

LETTING DATE  
12/20/2022

Bridge Replacement-PPCB  
BRF-061-8(159)--38-31

DUBUQUE COUNTY

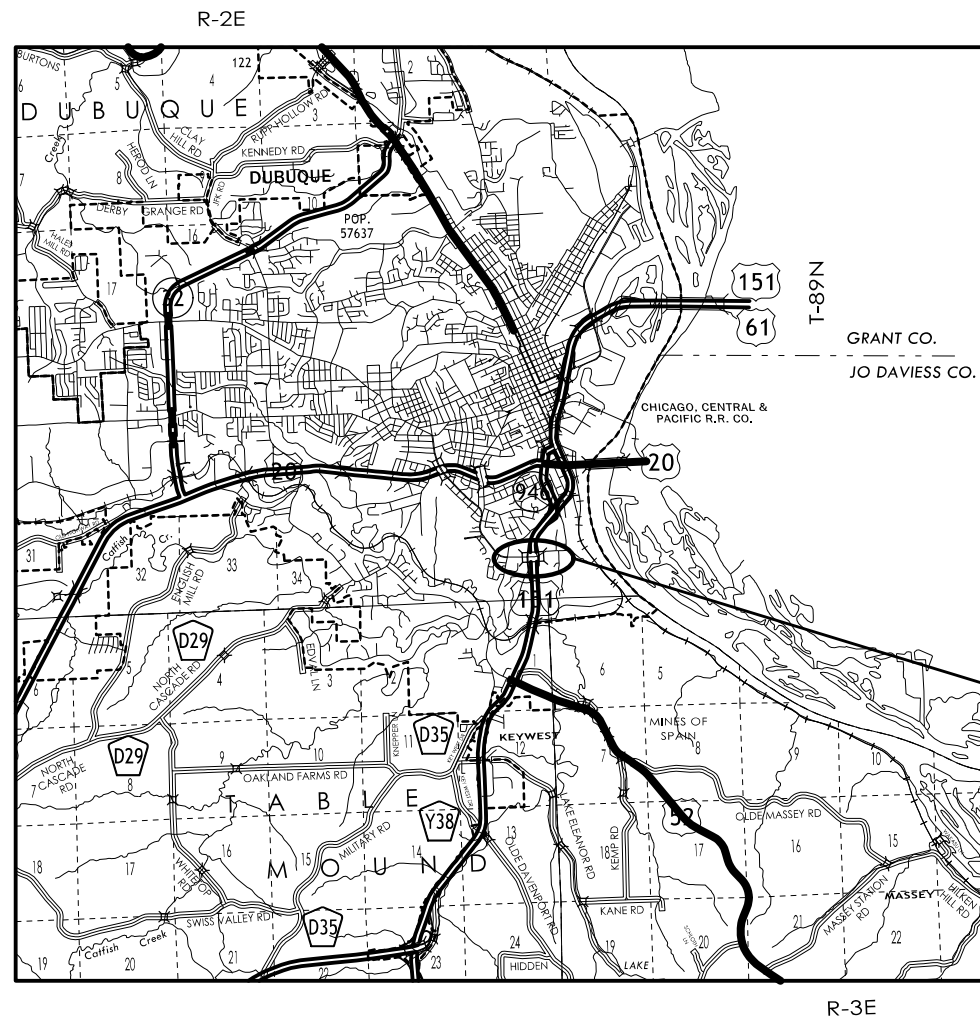


# Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

## PRIMARY ROAD SYSTEM DUBUQUE COUNTY

Bridge Replacement-PPCB  
Grandview Ave 1.2 mi S of US 20 in Dubuque



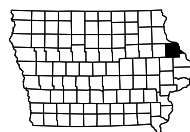
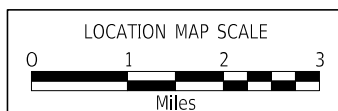
SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



PROJECT LOCATION  
STA 2+52.71



REVISIONS		TOTAL
		18
PROJECT IDENTIFICATION NUMBER		
20-31-061-040		
PROJECT NUMBER		
BRF-061-8(159)--38-31		
R.O.W. PROJECT NUMBER		
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INDEX OF SHEETS	
No.	DESCRIPTION
<b>A Sheets</b>	<b>Title Sheets</b>
A.1	Title Sheet
<b>B Sheets</b>	<b>Typical Cross Sections and Details</b>
B.1 - 2	Typical Cross Sections and Details
<b>D Sheets</b>	<b>Mainline Plan and Profile Sheets</b>
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2	"GrandView Avenue"
<b>E Sheets</b>	<b>Side Road Plan and Profile Sheets</b>
* E.1	"US 61"
<b>G Sheets</b>	<b>Survey Sheets</b>
G.1 - 3	Reference Ties and Bench Marks
G.4	Horizontal Control Tab. & Super for all Alignments
<b>J Sheets</b>	<b>Traffic Control and Staging Sheets</b>
J.1	Traffic Control Plan and 511 Travel Restrictions Note
* J.2 - 4	Off site Detour Plan
<b>V Sheets</b>	<b>Bridge and Culvert Situation Plans</b>
V.1	Bridge and Culvert Situation Plans
<b>W Sheets</b>	<b>Mainline Cross Sections</b>
W.1 - 3	GrandView Ave Cross Sections * Color Plan Sheets



