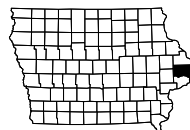


CLINTON COUNTY

BRIDGE REPLACEMENT - PPCB
BRF-030-9(186)--38-23

LETTING DATE
10/15/2024



INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 4	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
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 14	US 30
G Sheets	Survey Sheets
G.1 - 4	Reference Ties and Bench Marks
G.5	Horizontal Control Tab. & Super for all Alignments
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
J.1	Staging Notes
J.2	Traffic Control & Staging Legend & Symbol Info. Sheet
J.3 - 23	Traffic Control & Staging Sheets
R Sheets	Erosion Control Sheets
RC.1 - 3	Est. Quantities, PPP, General Notes and Tabulations
RR.1	Erosion Control Legend and Symbol Information Sheet
RR.2 - 15	Drainage Basin and Erosion Control Device Maps
U Sheets	500 Series, Mod.Stds. and Detail Sheets
U.1	Detail Sheet
V Sheets	Bridge and Culvert Situation Plans
* V.1 - 8	Bridge and Culvert Situation Plans
W Sheets	Mainline Cross Sections
* W.1	Cross Sections Legend & Symbol Information Sheet
* W.2 - 58	Mainline Cross Sections
	* Color Plan Sheets



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
CLINTON COUNTY
BRIDGE REPLACEMENT - PPCB
 Wapsipinicon River 1.5 mi E of Co Rd Y4E and
 E Channel Wapsipinicon River 2.3 mi E of Co Rd Y4E and
 Calamus Drainage Ditch 1.5 mi W of Co Rd Y44
SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.
 Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



REVISIONS

NO.	DESCRIPTION

TOTAL	
	134
PROJECT IDENTIFICATION NUMBER	
18-23-030-030	
PROJECT NUMBER	
BRF-030-9(186)--38-23	
R.O.W. PROJECT NUMBER	
NHSN-030-9(187)--2R-23	

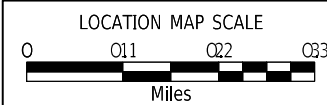
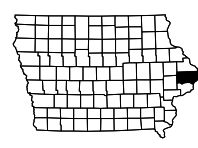
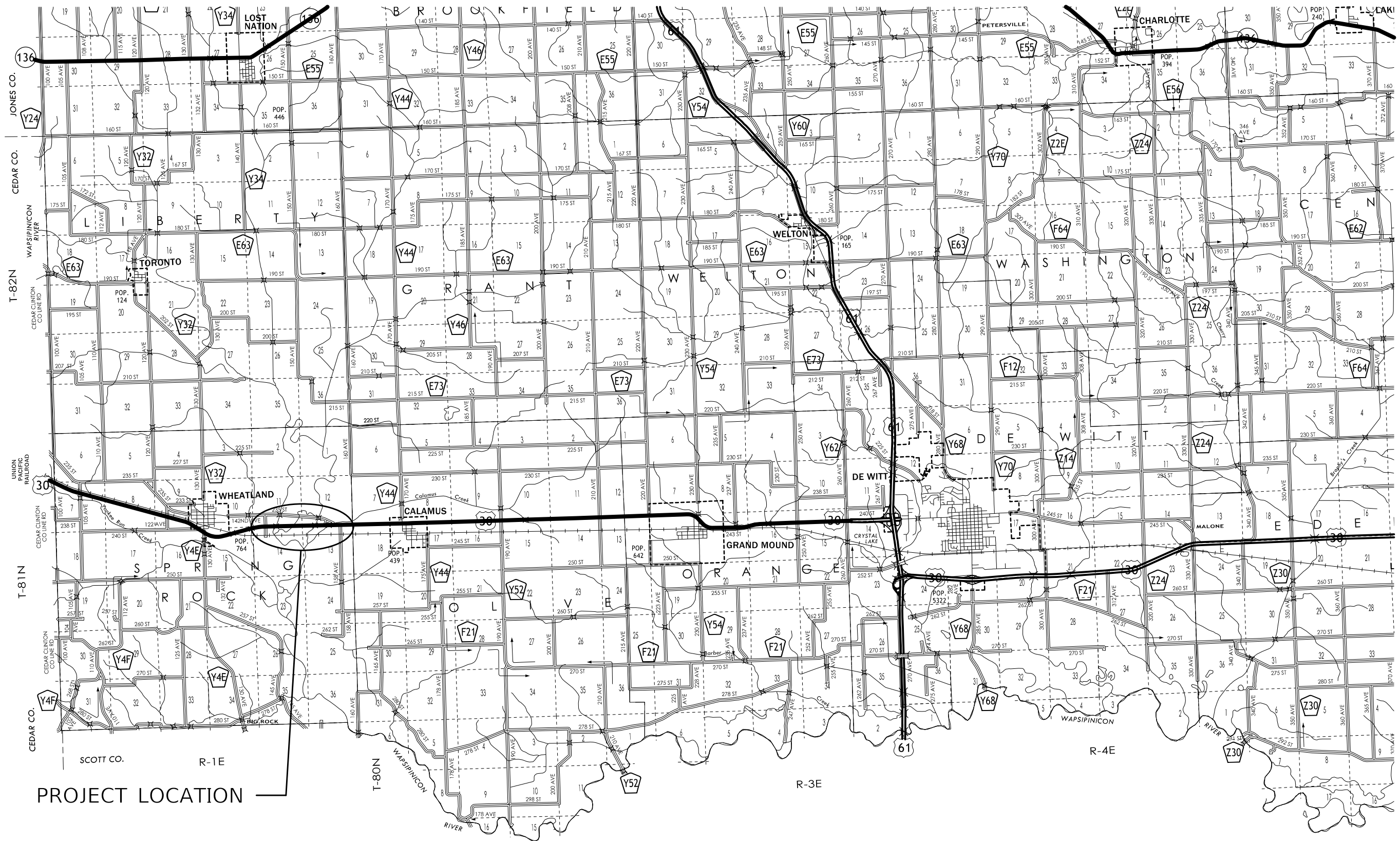
DESIGN DATA RURAL	
2024 AADT	3,100 V.P.D.
2044 AADT	3,800 V.P.D.
20 -- DHV	-- V.P.H.
TRUCKS	20 %
Total Design ESALs	3,200,000

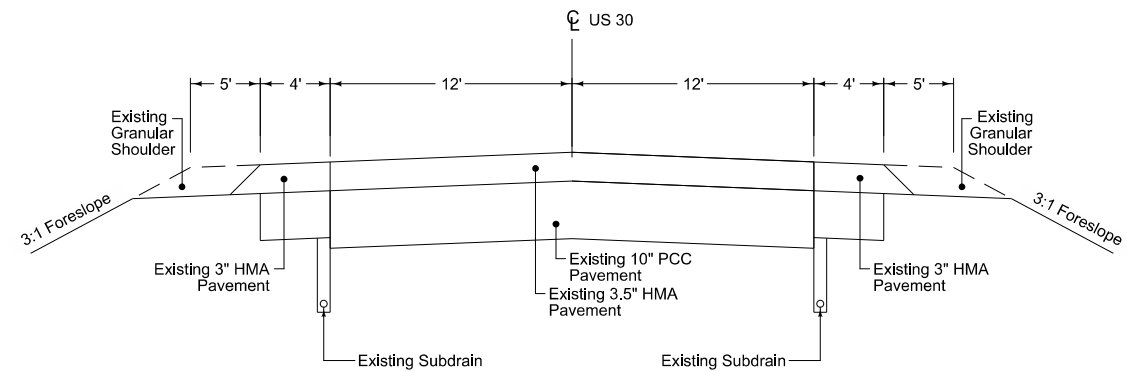
INDEX OF SEALS			
SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	X	Primary Signature Block	X
X	X	X	X

PRELIMINARY PLANS

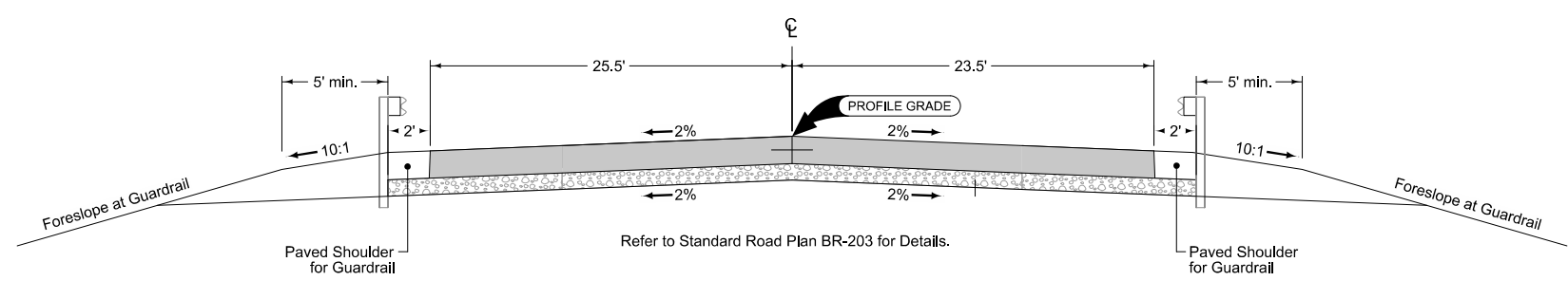
Subject to change by final design.

D5 PLAN – Date: 04-14-23





US 30 - EXISTING



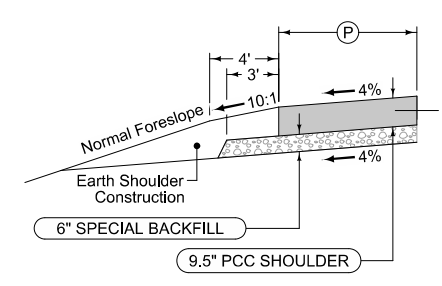
STATION TO STATION	
295+09.00	295+79.00
300+65.00	301+35.00
337+84.00	338+54.00
341+26.00	341+96.00
352+45.19	353+33.81
355+44.66	356+41.33

US 30 - BRIDGE APPROACHES

Full Depth PCC Shoulder

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

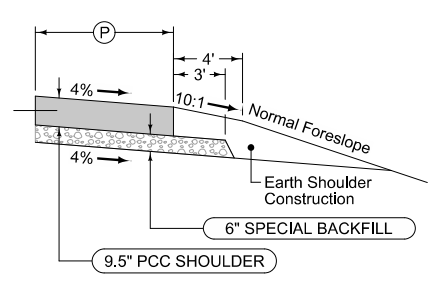
2_P_FullPCC_04-20-21		
STATION TO STATION		(P) Feet
290+00.00	291+85.10	10
291+85.10	294+60.10	14
294+60.10	295+09.00	15.5-13.5
301+35.00	302+54.39	13.5-15.5
302+54.39	305+29.39	14
305+29.39	334+39.61	10
334+39.61	337+14.60	14
337+14.00	337+84.00	15.5-13.5
341+96.00	343+15.40	13.5-15.5
343+15.40	351+93.37	14
351+93.37	352+45.20	15.5-13.5
356+41.33	357+64.19	13.5-15.5
357+64.19	360+39.19	14
360+39.19	363+00.00	10



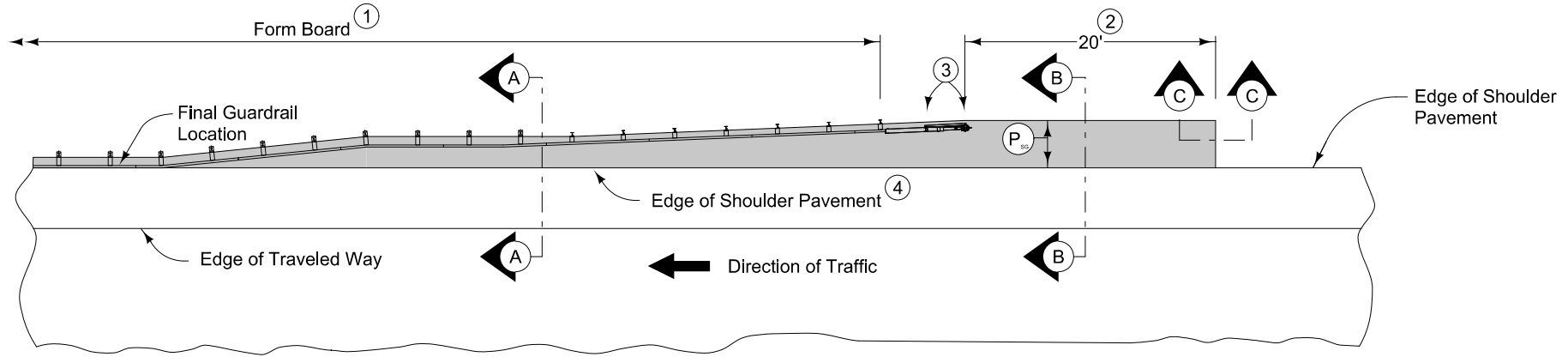
Full Depth PCC Shoulder

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

2_P_FullPCC_04-20-21		
STATION TO STATION		(P) Feet
290+00.00	293+89.60	10
293+89.60	295+09.00	13.5-11.5
301+35.00	302+04.40	11.5-13.5
302+04.40	336+59.60	10
336+64.60	337+84.00	13.5-11.5
341+96.00	342+65.40	11.5-13.5
342+65.40	351+22.40	10
351+22.40	352+45.20	13.5-11.5
356+41.33	356+93.21	11.5-13.5
356+93.21	363+00.00	10



US 30 - SHOULDERS



PLAN VIEW

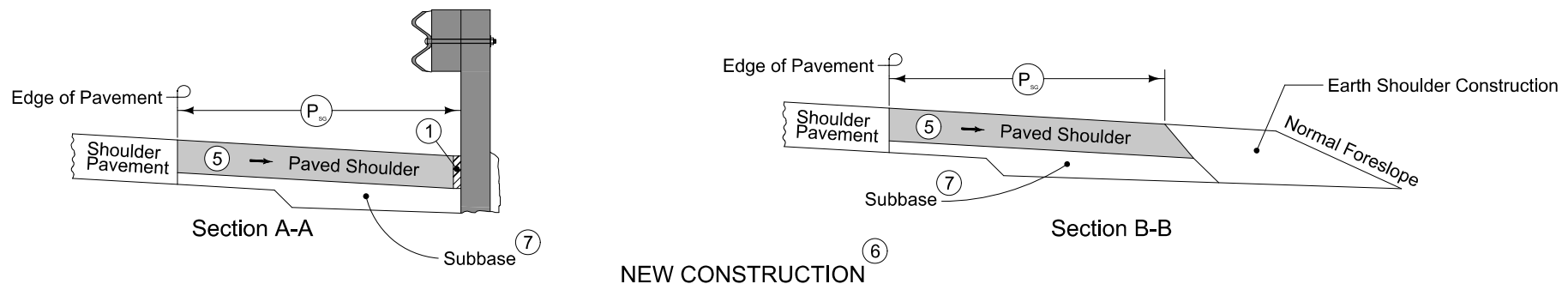
9" HMA Paved Shoulder at guardrail. 8" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at P/2 from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

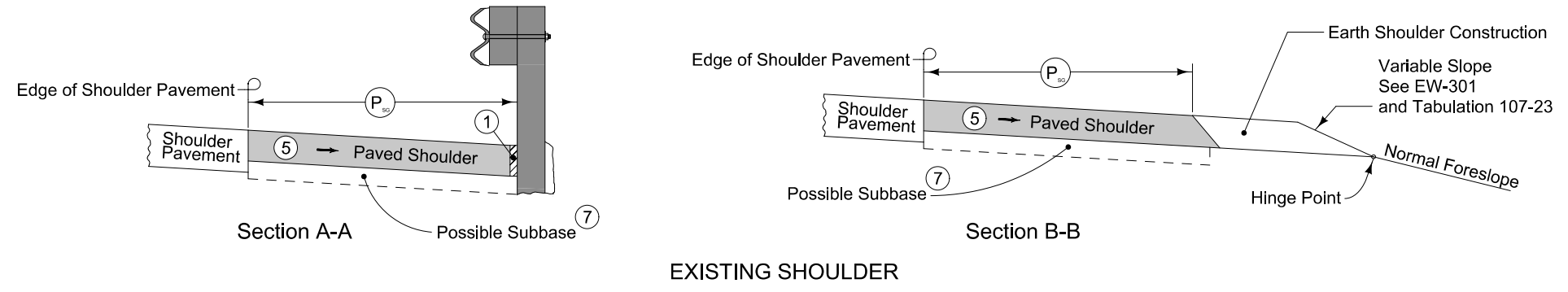
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

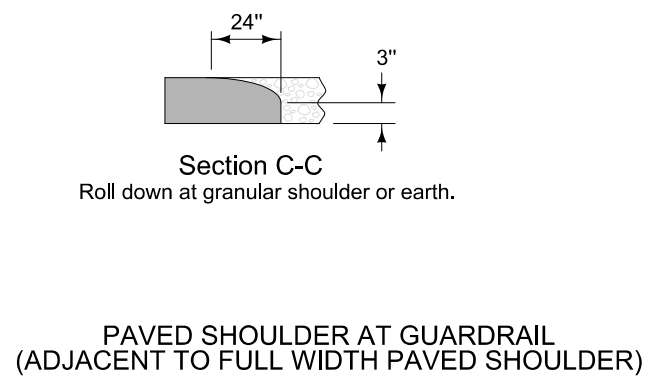
- ① PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.
- ② Continue paved shoulder 20 feet beyond the center of the first post.
- ③ Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ④ 'KT' (per PV-101) joint for PCC shoulder. 'B' (per PV-101) joint for HMA shoulder.
- ⑤ Match shoulder slope.
- ⑥ The Contractor has the option to pave the paved shoulder at guardrail and the full width paved shoulder as one operation.
- ⑦ Refer to other details in the plan.



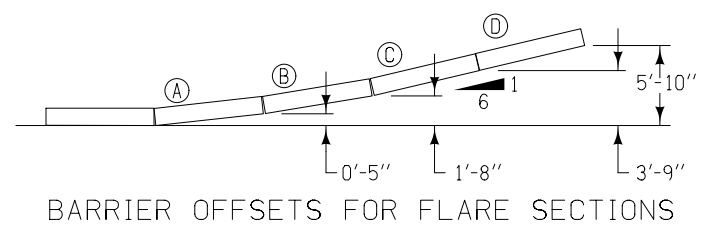
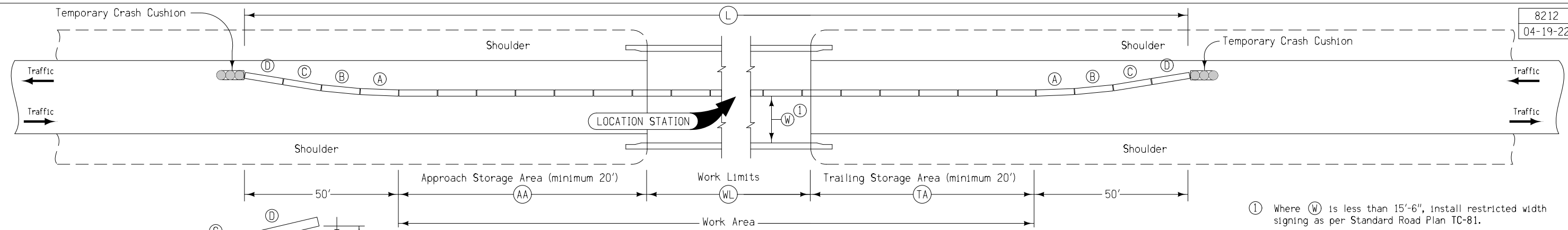
NEW CONSTRUCTION



EXISTING SHOULDER



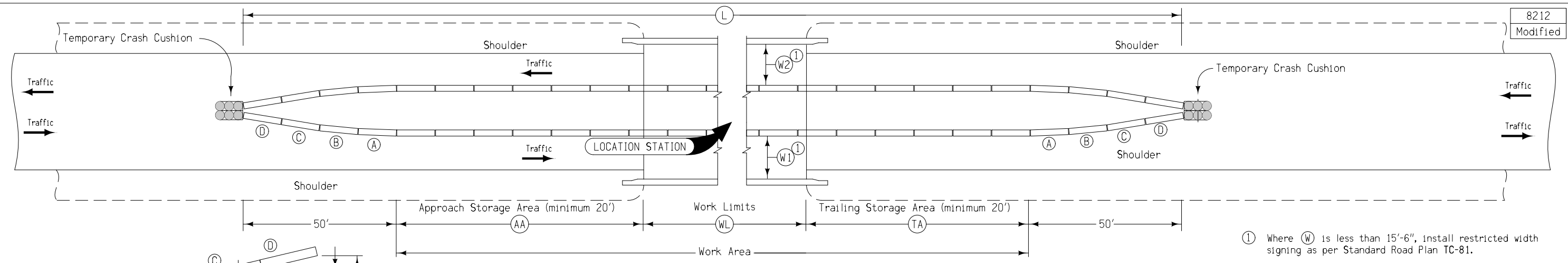
PAVED SHOULDER AT GUARDRAIL (ADJACENT TO FULL WIDTH PAVED SHOULDER)



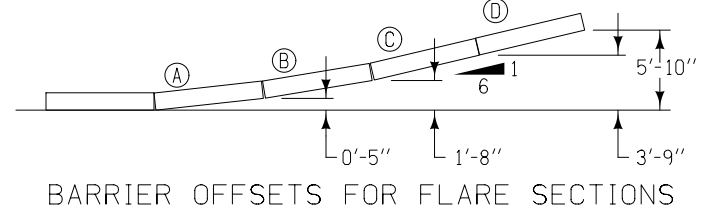
Station	Side	AA	WL	TA	L	Anchored X	W	Remarks
		Feet	Feet	Feet	Feet		Ft-Inches	
298+15.00	L	96	486	96	778	No	23'-0"	Stage 1 - Construction
339+85.00	L	100	272	100	572	No	23'-0"	Stage 1 - Construction
354+42.31	L	122	217	122	561	No	23'-0"	Stage 1 - Construction
298+15.00	L	96	486	96	778	No	12'-0"	Stage 2
339+85.00	L	100	272			No	12'-0"	Stage 2
354+42.31	L	122	217			No	12'-0"	Stage 2

① Where (W) is less than 15'-6", install restricted width signing as per Standard Road Plan TC-81.

TEMPORARY CONCRETE BARRIER LAYOUT
for Two-Way Traffic



① Where (W) is less than 15'-6", install restricted width signing as per Standard Road Plan TC-81.



Station	Side	AA	WL	TA	L	Anchored	W1	W2	Remarks
		Feet	Feet	Feet	Feet		Ft-inches	Ft-inches	
298+15.00	L	86	486	86	758	No	23'-0"	12'-0"	Stage 1 - Winter
339+85.00	L	90	272	90	552	No	23'-0"	12'-0"	Stage 1 - Winter
354+42.31	L	112	217	112	561	No	23'-0"	12'-0"	Stage 1 - Winter

TEMPORARY CONCRETE BARRIER LAYOUT
for Two-Way Traffic

100-1D 10-18-05	
PROJECT DESCRIPTION	
This project involves the replacement of the bridges on US 30 over Wapsipinicon River (Maint. No. 2398.5S030), East Channel Wapsipinicon River (Maint. No. 2399.3S030), and Calamus Drainage Ditch (Maint. No. 2399.5S030).	

100-1A 07-15-97					
ESTIMATED PROJECT QUANTITIES (1 DIVISION PROJECT)					
Item No.	Item Code	Item	Unit	Total	As Built Qty.

100-4A 10-29-02		
ESTIMATE REFERENCE INFORMATION		
Item No.	Item Code	Description

105-4 10-18-11		
STANDARD ROAD PLANS		
The following Standard Road Plans apply to construction work on this project.		
Number	Date	Title
BA-200	04-20-21	Steel Beam Guardrail Components
BA-201	10-18-22	Steel Beam Guardrail Barrier Transition Section (MASH TL-3)
BA-202	10-20-15	Steel Beam Guardrail Bolted End Anchor
BA-205	10-19-21	Steel Beam Guardrail Tangent End Terminal (MASH TL-3)
BA-401	04-20-21	Temporary Barrier Rail (Precast Concrete)
BA-500	04-20-21	Temporary Crash Cushions Sand Barrel
BR-203	10-19-21	Double Reinforced 12" Approach
BR-211	10-18-22	Bridge Approach (Abutting PCC or Composite Pavement)
DR-306	10-16-18	Precast Concrete Headwall for Subdrain Outlets
EC-201	04-20-21	Silt Fence
EW-202	04-19-16	Bridge Berm Grading without Recoverable Slope (Non-Barnroof Section)
EW-301	04-20-21	Guardrail Grading
PM-110	04-21-20	Line Types
PR-103	04-21-20	Full Depth PCC Patch with Dowels
PV-3	04-16-19	Safety Edge
PV-12	10-20-20	Milled Shoulder Rumble Strips
PV-13	10-17-17	Milled Centerline Rumble Strips
PV-101	04-19-22	Joints
PV-102	04-21-20	PCC Curb Details
SI-172	04-19-16	Delineators
SI-173	04-19-16	Object Markers
SI-211	10-18-22	Object Marker and Delineator Placement with Guardrail
SI-881	04-16-19	Special Signs for Workzones
SI-882	10-18-16	Special Signs for Restricted Width Traffic Control Zones
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-81	04-18-23	Restricted Width Signing (Less Than 14.5 Feet)
TC-217	04-18-23	Lane Closure with Signals and TBR

4/10/2023 2:55:36 PM 9474 c:\pw_work\pwork\seth.morling\d1625189\SHI_23030186_C01.xlsm

SURVEY SYMBOLS

<p>⊕ AST, Above Ground Storage Tank</p> <p>BB, Billboard</p> <p>BBB, Bottom of Bridge Beam</p> <p>BCL, Bridge Centerline</p> <p>BD, Bridge Deck</p> <p>BIN, Grain Bin</p> <p>BL, Topo Breakline</p> <p>BLD, Building or Foundation</p> <p>BLS, Bridge Low Steel</p> <p>BM, Bench Mark</p> <p>BNK, Stream Bank</p> <p>BRG, Bridge</p> <p>C, Centerline BL of Road -ML or SR</p> <p>CAV, Cave</p> <p>CEL, Cell Phone Tower</p> <p>CIS, Cistern</p> <p>CON, Concrete or A/C Slab</p> <p>CP, Control Point</p> <p>CRP, Corporation Line</p> <p>CS, Curve Point</p> <p>CU, Back of Curb</p> <p>CUL, Culvert</p> <p>D, Centerline Draw or Stream -Down</p> <p>DAB, Drainage Area Boundary</p> <p>DIK, Centerline of Dike or Dam</p> <p>DTM, Photogrammetry Elev Control Check</p> <p>DU, Centerline Draw or Stream -Up</p> <p>EB, Electrical Box</p> <p>EG, Edge of Gravel Road</p> <p>ENP, Edge Paved Entrance and Park Lot</p> <p>ENT, Centerline BL of Entrance</p> <p>ENU, Edge Unpaved Entrance and Parking</p> <p>EP, Edge of Paved Roads -ML or SR</p> <p>EW, Edge of Water</p> <p>FCL, Chain Link and Security Fence</p> <p>FENO, FENO Monument</p> <p>FHD, Fire Hydrants</p> <p>FLG, Flag Poles</p> <p>FP, Filler Pipe</p> <p>FW, Wire Fence</p> <p>FWD, Wood Fence</p> <p>GDC, Guard Rail Cable</p> <p>GDL, Guard Rail Steel</p> <p>GP, Guard Post -Less Than 4 Posts</p> <p>GPR, Guard Post -4 or More Posts</p> <p>GR, Ground Shot</p> <p>GRV, Grave</p> <p>GU, Gutter In Front of Curb</p> <p>GV, Gas Valve</p> <p>HDG, Hedge Row</p> <p>HS, Hydric Soil -Wetlands</p> <p>HT, Electrical Highline Tower</p> <p>IN, Storm Sewer Intake</p> <p>INB, Storm Sewer Beehive Intake</p> <p>LC, Lot Corner</p> <p>LIN, Miscellaneous Line</p> <p>LP, L.P. Tank</p> <p>LUM, Luminaire</p> <p>MH, Utility Access -Manhole</p> <p>MIS, Miscellaneous</p> <p>MM, Mile Marker Post</p> <p>OUT, Tile Outlet</p> <p>PC, Curve Point</p> <p>PCP, Photo Control Point</p> <p>PCT, Photo Control Target</p> <p>PI, Tangent Point</p> <p>PIP, Pipe Culvert</p> <p>PL, Location of Photo -Wetlands</p> <p>PLG, Location of General Photo</p> <p>POC, Curve Point</p> <p>POST, Spiral Point</p>	<p>PR, Electric Riser Pole</p> <p>PRO, Profile Shot</p> <p>PT, Curve Point</p> <p>REF, Reference Tie Point</p> <p>RET, Retaining Walls</p> <p>RIP, Rip-Rap</p> <p>ROC, Rock Outcropping</p> <p>ROW, Right of Way Mark</p> <p>RR, Centerline of Railroad Tracks</p> <p>RRB, Railroad Signal Box</p> <p>RRF, Railroad Frog</p> <p>RRR, Railroad Rail</p> <p>RRS, Railroad Signal</p> <p>RRW, Railroad Switch</p> <p>RT, Radio Tower</p> <p>S, Soil Sampling Site -Wetlands</p> <p>SBR, Size of Bridge</p> <p>SC, Spiral Point</p> <p>SCR, Section Corner</p> <p>SEP, Septic Tank</p> <p>SF, Silt Fence -Wetlands</p> <p>SG, Staff Gauge -Wetlands</p> <p>SH, Paved Shoulder</p> <p>SHR, Shrub</p> <p>SI, Sign</p> <p>SL, Speed Limit Sign</p> <p>SLN, Section Line</p> <p>SLO, Silo</p> <p>SNK, Sink Hole</p> <p>SNP, Unpaved Shoulder</p> <p>SP, Stream Profile</p> <p>STP, Stump</p> <p>SWK, Sidewalk</p> <p>SWP, Swamp or Marsh</p> <p>TA, Tower Anchor</p> <p>TBO, Telephone Booth</p> <p>TCB, Traffic Signal Box</p> <p>TDC, Tree Deciduous</p> <p>TDL, Traffic Detection Loop</p> <p>TER, Terrace</p> <p>TEV, Evergreen Tree</p> <p>TFR, Tree Fruit</p> <p>TGP, Telegraph Pole</p> <p>TIL, Tile Line</p> <p>TLNL, Tree Line Left</p> <p>TLNR, Tree Line Right</p> <p>TOP, Top of Bridge Pier</p> <p>TPA, Telephone Pole Co. 1</p> <p>TPB, Telephone Pole Co. 2</p> <p>TPC, Telephone Pole Co. 3</p> <p>TR, Telephone Riser Pole</p> <p>TRL, Trail</p> <p>TS, Spiral Point</p> <p>TSB, Telephone Switch Box</p> <p>TSG, Traffic Signal</p> <p>TSL, Traffic Signal and Luminare</p> <p>TV, Satellite TV Dish</p> <p>TVP, TV Pedestal</p> <p>TW, Top of Water</p> <p>UB, Utility Box</p> <p>UE, Utility Elevation</p> <p>UPH, Utility Pot Hole - Quality A</p> <p>UST, Underground Tank</p> <p>UV, Underground Utility Vault</p> <p>VS, Channel Cross Section</p> <p>WC, Wild Card -Misc. Field Shot</p> <p>WEL, Well</p> <p>WHD, Water Hydrant</p> <p>WHU, RV Water Hook Up</p> <p>WM, Wind Mill</p> <p>WND, Wind Turbine</p> <p>WV, Water Valve</p>
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SURVEYED UTILITY OWNER SYMBOLS

Sub-Surface Utility Mapping Quality Level is in accordance with CI/ASCE 38-02 Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.

Remark Abbreviations
 QLA Quality Level A Highest guideline quality level
 QLD Quality Level D Lowest guideline quality level

— E1	ELID, Eastern Iowa Light & Power
— F0	FOID, F&B Communications
— F02	FO2D, Sprint
— G	GLID, Alliant Energy
— SAN	SAID, City of Wheatland
— W	WLID, City of Wheatland

UTILITY LEGEND

— E1	Eastern Iowa Light & Power Chad Ruden chad.ruden@easterniowa.com
— F02	Sprint Mark Klinkenberg mark.klinkenberg2@t-mobile.com
— F0	F&B Communications Aaron Horman aaron@fbc-tele.com
— G	Alliant Energy Mary Montgomery marymontgomery@alliantenergy.com
— T4	City of Wheatland Matt Cavey cityguys@fbcom.net
— W	City of Wheatland Matt Cavey cityguys@fbcom.net
—	Electric Transmission Chad Levi clevi@itctransco.com

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.	
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities
SHADING		Design Color No.	
Lavender	(9)		Temporary Pavement Shading
Yellow	(4)		Proposed Pavement Shading
Orange	(6)		Proposed Granular Shading
Orange	(70)		Proposed Shoulder Granular Shading
Yellow	(68)		Proposed Shoulder Paved Full Depth Shading
Yellow	(132)		Proposed Shoulder Paved Partial Depth Shading
Gray, Dark	(112)		Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)		Grading Shading
Orange, Light	(134)		Proposed Granular Entrance Shading
Yellow	(220)		Proposed Paved Entrance Shading
Tan	(8)		Proposed Sidewalk Shading
Blue, Light	(230)		Proposed Sidewalk Landing Shading
Pink	(11)		Proposed Sidewalk Ramp Shading
Green, Light	(225)		Existing Pavement Shading
Red	(3)		Proposed Structure Shading
Red	(3)		Delineates Restricted Areas

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.	
Green	(10)		Existing Ground Line Profile
Blue	(1)		Proposed Profile and Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Proposed Ditch Grades, Left
Black	(0)		Proposed Ditch Grades, Median
Rust	(14)		Proposed Ditch Grades, Right

<p>Reference Point</p> <p>Station</p> <p>Section Corner</p> <p>Ground Line Intercept</p> <p>Saw Cut</p> <p>Guardrail</p> <p>Trench Drain</p> <p>HighTension Cable Guardrail</p> <p>Sheet Pile</p> <p>Pavement Removal</p> <p>Clearing & Grubbing Area</p>	<p>Survey Line</p> <p>Ground Line Intercept</p> <p>Saw Cut</p> <p>Guardrail</p> <p>Trench Drain</p> <p>HighTension Cable Guardrail</p> <p>Sheet Pile</p> <p>Pavement Removal</p> <p>Clearing & Grubbing Area</p>
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RIGHT-OF-WAY LEGEND

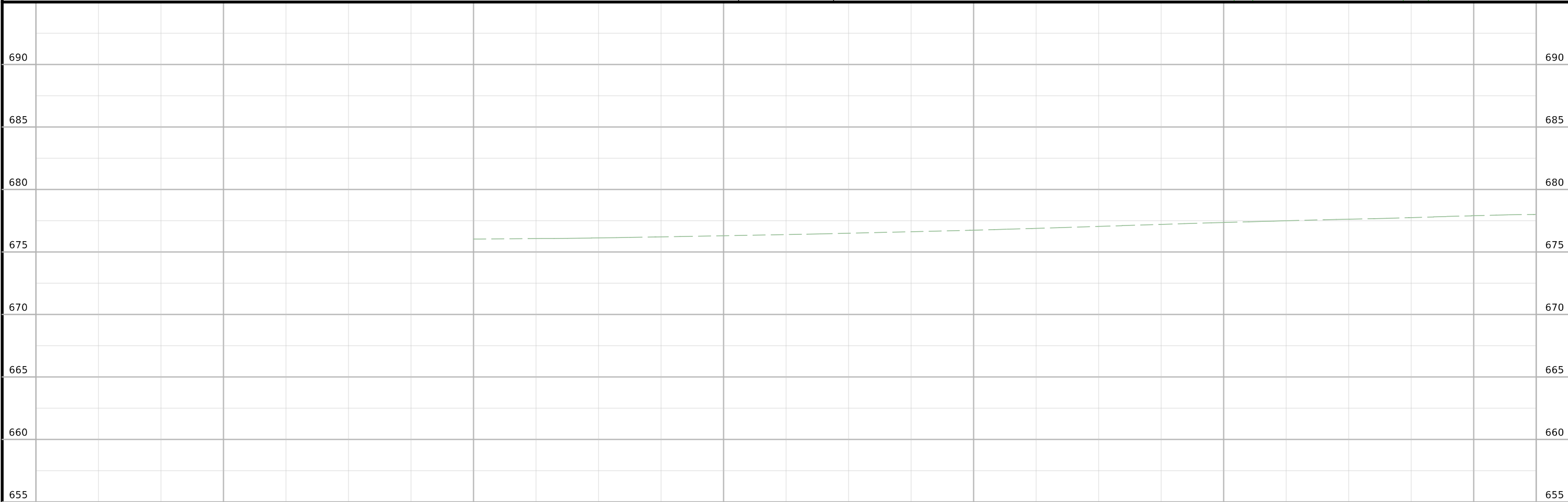
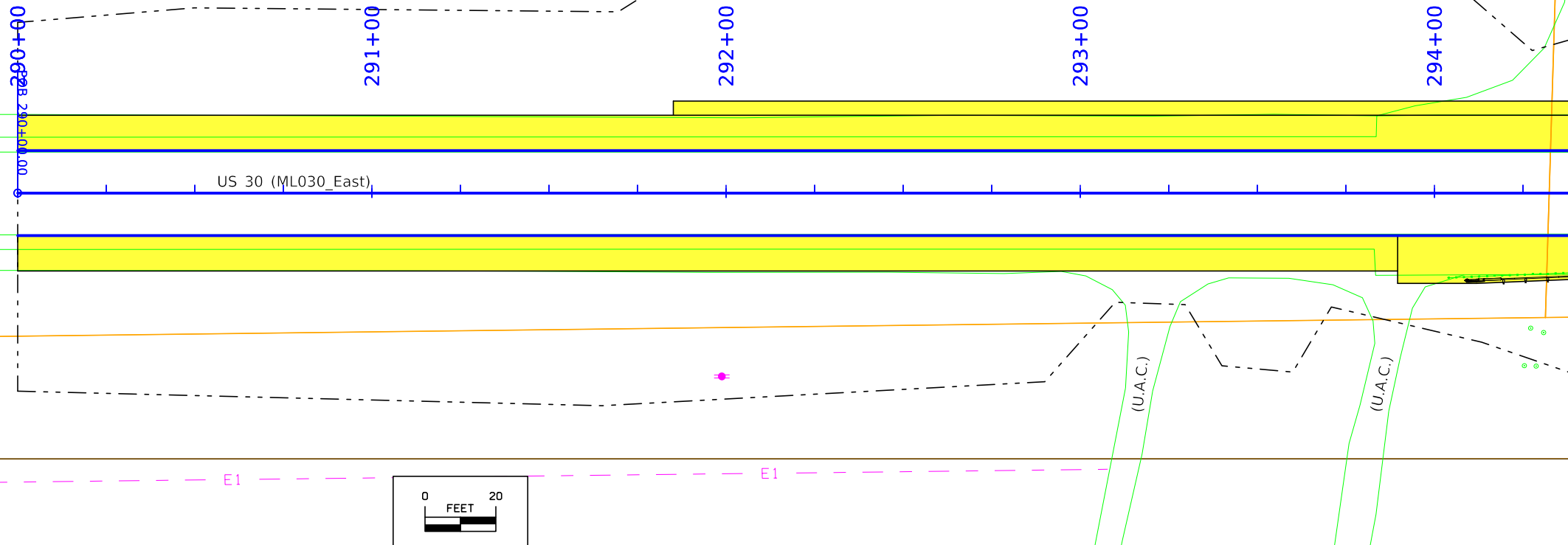
▲	Proposed Right-of-Way
▲	Existing Right of Way
▲	Existing and Proposed Right-of-Way
▲	Easement and Existing Right-of-Way
○	Easement (Temporary)
●	Easement
C/A	Access Control
↔	Property Line

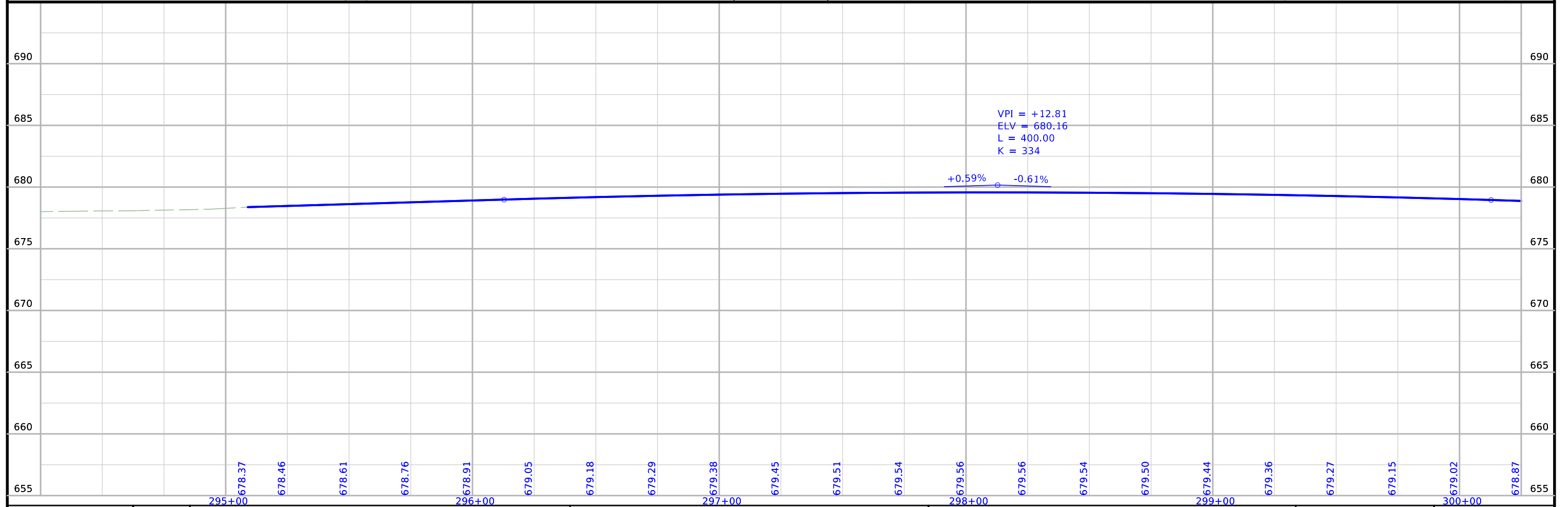
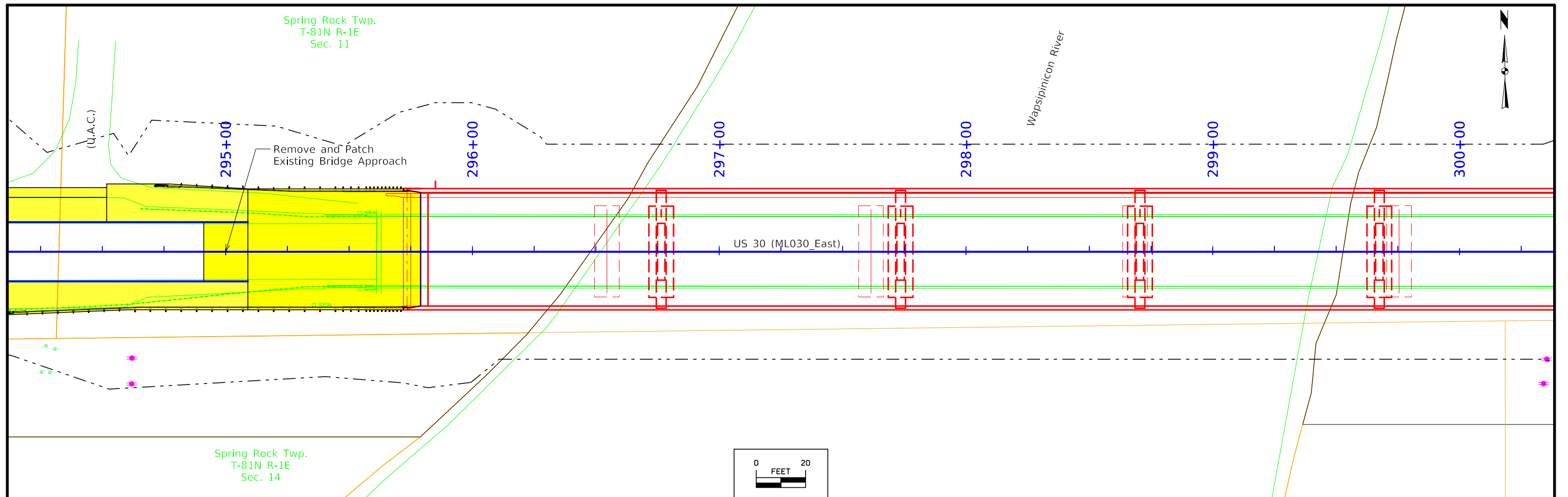
PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

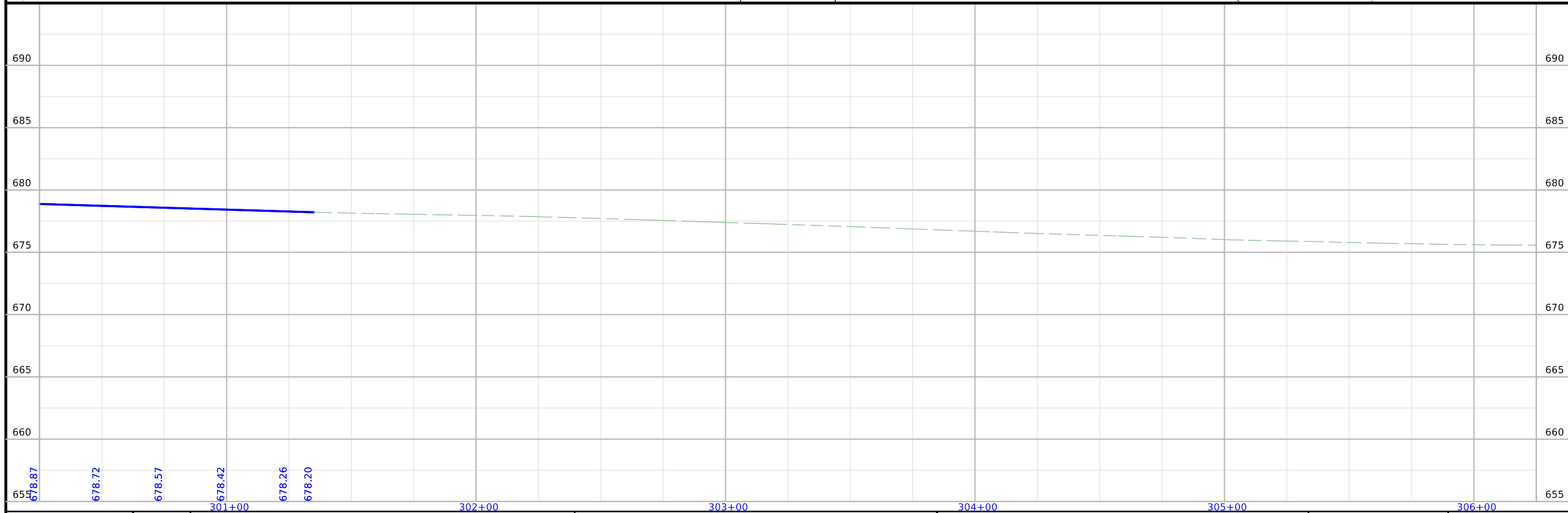
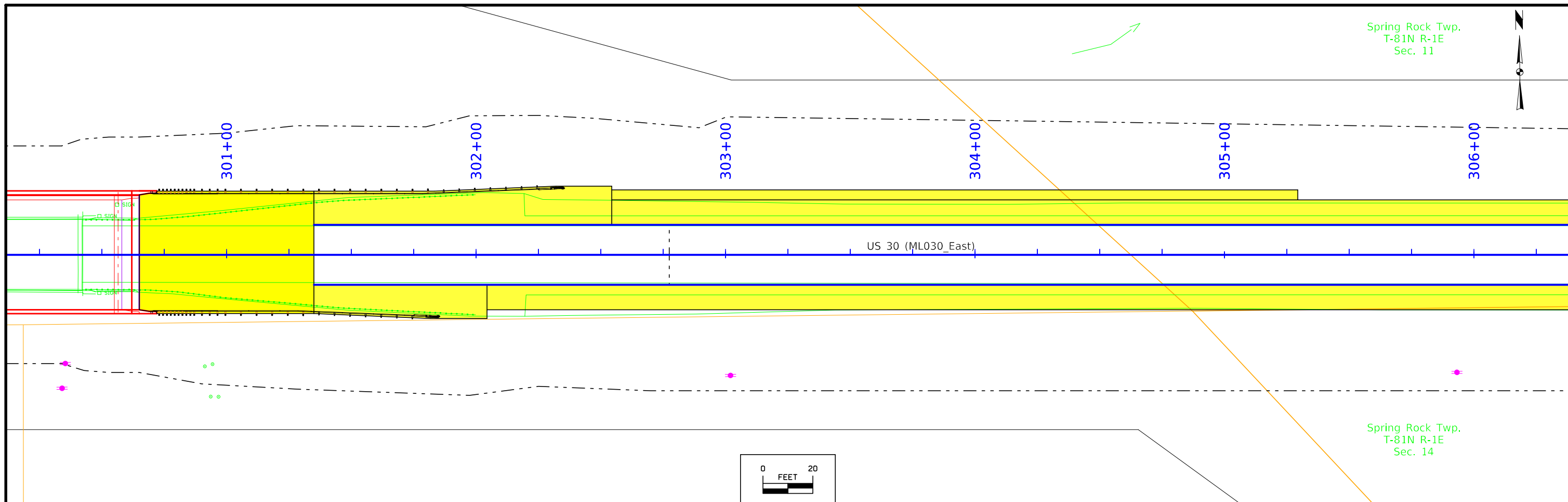
(COVERS SHEET SERIES D, E, F, & K)

Spring Rock Twp.
T-81N R-1E
Sec. 11

Spring Rock Twp.
T-81N R-1E
Sec. 14







FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	CLINTON COUNTY	PROJECT NUMBER BRF-030-9(186)--38-23	SHEET NUMBER D.4
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Spring Rock Twp.
T-81N R-1E
Sec. 11



307+00

308+00

309+00

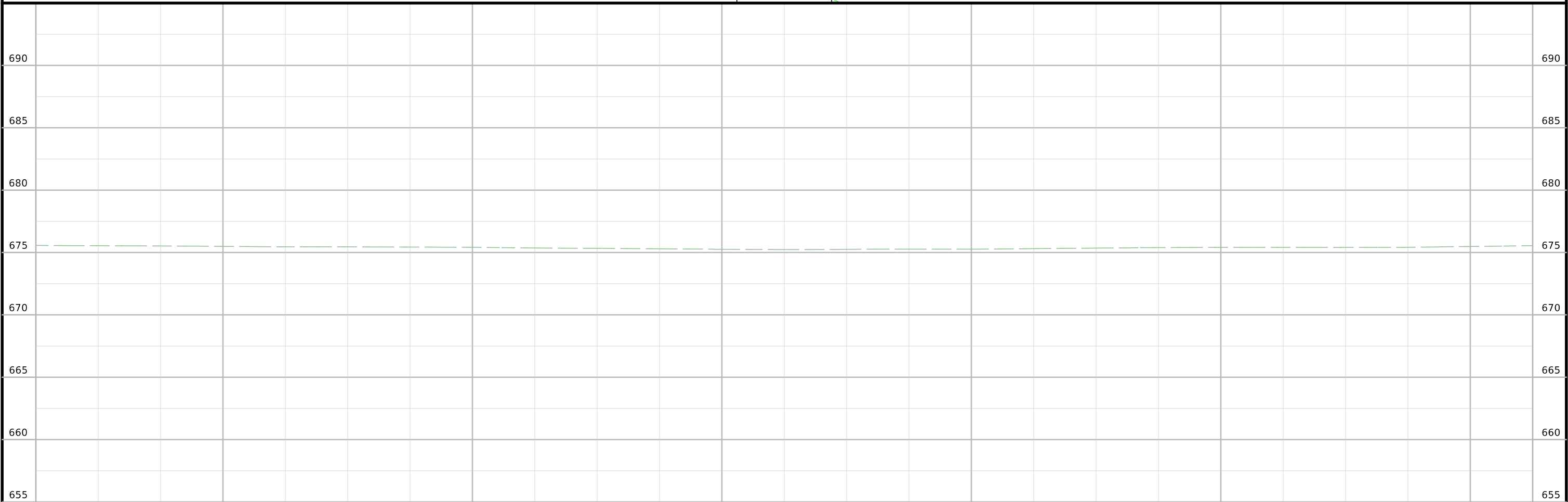
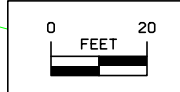
310+00

311+00

312+00

US 30 (ML030_East)

Spring Rock Twp.
T-81N R-1E
Sec. 14



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	CLINTON COUNTY	PROJECT NUMBER BRF-030-9(186)--38-23	SHEET NUMBER D.5
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Spring Rock Twp.
T-81N R-1E
Sec. 11

Spring Rock Twp.
T-81N R-1E
Sec. 14



313+00

314+00

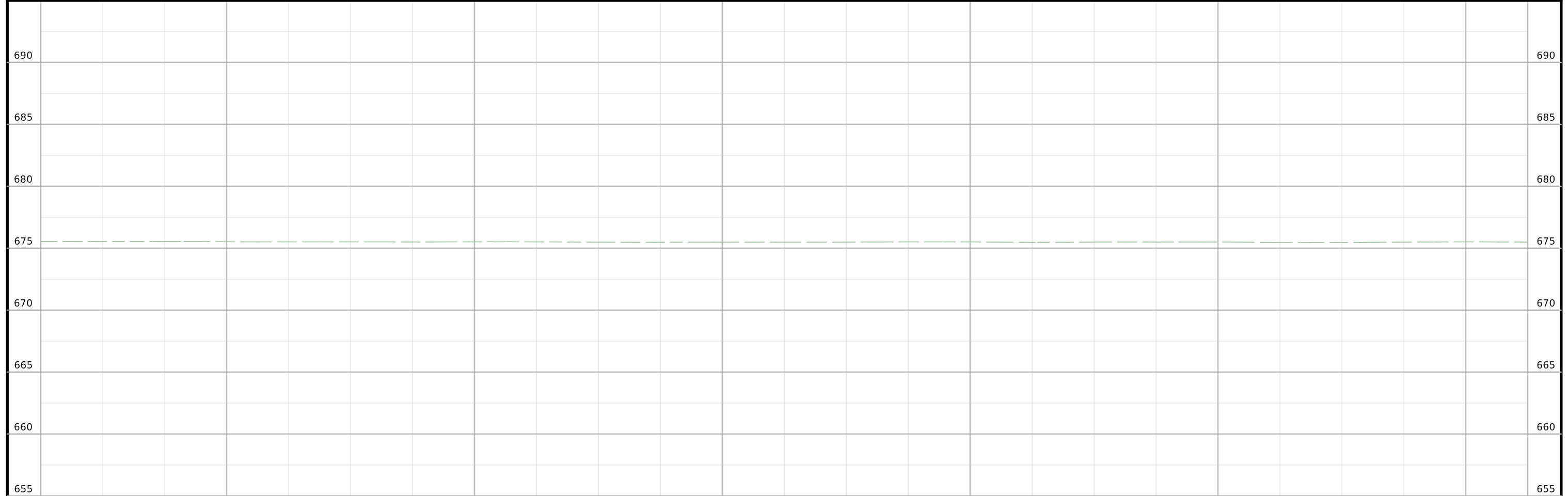
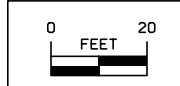
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316+00

317+00

318+00

US 30 (ML030_East)



313+00

314+00

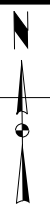
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316+00

317+00

318+00

Spring Rock Twp.
T-81N R-1E
Sec. 11



319+00

320+00

321+00

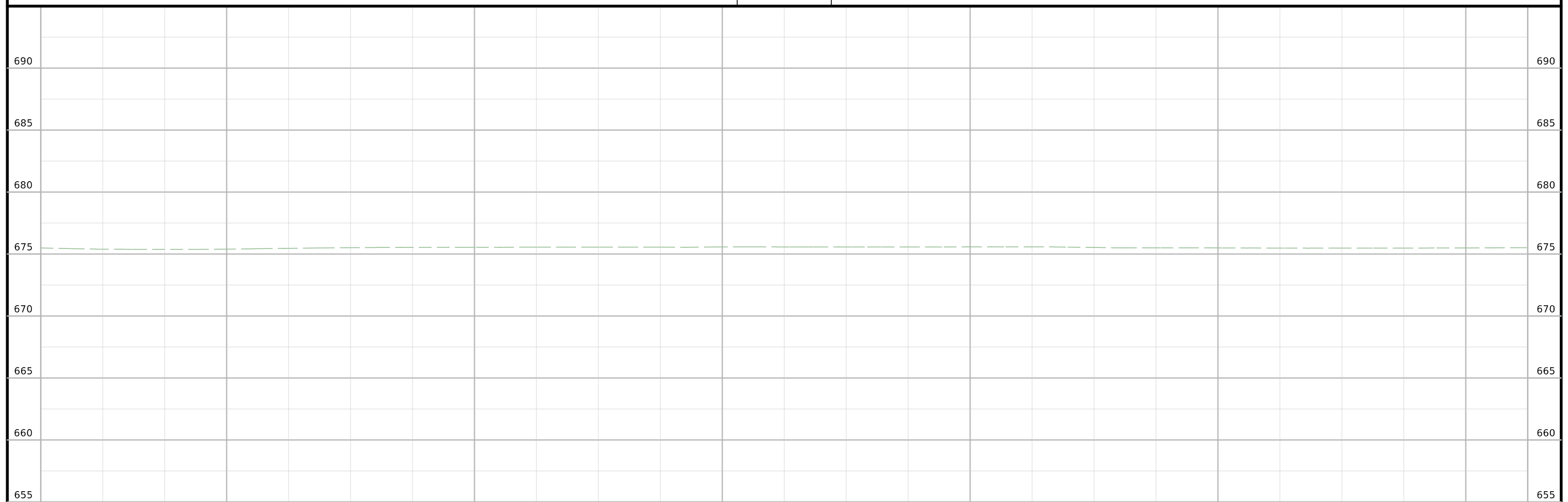
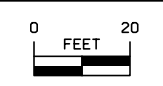
322+00

323+00

324+00

US 30 (ML030_East)

Spring Rock Twp.
T-81N R-1E
Sec. 14



319+00

320+00

321+00

322+00

323+00

324+00

Spring Rock Twp.
T-81N R-1E
Sec. 11

Spring Rock Twp.
T-81N R-1E
Sec. 12



325+00

326+00

327+00

328+00

329+00

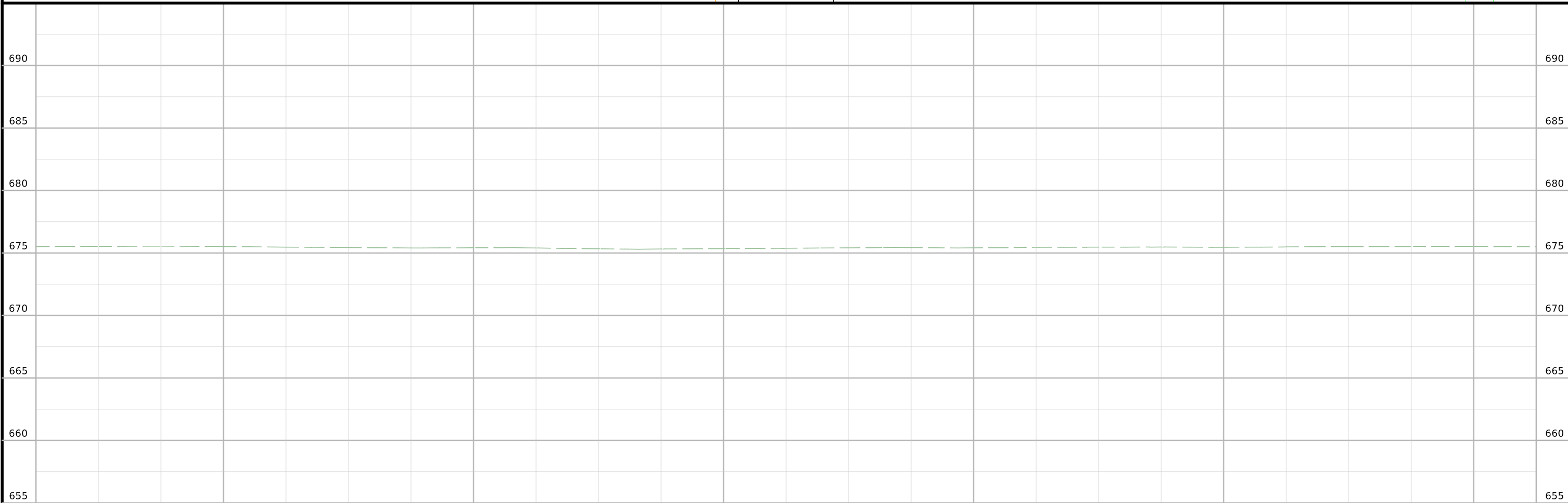
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US 30 (ML030_East)

Spring Rock Twp.
T-81N R-1E
Sec. 14



Spring Rock Twp.
T-81N R-1E
Sec. 13



Spring Rock Twp.
T-81N R-1E
Sec. 12



331+00

332+00

333+00

334+00

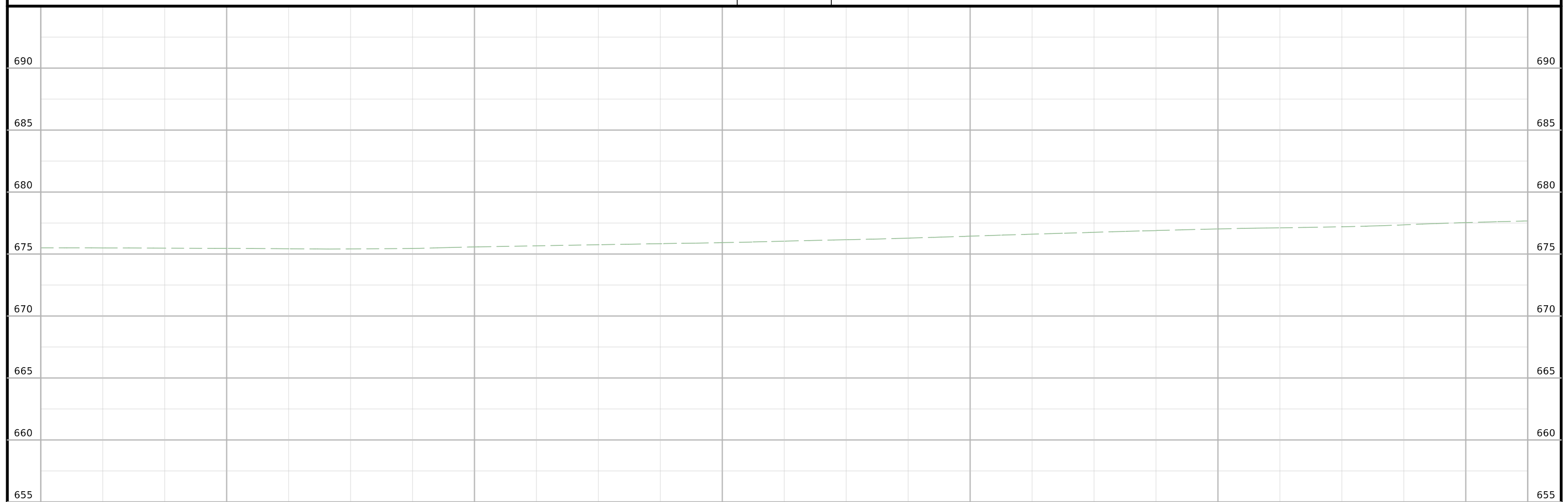
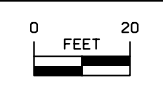
335+00

336+00

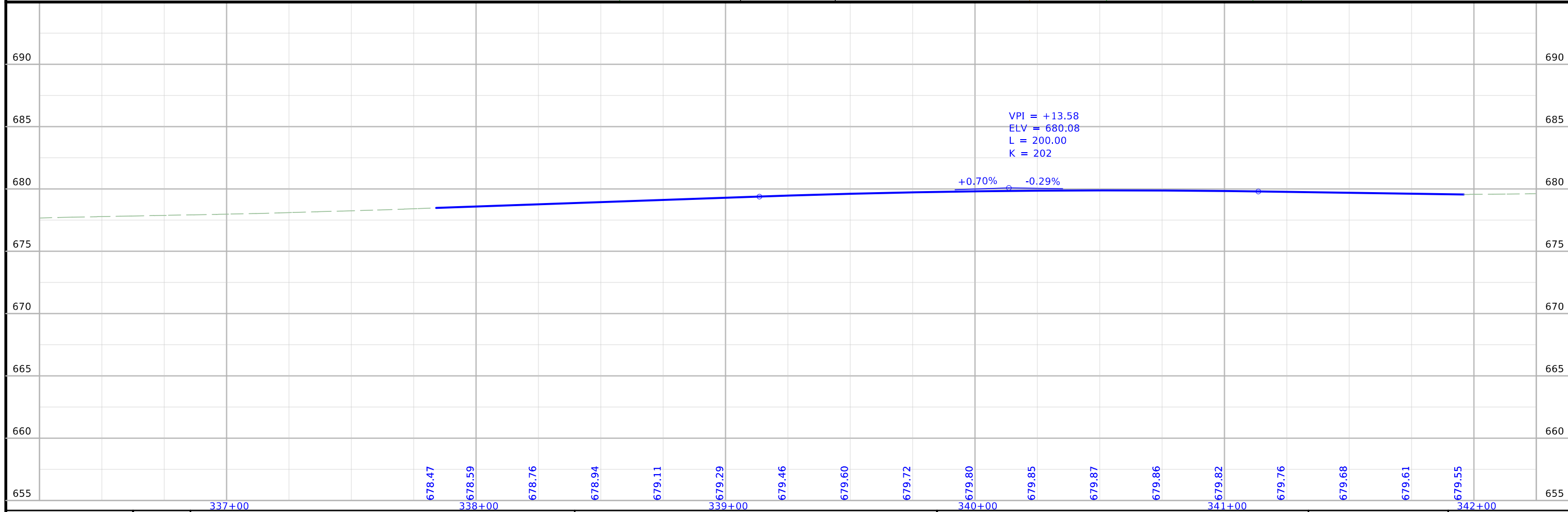
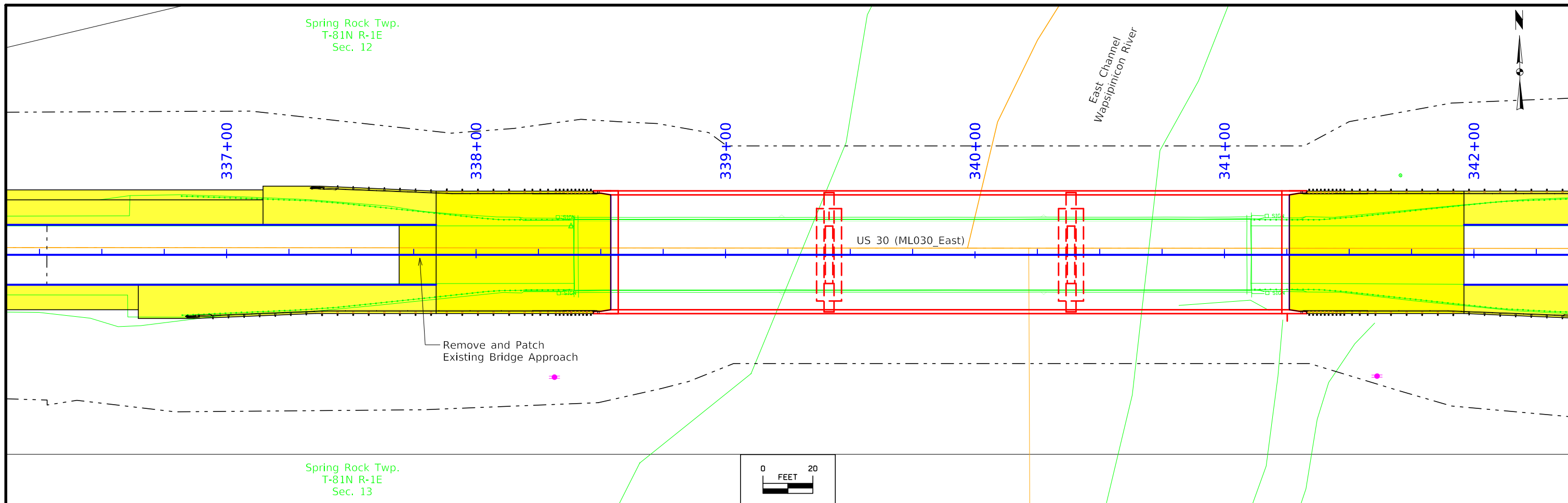
(U.A.C.)

