

TAMA CO. RCB CULVERT REPLACEMENT - SINGLE BOX
STPN-008-1(16)--2J-86

LETTING DATE
1-09-2022



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

TAMA COUNTY

RCB CULVERT REPLACEMENT - SINGLE BOX

Rock Creek 0.4 mi W of W Jct IA 21

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



REVISIONS

TOTAL

13

PROJECT IDENTIFICATION NUMBER

20-86-008-020

PROJECT NUMBER

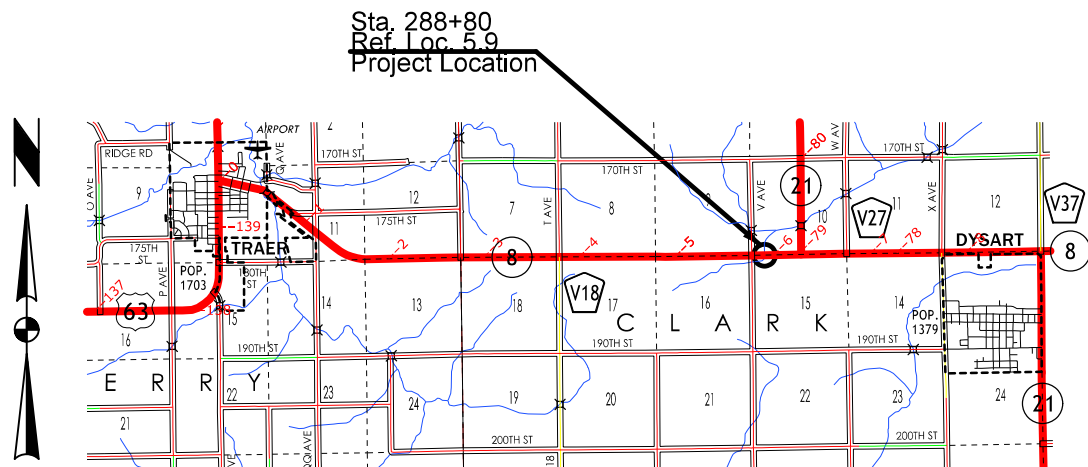
STPN-008-1(16)--2J-86

R.O.W. PROJECT NUMBER

STPN-008-1(17)--2J-86

INDEX OF SHEETS

No.	DESCRIPTION
A Sheets	Title Sheets
* A.1	Title Sheet
A.1	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 2	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2	Iowa 8
G Sheets	Survey Sheets
* G.1 - 3	Reference Ties and Bench Marks
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
* J.2	Detour Map
W Sheets	Mainline Cross Sections
W.1 - 3	Mainline Cross Sections
	* Color Plan Sheets



Detour Map on Sheet J.2.

D4 PLAN - Date: 9-22-2021
B3 PLAN - Date: 11-02-2021
Letting - Date: 1-09-2022

DESIGN DATA RURAL

2018	AADT	1,930	V.P.D.
20--	AADT	--	V.P.D.
20--	DHV	--	V.P.H.
	TRUCKS	--	%
Total			
Design	ESALs	--	

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	X	Primary Signature Block
X	X	X

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - Date: 3-09-2021

FILE NO.

