

INDEX OF SHEETS	
No.	DESCRIPTION
<b>A Sheets</b>	<b>Title Sheets</b>
* A.1	Title Sheet
* A.2	Location Map Sheet
<b>B Sheets</b>	<b>Typical Cross Sections and Details</b>
* B.1	Typical Cross Sections and Details
<b>D Sheets</b>	<b>Mainline Plan and Profile Sheets</b>
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 4	IA 160
<b>G Sheets</b>	<b>Survey Sheets</b>
* G.1	Reference Ties and Bench Marks
* G.2	Horizontal Control Tab. & Super for all Alignments
<b>W Sheets</b>	<b>Mainline Cross Sections</b>
W.1 - 3	Mainline Cross Sections
	* Color Plan Sheets



### Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

## PRIMARY ROAD SYSTEM

# POLK COUNTY

## REVTMENT

0.2 mi E of SW State St in Ankeny

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.



REVISIONS

TOTAL

12

PROJECT IDENTIFICATION NUMBER

20-77-160-020

PROJECT NUMBER

NHSN-160-1(17)--2R-77

R.O.W. PROJECT NUMBER

NHSN-160-1(18)--2R-77

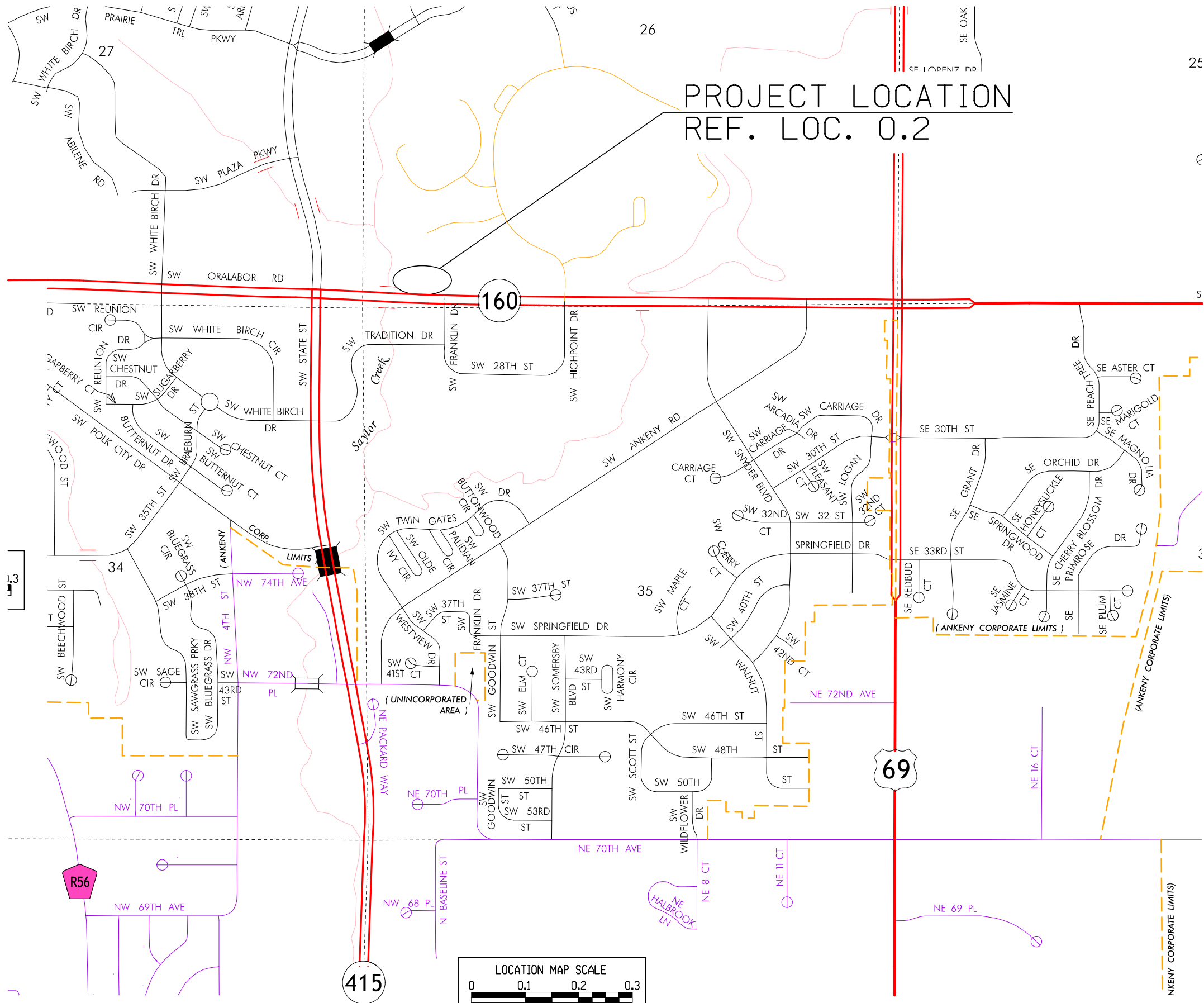
#### DESIGN DATA BBAN

2016	AADT	22400	V.P.D.
20	AADT		V.P.D.
20	DHV		V.P.H.
	TRUCKS	3	%
	Total		
	Design ESALs		

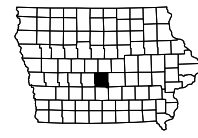
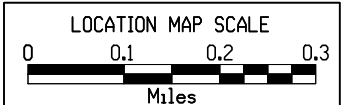
# PRELIMINARY PLANS

