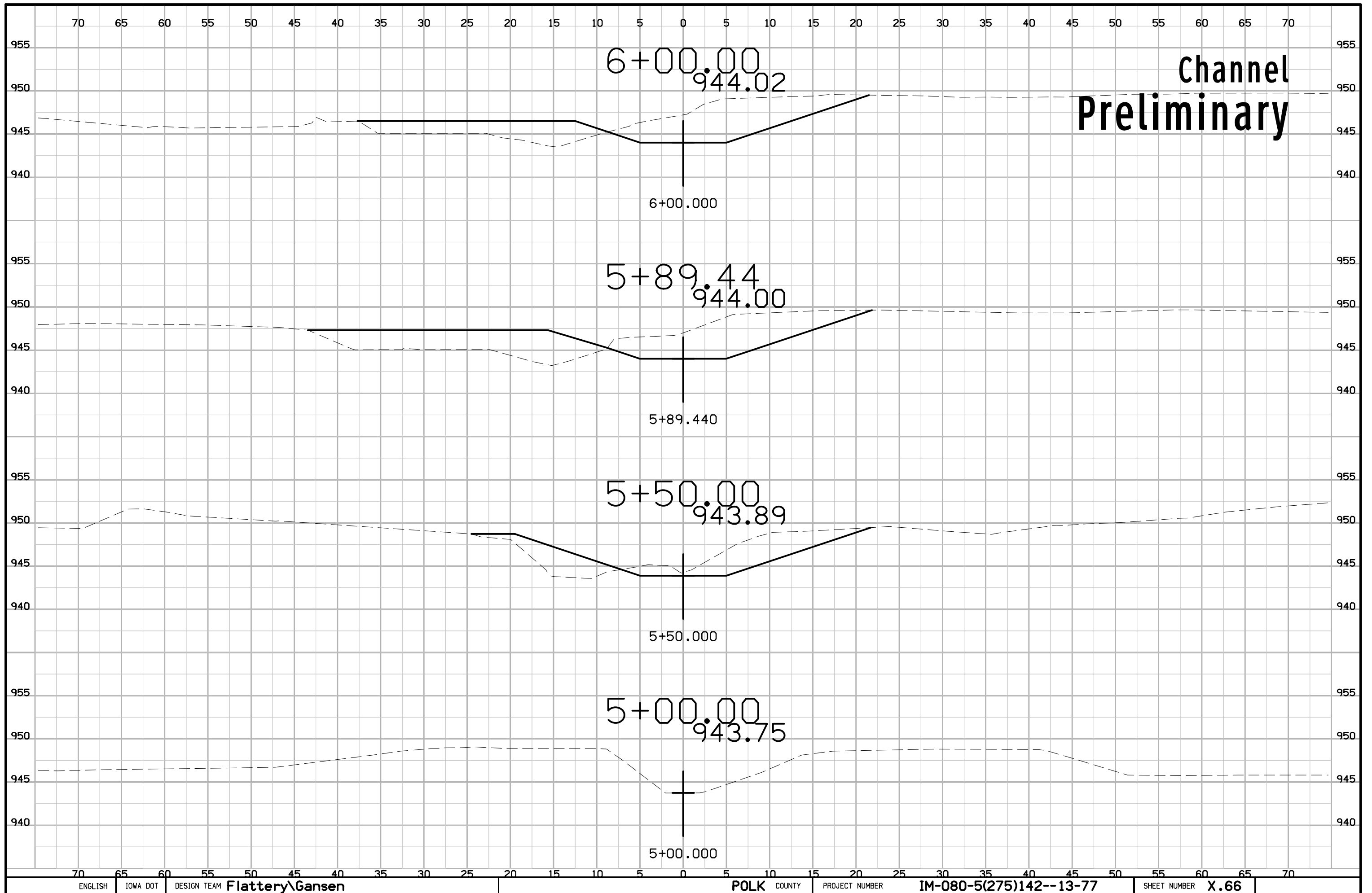


Loop E Ditch 2 Preliminary

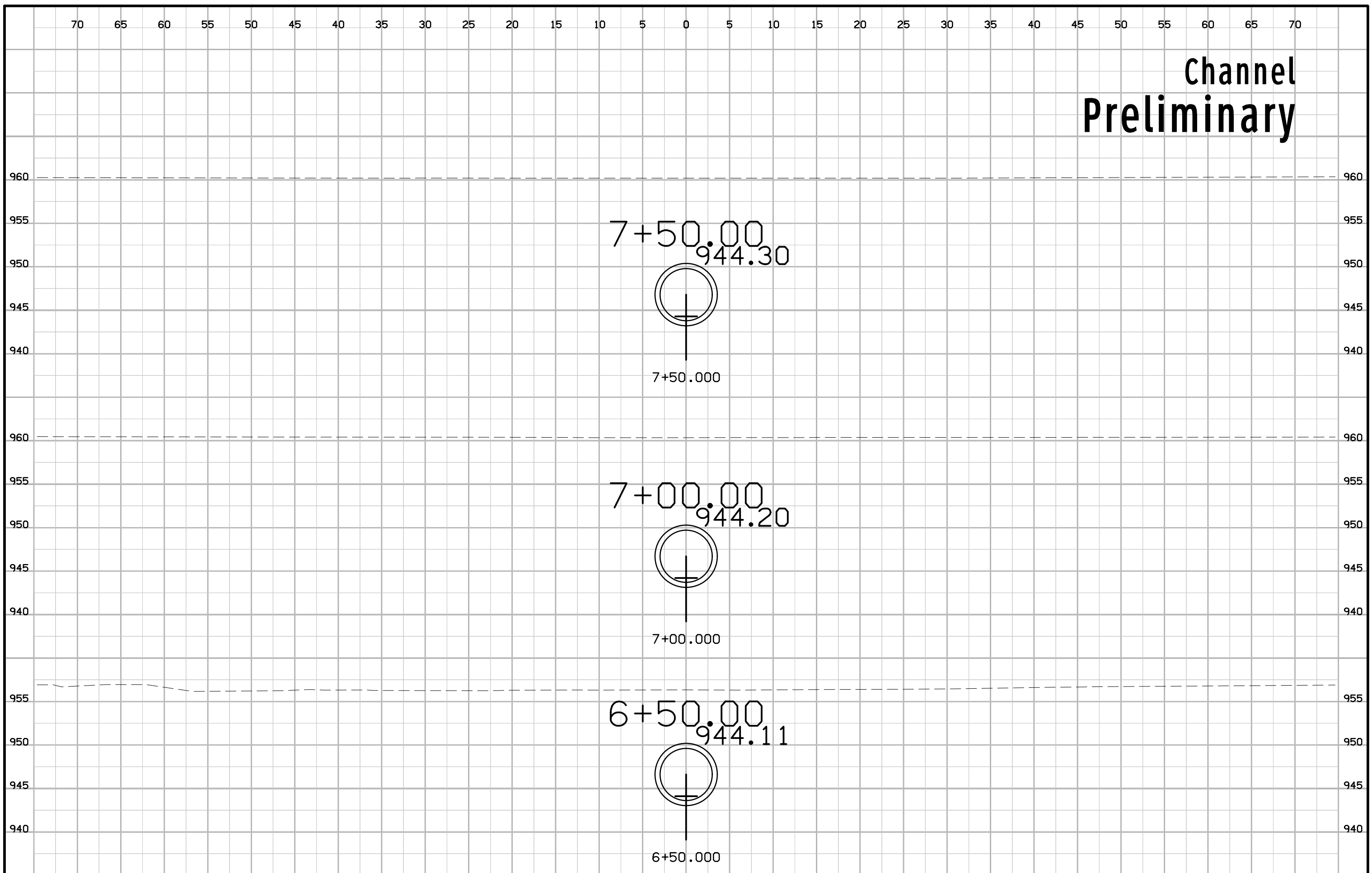


Loop E Ditch 2 Preliminary

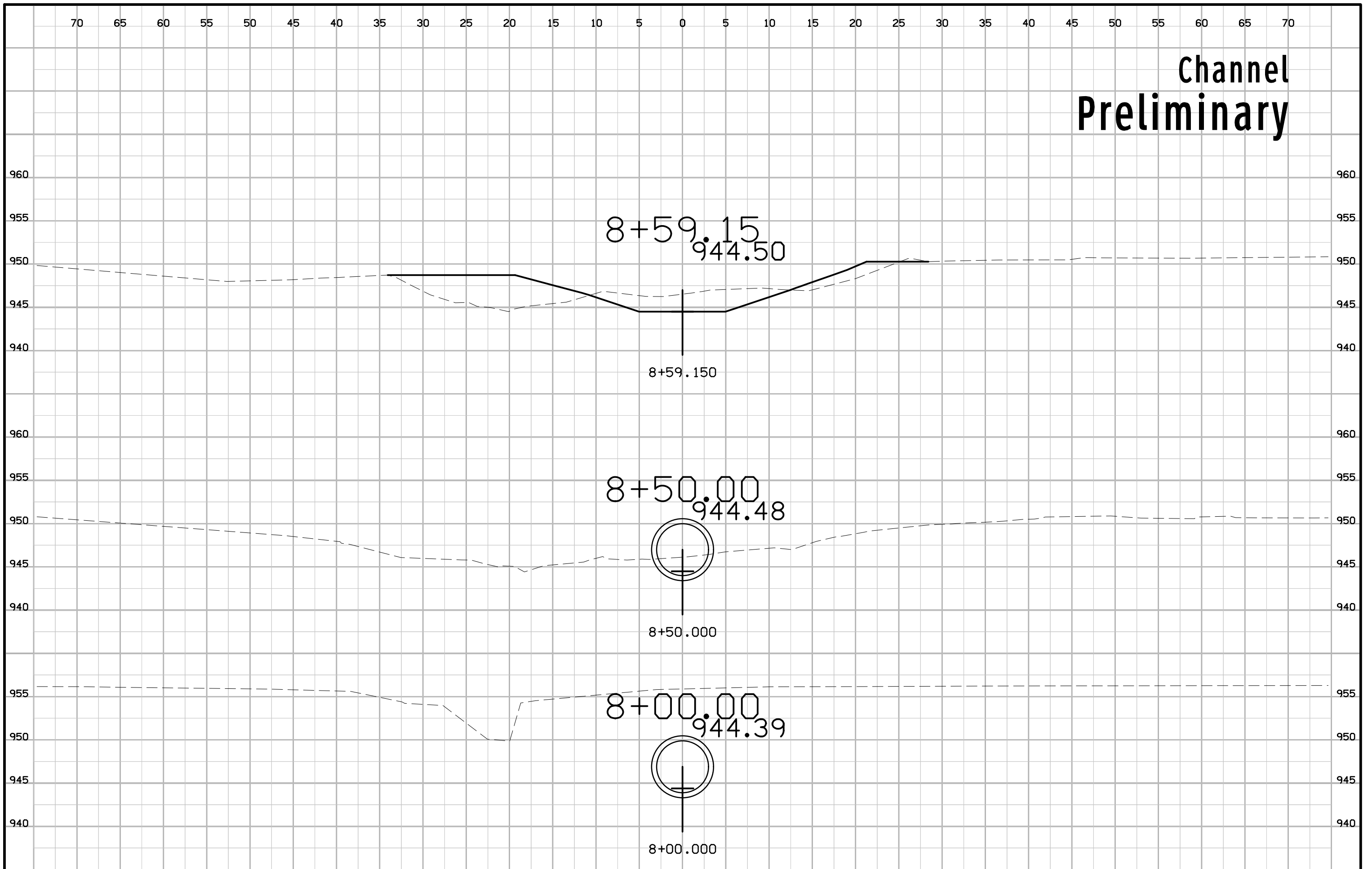




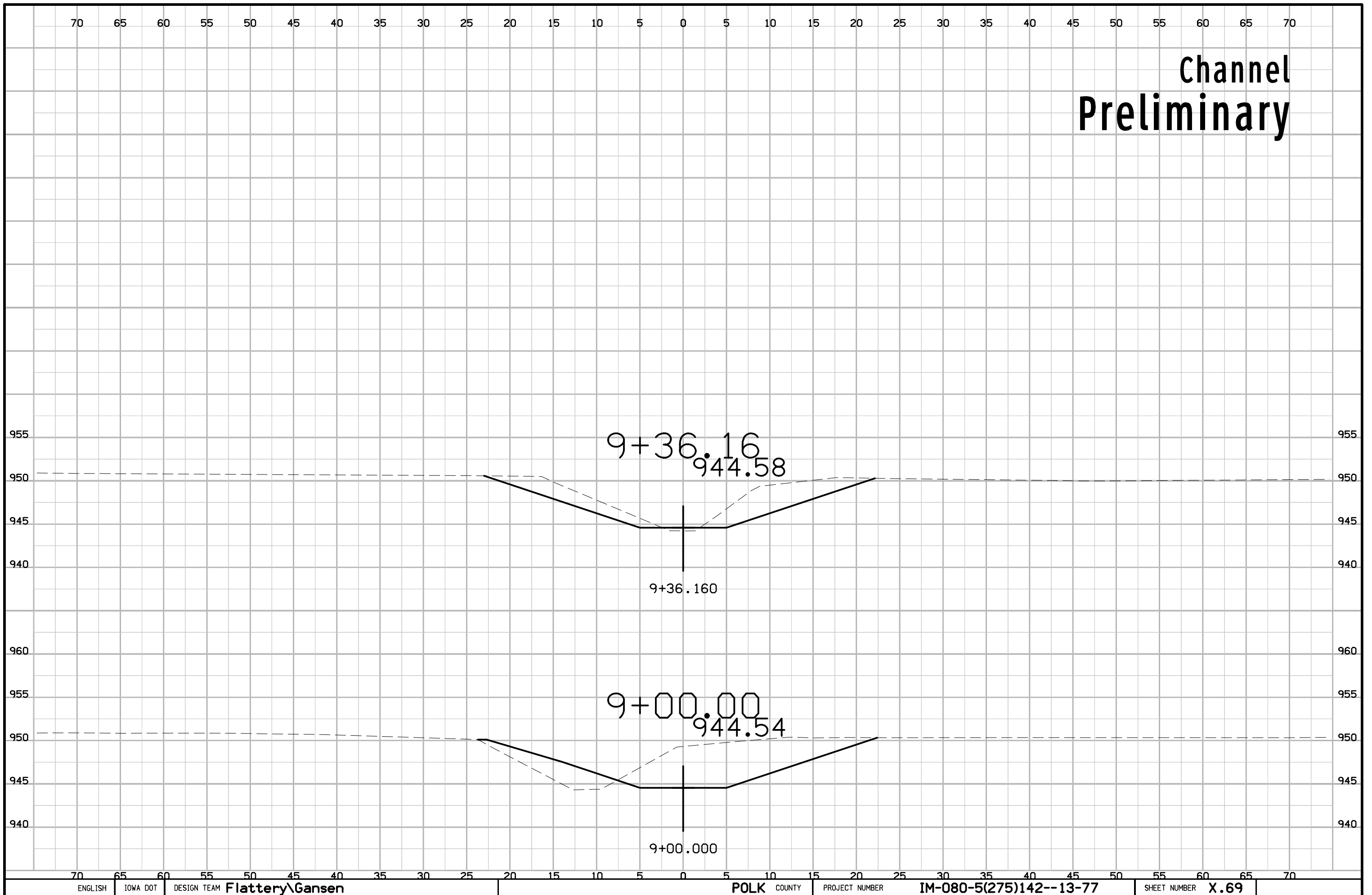
Channel Preliminary



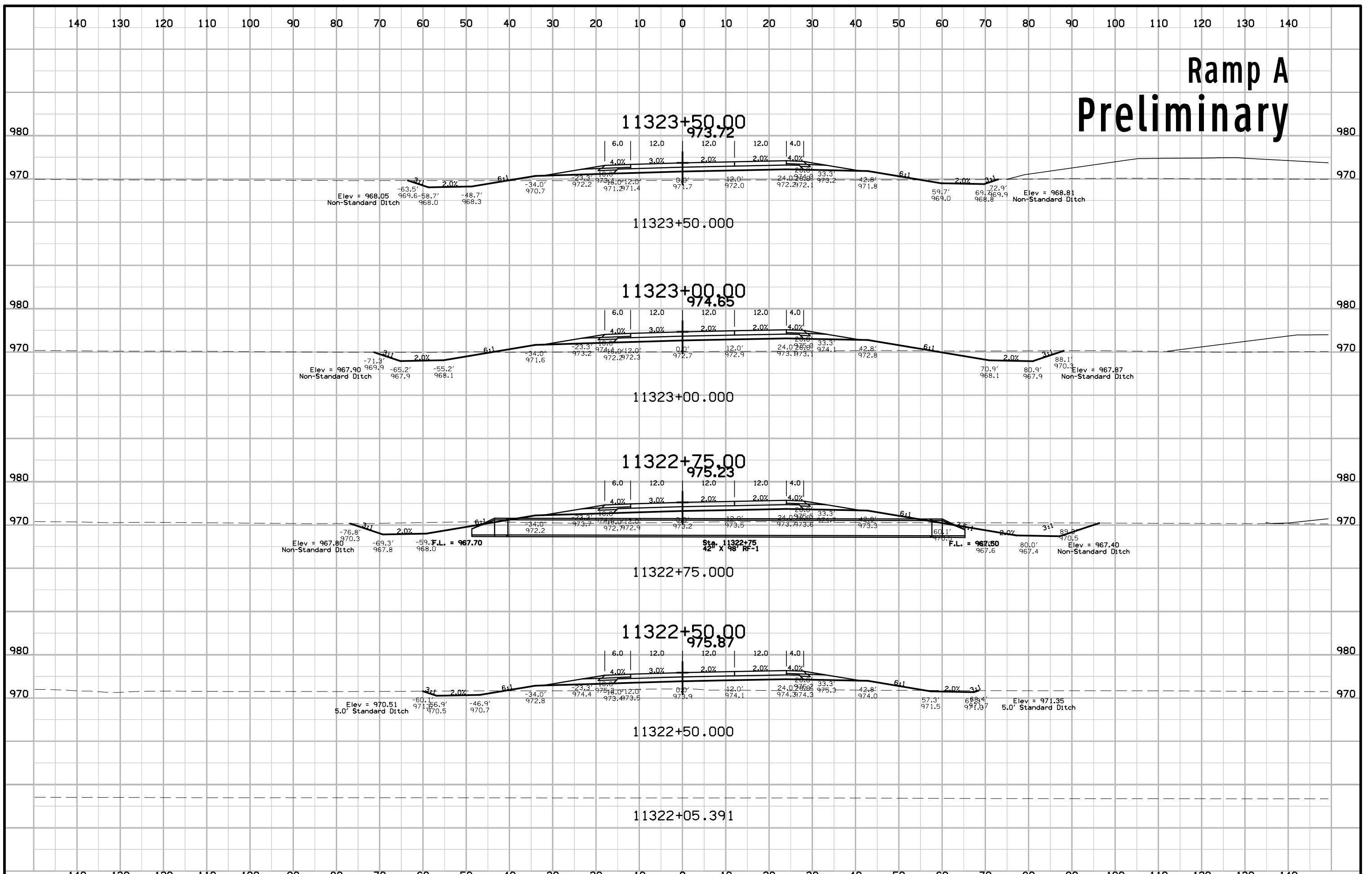
Channel Preliminary



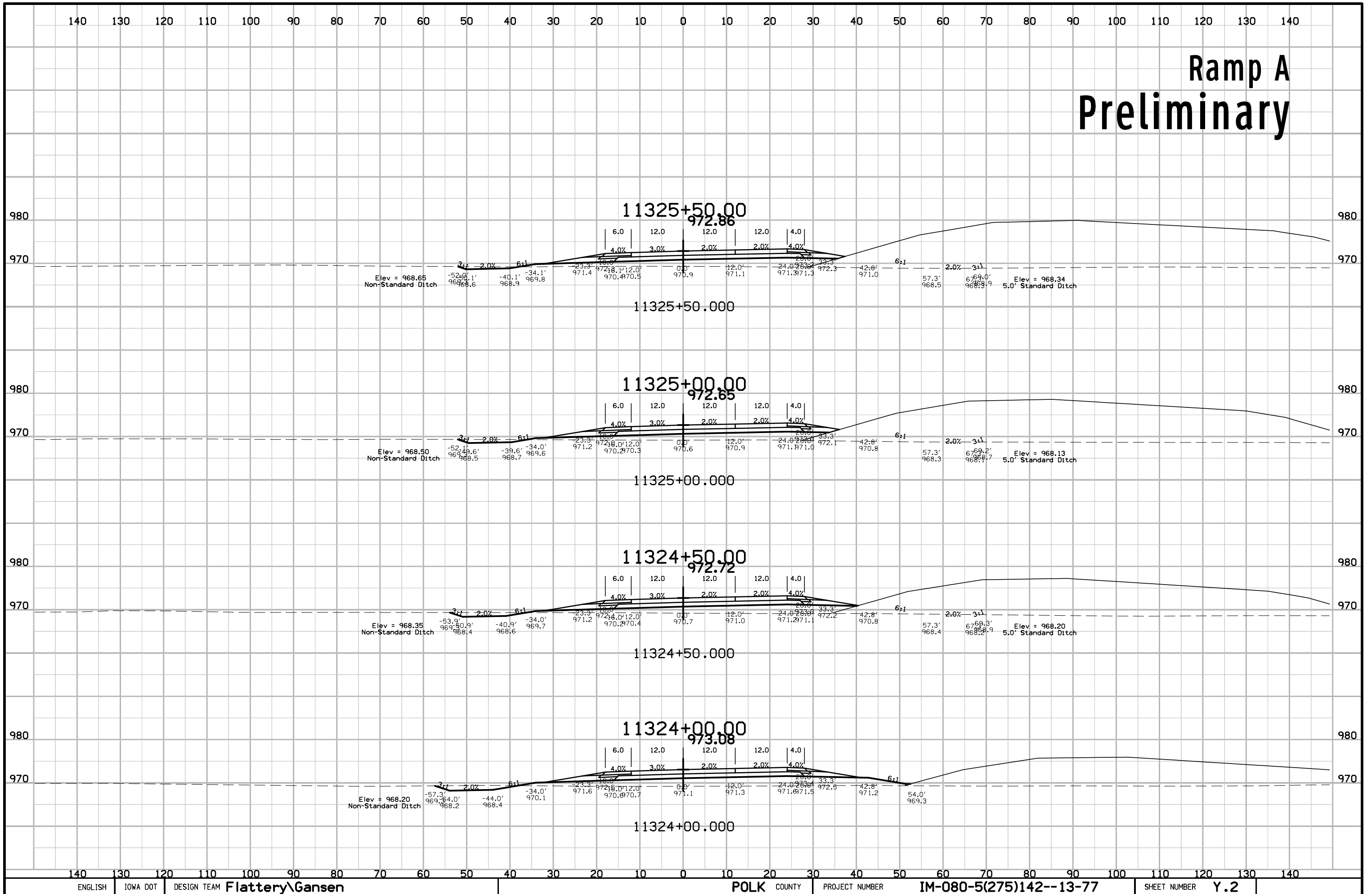
Channel Preliminary



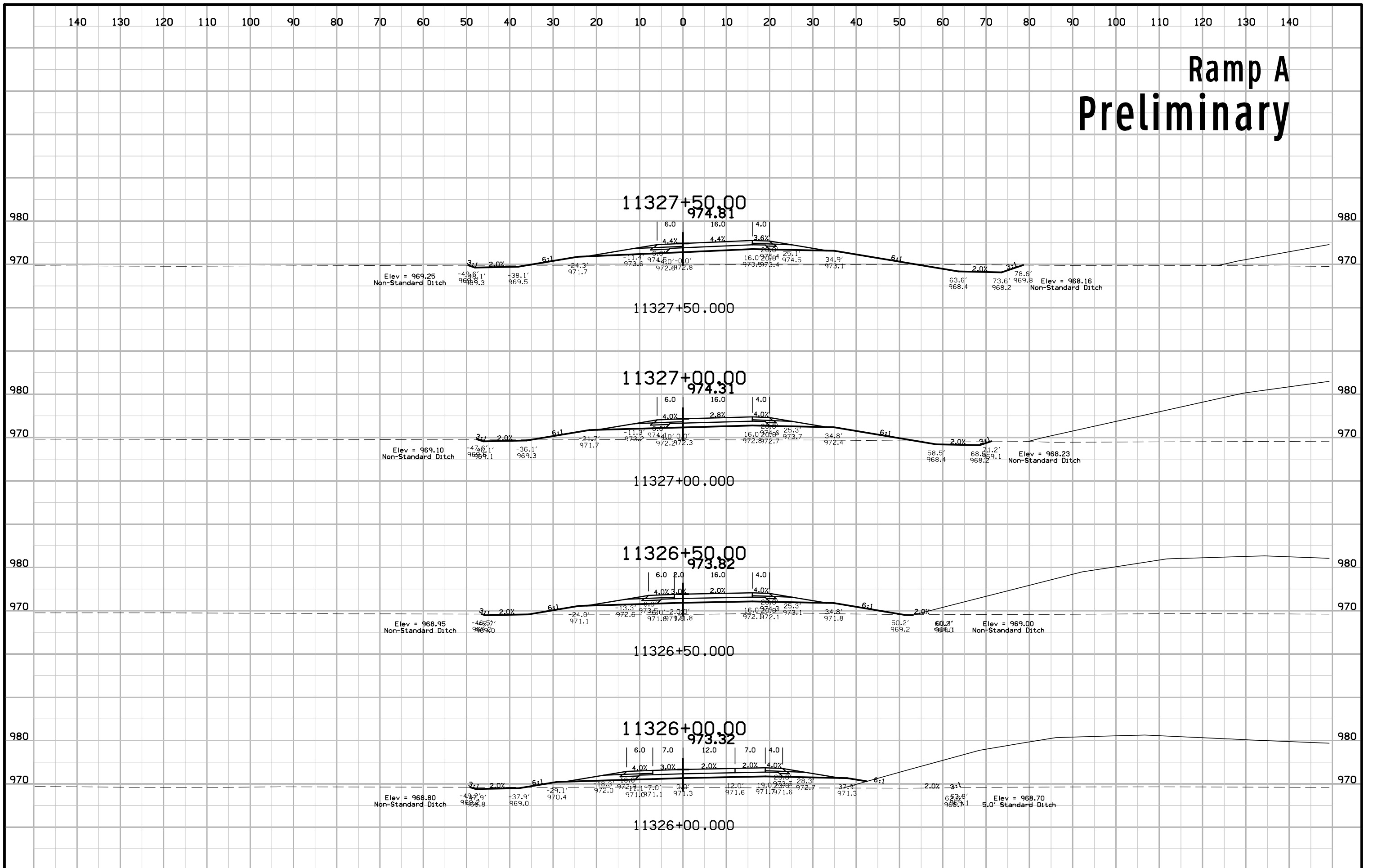
Ramp A Preliminary



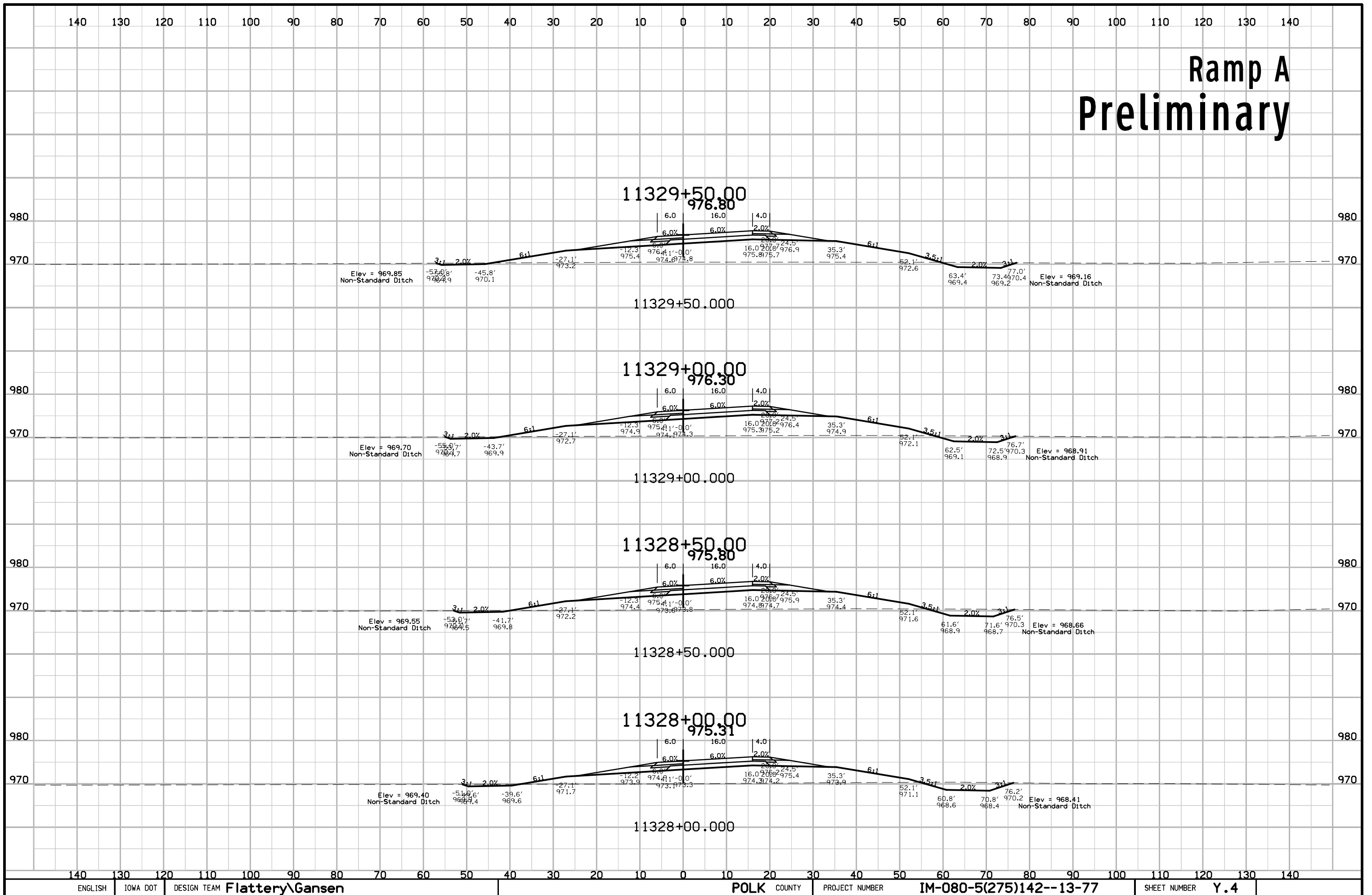
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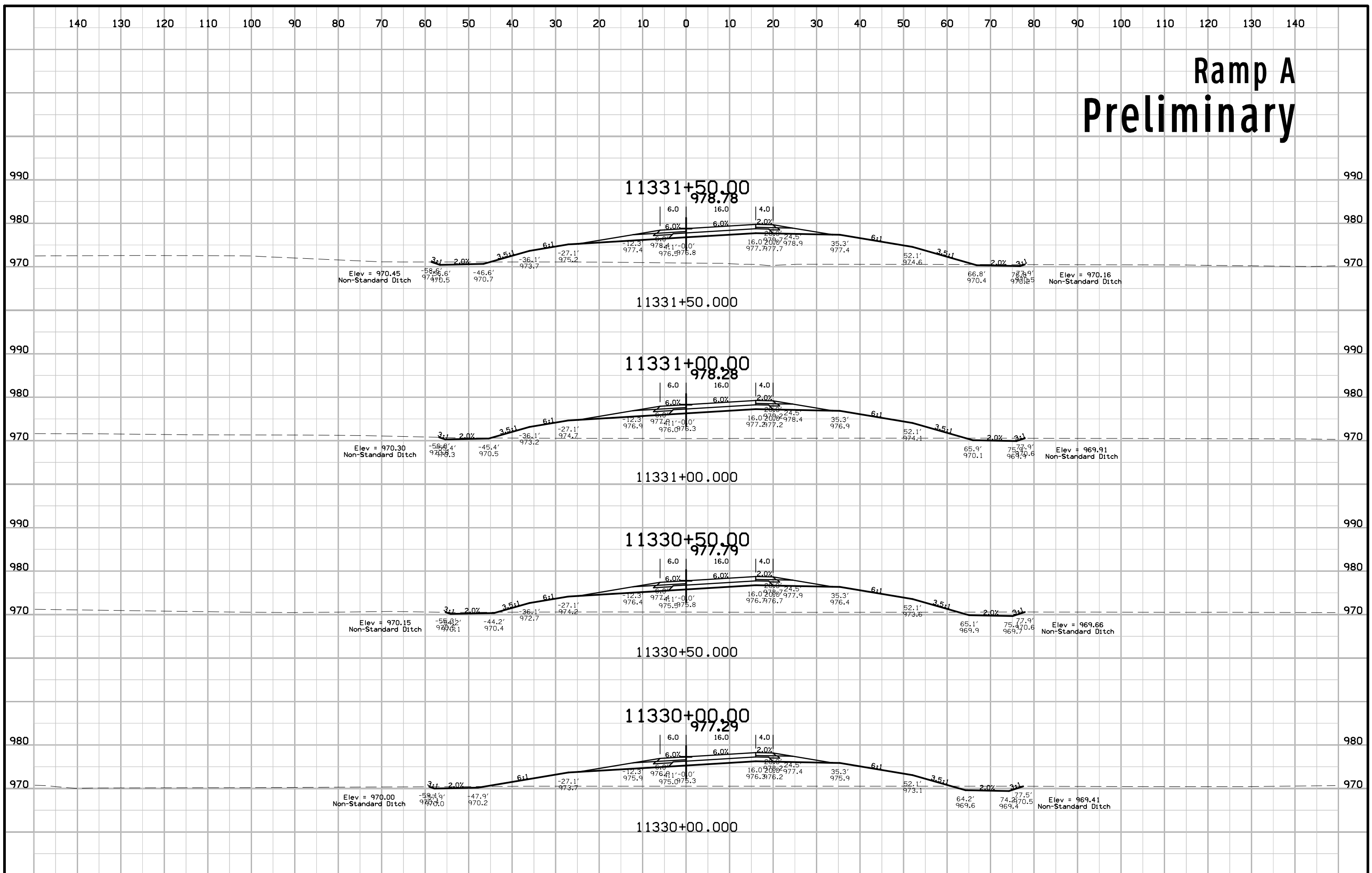
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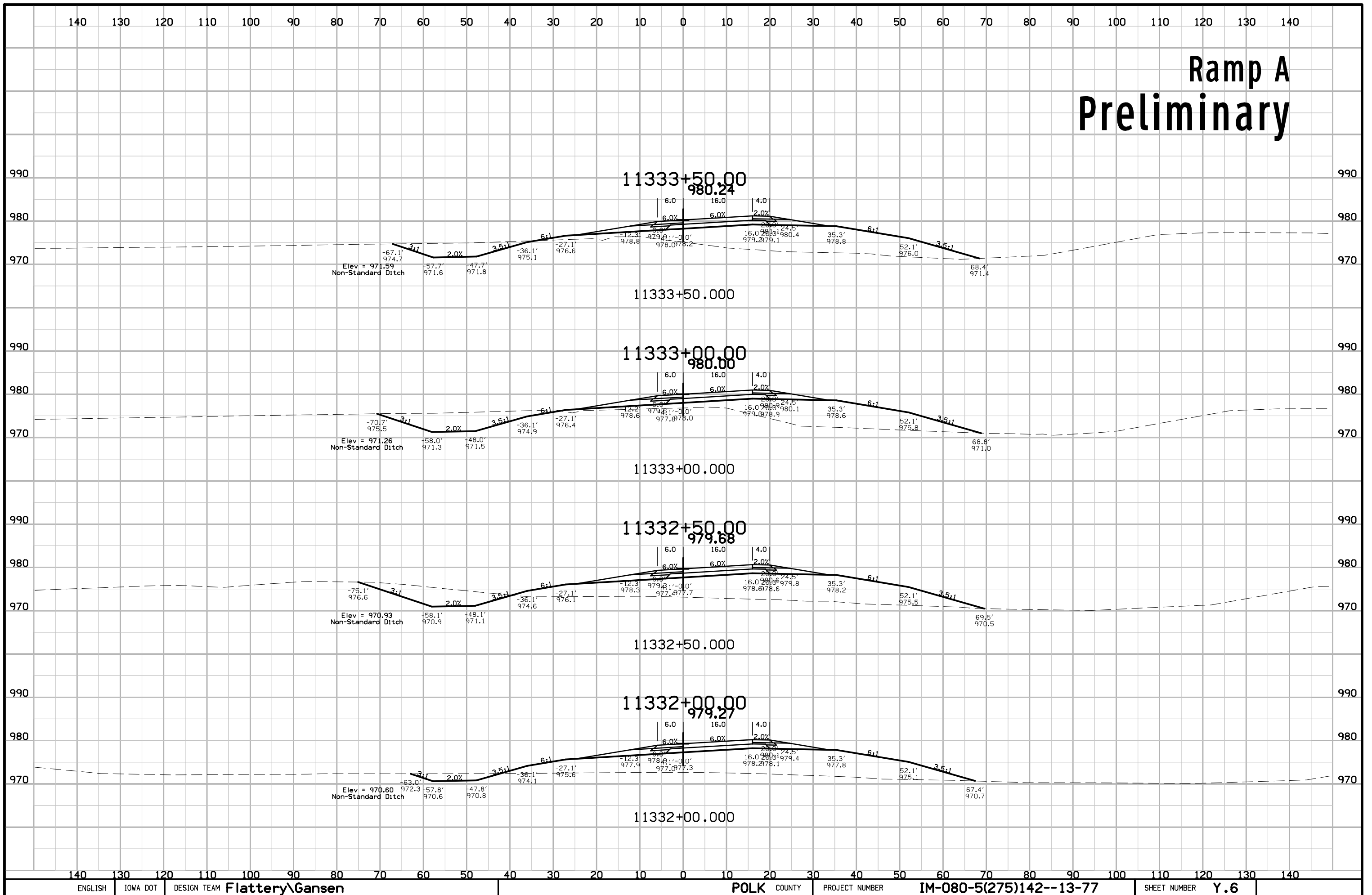
