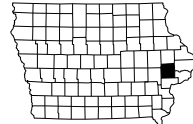


CEDAR COUNTY

Bridge Replacement
BRF-030-8(060)--38-16

LETTING DATE
10/17/2028



No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 3	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
D.1	Plan & Profile Legend & Symbol Information Sheet
D.2	US 30 Plan & Profile
G Sheets	Survey Sheets
G.1 - 3	Survey Information
G.4	Horizontal Control Tab
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
J.2 - 3	US 30 Detour Route Map
V Sheets	Bridge and Culvert Situation Plans
V.1 - 2	Bridge Situation Plan
W Sheets	Mainline Cross Sections
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 7	US 30 Cross Sections



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
CEDAR COUNTY
Bridge Replacement
US 30 at Yankee Run 2.4 mi W of Co Rd Y14

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



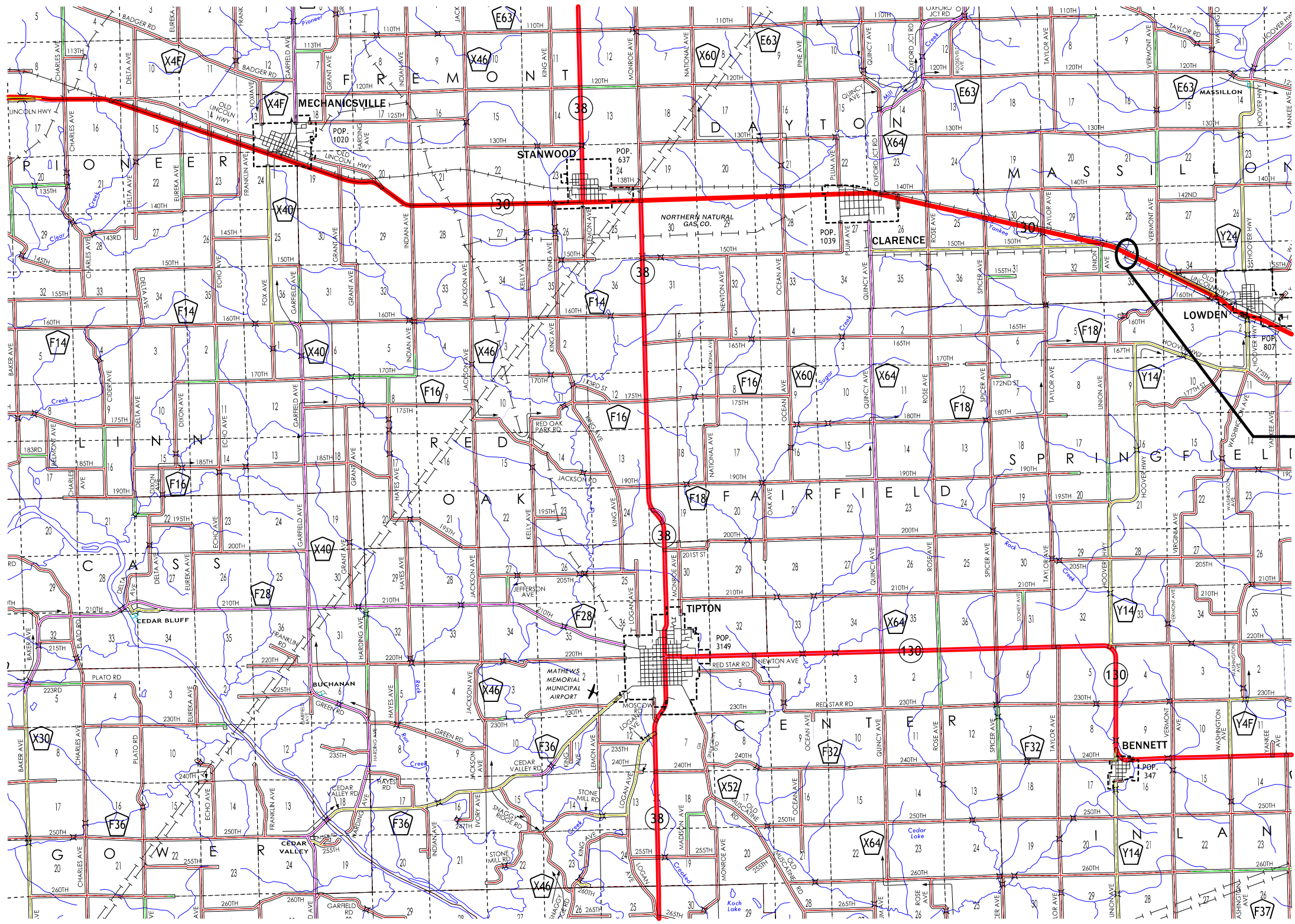
REVISIONS

	TOTAL
	23
PROJECT IDENTIFICATION NUMBER	
24-16-030-030	
PROJECT NUMBER	
BRF-030-8(060)--38-16	
R.O.W. PROJECT NUMBER	

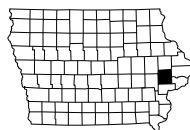
PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - 06/08/2026

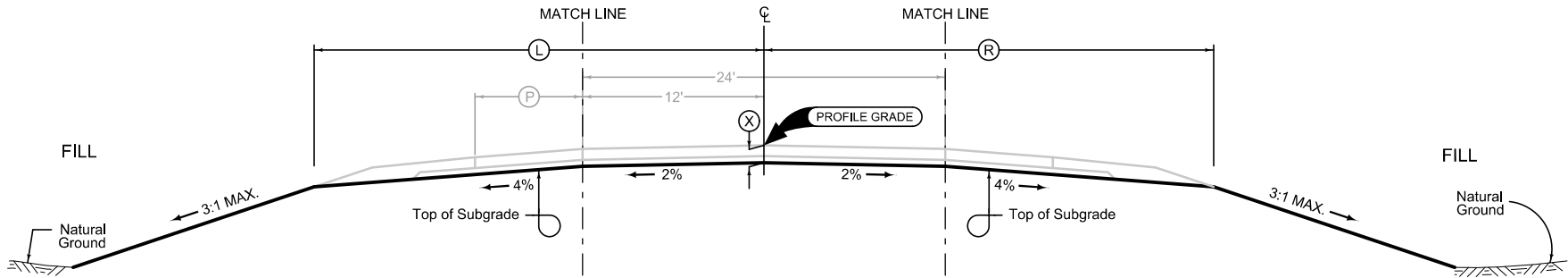


**PROJECT
LOCATION
STA. 1127+08.42
FHWA NO. 18301**

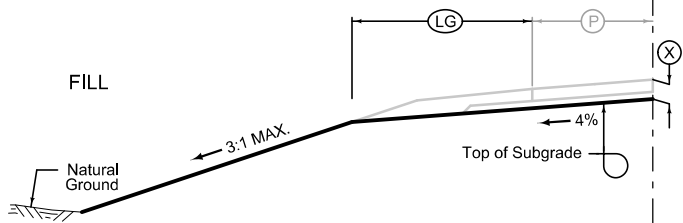


Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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

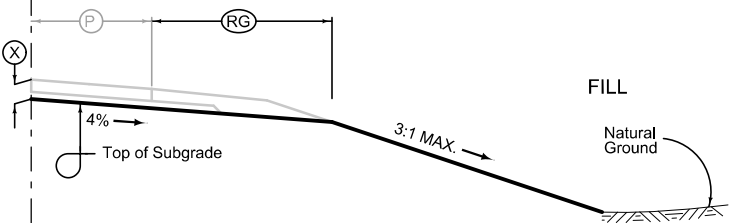


LOCATION		DIMENSIONS		
STATION TO STATION		L Feet	R Feet	X Inches
1125+50.00	1126+46.91	31.4	31.4	VARIES
1127+69.91	1128+50.00	31.4	31.4	VARIES



FULL DEPTH SHOULDER GRADING

LOCATION		DIMENSIONS	
STATION TO STATION		LG Feet	X Inches
1122+75.00	1125+14.53	9.4	22
1129+14.79	1131+50.00	9.4	22



FULL DEPTH SHOULDER GRADING

LOCATION		DIMENSIONS	
STATION TO STATION		RG Feet	X Inches
1122+75.00	1125+02.02	9.4	22
1129+02.29	1131+50.00	9.4	22

ML30
Grading

Refer to BR-103 for bridge approach jointing details.

PAVED SHOULDER AT GUARDRAIL

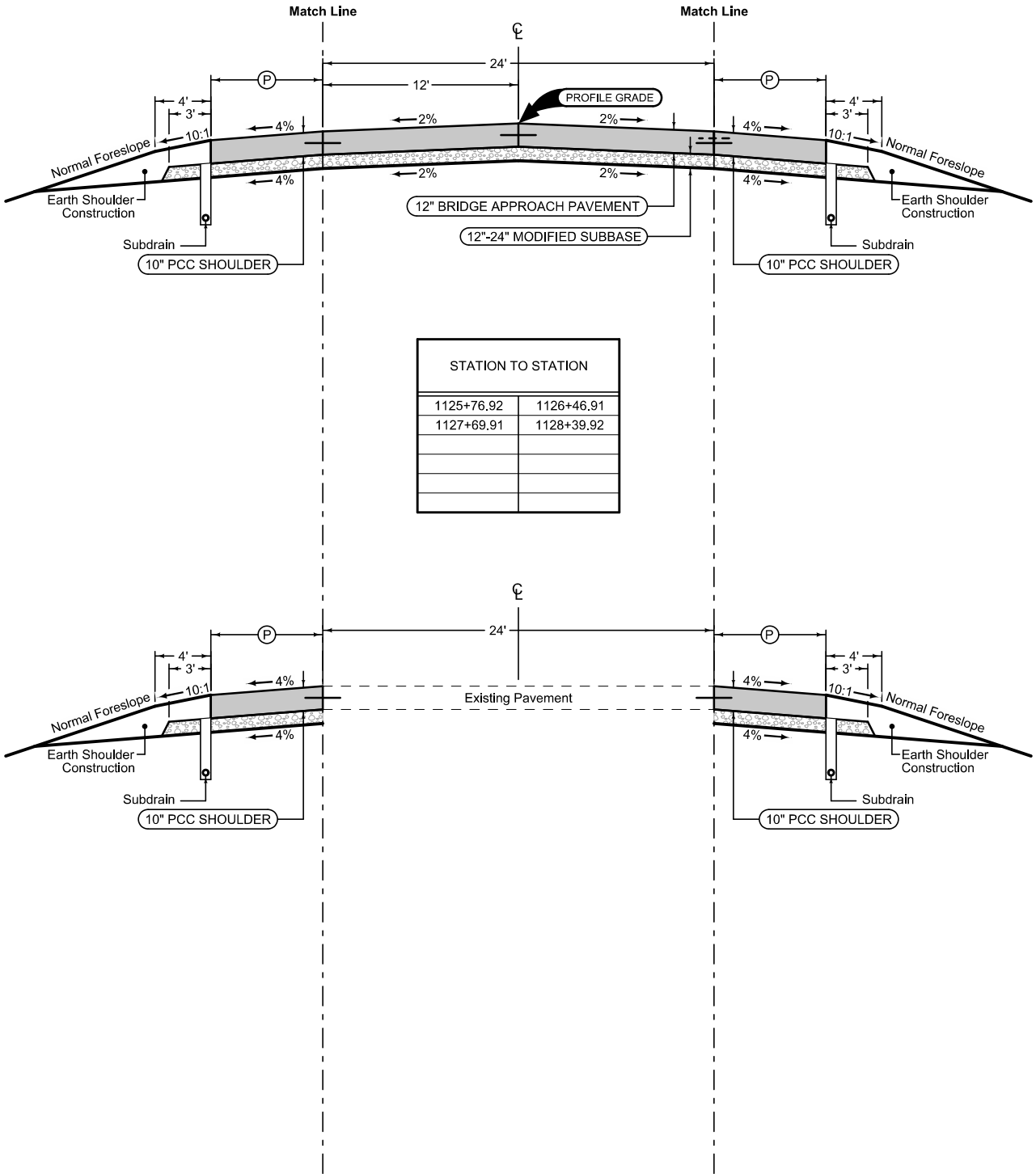
PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at mainline spacing