US 30 (ML030_East)

Spring Rock Twp.
T-81N R-1E
Sec. 13



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	CLINTON COUNTY	PROJECT NUMBER BRF-030-9(186)--38-23	SHEET NUMBER D.9
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Spring Rock Twp.
T-81N R-1E
Sec. 12



343+00

344+00

345+00

346+00

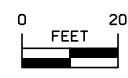
347+00

348+00

US 30 (ML030_East)

□ SIGN

□ SIGN



Spring Rock Twp.
T-81N R-1E
Sec. 13



Spring Rock Twp.
T-81N R-1E
Sec. 12

(U.A.C.)

349+00

350+00

351+00

352+00

353+00

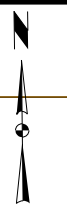
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US 30 (ML030_East)

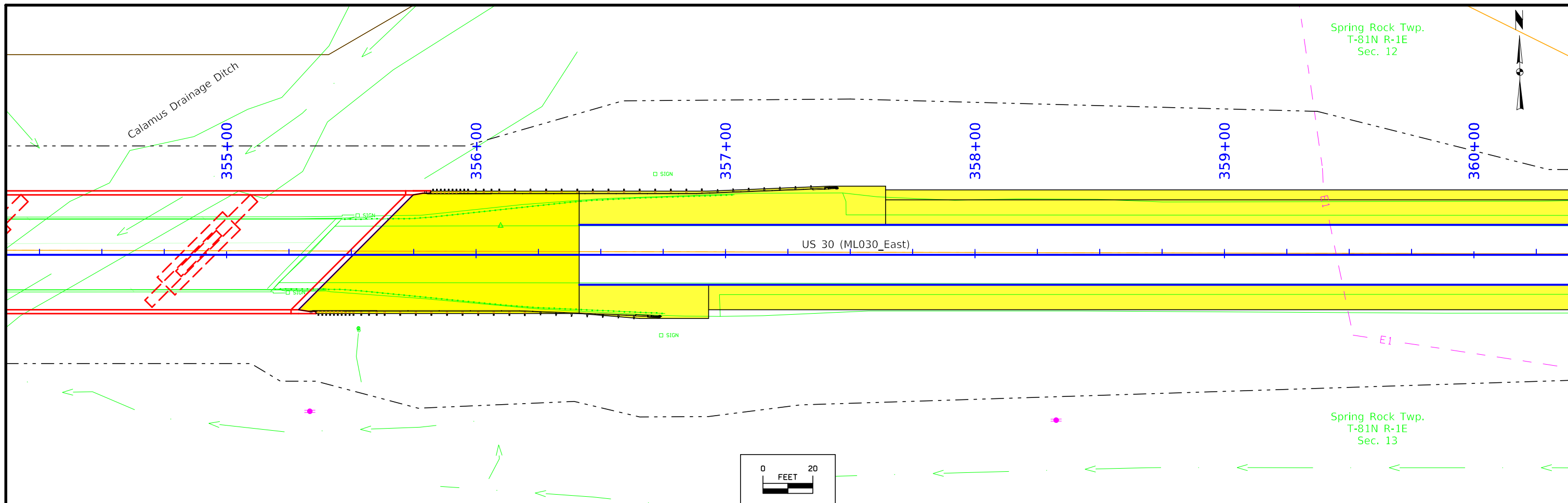
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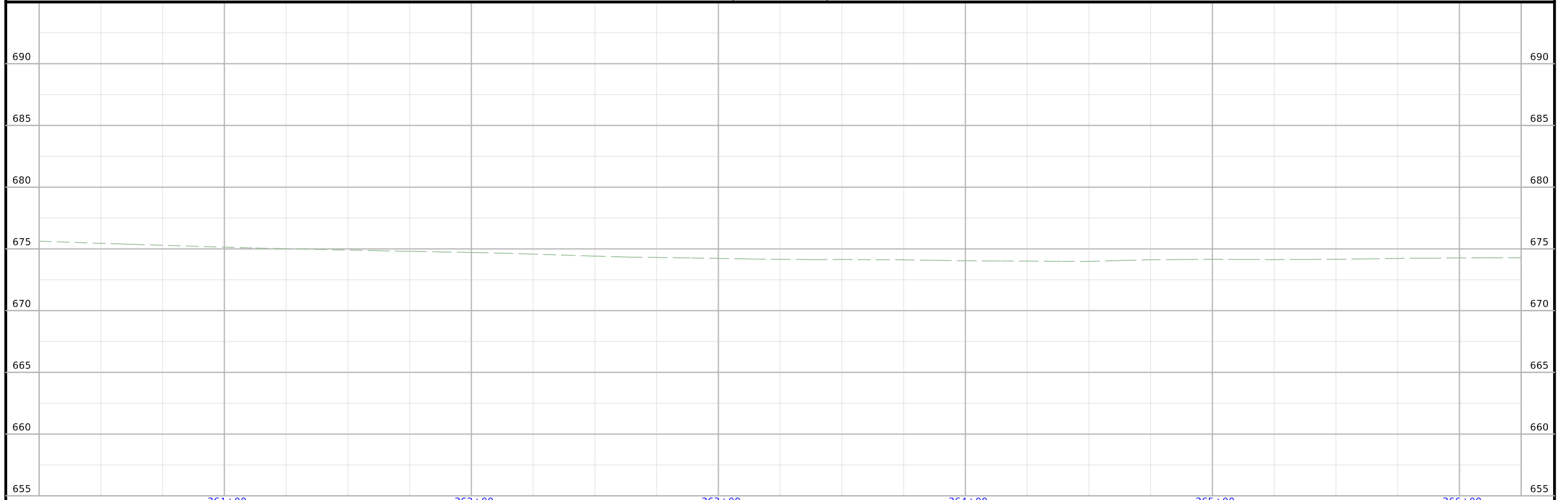
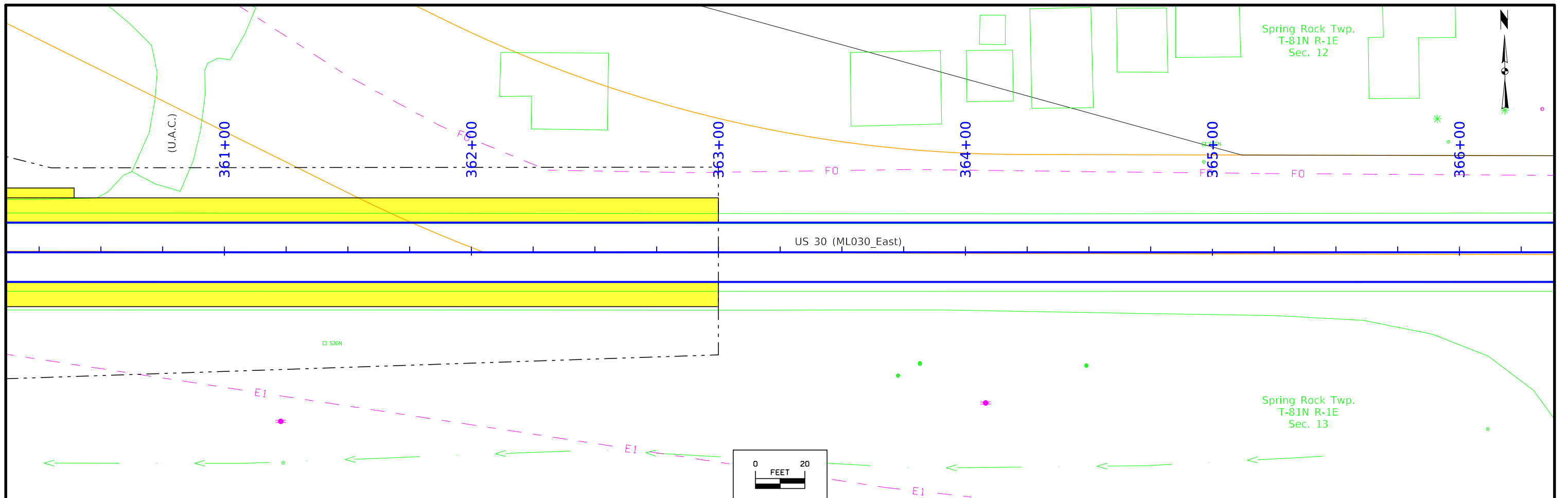
(U.A.C.)

Spring Rock Twp.
T-81N R-1E
Sec. 13



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	CLINTON COUNTY	PROJECT NUMBER BRF-030-9(186)--38-23	SHEET NUMBER D.12
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Survey Information

Clinton County
BRF-030-9(186)—38-23
US30 Clinton County Survey
From 130th Ave to 158th Ave - Wheatland
PIN 18-23-030-030

Party Personnel

Jody Budde- PLS
Wes Shimp- PLS
Jon Miranda- Geospatial Lead Tech
Ben Sullivan- Geospatial Lead Tech
Matt Svec- Party Chief
Lee Budde- Party Chief
Aaron Paulsen- Party Chief
Katerina Wyatt- Assistant Survey Party Chief
Levi Suhr- Assistant Survey Party Chief
Jason Flaherty – Assistant Survey Party Chief
Scott Dillavou – Assistant Survey Party Chief

Date(s) of Survey

Begin Date 11/17/2021
End Date 02/28/2022

General Information

Measurement units for this survey are US survey feet. This survey is for the preliminary design for the section of approximately 3 miles of US Highway 30 beginning in Wheatland at 130th Ave east to 158th Ave. There were also a total of 15 bridge structures surveyed which included 5 bridges along the UPRR line south of Hwy 30, near Wheatland, IA.

Project datum and control information is provided by Design Survey Office. This project is a Full DTM survey. Project horizontal datum is NAD83 (2011) epoch 2010.00, Iowa RCS Zone 11 (Dubuque-Davenport). Foth established three new FENO monuments to supplement existing project control at a 1.0 mile distribution along the project corridor throughout the project lifecycle and for future corridor area work.

Vertical Control

Vertical datum for this survey is relative to NAVD88 (computed using Geoid18) for the new FENO marks: FENO 1, FENO 2 and FENO 3. This survey consisted of observing three new FENO 1-meter rod monuments and one existing USGS monument used by

the Iowa DOT previously using minimum 2hr initial static observations along with data from four Iowa RTN CORS sites: Anamosa (IAAN), Maquoketa (IAMQ), Tipton (IATI) and Davenport (IADA).

The published Ellipsoidal heights for the four Iowa RTN stations were held for the vertical adjustment portion of this survey using as-published RTN positions by the Iowa DOT dated August 6, 2021.

Additionally, three nearby Scott County GPS monuments were recovered and observed with published NAVD88 elevations were observed and used that are located within the Hwy 30 project corridor region:

Scott County GPS 601 has a published Elv of: 757.56 usft (Geoid12A)
Adj Elv: 757.48

Scott County GPS 602 has a published Elv of: 706.44 usft (Geoid12A)
Adj Elv: 706.49

Scott County GPS 642 has a published Elv of: 640.80 usft (Geoid12A)
Adj Elv: 640.80

The final vertical adjustment results show standard deviations were less than 0.023 ft. at 95% confidence level (2 sigma) for the new FENO monuments.

Horizontal Control

The project coordinate system for this survey is NAD83 (2011) Iowa RCS Zone 11 (Dubuque-Davenport), US survey feet. This survey control is relative to IaRTN reference stations. IaRTN Reference Station coordinates are relative to the National Reference Station network datum: NAD83 (2011) for Epoch 2010.00. Coordinates were determined by observing each mark for 120 minutes minimum.

For the January 2022 control survey FOTH added FENO monuments FENO 1, FENO 2 and FENO 3 to supplement an existing DOT control monument recovered along the project corridor, Pt 706. Existing monuments Scott Co GPS 601, 602 and 642 were recovered and observed as part of this survey. The existing DOT concrete monument with brass cap (Pt 706) is on the east end of the project. The as listed adjusted coordinates in this report were the result of combined field observations and adjustment to the four Iowa RTN stations as listed herein.

Four Iowa RTN CORS stations: Anamosa, Maquoketa, Davenport and Tipton were utilized for the horizontal adjustment portion of this survey. The published horizontal geodetic positions for the four Iowa RTN stations were held for the horizontal

Survey Information

adjustment portion of this survey using as-published RTN positions by the Iowa DOT dated August 6, 2021.

The published horizontal positions of the existing three Scott County GPS Monuments 601, 602 and 642 were also confirmed and held fixed for the final horizontal constrained adjustment of the three new FENOs established by Foth.

The horizontal standard deviation of these adjusted observations was less than 0.015 ft. at 95% confidence level (2 sigma).

PC Sta. 220+30.9 As-built Plans Project No. F-Proj No. 147 (9)
Survey PC Sta. 220+30.7

PT Sta. 239+21.2 As-built Plans Project No. F-Proj No. 147 (9)
Survey PT Sta. 239+21.2

PC Sta. 268+98.6 As-built Plans Project No. F-Proj No. 147 (9)
Survey PC Sta. 268+97.0

PT Sta. 287+08.6 As-built Plans Project No. F-Proj No. 147 (9)
Survey PT Sta. 287+08.1

Station Equation

As-built Plans POT Sta 366+23.9 (Back) = POT Sta 341+26.6(Ahead)
Survey POT Sta 366+23.9 (Back) = POT Sta 341+26.6(Ahead)

END POT Sta. 350+00.0 As-built Plans Project No. F-Proj No. 147 (9)
Survey POT Sta. 350+00.0

PROJECT CONTROL COORDINATE LISTING

Point ID	Northing	Easting	Elevation	Description
706	8175524.45	21430991.30	673.72	Existing Concrete Monument with brass disk set flush with the ground. 35.9 feet east of 158th Ave, 62.9 feet south of Hwy 30, 9.6 feet southeast of a utility pole.
FENO 1	8175123.51	21416496.20	676.87	New FENO style monument set flush with the ground. 33.5 feet southwest of centerline of Hwy 30, 147.5 feet east of center of 130th Ave.
FENO 2	8175556.21	21421292.80	674.35	New FENO style monument set flush with the ground. 28.15 feet NW of NW cor of wingwall of NW cor of Hwy 30 bridge over a creek. 37.3 feet south southeast of utility pole. 114.0
FENO 3	8175553.56	21426066.29	667.37	New FENO style monument set flush with the ground. 90.8 feet south of centerline of Hwy 30, 48.15 feet southwest of utility pole.
Scott Co GPS 601	8154639.01	21398578.53	757.48	Existing Berntsen driven rod monument with 2 1/2" aluminum cap with access cover.
Scott Co GPS 602	8154565.39	21415761.26	706.49	Existing Berntsen driven rod monument with 2 1/2" aluminum cap with access cover.
Scott Co GPS 642	8152509.73	21458526.18	640.80	Existing Berntsen driven rod monument with 2 1/2" aluminum cap with access cover.

Alignment Information

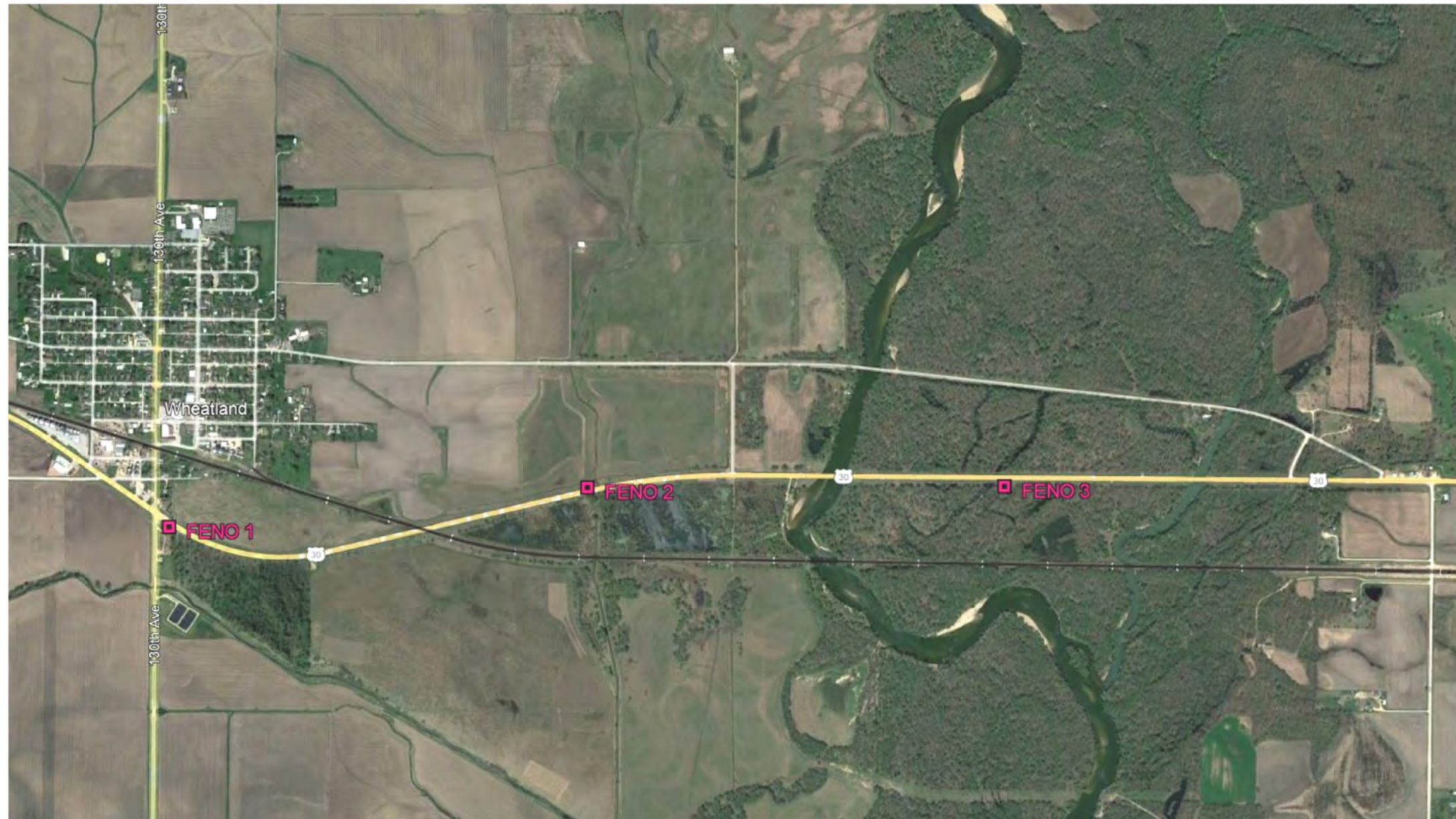
The horizontal alignment for this survey is a retrace of As-built Plans No. F-Proj No. 147 (9). Survey stationing was equated to the plan PT at STA 239+21.2 and run back and ahead throughout the survey.

Mainline (US30) Survey stationing relates to as built plan stationing as follows:

POB POT Sta. 211+54.50 As-built Plans Project No. F-Proj No. 147 (9)
Survey POT Sta. 211+54.30

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points. Primary control is for use with RTK base stations and for RTN validation. Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.



HORIZ. DATUM: NAD83(2011) EPOCH 2010.00 - Ia. RCS Zone 11
VERT. DATUM: NAVD88 - Geoid Model G018

Coordinate listing from next sheet will be used with IaRTN for monument recovery. No other reference ties are given.

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00
 1a. Regional Coordinate System Zone 11

VERT. DATUM: NAVD88
 Geoid Model G018
 Project Control Marks are Bench Marks

Point ID	Northing	Easting	Elevation	Description
706	8175524.45	21430991.30	673.72	Existing Concrete Monument with brass disk set flush with the ground. 35.9 feet east of 158th Ave, 62.9 feet south of Hwy 30, 9.6 feet southeast of a utility pole.
FENO 1	8175123.51	21416496.20	676.87	New FENO style monument set flush with the ground. 33.5 feet southwest of centerline of Hwy 30, 147.5 feet east of center of 130th Ave.
FENO 2	8175556.21	21421292.80	674.35	New FENO style monument set flush with the ground. 28.15 feet NW of NW cor of wingwall of NW cor of Hwy 30 bridge over a creek. 37.3 feet south southeast of utility pole. 114.0 feet west of middle of small creek.
FENO 3	8175553.56	21426066.29	667.37	New FENO style monument set flush with the ground. 90.8 feet south of centerline of Hwy 30, 48.15 feet southwest of utility pole.
Scott Co GPS 601	8154639.01	21398578.53	757.48	Existing Berntsen driven rod monument with 2 1/2" aluminum cap with access cover.
Scott Co GPS 602	8154565.39	21415761.26	706.49	Existing Berntsen driven rod monument with 2 1/2" aluminum cap with access cover.
Scott Co GPS 642	8152509.73	21458526.18	640.80	Existing Berntsen driven rod monument with 2 1/2" aluminum cap with access cover.

ALIGNMENT COORDINATES

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)
1	US 30 (ML030_East)	290+00.00	8175675.66	21423290.21															
2	US 30 (ML030_East)	369+00.00	8175582.88	21431189.67															

108-23A
08-01-08

TRAFFIC CONTROL PLAN

US 30
 - Maintain US 30 single-lane, two-way traffic as noted in the Staging Plan and as shown on other J sheets during Stage 1A and Stage 2.
 - Maintain US 30 two-lane, two-way traffic during Stage 1B as shown on other J sheets.

142nd Avenue
 - To remain open to traffic for the duration of the project.

154th Avenue
 - Maintain traffic to US 30 as noted on other J sheets.

158th Avenue
 - To remain open to traffic for the duration of the project.

Private Entrances
 - Maintain access to US 30 for the duration of the project.

Paddling Route Traffic Control

** Reserved for notes **

108-26A
08-01-08

STAGING NOTES

Stage 1A:
 Traffic Control:
 - Shift US 30 traffic south and close WB lane. Use temporary traffic signals to maintain single-lane, two-way traffic per Stage 1A 'J' sheet traffic control layout.
 Construction:
 - Construct north parts of the three US 30 bridges, bridge approaches, shoulders and guardrail.
 - Construct shoulder strengthening on north side of US 30.

Stage 1B:
 Traffic Control:
 - Close center part of US 30 and split EB and WB traffic around barriers per Stage 1B 'J' sheet traffic control layout.
 Construction:
 - No construction during winter shutdown.

Stage 2:
 Traffic Control:
 - Shift US 30 traffic north and close EB lane and part of WB lane. Use temporary traffic signals to maintain single-lane, two-way traffic per Stage 2 'J' sheet traffic control layout.
 Construction:
 - Complete construction of the three US 30 bridges, bridge approaches, shoulders and guardrail.

108-25
10-21-14

511 TRAVEL RESTRICTIONS

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
US 30	BOTH	Clinton	1.5 mi E of Co Rd Y4E to 1.5 mi W of Co Rd Y44 (at 3 bridges)	Wapsi River, East Channel, & Calamus Ditch	Barrier	Maint. 2398.55030	Horizontal	N/A	16'-10"	N/A	N/A	Stg 1A
US 30	BOTH	Clinton	1.5 mi E of Co Rd Y4E to 1.5 mi W of Co Rd Y44 (at 3 bridges)	Temporary Signals	Temporary Signal	-	Vertical	N/A	15'-0"	14'-0"	N/A	Stg 1A
US 30	WB	Clinton	1.5 mi E of Co Rd Y4E to 1.5 mi W of Co Rd Y44 (at 3 bridges)	Wapsi River, East Channel, & Calamus Ditch	Barrier	Maint. 2398.55030	Horizontal	N/A	12'-0"	11'-0"	N/A	Stg 1B
US 30	EB	Clinton	1.5 mi E of Co Rd Y4E to 1.5 mi W of Co Rd Y44 (at 3 bridges)	Wapsi River, East Channel, & Calamus Ditch	Barrier	Maint. 2398.55030	Horizontal	N/A	16'-10"	N/A	N/A	Stg 1B
US 30	BOTH	Clinton	1.5 mi E of Co Rd Y4E to 1.5 mi W of Co Rd Y44 (at 3 bridges)	Wapsi River, East Channel, & Calamus Ditch	Barrier	Maint. 2398.55030	Horizontal	N/A	12'-0"	11'-0"	N/A	Stg 2
US 30	BOTH	Clinton	1.5 mi E of Co Rd Y4E to 1.5 mi W of Co Rd Y44 (at 3 bridges)	Temporary Signals	Temporary Signal	-	Vertical	N/A	15'-0"	14'-0"	N/A	Stg 2

111-01
04-17-12

COORDINATED OPERATIONS

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

Project	Type of Work
BRF-030-9(205)--38-23	Bridge Replacement
BRF-030-9(198)--38-23	Bridge Replacement

**CROSS SECTION VIEW COLOR LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**

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

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

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

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White
Violet	(15)	Temporary barrier rail, Unpinned
Flush Orange	(228)	Temporary barrier rail, Pinned

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

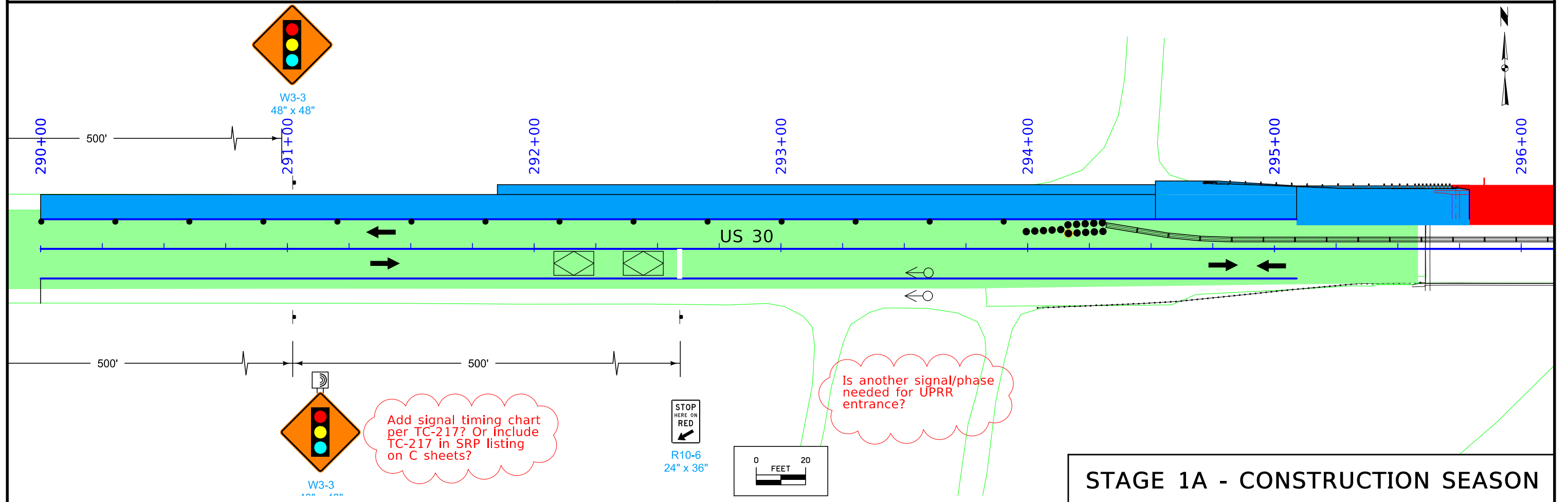
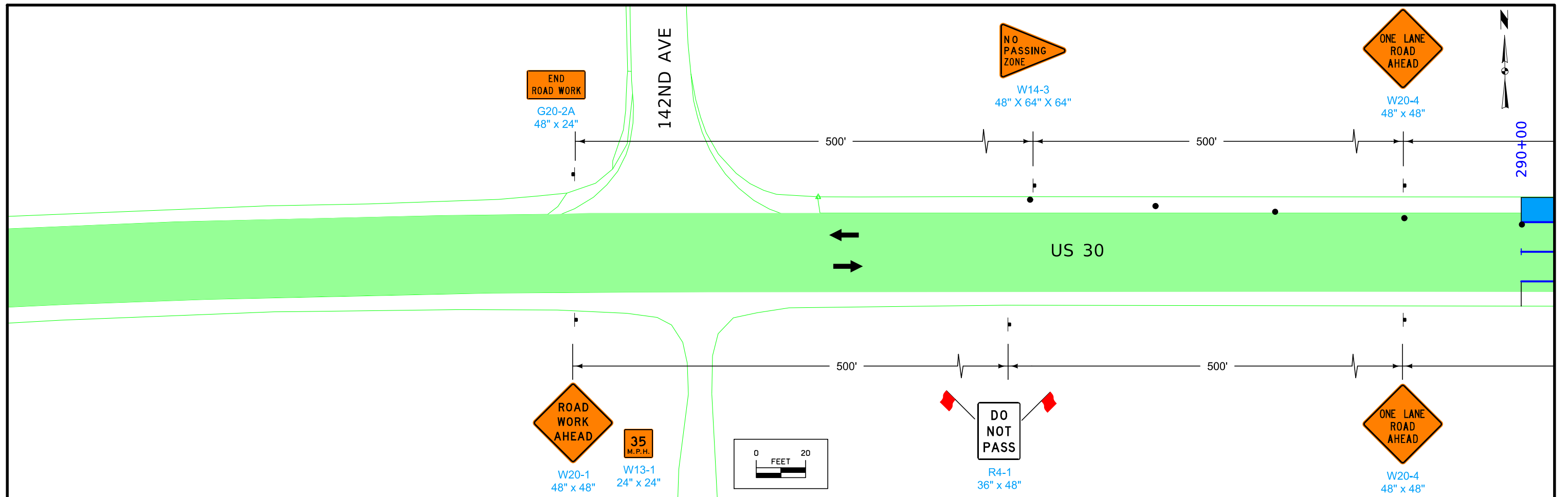
**PLAN VIEW PATTERN AND SYMBOL LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**

	Channelizing Device		Crash Cushion (Temp or Perm)
	Drum		Traffic Signal
	Temporary Lane Separator		Flagger
	Tubular Marker		Temporary Floodlighting
	Channelizer Marker		Traffic Sign
	Concrete Barrier Marker		Type III Barricade
	Delineator		Type A Warning Light
	Temporary Barrier Rail		Direction of Traffic
	Pavement Removal		Safety Closure
	Sand Barrel Layout		Lane Identification
	Type 'B' Warning Light		Vehicle Detection Area

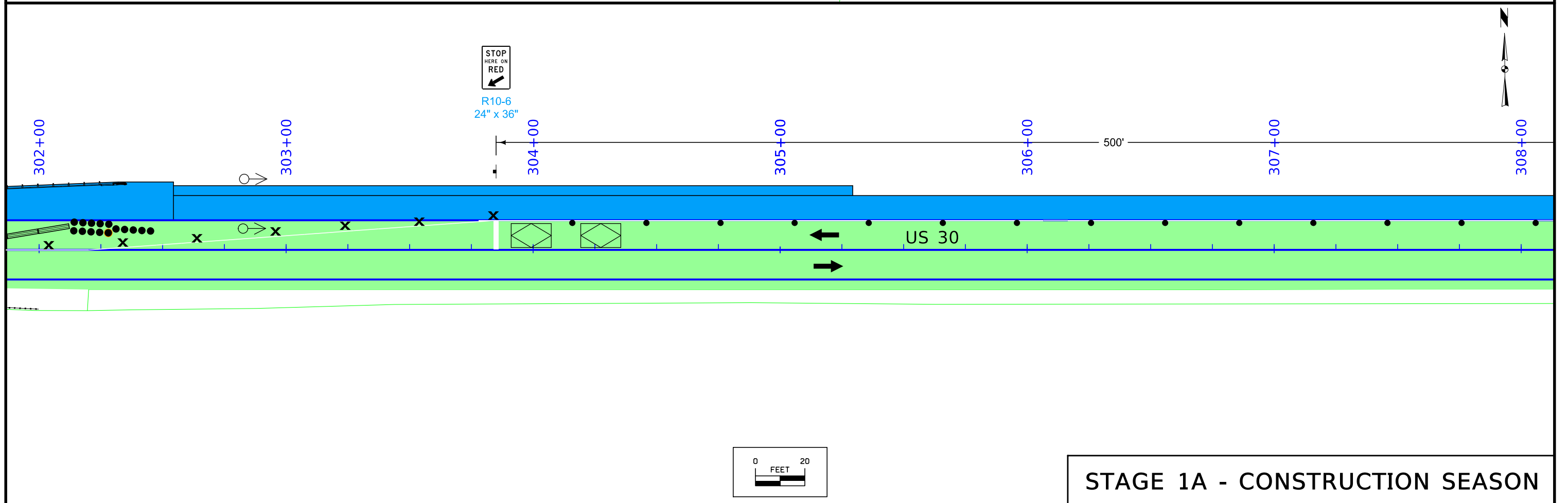
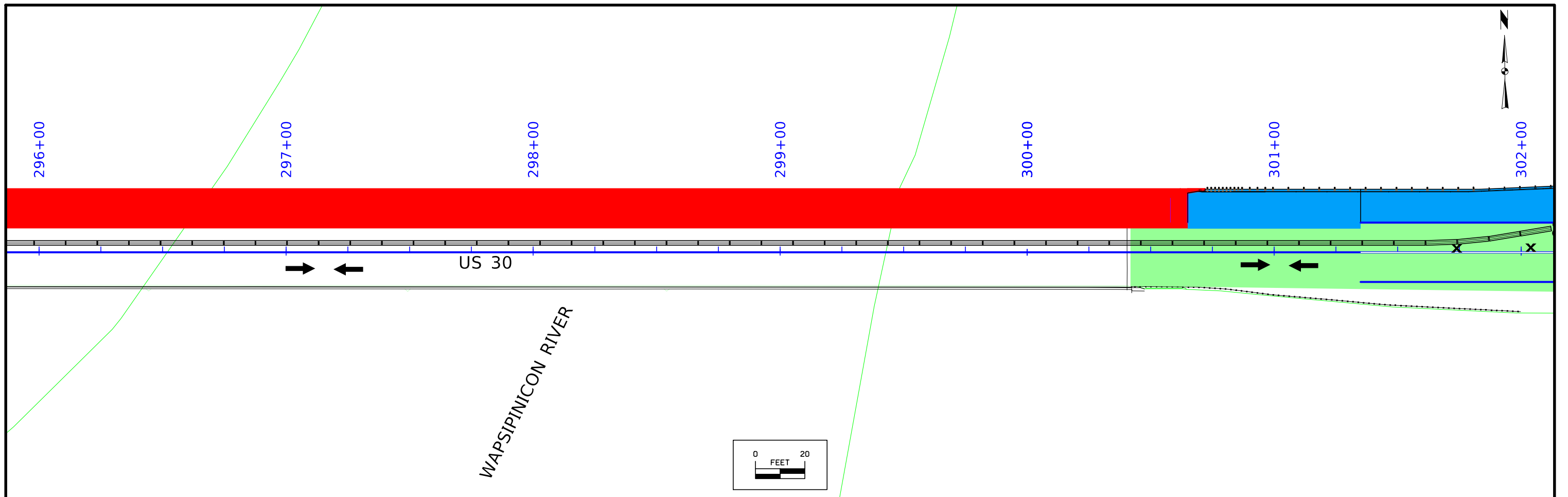
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**TRAFFIC CONTROL
AND
STAGING
LEGEND AND SYMBOL
INFORMATION SHEET**

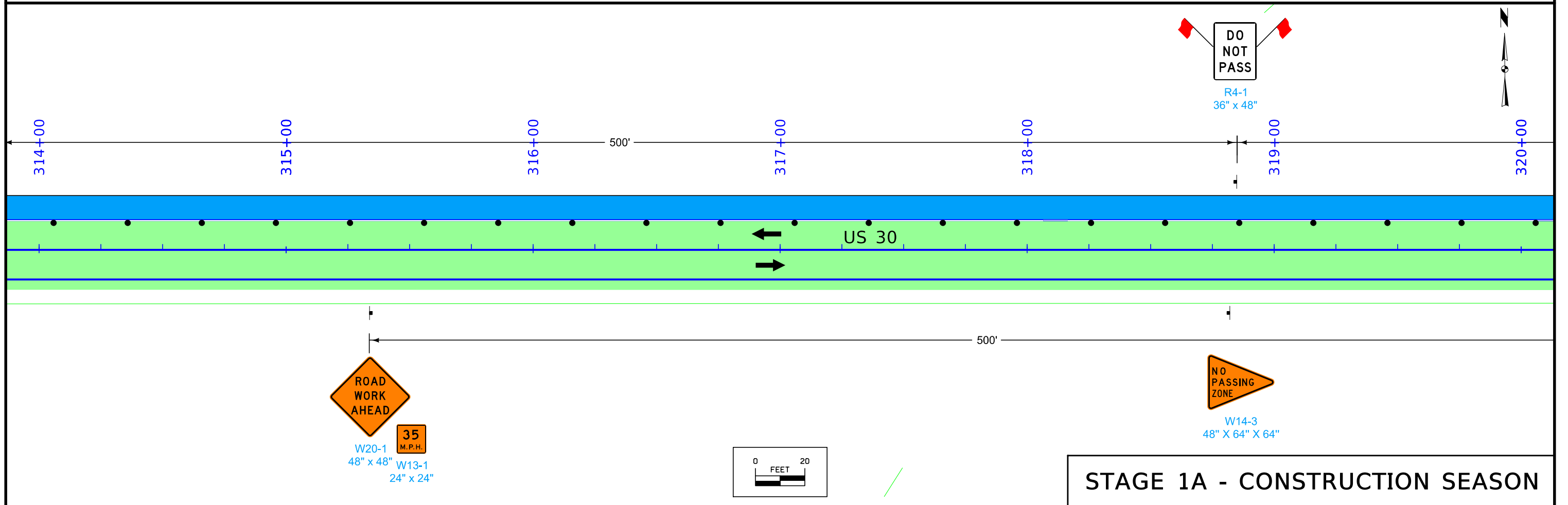
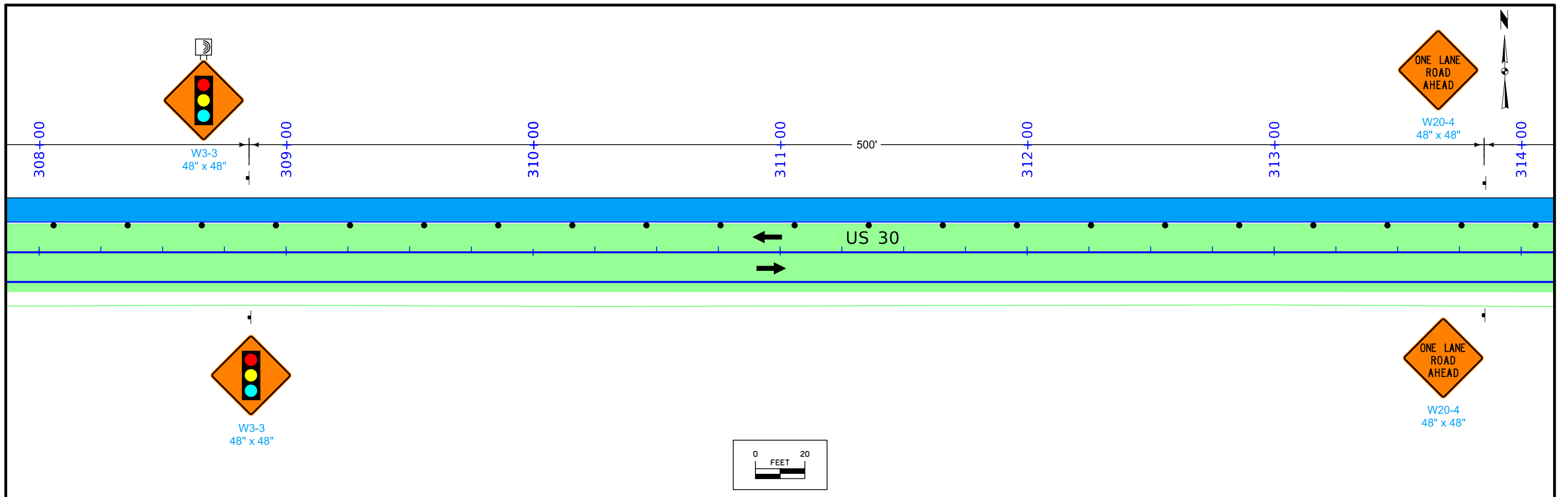
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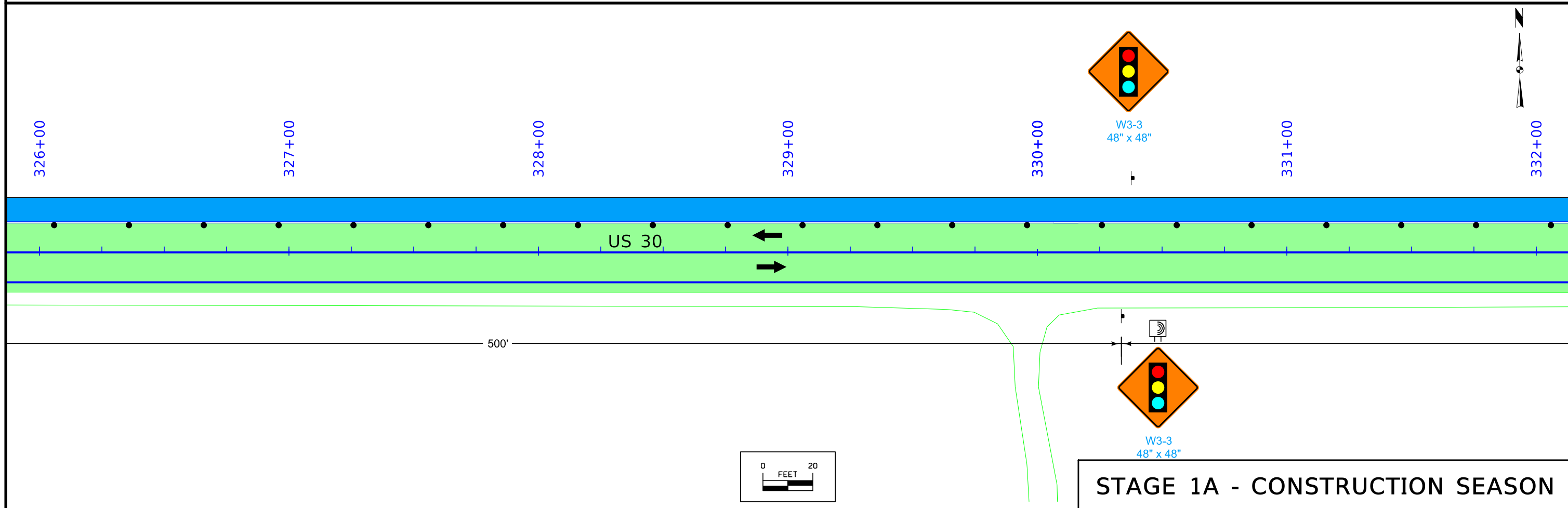
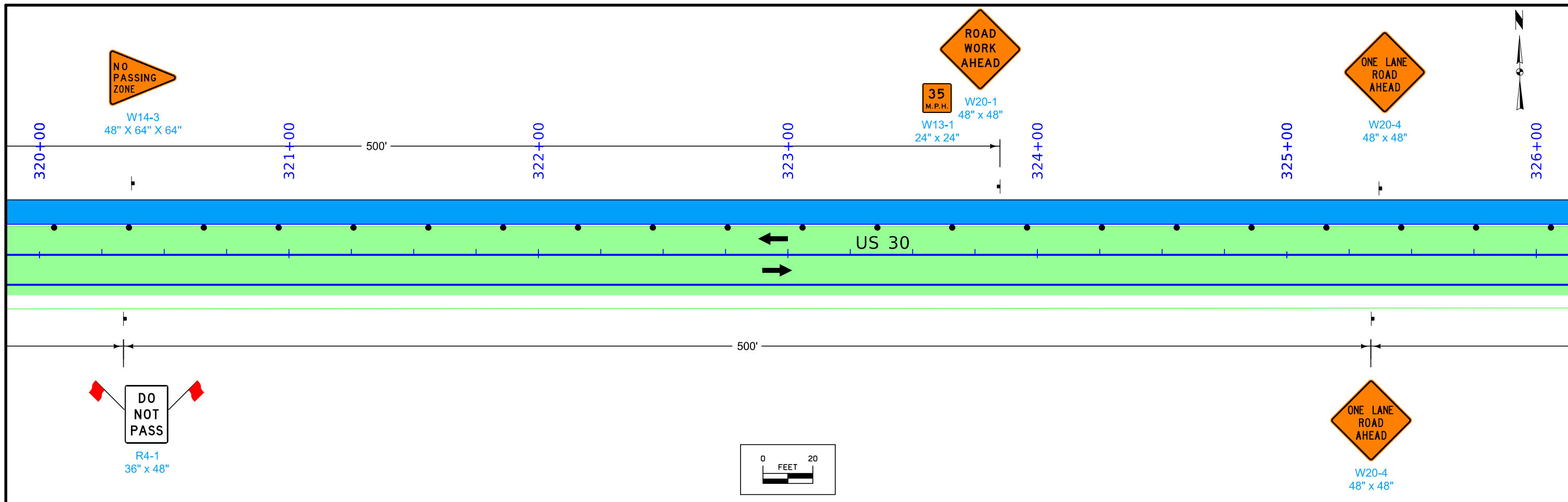
STAGE 1A - CONSTRUCTION SEASON



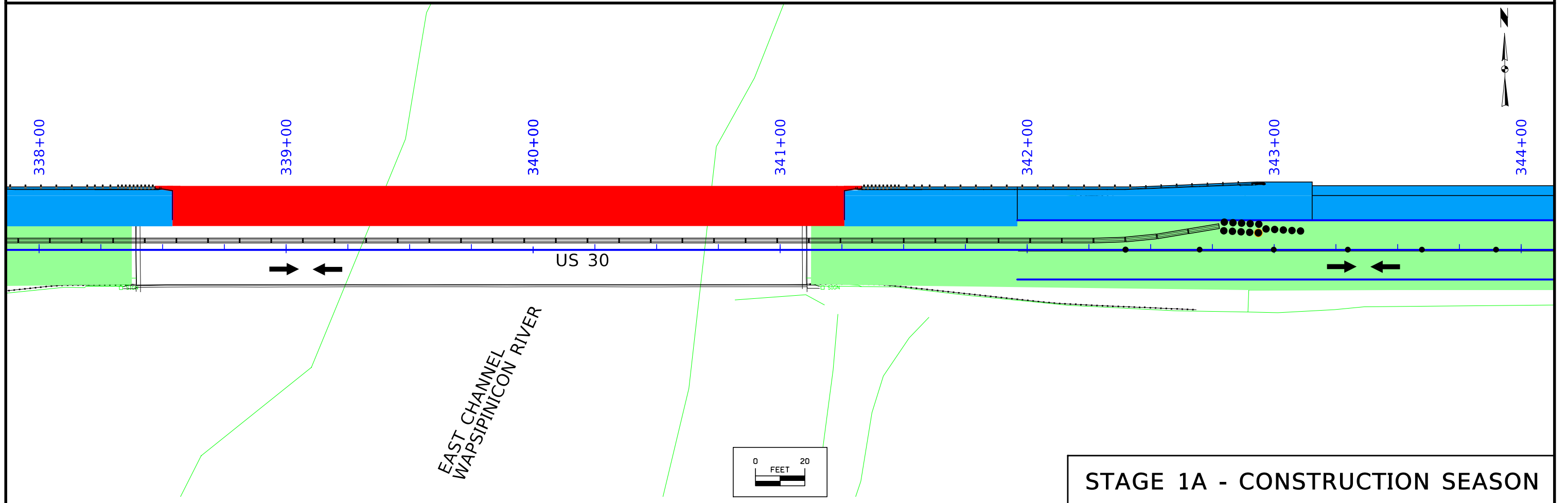
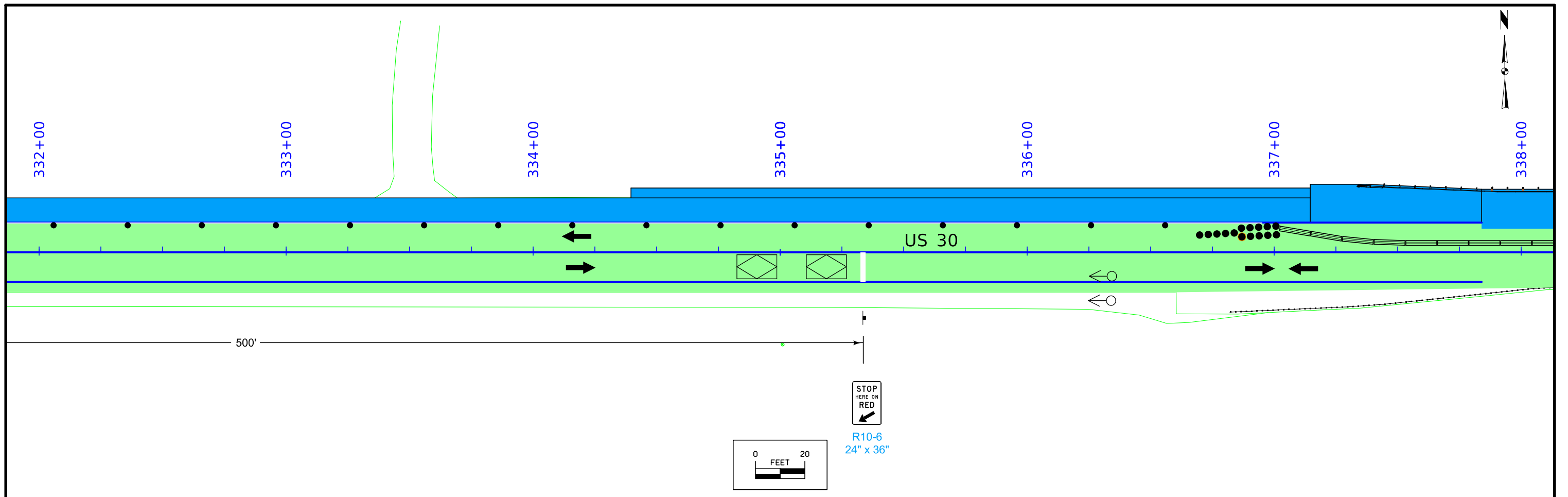
STAGE 1A - CONSTRUCTION SEASON



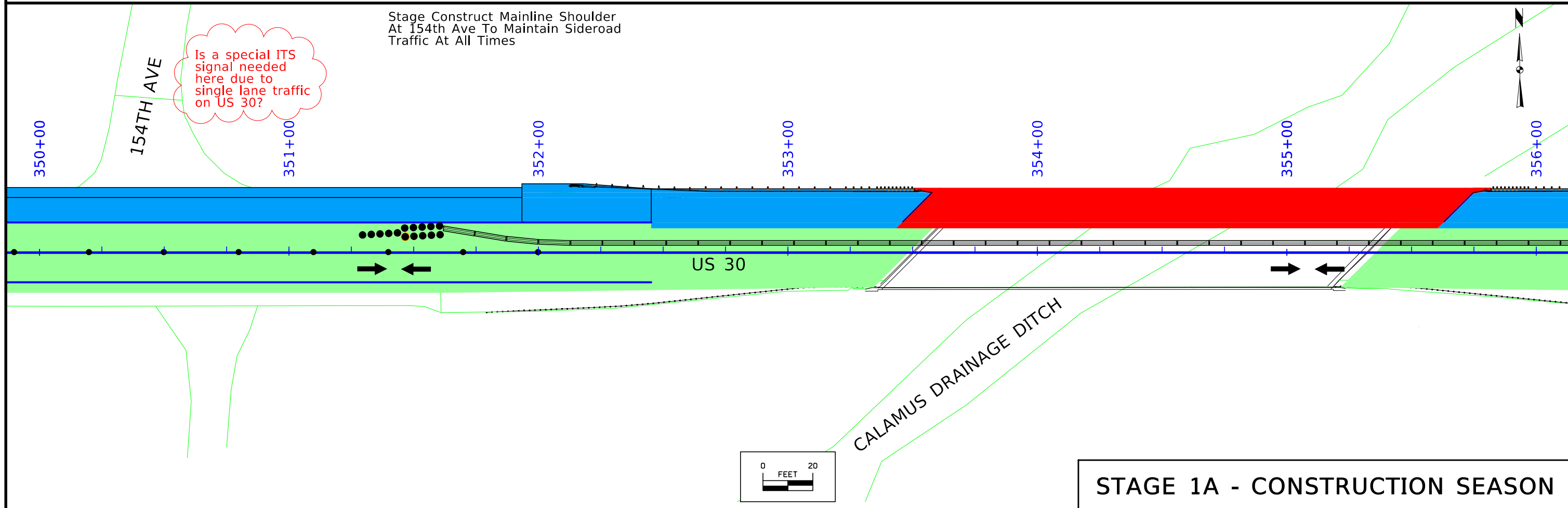
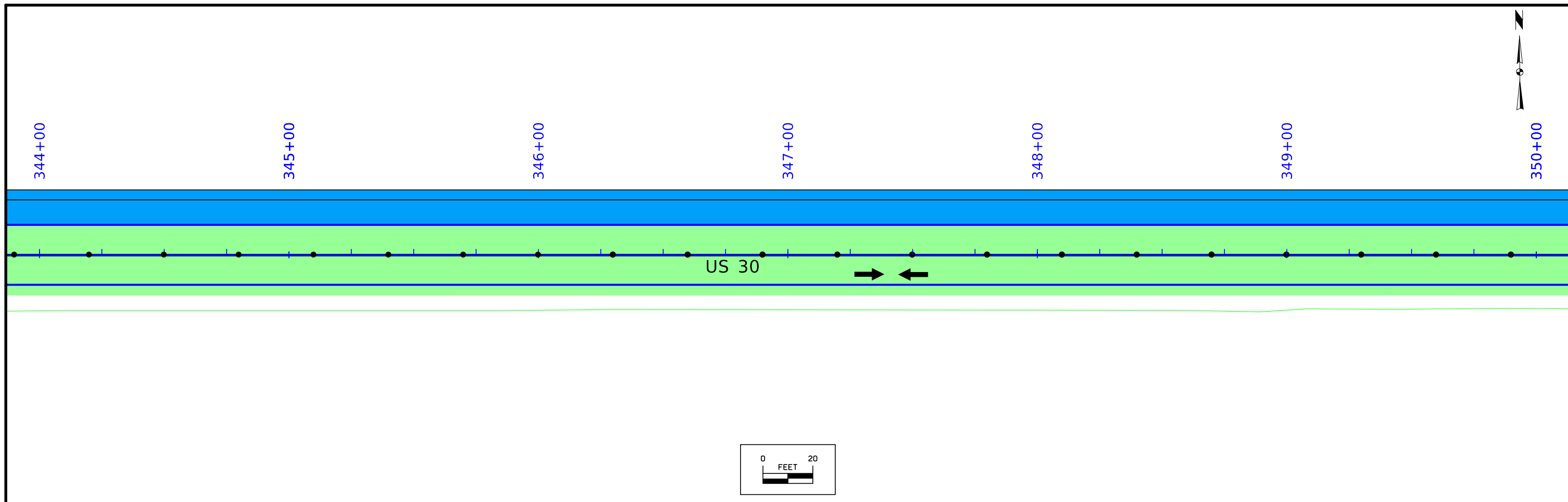
STAGE 1A - CONSTRUCTION SEASON



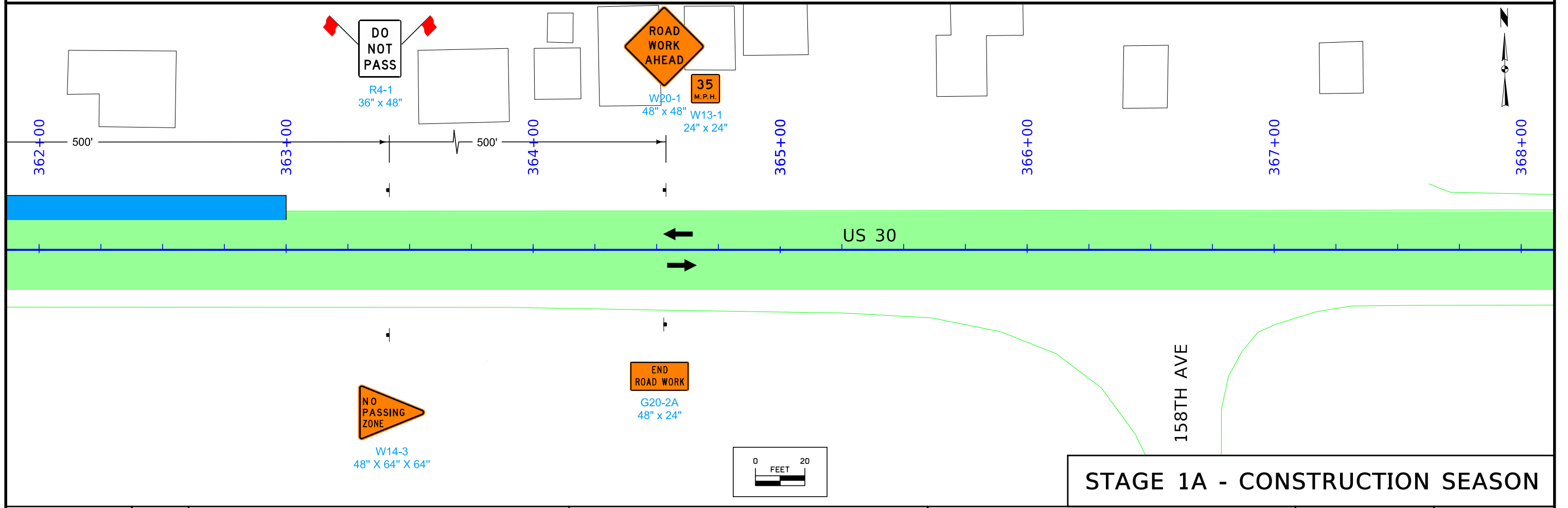
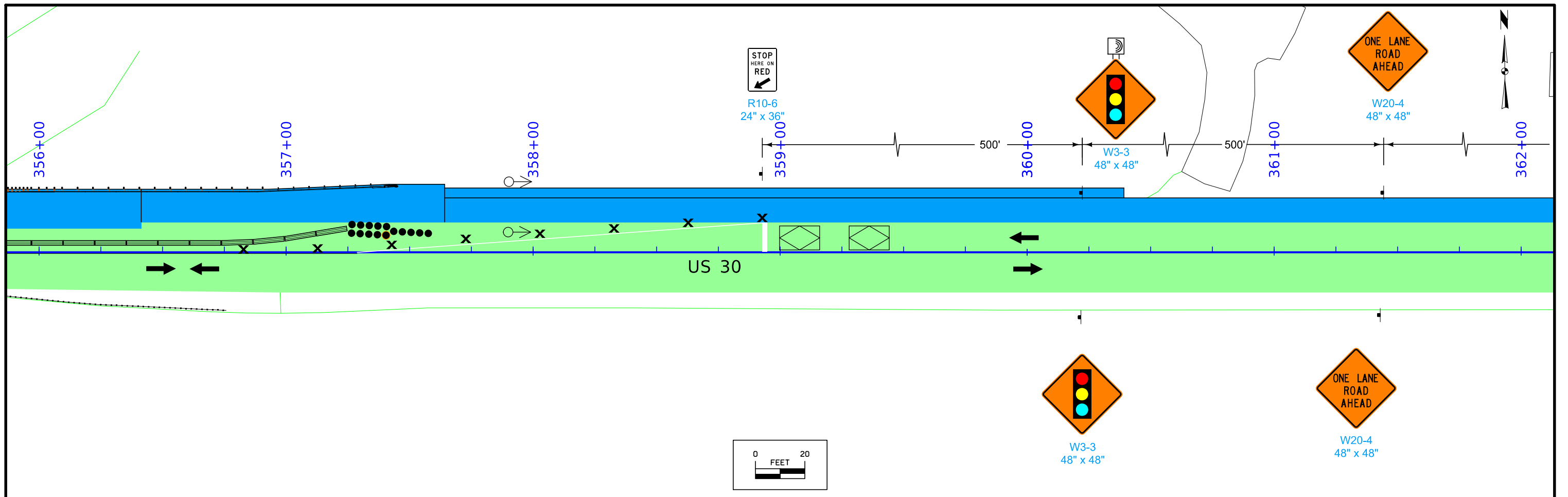
STAGE 1A - CONSTRUCTION SEASON



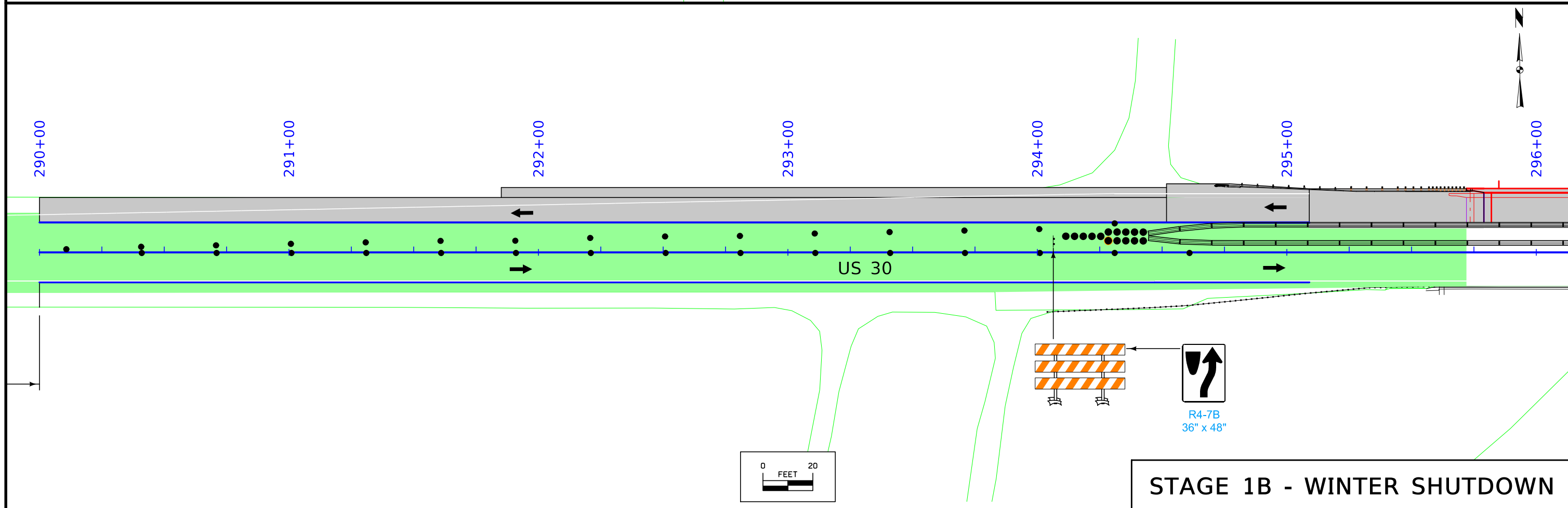
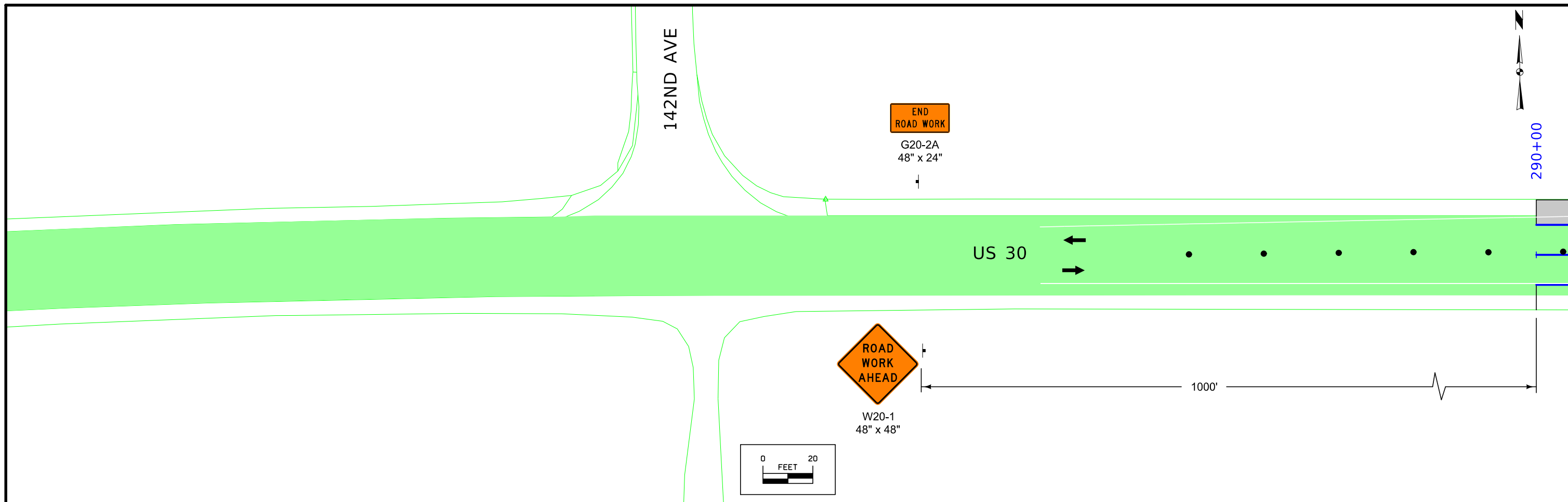
STAGE 1A - CONSTRUCTION SEASON

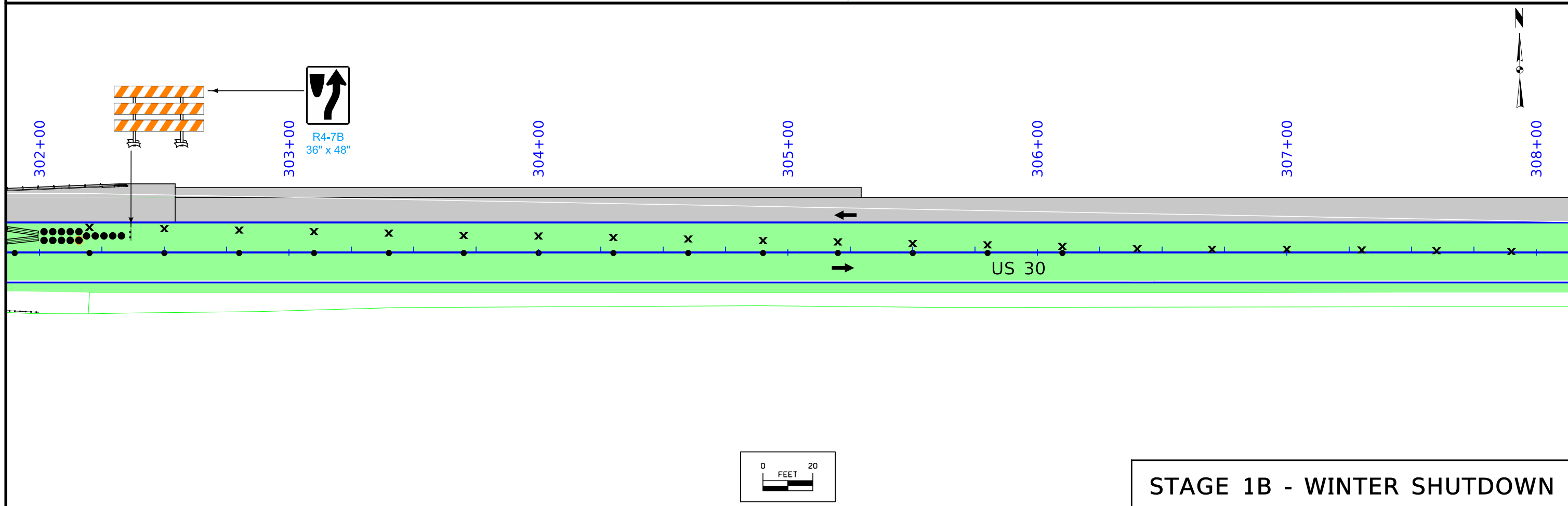
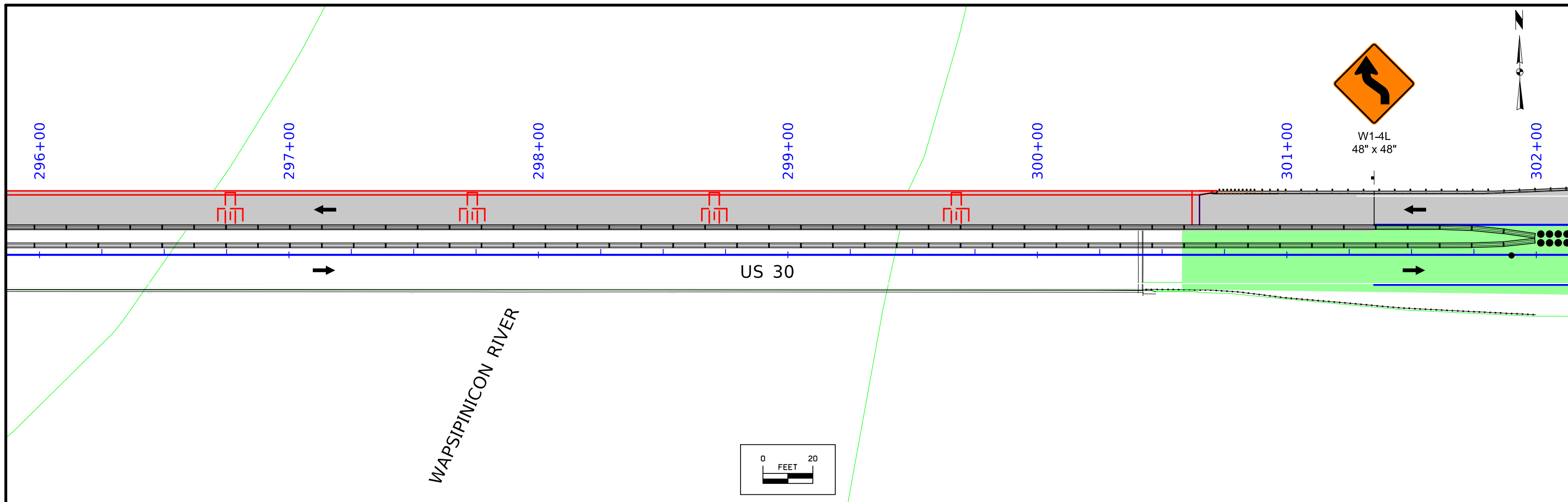