~~Schedule :~~  
D5 - 08 / 27 / 2021  
D4 - 08 / 23 / 2022

DESIGN DATA RURAL		
2017	AADT	6000 V.P.D.
20 --	AADT	-- V.P.D.
20 --	DHV	-- V.P.H.
	TRUCKS	-- %
	Total	
	Design ESALs	--

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

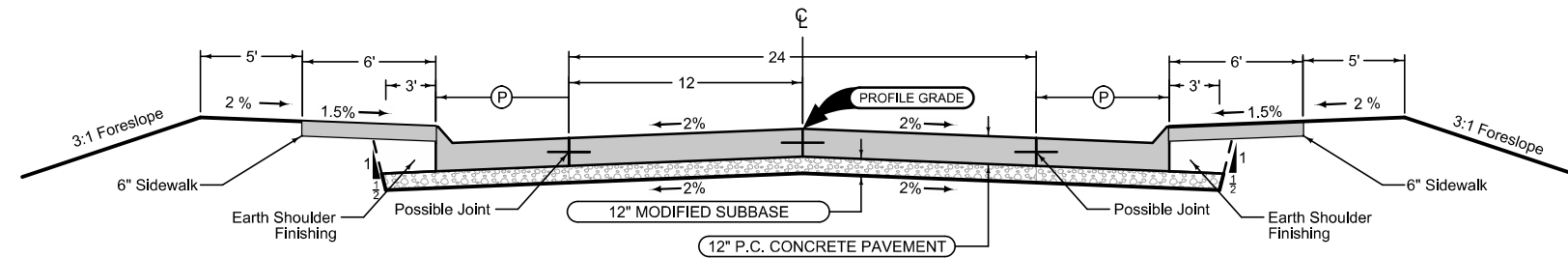
# PRELIMINARY PLANS

Subject to change by final design.

D3 P [Updated 2-17-2022] / 2021

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

STATION TO STATION		(P) Feet	Curb Type See PV-102
1+79.11	1+94.11	10.5	6" STD
3+17.11	3+37.11	10.5	6" STD



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

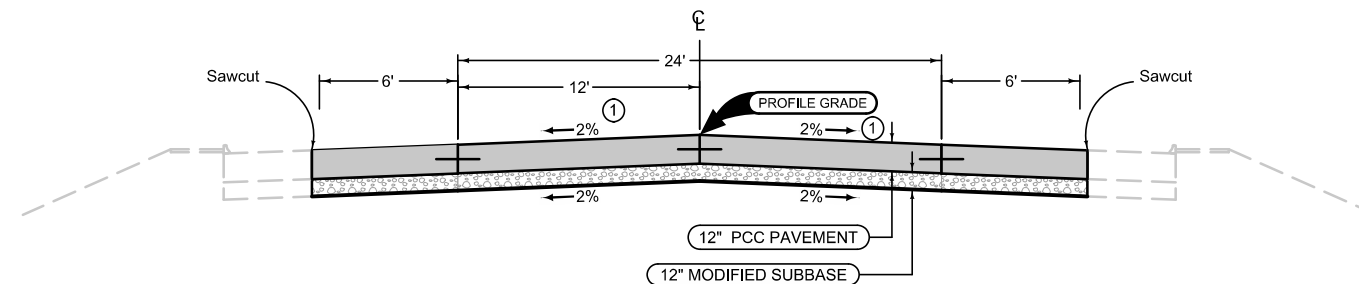
STATION TO STATION		(P) Feet	Curb Type See PV-102
1+79.11	1+94.11	10.5	6" STD.
3+17.11	3+37.11	10.5	6" STD.

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

STATION TO STATION	
1+79.11	1+94.11
3+17.11	3+37.11

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.

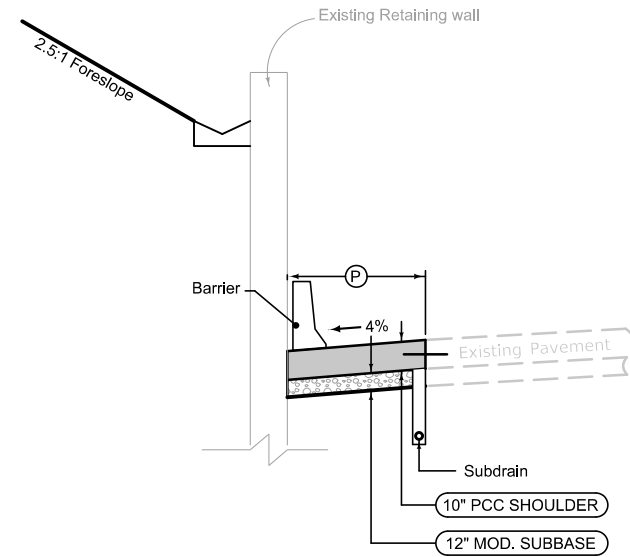


Mainline Jointing:  
 Transverse joints: CD at 17' spacing  
 Longitudinal joint: L-2

