PCC PAVEMENT - NEW
IM-35-4(140)92--13-77
LETTING DATE

POLK Co.

INDEX OF SHEETS

IOWA DOT
Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM

POLK COUNTY

PCC PAVEMENT - GRADE AND REPLACE

On Interstate Highway 35 From the SE Oralabor Road Interchange to the NE 36th Street Interchange

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.15 of the Specifications.

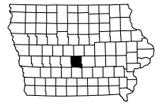
IOWA ONE CALL
CALL BEFORE YOU DIG!
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

FOR PROJECT LOCATION MAP
REFER TO SHEET A.02

CITY OF ANKENY

This Engineering Document is approved.

Mark Mueller, PE — Date
City of Ankeny Public Works Director



04-30-02	101-7

DESIGN DATA INTERSTATE HIGHWAY

2008 AADT	53,600	V.P.D.
2035 AADT	100,300	V.P.D.
2035 DHV	9,900	V.P.H.
TRUCKS *	16	%
Total Design ESALs		

MILEAGE SUMMARY — 105-1 / 09-27-94

Div.	Location	Lin. Ft.	Miles
1	Interstate 35: Sta. 181+08.36 to Sta. 340+01.16	15569.81	2.948
	Deduct Bridge at Sta. 272+28.21	267.00	0.051
	Deduct Bridge at Sta. 329+77.17	179.54	0.034
	Equation: Sta 340+01.16 (Back) = Sta. 640+00.00 (Ahead) Sta. 640+00.00 to Sta 661+05.20	2105.20	0.399
	Ramp A Sta. 3275+58.38 to Sta. 3285+25.00	966.62	0.183
	Ramp A2 Sta. 13272+60.03 to Sta. 13275+58.38	298.35	0.057
	Ramp A3 Sta. 23273+09.62 to Sta. 23274+60.00	150.38	0.029
	Ramp B Sta. 4256+00.00 to Sta. 4268+99.07	1229.07	0.246
	Ramp B2 Sta. 14268+99.07 to Sta. 14271+94.92	295.85	0.056
	Ramp B3 Sta. 24269+82.29 to Sta. 24271+41.61	159.32	0.030
	Ramp C Sta. 5259+18.56 to Sta. 5269+30.34	1011.78	0.192
	Ramp C2 Sta. 15270+23.44 to Sta. 15272+15.64	192.20	0.036
	Ramp C3 Sta. 25269+30.34 to Sta. 25272+83.34	353.00	0.067
	Ramp D Sta. 6274+31.07 to Sta. 6285+46.34	1115.27	0.211
	Ramp D2 Sta. 16272+20.56 to Sta. 16273+61.42	140.86	0.027
	Ramp D3 Sta. 26271+40.28 to Sta. 26274+31.07	290.79	0.055

* Note: % Truck Data is from Iowa DOT Office of Transportation Data.

REVISIONS

TOTAL
PROJECT IDENTIFICATION NUMBER
PROJECT NUMBER
IM-35-4(140)92--13-77
R.O.W. PROJECT NUMBER

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.01	SCOTT E PORT	Primary Signature Block
A.01	MARK MUELLER	City of Ankeny

MILEAGE SUMMARY — 105-1 / 09-27-94

Div.	Location	Lin. Ft.	Miles
2	E 1st Street: Sta. 994+56.00 to Sta. 999+70.53 Sta. 1000+41.27 to Sta. 1004+00.00	514.53 358.73	0.097 0.068
	Equation: Sta 1004+00.00 (Back) = Sta. 11004+00.00 Westbound Lanes (Forward) Sta. 21004+00.00 Eastbound Lanes (Forward)		
	Sta. 11004+00.00 to Sta. 11019+90.26 Sta. 21004+00.00 to Sta. 21019+90.83	1590.83	.301
	Equation: Sta. 11019+90.26 (Back) and Sta. 21019+90.83 (Back) = Sta. 31019+49.45 (Ahead)		
	Sta. 31019+49.45 to Sta. 31038+33.72	1884.27	.357
	Deduct Bridge at Sta. 31023+20.61	154.33	.029
	Delaware Ave Sta. 21+17.41 to Sta. 25+48.50 Sta. 30+16.91 to Sta. 35+02.18	430.09 485.27	.081 .092
	SE Creekview Drive: Sta. 102+88.47 to Sta. 109+34.21	645.74	0.122
	Frisk Drive: Sta. 400+09.45 to Sta. 401+46.87 Sta. 402+15.87 to Sta. 407+87.44	137.42 571.57	0.026 0.108
	Total Length of Roadway Total Length of Bridge	30566.95 600.87	5.789 0.114
	Total Length of Project	31167.82	5.903

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.

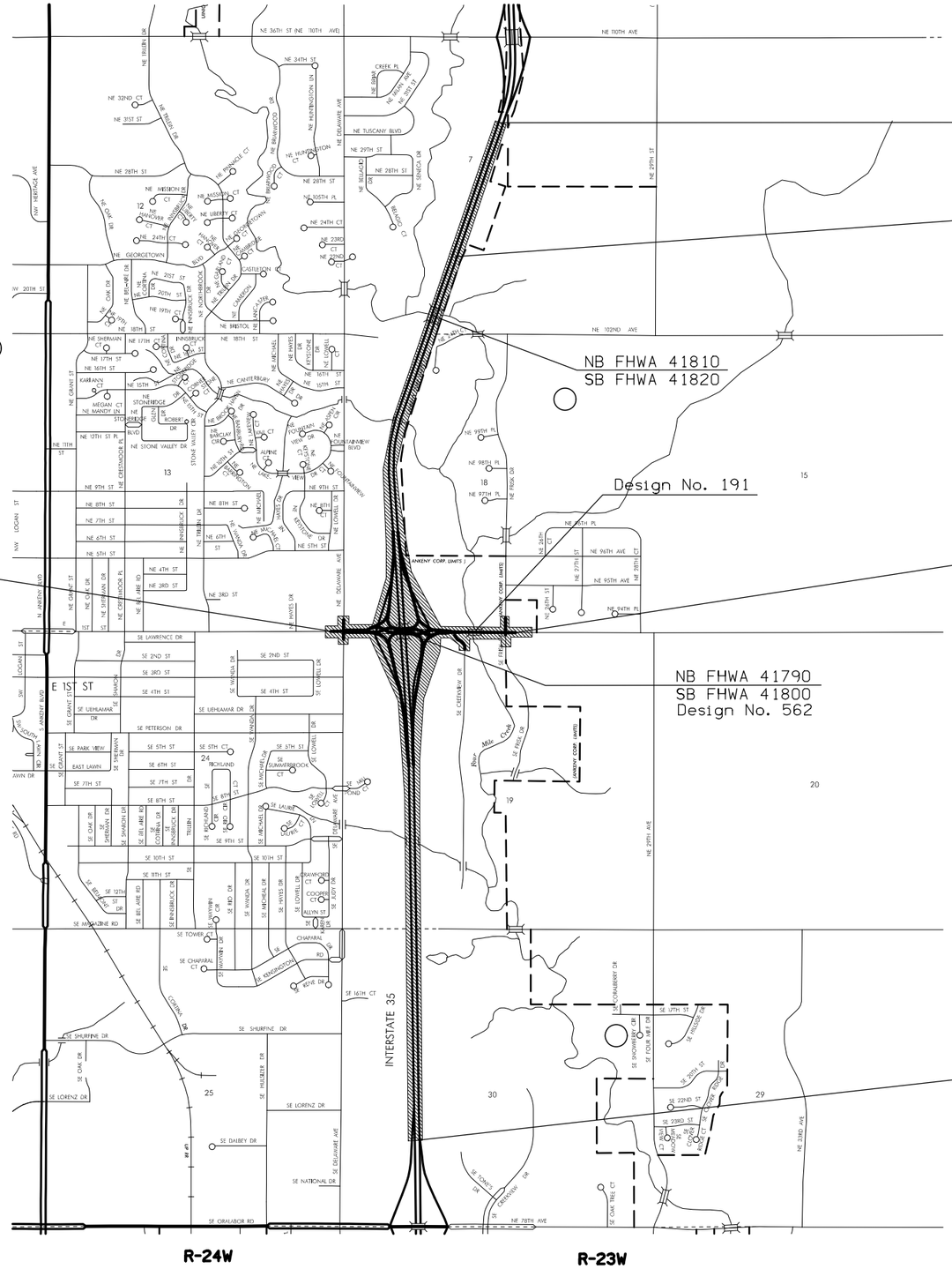
SCOTT E. PORT, P.E. — Date
License Number 20264
My License Renewal Date is December 31, 2014

Pages or sheets covered by this seal:

LICENSED PROFESSIONAL ENGINEER
SCOTT E. PORT
20264
IOWA

SUBMITTAL
D.3

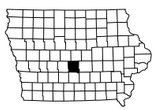
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER A.1



N

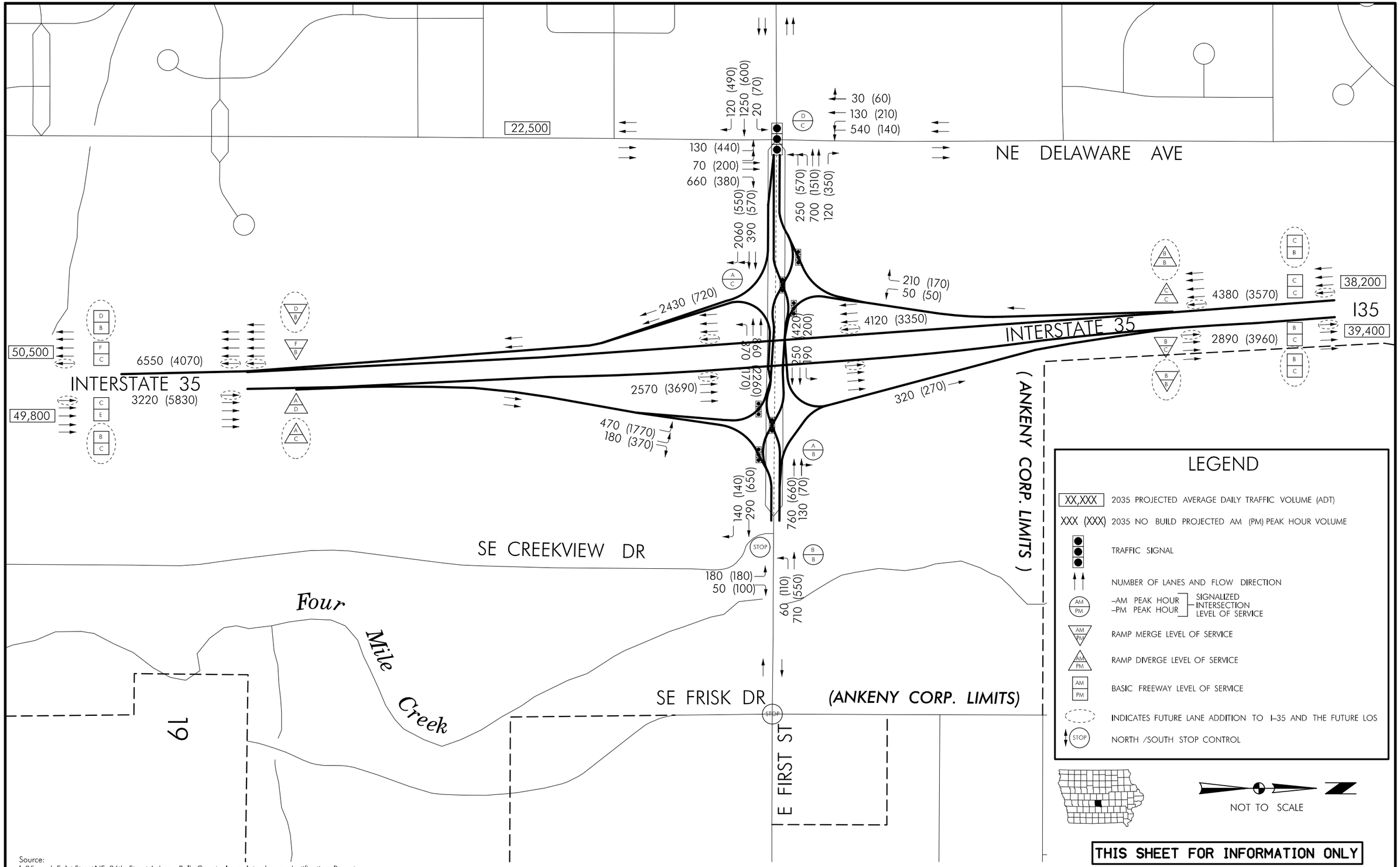
T-80N

NOT TO SCALE



PROJECT LOCATION MAP

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER A.2	



Source:
I–35 and E 1st Street/NE 36th Street Ankeny, Polk County, Iowa, Interchange Justification Report
Project No. IM–35–4(125)92—13–77
HR Green Company, (IJR Amendment Approval February 25, 2014)

THIS SHEET FOR INFORMATION ONLY

TRAFFIC DATA

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER A.3

EARTHWORK SUMMARY (PRELIMINARY)

Road ID	Excavation Total Cut (CY)	Fill + 30% Total Fill (CY)	Borrow / Waste (CY)
Frisk Drive	708	4,298	-3,590
Creekview Drive	4,641	723	3,918
E. 1st Street	42,346	27,959	14,387
I-35 Northbound	27,891	223,764	-195,873
I-35 Southbound	37,706	83,127	-45,421
Ramp A	29,729	20	29,710
Ramp B	32,297	16,125	16,172
Ramp C	36,041	5,061	30,980
Ramp D	44,944	1,230	43,714
TOTALS	**256,303**	**362,306**	**-106,003**

SEC 24 - T80N - R24W

Prairie Glen Townhome Association

Rogers Enterprises Inc.

Grand CapitaLLC

ElwellFoundation

Larson Family LLLP

MDM Equity 202 LLC

Metro North/ Ankeny Center LLC

Kohls Department Stores inc.

Target Corp.

HD Development of Maryland inc.

Menards inc.

INTERSTATE HIGHWAY 35

Denny Elwell Family LC

ACH Food Companies Inc.

ACH Food Companies Inc.

Denny Elwell Family LC

SEC 19 - T80N - R23

SEC 18 - T80N - R23W

0 FEET 200

OWNERSHIP MAP
POLK COUNTY

C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER A.05	

3:30:41 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_A05.SHT

SEC 24 - T80N - R24W

SEC 13 - T80N - R24W

Papa's Properties, Inc
Arby's Inc.
Lessee

Pigskin Farms LLC

MJ & Son's, Inc

Vernon Associates Inc

Valley Bank

The Godwin Group LLC

JMR Properties LC

The Godwin Group LLC

Rob's I-35 Auto Center, Inc.

Ashish Motel Inc.

Jala Corporation

Menadue Development, LC

TKG IOWA STORAGE, LC

Maplewood Village Condominiums

Presbyterian Homes Mill Pond Care Center

Mallard Creek Townhome Association

The Village on Delaware Town Home Owner's Association

Ankeny Housing Association Two Limited Partnership

B&L Building LC

Rogers Enterprises Inc.

Villas of Meadow Ridge Condominiums

Begin Project
Sta. 230+25.00

E. 1ST STREET

INTERSTATE HIGHWAY 35

NW Company

Airgas North Central Inc

City of Ankeny

Midwest Radio, Inc.

Richard W. Smith & Ronald E. Smith

Craig W Hansen

OMG Midwest Inc.

OMG Midwest Inc.

Albaugh Chemical Corp

Albaugh Chemical Corp

SE CREEKVIEW DRIVE

Rich Eychaner

SE FRISK DRIVE

BRAZELTON, DENNIS L
BRAZELTON, PATSY A

GRIFFITH, DOUGLAS B

Open Bible Fellowship

Open Bible Fellowship

BRESSON, DAR
BRESSON, ANGE

SEC 18 - T80N - R23W

SEC 19 - T80N - R23

SECTION CENTER

0 FEET 200

OWNERSHIP MAP
POLK COUNTY

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER A.06

3:30:45 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_A06.SHT

SEC 13 - T80N - R24W

SEC 12 - T80N - R24W

NE DELAWARE AVENUE

Applewood Partners LP

The Condos at Delaware Park

The Townhouses at Delaware Park

Richard H Meridith & Marth J Meridith Trust Richard H Meridith Trustee

Deanna J Yount

Windsor Village LLC

Windsor Village LLC

Windsor Village LLC

DRA Properties LLC

DRA Properties LLC

DRA Properties LLC

PT Sta 338+96.73

POT Sta 339+25.00

2386

Richard W. Smith & Ronald E. Smith

Stephen Drake

Ned & Donna Adams

Gene R. Aspengren & Barbara J. Aspengren

Bryan L. Butler & Linda A. Butler

Mike Thompson & Roberta Thompson Revocable Trust

Pamela J. Eichenberger

INTERSTATE HIGHWAY 35

Shirley D. Parsons

NE 102ND AVE

Scott G. Campbell & Suzanne Campbell

End Project Sta. 647+50.00

M. June Campbell Revocable Trust

James Farms Inc

410

POT Sta 411+52.99

D51
DD1WB
1100000.000000
850
20
5
NOGAP

D51
DD1EB
2100000.000000
850
20
5
NOGAP

NE FRISK DR

WILLIAMS, BRETT A
WILLIAMS, ANGELA S

SEC 18 - T80N - R23W

SEC 07 - T80N - R23W

0 200
FEET

OWNERSHIP MAP
POLK COUNTY

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER A.07

3:30:49 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_A07.SHT

SEC 12 - T80N - R24W

DRA Properties LC

DRA Properties LC

End Project
Sta. 647+50.00

James Farms Inc

James Farms Inc

DRA Properties LC

INTERSTATE HIGHWAY 35

NE 36TH STREET

NE 102ND AVE

DRA Properties LC

NE FRISK DR

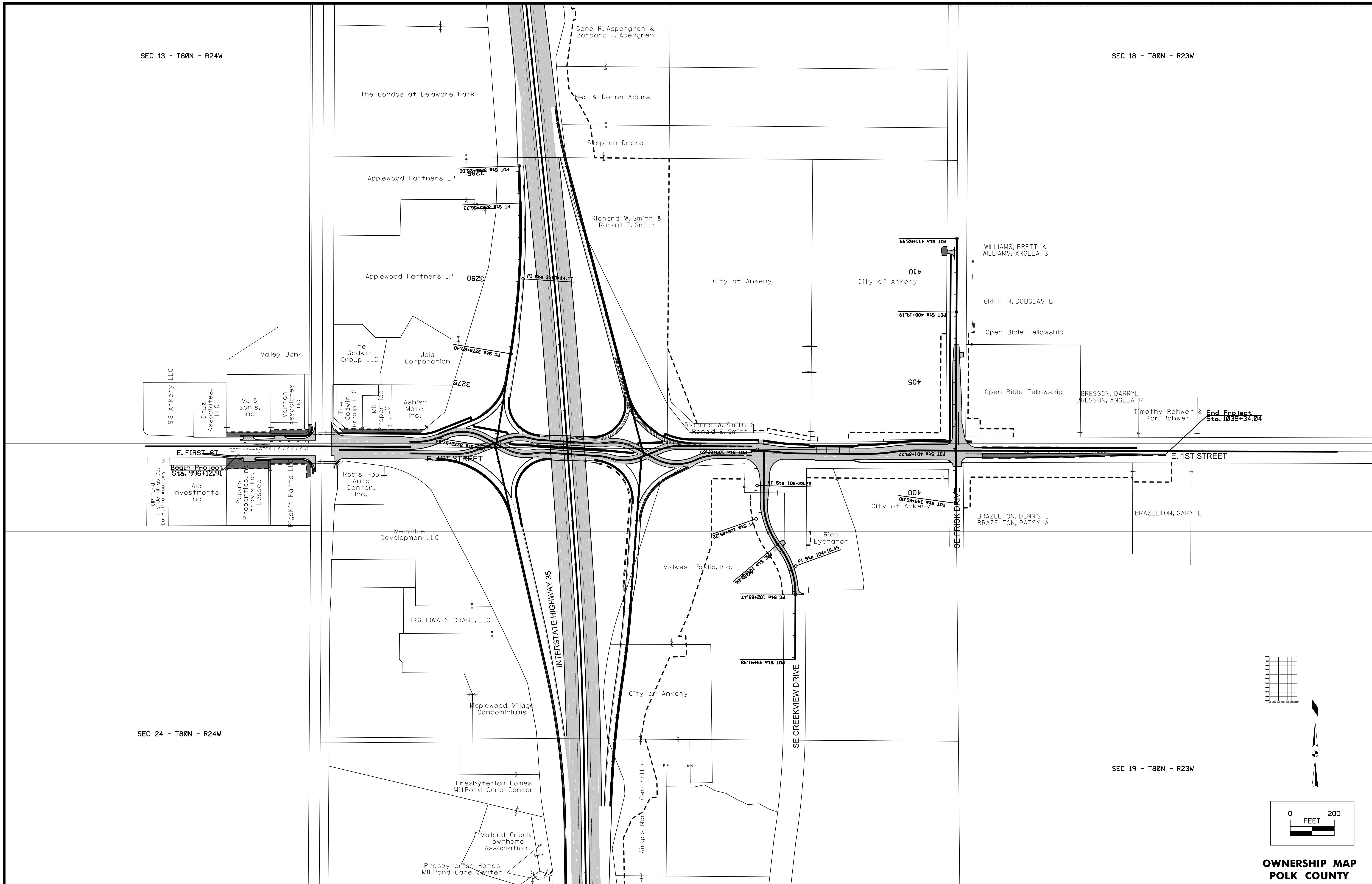
SEC 07 - T80N - R23W

0 200
FEET

OWNERSHIP MAP
POLK COUNTY

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER A.08

3:30:52 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_A08.SHT



SEC 13 - T80N - R24W
SEC 18 - T80N - R23W
SEC 24 - T80N - R24W
SEC 19 - T80N - R23W
Gene R. Aspengren & Barbara J. Apengren
The Condos at Delaware Park
Ned & Donna Adams
Stephen Drake
Applewood Partners LP
Richard W. Smith & Ronald E. Smith
City of Ankeny
WILLIAMS, BRETT A
WILLIAMS, ANGELA S
GRIFFITH, DOUGLAS B
Open Bible Fellowship
Valley Bank
The Godwin Group LLC
Jala Corporation
918 Ankeny LLC
Cruz Associates, LLC
MJ & Son's, Inc
Vernon Associates Inc
JMR Properties LLC
Ashish Motel Inc.
BRESSON, DARRYL
BRESSON, ANGELA R
Timothy Rohwer & Kari Rohwer
End Project
Sta. 1038+34.04
E. FIRST ST
E. 1ST STREET
Begin Project
Sta. 996+12.91
CIP Fund II The Jennings Co. La Petite Academy Inc
Ale Investments Inc
Papa's Properties, Inc Arby's Inc, Lessee
Pigskin Farms LLC
Rob's I-35 Auto Center, Inc.
BRAZELTON, DENNIS L
BRAZELTON, PATSY A
BRAZELTON, GARY L
SE FRISK DRIVE
Menadue Development, LC
Rich Eychaner
Midwest Radio, Inc.
TKG IOWA STORAGE, LLC
INTERSTATE HIGHWAY 35
SE CREEKVIEW DRIVE
Maplewood Village Condominiums
Presbyterian Homes MillPond Care Center
Airgas North Central Inc
Mallard Creek Townhome Association
0 FEET 200

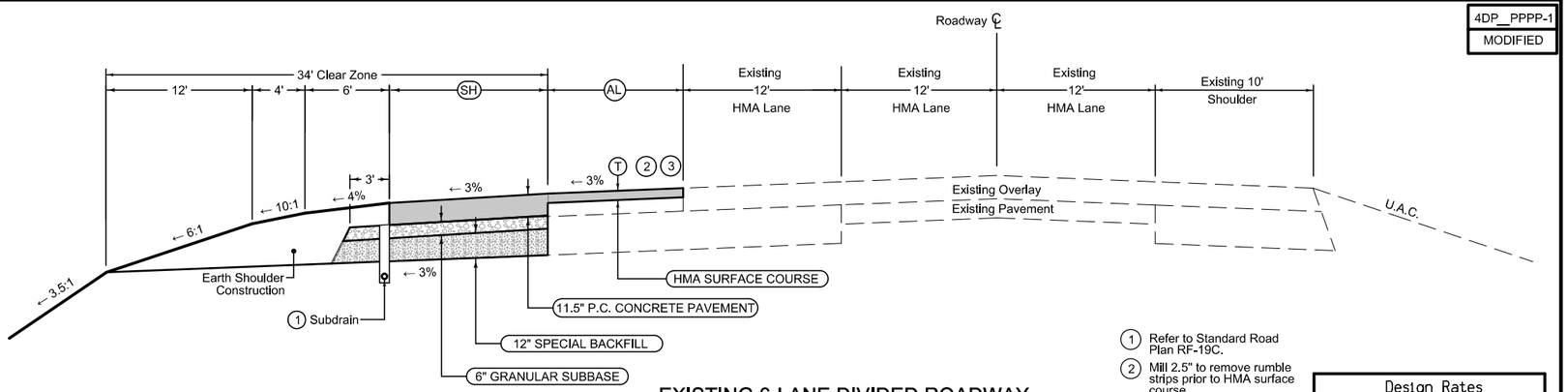
OWNERSHIP MAP
POLK COUNTY

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER A.09	

3:30:56 PM 10/10/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_A09.SHT

LOCATION			MAINLINE		
ROAD IDENTIFICATION	STATION TO STATION		(T) Inches	(S) Feet	(AL) Feet
I-35 SOUTHBOUND	185+41.08	186+34.93	2.5*	6.0-12.0	0.0
I-35 SOUTHBOUND	186+34.93	246+85.27	2.5*	12.0	12.0

4DP__PPPP-1
MODIFIED



* Thickness assumed. Subject to change during final design.

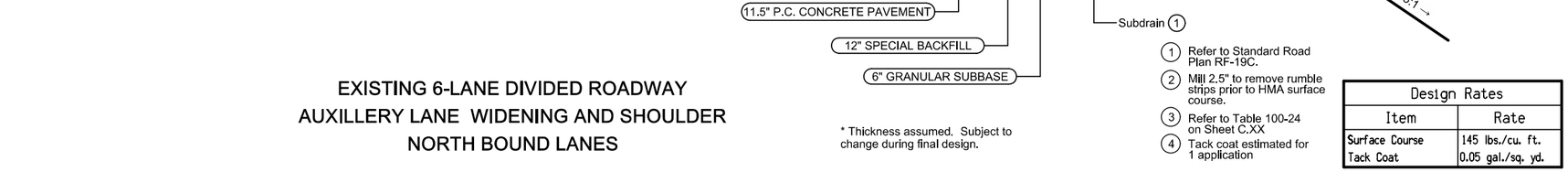
EXISTING 6-LANE DIVIDED ROADWAY AUXILLERY LANE WIDENING AND SHOULDER SOUTH BOUND LANES

1. Refer to Standard Road Plan RF-19C.
2. Mill 2.5" to remove rumble strips prior to HMA surface course.
3. Refer to Table 100-24 on Sheet C.XX
4. Tack coat estimated for 1 application

Design Rates	
Item	Rate
Surface Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

LOCATION			MAINLINE		
ROAD IDENTIFICATION	STATION TO STATION		(T) Inches	(S) Feet	(AL) Feet
I-35 NORTHBOUND	181+08.36	184+31.35	2.5*	0.0-12.0	0.0
I-35 NORTHBOUND	184+31.35	246+85.27	2.5*	12.0	12.0

4DP__PPPP-2
MODIFIED



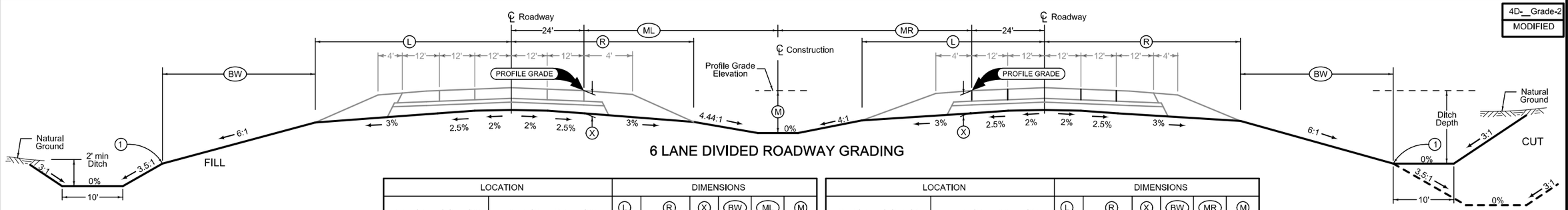
EXISTING 6-LANE DIVIDED ROADWAY AUXILLERY LANE WIDENING AND SHOULDER NORTH BOUND LANES

* Thickness assumed. Subject to change during final design.

1. Refer to Standard Road Plan RF-19C.
2. Mill 2.5" to remove rumble strips prior to HMA surface course.
3. Refer to Table 100-24 on Sheet C.XX
4. Tack coat estimated for 1 application

Design Rates	
Item	Rate
Surface Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

4D-__Grade-2
MODIFIED



6 LANE DIVIDED ROADWAY GRADING

LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(ML) Feet	(M) Feet
I-35 SOUTHBOUND	259+20.55	285+25.00	52.6	36.0	30*	5.4	17	2.75
I-35 SOUTHBOUND	296+25.00	300+83.84	52.6	36.0	30*	5.4	17	2.75
I-35 SOUTHBOUND	309+23.56	340+01.16	52.6	36.0	30*	5.4	17	2.75
I-35 SOUTHBOUND	640+00.00	642+50.00	52.6	36.0	30*	5.4	17	2.75
I-35 SOUTHBOUND	642+50.00	643+90.00	52.6	36.0-34.0	30*	5.4	17	2.75
I-35 SOUTHBOUND	643+90.00	644+70.00	52.6	34.0	30*	5.4	17	2.75
I-35 SOUTHBOUND	644+70.00	647+50.00	52.6	34.0-30.0	30*	5.4	17-21	2.75

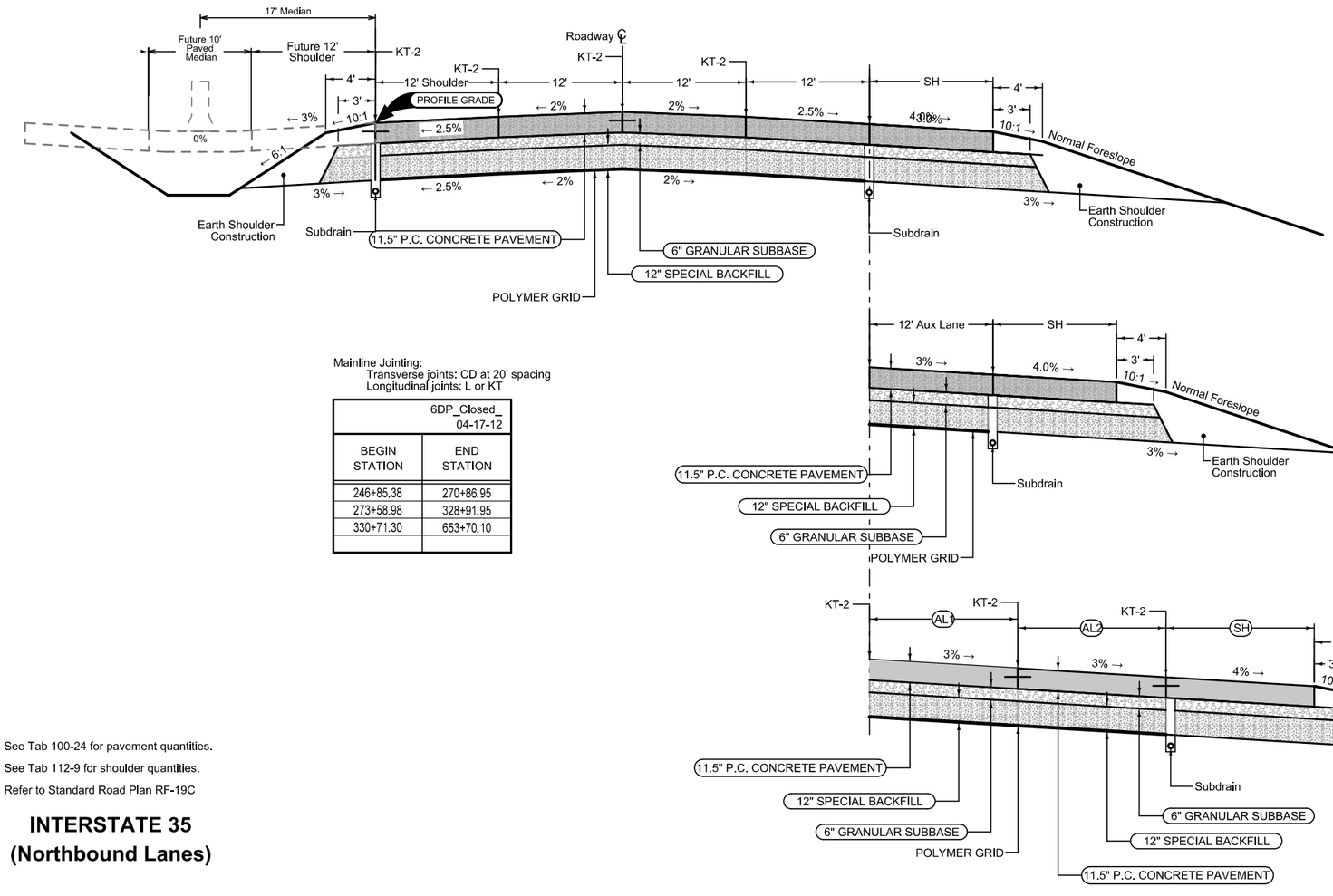
LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(MR) Feet	(M) Feet
I-35 NORTHBOUND	256+26.83	285+45.00	35.6	52.6	30*	5.4	17	2.75
I-35 NORTHBOUND	300+25.00	300+83.84	35.6	52.6	30*	5.4	17	2.75
I-35 NORTHBOUND	309+23.56	340+01.16	35.6	52.6	30*	5.4	17	2.75
I-35 NORTHBOUND	640+00.00	642+50.00	35.6	52.6	30*	5.4	17	2.75
I-35 NORTHBOUND	642+50.00	643+90.00	35.6	52.6	30*	5.4	17-15	2.75
I-35 NORTHBOUND	643+90.00	647+50.00	35.6	52.6	30*	5.4	15	2.75

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 backslopes.

(1) Refer to project plan and cross sections for specific location of foreslope change.

* Thickness assumed. Subject to change during final design.



Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: CD at 20' spacing

	6D_Dprs_P_FullPCC_ 04-19-11		
Direction of Travel	BEGIN STATION	END STATION	(SH) Feet
NB	256+00.00	270+86.95	12
NB	273+58.94	285+45.00	12
NB	297+67.16	328+91.95	12
NB	330+71.39	653+70.10	12

Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joints: L or KT

	6DP_Closed_ 04-17-12	
	BEGIN STATION	END STATION
	246+85.38	270+86.95
	273+58.98	328+91.95
	330+71.30	653+70.10

Auxiliary Lane & Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: CD at 20' spacing

	6D_Dprs_P_FullPCC_ 04-19-11			
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(SH) Feet
NB	246+85.38	248+79.85	12-18	12-6
NB	248+79.85	250+80.60	18-26	6
NB	285+45.00	287+75.00	38-20*	6
NB	287+75.00	294+75.00	20-6	6
NB	294+75.00	297+67.16	6-0	6-12

* Width Includes Travel Lane and Gore Sections

Auxiliary Lanes & Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: CD at 20' spacing

	6D_Dprs_P_FullPCC_ 04-19-11				
Direction of Travel	BEGIN STATION	END STATION	(AL1) Feet	(AL2) Feet	(SH) Feet
NB	250+80.60	256+00.00	14-40*	12	12-6
NB					6

* Width Includes Travel Lane and Gore Sections

See Tab 100-24 for pavement quantities.

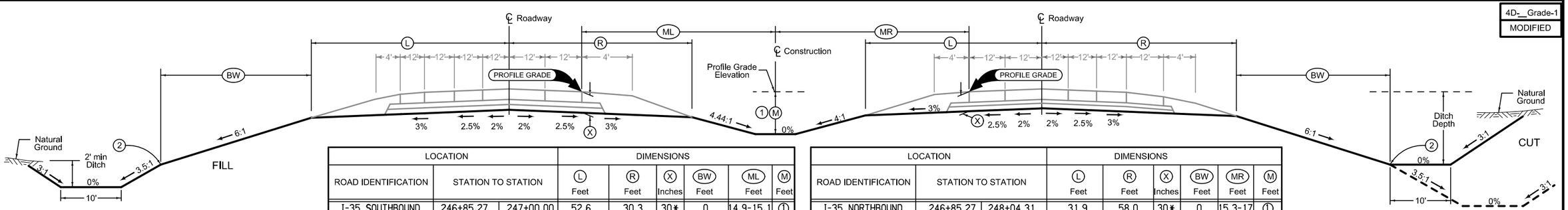
See Tab 112-9 for shoulder quantities.

Refer to Standard Road Plan RF-19C

INTERSTATE 35
(Northbound Lanes)

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER B.2

4D-__Grade-1
MODIFIED



LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(ML) Feet	(M) Feet
I-35 SOUTHBOUND	246+85.27	247+00.00	52.6	30.3	30*	0	14.9-15.1	①
I-35 SOUTHBOUND	247+00.00	248+34.83	52.6-60.9	30.3	30*	0	15.1-17	①
I-35 SOUTHBOUND	248+34.83	249+83.80	60.9-70.0	30.3-32.5	30*	0	17	①
I-35 SOUTHBOUND	249+83.80	250+70.59	70.0	32.5-36.0	30*	0	17	①
I-35 SOUTHBOUND	250+70.59	255+00.00	70.0	36.0	30*	0	17	①
I-35 SOUTHBOUND	255+00.00	259+20.55	70.0	36.0	30*	0	17	①
I-35 SOUTHBOUND	285+25.00	289+45.00	56.6-52.6	36.0	30*	15.4-11.4	17	2.75
I-35 SOUTHBOUND	289+45.00	294+45.00	52.6	36.0	30*	11.4-5.4	17	2.75
I-35 SOUTHBOUND	294+45.00	295+35.20	52.6	36.0	30*	5.4	17	2.75
I-35 SOUTHBOUND	295+35.20	296+25.00	52.6	36.0	30*	5.4	17	2.75

LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(MR) Feet	(M) Feet
I-35 NORTHBOUND	246+85.27	248+04.31	31.9	58.0	30*	0	15.3-17	①
I-35 NORTHBOUND	248+04.31	249+13.90	31.9-35.6	58.0	30*	0	17	①
I-35 NORTHBOUND	249+13.90	250+26.83	35.6	58.0	30*	0	17	①
I-35 NORTHBOUND	250+26.83	256+26.83	35.6	58.0-94.0	30*	0	17	①
I-35 NORTHBOUND	285+45.00	287+75.00	35.6	95.3-77.3	30*	6.7	17	2.75
I-35 NORTHBOUND	287+75.00	294+75.00	35.6	77.3-58.0	30*	6.7-0	17	2.75
I-35 NORTHBOUND	294+75.00	297+75.00	35.6	58.0	30*	0	17	2.75

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 backslopes.

① See Plan and Profile sheets and cross sections for median ditch depth.

② Refer to project plan and cross sections for specific location of foreslope change.

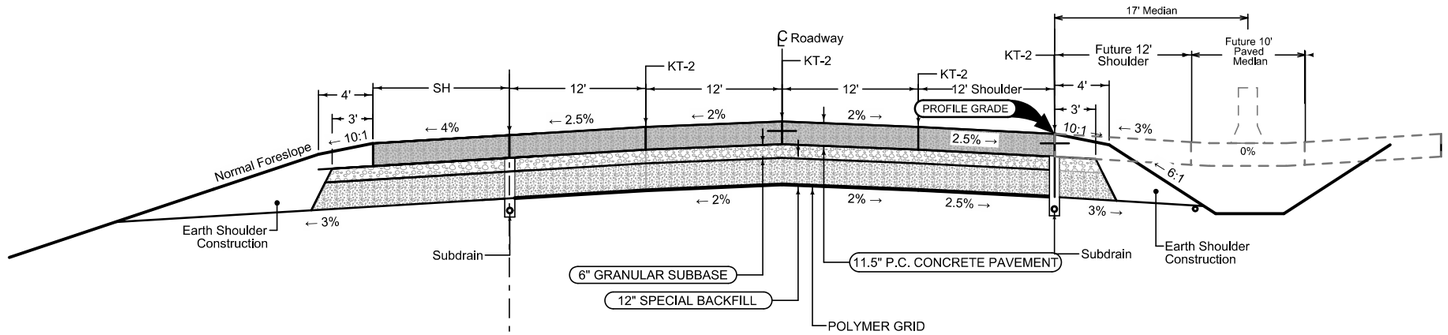
8 LANE DIVIDED ROADWAY GRADING

* Thickness assumed. Subject to change during final design.

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: CD at 20' spacing

6D_Dprs_P_FullPCC_ 04-19-11			
Direction of Travel	BEGIN STATION	END STATION	(SH) Feet
SB	259+20.68	270+91.69	12
SB	273+63.71	285+25.00	12
SB	296+25.00	328+82.84	12
SB	330+62.28	653+70.31	12

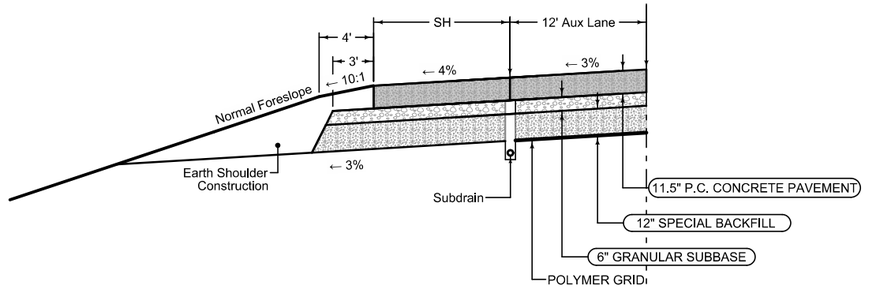


Auxiliary Lane & Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: CD at 20' spacing

6D_Dprs_P_FullPCC_ 04-19-11				
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(SH) Feet
SB	246+85.38	247+00.00	12	12
SB	247+00.00	248+60.91	12-18	12-6
SB	248+60.91	250+00.00	18-24	6
SB	285+25.00	289+45.20	40-12*	6
SB	289+45.20	294+45.20	12	6
SB	294+45.20	296+25.00	12-0	6-12

* Width Includes Travel Lane and Gore Sections

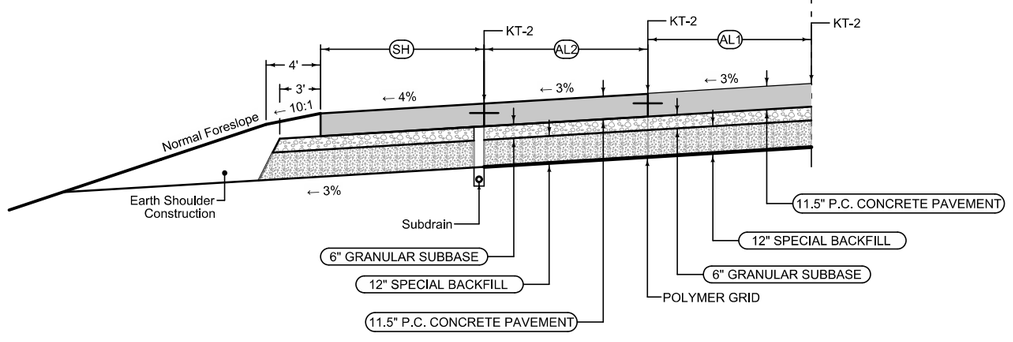


Auxiliary Lanes & Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: CD at 20' spacing

6D_Dprs_P_FullPCC_ 04-19-11					
Direction of Travel	BEGIN STATION	END STATION	(AL1) Feet	(AL2) Feet	(SH) Feet
SB	250+00.00	255+00.00	12	12	6
SB	255+00.00	259+20.46	12-36.5*	12	6

* Width Includes Travel Lane and Gore Sections



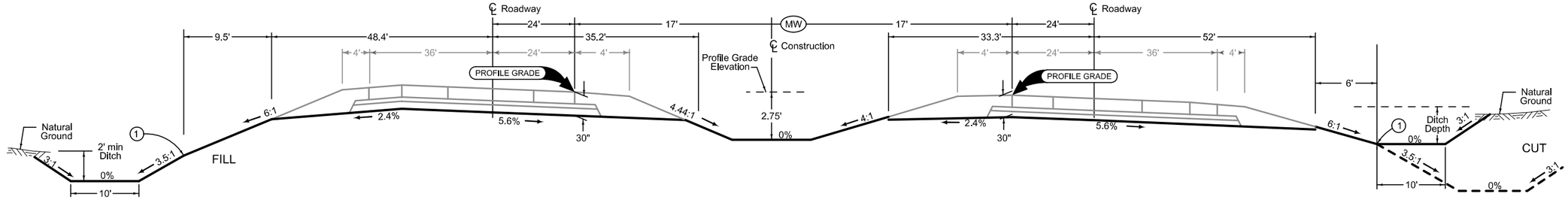
Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joints: L or KT

6DP_Closed_ 04-17-12	
BEGIN STATION	END STATION
246+85.38	270+91.69
273+63.71	328+82.84
330+62.28	653+70.31

See Tab 100-24 for pavement quantities.
See Tab 112-9 for shoulder quantities.
Refer to Standard Road Plan RF-19C

INTERSTATE 35
(Southbound Lanes)

4D-__Grade-3
MODIFIED



6 LANE SUPERELEVATION DIVIDED ROADWAY GRADING
STA. 300+83.84 TO STA. 309+23.56

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

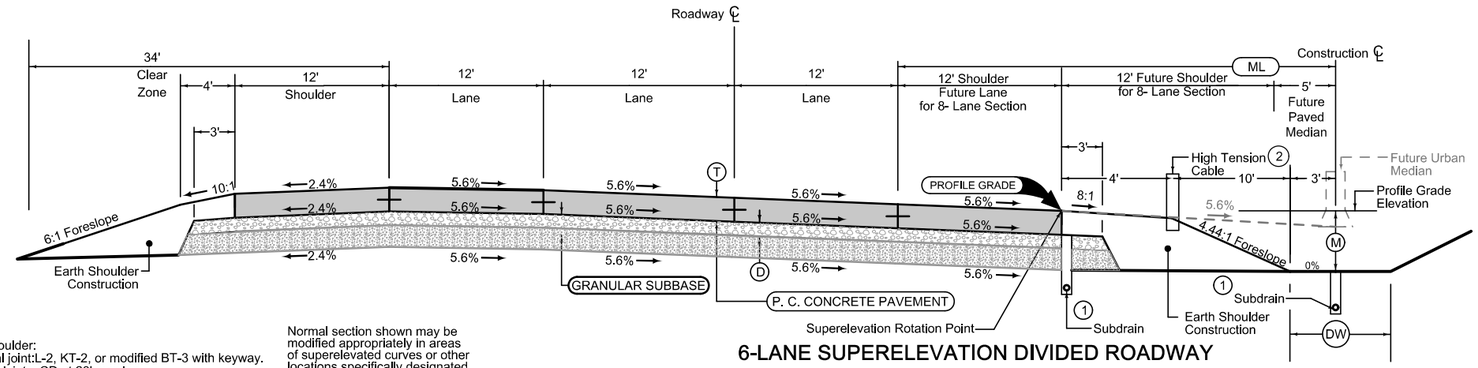
See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

(1) Refer to project plan and cross sections for specific location of foreslope change.

* Thickness assumed. Subject to change during final design.

LOCATION			MAINLINE				
ROAD IDENTIFICATION	STATION TO STATION		(T) Inches	(D) Inches	(ML) Feet	(M) Feet	(DW) Feet
I-35 SOUTHBOUND	300+83.84	309+23.56	12*	12*	17	2.75	6.6

4DP__PPPP-7
MODIFIED



Shoulder:
Full Depth PC Shoulder:
Longitudinal joint:L-2, KT-2, or modified BT-3 with keyway.
Transverse joints: CD at 20' spacing

Travel Lanes:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2 or KT-2

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 backslopes.

(1) Refer to Standard Road Plan RF-19C.

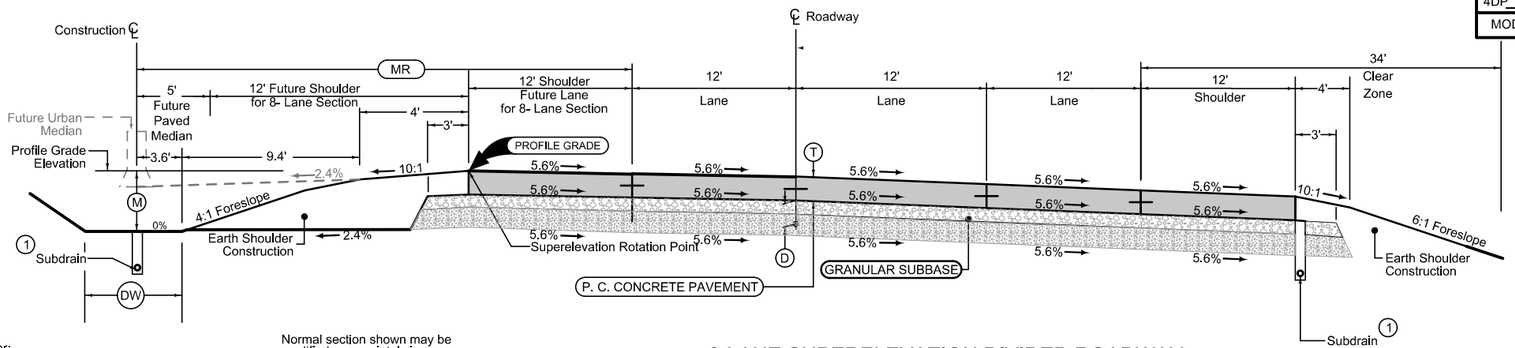
(2) Refer to Standard Road Plan BA-351.

6-LANE SUPERELEVATION DIVIDED ROADWAY
RECONSTRUCTION PAVING
SOUTH BOUND LANES
STA. 300+83.84 TO STA. 309+23.56

* Thickness assumed. Subject to change during final design.

LOCATION			MAINLINE				
ROAD IDENTIFICATION	STATION TO STATION		(T) Inches	(D) Inches	(MR) Feet	(M) Feet	(DW) Feet
I-35 NORTHBOUND	300+83.84	309+23.56	12*	12*	17	2.75	6.6

4DP__PPPP-8
MODIFIED



Shoulder:
Full Depth PC Shoulder:
Longitudinal joint: L-2, KT-2, or modified BT-3 with keyway.
Transverse joints: CD at 20' spacing

Travel Lanes:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2 or KT-2

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 backslopes.

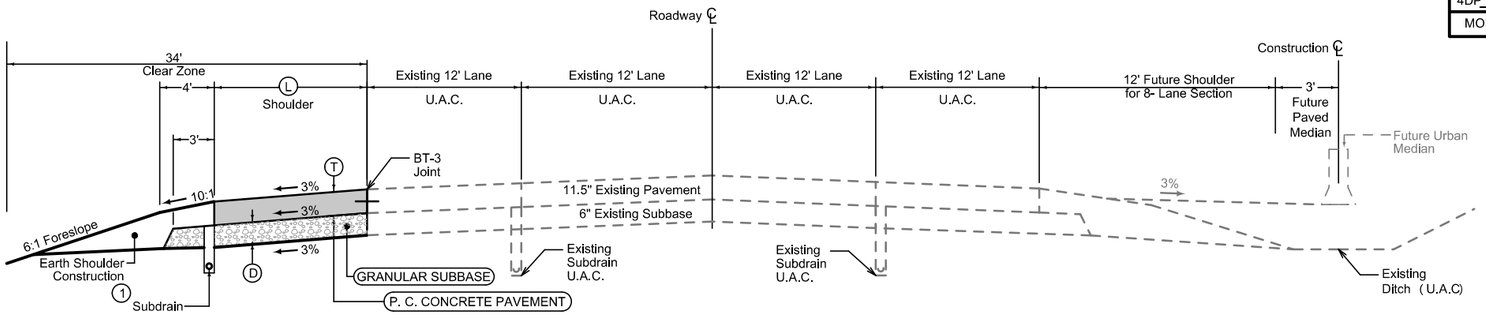
(1) Refer to Standard Road Plan RF-19C.

6-LANE SUPERELEVATION DIVIDED ROADWAY
RECONSTRUCTION PAVING
NORTH BOUND LANES
STA. 300+83.84 TO STA. 309+23.56

* Thickness assumed. Subject to change during final design.

LOCATION			MAINLINE		
ROAD IDENTIFICATION	STATION TO STATION		(T) Inches	(D) Inches	(L) Feet
I-35 SOUTHBOUND	653+70.10	656+76.62	11.5	6	10-6

4DP__PPPP-5
MODIFIED



Shoulder:
Full Depth PC Shoulder:
Longitudinal joint:L-2, KT-2, or modified BT-3 with keyway.
Transverse joints: C at 20' spacing

Travel Lanes:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2 or KT-2

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 backslopes.

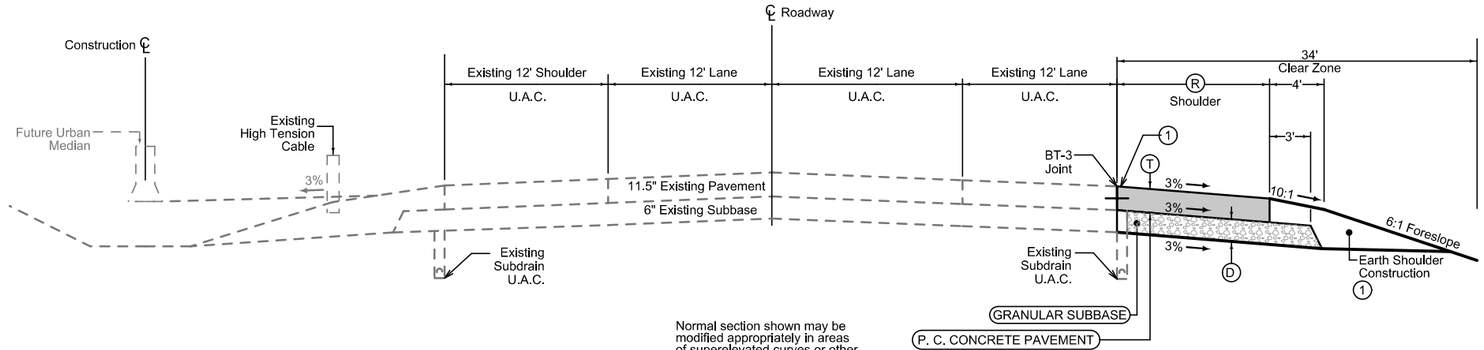
(1) Refer to Standard Road Plan RF-19C.

EXISTING 4-LANE DIVIDED ROADWAY OUTSIDE AND INSIDE LANE WIDENING SOUTH BOUND LANES

* Thickness assumed. Subject to change during final design.

LOCATION			MAINLINE		
ROAD IDENTIFICATION	STATION TO STATION		(T) Inches	(D) Inches	(R) Feet
I-35 NORTHBOUND	653+70.10	660+17.79	11.5	6	12
I-35 NORTHBOUND	660+17.79	661+05.20	11.5	6	12-6

4DP__PPPP-6
MODIFIED



Shoulder:
Full Depth PC Shoulder:
Longitudinal joint:L-2, KT-2, or modified BT-3 with keyway.
Transverse joints: CD at 20' spacing

Travel Lanes:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2 or KT-2

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 backslopes.

(1) Remove Existing 4" Thick Granular Shoudler

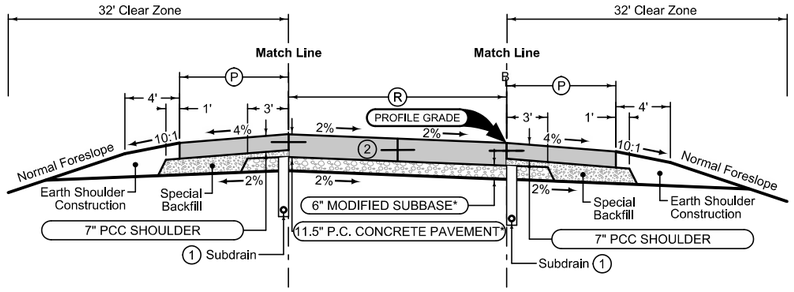
EXISTING 4-LANE DIVIDED ROADWAY OUTSIDE LANE WIDENING AND SHOULDER NORTH BOUND LANES

* Thickness assumed. Subject to change during final design.

Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_P_ALT_ 10-19-10			
STATION TO STATION		RAMP	(P) Feet
3275+58.38	3285+25.00	A	4.0
4256+00.00	4268+989.07	B	4.0
14268+99.07	14269+77.81	B2	4.0
5259+18.56	5261+06.54	C	4.0
25269+30.34	25270+17.96	C3	4.0
26273+58.43	26274+31.07	D3	4.0
6274+3107	6285+46.34	D	4.0



Section shown in the direction of traffic.

Ramp Jointing:
Transverse joints: CD at 20' spacing.

BEGIN STATION	END STATION	RAMP	(R) Feet
13274+65.17	13275+58.38	A2	24
3275+58.38	3277+24.78	A	24
3277+24.78	3278+04.78	A	24-16
3278+04.78	3285+25.00	A	16
4256+00.00	4268+99.07	B	24
14268+99.07	14269+77.81	B2	24
5259+18.56	5269+30.34	C	24
25269+30.34	25270+17.96	C3	24
26273+58.43	26274+31.07	D3	16
6274+31.07	6285+46.34	D	16

Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_P_ALT_ 10-19-10			
STATION TO STATION		RAMP	(P) Feet
3275+58.38	3285+25.00	A	6.0
4256+00.00	4268+99.07	B	6.0
14268+99.07	14269+77.81	B2	6.0
5259+18.56	5269+30.34	C	6.0
25269+30.34	25270+17.96	C3	6.0
26273+58.43	26274+31.07	D3	6.0
6274+31.07	6285+46.34	D	6.0

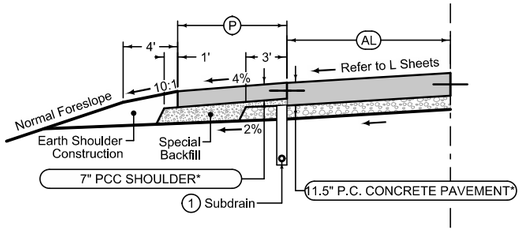
(1) Refer to Standard Road Plan RF-19C.

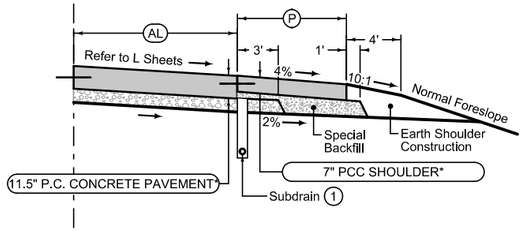
(2) No center joint on 16' widths. See L-Sheets and Standard Road Plans for jointing information and locations.

Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_P_ALT_ 10-19-10			
STATION TO STATION		RAMP	(P) Feet
13274+65.17	13275+58.38	A2	4.0
14268+99.07	14269+77.81	B2	4.0
5261+06.54	5268+87.53	C	4.0
25269+30.34	25270+17.96	C3	4.0
26273+58.43	26274+31.07	D3	4.0





Auxiliary Lane

Longitudinal joint: L-2 or KT-2
Transverse joint: Match Mainline

2_AuxLane_PCC_ 10-19-10			
STATION TO STATION		RAMP	(AL) Feet
13274+65.17	13275+58.38	A2	9.5-0.0
14268+98.98	14269+77.72	B2	0.0-3.8
5261+06.54	5264+06.54	C	0-12.0
5264+06.54	5268+87.53	C	12.0
5268+87.53	5269+30.34	C	12.0-13.7
25269+30.34	25270+17.96	C3	13.7-21.7
26273+58.43	26274+31.07	D3	12.0-0.0

Auxiliary Lane

Longitudinal joint: L-2 or KT-2
Transverse joint: Match Mainline

2_AuxLane_PCC_ 10-19-10			
(AL) Feet	RAMP	STATION TO STATION	
9.5-0.0	A2	13274+65.17	13275+58.38
0.0-12.0	B	4265+28.98	4266+48.98
12.0	B	4266+48.98	4268+98.98
12.0-21.7	B2	14268+99.07	14269+77.81
0.0-7.7	C3	25269+30.34	25270+17.96
10.0-0.0	D3	26273+58.43	26274+31.07

Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_P_ALT_ 10-19-10			
STATION TO STATION		RAMP	(P) Feet
13274+65.17	13275+58.38	A2	6.0
4265+28.96	4268+98.98	B	6.0
14268+99.07	14269+77.81	B2	6.0
25269+30.34	25270+17.96	C3	6.0
26273+58.43	26274+31.07	D3	6.0

See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

* Thickness assumed. Subject to change during final design.

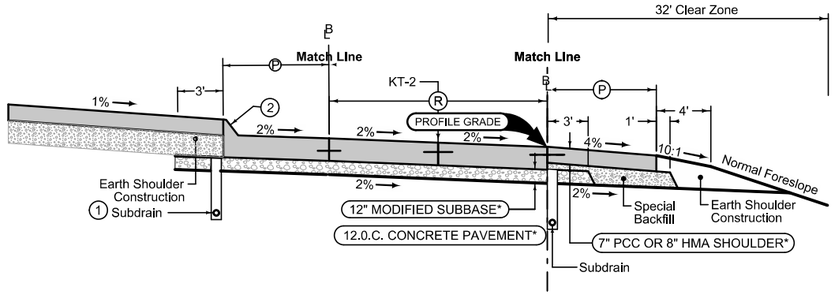
E. FIRST STREET
RAMPS A, B, C & D

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse:C at 15' spacing

STATION TO STATION		(P) Feet	RAMP
			2_Curb_ 04-19-11
13272+60.03	13274+65.17	2.5	A2
14269+77.81	14271+94.92	2.5	B2
25270+17.96	25272+83.34	2.5	C3
26274+40.28	26273+58.43	2.5	D3

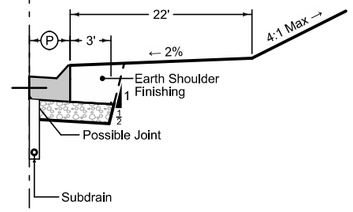


(1) Refer to Standard Road Plan RF-19C.
(2) Refer to Standard Road Plan PV-102. 6" Standard Curb.

Section shown in the direction of traffic.

Ramp Jointing:
Transverse joints: CD at 20' spacing.

BEGIN STATION	END STATION	RAMP	(R) Feet
13272+60.03	13273+49.24	A2	15.0
13273+49.24	13274+65.17	A2	17.5
14269+77.81	14271+94.92	B2	17.5
25270+17.96	25272+83.34	C3	27.5
26274+40.28	26272+23.68	D3	13.0
26272+23.68	26273+58.43	D3	15.5



Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

STATION TO STATION		RAMP	(P) Feet
			2_P_ALT_ 10-19-10
13273+49.24	13274+65.17	A2	6.0
14269+77.81	14271+94.92	B2	6.0
25270+17.96	25272+83.34	C3	6.0
26272+23.68	26273+58.43	D3	6.0

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

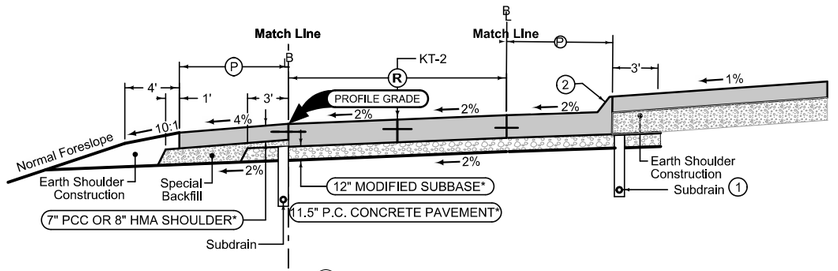
Single pour: L-2
Staged : KT-2
Transverse:C at 15' spacing

STATION TO STATION		(P) Feet	RAMP
			2_Curb_ 04-19-11
13272+60.03	13272+89.24	2.5	A2
13273+49.24	13273+49.24	2.5-8.5	A2
26271+40.28	26271+67.34	2.5	D3
26271+67.34	26272+23.68	2.5-8.5	D3

Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

STATION TO STATION		RAMP	(P) Feet
			2_P_ALT_ 10-19-10
23273+09.63	23274+61.00	A3	4.0
24269+82.29	24271+41.61	B3	4.0
15270+23.44	15272+15.64	C2	4.0
16272+20.56	16273+61.42	D2	6.0



(1) Refer to Standard Road Plan RF-19C.
(2) Refer to Standard Road Plan PV-102. 6" Standard Curb.

Section shown in the direction of traffic.

Ramp Jointing:
Transverse joints: CD at 20' spacing.

BEGIN STATION	END STATION	RAMP	(R) Feet
23273+09.63	23274+61.00	A3	17.5
24269+82.29	24271+41.61	B3	23.7-36.5
15270+23.44	15272+15.64	C2	17.5
16272+20.56	16273+61.42	D2	17.5

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse:C at 15' spacing

STATION TO STATION		(P) Feet	RAMP
			2_Curb_ 04-19-11
23273+09.63	23274+61.00	2.5	A3
24269+82.29	24271+41.61	2.5	B3
15270+23.44	15272+15.64	2.5	C2
16272+20.56	16273+61.42	2.5	D2

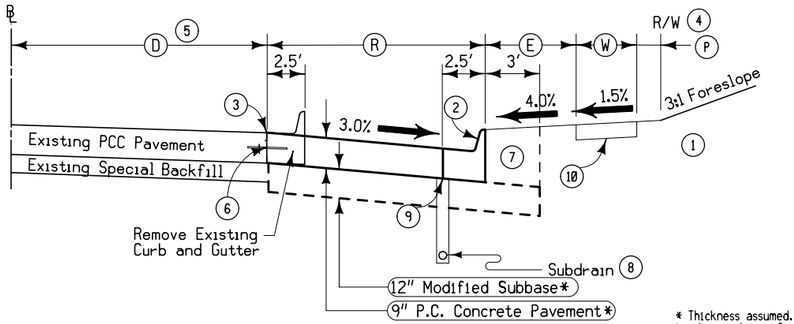
See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

* Thickness assumed. Subject to change during final design.

E. FIRST STREET RAMPS

2205-3
MODIFIED



* Thickness assumed. Subject to change during final design.

Notes:

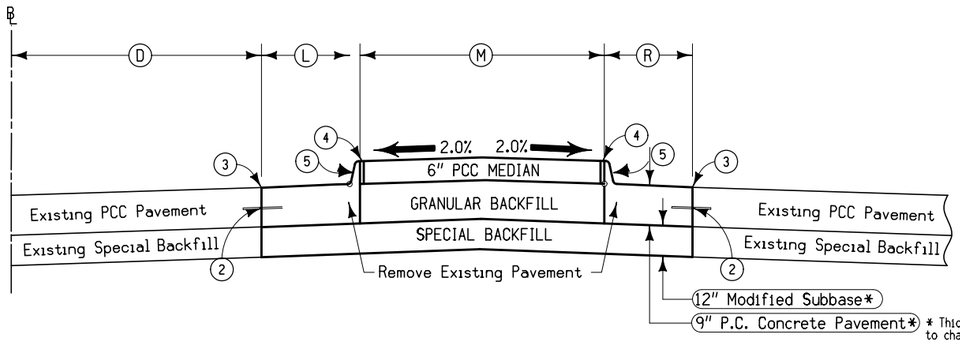
Normal sections shown may be appropriately modified for areas specifically designated by the Engineer, such as intersections or super elevated curves.

1. Refer to Cross Section sheets for Additional Information.
2. Refer to Standard Road Plan PV-102 for 6" Standard Curb.
3. Full Depth Saw Cut (Incidental to Pavement Removal.)
4. Refer to H Sheets for R/W Information.
5. Refer to L Sheets for Geometric Information, Jointing and Staking Details.
6. BT-3 Joint.
7. Excavate and Backfill 3.0′
8. Refer to Standard Road Plan RF-19C
9. L-2, K-2, or BT-2 joint.
10. Sidewalk Construction

LOCATION				D	E	R	W	P
ROAD IDENTIFICATION	STATION TO STATION		SIDE	Feet	Feet	Feet	Feet	Feet
SE DELAWARE AVE	21+17.41	22+61.91	RT	25.0-31.5	12.5-4	2.5-15.0	4	UAC
SE DELAWARE AVE	22+61.91	24+66.60	RT	31.5-41.5	4	15	4	UAC
SE DELAWARE AVE	24+66.60	25+48.50	RT	41.5-54.0	4	15-2.5	4	UAC
NE DELAWARE AVE	30+73.74	32+02.18	RT	32.0	6	12.5	4	UAC
NE DELAWARE AVE	32+02.18	32+45.13	RT	32.0	6	12.5-11.5	4	UAC
NE DELAWARE AVE	32+86.43	35+02.18	RT	30.0	6	11.5-2.5	4	UAC

DELAWARE AVE PCC ROADWAY WIDENING

2205-3
MODIFIED



* Thickness assumed. Subject to change during final design.

Notes:

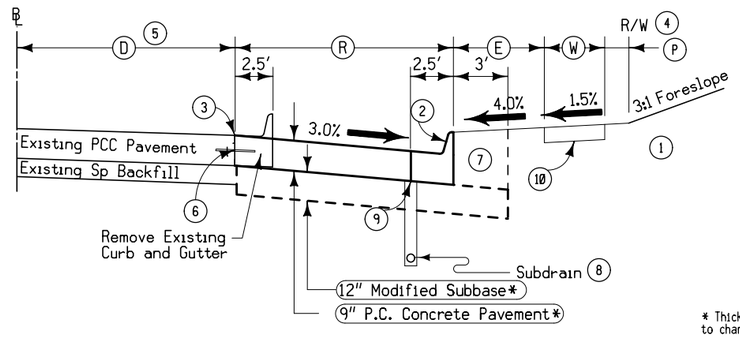
Normal sections shown may be appropriately modified for areas specifically designated by the Engineer, such as intersections or super elevated curves.

1. Refer to Cross Section sheets for Additional Information.
2. BT-3 Joint.
3. Full Depth Saw Cut (Incidental to Pavement Removal.)
4. E Joint
5. Refer to Standard Road Plan PV-102. 6" Standard Curb.

LOCATION				D	M	R	L
ROAD IDENTIFICATION	STATION TO STATION		SIDE	Feet	Feet	Feet	Feet
NE DELAWARE AVE	30+16.91	32+08.92	MED	13.5	4	2.5	2.5

NE DELAWARE AVE PCC RAISED MEDIAN LENGTHENING

2205-3
MODIFIED



* Thickness assumed. Subject to change during final design.

Notes:

Normal sections shown may be appropriately modified for areas specifically designated by the Engineer, such as intersections or super elevated curves.

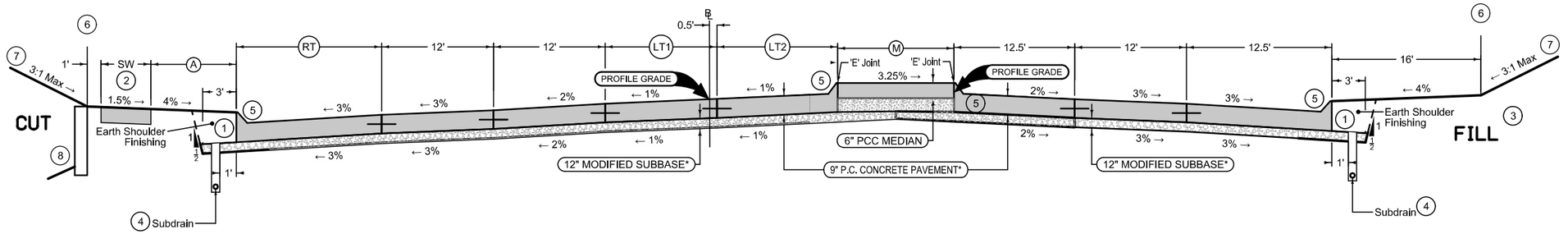
1. Refer to Cross Section sheets for Additional Information.
2. Refer to Standard Road Plan PV-102, 6" Standard Curb
3. Full Depth Saw Cut (Incidental to Pavement Removal.)
4. Refer to H Sheets for R/W Information.
5. Refer to L Sheets for Geometric Information, Jointing and Staking Details.
6. BT-3 Joint.
7. Excavate and Backfill 3.0′
8. Refer to Standard Road Plan RF-19C
9. L-2, K-2, or BT-2 joint.
10. Sidewalk Construction

LOCATION				D	E	R	W	P
ROAD IDENTIFICATION	STATION TO STATION		SIDE	Feet	Feet	Feet	Feet	Feet
E First Street	996+29.14	997+76.93	LT	28	11.8-7.3	1.83-7	UAC	UAC
E First Street	997+76.93	999+70.53	LT	28	7.3-7.5	7	8	(0.8)
E First Street	994+56.00	994+91.87	RT	30.0	13.5-10.0	2.5-6.0	UAC	UAC
E First Street	994+91.87	995+90.31	RT	30-42.5	10-4	6.0-5.0	4	UAC
E First Street	995+90.31	997+84.40	RT	42.5	4	5.0-11.5	5	1
E First Street	997+84.40	999+69.59	RT	42.5	4	11.5	5	1

E FIRST STREET PCC ROADWAY WIDENING

WEST BOUND

EAST BOUND



Normal sections shown may be appropriately modified for areas specifically designated by the Engineer, such as intersections or superelevated curves.

1. Excavate and backfill 3.0'
2. Sidewalk Construction
3. Backfill
4. Refer to Standard Road Plan RF-19C.
5. Refer to Standard Road Plan PV-102. 6" Standard Curb.
6. Refer to H-Sheets for ROW Information.
7. Refer to cross section sheets for additional information.
8. Retaining Wall from Sta. 1001+00.00 to Sta. 1003+75.00. See U-Sheets for Details

Mainline Jointing:
Transverse joints: CD at 15' spacing
Longitudinal joint: L-2

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse:CD at 15' spacing

BEGIN STATION	END STATION	(M) Feet	(RT)	(LT1) Feet	(LT2) Feet	(A) Feet	(SW) Feet
1000+41.27	1003+52.12	4.0	12.5	12.0	12.5	8.0	8.0
1003+52.12	1004+00.00	4.0-4.8	12.5-7.7	12.0	12.5-11.7	8.0-10.8	10.0

Mainline Jointing:
Transverse joints: CD at 15' spacing
Longitudinal joint: L-2

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

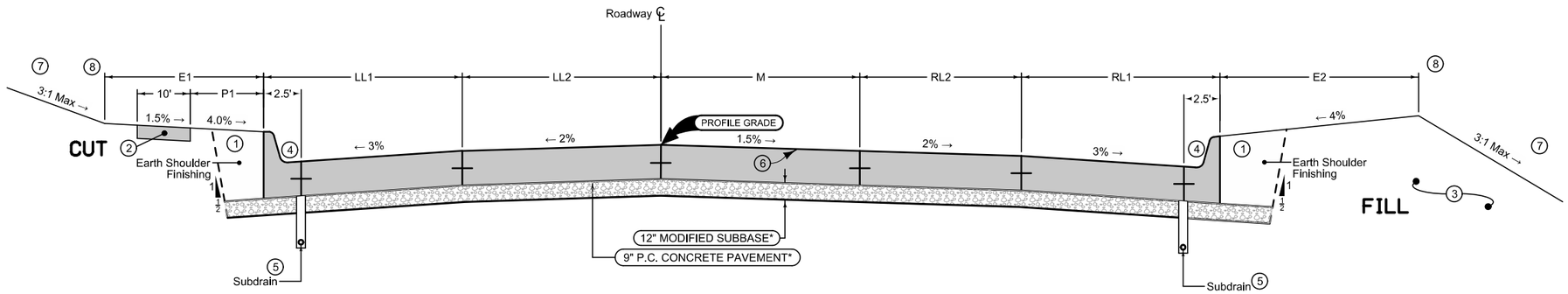
Single pour: L-2
Staged : KT-2
Transverse:CD at 15' spacing

See Tab 100-24 for pavement quantities.

* Thickness assumed. Subject to change during final design.

E FIRST STREET
TYPICAL CROSS SECTION
PCC PAVEMENT WITH CURBS

3206-1
MODIFIED



Normal sections shown may be appropriately modified for areas specifically designated by the Engineer, such as intersections or superelevated curves.

1. Excavate and backfill 3.0'
2. Sidewalk Construction
3. Backfill
4. 6" Standard Curb. Refer to Standard Road Plan PV-102.
5. Refer to Standard Road Plan RF-19C.
6. Refer to L-Sheets and cross sections for slope transitions on each side of bridge.
7. Refer to cross section sheets for additional information.
8. Refer to H-Sheets for ROW Information.
9. Refer to M-Sheets for Storm Sewer Plan and Profile Information.
10. Refer to L-Sheets for geometric information, jointing, and staking details.
11. Longitudinal Joint: L-2 or KT-2 Joint.
12. Transverse Joint: CD at 15' Spacing

See Tab 100-24 for pavement quantities.

* Thickness assumed. Subject to change during final design.

E FIRST STREET
TYPICAL CROSS SECTION
PCC PAVEMENT WITH CURBS

Road Identification	Location: Station to Station		(LL1) Feet	(LL2) Feet	(M) Feet	(E1) Feet	(E2) Feet	(P1) Feet	(RL1) Feet	(RL2) Feet
E First Street	31019+49.45	31019+91.53	15.0-14.5	15.0-12.5	11.0	22	16	10	15.0	15.0
E First Street	31019+91.53	31021+69.74	14.5	12.0	11.0-0.0	22	16	10	15.0-14.5	15.0-12.0
E First Street	31021+69.74	31021+78.69	14.5	12.0	0.0	22	16	10	14.5	12.0
E First Street	31021+78.69	31022+18.57	14.5	12.0	0.0	22-15.5	16	10-3.5	14.5	12.0
E First Street	31022+18.57	31022+37.74	14.5-15.0	12.0	0.0	15.5-13.0	16-0.0	3.5-0.0	14.5-15.0	12.0
E First Street	31022+37.74	31024+03.08	15.0	12.0	0.0	13.0	0.0	0.0	15.0	12.0
E First Street	31024+03.08	31024+22.24	15.0-14.5	12.0	0.0	13.0-15.5	0.0-16	0.0-3.5	15.0-14.5	12.0
E First Street	31024+22.24	31024+61.43	14.5	12.0	0.0	15.5-22	16	3.5-10	14.5	12.0
E First Street	31024+61.43	31025+06.41	14.5	12.0	0.0	22	16	10	14.5	12.0
E First Street	31025+06.41	31027+07.16	14.5	12.0	0-16.0	22	16	10	14.5	12.0
E First Street	31027+07.16	31028+29.19	14.5	12.0	16.0	22	16	10	14.5	12.0

WEST BOUND

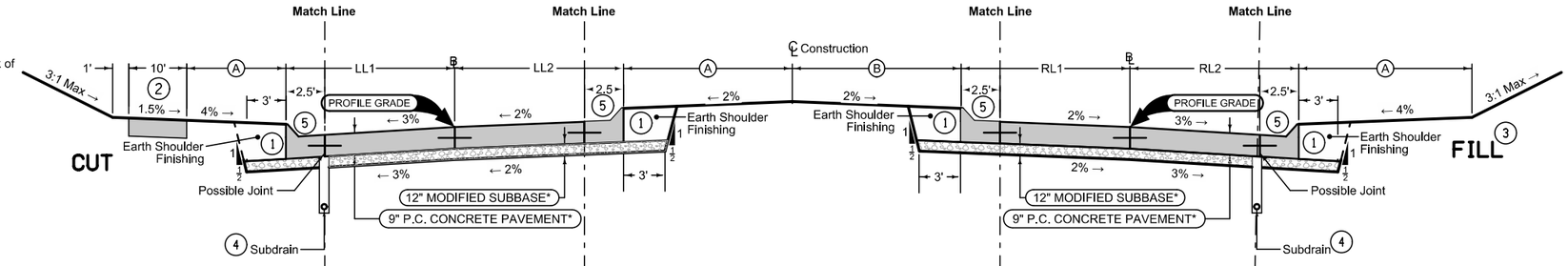
EAST BOUND

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse:CD at 15' spacing

2_Curb_ 04-19-11		
STATION TO STATION		(A) Feet
11004+00.00	11004+27.12	10.8-13.5
11004+27.12	11005+00.00	13.5-10.0
11005+00.00	11005+54.07	10.0
11006+60.21	11008+01.56	VARIES
11015+12.19	11016+00.00	VARIES
11016+16.06	11019+90.26	10.0



Mainline Jointing:
Transverse joints: CD at 15' spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION	(LL1) Feet	(LL2) Feet
11004+00.00	11008+01.56	17.0	17.0
11015+12.19	11015+84.70	17.0	17.0
11015+84.70	11017+15.69	17.0-15.0	17.0-15.0
11017+15.69	11019+90.26	15.0	15.0

4DP_Raised_Crowned_ 10-18-11			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
1004+00.00	1006+04.55	2.4-34.0	2.4-34.0
1006+04.55	1007+42.16	34.0-0.0	34.0-0.0
1015+23.56	1016+30.16	0.0-25.0	0.0-25.0
1016+30.16	1017+89.52	25.0-5.0	25.0-5.5
1017+89.52	1019+53.02	5.5	5.5

Mainline Jointing:
Transverse joints: CD at 15' spacing
Longitudinal joint: L-2

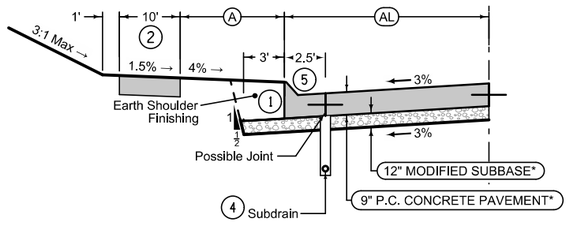
BEGIN STATION	END STATION	(RL1) Feet	(RL2) Feet
21004+00.00	21006+06.51	12.5	12.0
21006+06.51	21007+11.66	12.5-17.0	12-17.0
21007+11.66	21007+92.63	17.0	17.0
21015+04.66	21017+38.28	17.0	17.0
21017+38.28	21018+37.75	17.0-15.0	17.0-15.0
21018+37.75	21019+90.83	15.0	15.0

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse:CD at 15' spacing

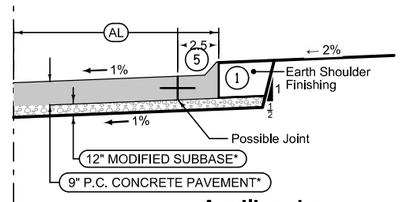
2_Curb_ 04-19-11		
STATION TO STATION		(A) Feet
21004+00.00	21005+23.51	16.0
21006+45.64	21007+92.63	16.0
21015+04.83	21016+39.60	16.0
21016+93.52	21019+90.83	16.0



Auxiliary Lane

Auxilliary Lane Jointing:
Longitudinal joint: L or KT
Transverse joint: Match Mainline

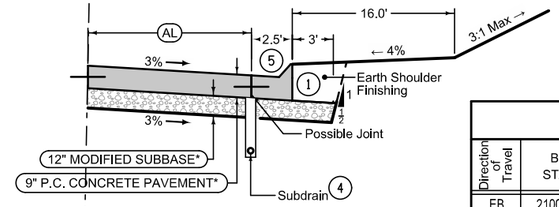
4_AuxLane_PCC_ 10-19-10				
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(A) Feet
WB	11004+00.00	11004+27.12	7.7-0.0	10.8-13.5
WB	11005+54.07	11006+60.21	0-20.0	10.0
WB	11016+14.58	11017+15.69	18.0-0.0	10.0



Auxiliary Lane

4_AuxLane_PCC_ 10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
WB	11004+00.00	11005+87.12	18.7-0.0

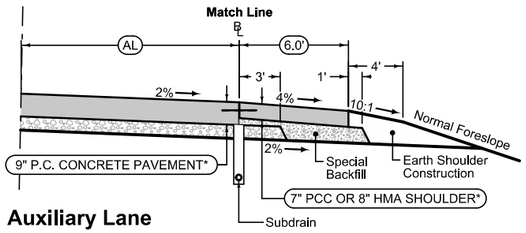
Auxiliary Lane Jointing:
Longitudinal joint: L or KT
Transverse joint: Match Mainline



Auxiliary Lane

4_AuxLane_PCC_ 10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
EB	21004+00.00	21004+63.49	12.5
EB	21004+63.49	21005+23.51	12.5-19.0
EB	21016+92.25	21017+34.54	12.0-0.0

Auxiliary Lane Jointing:
Longitudinal joint: L or KT
Transverse joint: Match Mainline



Auxiliary Lane

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

4_AuxLane_PCC_ 10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
EB	21005+23.51	21006+45.62	12.5-30.0
EB	21016+39.60	21016+92.25	20.0-5.5

Normal sections shown may be appropriately modified for areas specifically designated by the Engineer, such as intersections or superelevated curves.

1. Excavate and backfill 3.0'
2. Refer to detail 7401 on Sheet B.19 for details of possible sidewalk construction.
3. Backfill
4. Refer to Standard Road Plan RF-19C.
5. Refer to Standard Road Plan PV-102. 6" Standard Curb.
6. Refer to H-Sheets for ROW Information.

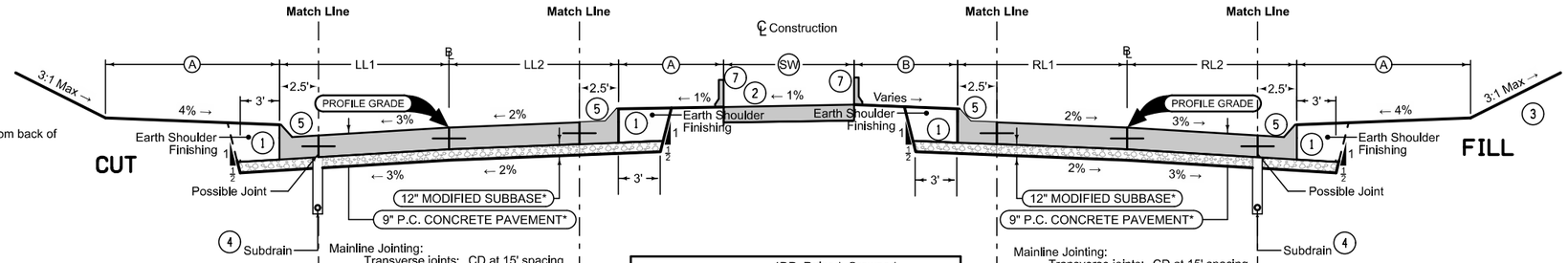
See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

* Thickness assumed. Subject to change during final design.

E FIRST STREET DDI
NORMAL LANE DIRECTION

EAST BOUND



Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

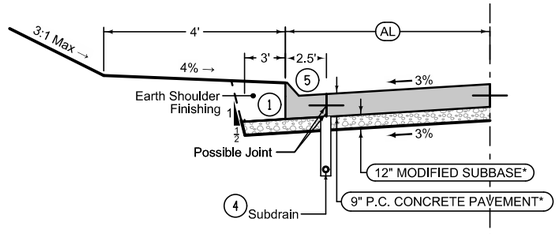
Single pour: L-2
Staged : KT-2
Transverse:CD at 15' spacing

STATION TO STATION		2_Curb_ 04-19-11 (A) Feet
21008+00.73	21009+06.51	16.0
21009+99.91	21012+31.02	4.0
21013+21.34	21014+96.72	16.0

Mainline Jointing:
Transverse joints: CD at 15' spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION	(LL1) Feet	(LL2) Feet
21007+92.62	21009+58.29	17.0	17.0
21009+58.29	21010+04.68	17.0-15.0	17.0-15.0
21010+04.68	21012+48.68	15.0	15.0
21012+48.68	21013+03.33	15.0-17.0	15.0-17.0
31013+03.33	21015+04.83	17.0	17.0

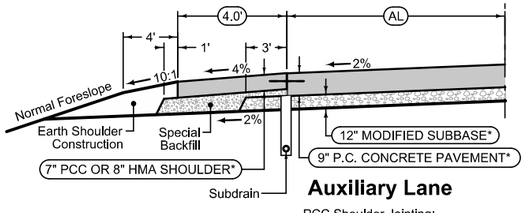
BEGIN STATION	END STATION	(A) Feet	(B) Feet	(SW) Feet
1008+28.09	1009+68.96	Varies	Varies	10
1009+68.96	1009+78.98	8-6	8-6	10-14
1009+78.98	1012+71.06	6	6	14
1012+71.06	1012+81.04	6-8	6-8	14-10
1012+81.04	1014+15.73	Varies	Varies	10



Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
EB	21009+99.91	21010+49.43	8.0
EB	21010+49.43	21010+91.02	8.0-12.0
EB	21010+91.02	21011+90.99	12.0
EB	21011+90.99	21012+31.02	12.0-16.0



Auxiliary Lane

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
EB	21009+06.51	21009+99.91	20.0-3.0
EB	21012+31.02	21013+21.34	11.5-20.0

Normal sections shown may be appropriately modified for areas specifically designated by the Engineer, such as intersections or superelevated curves.

1. Excavate and backfill 3.0'
2. Refer to detail 7401 on Sheet B.19 for details of possible sidewalk construction.
3. Backfill
4. Refer to Standard Road Plan RF-19C.
5. Refer to Standard Road Plan PV-102. 6" Standard Curb.
6. Refer to H-Sheets for ROW Information.
7. 44" Concrete barrier (half section) Refer to Standard Road Plan BA-102. Barriers are located only when sidewalk is 14' Wide

WEST BOUND

Curbed Shoulder

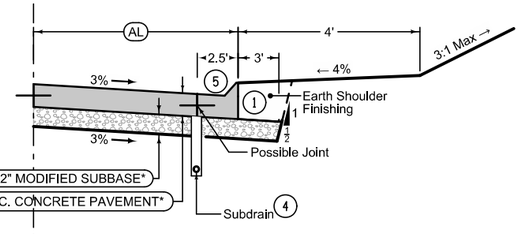
Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse:CD at 15' spacing

STATION TO STATION		2_Curb_ 04-19-11 (A) Feet
11008+09.66	1009+81.73	16.0
11011+69.78	11012+67.91	4.0
11014+09.55	11015+04.09	16.0

Mainline Jointing:
Transverse joints: CD at 15' spacing
Longitudinal joint: L-2

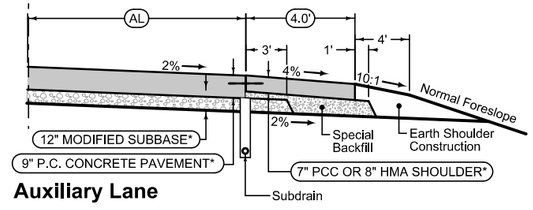
BEGIN STATION	END STATION	(RL1) Feet	(RL2) Feet
11008+01.56	11009+87.40	17.0	17.0
11009+87.40	11010+42.04	17.0-15.0	17.0-15.0
11010+42.04	11012+86.98	15.0	15.0
11012+86.98	11013+41.79	15.0-17.0	15.0-17.0
11013+41.79	11015+12.08	17.0	17.0



Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
WB	11010+69.78	11011+49.68	20.0-12.0
WB	11011+49.68	11012+09.47	12.0
WB	11012+09.47	11012+49.47	12.0-8.0
WB	11012+49.47	11012+67.91	8.0



Auxiliary Lane

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
EB	11009+81.73	11010+69.78	20.0-12.0
EB	11012+67.91	11014+09.55	3.5-39.0

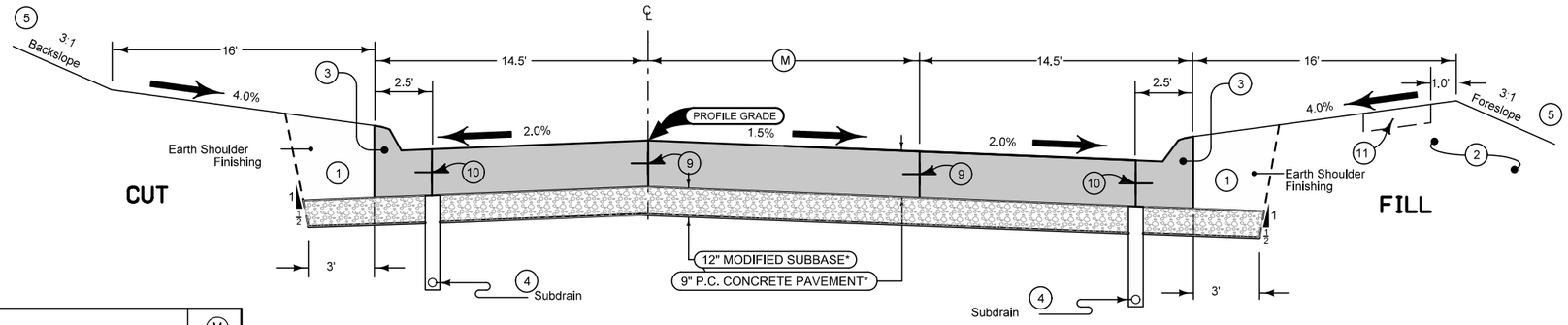
See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

* Thickness assumed. Subject to change during final design.

E FIRST STREET DDI
OPPOSITE LANE DIRECTION

Normal sections shown may be appropriately modified for areas specifically designated by the Engineer, such as intersections or superelevated curves.



Location			M
Road Identification	Station to Station		Feet
E First Street	31029+77.81	31030+00.00	16

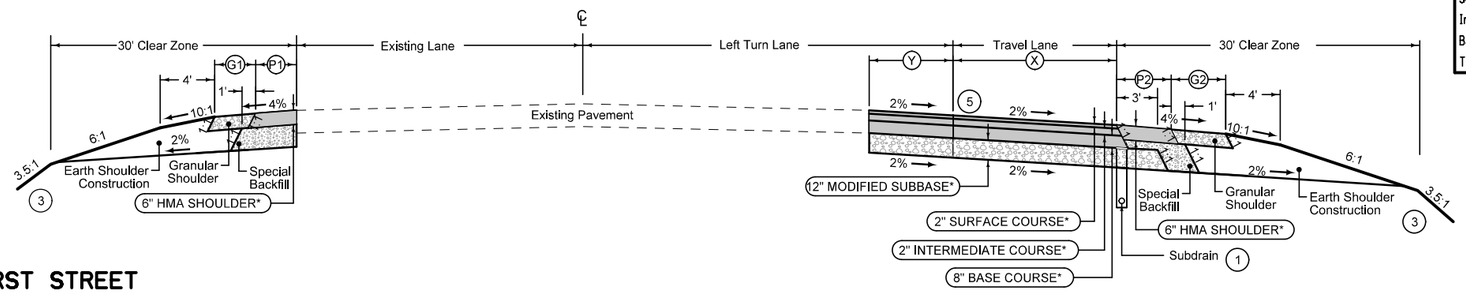
1. Excavate and backfill 3.0'
2. Backfill
3. 6" Standard curb. Refer to Standard Road Plan PV-102.
4. Refer to Standard Road Plan RF-19C.
5. Refer to cross section sheets for additional information.
6. Refer to H-Sheets for ROW Information.
7. Refer to M-Sheets for Storm Sewer Plan and Profile Information.
8. Refer to L-Sheets for geometric information, jointing, and staking details.
9. L-2 or KT-2 Joint.
10. L-2 Joint.
11. Future Sidewalk (By Others)

See Tab 100-24 for pavement quantities.

* Thickness assumed. Subject to change during final design.

E FIRST STREET
TYPICAL CROSS SECTION
PCC PAVEMENT WITH CURBS

3206-2
MODIFIED



E FIRST STREET
TYPICAL CROSS SECTION
HMA WIDENING

Design Rates	
Item	Rate
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Base Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

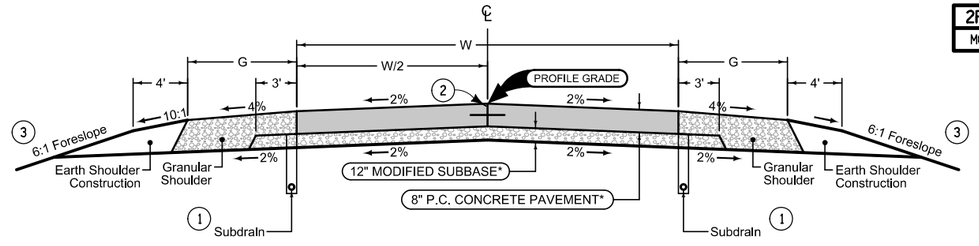
2E_AuxLane_HMA
MODIFIED

1. Refer to Standard Road Plan RF-19C.
2. Refer to L-Sheets for Geometric Information and Staking
3. Refer to cross section sheets for additional information.
4. Refer to H-Sheets for ROW Information.
5. Refer to Table 100-24 on Sheet C.10 for Quantities.
6. Tack Coat Estimate for 2 applications. Indicated Quantity is Estimated on the Basis of One Tack Coat Preceding Each Lift.
7. Course Width = Above Course Width Plus (Above Course Thickness and 1 1/2") each side.

ROAD IDENTIFICATION	BEGIN STATION	END STATION	X Feet	P1 Feet	G1 Feet	P2 Feet	G2 Feet	Y Feet
E FIRST STREET	31030+00.00	31030+77.96	12	4	2	4	2	4.5
E FIRST STREET	31034+03.29	31034+03.29	12	4	2	4	2	4.5-0
E FIRST STREET	31034+03.29	31036+99.68	12-2	4	2	4	2	0
E FIRST STREET	31036+99.68	31038+33.72	2-0	0	0	4	2	0

See Tab 100-24 for pavement quantities.

* Thickness assumed. Subject to change during final design.



2P_G_SR
MODIFIED

1. Refer to Standard Road Plan RF-19C.
2. L-2 or KT-2 Joint.
3. Refer to cross section sheets for additional information.
4. Refer to H-Sheets for ROW Information.
5. Refer to L-Sheets for geometric information, jointing, and staking details.

Location			W	G
Road Identification	Station to Station		Feet	Feet
SE Creekview Dr	102+88.47	106+51.71	26	6
SE Creekview Dr	106+51.71	107+14.21	26-31	6

Mainline
Transverse joints: CD at 15' spacing
Longitudinal joint: L2 or KT-2

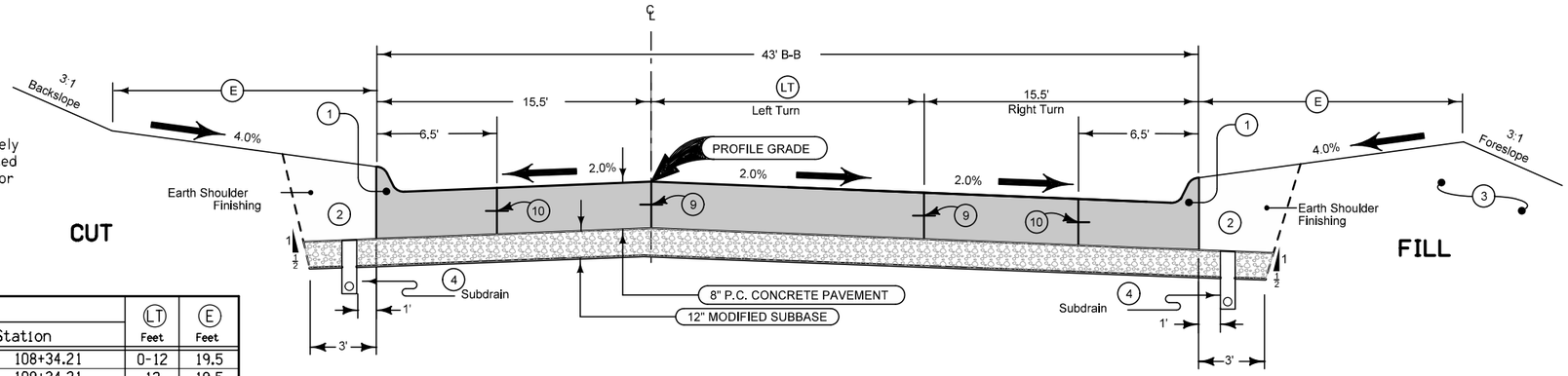
* Thickness assumed. Subject to change during final design.

Normal section shown may be appropriately modified for areas specifically designated by the engineer such as intersections or superelevated curves.

SE CREEKVIEW DR
TYPICAL RURAL CROSS SECTION

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER B.12

3222-1
MODIFIED



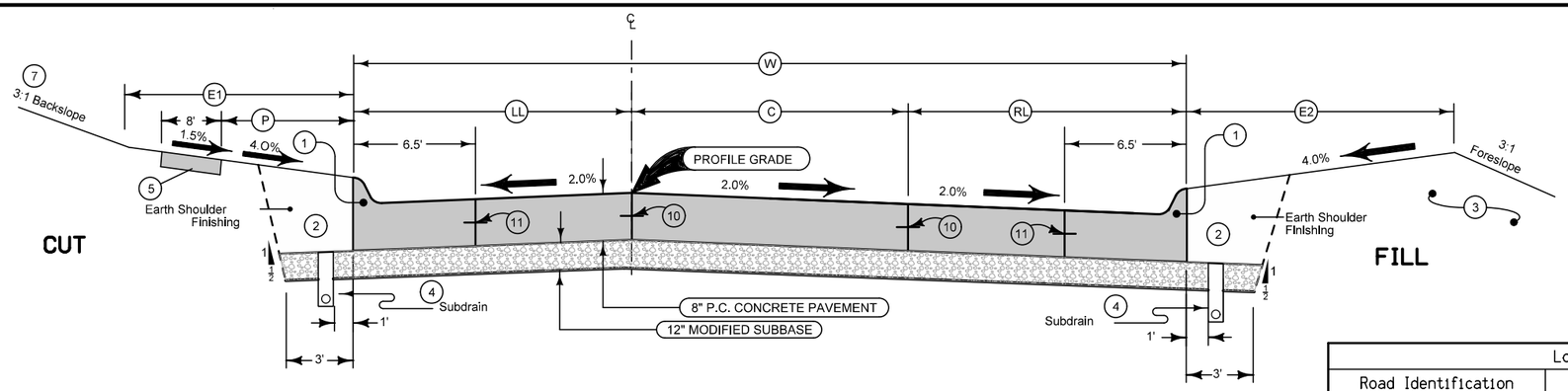
Normal section shown may be appropriately modified for areas specifically designated by the Engineer, such as intersections or superelevated curves.

Location			(LT)	(E)
Road Identification	Station to Station		Feet	Feet
SE Creekview Drive	107+14.21	108+34.21	0-12	19.5
SE Creekview Drive	108+34.21	109+34.21	12	19.5

1. 6" Standard Curb. Refer to Standard Road Plan PV-102.
2. Excavate and backfill 3.0'
3. Backfill
4. Refer to Standard Road Plan RF-19C.
5. Refer to cross section sheets for additional information.
6. Refer to H-Sheets for ROW Information.
7. Refer to M-Sheets for Storm Sewer Plan and Profile Information.
8. Refer to L-Sheets for geometric information, jointing, and staking details.
9. L-2 or KT-2 Joint.
10. L-2 Joint.

SE CREEKVIEW DRIVE TYPICAL CROSS SECTION WITH TURN LANE

3222-2
MODIFIED



1. 6" Standard Curb. Refer to Standard Road Plan PV-102.
2. Excavate and backfill 3.0'
3. Backfill
4. Refer to Standard Road Plan RF-19C.
5. Sidewalk Construction
6. Refer to cross section sheets for additional information.
7. Refer to H-Sheets for ROW Information.
8. Refer to M-Sheets for Storm Sewer Plan and Profile Information.
9. Refer to L-Sheets for geometric information, jointing, and staking details.
10. L-2 or KT-2 Joint.
11. L-2 Joint.

Location			(LL)	(C)	(RL)	(W)	(E1)	(E2)	(P)
Road Identification	Station to Station		Feet	Feet	Feet	Feet	Feet	Feet	Feet
NE Frisk Drive	402+50.92	403+15.56	15.5	12	28.0-15.5	54.5-43	18	16	8
NE Frisk Drive	403+15.56	403+65.98	15.5	12	15.5	43	18	16	8
NE Frisk Drive	403+65.98	405+87.41	15.5	12-0.0	15.5	43-31	18	16	8
NE Frisk Drive	405+87.41	406+69.91	15.5-10	0	15.5-12.0	31-22	18	16	8

NE FRISK DRIVE TYPICAL CROSS SECTION

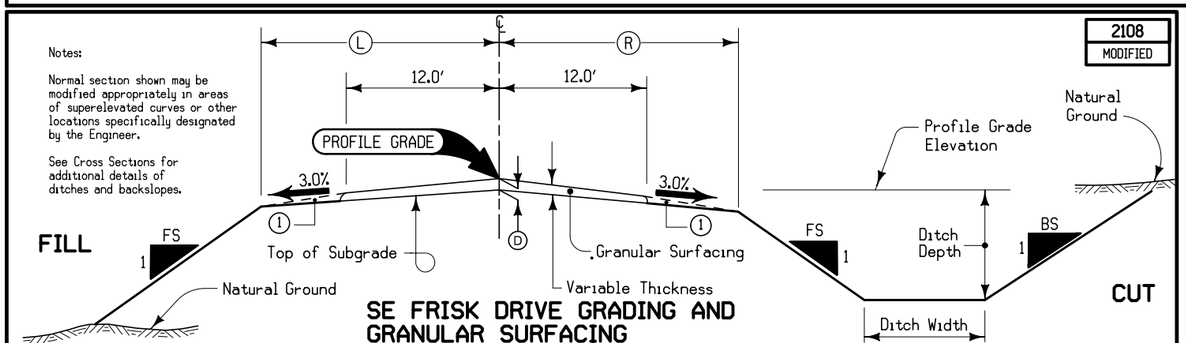
Normal section shown may be appropriately modified for areas specifically designated by the engineer such as intersections or superelevated curves.

2108
MODIFIED

Notes:

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

See Cross Sections for additional details of ditches and backslopes.



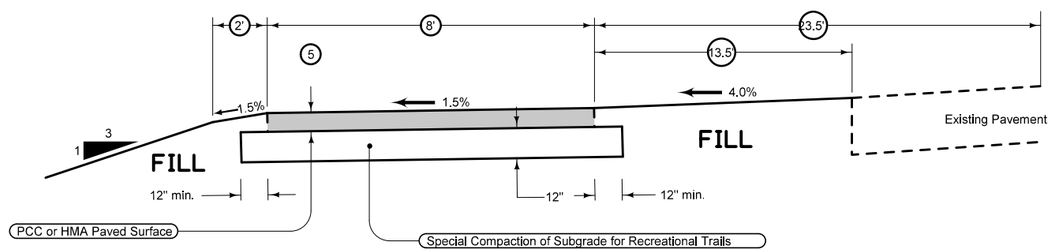
SE FRISK DRIVE GRADING AND GRANULAR SURFACING TYPICAL CROSS SECTION

Notes:

(1) Granular Shoulder

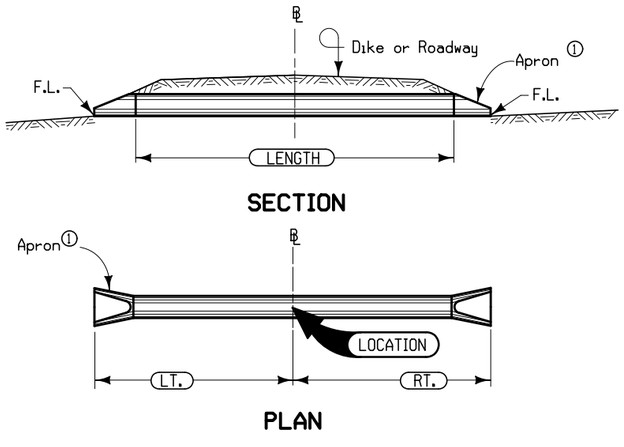
LOCATION			DIMENSIONS		SLOPES		
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	FS	BS	(D) Inch
SE Frisk Drive	400+09.45	400+33.41	--	13.7-16.1	6	3	6
SE Frisk Drive	400+33.41	401+17.34	6.9-12.5	16.1-24.5	6	3	6

7402
MODIFIED



NE FRISK DRIVE RECREATIONAL TRAIL TYPICAL CROSS SECTION FROM STA. 406+69.91 TO 410+83.57

1101
04-30-02



Notes:

℄ shall be ℄ of roadway, dike, survey, or other; as detailed on plans.

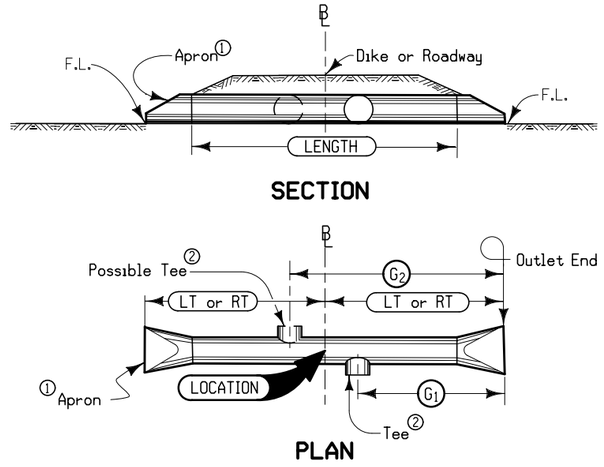
Skew angle is the angle which one end of the pipe is ahead (by stationing) of line perpendicular to the ℄ (example skew Rt. ahead 30°).

Refer to tabular listing and other plans for additional information.

① See Standard Road Plan RF-3 For Conc. or RF-5 for Metal.

PIPE CULVERT

1102
07-21-87



Notes:

℄ shall be ℄ of roadway, dike, survey, or other; as detailed on the plans.

Skew angle is the angle which one end of the pipe is ahead (by stationing) of a line perpendicular to the ℄ (example: skew Rt. ahead 30°).

"G" is the dimension to ℄ of Tee from outlet end of pipe. Either one or two Tees are required as specified.

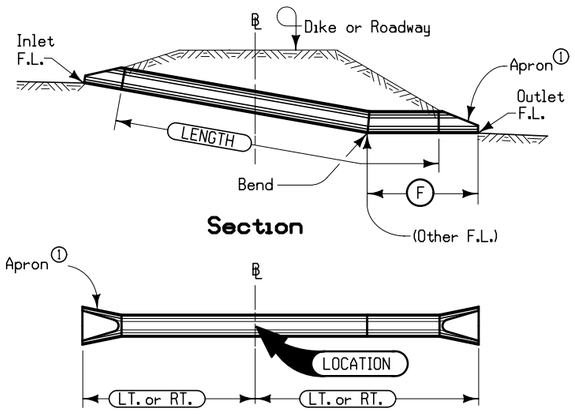
Refer to Tabular listing and other plans for additional information.

① See Standard Road Plan RF-3 for concrete or RF-5 for metal.

② See Standard Road Plan RF-21.

PIPE CULVERT WITH TEES

1201
10-16-07



Notes:

℄ shall be ℄ of roadway, dike, survey, or other; as detailed on plans.

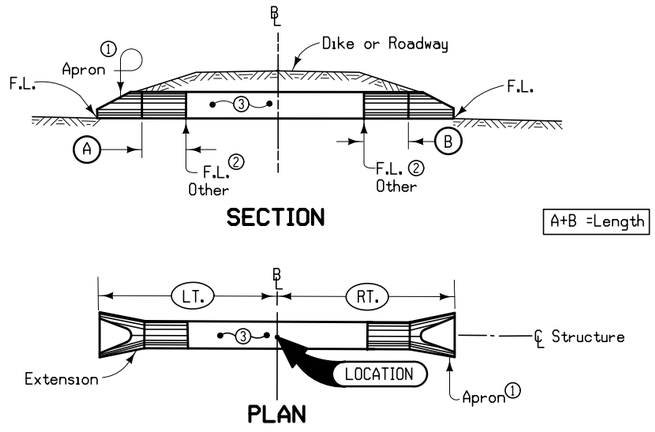
"Bend" may be accomplished by use of metal elbow, Pipe Adapter (RF-2), Type "D" Section or Concrete Elbow (RF-13) as specified.

Refer to tabular listing and other plans for additional information.

① See Standard Road Plan RF-3 For Conc. or RF-5 for Metal.

PIPE CULVERT LETDOWN STRUCTURE

1301
10-03-00



Notes:

℄ shall be ℄ of roadway, dike, survey, or other; as detailed on plans.

Extension shall be on line of existing structure to Lt., Rt. or both as specified. Adaptors may be required, see Standard Road Plan RF-2.

Refer to tabular listing and other plans for additional information.

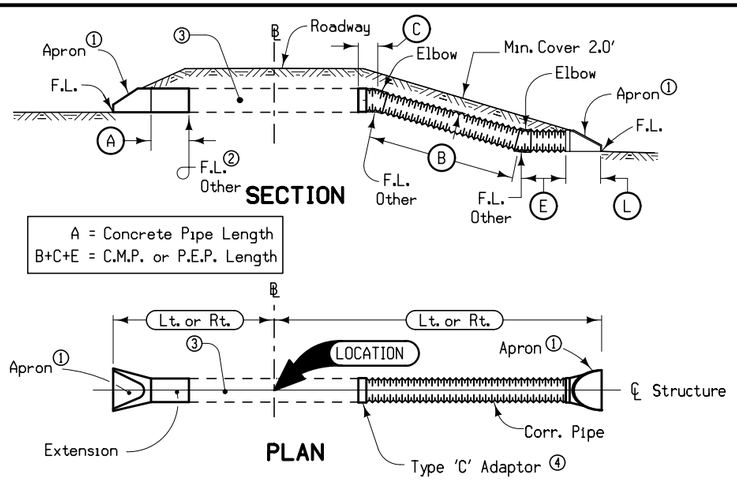
① See Standard Road Plan RF-3 for concrete, RF-5 for metal.

② Optional type "D" section only when specified in tabulation.

③ Existing structure.

PIPE EXTENSION

1305
04-21-09



℄ shall be ℄ of roadway, dike survey, or other; as detailed on plans.

Extension shall be on line of existing structure to Lt., Rt. or both as specified. Adaptors may be required.

Refer to tabulation and other plans for additional information.

① See Standard Road Plan RF-3 for Concrete or Standard Road Plan RF-5 for Metal and Polyethylene.

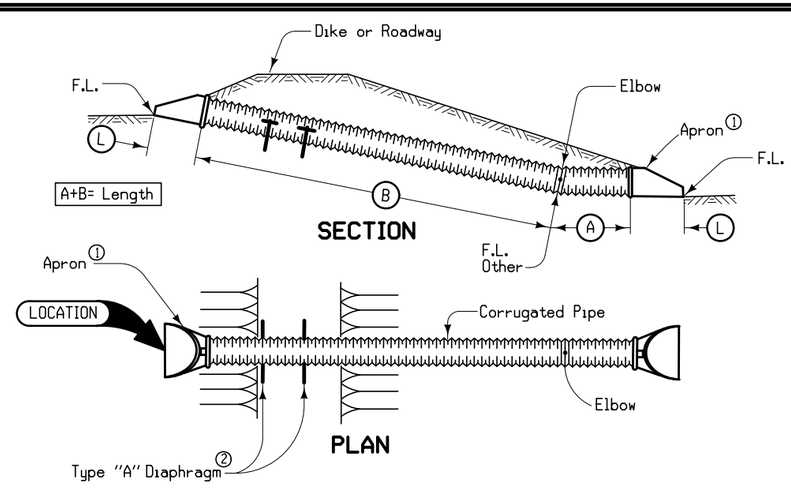
② Optional Type 'D' Section only when specified in Tabulation.

③ Existing Structure.

④ See Standard Road Plan RF-2.

PIPE EXTENSION LETDOWN STRUCTURE WITH METAL APRON

1401
04-15-03



Notes:

Refer to tabular listing and other plans for additional information.

Standard type joint couplings are required. (See Materials I.M. 441)

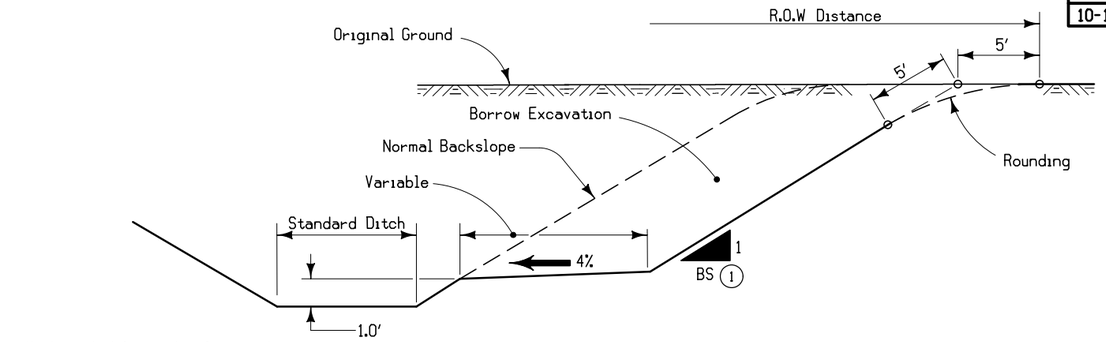
If more than one diaphragm is specified, they will be installed 15' apart or as specified.

① See Standard Road Plan RF-5 for Metal and Polyethylene.

② See Standard Road Plan RF-7.

CORRUGATED PIPE LETDOWN STRUCTURE SINGLE ELBOW

4108
10-15-13



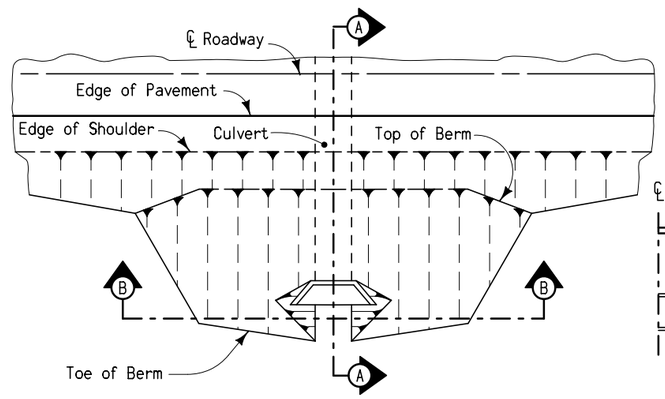
Use borrow backslope at those locations shown on plans or specifically required by the Engineer.

(1) Normal Backslope BS=2.5 unless specified otherwise on detail project plans.

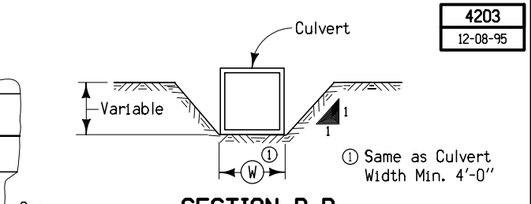
See Detail 4101 where intercepting ditches are required.

TYPICAL CROSS SECTION POSSIBLE BORROW IN R. O. W. WITH BERM

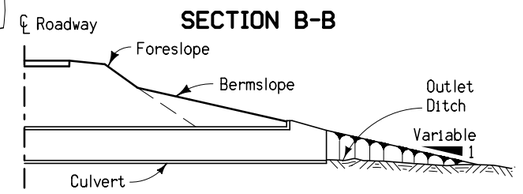
4203
12-08-95



TYPICAL PLAN



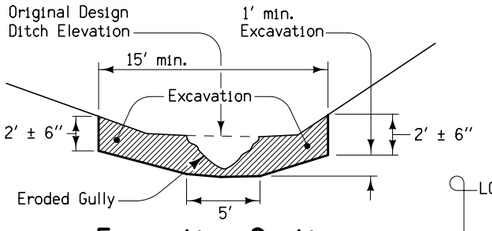
SECTION B-B



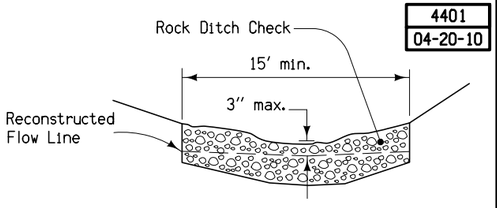
SECTION A-A

TYPICAL DETAILS FOR OUTLET DITCH THROUGH FORESLOPE BERM

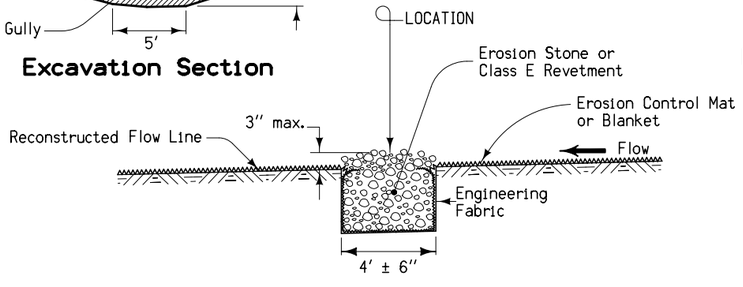
4401
04-20-10



Excavation Section



Ditch Check Section

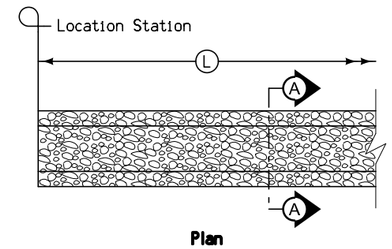


Longitudinal Section at Centerline of Ditch

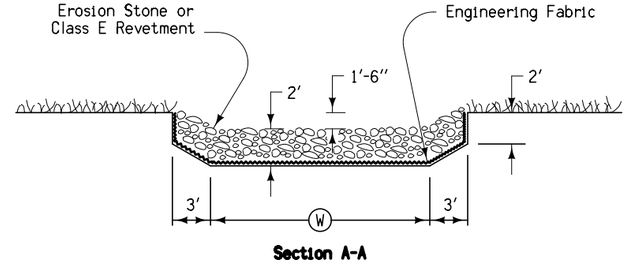
Refer to Tabulation 100-23 for additional information.

ROCK DITCH CHECK

4402
04-16-13



Plan

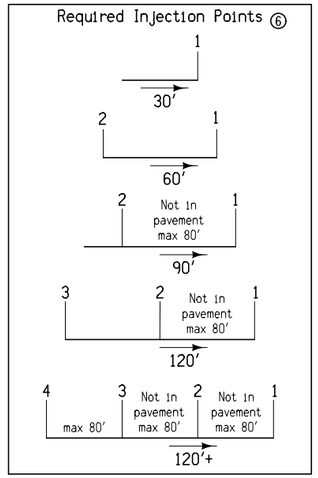


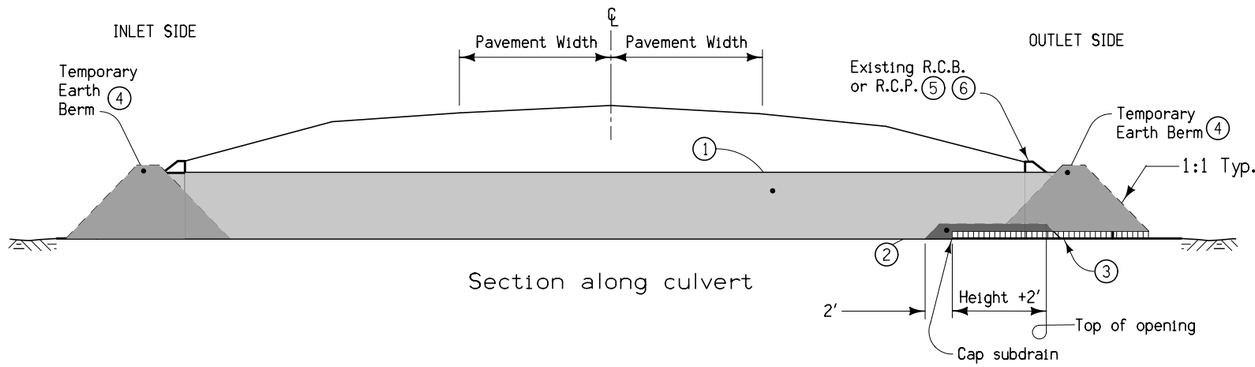
Section A-A

Refer to Tabulation 100-23 for additional information.

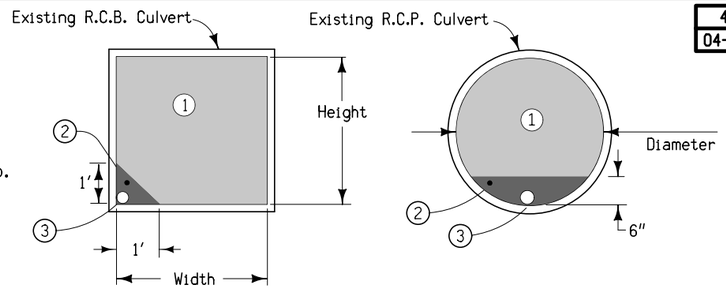
ROCK DITCH

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER B.15





Section along culvert

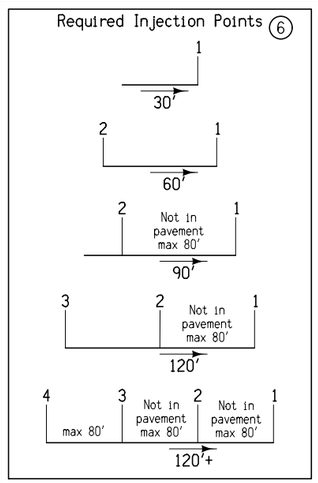


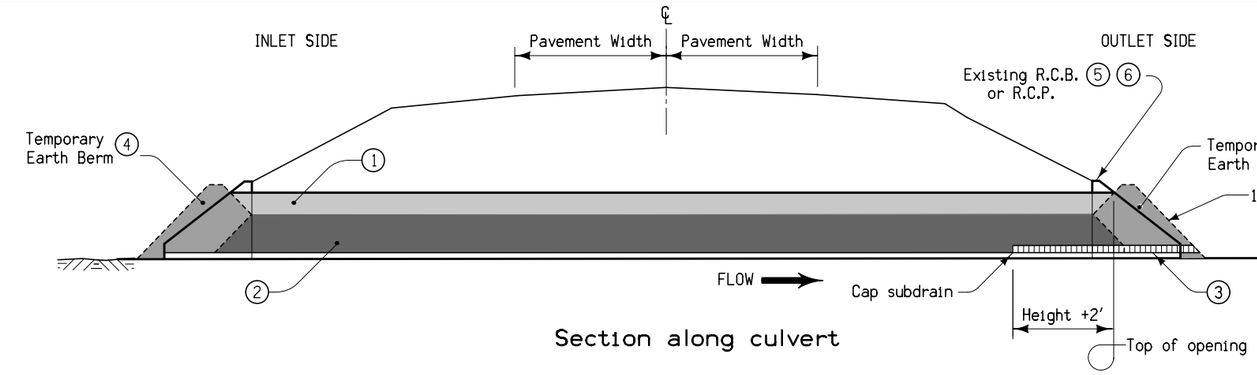
Section thru culvert

4315
04-15-08

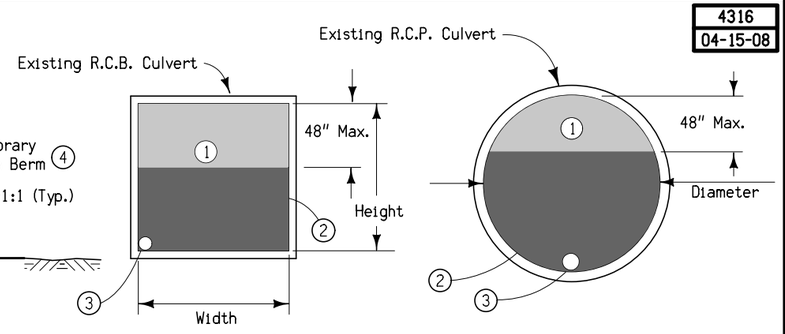
① Flowable Mortar.
② Granular Backfill.
③ 4″ subdrain at flowline elevation of culvert shall be extended into the culvert a distance of 2′ plus the height of the culvert. Granular Backfill covers subdrain and extends an additional 2′. Subdrain and granular backfill are incidental to flowable mortar.
④ Ends of culvert shall be plugged sufficiently to retain flowable mortar. Temporary earth berms are incidental to flowable mortar.
⑤ Removal of headwalls may be required.
⑥ Outlet shall be filled first. See injection point detail for additional information.

DETAILS OF CULVERT ABANDONMENT WITH FLOWABLE MORTAR (Rectangular structures less than 8′ in either height or width. Circular structures less than 10′ Dia.)





Section along culvert

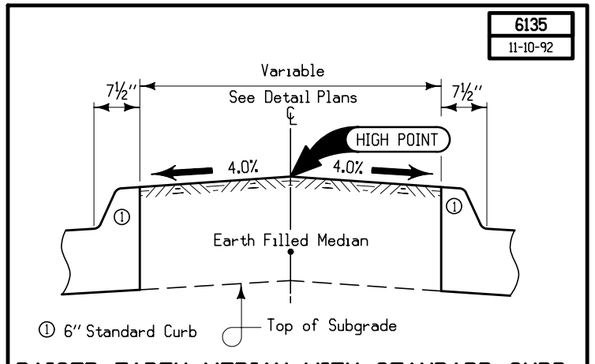


Section thru culvert

4316
04-15-08

① Flowable Mortar, Minimum 2′ thick.
② Granular Backfill.
③ 4″ Subdrain at flowline elevation of culvert shall be extended into the culvert a distance of 2′ plus the height of the culvert. Subdrain and granular backfill are incidental to flowable mortar.
④ Ends of culvert shall be plugged sufficiently to retain flowable mortar. Temporary earth berms are incidental to flowable mortar.
⑤ Removal of headwalls may be required.
⑥ Outlet shall be filled first. See injection point detail for more information.
⑦ Culvert may be considered a permit-required confined space, per OSHA 29 CFR.

DETAILS OF CULVERT ABANDONMENT WITH FLOWABLE MORTAR (Rectangular structures at least 8′ in both height and width. Circular structures 10′ Dia. or larger)

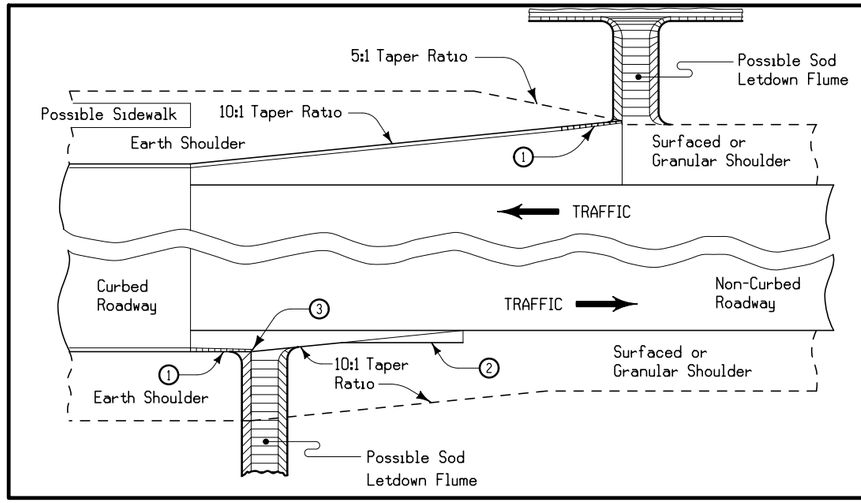


6135
11-10-92

RAISED EARTH MEDIAN WITH STANDARD CURB

Note:

This section is typical only, and may be appropriately modified in areas specifically designated by the engineer. Material for filling median and the necessary finishing of the median surface are included in the appropriate items of "Estimate of Quantities".

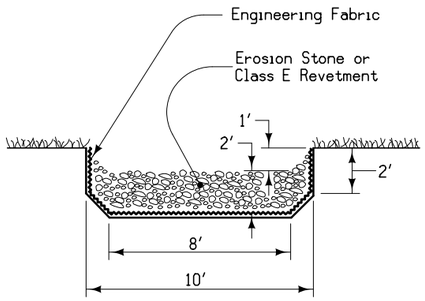


6147
10-15-13

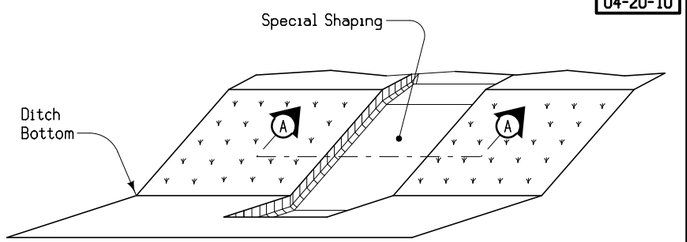
① Runout curb according to PV-102
② End of Taper Details see Typical Detail 7101
③ End earth shoulder at the end of the curb transition when no flume is needed.

TRANSITION BETWEEN CURBED AND NON-CURBED ROADWAYS

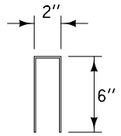
4403
04-20-10



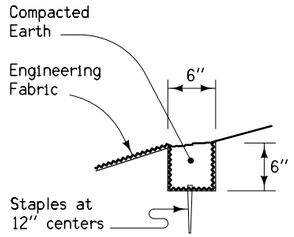
Section A-A



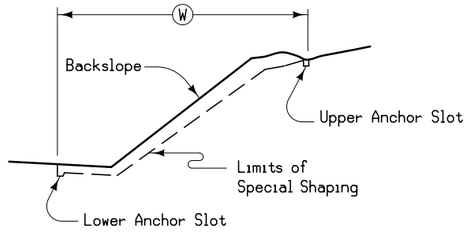
Isometric View



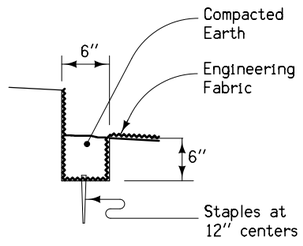
Staple
(No. 11 wire)



Upper Anchor Slot



Typical Section

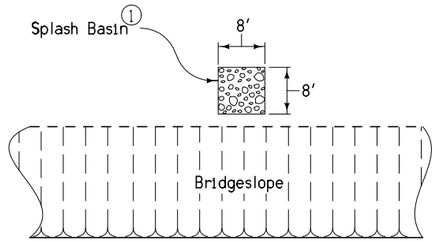


Lower Anchor Slot

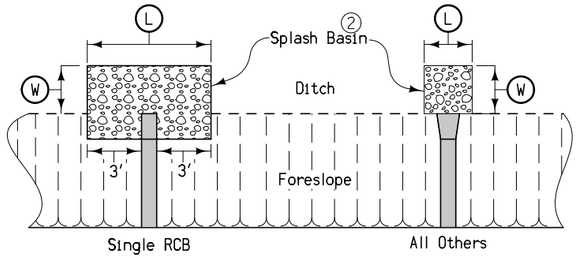
ROCK FLUME

Refer to Tabulation 100-23 for additional information.

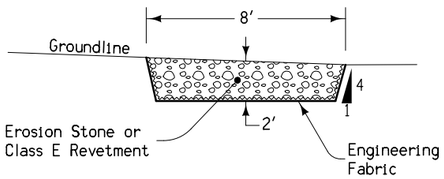
4404
10-15-13



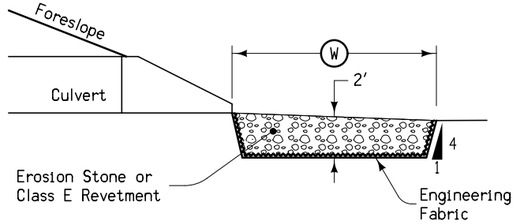
Splash Basin Under Bridge Drain
Plan View



Splash Basin at Culvert Outlet
Plan View



Splash Basin Under Bridge Drain
Typical Section



Splash Basin at Culvert Outlet
Typical Section

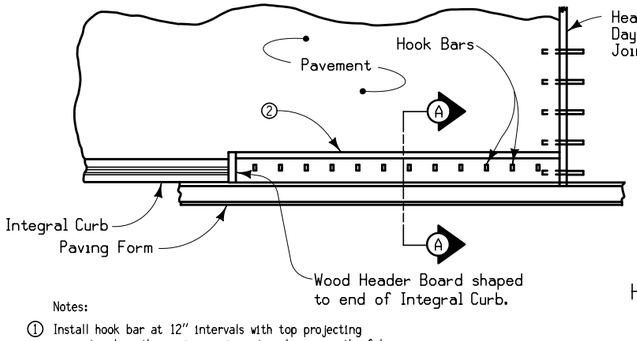
1 Center splash basin directly under bridge drain.

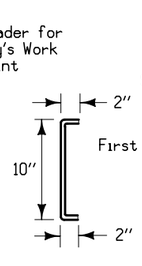
2 For single RCB, extend splash basin along the outside of the wings to the face of the parapet. Construct to a width of 3 feet and a depth of 2 feet.

Refer to Tabulation 100-23 for additional information.

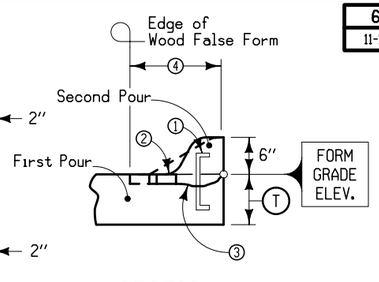
ROCK SPLASH BASIN

6115
11-10-92





NO. 3
HOOK BAR



SECTION A-A

Notes:

1 Install hook bar at 12" intervals with top projecting so as to clear the paving equipment and as near the false form board as possible to maintain 2" surface clearance.

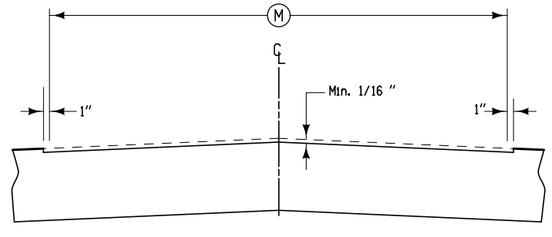
2 2" x 4" False Form.

3 Excavate a slight cavity in concrete around each bar.

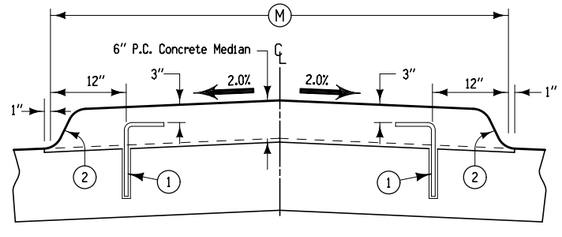
4 12" maximum for Standard 6" Curb.
16" maximum for Sloped 6" Curb.

CONSTRUCTION WHERE CURB IS
OMITTED AT END OF DAY'S RUN

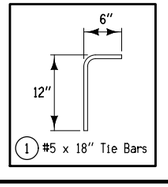
6149
04-17-07



Details of Milling



Details of
Median Placement

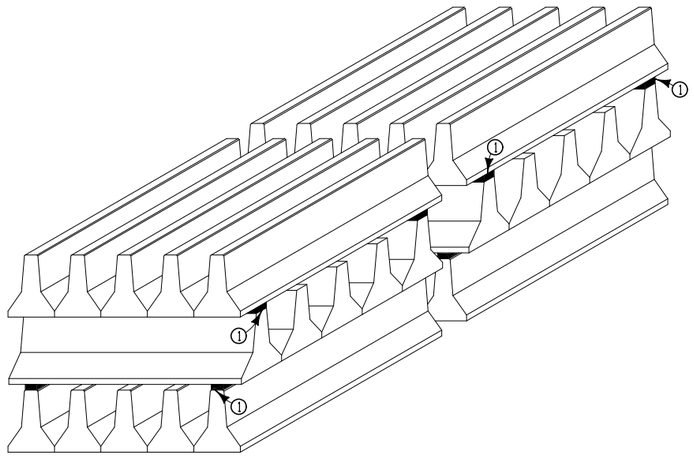


Notes:
This section may be appropriately modified in areas specifically designated by the Engineer.
Use 'C' joints in the doweled median and match the location of all transverse and longitudinal joints to the joints in the existing pavement.
Place tie bars at 24" C-C longitudinal spacing between joints in existing pavement. Drill ¾" holes for tie bars and epoxy to new pavement. See Tabulation 112-5 for additional details. Epoxy material shall be as specified in Materials IM491.11, appendix C.

2 6" Standard Curb

DOWELED MEDIAN
WITH STANDARD CURB

8207
10-28-97



Notes:

At the completion of the project, the contractor shall stack the temporary barrier rail at locations designated in the plans.

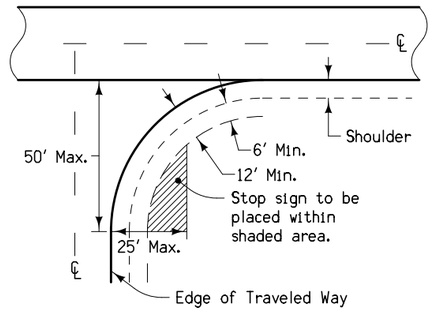
Barrier sections shall be stacked 3 high in alternating layers or as modified by the Engineer.

The cost of hauling and stacking the temporary barrier rail shall be incidental to the item "Temporary Barrier Rail".

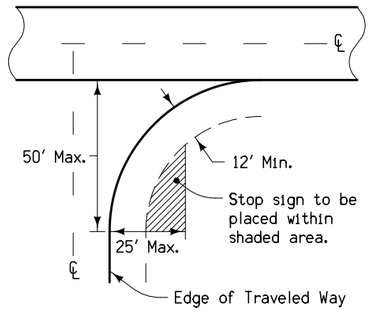
(1) 2x4 or scrap lumber.

STORAGE PLAN FOR BARRIER RAIL

9503
07-15-97



CASE 'A' WITH SHOULDER



CASE 'B' WITHOUT SHOULDER

NOTES:

Stop signs should be confined to the shaded areas, but as close to the approach roadway as possible to provide the motorist with the best visual impact.

If possible, stop signs should be placed at the point where vehicles are to stop or as near as practical.

In rural areas, the lateral clearance should not be closer than 6' from the edge of a usable shoulder, or if none, 12' from edge of the traveled way.

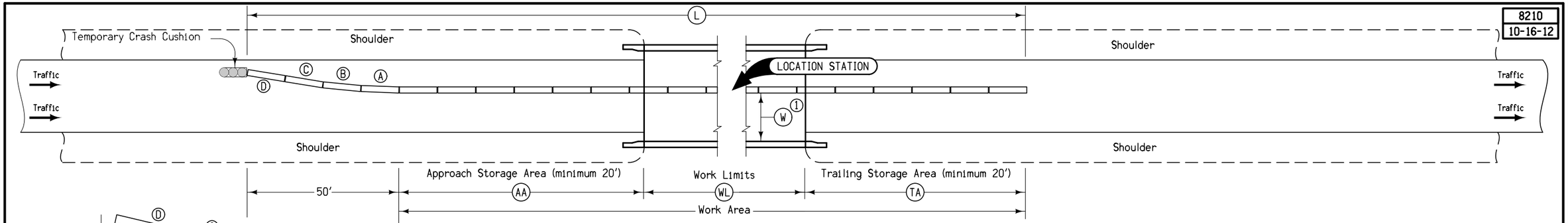
In urban areas, stop signs should be placed a minimum of 6' from the near edge of the intersected street or a minimum of 4' in advance of the near edge of a marked crosswalk. Lateral clearance may be reduced to a minimum of 2' from the face of a curb.

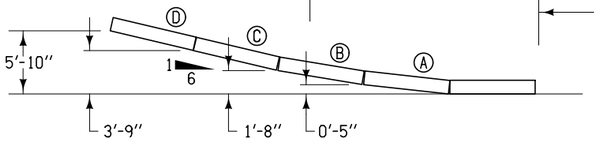
Where the approach roadway consists of two lanes of traffic, a second stop sign should be placed where it is visible to traffic in the inner lane.

At channelized intersections, the additional stop sign may be placed on a channelized island or median.

STOP SIGN PLACEMENT

8210
10-16-12





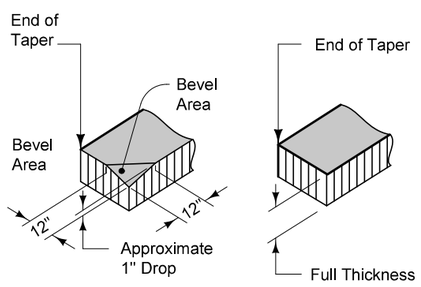
BARRIER OFFSETS FOR FLARE SECTIONS

Station	Side	(AA) Feet	(WL) Feet	(TA) Feet	(L) Feet	Anchored X	(W) (1) Ft-Inches	Remarks

(1) Where (W) is less than 14'-6", install restricted width signing as per Standard Road Plan TC-81.

TEMPORARY CONCRETE BARRIER LAYOUT for One-Way Traffic

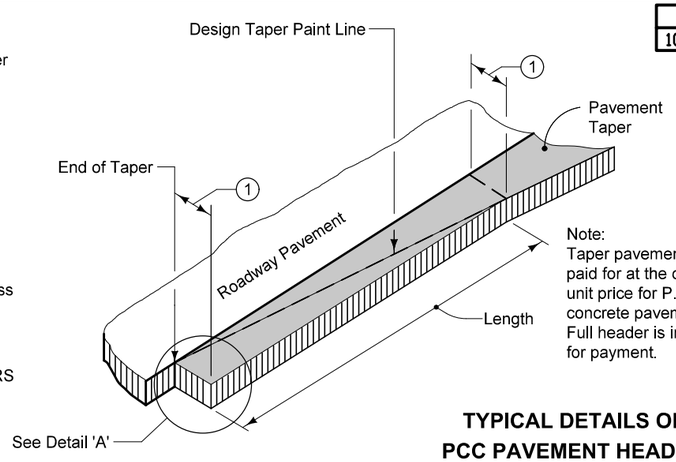
7101
10-19-10



DETAIL 'A'
FOR
GRANULAR SHOULDERS

DETAIL 'A'
FOR
PAVED SHOULDERS

(1) Normal width is 2'-0". Construct 4'-0" width when butting into 4' wide HMA shoulders (See Typical 7154A).



Note:
Taper pavement to be paid for at the contract unit price for P.C. concrete pavement. Full header is included for payment.

TYPICAL DETAILS OF PCC PAVEMENT HEADER

SURVEY SYMBOLS

- IN Storm Sewer Intake
- FW Wire Fence
- INB Storm Sewer Beehive Intake
- PR Electic Riser Pole
- GP Guard Post (Less Than 4 Posts)
- SL Speed Limit Sign
- SI Sign
- TIL Tile Line
- GDL Guard Rail Steel
- LUM Luminaire
- UE Utility Elevation
- WV Water Valve
- GPR Guard Post (4 or More Posts)
- FP Filler Pipe
- OUT Tile Outlet
- MIS Miscellaneous
- PPA Power Pole Co. 1
- AST AST Above Ground Storage Tank
- LP L.P. Tank
- FLG Flag Poles
- WHD Water Hydrant
- WEL Well
- MH Utility Access (Manhole)
- TPD Telephone Pedestal
- MM Mile Marker Post
- FCL Chain Link and Security Fence
- EB Electrical Box
- TV Satelite TV Dish
- UB Utility Box
- UST Underground Tank
- GV Gas Valve
- WHU RV Water Hook Up
- SEP Septic Tank
- FHD Fire Hydrants
- FWD Wood Fence
- RET Retaining Walls
- D Centerline Draw or Stream (Down)
- BNK Stream Bank
- RIP Rip-Rap
- EW Edge of Water
- DU Centerline Draw or Stream (Up)
- ENT Centerline BL of Entrance
- ENU Edge Unpaved Entrance & Parking
- EG Edge of Gravel Road
- SNP Unpaved Shoulder
- DIK Centerline of Dike or Dam
- FO2 FOB Underground Fiber Optic Co. 2
- T1 TLA Underground Telephone Line Co. 1
- E1 ELA Underground Electric Line Co. 1
- FO FOA Underground Fiber Optic Co. 1
- W WLA Underground Water Line Co. 1
- St.S.2 STB Storm Sewer Line Co. 2
- San. SAA Sanitary Sewer Line Co. 1
- E2 ELB Underground Electric Line Co. 2
- TV TVA Underground TV Cable Co. 1
- FO3 FOC Underground Fiber Optic Co. 3

UTILITY LEGEND

- MID-AMERICAN ENERGY
- MID-AMERICAN ENERGY
- W1 WARREN COUNTY RURAL WATER
- W2 WEST DES MOINES PUBLIC WORKS
- W3 DES MOINES WATER
- E-1 STATE OF IOWA
- E-2 MID-AMERICAN ENERGY
- E-3 GLENN OAKS OWNERS ASSOC.
- E-4 CITY OF WEST DES MOINES
- FO-1 CENTURY LINK
- FO-2 DES MOINES WATERWORKS
- FO-3 SPRINT
- FO-4 WEST DES MOINES PUBLIC WORKS
- FO-5 GLENN OAKS OWNERS ASSOC.
- FO-6 ATT
- FO-7 MEDIACOM FIBER OPTICS
- FO-8 HICKORY TECH
- GHP-1 MID-AMERICAN ENERGY
- GHP-2 KINDER MORGAN ENERGY PARTNERS
- G-1 BUCKEYE PIPELINE
- G-2 MID-AMERICAN ENERGY
- San. CITY OF WEST DES MOINES
- St. S.-1 STATE OF IOWA
- St. S.-2 CITY OF WEST DES MOINES
- T CENTURY LINK
- TV MEDIACOM

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
Blue, Light	(230)	Existing Culvert Pipes

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
- C/A Access Control
- Property Line

AT&T TRANSMISSION
PJ McDermott
816-275-4014
pjmcdmott@att.com

BUCKEYE PIPELINE
Wes Pekarek
816-836-6096
wpekarek@buckeye.com

MID-AMERICAN ENERGY
Eric Heikes
515-252-6497
echeikes@midamerican.com

CENTURY LINK - TELEPHONE
Steve Parker
515-265-0968
Steven.Parker4@centurylink.com

CENTURY LINK - FIBER
Robert Sampson
636-887-5367
Robert.Sampson@centurylink.com

SPRINT NEXTEL
Dan Hilliard
651-772-6714
dan.j.hilliard@sprint.com

MEDIACOM
Paul May
515-246-2252
pmay@mediacomcc.com

CITY OF WEST DES MOINES
Bret Hodne
515-222-3480
bret.hodne@wdm.iowa.gov

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

DOUGLAS TWP.
T-80N R-23W
SEC 19

0 FEET 50

Sta. 174+66.58
skew 30°Ahd.
Twin 6'x4'x337' RCB
DA=295 Ac R
U.A.C.

Sta. 185+00.00
36"x33.8' CMP
36"x23.5' CMP Tee
DA=NA Ac R
(U.A.C.)

170 175 180 185

INTERSTATE 35 SB

℄ I-35

INTERSTATE 35 NB

Sta. 181+08.36, 81.09' RT
Begin Shoulder Construction

Sta. 184+31.35, 62.87' RT
Begin Construction Northbound Auxiliary Lane

Sta. 173+47.26
skew 30°Lt. Ahd.
Twin 6'x4'x112' RCB
DA=296.2 Ac R
U.A.C.

Sta. 185+02.00
24"x100.9' RCP
DA=1.4 Ac R
Remove & Extend
10'x24" RCP
FL=928.30 Lt.
928.14 Rt.

Sta. 185+27.71
18"x25.7' CMP
DA=1.40 Ac R
(U.A.C.)

Existing Ground Profile
At South Bound
Edge of Pavement

Existing Ground Profile
At North Bound
Edge of Pavement

+08.36
924.25

RT D.G. +0.99%

+00.00
928.14

920 910 900 890 880

Lt
Med
Rt

U.A.C.
U.A.C.
DITCH GRADE

180 185

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.2

11:09:19 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D02.SHT

DOUGLAS TWP.
T-80N R-23W
SEC 19

Tee

Sta. 184+40.60, 77.51' LT
Begin Shoulder Construction

Sta. 186+34.93, 58.70' LT
Begin Construction Southbound Auxiliary lane

℄ I-35

INTERSTATE 35 SB

INTERSTATE 35 NB

HD Development of Maryland Inc.

Target Corp.

Kohls Department Stores Inc

Metro North/Ankeny Center LLC

MDM

0 50 FEET

+90.00 Prop.
Type "M" Dike
Elev.=939.00

+60.00 Prop.
Type "M" Dike
Elev.=938.50

+80.00 Prop.
Type "M" Dike
Elev.=934.00

+10.00 Prop.
Type "M" Dike
Elev.=930.00

Sta. 185+27.71
18"x25.7' CMP
DA=1.40 Ac R
(U.A.C.)

Sta. 185+02.00
24"x100.9' RCP
DA=1.4 Ac R
Remove Extend
10'x24" RCP
FL=928.30 Lt.
930.60 Rt.
Other=928.14

ACH Food Companies INC

Sta. 193+21.37
24"x191.1' RCP
DA=5.1 Ac R
Remove & Extend
24"x32' RCP
FL=936.98 Lt.
934.09 Rt.
Other=936.85
Other=934.27

ACH Food Companies INC

Sta. 198.83.14
18"x26.3' CMP
DA=Med Ac R
(U.A.C.)

Sta. 198+08.62
Skew 30°Rt Ahd.
30"x222.7' RCP
DA=16.2 Ac R
Remove & Extend
30"x32' RCP
FL=932.34 Lt.
927.42 Rt.
Other=931.99
Other=928.04

EB SIGN

Existing Ground Profile At South Bound Edge of Pavement

Existing Ground Profile At North Bound Edge of Pavement

+41.00 932.64
LT D.G. +0.86%
RT D.G. -3.44%
+50.00 929.86
+00.00 928.14
RT D.G. +0.80%

+30.00 938.59
LT D.G. -6.73%
+90.00 939.00
LT D.G. +0.68%
+50.00 935.46
RT D.G. -1.93%
+20.00 936.98
LT D.G. +3.80%
+60.00 938.50
RT D.G. +1.15%
+21.00 934.09
LT D.G. -2.08%
+25.00 937.15
+00.00 935.00
LT D.G. -1.13%
RT D.G. -0.95%

LT D.G. +5.53%
+50.00 932.34
+80.00 932.77
LT D.G. -2.08%
+35.00 932.00
+50.00 929.75
RT D.G. -8.03%
+80.00 927.34

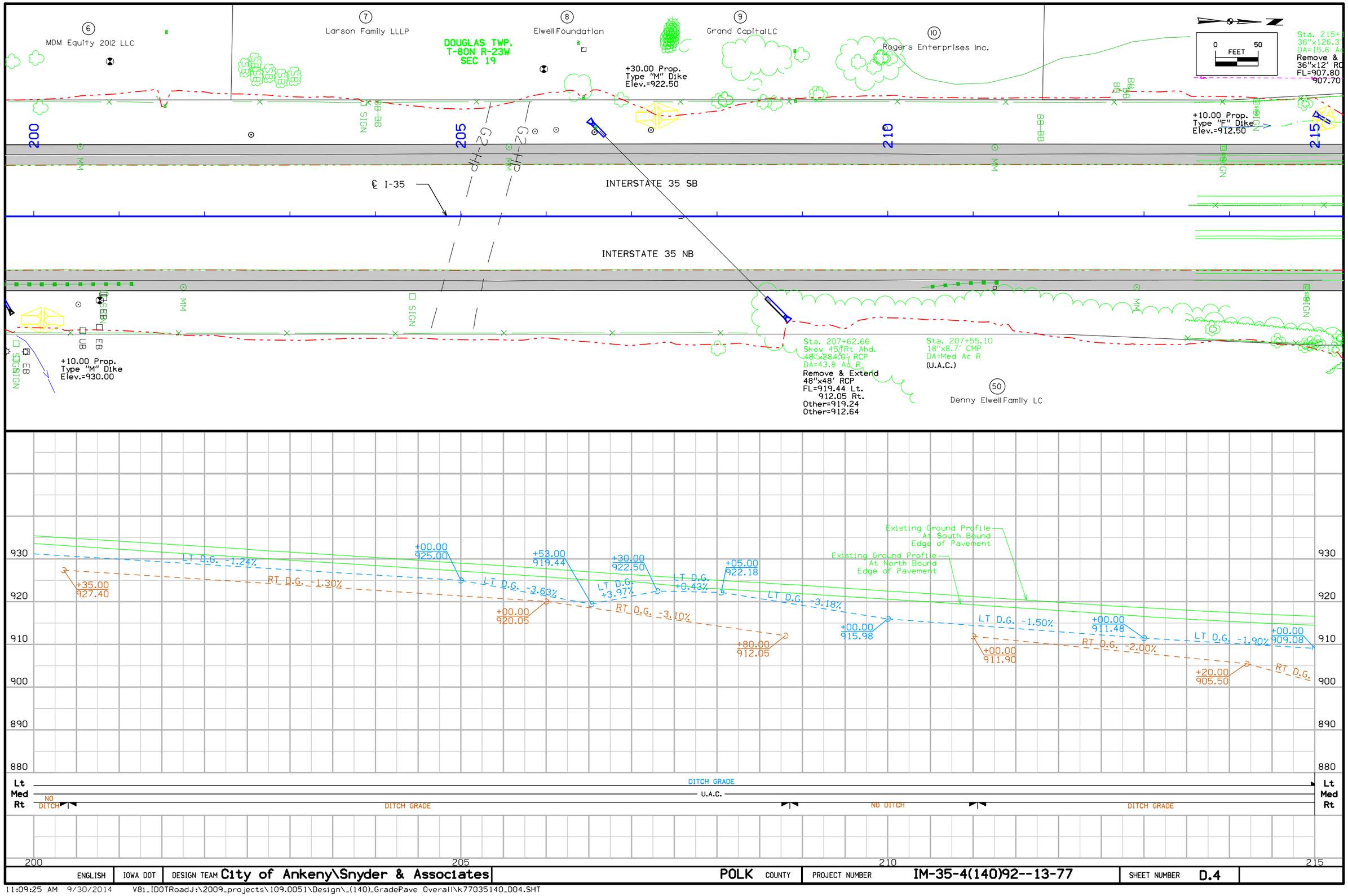
940 930 920 910 900

Lt — DITCH GRADE
Med — U.A.C.
Rt — DITCH GRADE

185 190 195 200

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.3

11:09:21 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D03.SHT



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.4

11:09:25 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D04.SHT

PRAIRIE GLEN TOWNHOME ASSOCIATION (11)

Sta. 215+11.42
36"x126.3' CMP
DA=15.6 Ac R
Remove & Extend
36"x12' RCP
FL=907.80 Lt.
907.70 Rt.

+10.00 Prop.
Type "F" Dike
Elev.=912.50

Sta. 216+11.92
5' X 5' RCB
Skew 15° Lt Ahd.
DA=139 Ac R
Remove & Extend
5'x5'x32' RCB
FL=901.59 Lt.
897.60 Rt.
Other=901.20
Other=898.09

Sta. 218+75.51
18"x29.0' CMP
DA=Median
U.A.C.

Sta. 219+00.93
24" x 104.0' RF-1
DA=Median
Remove Extend
24"x16' RCP
FL=908.52 Lt.
909.49 Rt.
Other=908.80

Villas of Meadow Ridge Condominiums (12)

DOUGLAS TWP.
T-80N R-23W
SEC 19

Rogers Enterprises Inc. (13)

Ankeny Two L

0 FEET 50

215 220 225 230

℄ I-35

INTERSTATE 35 SB

INTERSTATE 35 NB

City of Ankeny (49)

Sta. 228+05.46
15" x 32.6' CMP
DA=2.2 Ac R
(Remove)

Sta. 228+05.46
Install 15"x76' RCP
FL=900.78 Lt.
900.44 Rt.

City of A (49)

Existing Ground Profile At South Bound Edge of Pavement

Existing Ground Profile At North Bound Edge of Pavement

+45.00 901.59 RT D.G. +4.27% LT D.G. +2.72%

-5.33%

+70.00 897.50

+00.00 907.31 RT D.G. +1.00%

+00.00 908.52 LT D.G. +1.50%

+50.00 908.81

+00.00 909.92

RT D.G. -0.99%

LT D.G. -0.40%

+57.00 900.82 RT D.G. -12.67%

RT D.G. -1.50%

RT D.G. -11.42%

+15.00 904.63

+90.00 905.00

+53.00 900.40

RT D.G. -1.95%

920 910 900 890 880

Lt	NO DITCH	DITCH GRADE	Lt
Med		U.A.C.	Med
Rt		DITCH GRADE	DIKE DITCH GRADE Rt

215 220 225 230

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.5

11:09:29 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D05.SHT

(14) Ankeny Housing Association Two Limited Partnership

Sta. 231+61.93
Skew 6° Lt Ahd.
48"x202.2' RF-1
4'x4'x38.5' Flume
DA=38.77 Ac R
Remove Extend
48"x32' RCP & 48"x52' CMP
FL=902.60 Lt.
884.75 Rt.
Other=902.28
Other=895.14

Sta. 231+41.30
18"x21.1' CMP
DA=2.10 Ac R
(U.A.C.)

Sta. 234+87.07
Slope Tapered
8'x6' to 5'x6'x255.5' RCB
Skew=20° Lt Ahd.
DA=281 Ac R
Remove & Extend
8'x6'x16' RCB LT Plus Headwall
Remove Flume and Extend
5'x6'x34' RCB Rt Plus Flume
FL=890.50 Lt.
878.33 Rt.

(15) B&L Building LLC

Sta. 236+18.00
Install 24"x74' CMP
FL=899.05 Lt.
891.29 Rt.

+10.00 Prop.
Type "F" Dike
Elev.=902.55

Sta. 236+18.00
24"x84.9' CMP
DA=9.20 Ac R
(Remove)

Sta. 237+44.46
24"x105.6' RF-1
DA=1.97 Ac R
Remove & Extend
24"x18' RCP
FL=900.14 Lt.
902.73 Rt.
Other=900.64

(16) The Village on Delaware Town Home Owner's Association

(16) The Village on Delaware Town Home Owner's Association

(17) Presbyterian Homes Mill Pond Care Center

Sta. 242+99.34
Skew=4°Rt Ahd.
30"x262.9' RCP and CMP
DA=6.36 Ac R
Remove & Extend
30"x24' CMP
FL=903.70 Lt.
893.77 Rt.
Other=903.60
Other=895.10

Sta. 243+21.00
24"x24' RF-1
DA=1.71 Ac R
(Remove)

+60.00 Prop.
Type "M" Dike
Elev.=906.40

DOUGLAS TWP.
T-80N R-23W
SEC 19

0 50 FEET

230 235 240 245

℄ I-35

INTERSTATE 35 SB

INTERSTATE 35 NB

Sta. 237+27.06
18"x22.5' CMP
DA=1.01 Ac R
(U.A.C.)

Sta. 237+72.08
18"x22.5' CMP
DA=0.96 Ac R
(U.A.C.)

Sta. 243+24.59
18"x25.1' CMP
DA=1.47 Ac R
(U.A.C.)

(49) City of Ankeny

(48) Craig W Hansen

(47) OMG Midwest Inc.

(47) OMG Midwest Inc.

(46) Albaugh Chemical Corp

(46) Albaugh Chemical Corp

(45) NW Company

Existing Ground Profile At South Bound Edge of Pavement

Existing Ground Profile At North Bound Edge of Pavement

+00.00 905.52 — LT D.G. -5.84% — +50.00 902.60 — LT D.G. +3.56% — +00.00 904.48 — LT D.G. +2.00% — +50.00 905.48 — LT D.G. -2.00% — +00.00 904.48 — LT D.G. -5.83% — +40.00 890.50 — LT D.G. +10.50% — +50.00 886.62 — LT D.G. +0.76% — +00.00 900.87 — LT D.G. +1.00% — +80.00 905.35 — LT D.G. +0.45%

RT D.G. -1.95% — +00.00 895.80 — RT D.G. -14.11% — +75.00 884.77 — RT D.G. -6.07% — +05.00 882.95 — RT D.G. +19.00% — RT D.G. -12.49% — +00.00 901.00 — +75.00 891.63 — RT D.G. +2.50% — +50.00 897.12 — +20.00 899.05 — +50.00 900.14 — RT D.G. -1.95% — +00.00 893.70 — RT D.G. +5.75% — +00.00 903.70 — +00.00 899.45

Lt	DITCH GRADE	NO DITCH	DITCH GRADE — DIKE — DITCH GRADE
Med	U.A.C.		
Rt	DITCH GRADE	NO DITCH	DITCH GRADE

920 910 900 890 880

230 235 240 245

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.6

11:09:32 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D06.SHT

DOUGLAS TWP
T-80N R-23W
SEC 19

0 FEET 50

Sta. 257+33.33
36"x77.3' CMP
DA=16.04 Ac R
(Remove)

Sta. 257+35.00
DA=16.04 Ac R
36"x48' CMP
FL=907.00 LT
893.10 RT

(18) Mallard Creek Townhome Association

(19) Maplewood Village Condominiums

(17) Presbyterian Homes Mill Pond Care Center

Sta. 247+00.00 72.35'LT
Begin 25:1 Taper

Sta. 246+85.27 23.50'LT
Begin Construction Southbound Lanes
Begin 70:1 Taper

+50.00 Prop.
Type "M" Dike
Elev.=909.46

+25.00 Prop.
Type "F" Dike
Elev.=911.50

Sta. 248+34.83 17.00'LT
End Shoulder 70:1 Taper

Sta. 249+83.80 87.77'LT
End 25:1 Taper

Sta. 250+70.59 29.00'LT
End 70:1 Taper

Sta. 255+00.00 89.00'LT
Begin Ramp C Curve C-1

RAMP C

PC Sta 258+00.20

25:1 Taper

℄ I-35

70:1 Taper

INTERSTATE 35 SB

INTERSTATE 35 NB

RAMP B

Sta. 248+04.31 17.00'RT
End Shoulder 70:1 Taper

Sta. 247+54.58 74.73'RT
Begin Ramp B 20:1 Taper

Sta. 246+85.27 25.73'RT
Begin Construction Northbound Lanes
Begin 70:1 Taper

Sta. 249+13.90 29.00'RT
End 70:1 Taper

Sta. 256+00.00 117.00'RT
End Ramp B 20:1 Taper

Grading Limits

(45) NW Company

(44) Airgas North Central Inc

(43) City of Ankeny

Sta. 251+40.94
36"x213.8' RF-1
Skew=2° Rt. Ahd.
(Plug & Abandon)

Sta. 251+50.53
24"x101.0' RF-1
Skew=2° Rt. Ahd.
DA=2.82 Ac R
(Remove)

Sta. 251+78.00
18"x25' CMP
DA=2.18 Ac R
(Remove)

Sta. 256+59.92
Slope Tapered
8'x6' to 5'x6'x269.9'
Skew=3° Rt. Ahd.
DA=294.7 Ac R
(Remove)

Sta. 251+30.00
DA=18.54 Ac R
36"x268' RCP
FL=903.68 LT
891.72 RT

Sta. 251+50.00
DA=2.82 Ac R
24"x122' RCP
FL=904.14 LT
905.58 RT

Sta. 251+78.00
24"x8' CMP & RF-27
FL=907.60 LT
905.58 RT

Sta. 256+46.00
66"x368' RCP
FL=892.77 LT
884.42 RT

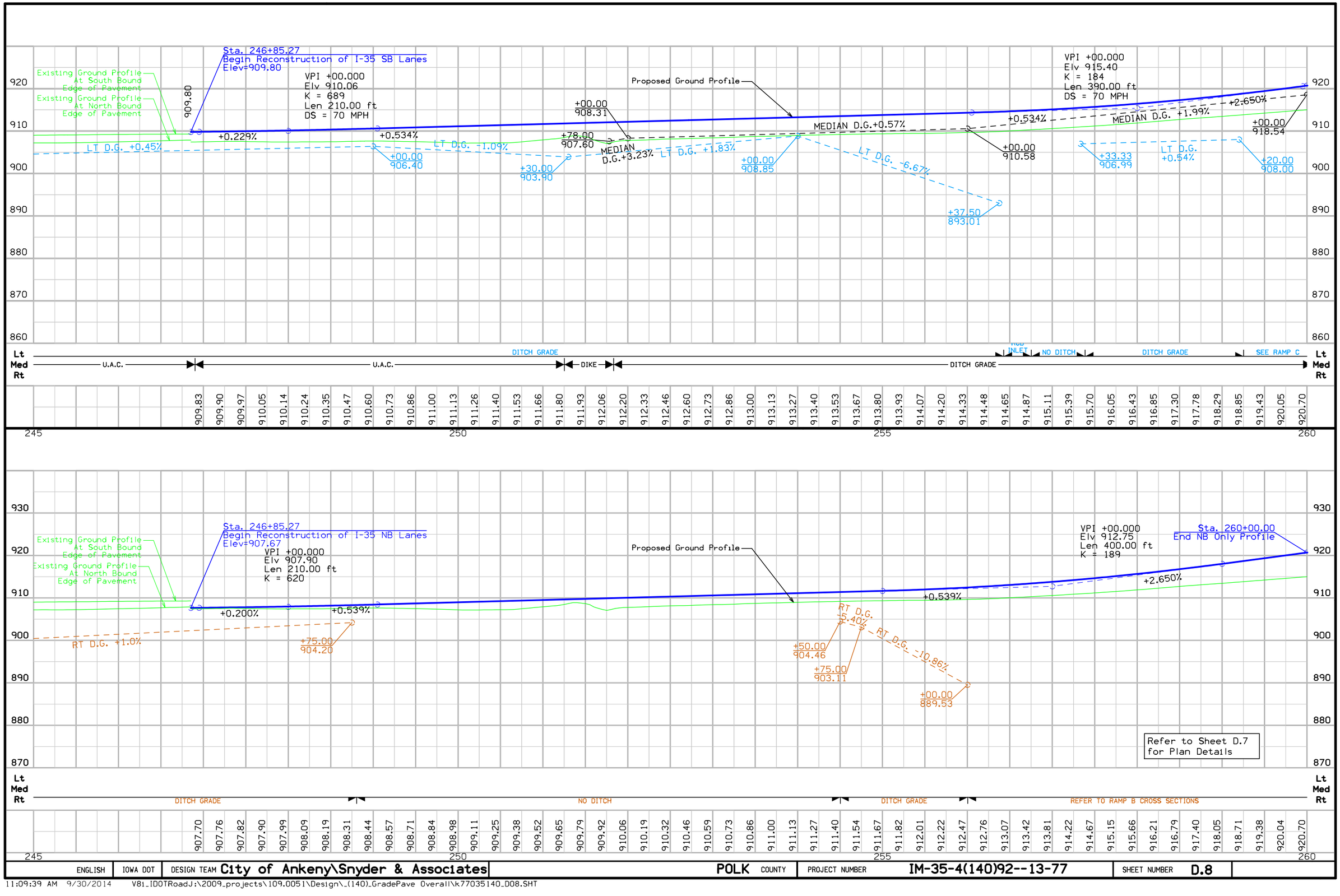
Sta. 256+74.03
66"x372' RCP
FL=892.82 LT
884.42 RT

For Ramp Details
Refer to K Sheets

Refer to Sheet D.8 for
SB and NB Profile Info.

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.7

11:09:36 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D07.SHT



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.8

DOUGLAS TWP.
T-80N R-23W
SEC 19

(19) Maplewood Village Condominiums

(20) TKG IOWA STORAGE, LLC

(21) Menadue Development, LC

DOUGLAS TWP.
T-80N R-23W
SEC 18

0 50 FEET

Existing Pavement (Remove)

Grading Limits

RAMP C

RAMP A

RAMP B

5260 5265 5270 5275

260 265 270 275

Sta. 272+31.10
Dual 130'-0"x40' Continuous
Concrete Slab Bridge
Design No. 562
(Remove)
Install 264'-0"xVaries
Pretensioned Prestressed
Concrete Beam Bridge

+05.00 Prop.
Type "M" Dike
Elev.=932.88

℄ I-35 Construction

Sta 267+54.76 PT

SB INTERSTATE 35

Existing Pavement (Remove)

NB INTERSTATE 35

Sta 262+47.91 PI

4260 4265 4270 4275

Curve Data
Δ = 3° 13' 01.83" (LT)
T = 477.40
L = 954.56
R = 17,000.00
E = 6.70

(39) City of Ankeny

Existing Pavement (Remove)

POT Sta. 272+00.53 (I-35)
POT Sta. 11011+36.58 (DDIWB)
N= 630969.99
E= 1619402.64

POT Sta. 272+57.06 (I-35)
POT Sta. 21011+26.30 (DDIEB)
N= 631026.38
E= 1619398.61

E. FIRST STREET

Sta. 262+90.50
24"x95.0' RF-1
DA=Median R
(Remove)

Sta. 263+13.34
18"x22' CMP
DA=Median
(Remove)

Sta. 266+05.00
DA=1.00 Ac R
24"x102.0' RCP
FL=917.08 Lt.
928.00 Rt.
Other=917.68

Sta. 266+30.00
DA=1.00 Ac R
24"x8' CMP & RF-27
FL=930.69 N.
928.00 S.

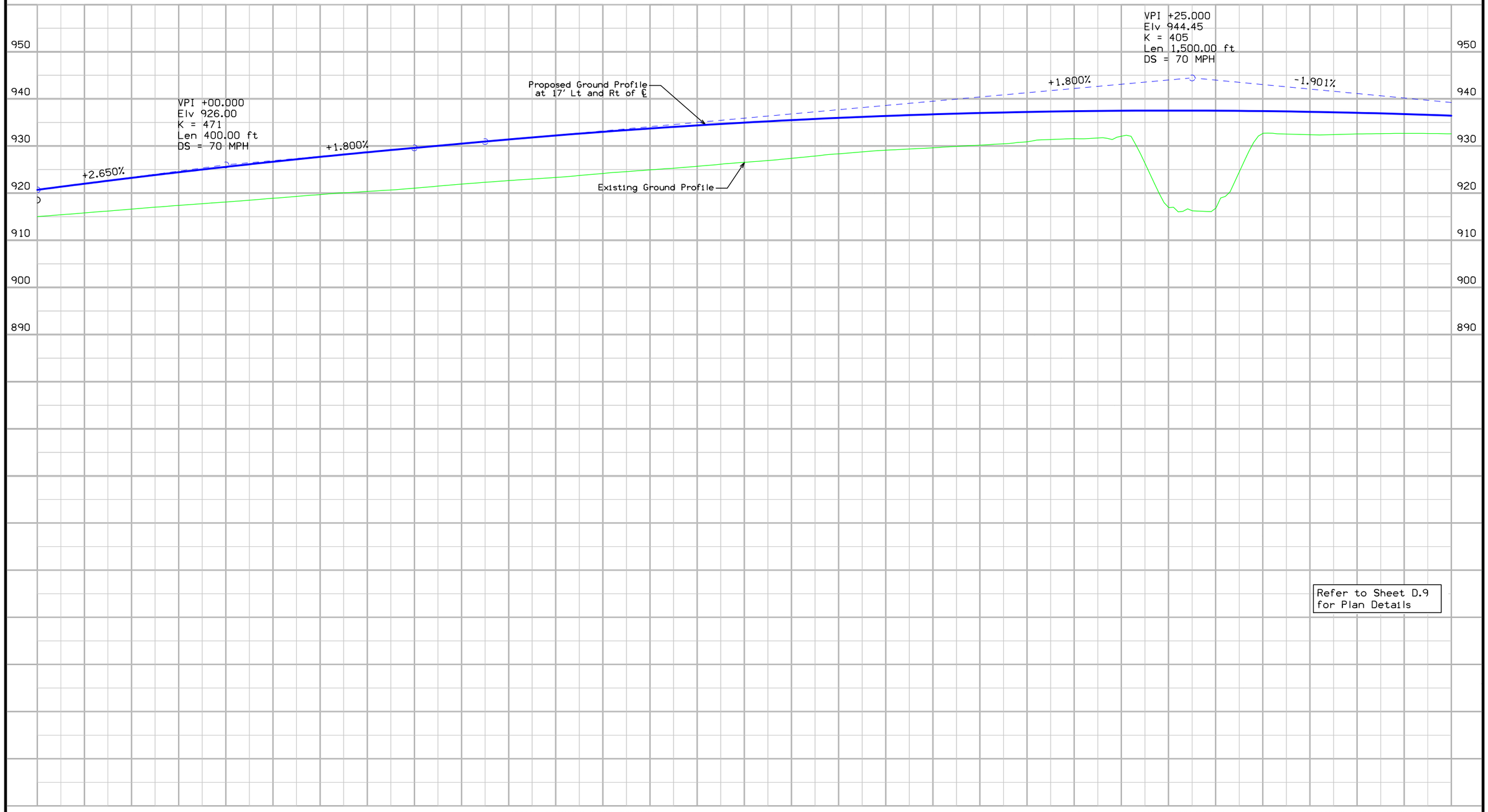
(42) Midwest Radio, Inc.

For Ramp Details
Refer to K Sheets

Refer to Sheet D.10 for
SB and NB Profile Info.

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.9

11:09:45 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D09.SHT



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.10

0 50 FEET

(22) Ashish Motel Inc.

(23) Jala Corporation

(24) Applewood Partners LP

(24) Applewood Partners LP

(25) The Condos at Delaware Park

Existing Pavement (Remove)

RAMP A

RAMP D

SB INTERSTATE 35

NB INTERSTATE 35

15:1 Taper

50:1 Taper

PC Sta 275+45.36

PT Sta 280+45.36

PI Sta 277+95.38

3275 13275 3280 3285 6280 6285 6290 6275 275 280 285 290

Curve Data
Δ = 1° 41' 06.61" (LT)
T = 250.02
L = 500.00
R = 17,000.00
E = 1.84

+50.00 Prop.
Type "M" Dike
Elev=932.88

(41) Richard W. Smith & Ronald E. Smith
Sta. 281+22.00
DA=1.67 Ac R
24"x8' CMP & RF-27
FL=924.77 S.
922.66 N.

Sta. 281+51.99
DA=1.67 Ac R
24"x112' RCP
Skew=2° Lt. Ahd.
FL=922.66 Lt.
916.65 Rt.
Other=922.36
Other=917.05

Sta. 281+52.24
24"x74.5' RF-1
DA=Median
(Remove)

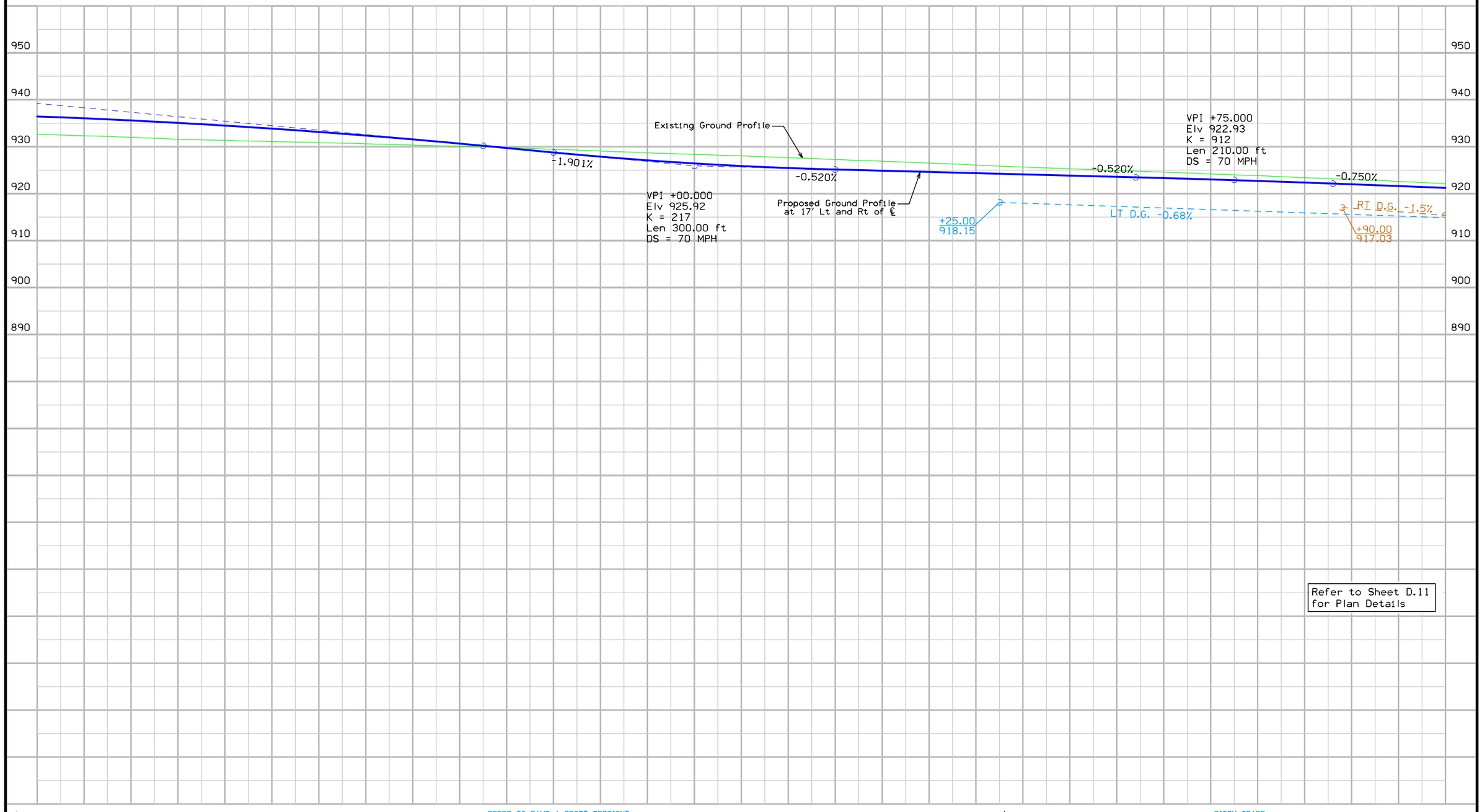
(40) Stephen Drake

(39) Ned & Donna Adams

For Ramp Details Refer to K Sheets

Refer to Sheet D.12 for SB and NB Profile Info.

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.11



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.12

DOUGLAS TWP.
T-80N R-23W
SEC 18

0 FEET 50

Sta. 291+42.00
DA=1.90 Ac R
24"x8' CMP & RF-27
FL=917.43 S.
915.00 N.

Sta. 291+73.19
24"x67.3' RF-1
DA=1.90 Ac R
(Remove)

Sta. 291+91.19
30"x181.6' RF-1
DA=15.44 Ac R
(Plug and Abandon
Remove Flume)

Sta. 291+70.00
DA=1.90 Ac R
24"x102' RCP
FL=913.30 LT
915.00 RT

Sta. 291+80.00
DA=15.44 Ac R
30"x212' RCP
30"x46' CMP
FL=912.88 LT
898.77 RT
Other=908.44
Other=898.93

(25) The Condos at Delaware Park

(26) The Townhouses at Delaware Park

(27) Richard H Meridith & Marth J Meridith Trust
Richard H Meridith Trustee

Sta. 304+93.30
36"x167.9' RF-1
DA=9.03 Ac R
(Plug and Abandon)

Sta. 304+50.59
18"x39.2' CMP
DA=Median
(Remove)

Sta. 304+59.00
DA=2.50 Ac R
24"x8' CMP & RF-27
FL=907.51 S.
903.11 N.

Sta. 304+85.00
DA=9.03 Ac R
36"x206' RCP
FL=904.90 LT
899.15 RT

+85.00 Prop.
Type "M" Dike
Elev.=919.35

+35.00 Prop.
Type "M" Dike
Elev.=917.00

Grading Limits

Sta. 294+45.00, 77.00' LT
Begin 15:1 Taper

Sta. 295+35.00, 77.00' LT
End Shoulder 15:1 Taper

Sta. 296+25.00, 65.00' LT
End 15:1 Taper

290 295 300 305

15:1 Taper

SB INTERSTATE 35

℄ I-35

PI Sta 299+43.91

PI Sta 305+06.67

NB INTERSTATE 35

TS Sta 296+63.84

SC Sta 300+83.84

50:1 Taper

'RT
1

Grading Limits

Sta. 294+75.00, 77.00' RT
End Shoulder 50:1 Taper

Sta. 297+75.00, 65.00' RT
End 50:1 Taper

SCS PI Sta 305+14.32
Δ = 24° 53' 19.19" (RT)
Theta = 4° 08' 56.42"
Ls = 420.00
Ts = 850.48
Es = 72.37
P = 2.53
K = 209.96
Xc = 419.78
Yc = 10.13
LT = 280.08
ST = 140.07
LC = 419.90

Curve Data
Δ = 16° 35' 27.42" (RT)
T = 422.83
L = 839.74
R = 2,900.00
E = 30.66

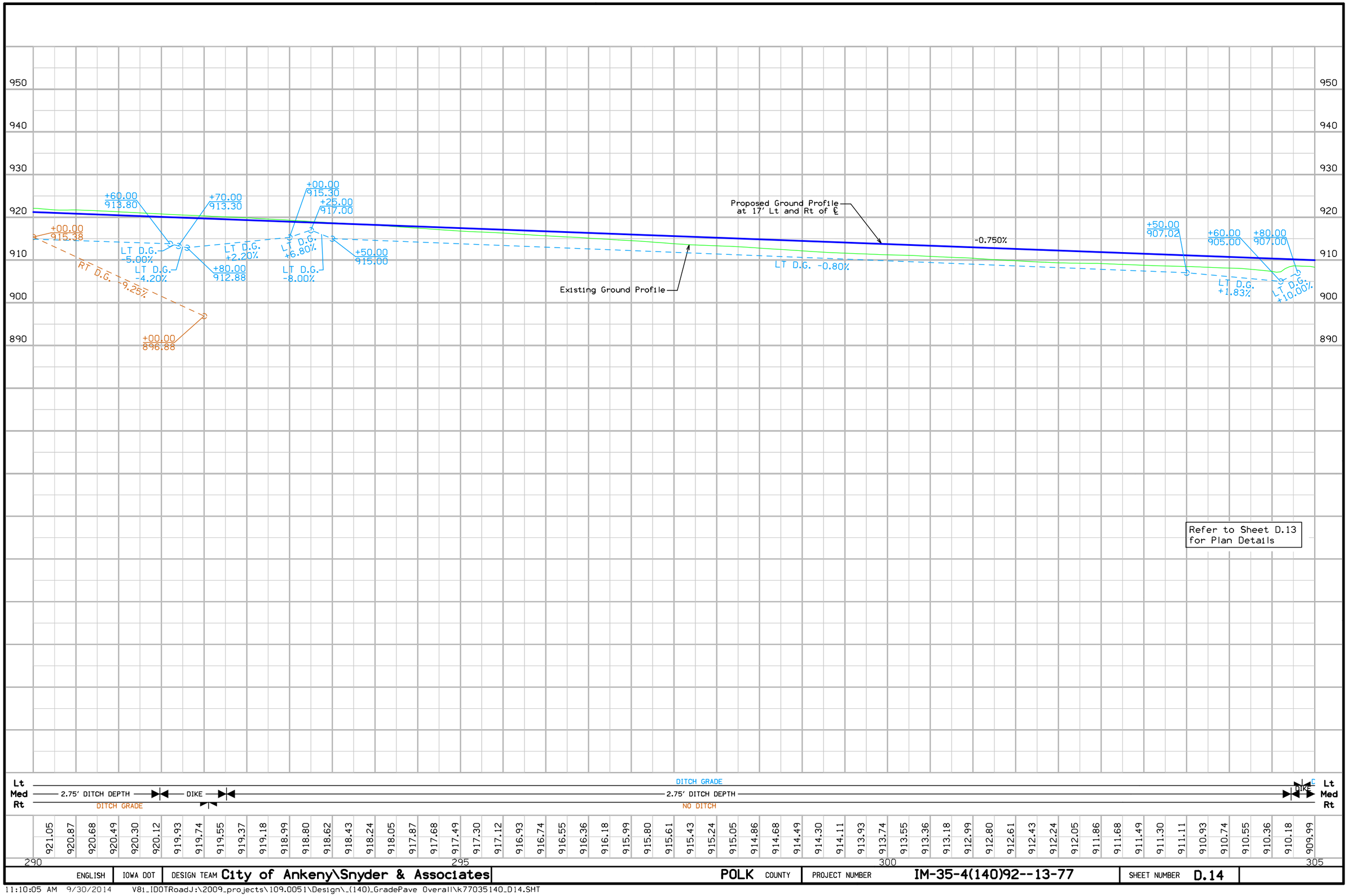
(38) Gene R. Aspengren & Barbara J. Apengren

(37) Bryan L. Butler & Linda A. Butler

(36) Mike Thompson & Roberta Thompson Revocable Trust

(35) Pamela J. Eichenberger

Refer to Sheet D.14 for
SB and NB Profile Info.



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.14

11:10:05 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D14.SHT

Sta. 304+93.30
36"x167.9' RF-1
DA=9.03 Ac R
(Plug and Abandon)

Sta. 304+85.00
DA=9.03 Ac R
36"x206' RCP
FL=904.90 LT
899.15 RT

(27) Richard H Meridith &
Marth J Meridith Trust
Richard H Meridith Trustee

+00.00 Prop.
Type "M" Dike
Elev.=907.68

Sta. 309+80.22
Twin 8' x 10'
DA=1304 Ac R
(Remove)

(28) Deanna J Yount

Sta. 309+80.22
DA=1304 Ac R
Twin 8'x10'x212' RCB
FL=890.20 LT
886.85 RT

Sta. 313+55.00
DA=Med Ac R
24"x8' CMP & Rf-27
FL=901.31 S.
900.28 N.

(29) Windsor Village LLC

Sta. 314+05.00
DA=Med Ac R
24"x8' CMP & Rf-27
FL=900.28 S.
901.31 N.

(29) Windsor Village LLC

0 50
FEET

305

310

315

SB INTERSTATE 35

NB INTERSTATE 35

℄ I-35

+80.00 Prop.
Type "M" Dike
Elev.=903.61

Sta. 313+80.00
DA=2.4 Ac R
24"x98' RCP
FL= 900.28 LT
897.76 RT

Sta. 314+29.37
DA=1.86 Ac R
24"x63.4'
(Remove)

Sta. 314+69.46
24"x64.0' RF-1
DA=0.55 Ac R
(Remove)

(35) Pamela J. Eichenberger

(35) Pamela J. Eichenberger

(34) Shirley D. Parsons

+50.00
907.02

+60.00
905.00

+80.00
907.00

+20.00
907.90

LT D.G. +1.83%

LT D.G. +10.00%

LT D.G. -1.44%

+25.00
903.50

LT D.G. -9.85%

+60.00
890.20

+05.00
895.94

RT D.G. -14.00%

+70.00
886.84

+00.00
890.16

LT D.G. +4.20%

RT D.G. +4.56%

+90.00
886.84

+25.00
893.00

+00.00
898.55

+0.750%

+25.00
897.04

RT D.G. +0.40%

+70.00
898.02

+0.500%

LT D.G. +0.16%

+00.00
899.18

+0.500%

LT D.G. +0.64%

RT D.G. +0.45%

Proposed Ground Profile
at 17' Lt and Rt of ℄
Existing Ground Profile

VPI +50.000
Elv 903.61
K = 240
Len 300.00 ft
DS = 70 MPH

VPI +00.000
Elv 905.86
K = 407
Len 410.00 ft
DS = 70 MPH

930 920 910 900 890 880 870 860

Lt
Med
Rt

DITCH GRADE
DIKE
DIKE
NO DITCH
DITCH GRADE
INLET
RCB
2.75' DITCH DEPTH
DITCH GRADE
DITCH GRADE
DIKE
DITCH GRADE
2.75' DITCH DEPTH

911.30 911.11 910.93 910.74 910.55 910.36 910.18 909.99 909.80 909.61 909.42 909.24 909.05 908.86 908.67 908.49 908.30 908.11 907.92 907.74 907.55 907.36 907.17 906.99 906.80 906.61 906.42 906.24 906.05 905.86 905.67 905.49 905.30 905.11 904.92 904.74 904.56 904.41 904.29 904.19 904.12 904.08 904.06 904.07 904.10 904.16 904.25 904.36 904.49 904.61 904.74 904.86 904.97 905.07 905.16 905.22 905.28 905.32 905.34

305 310 315

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.15

11:10:10 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D15.SHT

DOUGLAS TWP.
T-80N R-23W
SEC 18

0 FEET 50

29 Windsor Village LLC

30 DRA Properties LC

30 DRA Properties LC

30 DRA Properties LC

Grading Limits

Sta. 323+00.00
DA=Med Ac R
24"x8' CMP & Rf-27
FL=901.26 S.
900.00 N.

+30.00 Prop.
Type "M" Dike
Elev.=903.60

Sta. 323+56.00
DA=Med Ac R
24"x8' CMP & Rf-27
FL=901.26 S.
900.00 N.

Sta. 331+25.00
DA=2.21 Ac R
24"x119' RCP
FL=895.23 LT
903.00 RT
Other=895.39

Sta. 331+50.00
DA=2.21 Ac R
24"x8' CMP & Rf-27
FL=903.00 S.
904.98 N.

Sta. 331+32.47
24"x85.2' RF-1
DA=1.97 Ac R
(Remove)

320 325 330

SB INTERSTATE 35

℄ I-35

NB INTERSTATE 35

Sta. 329+77.17
Dual 159'-2"x30' Prestressed
Prestressed Concrete Beam Bridge
Skew=15°.00'
(Remove)
Install Dual 176'-5¼"x75'-4"
Prestressed Prestressed
Concrete Beam Bridge

+25.00 Prop.
Type "M" Dike
Elev.=907.29

34 y D. Parsons

34 Shirley D. Parsons

Sta. 323+258.56
DA=2.15 Ac R
24"x96' RCP
FL=900.00 S.
899.05 N.

33 Scott G. Campbell & Suzanne Campbell

32 M. June Campbell Revocable Trust

Grading Limits

VPI +50.000
Elv 903.07
K = 639
Len 690.00 ft
DS = 70 MPH

-0.507%

+0.507%

+0.574%

+0.574%

Proposed Ground Profile
at 17' Lt and Rt of ℄

Existing Ground Profile

LT D.G. +0.64%

+00.00
901.75

LT D.G. -0.20%

+25.00
900.50

RT D.G. -0.50%

+50.00
901.05

LT D.G.
-5.63%

+22.00
897.00

RT D.G.
-6.00%

+50.00
898.38

+00.00
895.38

+00.00
894.60

LT D.G.
+2.8%

+50.00
896.00

LT D.G.
+8.0%

+00.00
900.00

LT D.G. +5.0%

+00.00
905.00

Lt	DITCH GRADE				DITCH GRADE		BRIDGE	DITCH	DITCH GRADE	Lt
Med	2.75' DITCH DEPTH		DIKE		2.75' DITCH DEPTH		BRIDGE	DIKE	2.75' DITCH DEPTH	Med
Rt	DITCH GRADE				NO DITCH		BRIDGE		NO DITCH	Rt

905.34 905.31 905.27 905.22 905.15 905.06 904.96 904.85 904.72 904.61 904.51 904.41 904.33 904.25 904.19 904.13 904.09 904.05 904.02 904.01 904.00 904.01 904.02 904.04 904.07 904.12 904.17 904.23 904.30 904.39 904.48 904.58 904.69 904.81 904.94 905.08 905.23 905.37 905.51 905.66 905.80 905.94 906.09 906.23 906.37 906.52 906.66 906.80 906.95 907.09 907.23 907.38 907.54 907.73 907.95 908.20 908.49 908.81 909.16 909.54

320 325 330

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER D.16

11:10:13 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D16.SHT

331+32.47
85.2' RF-1
.97 Ac R
ove)

30
DRA Properties LC

DOUGLAS TWP.
T-80N R-23W
SEC 07

30
DRA Properties LC

0 50
FEET

Grading Limits

335

SIGN

SB INTERSTATE 35

℄ I-35

NB INTERSTATE 35

POT 1 640+00.00

EQUATION:
Sta 340+01.16 BK =
Sta 640+00.00 AH

Sta. 643+90.00 R 2, 27.00' LT
End 70:1 Taper

Sta. 642+50.00 R 2, 29.00' LT
Begin 70:1 Taper

645

70:1 Taper

+00.00 Prop.
Type "F" Dike
Elev.=912.54

Sta. 335+09.41
24"x67.9' CMP
DA=7.84 Ac R
(Remove)

Sta. 335+10.00
DA=7.84 Ac R
24"x88' CMP
FL=910.00 LT
893.43 RT
Other=893.59

32
M. June Campbell
Revocable Trust

Grading Limits

31
James Farms Inc.

Sta. 643+63.64
24"x66.9' RF-1
DA=1.9 Ac R
Remove & Extend
24"x8' RCP
FL=926.60 LT
926.46 RT

Sta. 643+87.73
DA=1.9 Ac R
24"x8' CMP & Rf-27
FL=926.60 S.
926.69 N.

+63 Prop.
Type "M" Dike
Elev.=931.80

VPI +25.000
Elv 908.67
K = 198
Len 450.00 ft
DS = 70 MPH

VPI +00.000
Elv 933.65
K = 415
Len 1,100.00 ft
DS = 70 MPH

+2.851%
LT D.G. +2.4%
+10.00
910.00
RT D.G. +2.53%
LT D.G. +2.80%
+50.00
911.00
+50.00
916.08
+50.00
919.40
+50.00
921.65
+2.851%
RT D.G. +1.97%
LT D.G. +2.25%
LT D.G. +1.52%
+00.00 R 2
923.00
RT D.G. +1.09%
+00.00 R 2
927.00
+0.200%
+63.50 R 2
925.88
LT D.G. +0.61%
RT D.G. +0.82%
+50.00 R 2
929.75

940
930
920
910
900
890
880

Lt
Med
Rt
NO DITCH
2.75' DITCH DEPTH
DITCH GRADE
DIKE
2.75' DITCH DEPTH
DITCH GRADE

909.95 910.39 910.87 911.38 911.91 912.49 913.09 913.72 914.39 915.08 915.80 916.51 917.22 917.93 918.64 919.33 920.01 920.67 921.31 921.94 922.56 923.16 923.75 924.32 924.87 925.41 925.94 926.45 926.97 927.44 927.91 928.36 928.79 929.21 929.62 930.00 930.38 930.74 931.08 931.41 931.72 932.02 932.31 932.57 932.83 933.07 933.29 933.50 933.69 933.87 934.03 934.18 934.31 934.43 934.53 934.62 934.69 934.75 934.80 934.85

335 340 645

ENGLISH | IOWA DOT | DESIGN TEAM City of Ankeny\Snyder & Associates | POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER D.17

11:10:17 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D17.SHT

0 50 FEET

650 655 660

Sta. 653+70.10 R 2, 27.00' LT
End Construction Southbound Lanes

PI Sta 653+70.08

Grading Limits

Sta. 656+74.62 R 2, 68.96' LT
End Shoulder Construction

30
DRA Properties LC

Sta. 662+54.34
36"x258.2' RF-1
DA=24.1 Ac R
(UAC)

70:1 Taper

Sta. 652+30.10 R 2, 29.00' RT
Begin 70:1 Taper

Sta. 653+70.10 R 2, 27.00' RT
End 70:1 Taper
End Construction Northbound Lanes

Sta. 654+00.00
48"x217.7' RF-1
DA=15.1 Ac R
Remove & Extend
48"x6' RCP
FL=927.10 LT
926.88 RT

Sta. 654+27.50
24"x106.4' RF-1
DA=2.2 Ac R
(UAC)

Sta. 660+17.79 R 2, 63.00' RT
Begin Shoulder Taper

Sta. 661+05.20 R 2, 69.03' RT
End Shoulder Construction

31
James Farms Inc.

Grading Limits

Proposed Ground Profile
at 17' Lt and Rt of ℄

Sta. 653+70.10 R 2
End Reconstruction of I-35
Elev=935.99

935.99

Existing Ground Profile

940 930 920 910 900 890 880

+00.00 R 2
931.10

RT D.G. -0.59%

+00.00 R 2
928.75

+00.00 R 2
926.77

LT D.G. +1.77%

+74.62 R 2
931.62

RT D.G. +1.04%

+05.20 R 2
936.09

Lt	5' DITCH DEPTH	U.A.C.	DITCH GRADE	U.A.C.	Lt
Med	2.75' DITCH DEPTH	U.A.C.	Med
Rt	DITCH GRADE	U.A.C.	Rt

934.90 934.95 935.00 935.05 935.10 935.15 935.20 935.25 935.30 935.35 935.40 935.45 935.50 935.55 935.60 935.65 935.70 935.75 935.80 935.85 935.90 935.95

650 655 660

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	D.18

11:10:20 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_D18.SHT

DOUGLAS TWP.
T-80N R-23W
SEC. 18

DOUGLAS TWP.
T-80N R-23W
SEC. 19

NE DELAWARE AVE.
SE DELAWARE AVE.
SE CREEKVIEW DRIVE
E FIRST STREET
RAMP A
RAMP B
RAMP C
RAMP D
INTERSTATE 35 SB
INTERSTATE 35 NB

Begin E First St
Sta. 992+00.00

Sta. 1000+00.00 (E First)
Sta. 27+40.19 (Delaware)

Begin DDI WB
Sta. 11004+00.00

Begin DDI EB
Sta. 21004+00.00

West Cross Over
Sta. 11008+01.56 (DDI WB)
Sta. 21007+92.63 (DDI EB)

End DDI WB
Sta. 11019+69.09

End DDI EB
Sta. 21019+68.58

East Cross Over
Sta. 11015+12.19 (DDI WB)
Sta. 21015+04.83 (DDI EB)

Sta. 31020+06.35 R 2 (E First St)
Sta. 109+74.73 (Creekview)

Begin Creekview
Sta. 99+91.93

POT Sta 992+00.00
PI Sta 28+24.62
PI Sta 26+36.75
PI Sta 1000+00.00
POT Sta 11004+00.00
PC Sta 11004+23.41
PRC Sta 11005+53.31
PRC Sta 11005+99.87
PRC Sta 11006+44.95
PT Sta 11006+97.64
PI Sta 11007+48.21
PI Sta 11007+81.98
PRC Sta 11008+19.21
PC Sta 11008+41.18
PI Sta 11008+99.74
PRC Sta 21008+63.73
PI Sta 21009+84.27
PT Sta 21010+04.68
PC Sta 21012+48.68
PI Sta 21012+73.98
PRC Sta 21012+99.04
PI Sta 21013+72.87
PT Sta 21014+41.83
PC Sta 11015+82.32
PRC Sta 11016+20.53
PT Sta 11016+57.83
POT Sta 109+74.73
PI Sta 31019+49.45
PC Sta 31019+91.53
PI Sta 31020+36.10
PRC Sta 31020+80.58
PI Sta 31021+25.20
PT Sta 31021+69.74
PT Sta 107+50.93
PI Sta 106+39.58
PRC Sta 105+19.40
PI Sta 104+08.31
PC Sta 102+88.47
POT Sta 99+91.93
PI Sta 11006+19.19
PI Sta 21006+79.32
PT Sta 21006+98.28
PI Sta 1008+30.00
PC Sta 11008+49.70
PI Sta 11009+03.52
PRC Sta 11009+91.48
PI Sta 11010+18.98
PT Sta 11010+42.04
PC Sta 11012+86.98
PI Sta 11013+12.63
PRC Sta 11013+37.44
PI Sta 11014+11.37
PT Sta 11014+79.62
PI Sta 11014+92.61
PC Sta 21015+40.98
PI Sta 21016+47.74
PRC Sta 21017+38.28
PI Sta 21017+85.93
PT Sta 21018+32.01

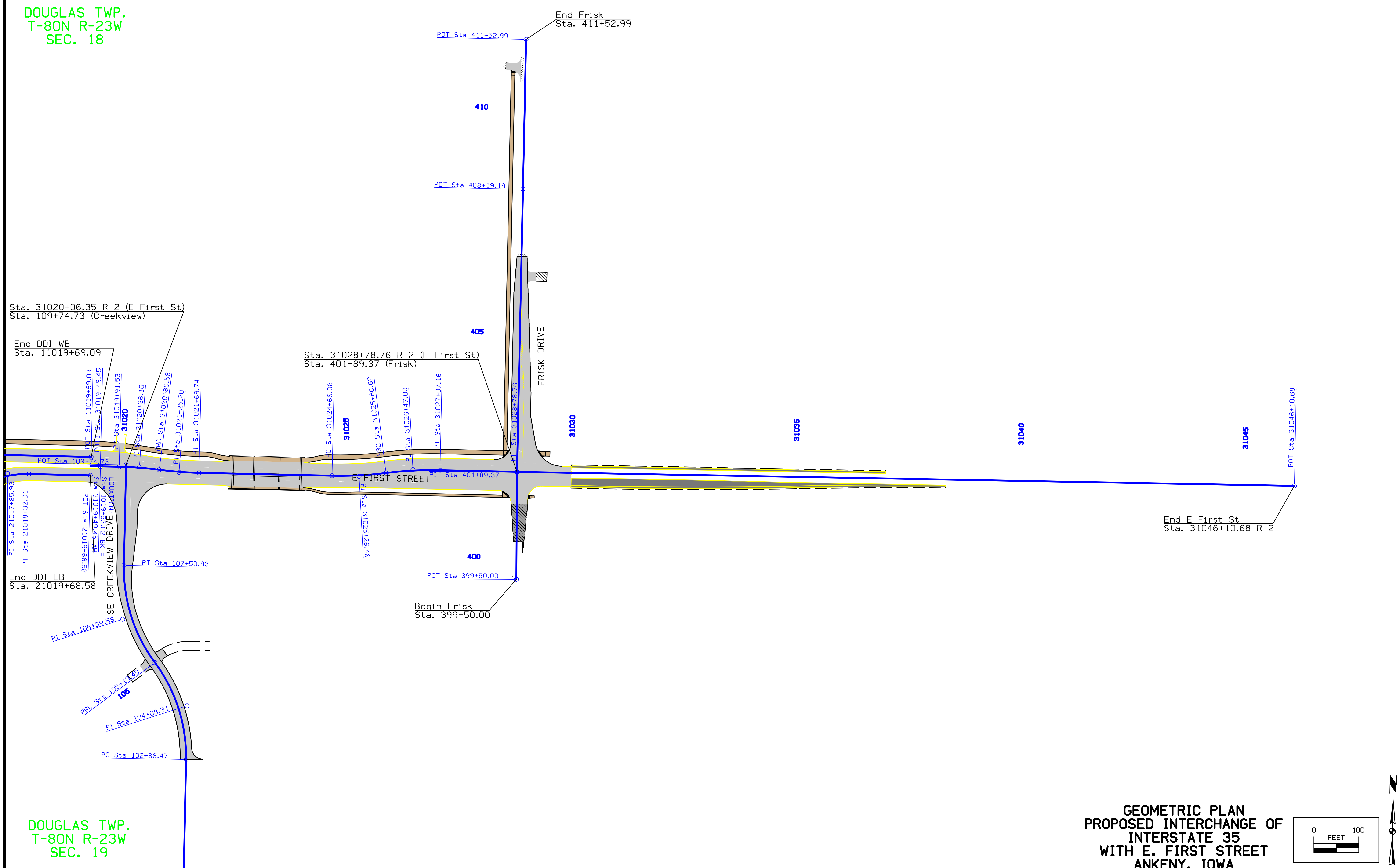
Refer to Sheets K.1-K.2 For Ramp Information

GEOMETRIC PLAN
PROPOSED INTERCHANGE OF INTERSTATE 35 WITH E. FIRST STREET ANKENY, IOWA

0 100 FEET

ENGLISH	IOWA DOT	DESIGN TEAM	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.1

11:10:49 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_E01.SHT


DOUGLAS TWP.
T-80N R-23W
SEC. 18
End Frisk
Sta. 411+52.99
POT Sta 411+52.99
410
POT Sta 408+19.19
405
FRISK DRIVE
Sta. 31020+06.35 R 2 (E First St)
Sta. 109+74.73 (Creekview)
End DDI WB
Sta. 11019+69.09
Sta. 31028+78.76 R 2 (E First St)
Sta. 401+89.37 (Frisk)
31020
31025
31030
31035
31040
31045
POT Sta 31046+10.68
POT Sta 109+74.73
E FIRST STREET
PI Sta 401+89.37
PI Sta 31025+26.46
End E First St
Sta. 31046+10.68 R 2
End DDI EB
Sta. 21019+68.58
SE CREEKVIEW DRIVE
PT Sta 107+50.93
400
POT Sta 399+50.00
Begin Frisk
Sta. 399+50.00
PI Sta 106+39.58
PRC Sta 105+19.40
105
PI Sta 104+08.31
PC Sta 102+88.47
DOUGLAS TWP.
T-80N R-23W
SEC. 19
0
100
FEET
N

GEOMETRIC PLAN
PROPOSED INTERCHANGE OF
INTERSTATE 35
WITH E. FIRST STREET
ANKENY, IOWA

ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER E.2

0 FEET 20

ACCESS LOCATIONS
996+67.55 LT
996+69.55 RT
998+08.00 LT

53 Cruz Associates, LLC

54 MJ & Son's, Inc

55 Vernon Associates Inc

68 Ale Investments Inc

67 Papa's Properties, Inc Arby's Inc, Lessee

66 Pigskin Farms LLC

Protect

Protect Sign

Protect Shrubs

Protect Street Sign

Relocate Pedestal (By Others)

Remove Sidewalk

Sidewalk U.A.C.

Sta. 996+29.14, 29.83'LT
Begin Pavement Widening Lt
Begin 30:1 Taper

Sta. 997+76.93, 34.75'LT
End 30:1 Taper

Protect Sidewalk

30:1 Taper

8' Sidewalk

Remove Trees

Remove Tree

Remove Intake

Adjust Valve

Adjust Rim

E. FIRST STREET

Sta. 994+56.00, 35.16'RT
Begin Pavement Widening Rt
Begin E First St. Reconstruction
Begin 10:1 Taper

Sta. 994+91.87, 32.66'RT
Begin 10:1 Taper

Sta. 995+90.31, 42.50'RT
End 10:1 Taper

10:1 Taper

Sta. 995+74.46, 47.00'RT
End 10:1 Taper
Begin 30:1 Taper

Remove Sidewalk
5' Sidewalk

Relocate Street Light (By Others)

Relocate Mast Arm and Footing

Sta. 997+84.40, 54.00'RT
End 30:1 Taper

+67.55 Prop. Type "B" Ent.

+69.55 Prop. Type "B" Ent.

+08.00 Prop. Type "B" Ent.

CROCKER TWP.
T-80N R-24W
SEC 24

For Intersection Jointing and Geometrics Refer to L-Sheets	For Right of Way Information Refer to H-Sheets	For Storm Sewer Information Refer to M-Sheets	For Traffic Control Information Refer to J-Sheets

PROPOSED TYPE 'B' ENT. RT.
STA. 996+69.55
Comm. Ent.
-3.0% 4.5% 1.5% 6.0%

PROPOSED TYPE 'B' ENT. LT.
926.09
925.37
-1.5% -6.0% 3.0%
Comm. Ent.
STA. 996+67.55

PROPOSED TYPE 'B' ENT. LT.
-9.0% 1.5% -6.0% 3.0%
Comm. Ent.
STA. 998+08.00

EXISTING GROUND PROFILE

930 925 920 915 910

993 994 995 996 997 998 999

E FIRST STREET

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.3

11:10:57 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_E03.SHT

DOUGLAS TWP.
T-80N R-23W
SEC 18

NE DELAWARE AVENUE

Sta. 28+09.16, 13.50'RT
Sta. 27+98.98, 13.50'RT
Sta. 28+09.16, 22.50'RT
Sta. 27+98.98, 22.50'RT

Remove Sidewalk
Protect Sign
Relocate Traffic Signal
Protect Signal
Protect
Relocate Sign
Relocate Pedestal (By Others)
Construct Retaining Wall From Sta. 1001+00.00 to Sta. 1003+75.00
Relocate Sign
Adjust Hydrant and Valve
Remove Existing Retaining Wall
8' Recreation Trail
Adjust Rim
Remove Shrubs
Remove Sign
Remove Sign
Sta. 1003+52.12, 48.00'LT
Begin 10:1 Taper
Sta. 1003+52.12, 48.00'LT
End 10:1 Taper
Relocate Pedestal (By Others)
Protect Hydrant and Valves
Remove Sign
Remove Sign
10' Recreation Trail
10:1 Taper
Sta. 1004+27.40, 40.50'LT
End 10:1 Taper
POT Sta 11004+00.00
DDIWB Curve-1
Relocate Street Light (By Others)
Relocate Electric Box (By Others)
PI Sta 11004+89.40
Sta. 1003+92.12, 13.00'RT
Begin 10:1 Taper
POT Sta 21004+00.00
Relocate Sign and Foundation
Sta. 21004+63.49, 24.50'RT
Begin 10:1 Taper

Curve Data DDIWB Curve-1
Δ = 24° 48' 30.22" (LT)
T = 65.98
L = 129.90
R = 300.00
E = 7.17

Sta. 999+70.53, 28.00'LT
End Pavement Widening Lt
PI Sta 999+89.99

Sta. 1000+41.27
Begin E First St Construction
Sta. 1000+54.55, 0.00' Rt
Begin E First St Profile

Sta. 999+69.59, 42.50'RT
End Pavement Widening Rt

Remove Sidewalk
Sta. 26+83.33, 10.50'LT
Remove and Replace Sidewalk Ramp
Sta. 26+83.33, 1.50'LT
Protect Signal
Protect Hydrant and Valve
Protect Power Pole
Sta. 26+56.92, 1.50'LT
Sta. 26+56.92, 10.50'LT
Protect
Adjust (By Others)
Protect
Protect
Remove Sign
Remove Sign
Protect
Protect Sign
Protect Shrubs
Relocate Street Light (By Others)
Adjust (By Others)

SE DELAWARE AVENUE

Sidewalk
Remove Retaining Wall
Relocate Traffic Signal

(56) The Godwin Group LLC
(57) JMR Properties LC
(22) Ashish Motel Inc.
(66) Farms LLC
(65) Rob's I-35 Auto Center, Inc.
(21) Menadue Development, LC

DOUGLAS TWP.
T-80N R-23W
SEC 19

E FIRST STREET

ACCESS LOCATIONS
1000+00.00 LT//RT

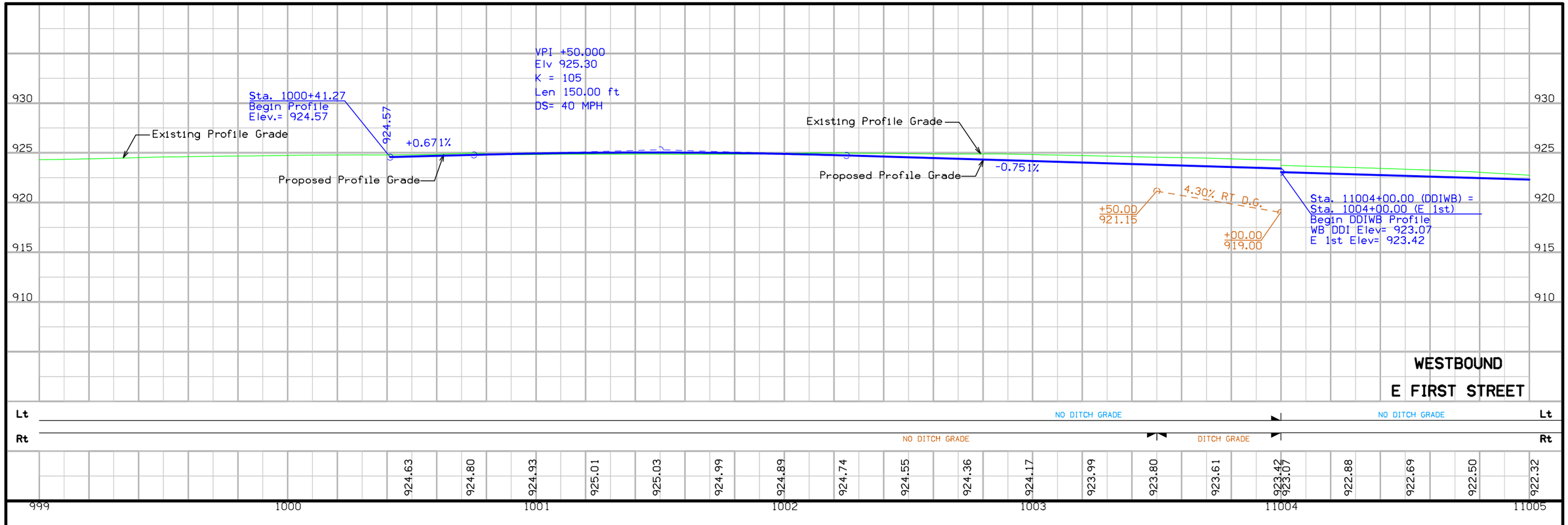
For Intersection Jointing and Geometrics Refer to L-Sheets	For Right of Way Information Refer to H-Sheets	For Storm Sewer Information Refer to M-Sheets	For Traffic Control Information Refer to J-Sheets

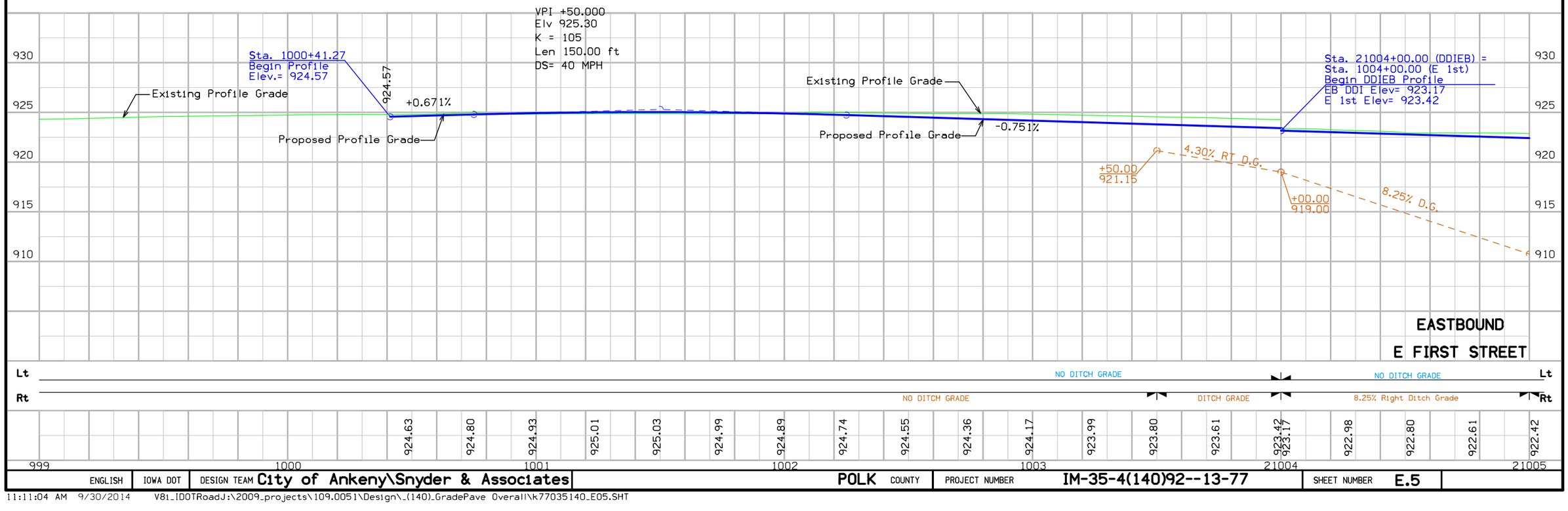
0 FEET 20

E FIRST STREET

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.4

11:11:01 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_E04.SHT





ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.5

11:11:04 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_E05.SHT

Curve Data DDIWB Curve-2
Δ = 25° 00′ 08.53″ (RT)
T = 46.56
L = 91.64
R = 210.00
E = 5.10

Curve Data Curve A2-1
Δ = 59° 07′ 44.82″ (LT)
T = 141.82
L = 258.00
R = 250.00
E = 37.42

Curve Data Curve A3-1
Δ = 95° 32′ 03.96″ (RT)
T = 165.24
L = 250.11
R = 150.00
E = 73.17

ACCESS LOCATIONS
3272+57.66 Ramp A
5272+83.00 Ramp C

Curve Data DDIEB Curve-2
Δ = 36° 10′ 18.60″ (RT)
T = 68.58
L = 132.58
R = 210.00
E = 10.91

Curve Data DDIEB Curve-3
Δ = 11° 10′ 18.60″ (LT)
T = 20.54
L = 40.95
R = 210.00
E = 1.00

Curve Data DDIWB Curve-3
Δ = 28° 10′ 20.96″ (RT)
T = 52.69
L = 103.26
R = 210.00
E = 6.51

DOUGLAS TWP.
T-80N R-23W
SEC 18

DOUGLAS TWP.
T-80N R-23W
SEC 19

10′ Recreation Trail

DDIWB Curve-2

DDIWB Curve-3

DDIEB Curve-1

DDIEB Curve-2

DDIEB Curve-3

DDIWB Curve-4

DDIWB Curve-5

CURVE A2-1

CURVE A3-1

CURVE C3-1

CURVE C2-1

Remove Sign

Sta. 11005+87.12, 17.00′RT

Sta. 21006+06.51, 12.50′LT

Sta. 21007+11.66, 17.00′RT

Sta. 21009+58.29, 17.00′RT

Sta. 11009+87.40, 17.00′LT

Sta. 21010+00.06, 14.96′ LT
Begin 10:1 Taper

Sta. 21010+58.77, 20.85′ LT
End 10:1 Taper

E FIRST STREET

Remove Concrete Barrier

Remove Guard Rail

Remove

Adjust Utility Access
(By Others)

Relocate Street Light
(By Others)

Relocate Utility Box
(By Others)

Relocate Power Pole
(By Others)

Sta. 21005+23.51, 30.50′RT
End 10:1 Taper

Adjust Power Pole
(By Others)

Sta. 11010+69.78, 34.99′ RT
Begin 10:1 Taper

Curve Data DDIWB Curve-4
Δ = 38° 44′ 21.95″ (LT)
T = 73.83
L = 141.99
R = 210.00
E = 12.60

Curve Data DDIEB Curve-1
Δ = 21° 38′ 00.74″ (LT)
T = 40.12
L = 79.29
R = 210.00
E = 3.80

Curve Data Curve C3-1
Δ = 76° 44′ 14.87″ (LT)
T = 277.10
L = 468.76
R = 350.00
E = 96.41

Curve Data Curve C2-1
Δ = 106° 37′ 44.39″ (RT)
T = 201.35
L = 279.15
R = 150.00
E = 101.08

Curve Data DDIWB Curve-5
Δ = 13° 44′ 21.95″ (RT)
T = 25.30
L = 50.36
R = 210.00
E = 1.52

INTERSTATE 35 SB

0 FEET 20

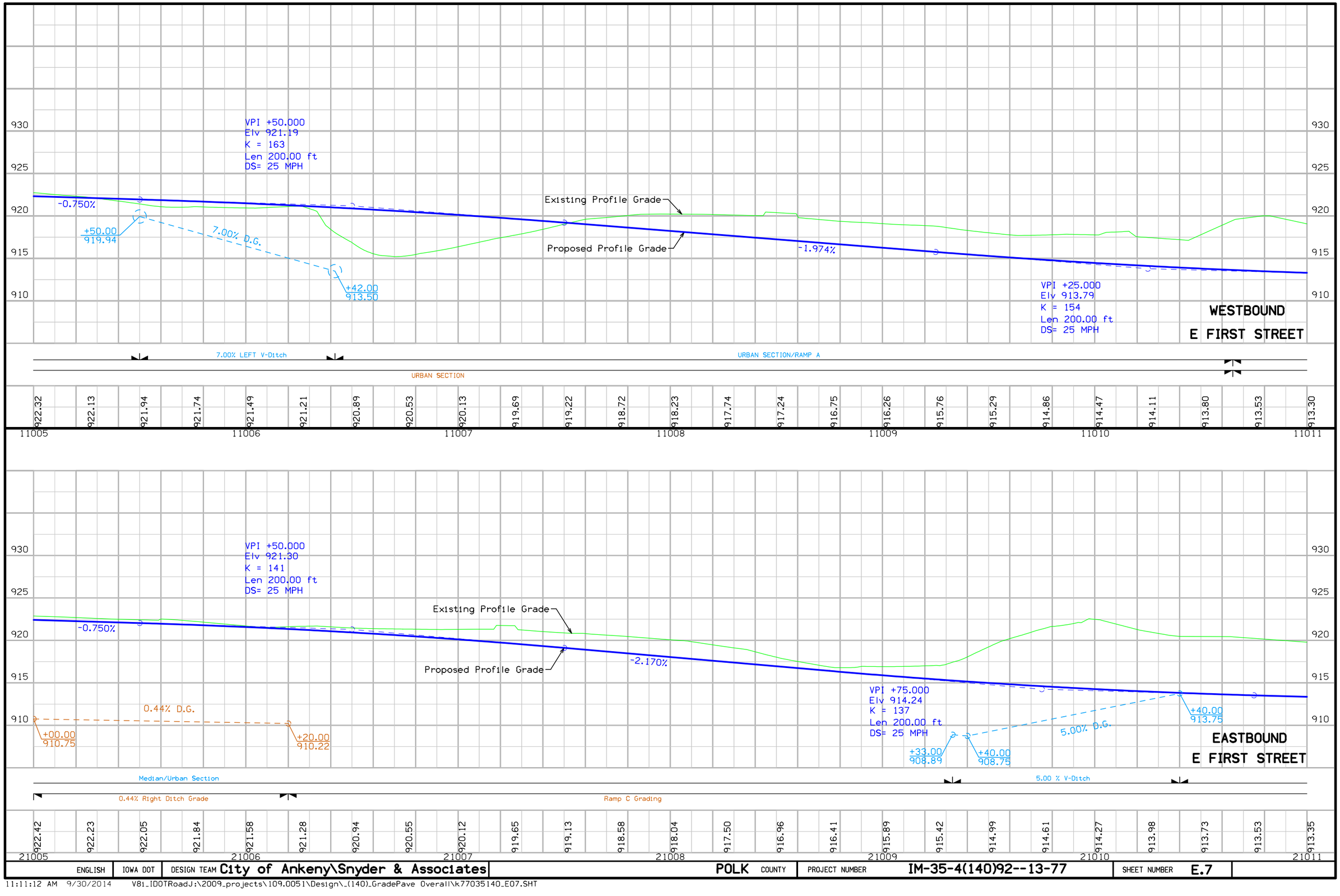
For I-35 Information
Refer to D-Sheets

For Intersection Jointing and Geometrics Refer to L-Sheets | For Right of Way Information Refer to H-Sheets | For Storm Sewer Information Refer to M-Sheets | For Traffic Control Information Refer to J-Sheets | For Ramp Information Refer to Sheets K.04 and K.07-08. | For Bridge and Culvert Information Refer to V-Sheets

E FIRST STREET

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.6

11:11:09 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_E06.SHT



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.7

11:11:12 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_E07.SHT

ACCESS LOCATIONS
4272+02.86 Ramp B
6271+46.43 Ramp D

DOUGLAS TWP.
T-80N R-23W
SEC 18

Curve Data Curve D2-1
Δ = 108° 41′ 54.99″ (LT)
T = 209.13
L = 284.57
R = 150.00
E = 107.36

Curve Data Curve D3-1
Δ = 74° 40′ 04.27″ (RT)
T = 228.82
L = 390.96
R = 300.00
E = 77.30

Curve Data DDIEB Curve-4
Δ = 13° 44′ 21.95″ (LT)
T = 25.30
L = 50.36
R = 210.00
E = 1.52

Curve Data DDIEB Curve-5
Δ = 38° 44′ 21.95″ (RT)
T = 73.83
L = 141.99
R = 210.00
E = 12.60

Curve Data DDIWB Curve-8
Δ = 21° 38′ 00.74″ (RT)
T = 38.21
L = 75.52
R = 200.00
E = 3.62

Sta. 21012+31.02, 31.00, LT
End 10:1 Taper

Sta. 21011+90.99, 27.00, LT
Begin 10:1 Taper

Remove Traffic
Signal (By Others)

10:1 Taper

E FIRST STREET

Sta. 21010+58.77, 20.85′ LT
End 10:1 Taper

Remove Signs
and Guard Rail

Remove Sign

Remove Street Light
(By Others)

Remove
Sign

10′ Recreation Trail

DDIEB Curve-4

DDIEB Curve-5

Sta. 21013+03.33, 17.00′RT

Sta. 11012+67.91, 23.00′RT

Sta. 11012+49.47, 23.00, RT
End 10:1 Taper

Sta. 11013+41.79, 17.01′LT

INTERSTATE 35 SB

INTERSTATE 35 NB

Sta. 11011+49.68, 27.00′ RT
End 10:1 Taper

10:1 Taper

Relocate
Sign
DDIWB Curve-7

DDIWB Curve-6
Adjust Utility
Access
(By Others)

Relocate
Sign

Relocate
Sign

Adjust
Utility
Access

Relocate
Sign

Relocate
Sign

DDIEB Curve-6

Remove
Street Pole
(By Others)

Relocate Pole
(By Others)

Remove Utility Access
(By Others)

Relocate
Sign

Adjust Pole
(By Others)

Adjust Power
Pole (By Others)

Curve Data DDIWB Curve-6
Δ = 13° 46′ 05.65″ (RT)
T = 25.35
L = 50.46
R = 210.00
E = 1.52

Curve Data DDIWB Curve-7
Δ = 38° 46′ 02.24″ (LT)
T = 73.93
L = 142.17
R = 210.12
E = 12.63

Relocate Traffic
Control Box
(By Others)

Curve Data Curve B2-1
Δ = 60° 24′ 42.70″ (RT)
T = 145.54
L = 263.60
R = 250.00
E = 39.28

Sta. 11012+09.47, 27.00, RT
Begin 10:1 Taper

Curve Data Curve B3-1
Δ = 90° 31′ 26.39″ (LT)
T = 186.70
L = 292.29
R = 185.00
E = 77.83

DOUGLAS TWP.
T-80N R-23W
SEC 19

Curve Data DDIEB Curve-6
Δ = 53° 56′ 21.18″ (LT)
T = 106.86
L = 197.70
R = 210.00
E = 25.62

0 20
FEET

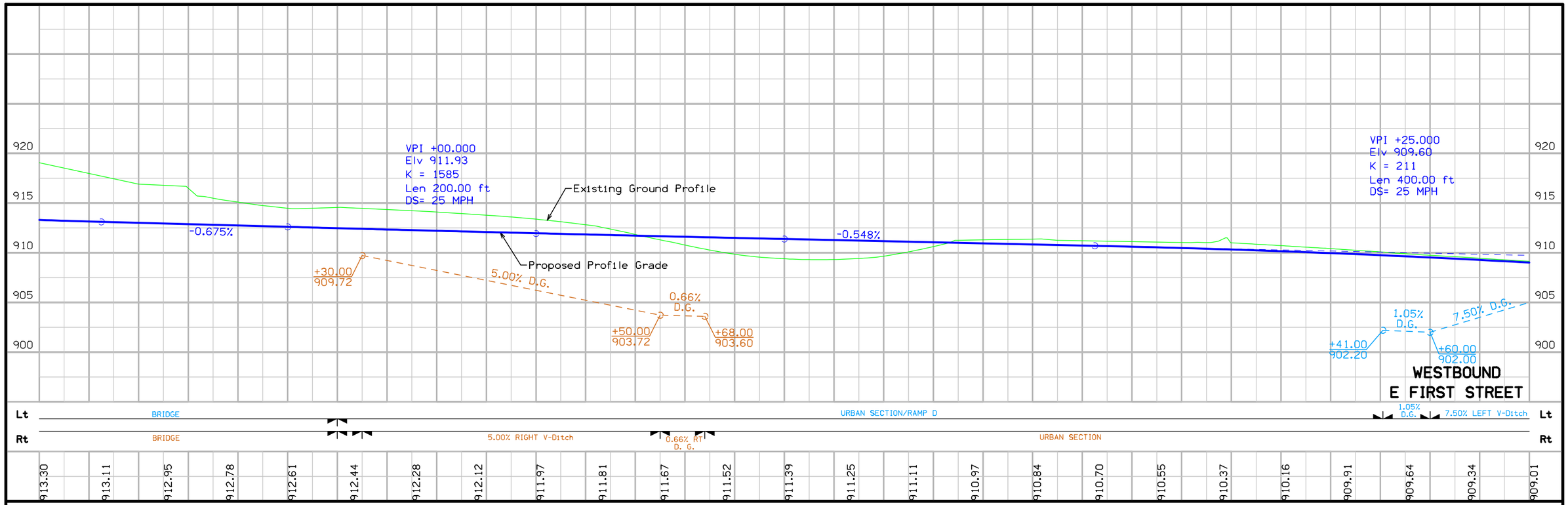
For Intersection Jointing
and Geometrics Refer to L-Sheets

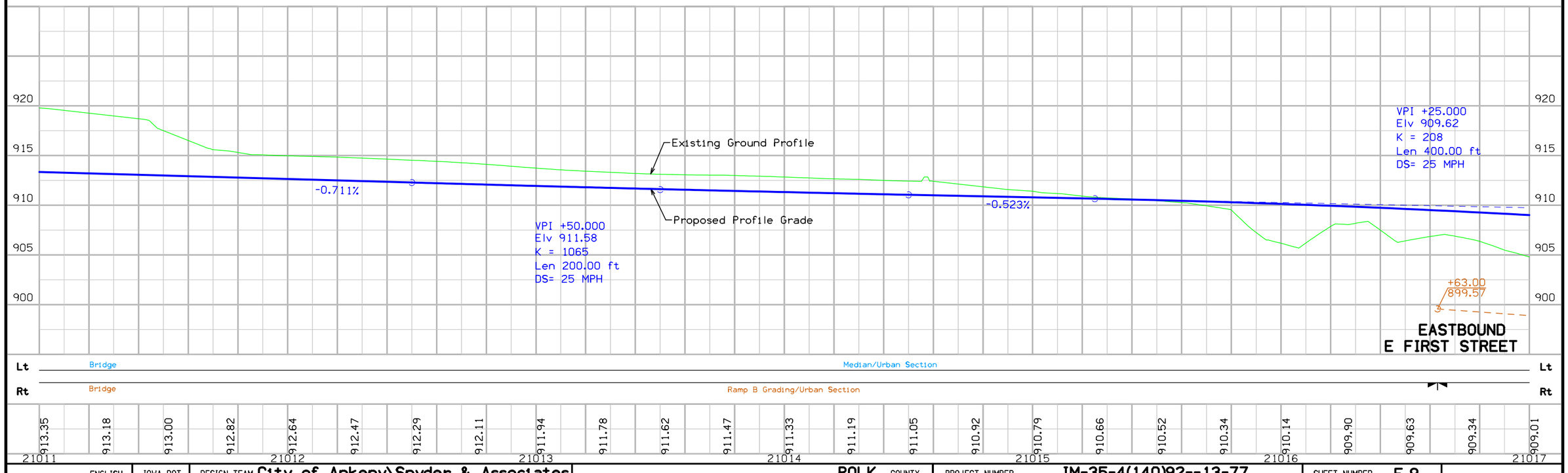
For Right of Way Information Refer to H-Sheets | For Storm Sewer Information Refer to M-Sheets | For Traffic Control Information Refer to J-Sheets | For Ramp Information Refer to Sheets K.05-06 and k.09-10 | For Culvert Information Refer to V-Sheets

E FIRST STREET

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.8

11:11:18 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_E08.SHT





ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.9

11:11:21 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_E09.SHT

DOUGLAS TWP.
T-80N R-23W
SEC 18

Curve Data
Δ = 6° 13′ 19.50″ (RT)
T = 44.57
L = 89.05
R = 820.00
E = 1.21

Curve Data
Δ = 6° 13′ 19.50″ (LT)
T = 44.62
L = 89.16
R = 821.00
E = 1.21

55 City of Ankeny

41 Richard W. Smith & Ronald E. Smith

Grading Limits

Remove Fence

Adjust Pedestal (By Others)

Relocate Sign

10′ Recreation Trail

Sta. 11017+15.69, 15.00′LT

Sta. 11019+64.44, 15.00′LT

PC Sta 11019+90.26

POT Sta 11019+49.45

11017 11018 11019

21017 21018 21019

31020 31021 31022

E FIRST STREET

15′ 15′

PC Sta 21017+38.28

PRC Sta 21017+85.93

PT Sta 21017+38.28

DDIEB Curve-7

Remove Sign

Sta. 21018+37.75, 15.00′RT

PT Sta 21018+32.01

Adjust Pole (By Others)

Sta. 21017+34.54, 17.00′RT
End 10:1 Taper

Remove Shrubs

Remove Fence

Sta. 21016+93.52, 27.04′RT
Begin 10:1 Taper

POT Sta 14272+48.11

42 Midwest Radio, Inc.

Curve Data DDIEB Curve-7
Δ = 25° 34′ 21.93″ (RT)
T = 47.66
L = 93.73
R = 210.00
E = 5.34

ACCESS LOCATIONS
31020+06.44 R2 RT

EQUATION:
Sta 1019+53.02 BK =
Sta 31019+49.45 AH

POT Sta 21019+90.83

PC Sta 31019+11.53

PRC Sta 31020+80.58

PT Sta 31021+69.74

PI Sta 31020+36.10

PI Sta 31021+25.20

Remove Sign

Remove

E First Street Construction

SE CREEKVIEW DRIVE

60′

80′

Protect Valve

Protect Culvert

Sta. 31022+18.57 R 2, 26.50′LT

Remove Guard Rail

Remove Signs

Relocate Pole (By Others)

Remove Guard Rail

Remove Sign

Sta. 31022+18.57 R 2, 26.50′RT

65 Rich Eyc

DOUGLAS TWP.
T-80N R-23W
SEC 19

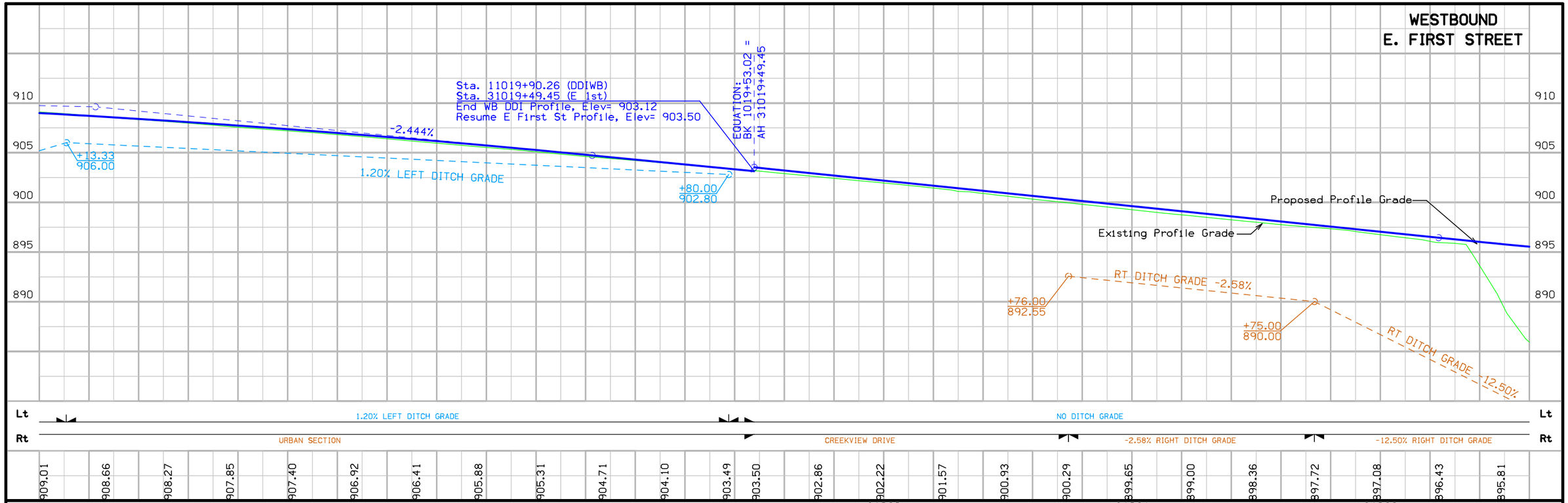
0 20
FEET

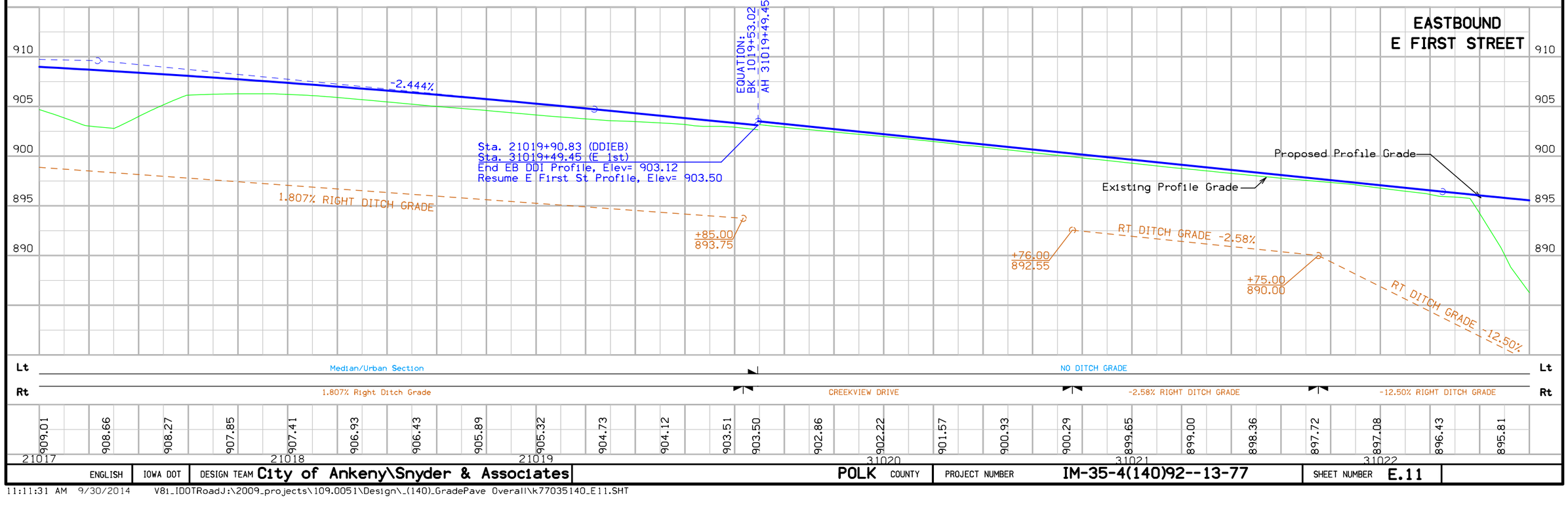
E FIRST STREET

For Intersection Jointing and Geometrics Refer to L-Sheets	For Right of Way Information Refer to H-Sheets	For Storm Sewer Information Refer to M-Sheets	For Traffic Control Information Refer to J-Sheets	For Bridge and Culvert Information Refer to V-Sheets	For Creekview Dr. Information Refer to Sheets E.09-E.10

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.10

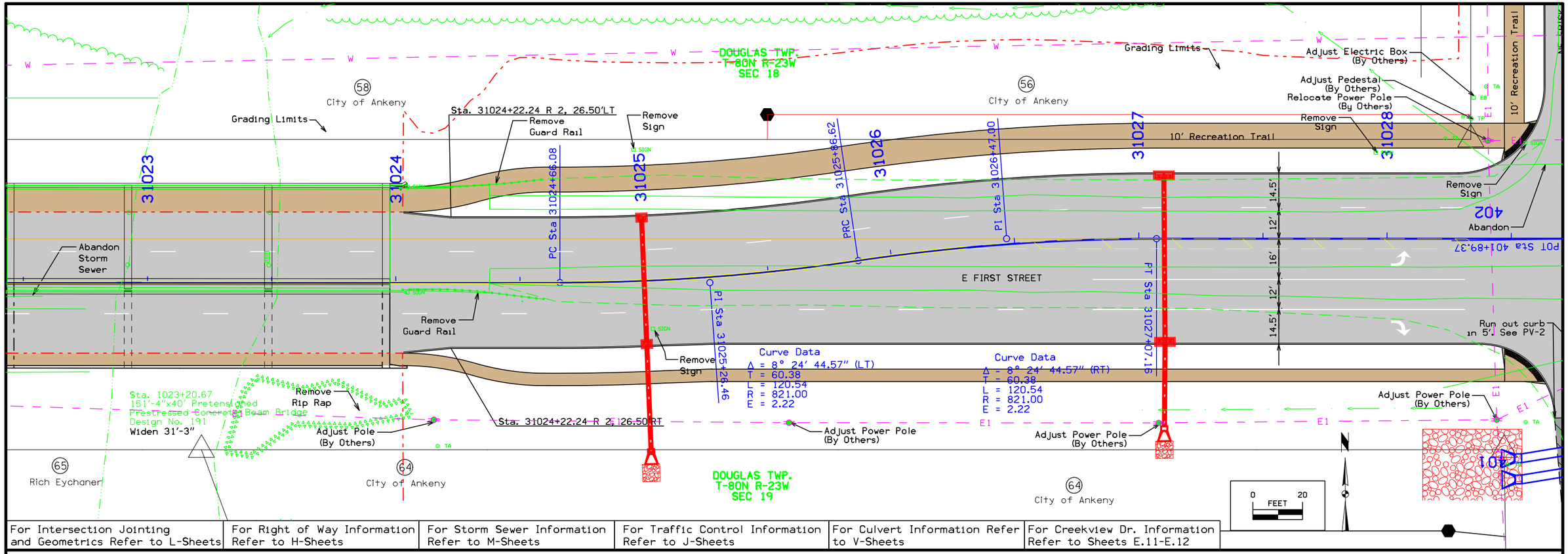
11:11:27 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_E10.SHT



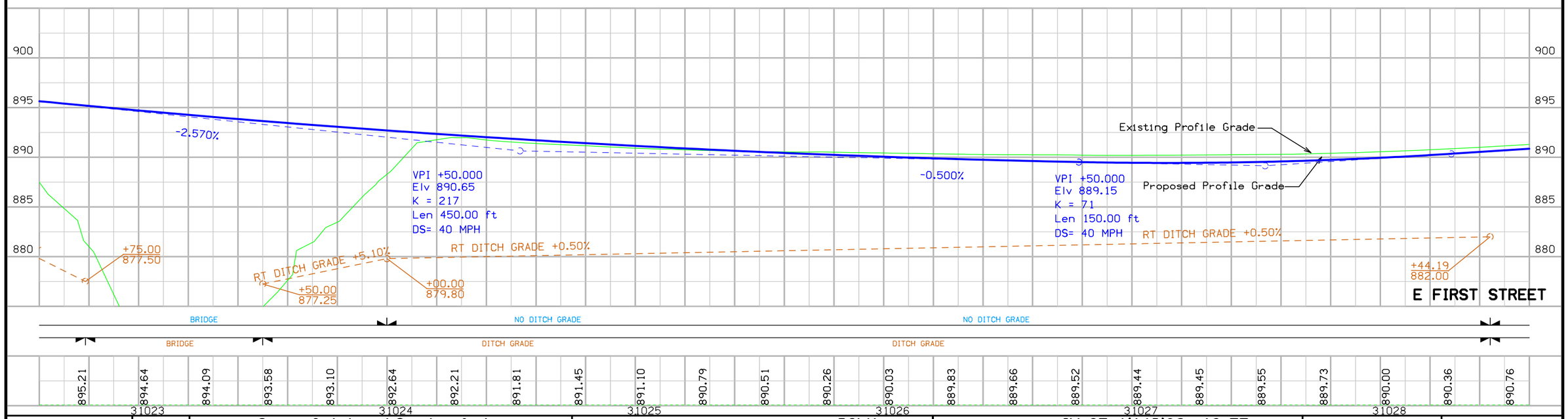


ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.11

11:11:31 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7705140_E11.SHT



For Intersection Jointing and Geometrics Refer to L-Sheets	For Right of Way Information Refer to H-Sheets	For Storm Sewer Information Refer to M-Sheets	For Traffic Control Information Refer to J-Sheets	For Culvert Information Refer to V-Sheets	For Creekview Dr. Information Refer to Sheets E.11-E.12



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.12

11:11:36 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_E12.SHT

Sta. 402+19.57
24"x110.9' CMP
DA=28.6 Ac R
Abandon
Fill with mortar

Adjust Valve

NE FRISK DRIVE

10' Recreation Trail

ectric Box (By Others)

estal (hers)
er Pole (Others)

Relocate Hydrant and Valve. See U-Sheets for details

59
Open Bible Fellowship

59
Open Bible Fellowship

DOUGLAS TWP.
T-80N R-23W
SEC 18

Grading Limits

Adjust Power Pole (By Others)

Run out curb in 5'. See PV-2

31028 31029 31030 31031 31032 31033 31034

Adjust Power Pole (By Others)

Remove Sign

Abandon

PI Sta 31028+78.76

Sta. 31030+00.00 R 2
End PCC Reconstruction
Begin HMA Widening

E. First Street Construction

E. FIRST STREET

4'
16'
12'
12'
24'

15:1 Taper

POT Sta. 31028+78.76 R 2 (E First St) =
POT Sta. 401+89.37 (Frisk)

Remove Sign

2° 8' 14.16"
T= 214.74
L= 429.42
R= 11512.00
E= 2.00

Run out curb in 5'. See PV-2

Remove Fence

PC Sta. 31030+77.96 R 2, 28.00'RT

Remove Fence

Adjust Power Pole (By Others)

Remove and Relocate Sign

Run out curb in 5'. See PV-2

61
BRAZELTON, DENNIS L
BRAZELTON, PATSY A

63
BRAZELTON, DENNIS L
BRAZELTON, PATSY A

DOUGLAS TWP.
T-80N R-23W
SEC 19

ACCESS LOCATIONS
31028+78.76 LT & RT

Sta. 400+95.79
DA=135.67 Ac R
Install 124.0' Twin 42" RF-1
Skew=9° Rt. Ahd.
FL=882.00 Lt.
882.55 Rt.

Sta. 401+42.36
24"x88.3' CMP
DA=106.8 Ac R
Remove

Remove Fence

For Right of Way Information
Refer to H-Sheets

For Traffic Control Information
Refer to J-Sheets

0 20
FEET

Existing Profile Grade

Sta. 31030+00.00
End PCC Construction
Begin HMA Widening
Elev= 893.17

893.17

+1.608%

Proposed Profile Grade

+83.86
884.09

LT D.G.
-1.35%

+75.00
884.21

LT DITCH GRADE +3.80%

RT DITCH GRADE +4.90%

RT DITCH GRADE +0.70%

+00.00
883.12

+25.00
889.45

LT DITCH GRADE +3.34%

RT DITCH GRADE +2.50%

+25.00
889.25

+00.00
893.62

+44.19
882.00

+18.75
882.55

900
895
890
885
880

E FIRST STREET

Lt FRISK DRIVE DITCH GRADE Lt
Rt FRISK DRIVE DITCH GRADE DITCH GRADE Rt

890.00 890.36 890.76 891.16 891.56 891.96 892.37 892.77 893.17

31028 31029 31030 31031 31032 31033 31034

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.13

11:11:40 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_E13.SHT

BRESSON, DARRYL
BRESSON, ANGELA R

Rohwer, Timothy
Rohwer, Kori

DOUGLAS TWP.
T-80N R-23W
SEC 18

Protect Pedestal

Protect Power Pole

Adjust Power Pole
(By Others)

31034 31035 31036 31037 31038 31039 31040

E1

Grading Limits

Protect Drop Structure

Sta. 31036+99.68 R 2
End Shoulder Reconstruction

Sta. 1037+76.90
Drop Inlet 5' x 5' RCBC
DA=55.58 Ac R
23° Skew Left Ahead
Extend Rt
Remove headwall and wingwall
Install wingwall
FL=902.94 Lt.
901.00 Rt.
Other=901.26
(By Others)

Remove Sign

E. FIRST STREET

12"

PT Sta. 31038+33.72 R 2, 12.45'RT

PRC Sta. 31035+07.28 R 2, 19.99'RT

1° 37' 42.80"
T= 163.28
L= 326.53
R= 11488.00
E= 1.16

Remove Headwall
and Wingwall

Remove Fence

Sta. 31036+17.43 R 2, 16.41'RT
End HMA Shoulder Continue
Full Depth HMA Widening
Transitioning from 8' to 4'

Protect Fence

Grading Limits

0 FEET 20

ACCESS LOCATIONS
31039+33.41 RT

+33.41
Type "C" Ent. UAC

Grading Limits

DOUGLAS TWP.
T-80N R-23W
SEC 19

Existing Profile Grade

910 905 900 895 890 885 880

+25.00
899.48

LT DITCH GRADE +4.00%

+00.00
902.48

LT DITCH GRADE +2.20%

+00.00
904.68

LT DITCH GRADE +2.05%

+00.00
906.73

RT DITCH GRADE +2.04%

+25.00
900.25

RT DITCH GRADE +0.54%

+65.00
901.00

RT DITCH GRADE +9.72%

+50.00
909.26

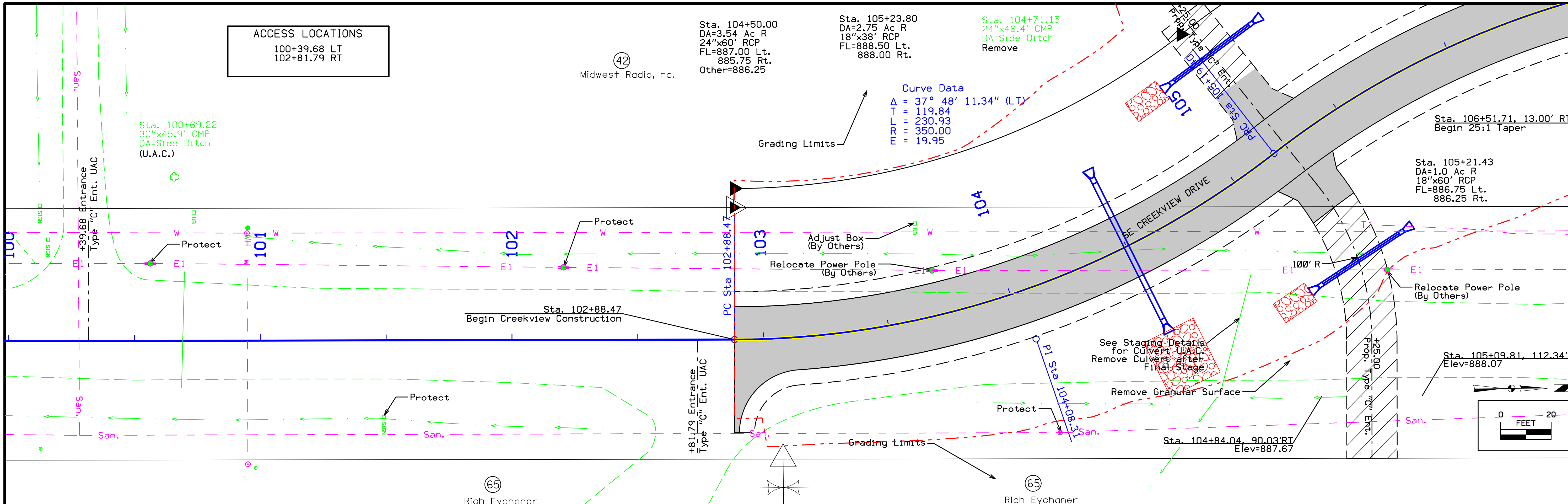
E FIRST STREET

Lt — DITCH GRADE — U.A.C.
Rt — DITCH GRADE — U.A.C.

