LETTING DATE **July 17, 2029**

Bridge Replacement

IMX-880-1(3)8--02-78

Pottawattamie COUNTY

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	**Title Sheets**
A.1	Title Sheet
A.2	Location Map Sheet
A.3 - 15	Concept
A.16 - 22	Design Criteria
B Sheets	**Typical Cross Sections and Details**
B.1 - 4	Typical Cross Sections and Details
D Sheets	**Mainline Plan and Profile Sheets**
D.1	Plan & Profile Legend & Symbol Information Sheet
D.2	I-880
E Sheets	**Side Road Plan and Profile Sheets**
E.1	Co Rd L34
G Sheets	**Survey Sheets**
G.1 - 3	Reference Ties and Bench Marks
J Sheets	**Traffic Control and Staging Sheets**
J.1	Traffic Control & Staging Legend & Symbol Info. Sheet
J.2	Traffic Control Plan
J.3	Staging Notes
U Sheets	**500 Series, Mod.Stds. and Detail Sheets**
U.1 - 6	I-880 Layout Options
W Sheets	**Mainline Cross Sections**
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 19	I-880 Cross Sections
X Sheets	**Side Road Cross Sections**
X.1 - 9	Co Rd L34 Cross Sections

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM

Pottawattamie COUNTY

Bridge Replacement

Co Rd L34 Interchange (EB/WB)

SCALES: As Noted

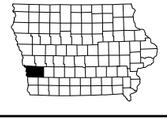
Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.13 of the Specifications.

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

REVISIONS

TOTAL
45
PROJECT IDENTIFICATION NUMBER
21-78-880-010
PROJECT NUMBER
IMX-880-1(3)8--02-78
R.O.W. PROJECT NUMBER
IMN-880-1(009)8--0E-78



I-880 DESIGN DATA RURAL			
20 50	AADT	8200	V.P.D.
20 –	AADT	--	V.P.D.
20 –	DHV	--	V.P.H.
TRUCKS		34%	%
Total Design ESALs		--	

D3 PLAN - 12/18/26
B1 PLAN - 04/16/27
D5 PLAN - 06/04/27
R1 PLAN - 09/03/27
D4 PLAN - 03/06/29

PRELIMINARY PLANS

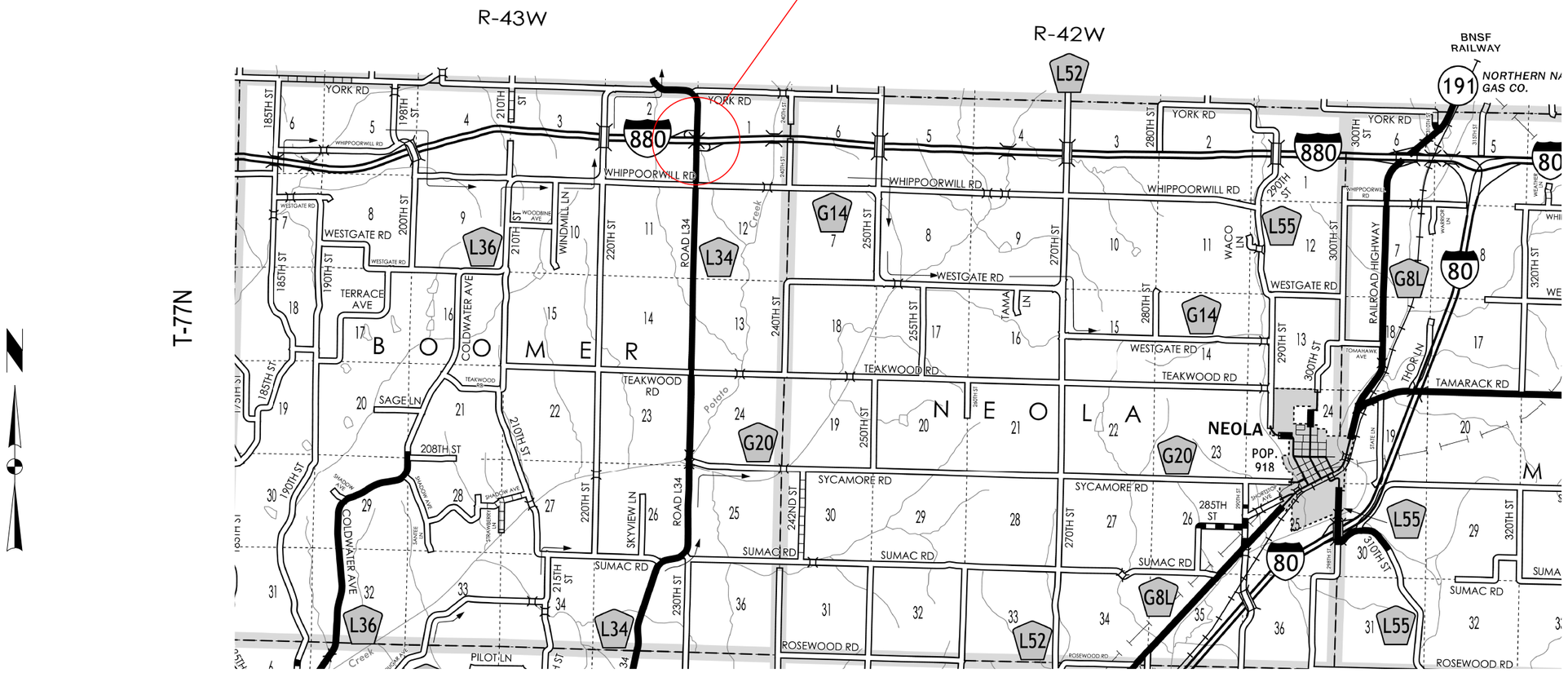
Subject to change by final design.

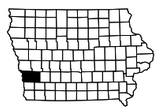
D2 PLAN - 9/23/26

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER A.1

9:47:13 AM 9/22/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_A01.dgn

PROJECT LOCATION
I-880 Bridges over Co Rd L34 (EB/WB)
FHWA 44390 (Maint No. 7808.1R880)
FHWA 44400 (Maint No. 7808.1I880)





LOCATION MAP SCALE
Not to Scale

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER A.2	

IOWA DEPARTMENT OF TRANSPORTATION

TO OFFICE: District 4 **DATE:** December 16, 2025

ATTENTION: Scott Schram **PROJECT:** Pottawattamie County
IMX-880-1(3)8--02-78
PIN: 21-78-880-010

FROM: John E. Bartholomew

BUREAU: Design

SUBJECT: Project Concept Statement; (Final, D0)

This project involves the replacement of the I-880 bridges FHWA 44390 (Maint No. 7808.1R880) and FHWA 44400 (Maint No. 7808.1l880) over County Road L34.

A concept review was held on June 5, 2025. Those present included Scott Schram, Wes Mayberry, Nathanial Epperson, Daniel Redmond and Austin Yates from the District 4 Office; Sam Sturtz, Jim Galliart, Christine Schwienebart, Shawn Goetz and Chelsea Duncan from the Location and Environment Bureau; and John Bartholomew, Jason Holtz, Yan Jia and Joe Adams from the Design Bureau.

The two alternatives considered were:

1. Replace the dual 152’ x 45’ pretensioned prestressed concrete beam bridges with dual 170’ x 56’-10” prestressed concrete beam bridges and to lower County Road L34 below the bridges by approximately 3’. **Estimated cost $6,796,560.**
2. Replace the dual 152’ x 45’ pretensioned prestressed concrete beam bridges with dual 170’ x 56’-10” prestressed concrete beam bridges and a 3’ grade raise on I-880. This was dismissed due to the ability to Lower CR L34.

Alternative 1 is the preferred alternative due to due to lower cost and reduced complexity. Additional right of way/right of entry may be required. Traffic will be maintained by median crossovers.

The Draft Project Concept Statement was sent out for review and comment with concerns to be resolved by Monday, December 15, 2025. Comments received during the review period have been considered and resolved.

JEB:jaa

Attach.
cc:

C. Purcell
M. Dell
M. A. Swenson
S. Majors
D. L. Newell
W. Musgrove
A. A. Welch
B. Hofer
D. Lorenzen
J. Holst
T. Lovan
D. Dudley
A. Knight
L. Narigon
M. E. Khoda
J. Sallach
J. Cihacek
S. Suhr
W. Mayberry
N. Mocha
FHWA
K. D. Nicholson
J. S. Nelson
J. Ellis
A. Poole
D. Breitbach
E. C. Wright
J. Harris
G. Karssen
S. Anderson
R. Harris
M. Solberg
L. Armstrong
R. Miller
J. Hauber
M. Gordy
J. Garton
D. Redmond
J. Woodcock
C. Schwienebart
B. Asberry
Y. Jia
M. Nop
C. C. Poole
K. Brink
J. W. Laaser-Webb
M. E. Ross
M. Van Dyke
D. Johnson
D. Stokes
B. Dolan
T. Gustafson
B. Smith
A. Yates
S. Sersland
M. Todsen
O. Lechnowsky
N. Epperson
C. Asberry
T. Frank
J. Keller

FINAL PROJECT CONCEPT STATEMENT

I-880 Bridges over Co Rd L34 Interchange (EB/WB) .

Pottawattamie County
IMX-880-1(3)8--02-78
PIN: 21-78-880-010
Maint. No. 7808.1R880
FHWA No. 44390
Maint. No. 7808.1R880
FHWA No. 44400

Highway Division
Design Bureau

John Bartholomew, P.E.
515-239-1540

December 16, 2025

I. STUDY AREA

A. Project Description

This project involves the replacement of the I-880 bridges FHWA 44390 (Maint No. 7808.1R880) and FHWA 44400 (Maint No. 7808.1l880) over County Road L34.

The two alternatives considered were:

1. Replace the dual 152’ x 45’ pretensioned prestressed concrete beam bridges with dual 170’ x 56’-10” prestressed concrete beam bridges and to lower County Road L34 below the bridges by approximately 3’. **Estimated cost $6,796,560.**
2. Replace the dual 152’ x 45’ pretensioned prestressed concrete beam bridges with dual 170’ x 56’-10” prestressed concrete beam bridges and a 3’ grade raise on I-880. This was dismissed due to the ability to Lower CR L34.

Alternative 1 is the preferred alternative due to lower cost and reduced complexity.

B. Need for Project

These are dual 152’x45’ prestressed concrete beam bridges that were built in 1966. The bridges were overlaid in 1986 and are near the end of their useful life. The bottom and top of the decks have large PC patches and cracking with light leaching. The

beams have collision damage with spalled areas and exposed strands. The substructure also has several heavy leaching cracks, delaminated areas, and spalls with exposed steel. The bridges were designed for live loads below the current standards. Due to the overall condition, the bridges should be replaced.


Left Profile FHWA 44390


Top of Deck FHWA 44390


Right Profile FHWA 44400


Top of Deck FHWA 44400


Roadway Beneath

C. Present Facility

Maint. No. 7808.1R880, FHWA No. 44390 (carries EB I-880) - The existing structure is a 152’ x 45’ prestressed concrete beam bridge constructed in 1966.

Maint. No. 7808.1L80, FHWA No. 44400 (carries WB I-880) - The existing structure is a 152’ x 45’ prestressed concrete beam bridge constructed in 1966.

I-880 in the project area is 24’ wide PCC Concrete pavement with 10’ wide ACC outside shoulders and 6’ ACC inside shoulders, with 4:1 foreslopes. 3” of RAC resurfacing was accomplished in 1982, 4” of AAC resurfacing in 1995, in 2015/16 it was milled 6” and 6” of HMA was applied.

D. Traffic Estimates

The 2030 construction year and 2050 design year average daily traffic estimates are 6700 ADT with 34 % trucks and 8200 ADT with 34 % trucks, respectively.

E. Sufficiency Ratings

I-880 is classified as an “Interstate route” and is a maintenance service level “A” roadway. The Bridge Condition Index is (BCI) is 62.7 and the Bridge Condition Rating is "Fair" for 7808.1R880. The Bridge Condition Index is (BCI) is 51.6 and the Bridge Condition Rating is "Fair" for 7808.1L880.

F. Access Control

Access rights will not be acquired for this project.

G. Crash History

During the five-year study period from January 1, 2020 through December 31, 2024, there was 1 crash including, no fatal crashes, no personal injury crashes, and 1 personal property crashes.

EB LANES
PCR Level All Crashes (KABCO): Negligible
PCR Value All Crashes (KABCO): 0.020247 crash/mile/year

WB LANES
PCR Level All Crashes (KABCO): Negligible
PCR Value All Crashes (KABCO): -0.644637 crash/mile/year

County Road L34
PCR Level All Crashes (KABCO): Negligible
PCR Value All Crashes (KABCO): 0.155417 crash/mile/year
PCR Level All Crashes (KABCO): Negligible
PCR Value All Crashes (KABCO): -0.021925 crash/mile/year

II. PROJECT CONCEPT

A. Feasible Alternatives

Alternative #1 - Replace with a bridge

The existing dual 152’ x 45’ prestressed concrete beam bridges will be replaced with dual 170’ x 56’-10” pretensioned prestressed concrete beam bridges.

The typical cross section adjacent to the bridge will consist of a 24’ wide roadway (40’ wide pavement) with 10’ outside shoulder and 6’ wide inside shoulder.

New bridge approaches will be constructed. The existing guardrail will be replaced with new guardrail and the shoulders will be paved 20’ beyond the ends of the guardrail. Class 10 will be necessary to flatten the existing foreslopes and to construct the new guardrail blisters. Class E revetment will be placed under the bridge for slope protection. New bridge end drains will be constructed on the west ends of the bridges.

County road L34 which runs under I-880, will be removed and lowered approximately 3’ to increase the bridge height to approximately 16’-6” above the roadway. Approximately 1100’ of roadway will be removed and replaced with 8.5” of PCC over 12”over modified subbase with 100% subdrain coverage. The WB ramp entrance/exit apron of county road L34 will be replaced to accommodate and tie in the new roadway level of county road L34.

The typical cross section of CR L34 will consist of a 24’ wide roadway with 6’ shoulders.

Apply erosion control and rural seeding and fertilizing to all disturbed areas.

It appears that no right of way will be required for this project.

One lane of traffic in each direction on I-880 will be maintained via existing crossovers.

Bridge Items	Estimated Costs
New Bridge	$ 3,186,000
Complexity-construction over traffic	212,400
Bridge Removal	328,100
Revetment	193,460
Mobilization - 10%	392,000
M & C - 20%	784,000
Bridge Costs	**$ 5,095,960**
Roadway Items	
Clearing and Grubbing	14,400
Embankment in place, contractor furnished	15,100
Excavation Class 13 Waste	148,600
Modified Subbase	67,800
Granular Shoulder	42,900
Bridge Approach, BR-203	423,300
PCC Pavement 8.5”	147,800
Subdrain, Longitudinal, Shoulder	17,700
Subdrain Outlet, DR-306	2,100
Bridge End Drain, DR-402	14,300
Guardrail (Includes Removal)	7,500
Remove & Reinstall Cable Guardrail	13,000
Removal of Pavement	34,400
Temporary Crash Cushion	2,300
Wetland Mitigation	50,000
Erosion Control	50,000
Crossover Repair	100,000
Seeding and Fertilizing	2,100
Composite-Paved Shoulders Interstate	90,100
Composite-Class 10 Blisters Interstate	58,000
Composite-1660 Guardrail Interstate	59,200
Traffic Control - 5%	85,000
Mobilization - 5%	85,000
M & C - 10%	170,000
Roadway costs	**$ 1,700,600**
Project Total	**$6,796,560**

B. Detour Analysis

There will be no off-site detour for I-880. Traffic will be maintained via existing crossovers. The entrance and exit ramps will be closed during reconstruction of CR L34.

There will be a detour during reconstruction of County Road L34. It is anticipated the detour will be in place for approximately 90 days. The detour would follow county road G30 east at the south junction of county road L34 and county road G30 to County Road G18, then north on County Road G18 to County Road G8L then north on IA 191 to the junction of IA 191 and county road F58, then west on county road F58 to county road L34. Out of distance travel is 20 miles. The total distance user cost is anticipated to be $208,643. The cost for county road maintenance will be $2,975 as calculated by the Gas Tax Method. Detour signing costs will be $10,000.

C. Recommendations

It is recommended that the present structures be replaced, as described in Alternative No. 1.

D. Construction Sequence

It is anticipated that all work on this project will be awarded to one prime contractor. The Bridges and Structures Bureau will coordinate the plan preparation with assistance from the Design Bureau.

E. ADA Accommodations

There are no bike paths or sidewalks adjacent to I-880; therefore, no ADA accommodations are planned in conjunction with this project.

F. Special Considerations

This will be a traffic critical project. Traffic critical projects identify key construction projects across the state that may cause significant safety or mobility issues to the traveling public. Mitigation strategies could include intelligent work zones, TIM plans, workday restrictions, night work, lane rental etc.

Bridges will be staged one at a time. No ABC option is considered, as DOT and the District approval of head-to-head traffic being maintained on opposite bridge during construction.

No bike path or sidewalk will be required as part of this project.

Right of Way does not appear to be required for this project.

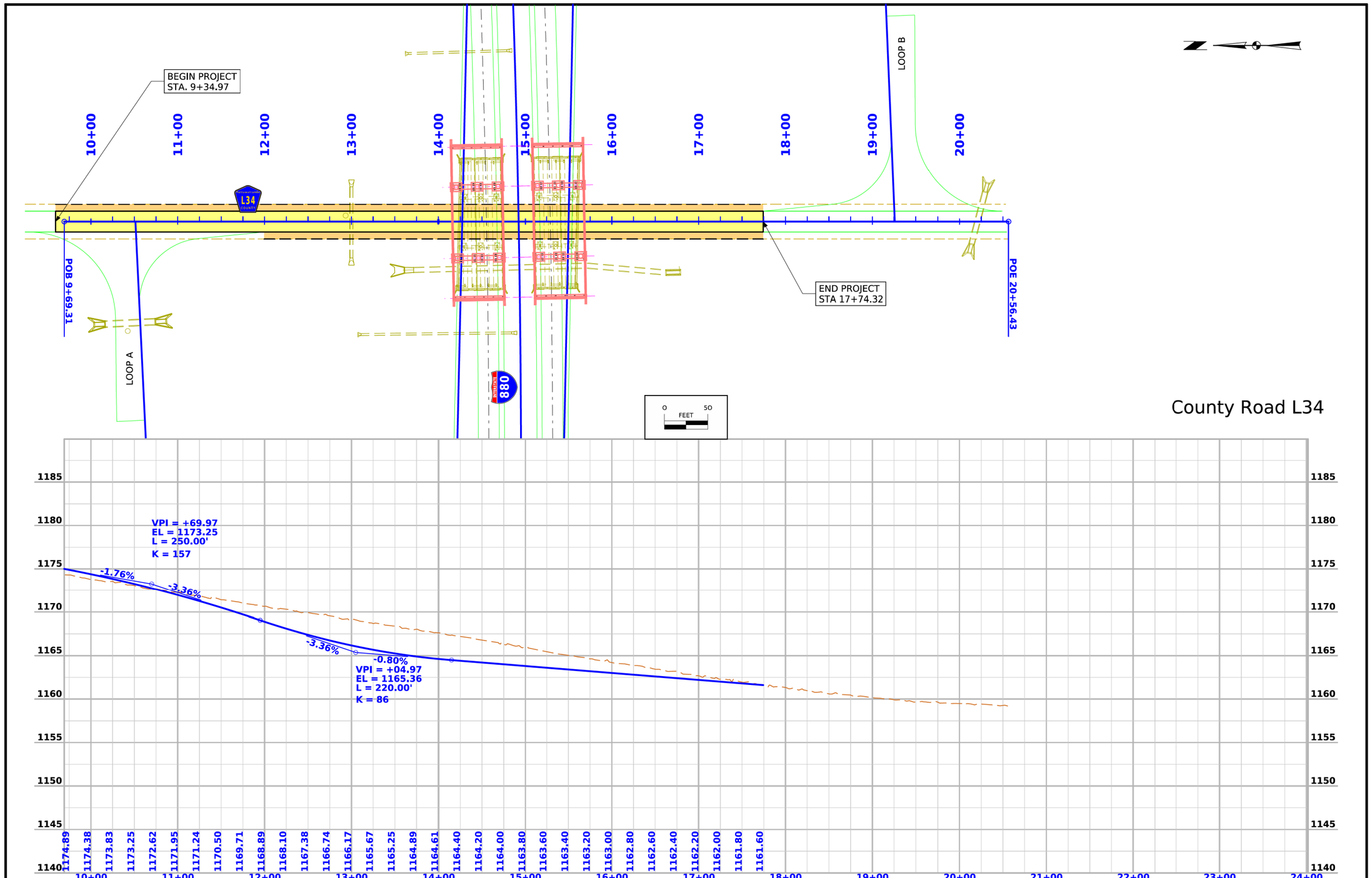
The Location and Environment Bureau has reviewed this project and based on preliminary desktop observations, has determined that a Section 404 Permit will be required. It is expected that the work will be covered by Nationwide Permit 14.

An Environmental Research Study Area (ERSA) has been developed for this project and can be viewed in the concept attachments.

G. Program Status

Site data has been developed by the Design Bureau. This project is listed in the 2026-2030 Iowa Transportation Improvement Program, with $21,200,000 programmed for replacement in FY 2030. Costs for this project may be eligible for bridge replacement funds. A schedule of events will be developed following approval of the Project Concept.

JEB:jaa



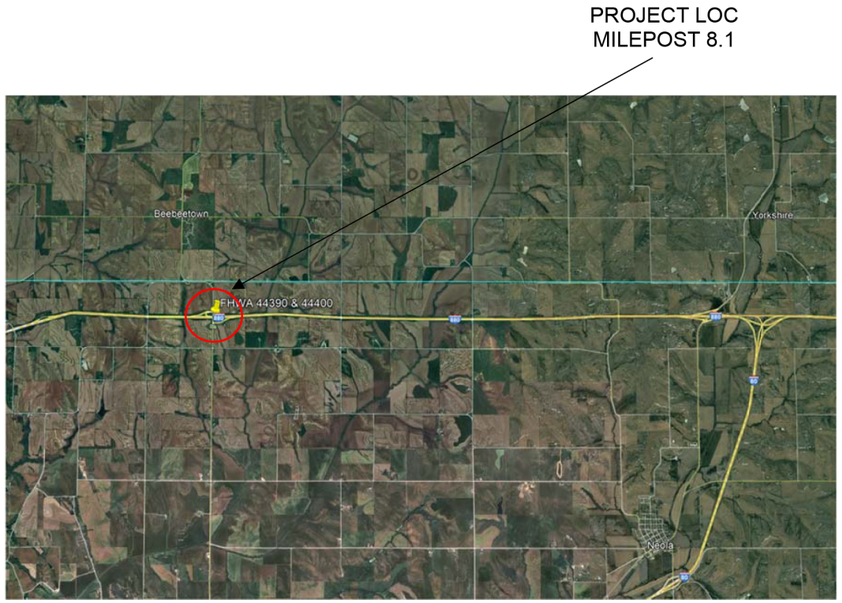
FILE NO.	ENGLISH	DESIGN TEAM			PROJECT NUMBER	SHEET NUMBER
		Miller/Cooper/Koch	Pottawattamie COUNTY		IMX-880-1(3)8--02-78	E1

2:01:05 PM 12/1/2025 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_E.dgn

FILE NO.	ENGLISH	DESIGN TEAM			PROJECT NUMBER	SHEET NUMBER
32219		Miller/Cooper/Koch	Pottawattamie COUNTY		IMX-880-1(3)8--02-78	A.8

10:56:47 AM 9/9/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_A.dgn

POTTAWATTAMIE COUNTY



ON I 880, AT JUNCTION OF Co Rd L34
IMX-880-1(3)8--02-78
PIN: 21-78-880-010



78

Bridge Bureau Attachment for Concept Statement

Date: October 27, 2025
By: Mark Currie
Location: I-880 over L34

County: Pottawattamie County
Phase No.: IMX-880-1(3)8--02-78
Project Code: 21-78-880-010

1. Regulatory/Coordination
   a. Iowa DNR Flood Plain permit = No
   b. Iowa DNR Sovereign Lands permit = No
   c. Local Record of Coordination = No
   d. Flood Insurance Study = No
   e. Drainage District = No
   f. Corps of Engineers Section 408 = No
   g. State Water Trail or Paddling Route = No
   h. Historic Structure = No
   i. Federally owned land in vicinity = No
   j. USGS or Iowa Flood Center (IFC) gage or sensor impacted? No
   k. Obstruction Evaluation/Airport Airspace Analysis per FAA website = No

2. Hydrologic/Hydraulic Analysis/RIDB Dataset
   a. No hydrologic/Hydraulic Analysis required for grade separation interchange.

3. Structure/Roadway Layout Considerations
   a. Existing I-880 mainline horizontal alignment and EB/WB centerline vertical profiles were used to establish the proposed bridge geometry. Proposed bridges will be centered at the same intersecting stations of I-880 and L34 as existing bridges. Straight bridges will be defined along an established chord line, as this section of I-880 has a 17,190’ horizontal curve.
   b. The WB bridge width was established to provide a minimum 6’ inside shoulder and a 6’ outside ramp shoulder. The EB bridge width was established to provide a minimum 6’ inside shoulder and a 10’ outside ramp shoulder, as the ramp shoulder transitions to 6’ east of the bridge. Bridge widths were mirrored established by mirroring critical offsets of each bridge so that similar cross sections could be maintained for each bridge. If consideration is given by the road design team to full-width deceleration lanes with new alignments, proposed bridge widths should be reviewed.
   c. The L34 profile was lowered to provide 16’-6” minimum vertical clearance below both bridges. The profile adjustment will extend beyond I-880 ramp tie-ins north and south of the bridge and will be lowered approximately 3’ under the north edge of the WB I-880 bridge.
   d. Piers were located to provide adequate horizontal clear zone distance from the L34 lanes such that no pier protection is required.
   e. Piers were also located to provide adequate horizontal clearance between existing and proposed foundations.

f. Abutments were located to provide adequate horizontal clearance to existing abutment piles.
g. The existing 5’ x 5’ RCB culvert under the west abutment berm is to be replaced as part of the project. Positive drainage should be confirmed during preliminary design, as the L34 vertical profile and ditching is being flattened under the bridge.

4. Special construction issues
   a. It is desirable for new structure foundations to avoid existing foundations when possible.

5. Special survey = Yes-See below.

6. Aesthetic enhancements = No.

7. Other
   a. Bridges will be staged one at a time. No ABC option is considered, as DOT and District approve of head-to-head traffic being maintained on opposite bridge during construction.