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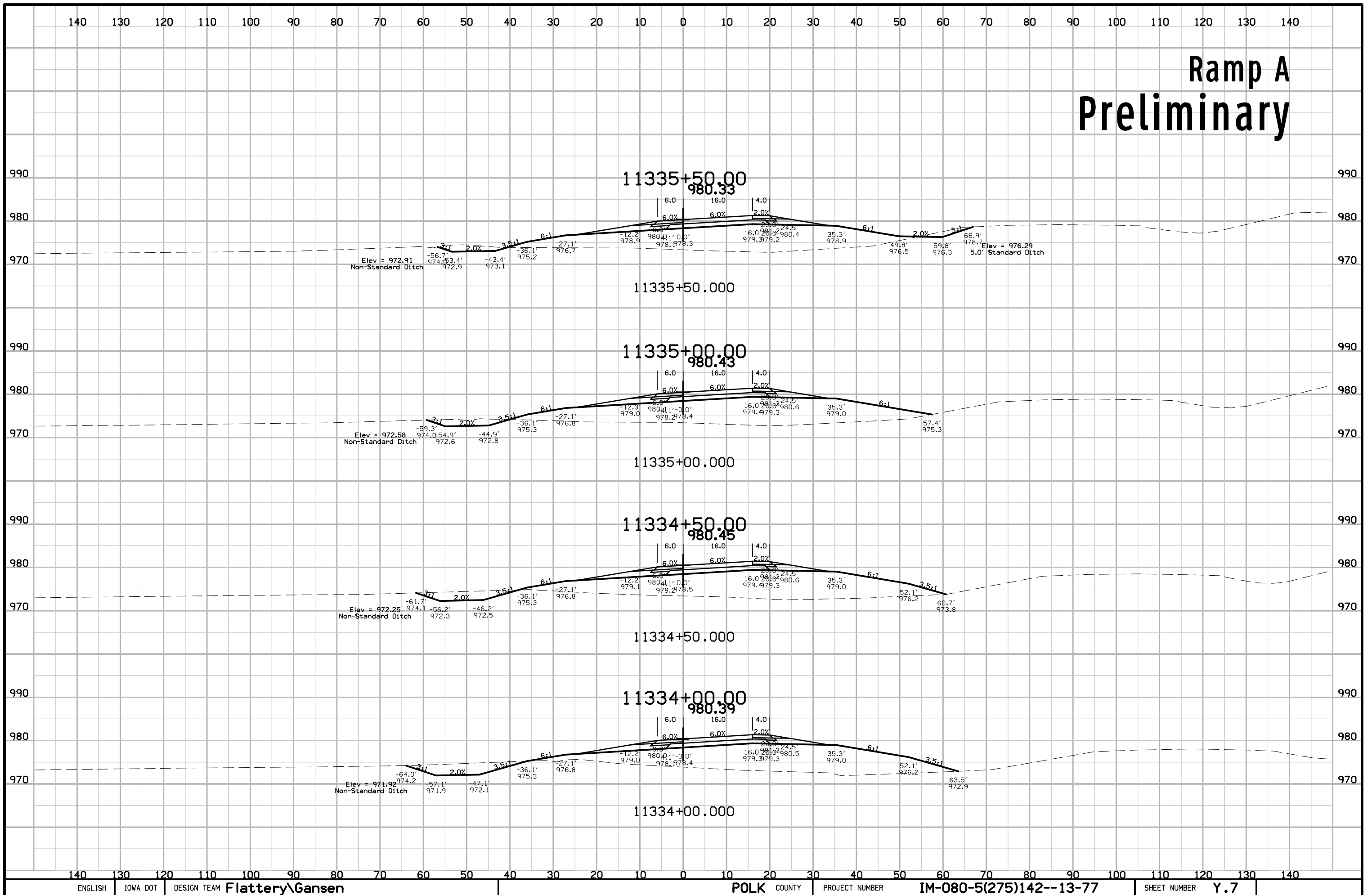
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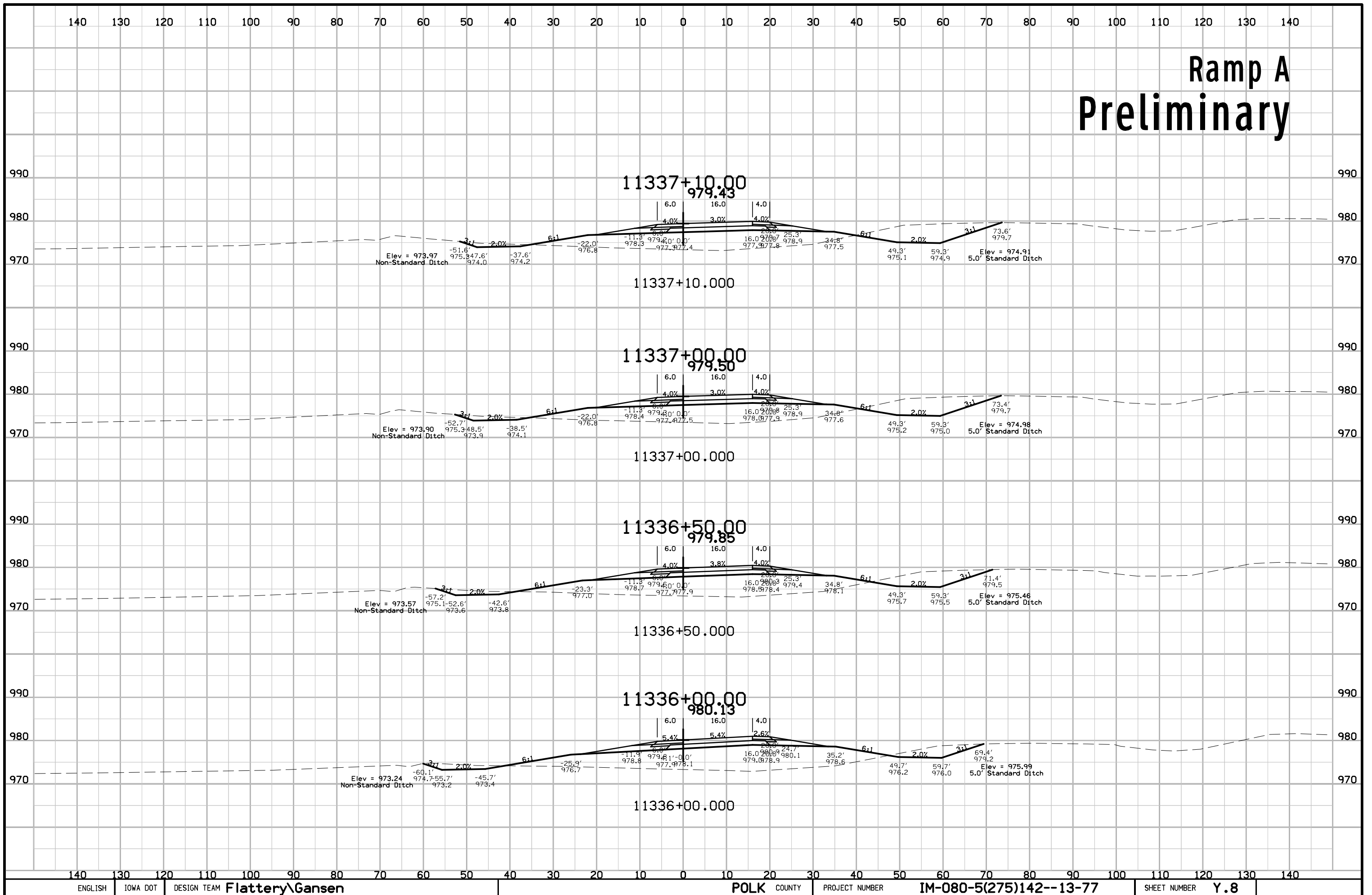
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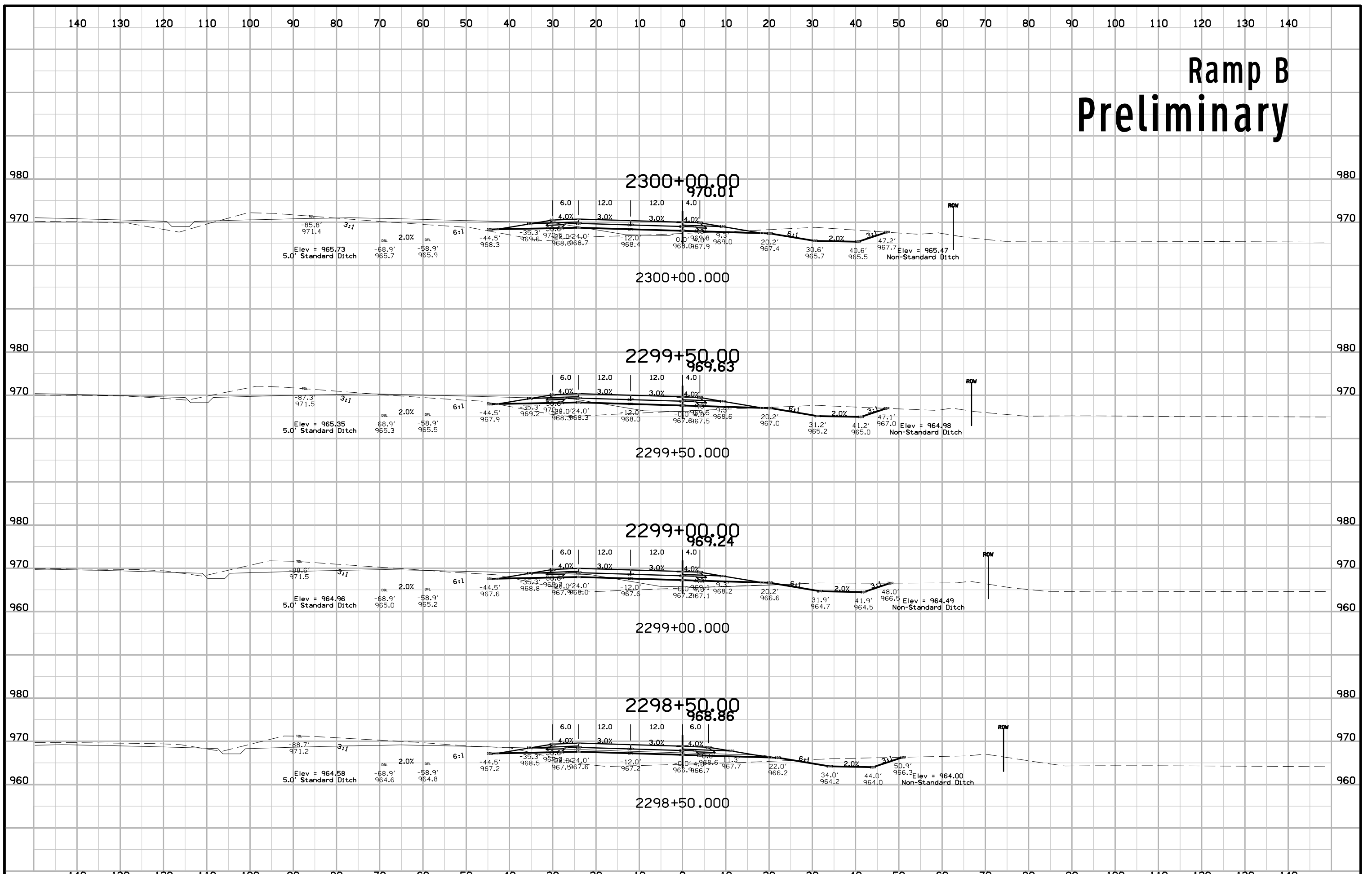
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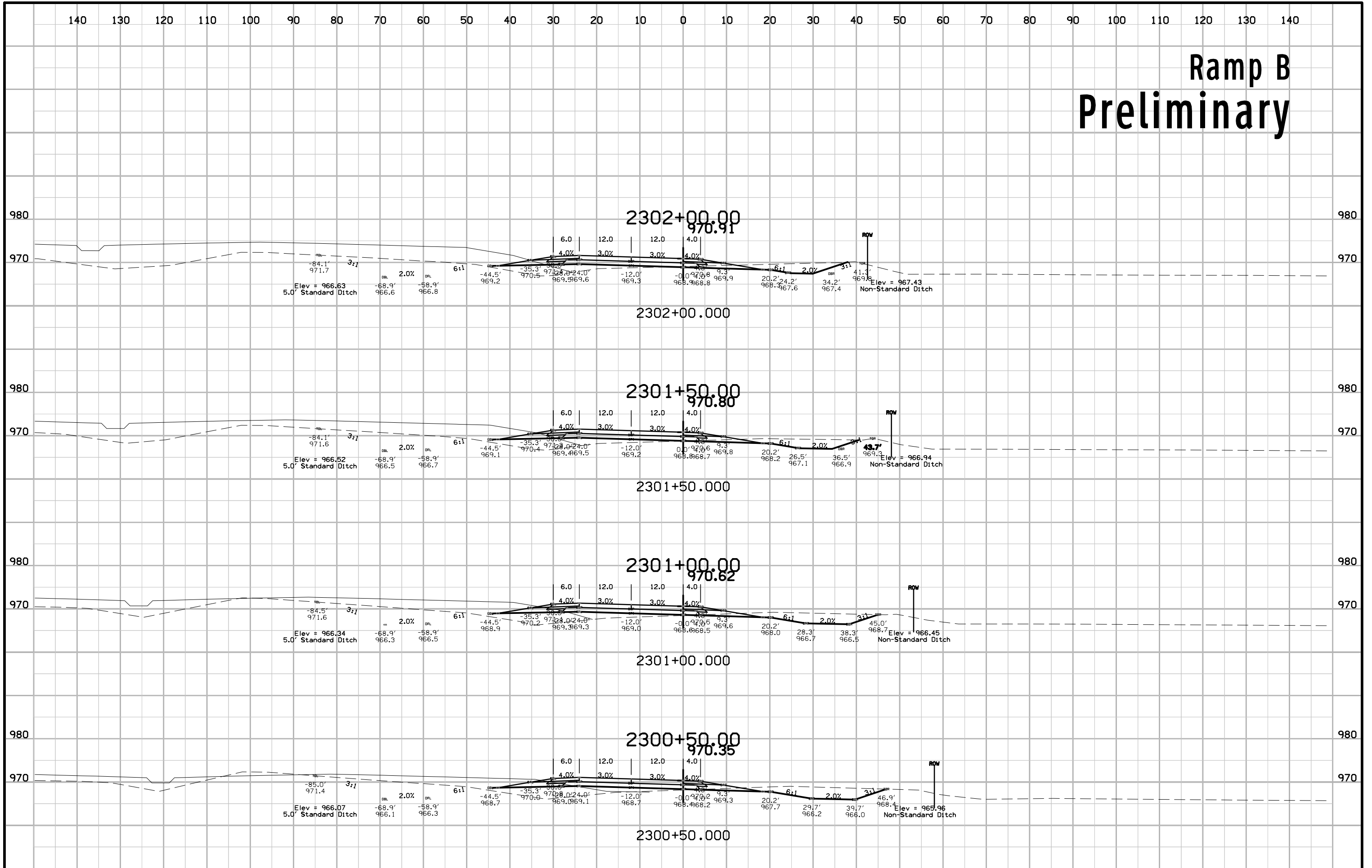
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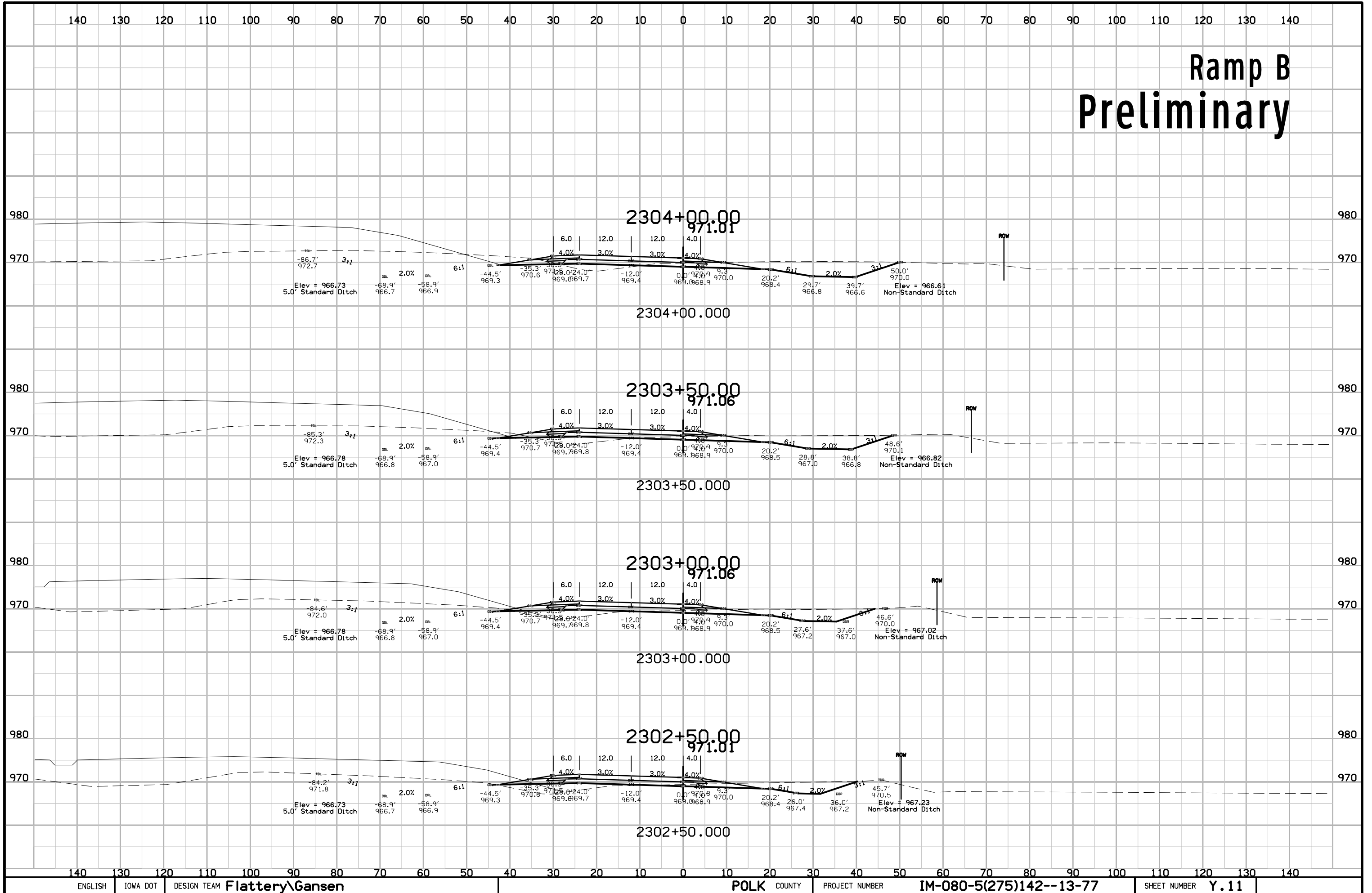
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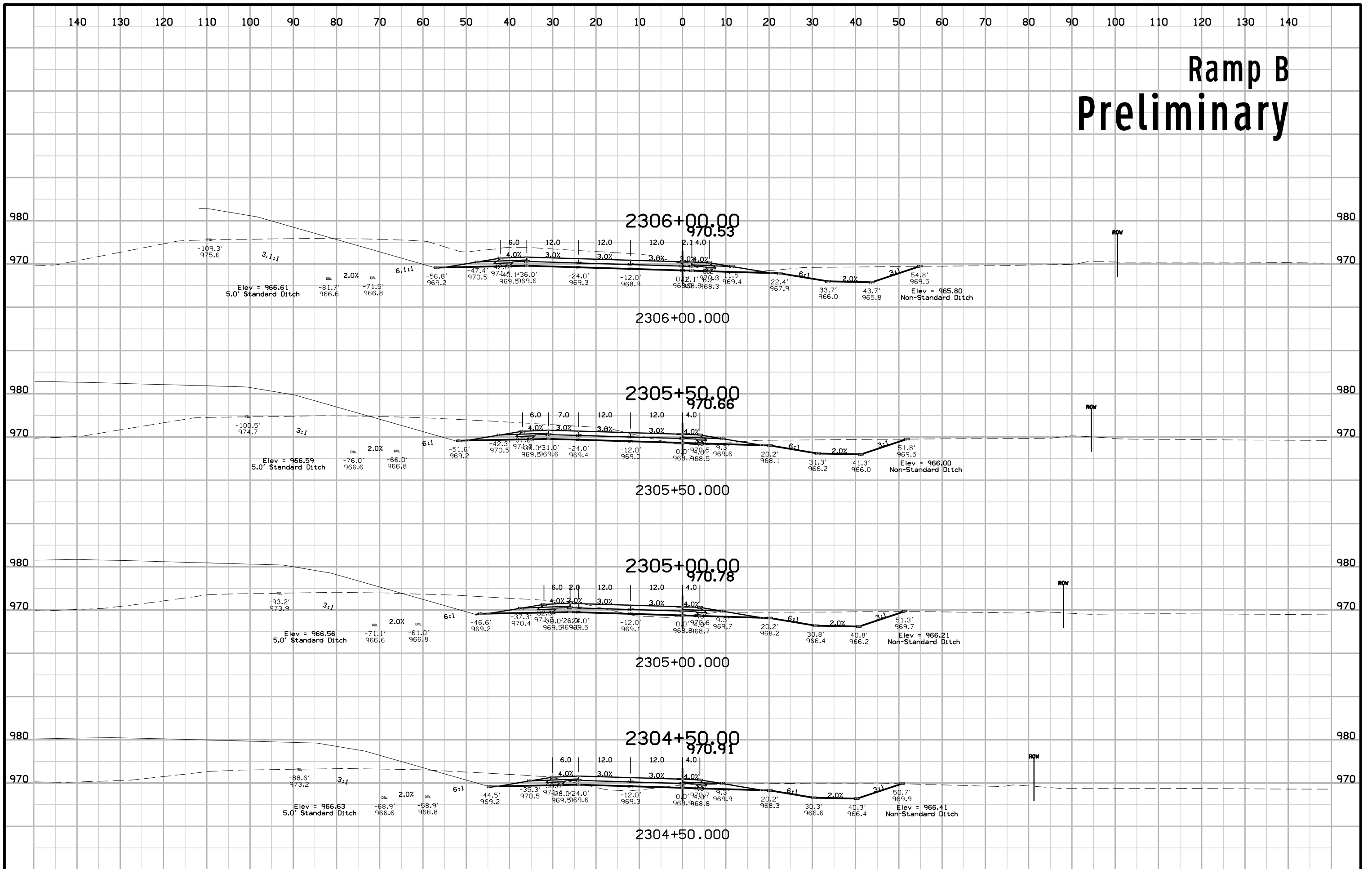
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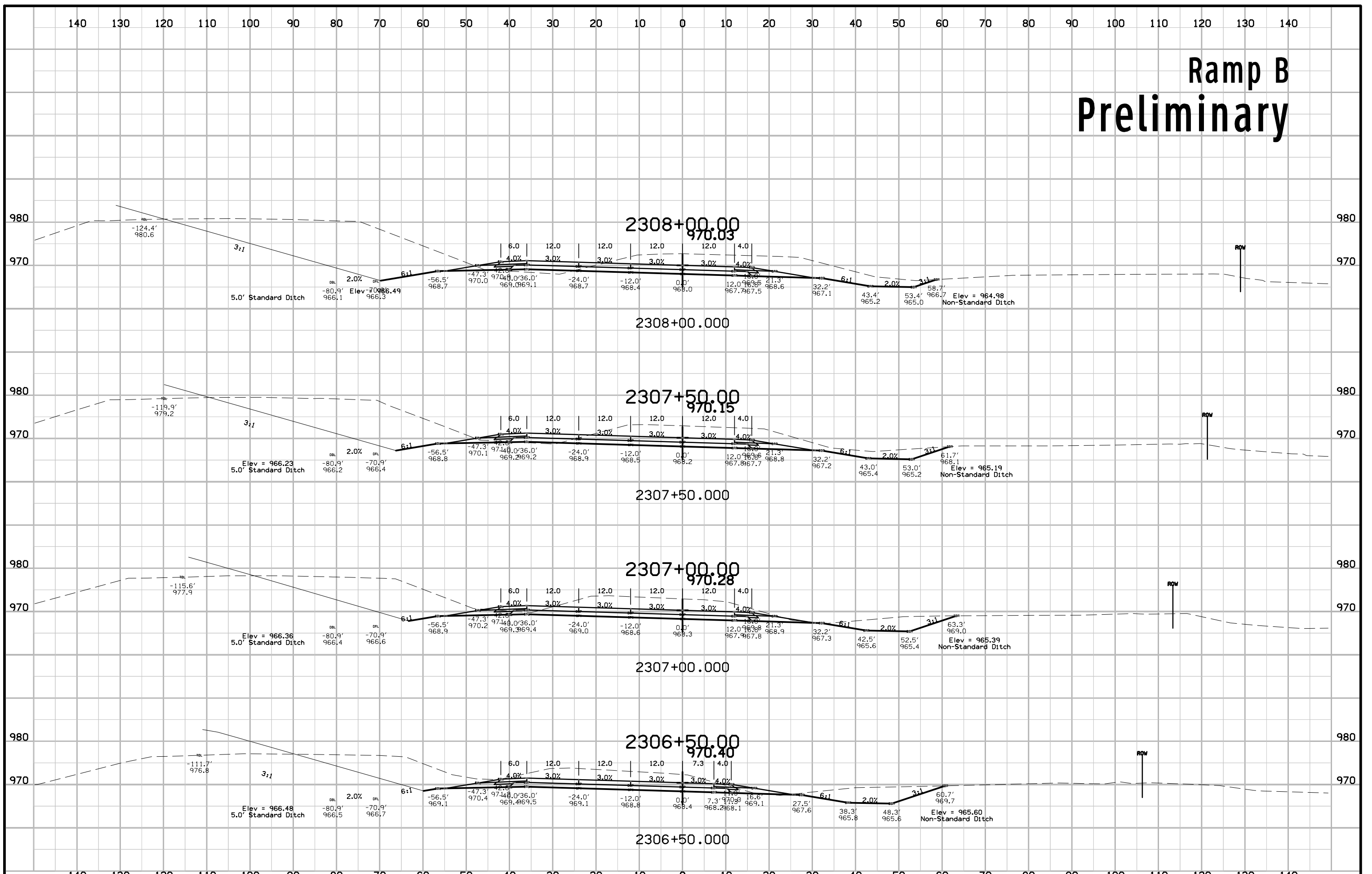