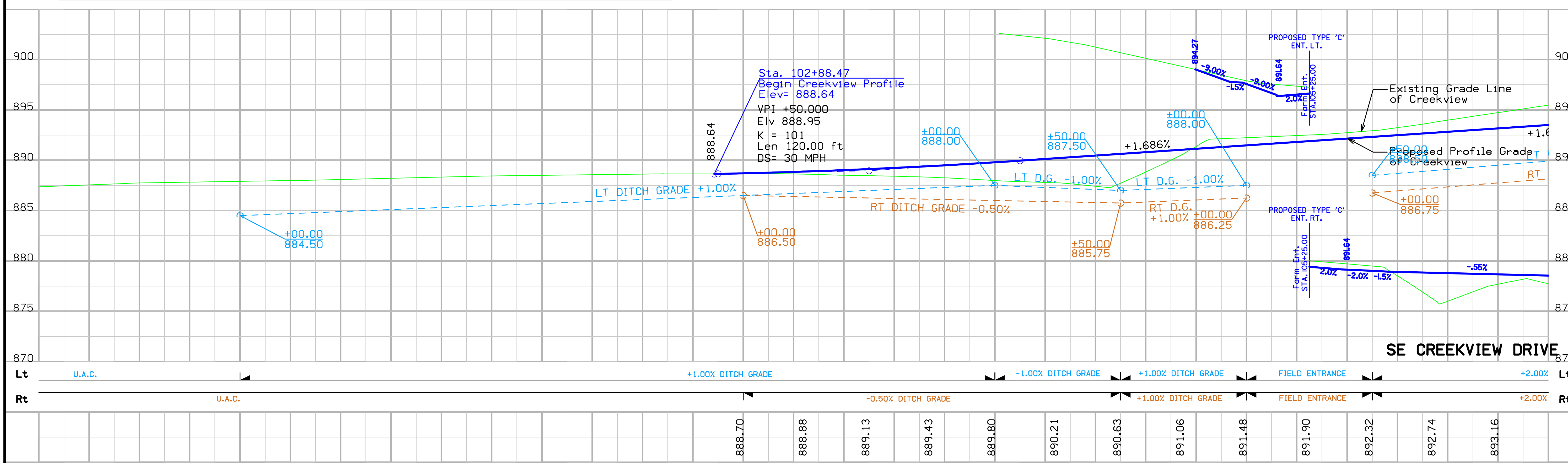
31034 31035 31036 31037 31038 31039

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.14

11:11:43 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_E14.SHT



For Right of Way Information Refer to H-Sheets | For Storm Sewer Information Refer to M-Sheets | For Traffic Control Information Refer to J-Sheets



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.15

ACCESS LOCATIONS
109+95.76 LT& RT

0 FEET 20

Sta. 108+85.00
DA=90.68 Ac R
48"x122'
FL=893.70 Lt.
890.25 Rt.

POT Sta. 109+70.24 (Creekview Drive) =
POT Sta. 31020+06.44 R 2 (E First St)

Sta. 108+24.18
18"x57.3' CMP
DA=Side Ditch
(Remove)

Sta. 109+37.23
30"x82.1' RCP
DA=Side Ditch
(Remove)

Sta. 106+51.71, 13.00' LT
Begin 25:1 Taper

Sta. 107+14.21, 15.50' LT
End 25:1 Taper
Begin 10:1 Taper

Sta. 108+54.84, 18.24' LT
End 10:1 Taper

Sta. 108+27.35, 15.50' LT
Begin 10:1 Taper

42
Midwest Radio, Inc.

Grading Limits

Run out curb in 5'
See PV-2

PI Sta 108+29.58

PT Sta 107+60.93

+19.84
Field Ent.
(Close)

105 106 107 108 109

25:1 Taper

10:1 Taper

SE CREEKVIEW DRIVE

E. FIRST STREET

31020

Remove Granular
Surface

Sta. 107+14.21, 15.50' RT
End 25:1 Taper
Begin 10:1 Taper

Remove 18" CMP

Grading Limits

Curve Data
Δ = 37° 54' 06.11" (RT)
T = 120.18
L = 231.53
R = 350.00
E = 20.06

Sta. 106+51.71, 13.00' RT
Begin 25:1 Taper

Sta. 108+34.21, 27.50' RT
End 10:1 Taper

Sta. 109+34.21
End Creekview Construction

Remove
Sign

Sta. 105+21.43
DA=1.0 Ac R
18"x60' RCP
EL=886.75 Lt.

Sta. 107+54.21
24"x30' CMP
DA=Side Ditch
(Remove)

Sta. 1019+36.50
36"x367.2 CMP
DA=19.17 Ac R
U.A.C.

Sta. 104+71.15
46.4' CMP
de Ditch
ve

(LT)

PROPOSED TYPE 'C' ENT. LT.
Form Ent. STA.105+25.00
894.27
-9.00%
-1.5%
-9.00%
891.64
2.0%

PROPOSED TYPE 'C' ENT. RT.
Form Ent. STA.105+25.00
891.64
2.0%
-2.0%
-1.5%
-.55%
890.50

+00.00
888.00

+1.686%

Existing Grade Line
of Creekview

Proposed Profile Grade
of Creekview

+50.00
889.84

RT D.G. +2.00%

+14.21
891.28

+00.00
890.03

VPI +50.000
Elv 895.69
K = 114
Len 150.00 ft
DS= 30 MPH

RT D.G. -1.00%

RT D.G.
+1.00%
+00.00
886.25

+00.00
886.75

+3.000%

Existing Grade Line
of Creekview

Proposed Profile Grade
of Creekview

Sta. 109+34.21
End Creekview Profile
Elev= 901.22

900 895 890 885 880

SE CREEKVIEW DRIVE

Lt	1.00% DITCH GRADE	FIELD ENTRANCE	+2.00% DITCH GRADE	NO DITCH GRADE	Lt
Rt	.00% DITCH GRADE	FIELD ENTRANCE	+2.00% DITCH GRADE	NO DITCH GRADE	Rt

891.06	891.48	891.90	892.32	892.74	893.16	893.59	894.01	894.43	894.88	895.38	895.94	896.55	897.22	897.94	898.69	899.44	900.19	900.94
	105				106				107				108				109	

For E. First St. Information Refer to Sheet E.05 | For Culvert Information Refer to V-Sheets | For Intersection Jointing and Geometrics Refer to L-Sheets | For Right of Way Information Refer to H-Sheets | For Storm Sewer Information Refer to M-Sheets | For Traffic Control Information Refer to J-Sheets

DOUGLAS TWP.
T-80N R-23W
SEC 19

DOUGLAS TWP.
T-80N R-23W
SEC 18

64
J C D, Ltd.

58
City of Ankeny

59
Open Bible
Fellowship

63
BRAZELTON, DENNIS L
BRAZELTON, PATSY A

E. FIRST STREET

NE FRISK DRIVE

POT Sta 399+50.00

POT Sta 401+89.37

POT Sta 401+89.37 (Frisk Drive) =
POT Sta 31028+78.76 R-2 (E First St)

PI Sta 31028+78.76

31028

31029

400 401 402 403 404 405

Relocate Power Pole
(By Others)

Sta. 401+17.34
Begin PCC Construction

Grading Limits

15:1 Taper

Sta. 400+09.45, 13.71'RT
Begin Gravel Construction

10:1 Taper

Sta. 400+33.41
Begin Frisk Profile

Remove Granular Surfacing

Remove
Sign

Grading Limits

Sta. 400+95.79
DA=135.67 Ac R
Install 124.0' Twin 42" RF-1Remove
Skew=9° Rt. Ahd.
FL=882.00 Lt.
882.55 Rt.

Sta. 401+42.36
24"x88.3' CMP
DA=106.8 Ac R

Remove
Sign

Begin Remove, Salvage,
and reinstall fence

Grading Limits

Remove
Sign

10' Recreation Trail

Remove
18" RCP

Remove
Sign

Sta. 403+65.98, 27.50' RT
Begin 20:1 Taper

Remove
Sign

20:1 Taper

Adjust Hydrant
and Valve

Sta. 402+52.90, 39.90' RT
Begin 5:1 Taper

5:1 Taper

Remove
Sign

Adjust
Valve

154.95'
Field End
Close

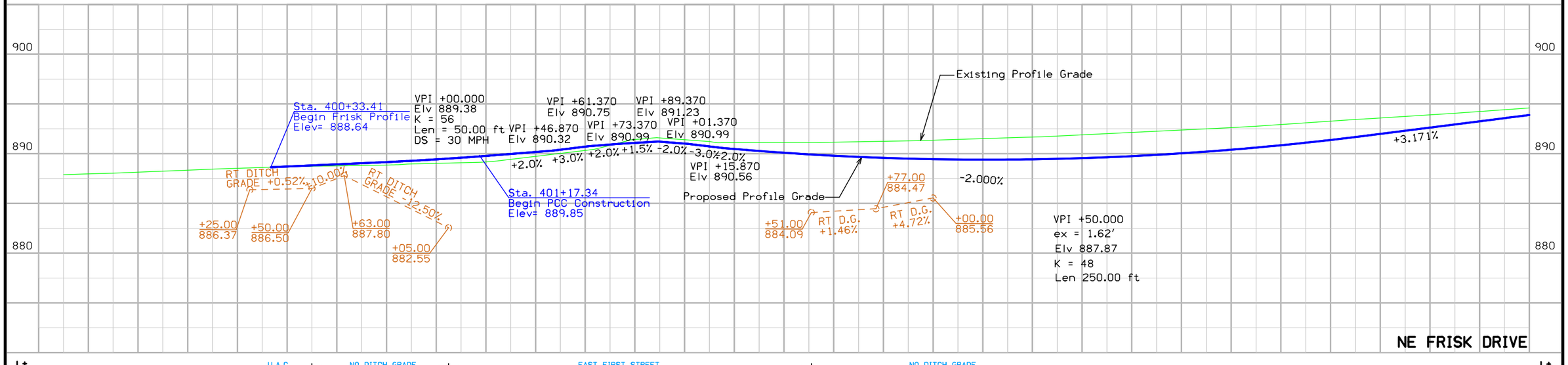
Sta. 403+15.56, 27.50' RT
End 5:1 Taper

Sta. 402+19.57
24"x110.9' CMP
DA=28.6 Ac R
Abandon
Fill with mortar

Sta. 403+78.36
18"x43.9' RCP
DA=Side Ditch
Remove

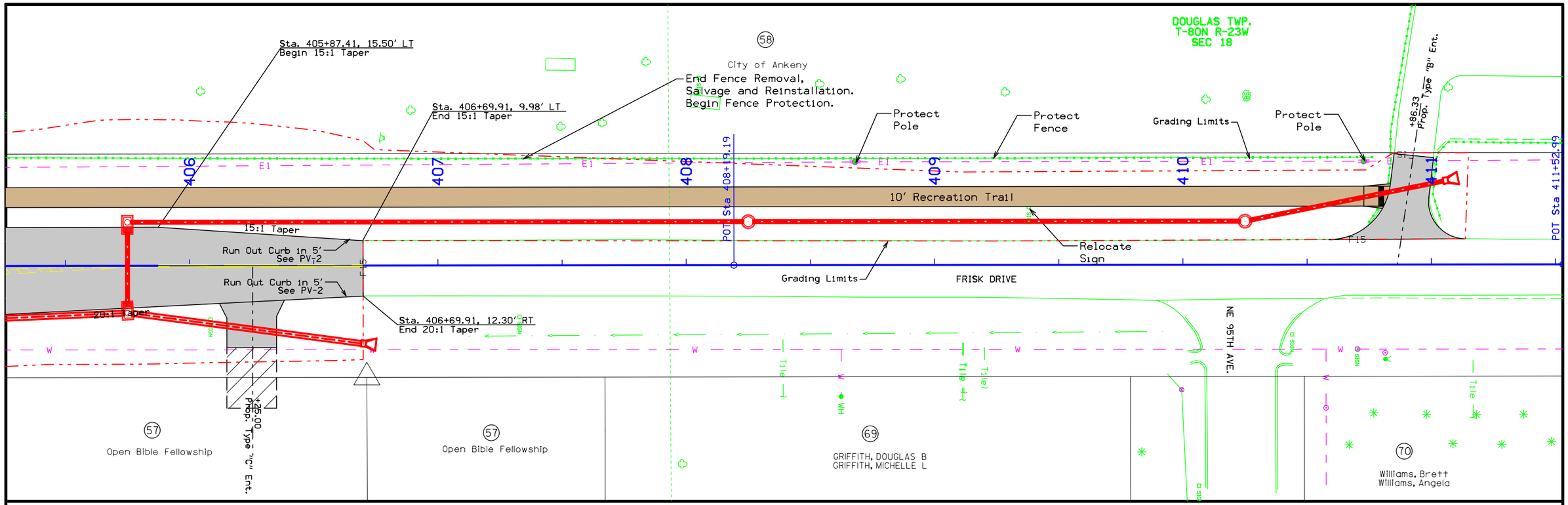
ACCESS LOCATIONS
401+89.37 LT & RT

For Right of Way Information Refer to H-Sheets	For Storm Sewer Information Refer to M-Sheets	For Traffic Control Information Refer to J-Sheets	For E. First St. Information Refer to Sheet E.06	For Culvert Information Refer to V-Sheets	For Intersection Jointing and Geometrics Refer to L-Sheets

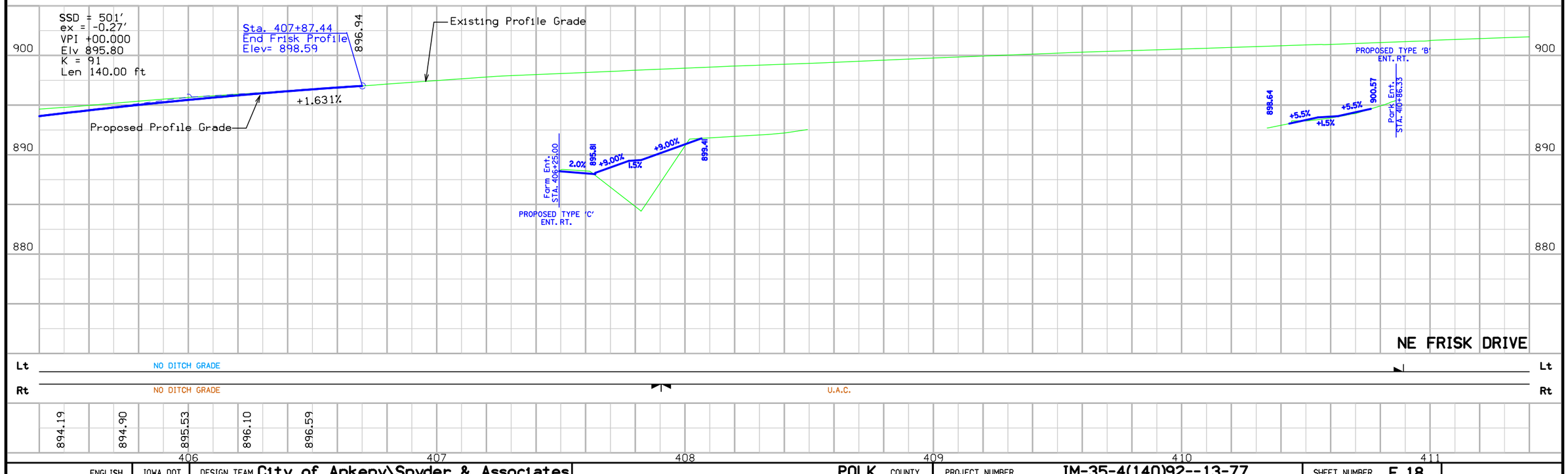


ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.17

11:11:53 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_E17.SHT



For Right of Way Information Refer to H-Sheets	For Storm Sewer Information Refer to M-Sheets	For Traffic Control Information Refer to J-Sheets



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER E.18

GENERAL INFORMATION

HORIZONTAL DATUM BASED ON IOWA STATE PLANE SOUTH,SCALED FROM POINT #23 (HOWARD R. GREEN) WITH A SCALE FACTOR OF .999955522

VERTICAL DATUM IS NAVD88, WITH ELEVATIONS ESTABLISHED VIA DIGITAL LEVEL LOOP, ORIGINATING ON IDOT BM #827 (ELEV=936.820) FROM IDOT PROJECT #

BENCHMARKS — ELEVATION

No. 9 Sta. 335+38.74 152.88' LT SET 1"x36" SMOOTH BAR 10' E OF WEST ROW LINE 250' +/- N OF MILE MARKER 93.8 ON I-35----------919.38

No. 10 Sta. 322+64.11 148.31' LT SET 1"x36" SMOOTH BAR, 10' +/- E OF WEST ROW LINE, 25' +/- S OF MILE MARKER 93.6 AND IN LINE WITH 18" RCP----------913.93

No. 11 Sta. 309+88.71 91.00' LT SET CUT X IN TOP OF N CORNER OF INLET HEADWALL OF RCB UNDER I-35 MILE MARKER 93.35----------902.48

No. 12 Sta. 302+98.61 115.95' LT SET 1"x36" SMOOTH BAR IN WEST ROW, 15' +/- S OF BLUE EAST EXIT 92 SIGN 100' +/- N OF MILE MARKER 93.2----------911.51

No. 13 Sta. 291+97.94 173.56' LT SET 1"x36" SMOOTH BAR IN WEST ROW 5' E OF WEST ROW LINE AND 100' +/- N OF MILE MARKER 93.0----------918.35

No. 14 Sta. 273+75.10 599.90' LT SET 1"x36" SMOOTH BAR AT NW QUAD ON 1ST ST AND SB I35 OFF RAMP, 50' N OF LIGHT POLE----------922.09

No. 15 Sta. 270+16.50 1040.74' RT SET 1"x36" SMOOTH BAR SE QUAD CREEKVIEW AND 1ST ST, 50' E OF HYDRANT, DUE N OF OF E EDGE OF CREEKVIEW----------896.74

No. 16 Sta. 258+65.45 178.22' LT SET 1"x36" SMOOTH BAR W OF I35, JUST OFF OF SB ON RAMP, 25' E OF ROW LINE AT MILE MARKER 92.4----------911.96

No. 17 Sta. 246+77.70 159.26' LT SET 1"x36" SMOOTH BAR IN WEST ROW OF I35, 10' W OF ROW FENCE DIRECTLY E OF MILLPOND OIL PUMP, 150' +/- S OF MM 92.2----------915.70

No. 18 Sta. 238+37.02 147.41' LT SET 1"x36" SMOOTH BAR IN WEST ROW I-35, 25' +/- N OF MILE MARKER 92.0 AT TOP OF BACKSLOPE----------914.58

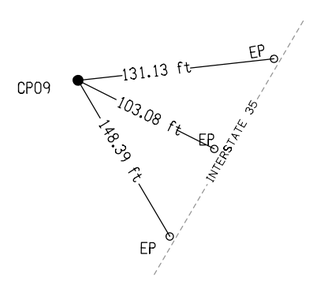
No. 19 Sta. 227+77.41 130.80' LT SET 1"x36" SMOOTH BAR IN WEST ROW I35, 25' +/- N OF MILE MARKER 91.8, DUE WEST OF EXIT 90 SIGN----------912.04

No. 20 Sta. 216+42.77 104.94' LT SET CUT X IN NORTH CORNER INLET HEADWALL ON RCB UNDER I35, 30' +/- SOUTH OF MILE MARKER 91.6----------908.47

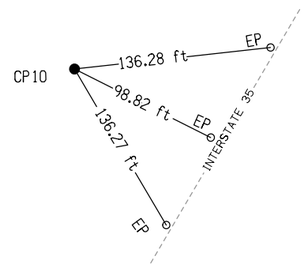
CONTROL POINT INFORMATION

CONTROL POINT	NORTHING	EASTING	DESCRIPTION
CP1	624695.50	1619613.00	SET PK NAIL IN EAST SHOULDER OF NB I35, EVEN WITH NORTH BUILDING LINE OF SLUMBERLAND.
CP2	629077.21	1619522.66	SET PK NAIL AT INTERSECTION OF PAINT STRIPING FOR NB I35 AND 1ST. OFFRAMP
CP3	630972.41	1621730.68	SET PK NAIL IN SOUTH SHOULDER OF E.1ST ST., 600'+/- EAST OF INTERSECTION WITH FRISK DRIVE
CP4	632475.57	1619281.93	SET PK NAIL AT INTERSECTION OF PAINT STRIPING FOR NB I35 AND 1ST ST. ON RAMP
CP5	637143.11	1620134.70	SET PK NAIL IN EAST SHOULDER OF NB I35 AT SPOT WHERE 18TH ST. REST AREA OFFRAMP BEGINS.
CP6	632399.09	1619187.95	SET PK NAIL AT INTERSECTION OF PAINT STRIPING FOR SB I35 AND 1ST. ST. OFFRAMP
CP7	631034.95	1617875.84	SET GIN SPIKE IN TOP OF CURB ON EAST 1ST. ST, DUE SOUTH OF BURGER KING SIGN.
CP8	629401.77	1619402.36	SET PK NAIL AT INTERSECTION OF PAINT STRIPING FOR SB I35 AND 1ST. ST. ONRAMP.
CP9	637196.35	1619939.07	SET 1"X36" SMOOTH BAR, 10' EAST OF WEST ROW LINE, 250'+/- NORTH OF MILE MARKER 93.8.
CP10	635990.47	1619526.09	SET 1"X36" SMOOTH BAR, 10'+/- EAST OF WEST ROW LINE, 25'+/- SOUTH OF MILE MARKER 93.6 AND IN LINE WITH 18" RCP.
CP11	634760.19	1619167.08	SET CUT 'X' IN TOP OF NORTH CORNER OF INLET HEADWALL OF RCB UNDER I35 MILE MARKER 93.35
CP12	634060.99	1619025.89	SET 1"X36" SMOOTH BAR IN WEST ROW, 15'+/- SOUTH OF BLUE GAS EXIT SIGN, 100'+/- NORTH OF MILE MARKER 93.2.
CP13	632941.32	1619046.28	SET 1"X36" SMOOTH BAR IN WEST ROW, 5' EAST OF WEST ROW LINE, AND 100'+/- OF MILE MARKER 93.0.
CP14	631101.29	1618791.81	SET 1"X36" SMOOTH BAR AT NW QUAD ON 1ST. ST. AND SB I35 OFFRAMP, 50' NORTH OF LIGHT POLE.
CP15	630860.72	1620453.87	SET 1"X36" SMOOTH BAR IN SE QUAD OF CREEKVIEW AND EAST 1ST. ST., 50' EAST OF HYDRANT, DUE NORTH OF EAST EDGE OF CREEKVIEW.
CP16	629633.65	1619296.52	SET 1"X36" SMOOTH BAR, WEST ROW OF I35, JUST OFF OF SB ONRAMP, 25' EAST OF ROW LINE AT MILE MARKER 92.4.
CP17	628447.01	1619333.77	SET 1"X36" SMOOTH BAR IN WEST ROW OF I35, 10' WEST OF ROW FENCE, DIRECTLY EAST OF MILL POND OIL PUMP, 150'+/- SOUTH OF MILE MARKER 92.2.
CP18	627606.62	1619358.46	SET 1"X36" SMOOTH BAR IN WEST ROW OF I35, 25'+/- NORTH OF MILE MARKER 92.0 AT TOP OF BACKSLOPE.
CP19	626547.38	1619391.28	SET 1"X36" SMOOTH BAR IN WEST ROW OF I35, 25'+/- NORTH OF MILE MARKER 91.8, DUE WEST OF EXIT 90 SIGN.
CP20	625413.27	1619434.49	SET CUT 'X' IN NORTH CORNER INLET OF HEADWALL ON RCB UNDER I35, 50'+/- SOUTH OF MILE MARKER 91.6.
CP21	624436.07	1619459.21	SET CUT 'X' ON TOP OF INLET FLUME OF 48" RCP, WEST ROW OF I35, 100'+/- NORTH OF MILE MARKER 91.4.

STA 335+38.74
SET 1"X36" SMOOTH BAR
XC=1619526.09, YC=635990.47



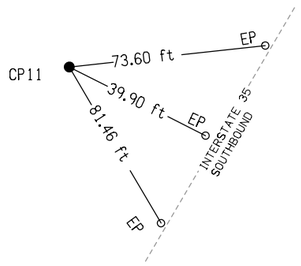
STA 322+64.11
SET 1"X36" SMOOTH BAR
XC=1619526.09, YC=635990.47



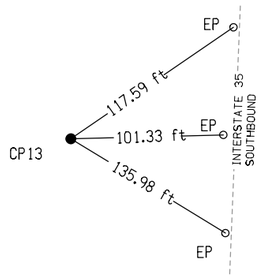
DETAILS OF REFERENCE INFORMATION

All References are Plumb Distances unless otherwise noted.

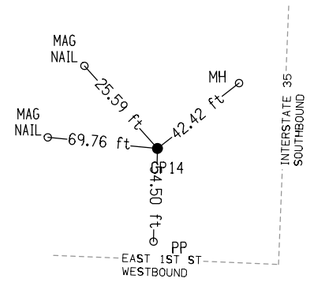
STA 309+88.71
SET CUT 'X'
XC=1619167.08, YC=634760.19



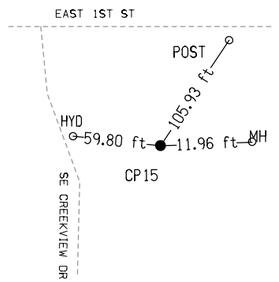
STA 291+97.94
SET 1"X36" SMOOTH BAR
XC=1619046.28, YC=632941.32



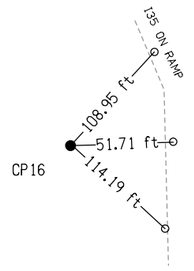
STA 273+75.10
SET 1"X36" SMOOTH BAR
XC=1618791.81, YC=631101.29



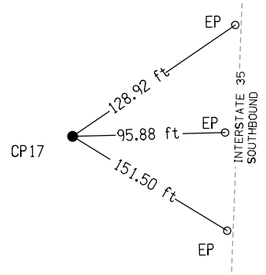
STA 270+16.50
SET 1"X36" SMOOTH BAR
XC=1620453.87, YC=630860.72



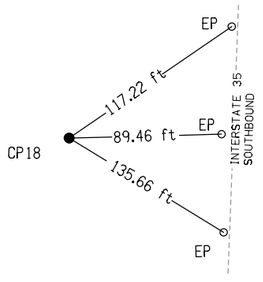
STA 258+65.45
SET 1"X36" SMOOTH BAR
XC=1619296.53, YC=629633.65



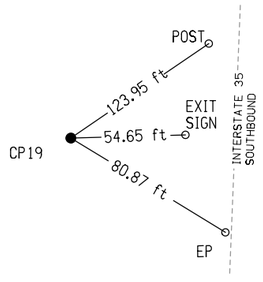
STA 246+77.70
SET 1"X36" SMOOTH BAR
XC=1619333.77, YC=628447.01



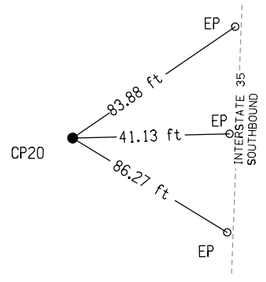
STA 238+37.02
SET 1"X36" SMOOTH BAR
XC=1619358.46, YC=627606.62



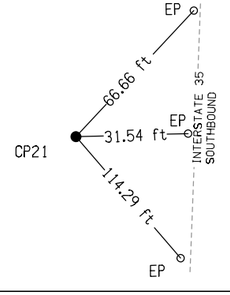
STA 227+77.41
SET 1"X36" SMOOTH BAR
XC=1619391.28, YC=626547.38



STA 216+42.77
SET CUT 'X'
XC=1619434.49, YC=625413.27



STA 206+65.30
SET CUT 'X'
XC=1619459.21, YC=624436.07



DETAILS OF REFERENCE INFORMATION

All References are Plumb Distances unless otherwise noted.

INTERSTATE 35

RAMP C

POT Sta 5247+00.00

PI Sta 5249+84.21

PI Sta 5250+70.59

PC Sta 5255+00.43

RAMP C3

PT Sta 25273+99.10

Curve Data
Δ = 76° 44′ 14.87″ (LT)
T = 277.10
L = 468.76
R = 350.00
E = 96.41

PC Sta 25269+30.34

PT Sta 15268+81.53

RAMP C2

PC Sta 15270+12.63

PT Sta 15272+91.78

Curve Data
Δ = 106° 37′ 44.39″ (RT)
T = 201.35
L = 279.15
R = 150.00
E = 101.08

PT Sta 267+54.76

Curve Data
Δ = 11° 59′ 59.66″ (LT)
T = 367.86
L = 733.03
R = 3,500.00
E = 19.28

PI Sta 5262+33.46

PI Sta 5258+68.29

PC Sta 258+00.20

RAMP B3

PC Sta 24269+76.06

PT Sta 24272+68.35

Curve Data
Δ = 90°31′26.39″(LT)
T = 186.70
L = 282.29
R = 185.00
E = 77.83

Curve Data
Δ = 3° 13′ 01.83″ (LT)
T = 477.40
L = 954.56
R = 17,000.00
E = 6.70

PI Sta 262+77.61

PI Sta 4258+85.31

PC Sta 4256+00.00

PC Sta 4261+79.20

PI Sta 4263+45.82

PT Sta 4261+70.00

PT Sta 4265+12.29

Curve Data
Δ = 6° 31′ 54.19″ (RT)
T = 285.31
L = 570.00
R = 5,000.00
E = 8.13

Curve Data
Δ = 4° 14′ 27.73″ (LT)
T = 166.62
L = 333.09
R = 4,500.00
E = 3.08

RAMP B

PC Sta 14268+99.07

RAMP B2

PI Sta 14270+44.61

PT Sta 14272+62.67

POT Sta 14272+48.20

Curve Data
Δ = 60° 24′ 42.70″ (RT)
T = 145.54
L = 263.60
R = 250.00
E = 38.28

POT Sta 13271+33.41

PC Sta 13273+00.38

RAMP A2

PT Sta 13275+58.38

PC Sta 3276+69.39

Curve Data
Δ = 59° 07′ 44.82″ (LT)
T = 141.82
L = 258.00
R = 250.00
E = 37.42

RAMP A3

PC Sta 23272+21.68

PT Sta 23274+71.79

Curve Data
Δ = 95° 32′ 03.96″ (RT)
T = 165.24
L = 250.11
R = 150.00
E = 73.17

RAMP A

PC Sta 275+45.36

PI Sta 3280+14.17

PT Sta 280+45.36

Curve Data
Δ = 11° 15′ 06.46″ (LT)
T = 344.78
L = 687.33
R = 3,500.00
E = 16.94

PT Sta 3283+56.73

POT Sta 3285+25.00

PI Sta 6286+35.23

RAMP D2

PC Sta 16271+40.84

PT Sta 16274+25.41

Curve Data
Δ = 108° 41′ 54.99″ (LT)
T = 209.13
L = 284.57
R = 150.00
E = 107.36

RAMP D3

PC Sta 26270+40.11

PT Sta 26274+31.07

Curve Data
Δ = 74° 40′ 04.27″ (RT)
T = 228.82
L = 390.96
R = 300.00
E = 77.30

PI Sta 277+95.38

RAMP D

PC Sta 6284+95.00

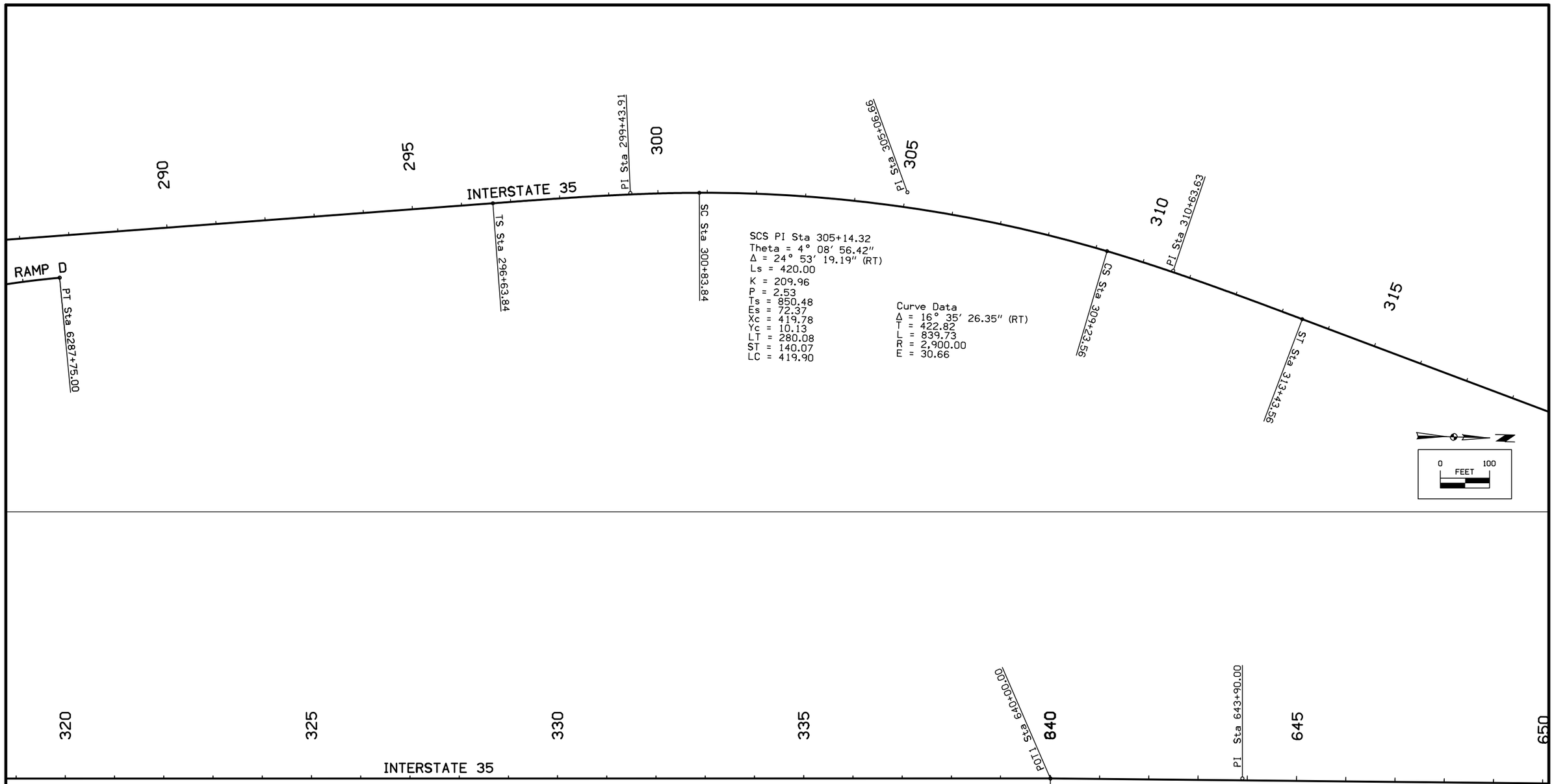
Curve Data
Δ = 1° 41′ 06.61″ (LT)
T = 250.02
L = 500.00
R = 17,000.00
E = 1.84

0 100 FEET

0 100 FEET

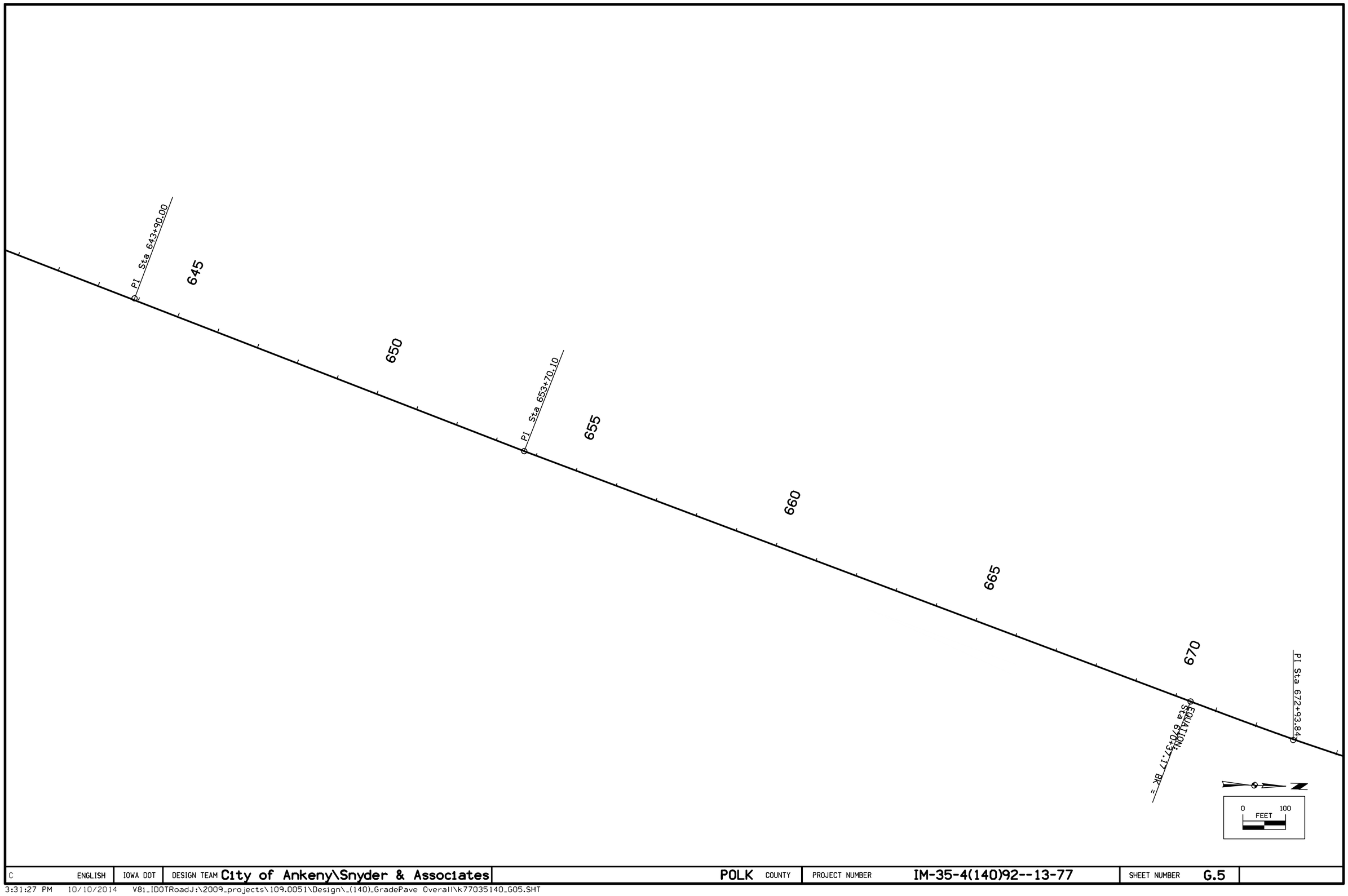
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER G.3

3:31:22 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_G03.SHT



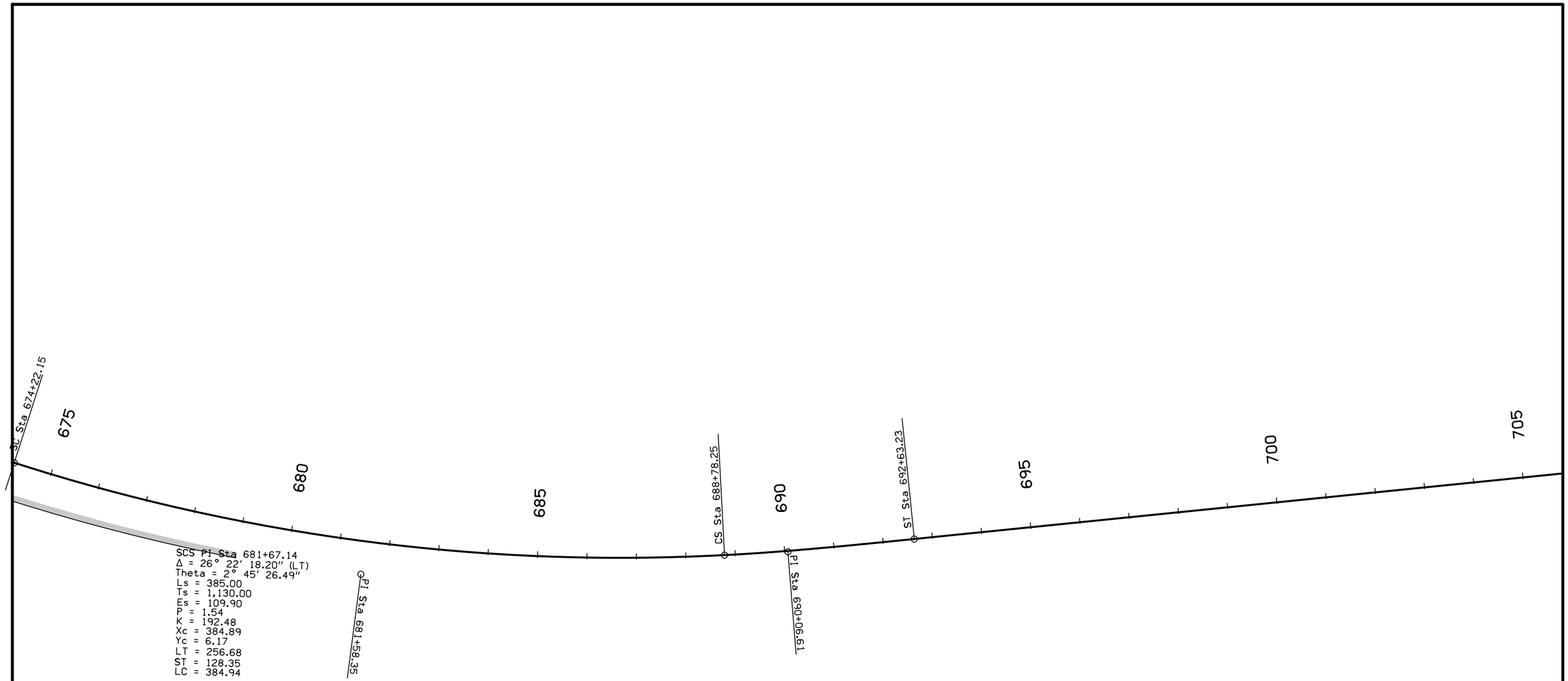
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER G.4

3:31:24 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_G04.SHT



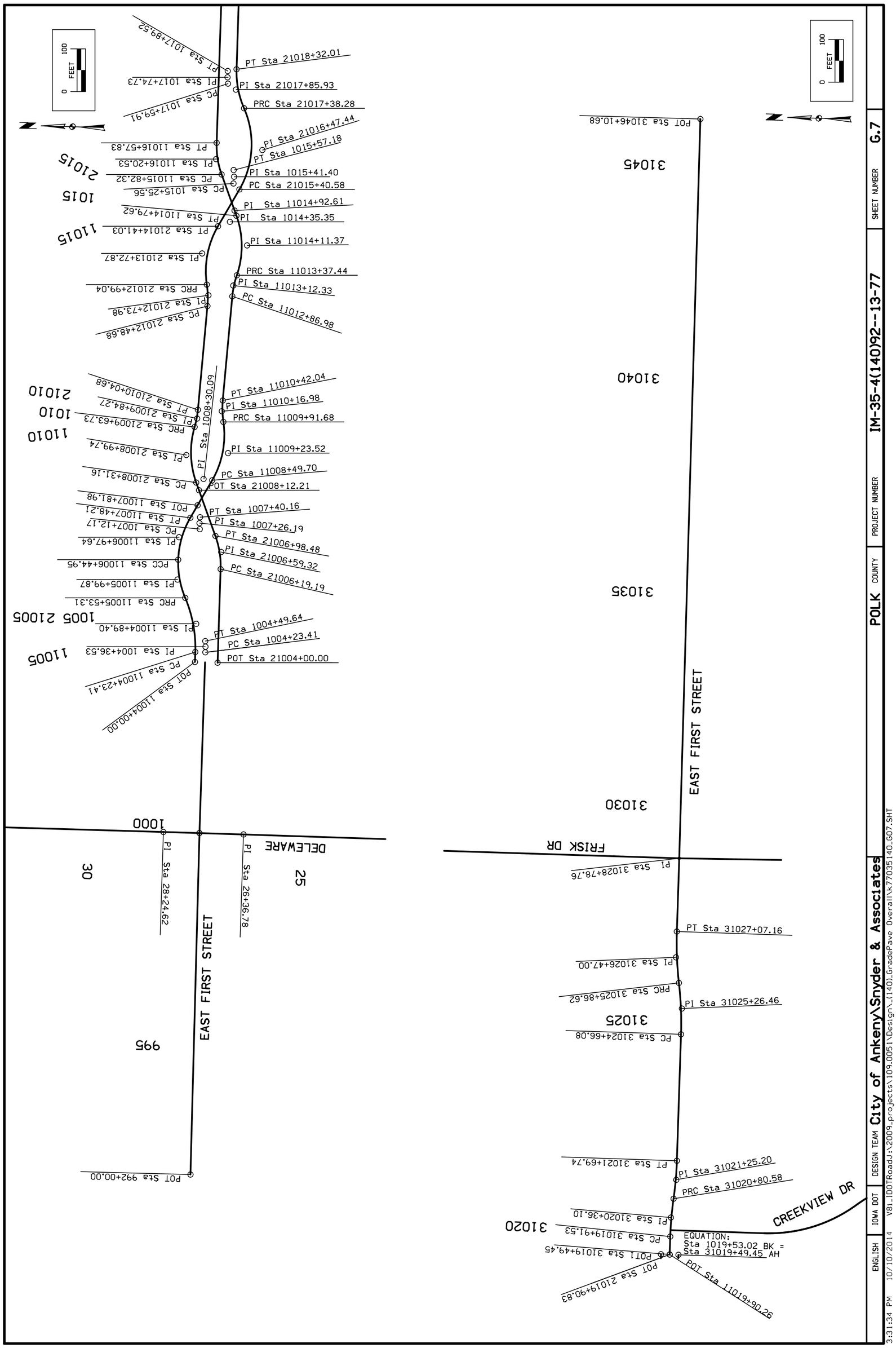
C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER G.5	

3:31:27 PM 10/10/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_G05.SHT



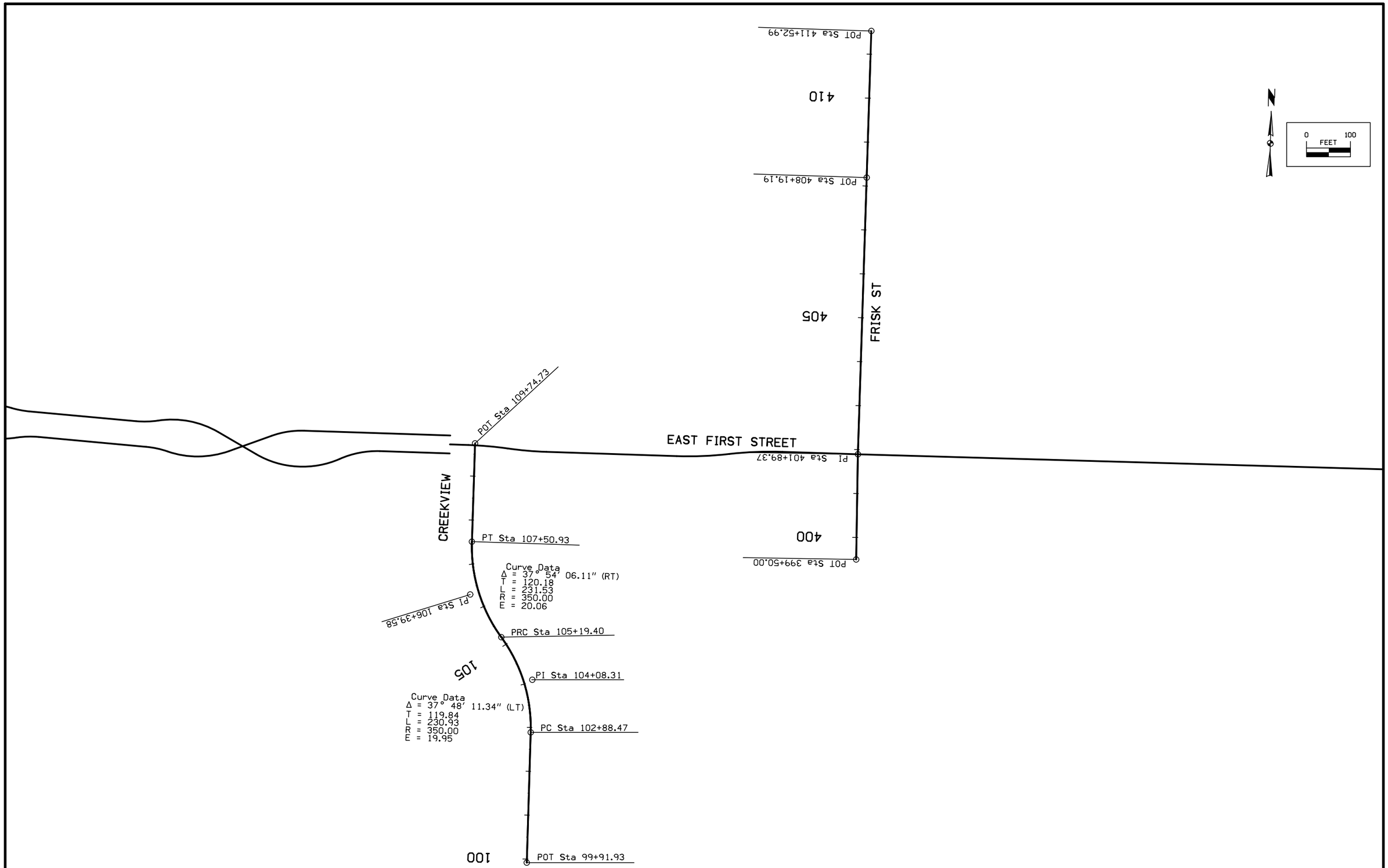
C	ENGLISH	IOWA DOT	DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK	COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER G.6

3:31:30 PM 10/10/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_G06.SHT



ENGLISH | IOWA DOT | DESIGN TEAM City of Ankeny\Snyder & Associates | COUNTY POLK | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER G.7

10/10/2014 3:31:34 PM V8i:\DOTRoad:\2009_projects\109.0051\Design\(140)GradePave OverallNk77035140.607.SHT



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER G.8

3:31:37 PM 10/10/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_G08.SHT

INTERSTATE 35

Point CL1 N 614,606.2600 E 1,619,704.7200 Sta 108+32.89

Course from CL1 to PC I35-1 N 0° 52′ 34.33″ W Dist 14,967.3137

Curve Data						
Curve I35-1						
P.I. Station		262+77.61	N	630,049.1709	E	1,619,468.5392
Delta	=	3° 13′ 01.83″ (LT)				
Degree	=	0° 20′ 13.32″				
Tangent	=	477.4031				
Length	=	954.5553				
Radius	=	17,000.0000				
External	=	6.7020				
Long Chord	=	954.4299				
Mid. Ord.	=	6.6994				
P.C. Station		258+00.20	N	629,571.8236	E	1,619,475.8397
P.T. Station		267+54.76	N	630,525.3561	E	1,619,434.4612
C.C.			N	629,311.8594	E	1,602,477.8275
Back	= N	0° 52′ 34.33″ W				
Ahead	= N	4° 05′ 36.16″ W				
Chord Bear	= N	2° 29′ 05.24″ W				

Course from PT I35-1 to PC I35-2 N 4° 05′ 36.16″ W Dist 790.6040

Curve Data						
Curve I35-2						
P.I. Station		277+95.38	N	631,563.3234	E	1,619,360.1793
Delta	=	1° 41′ 06.61″ (LT)				
Degree	=	0° 20′ 13.32″				
Tangent	=	250.0179				
Length	=	499.9998				
Radius	=	17,000.0000				
External	=	1.8384				
Long Chord	=	499.9818				
Mid. Ord.	=	1.8382				
P.C. Station		275+45.36	N	631,313.9433	E	1,619,378.0261
P.T. Station		280+45.36	N	631,812.0709	E	1,619,335.0066
C.C.			N	630,100.4466	E	1,602,421.3925
Back	= N	4° 05′ 36.16″ W				
Ahead	= N	5° 46′ 42.77″ W				
Chord Bear	= N	4° 56′ 09.46″ W				

Course from PT I35-2 to TS I35-3B N 5° 46′ 42.77″ W Dist 1,618.4733

SCS I35-3 found within chain I35, contains:
SPI I35-3B CUR I35-3 SPI I35-3A

PISCS I35-3 N 634,268.4788 E 1,619,086.4229 STA 305+14.32

Total Back Tangent	=	850.4807
Total Ahead Tangent	=	850.4673
Total Length	=	1,679.7135
Total Delta	=	24° 53′ 19.19″ (RT)
Back Tangent	= N	5° 46′ 42.77″ W
Ahead Tangent	= N	19° 06′ 36.42″ E

Beginning SCS I35-3 description

Spiral Back
Spiral I35-3B Type 1 Spiral Element

Angle	4° 08′ 56.42″ (RT)	P	2.5340	BK N	5° 46′ 42.77″ W
LS	420.0000	K	209.9633	AH N	1° 37′ 46.35″ W
R	2,900.0000	LT	280.0769	CB N	4° 23′ 44.18″ W
YS	10.1341	ST	140.0700	Defl	1° 22′ 58.58″
XS	419.7798	LC	419.9021	Deg	1° 58′ 32.58″

Spiral Coordinates

Point	North	East	Station
TS	633,422.3199	1,619,172.0526	296+63.84
PI	633,700.9736	1,619,143.8534	299+43.91
SC	633,840.9869	1,619,139.8702	300+83.84
CC	633,923.4543	1,622,038.6974	

INTERSTATE 35 CONT.

Circular Section

Curve Data						
Curve I35-3						
P.I. Station		305+06.67	N	634,263.6462	E	1,619,127.8461
Delta	=	16° 35′ 27.42″ (RT)				
Degree	=	1° 58′ 32.58″				
Tangent	=	422.8304				
Length	=	839.7435				
Radius	=	2,900.0000				
External	=	30.6630				
Long Chord	=	836.8127				
Mid. Ord.	=	30.3422				
P.C. Station		300+83.84	N	633,840.9869	E	1,619,139.8702
P.T. Station		309+23.58	N	634,672.1426	E	1,619,237.0076
C.C.			N	633,923.4543	E	1,622,038.6974
Back	= N	1° 37′ 46.35″ W				
Ahead	= N	14° 57′ 41.07″ E				
Chord Bear	= N	6° 39′ 57.36″ E				

Spiral Ahead
Spiral I35-3A Type 2 Spiral Element

Angle	4° 08′ 55.35″ (RT)	P	2.5336	BK N	14° 57′ 41.07″ E
LS	419.9700	K	209.9483	AH N	19° 06′ 36.42″ E
R	2,900.0000	LT	280.0569	CB N	17° 43′ 38.19″ E
YS	10.1327	ST	140.0599	Defl	1° 22′ 58.23″
XS	419.7499	LC	419.8721	Deg	1° 58′ 32.58″

Spiral Coordinates

Point	North	East	Station
CS	634,672.1426	1,619,237.0076	309+23.58
PI	634,807.4545	1,619,273.1666	310+63.64
ST	635,072.0778	1,619,364.8530	313+43.55
CC	633,923.4543	1,622,038.6974	

Ending SCS I35-3 description

Course from ST I35-3A to CL2 N 19° 06′ 36.42″ E Dist 2,657.6105

Equation: Sta 340+01.16 (BK) = Sta 640+00.00 (AH) End Region 1 / Begin Region 2

Point CL2 N 637,583.2304 E 1,620,234.9141 Sta 640+00.00

Course from CL2 to CL18 N 19° 06′ 36.42″ E Dist 389.9966

Point CL18 N 637,951.7347 E 1,620,362.5930 Sta 643+90.00

Course from CL18 to CL4 N 19° 55′ 42.86″ E Dist 980.1070

Point CL4 N 638,873.1512 E 1,620,696.6609 Sta 653+70.10

Course from CL4 to TS I35-4B N 19° 06′ 36.19″ E Dist 1,667.0721

SCS I35-4 found within chain I35, contains:
SPI I35-4B CUR I35-4 SPI I35-4A

PISCS I35-4 N 641,516.0776 E 1,621,612.3757 STA 681+67.17

Total Back Tangent	=	1,129.9967
Total Ahead Tangent	=	1,129.9874
Total Length	=	2,226.0836
Total Delta	=	26° 22′ 18.20″ (LT)
Back Tangent	= N	19° 06′ 36.19″ E
Ahead Tangent	= N	7° 15′ 42.01″ W

Beginning SCS I35-4 description

Spiral Back
Spiral I35-4B Type 1 Spiral Element

Angle	2° 45′ 26.49″ (LT)	P	1.5439	BK N	19° 06′ 36.19″ E
LS	385.0000	K	192.4851	AH N	16° 21′ 09.70″ E
R	4,000.0000	LT	256.6978	CB N	18° 11′ 27.43″ E
YS	6.1750	ST	128.3616	Defl	0° 55′ 08.77″
XS	384.9108	LC	384.9604	Deg	1° 25′ 56.62″

INTERSTATE 35 CONT.

Spiral Coordinates

Point	North	East	Station
TS	640,448.3534	1,621,242.4331	670+37.18
PI	640,690.9049	1,621,326.4718	672+93.87
SC	640,814.0739	1,621,362.6120	674+22.18
CC	641,940.2712	1,617,524.4249	

Circular Section

Curve Data

Curve I35-4

P.I. Station	681+58.38	N	641,520.4919	E	1,621,569.8884
Delta =	20° 51′ 25.73″ (LT)				
Degree =	1° 25′ 56.62″				
Tangent =	736.1996				
Length =	1,456.1036				
Radius =	4,000.0000				
External =	67.1845				
Long Chord =	1,448.0771				
Mid. Ord. =	66.0747				
P.C. Station	674+22.18	N	640,814.0739	E	1,621,362.6120
P.T. Station	688+78.28	N	642,254.4175	E	1,621,512.0698
C.C.		N	641,940.2712	E	1,617,524.4249
Back = N	16° 21′ 09.70″ E				
Ahead = N	4° 30′ 16.03″ W				
Chord Bear = N	5° 55′ 26.83″ E				

Spiral Ahead

Spiral I35-4A Type 2 Spiral Element

Angle	2° 45′ 25.98″ (LT)	P	1.5437	BK N	4° 30′ 16.03″ W
LS	384.9800	K	192.4751	AH N	7° 15′ 42.01″ W
R	4,000.0000	LT	256.6845	CB N	6° 20′ 33.41″ W
YS	6.1744	ST	128.3550	Defl	0° 55′ 08.59″
XS	384.8909	LC	384.9404	Deg	1° 25′ 56.62″

Spiral Coordinates

Point	North	East	Station
CS	642,254.4175	1,621,512.0698	688+78.28
PI	642,382.3760	1,621,501.9893	690+06.63
ST	642,637.0017	1,621,469.5441	692+63.26
CC	641,940.2712	1,617,524.4249	

Ending SCS I35-4 description

Course from ST I35-4A to PC I35-5 N 7° 15′ 42.01″ W Dist 1,778.8439

Curve Data

Curve I35-5

P.I. Station	716+07.01	N	644,961.9545	E	1,621,173.2916
Delta =	5° 23′ 25.77″ (RT)				
Degree =	0° 28′ 38.87″				
Tangent =	564.9076				
Length =	1,128.9817				
Radius =	12,000.0000				
External =	13.2893				
Long Chord =	1,128.5654				
Mid. Ord. =	13.2746				
P.C. Station	710+42.10	N	644,401.5779	E	1,621,244.6965
P.T. Station	721+71.08	N	645,526.5609	E	1,621,154.8460
C.C.		N	645,918.3900	E	1,633,148.4472
Back = N	7° 15′ 42.01″ W				
Ahead = N	1° 52′ 16.24″ W				
Chord Bear = N	4° 33′ 59.13″ W				

Course from PT I35-5 to CL5 N 1° 52′ 16.24″ W Dist 1,185.1113

Point CL5 N 646,711.0403 E 1,621,116.1492 Sta 733+56.20

==========

Ending chain I35 description

RAMP A

Point RAMPA1 N 630,999.80 E 1,619,074.55 Sta 3272+37.84

Course from RAMPA1 to PC RAMPA-1 N 9° 17′ 14.36″ E Dist 431.56

Curve Data

Curve RAMPA-1						
P.I. Station		3280+14.17	N	631,765.96	E	1,619,199.84
Delta	=	11° 15′ 06.46″ (LT)				
Degree	=	1° 38′ 13.28″				
Tangent	=	344.78				
Length	=	687.33				
Radius	=	3,500.00				
External	=	16.94				
Long Chord	=	686.23				
Mid. Ord.	=	16.86				
P.C. Station		3276+69.40	N	631,425.70	E	1,619,144.19
P.T. Station		3283+56.73	N	632,110.53	E	1,619,188.02
C.C.			N	631,990.55	E	1,615,690.07
Back	= N	9° 17′ 14.36″ E				
Ahead	= N	1° 57′ 52.10″ W				
Chord Bear	= N	3° 39′ 41.13″ E				

Course from PT RAMPA-1 to RAMPA2 N 1° 57′ 52.10″ W Dist 168.27

Point RAMPA2 N 632,278.70 E 1,619,182.25 Sta 3285+25.00

RAMP A2

Point RAMPA21 N 631,062.59 E 1,618,816.26 Sta 13271+33.41

Course from RAMPA21 to PC RAMPA2-1 N 68° 24′ 59.18″ E Dist 166.97

Curve Data

Curve RAMPA2-1						
P.I. Station		13274+42.20	N	631,176.18	E	1,619,103.39
Delta	=	59° 07′ 44.82″ (LT)				
Degree	=	22° 55′ 05.92″				
Tangent	=	141.82				
Length	=	258.00				
Radius	=	250.00				
External	=	37.42				
Long Chord	=	246.70				
Mid. Ord.	=	32.55				
P.C. Station		13273+00.38	N	631,124.01	E	1,618,971.52
P.T. Station		13275+58.38	N	631,316.14	E	1,619,126.28
C.C.			N	631,356.48	E	1,618,879.55
Back	= N	68° 24′ 59.18″ E				
Ahead	= N	9° 17′ 14.36″ E				
Chord Bear	= N	38° 51′ 06.77″ E				

RAMP A3

Curve Data

Curve RAMPA3-1						
P.I. Station		23273+86.92	N	631,063.74	E	1,619,109.32
Delta	=	95° 32′ 03.96″ (RT)				
Degree	=	38° 11′ 49.87″				
Tangent	=	165.24				
Length	=	250.11				
Radius	=	150.00				
External	=	73.17				
Long Chord	=	222.13				
Mid. Ord.	=	49.18				
P.C. Station		23272+21.68	N	631,052.92	E	1,619,274.20
P.T. Station		23274+71.79	N	631,226.81	E	1,619,135.99
C.C.			N	631,202.60	E	1,619,284.02
Back	= N	86° 14′ 49.60″ W				
Ahead	= N	9° 17′ 14.36″ E				
Chord Bear	= N	38° 28′ 47.62″ W				

RAMP B

Curve Data

Curve RAMPB-1						
P.I. Station		4258+85.31	N	629,658.57	E	1,619,605.78
Delta	=	6° 31′ 54.19″ (RT)				
Degree	=	1° 08′ 45.30″				
Tangent	=	285.31				
Length	=	570.00				
Radius	=	5,000.00				
External	=	8.13				
Long Chord	=	569.69				
Mid. Ord.	=	8.12				
P.C. Station		4256+00.00	N	629,373.43	E	1,619,595.89
P.T. Station		4261+70.00	N	629,940.73	E	1,619,648.04
C.C.			N	629,200.14	E	1,624,592.88
Back	= N	1° 59′ 10.33″ E				
Ahead	= N	8° 31′ 04.52″ E				
Chord Bear	= N	5° 15′ 07.43″ E				

Course from PT RAMPB-1 to PC RAMPB-2 N 8° 31′ 04.52″ E Dist 9.20

Curve Data

Curve RAMPB-2						
P.I. Station		4263+45.82	N	630,114.61	E	1,619,674.08
Delta	=	4° 14′ 27.73″ (LT)				
Degree	=	1° 16′ 23.66″				
Tangent	=	166.62				
Length	=	333.09				
Radius	=	4,500.00				
External	=	3.08				
Long Chord	=	333.01				
Mid. Ord.	=	3.08				
P.C. Station		4261+79.20	N	629,949.83	E	1,619,649.40
P.T. Station		4265+12.29	N	630,280.77	E	1,619,686.50
C.C.			N	630,616.37	E	1,615,199.04
Back	= N	8° 31′ 04.52″ E				
Ahead	= N	4° 16′ 36.79″ E				
Chord Bear	= N	6° 23′ 50.66″ E				

Course from PT RAMPB-2 to RAMPB5 N 4° 16′ 36.79″ E Dist 678.25

Point RAMPB5 N 630,957.14 E 1,619,737.09 Sta 4271+90.54

RAMP B2

Curve Data

Curve RAMPB2-1						
P.I. Station		14270+44.61	N	630,810.71	E	1,619,738.17
Delta	=	60° 24′ 42.70″ (RT)				
Degree	=	22° 55′ 05.92″				
Tangent	=	145.54				
Length	=	263.60				
Radius	=	250.00				
External	=	39.28				
Long Chord	=	251.55				
Mid. Ord.	=	33.94				
P.C. Station		14268+99.07	N	630,665.58	E	1,619,727.32
P.T. Station		14271+62.67	N	630,872.94	E	1,619,869.74
C.C.			N	630,646.94	E	1,619,976.62
Back	= N	4° 16′ 36.79″ E				
Ahead	= N	64° 41′ 19.49″ E				
Chord Bear	= N	34° 28′ 58.14″ E				

Course from PT RAMPB2-1 to RAMPB22 N 64° 41′ 19.49″ E Dist 85.53

Point RAMPB22 N 630,909.50 E 1,619,947.06 Sta 14272+48.20

RAMP B3

Curve Data

Curve RAMPB3-1						
P.I. Station	24271+62.76	N	630,931.22	E	1,619,711.08	
Delta =	90° 31′ 26.39″	(LT)				
Degree =	30° 58′ 14.49″					
Tangent =	186.70					
Length =	292.29					
Radius =	185.00					
External =	77.83					
Long Chord =	262.82					
Mid. Ord. =	54.78					
P.C. Station	24269+76.06	N	630,745.04	E	1,619,697.16	
P.T. Station	24272+68.35	N	630,943.44	E	1,619,524.78	
C.C.		N	630,758.84	E	1,619,512.67	
Back = N	4° 16′ 36.79″ E					
Ahead = N	86° 14′ 49.60″ W					
Chord Bear = N	40° 59′ 06.41″ W					

RAMP C

Point RAMPC1 N 628,470.64 E 1,619,420.32 Sta 5247+00.00

Course from RAMPC1 to RAMPC2 N 3° 59′ 06.96″ W Dist 284.21

Point RAMPC2 N 628,754.17 E 1,619,400.57 Sta 5249+84.21

Course from RAMPC2 to RAMPC3 N 1° 41′ 40.77″ W Dist 86.37

Point RAMPC3 N 628,840.50 E 1,619,398.01 Sta 5250+70.59

Course from RAMPC3 to PC RAMPC-1 N 0° 52′ 34.33″ W Dist 429.84

Curve Data

Curve RAMPC-1						
P.I. Station	5258+68.30	N	629,638.12	E	1,619,385.82	
Delta =	12° 00′ 00.61″	(LT)				
Degree =	1° 38′ 13.28″					
Tangent =	367.87					
Length =	733.05					
Radius =	3,500.00					
External =	19.28					
Long Chord =	731.71					
Mid. Ord. =	19.17					
P.C. Station	5255+00.43	N	629,270.29	E	1,619,391.44	
P.T. Station	5262+33.48	N	629,996.74	E	1,619,303.84	
C.C.		N	629,216.77	E	1,615,891.85	
Back = N	0° 52′ 34.33″ W					
Ahead = N	12° 52′ 34.94″ W					
Chord Bear = N	6° 52′ 34.63″ W					

Course from PT RAMPC-1 to RAMPC4 N 12° 52′ 33.99″ W Dist 1,028.93

Point RAMPC4 N 630,999.80 E 1,619,074.55 Sta 5272+62.40

RAMP C2

Point RAMPBC21 N 630,642.37 E 1,619,193.18 Sta 15268+87.53

Course from RAMPBC21 to PC RAMPC2-1 N 10° 35′ 07.79″ W Dist 125.10

Curve Data

Curve RAMPC2-1						
P.I. Station	15272+13.98	N	630,961.63	E	1,619,125.33	
Delta =	106° 37′ 44.39″	(RT)				
Degree =	38° 11′ 49.87″					
Tangent =	201.35					
Length =	279.15					
Radius =	150.00					
External =	101.08					
Long Chord =	240.58					
Mid. Ord. =	60.39					
P.C. Station	15270+12.63	N	630,765.34	E	1,619,170.20	
P.T. Station	15272+91.78	N	630,948.45	E	1,619,326.24	
C.C.		N	630,798.77	E	1,619,316.43	
Back = N	12° 52′ 33.99″ W					
Ahead = S	86° 14′ 49.60″ E					
Chord Bear = N	40° 26′ 18.21″ E					

RAMP C3

Curve Data

Curve RAMPC3-1						
P.I. Station	25272+07.44	N	630,946.21	E	1,619,086.79	
Delta =	76° 44′ 14.87″	(LT)				
Degree =	16° 22′ 12.80″					
Tangent =	277.10					
Length =	468.76					
Radius =	350.00					
External =	96.41					
Long Chord =	434.50					
Mid. Ord. =	75.59					
P.C. Station	25269+30.34	N	630,676.08	E	1,619,148.54	
P.T. Station	25273+99.10	N	630,948.08	E	1,618,809.71	
C.C.		N	630,598.09	E	1,618,807.34	
Back = N	12° 52′ 33.99″ W					
Ahead = N	89° 36′ 48.86″ W					
Chord Bear = N	51° 14′ 41.42″ W					

RAMP D

Point RAMPD1 N 630,968.91 E 1,619,746.99 Sta 6271+46.43

Course from RAMPD1 to PC RAMPD-1 N 14° 56′ 44.59″ W Dist 1,348.57

Curve Data

Curve RAMPD-1						
P.I. Station	6286+35.23	N	632,407.35	E	1,619,363.02	
Delta =	8° 01′ 17.07″	(RT)				
Degree =	2° 51′ 53.24″					
Tangent =	140.23					
Length =	280.00					
Radius =	2,000.00					
External =	4.91					
Long Chord =	279.77					
Mid. Ord. =	4.90					
P.C. Station	6284+95.00	N	632,271.87	E	1,619,399.18	
P.T. Station	6287+75.00	N	632,546.56	E	1,619,346.11	
C.C.		N	632,787.67	E	1,621,331.52	
Back = N	14° 56′ 44.59″ W					
Ahead = N	6° 55′ 27.52″ W					
Chord Bear = N	10° 56′ 06.05″ W					

RAMP D2

Curve Data

Curve RAMPD2-1						
P.I. Station	16273+49.96	N	631,032.28	E	1,619,713.51	
Delta =	108° 41′ 54.99″	(LT)				
Degree =	38° 11′ 49.87″					
Tangent =	209.13					
Length =	284.57					
Radius =	150.00					
External =	107.36					
Long Chord =	243.78					
Mid. Ord. =	62.57					
P.C. Station	16271+40.84	N	631,045.97	E	1,619,504.83	
P.T. Station	16274+25.41	N	631,234.33	E	1,619,659.58	
C.C.		N	631,195.65	E	1,619,514.65	
Back = S	86° 14′ 49.60″ E					
Ahead = N	14° 56′ 44.59″ W					
Chord Bear = N	39° 24′ 12.91″ E					

RAMP D3

Curve Data

Curve RAMPD3-1						
P.I. Station		26272+68.93	N	631,022.86	E	1,619,732.59
Delta	=	74° 40′ 04.27″ (RT)				
Degree	=	19° 05′ 54.94″				
Tangent	=	228.82				
Length	=	390.96				
Radius	=	300.00				
External	=	77.30				
Long Chord	=	363.88				
Mid. Ord.	=	61.47				
P.C. Station		26270+40.11	N	631,021.31	E	1,619,961.40
P.T. Station		26274+31.07	N	631,243.94	E	1,619,673.57
C.C.			N	631,321.31	E	1,619,963.42
Back	= N	89° 36′ 48.86″ W				
Ahead	= N	14° 56′ 44.59″ W				
Chord Bear	= N	52° 16′ 46.72″ W				

FRISK

Point FRISK1	N	630,796.34	E	1,621,165.61	Sta 400+00.00
Course from FRISK1 to FRISK2 N 0° 31′ 54.81″ W Dist 189.37					
Point FRISK2	N	630,985.70	E	1,621,163.85	Sta 401+89.37
Course from FRISK2 to FRISK3 N 0° 19′ 32.94″ E Dist 629.82					
Point FRISK3	N	631,615.51	E	1,621,167.43	Sta 408+19.19

CREEKVIEW

Point CREEK1	N	630,037.26	E	1,620,434.96	Sta 99+91.93
Course from CREEK1 to PC CREEKVIEW-1 N 0° 15′ 34.27″ E Dist 296.54					

Curve Data

Curve CREEKVIEW-1						
P.I. Station		104+08.31	N	630,453.64	E	1,620,436.85
Delta	=	37° 48′ 11.34″ (LT)				
Degree	=	16° 22′ 12.80″				
Tangent	=	119.84				
Length	=	230.93				
Radius	=	350.00				
External	=	19.95				
Long Chord	=	226.76				
Mid. Ord.	=	18.87				
P.C. Station		102+88.47	N	630,333.80	E	1,620,436.31
P.T. Station		105+19.40	N	630,548.66	E	1,620,363.82
C.C.			N	630,335.39	E	1,620,086.31
Back	= N	0° 15′ 34.27″ E				
Ahead	= N	37° 32′ 37.07″ W				
Chord Bear	= N	18° 38′ 31.40″ W				

Curve Data

Curve CREEKVIEW-2						
P.I. Station		106+39.58	N	630,643.95	E	1,620,290.59
Delta	=	37° 54′ 06.11″ (RT)				
Degree	=	16° 22′ 12.80″				
Tangent	=	120.18				
Length	=	231.53				
Radius	=	350.00				
External	=	20.06				
Long Chord	=	227.33				
Mid. Ord.	=	18.97				
P.C. Station		105+19.40	N	630,548.66	E	1,620,363.82
P.T. Station		107+50.93	N	630,764.13	E	1,620,291.34
C.C.			N	630,761.94	E	1,620,641.33
Back	= N	37° 32′ 37.07″ W				
Ahead	= N	0° 21′ 29.03″ E				
Chord Bear	= N	18° 32′ 35.02″ W				

Course from PT CREEKVIEW-2 to CREEK2 N 0° 21′ 29.03″ E Dist 223.81

Point CREEK2	N	630,987.94	E	1,620,292.74	Sta 109+74.73

DELEWARE

Point DEL1	N	628,364.98	E	1,618,269.70	Sta 1+00.00
Course from DEL1 to DEL2 N 0° 21′ 57.35″ E Dist 2,536.78					
Point DEL2	N	630,901.71	E	1,618,285.90	Sta 26+36.78
Course from DEL2 to DEL3 N 0° 17′ 12.10″ E Dist 187.84					
Point DEL3	N	631,089.55	E	1,618,286.84	Sta 28+24.62
Course from DEL3 to DEL4 N 0° 11′ 22.76″ E Dist 2,553.26					
Point DEL4	N	633,642.79	E	1,618,295.29	Sta 53+77.88

FIRST_OR

Point FIRST10	N	631,005.33	E	1,617,486.57	Sta 992+00.00
Course from FIRST10 to FIRST11 S 89° 59′ 02.89″ E Dist 800.00					
Point FIRST11	N	631,005.11	E	1,618,286.56	Sta 999+99.99
Course from FIRST11 to PC FIRST_OR-1 S 89° 36′ 48.86″ E Dist 423.42					

Curve Data

Curve FIRST_OR-1						
P.I. Station		1004+36.53	N	631,002.17	E	1,618,723.09
Delta	=	4° 38′ 46.64″ (LT)				
Degree	=	17° 42′ 40.37″				
Tangent	=	13.12				
Length	=	26.23				
Radius	=	323.50				
External	=	0.27				
Long Chord	=	26.23				
Mid. Ord.	=	0.27				
P.C. Station		1004+23.41	N	631,002.25	E	1,618,709.97
P.T. Station		1004+49.64	N	631,003.14	E	1,618,736.18
C.C.			N	631,325.75	E	1,618,712.15
Back	= S	89° 36′ 48.86″ E				
Ahead	= N	85° 44′ 24.50″ E				
Chord Bear	= N	88° 03′ 47.82″ E				

Course from PT FIRST_OR-1 to PC FIRST_OR-2 N 85° 44′ 24.50″ E Dist 262.53

Curve Data

Curve FIRST_OR-2						
P.I. Station		1007+26.19	N	631,023.68	E	1,619,011.96
Delta	=	8° 01′ 02.32″ (RT)				
Degree	=	28° 38′ 52.40″				
Tangent	=	14.02				
Length	=	27.99				
Radius	=	200.00				
External	=	0.49				
Long Chord	=	27.96				
Mid. Ord.	=	0.49				
P.C. Station		1007+12.17	N	631,022.64	E	1,618,997.98
P.T. Station		1007+40.16	N	631,022.76	E	1,619,025.95
C.C.			N	630,823.19	E	1,619,012.84
Back	= N	85° 44′ 24.50″ E				
Ahead	= S	86° 14′ 33.18″ E				
Chord Bear	= N	89° 44′ 55.66″ E				

Course from PT FIRST_OR-2 to FIRST12 S 86° 14′ 33.18″ E Dist 89.93

Point FIRST12	N	631,016.87	E	1,619,115.68	Sta 1008+30.09
Course from FIRST12 to FIRST13 S 85° 37′ 49.90″ E Dist 605.26					
Point FIRST13	N	630,970.76	E	1,619,719.19	Sta 1014+35.35
Course from FIRST13 to PC FIRST_OR-3 S 86° 12′ 25.73″ E Dist 90.21					

FIRST_OR CONT.

Curve Data

Curve FIRST_OR-3						
P.I. Station		1015+41.40	N	630,963.74	E	1,619,825.01
Delta	=	9° 03′ 36.03″ (LT)				
Degree	=	28° 38′ 52.40″				
Tangent	=	15.85				
Length	=	31.63				
Radius	=	200.00				
External	=	0.63				
Long Chord	=	31.59				
Mid. Ord.	=	0.62				
P.C. Station		1015+25.56	N	630,964.79	E	1,619,809.20
P.T. Station		1015+57.18	N	630,965.20	E	1,619,840.79
C.C.			N	631,164.35	E	1,619,822.43
Back	= S	86° 12′ 25.73″ E				
Ahead	= N	84° 43′ 58.25″ E				
Chord Bear	= N	89° 15′ 46.26″ E				

Course from PT FIRST_OR-3 to PC FIRST_OR-4 N 84° 43′ 58.25″ E Dist 202.73

Curve Data

Curve FIRST_OR-4						
P.I. Station		1017+74.73	N	630,985.17	E	1,620,057.41
Delta	=	5° 39′ 12.89″ (RT)				
Degree	=	19° 05′ 54.94″				
Tangent	=	14.81				
Length	=	29.60				
Radius	=	300.00				
External	=	0.37				
Long Chord	=	29.59				
Mid. Ord.	=	0.37				
P.C. Station		1017+59.91	N	630,983.81	E	1,620,042.66
P.T. Station		1017+89.52	N	630,985.07	E	1,620,072.23
C.C.			N	630,685.07	E	1,620,070.20
Back	= N	84° 43′ 58.25″ E				
Ahead	= S	89° 36′ 48.86″ E				
Chord Bear	= N	87° 33′ 34.69″ E				

Course from PT FIRST_OR-4 to EQ1 S 89° 36′ 48.86″ E Dist 163.50

Equation: Sta 1019+53.02 (BK) = Sta 31019+49.45 (AH)

End Region 1
Begin Region 2

Point EQ1 N 630,983.96 E 1,620,235.73 Sta 31019+49.45

Course from EQ1 to PC FIRST_OR-5 S 89° 36′ 48.86″ E Dist 42.08

Curve Data

Curve FIRST_OR-5						
P.I. Station		31020+36.10	N	630,983.38	E	1,620,322.37
Delta	=	6° 13′ 19.50″ (RT)				
Degree	=	6° 59′ 14.24″				
Tangent	=	44.57				
Length	=	89.05				
Radius	=	820.00				
External	=	1.21				
Long Chord	=	89.00				
Mid. Ord.	=	1.21				
P.C. Station		31019+91.53	N	630,983.68	E	1,620,277.81
P.T. Station		31020+80.58	N	630,978.25	E	1,620,366.64
C.C.			N	630,163.70	E	1,620,272.28
Back	= S	89° 36′ 48.86″ E				
Ahead	= S	83° 23′ 29.36″ E				
Chord Bear	= S	86° 30′ 09.11″ E				

FIRST_OR CONT.

Curve Data

Curve FIRST_OR-6						
P.I. Station		31021+25.20	N	630,973.11	E	1,620,410.97
Delta	=	6° 13′ 19.50″ (LT)				
Degree	=	6° 58′ 43.61″				
Tangent	=	44.62				
Length	=	89.16				
Radius	=	821.00				
External	=	1.21				
Long Chord	=	89.11				
Mid. Ord.	=	1.21				
P.C. Station		31020+80.58	N	630,978.25	E	1,620,366.64
P.T. Station		31021+69.74	N	630,972.81	E	1,620,455.59
C.C.			N	631,793.80	E	1,620,461.13
Back	= S	83° 23′ 29.36″ E				
Ahead	= S	89° 36′ 48.86″ E				
Chord Bear	= S	86° 30′ 09.11″ E				

Course from PT FIRST_OR-6 to PC FIRST_OR-7 S 89° 36′ 48.86″ E Dist 296.34

Curve Data

Curve FIRST_OR-7						
P.I. Station		31025+26.46	N	630,970.41	E	1,620,812.30
Delta	=	8° 24′ 44.57″ (LT)				
Degree	=	6° 58′ 43.61″				
Tangent	=	60.38				
Length	=	120.54				
Radius	=	821.00				
External	=	2.22				
Long Chord	=	120.43				
Mid. Ord.	=	2.21				
P.C. Station		31024+66.08	N	630,970.82	E	1,620,751.93
P.T. Station		31025+86.62	N	630,978.84	E	1,620,872.09
C.C.			N	631,791.80	E	1,620,757.46
Back	= S	89° 36′ 48.86″ E				
Ahead	= N	81° 58′ 26.57″ E				
Chord Bear	= N	86° 10′ 48.86″ E				

Curve Data

Curve FIRST_OR-8						
P.I. Station		31026+47.00	N	630,987.27	E	1,620,931.88
Delta	=	8° 24′ 44.57″ (RT)				
Degree	=	6° 58′ 43.61″				
Tangent	=	60.38				
Length	=	120.54				
Radius	=	821.00				
External	=	2.22				
Long Chord	=	120.43				
Mid. Ord.	=	2.21				
P.C. Station		31025+86.62	N	630,978.84	E	1,620,872.09
P.T. Station		31027+07.16	N	630,986.86	E	1,620,992.26
C.C.			N	630,165.88	E	1,620,986.72
Back	= N	81° 58′ 26.57″ E				
Ahead	= S	89° 36′ 48.86″ E				
Chord Bear	= N	86° 10′ 48.85″ E				

Course from PT FIRST_OR-8 to FIRST14 S 89° 36′ 48.86″ E Dist 171.60

Point FIRST14 N 630,985.70 E 1,621,163.85 Sta 31028+78.76

Course from FIRST14 to FIRST15 S 89° 50′ 43.10″ E Dist 1,731.92

Point FIRST15 N 630,981.03 E 1,622,895.77 Sta 31046+10.68

DDIEB

Point DDIEB1 N 630,972.91 E 1,618,686.36 Sta 21004+00.00

Course from DDIEB1 to PC DDIEB-1 S 89° 36′ 48.86″ E Dist 219.19

Curve Data

Curve DDIEB-1					
P.I. Station	21006+59.32	N	630,971.16	E	1,618,945.67
Delta =	21° 38′ 00.74″ (LT)				
Degree =	27° 17′ 01.34″				
Tangent =	40.12				
Length =	79.29				
Radius =	210.00				
External =	3.80				
Long Chord =	78.82				
Mid. Ord. =	3.73				
P.C. Station	21006+19.19	N	630,971.43	E	1,618,905.55
P.T. Station	21006+98.48	N	630,985.70	E	1,618,983.06
C.C.		N	631,181.43	E	1,618,906.96
Back = S	89° 36′ 48.86″ E				
Ahead = N	68° 45′ 10.40″ E				
Chord Bear = N	79° 34′ 10.77″ E				

Course from PT DDIEB-1 to DDIEB2 N 68° 45′ 10.40″ E Dist 113.72

Point DDIEB2 N 631,026.92 E 1,619,089.06 Sta 21008+12.21

Course from DDIEB2 to PC DDIEB-2 N 68° 45′ 10.40″ E Dist 18.95

Curve Data

Curve DDIEB-2					
P.I. Station	21008+99.74	N	631,058.64	E	1,619,170.64
Delta =	36° 10′ 18.60″ (RT)				
Degree =	27° 17′ 01.34″				
Tangent =	68.58				
Length =	132.58				
Radius =	210.00				
External =	10.91				
Long Chord =	130.39				
Mid. Ord. =	10.38				
P.C. Station	21008+31.16	N	631,033.78	E	1,619,106.72
P.T. Station	21009+63.73	N	631,040.97	E	1,619,236.91
C.C.		N	630,838.06	E	1,619,182.82
Back = N	68° 45′ 10.40″ E				
Ahead = S	75° 04′ 31.00″ E				
Chord Bear = N	86° 50′ 19.70″ E				

Curve Data

Curve DDIEB-3					
P.I. Station	21009+84.27	N	631,035.68	E	1,619,256.75
Delta =	11° 10′ 18.60″ (LT)				
Degree =	27° 17′ 01.34″				
Tangent =	20.54				
Length =	40.95				
Radius =	210.00				
External =	1.00				
Long Chord =	40.88				
Mid. Ord. =	1.00				
P.C. Station	21009+63.73	N	631,040.97	E	1,619,236.91
P.T. Station	21010+04.68	N	631,034.34	E	1,619,277.25
C.C.		N	631,243.89	E	1,619,290.99
Back = S	75° 04′ 31.00″ E				
Ahead = S	86° 14′ 49.60″ E				
Chord Bear = S	80° 39′ 40.30″ E				

Course from PT DDIEB-3 to PC DDIEB-4 S 86° 14′ 49.60″ E Dist 244.00

DDIEB CONT.

Curve Data

Curve DDIEB-4					
P.I. Station	21012+73.98	N	631,016.71	E	1,619,545.97
Delta =	13° 44′ 21.95″ (LT)				
Degree =	27° 17′ 01.34″				
Tangent =	25.30				
Length =	50.36				
Radius =	210.00				
External =	1.52				
Long Chord =	50.24				
Mid. Ord. =	1.51				
P.C. Station	21012+48.68	N	631,018.37	E	1,619,520.73
P.T. Station	21012+99.04	N	631,021.10	E	1,619,570.89
C.C.		N	631,227.92	E	1,619,534.47
Back = S	86° 14′ 49.60″ E				
Ahead = N	80° 00′ 48.45″ E				
Chord Bear = N	86° 52′ 59.43″ E				

Curve Data

Curve DDIEB-5					
P.I. Station	21013+72.87	N	631,033.90	E	1,619,643.60
Delta =	38° 44′ 21.95″ (RT)				
Degree =	27° 17′ 01.34″				
Tangent =	73.83				
Length =	141.99				
Radius =	210.00				
External =	12.60				
Long Chord =	139.30				
Mid. Ord. =	11.89				
P.C. Station	21012+99.04	N	631,021.10	E	1,619,570.89
P.T. Station	21014+41.03	N	630,998.39	E	1,619,708.32
C.C.		N	630,814.28	E	1,619,607.31
Back = N	80° 00′ 48.45″ E				
Ahead = S	61° 14′ 49.60″ E				
Chord Bear = S	80° 37′ 00.57″ E				

Course from PT DDIEB-5 to PC DDIEB-6 S 61° 14′ 49.60″ E Dist 99.55

Curve Data

Curve DDIEB-6					
P.I. Station	21016+47.44	N	630,899.10	E	1,619,889.28
Delta =	53° 56′ 21.18″ (LT)				
Degree =	27° 17′ 01.34″				
Tangent =	106.86				
Length =	197.70				
Radius =	210.00				
External =	25.62				
Long Chord =	190.48				
Mid. Ord. =	22.84				
P.C. Station	21015+40.58	N	630,950.50	E	1,619,795.60
P.T. Station	21017+38.28	N	630,944.58	E	1,619,985.99
C.C.		N	631,134.61	E	1,619,896.62
Back = S	61° 14′ 49.60″ E				
Ahead = N	64° 48′ 49.22″ E				
Chord Bear = S	88° 13′ 00.19″ E				

Curve Data

Curve DDIEB-7					
P.I. Station	21017+85.93	N	630,964.86	E	1,620,029.11
Delta =	25° 34′ 21.93″ (RT)				
Degree =	27° 17′ 01.34″				
Tangent =	47.66				
Length =	93.73				
Radius =	210.00				
External =	5.34				
Long Chord =	92.95				
Mid. Ord. =	5.21				
P.C. Station	21017+38.28	N	630,944.58	E	1,619,985.99
P.T. Station	21018+32.01	N	630,964.54	E	1,620,076.77
C.C.		N	630,754.54	E	1,620,075.35
Back = N	64° 48′ 49.22″ E				
Ahead = S	89° 36′ 48.86″ E				
Chord Bear = N	77° 36′ 00.18″ E				

Course from PT DDIEB-7 to DDIEB3 S 89° 36′ 48.86″ E Dist 158.82

Point DDIEB3 N 630,963.46 E 1,620,235.59 Sta 21019+90.83

DDIWB

Point DDIWB1 N 631,025.91 E 1,618,686.72 Sta 11004+00.00
Course from DDIWB1 to PC DDIWB-1 S 89° 36′ 48.86″ E Dist 23.41

Curve Data

Curve DDIWB-1					
P.I. Station	11004+89.40	N	631,025.31	E	1,618,776.11
Delta =	24° 48′ 30.22″ (LT)				
Degree =	19° 05′ 54.94″				
Tangent =	65.98				
Length =	129.90				
Radius =	300.00				
External =	7.17				
Long Chord =	128.88				
Mid. Ord. =	7.00				
P.C. Station	11004+23.41	N	631,025.75	E	1,618,710.13
P.T. Station	11005+53.31	N	631,052.59	E	1,618,836.19
C.C.		N	631,325.75	E	1,618,712.15
Back = S	89° 36′ 48.86″ E				
Ahead = N	65° 34′ 40.92″ E				
Chord Bear = N	77° 58′ 56.03″ E				

Curve Data

Curve DDIWB-2					
P.I. Station	11005+99.87	N	631,071.84	E	1,618,878.58
Delta =	25° 00′ 08.53″ (RT)				
Degree =	27° 17′ 01.34″				
Tangent =	46.56				
Length =	91.64				
Radius =	210.00				
External =	5.10				
Long Chord =	90.91				
Mid. Ord. =	4.98				
P.C. Station	11005+53.31	N	631,052.59	E	1,618,836.19
P.T. Station	11006+44.95	N	631,071.37	E	1,618,925.14
C.C.		N	630,861.38	E	1,618,923.01
Back = N	65° 34′ 40.92″ E				
Ahead = S	89° 25′ 10.56″ E				
Chord Bear = N	78° 04′ 45.18″ E				

Curve Data

Curve DDIWB-3					
P.I. Station	11006+97.64	N	631,070.83	E	1,618,977.83
Delta =	28° 10′ 20.96″ (RT)				
Degree =	27° 17′ 01.34″				
Tangent =	52.69				
Length =	103.26				
Radius =	210.00				
External =	6.51				
Long Chord =	102.22				
Mid. Ord. =	6.31				
P.C. Station	11006+44.95	N	631,071.37	E	1,618,925.14
P.T. Station	11007+48.21	N	631,045.49	E	1,619,024.03
C.C.		N	630,861.38	E	1,618,923.01
Back = S	89° 25′ 10.56″ E				
Ahead = S	61° 14′ 49.60″ E				
Chord Bear = S	75° 20′ 00.08″ E				

Course from PT DDIWB-3 to DDIWB2 S 61° 14′ 49.60″ E Dist 33.77

Point DDIWB2 N 631,029.24 E 1,619,053.64 Sta 11007+81.98

Course from DDIWB2 to PC DDIWB-4 S 61° 14′ 49.60″ E Dist 67.72

Curve Data

Curve DDIWB-4					
P.I. Station	11009+23.52	N	630,961.15	E	1,619,177.73
Delta =	38° 44′ 21.95″ (LT)				
Degree =	27° 17′ 01.34″				
Tangent =	73.83				
Length =	141.99				
Radius =	210.00				
External =	12.60				
Long Chord =	139.30				
Mid. Ord. =	11.89				
P.C. Station	11008+49.70	N	630,996.67	E	1,619,113.01
P.T. Station	11009+91.68	N	630,973.96	E	1,619,250.44
C.C.		N	631,180.77	E	1,619,214.02
Back = S	61° 14′ 49.60″ E				
Ahead = N	80° 00′ 48.45″ E				
Chord Bear = S	80° 37′ 00.57″ E				

DDIWB CONT.

Curve Data

Curve DDIWB-5					
P.I. Station	11010+16.98	N	630,978.34	E	1,619,275.36
Delta =	13° 44′ 21.95″ (RT)				
Degree =	27° 17′ 01.34″				
Tangent =	25.30				
Length =	50.36				
Radius =	210.00				
External =	1.52				
Long Chord =	50.24				
Mid. Ord. =	1.51				
P.C. Station	11009+91.68	N	630,973.96	E	1,619,250.44
P.T. Station	11010+42.04	N	630,976.69	E	1,619,300.60
C.C.		N	630,767.14	E	1,619,286.86
Back = N	80° 00′ 48.45″ E				
Ahead = S	86° 14′ 49.60″ E				
Chord Bear = N	86° 52′ 59.43″ E				

Course from PT DDIWB-5 to PC DDIWB-6 S 86° 14′ 49.60″ E Dist 244.94

Curve Data

Curve DDIWB-6					
P.I. Station	11013+12.33	N	630,959.00	E	1,619,570.32
Delta =	13° 46′ 05.65″ (RT)				
Degree =	27° 17′ 01.34″				
Tangent =	25.35				
Length =	50.46				
Radius =	210.00				
External =	1.52				
Long Chord =	50.34				
Mid. Ord. =	1.51				
P.C. Station	11012+86.98	N	630,960.66	E	1,619,545.02
P.T. Station	11013+37.44	N	630,951.36	E	1,619,594.49
C.C.		N	630,751.11	E	1,619,531.27
Back = S	86° 14′ 49.60″ E				
Ahead = S	72° 28′ 43.95″ E				
Chord Bear = S	79° 21′ 46.78″ E				

Curve Data

Curve DDIWB-7					
P.I. Station	11014+11.37	N	630,929.11	E	1,619,664.99
Delta =	38° 46′ 02.24″ (LT)				
Degree =	27° 16′ 03.17″				
Tangent =	73.93				
Length =	142.17				
Radius =	210.12				
External =	12.63				
Long Chord =	139.48				
Mid. Ord. =	11.91				
P.C. Station	11013+37.44	N	630,951.36	E	1,619,594.49
P.T. Station	11014+79.62	N	630,955.90	E	1,619,733.90
C.C.		N	631,151.74	E	1,619,657.75
Back = S	72° 28′ 43.95″ E				
Ahead = N	68° 45′ 13.81″ E				
Chord Bear = N	88° 08′ 14.93″ E				

Course from PT DDIWB-7 to DDIWB3 N 68° 45′ 13.81″ E Dist 12.99
Point DDIWB3 N 630,960.60 E 1,619,746.01 Sta 11014+92.61
Course from DDIWB3 to PC DDIWB-8 N 68° 45′ 10.40″ E Dist 89.71

Curve Data

Curve DDIWB-8					
P.I. Station	11016+20.53	N	631,006.96	E	1,619,865.23
Delta =	21° 38′ 00.74″ (RT)				
Degree =	28° 38′ 52.40″				
Tangent =	38.21				
Length =	75.52				
Radius =	200.00				
External =	3.62				
Long Chord =	75.07				
Mid. Ord. =	3.55				
P.C. Station	11015+82.32	N	630,993.11	E	1,619,829.62
P.T. Station	11016+57.83	N	631,006.71	E	1,619,903.45
C.C.		N	630,806.71	E	1,619,902.10
Back = N	68° 45′ 10.40″ E				
Ahead = S	89° 36′ 48.86″ E				
Chord Bear = N	79° 34′ 10.77″ E				

Course from PT DDIWB-8 to DDIWB4 S 89° 36′ 48.86″ E Dist 332.43
Point DDIWB4 N 631,004.46 E 1,620,235.86 Sta 11019+90.26

ALIGNMENT COORDINATES

101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
POINT CL1	Interstate 35	108+32.89	614,606.26	1,619,704.72															
CURVE I35-1	Interstate 35							258+00.20	629,571.82	1,619,475.84	262+77.61	630,049.17	1,619,468.54	267+54.76	630,525.36	1,619,434.46			
CURVE I35-2	Interstate 35							275+45.36	631,313.94	1,619,378.03	277+95.38	631,563.32	1,619,360.18	280+45.36	631,812.07	1,619,335.01			
SPIRAL I35-3B	Interstate 35				296+63.84	633,422.32	1,619,172.50										300+83.84	633,923.45	1,619,139.87
CURVE I35-3	Interstate 35							300+83.84	633,840.97	1,619,139.87	305+06.67	634,263.65	1,619,127.85	309+23.58	634,672.14	1,622,038.70			
SPIRAL I35-3A	Interstate 35				309+23.58	634,672.14	1,619,237.01										313+43.55	635,072.08	1,619,364.85
POINT CL2	Interstate 35	640+00.00	637,583.23	1,620,234.91															
POINT CL3	Interstate 35	643+90.00	637,951.73	1,620,362.59															
POINT CL4	Interstate 35	653+70.08	638,873.15	1,620,696.66															
SPIRAL I35-4B	Interstate 35				670+37.15	640,448.35	1,621,242.43										674+22.15	640,814.07	1,621,362.61
CURVE I35-4	Interstate 35							674+22.15	640,814.07	1,621,362.61	681+58.35	641,520.49	1,621,569.89	688+78.25	642,254.42	1,621,512.07			
SPIRAL I35-4A	Interstate 35				688+78.25	642,254.41	1,621,512.07										692+63.23	642,637.00	1,621,469.54
CURVE I35-5	Interstate 35							710+42.07	644,401.58	1,621,244.70	716+06.98	644,961.95	1,621,173.29	721+71.06	645,526.56	1,621,154.85			
POINT CL5	Interstate 35	733+56.17	646,711.04	1,621,116.15															
POINT RAMPA1	RAMP A	3272+57.66	631,019.36	1,619,199.84															
CURVE RAMPA-1	RAMP A							3276+69.39	631,425.70	1,619,144.19	3280+14.19	631,019.36	1,619,077.75	3283+56.73	632,110.53	1,619,188.02			
POINT RAMPA2	RAMP A	3285+25.00	632,278.70	1,619,182.25															
POINT RAMPA21	RAMP A	13274+42.20	631,176.18	1,618,816.26															
CURVE RAMPA2-1	RAMP A							13273+00.38	631,124.01	1,618,971.52	13274+42.20	631,176.18	1,619,103.39	13275+58.38	631,316.14	1,619,123.28			
CURVE RAMPA3-1	RAMP A							23272+21.68	631,052.92	1,619,274.20	23273+86.92	631,063.74	1,619,109.32	23274+71.79	631,226.81	1,619,135.99			
CURVE RAMPB-1	RAMP B							4256+00.00	629,373.43	1,619,595.89	4258+85.31	629,658.57	1,619,605.78	4261+70.00	629,940.73	1,619,648.04			
CURVE RAMPB-2	RAMP B							4261+79.20	629,949.83	1,619,649.40	4263+45.82	630,114.61	1,619,674.08	4265+12.29	630,280.77	1,619,686.50			
POINT RAMPB1	RAMP B	4271+90.54	630,957.14	1,619,737.09															
CURVE RAMPB2-1	RAMP B							14268+99.07	630,665.58	1,619,727.32	14270+44.61	630,810.71	1,619,738.17	14271+62.67	630,872.94	1,619,869.94			
POINT RAMPB22	RAMP B	14272+48.20	630,909.50	1,619,947.06															
CURVE RAMPB3-1	RAMP B							24269+76.06	630,745.04	1,619,697.16	24271+62.76	630,931.22	1,619,711.08	24272+68.35	630,943.44	1,619,524.78			
POINT RAMPC1	RAMP C	5247+00.00	628,470.64	1,619,420.32															
POINT RAMPC2	RAMP C	5249+84.21	628,754.17	1,619,400.57															
POINT RAMPC3	RAMP C	5250+70.59	628,840.50	1,619,398.01															
CURVE RAMPC-1	RAMP C							5255+00.43	629,270.29	1,619,391.44	5258+68.29	629,638.11	1,619,385.82	5262+33.46	629,996.72	1,619,391.44			
POINT RAMPC4	RAMP C	5272+83.00	631,019.87	1,619,069.96															
POINT RAMPC21	RAMP C	15268+87.53	630,642.37	1,619,193.18															
CURVE RAMPC2-1	RAMP C							15270+12.63	630,765.34	1,619,170.20	15272+13.98	630,961.63	1,619,125.33	15272+91.78	630,948.45	1,619,326.24			
CURVE RAMPC3-1	RAMP C							25269+30.34	630,676.08	1,619,148.54	25272+07.44	630,946.21	1,619,086.79	25273+99.10	630,948.08	1,618,809.71			
POINT RAMPD1	RAMP D	6271+464.43	630,968.91	1,619,363.02															
CURVE RAMPD-1	RAMP D							6284+95.00	632,271.87	1,619,399.18	6286+35.23	632,407.35	1,619,363.02	6287+75.00	632,546.56	1,619,346.11			
CURVE RAMPD2-1	RAMP D							16271+40.84	631,045.97	1,619,504.83	16273+49.96	631,032.28	1,619,713.51	16271+40.84	631,234.33	1,619,659.58			
CURVE RAMPD3-1	RAMP D							26270+40.11	631,021.31	1,619,961.40	26272+68.93	631,022.86	1,619,732.59	26274+31.07	631,243.94	1,619,673.57			
POINT FIRST10	East First St.	992+00.00	631,005.33	1,617,486.57															
POINT FIRST11	East First St.	1000+00.00	631,005.11	1,618,286.56															
CURVE FIRST_OR-1	East First St.							1004+23.41	631,002.25	1,618,709.97	1004+36.53	631,002.17	1,618,709.97	1004+49.64	631,003.14	1,618,736.18			
CURVE FIRST_OR-2	East First St.							1007+12.17	631,022.64	1,618,997.98	1007+26.19	631,023.68	1,619,011.96	1007+40.16	631,022.76	1,619,025.95			
POINT FIRST12	East First St.	1008+30.09	631,016.87	1,619,115.68															
POINT FIRST13	East First St.	1014+35.35	630,970.76	1,619,719.19															
CURVE FIRST_OR-3	East First St.							1015+25.56	630,764.79	1,619,809.20	1015+41.40	630,763.74	1,619,825.01	1015+57.18	630,965.20	1,619,840.79			
CURVE FIRST_OR-4	East First St.							1017+74.73	630,983.81	1,620,042.66	1017+74.73	630,985.17	1,620,057.41	1017+89.52	630,985.07	1,620,072.23			
POINT EQ1	East First St.	31019+49.45	630,983.38	1,620,322.37															
CURVE FIRST_OR-5	East First St.							31019+91.53	630,983.68	1,620,277.81	31020+36.10	630,983.38	1,620,322.37	31020+80.58	630,978.25	1,620,277.81			
CURVE FIRST_OR-6	East First St.							31020+80.58	630,978.25	1,620,366.65	31021+25.20	630,973.11	1,620,410.97	31021+69.74	630,972.81	1,620,455.59			
CURVE FIRST_OR-7	East First St.							31024+66.08	630,970.82	1,620,751.93	31025+26.46	630,970.41	1,620,812.30	31025+86.62	630,978.84	1,620,872.09			
CURVE FIRST_OR-8	East First St.							31025+86.62	630,978.84	1,620,872.09	31026+47.00	630,987.27	1,620,931.88	31027+07.16	630,986.86	1,620,992.26			
POINT FIRST14	East First St.	31028+78.76	630,985.70	1,621,163.85															
POINT FIRST15	East First St.	31046+10.68	630,981.03	1,622,895.77															
POINT DDIEB1	East First St.	21004+00.00	630,972.91	1,618,686.36															
CURVE DDIEB-1	East First St.							21006+19.19	630,971.43	1,618,905.55	21006+59.32	630,971.16	1,618,945.67	21006+98.48	630,985.70	1,618,983,06			
POINT DDIEB2	East First St.	21008+12.21	631,026.92	1,619,089.06															
CURVE DDIEB-2	East First St.							21008+31.16	631,033.78	1,619,106.72	21008+99.74	631,033.78	1,619,170.64	21009+63.73	631,040.97	1,619,236.91			
CURVE DDIEB-3	East First St.							21009+63.73	631,040.97	1,619,236.91	21009+84.27	631,035.68	1,619,256.75	21010+04.68	631,034.34	1,619,277.25			
CURVE DDIEB-4	East First St.							21012+48.68	631,018.37	1,619,520.73	21012+73.98	631,016.71	1,619,545.97	21012+99.04	631,021.10	1,619,570.89			
CURVE DDIEB-5	East First St.							21012+99.04	631,021.10	1,619,570.89	21013+72.87	631,033.90	1,619,643.60	21014+41.03	630,998.39	1,619,708.32			
CURVE DDIEB-6	East First St.							21015+40.58	630,950.50	1,619,795.60	21016+47.44	630,899.10	1,619,889.28	21017+38.28	630,944.58	1,619,985.99			
CURVE DDIEB-7	East First St.							21017+38.28	630,944.58	1,619,985.99	21017+85.93	630,964.86	1,620,029.11	21018+32.01	630,964.54	1,620,076.77			
POINT DDIEB3	East First St.	21019+90.83	630,963.46	1,620,235.59															

ALIGNMENT COORDINATES

101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
DDIWB1	East First St.	11004+00.00	631,025.91	1,618,686.72															
DDIWB-1	East First St.							11004+23.41	631,025.75	1,618,710.13	11004+89.40	631,025.31	1,618,776.11	11005+53.31	631,052.59	1,618,836.19			
DDIWB-2	East First St.							11005+53.31	631,052.59	1,618,836.19	11005+99.87	631,071.84	1,618,878.58	11006+44.95	631,071.37	1,618,925.14			
DDIWB-3	East First St.							11006+44.95	631,071.37	1,618,925.14	11006+97.64	631,070.83	1,618,977.83	11007+48.21	631,045.49	1,619,024.03			
DDIWB2	East First St.	11007+81.98	631,029.24	1,619,053.64															
DDIWB-4	East First St.							11008+49.70	630,996.67	1,619,113.01	11009+23.52	630,961.15	1,619,177.73	11009+91.68	630,973.96	1,619,250.44			
DDIWB-5	East First St.							11009+91.68	630,973.96	1,619,250.44	11010+16.98	630,978.34	1,619,275.36	11010+42.04	630,976.69	1,619,300.60			
DDIWB-6	East First St.							11012+86.98	630,960.66	1,619,545.02	11013+12.33	630,959.00	1,619,570.32	11013+37.44	630,951.36	1,619,594.49			
DDIWB-7	East First St.							11013+37.44	630,951.36	1,619,594.49	11014+11.37	630,929.11	1,619,664.99	11014+79.62	630,955.90	1,619,733.90			
DDIWB3	East First St.	11014+92.61	630,960.60	1,619,746.01															
DDIWB-8	East First St.							11015+82.32	630,993.11	1,619,829.62	11016+20.53	631,006.96	1,619,865.23	11016+57.83	631,006.71	1,619,903.45			
DDIWB4	East First St.	11019+90.26	631,004.46	1,620,235.86															
CREEK1	Creekview	99+91.93	630,037.26	1,620,434.96				102+88.47	630,333.80	1,620,436.31	104+08.31	630,453.64	1,620,436.85	105+19.40	630,548.66	1,620,363.82			
CREEKVIEW-1	Creekview							105+19.40	630,548.66	1,620,363.82	106+39.58	630,643.95	1,620,290.59	107+50.93	630,764.13	1,620,291.34			
CREEKVIEW-2	Creekview																		
CREEK2	Creekview	109+74.73	630,987.94	1,620,292.74															
FRISK1	Frisk	400+00.00	630,796.34	1,621,165.61															
FRISK2	Frisk	401+69.37	630,985.70	1,621,163.85															
FRISK3	Frisk	408+19.19	631,615.51	1,621,167.43															

SPIRAL OR CIRCULAR CURVE DATA

101-17
10-20-09

Name	Location	Δ_{scs}	Horizontal Alignment Data													Details
			Spiral Data								Curve Data					
			θs	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	Δ_c	T	L	R	E	
I35-1	Interstate 35										3° 13′ 01.83″	477.40	954.56	17,000.00	6.70	
I35-2	Interstate 35										1° 41′ 06.61″	250.02	500.00	17,000.00	1.84	
I35-3B	Interstate 35	24° 53′ 19.19″	4° 08′ 56.42″	420.00′	850.48′	72.37′	419.78′	10.13′	280.08′	140.07′						
I35-3	Interstate 35										16° 35′ 27.42″	422.83	839.74	2,900.00	30.34	
I35-3A	Interstate 35	24° 53′ 19.19″	4° 08′ 55.35″	420.00′	850.47′	72.37′	419.75′	10.13′	280.06′	140.06′						
I35-4B	Interstate 35	26° 22′ 18.20″	2° 45′ 26.49″	385.00′	1,130.00′	109.90′	384.91′	6.18′	256.70′	128.36′						
I35-4	Interstate 35										20° 51′ 25.73″	736.20	1,456.10	4,000.00	67.18	
I35-4A	Interstate 35	26° 22′ 18.20″	2° 45′ 26.49″	385.00′	1,130.00′	109.90′	384.91′	6.18′	256.70′	128.36′						
I35-5	Interstate 35										5° 23′ 25.77″	564.91	1,128.57	12,000.00	13.27	
RAMPA-1	RAMP A										11° 15′ 06.46″	344.78	687.33	3,500.00	16.94	
RAMPA2-1	RAMP A										59° 07′ 44.82″	141.82	258.00	250.00	37.42	
RAMPA3-1	RAMP A										95° 32′ 03.96″	165.24	250.11	150.00	73.17	
RAMPB-1	RAMP B										6° 31′ 54.19″	285.31	570.00	5,000.00	8.13	
RAMPB-2	RAMP B										4° 14′ 27.73″	166.62	333.09	4,500.00	3.08	
RAMPB2-1	RAMP B										60° 24′ 42.70″	145.54	263.60	250.00	39.28	
RAMPB3-1	RAMP B										90° 31′ 26.39″	186.70	292.29	185.00	77.73	
RAMPC-1	RAMP C										11° 59′ 59.66″	367+86	733.03	3,500.00	19.28	
RAMPC2-1	RAMP C										106° 37′ 44.39″	201.35	279.15	150.00	101.08	
RAMPC3-1	RAMP C										76° 44′ 14.87″	277.10	468.76	350.00	96.41	
RAMPD-1	RAMP D										8° 01′ 17.07″	140.23	280.00	2,000.00	4.91	
RAMPD2-1	RAMP D										108° 41′ 54.99″	209.13	284.57	150.00	107.36	
RAMPD3-1	RAMP D										74° 40′ 04.27″	228.82	390.96	300.00	77.30	
FIRST_OR-1	East First St.										4° 38′ 46.64″	13.12	26.23	323.50	0.27	
FIRST_OR-2	East First St.										8° 01′ 02.32″	14.02	27.99	200.00	0.49	
FIRST_OR-3	East First St.										9° 03′ 36.03″	15.85	31.63	200.00	0.63	
FIRST_OR-4	East First St.										5° 39′ 12.89″	14.81	29.60	300.00	0.37	
FIRST_OR-5	East First St.										6° 13′ 19.50″	44.57	89.05	820.00	1.21	
FIRST_OR-6	East First St.										6° 13′ 19.50″	44.62	89.16	821.00	1.21	
FIRST_OR-7	East First St.										8° 24′ 44.57″	60.38	120.54	821.00	2.21	
FIRST_OR-8	East First St.										8° 24′ 44.57″	60.38	120.54	821.00	2.21	
DDIEB-1	East First St.										21° 38′ 00.74″	40.12	79.29	210.00	3.73	
DDIEB-2	East First St.										36° 10′ 18.60″	68.58	132.58	210.00	10.92	
DDIEB-3	East First St.										11° 10′ 18.60″	20.54	40.95	210.00	1.00	
DDIEB-4	East First St.										13° 44′ 21.95″	25.30	50.36	210.00	1.52	
DDIEB-5	East First St.										38° 44′ 21.95″	73.83	141.99	210.00	12.60	
DDIEB-6	East First St.										53° 56′ 21.18″	106.86	197.70	210.00	25.62	
DDIEB-7	East First St.										25° 34′ 21.93″	47.66	93.73	210.00	5.34	
DDIWB-1	East First St.										24° 48′ 30.22″	65.98	129.90	300.00	7.17	
DDIWB-2	East First St.										25° 00′ 08.53″	46.56	91.64	210.00	5.10	
DDIWB-3	East First St.										28° 10′ 20.96″	52.69	103.26	210.00	6.51	
DDIWB-4	East First St.										38° 44′ 21.95″	73.83	141.99	210.00	12.60	
DDIWB-5	East First St.										13° 44′ 21.95″	25.3	50.36	210.00	1.52	
DDIWB-6	East First St.										13° 46′ 05.65″	25.35	50.46	210.00	1.53	
DDIWB-7	East First St.										38° 46′ 02.24″	73.93	142.17	210.00	12.63	
DDIWB-8	East First St.										21° 38′ 00.74″	38.21	75.52	200.00	3.62	
CREEKVIEW-1	Creekview										37° 48′ 11.34″	119.84	230.93	350.00	19.95	
CREEKVIEW-2	Creekview										37° 54′ 06.11″	120.18	231.53	350.00	20.06	

SUPERELEVATION DATA

See PV-300 Series

Road Identification	Circular Curve or Spiral Curve Name	Radius	Superelevation Data			Standard Road Plan	Section A-A	Section B-B	Section C-C	Section D-D	Section E-E	Section F-F	Case A	Case B	Case C	Case S	Case T	Case U	Remarks
			e	L	x														
		FT	%	FT	FT														
INTERSTATE 35	I35-3	2900	5.6	420	188	PV-304	294+75.84	295+13.44	296+63.84	298+14.24	298+51.84	300+83.84	300+83.84			298+88.84	300+38.84		
							315+31.58	314+93.98	313+43.58	311+93.18	311+55.58	309+23.58	309+23.58			311+18.58	309+68.58		
INTERSTATE 35	I35-4	4000	4.6	345	188	PV-304	668+89.15	669+26.75	670+77.15	672+27.55	672+65.15	674+22.15	674+22.15			673+02.15			
							694+11.25	693+73.65	692+23.25	690+72.85	690+35.25	688+78.25	688+78.25			689+98.25			
RAMP A	RAMPA-1	3500	4.0	124	62	PV-303	3276+44.60		3276+69.40	3277+06.60						3277+06.60	3277+06.60		
							3283+81.53		3283+56.73	3283+19.53						3283+19.53	3283+19.53		
RAMP B	RAMPB-1	5000	3.0	120	80	PV-303	4255+96.00		4256+00.00	4256+36.00									
							4261+74.00		4261+70.00	4261+34.00									
RAMP C	RAMPC-1	3500	4.0	160	80	PV-303	5254+68.43		5255+00.43	5255+48.43						5255+48.43	5255+48.43		
									5262+33.46	5261+85.46						5261+85.46	5261+85.46		
RAMP D	RAMPD-1	2000	5.4	168	62	PV-303			6284+95.00	6285+45.40						6285+01.84	6285+01.84		
							6288+30.60		6287+75.00	6287+24.60						6287+68.16	6287+68.16		

DOUGLAS TWP.
T-80N R-23W
SEC. 19

DOUGLAS TWP.
T-80N R-23W
SEC. 18

0 FEET 100

Begin Ramp C
Sta. 5247+00.00 (Ramp C)
Sta. 247+00.00, 72.35' LT (SB I35)
Begin 25:1 Taper

Sta. 5249+84.21 (Ramp C)
Sta. 249+83.80, 87.77' LT (I35)
End 25:1 Taper

25:1 Taper

Curve C-1

Begin Taper
Sta. 5261+06.54, 24.00" RT

End Taper
Sta. 5264+06.54, 36.00" RT

RAMP C

25:1 Taper

INTERSTATE 35 SB

INTERSTATE 35 NB

Begin Ramp B
Sta. 4256+00.00 (Ramp B)
Sta. 256+00.00, 117.00' RT (I35)

Curve B-1

Curve B-2

Sta. 4265+29.07, 0.00' LT
Begin 10:1 Taper

10:1 Taper

Sta. 4266+49.07, 12.00' RT
End 10:1 Taper

RAMP B
Future
Turn
Lane

Begin Ramp C3
Sta. 25269+30.34 (Ramp C3)
Sta. 5269+30.34, 0.00 (Ramp C)

Begin Ramp C2
Sta. 15268+87.53 (Ramp C2)
Sta. 5268+87.53, 36.00 RT (Ramp C)

Curve C3-1

End Ramp C3
Sta. 25273+99.10 (Ramp C3)
Sta. 21005+23.51, 24.00 RT (DDIEB)

End Ramp C
Sta. 5272+62.40 (Ramp C)
Sta. 21007+91.80, 0.00 (DDIEB)

48.37°

Curve C2-1

End Ramp C2
Sta. 15272+91.78 (Ramp C2)
Sta. 11010+69.47, 26.50 RT (DDIWB)

RAMP A

POT Sta. 272+00.53 (I-35)
POT Sta. 11011+36.58 (DDIWB)
N= 630969.99
E= 1619402.64

End Ramp B3
Sta. 24272+68.35 (Ramp B3)
Sta. 11012+67.91, 18.50 RT (DDIWB)

Begin Ramp B3
Sta. 24269+76.06 (Ramp B3)
Sta. 4269+76.06, 24.00 LT (Ramp B)

Curve B3-1

64.5°

POT Sta. 272+57.06 (I-35)
POT Sta. 21011+26.30 (DDIEB)
N= 631026.38
E= 1619398.61

RAMP D

Begin Ramp B2
Sta. 14268+99.07 (Ramp B2)
Sta. 4268+99.07, 12.00 RT (Ramp B)

End Ramp B
Sta. 4271+90.54 (Ramp B)
Sta. 11014+83.04, 0.00 (DDIWB)

Curve B2-1

End Ramp B2
Sta. 14272+48.20 (Ramp B2)
Sta. 21016+92.25, 20.69 RT (DDIEB)

SE CREEKVIEW DRIVE

E FIRST STREET

Refer to Sheets E.1-E.2 For
E. First Street Information

Refer to Sheet K.3 For Tables
101-16 and 101-17

For Ramp B Taper Staking Details
Refer to Sheets K.XX to K.XX

For Ramp C Taper Staking Details
Refer to Sheets K.XX to K.XX

For Ramp Terminal Geometrics
Refer to Sheets L.XX to L.XX

GEOMETRIC PLAN
PROPOSED INTERCHANGE OF
INTERSTATE 35
WITH E. FIRST STREET
ANKENY, IOWA

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.1

11:12:00 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_K01.SHT

DOUGLAS TWP.
T-80N R-23W
SEC. 18

0 FEET 100

Begin Ramp A2
Sta. 13271+33.41 (Ramp A2)
Sta. 11005+38.45, 17.00 LT (DDIWB)

Begin Ramp A
Sta. 3272+61.08 (Ramp A)
Sta. 21008+00.66, 0.00 (DDIEB)

End Ramp A3
Sta. 23274+71.79 (Ramp A3)
Sta. 3274+71.79, 24.00 RT (Ramp A)

End Ramp A2
Sta. 13275+58.38 (Ramp A2)
Sta. 3275+58.38, 0.00 (Ramp A)

Sta. 3277+24.78, 24.00' RT
Begin 10:1 Taper

Sta. 3278+04.78, 16.00' RT
End 10:1 Taper

Point "M" Standard Road Plan PV-410
Sta. 3285+25.00 (Ramp A)
P.O.T. Sta. 285+25.00, 105.00' LT (I-35)
Begin 15:1 Taper

Sta. 289+45.00, 77.00' LT
End 15:1 Taper

Sta. 294+45.00, 77.00' LT
Begin 15:1 Taper

Sta. 296+25.00, 65.00' LT
End 15:1 Taper

Begin Ramp A3
Sta. 23272+21.68 (Ramp A3)
Sta. 21010+00.02, 18.29 LT (DDIEB)

Point "P" Standard Road Plan PV-410
P.O.T. Sta. 297+75.00, 65.00' RT (I-35)
End 50:1 Taper

Point "G" Standard Road Plan PV-410
P.O.T. Sta. 6287+75.00 (Ramp D)
P.O.T. Sta. 287+75.00, 85.00' RT (I-35)
Begin 50:1 Taper

Begin Ramp D2
Sta. 16271+40.84 (Ramp D2)
Sta. 21012+31.02, 26.50 LT (DDIEB)

End Ramp D3
Sta. 26274+31.08 (Ramp D3)
Sta. 6274+31.08, 0.00 (Ramp D)

End Ramp D2
Sta. 16274+25.41 (Ramp D2)
Sta. 6274+25.41, 16.00 LT (Ramp D)

Begin Ramp D
Sta. 6271+56.45 (Ramp D)
Sta. 21014+82.18, 0.00 (DDIEB)

Begin Ramp D3
Sta. 26270+40.11 (Ramp D3)
Sta. 11017+15.69, 15.00 LT (DDIWB)

CURVE A2-1
CURVE A-1
RAMP A
10:1 Taper
15:1 Taper
50:1 Taper
INTERSTATE 35 SB
INTERSTATE 35 NB
Curve D-1
Curve D2-1
RAMP D
Curve D3-1
SE CREEKVIEW DRIVE
E FIRST STREET

Refer to Sheets E.1-E.2 For E. First Street Information

Refer to Sheet K.3 For Tables 101-16 and 101-17

For Ramp B Taper Staking Details Refer to Sheets K.XX to K.XX

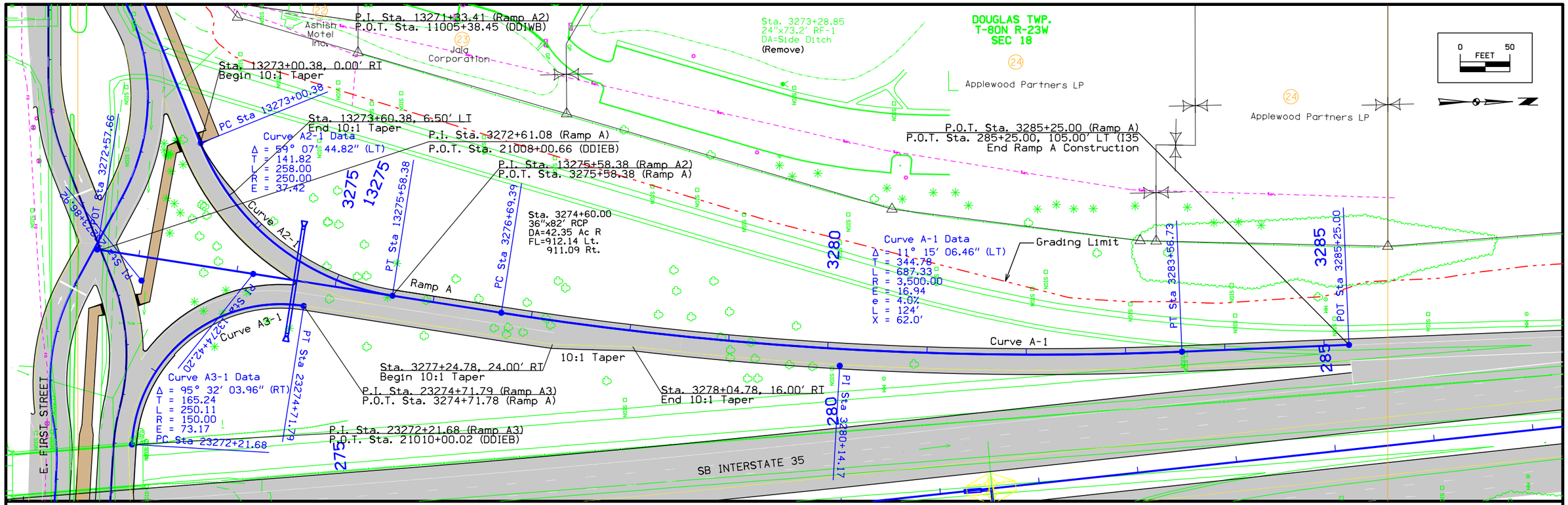
For Ramp C Taper Staking Details Refer to Sheets K.XX to K.XX

For Ramp Terminal Geometrics Refer to Sheets L.XX to L.XX

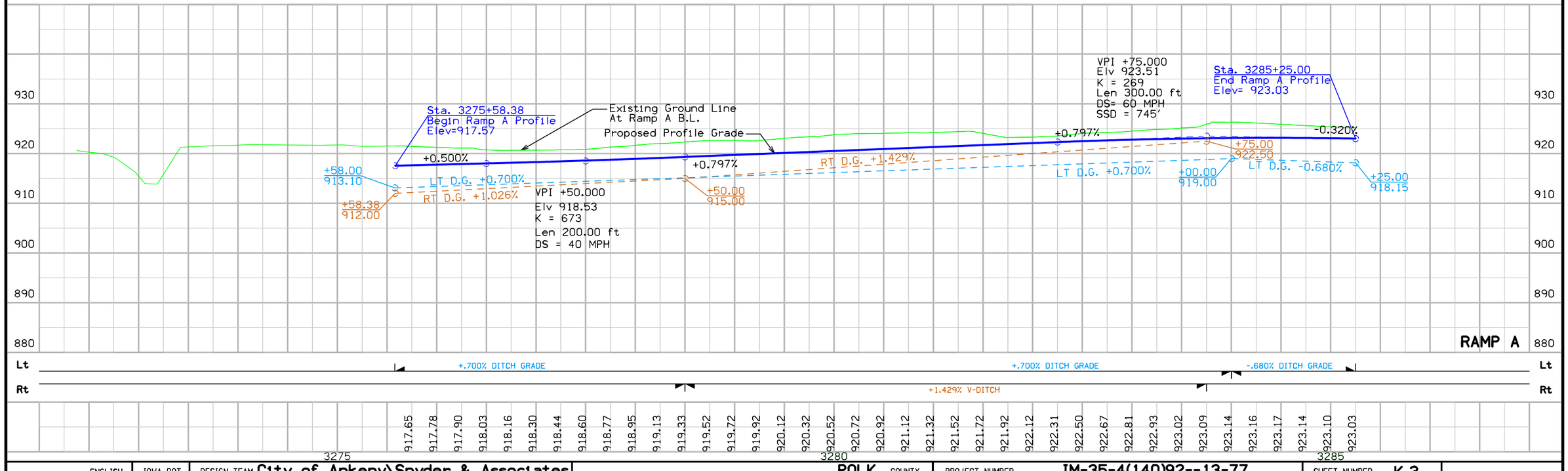
GEOMETRIC PLAN
PROPOSED INTERCHANGE OF INTERSTATE 35
WITH E. FIRST STREET
ANKENY, IOWA

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.2

11:12:04 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_K02.SHT

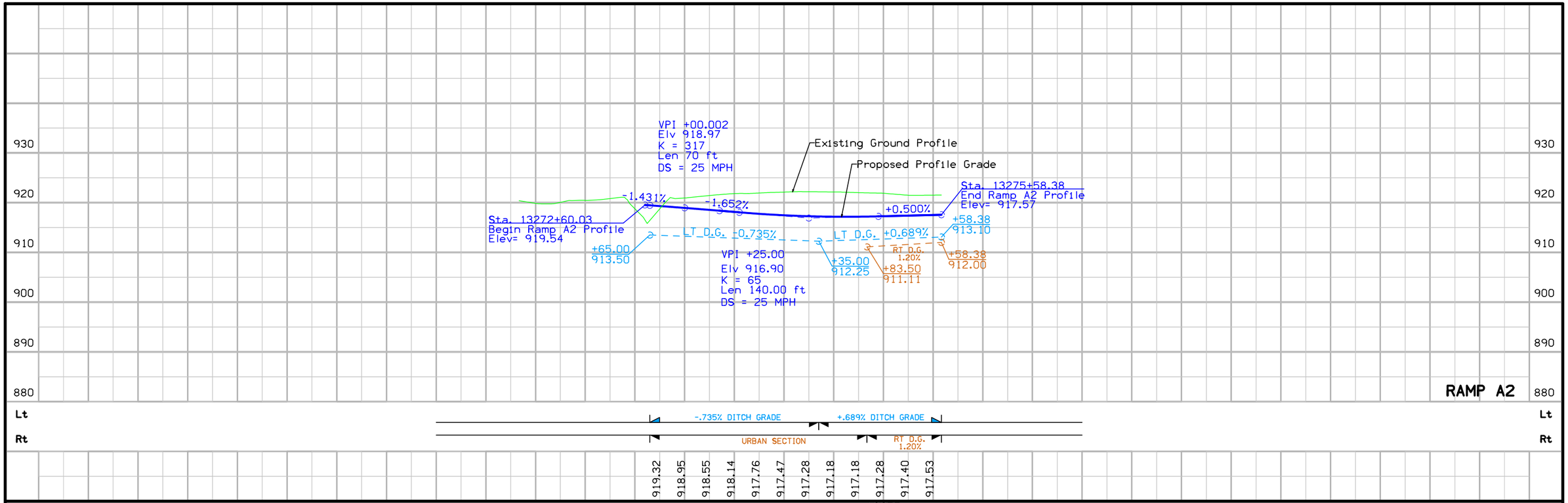


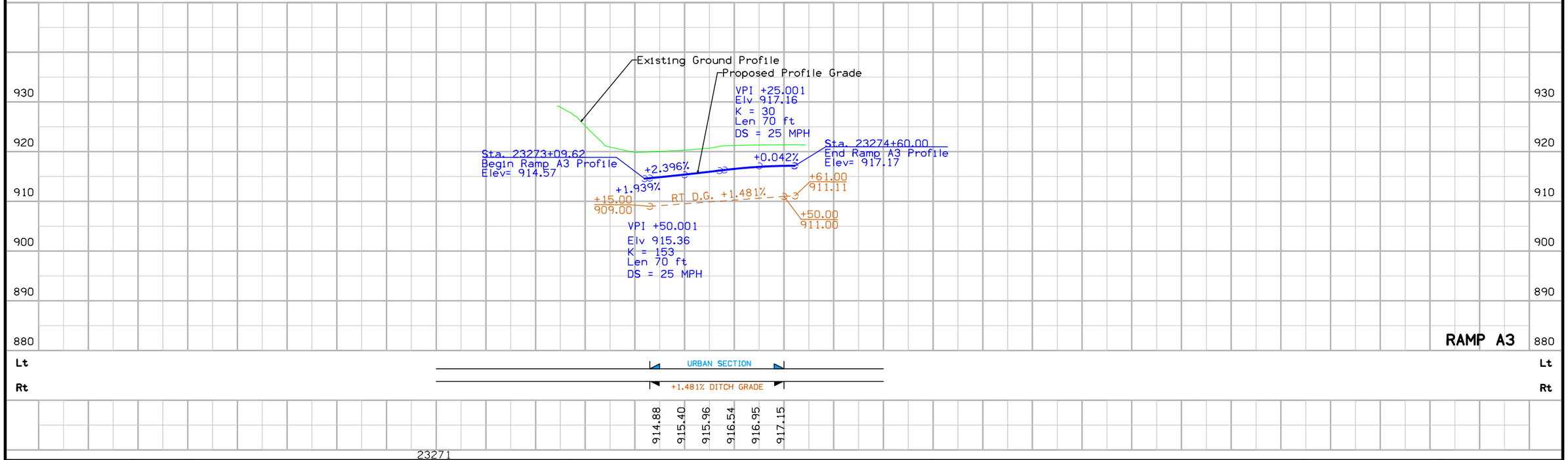
For I-35 Mainline Details Refer to D-Sheets	For E. First St. Details Refer to Sheet E.03	For Culvert Information Refer to V-Sheets.	For Intersection, Jointing and Geometrics, Refer to L-Sheets.	For Right of Way Information Refer to H-Sheets.



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.3

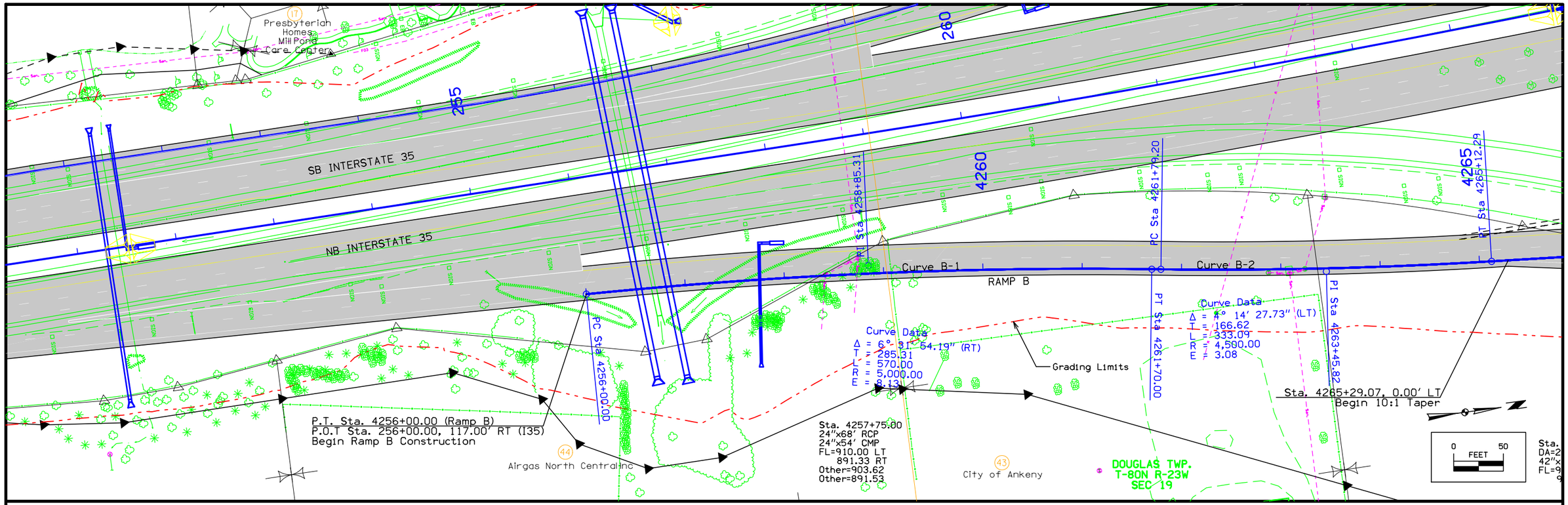
11:12:09 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_K03.SHT

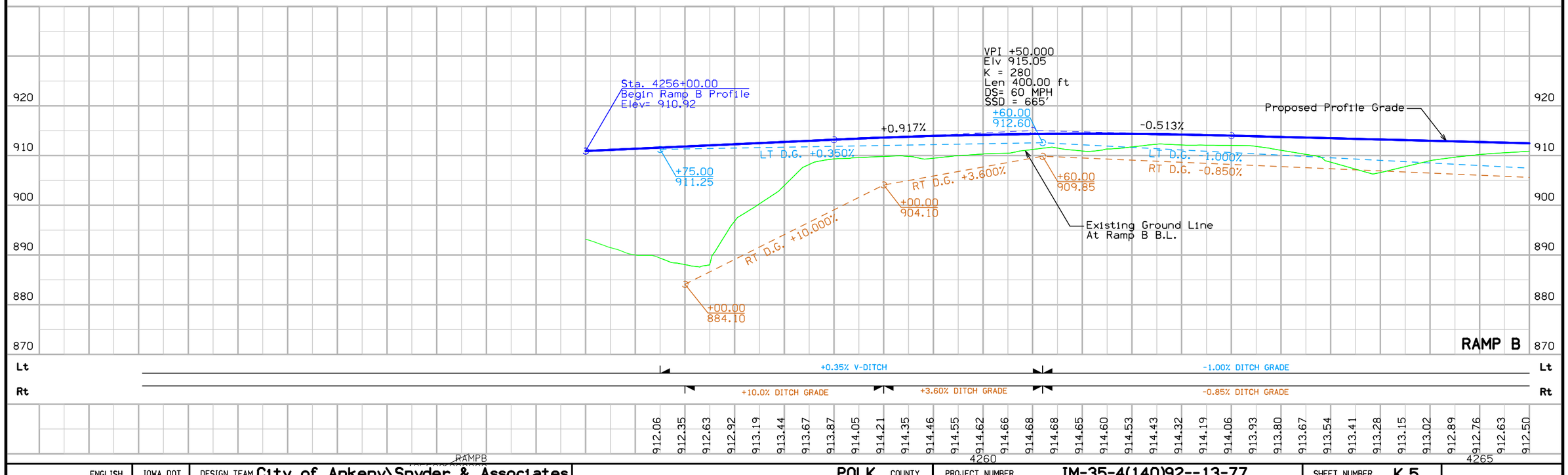




ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER K.4	

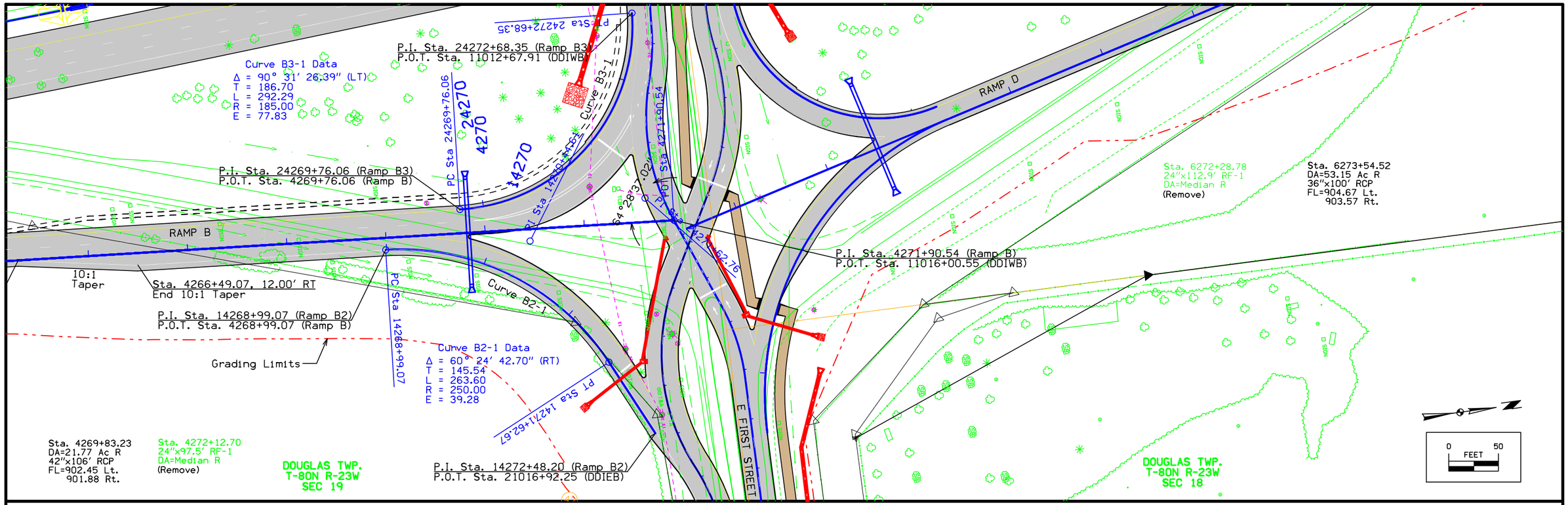
11:12:12 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_K04.SHT





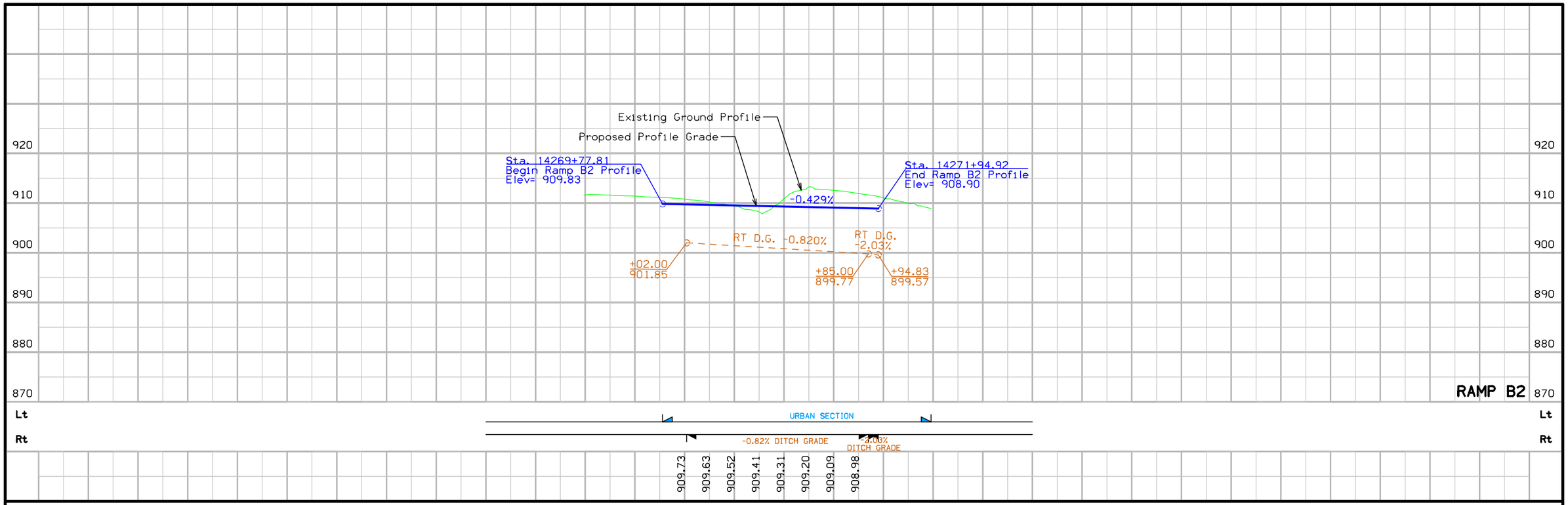
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.5

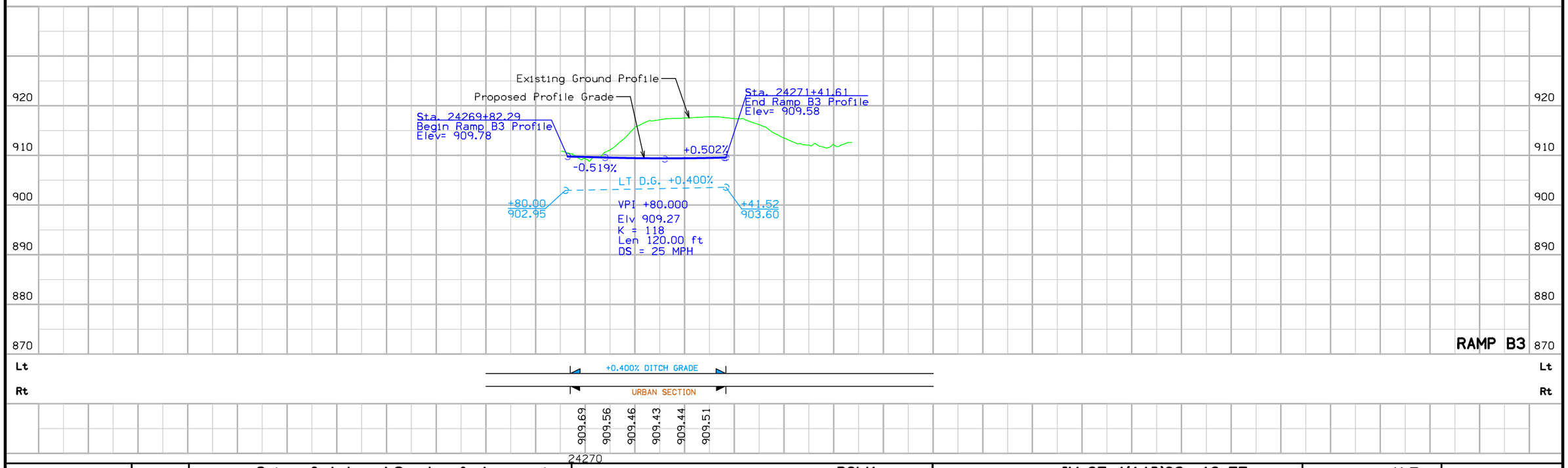
11:12:18 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_K05.SHT



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.6

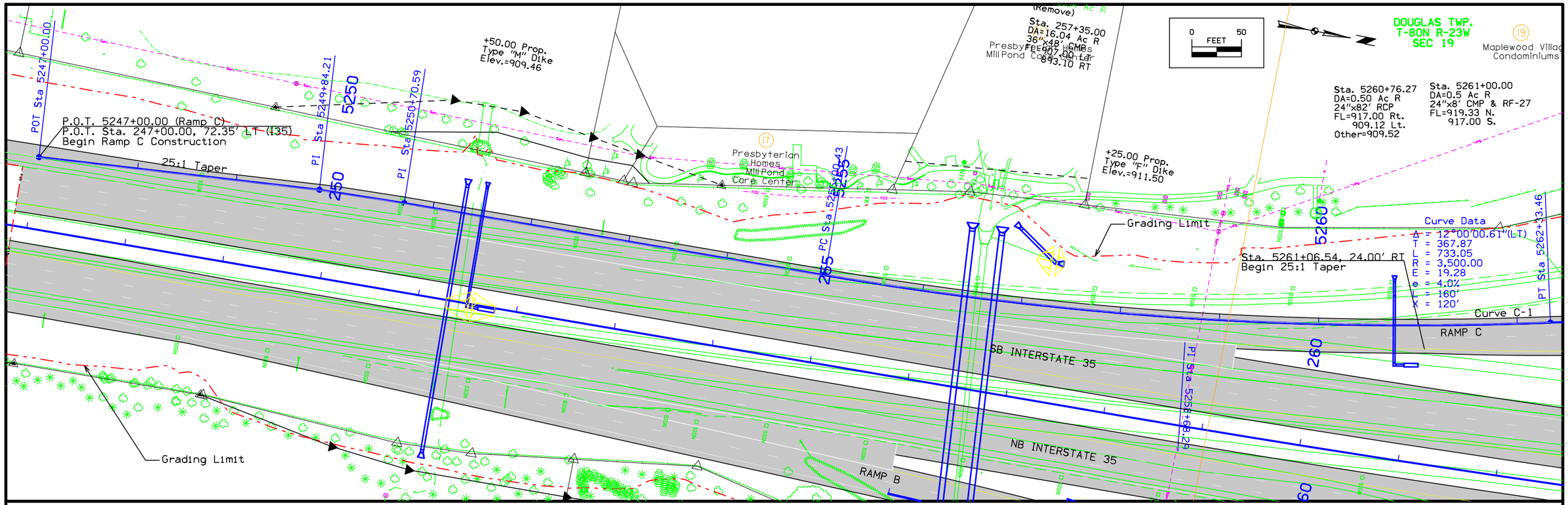
11:12:22 AM 9/30/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_K06.SHT



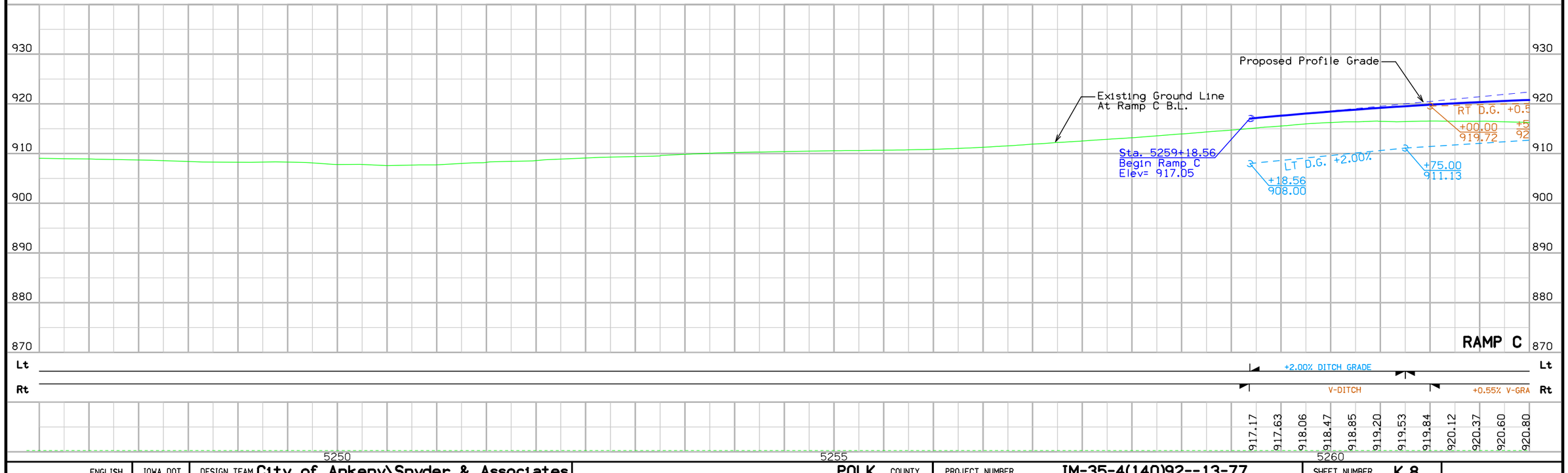


ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.7

11:12:25 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_K07.SHT

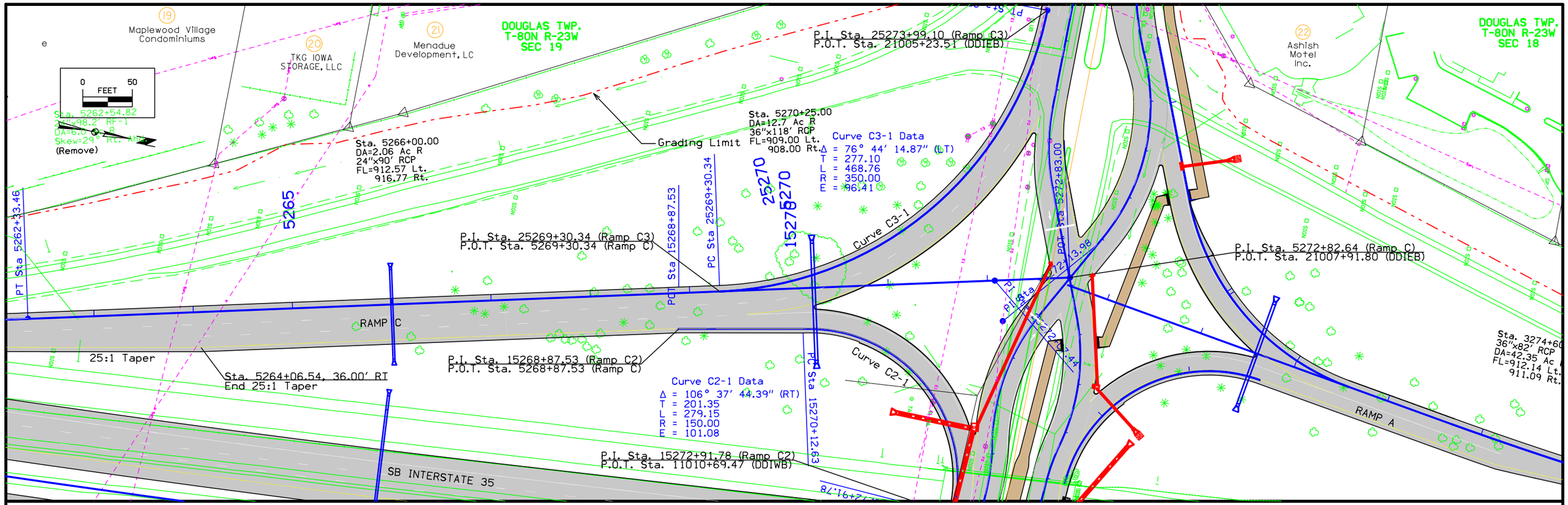


For I-35 Mainline Details Refer to D-Sheets	For Culvert Information Refer to V-Sheets.	For Right of Way Information Refer to H-Sheets.

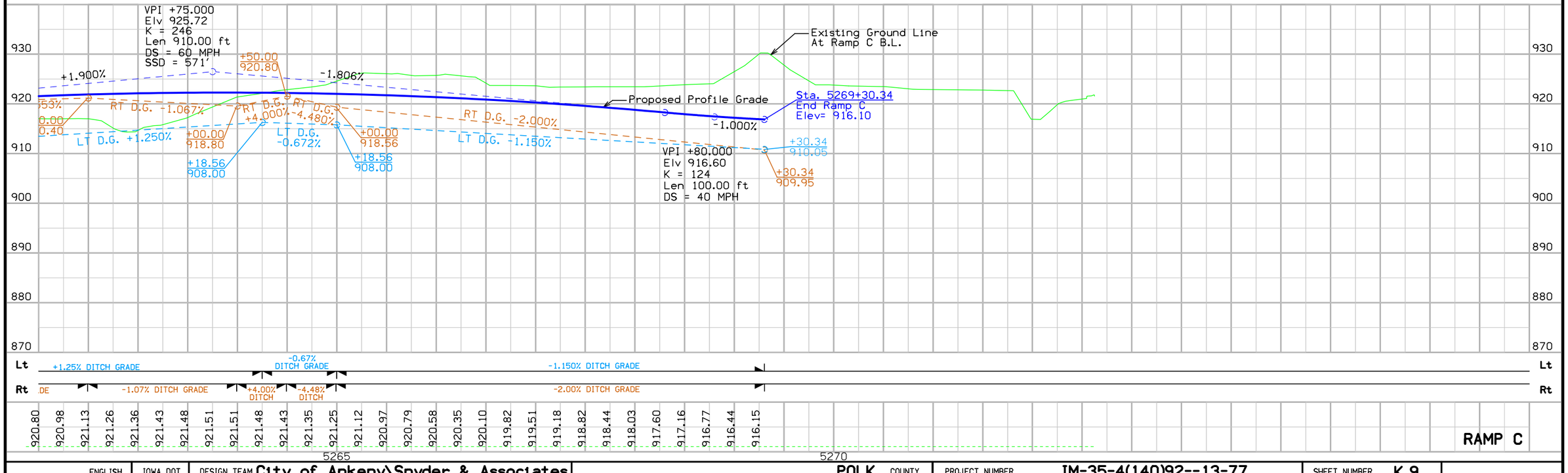


ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.8

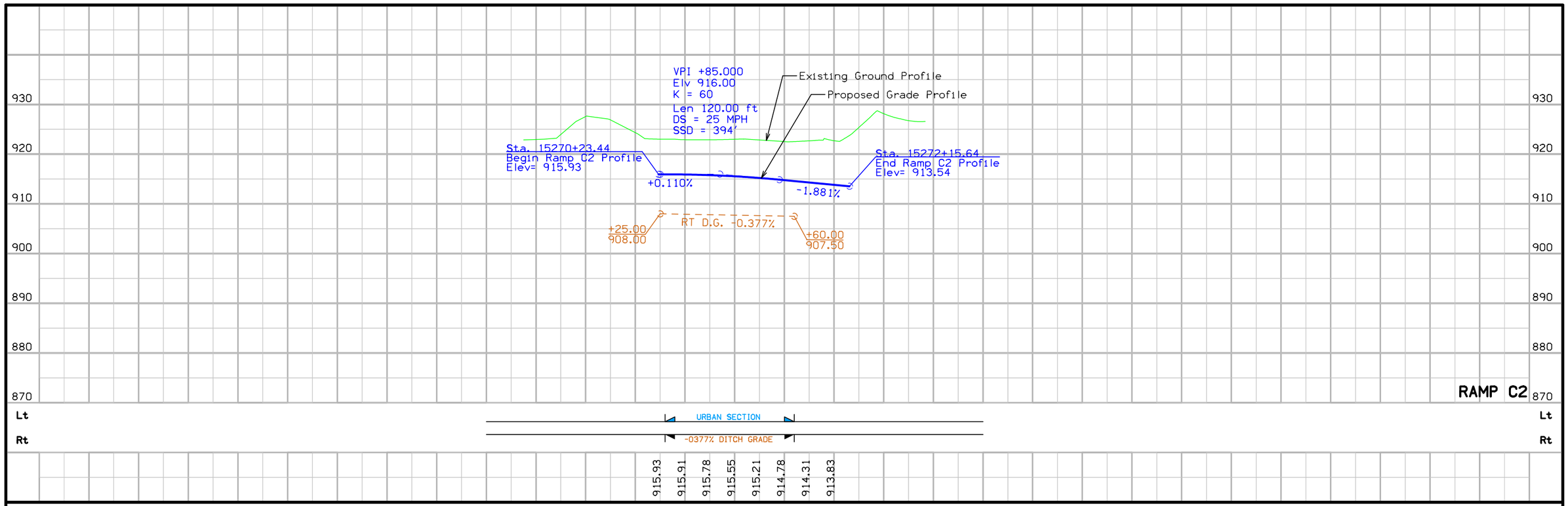
11:12:30 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_K08.SHT

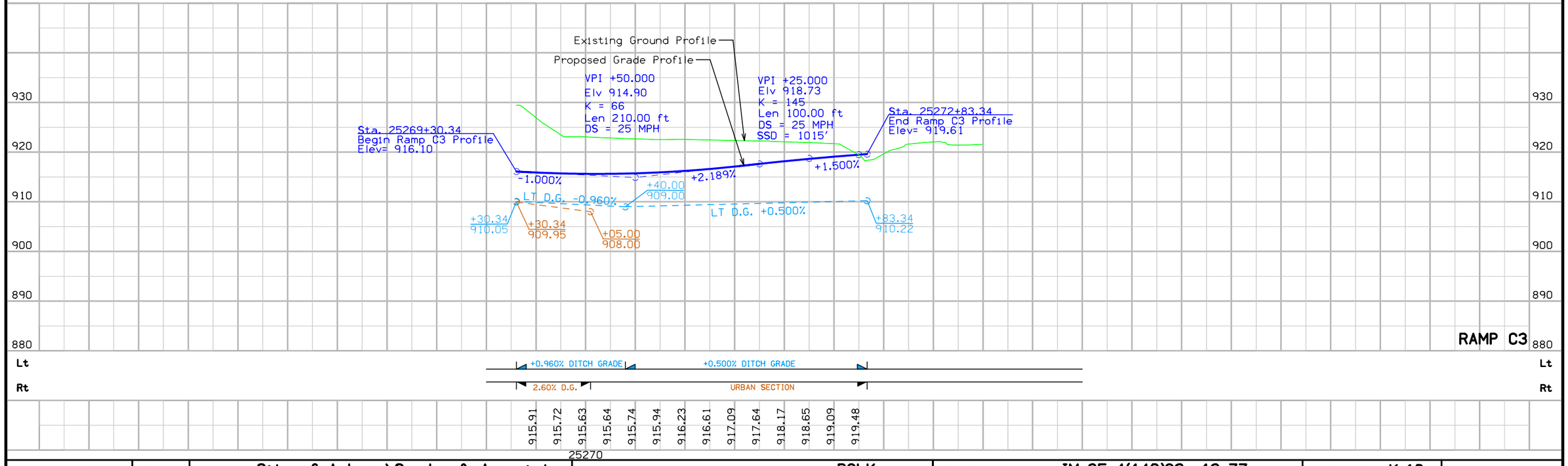


For E. First St. Details Refer to Sheet E.03.	For Culvert Information Refer to V-Sheets.	For Intersection, Jointing and Geometrics, Refer to L-Sheets.	For Right of Way Information Refer to H-Sheets.



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.9





25270

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.10

11:12:38 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_K10.SHT

PC Sta 16271+40.84

P.I. Sta. 16271+40.84 (Ramp D2)
P.O.T. Sta. 21012+31.02 (DDIWB)

Curve D2-1 Data
Δ = 108° 41' 54.99" (LT)
T = 209.13
L = 284.57
R = 150.00
E = 107.36

PT Sta 16274+25.41

P.I. Sta. 16274+25.41 (Ramp D2)
P.O.T. Sta. 6274+25.41 (Ramp D)

Curve D2-1

POT Sta 16271+46.43

SB INTERSTATE 35

NB INTERSTATE 35

6275 6280 6285

Ramp D

Curve D3-1

PT Sta 26274+31.07

P.I. Sta. 26274+31.07 (Ramp D3)
P.O.T. Sta. 6274+31.08 (DDIWB)

Sta. 26272+30.76, 6.50' RT
End 10:1 Taper

P.I. Sta. 6271+56.45 (Ramp D)
P.O.T. Sta. 21015+16.29 (DDIEB)

Grading Limits

PC Sta 6284+95.00

Curve D3-1 Data
Δ = 74° 40' 04.27" (RT)
T = 228.82
L = 390.96
R = 300.00
E = 77.30

Sta. 26271+70.76, 0.00' RT
Begin 10:1 Taper

E FIRST STREET

P.I. Sta. 26270+40.11 (Ramp D3)
P.O.T. Sta. 11017+15.69 (DDIWB)

PC Sta 26270+40.11

Sta. 6272+28.78
24"x112.9' RF-1
DA=Median R
(Remove)

Sta. 6273+54.52
DA=53.15 Ac R
36"x100' RCP
FL=904.67 Lt.
903.57 Rt.

DOUGLAS TWP.
T-80N R-23W
SEC 18

41 Richard W. Smith & Ronald E. Smith

40 Stephen Drake

0 FEET 50

SSD = 602'
VPI +00.000
Elv 922.35
K = 255
Len 450.00 ft
DS = 60

Sta. 6285+46.34
End Ramp D
Elev=922.40

Existing Ground Line
At Ramp D B.L.

Proposed Profile Grade

Sta. 6274+31.07
Begin Ramp D
Elev= 910.86

+0.531%
+1.782%
+0.020%

+31.08
905.55

+31.08
904.50

LT D.G. +0.750%
RT D.G. +1.097%

+50.00
907.94

+50.00
908.00

VPI +50.000
Elv 912.55
K = 160
Len 200.00 ft
DS = 40 MPH

LT D.G. +2.115%
RT D.G. +1.500%

+50.00
916.40

+80.00
919.00

LT D.G. +2.000%

+00.00
916.25

RT D.G. +0.750%

+46.34
918.10

930 920 910 900 890 880

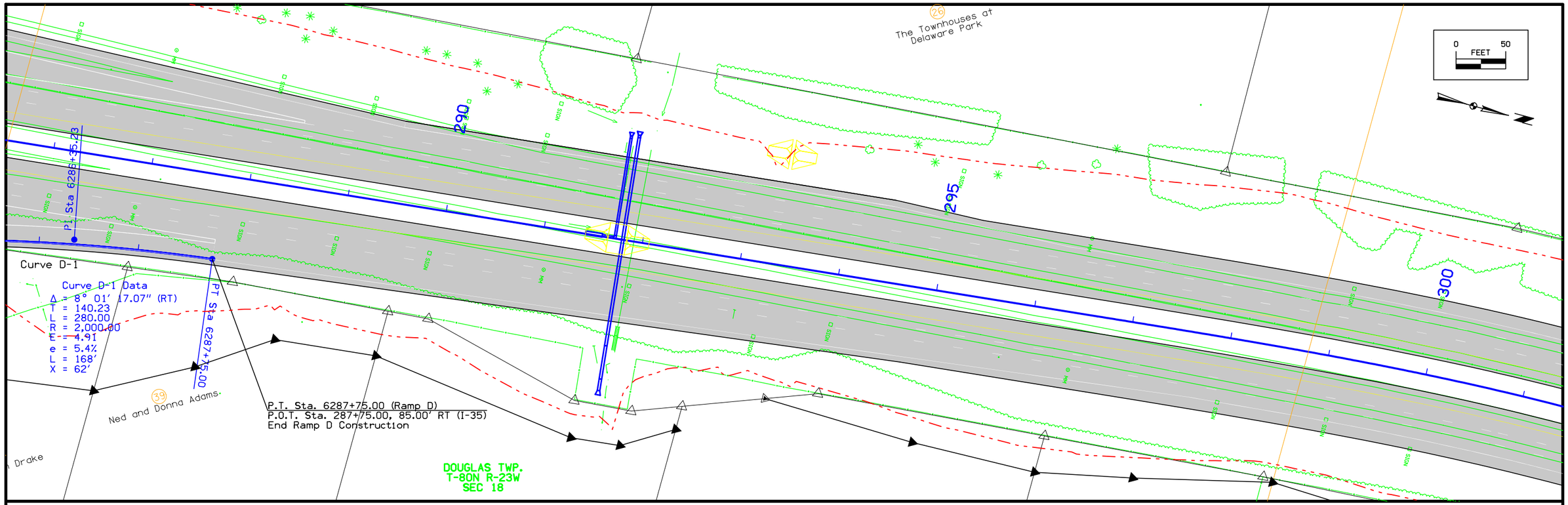
RAMP D

Lt +0.75% DITCH GRADE +2.115% DITCH GRADE +2.00% V-DITCH Lt
Rt +1.097% DITCH GRADE +1.50% DITCH GRADE +0.75% DITCH GRADE Rt

910.96 911.09 911.22 911.36 911.49 911.62 911.75 911.89 912.02 912.17 912.36 912.59 912.86 913.17 913.52 913.91 914.33 914.78 915.22 915.67 916.11 916.56 917.01 917.45 917.90 918.34 918.77 919.18 919.57 919.93 920.26 920.57 920.86 921.12 921.36 921.57 921.76 921.93 922.06 922.18 922.27 922.34 922.38 922.40

6275 6280 6285

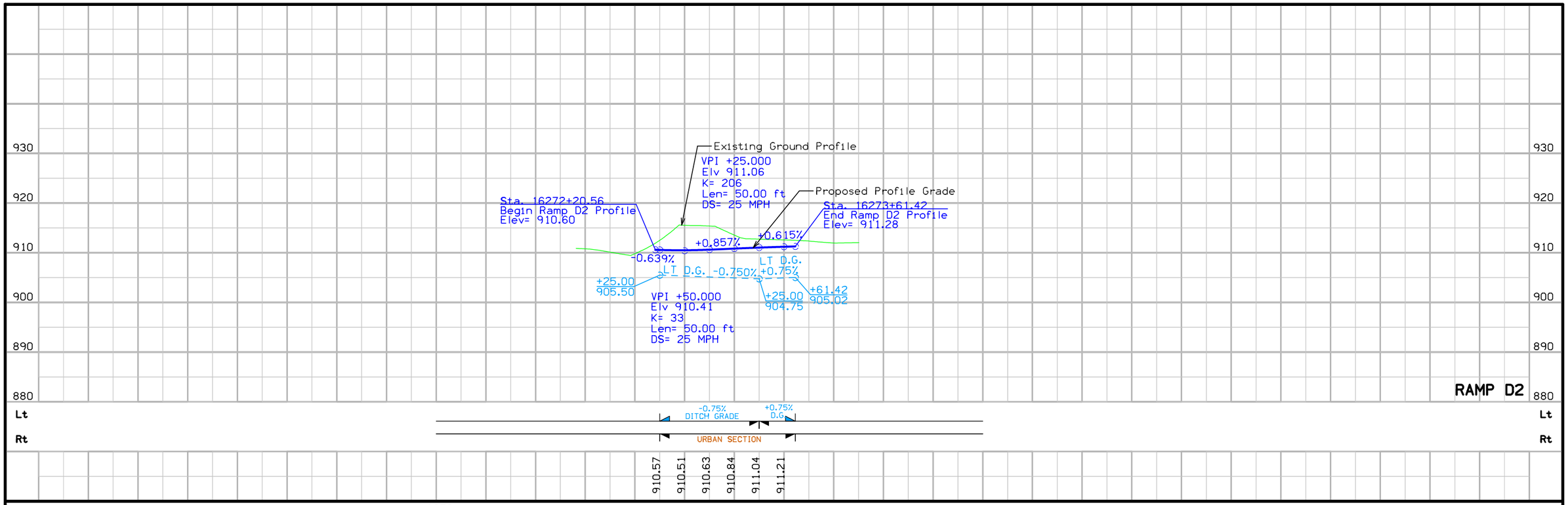
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.11

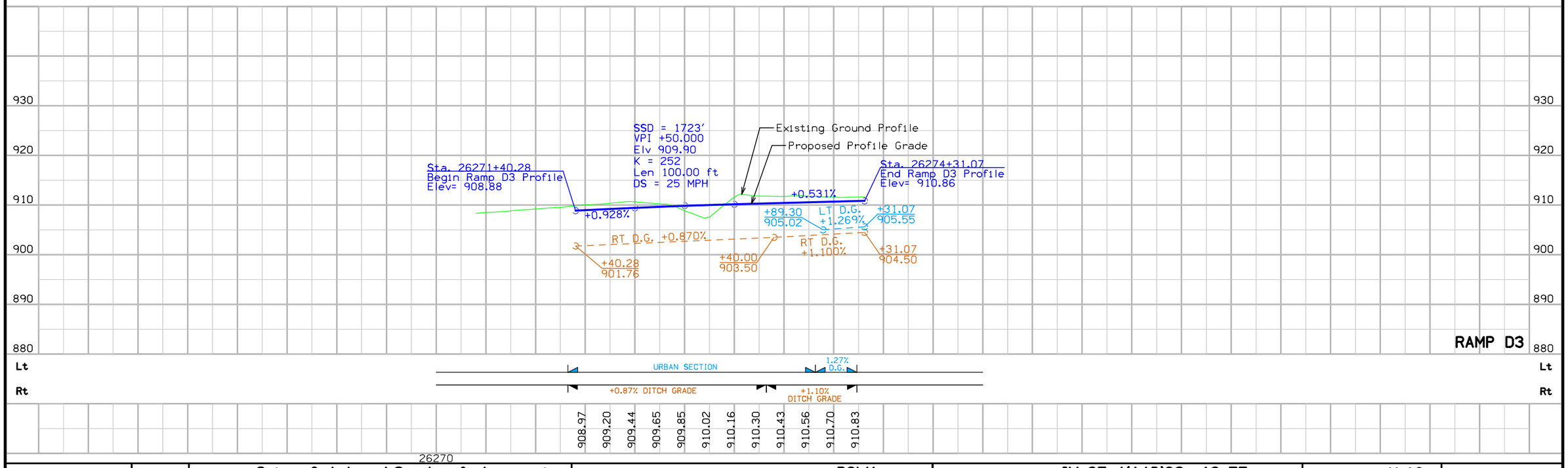


6290

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.12

11:12:48 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_K12.SHT





ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER K.13

11:12:51 AM 9/30/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_K13.SHT

STORM SEWER

* Bid Item
** For SW-545

For bedding and backfill purposes under Primary roads, use material complying with Article 4120.04 (Class A Crushed Stone) of the Standard Specifications for all bedding and backfill. Place and compact the material according to Article 2435.03, A and Article 2552.03, E (Class I materials).

INTAKES AND UTILITY ACCESSES

No.	Location Station and Offset	*Type or Standard Road Plan	Form Grade Elev.	Bottom Well Elev.	Extension Length ** FT	Notes
I-1B	994+85.00, 39.00' RT	RF-2 (C-1)	919.22			FIELD VERIFY EXISTING PIPE LOCATION
I-1	994+79.00, 37.50' RT	SW-505	923.2	918.56		
I-1A	994+78.50, 32.67' RT	RF-2 (C-1)	919			FIELD VERIFY EXISTING PIPE LOCATION
I-2	998+78.60, 35.00' LT	SW-505	922.89	917.55		
I-2A	998+78.70, 28.70' LT	RF-2 (C-1)	917.99			FIELD VERIFY EXISTING PIPE LOCATION
I-3	998+76.89, 54.00' RT	SW-505	923.28	919.01		
I-3A	998+76.76, 43.84' RT	RF-2 (C-1)	919.48			FIELD VERIFY EXISTING PIPE LOCATION
I-4	1000+40.56, 32.60' RT	SW-401(84")	924.01	912.86		FIELD VERIFY EXISTING PIPE LOCATION
I-5	1003+50.00, 48.00' LT	SW-501	923.48	917.5		
I-6	1003+50.00, 54.00' RT	SW-506	923.58	911.25		
I-6A	21005+00.00, 60.00' RT	RF-3 (30")	910.75			
I-7	13272+65.00, 0.00' RT	SW-505	919.47	914		RAMP A ALIGNMENT
I-7A	13272+68.00, 52.00' RT	RF-3 (15")	913.5			RAMP A ALIGNMENT
I-8	21007+75.00, 17.00' RT	SW-501	918.07	912.5		
I-9A	11009+70.00, 103.50'RT	RF-3 (42")	907.5			
I-9	11009+75.00, 17.00' RT	SPECIAL DOUBLE	914.35	906.17		REFER TO U.XX FOR SPECIAL DETAILS
I-10	11012+00.00, 27.00' RT	SPECIAL DOUBLE	911.8	903.9		REFER TO U.XX FOR SPECIAL DETAILS
I-10A	11013+50.00, 70.00' RT	RF-3 (42")	903.72			
I-11	11007+85.00, 17.00' LT	SW-501	918.02	912.5		
I-12	21009+00.00, 17.00' LT	SW-503	915.38	910		
I-12A	21009+30.00, 69.00' LT	RF-3 (15")	909			
I-13A	21009+40.00, 65.00' LT	RF-3 (24")	908.75			
I-13	21010+40.00, 22.84' LT	SW-503	913.17	907.4		
I-14	21011+85.00, 27.00' LT	SW-503	911.94	905.9		
I-14A	21013+05.00, 75.00' LT	RF-3 (30")	905.5			
I-15	11014+95.00, 17.00' RT	SW-501	910.35	905		
I-16	21016+25.00, 17.00' RT	SW-503	909.38	903		
I-16A	21016+55.00, 80.00' RT	RF-3 (15")	899.77			
I-17	21014+90.00, 17.00' LT	SW-501	910.34	905		
I-18	11016+00.00, 17.00' LT	SW-503	909.64	903.9		
I-18A	11016+35.00, 80.00' LT	RF-3 (15")	902.25			
I-19A	11016+55.00, 75.00' LT	RF-3 (30")	902			
I-19	11017+35.00, 47.00' LT	RF-2 (C-1)	900.95			
I-20	11019+75.00, 15.00' LT	SW-505	902.88	899		
I-21	11019+75.50, 44.05' LT	SW-512 (30")	903	897.5		
I-21A	11019+85.00, 45.00' LT	RF-2 (C-1)	897.9			FIELD VERIFY EXISTING PIPE LOCATION
I-22	21019+55.00. 15.00' RT	SW-505	903.1	895.43		
I-22A	21019+55.00, 60.00' RT	RF-3 (15")	894			
I-23	31021+75.00, 26.50' LT	SW-501	896.87	892		
I-24	31021+75.00, 26.50' RT	SW-503	897.04	890.5		
I-24A	31021+75.00, 75.65' RT	RF-3 (15")	890			
I-25	31025+00.00, 26.50' LT	SW-501	891.03	887		
I-26	31025+00.00, 26.50' RT	SW-501	890.5	882.15		
I-26A	31025+00.00, 75.00' LT	RF-3 (15")	880.3			
I-27	31027+10.12, 26.50' LT	SW-505	888.77	884		
I-28	31027+10.58, 42.50' RT	SW-505	888.53	882.6		
I-28A	31027+10.58, 81.00' RT	RF-3 (15")	881.35			
I-29A	31029+84.10, 53.00' LT	RF-3 (36")	884.09			
I-29	31029+84.10, 14.50' LT	SW-505	892.62	883.21		
I-30	31029+84.10, 30.50' RT	SW-505	892.28	882.83		
I-30A	31029+84.10, 74.50' RT	RF-3 (36")	883.03			
I-31	21+90.56, 39.79' RT	SW-505	NA	NA		
I-31A	21+90.82, 31.14' RT	RF-2 (C-1)	NA			FIELD VERIFY EXISTING PIPE LOCATION
I-32A	32+00.00, 40.30' RT	RF-2 (C-1)	NA			FIELD VERIFY EXISTING PIPE LOCATION
I-32	32+11.54, 43.30' RT	SW-505	NA	NA		
I-32B	32+24.00, 40.00' RT	RF-2 (C-1)	NA			FIELD VERIFY EXISTING PIPE LOCATION
I-33	107+00.00, 14.50' LT	SW-505	894.41	889.6		
I-34	107+00.00, 14.50' RT	SW-503	894.41	889.25		
I-35	105+00.00, 14.50' LT	SW-505	891.11	886.57		
I-36A	105+42.25, 64.82' RT	RF-3 (15")	888.6			
I-36	105+00.00, 14.50' RT	SW-506	891.11	886.12		
I-36B	104+54.00, 71.50' RT	RF-3 (18")	885.84			
I-37A	411+10.82, 33.87' LT	RF-3 (15")	896.88			

PIPES

Design Length, Slope, and Flowlines are calculated from inside wall to inside wall along CL of pipe. An additional 6 ft length is added to Design Length to account for estimated length to center of structures.

Line Number	Intake/Utility Access No. From	To	Class 'D'	Pipe Diameter IN	Bid* Length FT	Design Length FT	Slope %	Flow Lines: Inlet Elevation	Flow Lines: Outlet Elevation	Flow Lines: Other Elevation	Pipe Profile Sheet No.	Notes
P-1A	I-1B	I-1	2000D	15	3	6	2	919.25	919.16		M.4	FIELD VERIFY INLET ELEVATION
P-1	I-1	I-1A	2000D	15	3	6	2	919.06	919		M.4	FIELD VERIFY OUTLET ELEVATION
P-2	I-2	I-2A	2000D	15	6	9	1	918.05	917.99		M.4	FIELD VERIFY OUTLET ELEVATION
P-3	I-3	I-3A	2000D	15	9	12	1	919.57	919.48		M.4	FIELD VERIFY OUTLET ELEVATION
P-4	I-4	I-6	2000D	30	305	311	0.45	913.36	912		M.6	
P-5	I-5	I-6	2000D	15	100	106	2	918	916		M.6	
P-6	I-6	I-6A	2000D	30	147	150	0.68	911.75	910.75		M.6	
P-7	I-7	I-7A	2000D	15	46	49	2.15	914.5	913.5		M.8	
P-8	I-8	I-9	2000D	15	176	182	2	913	909.5		M.8	
P-9A	I-9A	I-9	2000D	42	75	78	1	907.5	906.77		M.8	
P-9	I-9	I-10	2000D	42	218	224	1	906.67	904.5		M.8	
P-10	I-10	I-10A	2000D	42	137	140	0.5	904.4	903.72		M.10	
P-11	I-11	I-12	2000D	15	109	115	2.25	913	910.54		M.8	
P-12	I-12	I-12A	2000D	15	54	57	2.75	910.44	909		M.8	
P-13A	I-13A	I-13	2000D	30	103	106	0.75	908.75	908		M.8	
P-13	I-13	I-14	2000D	30	142	148	1	907.9	906.5		M.10	
P-14	I-14	I-14A	2000D	30	110	113	0.8	906.4	905.5		M.10	
P-15	I-15	I-16	2000D	15	124	130	2	905.57	903.1		M.10	
P-16	I-16	I-16A	2000D	15	65	68	5	903	899.77		M.10	
P-17	I-17	I-18	2000D	15	85	91	2	905.5	903.81		M.10	
P-18	I-18	I-18A	2000D	15	68	71	2	903.7	902.34		M.10	
P-19A	I-19A	I-19	2000D	30	84	84	1.25	902	900.95		M.12	
P-19	I-19	I-21	2000D	30	241	244	1.2	900.95	898.05		M.12	
P-20	I-20	I-21	2000D	15	28	34	4.5	899.5	898.25		M.12	
P-21	I-21	I-21A	2000D	30	6	9	1.65	898	897.9		M.12	FIELD VERIFY OUTLET ELEVATION
P-22	I-22	I-22A	2000D	15	39	42	5	895.93	894		M.12	
P-23	I-23	I-24	2000D	15	49	55	2	892.5	891.52		M.12	
P-24	I-24	I-24A	2000D	15	29	32	3.5	891	890		M.12	
P-25	I-25	I-26	2000D	15	49	55	2	887.5	886.52		M.13	
P-26	I-26	I-26A	2000D	15	42	45	5	882.65	880.3		M.13	
P-27	I-27	I-28	2000D	15	65	71	2	884.5	883.2		M.13	
P-28	I-28	I-28A	2000D	15	32	35	4.5	883.1	881.35		M.13	
P-29A	I-29A	I-29	2000D	36	36	39	0.8	884.09	883.81		M.14	
P-29	I-29	I-30	2000D	36	41	47	0.68	883.71	883.43		M.14	
P-30	I-30	I-30A	2000D	36	38	41	0.66	883.33	883.03		M.14	
P-31	I-31	I-31A	2000D	15	6	9	2	NA	NA		M.15	
P-32	I-32A	I-32	2000D	15	6	9	2	NA	NA		M.16	
P-32A	I-32	I-32B	2000D	15	9	12	2	NA	NA		M.16	
P-33	I-33	I-34	2000D	15	25	31	1	890.1	889.85		M.18	
P-34	I-34	I-36	2000D	15	189	195	1.6	889.75	886.82		M.18	
P-35	I-35	I-36	2000D	15	25	31	1	887.07	886.82		M.17	
P-36A	I-36A	I-36	2000D	15	61	64	3	888.6	886.83		M.17	
P-36	I-36	I-36B	2000D	18	67	70	1	886.62	885.84		M.17	

STORM SEWER

* Bid Item
** For SW-545

For bedding and backfill purposes under Primary roads, use material complying with Article 4120.04 (Class A Crushed Stone) of the Standard Specifications for all bedding and backfill. Place and compact the material according to Article 2435.03, A and Article 2552.03, E (Class I materials).

INTAKES AND UTILITY ACCESSES

No.	Location Station and Offset	*Type or Standard Road Plan	Form Grade Elev.	Bottom Well Elev.	Extension Length ** FT	Notes
I-37A	411+10.82, 33.87' LT	RF-3 (15")	896.88			
I-37	407+15.40, 14.50' LT	SW-503	897.26	892.06		
I-38A	408+00.00, 29.87' RT	RF-3 (24")	895.17			
I-38	407+15.00, 28.50' RT	SW-401 (60")	898.31	891.06		
I-39	405+11.15, 14.00' LT	SW-501	892.83	889.03		
I-40	405+11.15, 21.75' RT	SW-503	892.69	887.96		
I-41	403+12.27, 14.50' LT	SW-501	889.27	885.33		
I-42	403+12.27, 28.00' RT	SW-506	888.97	884.3		
I-42A	402+75.17, 70.45' RT	RF-3 (36")	884.47			

TOTALS	
RF-2 (C-1)	9
RF-3 (15")	10
RF-3 (18")	1
RF-3 (24")	2
RF-3 (30")	3
RF-3 (36")	3
RF-3 (42")	2
SW-401 (60")	1
SW-401 (84")	1
SW-501	10
SW-503	9
SW-505	14
SW-506	3
SW-506 (SPEICAL)	2
SW-512 (30")	1

PIPES

Design Length, Slope, and Flowlines are calculated from inside wall to inside wall along CL of pipe. An additional 6 ft length is added to Design Length to account for estimated length to center of structures.

Line Number	Intake/Utility Access No. From	To	Class 'D'	Pipe Diameter IN	Bid* Length FT	Design Length FT	Slope %	Flow Lines Inlet Elevation	Outlet Elevation	Other Elevation	Pipe Profile Sheet No.	Notes
P-37A	I-37A	I-37	2000D	15	388	391	1.07	896.88	892.66		M.20	
P-37	I-37	I-38	2000D	15	39	45	1	892.56	892.16		M.20	
P-38A	I-38A	I-38	2000D	24	77	80	3.44	895.17	892.31		M.20	
P-38	I-38	I-39	2000D	24	200	206	1.5	891.56	888.56		M.19	
P-39	I-39	I-40	2000D	15	32	38	1	889.53	888.56		M.19	
P-40	I-40	I-41	2000D	24	198	204	1.75	888.46	885		M.19	
P-41	I-41	I-42	2000D	15	39	45	0.6	885.83	885.6		M.19	
P-42	I-42	I-42A	2000D	36	45	48	0.65	884.8	884.47		M.19	

TOTALS		
15"	2000	2141
18"	67	70
24"	475	490
30"	1138	1165
36"	160	175
42"	430	442

SURVEY SYMBOLS

UTILITY LEGEND

PLAN VIEW COLOR LEGEND OF STORM SEWER SHEETS

LINEWORK	Design Color No.	
Gray, Dark	(112)	Existing Topographic Features, Utilities, and Labels
Black	(17)	Proposed Storm Sewer Details, Alignment, Stationing, Tic Marks, and Alignment Annotation
SHADING	Design Color No.	
Gray, Light	(48)	Proposed Pavement Shading

PROFILE VIEW COLOR LEGEND OF STORM SEWER SHEETS

LINEWORK	Design Color No.	
Gray, Dark	(112)	Existing Ground Line Profile and Existing Utilities Information
Black	(17)	Proposed Pipes and Intakes

PLAN VIEW LINE STYLE LEGEND OF STORM SEWER SHEETS

- Plug and Abandon Existing Pipe or Structure
- Removal of Existing Pipe or Structure
- Previously Constructed Pipe or Structure
- Direction of Pipe Flow

PROFILE VIEW LINE STYLE LEGEND OF STORM SEWER SHEETS

- Existing Ground
- Proposed Ground
- Previously Constructed Pipe or Structure
- Proposed Pipe or Structure

Reference Point
Survey Line
Station
Section Corner
Ground Line Intercept
Saw Cut
Guardrail
Clearing & Grubbing Area
Pavement Removal

RIGHT-OF-WAY LEGEND

- Proposed Right-of-Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Borrow
- Easement (Temporary)
- Easement
- Excess
- A/C Access Control

STORM SEWER LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES M)

994 995 996 997 998 999

SIGN SIGN SIGN SIGN SIGN SIGN SIGN TP WH WH WH WH HH

W G W G W G

San. San. San. San.

I-1A I-1 P-1B I-1B I-2 TP I-2A I-3A I-3

T1 T1

930 925 920 915 910

I-1
994+79.00, 37.50' RT
F.G.=923.20

P-1A 6.00 L.F. of
15" RCP @ 1.00%

P-1 6.00 L.F. of
15" RCP @ 1.00%

I-1B
919.22 (In S)

I-1A
919.00 (In N)

919.16 (Out N)

919.06 (Out N)

Ex

I-2
998+78.60, 35.00' LT
F.G.=922.89

918.05 (Out N)

I-2A
917.99 (In S)

P-2 6.00 L.F. of
18" RCP @ 1.00%

I-3
998+76.89, 54.00' RT
FG=923.28

920 919.57 (Out S)

I-3A
919.48 (In N)

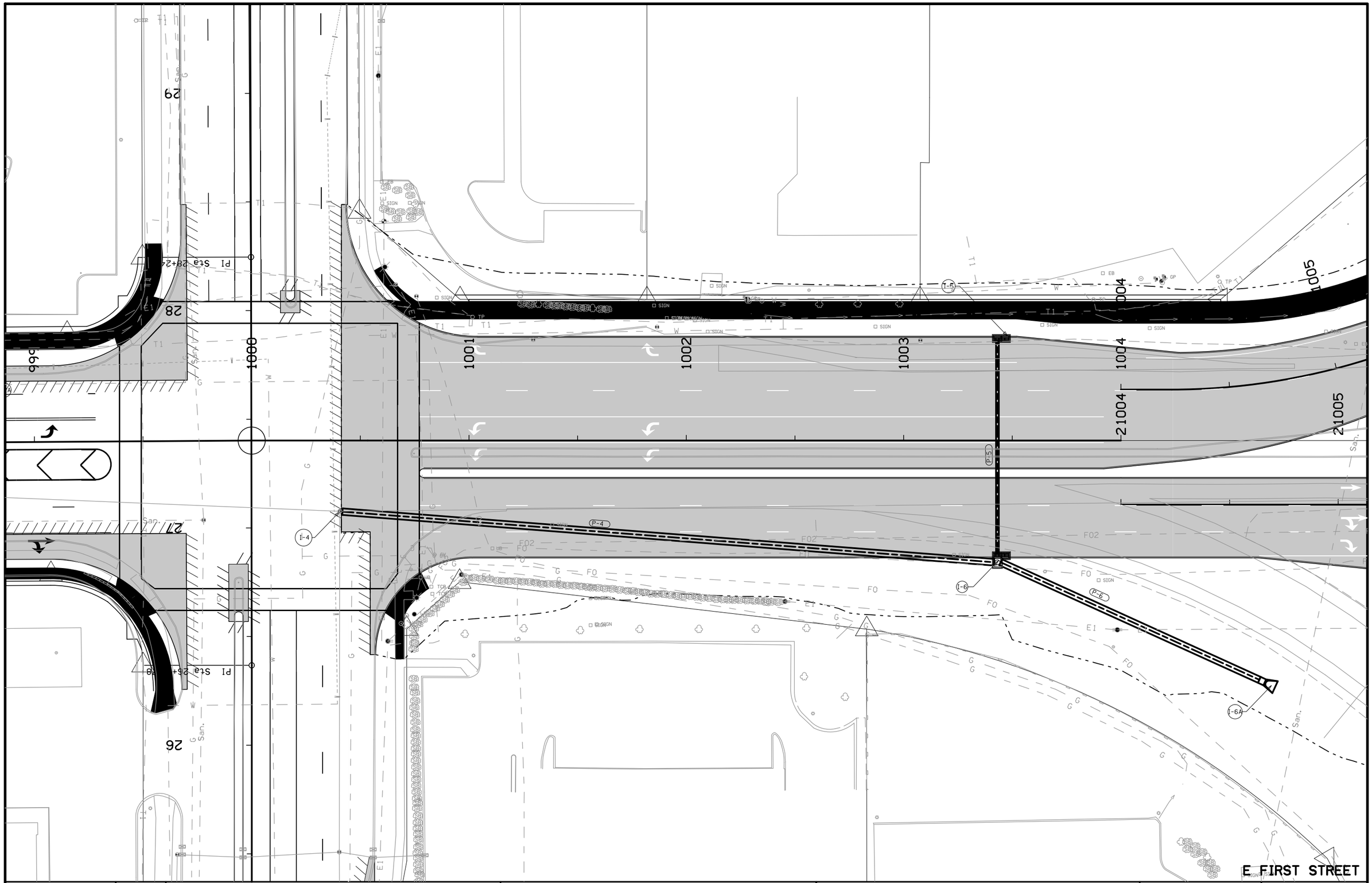
P-3 6.00 L.F. of
18" RCP @ 1.00%

E FIRST STREET

994 995 996 997 998 999

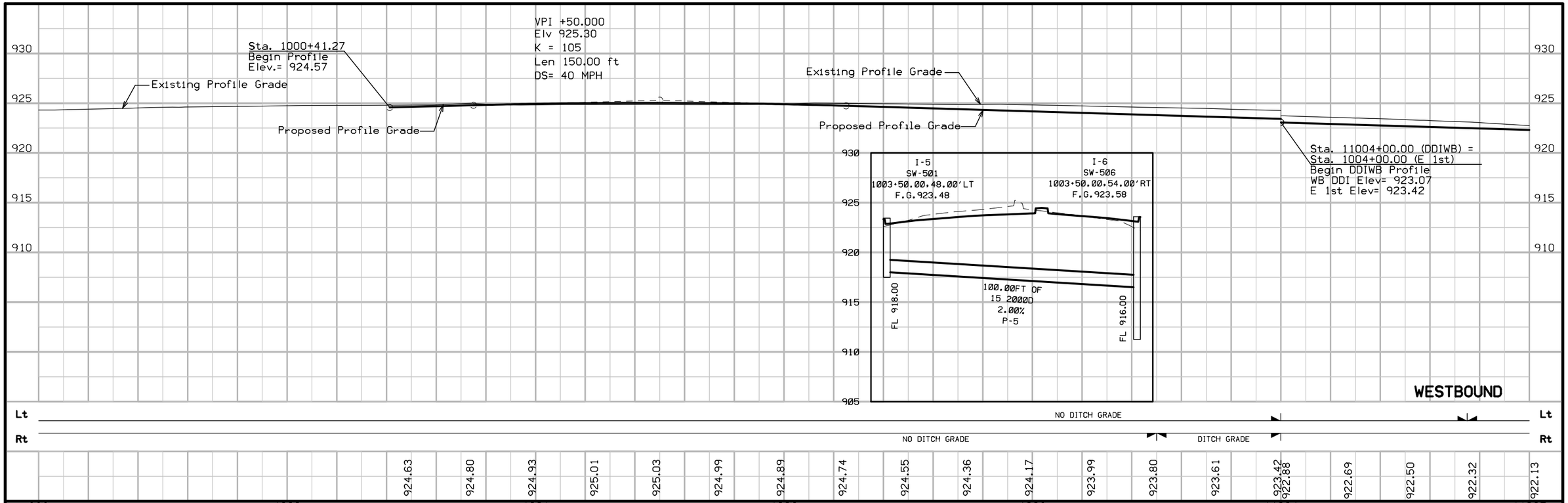
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.4

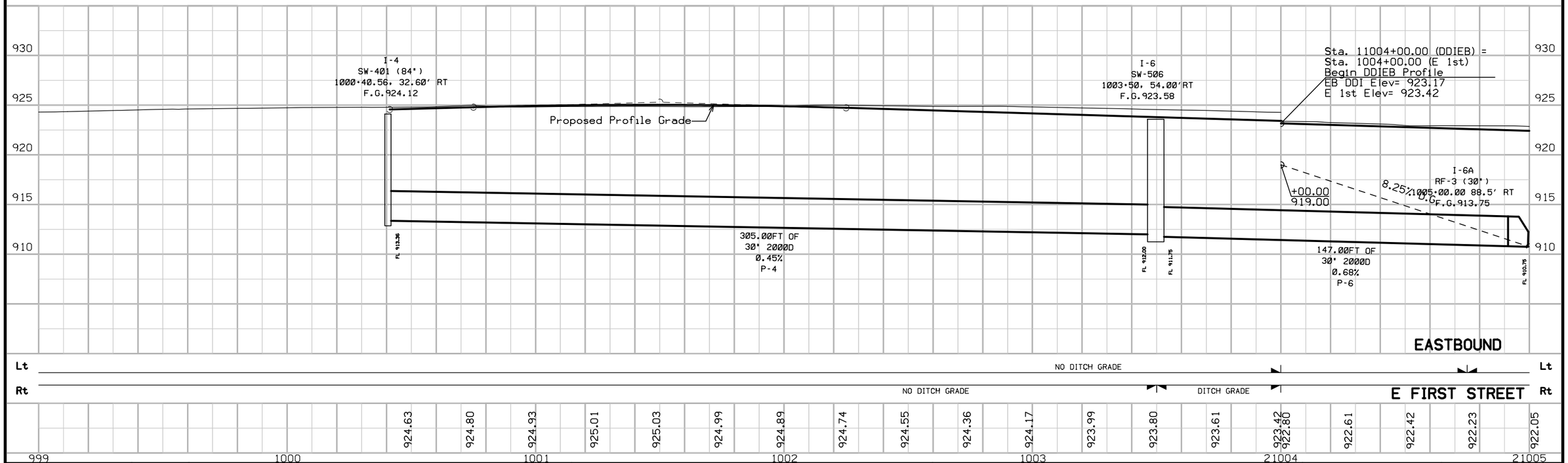
3:32:16 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_M04.SHT



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.5

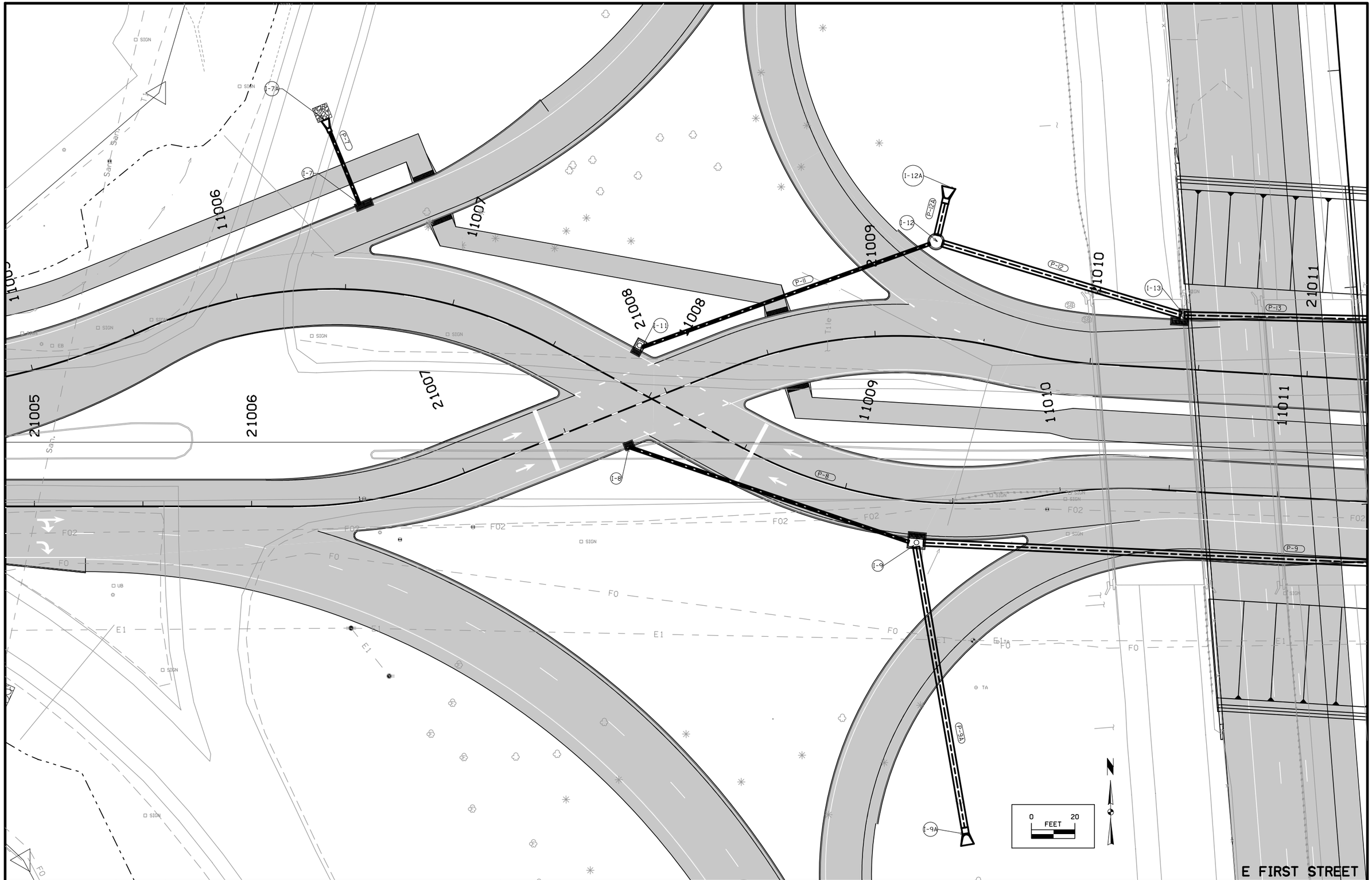
3:32:20 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_M05.SHT





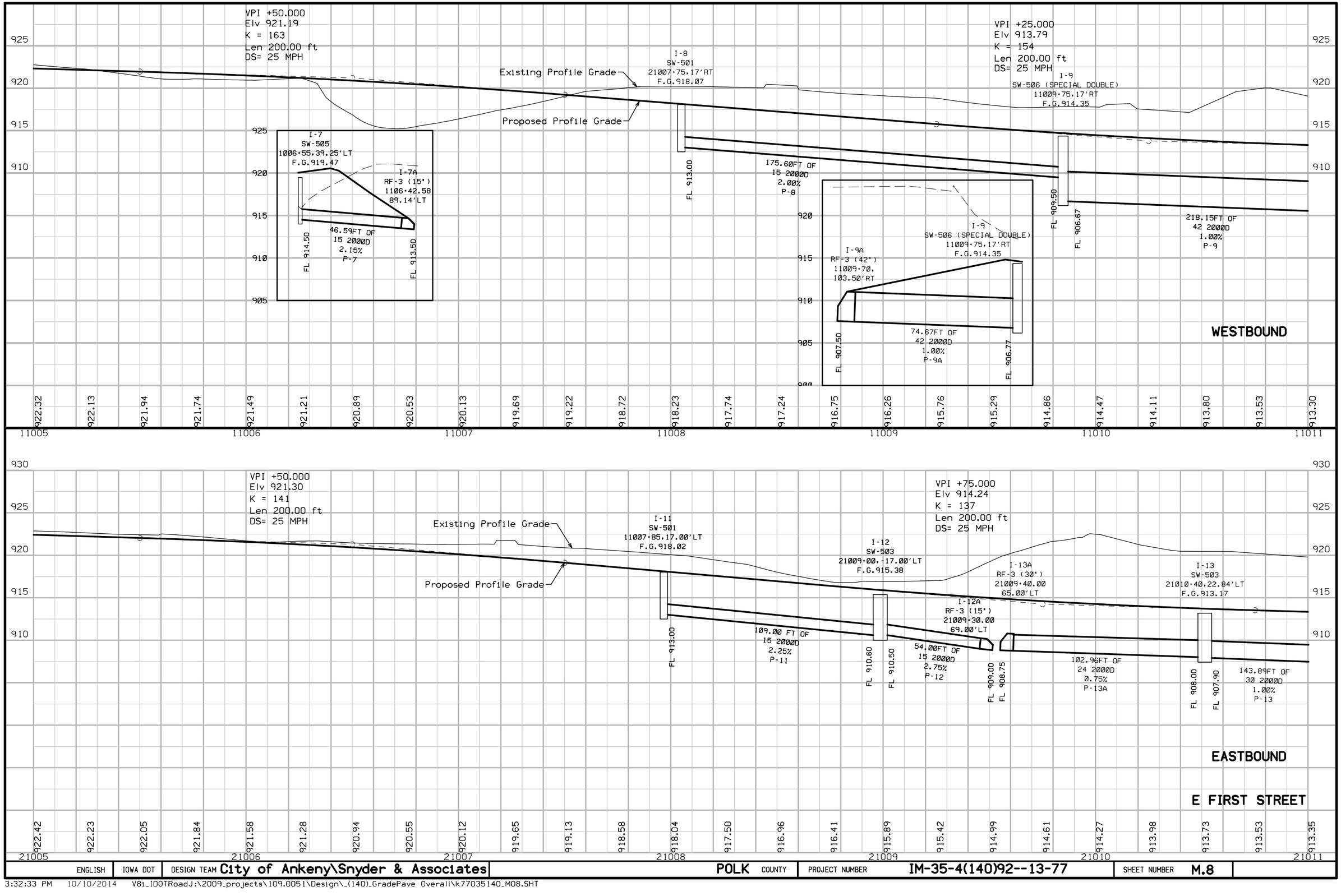
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.6

3:32:24 PM 10/10/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_M06.SHT

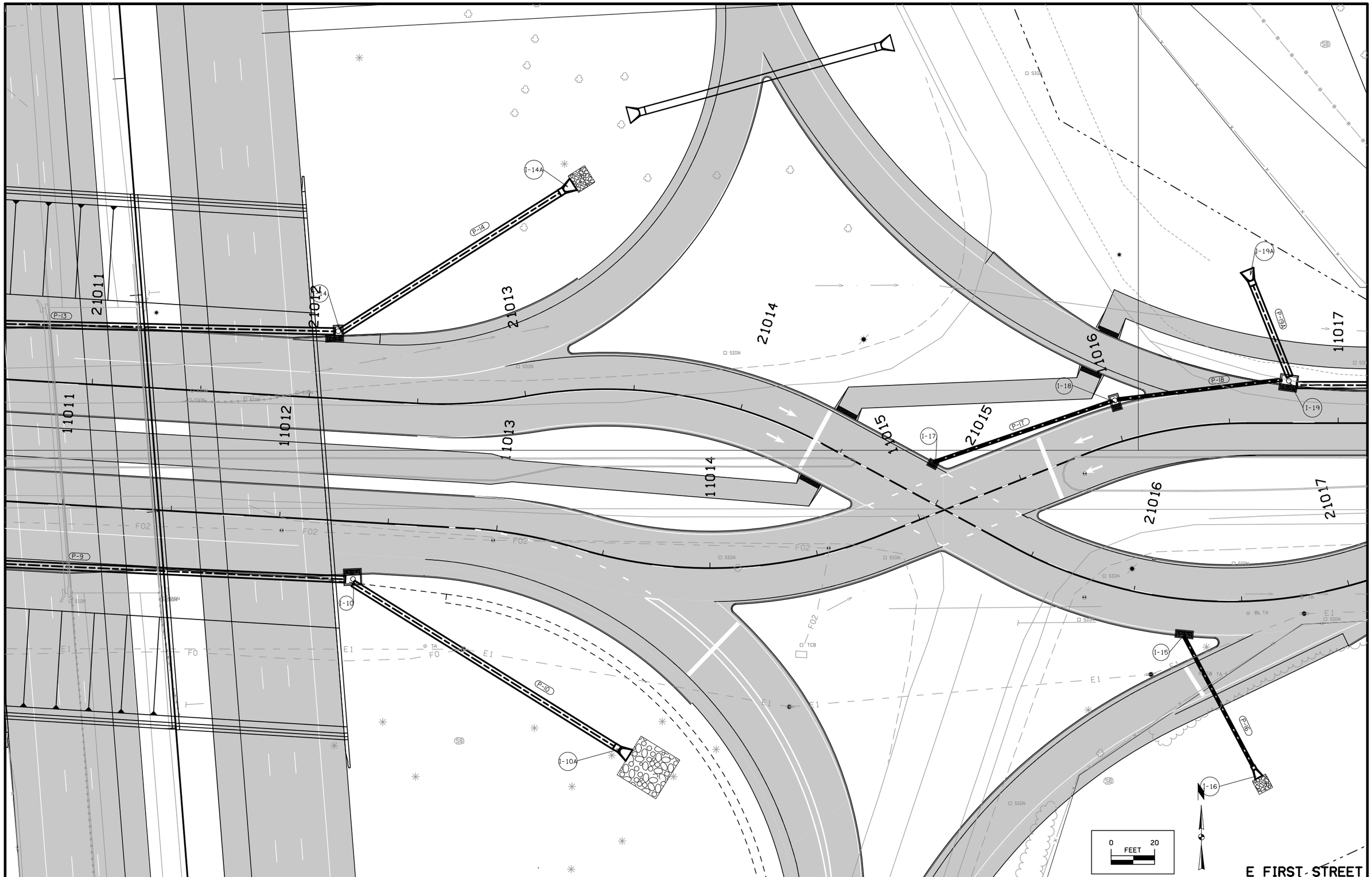


ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.7

3:32:30 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_M07.SHT

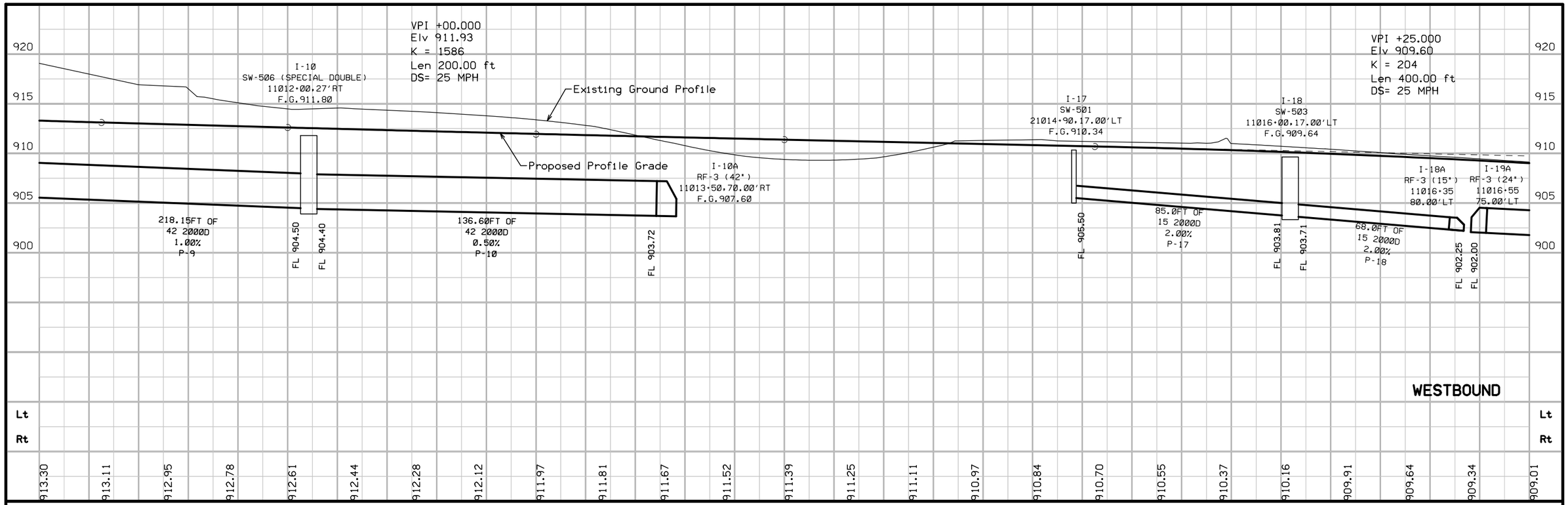


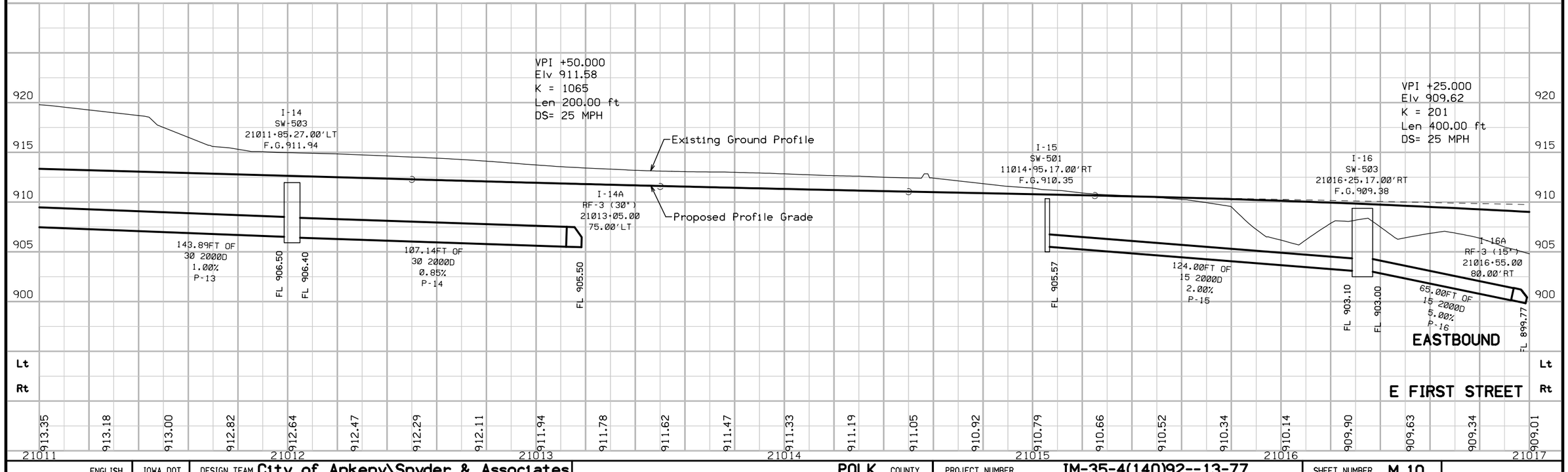
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.8



ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.9

3:32:42 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_M09.SHT





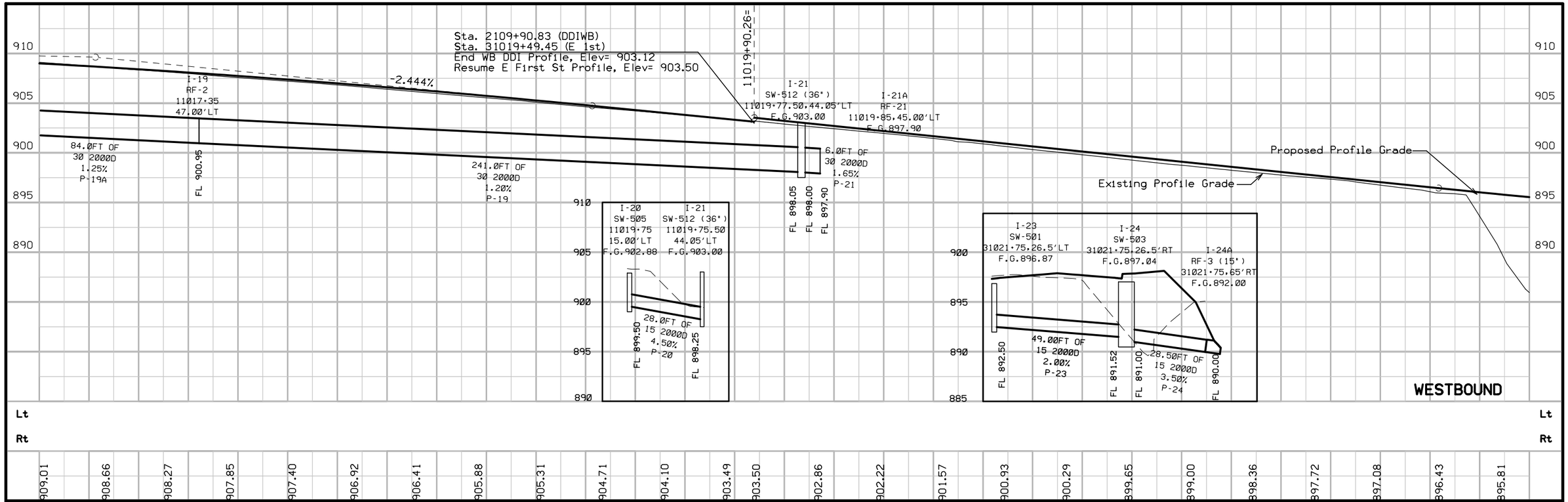
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.10	

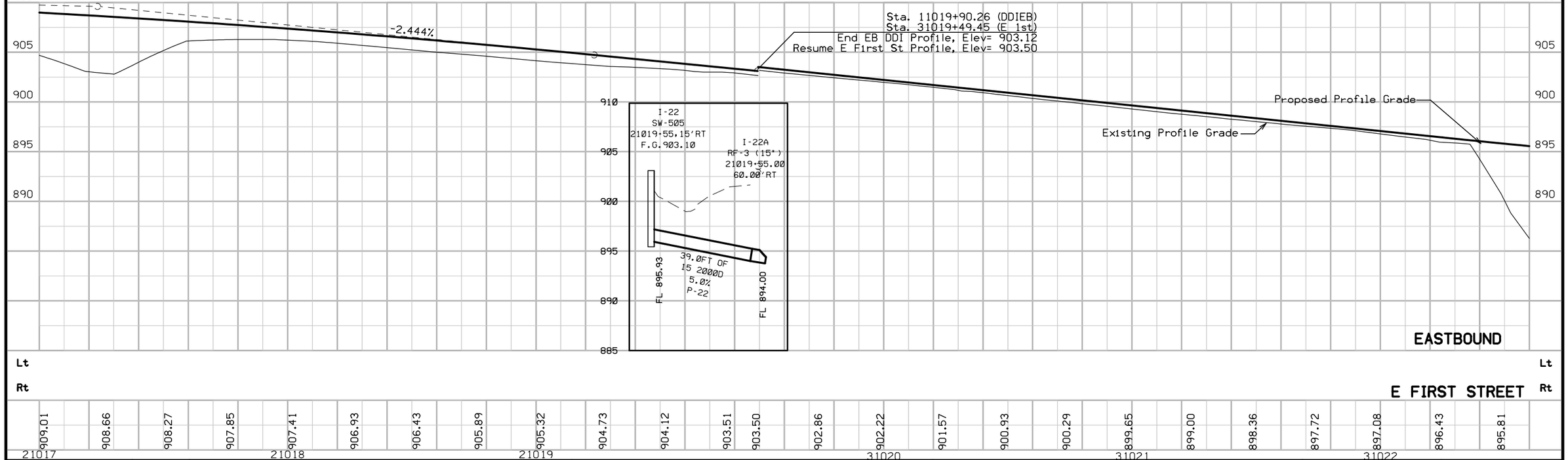
3:32:46 PM 10/10/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_M10.SHT

11017
11018
11019
21018
21019
21017
31020
31021
31022
I-19
I-20
I-21
I-22
I-22A
I-23
I-24
I-24A
P-19
P-20
F-22
F-23
F-24
SIGN
TP
EB
TA
E1
W
San.
60'
80'
0 FEET 20
E FIRST STREET

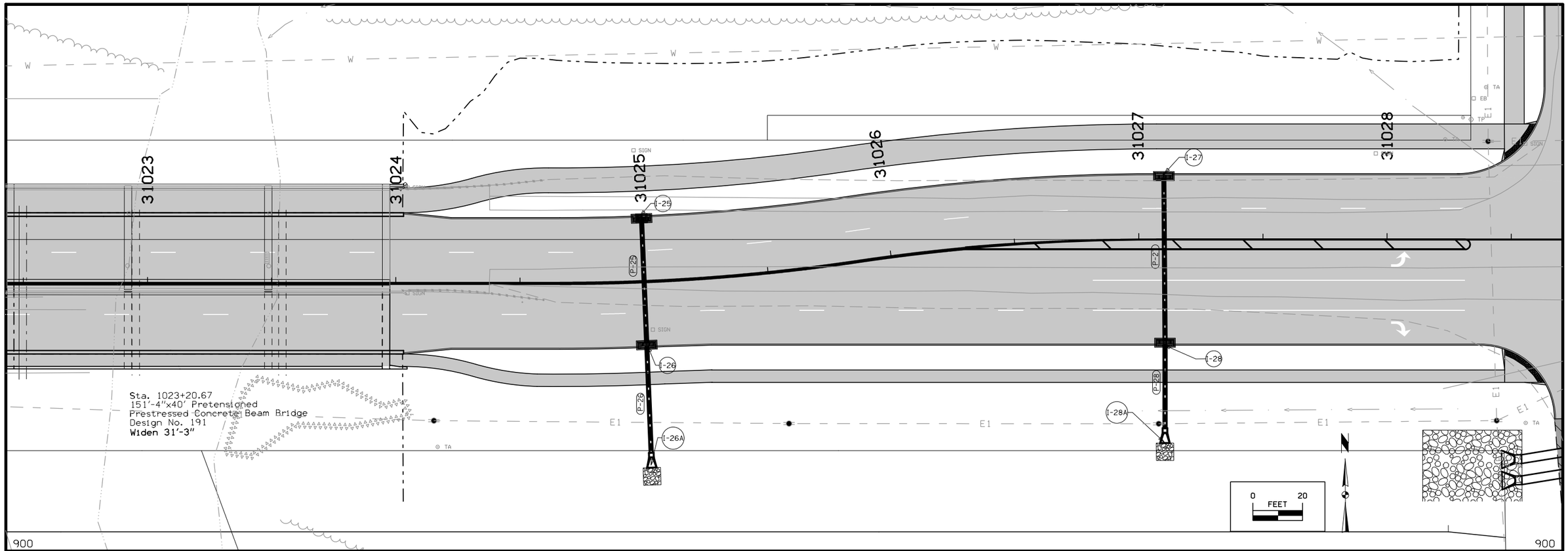
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.11

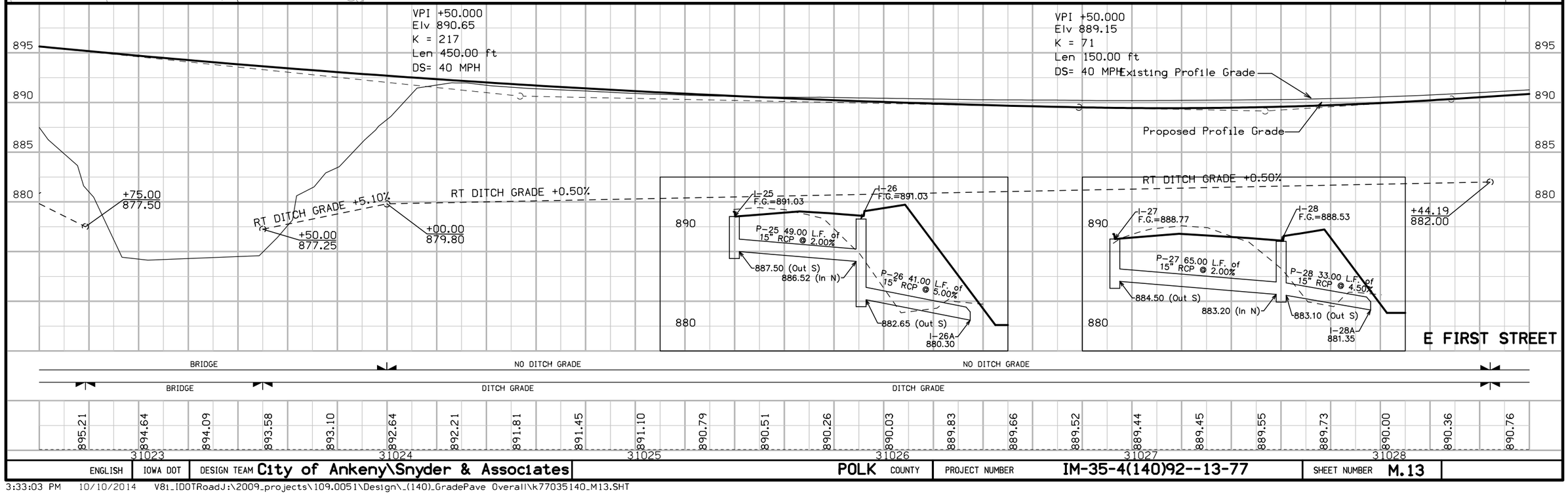
3:32:53 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_M11.SHT



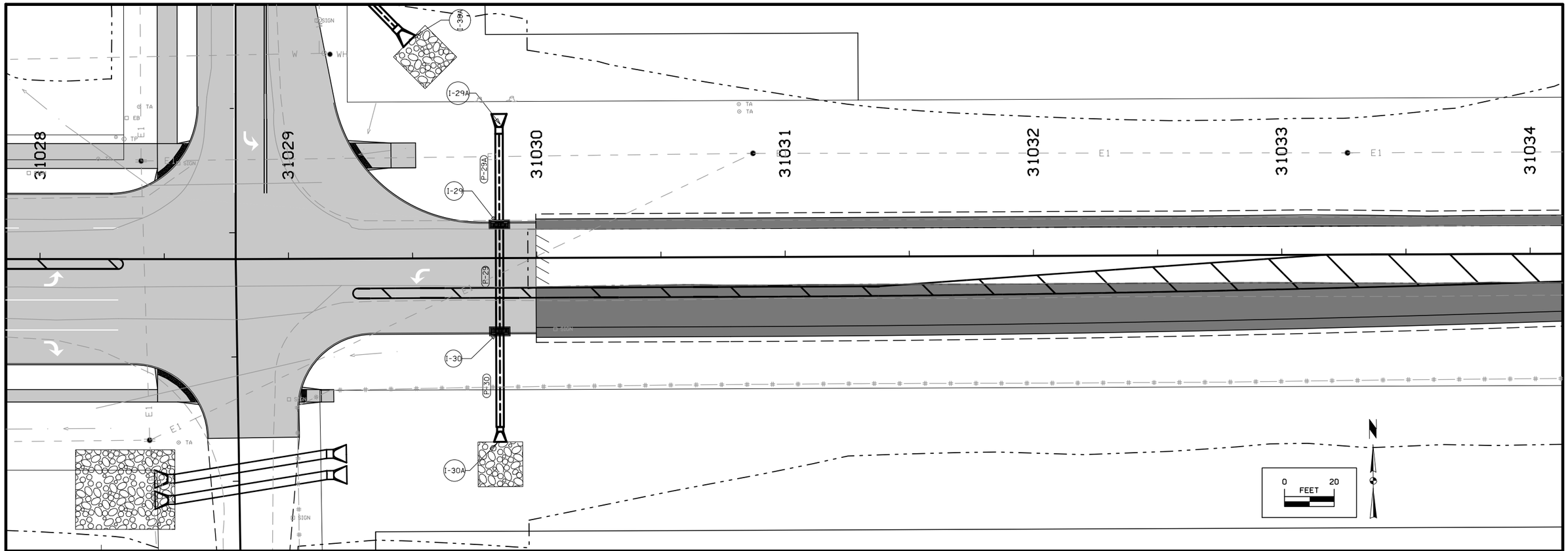


ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.12



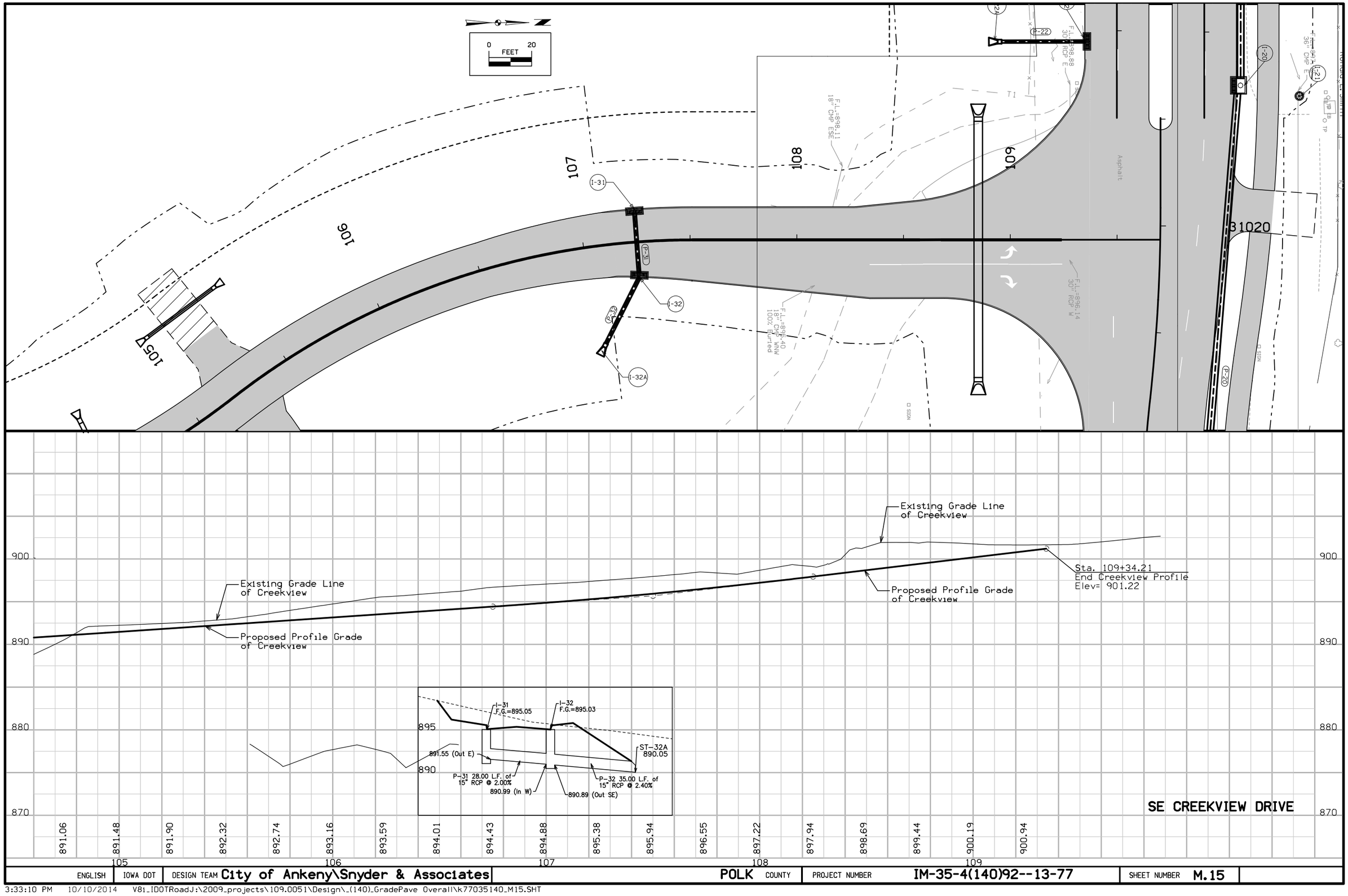


ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.13



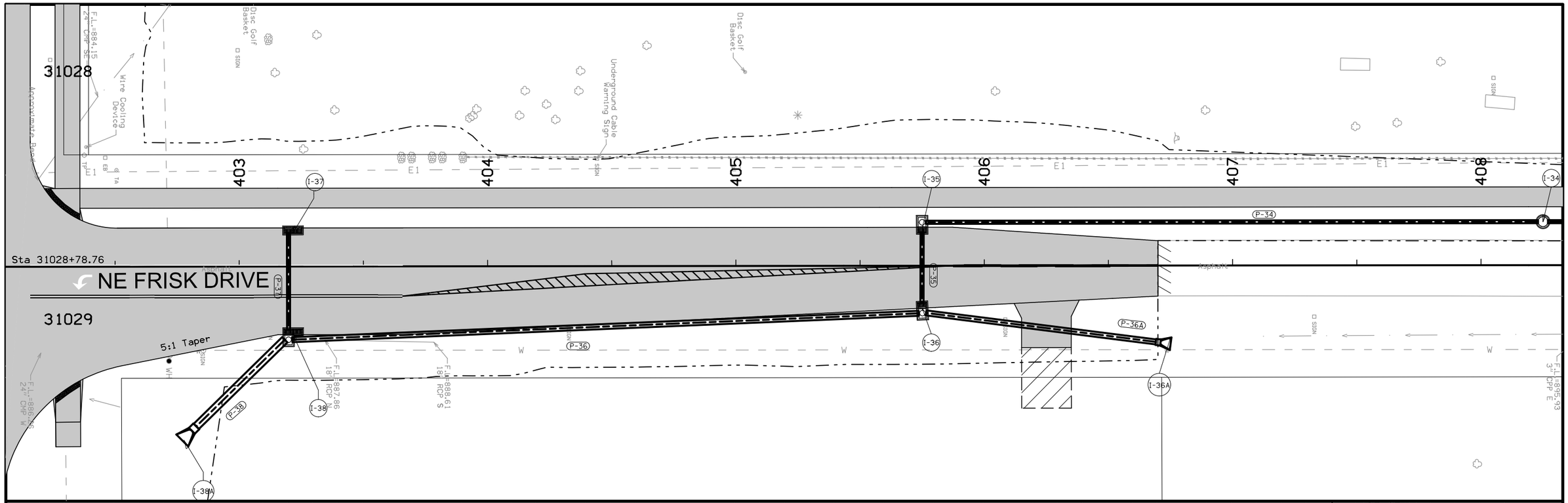
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.14

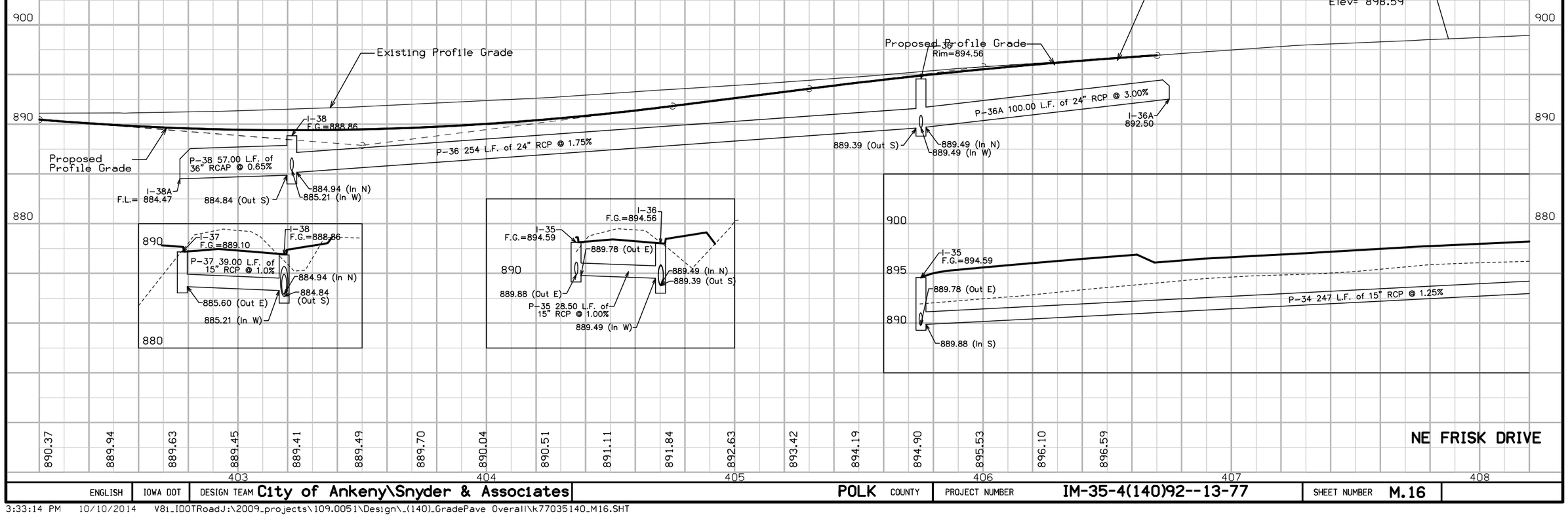
3:33:06 PM 10/10/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_M14.SHT



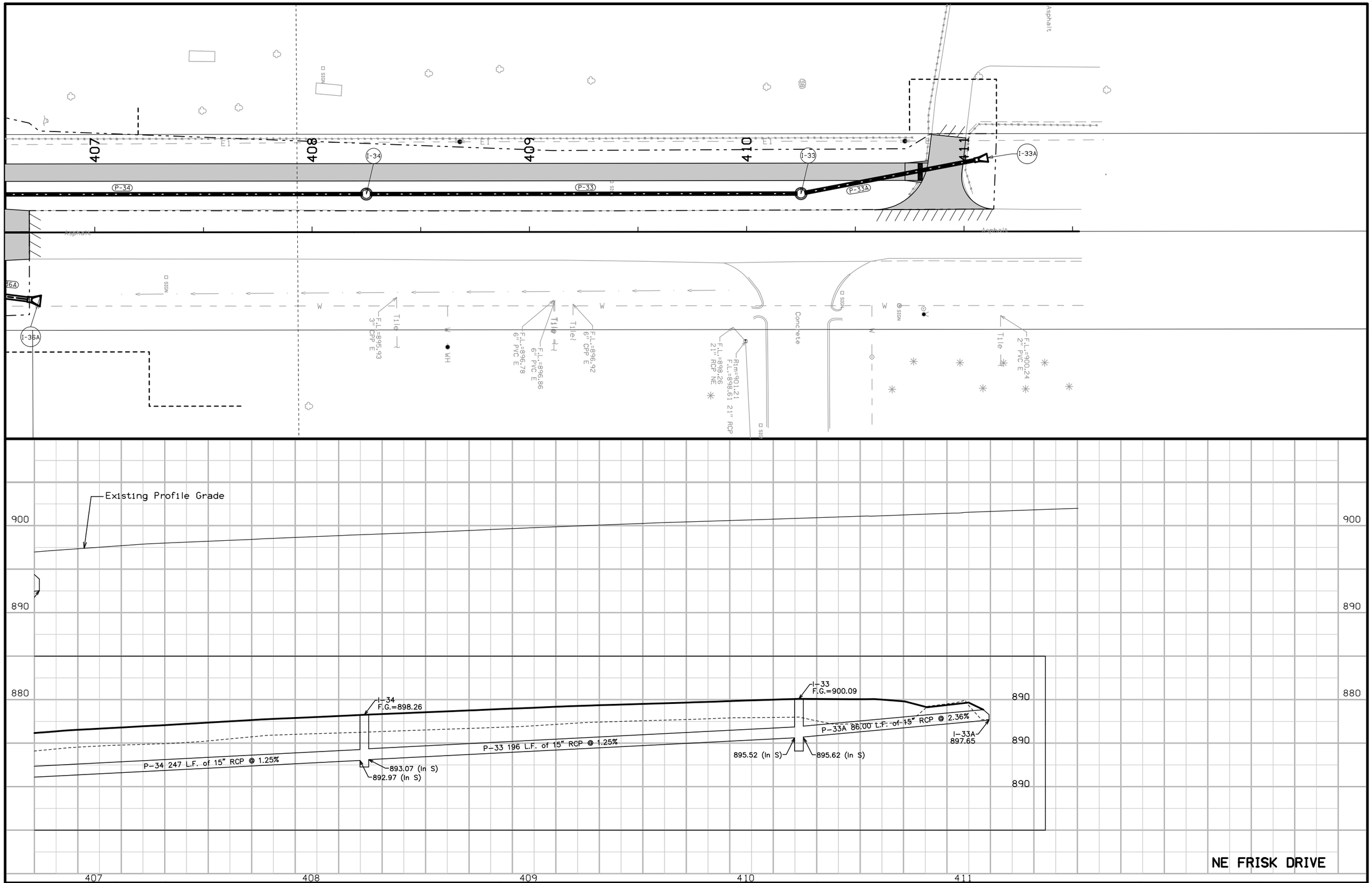
SE CREEKVIEW DRIVE

ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.15



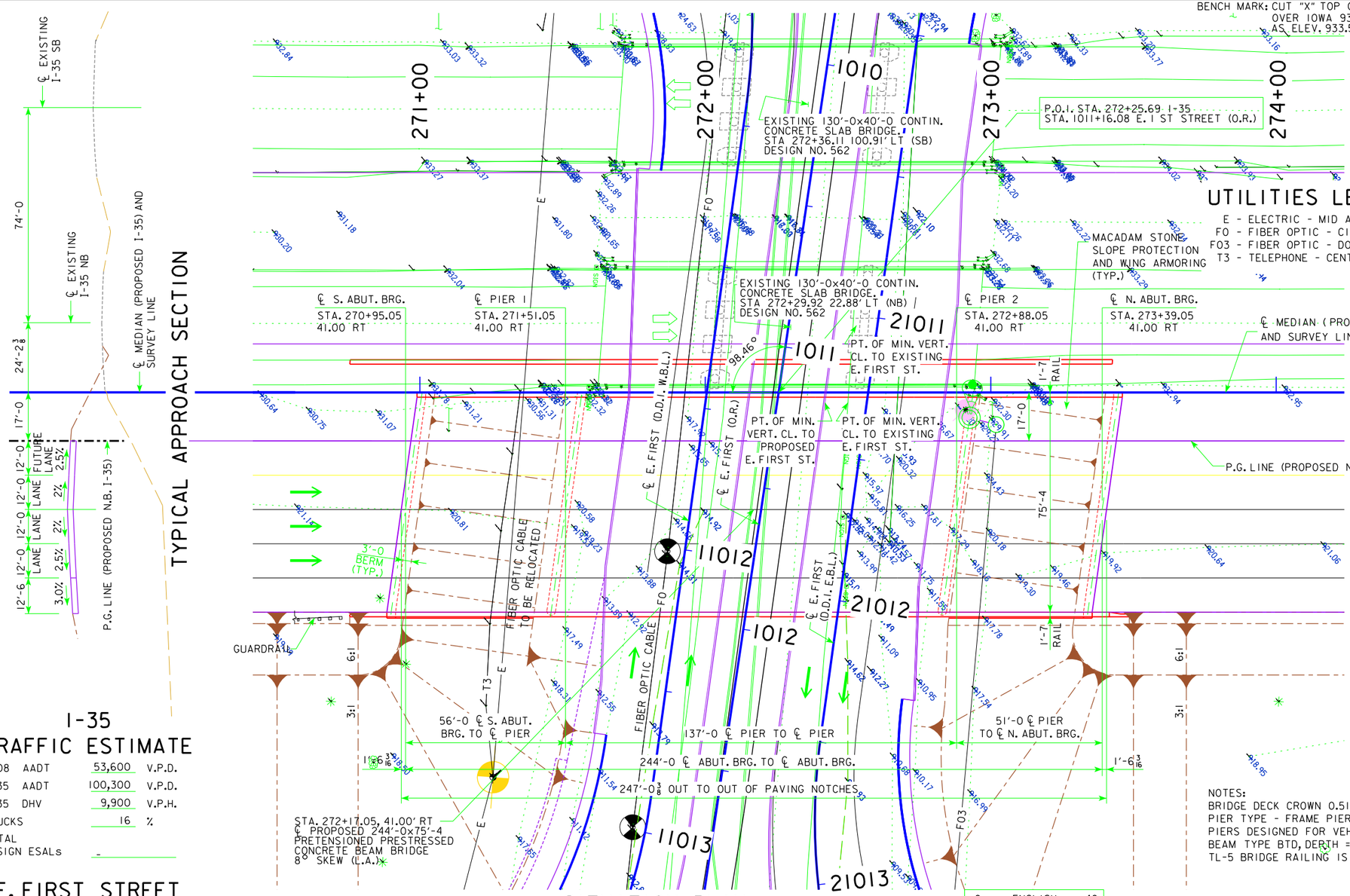


ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.16



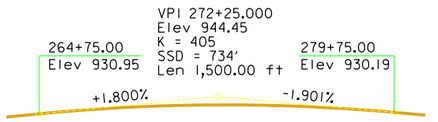
ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER M.17

BENCH MARK: CUT "X" TOP OF NORTHWEST WING ON BRIDGE CARRYING NORTHBOUND I-35 TRAFFIC OVER IOWA 931 (E. FIRST STREET). APPROX. STA. 272+96 ℄ SURVEY, RT. 15'-6± SET AS ELEV. 933.54

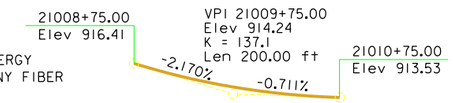


UTILITIES LEGEND:

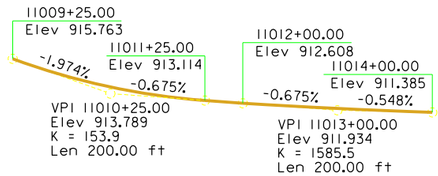
E - ELECTRIC - MID AMERICAN ENERGY
FO - FIBER OPTIC - CITY OF ANKENY FIBER
FO3 - FIBER OPTIC - DOT FIBER
T3 - TELEPHONE - CENTERY LINK



PROFILE GRADE I-35



PROFILE GRADE E. FIRST D.D.I. EAST BOUND LANES



PROFILE GRADE E. FIRST D.D.I. WEST BOUND LANES

MIN. VERTICAL CLEARANCE TO PROPOSED E IST. STREET

OVERHEAD STATION (I-35) = 272+41.93, OFFSET 3.58' RT
OVERHEAD ELEVATION = 937.10'
DEPTH OF SUPERSTRUCTURE = 5.33 FT
UNDERPASS STATION (E. IST ST. D.D.I.E.B.)=21011+31.92, OFFSET 14.50'RT
UNDERPASS ELEVATION = 913.41'
MIN. VERTICAL CLEARANCE TO PROPOSED E IST ST. = 18.35'

MIN. VERTICAL CLEARANCE TO EXISTING E IST. STREET

OVERHEAD STATION (I-35) = 272+49.98, OFFSET 3.67' RT
OVERHEAD ELEVATION = 937.09'
DEPTH OF SUPERSTRUCTURE = 5.33 FT
UNDERPASS STATION (E. IST ST. D.D.I.E.B.)=21011+30.82, OFFSET 6.53'RT
UNDERPASS ELEVATION = 916.79'
MIN. VERTICAL CLEARANCE TO EXISTING E IST ST. = 14.96'

I-35 TRAFFIC ESTIMATE

2008 AADT	53,600	V.P.D.
2035 AADT	100,300	V.P.D.
2035 DHV	9,900	V.P.H.
TRUCKS	16	%
TOTAL DESIGN ESALs	-	

E. FIRST STREET TRAFFIC ESTIMATE

2008 AADT	15,400	V.P.D.
2035 AADT	23,700	V.P.D.
2035 DHV	-	V.P.H.
TRUCKS	-	%
TOTAL DESIGN ESALs	-	

SITUATION PLAN

(STAGE A)

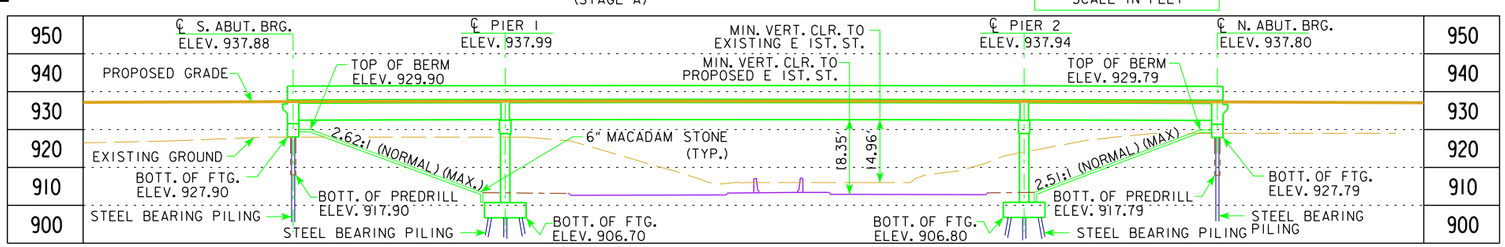
0 ENGLISH 40
SCALE IN FEET

NOTES:
BRIDGE DECK CROWN 0.51' ABOVE PROFILE GRADE.
PIER TYPE - FRAME PIER
PIERS DESIGNED FOR VEHICULAR COLLISION.
BEAM TYPE BTD, DERTH = 4'-6"
TL-5 BRIDGE RAILING IS PROPOSED.

LOCATION

I-35 N.B. OVER E. FIRST STREET
T-80 N R-23 W
SECTIONS 18, 19
CITY OF ANKENY
POLK COUNTY
N.B. FHWA NO. 41790
N.B. BRIDGE MAINT. NO. 7792.5R035
LATITUDE 41.731835°
LONGITUDE -93.576842°

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED



LONGITUDINAL SECTION ALONG CENTERLINE NB APPROACH ROADWAY

PRELIMINARY

DESIGN FOR 8° SKEW (L.A.)

244'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

SPANS (56'-0, 137'-0, 51'-0) BTD BEAMS
I-35 OVER E. FIRST STREET
STA. 272+17.05 41.00' RT
SITUATION PLAN
NORTH BOUND LANES OCTOBER 2014
CITY OF ANKENY-POLK COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ___ OF ? FILE NO. ? DESIGN NO. ?

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

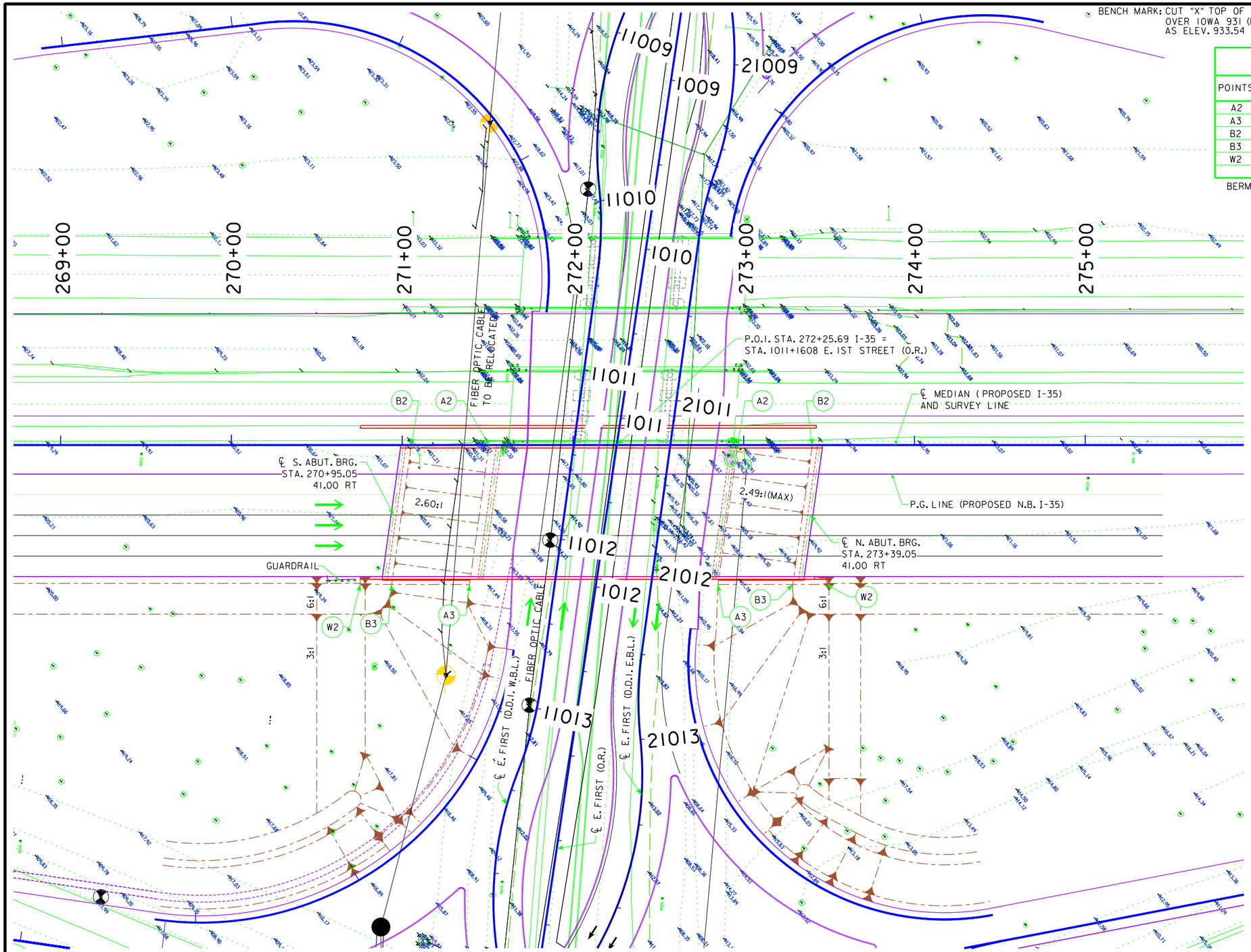
S.B.I. NO. 109.0051.01 | CITY OF ANKENY-POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.1

BENCH MARK: CUT "X" TOP OF NORTHWEST WING ON BRIDGE CARRYING NORTHBOUND I-35 TRAFFIC OVER IOWA 931 (E. FIRST STREET). APPROX. STA. 272+96 ℄ SURVEY, RT. 15'-6± SET AS ELEV. 933.54

BERM SLOPE LOCATION TABLE

POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A2	271+50.93	0.00	913.09	272+96.46	0.00	913.15
A3	271+39.46	81.58' RT	912.66	272+84.99	81.58' RT	912.50
B2	271+05.35	0.00	929.90	273+40.27	0.00	929.79
B3	270+93.89	81.58' RT	929.90	273+28.80	81.58' RT	929.79
W2	270+75.47	81.58' RT	936.80	273+48.50	81.58' RT	936.75

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE



NOTE:
FOR MACADAM STONE SLOPE PROTECTION SECTIONS AND ESTIMATED QUANTITIES SEE STANDARD SHEET 1006.