ENGLISH

DESIGN TEAM Gustafson \ Smyth

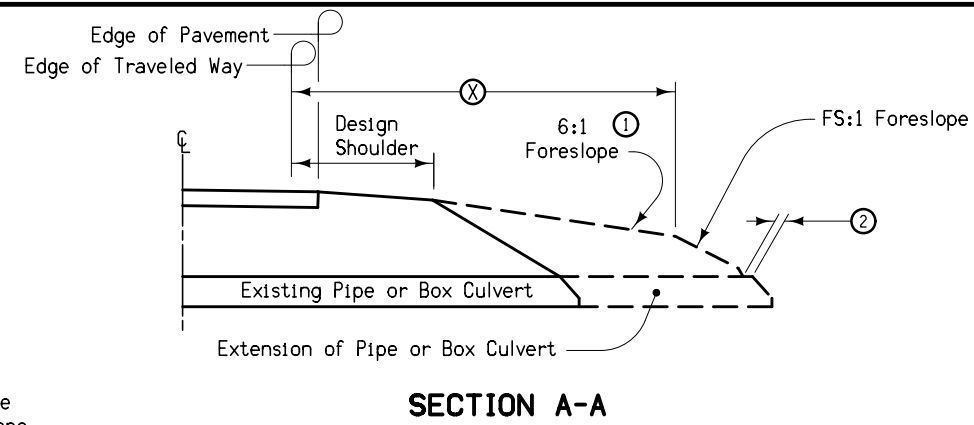
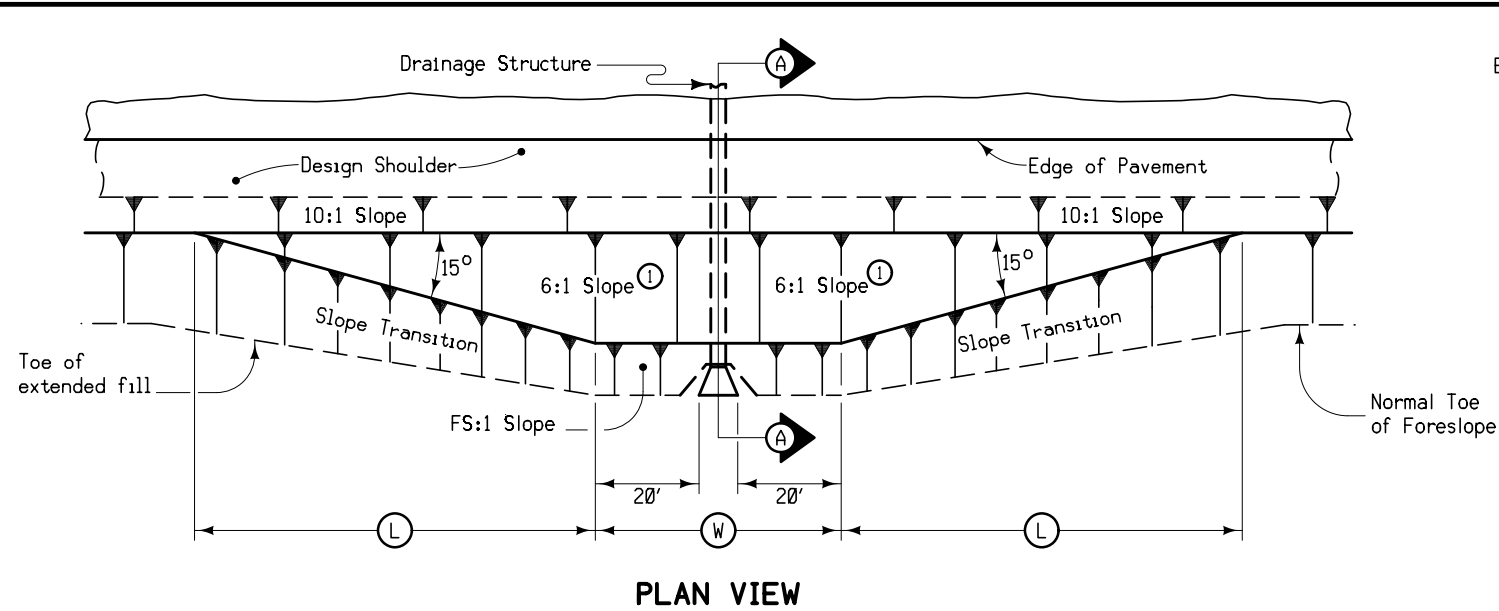
TAMA COUNTY

PROJECT NUMBER

STPN-008-1(16)--2J-86

SHEET NUMBER

A.1



- Notes:
- At locations where an extended or newly constructed drainage structure extends beyond the normal foreslope cover, flatten the foreslope as indicated so as to cover the structure. Minimum earth cover is 6".
- ① Slope may be flatter than 6:1.
- ② 6" Minimum for pipe installations or to top of headwall on R.C.B.
- Ⓦ = Pipe or R.C.B. opening width plus 20 feet each side.

**BARNROOF FORESLOPE
AT DRAINAGE STRUCTURE**

STRUCTURE LOCATION		Ⓦ	Ⓛ	ⓧ	FS
STATION	SIDE	Feet	Feet	Feet	
288+80	Both	68	76	26	3:1

SURVEY SYMBOLS

UTILITY LEGEND

This is NOT a POINT 25 Project and is not subject to the provisions of IAC 761-115.25.

