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PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

STORY COUNTY

Culvert Replacement

On US 65 over Drainage Ditch
0.2 mi S of Co Rd E63/310th St in Collins

Refer to the Plan Sheets for list of applicable specifications.

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



Preliminary
Not For Construction

Revisions to this Design Plan and/or
Project Specifications should be
submitted by _____

Revisions

	TOTAL
	18
PROJECT IDENTIFICATION NUMBER	
25-85-065-010	
PROJECT NUMBER	
STP-065-5(042)--2C-85	
R.O.W. PROJECT NUMBER	
-	
PROJECT DIRECTORY NUMBER	
8506501025	

Design Data Urban			
2027 AADT	2,300	V.P.D.	
2047 AADT	2,500	V.P.D.	
2047 DHV	250	V.P.H.	
TRUCKS	22	%	

Index of Seals		
Sheet No.	Name	Type
A.1	Mark C. Currie	Structural and Roadway Design

Structural & Roadway Design

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

Preliminary Plans

04-03-2026

Signature

Mark C. Currie

Date

Printed or Typed Name

Mark C. Currie

My license renewal date is December 31,

2027

Pages or sheets covered by this seal: _____

LEGEND

INTERSTATE ROUTE

FREEWAY OR EXPRESSWAY ROUTE

U.S. NUMBERED ROUTE

BUSINESS ROUTE

STATE NUMBERED ROUTE

UNSIGNED ROUTE

COUNTY NUMBERED ROUTE

SECONDARY ROAD OR ADJOINING CITY STREET

CITY STREET

PARK, INSTITUTION, OR FEDERAL ROAD

RAILROAD

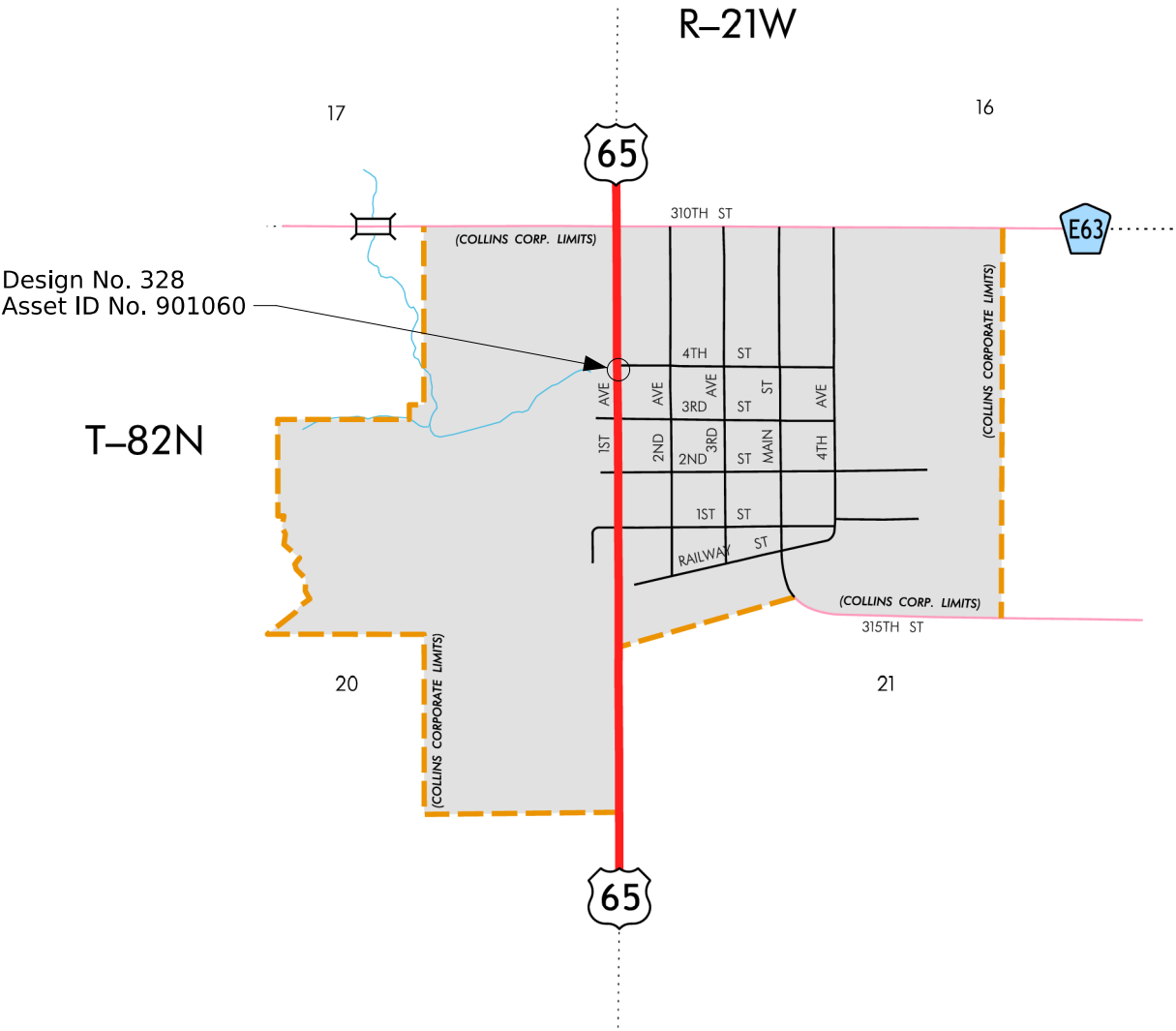
CORPORATION LINE

SECTION LINE

CUL-DE-SAC

SECTION, TOWNSHIP & RANGE NUMBERS

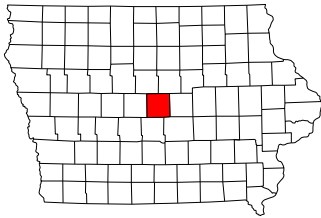
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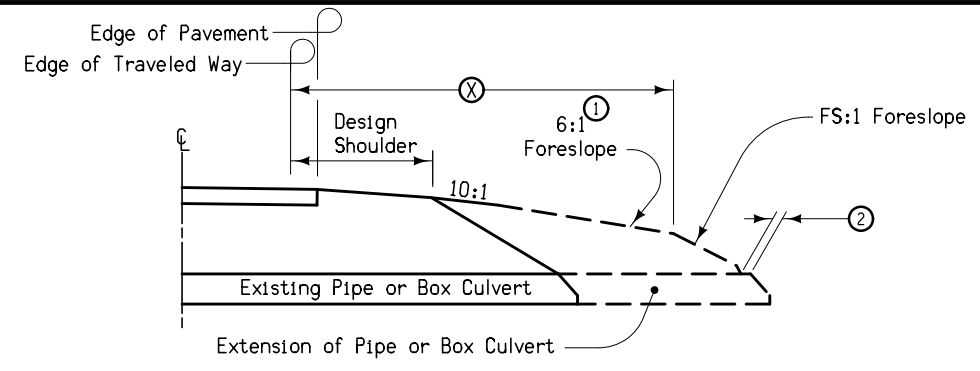
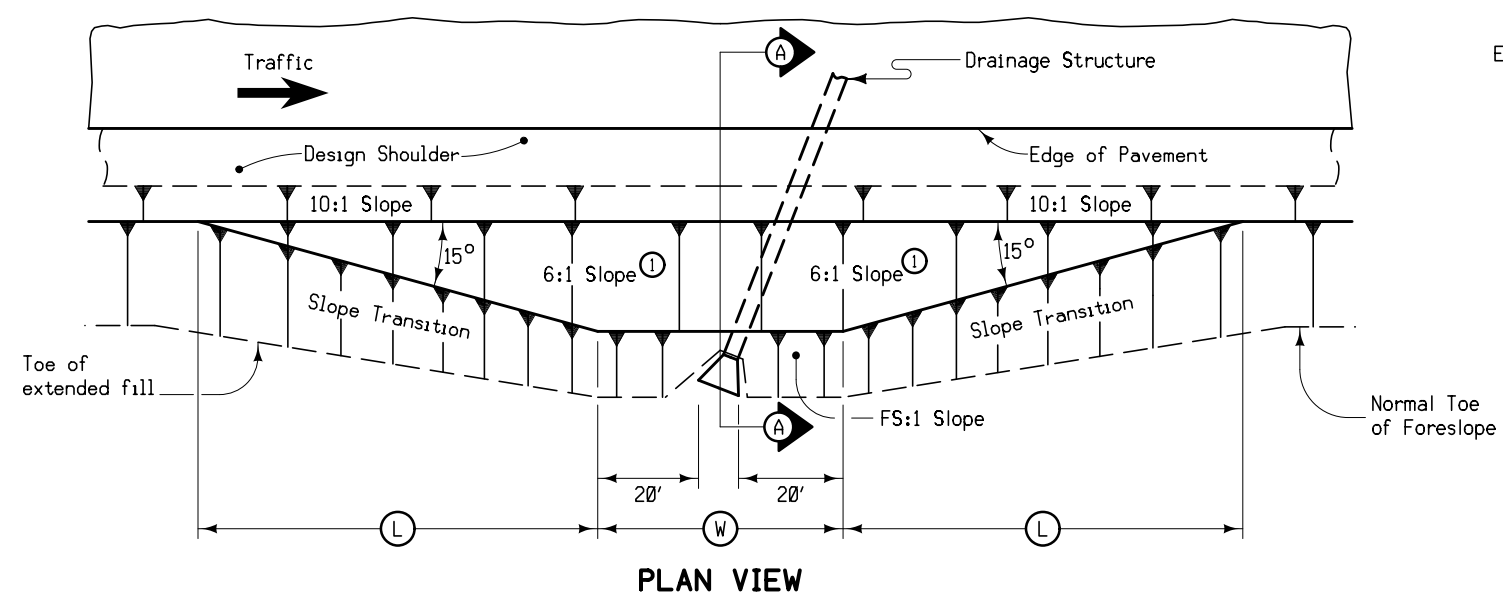