SITE PLAN
(STAGE A)

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

DESIGN FOR 8° SKEW (L.A.)

244'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

SPANS (56'-0, 137'-0, 51'-0) BTD BEAMS

I-35 OVER E. FIRST STREET

STA. 272+17.05 41.00' RT

SITUATION PLAN

NORTH BOUND LANES

OCTOBER 2014

CITY OF ANKENY-POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ___ OF ? FILE NO. ? DESIGN NO. ?

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

S.B.I. NO. 109.0051.01 | CITY OF ANKENY-POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.2

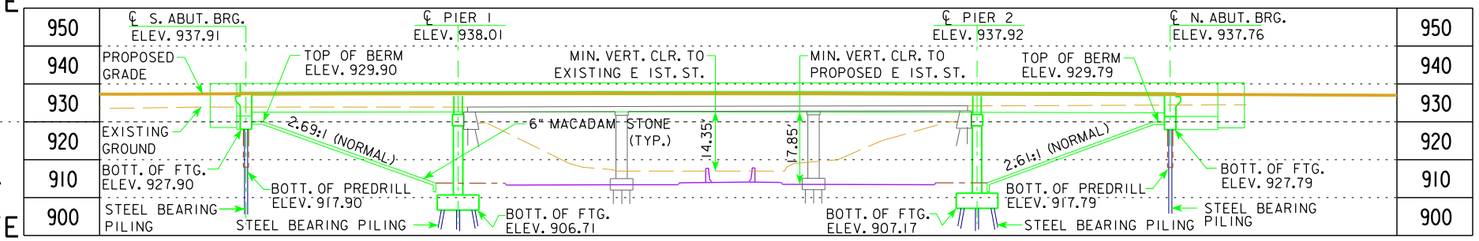
BENCH MARK: CUT "X" TOP OF NORTHWEST WING ON BRIDGE CARRYING NORTHBOUND I-35 TRAFFIC OVER IOWA 931 (E. FIRST STREET). APPROX. STA. 272+96 ℄ SURVEY, RT. 15'-6± SET AS ELEV. 933.54

I-35 TRAFFIC ESTIMATE

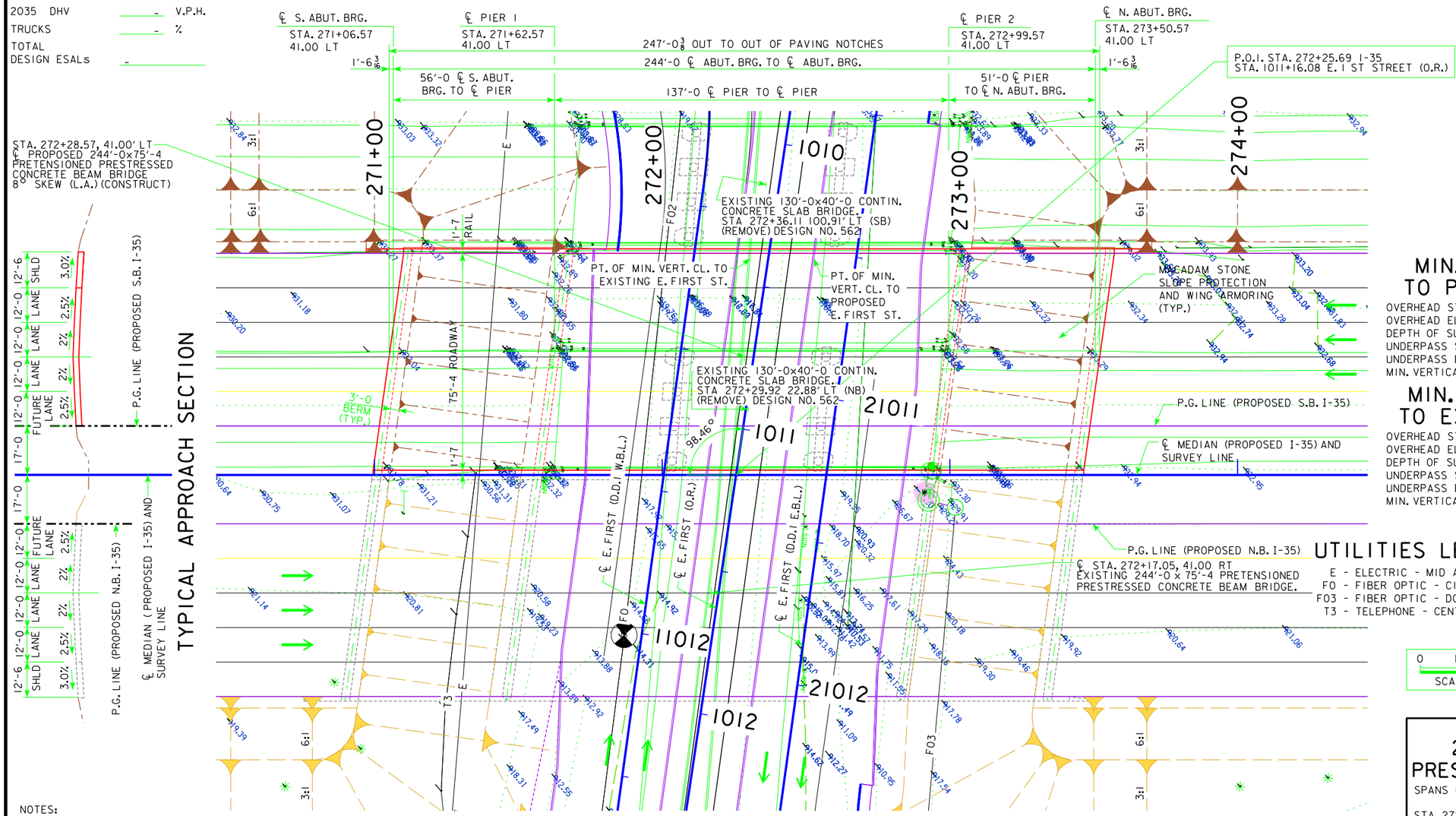
2008 AADT	53,600	V.P.D.
2035 AADT	100,300	V.P.D.
2035 DHV	9,900	V.P.H.
TRUCKS	16	%
TOTAL DESIGN ESALs	-	

E. FIRST STREET TRAFFIC ESTIMATE

2008 AADT	15,400	V.P.D.
2035 AADT	23,700	V.P.D.
2035 DHV	-	V.P.H.
TRUCKS	-	%
TOTAL DESIGN ESALs	-	



LONGITUDINAL SECTION ALONG CENTERLINE SB APPROACH ROADWAY



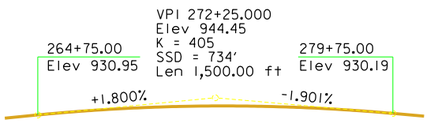
STA. 272+28.57, 41.00' LT
℄ PROPOSED 244'-0x75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE 8° SKEW (L.A.) (CONSTRUCT)

TYPICAL APPROACH SECTION

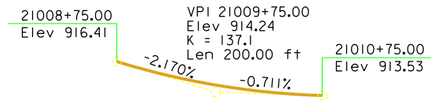
NOTES:
BRIDGE DECK CROWN 0.51' ABOVE PROFILE GRADE.
PIER TYPE - FRAME PIER
PIERS DESIGNED FOR VEHICULAR COLLISION.
BEAM TYPE BTD, DEPTH = 4'-6"
TL-5 BRIDGE RAILING IS PROPOSED.

SITUATION PLAN
(STAGE B)

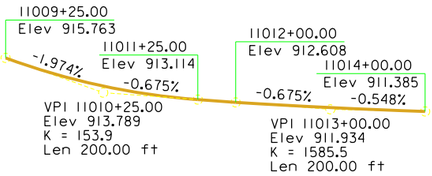
NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED



PROFILE GRADE I-35



PROFILE GRADE E. FIRST D.D.I. EAST BOUND LANES



PROFILE GRADE E. FIRST D.D.I. WEST BOUND LANES

MIN. VERTICAL CLEARANCE TO PROPOSED E IST. STREET

OVERHEAD STATION (I-35) = 272+52.77, OFFSET 75.08' RT
OVERHEAD ELEVATION = 937.18'
DEPTH OF SUPERSTRUCTURE = 5.33 FT
UNDERPASS STATION (E. IST ST. D.D.I.E.B.)=21010+52.50, OFFSET 14.50'RT
UNDERPASS ELEVATION = 914.00'
MIN. VERTICAL CLEARANCE TO PROPOSED E IST ST. = 17.85'

MIN. VERTICAL CLEARANCE TO EXISTING E IST. STREET

OVERHEAD STATION (I-35) = 272+25.76, OFFSET 75.08' RT
OVERHEAD ELEVATION = 937.21'
DEPTH OF SUPERSTRUCTURE = 5.33 FT
UNDERPASS STATION (E. IST ST. D.D.I.W.B.)=11010+66.47, OFFSET 14.74'LT
UNDERPASS ELEVATION = 917.52'
MIN. VERTICAL CLEARANCE TO EXISTING E IST ST. = 14.35'

UTILITIES LEGEND:

E - ELECTRIC - MID AMERICAN ENERGY
FO - FIBER OPTIC - CITY OF ANKENY FIBER
F03 - FIBER OPTIC - DOT FIBER
T3 - TELEPHONE - CENTERY LINK

0 ENGLISH 40
SCALE IN FEET

LOCATION

I-35 S.B. OVER E. FIRST STREET
T-80 N R-23 W
SECTIONS 18, 19
CITY OF ANKENY
POLK COUNTY
S.B. FHWA NO. 41800
S.B. BRIDGE MAINT. NO. 7792.5L035
LATITUDE 41.731850°
LONGITUDE -93.577144°

PRELIMINARY

DESIGN FOR 8° SKEW (L.A.)

244'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

SPANS (56'-0, 137'-0, 51'-0) BTD BEAMS
I-35 OVER E. FIRST STREET
STA. 272+28.57 41.00' LT
SITUATION PLAN
SOUTH BOUND LANES OCTOBER 2014
CITY OF ANKENY-POLK COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ? FILE NO. ? DESIGN NO. ?

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

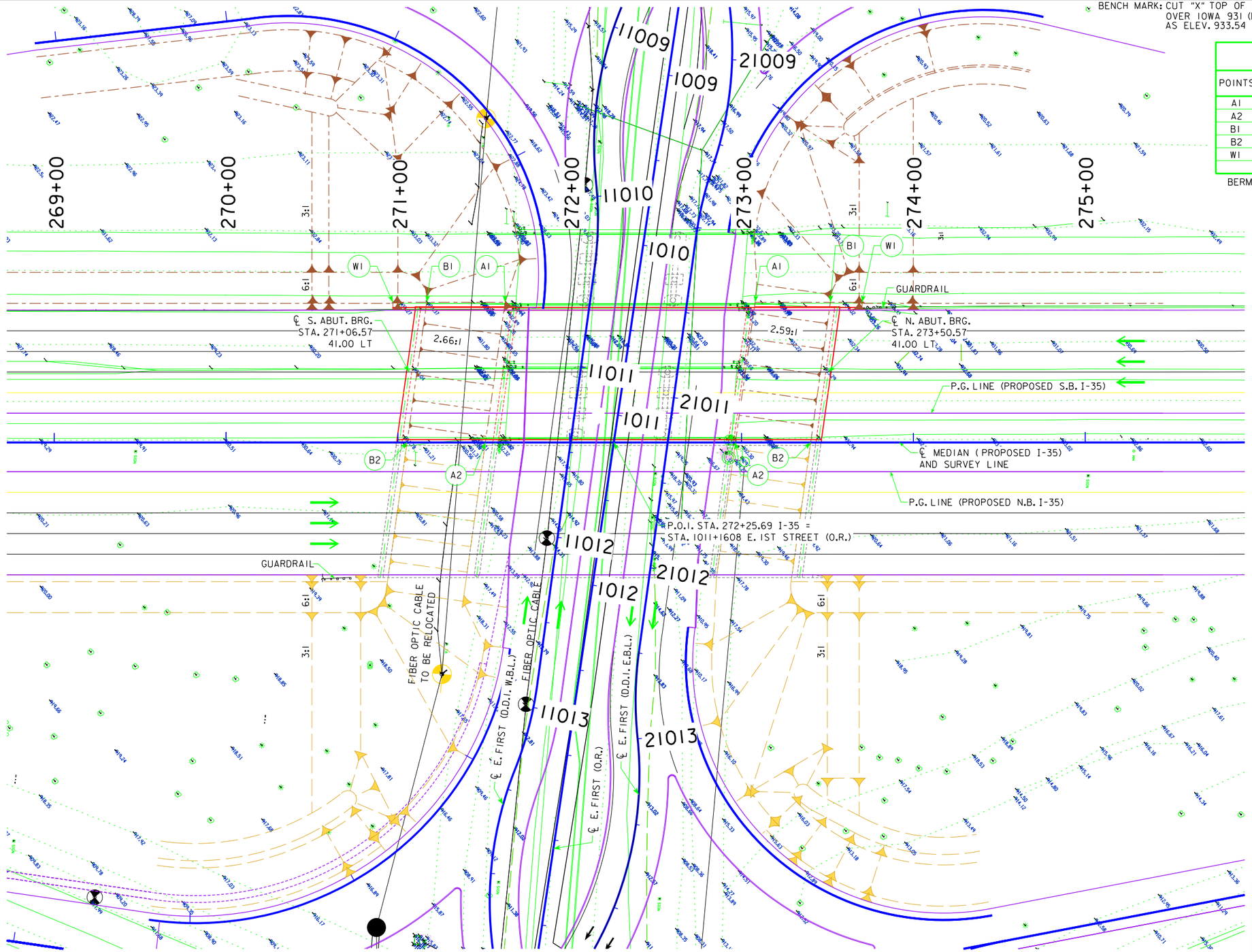
S.B.I. NO. 109.0051.01	CITY OF ANKENY-POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER V.3

BENCH MARK: CUT "X" TOP OF NORTHWEST WING ON BRIDGE CARRYING NORTHBOUND I-35 TRAFFIC OVER IOWA 931 (E. FIRST STREET). APPROX. STA. 272+96 ℄ SURVEY, RT. 15'-6± SET AS ELEV. 933.54

BERM SLOPE LOCATION TABLE

POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	271+62.40	81.58' LT	913.31	273+07.92	81.58' LT	914.00
A2	271+50.93	0.00	913.09	272+96.46	0.00	913.15
B1	271+16.82	81.58' LT	929.90	273+51.73	81.58' LT	929.79
B2	271+05.35	0.00	929.90	273+40.27	0.00	929.79
W1	270+97.13	81.58' LT	936.86	273+70.15	81.58' LT	936.67

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE



SITE PLAN
(STAGE B)

0 ENGLISH 40
SCALE IN FEET

NOTE:
FOR MACADAM STONE SLOPE PROTECTION SECTIONS AND ESTIMATED QUANTITIES SEE STANDARD SHEET 1006.

PRELIMINARY

DESIGN FOR 8° SKEW (L.A.)

244'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

SPANS (56'-0, 137'-0, 51'-0) BTD BEAMS

I-35 OVER E. FIRST STREET

STA. 272+28.57
41.00' LT

SITUATION PLAN

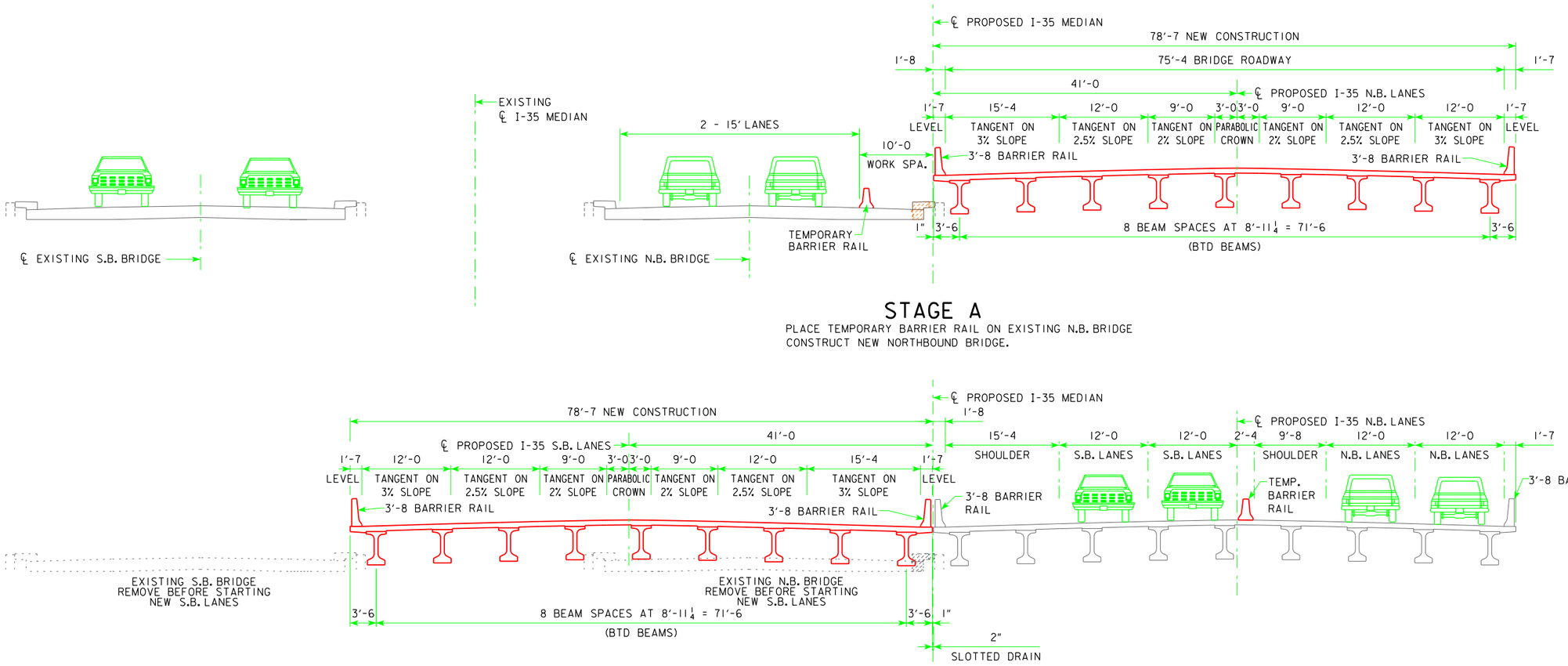
SOUTH BOUND LANES

OCTOBER 2014

CITY OF ANKENY-POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ___ OF ? FILE NO. ? DESIGN NO. ?

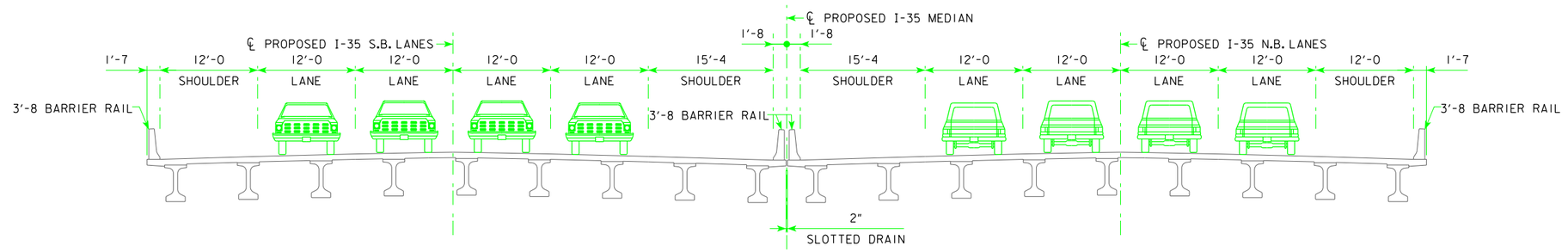


STAGE A

PLACE TEMPORARY BARRIER RAIL ON EXISTING N.B. BRIDGE
CONSTRUCT NEW NORTHBOUND BRIDGE.

STAGE B

SHIFT ALL TRAFFIC ONTO NEW NORTHBOUND ROADWAY AND BRIDGE. REMOVE EXISTING S.B AND N.B. BRIDGES AND CONSTRUCT NEW SOUTHBOUND BRIDGE.



FINAL STAGE

SHIFT SOUTHBOUND TRAFFIC ONTO NEW SOUTHBOUND ROADWAY AND BRIDGE. REMOVE TEMPORARY BARRIER RAIL FROM NORTHBOUND BRIDGE SEGMENT.

PRELIMINARY

DESIGN FOR 8° SKEW (L.A.)

244'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

SPANS (56'-0, 137'-0, 51'-0) BTD BEAMS
STA. 272+19.55, 41.00'RT N.B. BRIDGE
STA. 272+31.07, 41.00'LT S.B. BRIDGE

STAGING

OCTOBER 2014

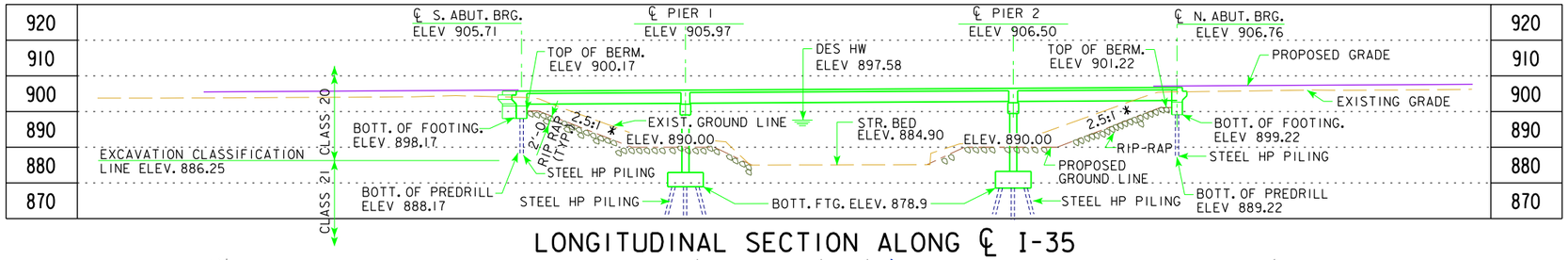
CITY OF ANKENY-POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ___ OF ? FILE NO. ? DESIGN NO. ?

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

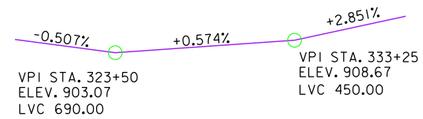
S.B.I. NO. 109.0051.01 | CITY OF ANKENY-POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.5



LONGITUDINAL SECTION ALONG ℄ I-35

BENCH MARK NO. 9: STA. 335+37.58 152.88' LT. SET 1"x36" SMOOTH BAR 10' E OF WEST ROW LINE 250'± N OF MILE MARKER 93.8 ON I-35 ELEV 919.38

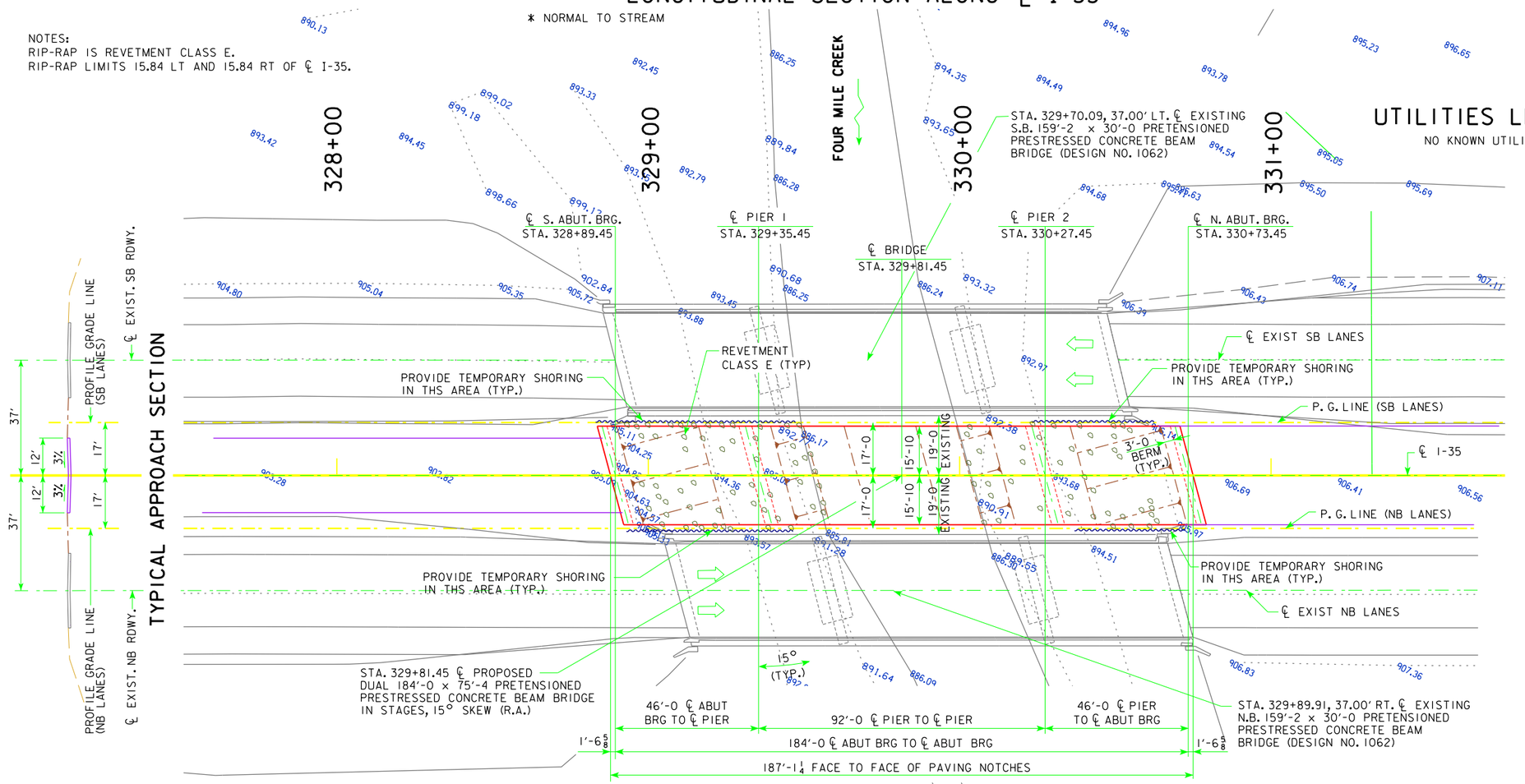
BENCH MARK NO. 10: STA. 322+62.95 148.31' LT. SET 1"x36" SMOOTH BAR 10'± E OF WEST ROW LINE 25'± S OF MILE MARKER 93.6 AND IN LINE WITH 18" RCP ELEV 913.93



PROPOSED GRADE

NOTES:
RIP-RAP IS REVETMENT CLASS E.
RIP-RAP LIMITS 15.84 LT AND 15.84 RT OF ℄ I-35.

* NORMAL TO STREAM



TYPICAL APPROACH SECTION

NOTE: PIERS ARE WALL PIERS (SOLID STEM) ON PILE CAP FOOTING.

SITUATION PLAN STAGE A

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

0 ENGLISH 40
SCALE IN FEET

UTILITIES LEGEND:

NO KNOWN UTILITIES

TRAFFIC ESTIMATE

2008 AADT	53,600 V.P.D.
2035 AADT	100,300 V.P.D.
2035 DHV	9,900 V.P.H.
TRUCKS	16%

HYDRAULIC DATA

DRAINAGE AREA = 44.9 SQ. MI.
STREAM SLOPE = 9.9 FT./MI.
AVG. LOW WATER STAGE = 886.3

Q_{50} = 5,170 CFS
STAGE = 896.85
BACKWATER = 0.24 FT.

Q_{100} = 6,140 CFS
STAGE = 897.58
BACKWATER = 0.33 FT.
AVG. BRIDGE VELOCITY = 4.89 FPS

Q_{200} = 7,280 CFS
STAGE = 899.68
CALCULATED DESIGN SCOUR = 878.88

Q_{500} = 8,720 CFS
STAGE = 900.55
CALCULATED CHECK SCOUR = 877.91

ROADWAY OVERTOP 904.54
STA. 322+28

50, 100 & 500 YR. STAGES AND DISCHARGES FROM CITY OF ANKENY F.I.S., DATED DECEMBER 6, 1999. F.I.S. DATUM (NGVD29) 0.1 FT. BELOW PROJECT DATUM (NAVD88).

LOCATION

I-35 OVER FOURMILE CREEK
T-80 N R-23 W
SECTION 7
DOUGLAS TOWNSHIP
POLK COUNTY
N.B. FHWA NO. 41810
S.B. FHWA NO. 41820
N.B. BRIDGE MAINT. NO. 7793.6R035
S.B. BRIDGE MAINT. NO. 7793.6L035
LATITUDE: 41.747287°
LONGITUDE: -93.575179°

PRELIMINARY

HYDRAULIC DESIGN

LICENSED PROFESSIONAL ENGINEER
Adam R. Bullerman
17362
IOWA

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.

Signature 10-22-2014 Date

Adam R. Bullerman
Printed or Typed Name

My license renewal date is December 31, 2014

Pages or sheets covered by this seal: SHEETS V.6,V.8,V.10,V.14,V.16&V.18 (HYDRAULIC DATA)

DESIGN FOR 15° SKEW (RA)

DUAL 184'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

46'-0 END SPANS (BTB BEAM TYPE) 92'-0 INTERIOR SPAN

SITUATION PLAN A

STATION 329+81.45

OCTOBER 2014

CITY OF ANKENY - POLK COUNTY

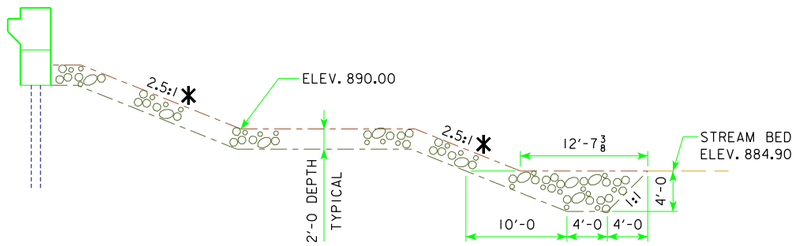
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477 S.B.I. NO. 109.0051.01A

CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.6

10/22/2014 9:06:35 AM $DATE$V81_IDOTBridge N:\2009_Projects\109.0051.01A\Cadd\brgPlim\77035140.str TSL_77_0000_06 XMColor.pltcfg



SECTION THRU EMBEDDED REVETMENT BERM

* NORMAL TO STREAM

SB LANES - ESTIMATED BERM ARMORING QTY

LOCATION	REVETMENT CL. E (TON)	EROSION STONE (TON)	ENGINEERING FABRIC (SY)	CLASS 10 CHANNEL EXCAVATION (CY)
BERM LINING - SOUTH ABUTMENT	129	-	121	81
STONE TOE - SOUTH ABUTMENT	43	-	37	27
BERM LINING - NORTH ABUTMENT	140	-	131	87
STONE TOE - NORTH ABUTMENT	43	-	37	27
TOTALS	355	-	326	222

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.

NB LANES - ESTIMATED BERM ARMORING QTY

LOCATION	REVETMENT CL. E (TON)	EROSION STONE (TON)	ENGINEERING FABRIC (SY)	CLASS 10 CHANNEL EXCAVATION (CY)
BERM LINING - SOUTH ABUTMENT	129	-	121	81
STONE TOE - SOUTH ABUTMENT	43	-	37	27
BERM LINING - NORTH ABUTMENT	140	-	131	87
STONE TOE - NORTH ABUTMENT	43	-	37	27
TOTALS	355	-	326	222

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.

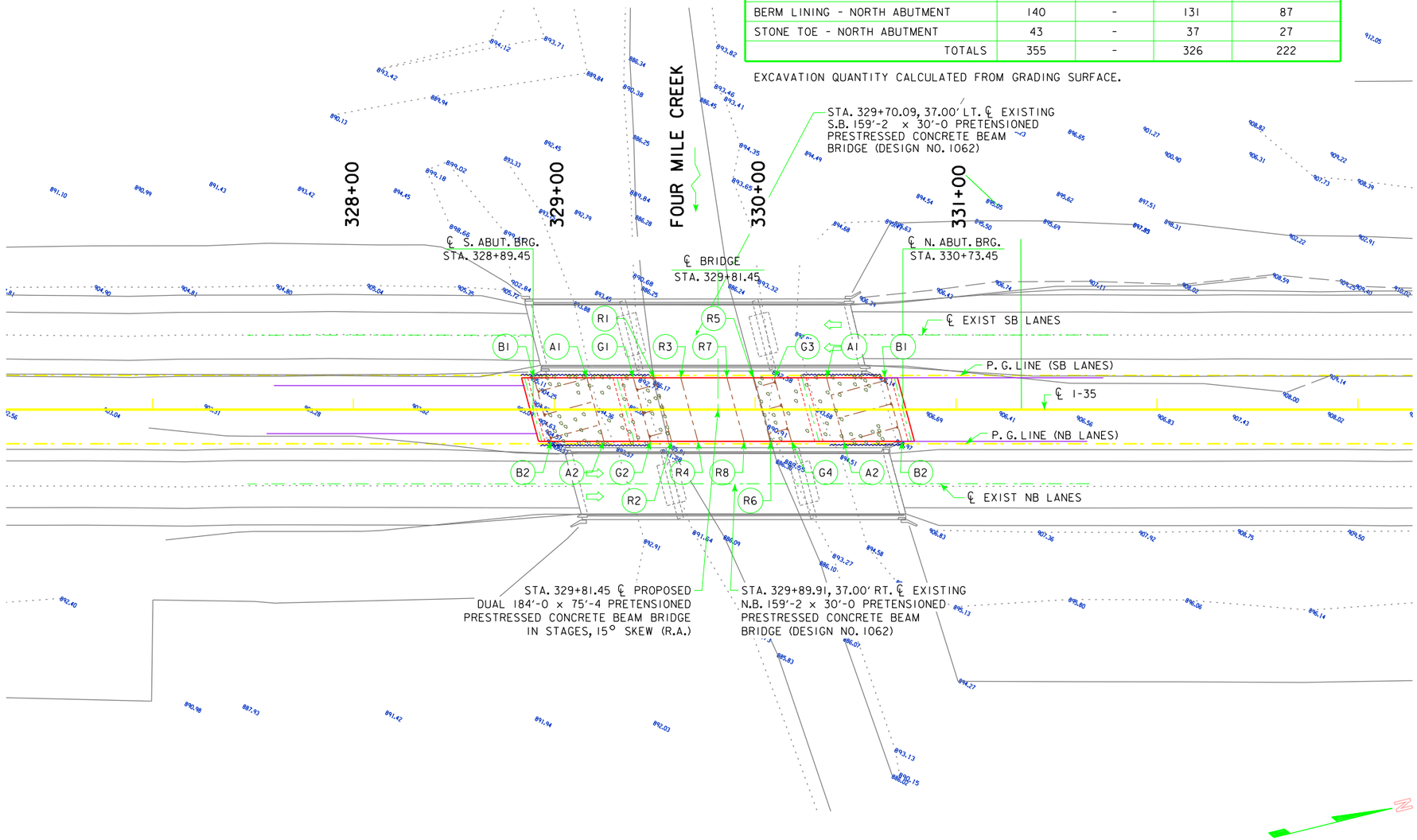
BENCH MARK NO. 9: STA. 335+37.58 152.88' LT. SET 1"x36" SMOOTH BAR 10' E OF WEST ROW LINE 250'± N OF MILE MARKER 93.8 ON I-35 ELEV 919.38

BENCH MARK NO. 10: STA. 322+62.95 148.31' LT. SET 1"x36" SMOOTH BAR 10'± E OF WEST ROW LINE 25'± S OF MILE MARKER 93.6 AND IN LINE WITH 18" RCP ELEV 913.93

BERM SLOPE LOCATION TABLE

POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	329+16.19	15.84' LT	890.00	330+35.51	15.84' LT	890.00
A2	329+24.67	15.84' RT	890.00	330+43.99	15.84' RT	890.00
B1	328+89.87	15.84' LT	900.17	330+64.55	15.84' LT	901.22
B2	328+98.35	15.84' RT	900.17	330+73.03	15.84' RT	901.22

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE



SITE PLAN - STAGE A

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

GRADING CONTROL:

- G1 I-35 329+39.31, 15.84 LT; EDGE OF BENCH
- G2 I-35 329+47.79, 15.84 RT; EDGE OF BENCH
- G3 I-35 330+09.51, 15.84 LT; EDGE OF BENCH
- G4 I-35 330+17.99, 15.84 RT; EDGE OF BENCH

REVETMENT LAYOUT:

- R1 I-35 329+49.87, 15.84 LT; END BERM LINING
- R2 I-35 329+58.35, 15.84 RT; END BERM LINING
- R3 I-35 329+62.93, 15.84 LT; END STONE TOE
- R4 I-35 329+71.41, 15.84 RT; END STONE TOE
- R5 I-35 329+98.95, 15.84 LT; END BERM LINING
- R6 I-35 330+07.43, 15.84 RT; END BERM LINING
- R7 I-35 329+85.93, 15.84 LT; END STONE TOE
- R8 I-35 329+94.42, 15.84 RT; END STONE TOE

N

0 ENGLISH 60
SCALE IN FEET

PRELIMINARY

DESIGN FOR 15° SKEW (RA)

DUAL 184'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

46'-0 END SPANS (BTB BEAM TYPE) 92'-0 INTERIOR SPAN

SITE PLAN A

STATION 329+81.45

OCTOBER 2014

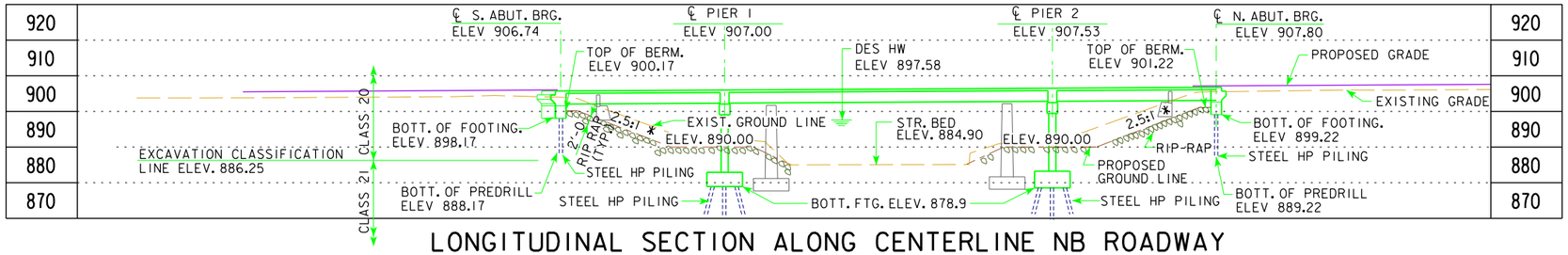
CITY OF ANKENY - POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

S.B.I. NO. 109.0051.01A | CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.7



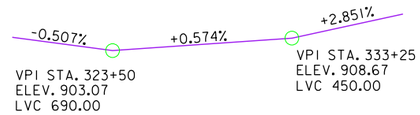
LONGITUDINAL SECTION ALONG CENTERLINE NB ROADWAY

* NORMAL TO STREAM

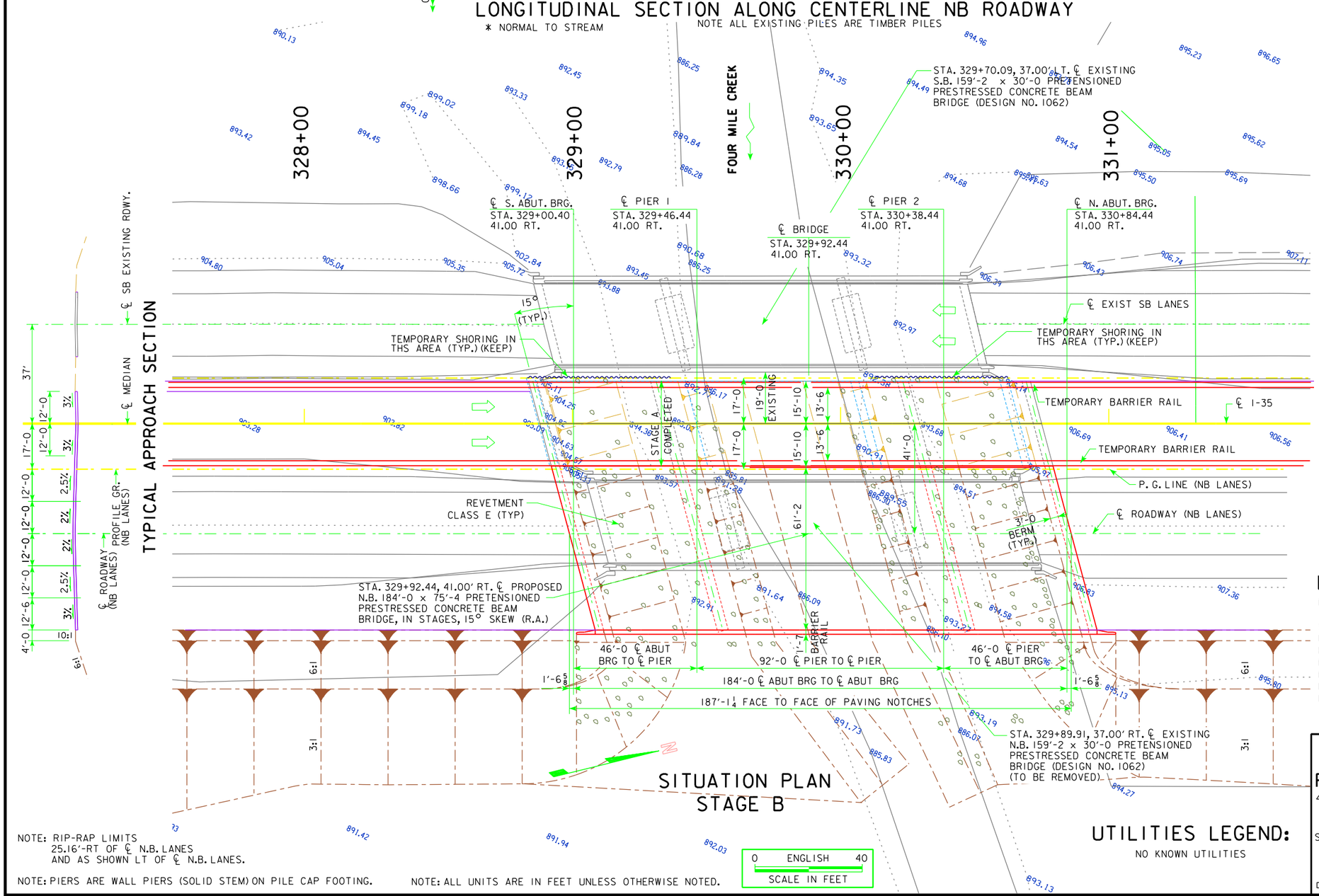
NOTE ALL EXISTING PILES ARE TIMBER PILES

BENCH MARK NO. 9: STA. 335+37.58 152.88' LT. SET 1"x36" SMOOTH BAR 10' E OF WEST ROW LINE 250'± N OF MILE MARKER 93.8 ON I-35 ELEV 919.38

BENCH MARK NO. 10: STA. 322+62.95 148.31' LT. SET 1"x36" SMOOTH BAR 10'± E OF WEST ROW LINE 25'± S OF MILE MARKER 93.6 AND IN LINE WITH 18" RCP ELEV 913.93



PROPOSED GRADE



TYPICAL APPROACH SECTION

TRAFFIC ESTIMATE

2008 AADT	53,600 V.P.D.
2035 AADT	100,300 V.P.D.
2035 DHV	9,900 V.P.H.
TRUCKS	16%

HYDRAULIC DATA

DRAINAGE AREA = 44.9 SQ. MI.
STREAM SLOPE = 9.9 FT./MI.
AVG. LOW WATER STAGE = 886.3

Q_{50} = 5,170 CFS
STAGE = 896.85
BACKWATER = 0.24 FT.

Q_{100} = 6,140 CFS
STAGE = 897.58
BACKWATER = 0.33 FT.
AVG. BRIDGE VELOCITY = 4.89 FPS

Q_{200} = 7,280 CFS
STAGE = 899.68
CALCULATED DESIGN SCOUR = 878.88

Q_{500} = 8,720 CFS
STAGE = 900.55
CALCULATED CHECK SCOUR = 877.91

ROADWAY OVERTOP 904.54
STA. 322+28

50, 100 & 500 YR. STAGES AND DISCHARGES FROM CITY OF ANKENY F.I.S., DATED DECEMBER 6, 1999. F.I.S. DATUM (NGVD29) 0.1 FT. BELOW PROJECT DATUM (NAVD88).

LOCATION

N.B. I-35 OVER FOURMILE CREEK
T-80 N R-23 W
SECTION 7
DOUGLAS TOWNSHIP
POLK COUNTY
N.B. FHWA NO. 41810
N.B. BRIDGE MAINT. NO. 7793.6R035
LATITUDE: 41.747279°
LONGITUDE: -93.575024°

SITUATION PLAN STAGE B

UTILITIES LEGEND:

NO KNOWN UTILITIES

NOTE: RIP-RAP LIMITS
25.16'-RT OF ℄ N.B. LANES
AND AS SHOWN LT OF ℄ N.B. LANES.

NOTE: PIERS ARE WALL PIERS (SOLID STEM) ON PILE CAP FOOTING.

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

PRELIMINARY

DESIGN FOR 15° SKEW (RA)

DUAL 184'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

46'-0 END SPANS (BTB BEAM TYPE) 92'-0 INTERIOR SPAN

SITUATION PLAN B

STATION 329+92.44 41.00' RT. OCTOBER 2014

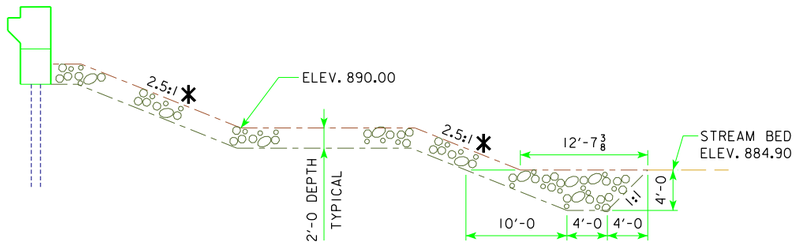
CITY OF ANKENY - POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM		CITY OF ANKENY - POLK COUNTY	PROJECT NUMBER	SHEET NUMBER
SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477	S.B.I. NO. 109.0051.01A		IM-35-4(140)92--13-77	V.8

10/22/2014 9:03:39 AM $DATE$V81_IDOTBridge N:\2009_Projects\109.0051.01A\Cadd\brgPlim\77035140.str TSL_77_0000_08 XMColor.pltcfg



SECTION THRU EMBEDDED REVETMENT BERM

* NORMAL TO STREAM

NB LANES - ESTIMATED BERM ARMORING QTY

LOCATION	REVETMENT CL. E (TON)	EROSION STONE (TON)	ENGINEERING FABRIC (SY)	CLASS 10 CHANNEL EXCAVATION (CY)
BERM LINING - SOUTH ABUTMENT	733	-	687	458
STONE TOE - SOUTH ABUTMENT	177	-	154	111
BERM LINING - NORTH ABUTMENT	767	-	719	479
STONE TOE - NORTH ABUTMENT	177	-	154	111
TOTALS	1854	-	1714	1159

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.

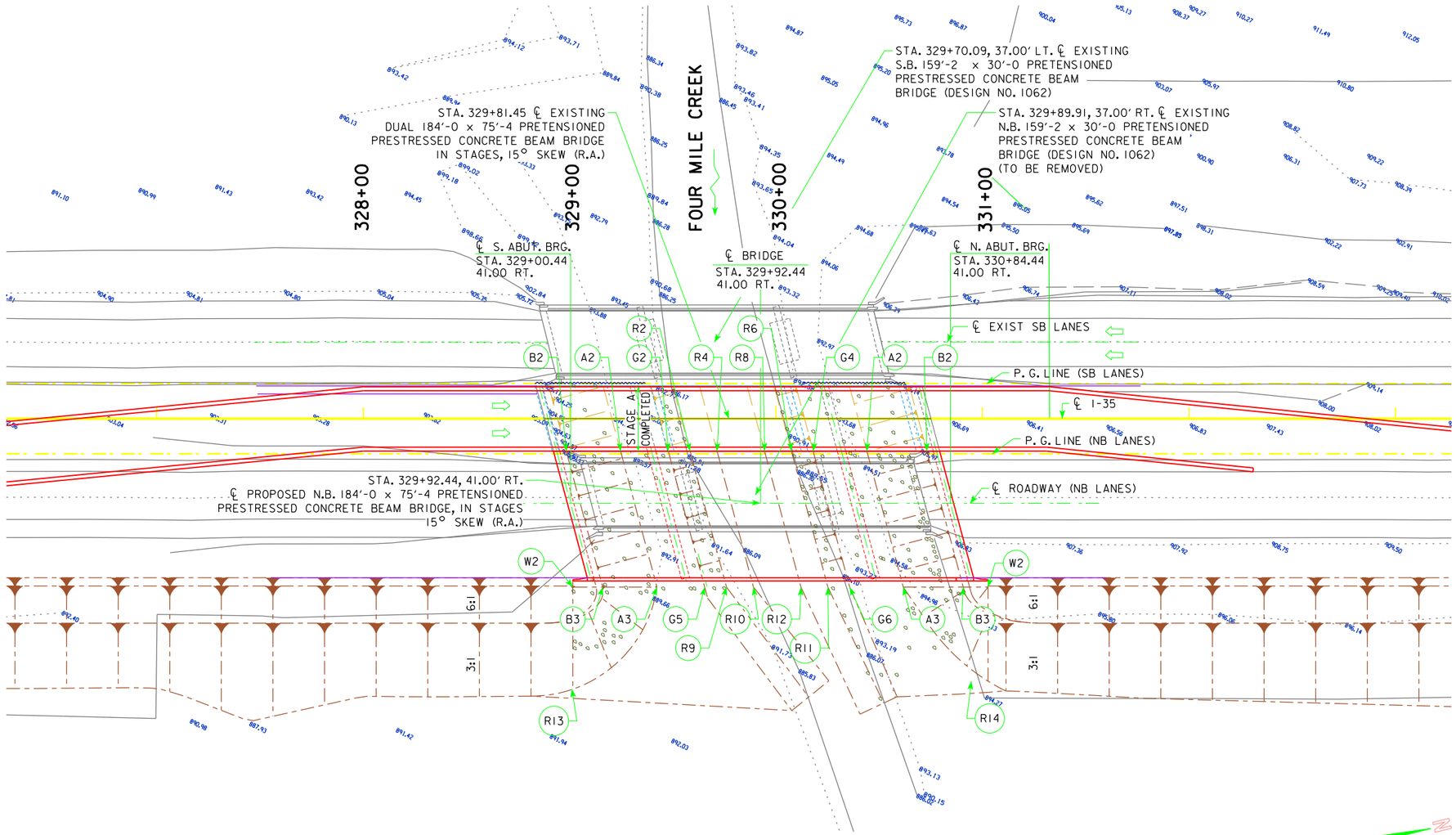
BENCH MARK NO. 9: STA. 335+37.58 152.88' LT. SET 1"x36" SMOOTH BAR 10' E OF WEST ROW LINE 250'± N OF MILE MARKER 93.8 ON I-35 ELEV 919.38

BENCH MARK NO. 10: STA. 322+62.95 148.31' LT. SET 1"x36" SMOOTH BAR 10'± E OF WEST ROW LINE 25'± S OF MILE MARKER 93.6 AND IN LINE WITH 18" RCP ELEV 913.93

BERM SLOPE LOCATION TABLE

POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A2	329+24.67	15.84' RT	890.00	330+43.99	15.84' RT	890.00
A3	329+42.29	81.58' RT	890.00	330+61.61	81.58' RT	890.00
B2	328+98.35	15.84' RT	900.17	330+73.03	15.84' RT	901.22
B3	329+15.97	81.58' RT	900.17	330+90.65	81.58' RT	901.22
W2	329+01.54	81.58' RT	905.73	331+02.64	81.58' RT	906.88

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE



SITE PLAN - STAGE B

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

GRADING CONTROL:

- G2 I-35 329+47.79, 15.84 RT; EDGE OF BENCH
- G5 I-35 329+65.41, 81.58 RT; EDGE OF BENCH
- G4 I-35 330+17.99, 15.84 RT; EDGE OF BENCH
- G6 I-35 330+35.64, 81.58 RT; EDGE OF BENCH

REVETMENT LAYOUT:

- R2 I-35 329+58.35, 15.84 RT; END BERM LINING
- R4 I-35 329+71.41, 15.84 RT; END STONE TOE
- R6 I-35 330+07.43, 15.84 RT; END BERM LINING
- R8 I-35 329+94.42, 15.84 RT; END STONE TOE
- R9 I-35 329+75.97, 81.58 RT; END BERM LINING
- R10 I-35 329+89.03, 81.58 RT; END STONE TOE
- R11 I-35 330+25.08, 81.58 RT; END BERM LINING
- R12 I-35 330+12.04, 81.58 RT; END STONE TOE
- R13 I-35 329+01.53, 130.98 RT; END BERM LINING
- R14 I-35 331+02.64, 127.08 RT; END BERM LINING

0 ENGLISH 60
SCALE IN FEET

PRELIMINARY

DESIGN FOR 15° SKEW (RA)

DUAL 184'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

46'-0 END SPANS (BTB BEAM TYPE) 92'-0 INTERIOR SPAN

SITE PLAN B

STATION 329+92.44, 41.00 RT

OCTOBER 2014

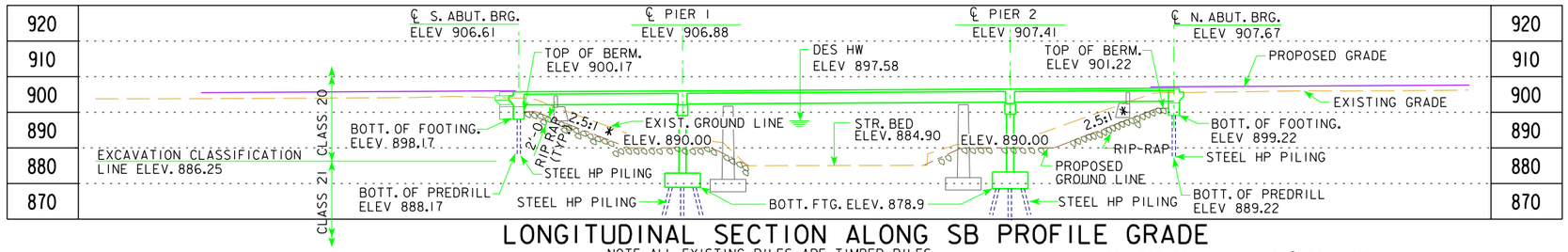
CITY OF ANKENY - POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

S.B.I. NO. 109.0051.01A | CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.9

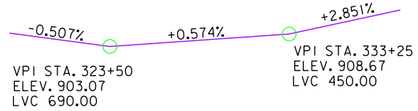


LONGITUDINAL SECTION ALONG SB PROFILE GRADE

NOTE ALL EXISTING PILES ARE TIMBER PILES

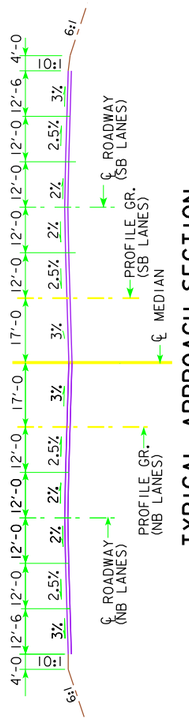
BENCH MARK NO. 9: STA. 335+37.58 152.88' LT. SET 1"x36" SMOOTH BAR 10' E OF WEST ROW LINE 250'± N OF MILE MARKER 93.8 ON I-35 ELEV 919.38

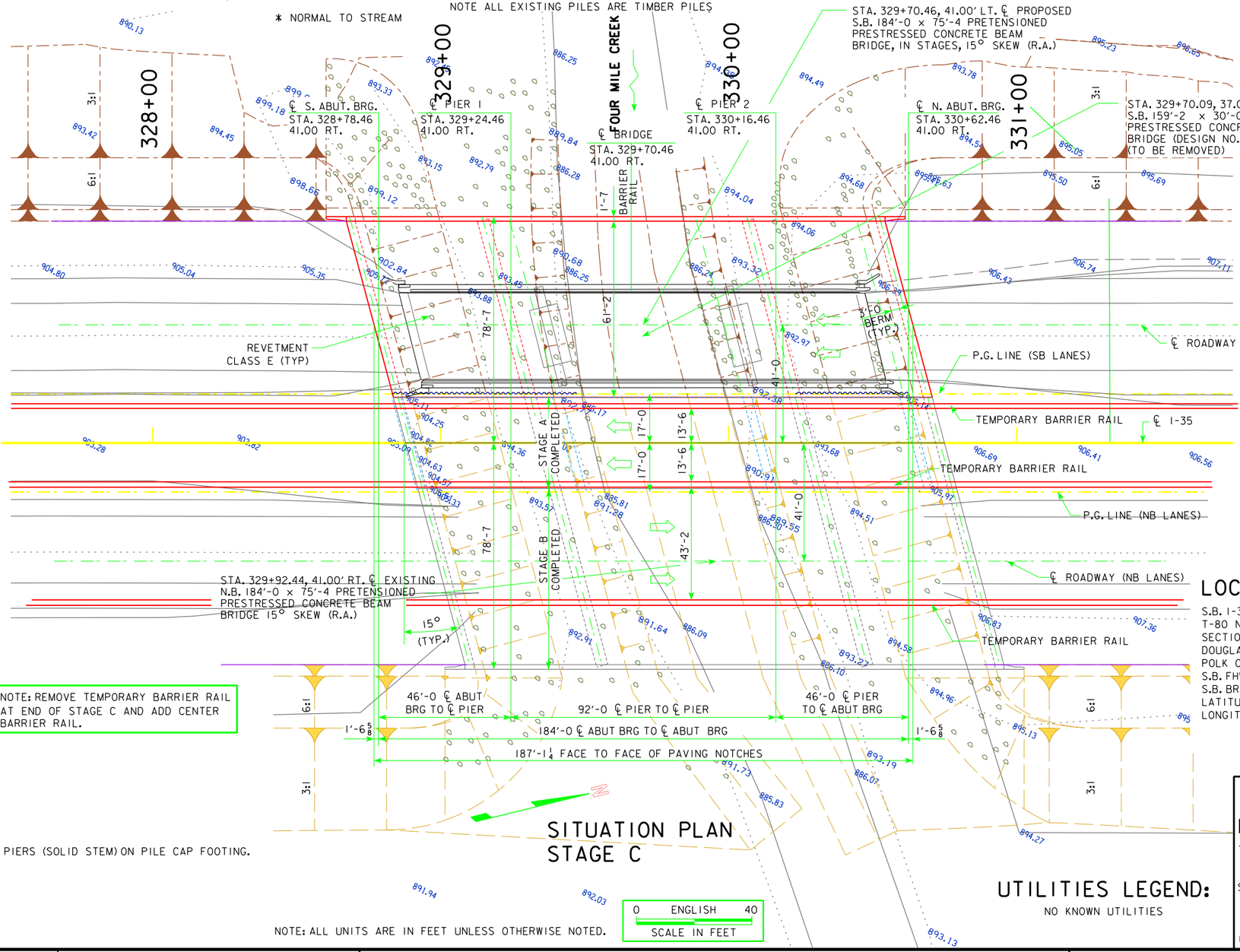
BENCH MARK NO. 10: STA. 322+62.95 148.31' LT. SET 1"x36" SMOOTH BAR 10'± E OF WEST ROW LINE 25'± S OF MILE MARKER 93.6 AND IN LINE WITH 18" RCP ELEV 913.93



PROPOSED GRADE

NOTE: RIP-RAP LIMITS 25.16'-RT OF ℄ S.B. LANES AND AS SHOWN LT OF ℄ S.B. LANES





TRAFFIC ESTIMATE

2008 AADT	53,600 V.P.D.
2035 AADT	100,300 V.P.D.
2035 DHV	9,900 V.P.H.
TRUCKS	16%

HYDRAULIC DATA

DRAINAGE AREA = 44.9 SQ. MI.
STREAM SLOPE = 9.9 FT./MI.
AVG. LOW WATER STAGE = 886.3

Q_{50} = 5,170 CFS
STAGE = 896.85
BACKWATER = 0.24 FT.

Q_{100} = 6,140 CFS
STAGE = 897.58
BACKWATER = 0.33 FT.
AVG. BRIDGE VELOCITY = 4.89 FPS

Q_{200} = 7,280 CFS
STAGE = 899.68
CALCULATED DESIGN SCOUR = 878.88

Q_{500} = 8,720 CFS
STAGE = 900.55
CALCULATED CHECK SCOUR = 877.91

ROADWAY OVERTOP 904.54
STA. 322+28

50, 100 & 500 YR. STAGES AND DISCHARGES FROM CITY OF ANKENY F.I.S., DATED DECEMBER 6, 1999. F.I.S. DATUM (NGVD29) 0.1 FT. BELOW PROJECT DATUM (NAVD88).

LOCATION

S.B. I-35 OVER FOURMILE CREEK
T-80 N R-23 W
SECTION 7
DOUGLAS TOWNSHIP
POLK COUNTY
S.B. FHWA NO. 41820
S.B. BRIDGE MAINT. NO. 7793.6L035
LATITUDE: 41.747295°
LONGITUDE: -93.575334°

UTILITIES LEGEND:

NO KNOWN UTILITIES

PRELIMINARY

DESIGN FOR 15° SKEW (RA)

DUAL 184'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

46'-0 END SPANS (BTB BEAM TYPE) 92'-0 INTERIOR SPAN

SITUATION PLAN C

STATION 329+70.46 41.00' LT. OCTOBER 2014

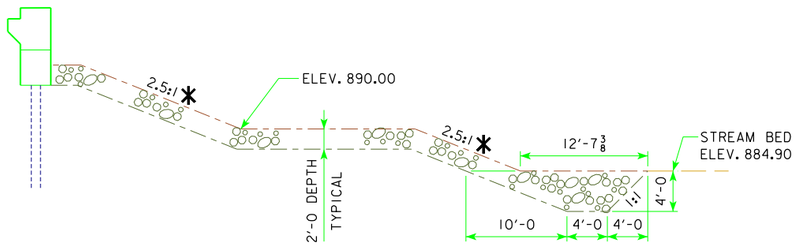
CITY OF ANKENY - POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

S.B.I. NO. 109.0051.01A | CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.10



SECTION THRU EMBEDDED REVETMENT BERM

* NORMAL TO STREAM

SB LANES - ESTIMATED BERM ARMORING QTY

LOCATION	REVETMENT CL. E (TON)	EROSION STONE (TON)	ENGINEERING FABRIC (SY)	CLASS 10 CHANNEL EXCAVATION (CY)
BERM LINING - SOUTH ABUTMENT	771	-	723	482
STONE TOE - SOUTH ABUTMENT	177	-	154	111
BERM LINING - NORTH ABUTMENT	780	-	731	488
STONE TOE - NORTH ABUTMENT	177	-	154	111
TOTALS	1905	-	1762	1192

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.

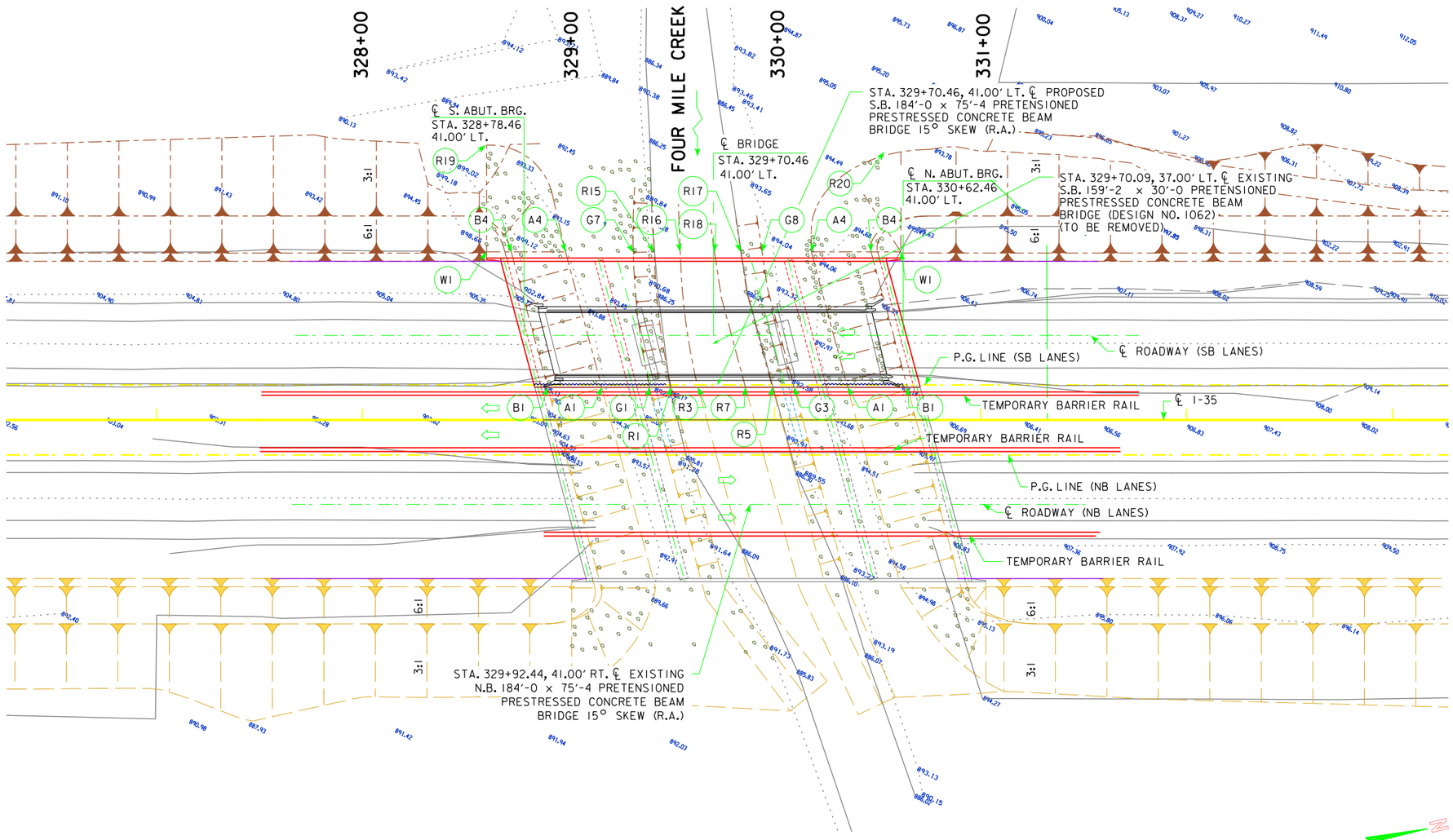
BENCH MARK NO. 9: STA. 335+37.58 152.88' LT. SET 1"x36" SMOOTH BAR 10' E OF WEST ROW LINE 250'± N OF MILE MARKER 93.8 ON I-35 ELEV 919.38

BENCH MARK NO. 10: STA. 322+62.95 148.31' LT. SET 1"x36" SMOOTH BAR 10'± E OF WEST ROW LINE 25'± S OF MILE MARKER 93.6 AND IN LINE WITH 18" RCP ELEV 913.93

BERM SLOPE LOCATION TABLE

POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	329+16.19	15.84' LT	890.00	330+35.51	15.84' LT	890.00
A4	328+98.57	81.58' LT	890.00	330+17.89	81.58' LT	890.00
B1	328+89.87	15.84' LT	900.17	330+64.55	15.84' LT	901.22
B4	328+72.25	81.58' LT	900.17	330+46.93	81.58' LT	901.22
W1	328+60.27	81.58' LT	905.49	330+61.37	81.58' LT	906.64

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE



SITE PLAN - STAGE C

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

GRADING CONTROL:

- G1 I-35 329+39.31, 15.84 LT; EDGE OF BENCH
- G3 I-35 330+09.51, 15.84 LT; EDGE OF BENCH
- G7 I-35 329+31.45, 81.58 LT; EDGE OF BENCH
- G8 I-35 329+93.99, 81.58 LT; EDGE OF BENCH

REVETMENT LAYOUT:

- R1 I-35 329+49.87, 15.84 LT; END BERM LINING
- R3 I-35 329+62.93, 15.84 LT; END STONE TOE
- R5 I-35 329+98.95, 15.84 LT; END BERM LINING
- R7 I-35 329+85.93, 15.84 LT; END STONE TOE
- R15 I-35 329+41.66, 81.58 LT; END BERM LINING
- R16 I-35 329+54.28, 81.58 LT; END STONE TOE
- R17 I-35 329+83.67, 81.58 LT; END BERM LINING
- R18 I-35 329+70.92, 81.58 LT; END STONE TOE
- R19 I-35 328+60.26, 133.40 LT; END BERM LINING
- R20 I-35 330+61.37, 130.15 LT; END BERM LINING

0 ENGLISH 60
SCALE IN FEET

PRELIMINARY

DESIGN FOR 15° SKEW (RA)

DUAL 184'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

46'-0 END SPANS (BTB BEAM TYPE) 92'-0 INTERIOR SPAN

SITE PLAN C

STATION 329+70.46, 41.00 LT

OCTOBER 2014

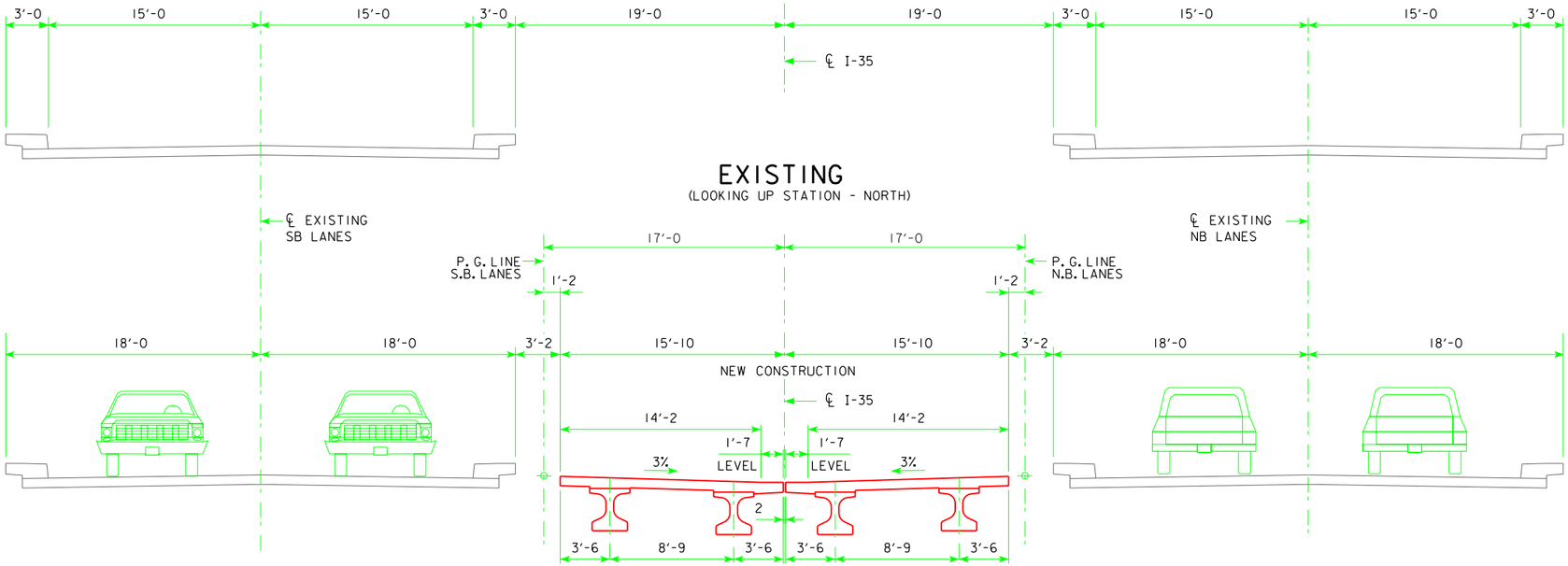
CITY OF ANKENY - POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

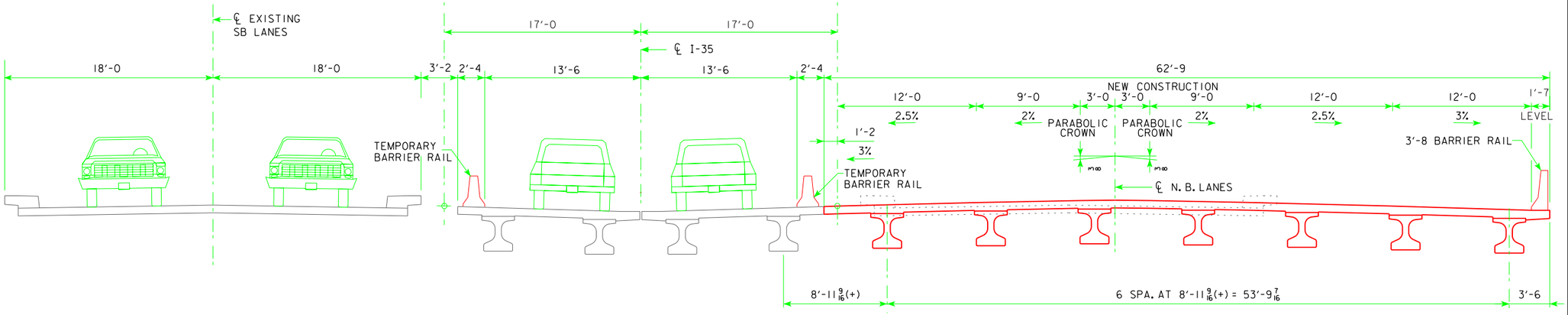
DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477 | S.B.I. NO. 109.0051.01A | CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.11

10/21/2014 5:55:02 PM $DATE$V81_IDOTBridge N:\2009_Projects\109.0051.01A\Cadd\brgPlim\77035140.str TSL_77_0000_11 XMColor.pltcfg



STAGE A

STAGE A
BUILD 31'-8 SEGMENT OF BRIDGE BETWEEN EXISTING BRIDGES, WHILE MAINTAINING NORMAL 4 LANE TRAFFIC ON EXISTING ROADWAY.



STAGE B

STAGE B
SHIFT NORTHBOUND TRAFFIC ON NEW "CENTER" BRIDGE SEGMENT. REMOVE EXISTING NORTHBOUND BRIDGE AND CONSTRUCT REMAINING PORTION OF NORTHBOUND BRIDGE. MAINTAIN SOUTHBOUND TRAFFIC ON EXISTING SOUTHBOUND BRIDGE.

PRELIMINARY

DESIGN FOR 15° SKEW (RA)

DUAL 184'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

46'-0 END SPANS (BTB BEAM TYPE) 92'-0 INTERIOR SPAN

STAGING

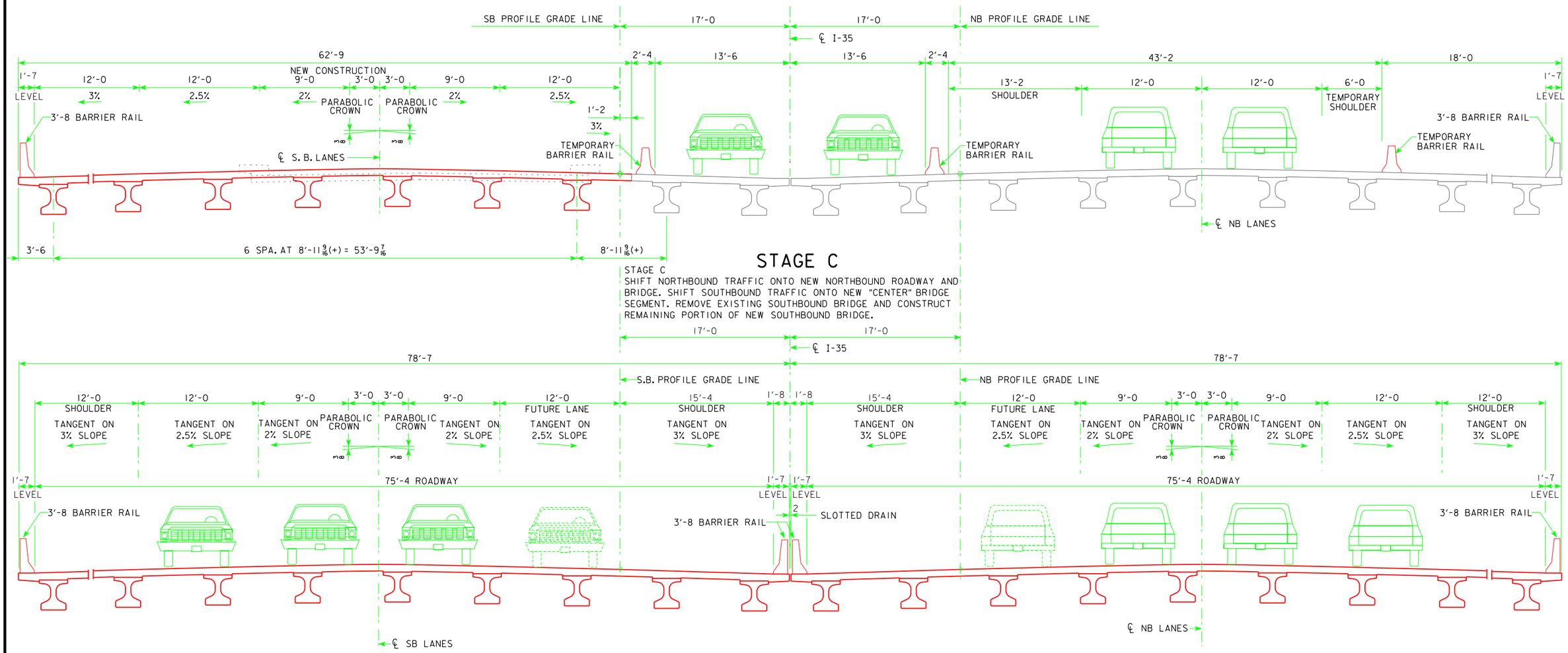
STATION 329+81.45

OCTOBER 2014

CITY OF ANKENY - POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____



STAGE C

STAGE C
SHIFT NORTHBOUND TRAFFIC ONTO NEW NORTHBOUND ROADWAY AND BRIDGE. SHIFT SOUTHBOUND TRAFFIC ONTO NEW "CENTER" BRIDGE SEGMENT. REMOVE EXISTING SOUTHBOUND BRIDGE AND CONSTRUCT REMAINING PORTION OF NEW SOUTHBOUND BRIDGE.

FINAL STAGE

FINAL STAGE
SHIFT SOUTHBOUND TRAFFIC ONTO NEW SOUTHBOUND ROADWAY AND BRIDGE. PLACE PERMANENT BARRIER RAIL AND REMOVE TEMPORARY BARRIER RAIL FROM NEW "CENTER" BRIDGE SEGMENT.

PRELIMINARY

DESIGN FOR 15° SKEW (RA)

DUAL 184'-0 x 75'-4 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

46'-0 END SPANS (BTB BEAM TYPE) 92'-0 INTERIOR SPAN

STAGING

STATION 329+81.45

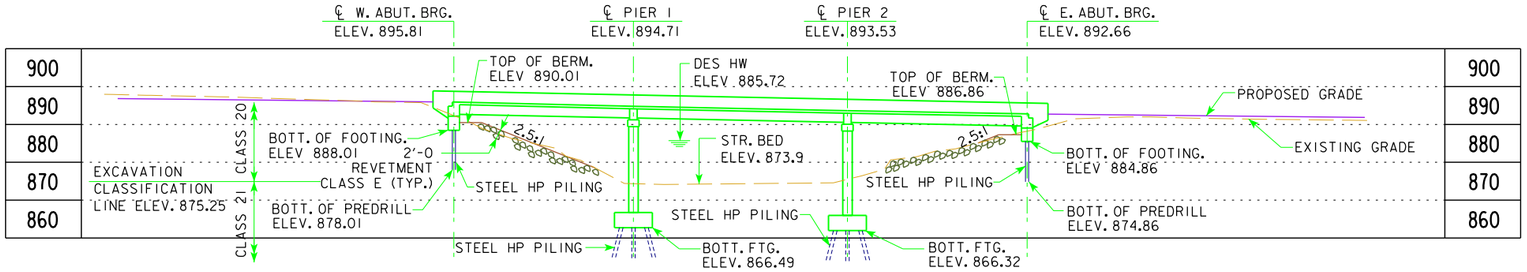
OCTOBER 2014

CITY OF ANKENY - POLK COUNTY

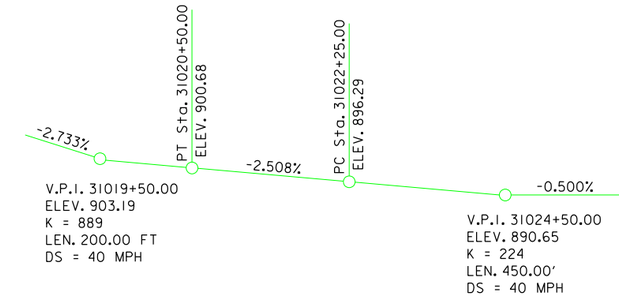
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

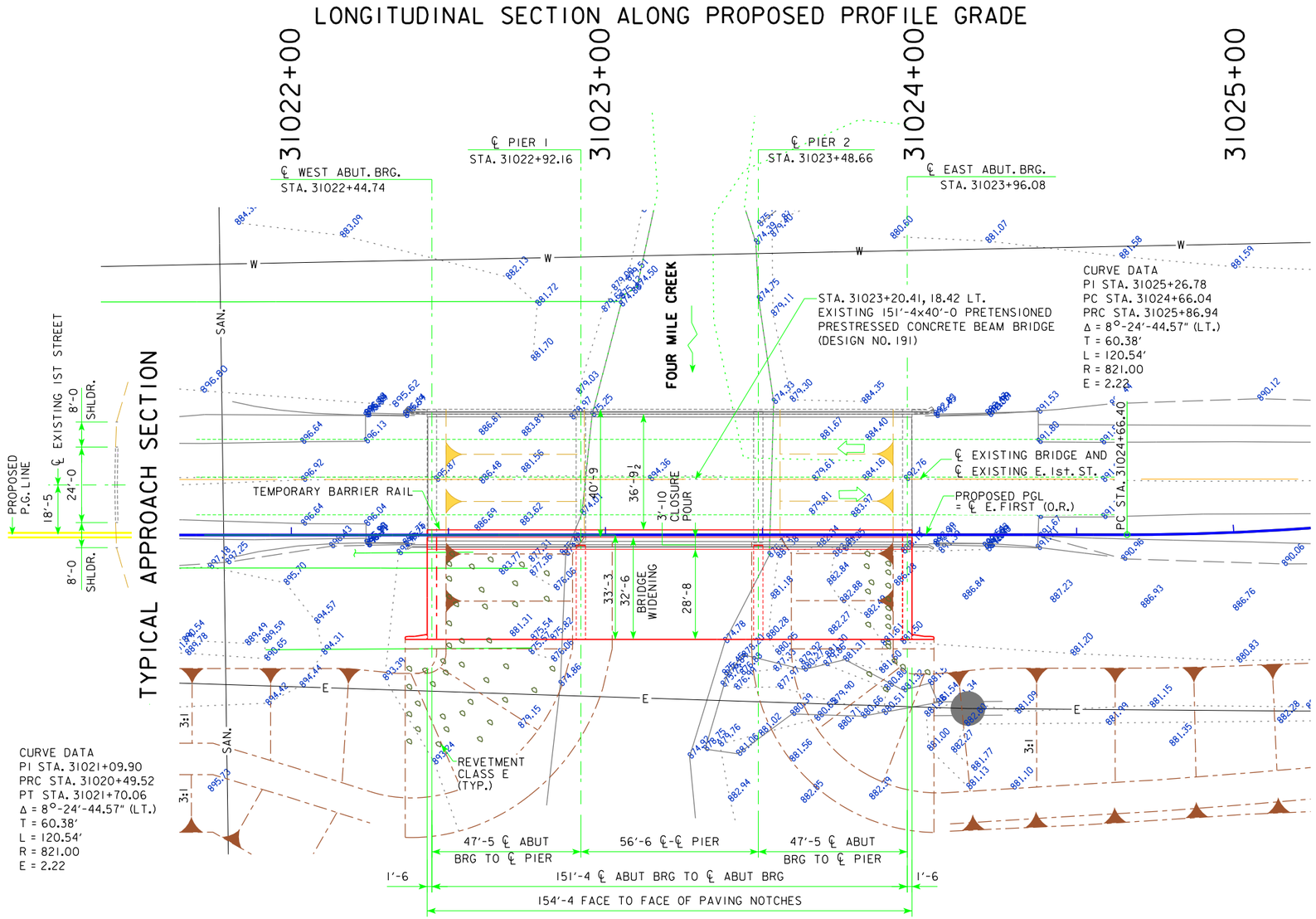
BENCH MARK: FND. BRASS PLUG IN TOP OF NW WINGWALL OF BRIDGE ELEV. 898.41



LONGITUDINAL SECTION ALONG PROPOSED PROFILE GRADE



PROPOSED PROFILE GRADE E. I ST. STREET



TYPICAL APPROACH SECTION

CURVE DATA
PI STA. 31021+09.90
PRC STA. 31020+49.52
PT STA. 31021+70.06
Δ = 8°-24'-44.57" (LT.)
T = 60.38'
L = 120.54'
R = 821.00
E = 2.22

SITUATION PLAN - STAGE A

0 ENGLISH 40
SCALE IN FEET

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED

UTILITIES LEGEND:

E - ELECTRIC - MID AMERICAN ELECTRIC
W - WATER - DES MOINES WATER WORKS
SAN. - SANITARY SEWER - CITY OF ANKENY
- POWER POLE - MID AMERICAN ELECTRIC

TRAFFIC ESTIMATE

2000 AADT	2,990	V.P.D.
2030 AADT	8,000	V.P.D.
2030 DHV	940	V.P.H.
TRUCKS	14	%

HYDRAULIC DATA

DRAINAGE AREA = 57.3 SQ. MI.
STREAM SLOPE = 8.9 FT./MI.
AVG. LOW WATER STAGE = 874.9

Q_{50} = 5,170 CFS
STAGE = 885.20
BACKWATER = 0.69 FT.

Q_{100} = 6,140 CFS
STAGE = 885.72
BACKWATER = 0.89 FT.
AVG. BRIDGE VELOCITY = 7.87 FPS

Q_{200} = 7,280 CFS
STAGE = 886.28
CALCULATED DESIGN SCOUR = 861.69

Q_{500} = 8,720 CFS
STAGE = 886.93
CALCULATED CHECK SCOUR = 859.68
ROADWAY OVERTOP 889.44
STA. 1027+10

50, 100 & 500 YR. STAGES AND DISCHARGES FROM CITY OF ANKENY F.I.S., DATED DECEMBER 6, 1999. F.I.S. DATUM (NGVD29) 0.1 FT. BELOW PROJECT DATUM (NAVD88).

LOCATION

E. FIRST ST. OVER FOUR MI. CREEK
T-80 N R-23 W
SECTION 18 AND 19
DOUGLAS TOWNSHIP
POLK COUNTY
FHWA NO. 281862
LATITUDE: 41.731789°
LONGITUDE: -93.572577°

PRELIMINARY

DESIGN FOR 0° SKEW

151'-4x40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE WIDENING TO 54'-0 W/SIDEWALK AND TRAIL (A BEAM TYPE)

47'-5 END SPANS — 56'-6 INTERIOR SPAN

SITUATION PLAN

STA. 31023+20.41 — OCTOBER 2014

CITY OF ANKENY - POLK COUNTY

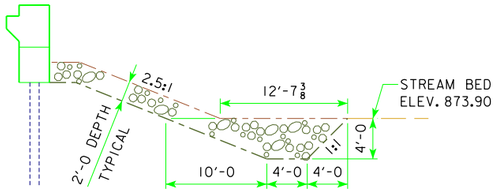
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ___ OF ___ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

S.B.I. NO. 109.0051.01 | CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.14

10/22/2014 9:57:19 AM $DATE$V8i_IDOTBridge N:\2009_Projects\109.0051.01\1st St over 4 Mile Creek\Cadd\BRPrelim\k77035140_V01.str TSL_77_0140_14 XMColor.pltcfg



SECTION THRU EMBEDDED REVETMENT BERM

ESTIMATED BERM ARMORING QUANTITIES

LOCATION	REVETMENT CL. E (TON)	EROSION STONE (TON)	ENGINEERING FABRIC (SY)	CLASS 10 CHANNEL EXCAVATION (CY)
BERM LINING - WEST ABUTMENT	461	-	432	288
STONE TOE - WEST ABUTMENT	242	-	210	151
BERM LINING - EAST ABUTMENT	376	-	353	235
STONE TOE - EAST ABUTMENT	229	-	200	143
TOTALS	1308	-	1195	817

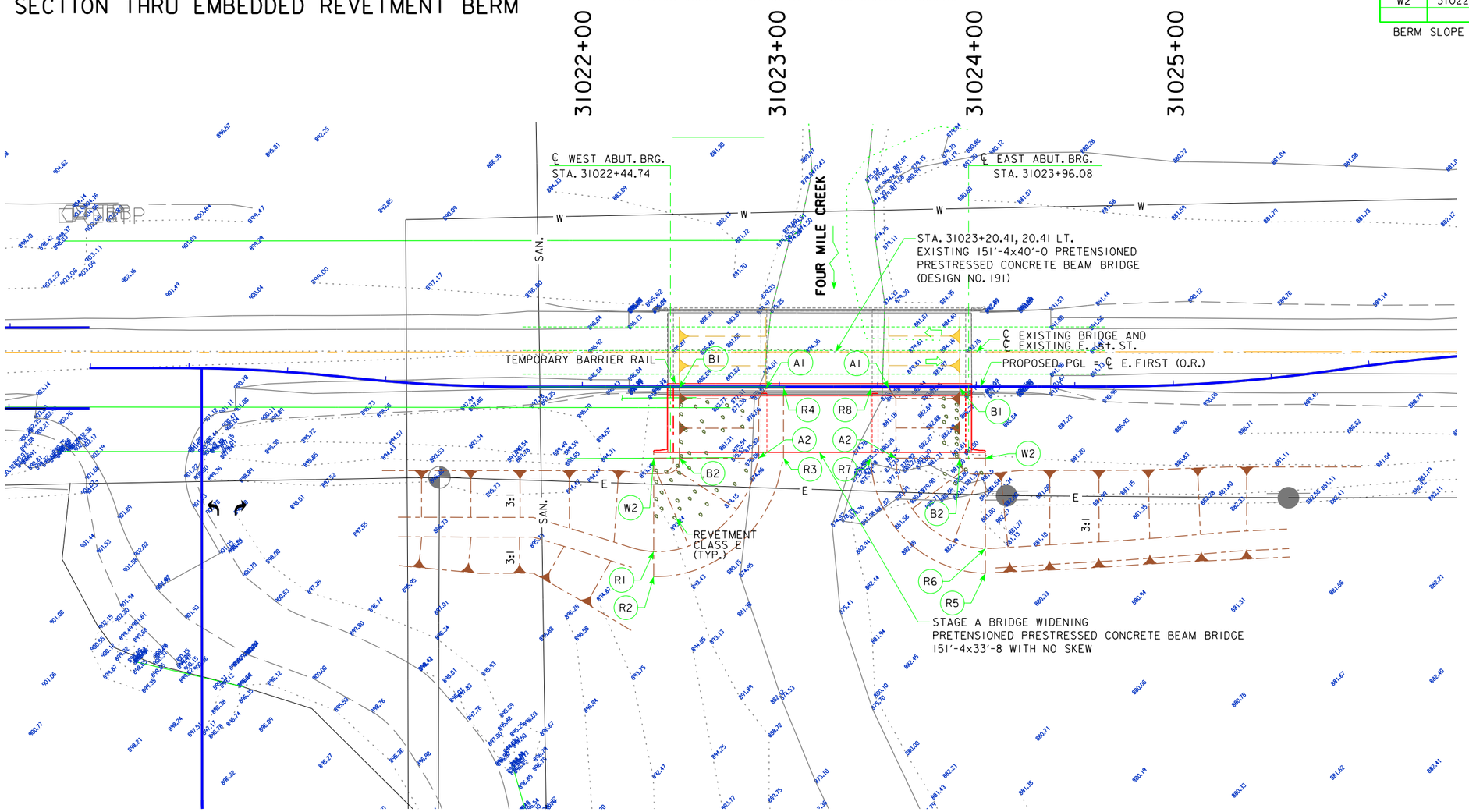
EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.

BENCH MARK: FND. BRASS PLUG IN TOP OF NW WINGWALL OF BRIDGE ELEV. 898.41

BERM SLOPE LOCATION TABLE

POINTS	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	31022+93.24	0.77 RT	872.90	31023+55.57	0.80 RT	872.90
A2	31022+89.50	36.83 RT	873.90	31023+59.16	36.83 RT	873.90
B1	31022+49.24	0.76 RT	890.50	31023+91.57	0.82 RT	887.30
B2	31022+49.23	36.83 RT	890.01	31023+91.56	36.83 RT	886.86
W2	31022+36.23	36.83 RT	895.36	31024+04.56	36.83 RT	891.86

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE



REVETMENT LAYOUT:

- R1 31022+36.21, 83.65 RT; END BERM LINING
- R2 31022+36.20, 96.28 RT; END STONE TOE
- R3 31023+02.12, 36.83 RT; END STONE TOE
- R4 31023+02.13, 0.78 RT; END STONE TOE
- R5 31024+04.54, 94.78 RT; END STONE TOE
- R6 31024+04.54, 82.16 RT; END BERM LINING
- R7 31023+46.54, 36.83 RT; END STONE TOE
- R8 31023+46.56, 0.80 RT; END STONE TOE

SITE PLAN - STAGE A

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED

0 ENGLISH 60
SCALE IN FEET

N

PRELIMINARY

DESIGN FOR 0° SKEW

151'-4x40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE WIDENING TO 54'-0 W/SIDEWALK AND TRAIL (A BEAM TYPE)

47'-5 END SPANS — 56'-6 INTERIOR SPAN

SITUATION PLAN

STA. 31023+20.41 — OCTOBER 2014

CITY OF ANKENY - POLK COUNTY

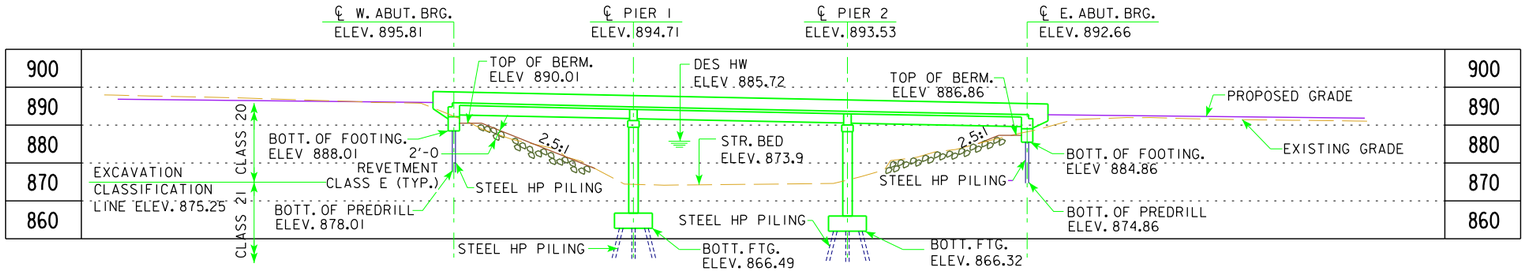
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

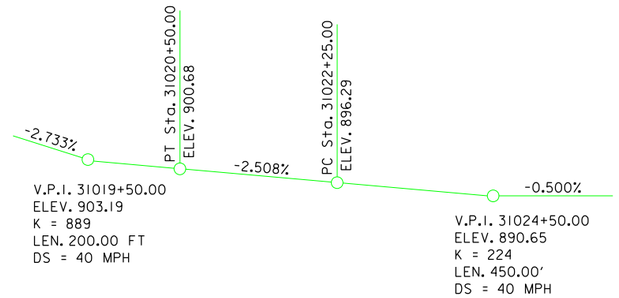
DESIGN SHEET NO. ___ OF ___ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477 | S.B.I. NO. 109.0051.01 | CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.15

10/21/2014 6:05:38 PM $DATE$V8i_IDOTBridge N:\2009_Projects\109.0051.01\1st St over 4 Mile Creek\Cadd\BRPrelim\k77035140_V01.str TSL_77_0140_15 XMColor.pltcfg

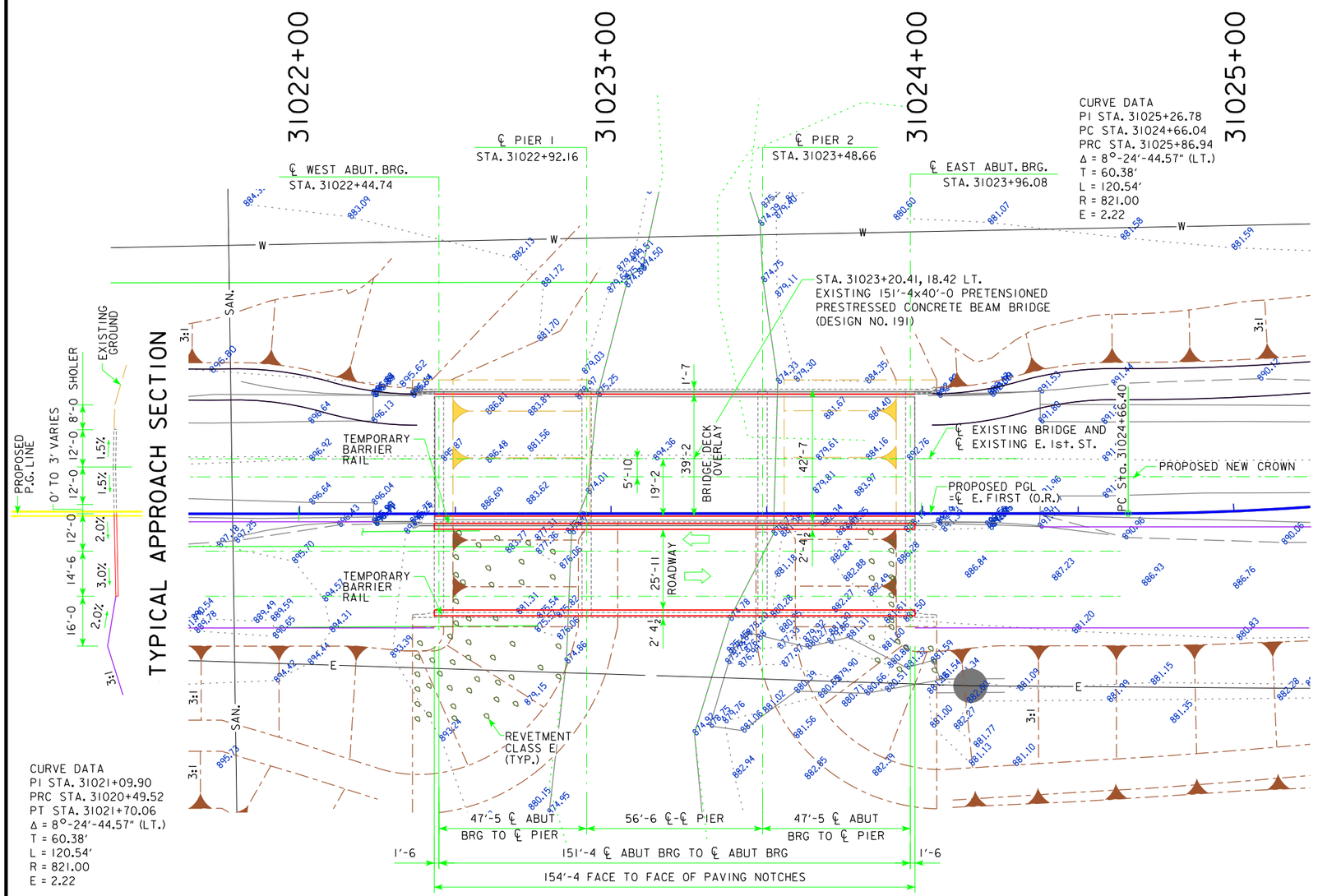
BENCH MARK: FND. BRASS PLUG IN TOP OF NW WINGWALL OF BRIDGE ELEV. 898.41





PROPOSED PROFILE GRADE E. I ST. STREET

LONGITUDINAL SECTION ALONG PROPOSED PROFILE GRADE



TYPICAL APPROACH SECTION

CURVE DATA
PI STA. 31021+09.90
PRC STA. 31020+49.52
PT STA. 31021+70.06
Δ = 8°-24'-44.57" (LT.)
T = 60.38'
L = 120.54'
R = 821.00
E = 2.22

UTILITIES LEGEND:

E - ELECTRIC - MID AMERICAN ELECTRIC
W - WATER - DES MOINES WATER WORKS
SAN. - SANITARY SEWER - CITY OF ANKENY
- POWER POLE - MID AMERICAN ELECTRIC

TRAFFIC ESTIMATE

2000	AADT	2,990	V.P.D.
2030	AADT	8,000	V.P.D.
2030	DHV	940	V.P.H.
TRUCKS		14	%

LOCATION

E. FIRST ST. OVER FOUR MI. CREEK
T-80 N R-23 W
SECTION 18 AND 19
DOUGLAS TOWNSHIP
POLK COUNTY
FHWA NO. 281862
LATITUDE: 41.731789°
LONGITUDE: -93.572577°

HYDRAULIC DATA

DRAINAGE AREA = 57.3 SQ. MI.
STREAM SLOPE = 8.9 FT./MI.
AVG. LOW WATER STAGE = 874.9

Q_{50} = 5,170 CFS
STAGE = 885.20
BACKWATER = 0.69 FT.

Q_{100} = 6,140 CFS
STAGE = 885.72
BACKWATER = 0.89 FT.
AVG. BRIDGE VELOCITY = 7.87 FPS

Q_{200} = 7,280 CFS
STAGE = 886.28
CALCULATED DESIGN SCOUR = 861.69

Q_{500} = 8,720 CFS
STAGE = 886.93
CALCULATED CHECK SCOUR = 859.68
ROADWAY OVERTOP 889.44
STA. 1027+10

50, 100 & 500 YR. STAGES AND DISCHARGES FROM CITY OF ANKENY F.I.S., DATED DECEMBER 6, 1999. F.I.S. DATUM (NGVD29) 0.1 FT. BELOW PROJECT DATUM (NAVD88).

SITUATION PLAN - STAGE B

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED

0 ENGLISH 40
SCALE IN FEET

N

PRELIMINARY

DESIGN FOR 0° SKEW

151'-4x40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE WIDENING TO 54'-0 W/SIDEWALK AND TRAIL (A BEAM TYPE)

47'-5 END SPANS — 56'-6 INTERIOR SPAN

SITUATION PLAN

STA. 31023+20.41 — OCTOBER 2014

CITY OF ANKENY - POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

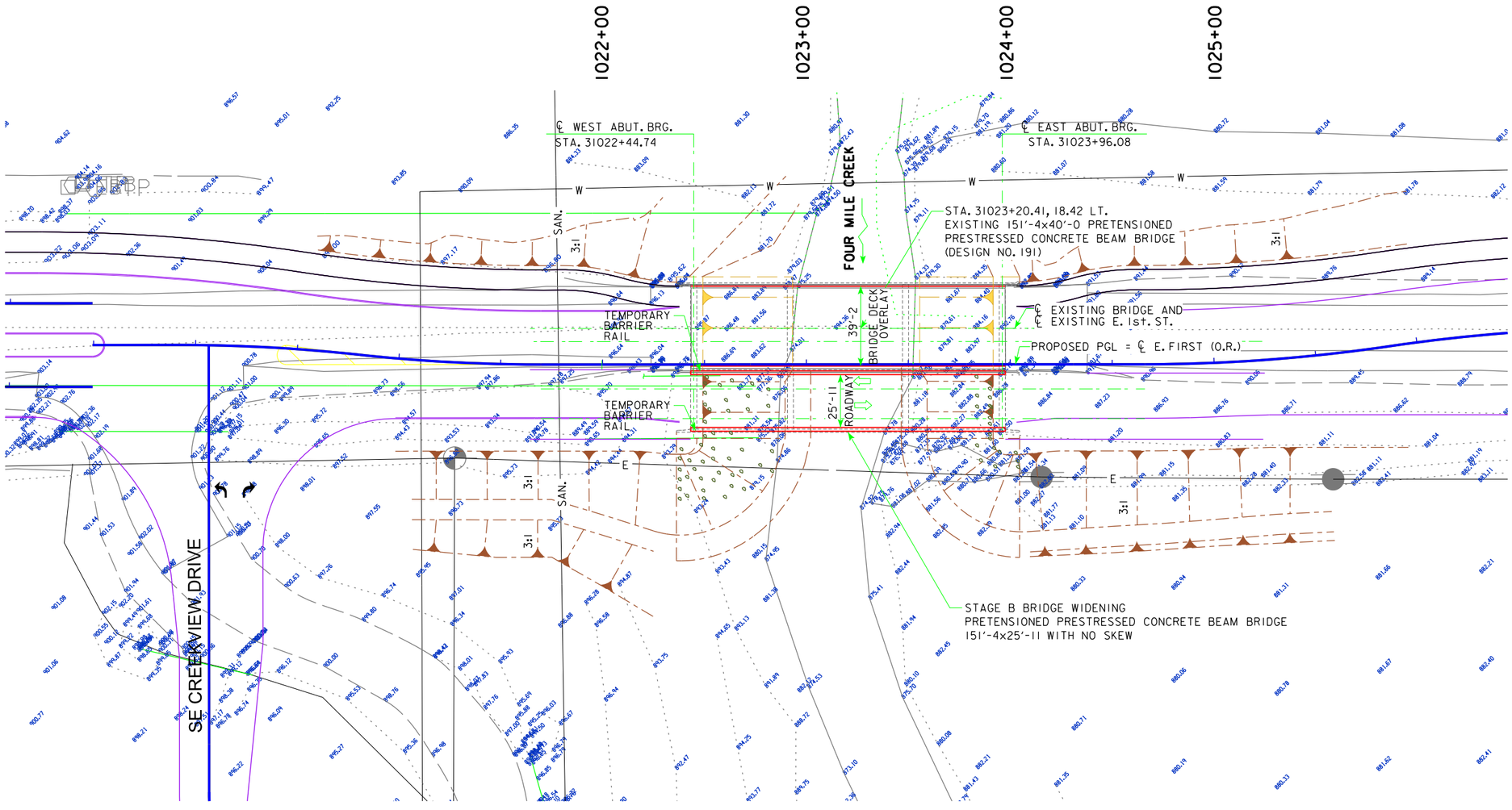
DESIGN SHEET NO. ___ OF ___ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

S.B.I. NO. 109.0051.01 | CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.16

10/22/2014 9:24:30 AM $DATE$V8i_IDOTBridge N:\2009_Projects\109.0051.01\1st St over 4 Mile Creek\Cadd\BRPrelim\k77035140_V01.str TSL_77_0140_16 XMColor.pltcfg

BENCH MARK: FND. BRASS PLUG IN TOP OF NW WINGWALL OF BRIDGE ELEV. 898.41



SITE PLAN - STAGE B

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED

0 ENGLISH 60
SCALE IN FEET

N

PRELIMINARY

DESIGN FOR 0° SKEW

151'-4x40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE WIDENING TO 54'-0 W/SIDEWALK AND TRAIL (A BEAM TYPE)

47'-5 END SPANS 56'-6 INTERIOR SPAN

SITUATION PLAN

STA. 31023+20.41 OCTOBER 2014

CITY OF ANKENY - POLK COUNTY

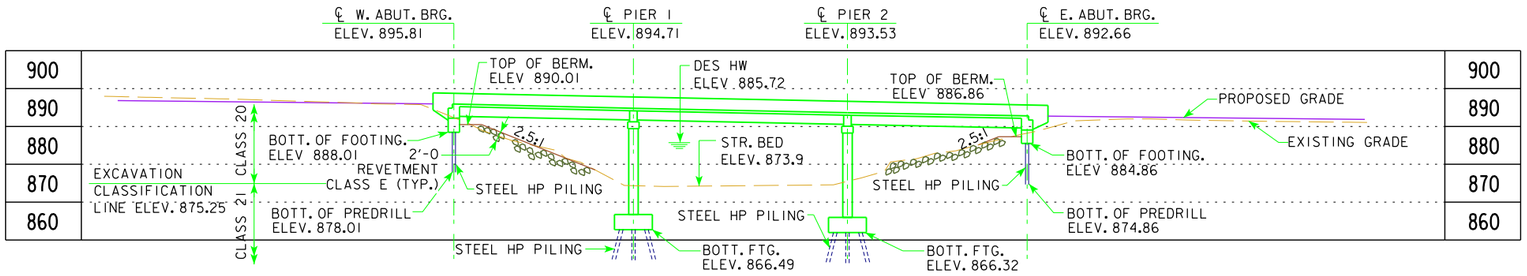
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ___ OF ___ FILE NO. _____ DESIGN NO. _____

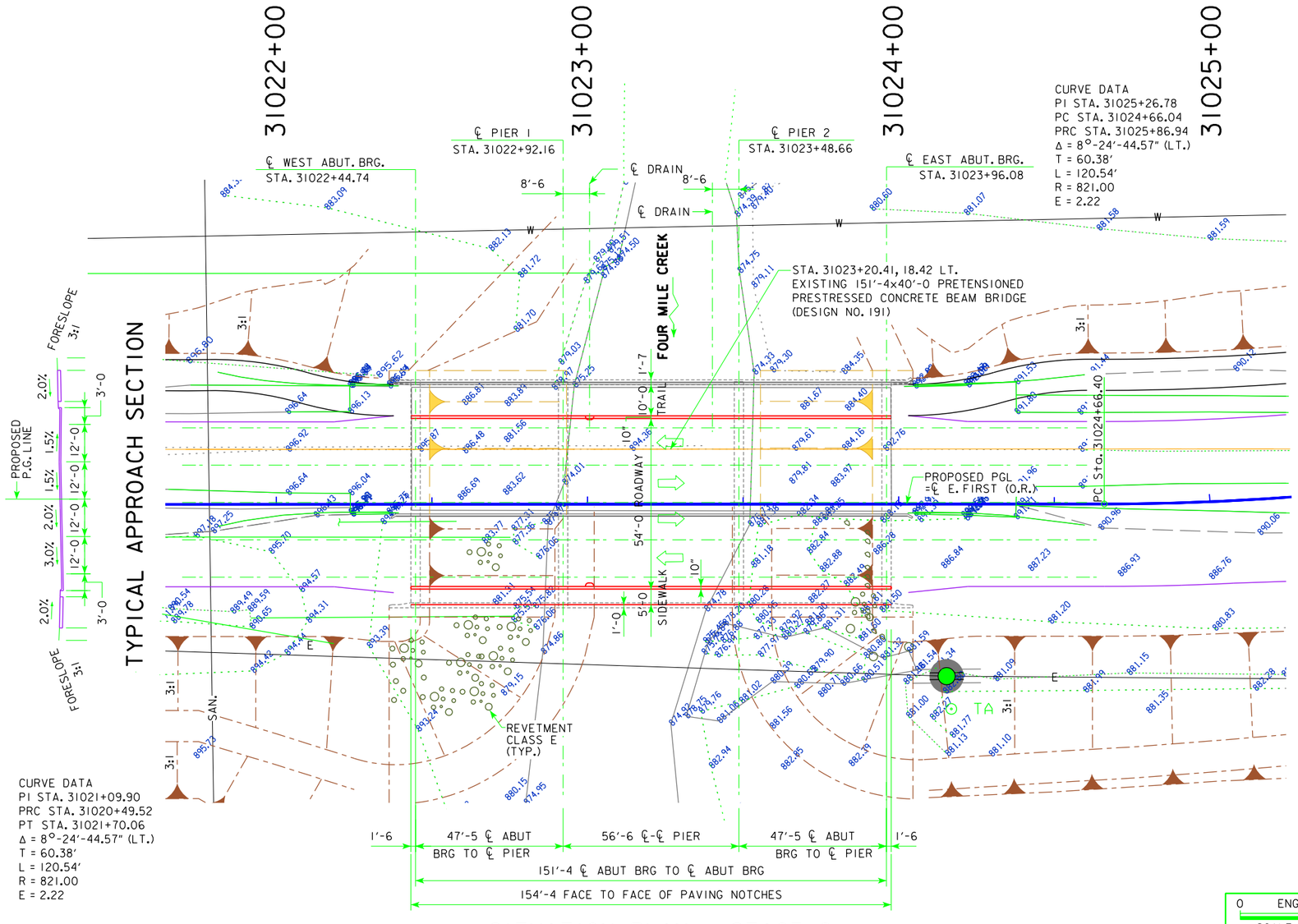
DESIGN TEAM SHUCK-BRITSON 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

S.B.I. NO. 109.0051.01 | CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.17

BENCH MARK: FND. BRASS PLUG IN TOP OF NW WINGWALL OF BRIDGE ELEV. 898.41



LONGITUDINAL SECTION ALONG PROPOSED PROFILE GRADE



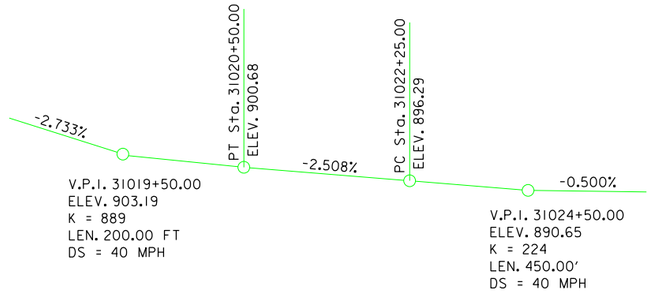
CURVE DATA
PI STA. 31021+09.90
PRC STA. 31020+49.52
PT STA. 31021+70.06
Δ = 8°-24'-44.57" (LT.)
T = 60.38'
L = 120.54'
R = 821.00
E = 2.22

SITUATION PLAN - STAGE C

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED

0 ENGLISH 40
SCALE IN FEET

N



PROPOSED PROFILE GRADE E. I ST. STREET

UTILITIES LEGEND:

E - ELECTRIC - MID AMERICAN ELECTRIC
W - WATER - DES MOINES WATER WORKS
SAN. - SANITARY SEWER - CITY OF ANKENY
- POWER POLE - MID AMERICAN ELECTRIC

TRAFFIC ESTIMATE

2000	AADT	2,990	V.P.D.
2030	AADT	8,000	V.P.D.
2030	DHV	940	V.P.H.
TRUCKS		14	%

HYDRAULIC DATA

DRAINAGE AREA = 57.3 SQ. MI.
STREAM SLOPE = 8.9 FT./MI.
AVG. LOW WATER STAGE = 874.9

Q_{50} = 5,170 CFS
STAGE = 885.20
BACKWATER = 0.69 FT.

Q_{100} = 6,140 CFS
STAGE = 885.72
BACKWATER = 0.89 FT.
AVG. BRIDGE VELOCITY = 7.87 FPS

Q_{200} = 7,280 CFS
STAGE = 886.28
CALCULATED DESIGN SCOUR = 861.69

Q_{500} = 8,720 CFS
STAGE = 886.93
CALCULATED CHECK SCOUR = 859.68
ROADWAY OVERTOP 889.44
STA. 1027+10

50, 100 & 500 YR. STAGES AND DISCHARGES FROM CITY OF ANKENY F.I.S., DATED DECEMBER 6, 1999. F.I.S. DATUM (NGVD29) 0.1 FT. BELOW PROJECT DATUM (NAVD88).

LOCATION

E. FIRST ST. OVER FOUR MI. CREEK
T-80 N R-23 W
SECTION 18 AND 19
DOUGLAS TOWNSHIP
POLK COUNTY
FHWA NO. 281862
LATITUDE: 41.731789°
LONGITUDE: -93.572577°

PRELIMINARY

DESIGN FOR 0° SKEW

151'-4x40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE WIDENING TO 54'-0 W/SIDEWALK AND TRAIL (A BEAM TYPE)

47'-5 END SPANS — 56'-6 INTERIOR SPAN

SITUATION PLAN

STA. 31023+20.41 — OCTOBER 2014

CITY OF ANKENY - POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

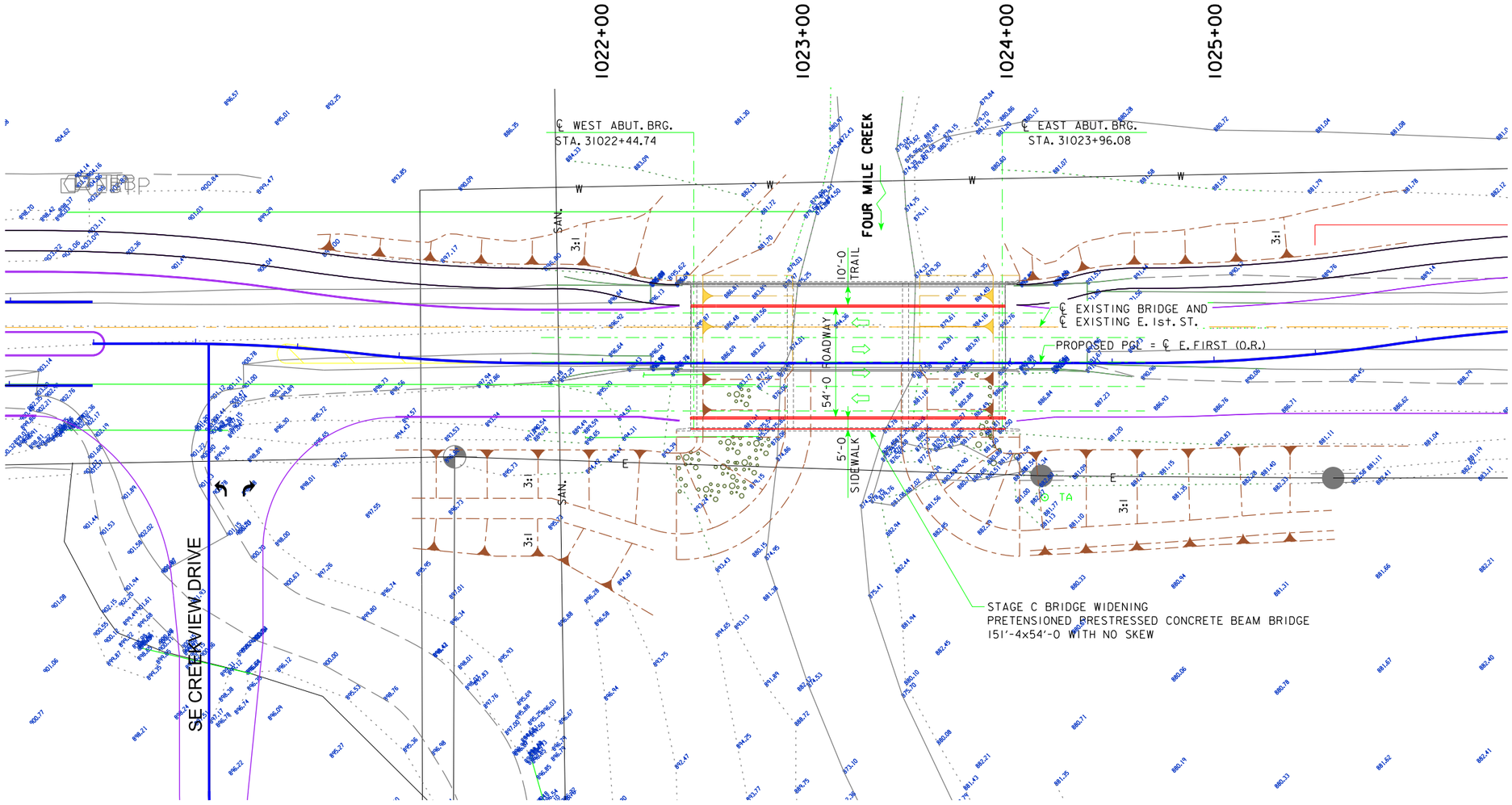
DESIGN SHEET NO. ___ OF ___ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

S.B.I. NO. 109.0051.01 | CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.18

10/22/2014 9:27:10 AM $DATE$V8i_IDOTBridge N:\2009_Projects\109.0051.01\1st St over 4 Mile Creek\Cadd\BRPrelim\k77035140_V01.str TSL_77_0140_18 XMColor.pltcfg

BENCH MARK: FND. BRASS PLUG IN TOP OF NW WINGWALL OF BRIDGE ELEV. 898.41



SITE PLAN - STAGE C

NOTE: ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED

0 ENGLISH 60
SCALE IN FEET

N

PRELIMINARY

DESIGN FOR 0° SKEW

151'-4x40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE WIDENING TO 54'-0 W/SIDEWALK AND TRAIL (A BEAM TYPE)

47'-5 END SPANS 56'-6 INTERIOR SPAN

SITUATION PLAN

STA. 31023+20.41 OCTOBER 2014

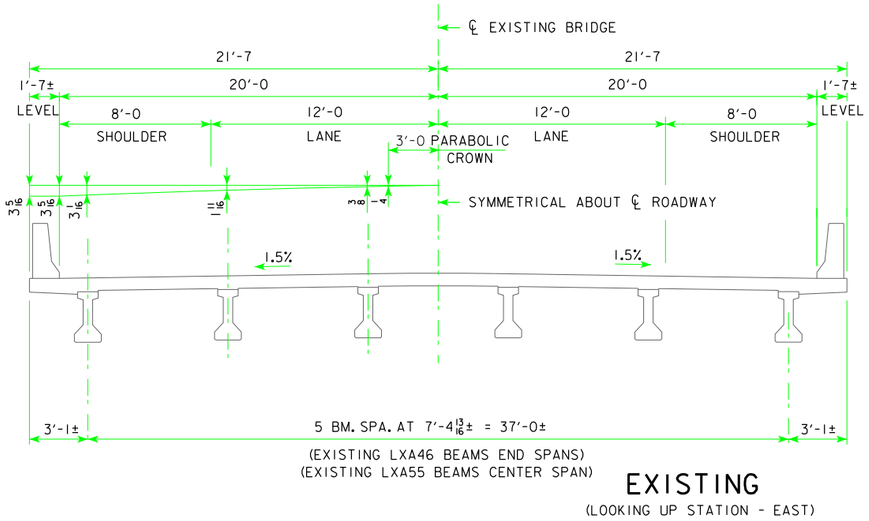
CITY OF ANKENY - POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ___ OF ___ FILE NO. _____ DESIGN NO. _____

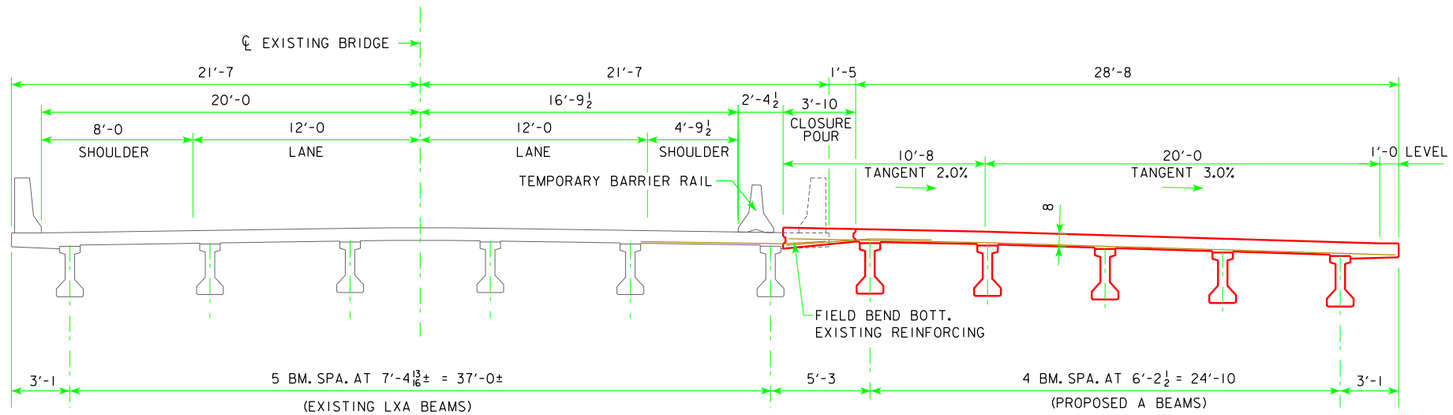
DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477	S.B.I. NO. 109.0051.01	CITY OF ANKENY - POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER V.19

10/21/2014 6:06:58 PM $DATE$V8i_IDOTBridge N:\2009_Projects\109.0051.01\1st St over 4 Mile Creek\Cadd\BRPrelim\k77035140_V01.str TSL_77_0140_19 XMColor.pltcfg



EXISTING

(LOOKING UP STATION - EAST)



STAGE A

STAGE A
BUILD 28'-8 SEGMENT OF BRIDGE AND REMOVE 2'-5 OF EXISTING BRIDGE SLAB AND CONNECT WITH 3'-10 CLOSURE POUR.

PRELIMINARY

DESIGN FOR 0° SKEW

151'-4x40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE WIDENING TO 54'-0 W/SIDEWALK AND TRAIL (A BEAM TYPE)

47'-5 END SPANS — 56'-6 INTERIOR SPAN

STAGING

STA. 31023+20.41 — OCTOBER 2014

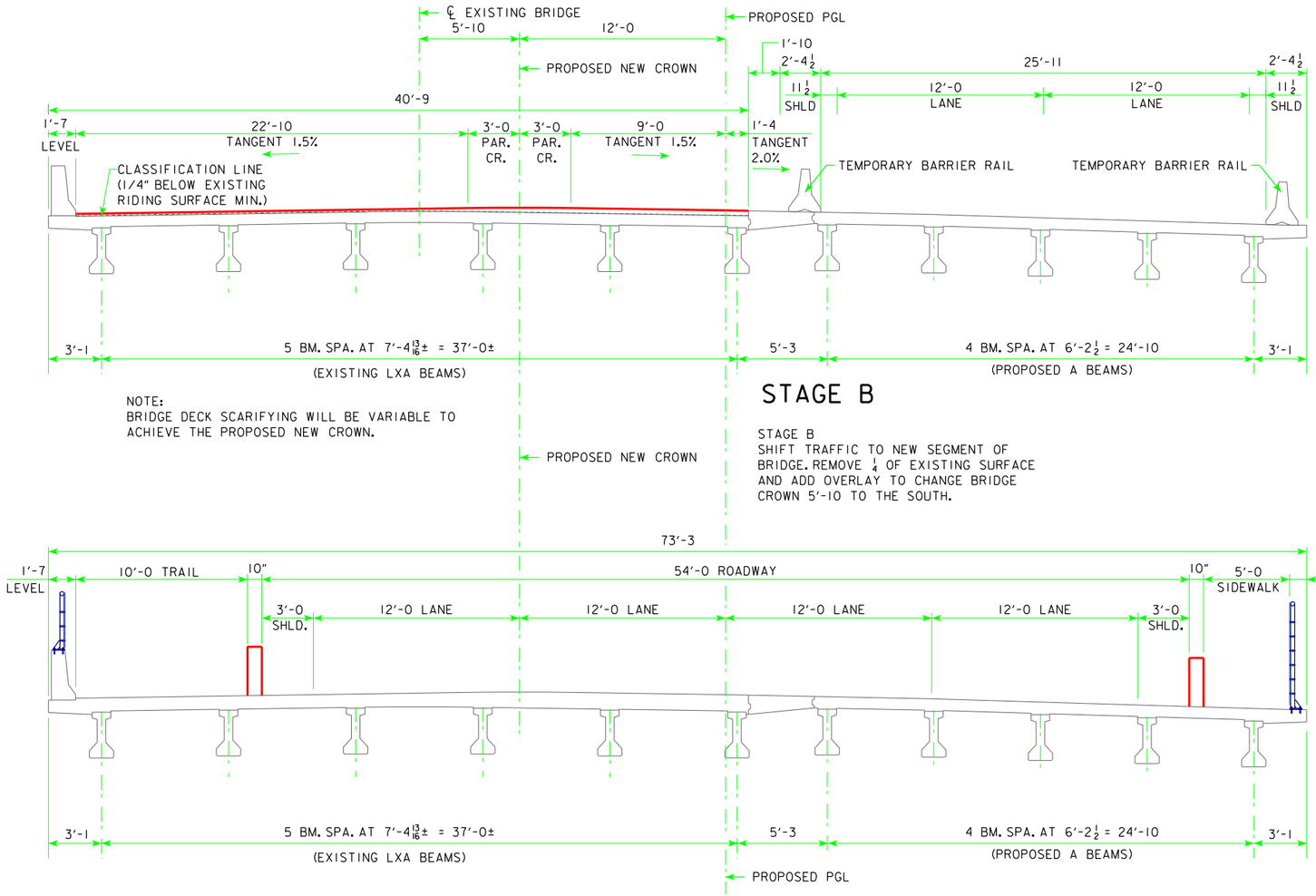
CITY OF ANKENY - POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ___ OF ___ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

S.B.I. NO. 109.0051.01 | CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.20



NOTE:
BRIDGE DECK SCARIFYING WILL BE VARIABLE TO ACHIEVE THE PROPOSED NEW CROWN.

STAGE B

STAGE B
SHIFT TRAFFIC TO NEW SEGMENT OF BRIDGE. REMOVE ¼ OF EXISTING SURFACE AND ADD OVERLAY TO CHANGE BRIDGE CROWN 5'-10 TO THE SOUTH.

FINAL STAGE

FINAL STAGE
SHIFT TRAFFIC TO ENTIRE BRIDGE. REMOVE TEMPORARY BARRIERS AND ADD PERMANENT SEPARATION RAILS AND TRAIL FENCES.

PRELIMINARY

DESIGN FOR 0° SKEW

151'-4x40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE WIDENING TO 54'-0 W/SIDEWALK AND TRAIL (A BEAM TYPE)

47'-5 END SPANS — 56'-6 INTERIOR SPAN

STAGING

STA. 31023+20.41 — OCTOBER 2014

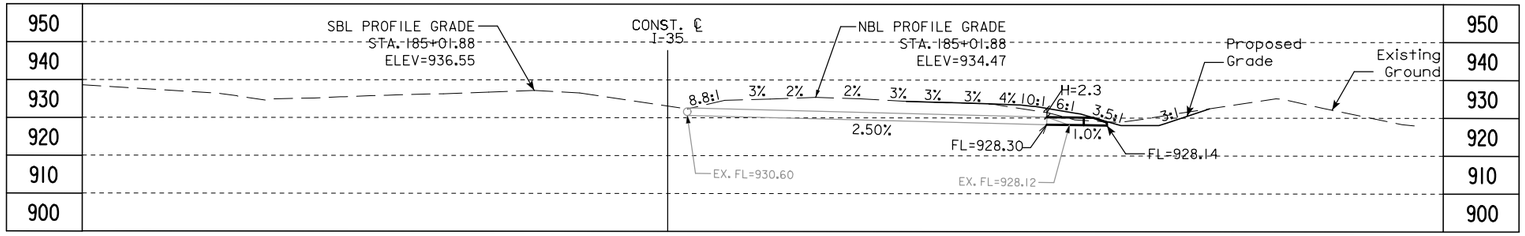
CITY OF ANKENY - POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ___ OF ___ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM SHUCK-BRITSON INC. 400 EAST COURT AVE. SUITE 140 DES MOINES, IOWA 50309 515-243-4477

S.B.I. NO. 109.0051.01 | CITY OF ANKENY - POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER V.21



LONGITUDINAL SECTION ALONG ℄ PIPE

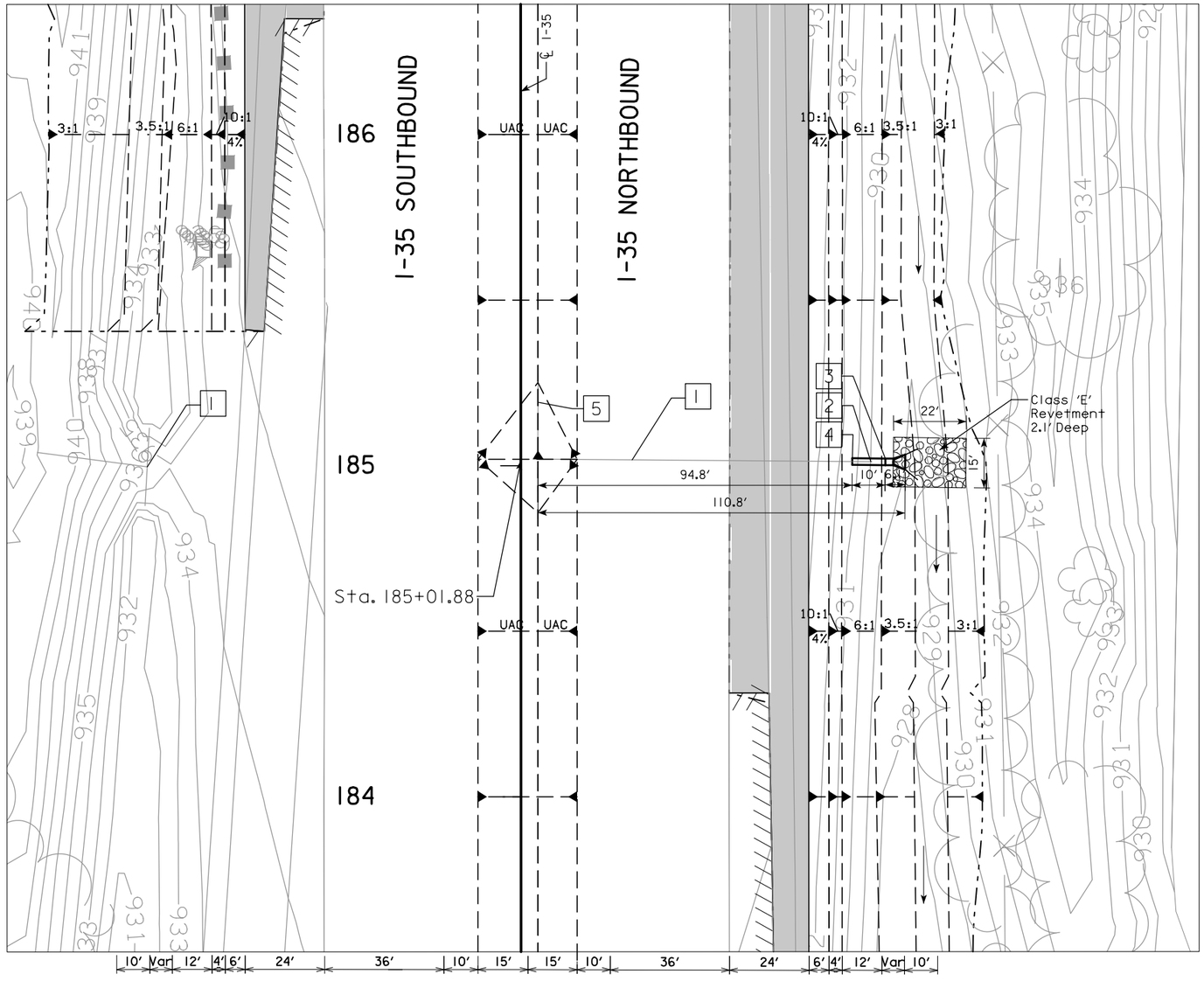
1 Use existing pipe as constructed.

2 Remove existing apron

3 Proposed 24in x 10ft RCP and apron
FL In=928.30
Sta. 185+01.88, 116.06' Rt
FL Out=928.14

4 Connect new RCP to existing culvert with RF-2, Type "C-1" connection

5 Existing Beveled Pipe and Guard



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.4 AC.
DESIGN Q50 = 3.13 CFS
DESIGN HIGH WATER ELEV. = 931.58
OUTLET STREAM SLOPE= 0.0100 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 100ft RCP

PROPOSED STRUCTURE

RCP Extension
24" x 10.0 ft Rt.

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP EXTENSION AT 0° SKEW

24in x 10.0ft REINFORCED CONCRETE PIPE PLAT PLAN

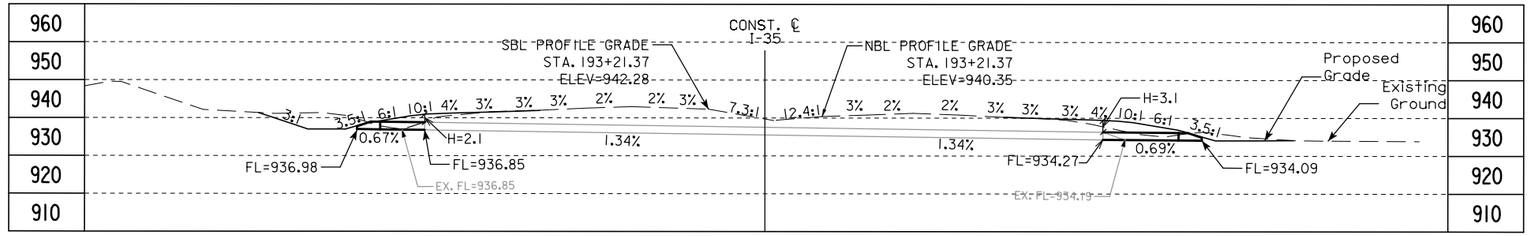
STATION: 185+01.88 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

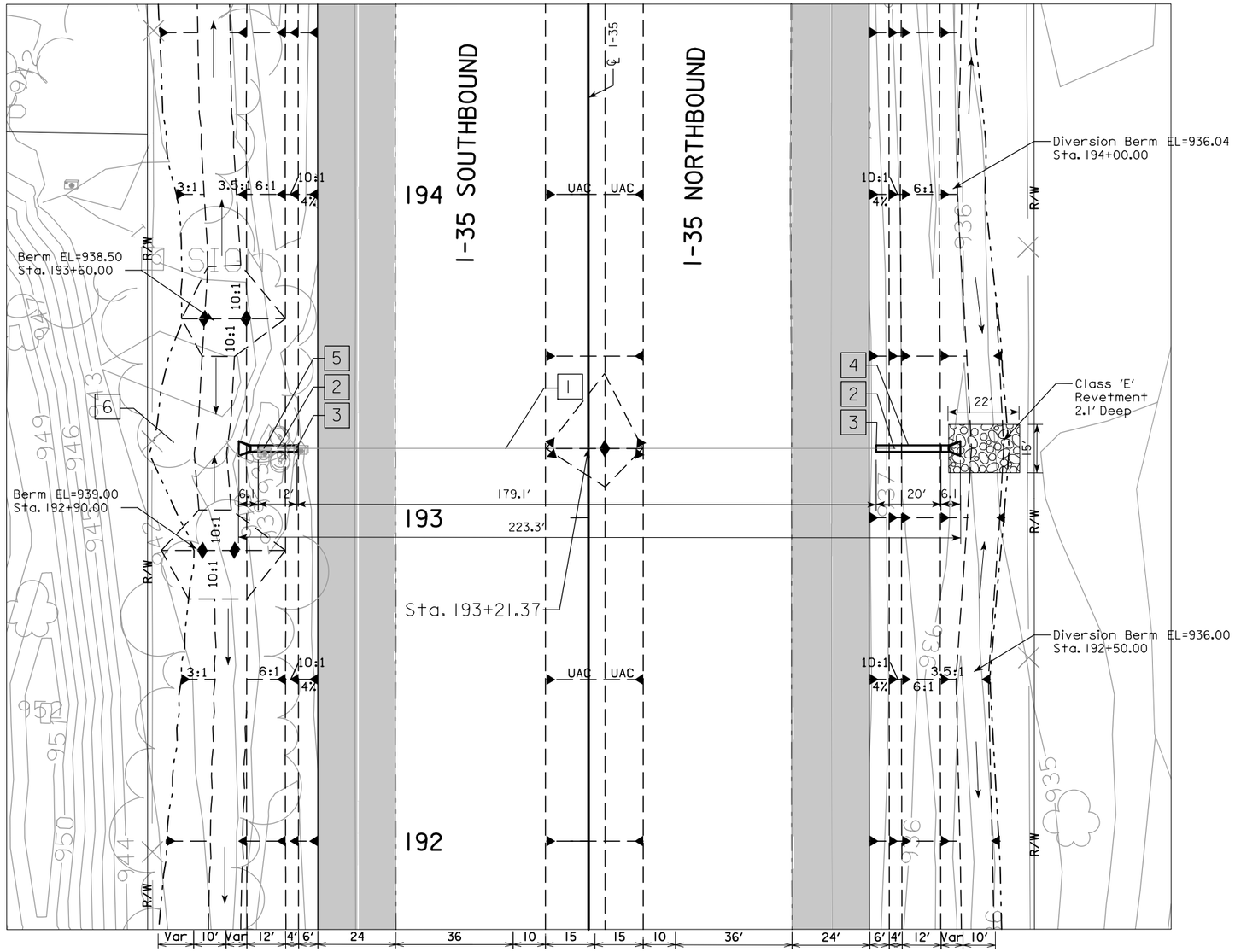
DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.201



LONGITUDINAL SECTION ALONG ℄ PIPE

1. Use existing pipe as constructed.
2. Remove existing apron
3. Connect new RCP to existing culvert with RF-2, Type "C-I" connection
4. Proposed 24in x 20ft RCP and apron
   FL In=934.27
   Sta. 193+21.37, 115.00' Rt
   FL Out=934.09
5. Proposed 24in x 12ft RCP and apron
   FL In=936.98
   Sta. 193+21.37, 108.07' Lt
   FL Out=936.85
6. Protect Existing Pipe



PLAT PLAN

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 30
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA =5.1 AC.
DESIGN Q50 = 15.98 CFS
DESIGN HIGH WATER ELEV. = 939.23
OUTLET STREAM SLOPE= 0.0200 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 179ft RCP

PROPOSED STRUCTURE

24in RCP Extension x 20.0ft Rt
24in RCP Extension x 12.0ft Lt

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP EXTENSION AT 0° SKEW

24in x 32.0ft REINFORCED CONCRETE PIPE PLAT PLAN

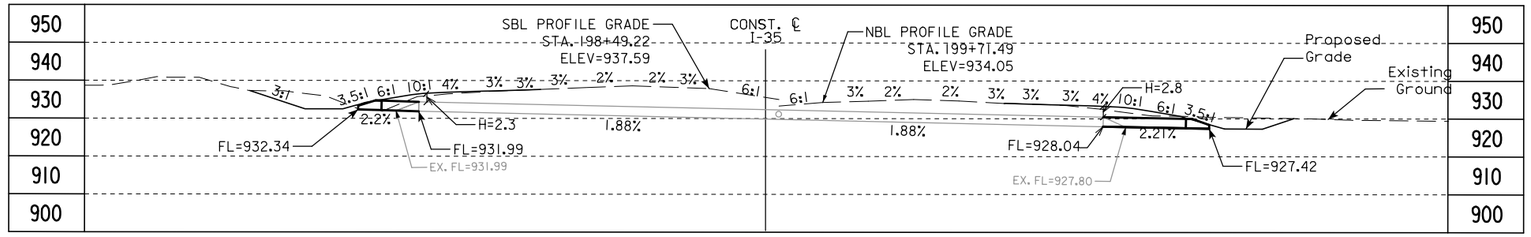
STATION: 193+21.37 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.202



LONGITUDINAL SECTION ALONG ℄ PIPE

1 Use existing pipe as constructed.

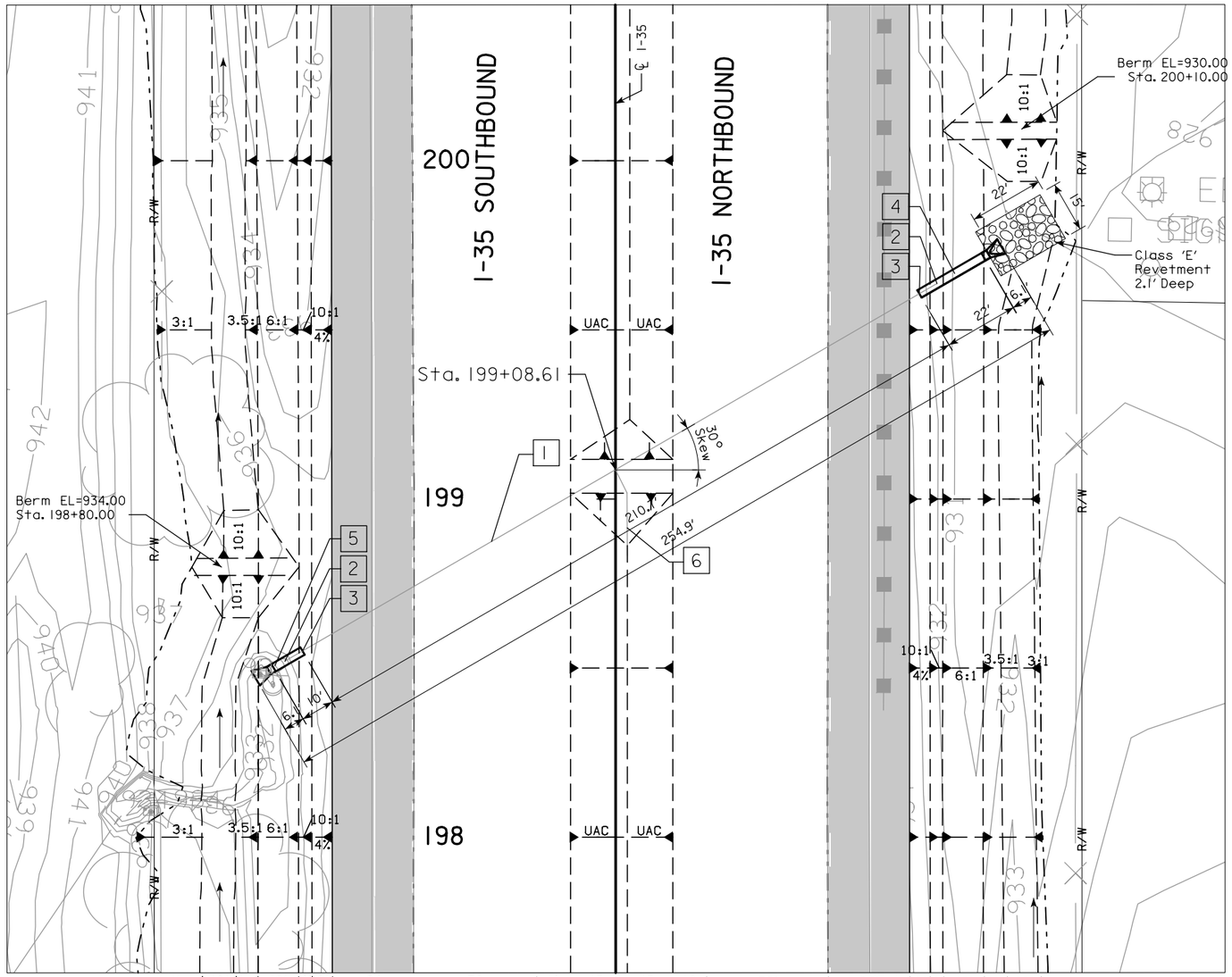
2 Remove existing apron

3 Connect new RCP to existing culvert with RF-2, Type "C-1" connection

4 Proposed 24in x 22ft RCP and apron
FL In=928.04
Sta. 199+74.65, 104.09' Rt
FL Out=927.42

5 Proposed 24in x 10ft RCP and apron
FL In=932.34
Sta. 198+47.07, 106.35' Lt
FL Out=931.99

6 Existing Beveled Pipe and Guard. Use as Constructed



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA =16.2 AC.
DESIGN Q50 = 36.84 CFS
DESIGN HIGH WATER ELEV. = 935.76
OUTLET STREAM SLOPE= 0.0100 FT/FT
CULVERT WATERWAY AREA= 4.91 SF

EXISTING STRUCTURE

30in x 210.9ft RCP

PROPOSED STRUCTURE

30in x 10.0ft RCP Extension LT
30in x 22.0ft RCP Extension RT

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP EXTENSION AT 30° SKEW R.A.

30in x 32.0ft REINFORCED CONCRETE PIPE PLAT PLAN

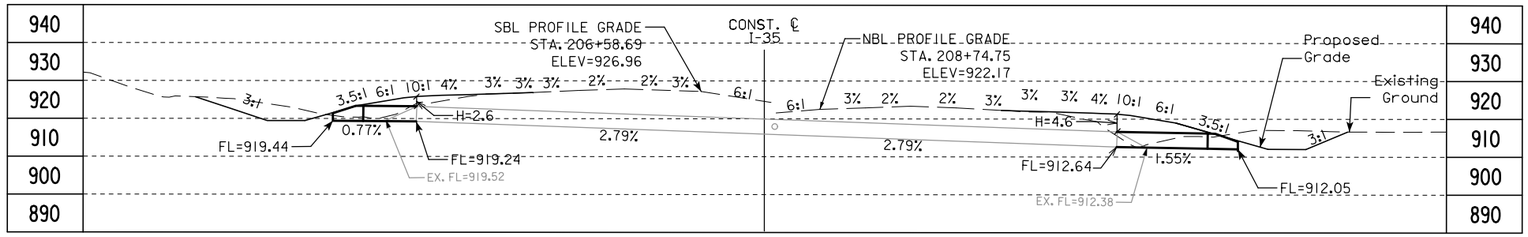
STATION: 199+08.62 Sept., 2014

POLK COUNTY

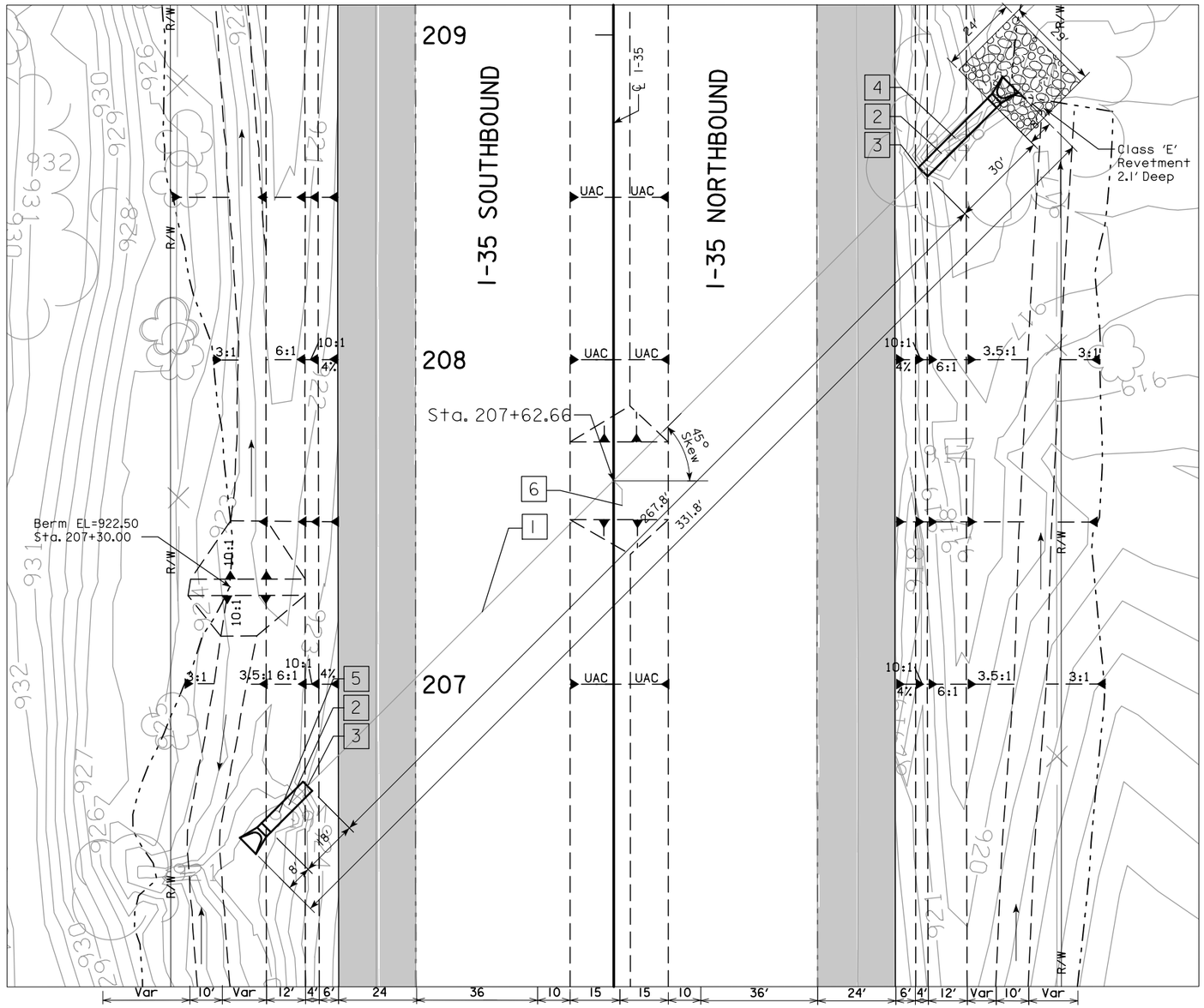
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.203



LONGITUDINAL SECTION ALONG ℄ PIPE



PLAT PLAN

1 Use existing pipe as constructed.

2 Remove existing apron

3 Connect new RCP to existing culvert with RF-2, Type "C-1" connection

4 Proposed 48in x 30ft RCP and apron
FL In=912.64
Sta. 208+84.68, 122.24' Rt
FL Out=912.05

5 Proposed 48in x 18ft RCP and apron
FL In=919.44
Sta. 206+50.22, 112.64' Lt
FL Out=919.24

6 Existing Beveled Pipe and Guard

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA =43.8 AC.
DESIGN Q50 = 65.85 CFS
DESIGN HIGH WATER ELEV. = 923.13
OUTLET STREAM SLOPE= 0.0306 FT/FT
CULVERT WATERWAY AREA= 12.57 SF

EXISTING STRUCTURE

48in x 284ft RCP

PROPOSED STRUCTURE

48in x 30.0ft RCP Extension RT
48in x 18.0ft RCP Extension LT

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP EXTENSION AT 45° SKEW R.A.

48in x 48.0ft REINFORCED CONCRETE PIPE PLAT PLAN

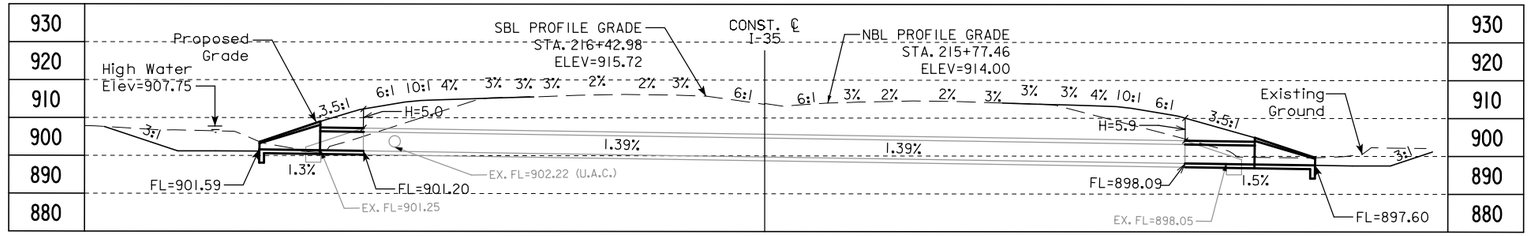
STATION: 207+62.66 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

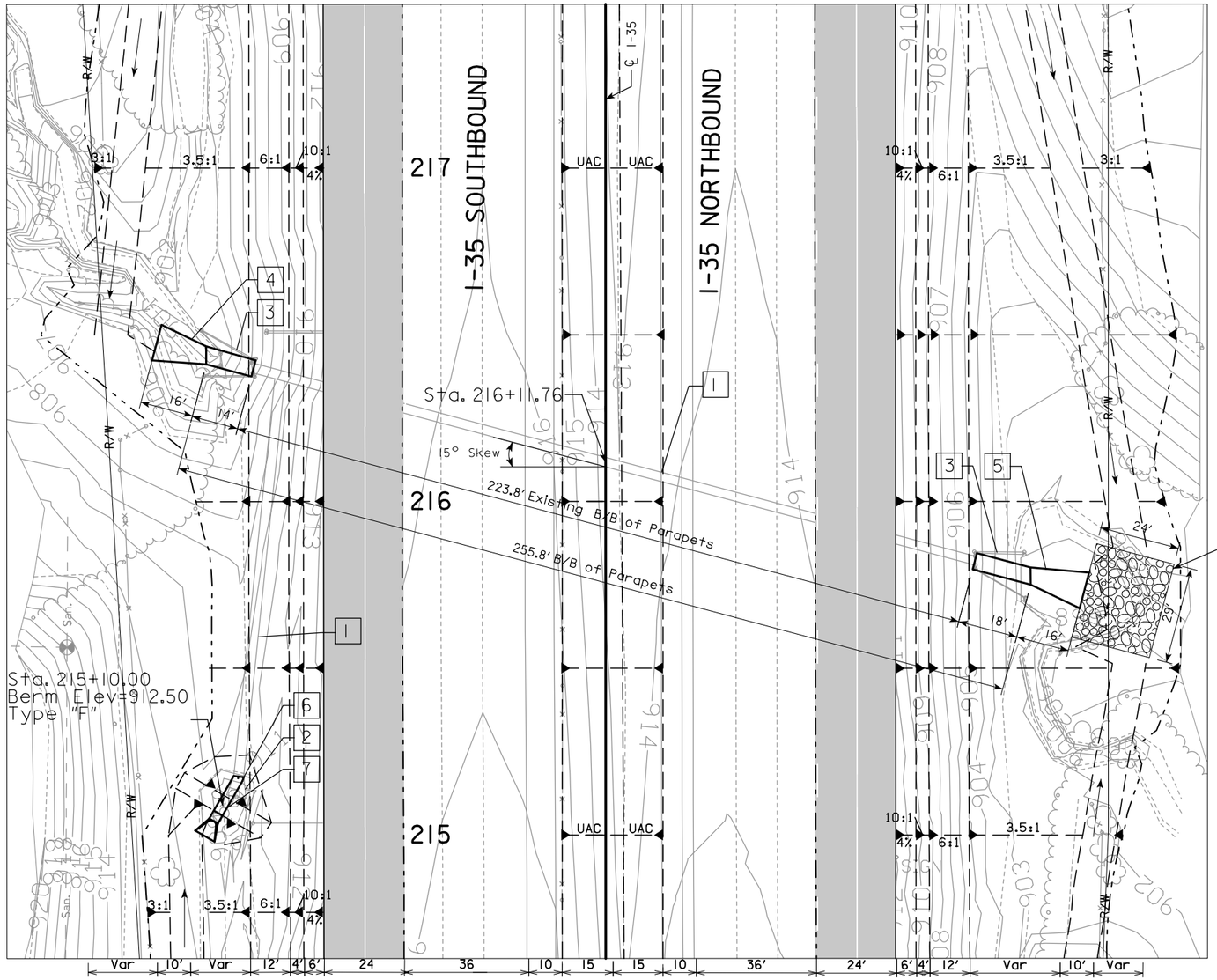
DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.204



LONGITUDINAL SECTION ALONG ℄ CULVERT

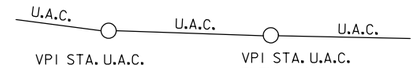
1. Use existing pipe as constructed.
2. Remove existing apron
3. Remove Existing Headwall Prior to Extending (By Others)
4. Proposed 5'x5'x12' Box Culvert Extension and Headwall
5. Proposed 5'x5'x18' Box Culvert Extension and Headwall
6. Connect new RCP to existing culvert with RF-2, Type "C-1 Connection 22.5 Degree Bend
7. Proposed 36in x 12ft RCP and apron
   FL In=909.08
   Sta. 215+00.00, 120.22' Lt
   FL Out=907.70



SITUATION PLAN

BM No.20 Sta. 216+42.77, 104.94' LT Set Cut X in North Corner Inlet Headwall on RCB Under I-35, 30' +/- South of Mile Marker 91.6. Elev=914.58

PROPOSED GRADE I-35 SBL AND NBL



VPI STA. U.A.C.
ELEV.=U.A.C.
LVC=U.A.C.
E= U.A.C.

VPI STA. U.A.C.
ELEV.=U.A.C.
LVC=U.A.C.
E= U.A.C.

0 ENGLISH 40
SCALE IN FEET

N

I-35 ALIGNMENT

I-35 TANGENT BETWEEN CURVE AND POINT
PT STA. 108+32.89
PC STA. 258+00.20

TRAFFIC ESTIMATE

A.D.T.=82,000 V.P.D. (2010)
A.D.T.=102,500 V.P.D. (2035)
16% Trucks

LOCATION

T-80 N R-23 W
SECTION 30
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA =139 AC.
DESIGN Q50 = 149.00 CFS
DESIGN HIGH WATER ELEV. = 906.88
OUTLET STREAM SLOPE= 0.0396 FT/FT
CULVERT WATERWAY AREA= 25.00 SF

EXISTING STRUCTURE

Single 5.0ft x 5.0ft x 223.8ft RCB
Design No. 3202. 15° Skew L.A.

PROPOSED STRUCTURE

5ft x 5ft RCB Extension x 14.0ft RCB Lt.
5ft x 5ft RCB Extension x 18.0ft RCB Rt.
36in x 12ft RCP Extension

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCB EXTENSION AT 15° SKEW L.A.

SINGLE 5.0ft x 5.0ft x 32.0ft REINFORCED CONCRETE BOX SITUATION PLAN

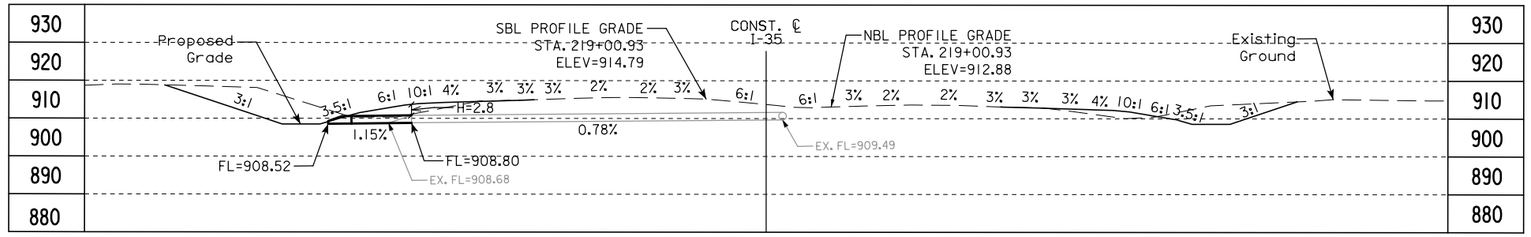
STATION: 216+11.76 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.205



LONGITUDINAL SECTION ALONG ℄ PIPE

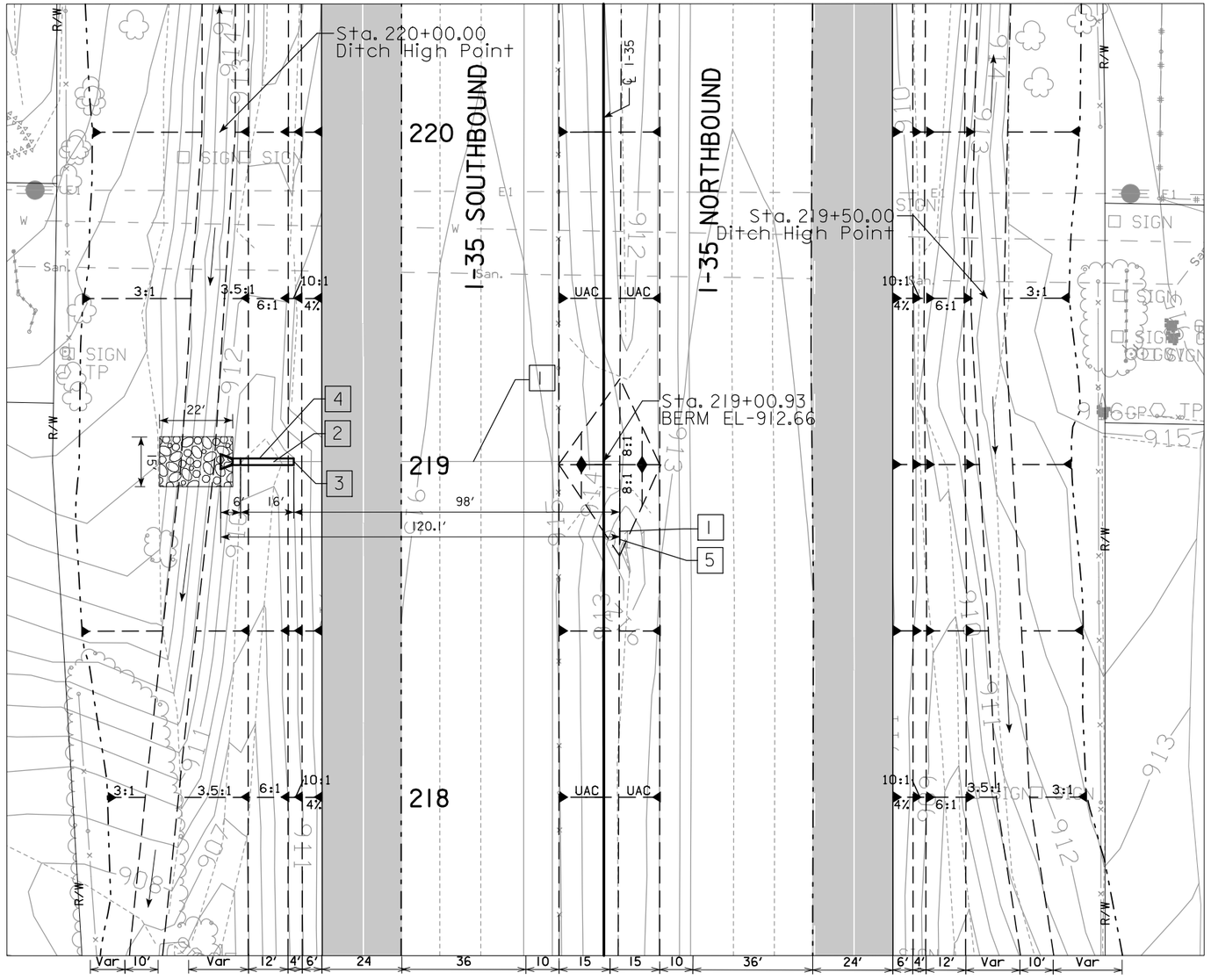
1 Use existing pipe as constructed.

2 Remove existing apron

3 Connect new RCP to existing culvert with RF-2, Type "C-1 Connection

4 Proposed 24in x 16ft RCP and apron
FL In=908.80
Sta. 219+00.93, 115.17' Lt
FL Out=908.52

5 Existing Beveled Pipe and Guard



N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 30
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA =2.01 AC.
DESIGN Q50 = 5.13 CFS
DESIGN HIGH WATER ELEV. = 912.02
OUTLET STREAM SLOPE= 0.0100 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 104ft RCP
18in x 28ft Beveled Pipe and Guard

PROPOSED STRUCTURE

24in x 16.0ft RCP EXTENSION

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCB EXTENSION 0° SKEW

24in x 16.0ft REINFORCED CONCRETE PIPE PLAT PLAN

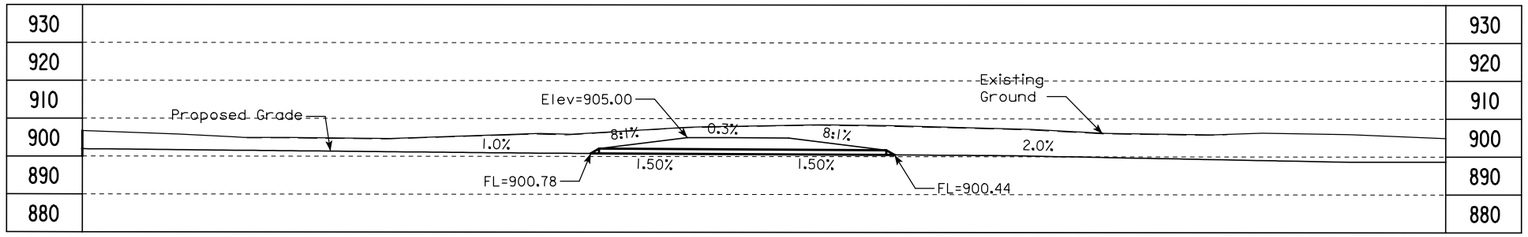
STATION: 219+00.93 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

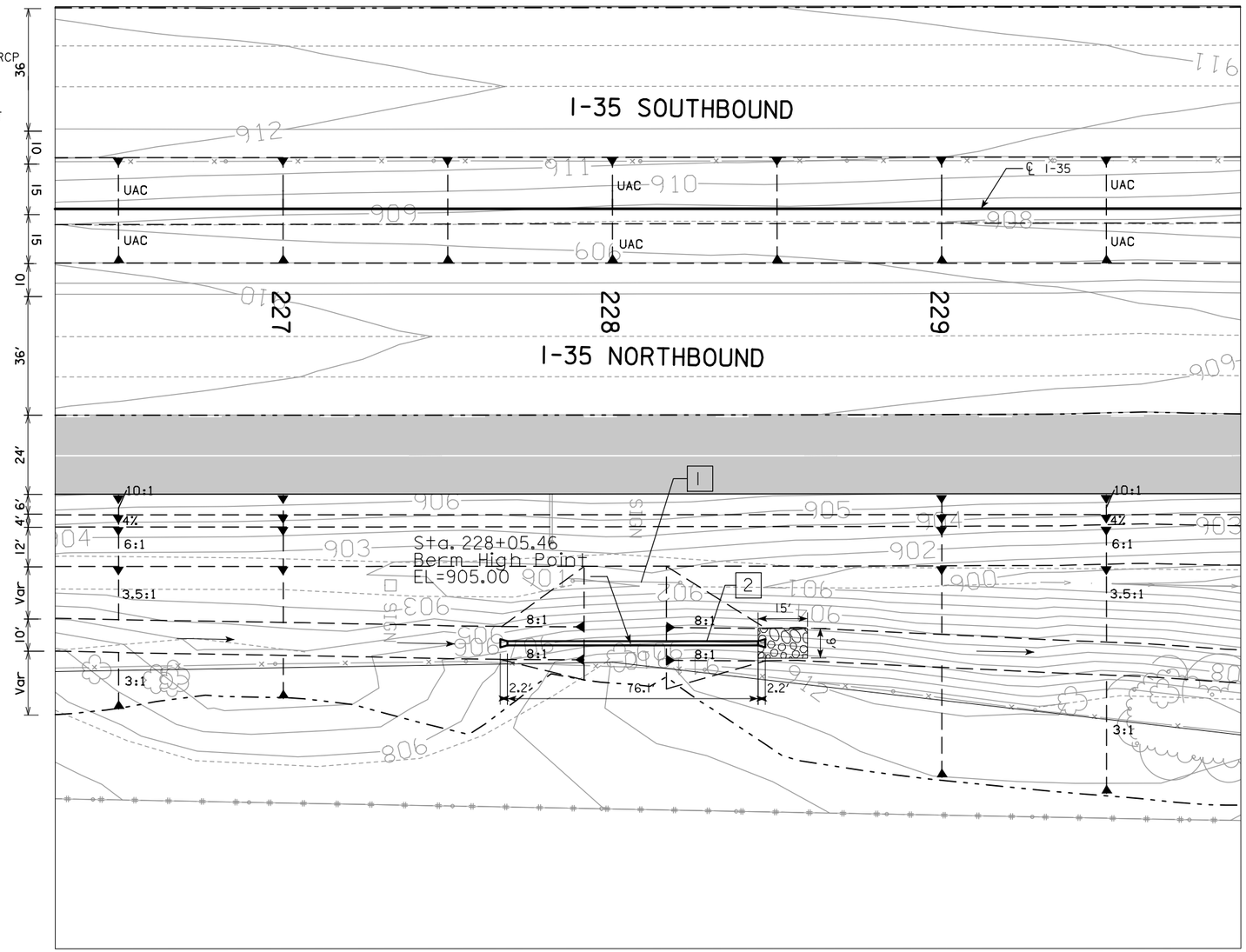
DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.206



LONGITUDINAL SECTION ALONG ℄ PIPE

1 Remove Existing 15"x32" CMP

2 Proposed 15in x 84ft RCP and Aprons
Sta. 227+65.93, 132.00'RT
FL In=900.78
Sta. 228+46.38, 132.00' RT
FL Out=900.40



PLAT PLAN

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 30
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA =2.08 AC.
DESIGN Q50 = 5.58 CFS
DESIGN HIGH WATER ELEV=903.94
OUTLET STREAM SLOPE= 0.0200 FT/FT
CULVERT WATERWAY AREA= 1.23 SF

EXISTING STRUCTURE

15in x 32ft CMP

PROPOSED STRUCTURE

15in x 76ft CMP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 0° SKEW

15in x 76ft CMP PLAT PLAN

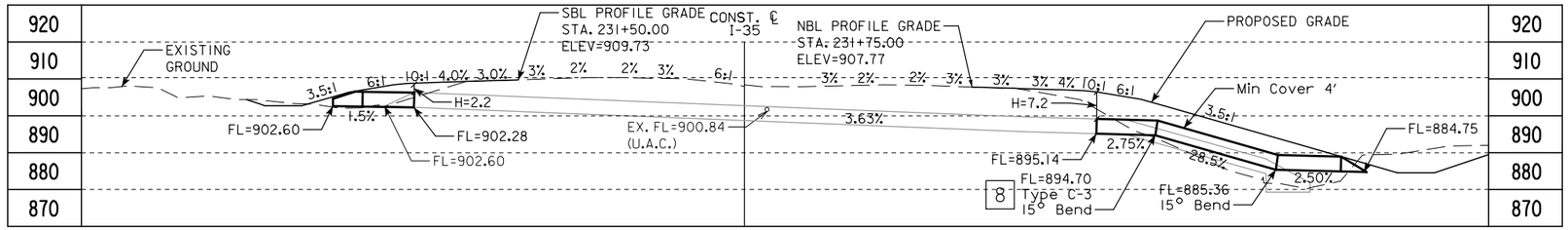
STATION: 228+05.46 Sept., 2014

POLK COUNTY

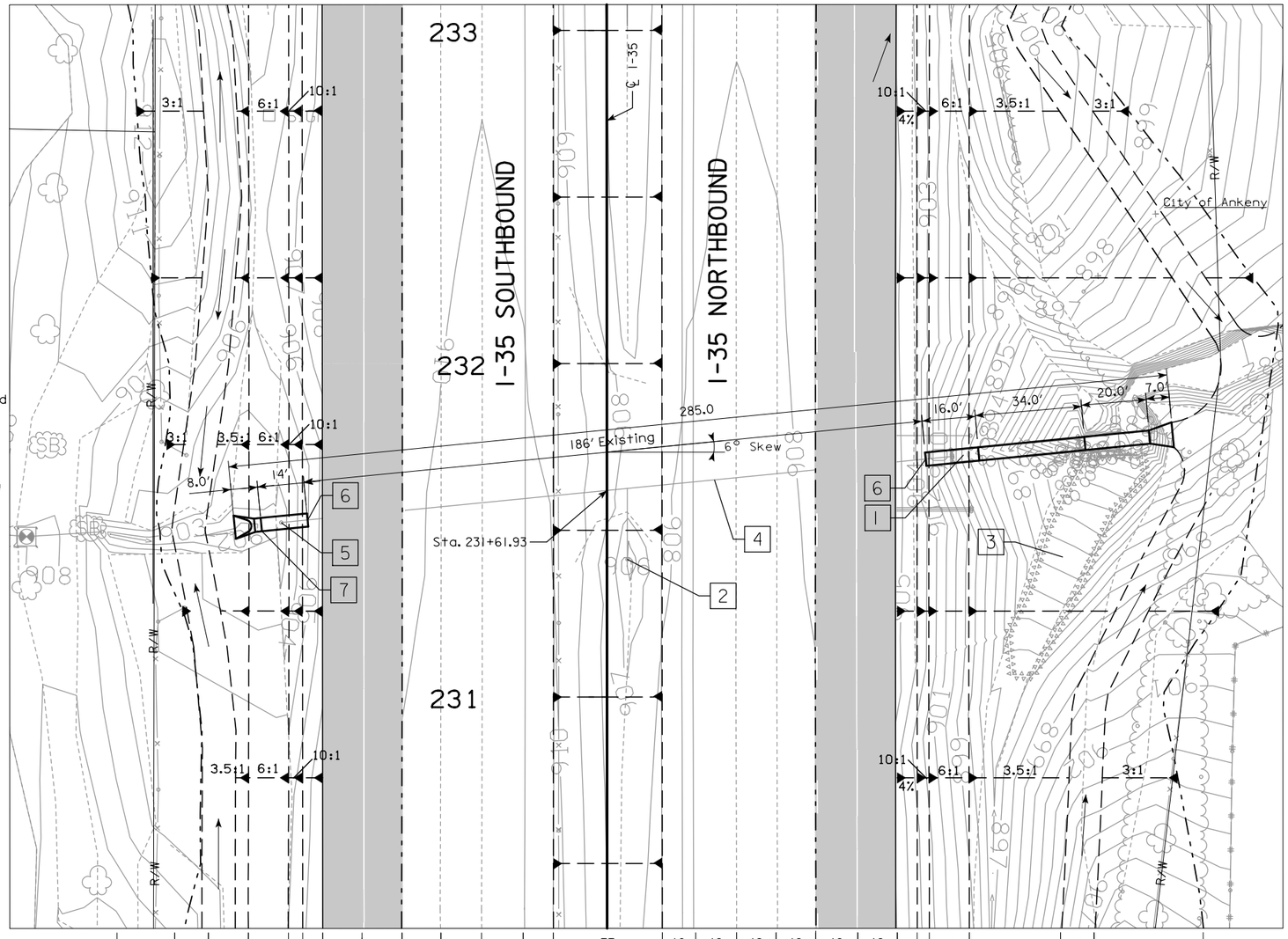
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.207



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

1 Remove Flume and Install 48" CMP Letdown

2 Existing pipe and apron to be used as constructed.

3 Remove and Salvage Rip Rap.

4 Existing 48in RCP. UAC.

5 Remove Existing Apron

6 Connect new RCP to existing culvert with RF-2, Type C-1 Connection

7 Proposed 48in x 16ft RCP and Apron
FL In=902.60
Sta. 231+50.00, 111.66' Lt
FL Out=902.28

8 Install RF-2 Type C-3 Bend

Ankeny Housing Association
Two Limited Partnership

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 36.72 AC.
DESIGN Q50 = 110.77 CFS
DESIGN HIGH WATER ELEV. = 907.77
OUTLET STREAM SLOPE= 0.1447 FT/FT
CULVERT WATERWAY AREA= 12.57 SF

EXISTING STRUCTURE

48in x 202.2ft RCP 6° Skew R.A.
Survey Sta. 231+61.93
DESIGN 4202
4ft x 4ft x 38.5ft CONCRETE FLUME

PROPOSED STRUCTURE

48in x 14.0ft RCP Extension Left
48in x 16.0ft RCP Extension Right
48in x 52.0ft CMP Extension Right

DESIGN FOR RCB EXTENSION AT 6° SKEW RT AHEAD

48in x 30.0ft REINFORCED CONCRETE PIPE 48in x 54.0ft CORRUGATED METAL PIPE

PLAT PLAN

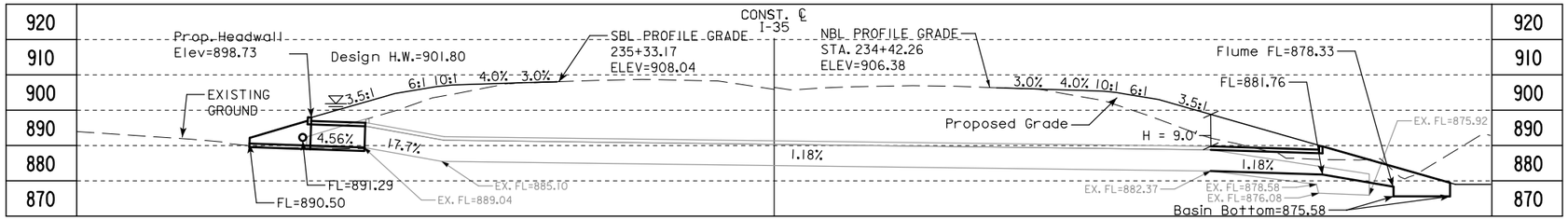
STATION: 231+61.93 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

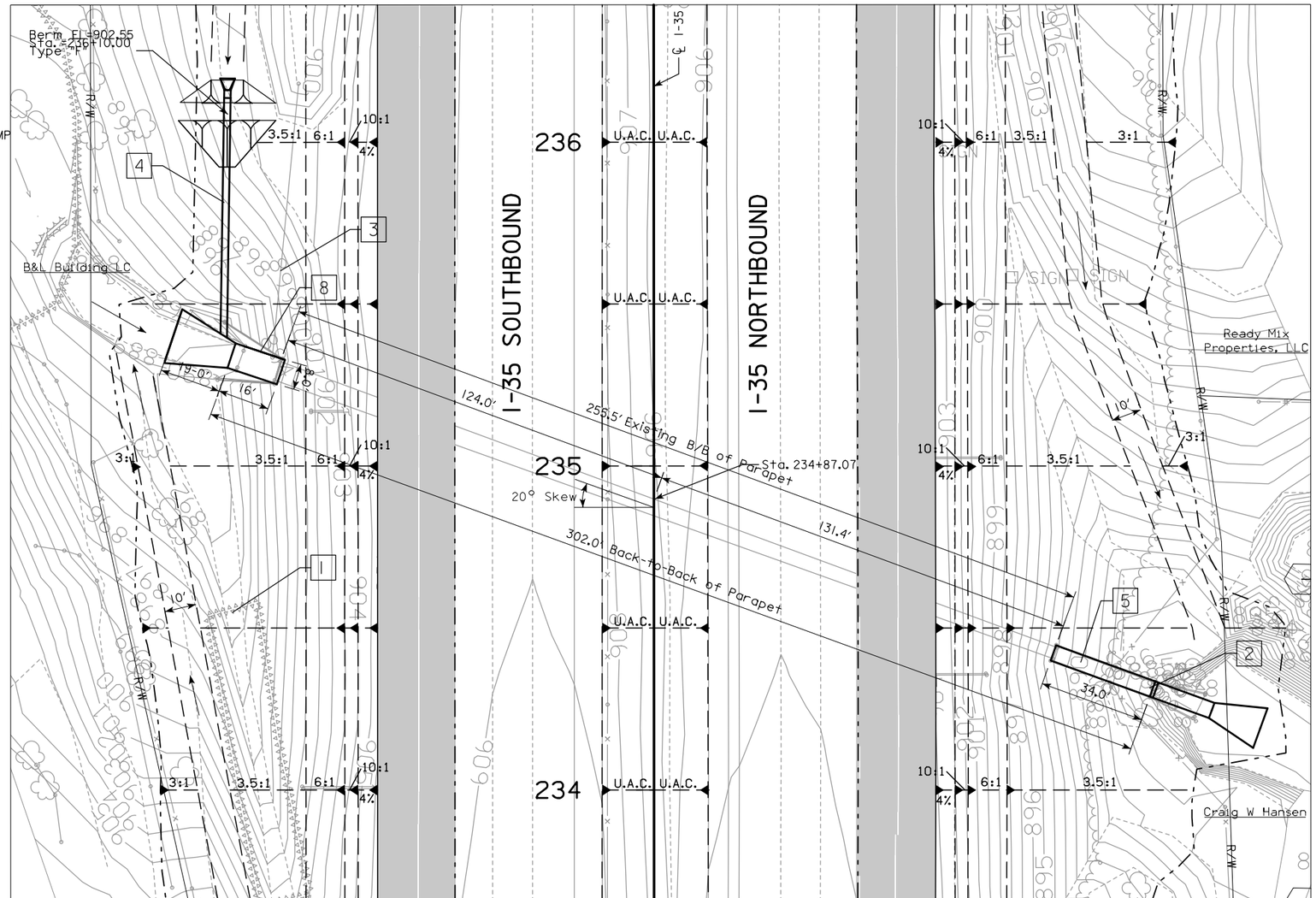
DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM **City of Ankeny\Snyder & Associates** **POLK** COUNTY PROJECT NUMBER **IM-35-4(140)92--13-77** SHEET NUMBER **V.208**



LONGITUDINAL SECTION ALONG ℄ CULVERT

1. Remove and salvage existing Rip Rap.
2. 0° Headwall Skew. Install Flume
3. Remove existing 24in CMP and apron.
4. Proposed 24in x 74 ft CMP and Apron
   Inlet Apron FL=899.05
   Sta. 236+20.00, 132.00 LT
   Outlet FL=891.29
   Sta. 235+40.00, 132.00 LT
5. Remove existing flume prior to extending.
6. Drainage through existing culvert/ channel shall be maintained throughout construction.
7. Details for rock flume shown elsewhere in plans.
8. Remove Existing Headwall Prior to Extending



SITUATION PLAN

N

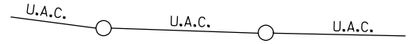
0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

BM No.18 Sta. 238+37.02, 147.41' LT Set 1"x36" Smooth Bar in West ROW of I-35, 25 +/- North of Mile Marker 92.0 at top of backslope. Elev=914.58

PROPOSED GRADE I-35 SBL AND NBL



VPI STA. U.A.C.
ELEV.=U.A.C.
LVC=U.A.C.
E= U.A.C.

VPI STA. U.A.C.
ELEV.=U.A.C.
LVC=U.A.C.
E= U.A.C.

I-35 ALIGNMENT

I-35 TANGENT BETWEEN CURVE AND POINT
PT STA. 108+32.89
PC STA. 258+00.20

FLUME DATA

Δ A= 18° 26'
Δ C= 1° 00'
B = 11'-11
S = 21.17'
V = 4-8⅞
W = 6.69'
M = 4'-6
T = 0'-4
H = 6'-0

TRAFFIC ESTIMATE

A.D.T.=82,000 V.P.D. (2010)
A.D.T.=102,500 V.P.D. (2035)
16% Trucks

HYDRAULIC DATA

DRAINAGE AREA = 281 AC.
DESIGN Q50 = 688 CFS
DESIGN HIGH WATER ELEV. = 901.80
OUTLET STREAM SLOPE= 0.075 FT/FT
CULVERT WATERWAY AREA= 30 SF

EXISTING STRUCTURE

Single 8ft x 6.0ft x 23.8ft slope tapered to Single 5.0ft by 6.0ft x 231.7ft RCB 20° Skew L.A.
Survey Sta. 234+87.07
DESIGN 3302
47.8ft CONCRETE FLUME

PROPOSED STRUCTURE

RCB Extension
5ft x 6ft x 34.0ft RCB Rt. with Concrete Flume
8ft x 6ft x 16.0ft RCB Lt.

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCB EXTENSION AT 20° SKEW LEFT AHEAD

8ft x 6ft x 16.0ft AND 5ft x 6ft x 34.0ft REINFORCED CONCRETE BOX WITH 5FT X 6FT X 36FT FLUME SITUATION PLAN

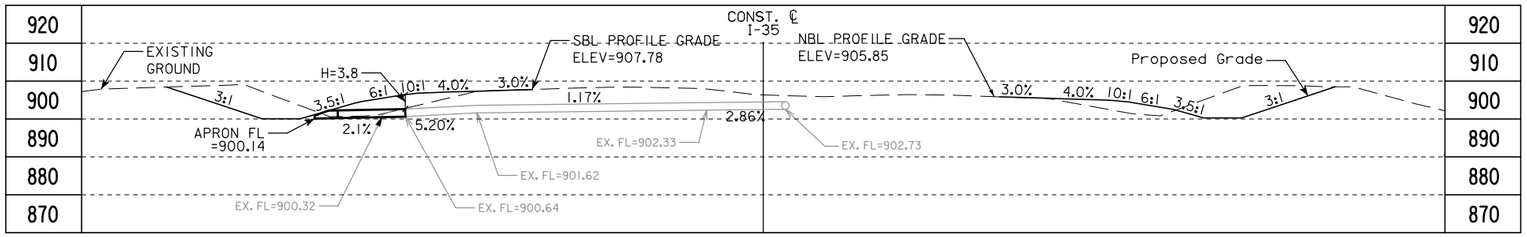
STATION: 234+87.07 SEPT., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

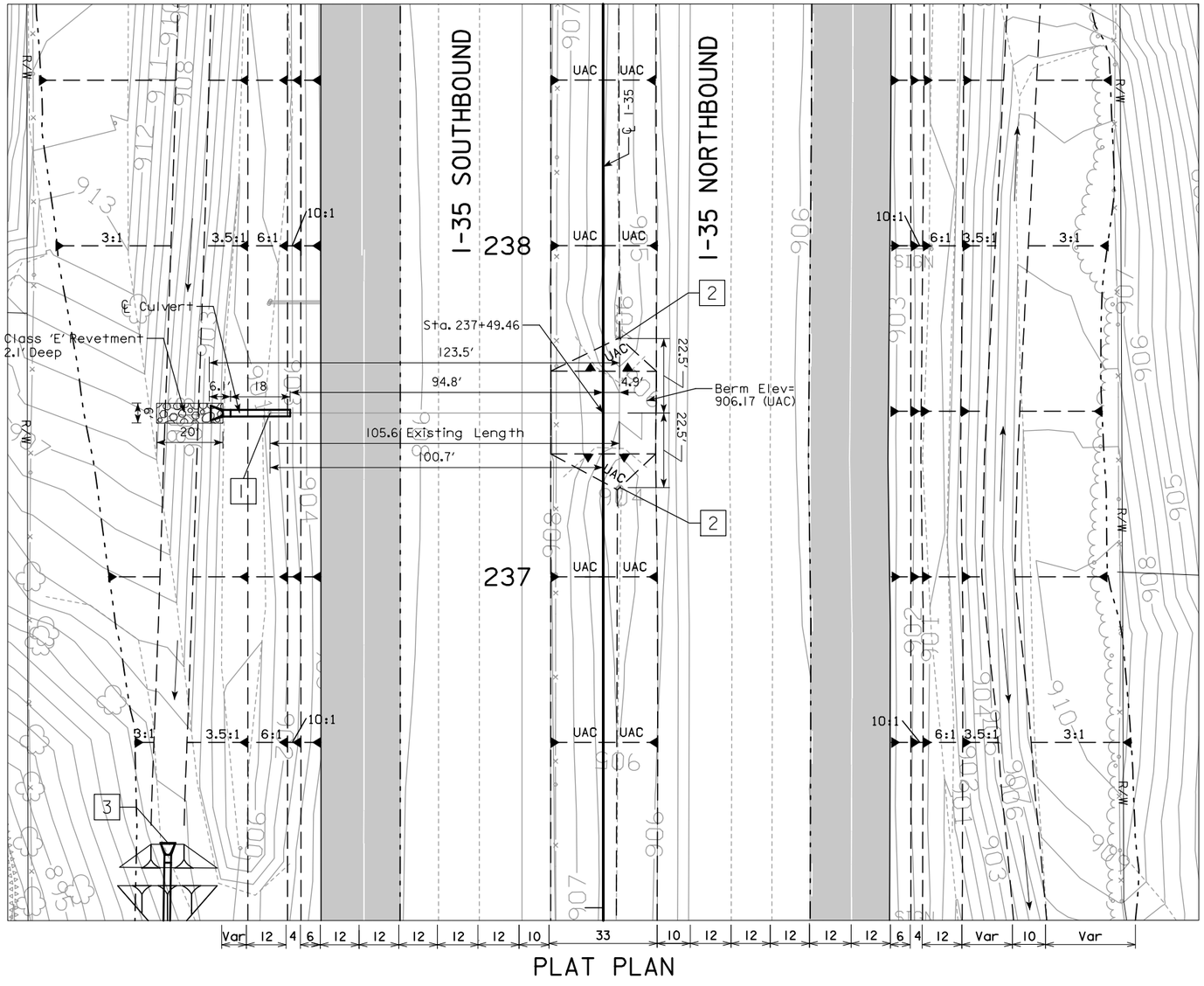
DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM **City of Ankeny\Snyder & Associates** **POLK** COUNTY PROJECT NUMBER **IM-35-4(140)92--13-77** SHEET NUMBER **V.209**



LONGITUDINAL SECTION ALONG ℄ PIPE

1. Remove existing apron prior to extending. Install 18LF of 24in RCP and apron. Extend with RF-2 Type C-1 connection.
2. Existing pipe to be used as constructed.
3. See Sheet V.209 for details.



PLAT PLAN

The Village on Delaware Town Home Owner's Association

B&L Building LC

Ready Mix Properties, LLC

Ready Mix Properties, LLC

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.97 AC.
DESIGN Q50 = 10.47 CFS
DESIGN HIGH WATER ELEV. = 905.07
OUTLET STREAM SLOPE= 0.0076 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 105.6ft RCP
Survey Sta. 237+49.46
15in x 22.5ft CMP (South Median)
15in x 22.5ft CMP (North Median)

PROPOSED STRUCTURE

24in x 18.0ft RCP Extension LT

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP EXTENSION AT 0° SKEW

24in x 18.0ft REINFORCED CONCRETE PIPE PLAT PLAN

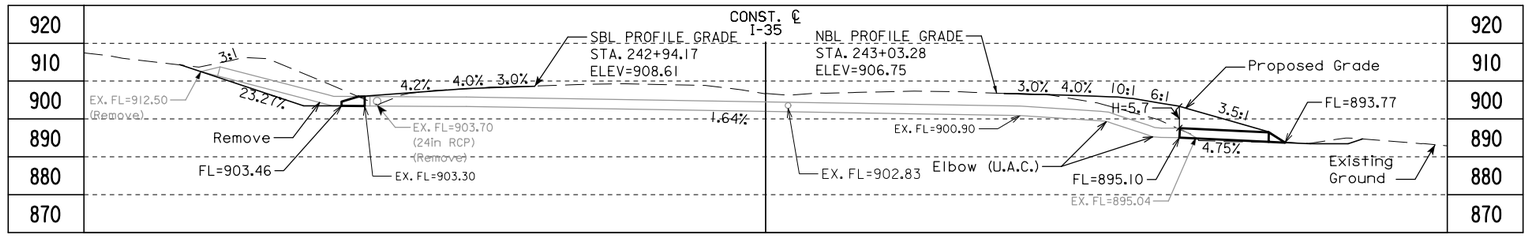
STATION: 237+49.46 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

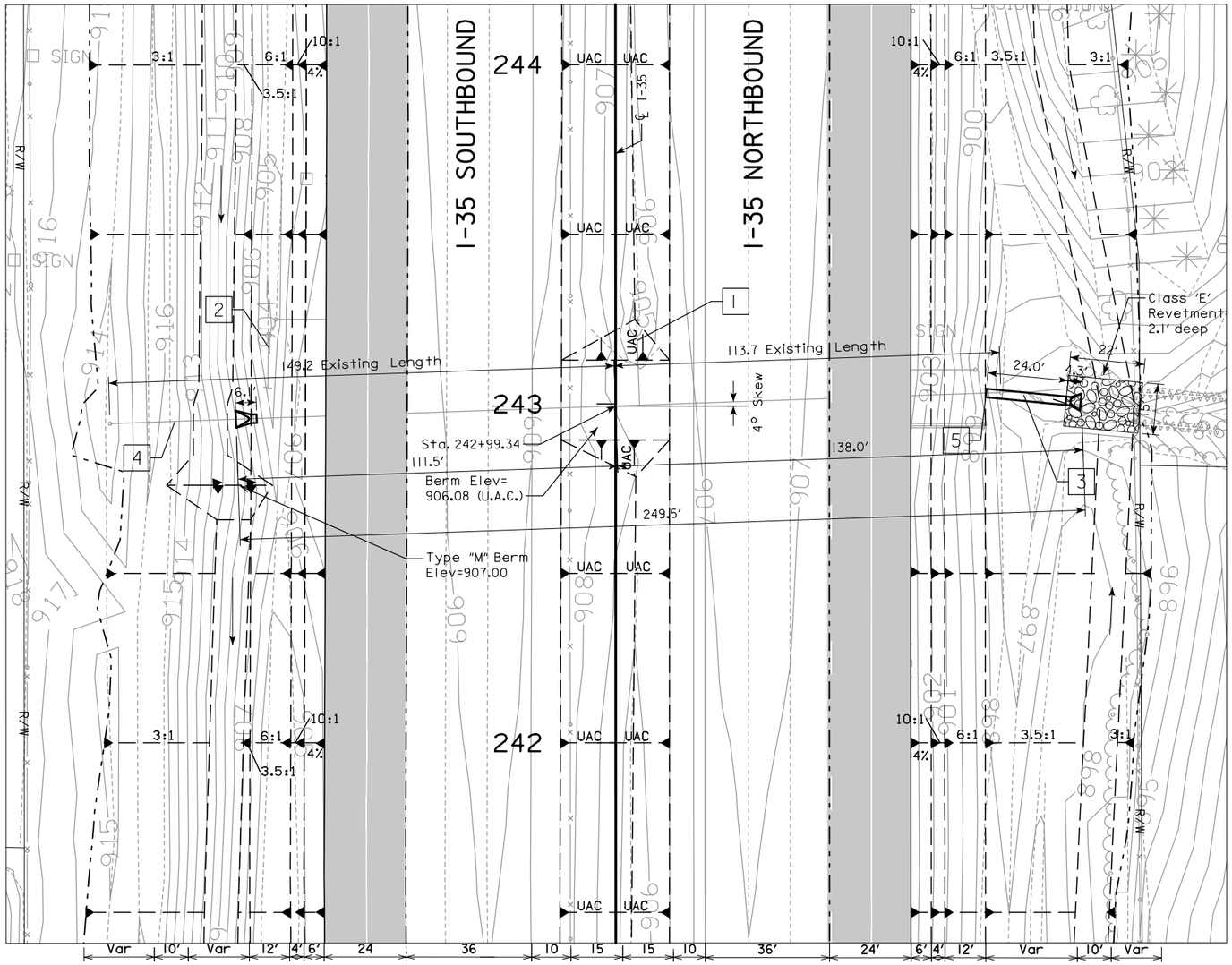
DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.210



LONGITUDINAL SECTION ALONG ℄ PIPE

1. Use existing pipe as constructed.
2. Remove existing apron and 18ft of 24in RCP.
3. Remove existing apron prior to extending.
4. Remove Existing Apron and 44 LF of Pipe.
5. Install at 7.5° Bend to Align Outlet with Rock Ditch



PLAT PLAN

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 6.36 AC.
DESIGN Q50 = 16.40 CFS
DESIGN HIGH WATER ELEV. = 905.73
OUTLET STREAM SLOPE= 0.0790 FT/FT
CULVERT WATERWAY AREA= 4.91 SF

EXISTING STRUCTURE

30in x 192.9ft RCP 4° Skew R.A. AND
30in x 69.0ft CMP
Survey Sta. 242+99.34

PROPOSED STRUCTURE

30in x 24.0ft CMP Extension RT

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR CMP EXTENSION AT 4° SKEW RIGHT AHEAD

30in x 24.0ft CMP
PLAT PLAN

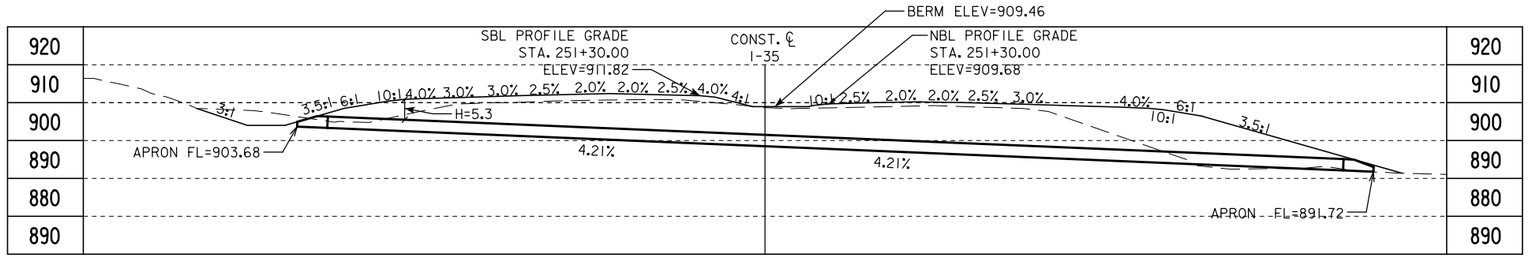
STATION: 242+99.34 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.211



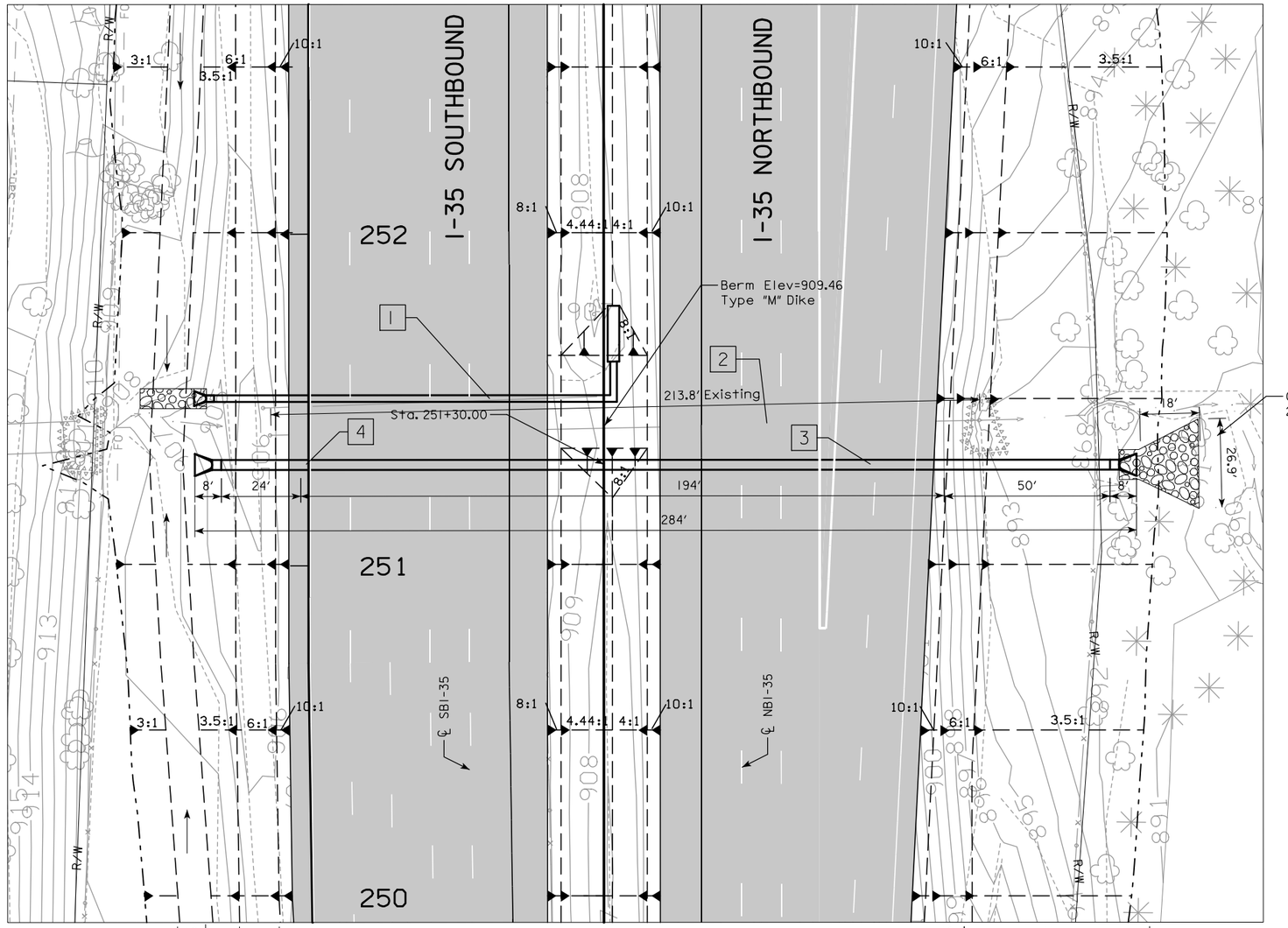
LONGITUDINAL SECTION ALONG ℄ PIPE

1 See Sheet V.213 for details.

2 Plug and Abandon Existing 36in RCP

3 Begin Trenchless Construction
Sta. 251+30.00, 102.4 RT
FL=895.13

4 End Trenchless Construction
Sta. 251+30.00, 91.60 LT
FL=902.26



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 18.54 AC.
DESIGN Q50 = 54.57 CFS
DESIGN HIGH WATER ELEV. = 907.59
OUTLET STREAM SLOPE= 0.0290 FT/FT
CULVERT WATERWAY AREA= 7.07 SF

EXISTING STRUCTURE

36in x 213.8ft RCP
Survey Sta. 251+40.94

PROPOSED STRUCTURE

36in x 50.0ft RCP Rt. (Trenched)
36in x 194.0ft RCP (Trenchless)
36in x 24.0ft RCP LT. (Trenched)

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP 0° SKEW

36in x 268.0ft REINFORCED CONCRETE PIPE PLAT PLAN

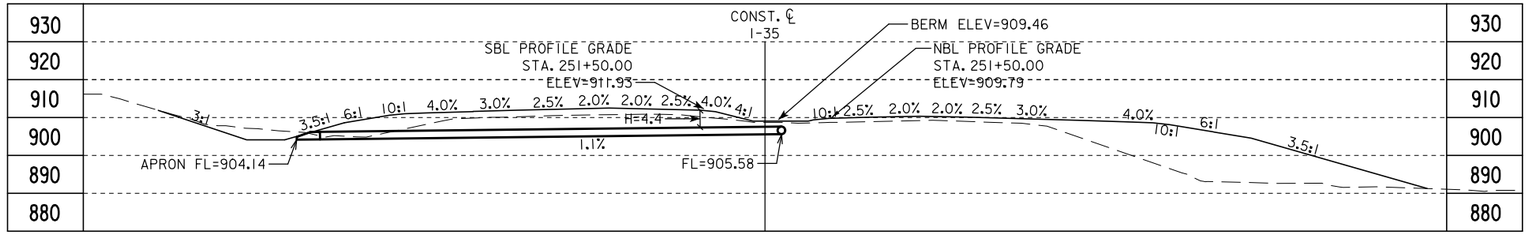
STATION: 251+30.00 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.212



LONGITUDINAL SECTION ALONG ℄ PIPE

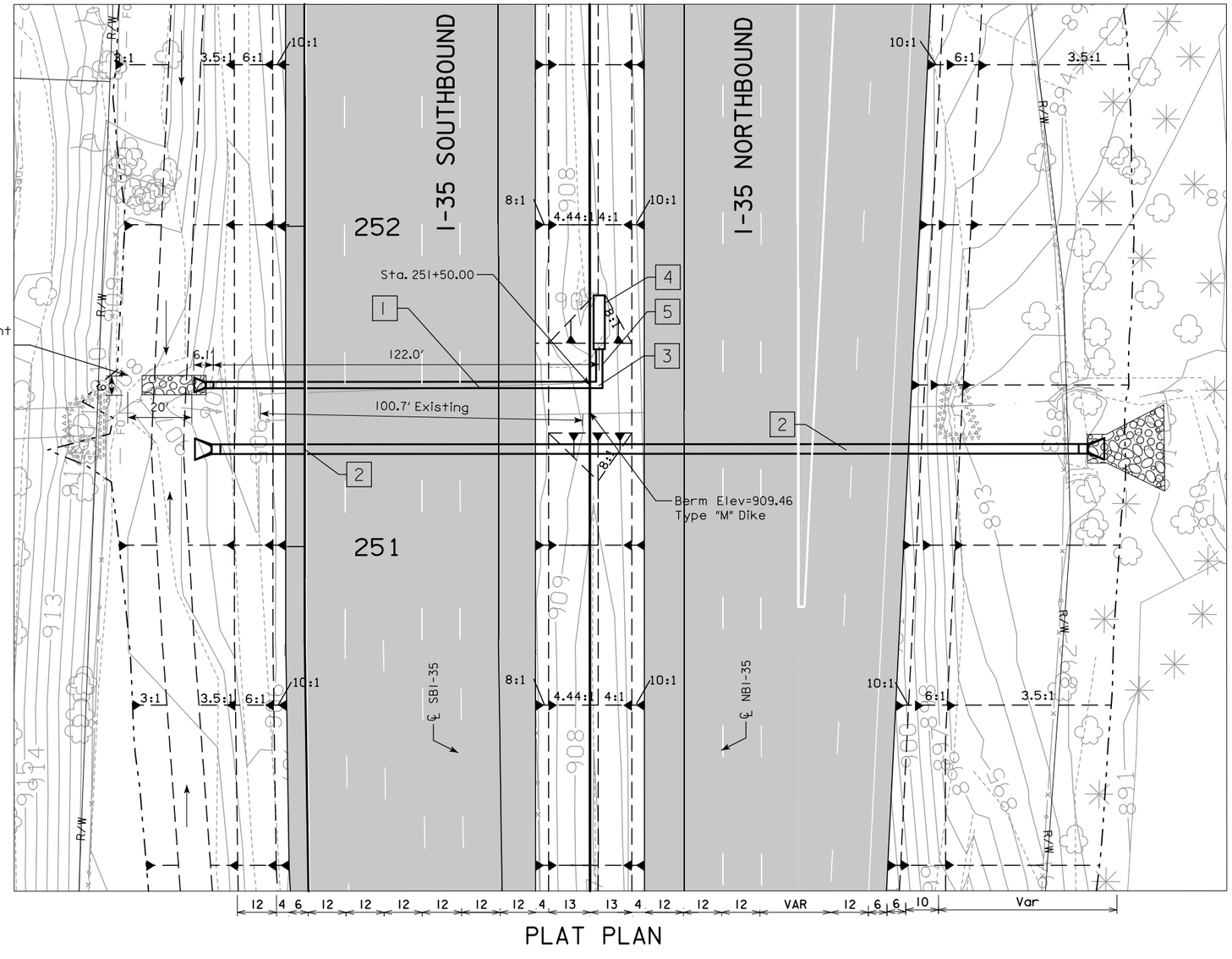
1 Remove Existing Culvert

2 See Sheet V.212 for details.

3 Install 24in 90° RCP Elbow. Connect CMP to RCP Elbow with RF-2 Type C-4 Connection

4 Install 24" beveled pipe and Guard (RF-27).
Sta. 251+78.00, 2.93'RT
Inlet FL=907.60
Outlet FL=905.58
See U-Sheet Detail 500-6

5 Install 24in x 8ft CMP



PLAT PLAN

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 2.82 AC.
DESIGN Q50 = 6.01 CFS
DESIGN HIGH WATER ELEV. = 909.03
OUTLET STREAM SLOPE= 0.0183 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 101.0ft RCP
Survey Sta. 251+50.53
18in x 25ft CMP

PROPOSED STRUCTURE

24in x 122ft RCP LT
24in x 8ft CMP RT

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP EXTENSION AT 0° SKEW R.A.

24in x 122.0ft REINFORCED CONCRETE PIPE PLAT PLAN

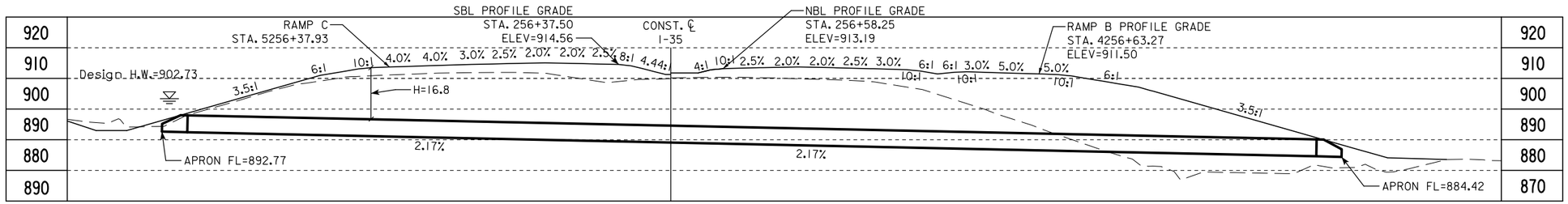
STATION: 251+50.00 Sept., 2014

POLK COUNTY

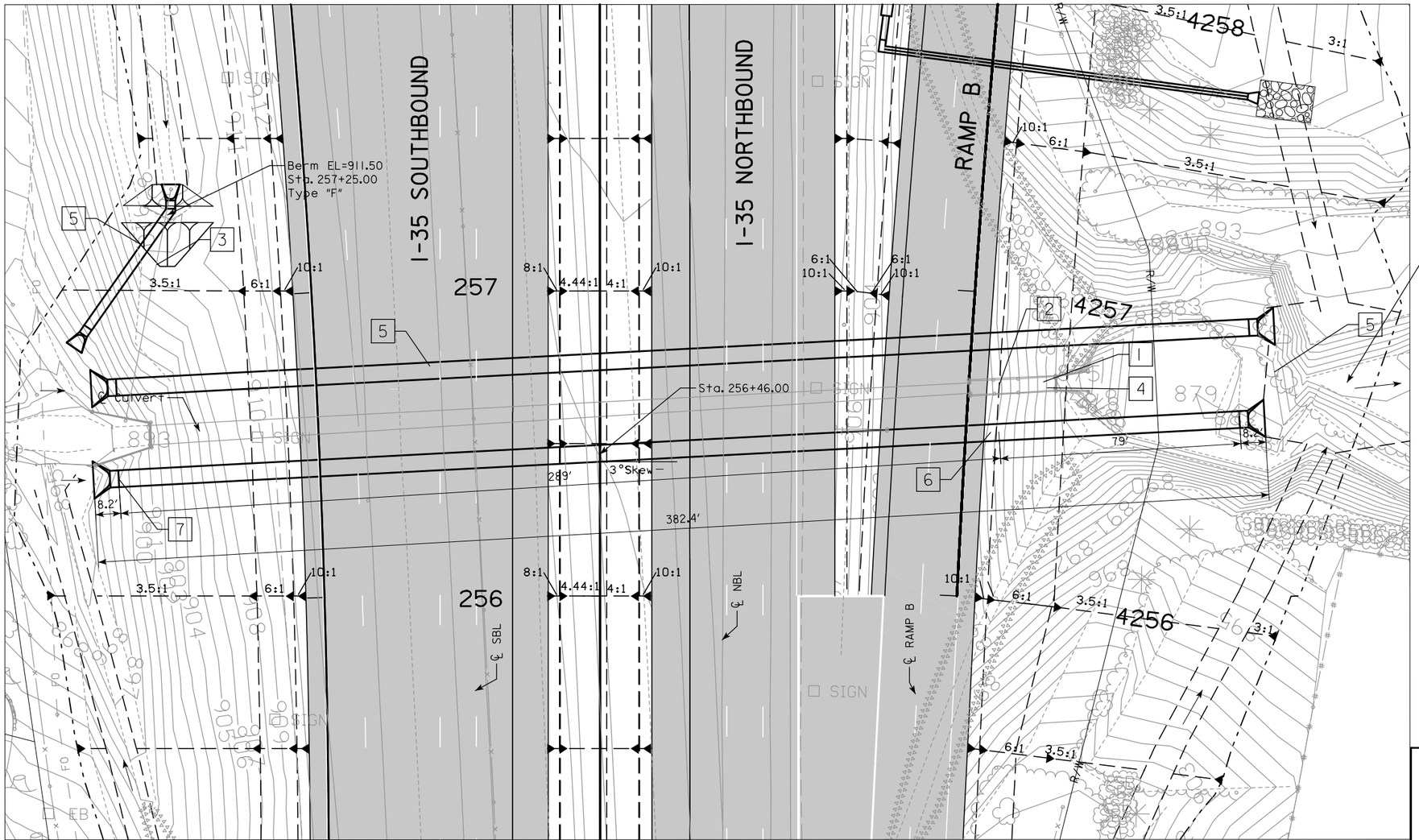
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.213



LONGITUDINAL SECTION ALONG ℄ PIPE



PLAT PLAN

1 Remove existing flume

2 Plug and Abandon Existing Box Culvert

3 Remove existing 36in x 77.3ft CMP and apron.

4 Drainage through existing culvert/channel shall be maintained throughout construction.

5 Refer to V.215 for Details

6 Trenchless Construction Begin Sta. 256+53.76, 130.20' RT FL=886.31

7 Trenchless Construction End Sta. 256+38.46, 157.80' LT FL=892.59

0 ENGLISH 40
SCALE IN FEET

N

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 294.7 AC.
DESIGN Q50 = 592.29 CFS
DESIGN HIGH WATER ELEV. = 902.73
OUTLET STREAM SLOPE= 0.0094 FT/FT
CULVERT WATERWAY AREA= 47.5 SF

EXISTING STRUCTURE

8ft x 6ft x 22.2ft
5ft x 6ft x 247.3ft Slope Tapered RCBC with 5ft x 6ft x 36.7ft Flume
Design No. 3402

PROPOSED STRUCTURE

66in x 79' RCP RT (Trenched)
66in x 289' RCP (Trenchless)

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP AT 3° SKEW R.A.

66in x 368ft REINFORCED CONCRETE PIPE PLAT PLAN

STATION: 256+46.00 SEPT., 2014

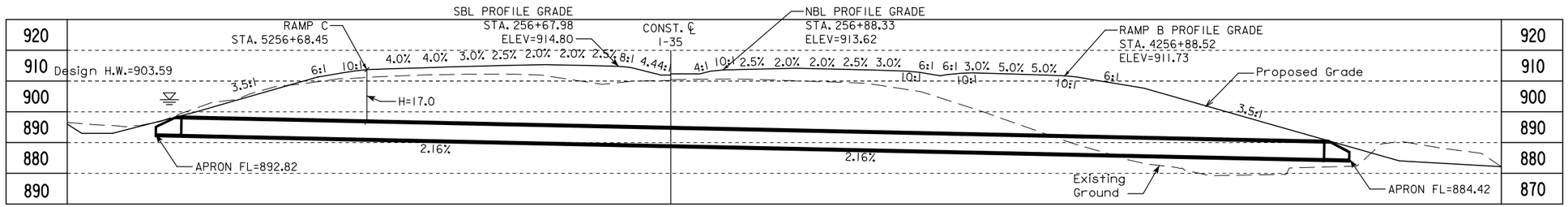
POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

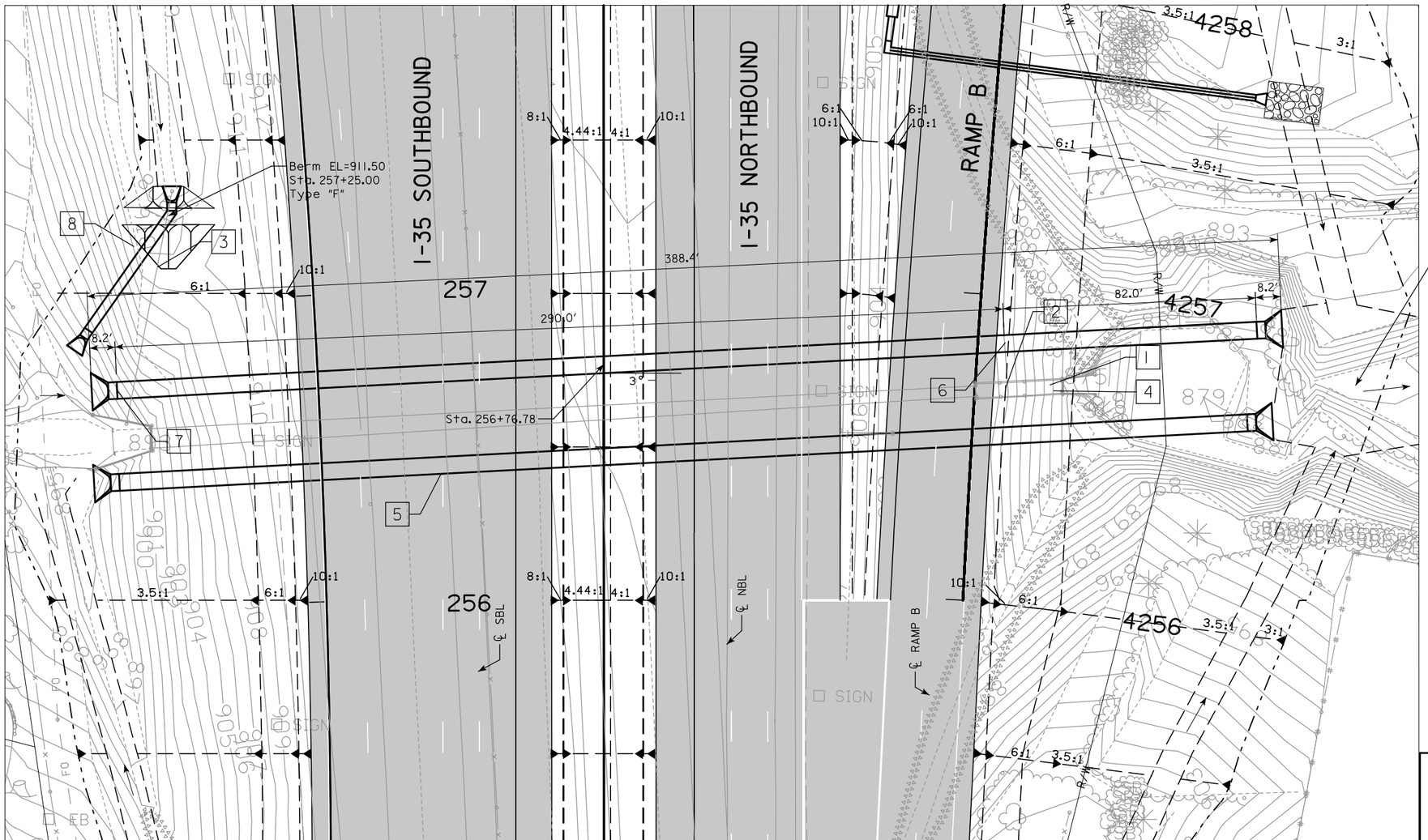
DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.214

2:32:53 PM V8i_IDOTRoad J:\2009_projects\109.0051\BrPrelim\k77035140_V01.str



LONGITUDINAL SECTION ALONG ℄ PIPE



PLAT PLAN

1. Remove existing flume
2. Plug and Abandon Existing Box Culvert
3. Remove existing 36in x 77.3ft CMP and apron.
4. Drainage through existing culvert/channel shall be maintained throughout construction.
5. Refer to V.215 for Details
6. Trenchless Construction Begin Sta. 256+83.90, 130.85' RT FL=886.33
7. Trenchless Construction End Sta. 256+68.47, 158.59' LT FL=892.59
8. 36in x 48ft CMP and Aprons Begin Sta. 257+35.00, 145.75' LT FL=907.00 End Sta. 256.81.45, 177.39' LT FL=893.10

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 294.7 AC.
DESIGN Q50 = 592.29 CFS
DESIGN HIGH WATER ELEV. = 902.73
OUTLET STREAM SLOPE= 0.0094 FT/FT
CULVERT WATERWAY AREA= 47.5 SF

EXISTING STRUCTURE

8ft x 6ft x 22.2ft
5ft x 6ft x 247.3ft Slope Tapered RCBC with 5ft x 6ft x 36.7ft Flume
Design No. 3402

PROPOSED STRUCTURE

66in x 82' RCP RT (Trenched)
66in x 290' RCP (Trenchless)

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP AT 3° SKEW R.A.

66in x 372ft REINFORCED CONCRETE BOX PLAT PLAN

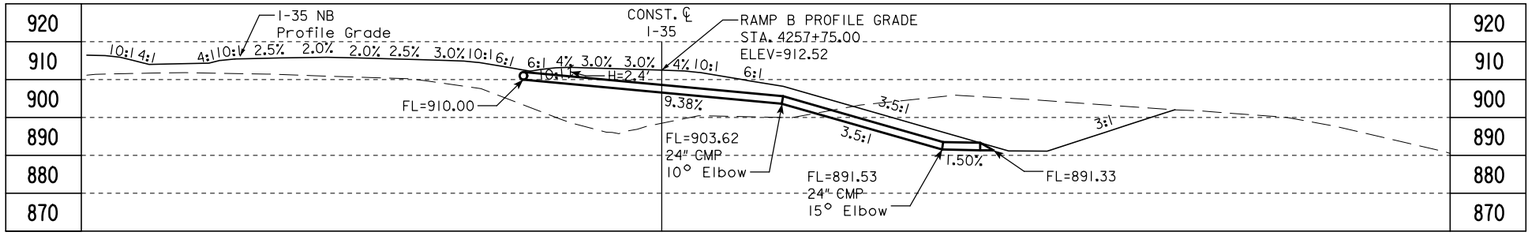
STATION: 256+76.78 SEPT., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.215



LONGITUDINAL SECTION ALONG ℄ CULVERT

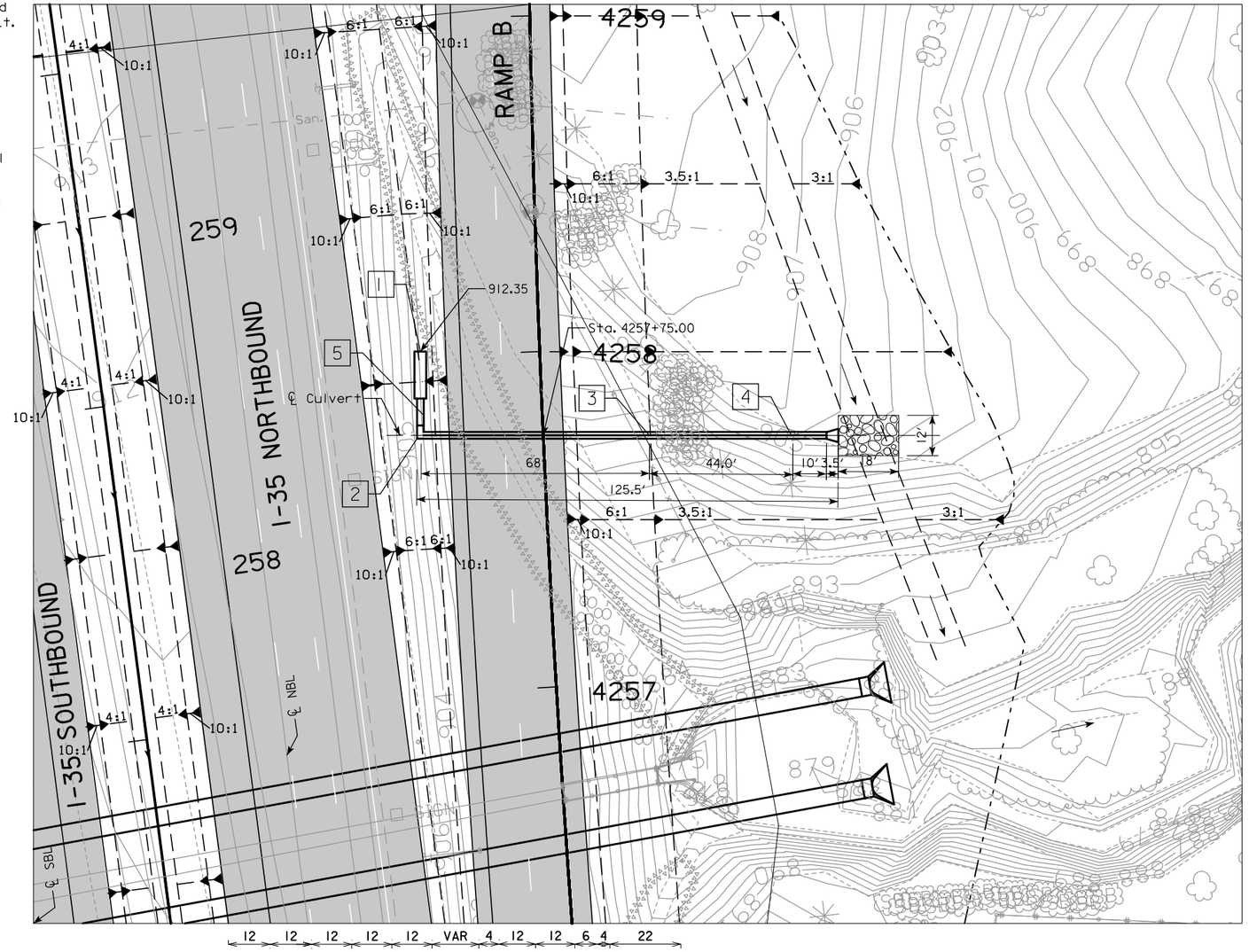
1 Install beveled pipe and guard (RF-27) @ Sta. 4258+00.00, 35.52' Lt.
Inlet FL=912.54
Outlet FL=910.00
See U-Sheet Detail 500-6.

2 Install 24 in 90° RCP elbow. Connect CMP to RCP Elbow with RF-2 Type C-4 Connection

3 Sta. 4257+75.00, 32.00' Rt Install Type C-3 CMP bend.

4 Sta 4257+75.00, 74.00' Rt install CMP Bend.

5 Install 24in x 5ft CMP



PLAT PLAN

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = .45 AC.
DESIGN Q50 = 1.21 CFS
DESIGN HIGH WATER ELEV. = 913.06
OUTLET STREAM SLOPE= 0.1000 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

PROPOSED STRUCTURE

24in x 54.0 CMP Rt.
24in x 68.0 RCP Rt.
24in x 5.0 ft CMP Median

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP and CMP AT 0° SKEW R.A.

24in x 68.0ft REINFORCED CONCRETE PIPE 24in x 54ft CMP PLAT PLAN

STATION: 4257+75.00 SEPT., 2014

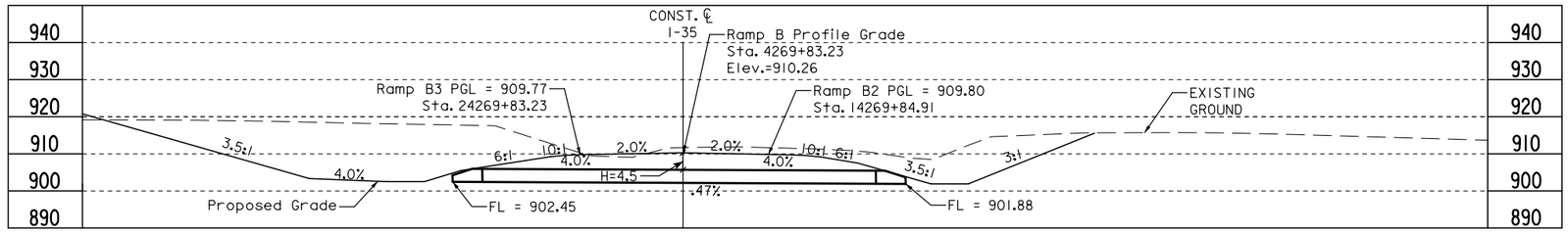
POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

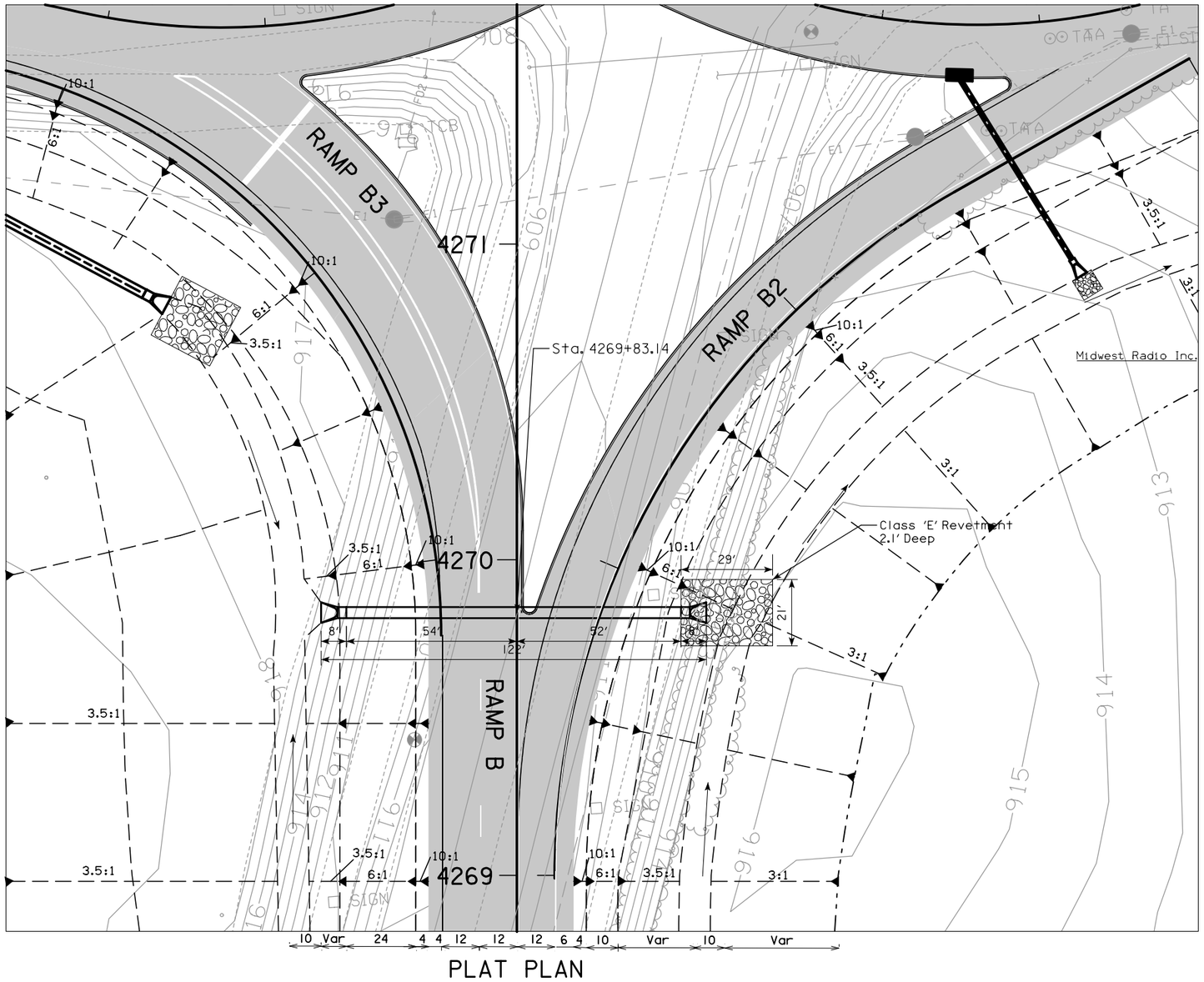
DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.216

2:32:58 PM V8i_IDOTRoad J:\2009_projects\109.0051\BrPrelim\k77035140_V01.str



LONGITUDINAL SECTION ALONG ℄ PIPE



PLAT PLAN

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 21.77 AC.
DESIGN Q50 = 73.98 CFS
DESIGN HIGH WATER ELEV. = 906.94
OUTLET STREAM SLOPE= 0.082 FT/FT
CULVERT WATERWAY AREA= 9.62 SF

PROPOSED STRUCTURE

42in X 106.0ft RCP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 0° SKEW

42in X 106.0ft REINFORCED CONCRETE PIPE PLAT PLAN

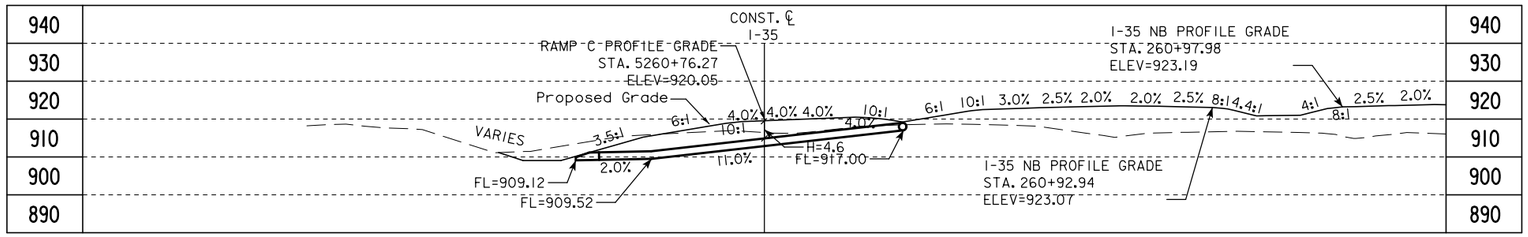
STATION: 4269+83.14 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.217



LONGITUDINAL SECTION ALONG ℄ PIPE

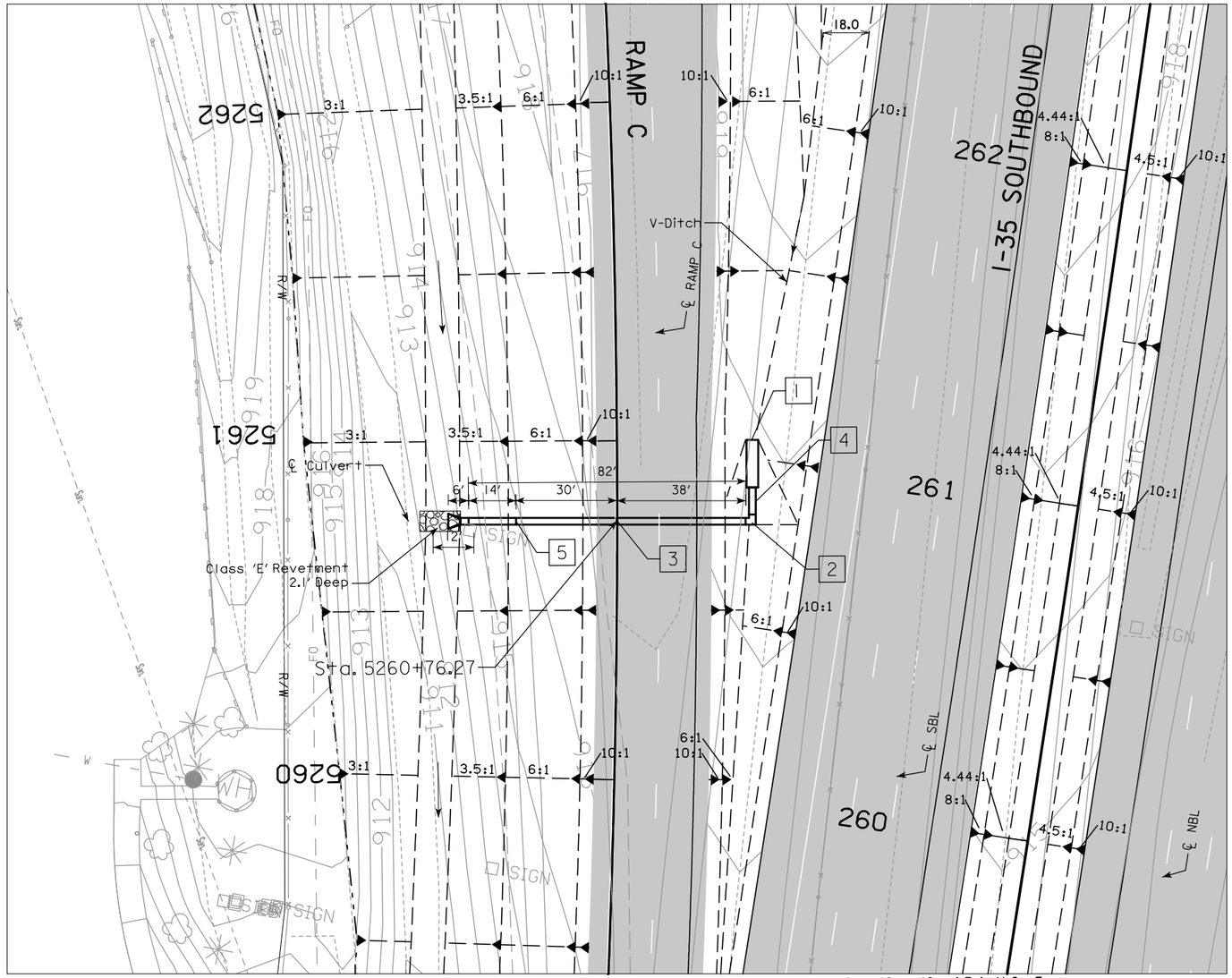
1 Install beveled pipe and guard (RF-27) Sta. 5261+00.00, 40.08' Rt. Inlet FL=919.33 Outlet FL=917.00 See U-Sheet Detail 500-6.

2 Install 24 in 90° RCP elbow. Connect CMP to RCP Elbow with RF-2 Type C-4 Connection

3 Sta. 5260+76.27, 00.0 Rt. End Trenchless Installation

4 Install 24in x 4ft CMP

5 Install 24in 9.0° Elbow. Connect RCP to RCP Elbow with RF-2 Type C-2 Connection



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 0.50 AC.
DESIGN Q50 = 2.19 CFS
DESIGN HIGH WATER ELEV. = 920.17
OUTLET STREAM SLOPE= 0.0043 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

PROPOSED STRUCTURE

24in x 82.0ft RCP (40LF Trenchless)
24in x 8.0ft CMP Median

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 0° SKEW

24in x 82.0ft REINFORCED CONCRETE PIPE PLAT PLAN

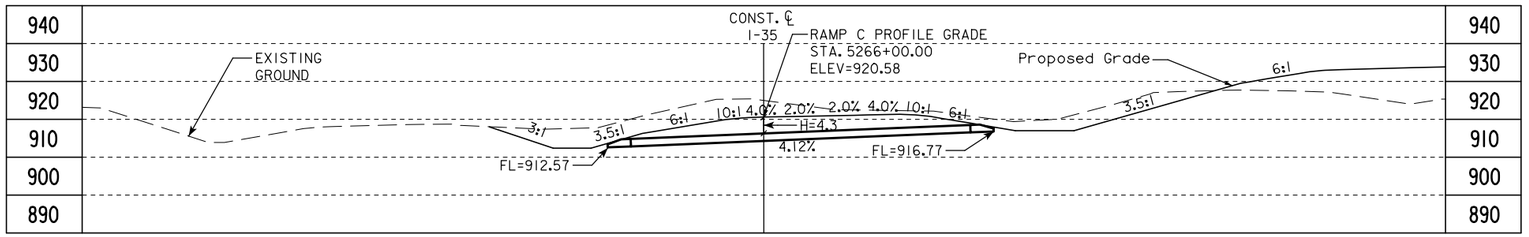
STATION: 5260+76.27 SEPT., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

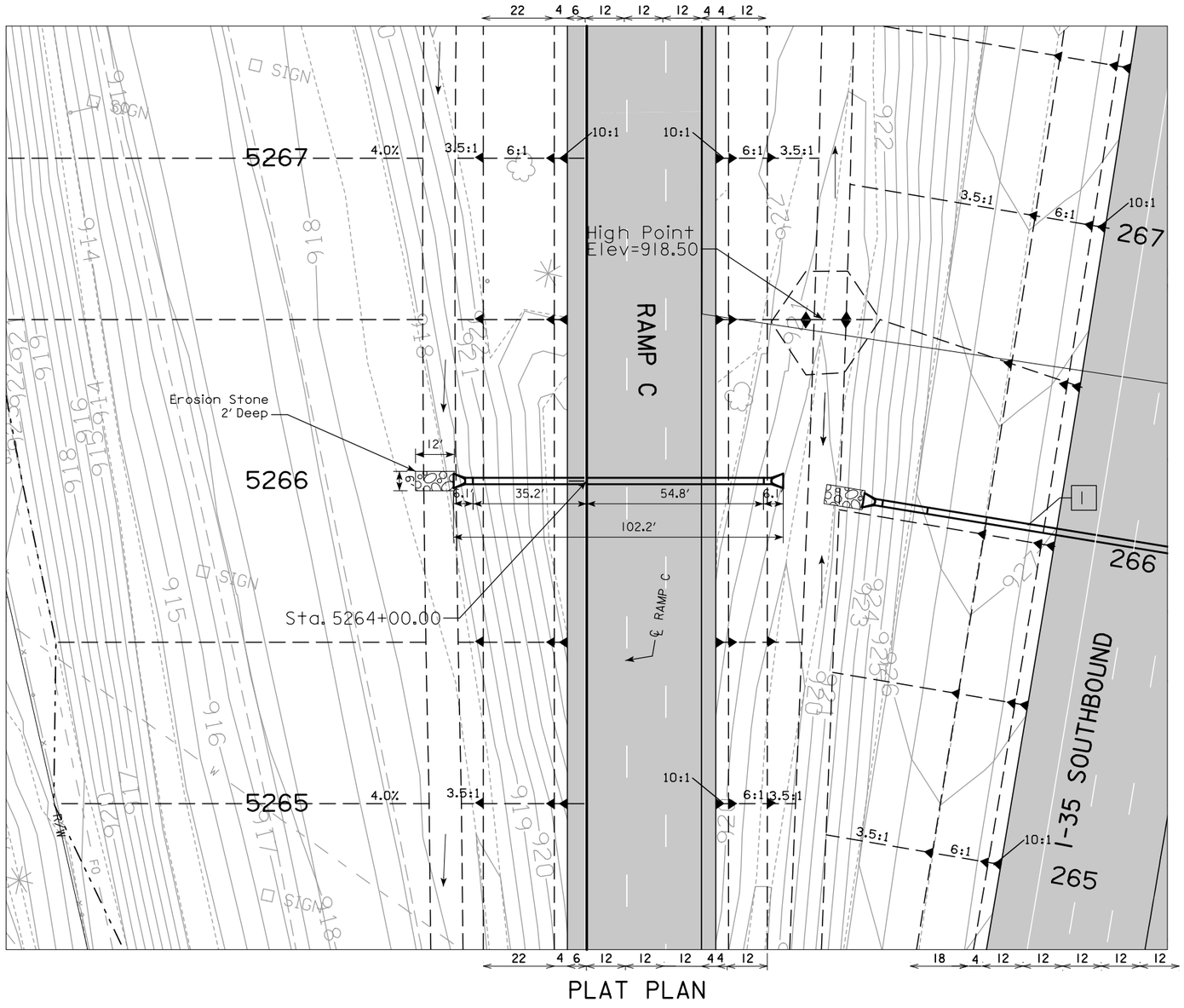
DESIGN SHEET NO. __|__ OF __|__ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.218



LONGITUDINAL SECTION ALONG ℄ PIPE

1 See V-Sheet 220 for Details.



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 2.06 AC.
DESIGN Q50 = 6.02 CFS
DESIGN HIGH WATER ELEV. = 918.03
OUTLET STREAM SLOPE= 0.0064 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 98.2ft RCP

PROPOSED STRUCTURE

24in x 90.0ft RCP Lt.

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 0° SKEW

24in x 90.0ft REINFORCED CONCRETE PIPE PLAT PLAN

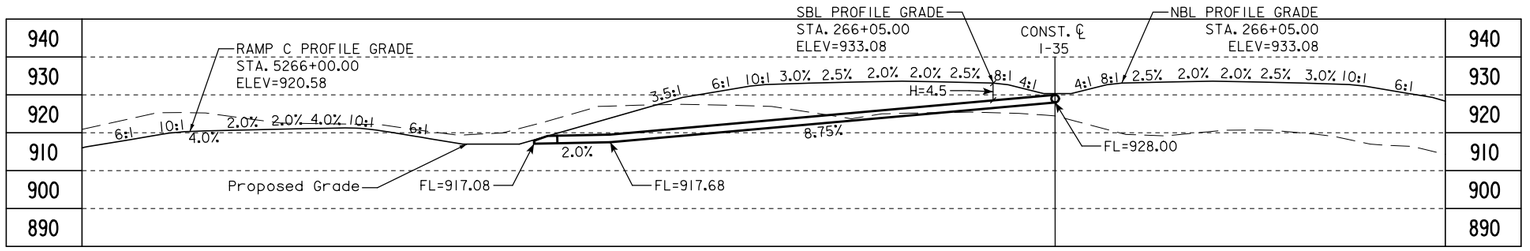
STATION: 5266+00.00 SEPT., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.219



LONGITUDINAL SECTION ALONG ℄ PIPE

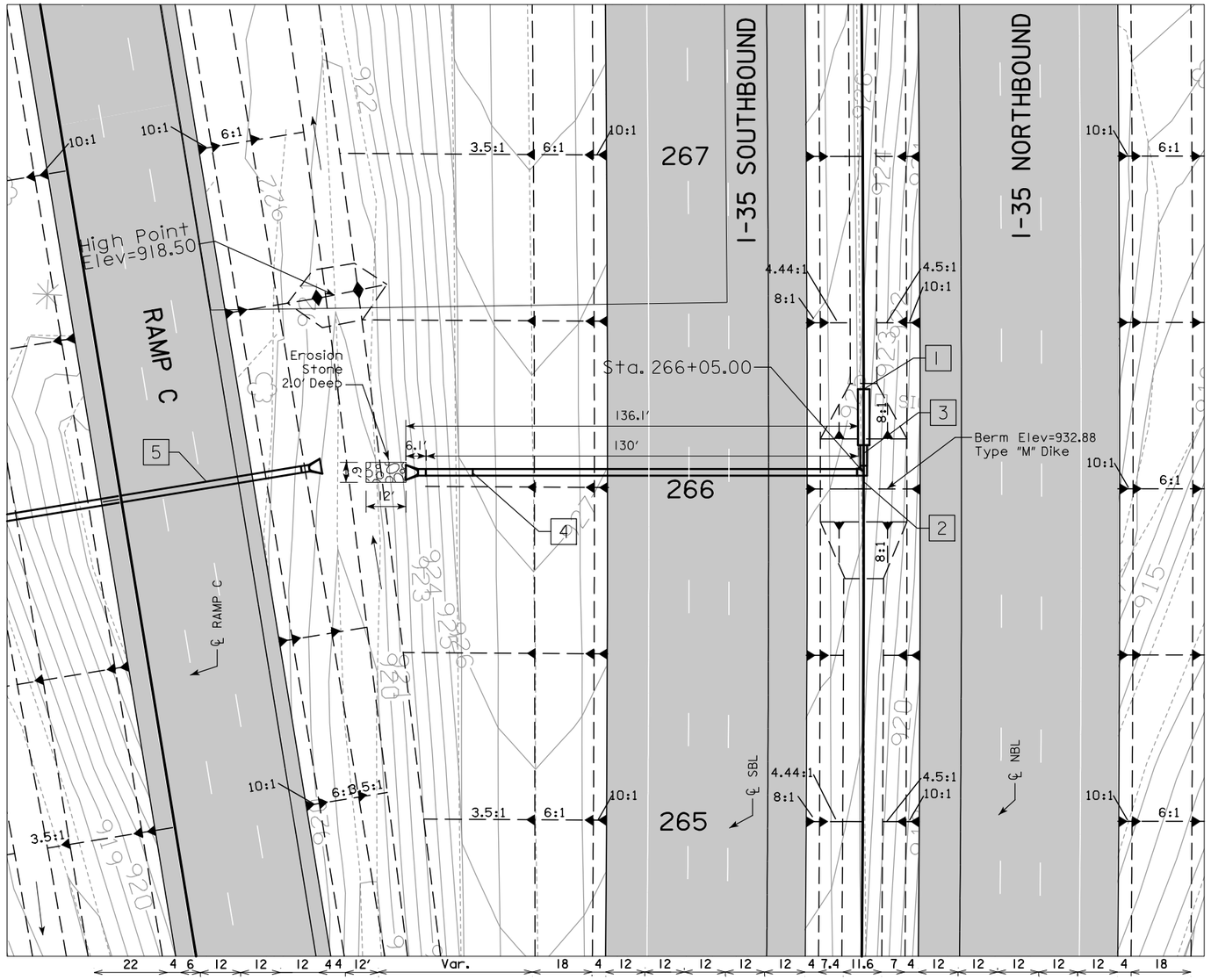
1 Beveled Pipe and Guard (RF-27) Sta. 266+30.00, 0.0′
Inlet FL=930.69
Outlet FL=928.00
See U-Sheet Detail 500-6.