STATION TO STATION	
1+67.70	1+79.11
3+37.11	3+49.58

① See cross sections for Cross slope

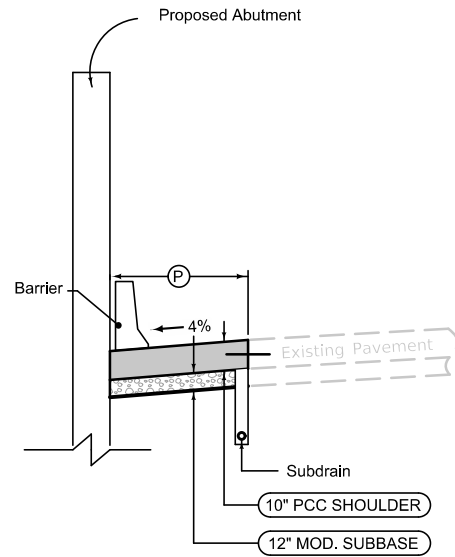
**GRANDVIEW AVENUE  
 PAVING**



**Full Depth PCC Shoulder**

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

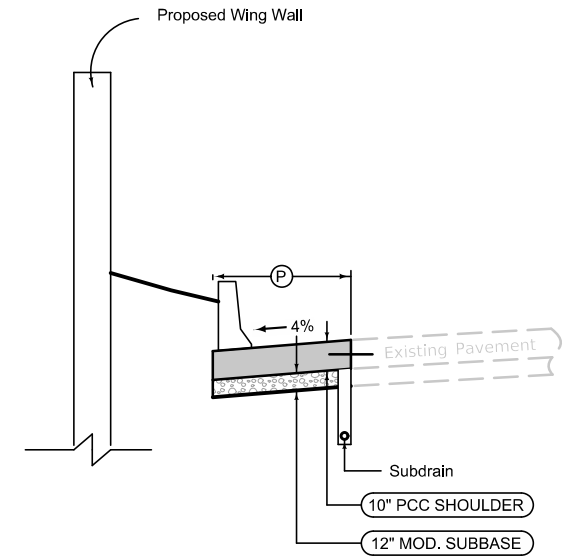
2_P_FullPCC_04-21-20			
Route	Direction	STATION TO STATION	
US 61	SB	126+97.75	127+57.23



**Full Depth PCC Shoulder**

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

2_P_FullPCC_04-21-20			
Route	Direction	STATION TO STATION	
US 61	SB	127+57.23	128+19.60



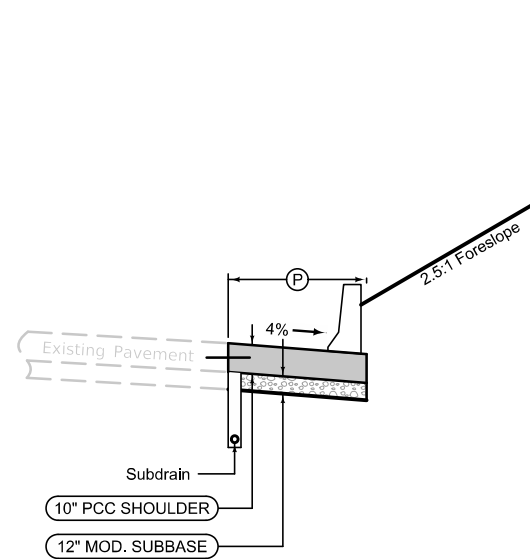
**Full Depth PCC Shoulder**

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

2_P_FullPCC_04-21-20			
Route	Direction	STATION TO STATION	
US 61	SB	128+19.60	128+63.37

(P) See L.2 Sheet and X-section for Shoulder width

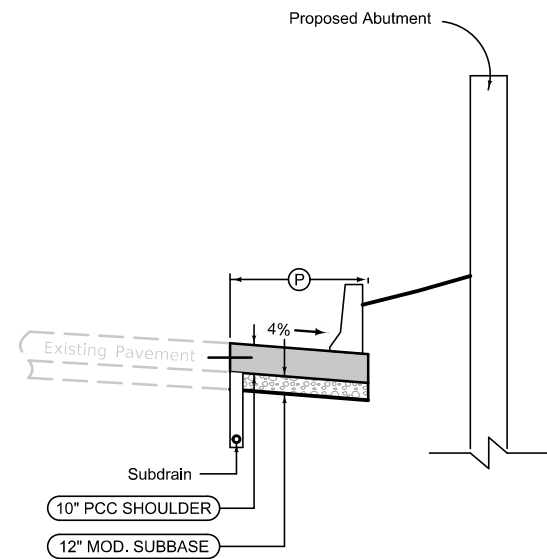
**US 61 SB  
 BARRIER & SHOULDER PAVING**



**Full Depth PCC Shoulder**

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

2_P_FullPCC_04-21-20			
Route	Direction	STATION TO STATION	
US 61	NB	126+97.65	127+55.93
US 61	NB	128+16.29	128+36.30



**Full Depth PCC Shoulder**

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

2_P_FullPCC_04-21-20			
Route	Direction	STATION TO STATION	
US 61	NB	127+55.93	128+16.29