Story County Location Map

Not To Scale

City of Collins





SECTION A-A

STRUCTURE LOCATION		(W)	(L)	(X)	(FS)
STATION (3)	SIDE	Feet	Feet	Feet	
1345+77.00	L	56	15	14	4
1345+77.00	R	70	15	14	4

- 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 C of roadway.
 - (W) = Pipe or RCB opening width plus 20 feet each side.

BARNROOF FORESLOPE AT
SKEWED DRAINAGE STRUCTURE

	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
	Water Hydrant (Rural)

	Septic Tank
	Cistern
	L.P. Gas Tank (No Footing)
	Underground Storage Tank
	Latrine
	Satellite TV Dish
	Water Hook Up
	Radio Tower
	Tower Anchor
	Guardrail (Beam or Cable)
	Guard Post (one or two)
	Guard Post (over two)
	Filler Pipe
	Gas Valve
	Water Valve
	Speed Limit Sign
	Mile Marker Post
	Sign
	Traffic Signal Control Box
	Rail Road Signal Control Box
	Telephone Switch Box
	Electric Box

_____ E 1 _____	City of Collins
_____ SAN _____	City of Collins
_____ ST_5.1 _____	City of Collins
_____ ST_5.2 _____	Drainage District No. 56 Story County
_____ W _____	City of Collins