2 Install 24in 90° RCP Elbow. Connect CMP to RCP Elbow with RF-2, Type C-4 Connection

3 Install 24in x 5ft CMP

4 Install 24in 6.75° RCP Elbow. Connect RCP to RCP Elbow with RF-2, Type C-1 Connection

5 See V-Sheets for details.



PLAT PLAN

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.00 AC.
DESIGN Q50 = 3.45 CFS
DESIGN HIGH WATER ELEV. = 931.82
OUTLET STREAM SLOPE= 0.0200 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 96.0ft RCP

PROPOSED STRUCTURE

24in x 130.0ft RCP Lt.
24in x 8.0ft CMP Median

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 0° SKEW

24in x 130.0ft REINFORCED CONCRETE PIPE PLAT PLAN

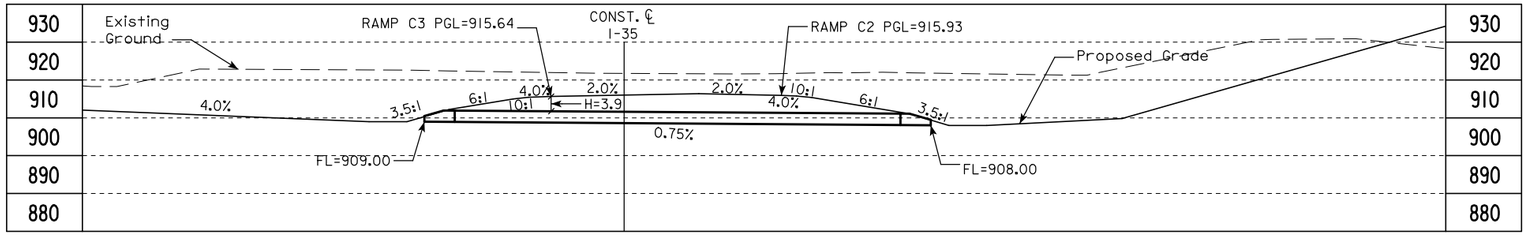
STATION: 266+05.00 SEPT., 2014

POLK COUNTY

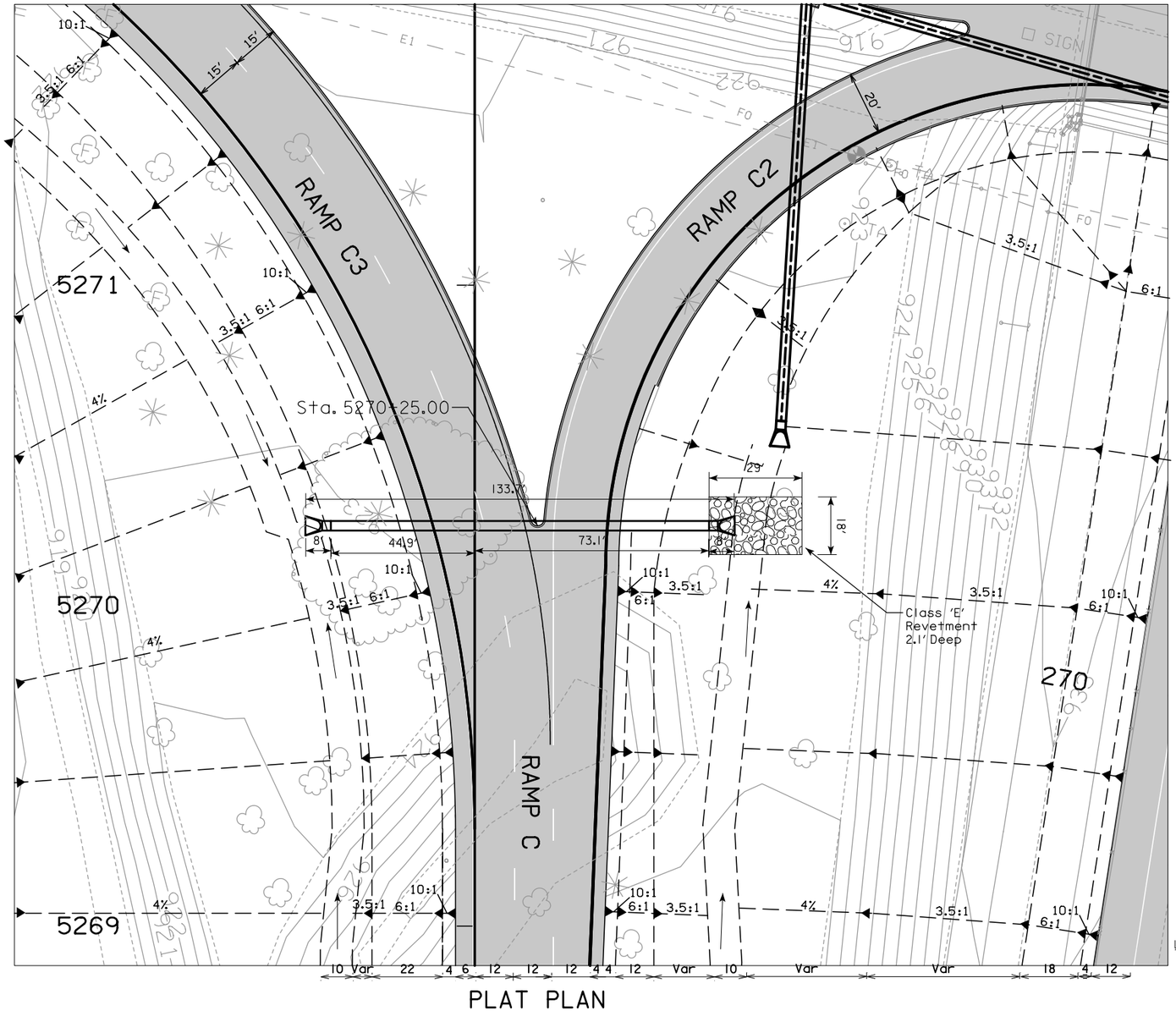
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.220



LONGITUDINAL SECTION ALONG ℄ PIPE



PLAT PLAN

Elmer Vitalis Trust
Iowa State Bank,
Luella Vitalis &
Larry Stevens Trustees

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 12.7 AC. PLUS EXISTING
STORM SEWER FOR E 1ST STREET
DESIGN Q50 = 48.90 CFS
DESIGN HIGH WATER ELEV. = 912.64
OUTLET STREAM SLOPE= 0.0100 FT/FT
CULVERT WATERWAY AREA= 7.068 SF

PROPOSED STRUCTURE

36in x 118.0ft RCP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 0° SKEW

36in x 118.0ft REINFORCED CONCRETE PIPE PLAT PLAN

STATION: 5270+25.00 JAN., 2010

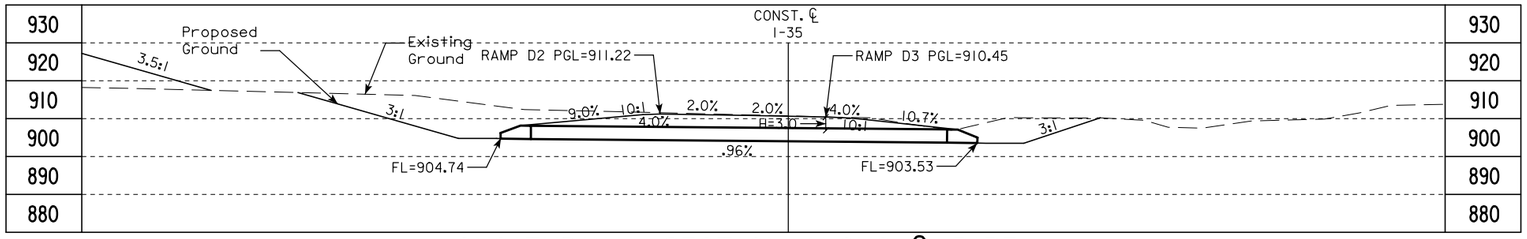
POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

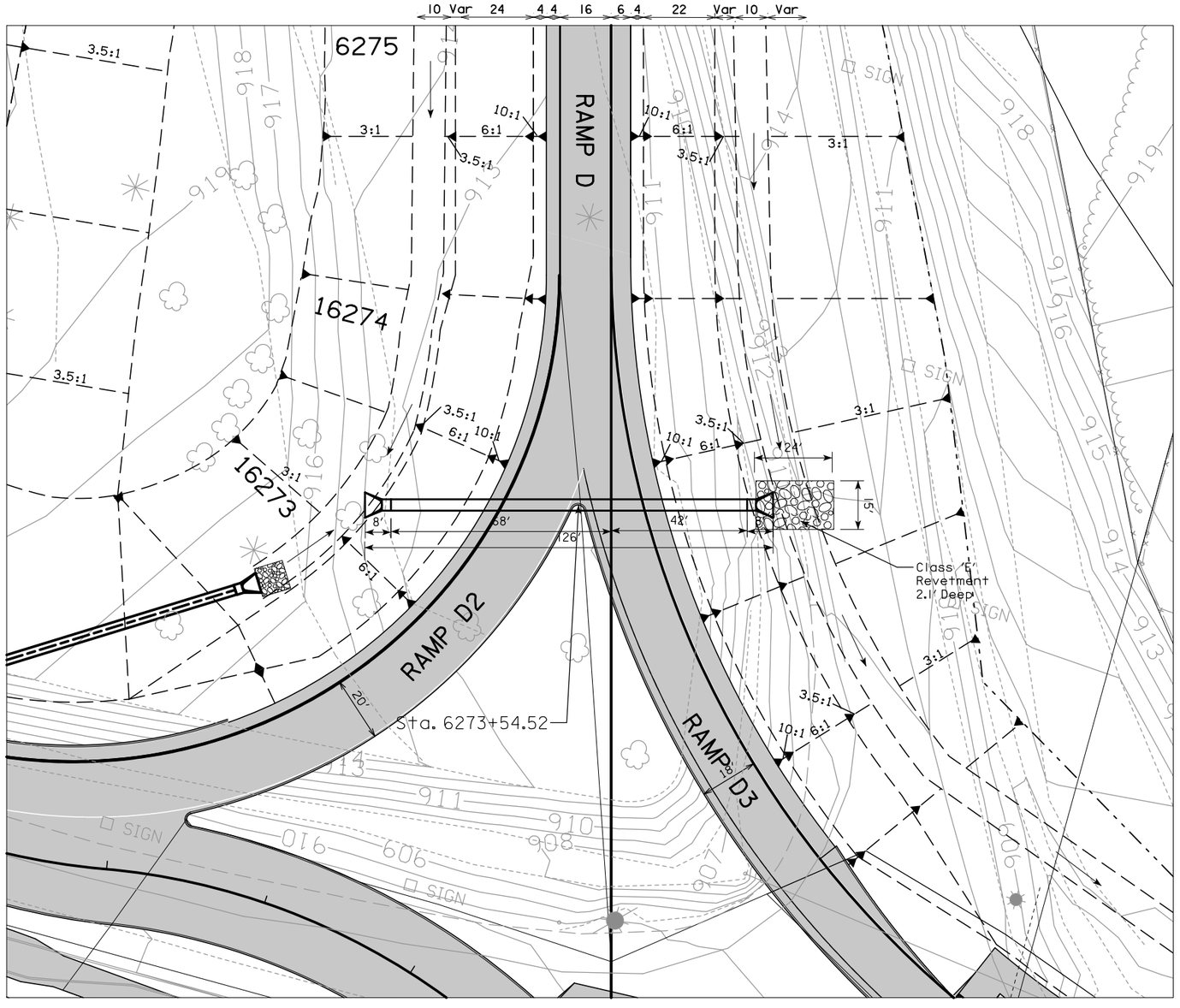
DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.221

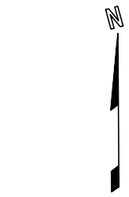
2:33:09 PM V8i_IDOTRoad J:\2009_projects\109.0051\BrPrelim\k77035140_V01.str

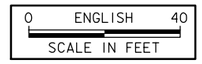


LONGITUDINAL SECTION ALONG ℄ PIPE



PLAT PLAN





LOCATION

T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 53.15 AC.
DESIGN Q50 = 68.45 CFS
DESIGN HIGH WATER ELEV. = 908.76
OUTLET STREAM SLOPE= 0.0087 FT/FT
CULVERT WATERWAY AREA= 7.07 SF

PROPOSED STRUCTURE

42in x 110.0ft RCP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 0° SKEW

42in x 110.0ft REINFORCED CONCRETE PIPE PLAT PLAN

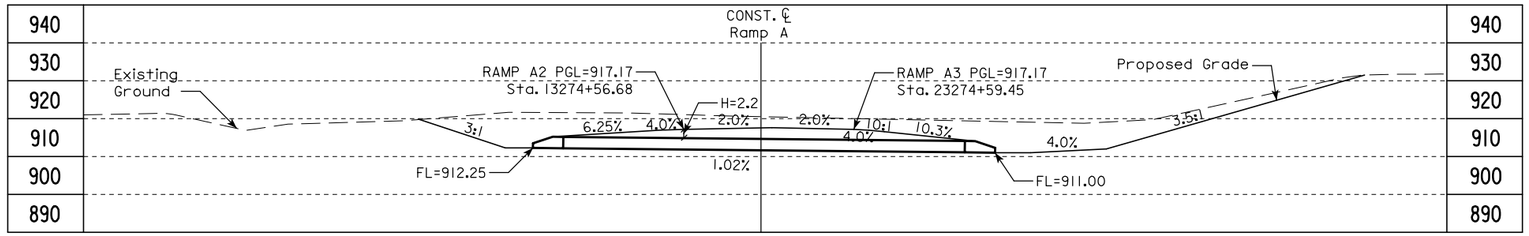
STATION: 6273+54.52 SEPT., 2014

POLK COUNTY

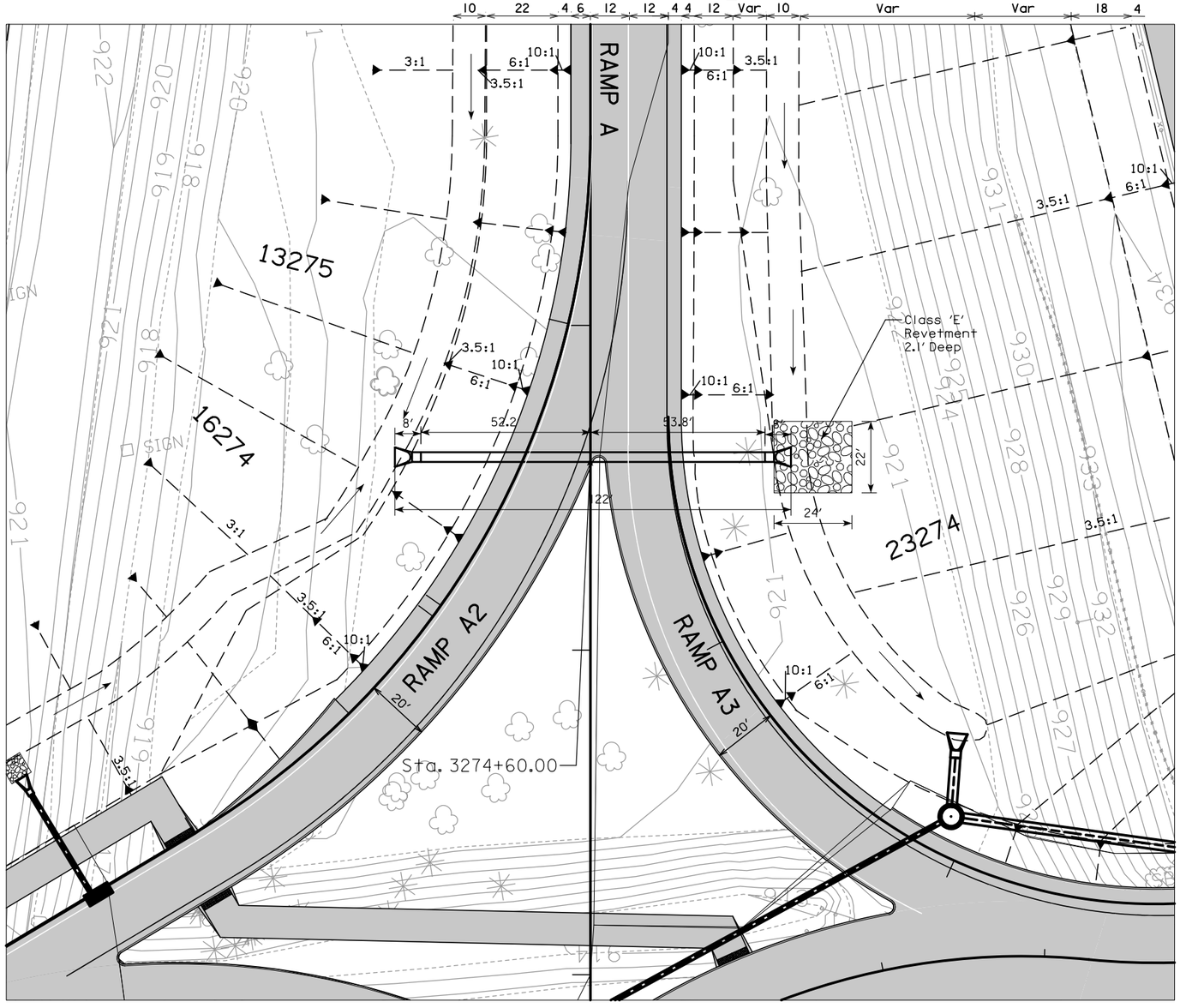
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.222



LONGITUDINAL SECTION ALONG ℄ PIPE



PLAT PLAN

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA =42.35 AC.
DESIGN Q50 = 45.09 CFS
DESIGN HIGH WATER ELEV. = 915.57
OUTLET STREAM SLOPE= 0.0200 FT/FT
CULVERT WATERWAY AREA= 7.07 SF

EXISTING STRUCTURE

24in x 107ft RCP

PROPOSED STRUCTURE

36in x 82.0ft RCP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 0° SKEW

36in x 106.0ft REINFORCED CONCRETE PIPE PLAT PLAN

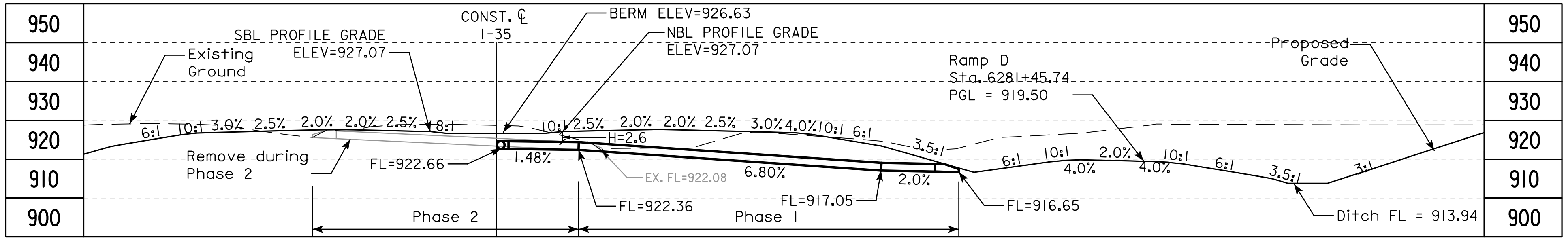
STATION: 3274+60.00 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.223



LONGITUDINAL SECTION ALONG ℄ PIPE

1 Install 92ft of RCP and RF-3 apron. Remove existing right apron and connect existing culvert to proposed culvert with RF-2 Type "C-1" connection. Staged Construction

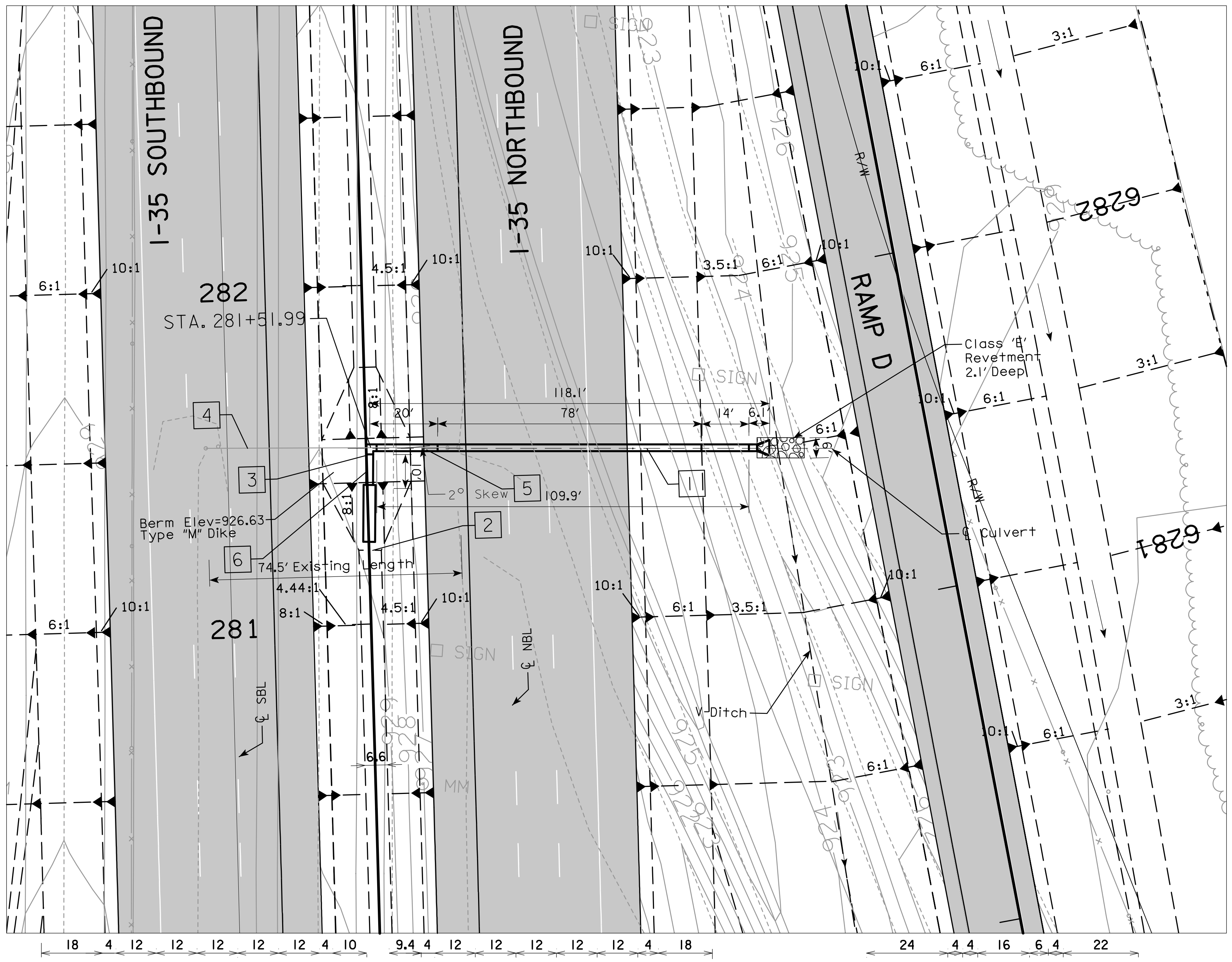
2 Beveled pipe and guard (RF-27). Sta. 281+22.00, 0.00' Rt.
Inlet FL=924.77
Outlet FL=922.66
See U-Sheet detail 500-6.

3 Install 24in 90° RCP elbow. Connect CMP to RCP Elbow with RF-2 Type C-4 Connection

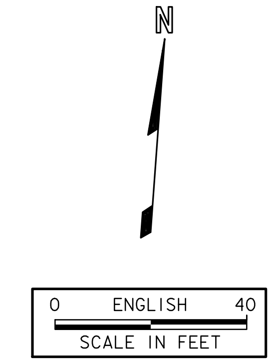
4 Remove remaining existing culvert prior to extending. Staged Construction

5 Install 18 LF of 24in RCP. Connect to previously installed RCP with RF-2 Type "C-1" connector. Stage 2B.

6 Install 10ft of 24in CMP



PLAT PLAN



LOCATION

T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.67 AC.
DESIGN Q50 = 4.54 CFS
DESIGN HIGH WATER ELEV. = 926.15
OUTLET STREAM SLOPE= 0.0283 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 74.5ft RCP

PROPOSED STRUCTURE

24in x 112.0ft RCP
24in x 10ft CMP Median

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 1.62° SKEW R.A.

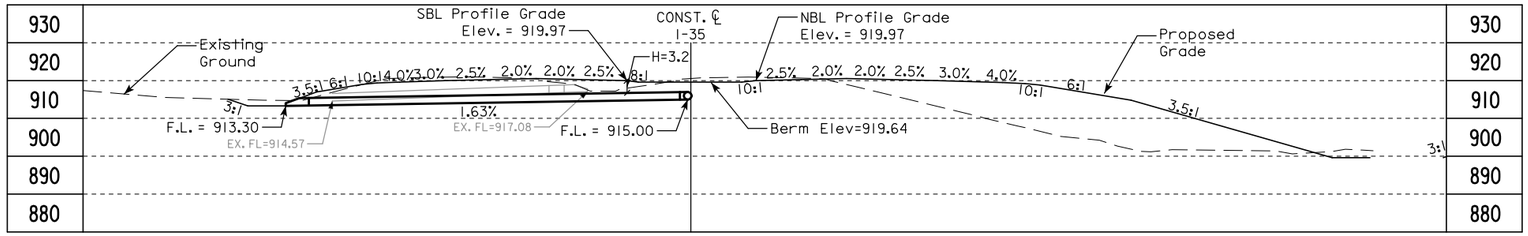
24in x 112.0ft REINFORCED CONCRETE PIPE PLAT PLAN

STATION: 281+51.99 Sept., 2014

POLK COUNTY

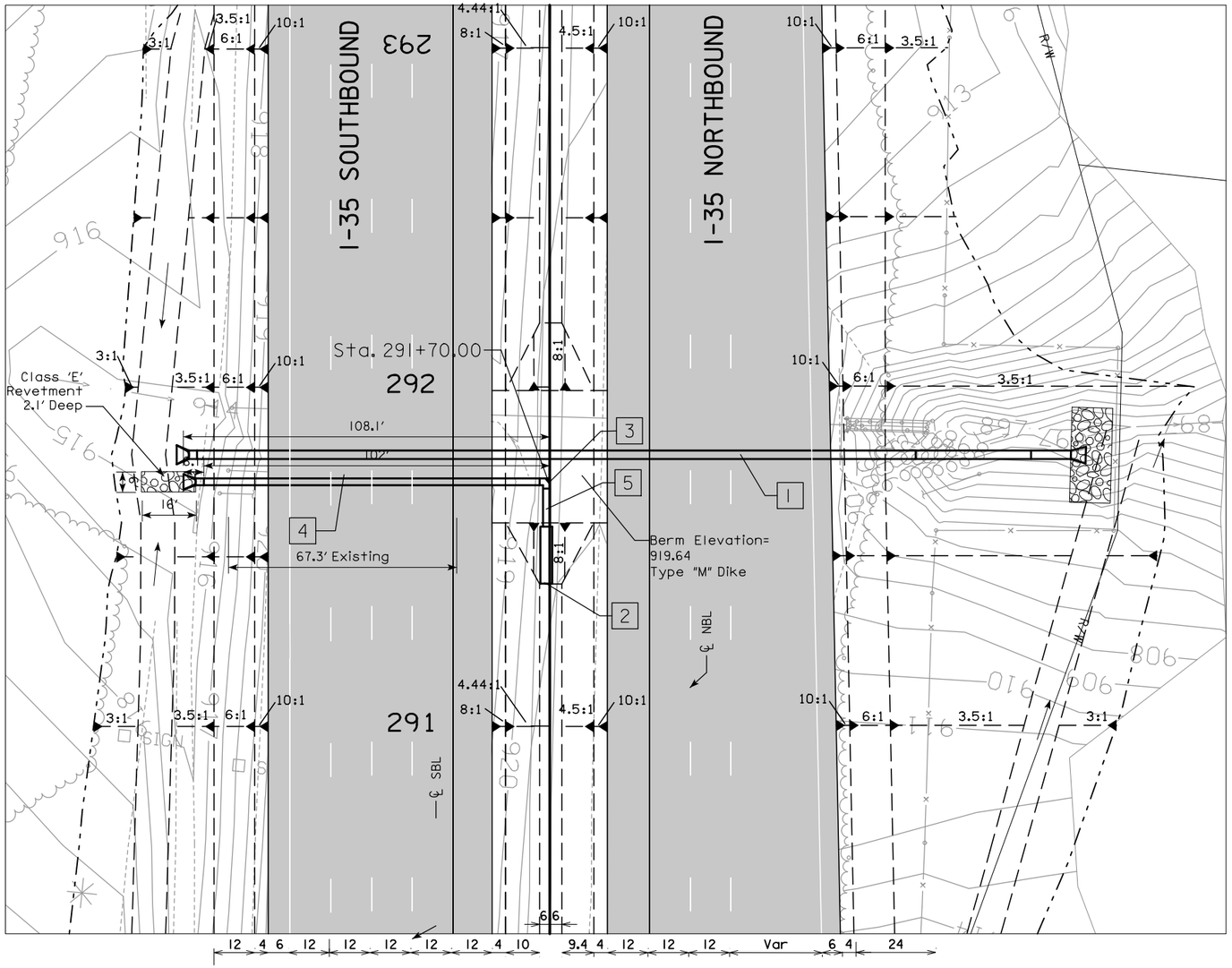
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. ____ DESIGN NO. ____



LONGITUDINAL SECTION ALONG ℄ PIPE

1. Refer to other V-Sheet for information.
2. Install with beveled guard (RF-27). Sta. 291+42.00, 1.00'Lt Inlet FL=917.43 Outlet FL=915.00 See U-Sheet detail 500-6.
3. 24in RCP 90° RCB Elbow. Connect CMP to RCP Elbow with RF-2 Type C-4 Connection
4. Remove existing culvert and apron.
5. Install 8ft of 24in CMP



PLAT PLAN

Bryan L. Butler & Linda A. Butler

Gene R. Aspengren & Barbara J. Apengren

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.90 AC.
DESIGN Q50 = 5.22 CFS
DESIGN HIGH WATER ELEV. = 918.93
OUTLET STREAM SLOPE= 0.0042 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 67.3ft RCP

PROPOSED STRUCTURE

24in x 102ft RCP
24in x 8ft CMP Median

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP AT 0° SKEW

24in x 102.0ft REINFORCED CONCRETE PIPE PLAT PLAN

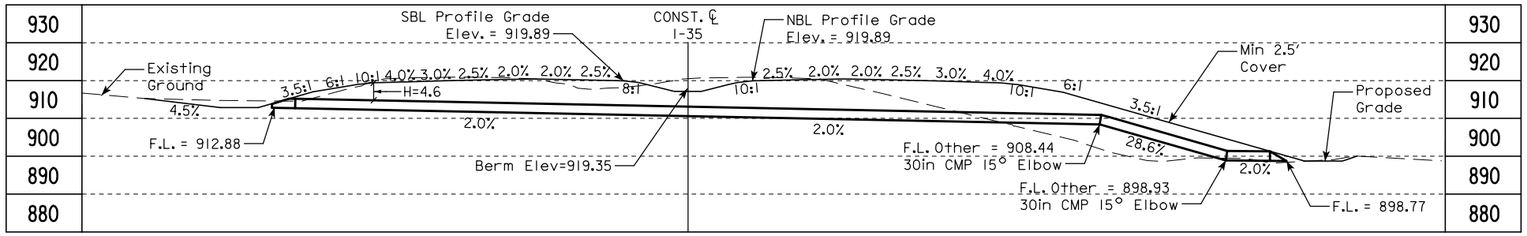
STATION: 291+70.00 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

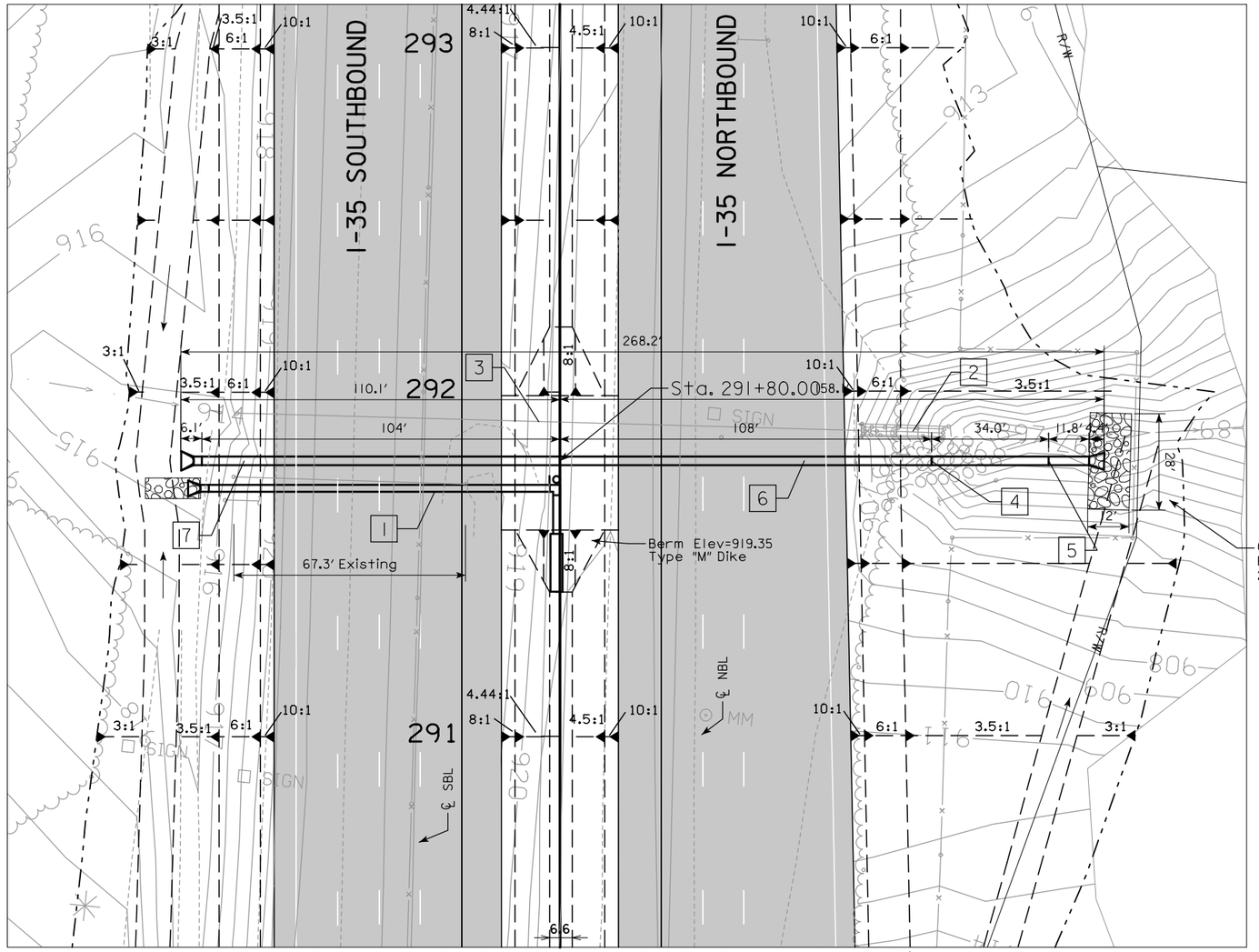
DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.225



LONGITUDINAL SECTION ALONG ℄ PIPE

1. Refer to other V-Sheet for information.
2. Remove Concrete Flume
3. Plug and Abandon Existing 30" Pipe
4. RF-2 Type "C-3" Adaptor 30in CMP, 15.0° elbow Sta. 291+80.00, 114.09' Rt.
5. 30in CMP, 15.0° elbow Sta. 291+80.00, 147+00' Rt.
6. Trenchless Construction Begin Sta. 291+80.00, 71.00' RT Elev=909.21
7. Trenchless Construction End Sta. 291+80.00, 91.00' Lt Elev=912.45



PLAT PLAN

Bryan L. Butler &
Linda A. Butler

Gene R. Aspengren &
Barbara J. Apengren

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 15.44 AC.
DESIGN Q50 = 41.08 CFS
DESIGN HIGH WATER ELEV. = 916.63
OUTLET STREAM SLOPE = 0.0050 FT/FT
CULVERT WATERWAY AREA = 4.91SF

EXISTING STRUCTURE

30in x 181.6ft RCP and 24ft Flume

PROPOSED STRUCTURE

30in x 162ft RCP Trenchless Construction
30in x 50ft RCP Trenched Construction
30in x 46ft CMP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP EXTENSION AT 0° SKEW

30in x 212ft REINFORCED CONCRETE PIPE 30in x 46ft CMP PLAT PLAN

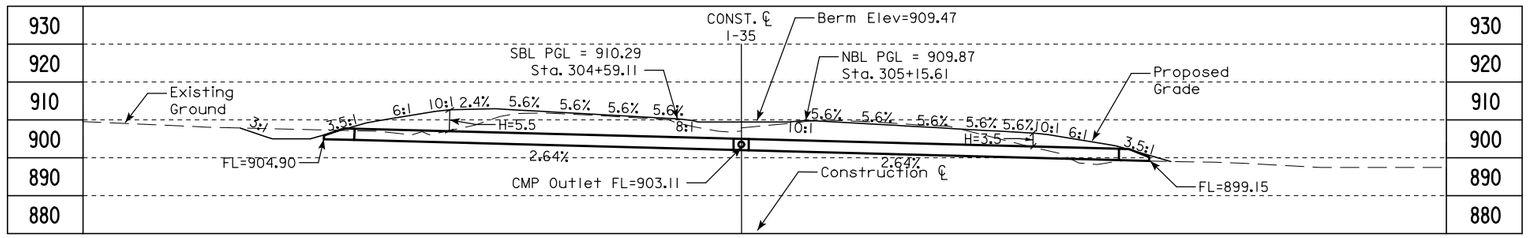
STATION: 291+80.00 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.226



LONGITUDINAL SECTION ALONG ℄ PIPE

1 Remove existing beveled pipe and guard, and 18in x 39ft CMP.

2 Install with beveled pipe and guard (RF-27).
Sta. 304+59.00, 0.00'Rt
Inlet FL=907.51
Outlet FL=903.11
See U-Sheet Detail 500-6.

3 Plug and Abandon Existing 36in Pipe

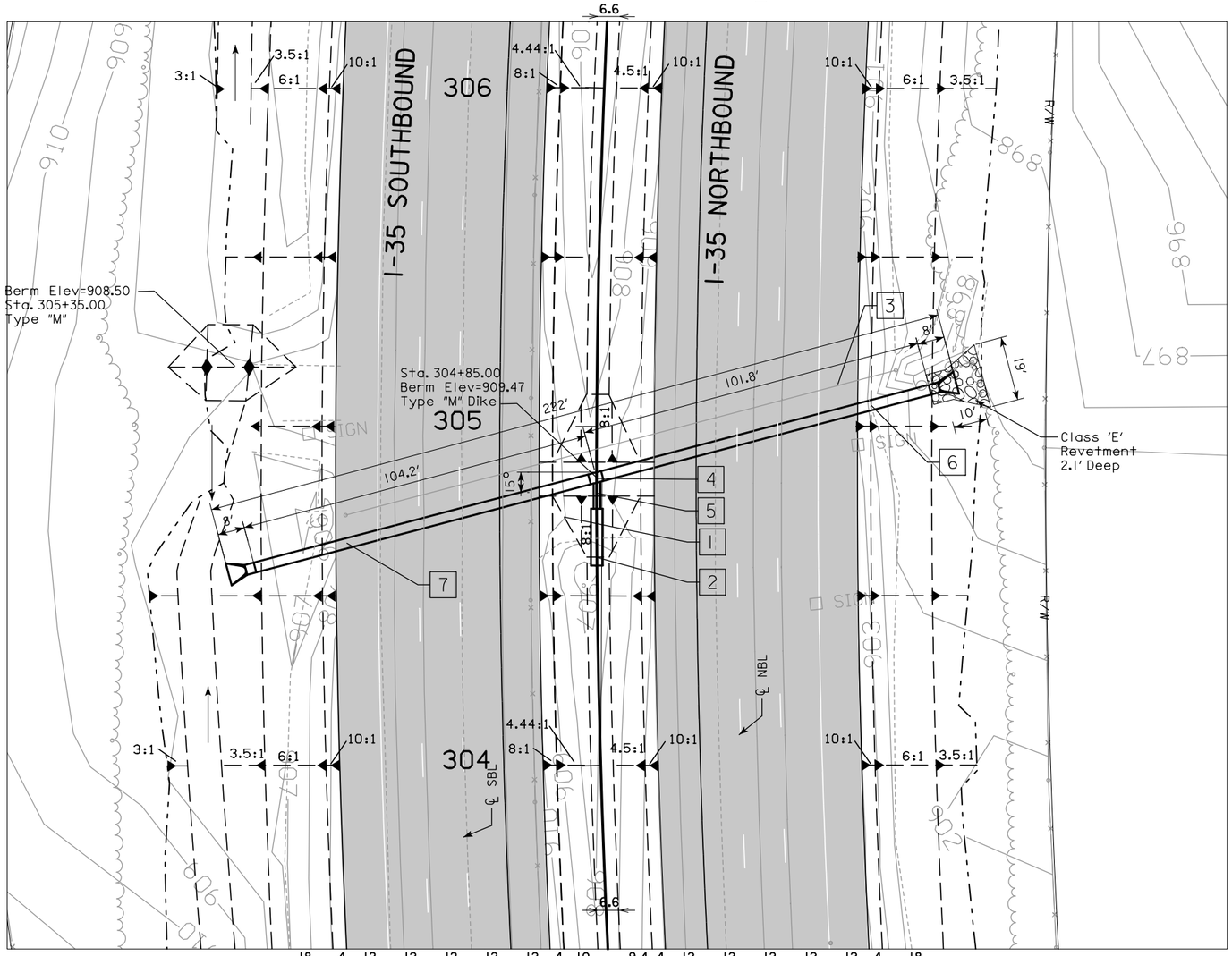
4 4ft concrete pipe angle tee section RF-21 (18-36 inch 75° angled tee).

5 Install 24in x 8.0 ft CMP. Tie CMP to RF-21 angled tee.

6 Trenchless Construction
Begin Sta. 305+06.93, 81.00'Rt
Elev=899.85

7 Trenchless Construction
End Sta. 304+66.12, 73.74' Lt
Elev=903.95

Richard H Meridith &
Marth J Meridith Trust
Richard H Meridith Trustee



PLAT PLAN

0 ENGLISH 40
SCALE IN FEET

Pamela J. Eichenberger

LOCATION

T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 9.03 AC.
DESIGN Q50 = 26.80 CFS
DESIGN HIGH WATER ELEV. = 907.39
OUTLET STREAM SLOPE= 0.0050 FT/FT
CULVERT WATERWAY AREA= 7.07 SF

EXISTING STRUCTURE

36in x 167.9ft RCP with 18" x 39ft CMP
TEED IN AT MEDIAN

PROPOSED STRUCTURE

36in x 156ft RCP Trenchless
36in x 50ft RCP Trenched
24in x 8.0ft CMP Median
4ft 18-36in 75° Angle Tee (RF-21)

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP EXTENSION AT 15° SKEW R.A.

36in x 206.0ft
REINFORCED CONCRETE PIPE
PLAT PLAN

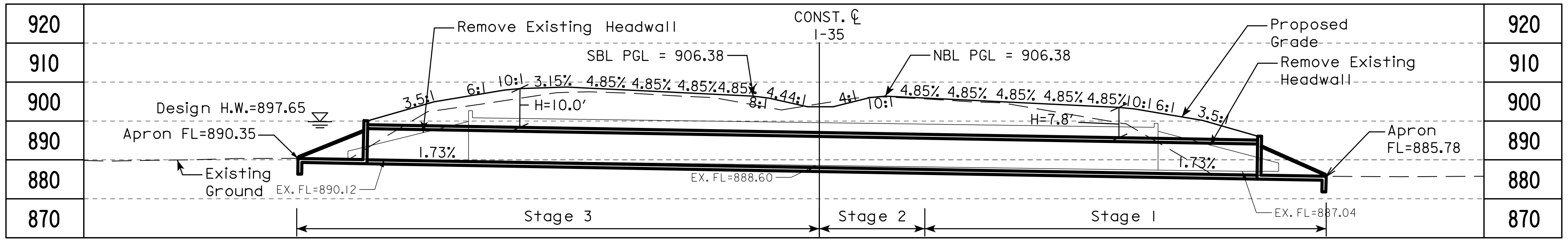
STATION: 304+85.00 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

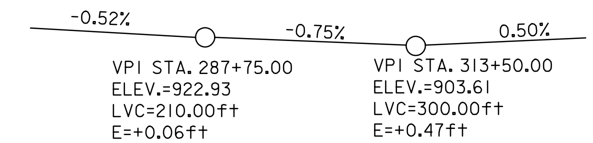
DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.227



LONGITUDINAL SECTION ALONG ℄ CULVERT

BM No.11 Sta. 309+88.71, 91.00'LT.
Cut 'X' in top of north corner of inlet
headwall of RCB under I-35.
Mile Marker 93.35. Elev=902.48

PROPOSED GRADE I-35 SBL AND NBL

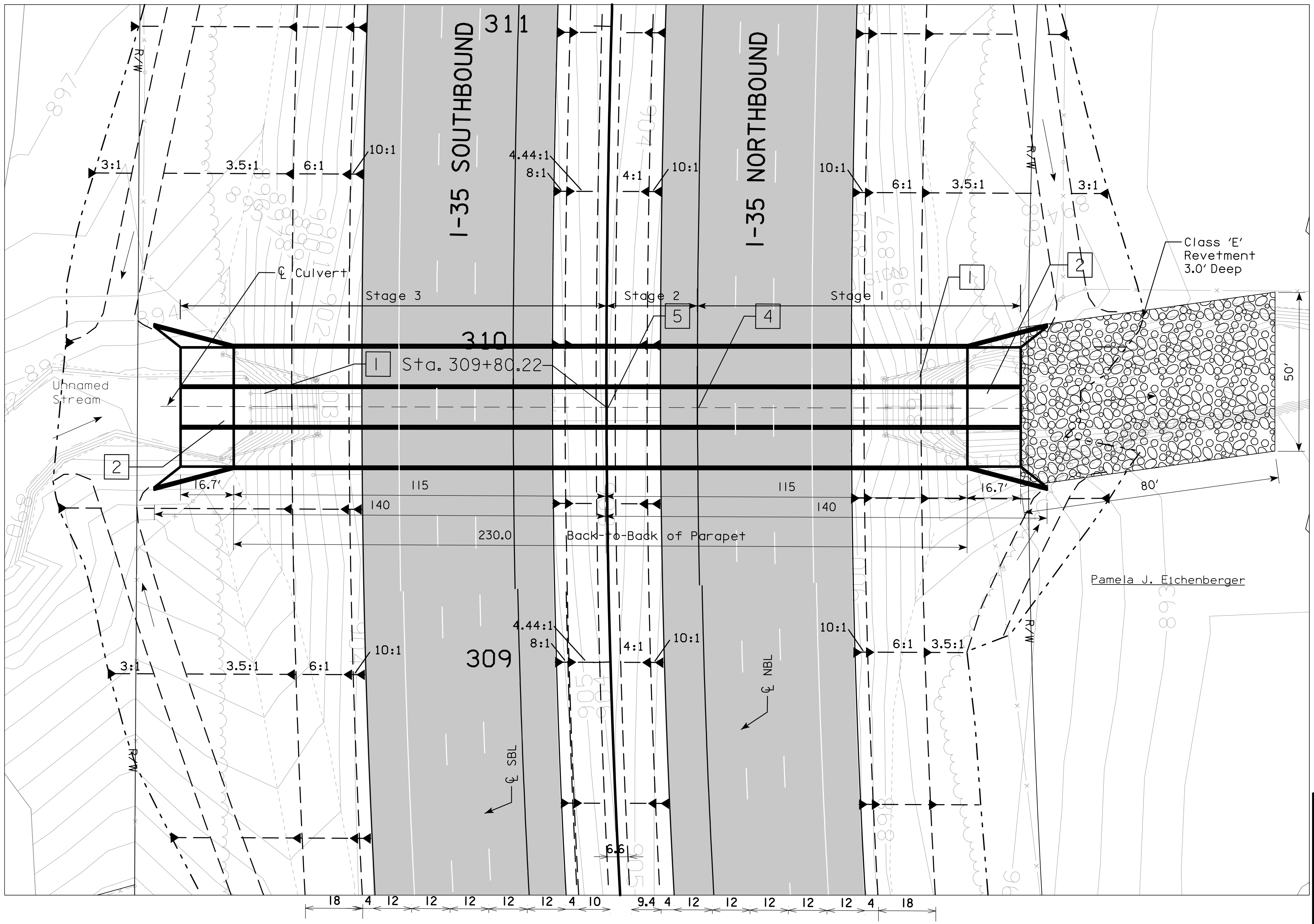


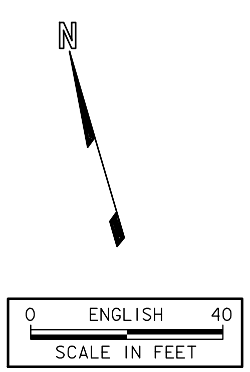
HORIZONTAL CURVE DATE

SCS PI Sta 305+14.32
Δ = 24° 53' 19.19" (RT)
Theta = 4° 08' 56.42"
Ls = 420.00
Ts = 850.48
Es = 72.37
P = 2.53
K = 209.96
Xc = 419.78
Yc = 10.13
LT = 280.08
ST = 140.07
LC = 419.90

Curve Data
Δ = 16° 35' 26.35" (RT)
T = 422.82
L = 839.73
R = 2,900.00
E = 30.66
e = 5.6%
L = 420.0'
X = 188.0'

1. Remove existing wingwalls and headwalls
2. Triple 12' x 8' 0° Skewed wingwalls
3. Drainage through existing culvert/channel shall be maintained throughout construction.
4. Sta. 309+80.22, 28.50'RT
   Elev=888.00
   Staged Construction
5. Sta. 309+80.22, 0.00'RT
   Elev=888.60
   Staged Construction





SITUATION PLAN

LOCATION

I-35 OVER UNNAMED STREAM
T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY
404 PERMIT #XXXX-XXX

TRAFFIC ESTIMATE

A.D.T.=53,600 V.P.D. (2008)
A.D.T.=100,300 V.P.D. (2035)
16% Trucks

HYDRAULIC DATA

DRAINAGE AREA = 2.2 SQ MI.
DESIGN Q50 = 1820 CFS
DESIGN Q100 = 2100 CFS
DESIGN HIGH WATER ELEV. = 897.65
OUTLET STREAM SLOPE= 0.0040 FT/FT
CULVERT WATERWAY AREA= 216.0 SF

EXISTING STRUCTURE

Twin 8.0ft x 10.0ft x 177.2ft RCB

PROPOSED STRUCTURE

TRIPLE 12.0ft x 8.0ft x 230ft RCB

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

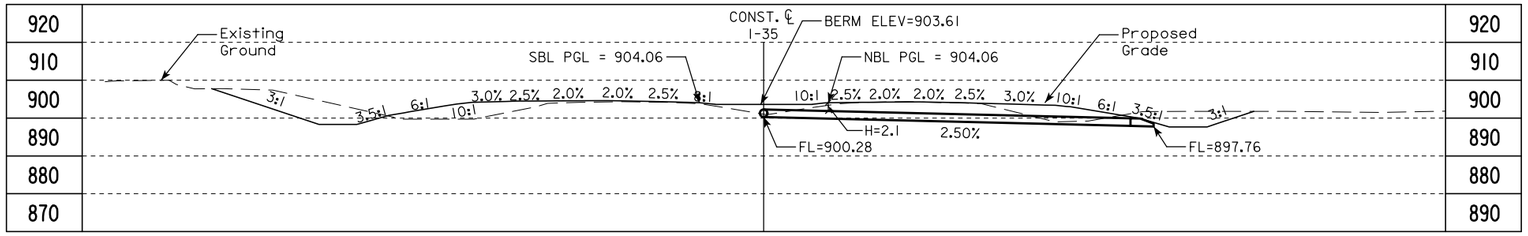
DESIGN FOR RCB EXTENSION AT 0° SKEW

TRIPLE 12.0ft x 8.0ft x 230ft REINFORCED CONCRETE BOX SITUATION PLAN

STATION: 309+80.22 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 1 OF 1 FILE NO. ________ DESIGN NO. ________



LONGITUDINAL SECTION ALONG ℄ PIPE

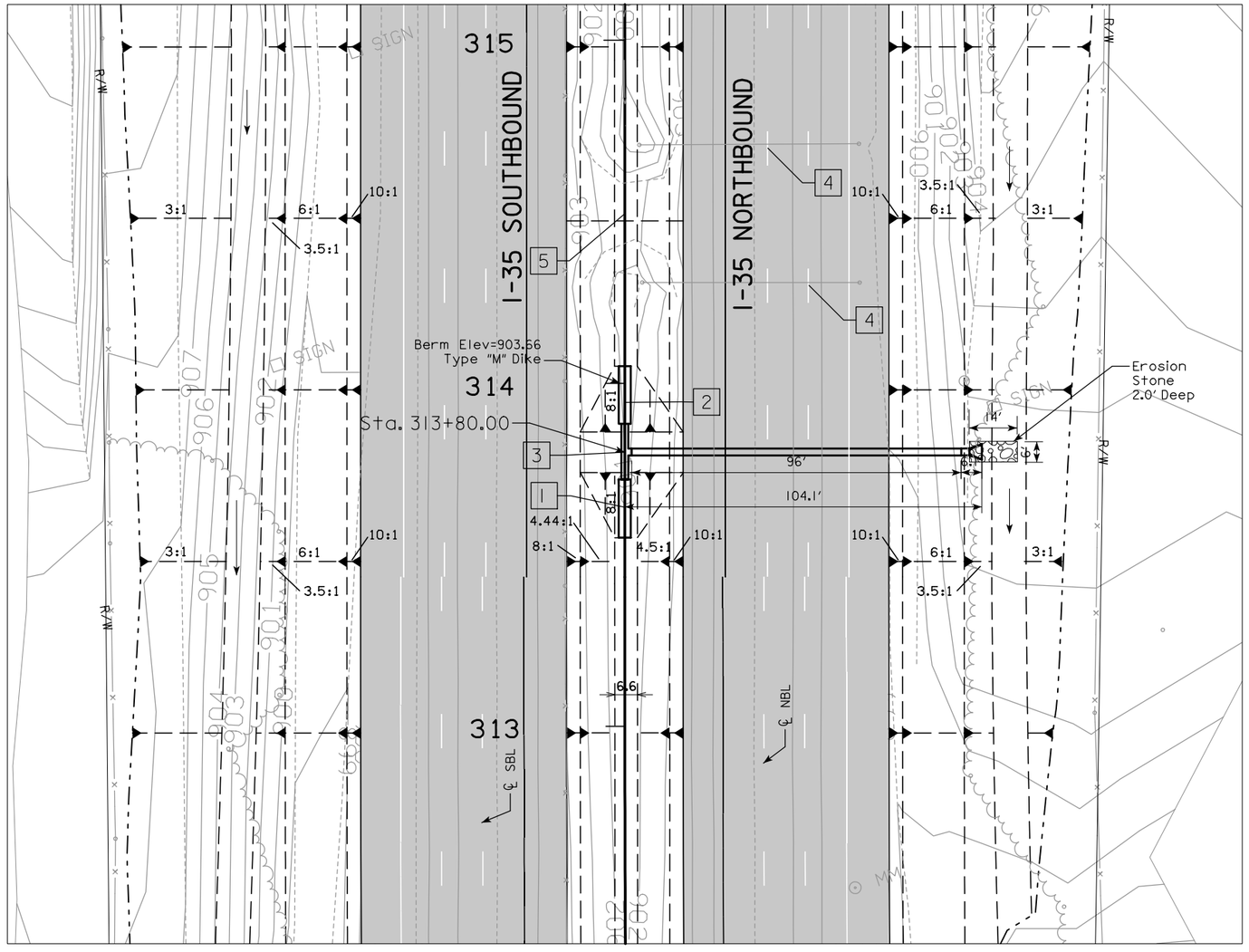
1 Beveled pipe and guard (RF-27).
Sta. 313+55.00, 0.00'Rt.
Inlet FL=901.31
Outlet FL=900.28
See U-Sheet Detail 500-6.

2 Beveled pipe and guard (RF-27).
Sta. 314+05.00, 0.00'Rt.
Inlet FL=901.31
Outlet FL=900.28
See U-Sheet Detail 500-6.

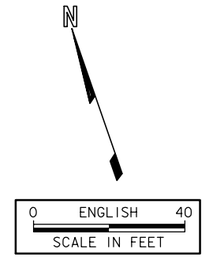
3 Proposed 24in RCP Tee. Connect CMP to RCP Tee with RF-2 Type C-4 Connection (2)

4 Remove Existing Culverts

5 Remove Berm



PLAT PLAN



LOCATION

T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 2.4 AC.
DESIGN Q50 = 6.89 CFS
DESIGN HIGH WATER ELEV. = 902.85
OUTLET STREAM SLOPE= 0.0040 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 63.4ft RCP

PROPOSED STRUCTURE

24in x 10ft CMP (Median)
24in x 98ft RCP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP EXTENSION AT 0° SKEW

24in x 98.0ft REINFORCED CONCRETE PIPE PLAT PLAN

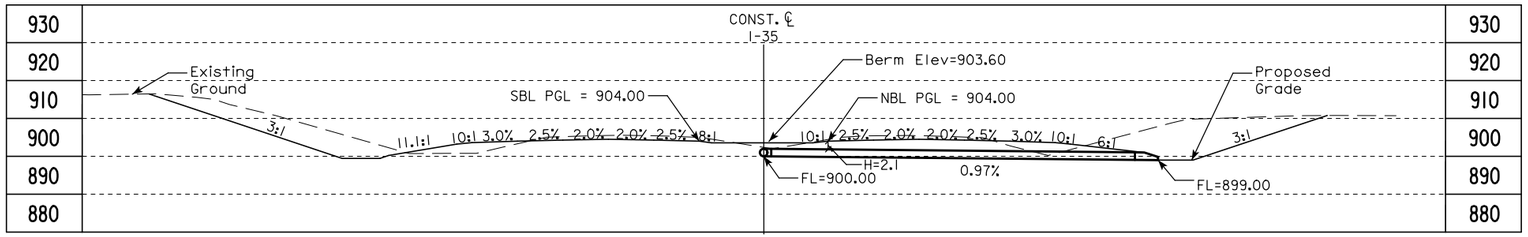
STATION: 313+80.00 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.229



LONGITUDINAL SECTION ALONG ℄ PIPE

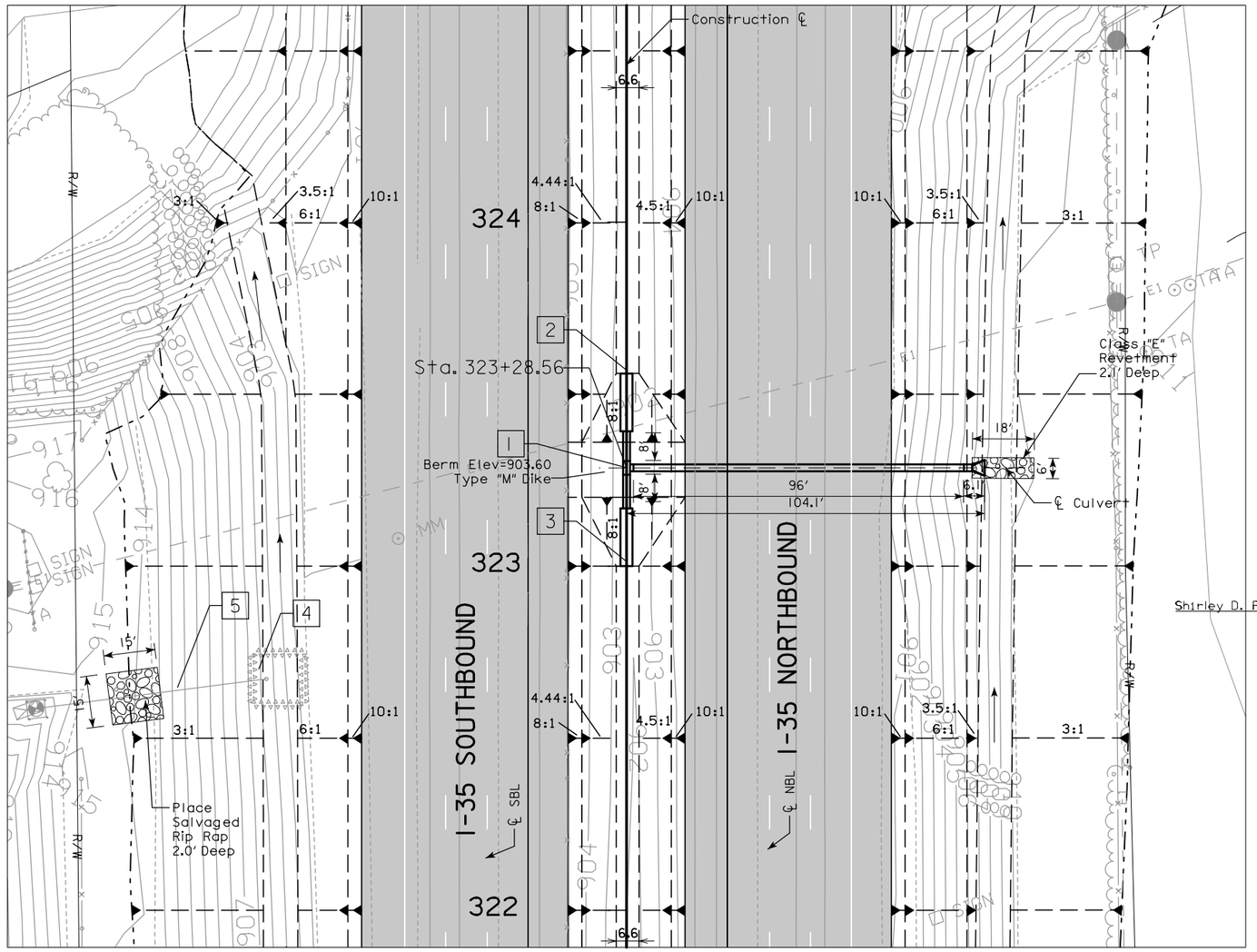
1 Install 24in Tee. Connect CMP to RCP Tee with RF-2 Type C-4 Connection

2 Beveled Pipe and Guard (RF-27). Sta. 323+56.00, 0.00' RT
Inlet FL=901.26
Outlet FL=900.00
See U-Sheet Detail 500-6.

3 Beveled Pipe and Guard (RF-27). Sta. 323+00.00, 0.00' RT
Inlet FL=901.26
Outlet FL=900.00
See U-Sheet Detail 500-6.

4 Remove and Salvage rip rap

5 Remove 31 LF of 12in RCP to proposed backslope. Reinstall rip rap at new outlet of pipe.



PLAT PLAN

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 18
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 2.15 AC.
DESIGN Q50 = 6.32 CFS
DESIGN HIGH WATER ELEV. = 902.39
OUTLET STREAM SLOPE= 0.0040 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

PROPOSED STRUCTURE

24in x 98ft RCP
24in x 16ft CMP (Median)

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP AT 0° SKEW

24in x 98.0ft REINFORCED CONCRETE PIPE PLAT PLAN

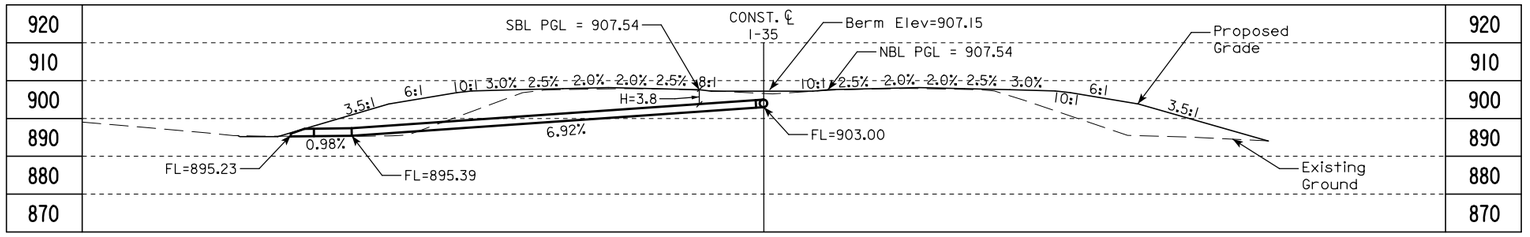
STATION: 323+28.56 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.230



LONGITUDINAL SECTION ALONG ℄ PIPE

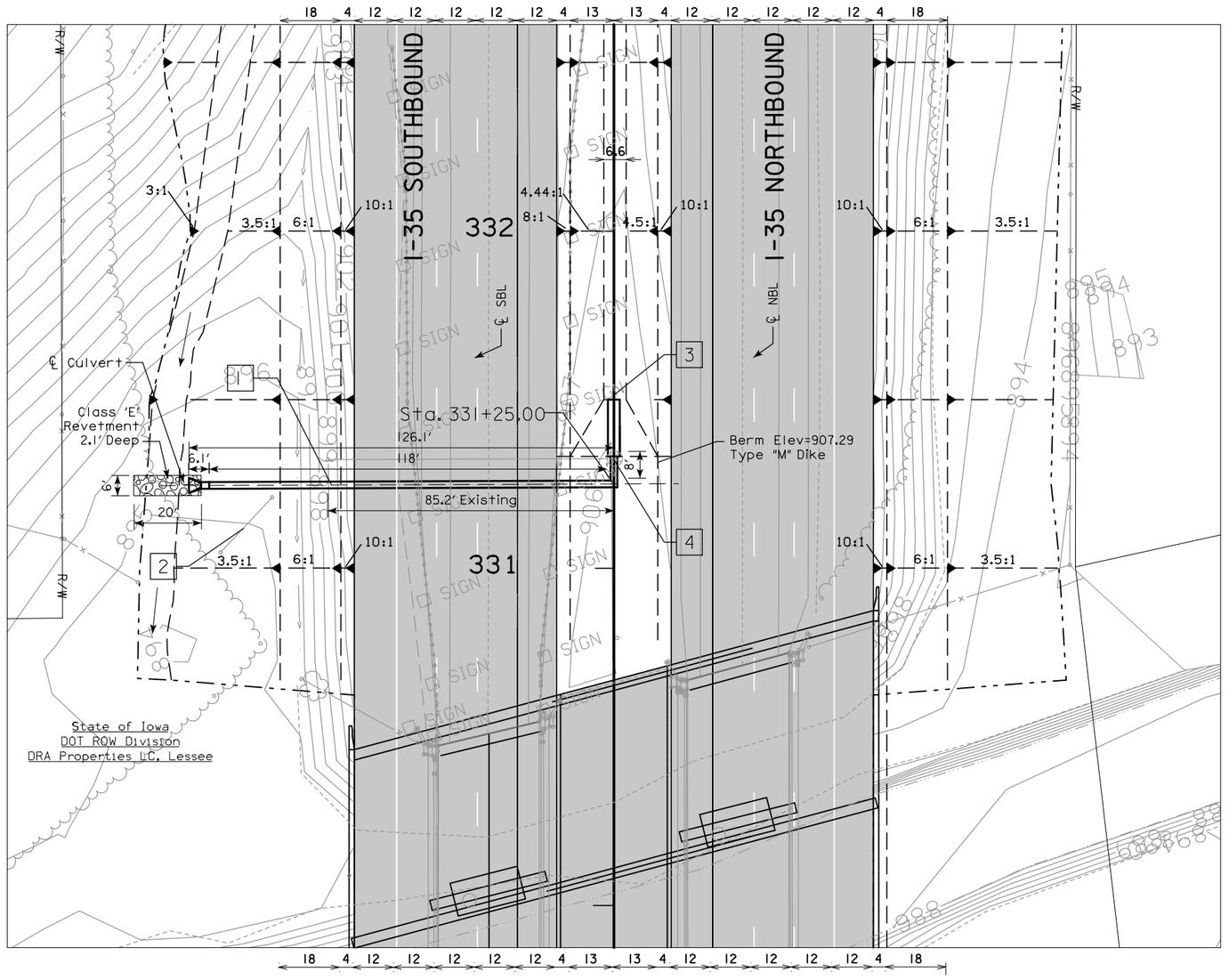
1 Remove existing culvert

2 Remove existing 12in x 22 LF DIP

3 Beveled Pipe and Guard (RF-27).
Sta. 331+50.00, 0.00'RT
Inlet FL=904.98
Outlet FL=903.00
See U-Sheet Detail 500-6

4 Remove existing Intake

5 Prior to Stage 1, install 412 LF of 24" RCP from Sta. 335+44.00, 1.00' Rt (FL = 913.00) to Sta. 331+32.47, 1.00' Rt (FL = 903.06) in order to drain median during use of median crossover in Stage 1. Install temporary beveled pipe and guard (RF-27) at Sta. 335+44.00,1.00' RT. Remove 404 LF of 24" RCP pipe and temporary RF-27 pipe and install permanent beveled pipe and guard (RF-27) during Stage 3.



PLAT PLAN

M. June Campbell

Scott G. Campbell & Suzanne Campbell

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 7
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 2.21 AC.
DESIGN Q50 = 5.23 CFS
DESIGN HIGH WATER ELEV. = 906.48
OUTLET STREAM SLOPE= 0.0280 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 85.2ft RCP

PROPOSED STRUCTURE

24in x 120ft RCP
24in x 5.0 CMP Median

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP AT 0° SKEW

24in x 120.0ft REINFORCED CONCRETE PIPE PLAT PLAN

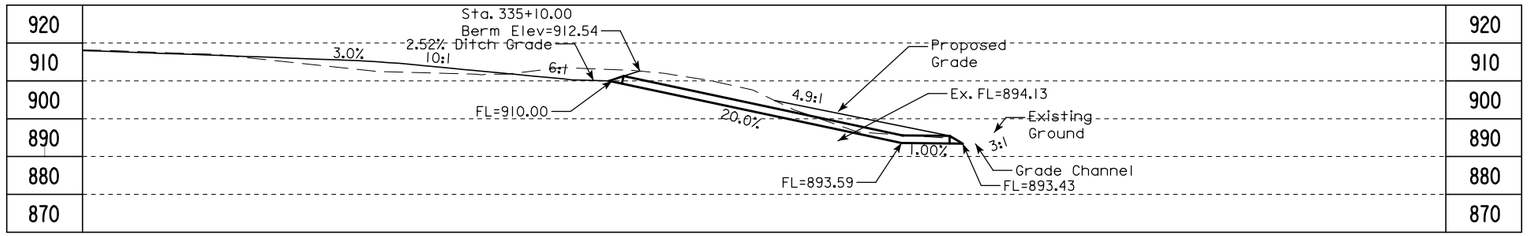
STATION: 331+25.00 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.231



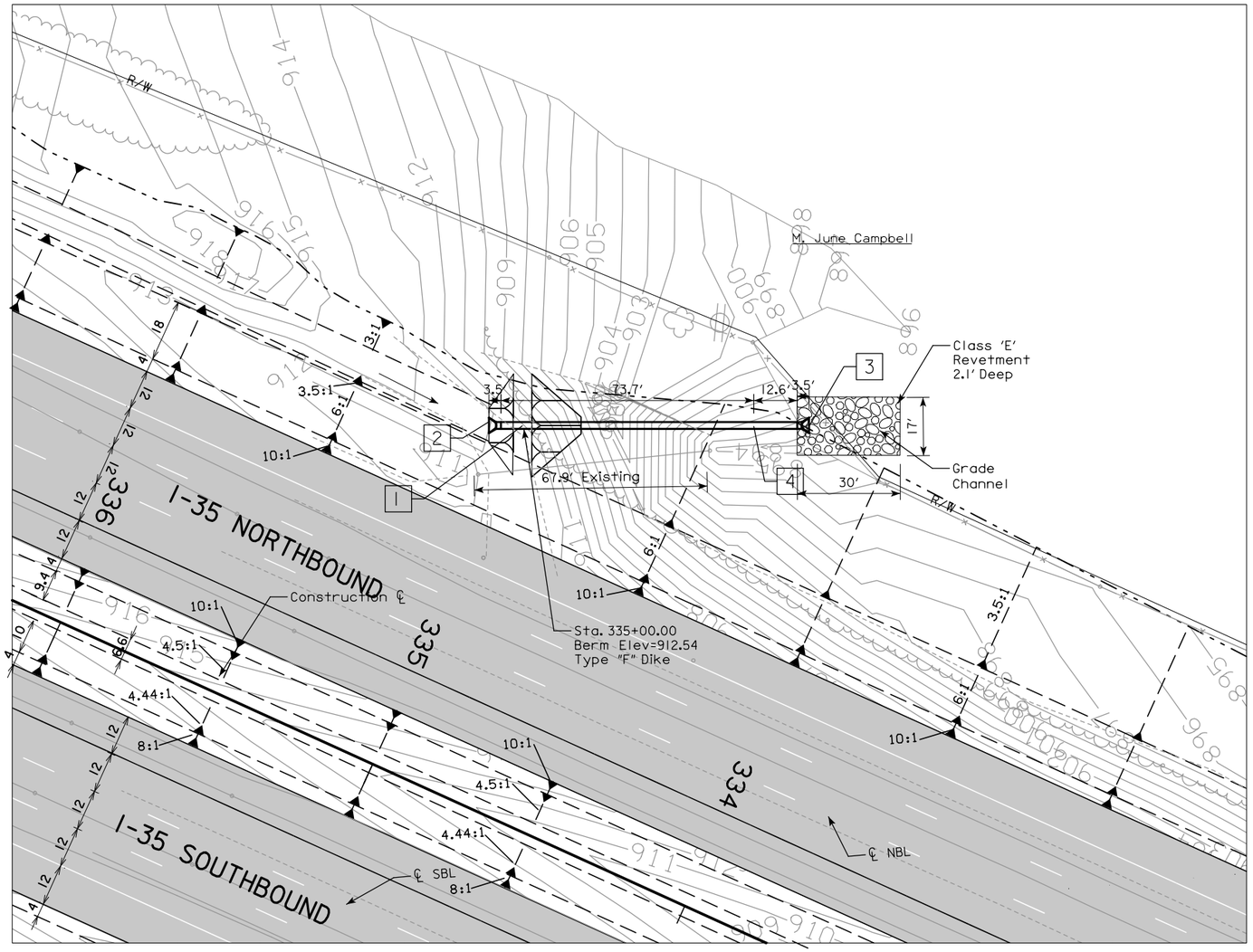
LONGITUDINAL SECTION ALONG ℄ PIPE

1 Remove apron and 67.9 LF of CMP

2 Install 23.9 LF of 24in CMP and apron.
Sta. 335+10.00, 104'RT.
Inlet FL=910.00

3 Install RF-5.
Sta. 334+25.00, 142.65'RT.
Outlet FL=893.43

4 Install 19° CMP Elbow
Sta. 334+39.65, 135+87' RT
Elev=893.59



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 7
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 7.84 AC.
DESIGN Q50 = 16.19 CFS
DESIGN HIGH WATER ELEV. = 912.27
OUTLET STREAM SLOPE= 0.0197 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in x 67.9ft RCP

PROPOSED STRUCTURE

24in x 88.0ft CMP Lt

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR CMP EXTENSION 30° SKEW LT. Ahd.

24in x 86.3ft CMP
PLAT PLAN

STATION: 335+10.00 SEPT., 2014

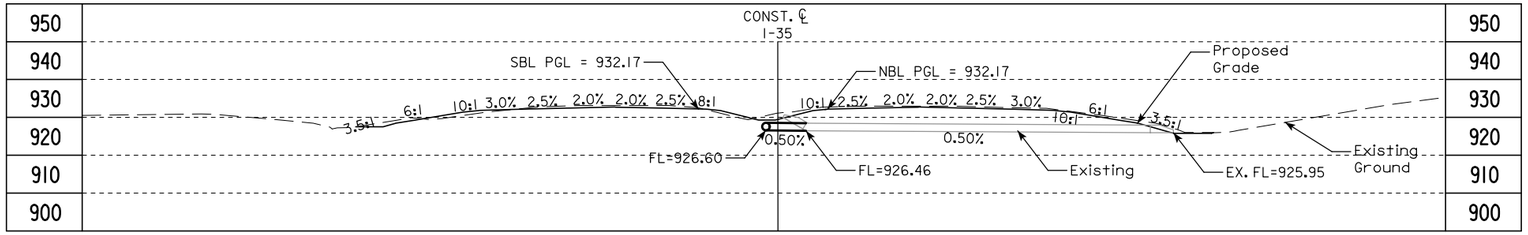
POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.232

2:33:35 PM V8i_IDOTRoad J:\2009_projects\109.0051\BrPrelim\k77035140_V01.str

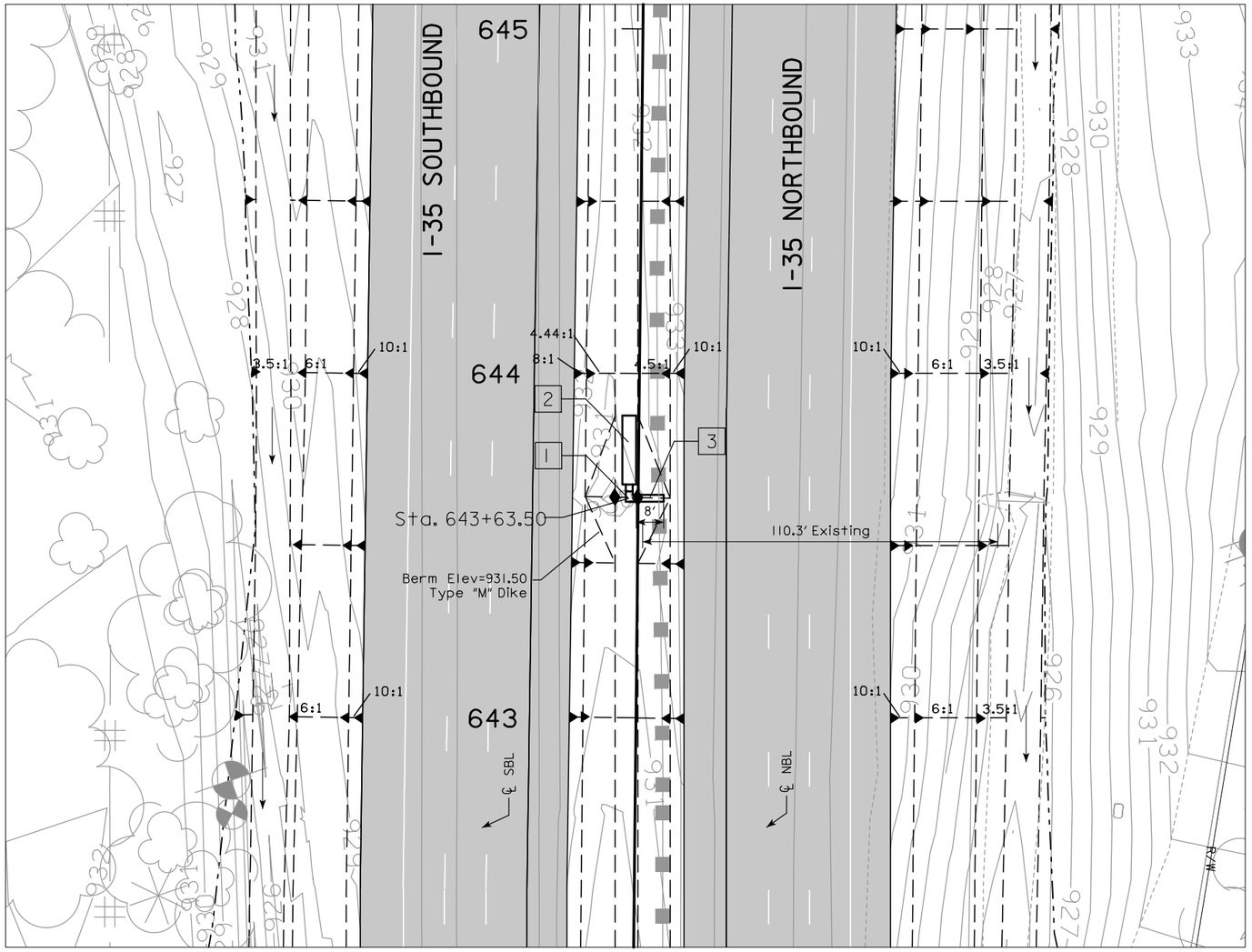


LONGITUDINAL SECTION ALONG ℄ PIPE

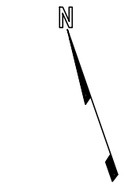
1 Install 24in 90° RCP Elbow.
Connect CMP to RCB Elbow
with RF-2, TYpe C-4 Connection

2 Remove Existing Apron and
Elbow Prior to Extending

3 Install Beveled Pipe and Guard
(RF-27). Sta. 643+85.50, 1.15' RT
Inlet FL=929.69
Outlet FL=926.60
See U-Sheet Detail 500-6



PLAT PLAN



0 ENGLISH 40
SCALE IN FEET

LOCATION

I-35 AND NE 36TH STREET
SECTION 7
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.9 AC.
DESIGN Q50 = 7.0 CFS
DESIGN HIGH WATER ELEV. = 931.27
OUTLET STREAM SLOPE = 0.0106 FT/FT
CULVERT WATERWAY AREA = 3.14 SF

EXISTING STRUCTURE

24in x 110.25ft RCP

PROPOSED STRUCTURE

24in x 8.0ft RCP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP EXTENSION AT 0° SKEW

24in x 8.0ft
REINFORCED CONCRETE PIPE
PLAT PLAN

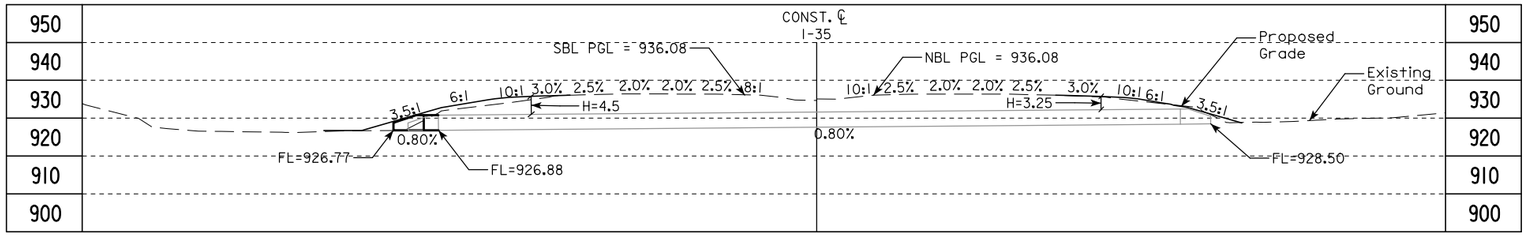
STATION: 643+63.50 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.233



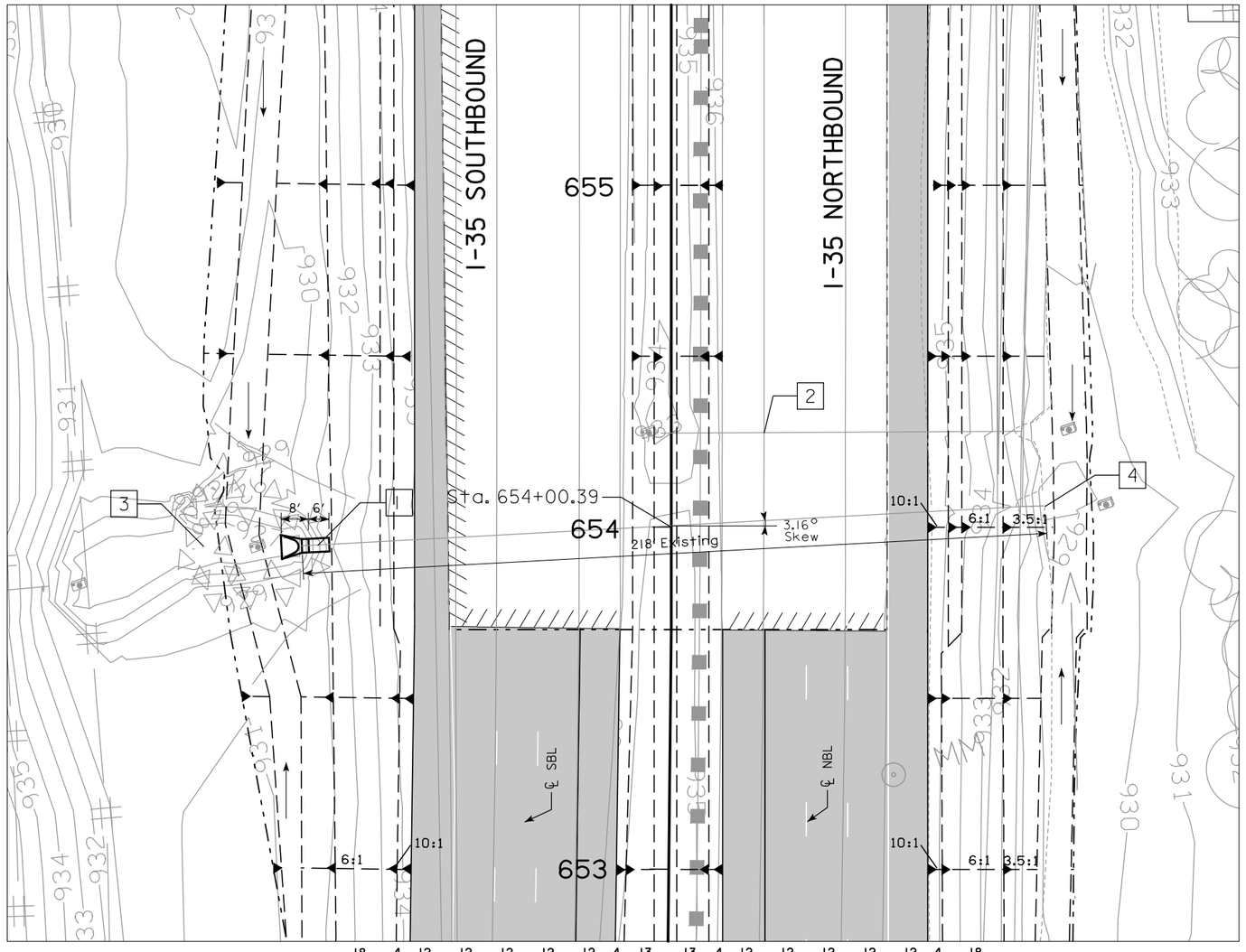
LONGITUDINAL SECTION ALONG ℄ PIPE

1 Remove Existing Apron Prior to Extending

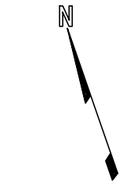
2 Use As Constructed

3 Remove, Salvage, and Reuse Rip Rap

4 Protect Existing Apron



PLAT PLAN



0 ENGLISH 40
SCALE IN FEET

LOCATION

I-35 AND NE 36TH STREET
SECTION 7
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 15.1 AC.
DESIGN Q50 = 35 CFS
DESIGN HIGH WATER ELEV. = 931.07
OUTLET STREAM SLOPE = 0.0050 FT/FT
CULVERT WATERWAY AREA = 12.57 SF

EXISTING STRUCTURE

48in x 218.0ft RCP

PROPOSED STRUCTURE

48in x 6.0ft RCP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR RCP EXTENSION AT 3.16° SKEW R.A.

48in x 6.0ft REINFORCED CONCRETE PIPE PLAT PLAN

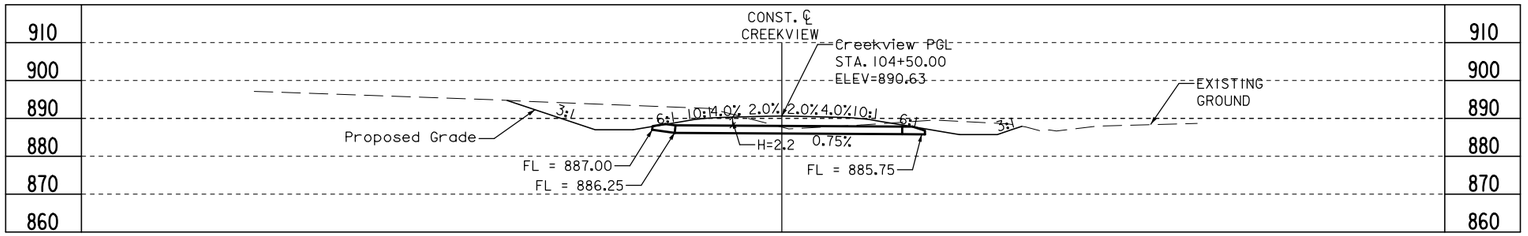
STATION: 654+00.39 Sept., 2014

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.234

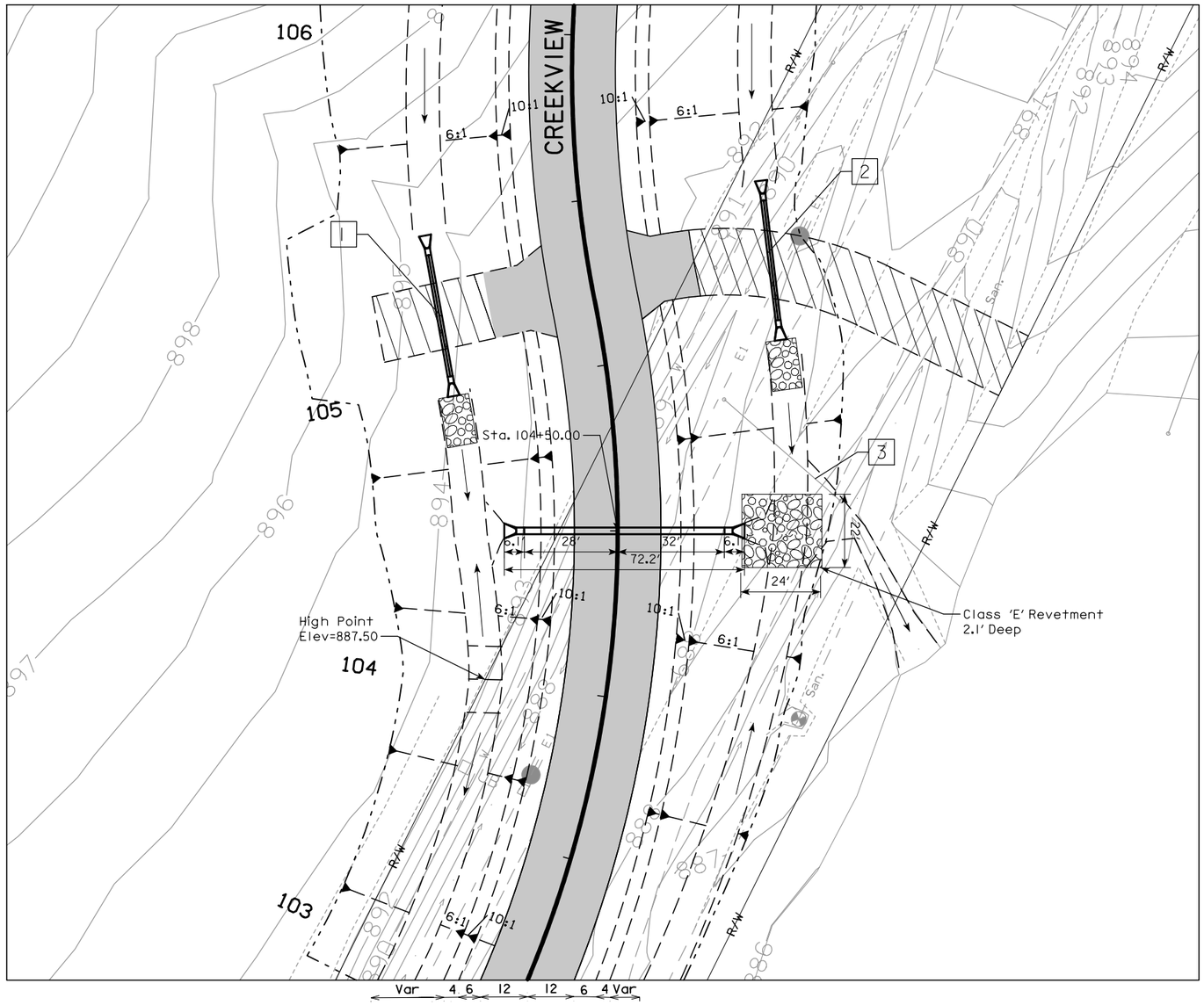


LONGITUDINAL SECTION ALONG ℄ PIPE

1 Proposed Field Entrance Culvert. 24in x 38ft plus Aprons.
F.L. in = 888.50
Sta. 105+45.00, 47.00 LT
F.L. out = 888.00
Sta. 104+97.00, 46.50 LT

2 Proposed Field Entrance Culvert. 18in x 36ft plus Aprons.
F.L. in = 886.75
Sta. 105+50.00, 55.00 RT
F.L. out = 886.25
Sta. 105+00.00, 53.00' RT

3 Remove Existing Pipe and Aprons



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

LOCATION

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 4.64 AC.
DESIGN Q50 = 11.64 CFS
DESIGN HIGH WATER ELEV. = 888.85
OUTLET STREAM SLOPE= 0.010 FT/FT
CULVERT WATERWAY AREA= 3.14 SF

EXISTING STRUCTURE

24in X 46ft RCP

PROPOSED STRUCTURE

24in X 60.0ft RCP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 0° SKEW

24in X 60.0ft REINFORCED CONCRETE PIPE PLAT PLAN

STATION: 104+50.00 Sept., 2014

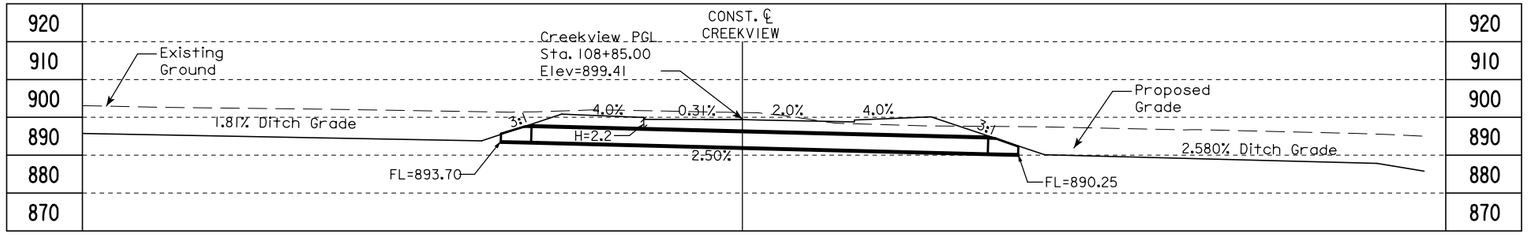
POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.235

2:33:40 PM V8i_IDOTRoad J:\2009_projects\109.0051\BrPrelim\k77035140_V01.str



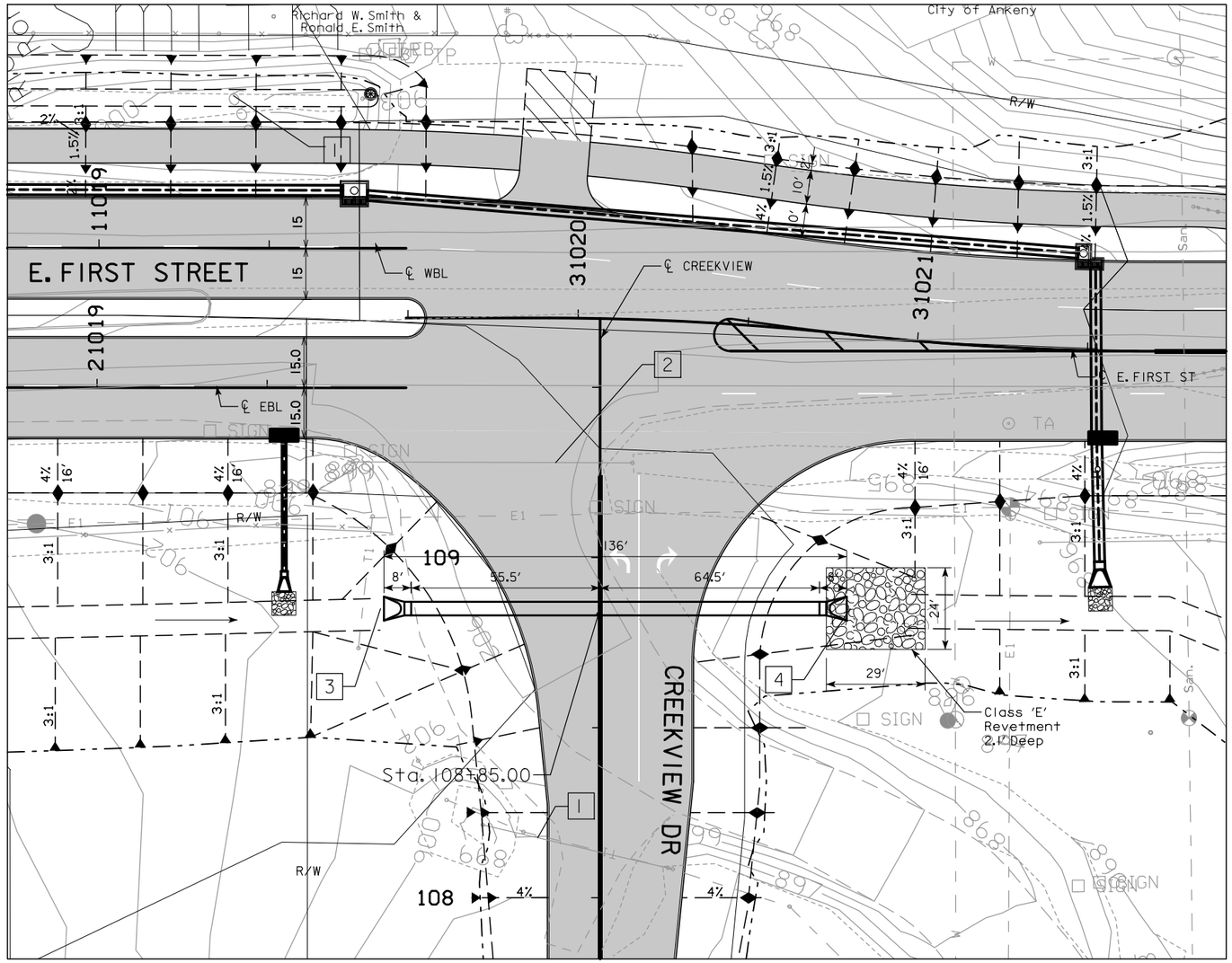
LONGITUDINAL SECTION ALONG ℄ PIPE

1 Remove existing CMP and aprons.

2 Remove existing RCP and aprons.

3 Sta. 108+85.00, 63.50' LT
Install Apron FL=893.70

4 Sta. 108+85.00, 72.50' RT
Install Apron FL=890.25



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 25.44 AC.
DESIGN Q50 = 85.87 CFS
DESIGN HIGH WATER ELEV. = 898.11
OUTLET STREAM SLOPE= 0.0258 FT/FT
CULVERT WATERWAY AREA= 12.56 SF

EXISTING STRUCTURE

30in x 82.1ft RCP

PROPOSED STRUCTURE

48in x 120ft RCP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 0.0° SKEW R.A.

48in x 120ft REINFORCED CONCRETE PIPE PLAT PLAN

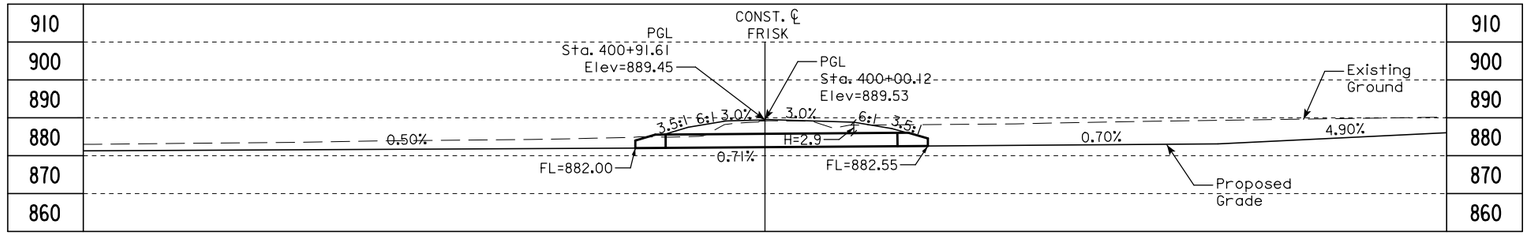
STATION: 108+85.00 Sept., 2014

POLK COUNTY

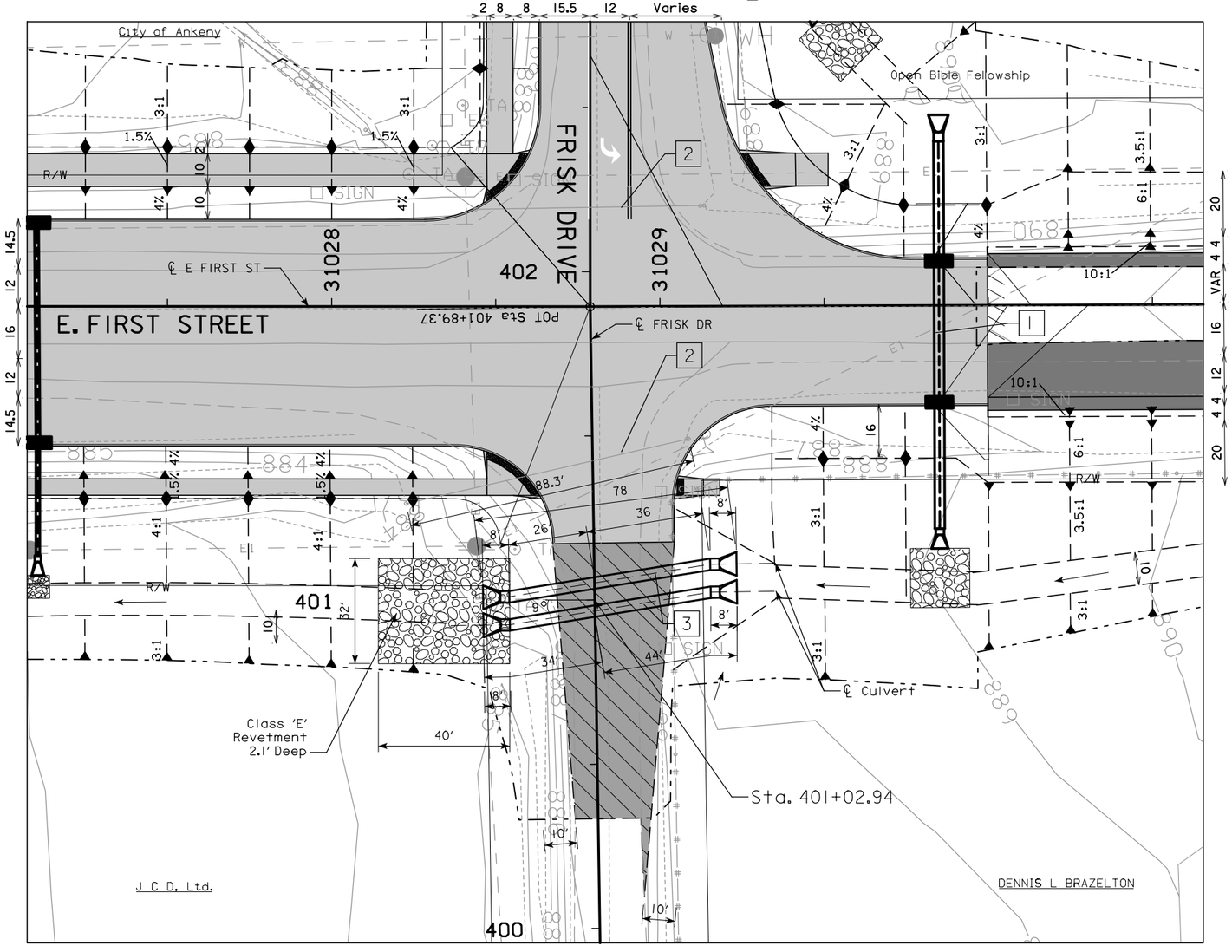
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.236



LONGITUDINAL SECTION ALONG ℄ PIPE



1 Refer to other M-Sheets for details.

2 Remove CMP and aprons.

3 Construct one half at a time in order to maintain traffic.

N

0 ENGLISH 40
SCALE IN FEET

T-80 N R-23 W
SECTION 19
DOUGLAS TOWNSHIP
POLK COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 135.67 AC.
DESIGN Q50 = 152.99 CFS
DESIGN HIGH WATER ELEV. = 886.98
OUTLET STREAM SLOPE= 0.0050 FT/FT
CULVERT WATERWAY AREA= 19.24 SF

EXISTING STRUCTURE

24in x 88.3ft CMP

PROPOSED STRUCTURE

Twin 42in x 42ft RCP

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 9° SKEW (R.A)

TWIN 42in x 62.0ft REINFORCED CONCRETE PIPE PLAT PLAN

STATION: 401+02.94 Sept., 2014

POLK COUNTY

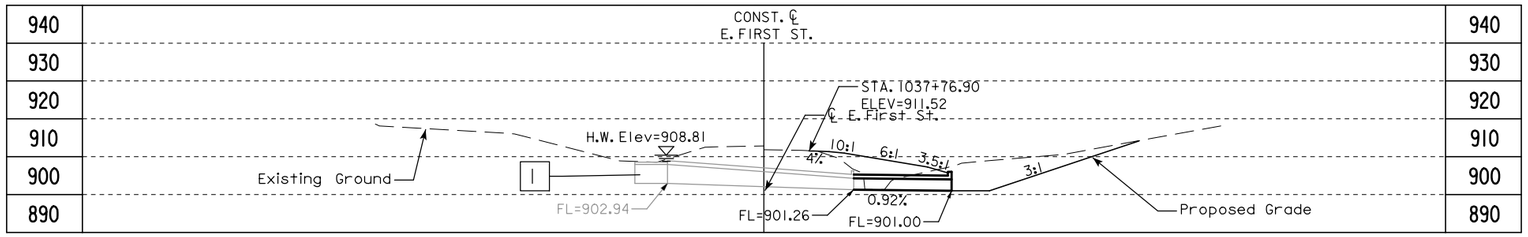
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. _1_ OF _1_ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.237

2:33:44 PM V8i_IDOTRoad J:\2009_projects\109.0051\BrPrelim\k77035140_V01.str

PLAT PLAN



LONGITUDINAL SECTION ALONG ℄ CULVERT

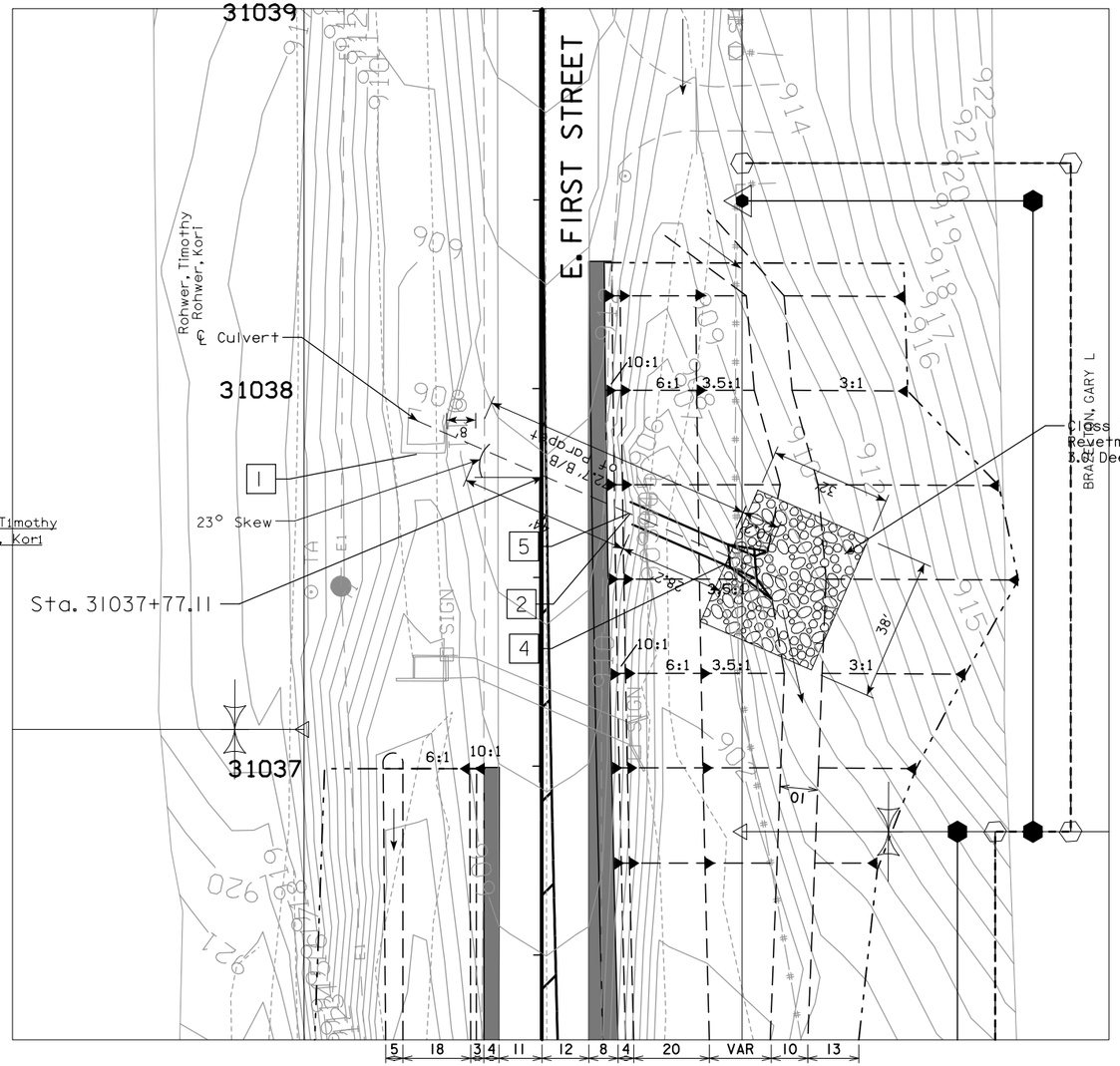
1 Protect drop inlet structure and headwall.

2 Remove wingwalls and headwall prior to extending.

3 Drainage through existing culvert/ channel shall be maintaned througout construction.

4 30° Headwall Skew.

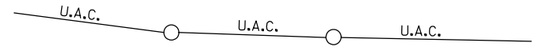
5 Extend 5ft x 3ft RCBC 28.2ft.



SITUATION PLAN

BM No.3 Sta. 258+65.45, 178.22' LT Set PK Nail in south shoulder of E. 1st St., 600' +/- east of intersection with Frisk Drive.
Sta. 1034+45.94, 11.76' Rt. Elev=903.61

PROPOSED GRADE E. FIRST ST



VPI STA. U.A.C.
ELEV.=U.A.C.
LVC=U.A.C.
E= U.A.C.

VPI STA. U.A.C.
ELEV.=U.A.C.
LVC=U.A.C.
E= U.A.C.

E. FIRST ST ALIGNMENT

E. FIRST ST TANGENT BETWEEN POINTS
PT STA. 1028+79.00
PT STA. 10146+11.00

TRAFFIC ESTIMATE

A.D.T.=2990 V.P.D. (2000)
A.D.T.=8000 V.P.D. (2030)
10% TRUCKS

N

0 ENGLISH 40
SCALE IN FEET

HYDRAULIC DATA

DRAINAGE AREA = 55.58 AC.
DESIGN Q50 = 94.93 CFS
DESIGN HIGH WATER ELEV. = 908.81
OUTLET STREAM SLOPE= 0.0054 FT/FT
CULVERT WATERWAY AREA= 15.00 SF

EXISTING STRUCTURE

Drop Inlet Structure with
5ft x 5ft RCBC tapered
to 5ft x 3 ft RCBC

LOCATION

T-80 N R-23 W
SECTION 18 and 19
DOUGLAS TOWNSHIP
POLK COUNTY

PROPOSED STRUCTURE

Remove existing wingwall and headwall
Extend 5ft x 3ft RCBC right 28.2 ft
Install new 30° headwall and wingwall

ALL UNITS IN FEET UNLESS NOTED OTHERWISE

DESIGN FOR 23° SKEW (L.A.)

28.2ft x 5 ft x 3 ft REINFORCED CONCRETE BOX SITUATION PLAN

STATION: 31037+77.11 SEPT., 2014

POLK COUNTY

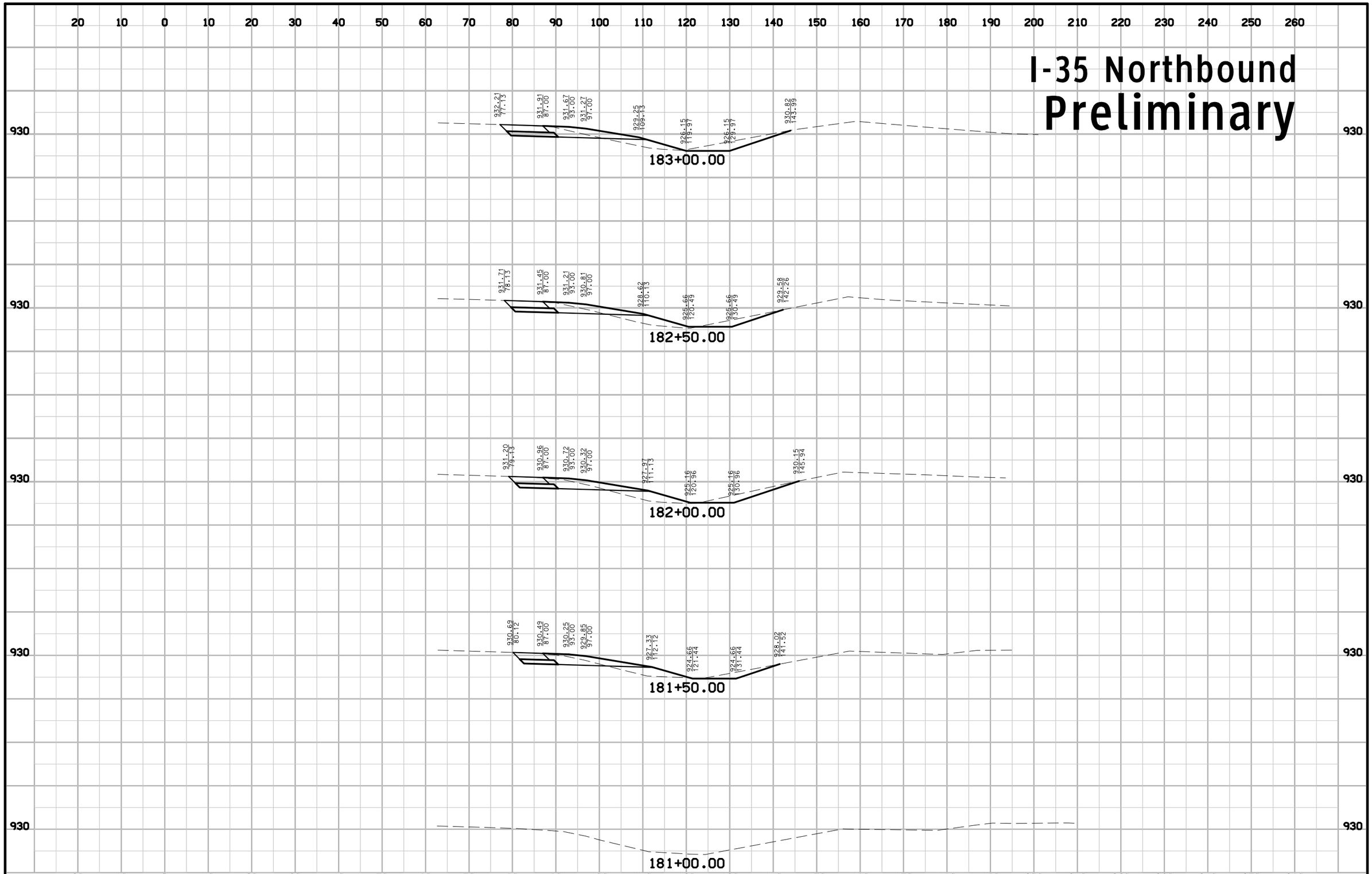
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER V.238

2:33:46 PM V81_IDOTRoad J:\2009_projects\109.0051\BrPrelim\k77035140_V01.str

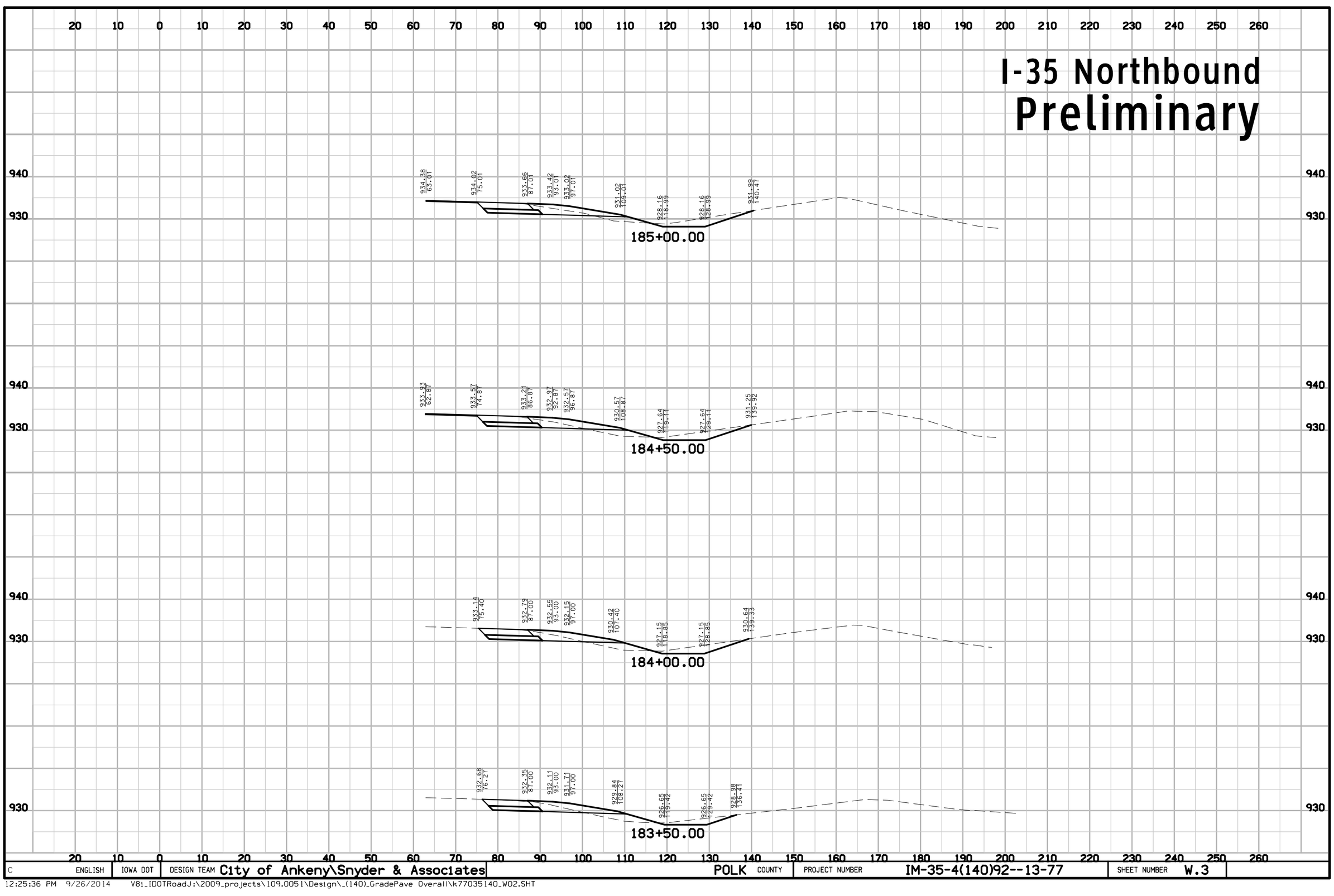
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.2

12:25:36 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

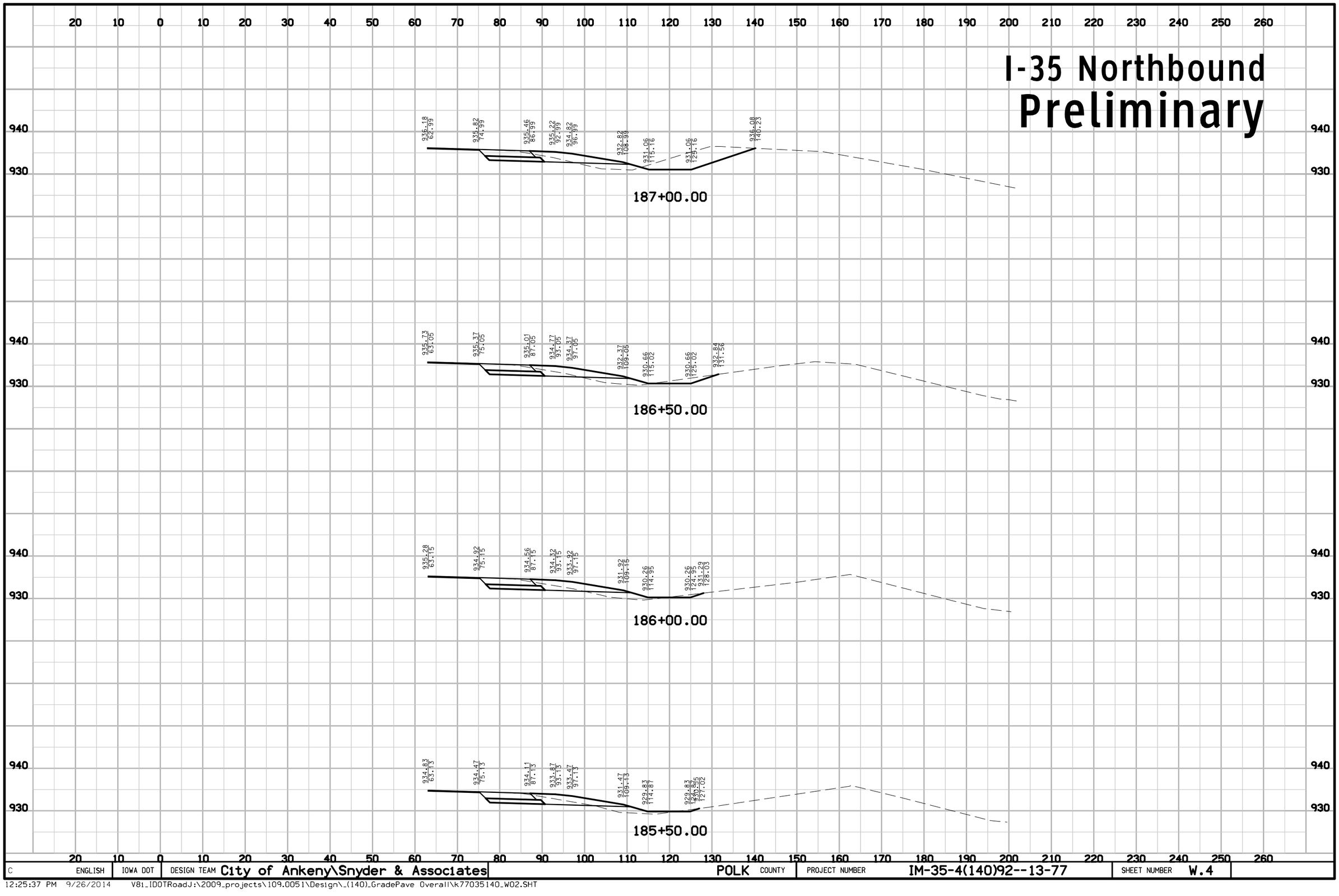
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.3

12:25:36 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

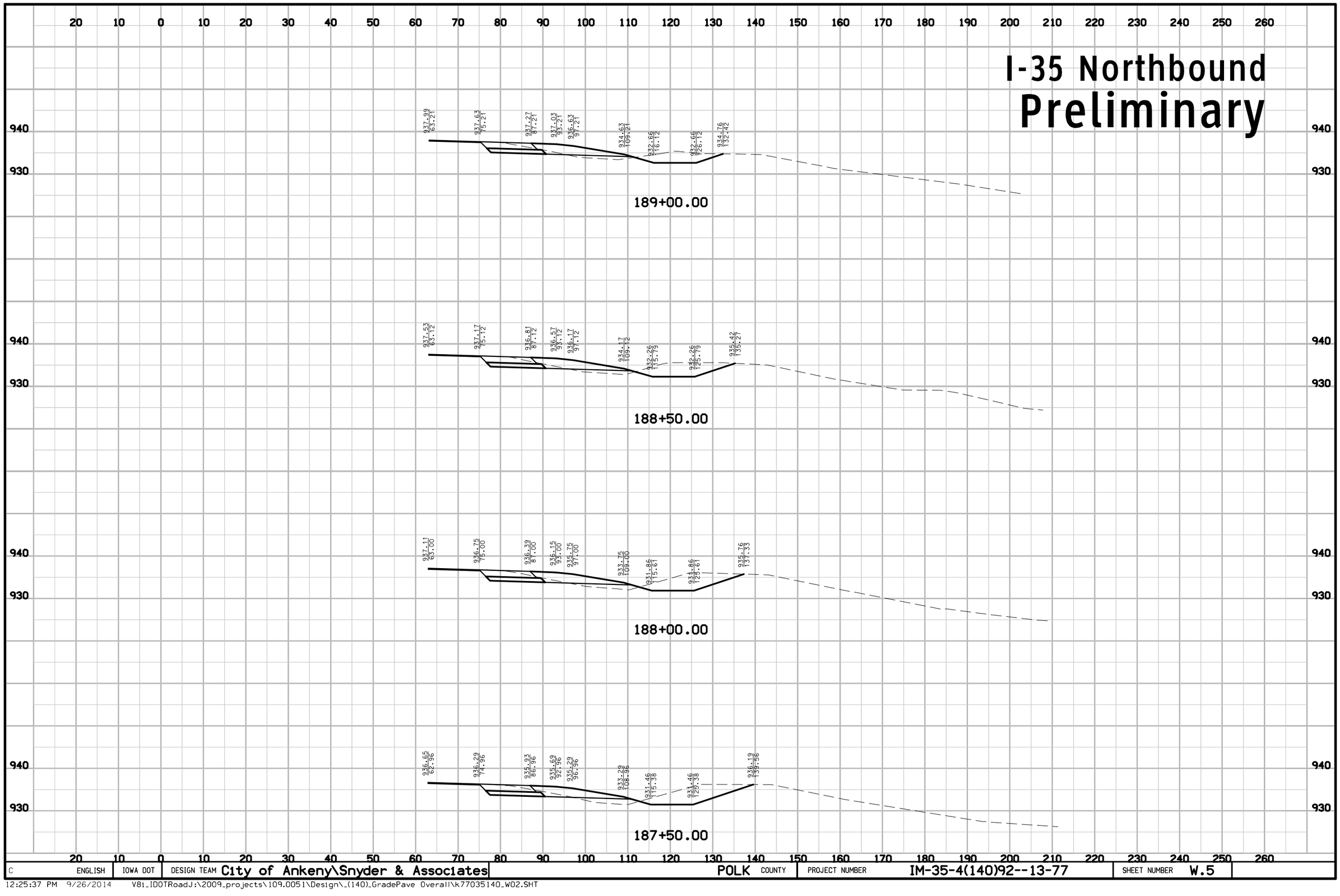
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.4

12:25:37 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

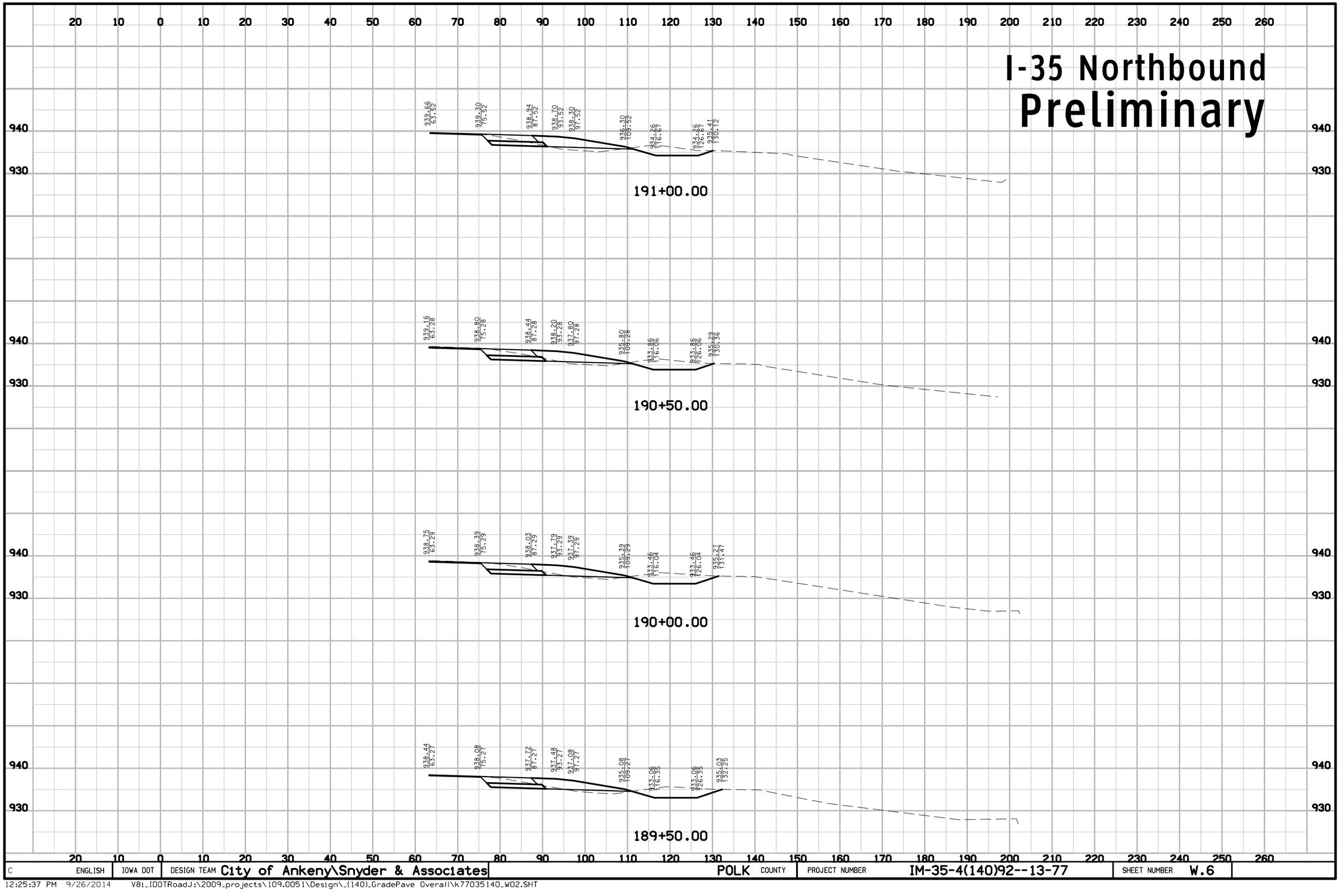
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.5

12:25:37 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

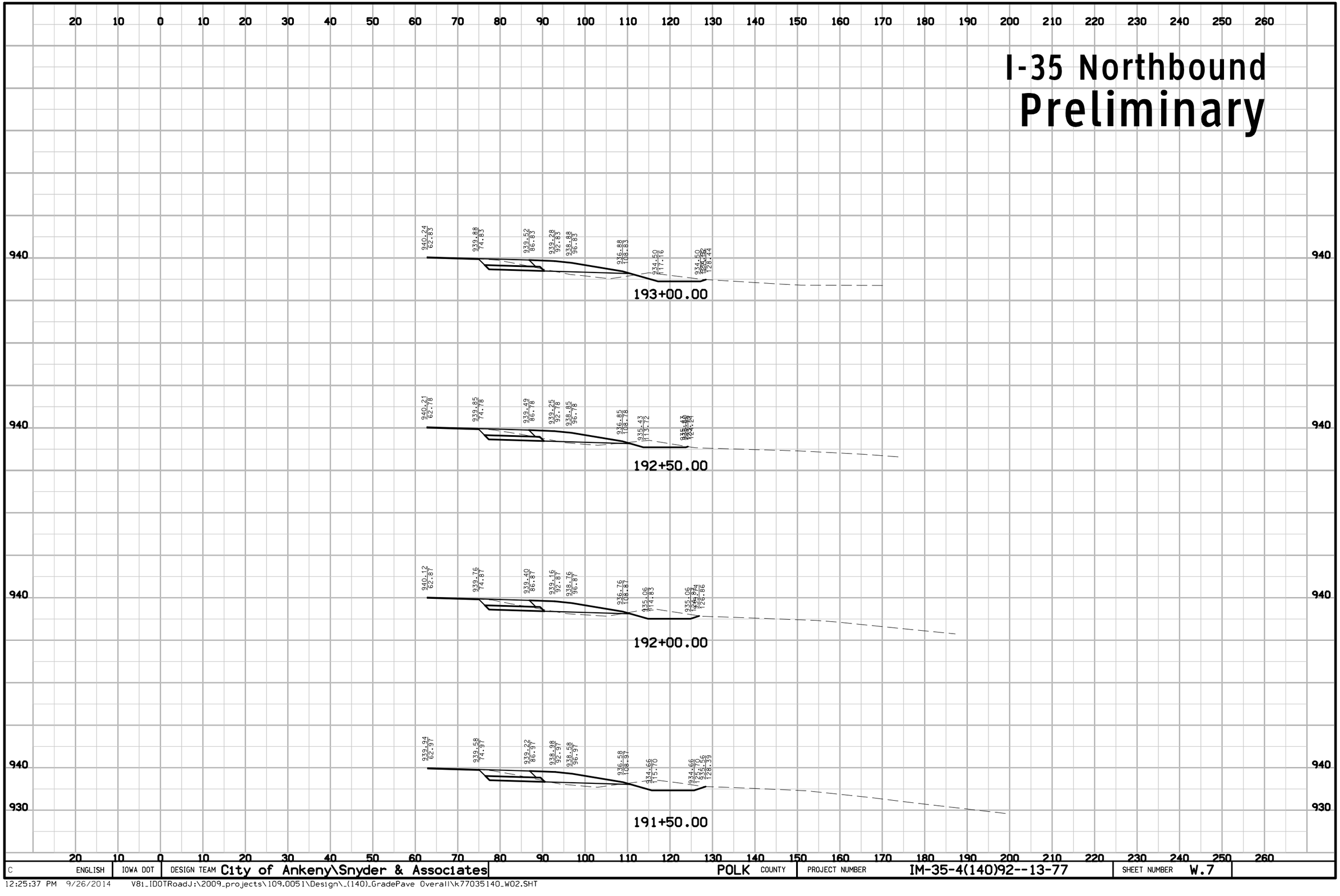
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.6

12:25:37 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

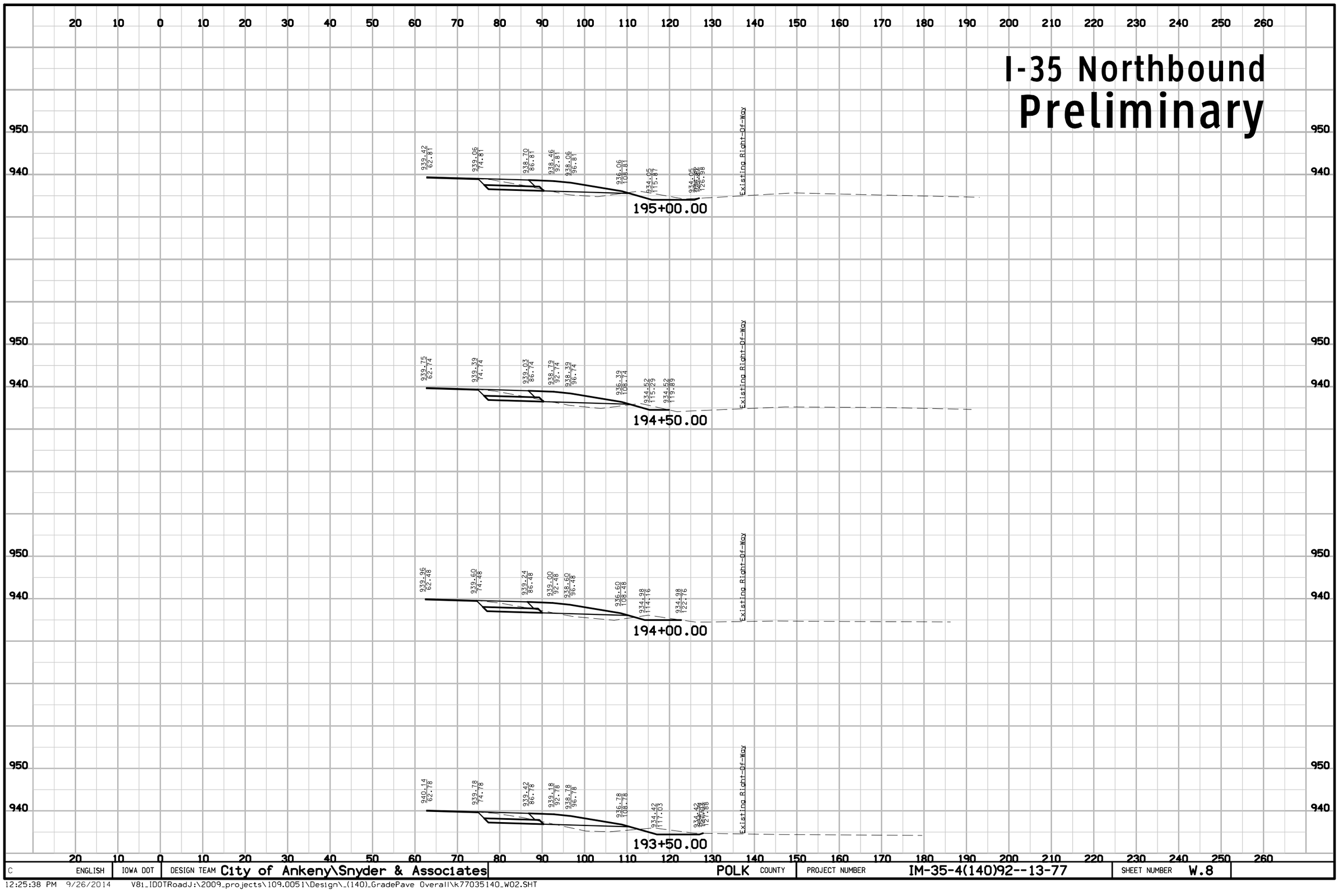
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.7

12:25:37 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

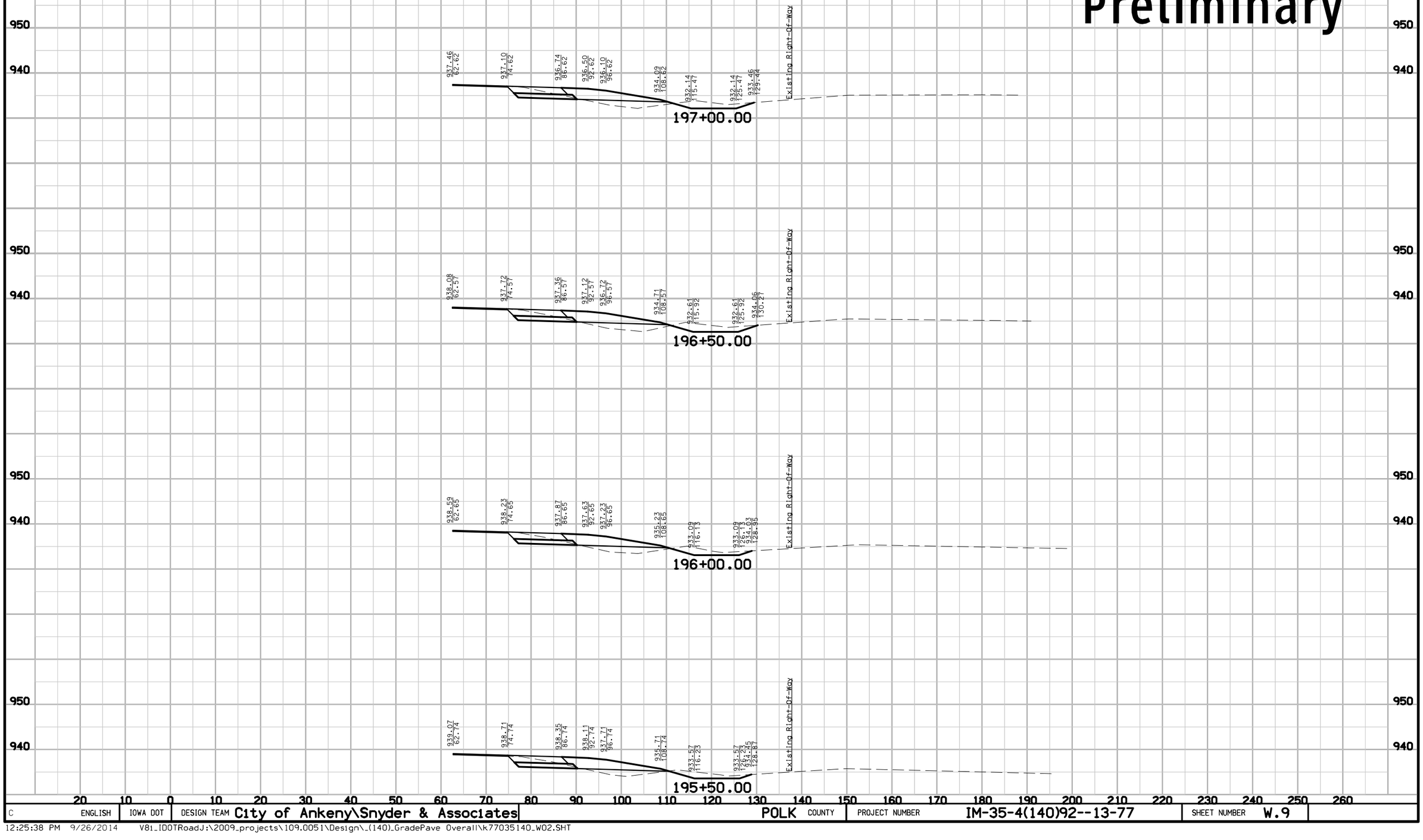
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.8

12:25:38 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

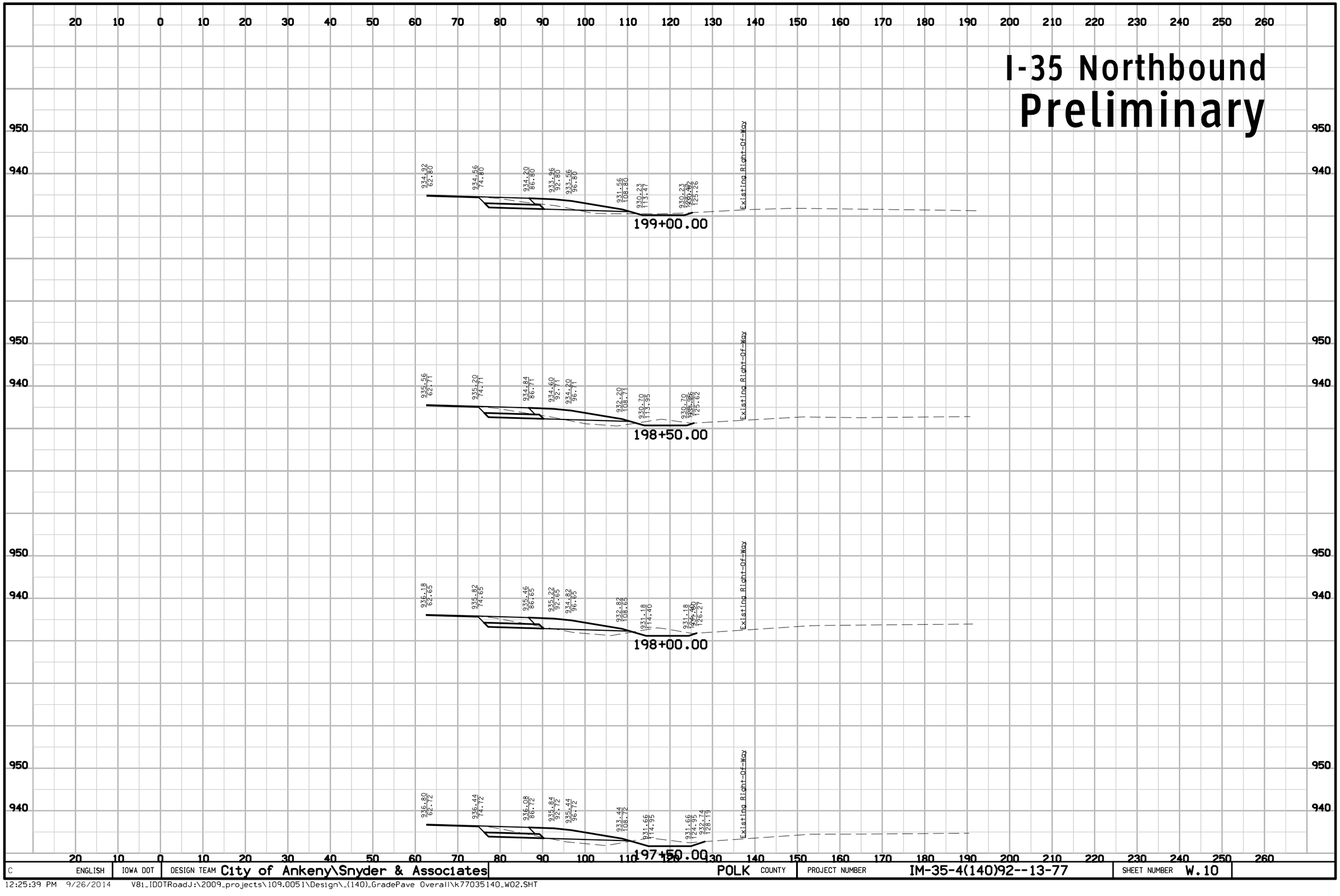
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.9

12:25:38 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

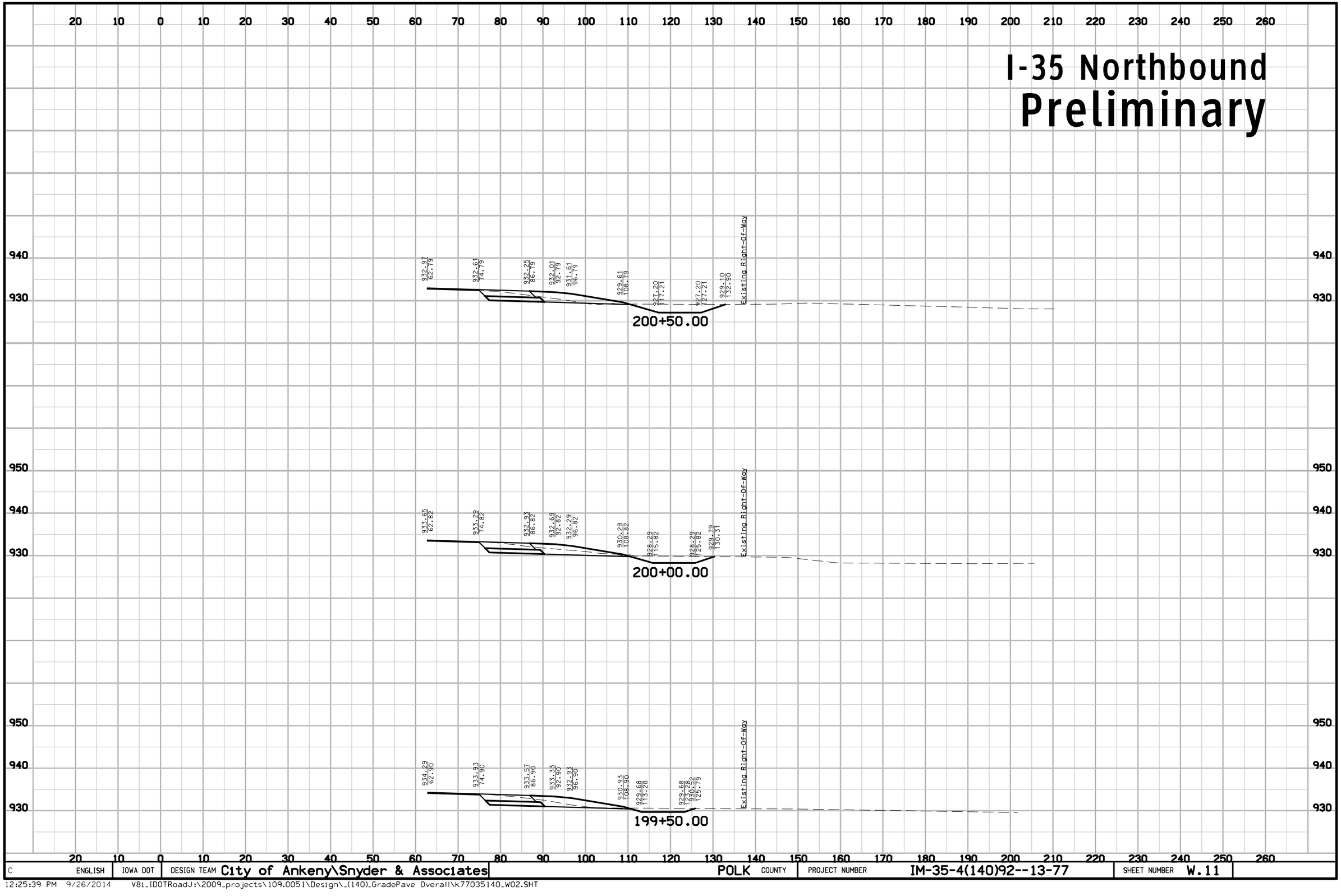
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.10

12:25:39 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

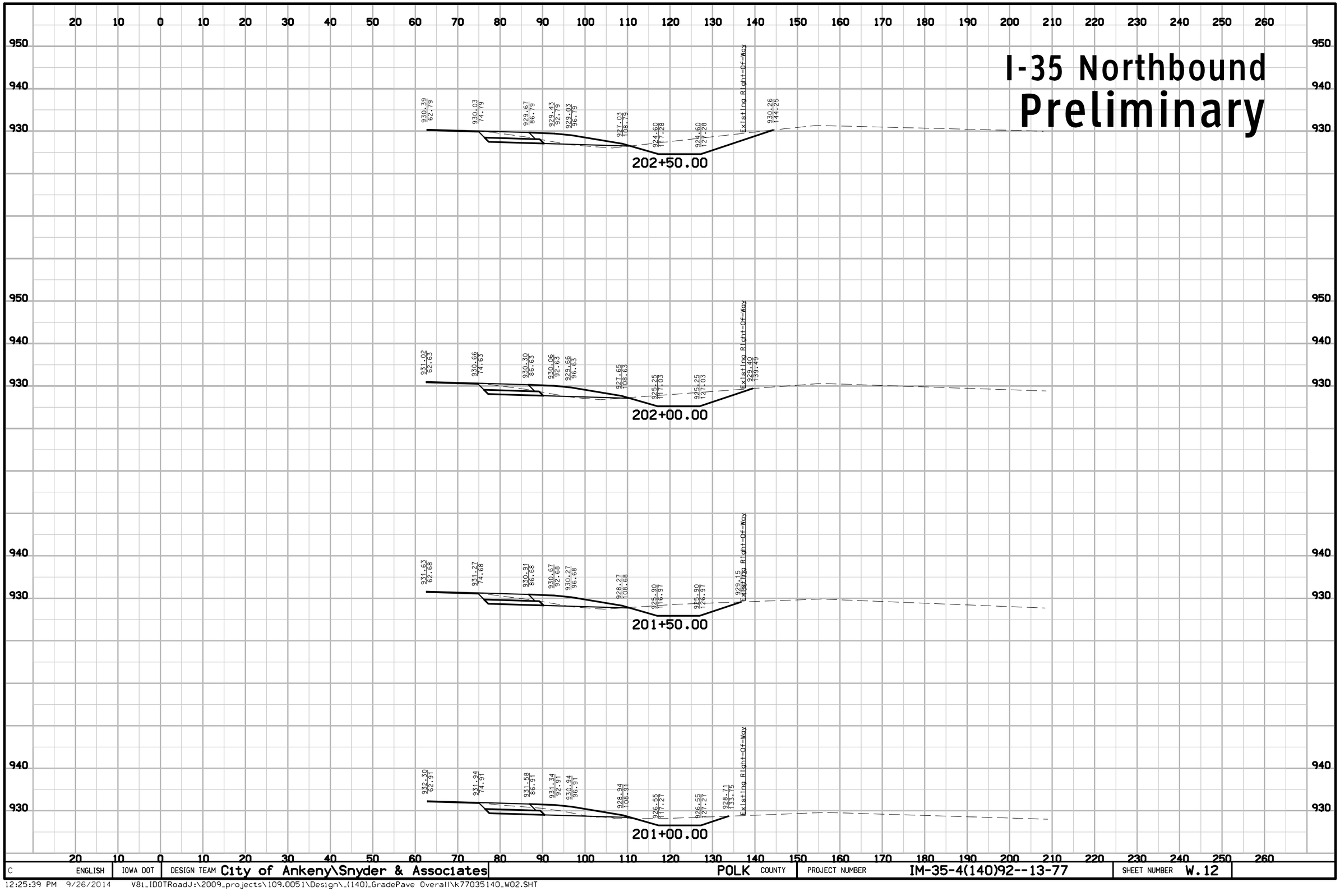
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.11

12:25:39 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

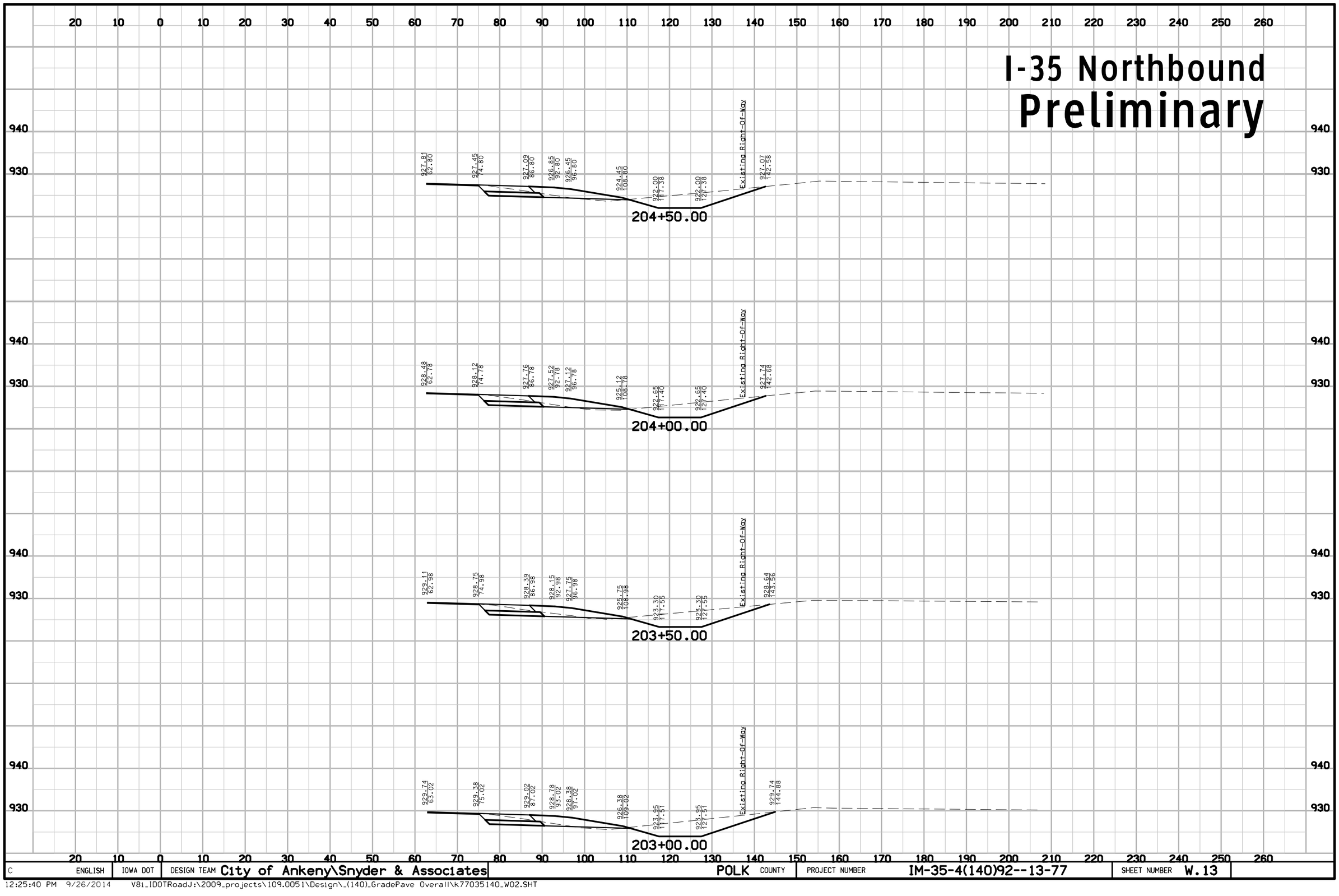
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.12

12:25:39 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

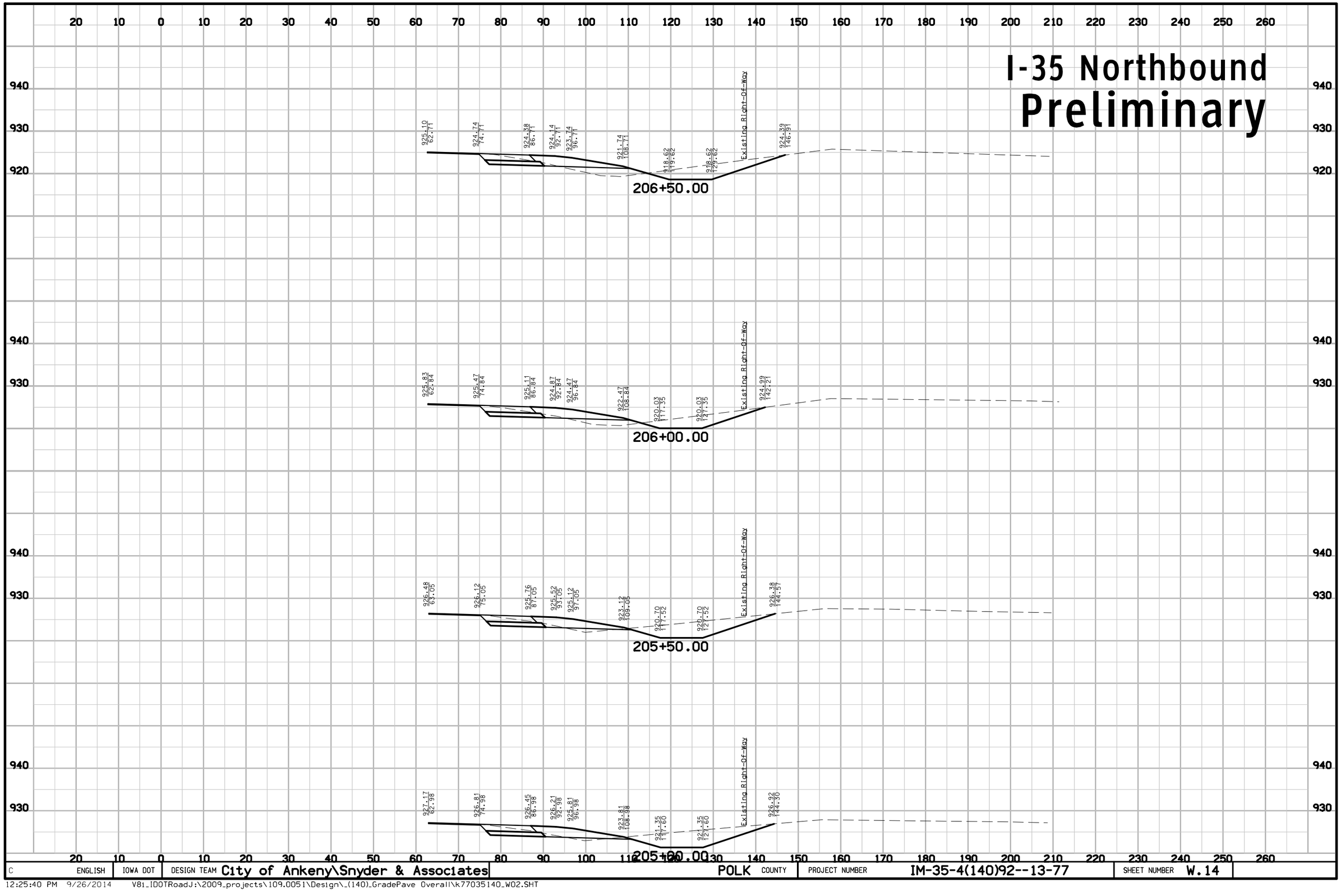
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.13

12:25:40 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

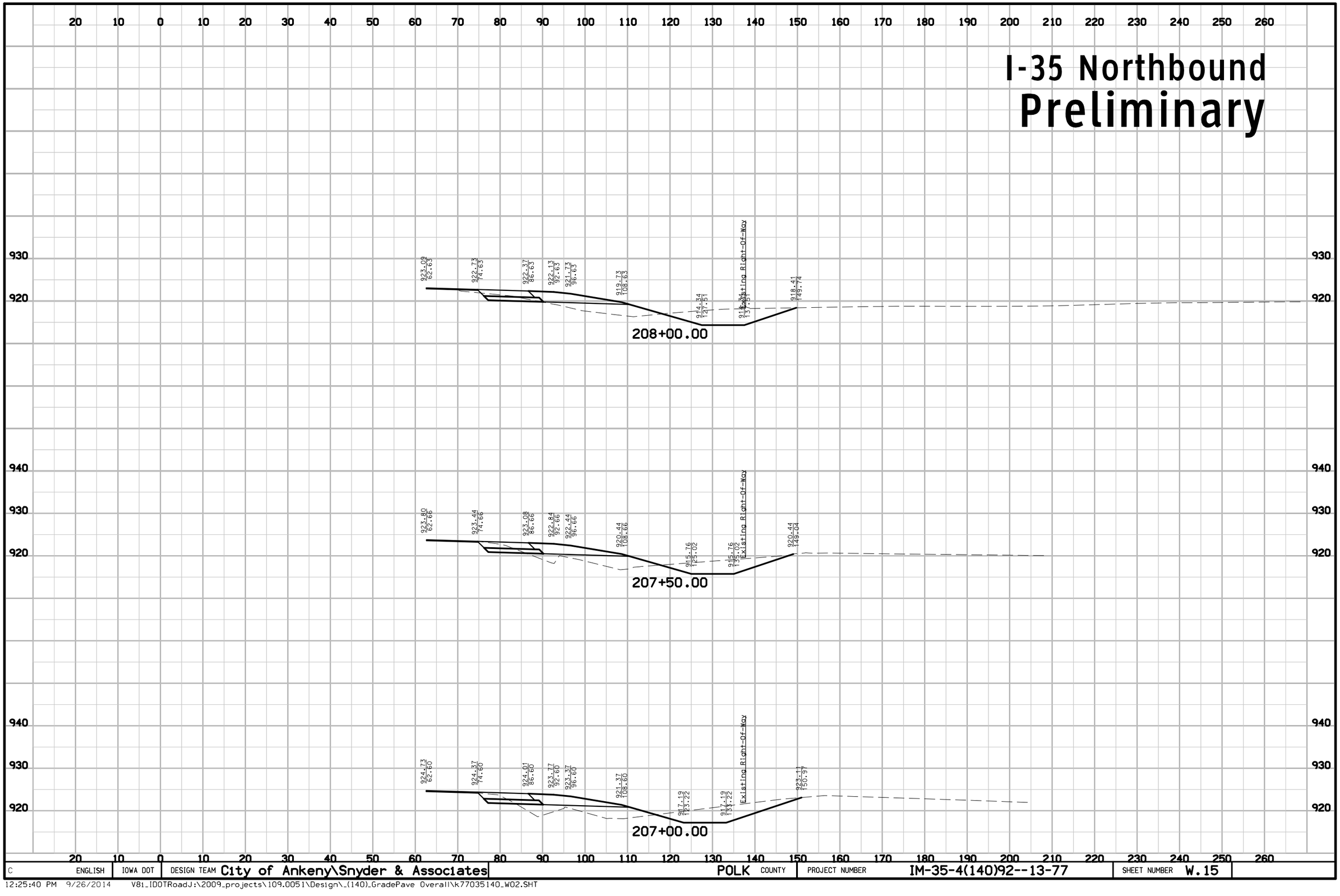
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.14

12:25:40 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

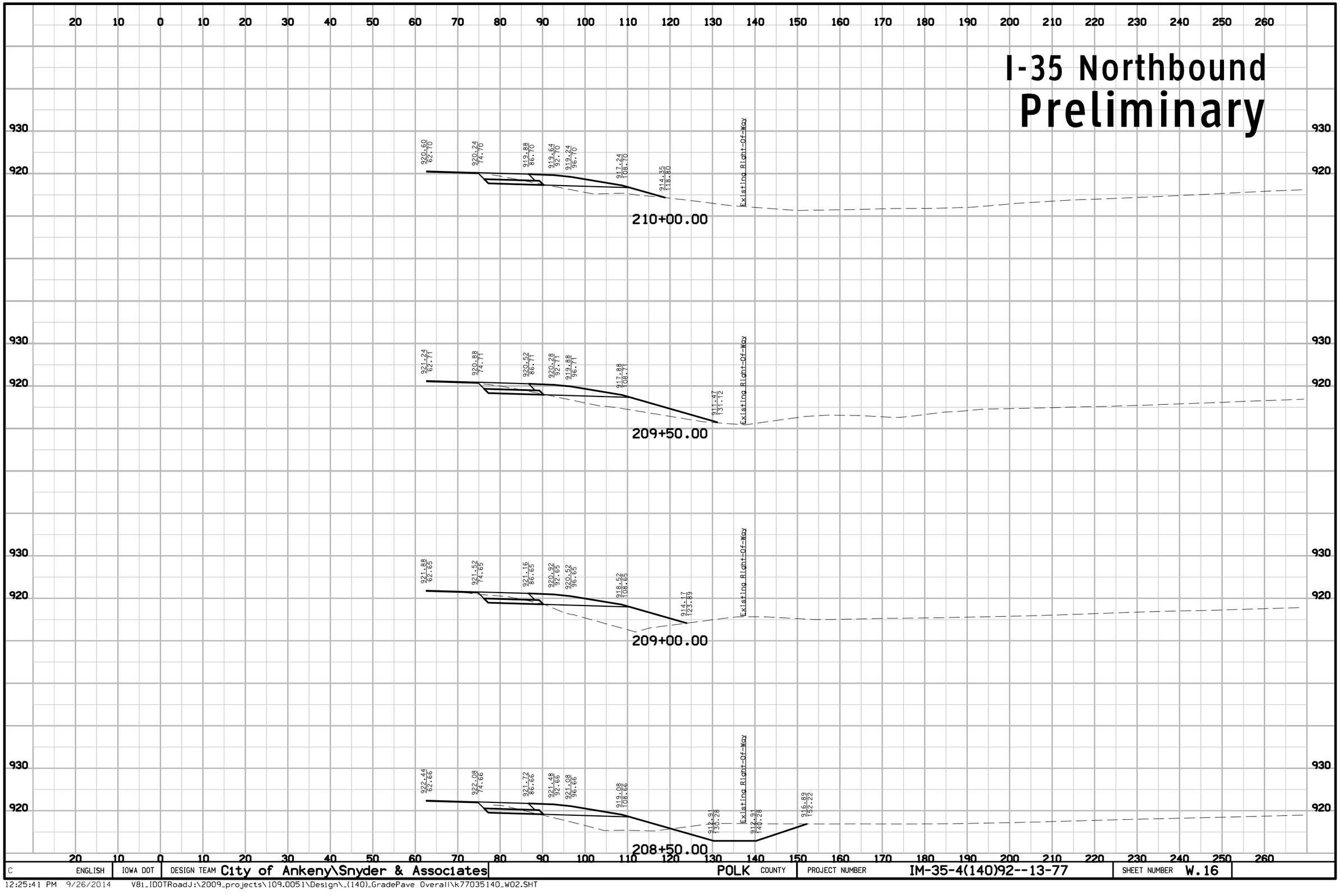
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.15

12:25:40 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

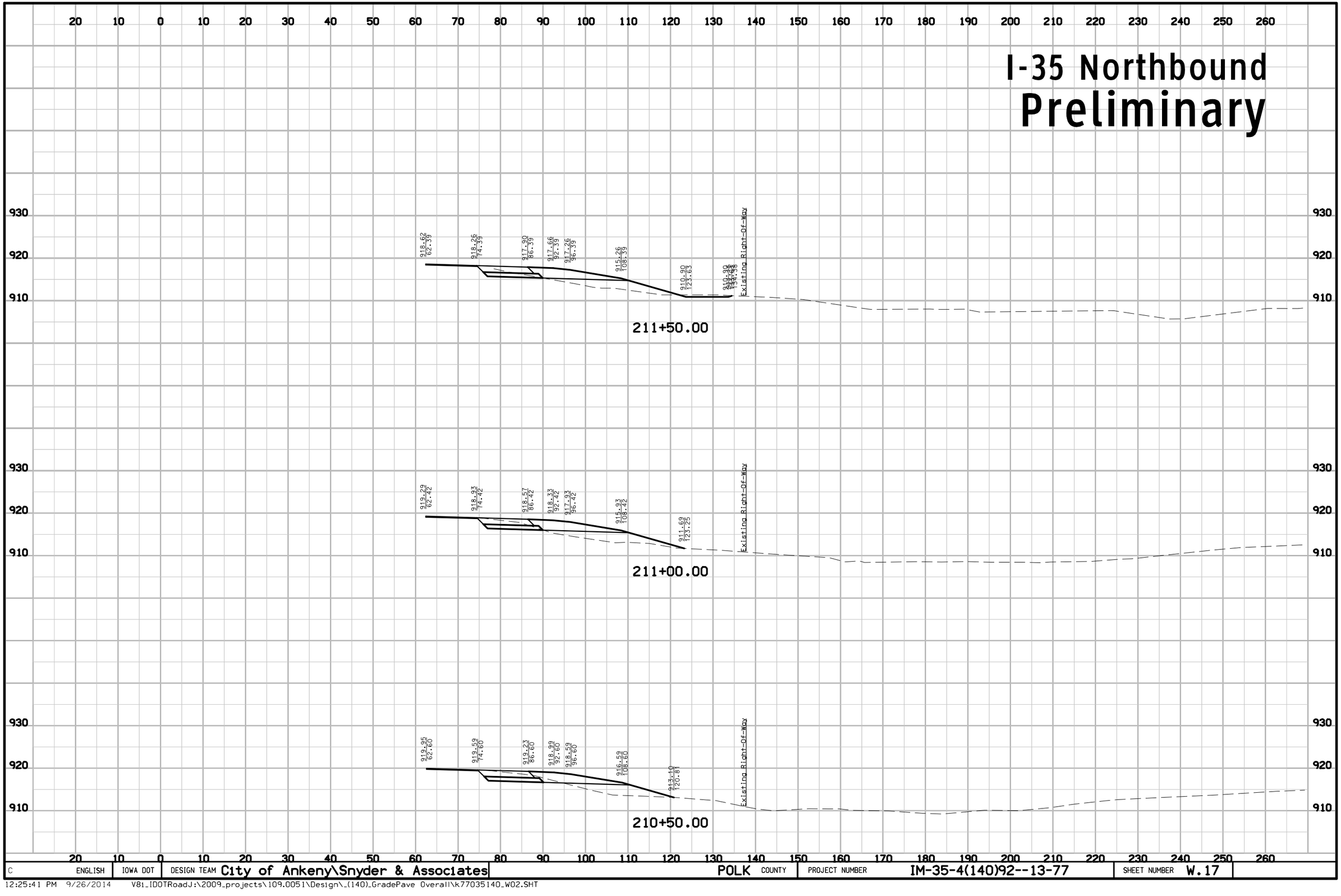
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.16

12:25:41 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

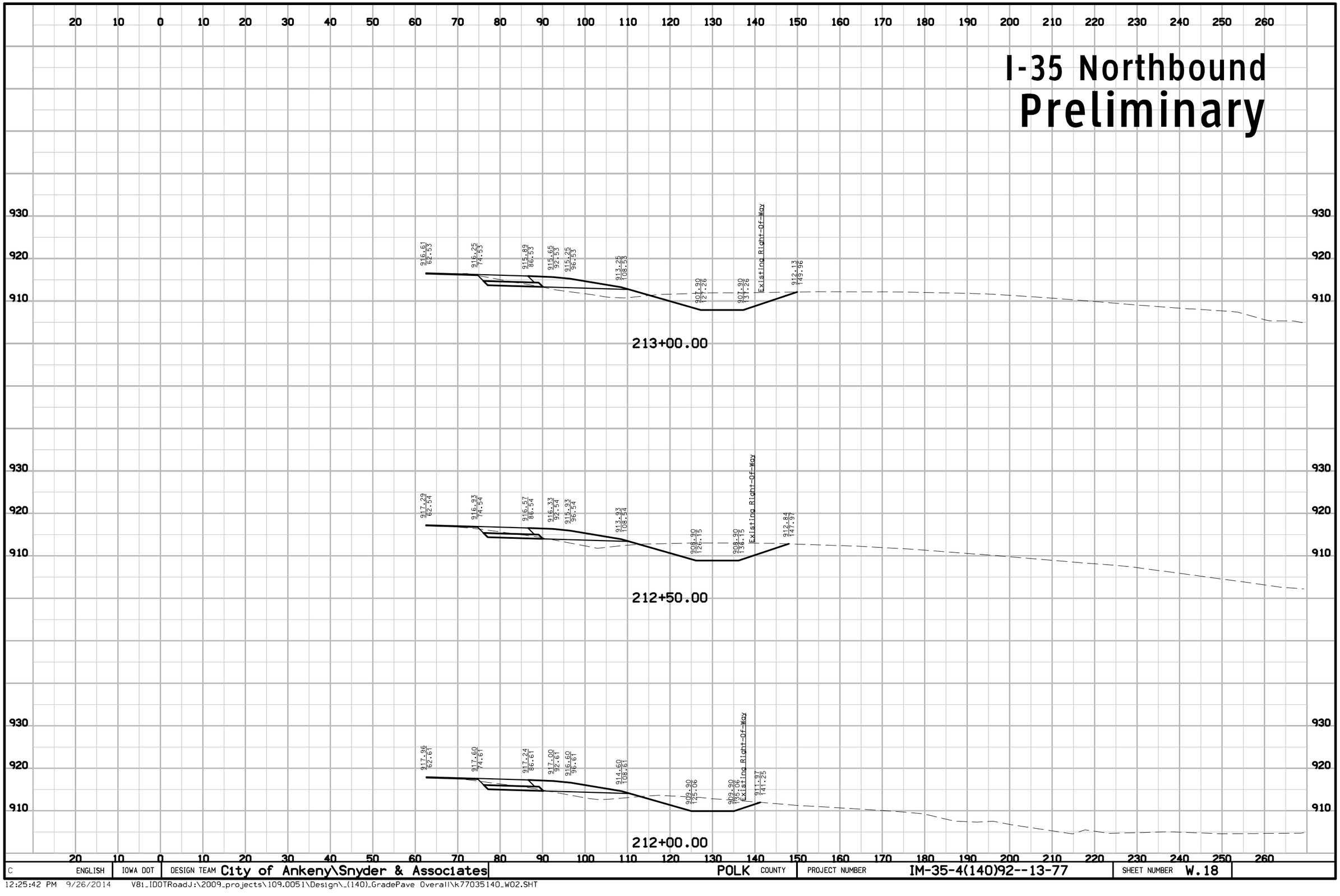
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.17

12:25:41 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

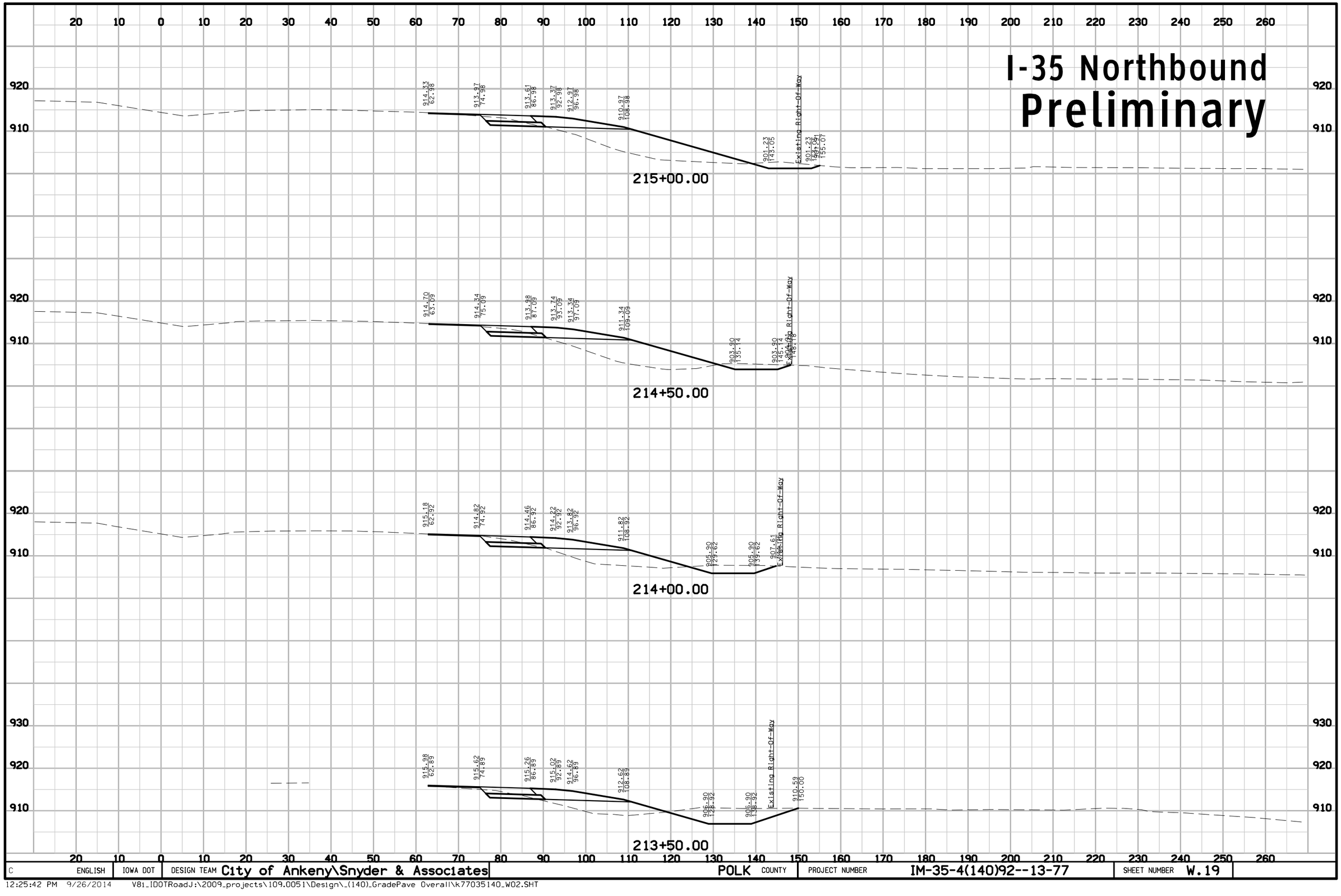
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.18

12:25:42 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

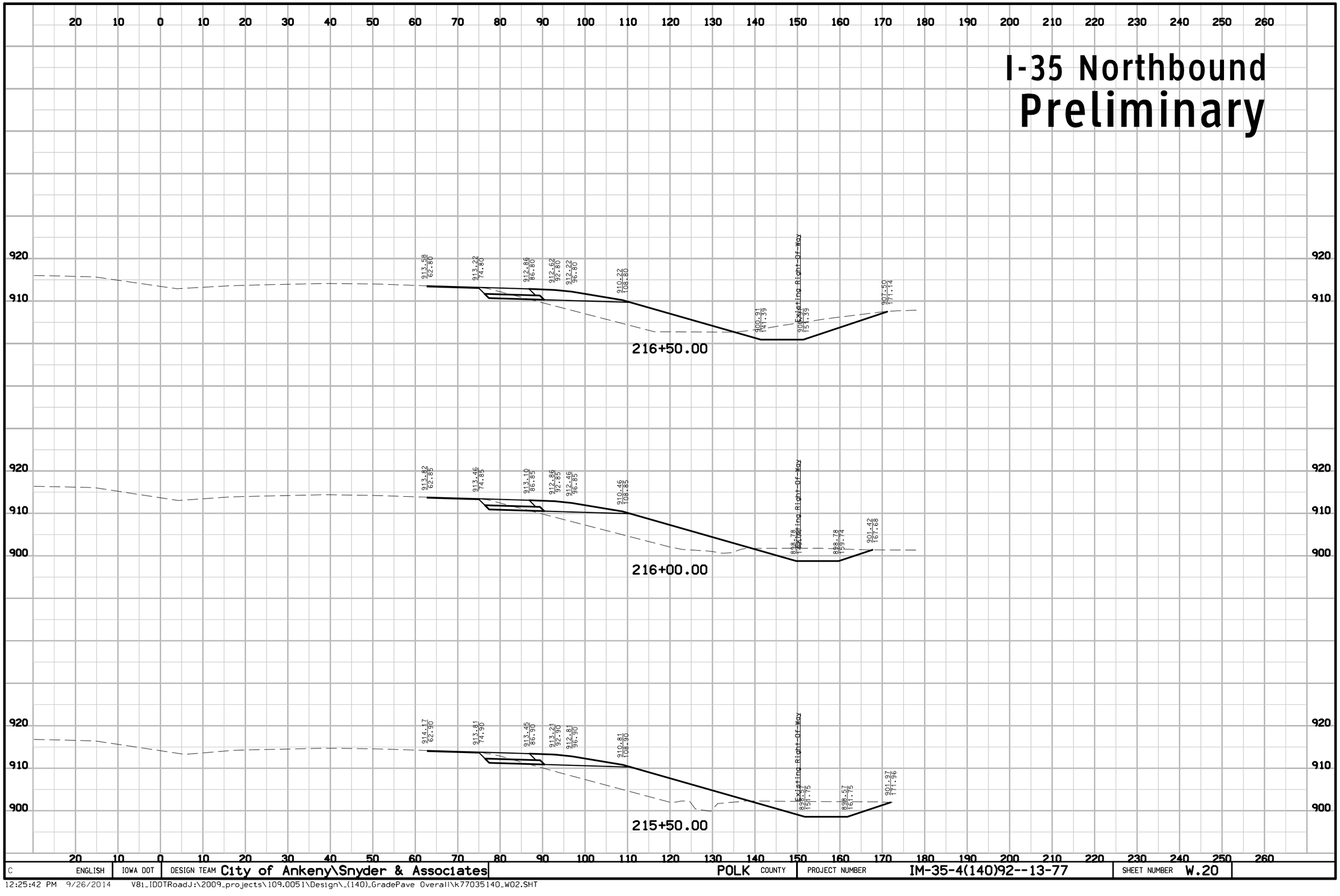
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.19

12:25:42 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

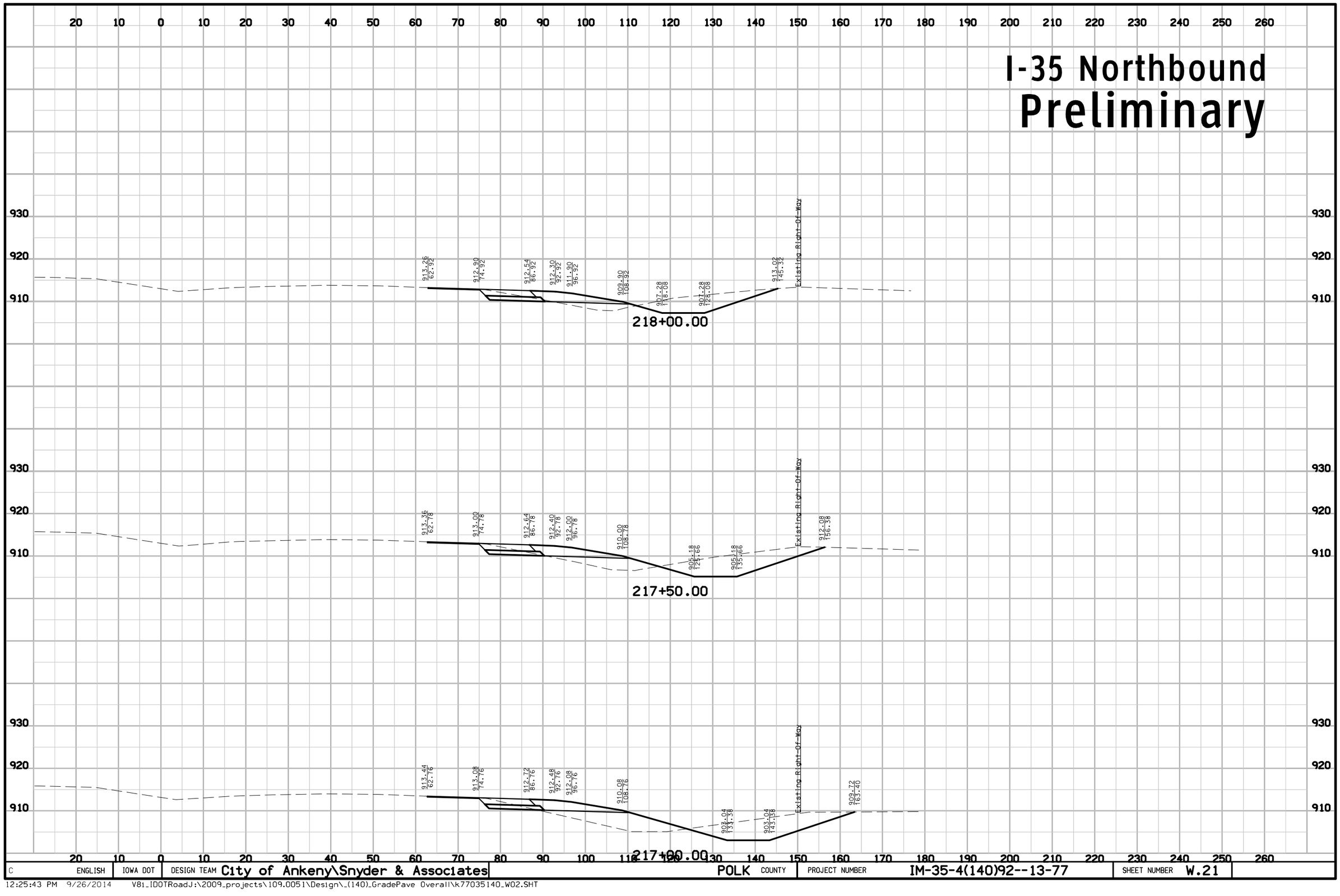
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.20

12:25:42 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

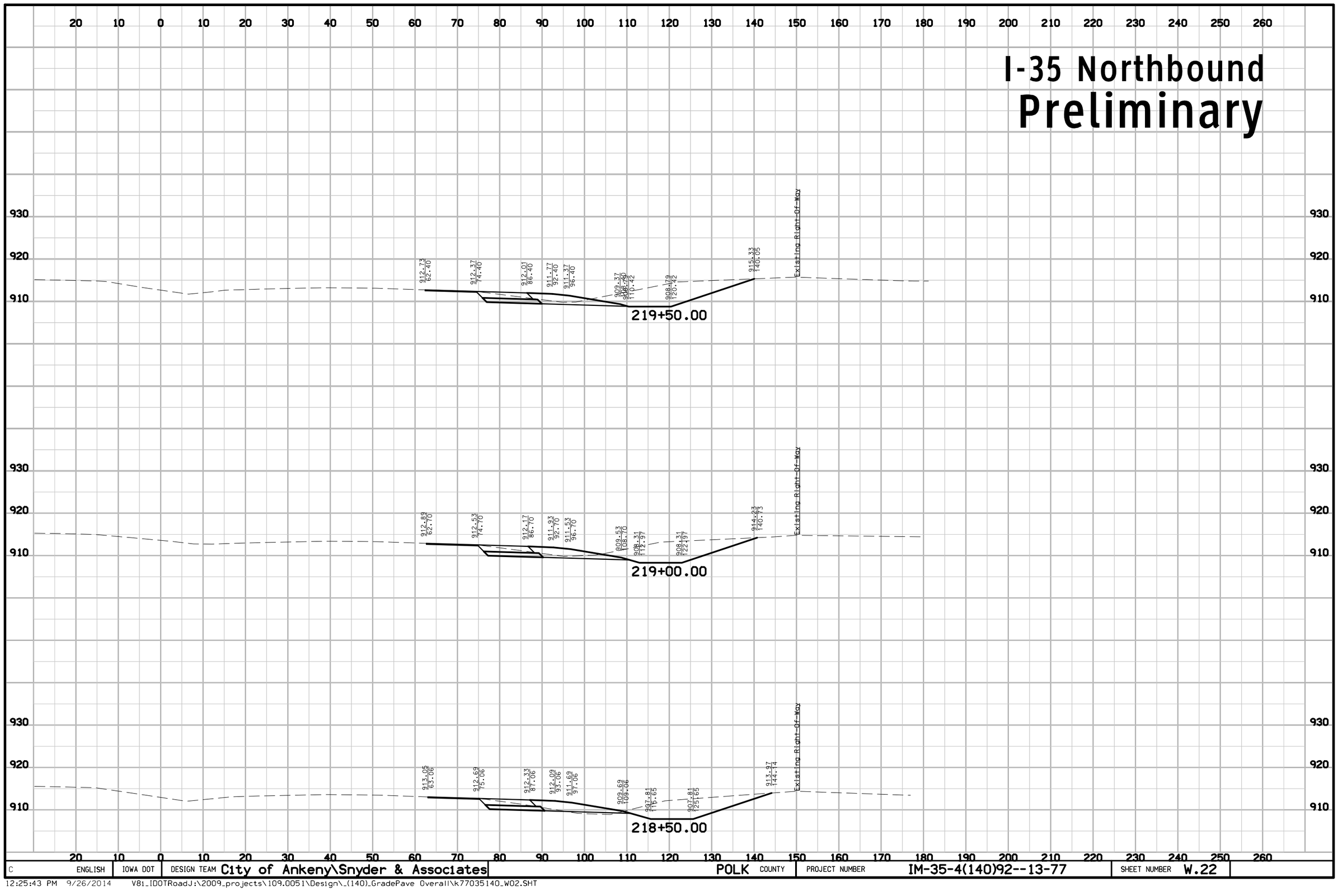
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.21

12:25:43 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

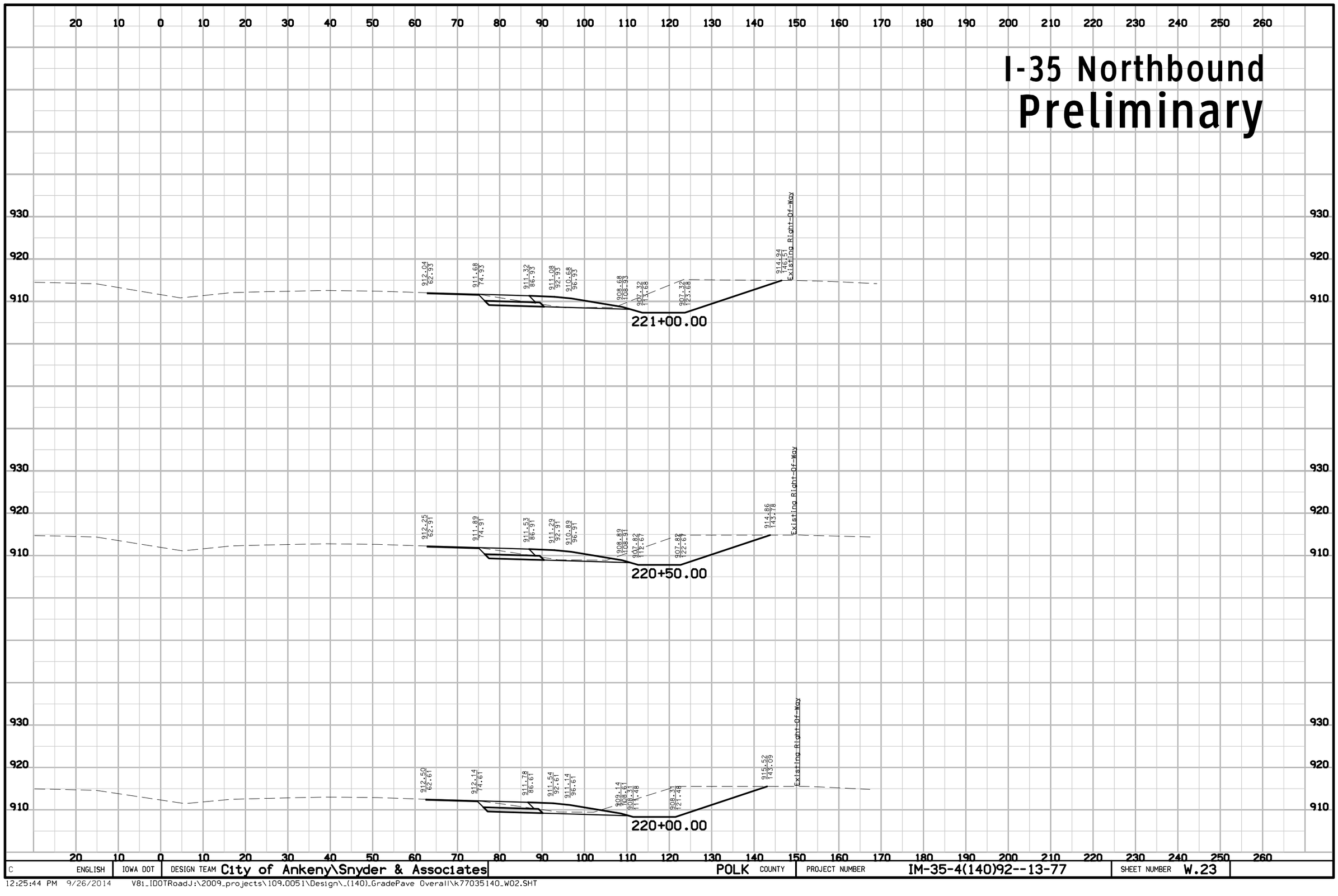
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.22	

12:25:43 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

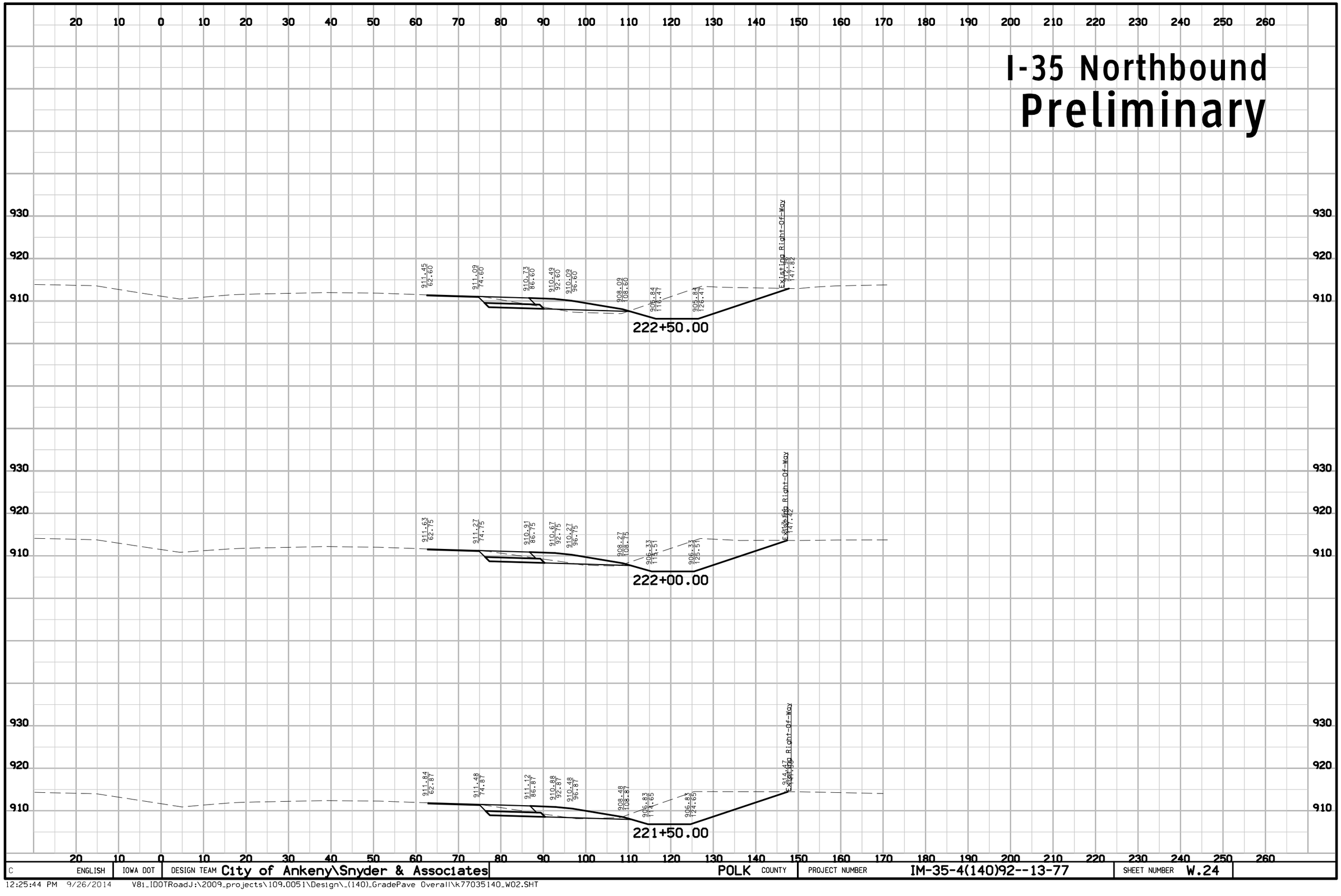
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM	City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.23

12:25:44 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

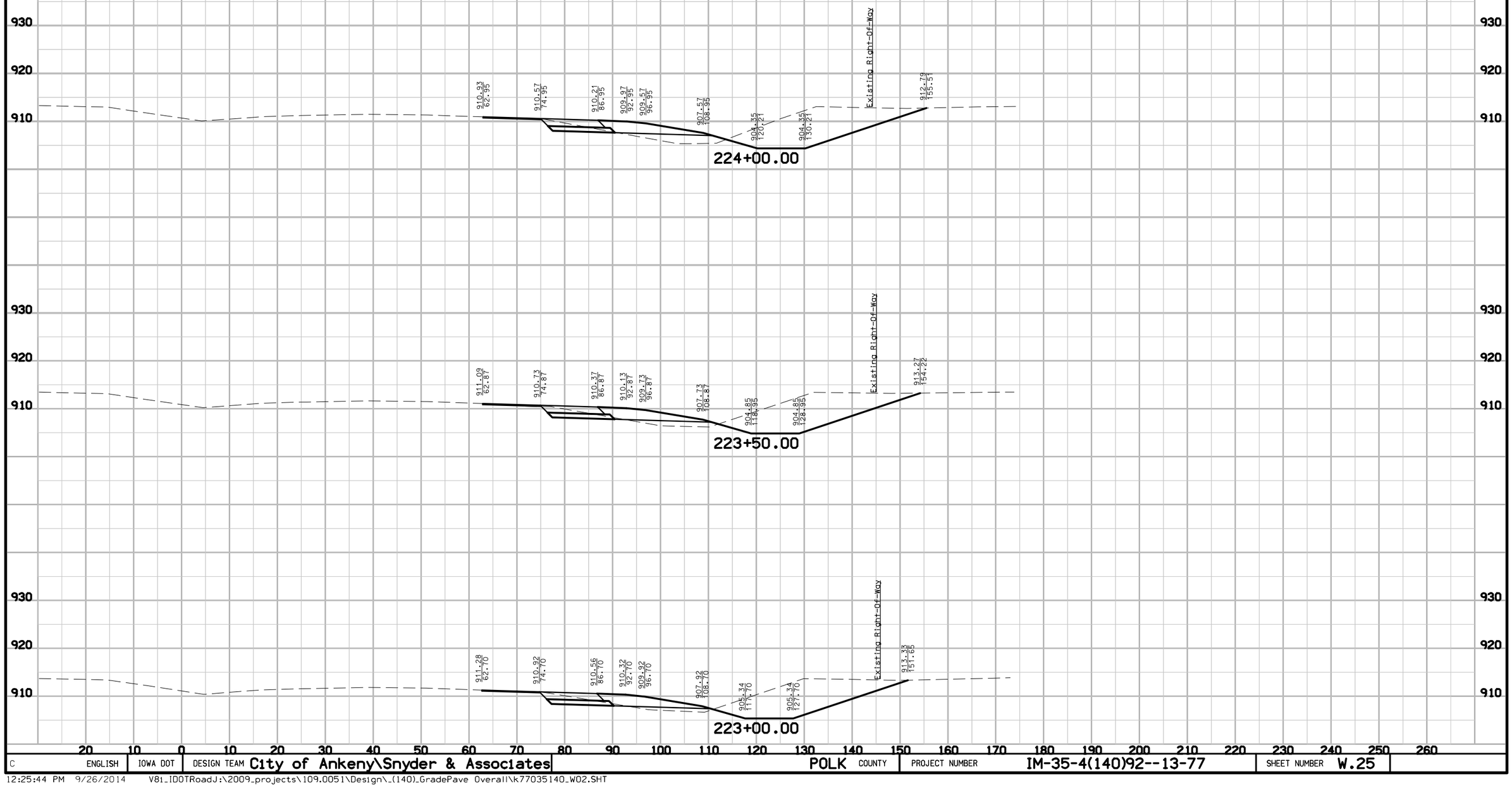
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.24	

12:25:44 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

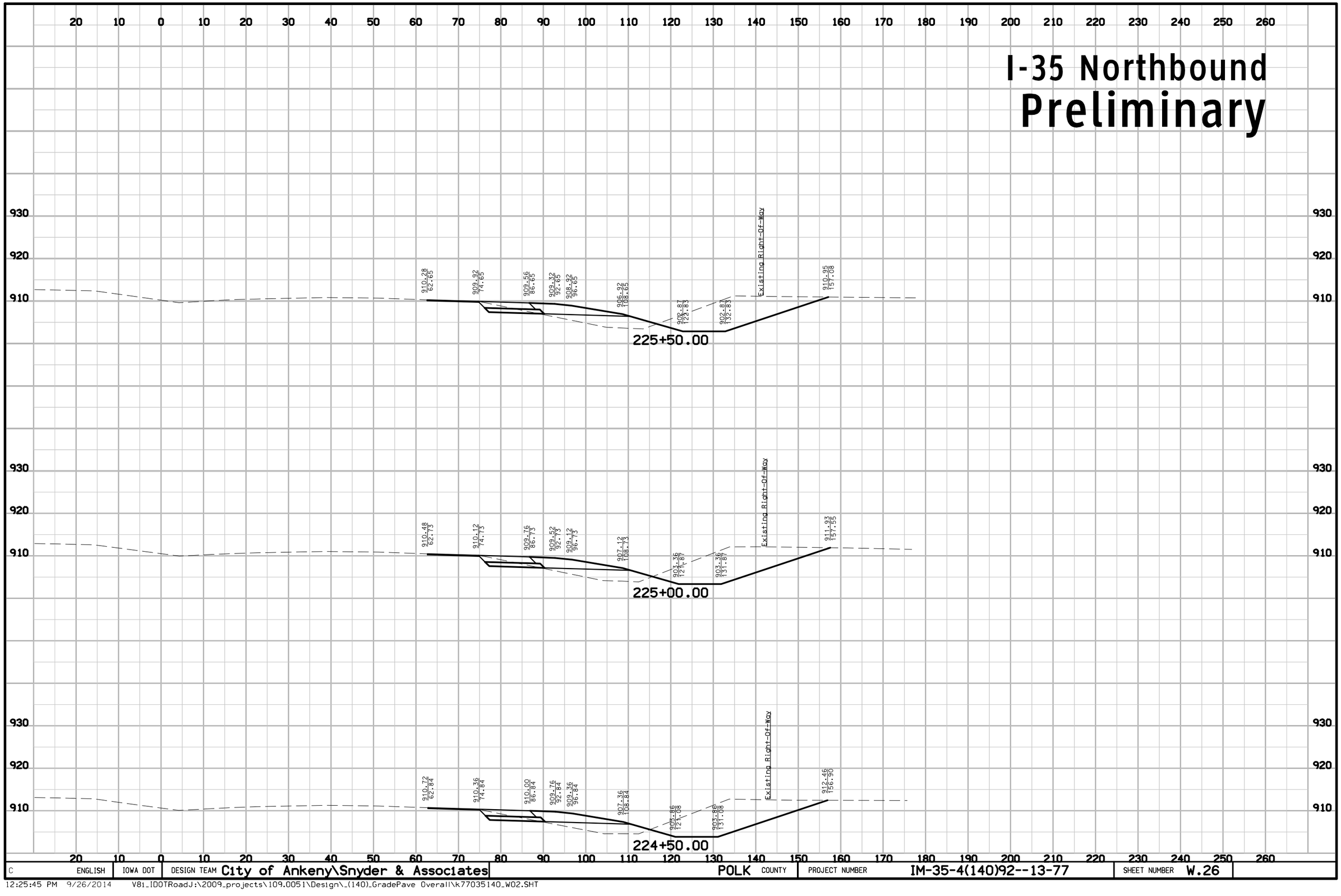
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.25	

12:25:44 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

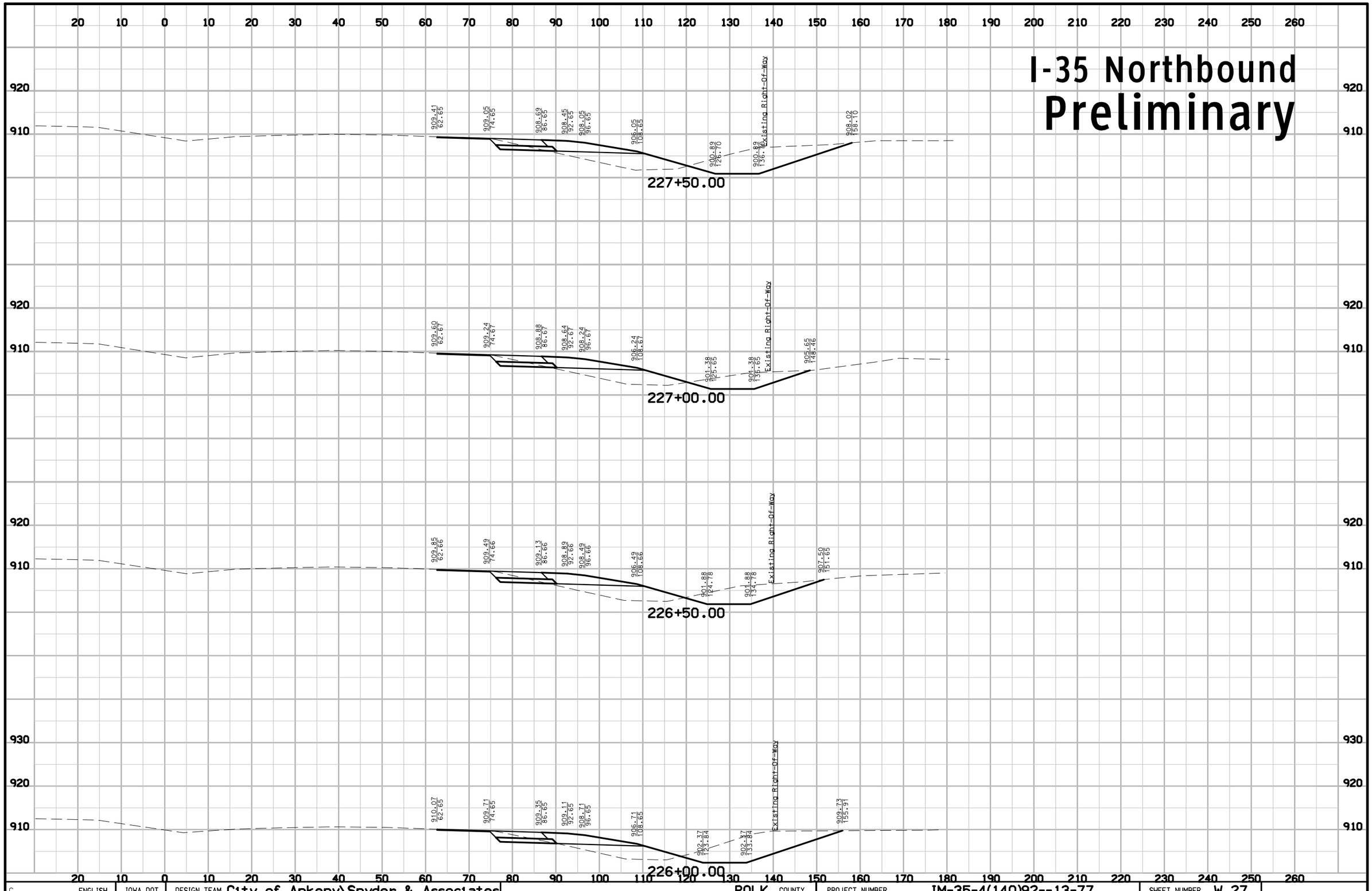
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.26

12:25:45 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

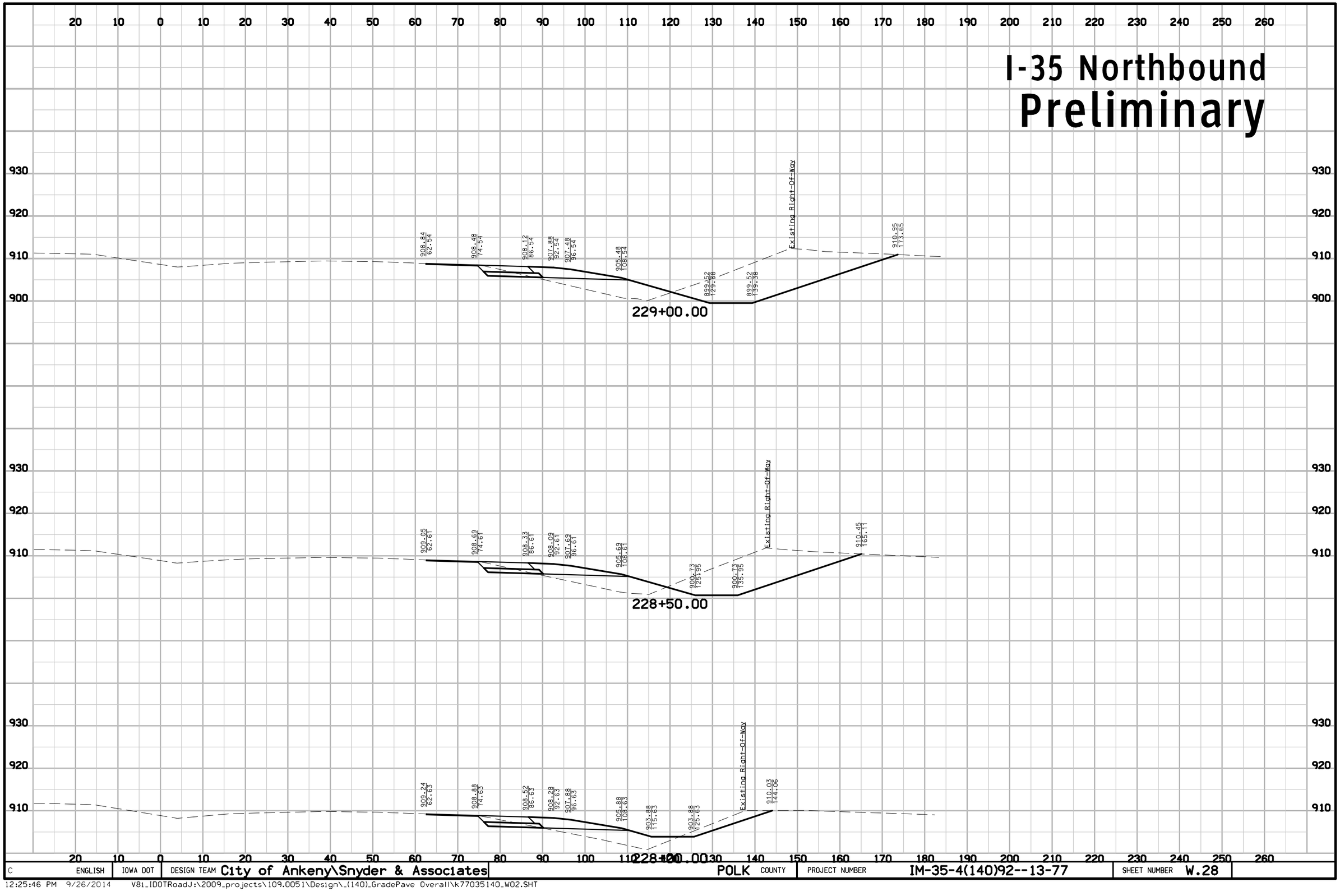
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.27

12:25:45 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

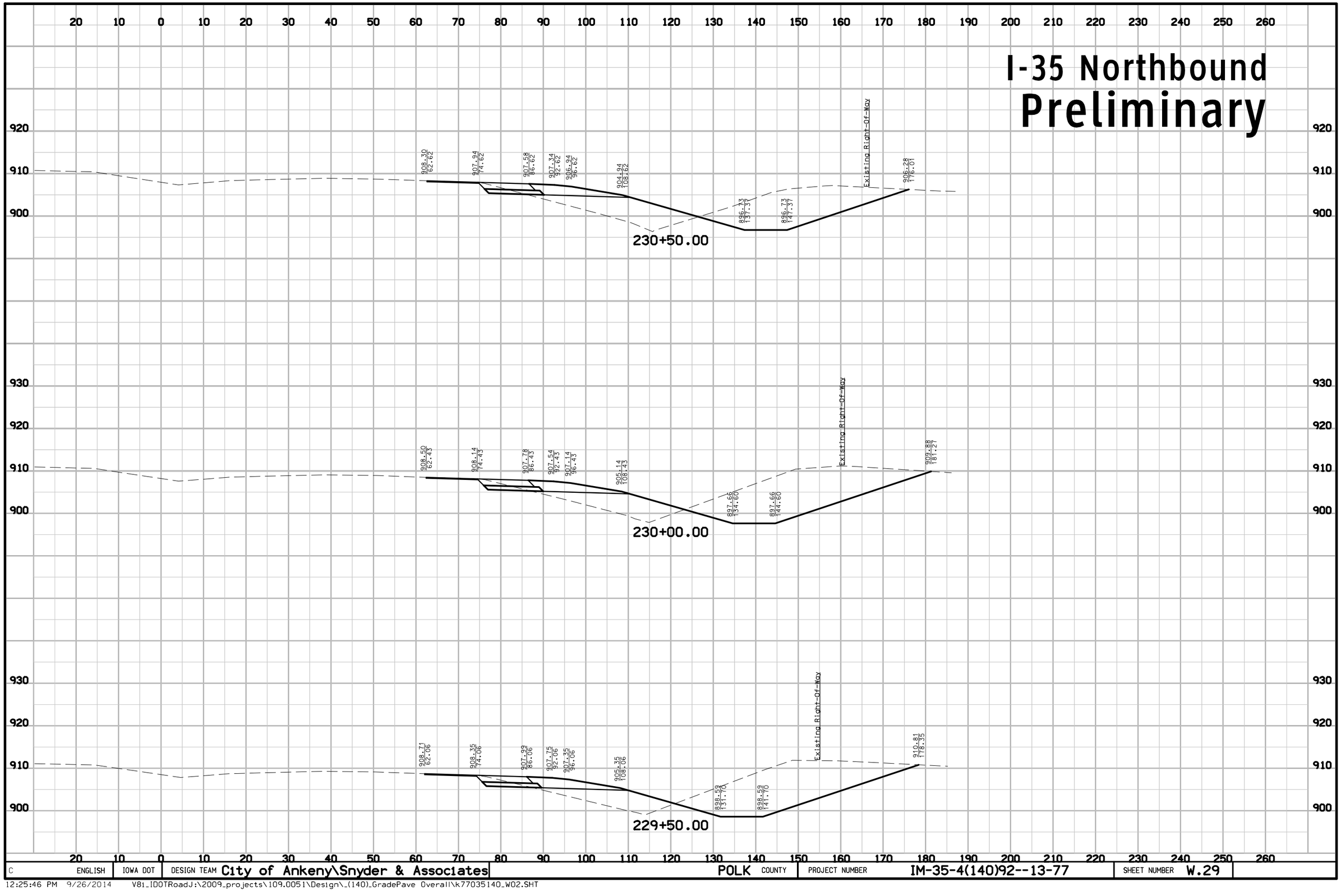
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.28

12:25:46 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

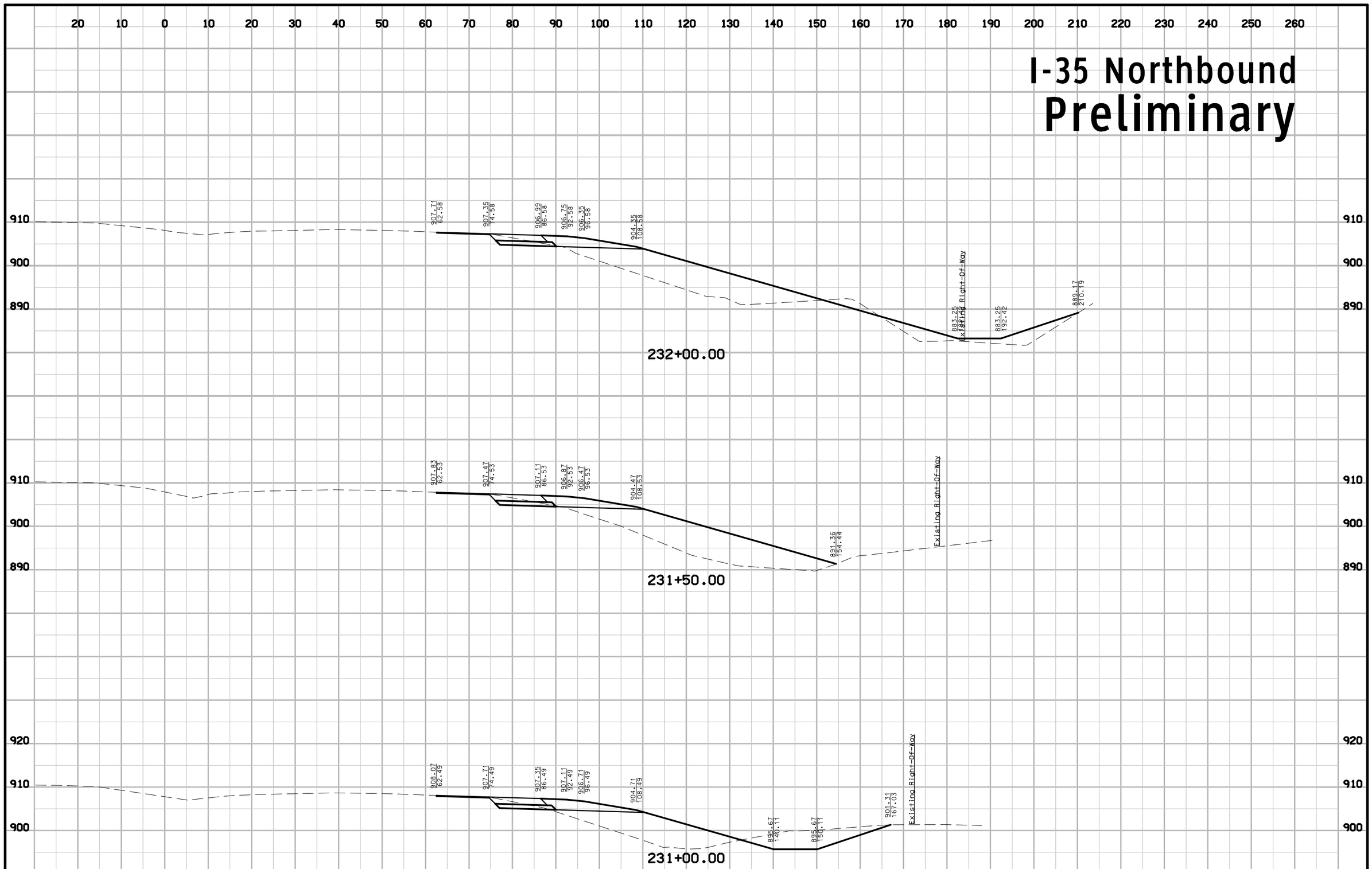
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.29

12:25:46 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

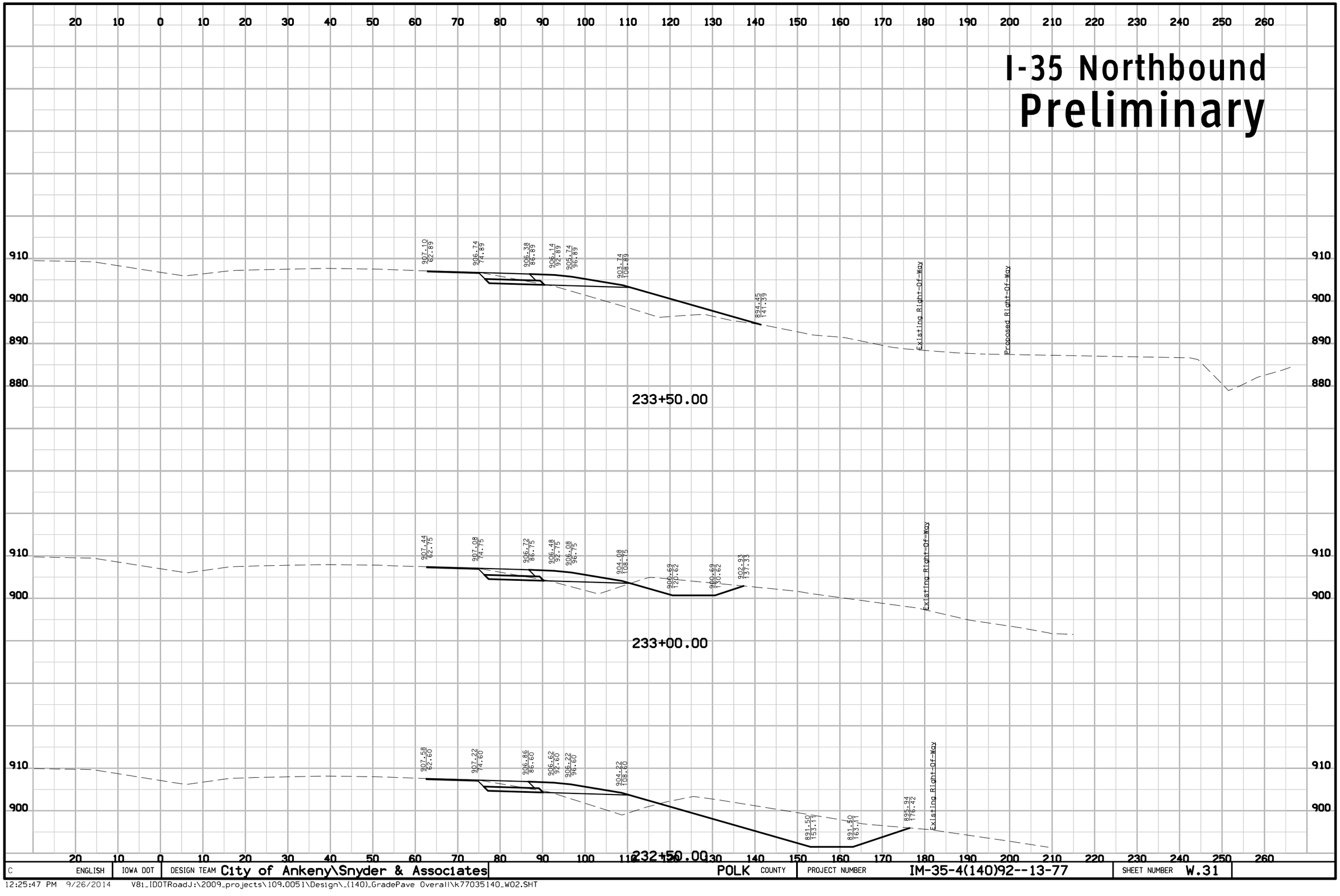
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.30

12:25:46 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

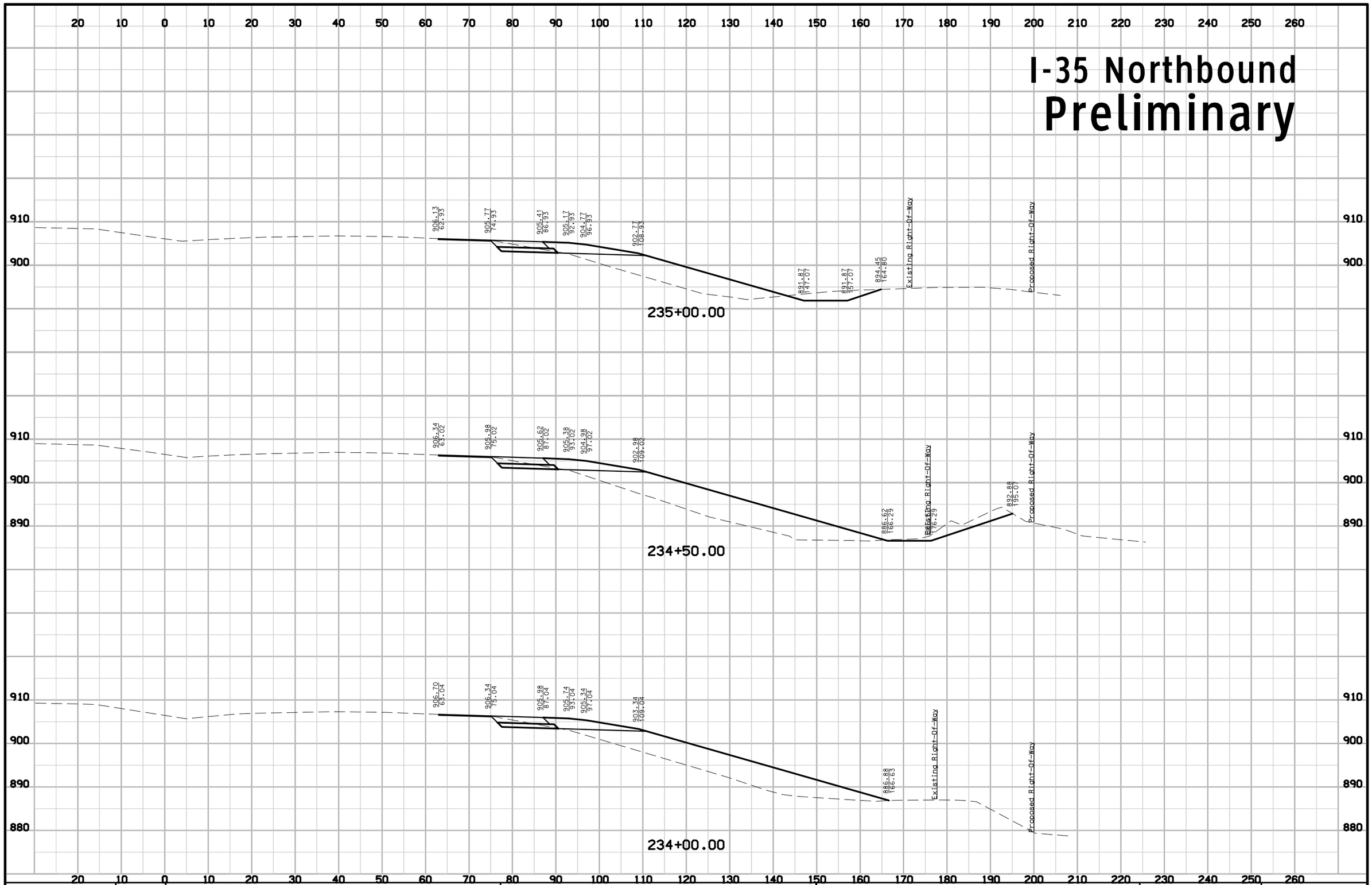
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.31	

12:25:47 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

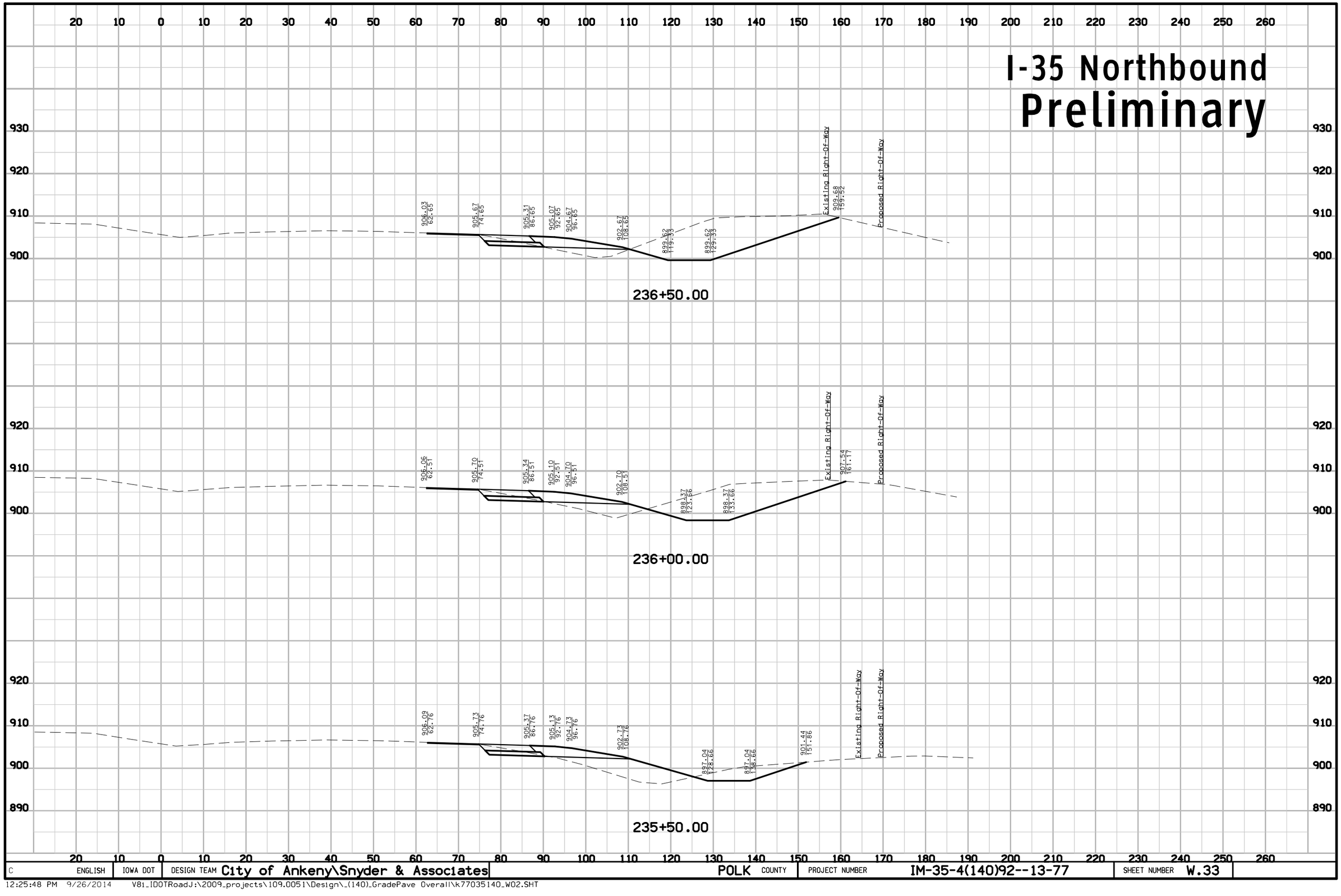
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK	COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.32

12:25:47 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

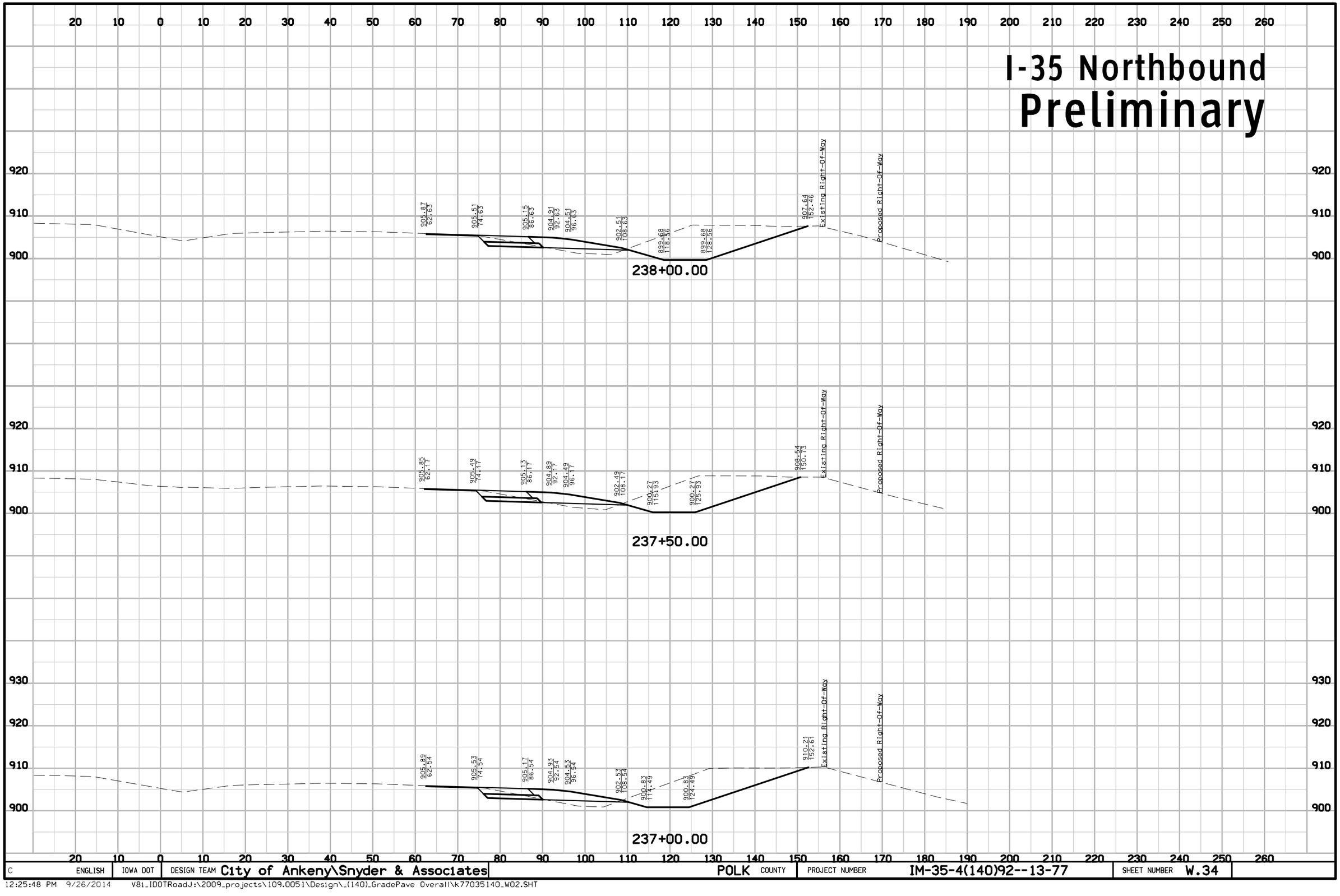
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.33

12:25:48 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

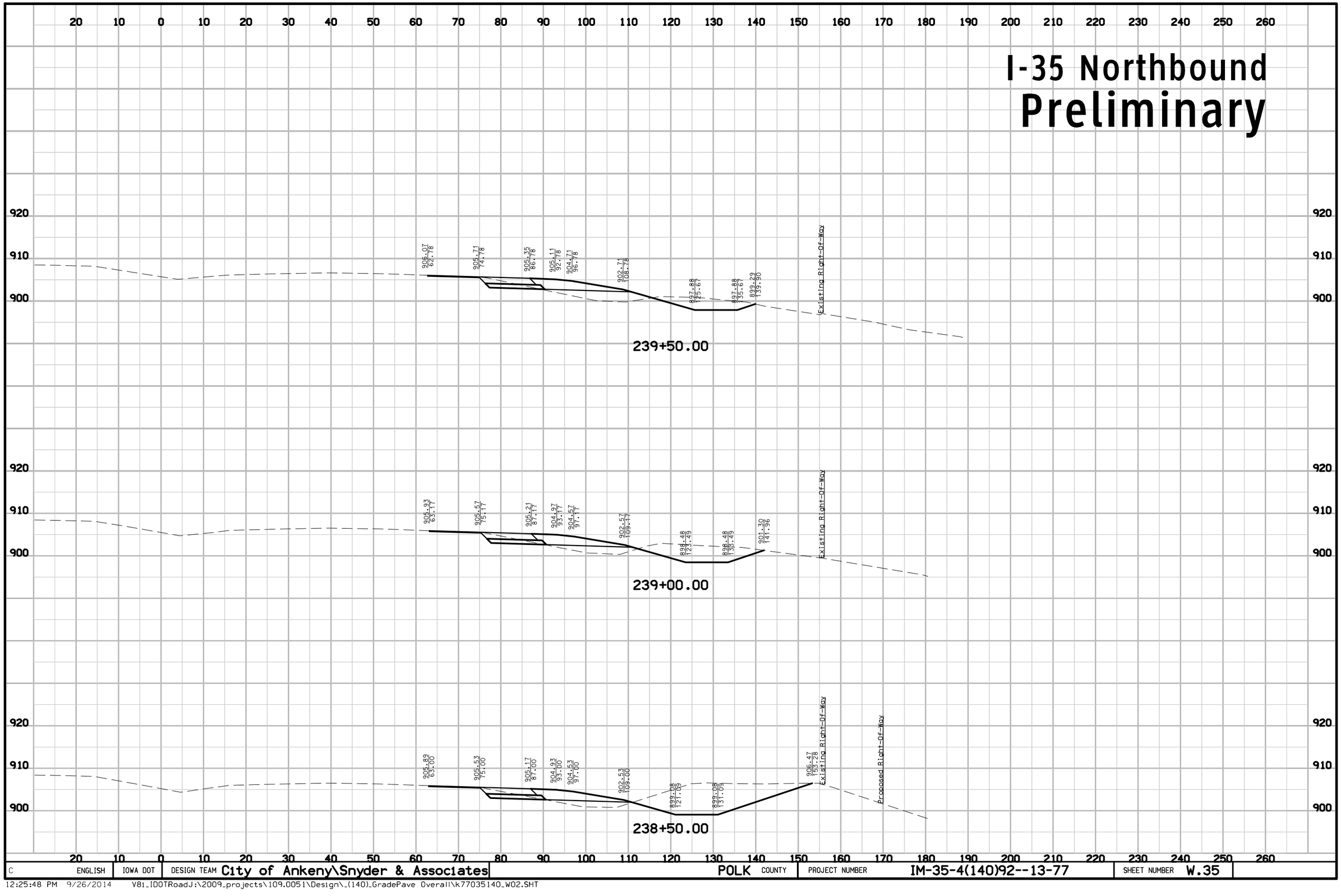
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.34

12:25:48 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

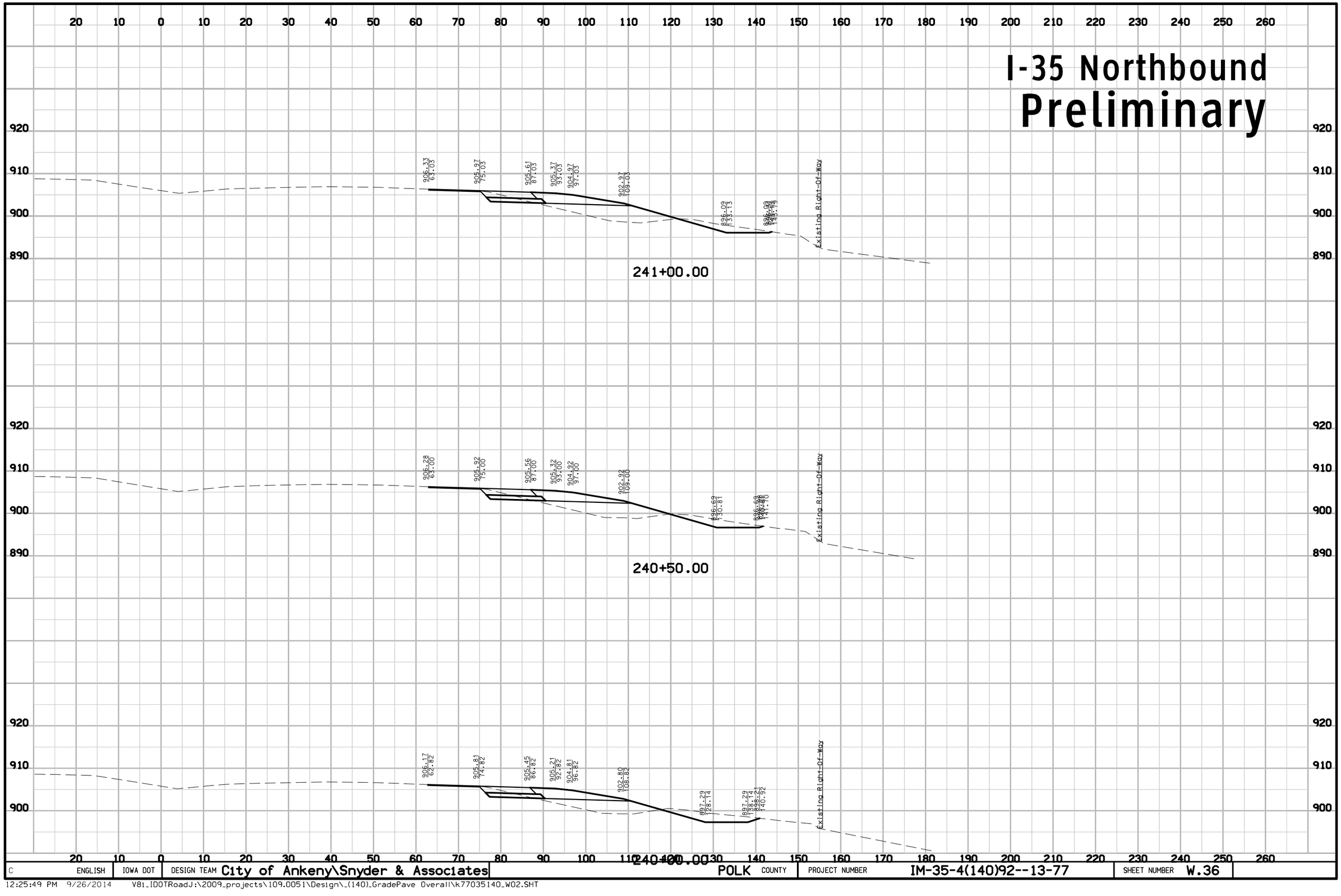
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.35	

12:25:48 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

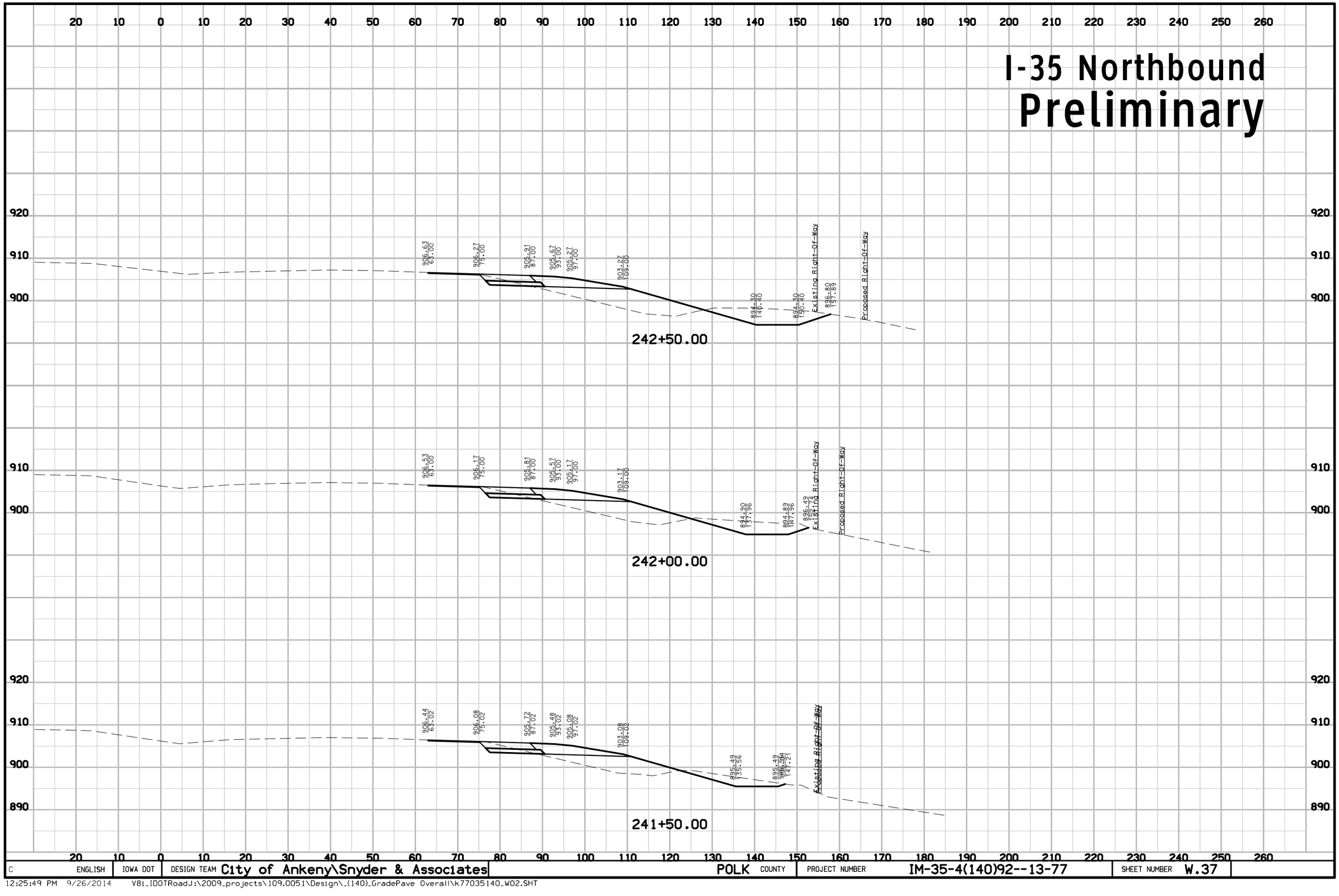
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.36

12:25:49 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

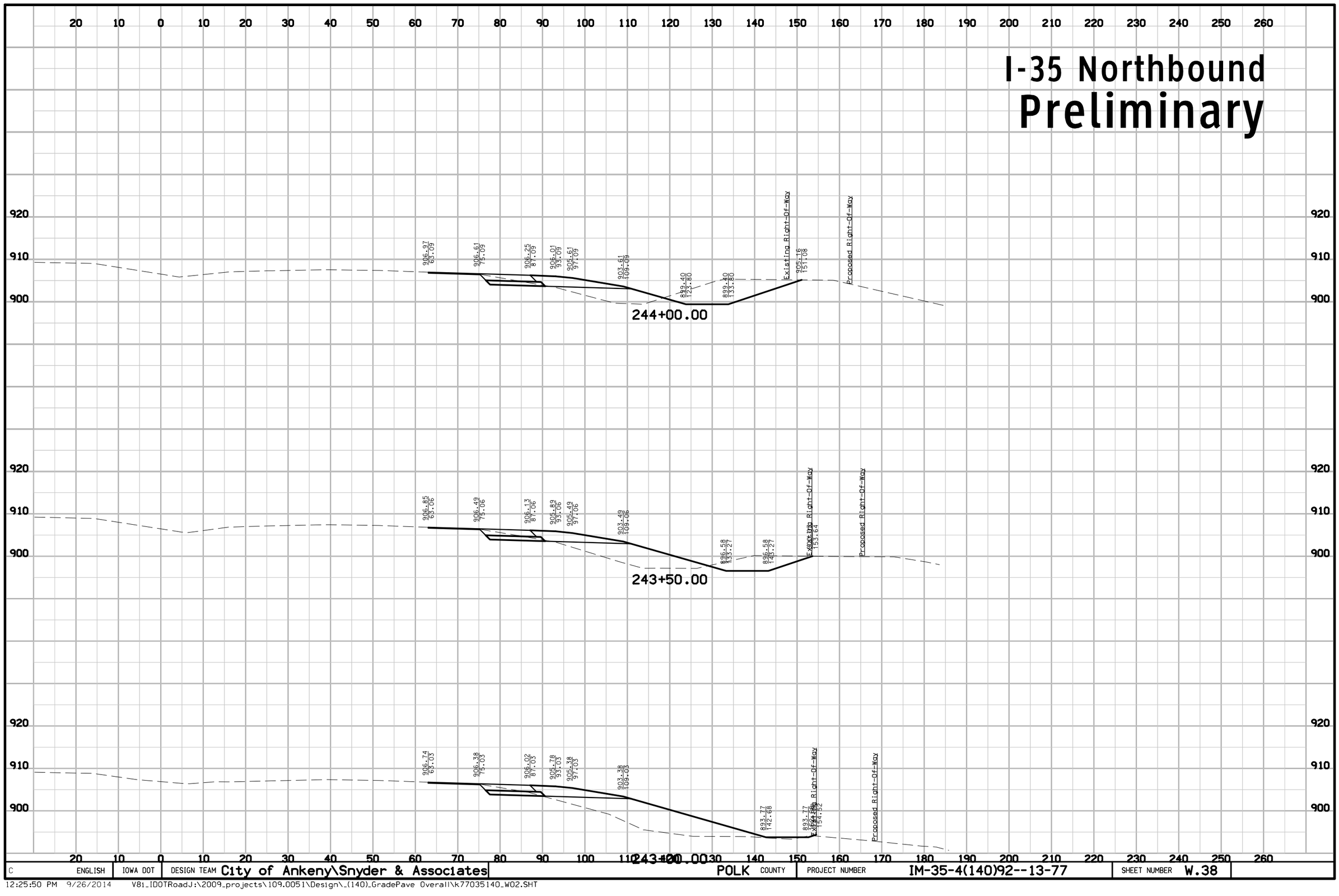
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.37	

12:25:49 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

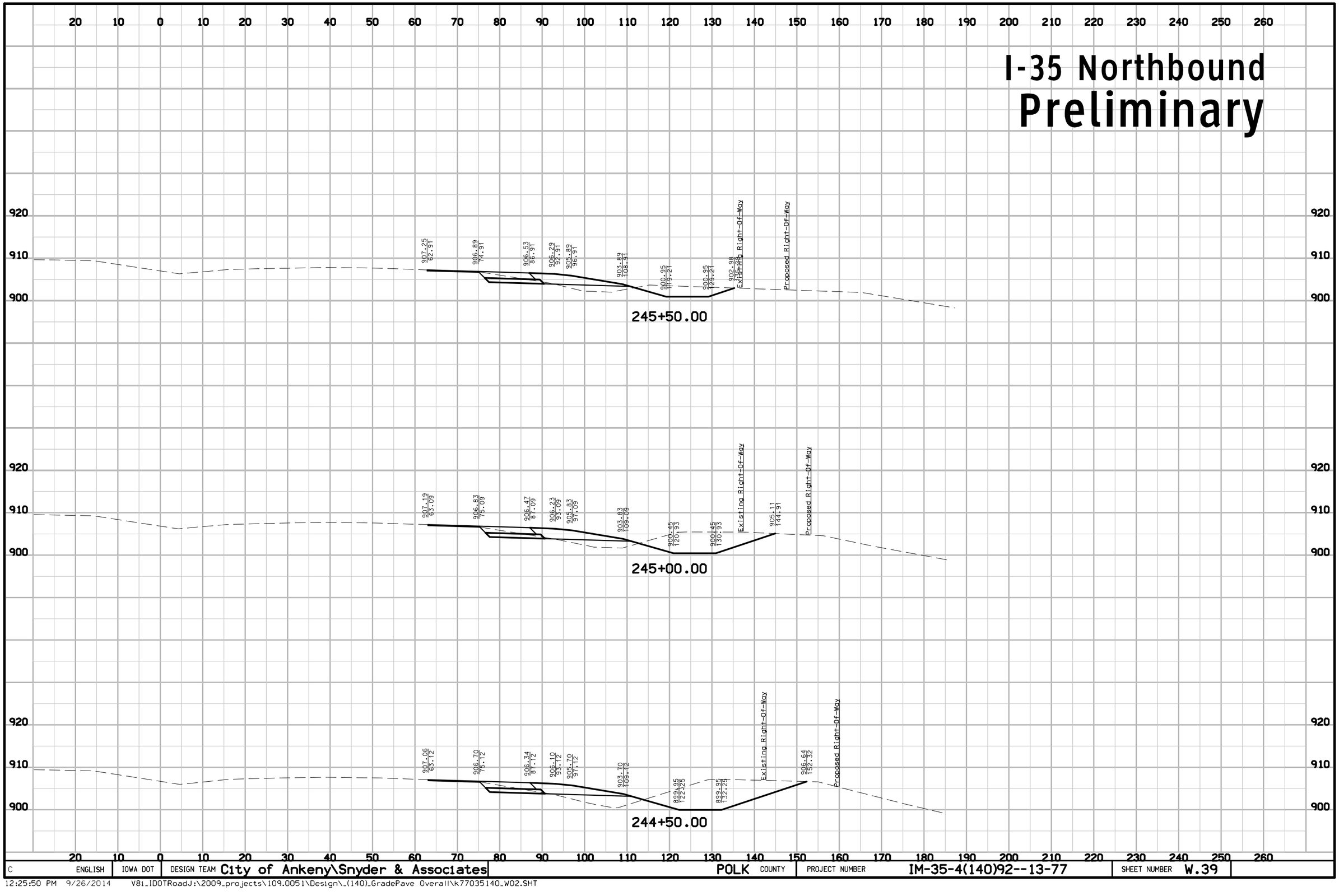
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.38