Special Survey:

1. Flowline elevations of the tapered inlet and flumed outlet of the existing 5’ x 5’ RCB culvert under the west span of the existing bridge should be obtained for hydraulic analysis.
2. Flowline elevations of the inlet and outlet of the 6’ x 6’ RCB culvert under the north ramp should be obtained for hydraulic analysis.
3. Extensive deck and approach roadway elevation surveys along the superelevated curve should be obtained to establish the proposed cross-slopes across the bridges.
4. Condition assessments should be performed for existing crossroad pipes under the westbound roadway on each end of the bridge if they are present.

Bridge Cost Estimate and Analysis for Concept Statement

Location:

County: Pottawattamie County
Phase No.: IMX-880-1(3)8--02-78
Des. No.: N/A
Project Code: 21-78-880-010
Maint. No.: 7808.1R880,7808.1L880
FHWA No.: 44390 (EB), 44400 (WB)
On I-880 over L34
Sta.: 431+02.93
Sections 1 & 2, T-77N, R-43W
Functional Class:
ADT: 2850 vpd (EB), 2850 vpd (WB)
Principal Arterial - Interstate
By: Mark Currie (Veenstra & Kimm)
Date: 10/27/2025

Existing Bridge:

Type: Dual PPCBs
Length x Width: 146’-8” x Varies
Pier Type: Frame Pier
Abut. Type: Stub
Spans: 47’-3½”, 56’-3”, 43’-1½”
Approach Pavement Width: Varies
Skew: 0 degrees
Drainage Area: N/A
New/Reconstructed Roadway Width: 56’-10” Curb-to-Curb, 60’-0” Out-to-Out

General Comments:

- Proposed bridge length developed using following assumptions:
  - Center span geometry provides adequate horizontal clear zone distance such that no pier protection is required.
  - Piers located to provide adequate horizontal clearance to existing pier piles.
  - Abutments located to provide adequate horizontal clearance to existing abutment piles.
- L34 profile to be lowered to provide 16’-6” minimum vertical clearance below bridges. Profile adjustment to extend beyond I-880 ramp tie-ins north and south of the bridge. Profile to be lowered approximately 3’ under the north edge of the WB I-880 bridge to provide vertical clearance based on maintaining existing I-880 vertical profile.
- Consideration was given to a vertical profile raise on I-880 to maintain L34 profile. This option was eliminated at the Kick-Off Meeting based on comparative cost between the two options and District approval for the constant width bridge.
- Consideration was given to using tapered bridge deck geometry to reduce costs based on initial ramp lane geometry. This option was eliminated at the Kickoff-Off Meeting based on minimal cost savings when comparing constant bridge width vs. tapered bridge width and the potential for full-width deceleration lates to be provided on both bridges which would require constant-width bridges.
- 5’ x 5’ RCB culvert replacement under west abutment berm is required after condition assessment.

Bridge Concept Statement

Pottawattamie County
Project Number IMX-880-1(3)8--02-78

Option A - Dual Bridges

EB Bridge

Type: PPCB — Length x Width: 170’-0” x 56’-10”
Pier Type: Frame — Abutment Type: Integral
Spans: 45’-0”, 80’-0”, 45’-0” — Skew: 0 degrees
Stage Traffic: Head-to-Head on WB Bridge

Costs:

Bridge - 10,620 sf @ $150/sf	= $ 1,593,000
Complexity - Construction over Traffic - 10,980 sf @ $10/sf	= $ 106,200
Remove Exist. Bridge - 8,202.6 sf @ $20/sf	= $ 164,050
Macadam Stone Slope Protection - 1488 sy @ $65/sy	= $ 96,730
Mobilization (10%)	= $ 196,000
Contingency and Misc. (20%)	= $ 392,000
Total EB Bridge Option A	$ 2,547,980

WB Bridge

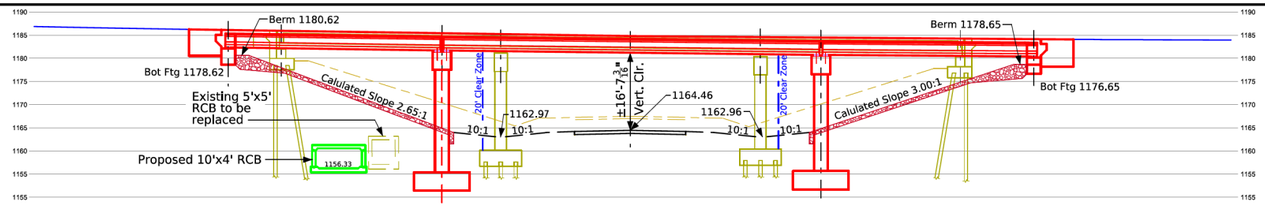
Type: PPCB — Length x Width: 170’-0” x 56’-10”
Pier Type: Frame — Abutment Type: Integral
Spans: 45’-0”, 80’-0”, 45’-0” — Skew: 0 degrees
Stage Traffic: Head-to-Head on WB Bridge

Costs:

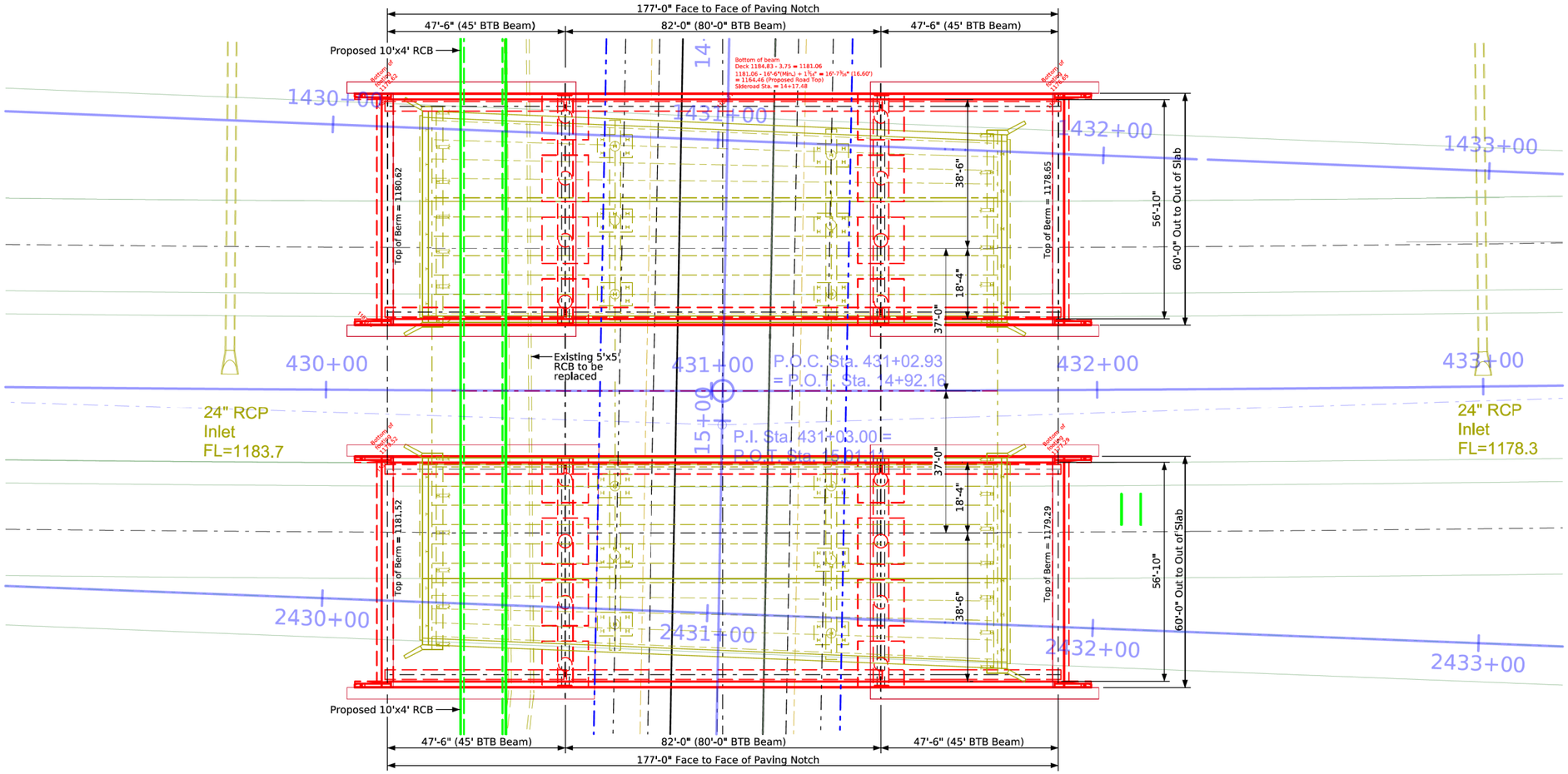
Bridge - 10,620 sf @ $150/sf	= $ 1,593,000
Complexity - Construction over Traffic - 10,980 sf @ $10/sf	= $ 106,200
Remove Exist. Bridge - 8,202.6 sf @ $20/sf	= $ 164,050
Macadam Stone Slope Protection - 1488 sy @ $65/sy	= $ 96,730
Mobilization (10%)	= $ 196,000
Contingency and Misc. (20%)	= $ 392,000
Total EB Bridge Option A	$ 2,547,980
Total Option A Dual Bridges	**$ 5,095,960**

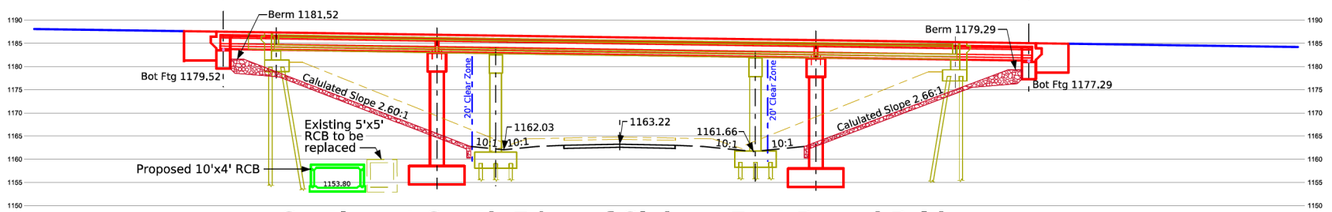
Accelerated Bridge Construction (ABC):

Bridges will be staged one at a time. No ABC option is considered, as DOT and District approve of head-to-head traffic being maintained on opposite bridge during construction.

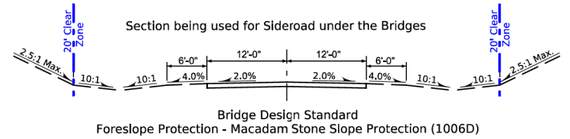


Section at North Gutter Line West Bound Bridge





Section at South Edge of Slab on East Bound Bridge



Design Notes:

80' Beam length used to clear existing bridge pier footings using a proposed pier footing of 12' x 12' around columns.

Design For

End Spans — Interior Span

Concept Situation Plan

STA. ( ) — Turn-in Date:

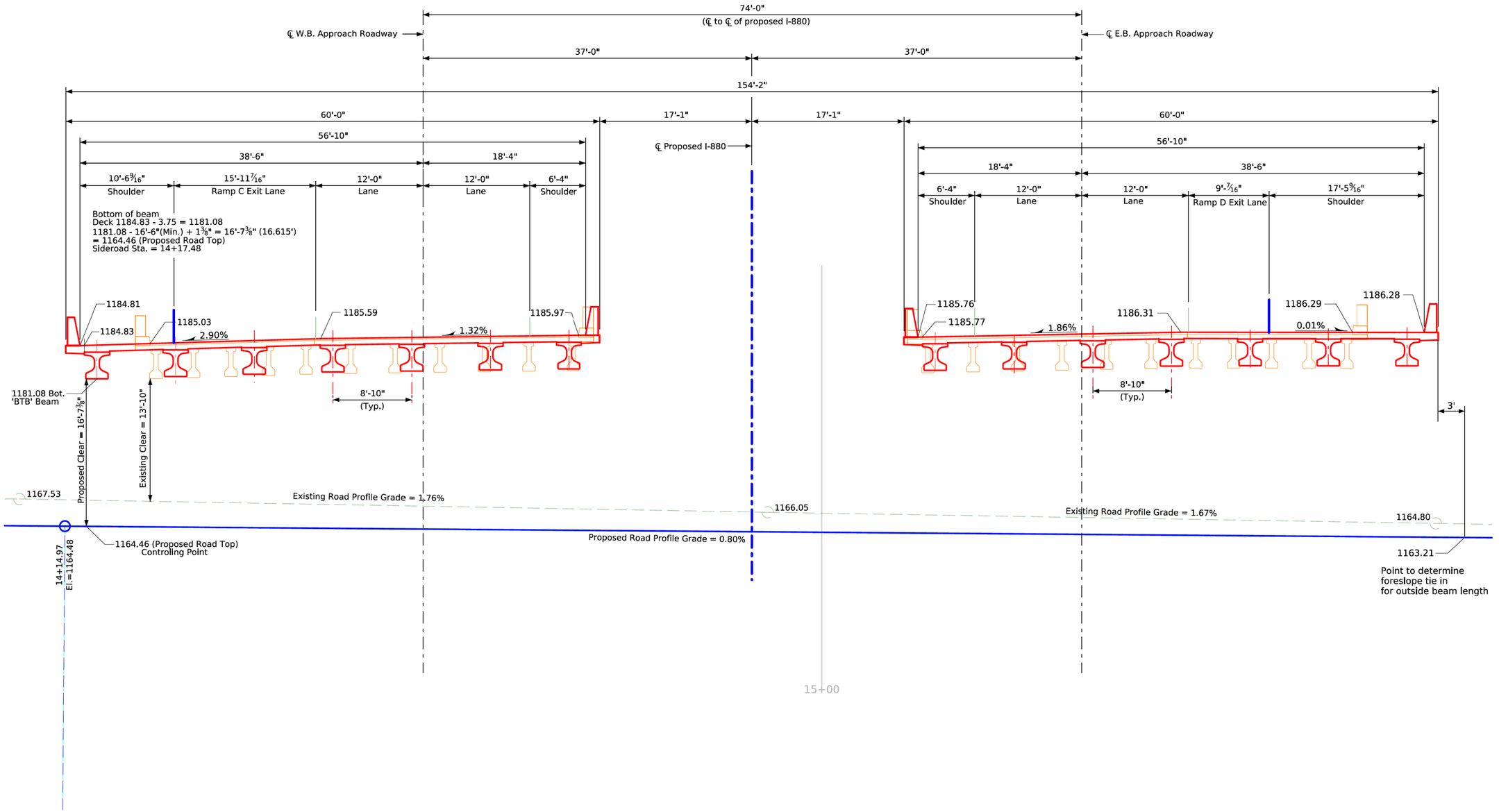
County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. — Design Sheet No. 000 of — FHWA No.

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER V.0	
11:57:10 AM 10/27/2025	rlemke	pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7888001021\Bridge\(3)_Bridge Deck Overlay\Veenstra&Klmm\Russ_SHT_78880003_VK_ddd_44390 & 44400_Z06.dgn				

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER A.12	
10:56:50 AM 9/9/2026	jkoch	pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_A.dgn				



I-880 Section (Cut at Tangent Line on Mainline Curve)
P.O.C. Sta. 431+02.93 / P.O.T. Sta. 14+92.16

Looking Up-Station (East)

Design For

End Spans — Interior Span

Concept Bridge X-Section

STA. ( )

Turn-in Date:

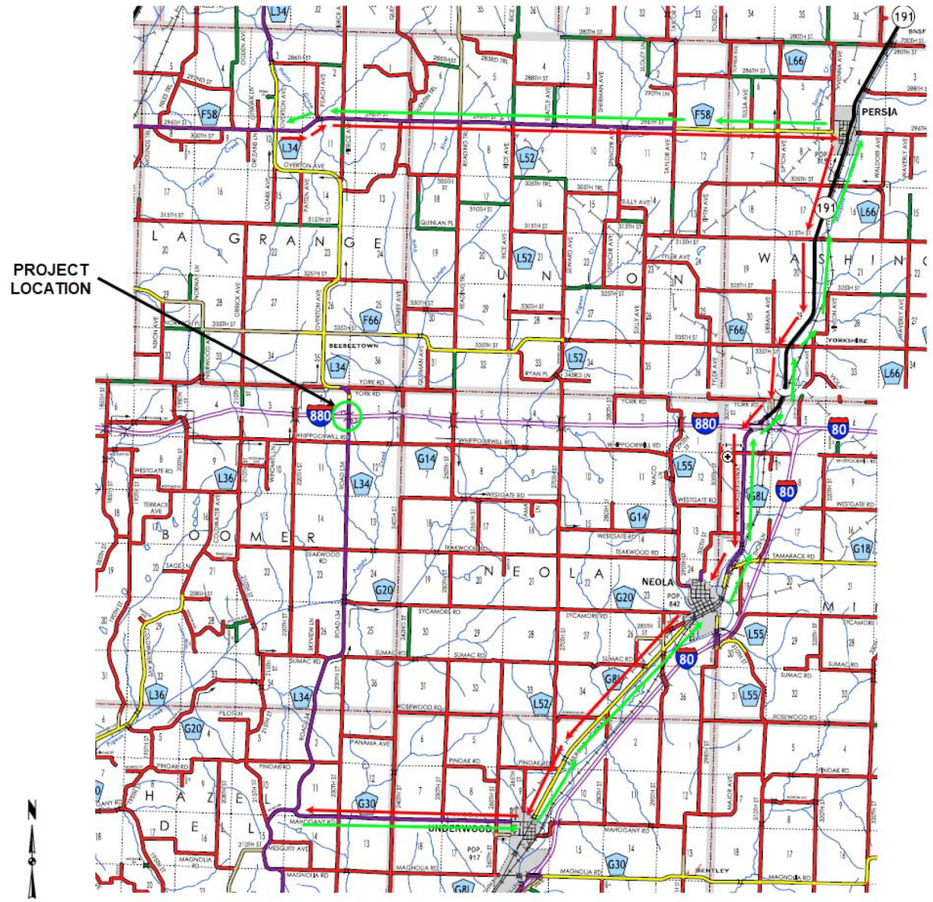
County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. | Design Sheet No. 000 of | FHWA No.

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER V.0	
2:32:29 PM 9/19/2025	rlemke	pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7888001021\Bridge\(3)_Bridge Deck Overlay\Veenstra&Klmm\Russ_SHT_78880003_VK_ddd_44390 & 44400_Z06.dgn				

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER A.13	
10:56:52 AM 9/9/2026	jkoch	pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_A.dgn				



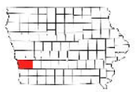
Utilities

Iowa Communications Network (Fiber)
David Augspurger
David.augspurger@icn.state.ia.us
515.725.4604

Lumen CenturyLink(Fiber)
Dale Mruz
Dale.mruz@lumen.com
402.533.3991

MidAmerican Energy(Electrical)
Scott Behrens
Scott.behrens@midamerican.com
712.366.5636

Iowa Department of Transportation(Electrical)
Jason Dale
Jason.dale@iowadot.us
515.239.1995



Pottawattamie County
County Road L34 Interchange (EB/WB)
IMX-880-1(3)8--02-78
PIN: 21-78-880-010

78



FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER A.15	

10:56:55 AM 9/9/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_A.dgn

Roadway				
PIN Number			**Submittal Date**	
Project Number				**Approval Date**
District		**Assistant District Engineer**		
County		or		
Route		**Office Director**		
Location				
Work Type				
Segment Manager				
Designer				

Design Manual Section 1C-1
Last Updated: 04-29-19

Rural Interstates (Rural Freeways)

Design Element		Preferred	Acceptable	Project Values
Design speed (mph)		75	70	
Maximum superelevation rate (%) (Refer to Section 2A-2)		6	8	
Design lane width (ft)		12	12	
Full depth paved width (ft)	Outside lane	12'	12	
	Inside lane(s)	12	12	
Auxiliary-lane width (ft)		12	12	
Pavement cross-slope (on tangent sections)	Through lanes	2%, However, when adjacent lanes slope in the same direction, increase slope by 0.5% per lane up to 3%	1.5% minimum, 3% maximum	
	Auxiliary lanes	3%	3% maximum	
	Crown break at centerline	4%	4% maximum	
Shoulder cross-slope (on tangent sections)	Interstates	4%	6% max, but not less than the cross slope of the adjacent lane	
	Freeways	4%	6% max, but not less than the cross slope of the adjacent lane	
Curb type (Refer to Section 3C-2)	Interstates	4-inch sloped	4-inch sloped	
	Freeways	4-inch sloped	4-inch sloped	
Foreslope (For fill areas greater than 40 ft, contact the Soils Design Section for assistance)	Adjacent to shoulder	10:1 for 4' then 6:1	4:1 for Interstates, 3:1 for Freeways*	
	Beyond standard ditch depth and design clear zone	3.5:1	3:1	
	Curbed roadways	2%	4:1 for Interstates, 3:1 for Freeways*	
Backslope (For cut areas greater than 25 feet, contact the Soils Design Section for assistance with backslope benches.)		3:1	2.5:1	
Transverse Slopes	w/ drainage structures	8:1	6:1	
	w/o drainage structures	10:1	6:1	
Ditches (Refer to Section 3G-1)	Outside ditch (depth x width) (ft)	5 x 10	--	
	Median ditch depth (ft)	4	2	
Median width (ft) (Refer to Section 3E-1)	Interstates	82	36	
	Freeways	64	50	
Bridge width—new***	Bridge length ≤ 200 ft	design lane widths + effective shoulder widths	design lane widths + effective shoulder widths	
	Bridge length > 200 ft	design lane widths + effective shoulder widths	design lane width + 4' right and left of the design lane widths	
Bridge width—existing***	Bridge length ≤ 200 ft	design lane widths + no less than 10' right and 3.5' left	design lane widths + 10' right shoulder and 3.5' left shoulder	
	Bridge length > 200 ft	design lane widths + no less than 3.5' right and left	design lane widths + 3.5' right and left of the design lane widths	
Vertical clearance (ft) (above lanes, shoulders and 25 feet left and right of the center of railroad tracks)	Over primary	16.5	16	
	Over non-primary	16.5 at interchange locations, 15 ft at all other locations	14	
	Over railroad	23.3	23.3	
	Sign trusses and pedestrian crossings	17.5	17	
Structural Capacity		Contact Office of Bridges and Structures	Contact Office of Bridges and Structures	
Level of Service	Freeway segments	B	B	
	Auxiliary facilities	B	B**	

*Design Exception not required for Freeways
**LOS C may be acceptable in spot locations with FHWA approval
***FHWA notification via email is required if acceptable criteria is not met on the Interstate or NHS systems (No formal design exception required)

Directional Design Hourly Volume (DDHV) for Trucks =

Design Manual Section 1C-1
Last Updated: 04-29-19

Effective Shoulder Width and Type for Interstates (Freeways)

Auxiliary Lanes	Preferred (values shown in feet)		Acceptable (values shown in feet)		Project Values
	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	
	6	6	6	6	

4-Lane Sections

Design Year Traffic	Outside		Median Side		Outside		Median Side		Project Values
	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	
Less than or equal to 250 DDHV	10	10	6	6	10	10	4	4	
Greater than 250 DDHV	12	12	6	6	12	12	4	4	**10' Out Shldr**

Sections with 6 or more lanes

Design Year Traffic	Outside		Median Side		Outside		Median Side		Project Values
	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	
Less than or equal to 250 DDHV	10	10	10	10	10	10	10	10	
Greater than 250 DDHV	12	12	12	12	12	12	12	12	

Curbs should be located beyond the outer edge of the paved shoulder

Notes:

Roadway				
PIN Number			**Submittal Date**	
Project Number				**Approval Date**
District		**Assistant District Engineer**		
County			**or**	
Route		**Office Director**		
Location				
Work Type				
Segment Manager				
Designer				

Design Manual Section 1C-1
Last Updated: 04-29-19

Rural Two-Lane Highways (Rural Arterials)

Design Element		Preferred	Acceptable	Project Values
Design speed (mph)		60	50	
Maximum superelevation rate (Refer to Section 2A-2)		6%	8%	
Design lane width (ft)		12	12	
Full depth paved width (ft)		12	12	
Right turn lane (ft)		12	10	
Climbing Lane (ft)		12	12	
Left turn lane (ft)		12	10	
Pavement cross-slope (on tangent sections)	Through lanes	2%	1.5% minimum, 2% maximum	
	Auxiliary and turn lanes	3%	3% maximum	
	Crown break at centerline	4%	4% maximum	
Shoulder cross-slope (on tangent sections)		4%	Shoulder cross-slope cannot be less than the adjacent lane, 6% max for paved or granular shoulders, 8% max for earth shoulders	
Curb type (Refer to Section 3C-2)	Design speed = 50 or 55 mph	6-inch sloped	6-inch standard	
	Design speed ≥ 60 mph	4-inch sloped	6-inch sloped	
Foreslope (For fill areas greater than 40 ft, contact the Soils Design Section for assistance)	Adjacent to shoulder	10:1 for 4' then 6:1	3:1	
	Beyond standard ditch depth and design clear zone	3.5:1	3:1	
	Curbed roadways	2%	not steeper than 3:1	
Backslope (For cut areas greater than 25 feet, contact the Soils Design Section for assistance with backslope benches.)		3:1	2.5:1	
Transverse Slopes	w/ drainage structures	8:1	6:1	
	w/o drainage structures	10:1	6:1	
Ditches (Refer to Section 3G-1)	Outside ditch (depth x width) (ft)	5 x 10	--	
Bridge width—new*	Bridge length ≤ 200 ft	design lane widths + effective shoulder widths	design lane widths + effective shoulder widths	
	Bridge length > 200 ft	design lane widths + effective shoulder widths	design lane width + 4' right and left of the design lane widths	
Bridge width—existing*		design lane widths + no less than 2 ft left and right	design lane widths + 2 ft. offset left and right	
Vertical clearance (ft) (above lanes, shoulders and 25 feet left and right of the center of railroad tracks)	Over primary	16.5	16	
	Over non-primary	16.5 at interchange locations, 15 at all other locations	14	
	Over railroad	23.3	23.3	
	Sign trusses and pedestrian bridges	17.5	17	
Structural Capacity		Contact Office of Bridges and Structures	Contact Office of Bridges and Structures	
Level of Service		B	B	

*FHWA notification via email is required if acceptable critera is not met on the NHS system (No formal design exeption is required)