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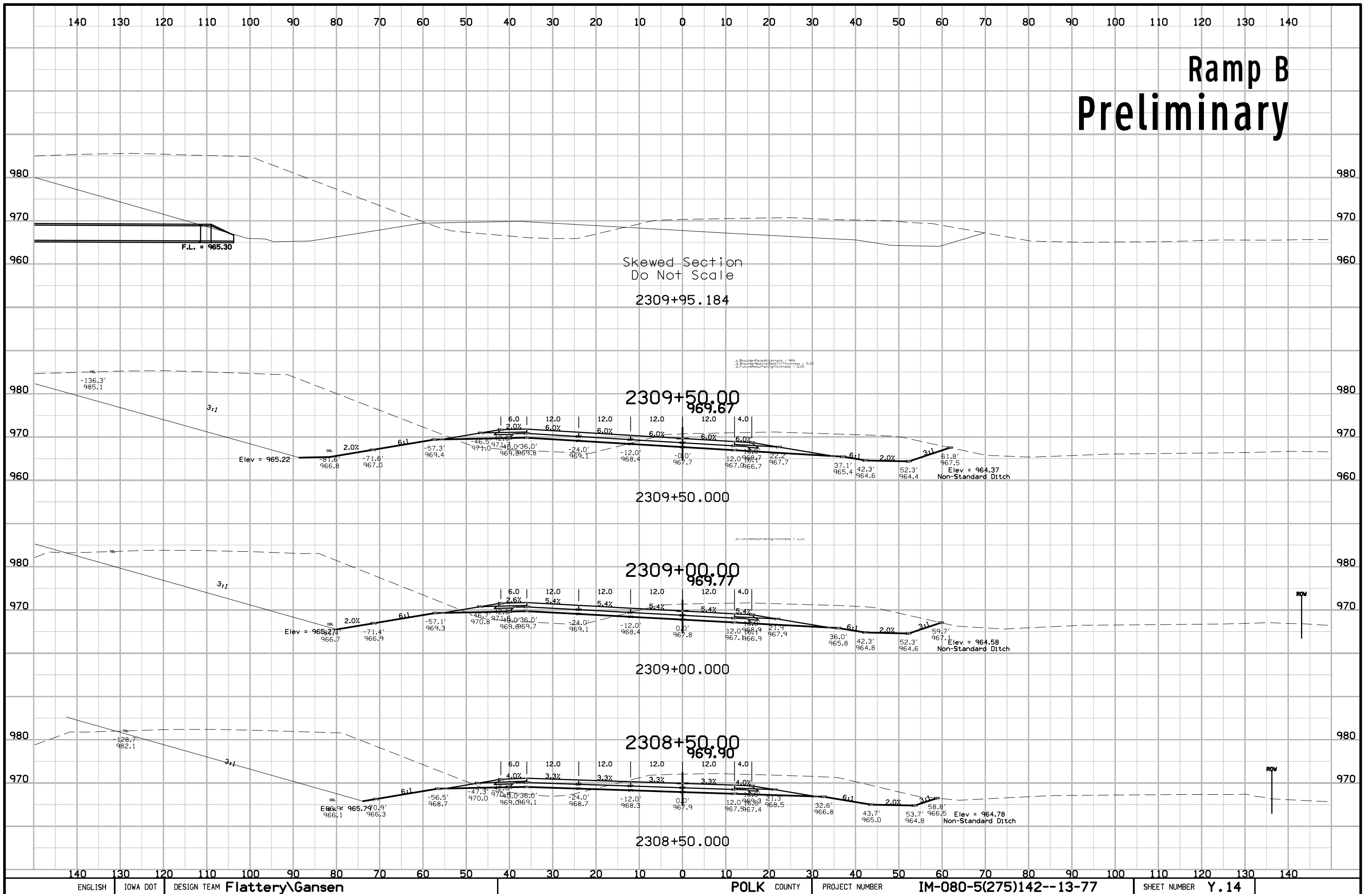
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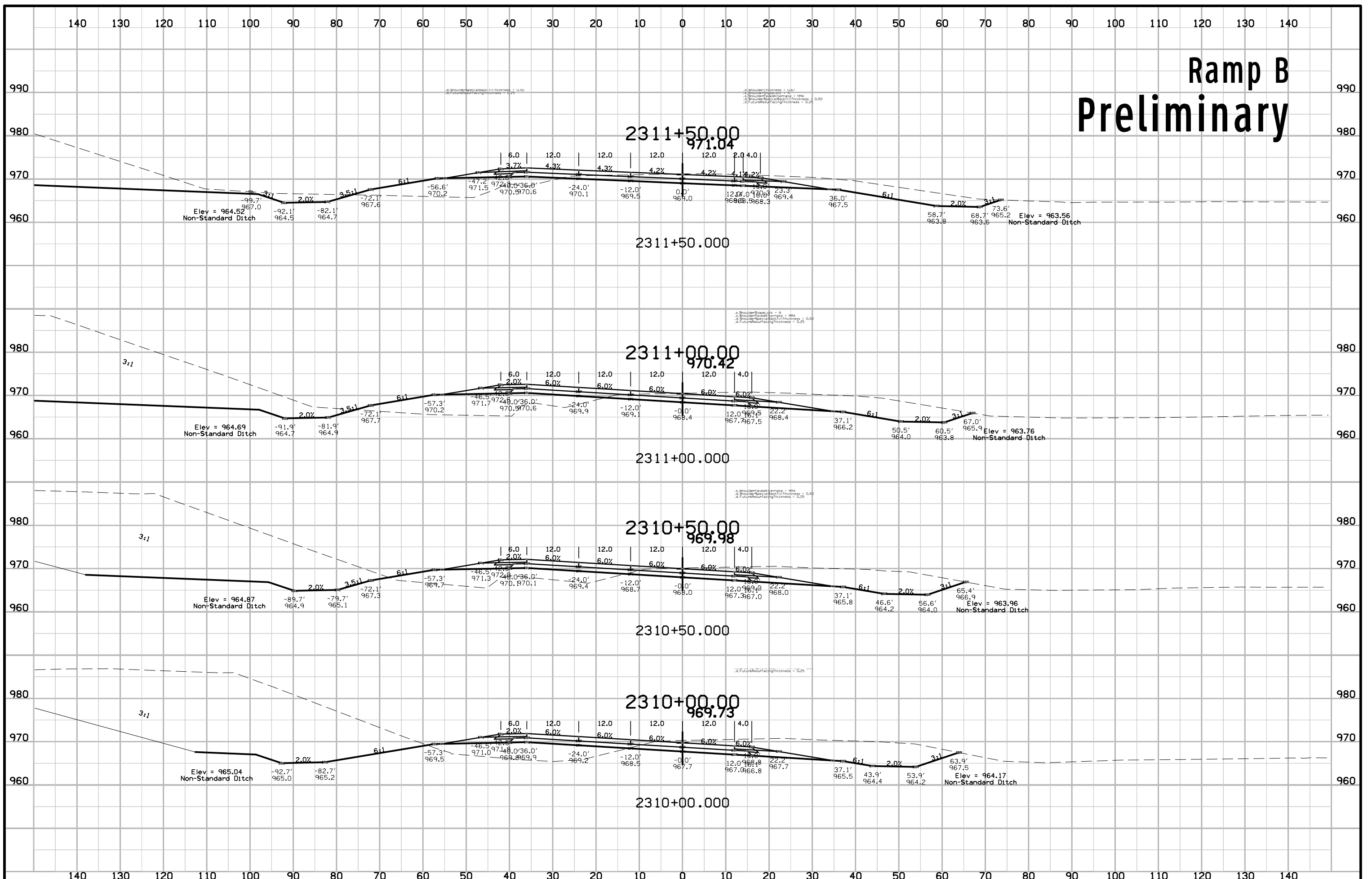
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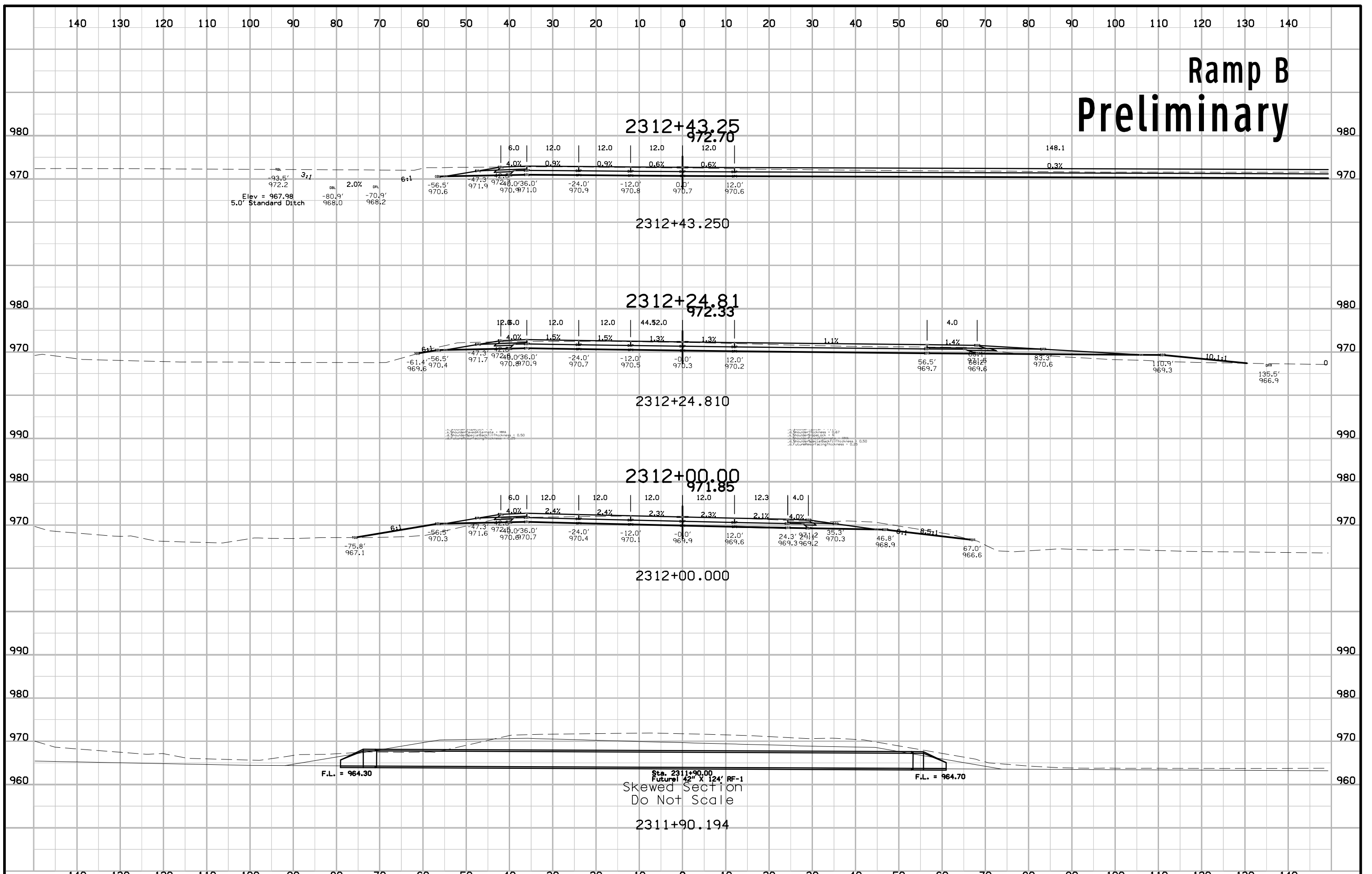
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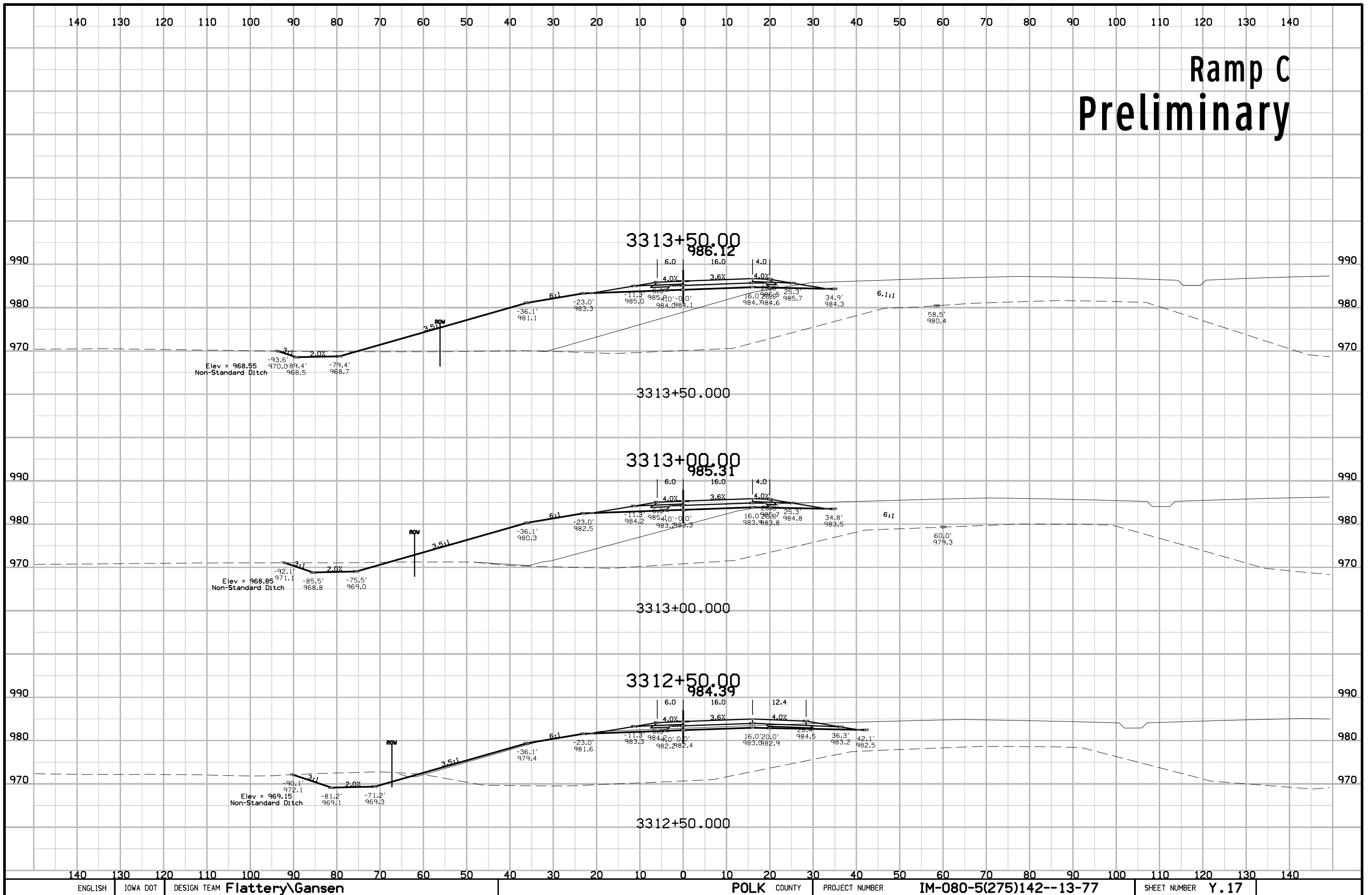
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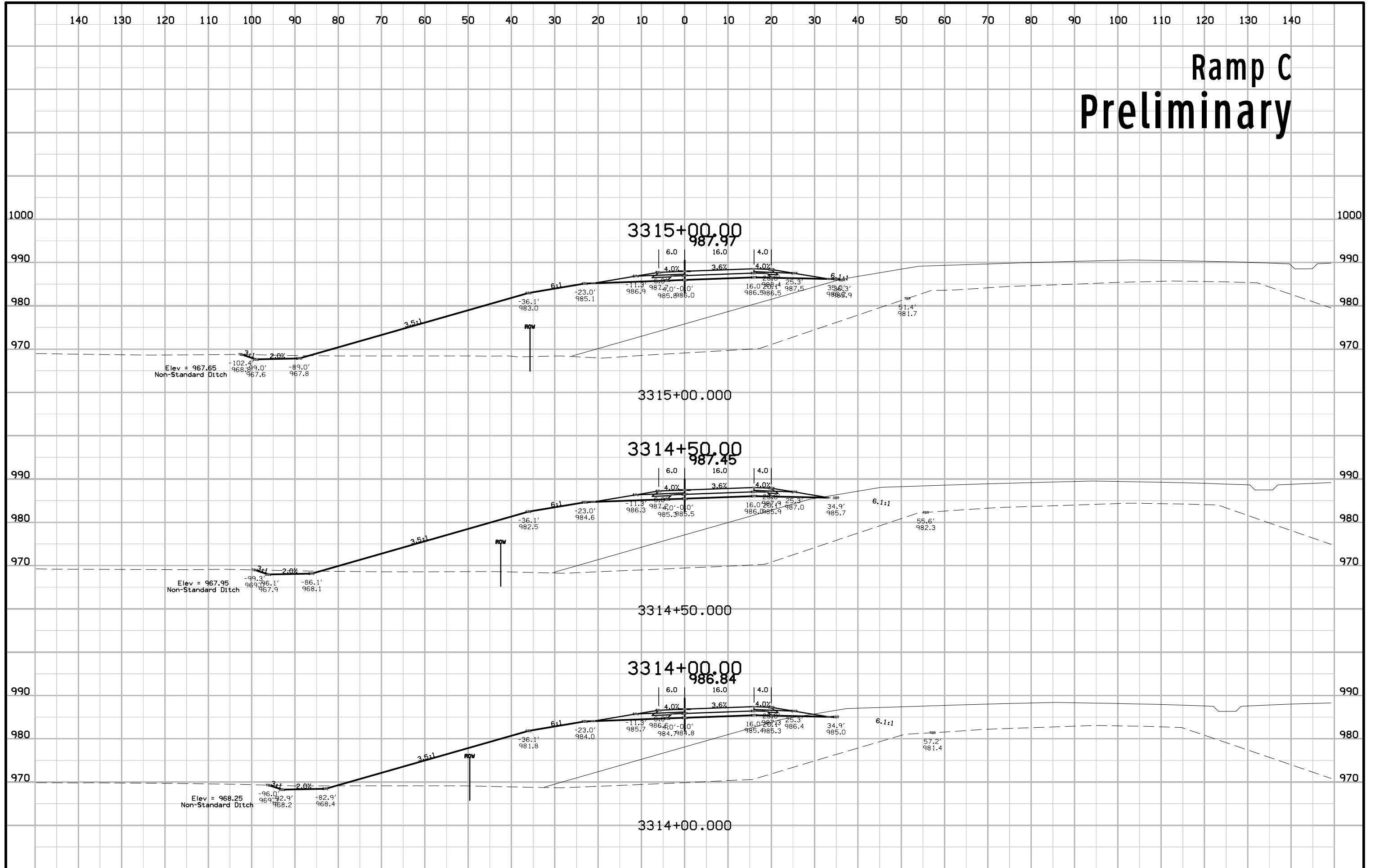
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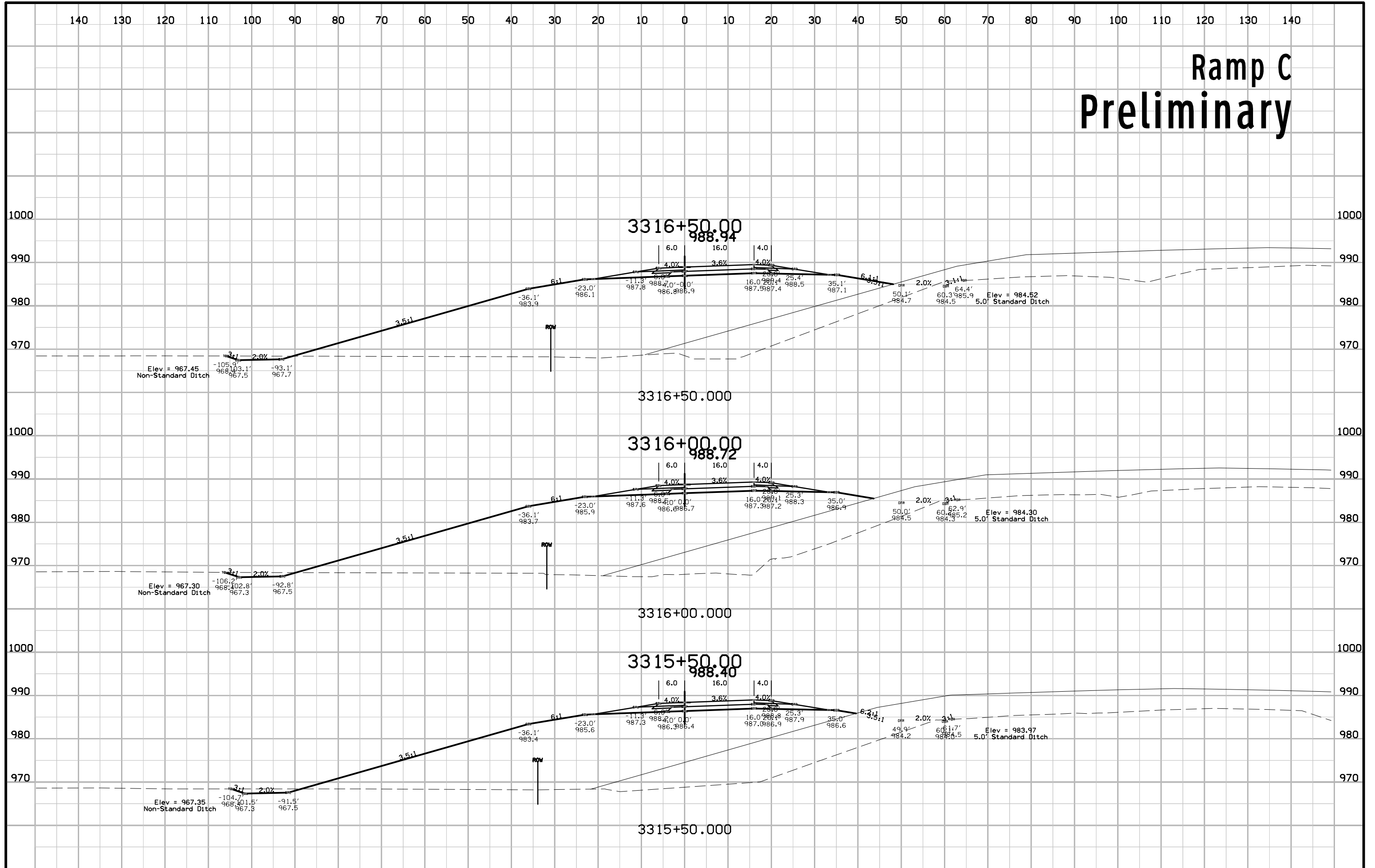
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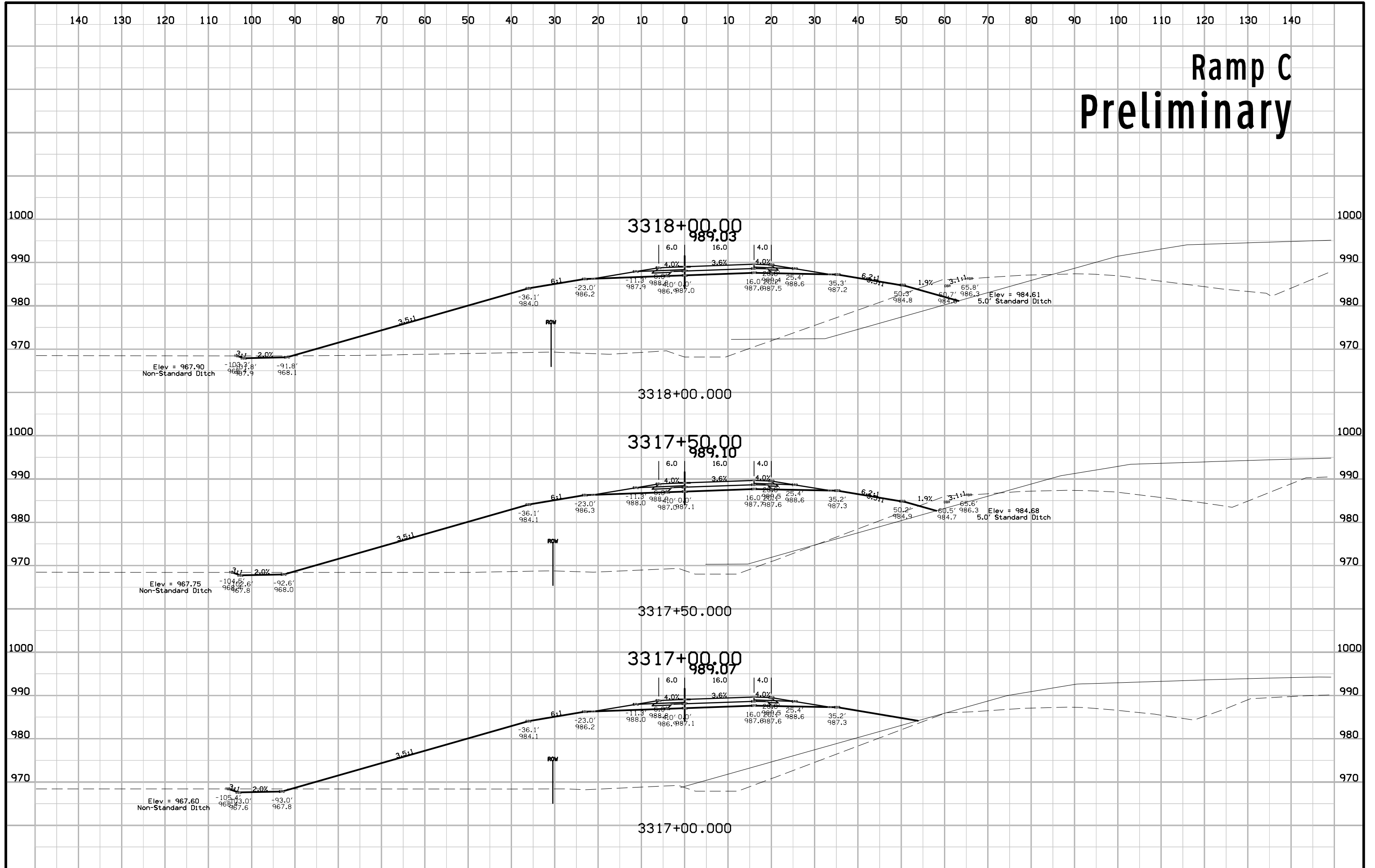
Ramp C Preliminary