STAGE 1A - CONSTRUCTION SEASON

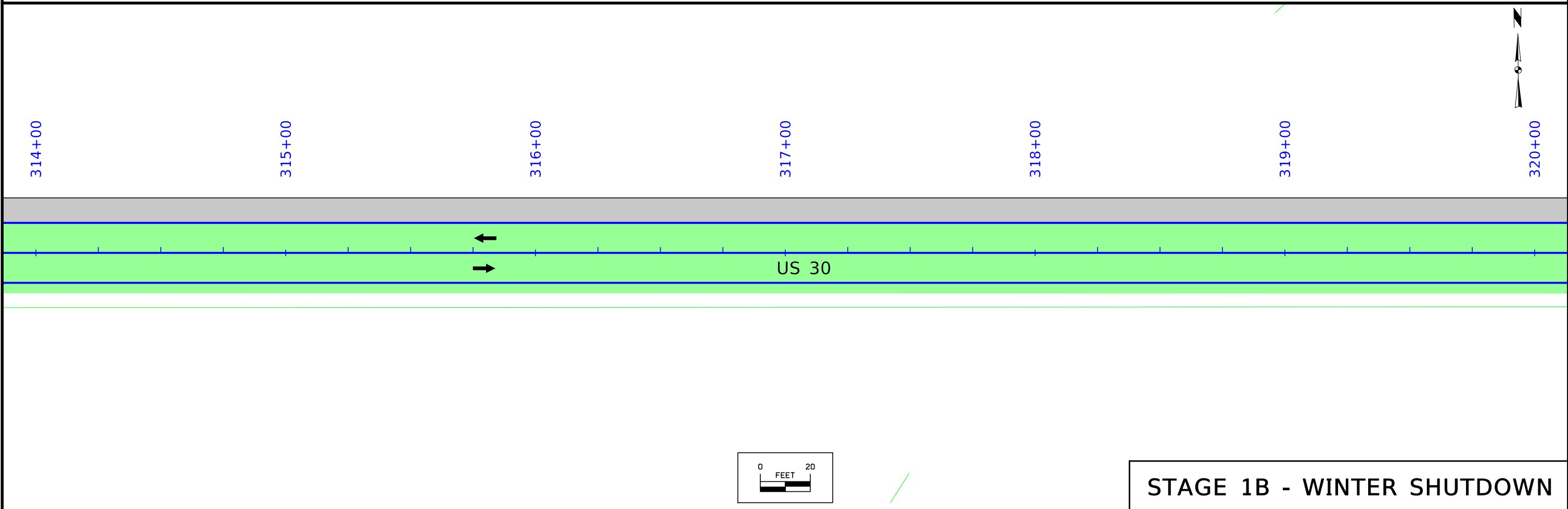
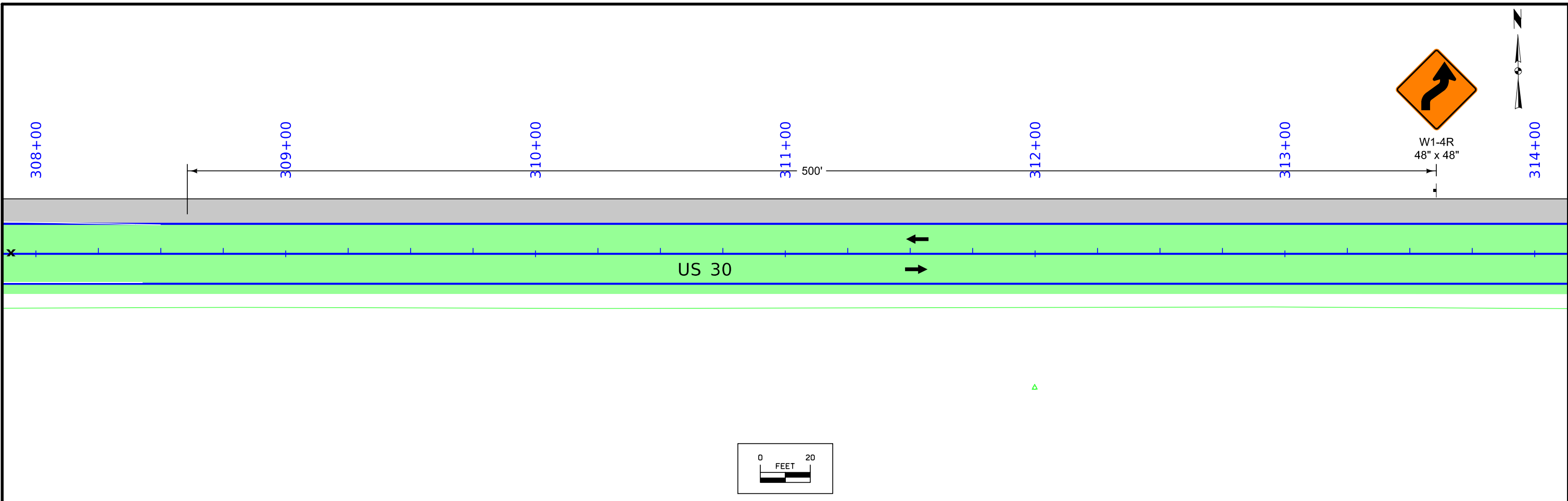


STAGE 1A - CONSTRUCTION SEASON

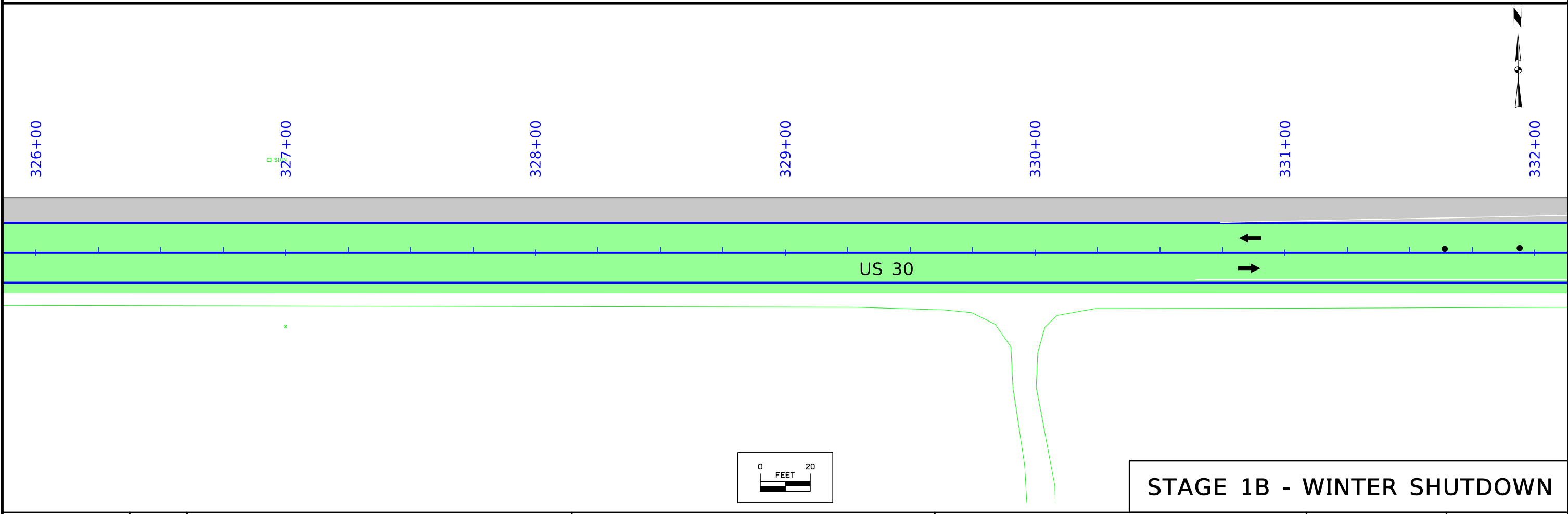
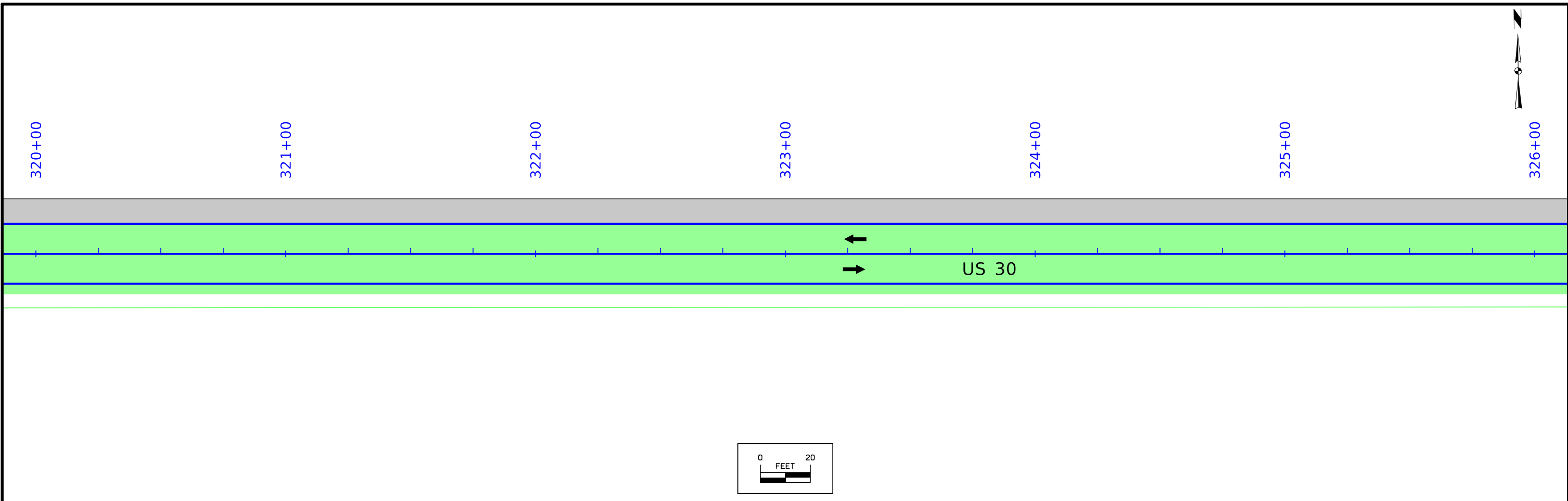




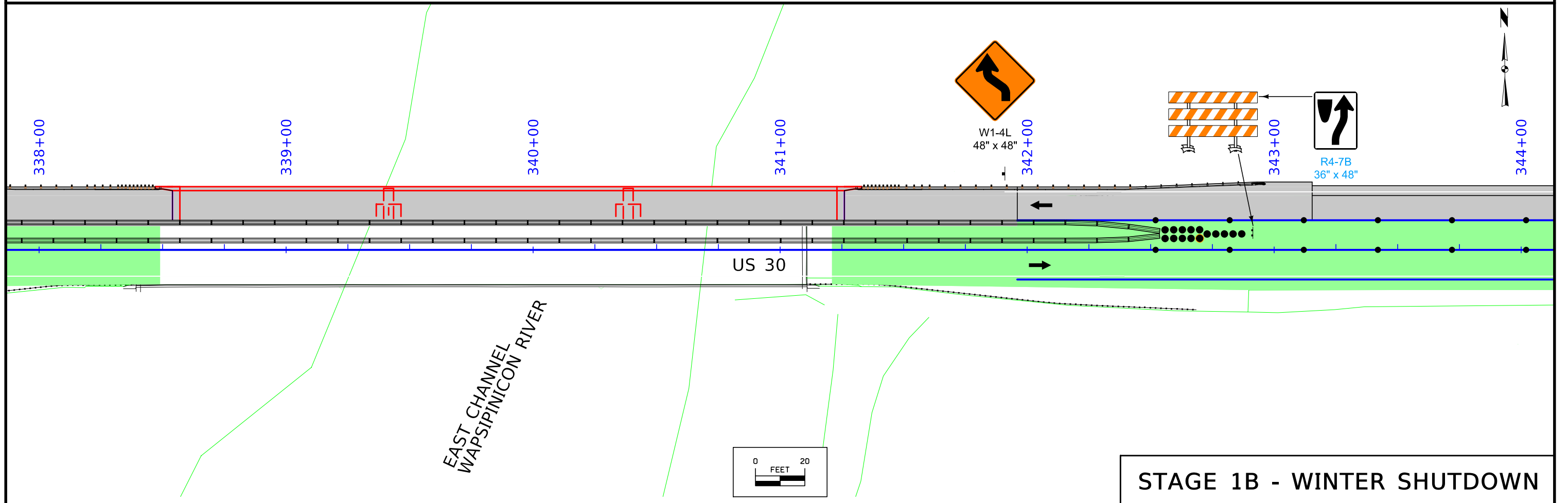
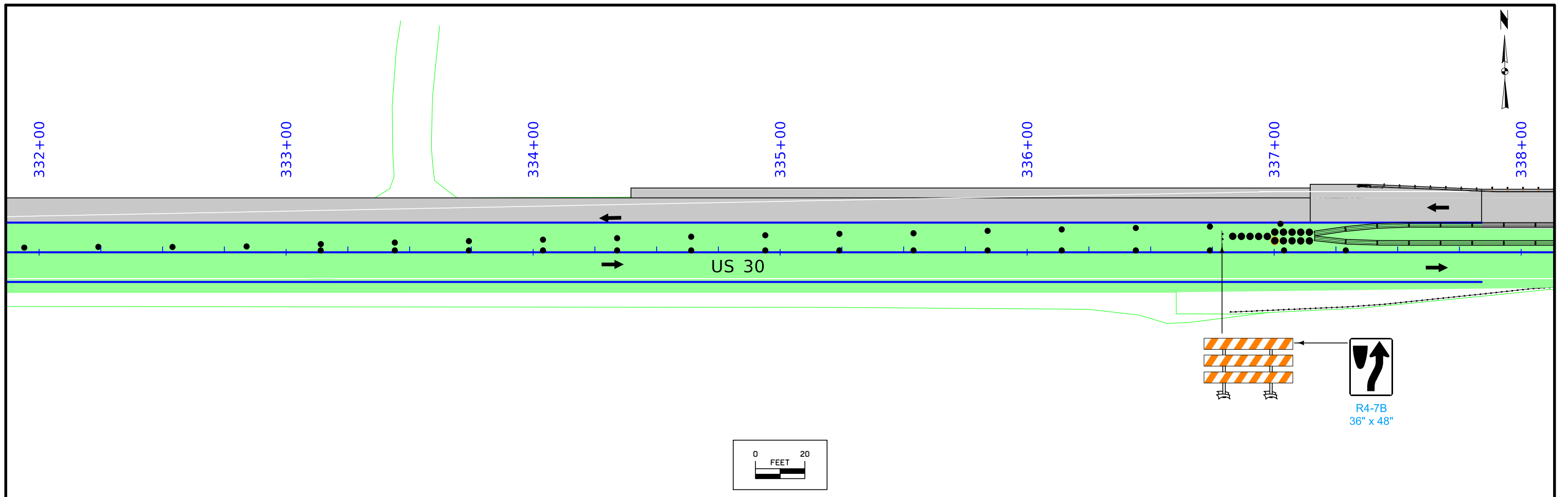
STAGE 1B - WINTER SHUTDOWN



STAGE 1B - WINTER SHUTDOWN

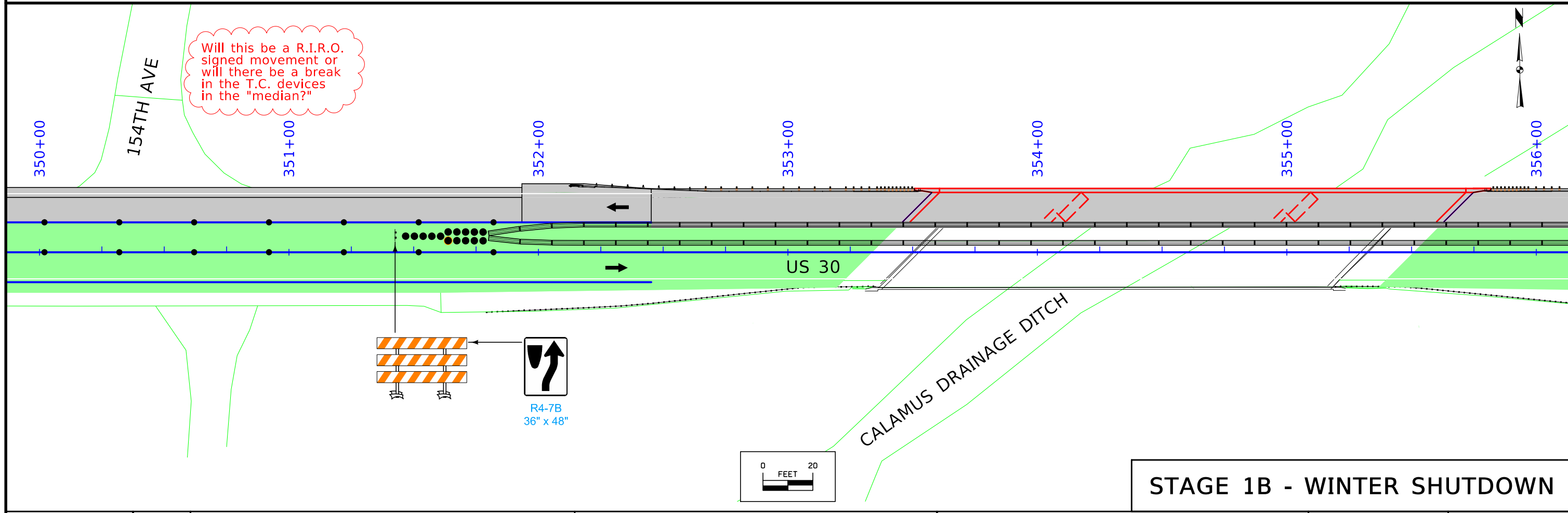
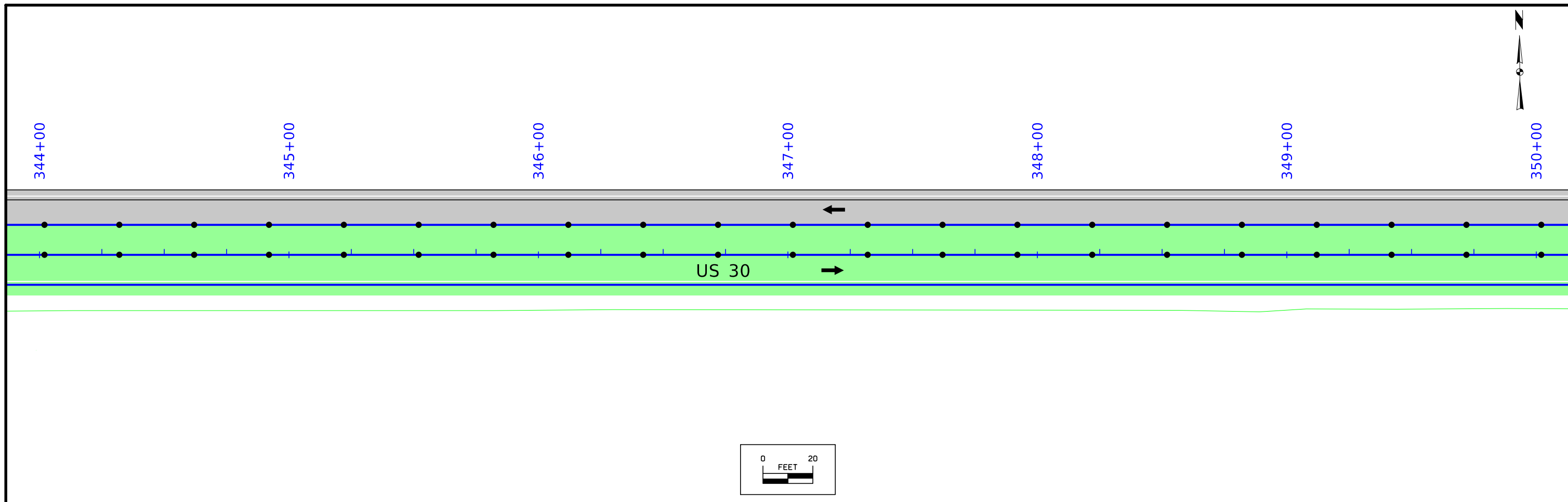


STAGE 1B - WINTER SHUTDOWN

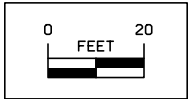
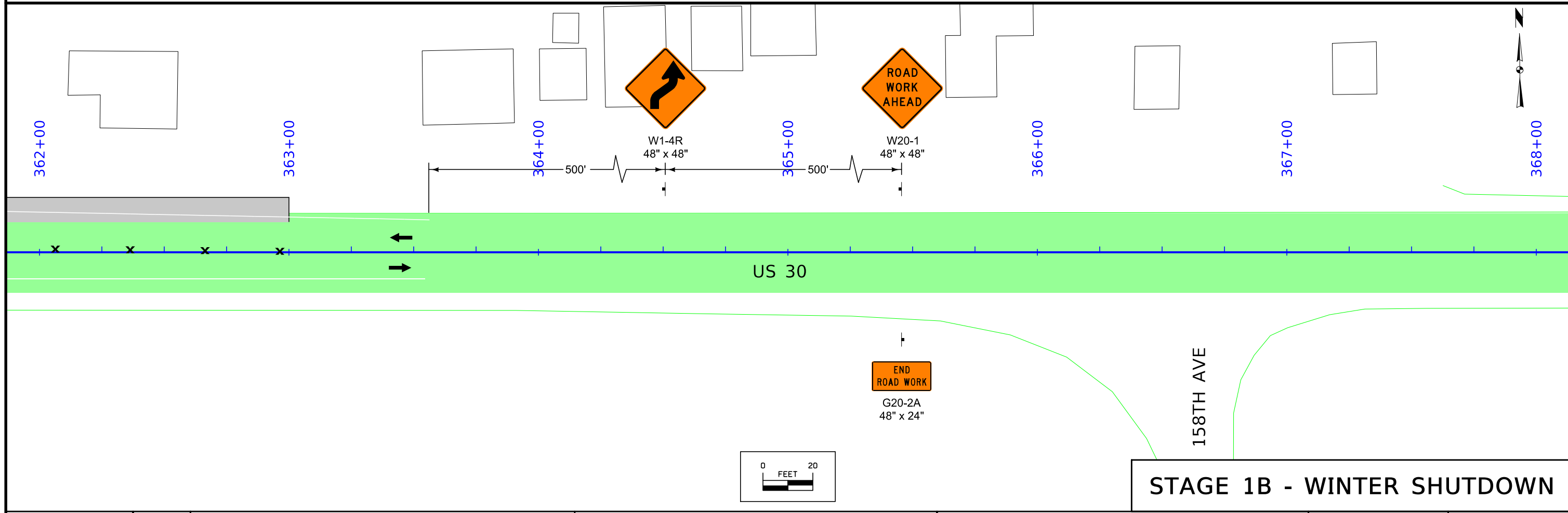
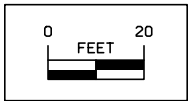
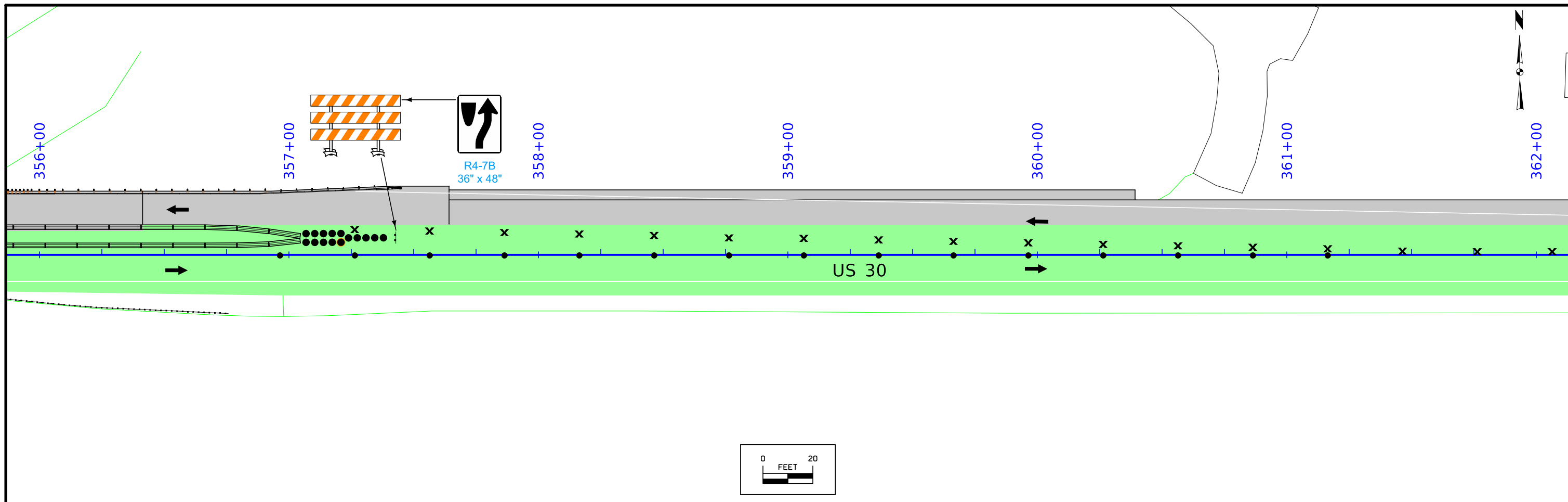


EAST CHANNEL
WAPSIPINICON RIVER

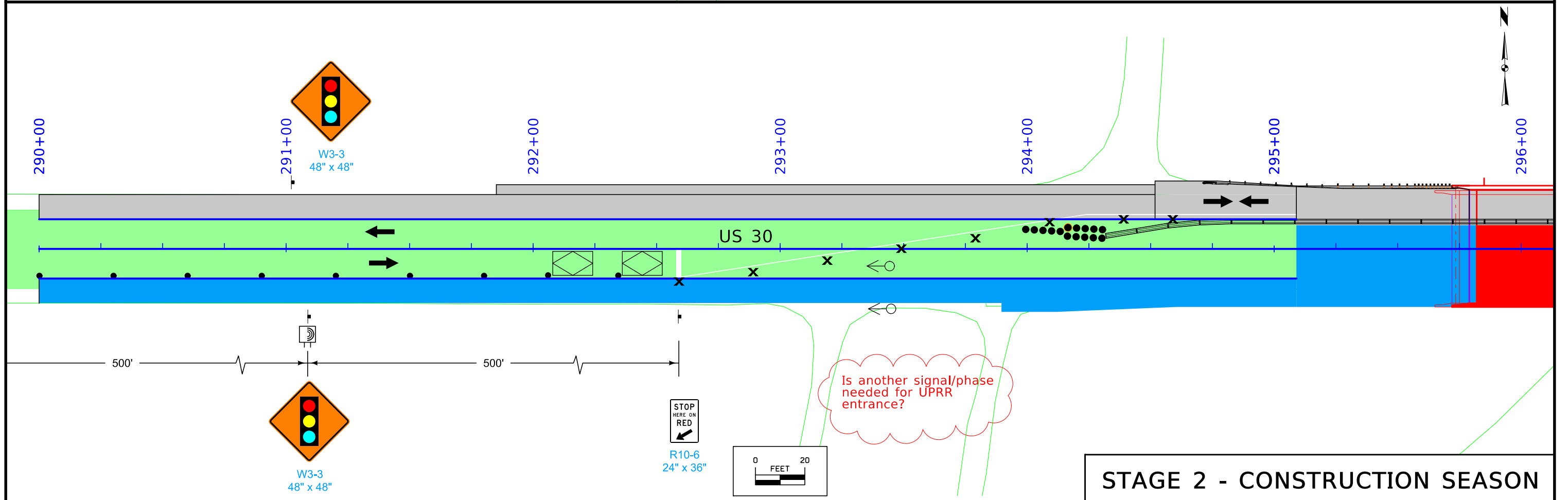
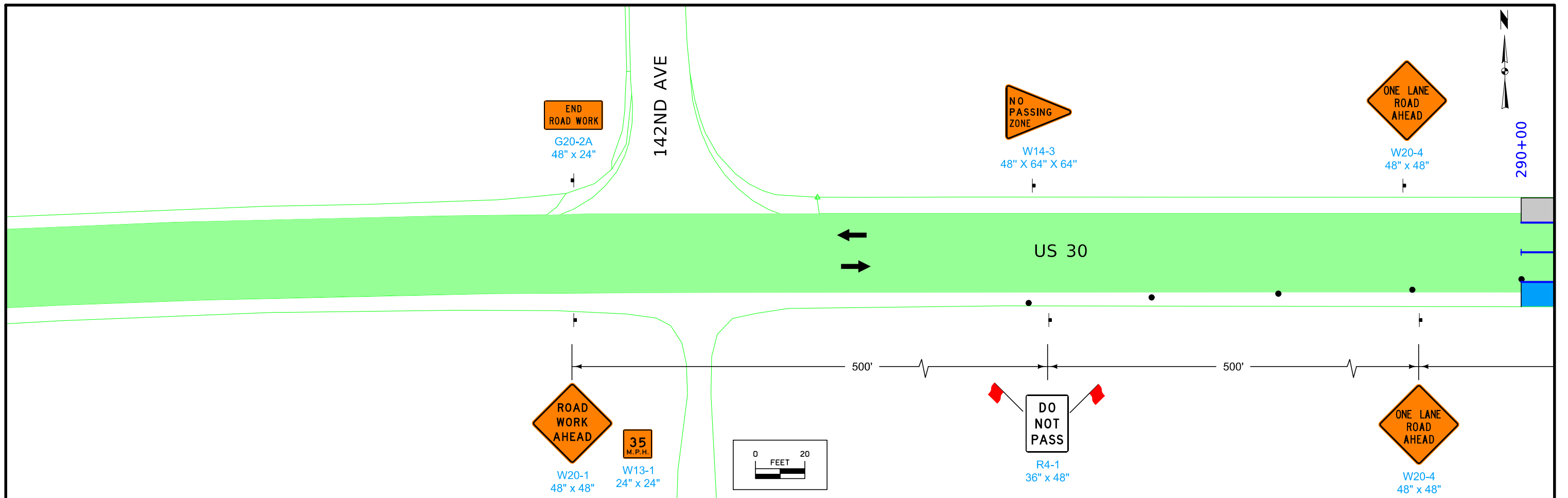
STAGE 1B - WINTER SHUTDOWN

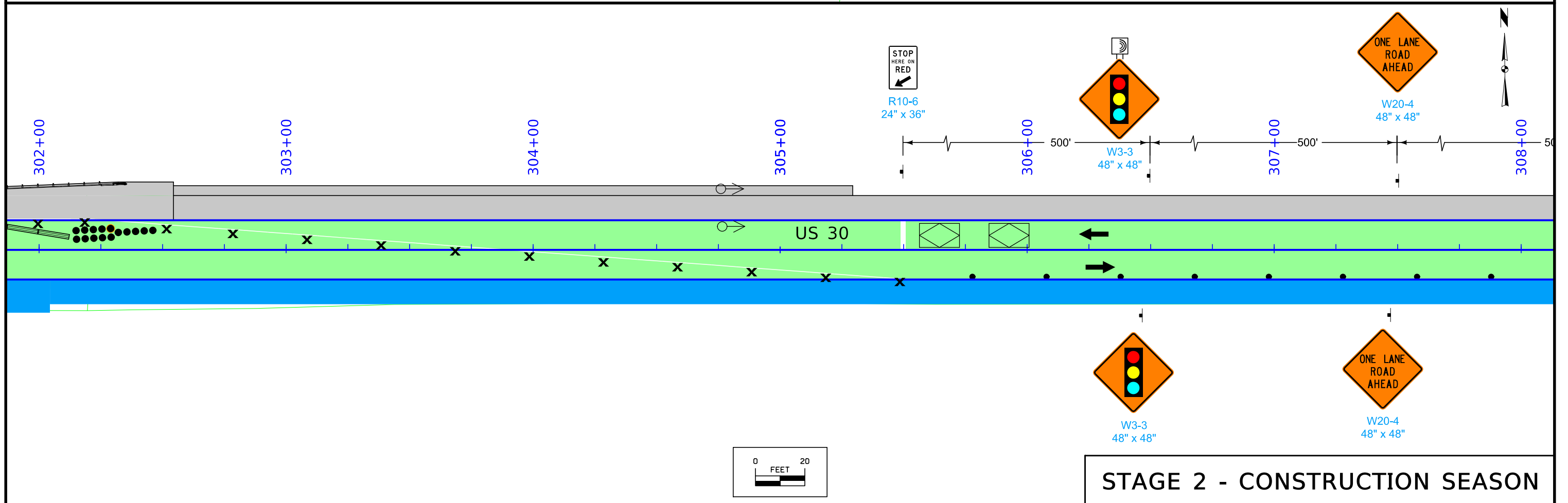
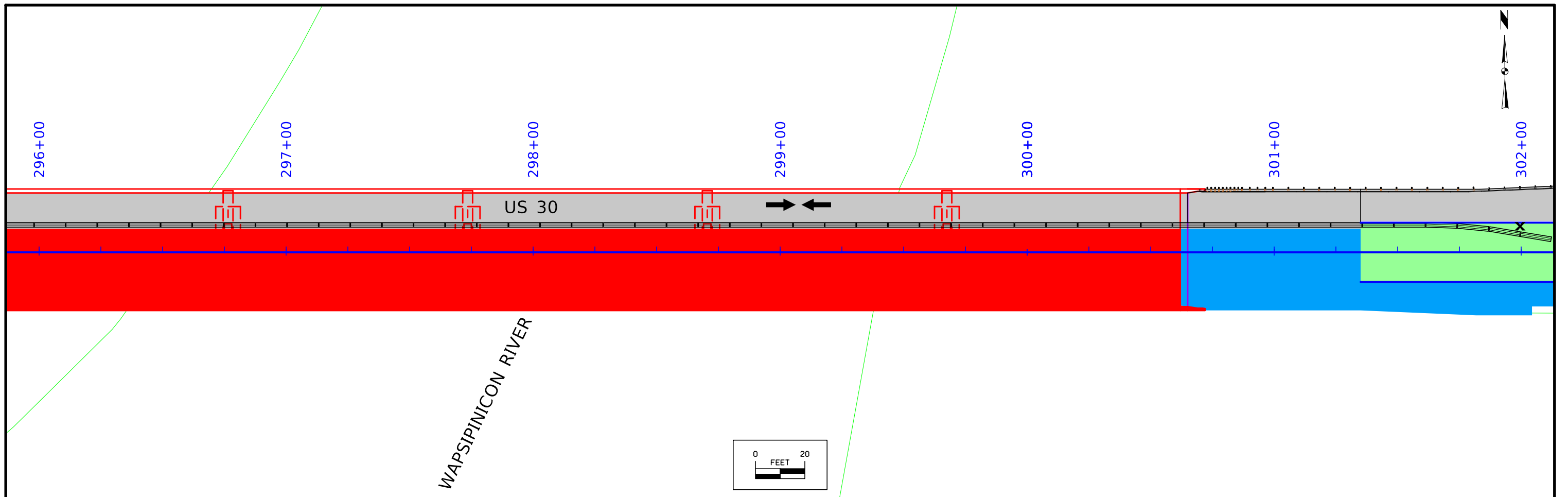


STAGE 1B - WINTER SHUTDOWN

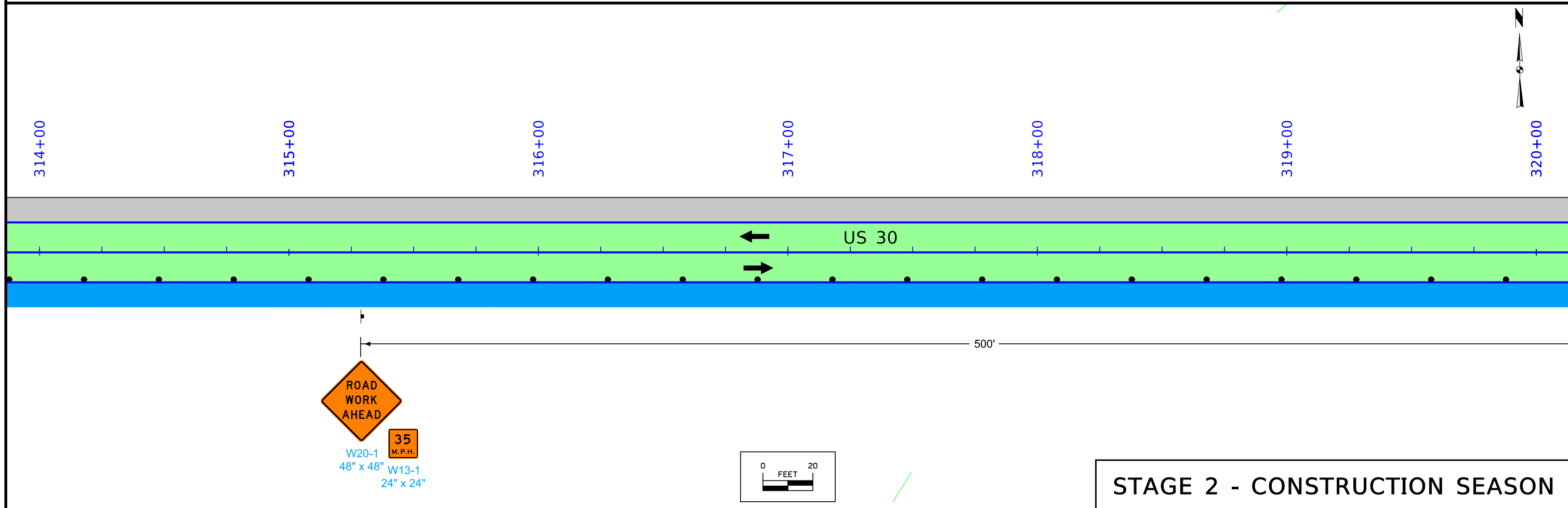
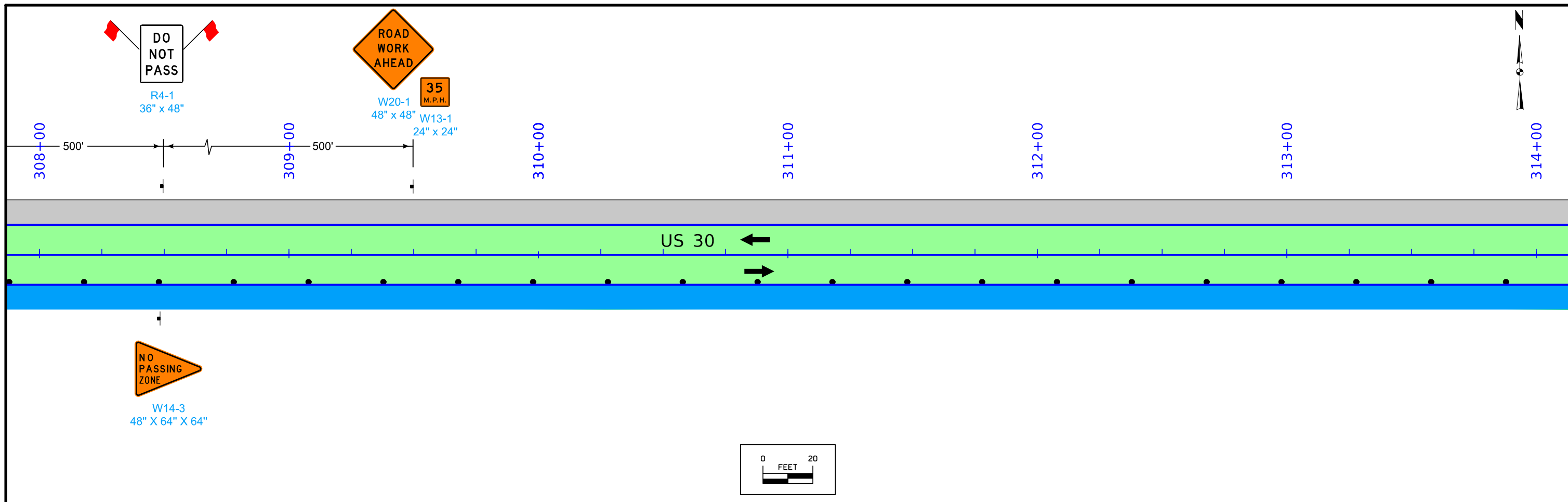


STAGE 1B - WINTER SHUTDOWN

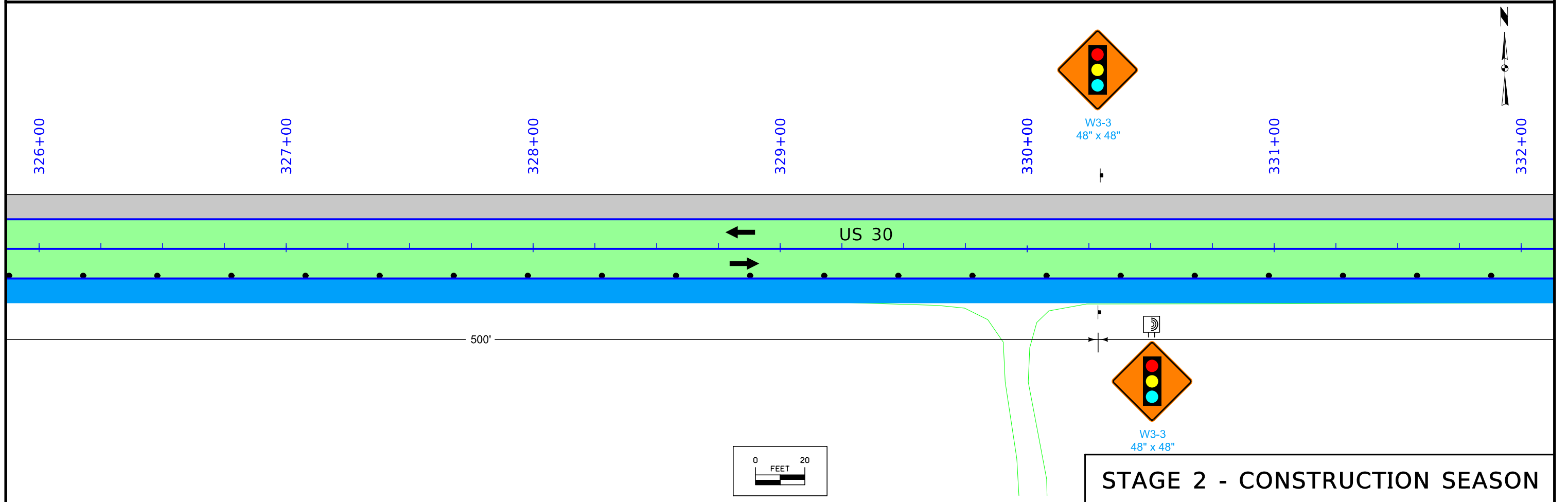
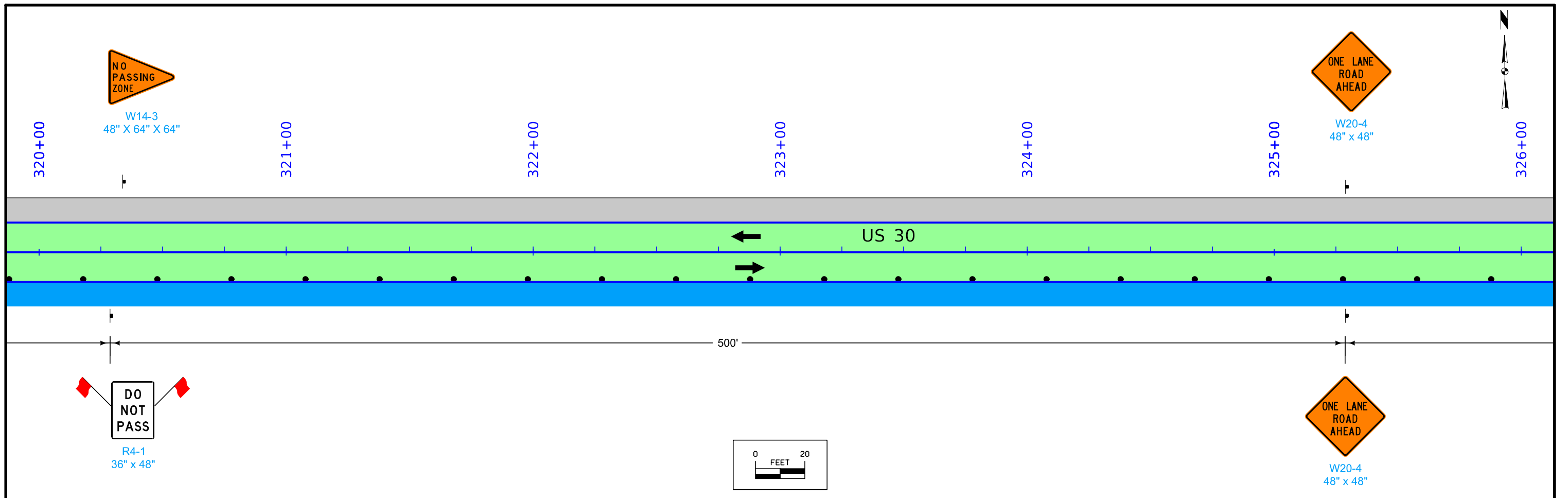




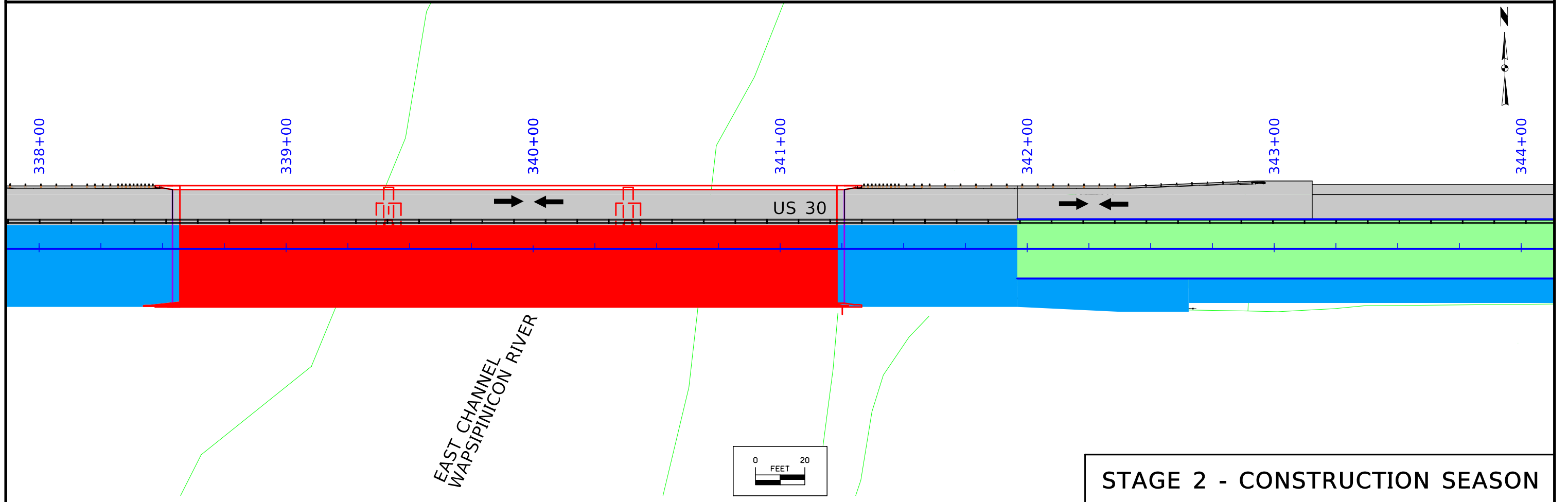
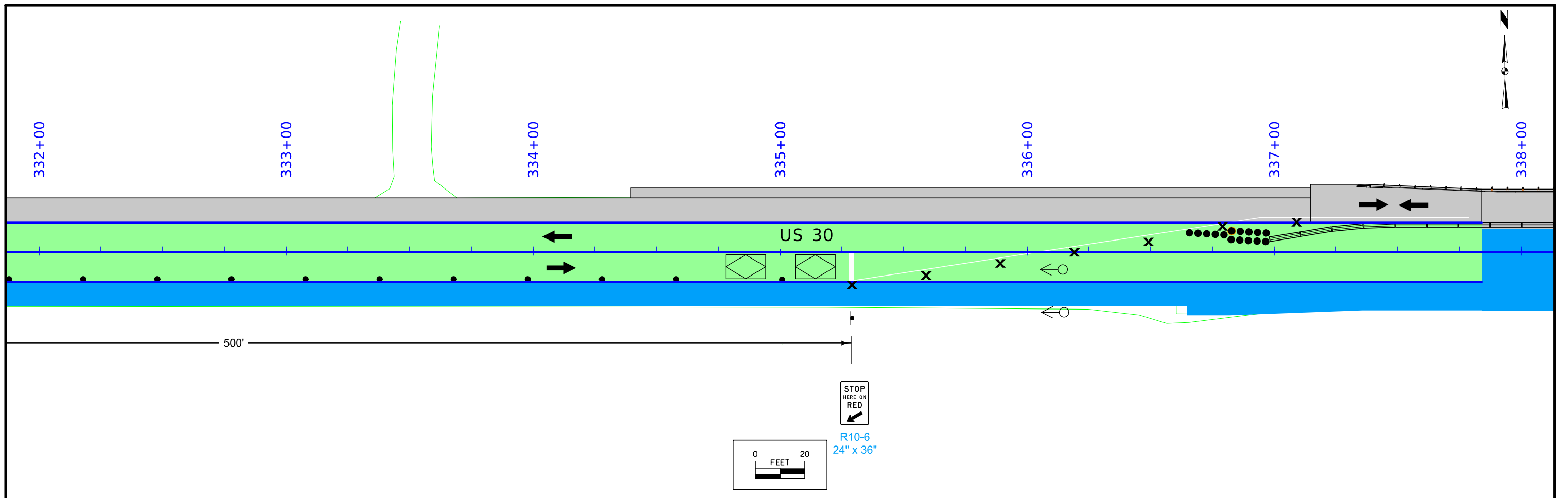
STAGE 2 - CONSTRUCTION SEASON



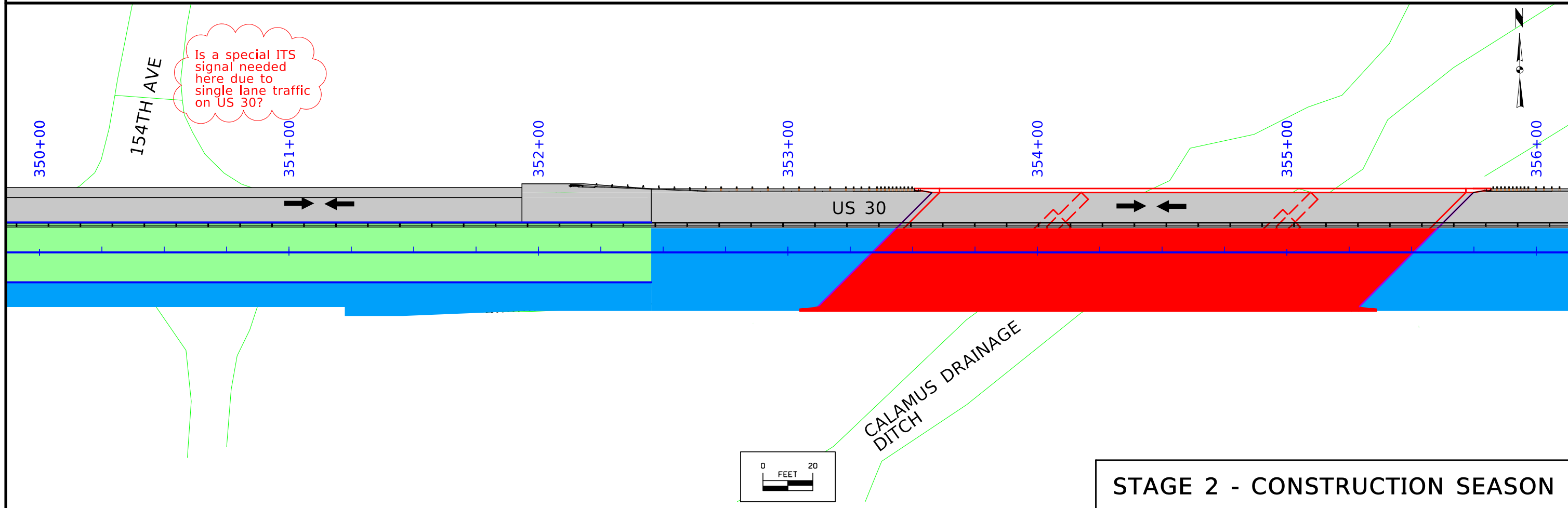
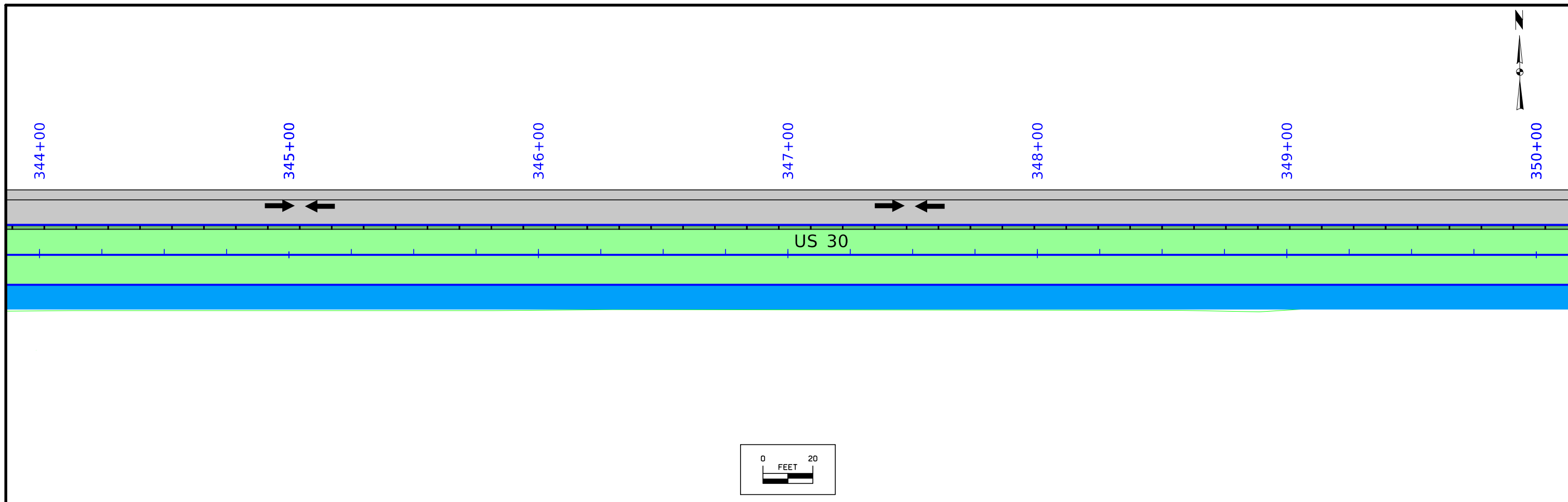
STAGE 2 - CONSTRUCTION SEASON



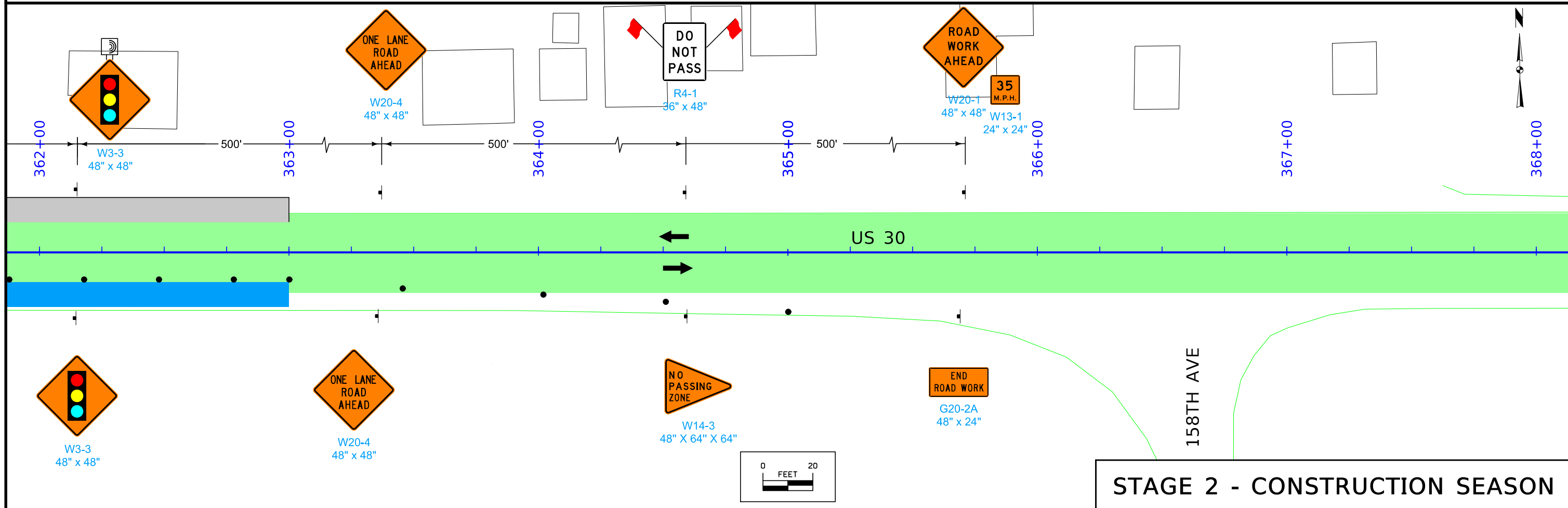
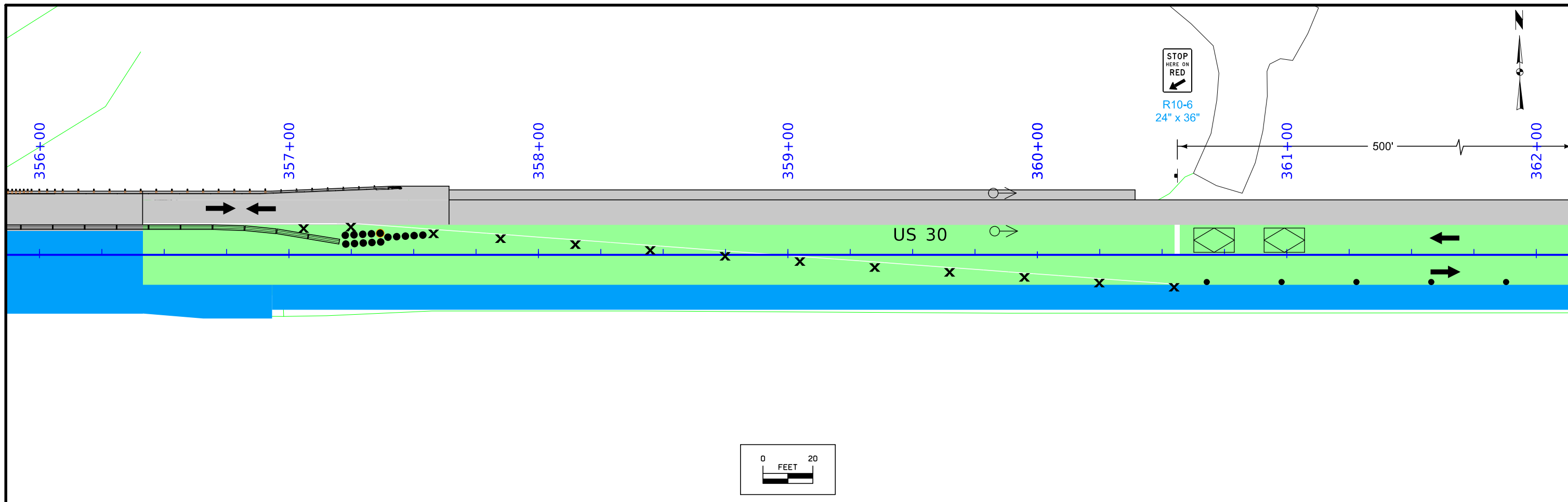
STAGE 2 - CONSTRUCTION SEASON



STAGE 2 - CONSTRUCTION SEASON



STAGE 2 - CONSTRUCTION SEASON



STAGE 2 - CONSTRUCTION SEASON

POLLUTION PREVENTION PLAN

This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP).

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

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

I. ROLES AND RESPONSIBILITIES

- A. Designer:
 1. Prepares Base PPP included in the project plan.
 2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
 3. Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required.
- B. Contractor:
 1. Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
 2. Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications.
 3. Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications.
 4. Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231).
 5. Supervises and implements good housekeeping practices according to Paragraph III, C, 2.
 6. Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports.
 7. Complies with training and certification requirements of Section 2602 of the Standard Specifications.
 8. Submits amended PPP site map according to Section 2602 of the Standard Specifications.
- C. Subcontractors:
 1. Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or performing work that is a source of potential pollution as defined in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
 2. Implement good housekeeping practices according to Paragraph III, C, 2.
- D. RCE/Project Engineer:
 1. Is Project Storm Water Manager.
 2. On projects where DOT is the Contracting Authority, is current with erosion control training or certification.
 3. Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance.
 4. Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit.
 5. Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors.
 6. Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements.
 7. Is familiar with the Project PPP and storm water site map.
 8. On projects where DOT is Contracting Authority, is responsible for periodically monitoring inspection reports to determine whether deficiencies identified in inspection reports were adequately and timely addressed, and if not, has the authority and responsibility to direct immediate actions to correct the deficiencies.
 9. Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements.
 10. Is signature authority on Notice of Discontinuation.
 11. Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231).
 12. Makes information to determine permit compliance available to the DNR upon their request.
- E. Inspector:
 1. Updates PPP through fieldbook entries and storm water site inspection reports if there is a change in design, construction, operation, or maintenance which has a significant effect on the discharge of pollutants from the project.
 2. Makes information to determine permit compliance available to the DNR upon their request.
 3. Conducts joint required inspections of the site with the contractor/subcontractor.
 4. Completes an inspection report after each inspection.
 5. Is signature authority on storm water inspection reports.

II. PROJECT SITE DESCRIPTION

- A. This Pollution Prevention Plan (PPP) is for the construction of a Bridge Replacement and Shoulder Widening.
- B. This PPP covers approximately 11.8 acres with an estimated 11.8 acres being disturbed. The portion of the PPP covered by this contract has 11.8 acres disturbed.
- C. The PPP is located in an area of one soil association (Sparta - Chelsea - Dickinson) The estimated weighted average runoff coefficient number for this PPP after completion will be 0.33
- D. Storm Water Site Map is located in the R sheets. Proposed slopes are shown in cross sections, details, or standard road plans. Supplemental information is located in the Tabulations in the C or CE sheets.
- E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be

POLLUTION PREVENTION PLAN

documented by fieldbook entries and amended PPP site map.
F. Runoff from this work will flow into the Wapsipinicon River and Calamus Creek.

III. CONTROLS

- A. The Contractor's ECIP specified in Article 2602.03 of the Standard Specifications for accomplishment of storm water controls should clearly describe the intended sequence of major activities, and for each activity define the control measure and the timing during the construction process that the measure will be implemented.
- B. Preserve vegetation in areas not needed for construction.
- C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B of the Standard Specifications.
 - 1. EROSION AND SEDIMENT CONTROLS
 - a. Stabilization Practices
 - 1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.
 - 2) Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:
 - a) Permanently ceased on any portion of the site, or
 - b) Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.
 - 3) Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above.
 - 4) Permanent and Temporary Stabilization practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C or R sheets.
 - 5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.
 - 6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets. Additional information may be found in the Tabulations in the C or T Tabulation sheets, or is referenced in Section 2105 of the Standard Specifications.
 - b. Structural Practices
 - 1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.
 - 2) Structural practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B or R sheets or are referenced in the Standard Road Plans Tabulation (105-4) located in the C or R sheets.
 - c. Storm Water Management

Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the storm water site map and Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation. The installation of these devices may be subject to Section 404 of the Clean Water Act.
 - 2. OTHER CONTROLS

Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.

 - a. Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
 - b. Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
 - c. Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
 - d. Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
 - e. Spill Prevention and Control - Implement chemical spill and leak prevention and response procedures to contain and clean up spills and prevent material discharges to the storm drain system and waters of the state.
 - f. Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.
 - g. Concrete Grooving/Grinding Slurry - Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.
 - h. Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.
 - i. Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants.
 - j. Dewatering - Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.
- 3. APPROVED STATE OR LOCAL PLANS

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

IV. MAINTENANCE PROCEDURES

POLLUTION PREVENTION PLAN

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

V. INSPECTION REQUIREMENTS

- A. Inspections shall be made jointly by the Contractor and the Contracting Authority's inspector at least once every seven calendar days. Storm water site inspections will include:
 1. Date of the inspection.
 2. Summary of the scope of the inspection.
 3. Name and qualifications of the personnel making the inspection.
 5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
 6. Major observations related to the implementation of the PPP.
 7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.
- B. Include storm water site inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.

VI. NON-STORM WATER DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of headwalls or blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.

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

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

VIII. DEFINITIONS

- A. Base PPP - Initial Pollution Prevention Plan.
- B. Amended PPP - Base PPP amended during construction. May include Plan Revisions or Contract Modifications for new items, storm water site inspection reports, fieldbook entries made by the inspector, amended PPP site map by the Contractor, ECIP, NOI, co-permittee certifications, and Subcontractor Request Forms. Items amending the PPP are stored electronically and are readily available upon request.
- C. Fieldbook Entries - This contains the inspector's daily diary and bid item postings.
- D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials. Also called Best Management Practices (BMPs).
- E. Signature Authority - Representative authorized to sign various storm water documents.

CERTIFICATION STATEMENT

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

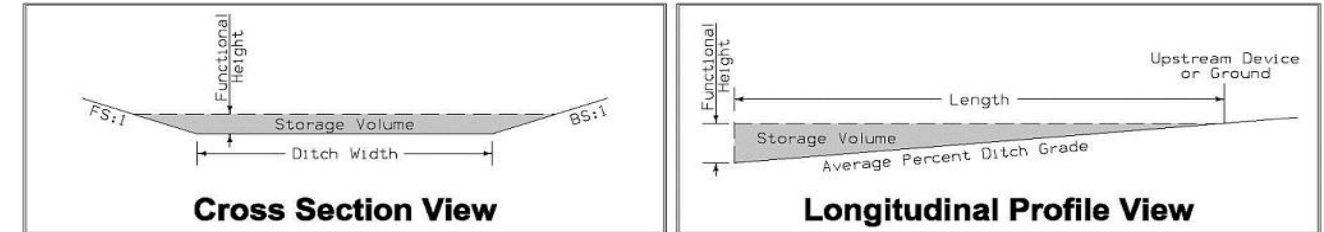
Signature

Printed or Typed Name

Signature

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201



* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.

* Volume equation: $[0.5 * Spacing * (0.5 * H^2 * FS + DW * H + 0.5 * H^2 * BS)]$

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks
		Station	Side	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
				LF	LF	LF	FS:1	BS:1	FT	Ditch Grade	CF	
1	5	290+00.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
1	5	292+90.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
2	5	290+00.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
2	5	249+00.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	300+60.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	303+75.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	306+90.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	310+05.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	313+20.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	315+40.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	316+50.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	319+50.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	322+65.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	325+80.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	329+40.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	330+75.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	333+65.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
3	5	336+50.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	300+60.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	303+75.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	306+90.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	310+05.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	312+60.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	313+15.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	315+40.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	317+30.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	319+50.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	322+65.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	325+80.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	329+40.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	330+75.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	333+65.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
4	5	336+50.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
5	5	344+50.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
5	5	347+50.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
5	5	351+10.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
6	5	344+50.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
6	5	347+50.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
6	5	351+10.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
7	5	358+00.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
7	5	360+45.00	Rt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
8	5	358+00.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	
8	5	360+60.00	Lt	10.0	10.0	10.0	3.5	0.0	5.0	0.5%	1556.2	

STORMWATER DRAINAGE BASIN AND STORAGE

Refer to EC Standards and 570s Details.

