

RCB CULVERT REPLACEMENT - TRIPLE BOX
BRFN-057-1(34)--39-12

BUTLER COUNTY
BUTLER COUNTY - DESIGN NO. 123

LETTING DATE
01-18-2023

LEGEND

| | |
|-------------------------------|--|
| INTERSTATE HIGHWAY | |
| PRIMARY HIGHWAY-DIVIDED | |
| PRIMARY HIGHWAY | |
| PORTLAND CEMENT CONCRETE ROAD | |
| ASPHALT ROAD | |
| BITUMINOUS ROAD | |
| GRAVEL ROAD | |
| EARTHEN ROAD | |
| INTERSTATE HIGHWAY | |
| UNITED STATES HIGHWAY | |
| STATE HIGHWAY | |
| COUNTY HIGHWAY | |
| RAILROAD | |
| PIPELINE | |
| AIRPORT | |
| HYDROLOGY | |
| BRIDGE | |
| STATE BOUNDARY | |
| COUNTY BOUNDARY | |
| CORPORATE BOUNDARY | |
| TOWNSHIP LINE | |
| SECTION LINE | |
| ROAD NAMES | |
| UNINCORPORATED PLACE | |



PLANS OF PROPOSED IMPROVEMENTS ON THE
PRIMARY ROAD SYSTEM
BUTLER COUNTY
RCB CULVERT REPLACEMENT - TRIPLE BOX

IOWA 57 OVER MAX CREEK

THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2015, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

ENGLISH STANDARD CULVERT PLANS

| STANDARD | ISSUED | REVISED |
|---------------|--------|---------|
| TRRCB G2-20 | 07-20 | |
| TRRCB G3-20 | 07-20 | |
| TRRCB 12-9-20 | 07-20 | |
| TRPWH 15-1-20 | 07-20 | |
| TRPWH 15-2-20 | 07-20 | |
| TRPWH 15-3-20 | 07-20 | |
| TRPWH 15-4-20 | 07-20 | |
| TRPWH 15-5-20 | 07-20 | |
| TRPWH 15-6-20 | 07-20 | |
| PRCB G1-20 | 12-20 | |
| PRCB G2-20 | 12-20 | |
| PRCB 12-20 | 12-20 | |
| PES 5-20-T3 | 12-20 | |
| PES 6-20-T3 | 12-20 | |
| PES 9-20-T3 | 12-20 | |
| PEP 12-20 | 12-20 | |

H Sheets

| | |
|-------------------------------|-----------------------|
| TOTAL SHEETS | 22 |
| PROJECT NUMBER | BRFN-057-1(34)--39-12 |
| R.O.W. PROJECT NUMBER | |
| STPN-057-1(35)--2J-12 | |
| PROJECT IDENTIFICATION NUMBER | 18-12-057-010 |

INDEX OF SHEETS

| NO. | DESCRIPTION |
|---------|-----------------------------|
| I | TITLE SHEET |
| 2-4 | DESIGN NO. 123 |
| B.1 | TYPICAL SECTION AND DETAILS |
| C.1 | TABULATIONS |
| D.1-D.2 | IOWA 57 PLAN AND PROFILE |
| G.1-G.3 | SURVEY INFORMATION |
| J.1-J.2 | TRAFFIC CONTROL |
| W.1-W.9 | CROSS SECTION |

REVISIONS



1-800-292-8989
www.iowaonecall.com



REVISIONS TO THIS DESIGN PLAN AND/OR PROJECT SPECIFICATIONS SHOULD BE SUBMITTED BY _____

STANDARD ROAD PLANS

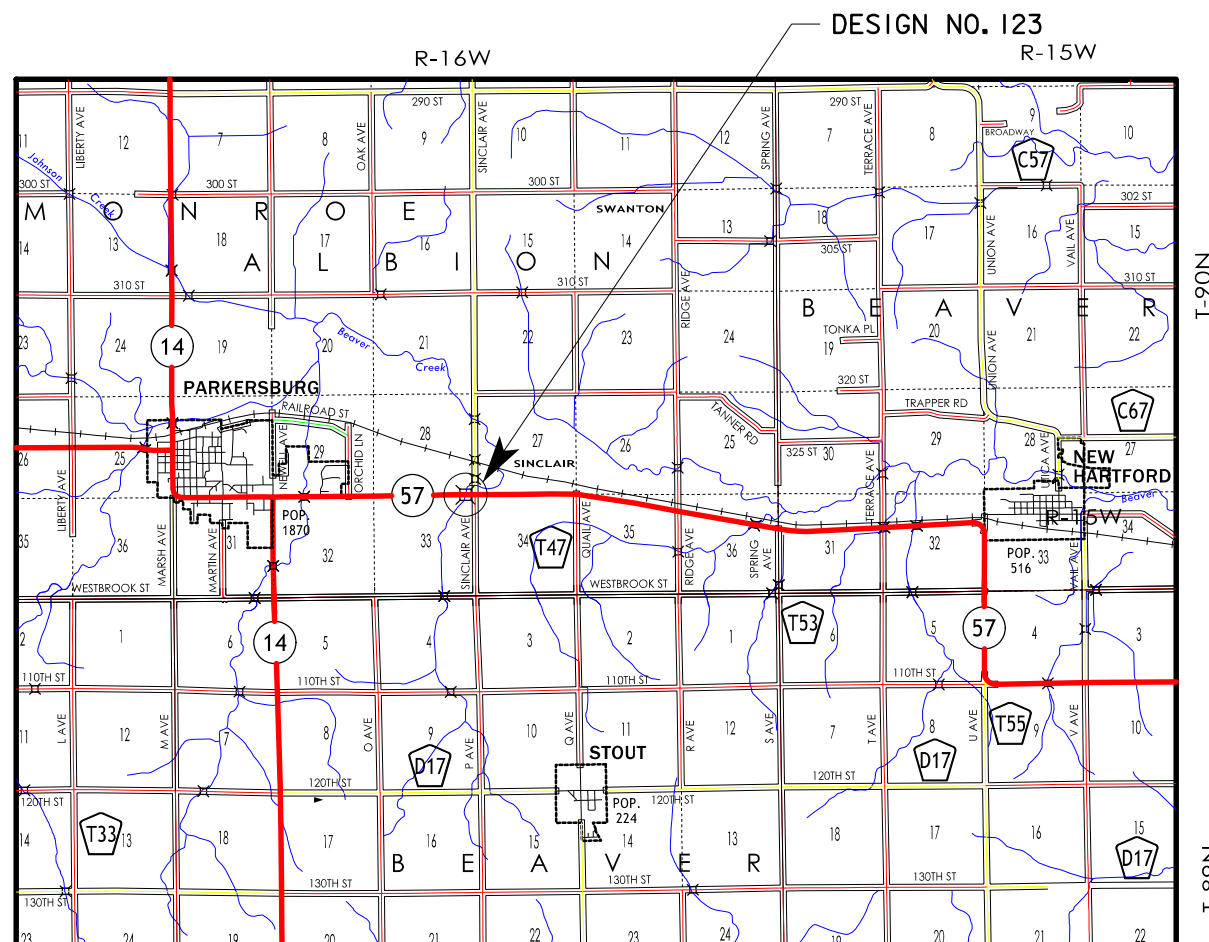
STANDARD ROAD PLANS ARE LISTED ON SHEET NUMBER _____

DESIGN DATA RURAL

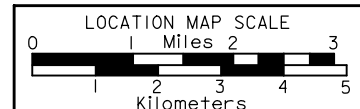
| | | |
|--------------------|------|--------|
| 2023 AADT | 2670 | V.P.D. |
| 2043 AADT | 3100 | V.P.D. |
| 2043 DHV | 310 | V.P.H. |
| TRUCKS | 8 | % |
| Total Design ESALS | -- | |

INDEX OF SEALS

| SHEET NO. | NAME | TYPE |
|-----------------------|-------------------------|-------------------|
| 1 | CHRISTOPHER J. CRISWELL | STRUCTURAL DESIGN |
| 2 | STEVEN A. KLOCKE | HYDRAULIC DESIGN |
| B.1 | CINDY A. SPENCER | ROADWAY DESIGN |
| CULVERT STANDARDS | JAMES S. NELSON | STRUCTURAL DESIGN |
| P/C CULVERT STANDARDS | NORMAN L. MCDONALD | STRUCTURAL DESIGN |



LOCATION MAP



PROJECT DIRECTORY NAME: I205701018

STRUCTURAL DESIGN

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

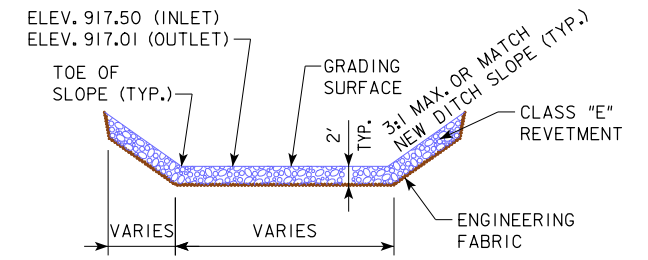
BY SUBSTITAL
Signature: Christopher J. Criswell Date: _____
Printed or Typed Name: Christopher J. Criswell

My license renewal date is December 31, 2021

Pages or sheets covered by this seal: SHEETS ? THRU ? OF ?