2_P_Guard 04-21-20		
STATION TO STATION		(P) Feet
1125+14.53	1125+34.53	13.67
1125+34.53	1125+88.19	VARIES
1125+88.19	1126+26.91	11.5
1127+89.92	1128+41.90	11.5
1128+41.90	1128+94.79	VARIES
1128+94.79	1129+14.79	13.67

FULL DEPTH SHOULDER

Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5

2_FullPCC 04-21-20		
STATION TO STATION		(P) Feet
1122+75.00	1125+14.53	10
1129+14.79	1131+50.00	10



STATION TO STATION	
1125+76.92	1126+46.91
1127+69.91	1128+39.92

PAVED SHOULDER AT GUARDRAIL

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at mainline spacing

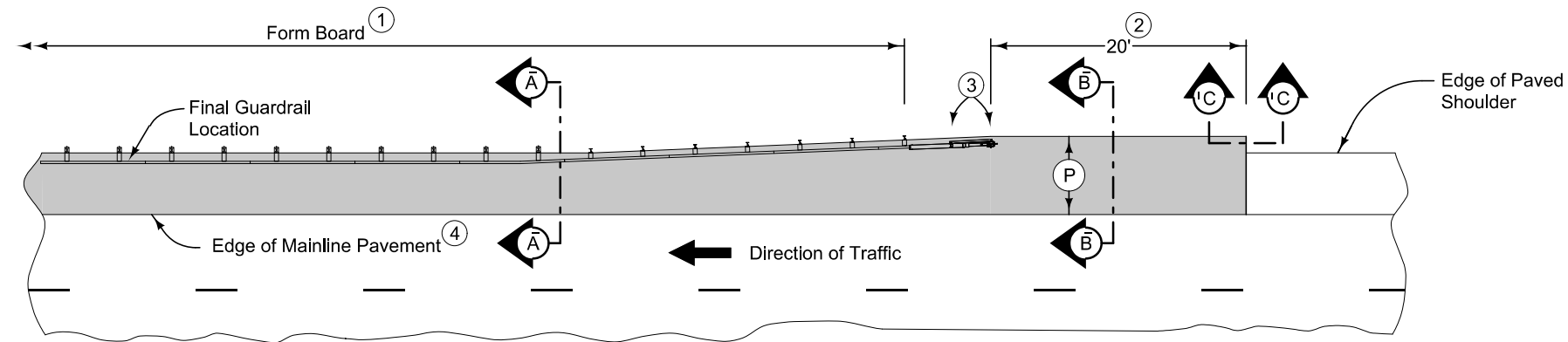
2_P_Guard 04-21-20		
STATION TO STATION		(P) Feet
1125+02.02	1125+22.02	13.67
1125+22.02	1125+74.16	VARIES
1125+74.16	1126+26.93	11.5
1126+26.93	1128+29.17	11.5
1128+29.17	1128+82.29	VARIES
1128+82.29	1129+02.29	13.67

FULL DEPTH SHOULDER

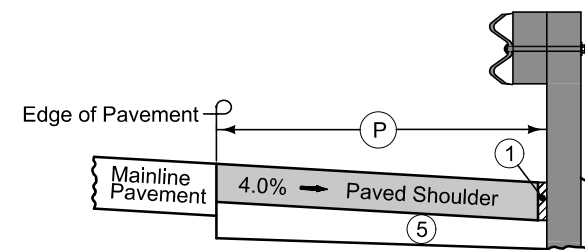
Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5

2_FullPCC 04-21-20		
STATION TO STATION		(P) Feet
1122+75.00	1125+02.02	10
1129+02.29	1131+50.00	10

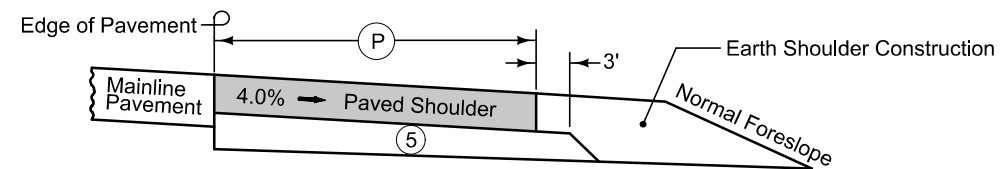
ML30
Paving



PLAN VIEW



Section A-A



Section B-B

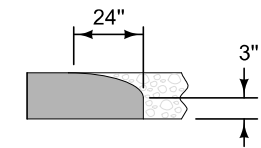
NEW CONSTRUCTION

10" PCC Paved Shoulder at guardrail. Use 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.

Refer to Tabulation 112-9 for shoulder quantities.

- ① 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 'BT' joint (per PV-101) for PCC shoulder.
- ⑤ Refer to other details in the plan.



Section C-C
Roll down at granular shoulder or earth.
PAVED SHOULDER AT GUARDRAIL

SURVEY SYMBOLS

	Interstate Highway Symbol		Septic Tank
	U.S. Highway Symbol		Cistern
	Iowa Highway Symbol		L.P. Gas Tank (No Footing)
	County Road Highway Symbol		Underground Storage Tank
	Evergreen Tree		Latrine
	Deciduous Tree		Satellite TV Dish
	Fruit Tree		Water Hook Up
	Shrub (Bushes)		Radio Tower
	Timber		Tower Anchor
	Hedge		Guardrail (Beam or Cable)
	Stump		Guard Post (one or two)
	Swamp		Guard Post (over two)
	Rock Outcrop		Filler Pipe
	Broken Concrete		Gas Valve
	Revetment (Rip Rap)		Water Valve
	Cemetery		Speed Limit Sign
	Grave		Mile Marker Post
	Cave		Sign
	Sink Hole		Traffic Signal Control Box
	Board Fence		Rail Road Signal Control Box
	Chain Link or Security Fence		Telephone Switch Box
	Wire Fence		Electric Box
	Terrace		Railroad Track
	Earth Dam or Dike (Existing)		
	Tile Outlet		
	Edge of Water		
	Existing Drainage		
	Right of Way Rail or Lot Corner		
	Concrete Monument		
	Well		
	Windmill		
	Beehive Intake		
	Existing Intake		
	Existing Utility Access (Manhole)		
	Fire Hydrant		
	Water Hydrant (Rural)		

UTILITY LEGEND

	G	Gas Line
Alliant Energy Design contact: Randy Cink Email: Randy.Cink@alliantenergy		
	F0	Fiber Optic
Sprint Communications/Cogent Design contact: Michael Chebul Email: Mchebul@cogento.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.		Transparency
Pink, Dark	(13)		Temporary Pavement Shading	50%
Yellow	(4)		Proposed Pavement Shading	50%
Orange	(6)		Proposed Granular Shading	50%
Orange	(70)		Proposed Shoulder Granular Shading	50%
Yellow	(68)		Proposed Shoulder Paved Full Depth Shading	50%
Yellow	(132)		Proposed Shoulder Paved Partial Depth Shading	50%
Brown, Light	(236)		Grading Shading	50%
Orange, Light	(134)		Proposed Granular Entrance Shading	50%
Yellow	(220)		Proposed Paved Entrance Shading	50%
Tan	(8)		Proposed Sidewalk Shading	50%
Blue, Light	(230)		Proposed Sidewalk Landing Shading	50%
Pink	(11)		Proposed Sidewalk Ramp Shading	50%
Red	(3)		Proposed Structure Shading	50%
Gray, Light	(48)		Bridge Approach Shading	0%
Red	(3)		Delineates Restricted Areas	0%