- F0 -	Farmers Cooperative Telephone Company Dick Baker 332 Main Dysart, IA 52224 (319) 476-7800 fctdysart@netins.net
-F02-	Mediacom Communications Corporation Tim Adreon 225 S Dayton Road Ames, IA 50010-6499 (515) 233-4646 tadreon@mediacomcc.com
-F03-	Centurylink Steve Parker 2103 E. University Ave. Des Moines, IA 50317 (515) 265-0968 Steven.Parker4@lumen.com
-W-	Poweshiek Water Association Chad Coburn 125 Industrial Drive Brooklyn, IA 52211 (641) 522-7416 chad@poweshiekwater.com

- F0 -

-F02-

-F03-

-W-

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

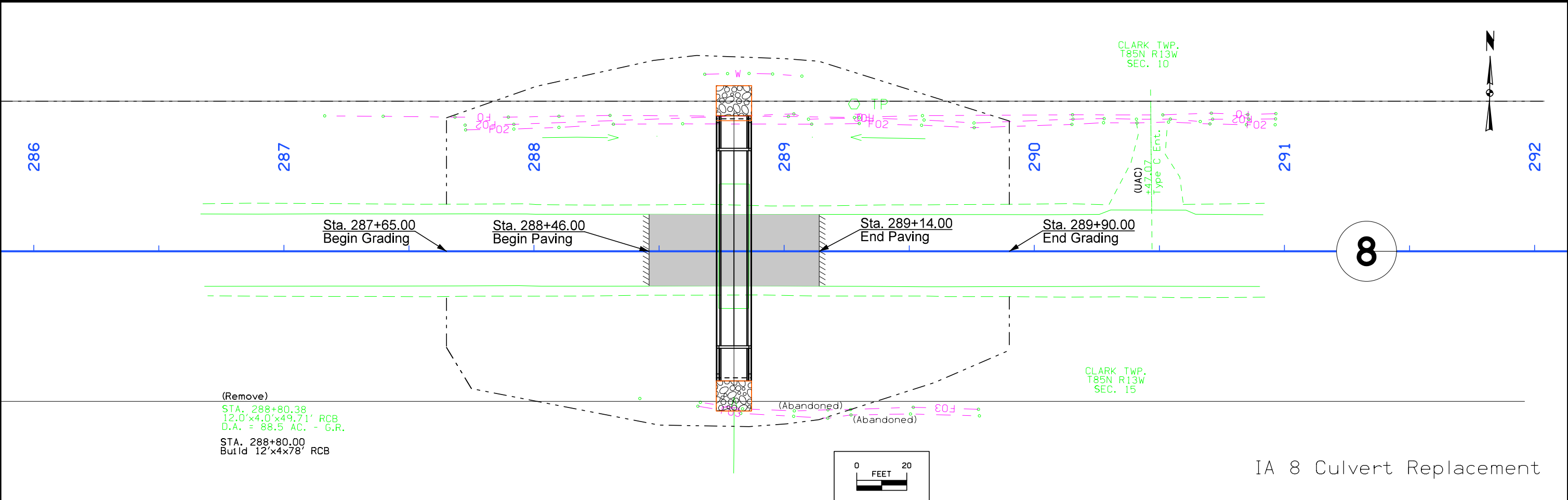
LINEWORK	Design Color No.
Green	(2) Existing Ground Line Profile
Blue	(1) Proposed Profile and Annotation
Magenta	(5) Existing Utilities
Blue, Light	(230) Proposed Ditch Grades, Left
Black	(0) Proposed Ditch Grades, Median
Rust	(14) Proposed Ditch Grades, Right