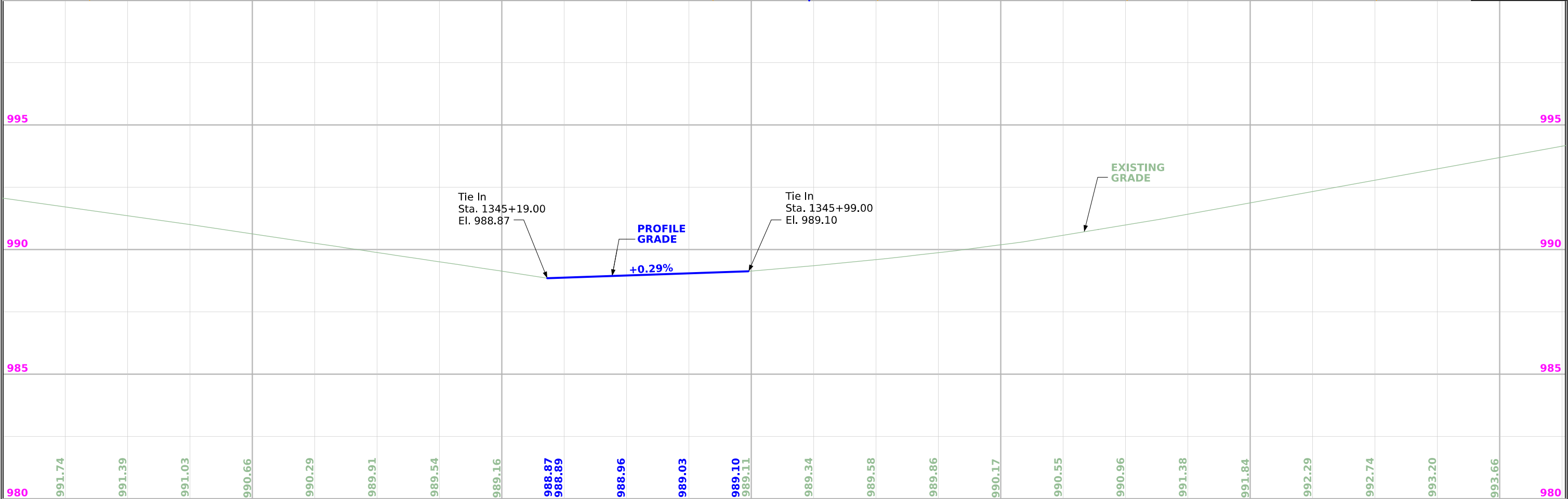
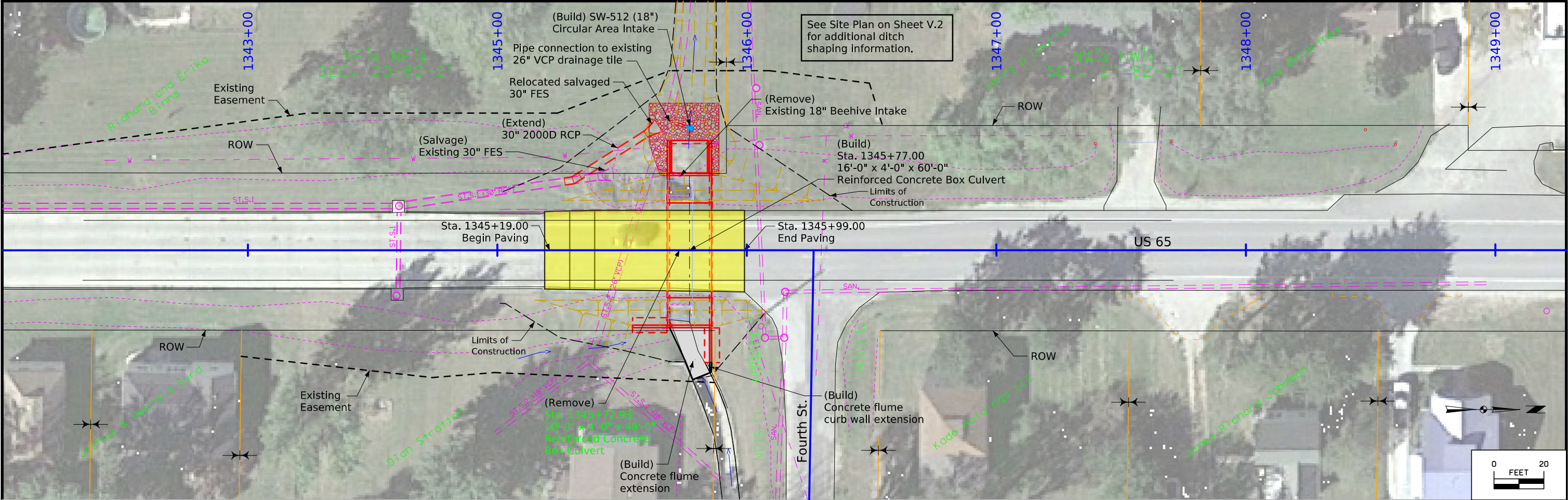
LINEWORK	Design Color No.			
Green	(2)		Existing Topographic Features and Labels	
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation	
Magenta	(5)		Existing Utilities	
SHADING	Design Color No.		Transparency	
Pink, Dark	(13)		Temporary Pavement Shading	50%
Yellow	(4)		Proposed 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%