(P) See L.2 Sheet and X-section for Shoulder width

**US 61 NB  
 BARRIER & SHOULDER PAVING**

### SURVEY SYMBOLS

- SH Paved Shoulder
- EP Edge of Paved Roads (ML or SR)
- C Centerline BL of Road (ML or SR)
- CON Concrete or A/C Slab
- o BCL Bridge Centerline
- BRG Bridge
- o BD Bridge Deck
- o BLS Bridge Low Steel
- GU Gutter In Front of Curb
- CU Back of Curb
- LIN Miscellaneous Line
- SWK Sidewalk
- o GR Ground Shot
- BL Topo Breakline
- SIGN St Sign
- ⊕ TDC Tree Deciduous
- ⊗ SHR Shrub
- o SBR Size of Bridge
- ⊠ FENO FENO Monument
- o CP Control Point
- o WC Wild Card (Misc. Field Shot)
- UB Utility Box
- o LUM Luminaire
- ⊕ FHD Fire Hydrants
- ⊕ PPA Power Pole Co. 1
- ⊕ MIS Miscellaneous
- LIN Miscellaneous Line
- ⊕ MH Utility Access (Manhole)
- ⊗ IN Storm Sewer Intake
- G — GL1D Gas Line Co. 1 - Quality D
- E1 — EL1D Electric Line Co. 1 - Quality D
- W — WL1D Water Line Co. 1 - Quality D
- F02 — FO2D Fiber Optic Co. 2 - Quality D
- F0 — FO1D Fiber Optic Co. 1 - Quality D
- ⊗ INB Storm Sewer Beehive Intake
- ⊕ GV Gas Valve
- PIP Pipe Culvert
- o UE Utility Elevation
- ⊕ WV Water Valve
- PLG Location of General Photo
- o PRO Profile Shot
- TIL Tile Line

### UTILITY LEGEND

- G — GL1D Gas Line Black Hills Energy - Quality D
- E1 — EL1D Electric Line City of Dubuque - Quality D
- W — WL1D Water Line City of Dubuque - Quality D
- F02 — FO2D Fiber Optic Centurylink - Quality D
- F0 — FO1D Fiber Optic City of Dubuque - Quality D
- ⊕ PPA Power Pole Alliant Energy

### 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	

### PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

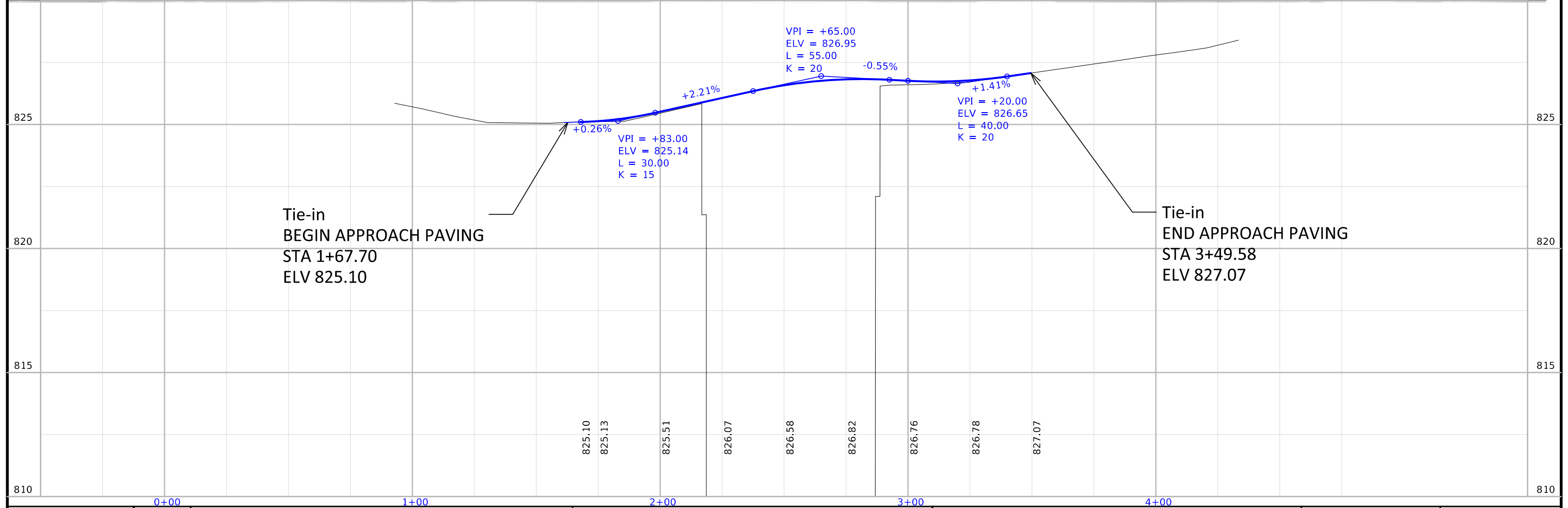
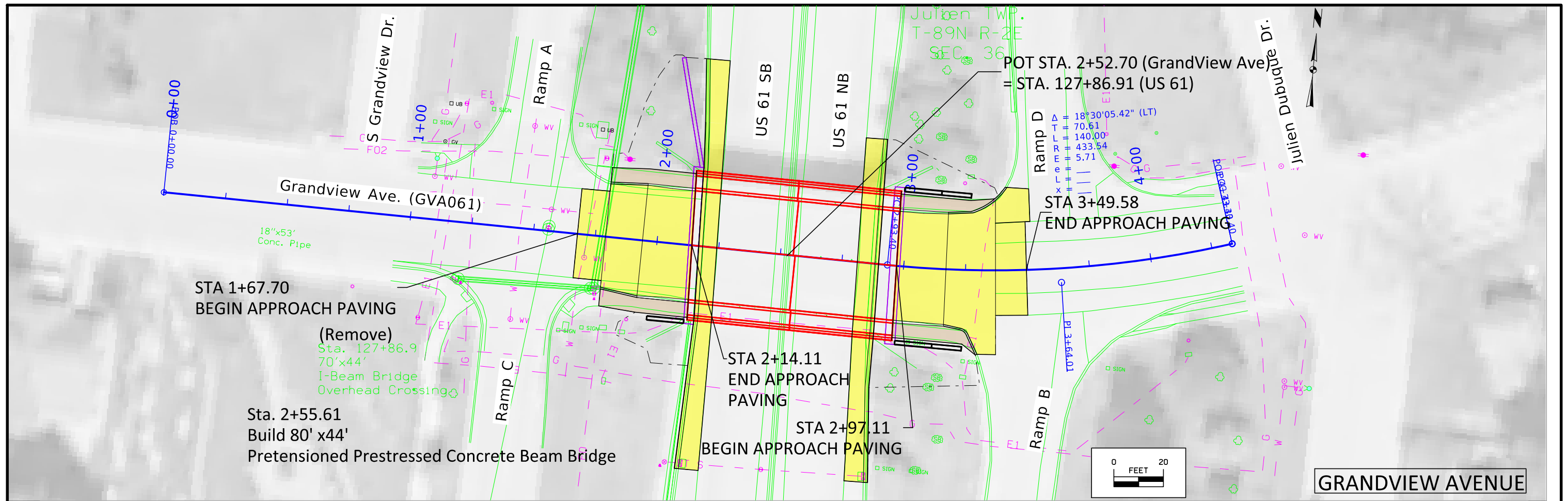
LINEWORK		Design Color No.	
Green	(2)	Existing Ground Line Profile	
Blue	(1)	Proposed Profile and Annotation	
Magenta	(5)	Existing Utilities	
Blue, Light	(230)	Proposed Ditch Grades, Left	
Black	(0)	Proposed Ditch Grades, Median	
Rust	(14)	Proposed Ditch Grades, Right	