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

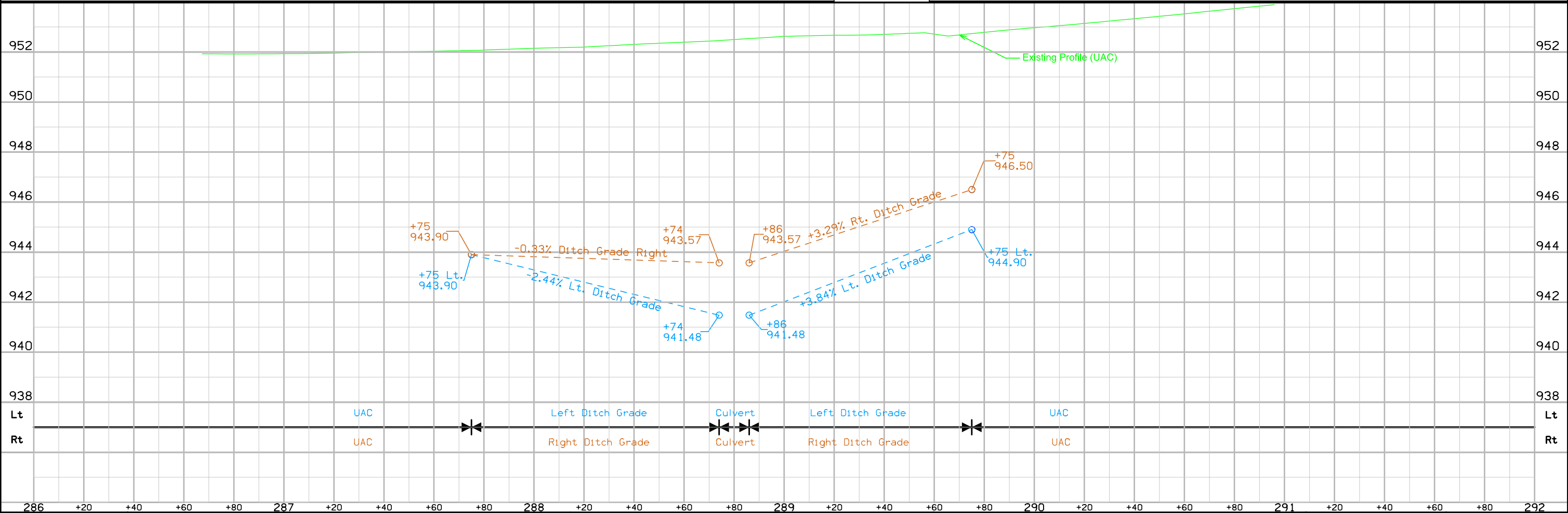
RIGHT-OF-WAY LEGEND

	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

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



IA 8 Culvert Replacement



Survey Information

County: Tama
PIN: 20-86-008-020
Project Number: STPN-008-1(16)--2J-86
Location: In Sections 10 and 15, Township
85 North, Range 13 West of the 5th Principal
Meridian, Tama County, Iowa, on U.S. 8 at
station 288+80.38 (this survey).
Type of Work: Culvert replacement and
extension under Hwy 8.
Project Directory: 8600802020

General Information

Measurement units for this survey are U.S. survey feet. This survey was completed to assist in the design of a reinforced concrete box culvert replacement and extension under Hwy 8.

Vertical Control

The vertical datum for this survey is NAVD88. The vertical control for this project is relative to said datum, computed using GEOID 12b, and is dependent on the Iowa Real-Time Network (IaRTN) reference stations. Control point elevations were established by 5 redundantly averaged RTK GPS shots utilizing the IaRTN.

Horizontal Control

The horizontal project coordinate system basis for this survey is from the Iowa Regional Coordinate System Zone 9 projection. The Geodetic Datum is NAD83 (2011) EPOCH 2010.0. Control Point horizontal coordinate positions were established by 5 redundantly averaged RTK GPS shots utilizing the Iowa Real-Time Network.

Alignment Information

The horizontal centerline alignment for Ia8 is a retrace of A.C. resurfacing plan FN-822. Stationing was held at PI 281+70.00 and was ran ahead without equation.