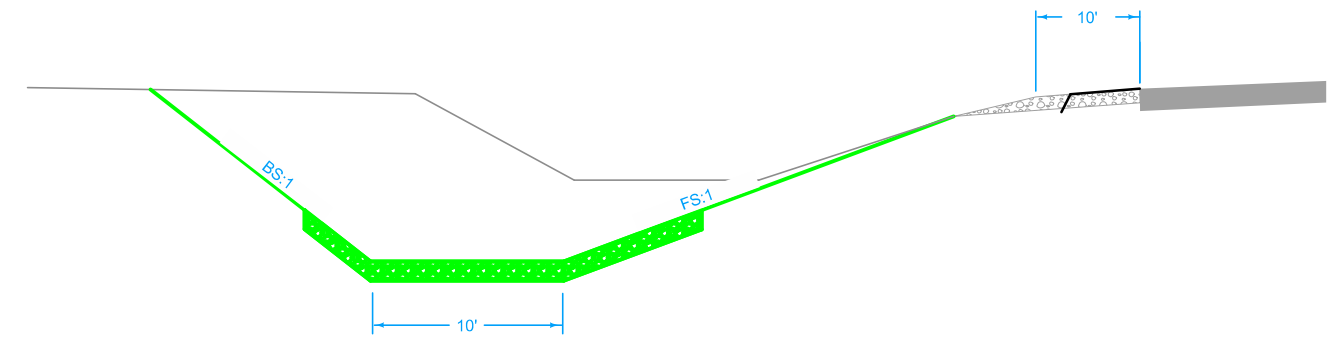
Subject to change by final design.

## D2 PLAN - Date: 11-17-20

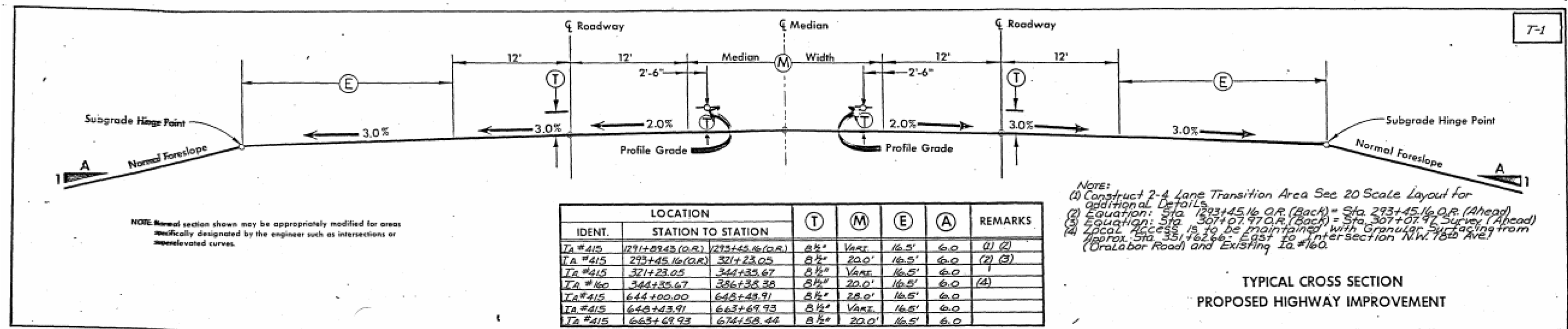


PROJECT LOCATION  
REF. LOC. 0.2

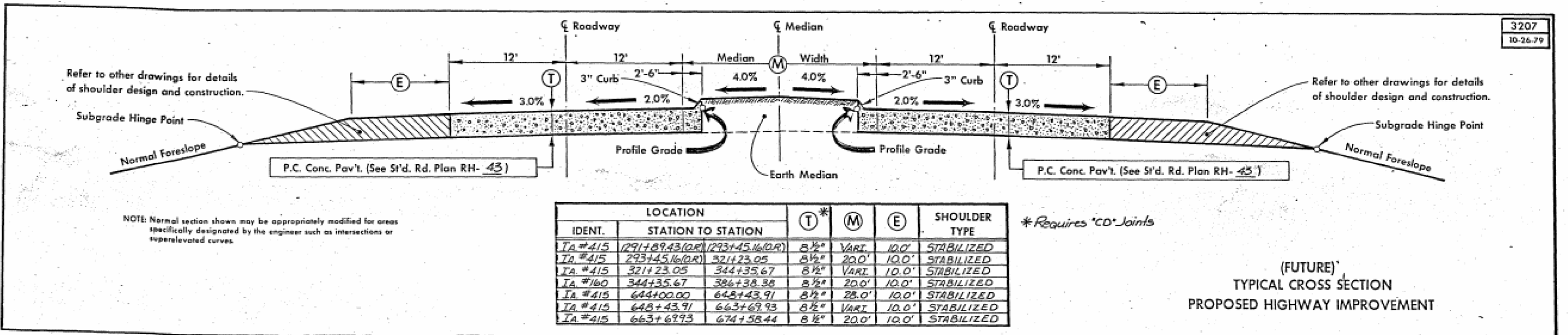




Rock Ditch				
ROADWAY	STATION		BS	FS
	BEGIN	END		
IA 160	336+60	337+30	2	2
IA 160	337+30	337+60	Vari.	3.5
IA 160	337+60	338+00	3	Vari.
IA 160	338+00	338+70	3	4