Drainage Basin Location						Summary of Stormwater Storage							Remarks
Basin No.	Station to Station		Side	Discharge Point		Total Disturbed Area	Disturbed Area with Storage Provided	Disturbed Area without Storage Provided	Best Management Practice	Total Storage Volume Provided	Total Storage Volume Required	Storage Volume Met?	
				Station	Side					CF	CF	Yes/No	
	Acres	Acres	Acres										
1	290+00.00	295+72.00	Rt	295+50.00	Rt	0.5	0.5	0.0	Silt Fence for Ditch Check (EC-201)	3112.3	1908.0	Yes	
2	290+00.00	295+72.00	Lt	295+50.00	Lt	0.6	0.6	0.0	Silt Fence for Ditch Check (EC-201)	3112.3	2052.0	Yes	
3	300+58.00	338+49.00	Rt	316+00.00	Rt	3.5	3.5	0.0	Silt Fence for Ditch Check (EC-201)	20230.1	12600.0	Yes	
4	300+58.00	338+49.00	Lt	317+15.00	Lt	3.3	3.3	0.0	Silt Fence for Ditch Check (EC-201)	24898.6	11880.0	Yes	
5	341+21.00	353+34.00	Rt	345+50.00	Rt	1.0	1.0	0.0	Silt Fence for Ditch Check (EC-201)	4668.5	3600.0	Yes	
6	341+21.00	353+34.00	Lt	345+80.00	Lt	1.5	1.5	0.0	Silt Fence for Ditch Check (EC-201)	4668.5	5400.0	Yes	
7	355+51.00	363+00.00	Rt	356+20.00	Rt	0.7	0.7	0.0	Silt Fence for Ditch Check (EC-201)	3112.3	2628.0	Yes	
8	355+51.00	363+00.00	Lt	356+80.00	Lt	0.6	0.6	0.0	Silt Fence for Ditch Check (EC-201)	3112.3	2160.0	Yes	

LINE STYLE LEGEND OF LANDSCAPE SHEETS

LINETYPE	Design Element
-----	Living Snow Fence Single Row
-----	Living Snow Fence Double Row
_____	Mechanical Edge

CELL LEGEND OF LANDSCAPE SHEETS

CELL	Design Element	Plant Diameter
⊕	Clearing	
⊙	Proposed Shrub	6 FT
⊙	Proposed Understory Tree	12 FT
⊙	Proposed Conifer Tree	18 FT
⊙	Proposed Overstory Tree	30 FT

PATTERN LEGEND OF LANDSCAPE SHEETS

	Brush Clearing		Spray Area
	Clearing & Grubbing		

LINE STYLE LEGEND OF EROSION CONTROL SHEETS

LINETYPE	Design Element
	Silt Fence
	Perimeter and Slope Sediment Control Device (9")
	Perimeter and Slope Sediment Control Device (12")
	Perimeter and Slope Sediment Control Device (20")
	Open-Throat Curb Intake Sediment Filter
	Concentrated Flow
	Rock Check and Rock Check Dam
	Sheet Flow

CELL LEGEND OF EROSION CONTROL SHEETS

CELL	Design Element
	Temporary Sediment Control basin
	Erosion Control for Circular Intake or Manhole Well
	Erosion Control for Rectangular Intake or Manhole Well
	Grate Intake Sediment Filter Bag
	Silt Basin
	Silt Fence Tail
	Stormwater Drainage Basin Discharge Point

PLAN VIEW COLOR LEGEND OF EROSION CONTROL SHEETS

LINWORK	Design Color No.	Design Element
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
Black	(0)	Permanent Erosion Control Features
Blaze Orange	(222)	Temporary Erosion Control Features

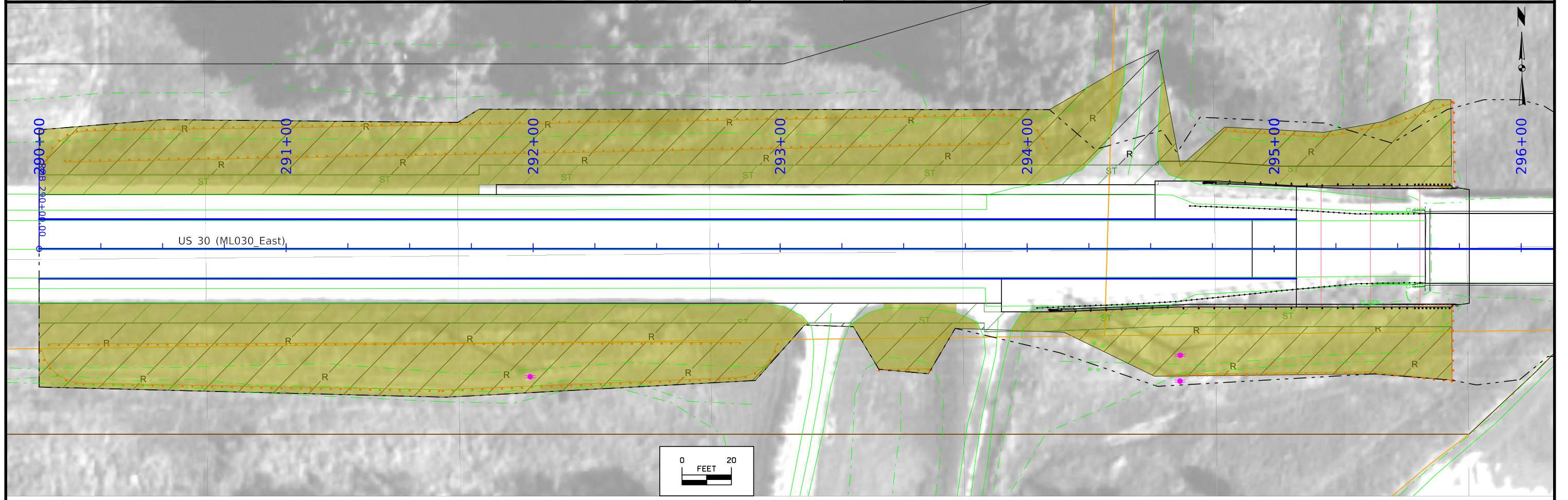
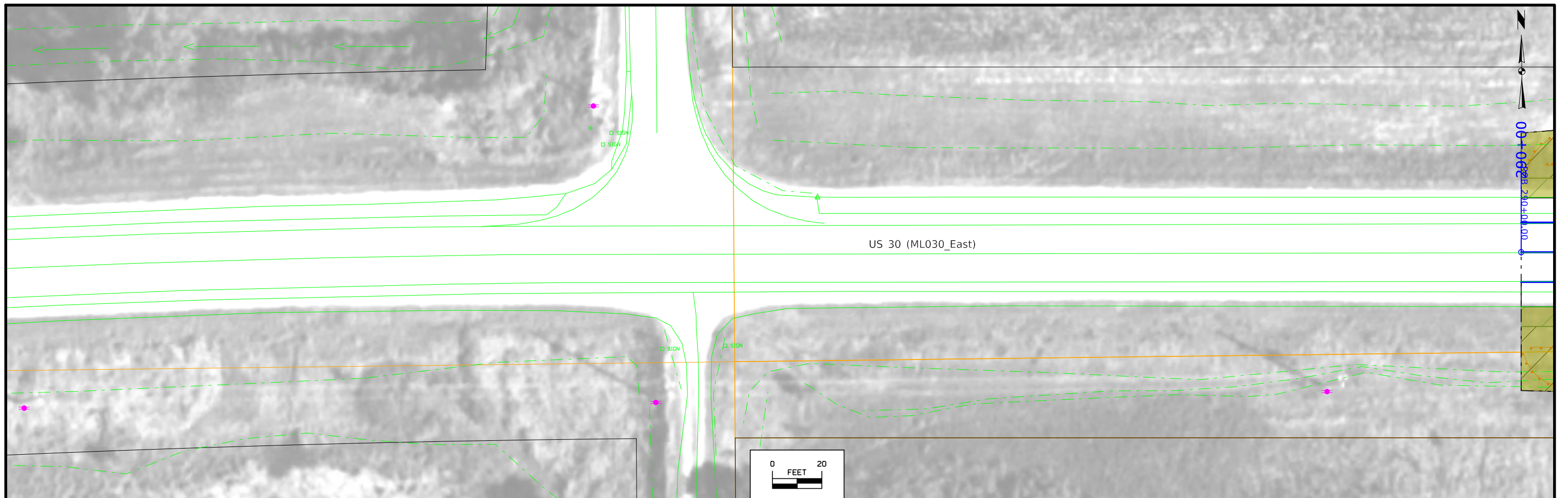
SHADING	Design Color No.	Design Element	Transparency
Citron	(234)	Mulching, All Types	50%
Light Brown	(238)	Special Ditch Control, Wood Excelsior Mat	0%
Grass Green	(233)	8FT Mow Strip	50%

PATTERN LEGEND OF EROSION CONTROL SHEETS

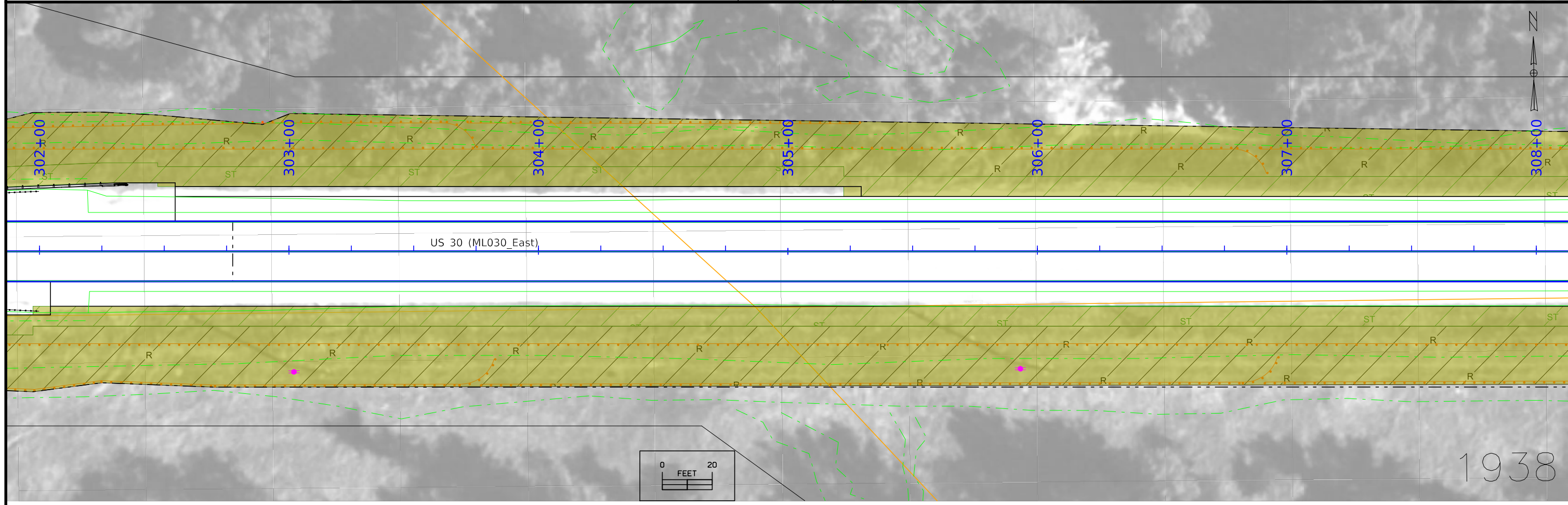
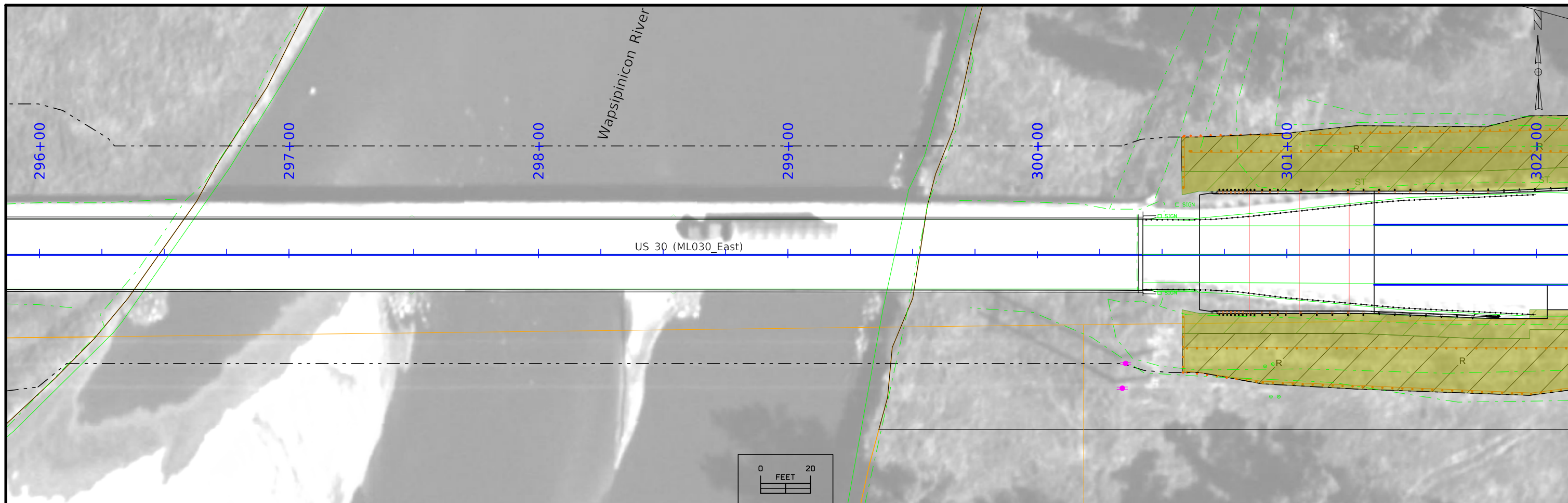
	Seeding and Fertilizing		Turf Reinforcement Mat Type 1
	Seeding and Fertilizing (Rural)		Turf Reinforcement Mat Type 2
	Seeding and Fertilizing (Urban)		Turf Reinforcement Mat Type 3
	Native Grass Seeding		Turf Reinforcement Mat Type 4
	Salt Tolerant Seeding		Slope Protection, Wood Excelsior Mat
	Wetland Grass Seeding		Transition Mat
	Wildflower Seeding		Rock Features, Permanent
	Sodding		Rock Features, Temporary

EROSION CONTROL LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES R)

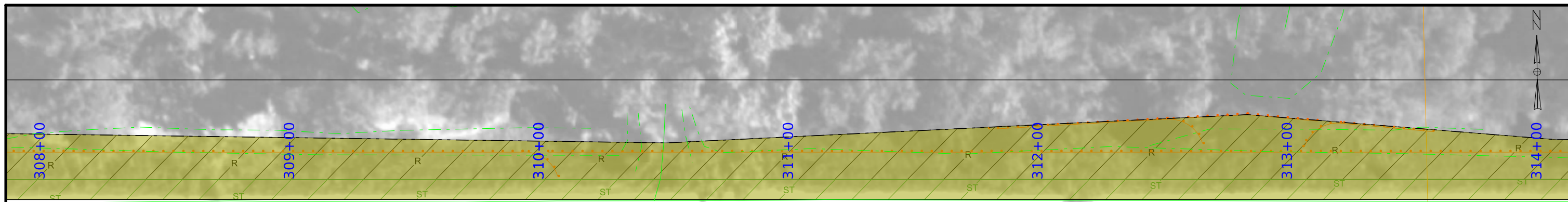


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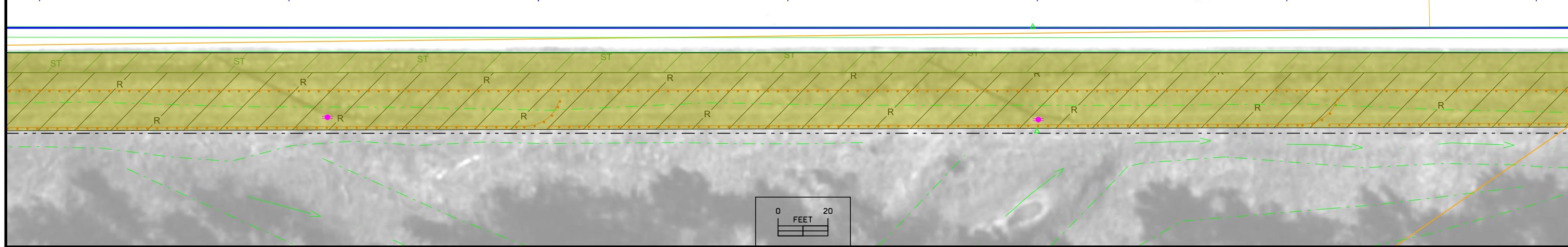
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FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Stanley Consultants Inc.	CLINTON COUNTY	PROJECT NUMBER BRF-030-9(186)--38-23	SHEET NUMBER RR.3
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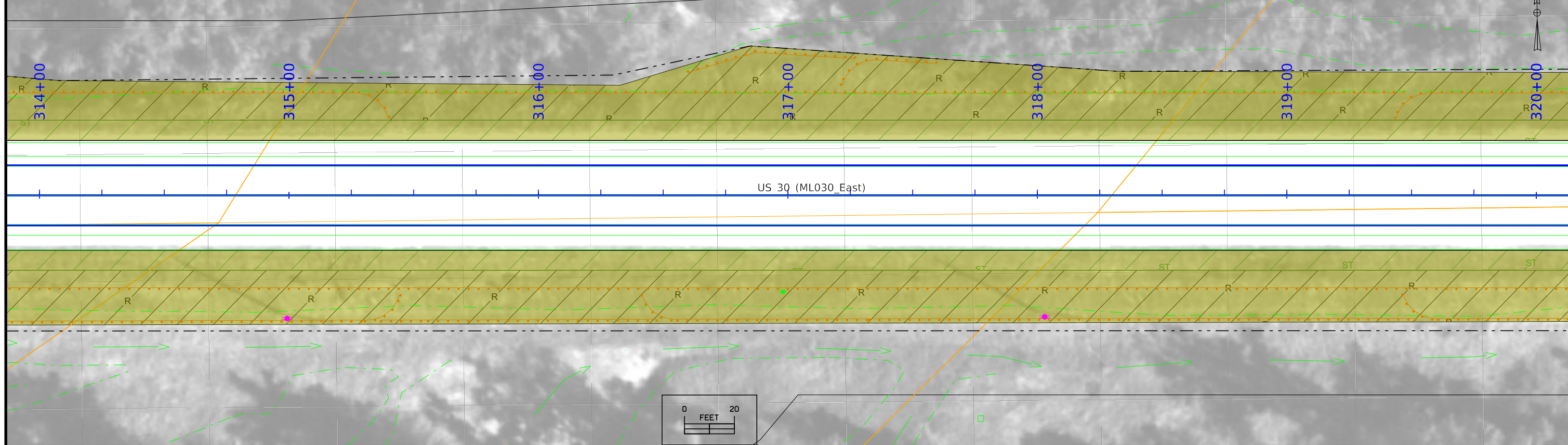
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US 30 (ML030_East)



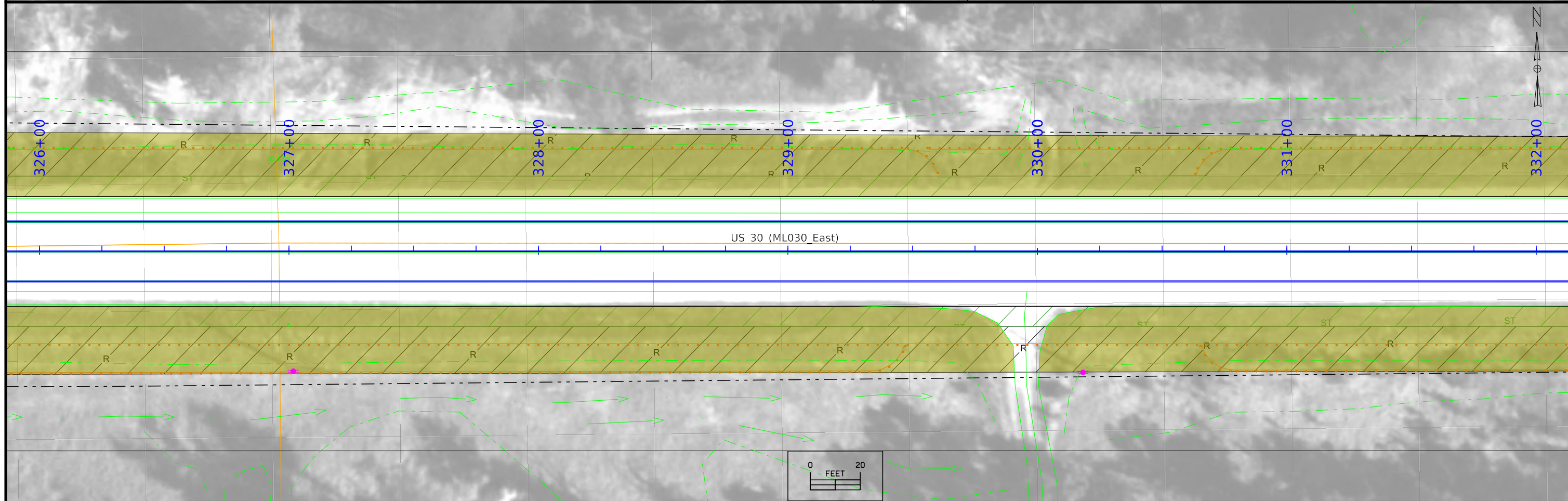
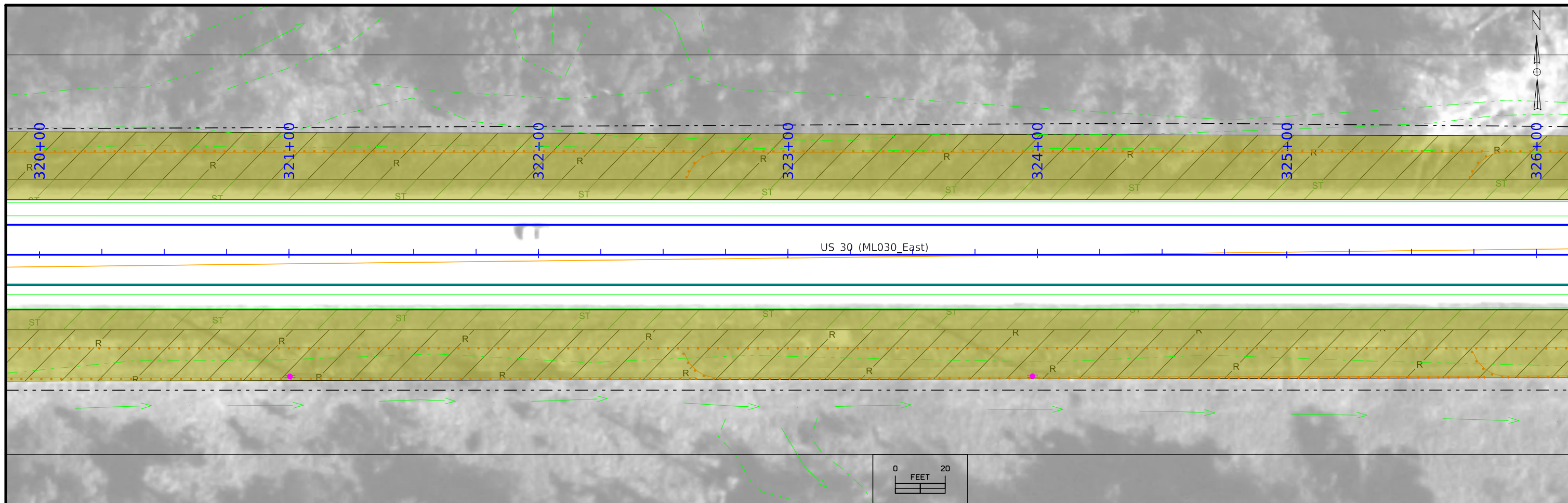
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US 30 (ML030_East)



314+00 315+00 316+00 317+00 318+00 319+00 320+00

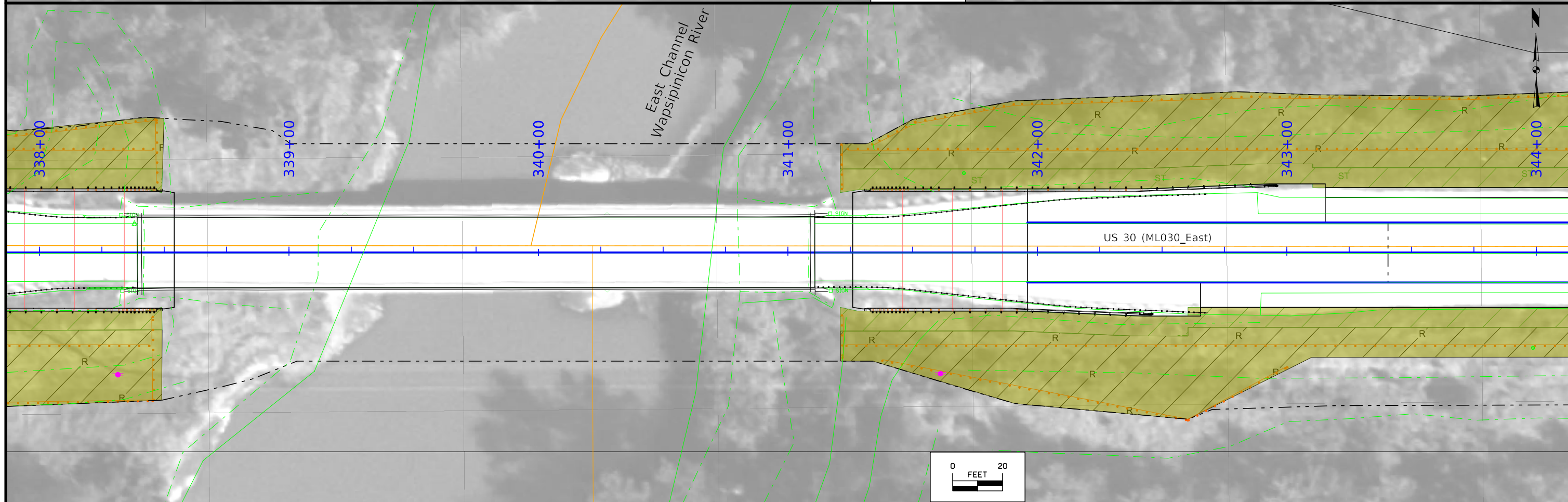
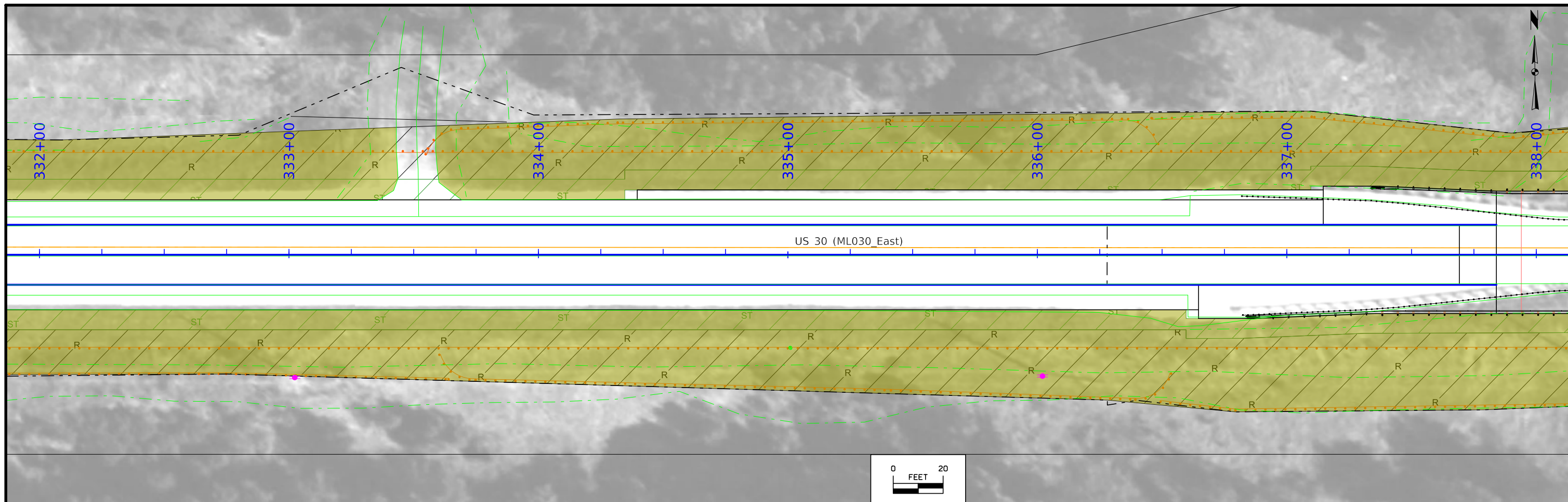
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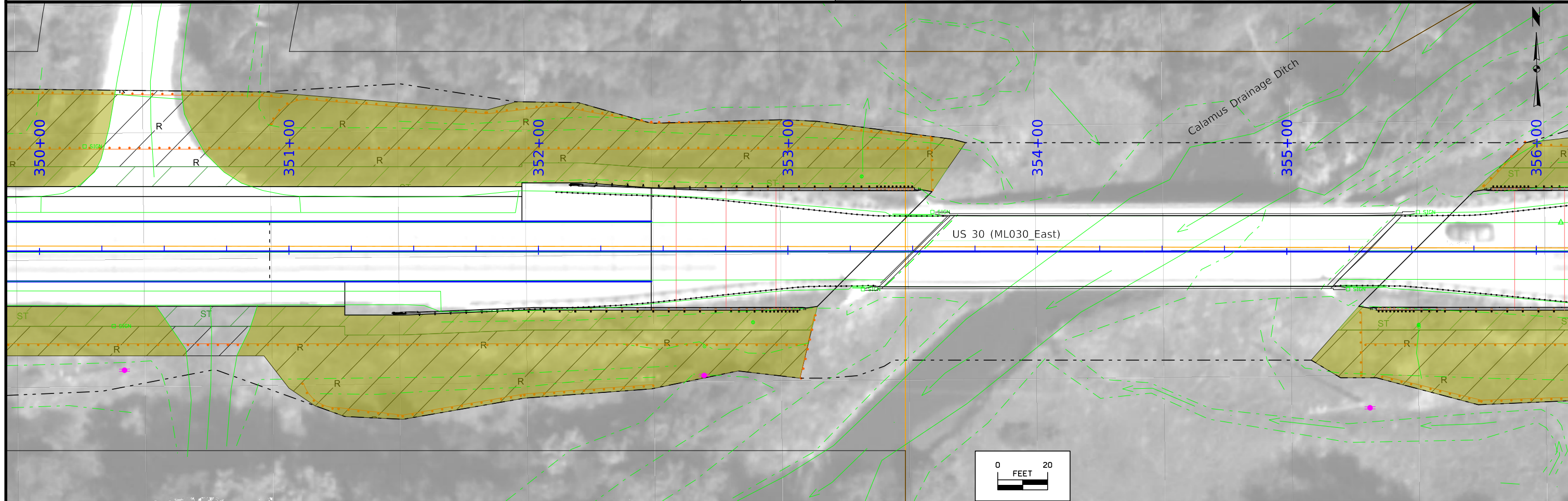
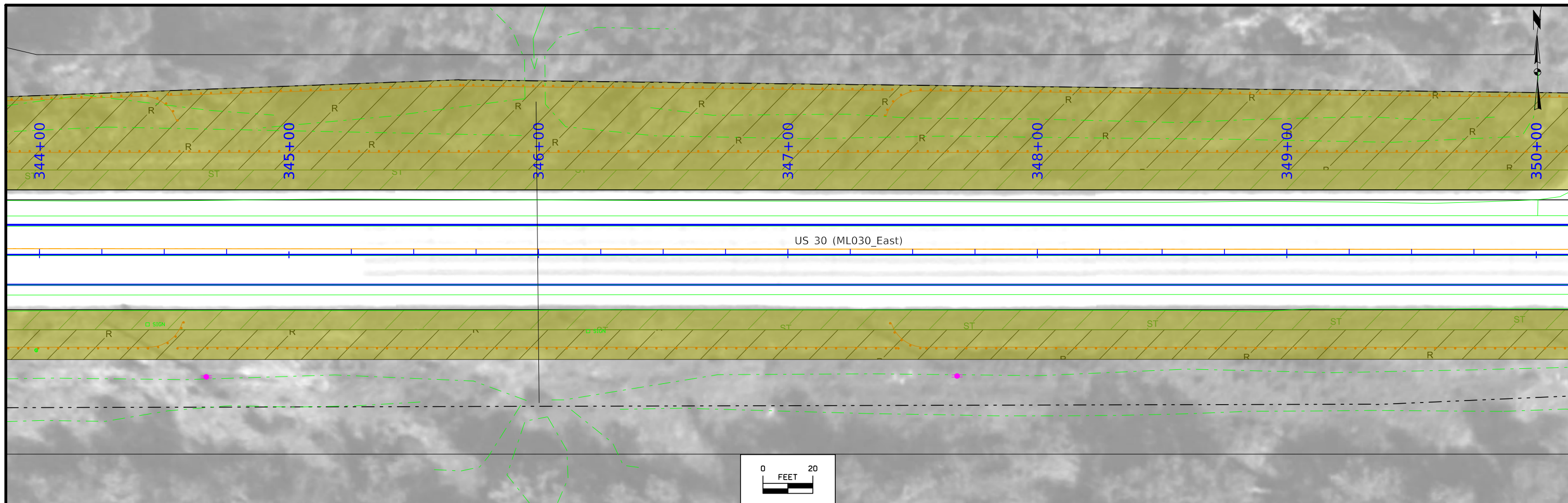


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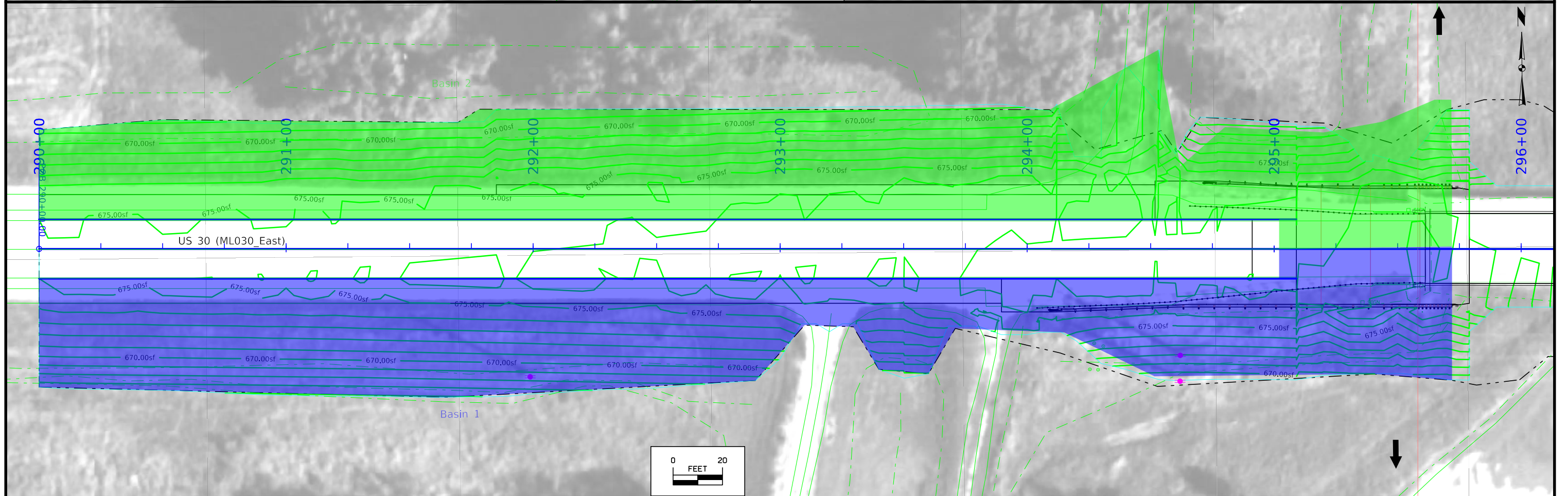
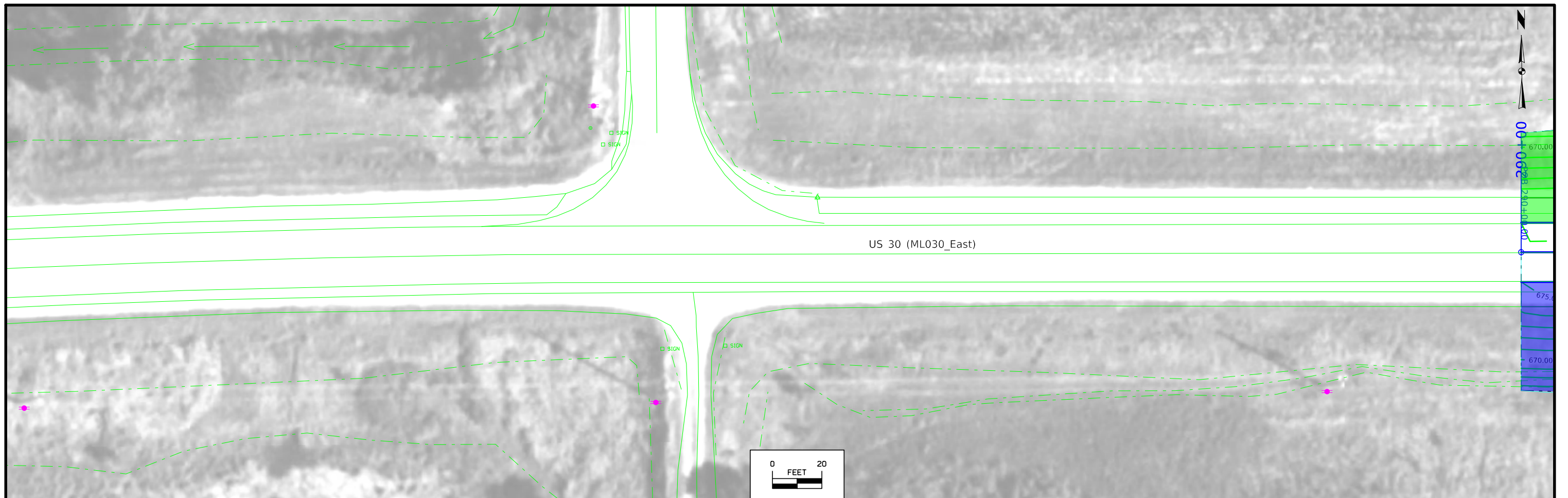




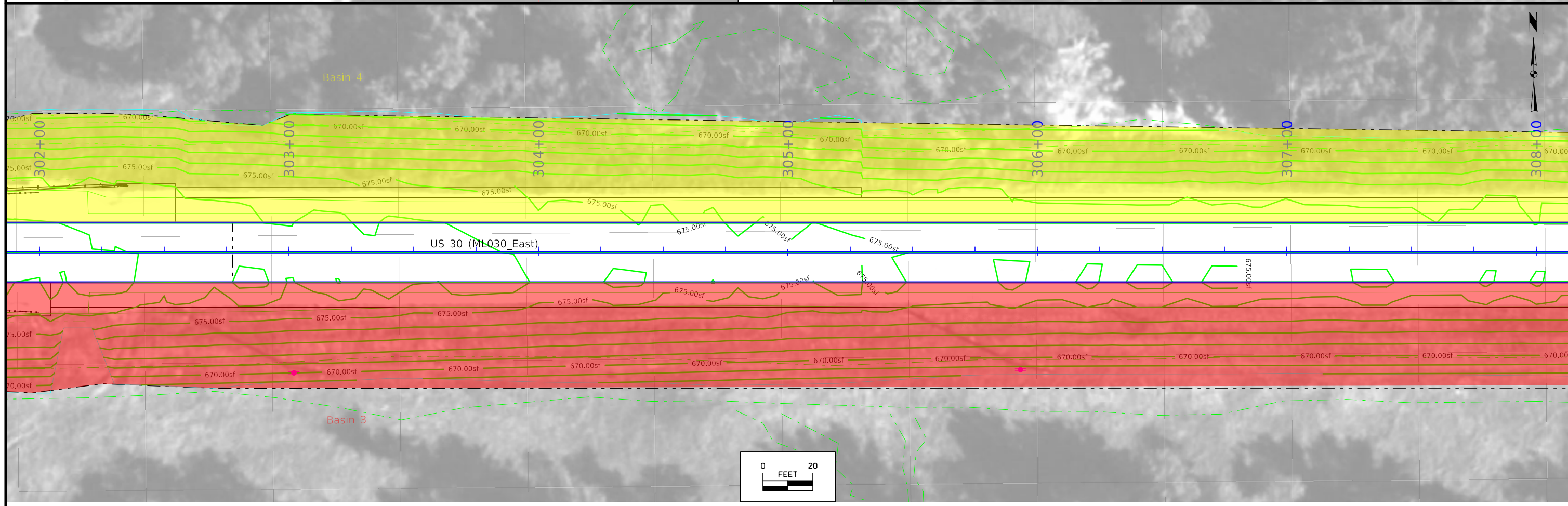
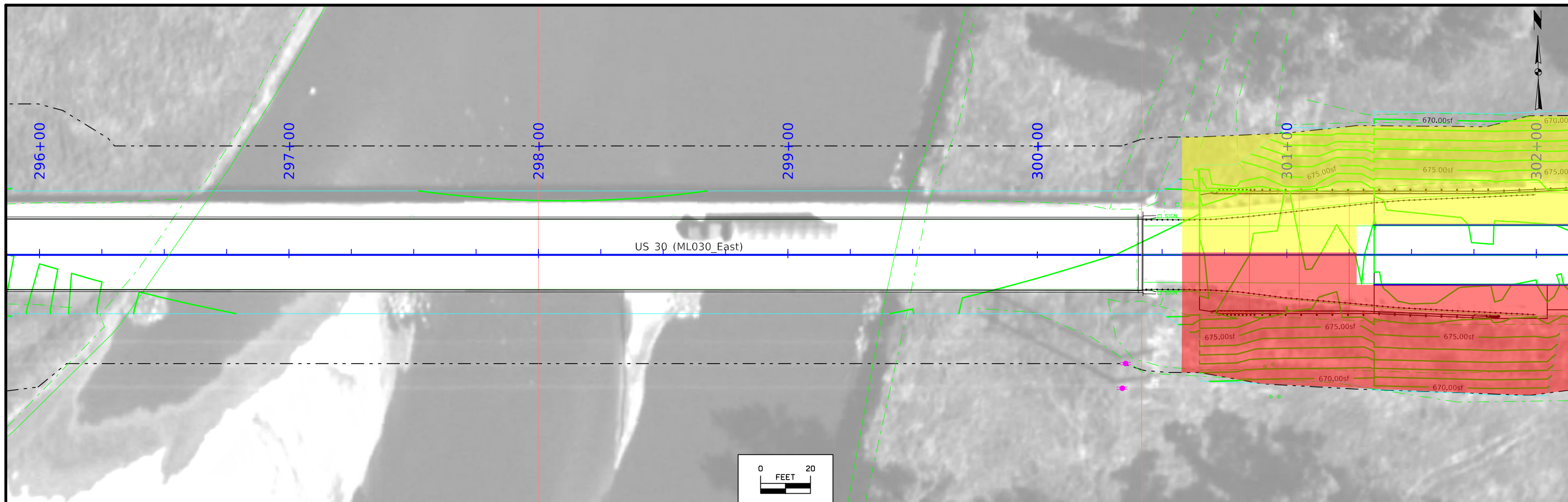
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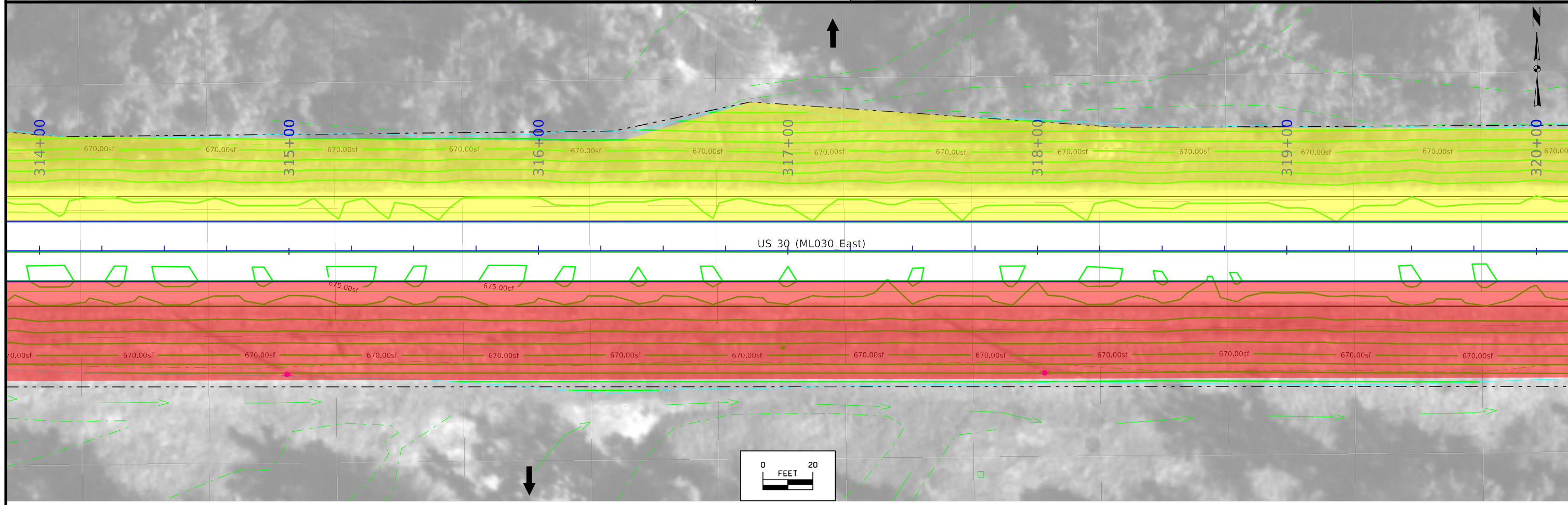
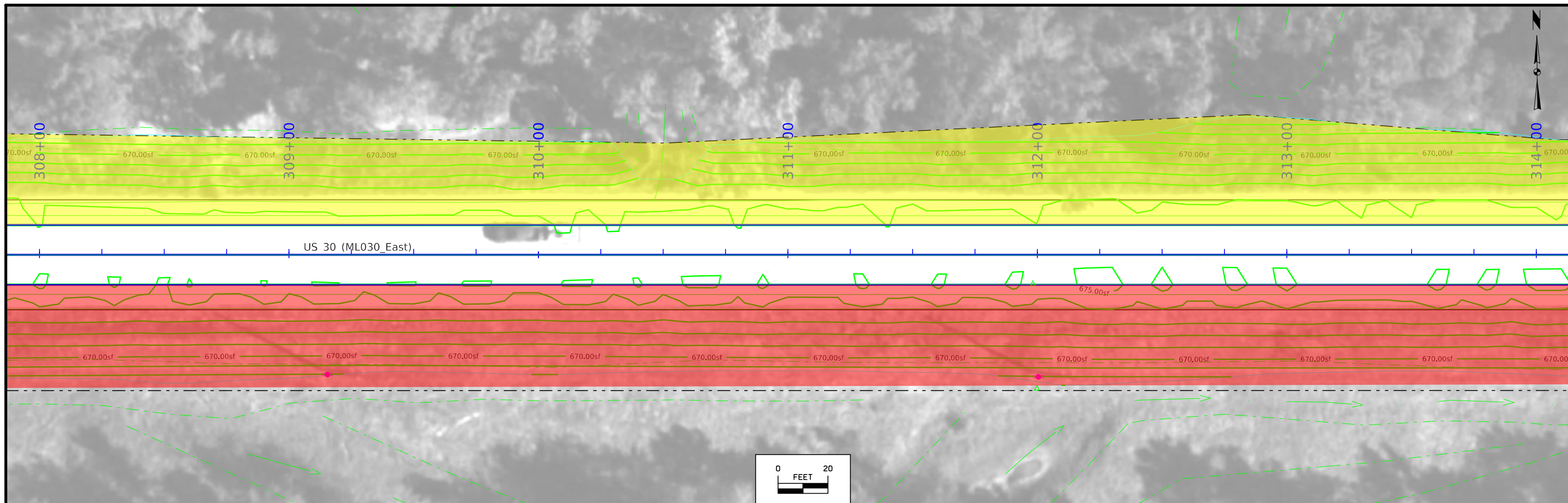


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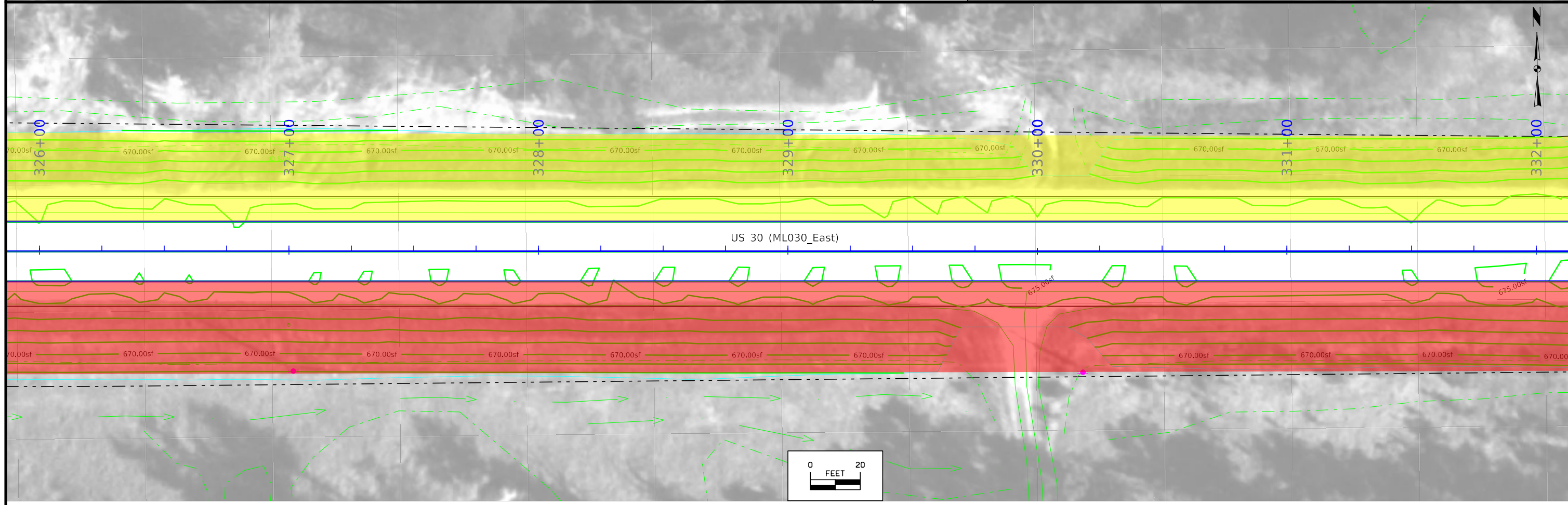
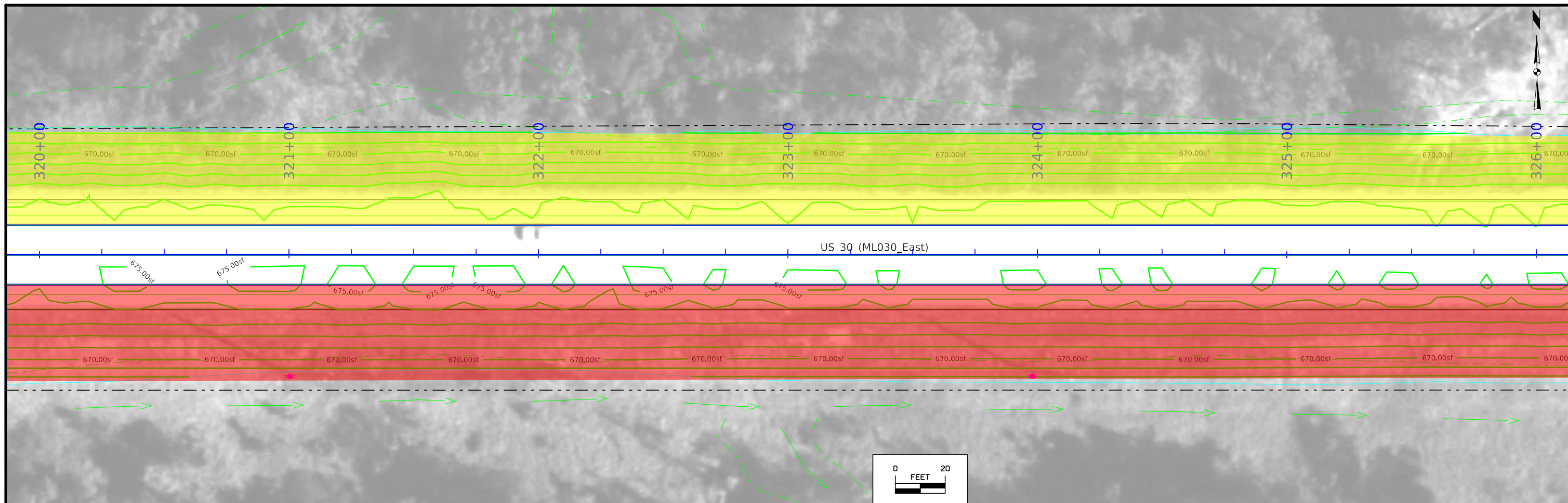


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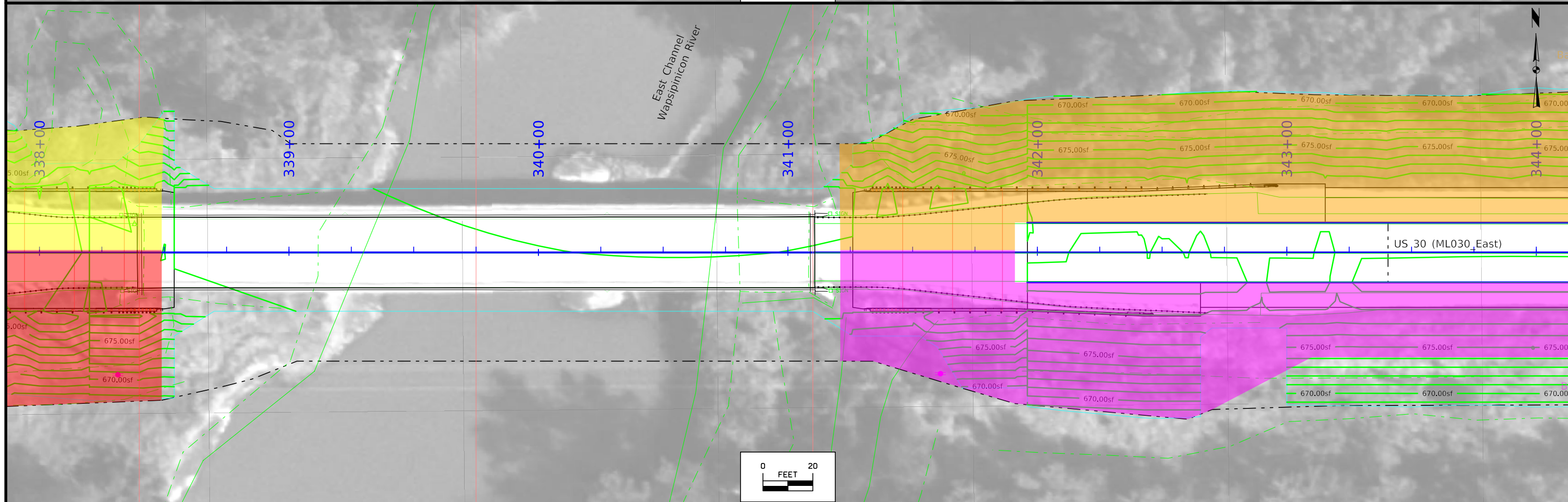
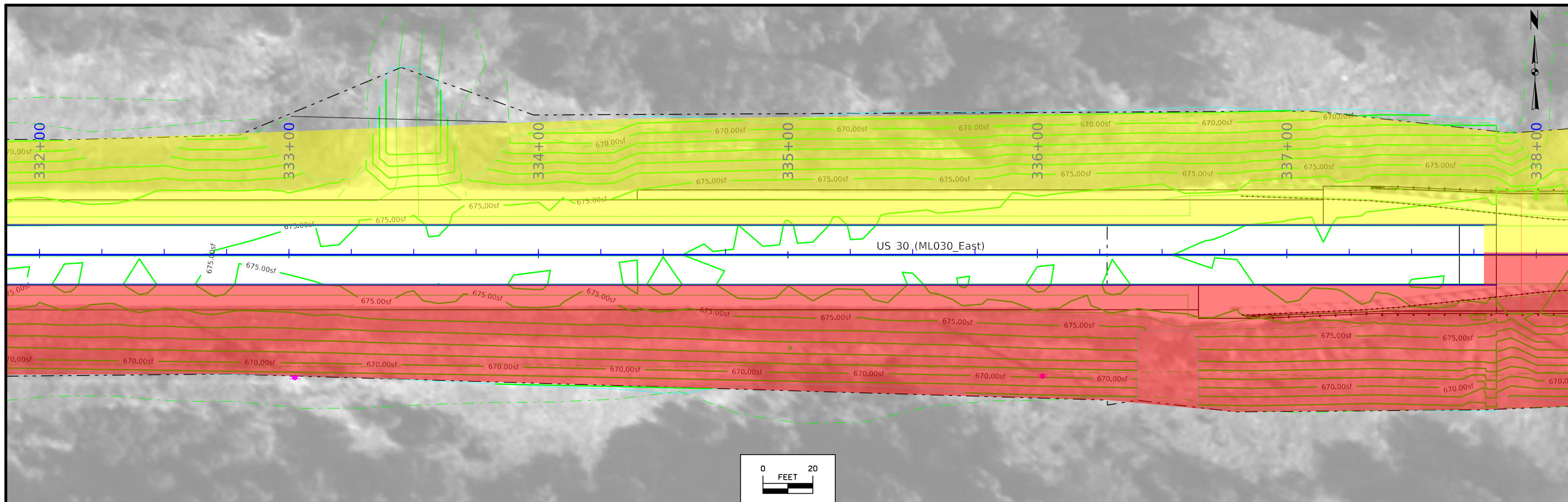


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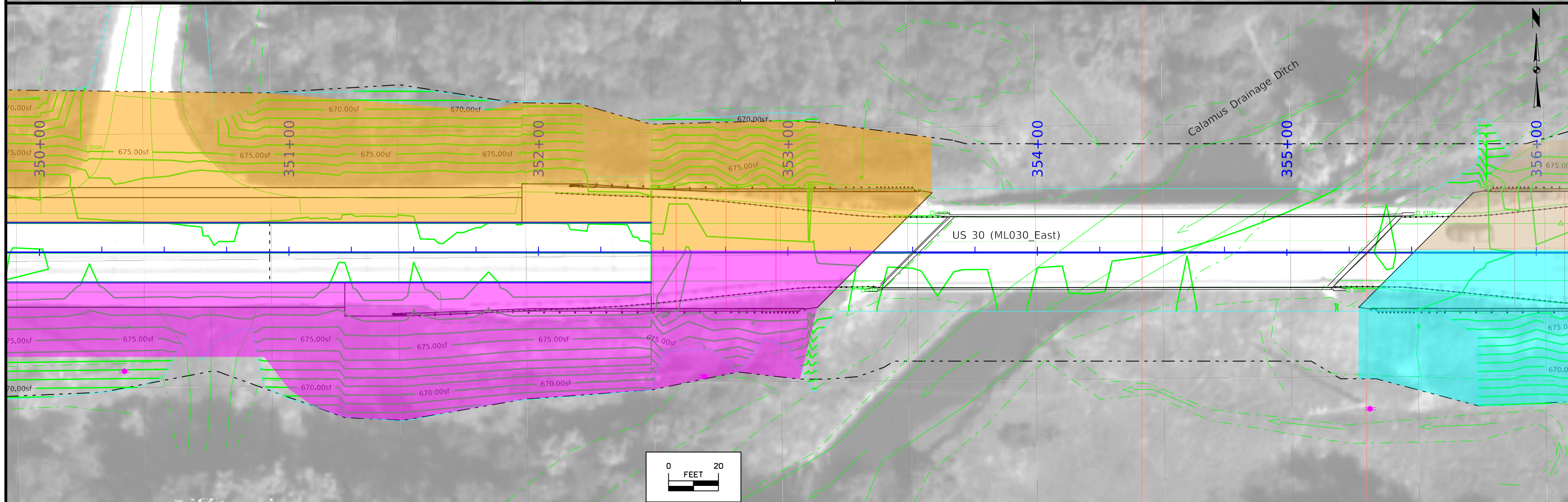
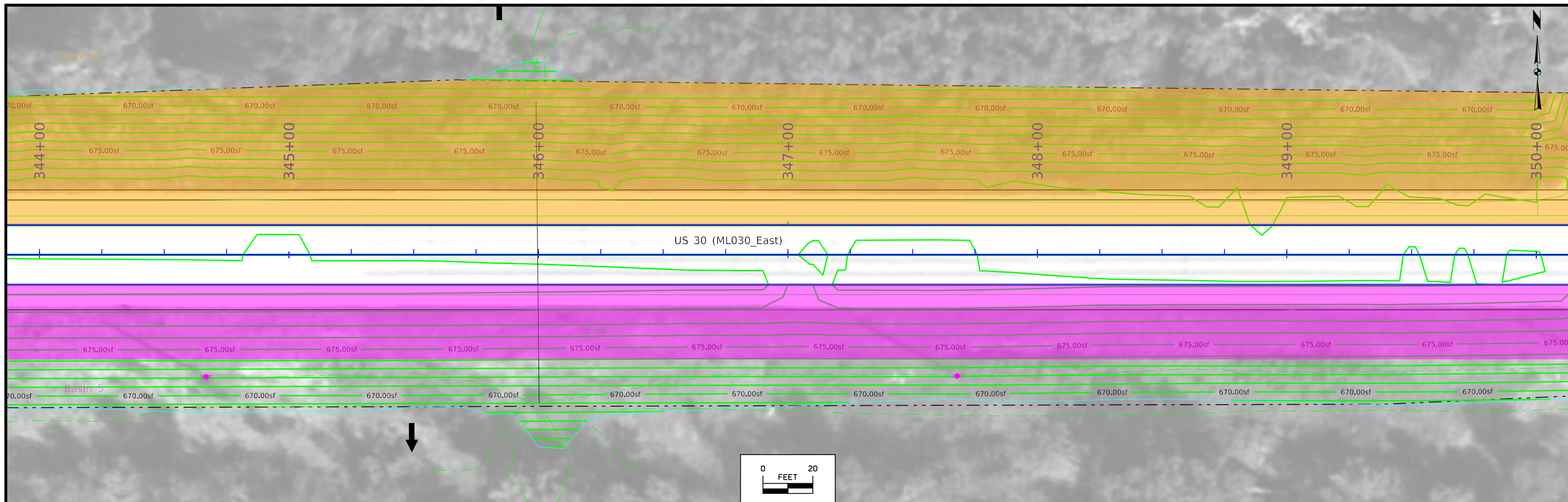
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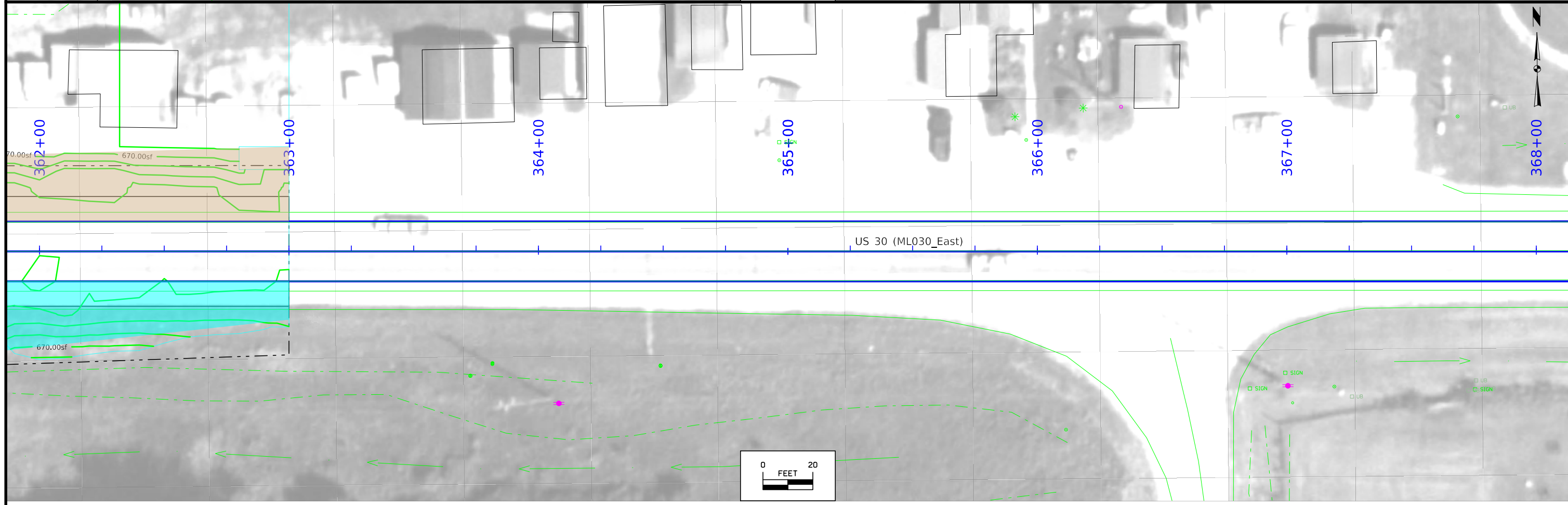
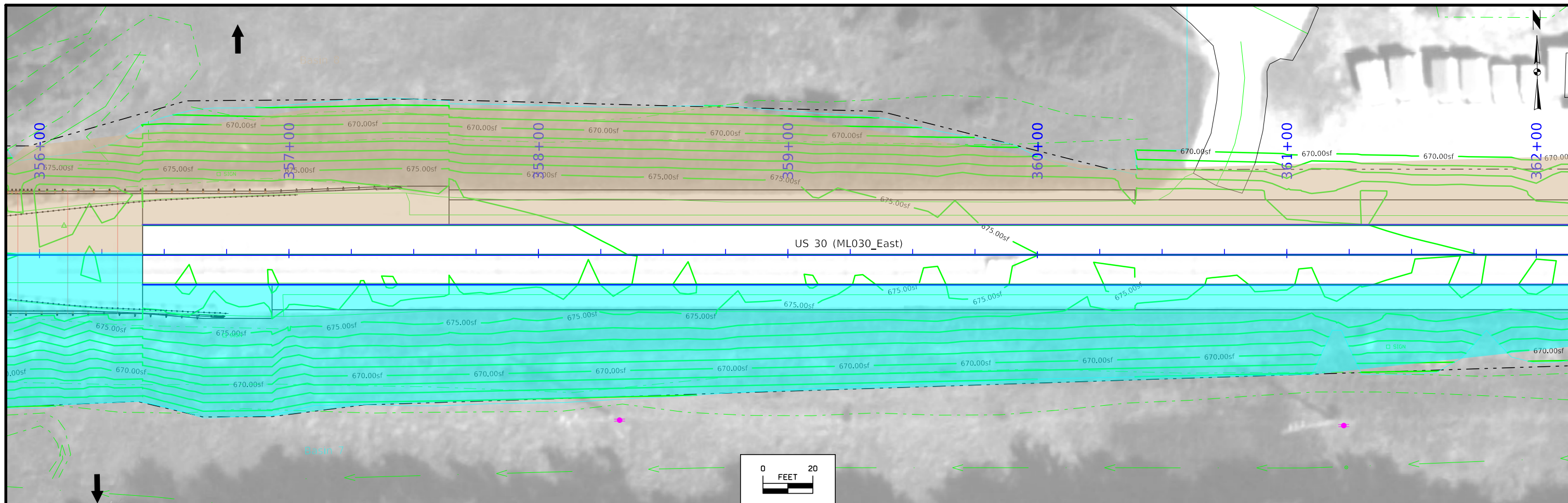


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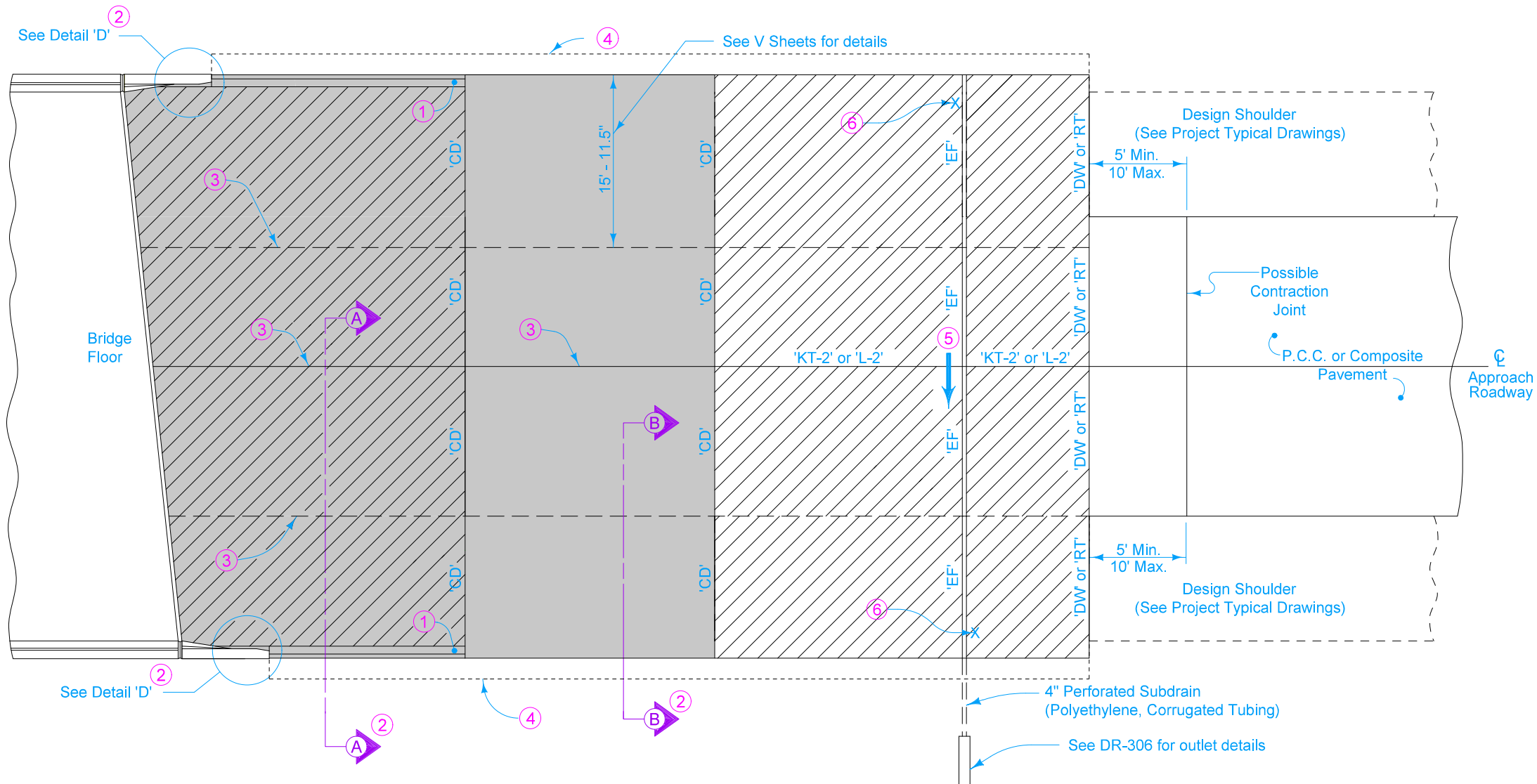


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
For joint details, see PV-101.