PRELIMINARY NOT FOR CONSTRUCTION

CONTROL POINT 103 NORTHING 8871415.70 EASTING 15367959.05 ELEVATION 957.82
 DESCRIPTION: BM SET FENO MONUMENT 0.42 MI WEST OF INTERSECTION STATE
 HWY 57 AND CO ROUTE T47...44 FT NORTH OF CTR STATE HWY 57 AND 41 FT WEST
 OF CTR FIELD ENTRANCE



**CLASS E REVETMENT
 INLET AND OUTLET SPLASH BASIN**

CHANNEL GRADING CONTROL:

- (G1) TOE OF SLOPE OF SPLASH BASIN; BEGIN CHANNEL GRADING.
- (G2) TOE OF SLOPE OF SPLASH BASIN; BEGIN CHANNEL GRADING.
- (G3) STA. 211+75.54, 73.43' RT., TOE OF SLOPE OF SPLASH BASIN; END CHANNEL GRADING, TOP OF REVETMENT ELEV. 917.40
- (G4) STA. 211+63.12, 73.44' RT., TOE OF SLOPE OF SPLASH BASIN; END CHANNEL GRADING, TOP OF REVETMENT ELEV. 917.40

REVETMENT LAYOUT:

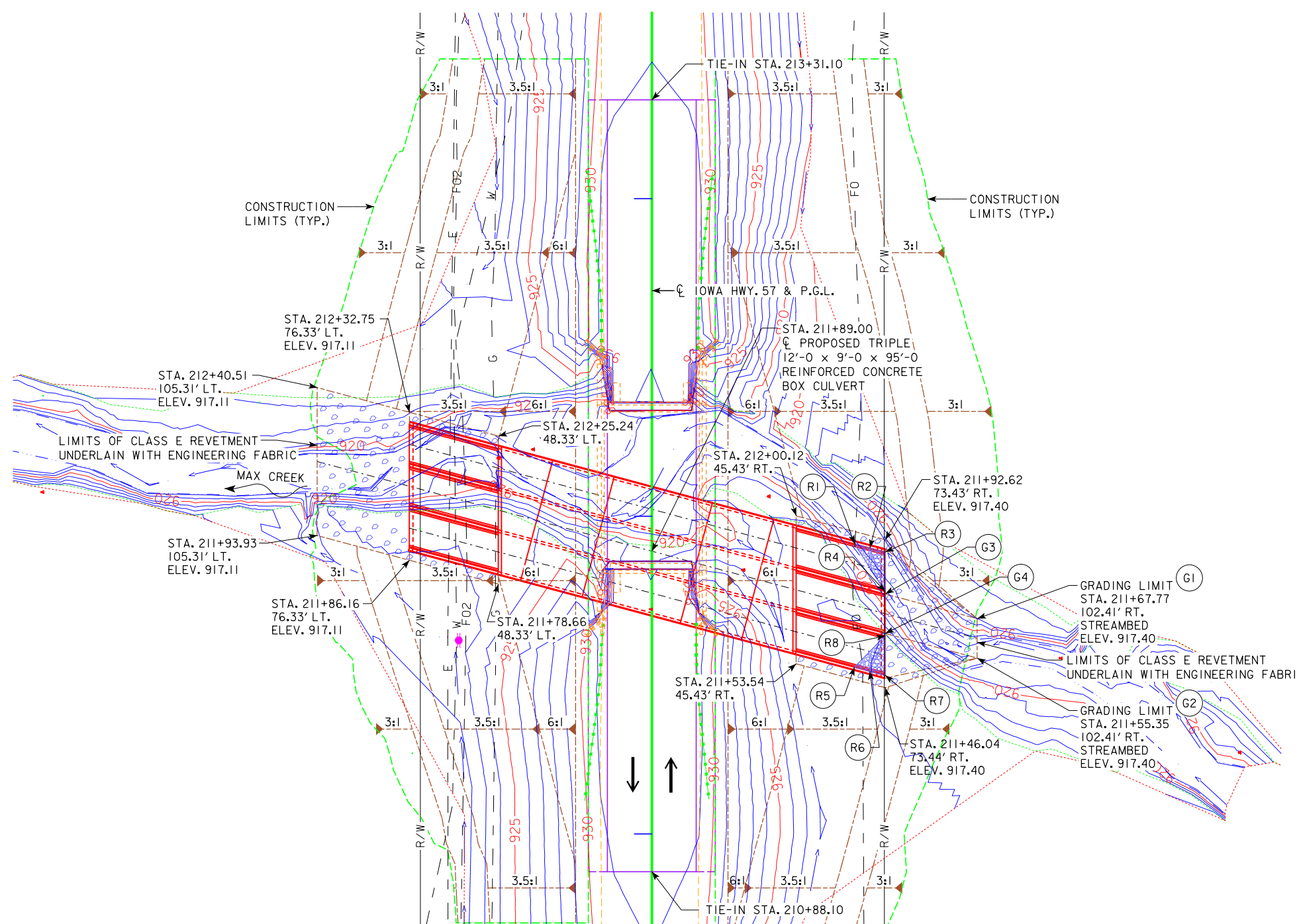
- (R1) END CULVERT INLET LINING AT FACE WALL, RCB HDWL. STA. 211+91.33, 63.77' RT., ELEV. 917.40
- (R2) CULVERT INLET LINING, STA. 211+90.03, 68.60' RT., ELEV. 919.40
- (R3) BEGIN CULVERT INLET LINING, STA. 211+88.74, 73.43' RT., ELEV. 917.40
- (R4) CULVERT INLET LINING, STA. 211+76.31, 73.43' RT., ELEV. 917.40
- (R5) BEGIN CULVERT INLET LINING, STA. 211+52.50, 63.78' RT., ELEV. 917.40
- (R6) END CULVERT INLET LINING AT FACE WALL, RCB HDWL. STA. 211+51.21, 68.61' RT., ELEV. 919.40
- (R7) CULVERT INLET LINING, STA. 211+49.92, 73.44' RT., ELEV. 917.40
- (R8) BEGIN CULVERT INLET LINING, STA. 211+62.34, 73.43' RT., ELEV. 917.40

NOTE: ALL REVETMENT ELEVATIONS ARE TO TOP OF ROCK (GRADING SURFACE).

213+00

212+00

211+00



SITE PLAN

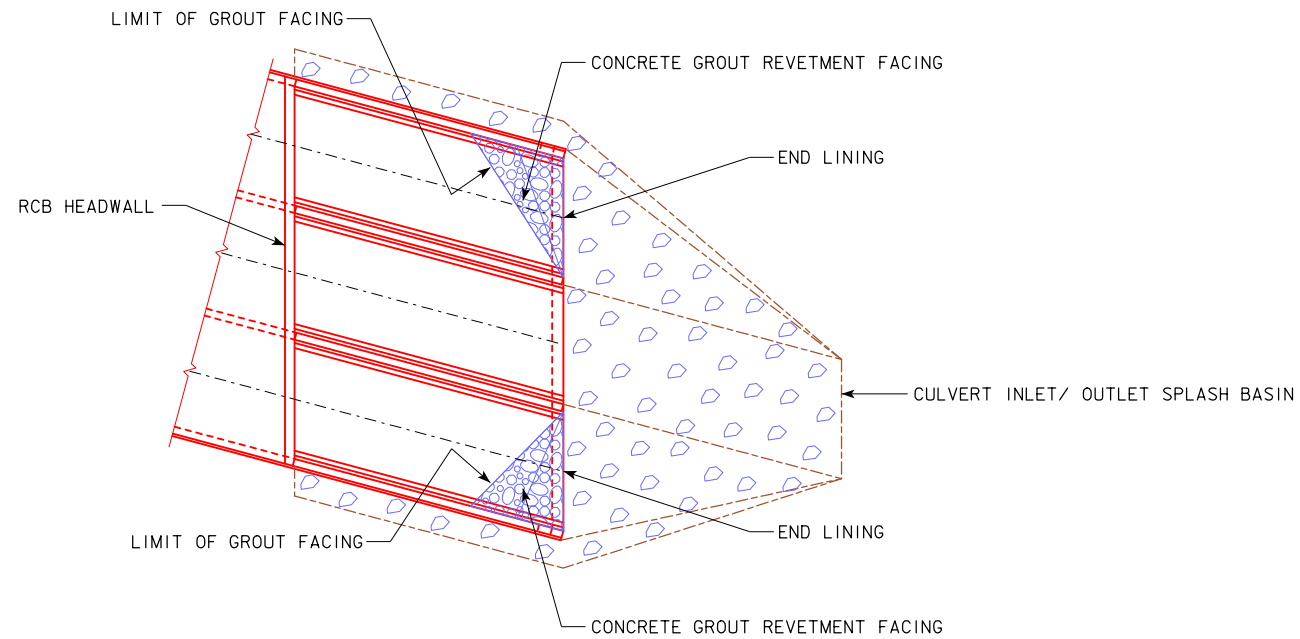
GENERAL NOTE:
 THIS DESIGN IS FOR THE REPLACEMENT OF THE EXISTING 50' x 30' STEEL DECK GIRDER BRIDGE, BUTLER DESIGN NO. 456, FHWA 16440, MAINTENANCE NO. 1226.6S057.

DESIGN NOTES:
 ROCK EROSION CONTROL DETAILS TO BE DETERMINED DURING FINAL ROADWAY DESIGN.
 A PRECAST OPTION IS TO BE DEVELOPED BY THE FINAL DESIGNER.



PRELIMINARY
 DESIGN FOR 15° (LA) SKEW
TRIPLE 12'-0" x 9'-0" x 95'-0"
REINFORCED CONCRETE BOX CULVERT
 SITUATION PLAN - SITE
 STATION 211+89.00 (IA 57) JANUARY 2021
BUTLER COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 2 OF 3 FILE NO. 31712 DESIGN NO. 123

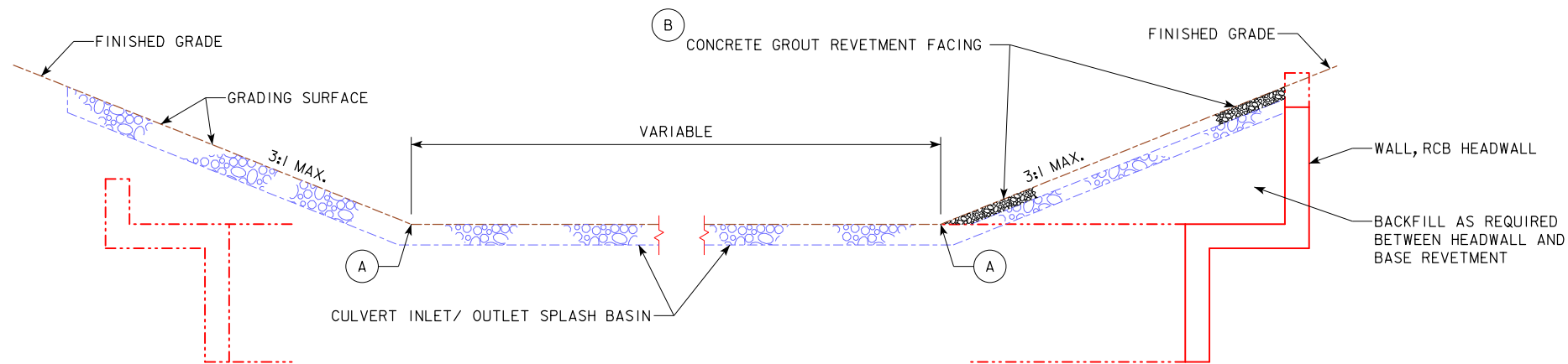




| ESTIMATED REVETMENT QUANTITIES | | | | |
|--------------------------------|-------------------------|---------------------|-------------------------|-----------------|
| LOCATION | REVETMENT CL. "E" (TON) | CONCRETE GROUT (CY) | ENGINEERING FABRIC (SY) | EXCAVATION (CY) |
| INLET | 136 | 3 | 128 | 86 |
| OUTLET | 181 | | 170 | 113 |
| TOTALS | 317 | 3 | 298 | 199 |