TYPICAL CROSS SECTION PROPOSED HIGHWAY IMPROVEMENT



(FUTURE) TYPICAL CROSS SECTION PROPOSED HIGHWAY IMPROVEMENT

### UTILITY LEGEND

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

- F0 - Aureon Network Services  
Jeff Klocko  
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West Des Moines, IA 50266  
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- F02- Iowa Communications Network  
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Des Moines, IA 50319  
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- F03- Ankeny School District  
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Tdozler@ankenyiowa.gov
- San- ANKENY  
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dclark@ankenyiowa.gov

### 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

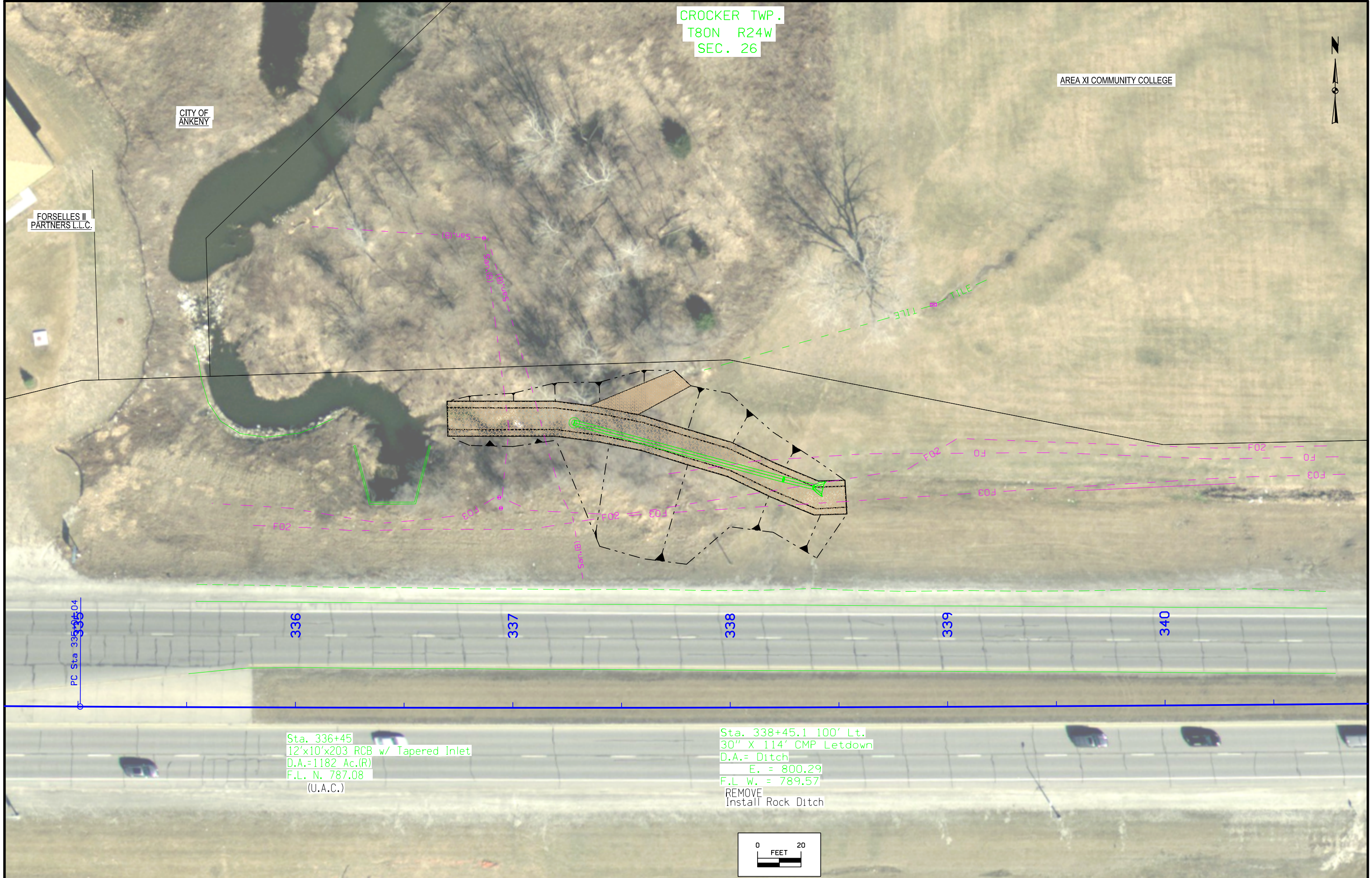
(COVERS SHEET SERIES D, E, F, & K)

CROCKER TWP.  
T80N R24W  
SEC. 26

AREA XI COMMUNITY COLLEGE

CITY OF ANKENY

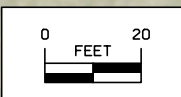
FORSELLES II PARTNERS L.L.C.