12:25:50 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

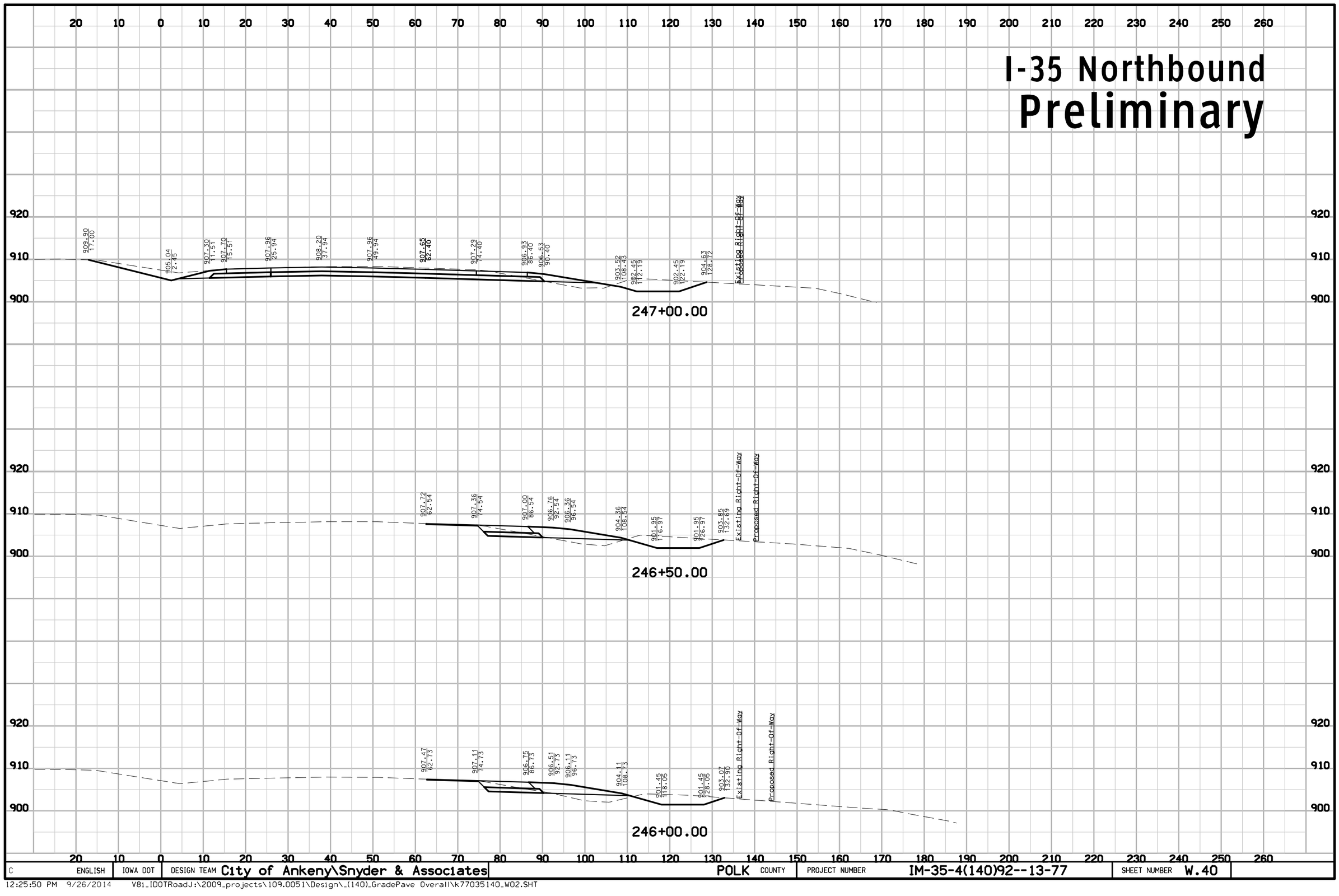
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.39

12:25:50 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

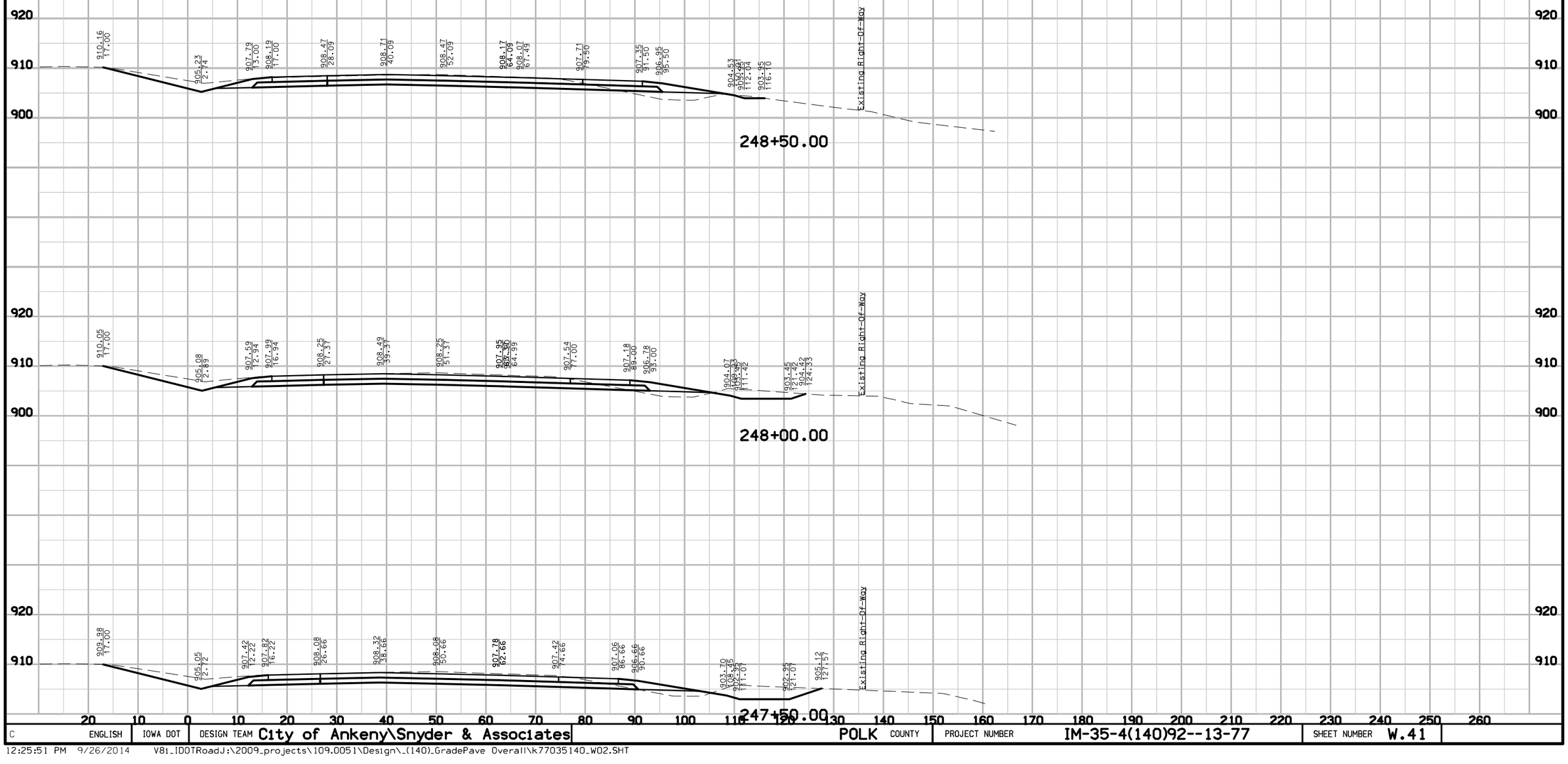
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.40

12:25:50 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

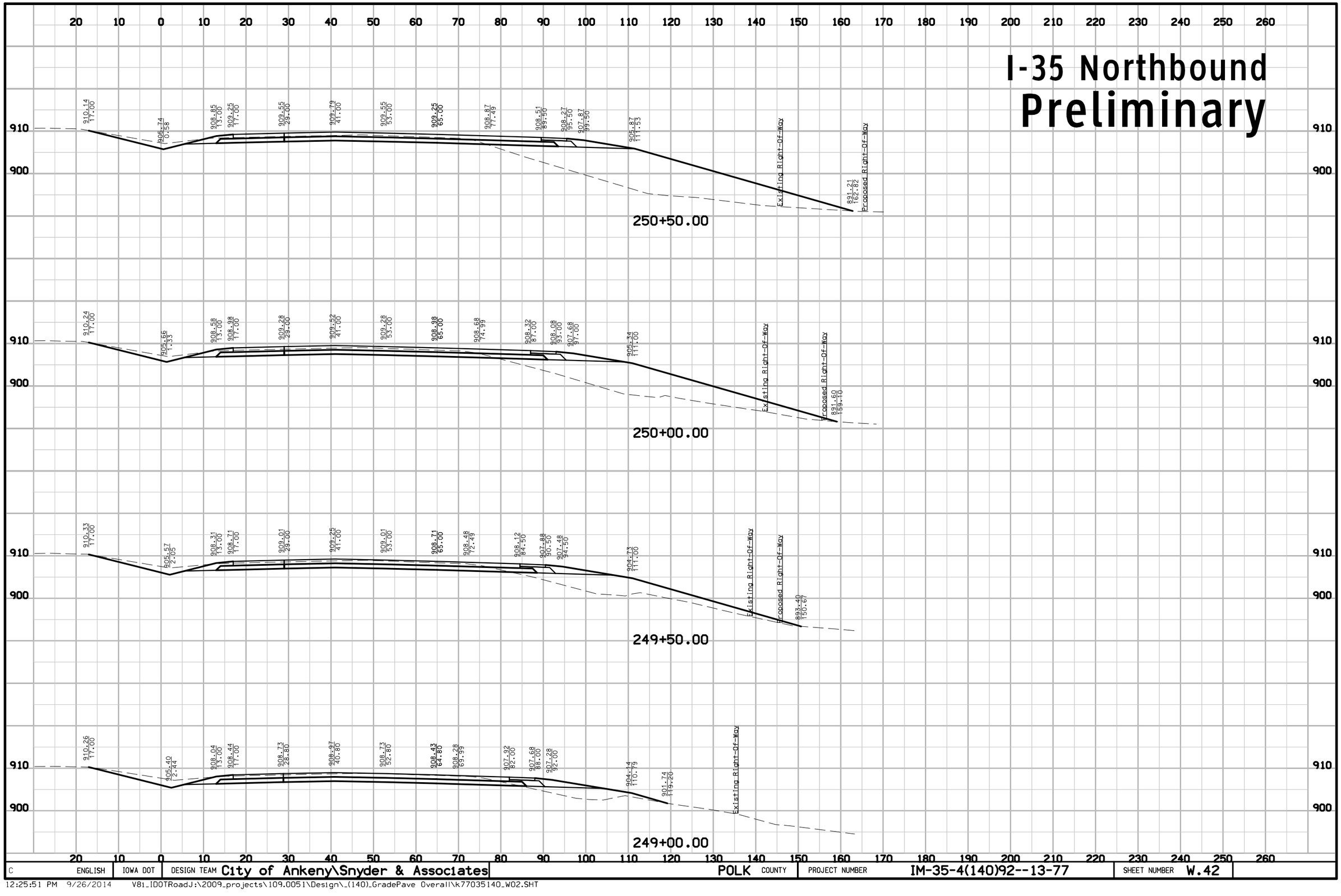
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.41

12:25:51 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

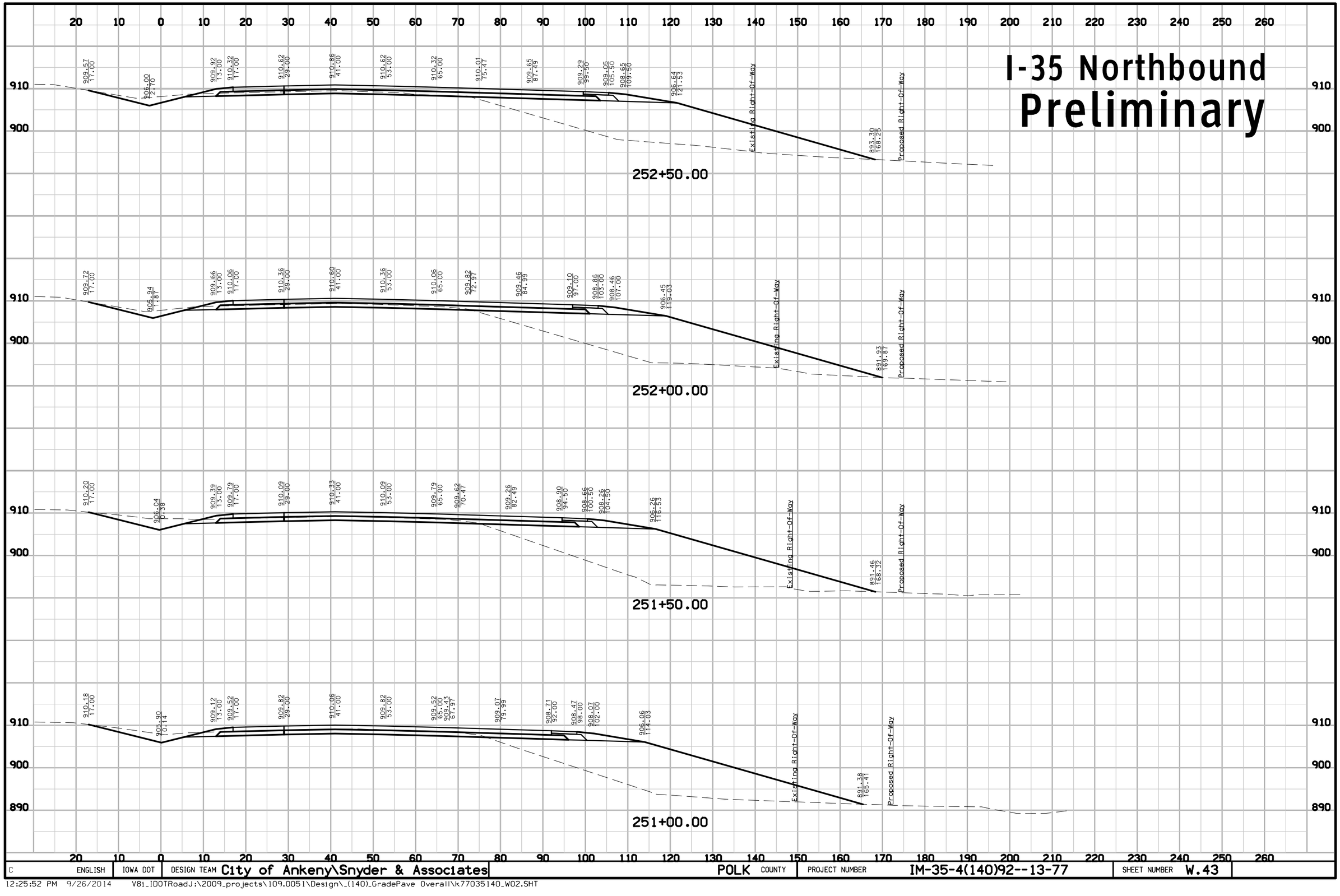
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.42

12:25:51 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

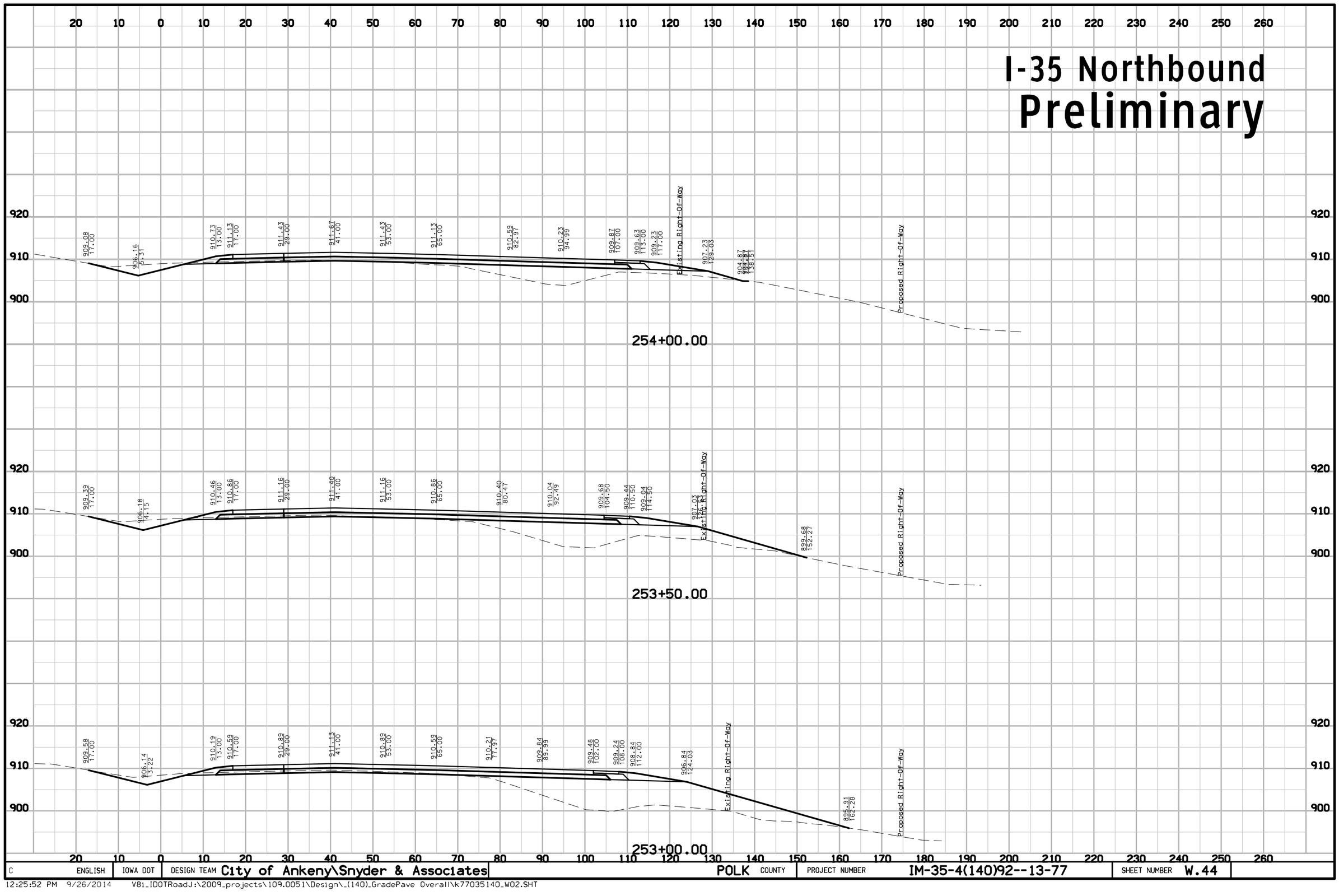
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.43

12:25:52 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

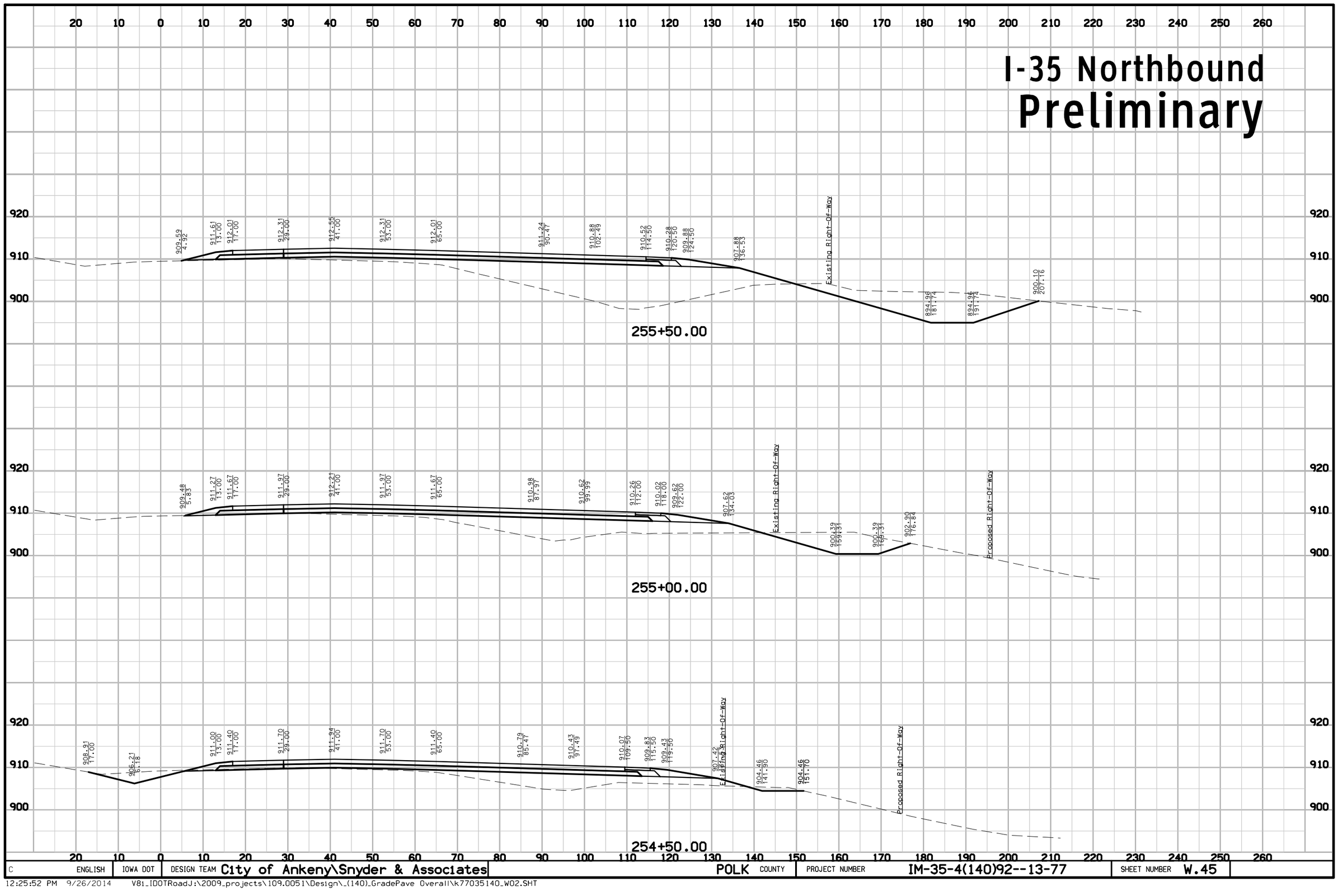
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.44

12:25:52 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

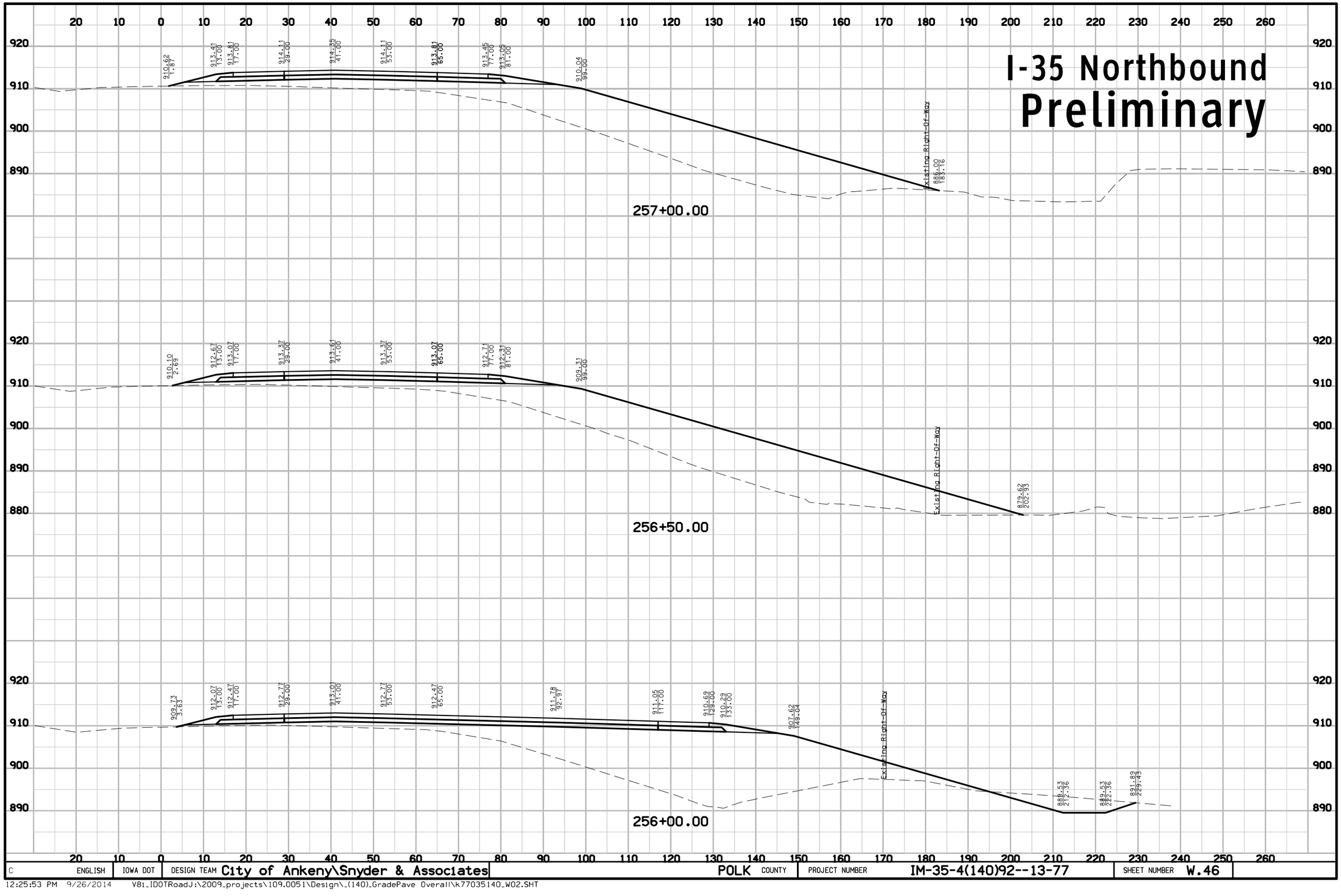
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK	COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.45

12:25:52 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

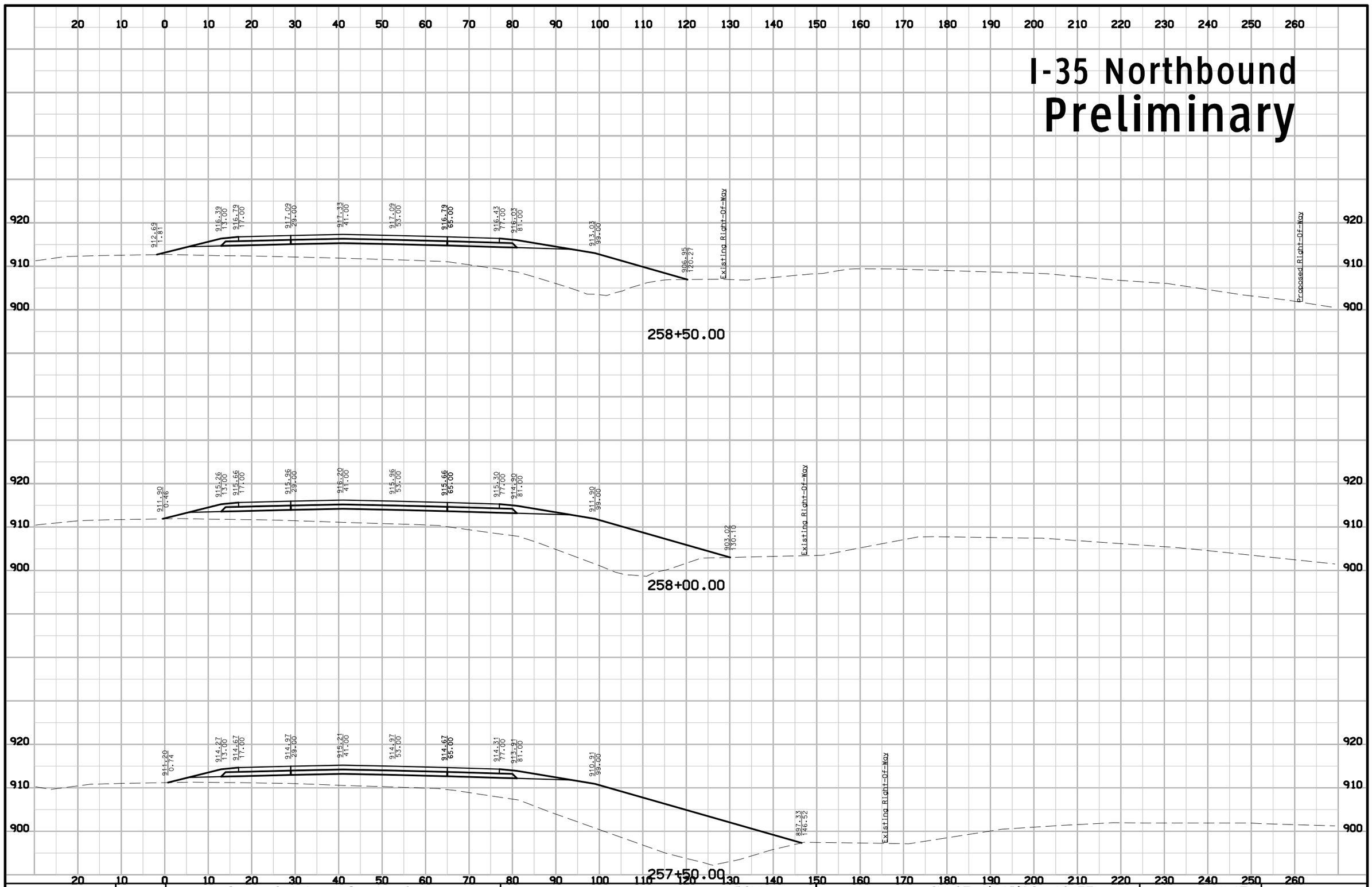
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.46

12:25:53 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

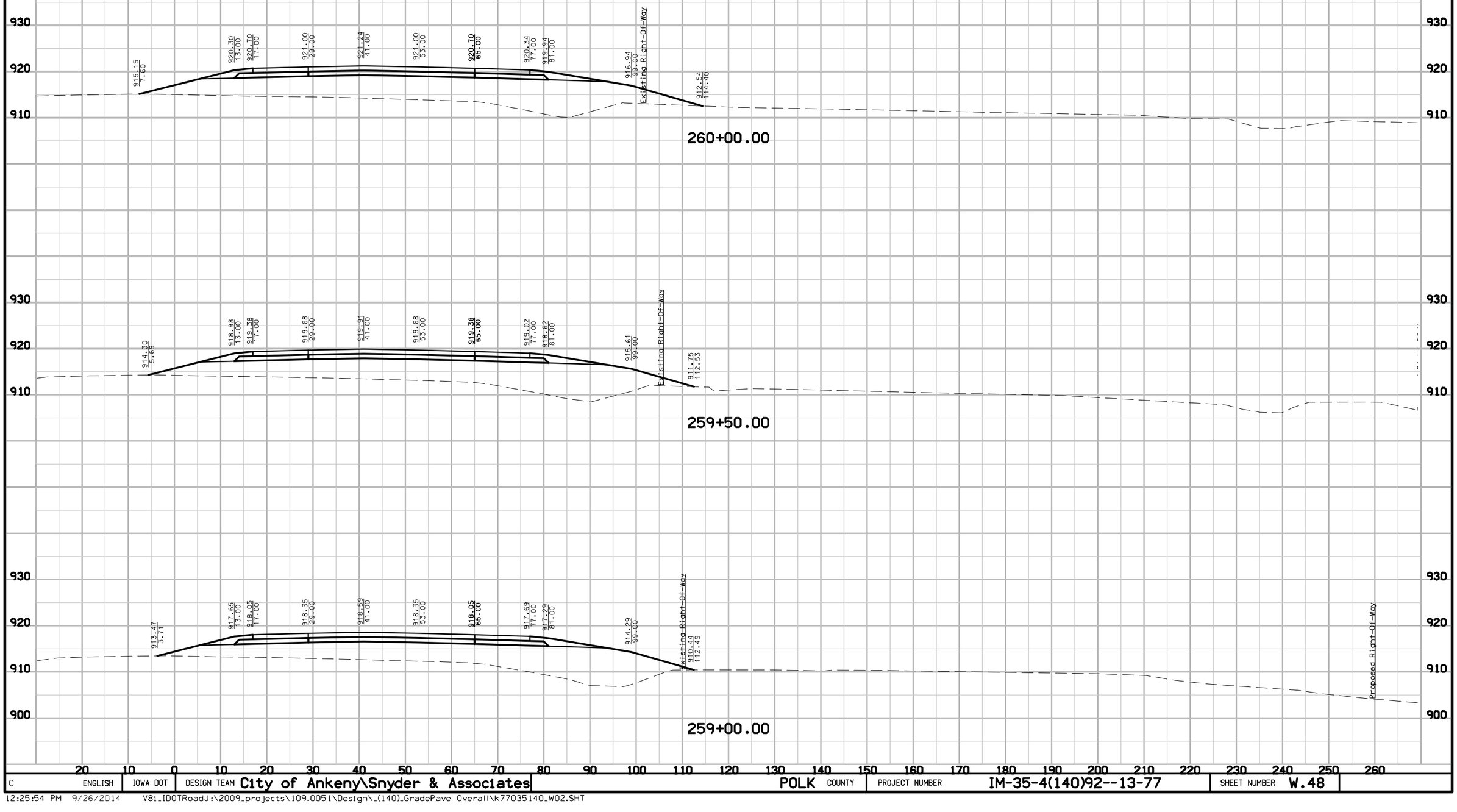
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.47
---	---	---	---	---	---

12:25:53 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

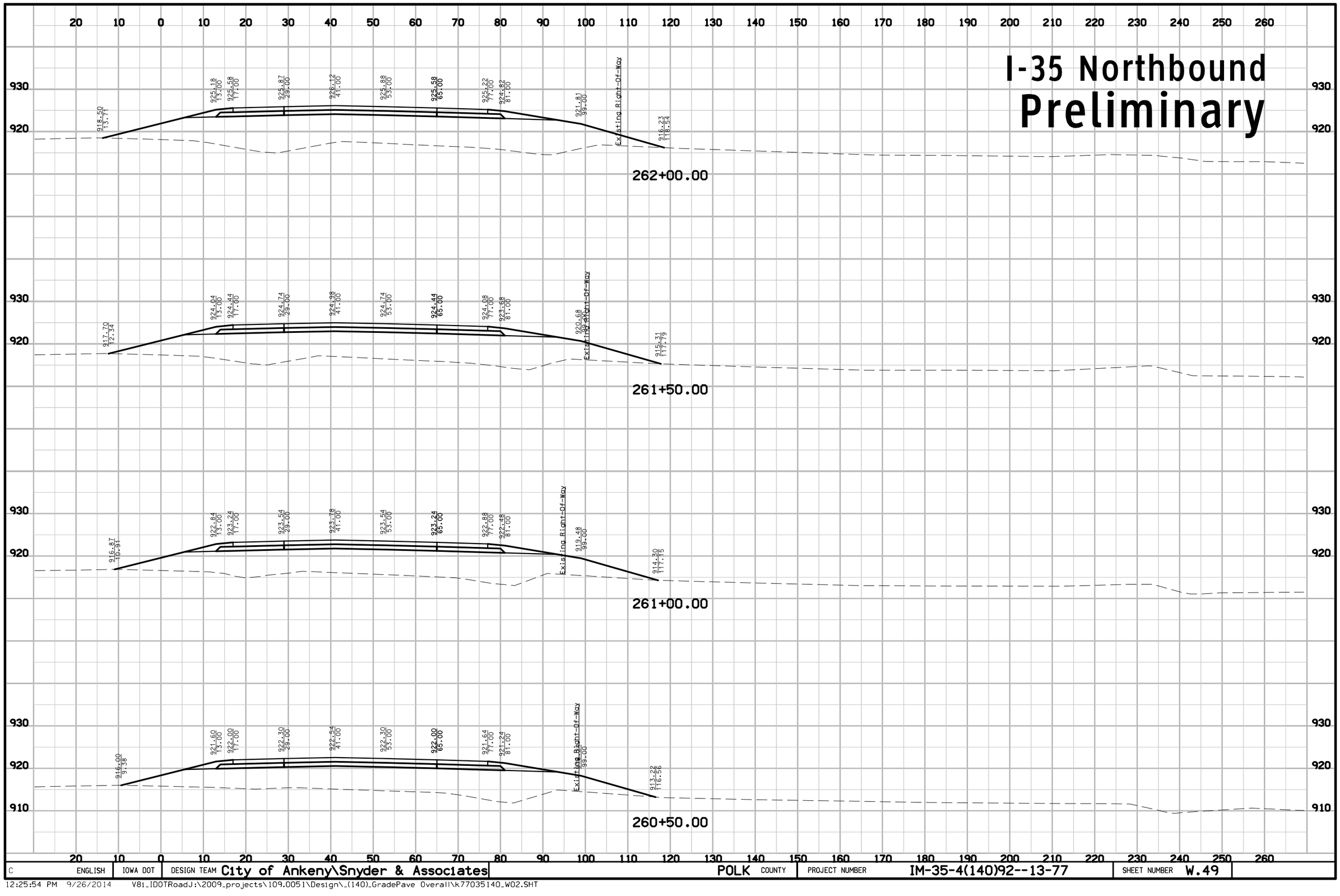
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.48

12:25:54 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

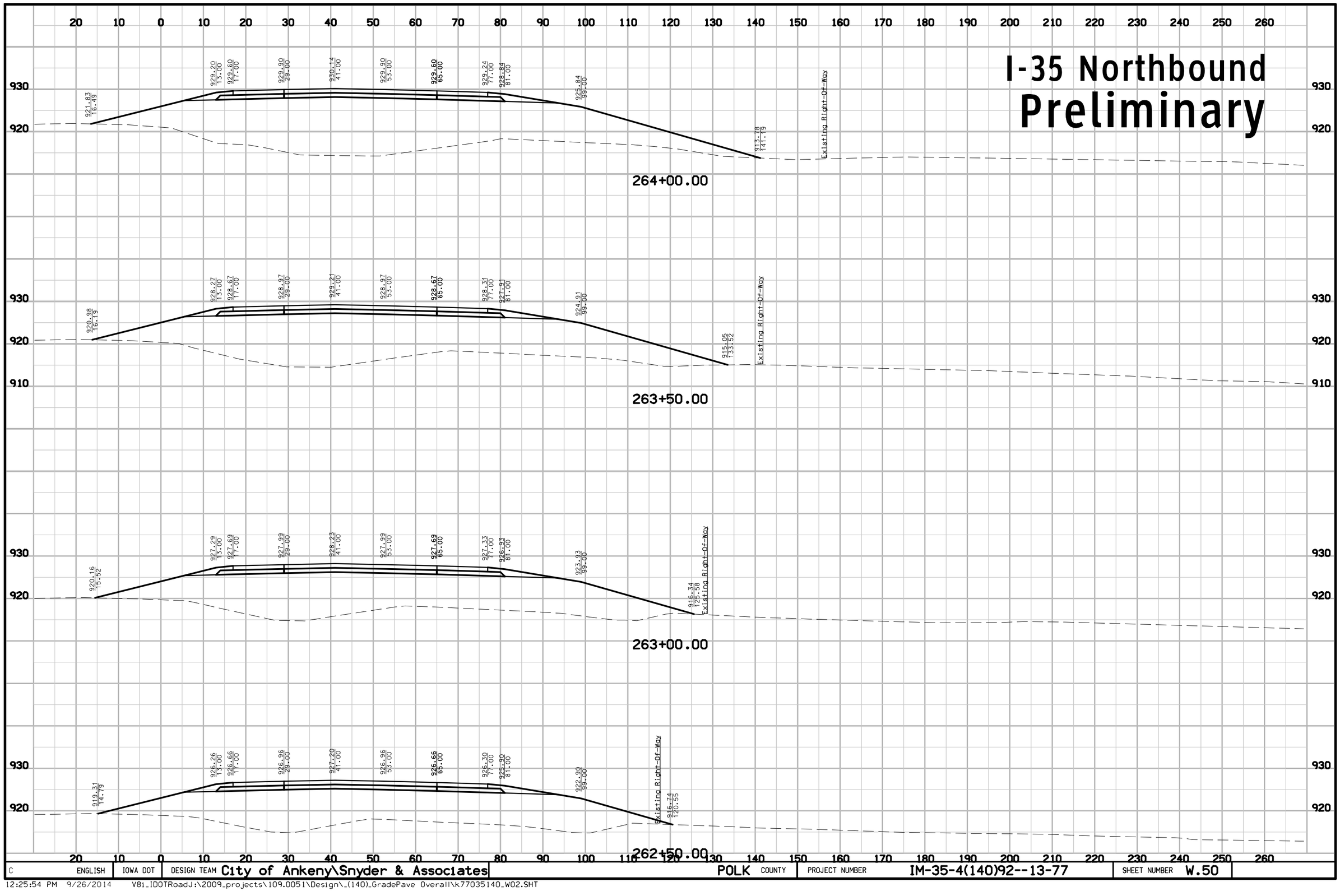
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.49	

12:25:54 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

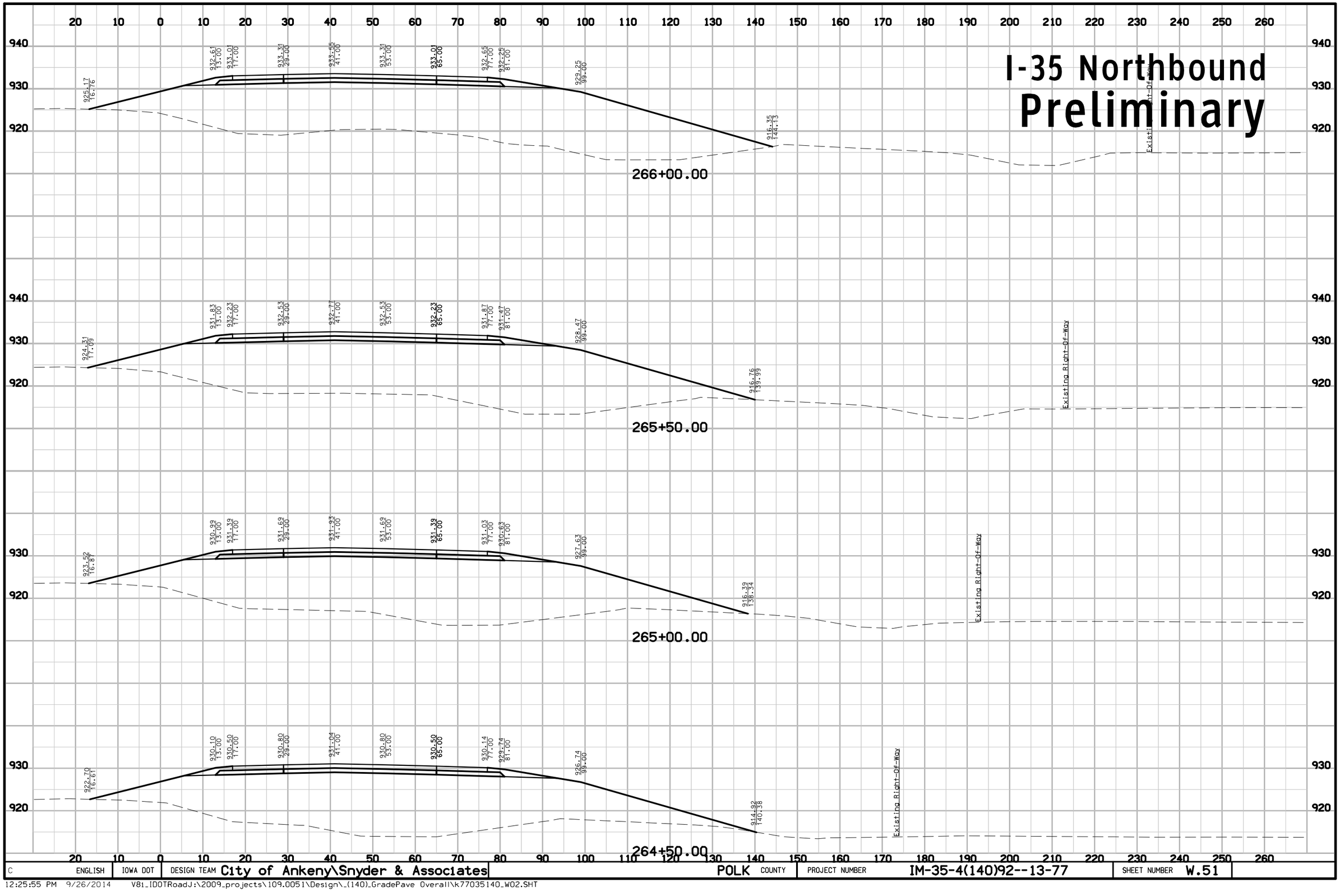
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.50

12:25:54 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

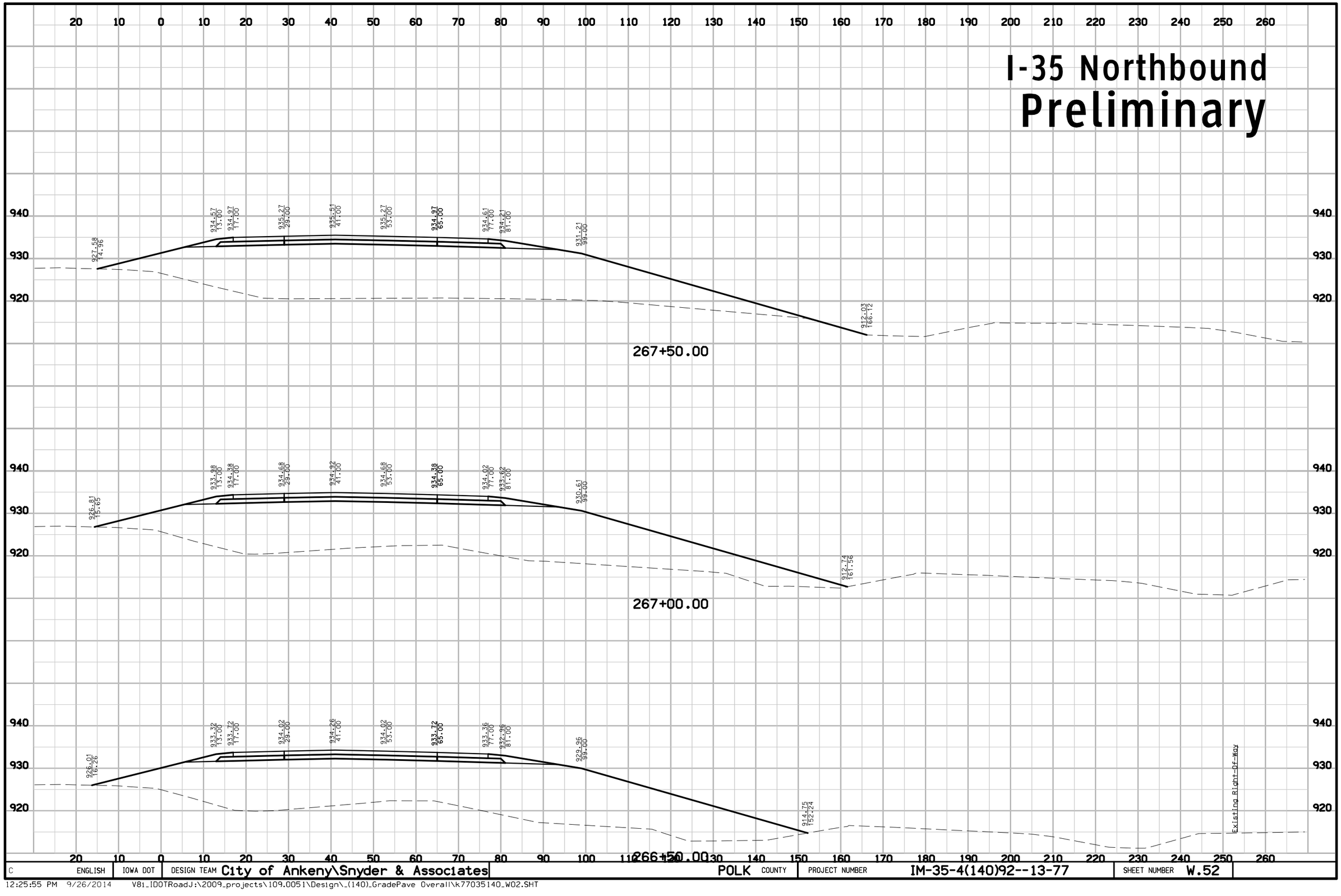
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.51

12:25:55 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

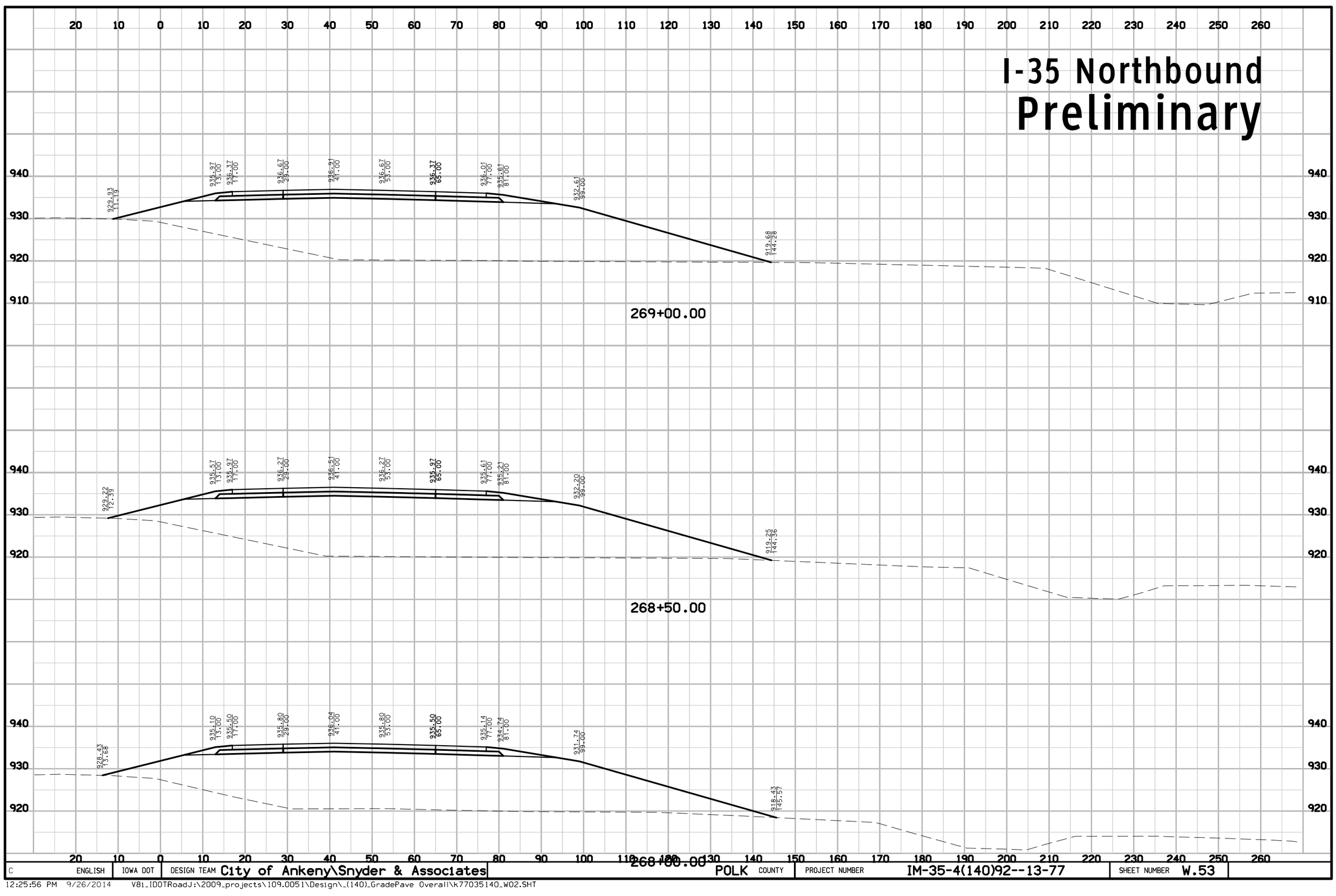
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.52

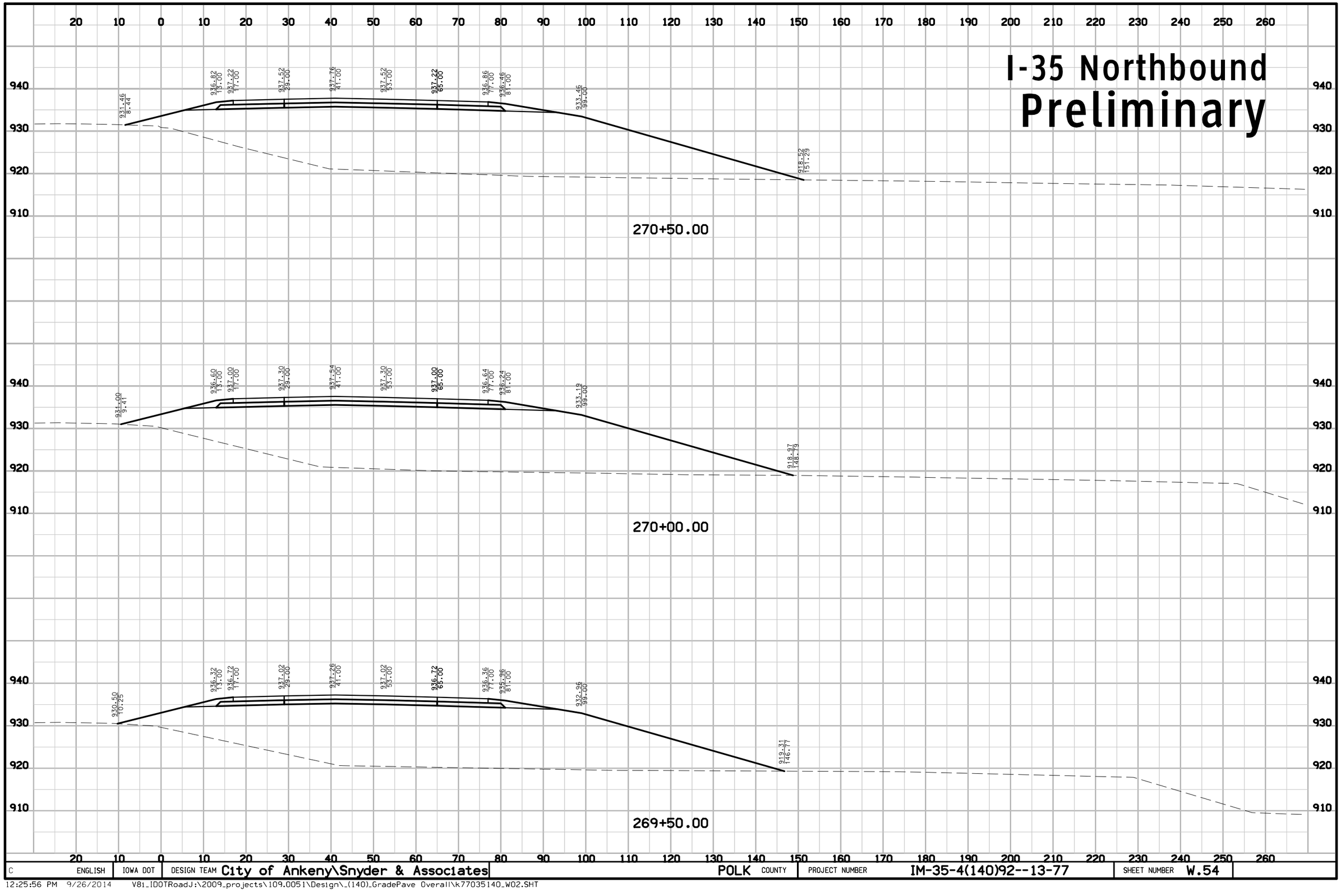
12:25:55 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.53

I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.54

12:25:56 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I-35 Northbound
Preliminary

20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260

940
930
920

272+00.00

940
930
920
910

271+50.00

940
930
920

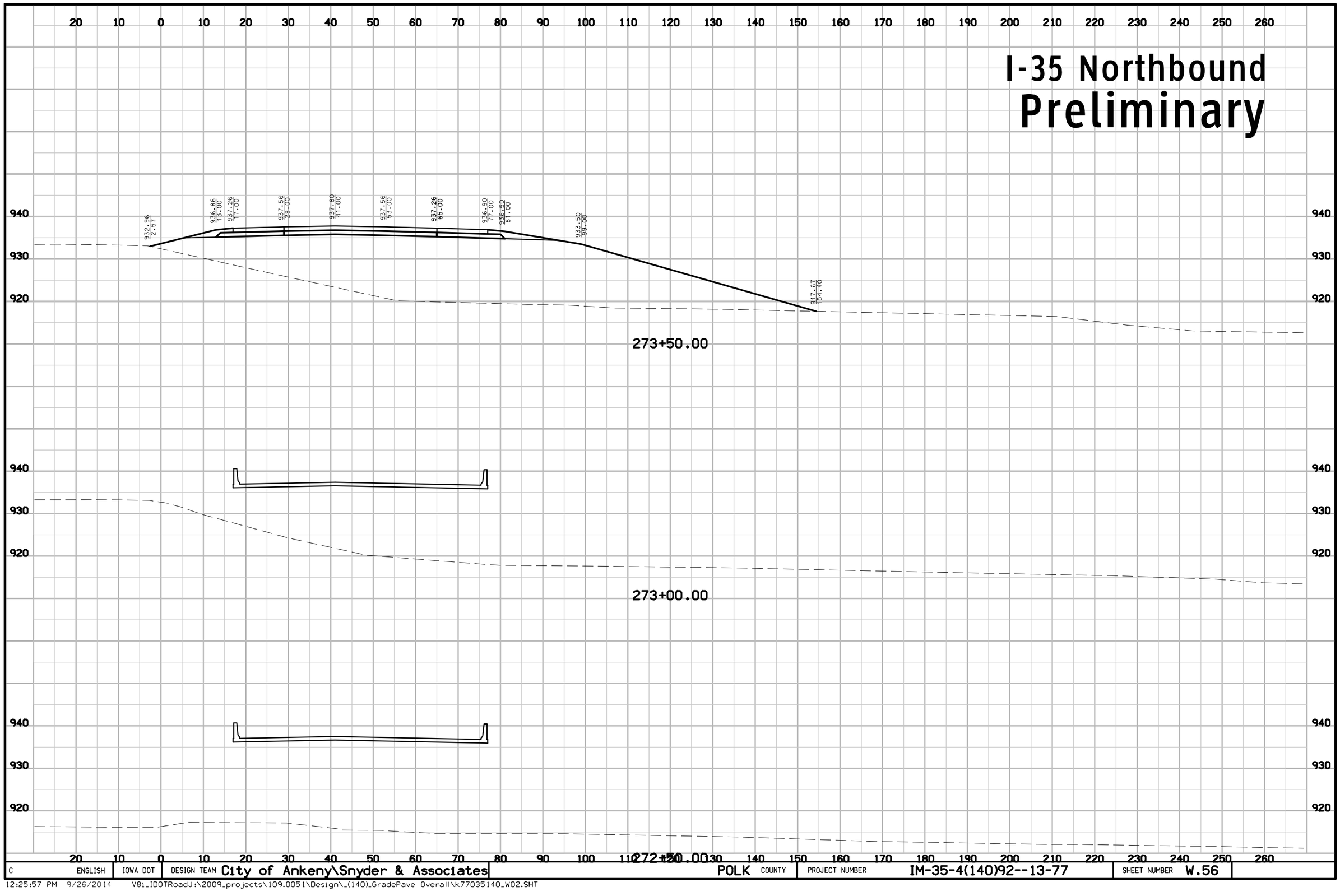
271+00.00

20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260

C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.55	

12:25:56 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

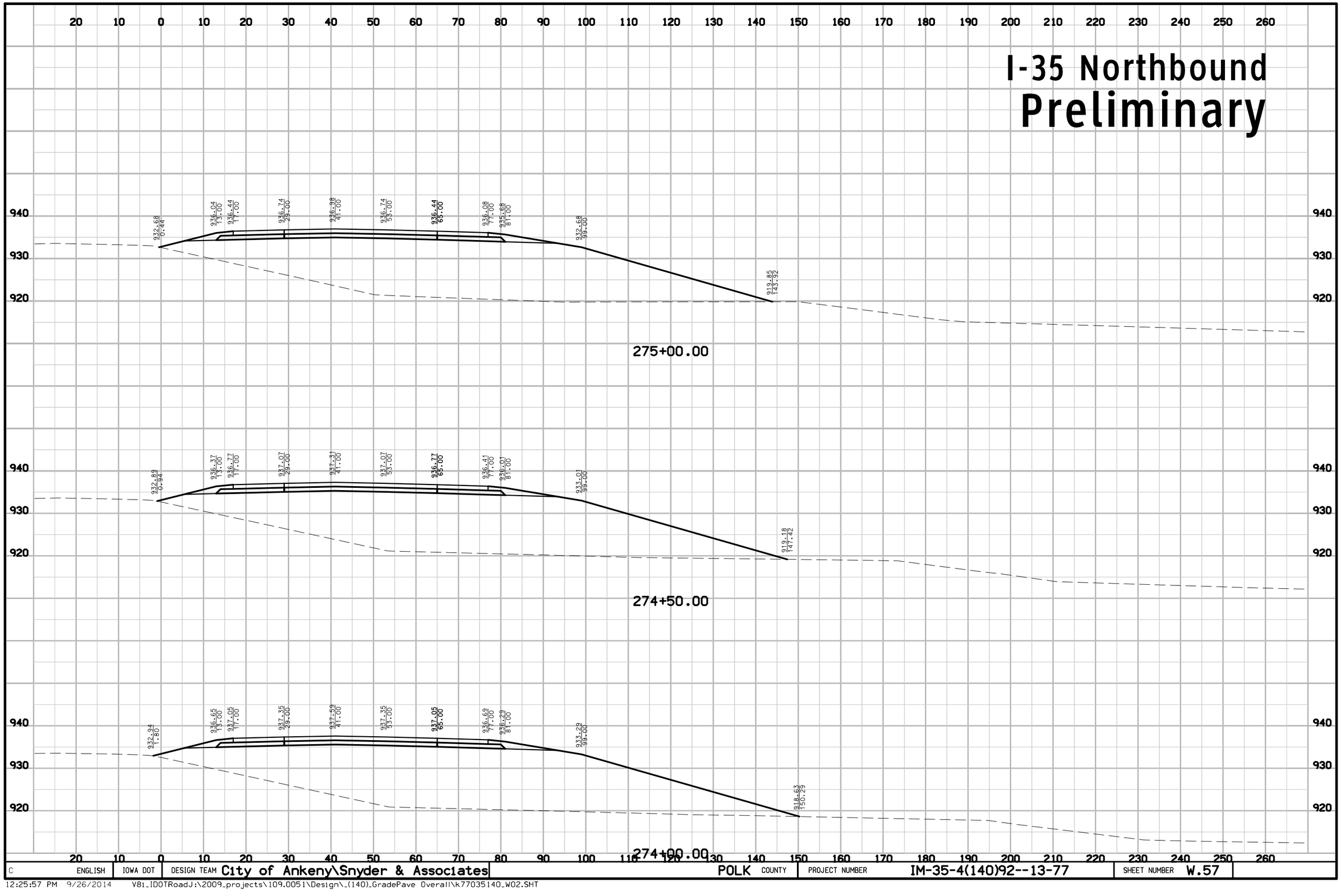
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.56
---	---	---	---	---	---

12:25:57 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

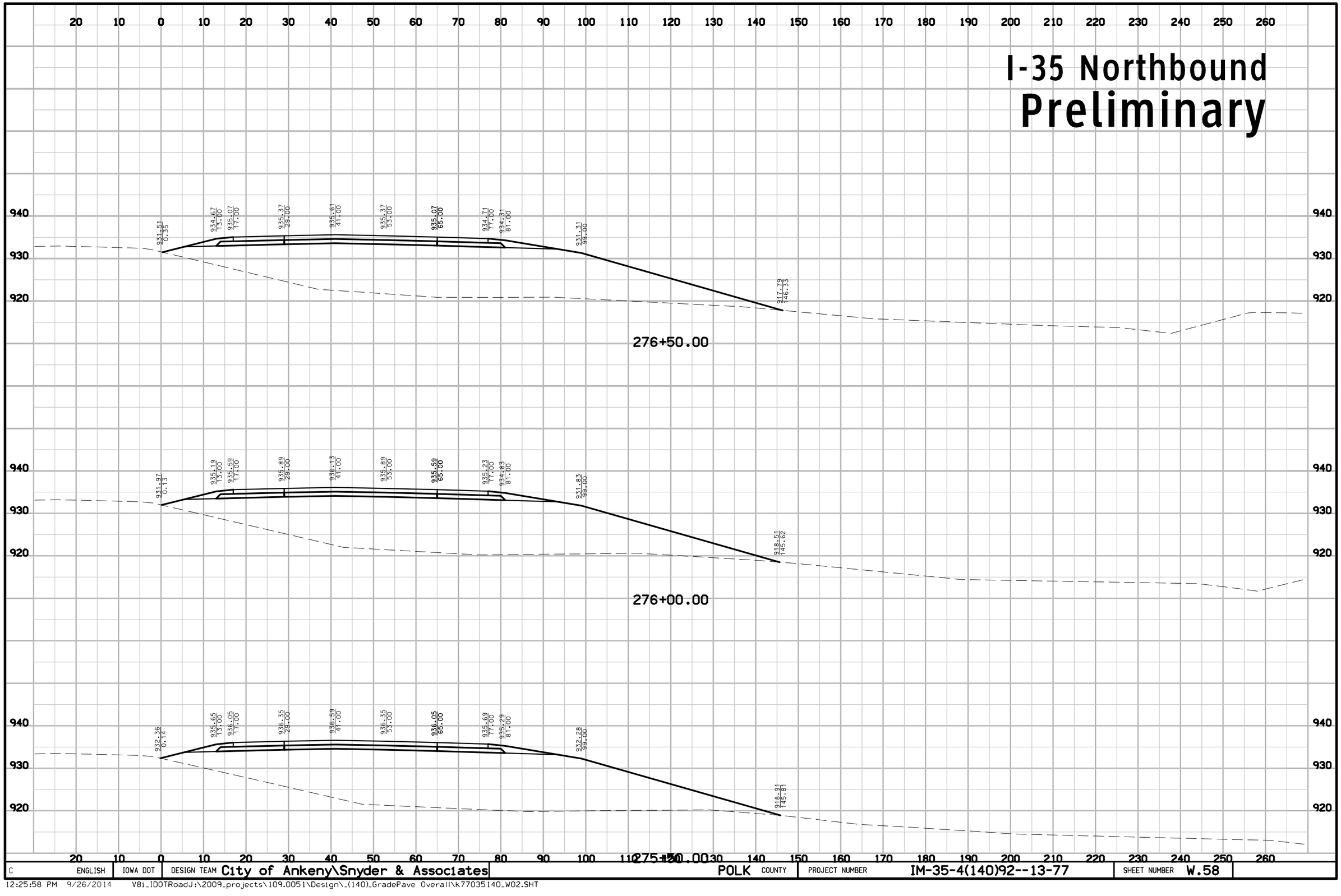
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.57

12:25:57 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

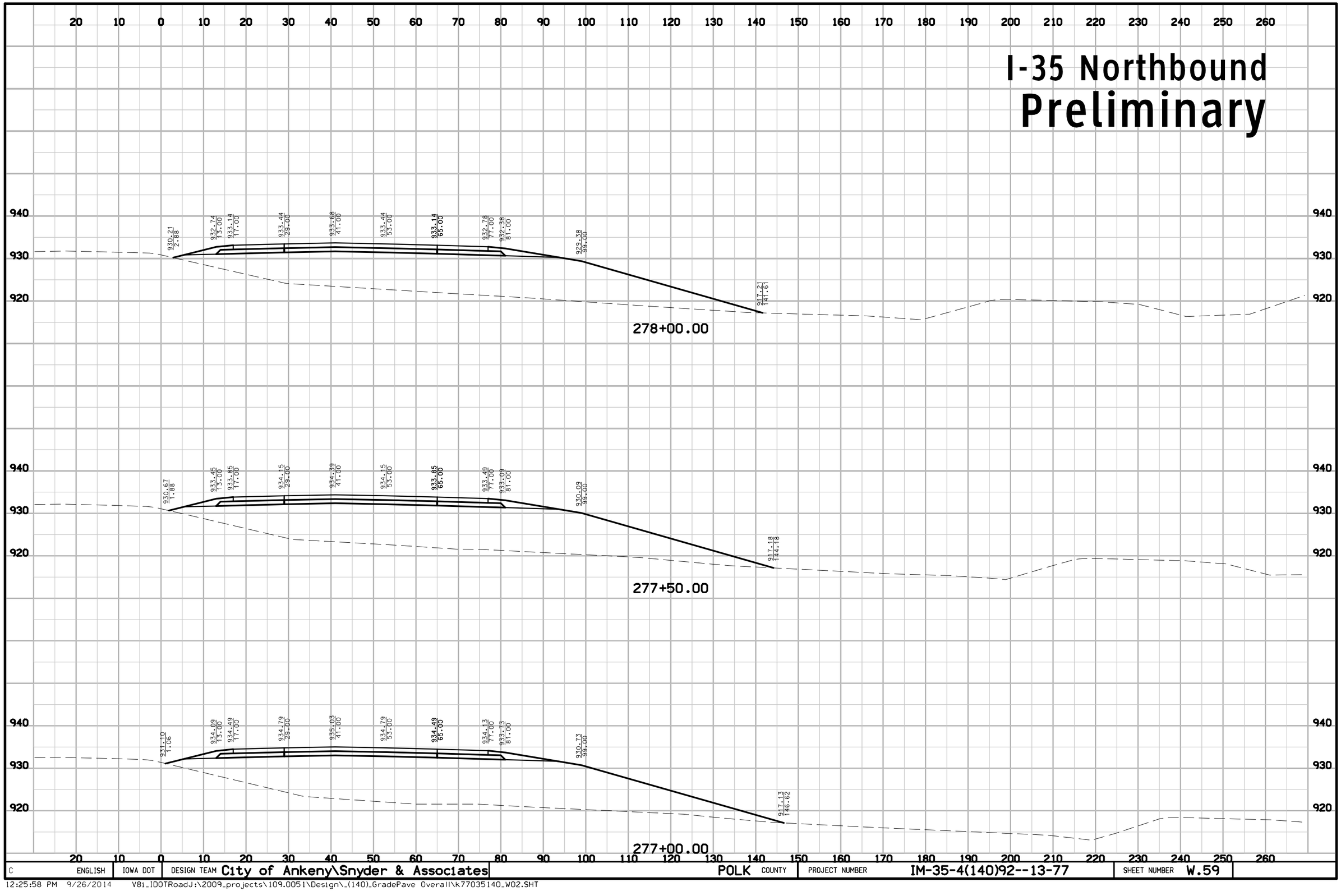
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.58

12:25:58 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

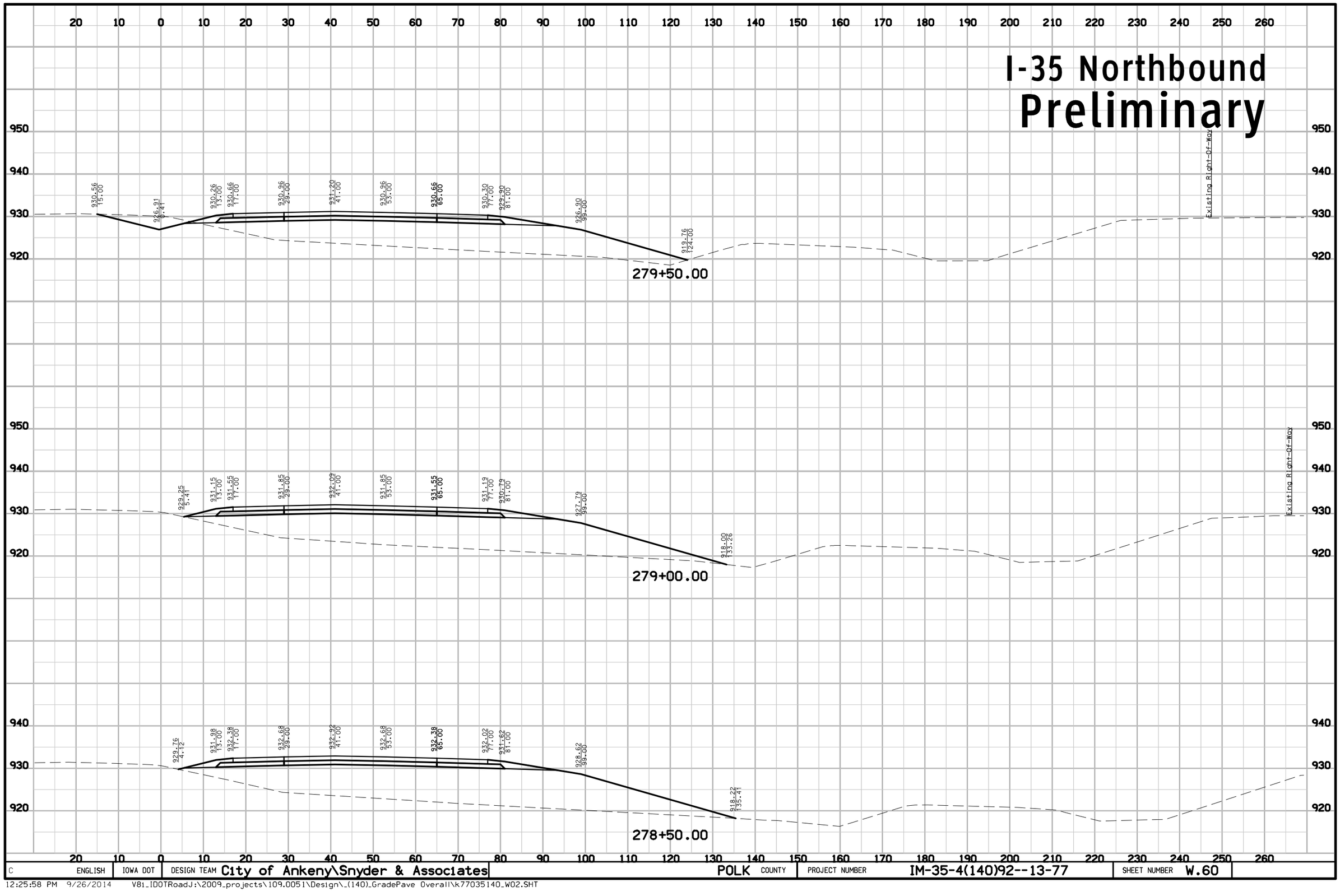
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.59

12:25:58 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

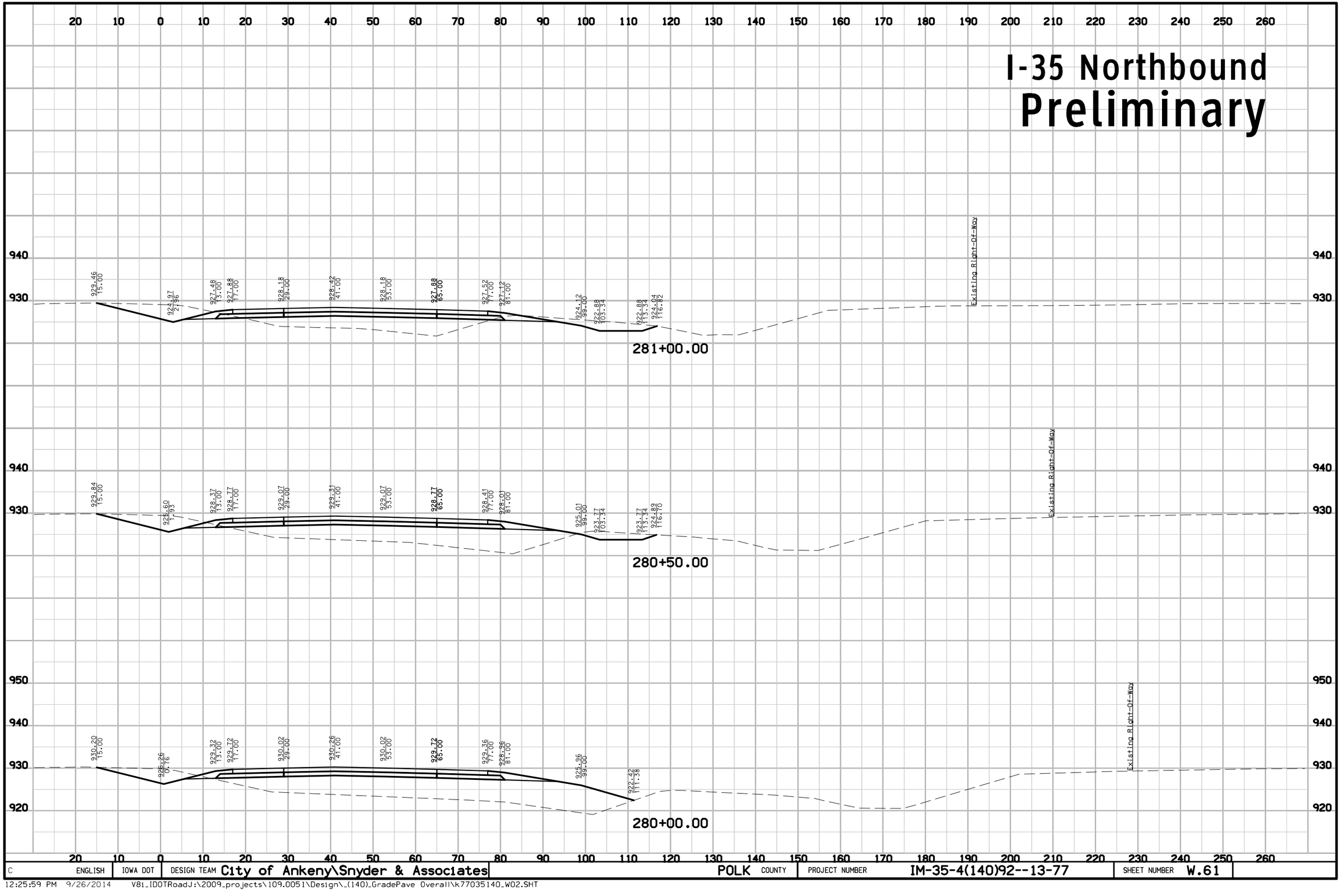
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.60

12:25:58 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

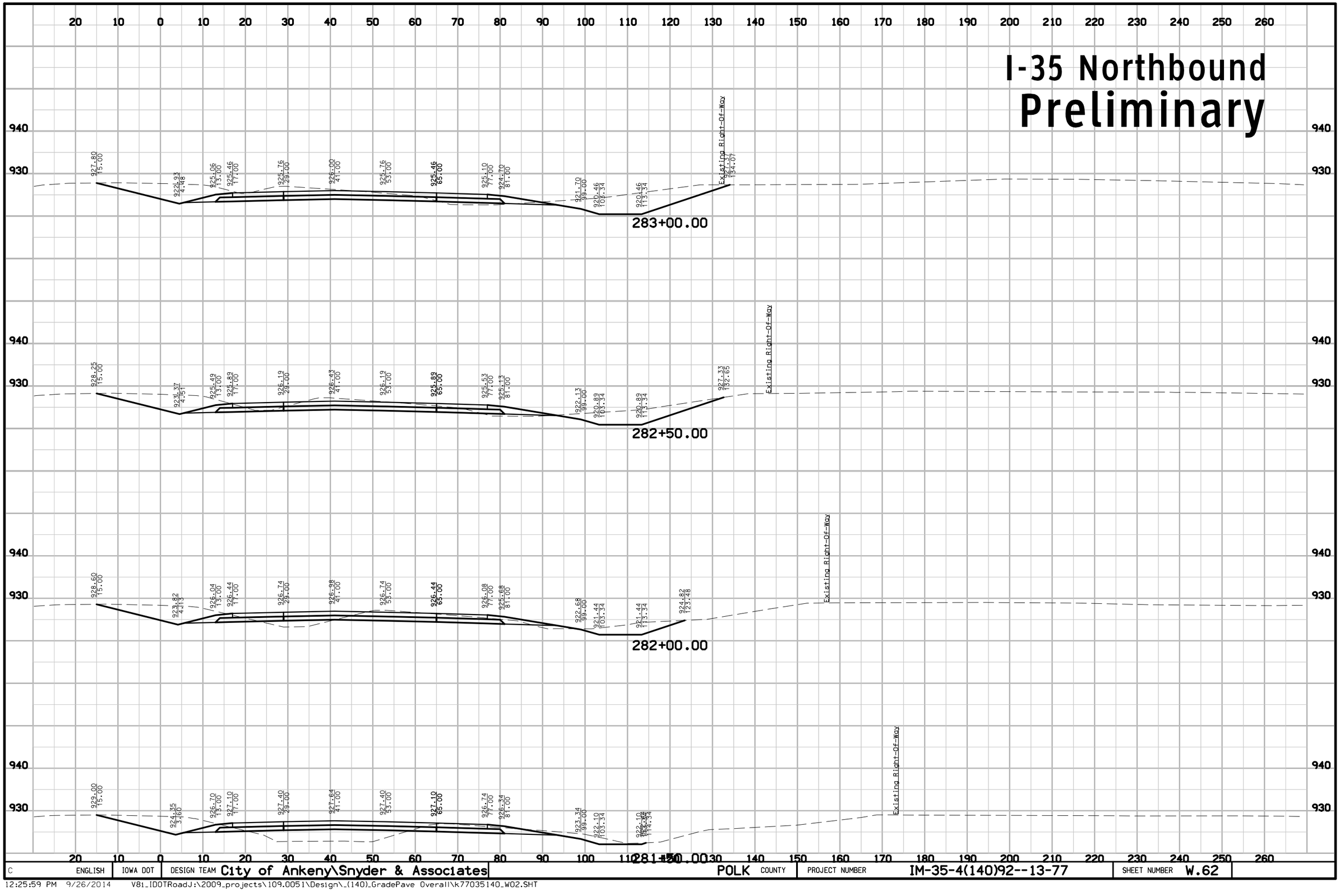
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.61

12:25:59 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

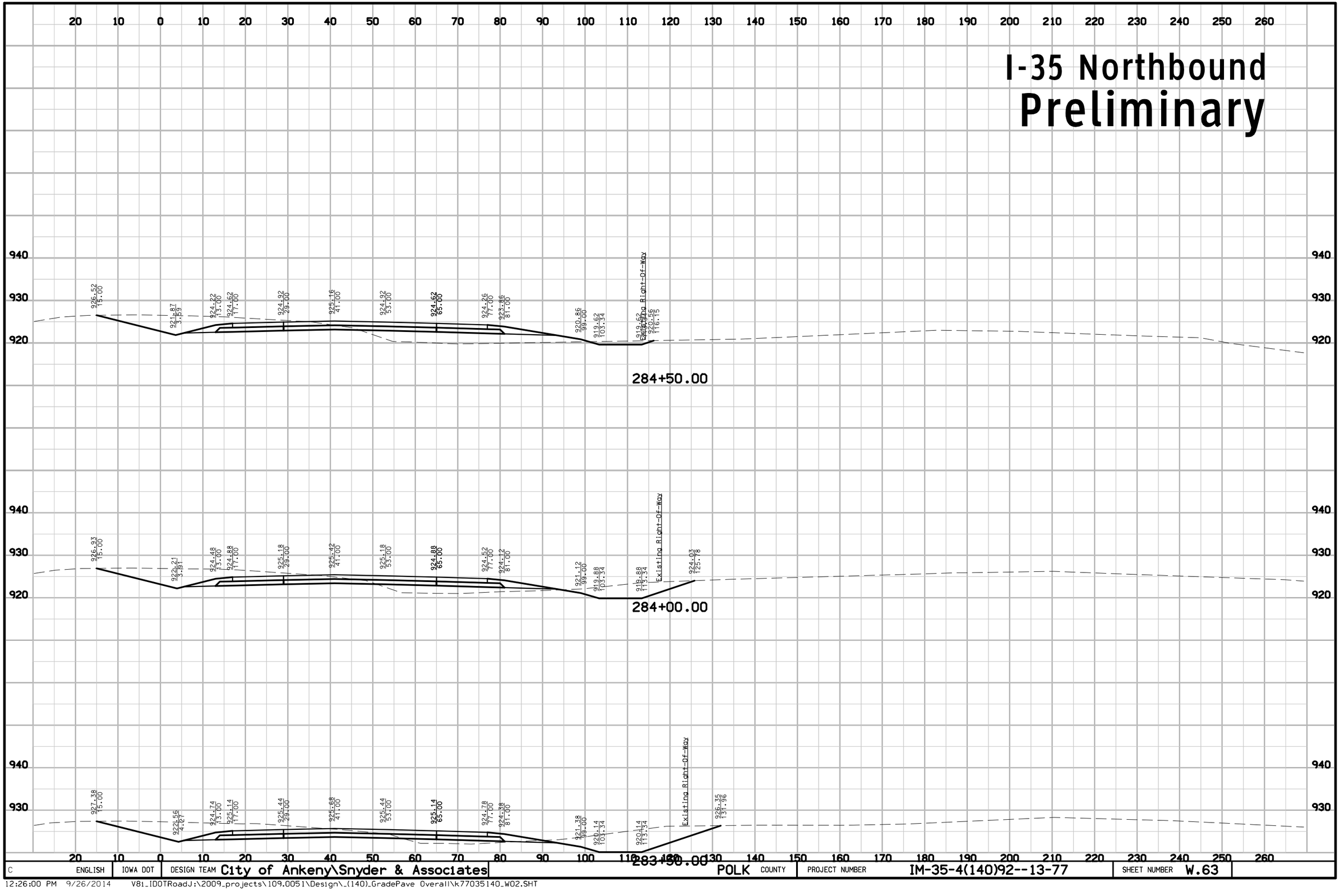
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.62

12:25:59 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

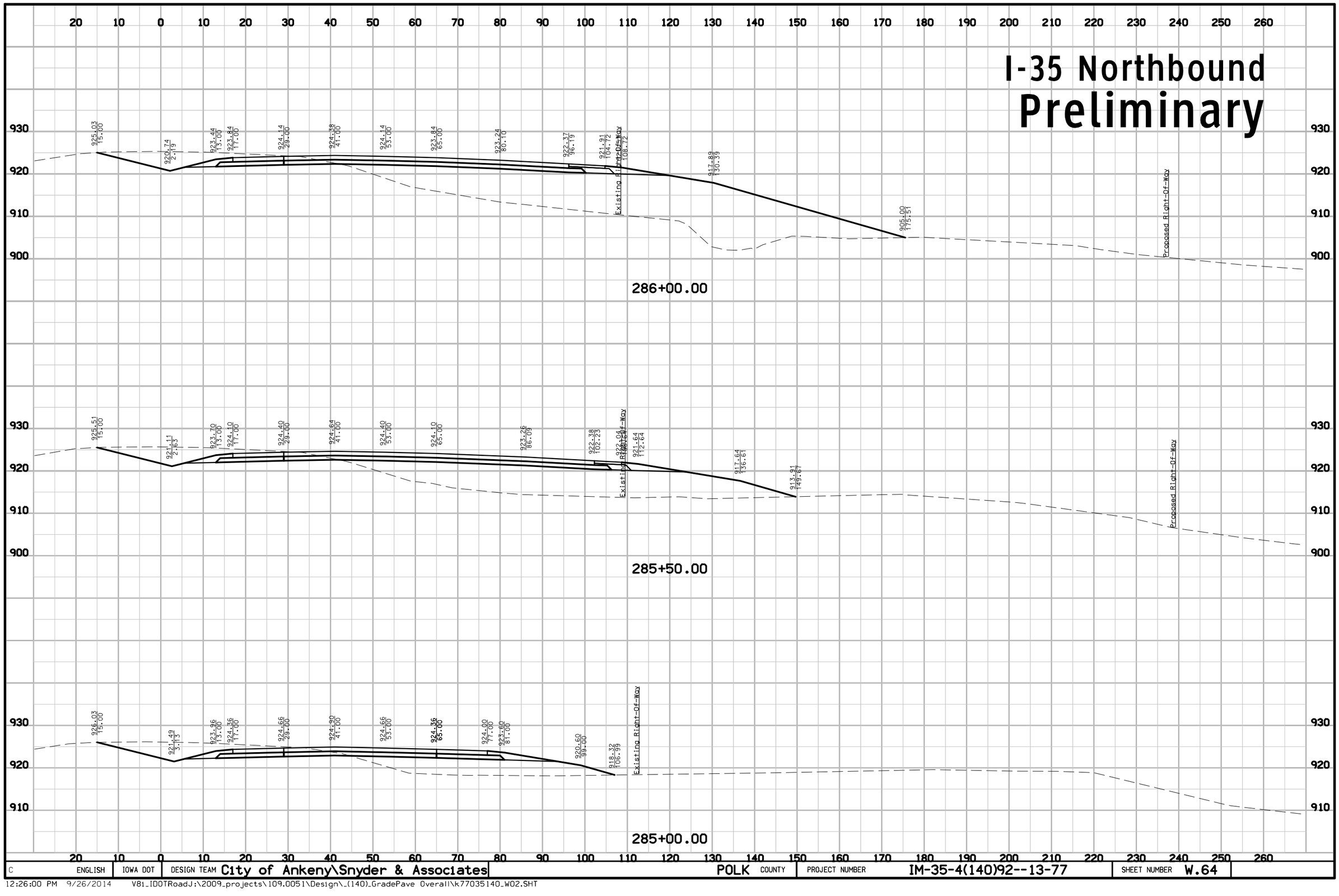
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.63

12:26:00 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

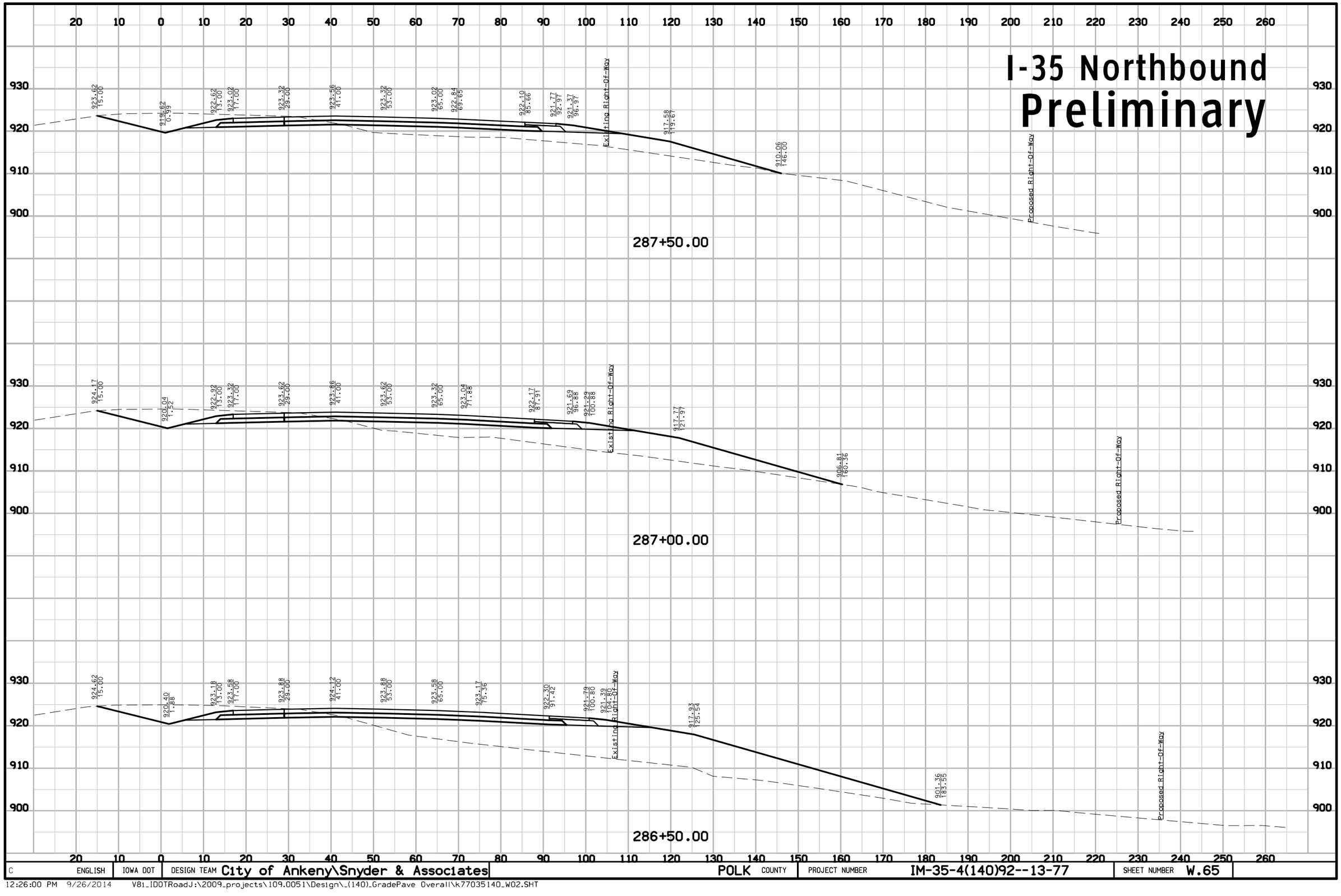
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.64

12:26:00 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

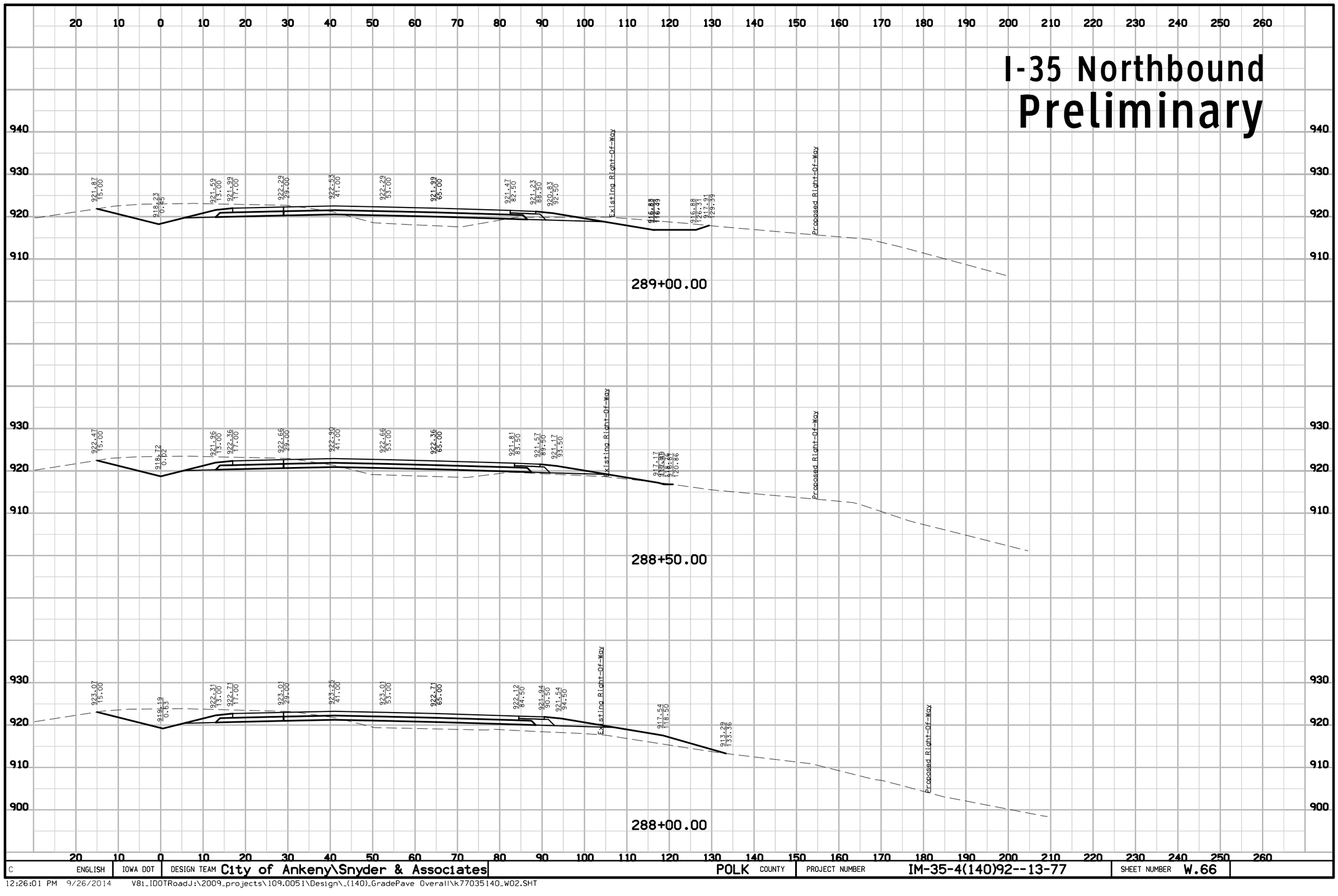
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.65

12:26:00 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

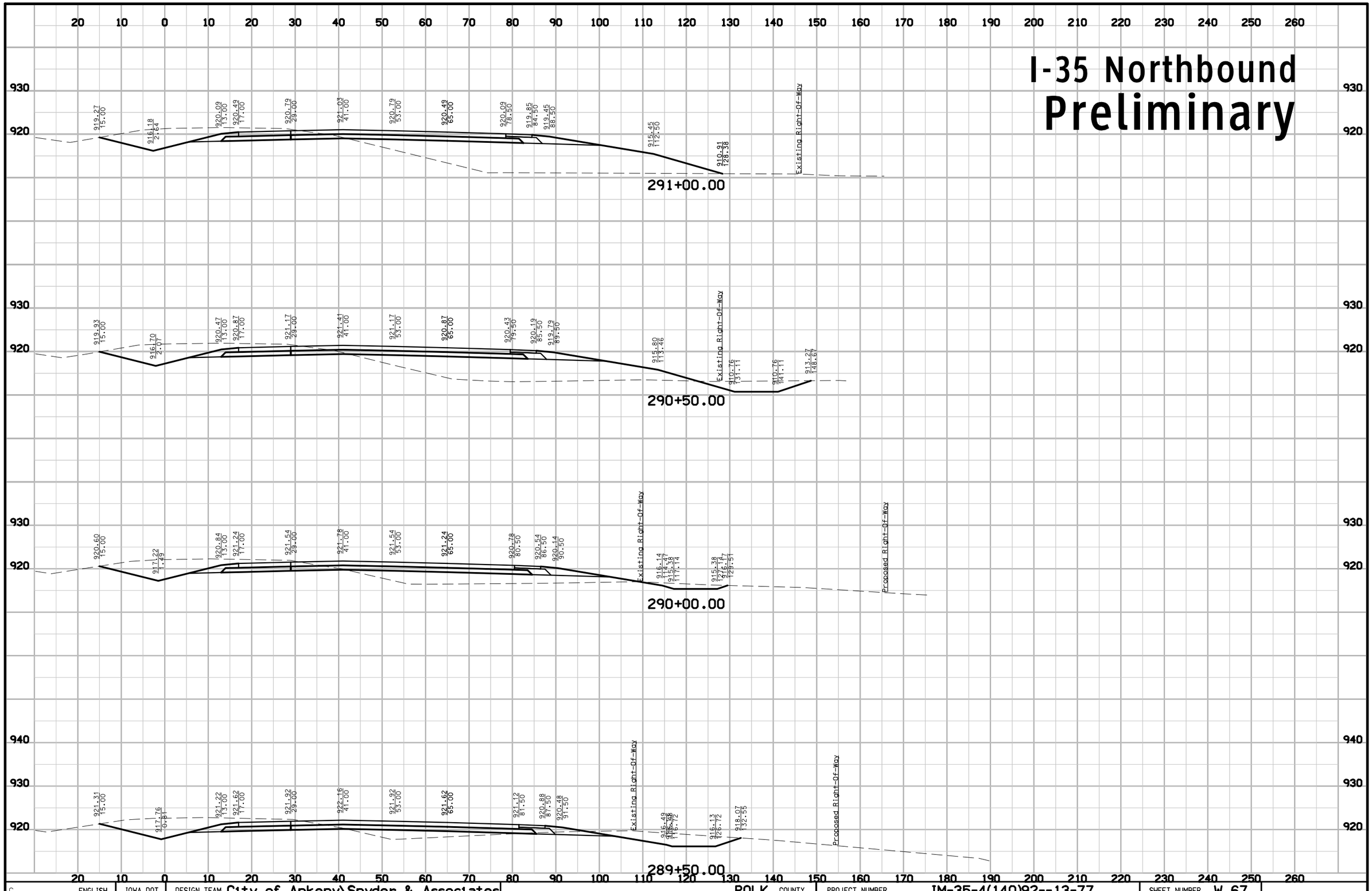
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK	COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.66

12:26:01 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

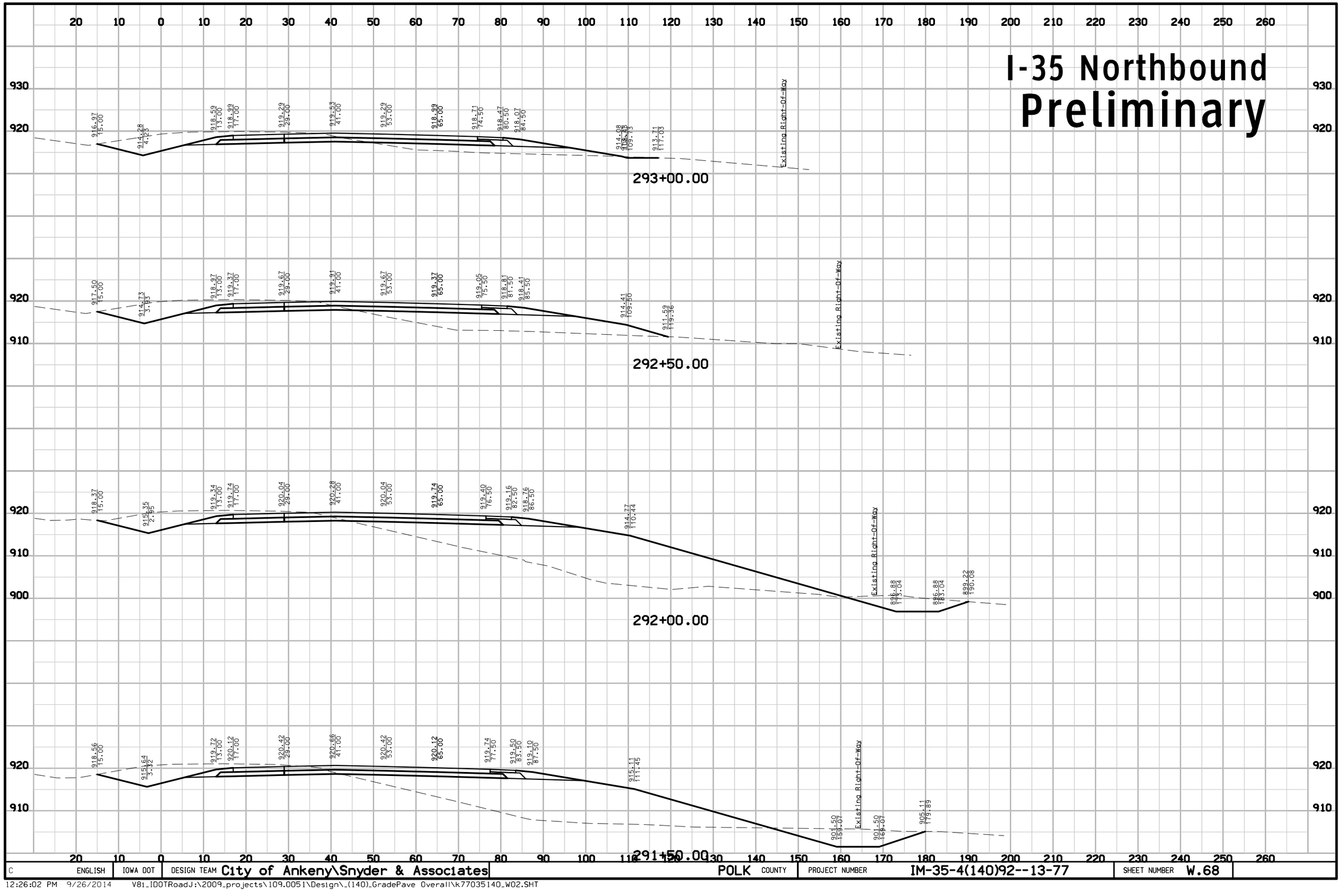
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.67

12:26:01 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

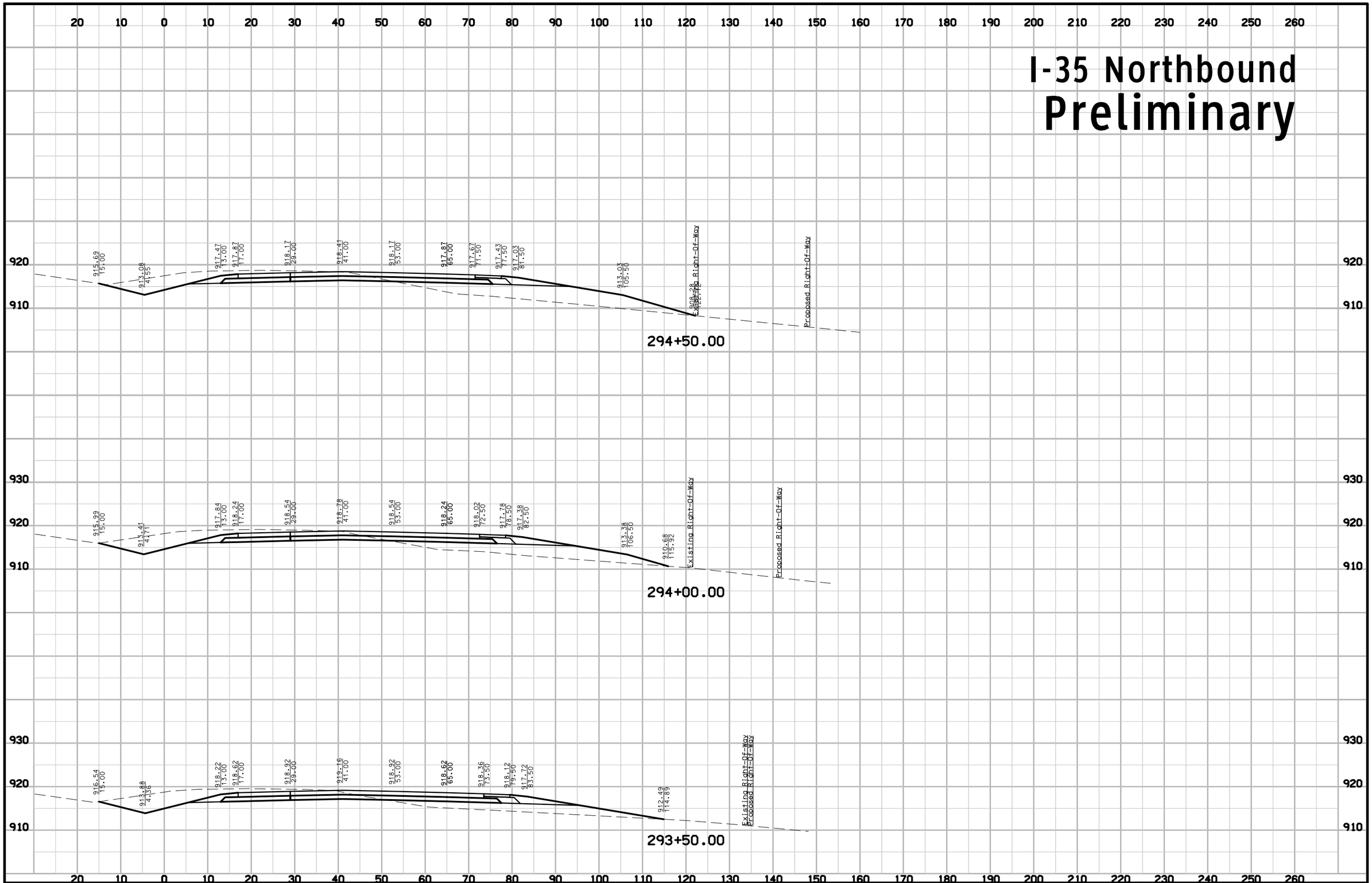
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.68

12:26:02 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

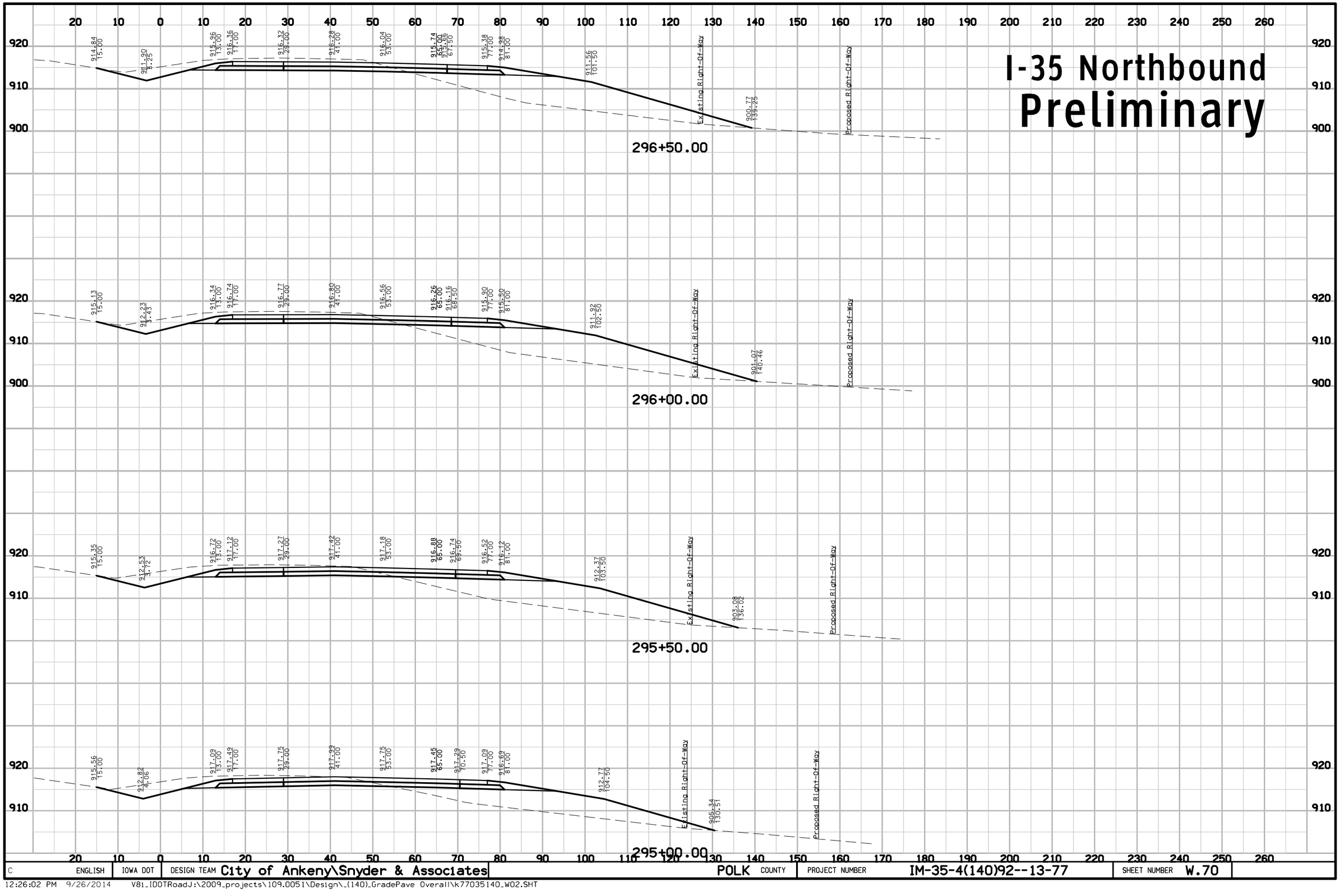
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.69

12:26:02 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

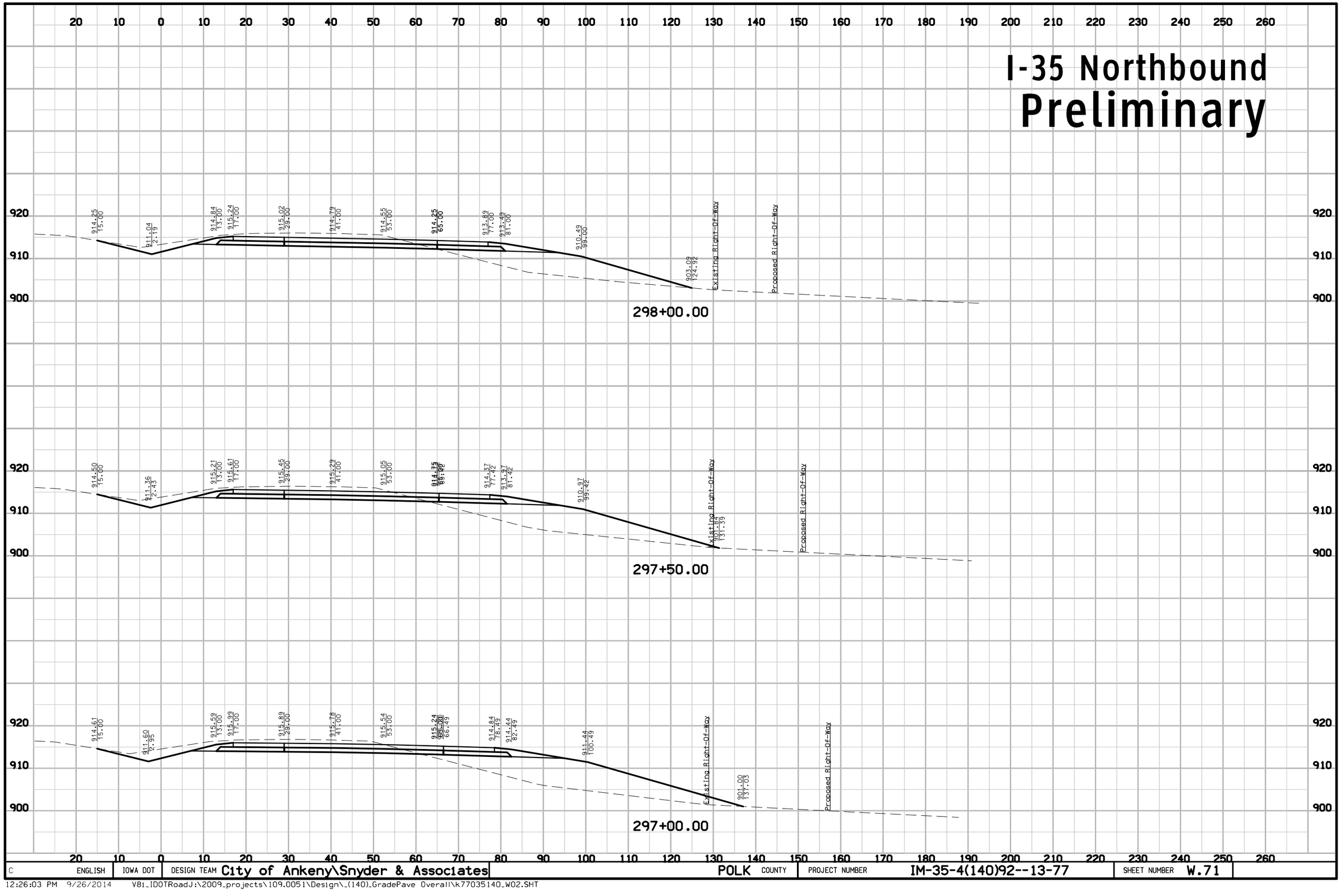
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.70

12:26:02 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

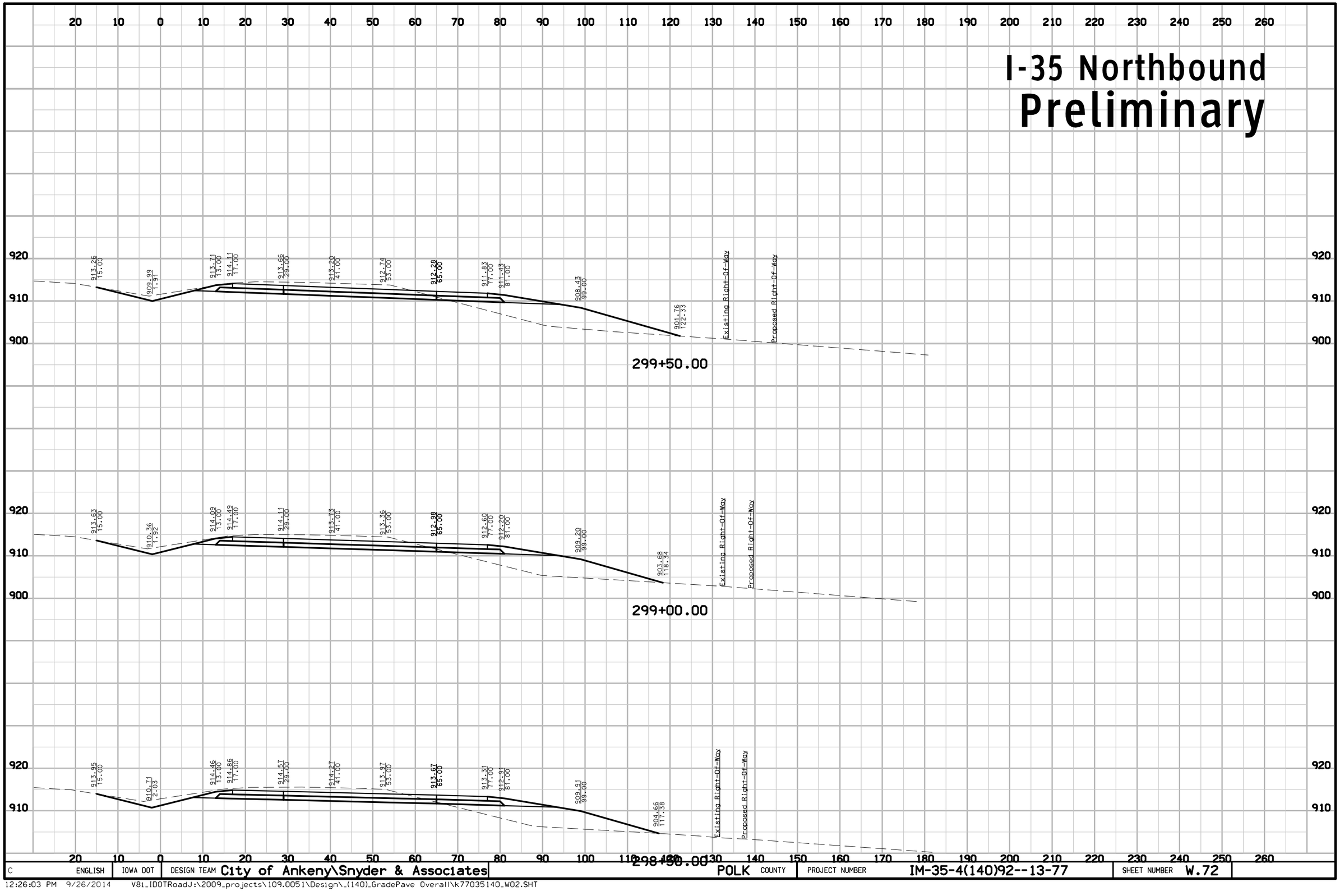
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.71

12:26:03 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

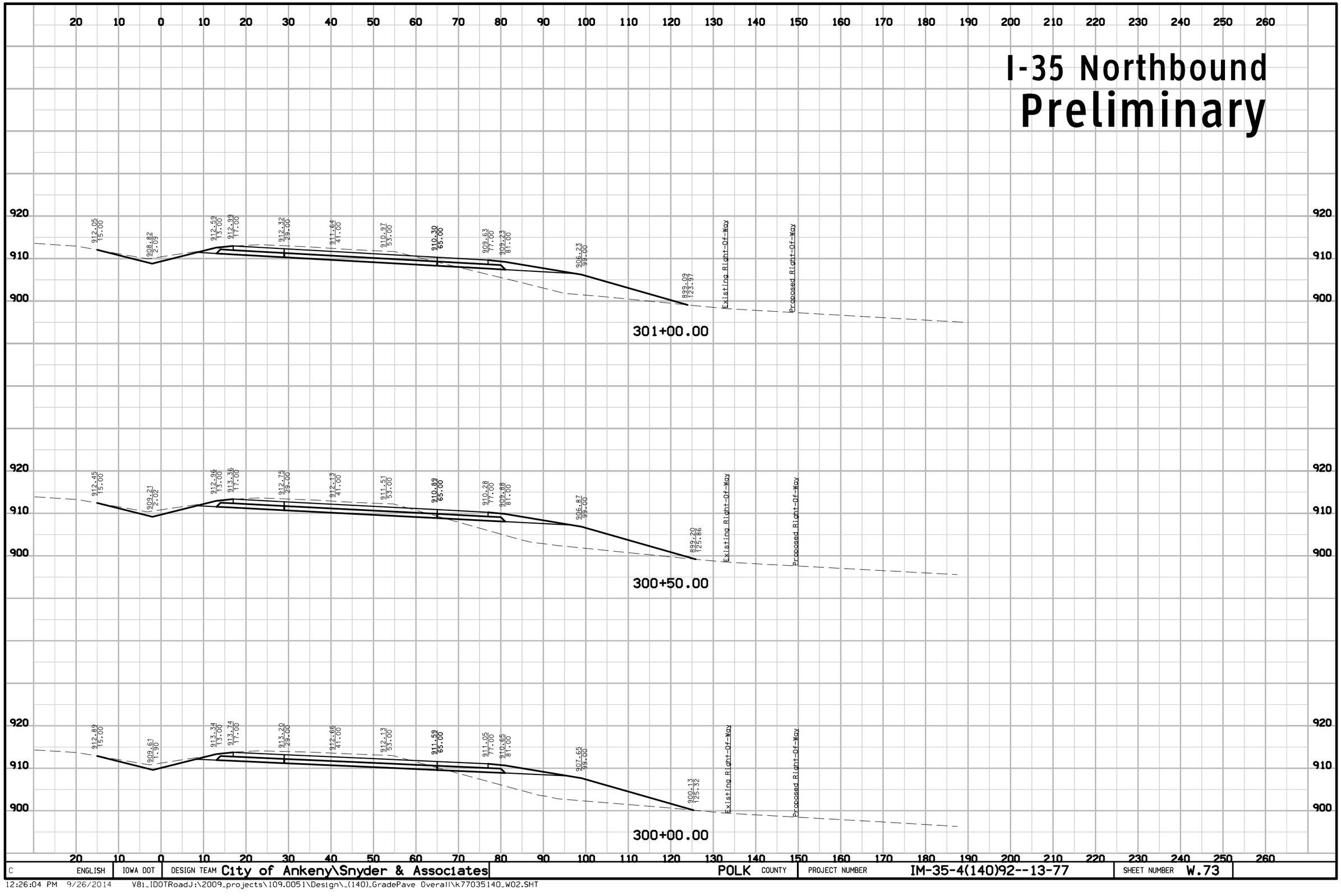
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.72

12:26:03 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

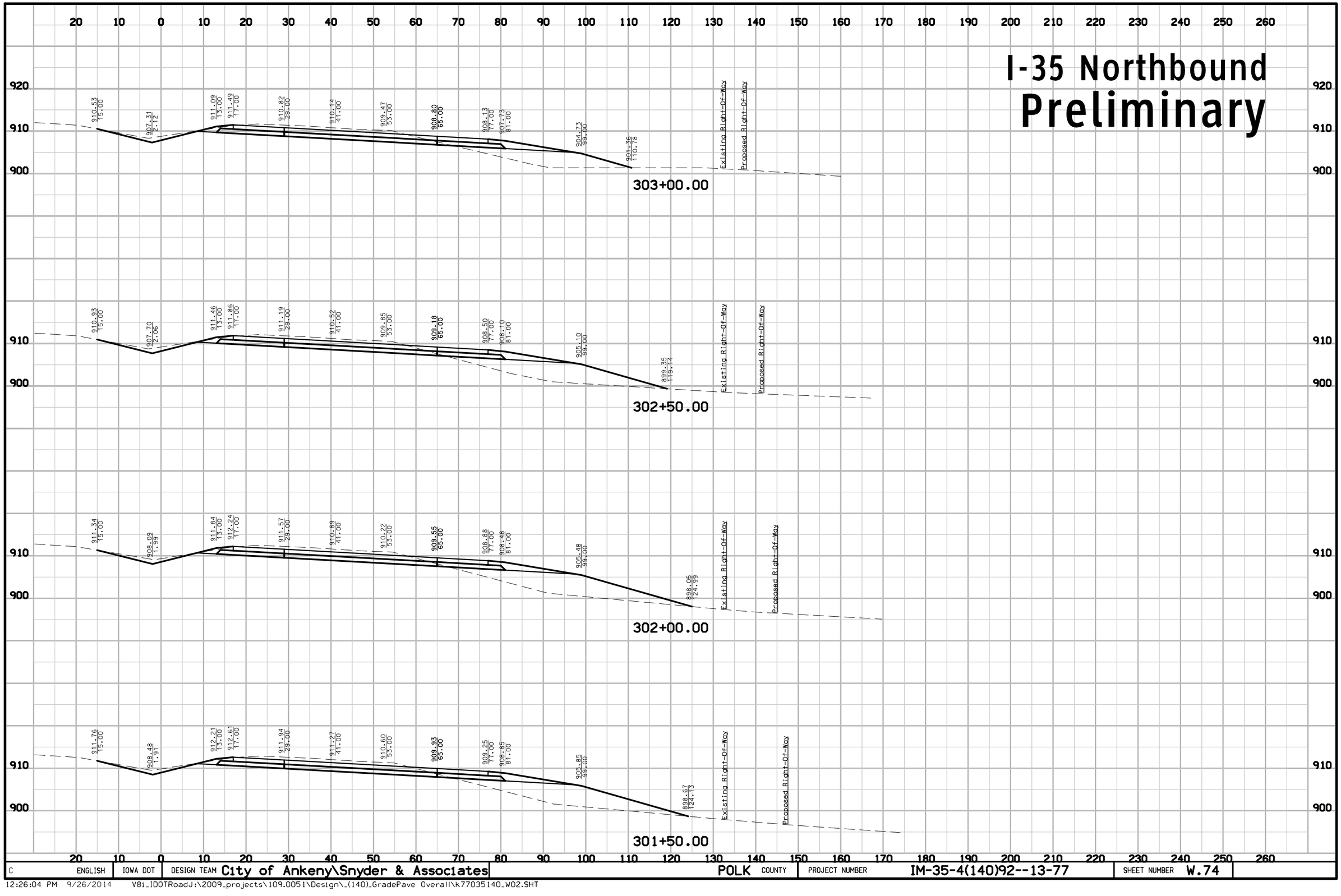
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.73	

12:26:04 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

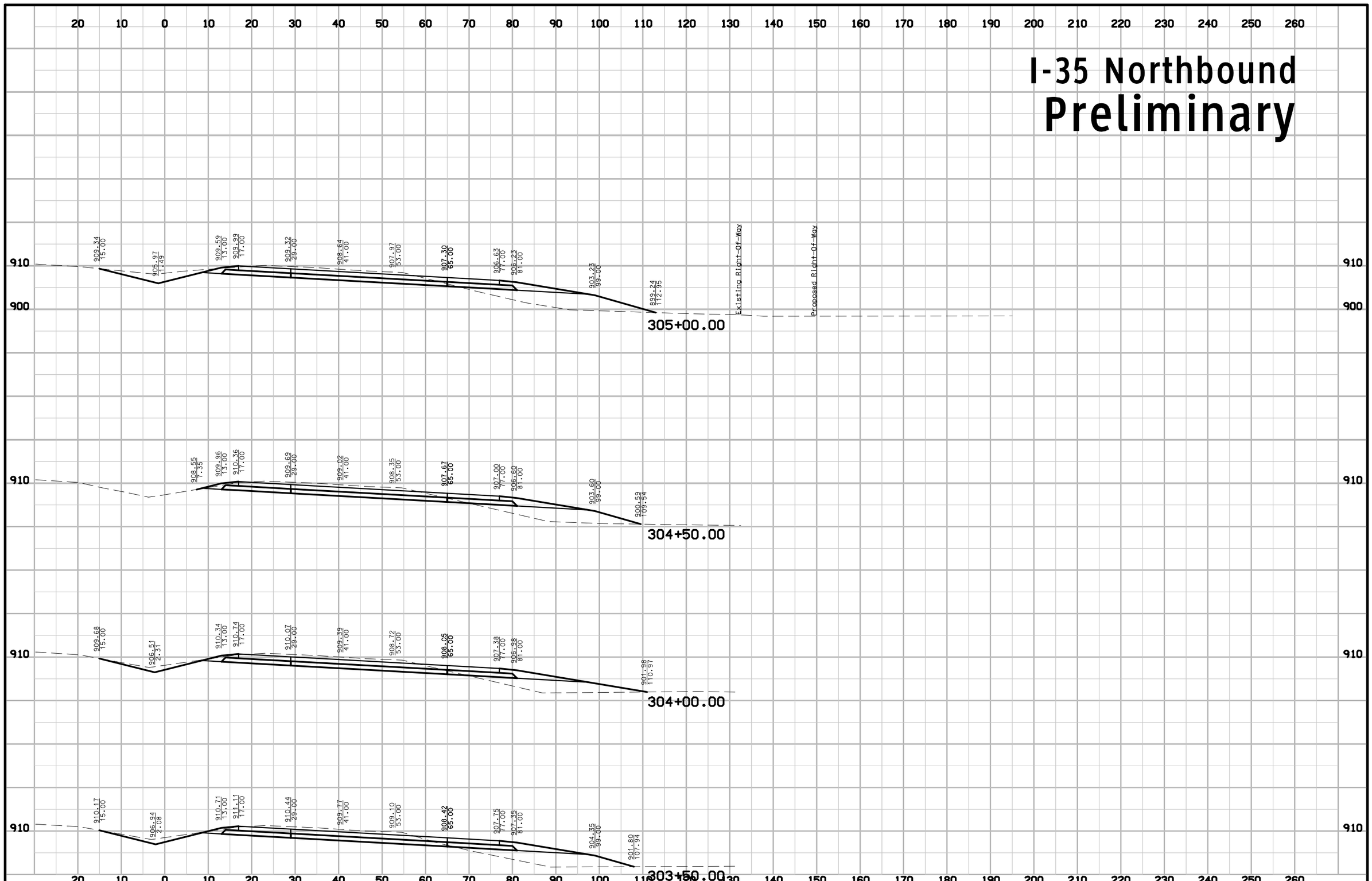
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.74	

12:26:04 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

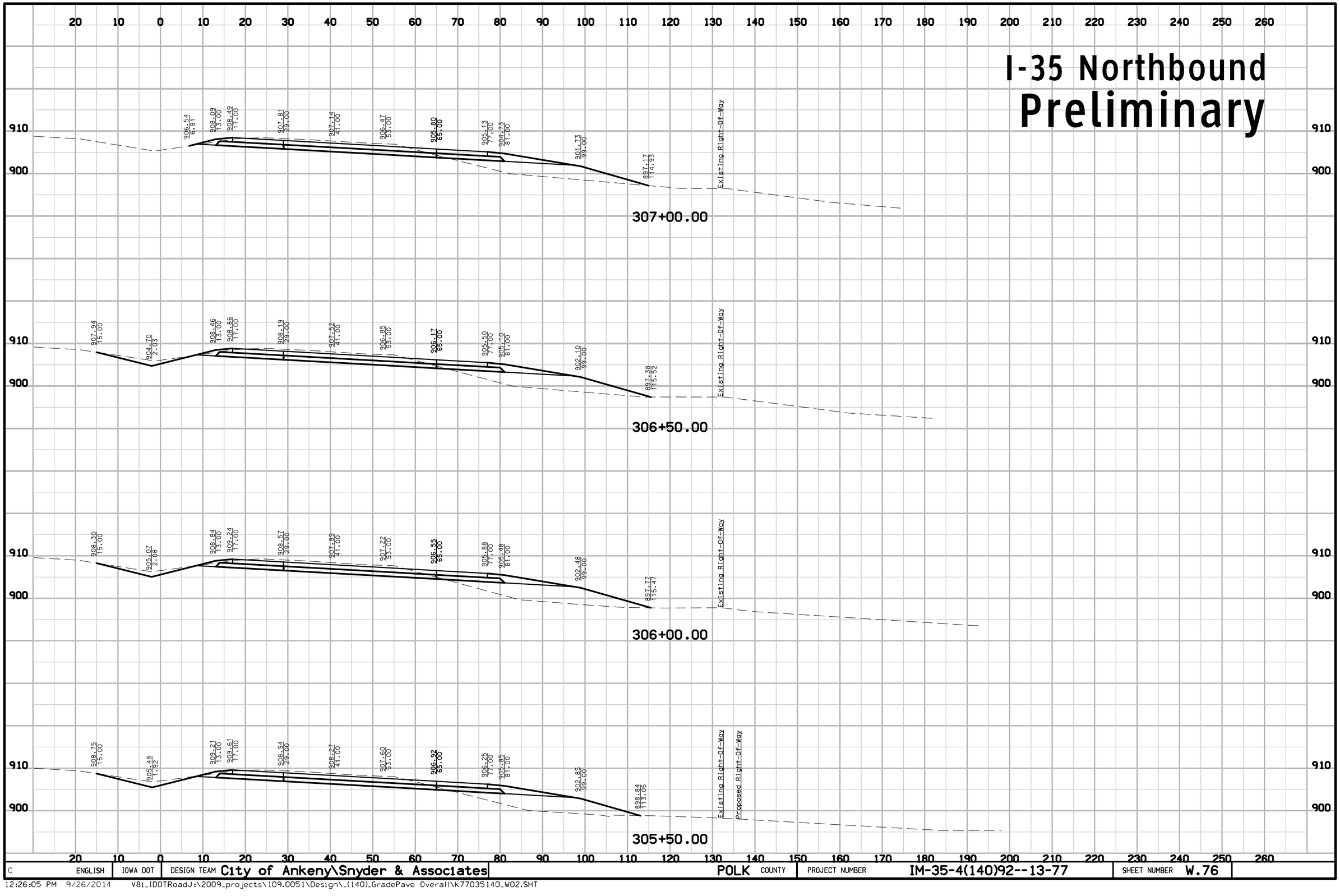
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK	COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.75

12:26:04 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

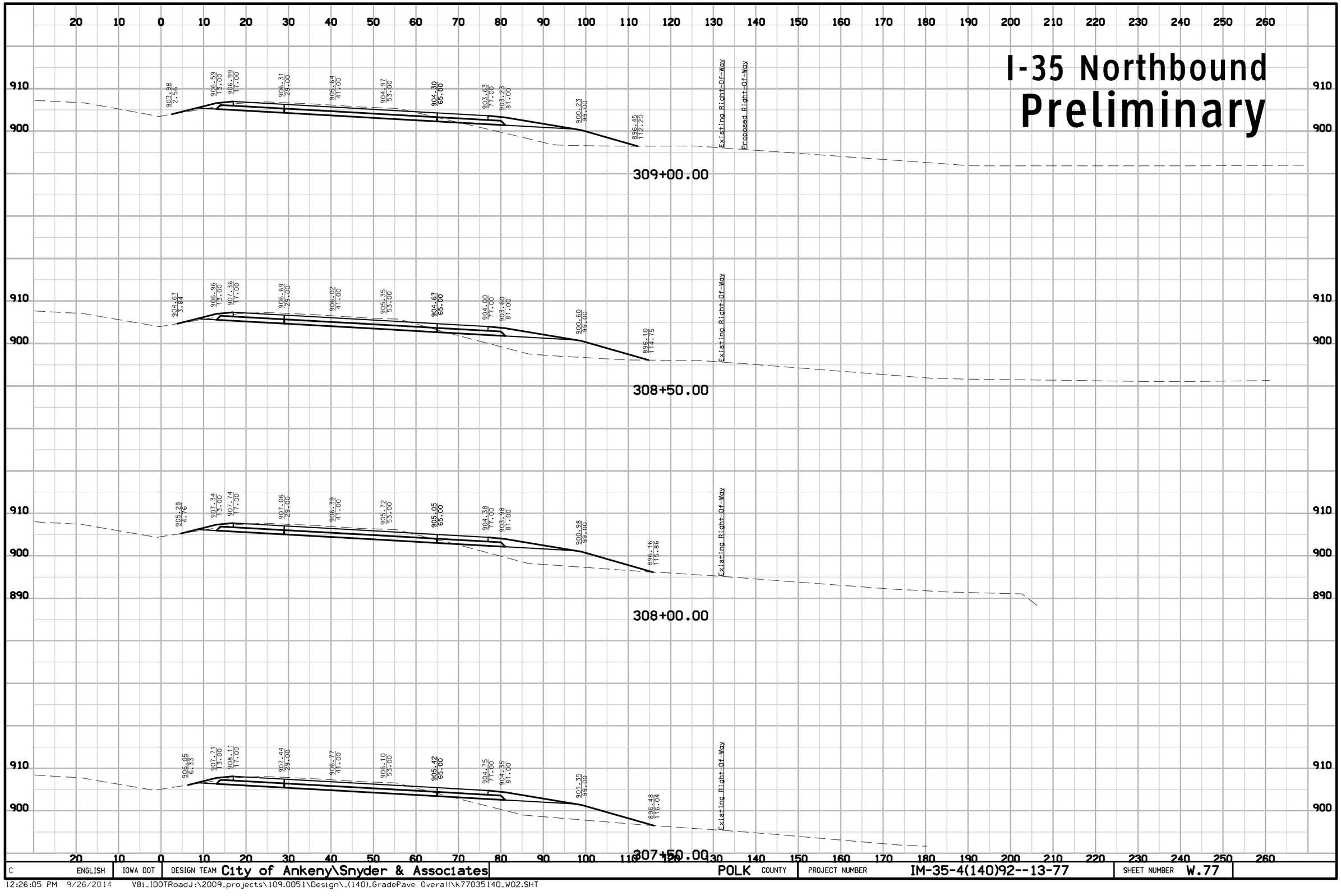
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.76

12:26:05 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

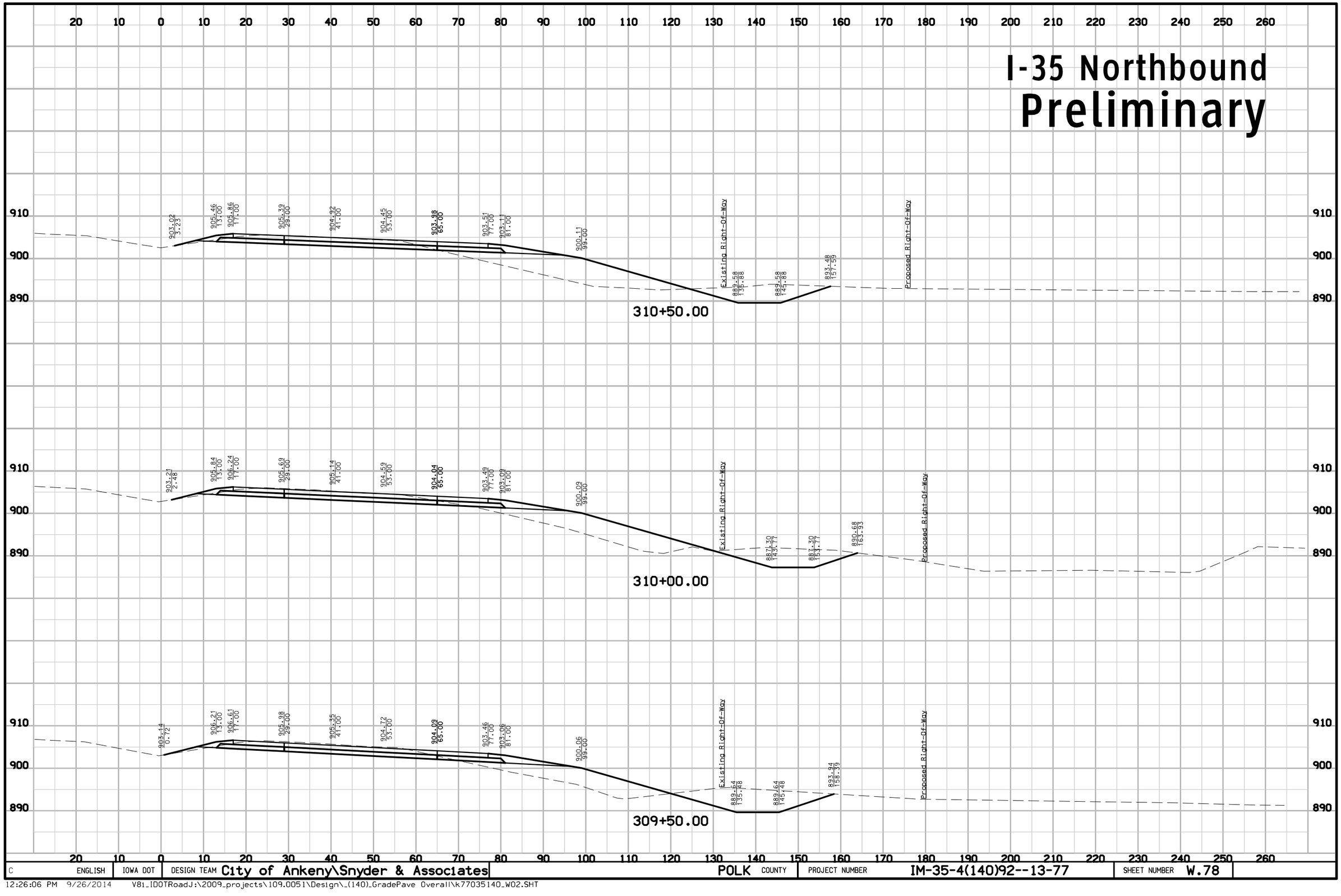
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.77

12:26:05 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

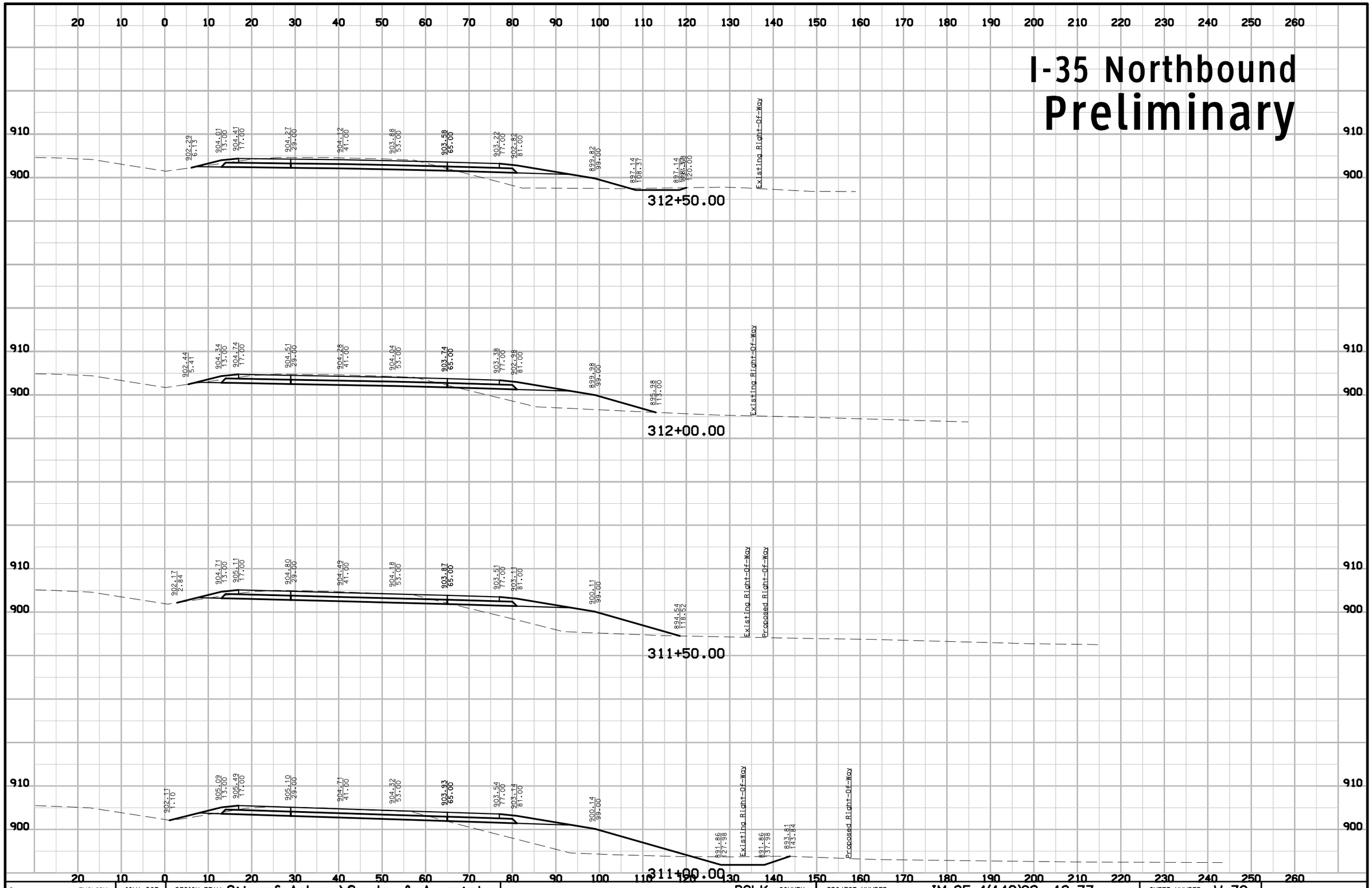
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.78

12:26:06 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

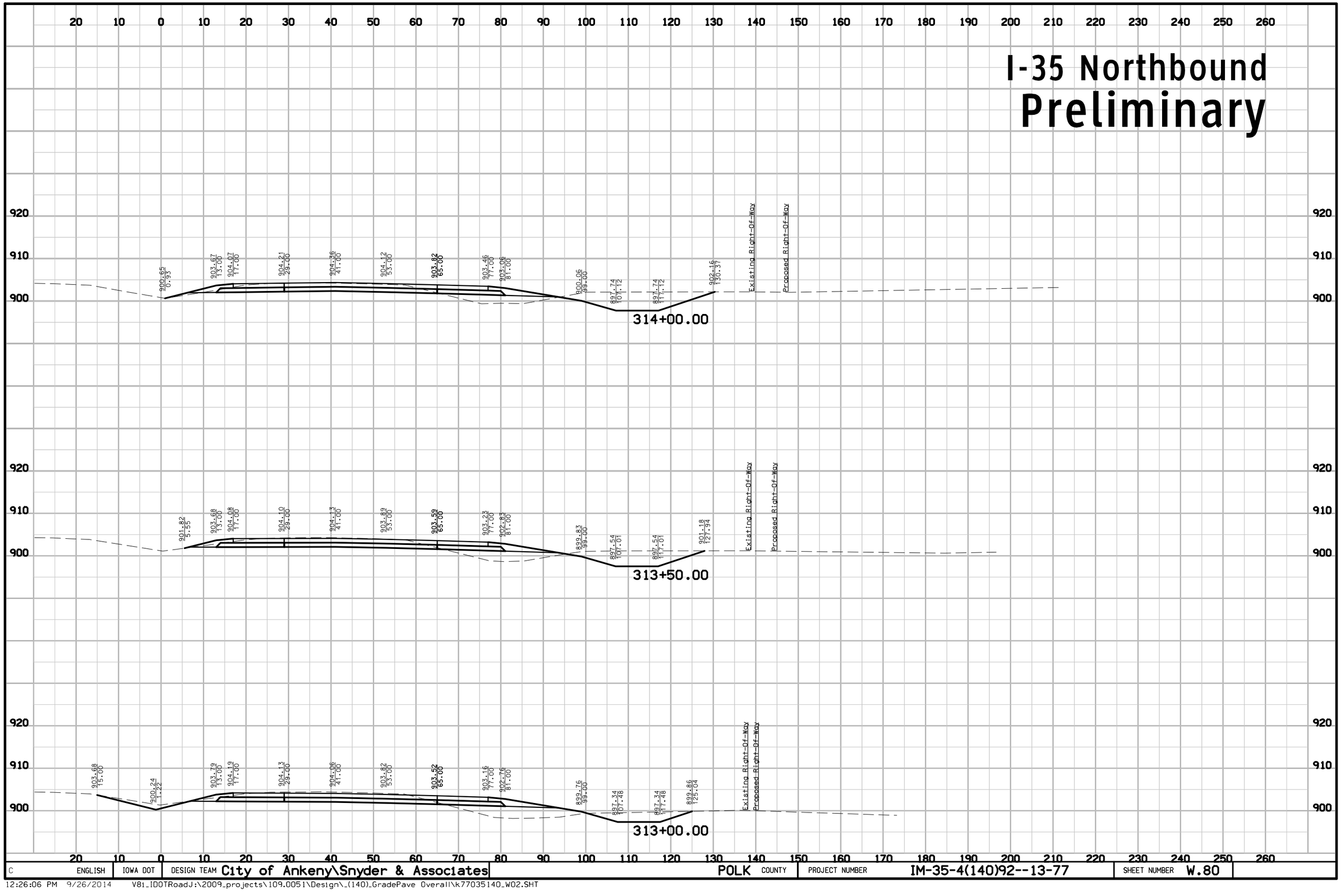
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.79

12:26:06 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

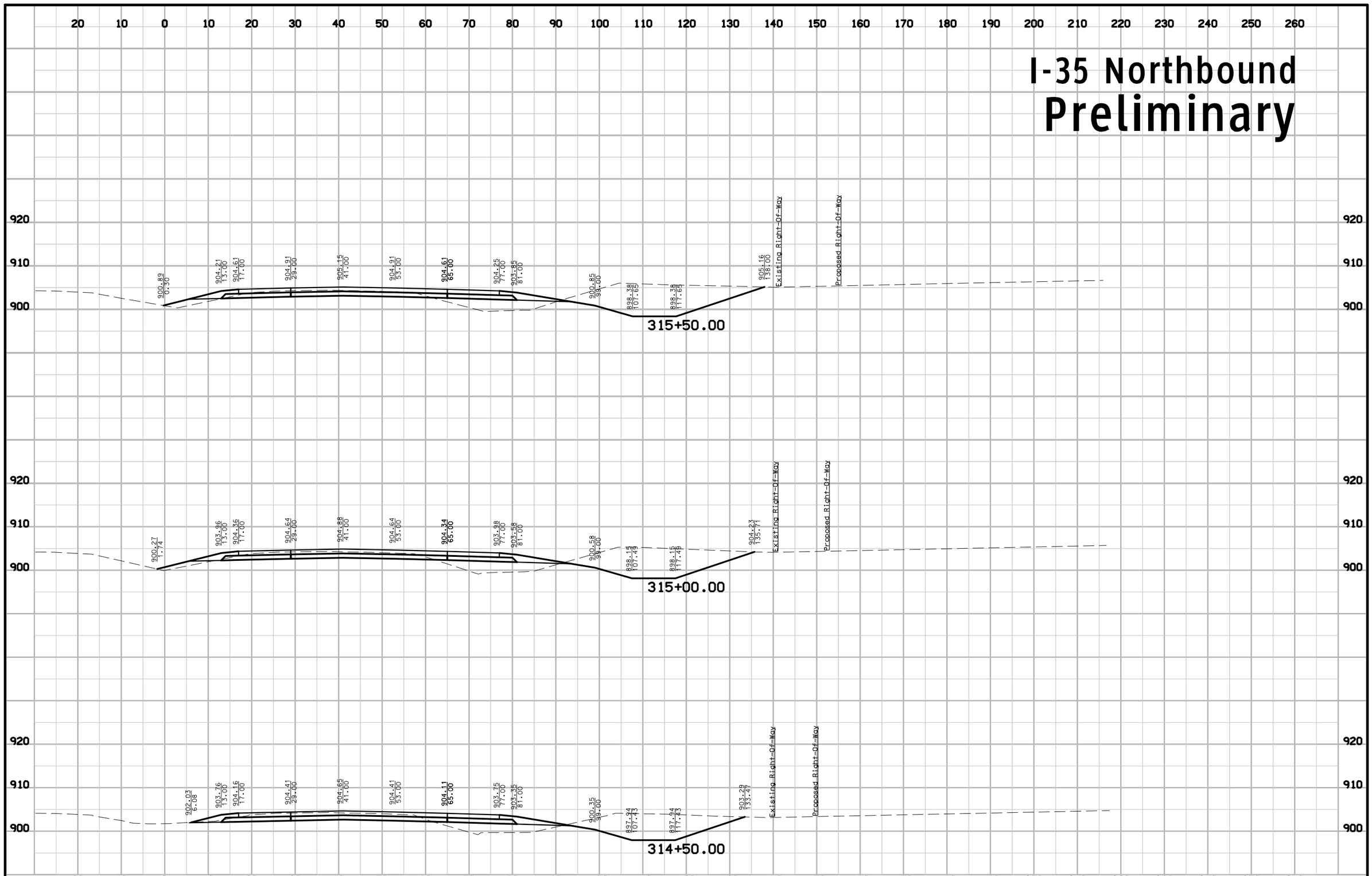
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.80
---	---	---	---	---	---

12:26:06 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

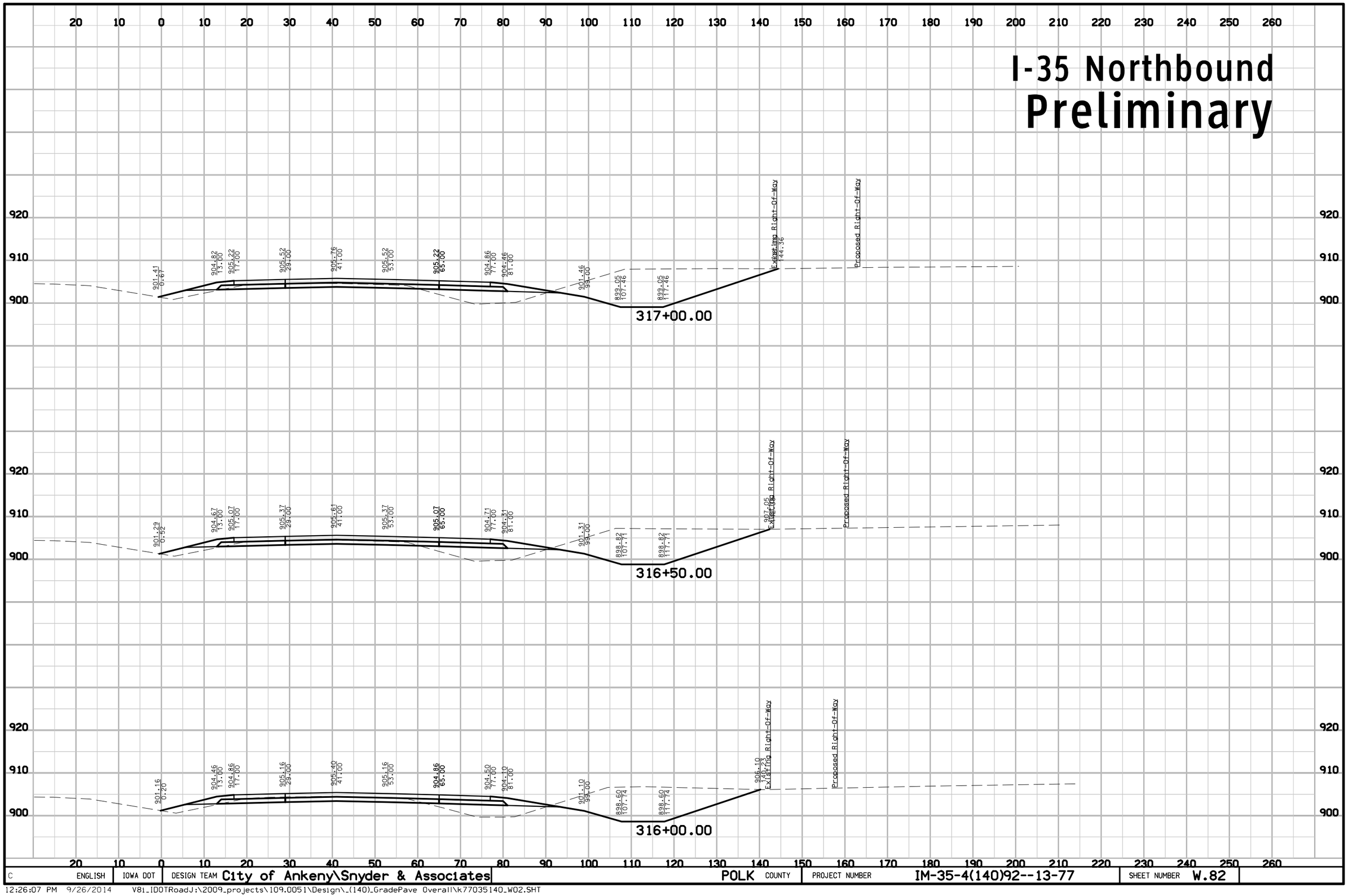
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.81	

12:26:07 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

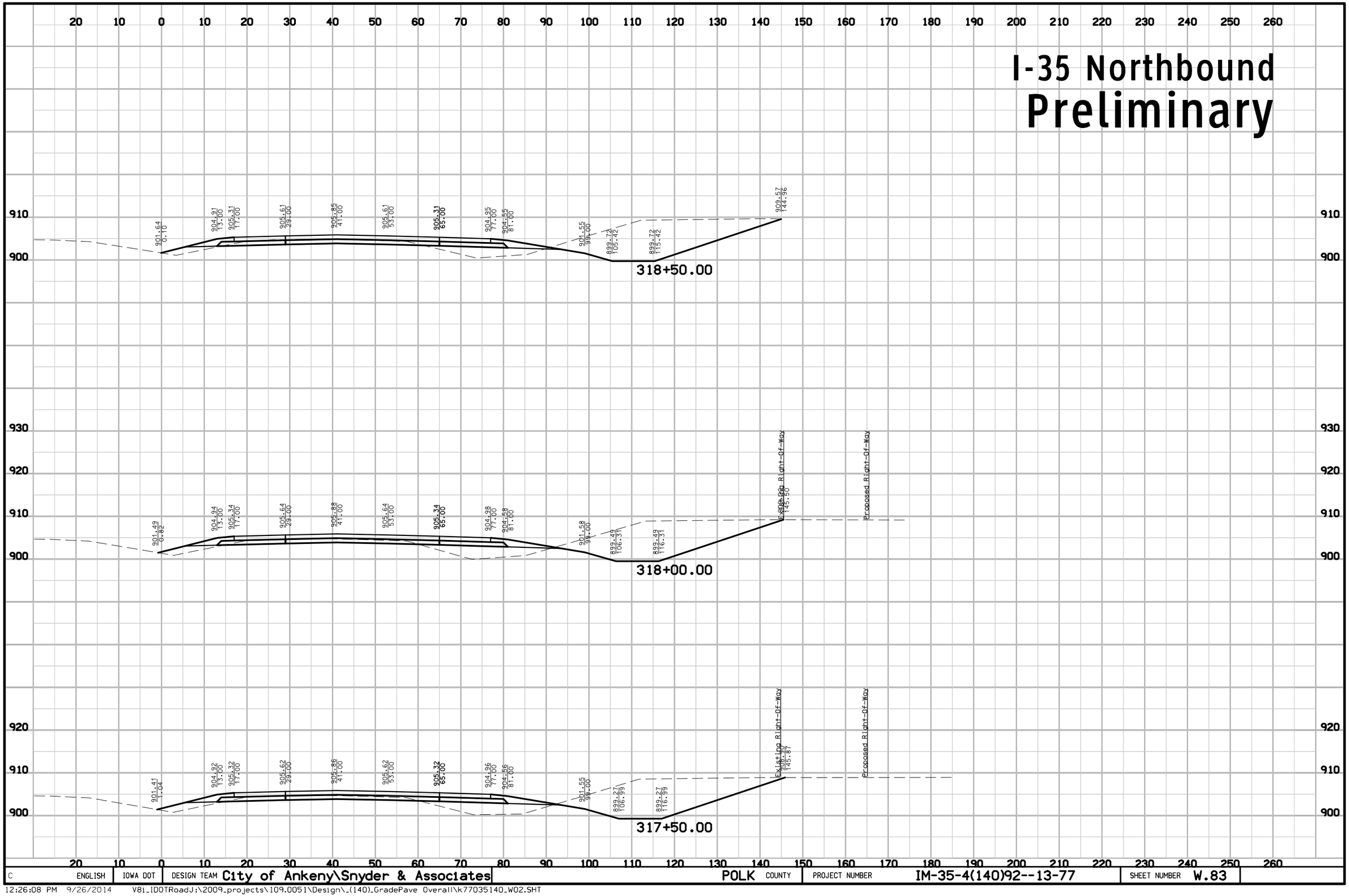
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.82

12:26:07 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

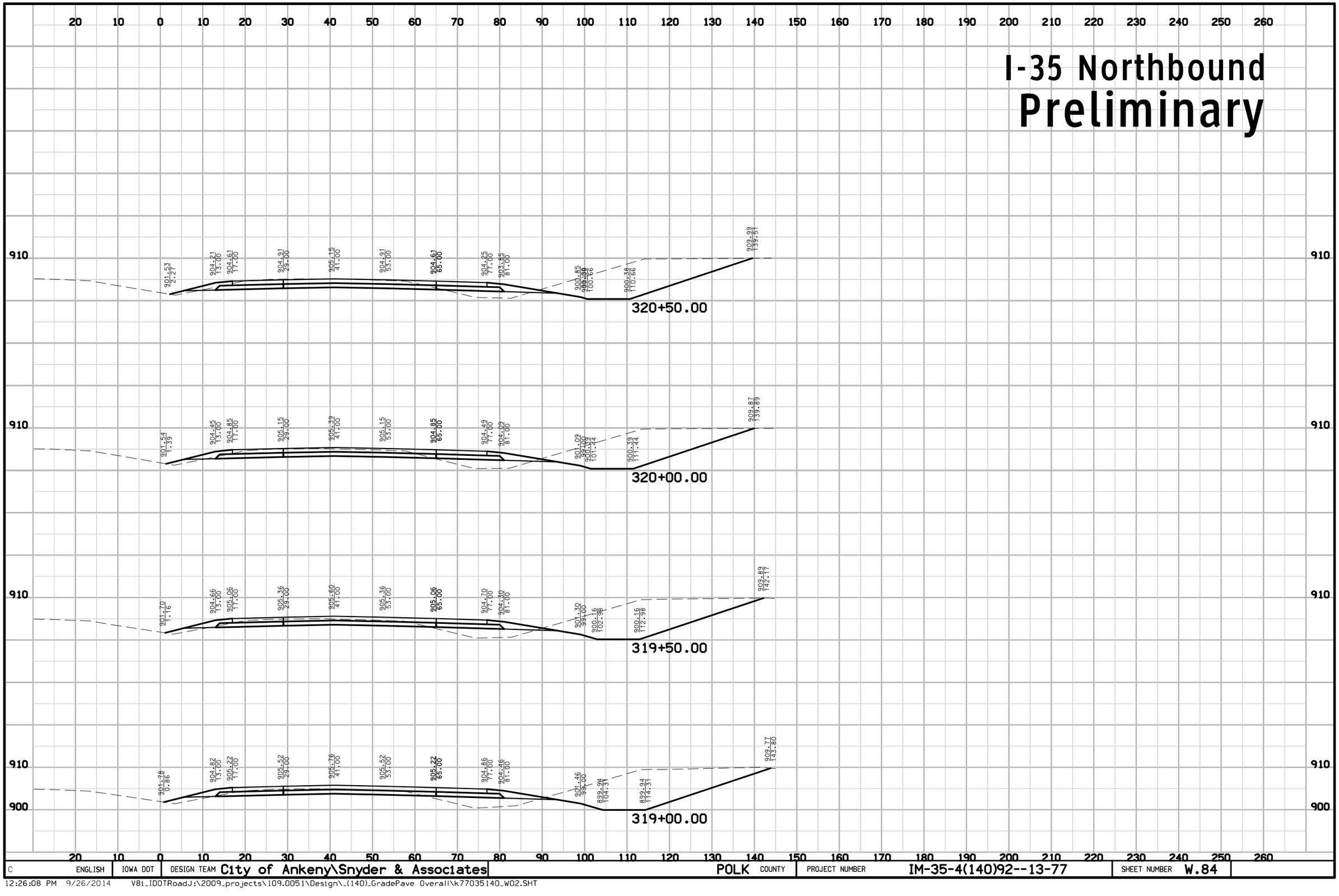
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.83

12:26:08 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

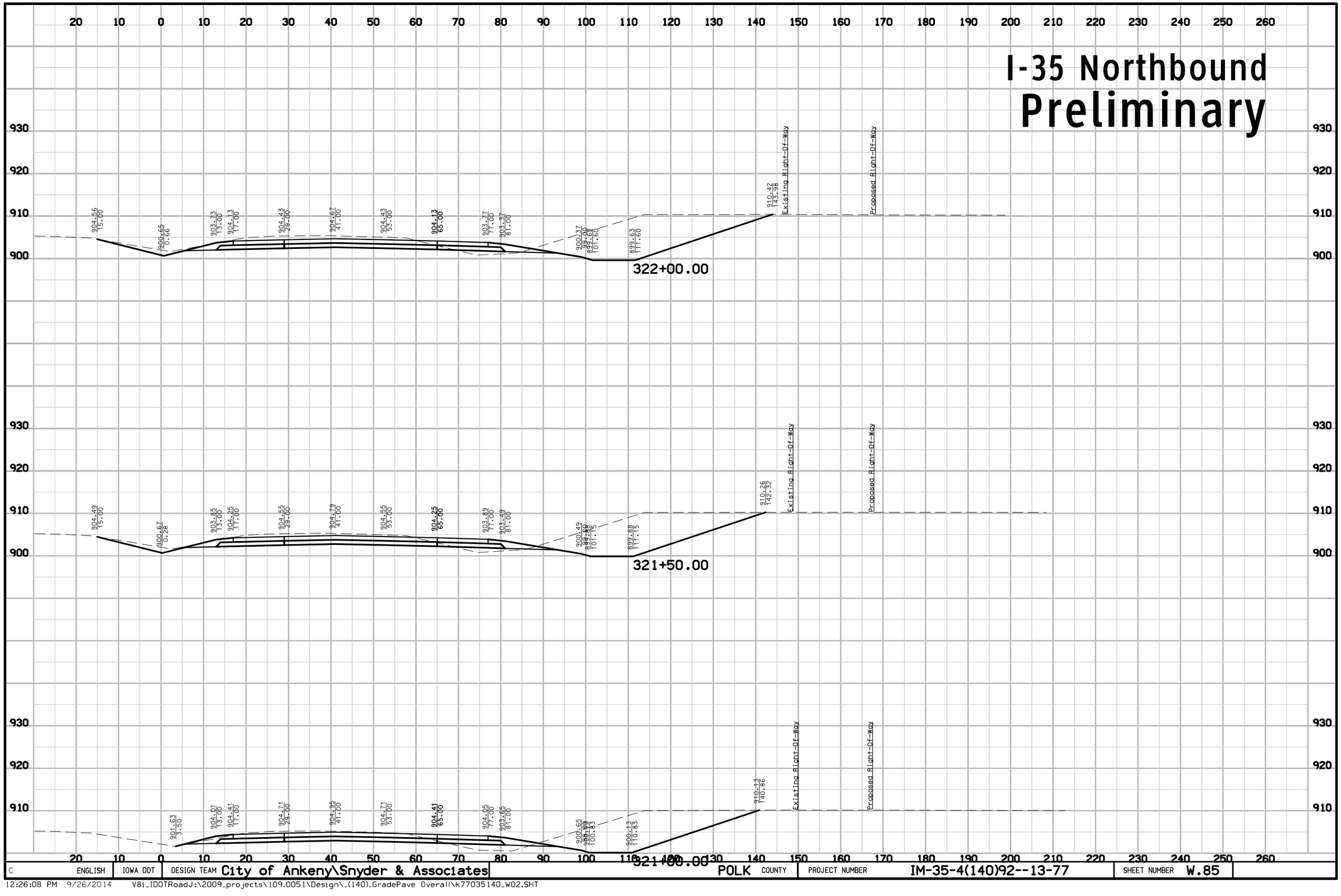
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.84

12:26:08 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

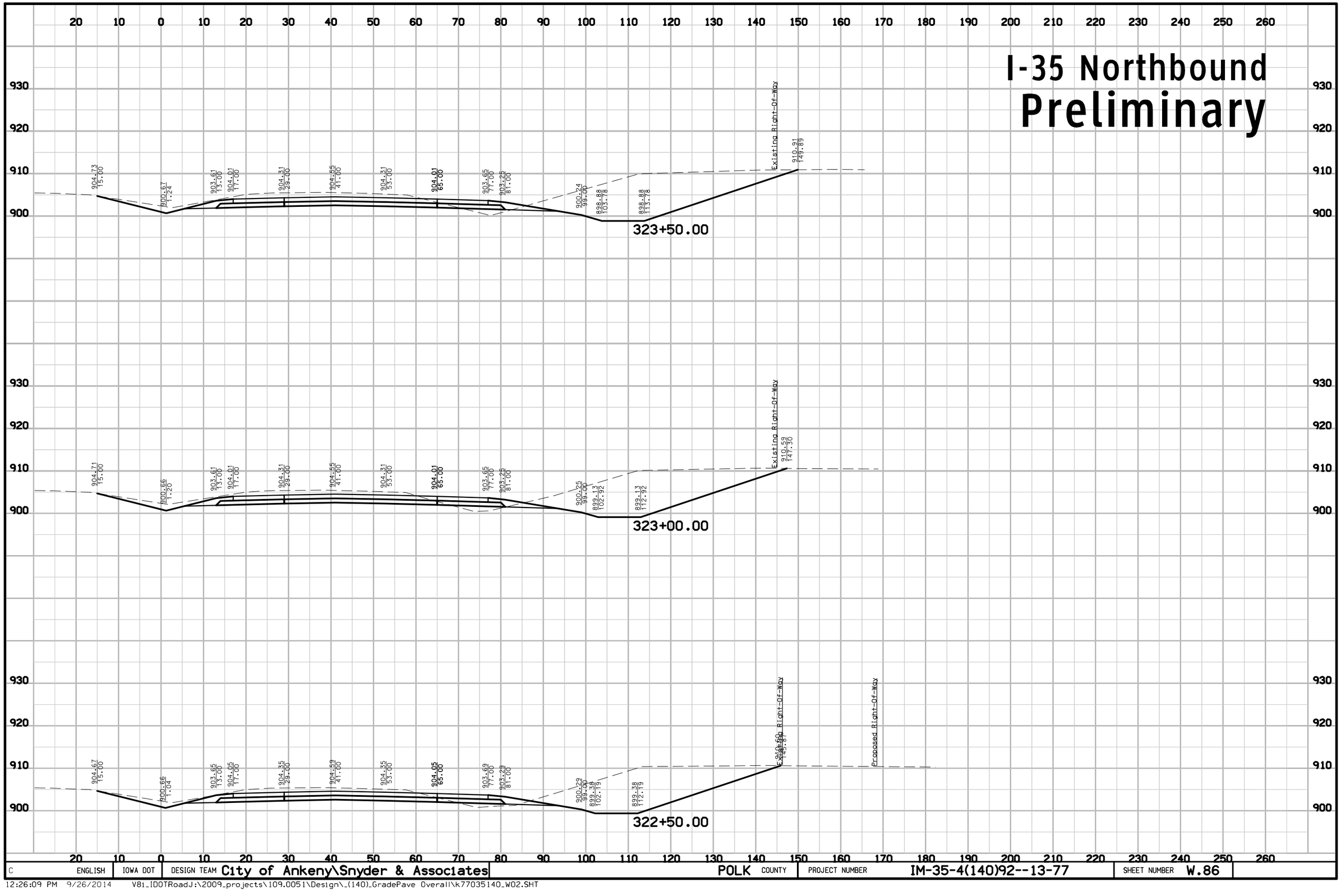
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.85	

12:26:08 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

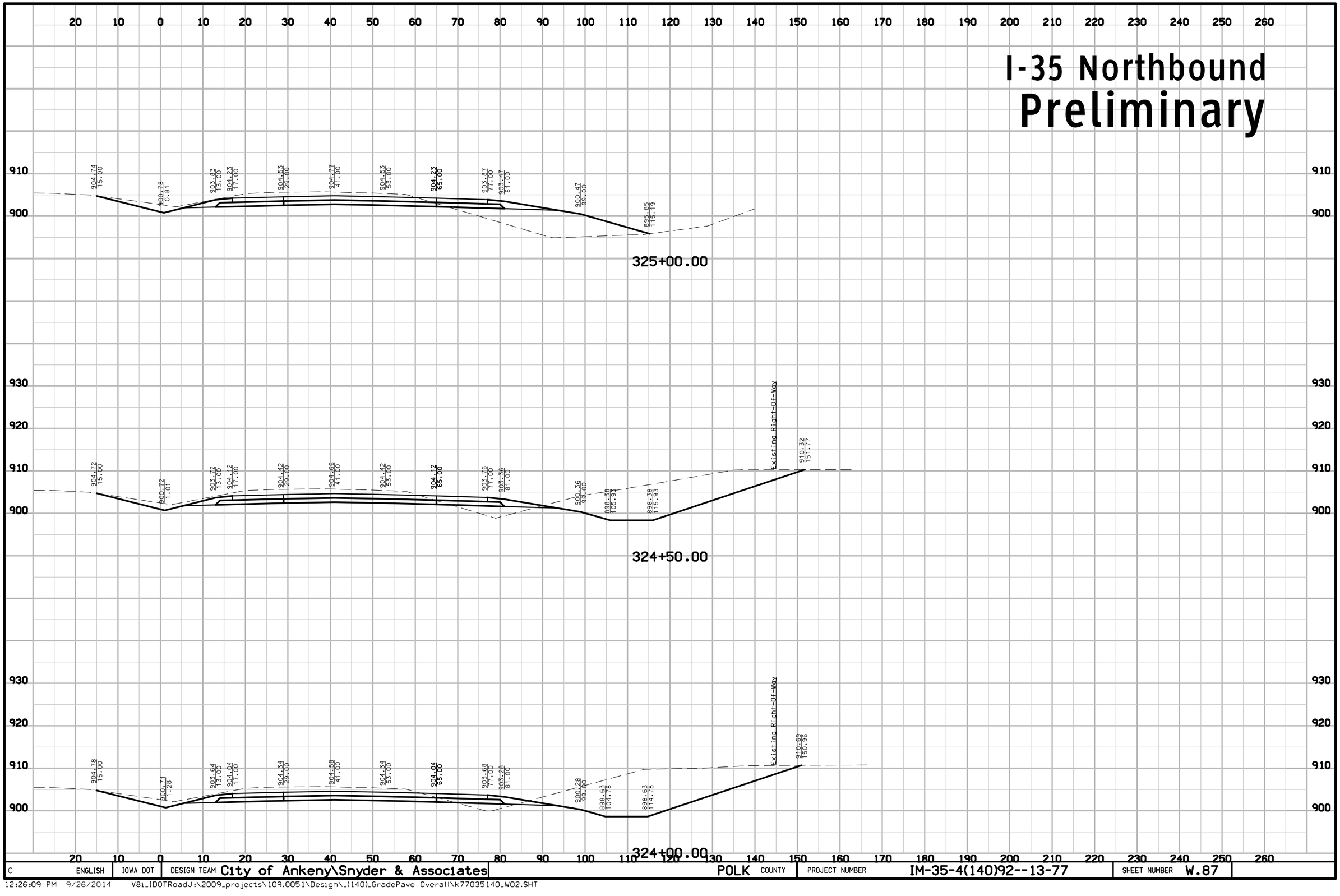
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.86

12:26:09 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

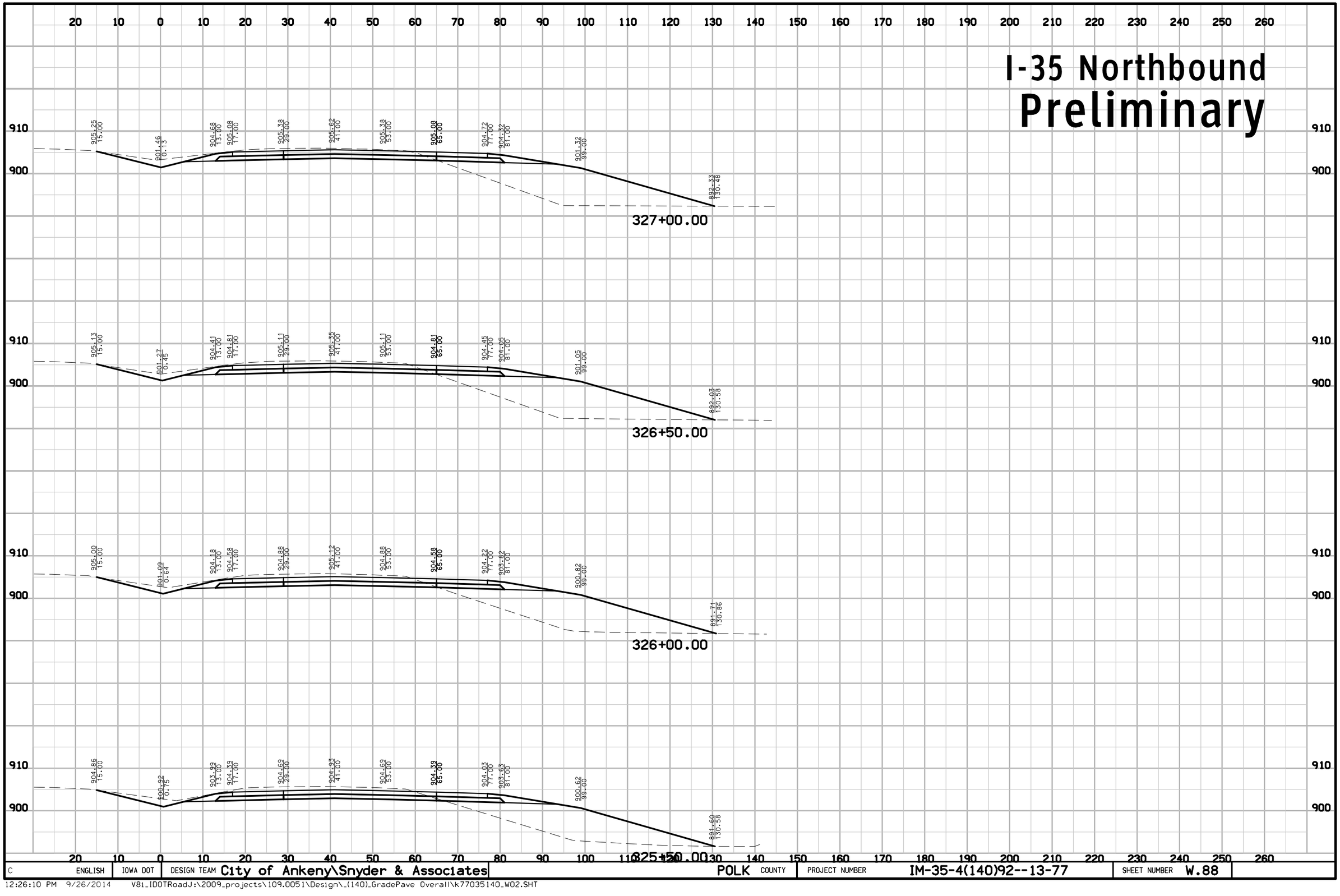
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.87

12:26:09 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

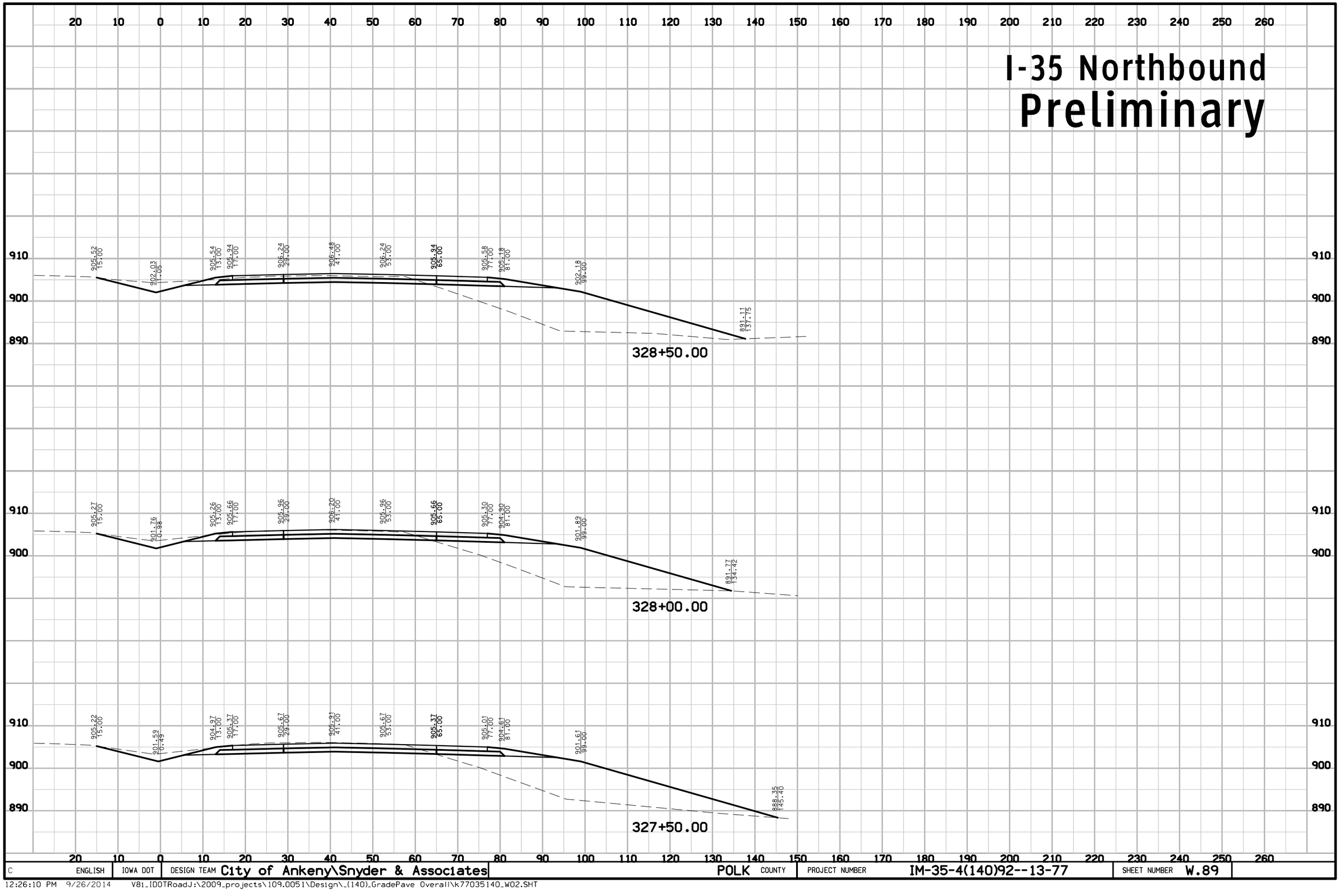
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.88	

12:26:10 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

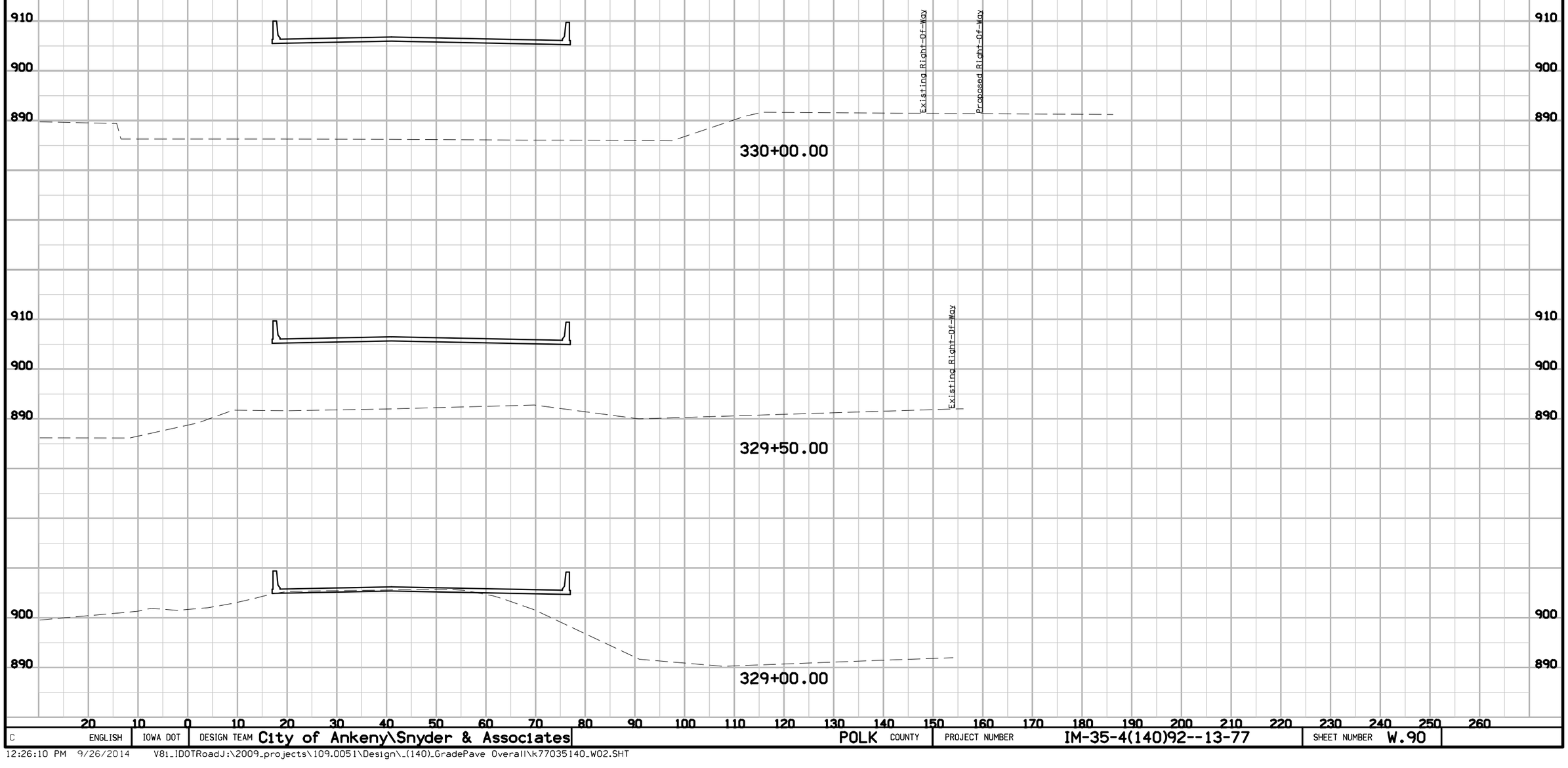
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.89	

12:26:10 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

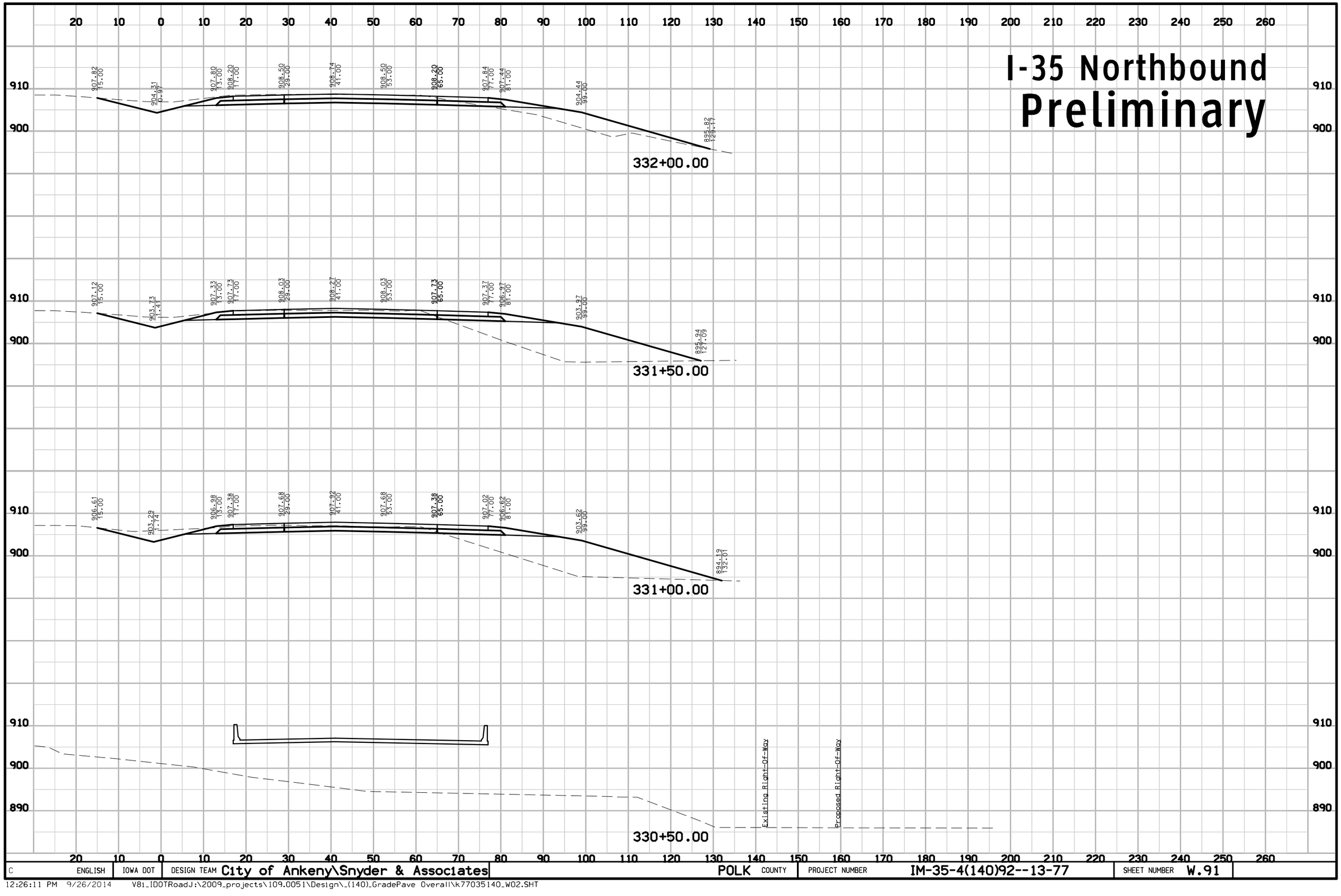
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.90

12:26:10 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

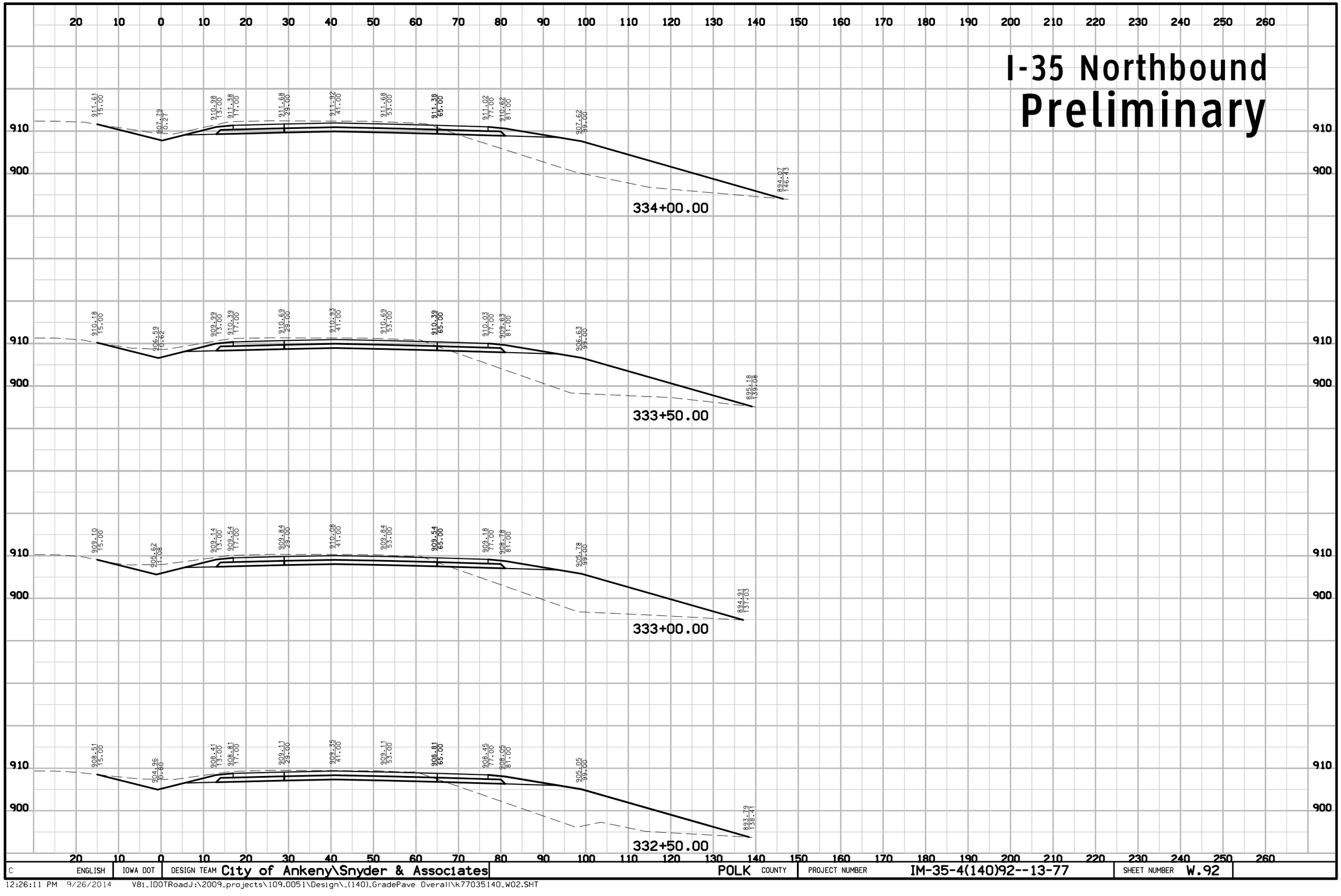
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.91

12:26:11 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

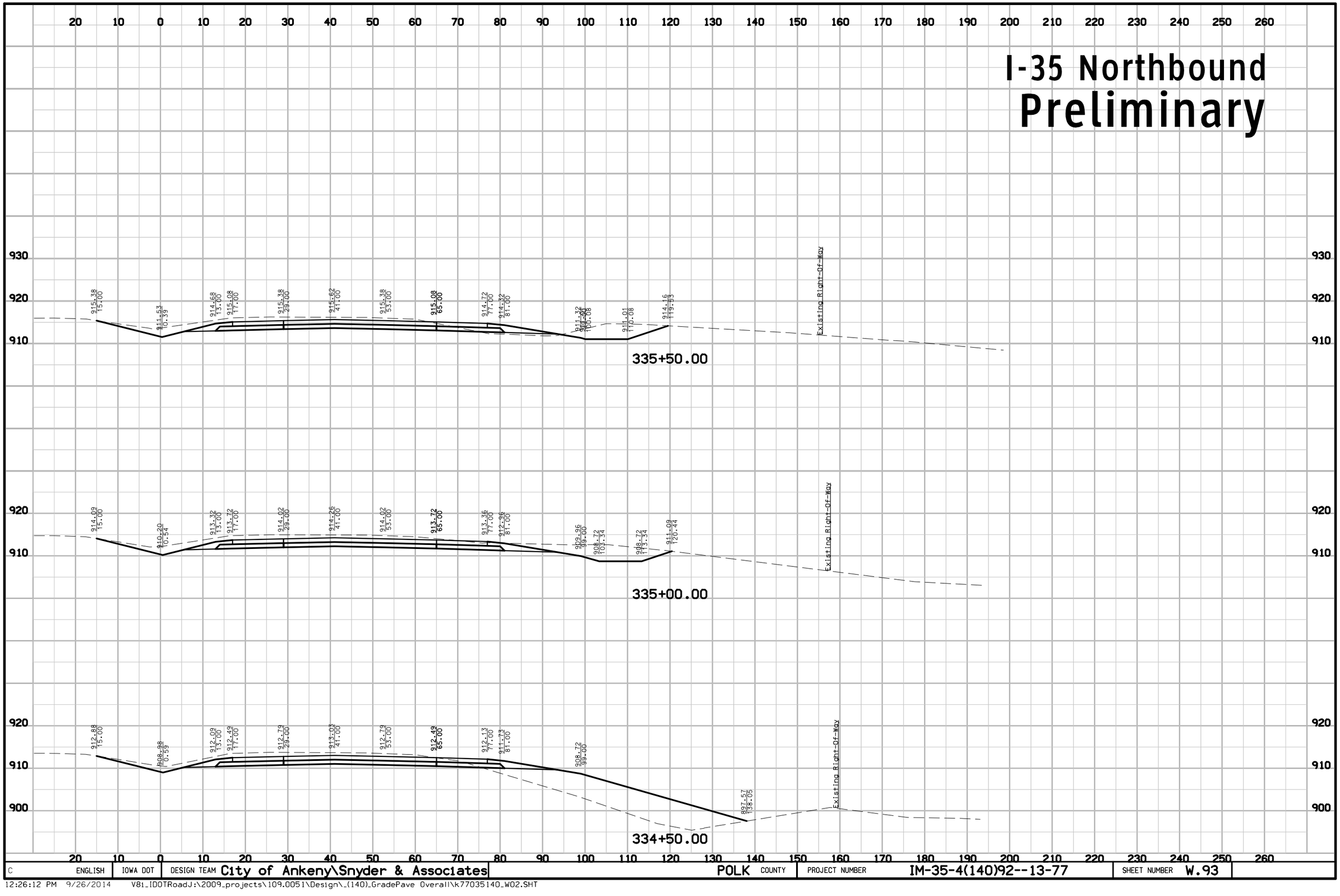
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.92	

12:26:11 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

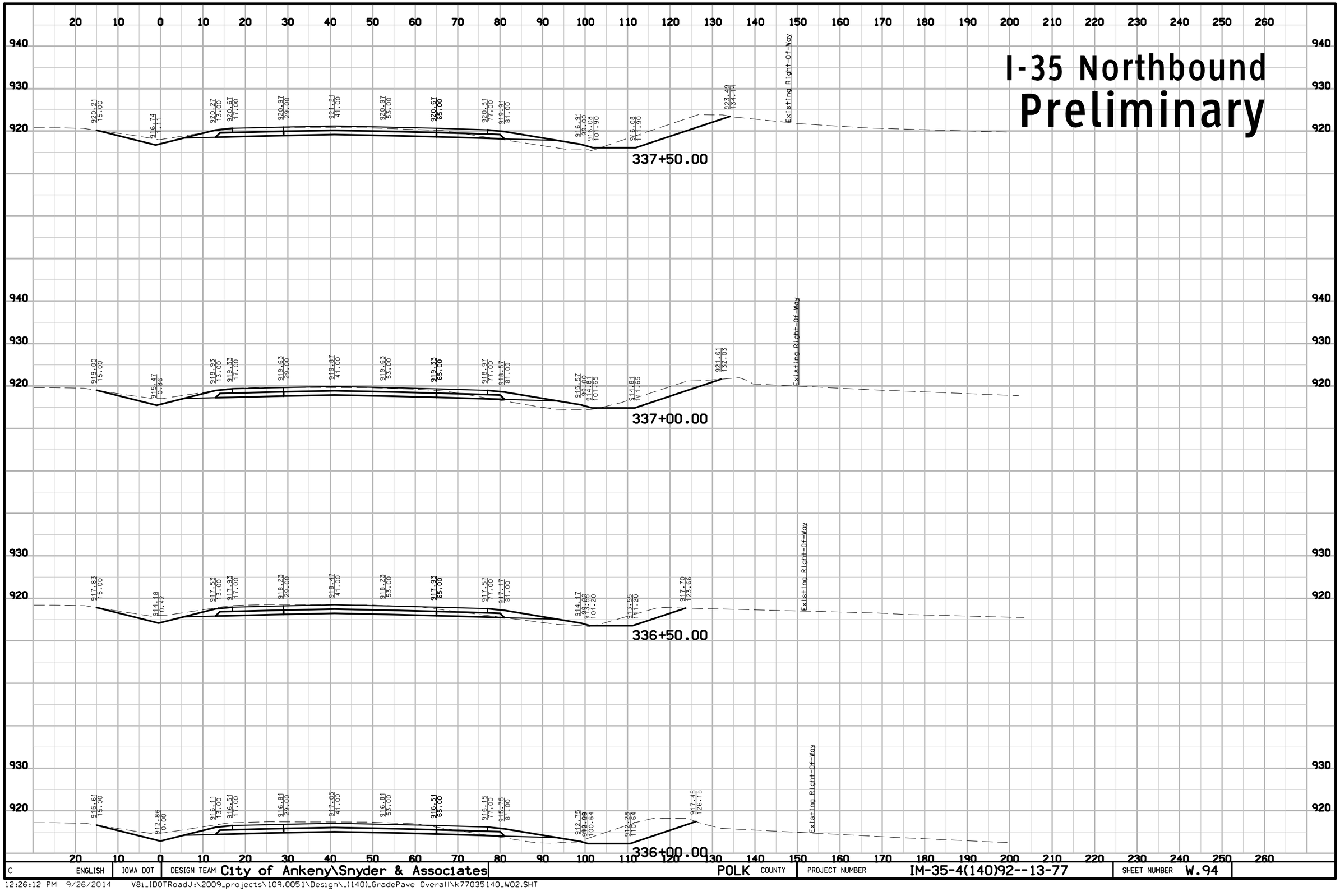
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.93

12:26:12 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

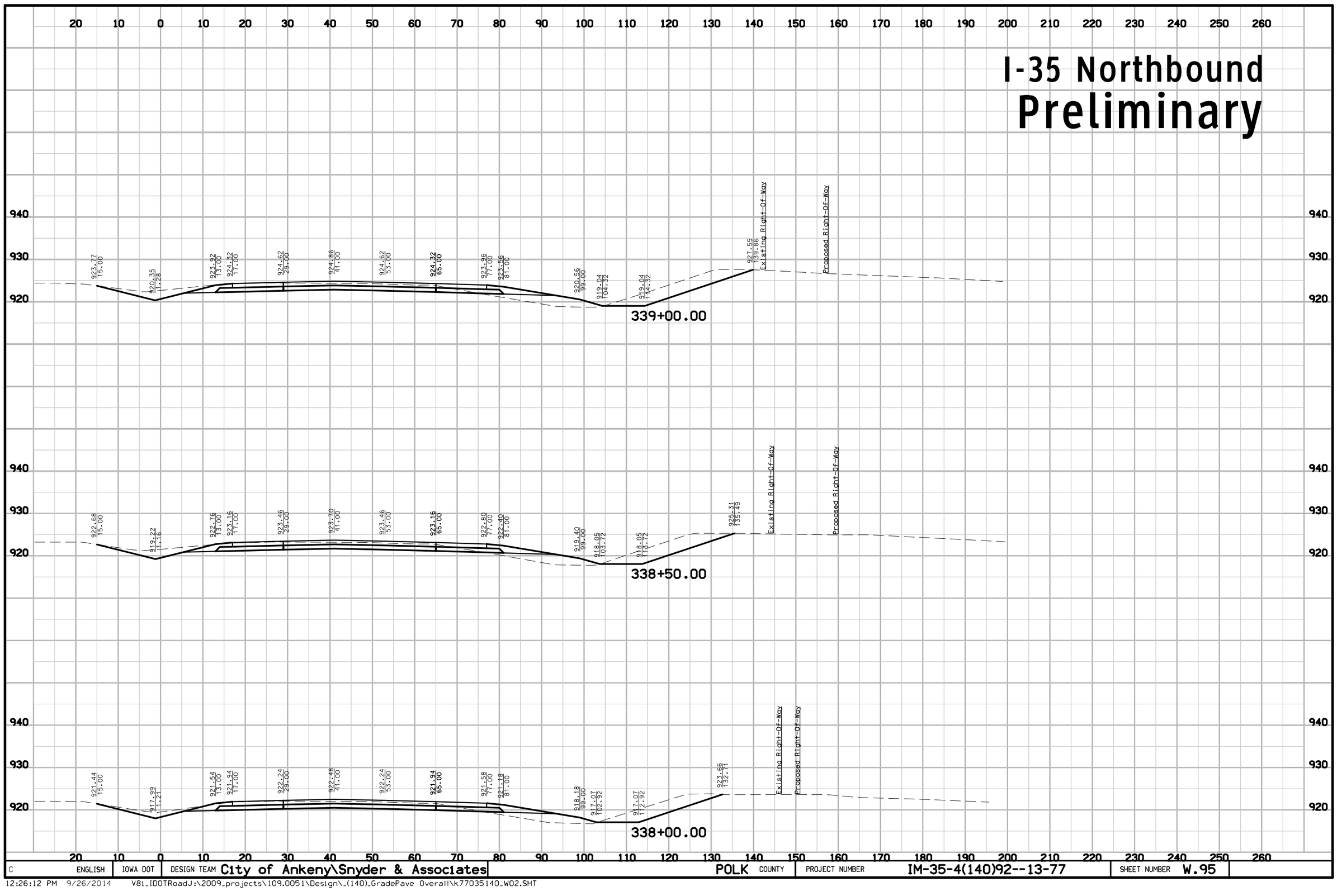
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.94	

12:26:12 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

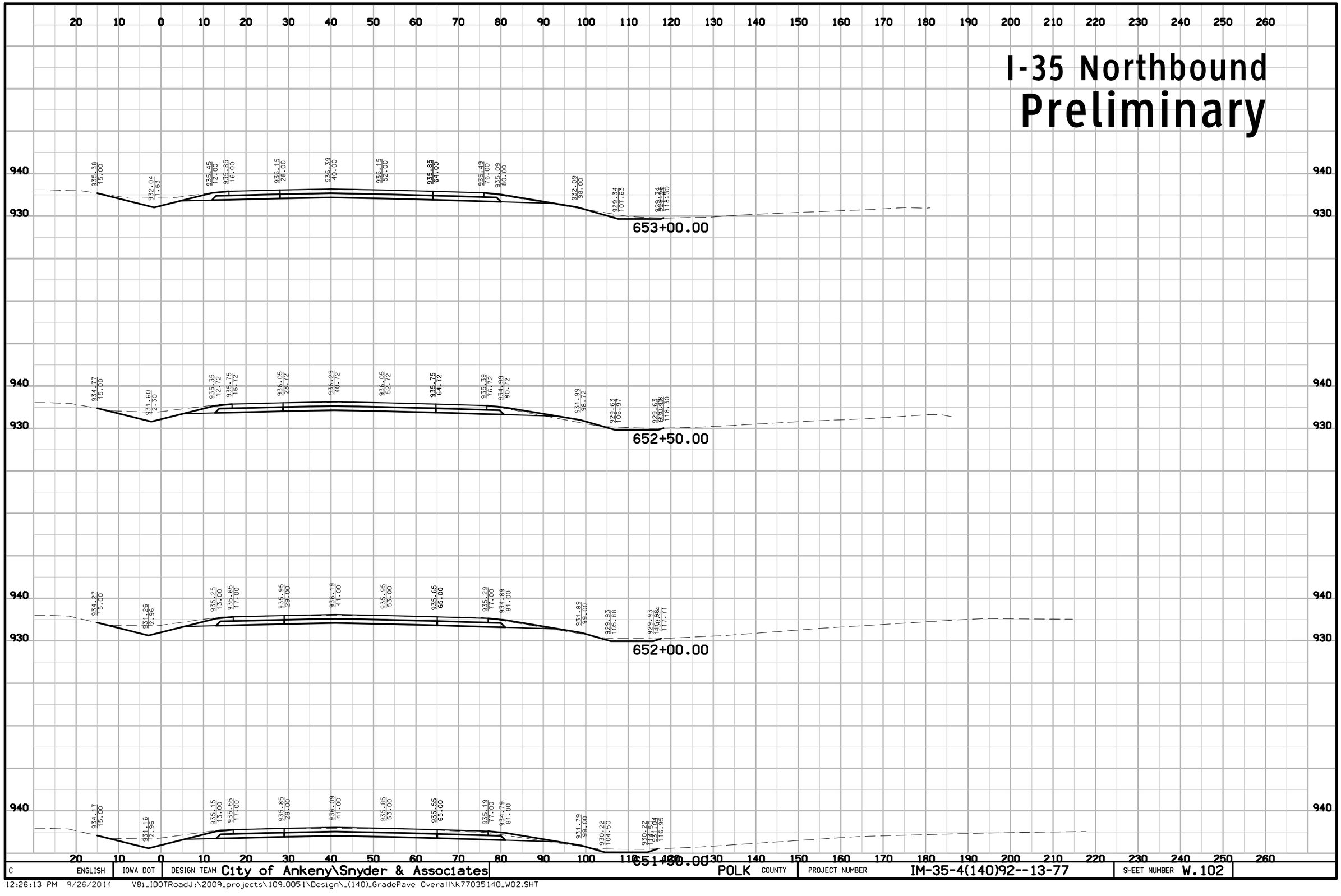
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.95

12:26:12 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

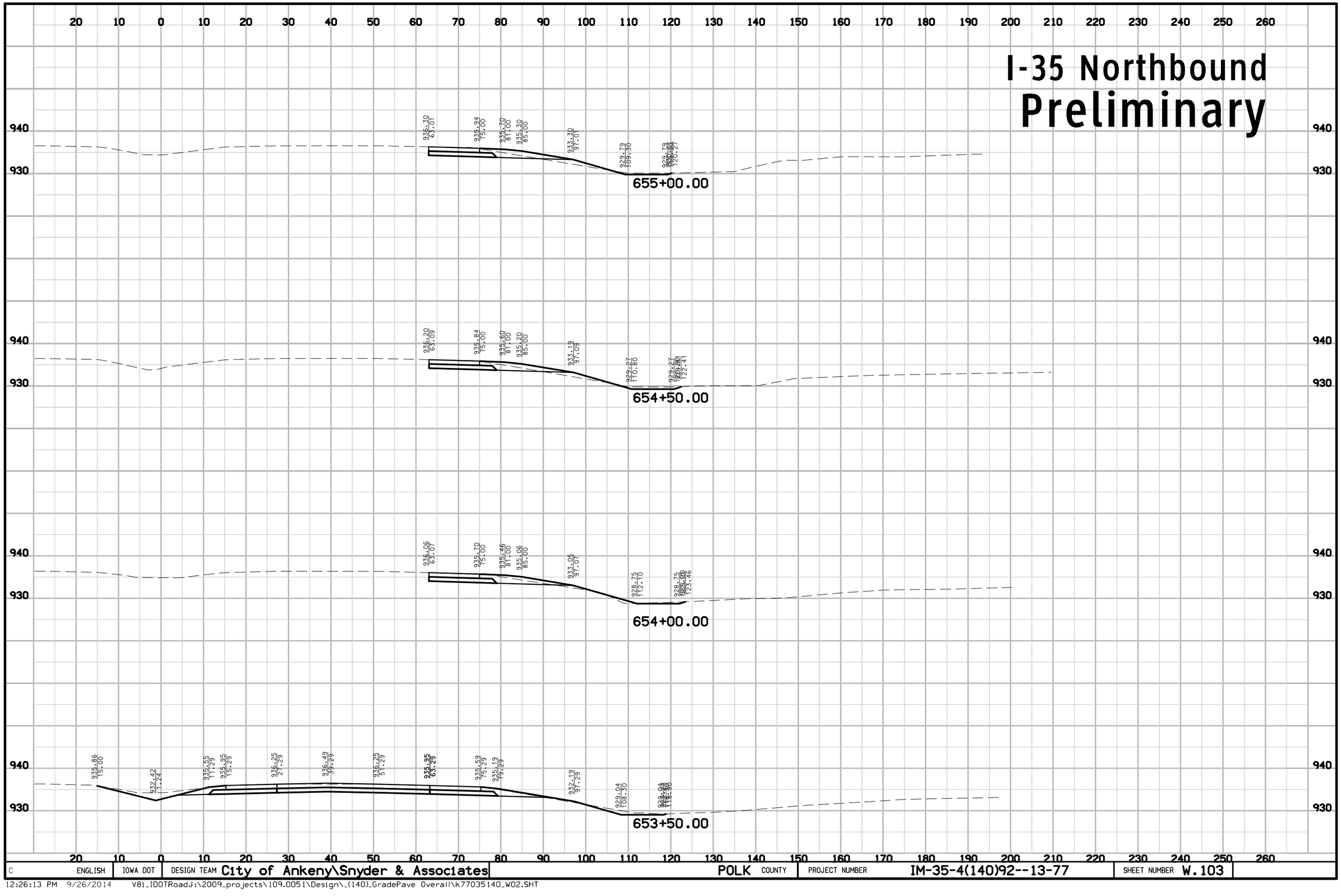
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.102	

12:26:13 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

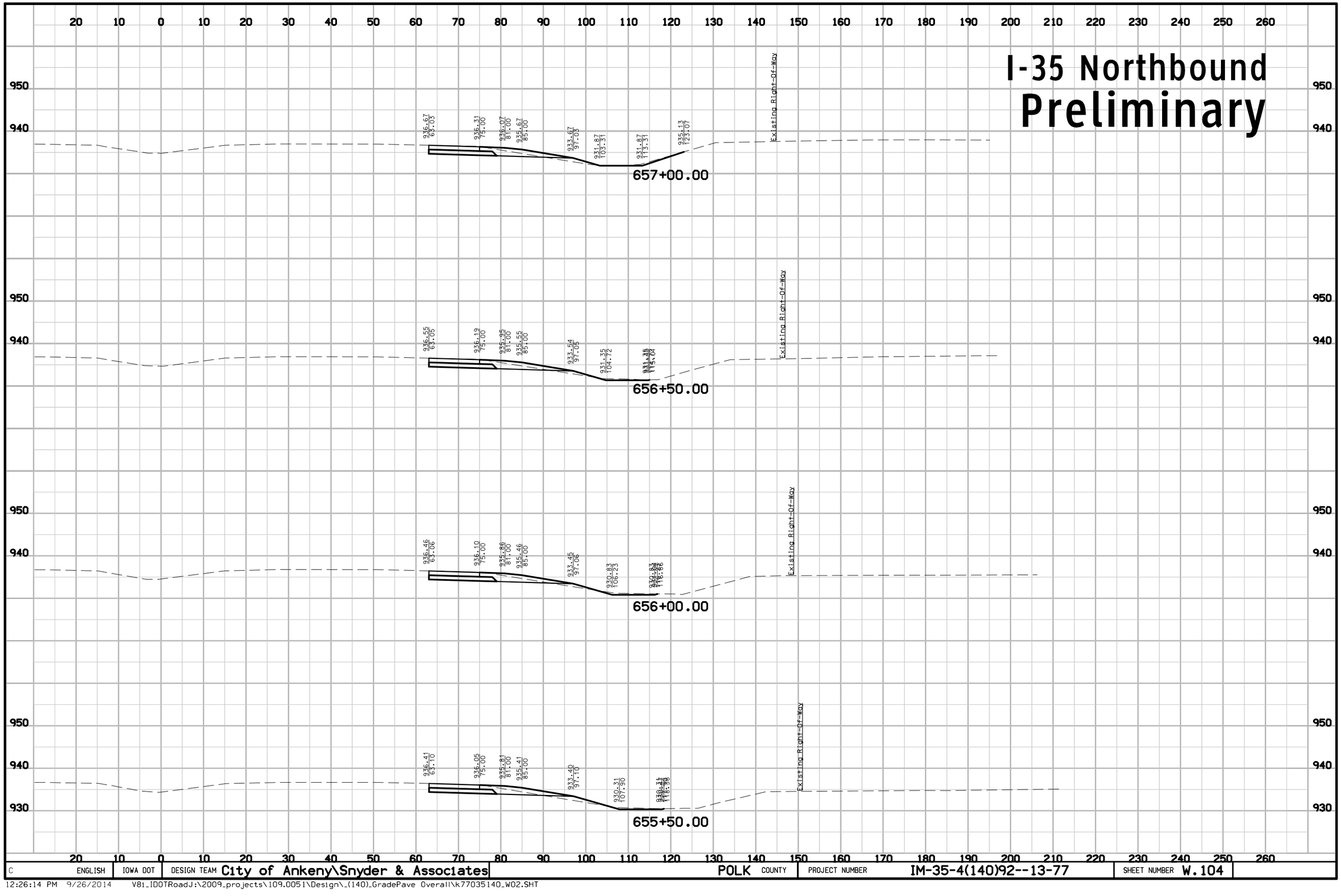
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.103

12:26:13 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

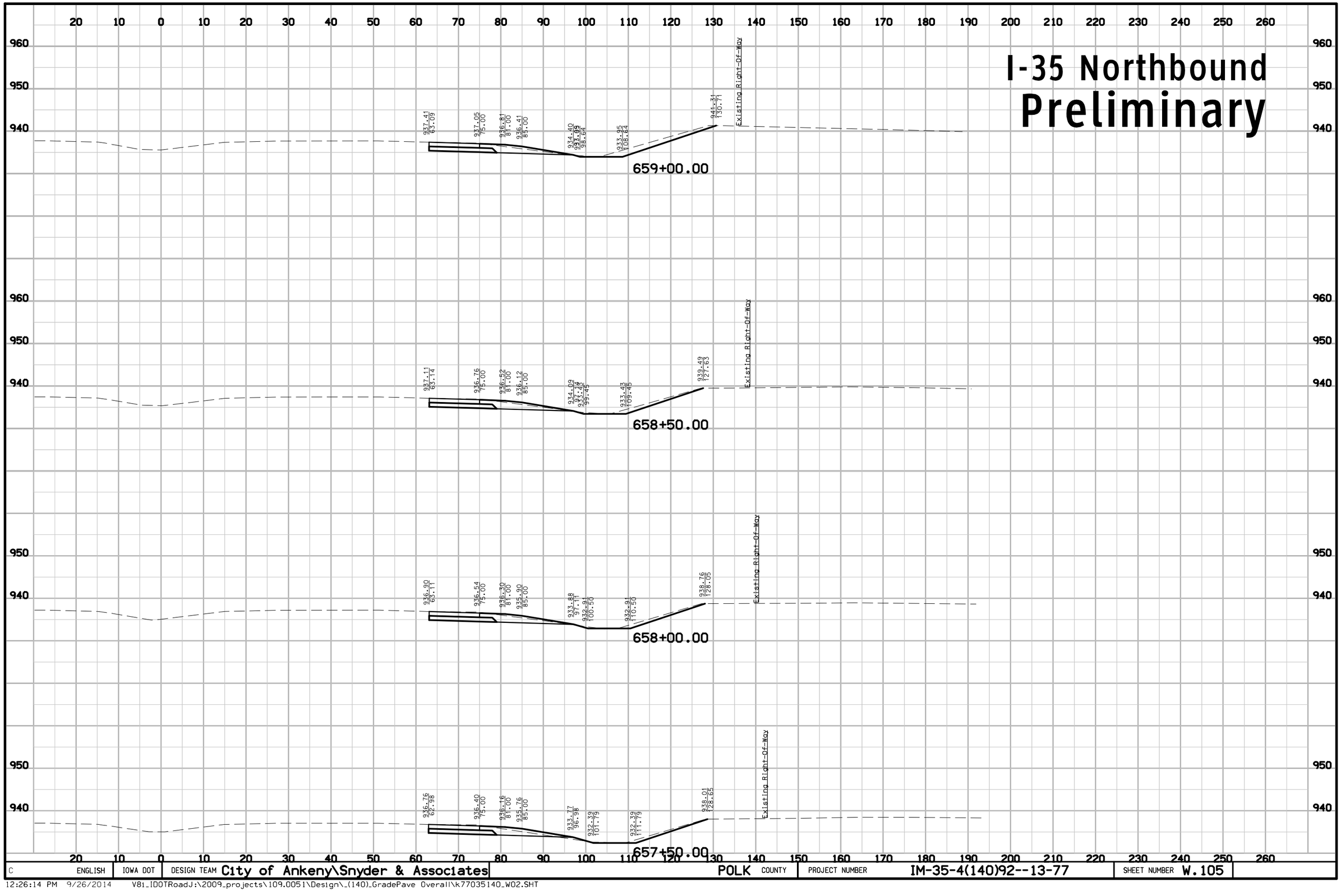
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.104

12:26:14 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

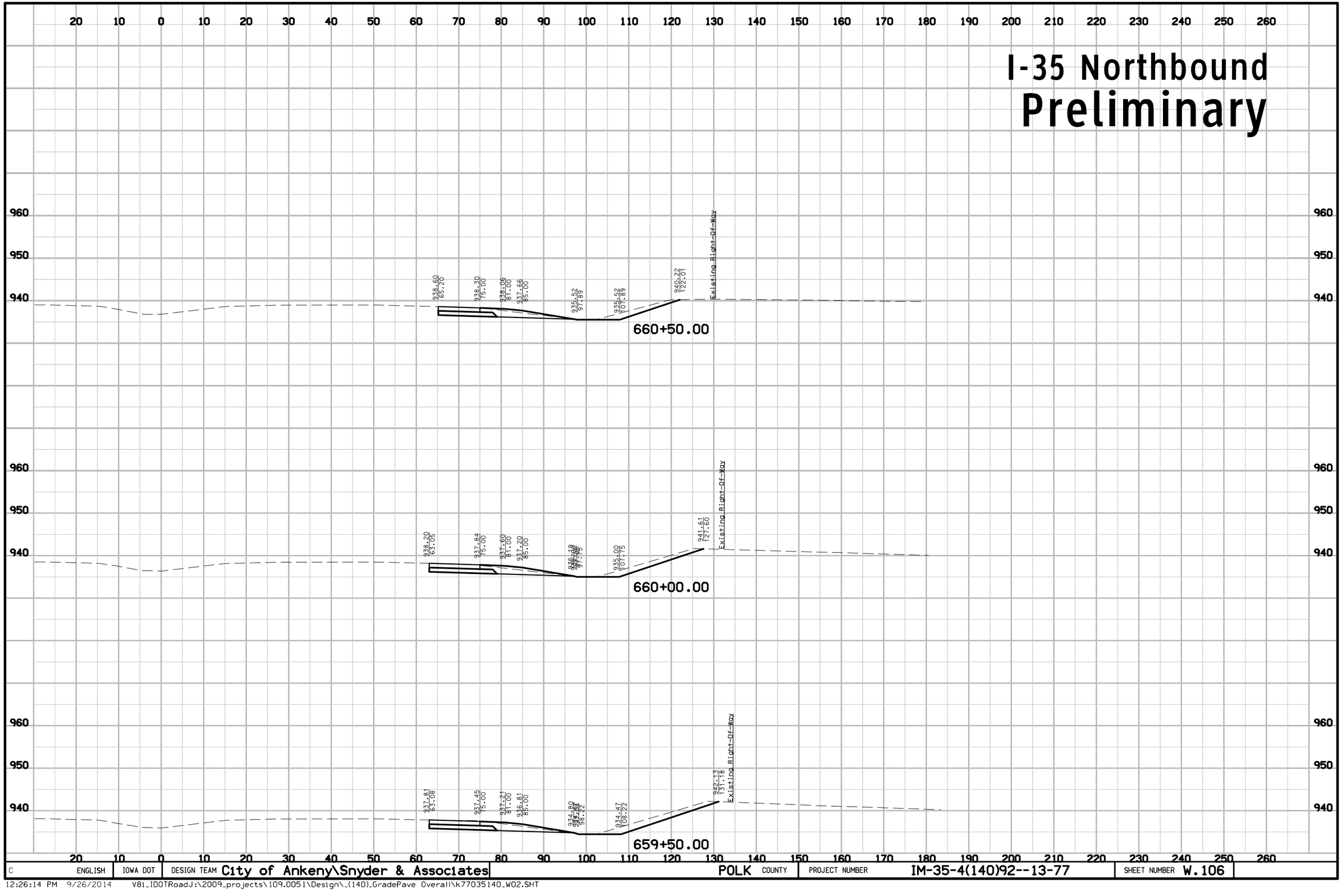
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.105

12:26:14 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

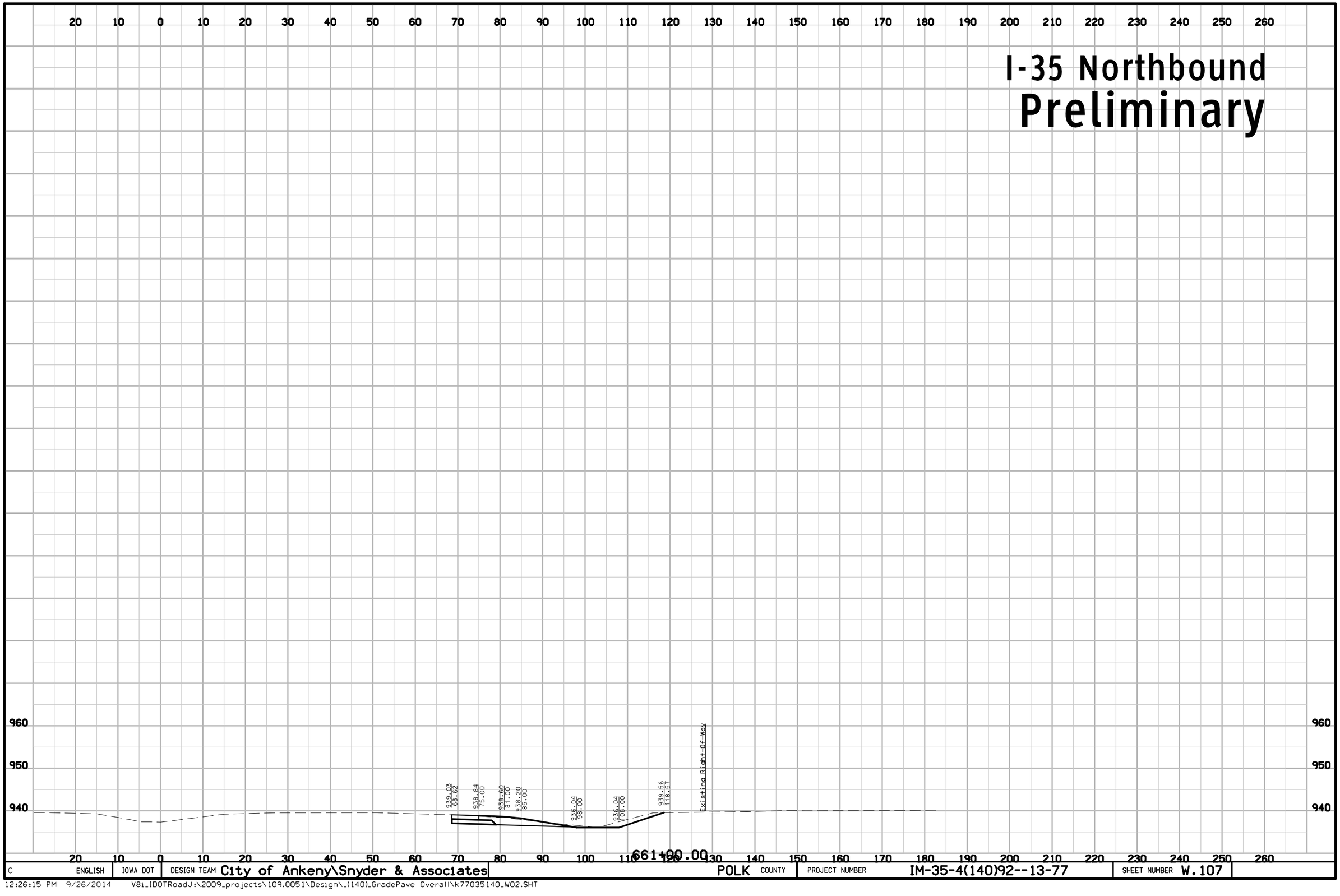
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.106

12:26:14 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

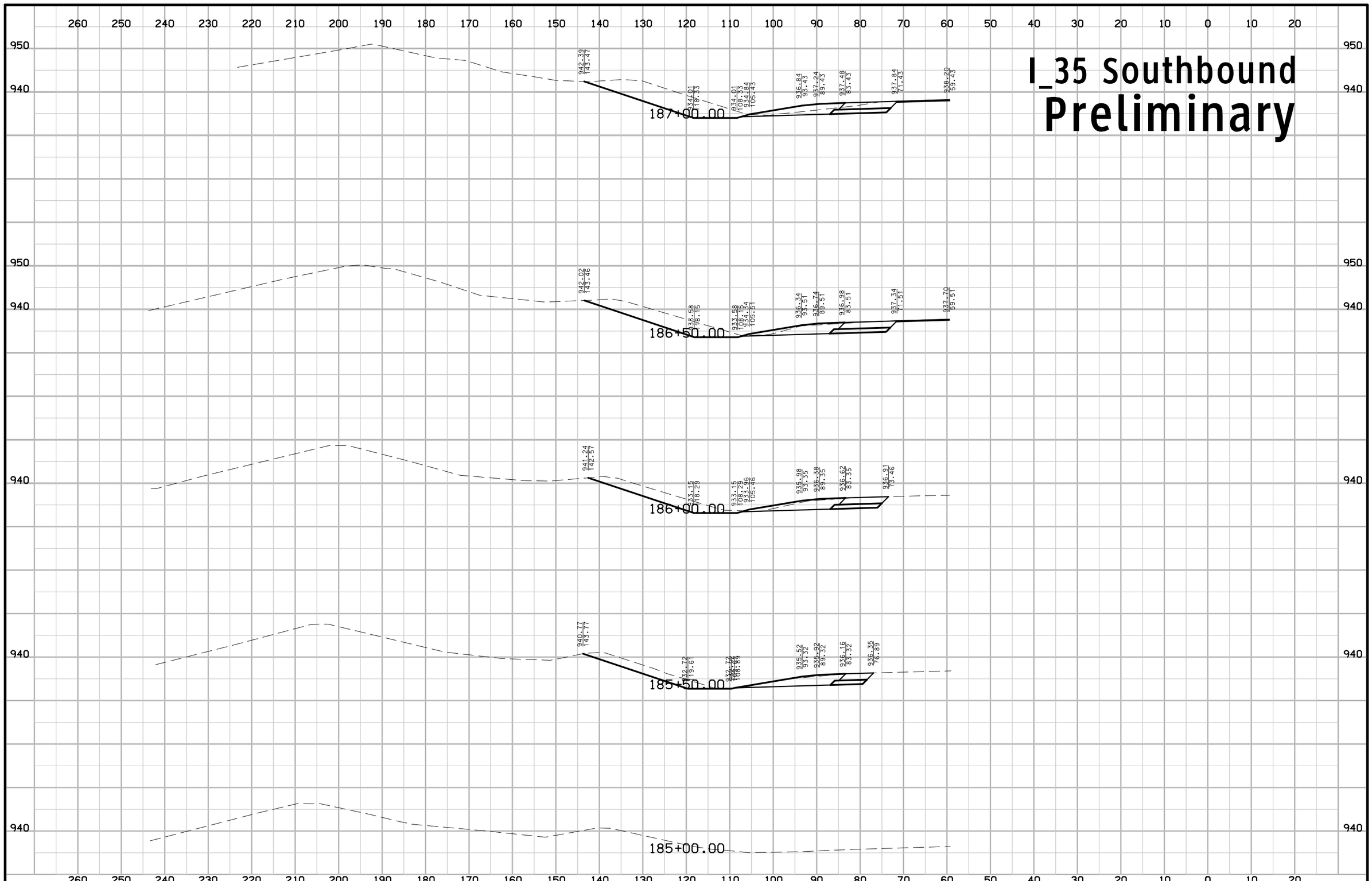
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.107

12:26:15 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

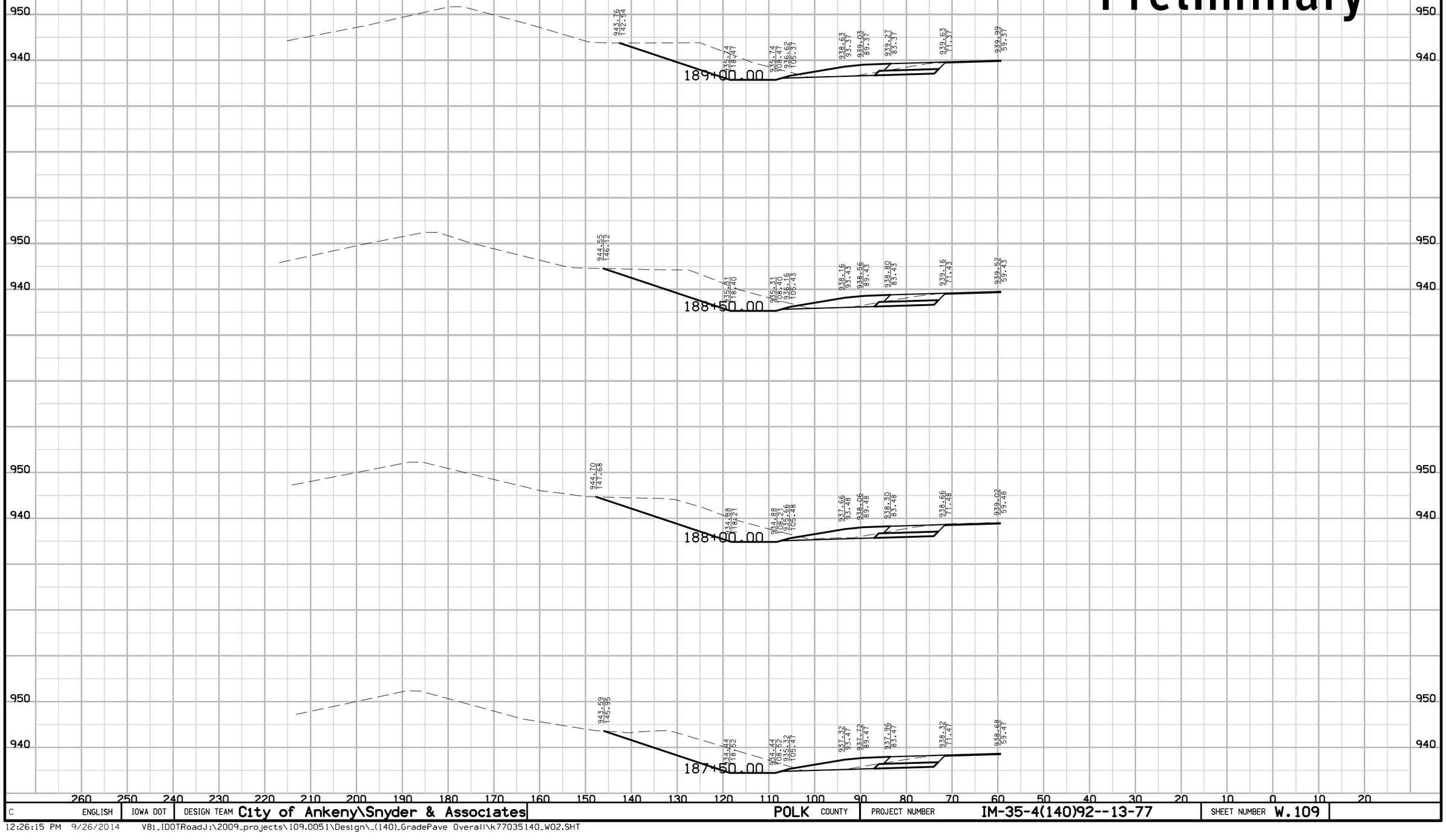
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.108

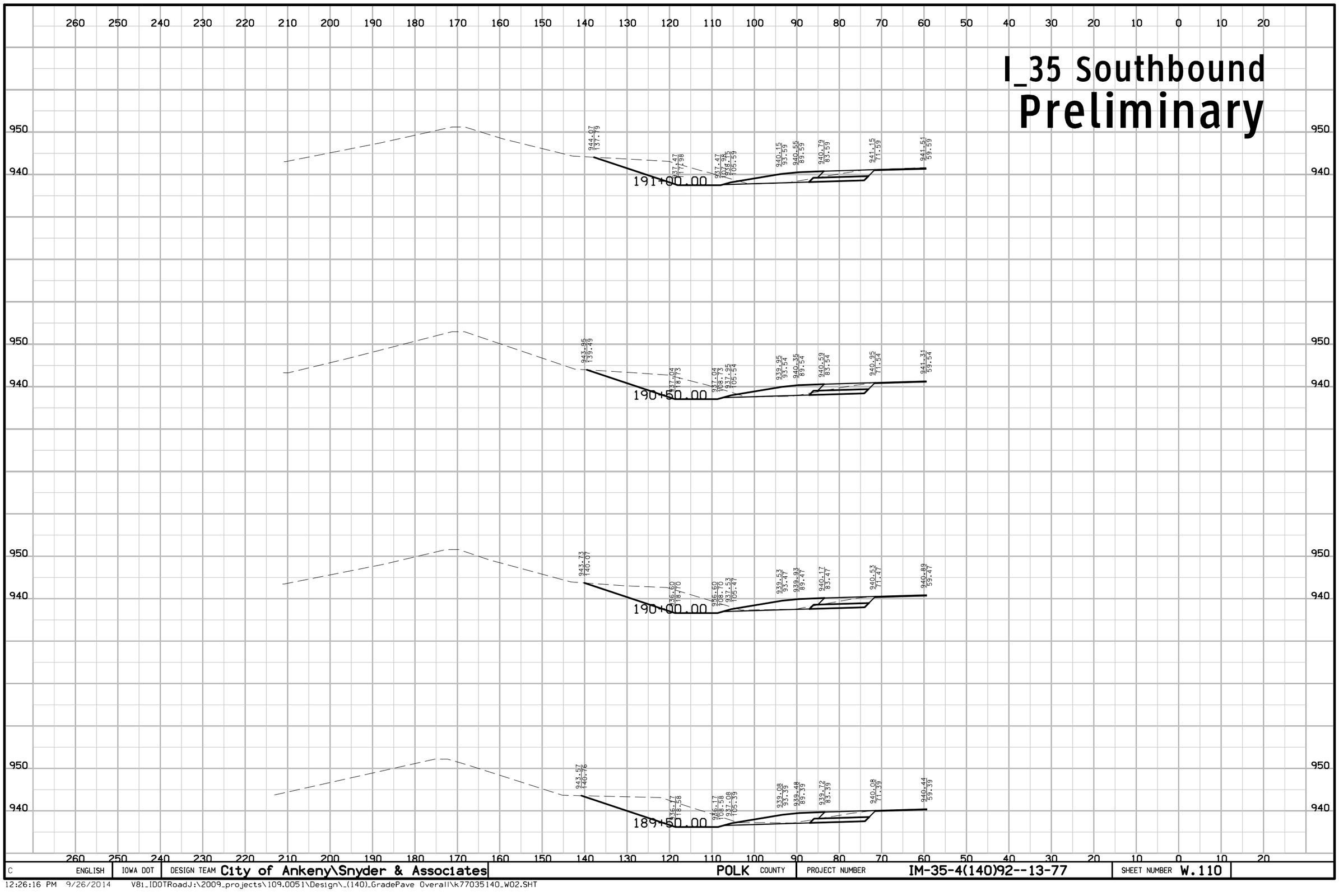
12:26:15 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.109

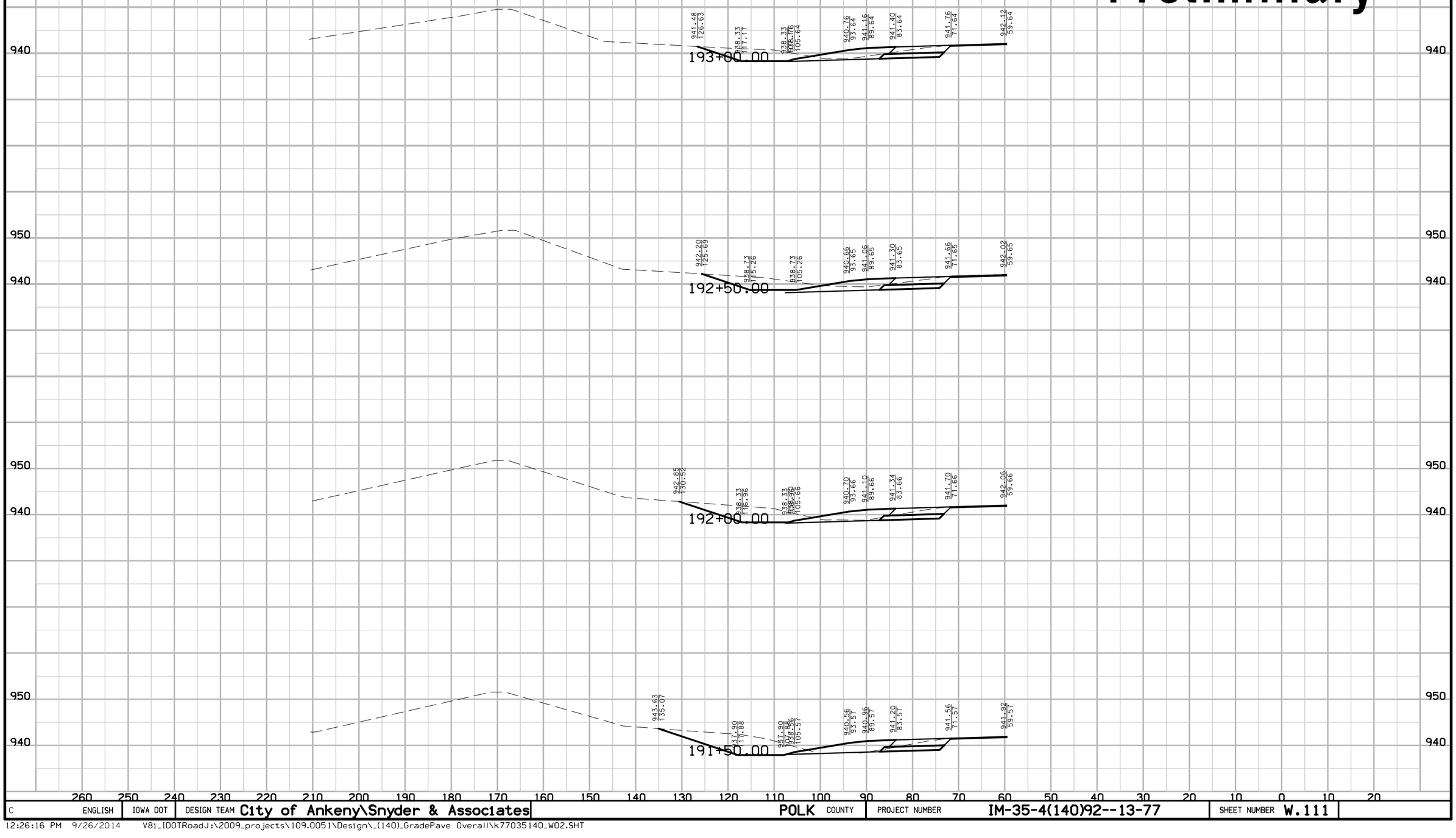
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.110

12:26:16 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

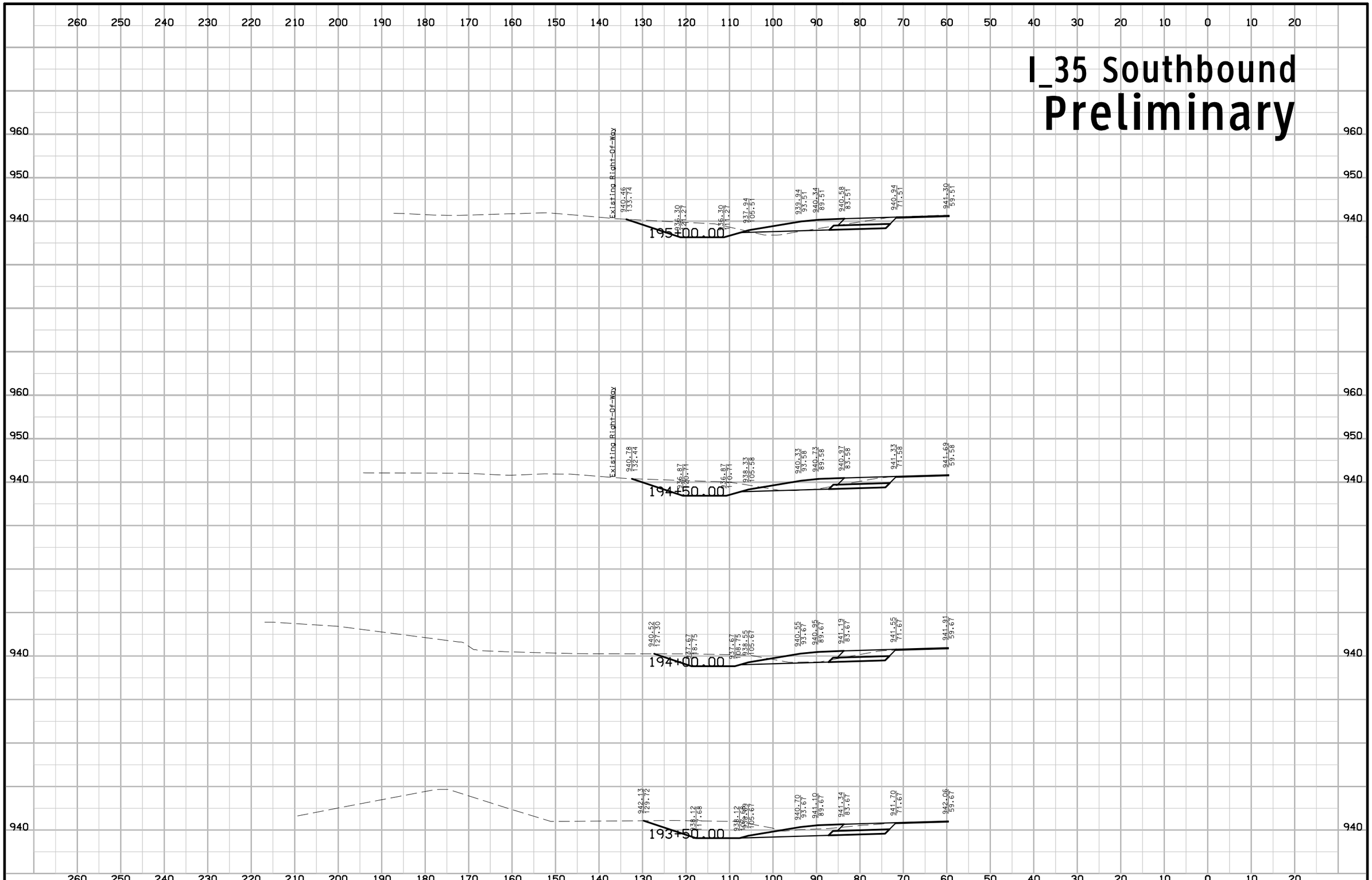
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.111

12:26:16 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

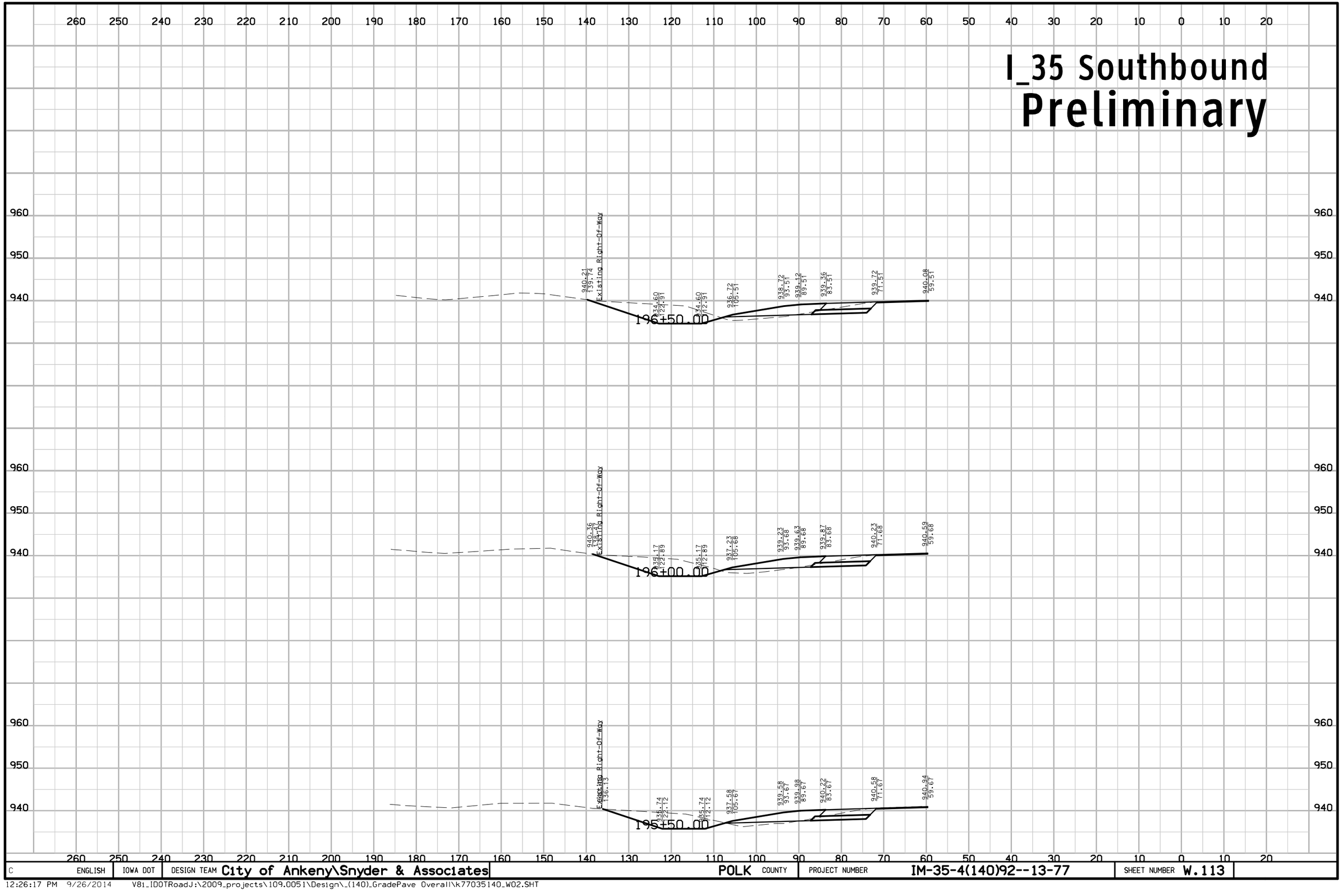
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.112	

12:26:17 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

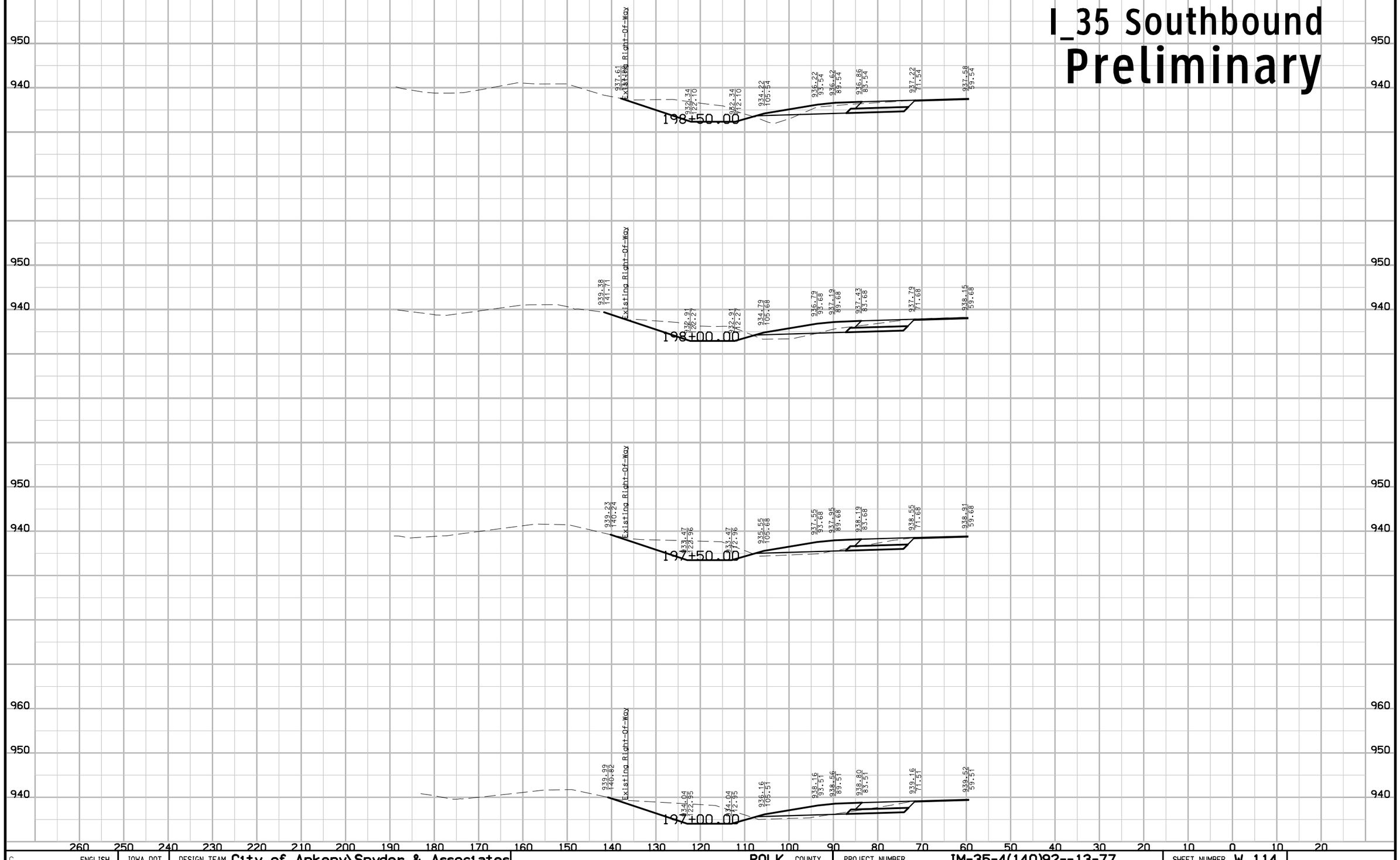
I_35 Southbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.113