- ① Build 4 inch Sloped Curb to end of Double Reinforced Section. Refer to PV-102 for curb and runout details.
- ② See BR-201, BR-202, BR-203, or BR-204.
- ③ Longitudinal Joint (PV-101):
Single Pour - Saw cut joint per Detail B.
Two Pours - Use 'KS-1' joint (Single Reinforced Section).
Use 'KS-2' joint (Double Reinforced Section).
- ④ Polymer Grid and excavation limits of Modified Subbase 2 feet outside of pavement edge. See BR-201, BR-202, BR-203, or BR-204.
- ⑤ Slope subdrain to drain.
- ⑥ Place an "X" in the plastic concrete near the 'EF' joint at the outside edge of pavement.

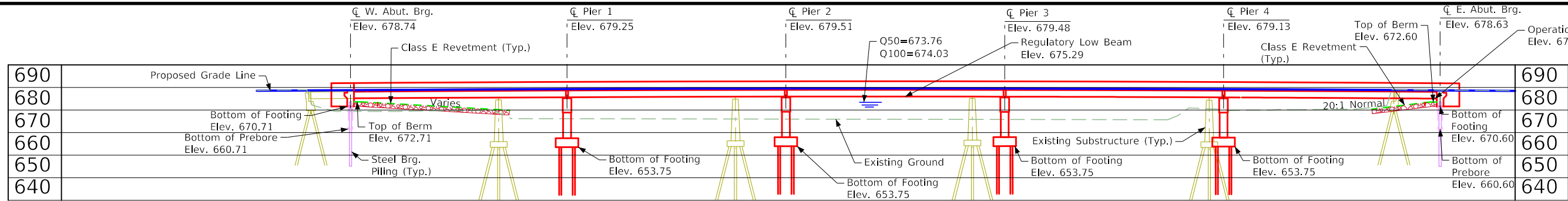


PLAN VIEW

Pay limits for contract item include the following areas:

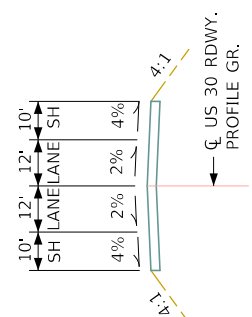
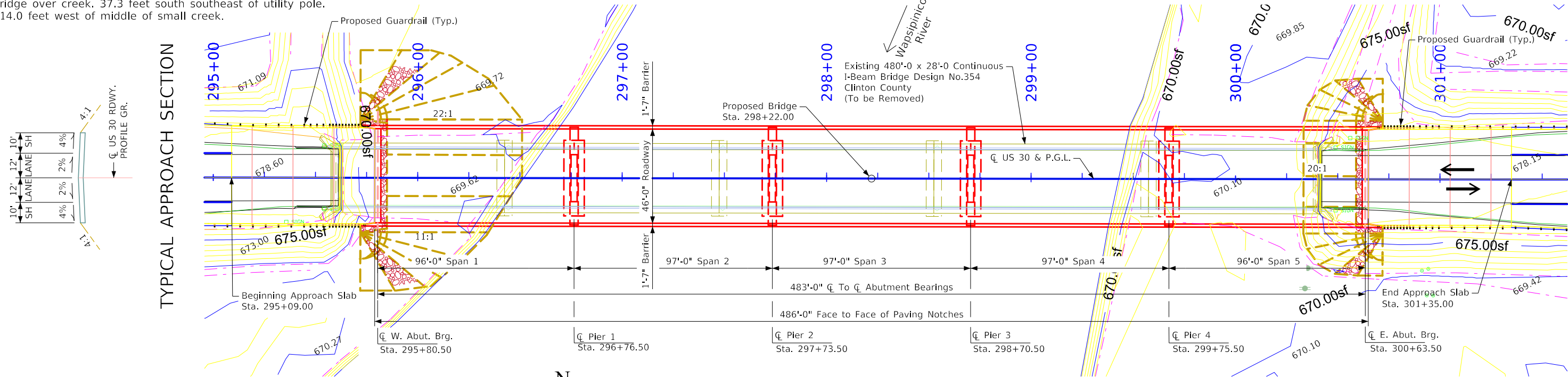
-  Double Reinforced Section
-  Single Reinforced Section
-  Non-Reinforced Section

MODIFIED	
STANDARD ROAD PLAN	BR-211
SHEET 1 of 1	
MODIFICATIONS: Revised longitudinal joint.	
APPROVED BY DESIGN METHODS ENGINEER	
BRIDGE APPROACH (ABUTTING PCC OR COMPOSITE PAVEMENT)	

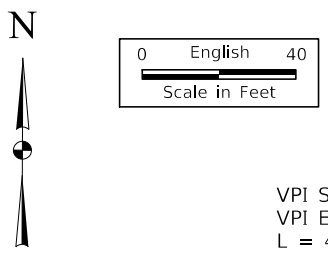


BENCH MARK: New FENO Style monument set flush with ground.
 28.15 feet NW of NW corner of wingwall of NW corner of Hwy 30
 Bridge over creek. 37.3 feet south southeast of utility pole.
 114.0 feet west of middle of small creek.

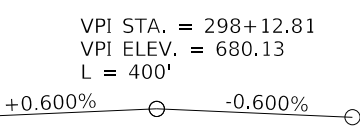
LONGITUDINAL SECTION ALONG CL US 30



TYPICAL APPROACH SECTION



SITUATION PLAN



PROPOSED PROFILE GRADE US 30

Hydraulic Design

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

Signature: Mark D. Werner Date: XX-XX-XXXX

Printed or Typed Name: Mark D. Werner

My license renewal date is December 31, XXXX

Pages or sheets covered by this seal: XXXX

Mark D. Werner
 LICENSED PROFESSIONAL ENGINEER
 IOWA 15418

TRAFFIC ESTIMATE

2024 AADT	3100	V.P.D.
2044 AADT	3800	V.P.D.
Trucks	20	%

- UTILITIES LEGEND:**
- E1 -EL1D, Eastern Iowa Light and Power
 - F0 -FO1D, F&B Communications
 - F02 -FO2D, Sprint
 - G -GL1D, Alliant Energy
 - SAN. -SA1D, City of Wheatland
 - W -WL1D, City of Wheatland
- Utilities shown on this sheet are for information only, see road design sheets for final utility information.

HYDRAULIC DATA

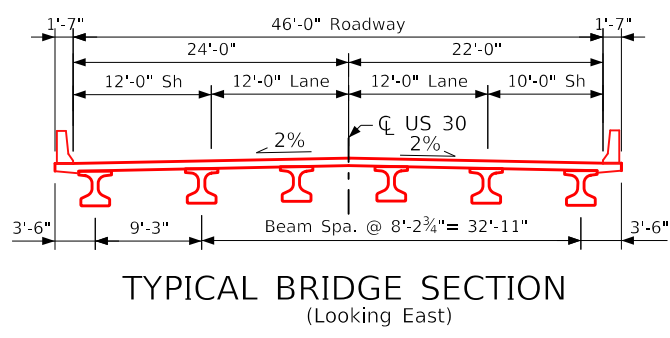
Drainage Area = 1890 SQ. MI.
 Stream Slope = 2.1 FT./MI.

Q50= 27,300 CFS (AEPD), 18,321 CFS (2D Model)
 Stage = 673.76
 Regulatory Low Beam = 675.97
 Avg. Bridge Velocity = 6.6 FPS

Q100= 30,300 CFS (AEPD), 19,282 CFS (2D Model)
 Stage = 674.03
 Operational Low Beam = 675.13
 Backwater = 0.32 FT.
 Avg. Bridge Velocity = 6.8 FPS

Q200 = 35,800 CFS (AEPD) 22,898 CFS (2D Model)
 Design Scour = 649.80

Q500 = 37,300 CFS (AEPD) 23,765 CFS (2D Model)
 Check Scour = 648.50



TYPICAL BRIDGE SECTION (Looking East)

- PLAN NOTES:**
- Top of bridge deck at centerline US 30 is 0.03' below the profile grade to account for parabolic crown.
 - Class E Revetment stone is embedded.
 - The Bridge will be designed to withstand the applicable effects of ice and the horizontal stream loads and uplift forces associated with the Q100.
- GENERAL NOTES:**
- This design is for the replacement of the existing 480'-0 X 28'-0 Continuous I-Beam Bridge, Clinton Design No. 354, FHWA No. 020740, Maint. 2398.5S030.

LOCATION

US 30 Over Wapsipinicon River
 T-81N R-1E
 Section 11
 Spring Rock Township
 Clinton County
 FHWA No. 020740
 Bridge Maint. No. 2398.5S030
 Latitude 41.829597°
 Longitude -90.812740°

PRELIMINARY
 Design For 0° Skew

483'-0" x 46'-0" Prestressed Concrete Beam Bridge

96'-0" End Spans (BTB Beam Type) 97'-0" Interior Spans

Situation Plan

STA. 298+22.00

Clinton County

IOWA DEPARTMENT OF TRANSPORTATION
 Design No. Design Sheet No. 1 of 2 FHWA No. 020740

April 2023

DESIGN NOTES:

All units are in feet unless noted otherwise

TL-4 Bridge railing proposed

Pier Type - Wall Piers

Beam Type - BTB Beams - Provide Vent Holes in all beams

Foundation type to be confirmed during final design

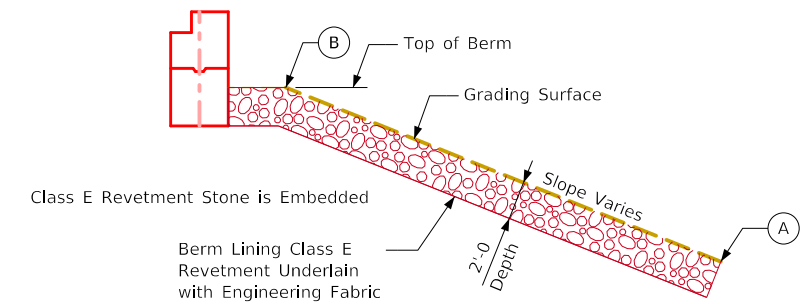
Berm slopes to be confirmed during final design

An Iowa DNR Sovereign Lands Permit is required. As this project requires a sovereign lands permit, bid item reference notes shall restrict broken concrete as a substitute for revetment.

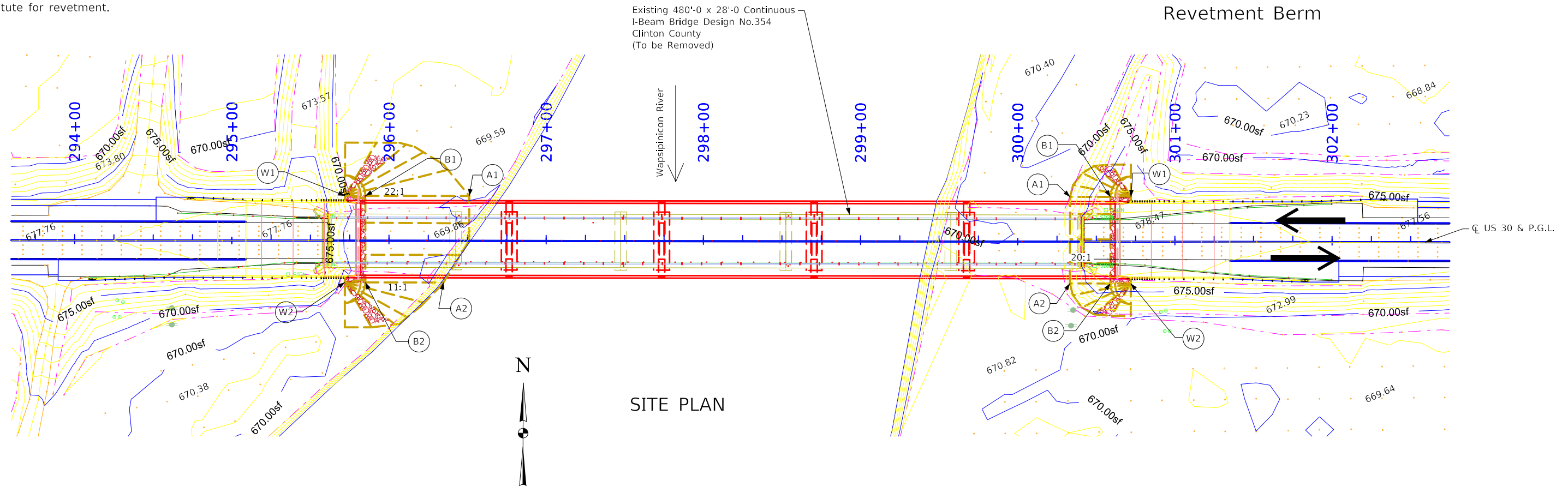
DESIGN NOTES:

An Iowa DNR Flood Plain Permit is required. Preliminary Design will submit the permit in the PW_Regulatory_Permits subdirectory folder upon receipt.

Requirements for a state water trail or paddling route are applicable. Signage, plan notes, and bid items shall be addressed by the Design Bureau and included in the road plans.



Section Thru Embedded Revetment Berm



Existing 480'-0" x 28'-0" Continuous I-Beam Bridge Design No.354 Clinton County (To be Removed)

SITE PLAN

Location	Revetment CL. E (Ton)	Erosion Stone (Ton)	Engineering Fabric (SY)	Excavation (CY)
Berm Lining - West	732.0		852.0	774.6
Berm Lining - East	309.6		360.3	327.6
Totals	1041.5		1212.4	1102.1

Excavation quantity calculated from grading surface.

Points	West Abutment			East Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	296+51.00	28.58' LT	669.80	300+33.25	28.58' LT	671.50
A2	296+34.60	26.58' RT	668.30	300+33.25	26.58' RT	671.50
B1	295+85.00	28.58' LT	672.71	300+59.00	28.58' LT	672.60
B2	295+85.00	26.58' RT	672.71	300+59.00	26.58' RT	672.60
W1	295+72.00	28.58' LT	678.11	300+72.00	28.58' LT	678.00
W2	295+72.00	26.58' RT	678.15	300+72.00	26.58' RT	678.04

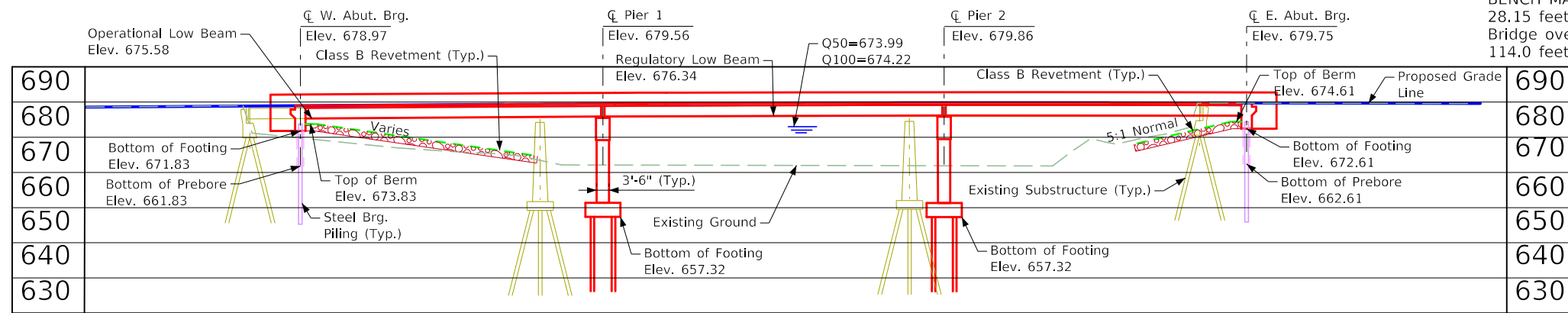
Berm slope elevations reflect the grading surface.

UTILITIES LEGEND:

- E1 -EL1D, Eastern Iowa Light and Power
- F0 -FO1D, F&B Communications
- F02 -FO2D, Sprint
- G -GL1D, Alliant Energy
- SAN, -SA1D, City of Wheatland
- W -WL1D, City of Wheatland

Utilities shown on this sheet are for information only, see road design sheets for final utility information.

Design For 0° Skew
483'-0" x 46'-0" Prestressed Concrete Beam Bridge
 96'-0" End Spans (BTB Beam Type) 97'-0" Interior Span
Site Plan
 STA. 298+22.00 April 2023
Clinton County
 IOWA DEPARTMENT OF TRANSPORTATION
 Design No. Design Sheet No. 2 of 2 FHWA No. 020740



BENCH MARK: New FENO Style monument set flush with ground. 28.15 feet NW of NW corner of wingwall of NW corner of Hwy 30 Bridge over creek. 37.3 feet south southeast of utility pole. 114.0 feet west of middle of small creek.

VPT STA. = 340+13.58
VPT ELEV. = 680.08
L = 200'

+0.700% -0.300%

PROPOSED PROFILE GRADE US 30

LONGITUDINAL SECTION ALONG CL US 30

HYDRAULIC DATA

Drainage Area = 39.9 SQ. MI.
Stream Slope = 7.1 FT./MI.
Q50= 7,920 CFS (AEPD), 13,050 CFS (2D Model)
Stage = 673.99
Regulatory Low Beam = 676.04
Avg. Bridge Velocity = 8.1 FPS
Q100= 9,310 CFS (AEPD), 13,659 CFS (2D Model)
Stage = 674.22
Operational Low Beam = 675.31
Backwater = 0.34 FT.
Avg. Bridge Velocity = 8.4 FPS

Q200 = 12,000 CFS (AEPD) 15,535 CFS (2D Model)
Design Scour = 645.30

Q500 = 13,100 CFS (AEPD) 15,535 CFS (2D Model)
Check Scour = 645.30

LOCATION

US 30 Over East Channel Wapsipinicon
T-81N R-1E
Section 12 & 13
Spring Rock Township
Clinton County
FHWA No. 020750
Bridge Maint. No. 2399.35030
Latitude 41.829498°
Longitude -90.797041°

TRAFFIC ESTIMATE

2024 AADT	3100	V.P.D.
2044 AADT	3800	V.P.D.
Trucks	20	%

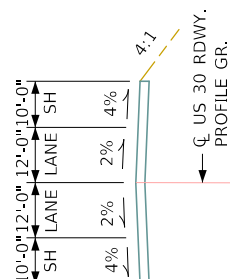
UTILITIES LEGEND:

- E1 -EL1D, Eastern Iowa Light and Power
- F0 -FO1D, F&B Communications
- F02 -FO2D, Sprint
- G -GL1D, Alliant Energy
- SAN, -SA1D, City of Wheatland
- W -WL1D, City of Wheatland

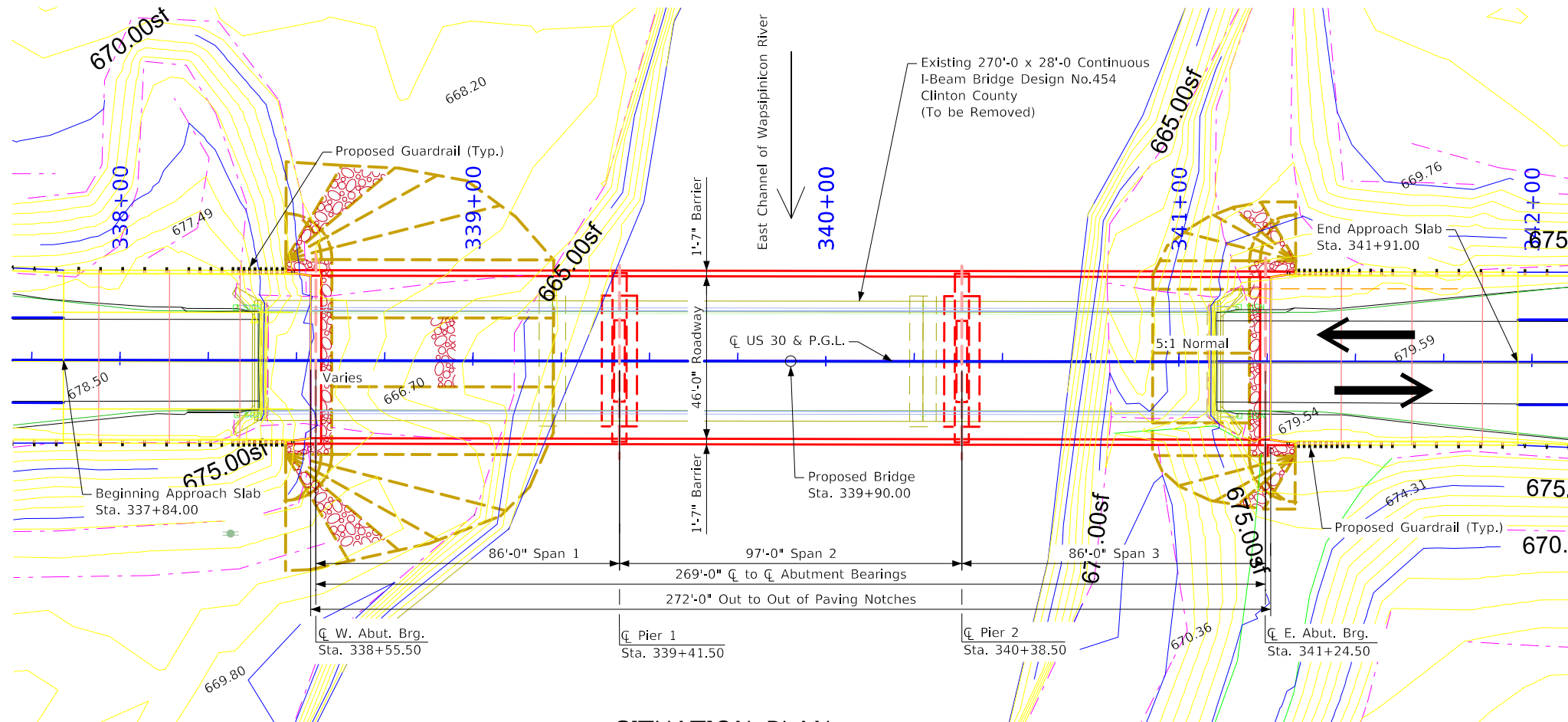
Utilities shown on this sheet are for information only, see road design sheets for final utility information.



TYPICAL APPROACH SECTION



0 English 40
Scale in Feet



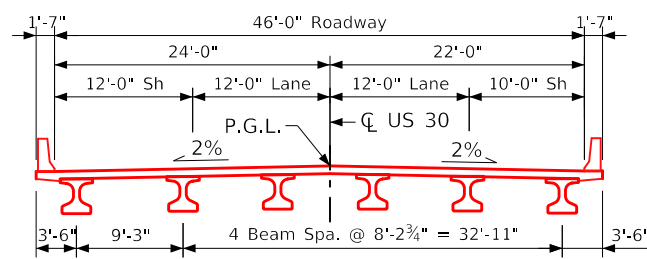
SITUATION PLAN

PLAN NOTES:

- Top of bridge deck at centerline US 30 is 0.03' below the profile grade to account for parabolic crown.
- Class B Revetment stone is embedded.
- The Bridge will be designed to withstand the applicable effects of ice and the horizontal stream loads and uplift forces associated with the Q100.

GENERAL NOTES:

- This design is for the replacement of the existing 270'-0" x 28'-0" continuous I-Beam Bridge, Clinton Design No. 454, FHWA NO. 020750, Maint. 2399.35030.



TYPICAL BRIDGE SECTION
(Looking East)

Hydraulic Design

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

Signature: Mark D. Werner Date: XX-XX-XXXX
Printed or Typed Name: Mark D. Werner
My license renewal date is December 31, XXXX

Pages or sheets covered by this seal: XXXX

PRELIMINARY

Design For 0° Skew
269'-0" X 46'-0" Pretensioned Prestressed Concrete Beam Bridge
86'-0" End Spans (BTB Beam Type) 97'-0" Interior Span
Situation Plan
STA. 339+90.00 April 2023
Clinton County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. Design Sheet No. 1 of 2 FHWA No. 020750

DESIGN NOTES:

All units are in feet unless noted otherwise

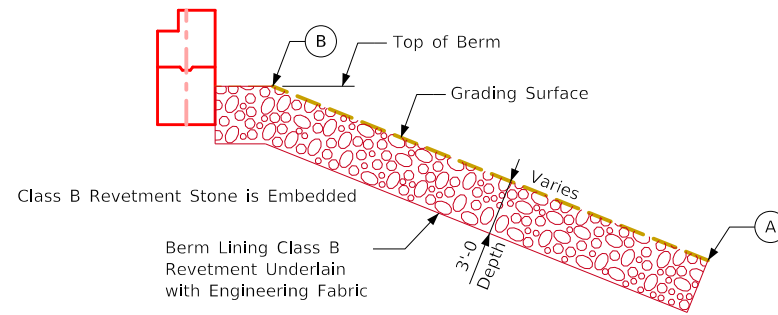
TL-4 Bridge railing proposed

Pier Type - Wall Piers

Beam Type - BTB Beams - Provide Vent Holes in all beams

Foundation type to be confirmed during final design

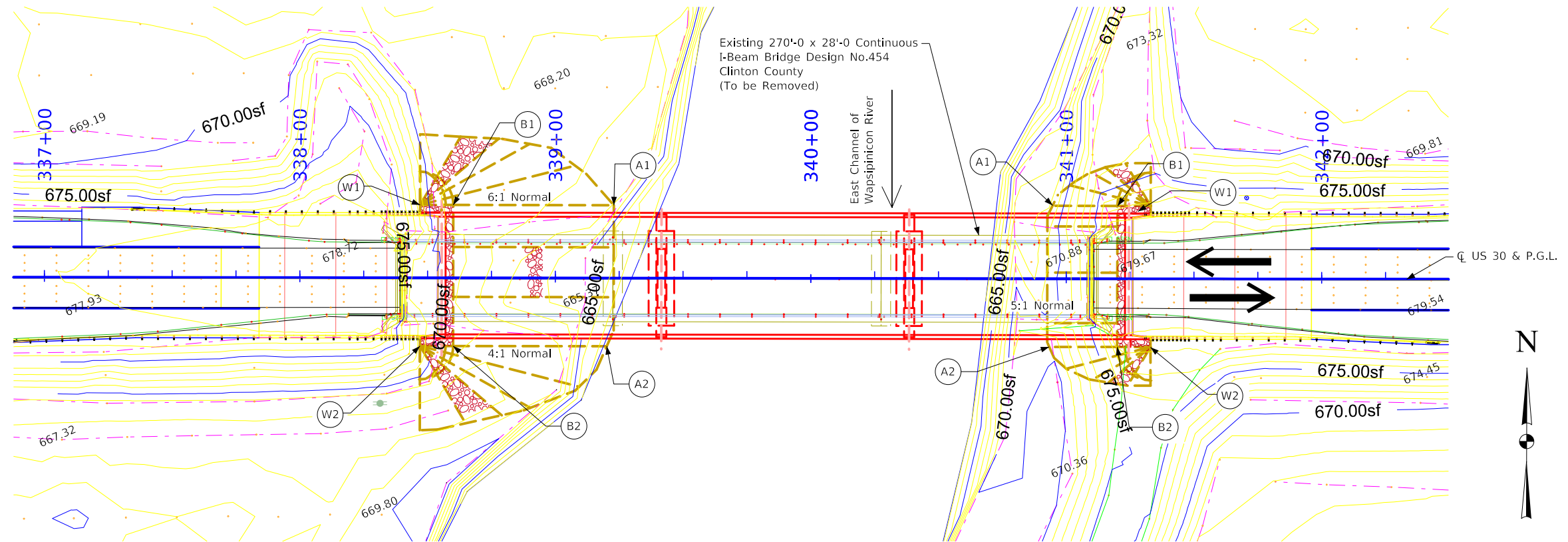
Berm slopes to be confirmed during final design



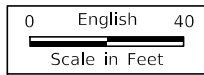
Section Thru Embedded Revetment Berm

Points	West Abutment			East Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	339+22.80	28.58' LT	667.00	340+94.50	28.58' LT	668.50
A2	339+20.00	26.58' RT	663.00	340+93.50	26.58' RT	670.50
B1	338+60.00	28.58' LT	673.83	341+20.00	28.58' LT	674.61
B2	338+60.00	26.58' RT	673.83	341+20.00	26.58' RT	674.61
W1	338+47.00	28.58' LT	678.34	341+33.00	28.58' LT	679.13
W2	338+47.00	26.58' RT	678.38	341+33.00	26.58' RT	679.17

Berm slope elevations reflect the grading surface.



SITE PLAN



Estimated Berm Armoring Quantities				
Location	Revetment CL. B (Ton)	Erosion Stone (Ton)	Engineering Fabric (SY)	Excavation (CY)
Berm Lining - West	1248.1		847.5	770.5
Berm Lining - East	475.2		322.7	293.4
Totals	1723.4		1170.2	1063.8

Excavation quantity calculated from grading surface.

UTILITIES LEGEND:

- E1 -EL1D, Eastern Iowa Light and Power
- F0 -FO1D, F&B Communications
- F02 -FO2D, Sprint
- G -GL1D, Alliant Energy
- SAN. -SA1D, City of Wheatland
- W -WL1D, City of Wheatland

Utilities shown on this sheet are for information only, see road design sheets for final utility information.

PRELIMINARY
Design For 0° Skew

269'-0" X 46'-0" Prestressed Concrete Beam Bridge
86'-0" End Spans (BTB Beam Type) 97'-0" Interior Span

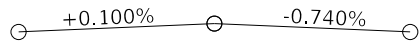
Site Plan

STA. 339+90.00 April 2023

Clinton County
IOWA DEPARTMENT OF TRANSPORTATION

Design No. Design Sheet No. 2 of 2 FHWA No. 020750

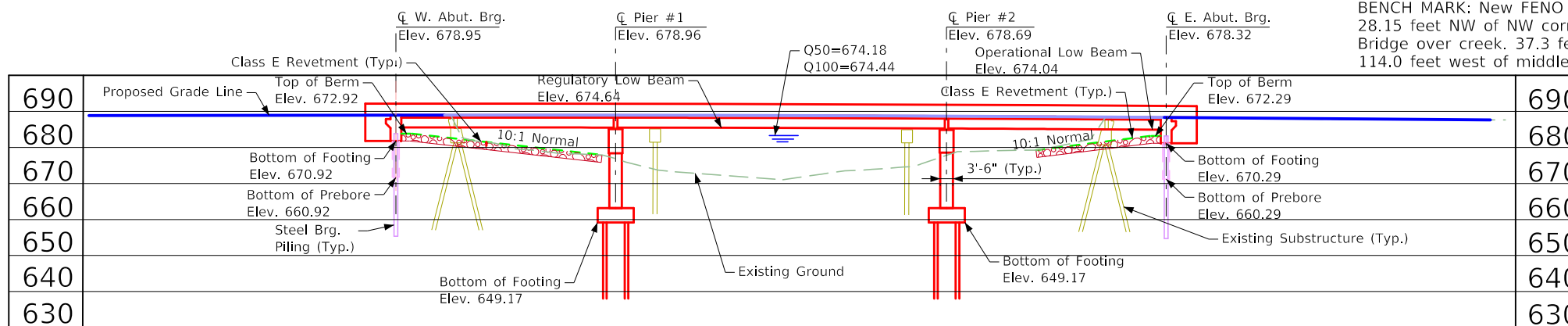
VPT STA. = 354+48.87
 VPT ELEV. = 679.06
 L = 200'



PROPOSED PROFILE GRADE US 30

LOCATION

US 30 Over Calamus Ditch
 T-81N R-1E
 Section 12 & 13
 Spring Rock Township
 Clinton County
 FHWA No. 020760
 Bridge Maint. No. 2399.5S030
 Latitude 41.829460°
 Longitude -90.791465°

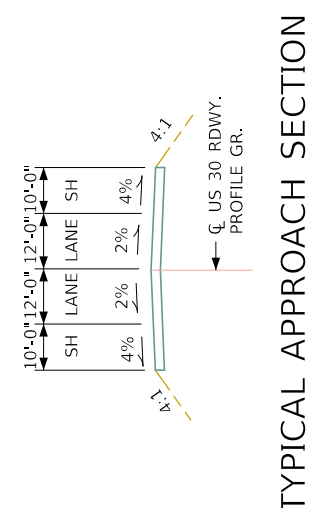


LONGITUDINAL SECTION ALONG CL US 30

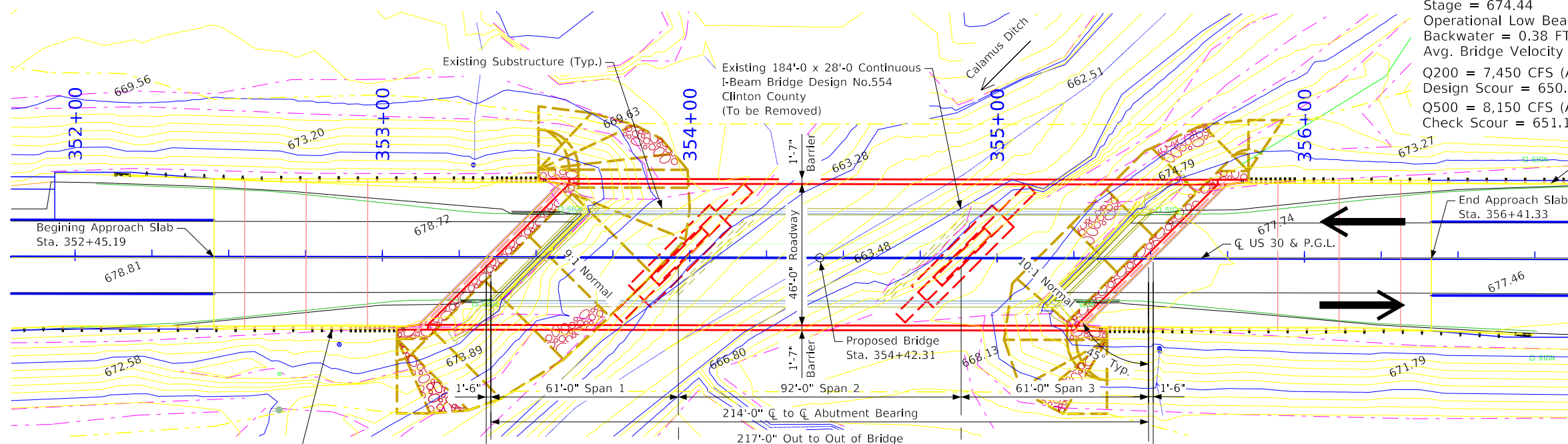
BENCH MARK: New FENO Style monument set flush with ground.
 28.15 feet NW of NW corner of wingwall of NW corner of Hwy 30
 Bridge over creek. 37.3 feet south southeast of utility pole.
 114.0 feet west of middle of small creek.

HYDRAULIC DATA

Drainage area = 17.0 SQ. MI.
 Strem Slope = 9.5 FT./MI.
 Q50= 4,880 CFS (AEPD), 2,843 CFS (2D Model)
 Stage = 674.18
 Regulatory Low Beam = 675.44
 Avg. Bridge velocity = 4.5 FPS
 Q100= 5,760 CFS (AEPD), 2,832 CFS (2D Model)
 Stage = 674.44
 Operational Low Beam = 674.94
 Backwater = 0.38 FT.
 Avg. Bridge Velocity = 4.3 FPS
 Q200 = 7,450 CFS (AEPD), 2,775 CFS (2D Model)
 Design Scour = 650.20
 Q500 = 8,150 CFS (AEPD), 2,662 CFS (2D Model)
 Check Scour = 651.10



TYPICAL APPROACH SECTION



SITUATION PLAN

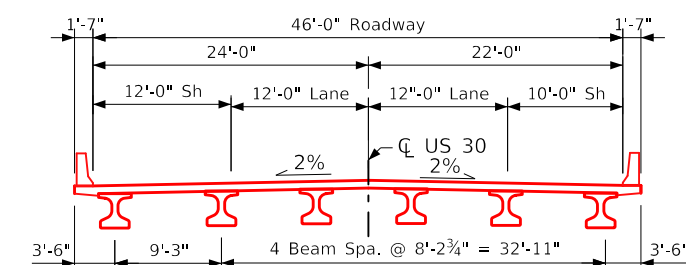
TRAFFIC ESTIMATE

2024 AADT	3100	V.P.D.
2044 AADT	3800	V.P.D.
Trucks	20	%

UTILITIES LEGEND:

- E1 -EL1D, Eastern Iowa Light and Power
- F0 -FO1D, F&B Communications
- F02 -FO2D, Sprint
- G -GL1D, Alliant Energy
- SAN. -SA1D, City of Wheatland
- W -WL1D, City of Wheatland

Utilities shown on this sheet are for information only, see road design sheets for final utility information.



TYPICAL BRIDGE SECTION (Looking East)

PLAN NOTES:

- Top of bridge deck at centerline US 30 is 0.03' below the profile grade to account for parabolic crown.
- Class E Revetment stone is embedded.
- The Bridge will be designed to withstand the applicable effects of ice and the horizontal stream loads and uplift forces associated with the Q100.

GENERAL NOTES:

- This design is for the replacement of the existing 184'-0 x 28'-0 pretensioned prestressed concrete beam bridge, Clinton County Design No. 554, FHWA No. 020760, Maint. 2399.5S030.

Hydraulic Design

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

Signature: Mark D. Werner Date: XX-XX-XXXX
 Printed or Typed Name: Mark D. Werner
 My license renewal date is December 31, XXXX

Pages or sheets covered by this seal: XXXX

PRELIMINARY

Design For 45° Skew (L.A.)

214'-0" X 46'-0" Pretensioned Prestressed Concrete Beam Bridge

61'-0" End Spans (BTB Beam Type) 92'-0" Interior Span

Situation Plan

STA. 354+42.31 April 2023

Clinton County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. Design Sheet No. 1 of 2 FHWA No. 020760

DESIGN NOTES:

All units are in feet unless noted otherwise

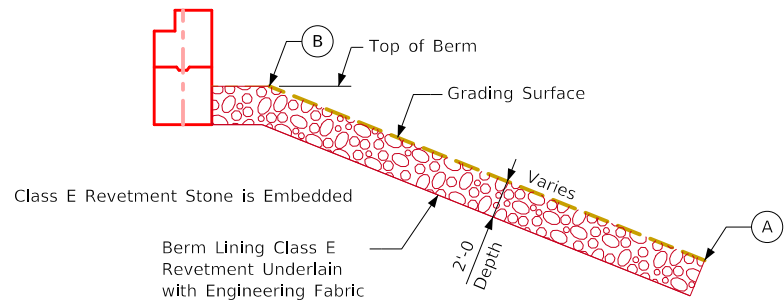
TL-4 Bridge railing proposed

Pier Type - Tee Piers

Beam Type - BTB Beams - Provide Vent Holes in all beams

Foundation type to be confirmed during final design

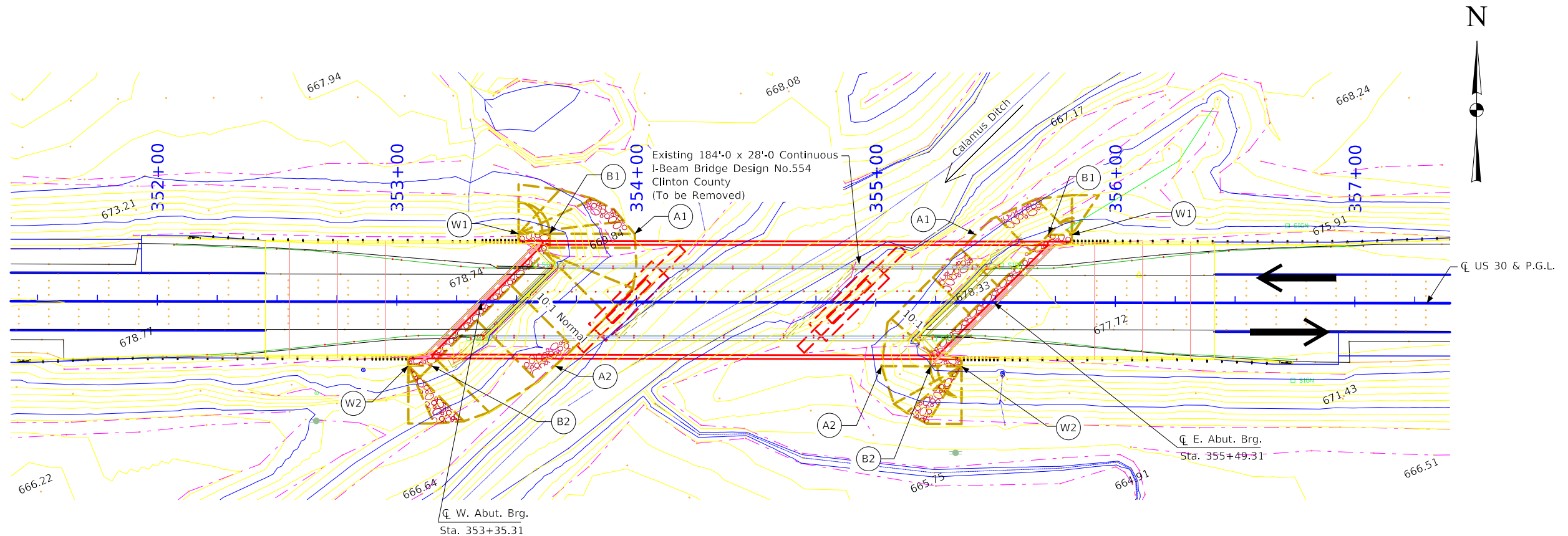
Berm slopes to be confirmed during final design



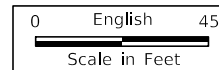
Section Thru Embedded Revetment Berm

Points	West Abutment			East Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	353+99.29	28.58' LT	670.37	355+39.63	28.58' LT	671.65
A2	353+66.06	26.58' RT	670.95	355+02.37	26.58' RT	670.41
B1	353+63.76	28.58' LT	672.92	355+71.98	28.58' LT	672.29
B2	353+14.42	26.58' RT	672.92	355+22.81	26.58' RT	672.29
W1	353+50.76	28.58' LT	678.12	355+81.79	28.58' LT	677.49
W2	353+04.75	26.58' RT	678.16	355+35.79	26.58' RT	677.53

Berm slope elevations reflect the grading surface.



SITE PLAN



UTILITIES LEGEND:

- E1 -EL1D, Eastern Iowa Light and Power
- F0 -FO1D, F&B Communications
- F02 -FO2D, Sprint
- G -GL1D, Alliant Energy
- SAN, -SA1D, City of Wheatland
- W -WL1D, City of Wheatland

Utilities shown on this sheet are for information only, see road design sheets for final utility information.

Estimated Berm Armoring Quantities			
Location	Revetment CL, E (Ton)	Engineering Fabric (SY)	Excavation (CY)
Berm Lining - West	486.1	565.8	514.4
Berm Lining - East	310.8	361.7	328.9
Totals	796.9	927.6	843.2

Excavation quantity calculated from grading surface.

PRELIMINARY
Design For 45° Skew (L.A.)

214'-0" X 46'-0" Pretensioned Prestressed Concrete Beam Bridge

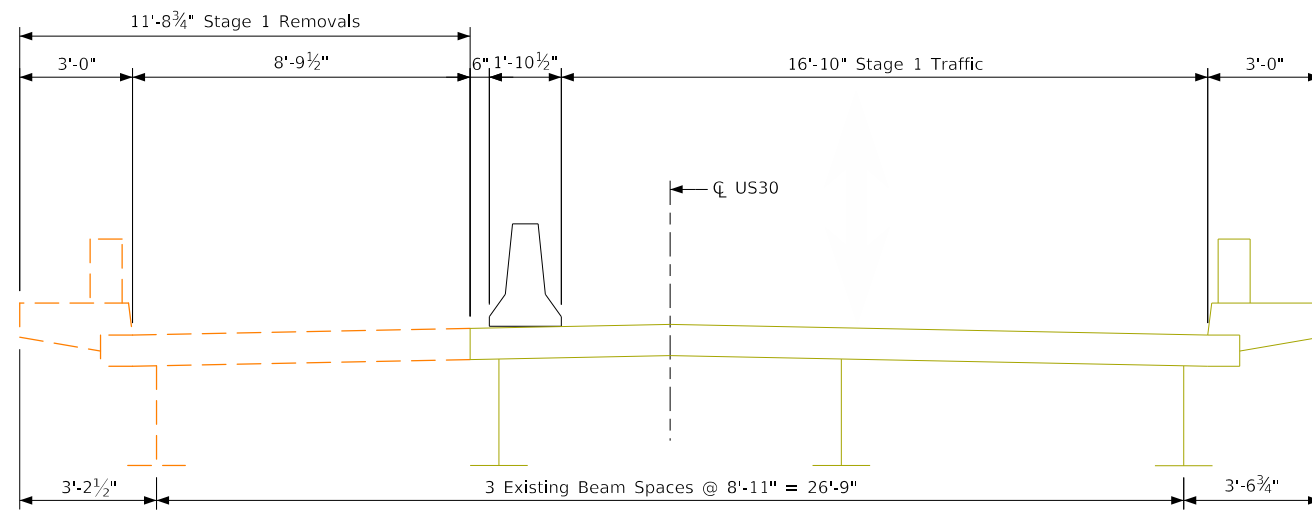
61'-0" End Spans (BTB Beam Type) 92'-0" Interior Span

Site Plan

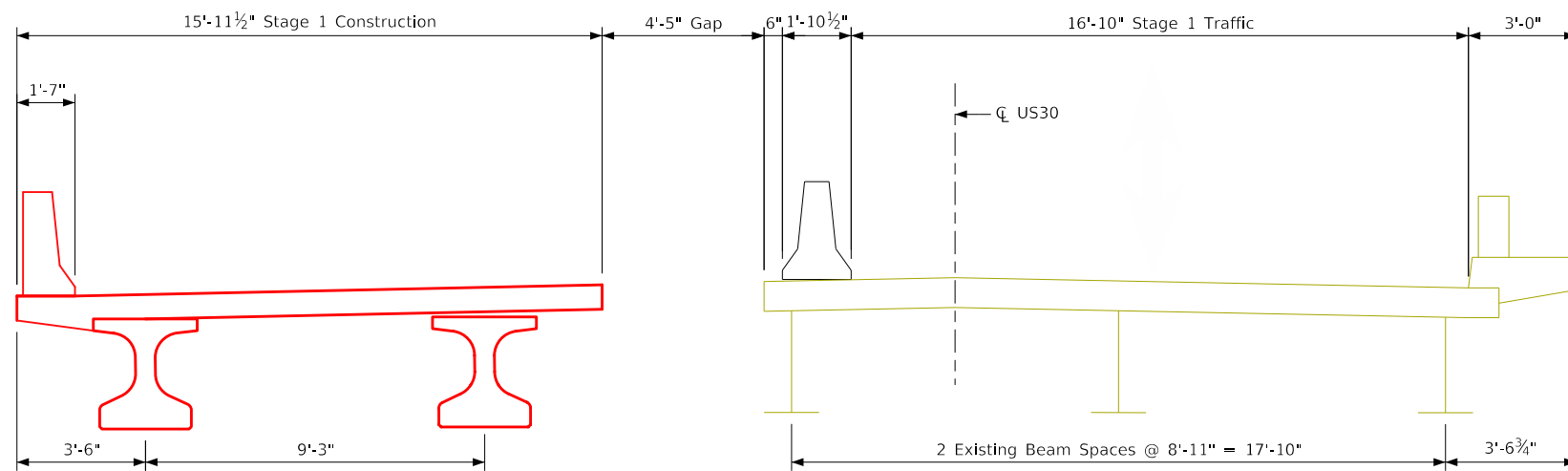
STA. 354+42.31 April 2023

Clinton County
IOWA DEPARTMENT OF TRANSPORTATION

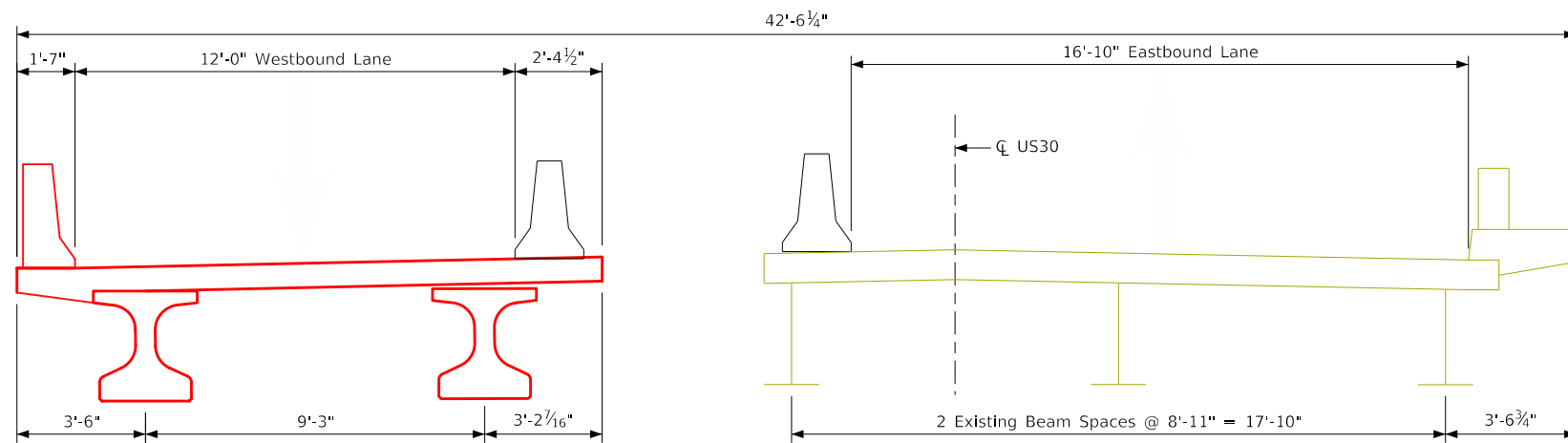
Design No. Design Sheet No. 2 of 2 FHWA No. 020760



STAGE 1 REMOVAL



STAGE 1 CONSTRUCTION



INTERMEDIATE CROSS SECTION
(During potential winter shut down)

Note:
Capacity of existing structure to be evaluated to ensure that it will carry legal loads.

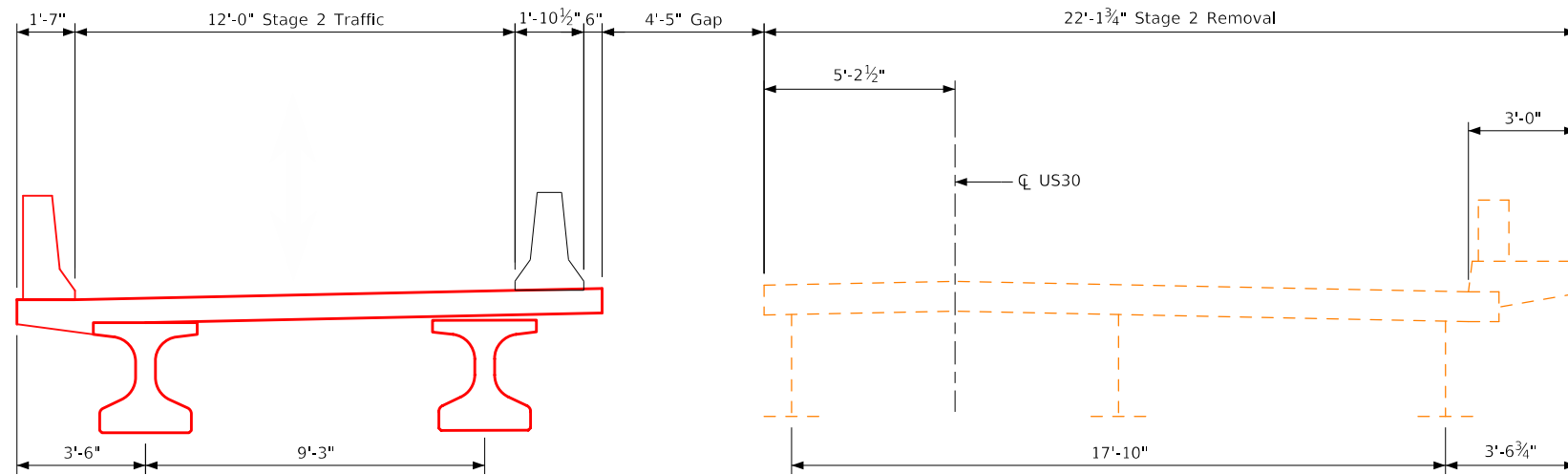
Applies to Sheets V.1-V.6.

PRELIMINARY

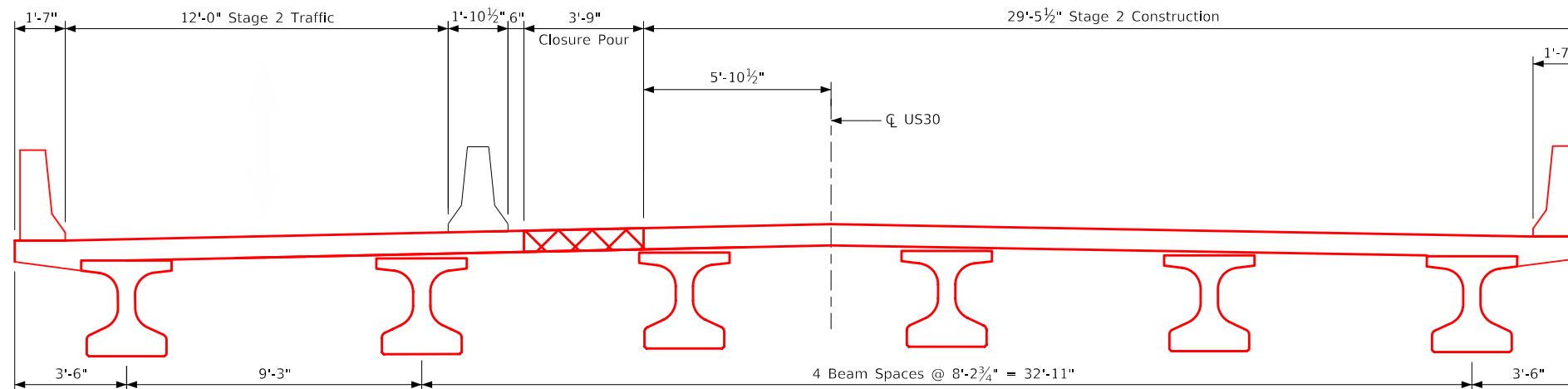
US30 Staging Details 1

Clinton County
IOWA DEPARTMENT OF TRANSPORTATION

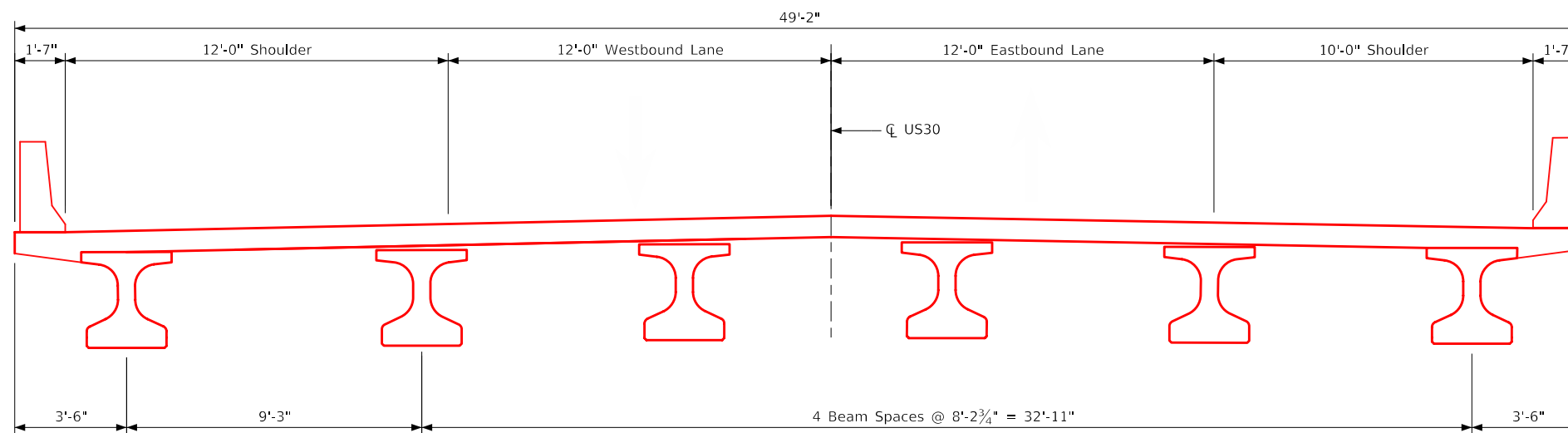
April 2023



STAGE 2 REMOVAL



STAGE 2 CONSTRUCTION



FINAL BRIDGE CROSS SECTION

Note:
Applies to Sheets V.1-V.6.