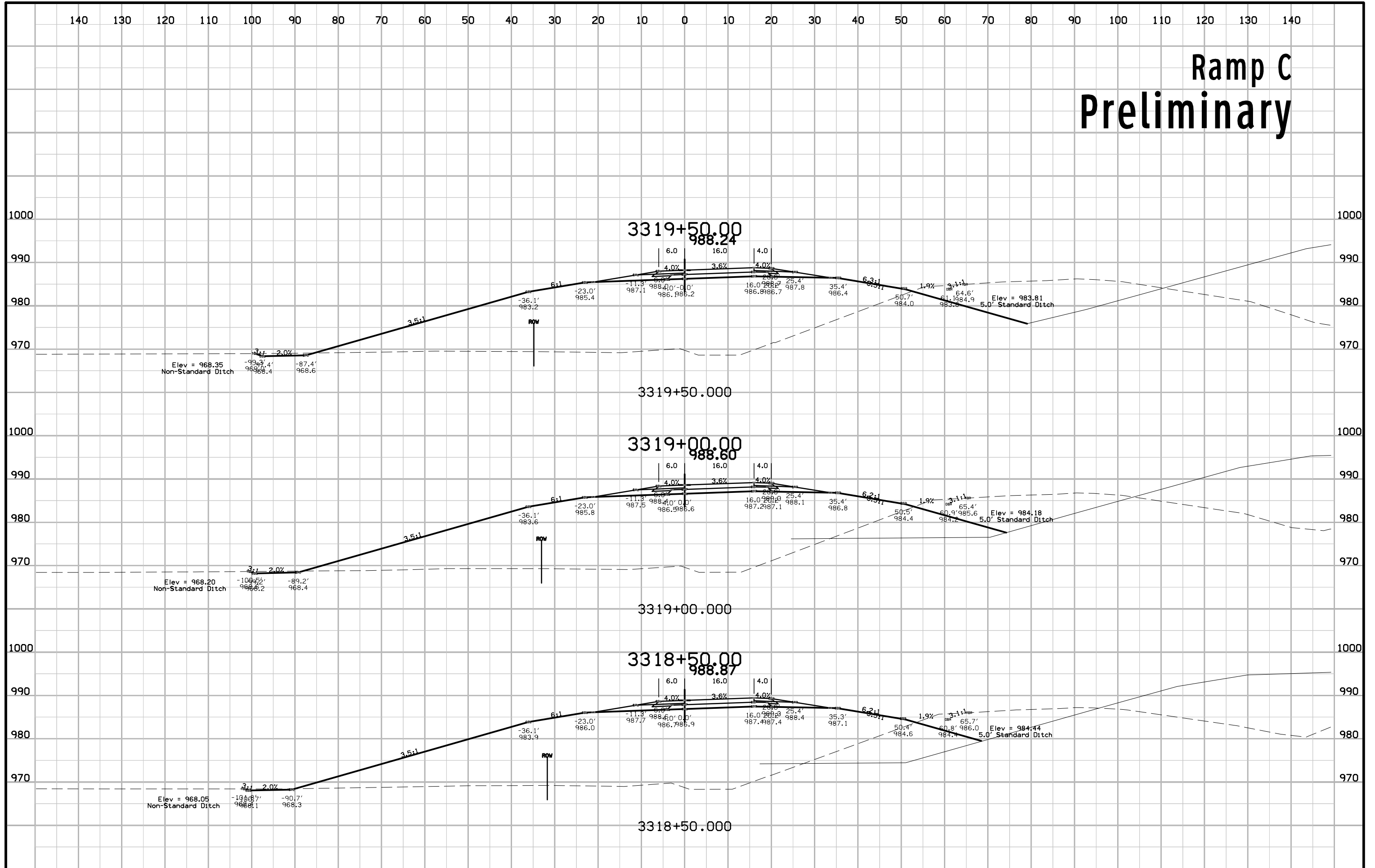
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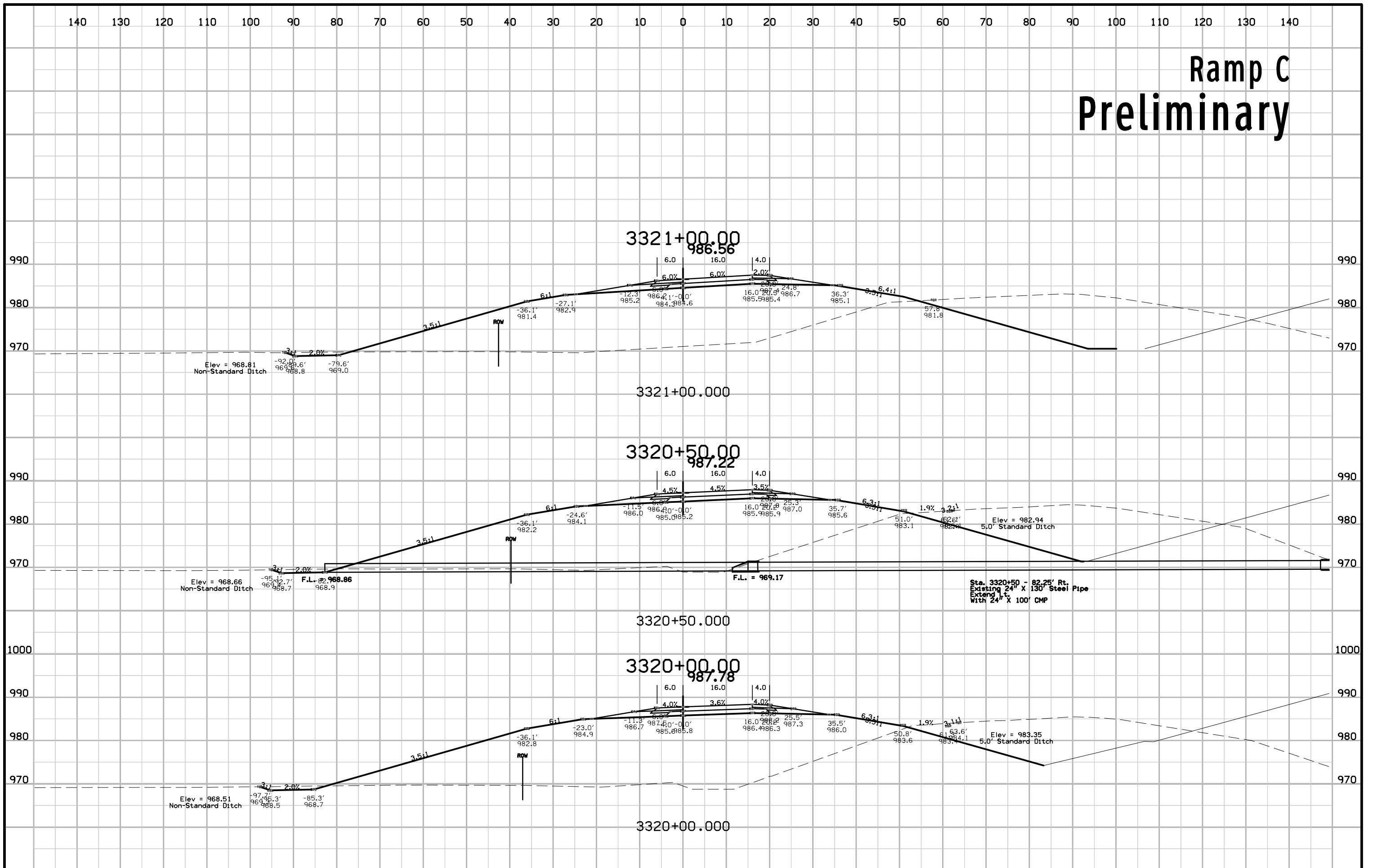
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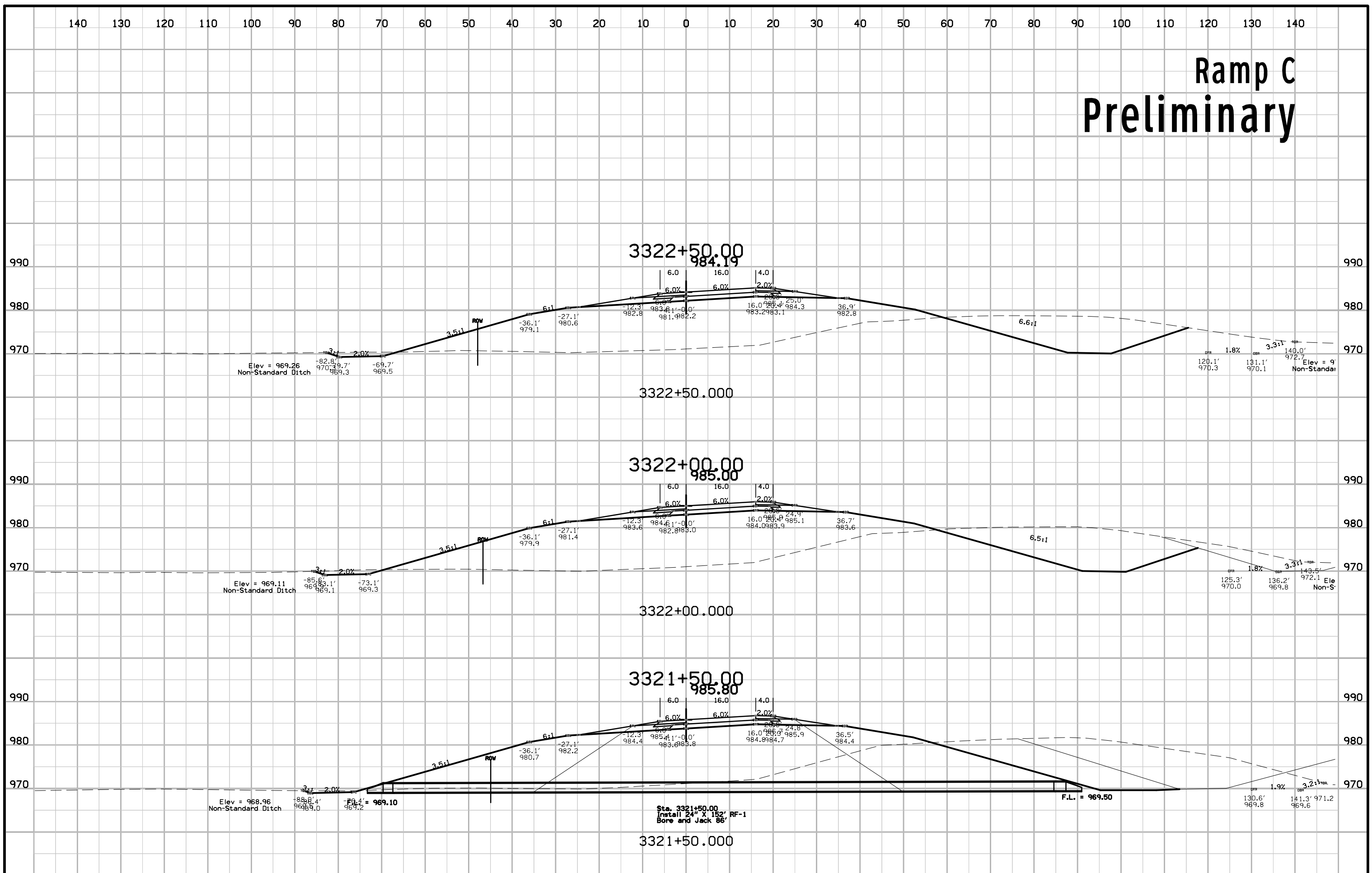
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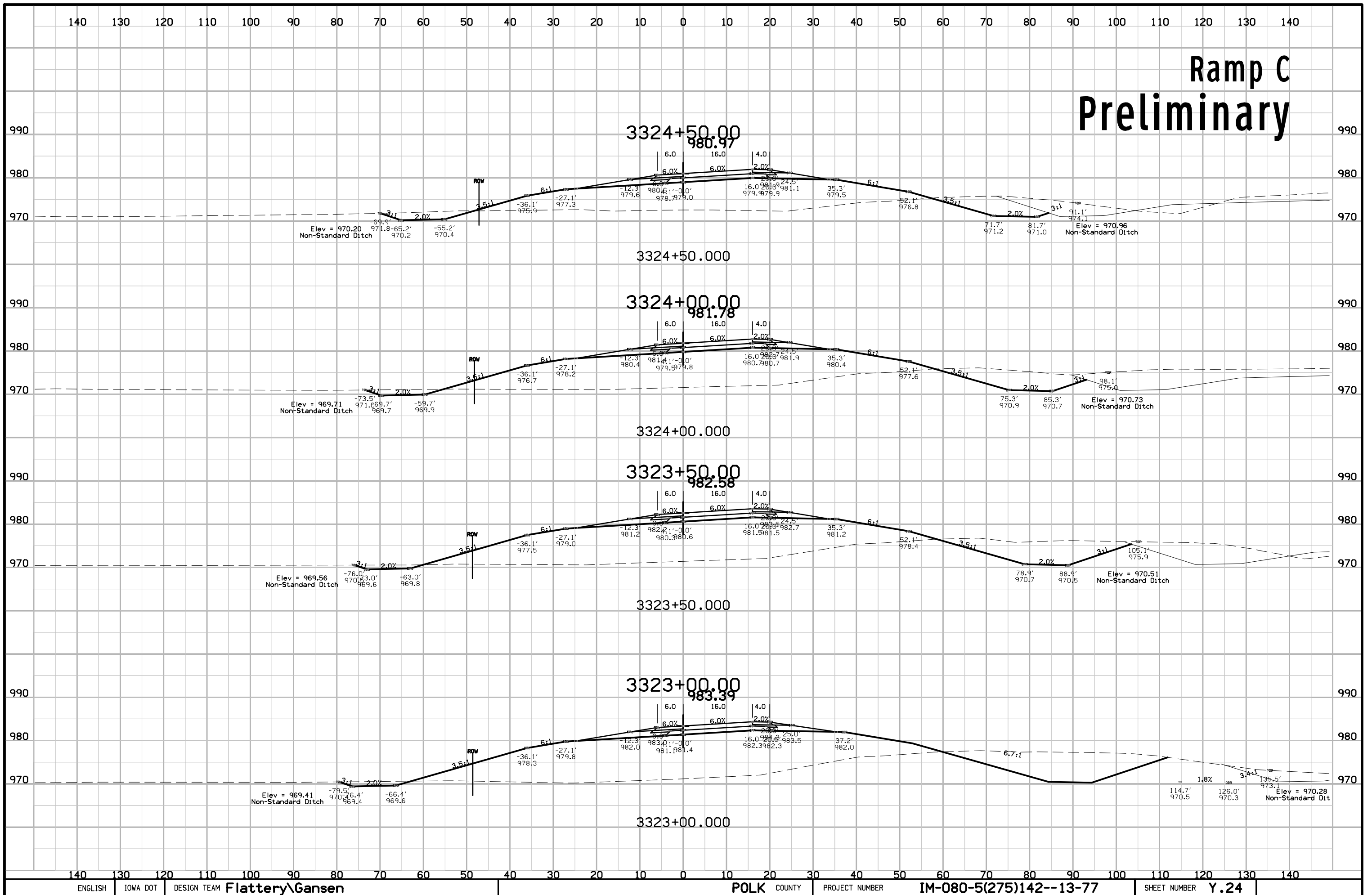
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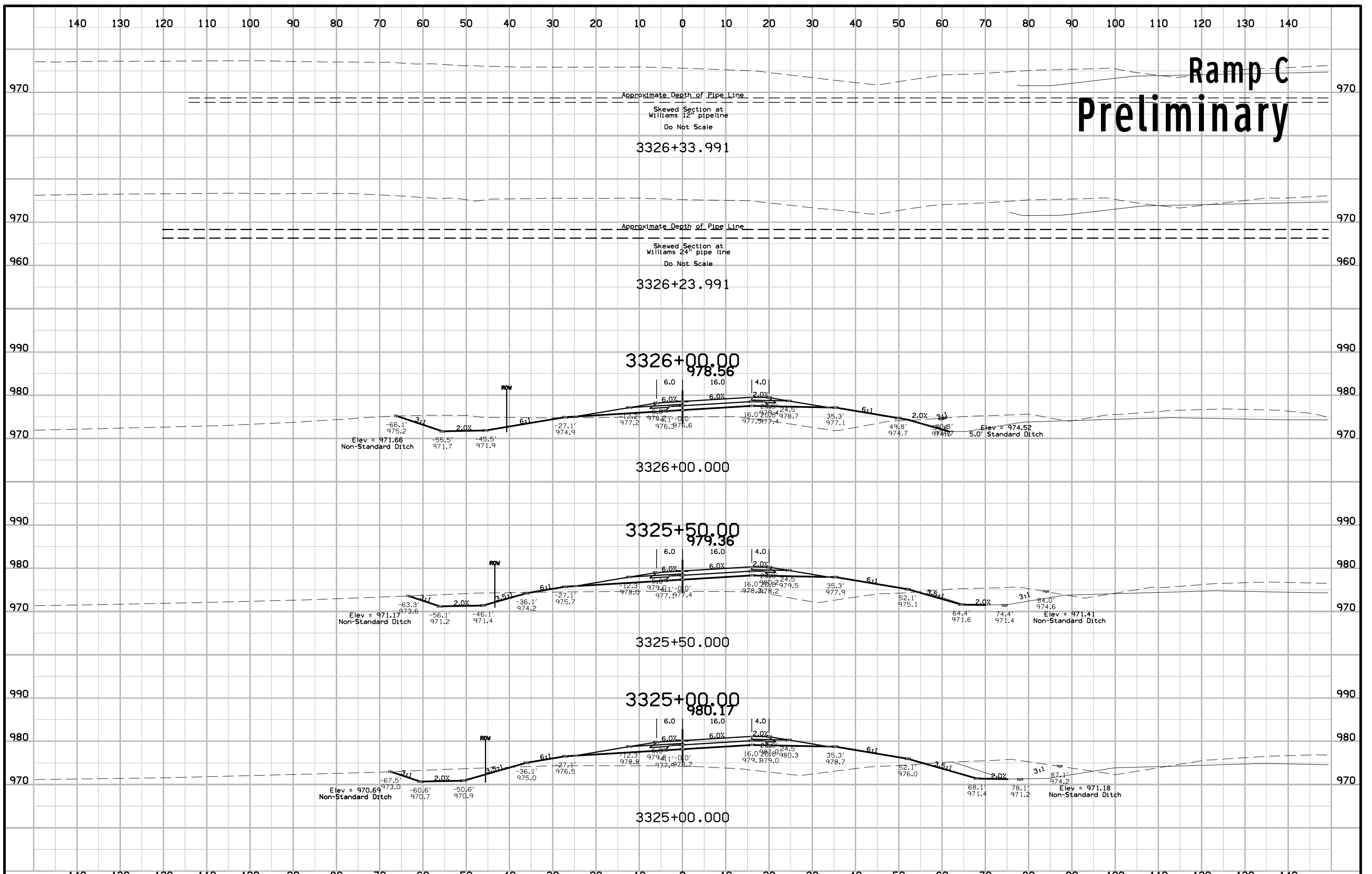
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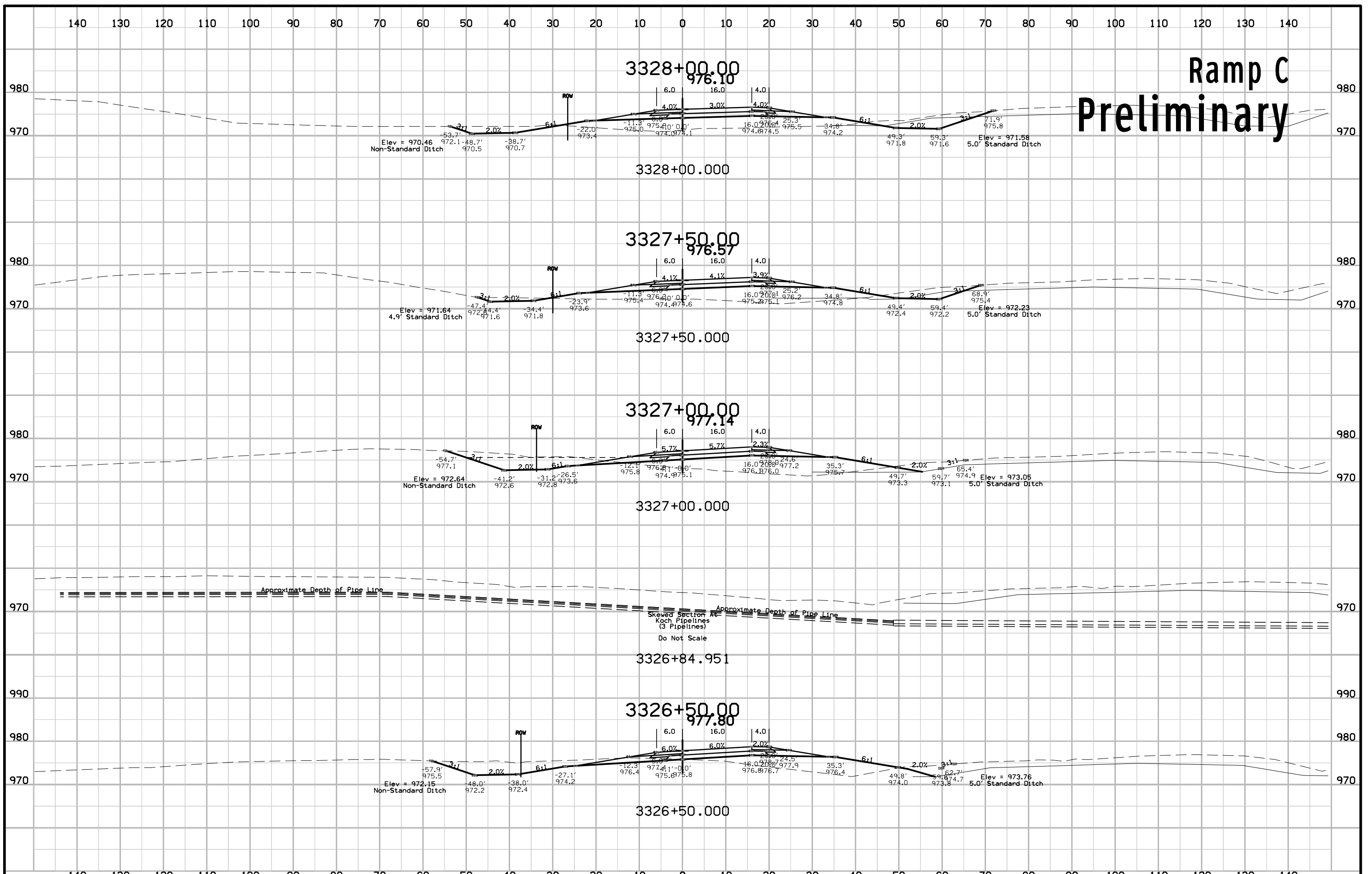
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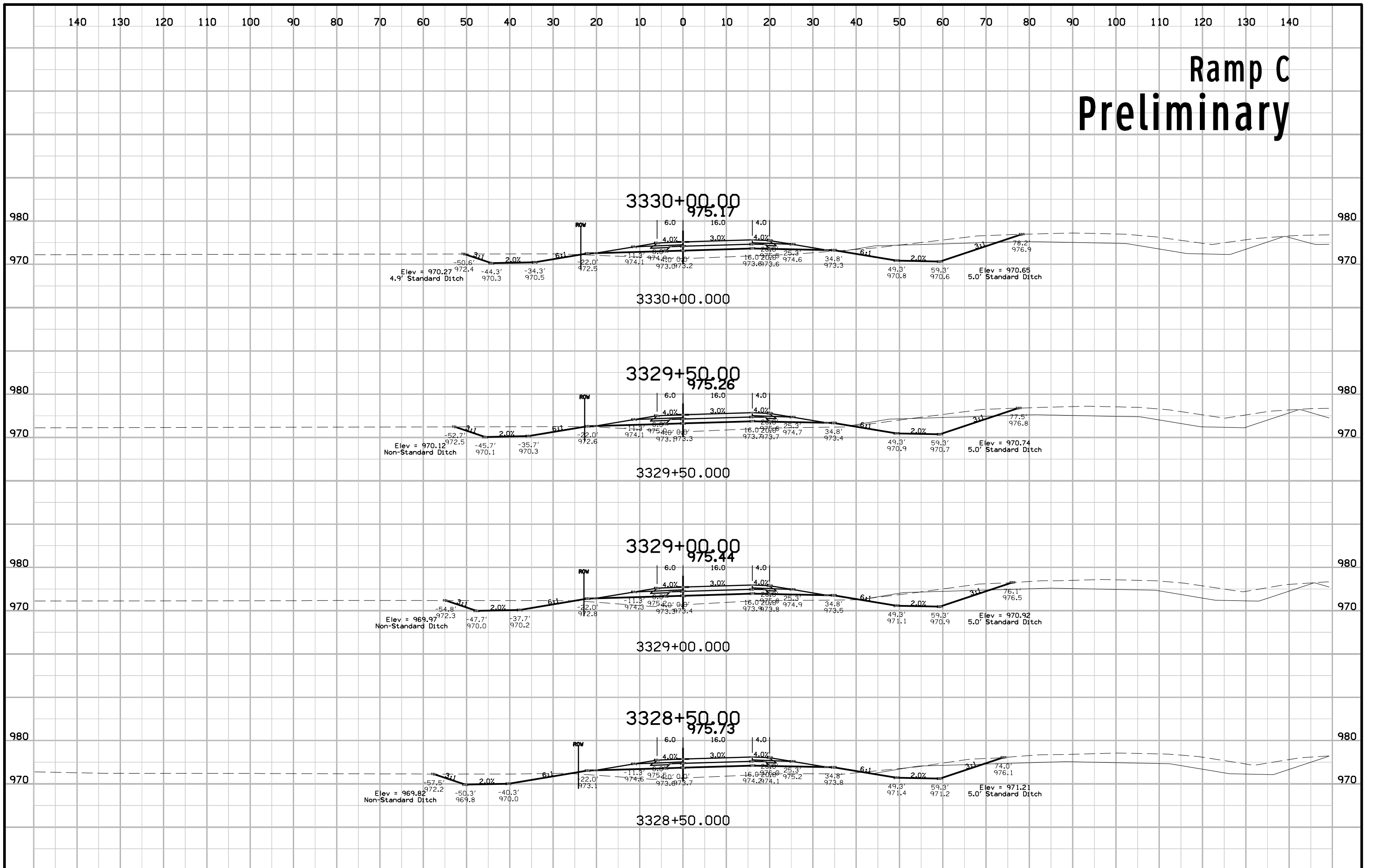