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS. REVETMENT ESTIMATED AT 1.6 TON/CY. CONCRETE GROUT FOR REVETMENT ESTIMATED AT 0.20 CY/SY

LINING PLAN ADJACENT TO HEADWALL



LINING ADJACENT TO HEADWALL

LINING WITHIN HEADWALL LIMITS

SECTION THRU INLET/OUTLET LINING

- (A) TOE OF SPLASH BASIN.
 - (B) CONCRETE GROUT FOR REVETMENT FACING. THE PURPOSE OF THE GROUT IS TO FILL SURFACE VOIDS TO MINIMIZE SUBSTRATE FOR VEGETATIVE GROWTH. APPLY TO REVETMENT SIDE AND END SLOPES WITHIN LIMITS OF RCB HEADWALL AS SHOWN.
- GROUT PENETRATION TO 2/3 OF THE ROCK BLANKET DEPTH IS REQUIRED. FINISH THE GROUT SO THAT FACE STONES ARE LEFT EXPOSED FOR NO MORE THAN 3 IN.

DETAILS

PRELIMINARY

DESIGN FOR 15° (LA) SKEW

TRIPLE 12'-0" x 9'-0" x 95'-0"
REINFORCED CONCRETE BOX CULVERT

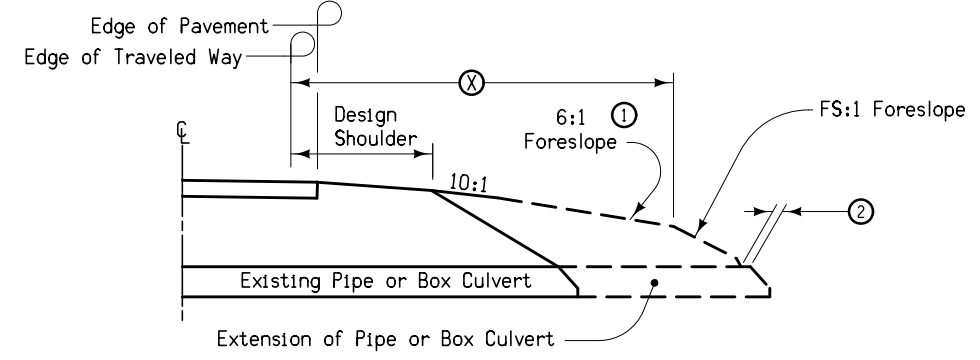
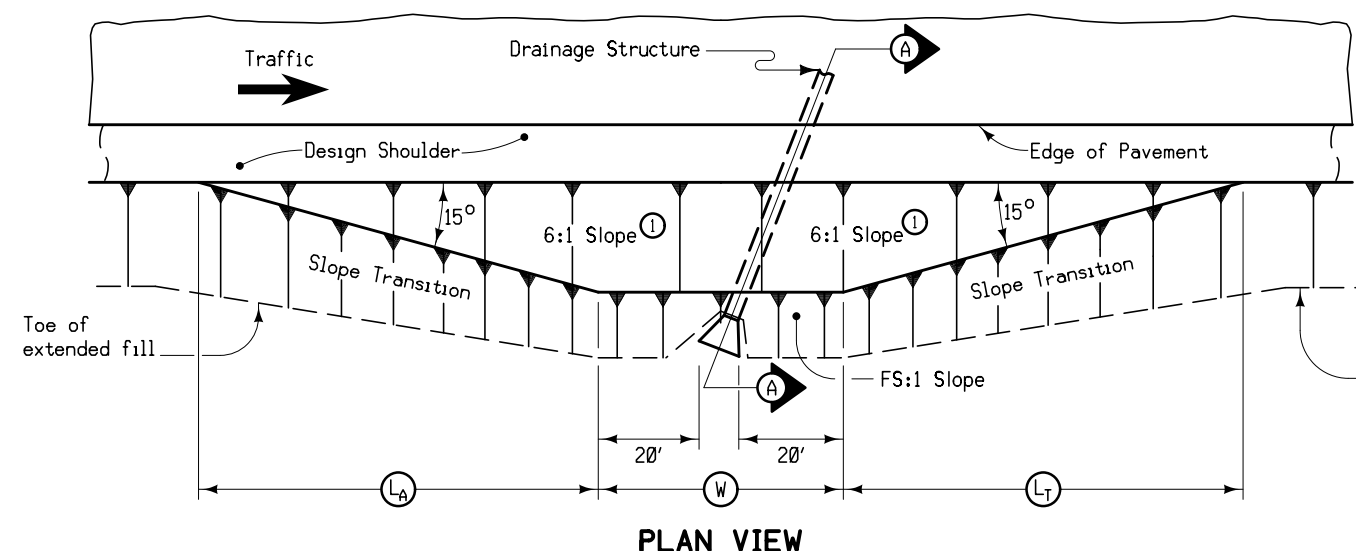
DETAILS

STATION 211+89.00 (1A 57) JANUARY 2021

BUTLER COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 3 OF 3 FILE NO. 31712 DESIGN NO. 123



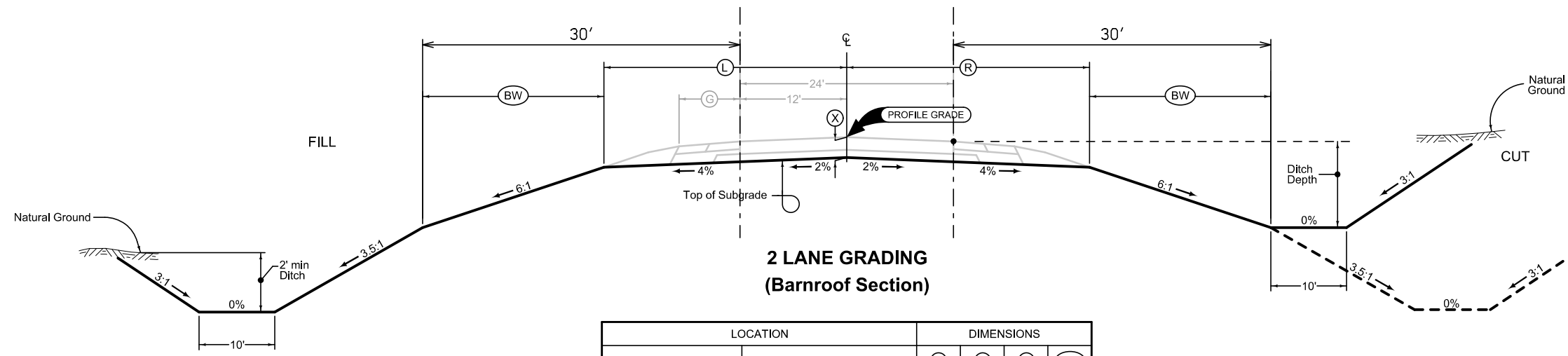


SECTION A-A

| STRUCTURE LOCATION | | (W) | (L _A) | (L _T) | (X) | (FS) |
|--------------------|------|------|-------------------|-------------------|------|------|
| STATION (3) | SIDE | Feet | Feet | Feet | Feet | |
| 211+89.00 | Both | 80.0 | 97.0 | 97.0 | 30.0 | 3.5 |
| | | | | | | |
| | | | | | | |

- At locations where an extended or newly constructed drainage structure extends beyond the normal foreslope cover, flatten as indicated so as to cover the structure. Minimum earth cover is 6 inches.
- (1) Slope may be flatter than 6:1.
 - (2) 6 inch minimum for pipe installations or to top of headwall on RCB.
 - (3) At centerline of road.
 - (W) = Pipe or RCB opening width plus 20 feet each side.

BARNROOF FORESLOPE AT SKEWED DRAINAGE STRUCTURE



2 LANE GRADING (Barnroof Section)

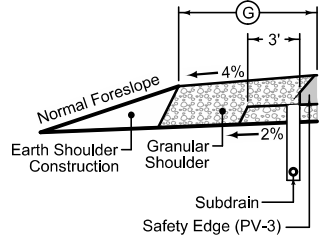
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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

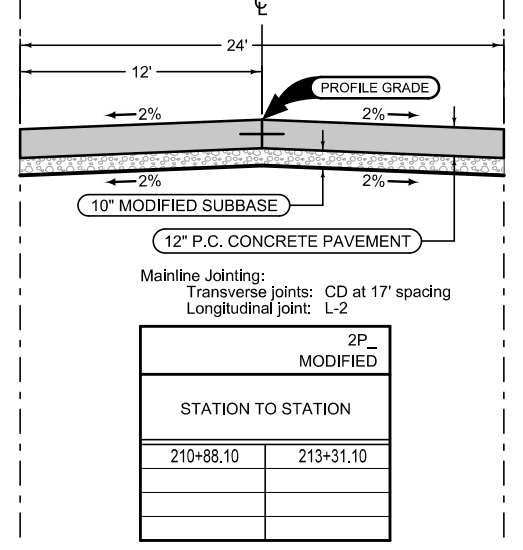
| LOCATION | | DIMENSIONS | | | |
|---------------------|-----------------------|------------|------|--------|------|
| ROAD IDENTIFICATION | STATION TO STATION | (L) | (R) | (X) | (BW) |
| | | Feet | Feet | Inches | Feet |
| Iowa 57 | 210+88.10 213+31.10 | | | | |
| | | | | | |