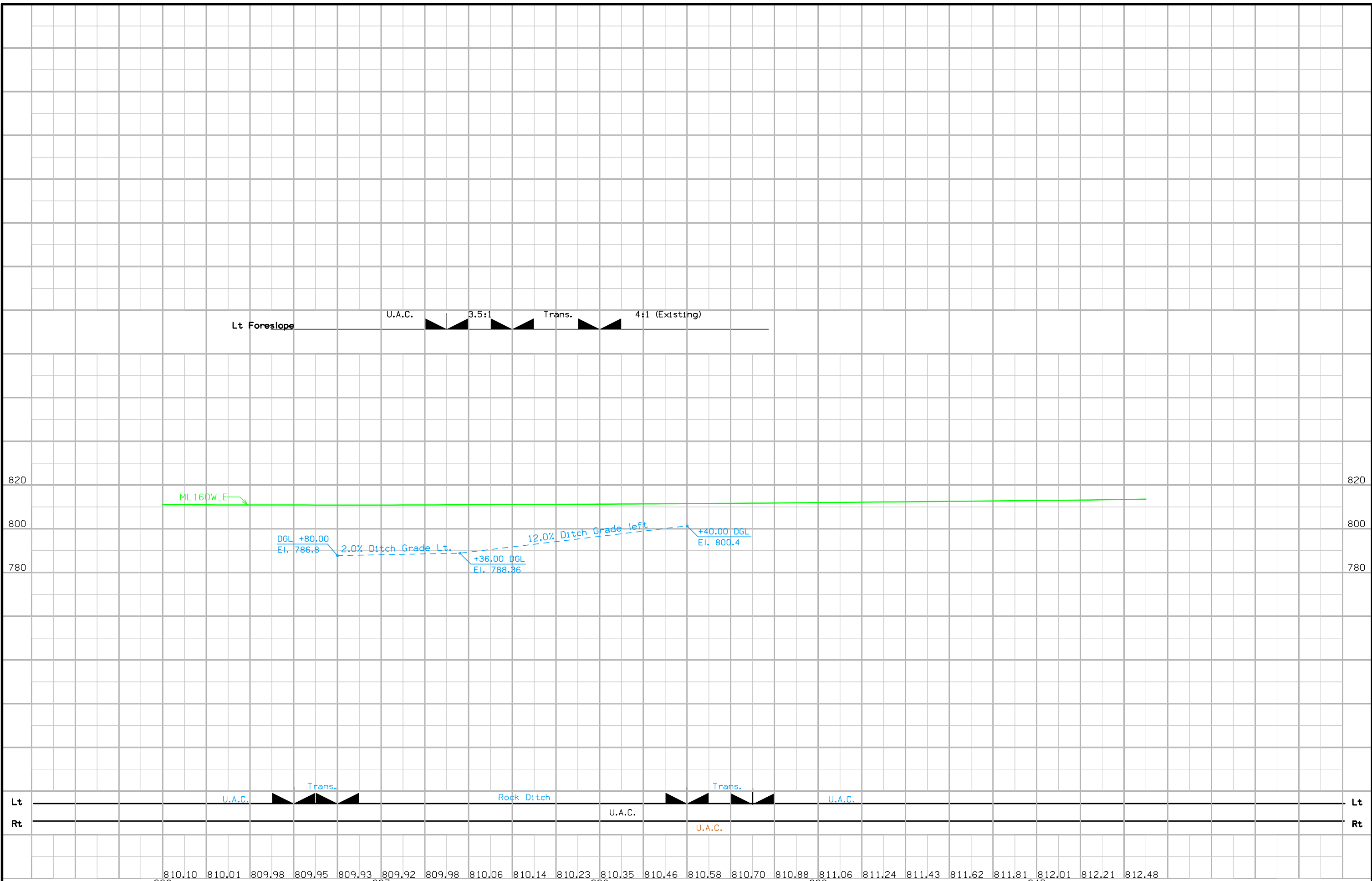


PC Sta 335+05.04

Sta. 336+45  
12'x10'x203 RCB w/ Tapered Inlet  
D.A.=1182 Ac.(R)  
F.L. N. 787.08  
(U.A.C.)

Sta. 338+45.1 100' Lt.  
30" X 114' CMP Letdown  
D.A.= Ditch  
E. = 800.29  
F.L. W. = 789.57  
REMOVE  
Install Rock Ditch





Lt Foreslope U.A.C. 3.5:1 Trans. 4:1 (Existing)

ML160W.E

DGL +80.00  
El. 786.8

2.0% Ditch Grade Lt.