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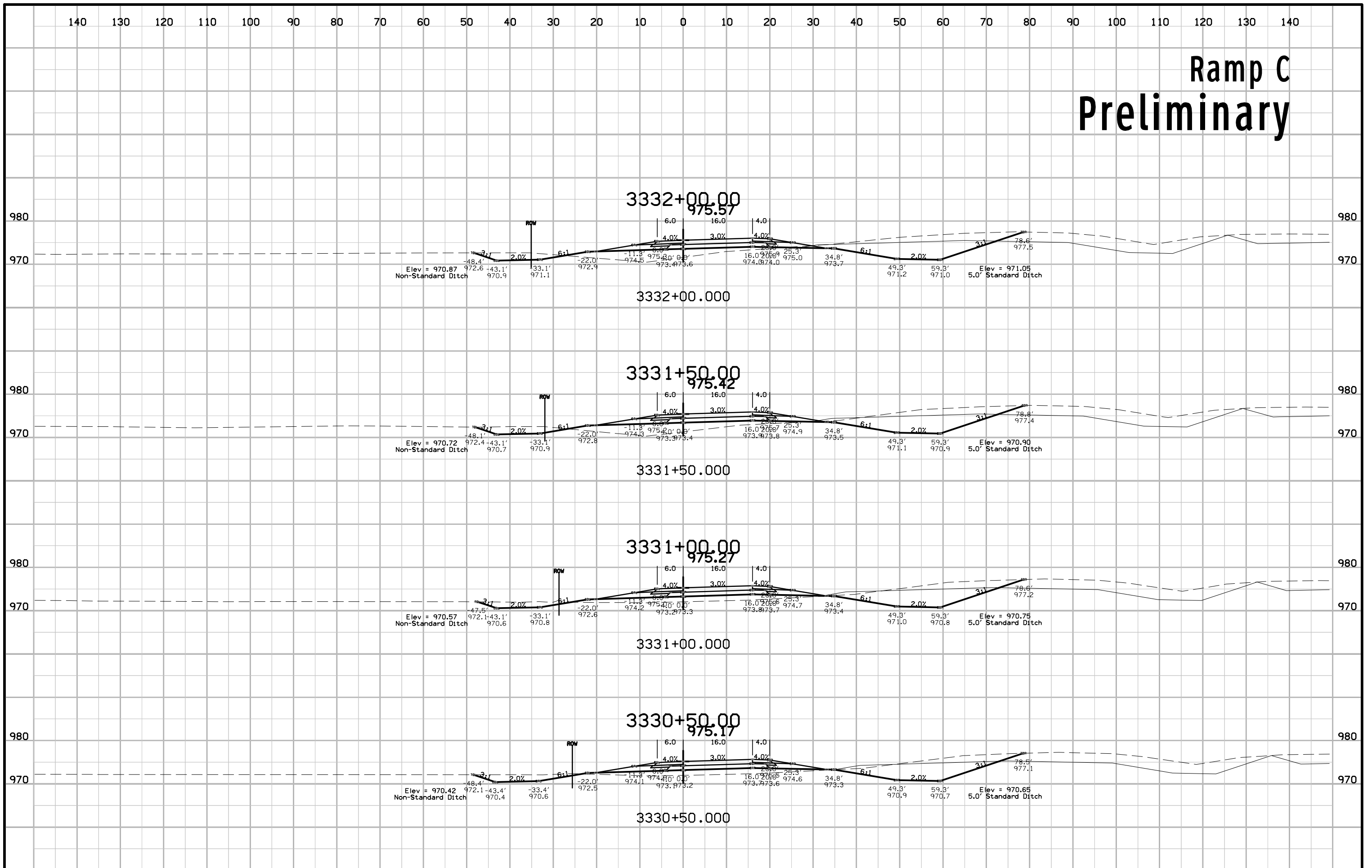
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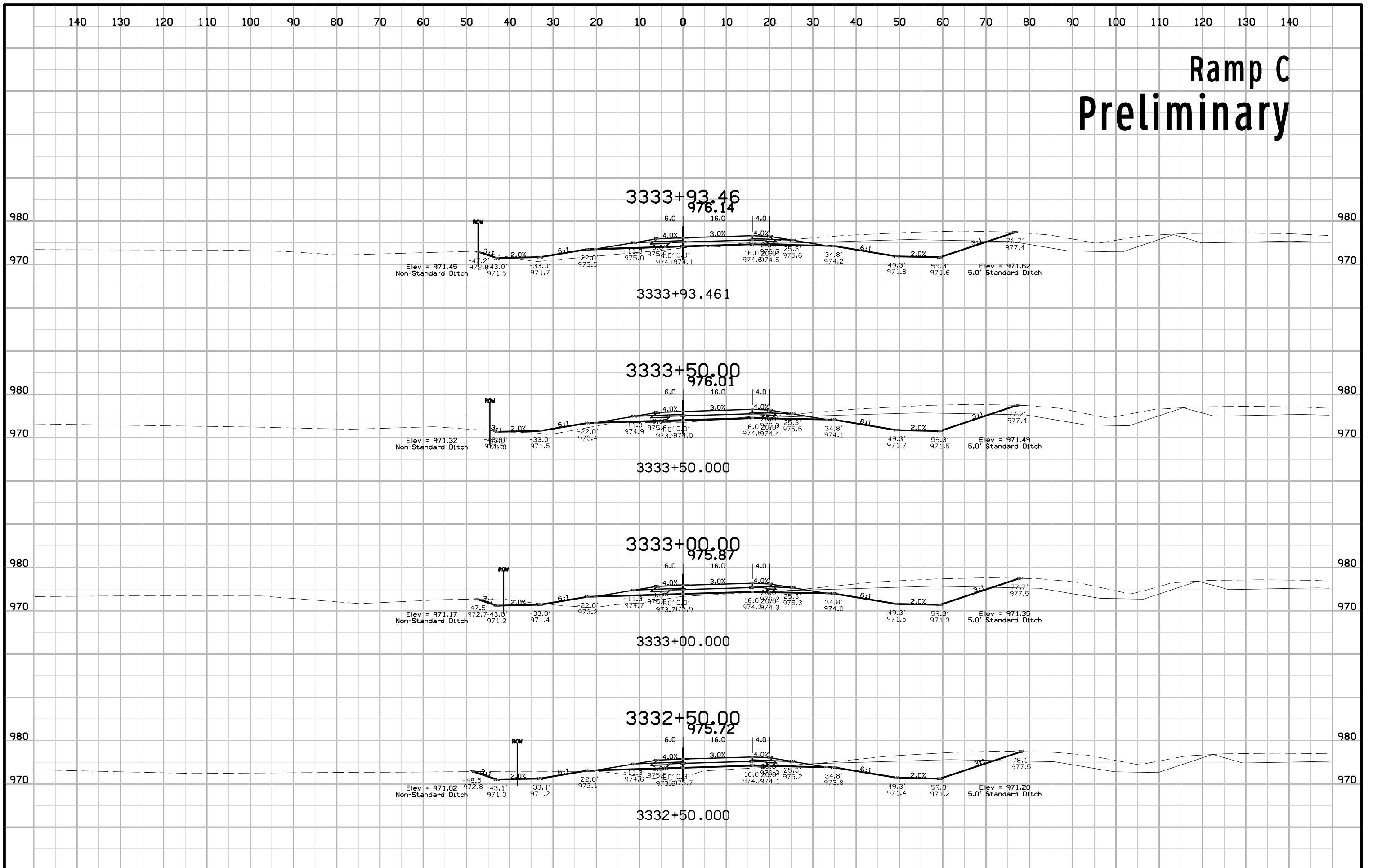
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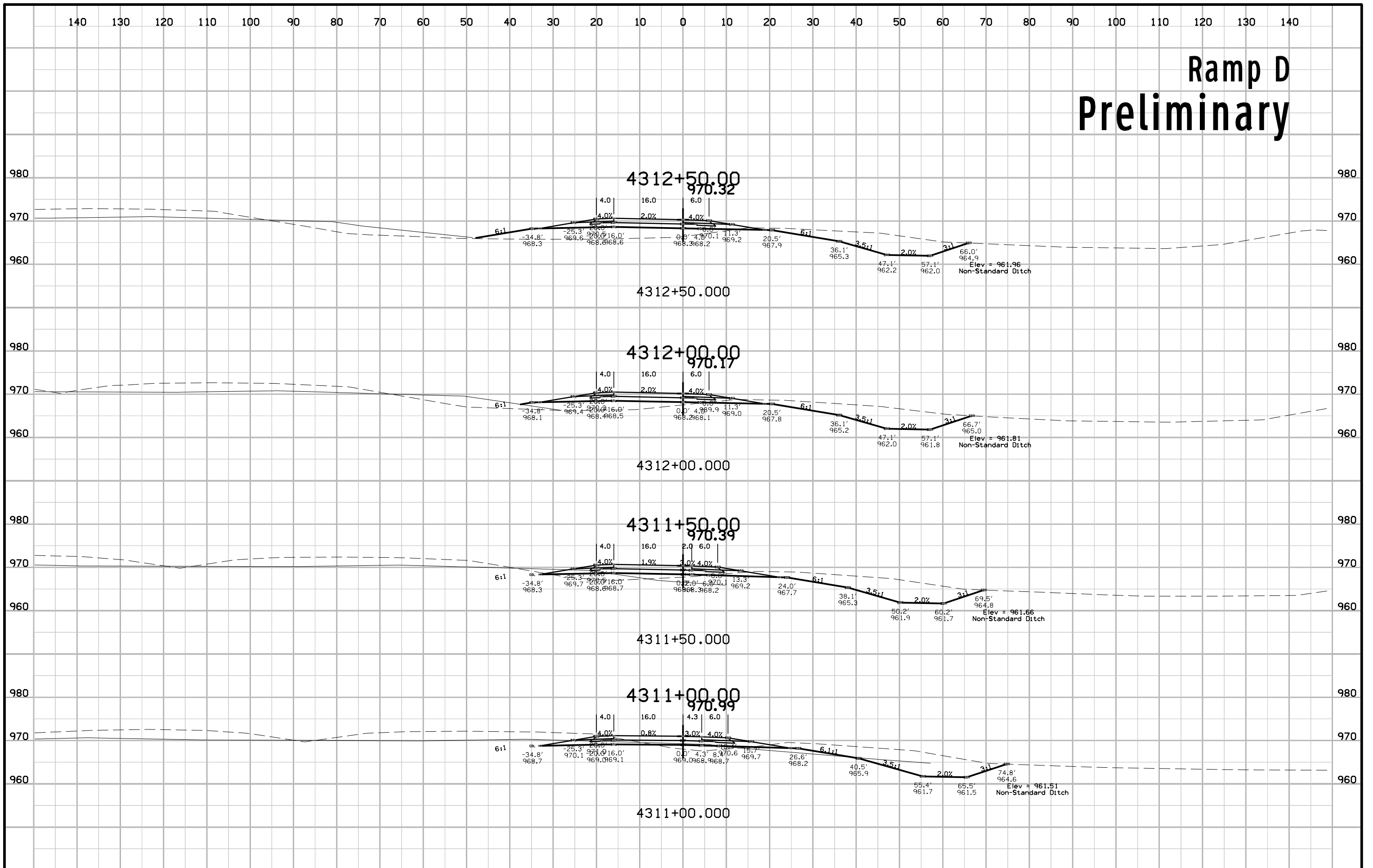
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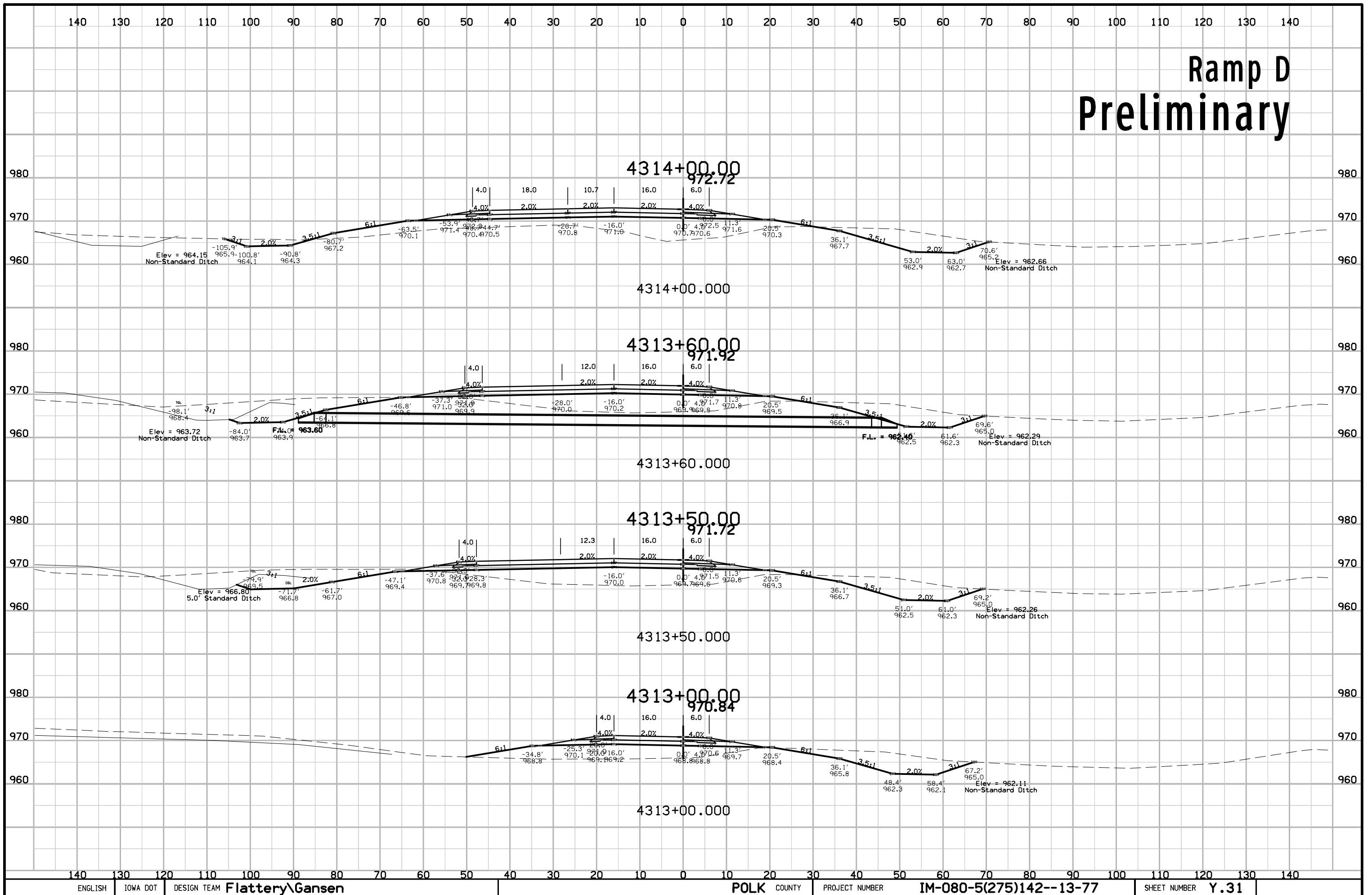
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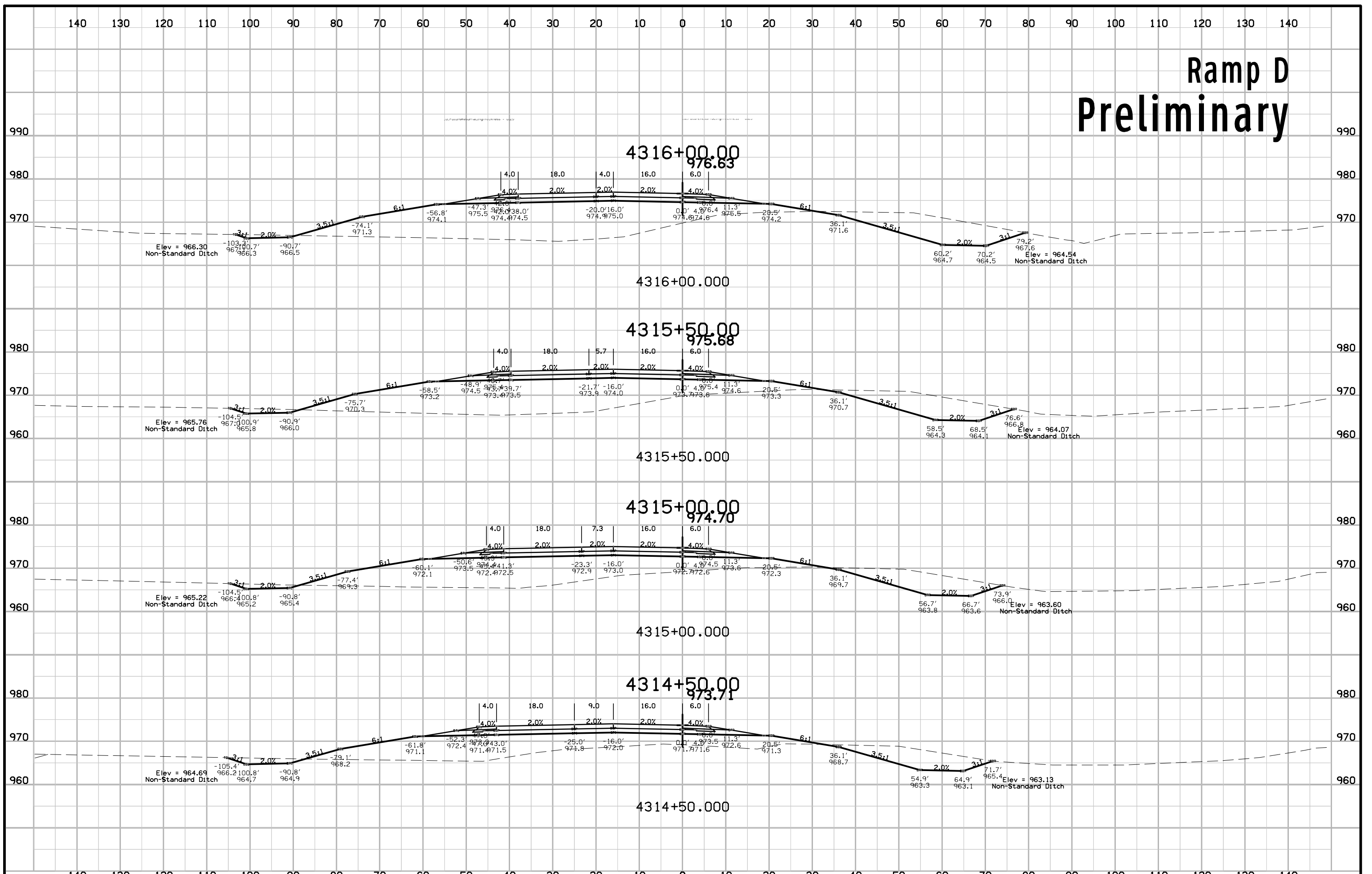
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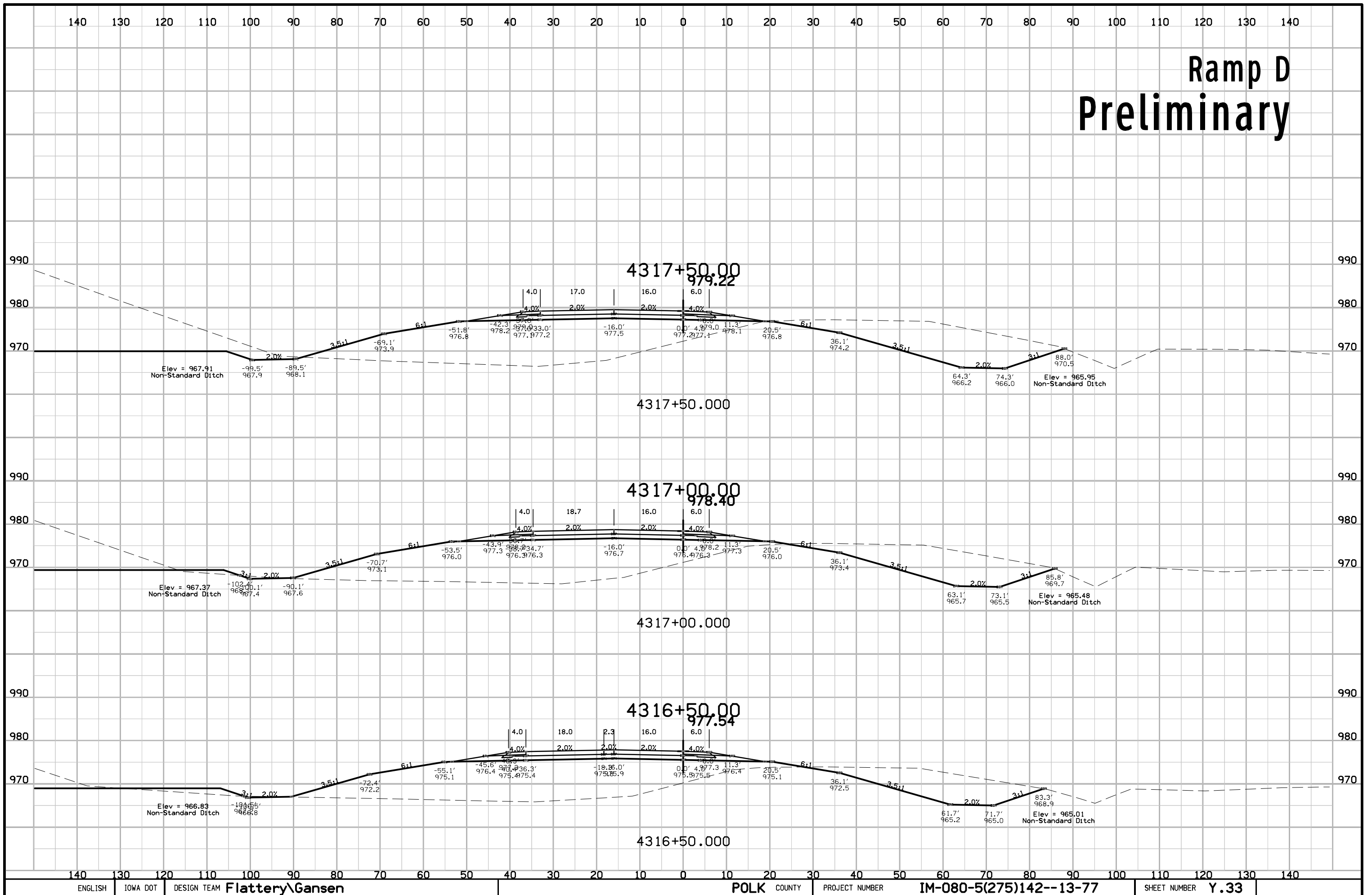