Granular Shoulder with Safety Edge

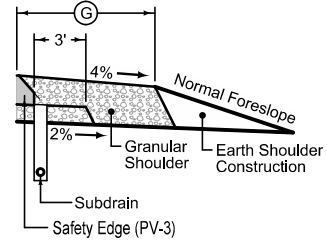
| 2_G_ 10-21-14 | | (G) |
|--------------------|-----------|------|
| STATION TO STATION | | Feet |
| 210+88.10 | 213+31.10 | 8 |
| | | |



Match Line



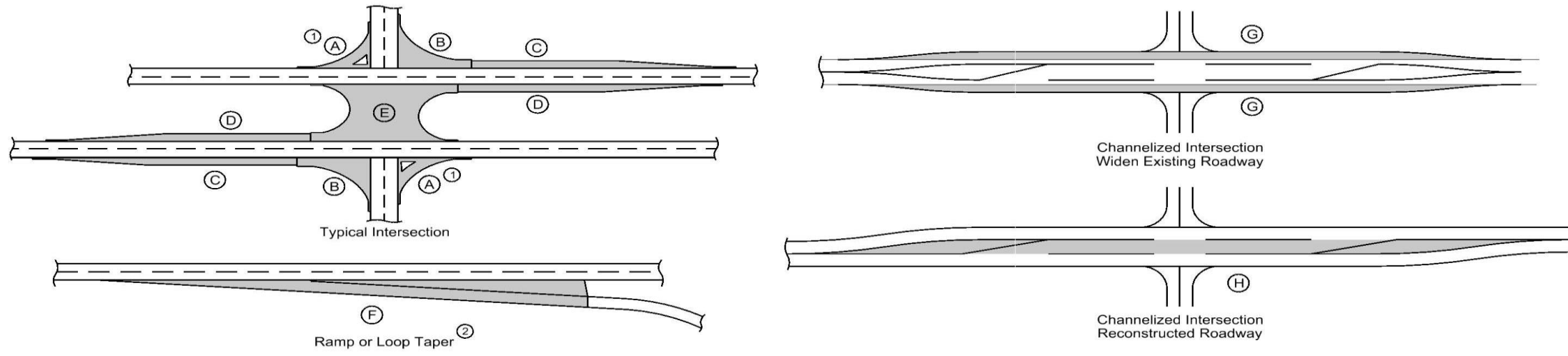
| 2P_ MODIFIED | |
|--------------------|-----------|
| STATION TO STATION | |
| 210+88.10 | 213+31.10 |
| | |



Granular Shoulder with Safety Edge

| 2_G_ 10-21-14 | | (G) |
|--------------------|-----------|------|
| STATION TO STATION | | Feet |
| 210+88.10 | 213+31.10 | 8 |
| | | |

PCC PAVEMENT



- ① Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
- ② Refer to PV-410, PV-411, PV-412, and PV-414.
- ③ Quantity includes Pavement Header.

| Road Identification | Location | | Mainline | | | Area ③ | | | | | | | | Total Area By Pavement Thickness | | Special Backfill | Modified Subbase | Granular Subbase | Remarks |
|---------------------|---------------------|---------------------|----------|--------|-------|--------|---|---|---|---|-----|---|---|----------------------------------|--------|------------------|------------------|------------------|---------|
| | Direction of Travel | Station to Station | Width | Length | Area | A ① | B | C | D | E | F ② | G | H | SY | | | | | |
| | | | | | | | | | | | | | | 10 IN | 10% IN | | | | |
| Iowa 57 | BOTH | 210+88.10 213+31.10 | 24.0 | 243.0 | 648.0 | | | | | | | | | 648.0 | | | 270.0 | | |

SHOULDERS

- ① Lane(s) to which the shoulder is adjacent.
- ② Bid Item
- ③ Applies only for Paved Shoulders constructed on project with existing granular shoulders.
- ④ Does not include shrink.

Calculations assume a HMA unit weight (lbs/cf) of 145, a Special Backfill unit weight (lbs/cf) of 140, and a Granular Shoulder unit weight (lbs/cf) of 140.

| Road Identification | Direction of Traffic | Location | | | Side | P Width | G Width | L Length | Quantities | | | | | | | | | | | Remarks | | |
|---------------------|----------------------|---------------------|---------------------|-----------------|------|---------|---------|----------|------------|----------------|---------------------------|------------------|---------------|---------------|--|------------------|-------------------|---------|--|---------|-----|-----|
| | | Station to Station | Class 13 Excavation | Hot Mix Asphalt | | | | | Binder | Paved Shoulder | Reinforced Paved Shoulder | Special Backfill | | | | Modified Subbase | Granular Shoulder | | Earth Shoulder Construction Alternates | | | |
| | | | | TON | | | | | | | | TON/STA | HMA Alternate | PCC Alternate | | | CY | TON/STA | STA | | HMA | PCC |
| Iowa 57 | EB | 210+88.10 213+31.10 | | | | 8.0 | 243.0 | | | | | | | | | | | | 2.4 | | | |
| Iowa 57 | WB | 210+88.10 213+31.10 | | | | 8.0 | 243.0 | | | | | | | | | | | | 2.4 | | | |

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5

* Not a Bid Item

| Begin Station | End Station | Side | Pavement Type | Area | Saw Cut* | Remarks |
|---------------|-------------|------|---------------|-------|----------|--------------------------|
| | | | | SY | LF | |
| 210+88.10 | 211+83.15 | BOTH | | 299.3 | 24.0 | Includes paved shoulders |
| 212+36.10 | 213+31.10 | BOTH | | 301.4 | 24.0 | Includes paved shoulders |

REMOVAL OF STEEL BEAM GUARDRAIL

- ① Lane(s) to which the installation is adjacent.
- ② Includes length of End Terminals and End Anchors.

| No. | Direction of Traffic | Location | | Side | Removal of Guardrail |
|-----|----------------------|--------------------|--|------|----------------------|
| | | Station to Station | | | LF |
| 1 | EB | 212+09.60 | | R | 56.25 |
| 2 | WB | 212+09.60 | | L | 56.25 |
| 3 | EB | 212+09.60 | | R | 56.25 |
| 4 | WB | 212+09.60 | | L | 56.25 |

SURVEY SYMBOLS

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. | |
| Yellow | (4) | | Highlight for Critical Notes or Features |
| Red | (3) | | Delineates Restricted Areas |
| Lavender | (9) | | Temporary Pavement Shading |
| Gray, Light | (48) | | Proposed Pavement Shading |
| Gray, Med | (80) | | Proposed Granular Shading |
| Gray, Dark | (112) | | Proposed Grade and Pave Shading "In conjunction with a paving project" |
| Brown, Light | (236) | | Grading Shading |
| Tan | (8) | | Proposed Sidewalk Shading |
| Blue, Light | (230) | | Proposed Sidewalk Landing Shading |
| Pink | (11) | | Proposed Sidewalk Ramp Shading |

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

| | |
|--|-----------------------------|
| | Reference Point |
| | Station |
| | 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 |
| | Existing Right of Way |
| | Existing and Proposed Right-of-Way |
| | Easement and Existing Right-of-Way |
| | Easement (Temporary) |
| | Easement |
| | Access Control |
| | Property Line |

**PLAN AND PROFILE
LEGEND AND SYMBOL
INFORMATION SHEET**

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

Survey Information

Butler County
BRFN-057-1(34)--39-12
Ditch Bridge 1.9 mi E of E Jct. IA 14
Bridge - Unspecified
PIN 18-12-057-010
Sap-0830.2

General Information

Measurement units for this survey are US survey feet. This survey is for proposed Bridge replacement. Project datum and control information is provided by the Design Survey Office. This project is a Partial DTM with Photo control. This survey request was for the IA Hwy 57 corridor only.

Vertical Control

Vertical datum for this survey is NAVD88 (Computed using Geoid12b). GRS80 Ellipsoidal Heights were computed at project Pts. 98-053, 98-148, SALEM, CP102, CP103 and CP104 by conducting one concurrent 6-hour static session. Additional benchmarks were placed throughout the project using a GNSS Base-Rover setup relative to Pt. CP103 and Pt. CP104. Two observations with a minimum of four-hours between were collected and used in a weighted average.

This survey observed 2 local area county Control Monuments with published NAVD88 heights to compare to local ground control:

Butler County Control mark 98-053 has a published Elev. of 957.28
Survey Elev. = 957.20

Butler County Control mark 98-148 has a published Elev. of 989.73
Survey Elev. = 989.69

No As-built Plan benchmarks could be located. Bridge widening Project No. FN-226 for design number 456 calls for bench mark elevation of 100.00 at CL grade west end of bridge, CL abutment bearing, and bridge seat elevations of 96.28 both ends of bridge. The average bridge seat elevation this survey is 928.05 both ends of bridge. It appears there has been a 3" deck overlay on this bridge, therefore a vertical difference equation to the bridge seats is as follows:

Survey bridge seat elevation = 928.05
Plan bridge seat elevation = 96.28

The average vertical difference is +831.77 to be applied to as-built plan FN-226 for design number 456 elevations.

Horizontal Control

The project coordinate system for this survey is Iowa RCS Zone 5 (U.S. Survey Feet). This survey control is relative to IaRTN reference stations. IaRTN Reference Station coordinates are relative to the National Reference Station network datum: NAD83 (2011) for Epoch 2010.00. Coordinates were determined at project control Pts. 98-053, 98-148, SALEM, CP102, CP103 and CP104 by conducting one concurrent 6-hour static session. Additional control points were placed throughout the project using a GNSS Base-Rover setup relative to Pt. CP103 and Pt. CP104. Two observations with a minimum of four-hours between were collected and used in a weighted average.

Alignment Information

The horizontal alignment for this survey is a retrace of As-built Plans Project No. BRF-57-1(2)--38-12. Survey stationing was equated to the plan PI at Sta. 215+95.7 and run back to the plan POT at equation Sta. 200+00.0 AH = Sta. 189+89.9 BK. Back stationing was carried back to the PI at Sta. 152+75.53.