12:26:17 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

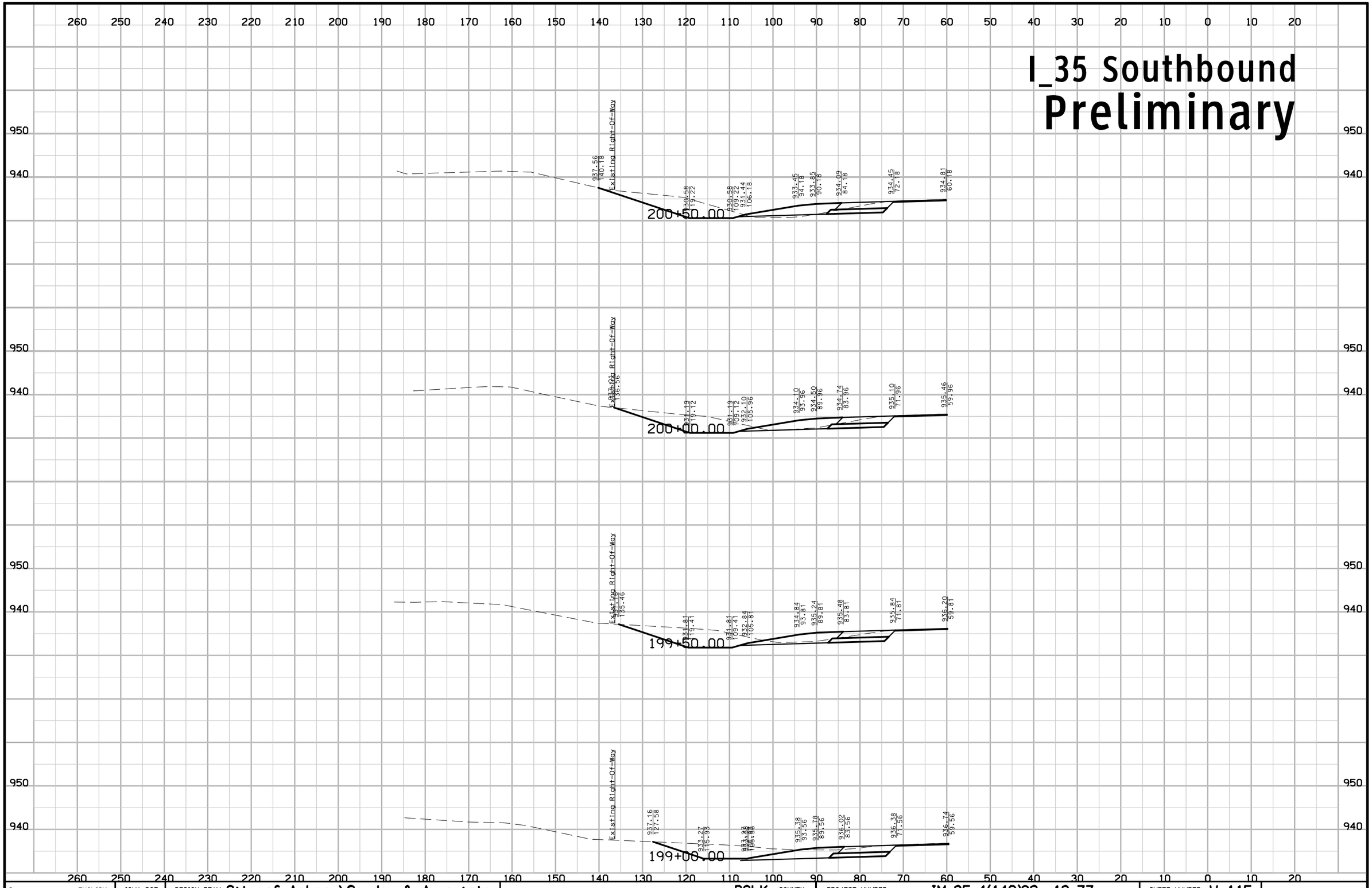
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.114

12:26:17 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

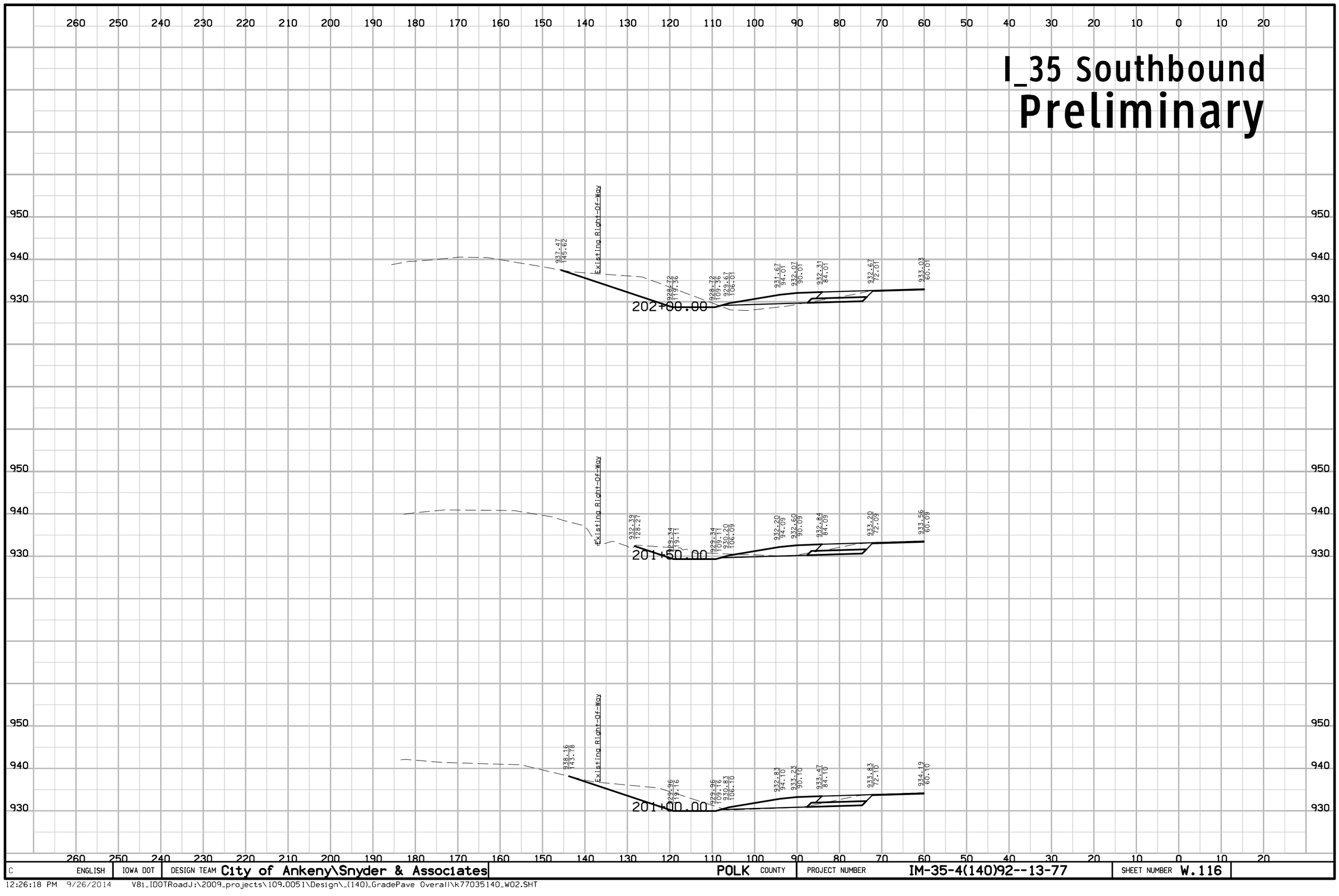
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.115

12:26:18 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

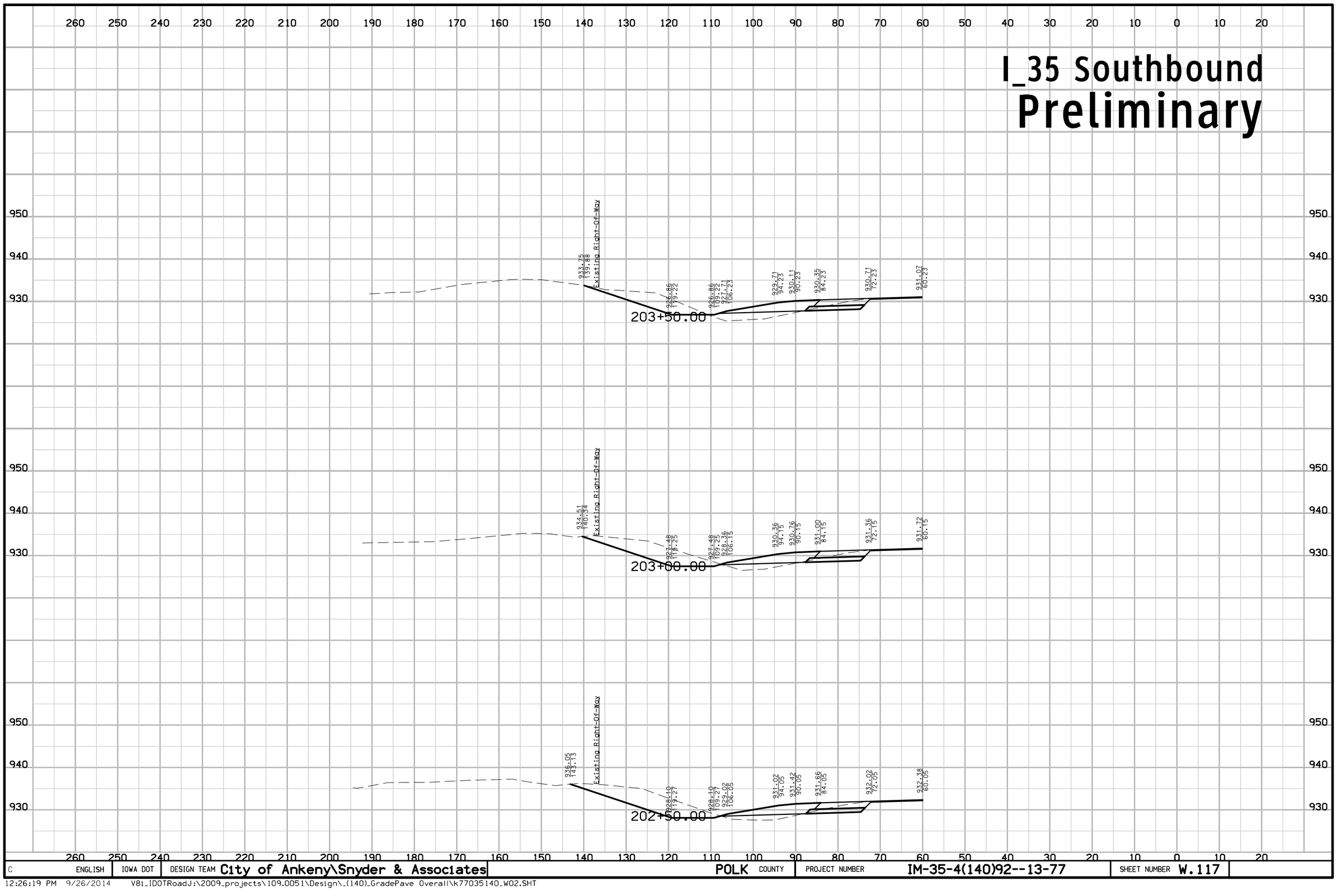
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.116

12:26:18 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

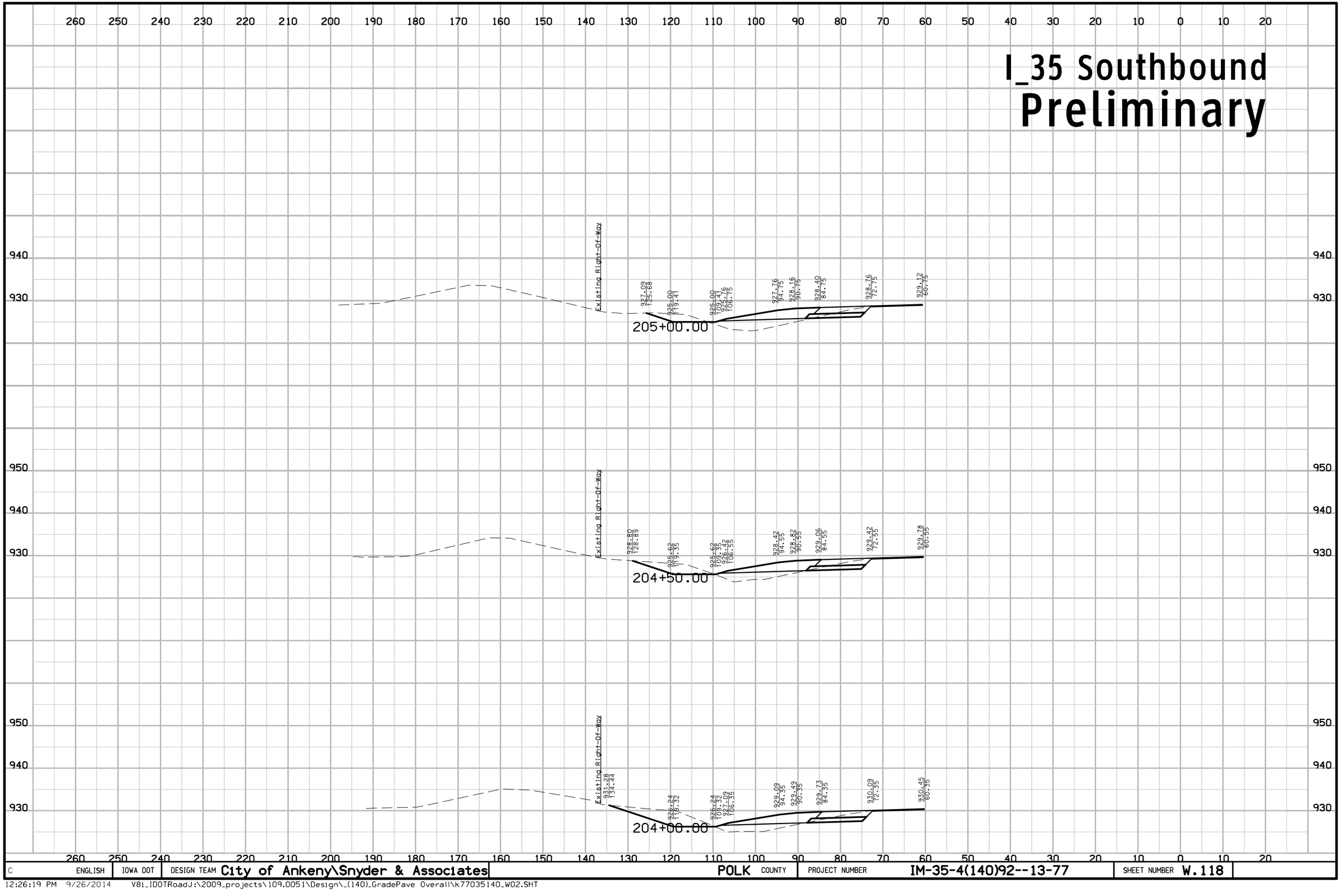
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK	COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.117

12:26:19 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

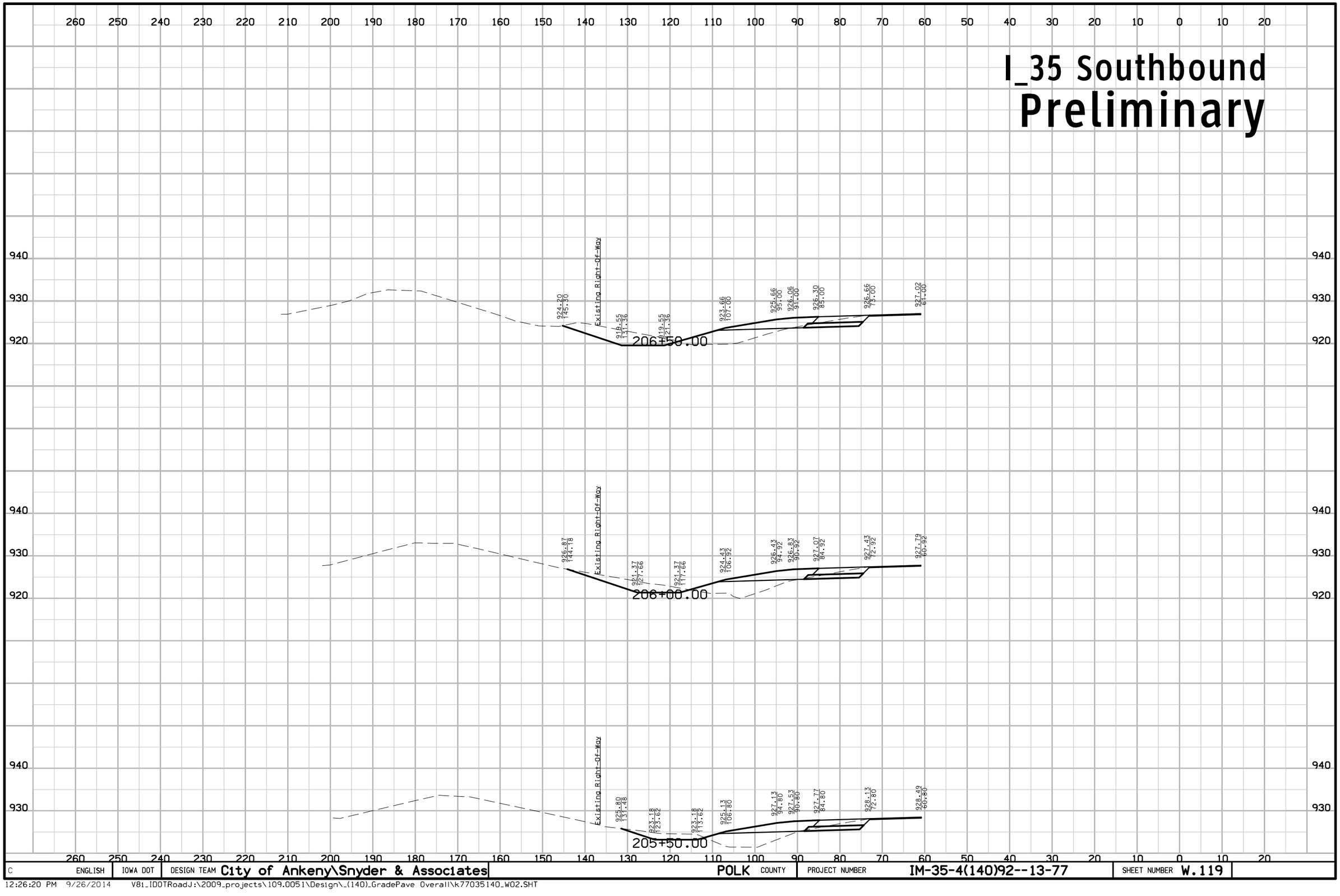
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.118

12:26:19 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

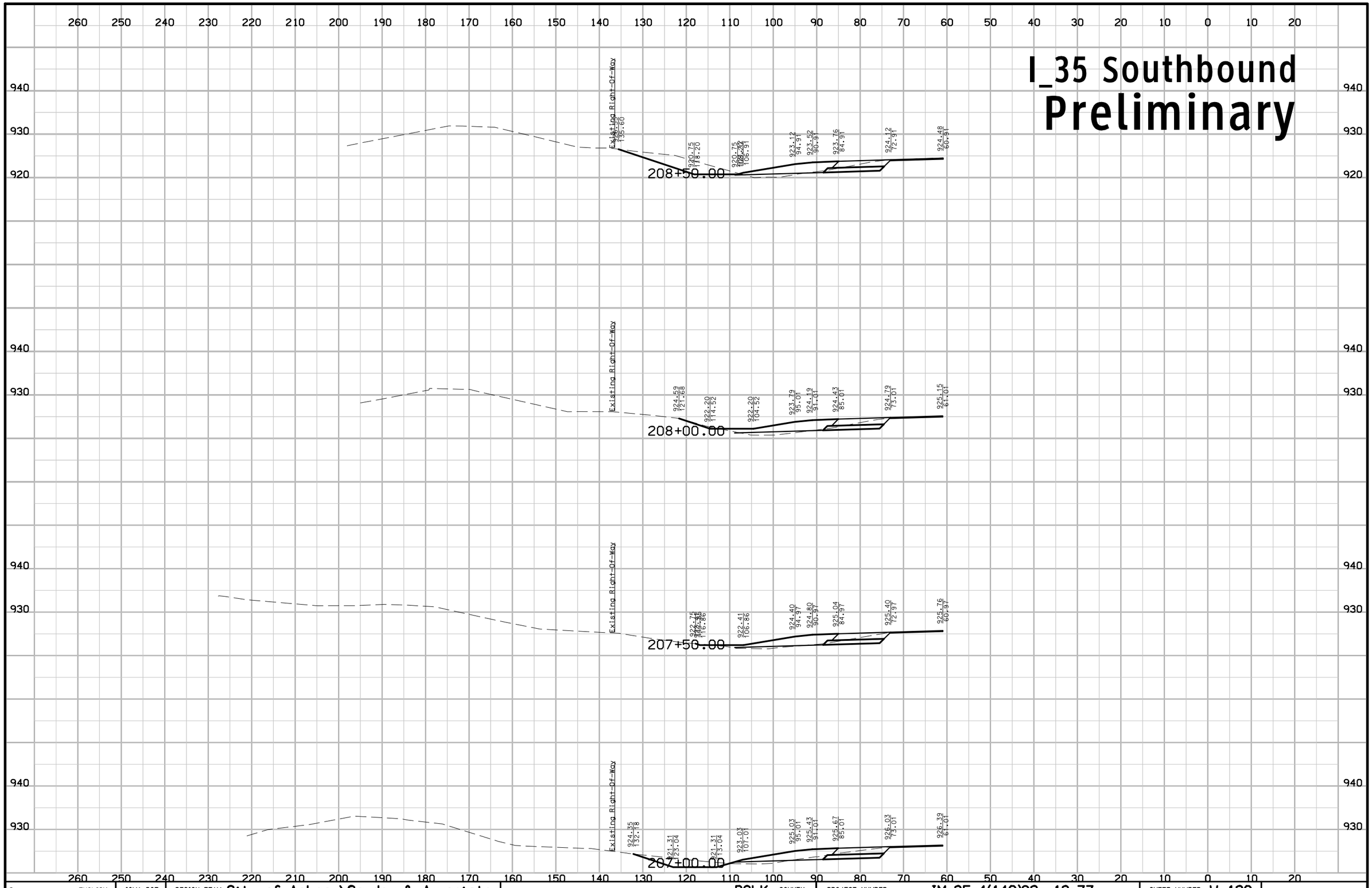
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.119

12:26:20 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

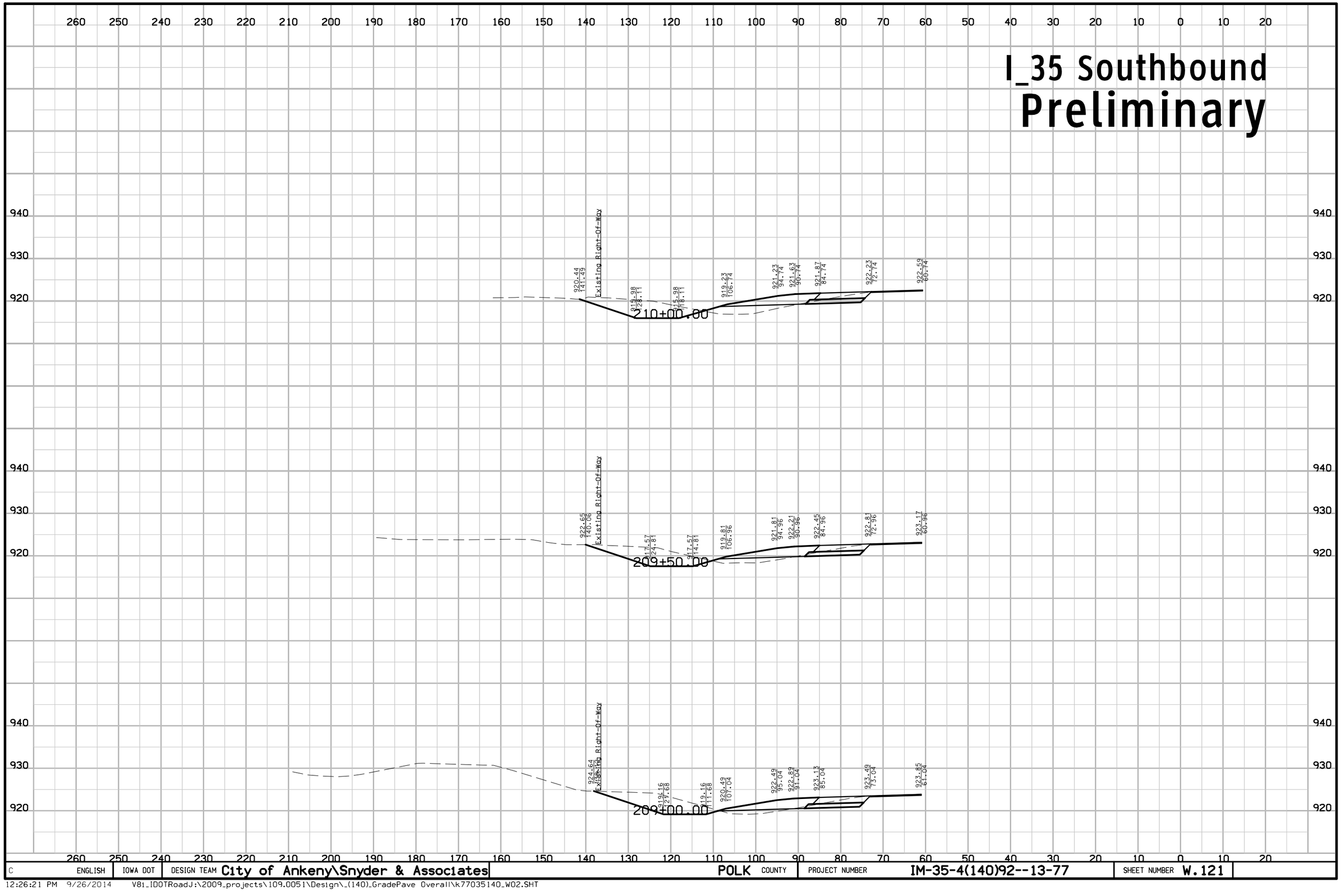
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.120

12:26:20 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

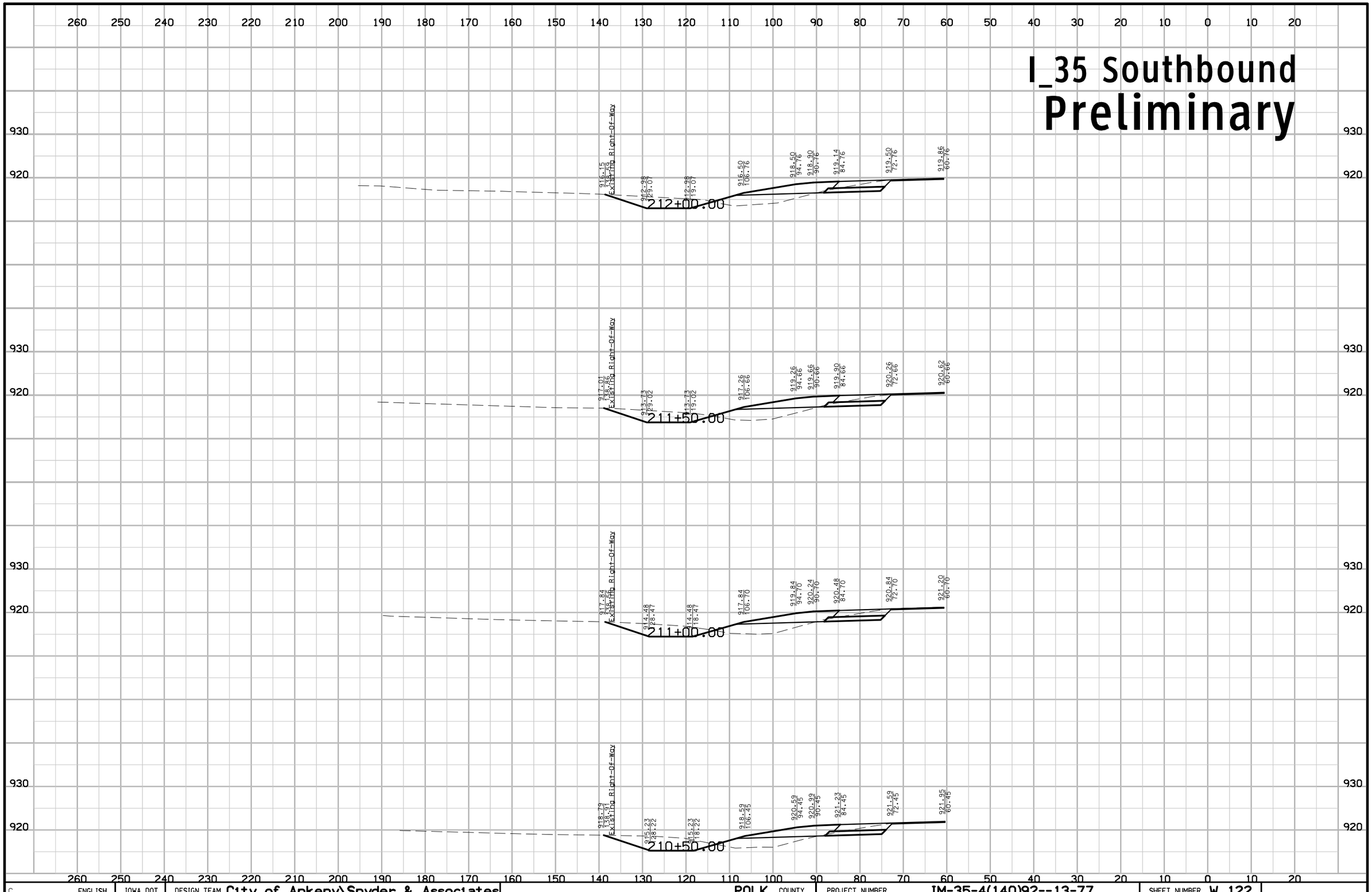
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.121

12:26:21 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

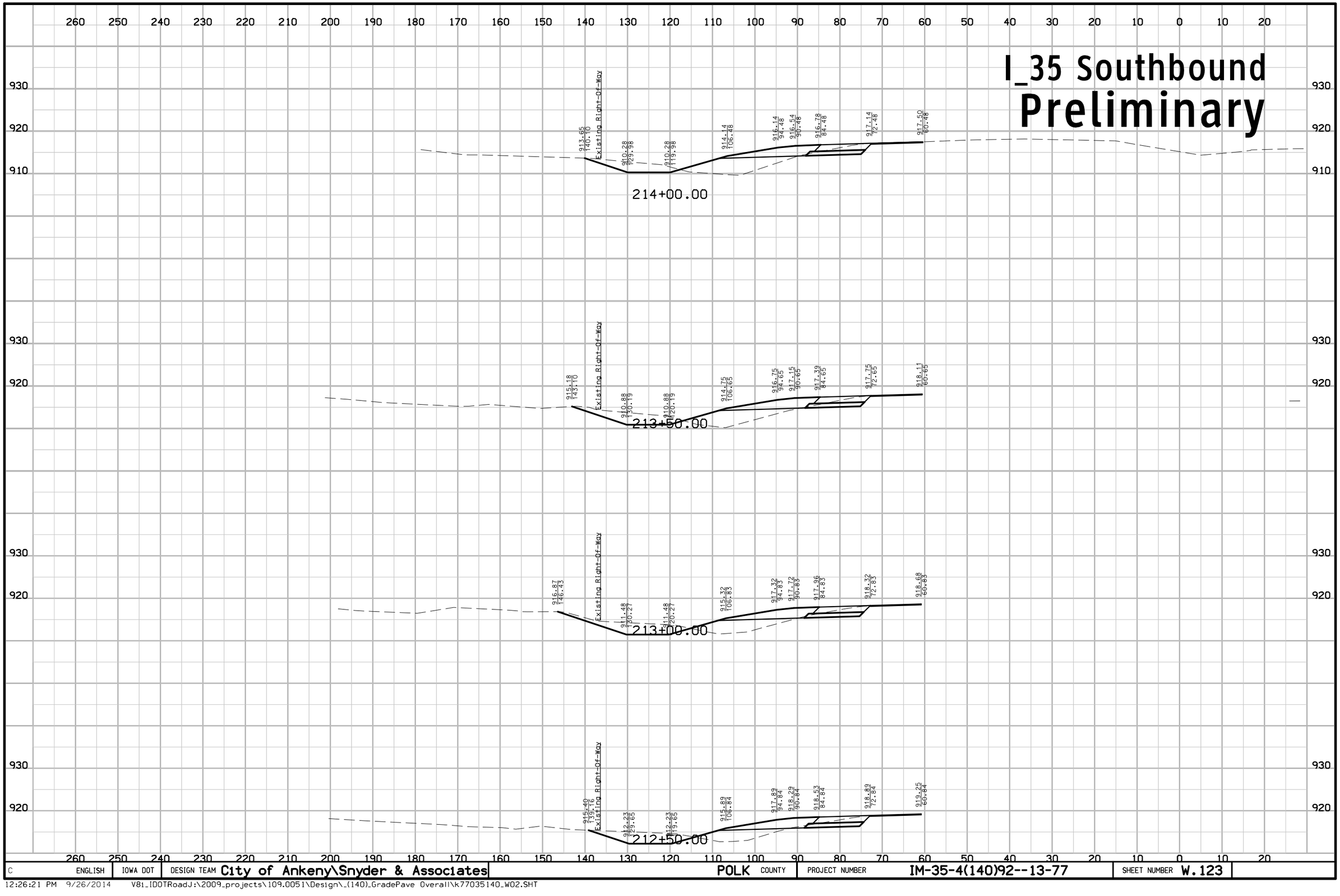
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.122

12:26:21 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

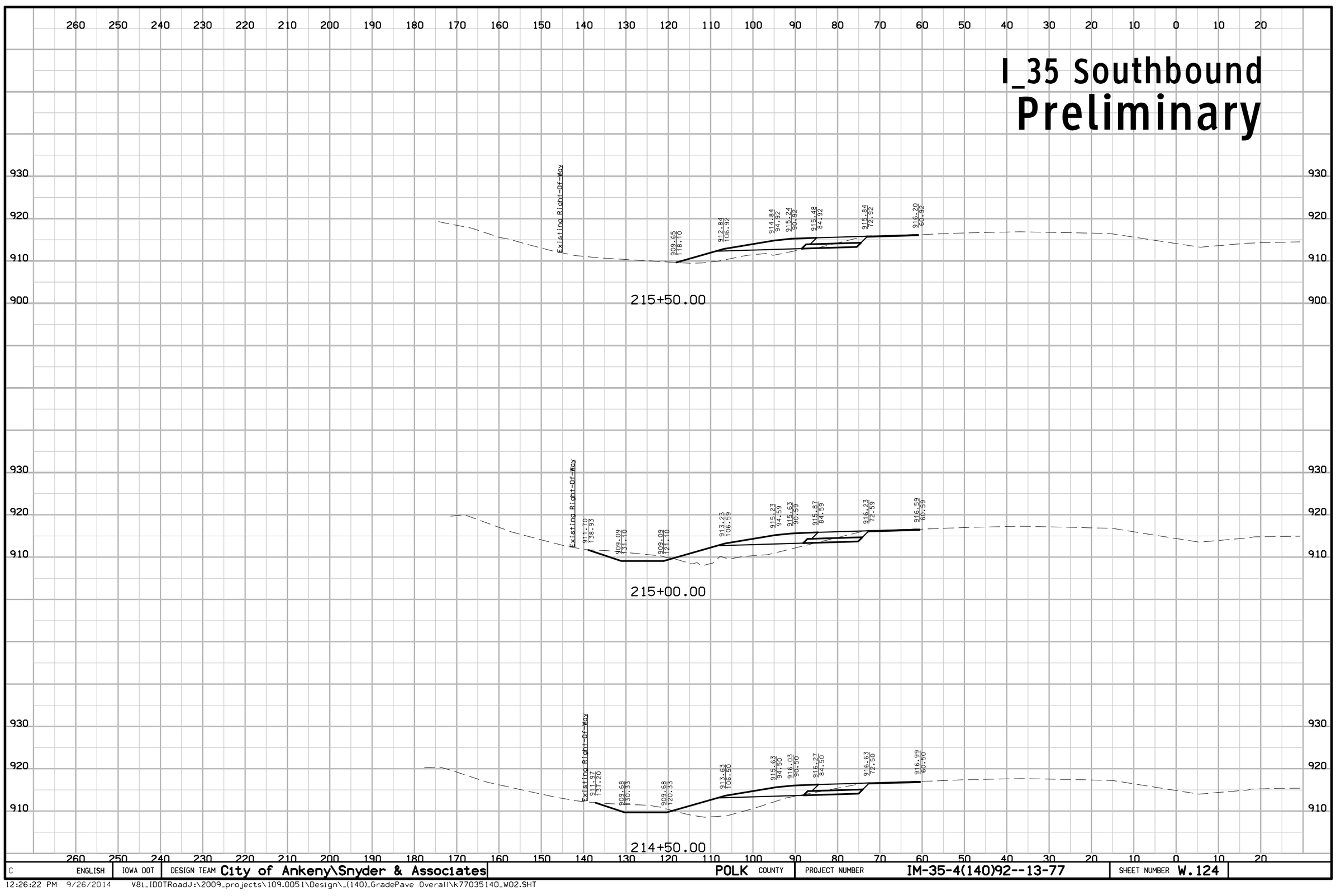
I_35 Southbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.123

12:26:21 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

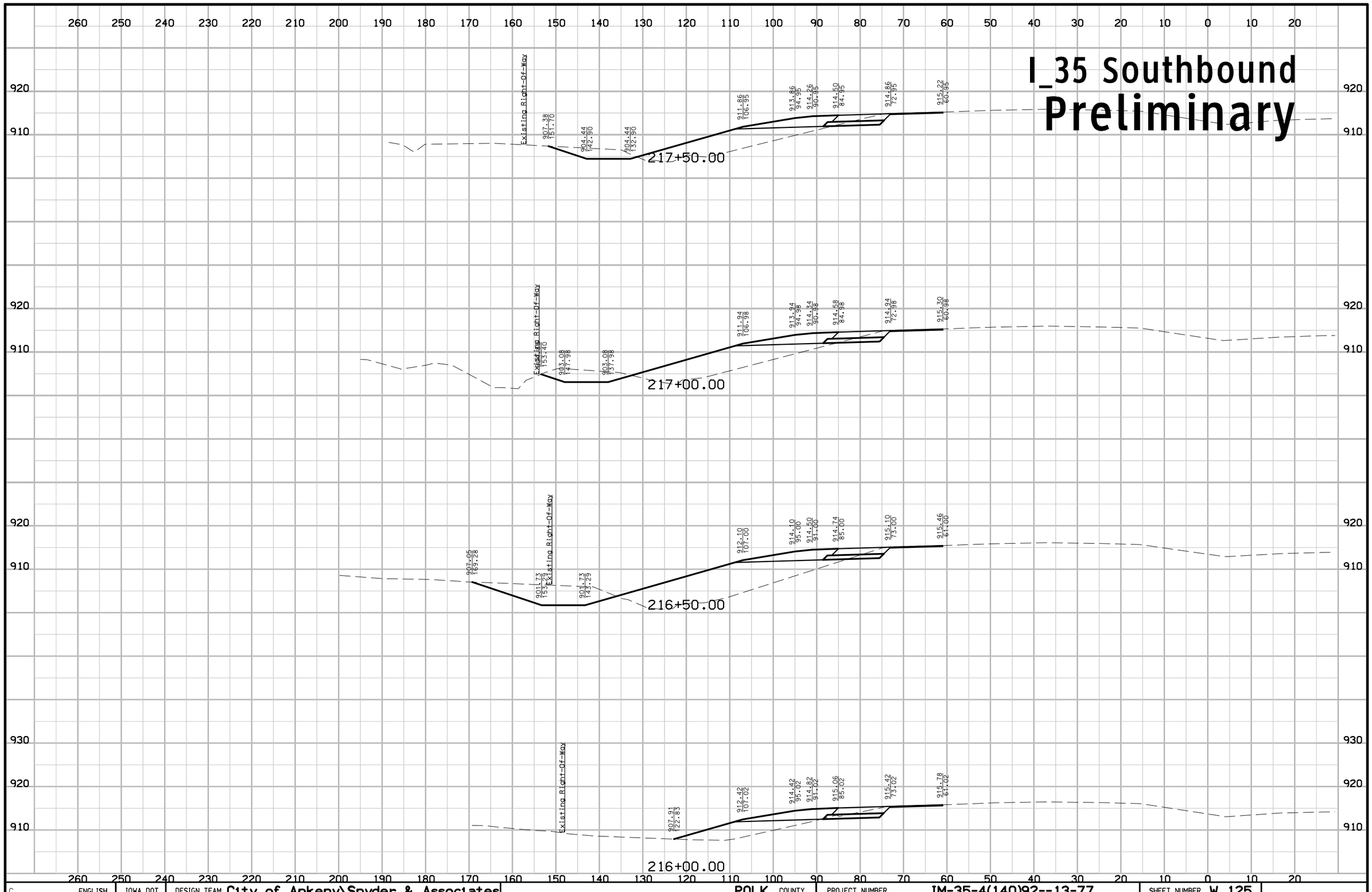
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.124

12:26:22 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

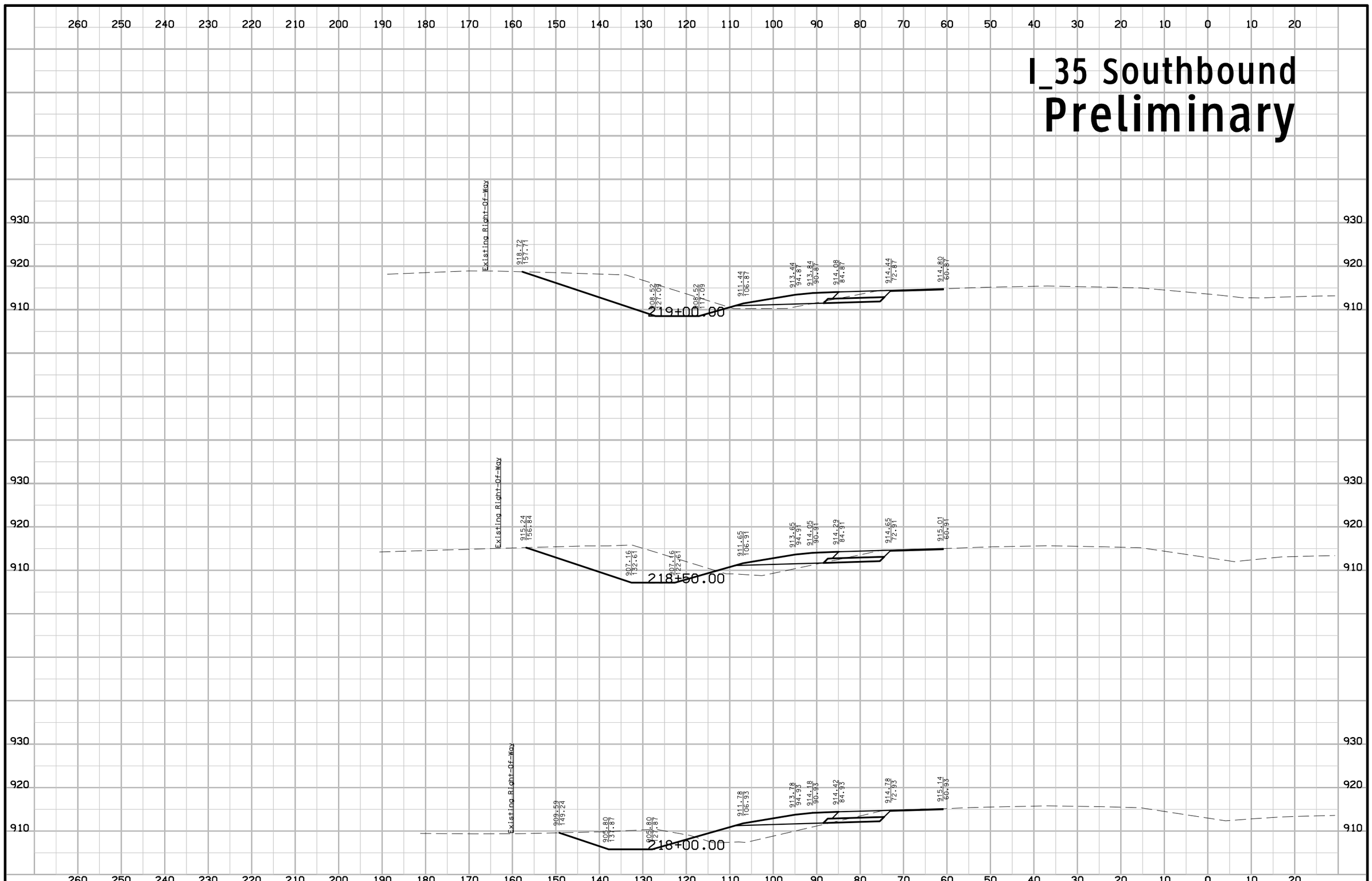
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.125

12:26:22 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.126

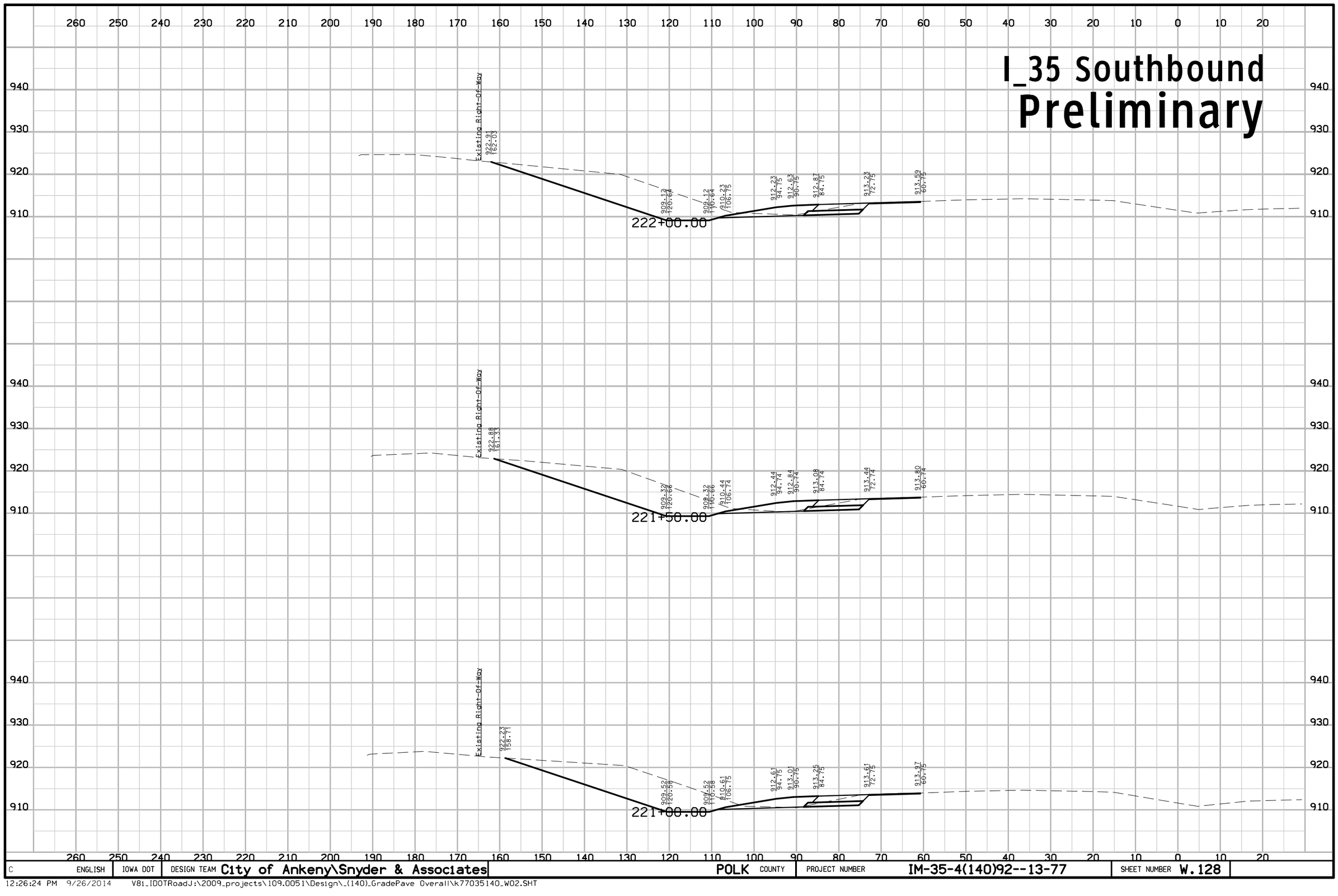
12:26:23 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.127

12:26:23 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

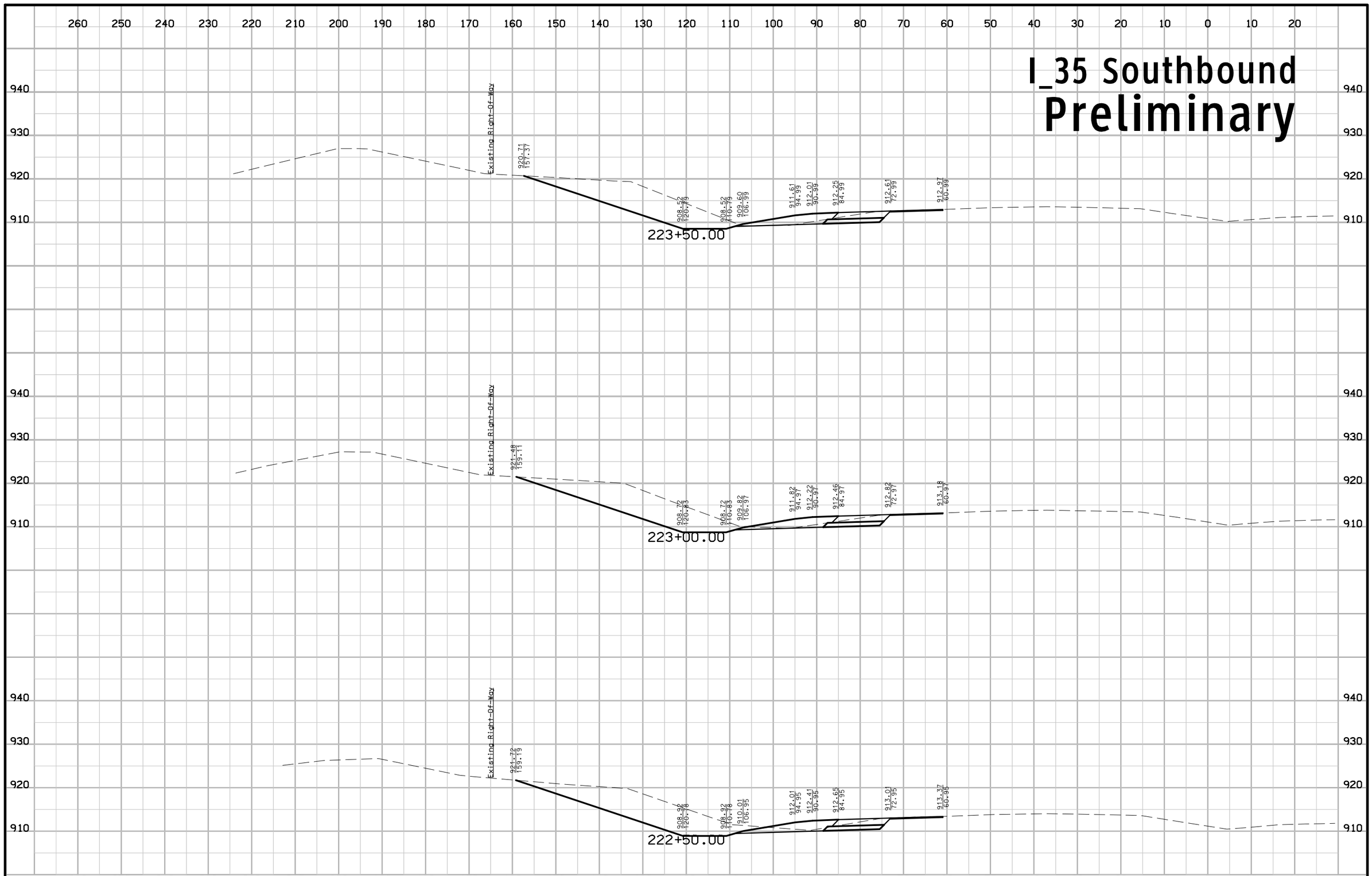
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.128

12:26:24 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.129

12:26:24 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

930
920
910

Existing Right-Of-Way

917.36
149.35

907.92
120.04

907.92
111.04

909.01
107.21

911.01
95.21

911.41
91.21

911.65
85.21

912.01
75.21

912.37
61.21

225+00.00

930
920
910

Existing Right-Of-Way

918.27
151.53

908.12
120.06

908.12
111.06

909.22
107.22

911.22
95.22

911.62
91.22

911.86
85.22

912.22
75.22

912.58
61.22

224+50.00

940
930
920
910

Existing Right-Of-Way

919.59
154.71

908.42
120.91

908.32
110.91

909.41
107.10

911.41
95.10

911.81
91.10

912.05
85.10

912.41
75.10

912.77
61.10

224+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.130

12:26:24 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

930
920
910

Existing Right-Of-Way

914.10
141.28

907.32
120.92

907.32
110.92

908.43
107.04

910.43
95.04

910.83
91.04

911.07
85.04

911.43
73.04

911.79
61.04

226+50.00

930
920
910

Existing Right-Of-Way

915.05
143.52

907.52
120.92

907.52
110.92

908.62
107.07

910.62
95.07

911.02
91.07

911.26
85.07

911.62
73.07

911.98
61.07

226+00.00

930
920
910

Existing Right-Of-Way

916.43
147.07

907.72
120.94

907.72
110.94

908.82
107.10

910.82
95.10

911.22
91.10

911.46
85.10

911.82
73.10

912.18
61.10

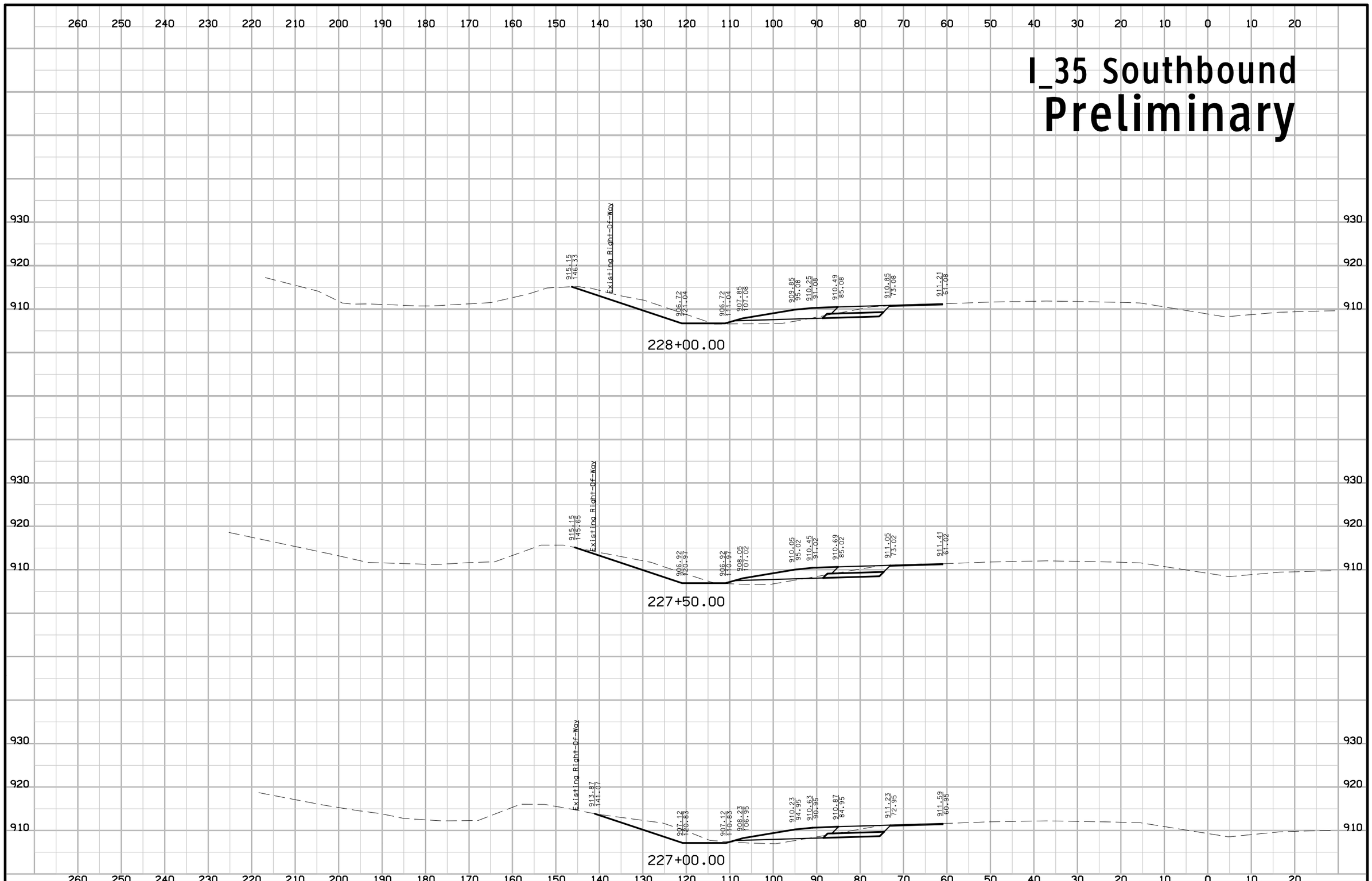
225+50.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.131

12:26:25 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

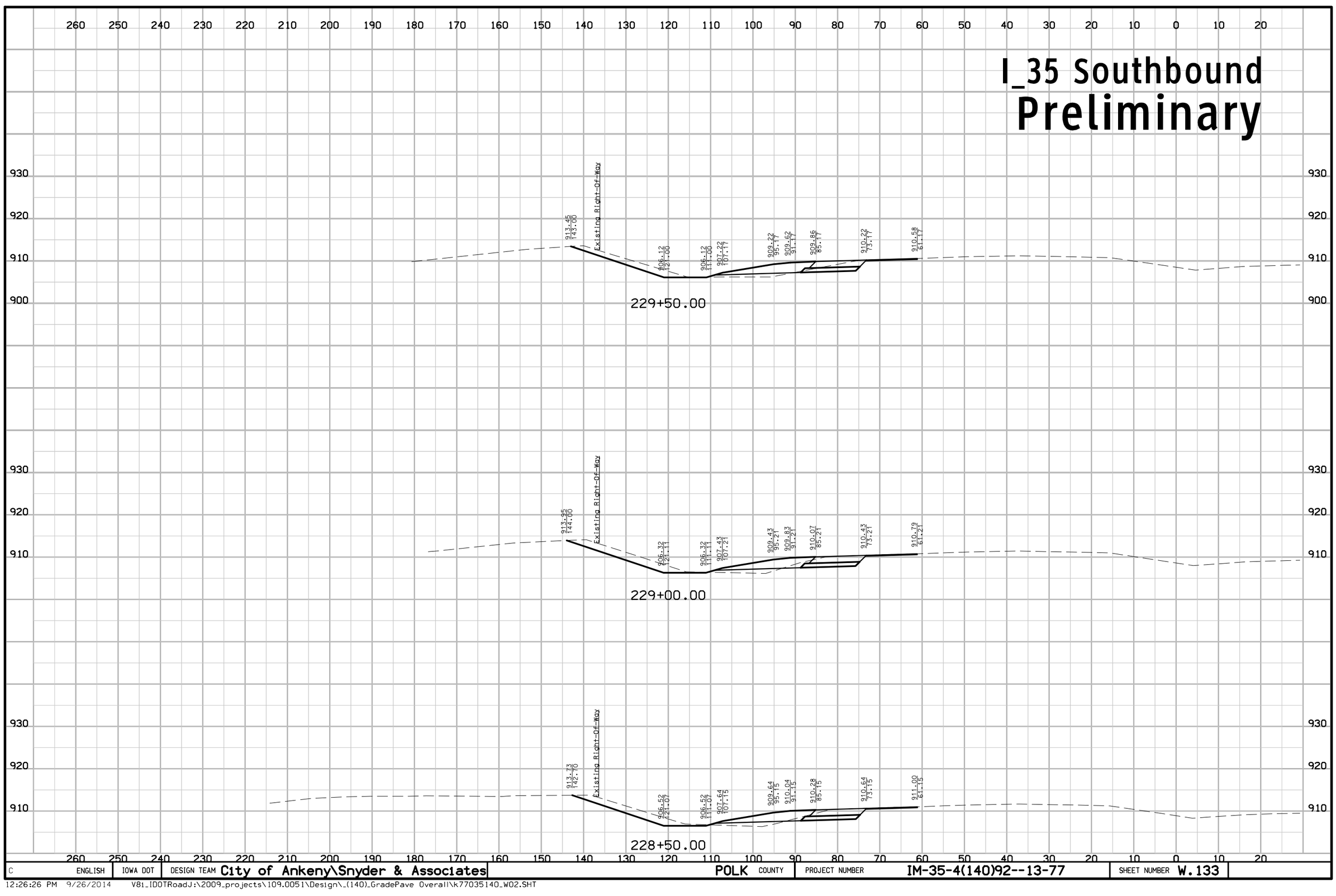
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.132

12:26:25 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

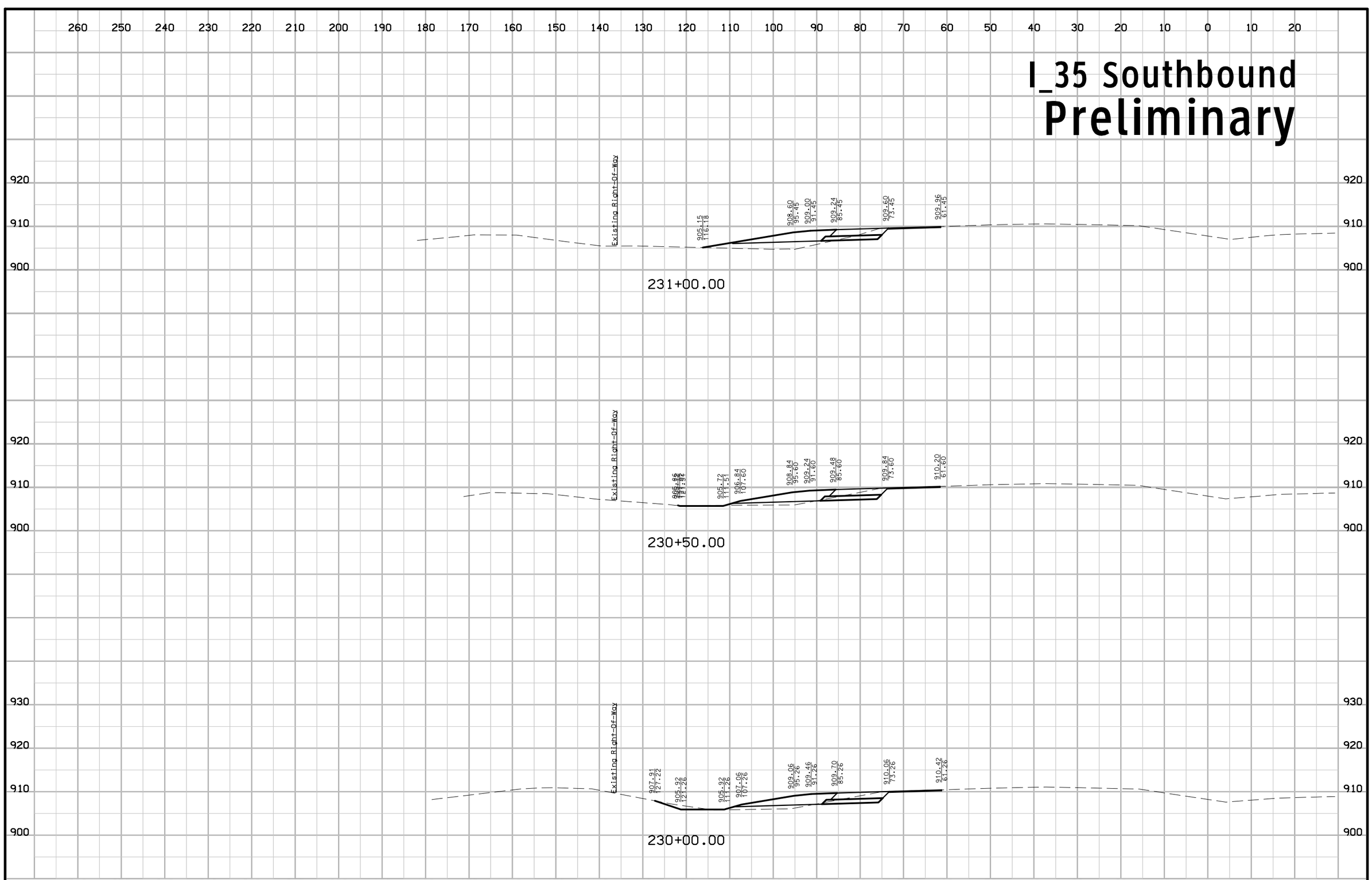
I_35 Southbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.133	

12:26:26 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

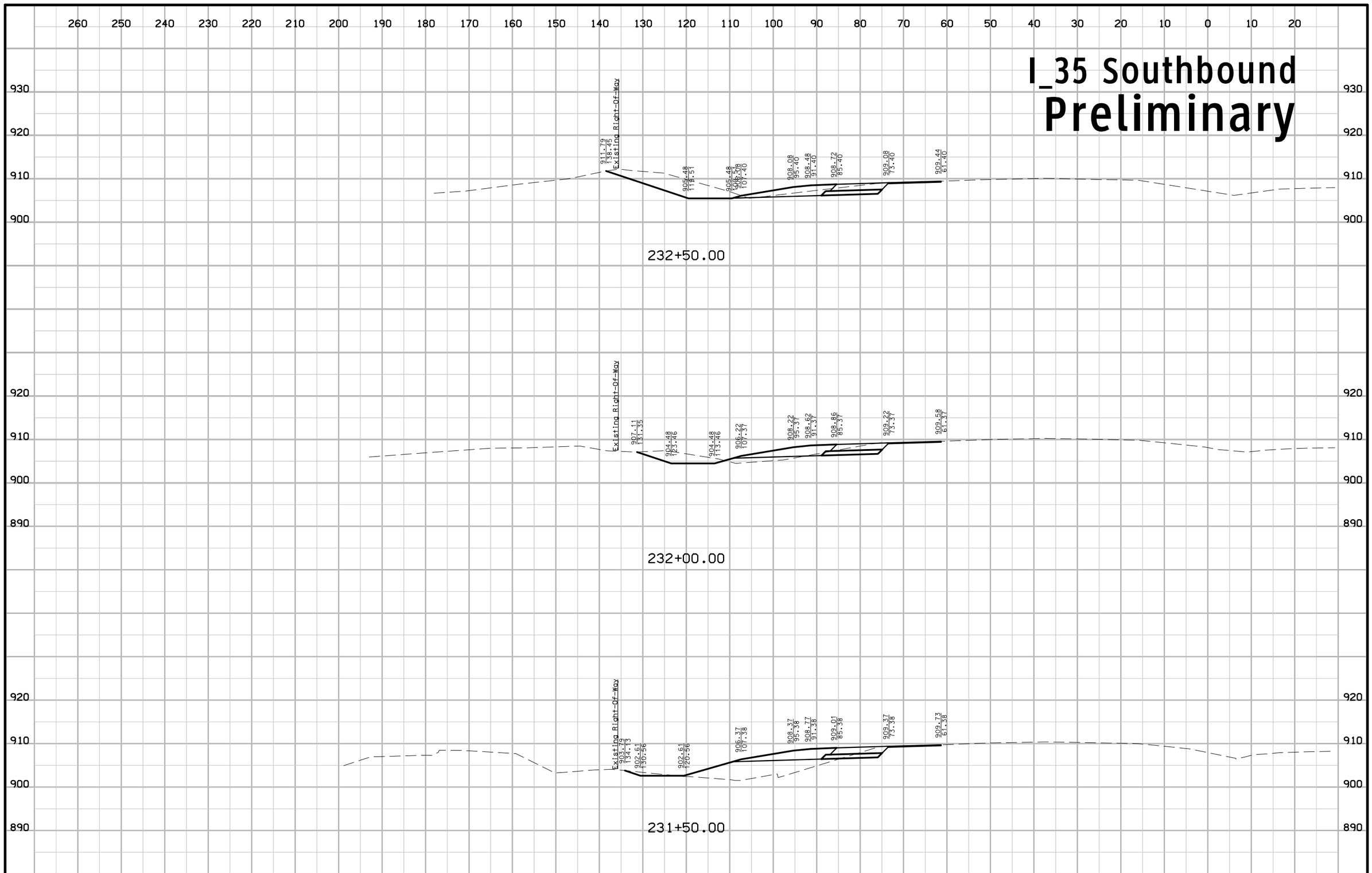
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.134

12:26:26 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

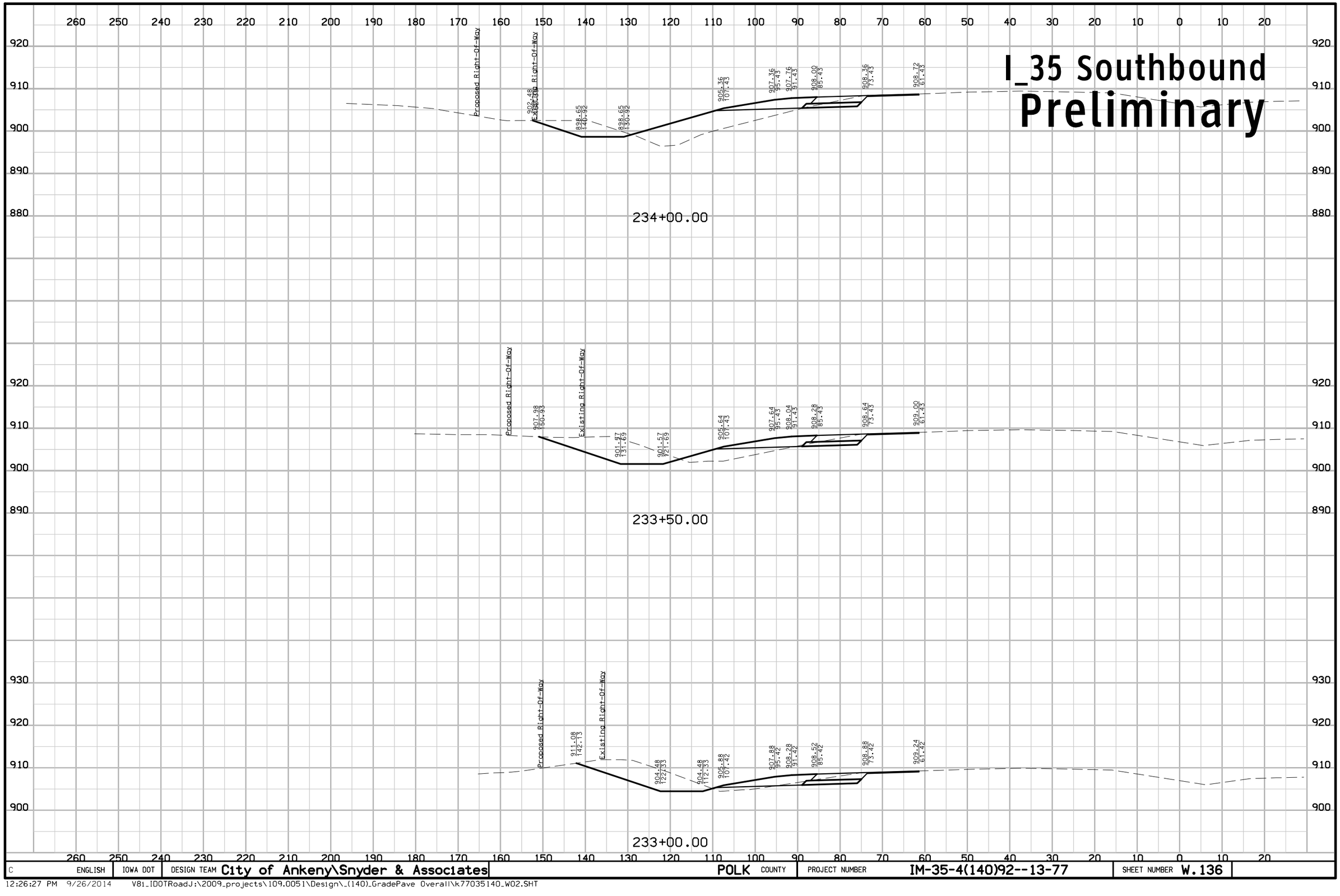
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.135

12:26:27 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

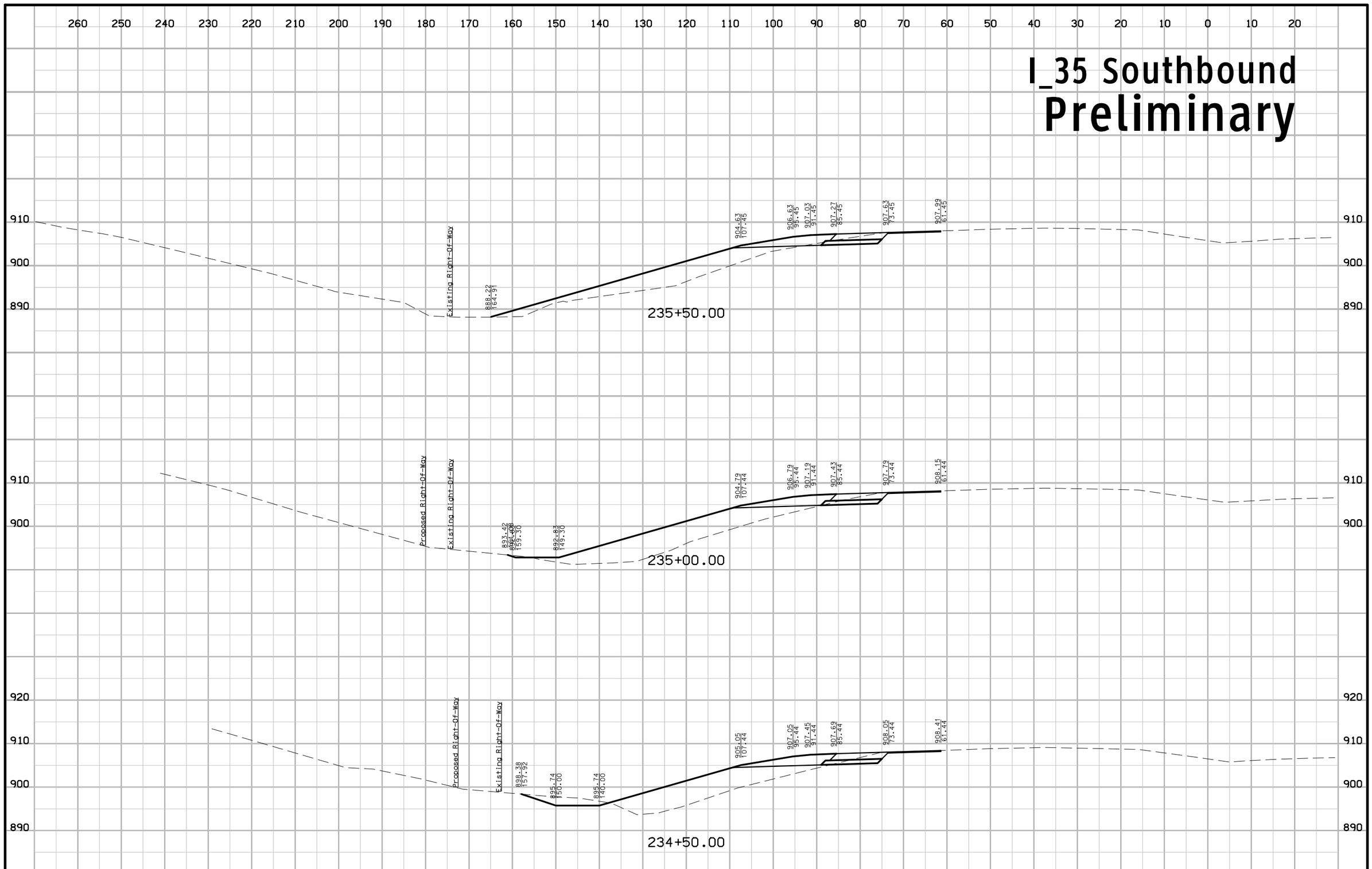
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.136

12:26:27 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

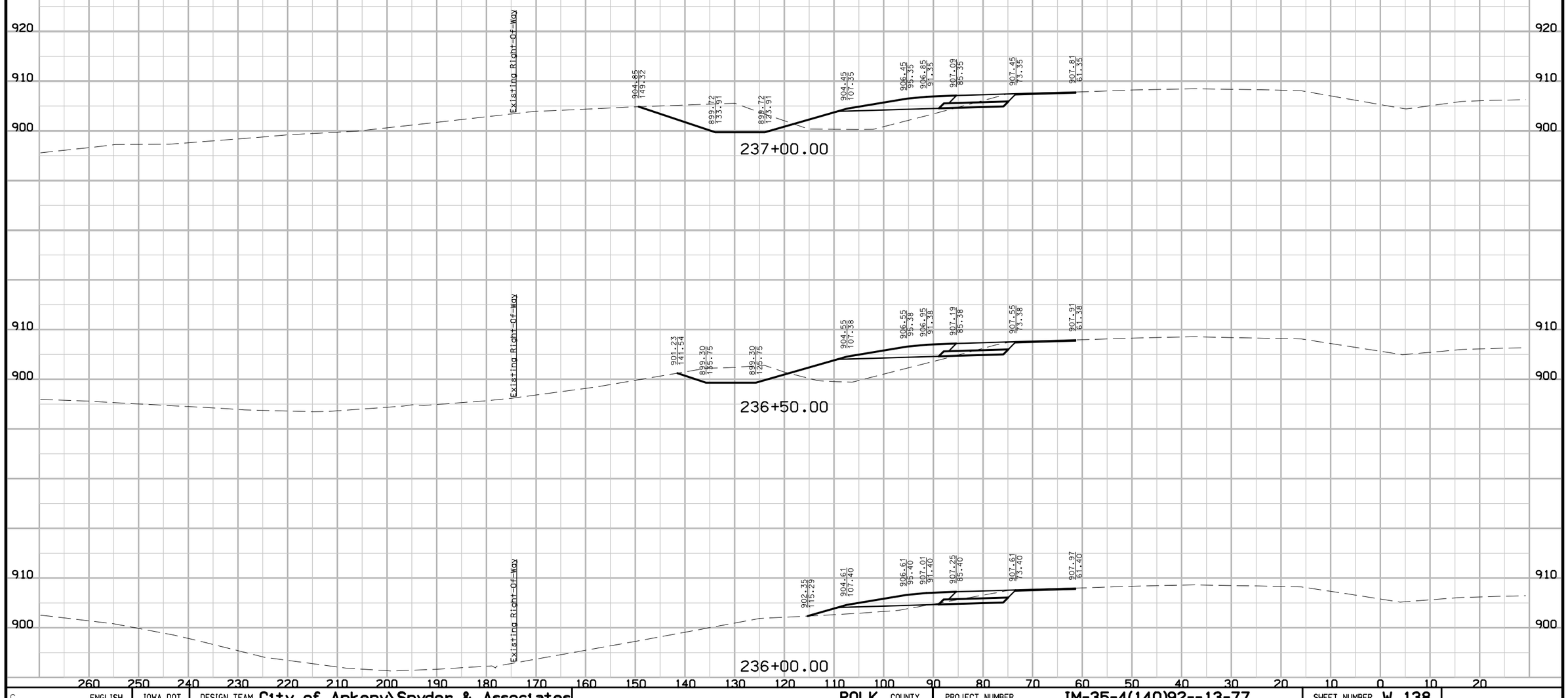
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.137		

12:26:28 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

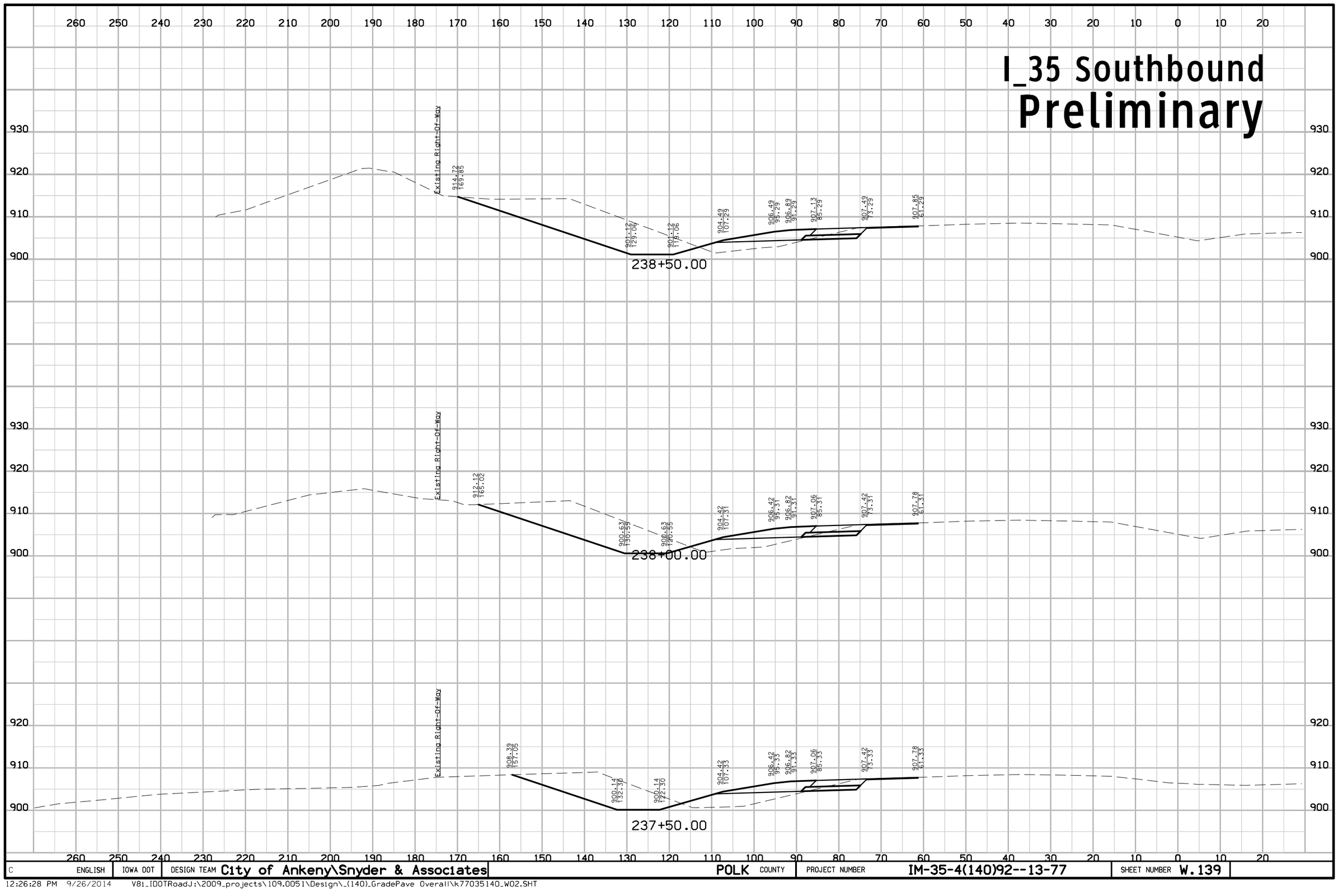
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.138	

12:26:28 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

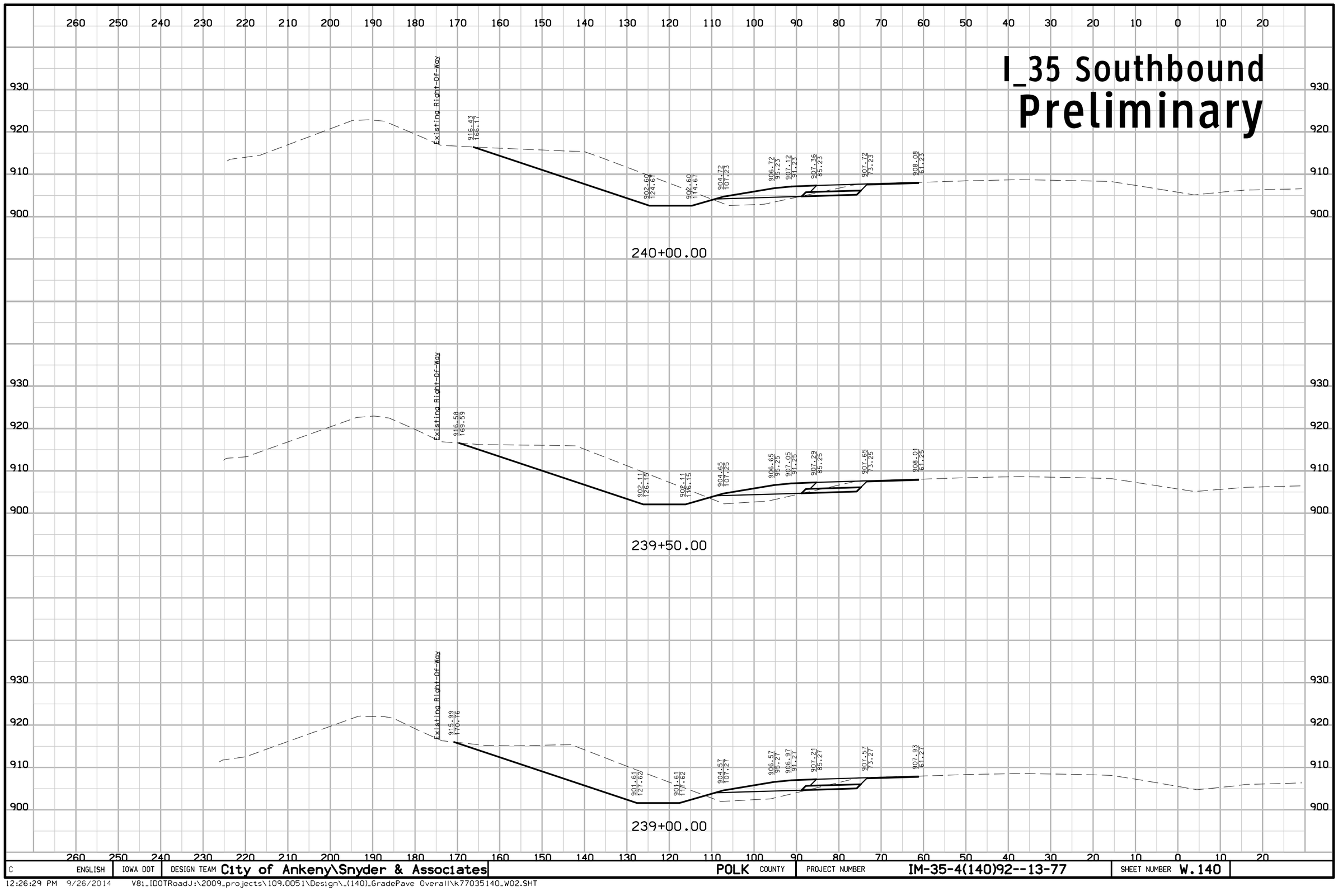
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.139	

12:26:28 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

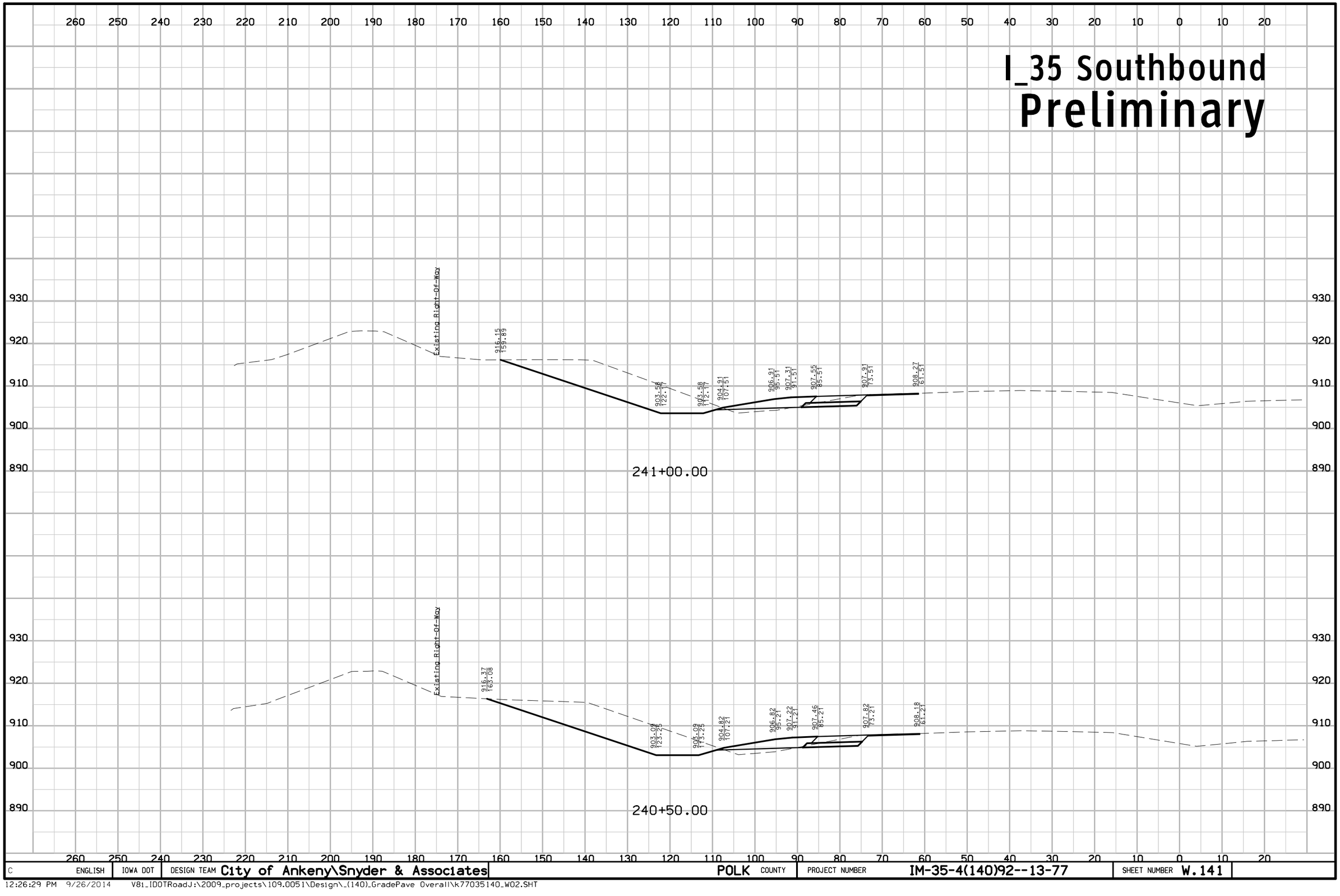
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.140

12:26:29 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

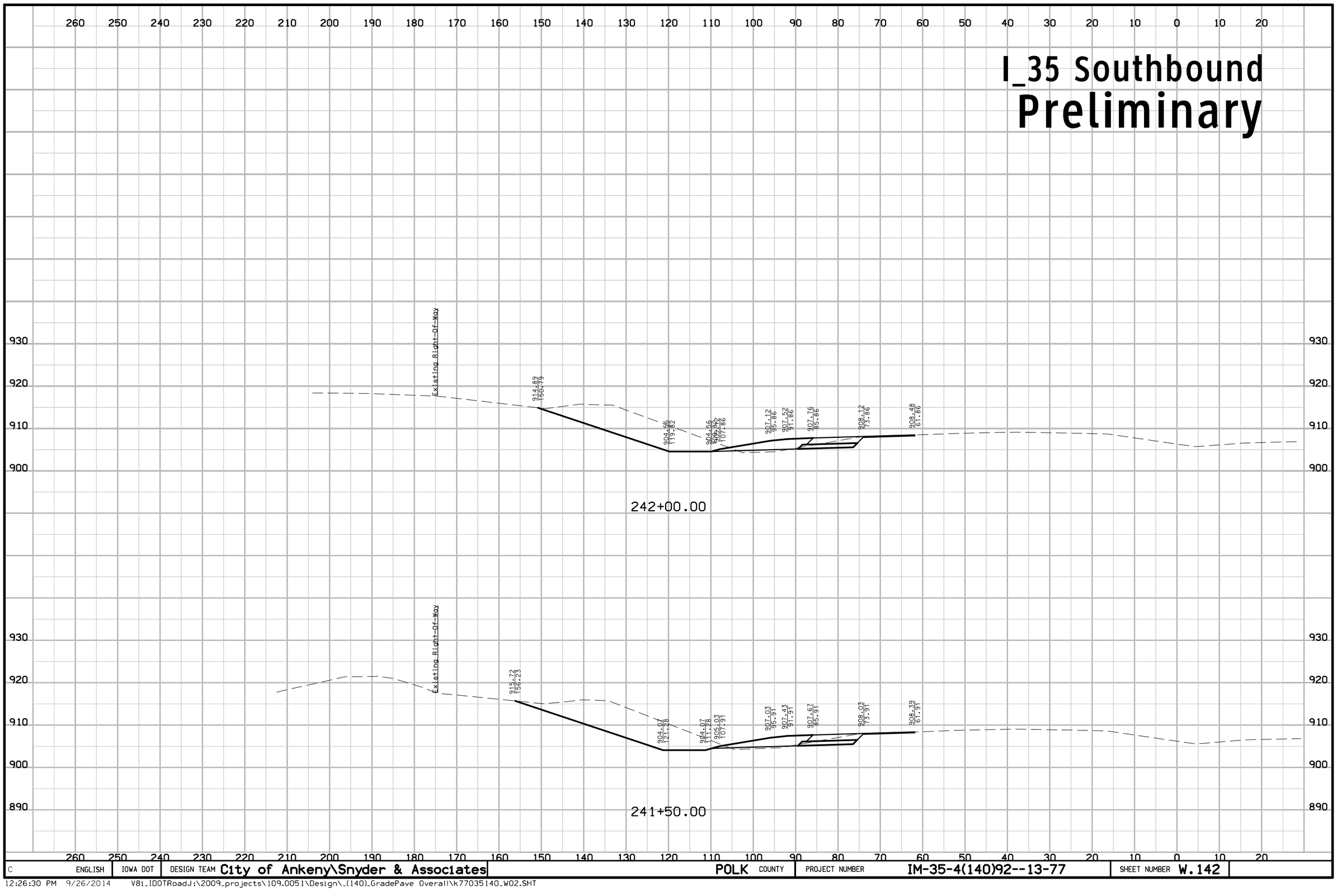
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.141

12:26:29 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

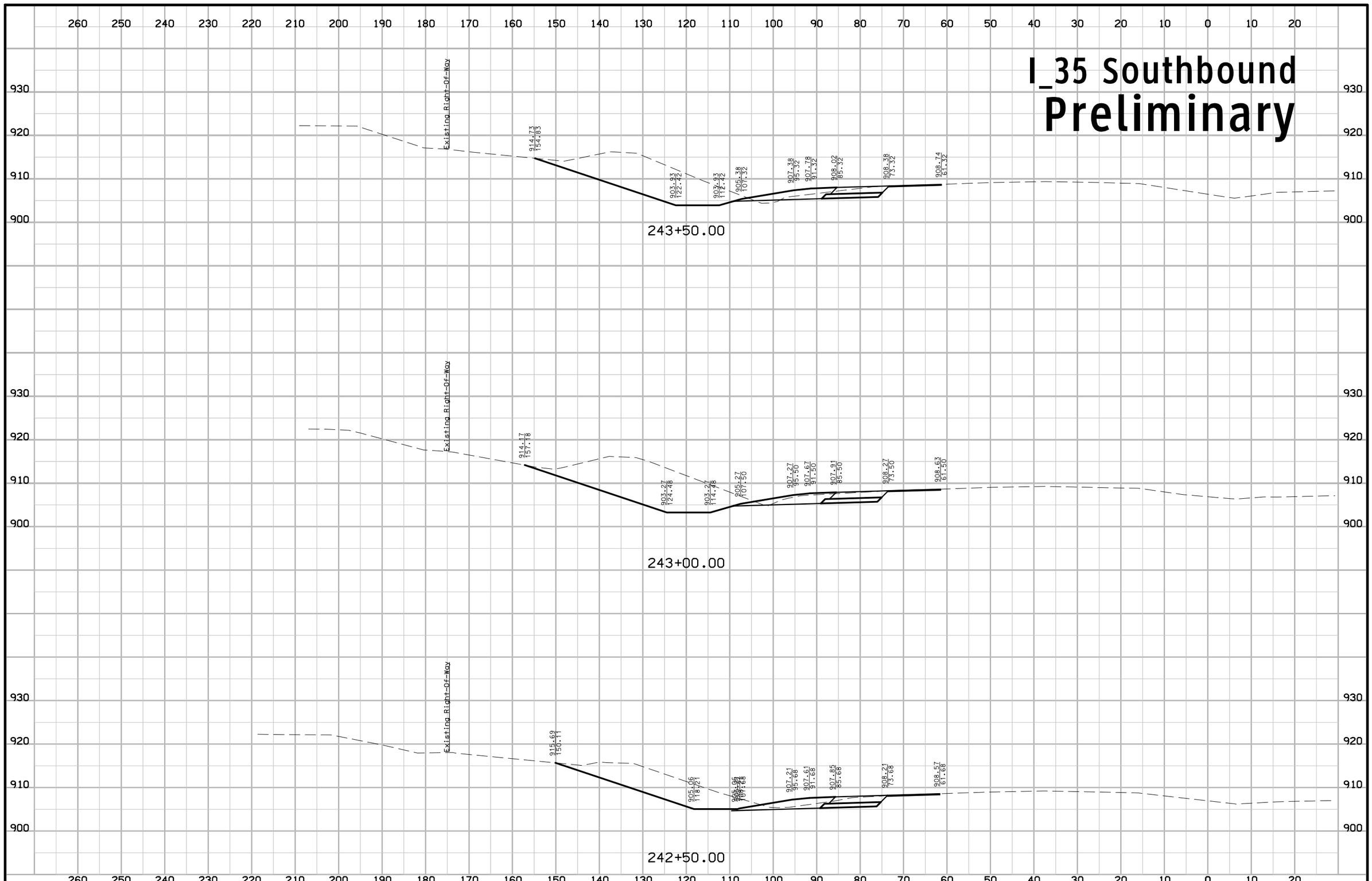
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.142	

12:26:30 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

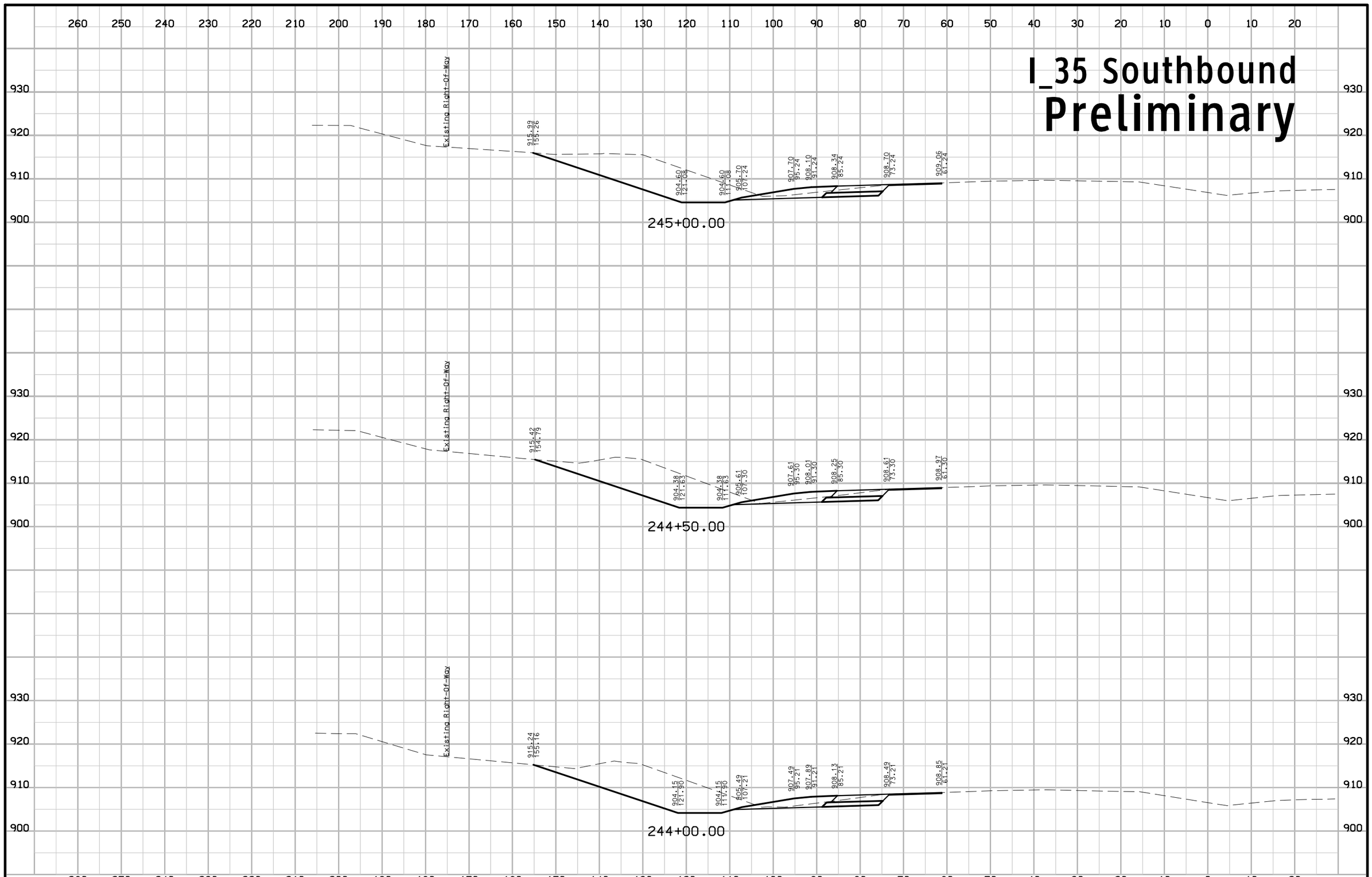
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.143	

12:26:30 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

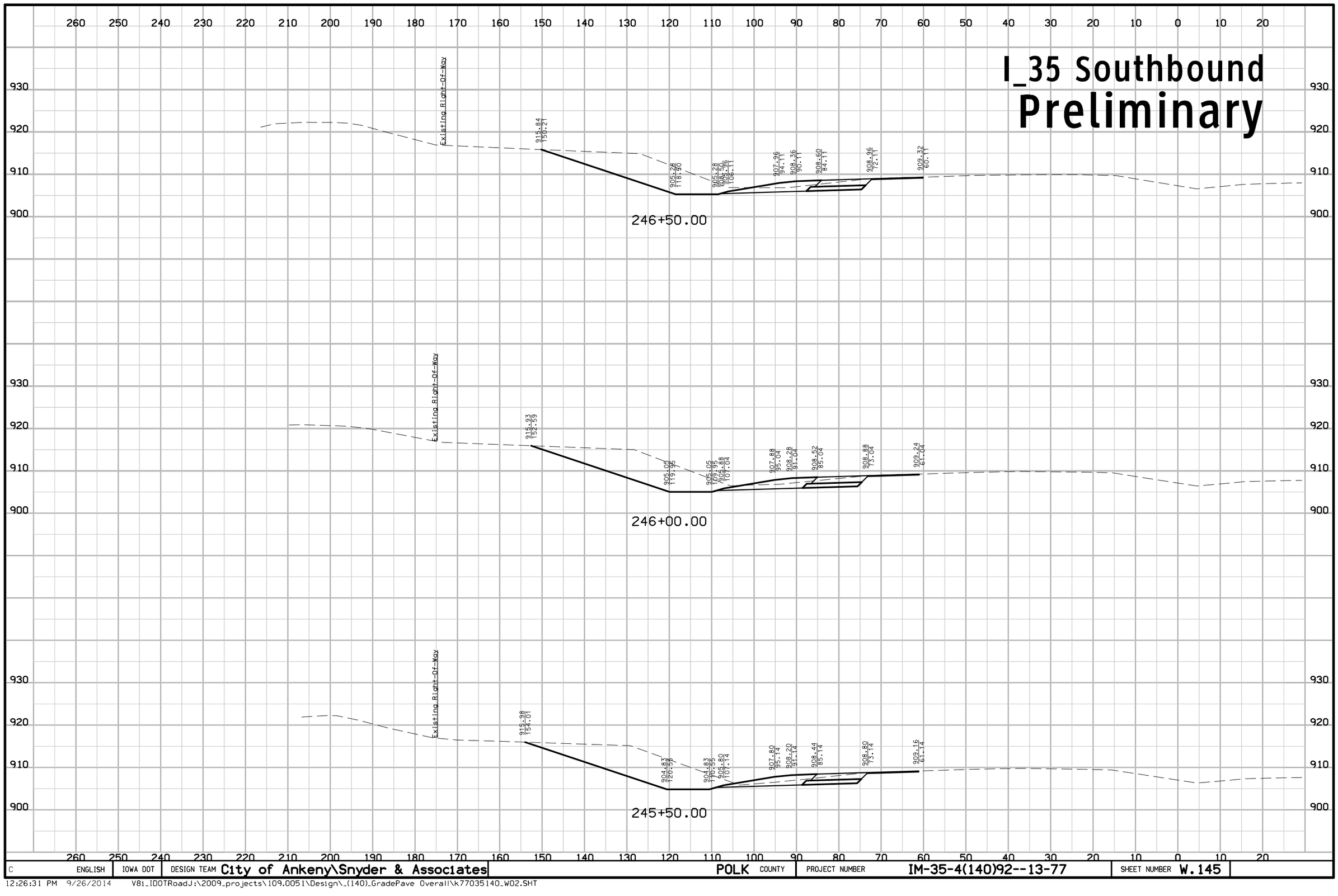
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.144

12:26:30 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

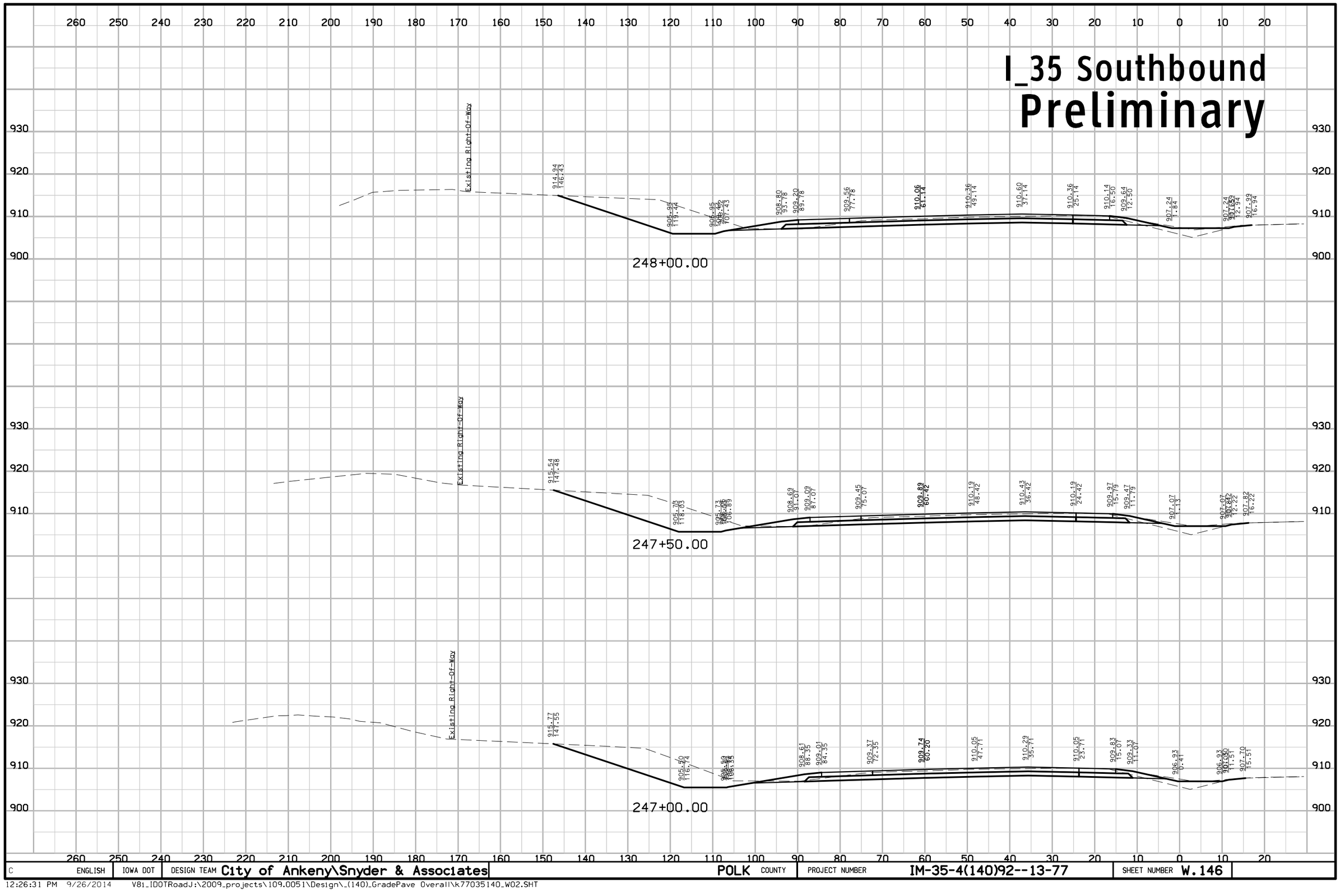
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK	COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.145

12:26:31 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

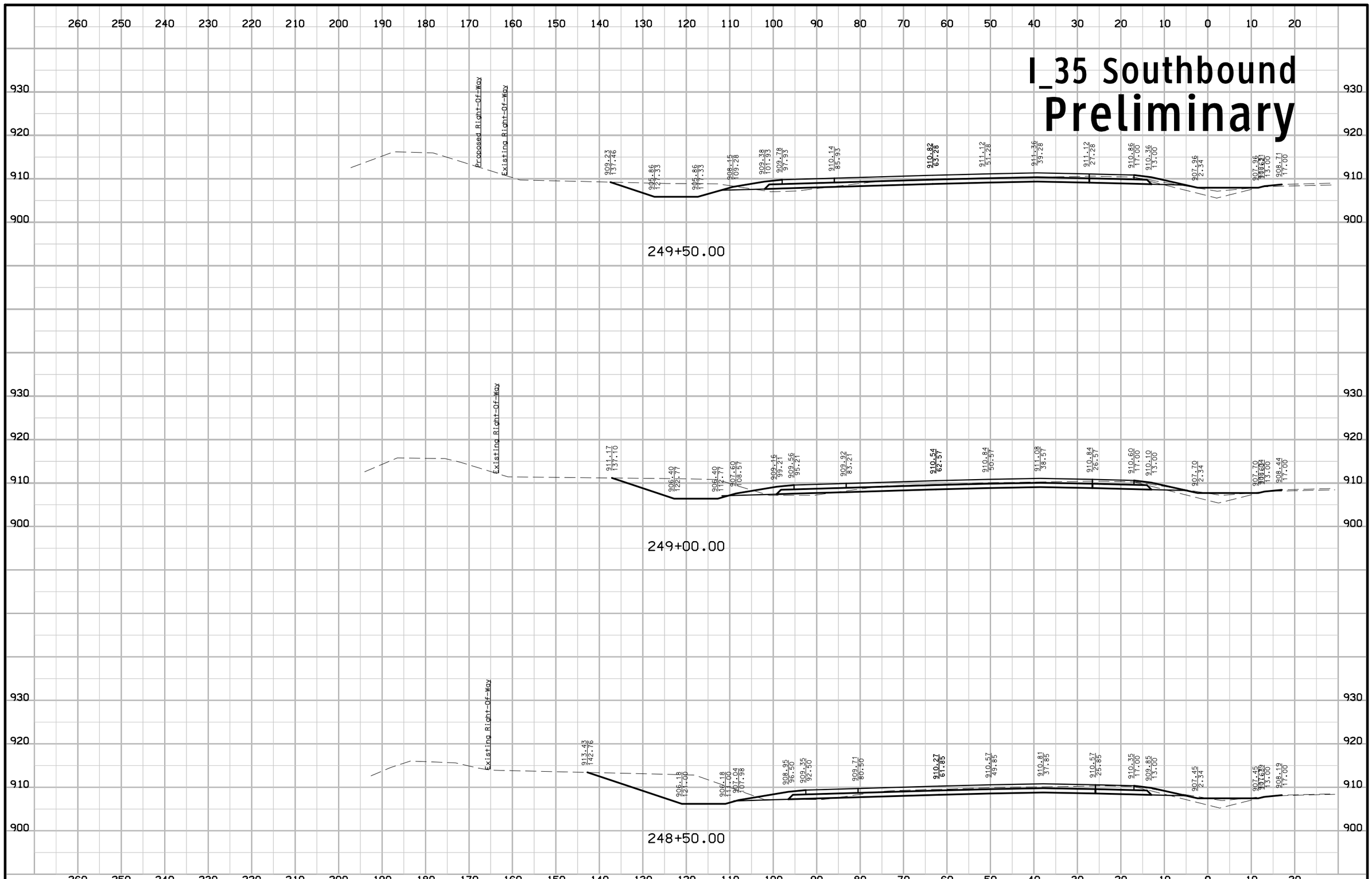
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.146

12:26:31 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

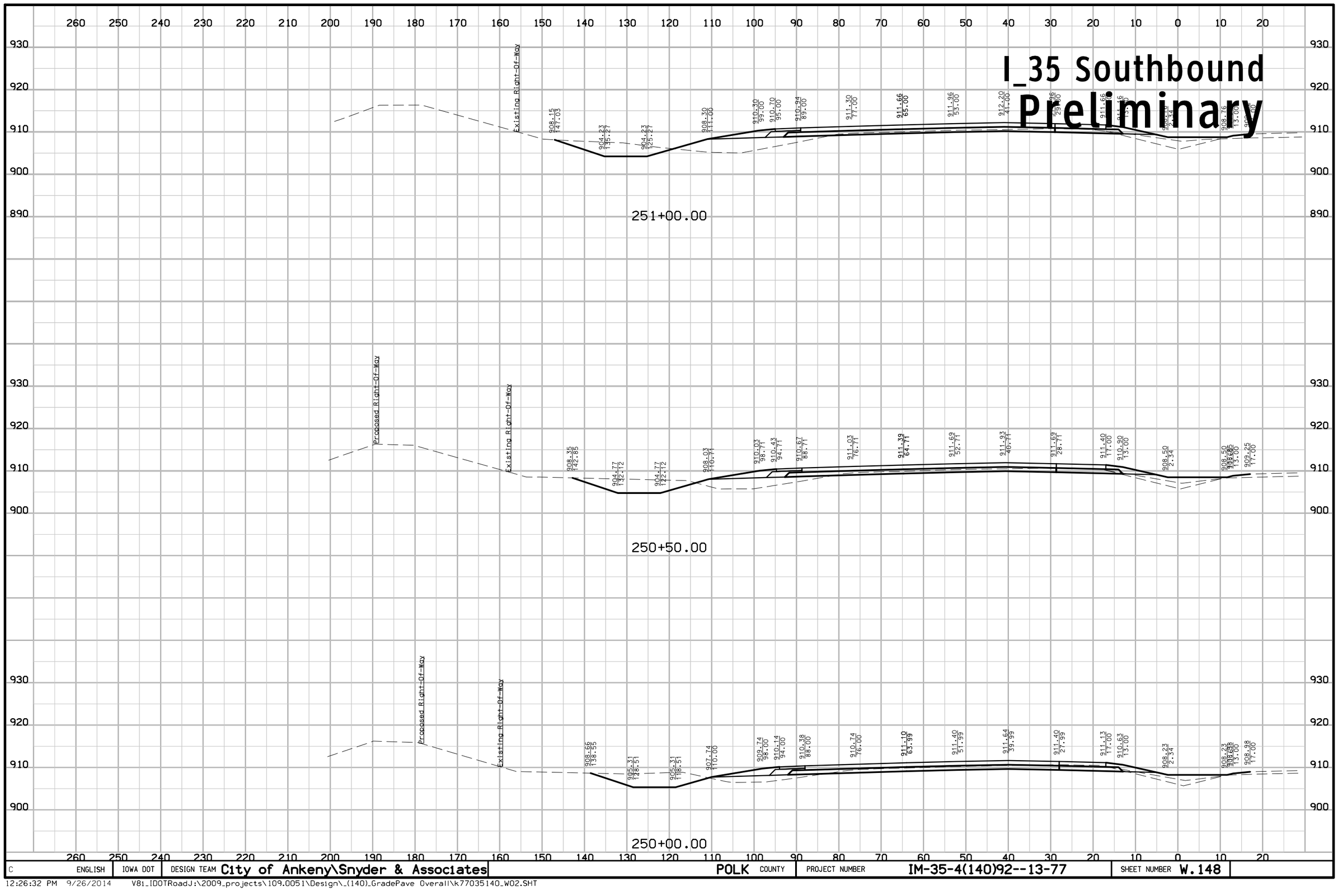


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.147

12:26:32 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound

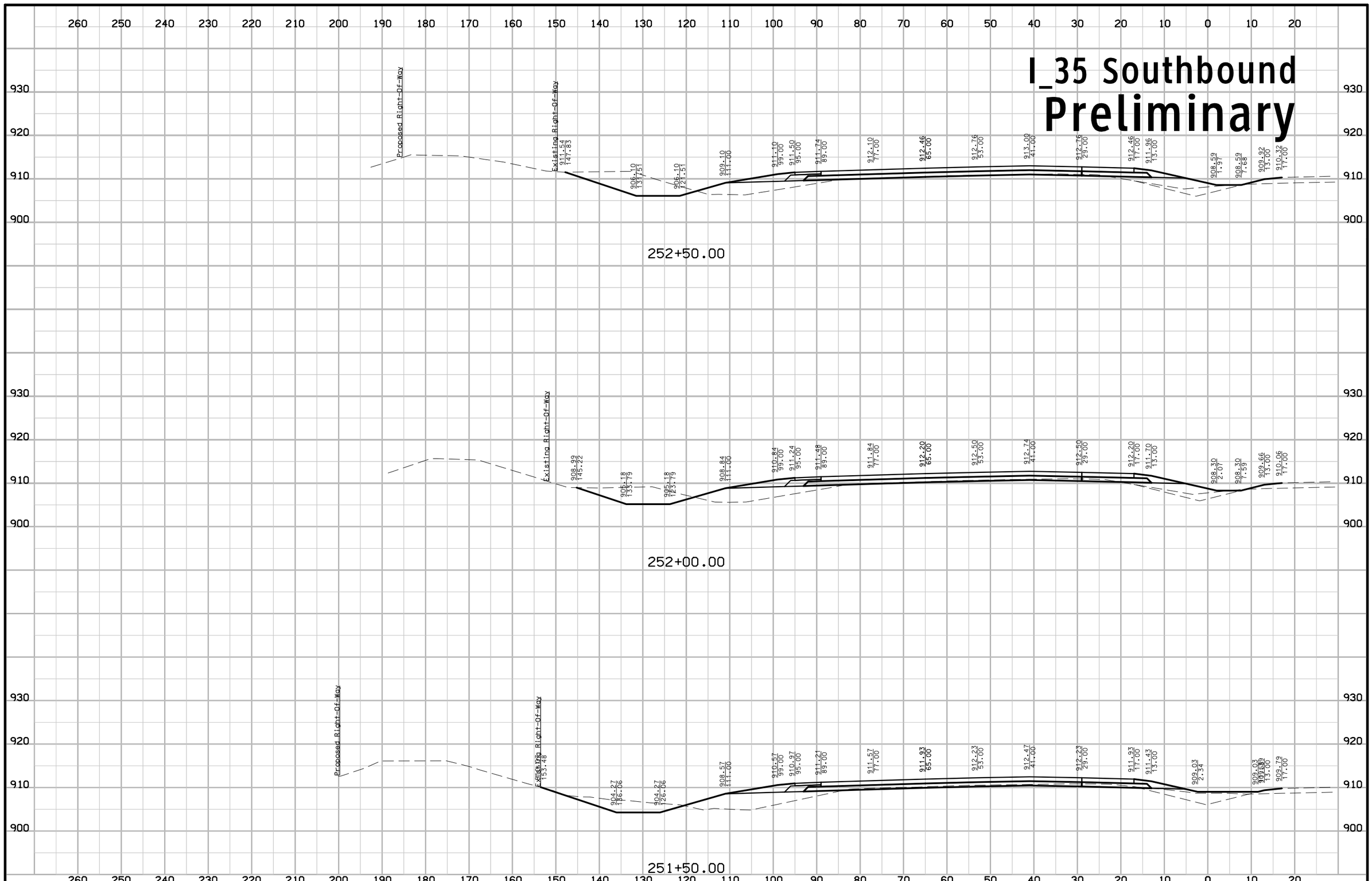
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.148

12:26:32 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

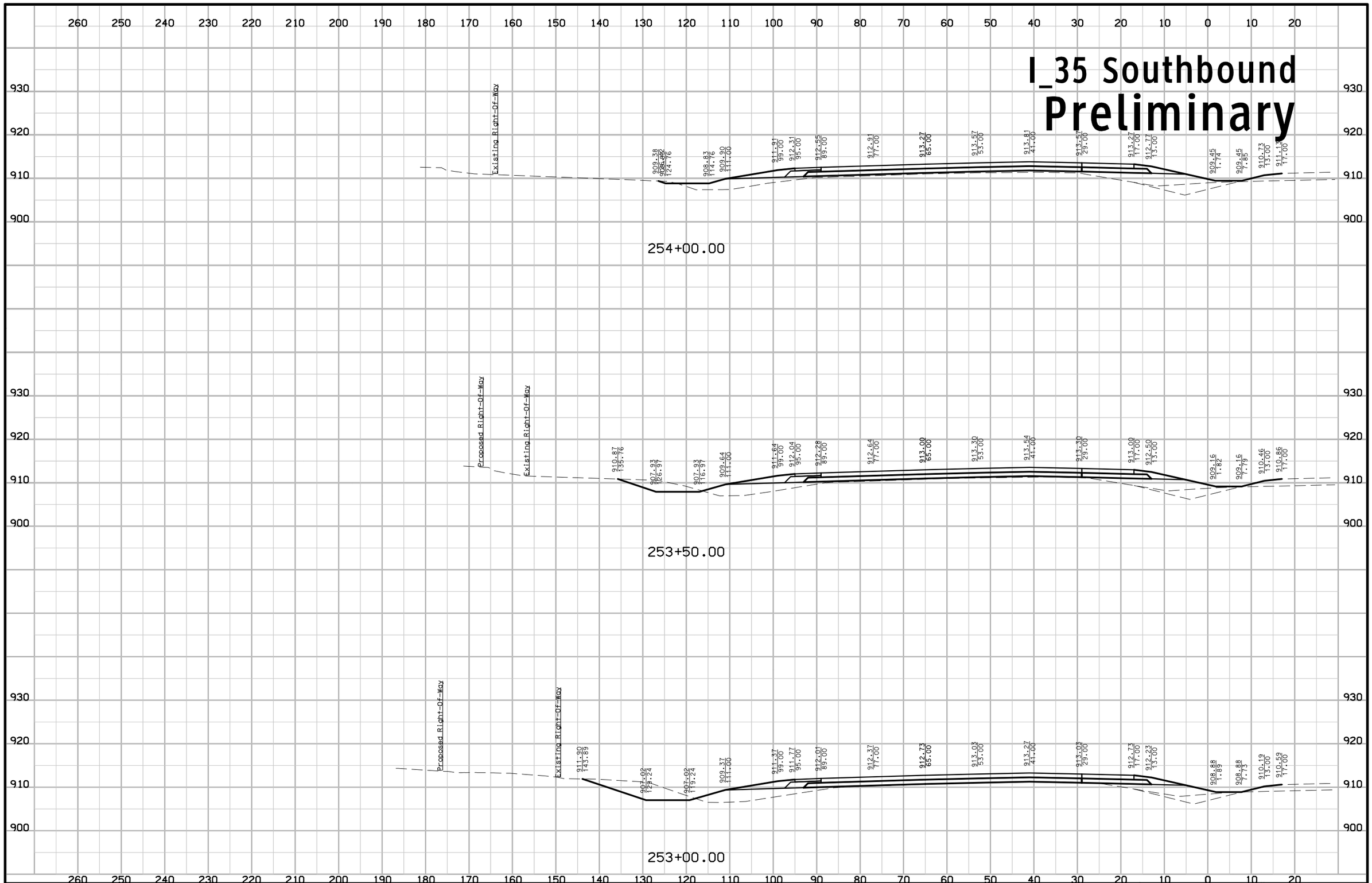
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.149

12:26:33 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

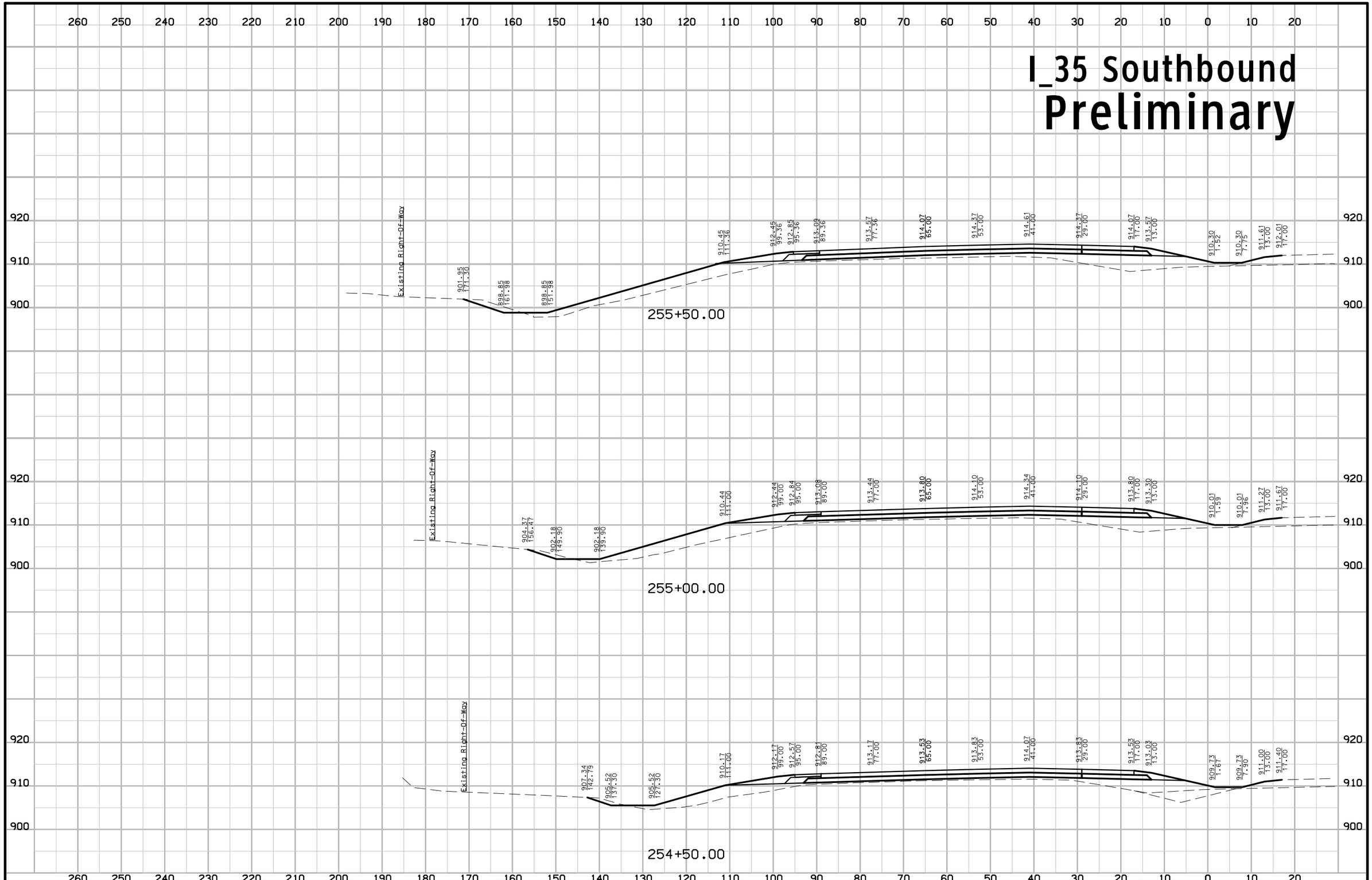
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.150

12:26:33 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

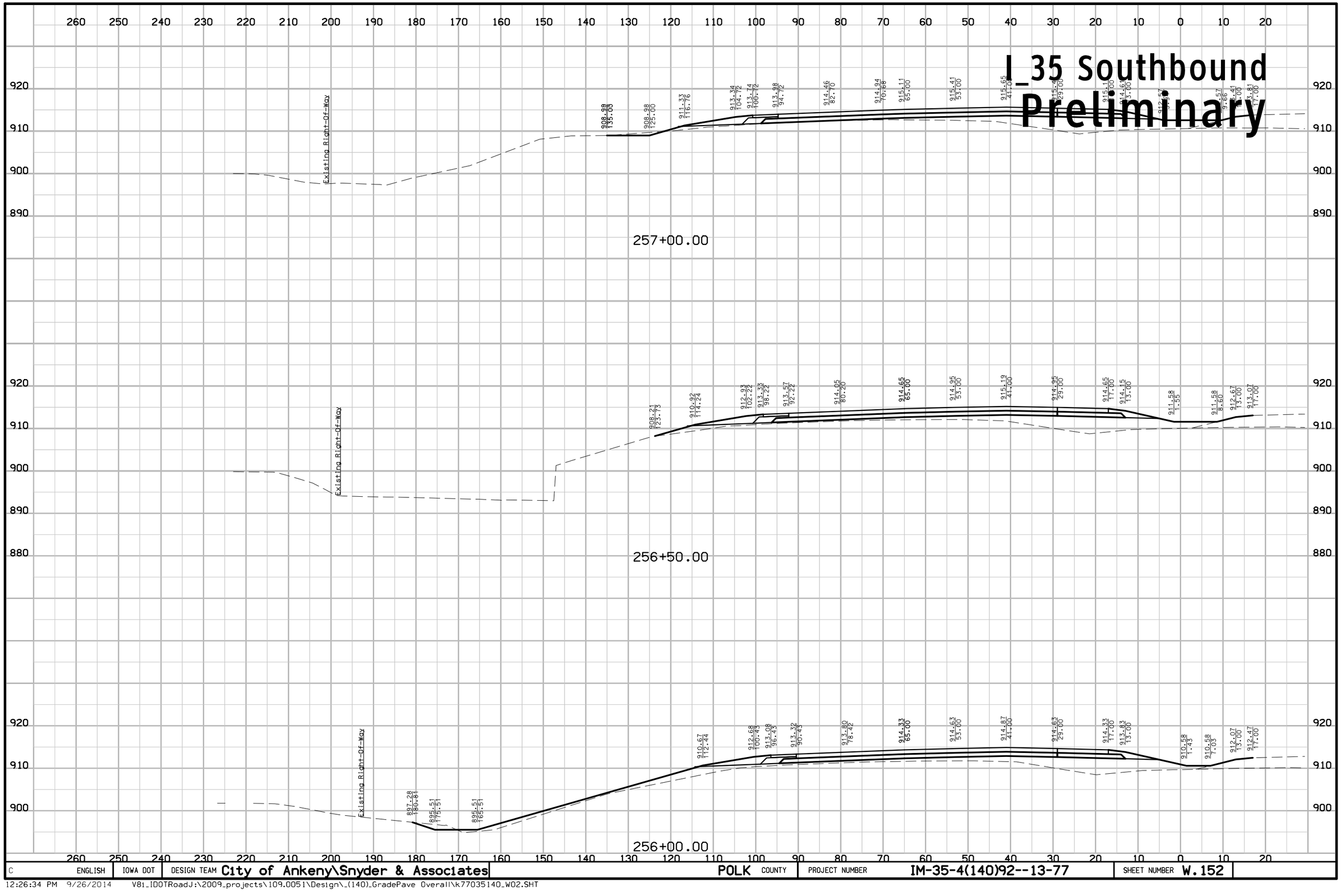


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.151

12:26:34 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound

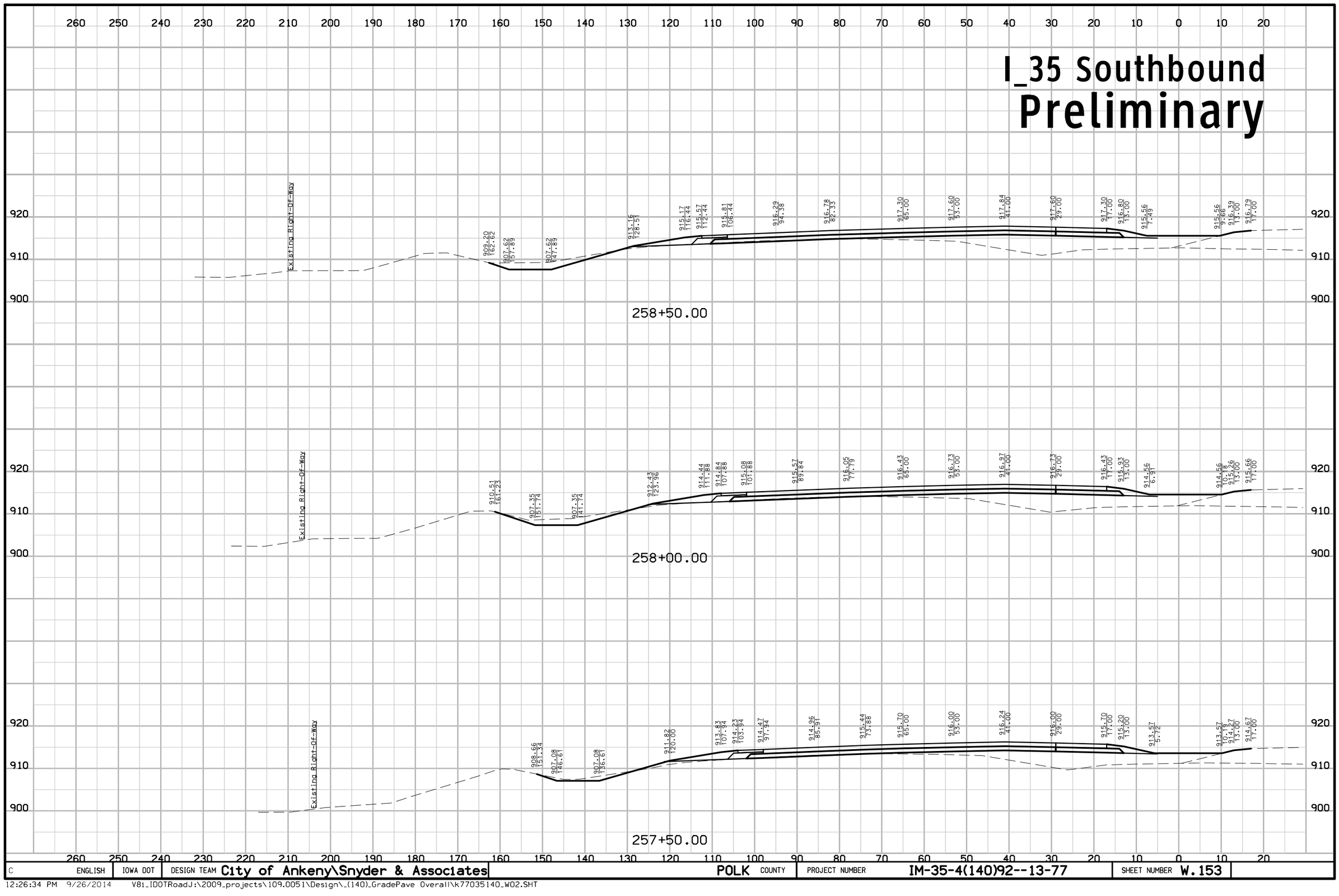
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.152

12:26:34 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

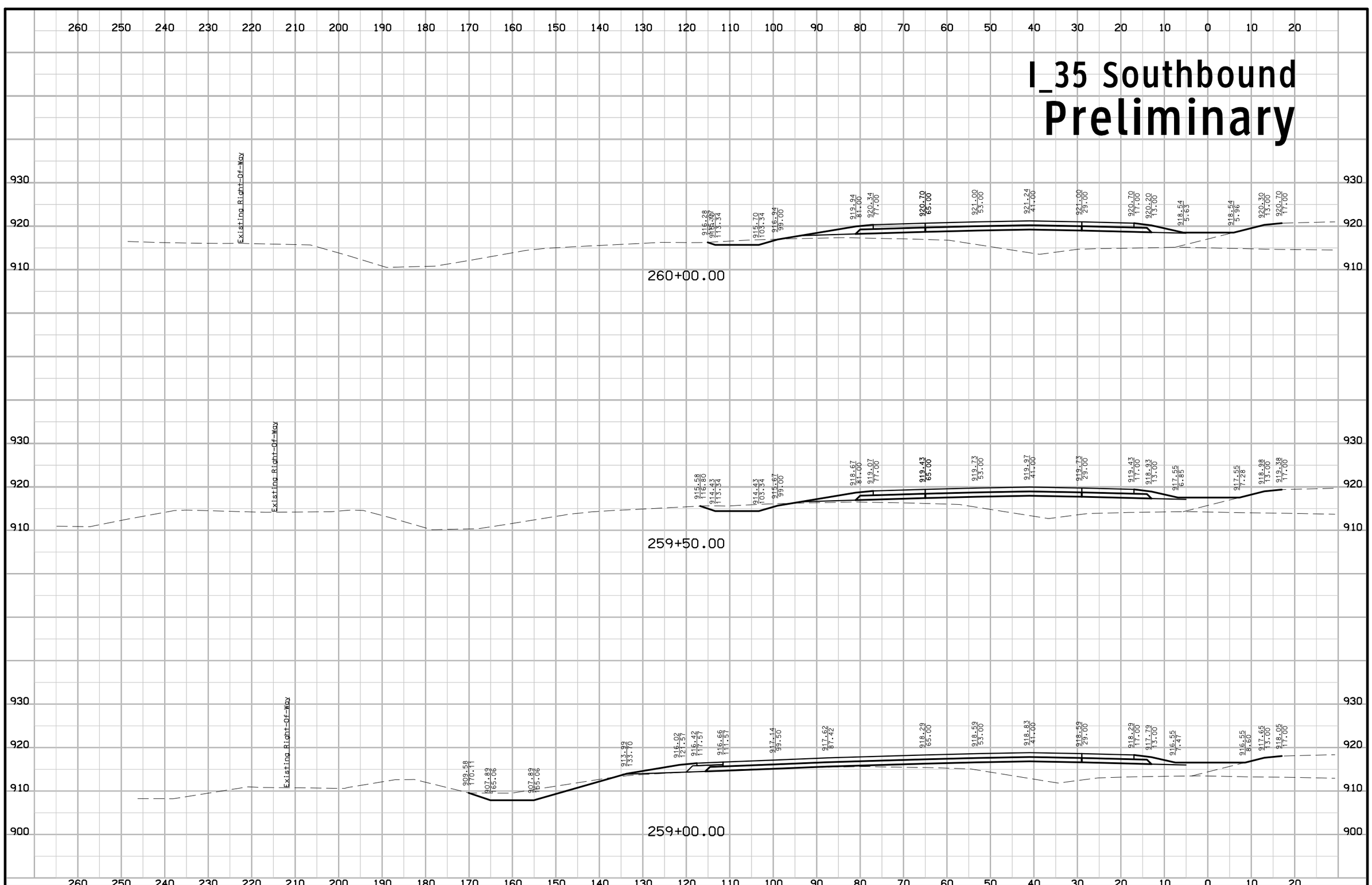
I_35 Southbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.153

12:26:34 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

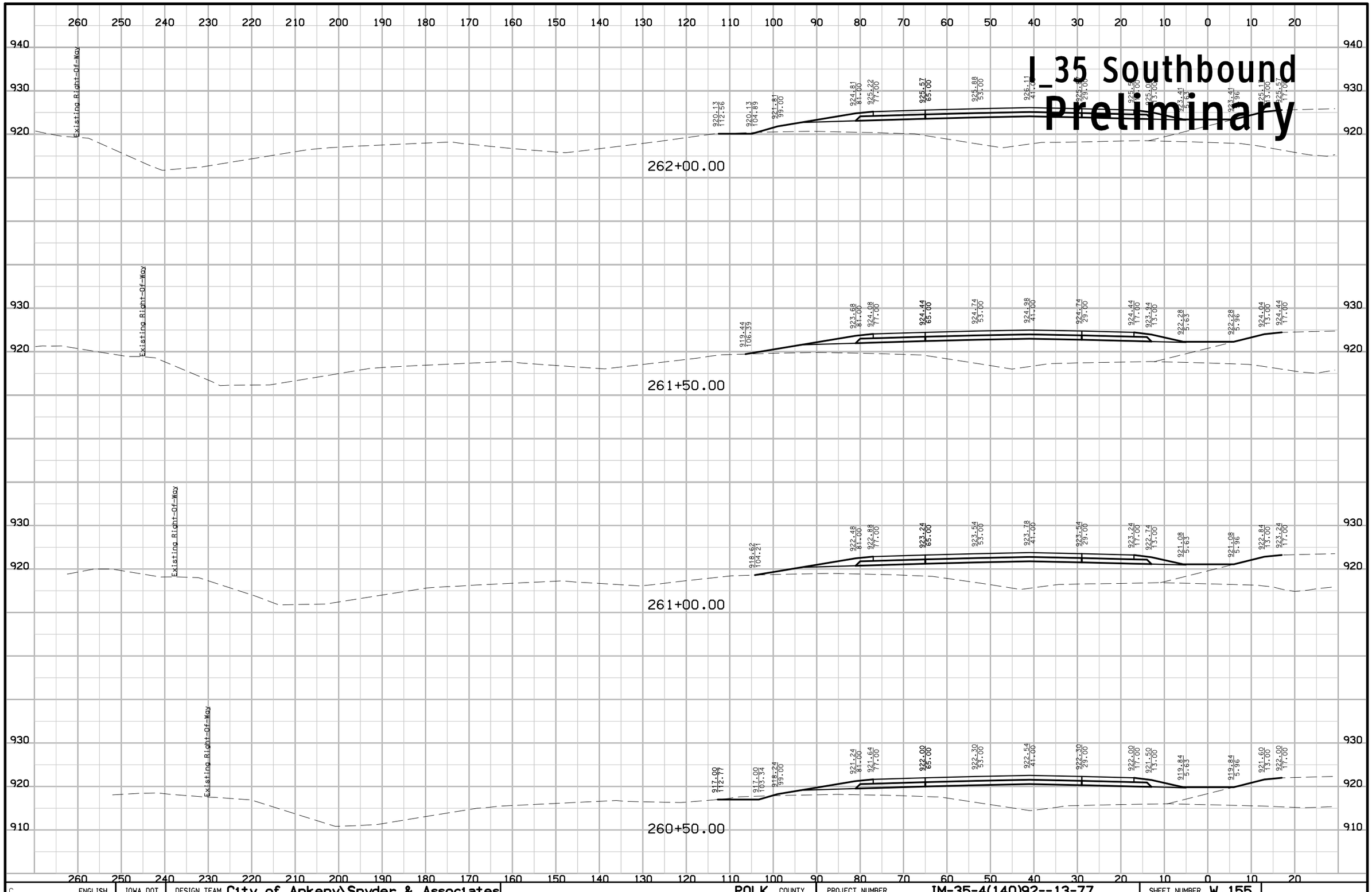


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.154	

12:26:35 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound

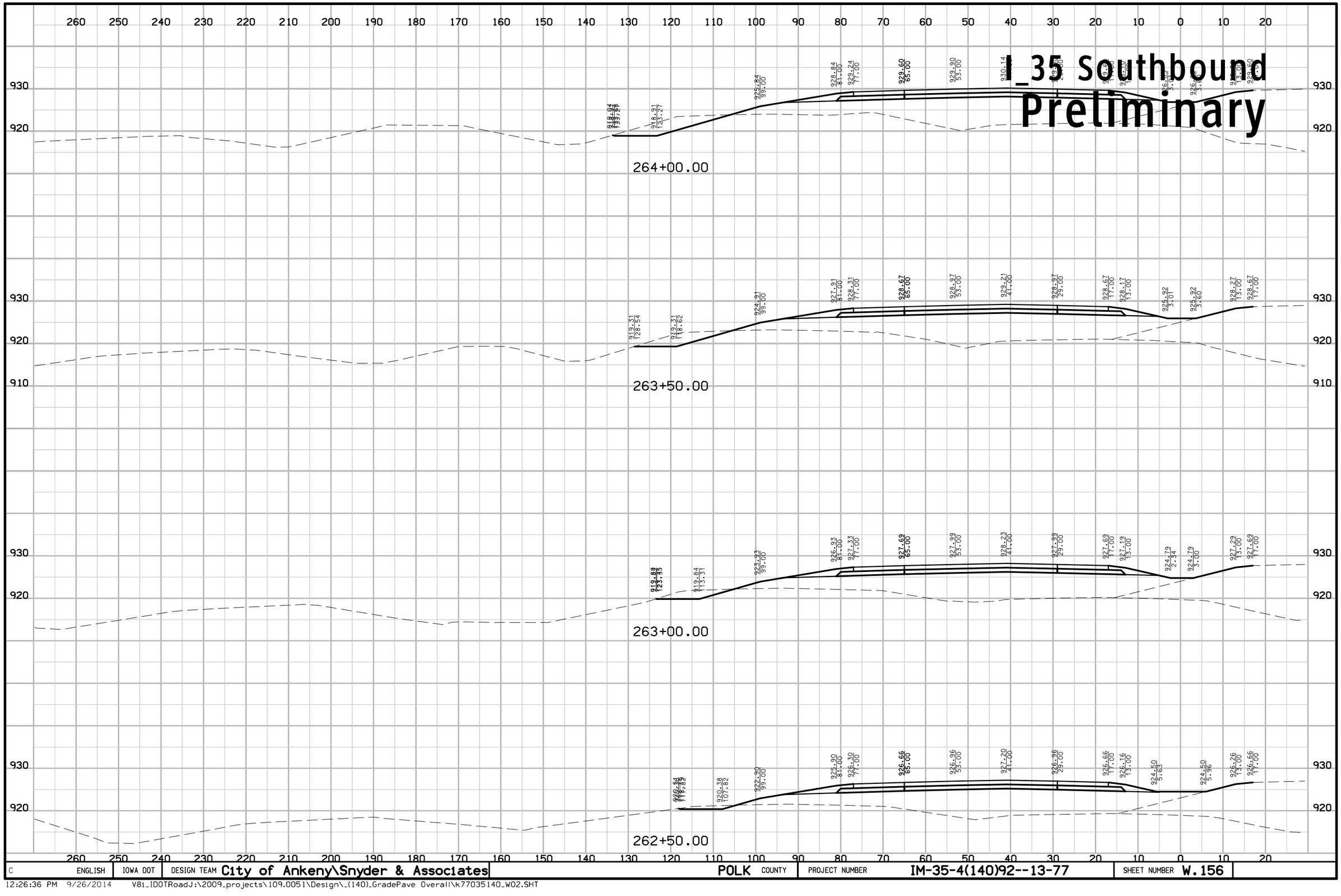
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.155

12:26:35 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

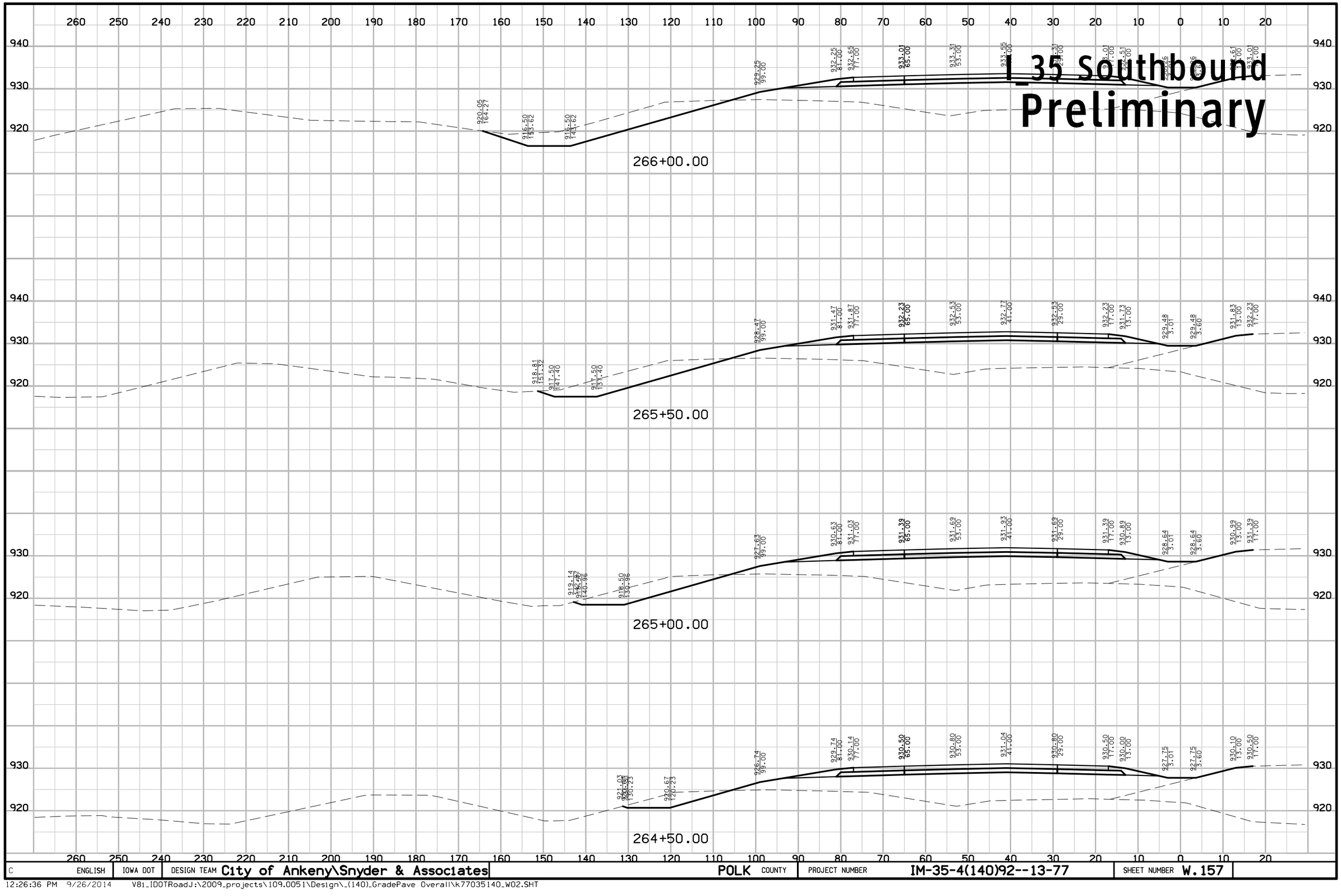
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK	COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.156

12:26:36 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

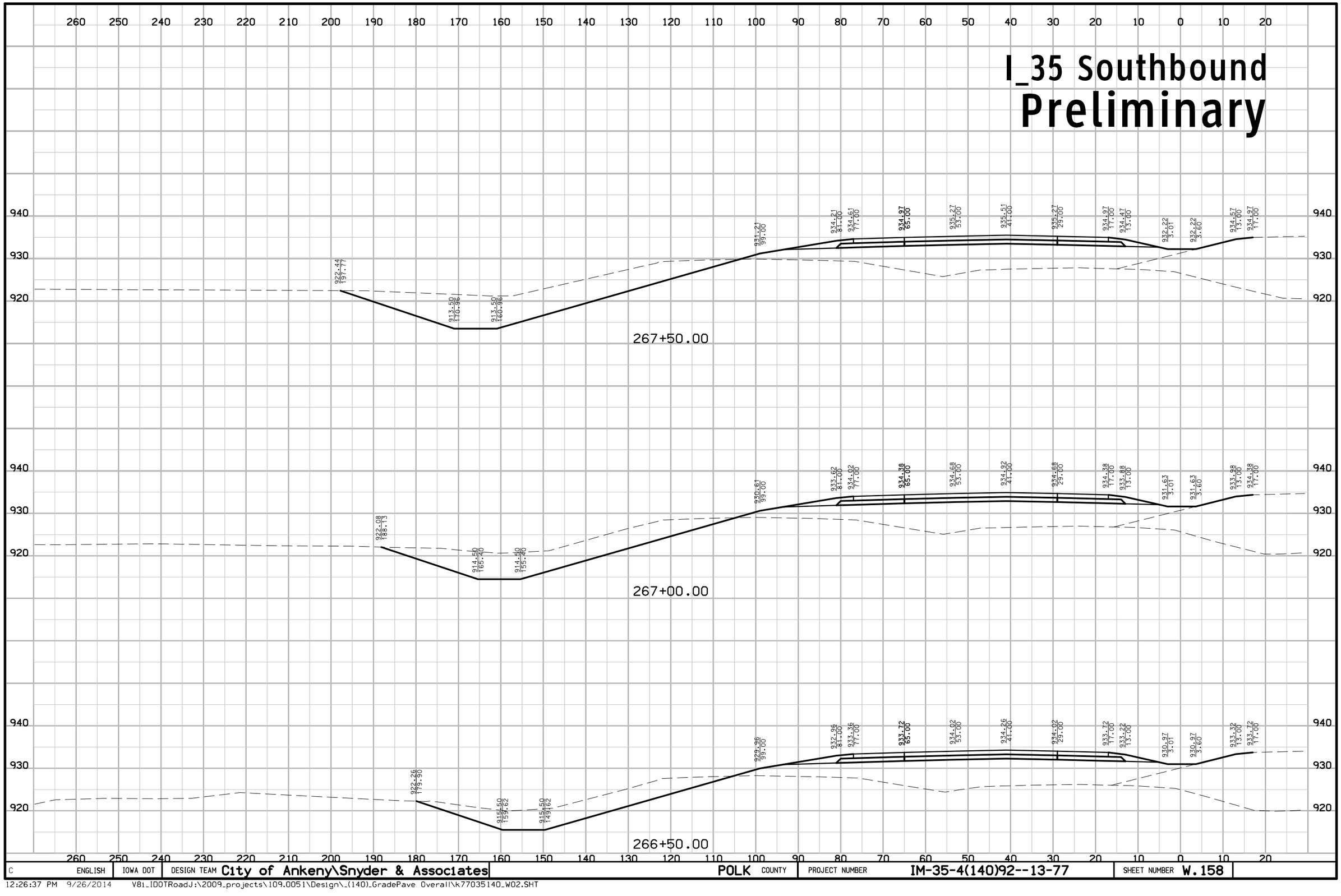
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.157

12:26:36 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

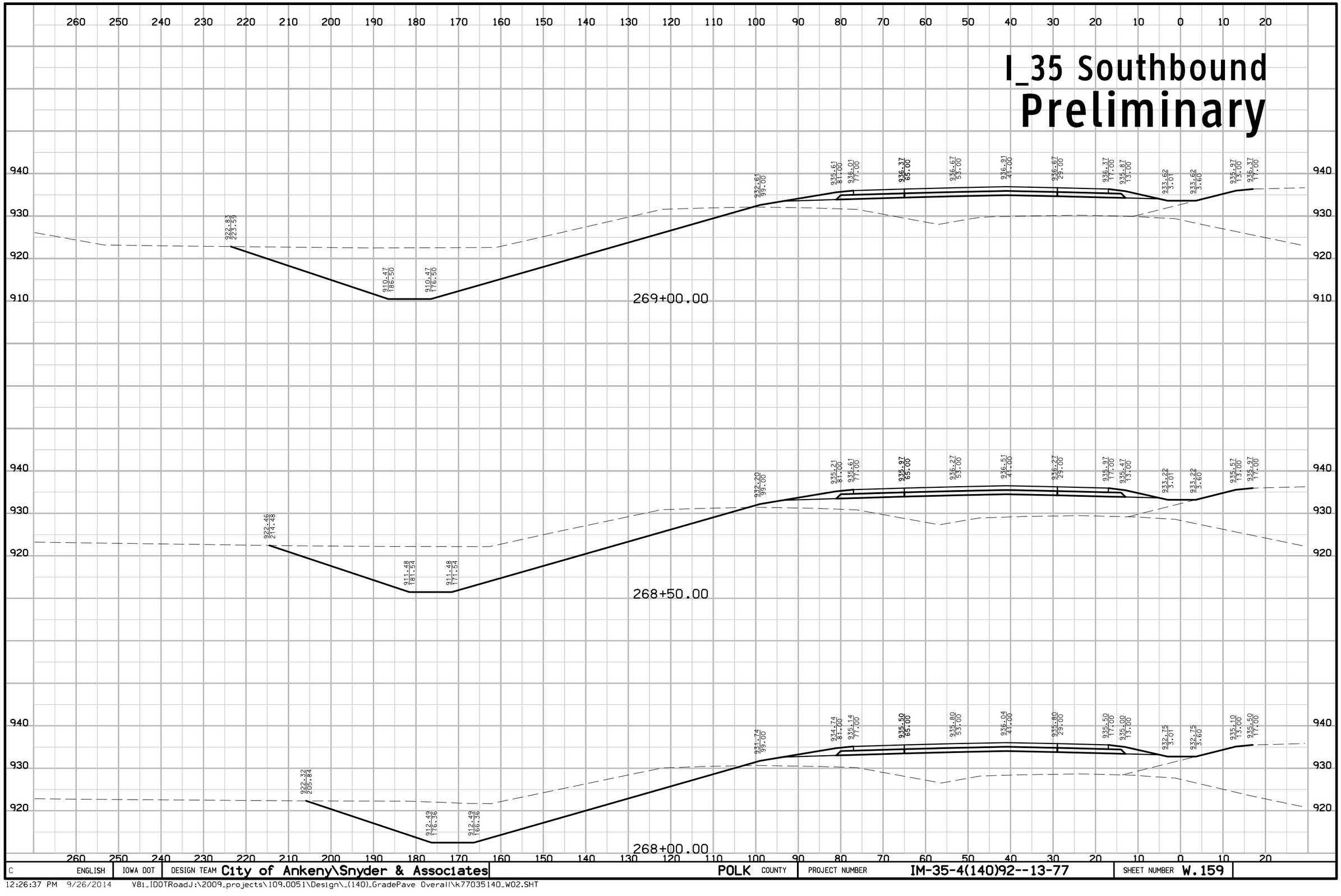
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.158

12:26:37 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.159

12:26:37 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound

Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

940 930 920 910

923.00 243.73

907.91 198.44

907.91 188.44

933.46 99.00

936.46 81.00

936.86 77.00

937.22 65.00

937.52 53.00

937.76 41.00

937.22 29.00

937.22 17.00

936.5 13.

934.47 3.60

936.22 13.00

937.22 17.00

270+50.00

932.77 116.66

932.00 115.34

932.00 103.34

933.24 99.00

936.24 81.00

936.64 77.00

937.00 65.00

937.30 53.00

937.54 41.00

937.30 29.00

937.00 17.00

936.50 13.00

934.25 3.01

934.25 3.60

936.60 13.00

937.00 17.00

270+00.00

932.38 116.66

932.00 115.34

931.72 103.34

932.96 99.00

935.96 81.00

936.36 77.00

936.72 65.00

937.02 53.00

937.26 41.00

937.02 29.00

936.72 17.00

936.22 13.00

933.97 3.01

933.97 3.60

936.32 13.00

936.72 17.00

269+50.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.160	

12:26:38 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

940
930
920

272+00.00

940
930
920
910

271+50.00

940
930
920

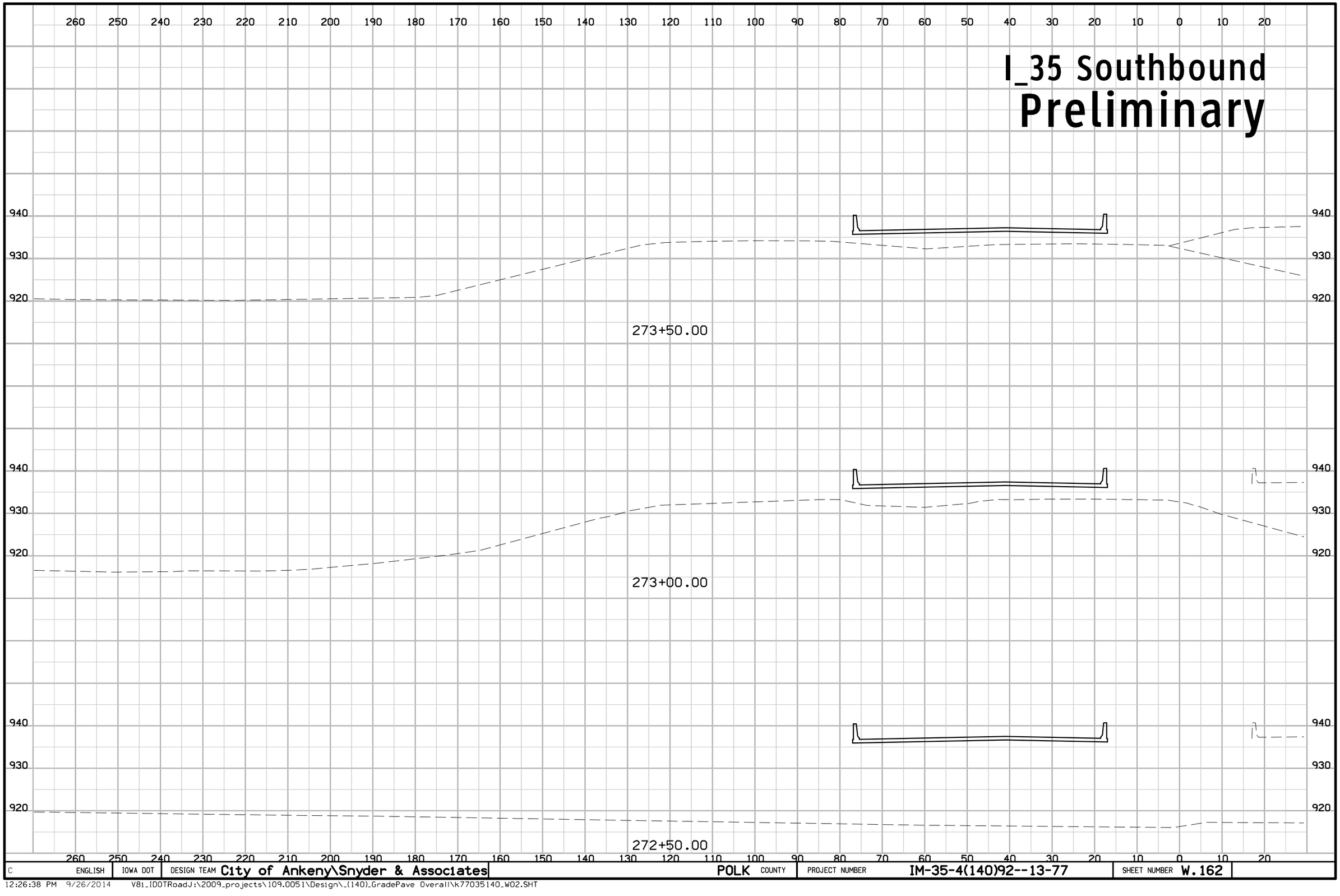
271+00.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.161	

12:26:38 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

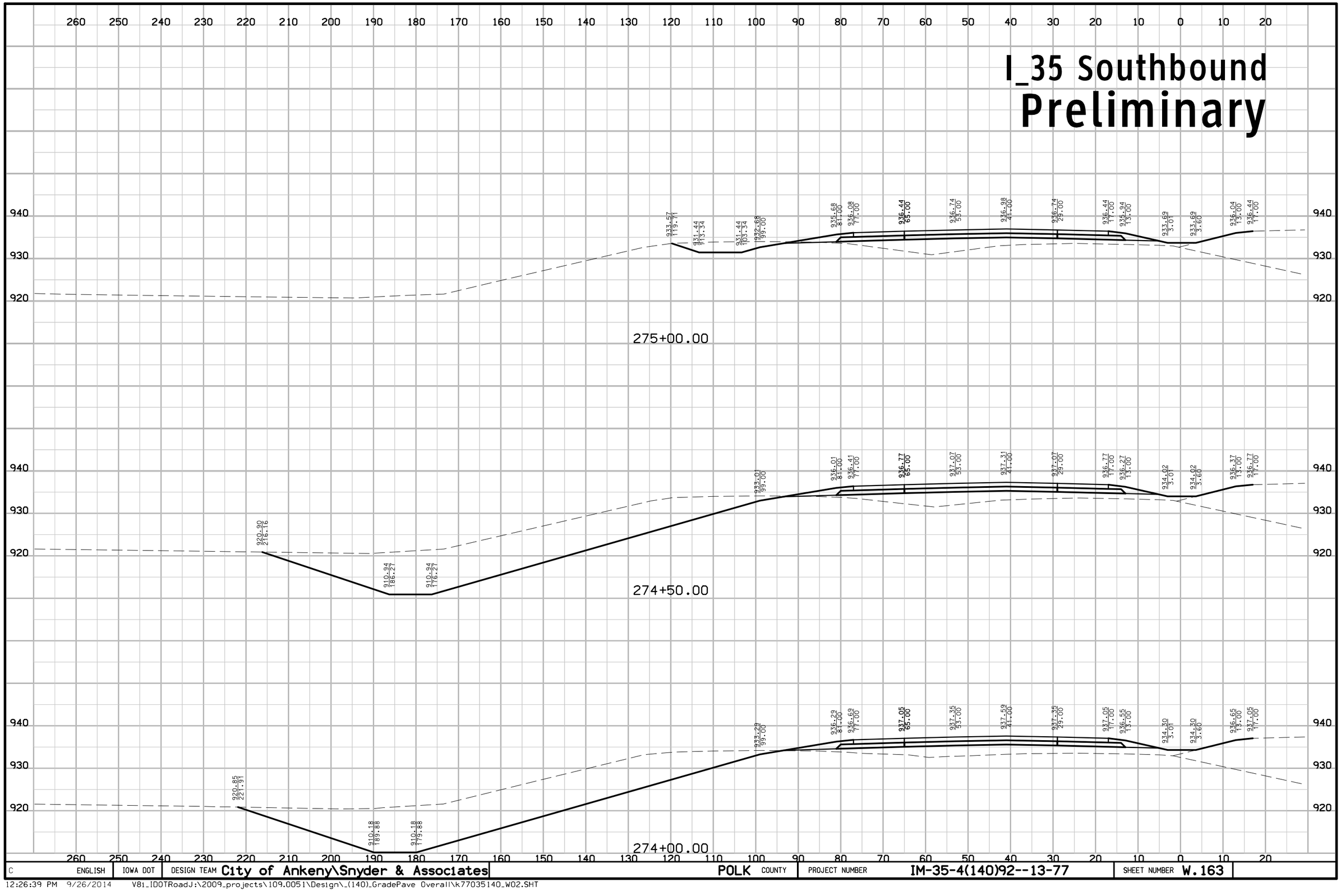
I_35 Southbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.162	

12:26:38 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

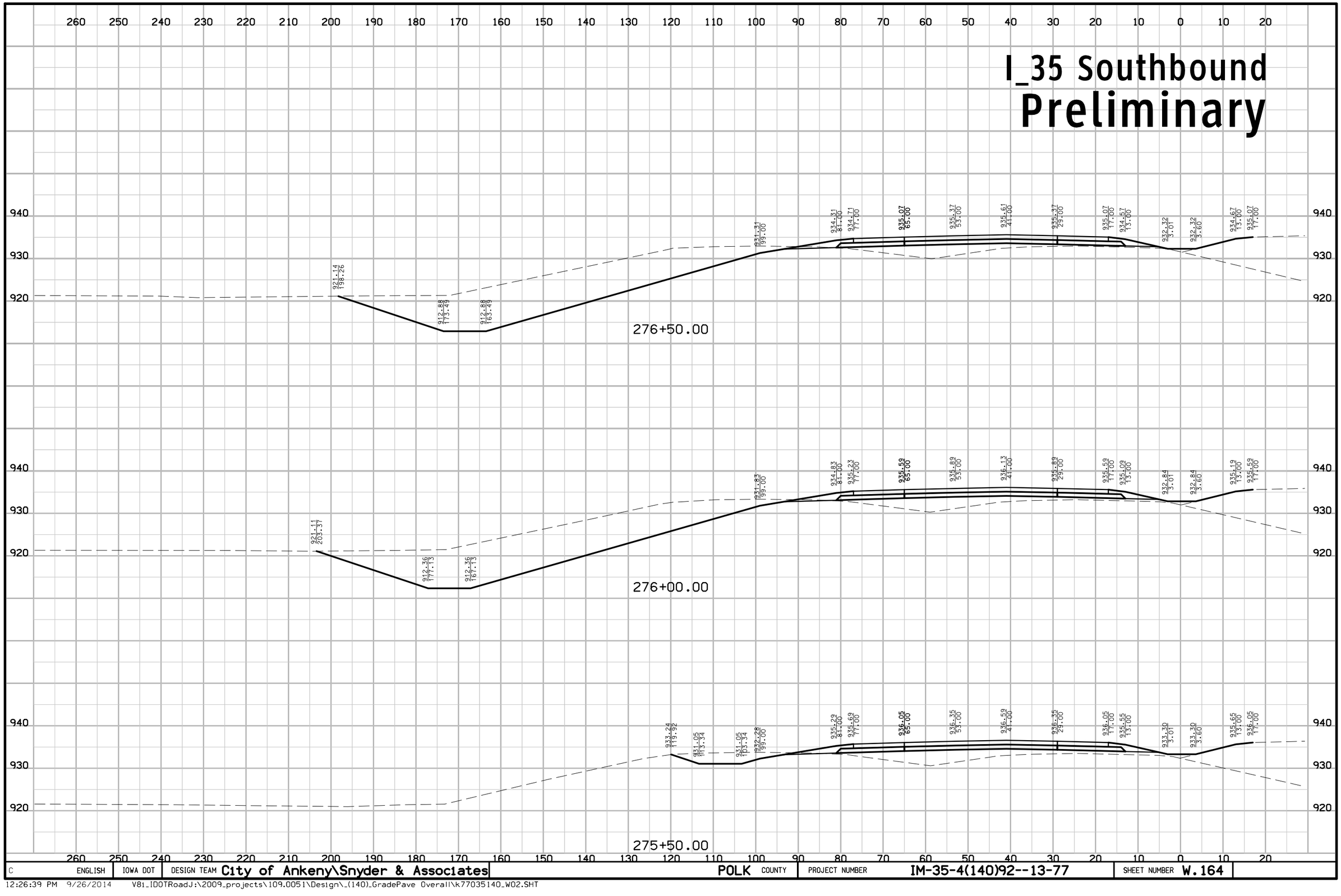
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.163

12:26:39 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

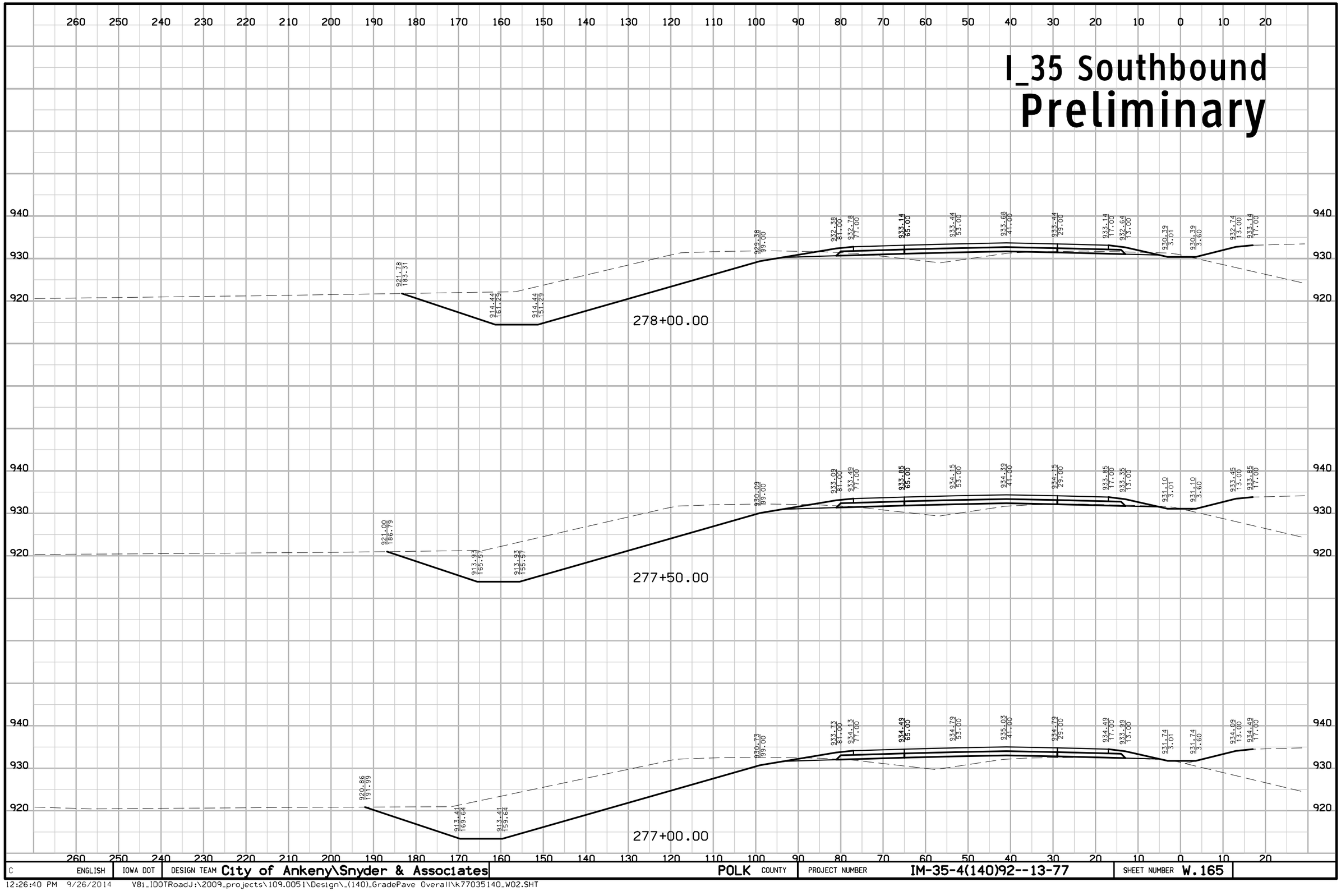
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.164

12:26:39 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

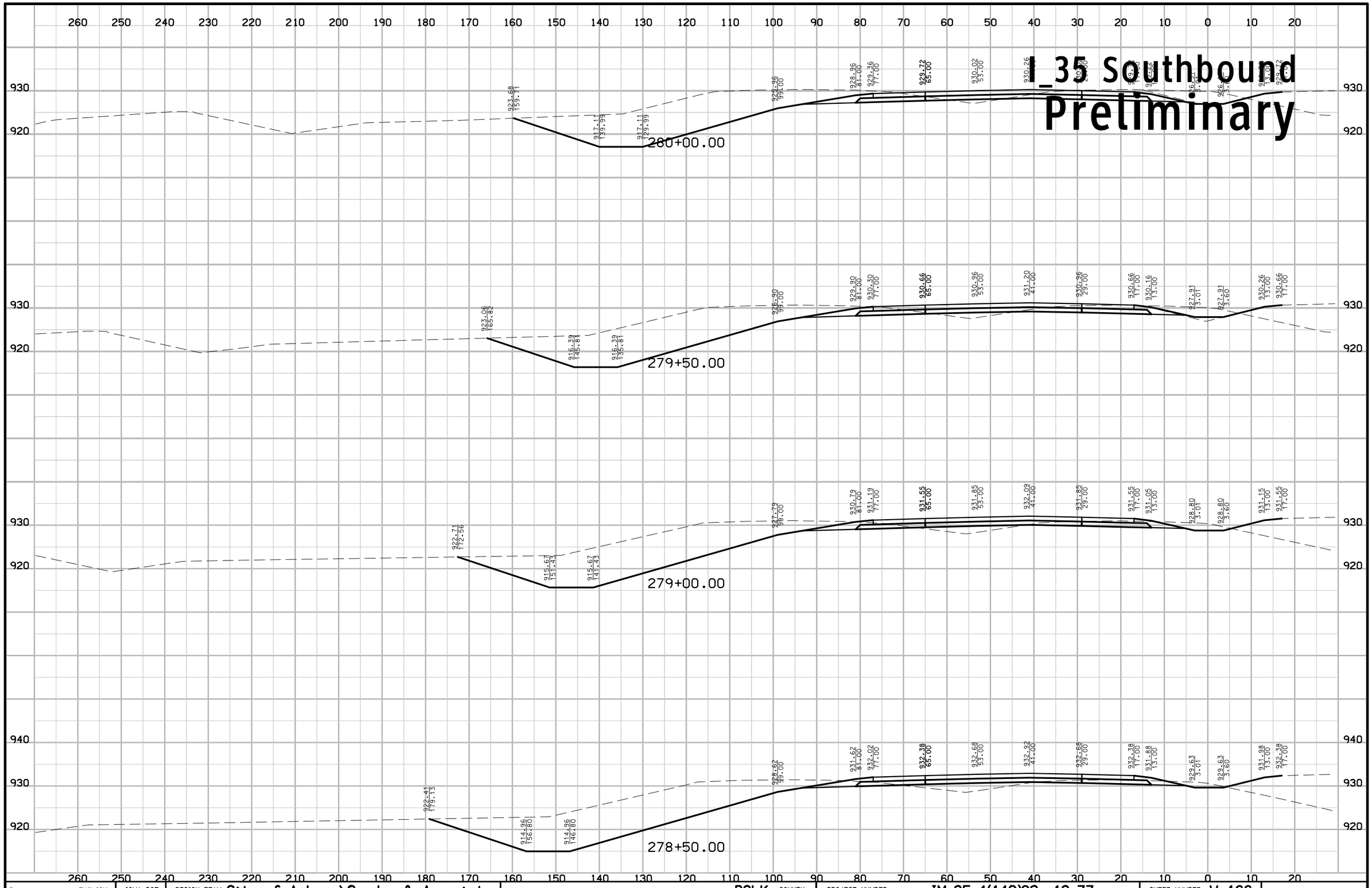
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.165

12:26:40 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

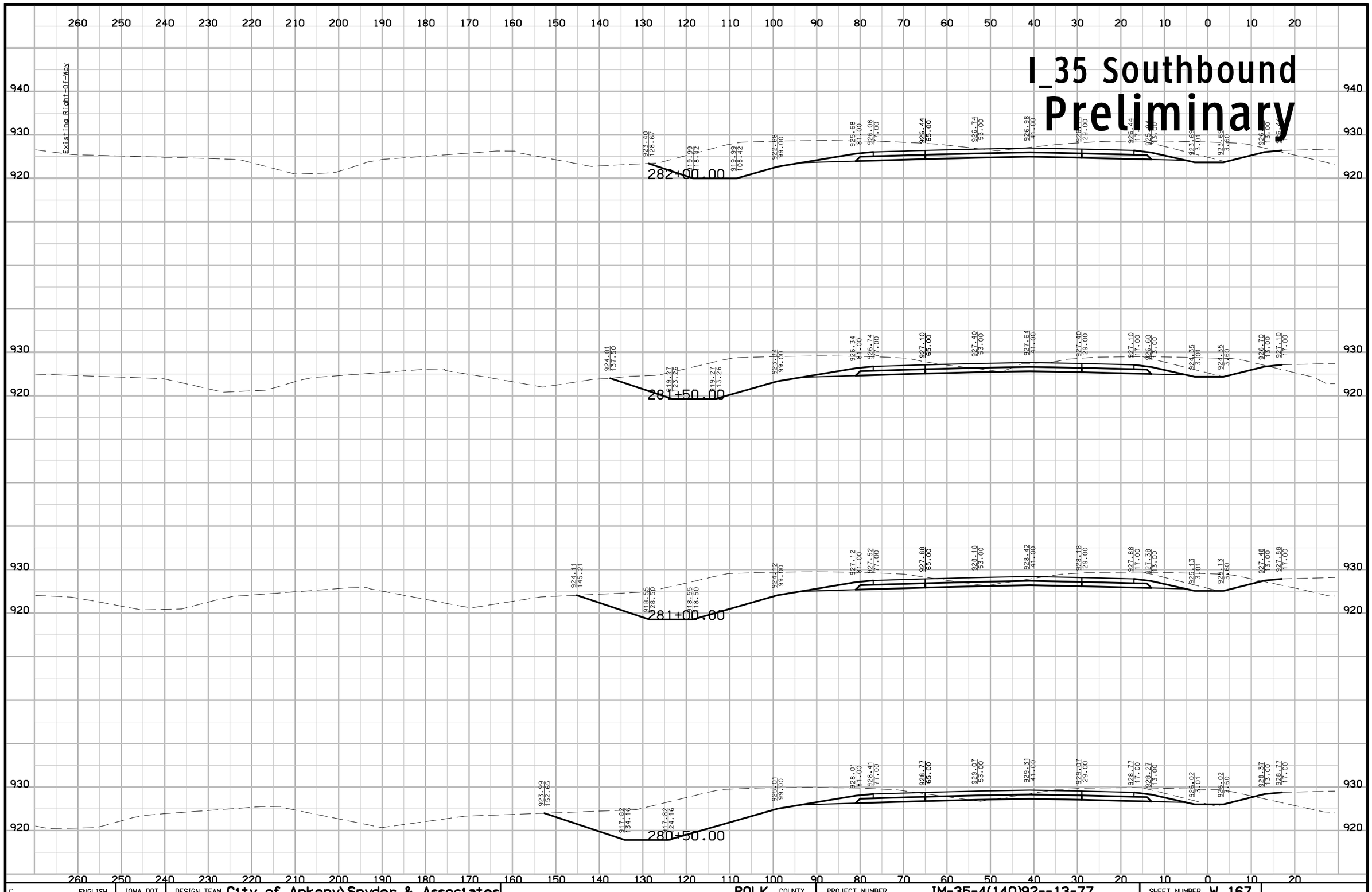
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.166

12:26:40 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

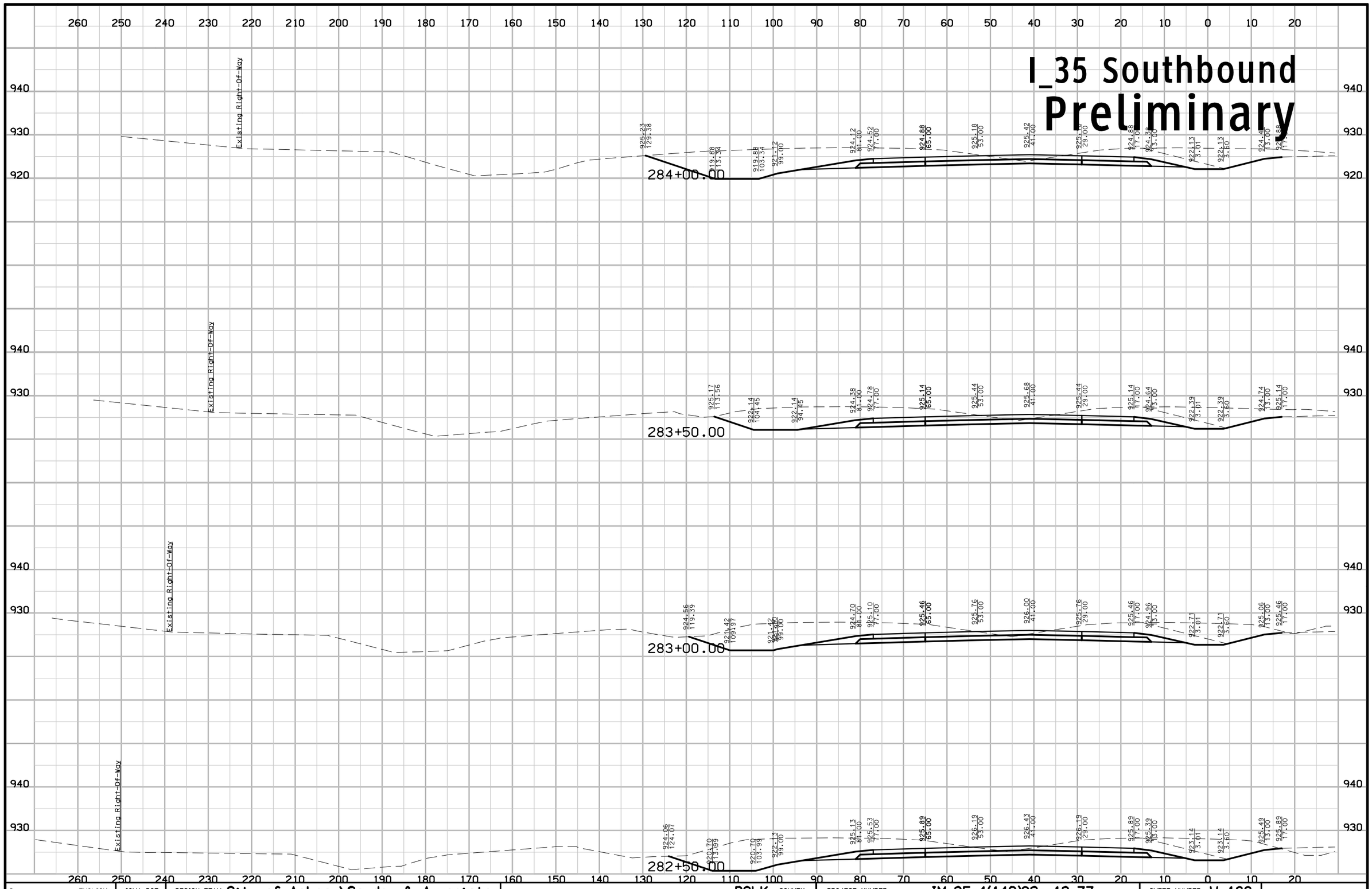
I_35 Southbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.167	

12:26:41 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

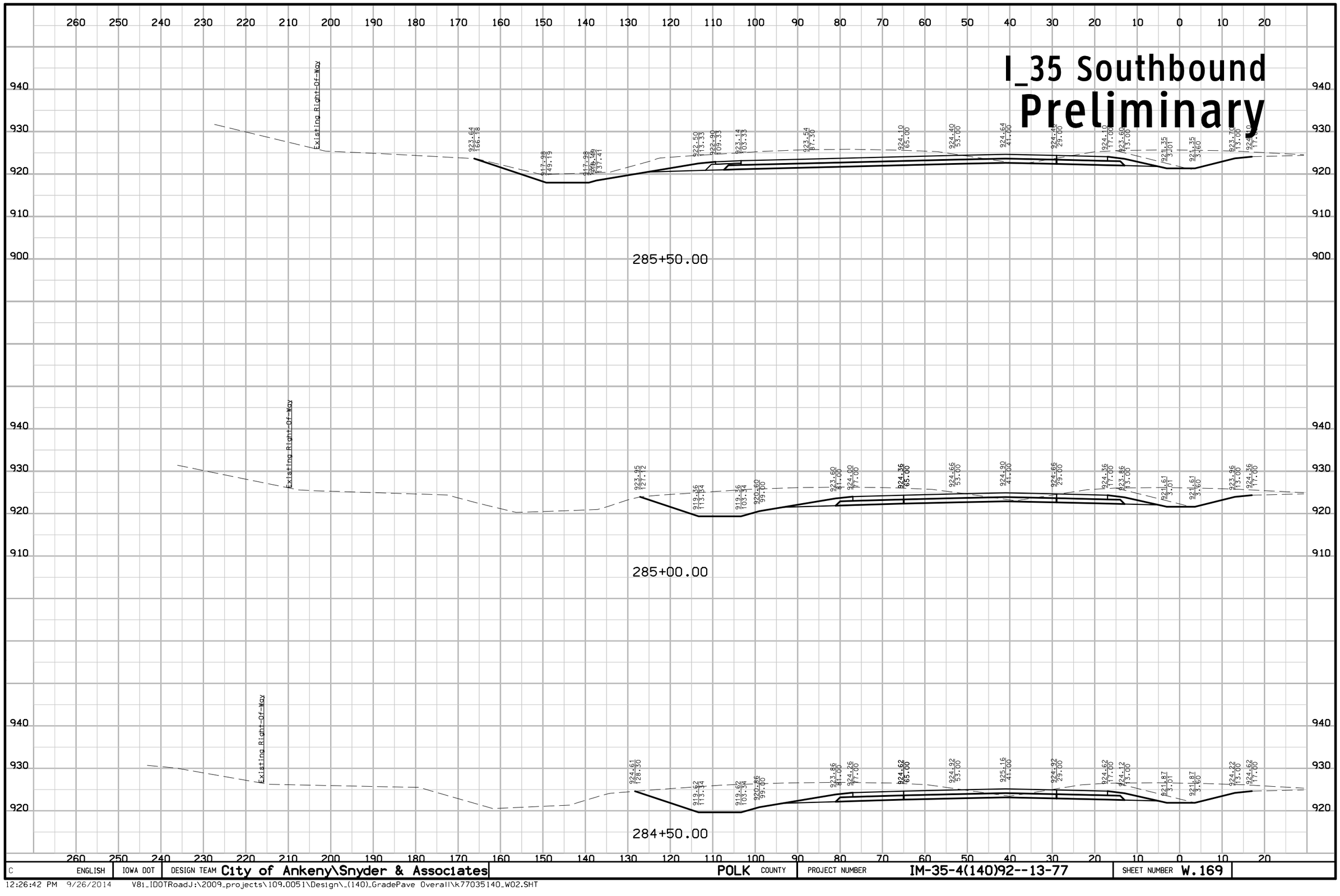
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.168

12:26:41 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

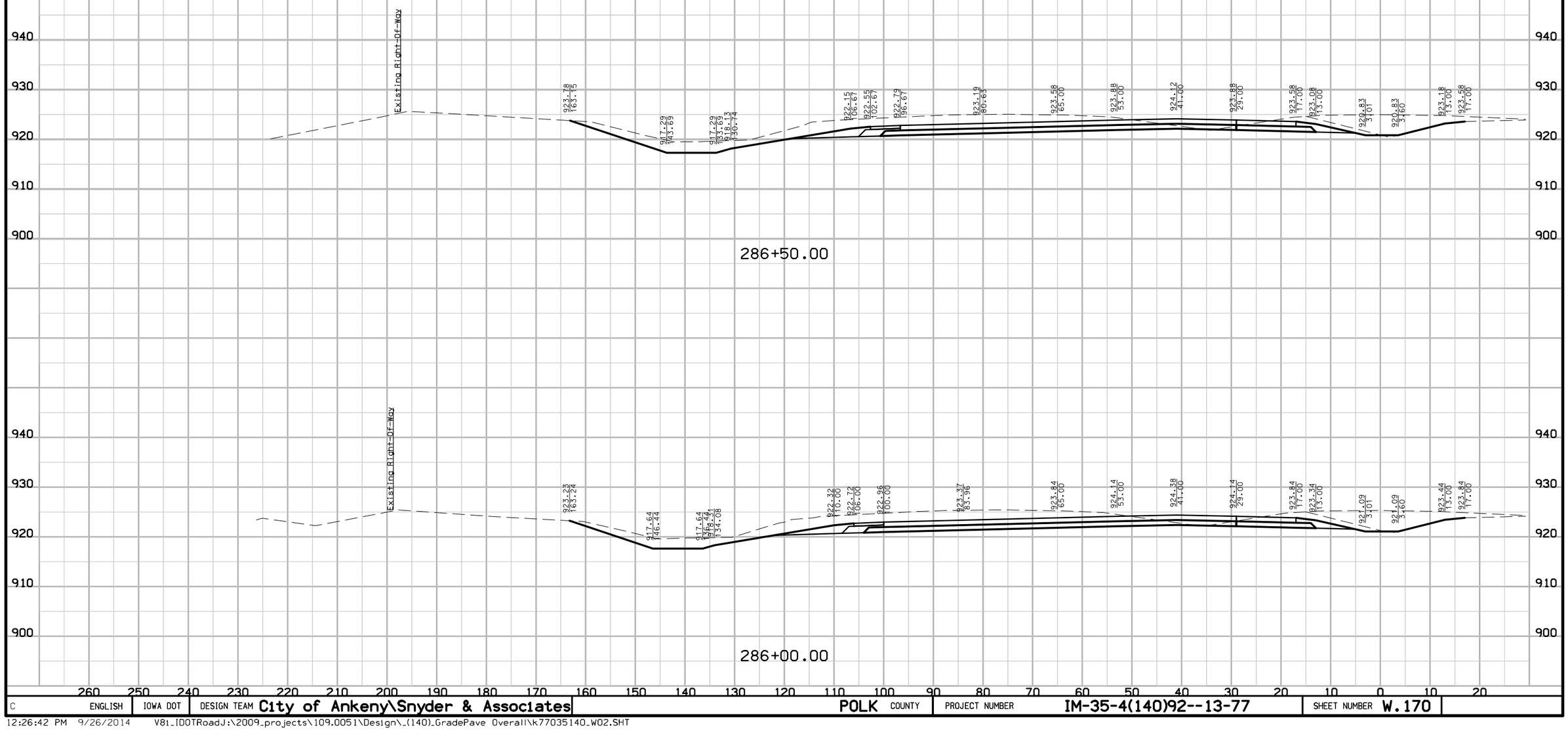
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.169

12:26:42 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

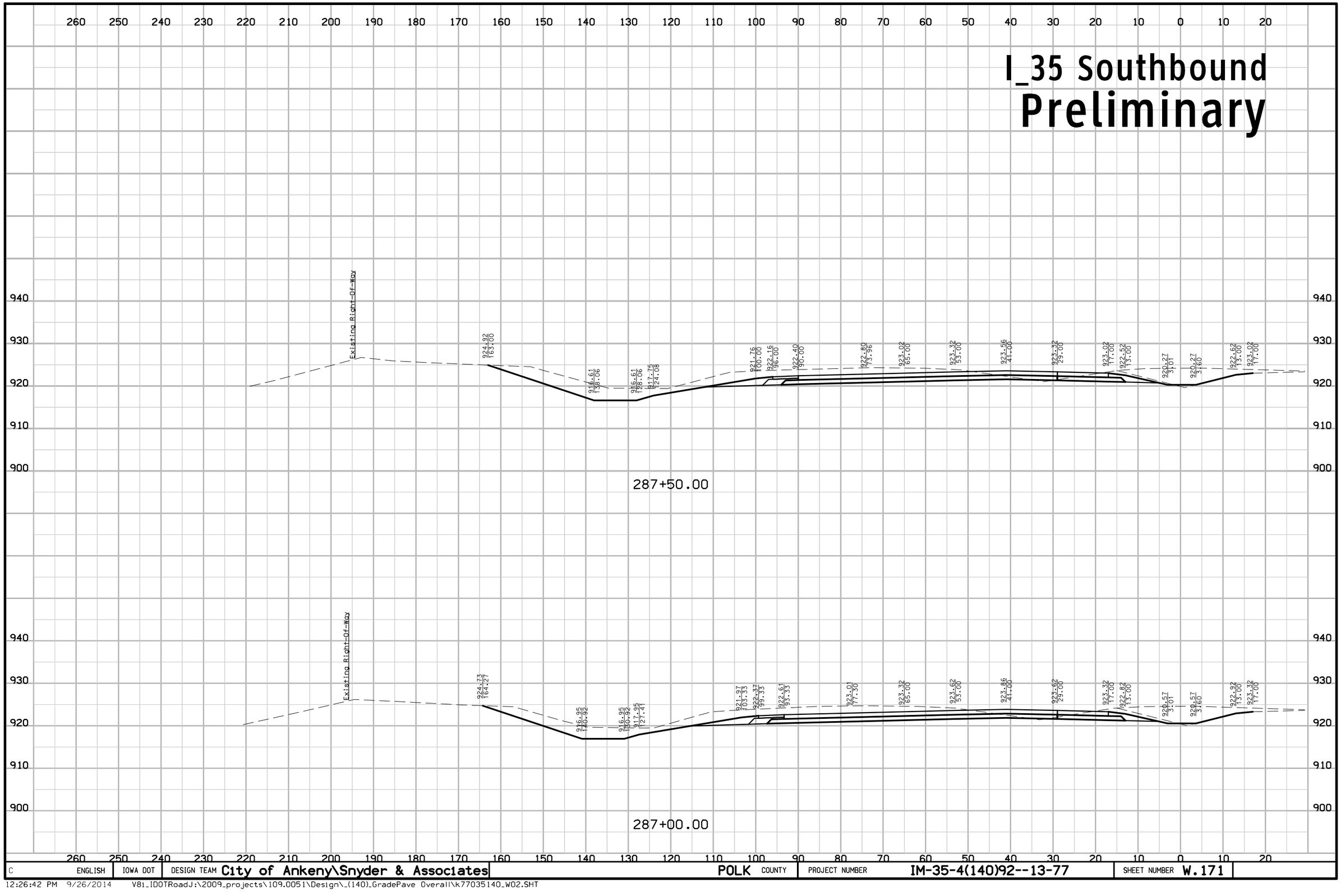
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.170

12:26:42 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

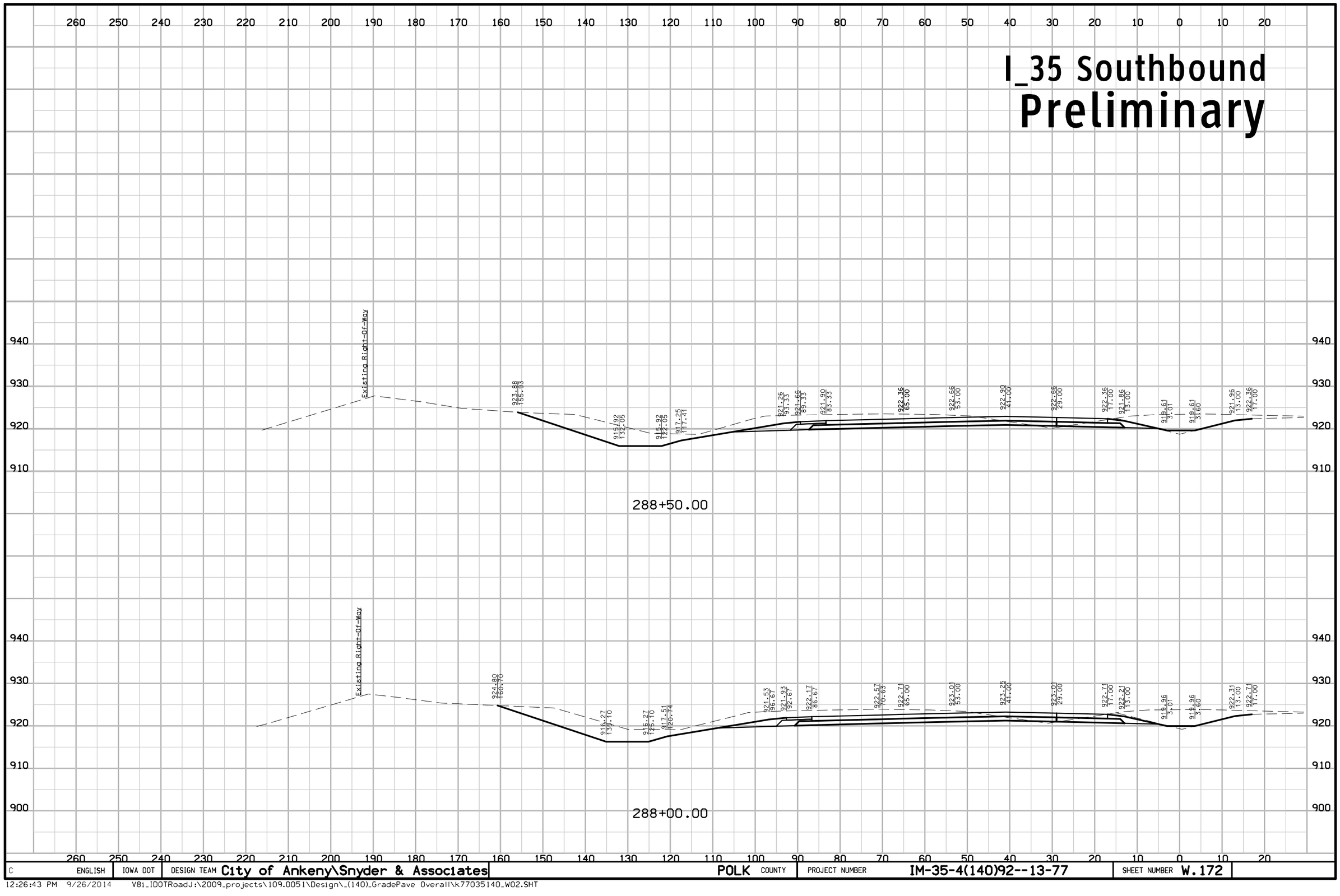
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.171

12:26:42 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

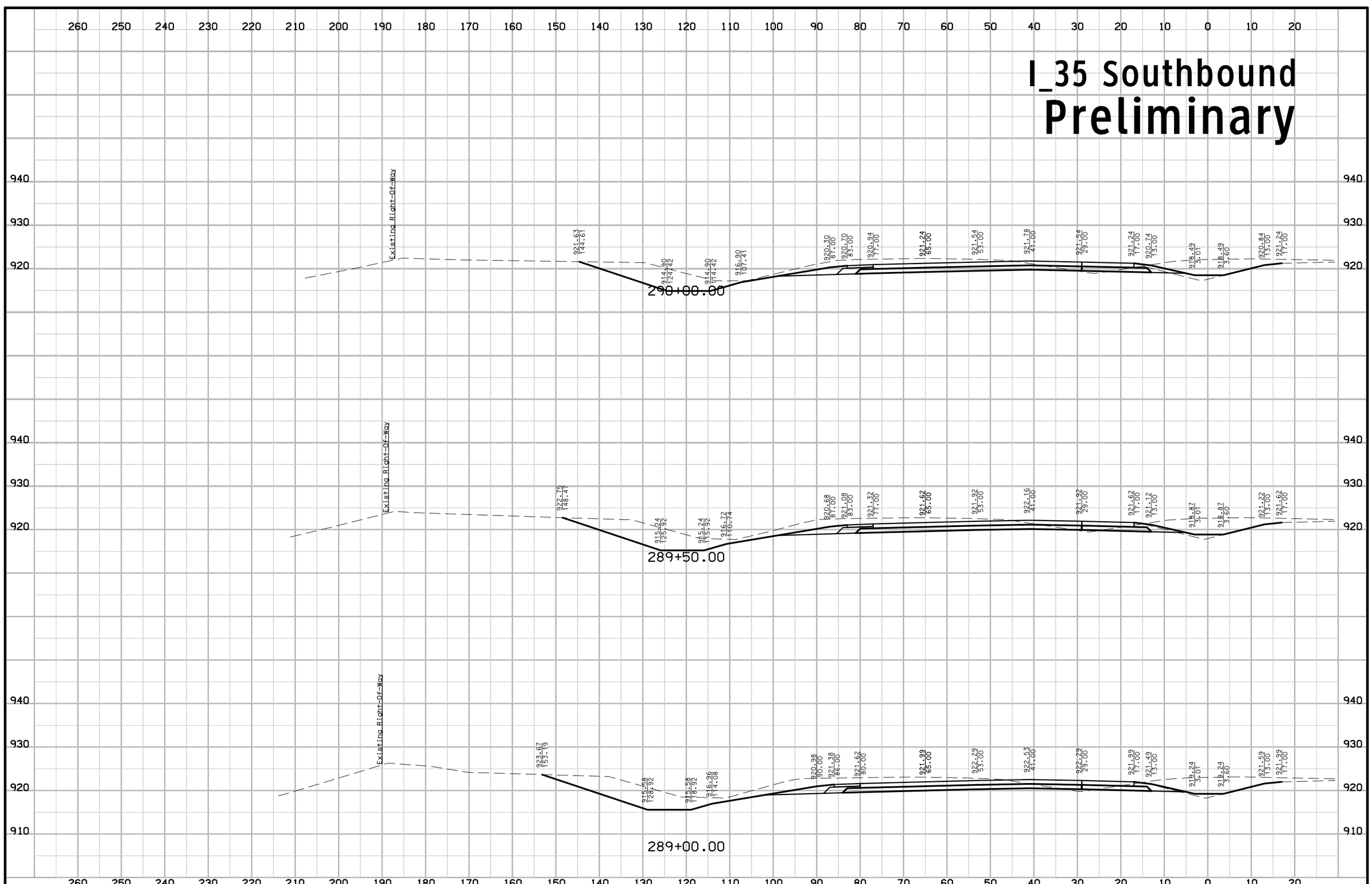
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.172

12:26:43 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

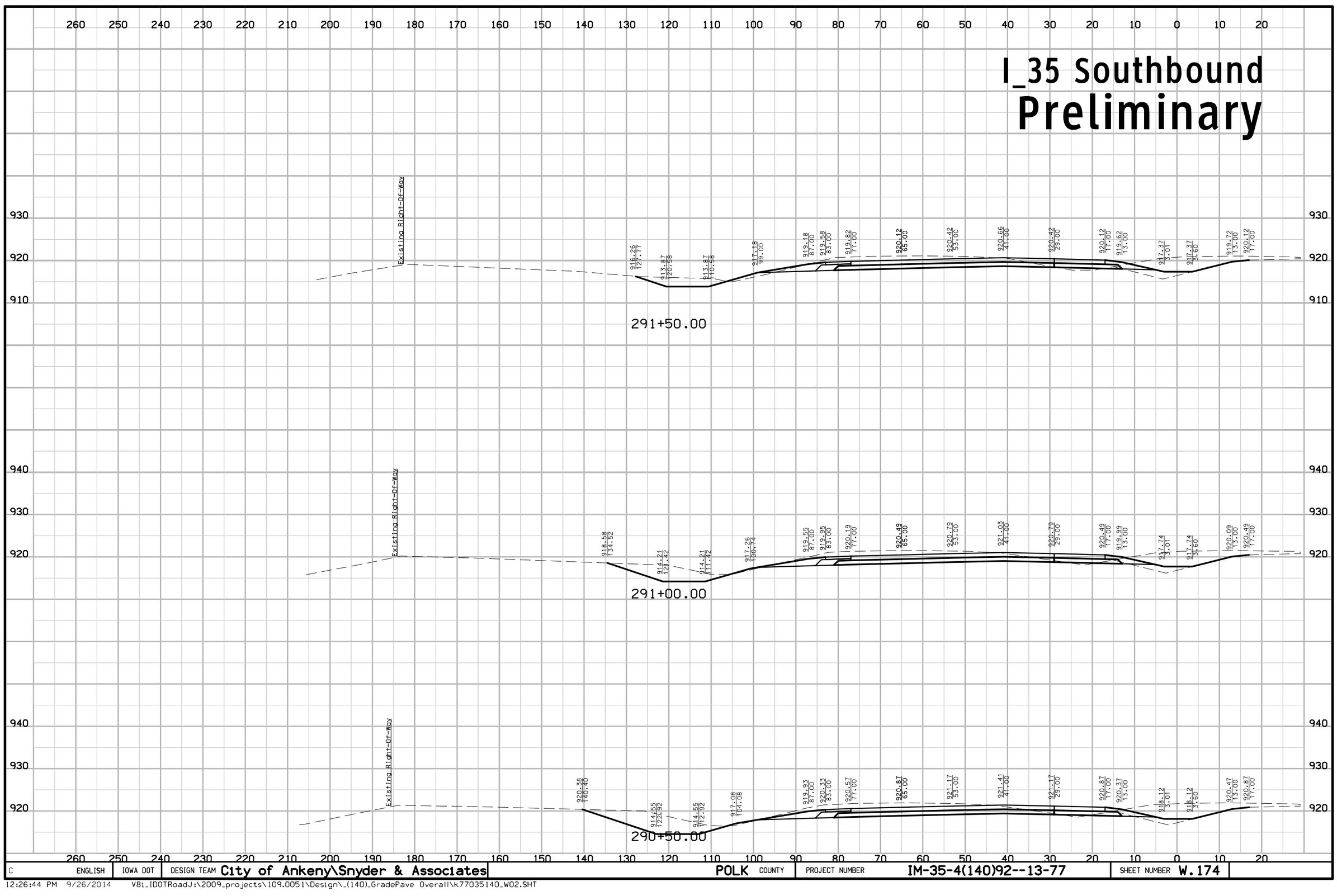
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.173

12:26:43 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

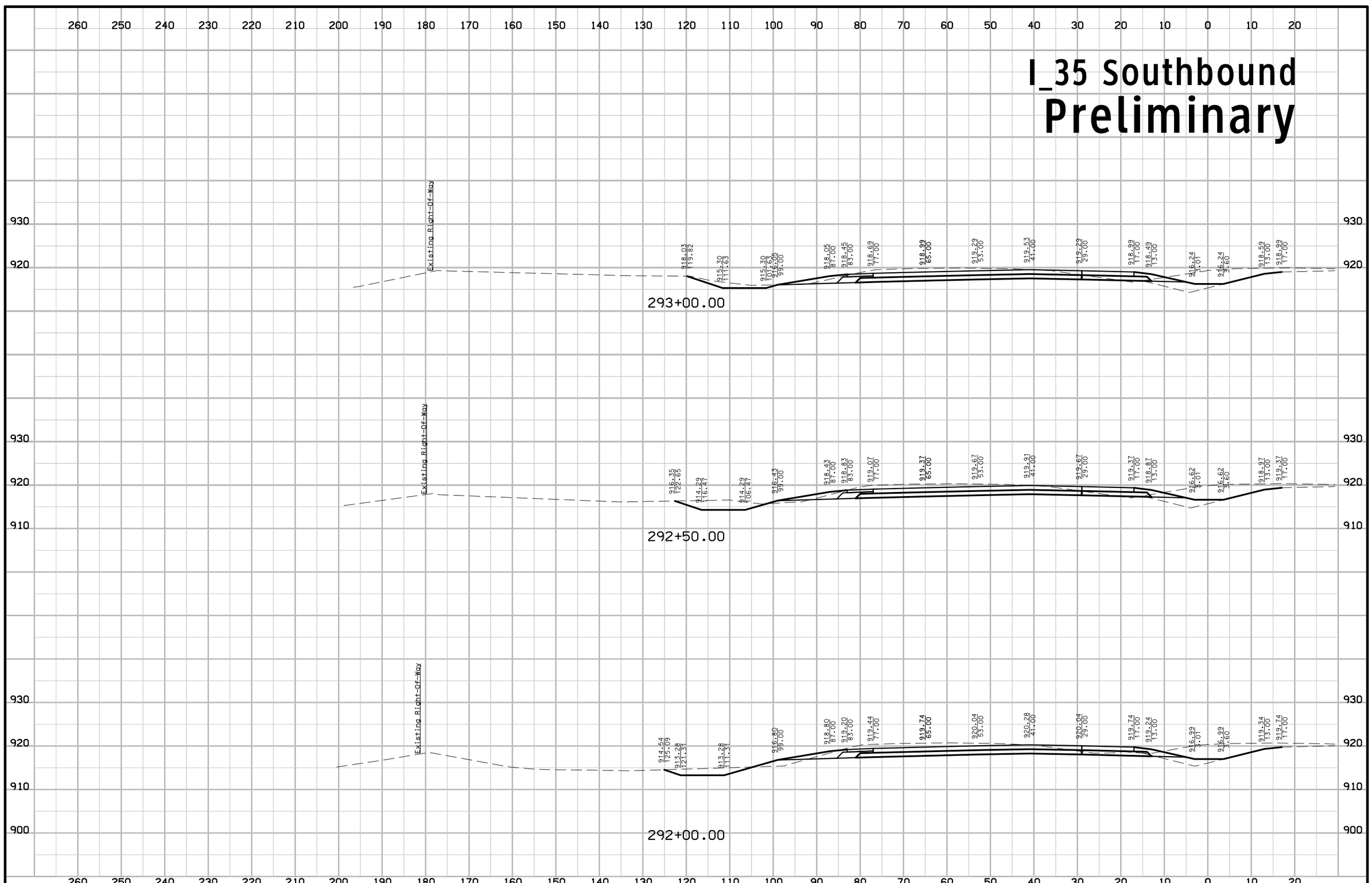
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.174

12:26:44 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

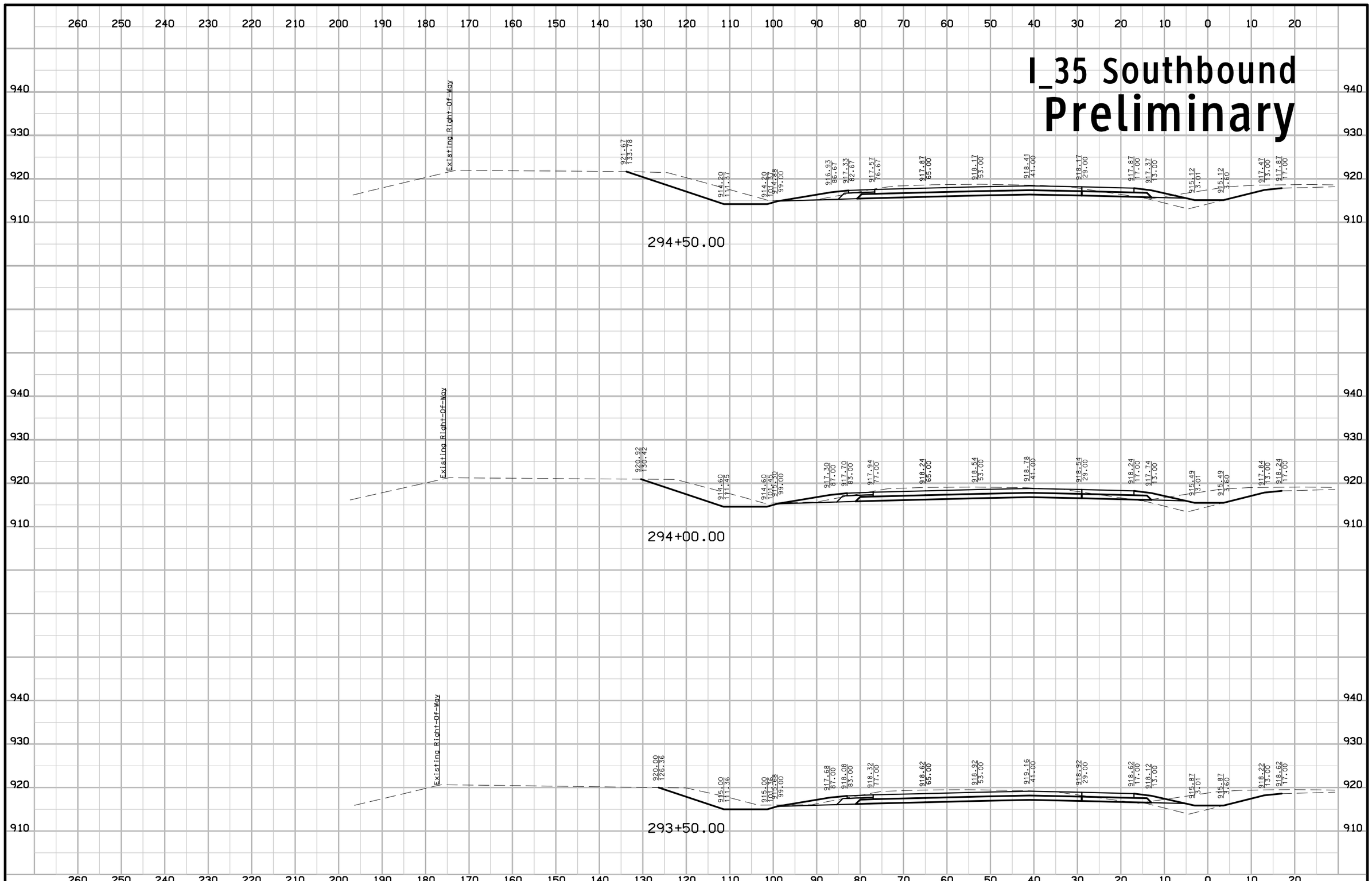
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.175	

12:26:44 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

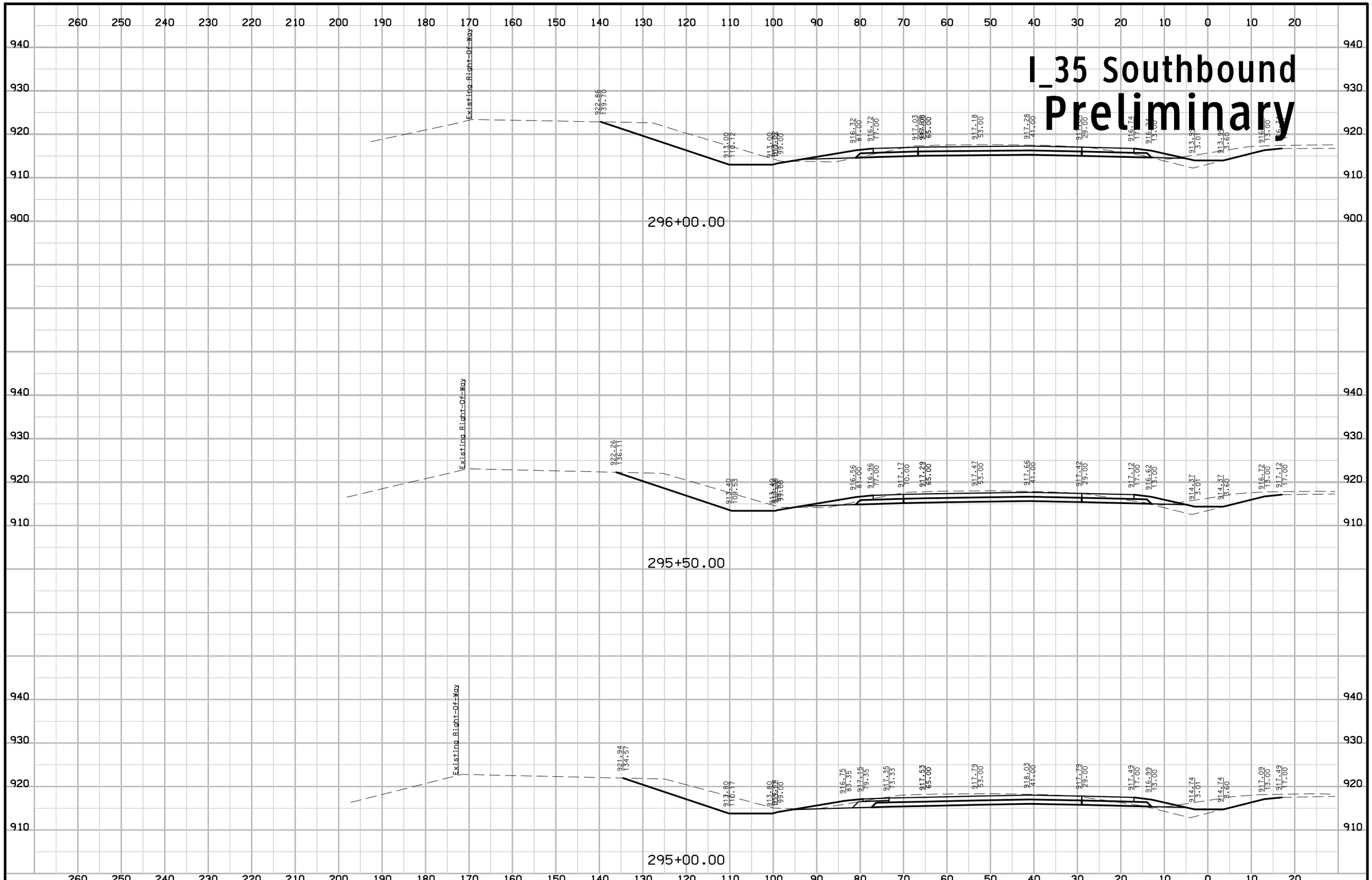
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.176

12:26:45 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

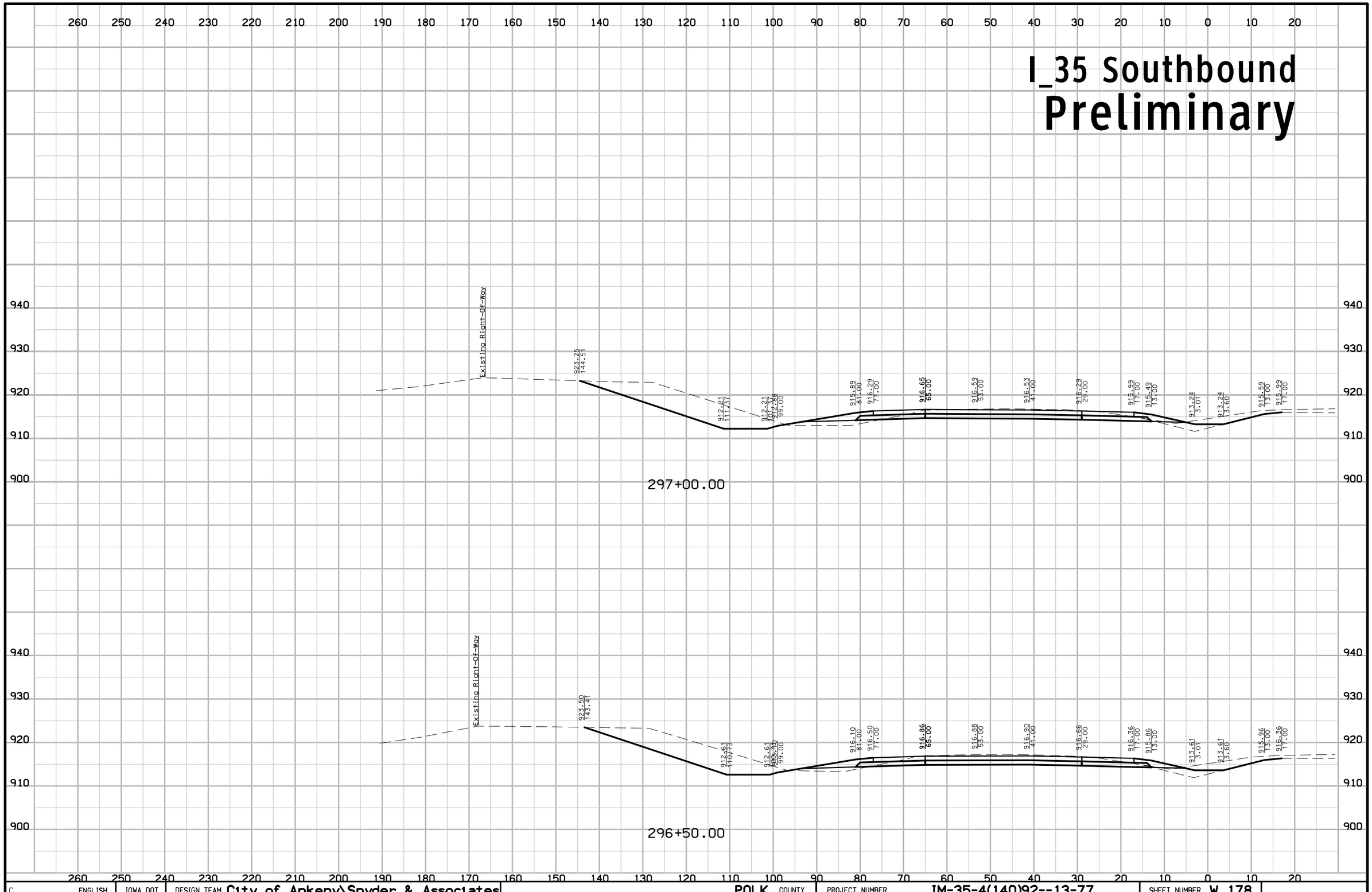
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.177

12:26:45 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

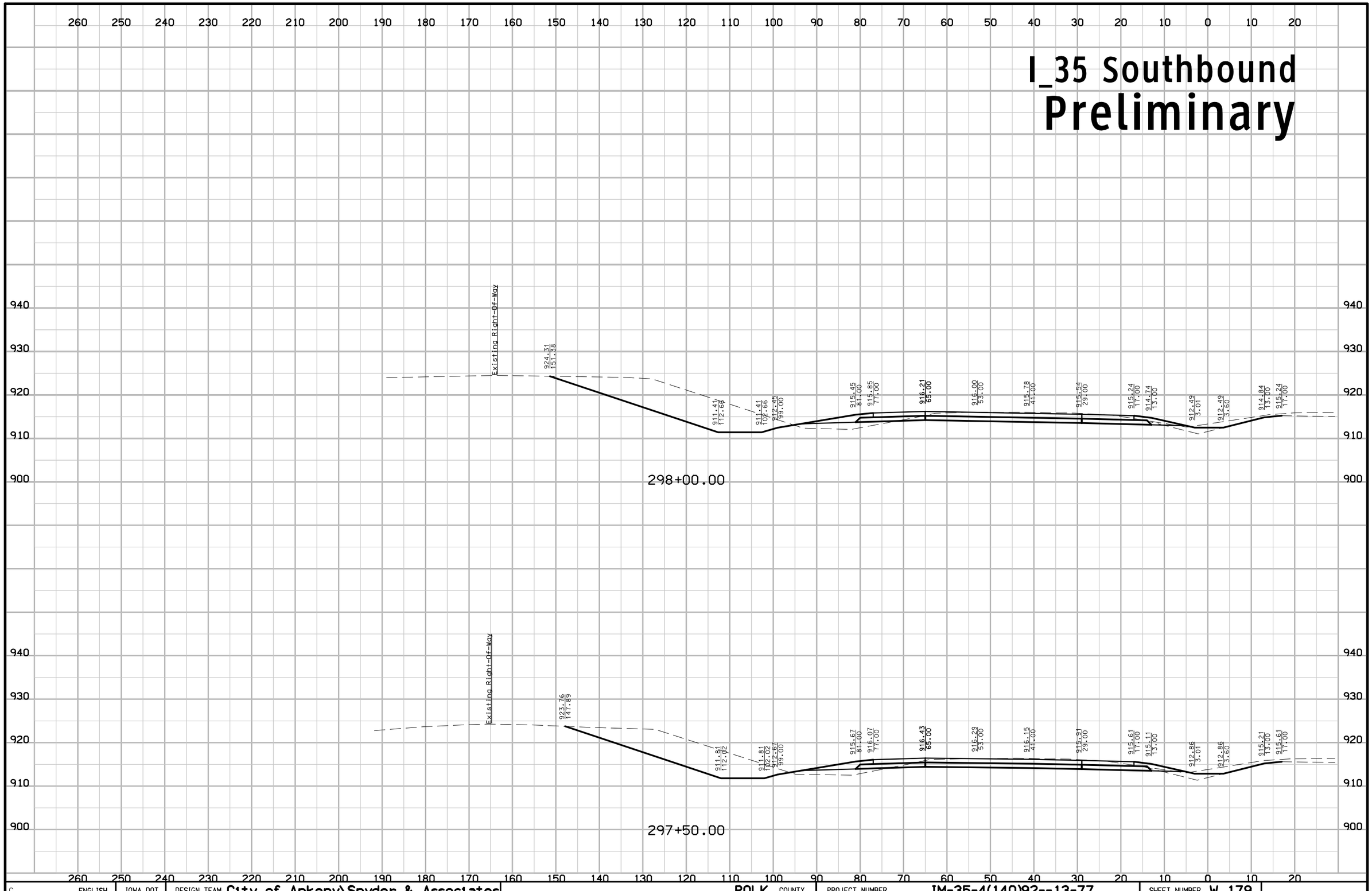
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.178

12:26:45 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

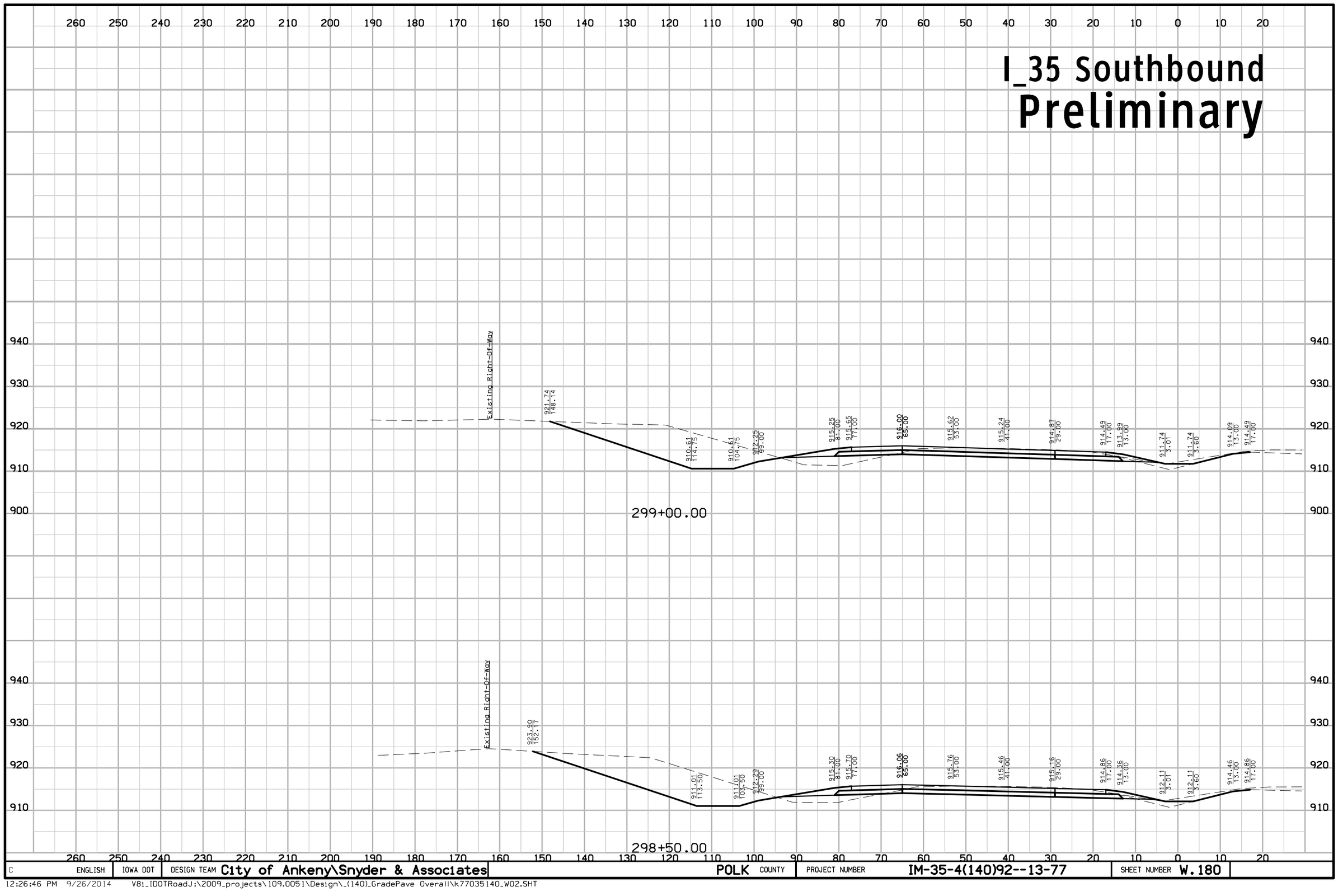
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.179

12:26:46 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

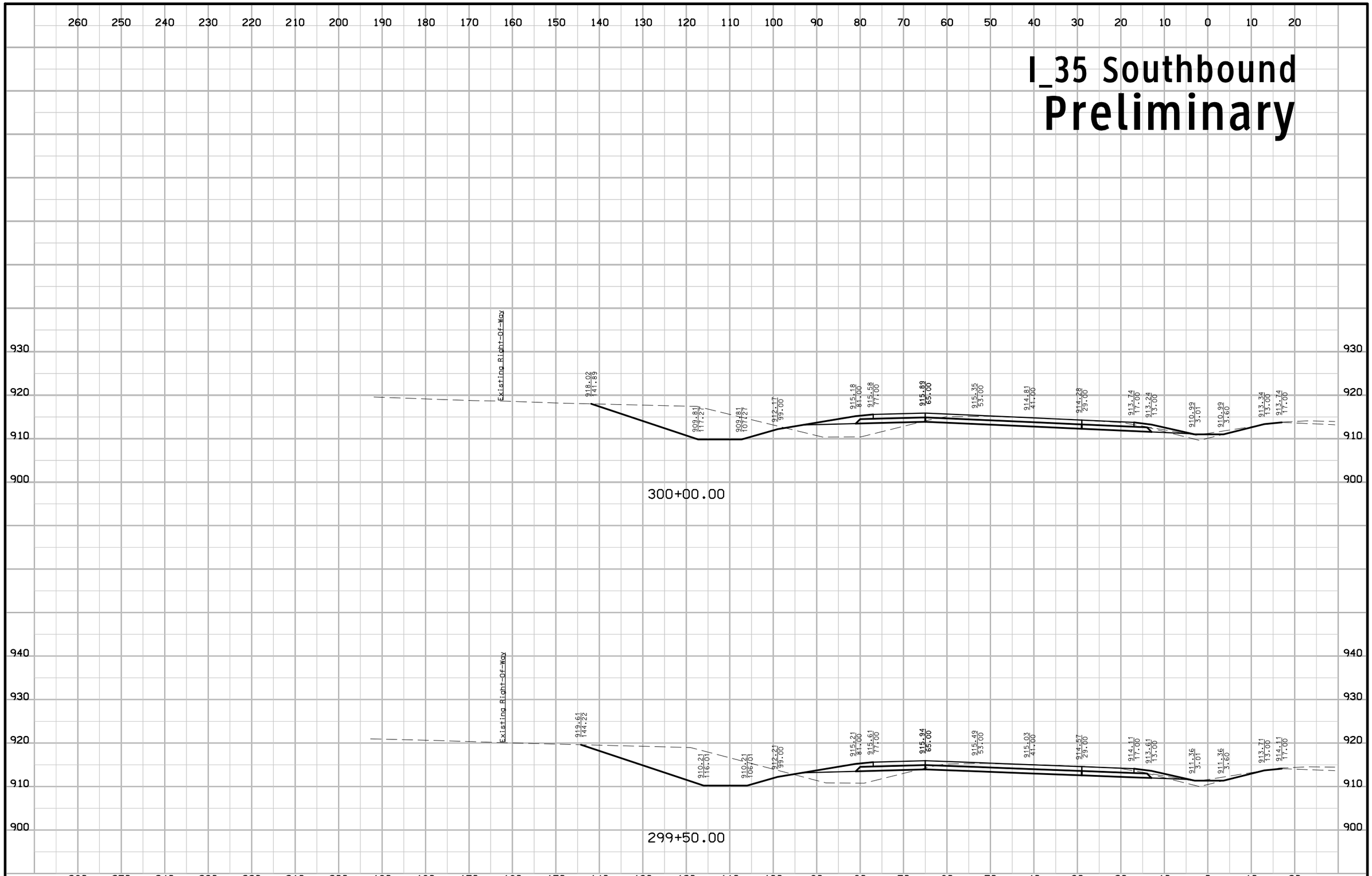
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.180	

12:26:46 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

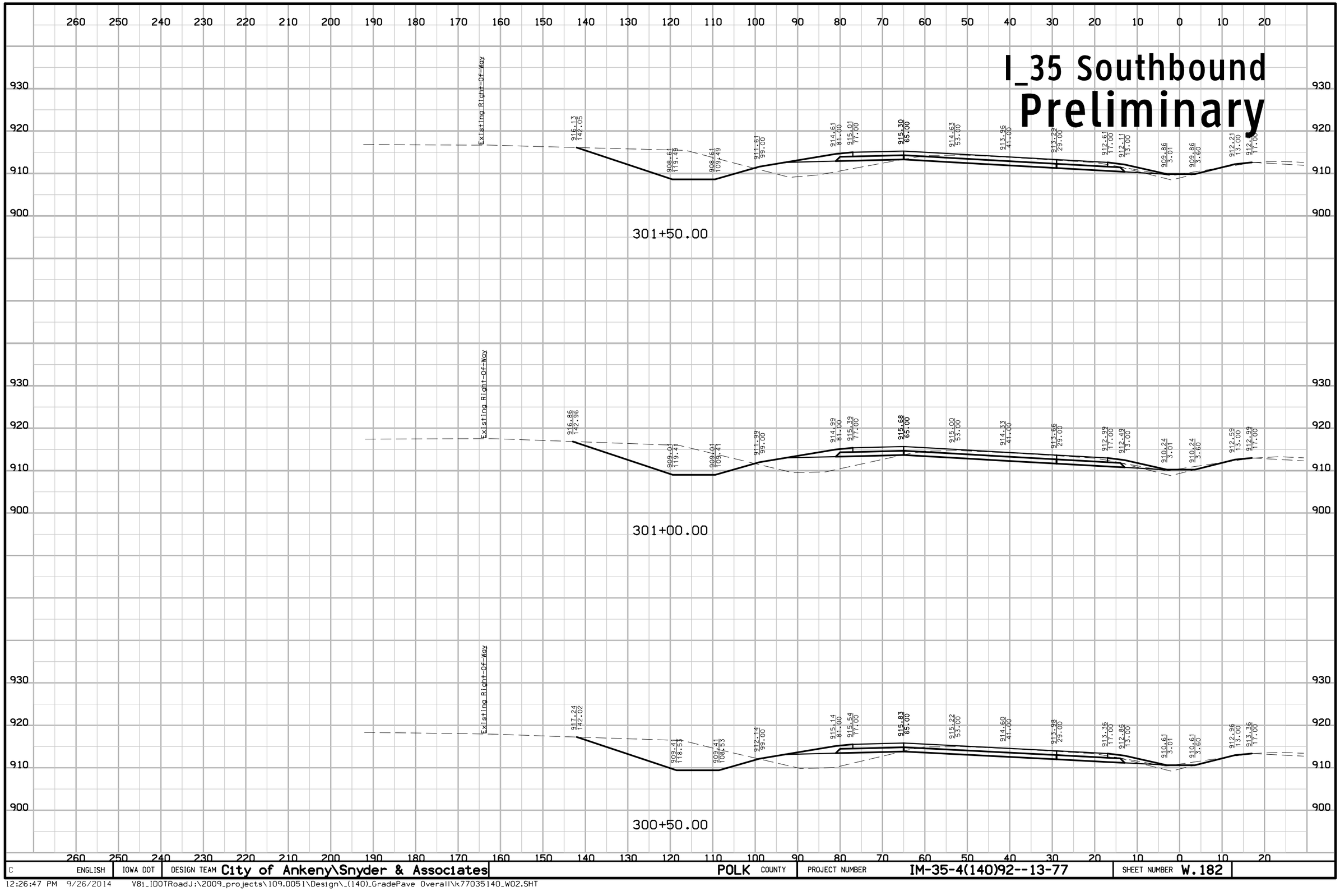
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.181

12:26:47 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

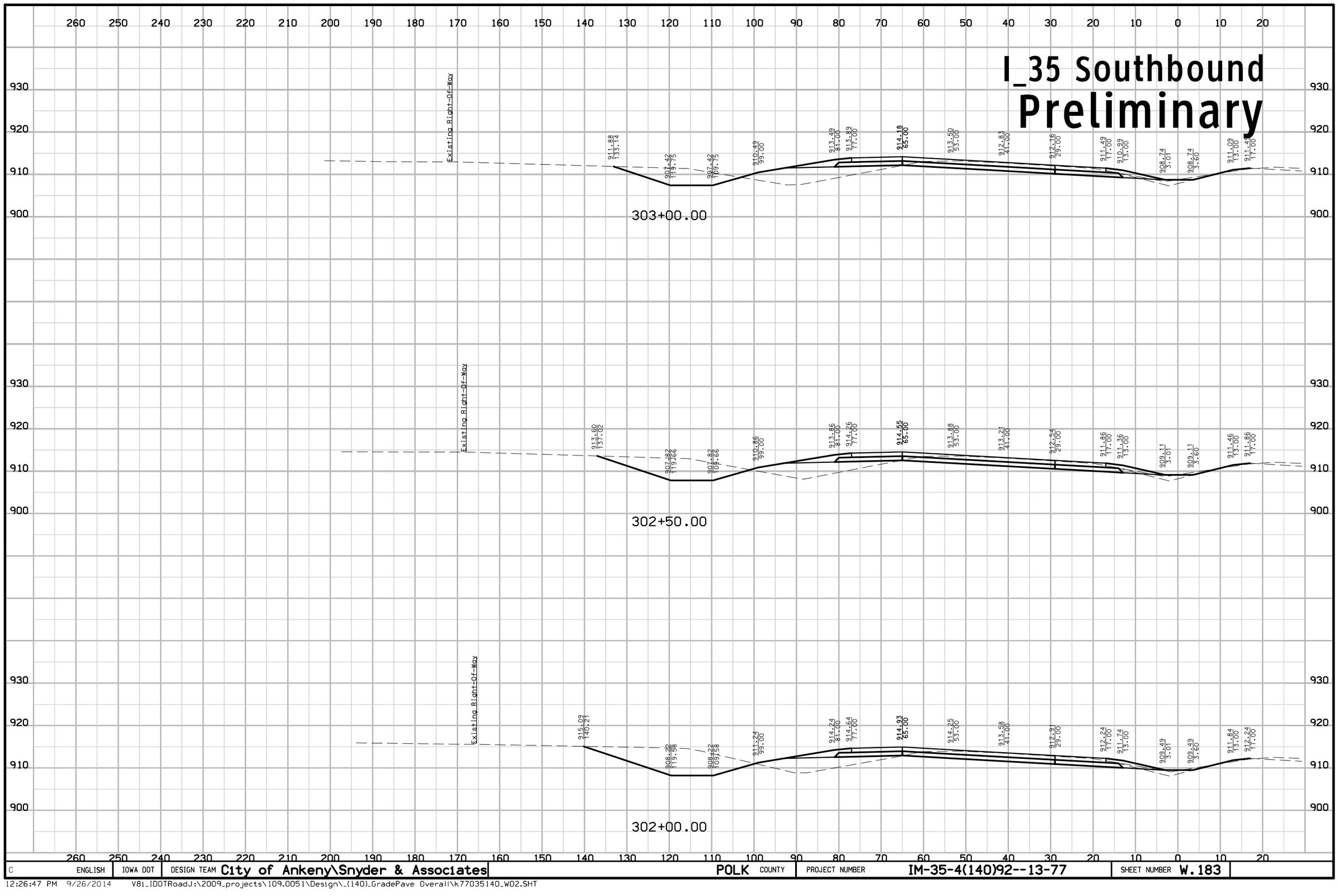
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.182

12:26:47 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

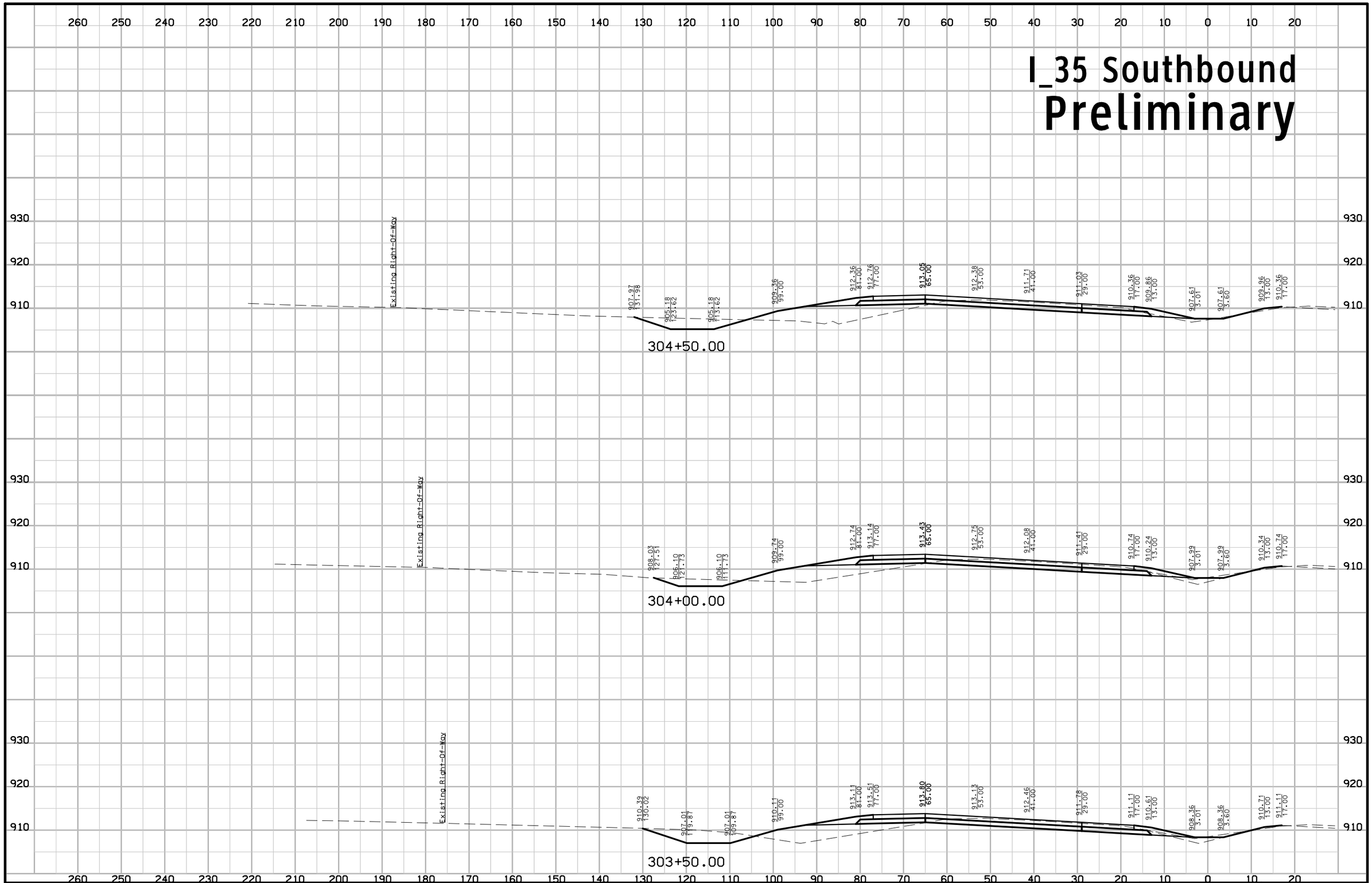
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.183

12:26:47 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

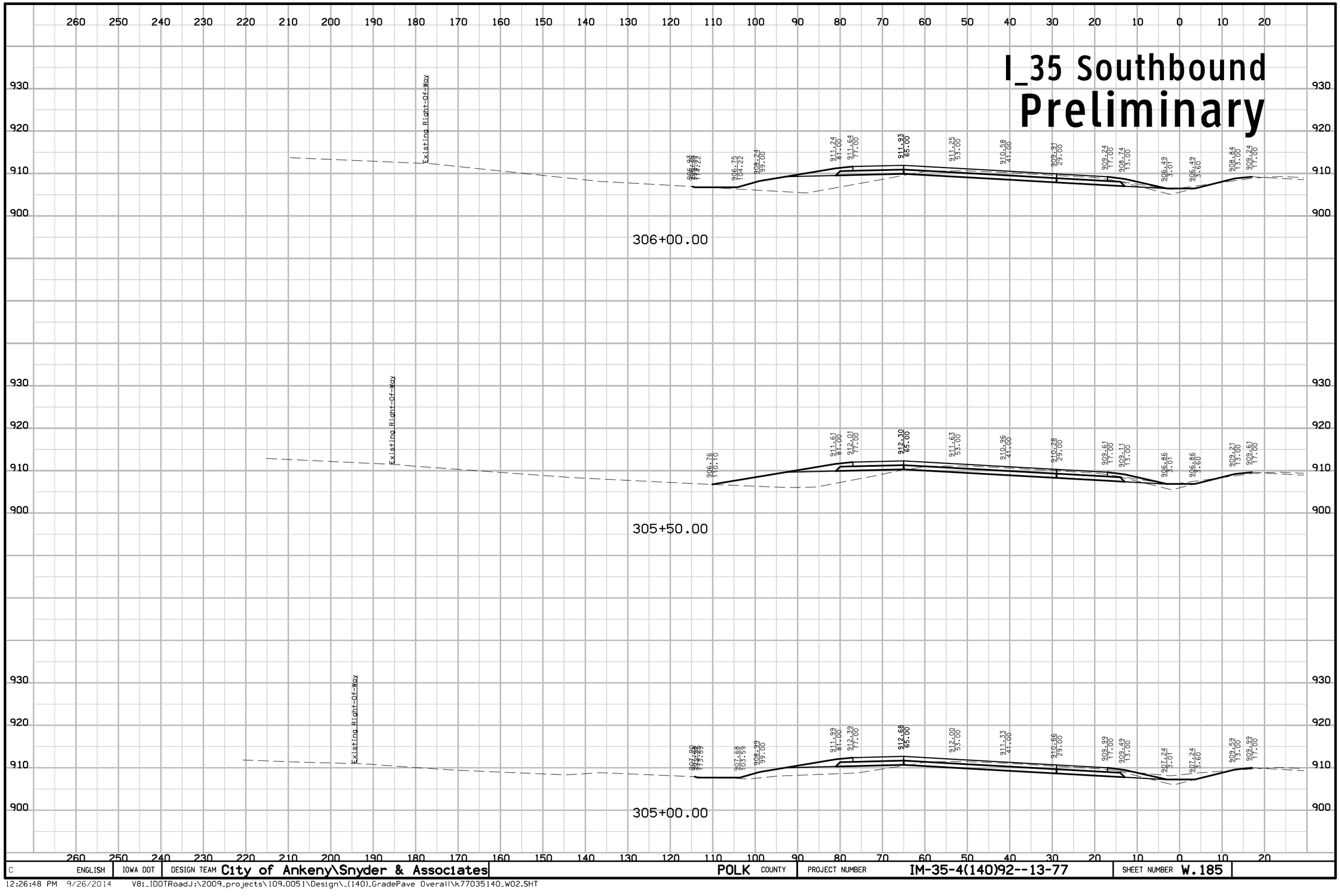
I_35 Southbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.184

12:26:48 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

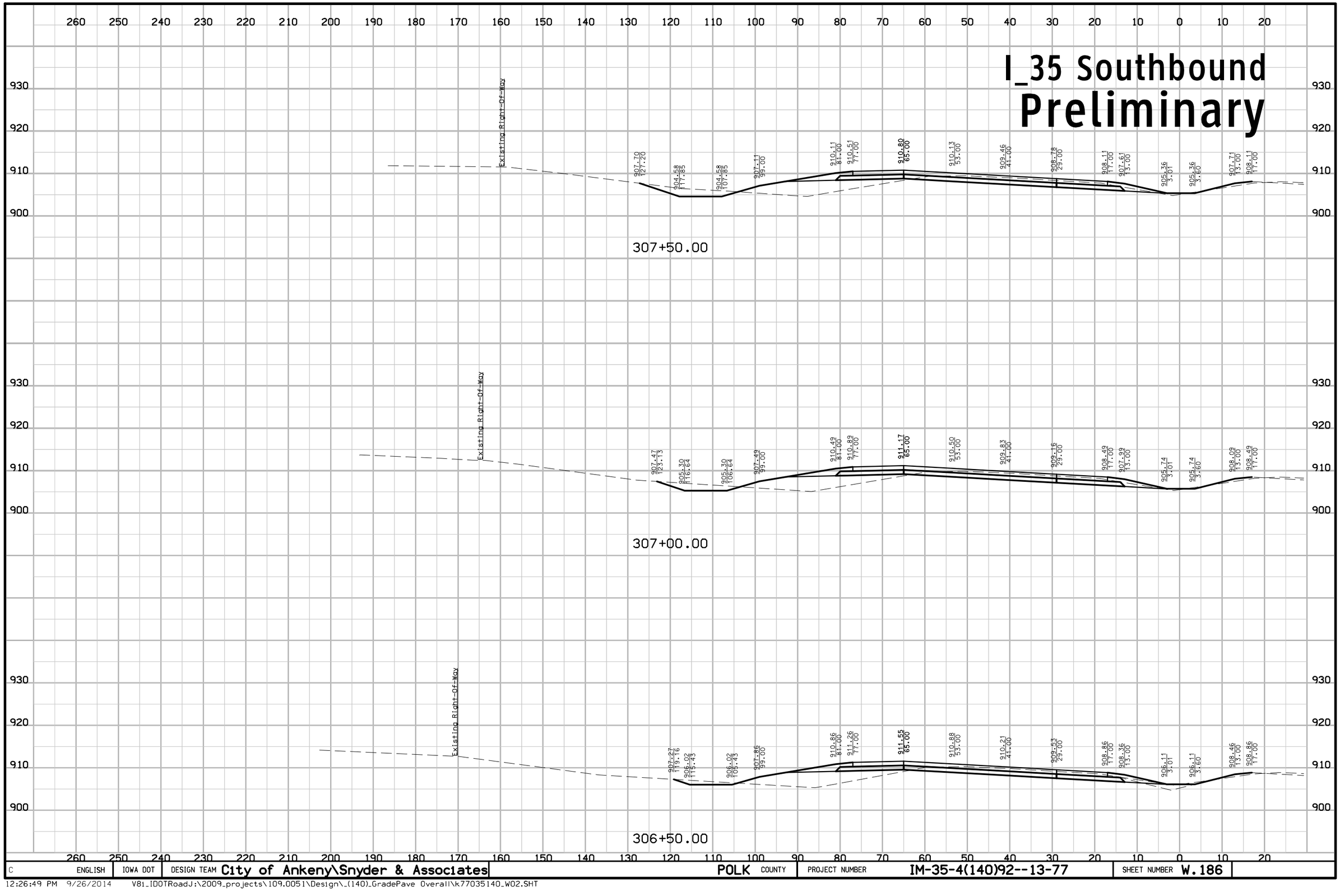
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.185