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

RIGHT-OF-WAY LEGEND

	Survey Line		Proposed Right-of-Way Symbol
	Station		Proposed Right-of-Way Line
	Section Corner		Existing Right of Way
	Ground Line Intercept		Existing and Proposed Right-of-Way
	Saw Cut		Easement and Existing Right-of-Way
	Guardrail		Easement (Temporary) Symbol
	Trench Drain		Easement (Temporary) Line
	HighTension Cable Guardrail		Easement
	Sheet Pile		C/A Access Control
	Pavement Removal		Property Line Symbol
	Clearing & Grubbing Area		Property Line

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



Survey Information

SURVEY INDEX

County: Story
PIN: 25-85-065-010
Project Number: STP-065-5(042)--2C-85
Location: 0.2 mi S of Co Rd E63/310th St in Collins
Type of Work: Culvert
Project Directory: 8506501025

Survey Personnel

Jerett Still – Party Chief
Craig Beedle – PLS
TJ Coyle – Assistant Survey Party Chief

Date(s) of Survey

Begin Date 08/29/2025
End Date 09/09/2025

General Information

Measurement units for this survey are US survey feet. This survey is for proposed
retvment of Story County – Culvert under HWY65; 1010.62 feet South of 310th Street
and 311.61 feet North of 3rd Street in Collins, IA.

Utility Information

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

Project Control

Vertical Control
Vertical control was established by verifying one NGS monument. Vertical datum for this
survey is relative to NAVD88. Geoid 2018 was used in processing. The height was
computed at AE2152, NK0704, and DP4568. Vertical control was checked with IARTN
checks.

This survey observed AE2152, NK0704, and DP4568.
AE2152 – disk set in concrete monument
Elevation = 1014.042
NK0704 - disk set in concrete monument
Elevation = 1149.359
DP4568 - disk set in concrete monument
Elevation = 1054.295

Horizontal Control
The project coordinate system for this survey is Iowa RCS zone 08 (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). Coordinates were determined by conducting a 5-minute observation in the
morning, afternoon, and evening. Coordinates were then averaged between the three to
determine the final coordinate.

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 08
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3 or 2018u2

Alignment Information

The horizontal alignment for U.S. Hwy 65 is a retrace of the existing alignment. Survey
stationing was equated to Sta. 1345+73.00 and carried back and ahead without
equation throughout the survey.

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 08 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u3 or 2018u2

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

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 08 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3 or 2018u2

Point Name	Northing	Easting	Elevation	Code Description
cp500	7602459.39	18610984.50	992.92	CP 5/8" rebar 1' deep; 3.45' East of back of curb; 367.53' South of edge of culvert
cp501	7602459.23	18610947.27	992.85	CP 5/8" rebar 1' deep;4.17' West of back of curb; 367.47' South of edge of culvert
cp502	7603182.08	18610928.36	991.80	CP 5/8" rebar 1' deep; 10.82' West of edge of Asphalt; 345.64' North of edge of culvert
cp503	7603179.73	18610982.51	992.79	CP 5/8" rebar 1' deep; 8.34' East of edge of Asphalt; 342.72' North of edge of culvert