PRELIMINARY

US30 Staging Details 2

Clinton County
IOWA DEPARTMENT OF TRANSPORTATION

April 2023

CROSS SECTION VIEW COLOR LEGEND

Design Color No.	Feature	Design Color No.	Feature
Aggregate			
(64)	Choke Stone	(112)	Noise Wall
(42)	Engineering Fabric	(112)	Noise Wall Footing
(8)	Flooded Backfill	(112)	Retaining Wall Back
(92)	Macadam Stone	(112)	Retaining Wall Back Excavate
(20)	Modified	(112)	Retaining Wall Face
(12)	Plowing Shaping	(112)	Retaining Wall Front Excavate
(14)	Porous Backfill	(112)	Retaining Wall Front Footing
(8)	Revetment Class A	(112)	Retaining Wall MSE Gutter
(6)	Revetment Class B	(112)	Retaining Wall Reinforced Earth
(62)	Revetment Class C	Grading	
(188)	Revetment Class D	(8)	Behind Curb Cut
(28)	Revetment Class E	(6)	Granular
(12)	Shoulder Special Backfill	(13)	Granular Back Fill
(12)	Special Backfill	(48)	Rock Undercut
(20)	Subbase	(8)	Shoulder Earth Fill
(20)	Subbase Lower	(2)	Side Slopes
(20)	Subbase Upper	(226)	Side Slopes Dressing
(118)	Subgrade Treatment	Substrata	
Asphalt			
(207)	HMA Base Course	(128)	Boulder Substrata
(207)	HMA Interim Course	(48)	Broken Weathered Substrata
(207)	HMA Surface Course	(3)	Core Out Substrata
Concrete			
(0)	Barrier Concrete	(203)	Existing Pavement Substrata
(0)	Barrier Concrete Footing	(6)	Loam Substrata
(0)	Curb Gutter	(80)	Rock Substrata
(48)	Flowable Mortar	(4)	Select Sand Substrata
(0)	Median Concrete	(3)	Shale Substrata
(0)	PCC Pavement	(10)	Topsoil Substrata
(0)	Sidewalk	Unsuitable / Waste	
Shoulder			
(209)	Shoulder HMA	(3)	Unsuitable Type A
(0)	Shoulder PCC	(13)	Unsuitable Type B
(6)	Shoulder Granular	(11)	Unsuitable Type C
(6)	Shoulder Granular	(3)	Waste
Existing			
(0)	Existing Pavement		

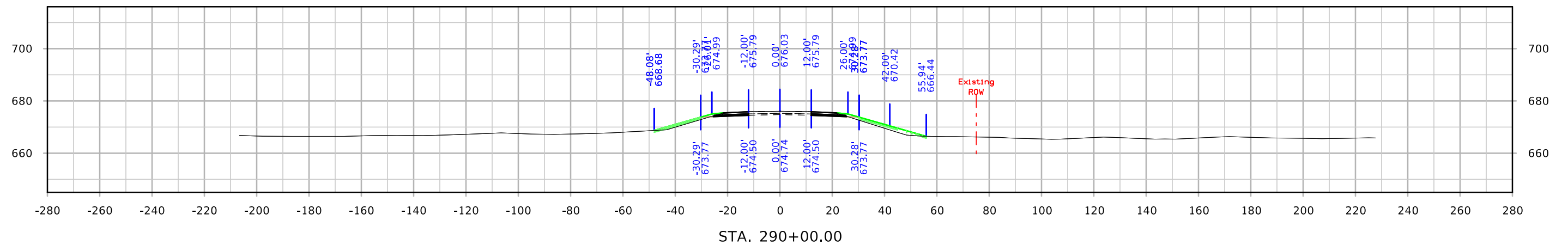
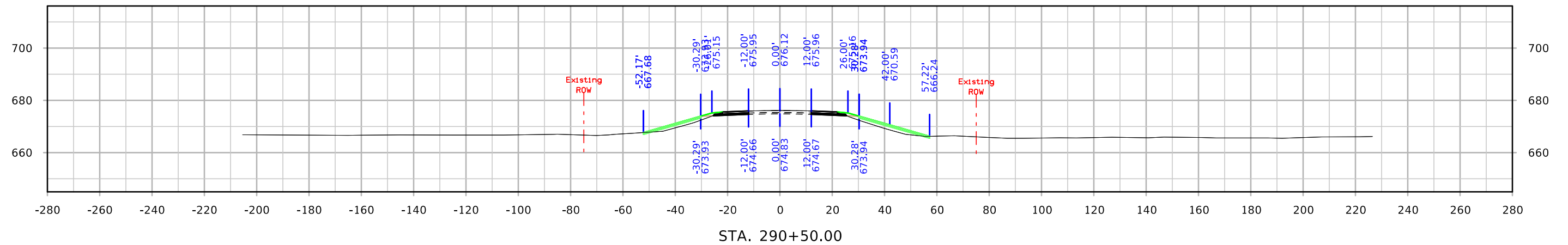
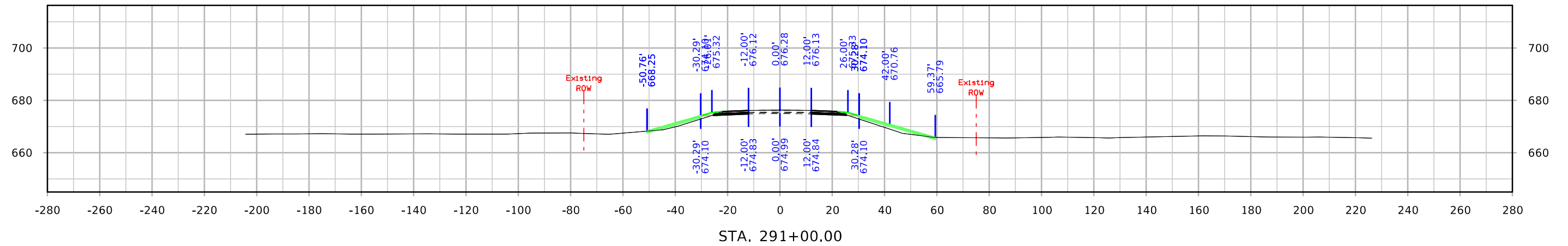
NOTES:

NOTES:

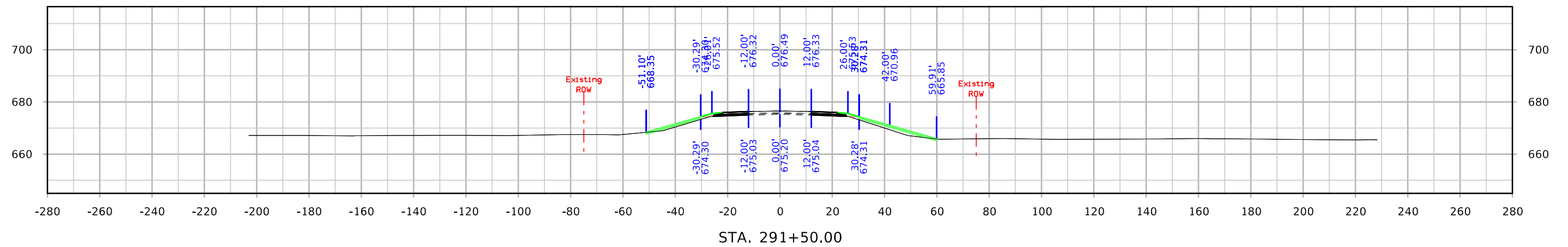
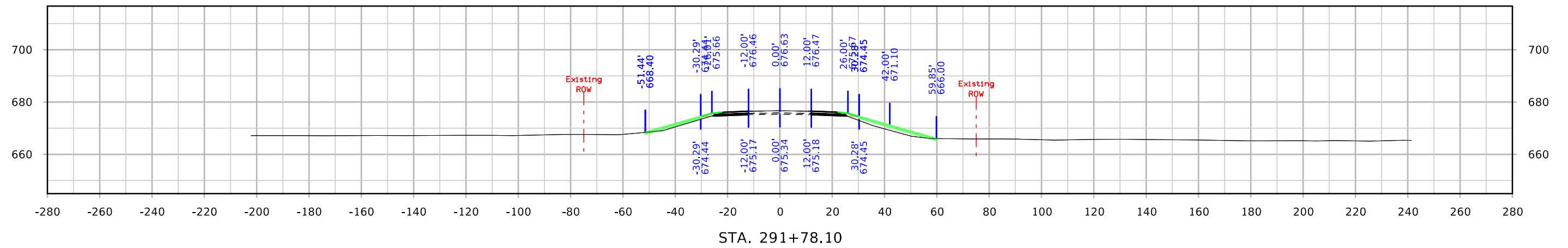
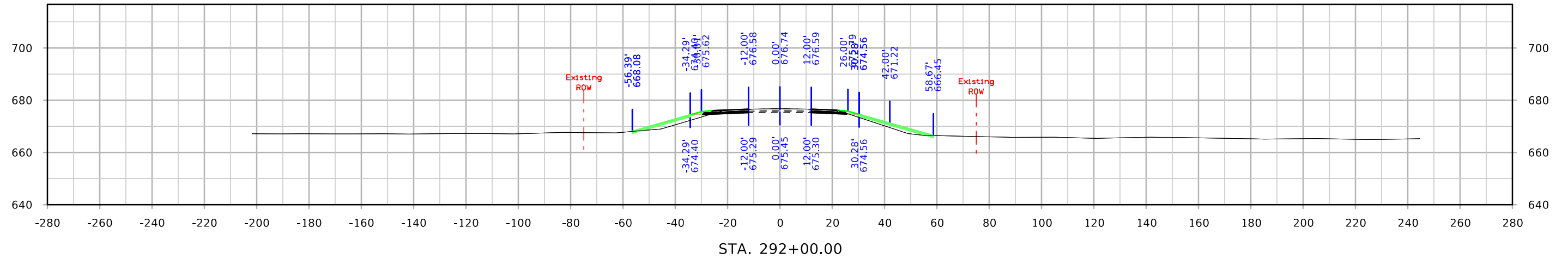
CROSS SECTIONS LEGEND AND INFORMATION SHEET

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

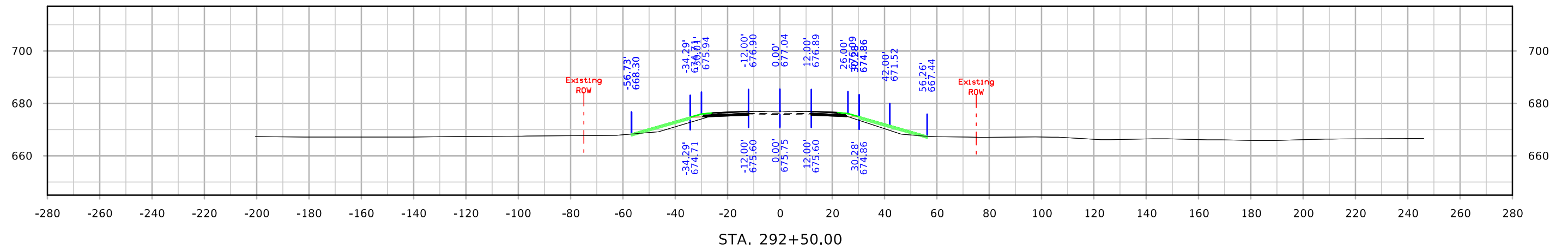
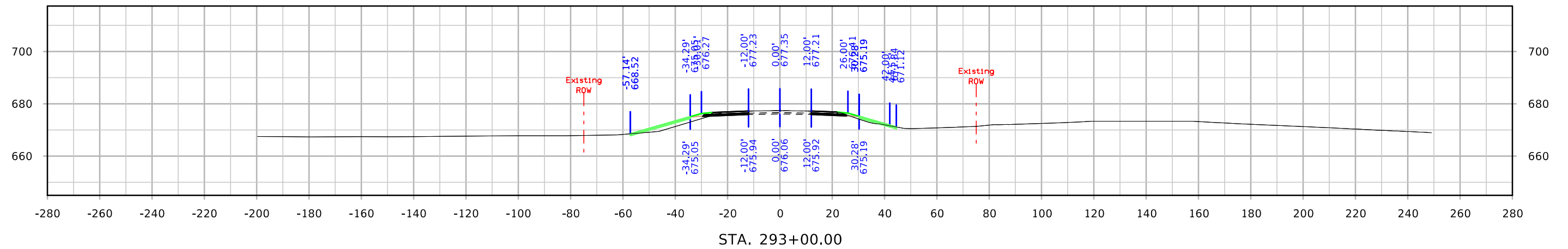
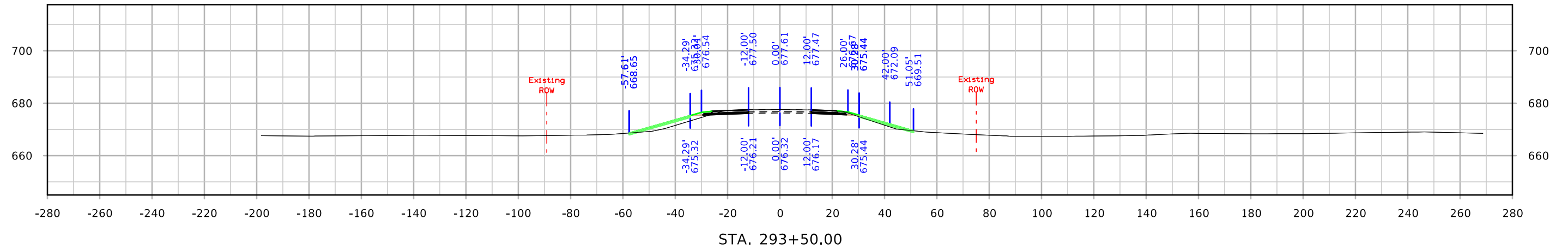
ML - US30



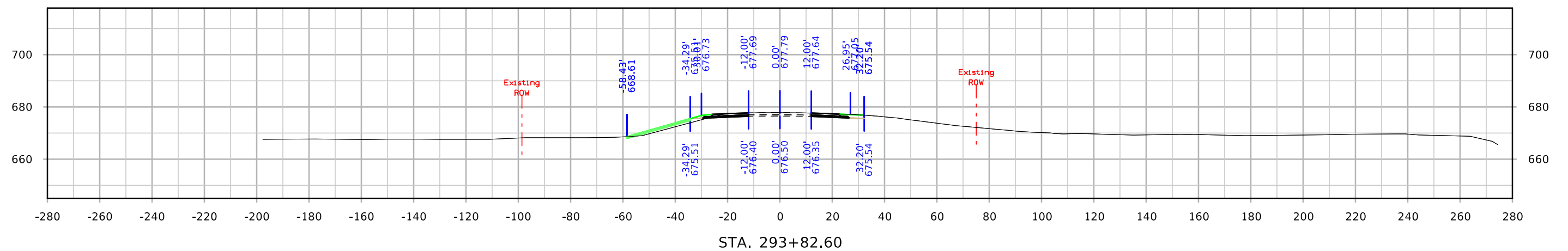
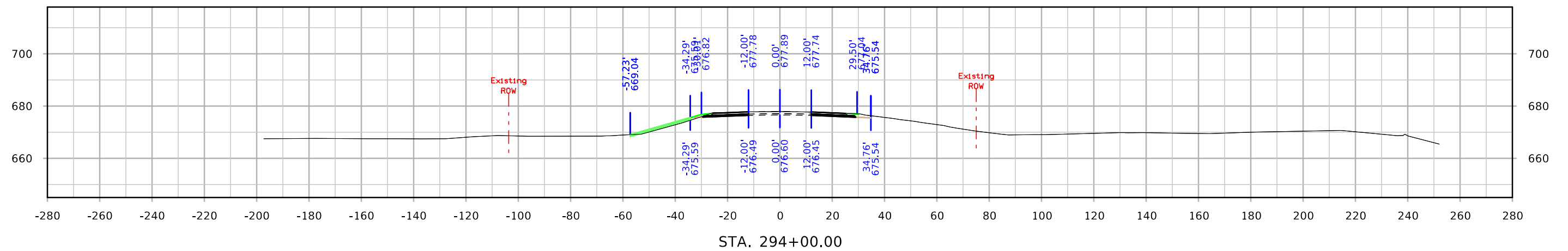
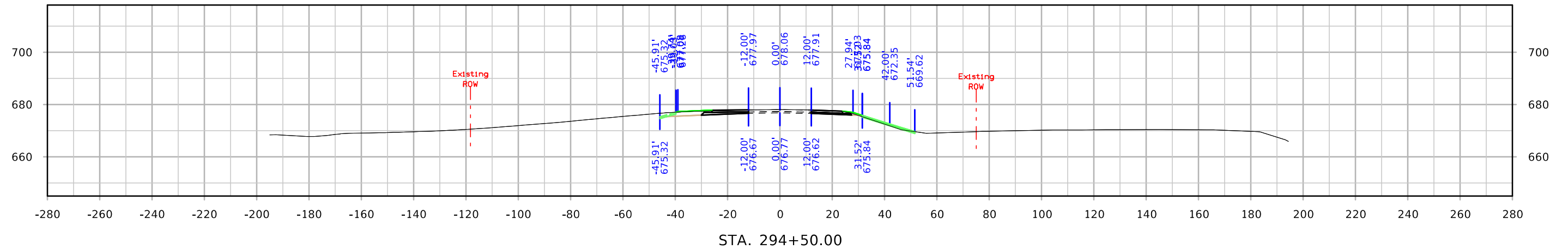
ML - US30



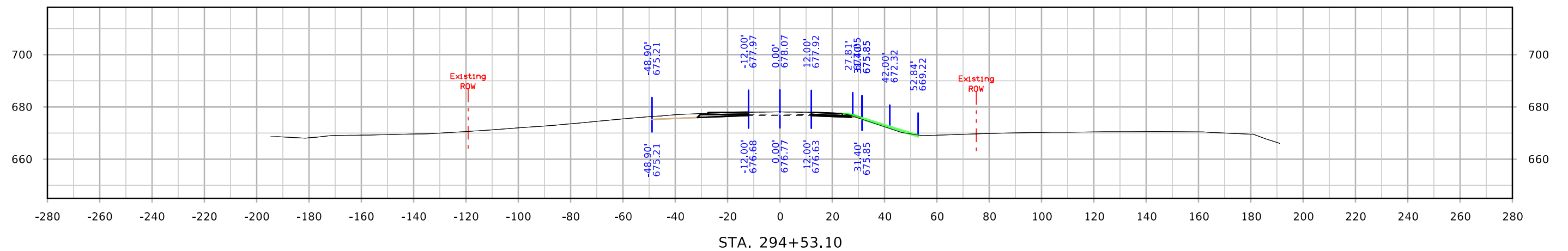
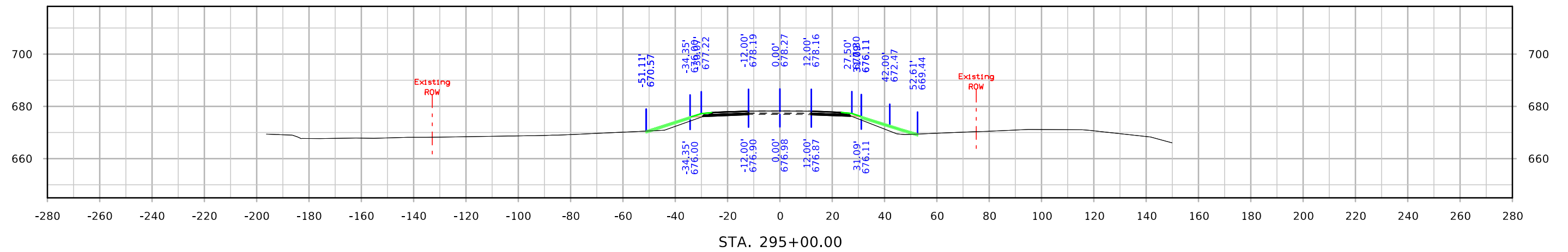
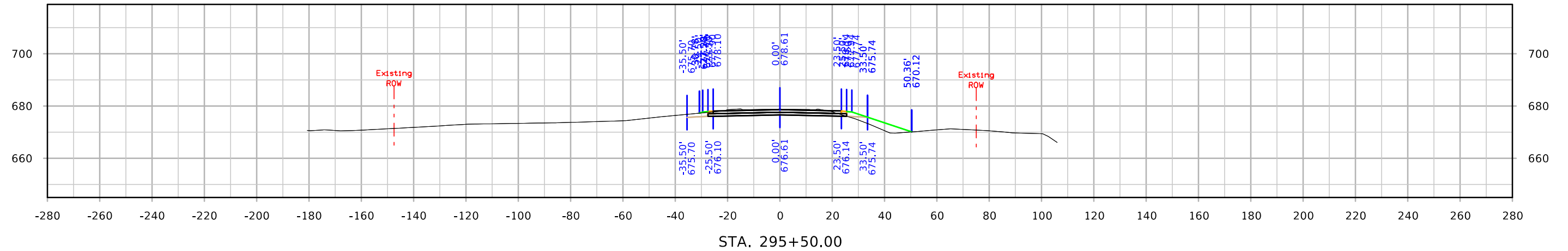
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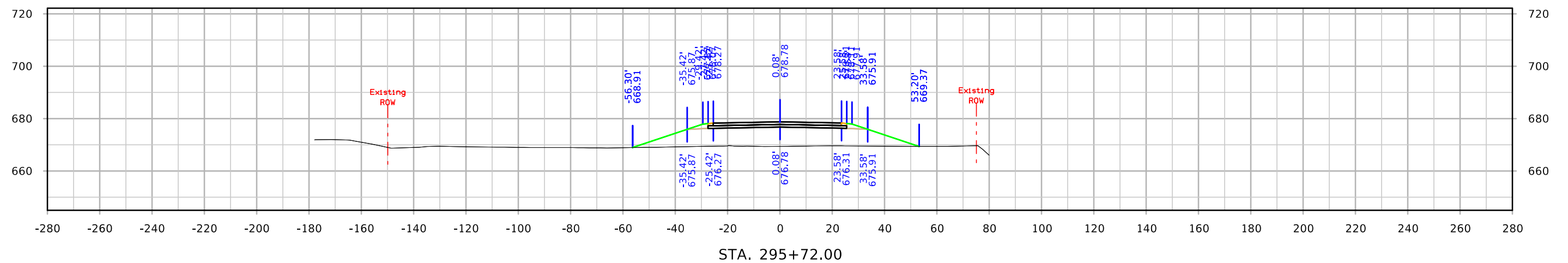
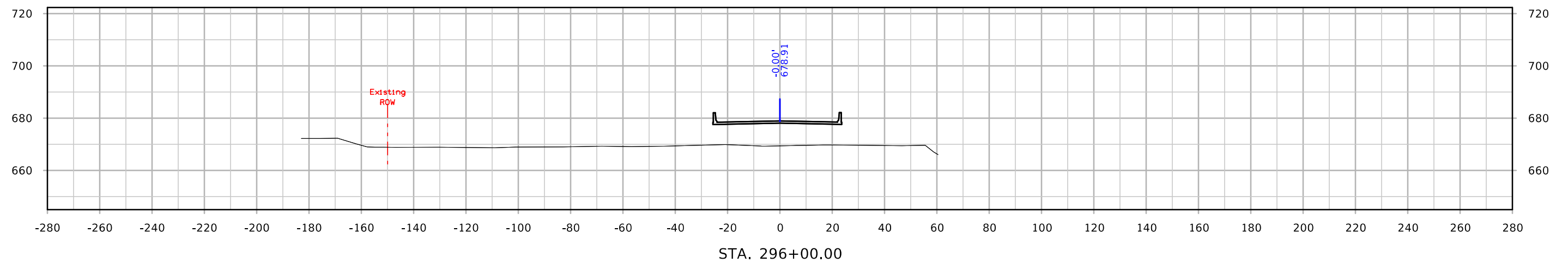
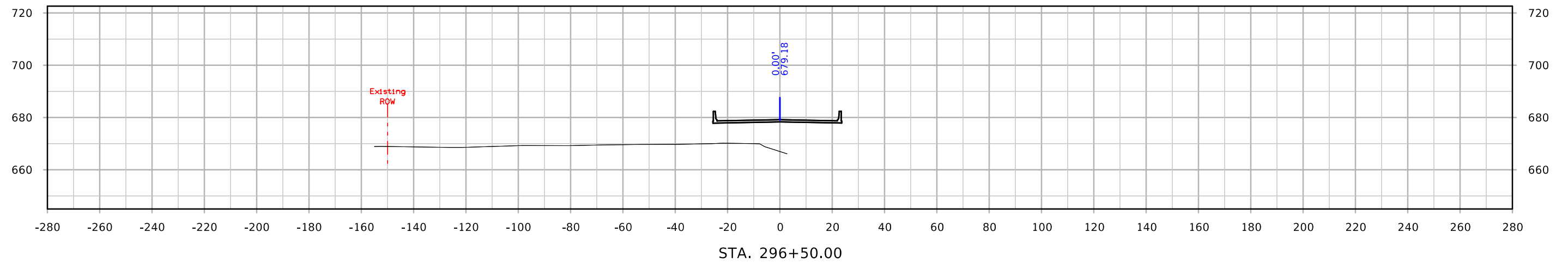
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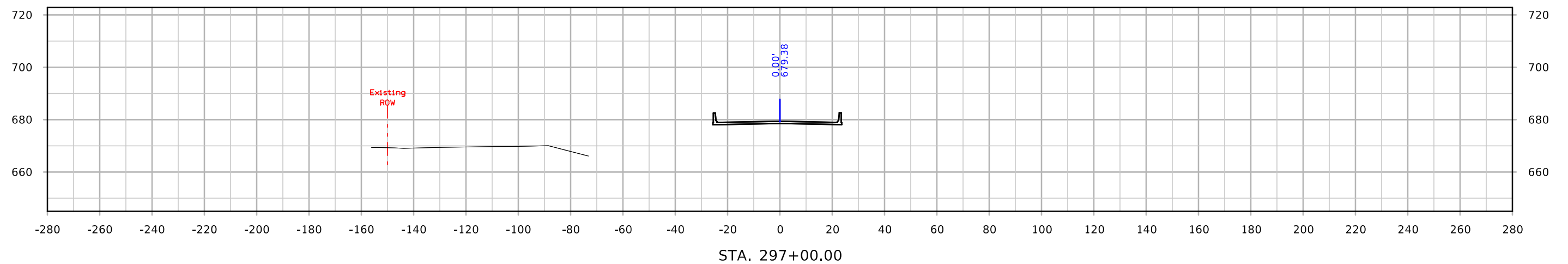
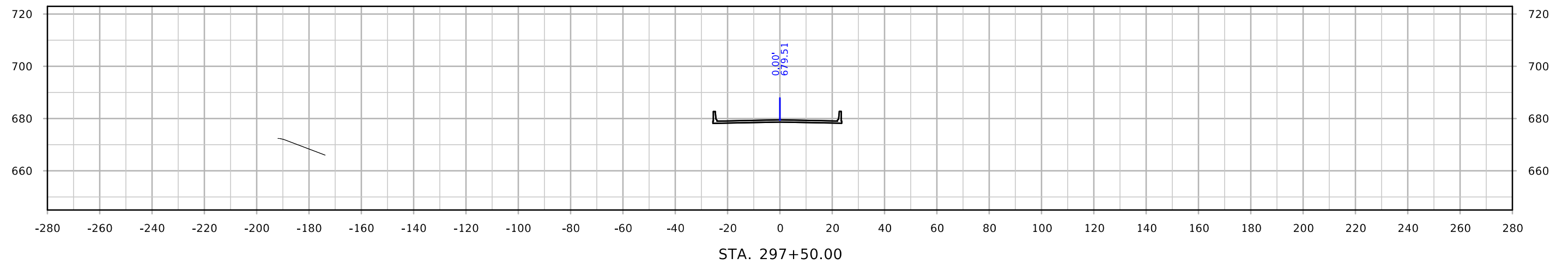
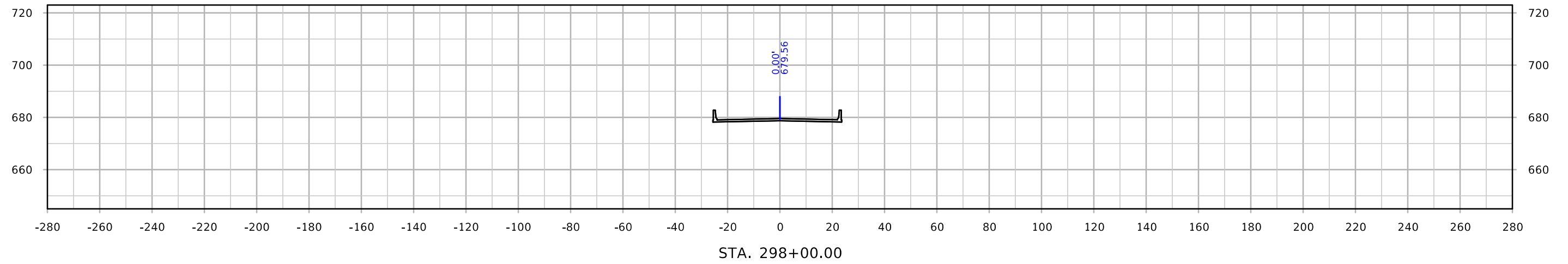
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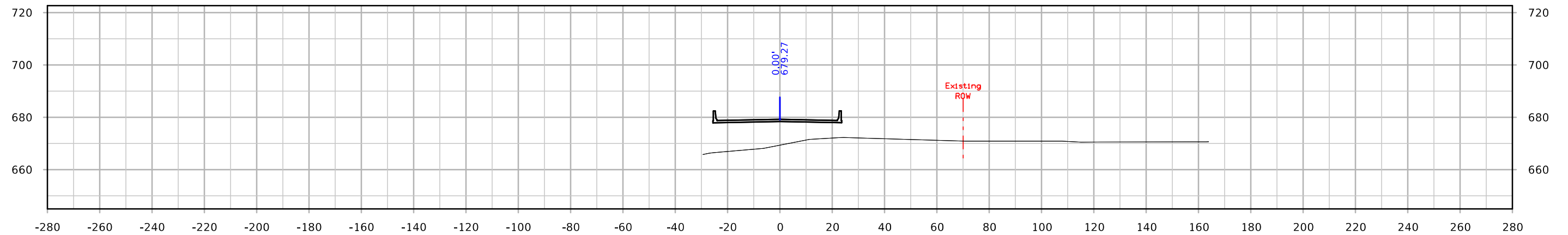
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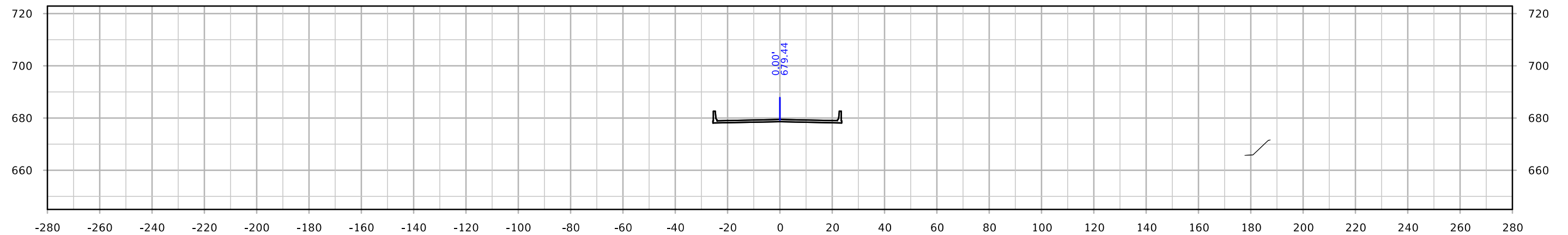
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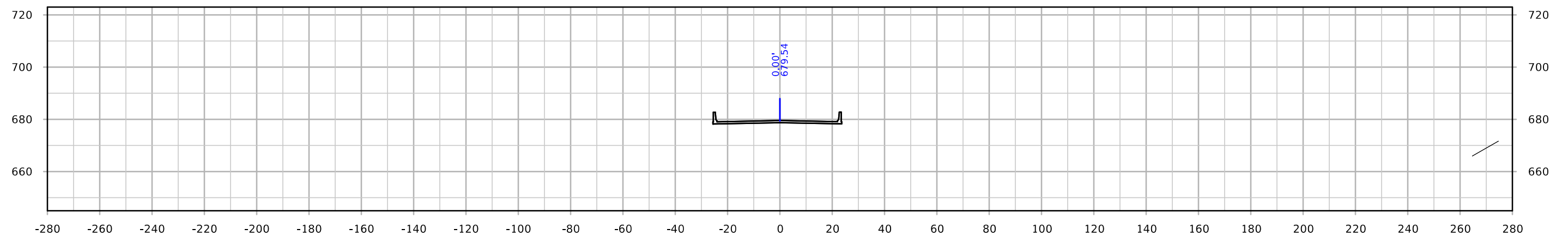
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STA. 299+50.00

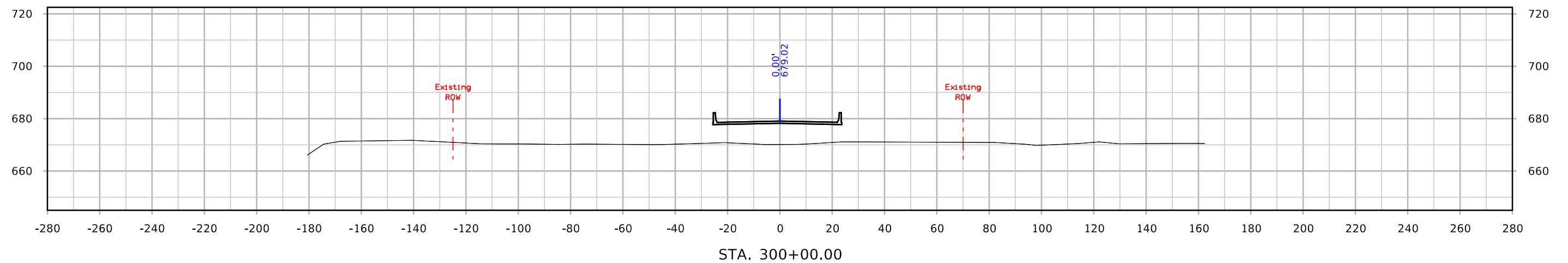
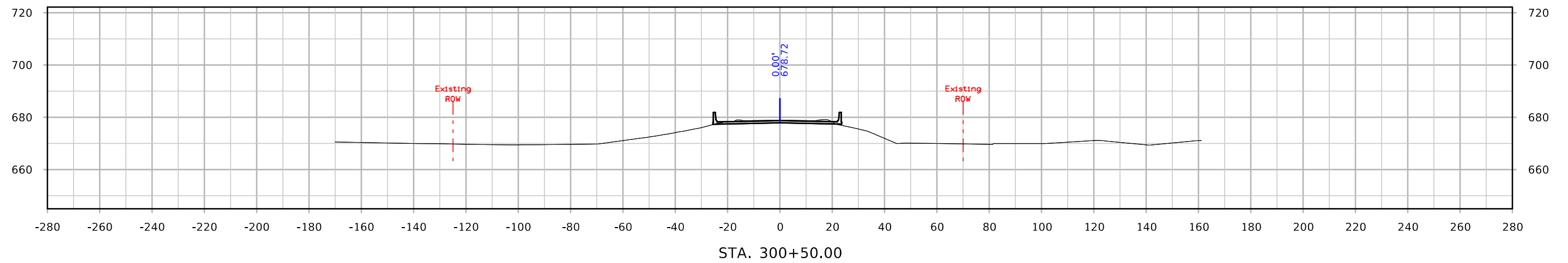
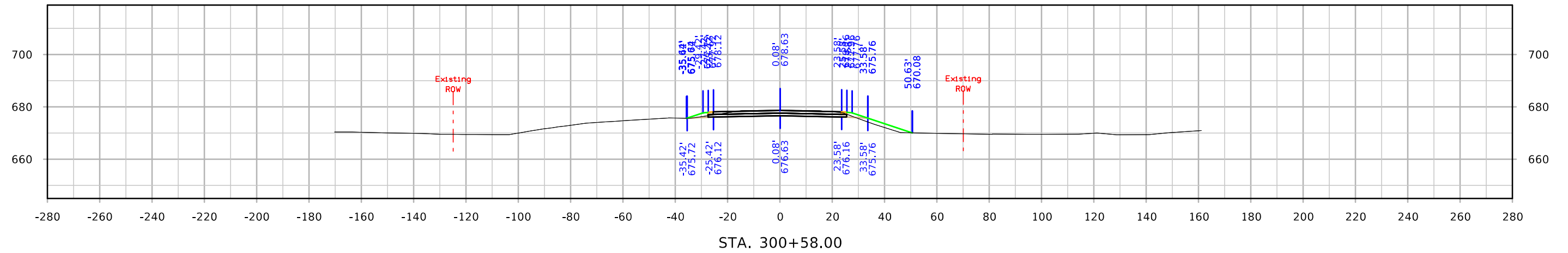


STA. 299+00.00

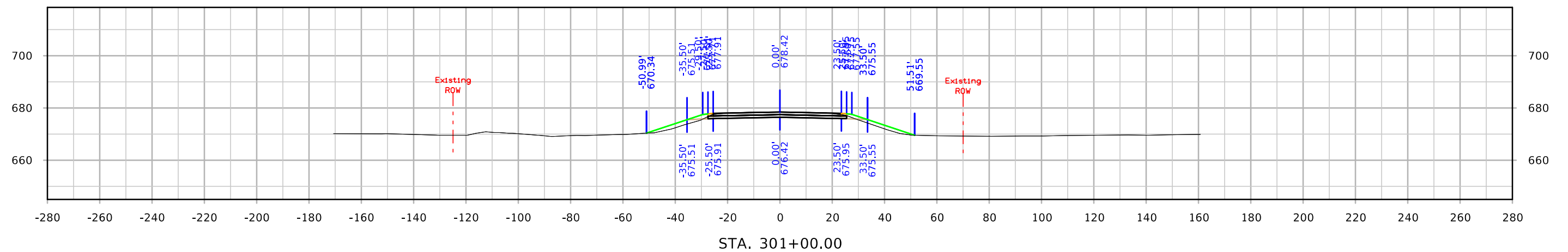
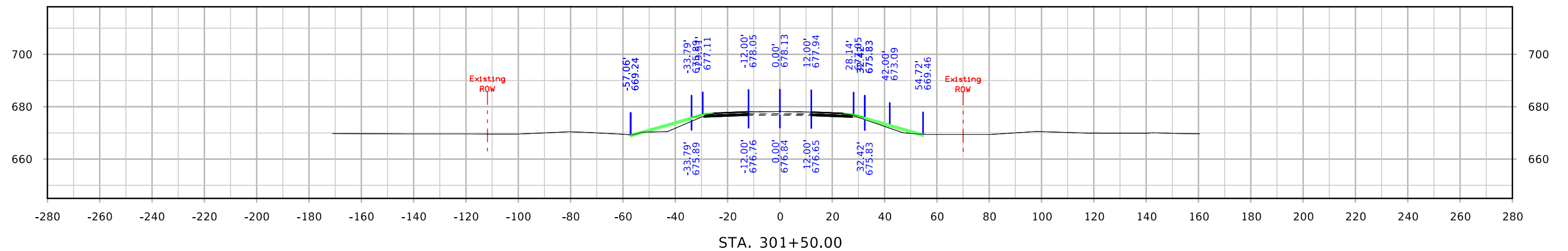
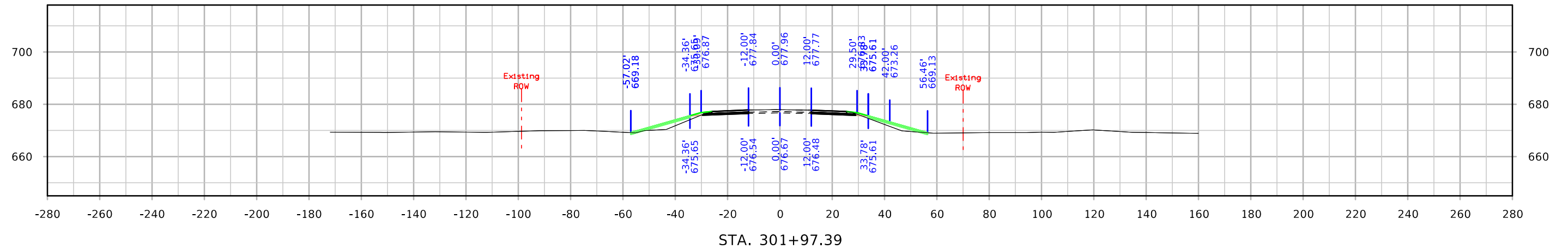


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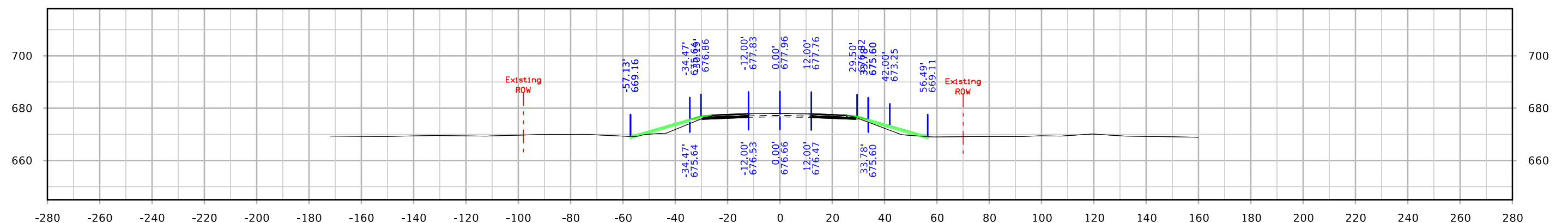
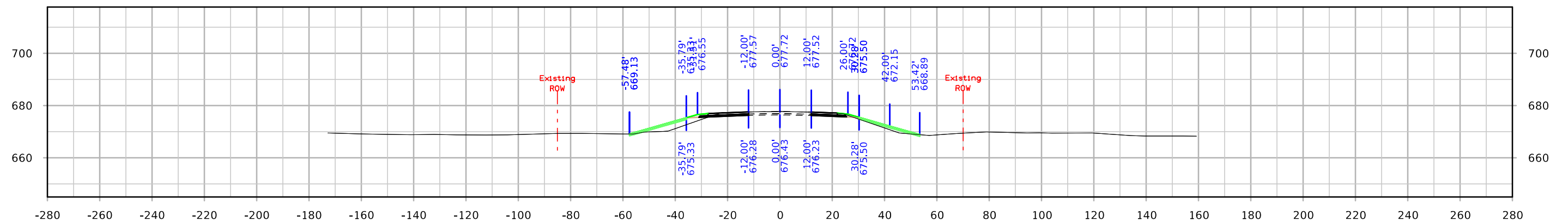
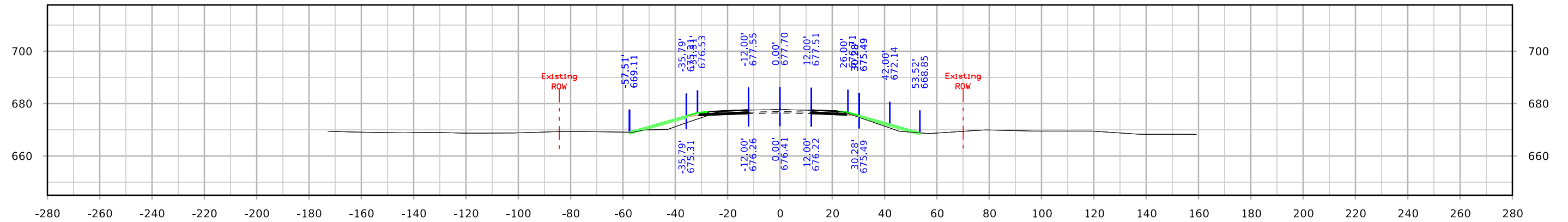
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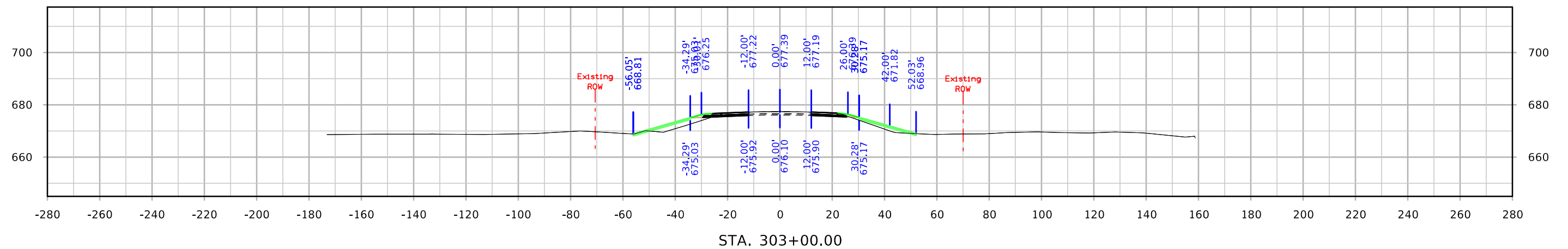
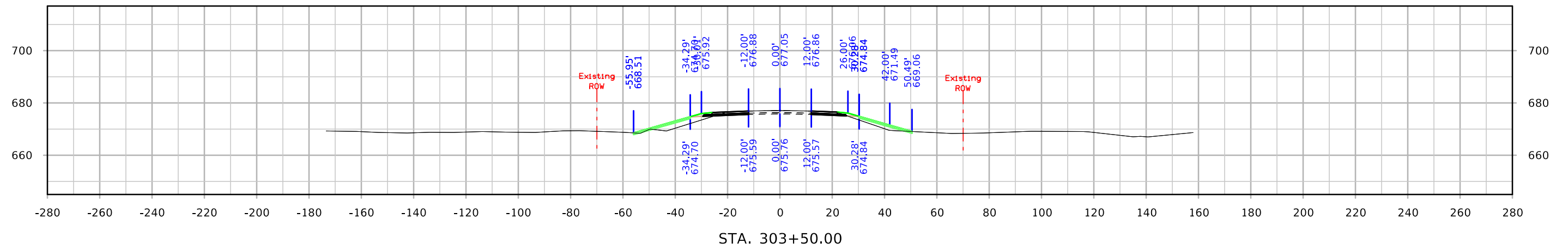
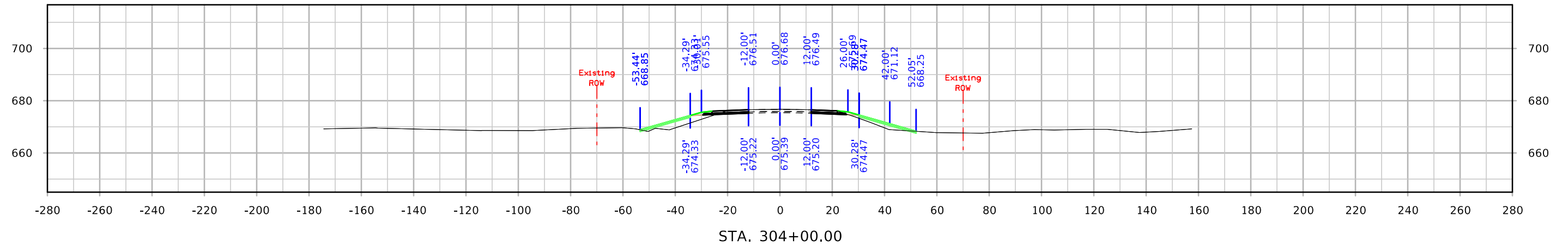
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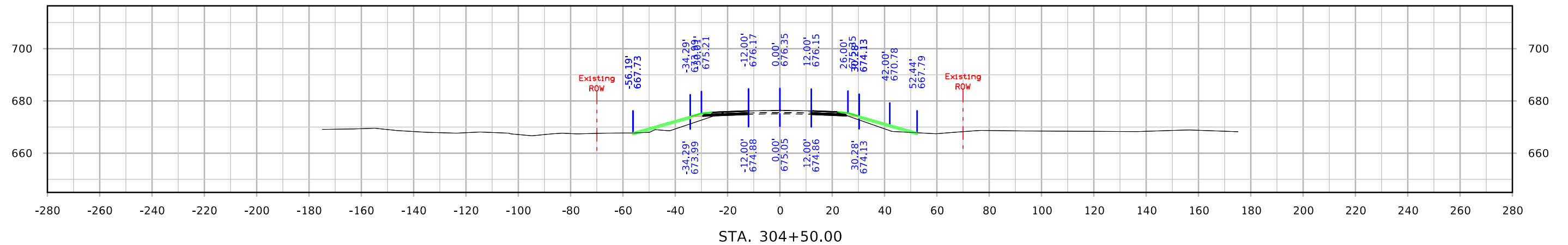
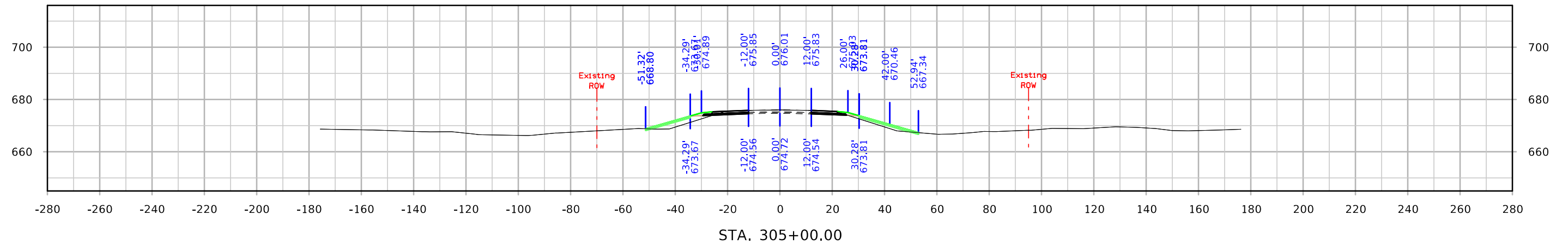
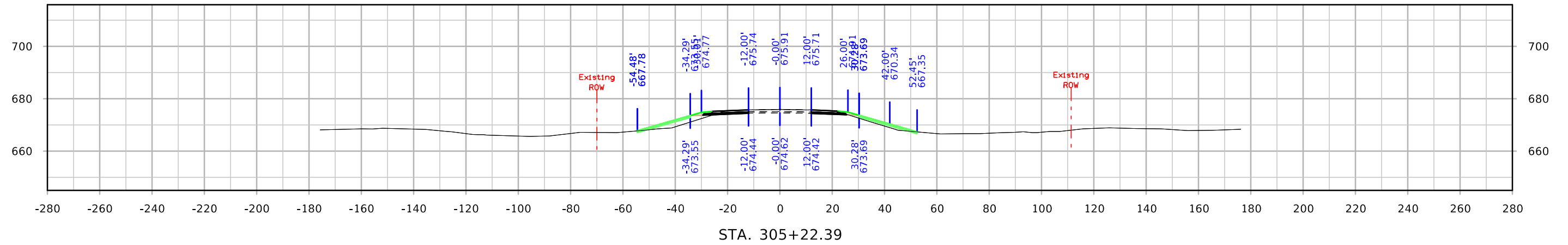
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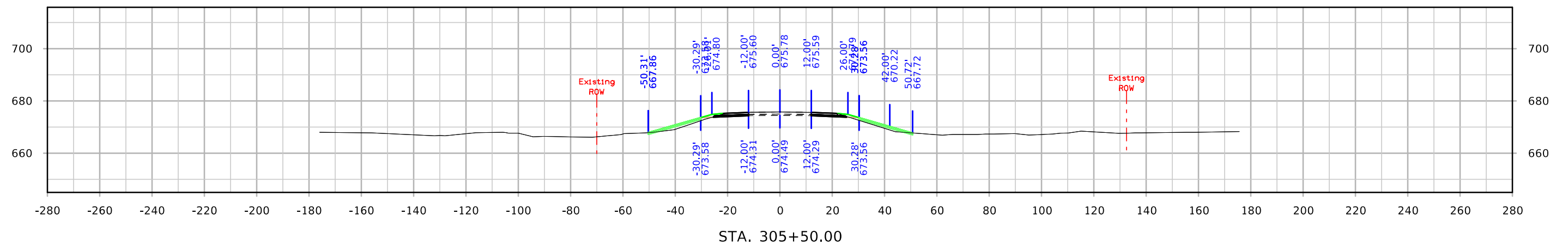
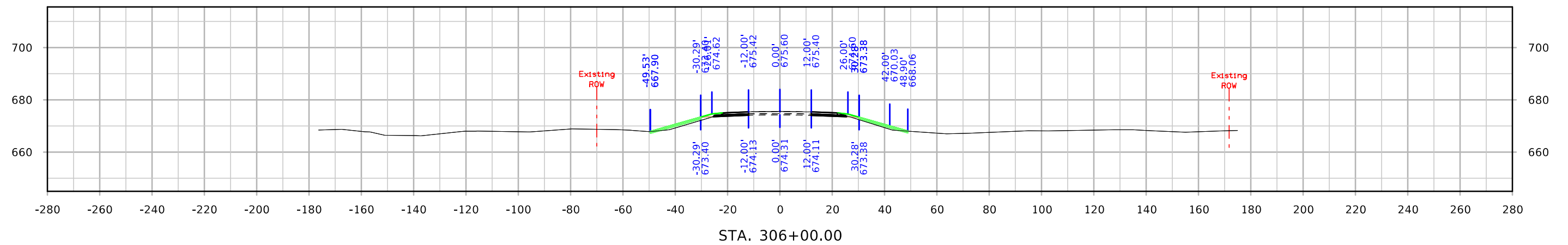
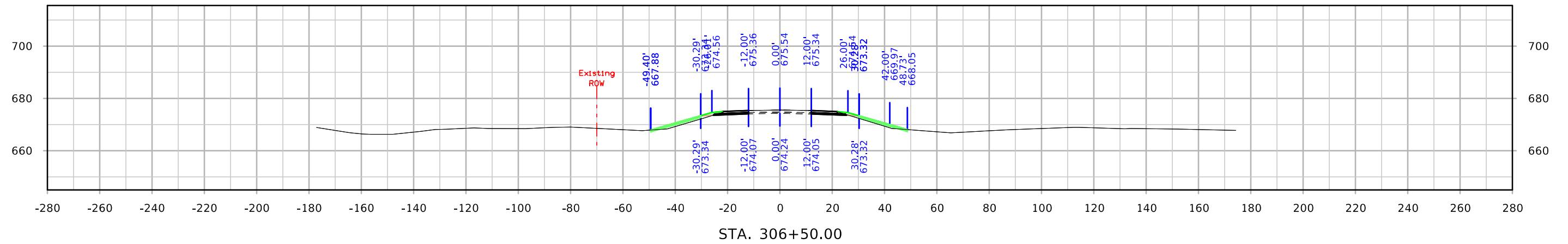
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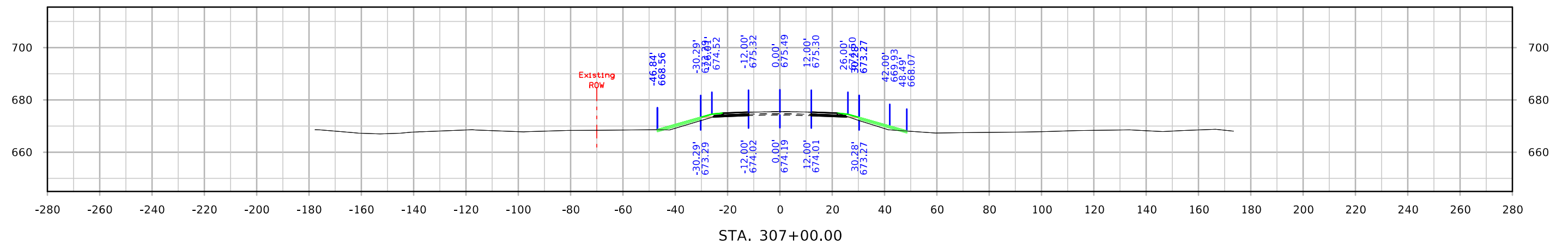
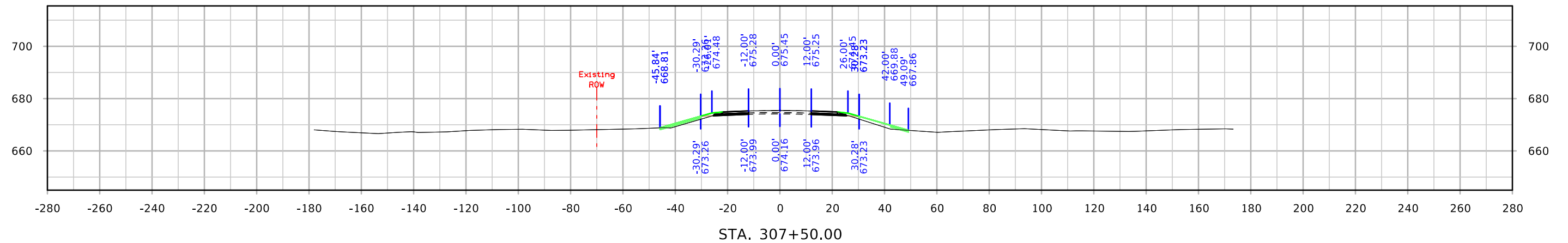
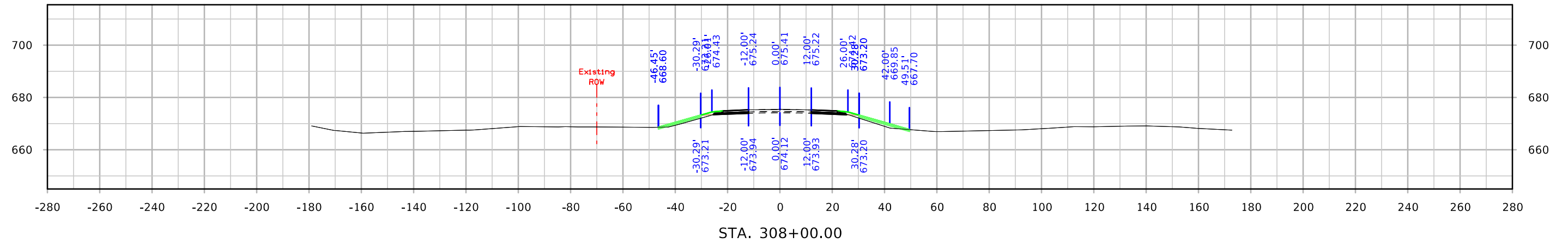
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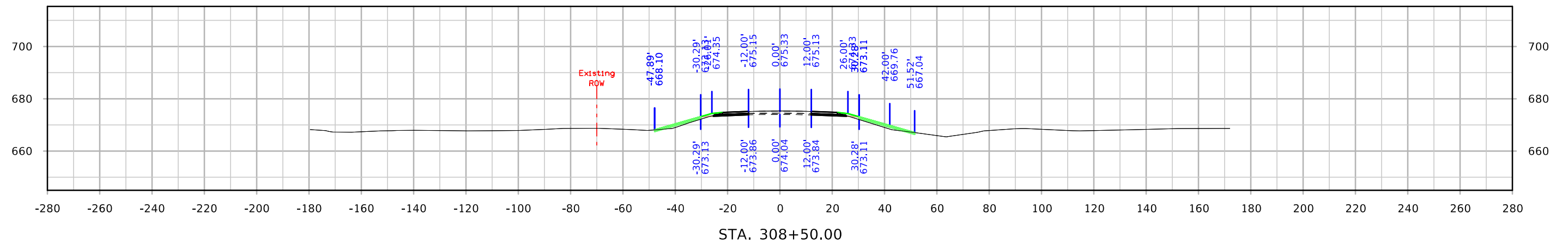
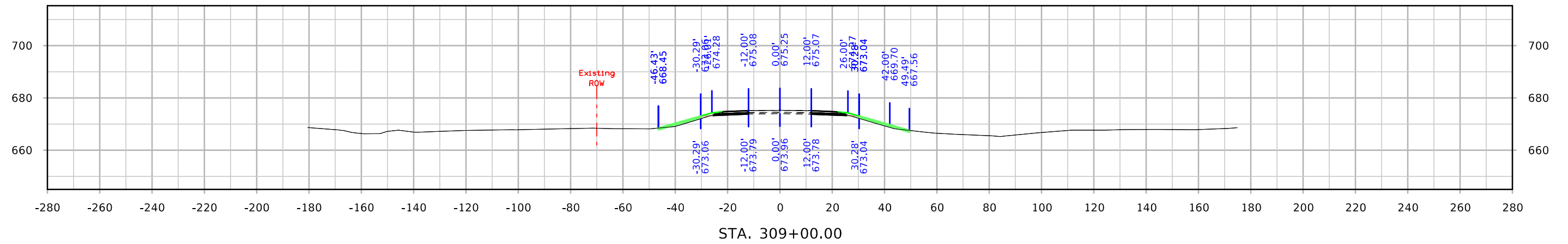
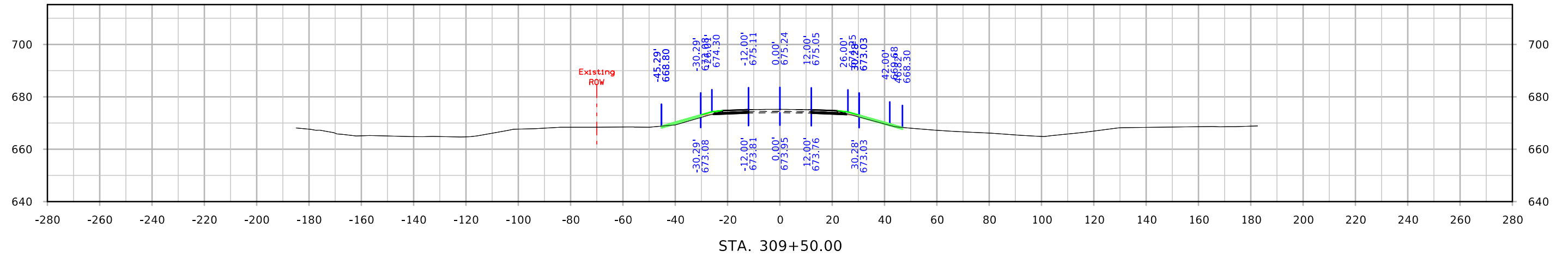
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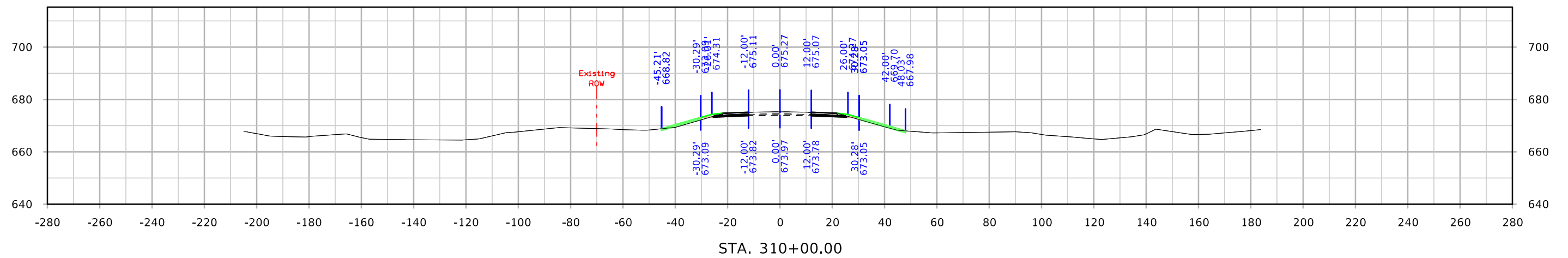
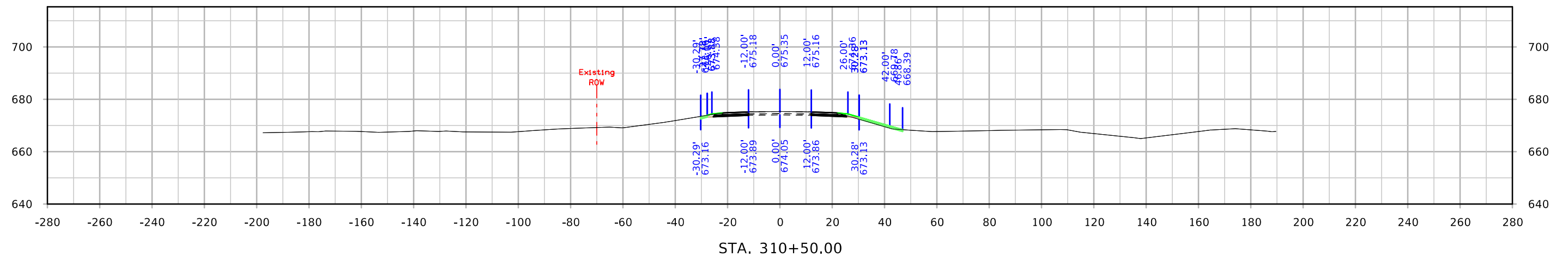
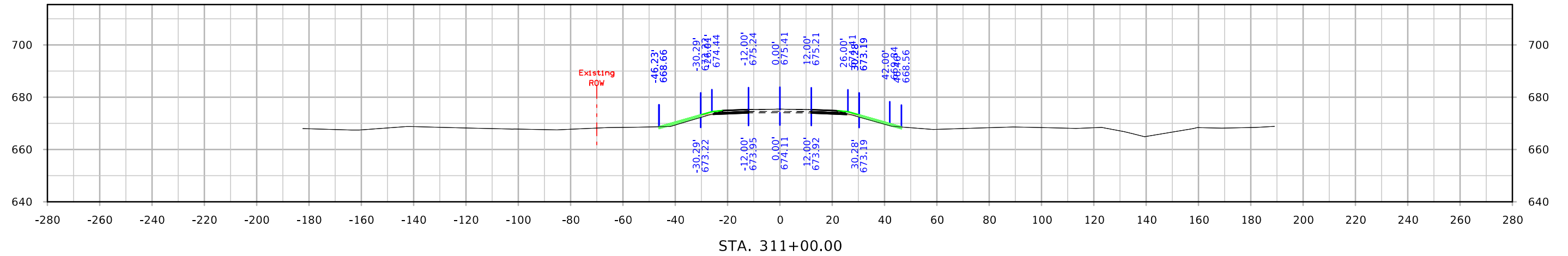
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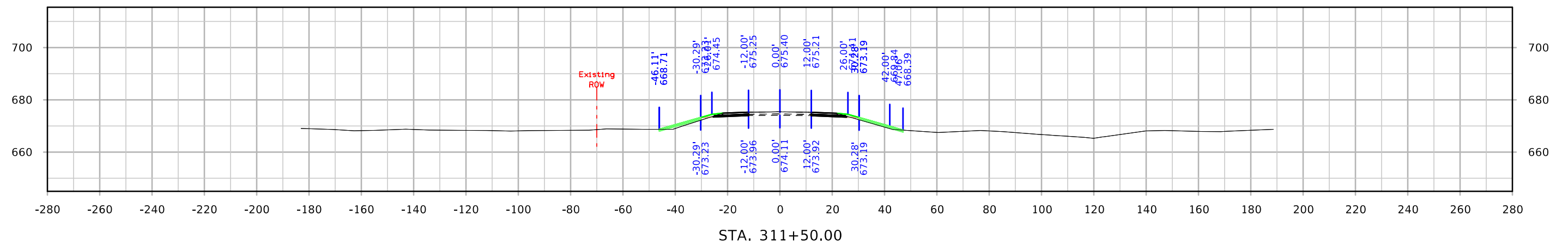
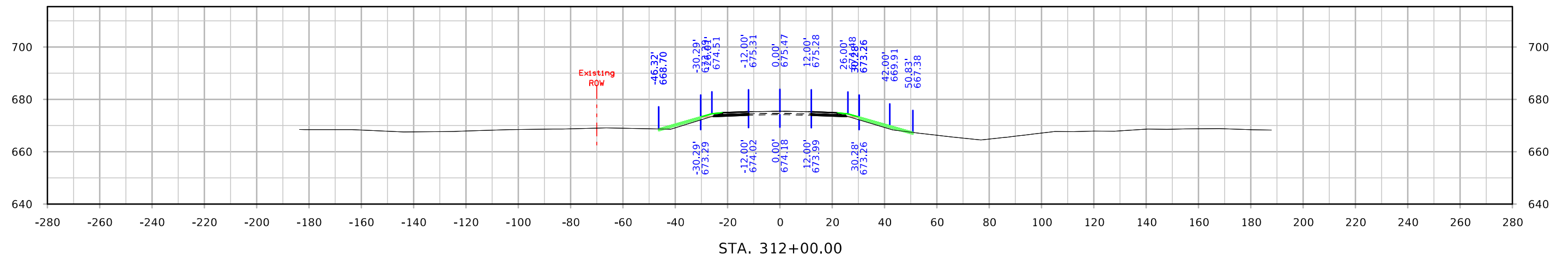
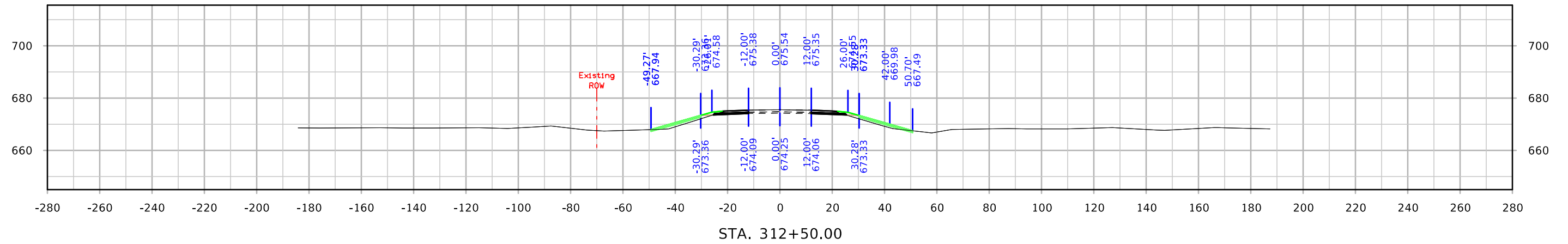
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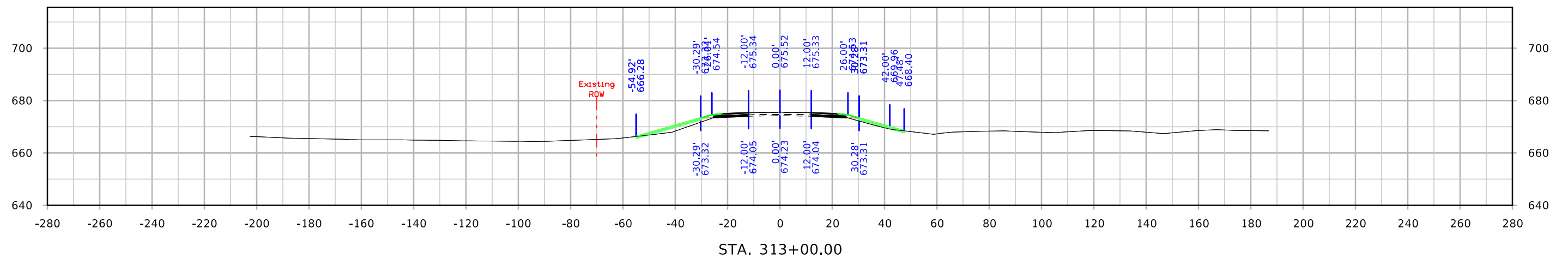
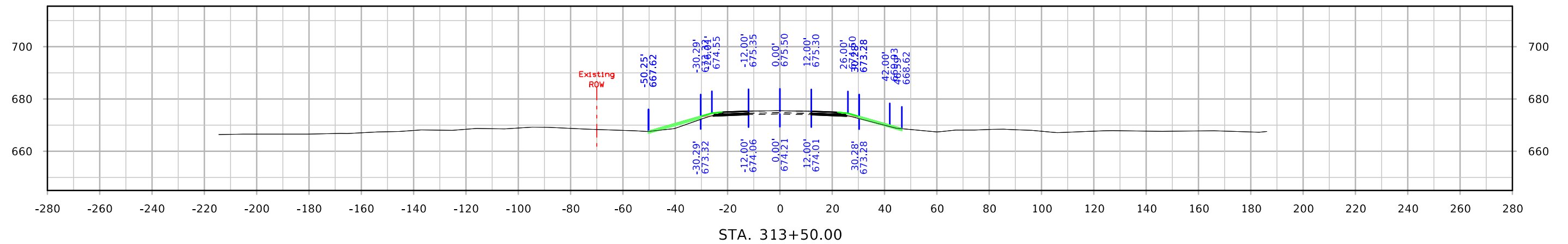
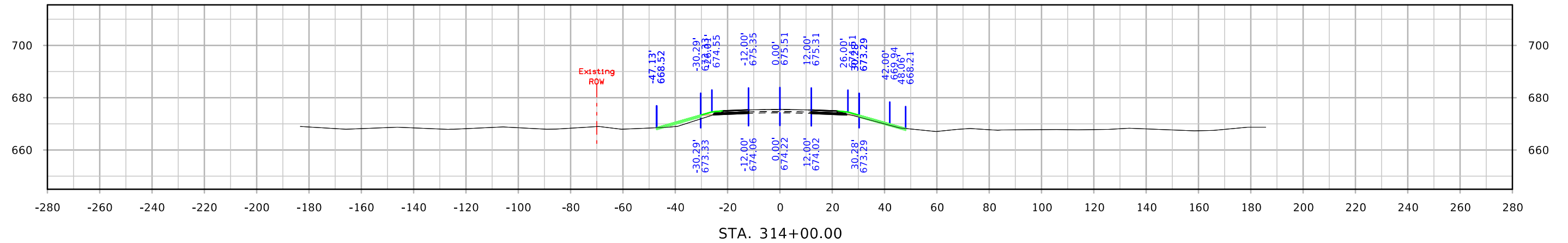
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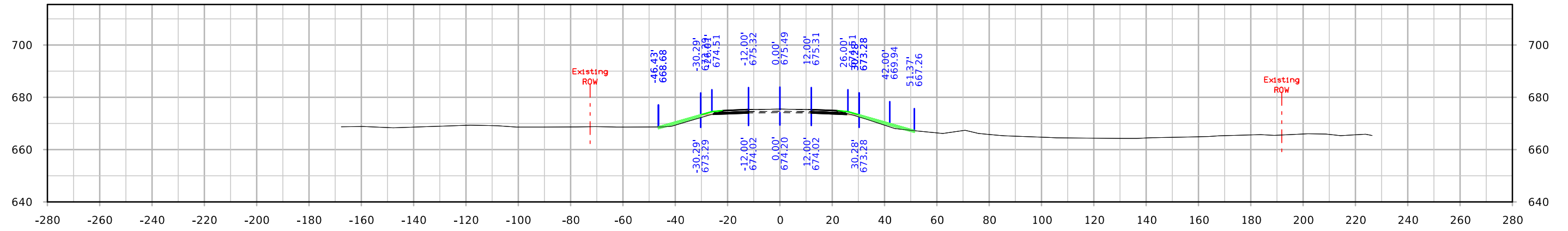
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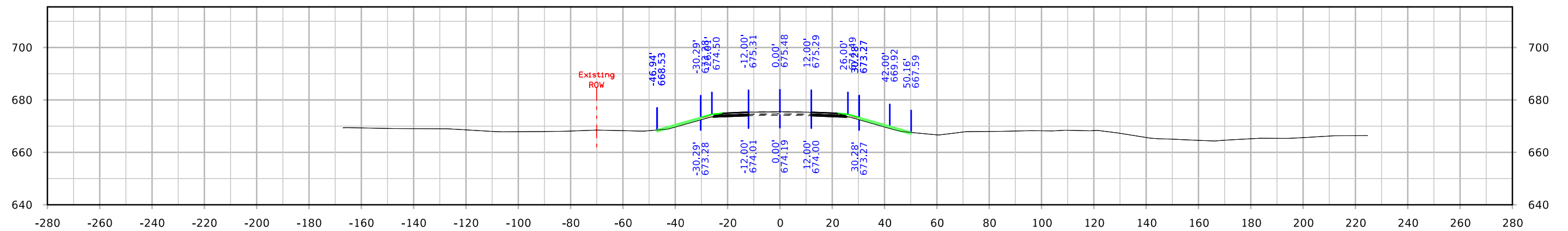
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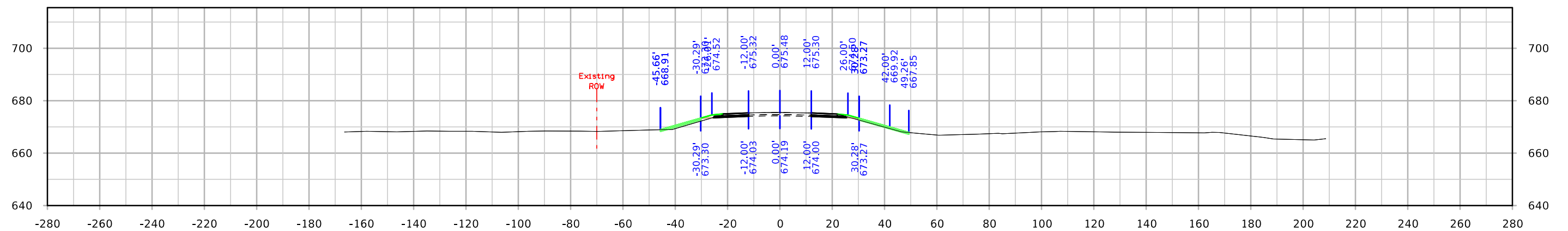
ML - US30