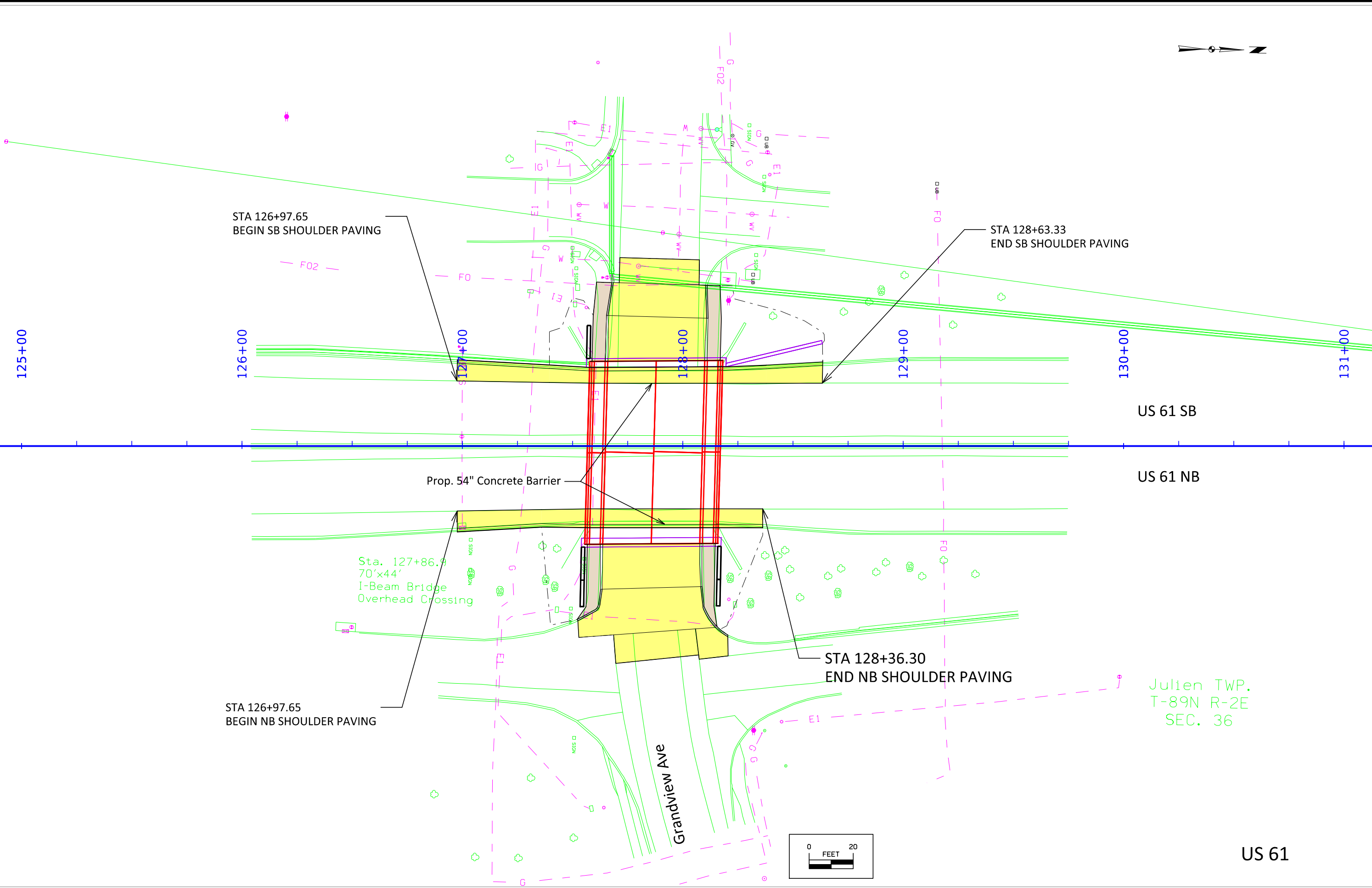
- Reference Point
- Station
- ▲ Section Corner
- Ground Line Intercept
- //// Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- ▨ Pavement Removal
- ▩ Clearing & Grubbing Area