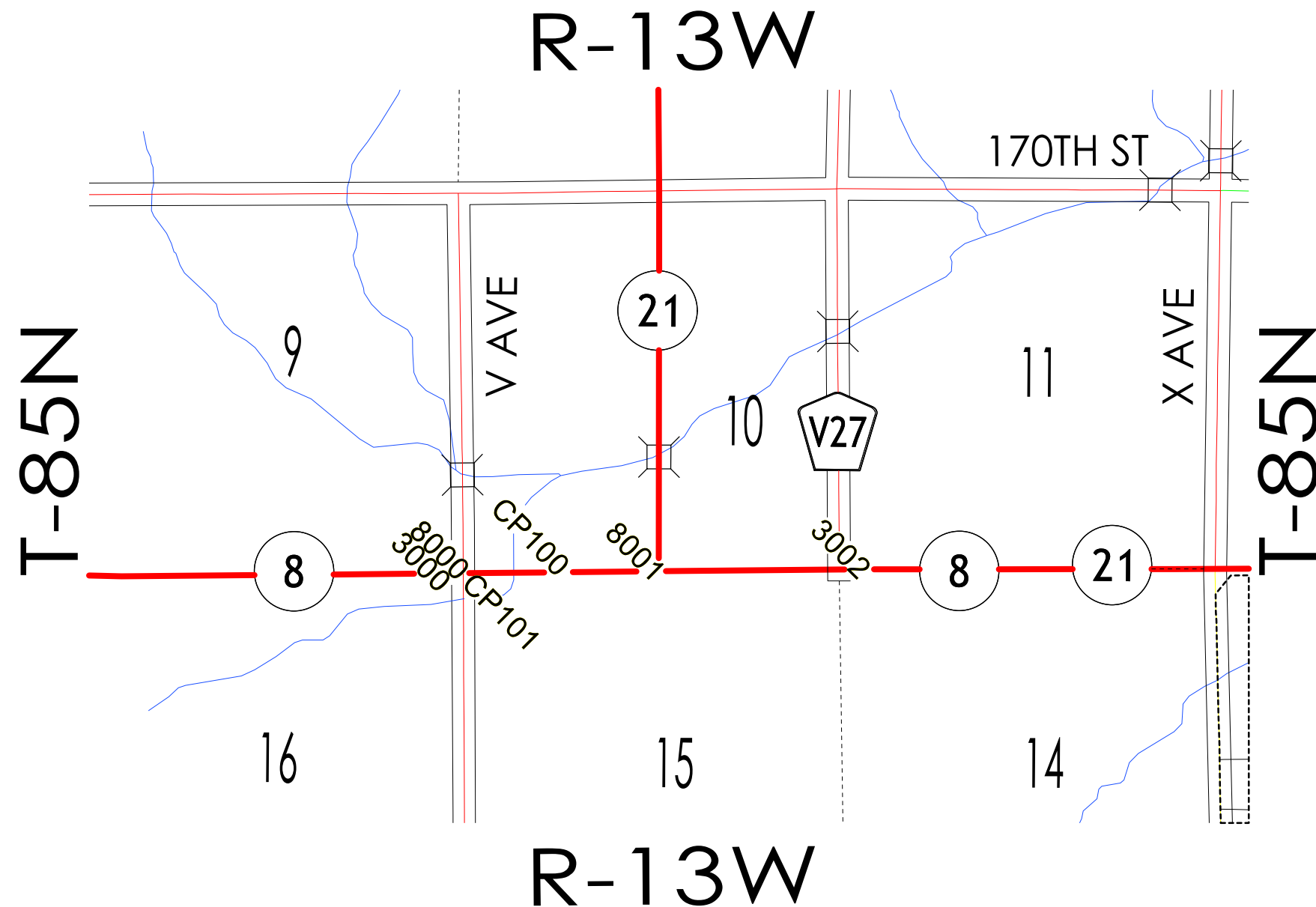
Survey stationing relates to as-built stationing as follows:

PI Sta. 281+70.00 (Plan FN-822) = PI Sta. 281+70.00 (this survey)
Found hinge nail

PI Sta. 337+30.80 (Plan FN-822) = PI Sta. 337+31.37 (this survey)
Found hinge nail

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 9

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

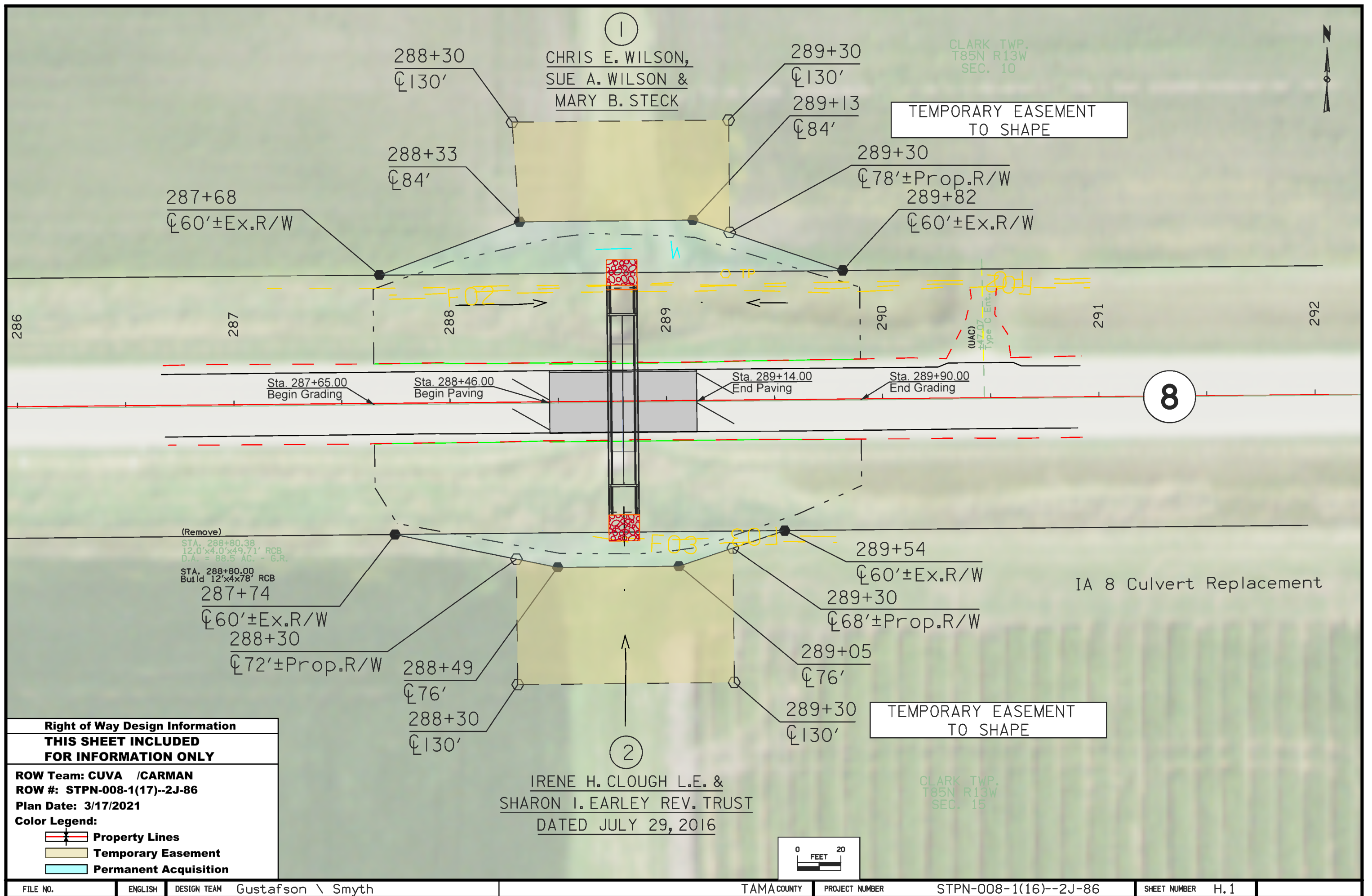
HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