STA. 315+50.00

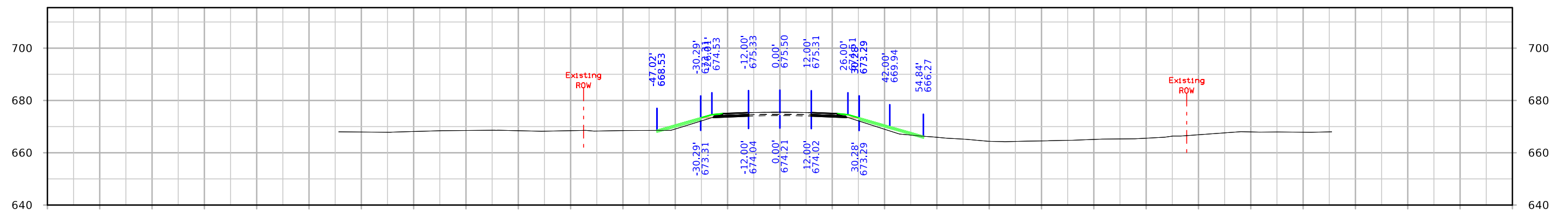
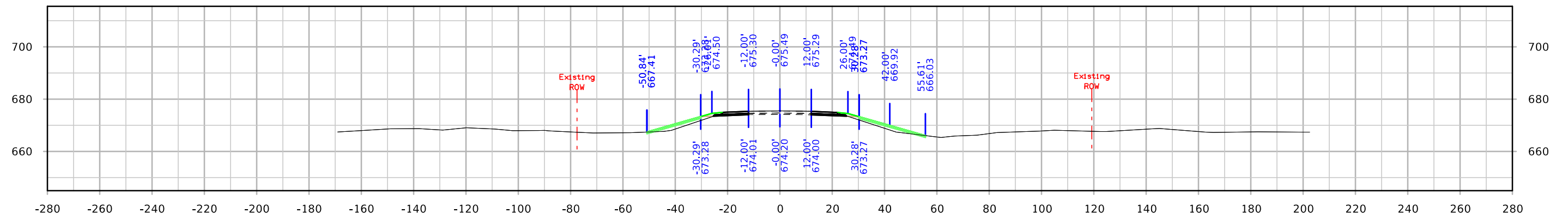
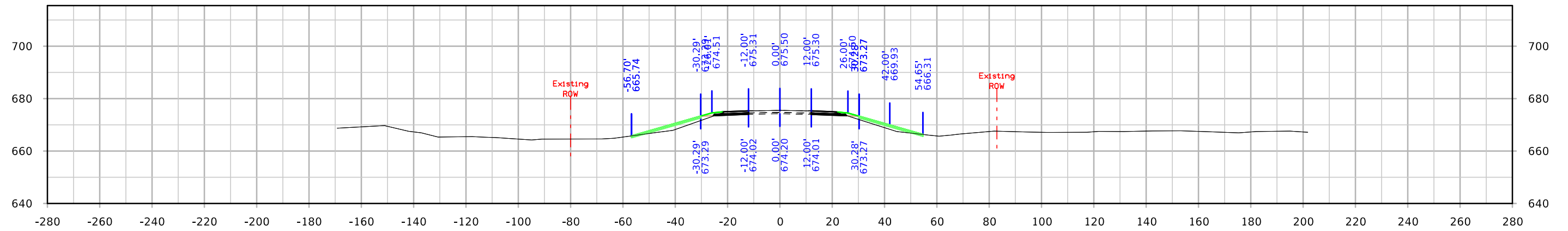


STA. 315+00.00

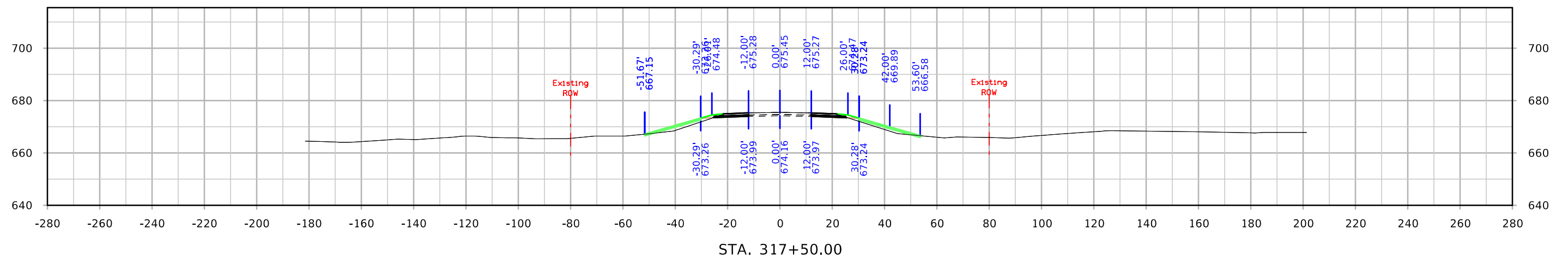
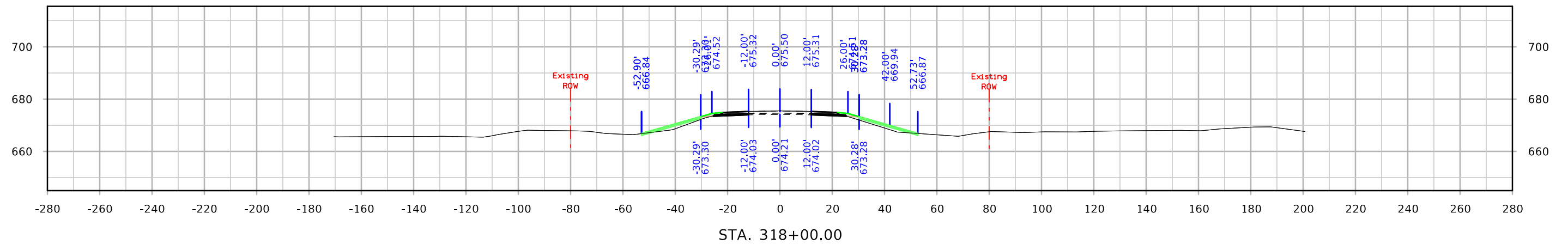
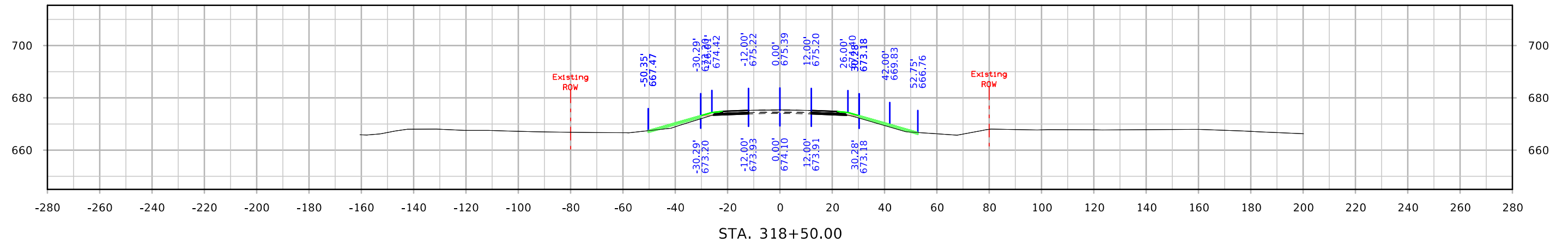


STA. 314+50.00

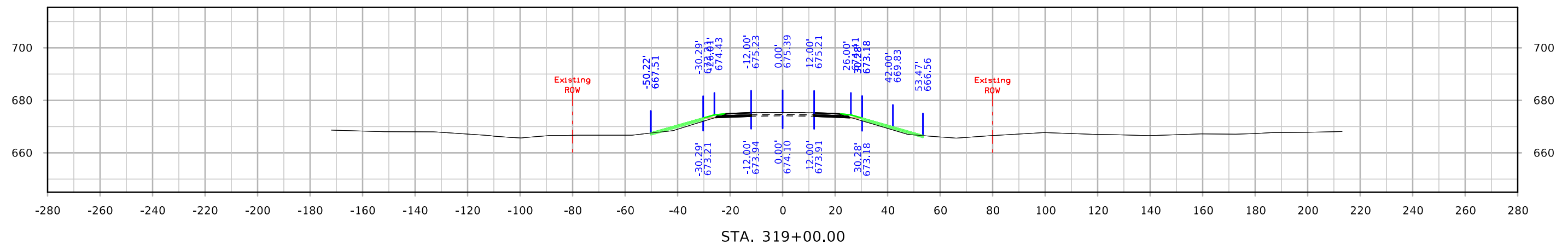
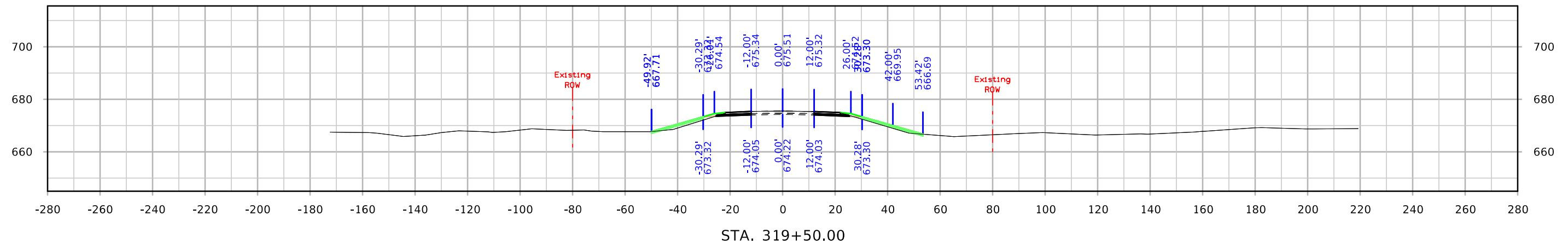
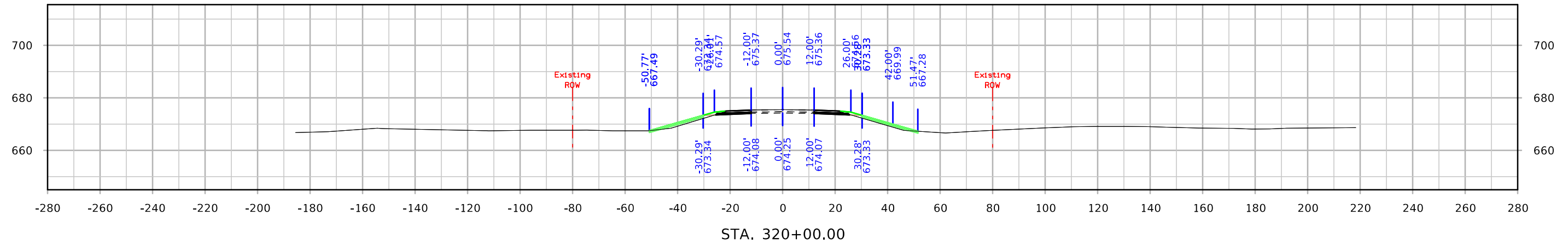
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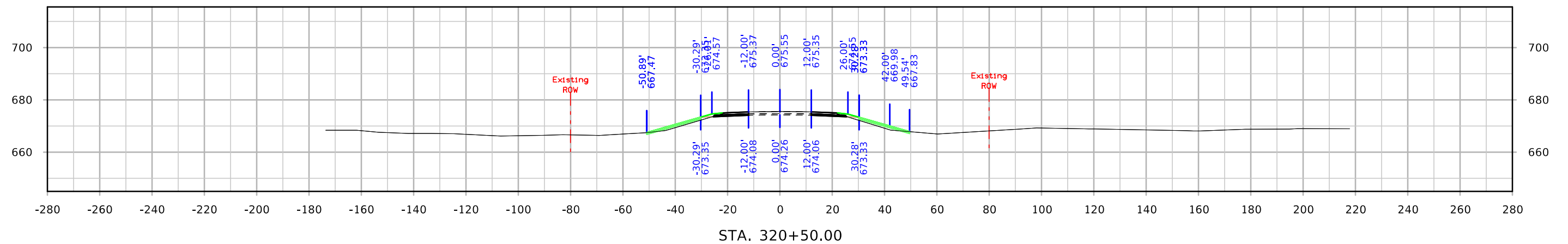
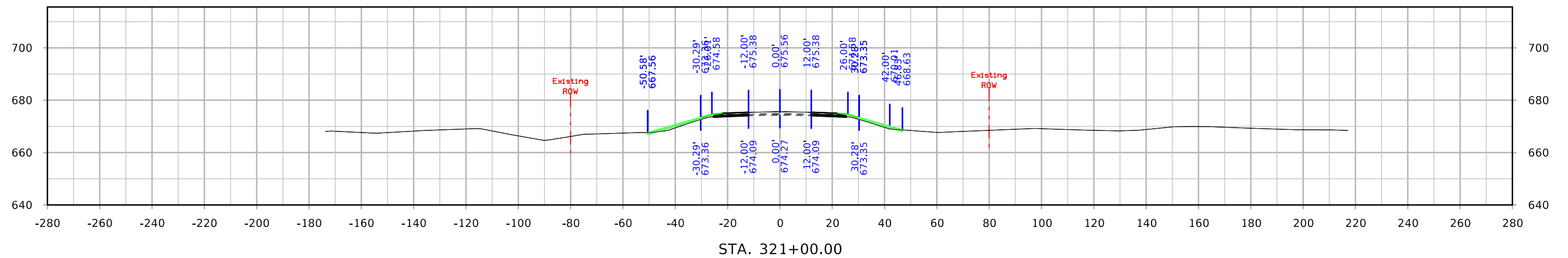
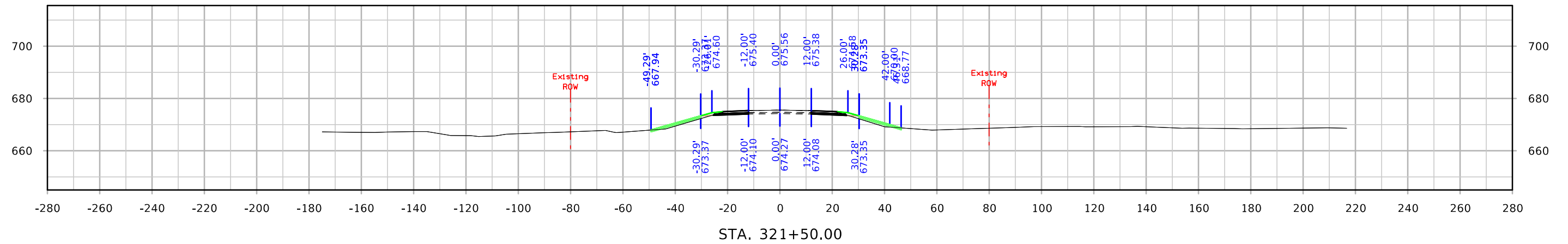
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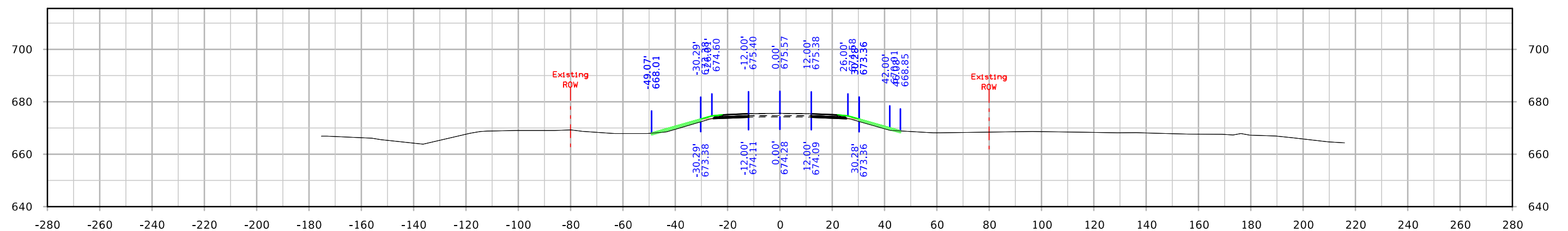
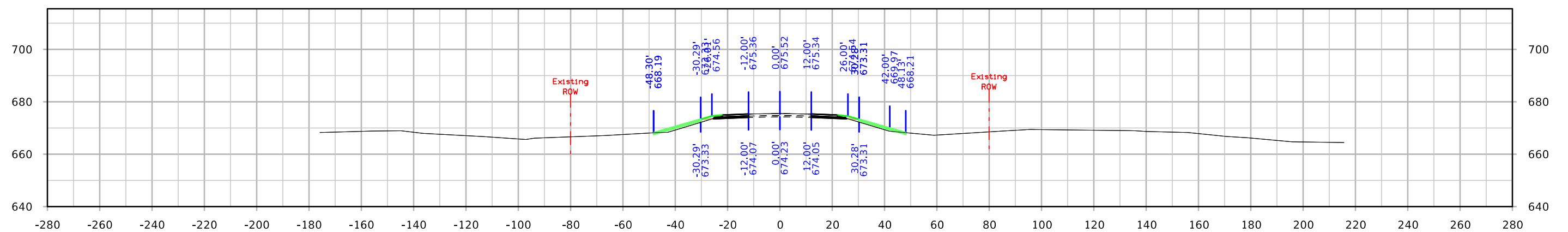
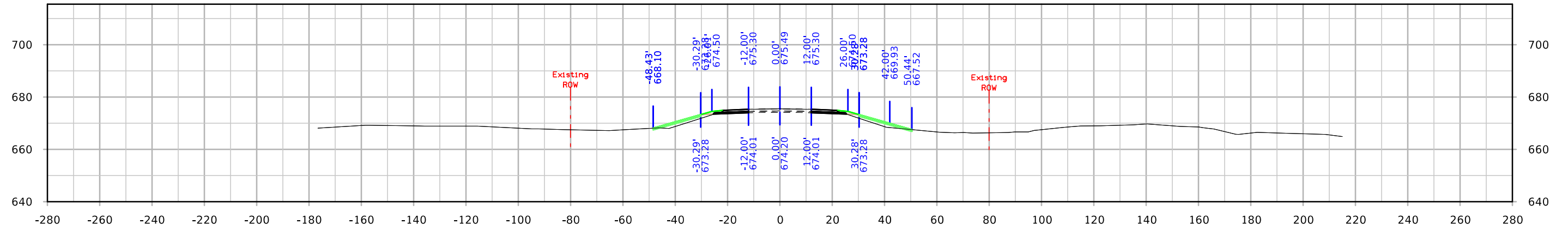
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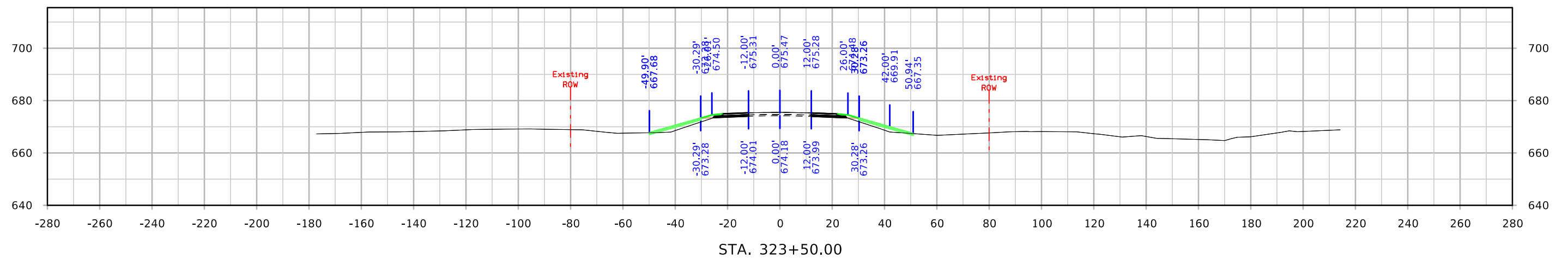
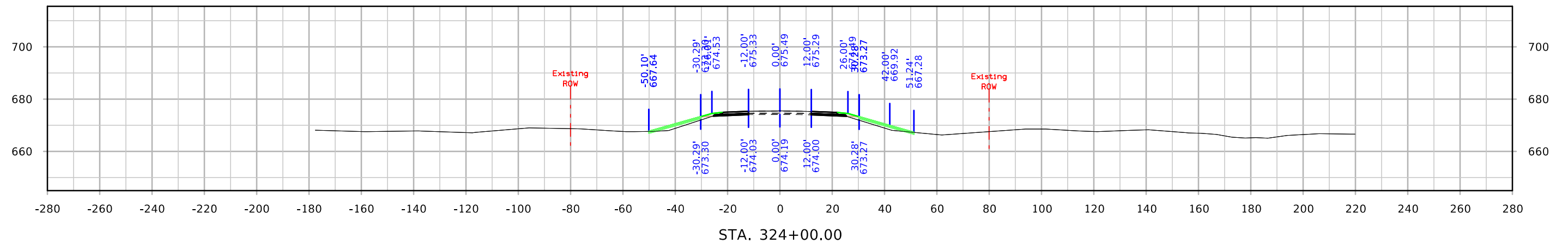
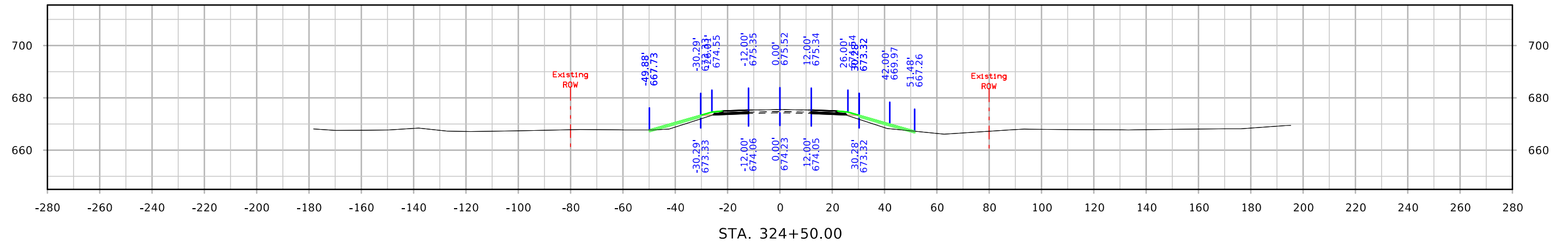
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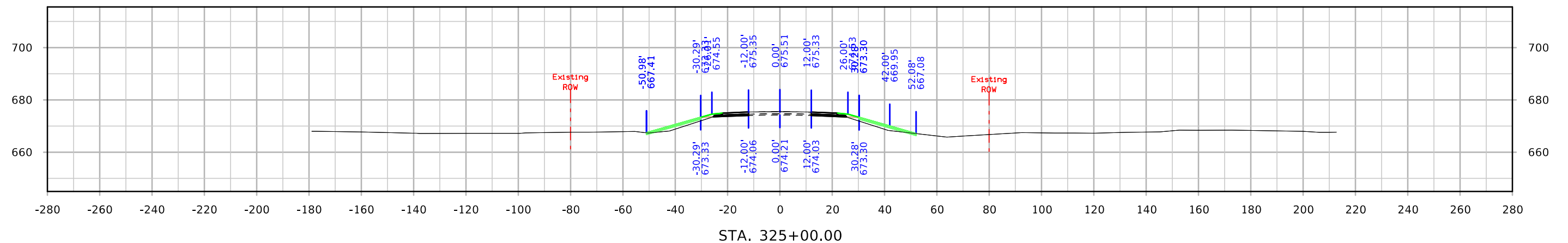
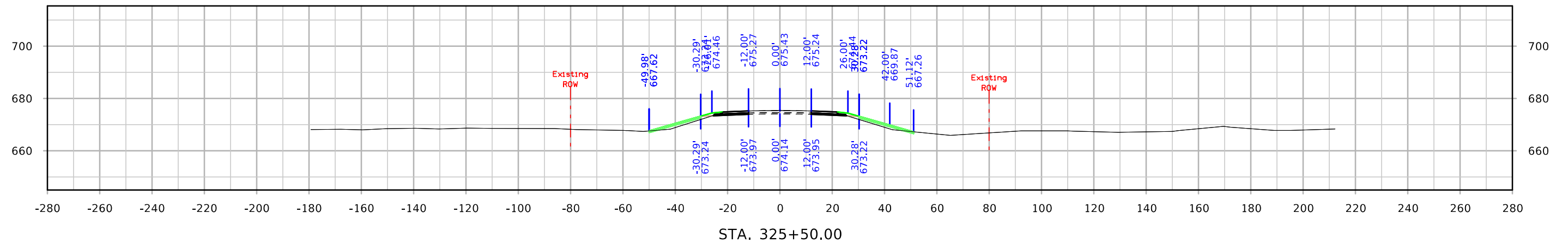
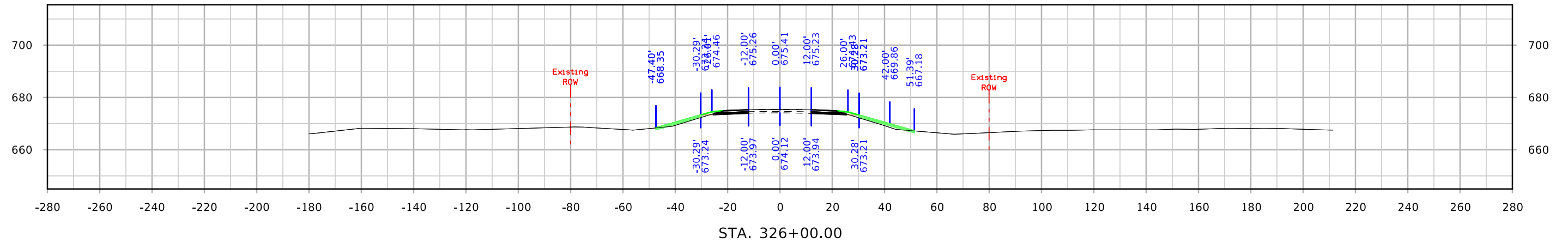
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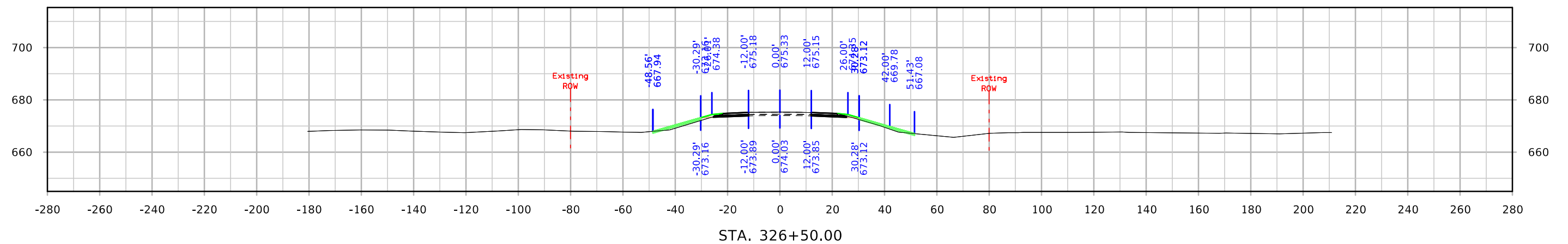
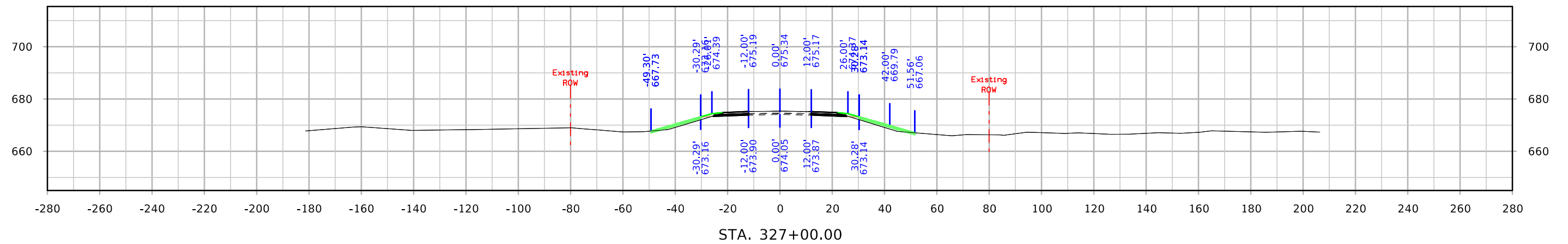
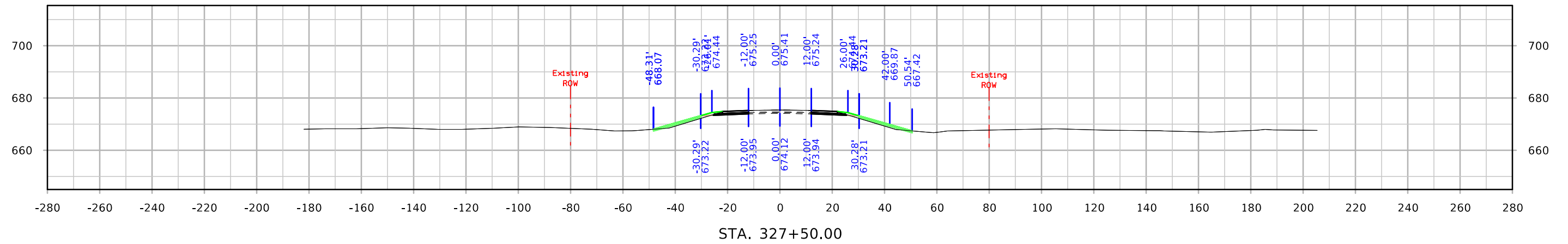
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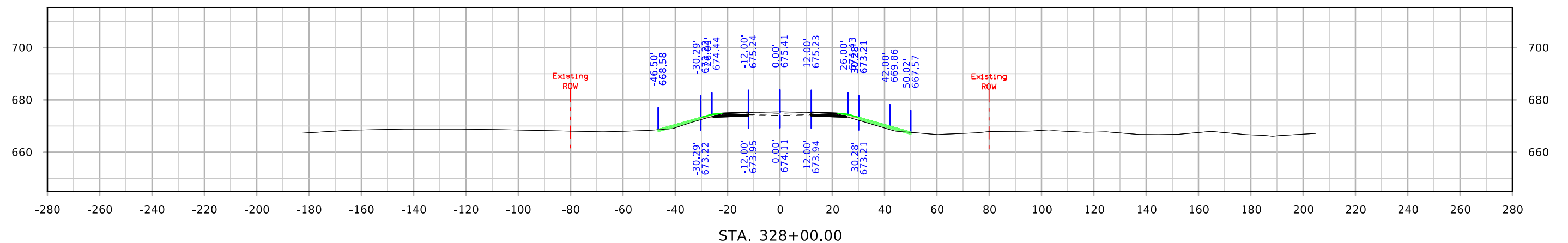
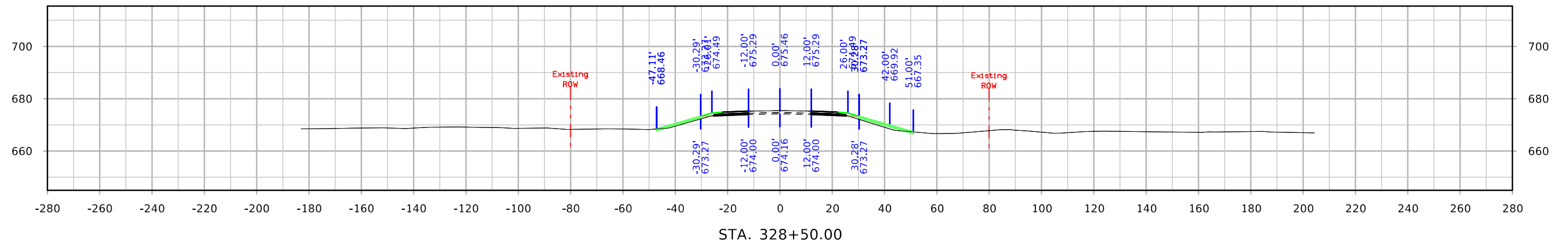
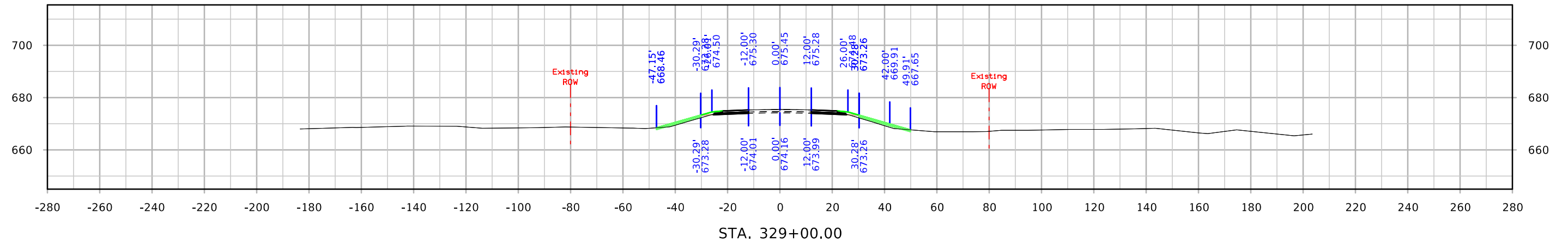
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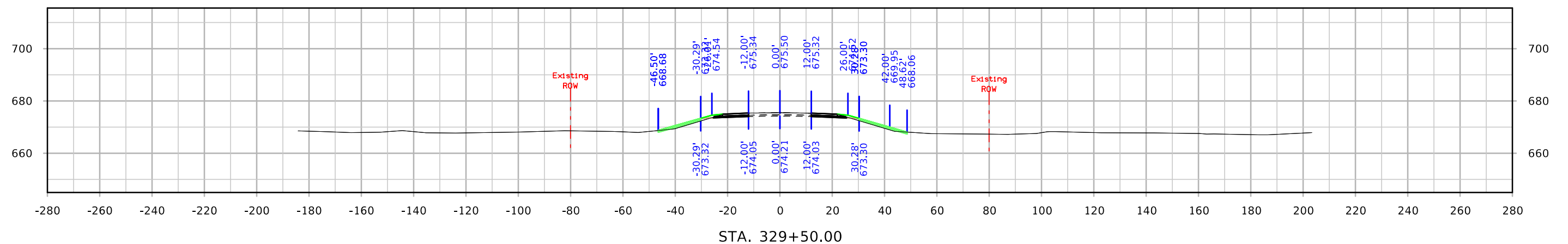
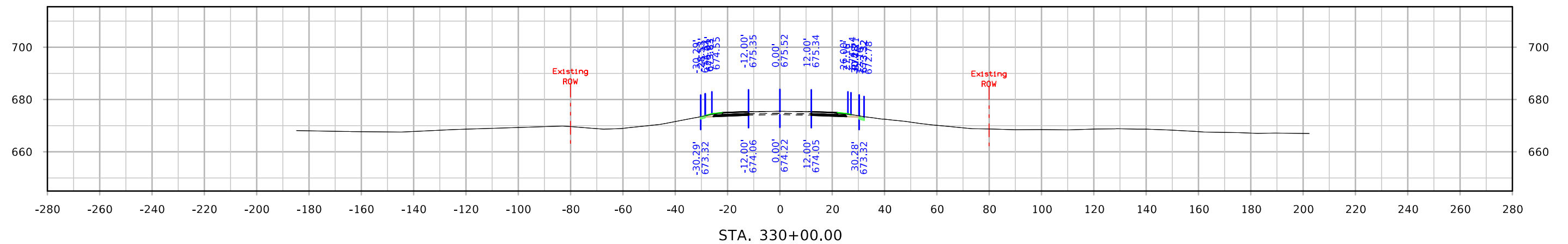
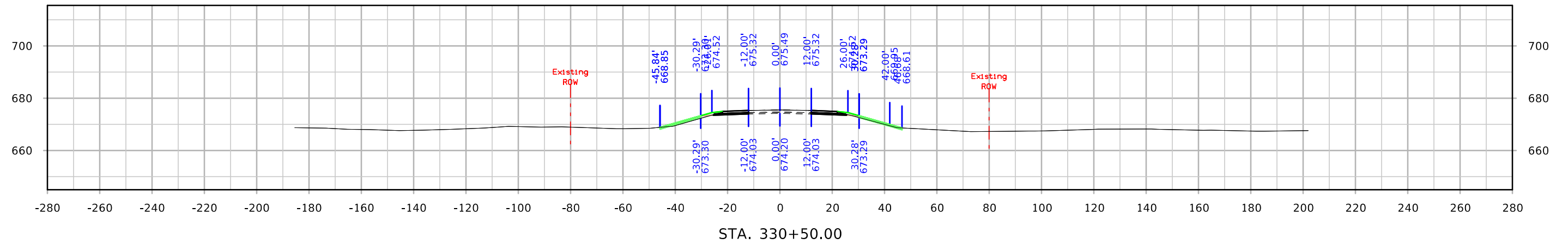
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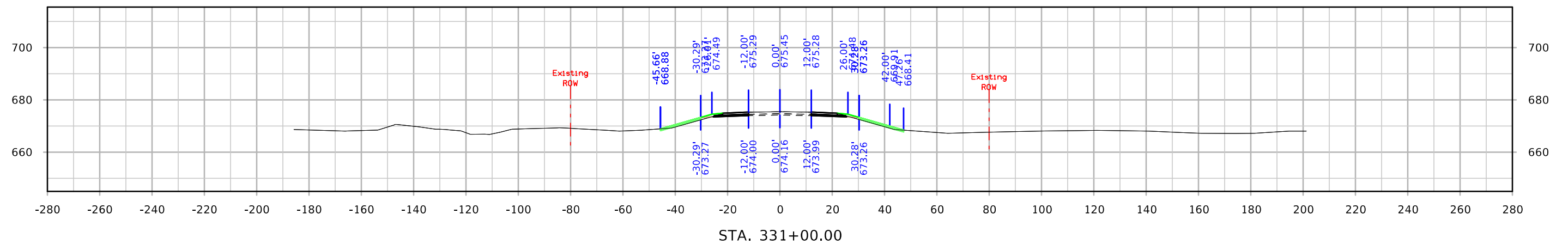
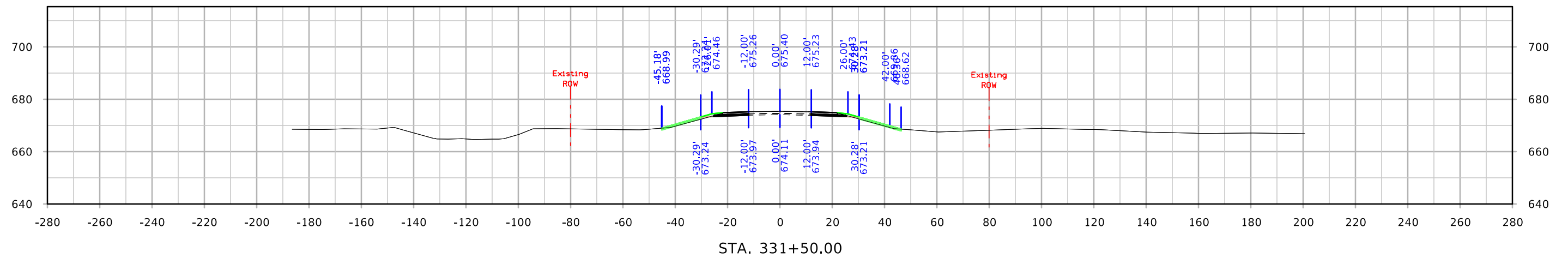
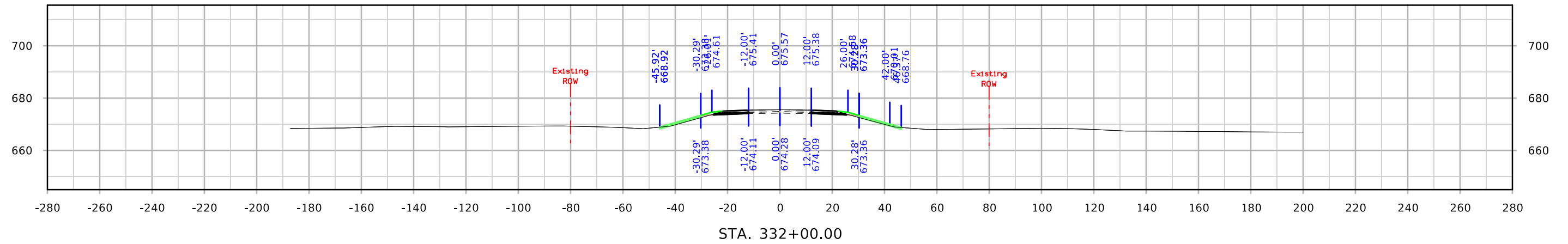
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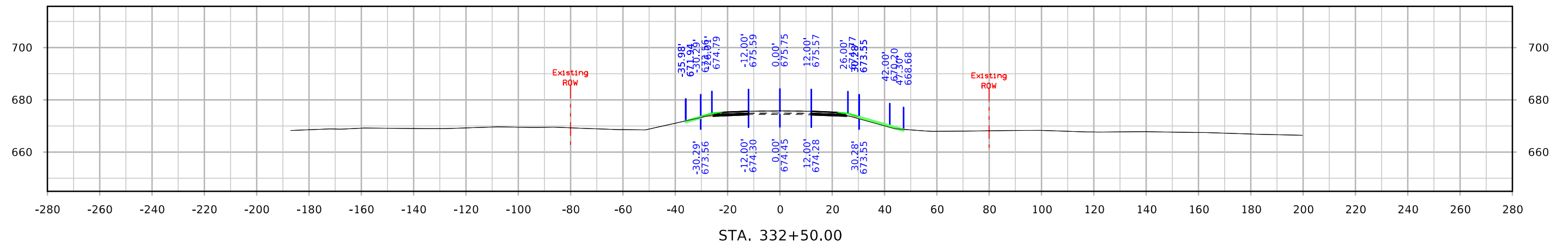
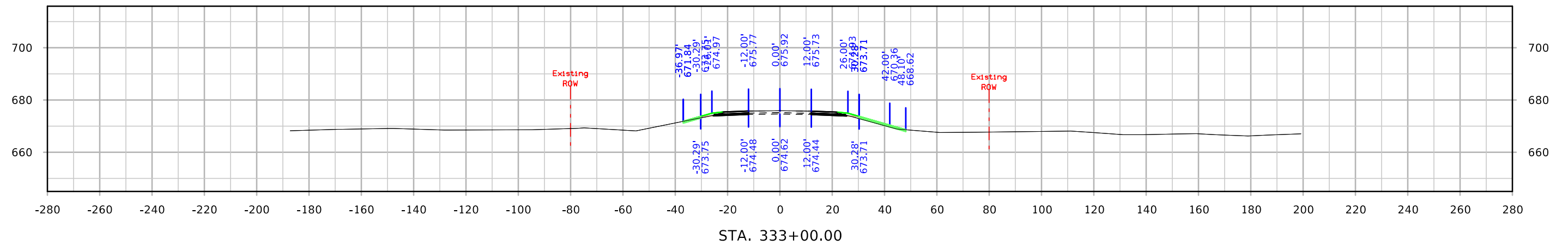
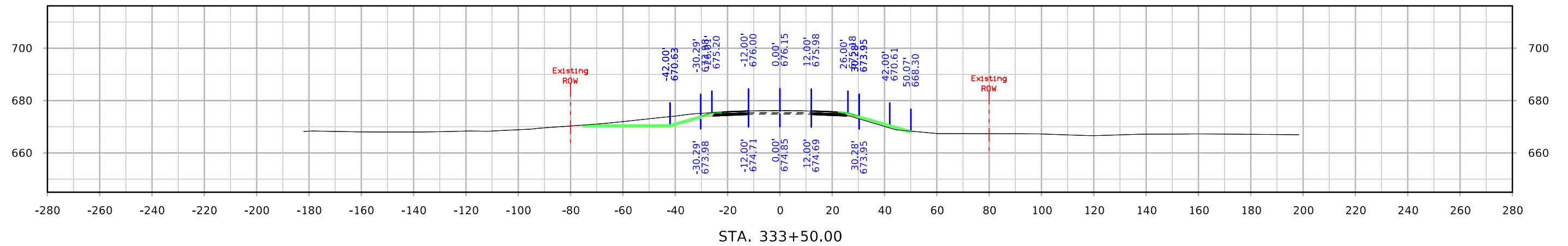
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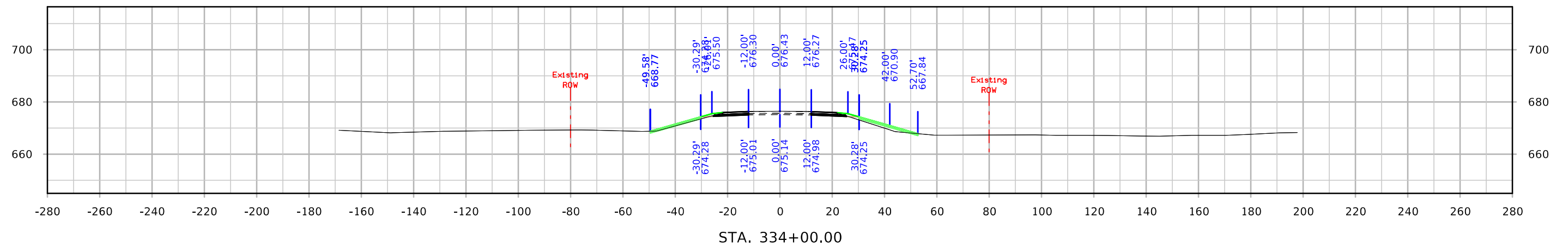
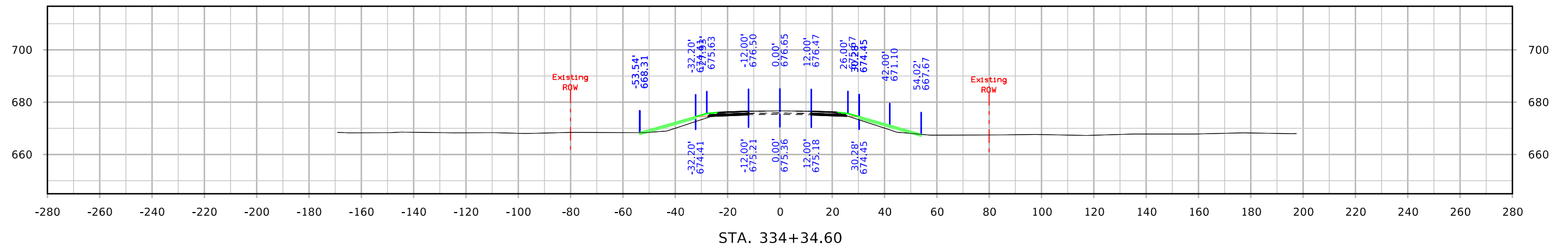
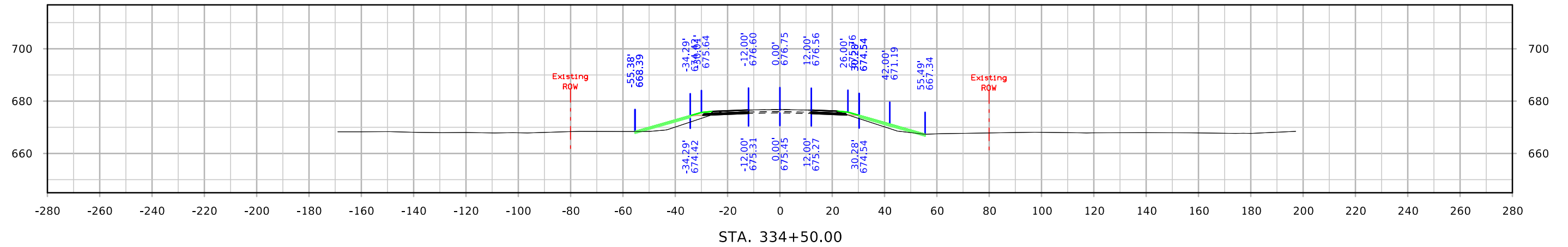
ML - US30



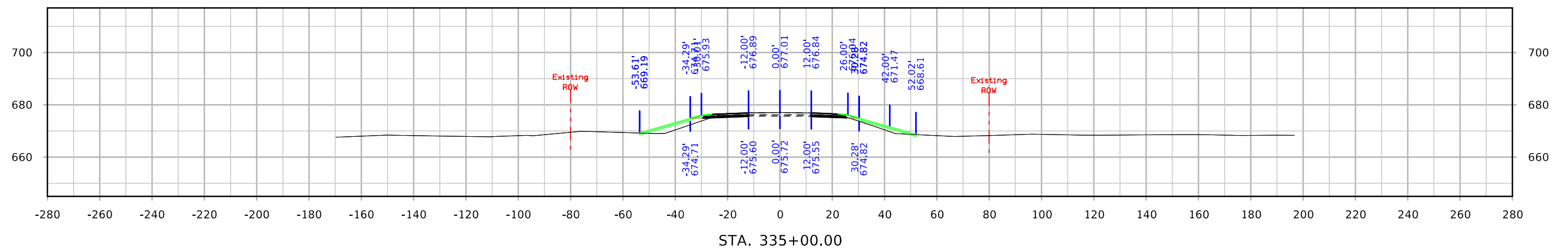
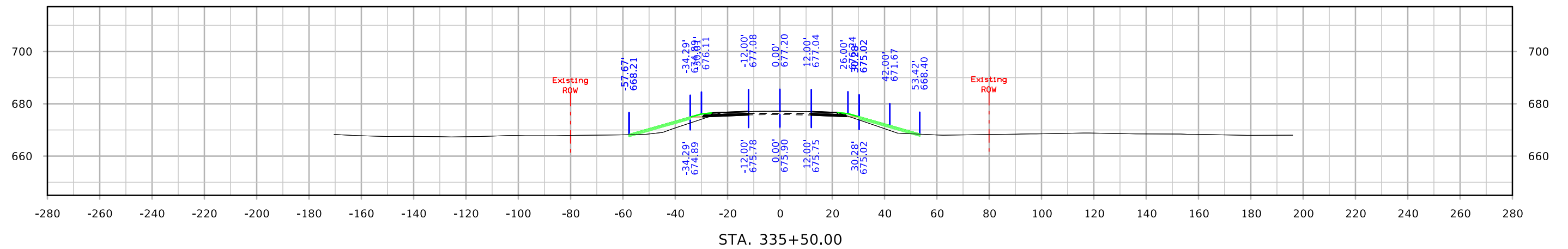
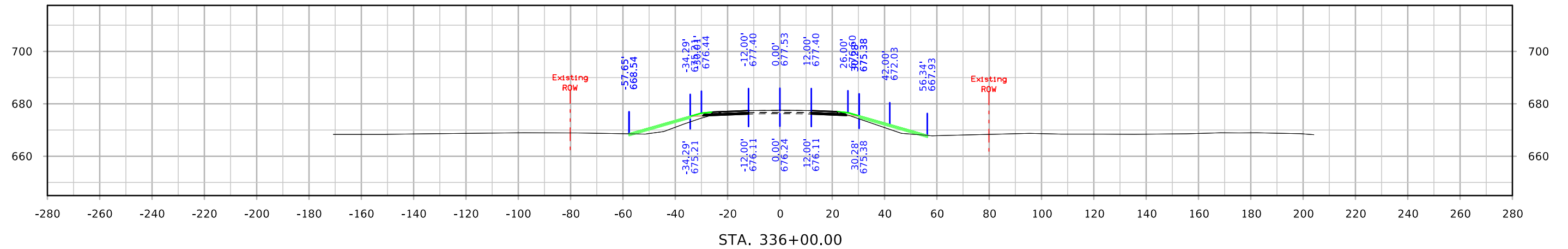
ML - US30



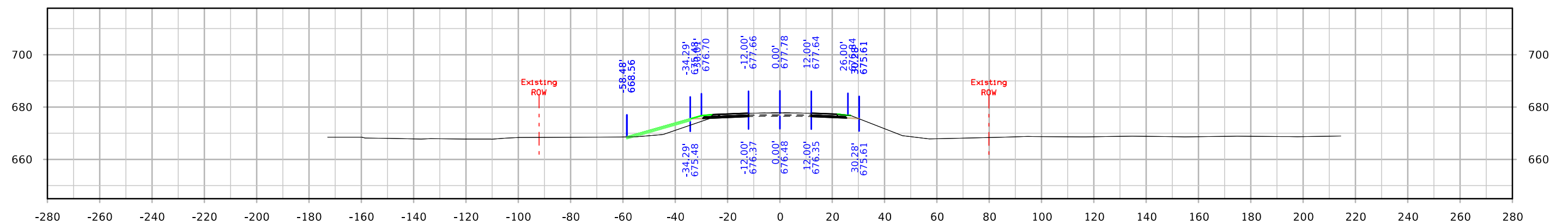
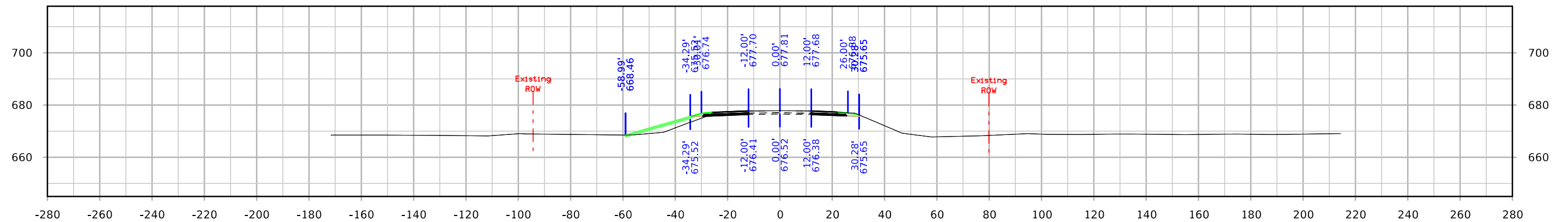
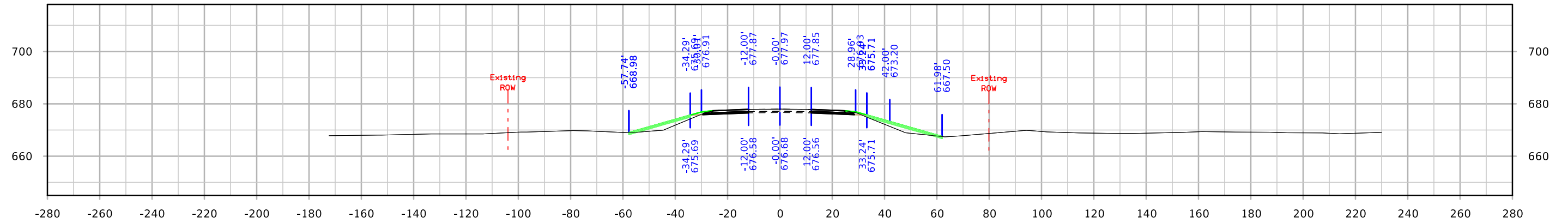
ML - US30



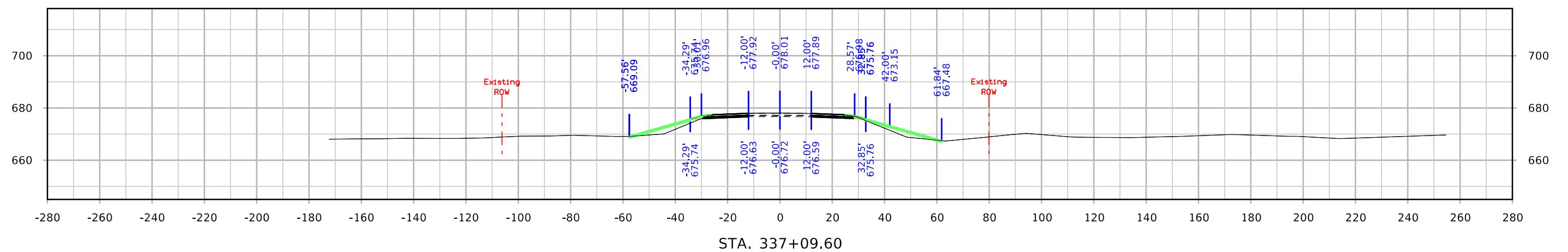
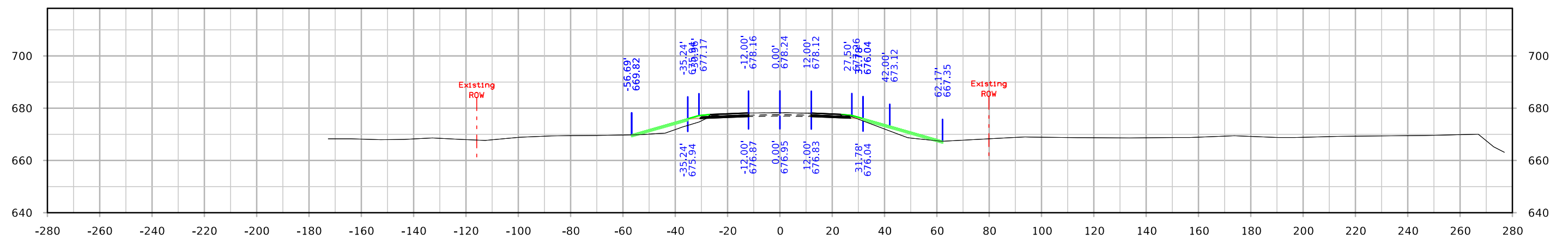
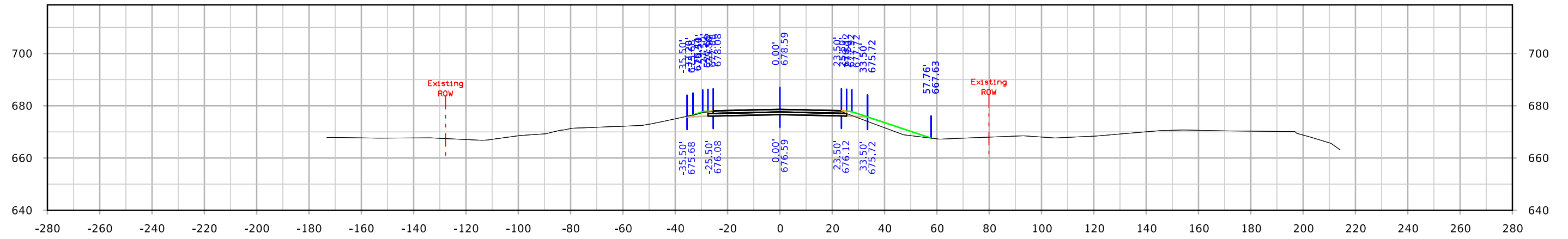
ML - US30



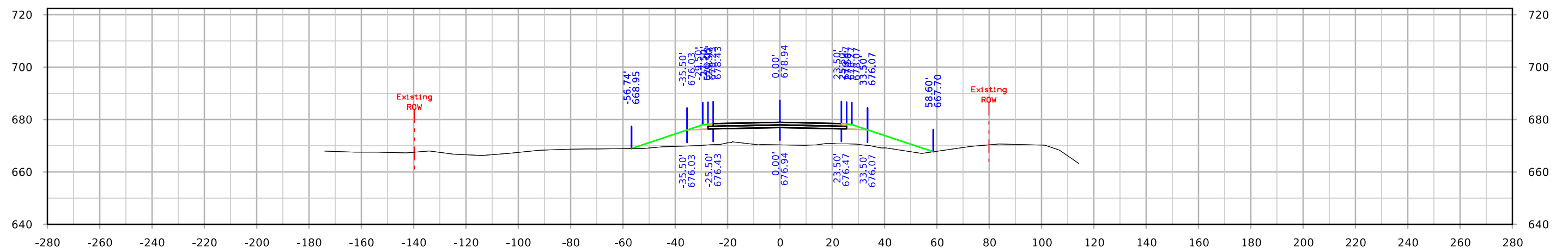
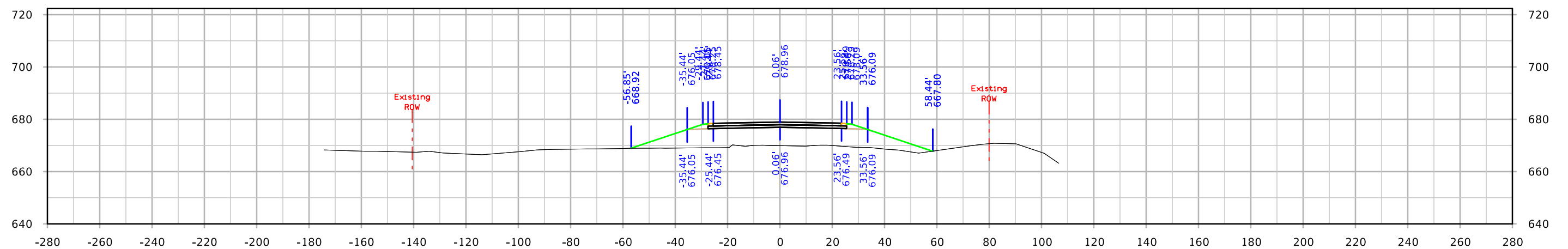
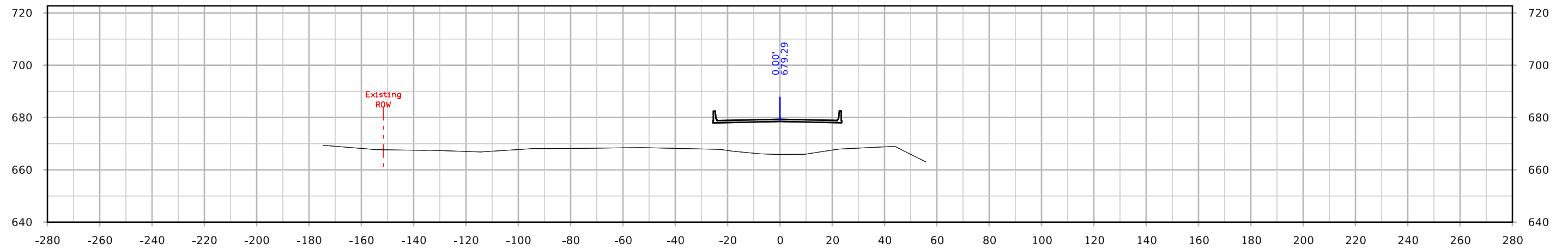
ML - US30



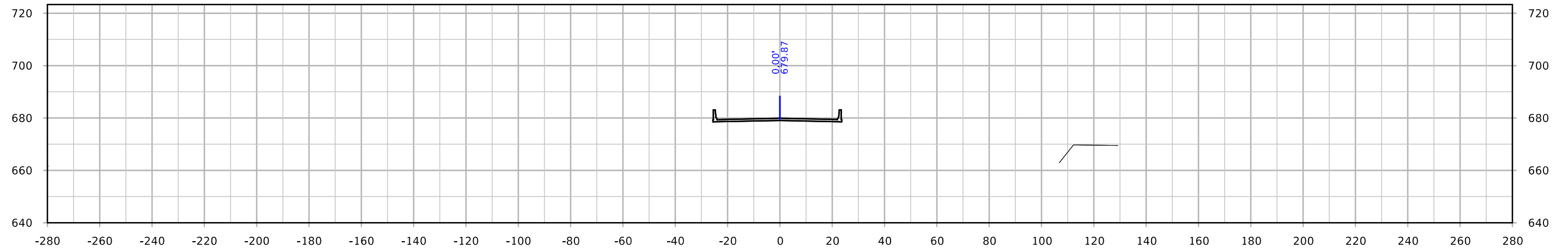
ML - US30



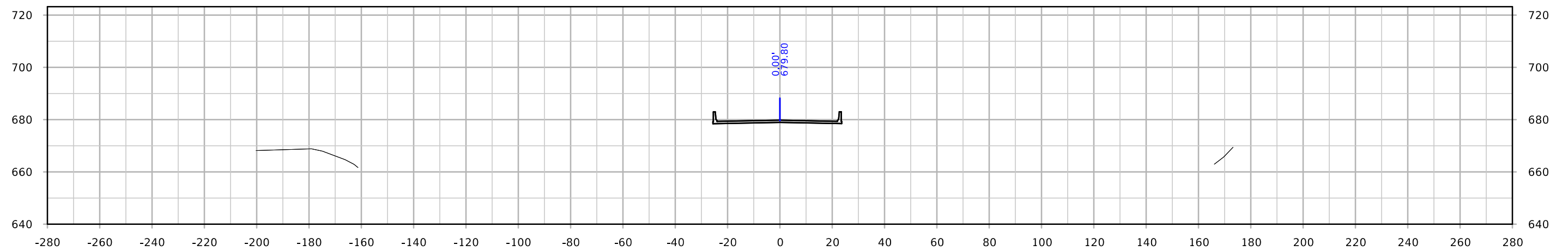
ML - US30



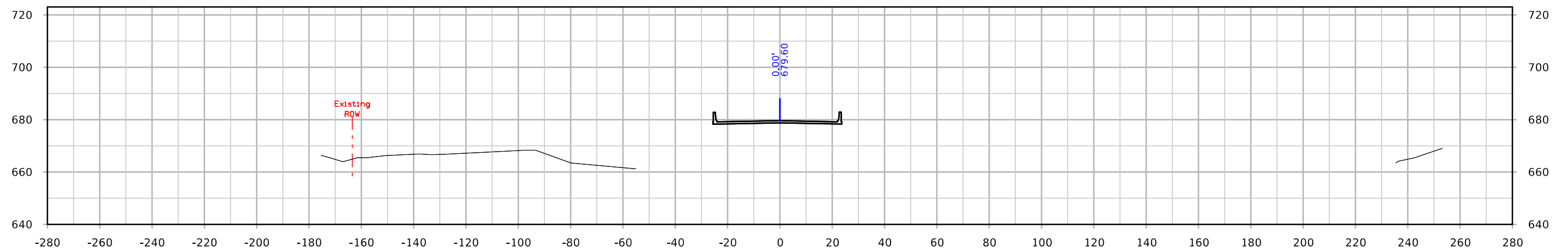
ML - US30



STA. 340+50.00

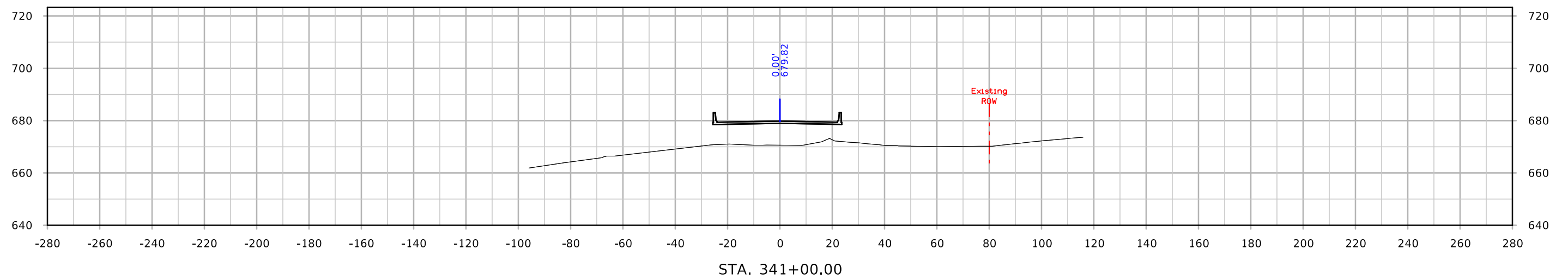
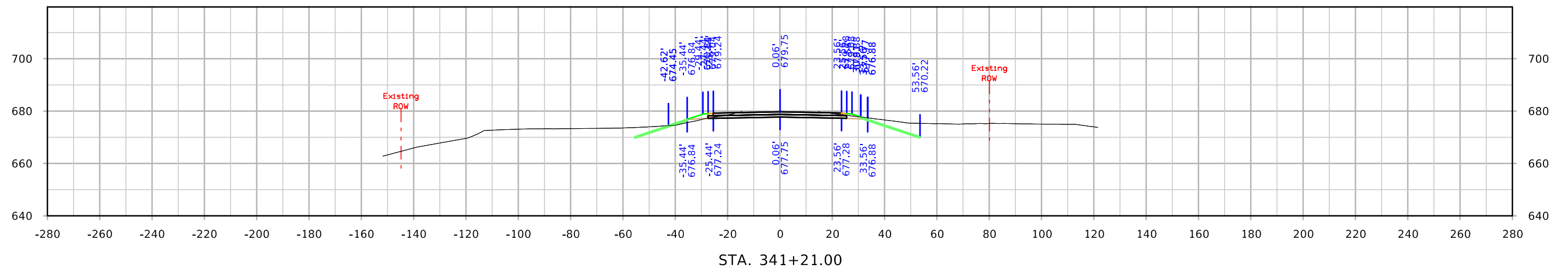
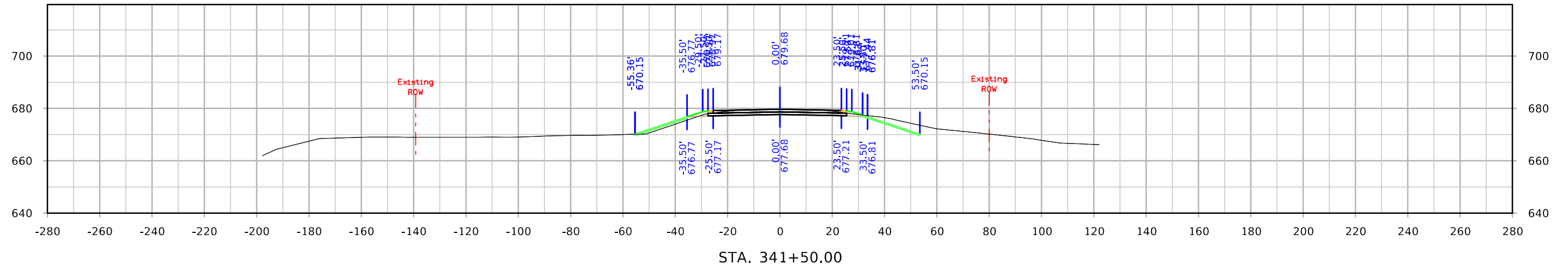