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

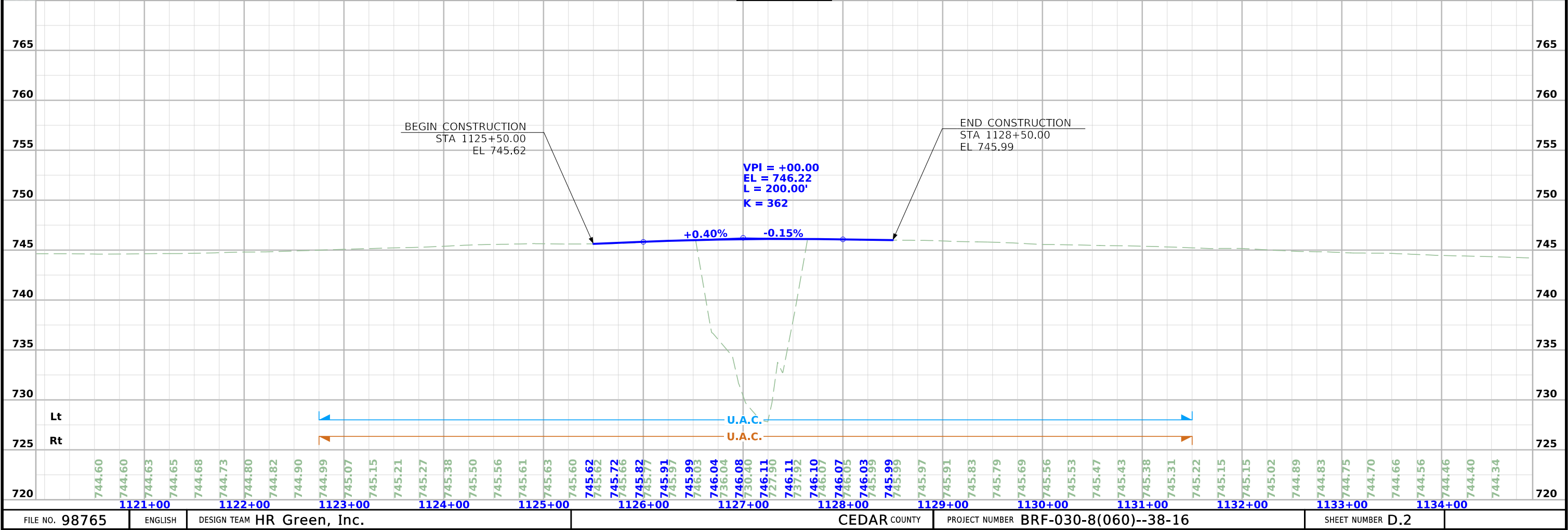
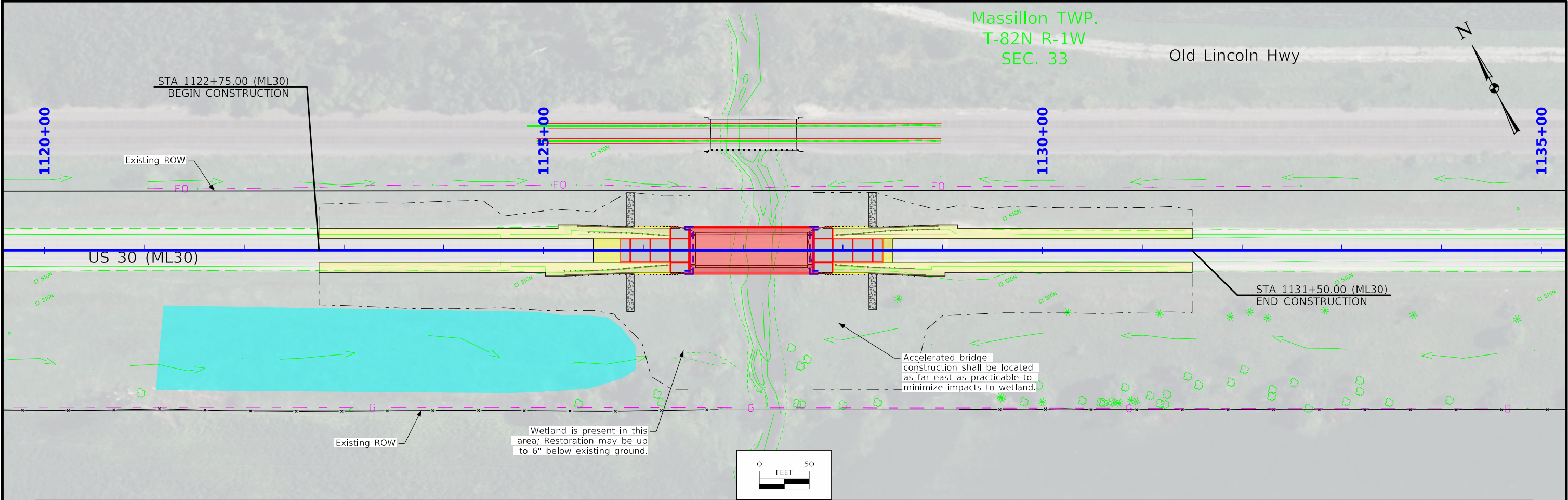
LINEWORK	Design	Color No.		
Green	(10)		Existing Ground Line Profile	
Blue	(1)		Proposed Profile and Annotation	
Magenta	(5)		Existing Utilities	
Blue, Light	(230)		Proposed Ditch Grades, Left	
Black	(0)		Proposed Ditch Grades, Median	
Rust	(14)		Proposed Ditch Grades, Right	

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

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

PLAN AND PROFILE
LEGEND AND SYMBOL
INFORMATION SHEET

(COVERS SHEET SERIES D)



SURVEY INFORMATION

County: Cedar
PIN: 24-16-030-030
Project Number: BRF-030-8(060)--38-16
Location: US 30 over Yankee Run Creek
Type of Work: Bridge-Unspecified
Project Directory: 1603003024

Survey Personnel

Michael Pacha - Survey Party Chief
Dwane Amador Rocha - Assistant Survey Party Chief

Date(s) of Survey

Begin Date 01/21/2025
End Date 02/05/2025

General Information

This survey is for US Hwy 30 Bridge over Yankee Run Creek. Location is approximately 2.38 miles WNW of Lowdon, IA on US Hwy 30 at Yankee Run Creek. Survey extending 1000' WNW & 1000' ESE from the existing bridge ends. This project is a Partial Field DTM with Photo Control Survey.

Utility Information

For logging data and other utility details see Utility Survey and Ownership Report in the Utility folder of the Prelim Survey project directory.

Project Control

Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal and vertical control on primary project control points. Three five-minute observations were taken with a minimum two-hour time span between and used in a weighted average to obtain final coordinate values. For additional details of the control survey, contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 10
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

The horizontal alignment for US Hwy 30 survey is a retrace of As-built Plans No. FN-57(6), NHSN-000S-(65)--2R-16, BRFN-030-8(32)--39-16, Federal Aid Project 57-1957 Paving, F.57(6) & F.57(7). Survey stationing was equated to the plan POT at Sta. 1138+75.1 and carried back and ahead with equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

PC Sta. 1105+91.06 As-built Plans Project No. F.7(6)
Survey PC Sta. 1105+91.06

POC Sta. 1112+64.40 As-built Plans Project No. F.7(6)
Survey POC Sta. 1112+64.40

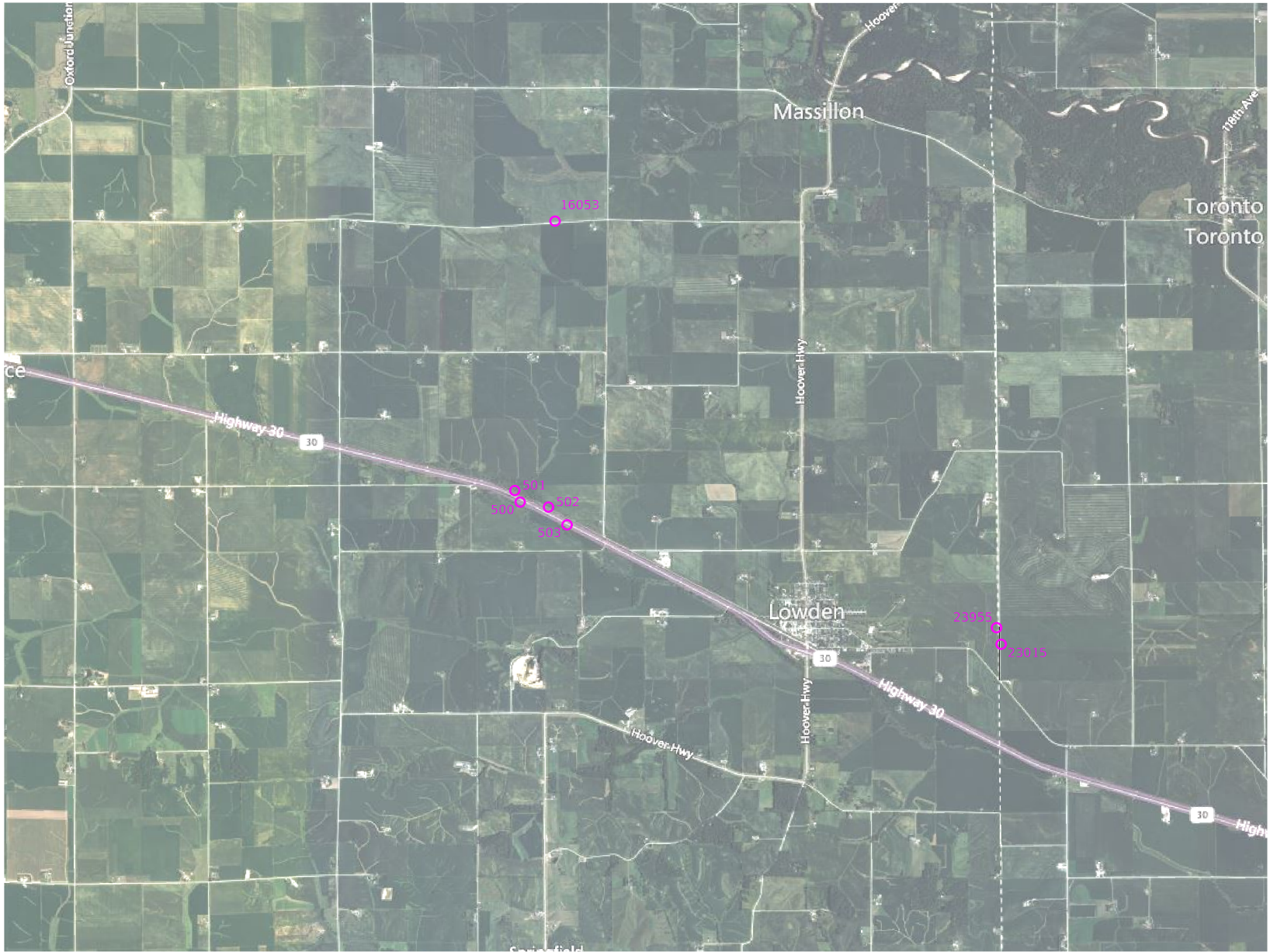
PT Sta. 1119+37.75 As-built Plans Project No. F.7(6)
Survey PT Sta. 1119+37.75