Ia. Regional Coordinate System Zone 9

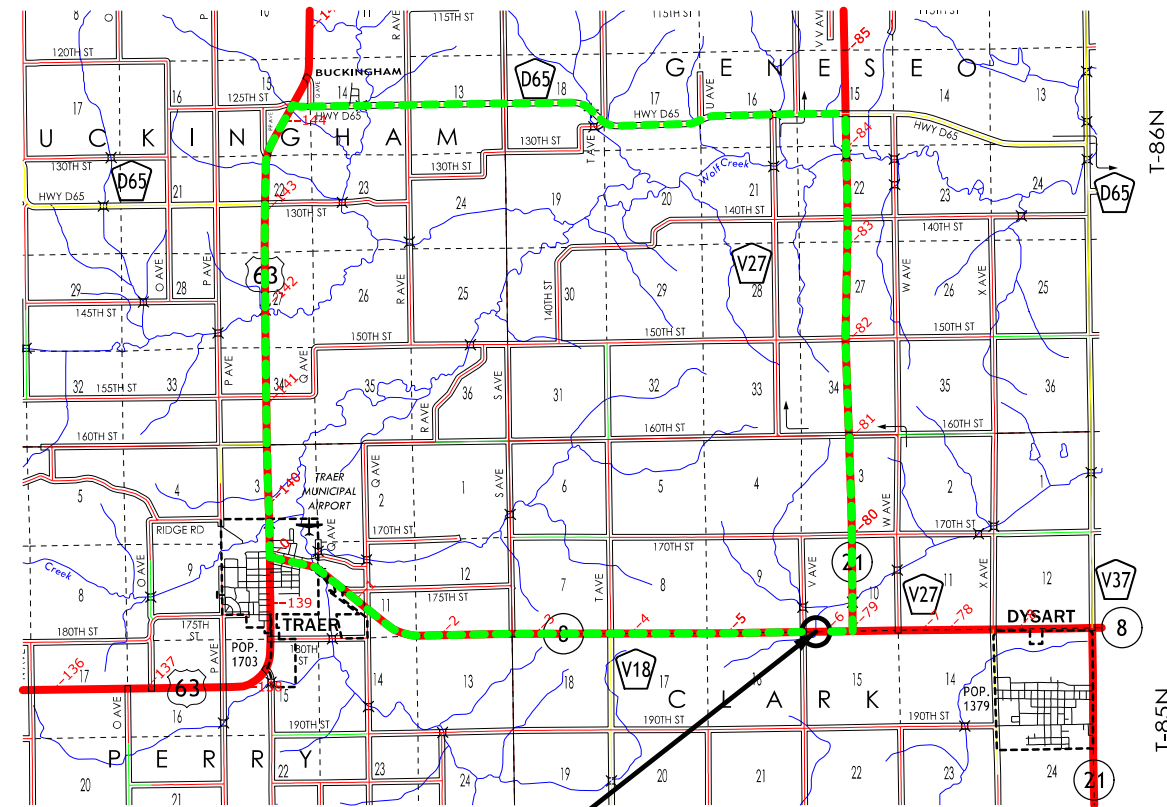
<u>Point Name</u>	<u>Northing</u>	<u>Easting</u>	<u>Elevation</u>	<u>Description</u>
CP100	7904070.840	19625798.178	954.362	Set 5/8 Re-Rod (Flush)
CP101	7903946.871	19624474.293	947.498	Found Concrete Monument (4"Exp.)
3000	7904005.590	19624412.453		Found Hinge Nail (Flush)
3002	7904061.744	19629973.539		Found Hinge Nail (Flush)
8000	7904006.682	19624413.280		Found Mag Nail (Flush)
8001	7904031.538	19627086.314		Found Mag Nail (Flush)