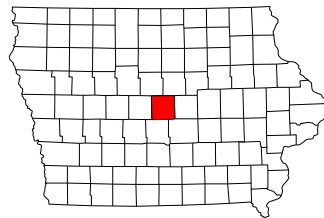
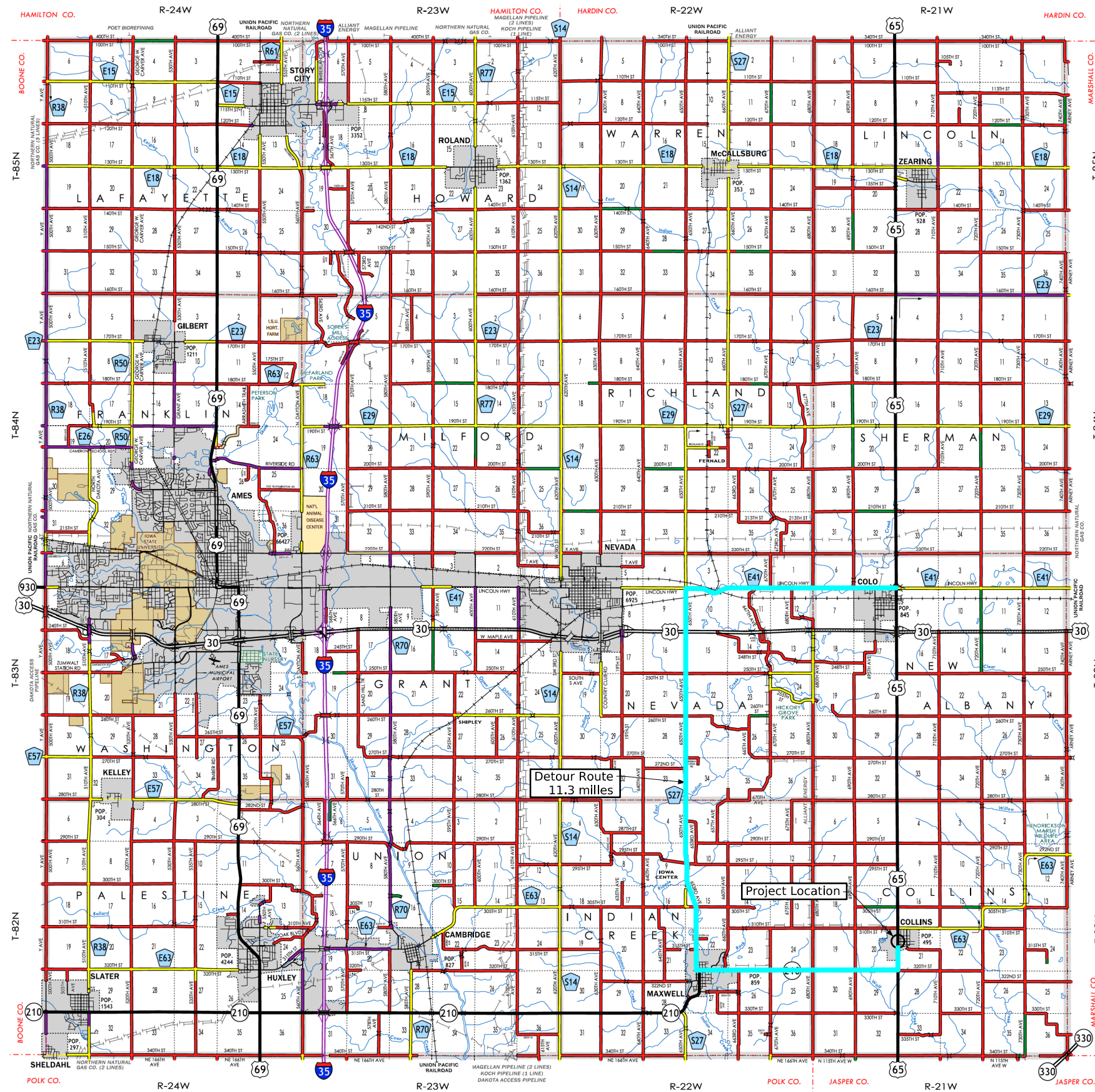
108_23A
8/15/22

TRAFFIC CONTROL PLAN

US 65 will be closed to traffic during construction. Traffic shall be maintained via offsite detour. See Sheet J.4 for detour route.

All construction traffic control shall be the responsibility of the Contractor including fabrication and installation of all traffic control and alternate route signing.

111_01 10/14/22 COORDINATED OPERATIONS Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.	
Project	Type of Work
25-85-065-020	New Pipe Culvert



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

Abbey Road

Elwood

Detour Route

Detour Details

Story County Map

Not to Scale

FILE NO. 32911

ENGLISH

DESIGN TEAM Veenstra & Kimm, Inc.