POT Sta. 1138+75.1 As-Built Plans Project No. F.7(6)
Survey POT Sta. 1138.75.1

POT Sta. 1145+33.01 As-built Plans Project No. F.7(6)
Survey POT Equation Sta. 1145+33.01 Back = Sta. 1145+00.80 Ahead

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) for EPOCH 2010.00 (IaRTN 2019 Adjustment) - Iowa RCS Zone 10 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u3

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) for EPOCH 2010.00 (laRTN 2019 Adjustment)
la. Regional Coordinate System Zone 10 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

POINT NAME	NORTHING	EASTING	ELEVATION	FEATURE DEFINITION-DESCRIPTION
16053	8026068.360	20691518.740	795.900	6' X 3/4" ALUM. CAP BELOW ACCESS COVER. APPROX. .4 MILES WEST OF VERMONT AVE/130TH ST. INTERSECTION & 20 FEET NORTH OF CENTERLINE OF 130TH ST.
23015	8008871.160	20709368.420	727.480	ALUM. SURVEY CAP IN TOP OF 3/4" X 7 FOOT ALUM. ROD ENCASED IN PVC SLEEVE. APPROX. .25 MILES NORTH OF OLD LINCOLN HWY/100TH AVE. INTERSECTION & 35 FEET EAST OF CENTERLINE OF 100TH AVE.
23955	8009751.810	20709303.740	727.960	6' X 3/4" ALUM ROD W/2.5" ALUM. CAP BELOW ACCESS COVER APPROX. .4 MILES NORTH OF OLD LINCOLN HWY/100TH AVE. INTERSECTION & 25 FEET WEST OF CENTERLINE OF 100TH AVE.
500	8014946.495	20689826.882	734.784	4' X 3/4" REBAR - 6" DEPTH APPROX. 750 FEET WEST OF CENTERLINE OF YANKEE RUN CREEK & 80 FEET SOUTH OF CENTERLINE OF US 30.
501	8015249.423	20689459.475	742.351	4' X 3/4" REBAR - 6" DEPTH APPROX. 1200 FEET WEST OF CENTERLINE OF YANKEE RUN CREEK & 35 FEET NORTH OF CENTERLINE OF US 30.
502	8014362.194	20691226.833	737.004	4' X 3/4" REBAR - 6" DEPTH APPROX. 800 FEET EAST OF CENTERLINE OF YANKEE RUN CREEK & 40 FEET NORTH OF CENTERLINE OF US 30.
503	8013945.201	20691725.824	728.677	4' X 3/4" REBAR - 6" DEPTH APPROX. 1400 FEET EAST OF CENTERLINE OF YANKEE RUN CREEK & 100 FEET SOUTH OF CENTERLINE OF US 30.

101_16 10/25/24																				
ALIGNMENT COORDINATES																				
Line No.	Name	Location	Point on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting
1.0	ML30	1119+50.00		8015026.97	20689851.89															
2.0	ML30	1135+50.00		8014291.44	20691272.81															

108_23A
8/15/22

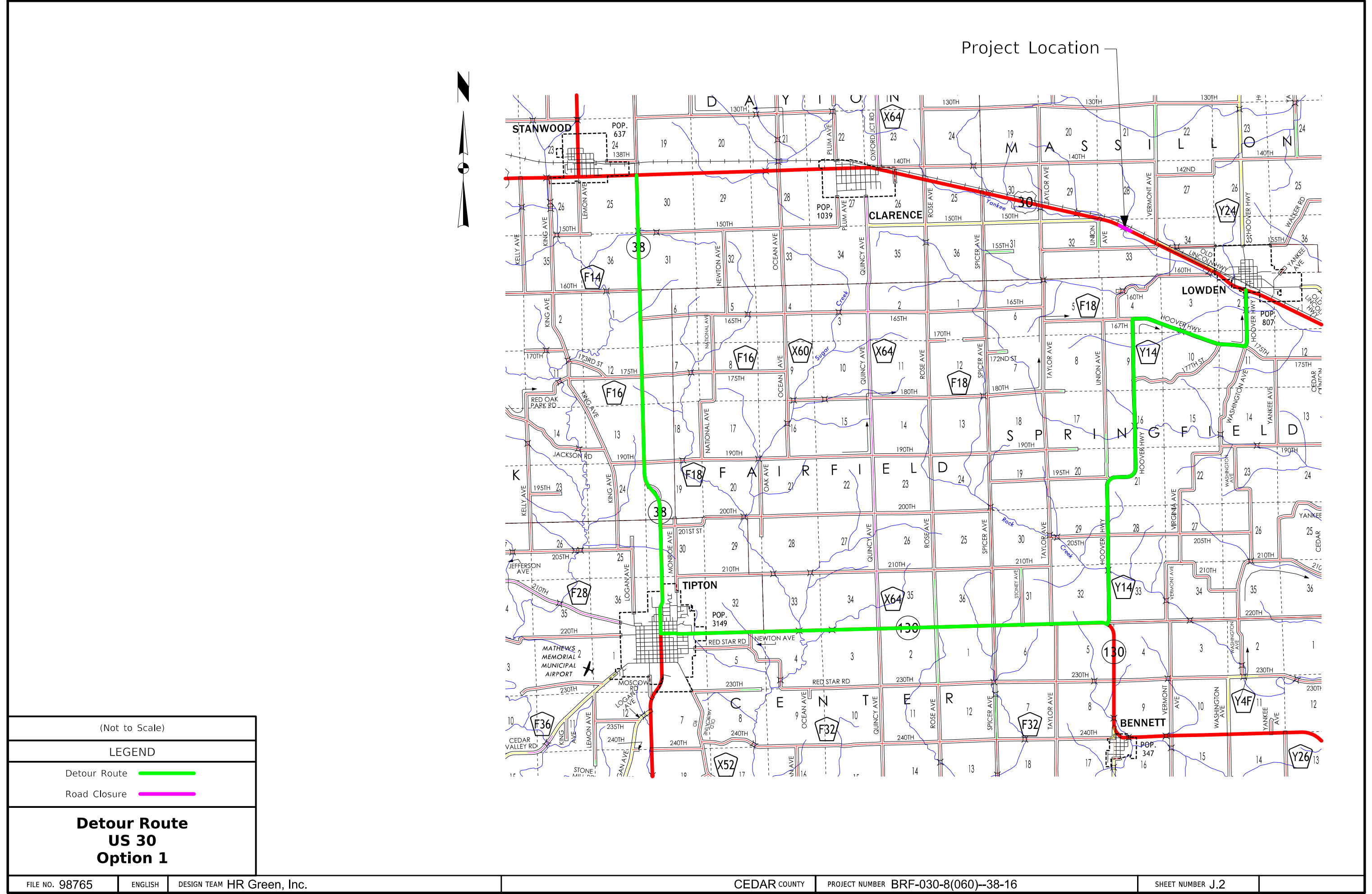
TRAFFIC CONTROL PLAN

Traffic control on this project shall be in accordance with the specific layouts shown on these plans. For additional information, refer to Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) and the Standard Specifications.

Maximum road closure duration is limited to 30 days. If the closure is expected to exceed this timeframe, notify the Engineer no later than 7 days prior to the end of the 30-day closure period.

Contractor shall sign and maintain detours for US 30. Permanent signing that conveys a message contrary to the message of the temporary detour signing or is not applicable to the working conditions shall be covered by the Contractor, as directed by the Engineer and stated in the Standard Specifications.

Construction will utilize Accelerated Bridge Construction methods that includes construction of the proposed superstructure within the adjacent US 30 roadside. During this construction, traffic shall be maintained along US 30 at all times. When the superstructure is ready to be moved into place, US 30 shall be closed and utilize an offsite detour.



This map illustrates the road network in the Fairfield, Iowa region. Key features include:

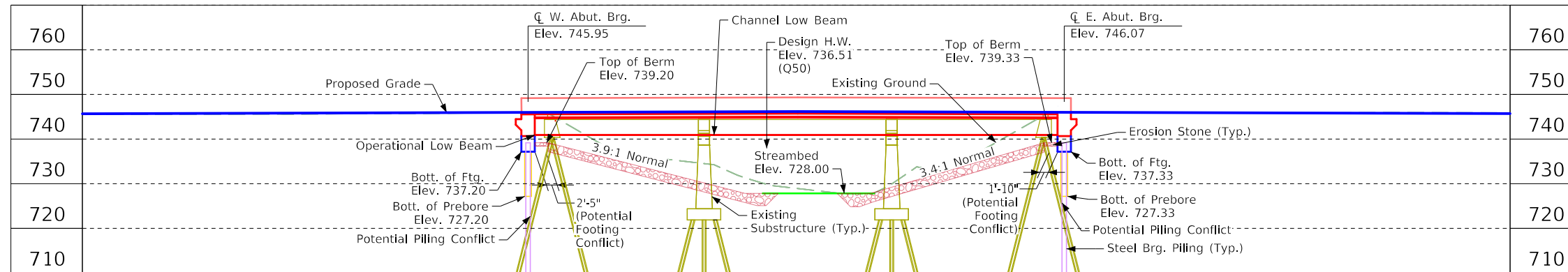
- Towns and Cities:** Stanwood, Clarece, Lowden, Tipton, Springfield, and Bennett.
- Highways:**
 - Red line: A major route passing through Stanwood, Clarece, Lowden, and Bennett.
 - Green line: A route starting from the south, passing through Tipton, Springfield, and Bennett.
- Roads and Highways:**
 - Highway 38 (red line)
 - Highway 130 (green line)
 - Highway 136 (green line)
 - Highway 137 (red line)
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VPI Sta. = 1127+00.00
VPI Elev. = 746.22
VC = 200'

+0.40% -0.15%

VPC Sta. = 1126+00.00 VPT Sta. = 1128+00.00
VPC Elev. = 745.82 VPT Elev. = 746.07



Proposed Profile Grade US 30

Drainage Area = 7.8 Sq. Mi.
Stream Slope (HGL) = 22.3 Ft./Mi.