Design year ADT =	

Design Manual Section 1C-1
Last Updated: 04-29-19

Effective Shoulder Width and Type for Two-Lane Highways

Preferred (values shown in feet)			Acceptable (values shown in feet)			Project Values
	Rural Roadways	Urban Roadways		Rural Roadways	Urban Roadways	
Turn lanes with shoulders	6	6	Turn lanes with shoulders	6	0	
Turn lanes with curbs	6	See Section 3C-2	Turn lanes with curbs	6	0	
	Effective Shoulder Width	Paved Width		Effective Shoulder Width	Paved Width	
Climbing Lanes	6	4	Climbing Lanes	4	0	
Two-Lane Highways	Effective Shoulder Width	Paved Width	Two-Lane Highways	Effective Shoulder Width	Paved Width	
Routes where bicycles are to be accommodated	10	10	Design year ADT > 2000 vpd	8	0*	
On roadways approaching urban areas (due to increased bike traffic)	10	10				
On all curves with a superelevation rate of 7.0% or greater	10	10				
On roadways with design year ADT > 5000	10	6	Design year ADT between 400 - 2000 vpd	6	0*	
On all other NHS	10	6				
On non-NHS routes with design year ADT > 3000	10	6	Design year ADT < 400 vpd	4	0*	
On non-NHS routes with design year ADT < 3000	8	0*				

*Requires safety edge-Refer to Section 3C-6

Curbs should be located beyond the outer edge of the effective shoulder width in rural areas

Refer to Section 3C-2 for curb offsets in urban areas

Notes:

Roadway Design Speed (mph) =														

Design Manual Section 1C-1
Last Updated: 04-29-19

Design Criteria for High Speed Roadways

Design Element			Preferred Criteria Design Speed, mph						Acceptable Criteria Design Speed, mph						Project Values
			50	55	60	65	70	75	50	55	60	65	70	75	
Stopping sight distance (ft) (Refer to Section 6D-1)			425	495	570	645	730	820	425	495	570	645	730	820	
Minimum horizontal curve radius (ft) (Refer to Sections 2A-2 and 2A-3)	Method 5 superelevation and side friction distribution	e_{max} = 6%	833	1060	1330	1660	2040	2500	833	1060	1330	1660	2040	2500	
		e_{max} = 8%	--	--	--	--	--	--	758	960	1200	1480	1810	2210	
Minimum vertical curve length (ft) (Refer to Section 2B-1)			150	165	180	195	210	225	150	165	180	195	210	225	
Minimum rate of vertical curvature (K) (Refer to Section 2B-1)	crest vertical curves		84	114	151	193	247	312	84	114	151	193	247	312	
	sag vertical curves	roadways without fixed-source lighting	96	115	136	157	181	206	96	115	136	157	181	206	
		roadways with fixed-source lighting	96	115	136	157	181	206	54	66	78	91	106	121	
Minimum gradient (%)	(Refer to Section 2B-1)		0.5						0.3% with a curb, 0.0% without a curb						
Maximum gradient (%)	(Refer to Section 2B-1)	Urban roadways	4		3				7	6	6	--	--	--	
		Rural roadways							5	5	4	4	4	4	
		Interstates							5	5	4	4	4	4	
Clear zone			See "Preferred Clear Zone" table in Section 8A-2						See "Acceptable Clear Zone" table in Section 8A-2						

Preferred Clear Zone Distances (feet)

(Based on AASHTO Roadside Design Guide, 4th Edition)

		FORESLOPES			BACKSLOPES		
design speed	design ADT	6:1 or flatter	Steeper than 6:1, up to and including 4:1	Steeper than 4:1	Steeper than 4:1*	4:1 or flatter, up to 6:1	6:1 or flatter
40 mph or less	ADT < 750	10	10	**	10	10	10
	750 ≤ ADT < 1500	12	14	**	12	12	12
	1500 ≤ ADT < 6000	14	16	**	14	14	14
	ADT ≥ 6000	16	18	**	16	16	16
45 – 50 mph	ADT < 750	12	14	**	10	10	12
	750 ≤ ADT < 1500	16	20	**	12	14	16
	1500 ≤ ADT < 6000	18	26	**	14	16	18
	ADT ≥ 6000	22	28	**	16	20	22
55 mph	ADT < 750	14	18	**	10	12	12
	750 ≤ ADT < 1500	18	24	**	12	16	18
	1500 ≤ ADT < 6000	22	30	**	16	18	22
	ADT ≥ 6000	24	32	**	18	22	24
60 mph	ADT < 750	18	24	**	12	14	16
	750 ≤ ADT < 1500	24	32	**	14	18	22
	1500 ≤ ADT < 6000	30	40	**	18	22	26
	ADT ≥ 6000	32	44	**	22	26	28
65 – 70 mph	ADT < 750	20	26	**	12	16	16
	750 ≤ ADT < 1500	26	36	**	16	20	22
	1500 ≤ ADT < 6000	32	42	**	20	24	28
	ADT ≥ 6000	34	46	**	24	30	30

* Backslopes as steep as 2.5:1 can be considered as part of the clear zone, as long as they are relatively smooth and do not contain any fixed objects. Refer to Section 8A-4 of the Design Manual for information regarding backslopes steeper than 2.5:1.

** Since a vehicle traveling on a slope steeper than 4:1 is likely to be diverted to the bottom of the slope, the width of any slope steeper than 4:1 cannot be counted in the clear zone determination. Refer to Section 8A-2 of the Design Manual for information on providing clear recovery areas at the base of steep slopes.

Chapter 8—Safety Design
Section 8A-2—Clear Zones
Revision Date: 01-05-17

Acceptable Clear Zone Distances (feet)

(Based on AASHTO Roadside Design Guide, 4th edition)

		FORESLOPES			BACKSLOPES		
design speed	design ADT	6:1 or flatter	Steeper than 6:1, up to and including 4:1	Steeper than 4:1	Steeper than 4:1*	4:1 or flatter, up to 6:1	6:1 or flatter
40 mph or less	ADT < 750	7	7	**	7	7	7
	750 ≤ ADT < 1500	10	12	**	10	10	10
	1500 ≤ ADT < 6000	12	14	**	12	12	12
	ADT ≥ 6000	14	16	**	14	14	14
45 – 50 mph	ADT < 750	10	12	**	8	8	10
	750 ≤ ADT < 1500	14	16	**	10	12	14
	1500 ≤ ADT < 6000	16	20	**	12	14	16
	ADT ≥ 6000	20	24	**	14	18	20
55 mph	ADT < 750	12	14	**	8	10	10
	750 ≤ ADT < 1500	16	20	**	10	14	16
	1500 ≤ ADT < 6000	20	24	**	14	16	20
	ADT ≥ 6000	22	26	**	16	20	22
60 mph	ADT < 750	16	20	**	10	12	14
	750 ≤ ADT < 1500	20	26	**	12	16	20
	1500 ≤ ADT < 6000	26	30	**	14	18	24
	ADT ≥ 6000	30	30	**	20	24	26
65 – 70 mph	ADT < 750	18	20	**	10	14	14
	750 ≤ ADT < 1500	24	28	**	12	18	20
	1500 ≤ ADT < 6000	28	30	**	16	22	26
	ADT ≥ 6000	30	30	**	22	26	28

* Backslopes as steep as 2.5:1 can be considered as part of the clear zone, as long as they are relatively smooth and do not contain any fixed objects. Refer to Section 8A-4 of the Design Manual for information regarding backslopes steeper than 2.5:1.

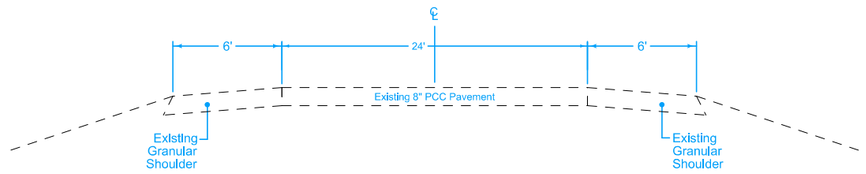
** Since a vehicle traveling on a slope steeper than 4:1 is likely to be diverted to the bottom of the slope, the width of any slope steeper than 4:1 cannot be counted in the clear zone determination. Refer to Section 8A-2 of the Design Manual for information on providing clear recovery areas at the base of steep slopes.

Field Exam Questions?

Which layout option does District prefer to account for extra width of bridges?

Keep current staging? Closing down one lane of 880 in each direction okay?

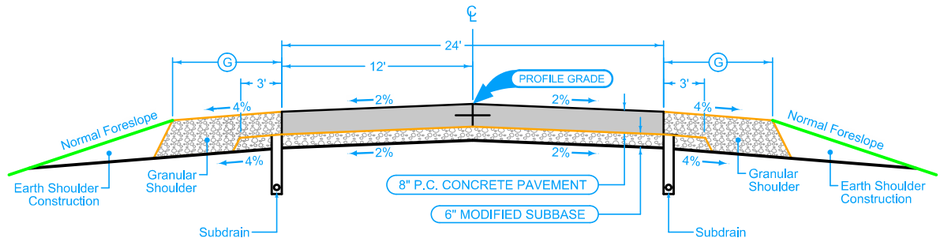
Will RCB underneath 880 be moved to west or stay in current location?



Existing Typical Section

Granular Shoulder

		2_G_SR_ 04-21-20
STATION TO STATION		Ⓖ Feet
9+29.61	18+19.01	6



Granular Shoulder

		2_G_SR_ 04-21-20
STATION TO STATION		Ⓖ Feet
11+95.20	18+19.01	6

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

	2P_ 04-21-20
STATION TO STATION	
9+29.61	18+19.01

See Tab 100-24 for Paving quantities.

See Tab 107-28 for Earthwork quantities.

CO RD L34

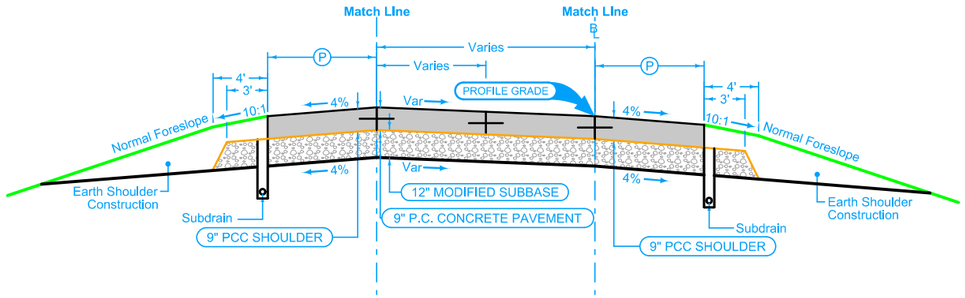
FILE NO. **32219**	ENGLISH	DESIGN TEAM **Miller/Cooper/Koch**	**Pottawattamie** COUNTY	PROJECT NUMBER **IMX-880-1(3)8--02-78**	SHEET NUMBER **B.1**

11:13:04 AM 9/14/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_B.dgn

Full Depth PCC Shoulder (Loop/Ramp)

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 15' spacing

1R_P_FullPCC_ 4-15-25		
STATION TO STATION		(P) Feet
1417+86,90	1419+87,20	6



Section shown in the direction of traffic.

Ramp Jointing:
Transverse joints: CD at 15' spacing.
Longitudinal joints: L-2

1RP_ 04-20-21	
BEGIN STATION	END STATION
1417+86.90	1419+87.20

Full Depth PCC Shoulder (Loop/Ramp)

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 15' spacing

1R_P_FullPCC_ 4-15-25		
STATION TO STATION		(P) Feet
1417+86,90	1419+87,20	6

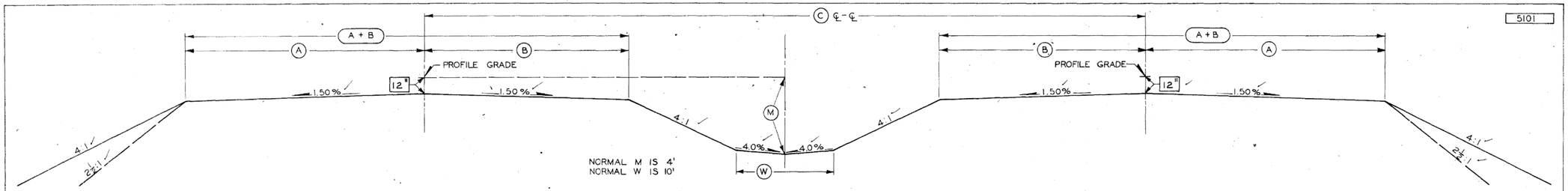
See Tab 100-24 for Paving quantities.

See Tab 107-28 for Earthwork quantities.

LOOP/RAMP A

FED. ROAD NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
I	IOWA	BON-I(17)5		2	513

5101



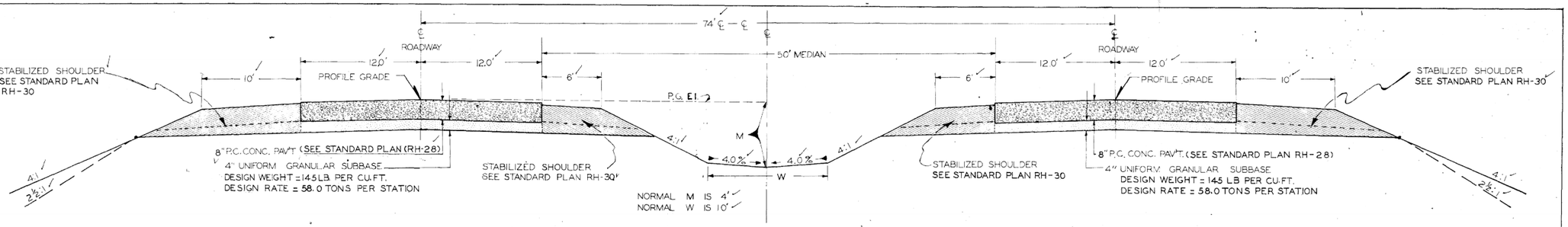
GRADING
TYPICAL CROSS SECTION
PROPOSED HIGHWAY IMPROVEMENT

STA	TO	STA	Ⓐ	Ⓑ	Ⓒ
235 + 51.80		590 + 50.00	25.0	21.5	74.0

NOTE:
For modification of roadway cross section through superelevated curves, refer to Standard Road Plan RH-9 and tabulation of superelevated curves.

See other typical cross sections for details of ditches and backslopes.

I-880



TYPICAL CROSS SECTION

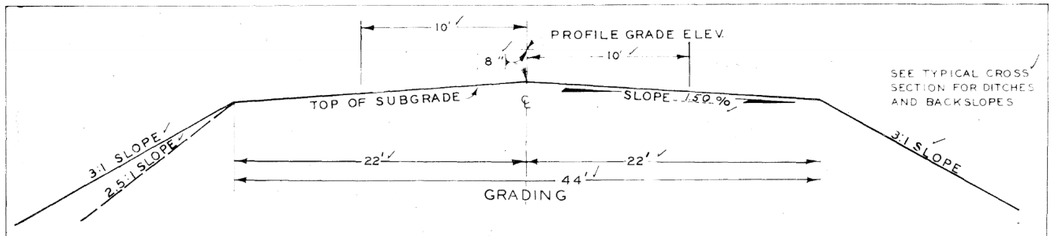
NOTE:
ANY PORTION OF GRANULAR SUBBASE BENEATH SHOULDER MAY BE CONSTRUCTED WITH GRANULAR SUBBASE BENEATH PAVEMENT.

TYPICAL CROSS SECTION
PROPOSED HIGHWAY IMPROVEMENT

STA.	TO	STA.
235+51.80		590+50.00

NOTE:
FOR MODIFICATION OF ROADWAY CROSS SECTION THROUGH SUPERELEVATED CURVES SEE STANDARD PLAN RH-9
ALSO SEE TABULATION OF SUPERELEVATED CURVES.

I-880



SEE TYPICAL CROSS SECTION FOR DITCHES AND BACKSLOPES

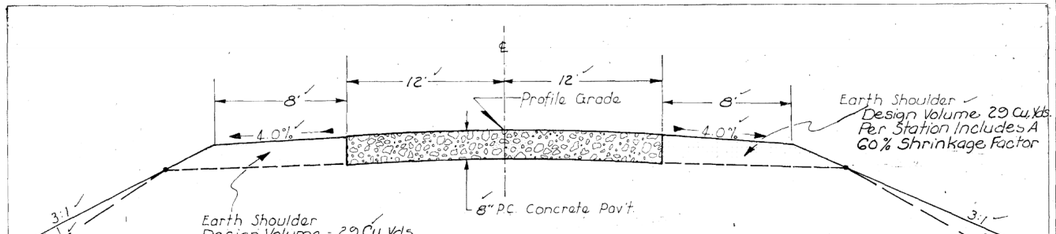
TYPICAL CROSS SECTION

BUILD 3:1 FORESLOPES EXCEPT AS OTHERWISE NOTED ON PLANS.

LOCATION	
STATION	TO STATION
9+23.97	20+49.89

At M.L. Sta 431+03.00

Co Rd L34



TYPICAL CROSS SECTION
PROPOSED HIGHWAY IMPROVEMENT

STA.	TO.	STA.
9+23.97		20+49.89

At M.L. Sta. 431+03.00

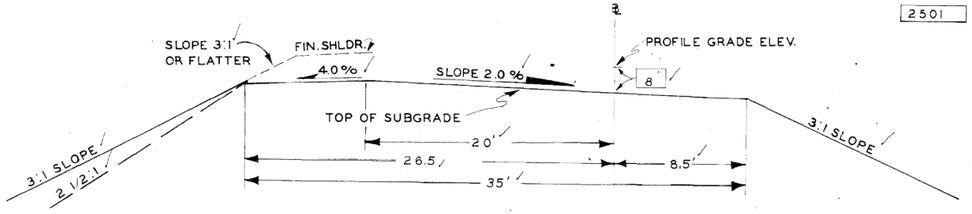
Co Rd L34

EXISTING I-880 & CO RD L34
TYPICAL SECTIONS
FOR INFORMATION ONLY

Pottawattamie COUNTY I PROJECT NO. BON-I(17)5

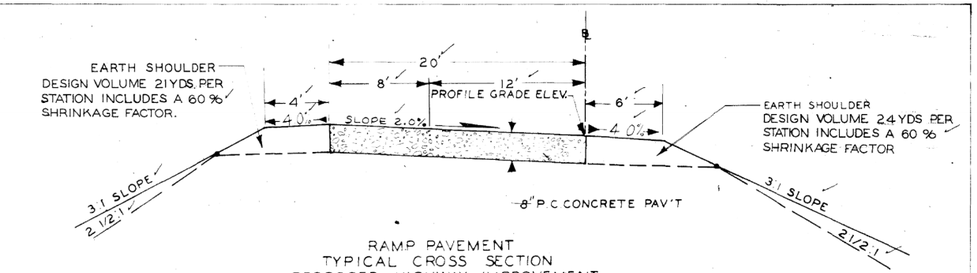
SEC ROAD DIST. NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IOWA	BON-1(17)5		3	513

2501



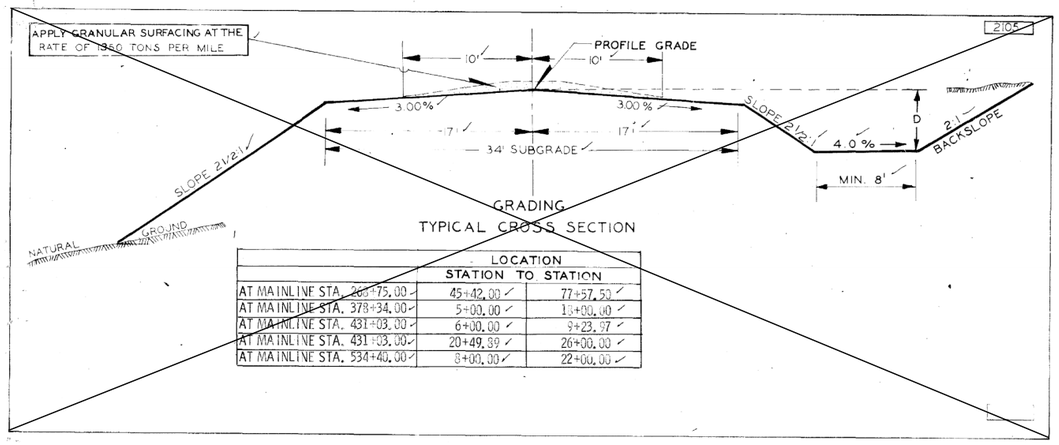
BUILD 3:1 FORESLOPES EXCEPT AS OTHERWISE NOTED ON PLANS.

GRADING
TYPICAL CROSS SECTION
RAMPS AT REST AREA
RAMPS AT COUNTY TRUNK ROAD "E" INTERCHANGE



RAMP PAVEMENT
TYPICAL CROSS SECTION
PROPOSED HIGHWAY IMPROVEMENT
RAMPS AT REST AREA
RAMPS AT COUNTY TRUNK ROAD "E" INTERCHANGE

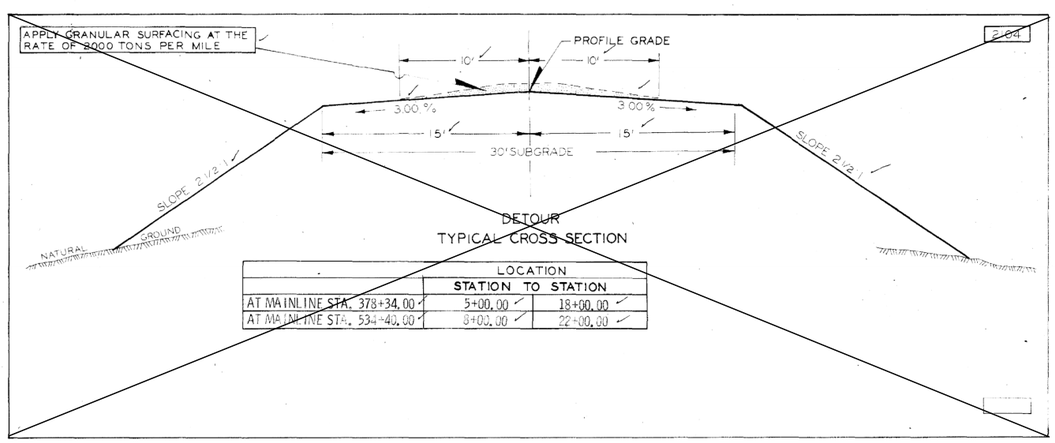
2105



GRADING
TYPICAL CROSS SECTION

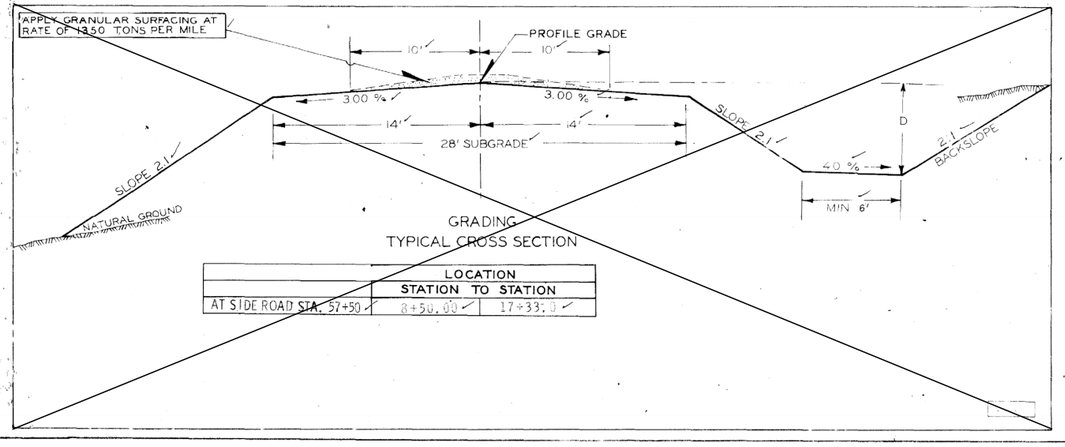
	LOCATION	
	STATION TO STATION	
AT MAINLINE STA. 263+75.00	45+42.00	77+57.50
AT MAINLINE STA. 378+34.00	5+00.00	18+00.00
AT MAINLINE STA. 431+03.00	6+00.00	9+23.97
AT MAINLINE STA. 431+03.00	20+49.89	26+00.00
AT MAINLINE STA. 534+40.00	8+00.00	22+00.00

2104



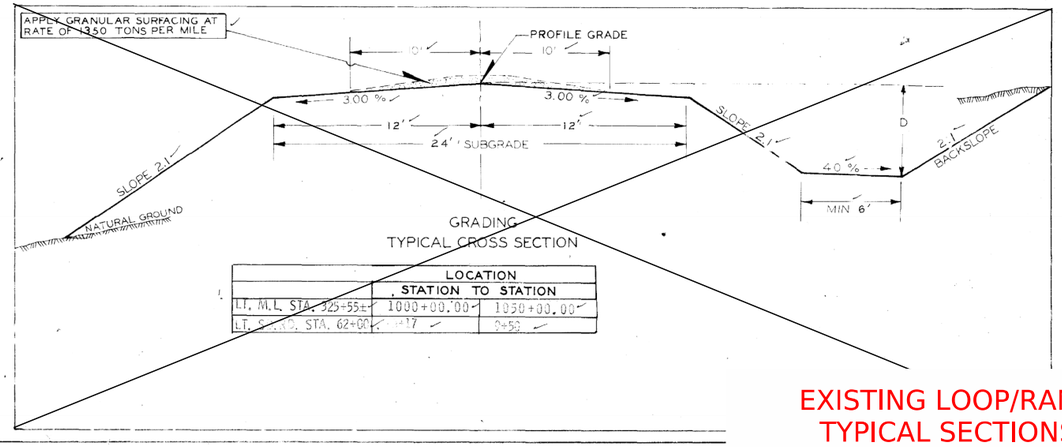
DETOUR
TYPICAL CROSS SECTION

	LOCATION	
	STATION TO STATION	
AT MAINLINE STA. 378+34.00	5+00.00	18+00.00
AT MAINLINE STA. 534+40.00	8+00.00	22+00.00



GRADING
TYPICAL CROSS SECTION

	LOCATION	
	STATION TO STATION	
AT SIDE ROAD STA. 57+50	8+50.00	17+33.0



GRADING
TYPICAL CROSS SECTION

	LOCATION	
	STATION TO STATION	
LT. M.L. STA. 325+55±	1000+00.00	1050+00.00
LT. S.R. STA. 62+00	17	2+55

EXISTING LOOP/RAMP
TYPICAL SECTIONS
FOR INFORMATION ONLY

Pottawattamie COUNTY I PROJECT NO BON-1(17)5

SURVEY SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- 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
- WH Water Hydrant (Rural)
- ST Septic Tank
- C Cistern
- LP L.P. Gas Tank (No Footing)
- UST Underground Storage Tank
- Latrine
- Satellite TV Dish
- WHU Water Hook Up
- RT Radio Tower
- TA Tower Anchor
- Guardrail (Beam or Cable)
- GP Guard Post (one or two)
- Guard Post (over two)
- FP Filler Pipe
- GV Gas Valve
- WV Water Valve
- SL Speed Limit Sign
- MM Mile Marker Post
- SIGN Sign
- TCB Traffic Signal Control Box
- RRB Rail Road Signal Control Box
- TSB Telephone Switch Box
- EB Electric Box

UTILITY LEGEND

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%
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 / Station — Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

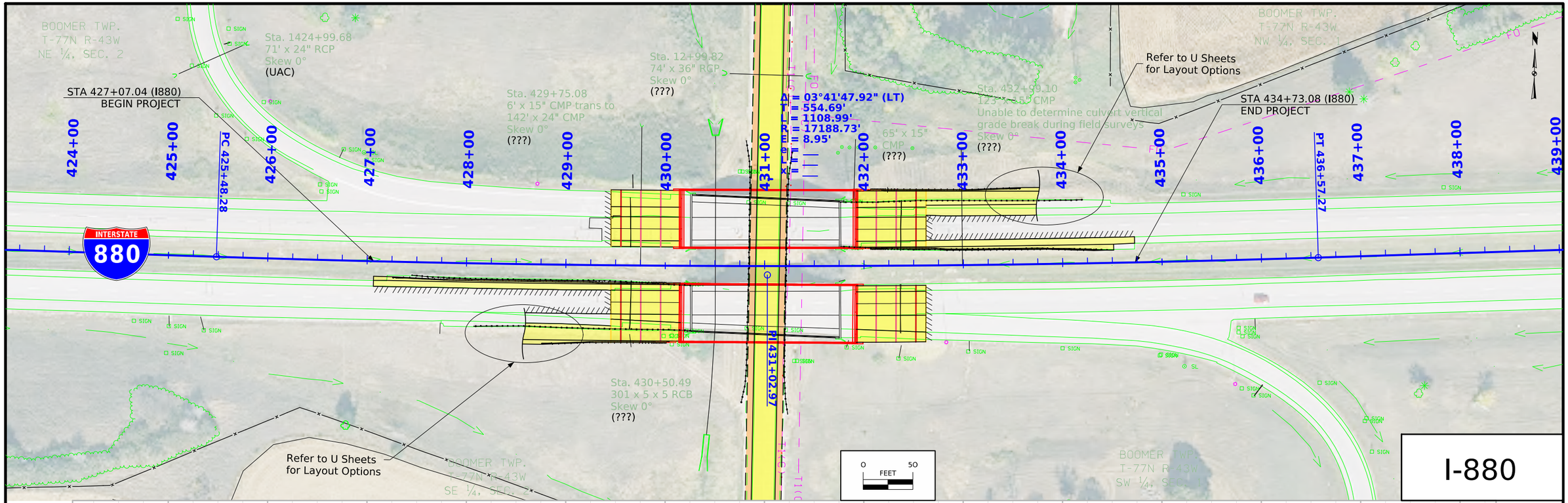
- Proposed Right-of-Way Symbol
- Proposed Right-of-Way Line
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary) Symbol
- Easement (Temporary) Line
- Easement
- C/A Access Control
- Property Line Symbol
- Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO.	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER D.1

8:37:59 AM 11/6/2025 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_LEGEND.dgn



FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER D.2

10:35:00 AM 9/17/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_D.dgn

STA 9+24.98 (SRL34)
BEGIN CONSTRUCTION

NAME
L34
COUNTY

70' x 24"
CMP
(UAC)

Sta. 432+90.30
42' x 15" CMP
Unable to determine culvert
vertical grade break during
field survey
Skew 0°
(???)