Survey stationing relates to as built plan stationing as follows:

PI Sta. 215+95.7 As-built Plans No. BRF-57-1(2)--38-12
= Survey PI Sta. 215+95.7

POT Sta. 189+89.9 BK = Sta. 200+00.0 AH As-built Plans No. BRF-57-1(2)--38-12
= Survey POT Sta. 189+89.9 BK = Sta. 200+00.0 AH

PI Sta. 179+48.0 As-built Plans No. BRF-57-1(2)--38-12
= Survey PI Sta. 179+47.91

PI Sta. 152+75.6 As-built Plans No. BRF-57-1(2)--38-12
= Survey PI Sta. 152+75.53

CONTROL POINT VICINITY MAP

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



HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

Ia. Regional Coordinate System Zone 5

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

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

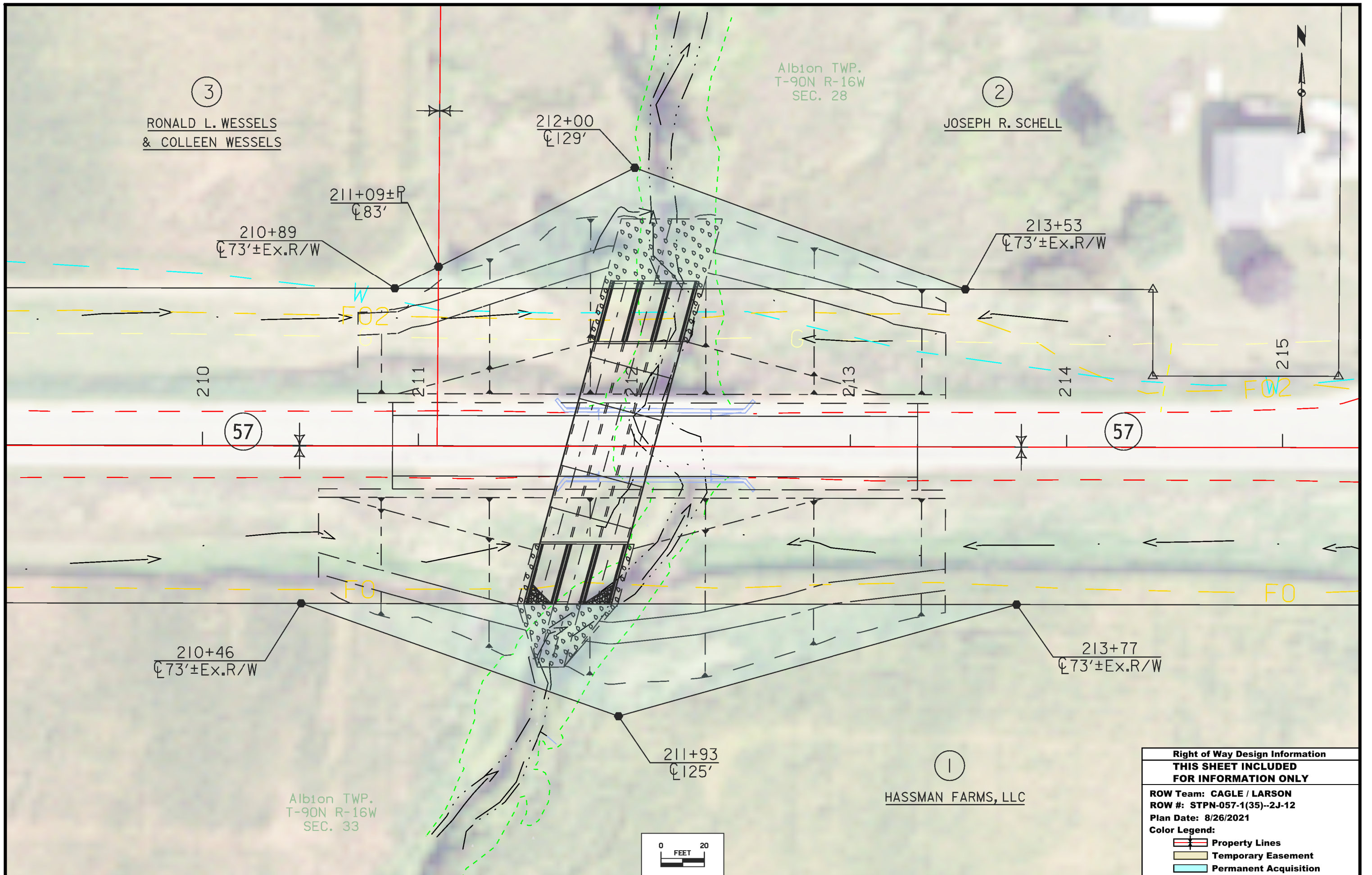
HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

Ia. Regional Coordinate System Zone 5

| Point Name | Northing | Easting | Elevation | Feature Code-Monument Description |
|------------|------------|-------------|-----------|--|
| CP102 | 8871344.89 | 15362512.93 | 983.54 | BM FD IDOT FENO MONUMENT CP102 AS DESCRIBED IN AS BUILT PLAN BRFN-057-1(25)--39-12 |
| CP103 | 8871415.70 | 15367959.05 | 957.82 | BM SET FENO MONUMENT 0.42 MI WEST OF INTERSECTION STATE HWY 57 AND CO ROUTE T47...44 FT NORTH OF CTR STATE HWY 57 AND 41 FT WEST OF CTR FIELD ENTRANCE |
| SALEM | 8850703.34 | 15361616.49 | 1093.76 | BM FD USGS TRAVERSE STATION SALEM AS DESCRIBED |
| CP104 | 8871299.86 | 15371863.00 | 918.97 | BM SET FENO MONUMENT 0.32 MI EAST OF INTERSECTION STATE HWY 57 AND CO ROUTE T47...61 FT SOUTH OF CTR STATE HWY 57 AND 22 FT WEST OF CTR FIELD ENTRANCE |
| 98-053 | 8865972.23 | 15370115.61 | 957.20 | BM FD BUTLER CO GPS CONTROL MONUMENT AS DESCRIBED |
| 98-148 | 8881692.07 | 15370238.33 | 989.69 | BM FD BUTLER CO GPS CONTROL MONUMENT AS DESCRIBED |
| 500 | 8871350.38 | 15369776.93 | 934.62 | BM FD CUT X TOP BARRIER RAIL |
| 501 | 8871383.90 | 15369844.93 | 932.38 | BM SET CUT V AT RBR TOP NE WING FNDTN |

NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.



Albion TWP.
T-90N R-16W
SEC. 28

③
RONALD L. WESSELS
& COLLEEN WESSELS

②
JOSEPH R. SCHELL

210+46
±73'±Ex.R/W

210+89
±73'±Ex.R/W

211+09±P
±83'

212+00
±129'

213+53
±73'±Ex.R/W

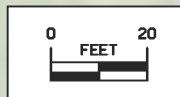
213+77
±73'±Ex.R/W

211+93
±125'

Albion TWP.
T-90N R-16W
SEC. 33

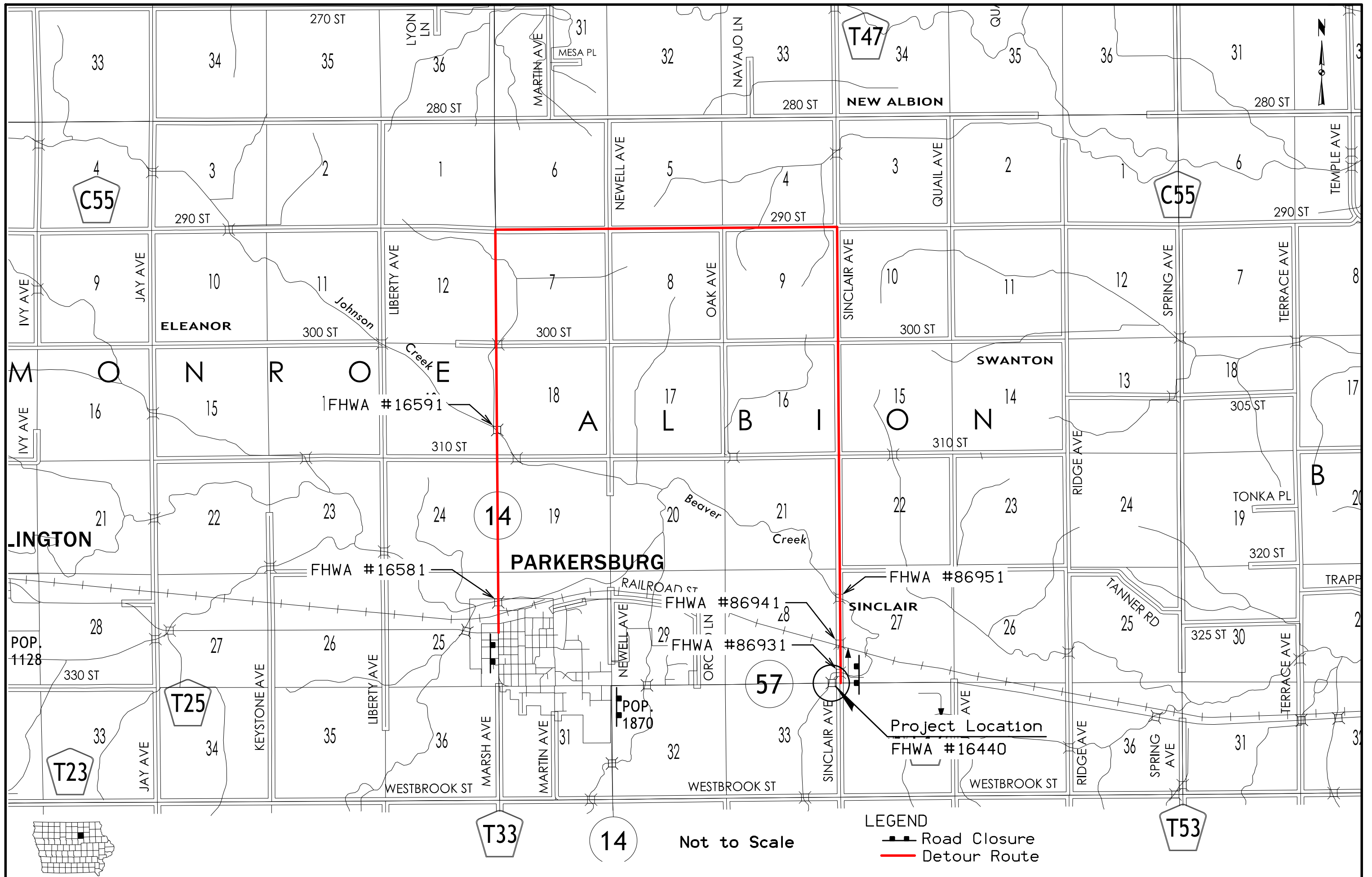
①
HASSMAN FARMS, LLC

| | |
|---|-----------------------|
| Right of Way Design Information | |
| THIS SHEET INCLUDED FOR INFORMATION ONLY | |
| ROW Team: CAGLE / LARSON | |
| ROW #: STPN-057-1(35)--2J-12 | |
| Plan Date: 8/26/2021 | |
| Color Legend: | |
| | Property Lines |
| | Temporary Easement |
| | Permanent Acquisition |



TRAFFIC CONTROL PLAN

1. Iowa 57 will be closed to traffic during construction. The detour route is shown on Sheet J.2. Detour signage will be provided by District 2.
2. Access to individual properties shall be maintained at all times.