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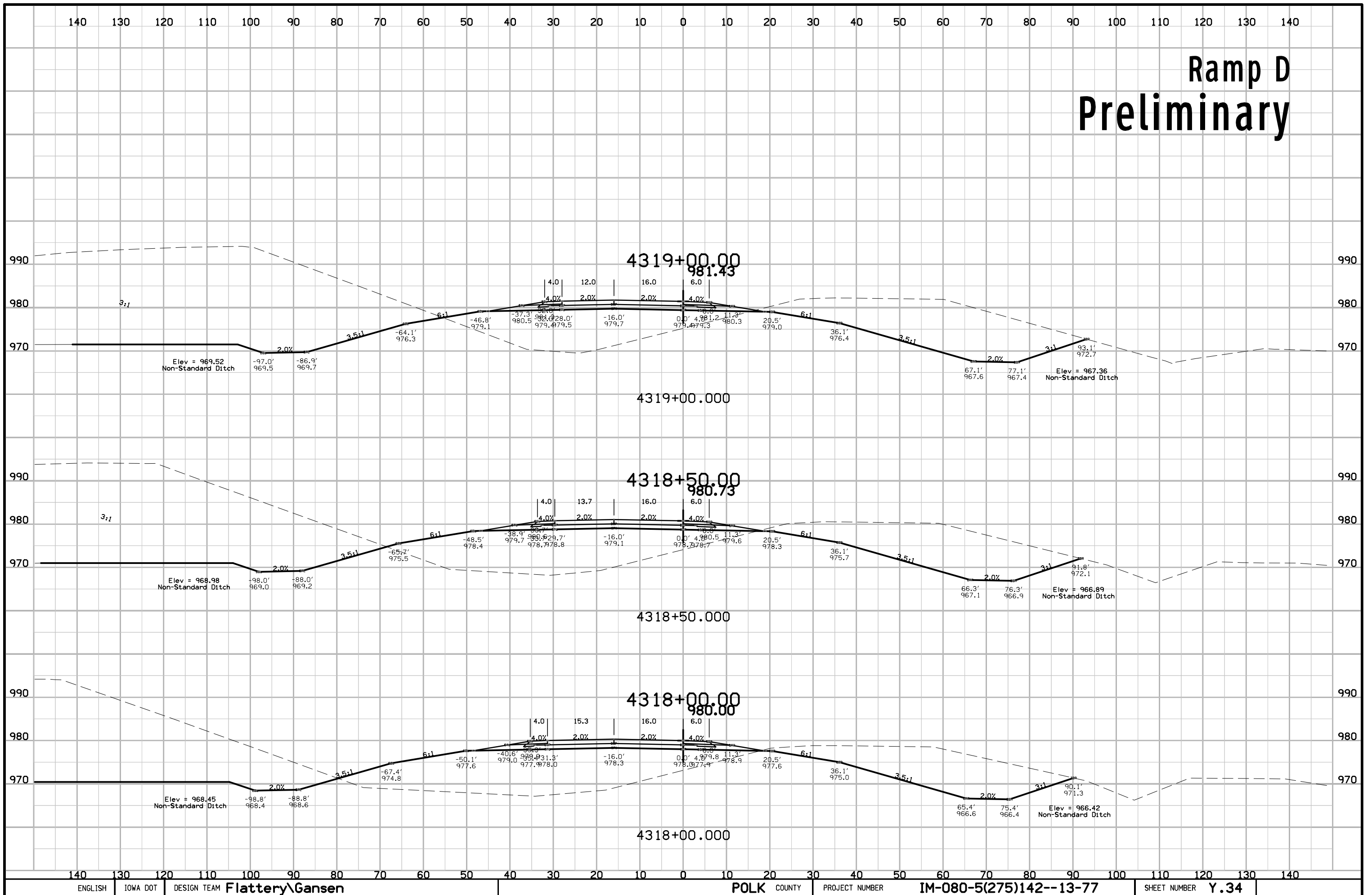
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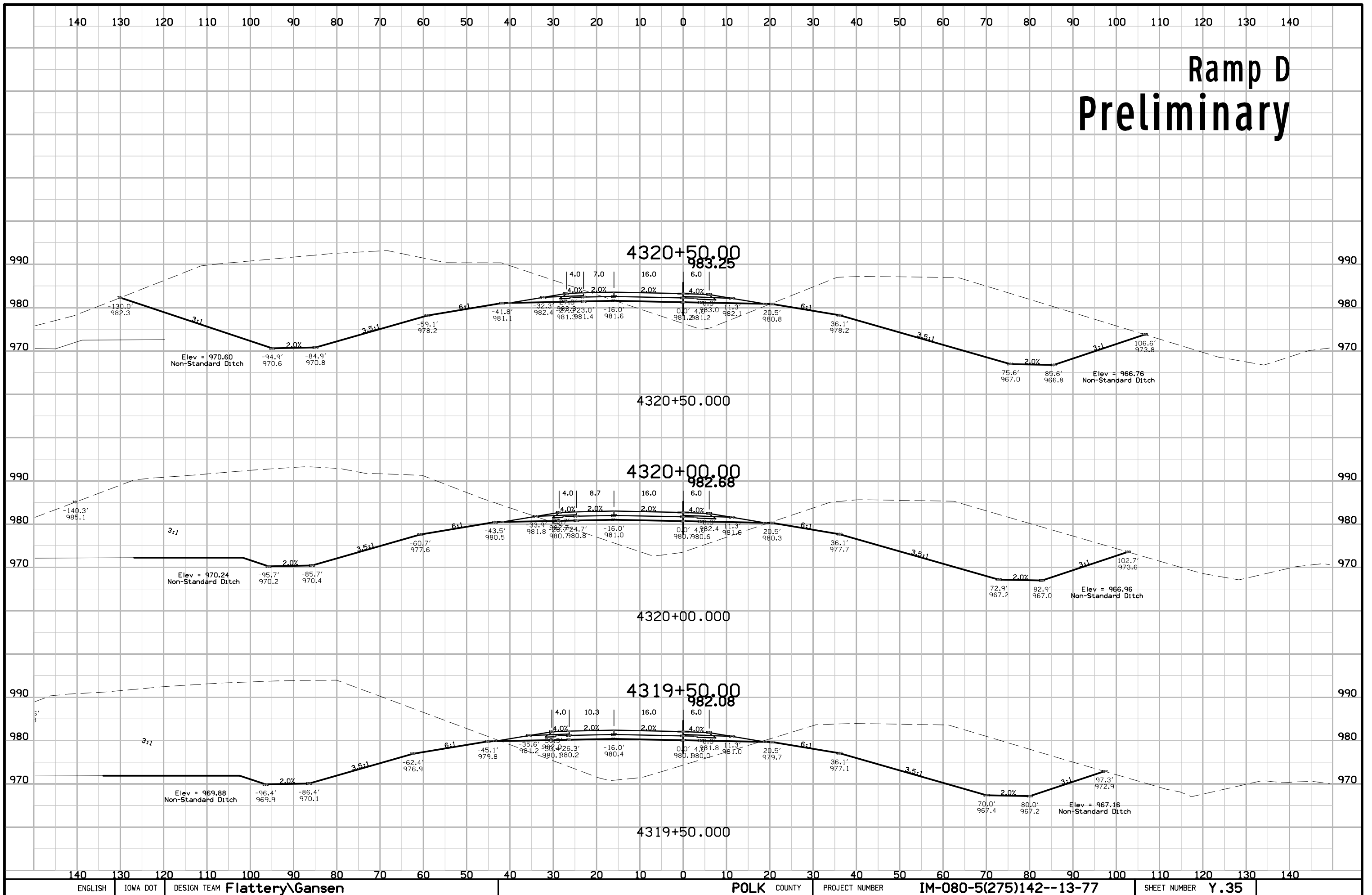
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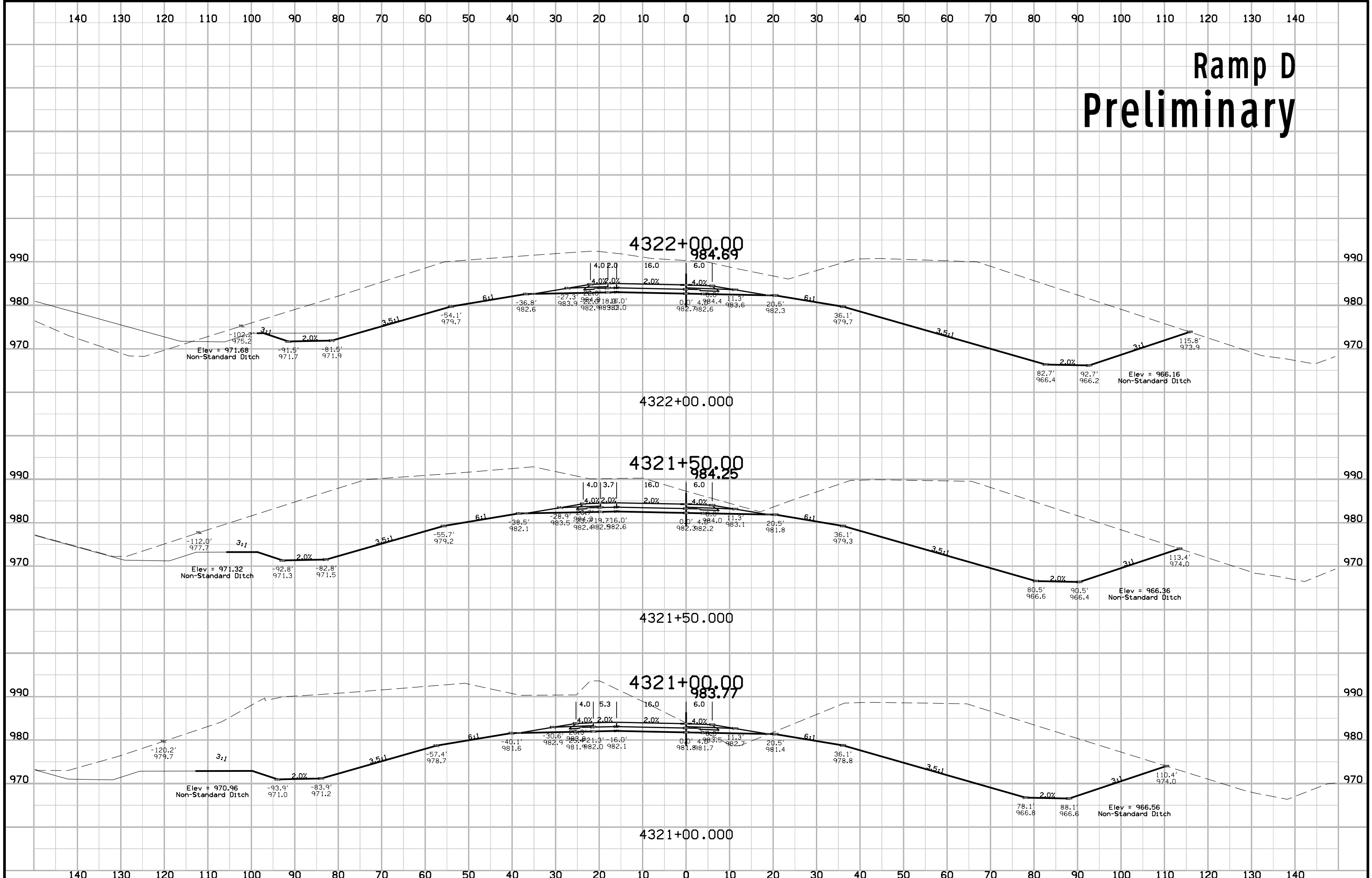
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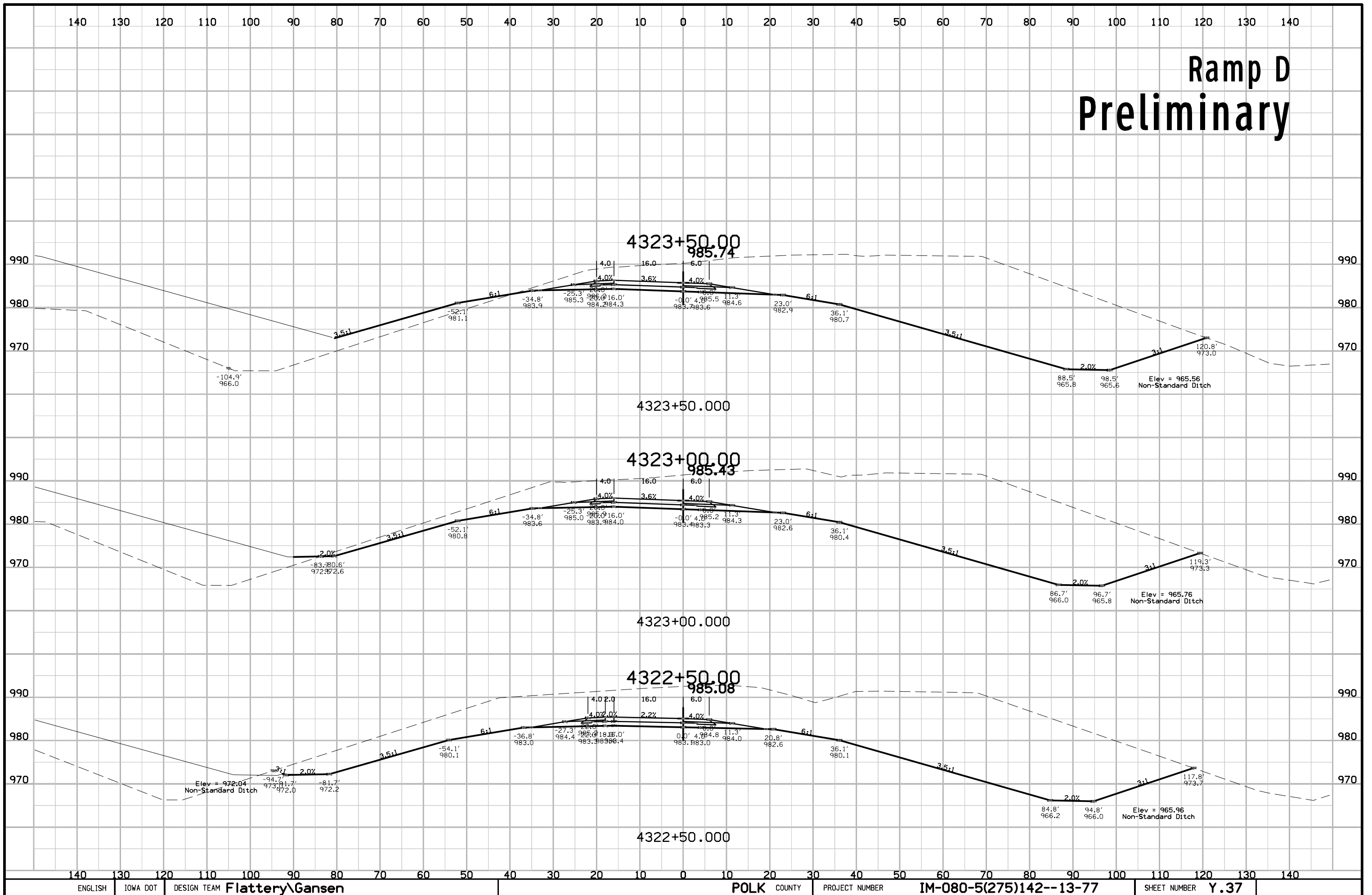
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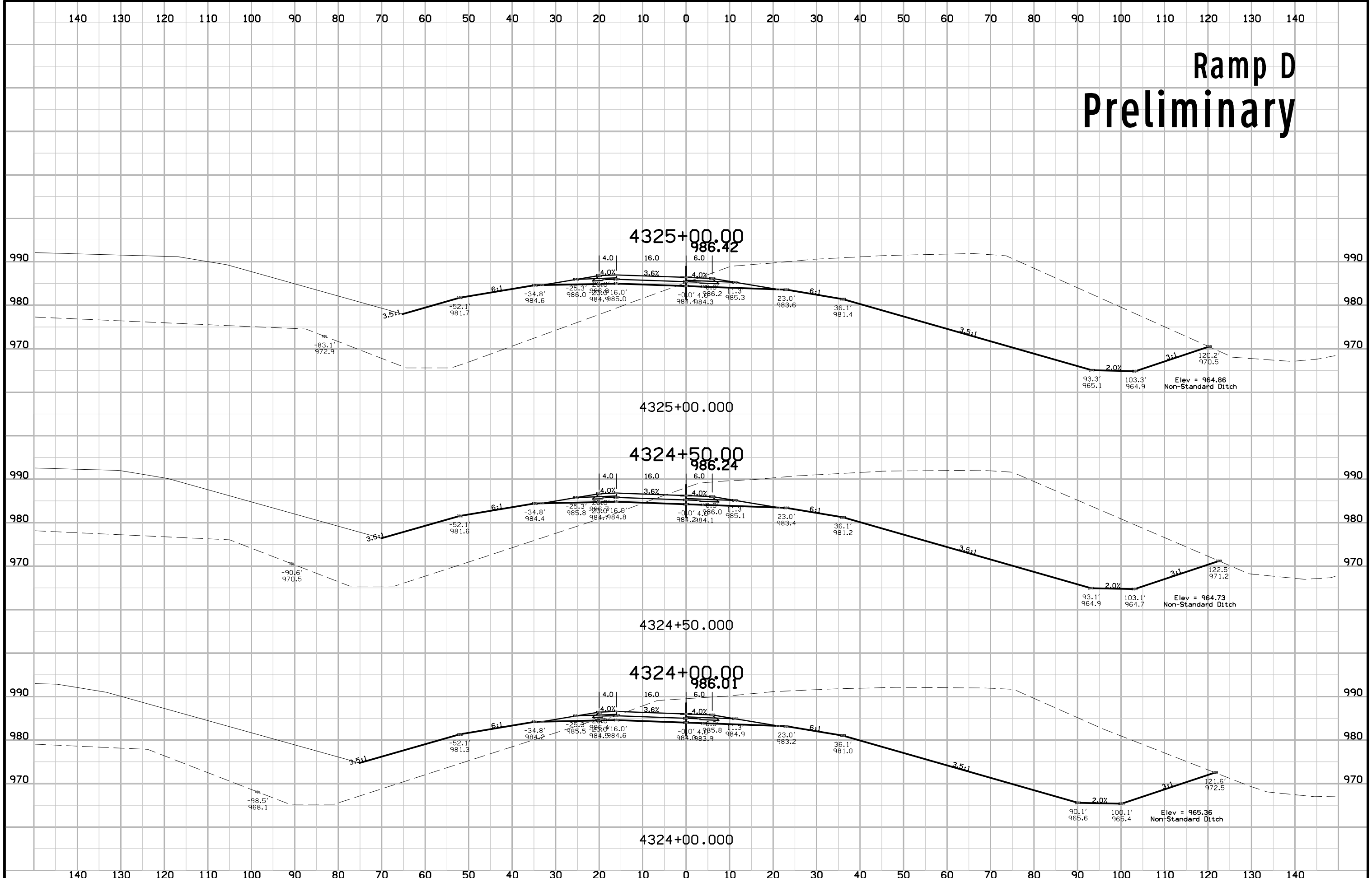
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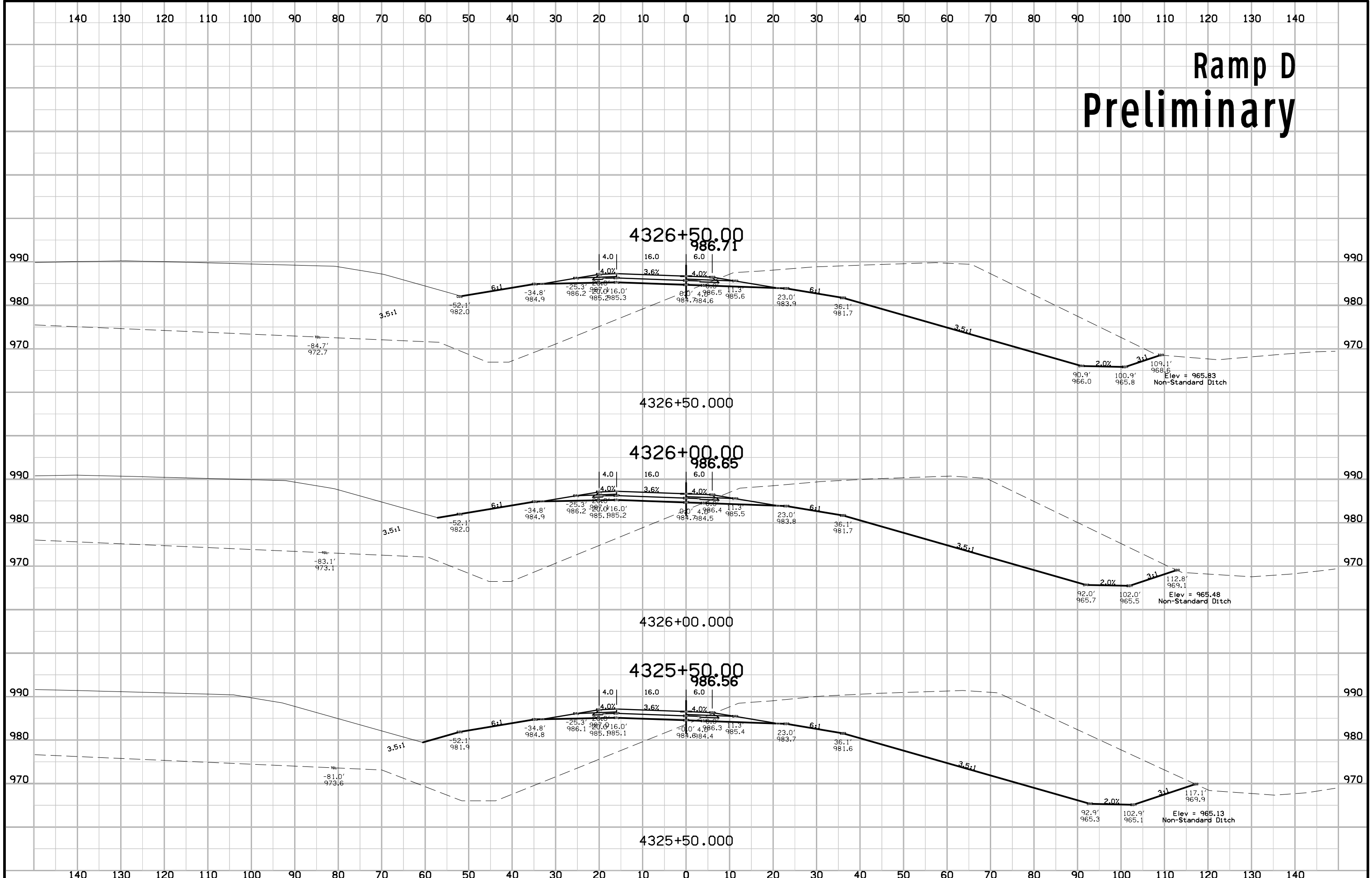