6' x 18"
CMP
(???)

Sta. 4431+73.81
110' x 30" RCP
Skew 0°
(UAC)

STA 18+14.40 (SRL34)
END CONSTRUCTION

22' x 54"
CMP
(UAC)

Sta. 6+76.26
127' x 30" RCP
Unable to determine vertical
grade & PI break during field survey
Skew 40° RT Ahead
(UAC)

Sta. 3430+55.97
57' - 6 x 6 RCB
(???)

Sta. 429+75.08
6' x 15" CMP trans to
142' x 24" CMP
Skew 0°
(???)

Sta. 430+50.49
301 x 5 x 5 RCB
Skew 0°
(???)

Sta. 20+23.55
62 x 5 x 5 RCB
Skew 15° LT Ahead
(UAC)

0 50
FEET

L34

BEGIN CONSTRUCTION
9+24.98
1175.08

VPI = +59.98
EL = 1172.77
L = 250.00'
K = 194
K = 194

-1.71%
-3.00%
-3.00%
-0.85%

VPI = +04.98
EL = 1165.42
L = 220.00'
K = 103
K = 103

END CONSTRUCTION
18+14.40
1161.07

1185 1180 1175 1170 1165 1160 1155 1150 1145 1140

7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00

1175.08 1174.65 1174.18 1173.69 1173.16 1172.60 1172.01 1171.38 1170.73 1170.04 1169.32 1168.57 1167.86 1167.22 1166.63 1166.11 1165.64 1165.24 1164.90 1164.62 1164.39 1164.18 1163.97 1163.75 1163.54 1163.33 1163.11 1162.90 1162.68 1162.47 1162.26 1162.04 1161.83 1161.62 1161.40 1161.19 1161.07

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER E.1

3:23:34 PM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_E.dgn

SURVEY INDEX

County : Pottawattamie
Project Code : 21-78-880-010
Phase Number : IMX-880-1(3)8--02-78
Location : Co Rd L34 Interchange (EB/WB)
Work Code : 2001-Bridge-Unspecified
Project Directory : 7888001021

Survey Personnel

Carson Lay, MO PLS – Survey Crew Chief	Primary Control, Secondary Control, Alignment Survey, Topographic Survey, Utility Survey
Jim Degenhardt, MO PLS – Crew Chief	Topographic Survey, Utility Survey
Cody Hill - Survey Crew Chief	Topographic Survey, Utility Survey
Tyler Kelsheimer - Survey Crew Chief	Topographic Survey, Utility Survey
Evan McCarthy - Survey Tech	Topographic Survey, Utility Survey
Jacob Shoemake – Survey Tech	Topographic Survey, Utility Survey
Phillip Marshall – Survey Tech	Topographic Survey, Utility Survey
Kevin Flood, IA PLS – Project Manager	Primary Control, Secondary Control, Alignment Survey, Topographic Survey, Utility Survey

Date(s) of Survey

Field Survey	September 17, 2025 – March 19, 2026

General Information

Survey to support planning and design efforts of Iowa DOT Project IMX-880-1(3)8--02-78 located in Pottawattamie County, Iowa. General project limits are along Interstate 880 approximately 0.7 mile East and West of the interchange with Co. Rd. L34, along Co. Rd. L34 approximately 0.2 mile North and South of the interchange with Interstate 880, and the associated interchange ramps. Survey services included establishing primary and secondary control, existing alignment establishment, utility survey, and full DTM survey.

Utility Information

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

Project Control

Primary control was established utilizing the Iowa RTN system averaging multiple observations. The horizontal location for secondary control was established utilizing the Iowa RTN system averaging multiple observations. The vertical location for primary and secondary control was established using closed circuits with a digital level tied to the primary control, then least-squares adjusted.

Project Datum

The Project Datum NAD83(2011) EPOCH 2010 (IaRTN 2019 ADJUSTMENT) COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 06 (U.S. SURVEY FOOT) VERTICAL DATUM: NAVD88 (GEOID: GEOID18).

Alignment Information

The horizontal alignment for this survey is a retracement of 80N-1(17)5, and IMN-680-2(157)21—0E-78.

I-880 stationing was equated to plan PC Station 425+48.27 (Found 5/8” Rebar). I-880 tangent was extended back to (Found 5/8” Rebar) PC Sta Station 383+19.94 (Measured) 383+18.29 (Record).

L34 was established utilizing the calculated PI Station 431+03.00 (I-880) = POT Station 15+01.11 (L34) with the record angle from the established I-880 forward tangent to determine the centerline bearing of L34. The established alignment fit the field located pavement.

Loops A, B, and Ramps C, D, were re-established per the above referenced plan data. The location of the established ramp alignments fit the field located pavement and available field located station stamps.

Survey stationing relates to asbuilt plan stationing as follows:

PT Station 383+18.29 (Record) = 383+19.93 (Measure) Plans (80N-1(17)5) - Found 5/8” rebar

POT Station 393+01.76 (Record) Plans (80N-1(17)5) – not recovered

POT Station 419.25.99 (Record) Plans (80N-1(17)5)– not recovered

PC Station 425+48.27 Plans ((80N-1(17)5) - Found 5/8” rebar held tangent

PT Station 436+57.27 (Record) = 436+57.34 (Measure) Plans (80N-1(17)5)– not recovered

POT Station 444+48.61 (Record) Plans (80N-1(17)5)– not recovered

PT Station 477+52.14 (Record) Plans (80N-1(17)5)– not recovered

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 6 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - GEOID18

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

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER G.2

10:26:59 AM 9/9/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_G.dgn

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 6 (U.S. Survey Foot)
VERT. DATUM: NAVD88
GEOID18

Point Name	Northing	Easting	Elevation	Feature Code - Description
1	7054901.01	16492214.04	1242.29	FENO Set 6in Deep South of EBL I-880 near mm 7.3
2	7055073.24	16495718.18	1201.84	FENO Set 4in Deep North of WBL I-880 near mm 8.0
3	7055948.66	16496541.68	1178.96	FENO Set 6in Deep North of I-880 on East Side of L34
4	7053730.01	16496487.94	1168.95	FENO Set 6in Deep South of I-880 on West Side of L34
5	7054823.56	16497187.53	1188.73	FENO Set 3in Deep South of EBL I-880 near mm 8.2
6	7055164.29	16500614.34	1100.35	FENO Set 6in Deep in Median of I-880 near mm 8.9

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
Orange	(6)	Proposed Granular Surface Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Pink, Dark	(13)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Cyan	(7)	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	1	Lane Identification

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

TRAFFIC CONTROL AND STAGING LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES J)

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER J.1	

7:12:42 AM 9/10/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_LEGEND.dgn

108_23A

8/15/22

TRAFFIC CONTROL PLAN

I-880:

Single lane of I-880 to be closed down in each direction during construction of respective EB and WB bridges/ bridge approaches and shoulders. Refer to Staging Notes for additional information.

Ramps:

All ramps shall be open except during construction of the following: ramps, ramp terminals, L34, I-880 bridges and bridge approaches. During this construction, ramp traffic shall be detoured to adjacent interchanges.

L34:

L34 traffic to be maintained via an off-site detour.

108_26A

8/15/22

STAGING NOTES

Stage 1: EB Bridge and Bridge Approaches

Traffic:
(1) I-880 Mainline: EB traffic tapered down to single lane and shifted onto WB lanes in head to head traffic configuration via temporary cross overs.
(2) I-880 Ramps: Close EB exit loop and entrance ramp. Traffic to be detoured to next closest entrance/exit.

Construction:
(1) Construct Temporary Cross Overs.
(2) Construct EB Bridge and bridge approaches.

Stage 2: WB Bridge and Bridge Approaches

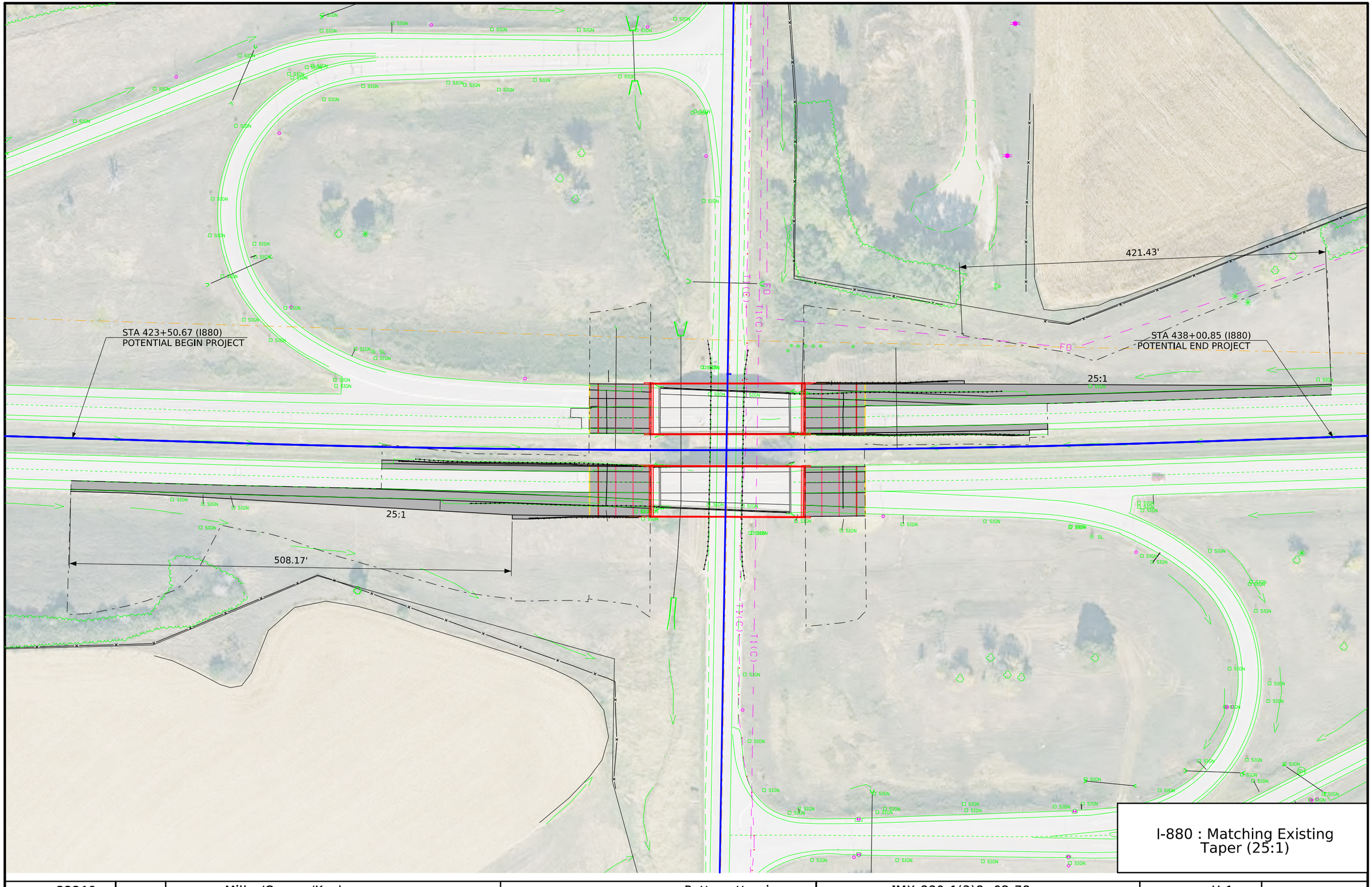
Traffic:
(1) I-880 Mainline: WB traffic tapered down to single lane and shifted onto EB lanes in head to head traffic configuration via temporary cross overs.
(2) I-880 Ramps: Close WB exit loop and entrance ramp. Traffic to be detoured to next closest entrance/exit.

Construction:
(1) Construct WB Bridge and bridge approaches.

Stage 3: Grade and Pave Side Road L34 and WB entrance/exit ramps.

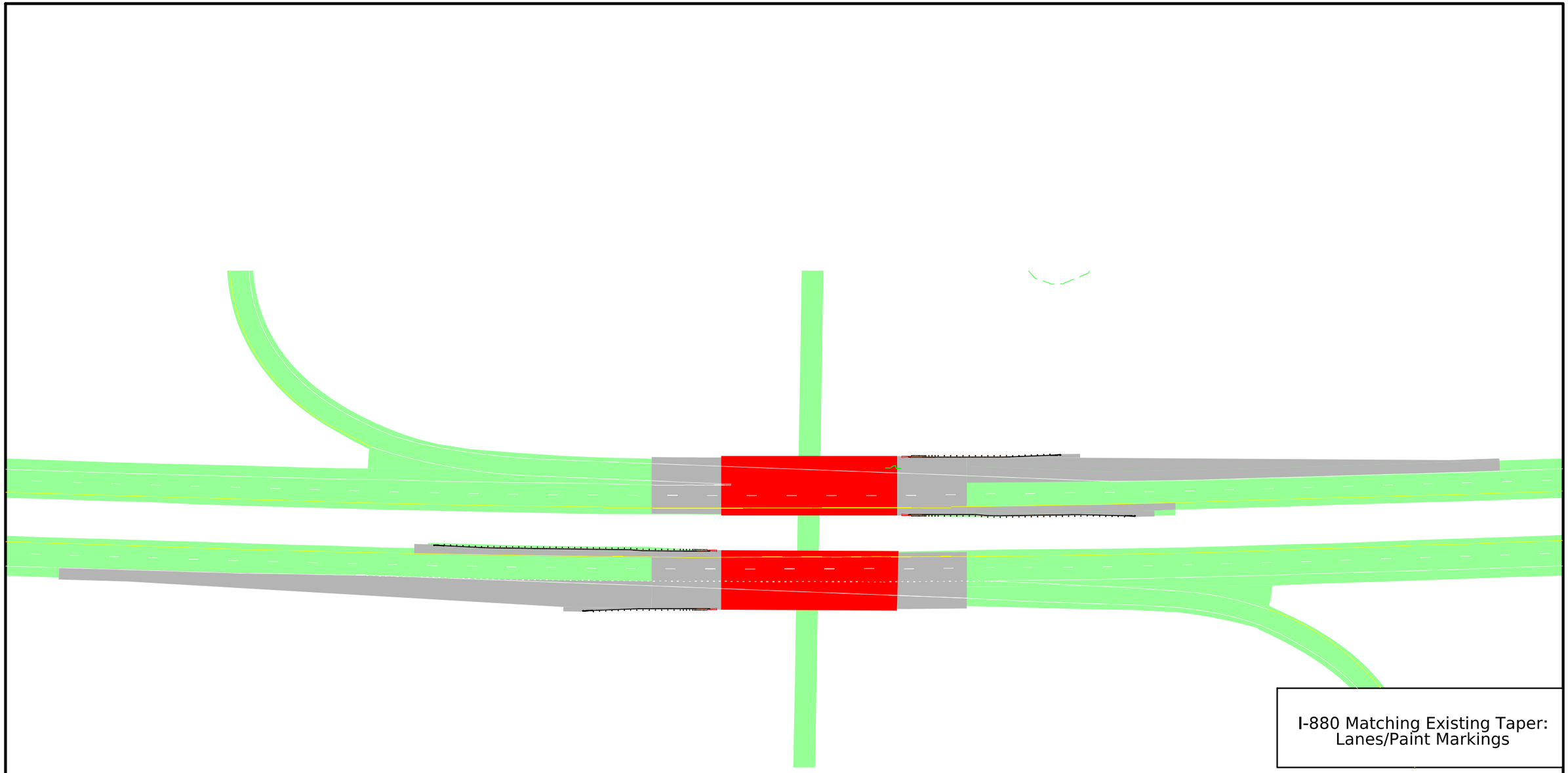
Traffic:
(1) Side Road L34 traffic to be maintained via an off-site detour.
(2) WB Ramp/Loop traffic to be detoured to next closest entrance/exit ramp.

Construction:
(1) Grade and Pave SRL34.
(2) Construct approximately 200' of WB entrance/exit ramp.



FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER U.1	

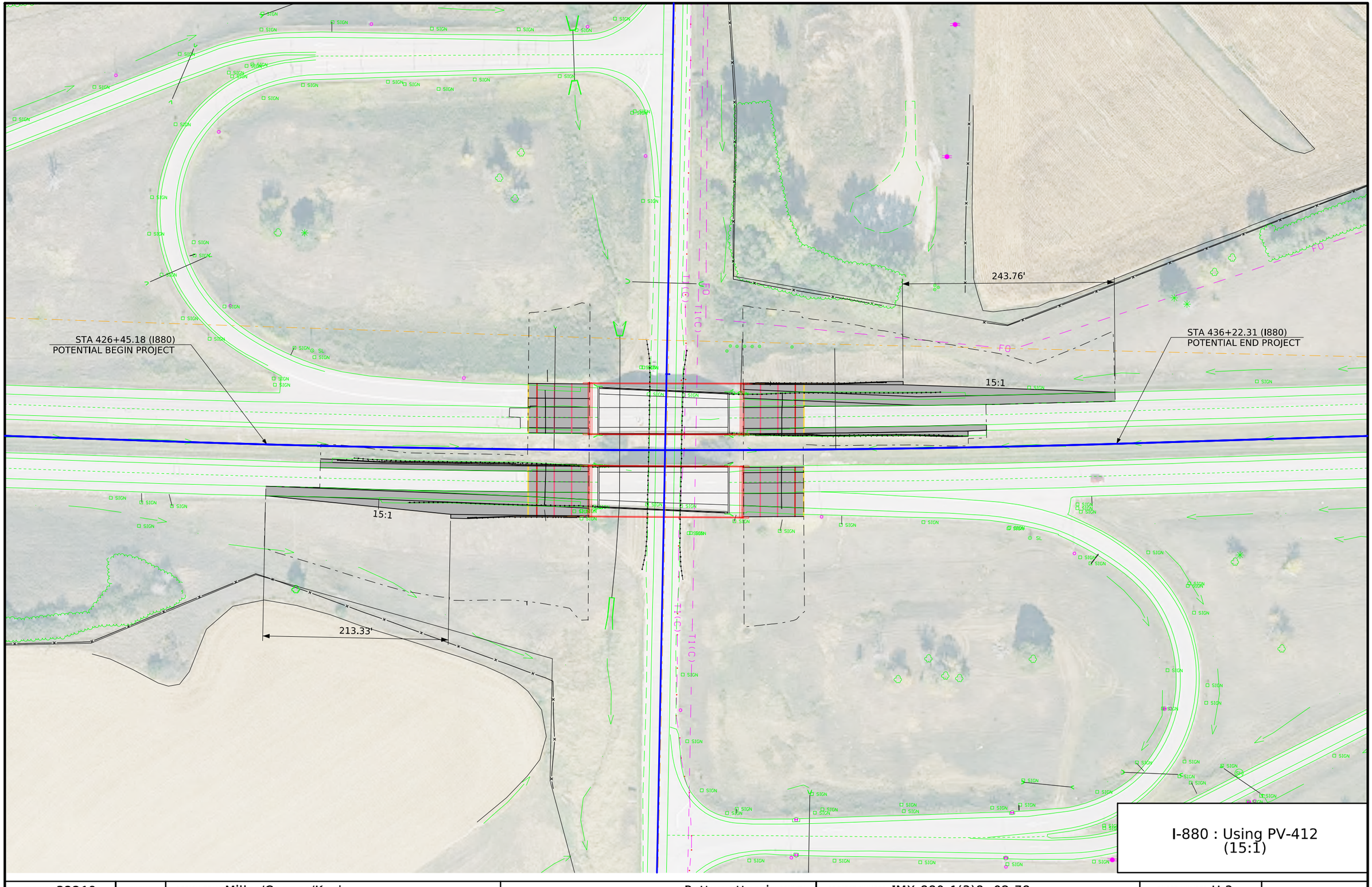
8:50:44 AM 9/23/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_U01.dgn



I-880 Matching Existing Taper:
Lanes/Paint Markings

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER U.2	

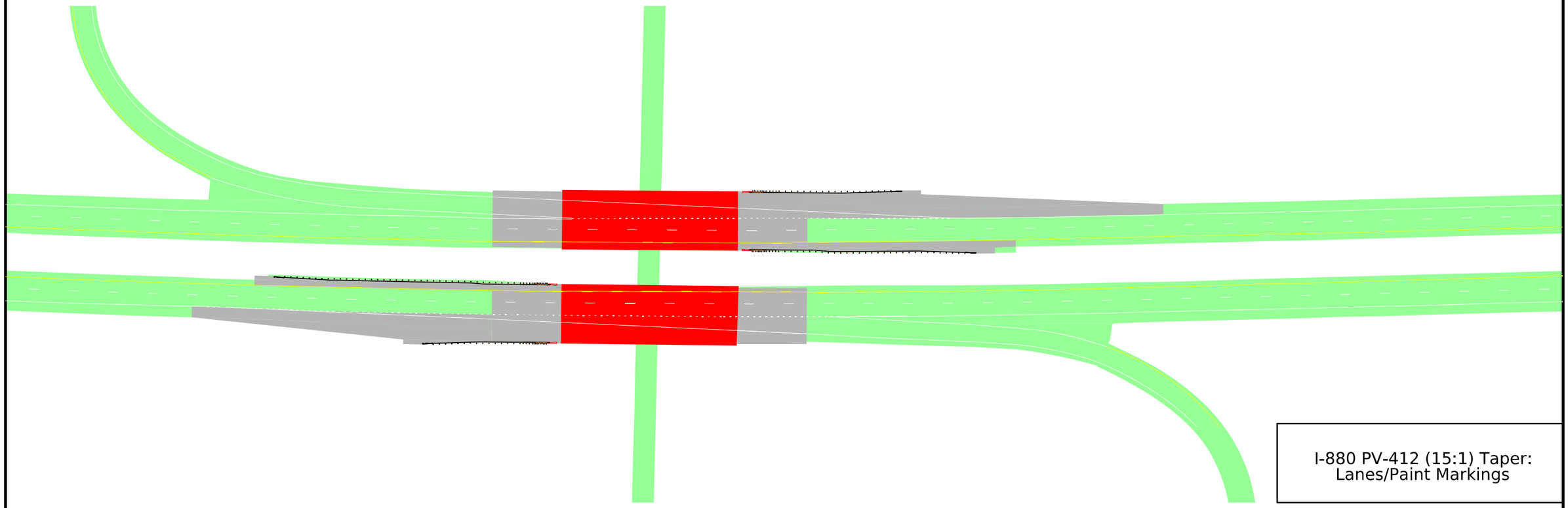
8:50:48 AM 9/23/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_U02.dgn



I-880 : Using PV-412
(15:1)