+36.00 DGL  
El. 788.36

12.0% Ditch Grade right

+40.00 DGL  
El. 800.4

Lt

U.A.C.

Trans.

Rock Ditch

U.A.C.

Trans.

U.A.C.

Lt

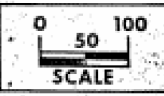
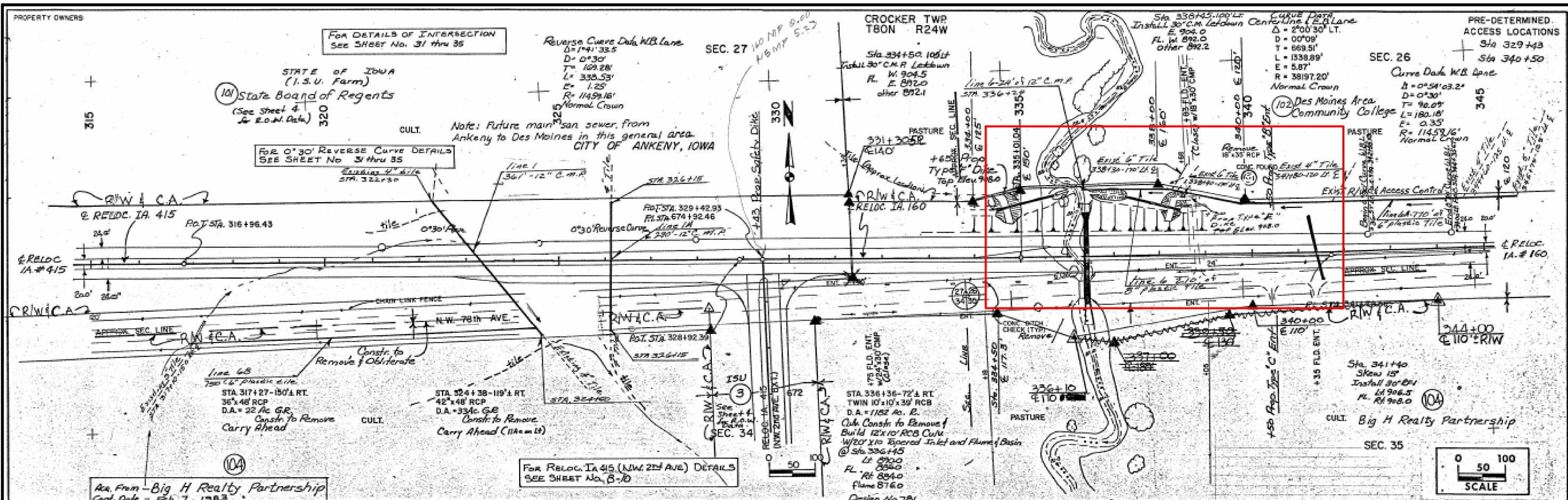
Rt

U.A.C.

Rt

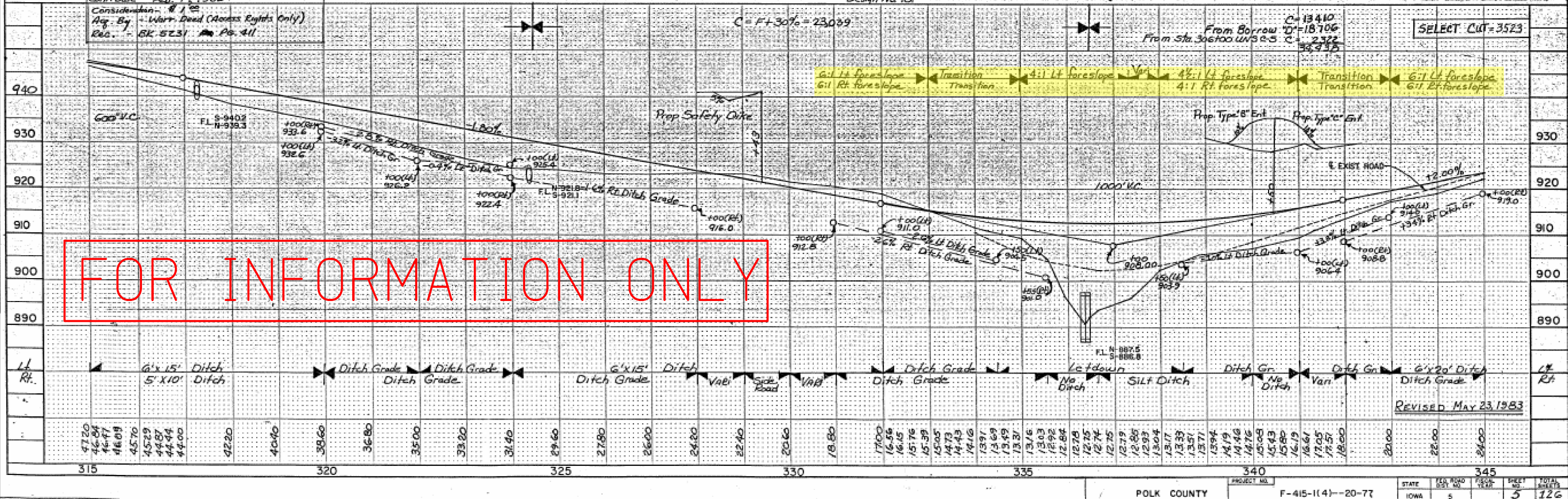
810.10 810.01 809.98 809.95 809.93 809.92 809.98 810.06 810.14 810.23 810.35 810.46 810.58 810.70 810.88 811.06 811.24 811.43 811.62 811.81 812.01 812.21 812.48