LINE STYLE LEGEND OF CROSS SECTION SHEETS (ROAD)

- - - - - - Existing Ground Line
- Proposed Template
- Proposed Topsoil Placement
- - - - - Additional Topsoil Removal
- Subgrade Treatment
- - - - - Granular Shoulder
- Pavement
- - - - - Existing Pipe\RCB
- Proposed Pipe\RCB
- Proposed Dike
- All Elements Associated with Proposed Entrances

LINE STYLE LEGEND OF CROSS SECTION SHEETS (SOILS)

- TOPSOIL ————— Topsoil (Class 10)
- Slope Dressing Only
- CL 10 ————— Class 10 Materials
- SEL LO ————— Select Loams And Clay-Loams
- SEL SA ————— Select Sand
- UNS A ————— Unsuitable Type A Disposal
- UNS B ————— Unsuitable Type B Disposal
- UNS C ————— Unsuitable Type C Disposal
- SHALE ————— Shale
- WASTE ————— Waste
- BRW LS ————— Broken and Weathered Rock
- ROCK ————— Solid Rock
- BLDGS ————— Boulders

Note: All layer lines and descriptions identify layers above the line.

Note: Vertical or near vertical lines connecting soil layers at edges of cross sections are only for the purpose of calculating template quantities and do not depict soil stratification.

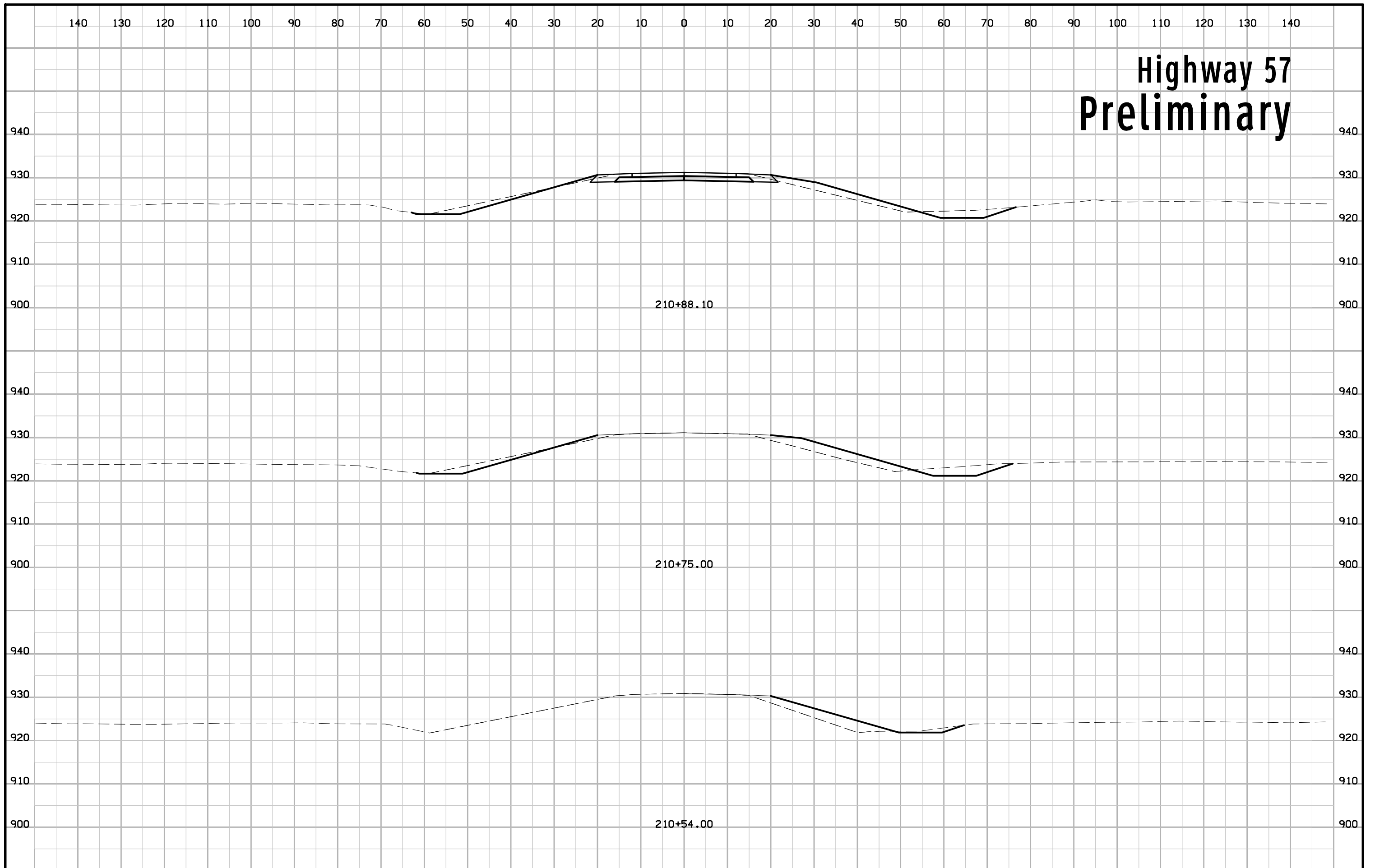
SYMBOL LEGEND OF CROSS SECTION SHEETS

- Existing ROW
|
Existing Right-of-Way Limit
- Proposed ROW
|
Proposed Right-of-Way Limit
- Temporary ROW
|
Temporary Right-of-Way Limit

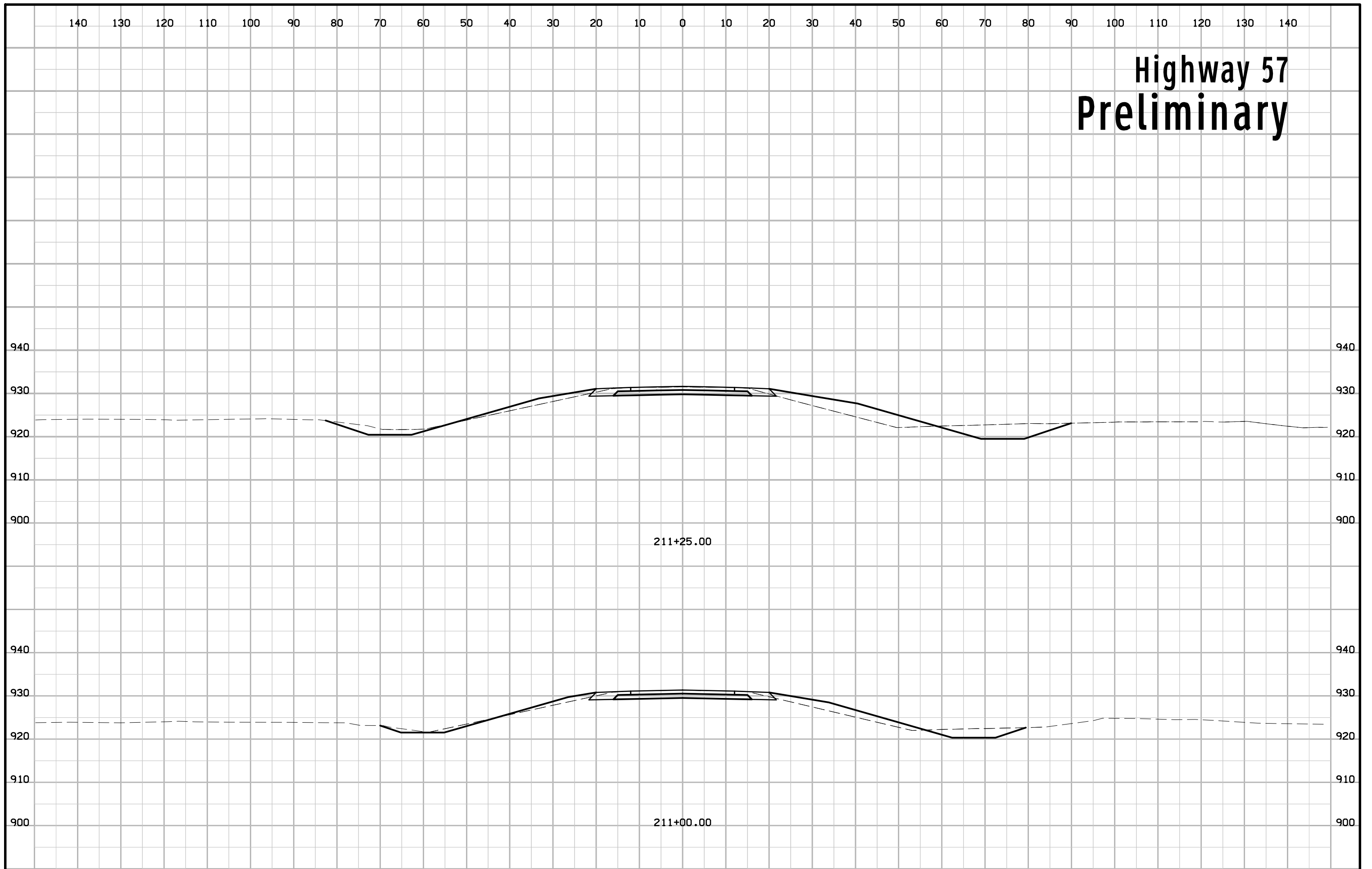
**CROSS SECTION
LEGEND AND SYMBOL
INFORMATION SHEET**