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER U.3	

8:50:54 AM 9/23/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_U03.dgn



I-880 PV-412 (15:1) Taper:
Lanes/Paint Markings

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER U.4	

8:50:57 AM 9/23/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_U04.dgn

STA 422+45.76 (I880)
POTENTIAL BEGIN PROJECT

613.42'

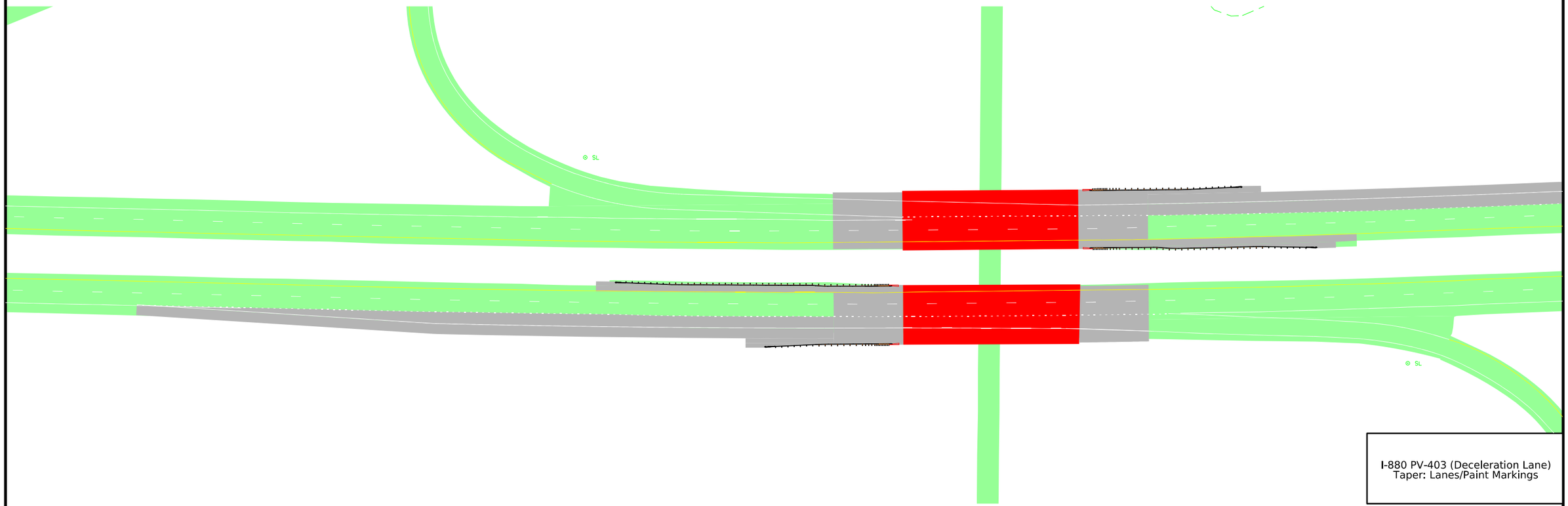
599.50'

STA 439+78.23 (I880)
POTENTIAL END PROJECT

I-880 : Using
PV-403 (Deceleration Lane)

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER U.5	

8:51:03 AM 9/23/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_U05.dgn



I-880 PV-403 (Deceleration Lane)
Taper: Lanes/Paint Markings

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER U.6	

8:51:06 AM 9/23/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_U06.dgn

CROSS SECTION VIEW COLOR LEGEND

Design Color No.	Feature
Aggregate	
(64)	Choke Stone
(42)	Engineering Fabric
(8)	Flooded Backfill
(92)	Macadam Stone
(20)	Modified
(12)	Plowing Shaping
(14)	Porous Backfill
(8)	Revetment Class A
(6)	Revetment Class B
(62)	Revetment Class C
(188)	Revetment Class D
(28)	Revetment Class E
(12)	Shoulder Special Backfill
(12)	Special Backfill
(20)	Subbase
(20)	Subbase Lower
(20)	Subbase Upper
(118)	Subgrade Treatment
Asphalt	
(207)	HMA Base Course
(207)	HMA Interim Course
(207)	HMA Surface Course
Bridge	
(0)	Bridge
Concrete	
(0)	Barrier Concrete
(0)	Barrier Concrete Footing
(0)	Curb Gutter
(48)	Flowable Mortar
(0)	Median Concrete
(0)	PCC Pavement
(0)	Sidewalk
Existing	
(0)	Existing Pavement
Grading	
(8)	Behind Curb Cut
(6)	Granular
(13)	Granular Back Fill
(48)	Rock Undercut
(8)	Shoulder Earth Fill
(2)	Side Slopes
(226)	Side Slopes Dressing
Shoulder	
(209)	Shoulder HMA
(0)	Shoulder PCC
(6)	Shoulder Granular

Design Color No.	Feature
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
Substrata	
(128)	Boulder
(48)	Broken Weathered
(3)	Core Out
(203)	Existing Pavement
(6)	Loam
(80)	Rock
(4)	Select Sand
(3)	Shale
(10)	Topsoil
Unsuitable / Waste	
(3)	Unsuitable Type A
(13)	Unsuitable Type B
(11)	Unsuitable Type C
(3)	Waste

NOTES:

Text

NOTES:

Text

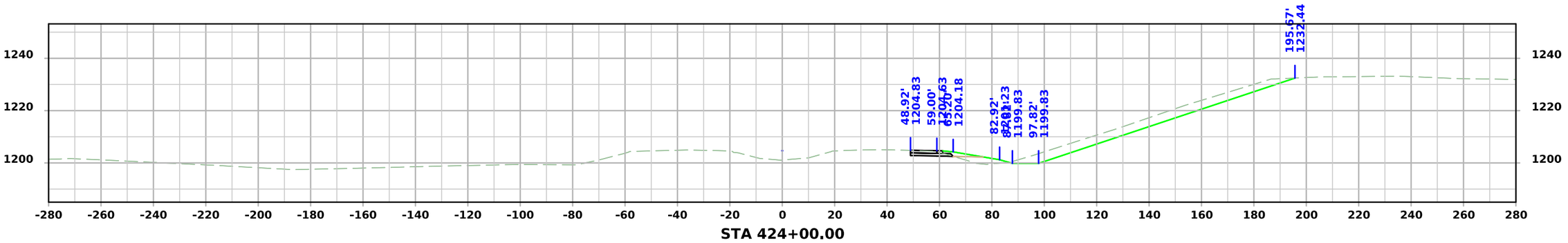
CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

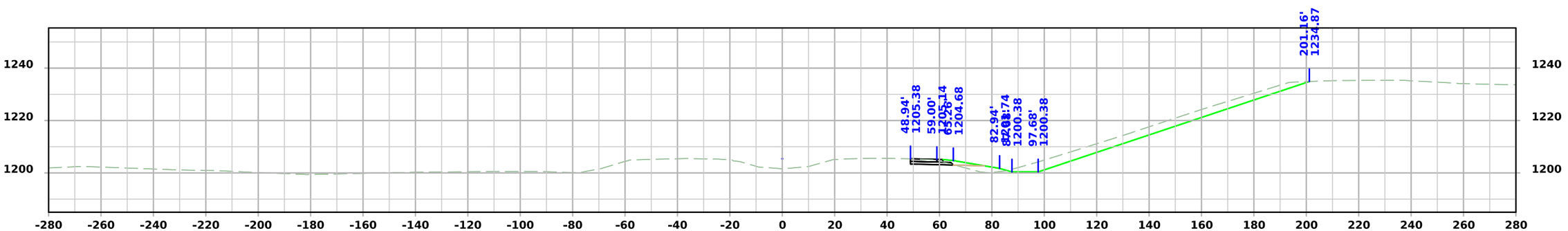
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.1	

8:52:39 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Sheet_Files\SHT_78880003_LEGEND.dgn

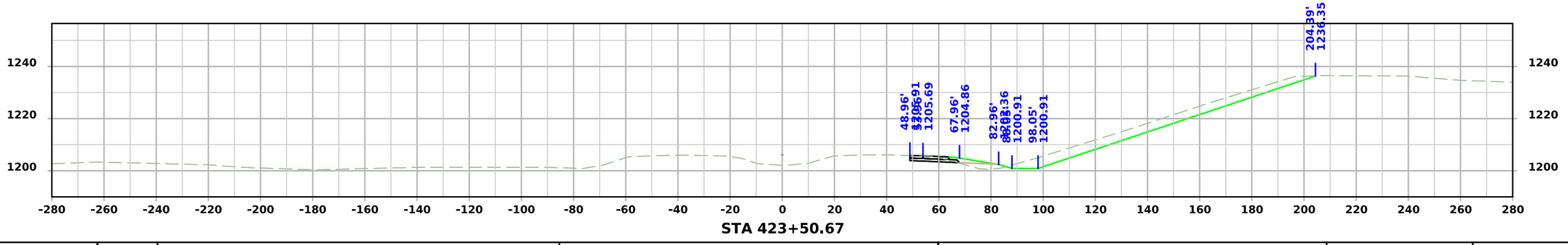
I-880



STA 424+00.00



STA 423+75.00

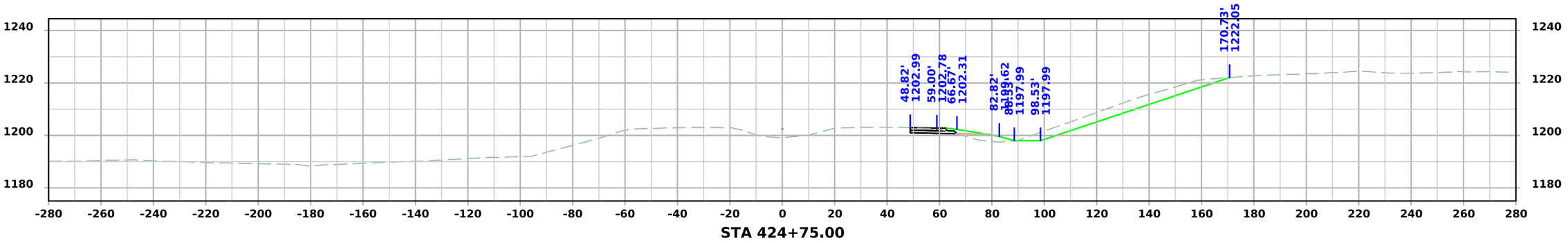


STA 423+50.67

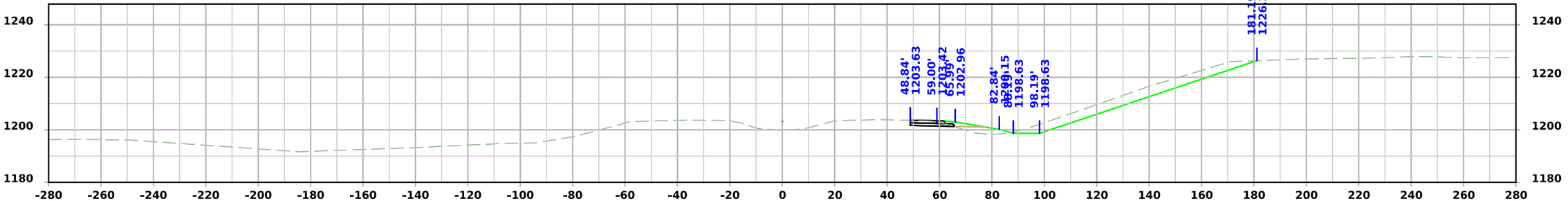
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.2

9:16:10 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

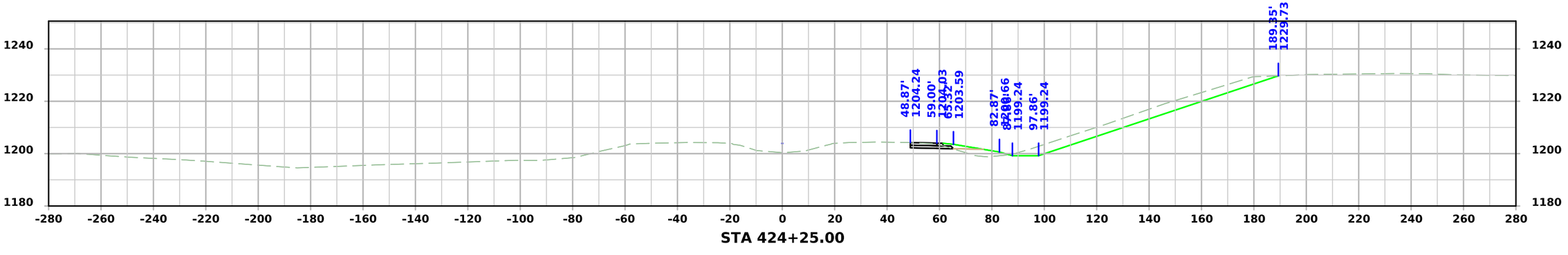
I-880



STA 424+75.00



STA 424+50.00

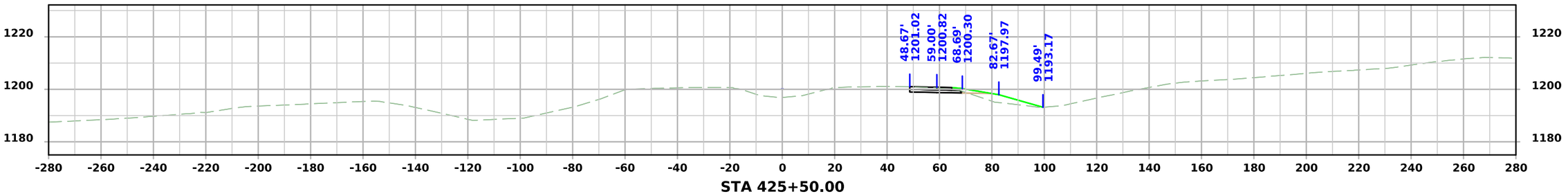


STA 424+25.00

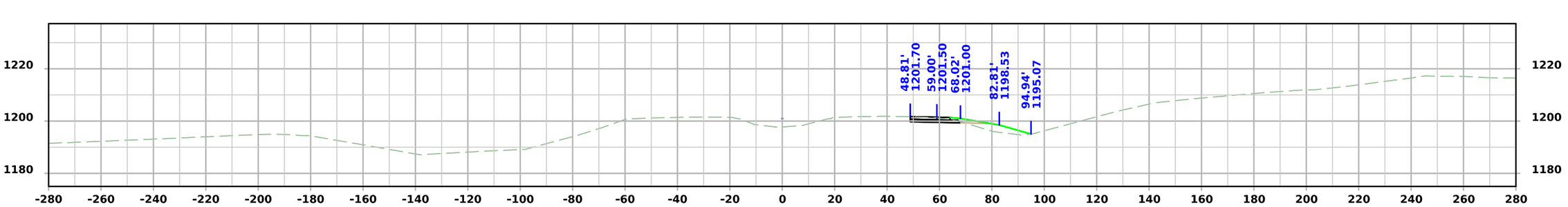
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.3

9:16:11 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

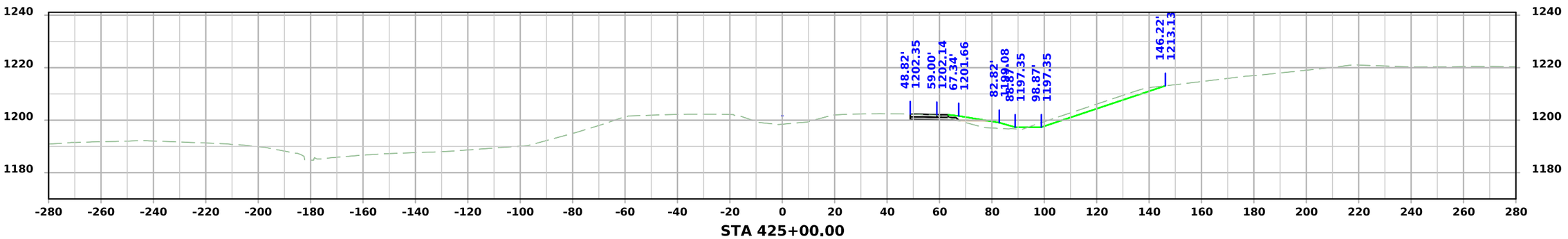
I-880



STA 425+50.00



STA 425+25.00

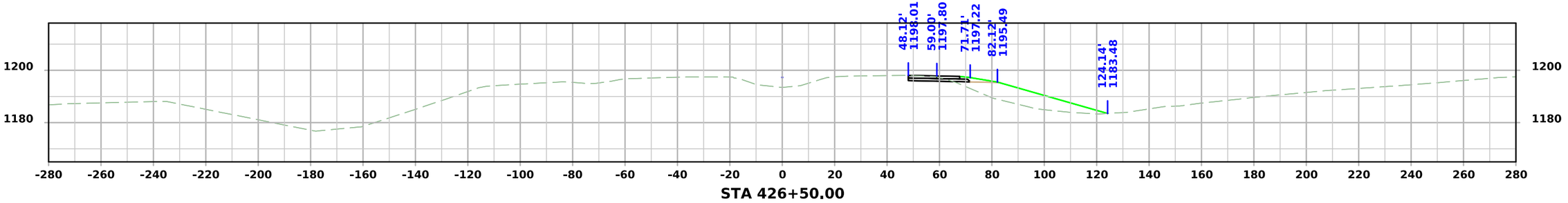


STA 425+00.00

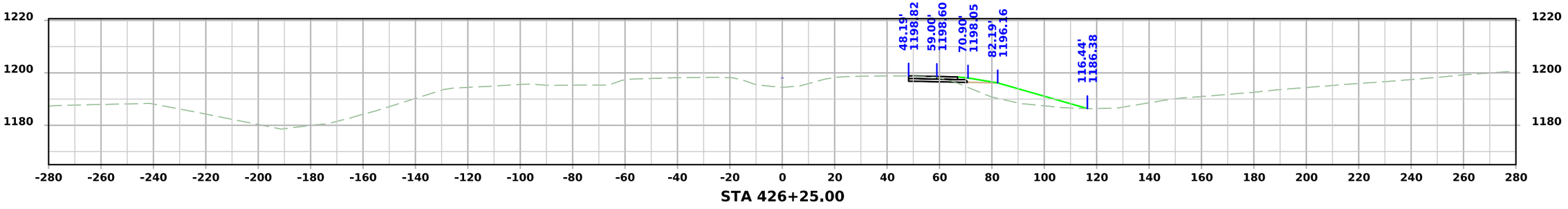
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.4

9:16:12 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

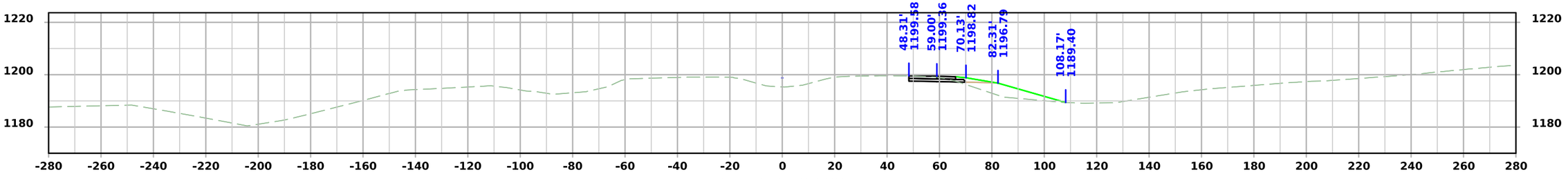
I-880



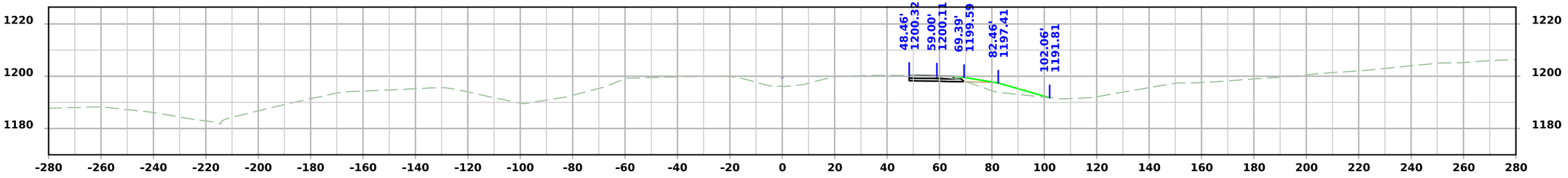
STA 426+50.00



STA 426+25.00



STA 426+00.00

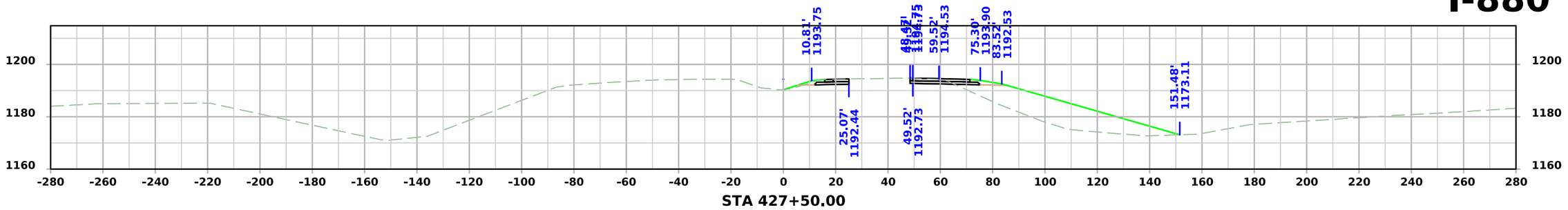


STA 425+75.00

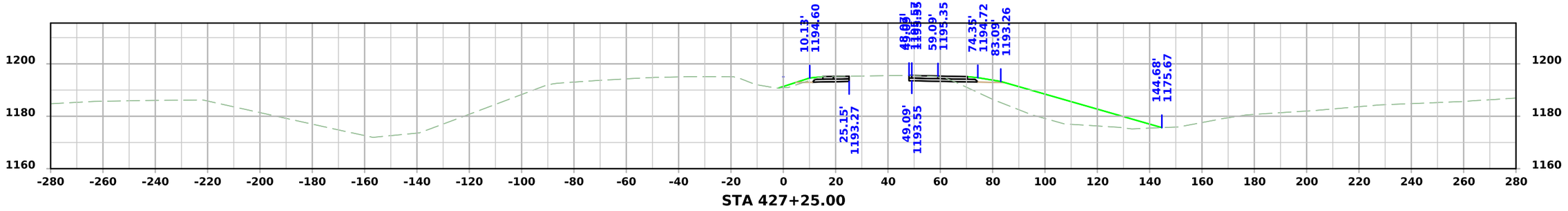
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.5

9:16:12 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

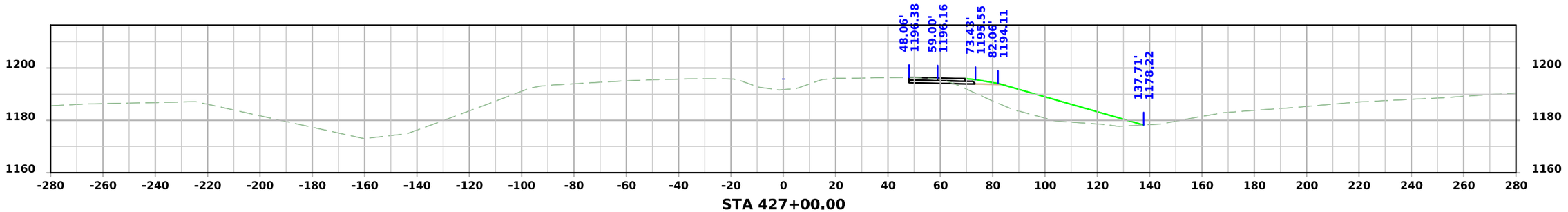
I-880



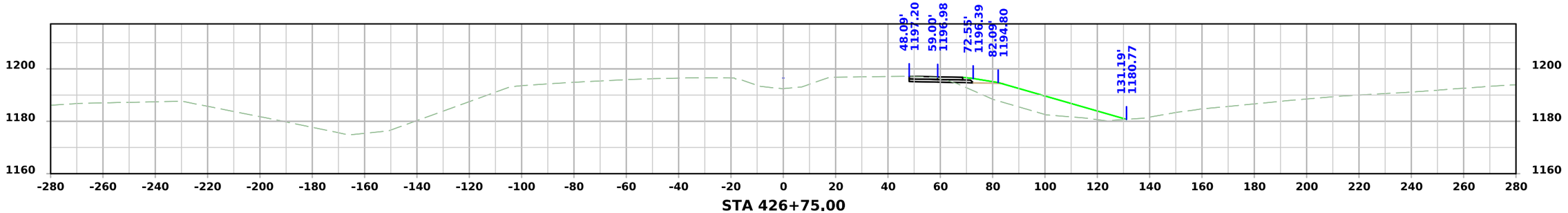
STA 427+50.00



STA 427+25.00



STA 427+00.00

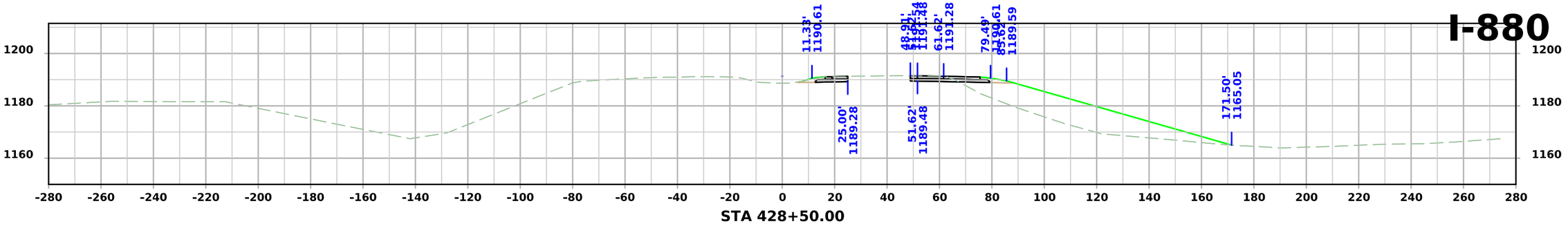


STA 426+75.00

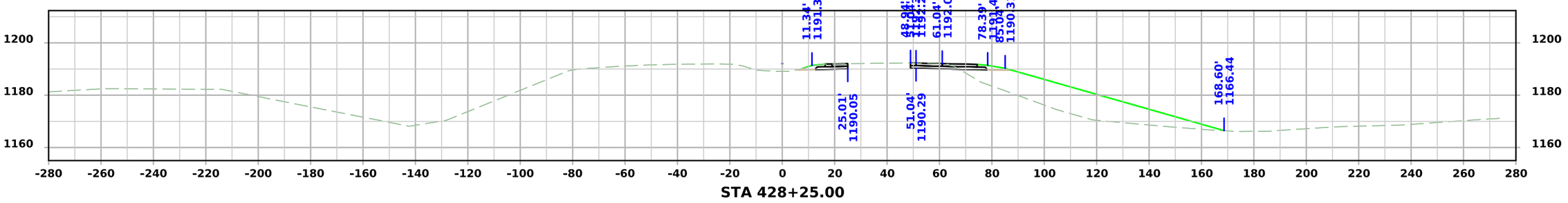
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.6