Story

COUNTY

PROJECT NUMBER STP-065-5(042)--2C-85

SHEET NUMBER J.4

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4/2/2026

RLemke

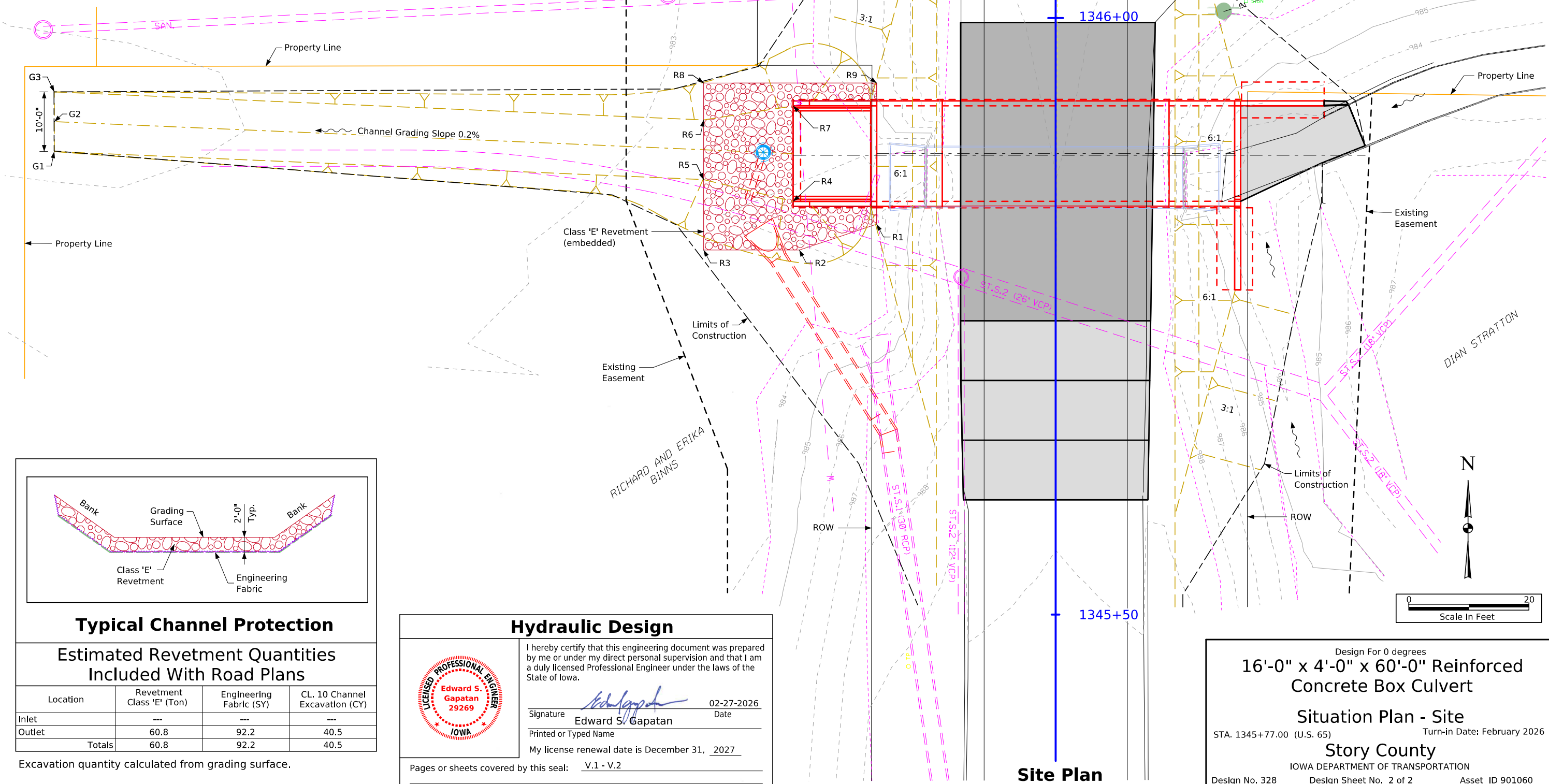
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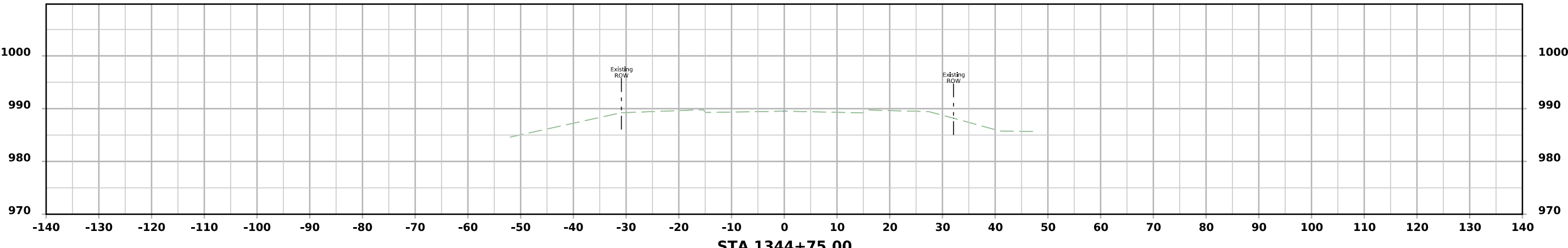
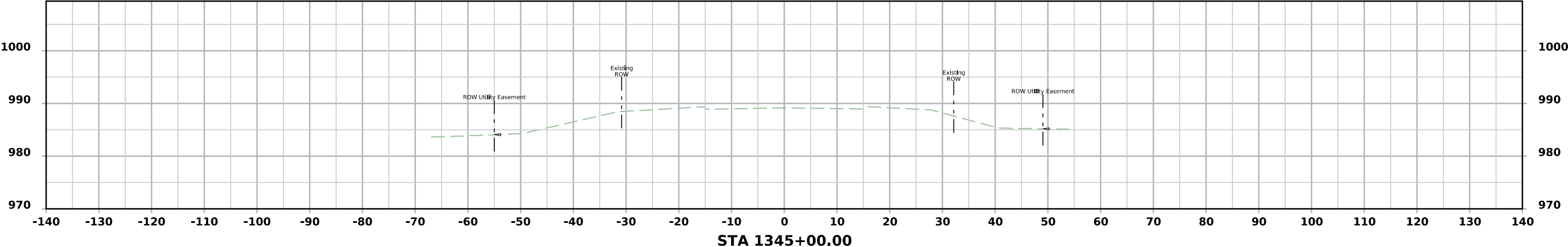
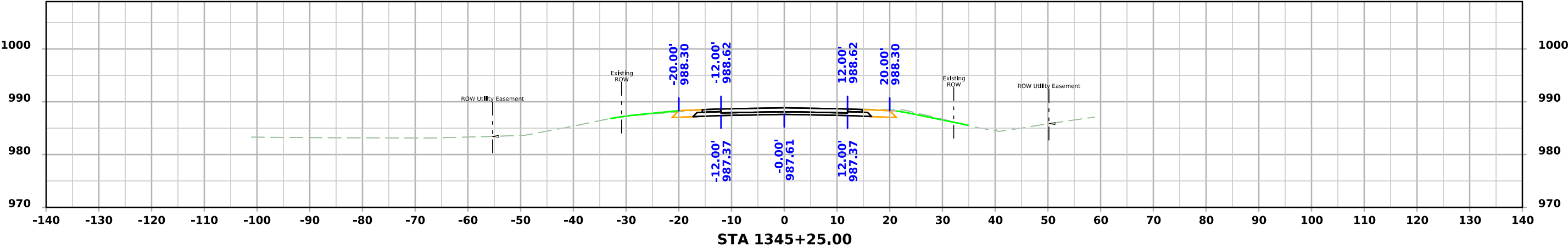
Proposed Profile Grade
US 65

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Revetment Location Table					
Points	Station	Offset	Elev.	Northing	Easting
R1	1345+65.21	30.0' Lt.	987.0	7602823.73	18610931.85
R2	1345+60.83	43.0' Lt.	985.1	7602819.26	18610918.93
R3	1345+60.83	59.0' Lt.	983.3	7602819.09	18610902.90
R4	1345+69.00	44.0' Lt.	981.9	7602827.41	18610917.81
R5	1345+72.64	59.0' Lt.	982.0	7602830.90	18610902.78
R6	1345+82.65	59.0' Lt.	982.0	7602840.91	18610902.67
R7	1345+84.17	44.0' Lt.	981.9	7602843.41	18610917.65
R8	1345+88.83	59.0' Lt.	982.5	7602847.09	18610902.61
R9	1345+88.83	30.0' Lt.	987.1	7602847.39	18610931.61
G1	1345+77.36	167.9' Lt.	981.8	7602834.46	18610793.87
G2	1345+82.36	167.9' Lt.	981.6	7602839.48	18610793.82
G3	1345+87.36	167.9' Lt.	981.7	7602844.48	18610793.77

All points are to top of revetment or finished grade.





US 65