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

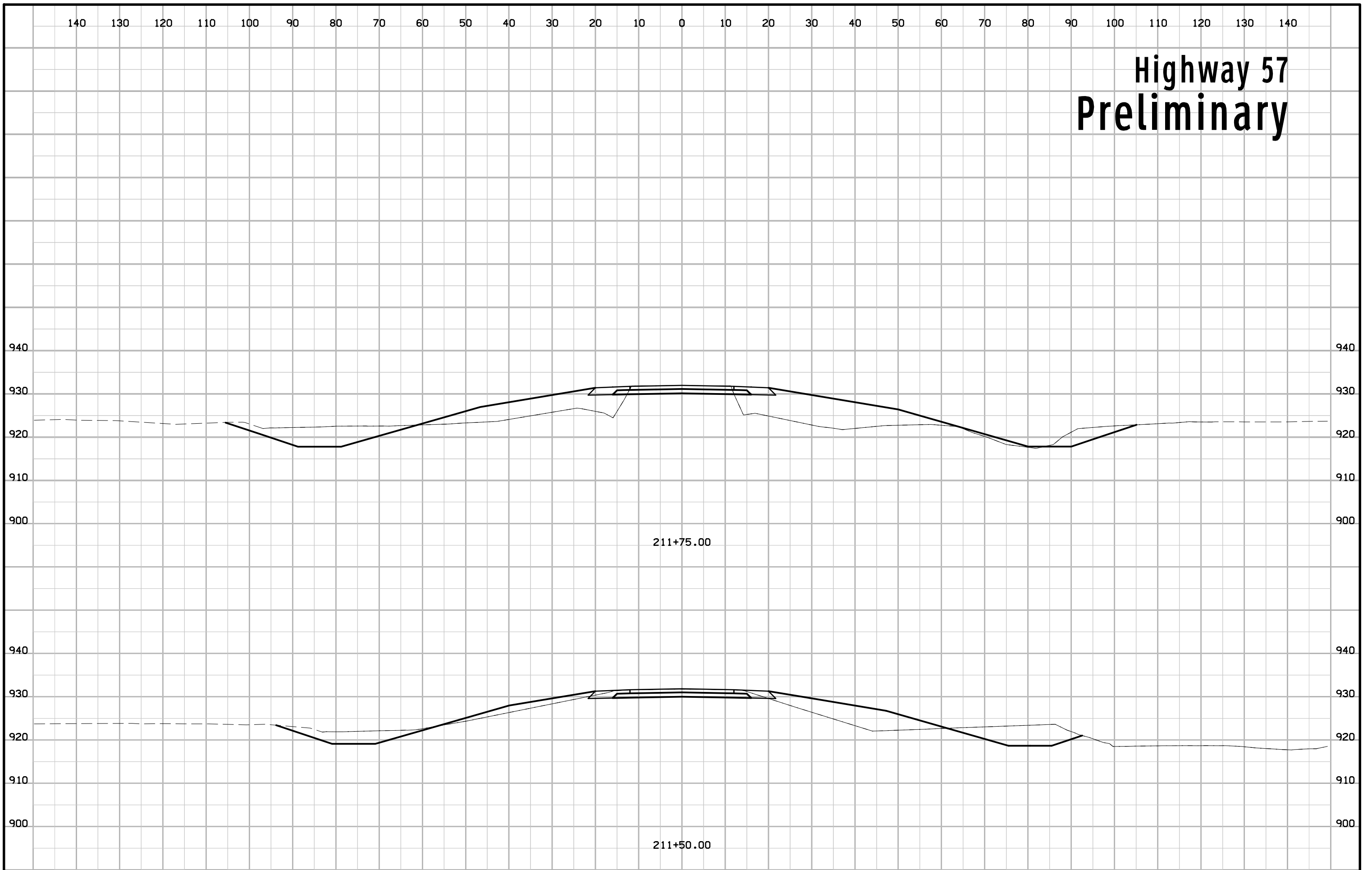
Highway 57 Preliminary



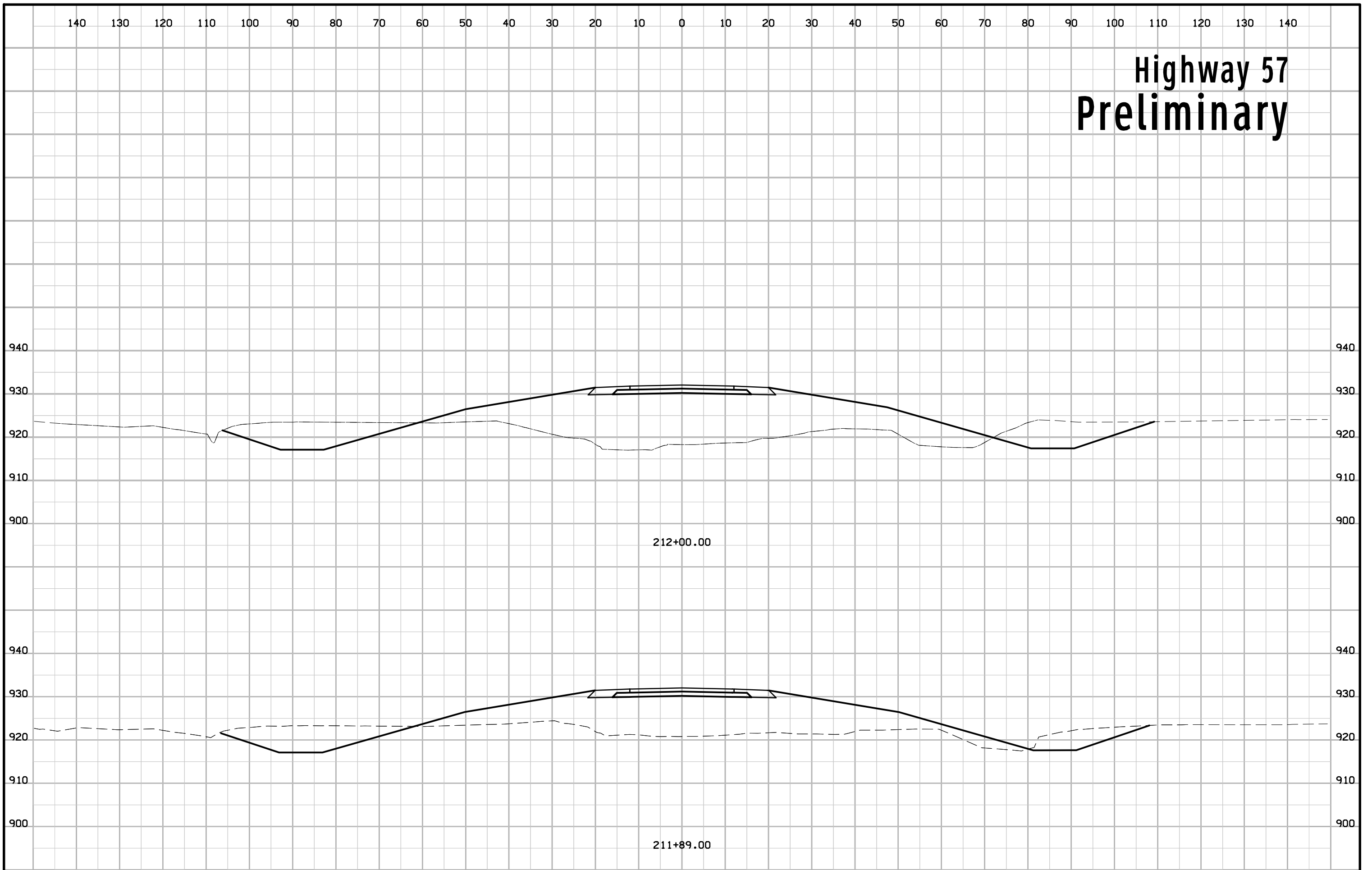
Highway 57 Preliminary



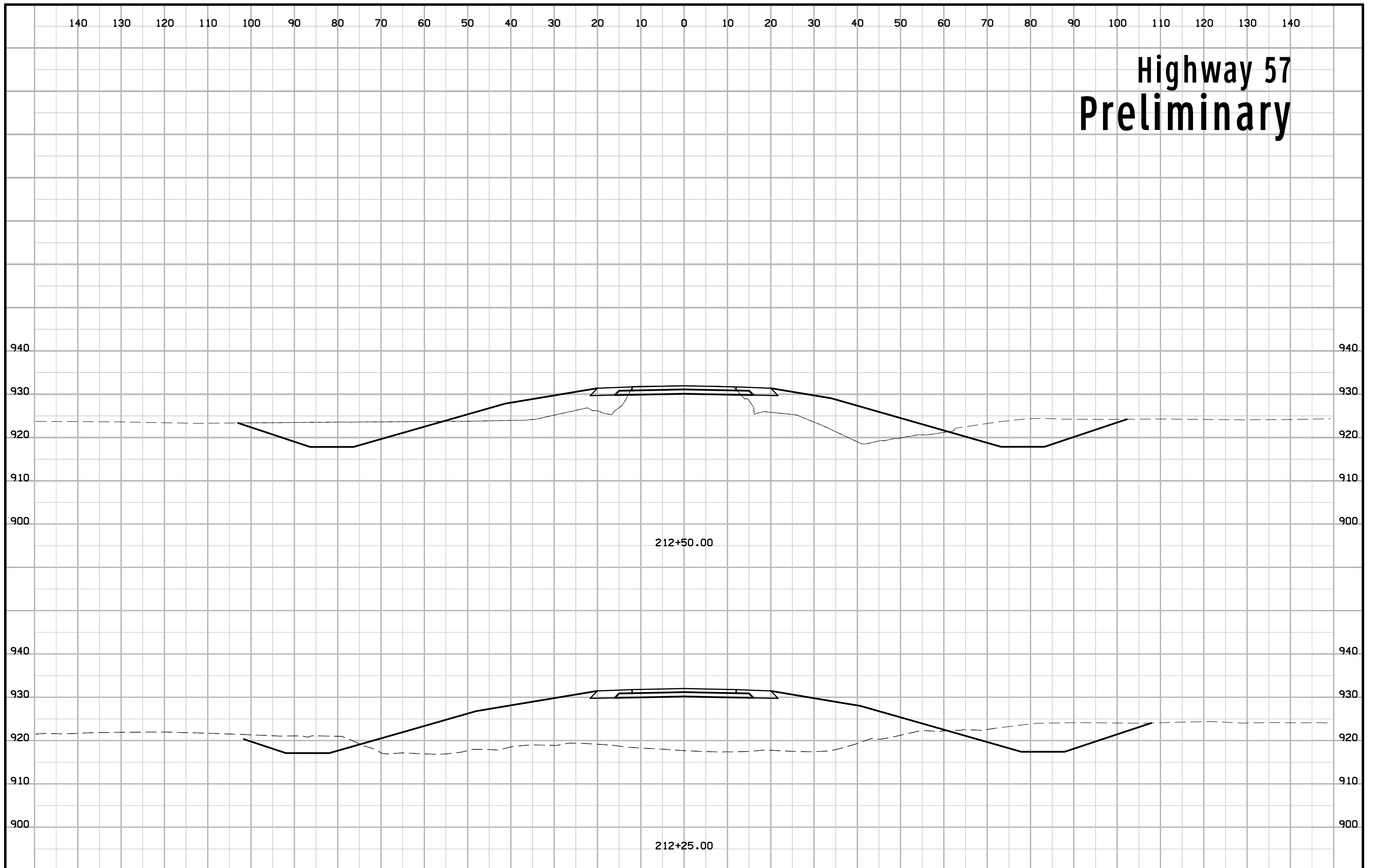
Highway 57 Preliminary



Highway 57 Preliminary



Highway 57 Preliminary