FILE NO.	ENGLISH	DESIGN TEAM	Gustafson/Narigon	POLK COUNTY	PROJECT NUMBER	NHSN-160-1(17)--2R-77	SHEET NUMBER	D.3
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Acc. From - Big H Realty Partnership  
 Cont. Data - Feb. 7, 1983  
 Consideration - \$1.00  
 Acq. By - Warr. Deed (Access Rights Only)  
 Reg. - BK 5231 Pg. 411

FOR RELOC. IA 415 (NW 2ND AVE) DETAILS  
 SEE SHEET No. B-D



4720	4684	4647	4609	4570	4529	4487	4444	4400	4220	4040	3860	3680	3500	3320	3140	2960	2780	2600	2420	2240	2060	1880	1700	1656	1615	1576	1539	1505	1473	1443	1416	1391	1369	1349	1331	1316	1304	1294	1286	1280	1276	1274	1275	1279	1286	1293	1304	1317	1333	1351	1371	1394	1419	1448	1476	1505	1533	1560	1587	1619	1661	1705	1751	1800	2000	2200	2400
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## Survey Information

County: Polk  
 PIN: 20-77-160-020  
 Project Number: NHSN-160-1(17)--2R-77  
 Location: In the City of Ankeny, Polk Co., Iowa, Section 26, Township 80 North, Range 24 West of the 5<sup>th</sup> Principal Meridian. Area is located just north of Ia160 at the SW corner of the Des Moines Area Community College campus.  
 Type of Work: Replacement of a failed 30" CMP letdown structure.  
 Project Directory: 7716002020

## HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

Ia. Regional Coordinate System Zone 8

### General Information

Measurement units for this survey are U.S. survey feet. This survey was completed to assist in the design for replacement of a failing 30" CMP letdown structure.

### 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 8 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 Ia160 was developed from grading plan F-415-1(4)--20-77 and R.O.W. acquisition plats in the area. Stationing was held at P.C. 335+01.04 and was ran back and ahead without equation.

Survey stationing relates to as-built stationing as follows:

P.O.T. 307+43.48 (acq. plat proj. FN-415-1(9)--21-77 book 5233 page 415) = 307+42.60 (this survey)

P.I. 341+70.55 (F-415-1(4)--20-77 grading plan) = P.I. 341+70.55 (this survey)

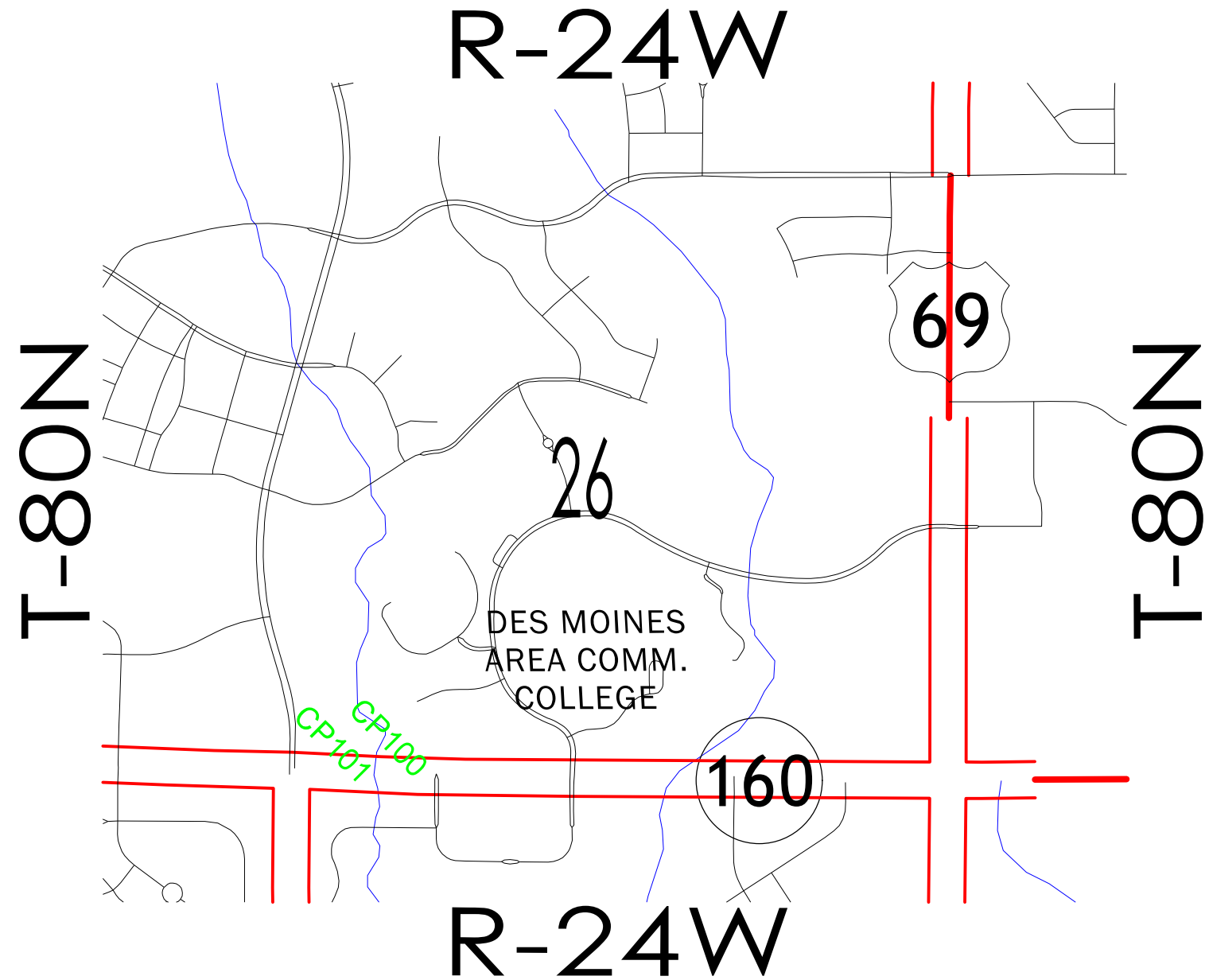
P.I. 386+74.38 (F-415-1(4)--20-77 grading plan) = P.I. 386+74.58 (this survey)