9:16:13 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

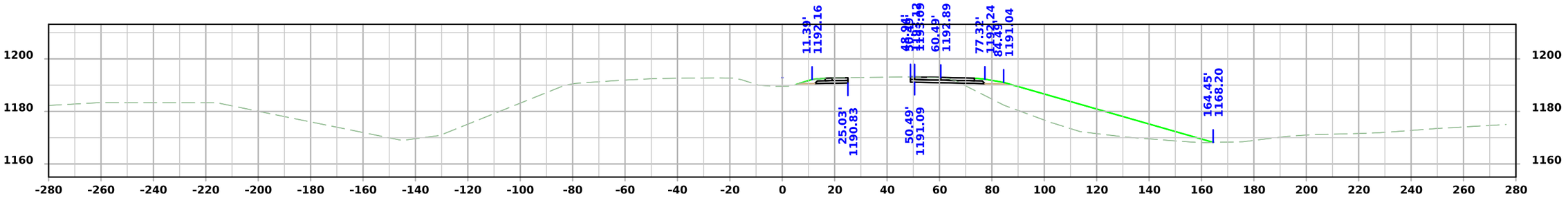
I-880



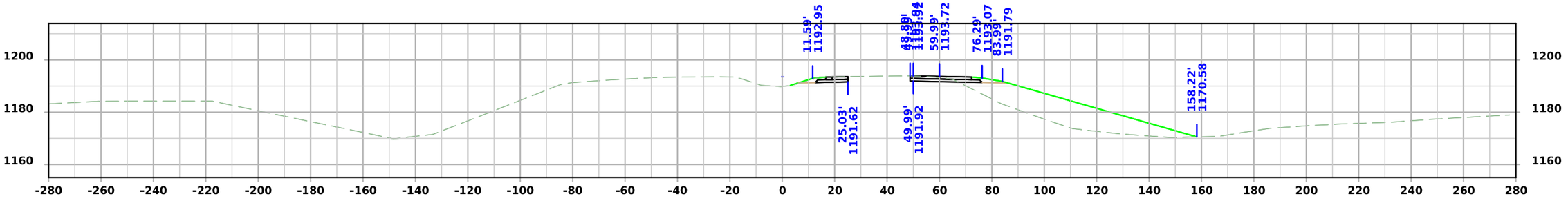
STA 428+50.00



STA 428+25.00



STA 428+00.00

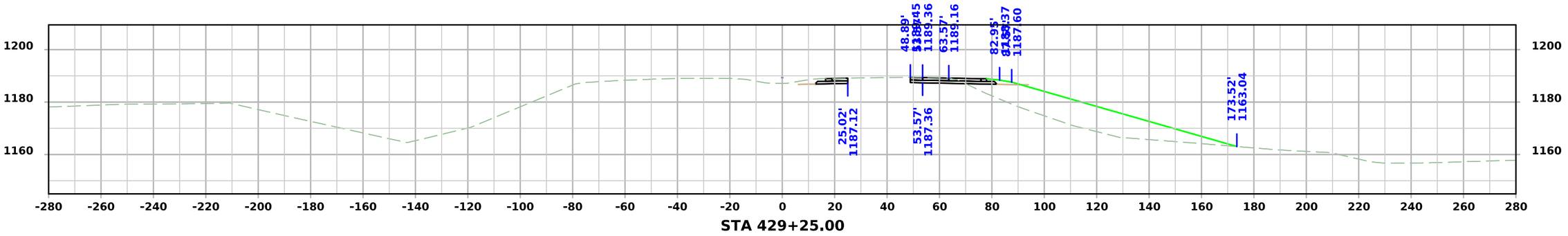


STA 427+75.00

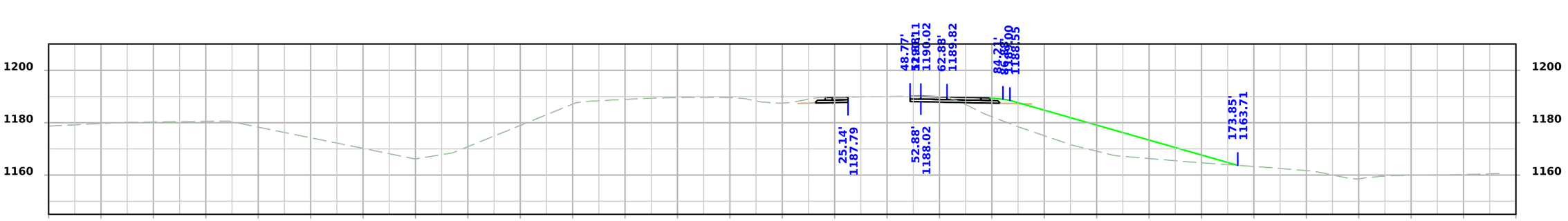
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.7

9:16:15 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

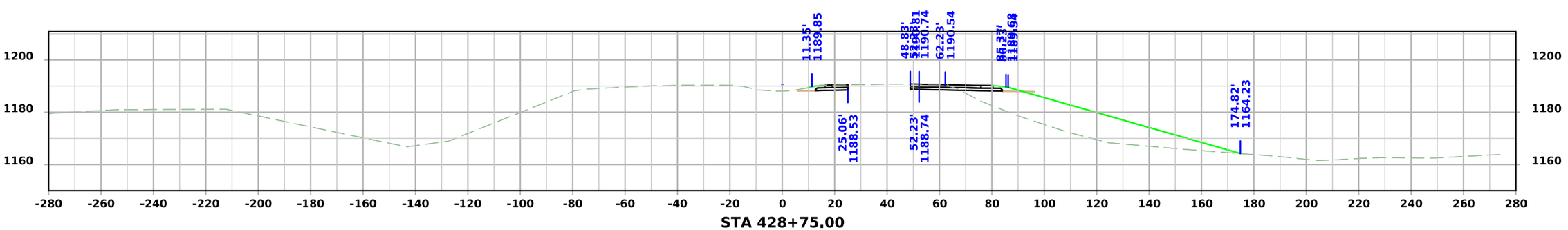
I-880



STA 429+25.00



STA 429+00.00

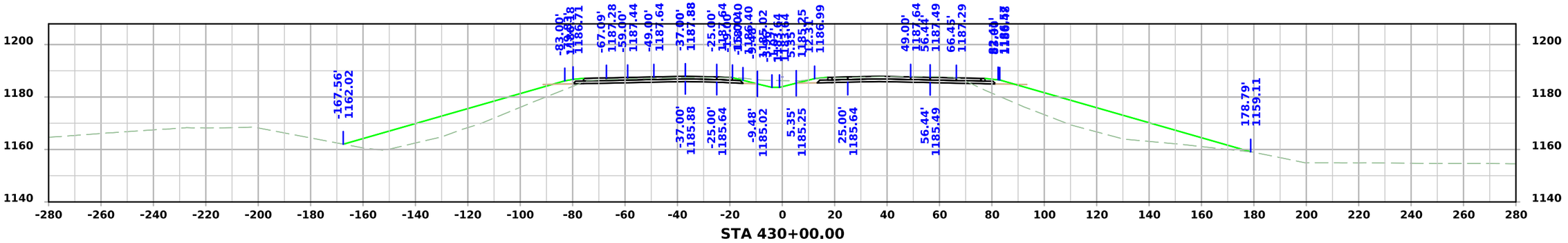


STA 428+75.00

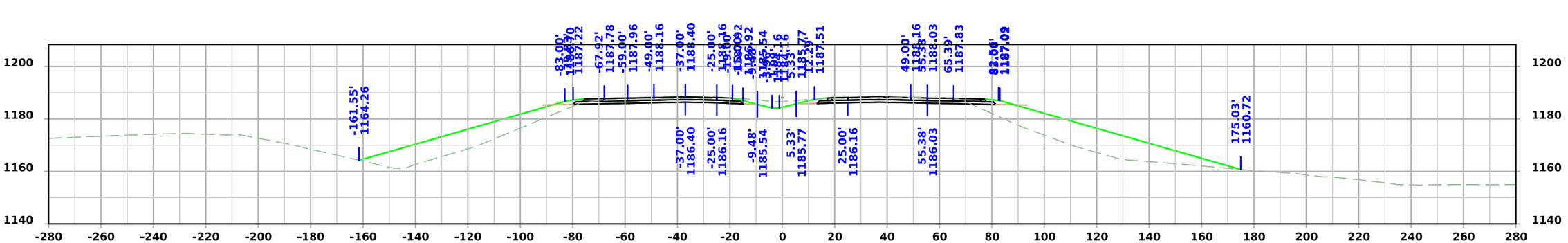
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.8

9:16:17 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

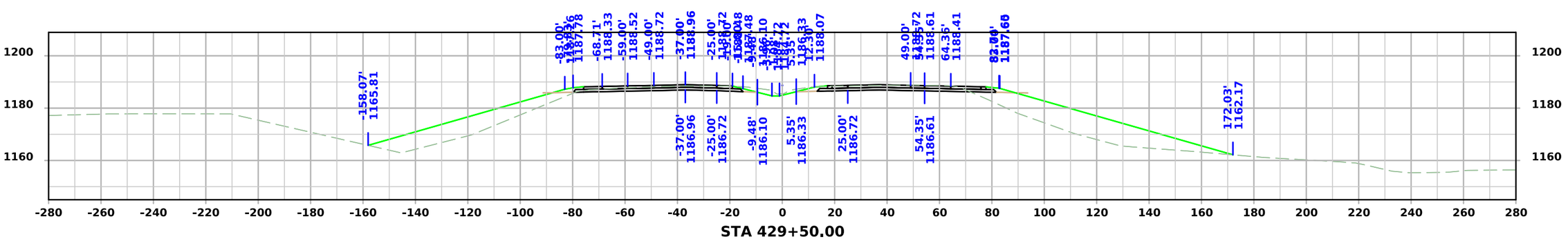
I-880



STA 430+00.00



STA 429+75.00

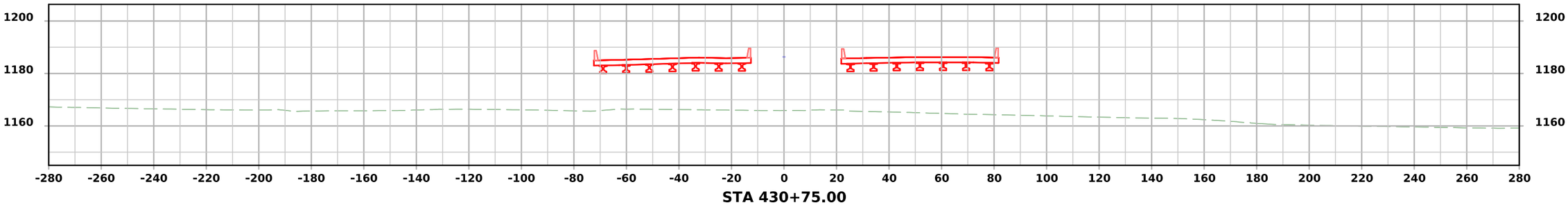


STA 429+50.00

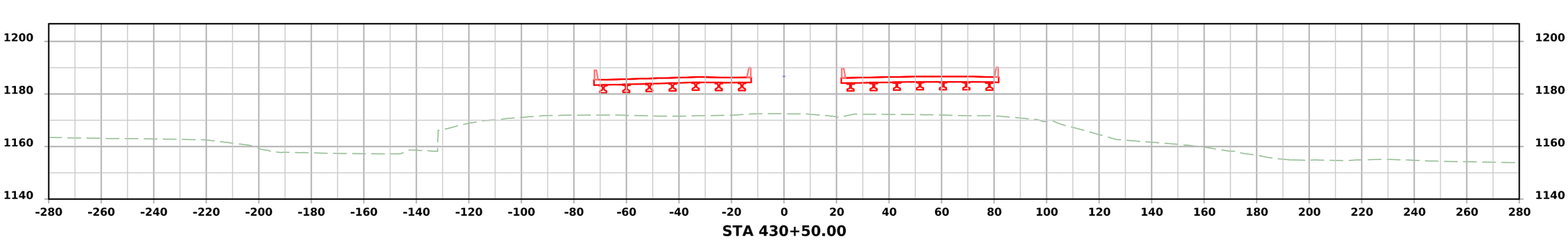
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.9

9:16:19 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

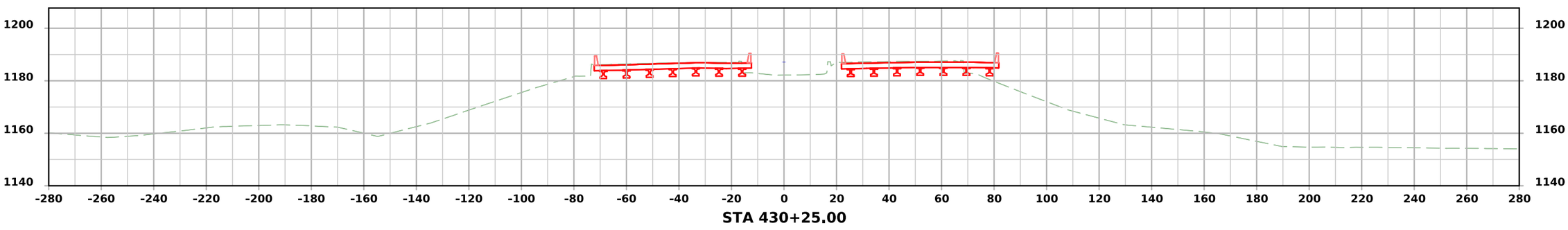
I-880



STA 430+75.00



STA 430+50.00

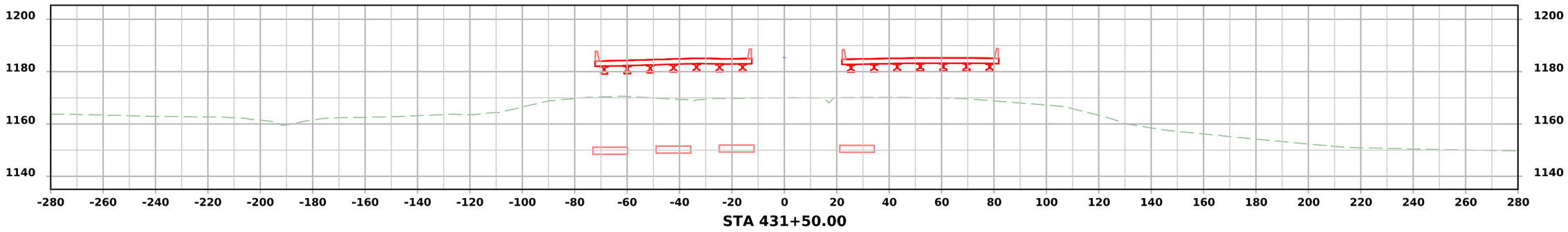


STA 430+25.00

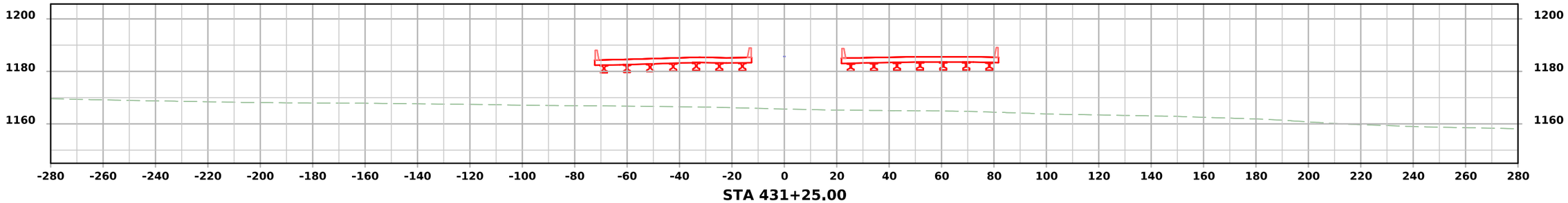
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.10

9:16:23 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

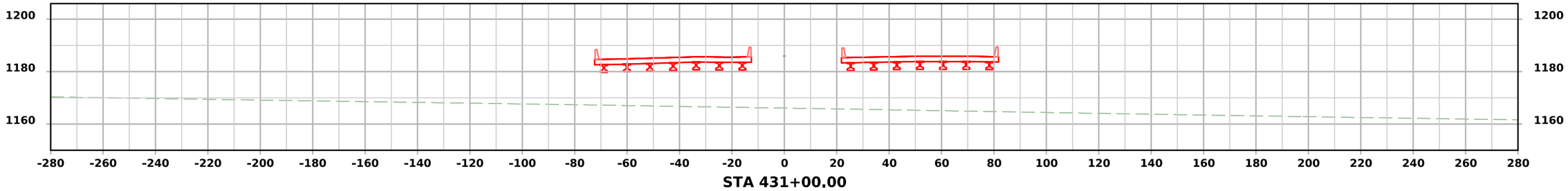
I-880



STA 431+50.00



STA 431+25.00

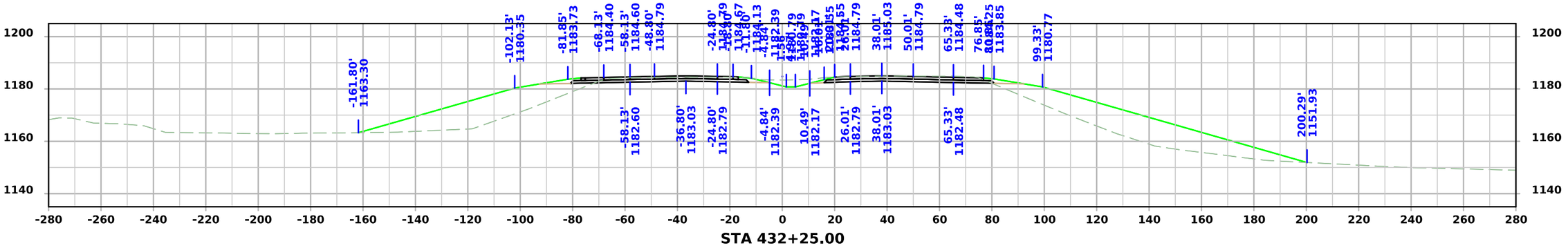


STA 431+00.00

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.11

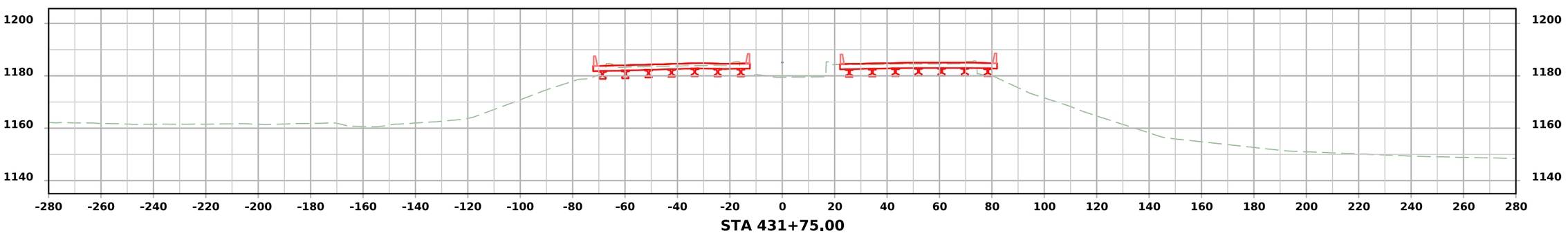
9:16:25 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

I-880



STA 432+25.00

STA 432+00.00

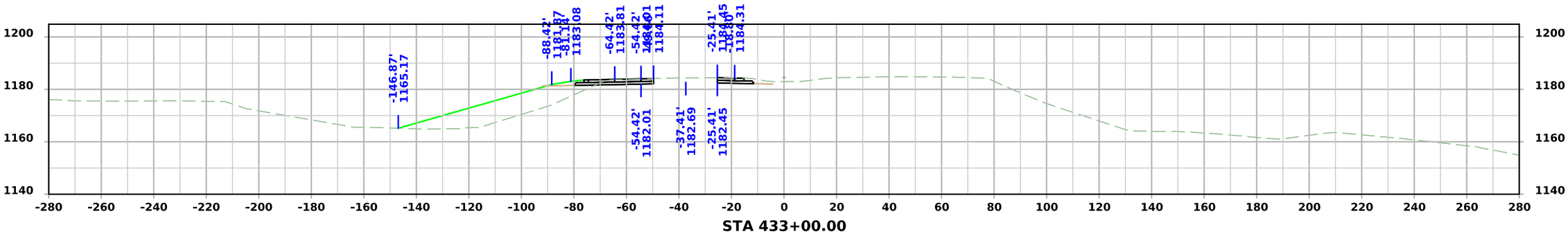


STA 431+75.00

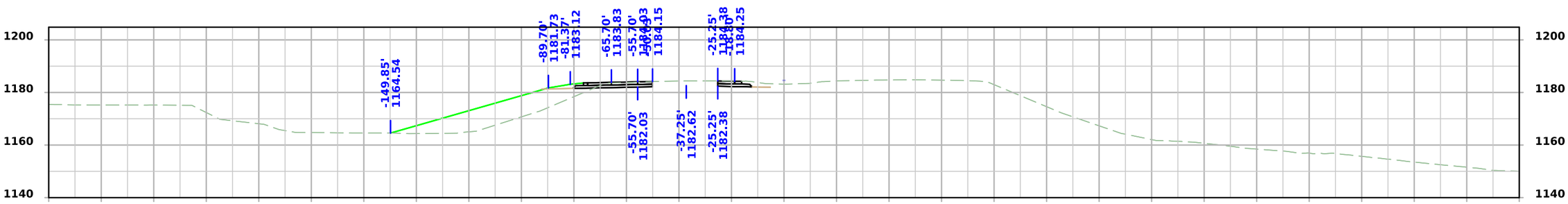
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.12

9:16:26 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

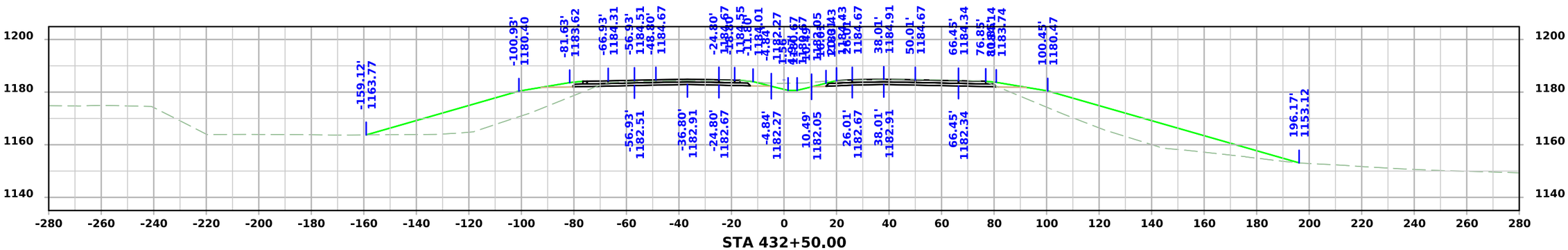
I-880



STA 433+00.00



STA 432+75.00

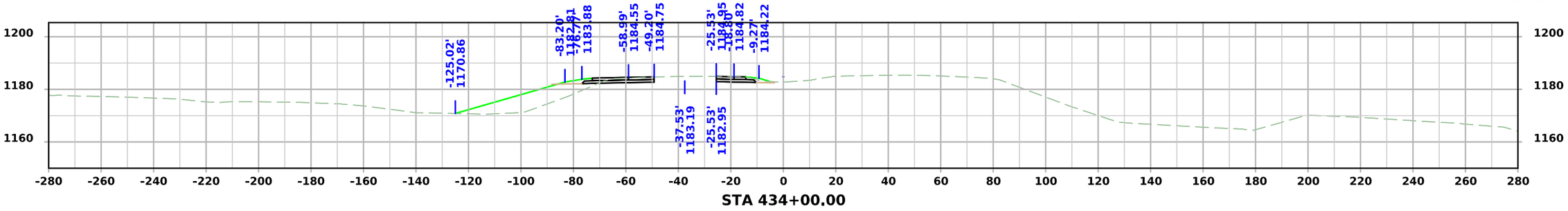


STA 432+50.00

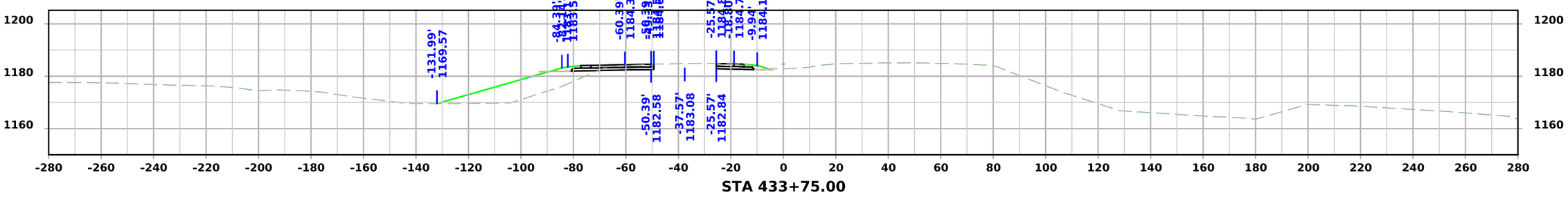
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.13