FILE NO.

ENGLISH

DESIGN TEAM

SNYDER AND ASSOCIATES, INC.

BUTLER COUNTY

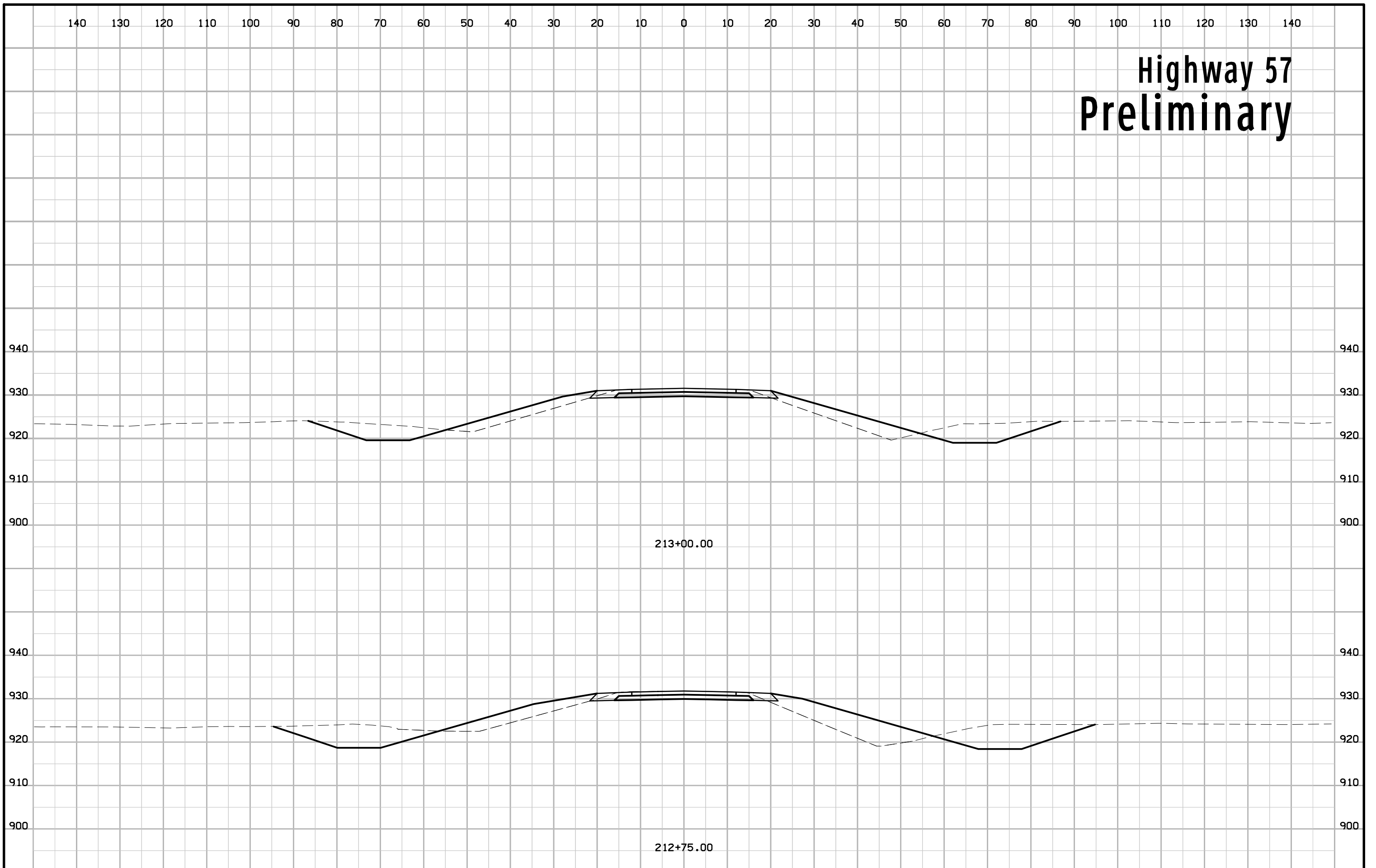
PROJECT NUMBER

BRFN-57-1(34)--39-12

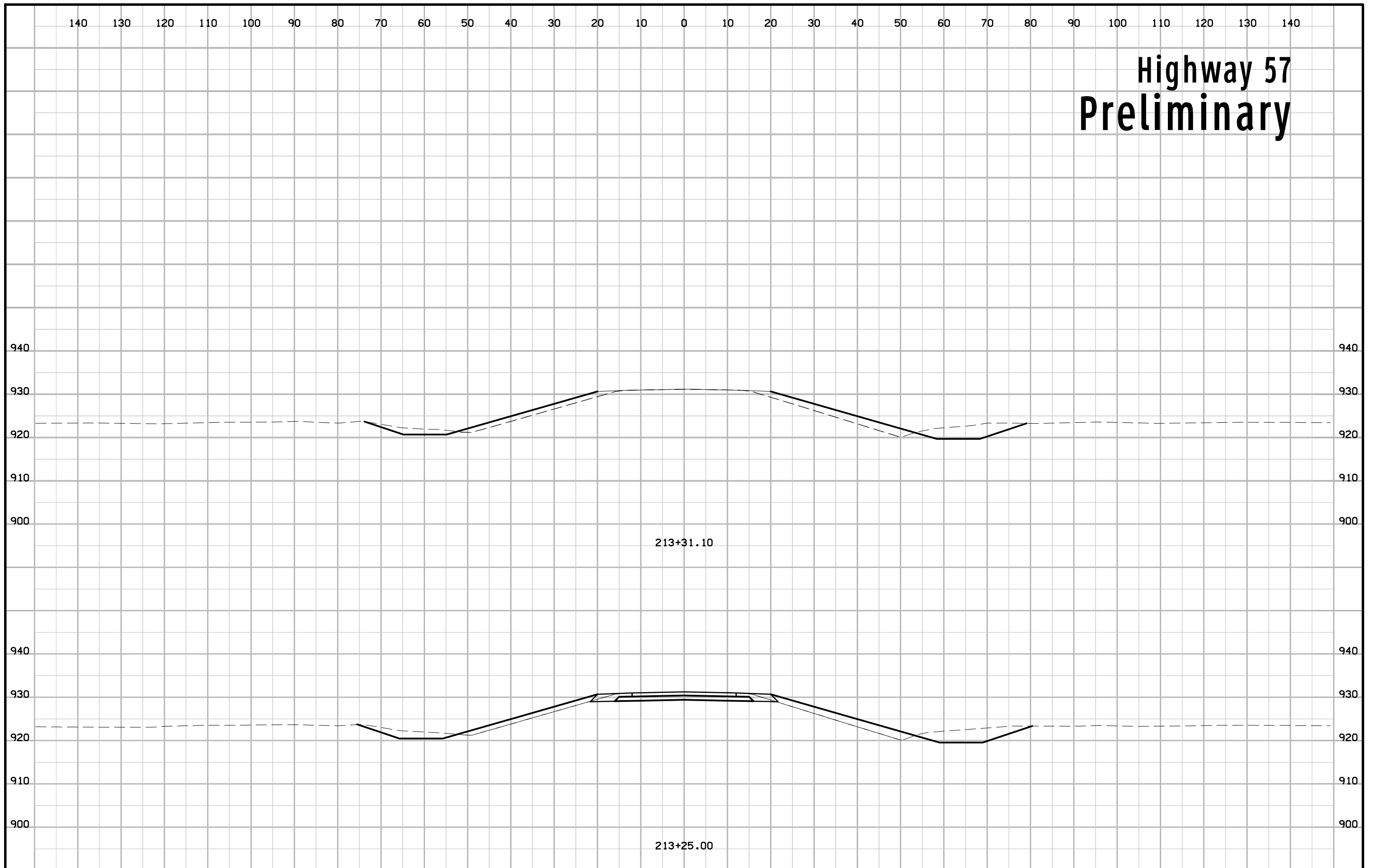
SHEET NUMBER

W.6

Highway 57 Preliminary



Highway 57 Preliminary



Highway 57 Preliminary