12:26:48 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

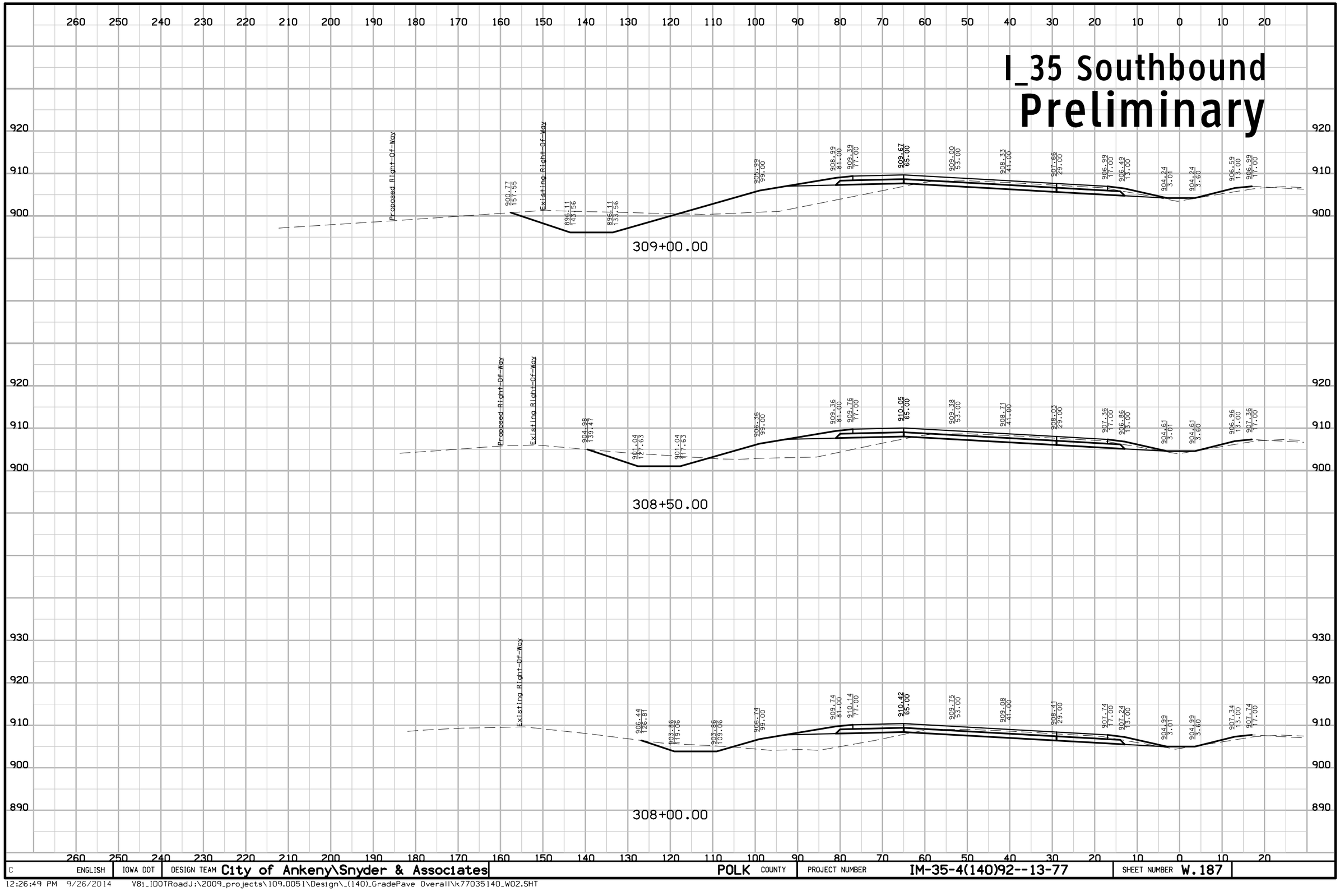
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.186

12:26:49 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

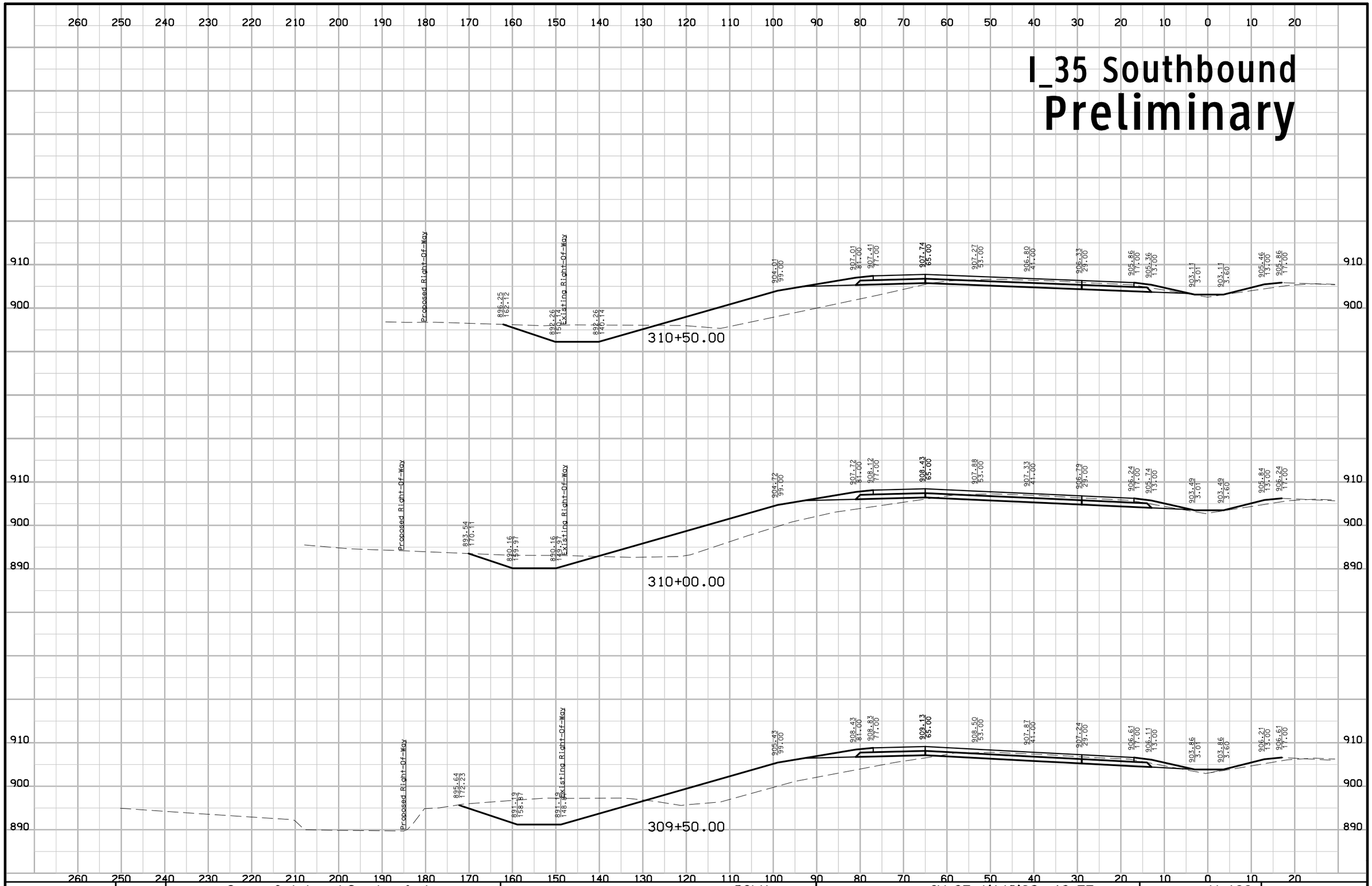
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.187	

12:26:49 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

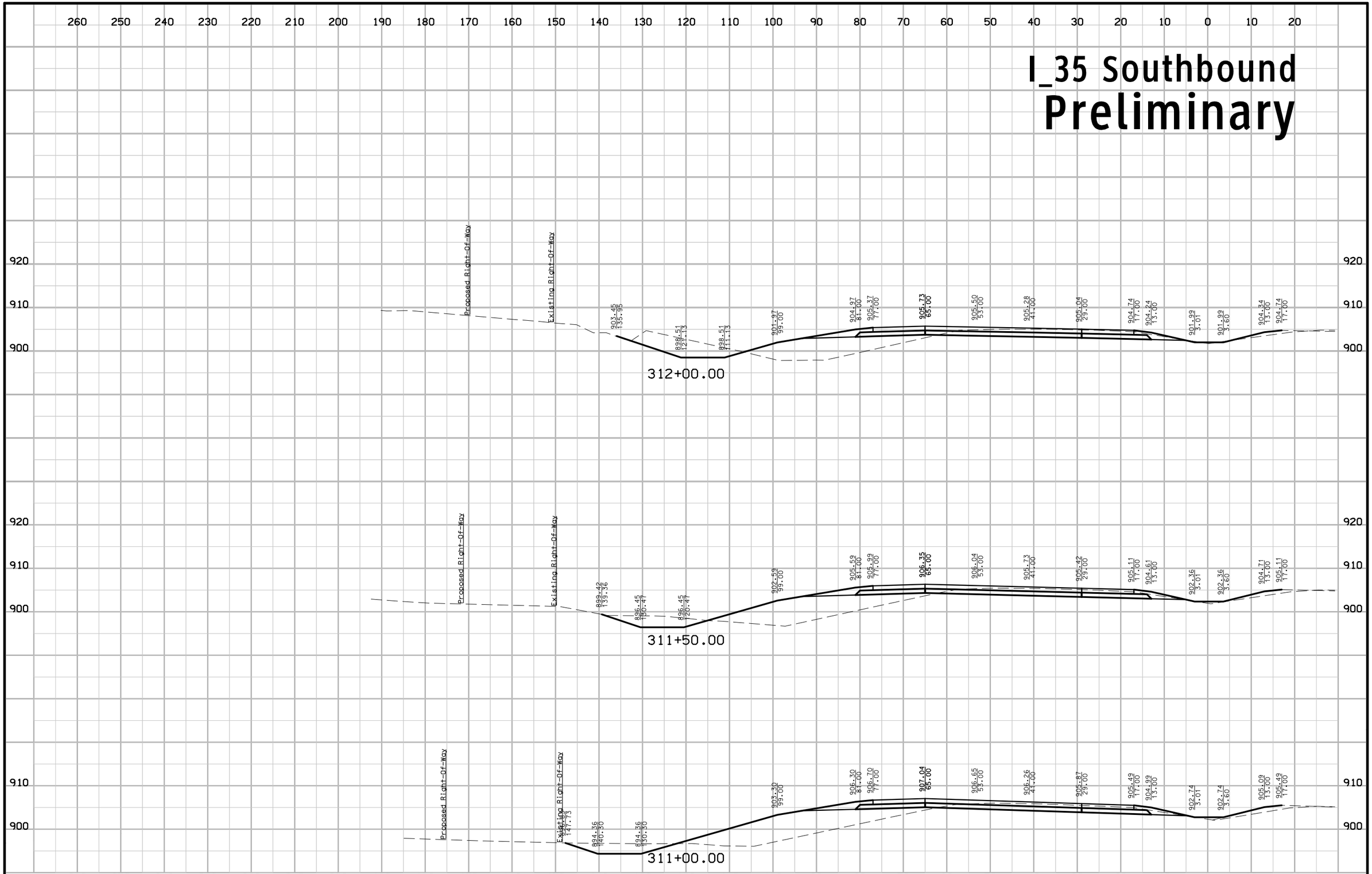
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.188	

12:26:50 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.189

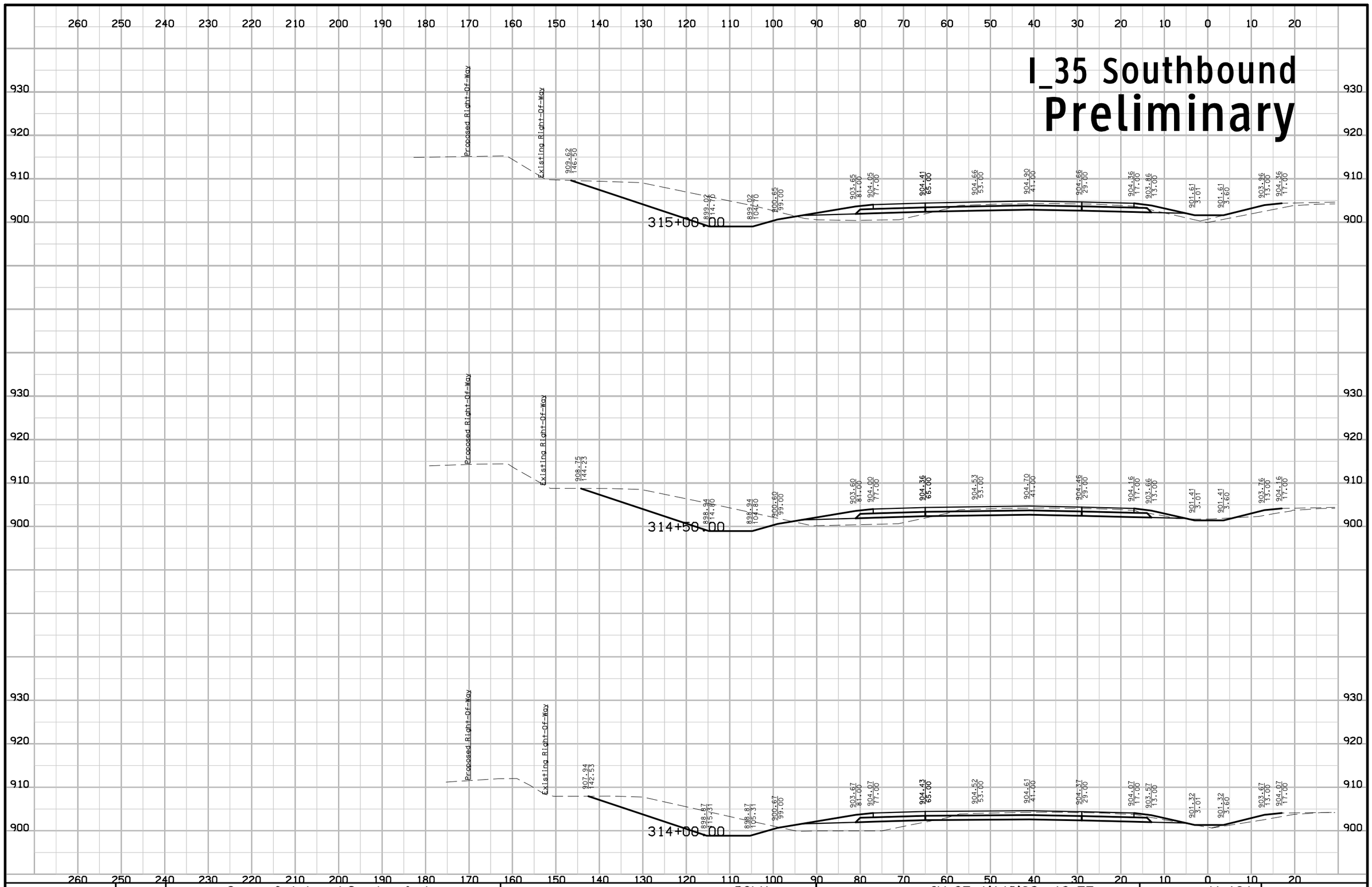
12:26:50 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.190

12:26:50 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

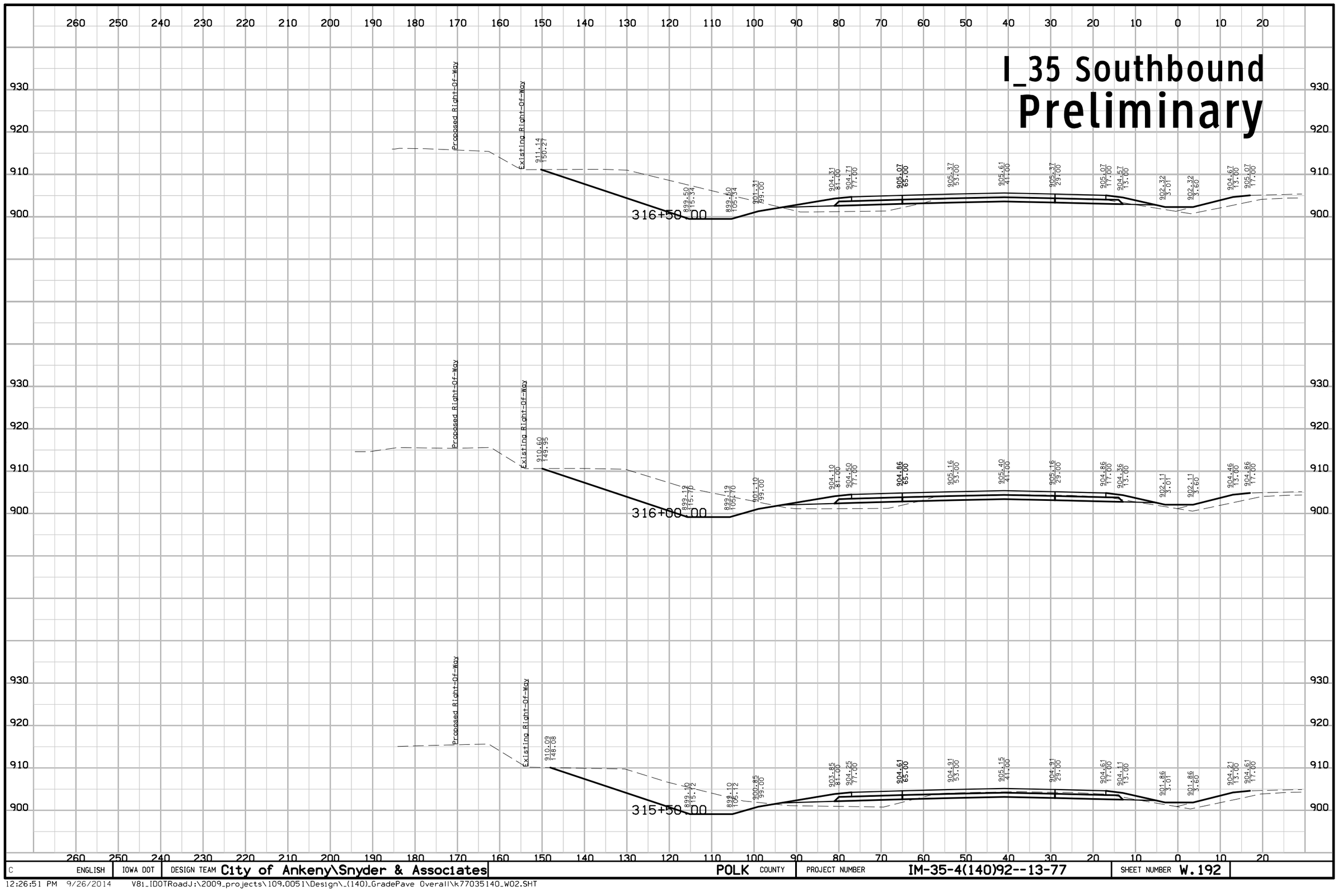
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.191

12:26:51 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

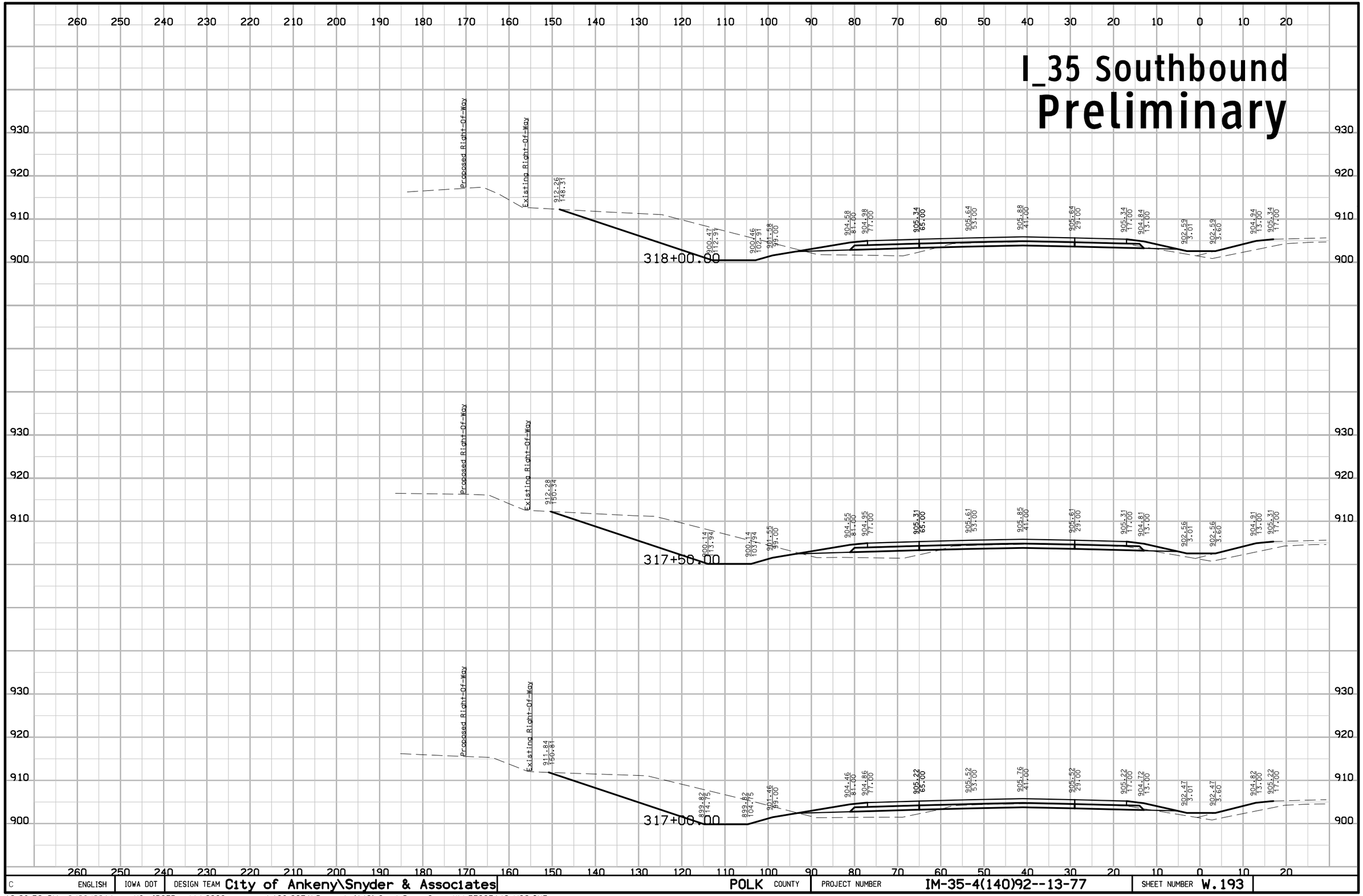
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.192

12:26:51 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.193

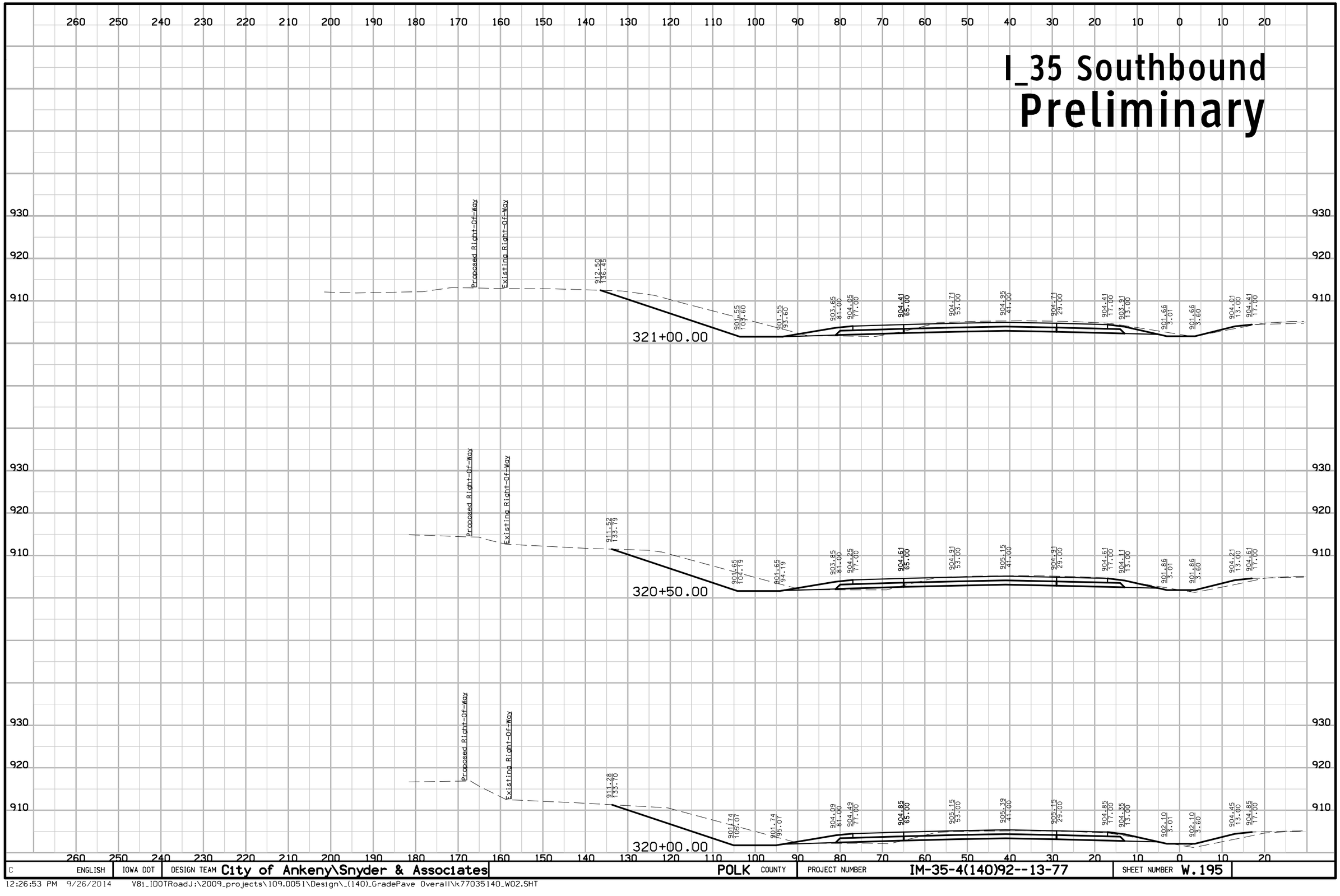
12:26:52 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.194	

12:26:52 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

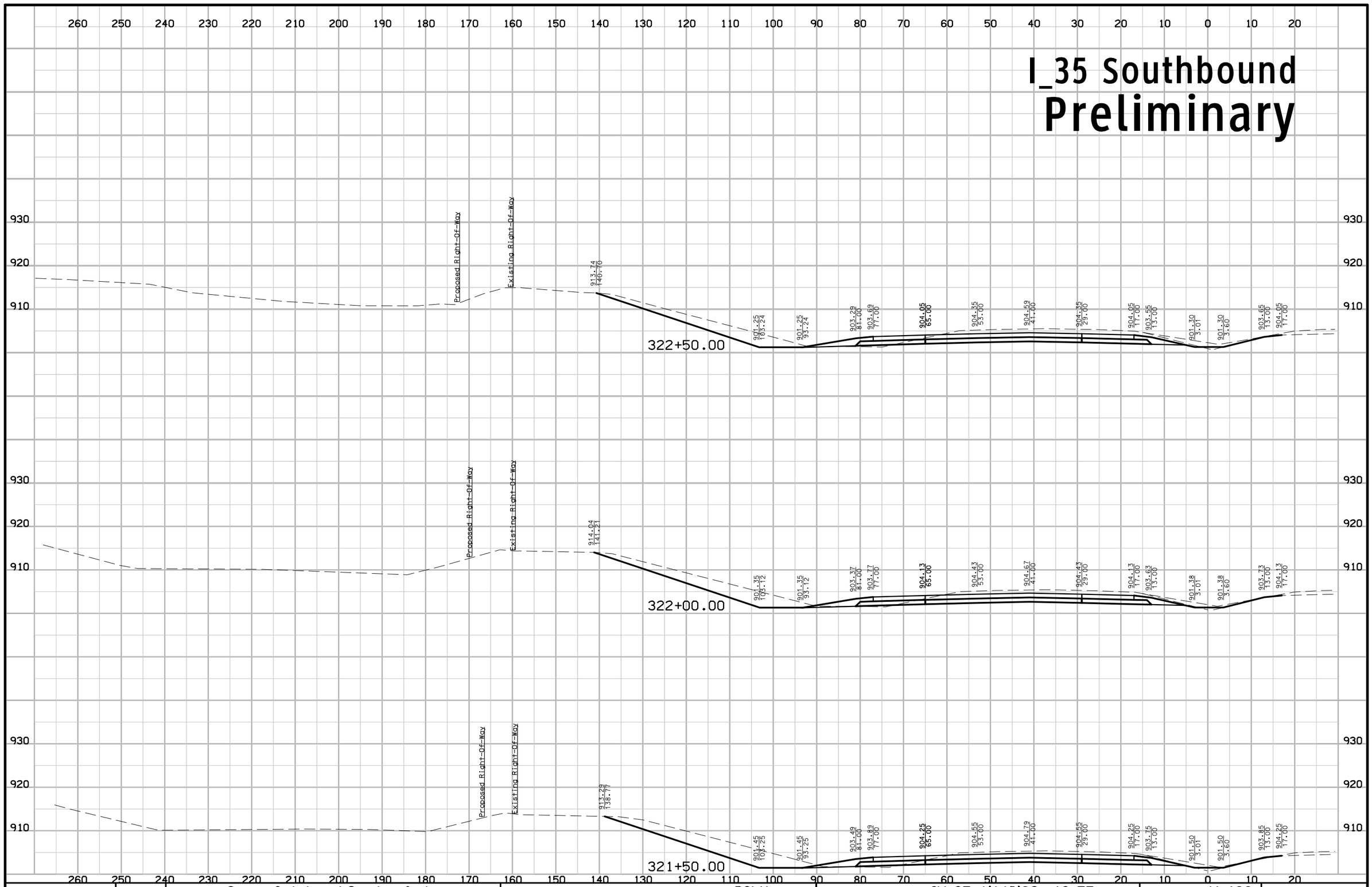
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.195

12:26:53 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.196

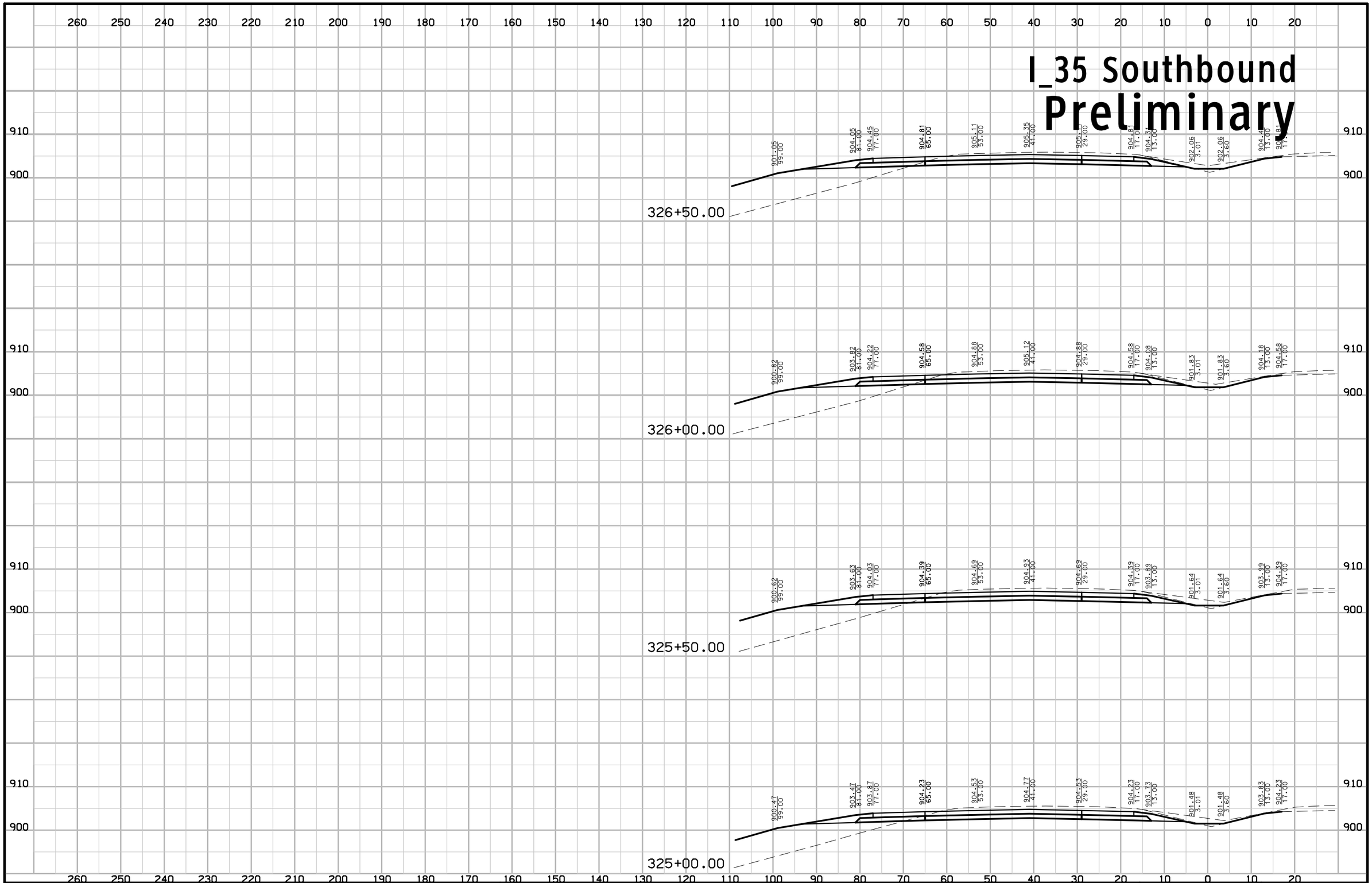
12:26:53 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.197

12:26:54 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

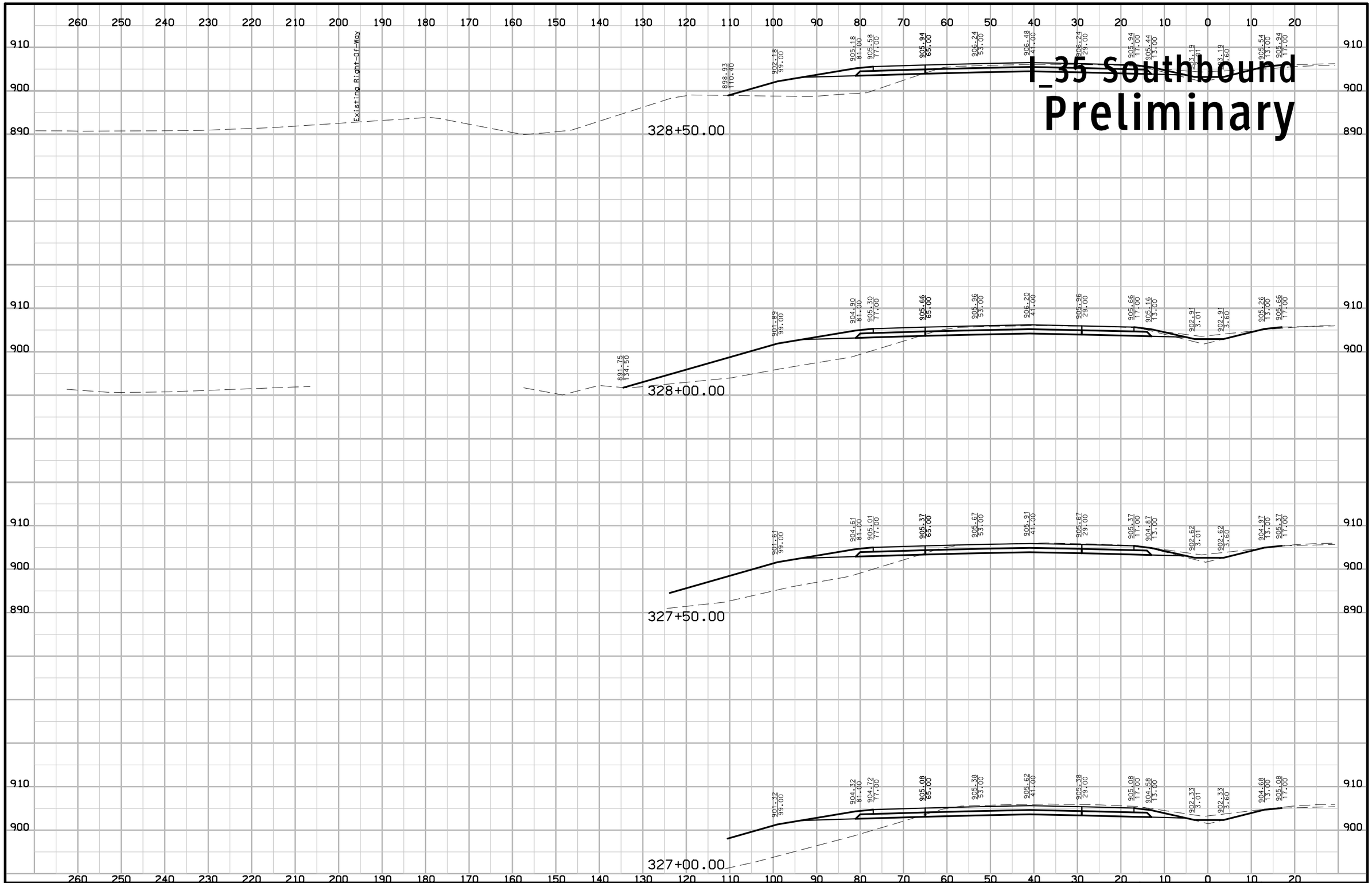
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.198

12:26:54 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.199

12:26:54 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

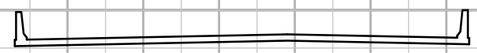
I_35 Southbound
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

910
900
890

Existing Right-Of-Way

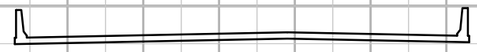
330+00.00



910
900
890

Existing Right-Of-Way

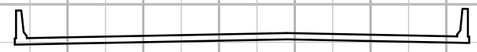
329+50.00



910
900
890

Existing Right-Of-Way

329+00.00

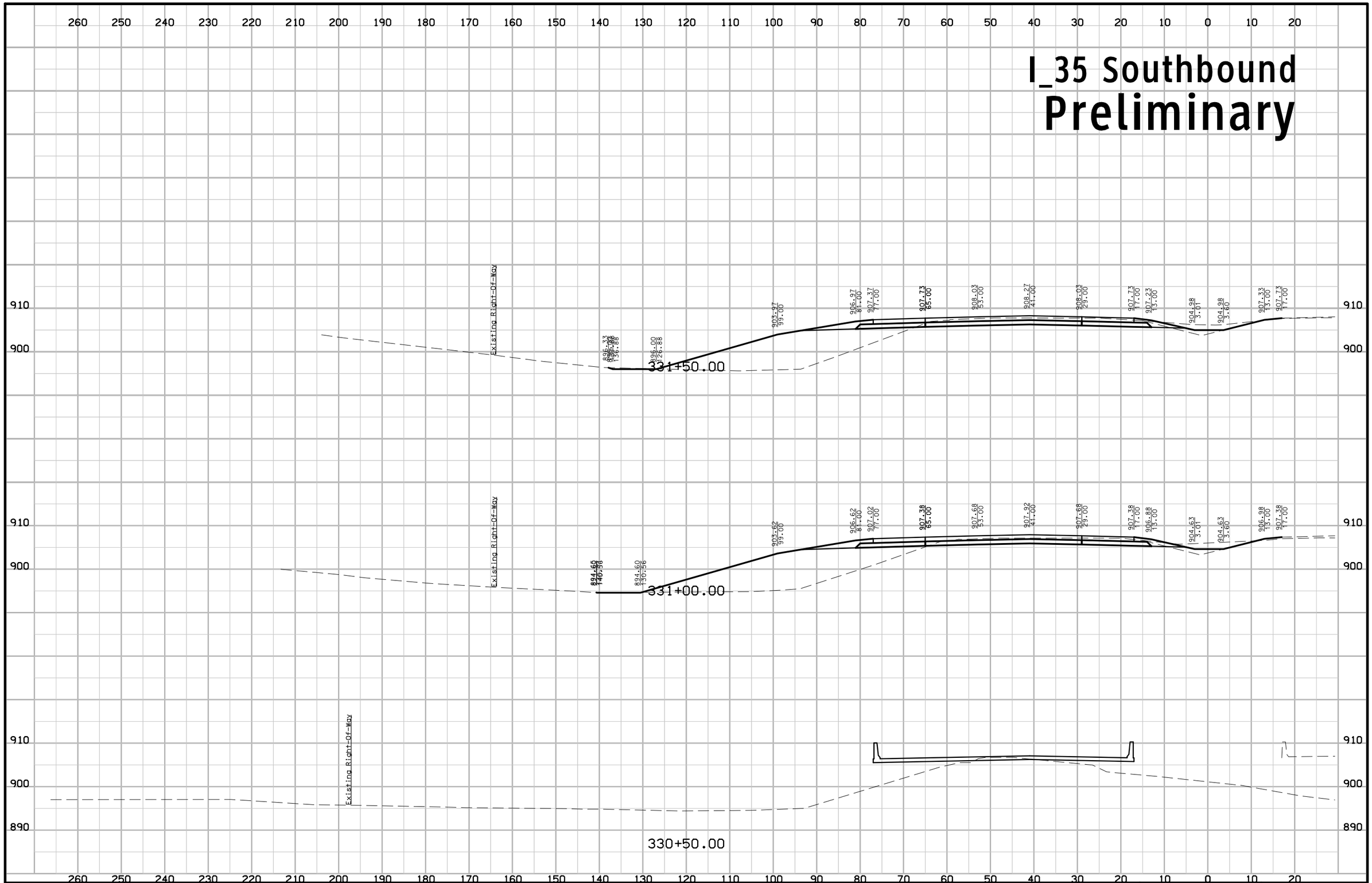


260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.200	

12:26:55 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

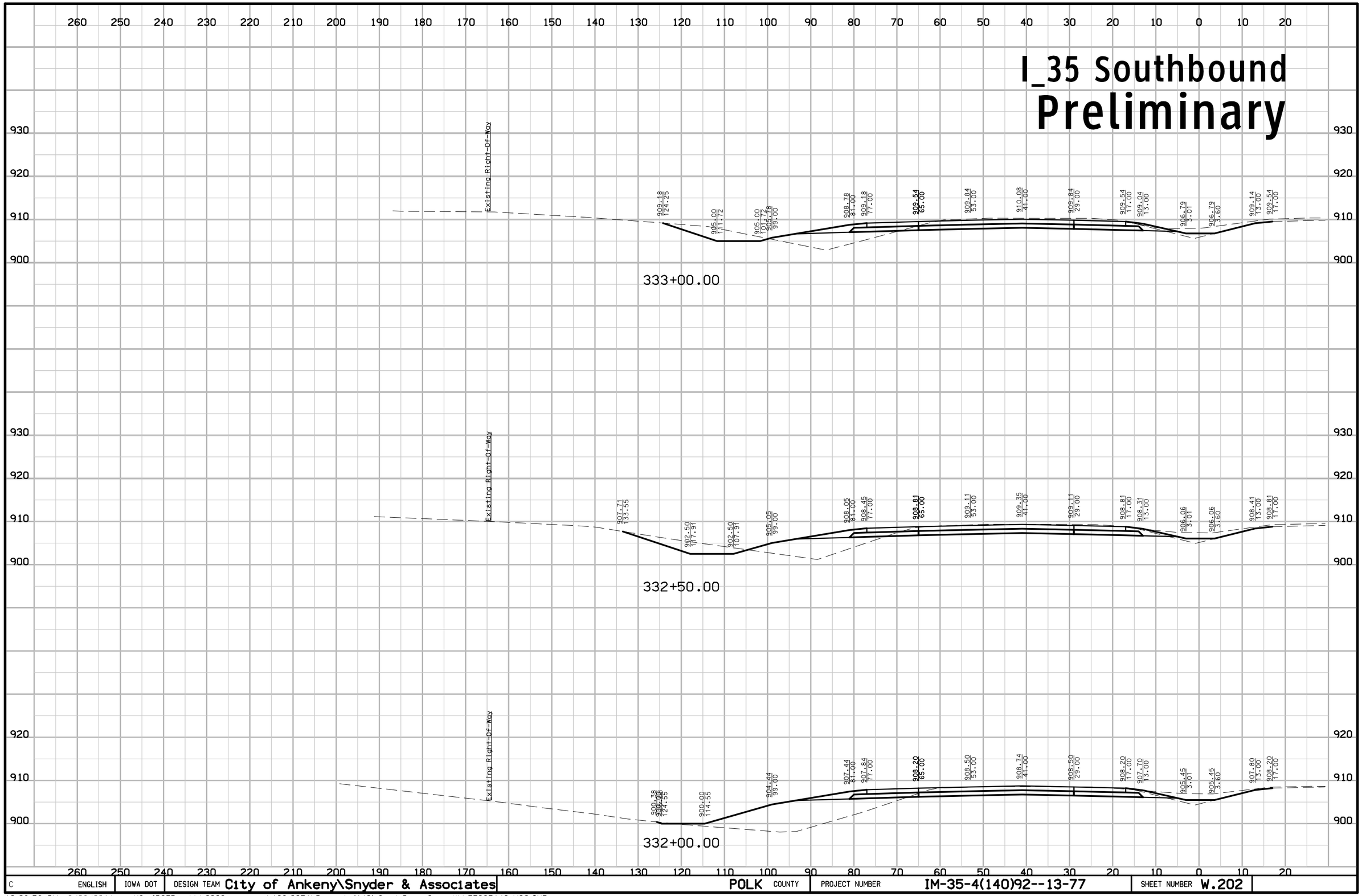
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.201

12:26:55 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

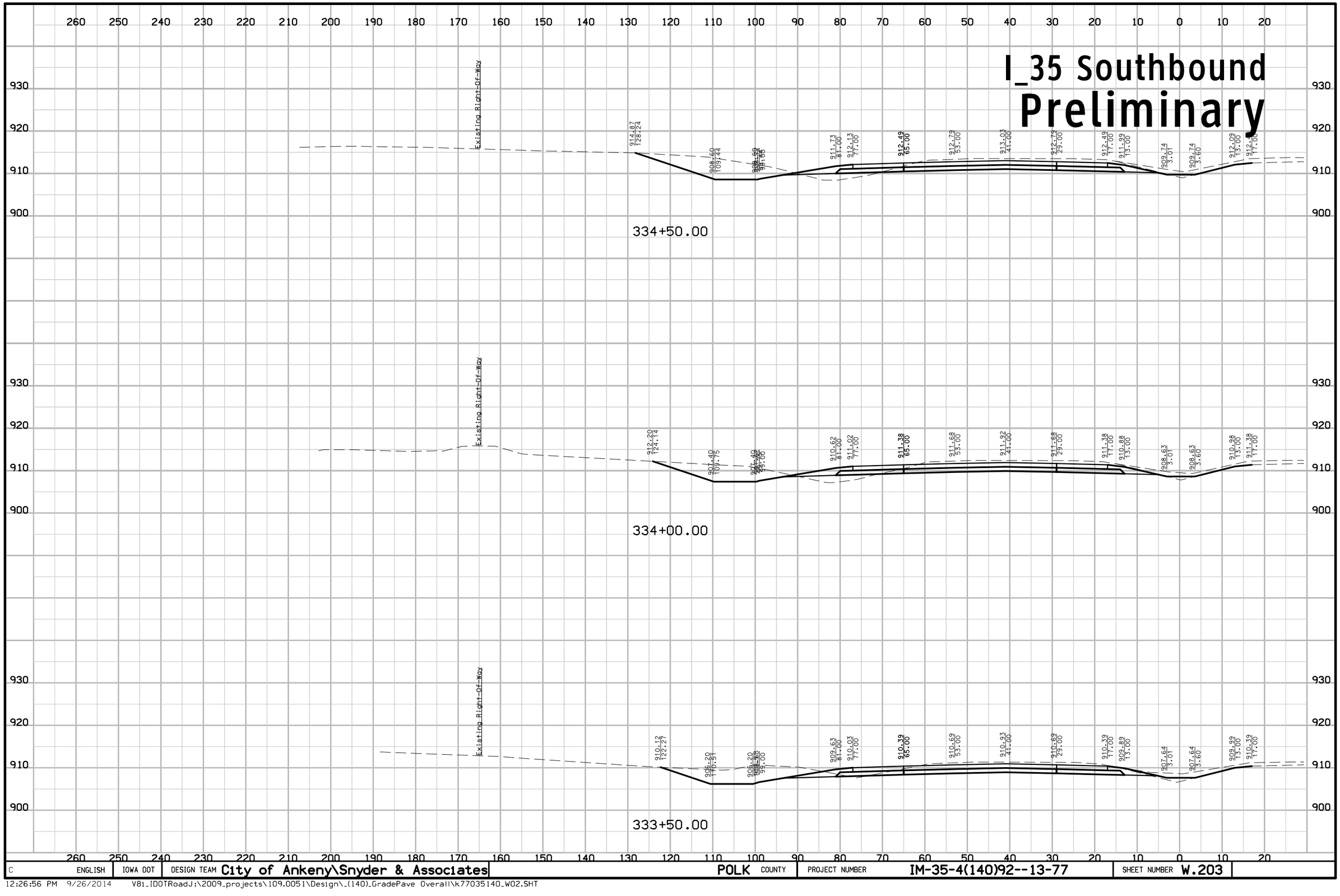
I_35 Southbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.202

12:26:56 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.203

12:26:56 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

940 930 920 910

Existing Right-Of-Way

921.42 137.27

912.40 110.22

912.40 99.00

915.75 81.00

916.15 77.00

916.51 65.00

916.81 53.00

917.05 41.00

916.81 29.00

916.51 17.00

916.01 13.00

913.76 3.01

913.76 3.60

916.11 13.00

916.51 17.00

336+00.00

Existing Right-Of-Way

919.23 134.83

911.00 110.13

911.00 99.00

914.32 81.00

914.72 77.00

915.08 65.00

915.38 53.00

915.62 41.00

915.38 29.00

915.08 17.00

914.58 13.00

912.33 3.01

912.33 3.60

914.68 13.00

915.08 17.00

335+50.00

Existing Right-Of-Way

917.00 131.17

909.80 109.56

909.80 99.00

912.96 81.00

913.36 77.00

913.72 65.00

914.02 53.00

914.26 41.00

914.02 29.00

913.72 17.00

913.22 13.00

910.97 3.01

910.97 13.60

913.32 13.00

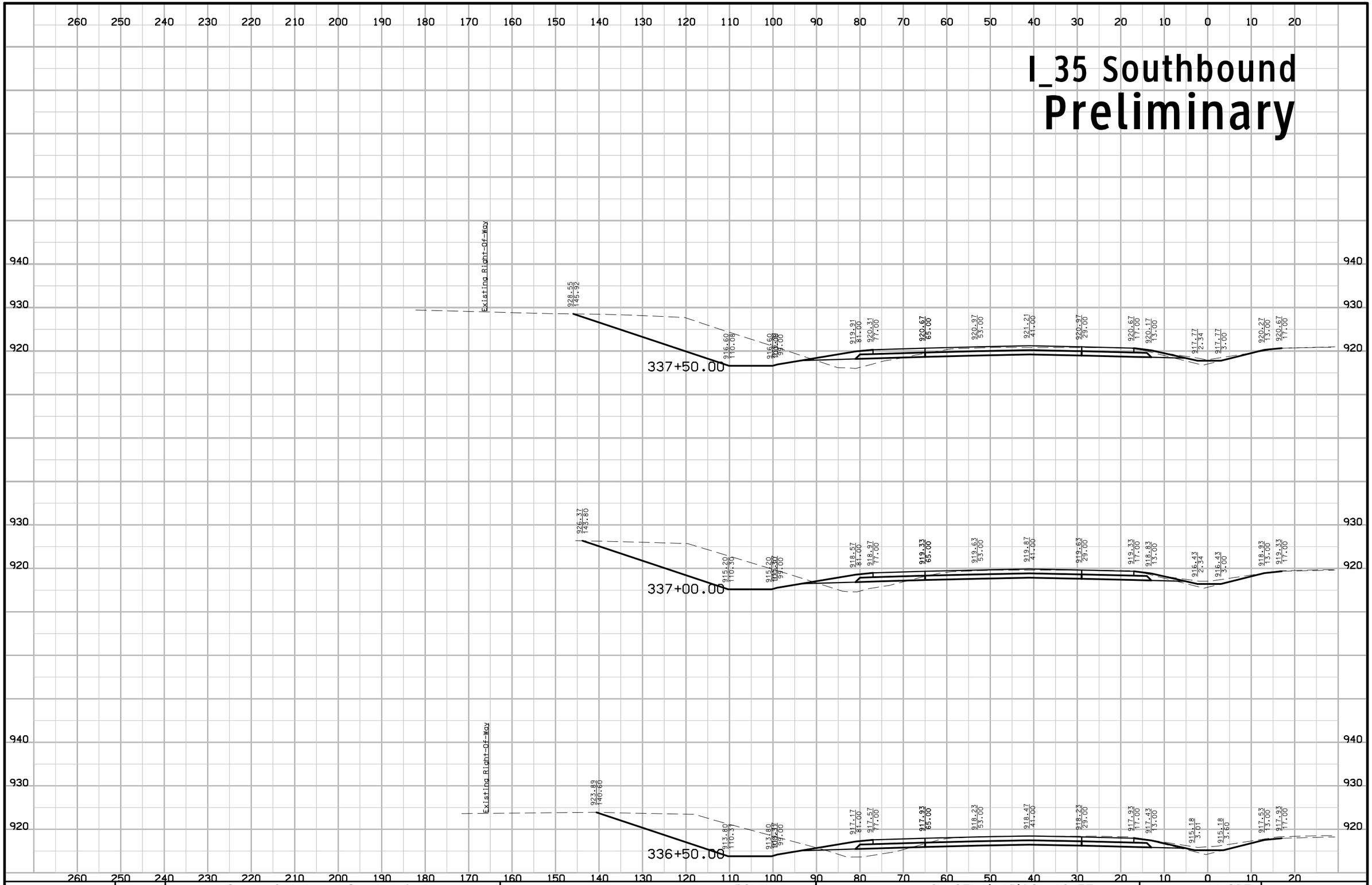
913.72 17.00

335+00.00

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.204

12:26:57 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

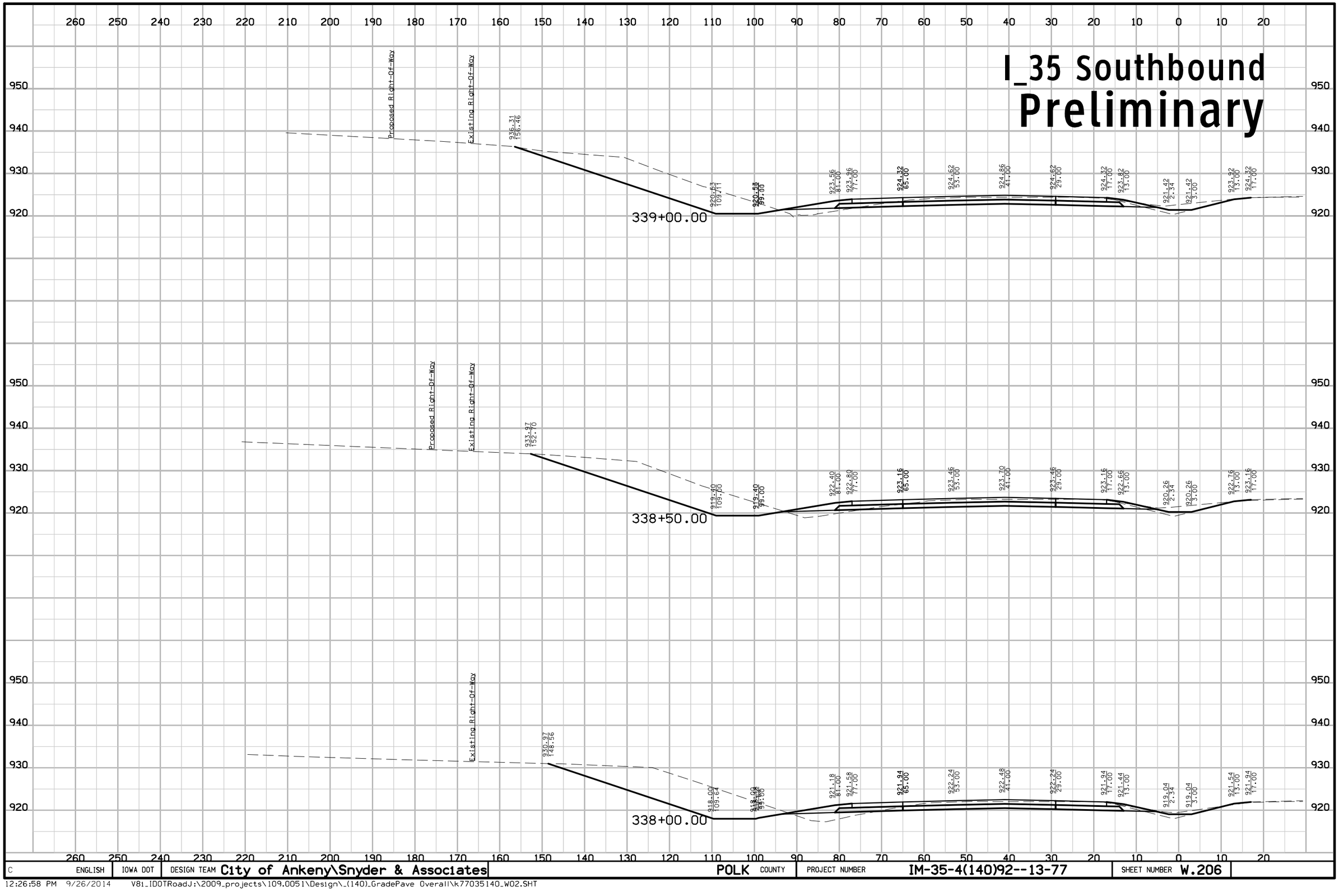
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.205

12:26:57 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

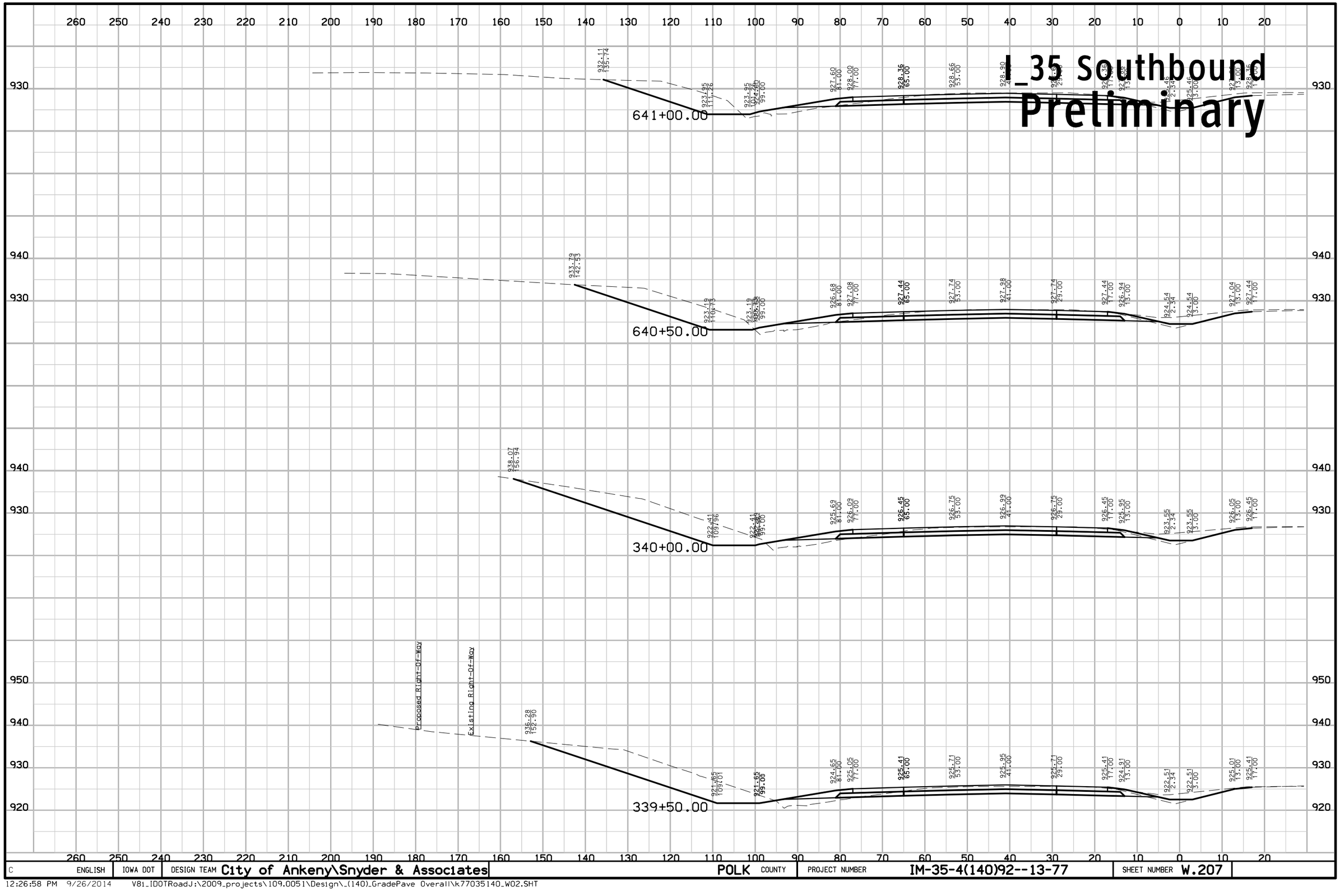


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.206

12:26:58 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound

Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK	COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	W.207	

12:26:58 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound

Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

930

643+50.00

927.31 111.05
927.31 100.92
928.26 97.57
931.26 79.57
931.66 75.57
932.02 63.57
932.32 51.57
932.56 33.57
932.32 27.57
15.57
929.12 13.00
13.00
927.84 3.00
930.02 17.00

930

643+00.00

926.99 106.33
926.99 100.92
927.85 98.29
930.65 80.29
931.05 76.29
931.41 64.29
931.71 52.29
931.95 40.29
931.71 28.29
931.41 16.29
930.91 12.29
928.51 11.63
928.51 3.00
931.01 13.00
931.41 17.00

930

642+50.00

926.50 111.97
926.24 100.92
926.78 98.99
929.98 80.99
930.38 76.99
930.74 64.99
931.04 52.99
931.28 40.99
931.04 28.99
930.74 16.99
930.24 12.99
927.84 12.33
927.84 3.00
930.34 13.00
930.74 17.00

930

642+00.00

931.48 129.69
925.48 111.69
925.48 100.92
926.04 99.00
929.24 81.00
929.64 77.00
930.00 65.00
930.30 53.00
930.54 41.00
930.30 29.00
930.00 17.00
929.50 13.00
927.10 12.34
927.10 3.00
929.60 13.00
930.00 17.00

930

641+50.00

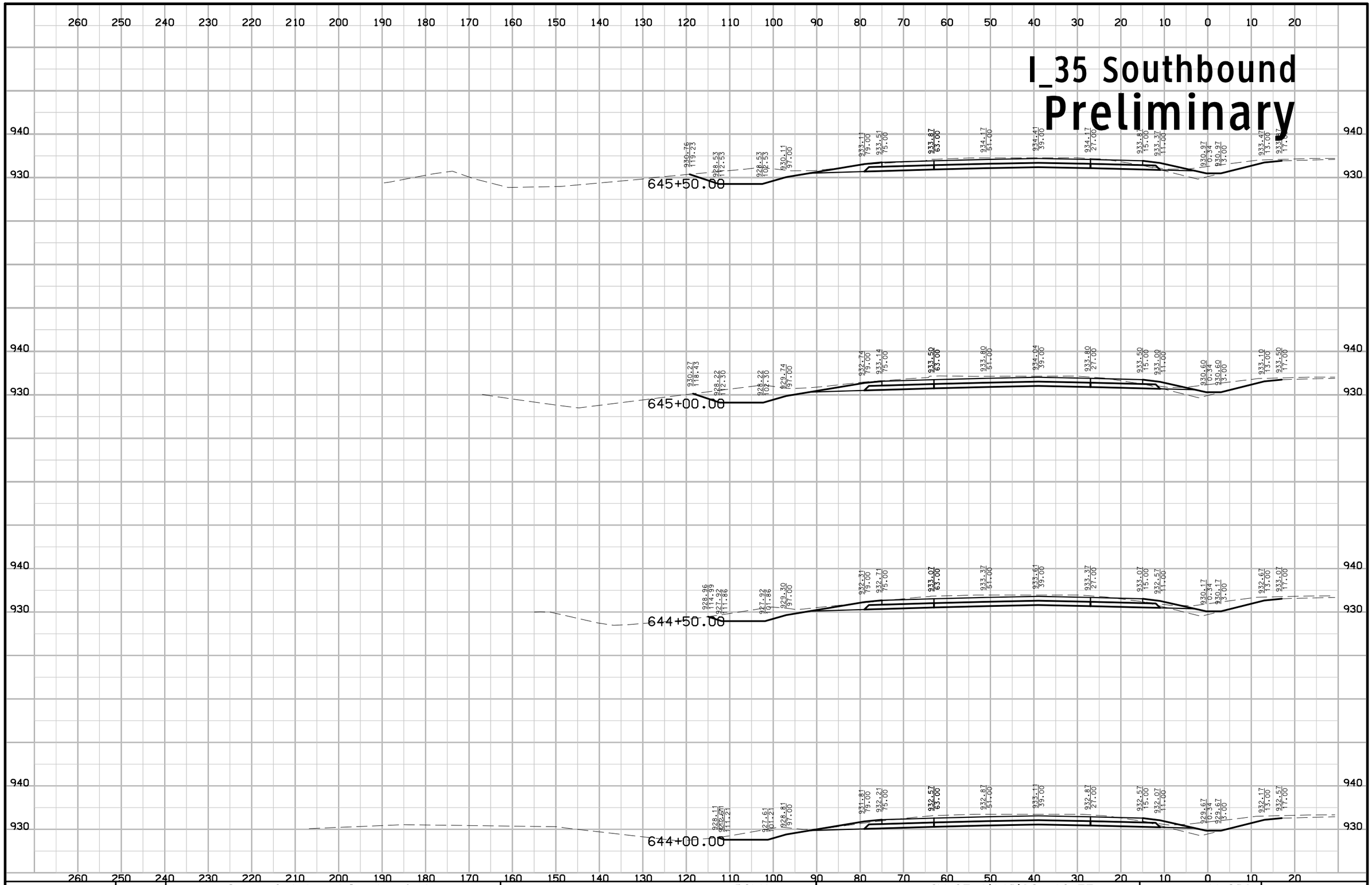
931.52 132.01
924.71 111.58
924.71 100.58
925.26 99.00
928.45 81.00
928.85 77.00
929.21 65.00
929.51 53.00
929.75 41.00
929.51 29.00
929.21 17.00
928.71 13.00
926.31 12.34
926.31 3.00
928.81 13.00
929.21 17.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.208

12:26:58 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

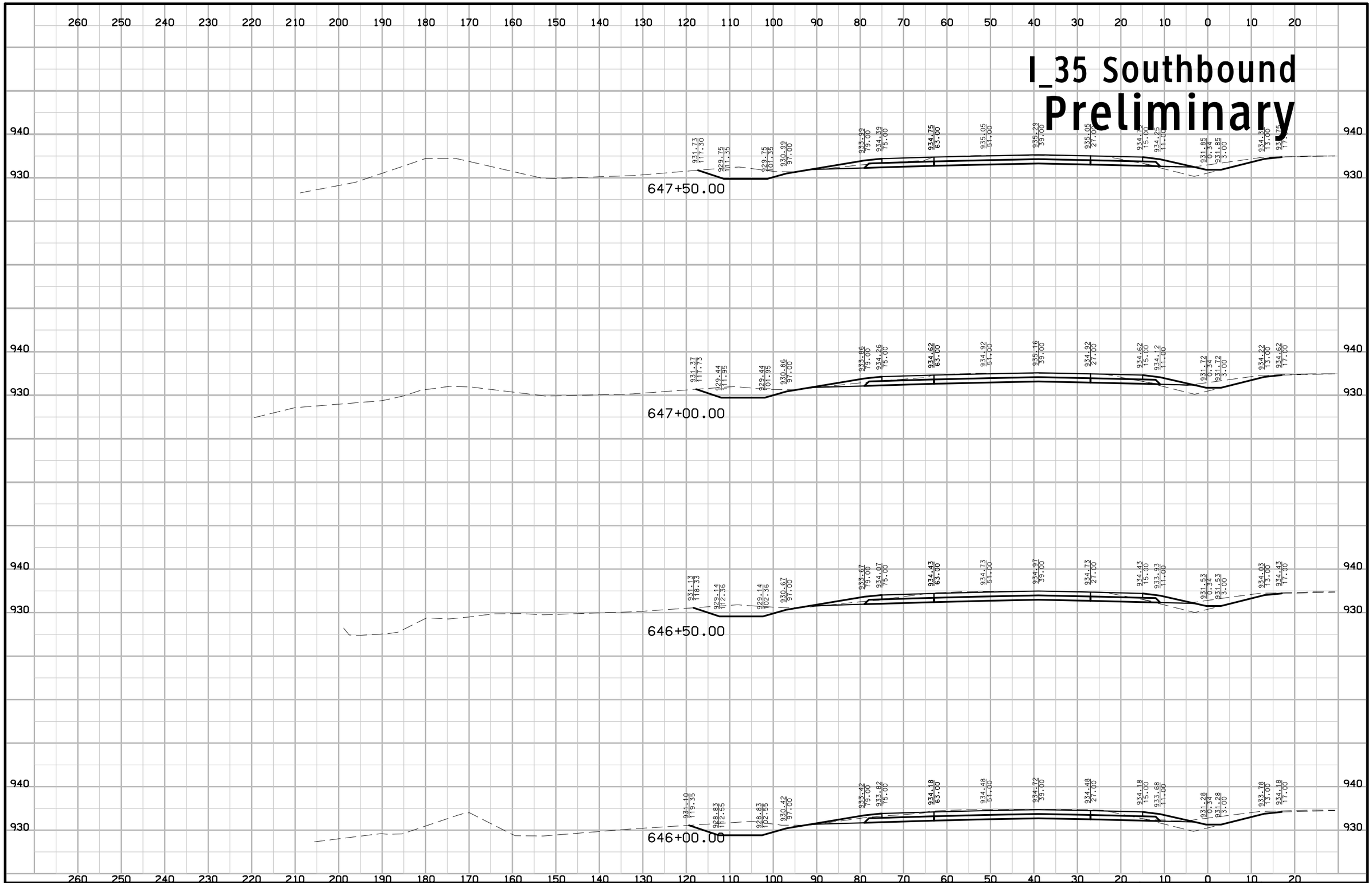
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.209

12:26:59 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

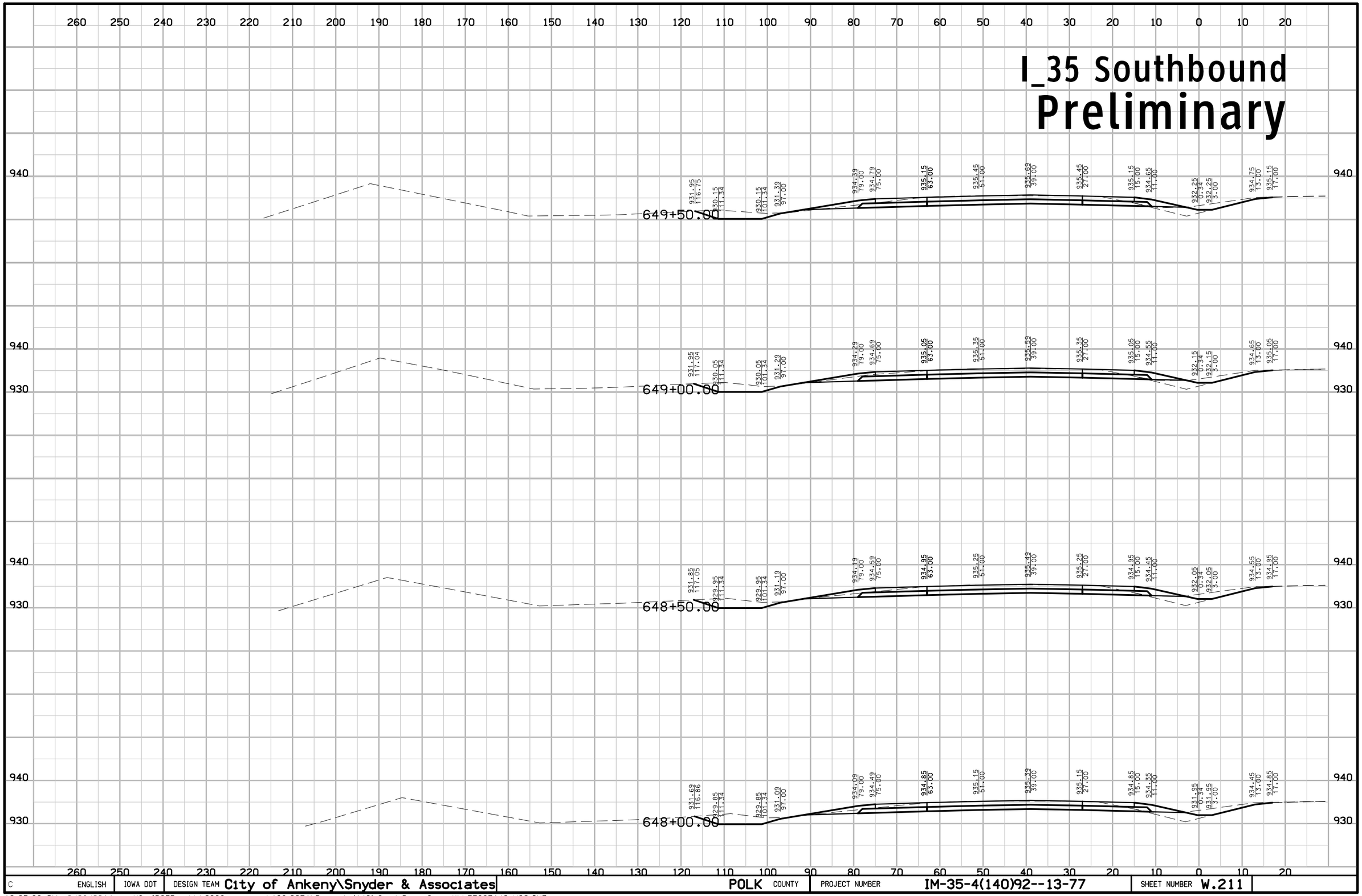
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.210

12:26:59 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.211

12:27:00 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

940

652+00.00
931.35 115.62
930.65 111.34
930.65 101.34
931.89 97.00
934.89 79.00
935.29 75.00
935.65 63.00
935.95 51.00
936.19 39.00
935.95 27.00
935.65 15.00
935.15 11.00
932.75 0.34
932.75 3.00
935.15 13.00
935.65 17.00

651+50.00
931.36 115.62
930.55 111.34
930.55 101.34
931.79 97.00
934.79 79.00
935.19 75.00
935.55 63.00
935.85 51.00
936.09 39.00
935.85 27.00
935.55 15.00
935.15 11.00
932.65 0.34
932.65 3.00
935.15 13.00
935.55 17.00

651+00.00
931.88 115.62
930.45 111.34
930.45 101.34
931.69 97.00
934.69 79.00
935.09 75.00
935.45 63.00
935.75 51.00
935.99 39.00
935.75 27.00
935.45 15.00
934.95 11.00
932.55 0.34
932.55 3.00
935.05 13.00
935.45 17.00

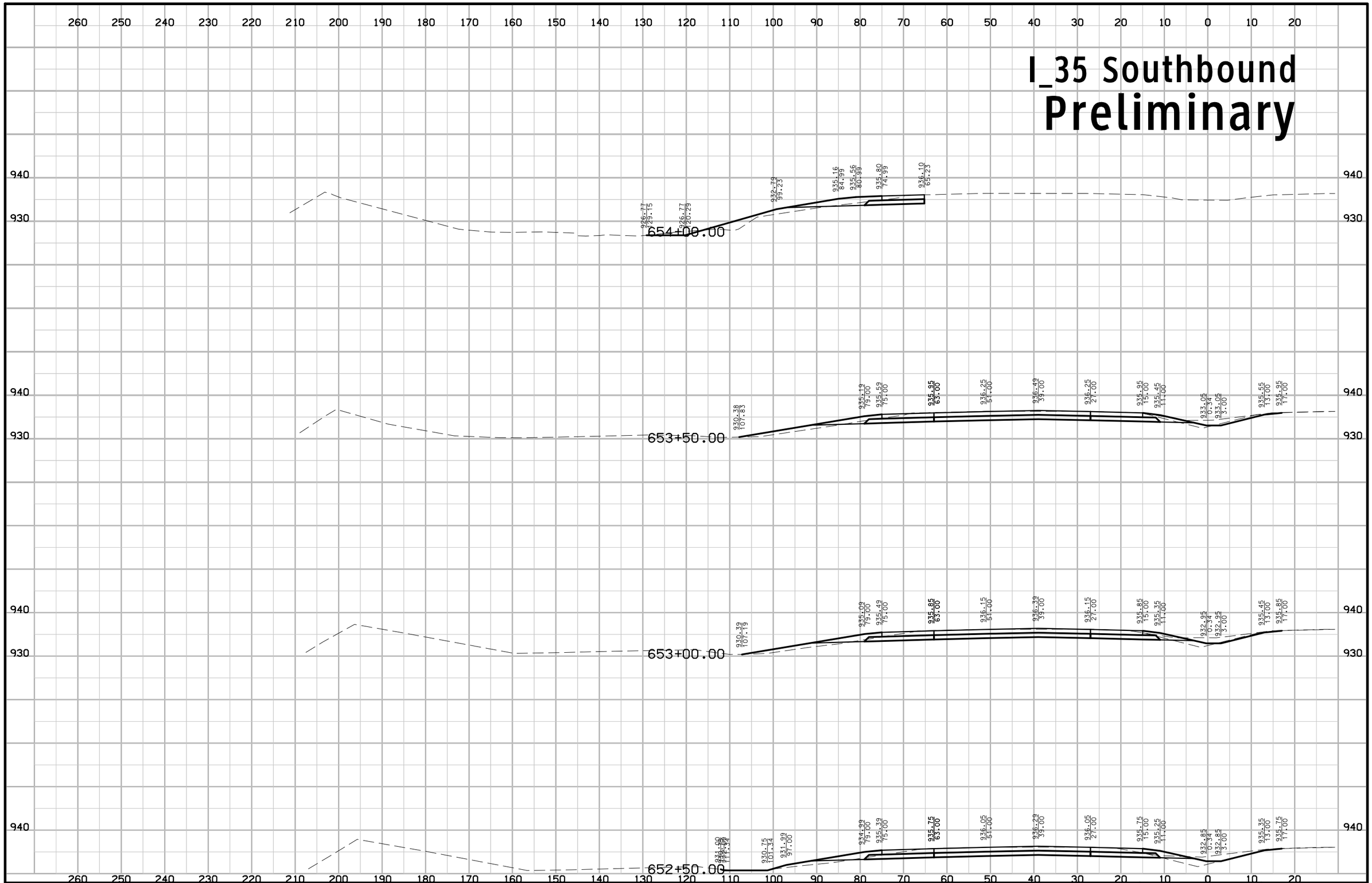
650+50.00
932.07 116.51
930.35 111.34
930.35 101.34
931.59 97.00
934.59 79.00
934.99 75.00
935.35 63.00
935.65 51.00
935.89 39.00
935.65 27.00
935.35 15.00
934.85 11.00
932.45 0.34
932.45 3.00
934.95 13.00
935.35 17.00

650+00.00
932.08 116.83
930.25 111.34
930.25 101.34
931.49 97.00
934.49 79.00
934.89 75.00
935.25 63.00
935.55 51.00
935.79 39.00
935.55 27.00
935.25 15.00
934.75 11.00
932.35 0.34
932.35 3.00
934.85 13.00
935.25 17.00

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.212

12:27:00 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

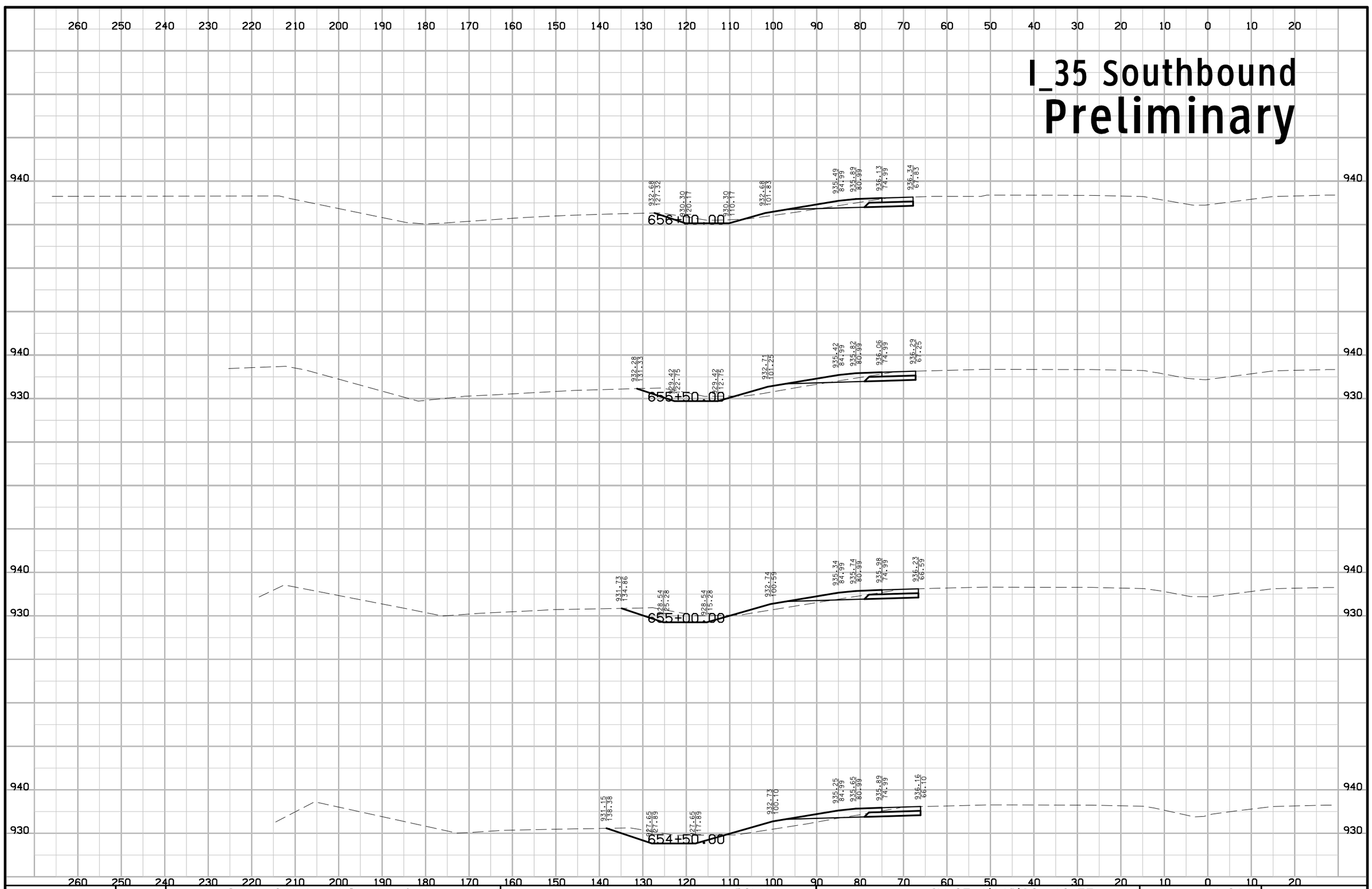
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.213

12:27:01 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

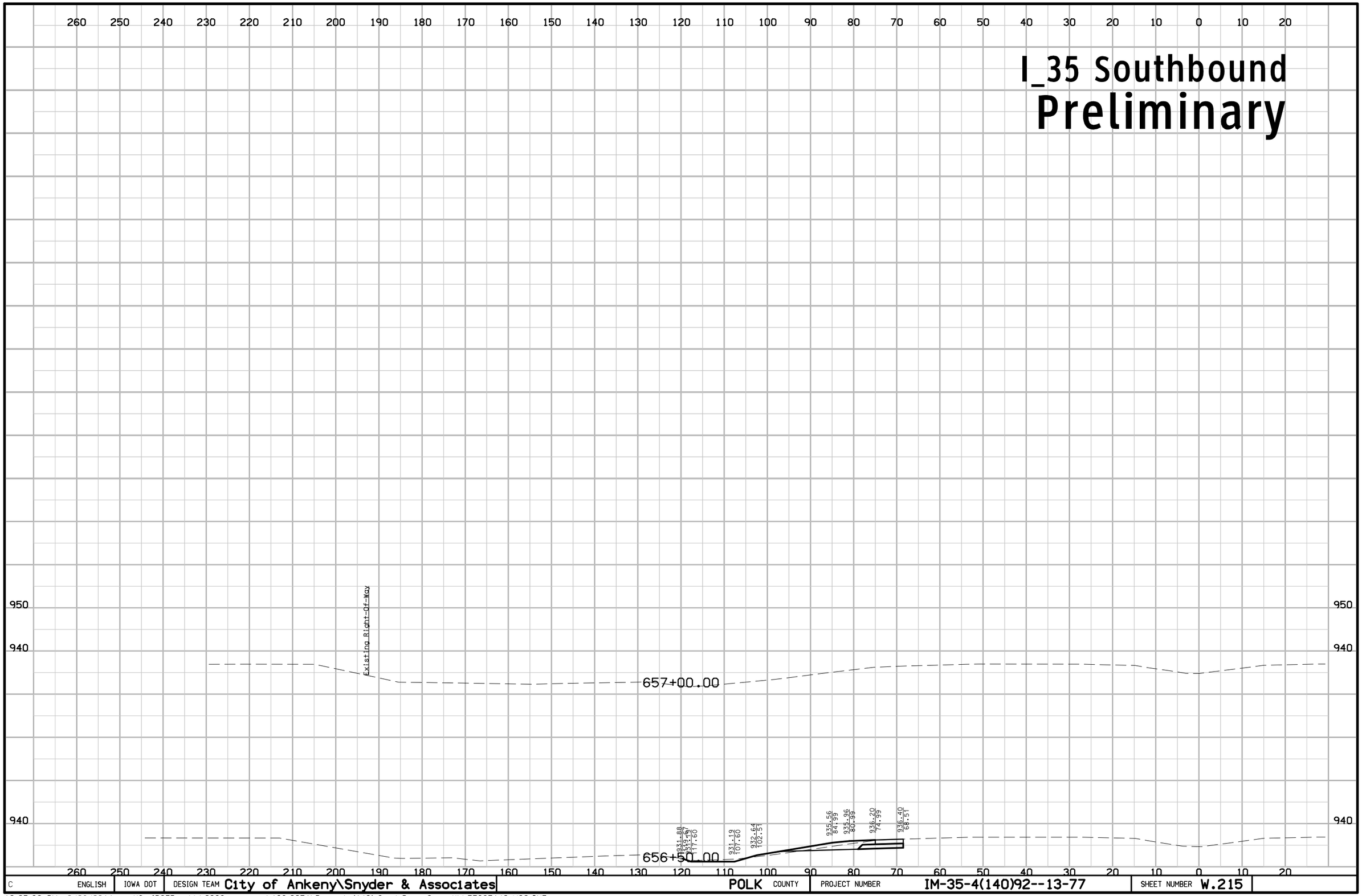
I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.214

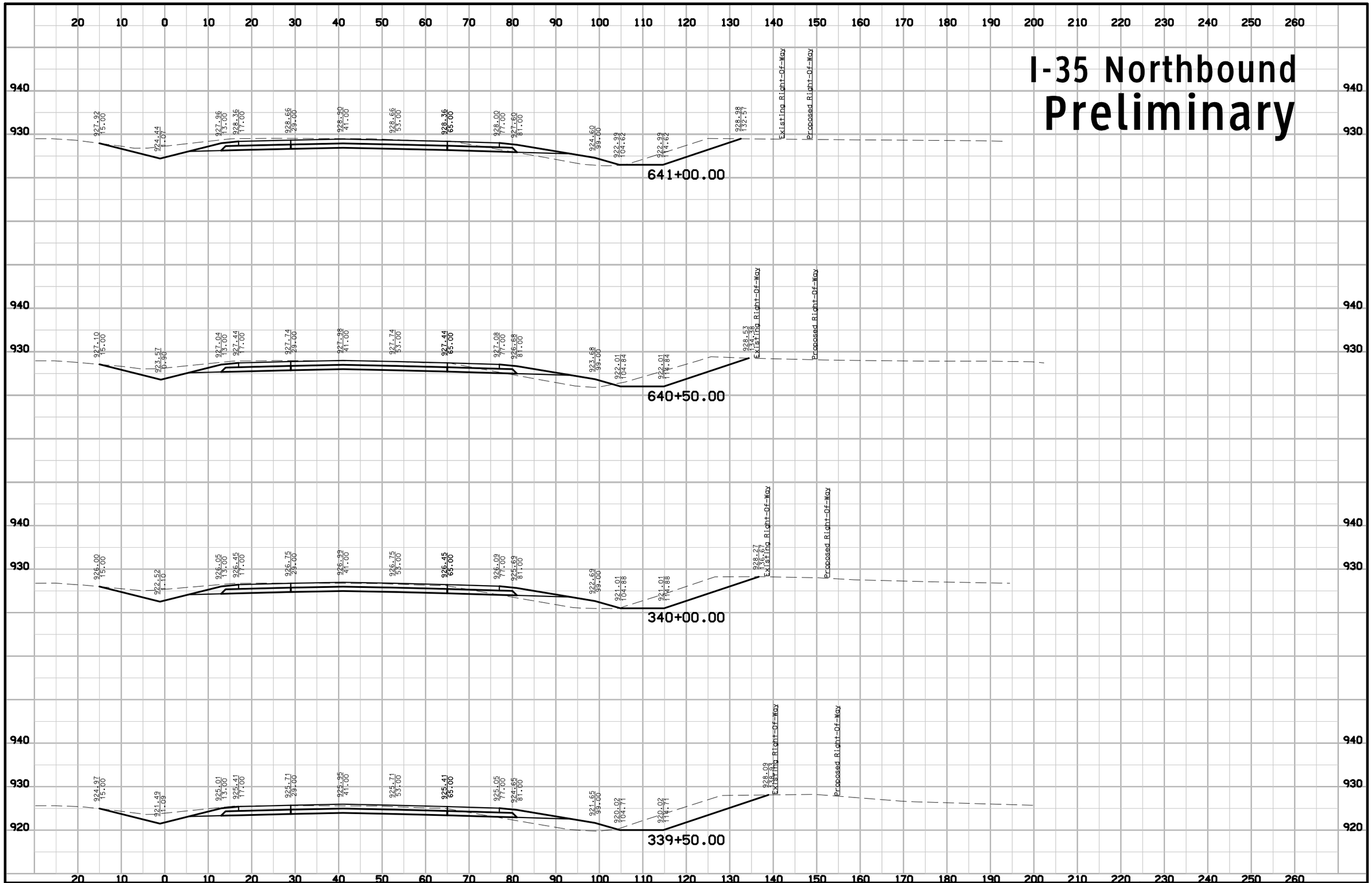
12:27:01 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.215

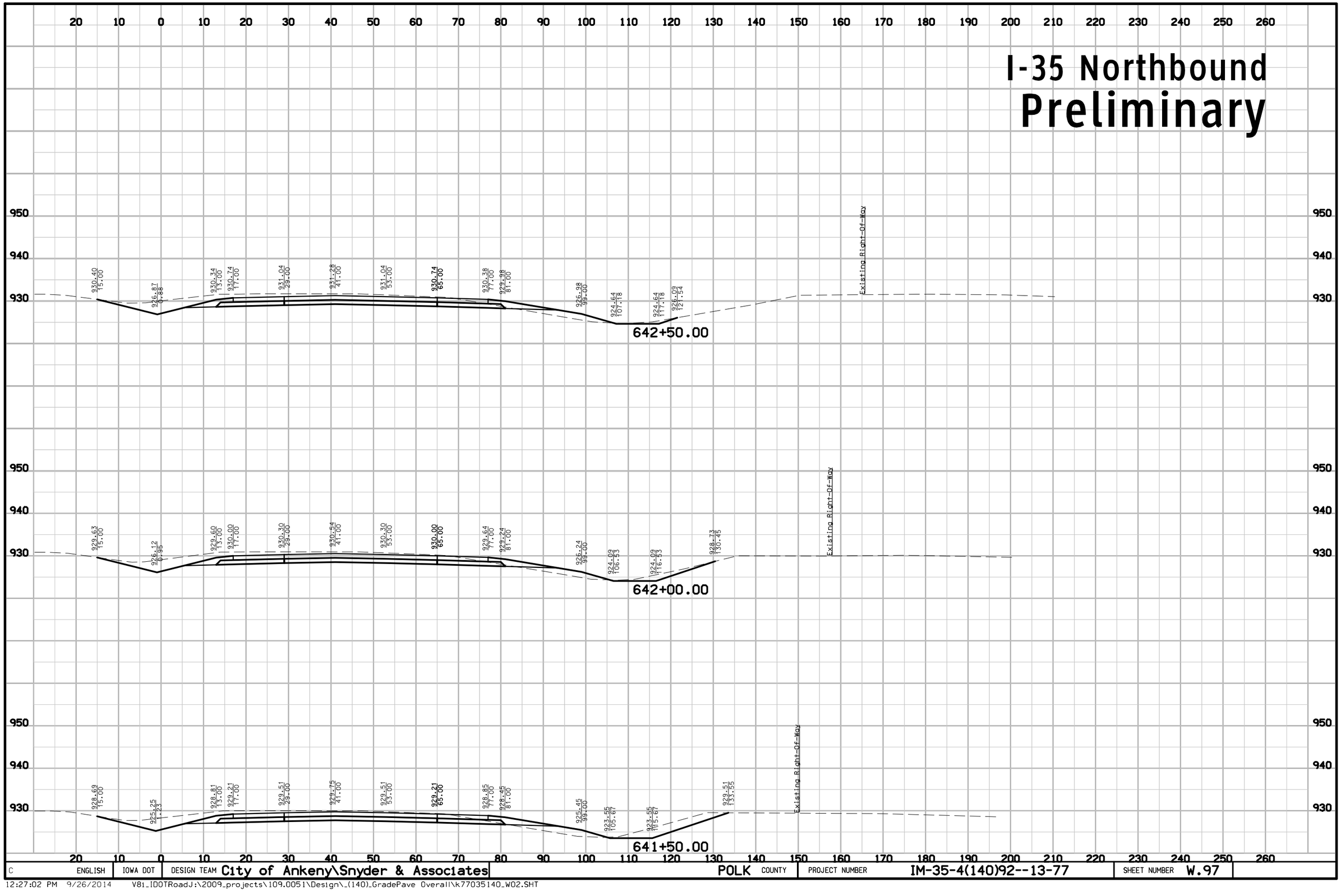
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.96

12:27:02 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.97

12:27:02 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I-35 Northbound
Preliminary

644+50.00

644+00.00

643+50.00

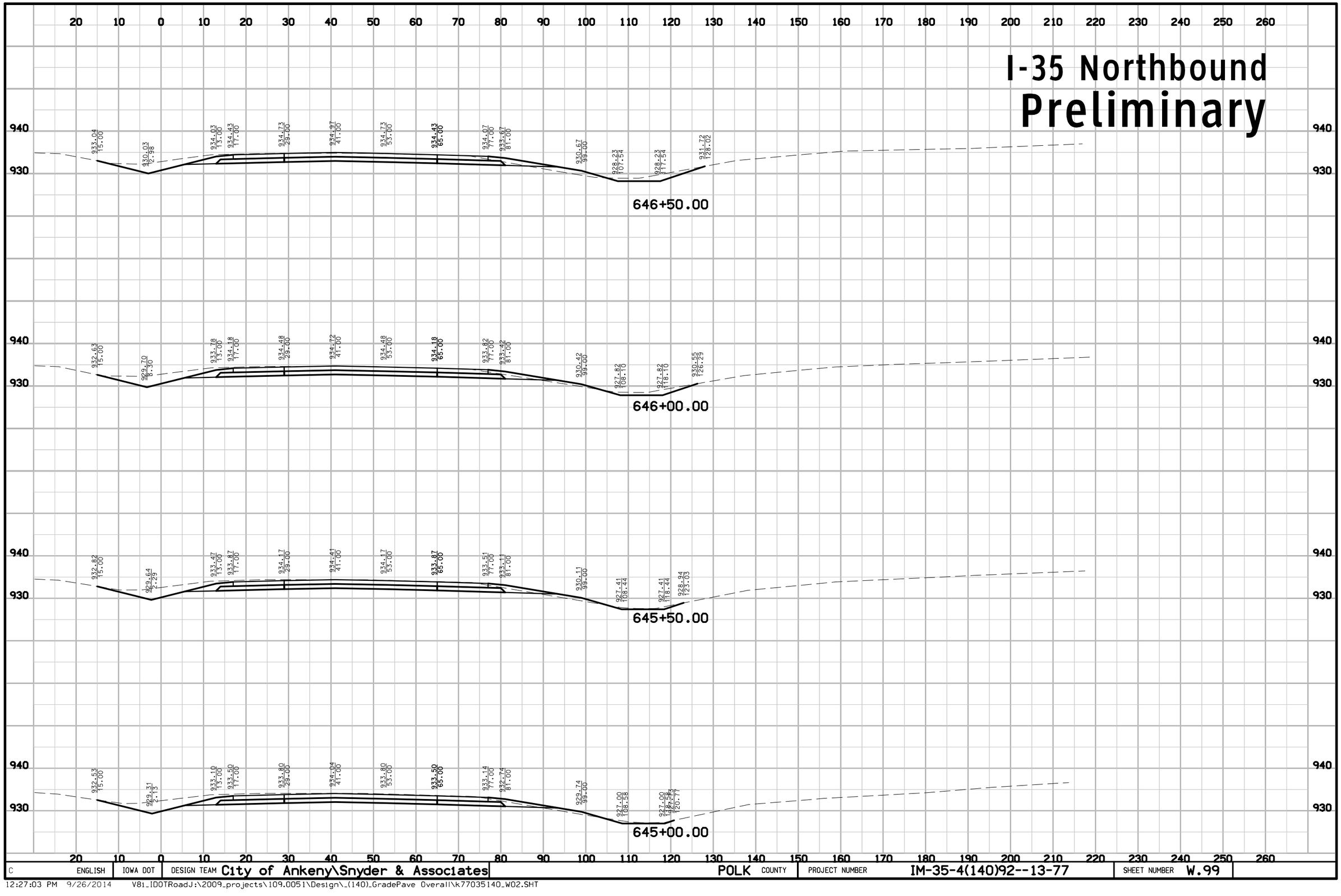
643+00.00

Existing Right-Of-Way

C	ENGLISH	IOWA DOT	DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK	COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.98

12:27:03 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

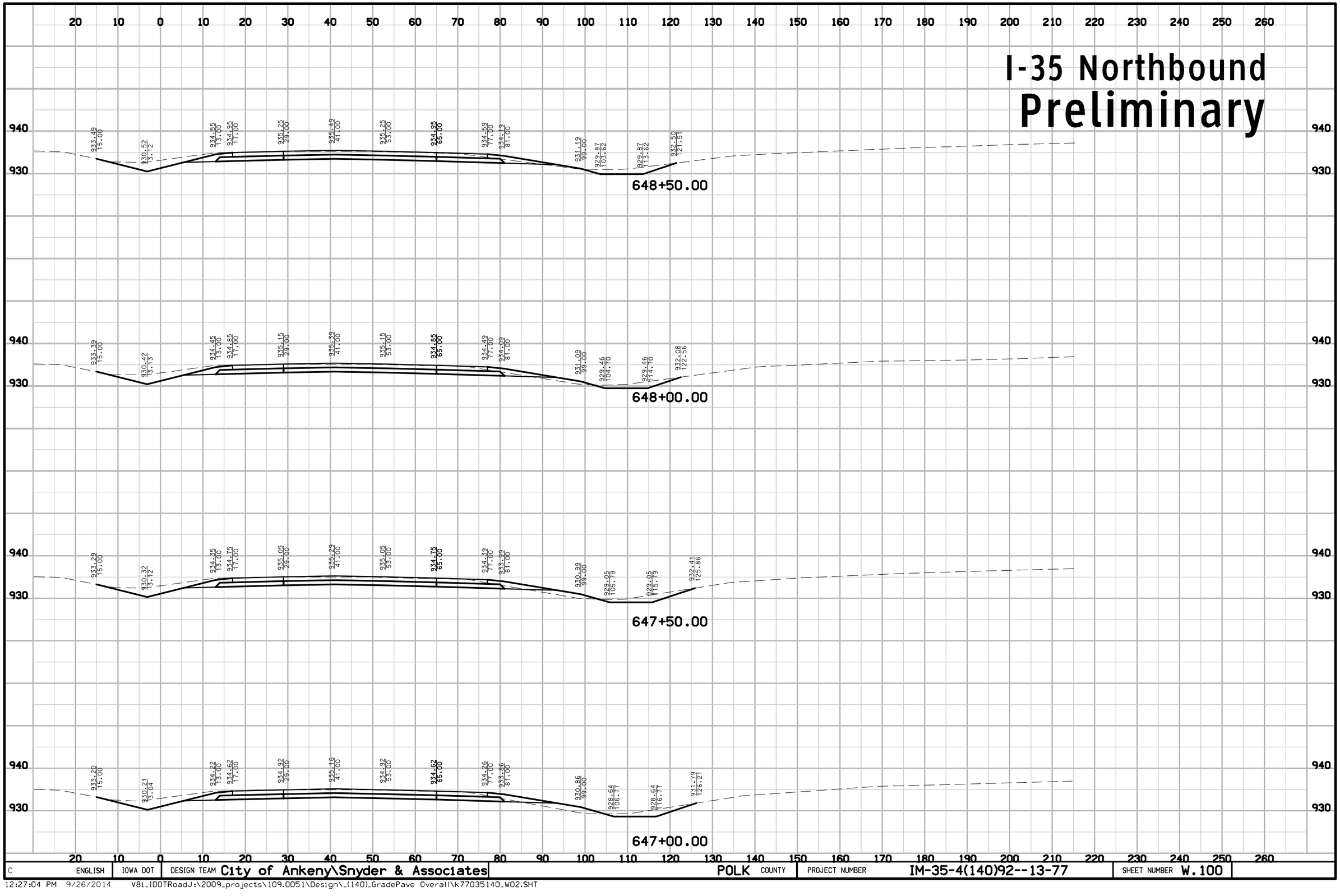
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.99

12:27:03 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

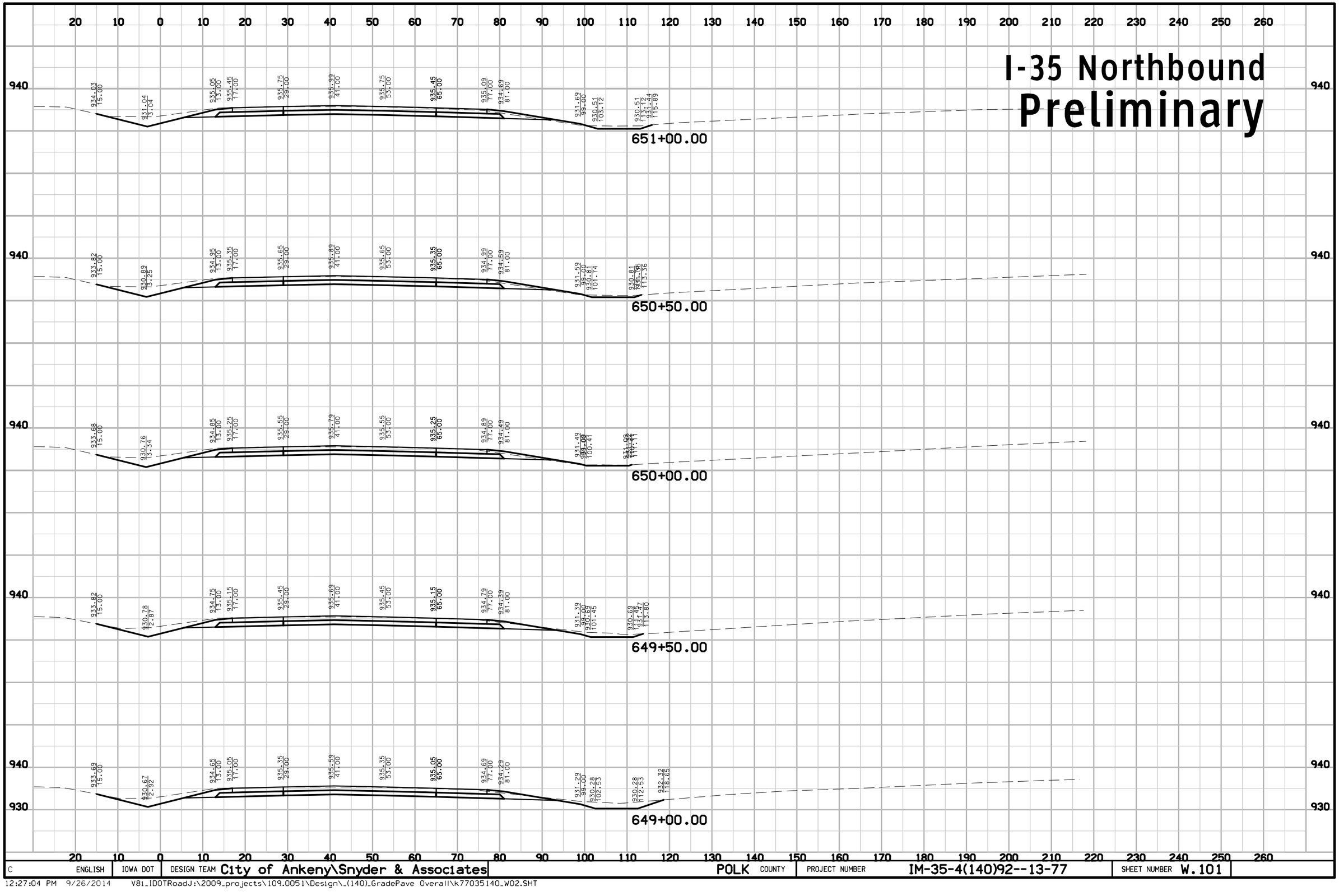
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.100

12:27:04 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

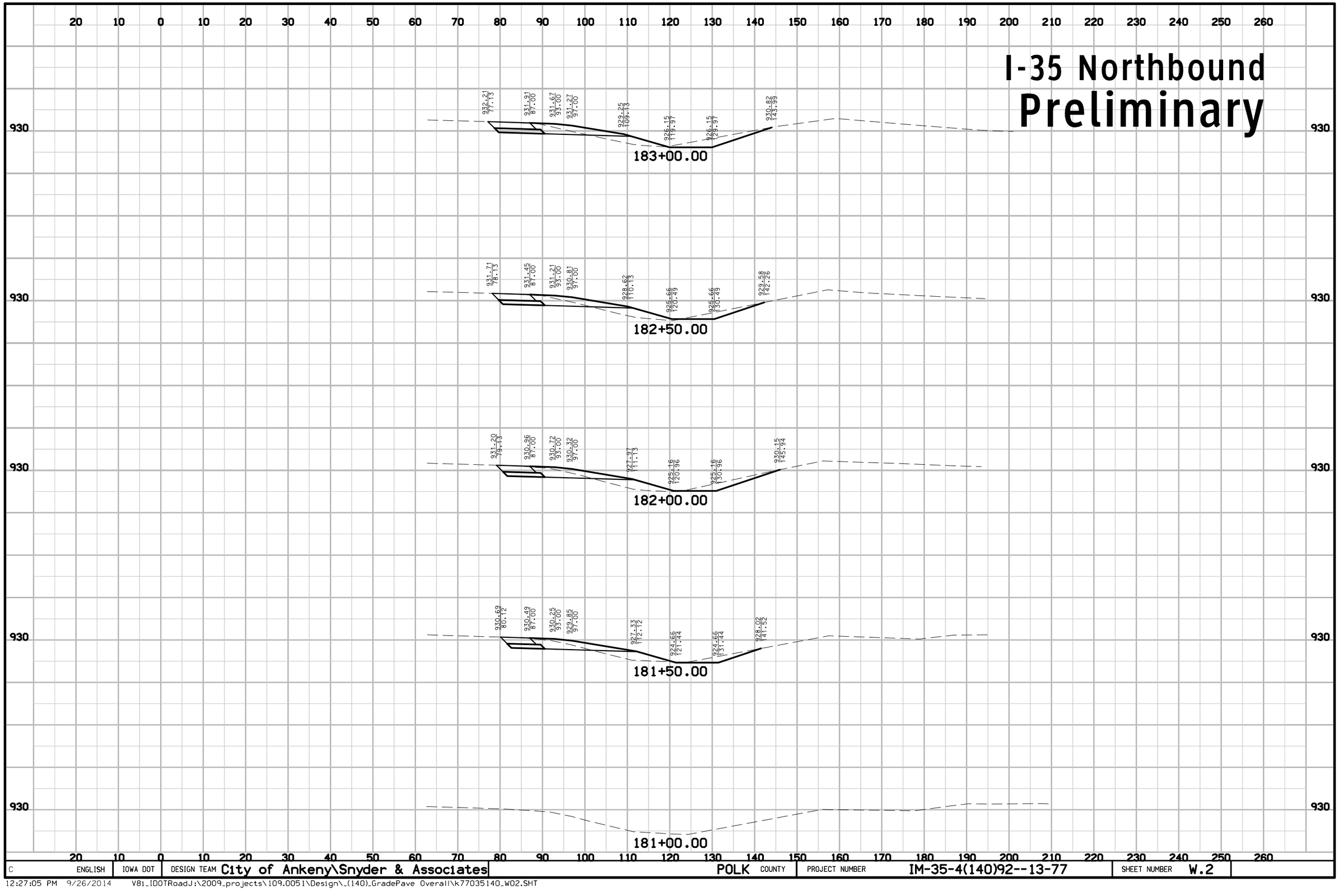
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.101

12:27:04 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

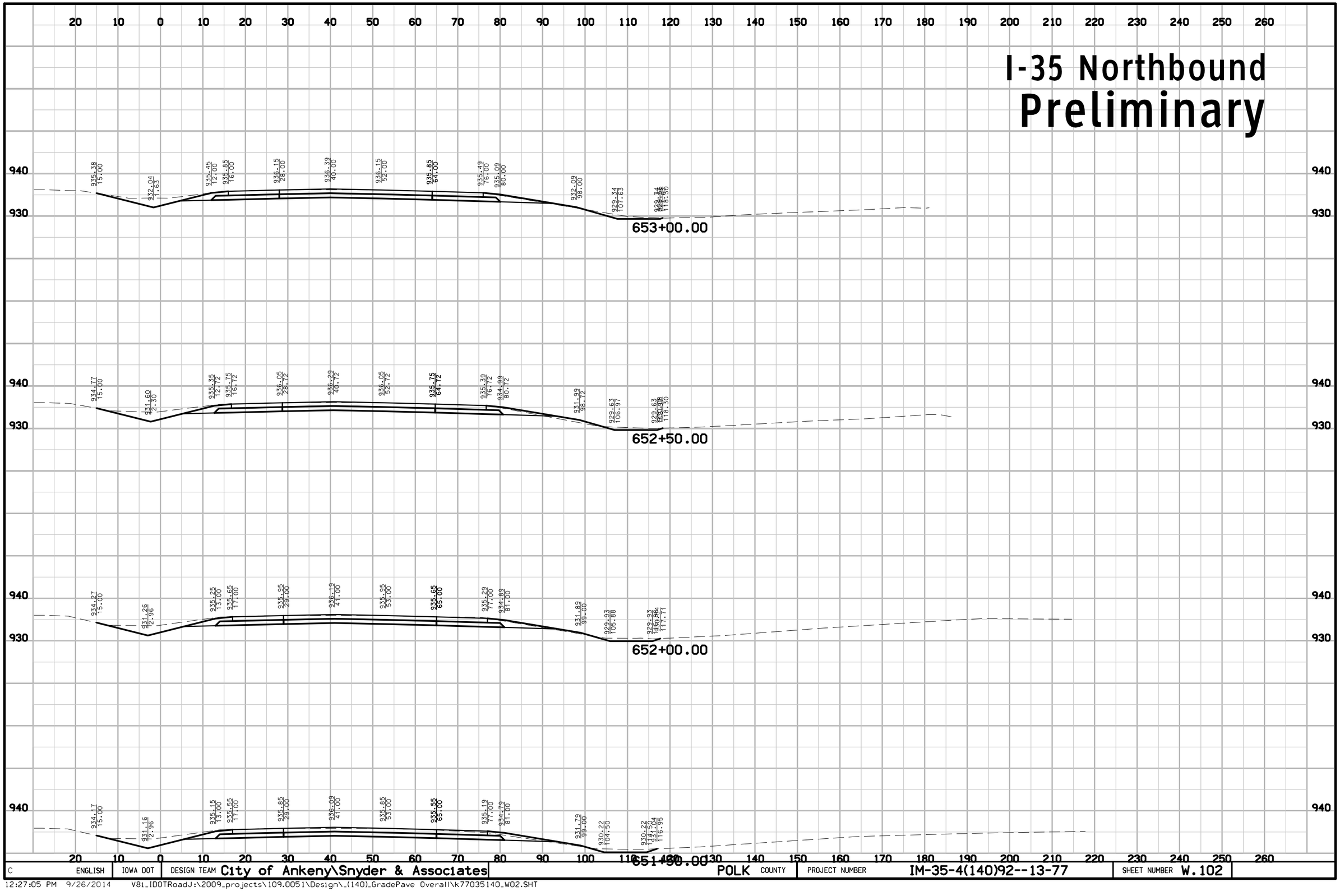
I-35 Northbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.2

12:27:05 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

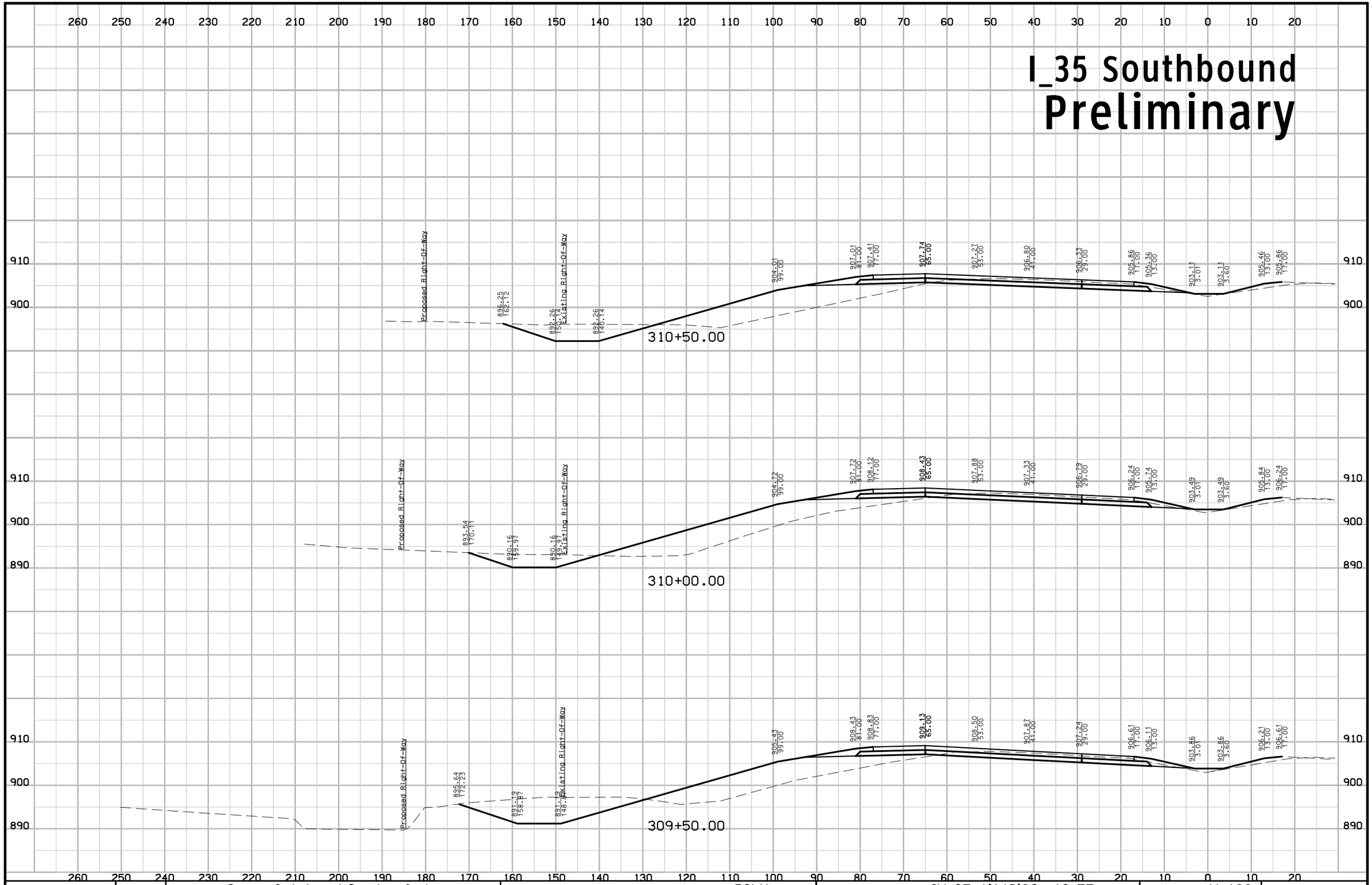
I-35 Northbound
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER W.102	

12:27:05 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

I_35 Southbound
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM	City of Ankeny\Snyder & Associates	POLK	COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER W.188

12:27:06 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_W02.SHT

E. 1st Street
Preliminary

995+25.00

Existing Right-Of-Way
925.83
33.97
926.72
34.56
926.15
42.06
Existing Right-Of-Way
927.66
56.49

995+00.00

Existing Right-Of-Way
926.05
33.47
925.94
37.06
926.56
39.56
Existing Right-Of-Way
926.76
47.91
927.91
54.14

994+75.00

Existing Right-Of-Way
926.34
926.66
926.54
926.91
37.06
Existing Right-Of-Way
927.11
47.06
927.91
54.14

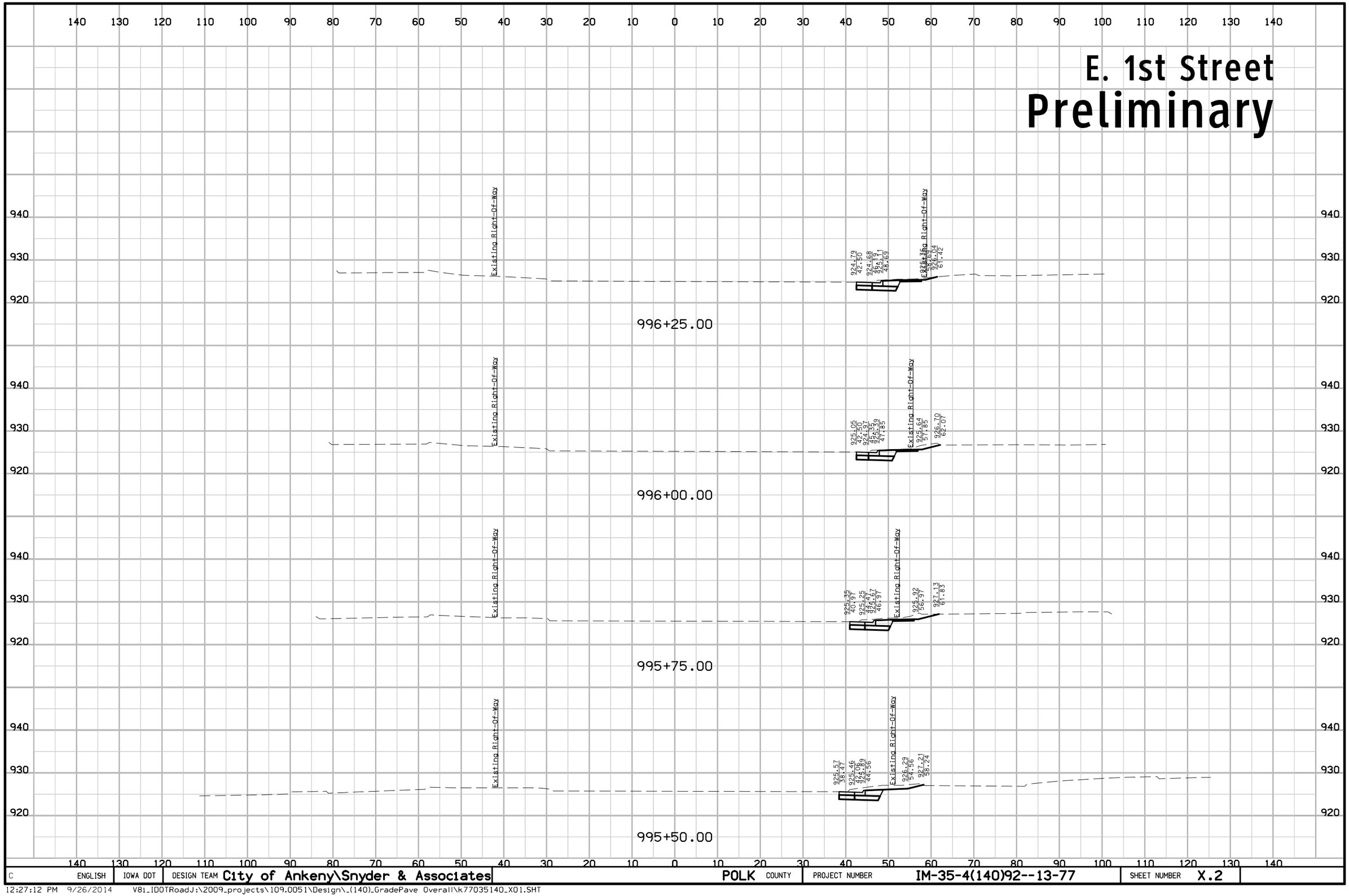
994+50.00

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.1

12:27:11 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.2

12:27:12 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

E. 1st Street
Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

940 930 920

Existing Right-Of-Way

925.68 50.06 | 924.99 33.02 | 924.57 52.02 | 924.65 28.00

924.35 42.50 | 924.14 33.02 | 924.57 52.02 | 924.73 56.02

Existing Right-Of-Way

925.25 76.06

997+25.00

940 930 920

Existing Right-Of-Way

925.86 45.19 | 925.17 33.02 | 924.74 52.02 | 924.69 28.00

924.47 42.50 | 924.29 48.69

Existing Right-Of-Way

997+00.00

940 930 920

Existing Right-Of-Way

925.33 28.00

924.85 42.50 | 924.69 47.85

Existing Right-Of-Way

996+75.00

940 930 920

Existing Right-Of-Way

925.13 28.00

924.90 42.50 | 924.77 47.02

Existing Right-Of-Way

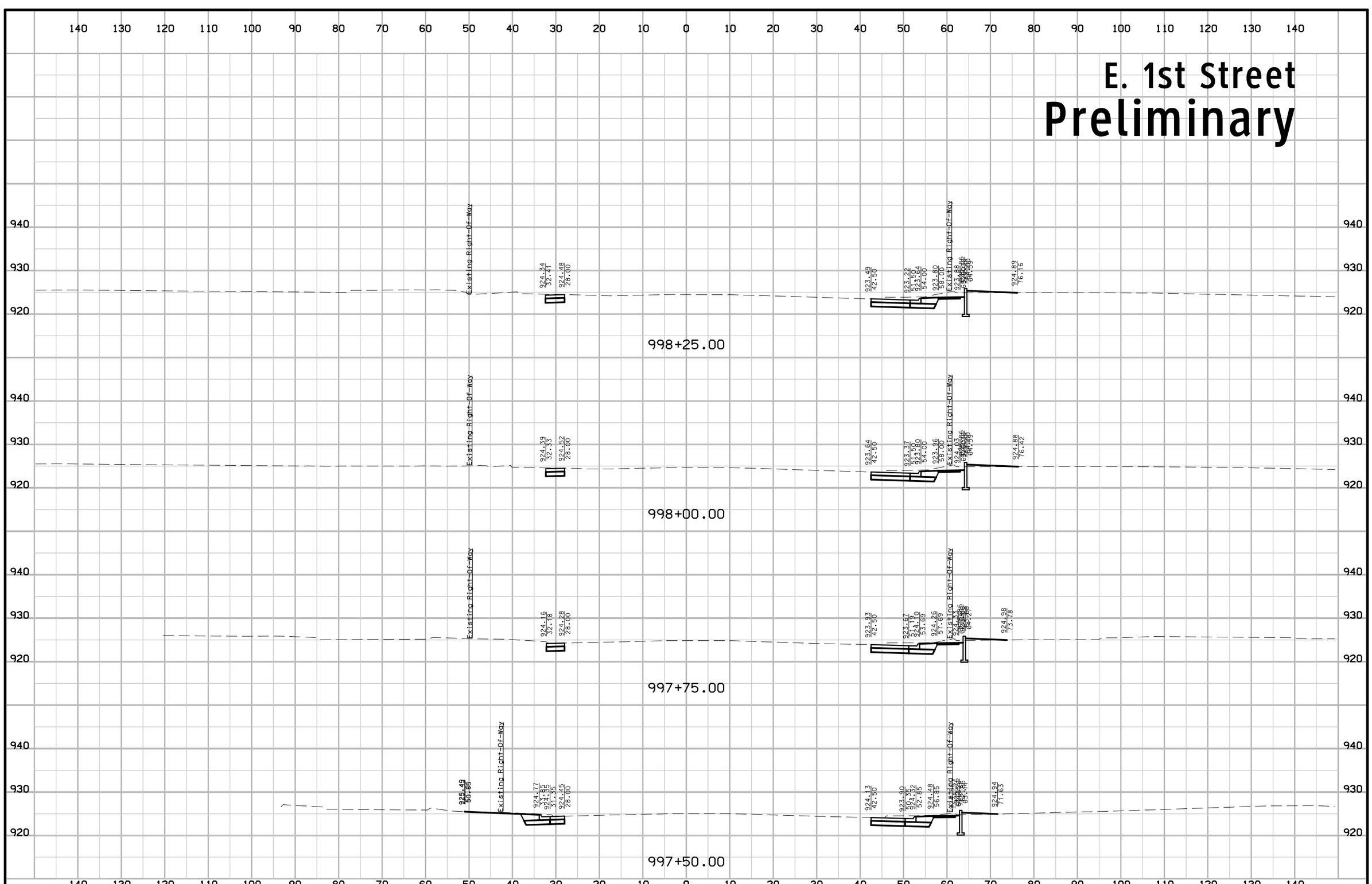
996+50.00

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.3	

12:27:12 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.4

12:27:12 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

E. 1st Street
Preliminary

999+50.00

999+25.00

999+00.00

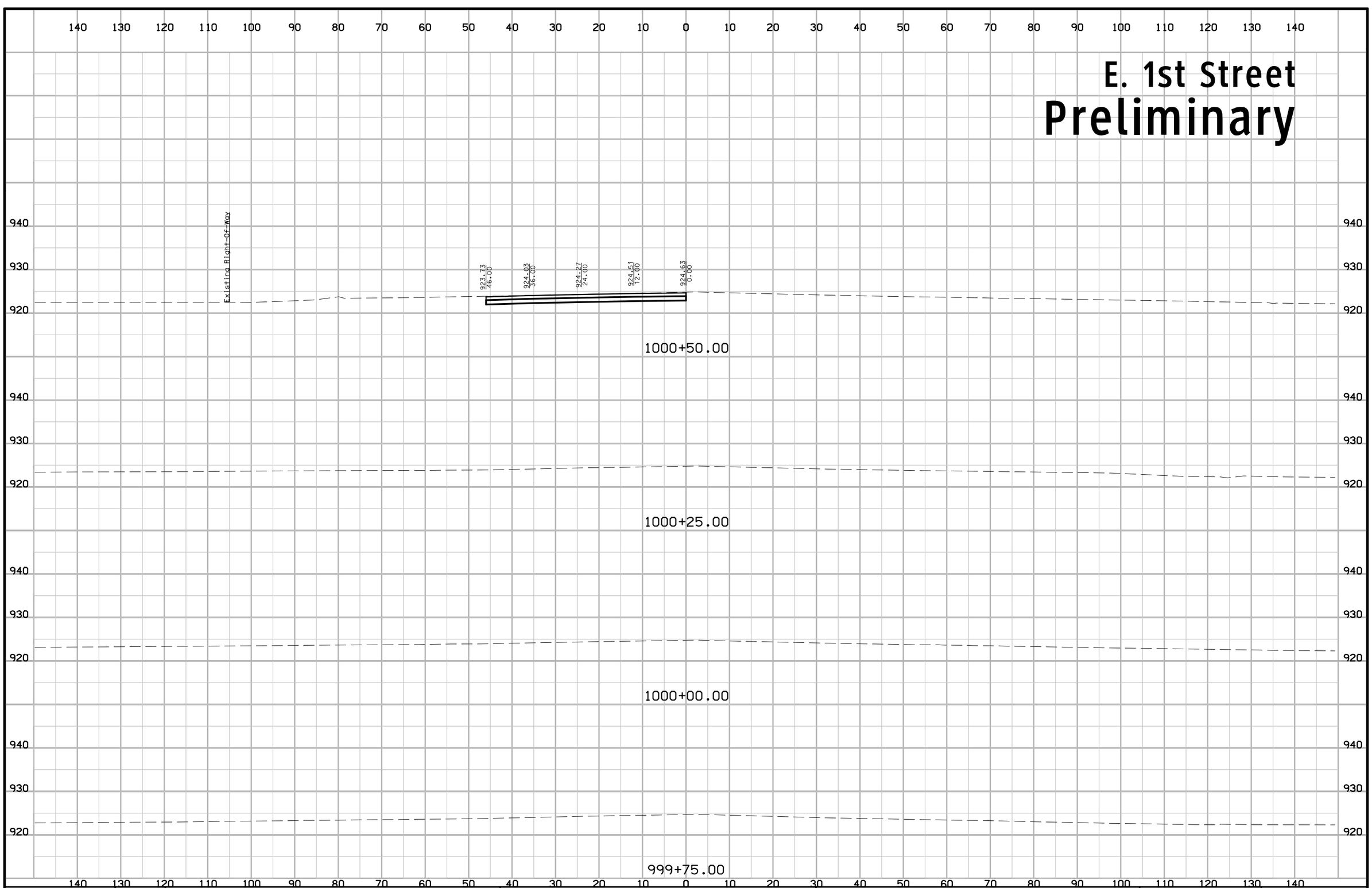
998+75.00

998+50.00

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.5

12:27:12 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

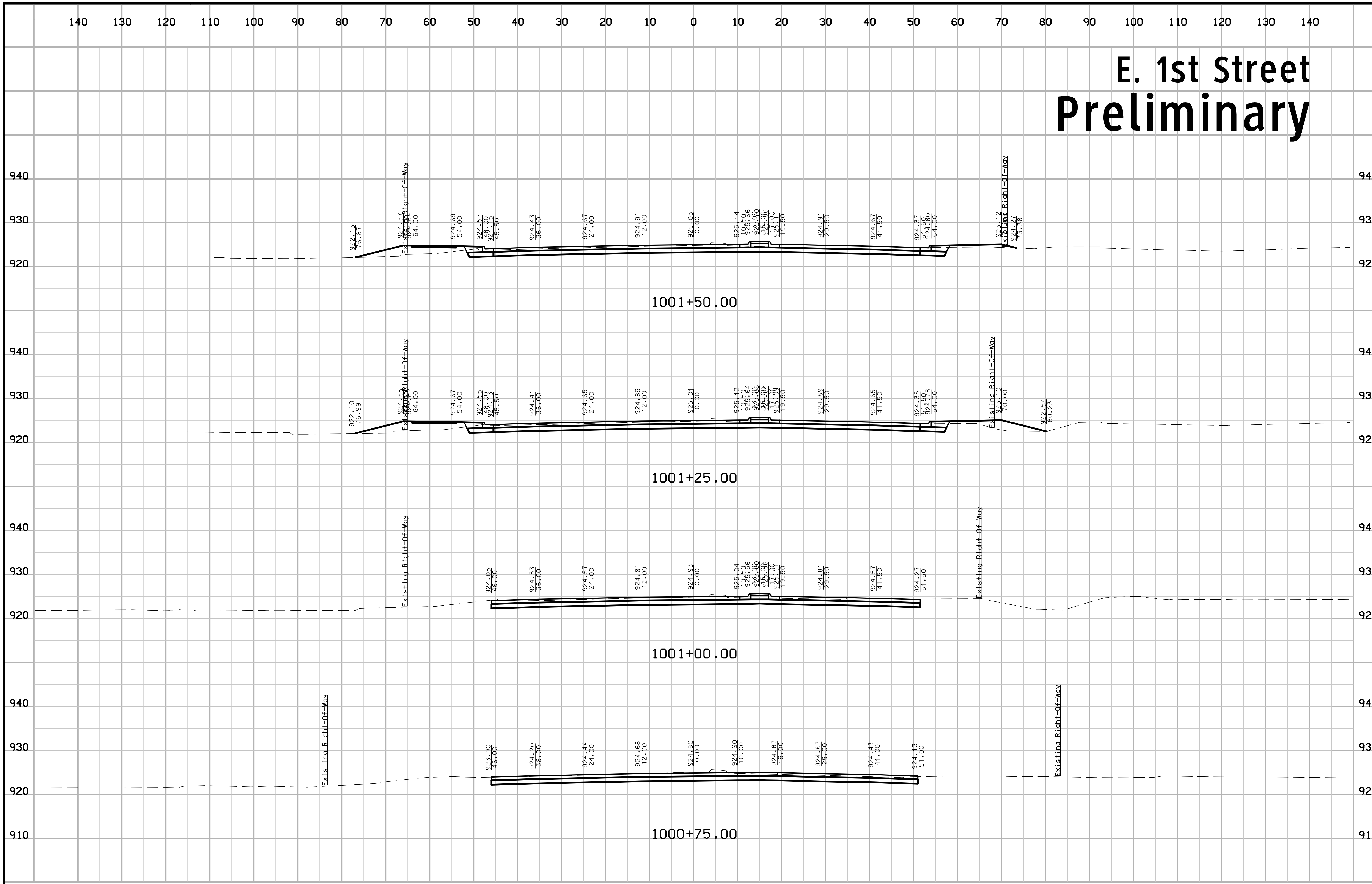
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.6

12:27:12 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street
Preliminary

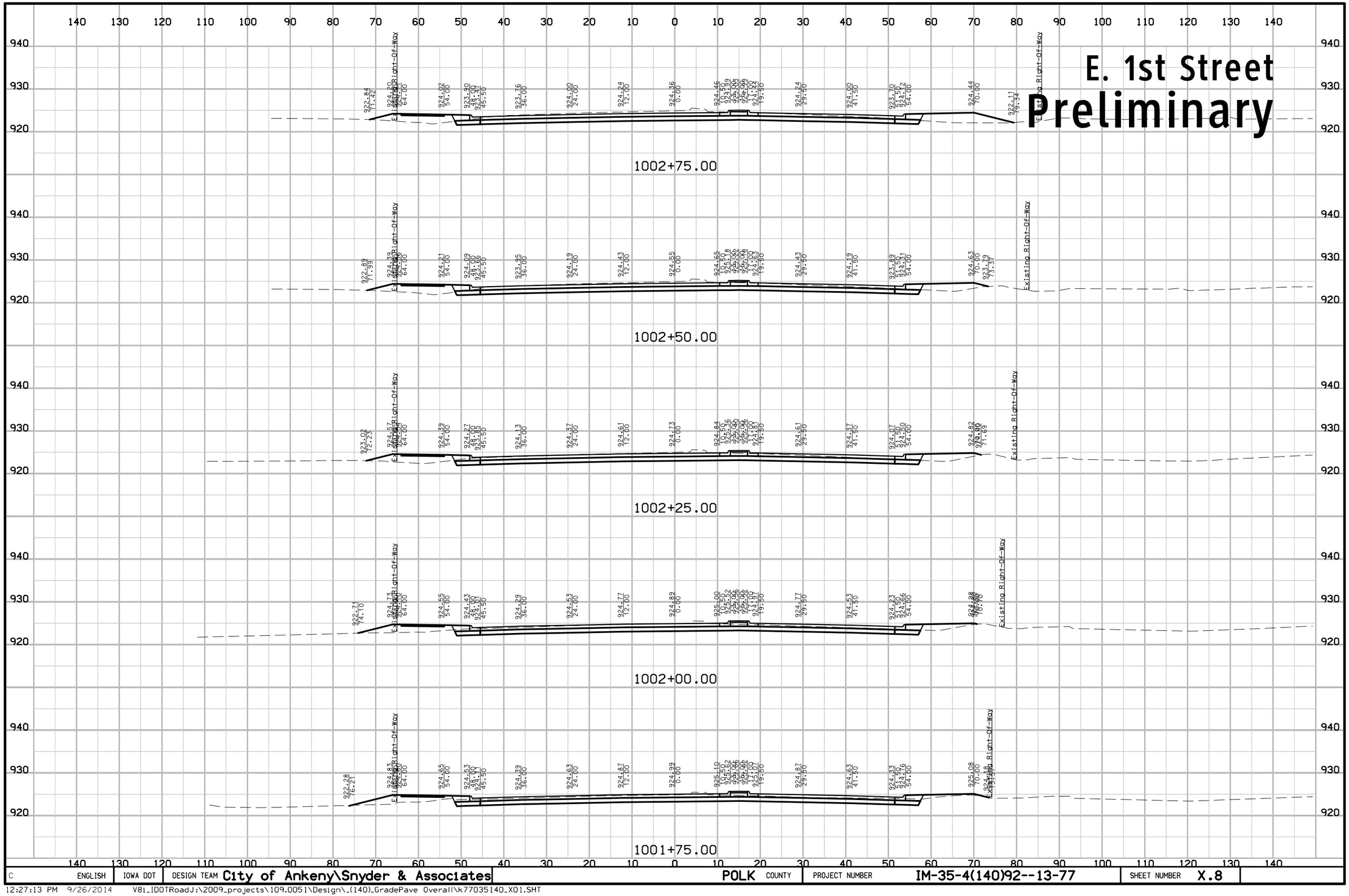


C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	X.7

12:27:13 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

Preliminary

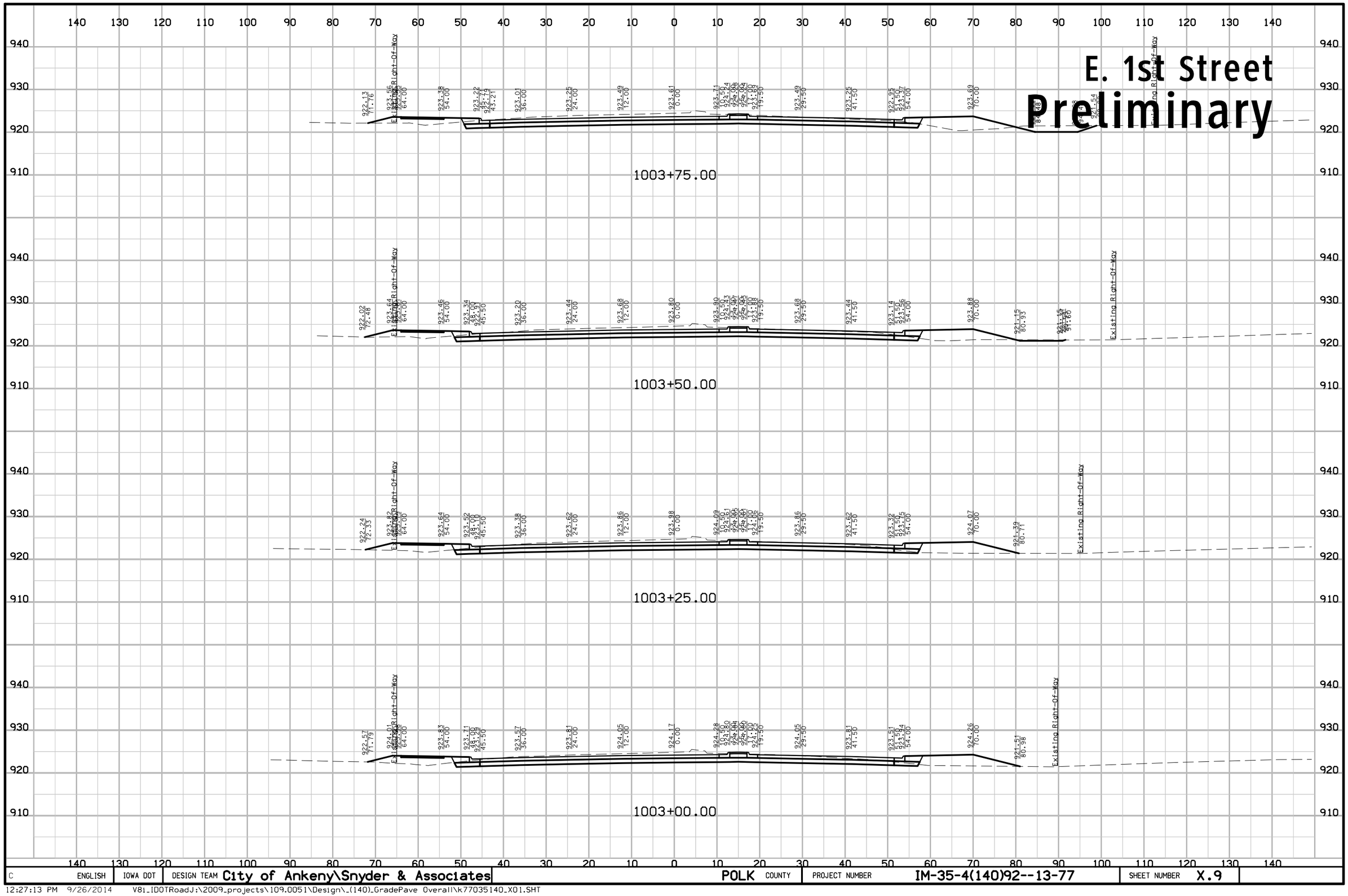


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.8	

12:27:13 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

E. 1st Street

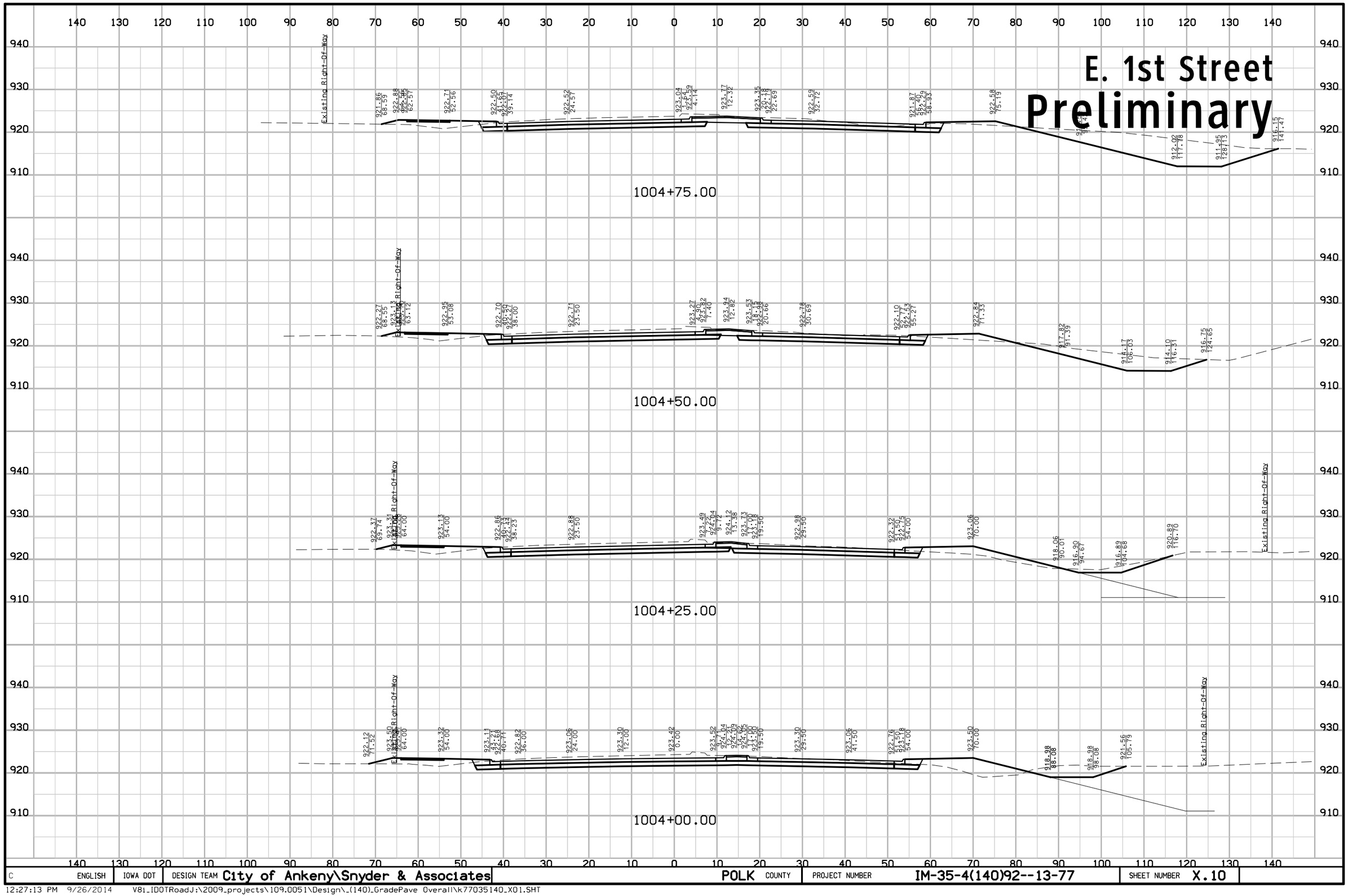
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.9

12:27:13 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

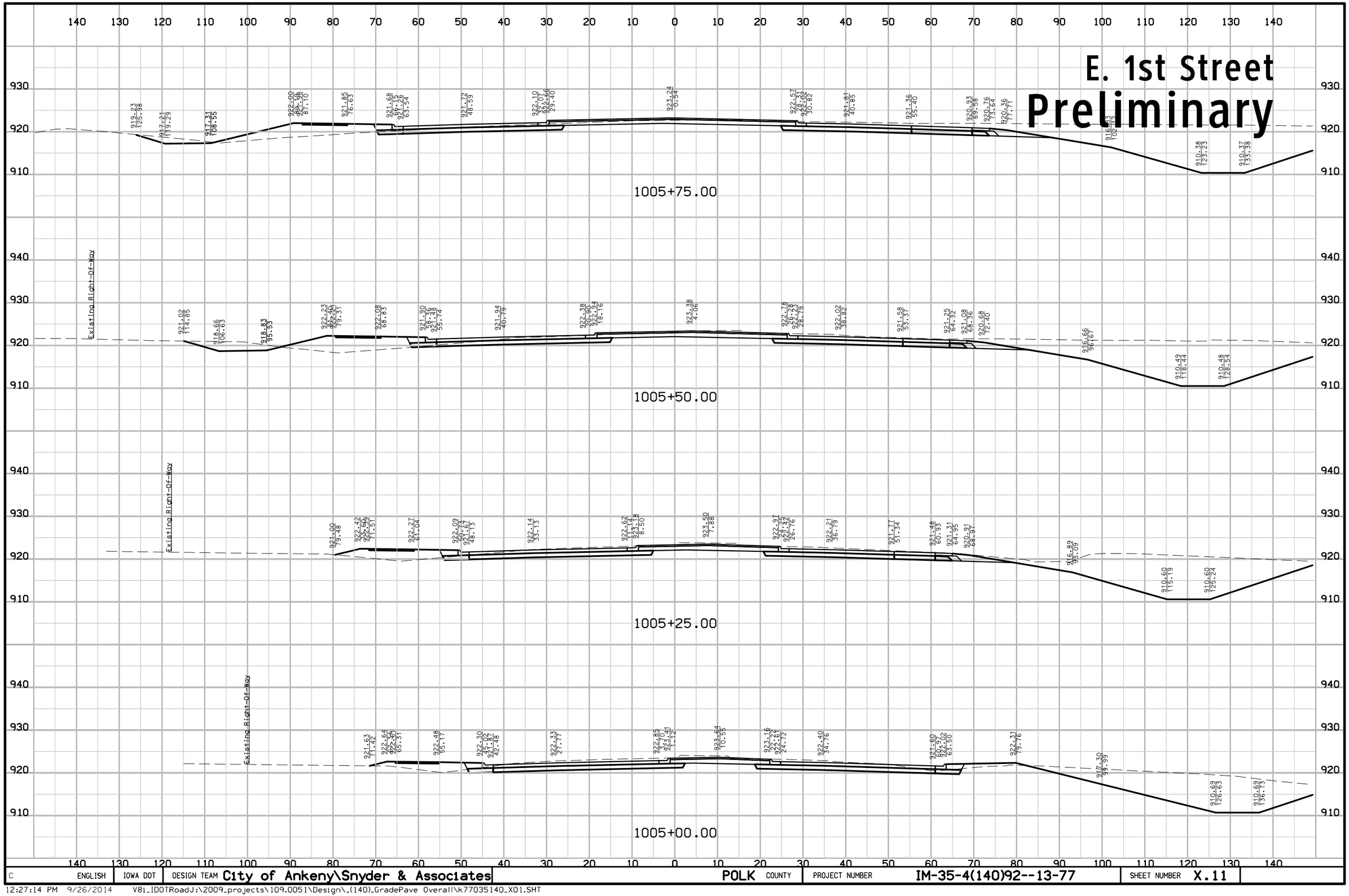
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.10

12:27:13 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street
Preliminary

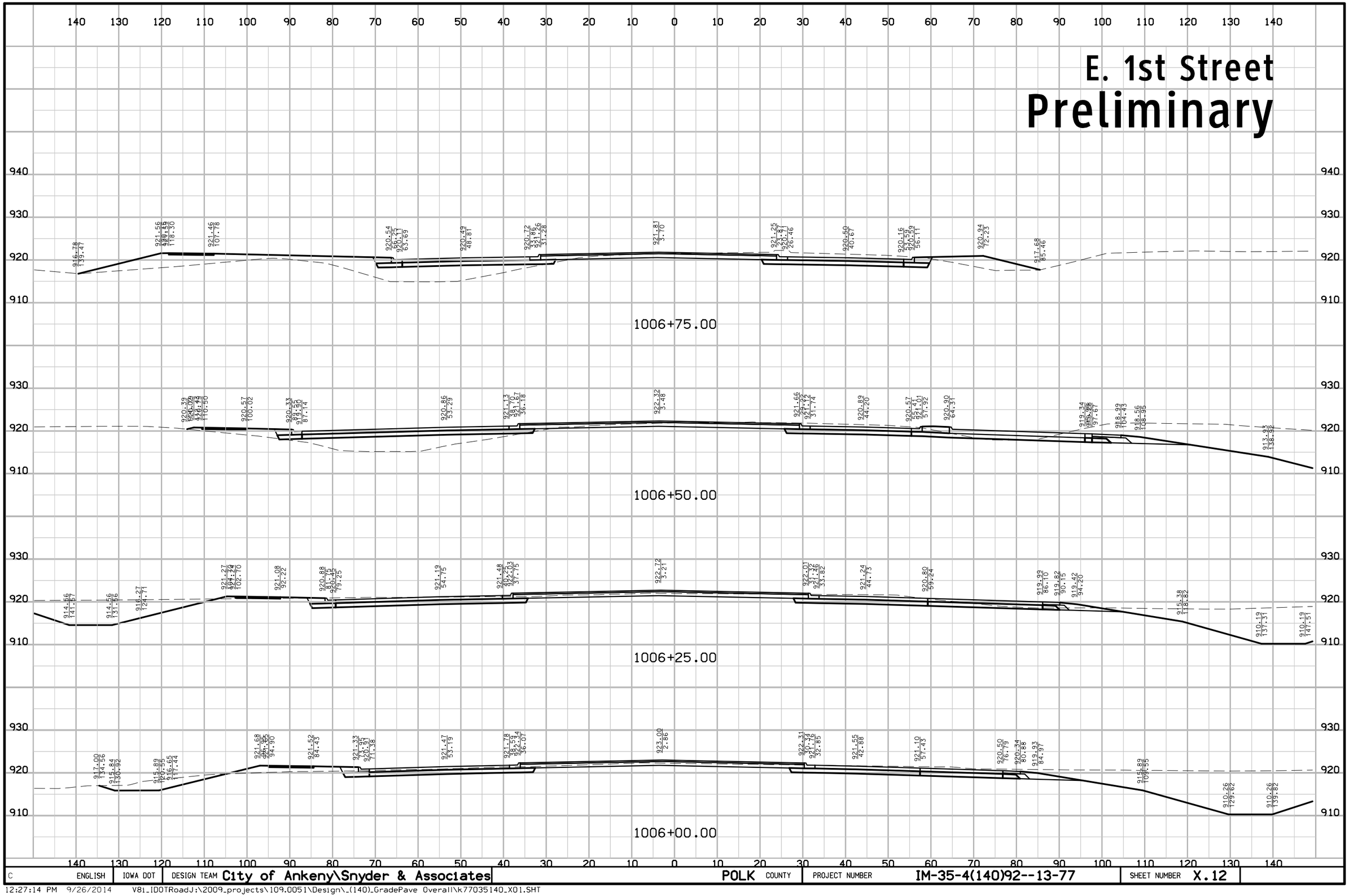


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.11

12:27:14 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

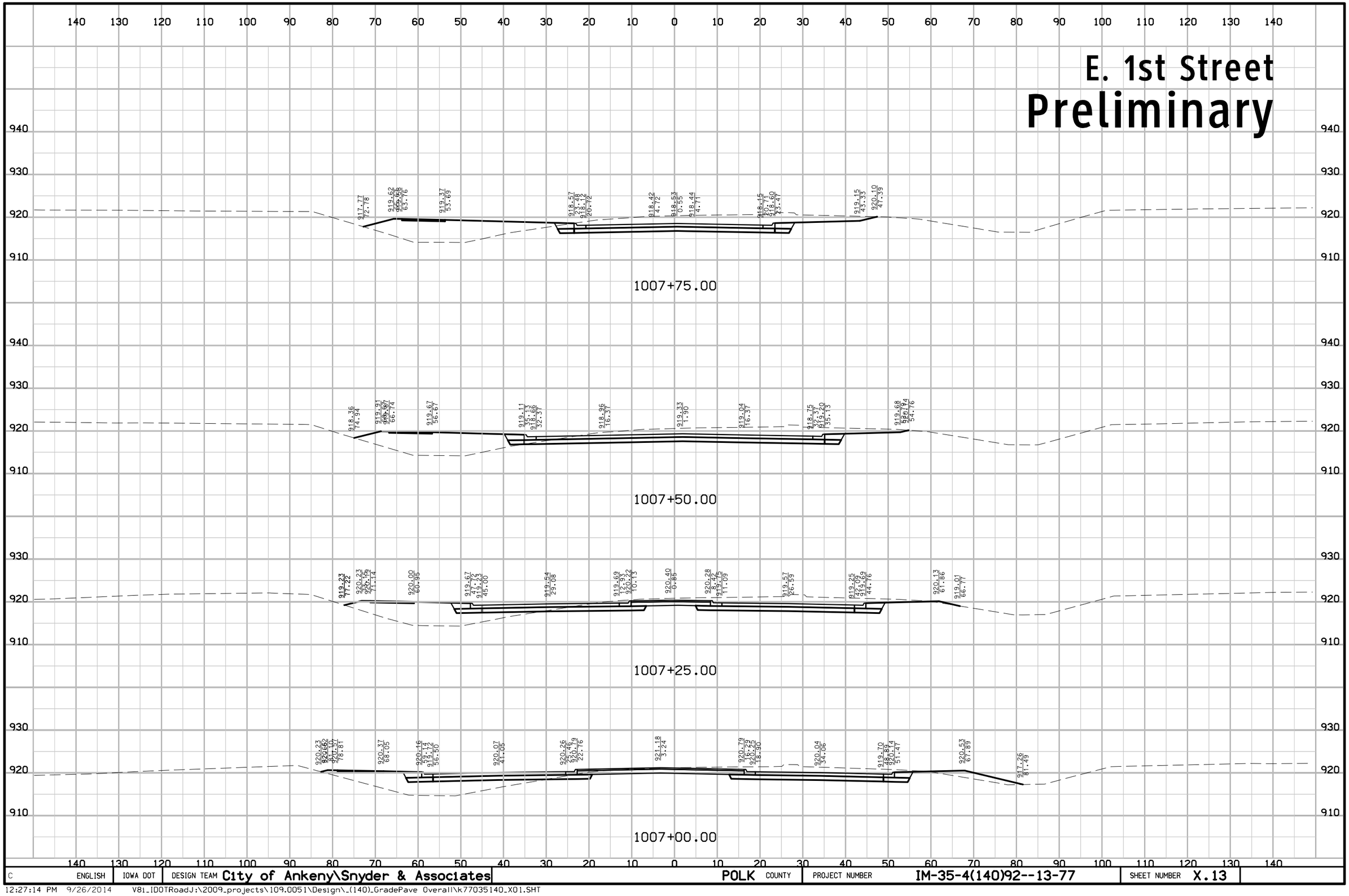
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.12

12:27:14 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

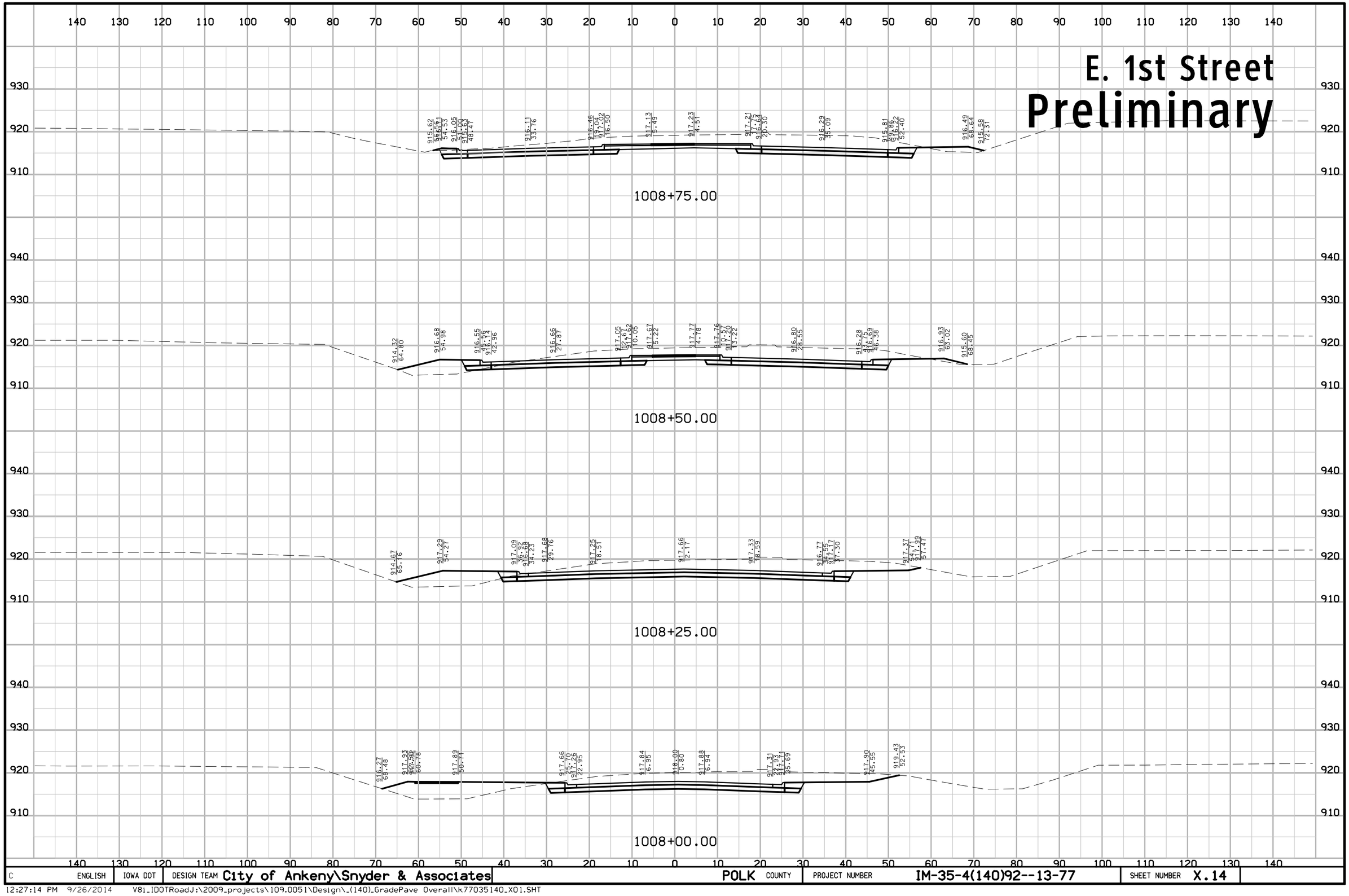
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.13

12:27:14 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

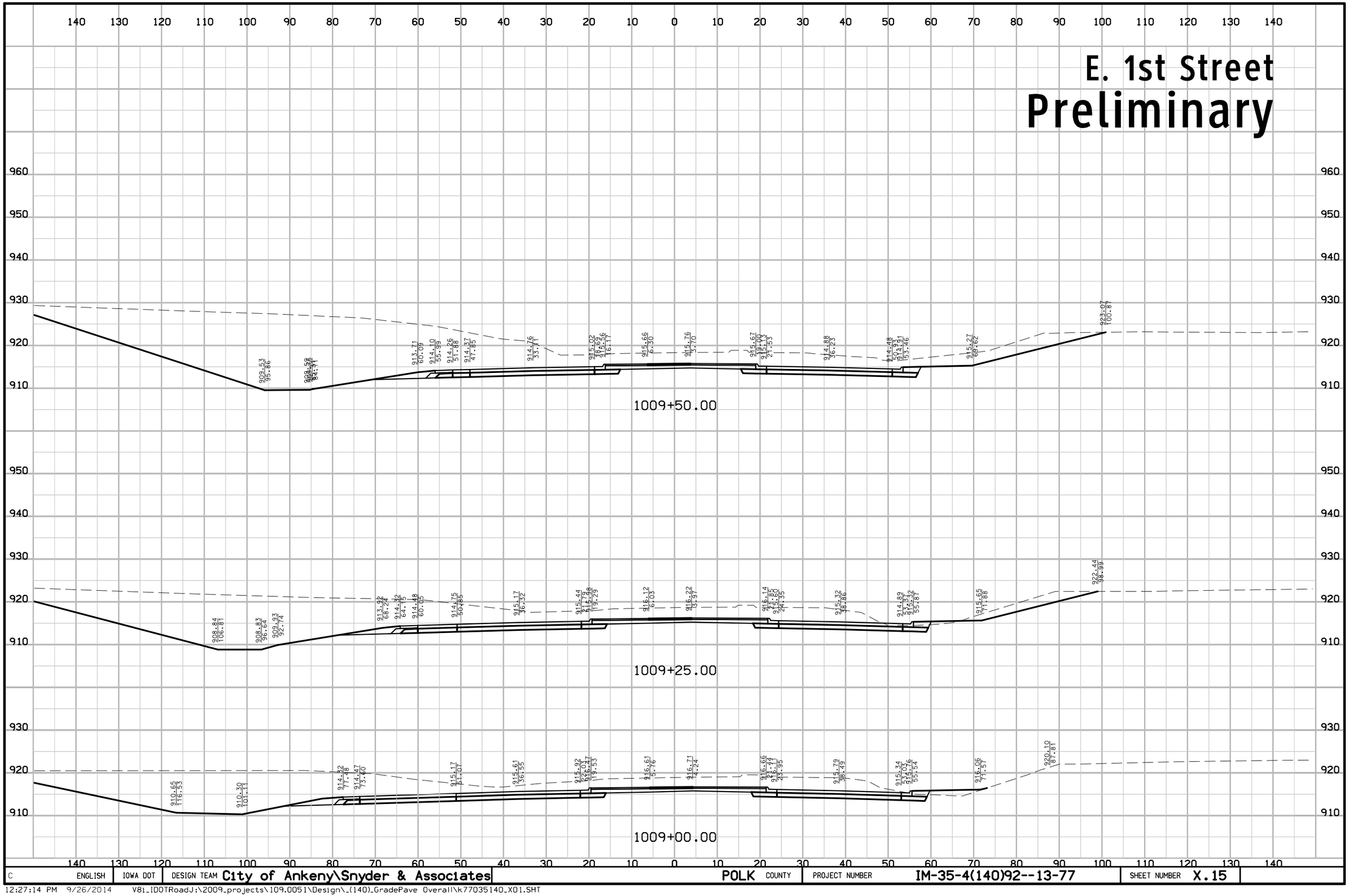
E. 1st Street
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.14

E. 1st Street

Preliminary

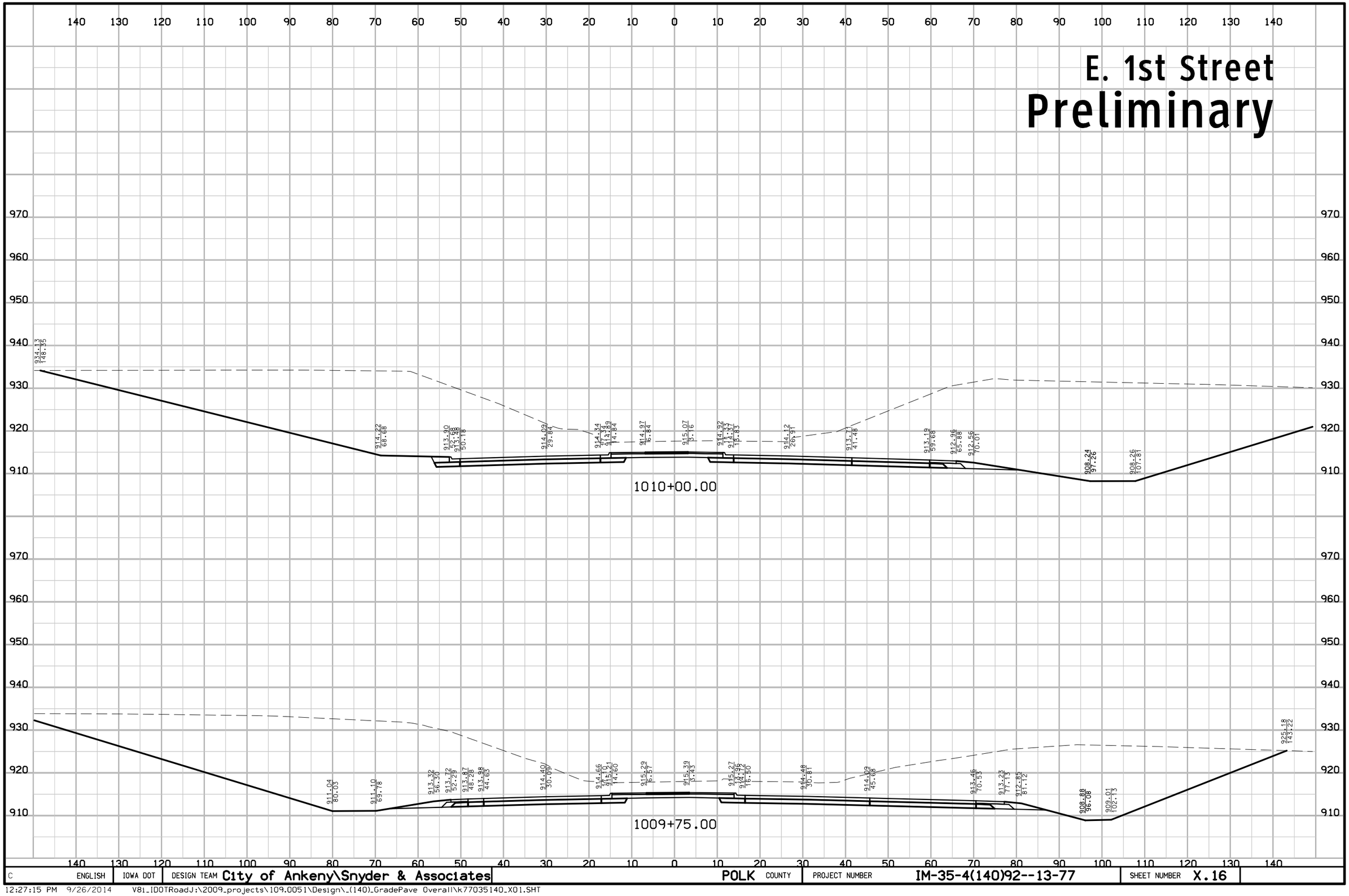


C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.15

12:27:14 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

Preliminary

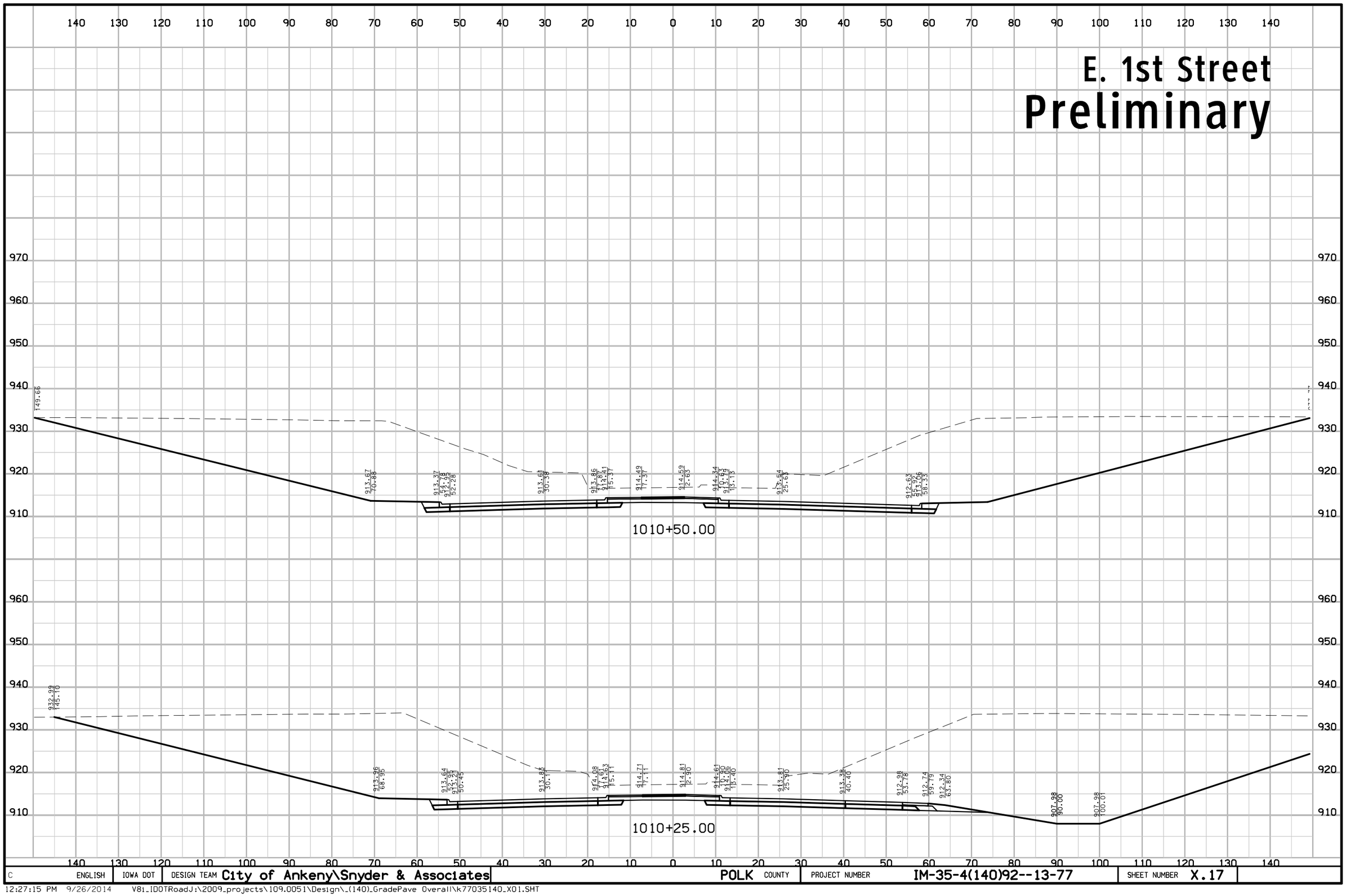


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.16

12:27:15 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

E. 1st Street

Preliminary

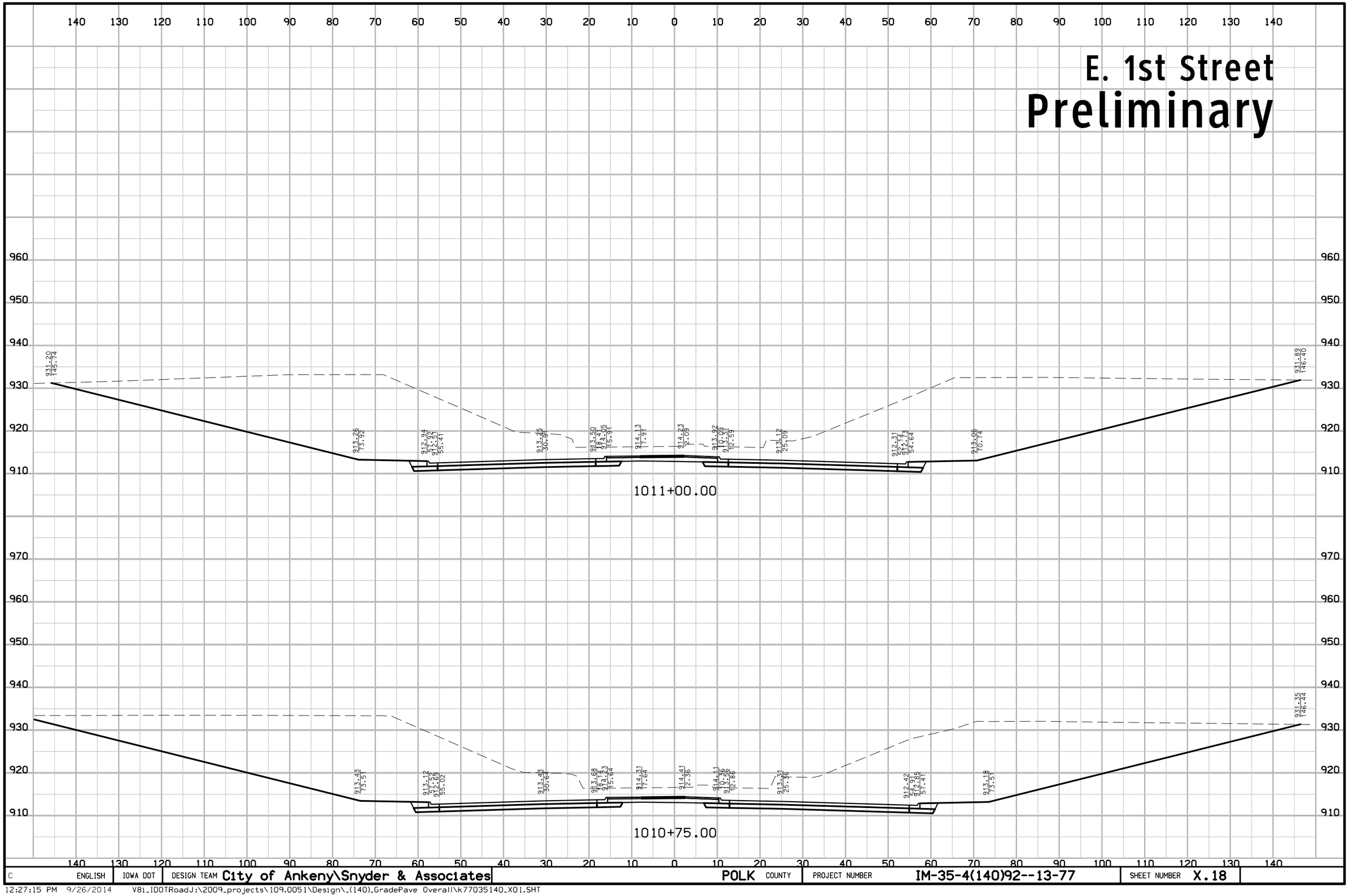


C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.17	

12:27:15 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

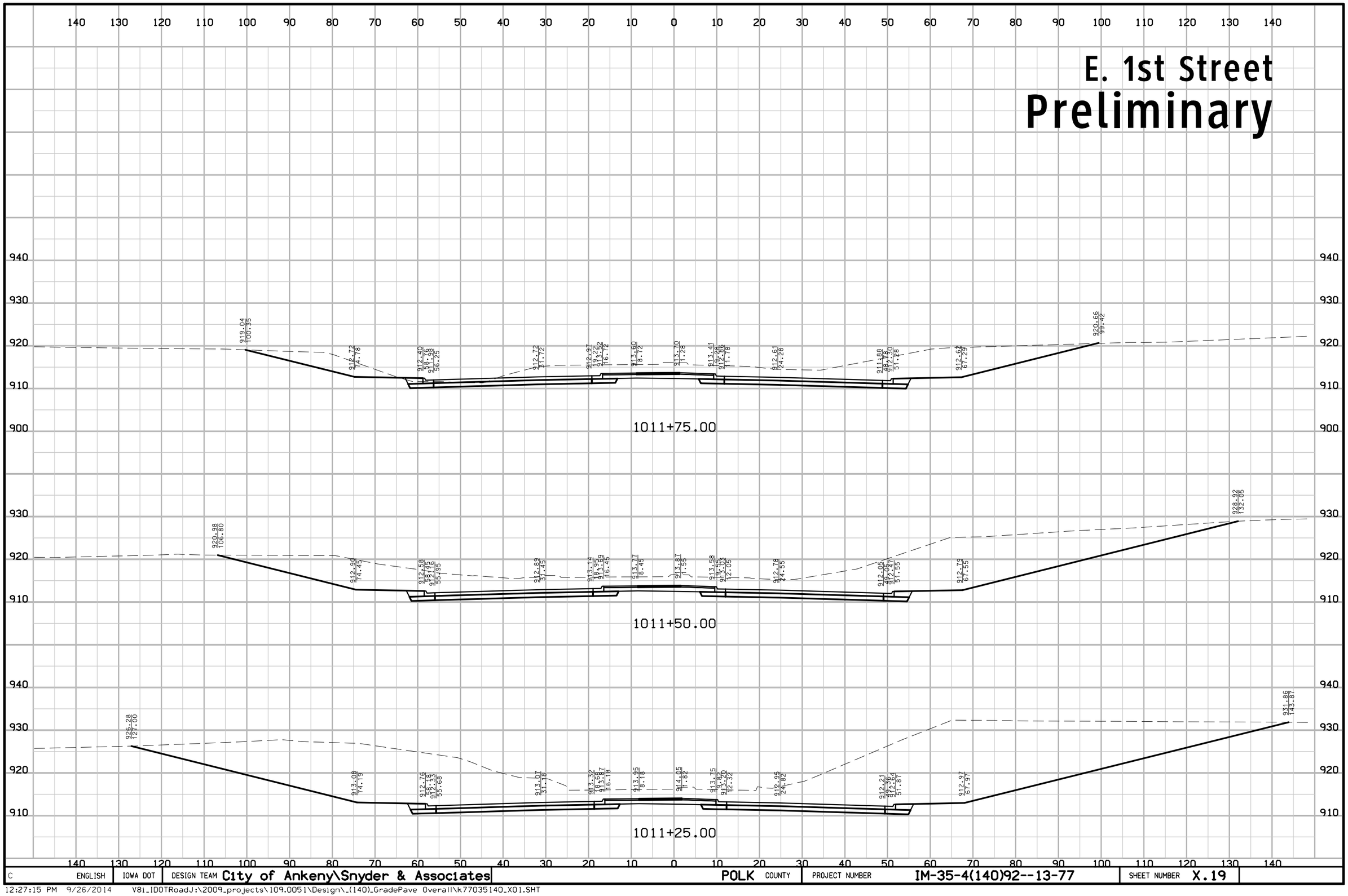
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.18	

12:27:15 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

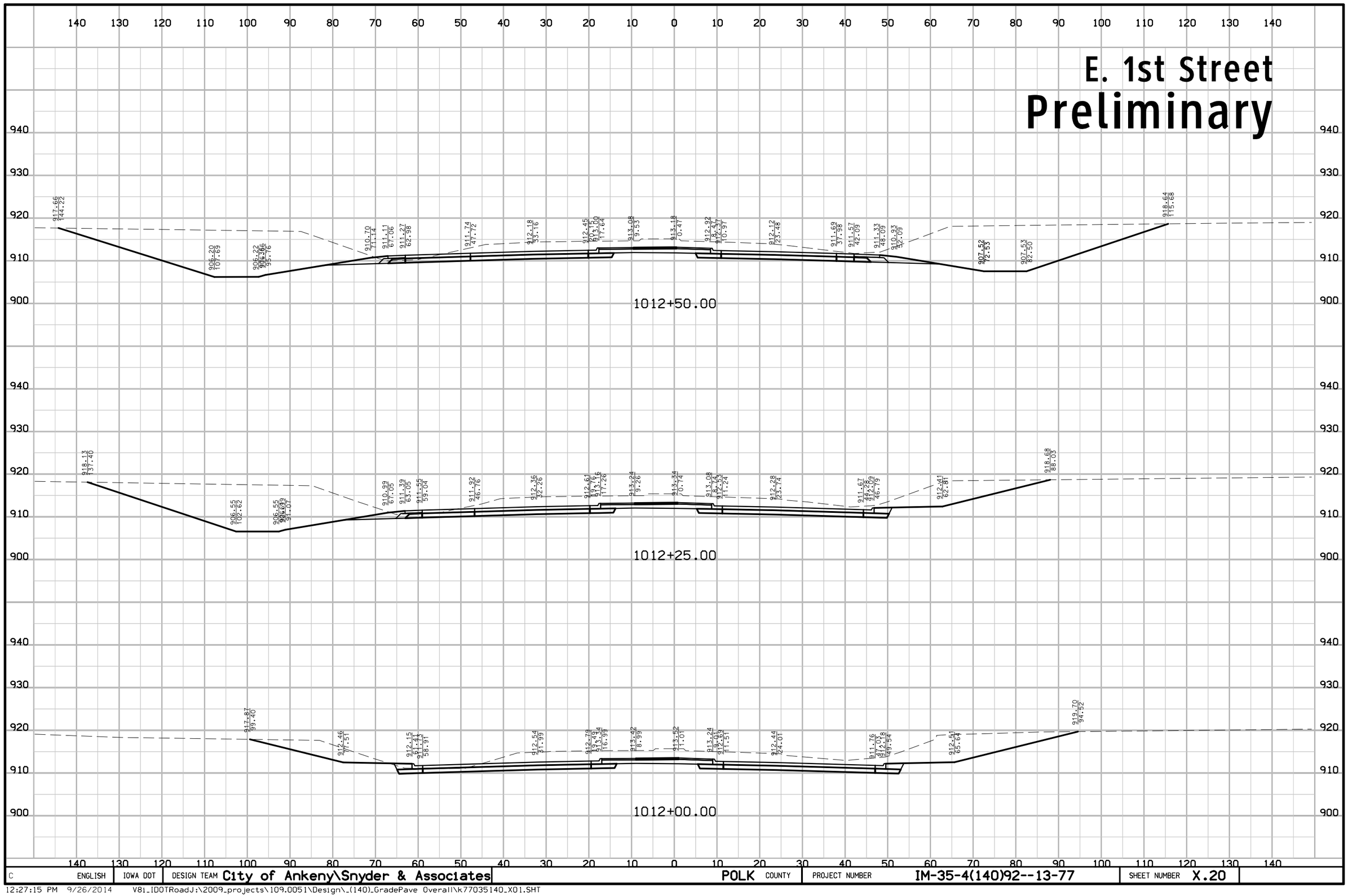
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.19

12:27:15 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

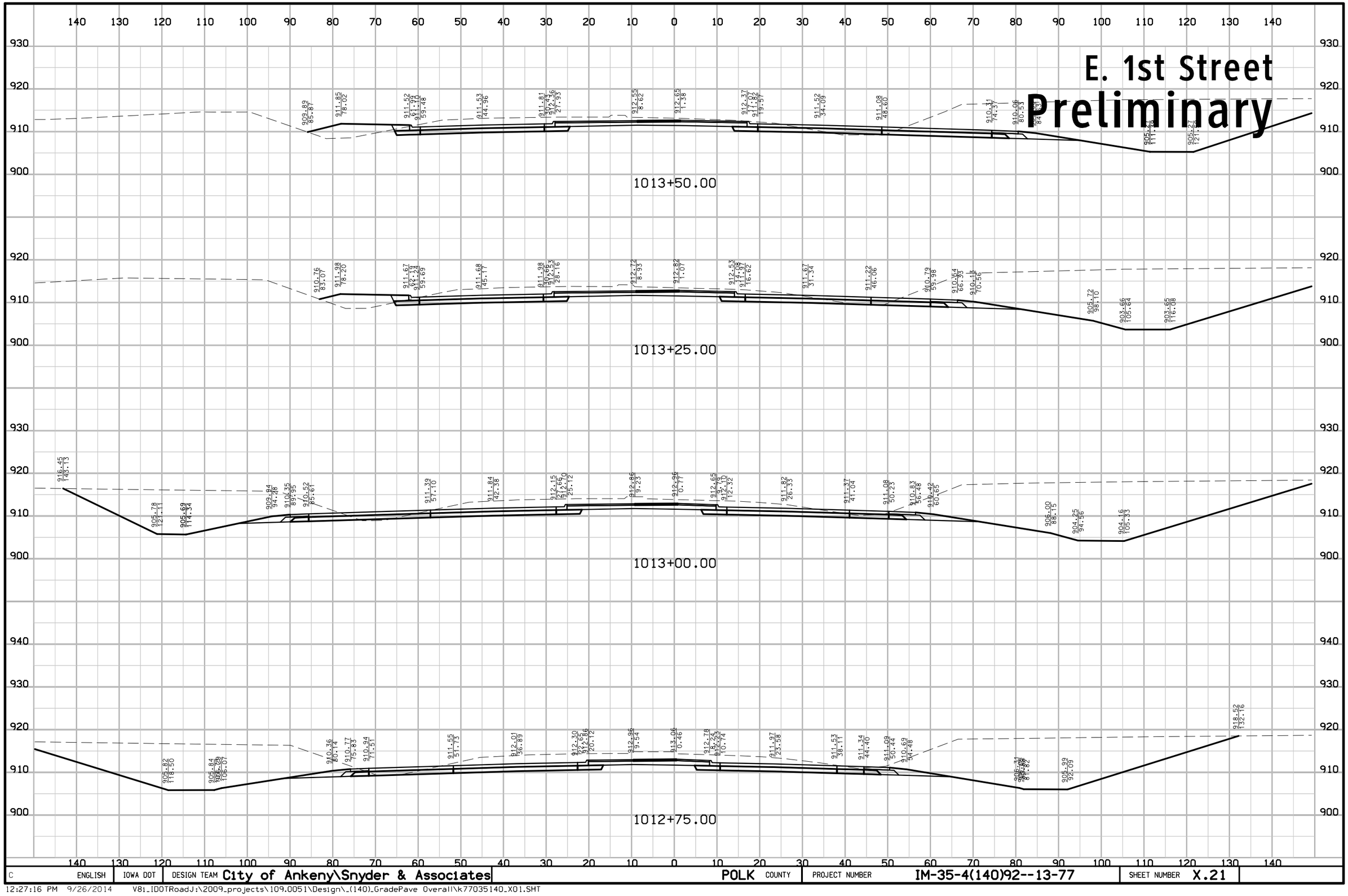
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.20

12:27:15 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street
Preliminary

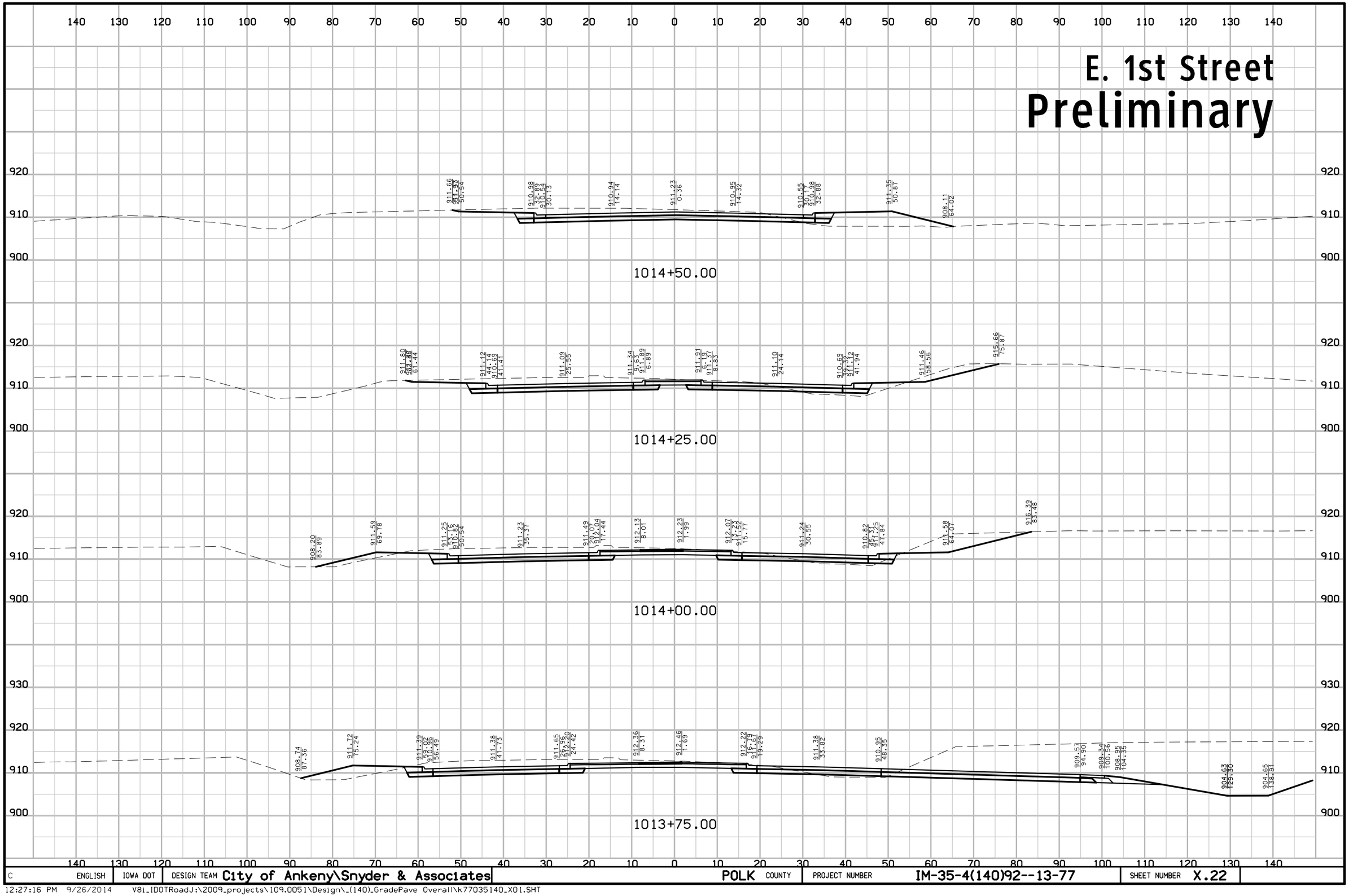


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.21

12:27:16 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

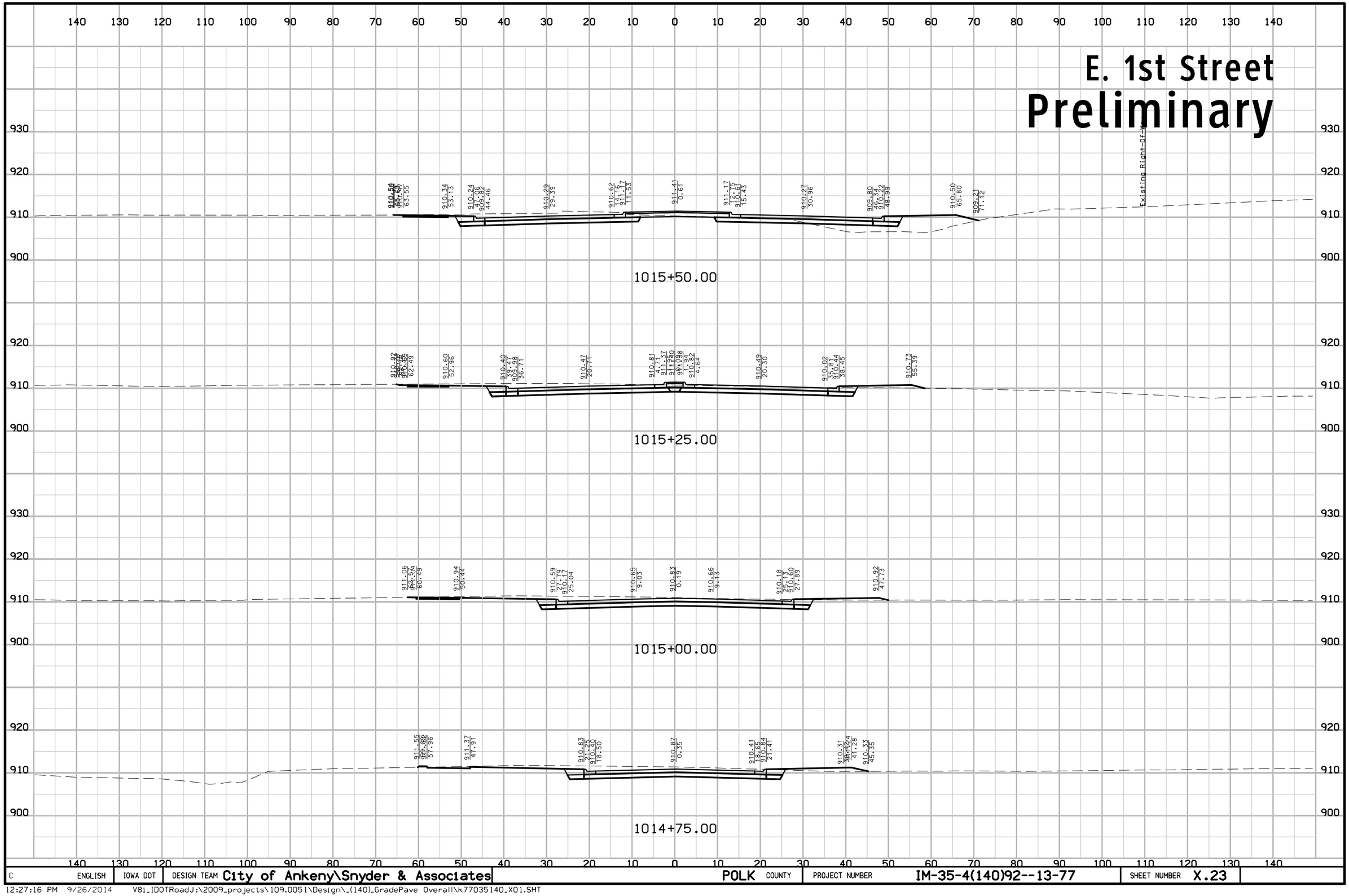
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.22

12:27:16 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

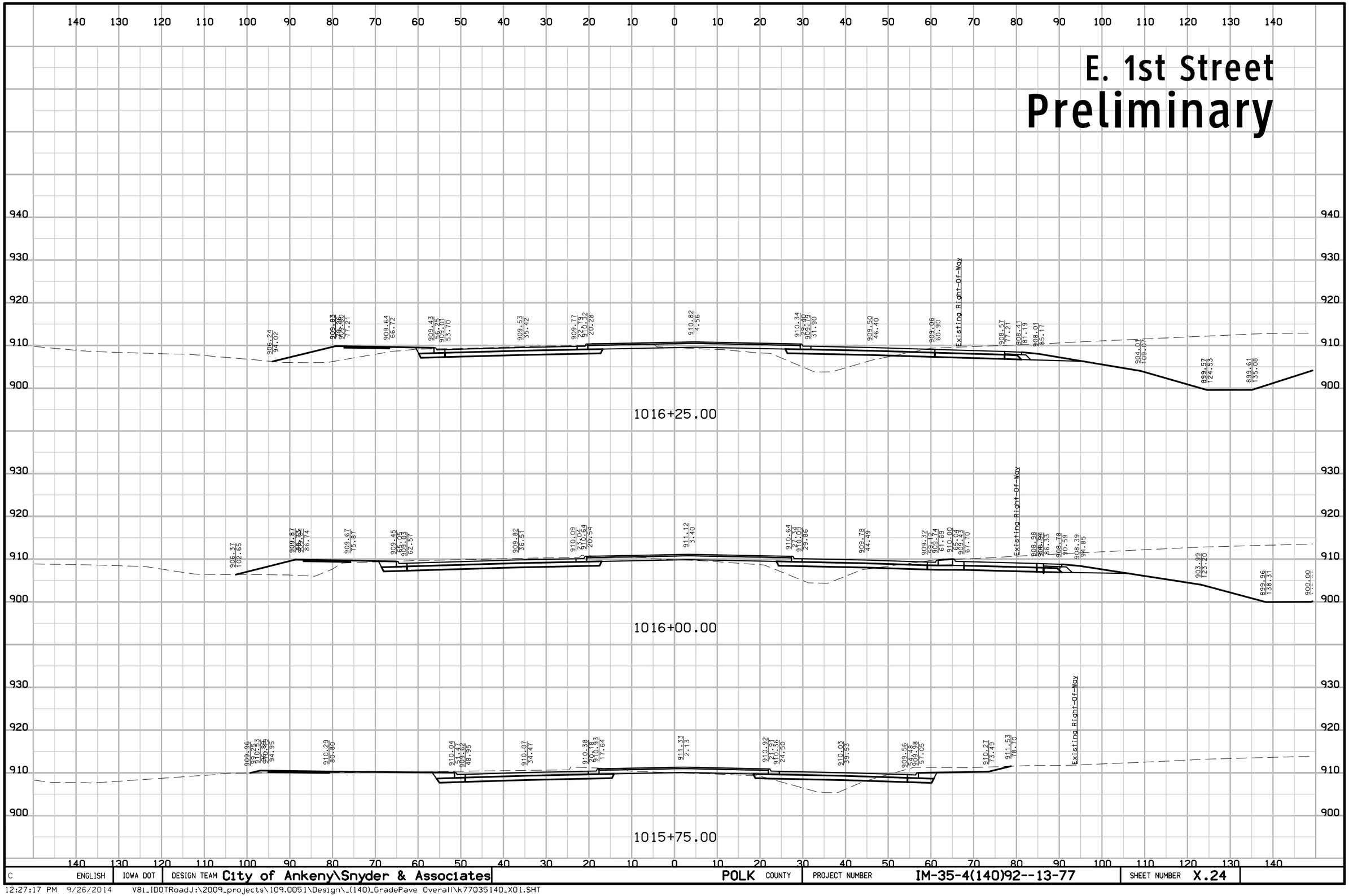
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.23

12:27:16 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

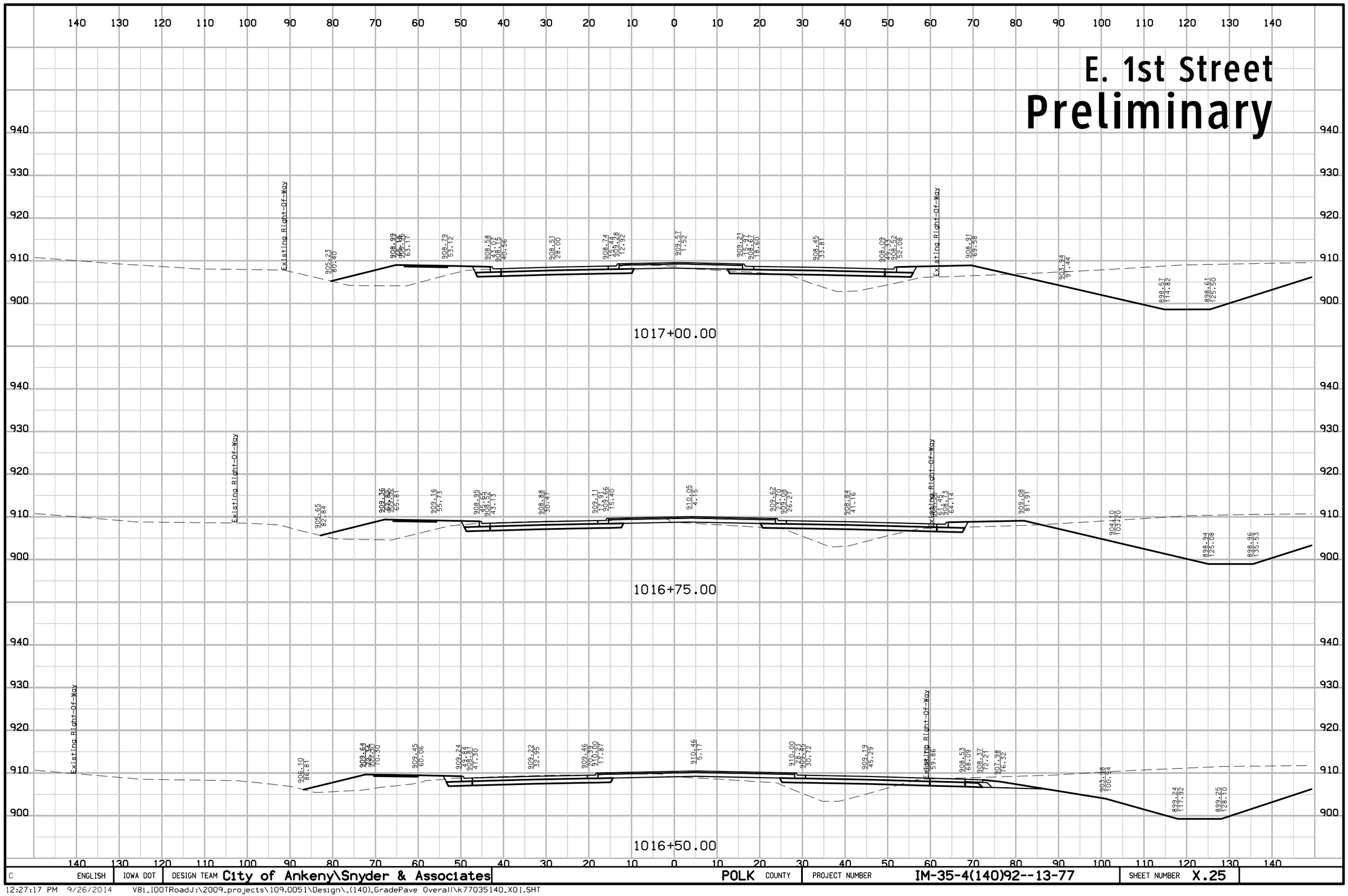
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.24

12:27:17 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

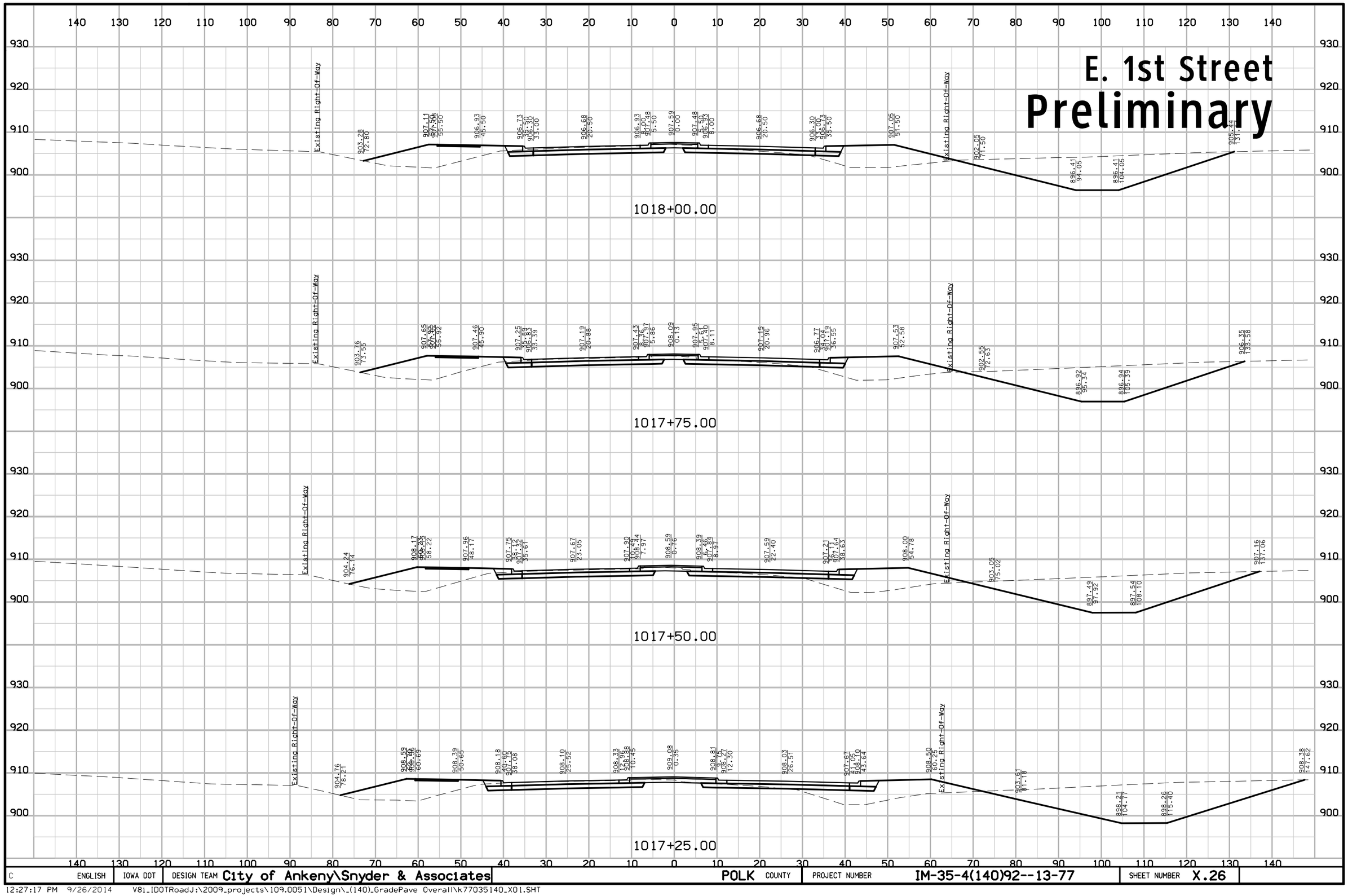
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.25	

12:27:17 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

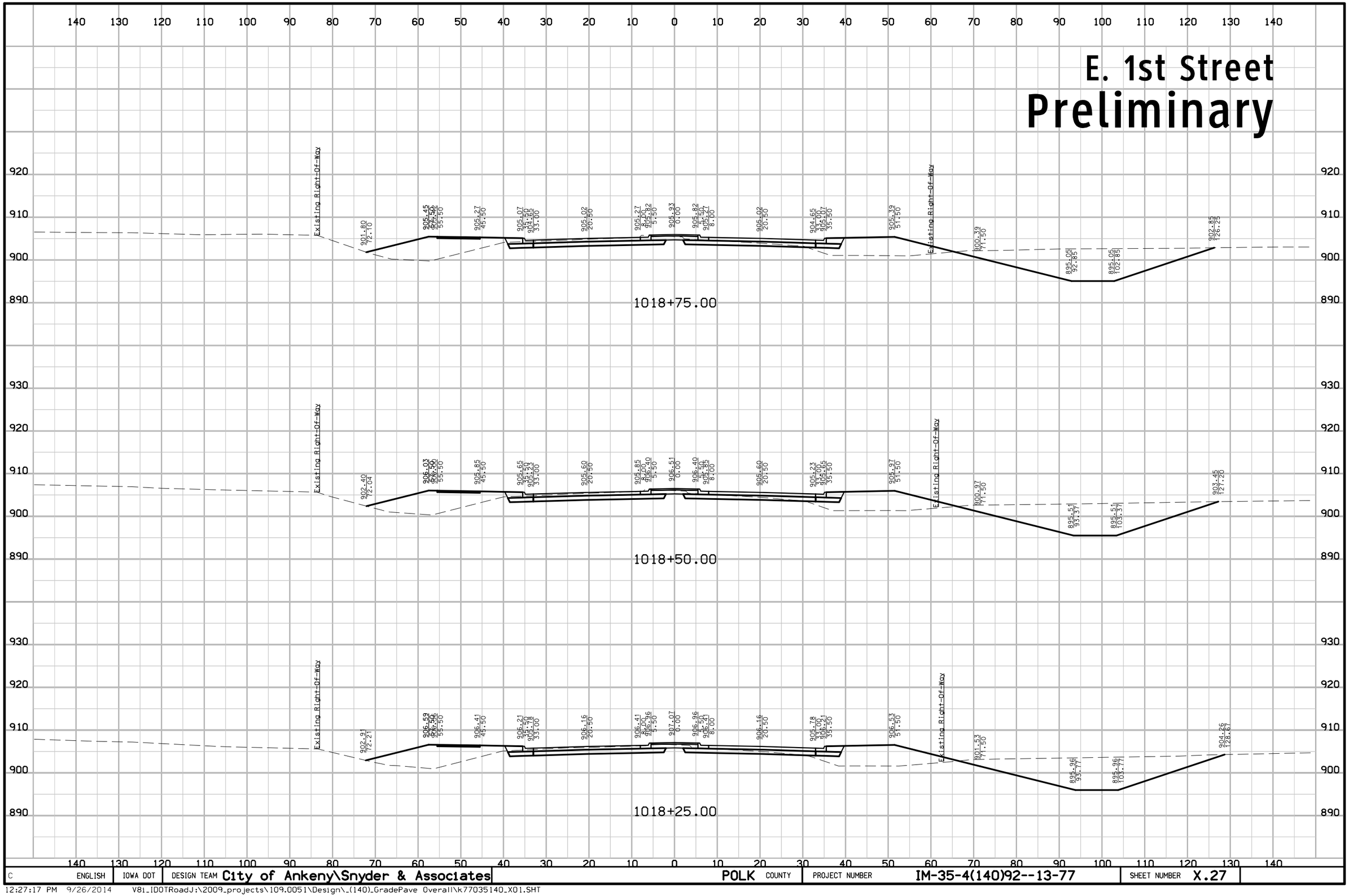
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.26

12:27:17 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

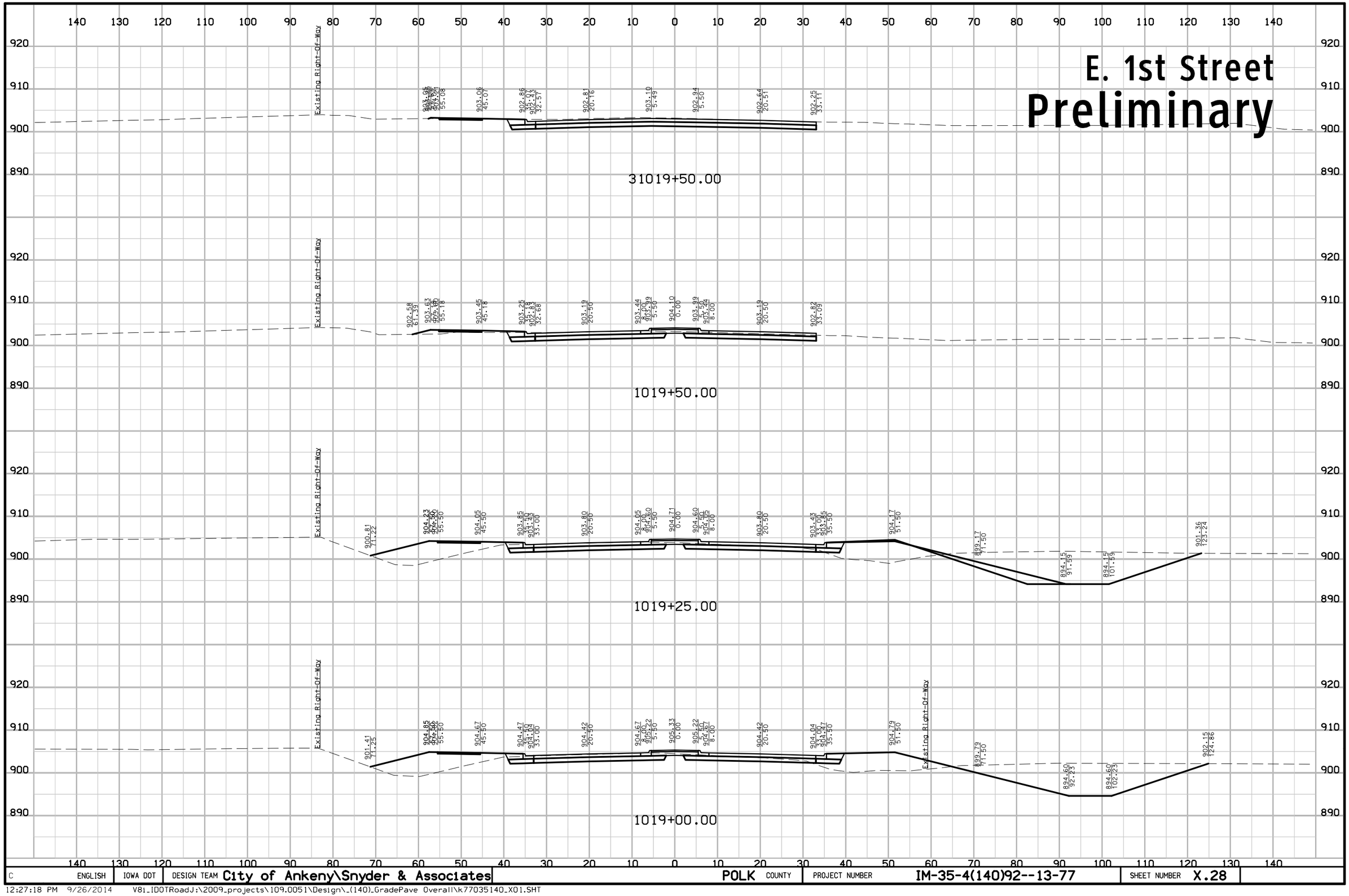
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.27

12:27:17 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street
Preliminary

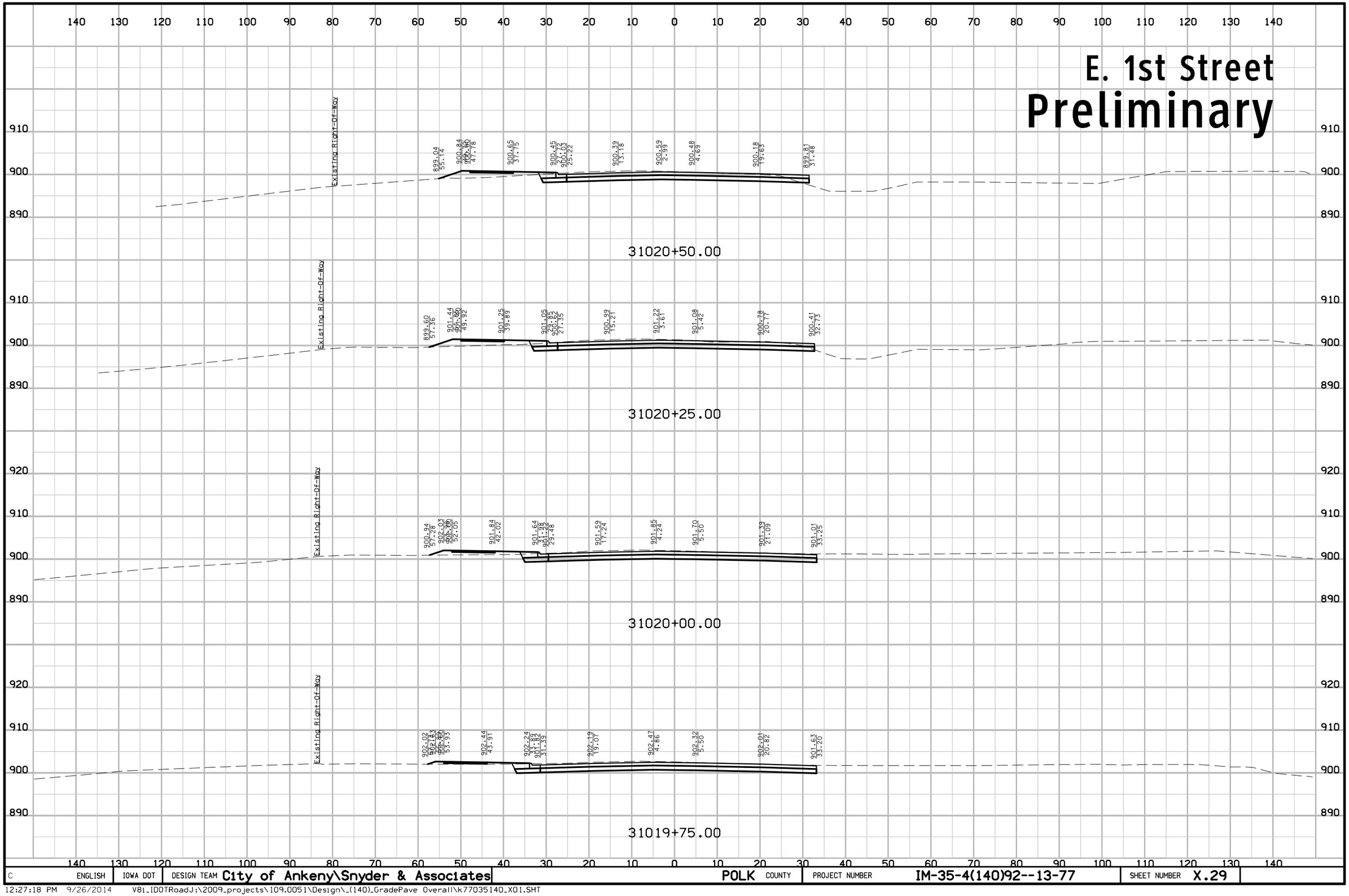


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.28

12:27:18 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

Preliminary

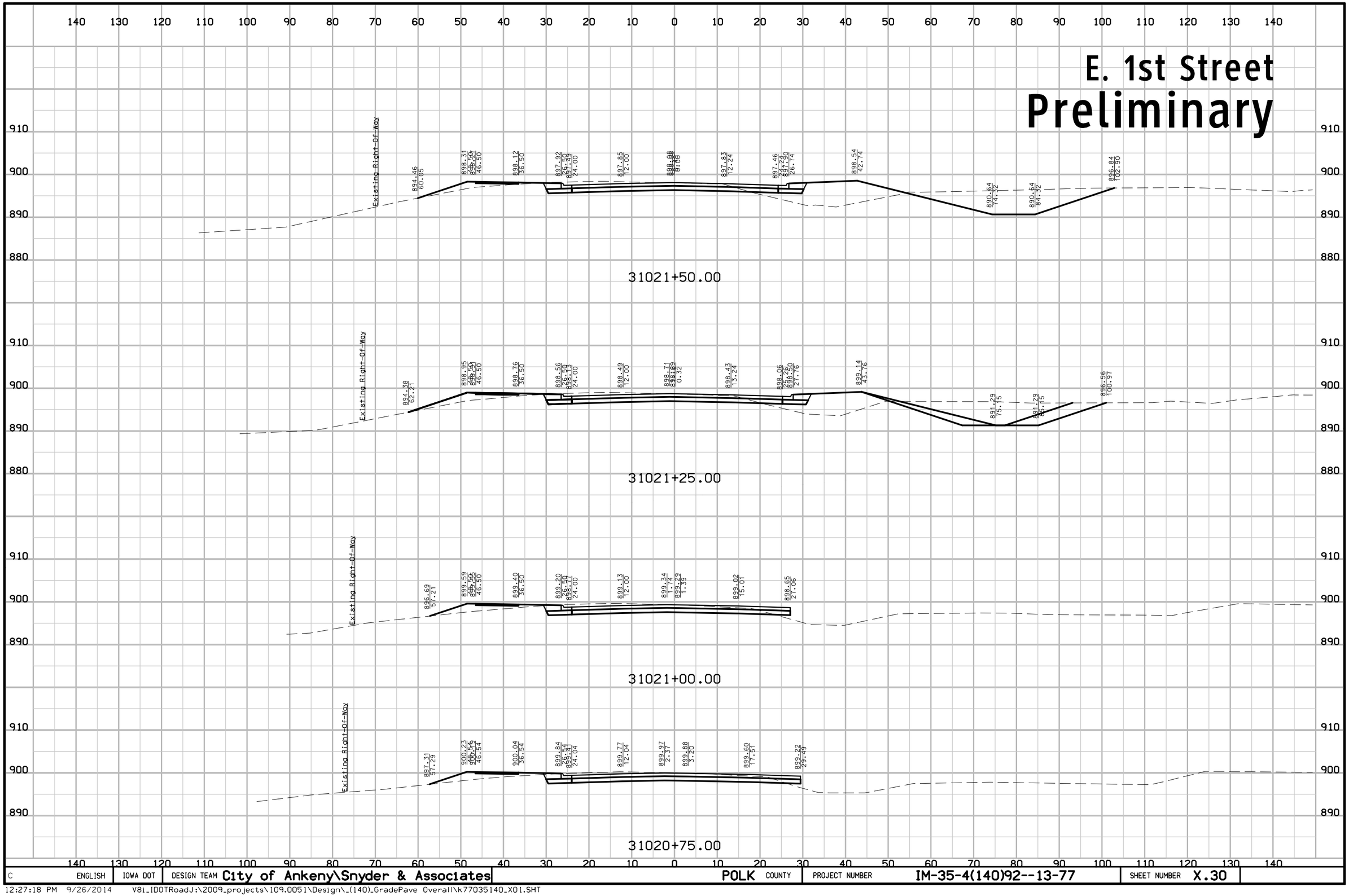


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.29

12:27:18 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

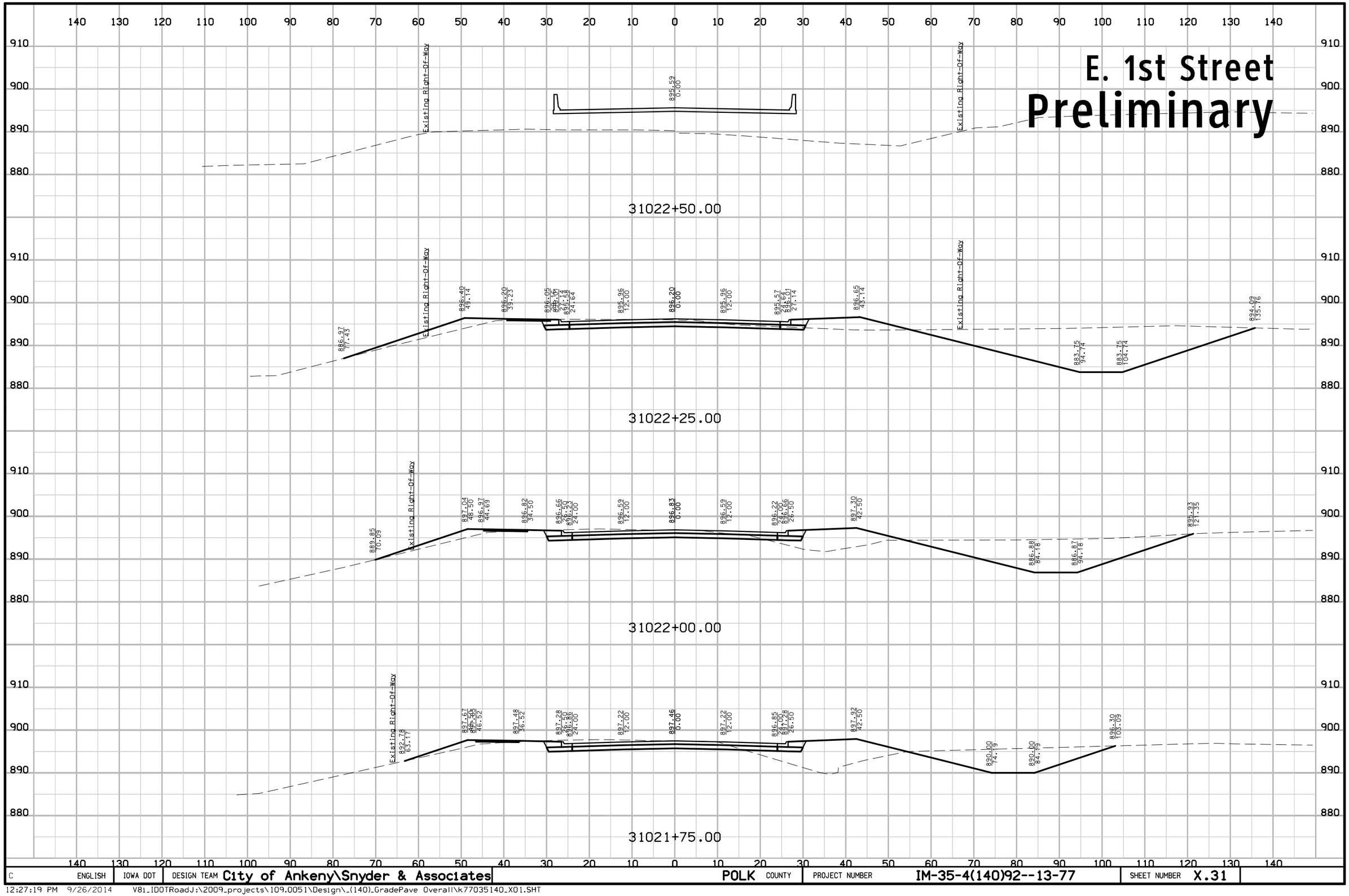
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.30

12:27:18 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

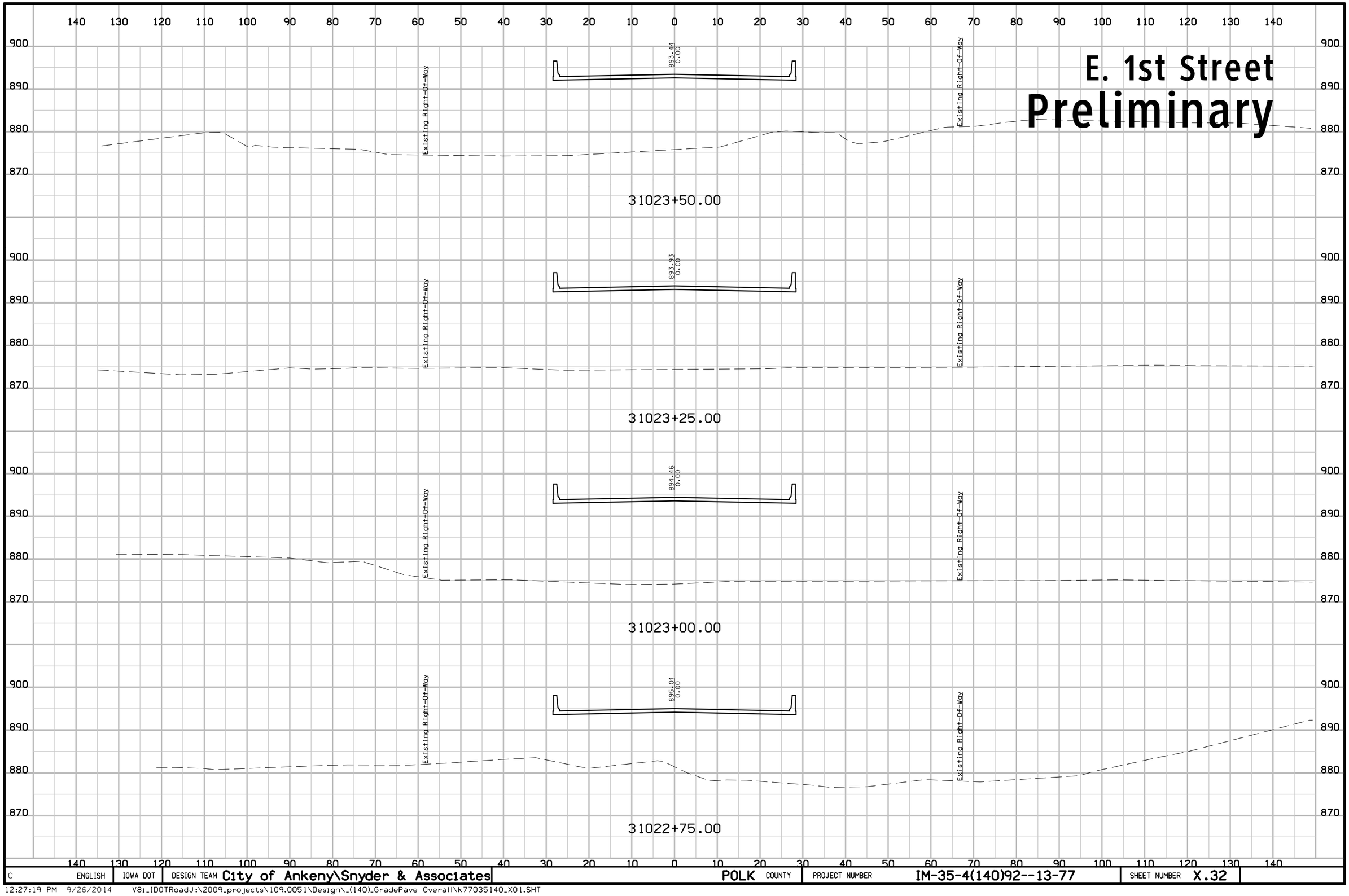
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.31

12:27:19 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street
Preliminary

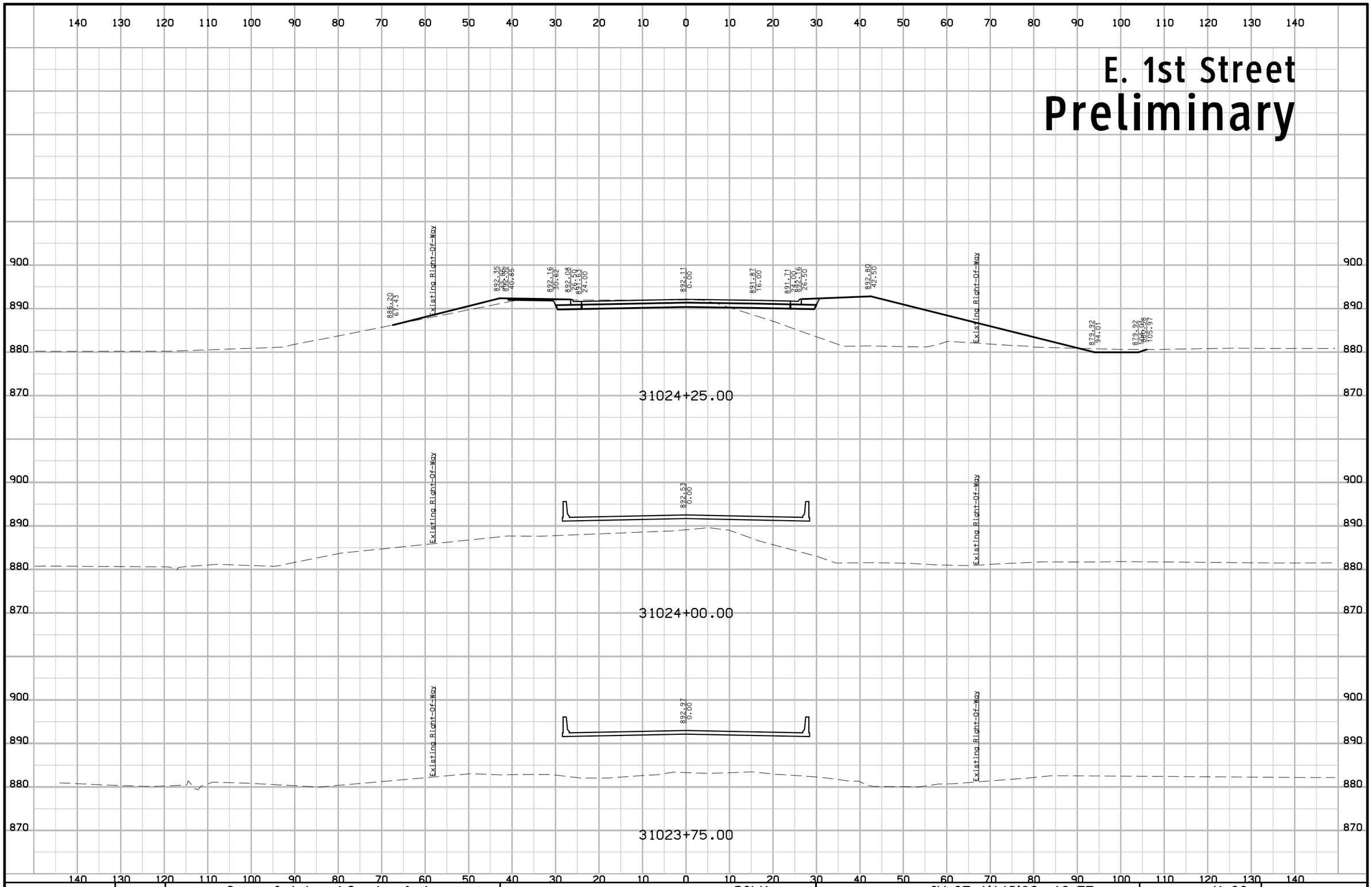


C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.32

12:27:19 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

Preliminary

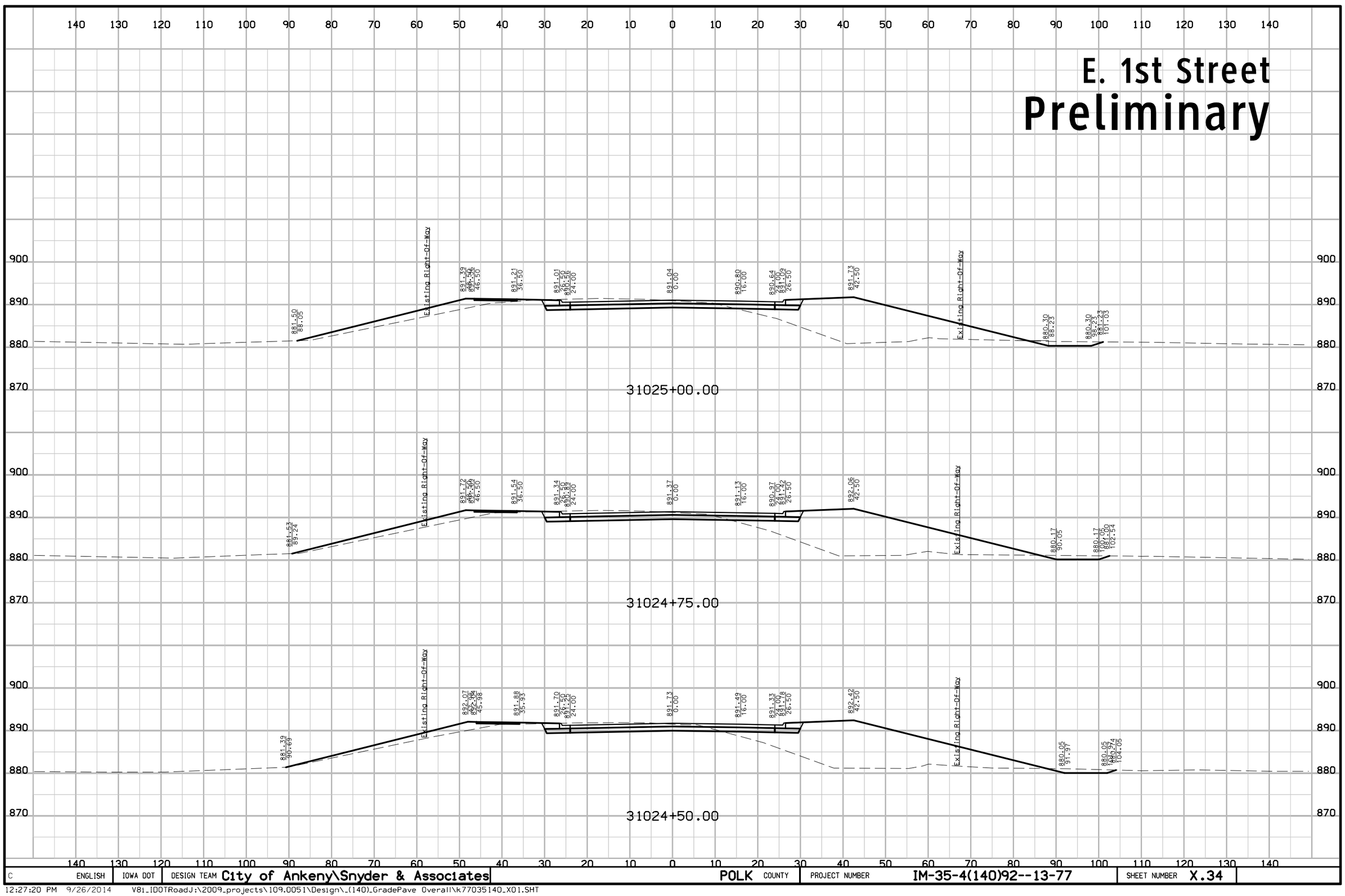


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.33

12:27:19 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

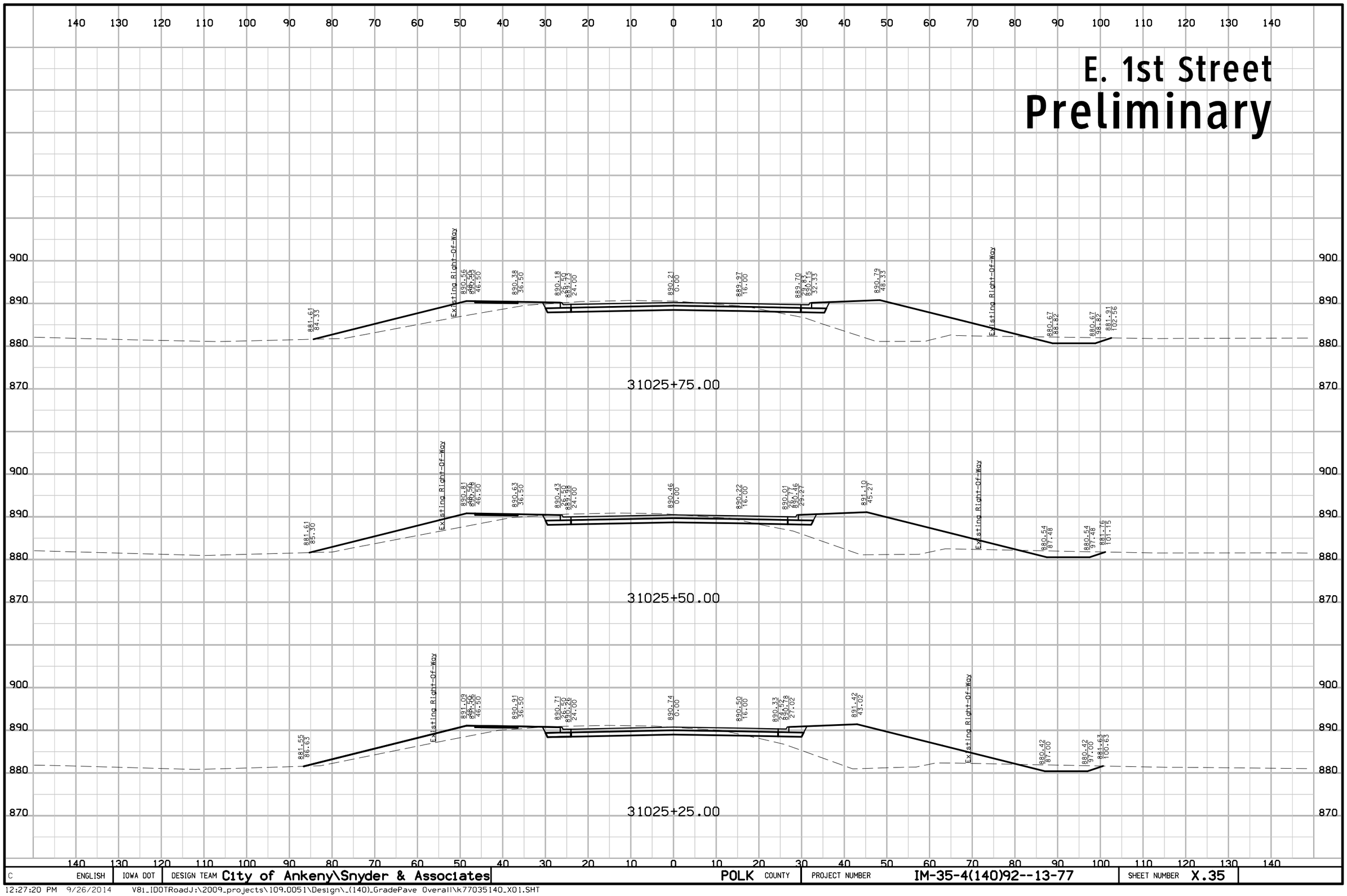
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.34

12:27:20 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street
Preliminary

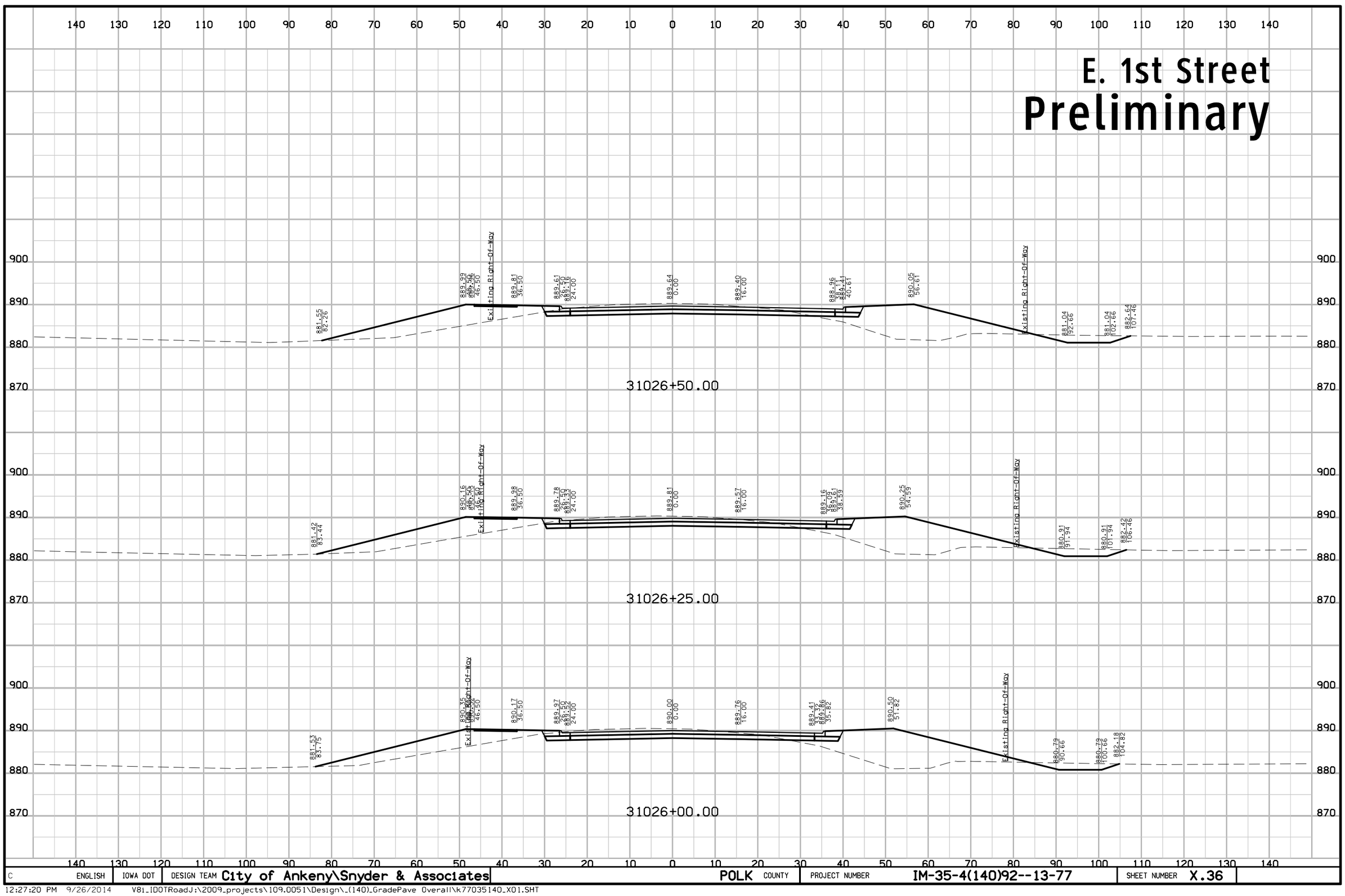


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.35

12:27:20 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

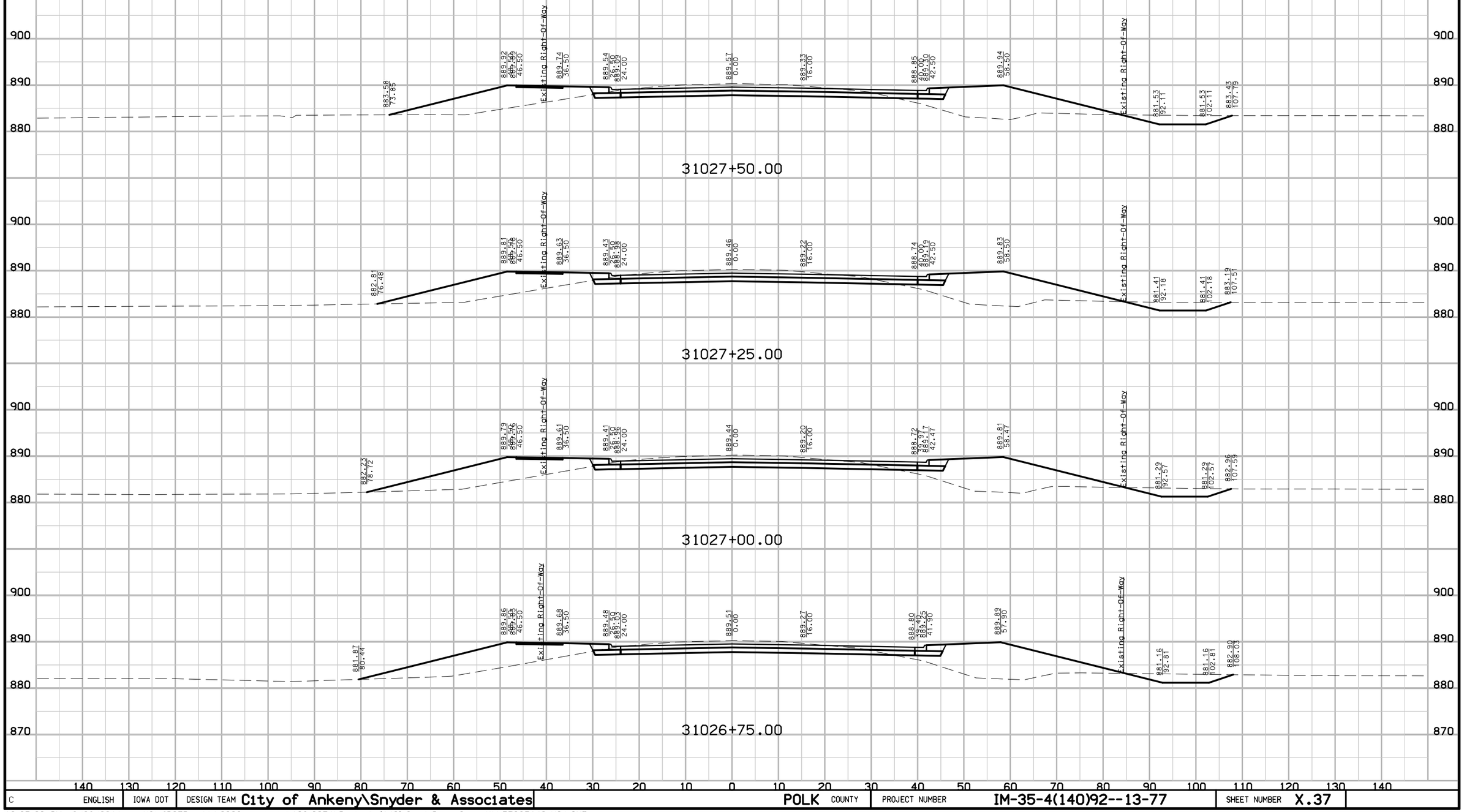
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.36

12:27:20 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.37

12:27:20 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

900 890 880

890.58 12.00 | 890.82 0.00 | 890.58 16.00 | 890.34 28.00

31028+50.00

884.78 72.42 | 890.76 890.56 46.50 | Existing Right-Of-Way | 890.58 36.50 | 890.38 889.93 24.00 | 890.41 0.00 | 890.17 16.00 | 889.69 890.04 42.50 | 890.78 58.50 | Existing Right-Of-Way | 881.90 94.01 | 881.90 104.01 | 884.33 111.29

31028+25.00

884.52 71.98 | 890.39 890.96 46.50 | Existing Right-Of-Way | 890.21 36.50 | 890.01 889.58 24.00 | 890.04 0.00 | 889.80 16.00 | 889.32 890.07 42.50 | 890.41 58.50 | Existing Right-Of-Way | 881.78 93.03 | 881.78 103.03 | 884.03 109.78

31028+00.00

884.05 72.75 | 890.11 890.96 46.50 | Existing Right-Of-Way | 889.93 36.50 | 889.73 889.28 24.00 | 889.76 0.00 | 889.52 16.00 | 889.04 890.09 42.50 | 890.13 58.50 | Existing Right-Of-Way | 881.66 92.39 | 881.66 102.39 | 883.77 108.73