STA. 340+00.00

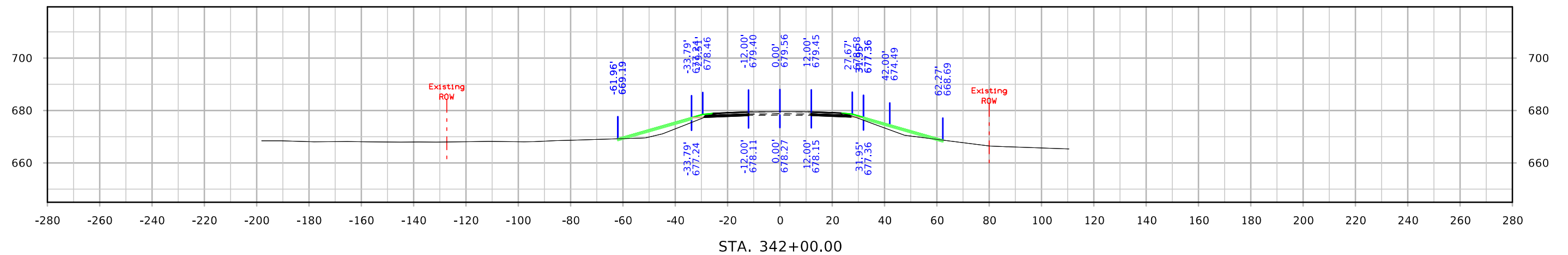
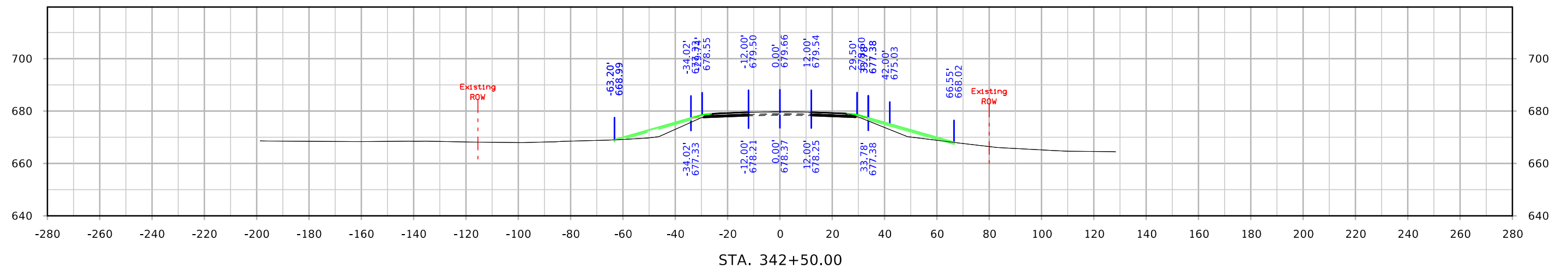
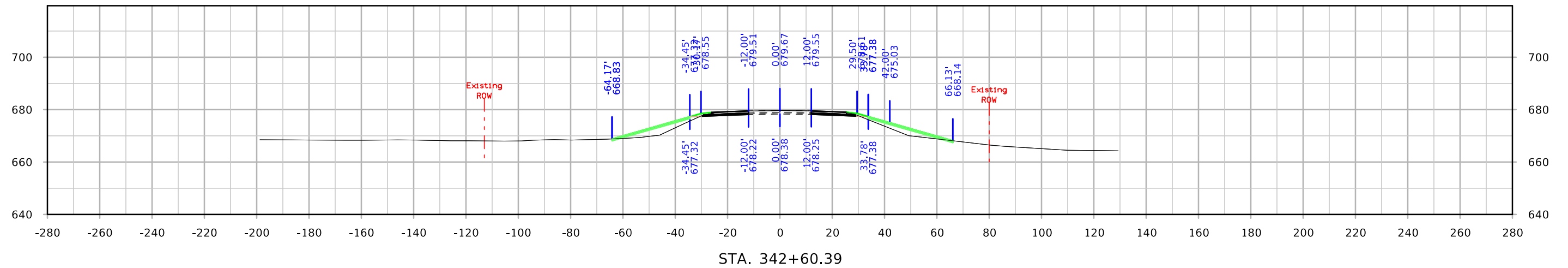


STA. 339+50.00

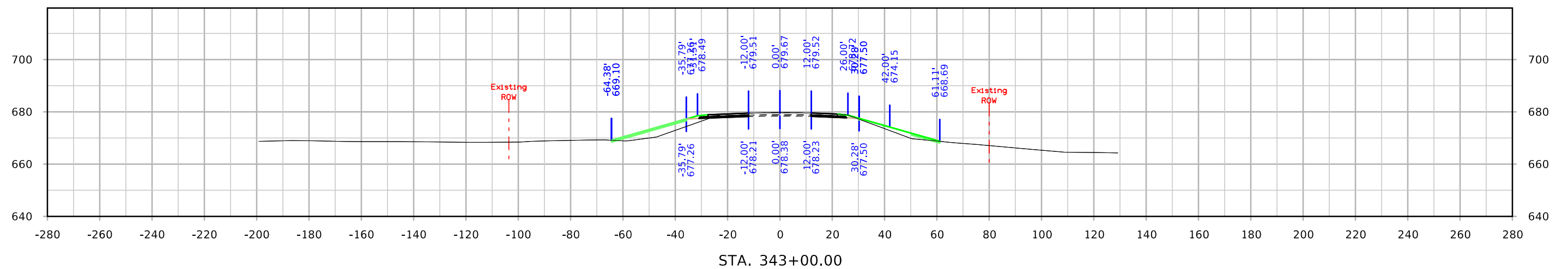
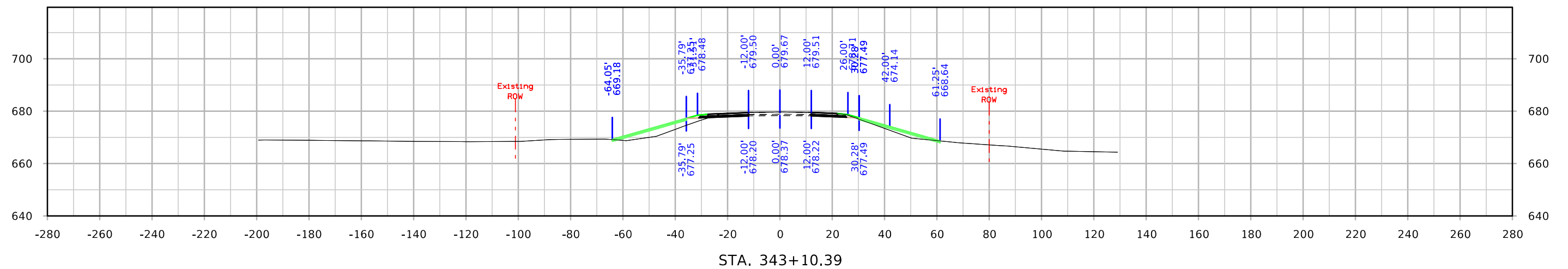
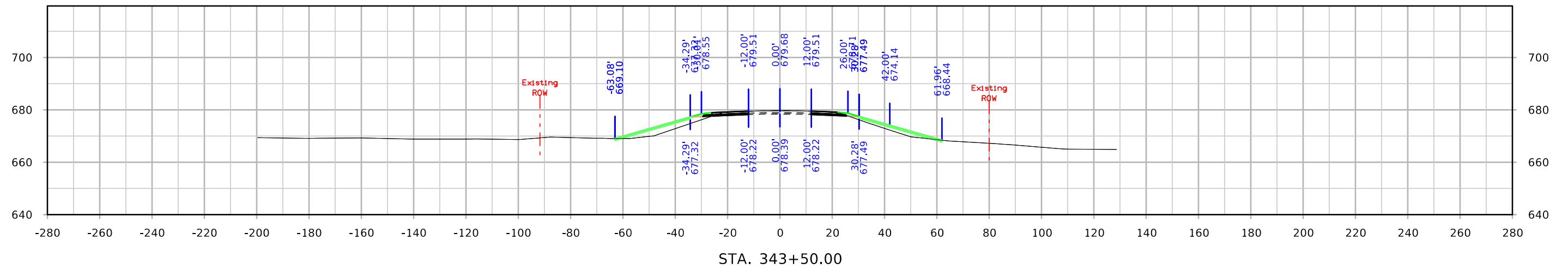
ML - US30



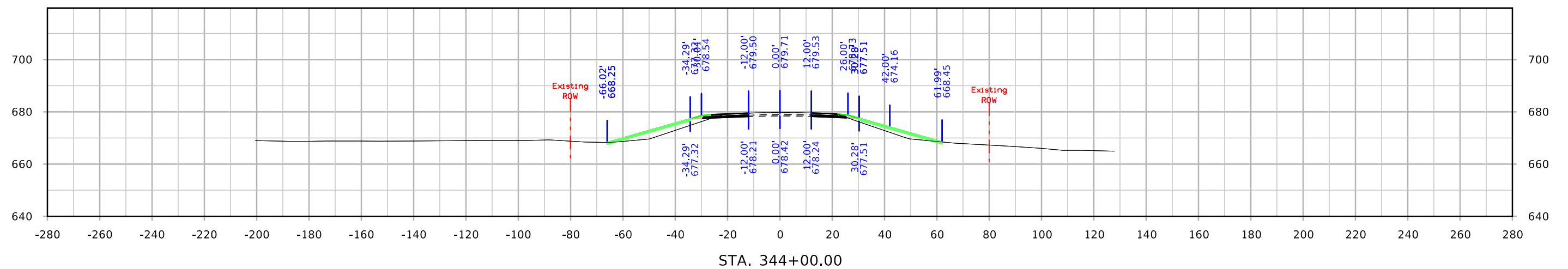
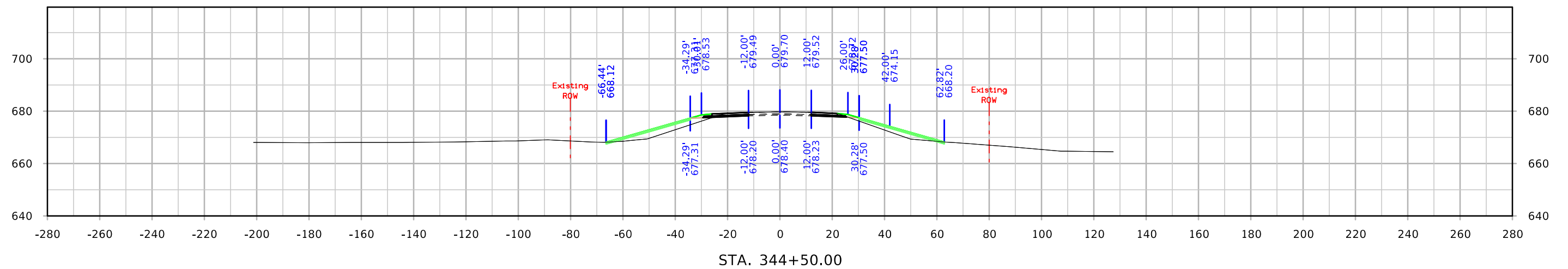
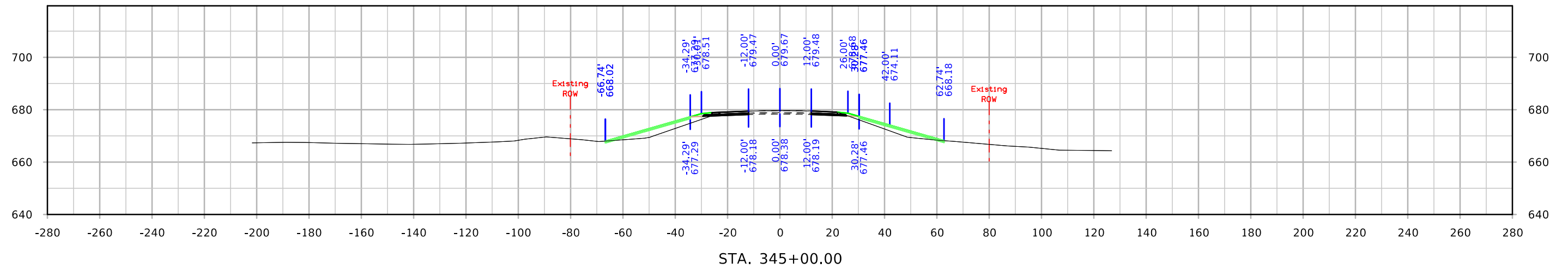
ML - US30



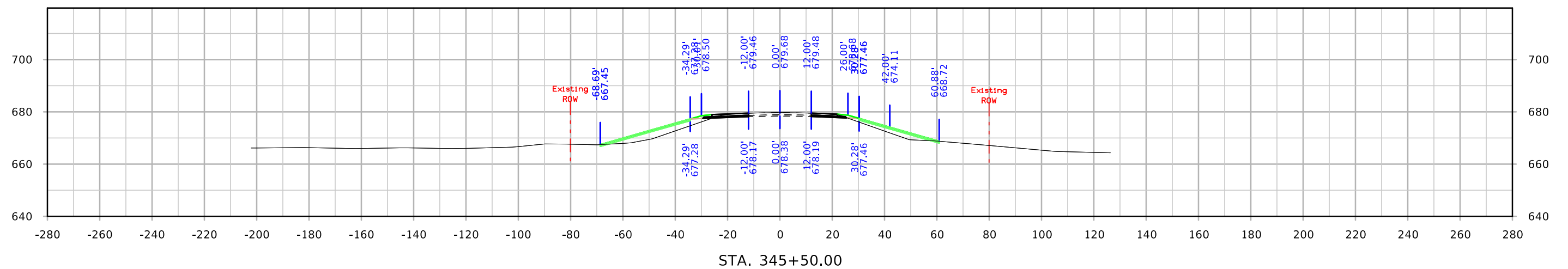
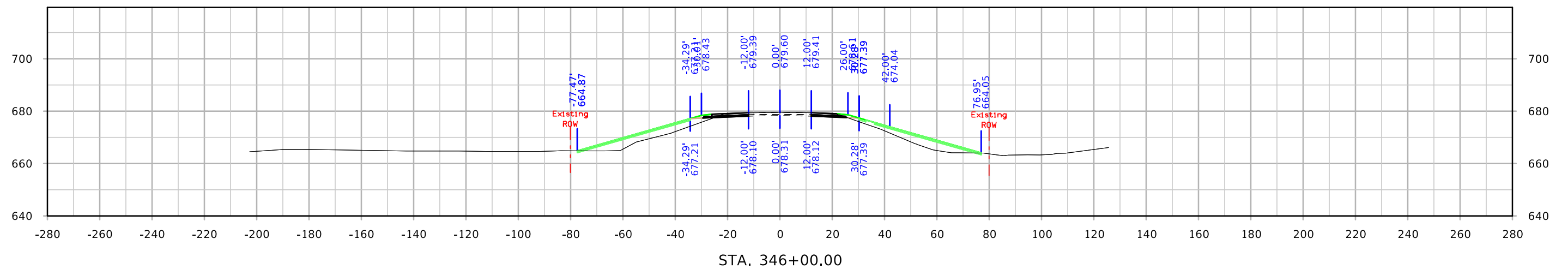
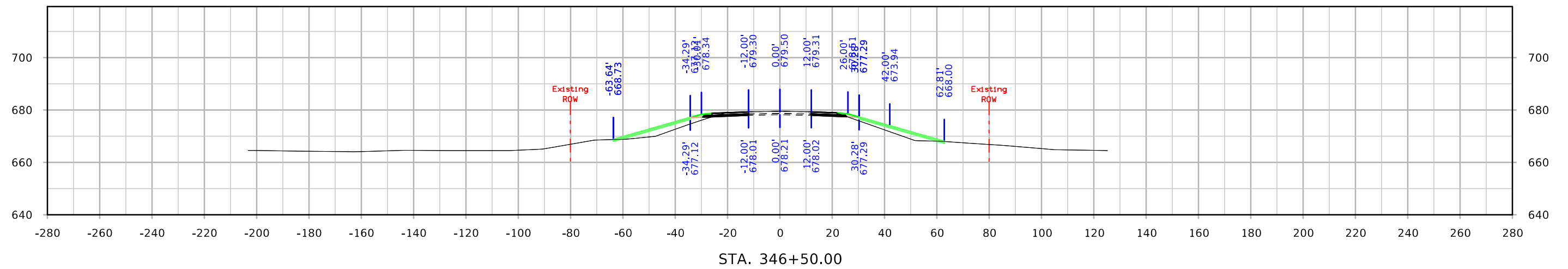
ML - US30



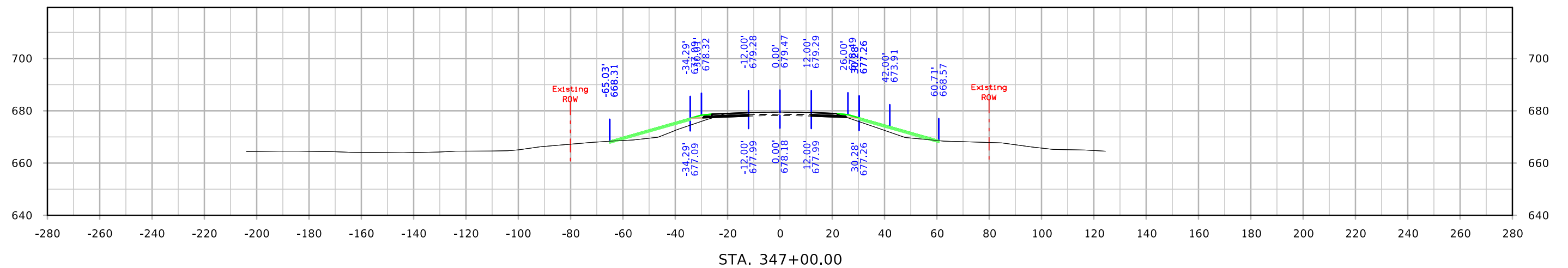
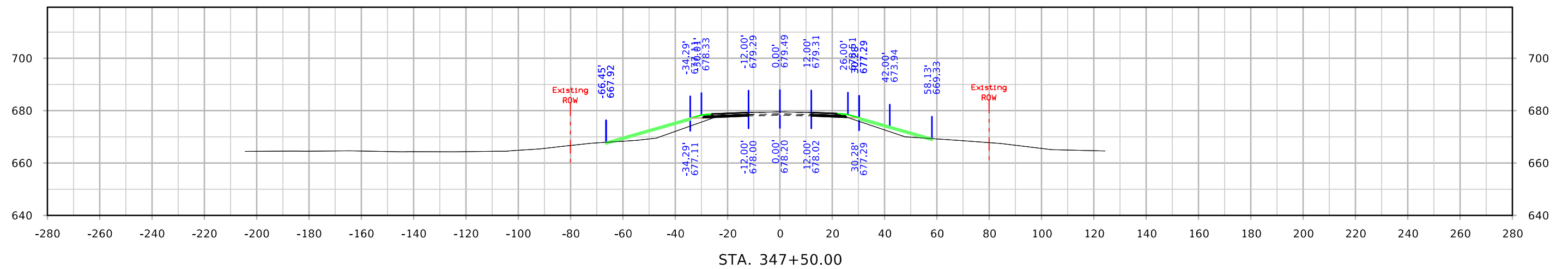
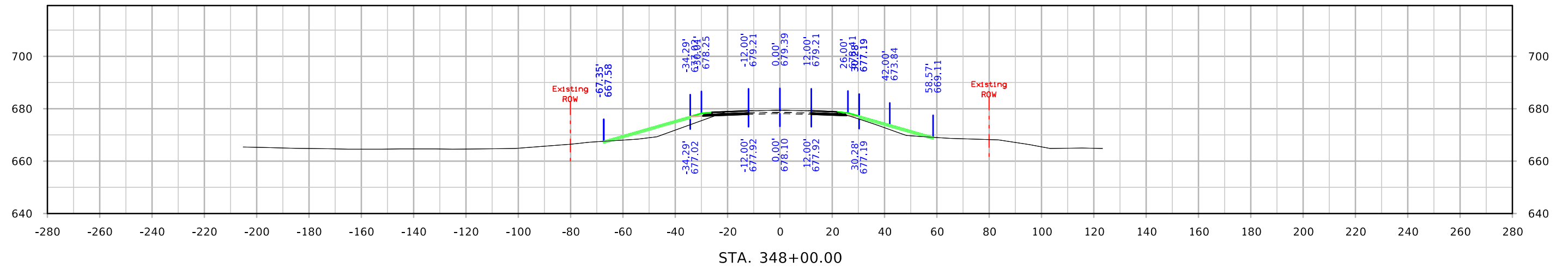
ML - US30



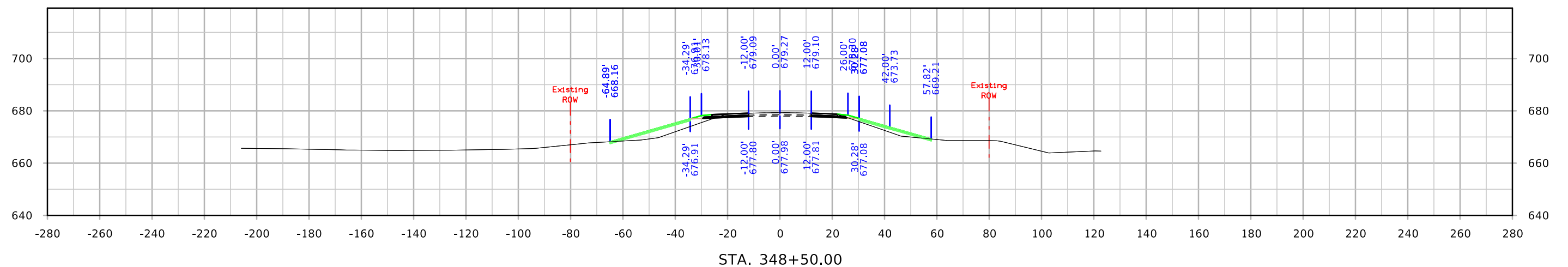
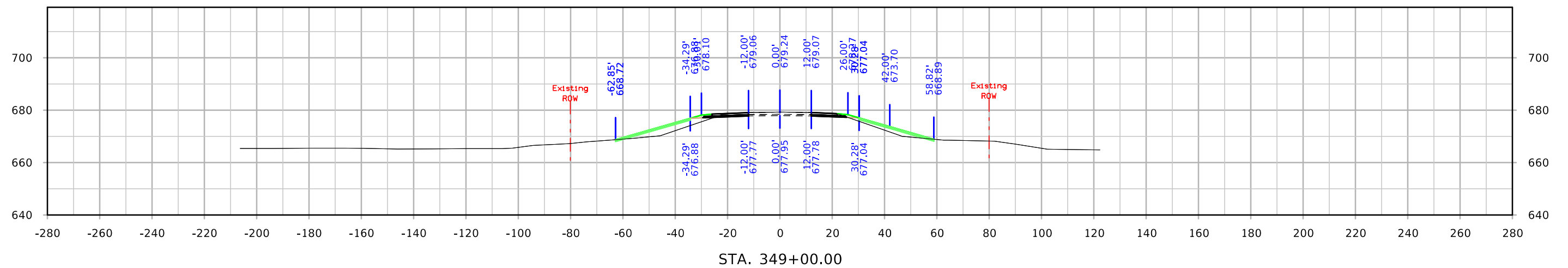
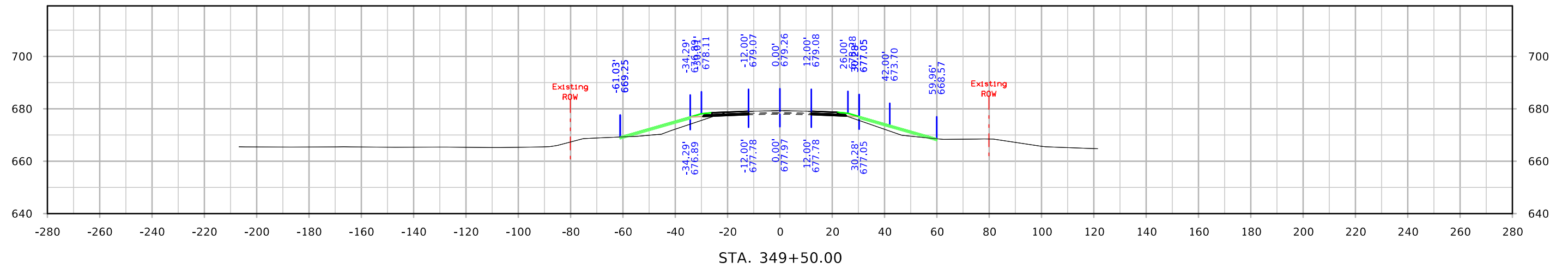
ML - US30



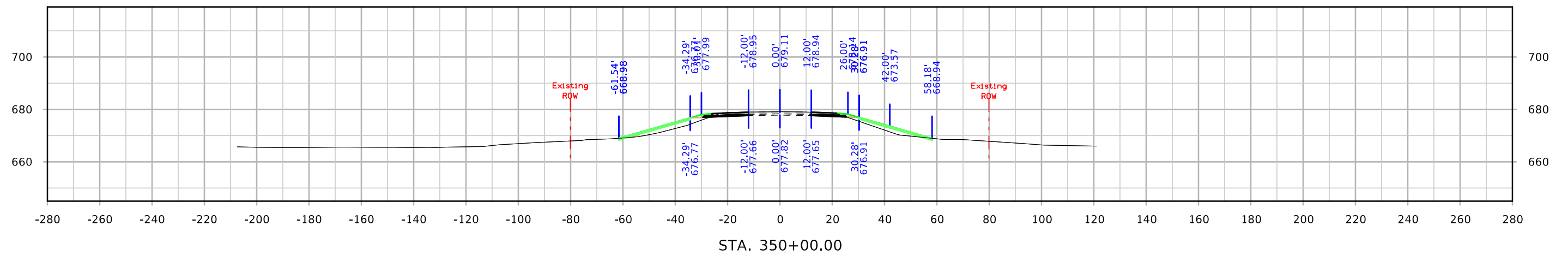
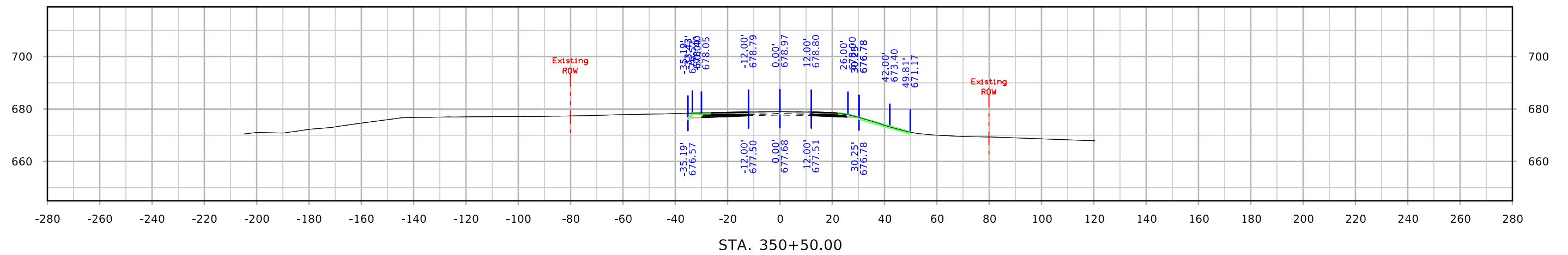
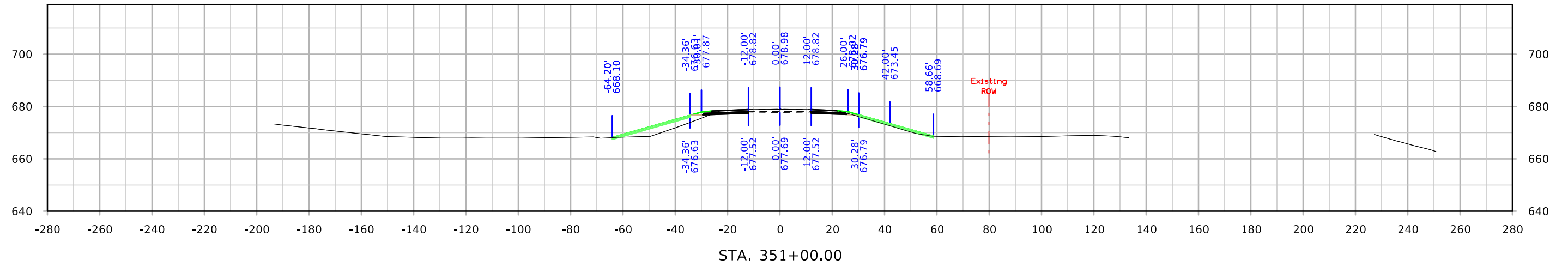
ML - US30



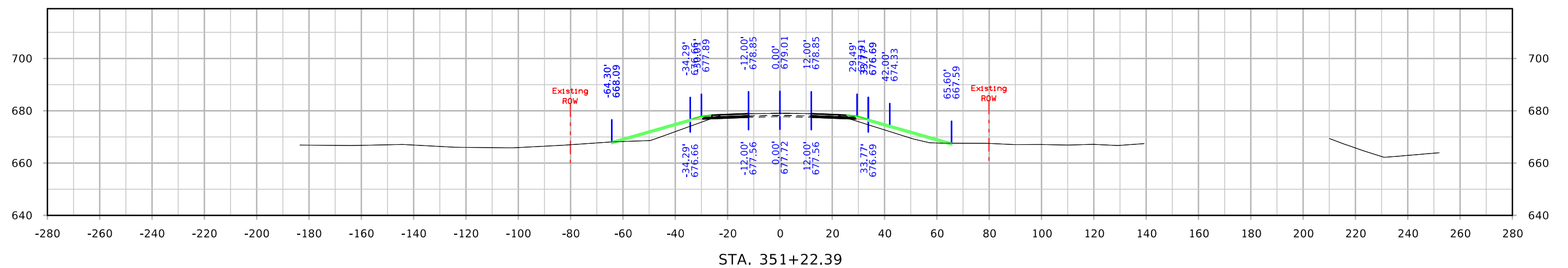
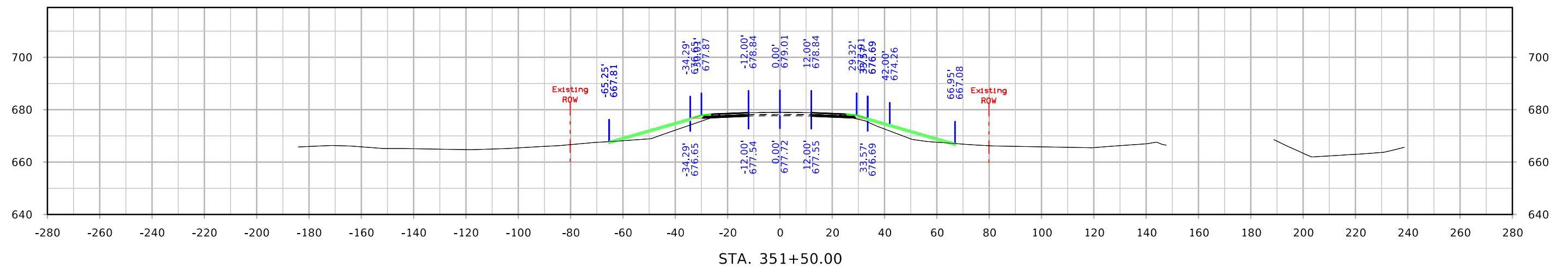
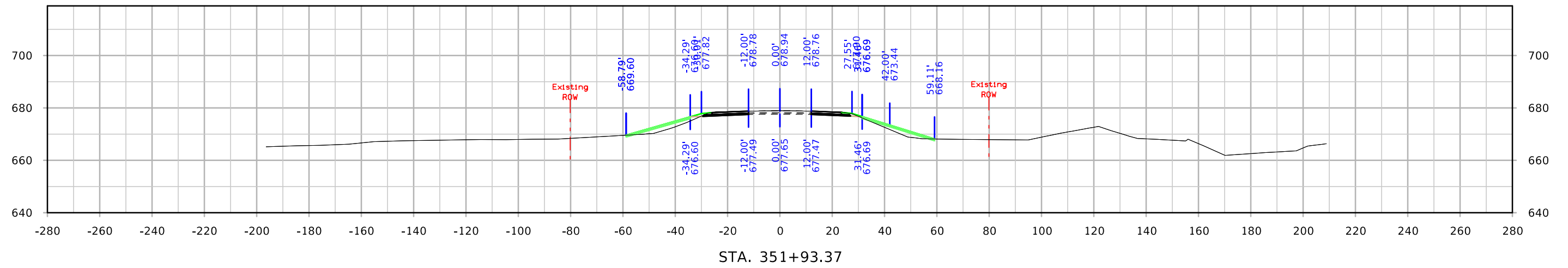
ML - US30



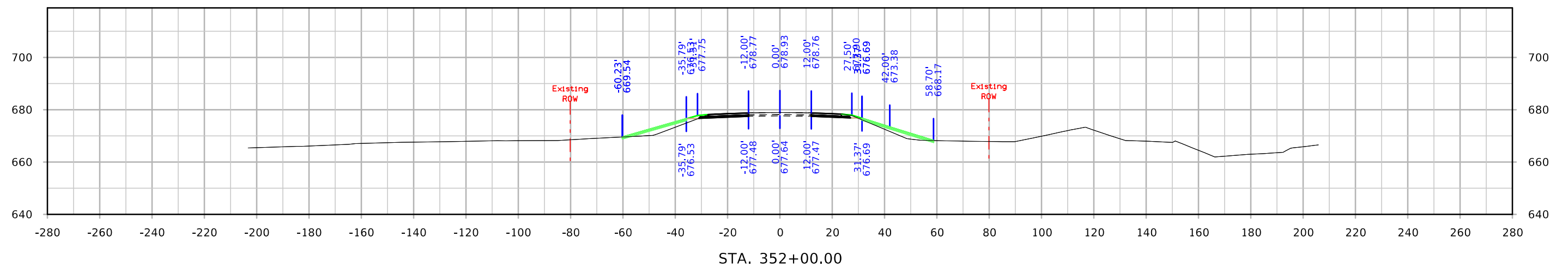
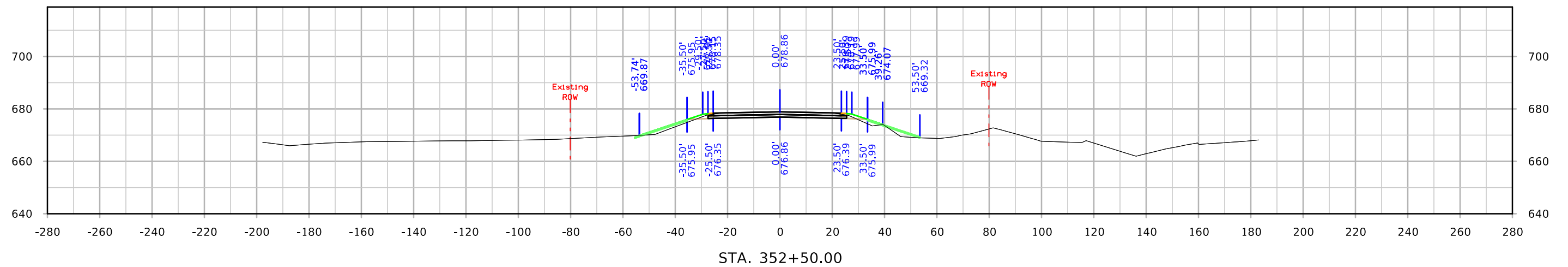
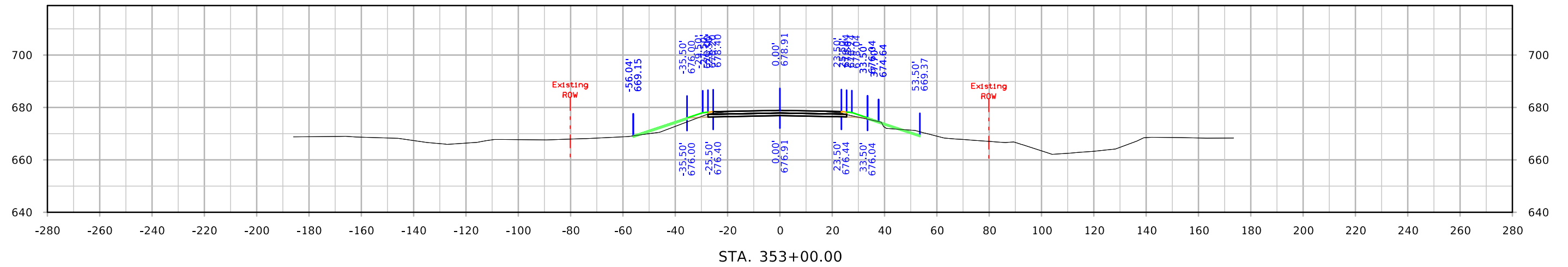
ML - US30



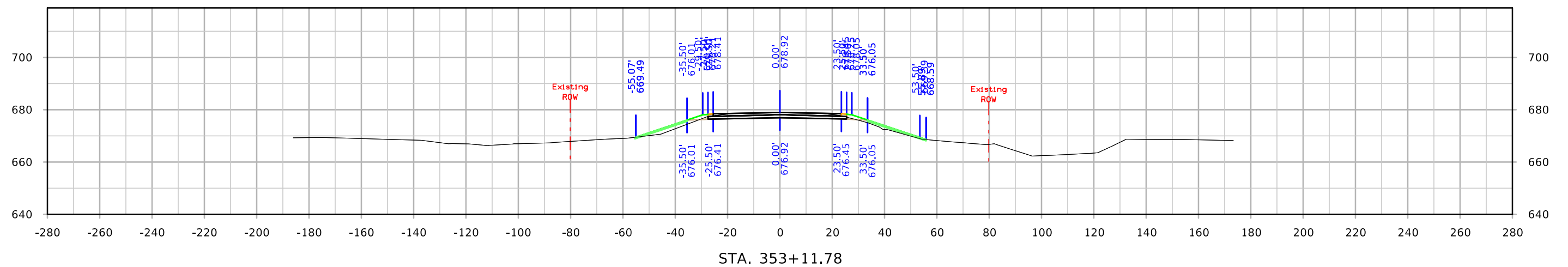
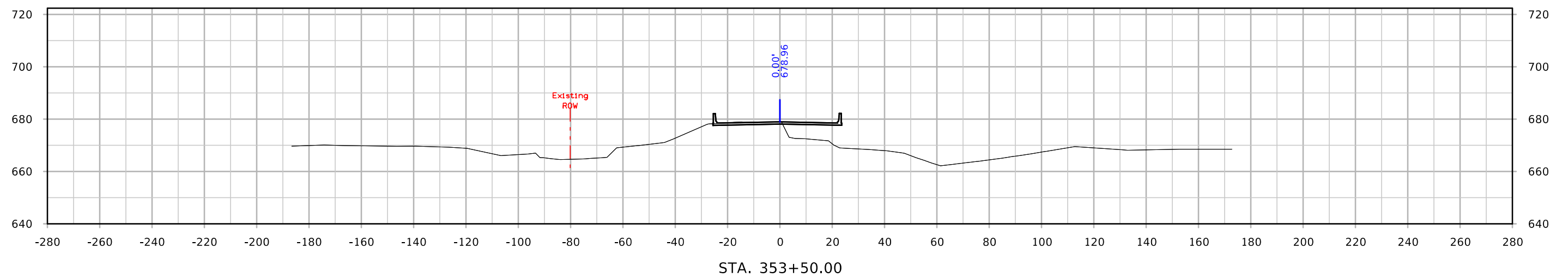
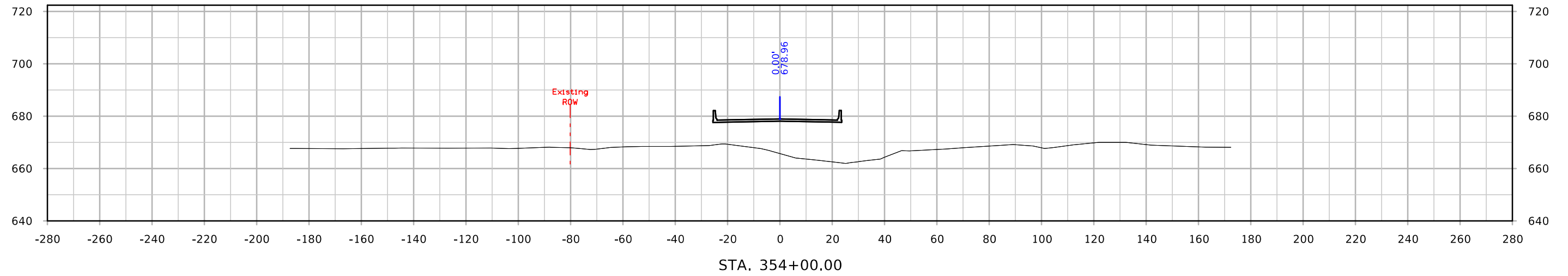
ML - US30



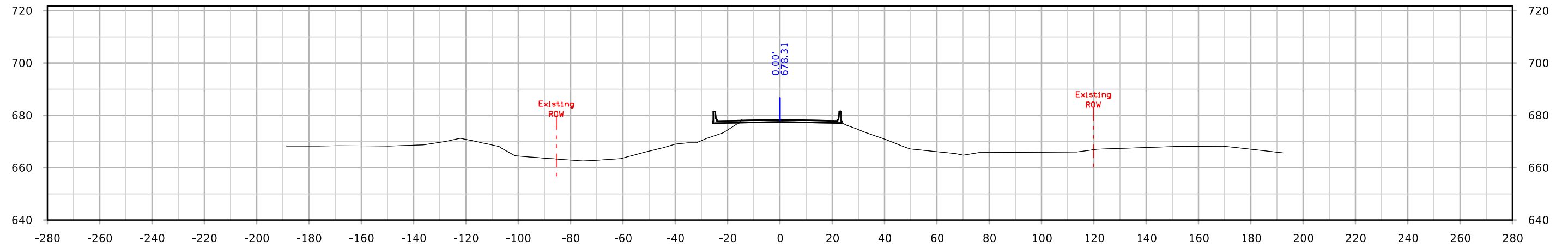
ML - US30



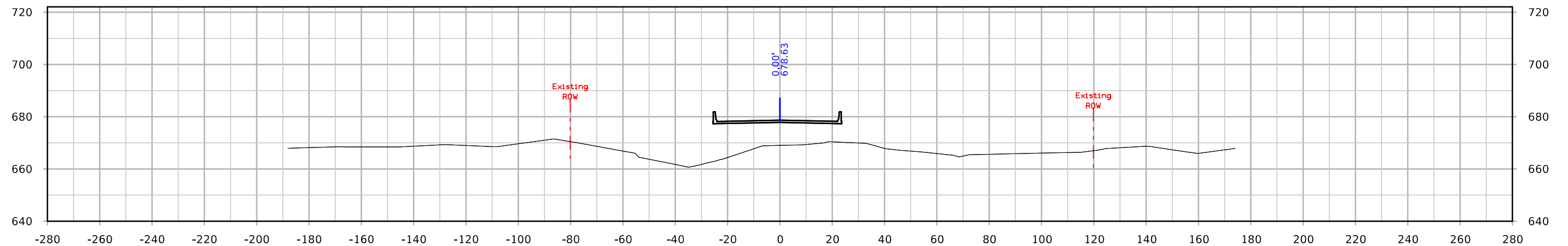
ML - US30



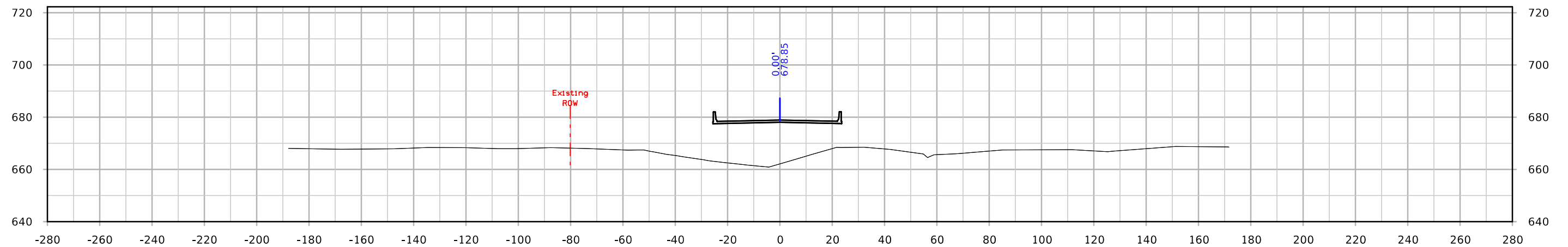
ML - US30



STA. 355+50.00

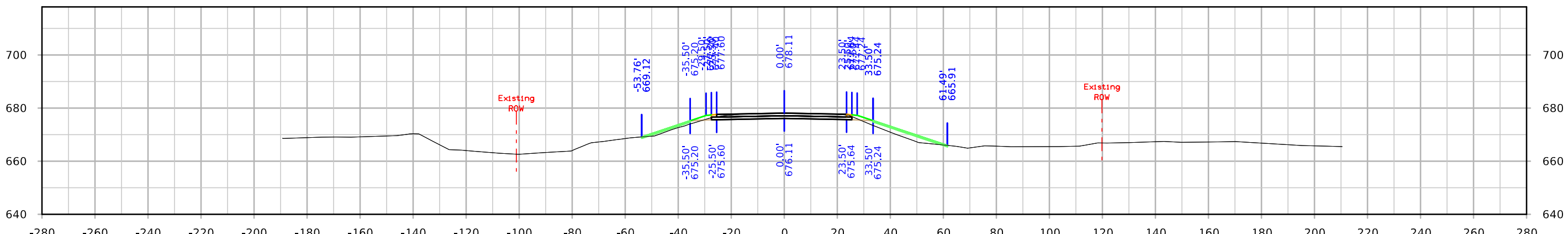
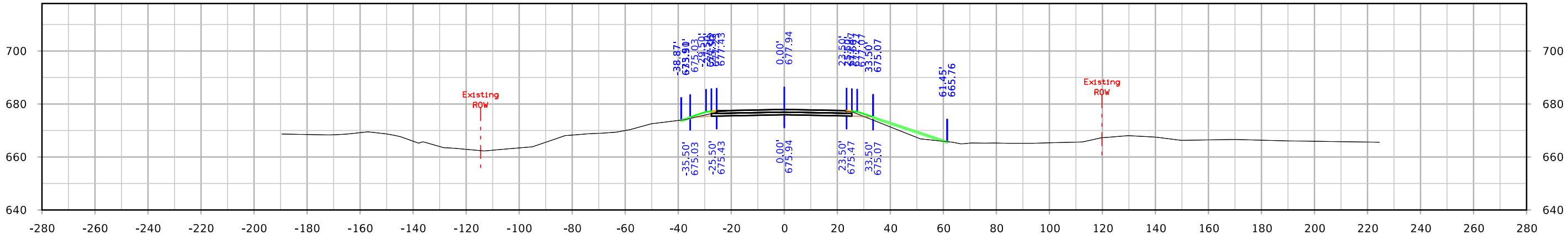
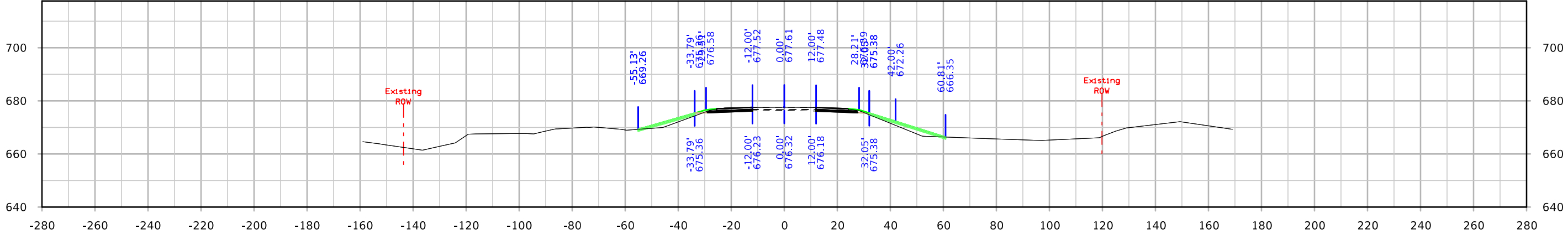


STA. 355+00.00

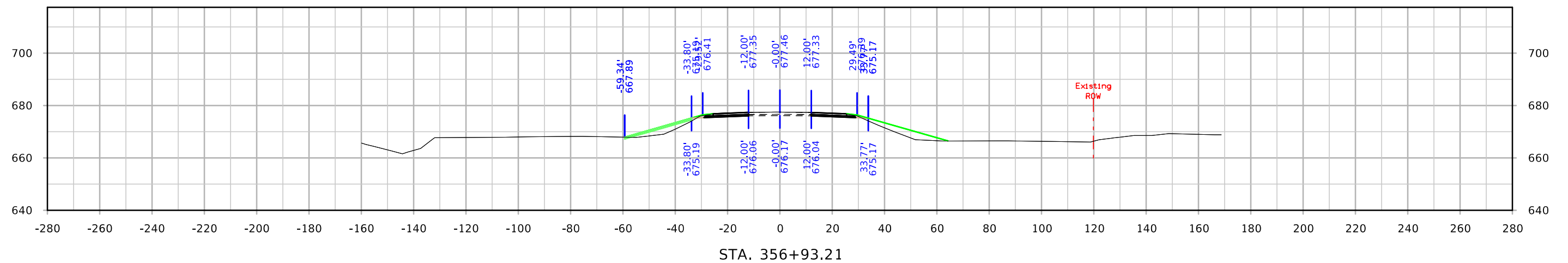
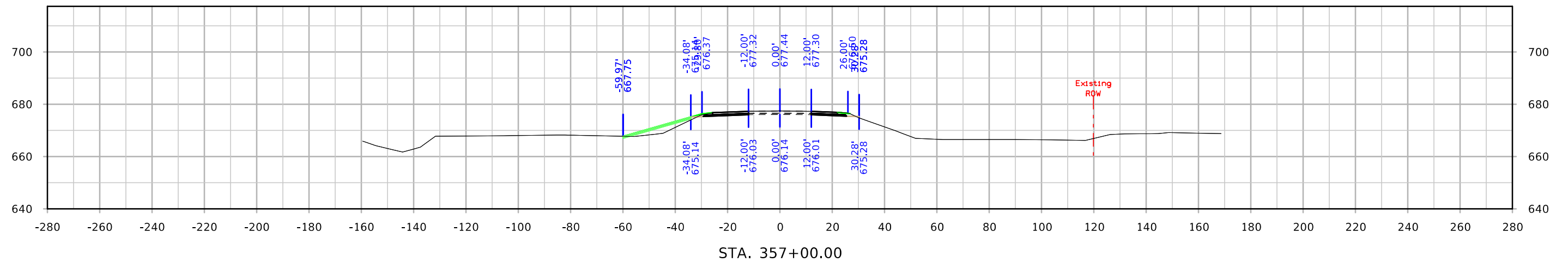
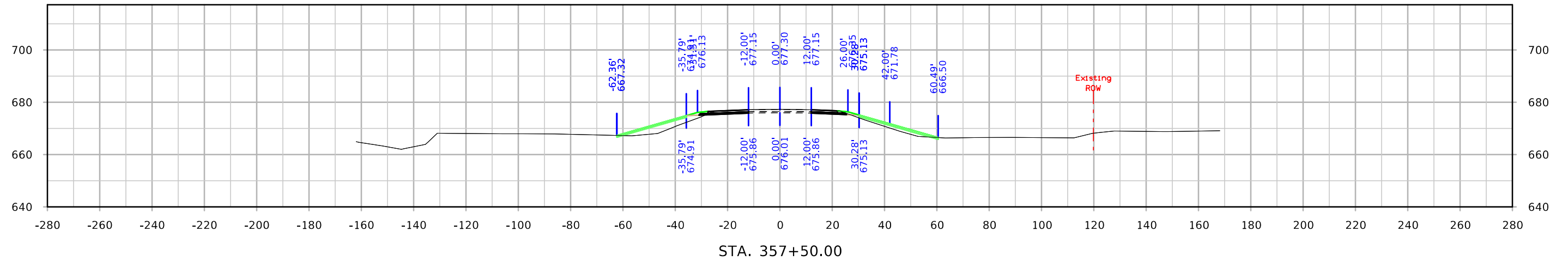


STA. 354+50.00

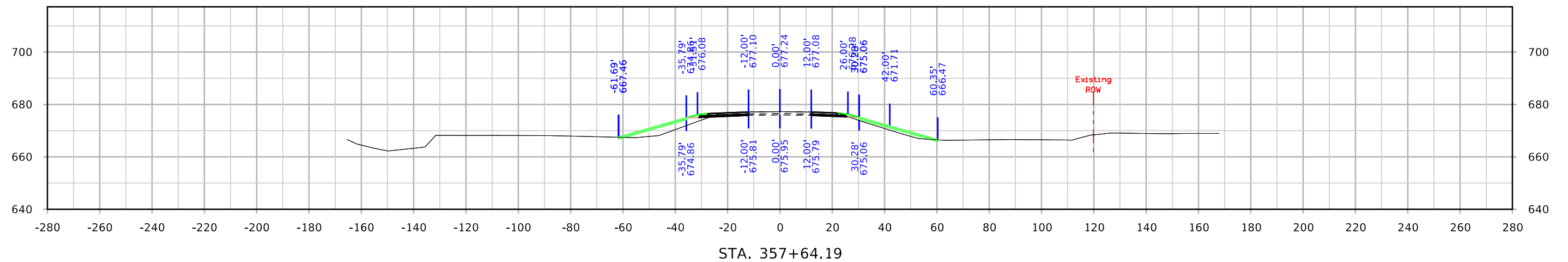
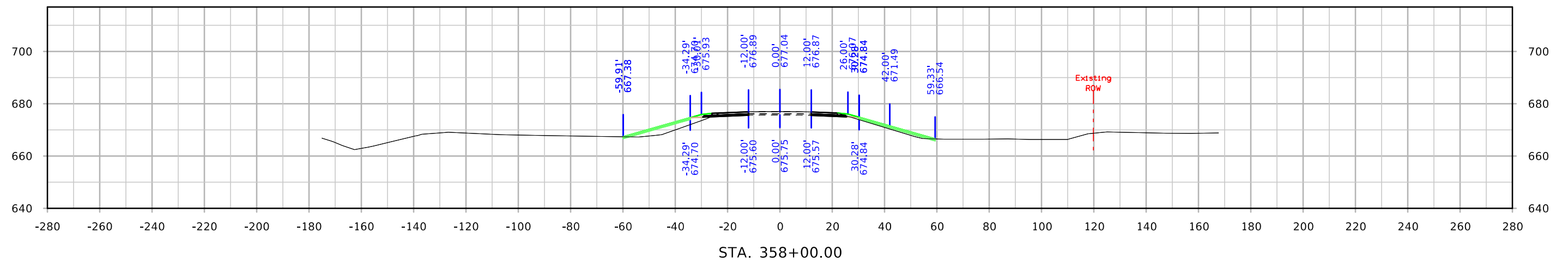
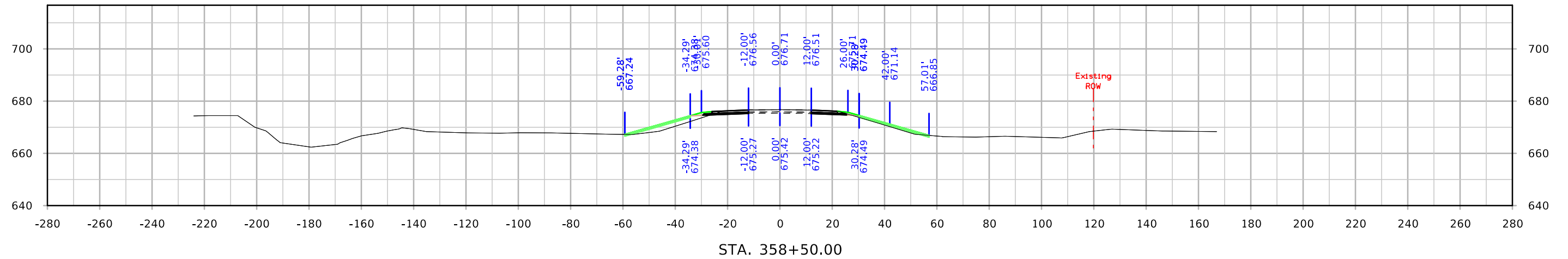
ML - US30



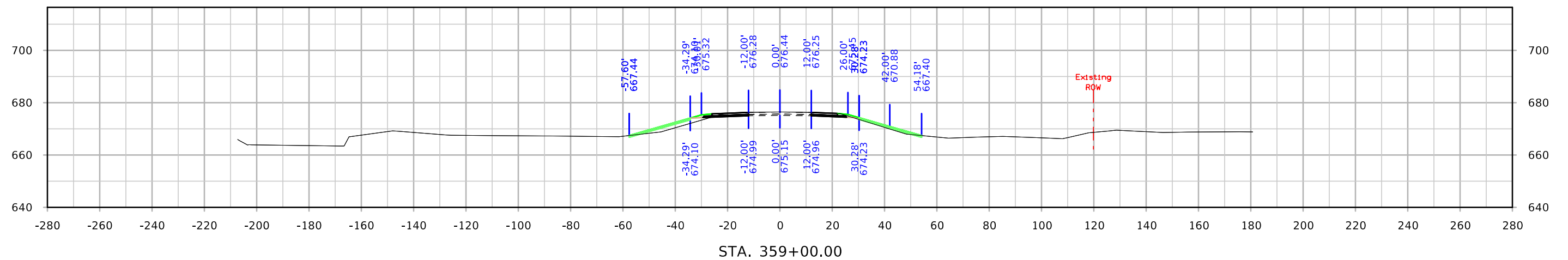
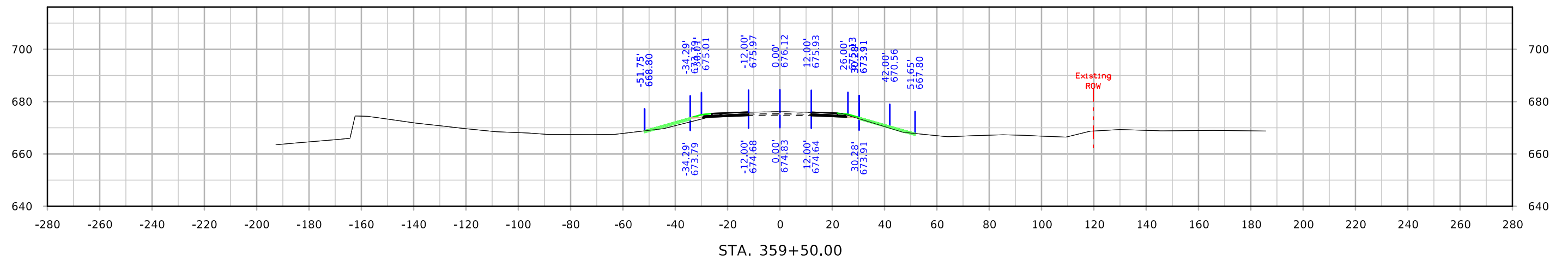
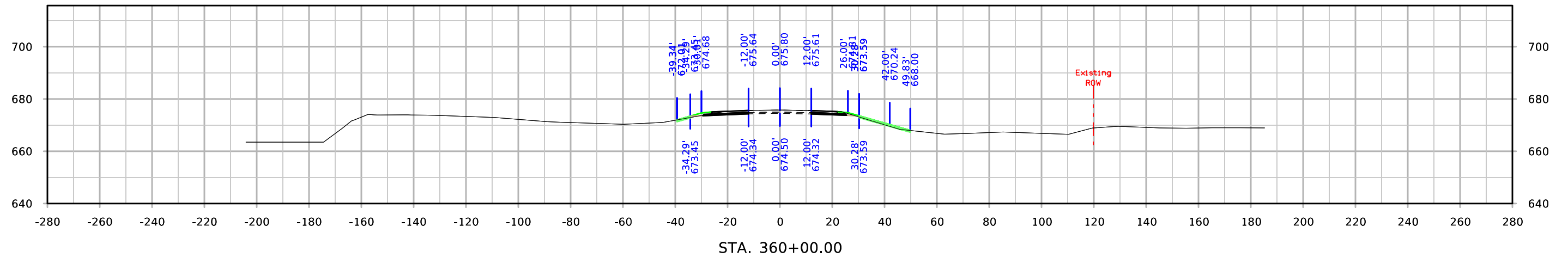
ML - US30



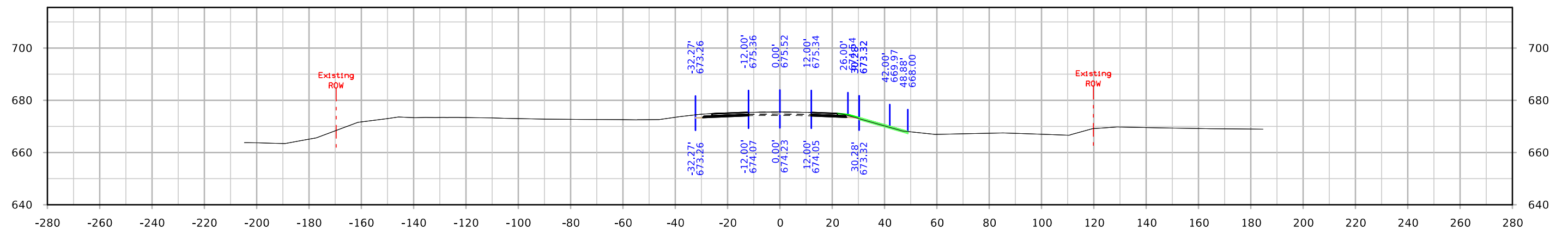
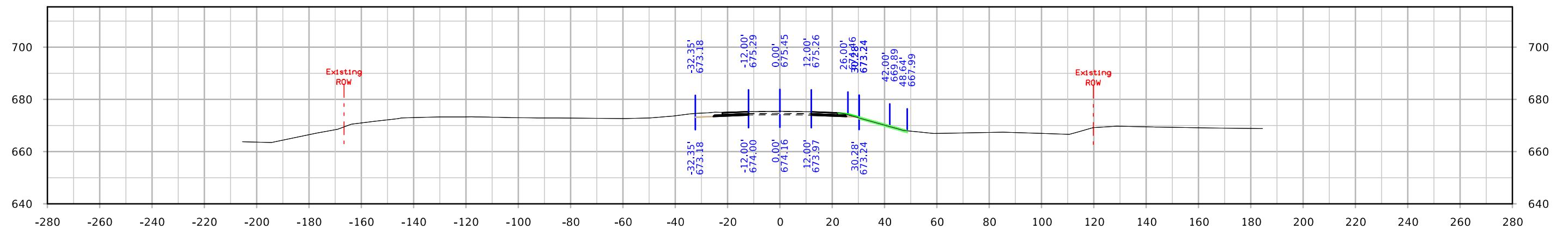
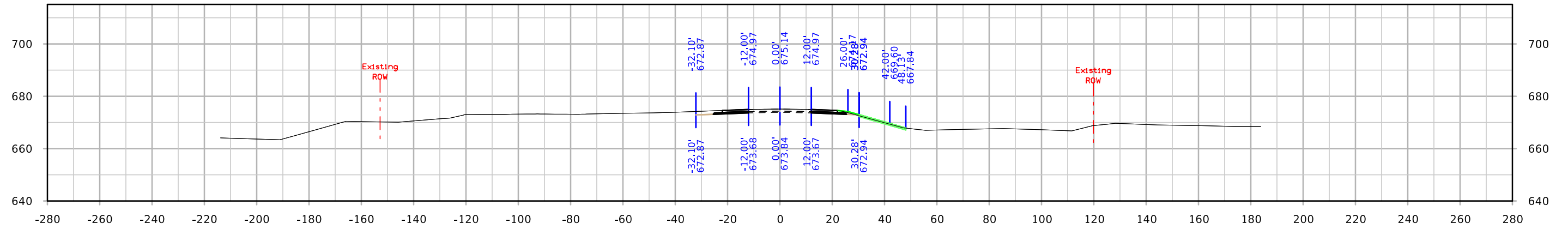
ML - US30



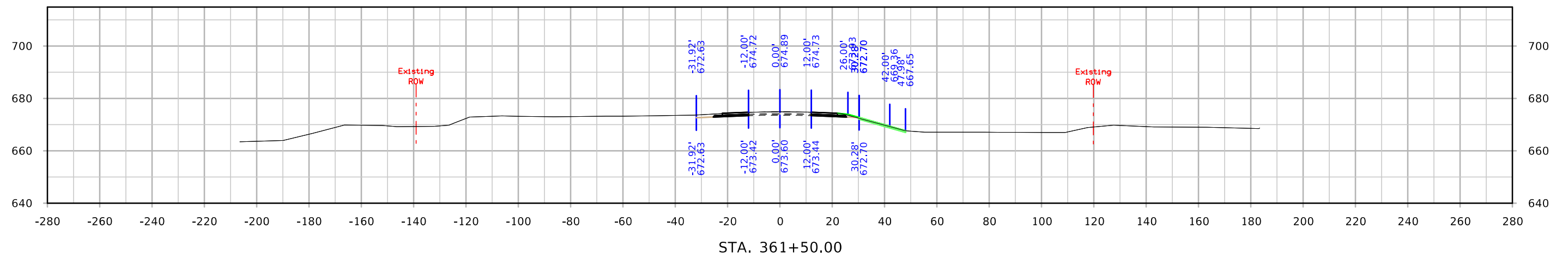
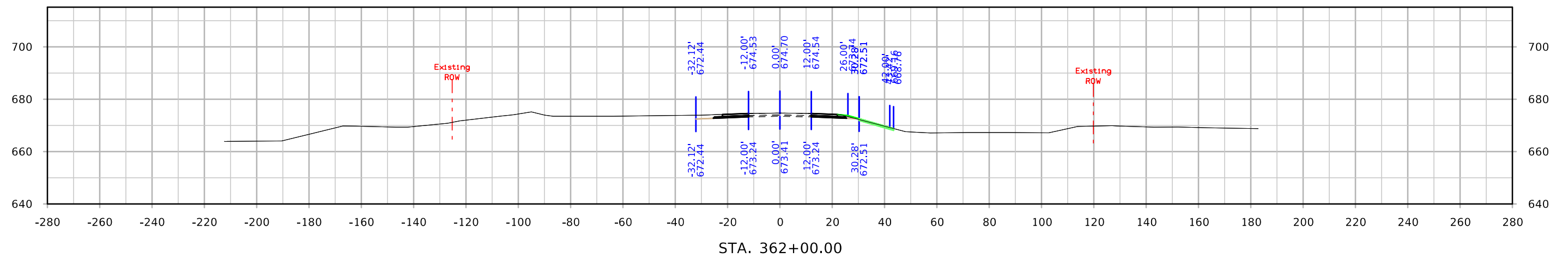
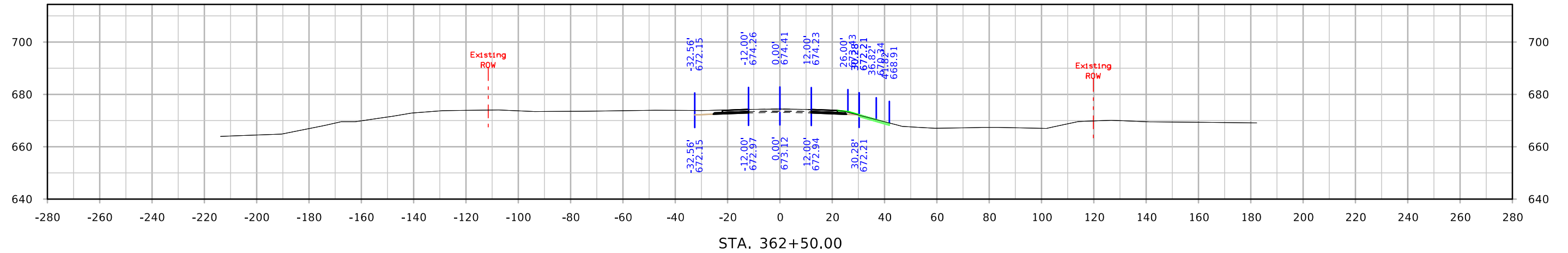
ML - US30



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