Q₅₀ = 3,335 cfs
Stage = 736.51 (Design Event)
Operational Freeboard = 4.41 ft.
Avg. Bridge Velocity = 6.02 fps

Q₁₀₀ = 3,961 cfs
Stage = 736.75
Operational Freeboard = 4.17 ft.
Backwater = (+)0.22 ft
Avg. Bridge Velocity = 6.21 fps

Q₂₀₀ = 5,160 cfs
Stage = 737.57

$Q_{500} = 5,673 \text{ cfs}$
 Stage = 737.85
 Channel Freeboard = 3.07 ft.
 Avg. Bridge Velocity = 7.20 fps

W. Abut. Scour: 10.64 ft (500-Year Event)
E. Abut. Scour: 9.26 ft (200-Year Event)

1. Closely-spaced railroad and highway bridges preclude significant flow upstream of the proposed highway bridge. No contraction is occurring at the bridge, and contraction scour is 0.
2. Froehlich's equation gives worst case depth and was used to calculate abutment scour.
3. Examination of site indicates no long-term aggregation or degradation is occurring at the highway bridge site.

1. The proposed bridge will be constructed using Accelerated Bridge Construction (ABC) methods. The Bridge Slide method has been chosen as the preferred method with a selected closure duration of 30 days.
2. TL-4 Single Slope Bridge Railing proposed.
3. Existing substructure and piles to be removed to 1' below proposed grade.
4. There is a potential for conflicts with existing foundations at both abutments.
5. No roadway overtopping occurs at Q500 event.
6. A Local Record of Coordination will be required.
7. Potential for conflicts with existing foundations at abutments.
8. Assumed 1.5 T/CY for Class E quantity and 1.6 T/CY for Erosion Stone.

Design For 0° Skew
120'-0" x 44'-0" Pretensioned
Prestressed Concrete Beam Bridge
120'-0" Span

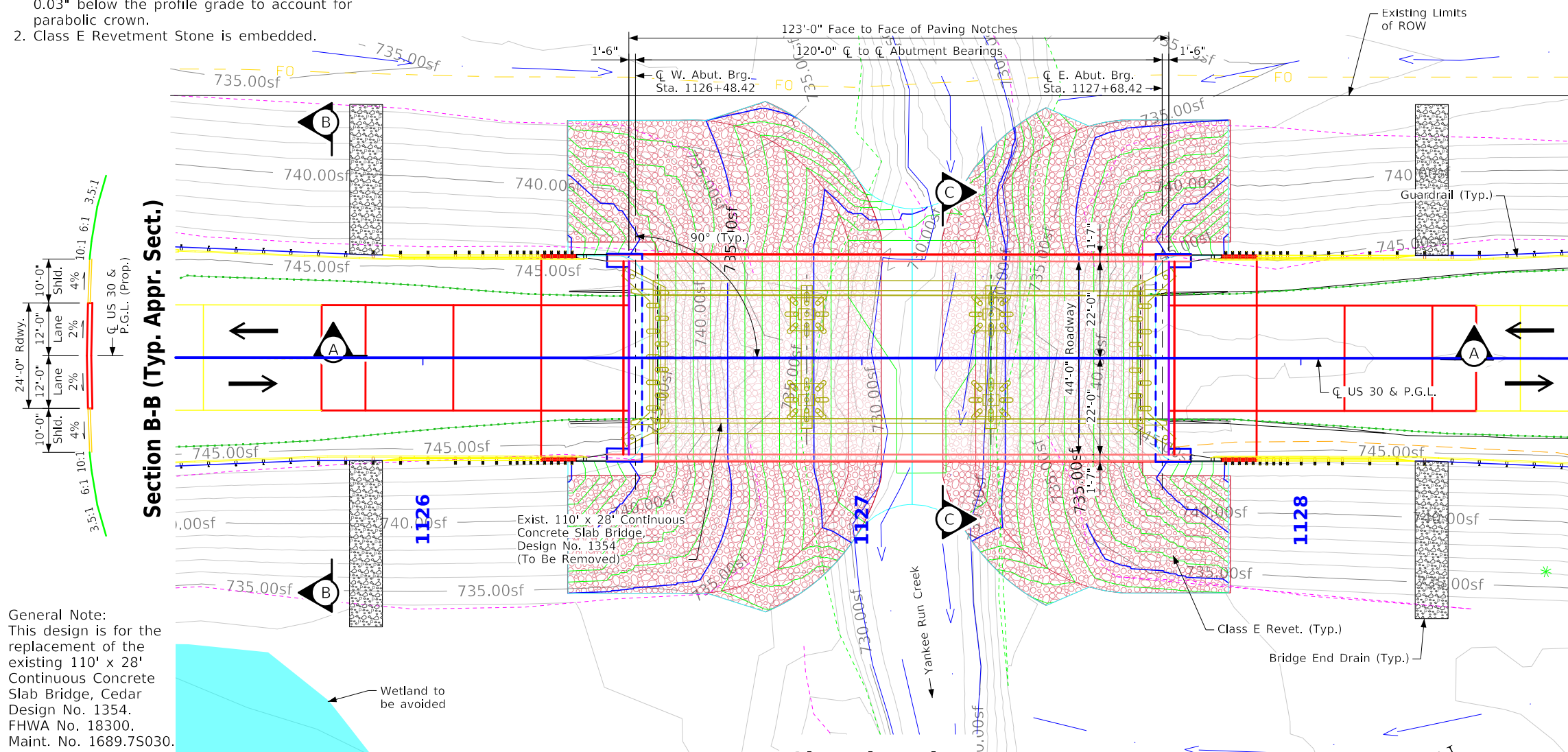
Situation Plan

STA. 1127+08.42 (US 30) Turn-in Date: April 2026

Cedar County

Design No. 129 Design Sheet No. 1 of 2 FHWA No. 018301

1. Top of bridge deck at centerline roadway is 0.03" below the profile grade to account for parabolic crown.
2. Class E Revetment Stone is embedded.



General Note:
This design is for the
replacement of the
existing 110' x 28'
Continuous Concrete
Slab Bridge, Cedar
Design No. 1354.
FHWA No. 18300.
Maint. No. 1689.7S030.

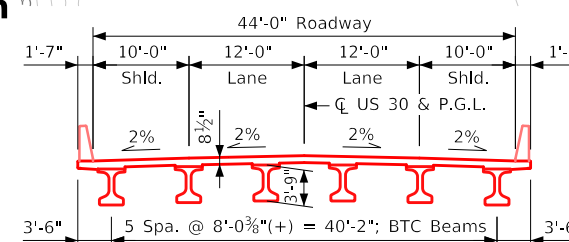
US 30 over Yankee Run
T-82N R-1W
Sections 33
Massillon Township
Cedar County
Bridge Maint. No. 1689.75030
FHWA No. 18301
Latitude 41.871470°
Longitude -90.967133°

2022 AADT	2,790	V.P.D.
2029 AADT	TBD	V.P.D.
2049 AADT	TBD	V.P.D.

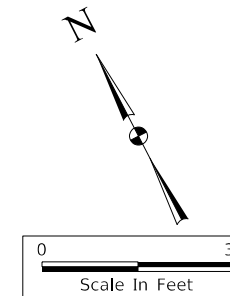
Trucks	20	%
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Utilities shown on this sheet are for information only, see Road Design sheets for final utility information.

- FO- Sprint Fiber Optic
- G- Alliant Energy



Section C-C (Typ. Bridge Sect.)



Control Point: 8014946.495 N, 20689826.882 E, Elev. 734.784;
4' x 3/4" Rebar - 6" Depth Approx. 750 feet west of centerline of
Yankee Run Creek & 80 feet south of centerline of US 30.

Berm Slope Location Table

Points	West Abutment			East Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	1126+97.0	26.6' LT.	728.0	1127+25.8	26.6' LT.	728.0
A2	1126+97.0	26.6' RT.	728.0	1127+25.8	26.6' RT.	728.0
B1	1126+52.9	26.6' LT.	739.2	1127+63.9	26.6' LT.	739.3
B2	1126+52.9	26.6' RT.	739.2	1127+63.9	26.6' RT.	739.3
W1	1126+34.9	26.6' LT.	745.3	1127+81.9	26.6' LT.	745.5
W2	1126+34.9	26.6' RT.	745.3	1127+81.9	26.6' RT.	745.5

Berm Slope Elevations Reflect The Grading Surface

Notes:

GCL - Grading Control Line

West Berm/Bank Grading Control:

- G1 1126+32.9, 54' Lt., Revetment, GCL, Elev. 735.5
- G2 1126+64.7, 54' Lt., Revetment, GCL, Elev. 735.0
- G3 1126+32.9, 54' Rt., Revetment, GCL, Elev. 735.0
- G4 1126+64.7, 54' Rt., Revetment, GCL, Elev. 734.5

East Berm/Bank Grading Control:

- G1 1127+83.9, 54' Lt., Revetment, GCL, Elev. 735.0
- G2 1127+51.8, 54' Lt., Revetment, GCL, Elev. 734.5
- G3 1127+83.9, 54' Rt., Revetment, GCL, Elev. 734.0
- G4 1127+51.8, 54' Rt., Revetment, GCL, Elev. 733.5

Estimated Berm Armoring Quantities

Revetment Type - Location	Revetment Cl. E (Ton)	Erosion Stone (Ton)	Engineering Fabric (SY)	Excavation Class 10, Channel (CY)
Berm Lining / Toe - West	822.0	11.6	655.0	548.2
Berm Lining / Toe - East	727.5	11.6	579.1	462.0
Totals	1,549.5	23.2	1,234.1	1,010.2

Excavation quantity calculated from grading surface.

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.