31027+75.00

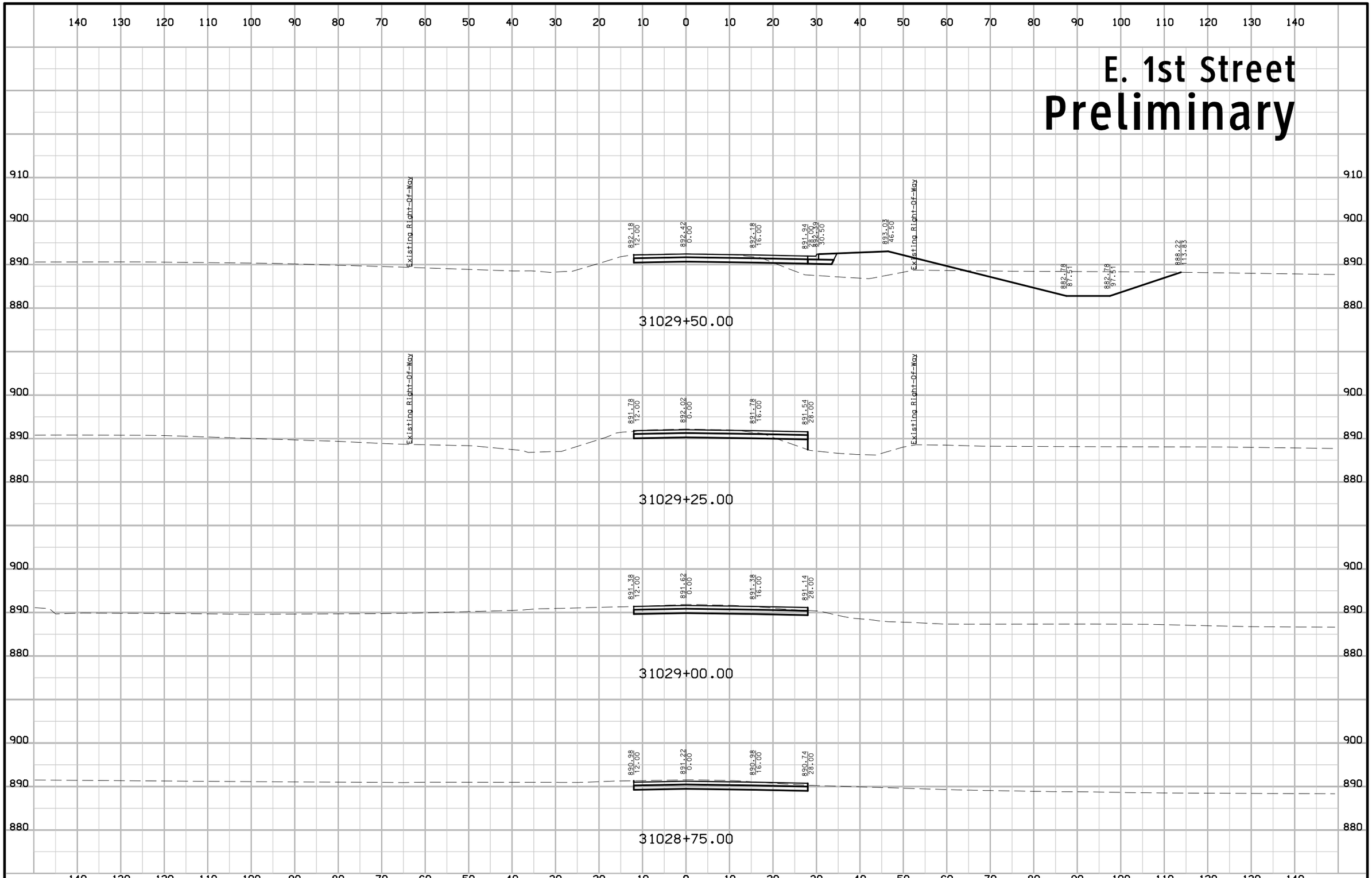
140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.38

12:27:21 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

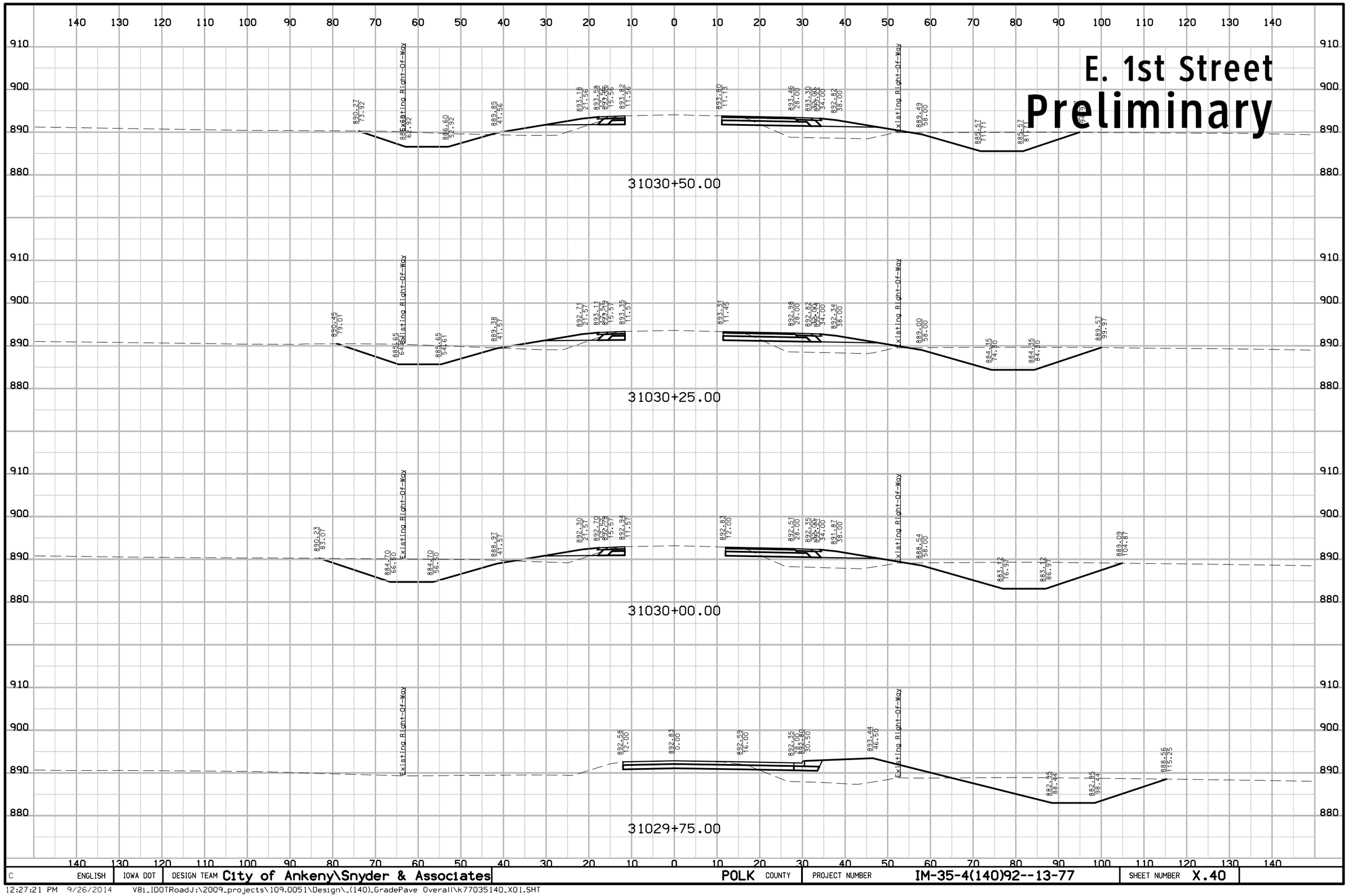
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.39

12:27:21 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

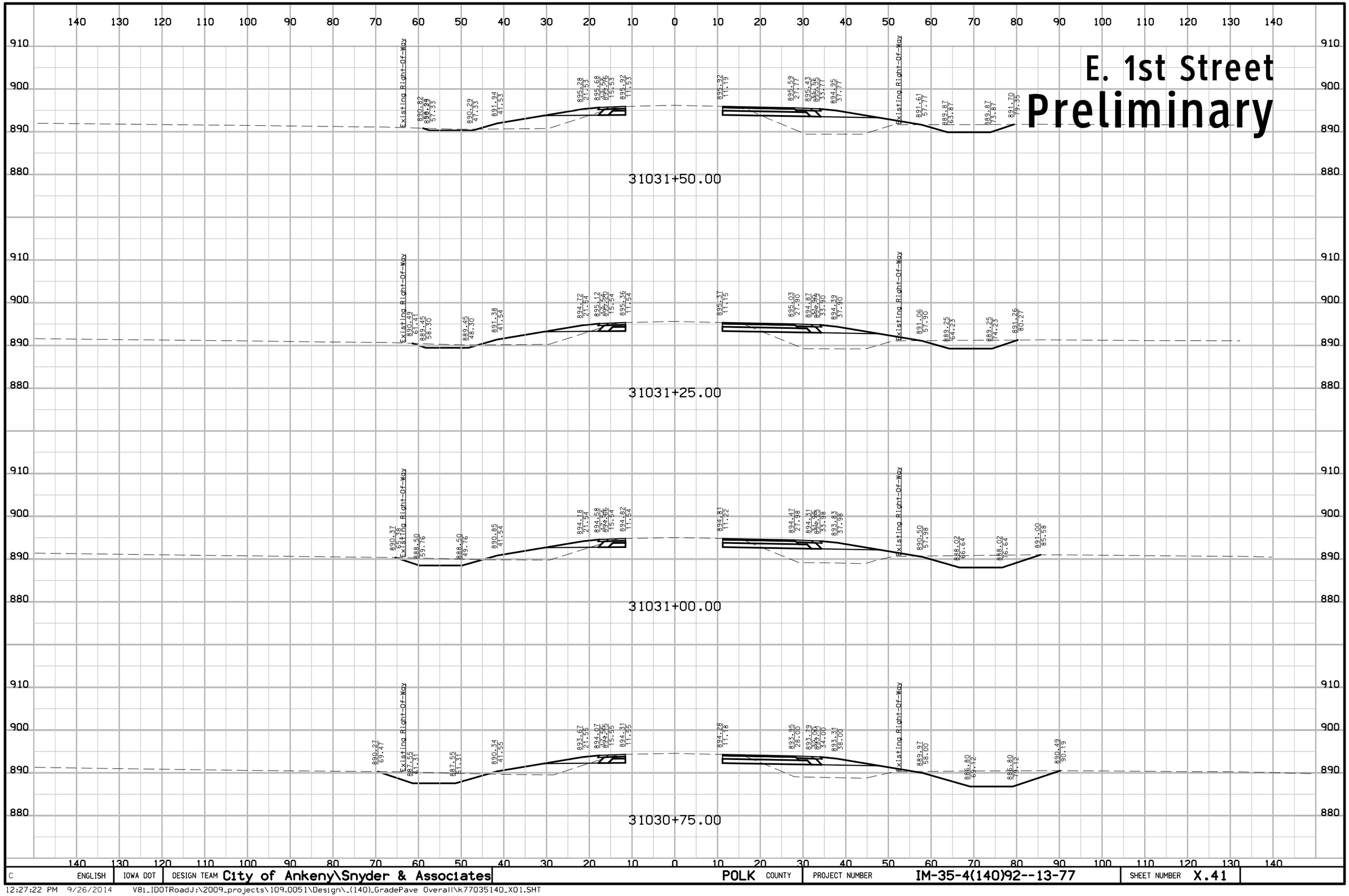
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.40

12:27:21 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

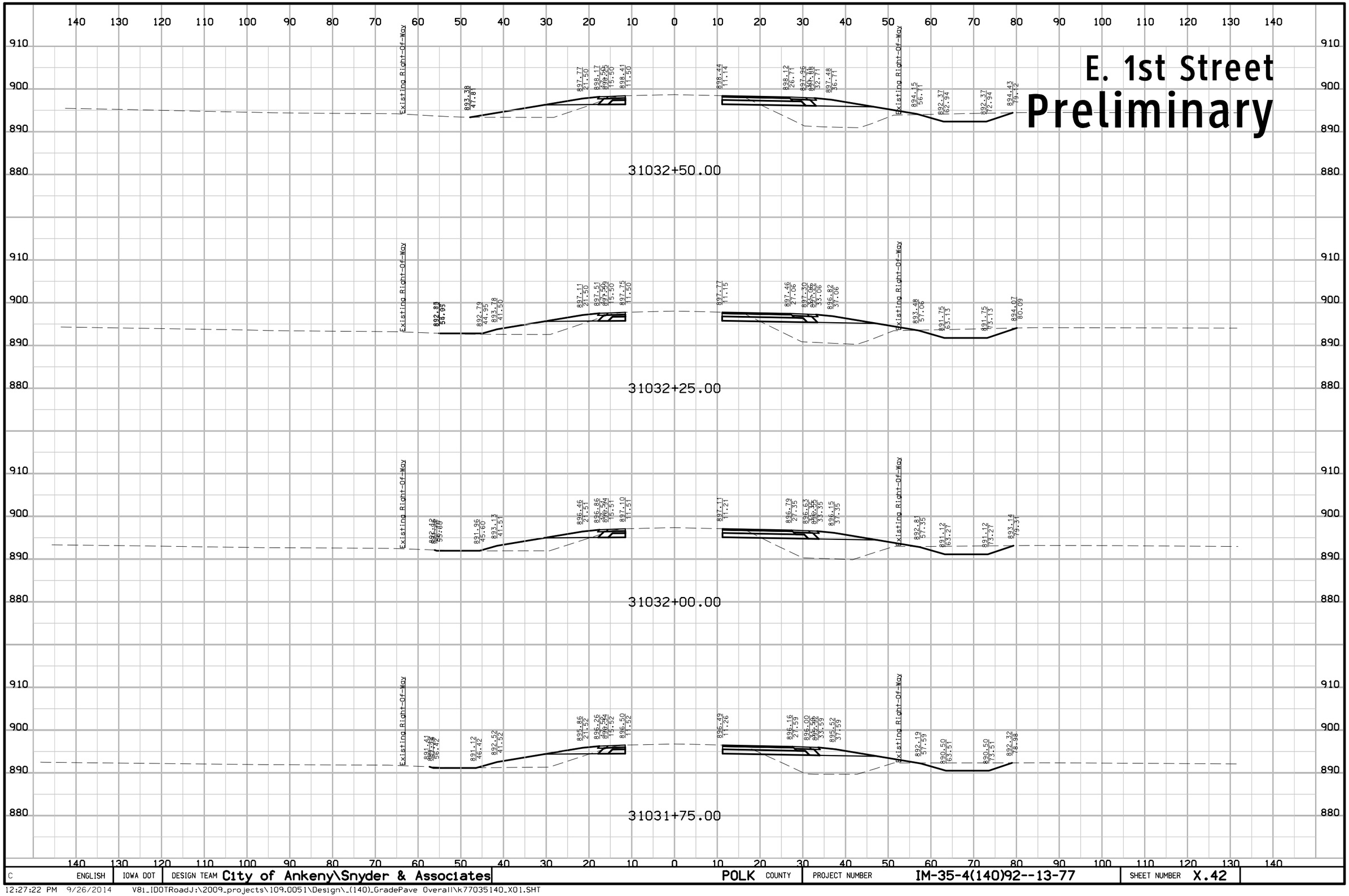
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.41

12:27:22 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street
Preliminary

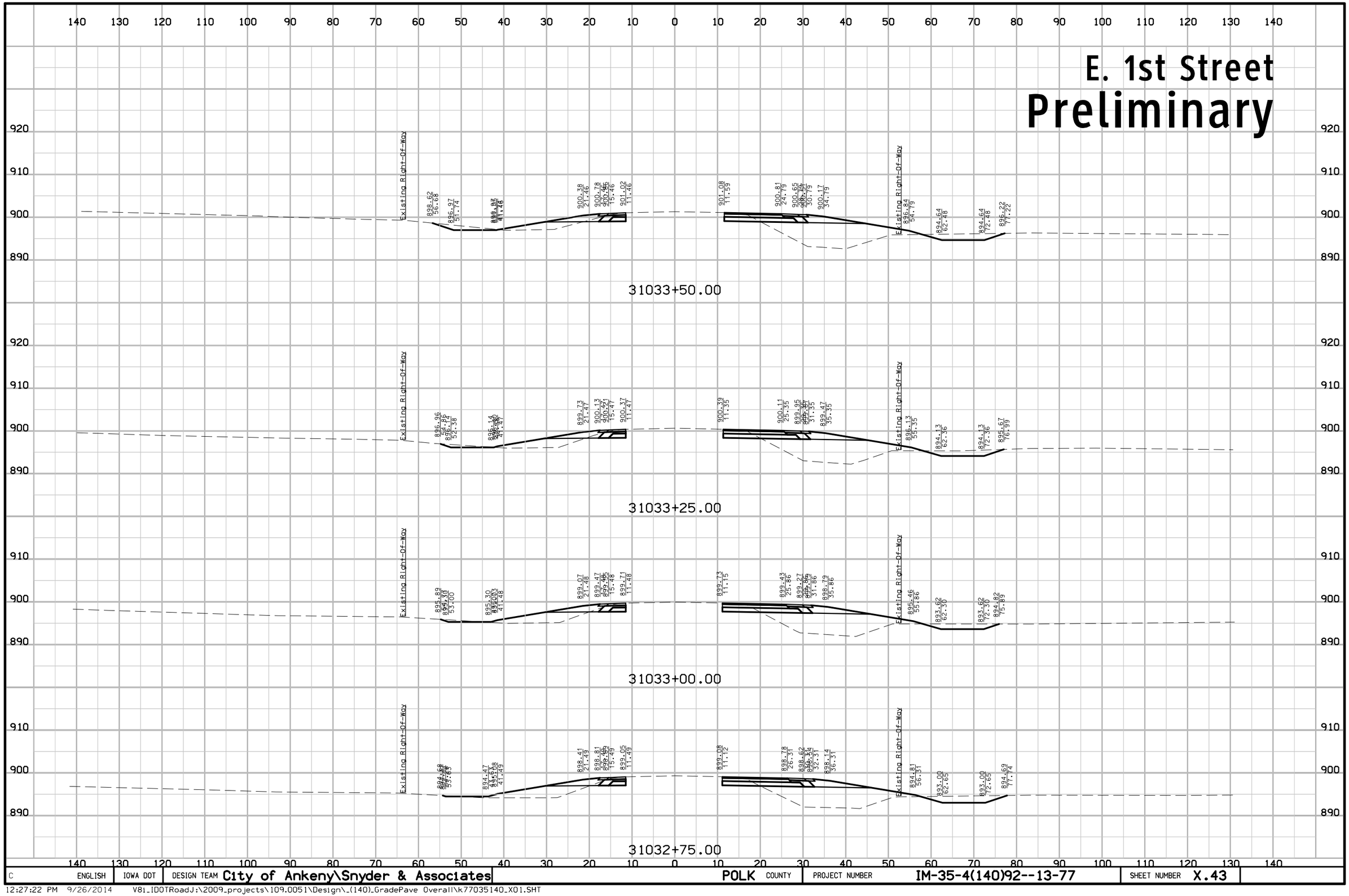


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.42

12:27:22 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street

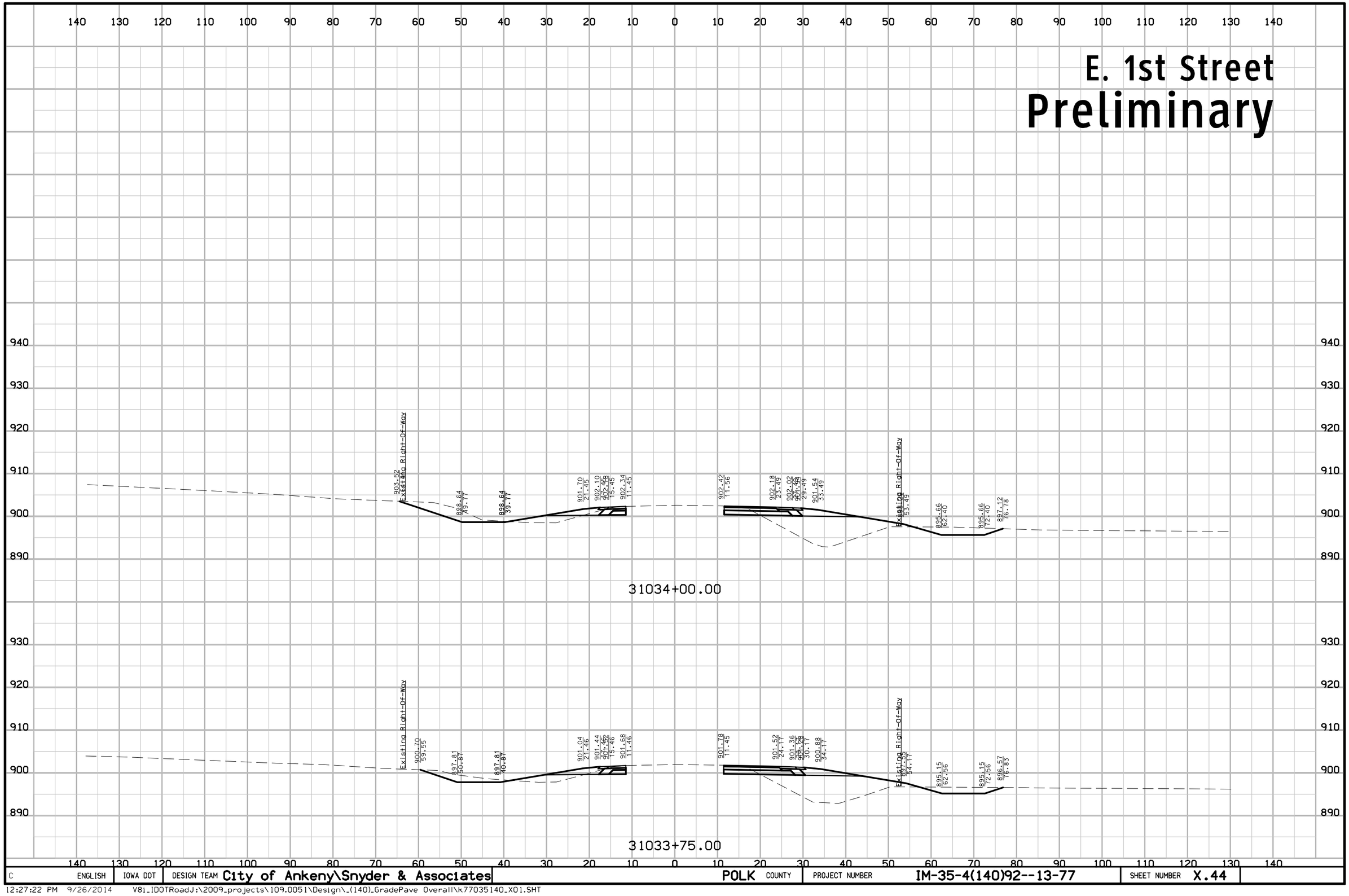
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.43

12:27:22 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

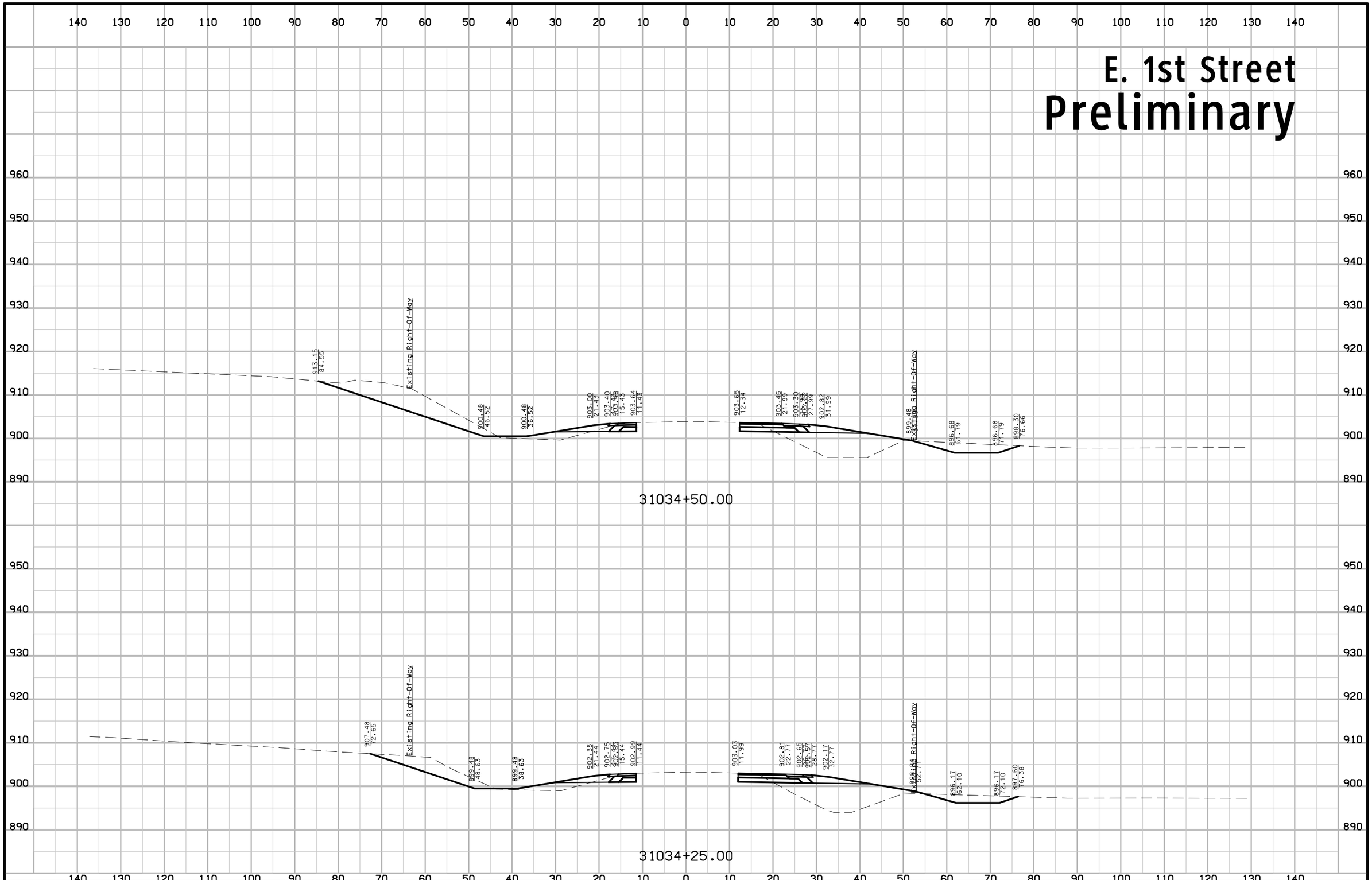
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.44

12:27:22 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

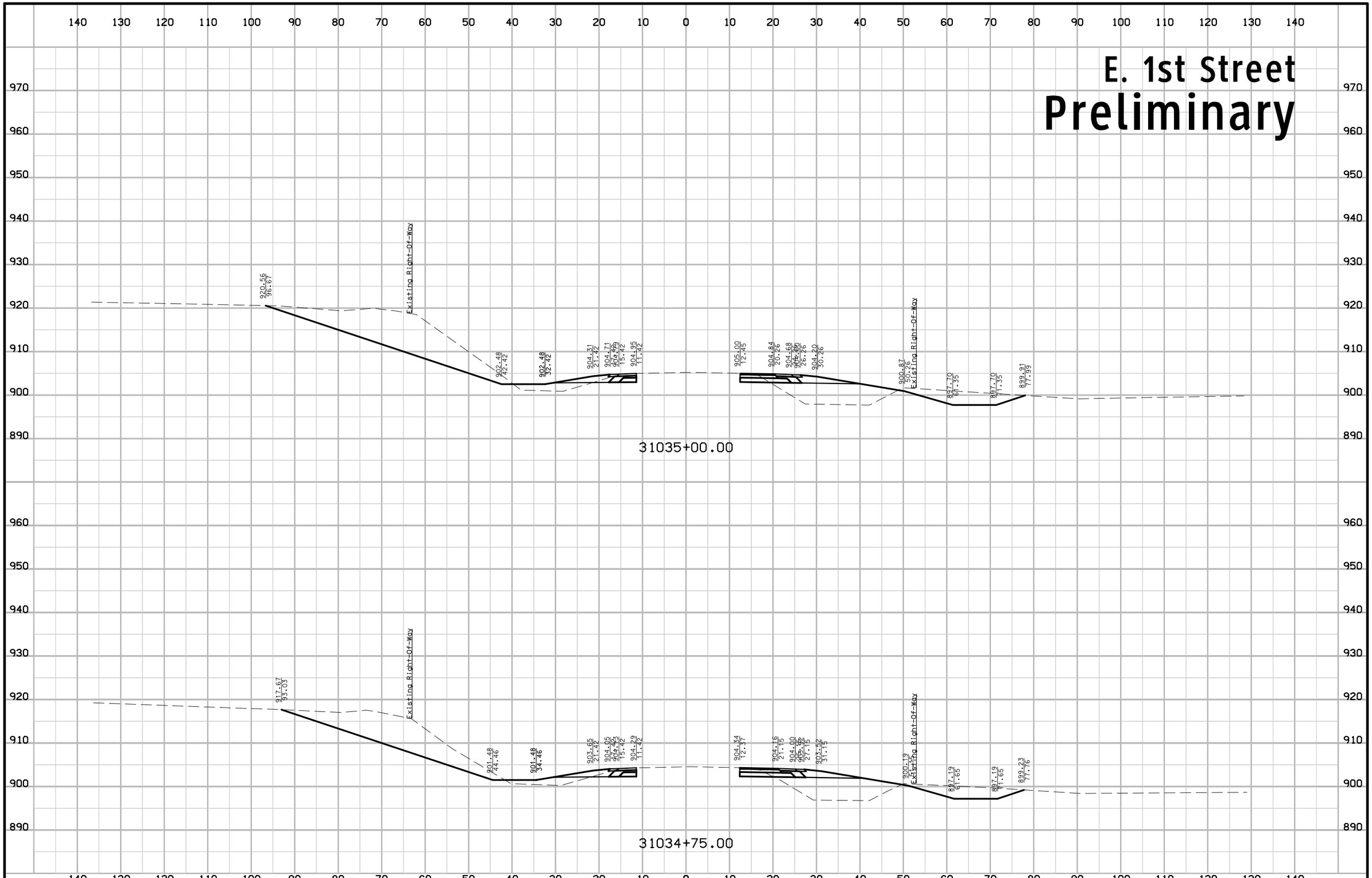
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.45

12:27:23 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

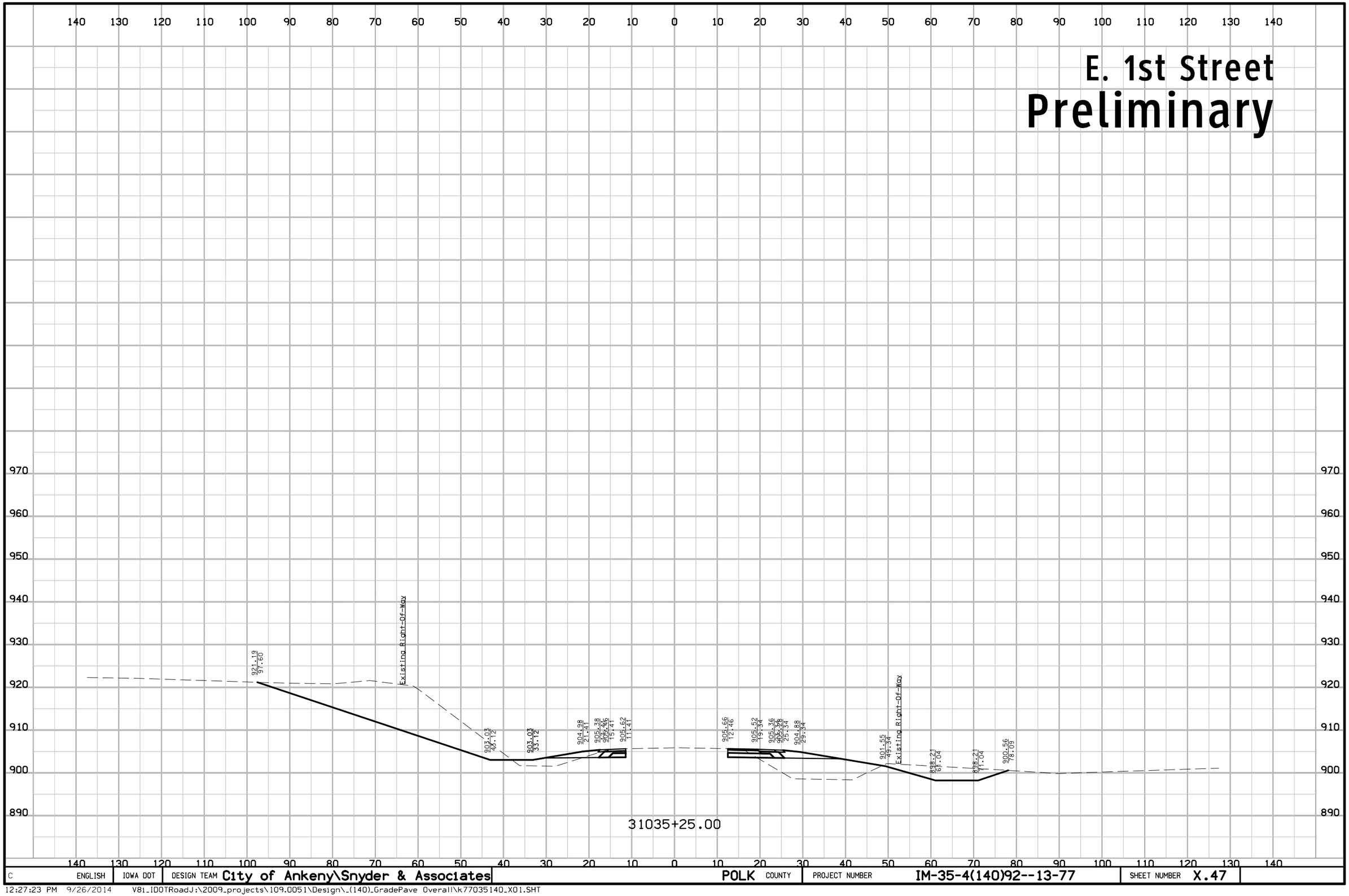
E. 1st Street
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.46

12:27:23 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

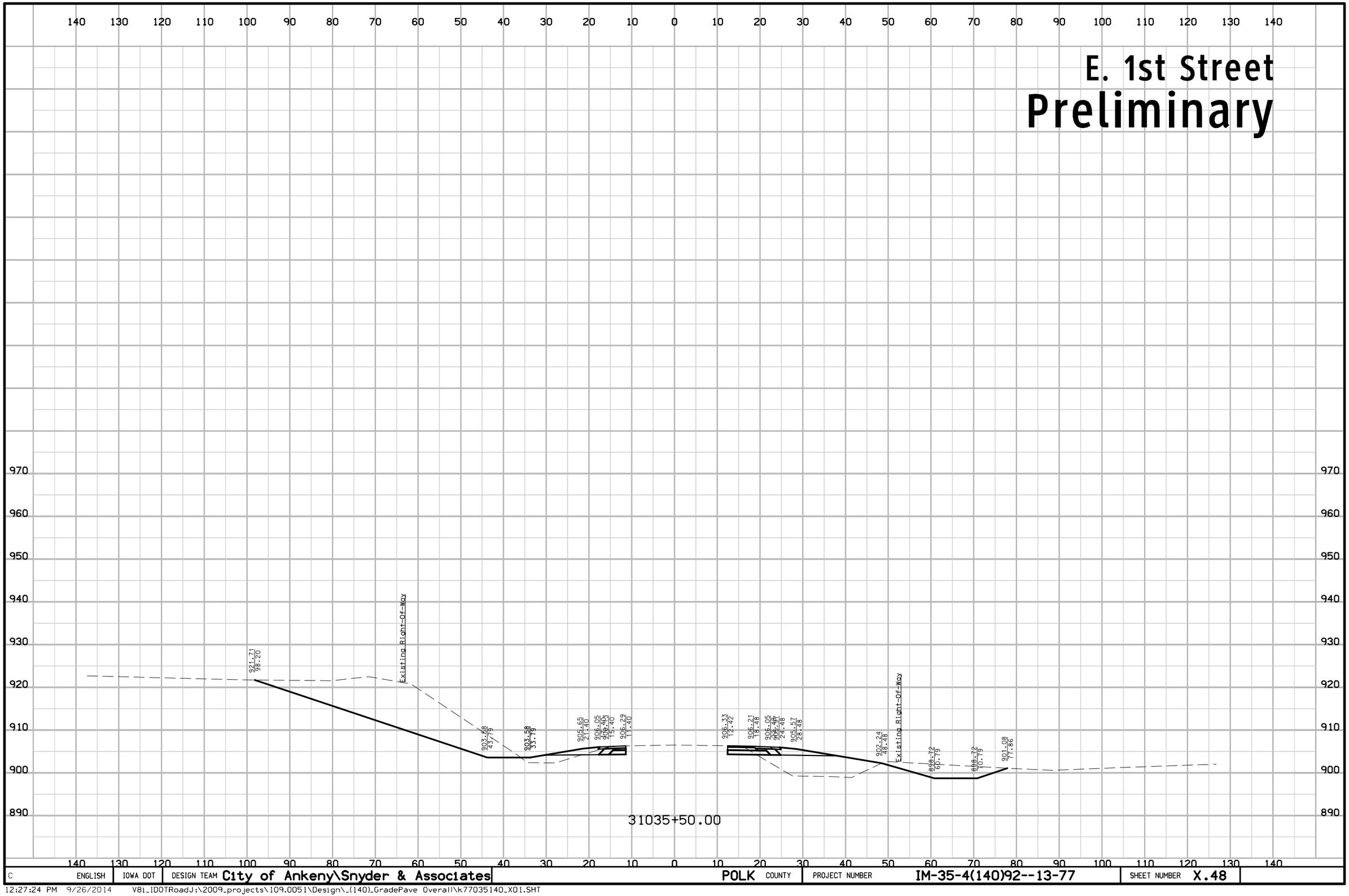
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.47

12:27:23 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

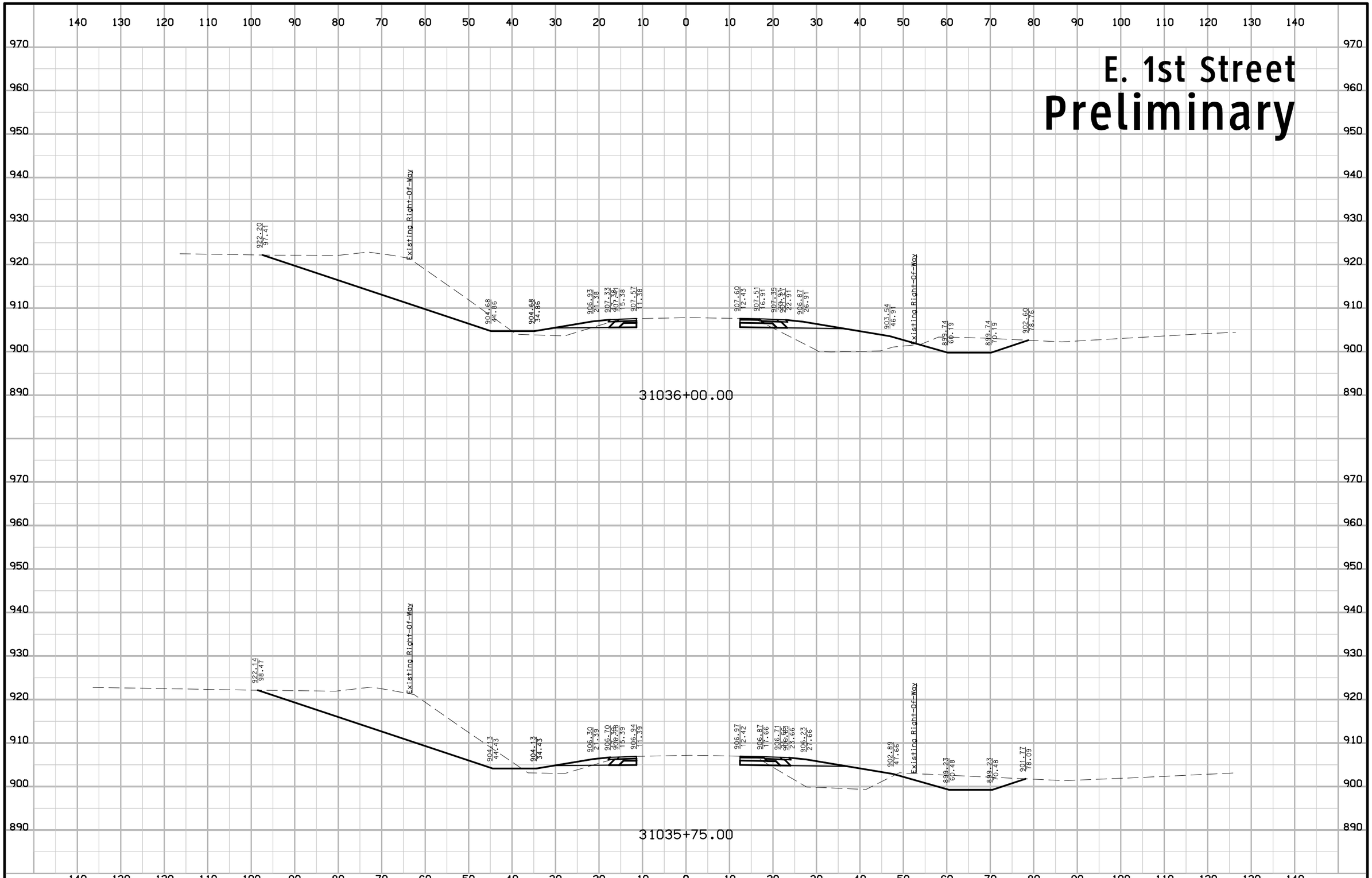
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.48

12:27:24 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

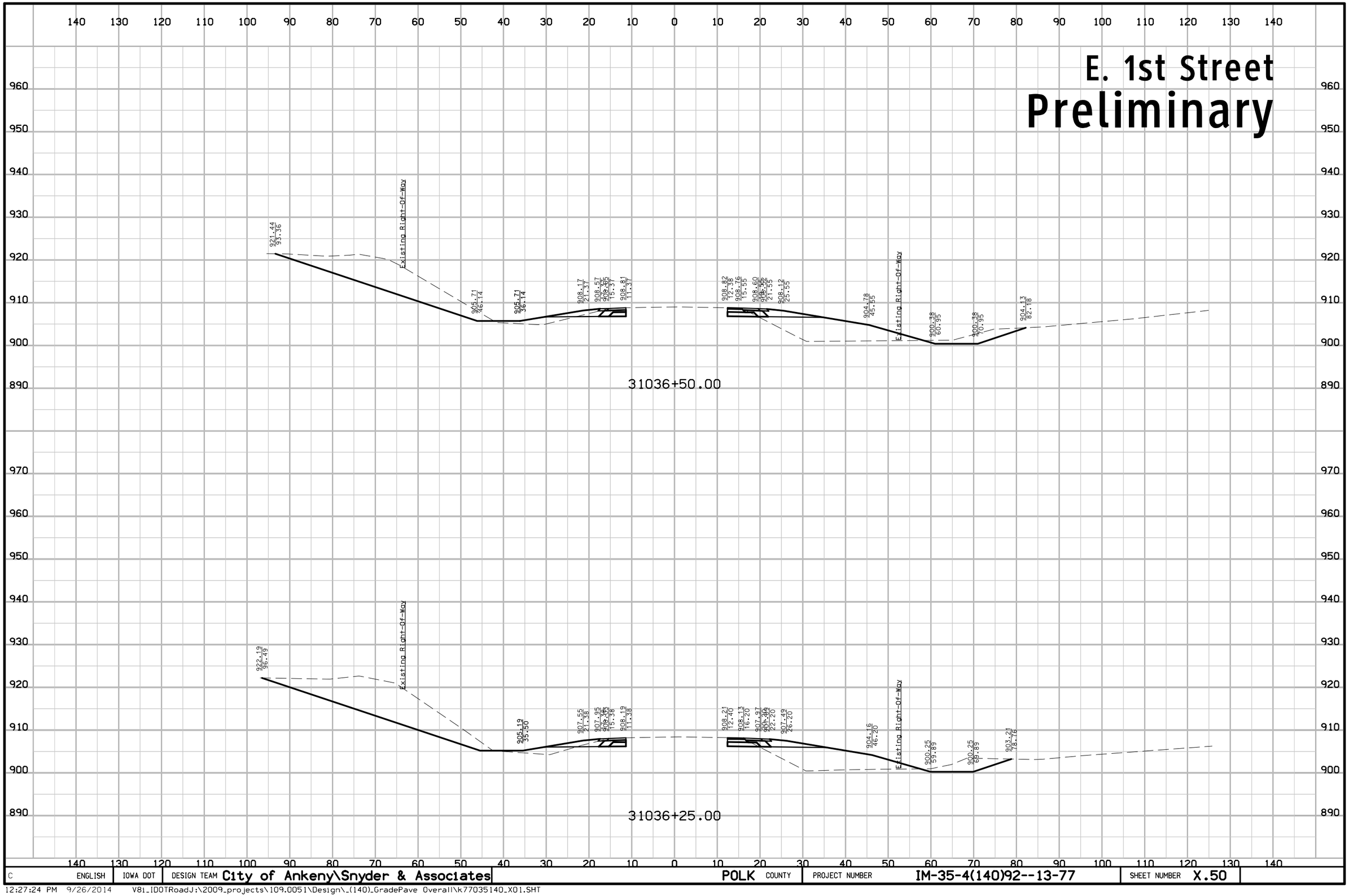
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.49

12:27:24 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

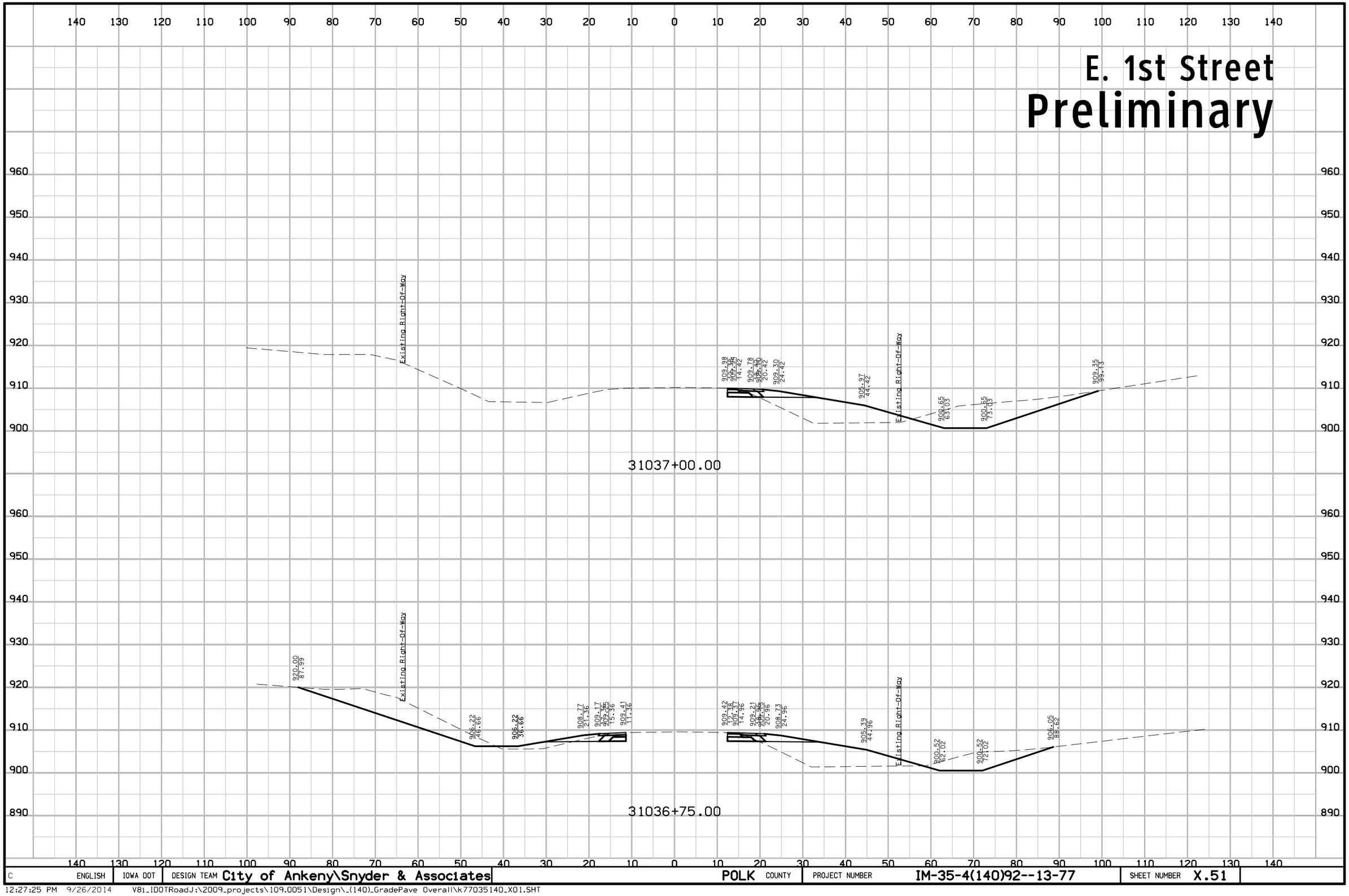
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.50

12:27:24 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

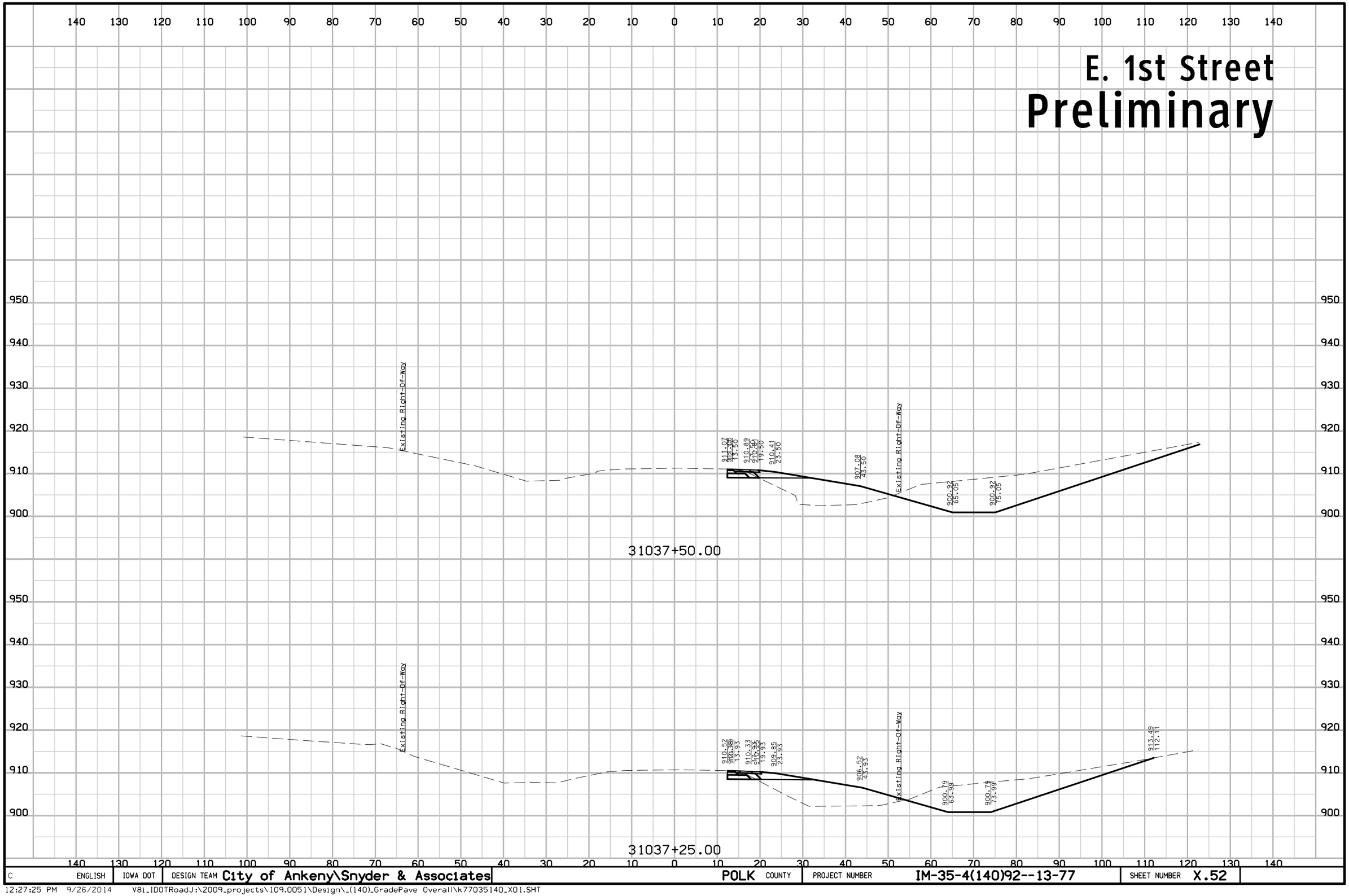
E. 1st Street
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	X.51

12:27:25 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

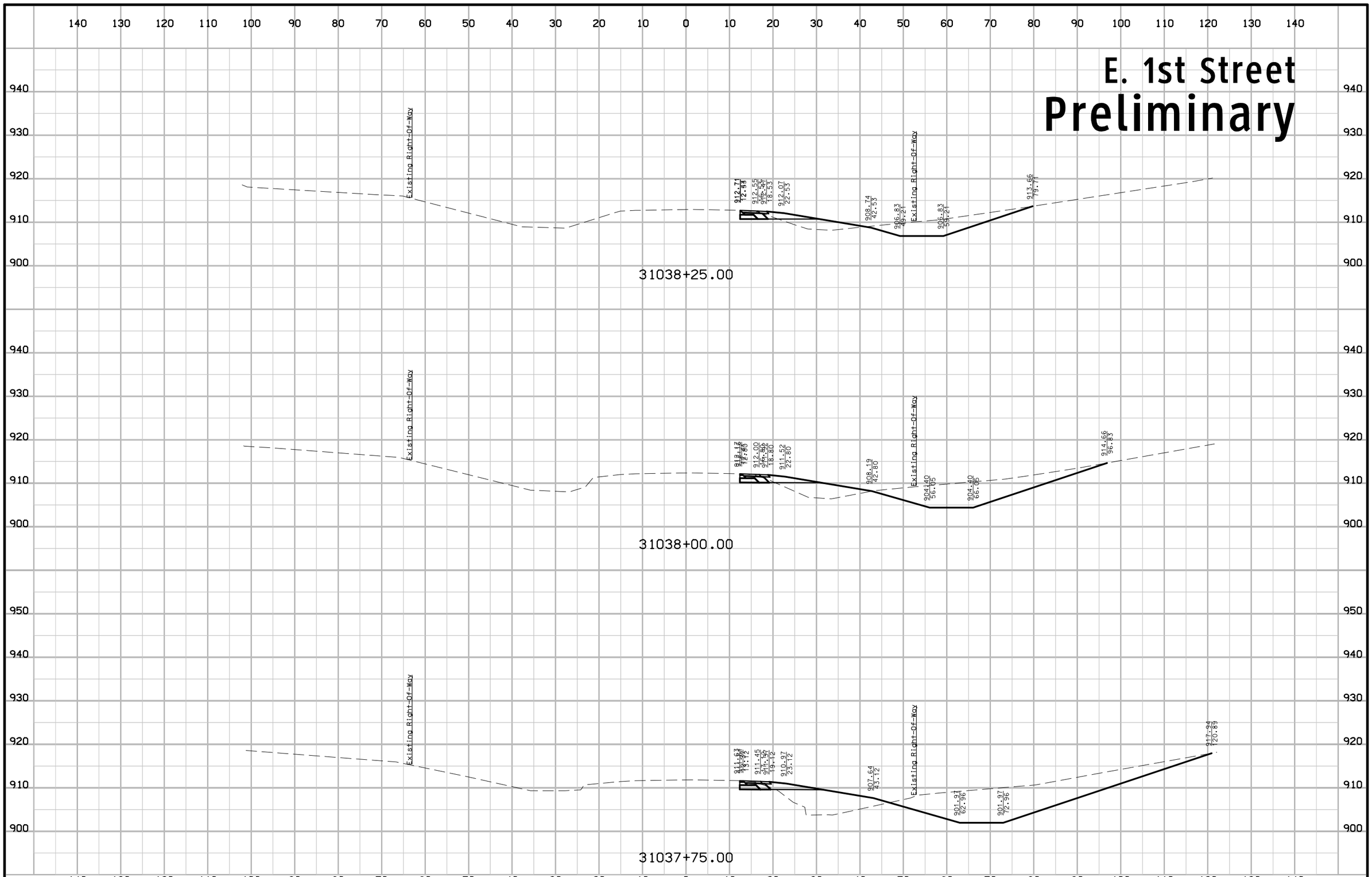
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.52

12:27:25 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

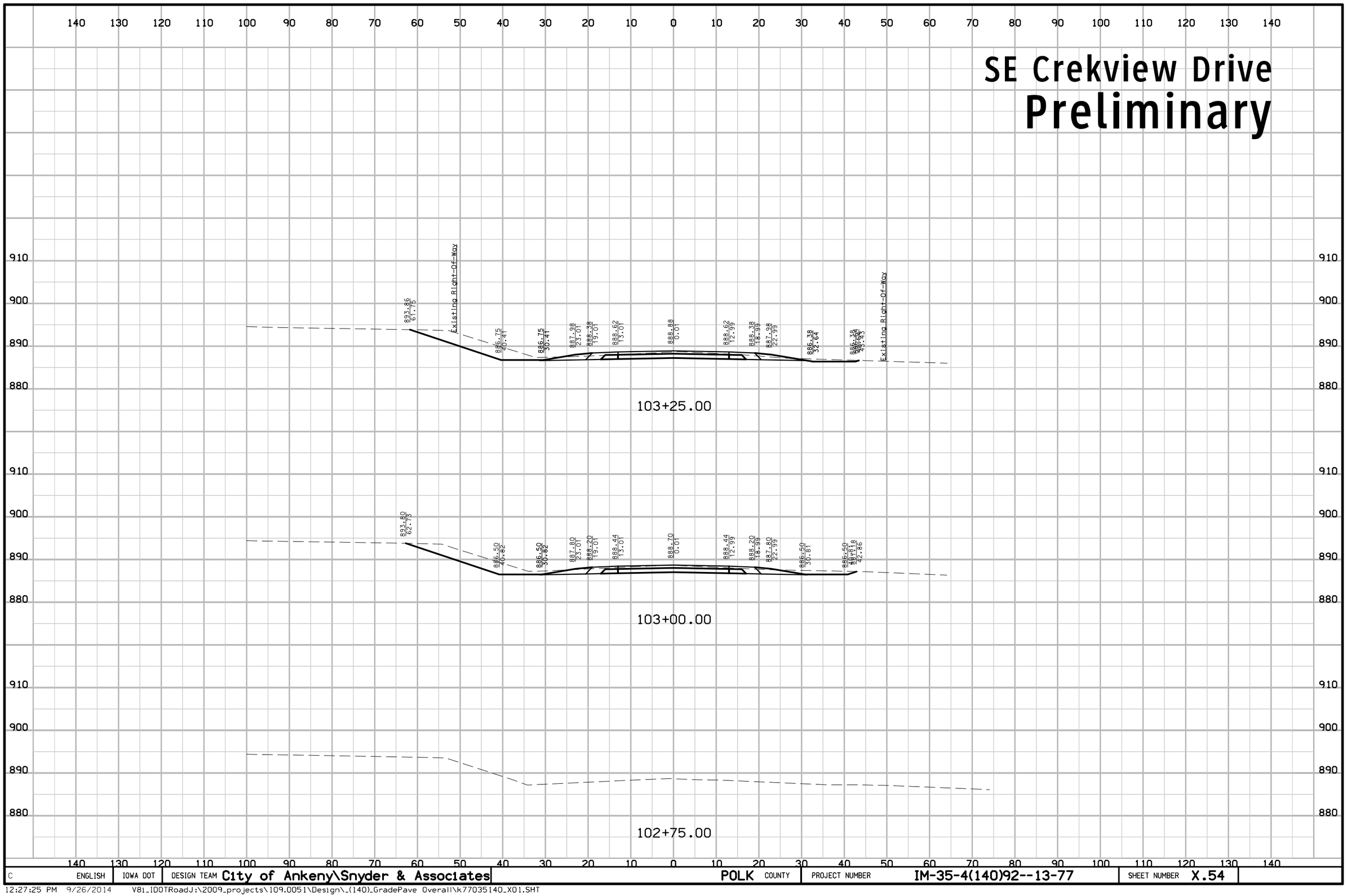
E. 1st Street
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.53

12:27:25 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

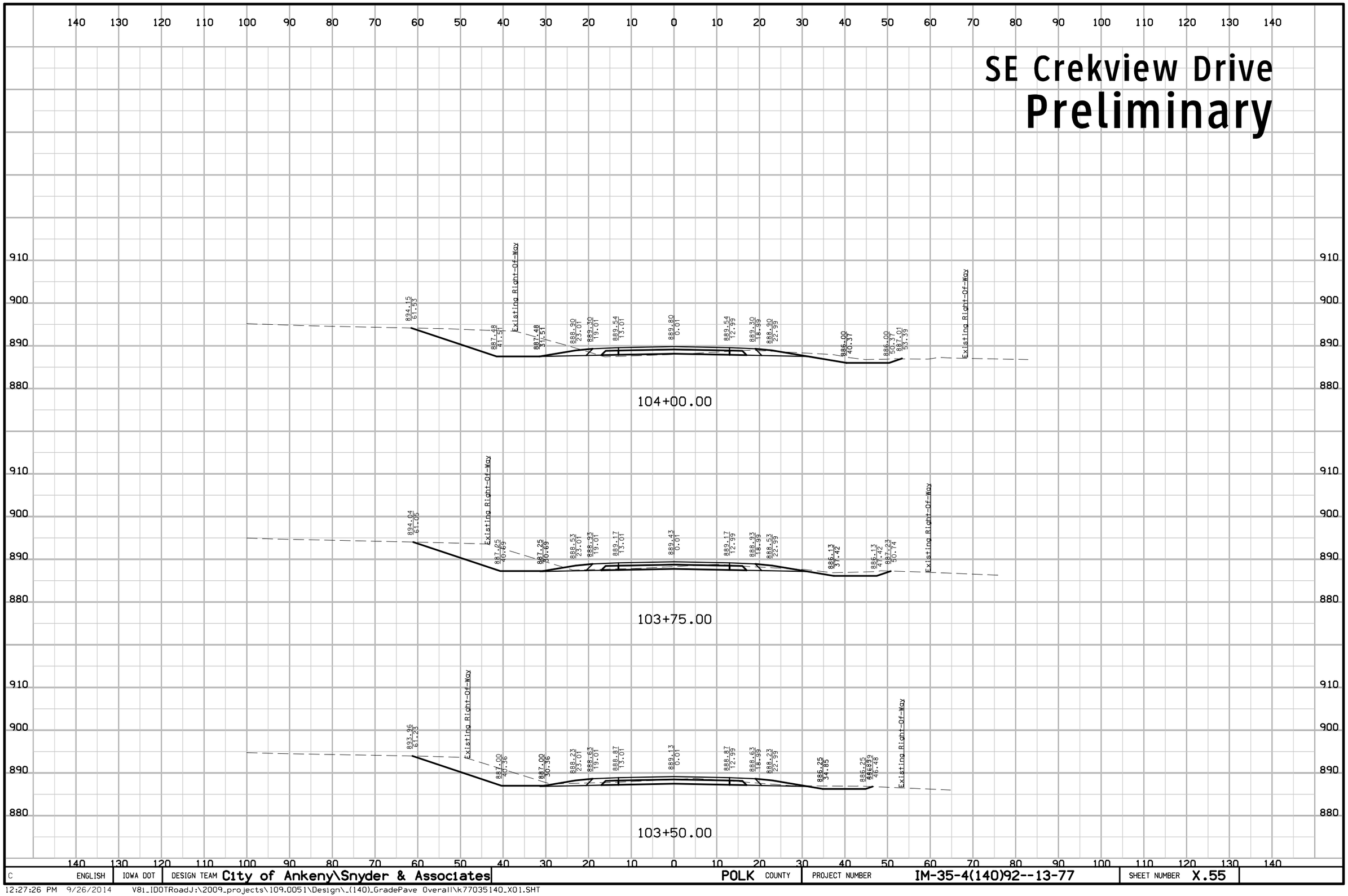
SE Crekview Drive
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.54

12:27:25 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

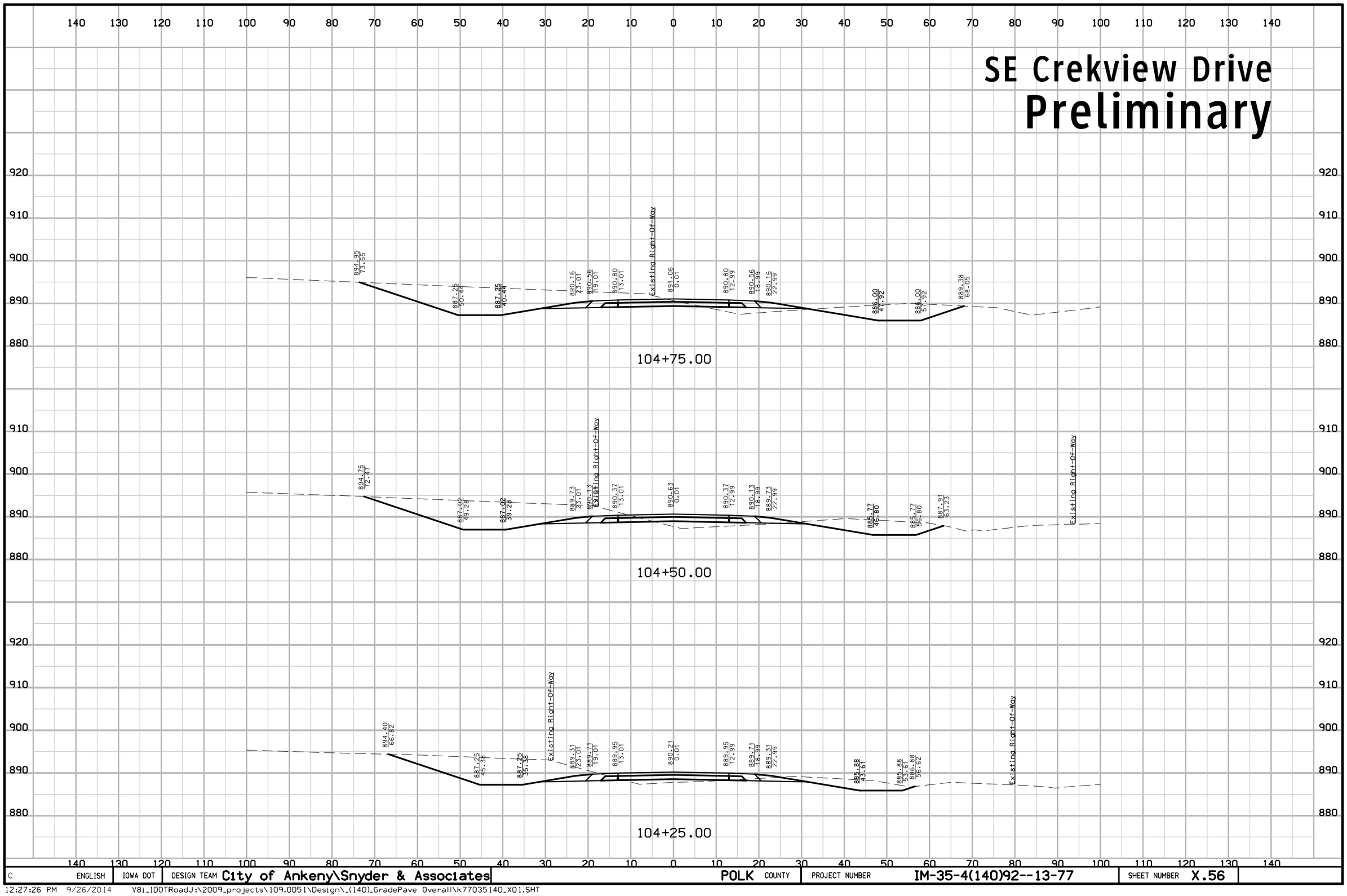
SE Crekview Drive
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.55

12:27:26 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

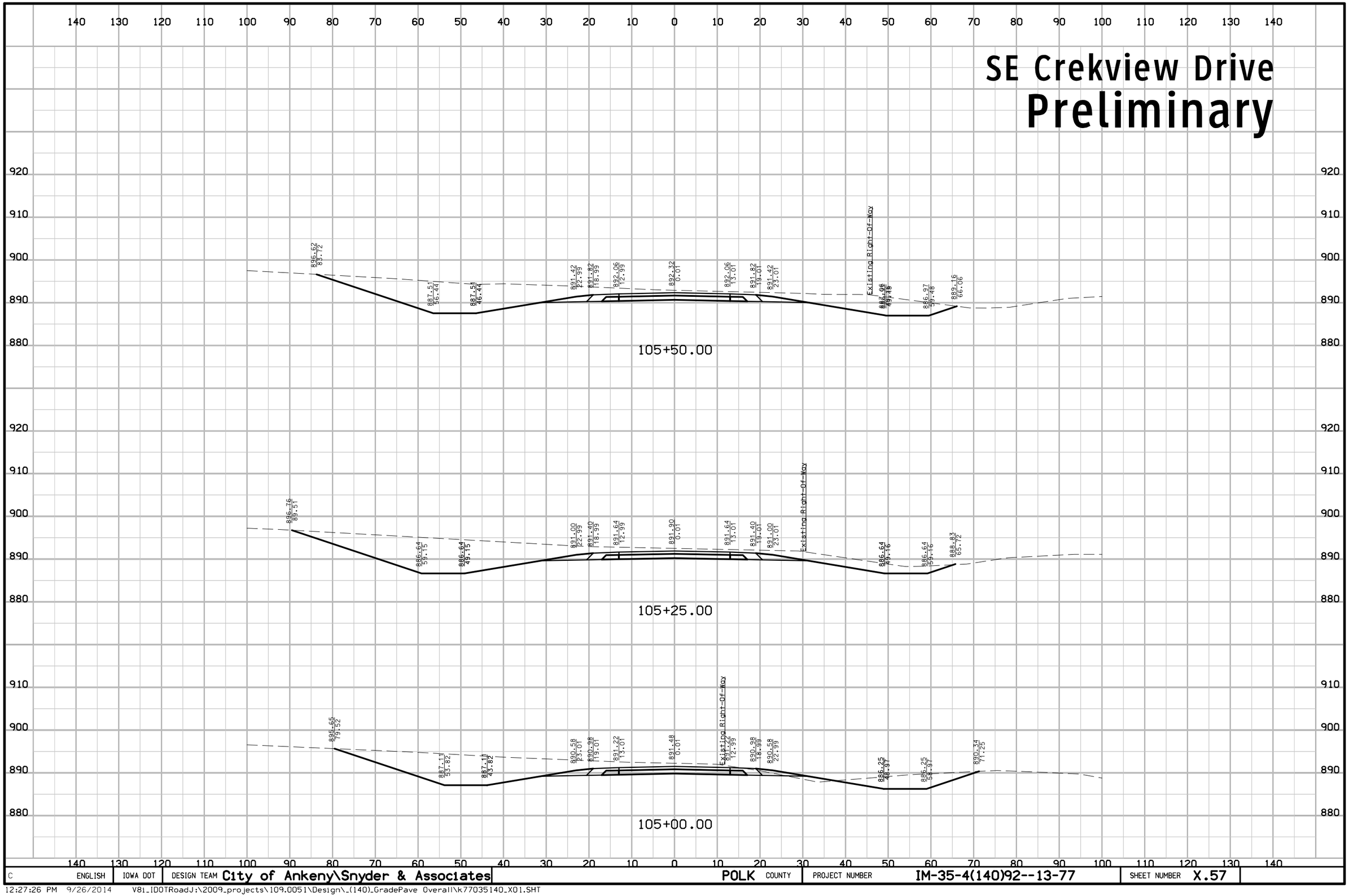
SE Crekview Drive
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.56

12:27:26 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

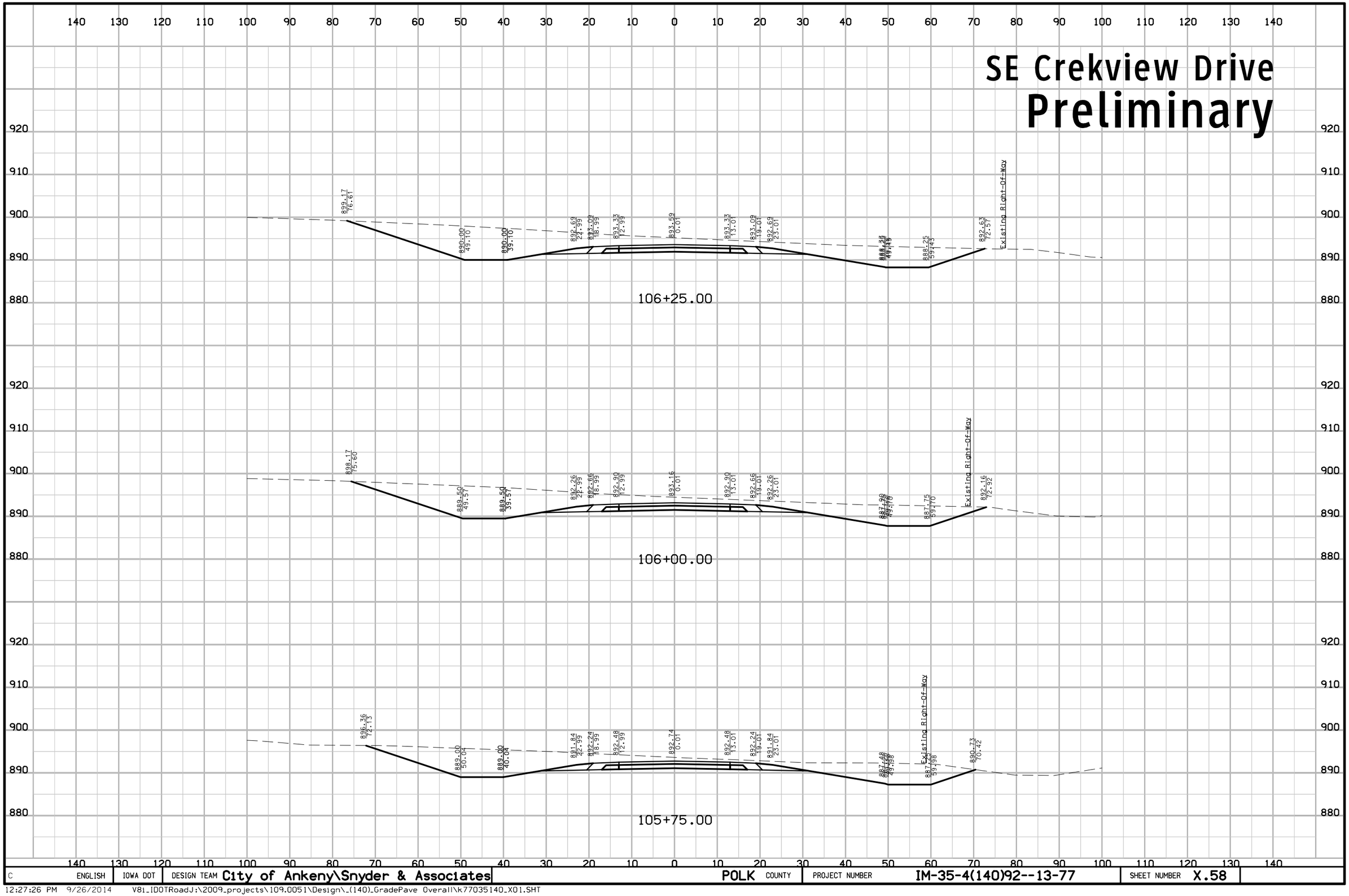
SE Crekview Drive
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.57

12:27:26 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

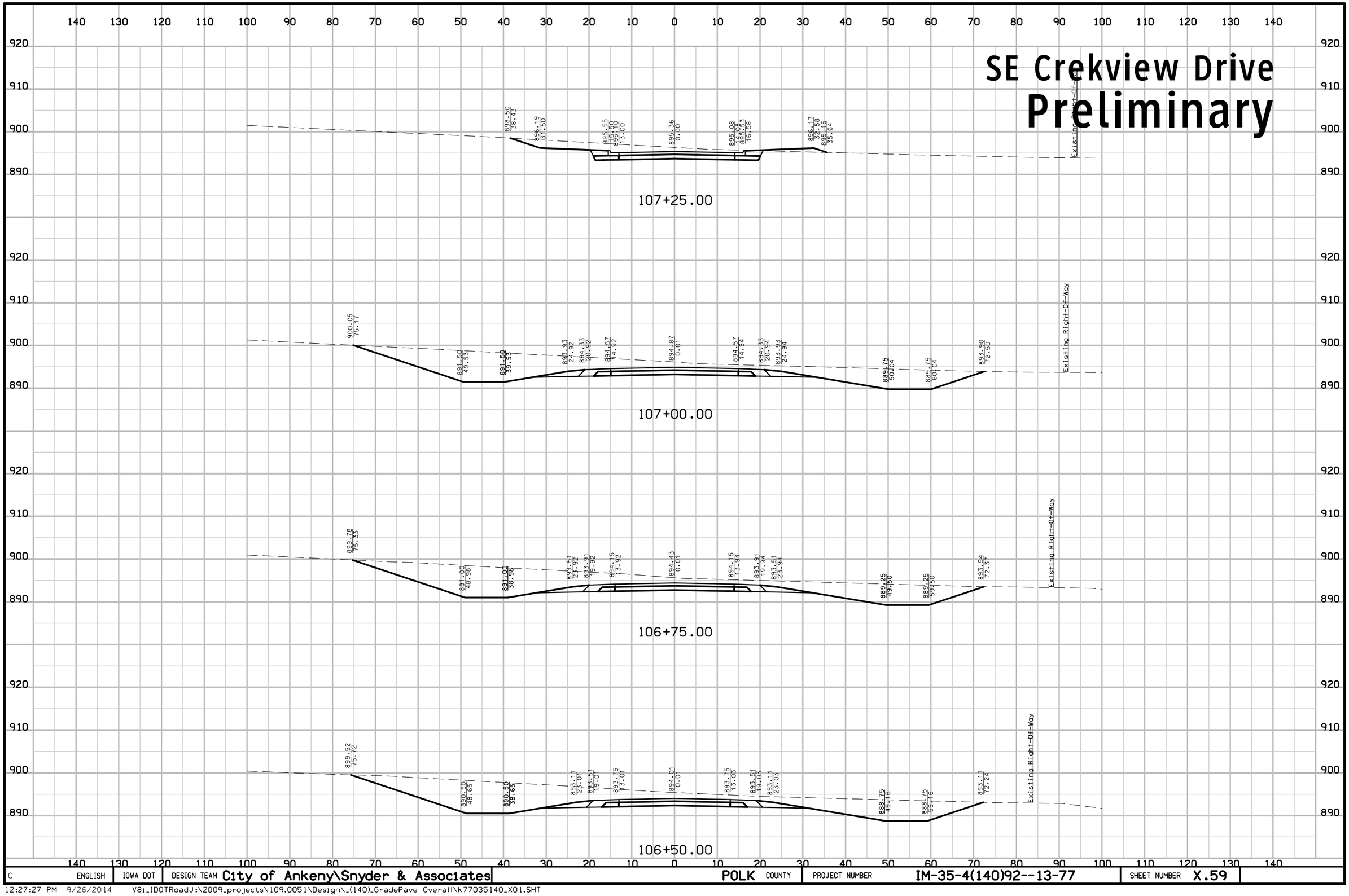
SE Crekview Drive
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.58	

12:27:26 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_X01.SHT

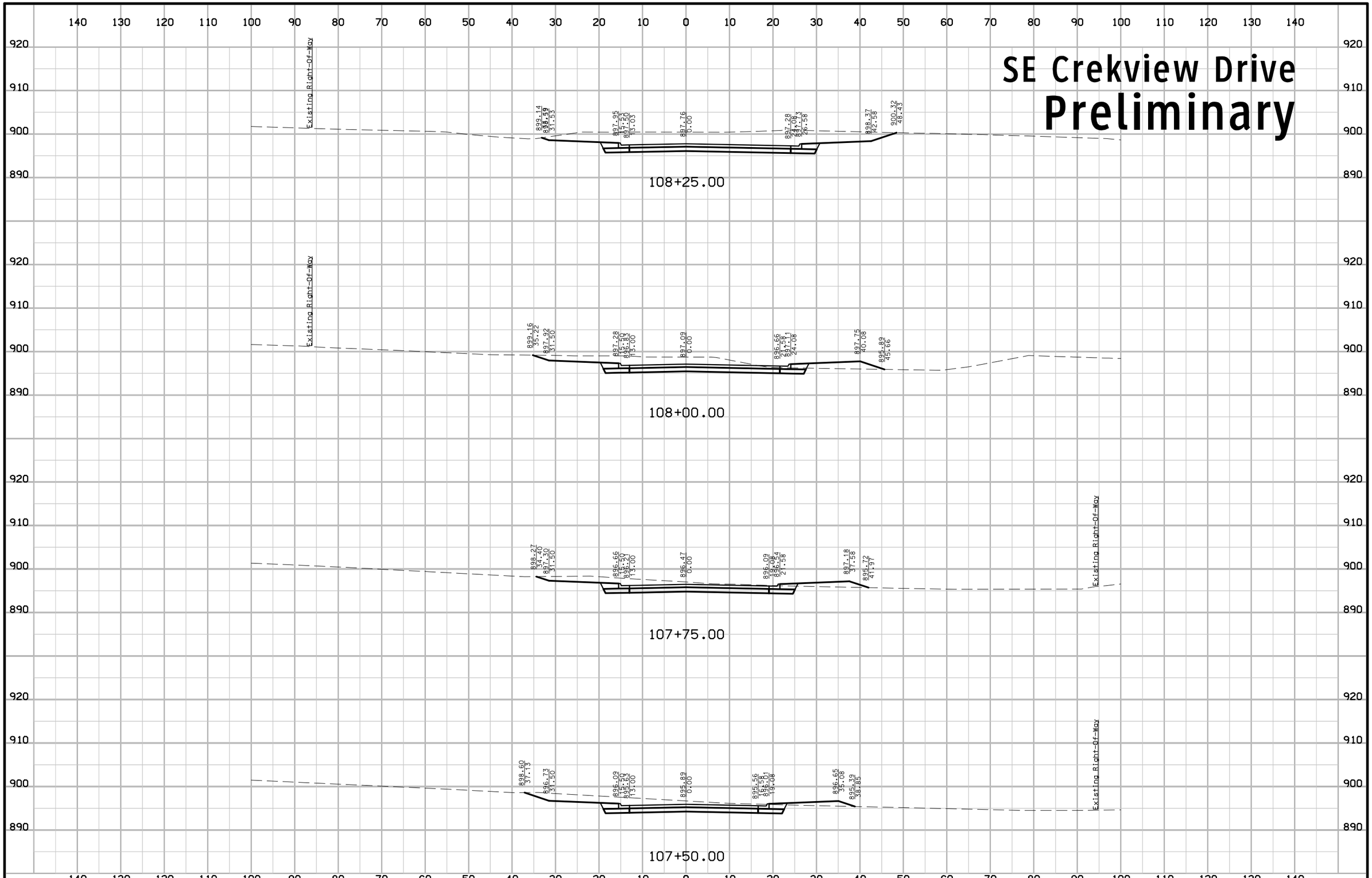
SE Crekview Drive
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.59

12:27:27 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

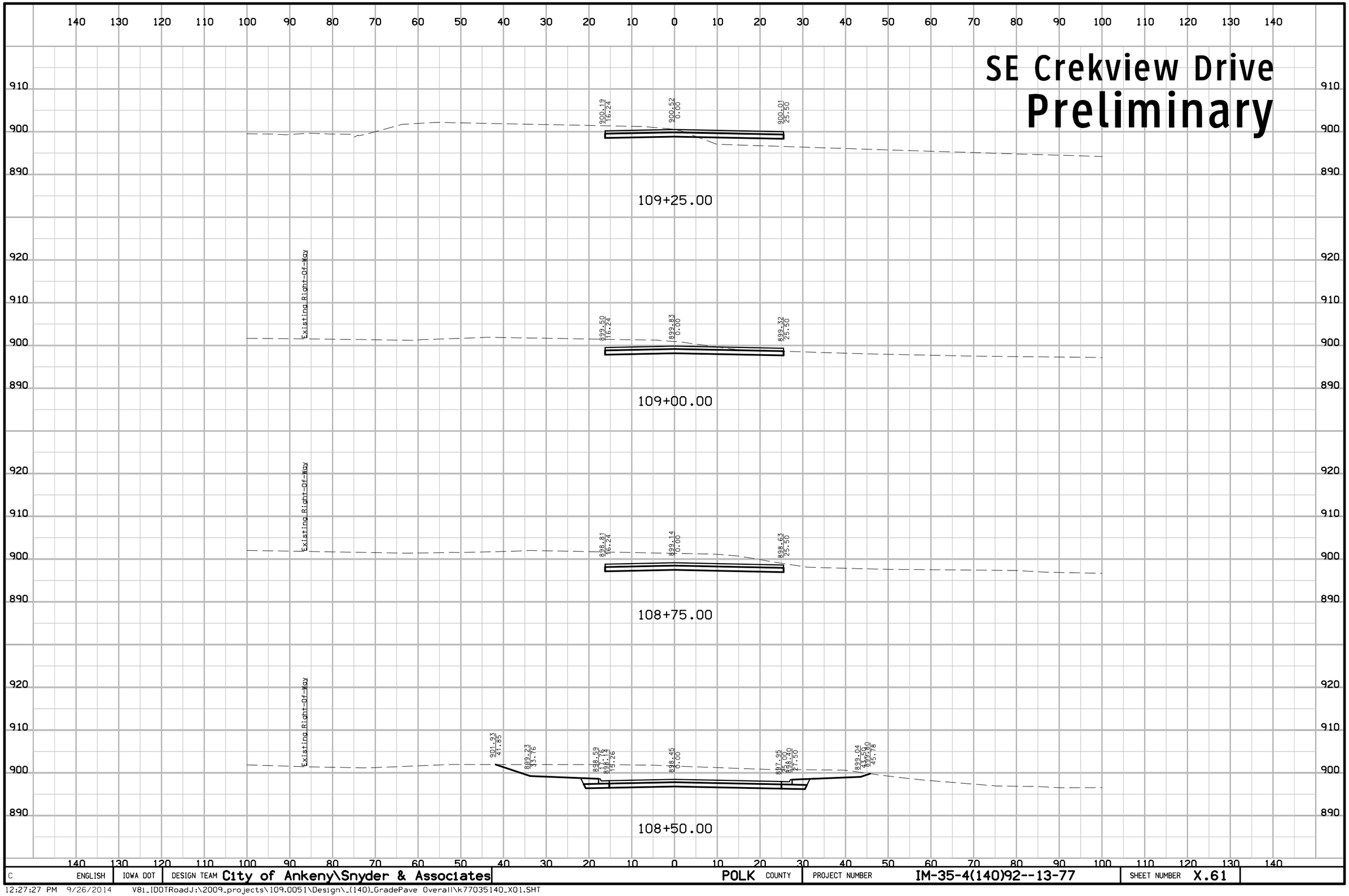
SE Crekview Drive
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.60

12:27:27 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

SE Crekview Drive
Preliminary

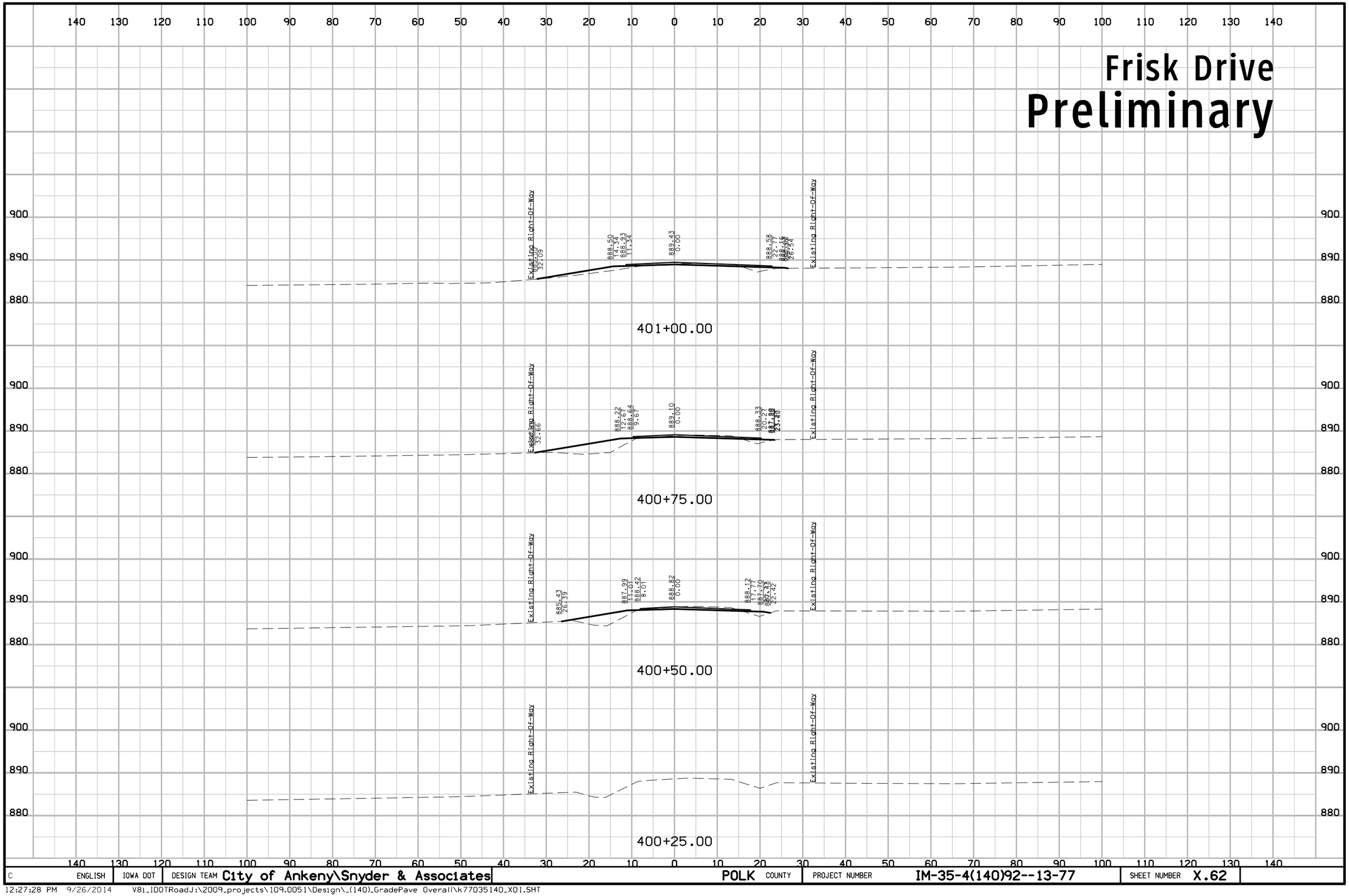


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.61

12:27:27 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

Frisk Drive

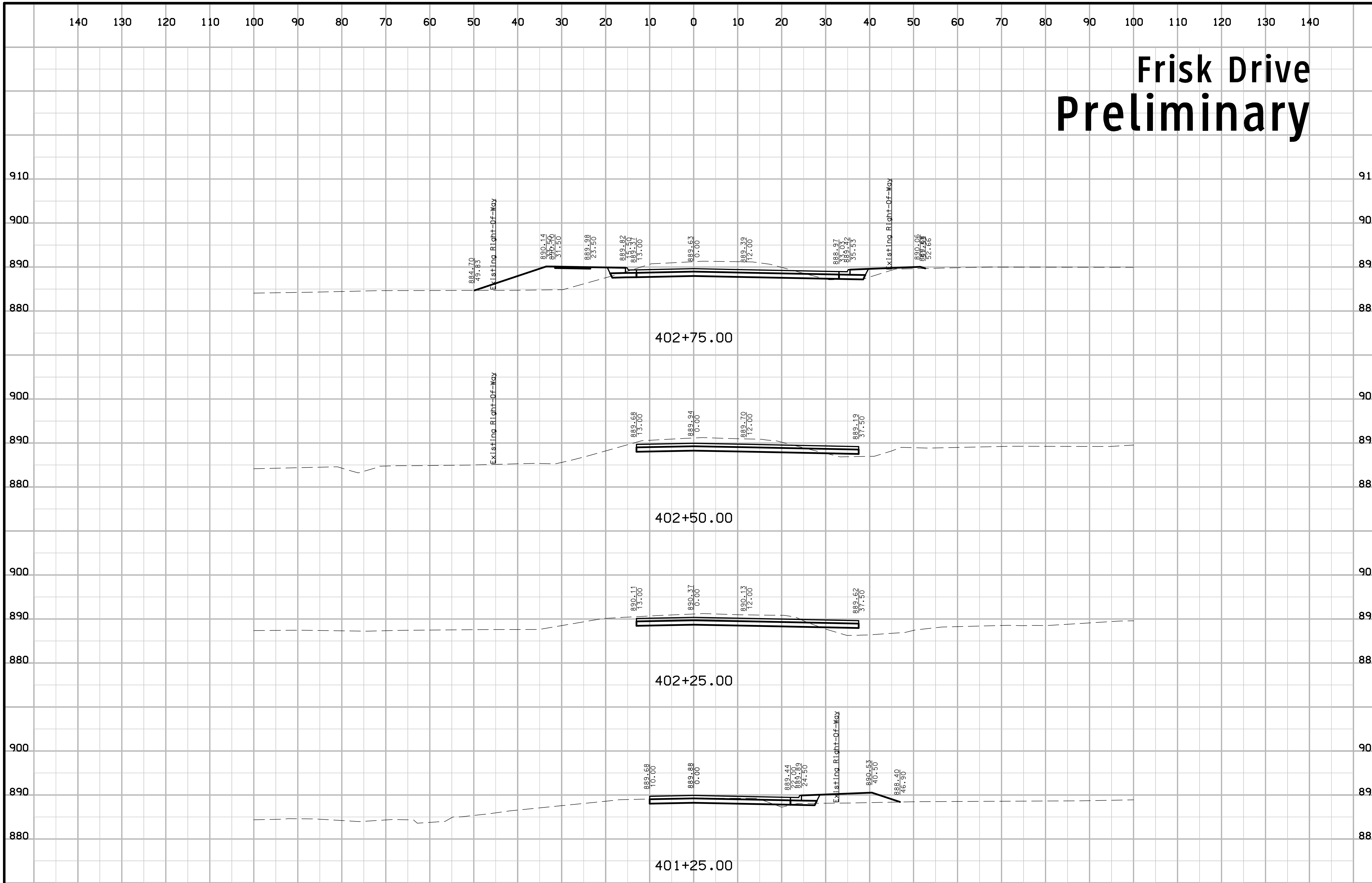
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.62	

12:27:28 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

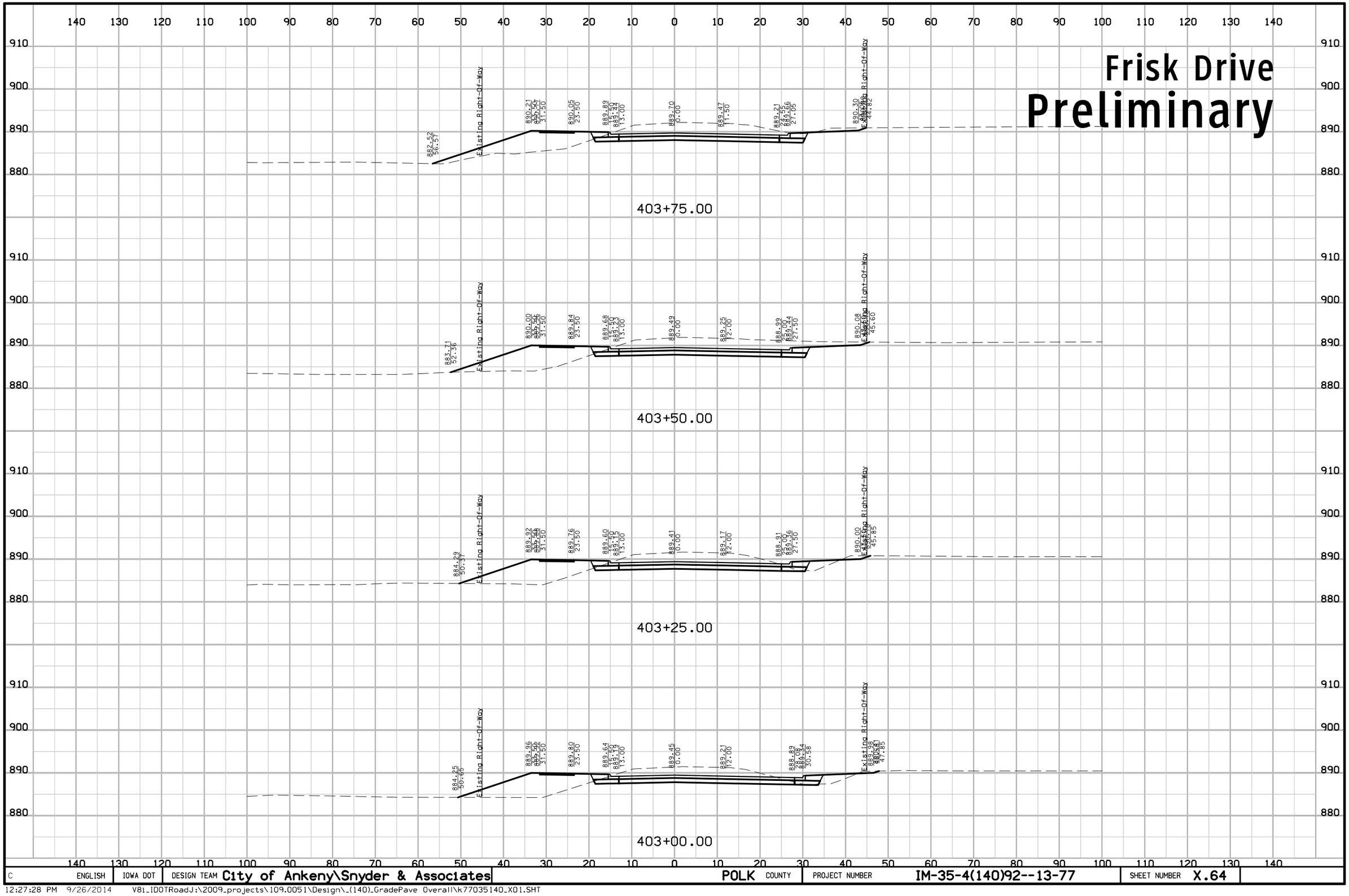
Frisk Drive
Preliminary



ENGLISH | IOWA DOT | DESIGN TEAM City of Ankeny\Snyder & Associates | POLK COUNTY | PROJECT NUMBER IM-35-4(140)92--13-77 | SHEET NUMBER X.63

12:27:28 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

Frisk Drive
Preliminary

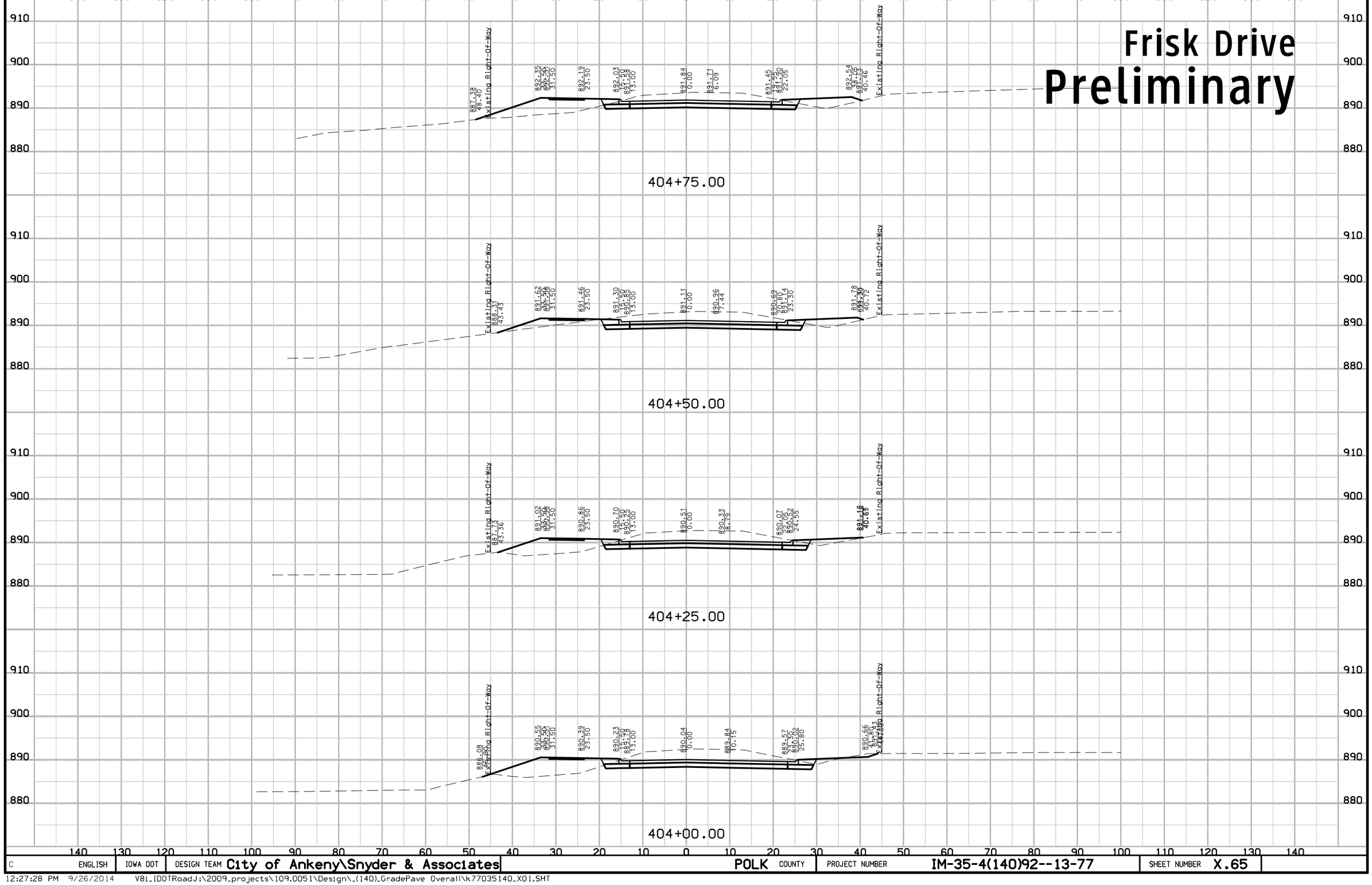


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.64

12:27:28 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

Frisk Drive

Preliminary

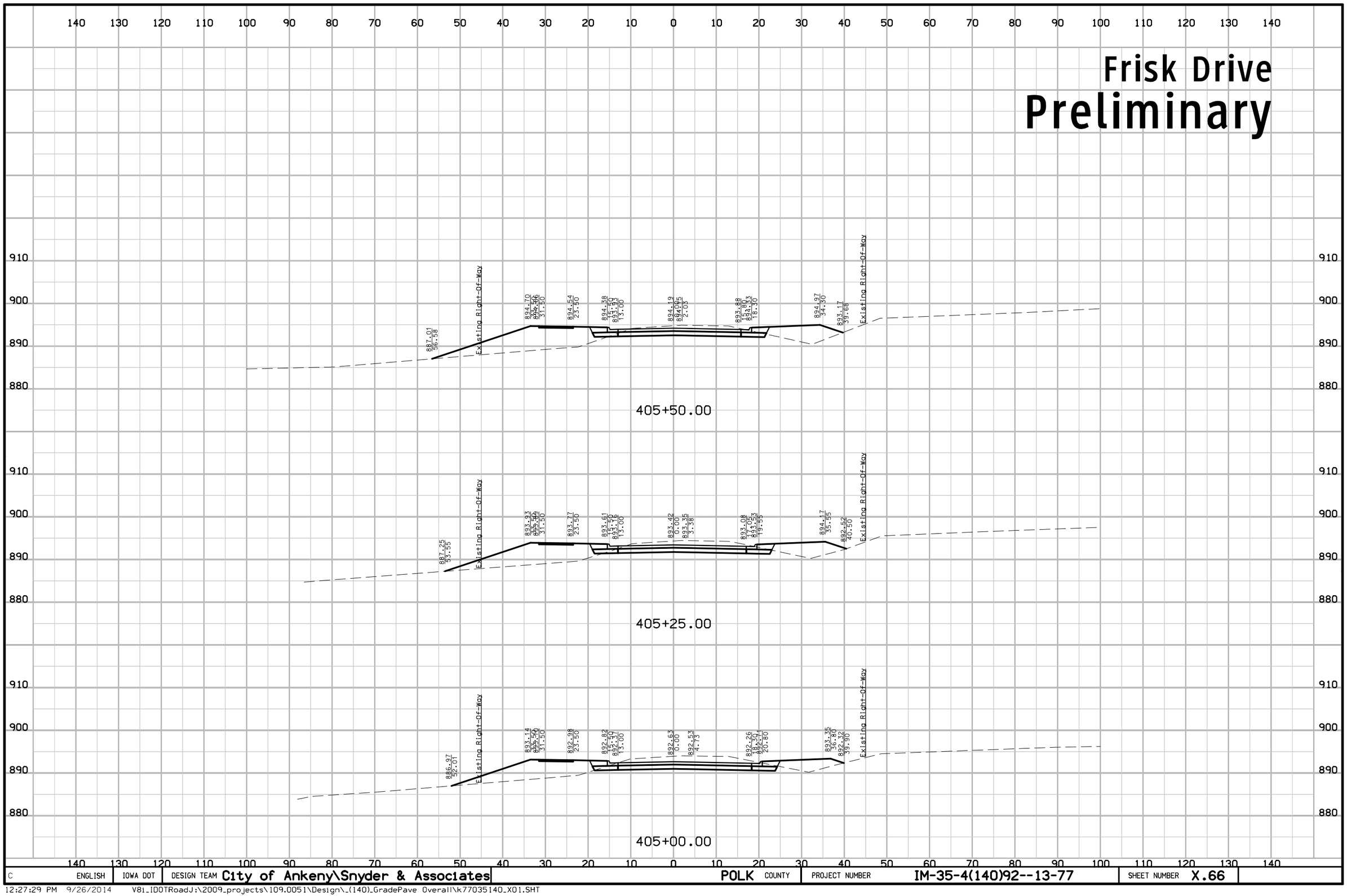


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER X.65

12:27:28 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

Frisk Drive

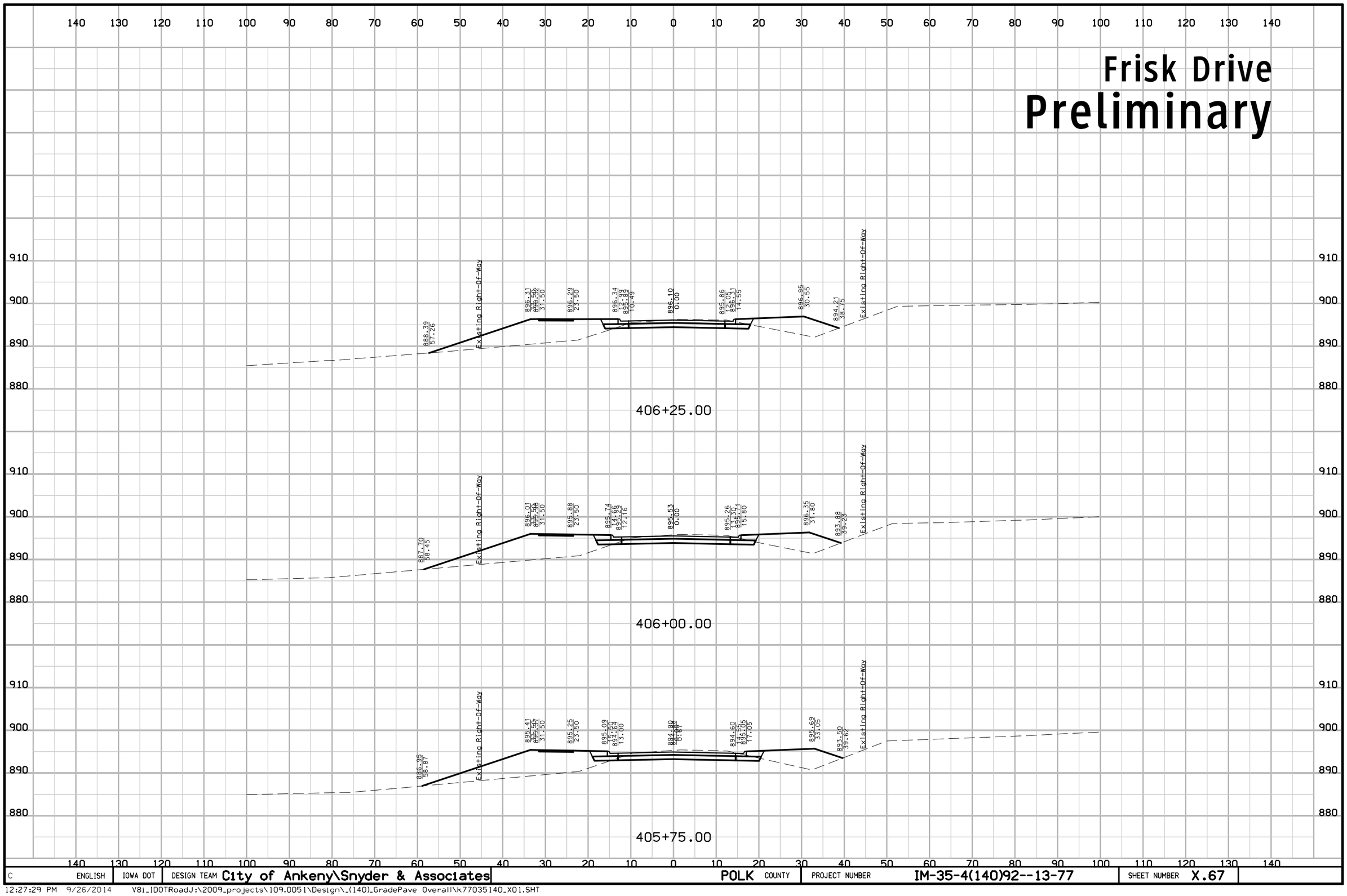
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.66

12:27:29 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

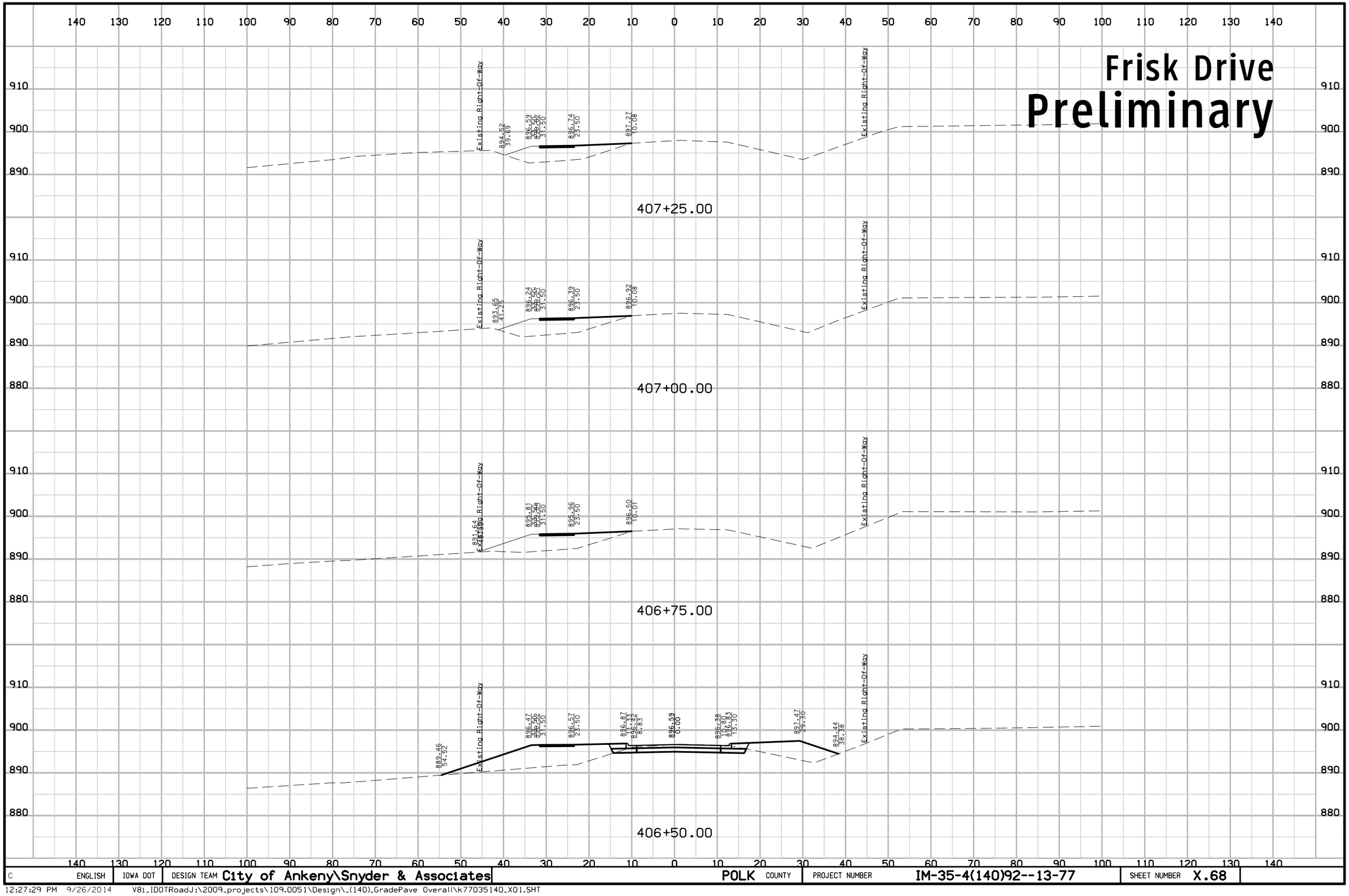
Frisk Drive
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.67

12:27:29 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

Frisk Drive
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.68

12:27:29 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

Frisk Drive

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

920 910 900 890

Existing Right-Of-Way

895.74 39.90

897.87 897.50 897.50 31.50

898.02 23.50

898.57 9.89

Existing Right-Of-Way

408+25.00

Existing Right-Of-Way

895.55 39.61

897.59 897.42 897.42 31.50

897.74 23.50

898.27 10.10

Existing Right-Of-Way

408+00.00

Existing Right-Of-Way

895.45 39.04

897.29 897.50 897.50 31.50

897.44 23.50

897.97 10.27

Existing Right-Of-Way

407+75.00

Existing Right-Of-Way

895.08 39.09

896.94 896.50 896.50 31.50

897.09 23.50

897.62 10.17

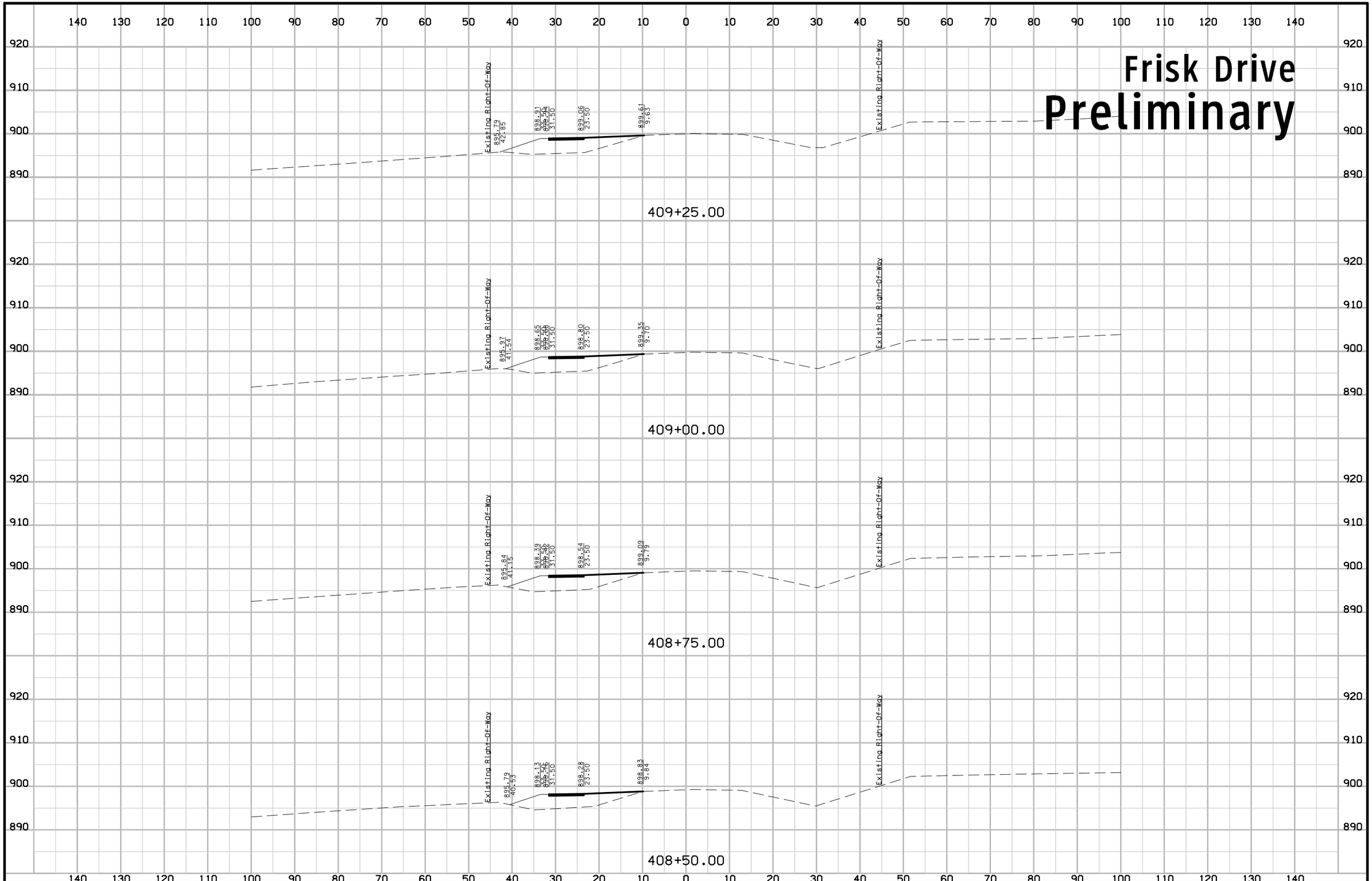
Existing Right-Of-Way

407+50.00

C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.69	

12:27:30 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

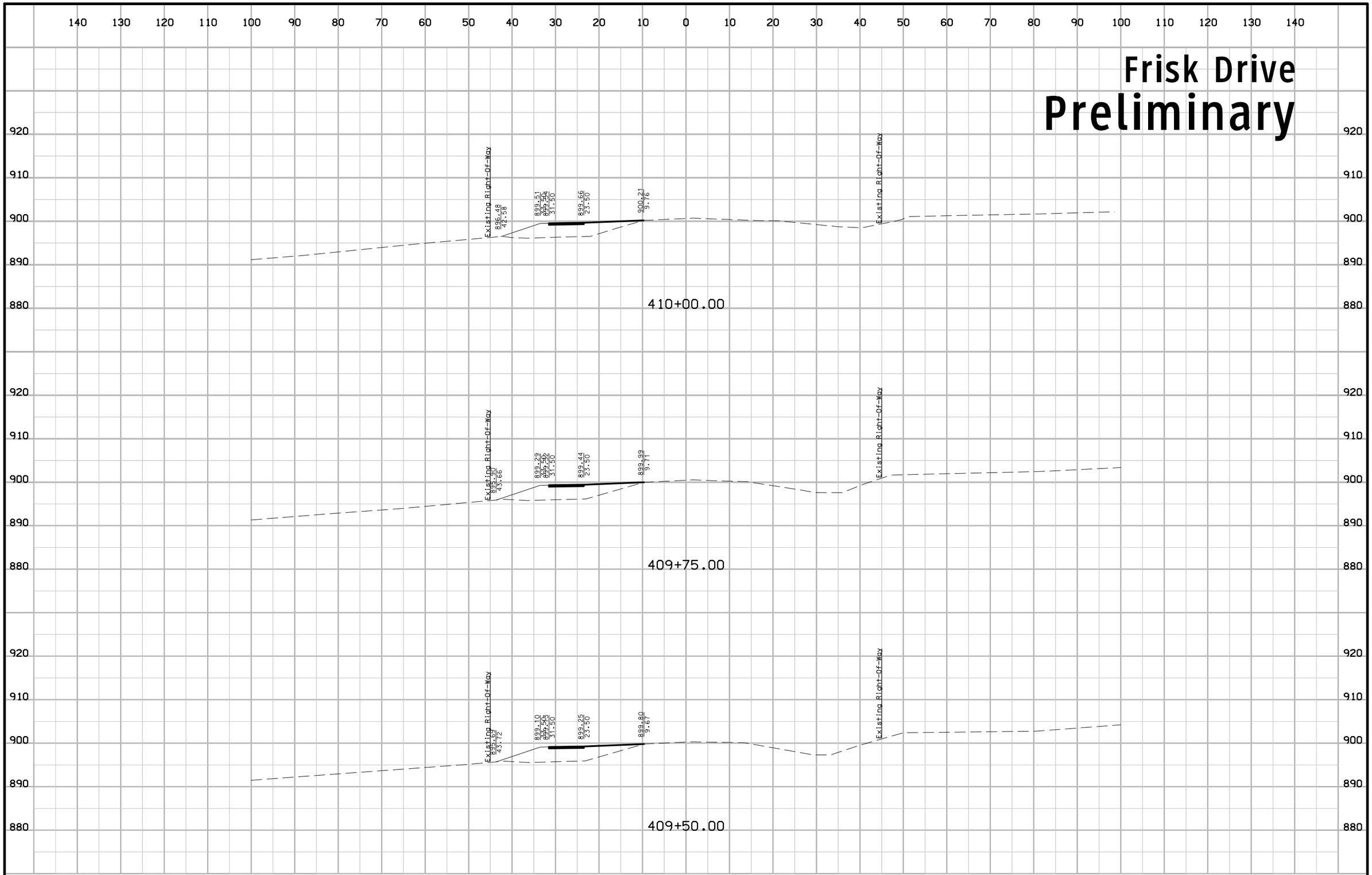
Frisk Drive
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.70	

12:27:30 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

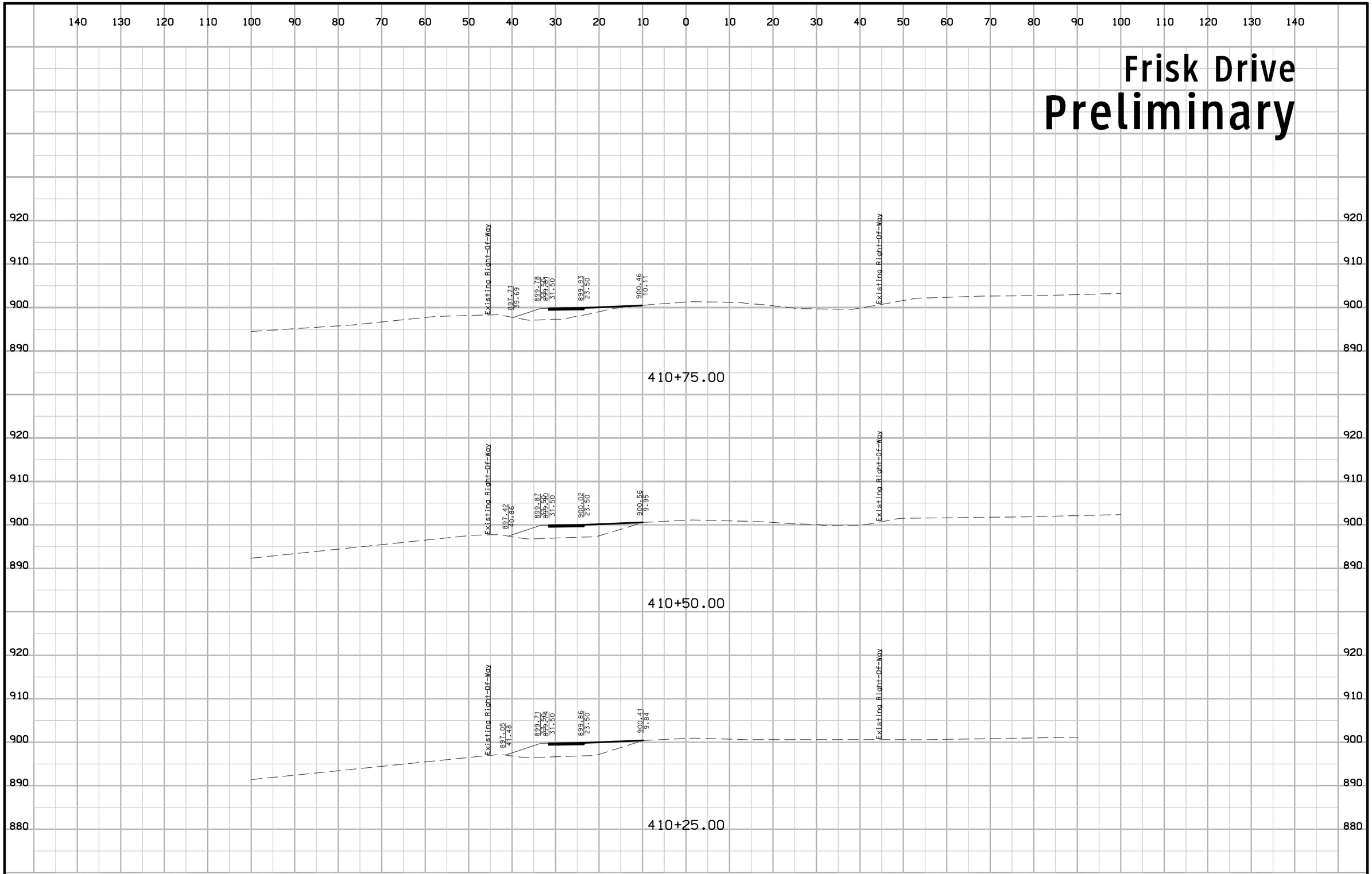
Frisk Drive
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.71

12:27:30 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

Frisk Drive
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.72

12:27:30 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

E. 1st Street
Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

940
930
920

Existing Right-Of-Way

925.83
33.97
925.72
39.56
926.15
42.06

Existing Right-Of-Way
52.06
927.66
56.49

995+25.00

Existing Right-Of-Way

926.05
33.47
925.94
37.06
926.56
39.56

926.76
Existing Right-Of-Way
52.06
927.91
54.14

995+00.00

Existing Right-Of-Way

926.34
926.99
926.97
926.71
37.06

927.41
47.06
Existing Right-Of-Way
927.66

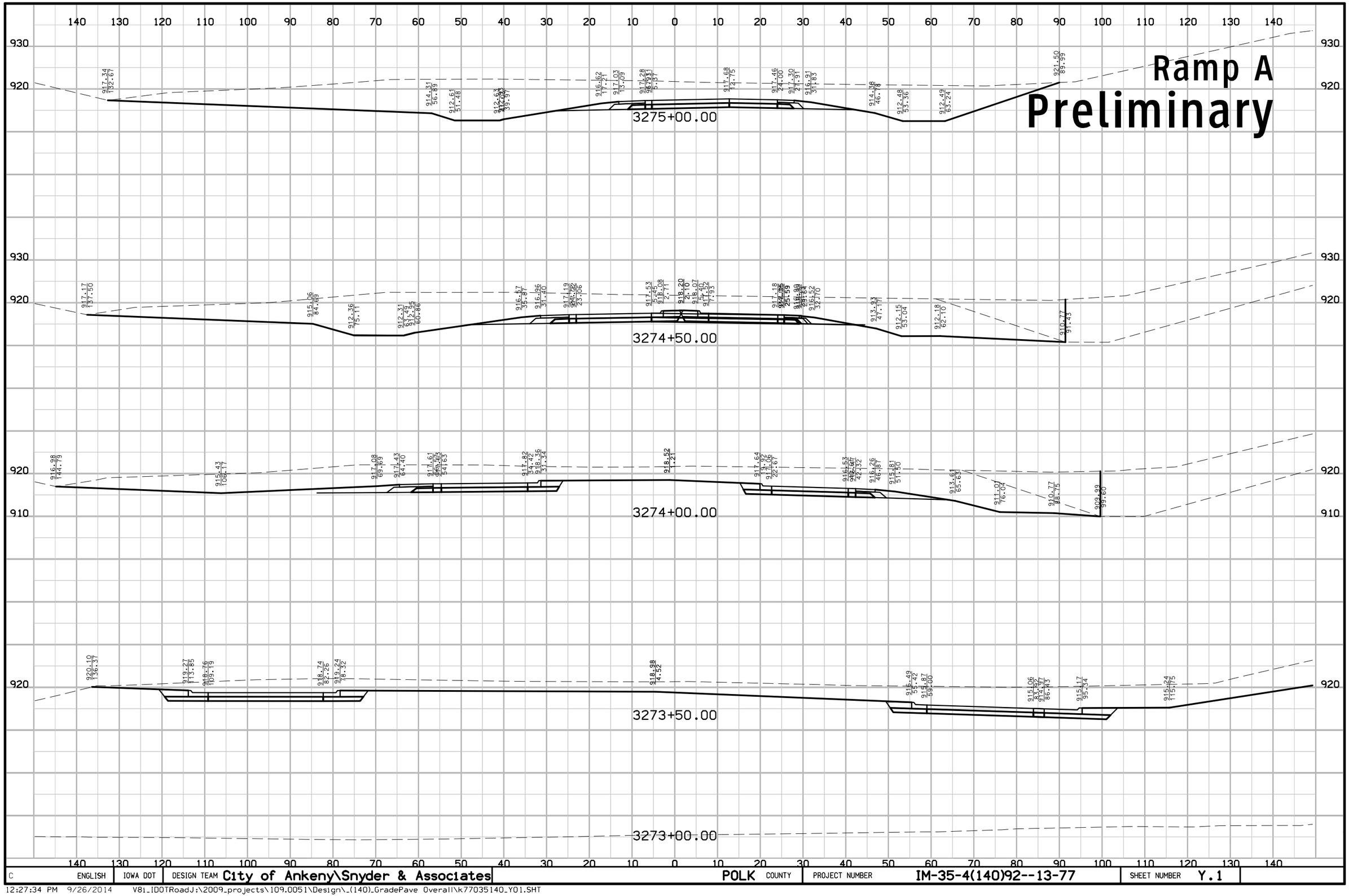
994+75.00

994+50.00

C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER X.1

12:27:31 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_X01.SHT

Ramp A
Preliminary

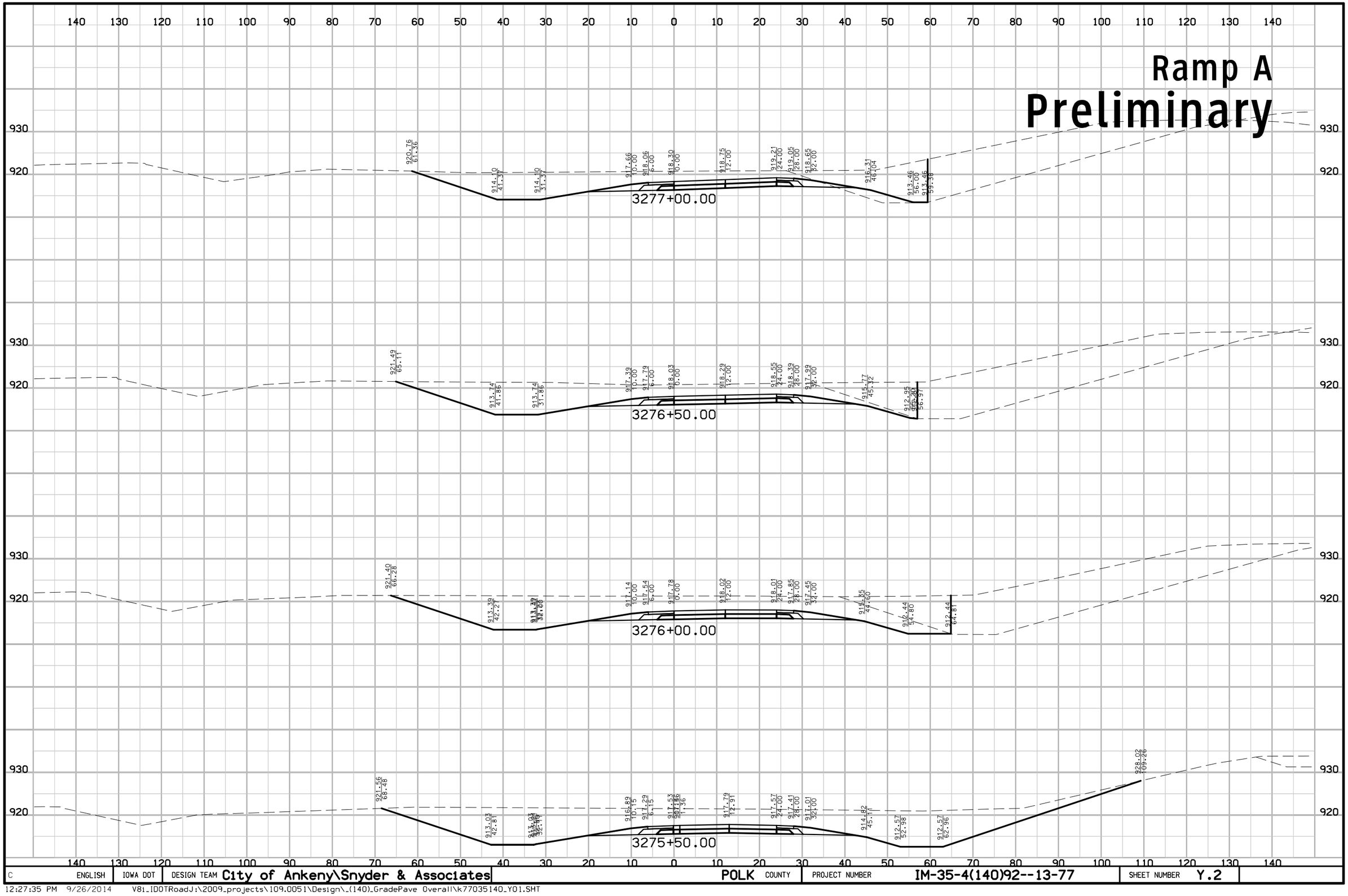


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.1

12:27:34 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

Ramp A

Preliminary

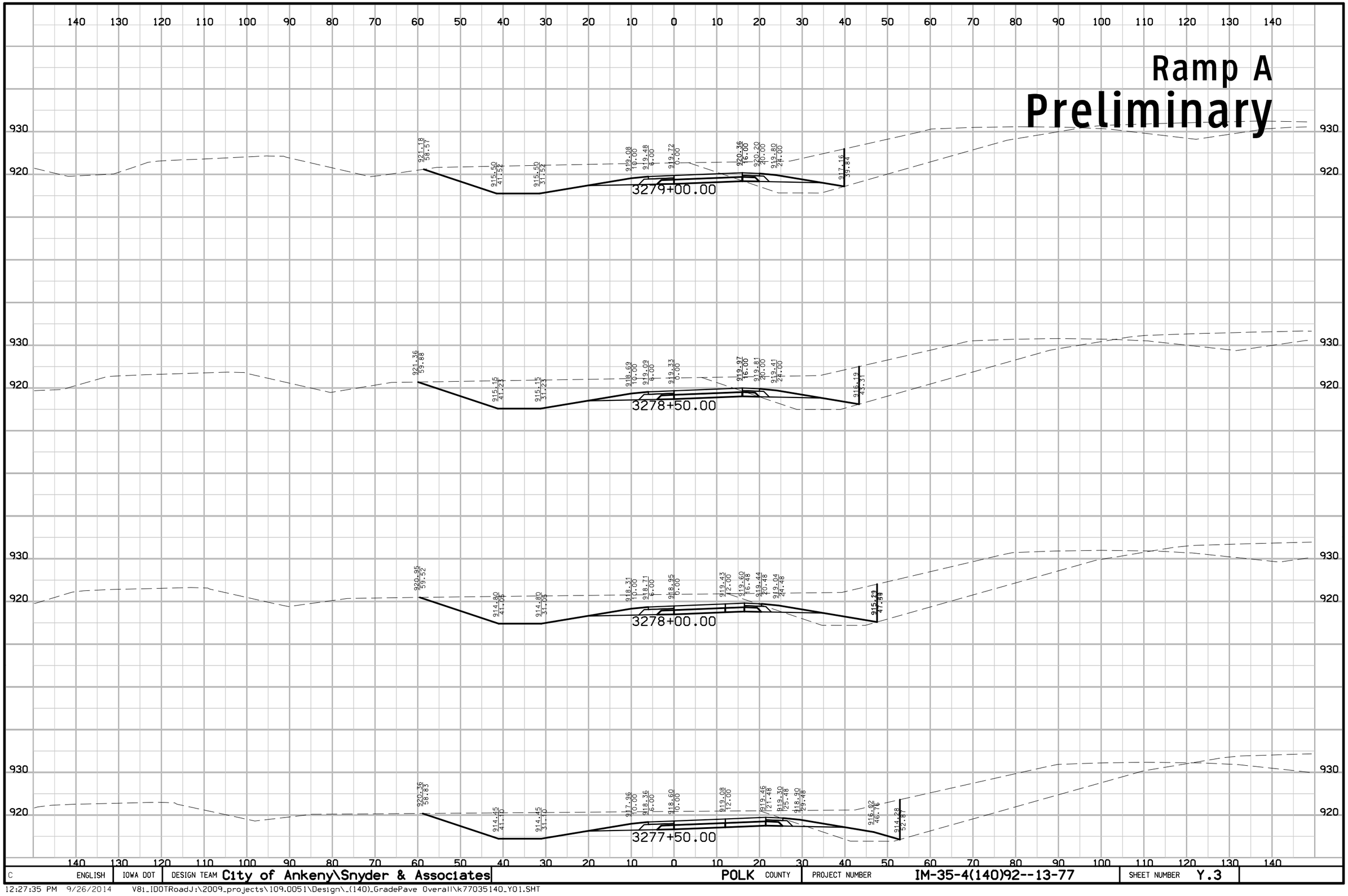


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.2

12:27:35 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

Ramp A

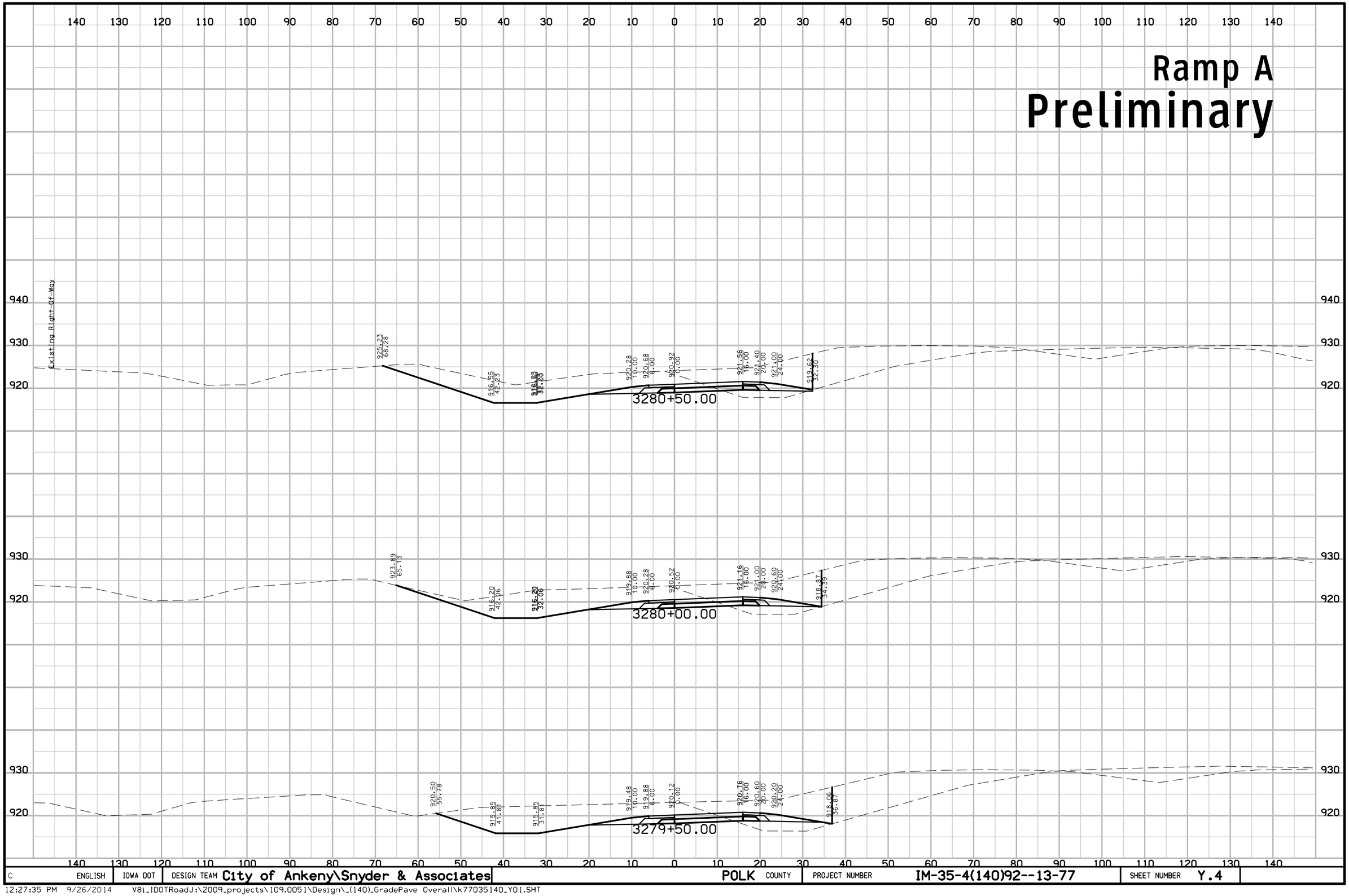
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.3

12:27:35 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

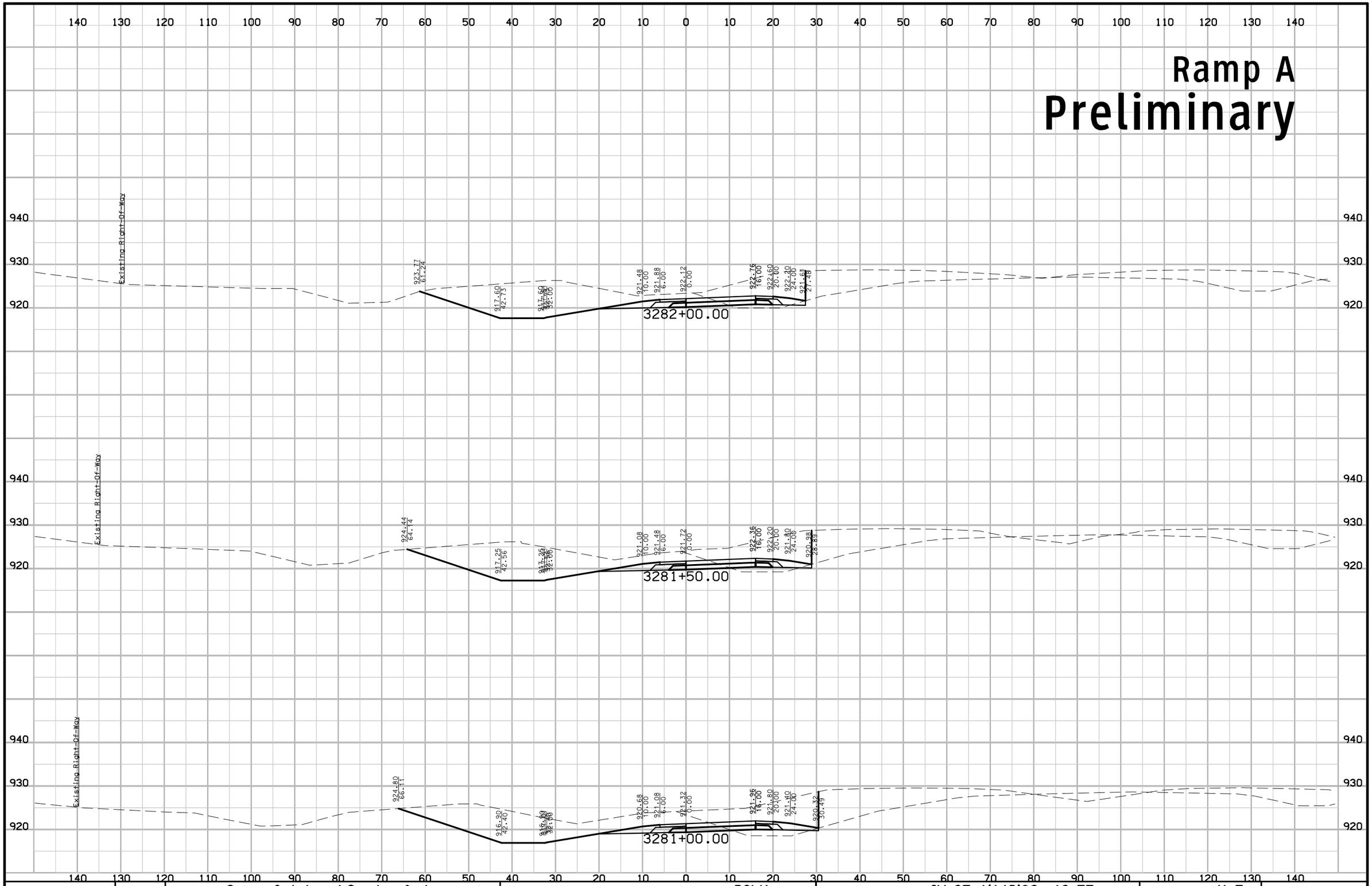
Ramp A
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER Y.4

12:27:35 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

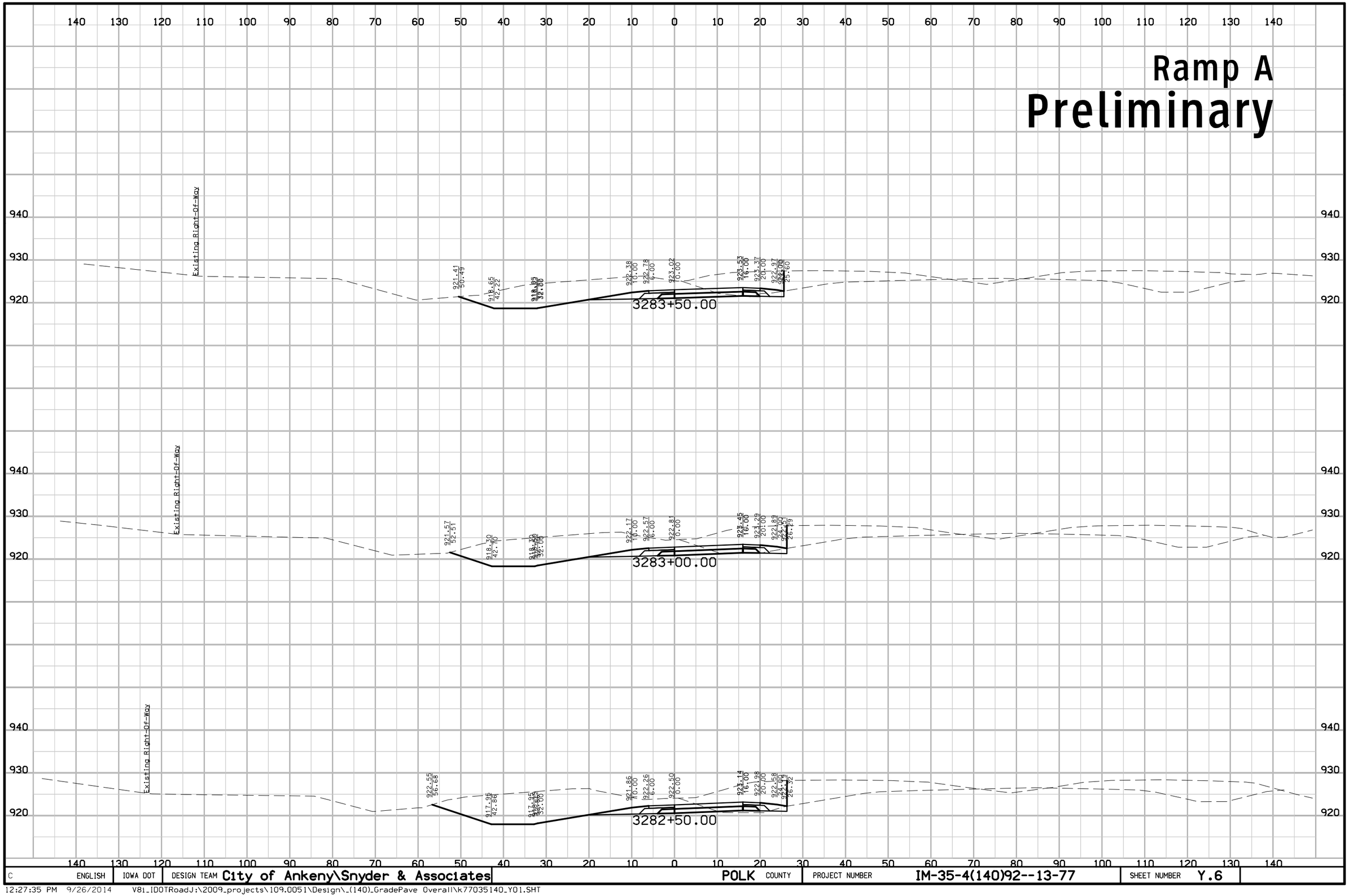
Ramp A
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER Y.5

12:27:35 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

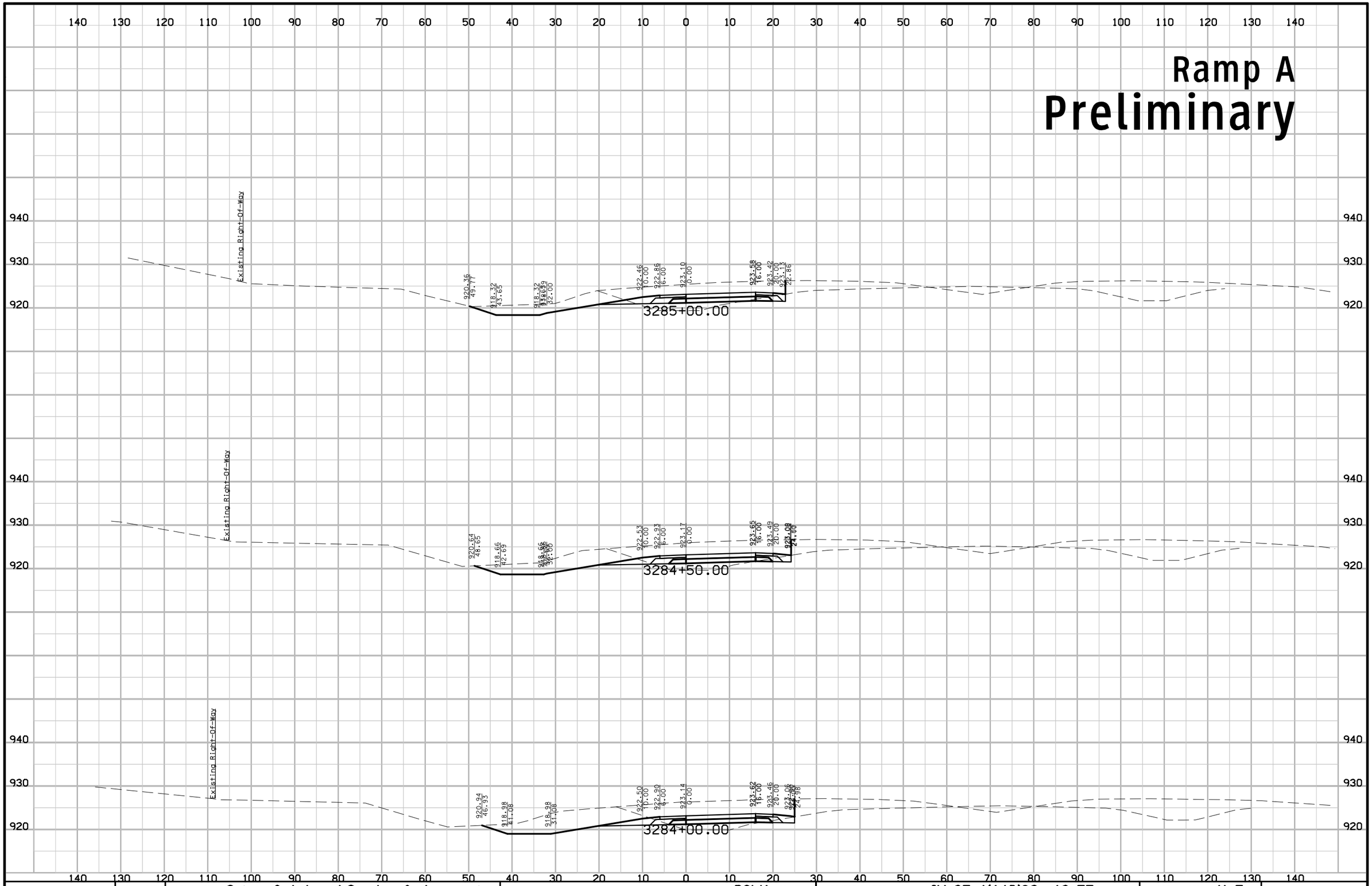
Ramp A
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER Y.6

12:27:35 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

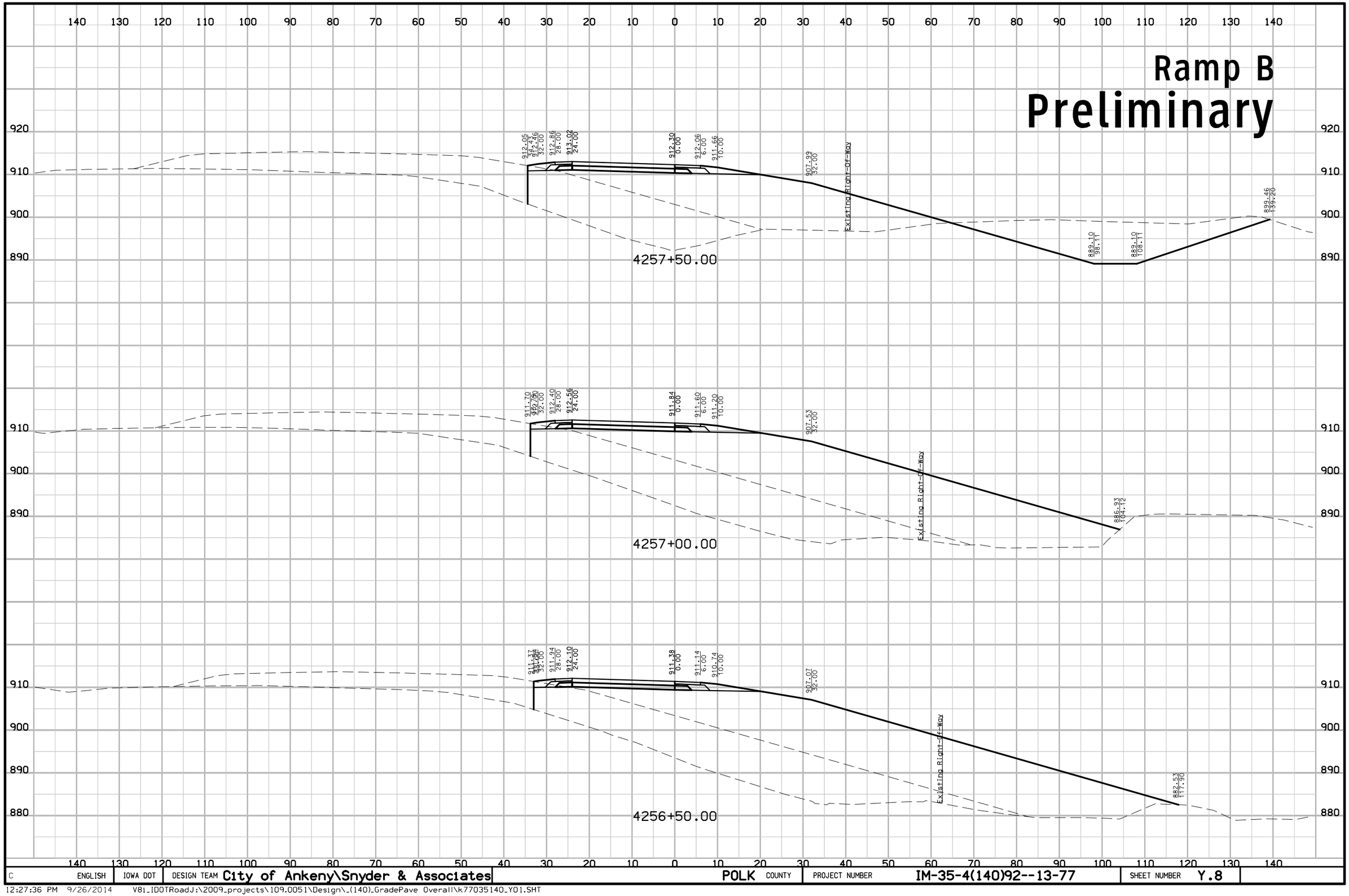
Ramp A
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.7

12:27:36 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

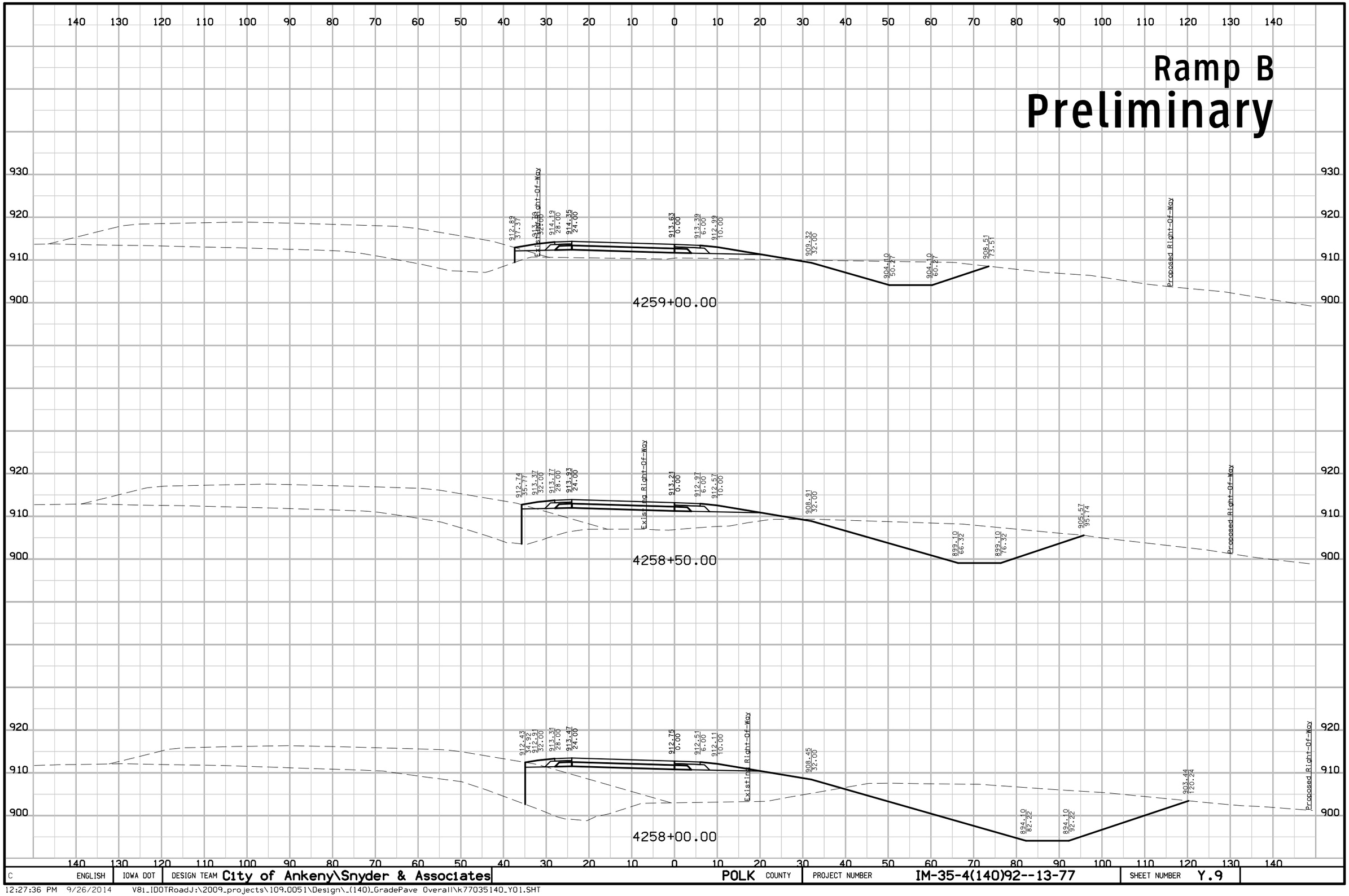
Ramp B
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER Y.8

12:27:36 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

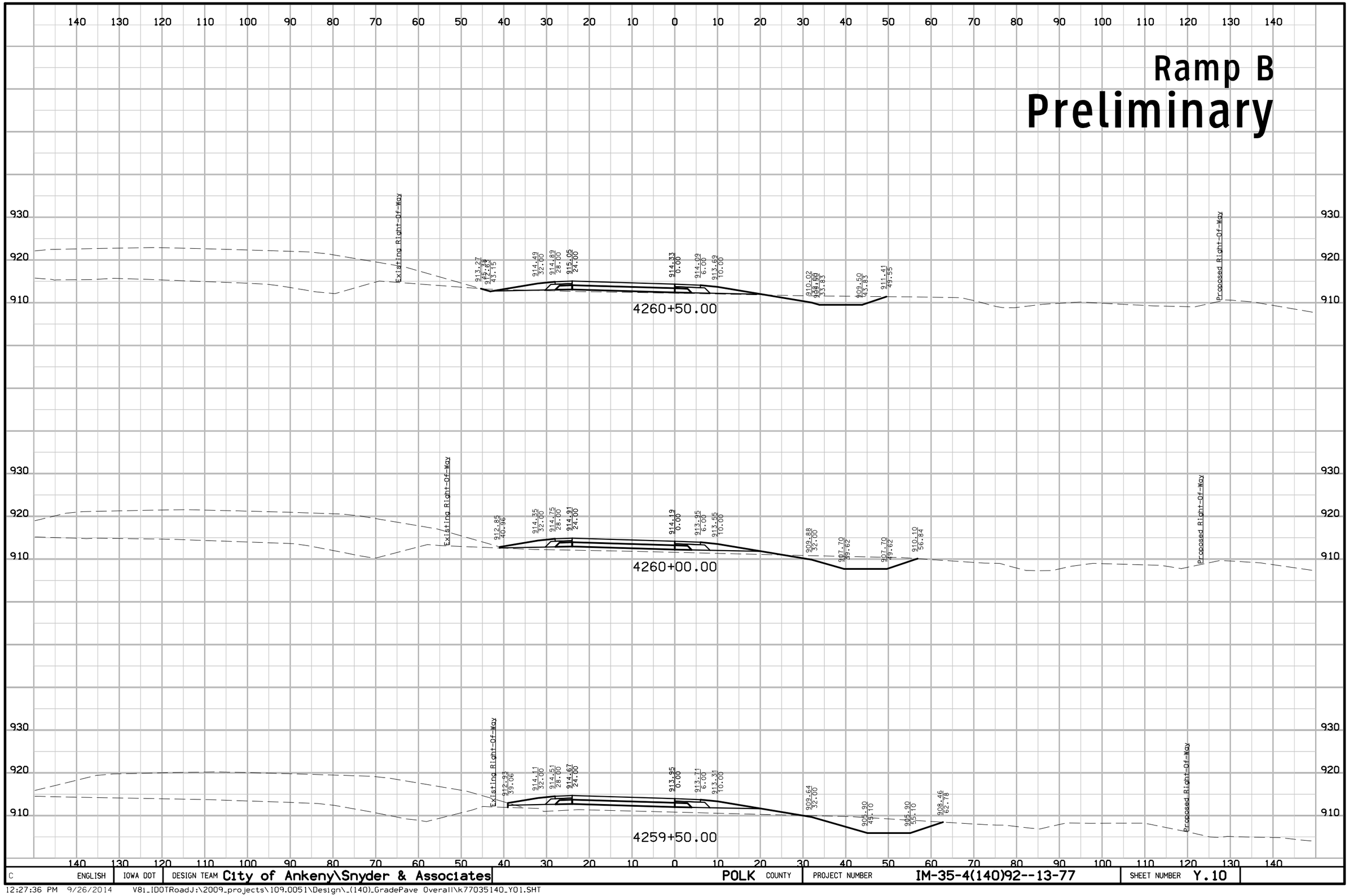
Ramp B
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.9

12:27:36 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

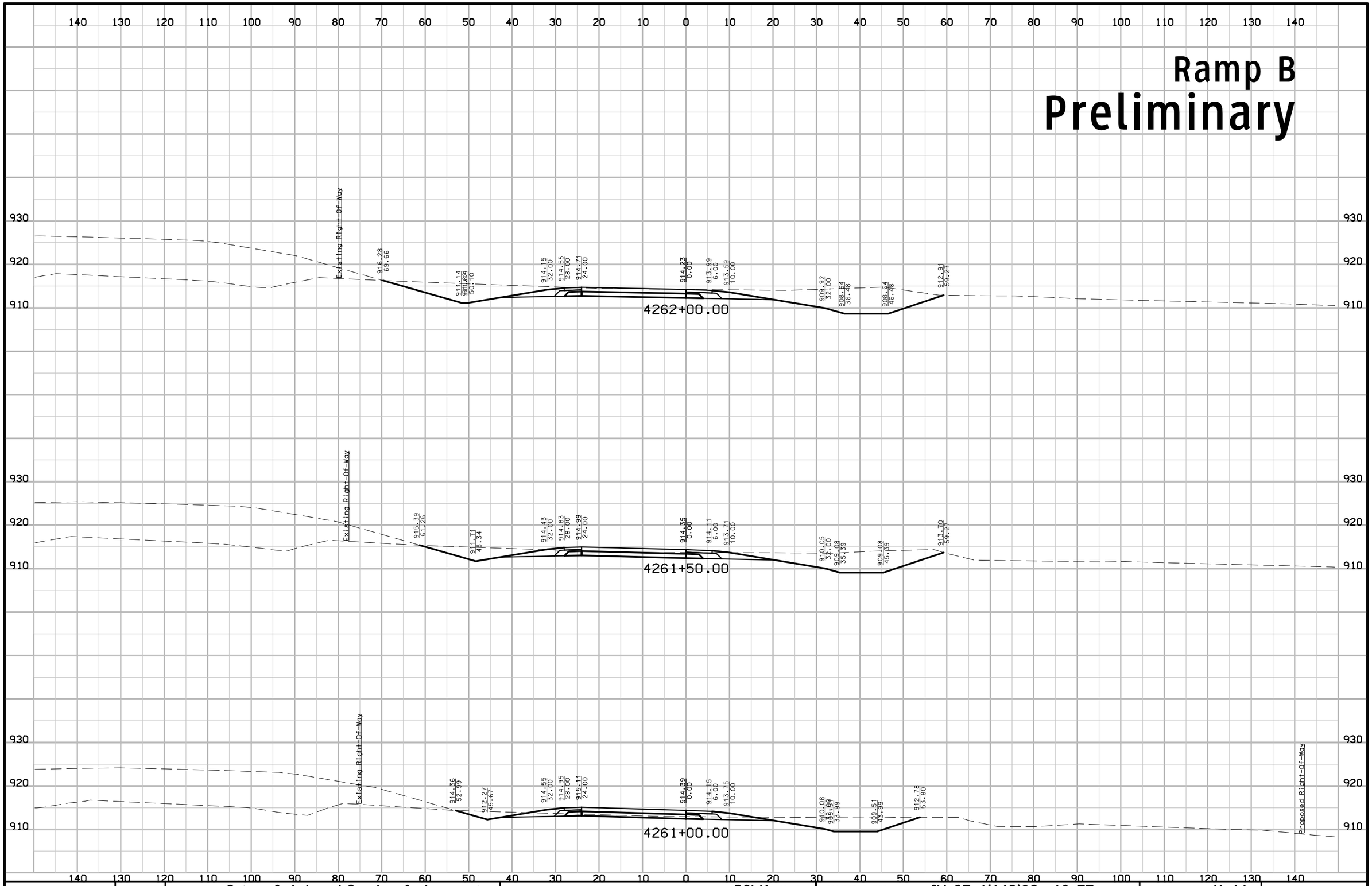
Ramp B
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.10

12:27:36 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

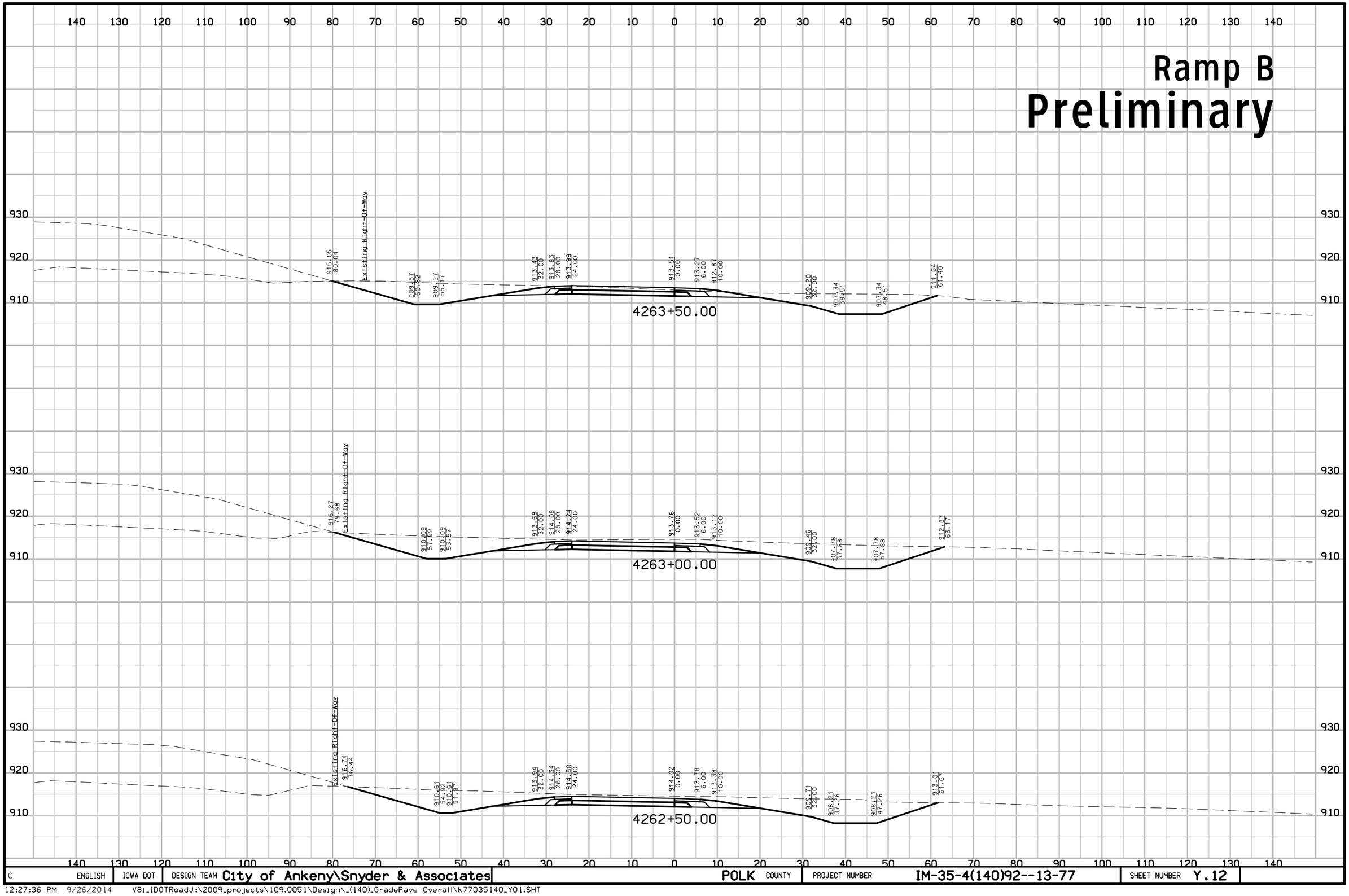
Ramp B
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.11

12:27:36 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

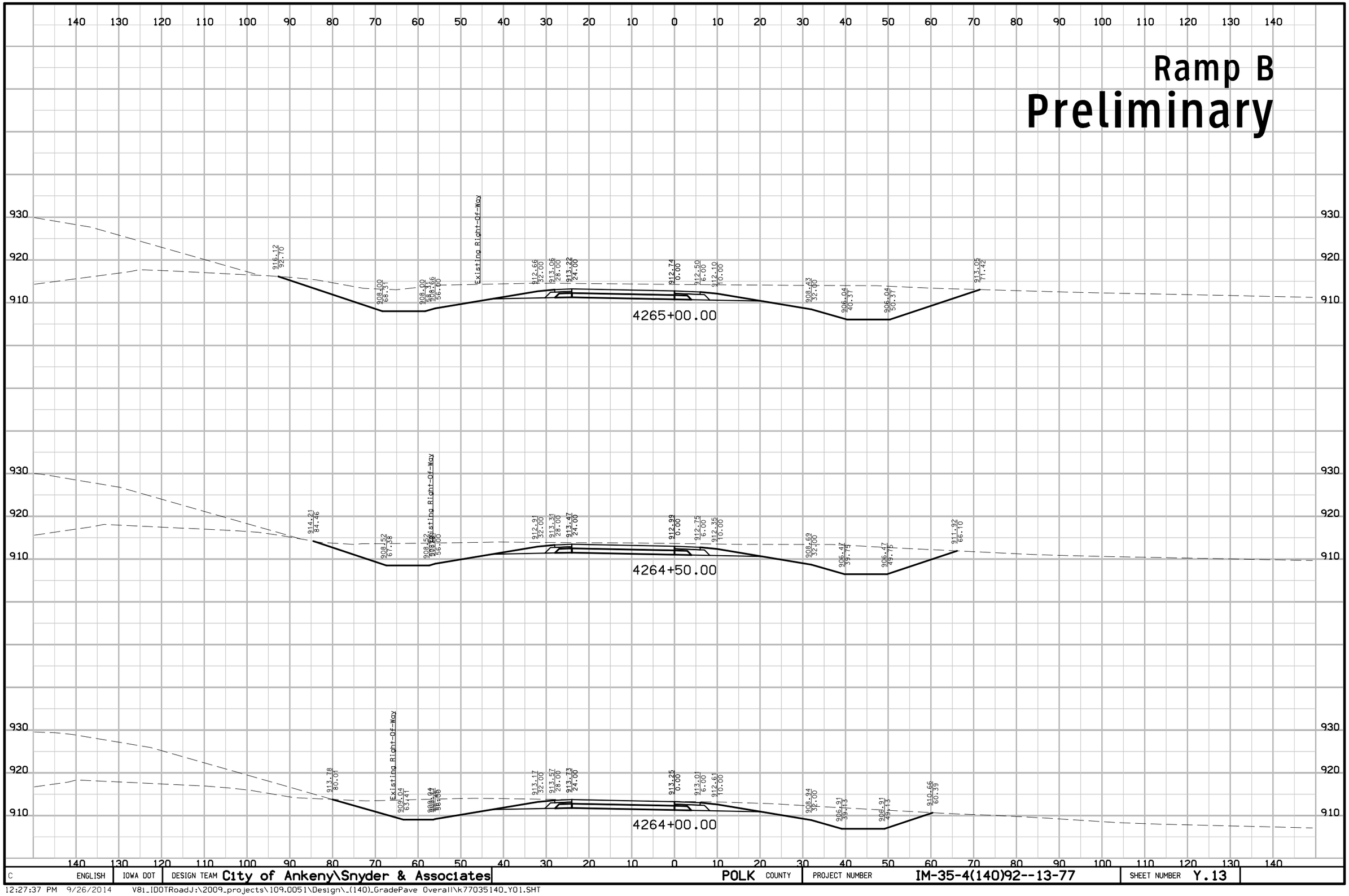
Ramp B
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.12

12:27:36 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

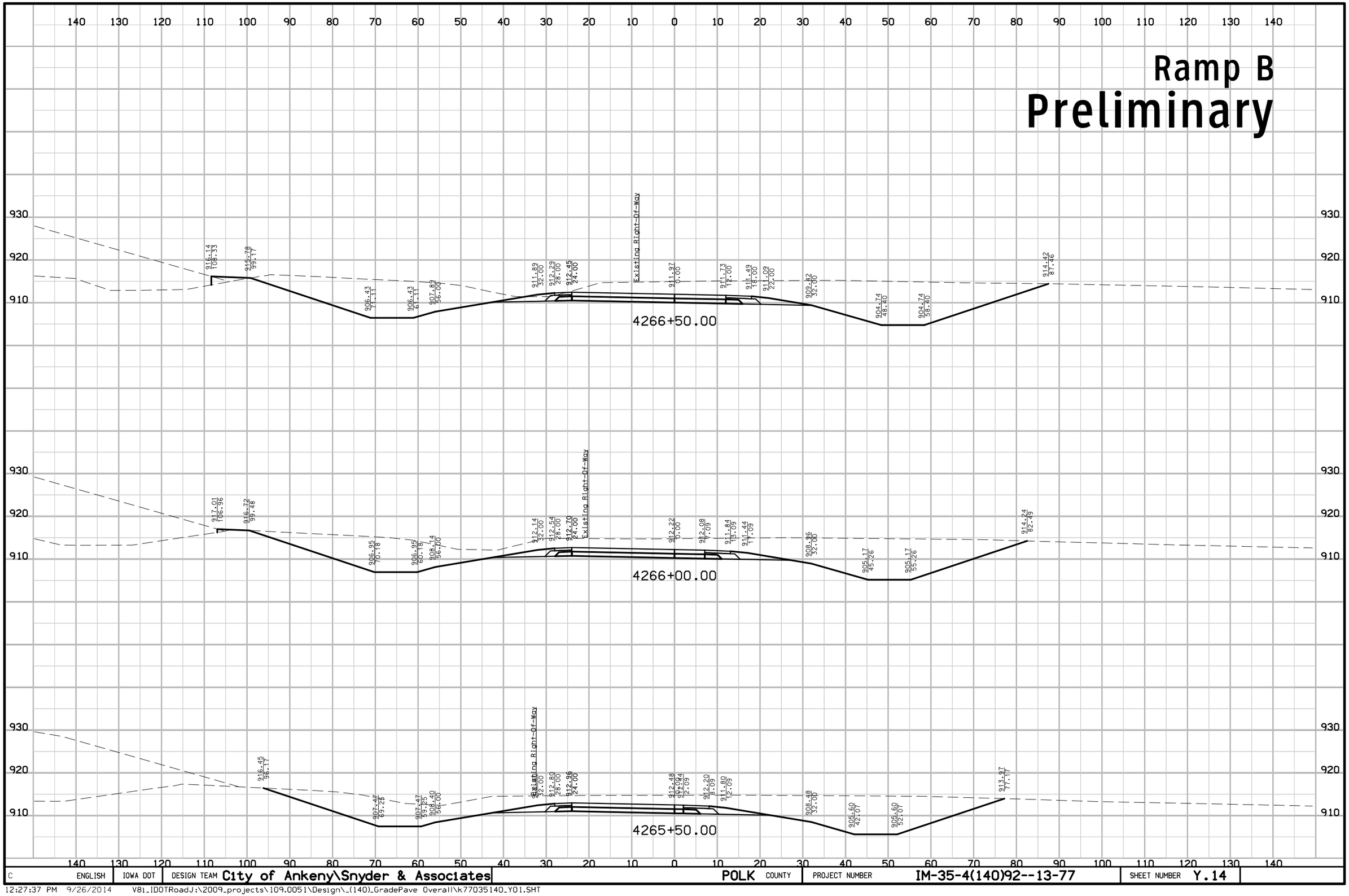
Ramp B
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER Y.13

12:27:37 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

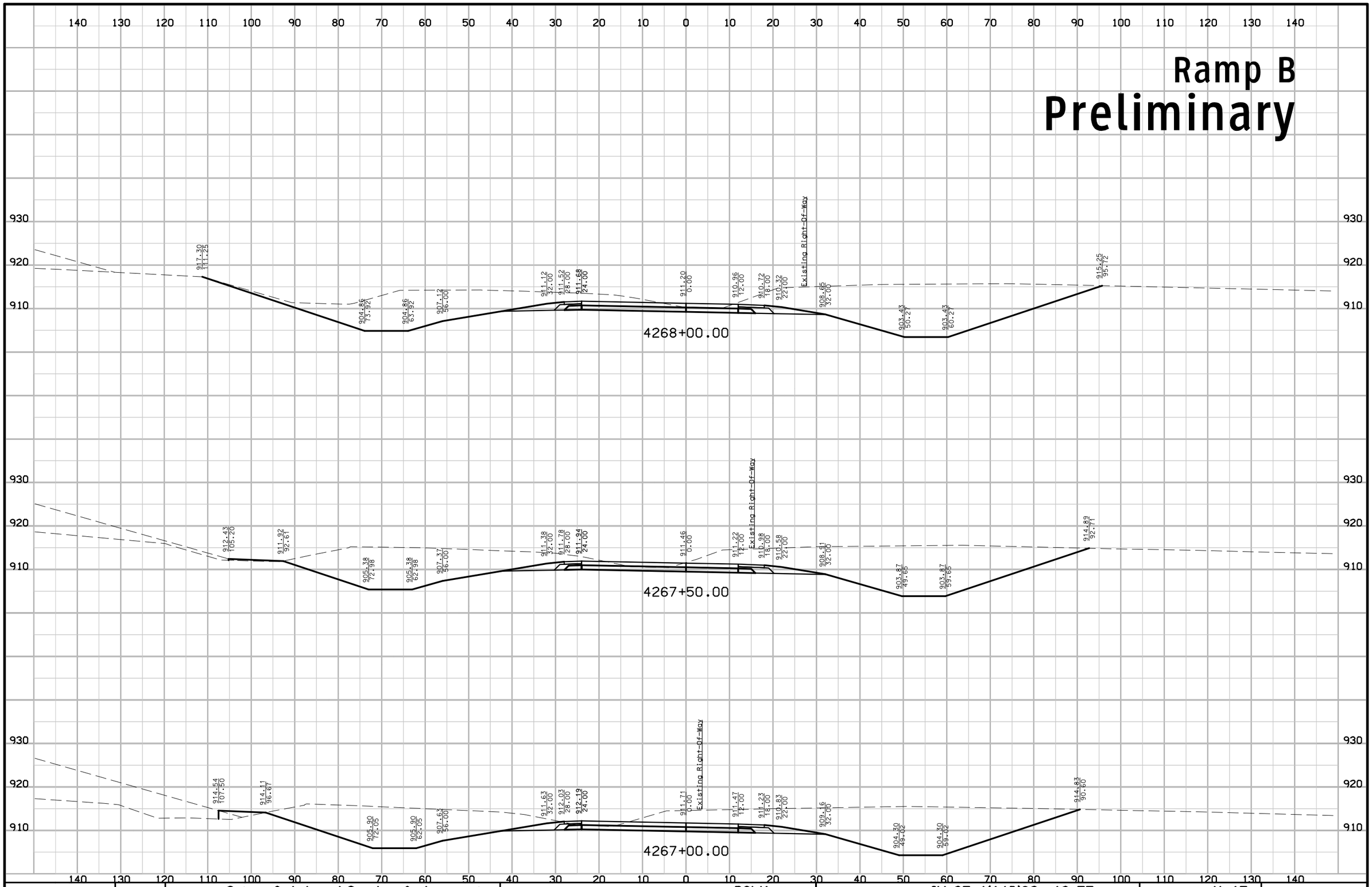
Ramp B
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.14

12:27:37 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

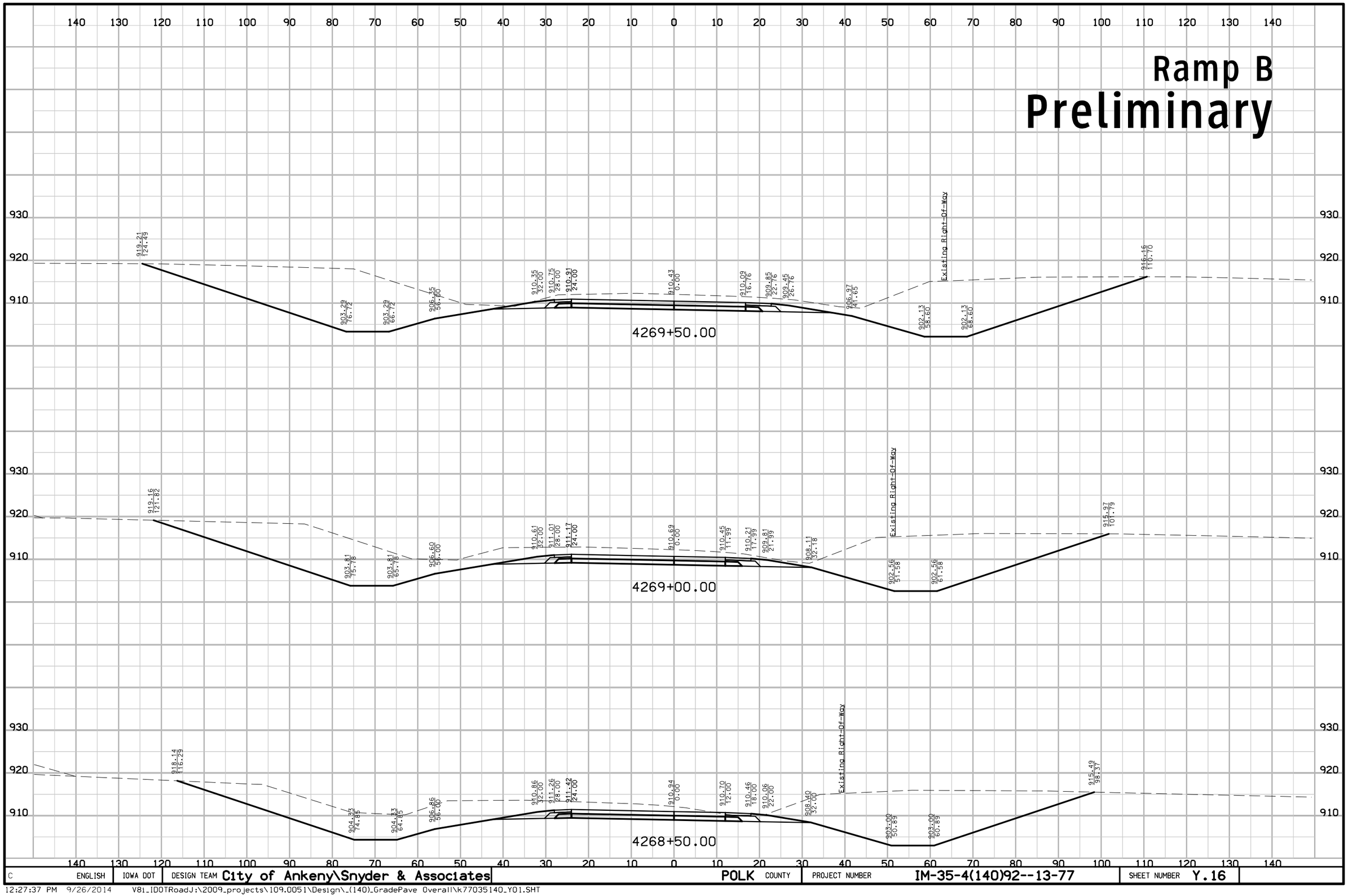
Ramp B
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.15

12:27:37 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

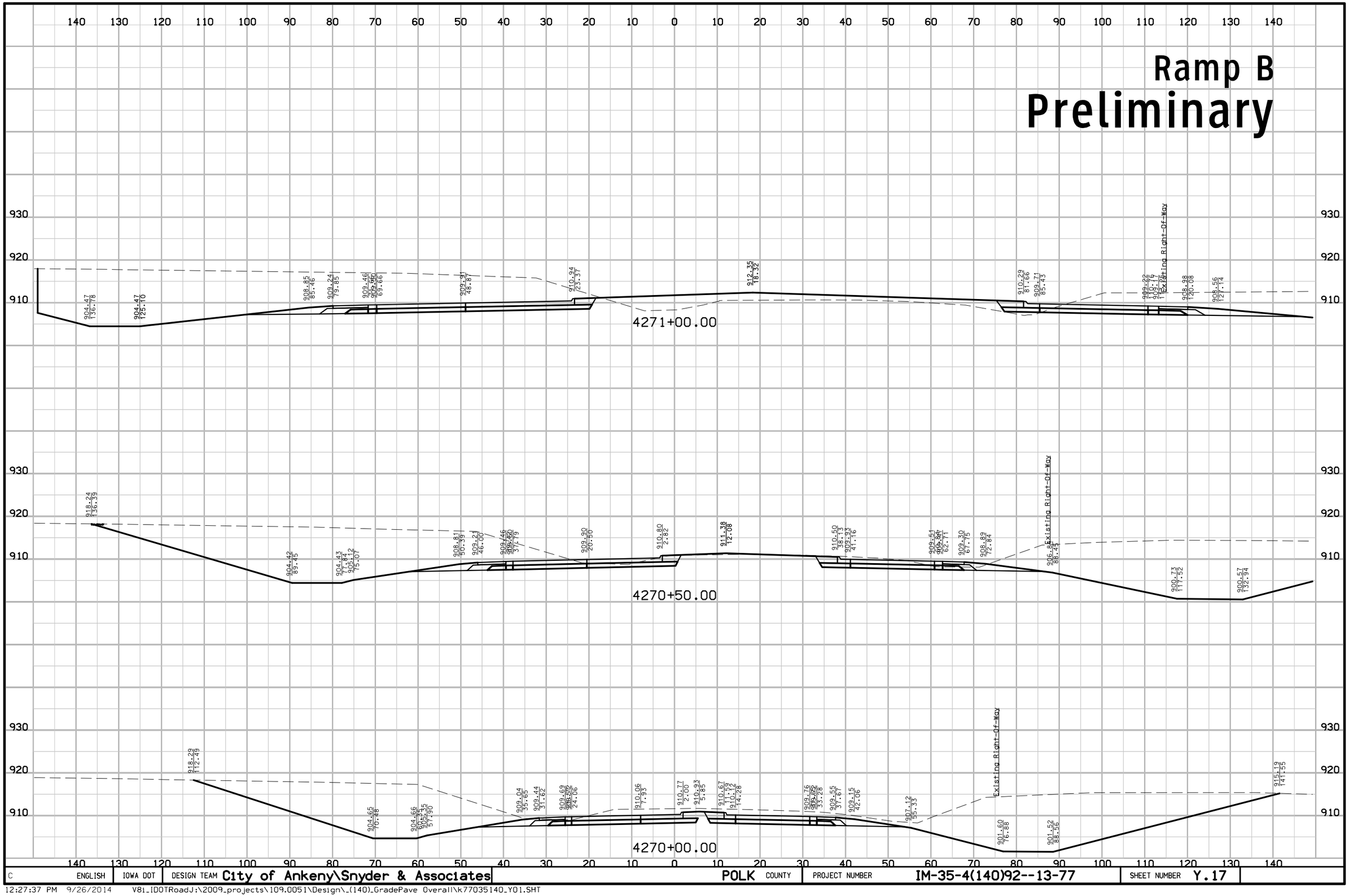
Ramp B
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.16

12:27:37 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

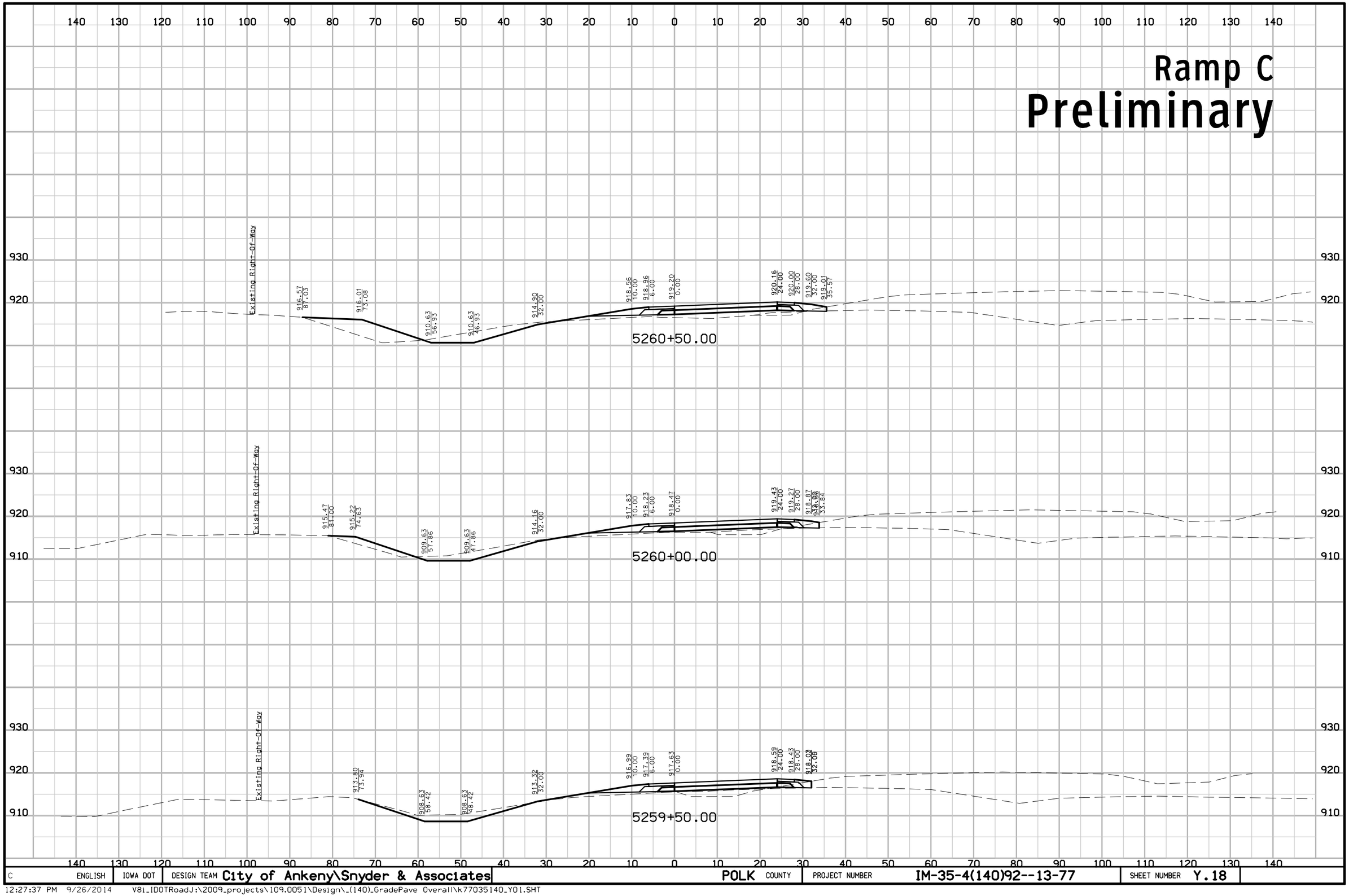
Ramp B
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER Y.17

12:27:37 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

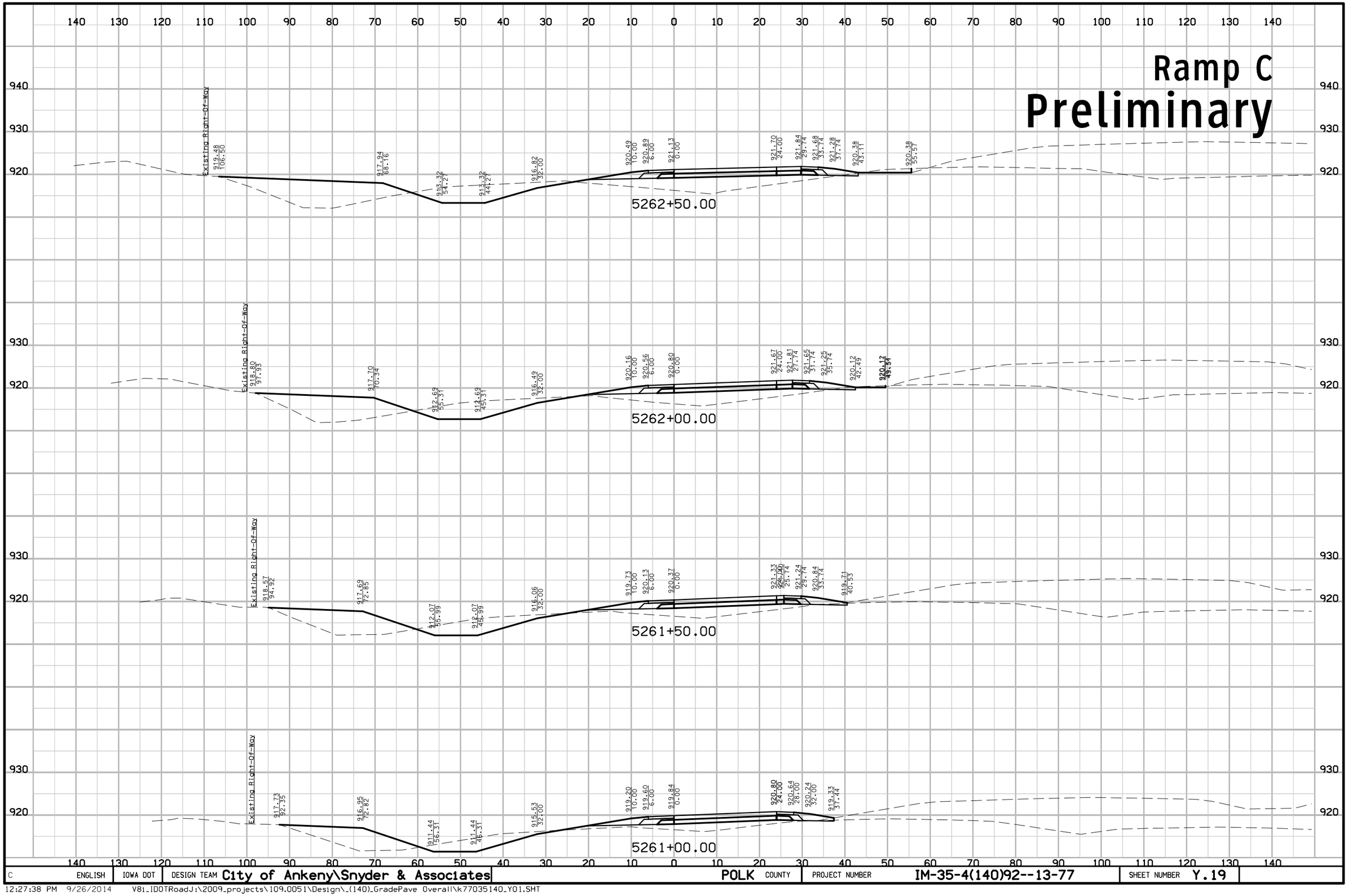
Ramp C
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.18

12:27:37 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

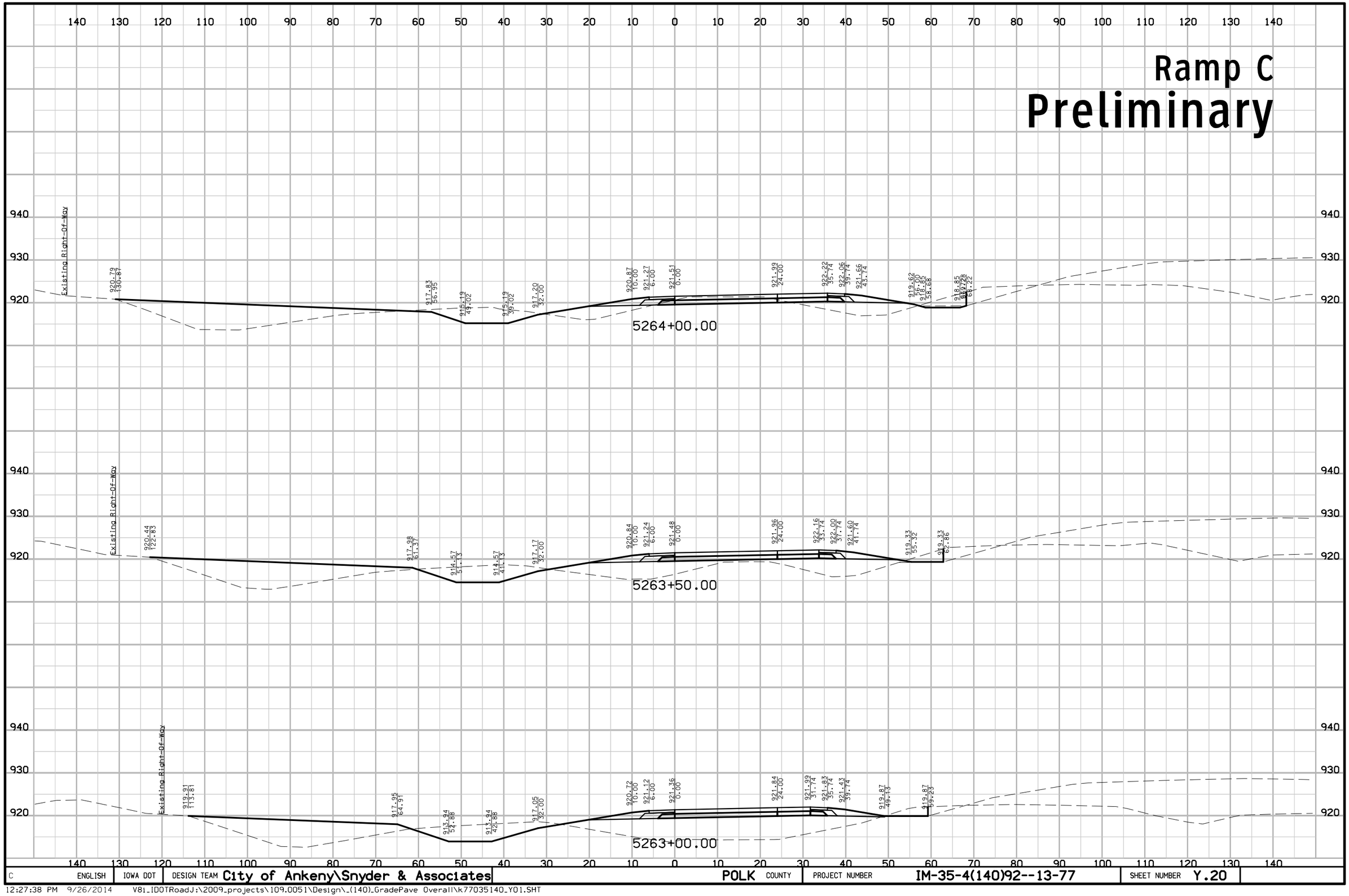
Ramp C
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.19

12:27:38 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

Ramp C
Preliminary

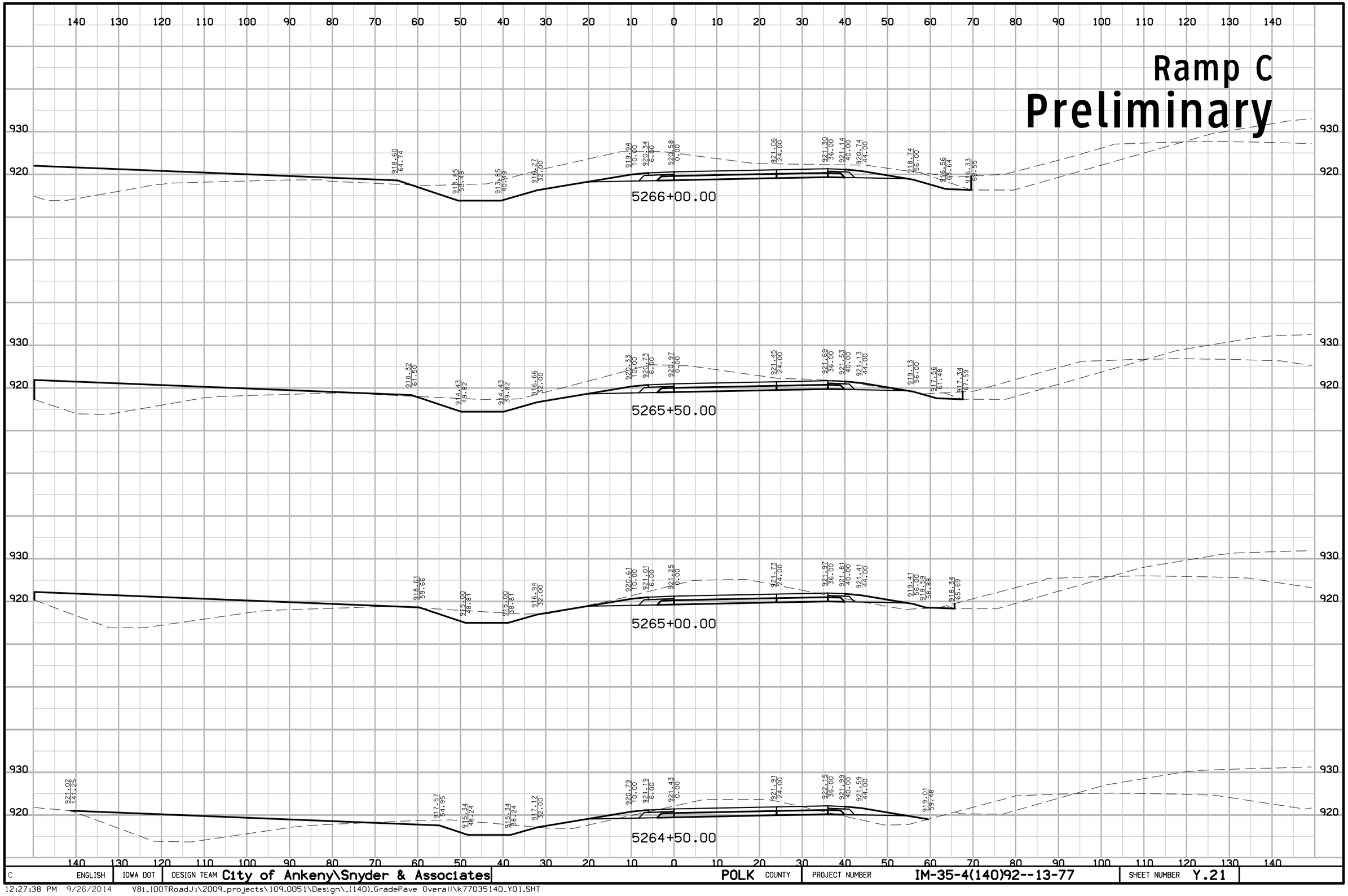


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.20

12:27:38 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

Ramp C

Preliminary

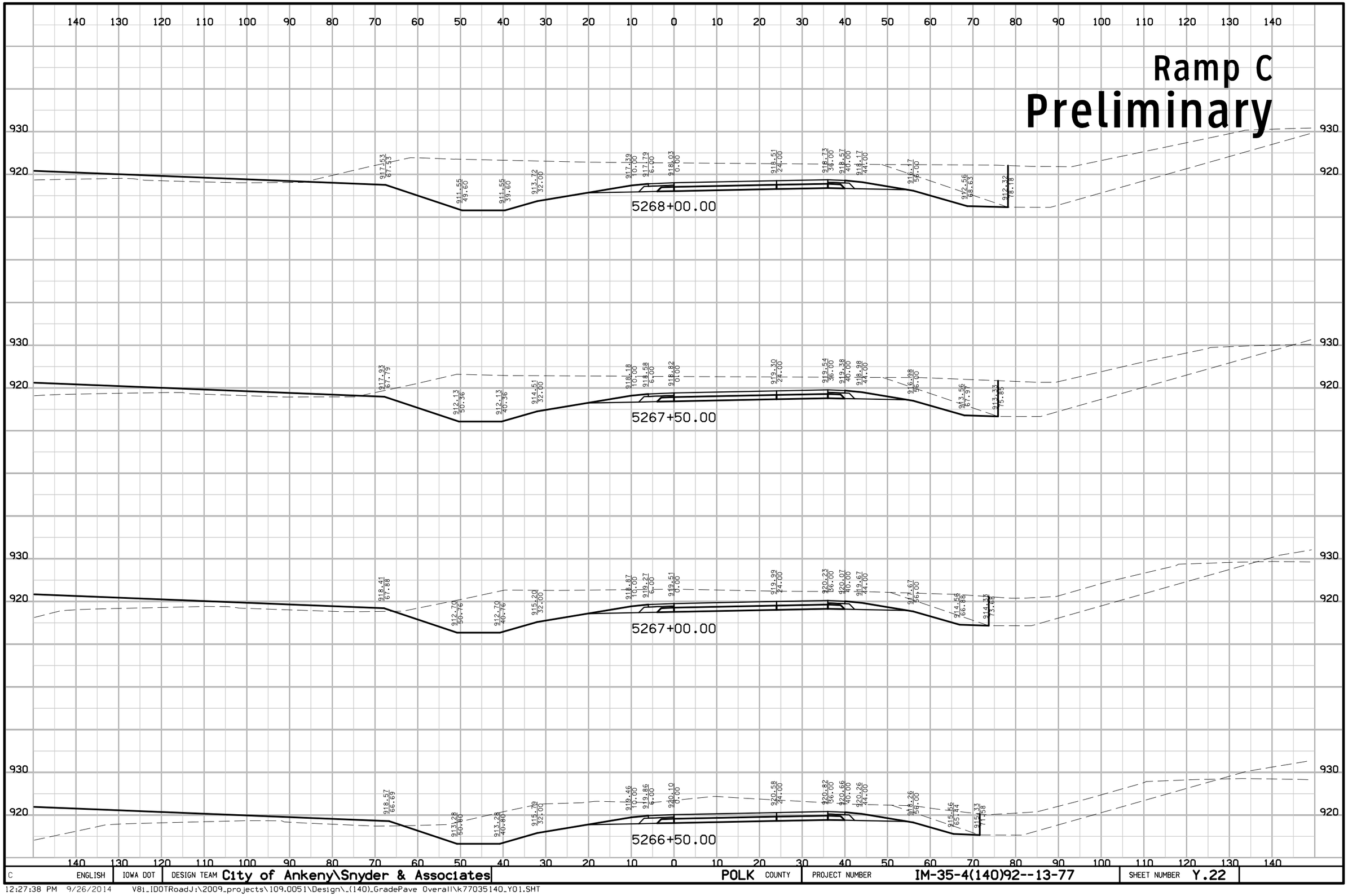


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.21

12:27:38 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

Ramp C

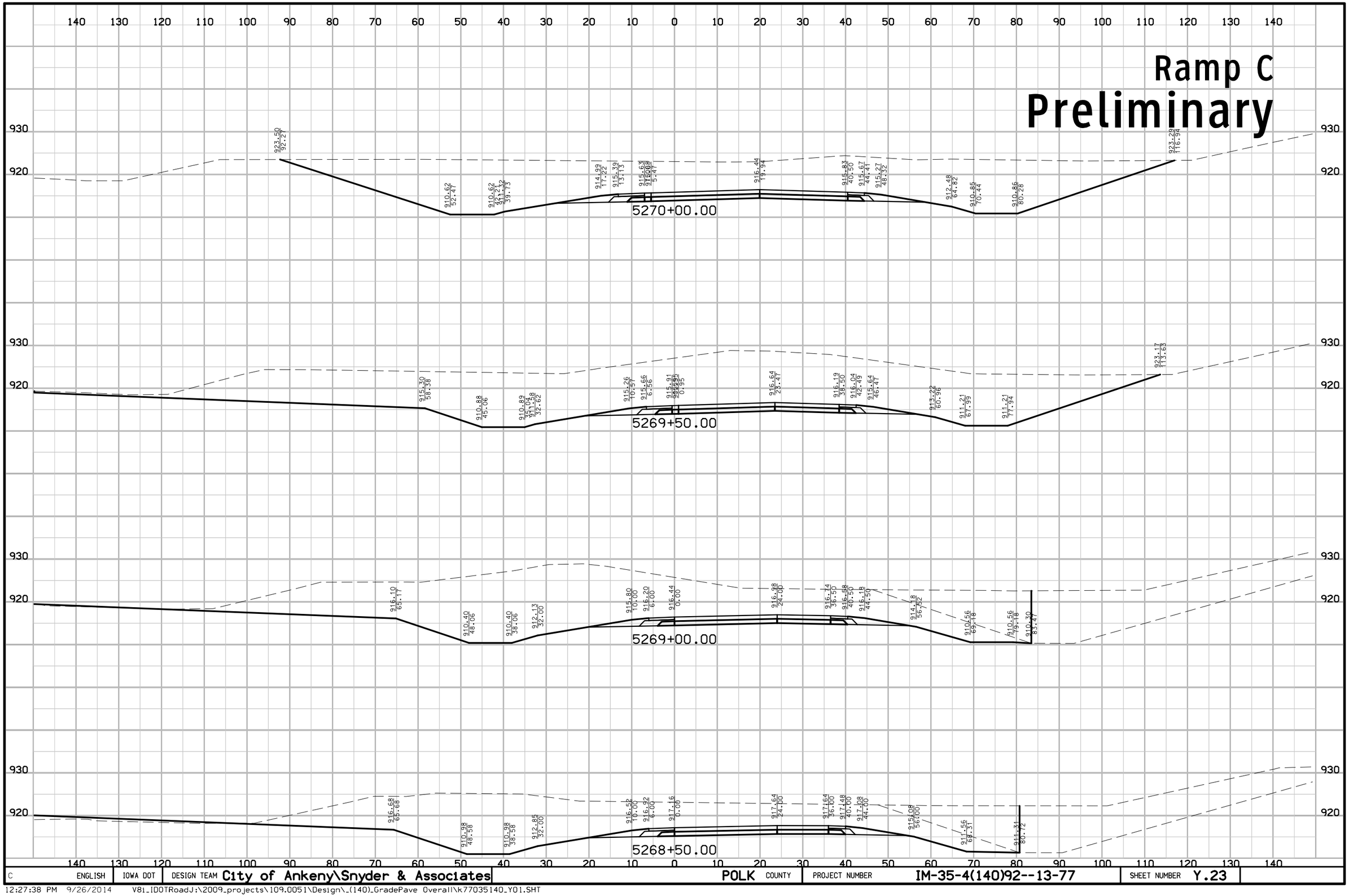
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.22

12:27:38 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

Ramp C
Preliminary

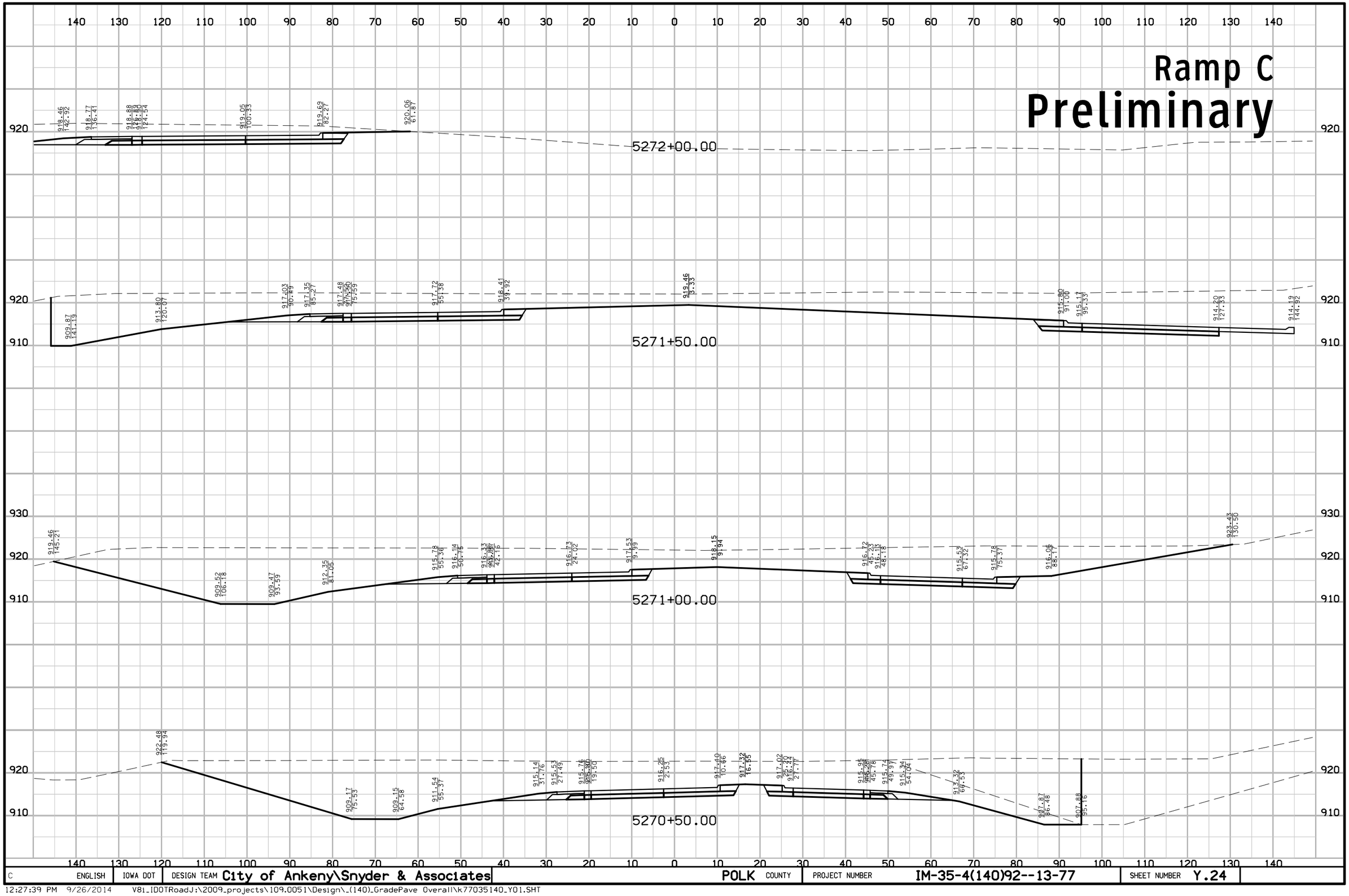


C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.23

12:27:38 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

Ramp C

Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates		POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER Y.24

12:27:39 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

Ramp C
Preliminary

920

5272+50.00

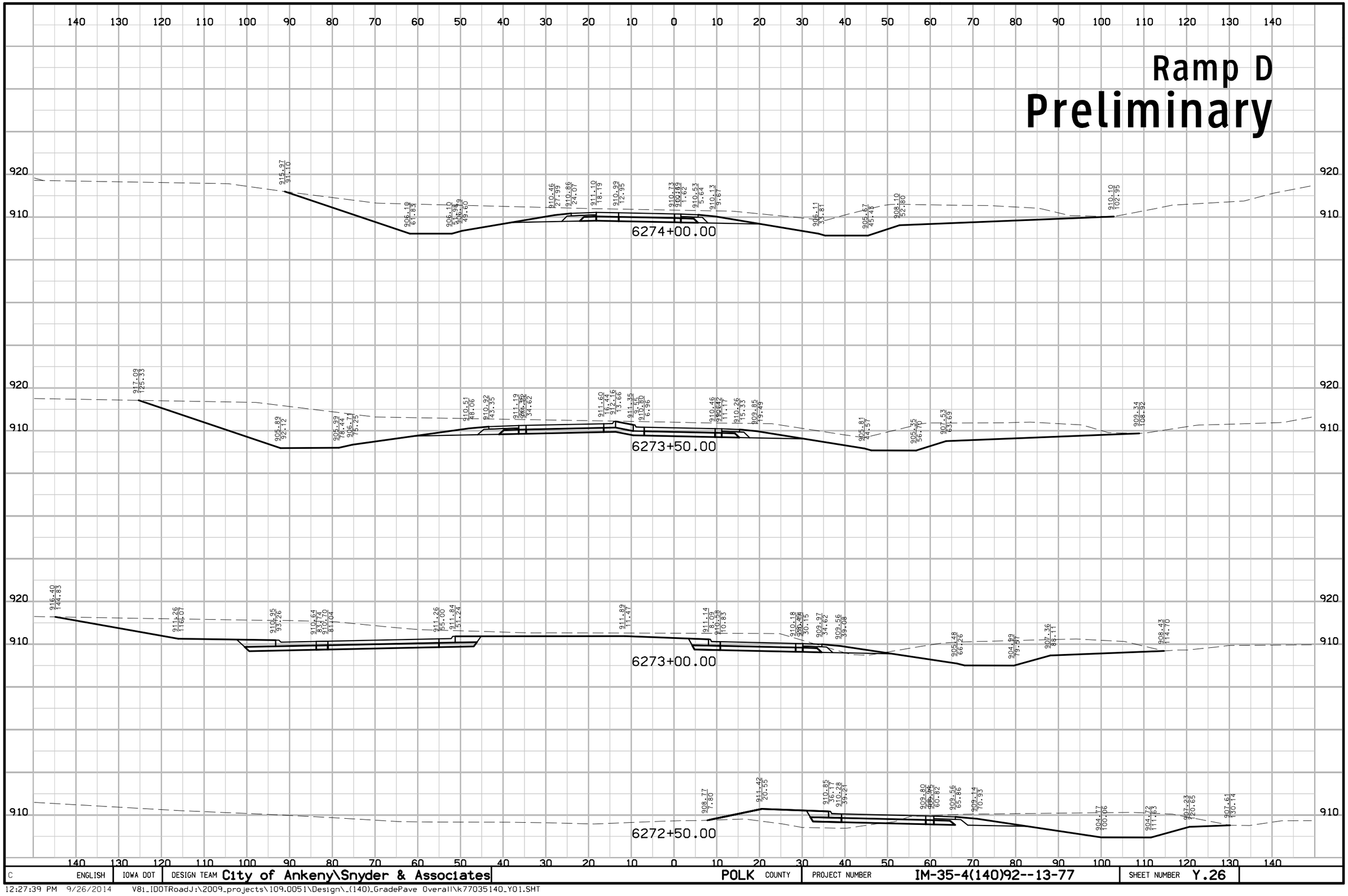
920

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.25	

12:27:39 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

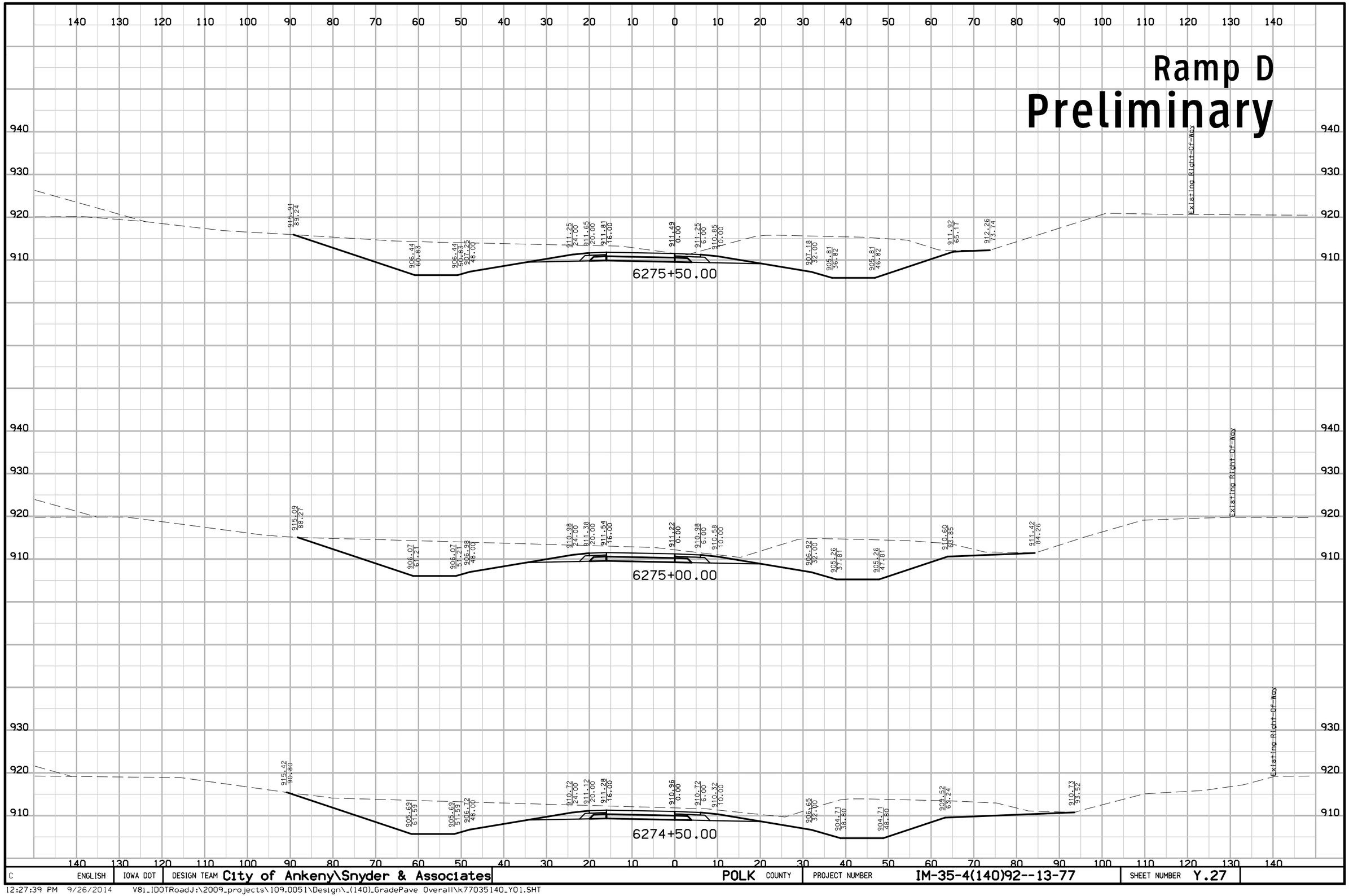
Ramp D
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.26

12:27:39 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

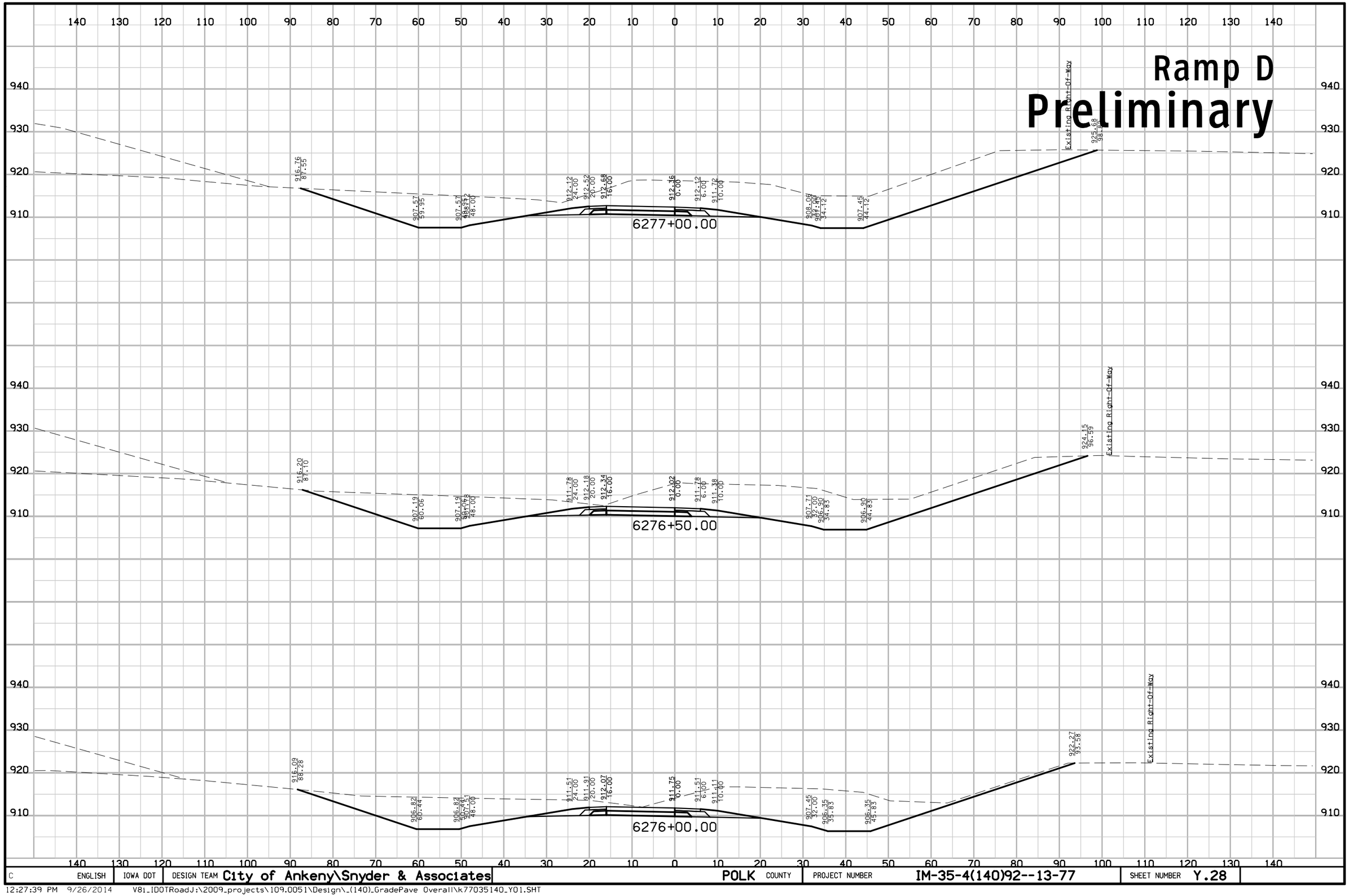
Ramp D
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.27

12:27:39 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_Y01.SHT

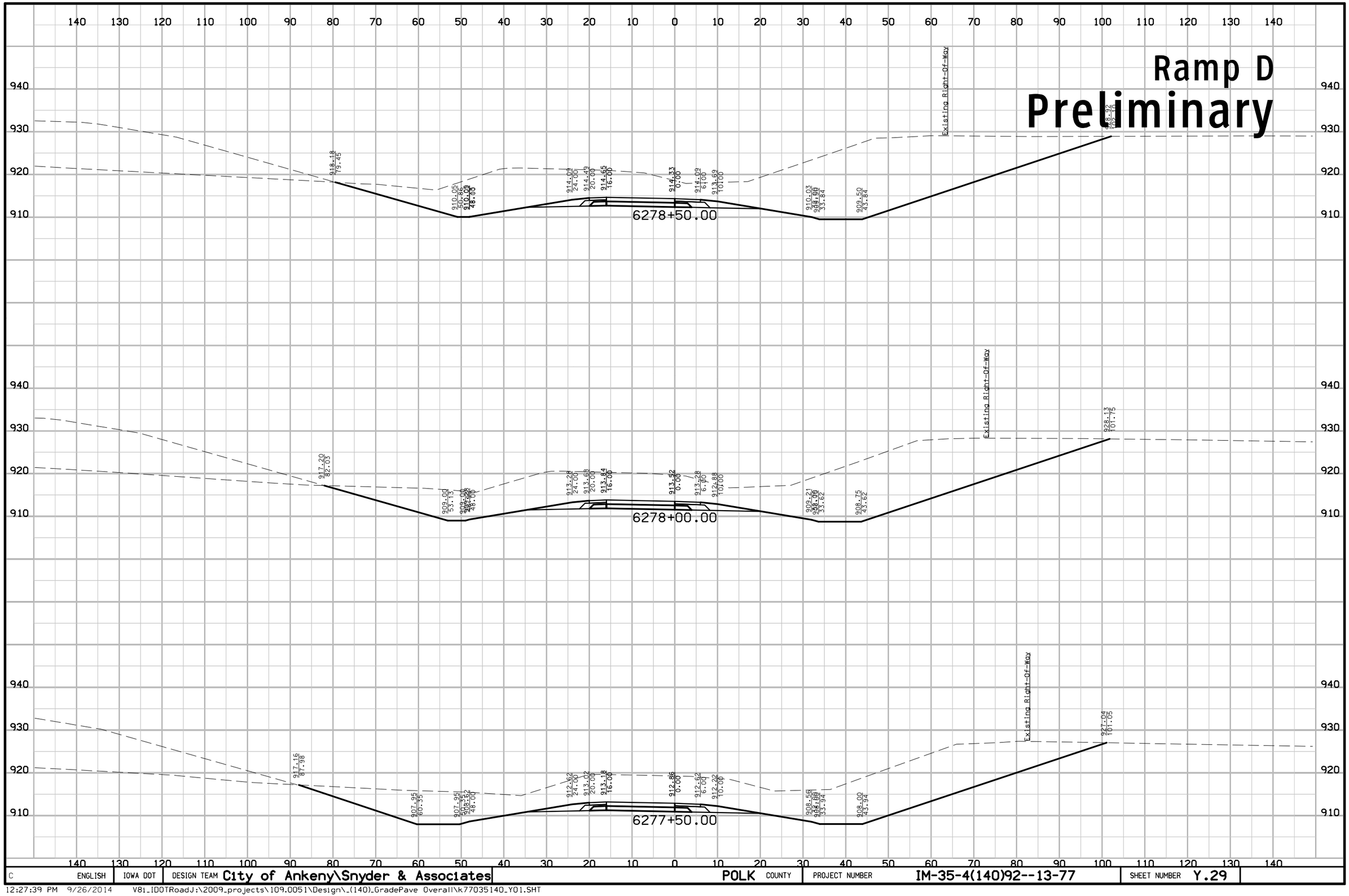
Ramp D
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.28	

12:27:39 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

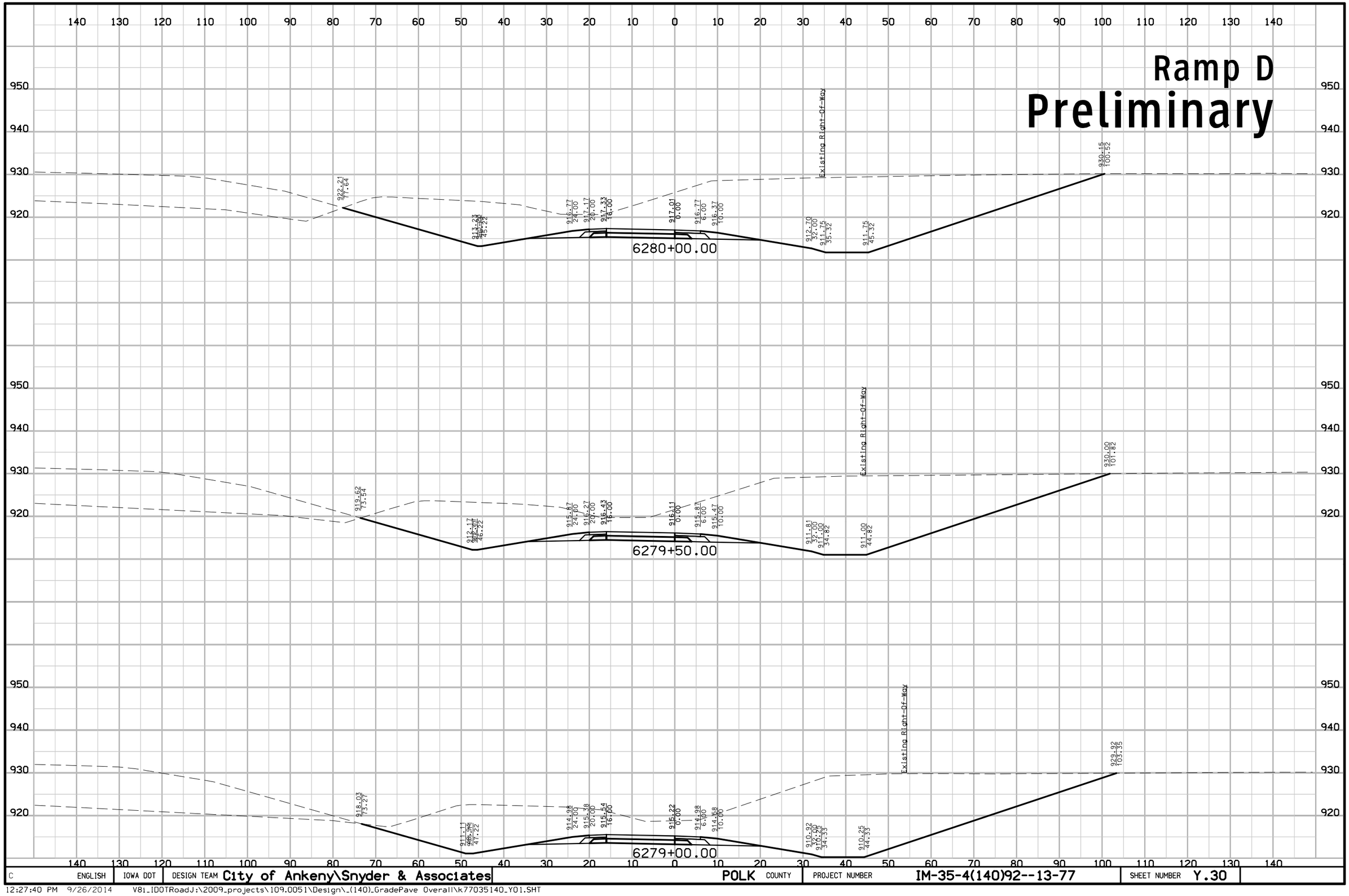
Ramp D
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.29

12:27:39 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

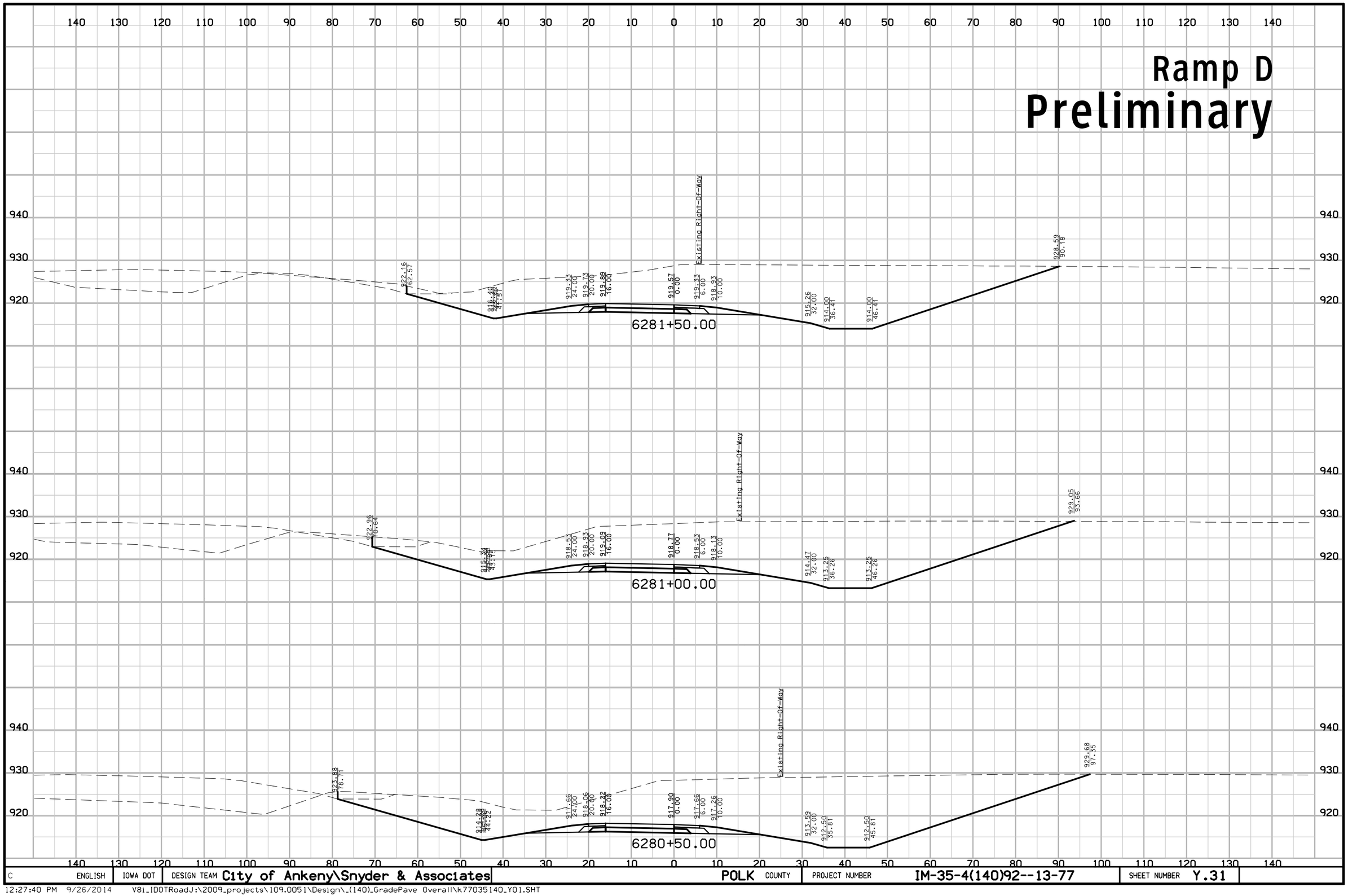
Ramp D
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.30

12:27:40 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k7703514O_Y01.SHT

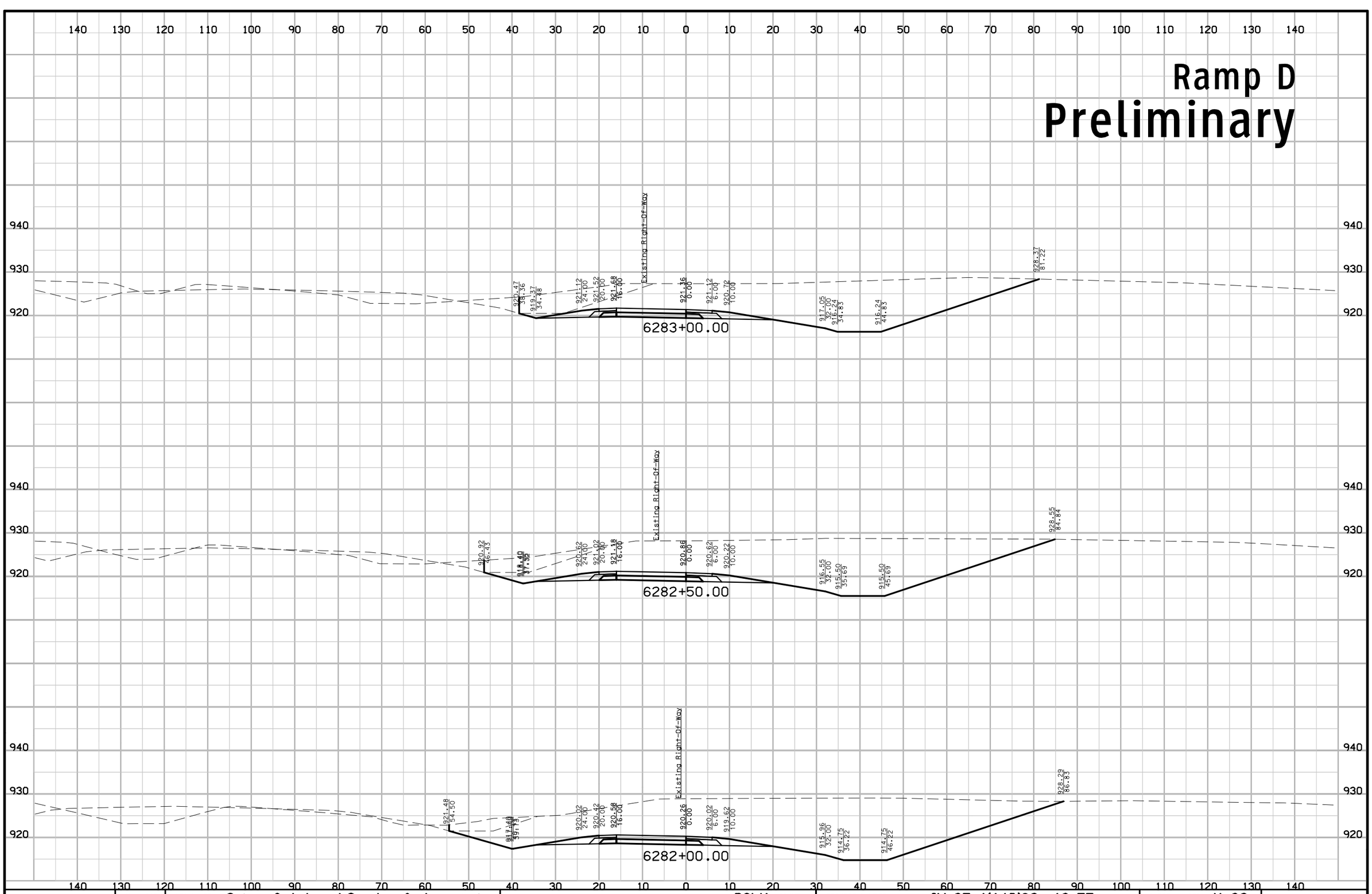
Ramp D
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.31

12:27:40 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

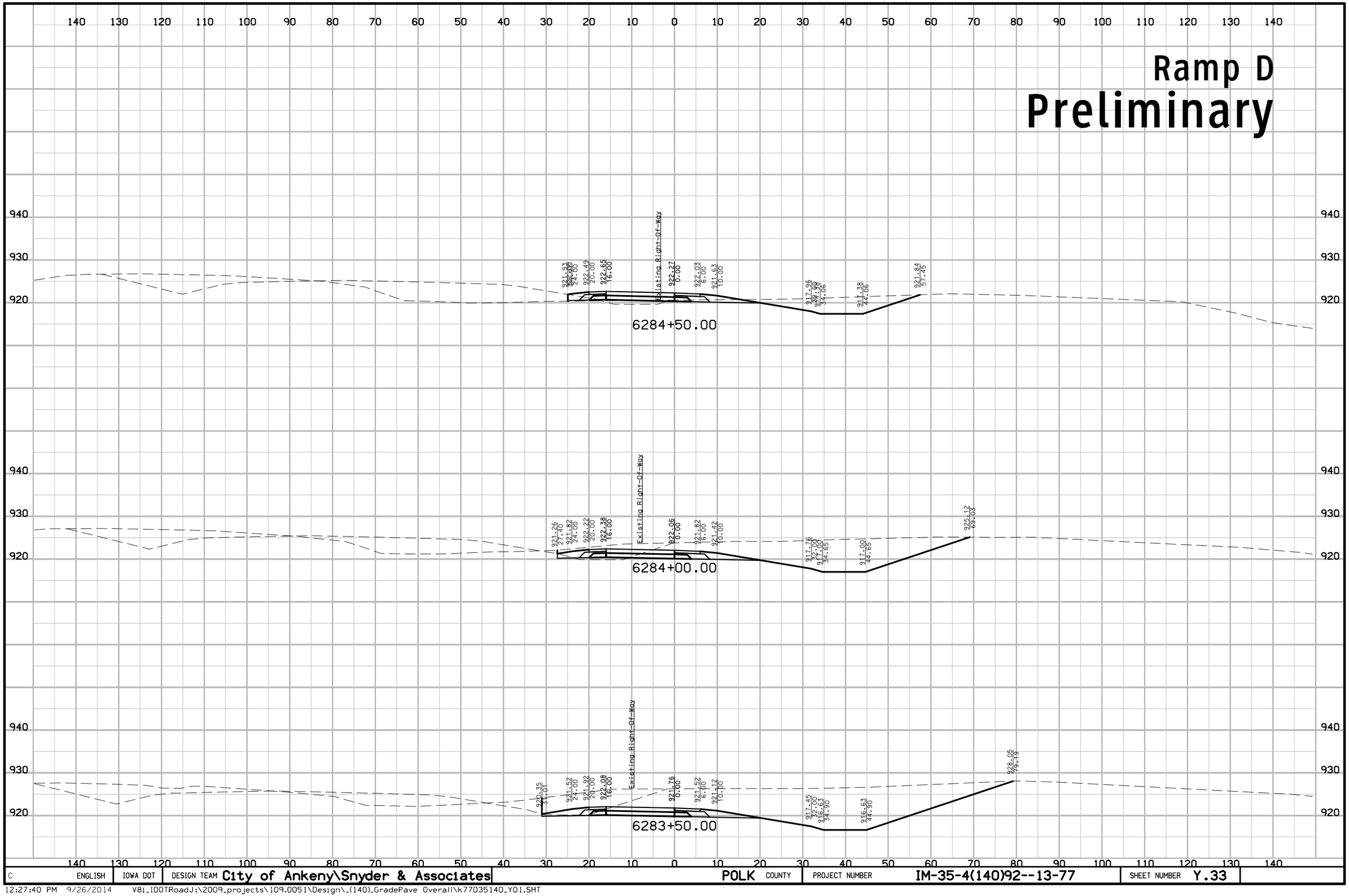
Ramp D
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.32

12:27:40 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

Ramp D
Preliminary



C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	Y.33

12:27:40 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

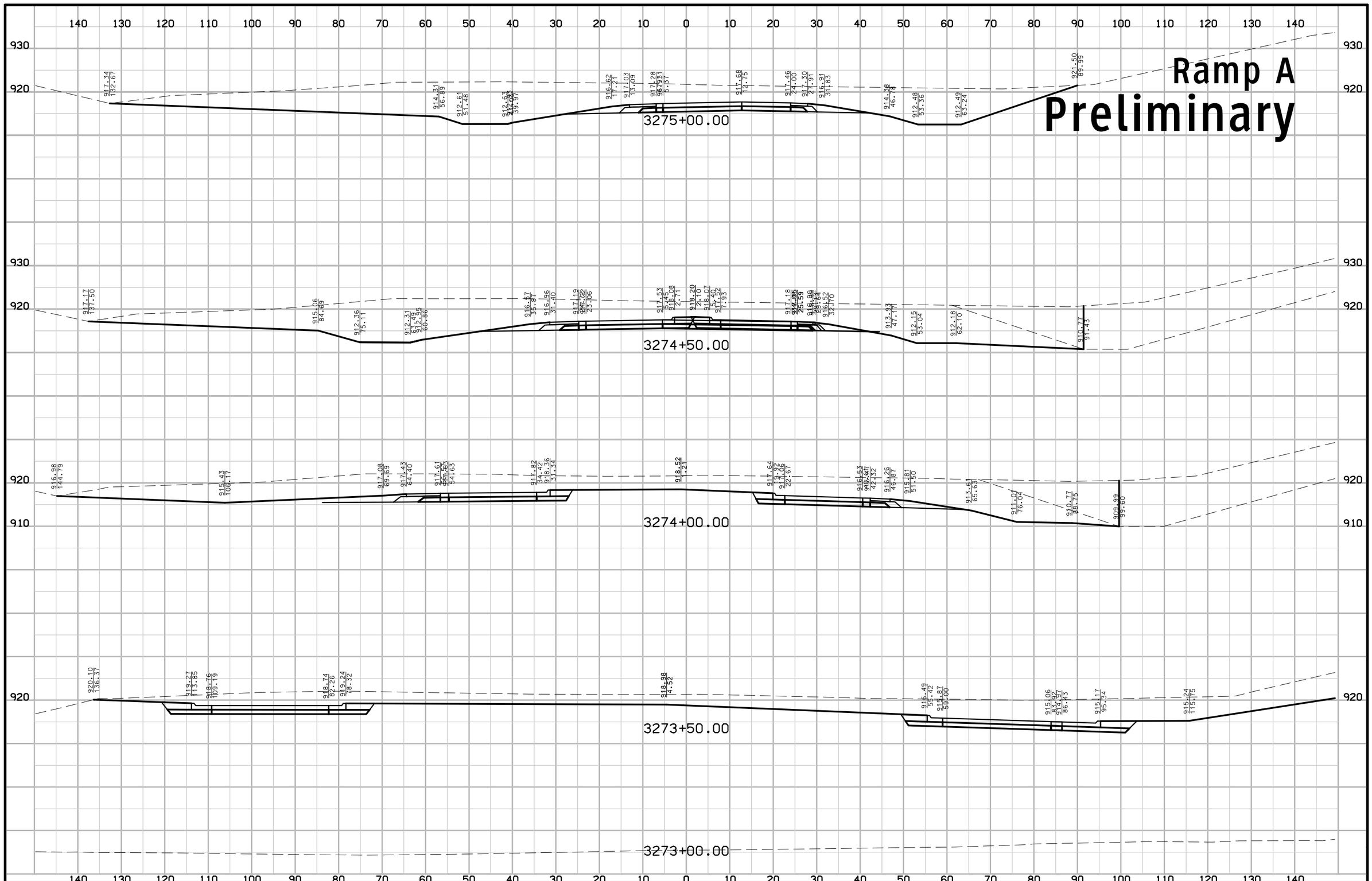
Ramp D

Preliminary

C ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER	IM-35-4(140)92--13-77	SHEET NUMBER	Y.34

12:27:40 PM 9/26/2014 V8i_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT

Ramp A
Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM City of Ankeny\Snyder & Associates	POLK COUNTY	PROJECT NUMBER IM-35-4(140)92--13-77	SHEET NUMBER Y.1

12:27:41 PM 9/26/2014 V81_IDOTRoadJ:\2009_projects\109.0051\Design_(140)_GradePave Overall\k77035140_Y01.SHT