<u>POINT NUMBER</u>	<u>NORTHING</u>	<u>EASTING</u>	<u>ELEVATION</u>	<u>FEATURE CODE</u>	<u>DESCRIPTION</u>
CP100	7529476.48	18527112.22	811.43'	CP	SET 5/8" RE-ROD (FLUSH)
CP101	7529446.19	18526602.48	810.96'	CP	SET "MAG" NAIL IN CONC. ISLAND



### CONTROL POINT VICINITY MAP

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



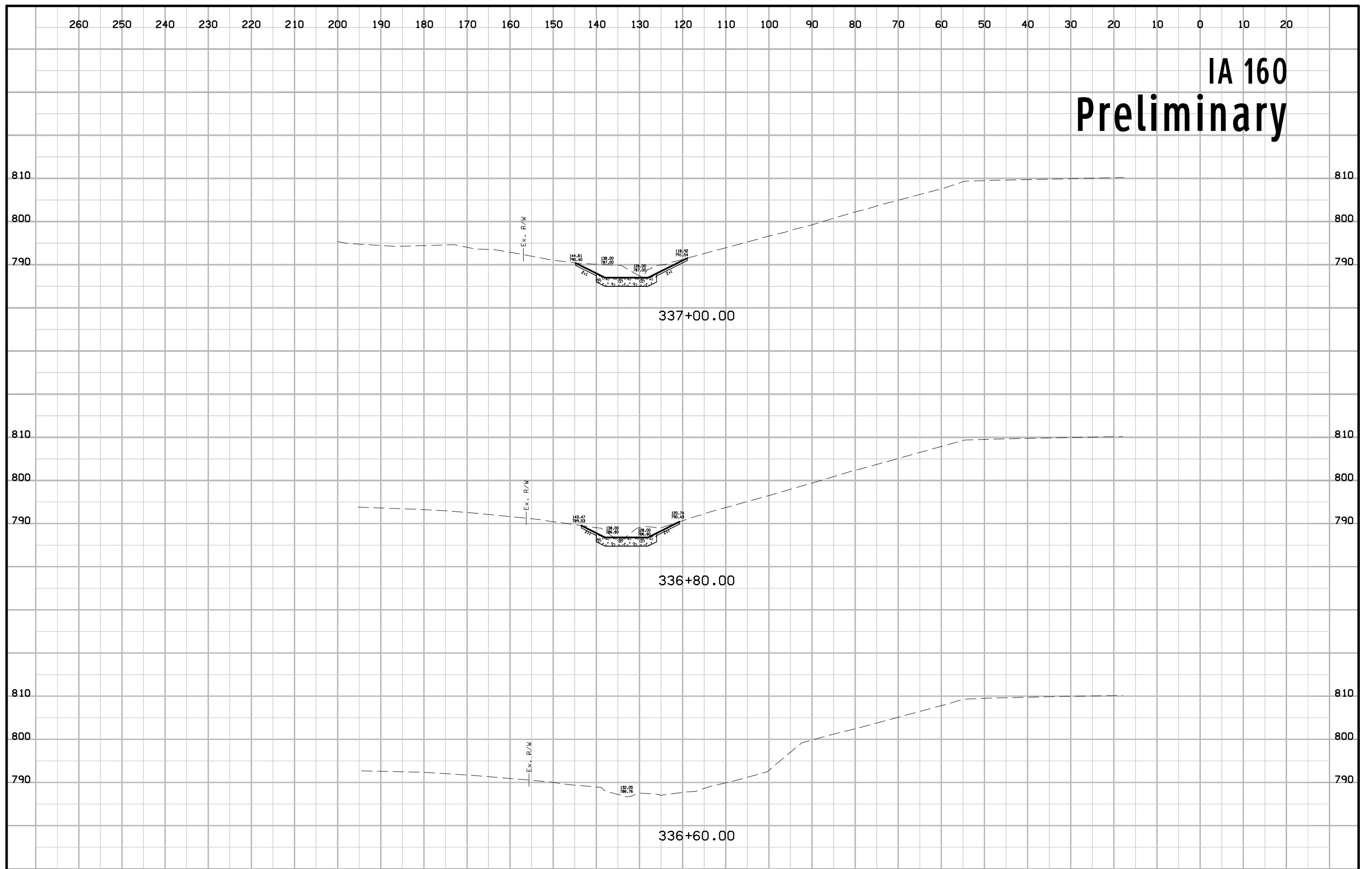
HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