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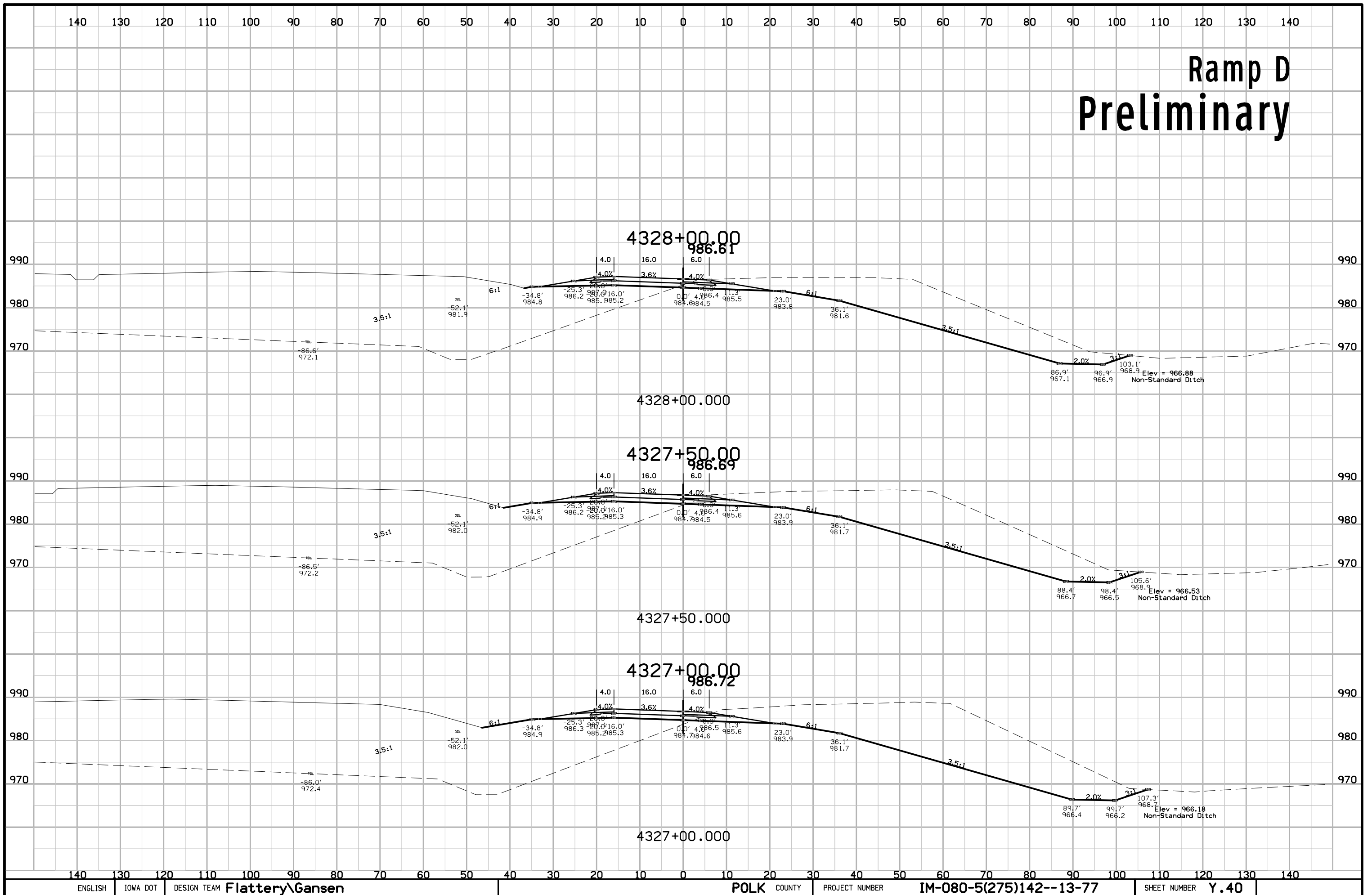
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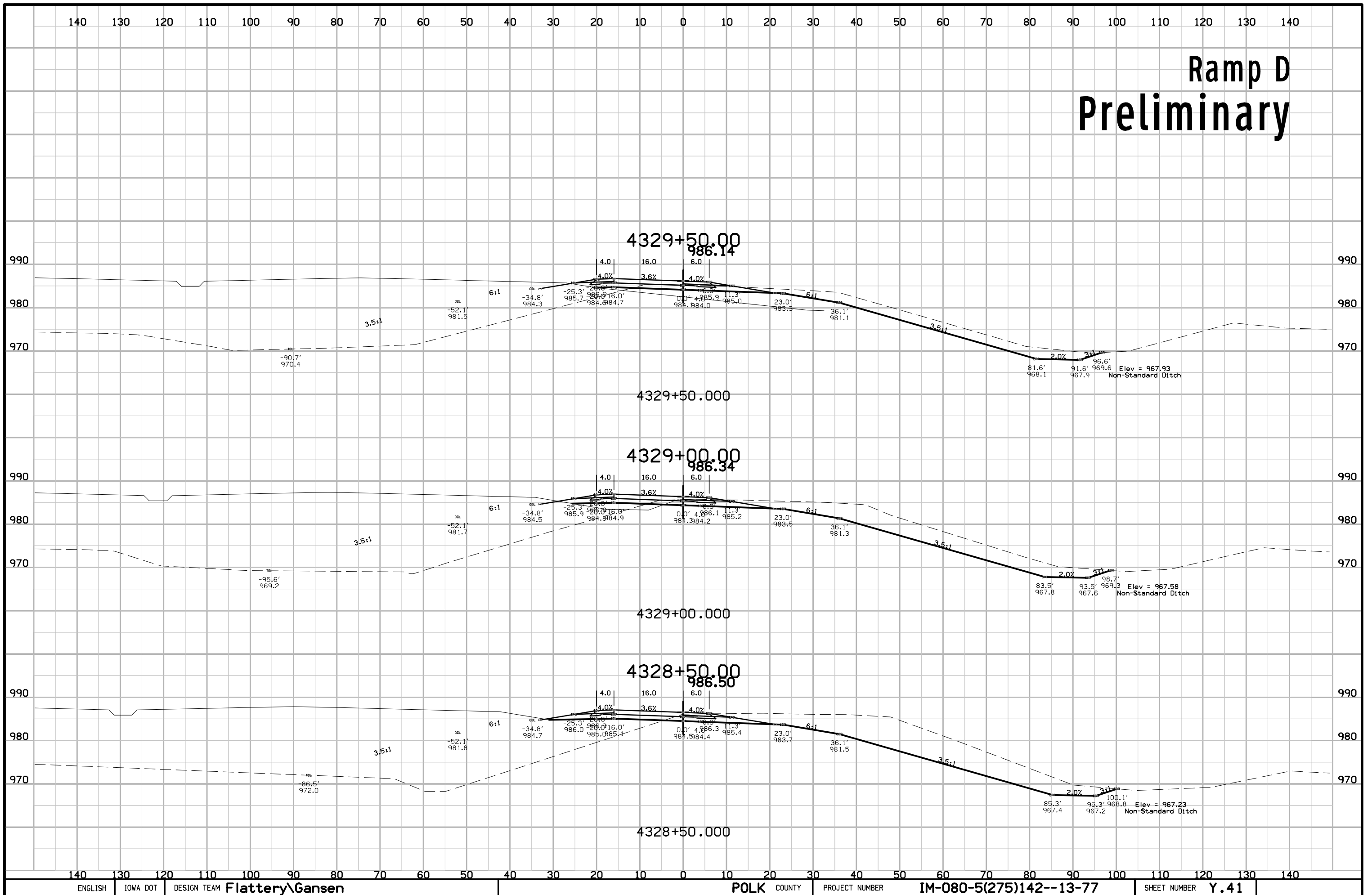
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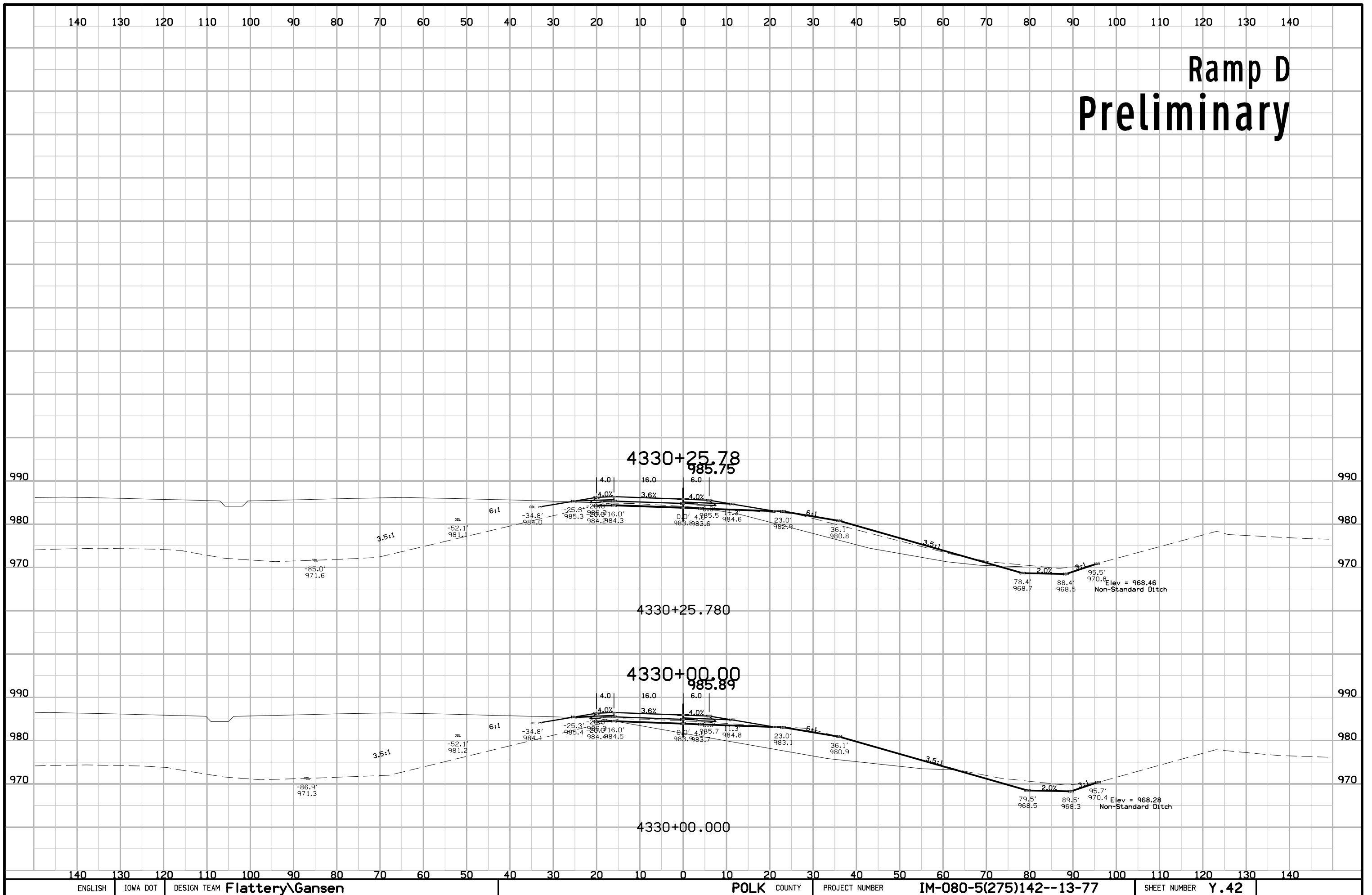
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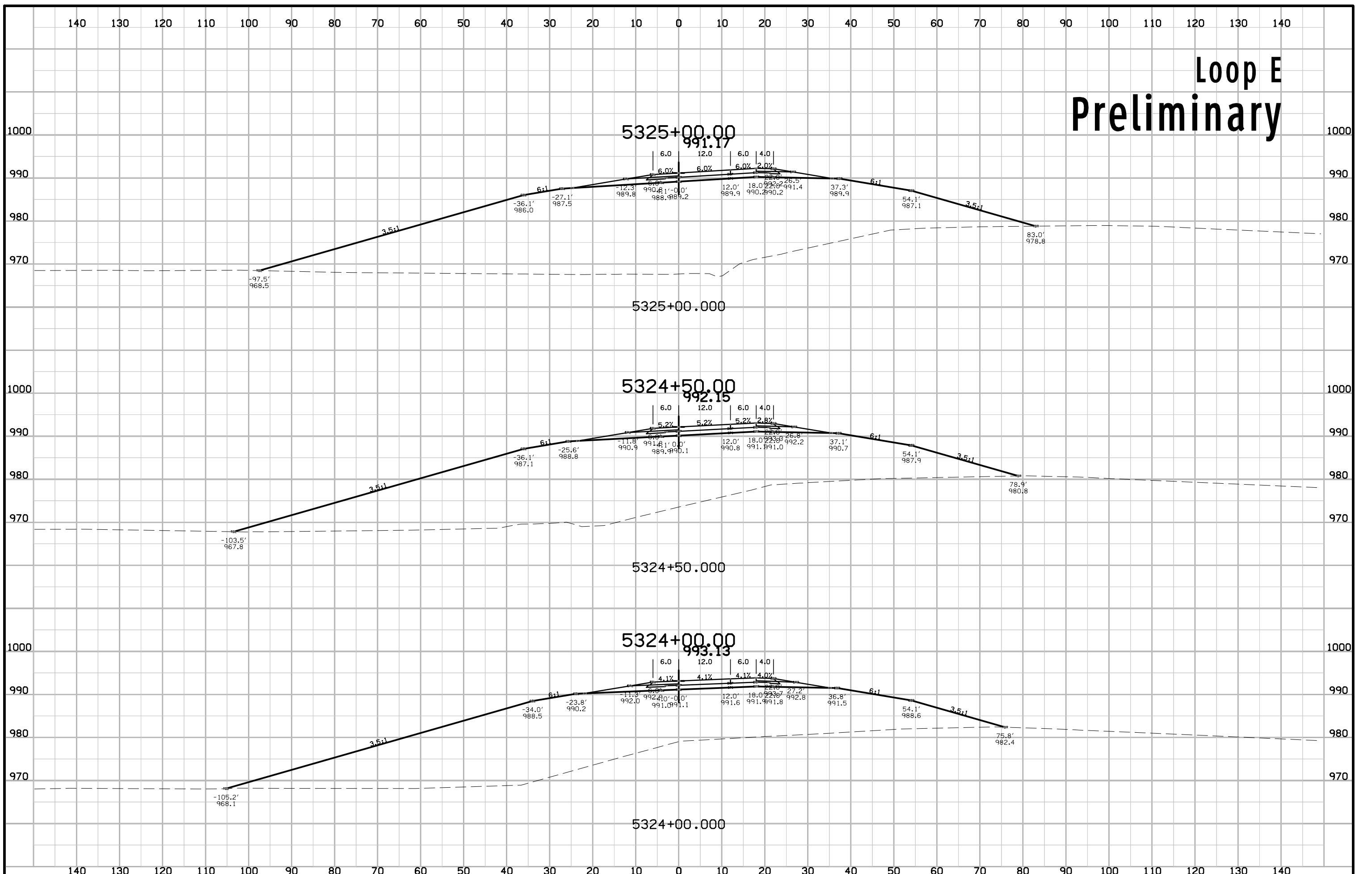
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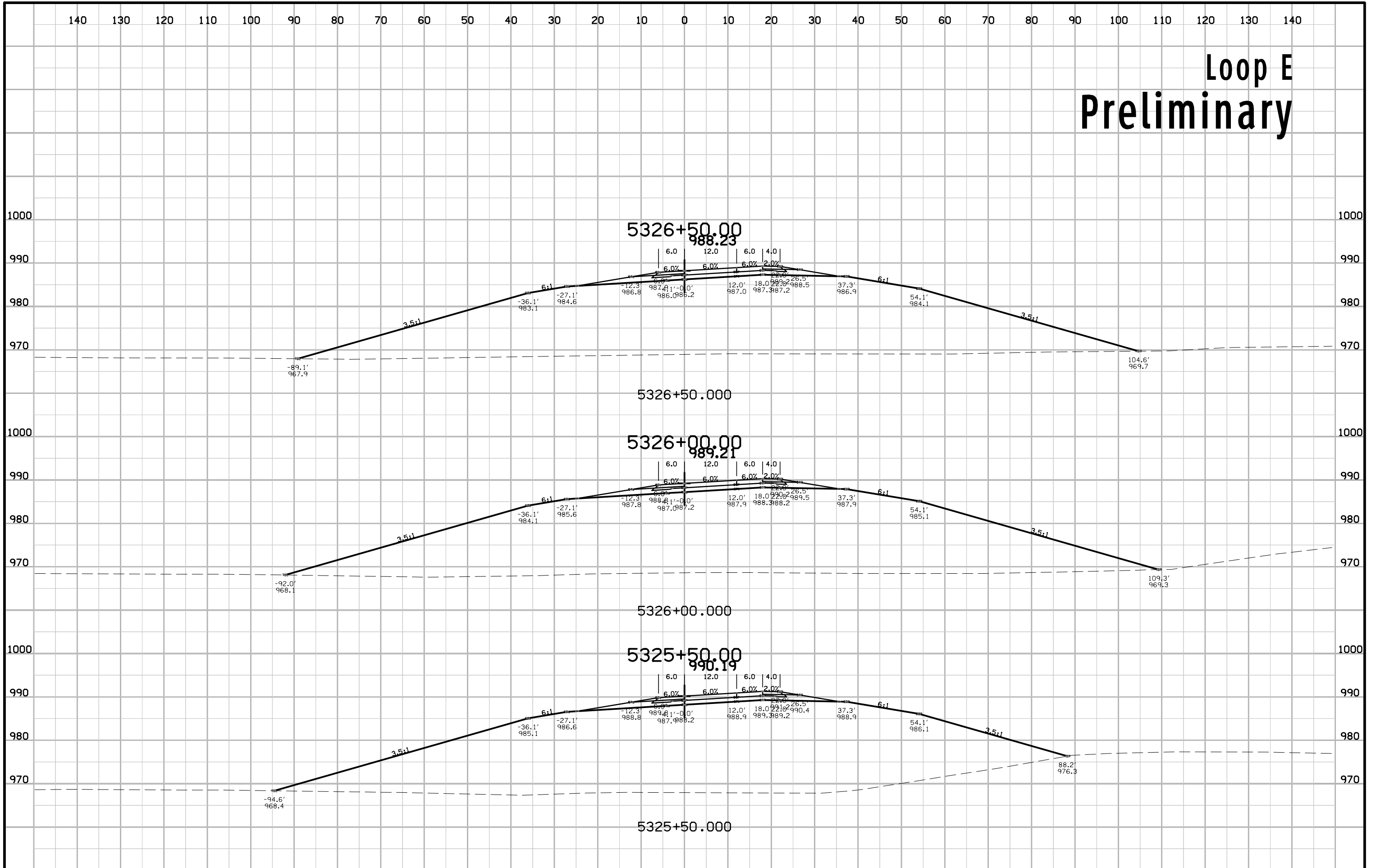
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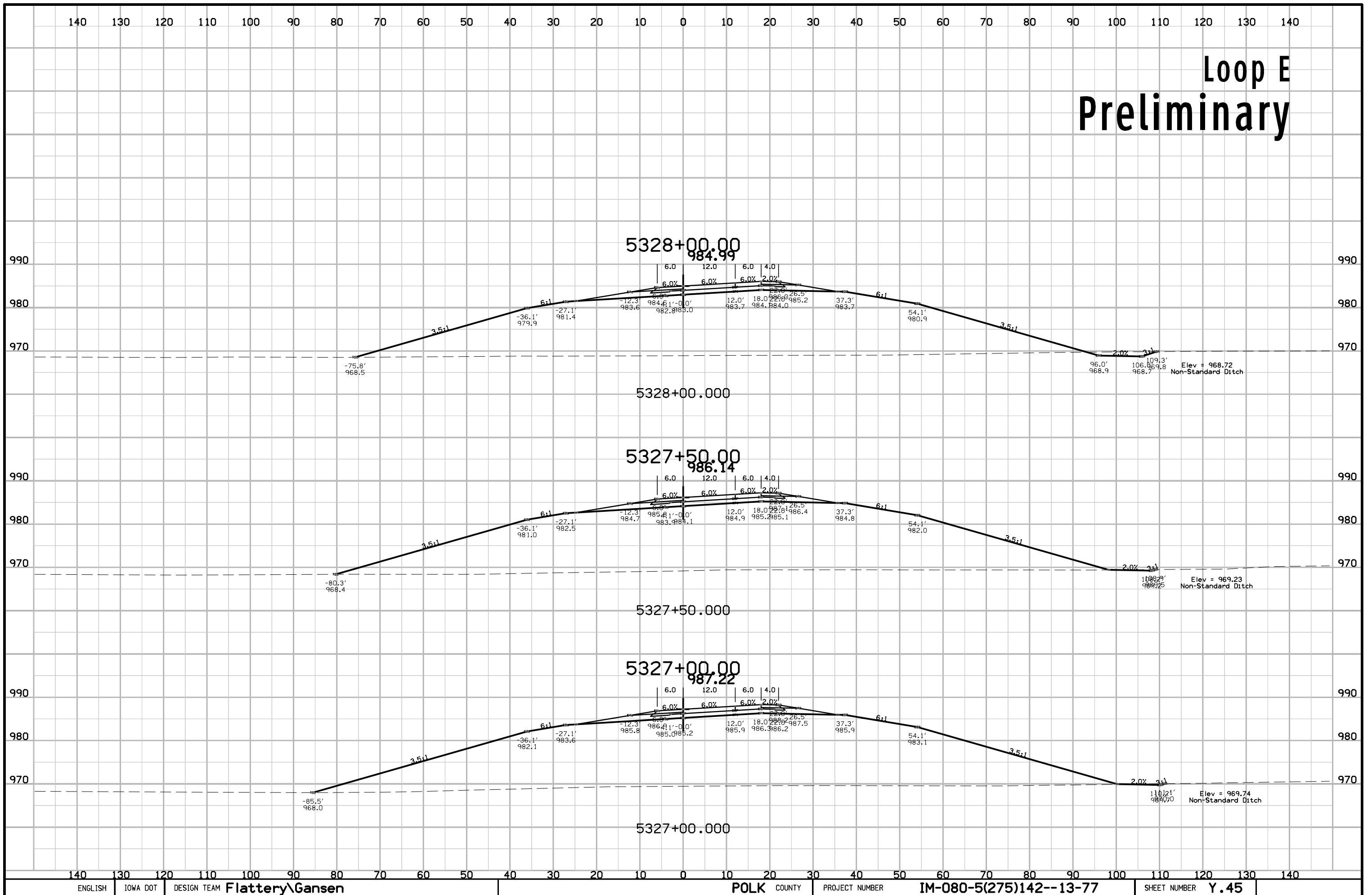
Loop E Preliminary