- ### RIGHT-OF-WAY LEGEND
- ▲ Proposed Right-of-Way
  - △ Existing Right of Way
  - ▲△ Existing and Proposed Right-of-Way
  - △△ Easement and Existing Right-of-Way
  - Easement (Temporary)
  - Easement
  - C/A Access Control
  - Property Line

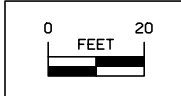
## PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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





Julien TWP.  
T-89N R-2E  
SEC. 36



US 61

## Survey Information

Dubuque County  
BRF-061-8(159)—38-31  
Grandview Ave 1.2 mi S of US 20 in Dubuque  
Bridge Replacement-PPCB  
PIN 20-31-061-040  
Sap-199.3

### General Information

Measurement units for this survey are US survey feet. This survey is for proposed replacement of the Grandview Ave bridge over US Hwy 61/52/151. Project datum and control information is provided by Design Survey Office. This project is a Full DTM. This survey request was for the US Hwy 61 and Grandview Ave corridors.

### Vertical Control

Vertical datum for this survey is NAVD88 (Computed using Geoid12b). GRS80 Ellipsoidal Height was computed at project Pts. 524515, 524525, and CP1 by conducting one concurrent five-hour static observation. Additional benchmarks were placed throughout the project using a GNSS Base-Rover setup relative to Pts. 524515 and CP1.

No As-Built Plan benchmarks could be located, however survey elevations obtained on the bridge seats have an average vertical difference relationship with the plan bridge seat elevations as follows:

As-built Plan U-UG-17(6) Bridge Design No. 255  
West abutment low step bridge seat plan elev. = 819.23  
Survey average low step bridge seat elev. = 821.36

East abutment low step bridge seat plan elev. = 819.99  
Survey average low step bridge seat elev. = 822.10

The average vertical difference is +2.12 to be applied to as built elevations.

### Horizontal Control

The project coordinate system for this survey is Iowa RCS Zone 11 (U.S. Survey Feet). This survey control is relative to laRTN reference stations. laRTN Reference Station coordinates are relative to the National Reference Station network datum: NAD83 (2011) for Epoch 2010.00. Coordinates were determined by conducting one concurrent five-hour static observation at project control Pts. 524515, 524525, and CP1. Additional control points were placed throughout the project using a GNSS Base-Rover setup relative to Pts. 524515 and CP1.

### Alignment Information

The horizontal alignment for U.S. Hwy 61/52/151 this survey is a retrace of As-built Plan No. NHSX-052-2(83)—3H-31. Survey stationing was equated to the plan TS at Sta. 132+11.96 and run back without equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

TS Sta. 132+11.96 As-built Plans Project No. NHSX-052-2(83)—3H-31  
Survey TS Sta. 132+11.96

POT Sta. 127+86.95 As-built Plans Project No. NHSX-052-2(83)—3H-31  
Survey POT Sta. 127+86.91

PT Sta. 102+51.93 As-built Plans Project No. NHSX-052-2(83)—3H-31  
Survey PT Sta. 102+51.97



## 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

VERT. DATUM: NAVD88

1a. Regional Coordinate System Zone 11

Coordinate listing from next sheet will be used with 1aRTN for monument recovery. No other reference ties are given.



HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

1a. Regional Coordinate System Zone 11

Project Control Marks are Bench Marks

Point Name	Northing	Easting	Elevation	Code	Note
524515	8411480.474	21463797.161	821.250	FENO	SET FENO MON TOP OF BACK SLOPE N BOUND US HWY 61 AND S GRANDVIEW AVE OFF RAMP 90 FEET WEST OF JULIEN DUBUQUE DR AND 43 FEET EAST OF MANHOLE
524525	8412632.278	21463592.276	782.582	FENO	SET FENO MON 18 FEET WLY OF S BOUND US 61 AND S GRANDVIEW AVE OFF RAMP 65 FEET SSW OF TRANSMISSION LINE POLE 4.5 FEET EAST OF UTILITY MANHOLE
CP1	8411799.542	21463507.284	827.057	CP	SET 5/8X40 RBR W DIMPLE IN SW QUAD S GRANDVIEW AVE AND ROCKDALE RD 41 FEET WEST OF ROCKDALE RD AND 69 FEET SOUTH OF S GRANDVIEW AVE

**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	GVA061	+00.00	8411869.84	21463399.80															
2	GVA061						2+93.40	8411866.54	21463693.18	3+64.02	8411865.74	21463763.79	4+33.40	8411887.39	21463831.00				
3	ML061	102+51.97	8409332.39	21463693.96															

**SPIRAL OR CIRCULAR CURVE DATA**

Name	Location	ΔSCS	Horizontal Alignment Data													Remarks			
			Spiral Data							Curve Data									
			θS	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	ΔC	T	L	R	E				
C1	GVA061													18.502°	70.613	139.996	433.543	5.713	

**108-23A**  
08-01-08

### TRAFFIC CONTROL PLAN

On US 61, maintain 2 lanes of traffic in both directions at all times, except as follows:  
 - Utilize TC-454 for the removal of the existing bridge beams and placement of new beams over US 61.  
 - Utilize TC-421 for construction of abutment, retaining walls, and shoulder construction.

Grandview Ave. will be closed during construction and traffic will be maintained via detour.

Grandview Ave. ramp traffic will be maintained during stages 1 and 3.  
 Grandview Ave. ramp traffic will be closed during stage 2 for abutment construction.

**108-26A**  
08-01-08

### STAGING NOTES

Stage 1:  
 Traffic:  
 Maintain US 61 traffic with TC-454  
 Close Grandview Ave. and maintain traffic via detour  
 Construction:  
 Remove existing bridge

Stage 2:  
 Traffic:  
 Maintain Grandview Ave. detour  
 Close Grandview Ave. Ramps.  
 Construction:  
 Construct bridge abutments.

Stage 3:  
 Traffic:  
 Maintain Grandview Ave. detour  
 Open Grandview Ave. ramps to traffic.  
 Construction:  
 Finish bridge construction and approaches.  
 Construct US 61 shoulders and barrier.

**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 61	NB/SB	DUBUQUE	IN DUBUQUE 1 MI S OF US 20	US 61	Bridge	23950-FHWA Number	Vertical	16.25'				

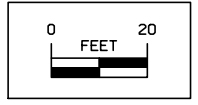
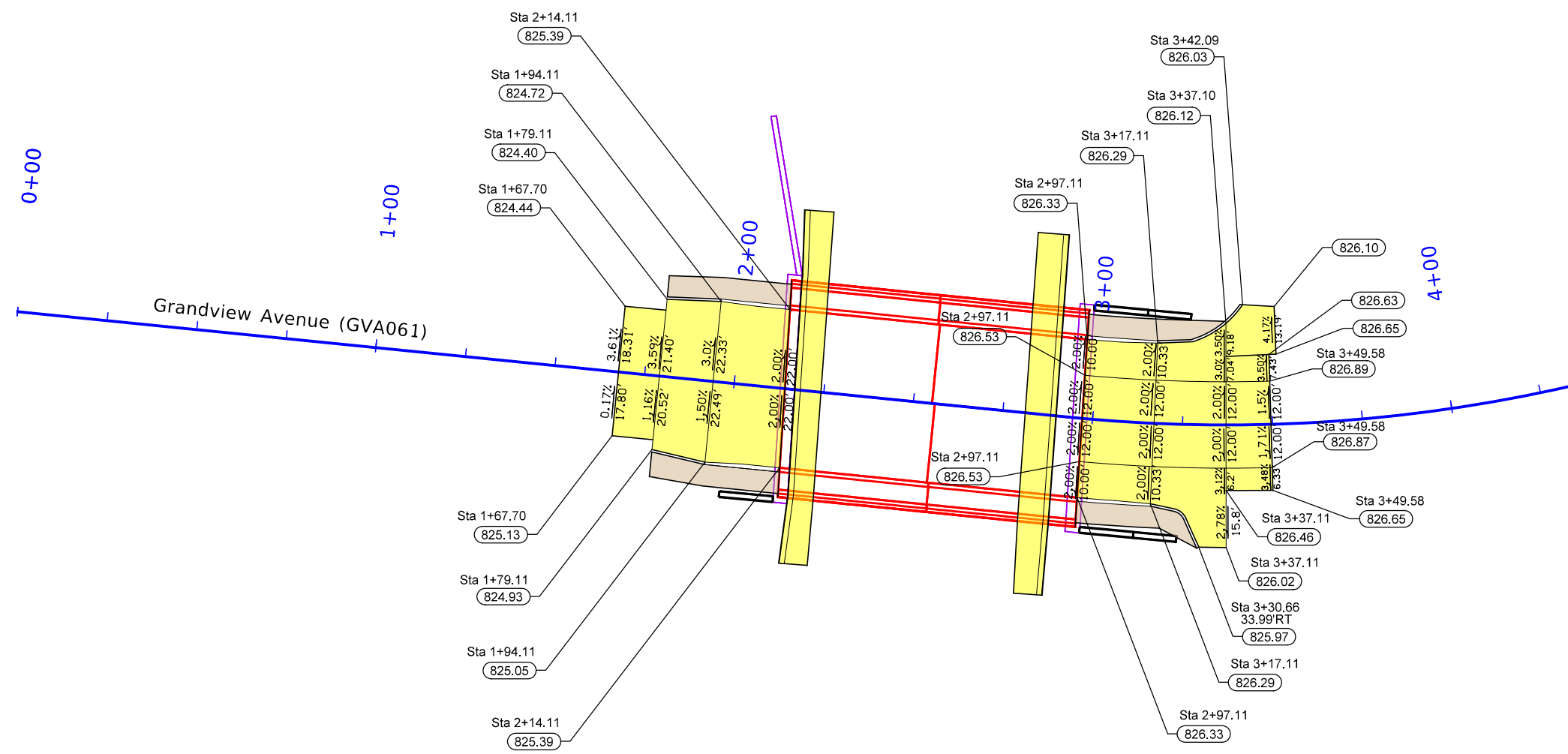
**113-2**  
04-16-13