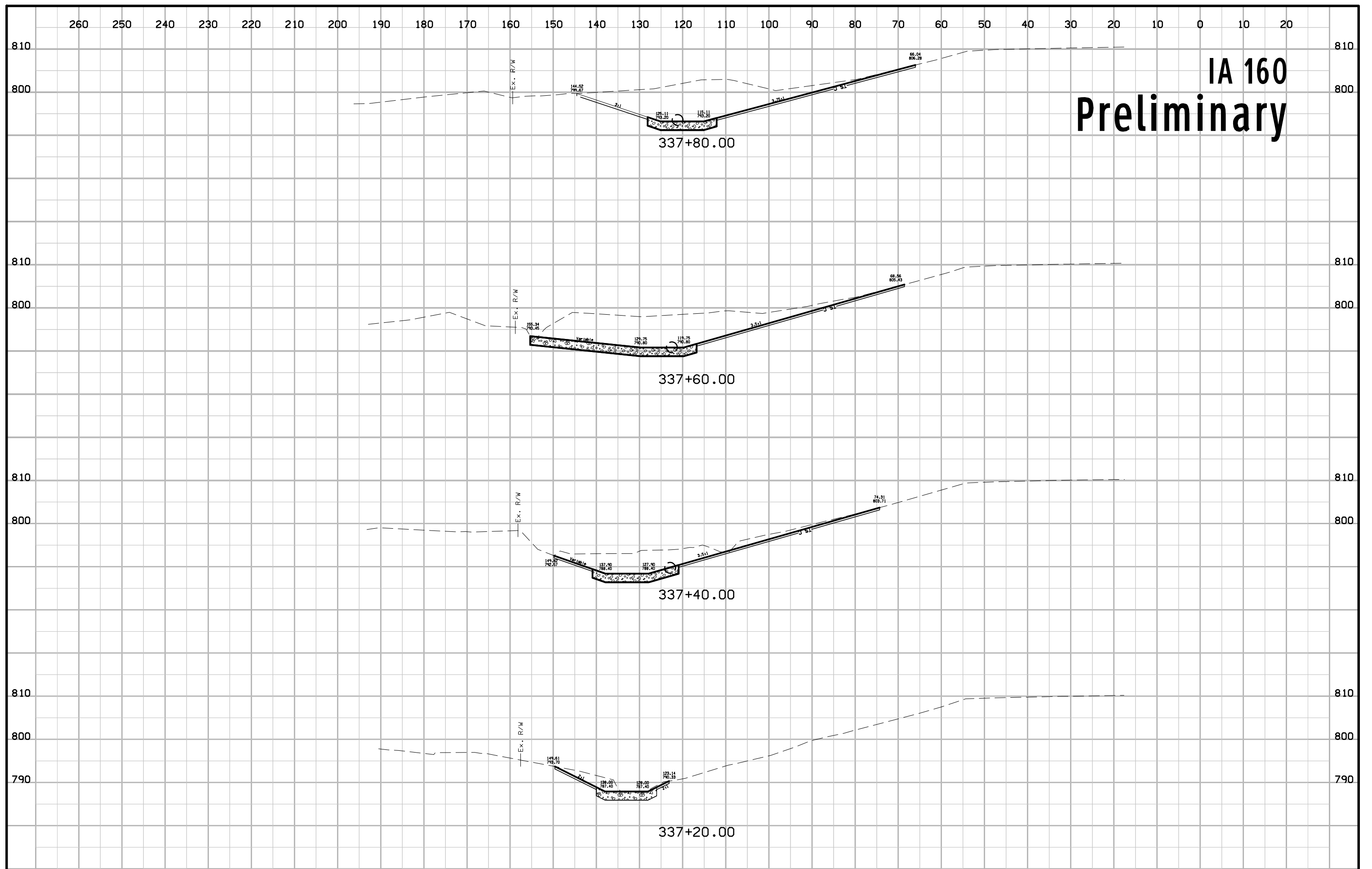
1a. Regional Coordinate System Zone 8

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

# IA 160 Preliminary



# IA 160 Preliminary



# IA 160 Preliminary