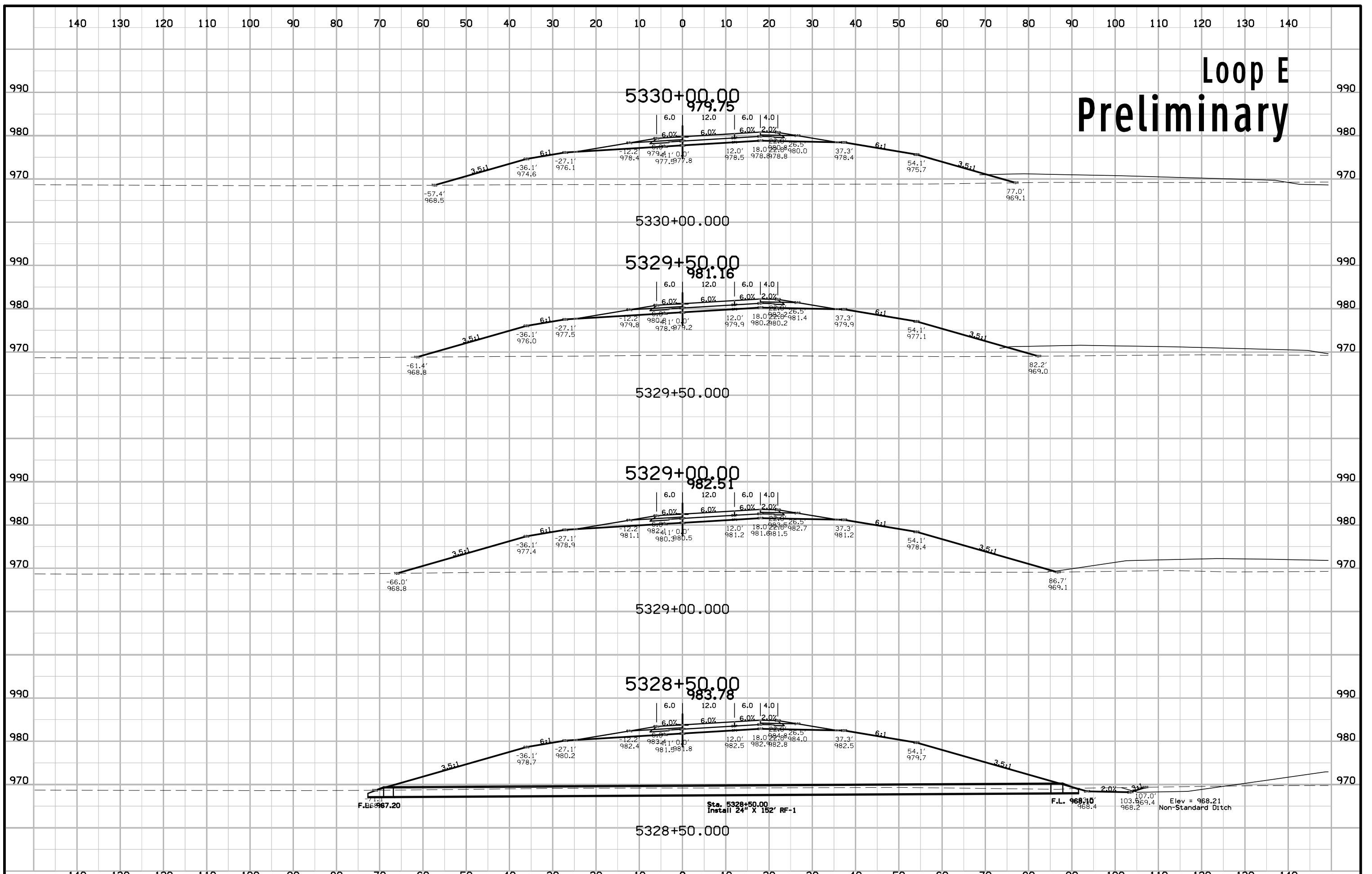
Loop E Preliminary



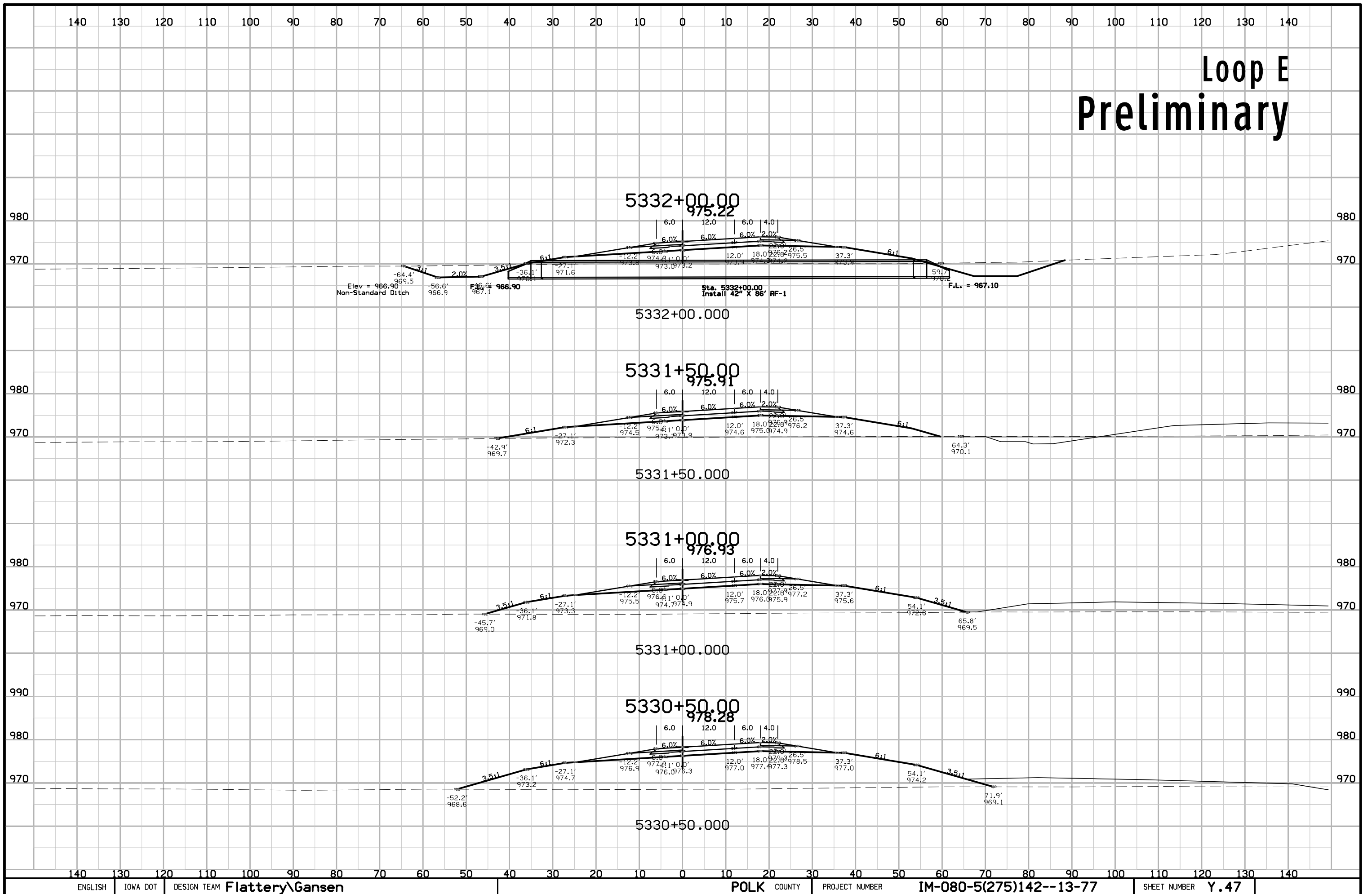
Loop E Preliminary



Loop E Preliminary



Loop E Preliminary



Loop E Preliminary