[illegible]

Traffic on IA shall be maintained at all times via an off-site detour.

Refer to Sheet. J.2 for detour map.

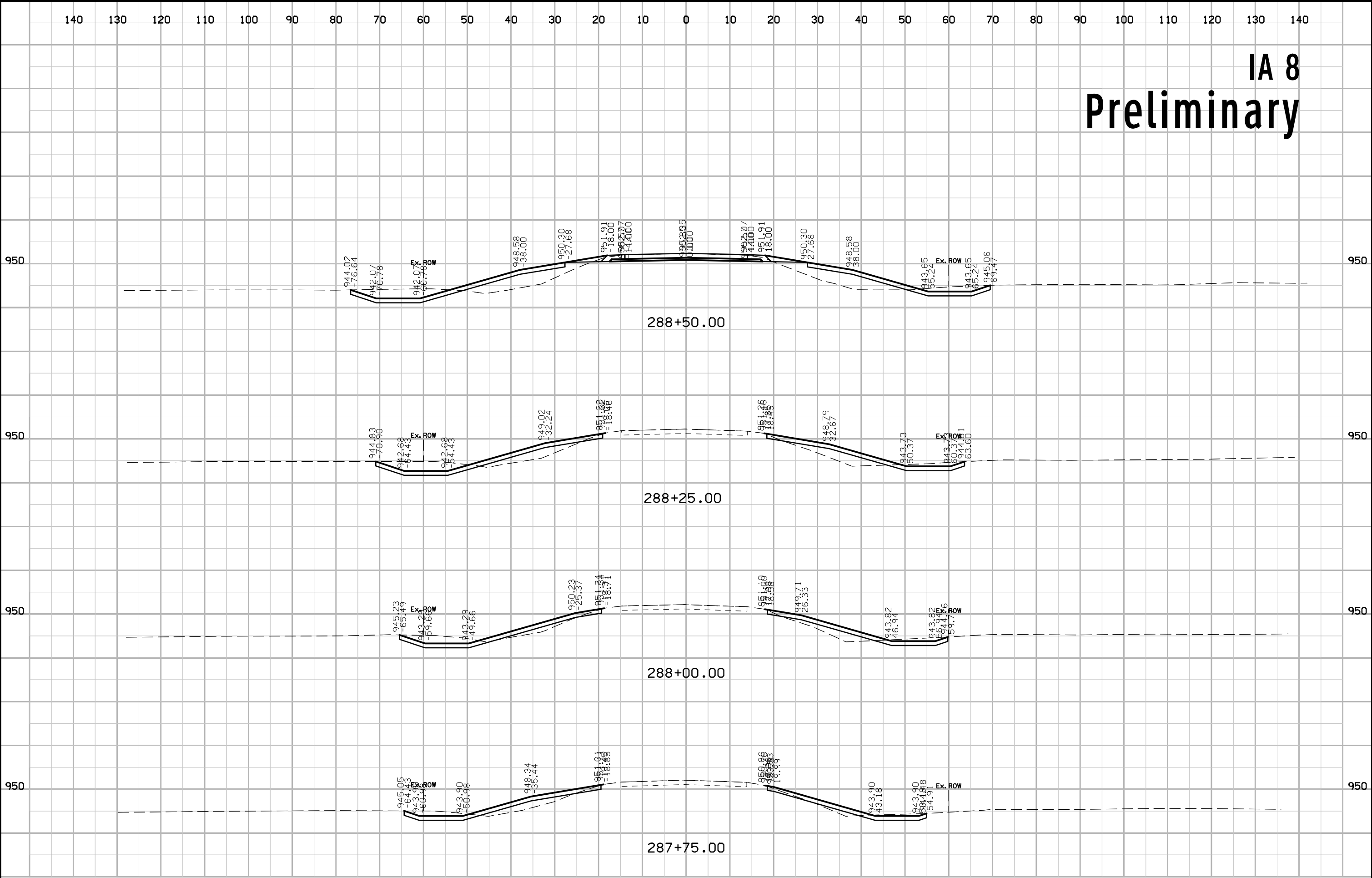


Project Location