### PEDESTRIAN PATH CLOSURES

Refer to TC-001.

\*Assumes 6 foot wide barricade.  
 Closures may need to be removed and re-established.

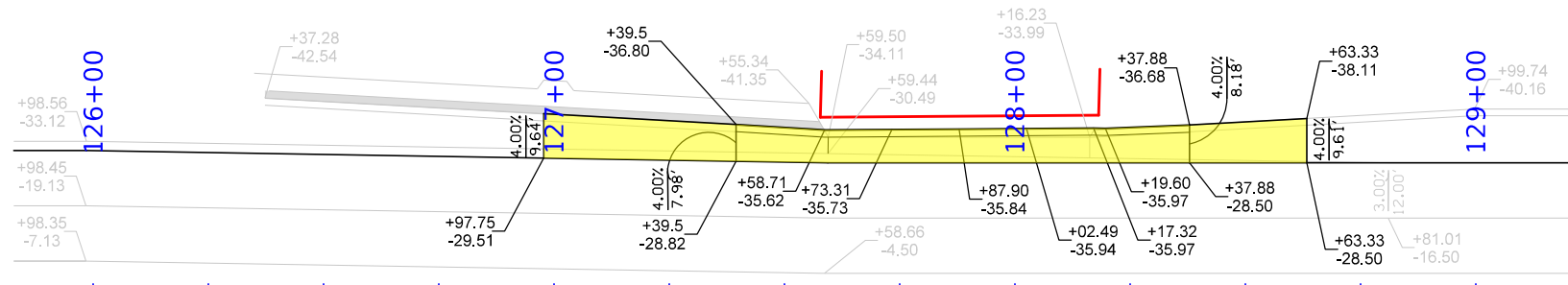
Location	Side	Type III Barricades*	Remarks
		No.	
Sidewalk at Grandview Ave over US 61 Bridge	LT	1	SW Quadrant during construction
Sidewalk at Grandview Ave over US 61 Bridge	RT	1	SE Quadrant during construction
Sidewalk at Grandview Ave over US 61 Bridge	LT	1	NW Quadrant during construction
Sidewalk at Grandview Ave over US 61 Bridge	RT	1	NE Quadrant during construction



STAKING DETAIL  
GRAND VIEW AVENUE



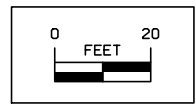
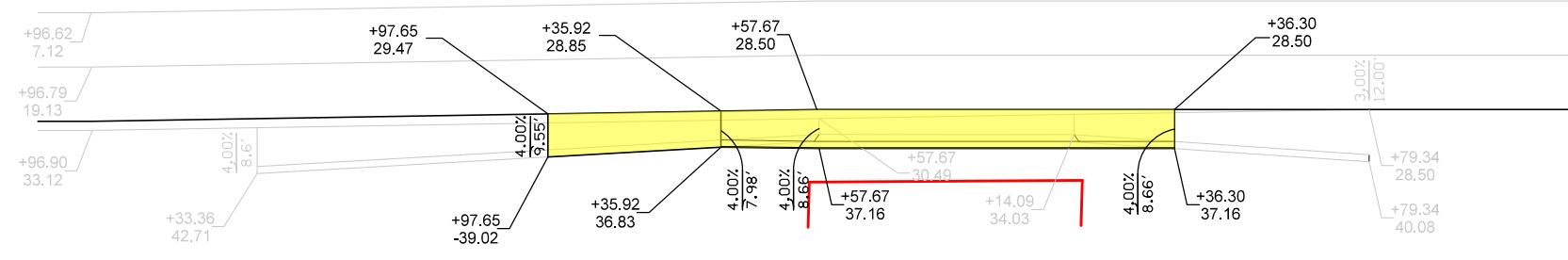
125+00



130+00

US 61

US 61



Staking Details  
US 61