9:16:27 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

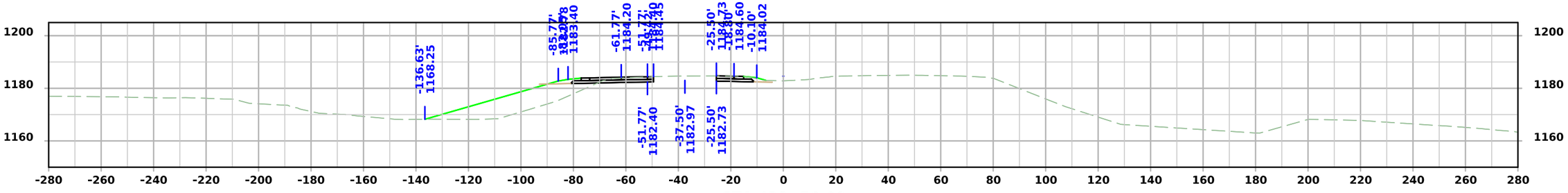
I-880



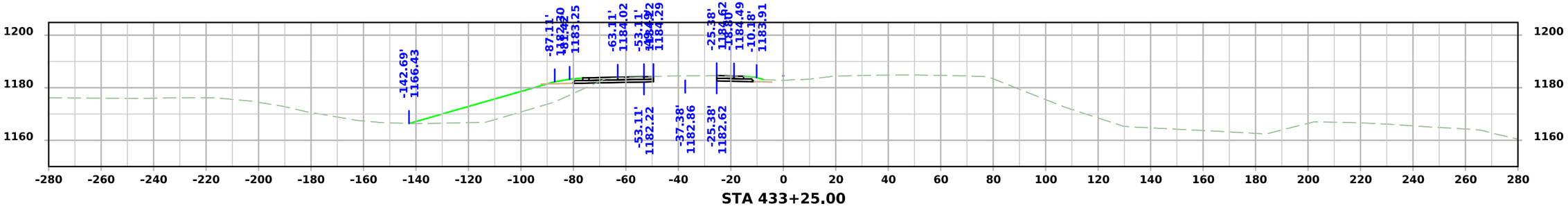
STA 434+00.00



STA 433+75.00



STA 433+50.00

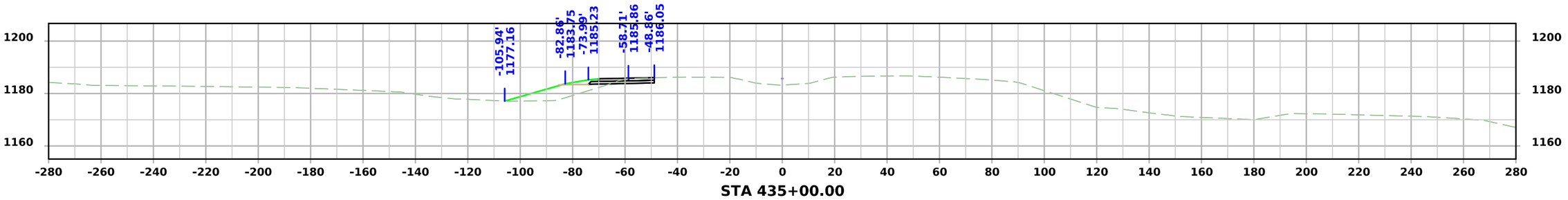


STA 433+25.00

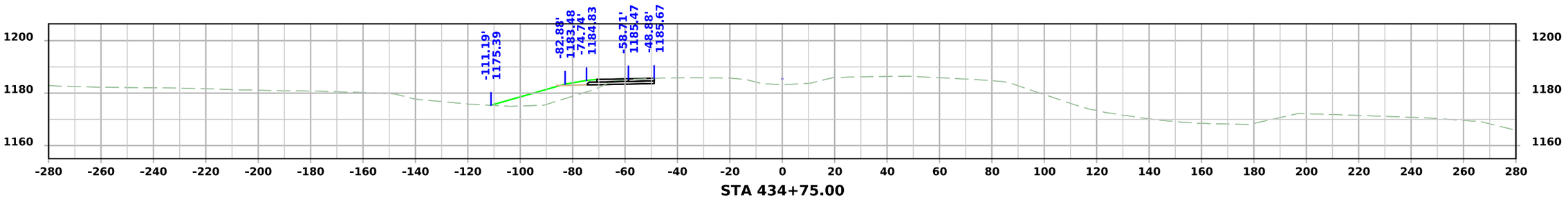
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.14

9:16:28 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

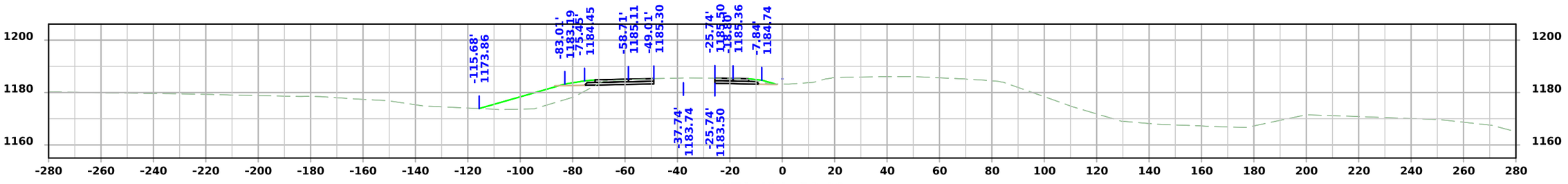
I-880



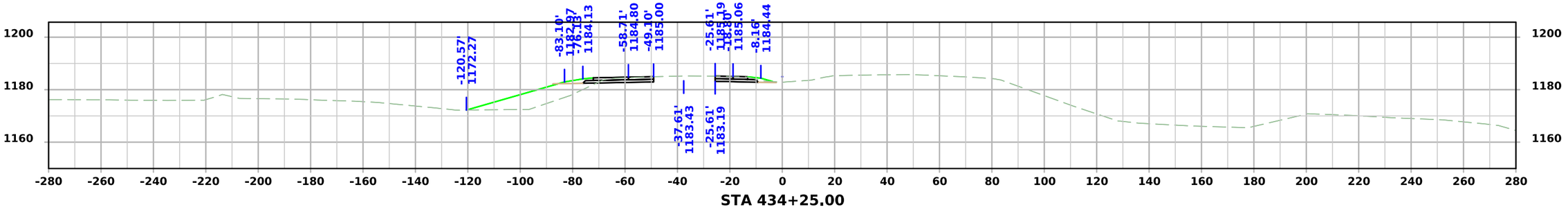
STA 435+00.00



STA 434+75.00



STA 434+50.00

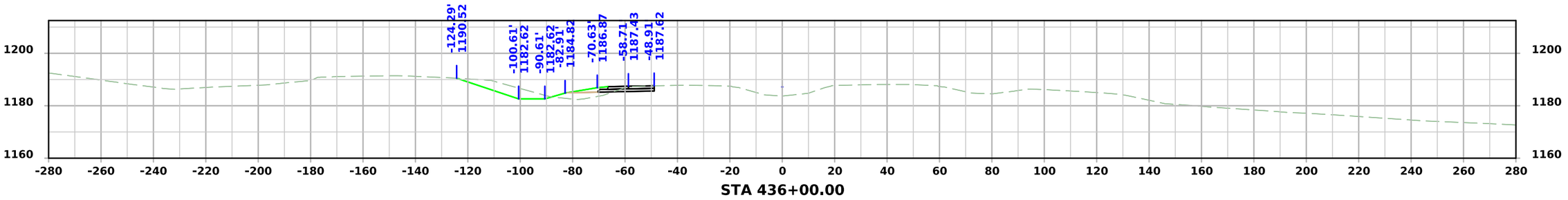


STA 434+25.00

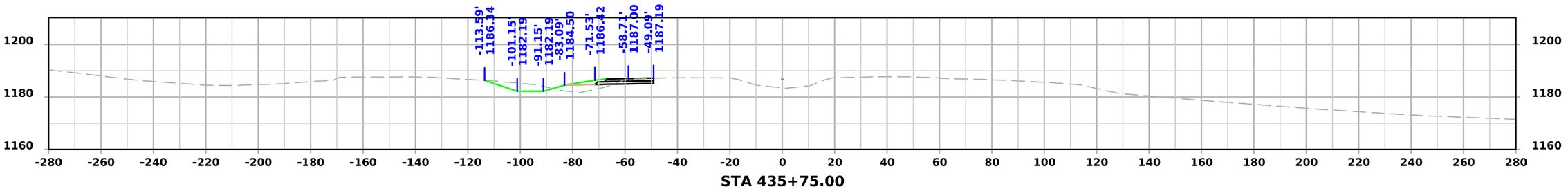
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.15

9:16:28 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

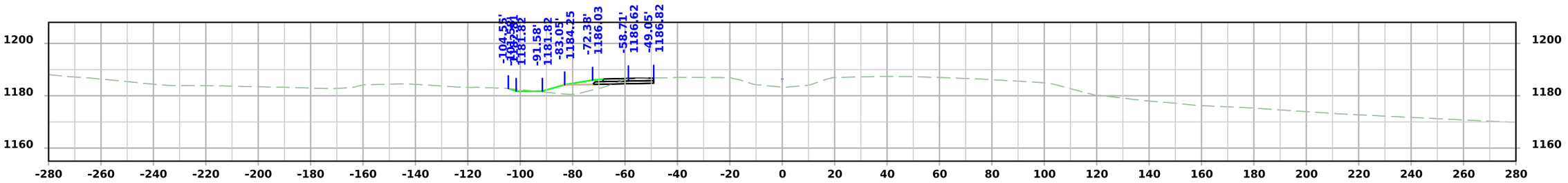
I-880



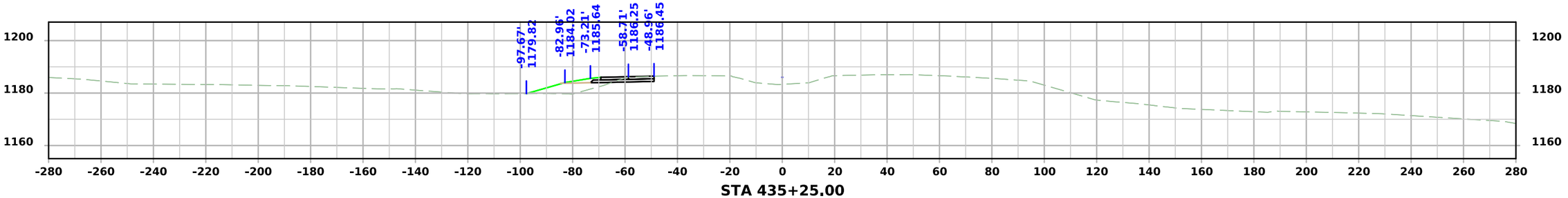
STA 436+00.00



STA 435+75.00



STA 435+50.00

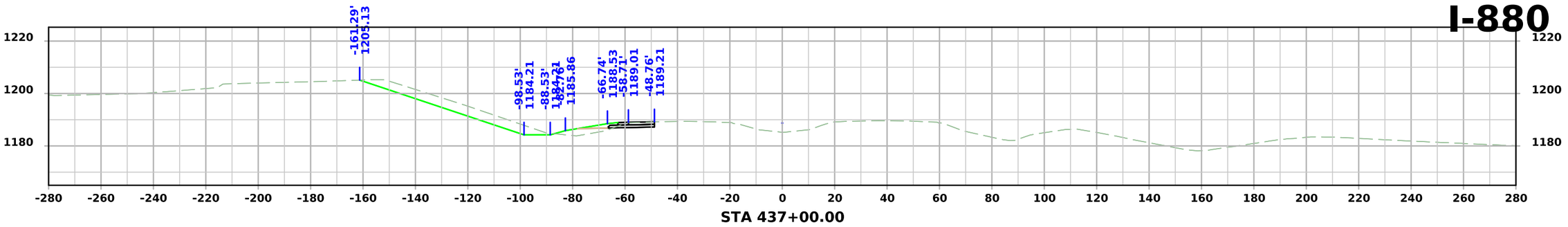


STA 435+25.00

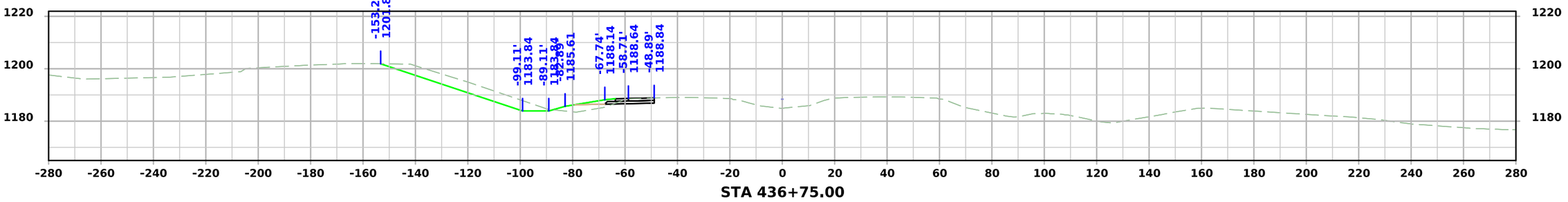
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.16

9:16:29 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

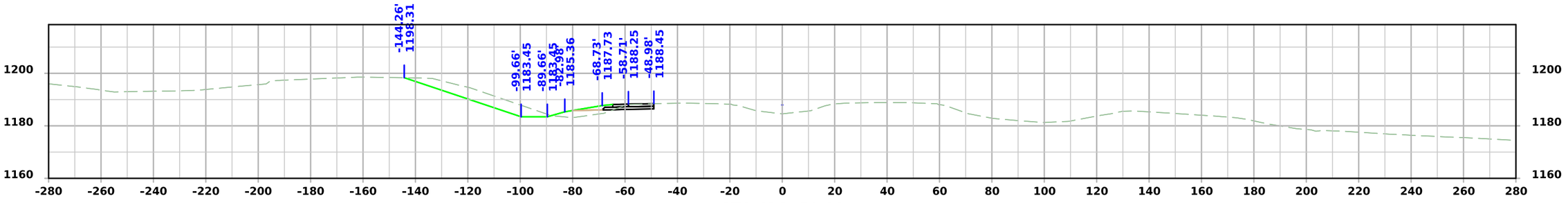
I-880



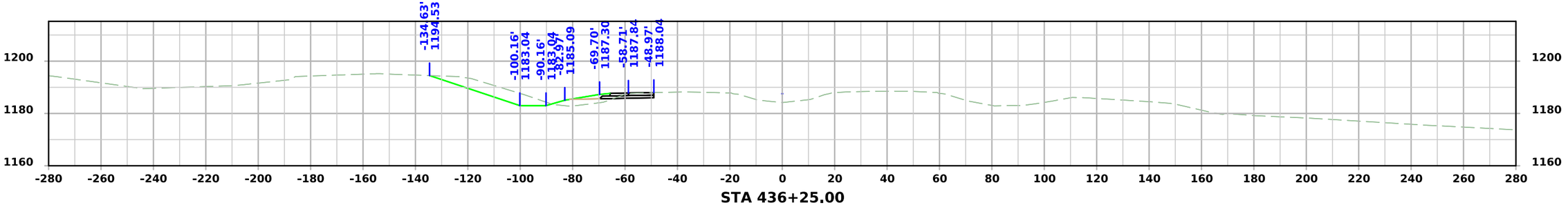
STA 437+00.00



STA 436+75.00



STA 436+50.00

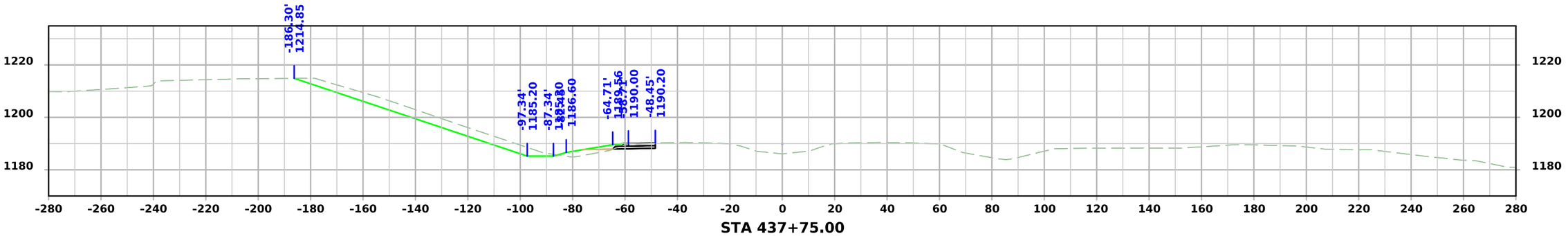


STA 436+25.00

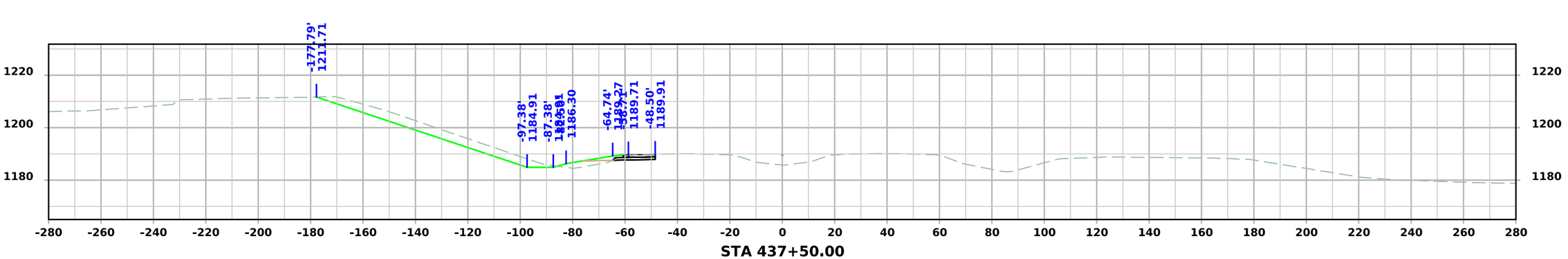
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.17

9:16:29 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

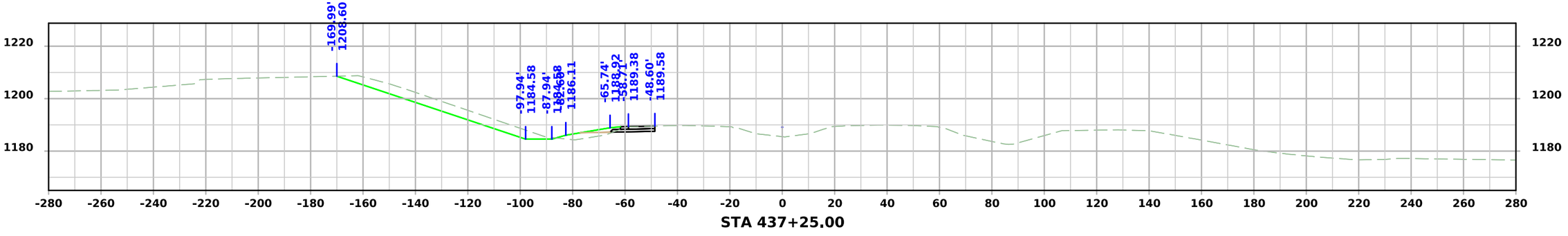
I-880



STA 437+75.00



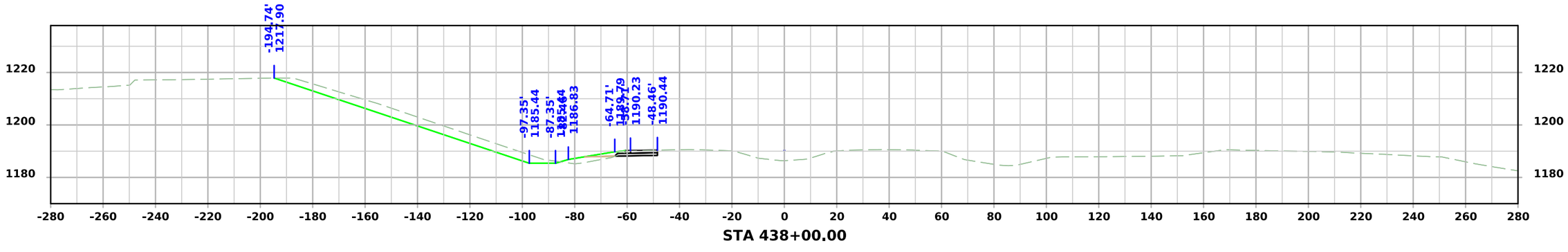
STA 437+50.00



STA 437+25.00

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.18	

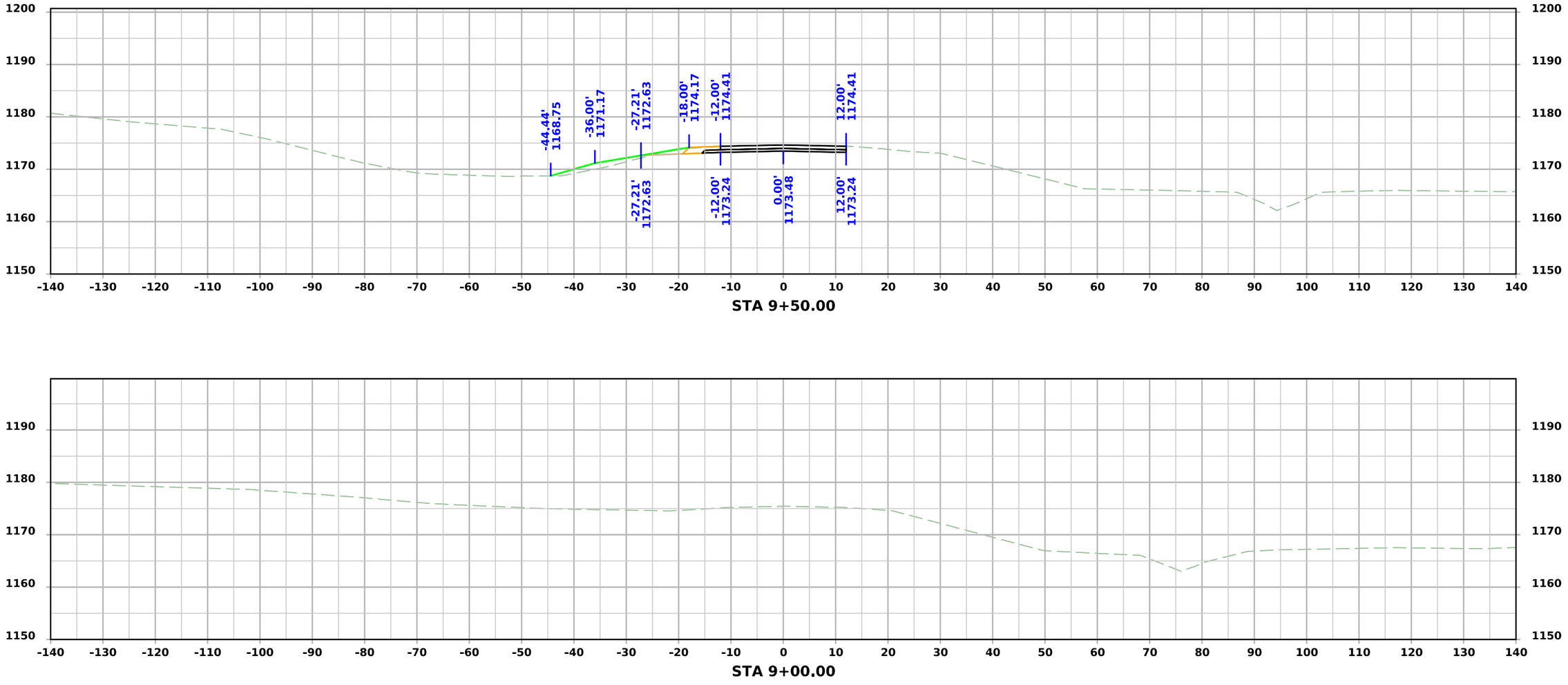
9:16:30 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn



FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER W.19	

9:16:30 AM 9/22/2026 hcooper pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_ML880_78880003_Z06.dgn

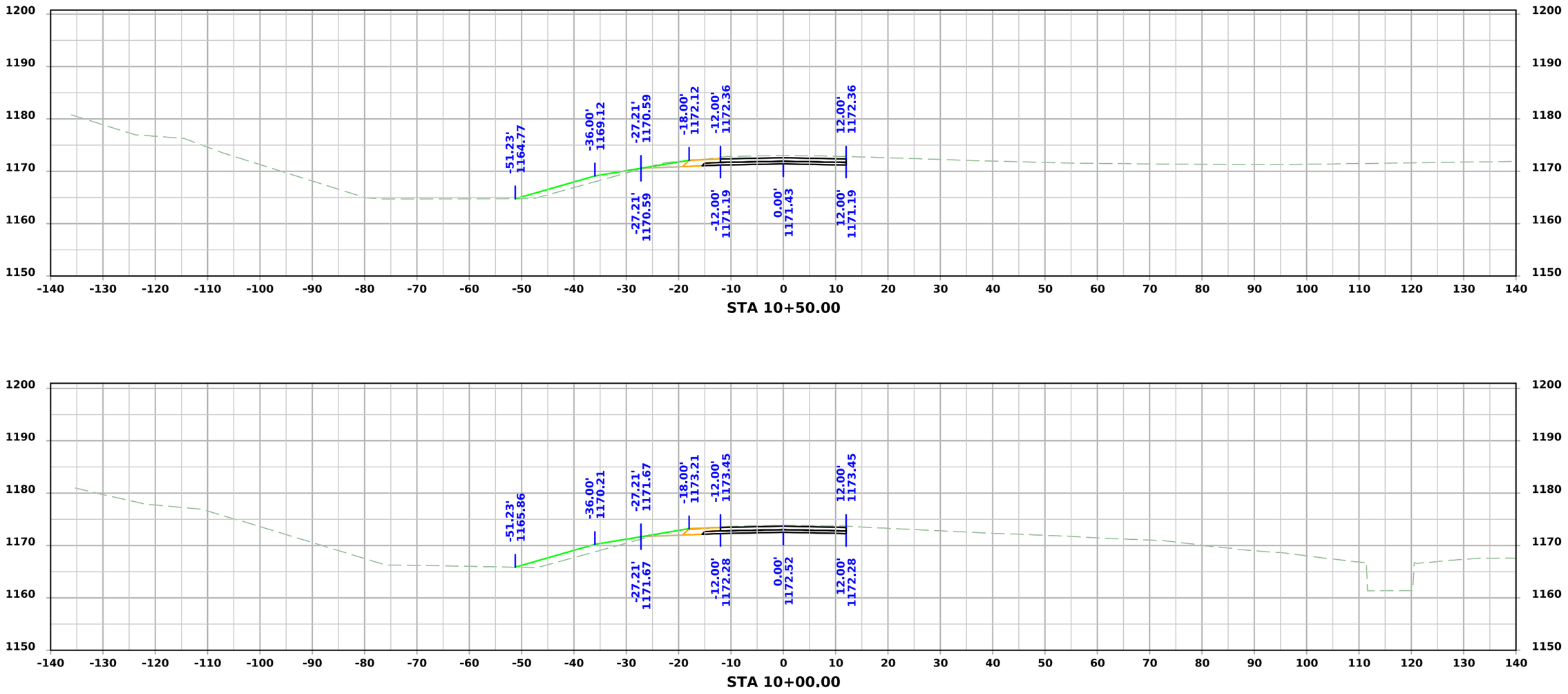
L34



FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER X.1

9:41:45 AM 9/22/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_SRL34_78880003Z06.dgn