Ref. Loc. 5.9
Sta. 288+80

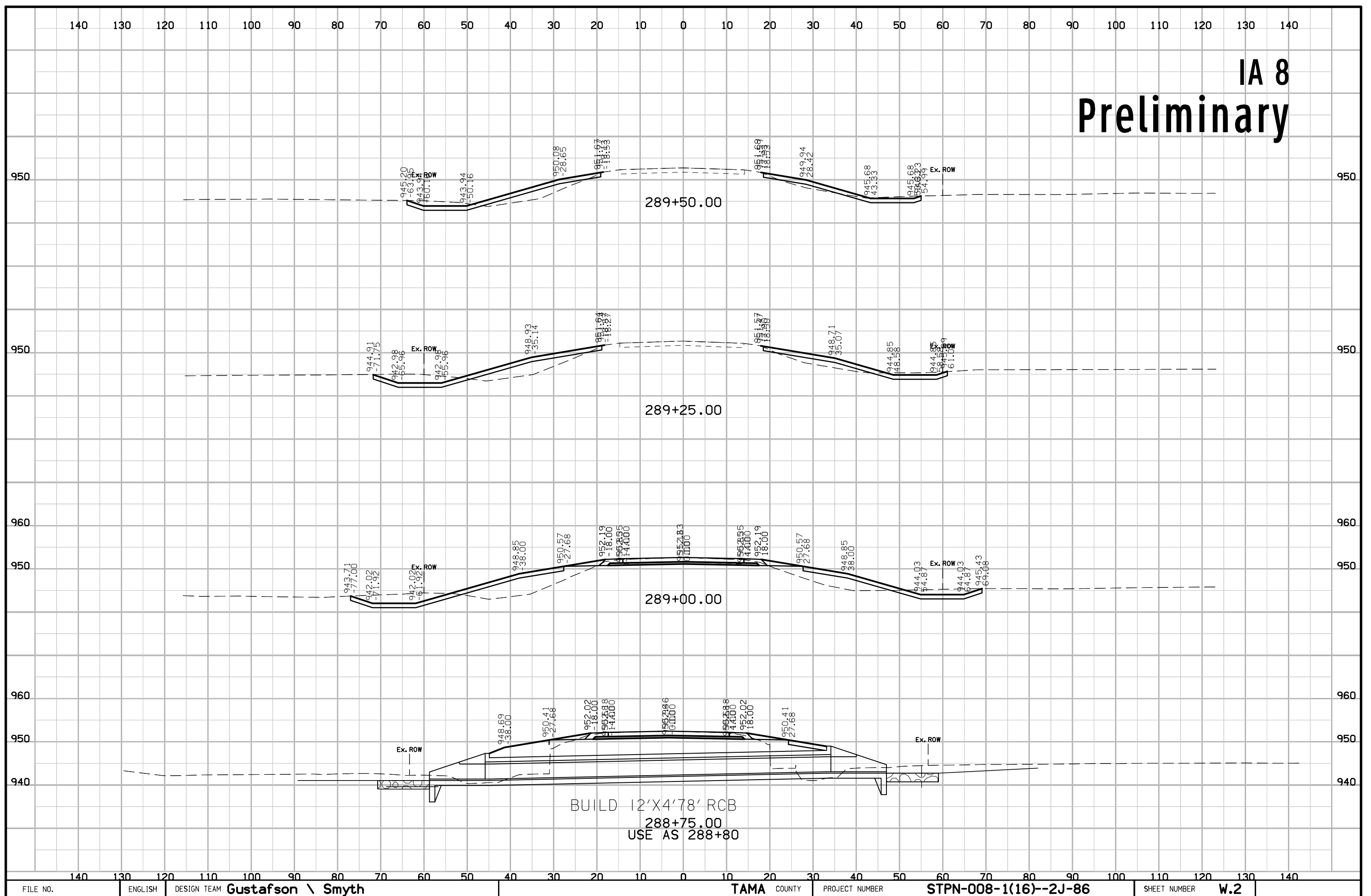


Detour Map
Tama County
STPN-008-1(16)--2J-86

IA 8
Preliminary



IA 8 Preliminary



IA 8
Preliminary