Kate Barnes

6/2/2026

Signature

Date

Kate Barnes

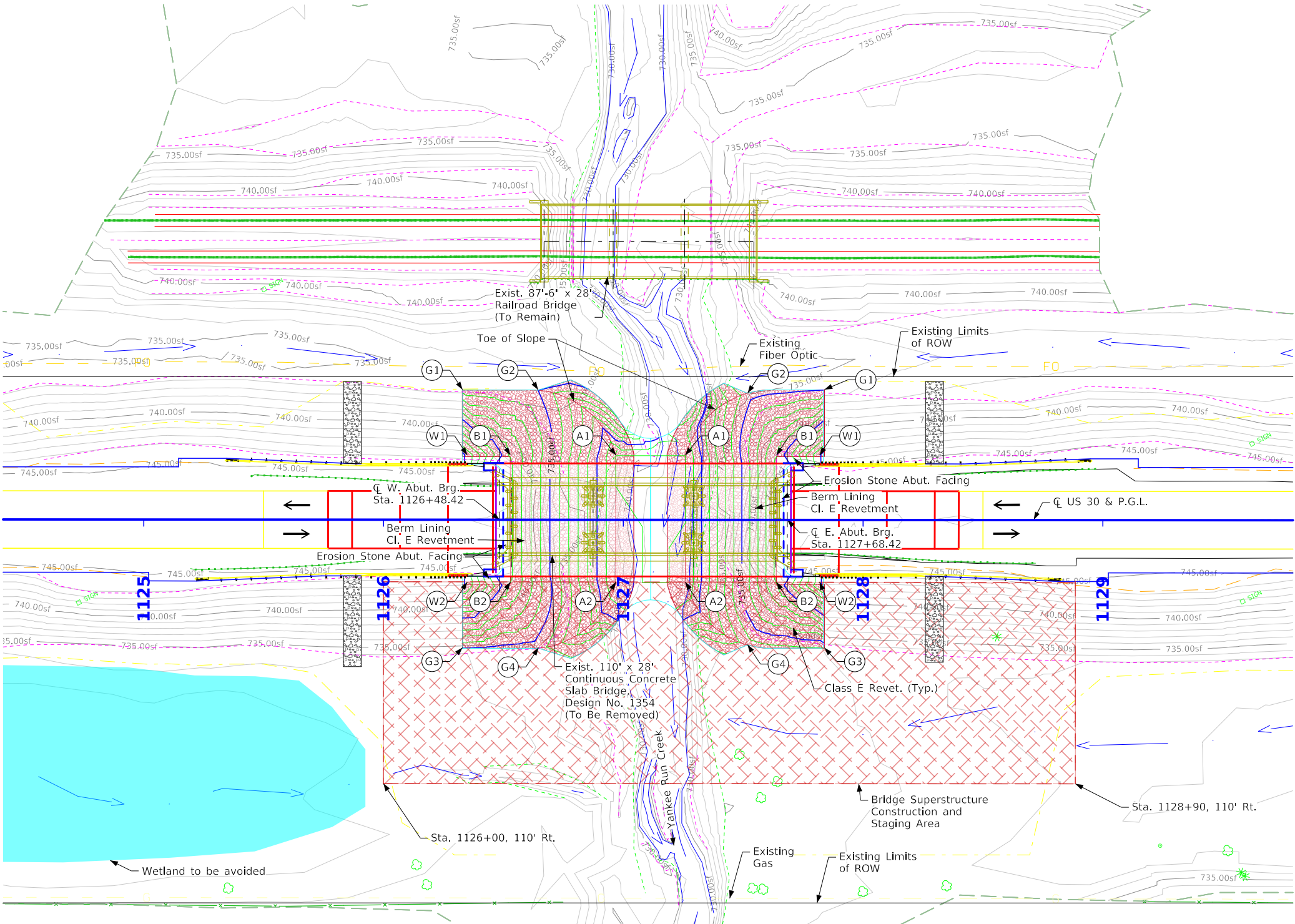
Printed or Typed Name

My license renewal date is December 31,

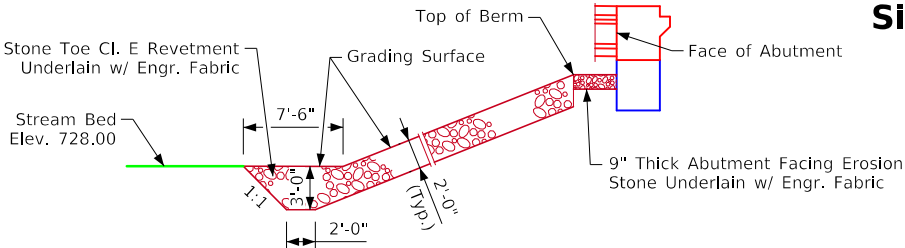
2027

Pages or sheets covered by this seal:

Sheets V.1 & V.2



Site Plan



Section Through Embedded Berm/Bank Lining and Stone Toe

(East Berm Shown - West Berm Similiar)

Utilities Note:

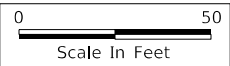
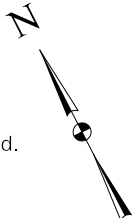
Utilities shown on this sheet are for information only, see Road Design sheets for final utility information.

Utility Symbols:

- F0- Sprint Fiber Optic
- G- Alliant Energy

Design Notes:

1. Natural creek bottom preferred.



Preliminary

Design For 0° Skew

120'-0" x 44'-0" Pretensioned
Prestressed Concrete Beam Bridge

120'-0" Span

Situation Plan - Site

STA. 1127+08.42 (US 30)

Turn-in Date: January 2026

Cedar County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 129

Design Sheet No. 2 of 2

FHWA No. 018301

SHEET NUMBER

V.2



HRGreen

FILE NO.

32909

ENGLISH

DESIGN TEAM HR Green, Inc.

Cedar COUNTY

PROJECT NUMBER BRF-030-8(060)--38-16

SHEET NUMBER

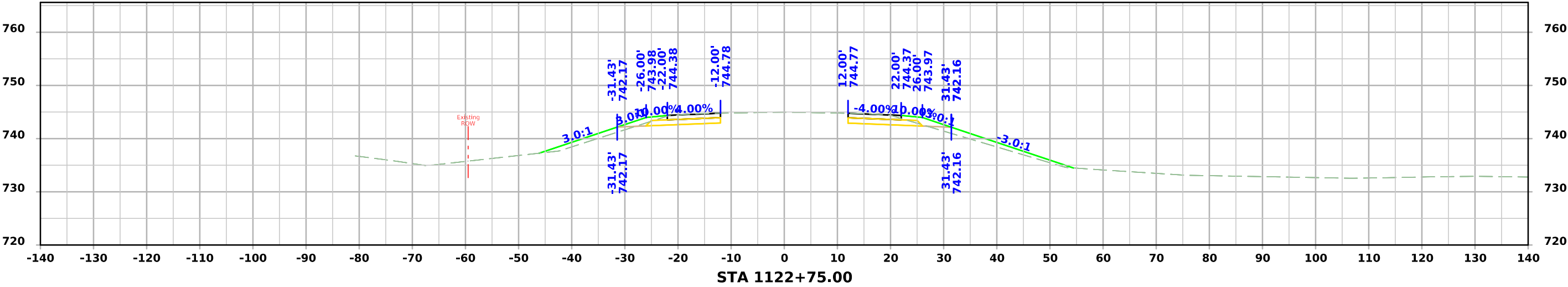
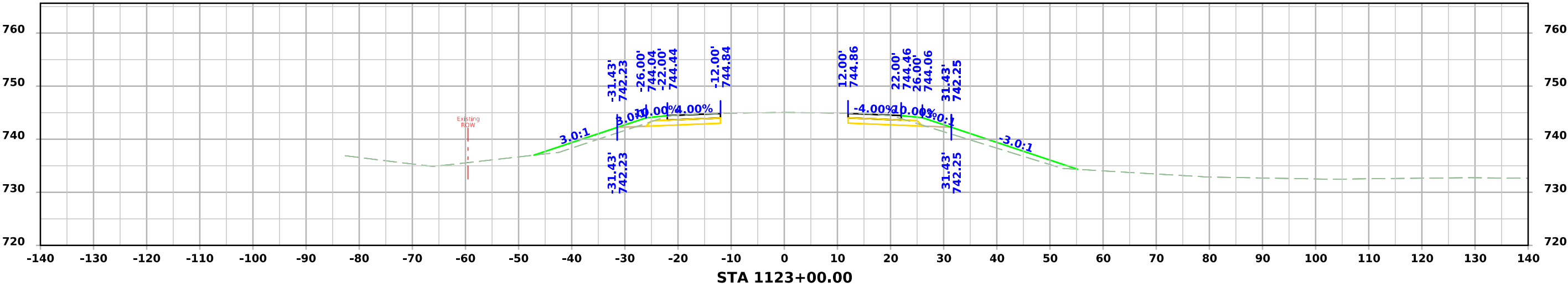
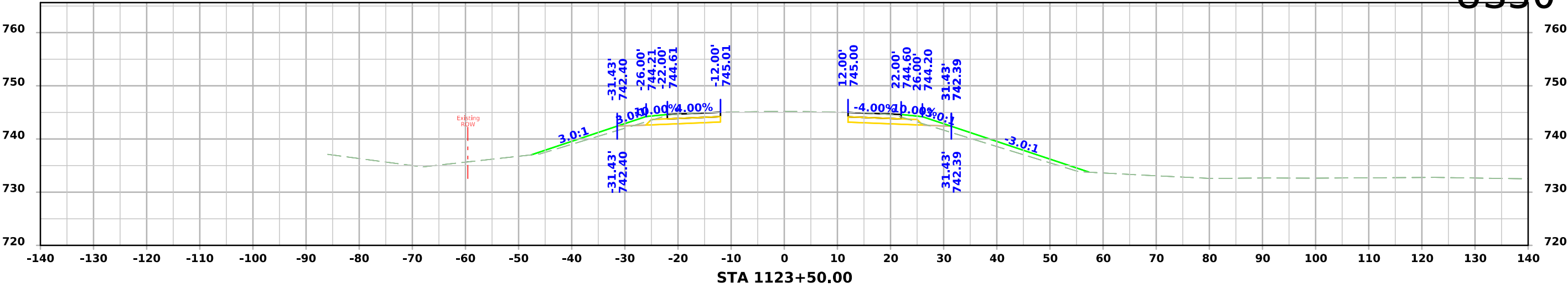
V.2