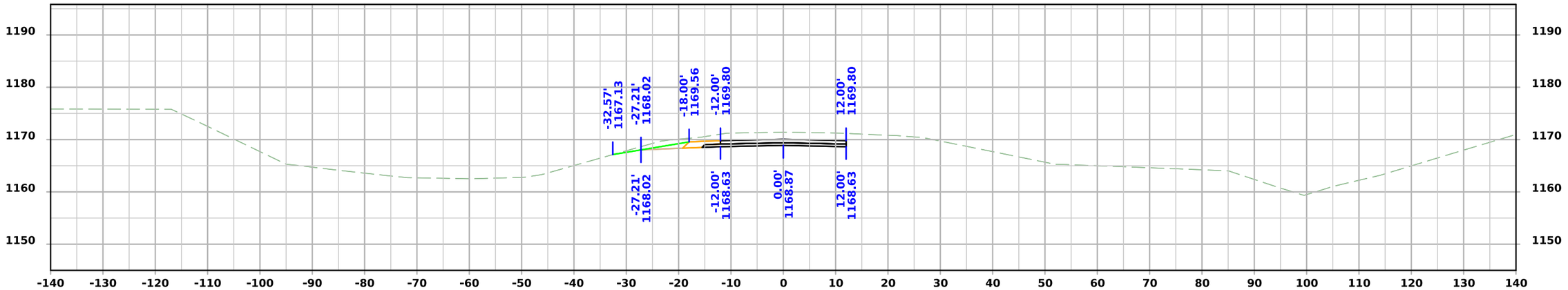
L34



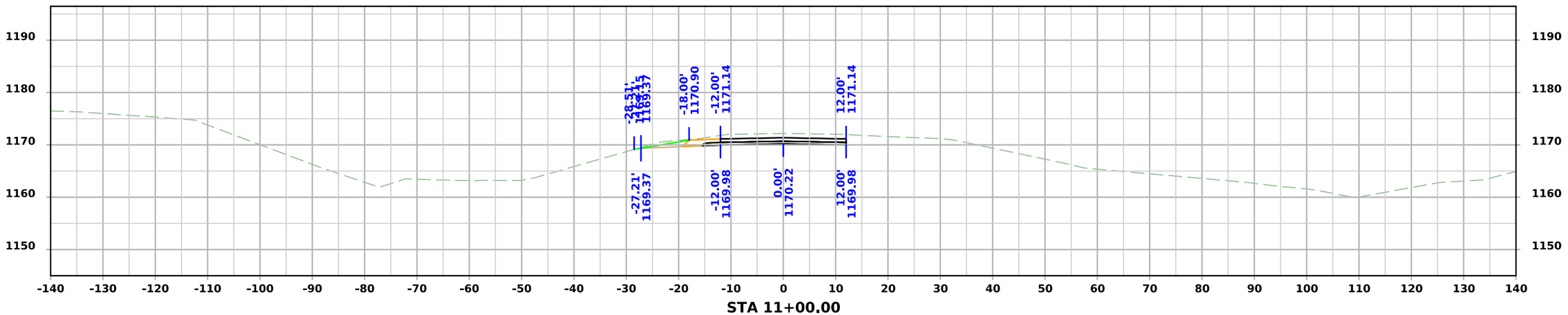
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER X.2

9:41:45 AM 9/22/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_SRL34_78880003Z06.dgn

L34



STA 11+50.00

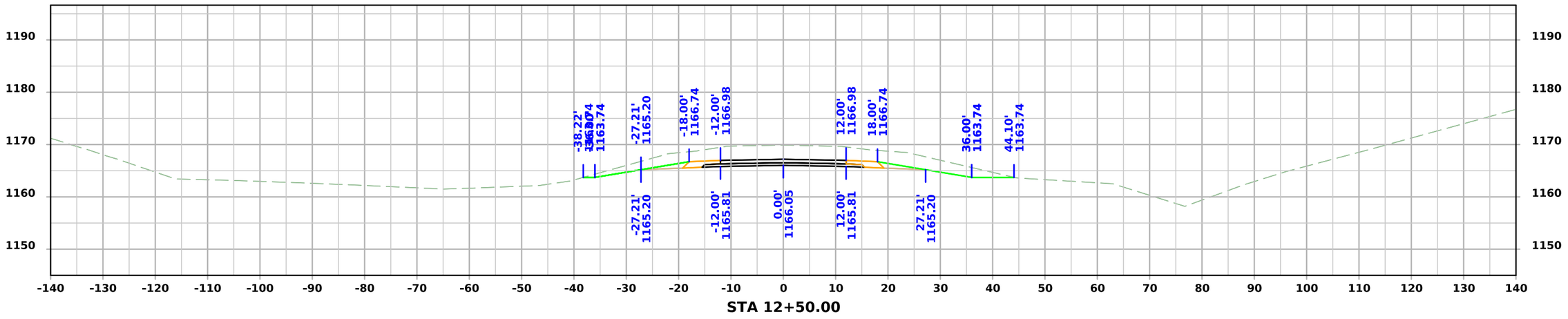


STA 11+00.00

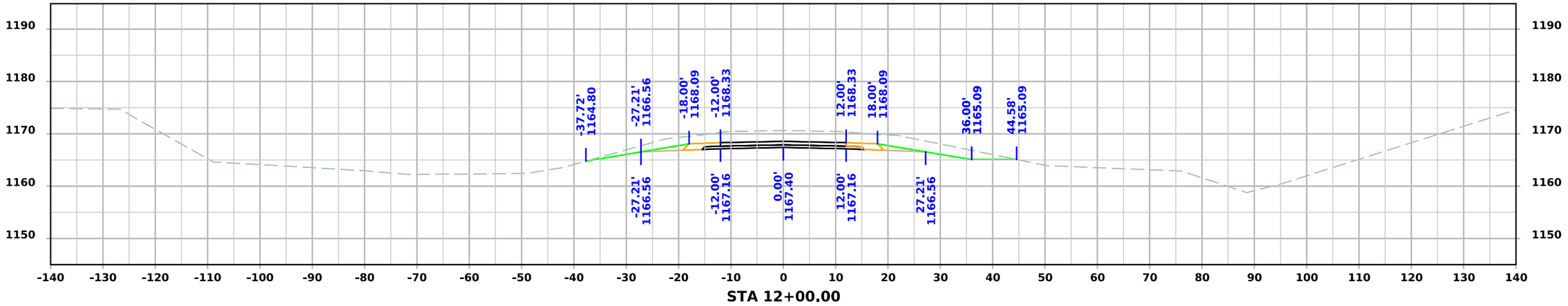
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER X.3	

9:41:46 AM 9/22/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_SRL34_78880003Z06.dgn

L34



STA 12+50.00

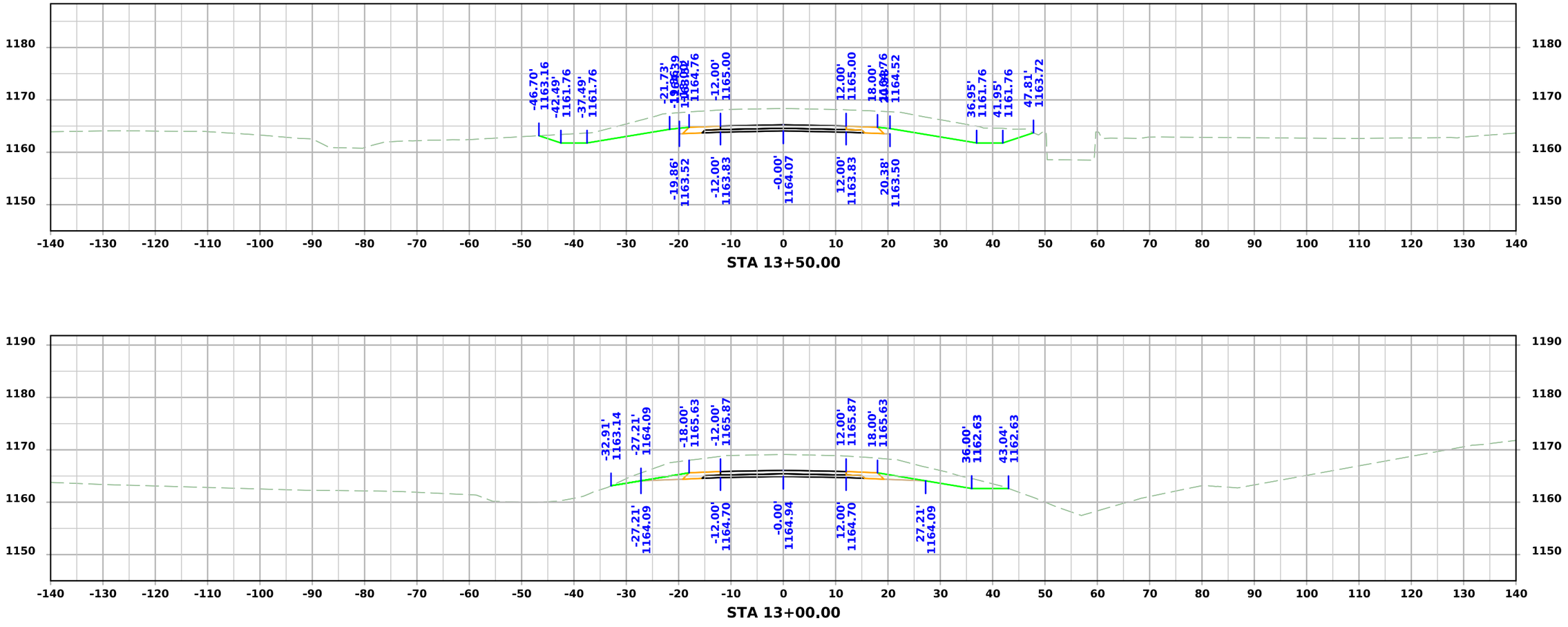


STA 12+00.00

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER X.4	

9:41:46 AM 9/22/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_SRL34_78880003Z06.dgn

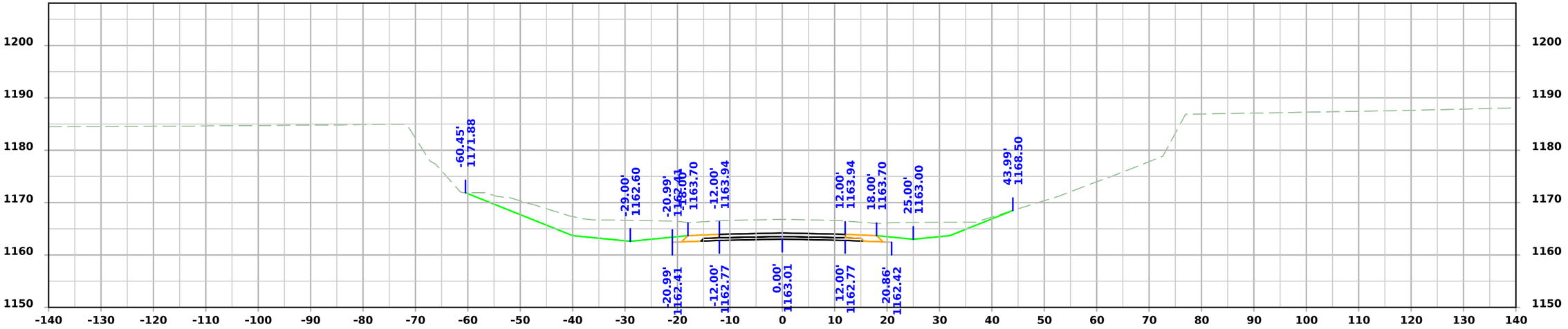
L34

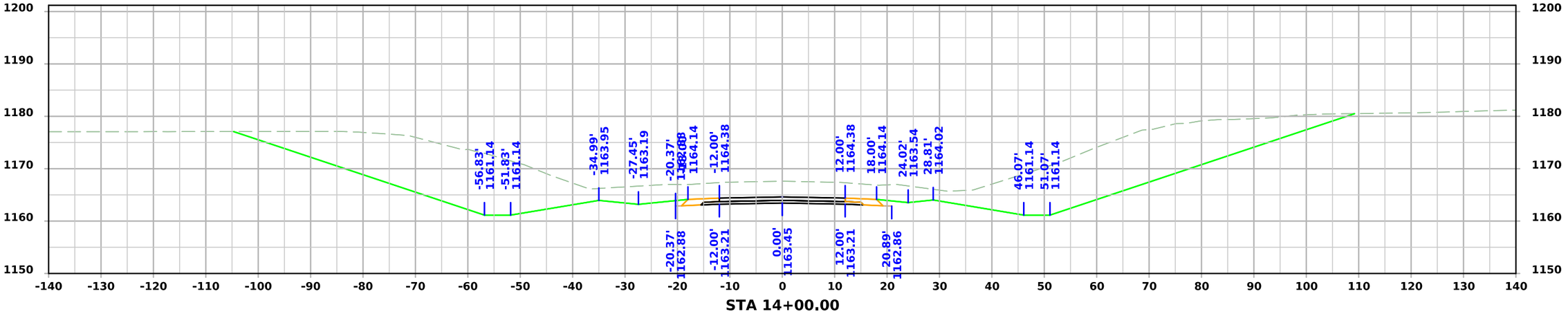


FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER X.5

9:41:46 AM 9/22/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_SRL34_78880003Z06.dgn

L34

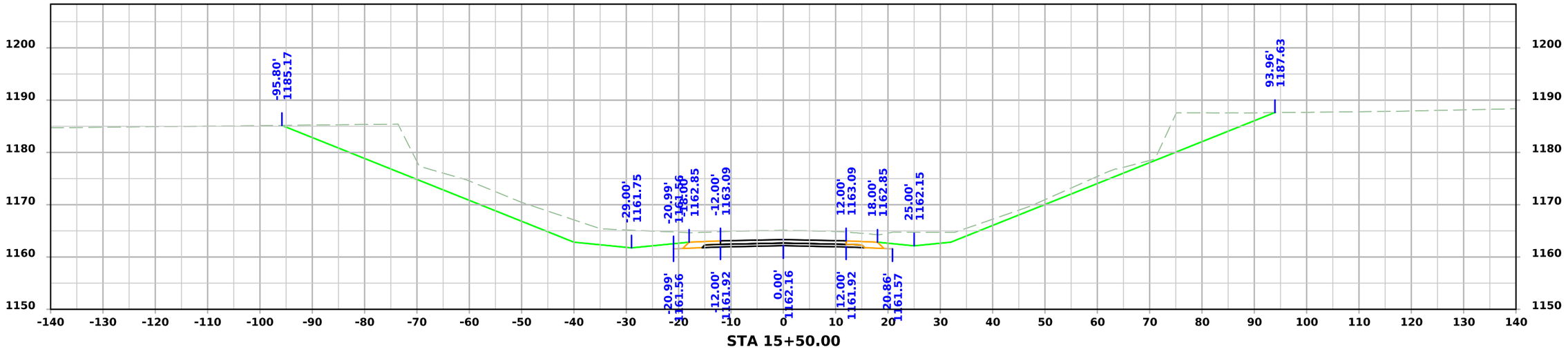




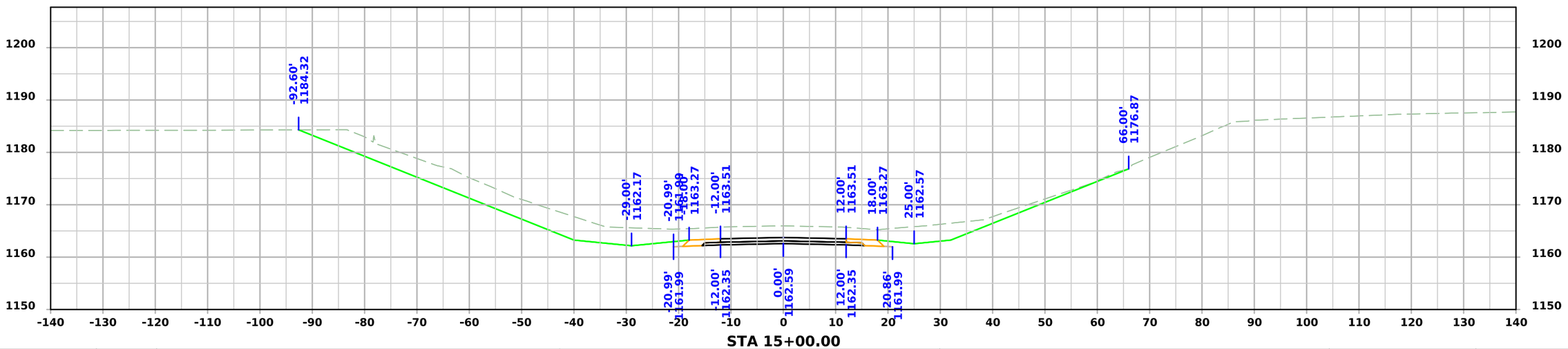
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER X.6

9:41:47 AM 9/22/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_SRL34_78880003Z06.dgn

L34



STA 15+50.00

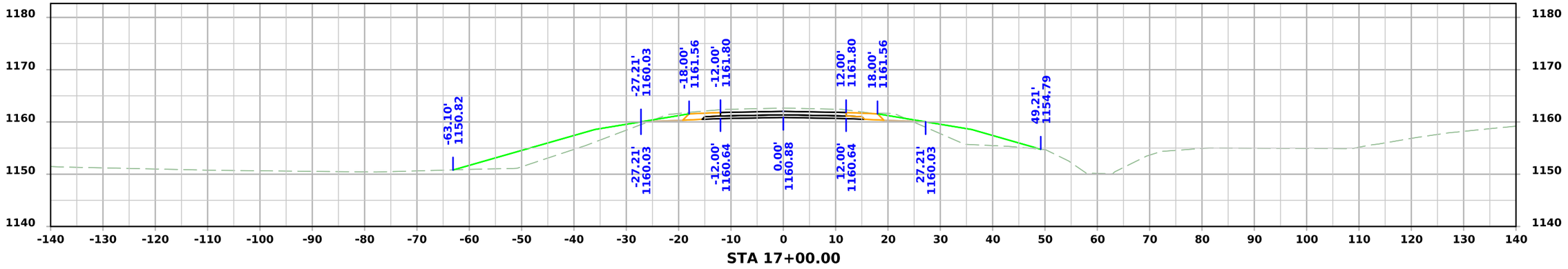


STA 15+00.00

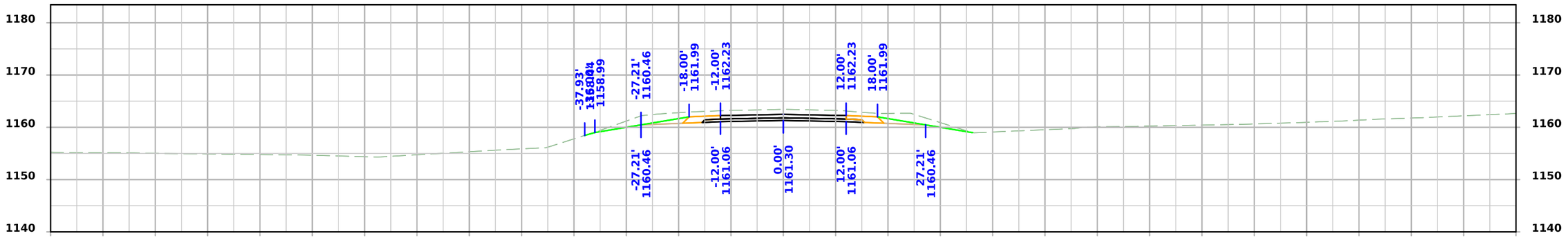
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER X.7	

9:41:47 AM 9/22/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_SRL34_78880003Z06.dgn

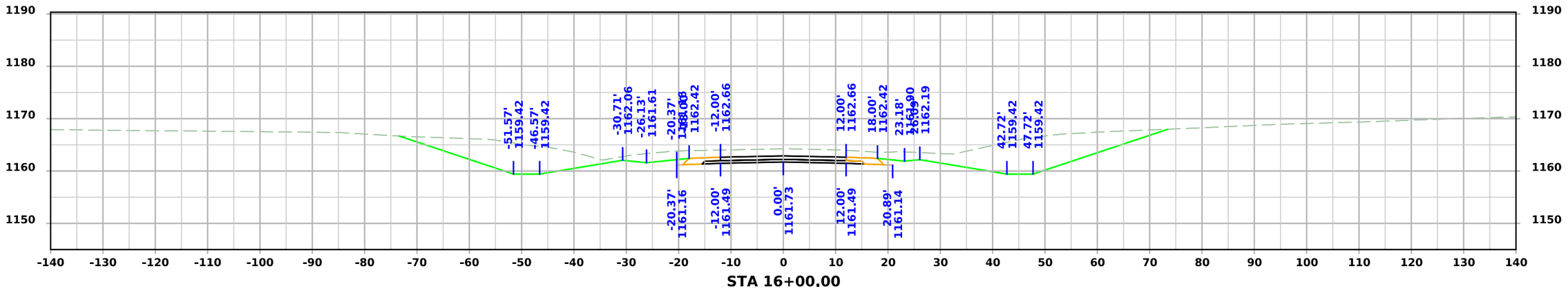
L34



STA 17+00.00



STA 16+50.00

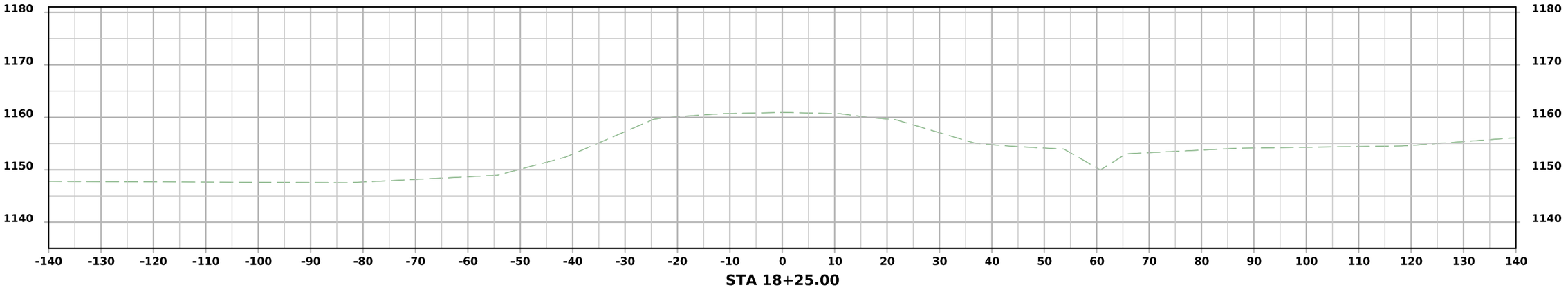


STA 16+00.00

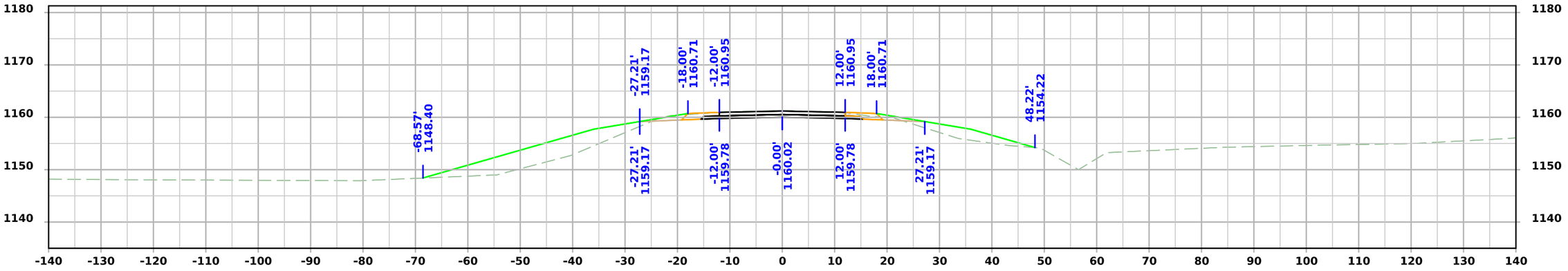
FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER X.8

9:41:47 AM 9/22/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_SRL34_78880003Z06.dgn

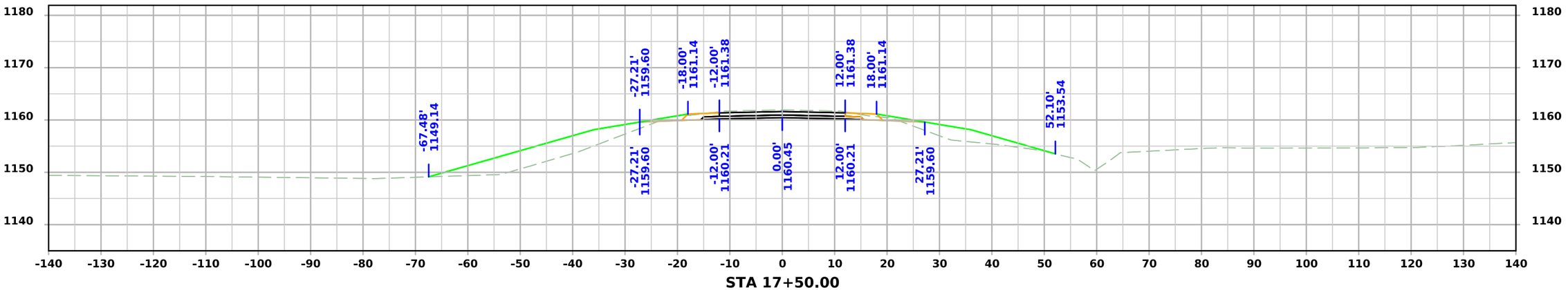
L34



STA 18+25.00



STA 18+00.00



STA 17+50.00

FILE NO. 32219	ENGLISH	DESIGN TEAM Miller/Cooper/Koch	Pottawattamie COUNTY	PROJECT NUMBER IMX-880-1(3)8--02-78	SHEET NUMBER X.9	

9:41:48 AM 9/22/2026 jkoch pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7888001021\Design\CADD_Files\Cross_Sections\XS_SRL34_78880003Z06.dgn