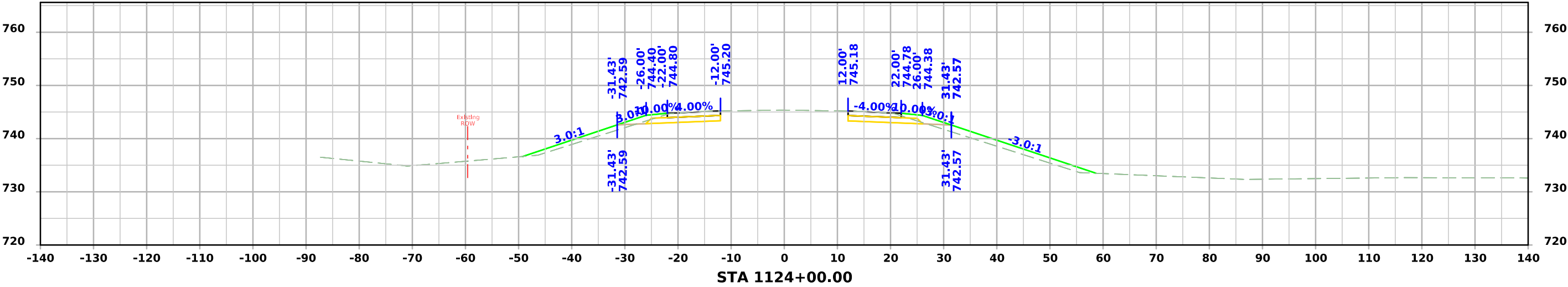
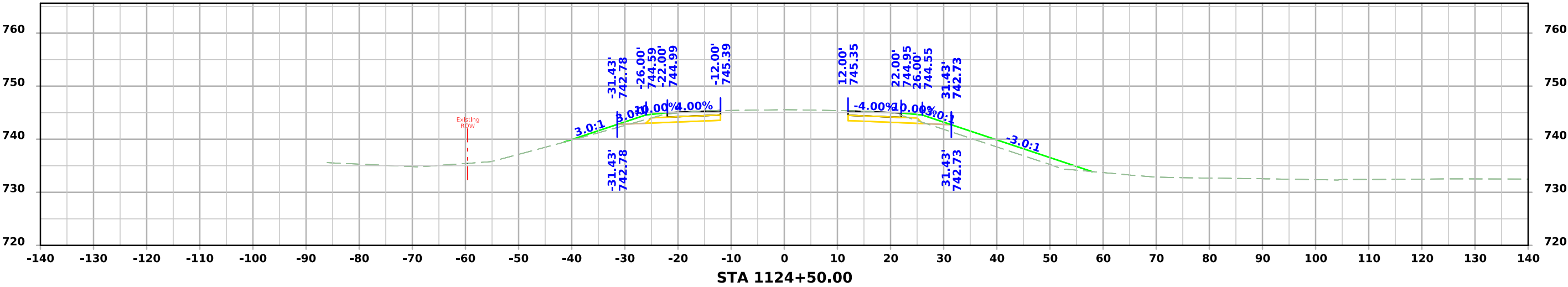
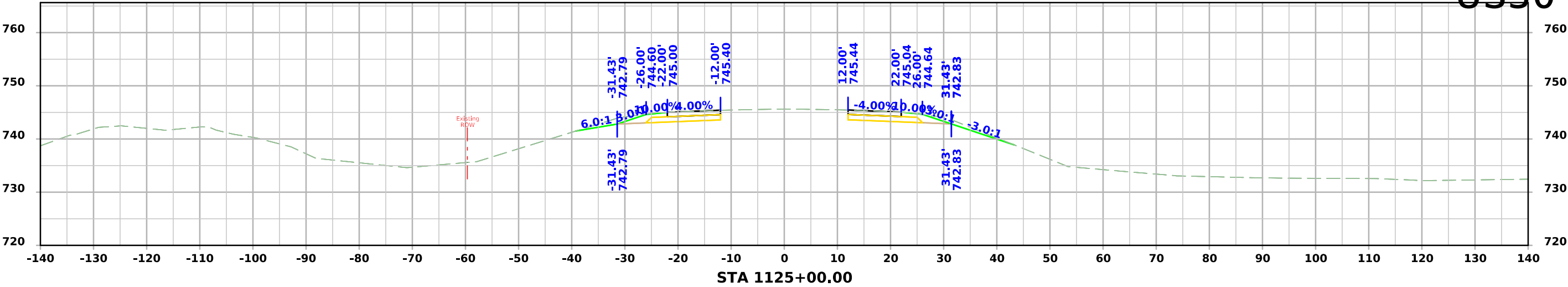
CROSS SECTION VIEW COLOR LEGEND			
Design Color No.	Feature	Design Color No.	Feature
Aggregate		Grading	
(64)	Choke Stone	(8)	Behind Curb Cut
(42)	Engineering Fabric	(6)	Granular
(8)	Flooded Backfill	(13)	Granular Back Fill
(92)	Macadam Stone	(48)	Rock Undercut
(20)	Modified	(8)	Shoulder Earth Fill
(12)	Plowing Shaping	(2)	Side Slopes
(14)	Porous Backfill	(226)	Side Slopes Dressing
(8)	Revetment Class A	Substrata	
(6)	Revetment Class B	(128)	Boulder
(62)	Revetment Class C	(209)	Boulder Removed
(188)	Revetment Class D	(48)	Broken Weathered
(28)	Revetment Class E	(210)	Broken Weathered Removed
(12)	Shoulder Special Backfill	(3)	Core Out
(12)	Special Backfill	(115)	Core Out Remove Only
(20)	Subbase	(195)	Core Out Remove and Replace
(20)	Subbase Lower	(203)	Existing Pavement
(20)	Subbase Upper	(184)	Existing Pavement Remove Only
(118)	Subgrade Treatment	(200)	Existing Pavement Remove and Replace
Asphalt		(6)	Loam
(207)	HMA Base Course	(211)	Loam Removed
(207)	HMA Interim Course	(80)	Rock
(207)	HMA Surface Course	(212)	Rock Removed
Bridge		(4)	Select Sand
(0)	Bridge	(214)	Select Sand Removed
Concrete		(3)	Shale
(0)	Barrier Concrete	(215)	Shale Removed
(0)	Barrier Concrete Footing	(10)	Topsoil
(0)	Curb Gutter	(2)	Topsoil Remove Only
(48)	Flowable Mortar	(4)	Topsoil Remove and Replace
(0)	Median Concrete	Unsuitable / Waste	
(0)	PCC Pavement	(3)	Unsuitable Type A
(0)	Sidewalk	(216)	Unsuitable Type A Removed
Existing		(13)	Unsuitable Type B
(0)	Existing Pavement	(217)	Unsuitable Type B Removed
Shoulder		(11)	Unsuitable Type C
(209)	Shoulder HMA	(218)	Unsuitable Type C Removed
(0)	Shoulder PCC	(3)	Waste
(6)	Shoulder Granular	(219)	Waste Removed
Structural			
(112)	Noise Wall		
(112)	Noise Wall Footing		
(112)	Retaining Wall Back		
(112)	Retaining Wall Back Excavate		
(112)	Retaining Wall Face		
(112)	Retaining Wall Front Excavate		
(112)	Retaining Wall Front Footing		
(112)	Retaining Wall MSE Gutter		
(112)	Retaining Wall Reinforced Earth		

CROSS SECTIONS

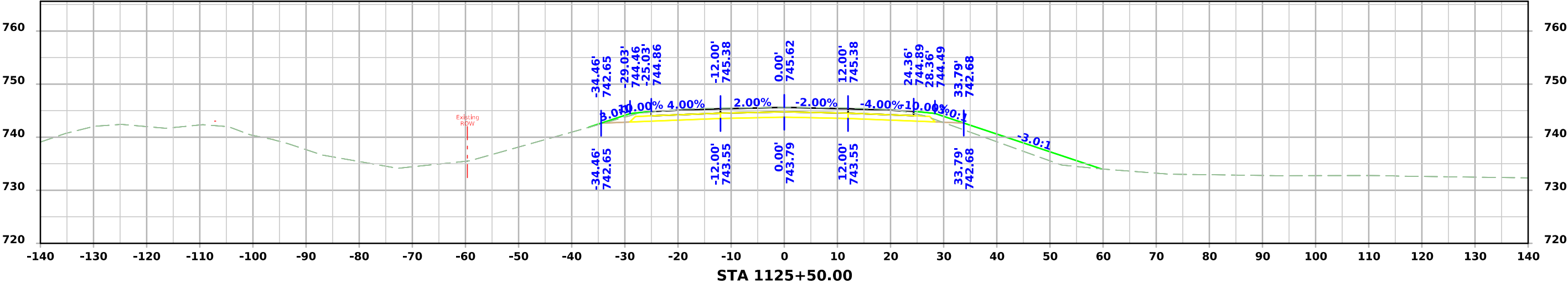
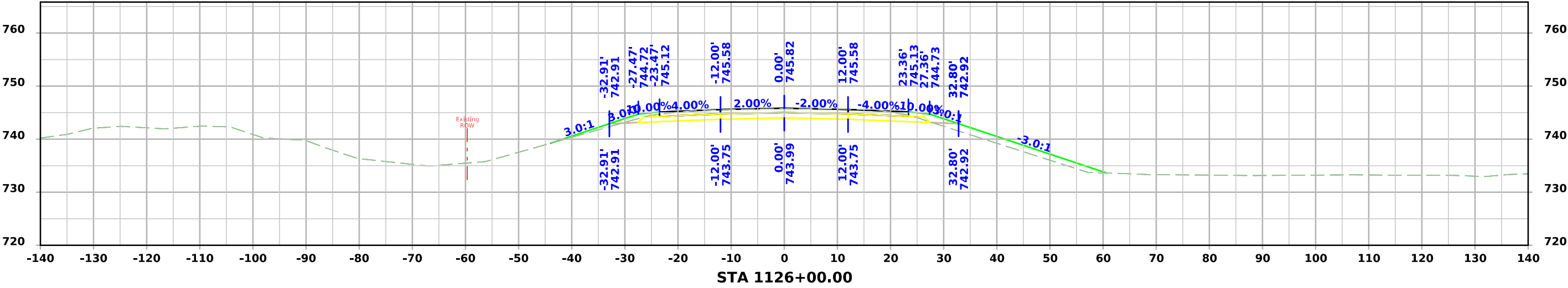
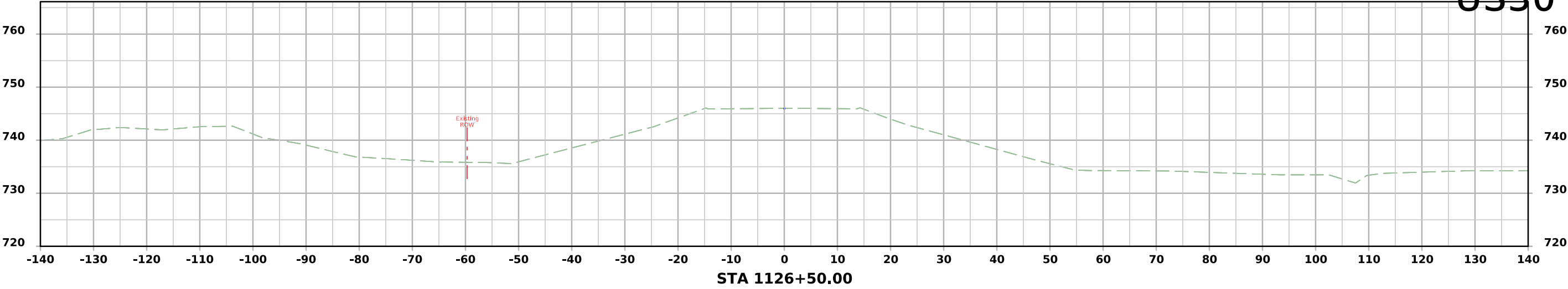
LEGEND AND INFORMATION SHEET

(COVERS SHEET SERIES W)

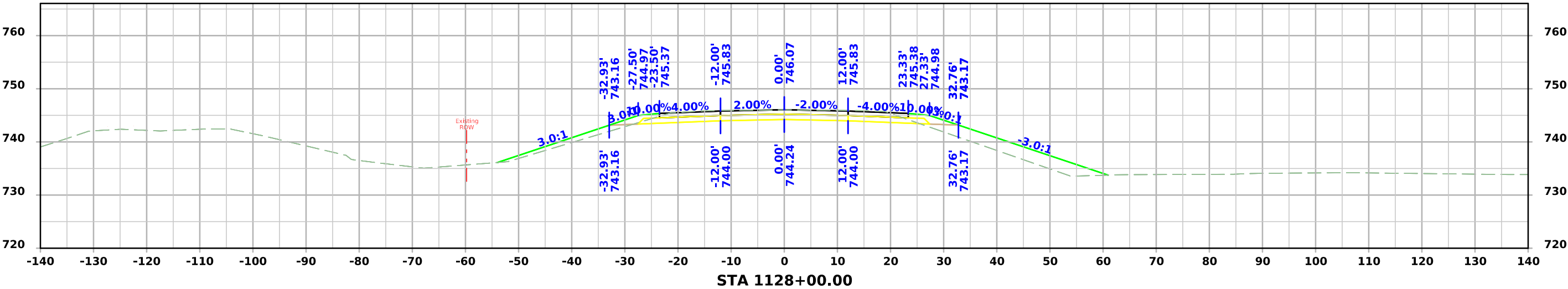
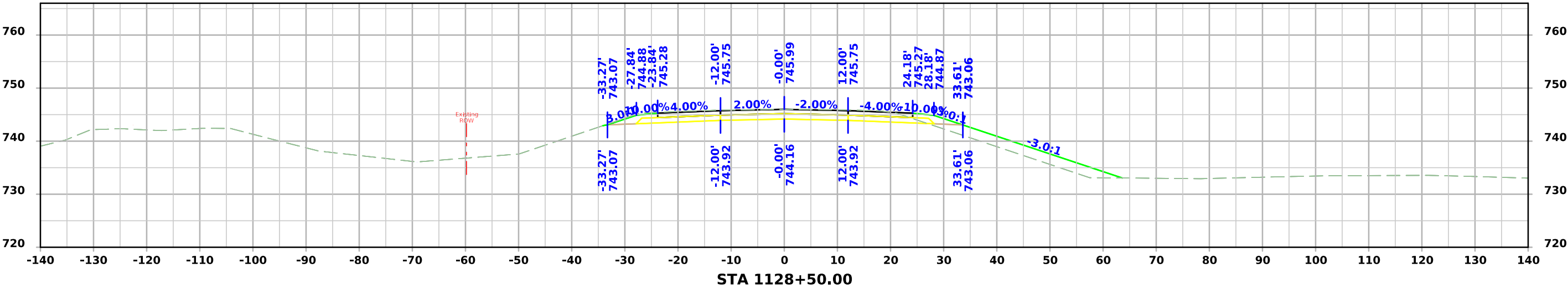
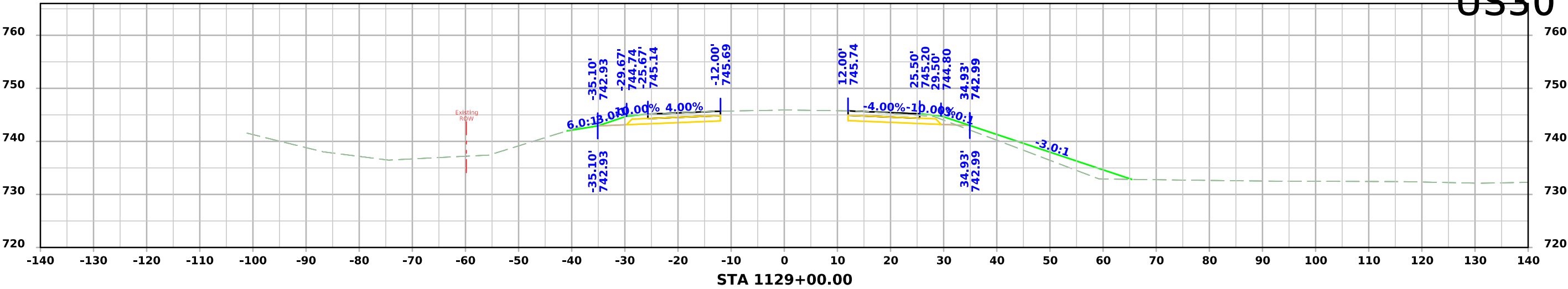




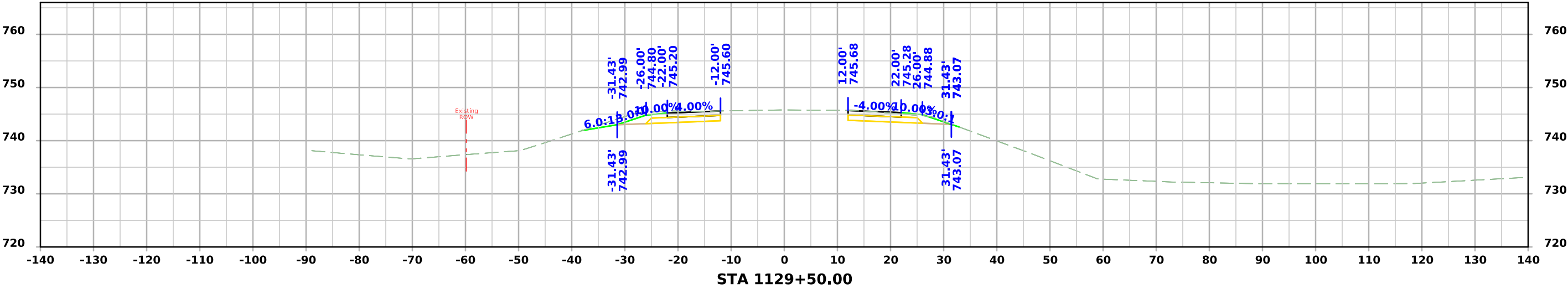
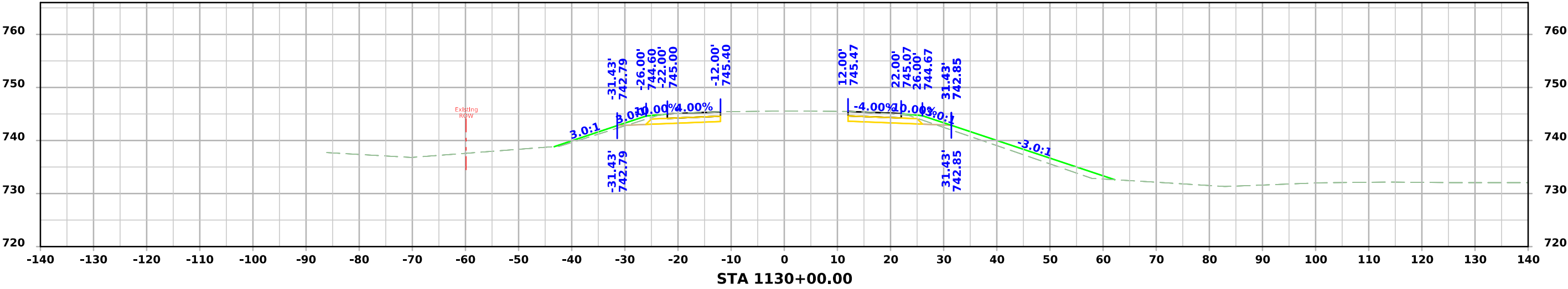
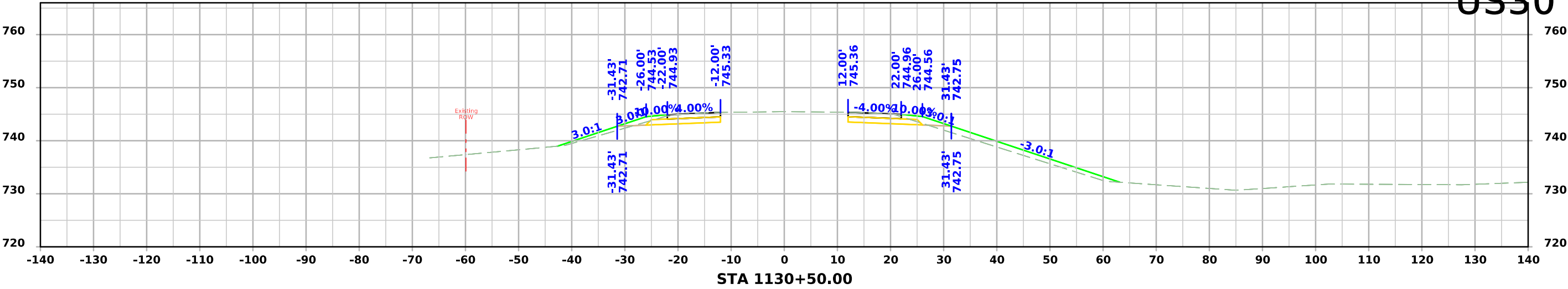
US30



US30



US30



US30

