BRIDGE REPLACEMENT - PPCB
BRFIMX-035-2(423)44--14-91
LETTING DATE 6-20-2017

WARREN COUNTY

LEGEND

INTERSTATE HIGHWAY	
PRIMARY HIGHWAY-DIVIDED	
PRIMARY HIGHWAY	
PORTLAND CEMENT CONCRETE ROAD	
ASPHALT ROAD	
BITUMINOUS ROAD	
GRAVEL ROAD	
EARTHEN ROAD	
INTERSTATE HIGHWAY	80
UNITED STATES HIGHWAY	65
STATE HIGHWAY	175
COUNTY HIGHWAY	S27
RAILROAD	
PIPELINE	
AIRPORT	
HYDROLOGY	
BRIDGE	
STATE BOUNDARY	
COUNTY BOUNDARY	
CORPORATE BOUNDARY	
TOWNSHIP LINE	
SECTION LINE	
ROAD NAMES	ABBEY ROAD
UNINCORPORATED PLACE	ELWOOD

Iowa Department of Transportation
Highway Division

PLANS OF PROPOSED IMPROVEMENTS ON THE

PRIMARY ROAD SYSTEM

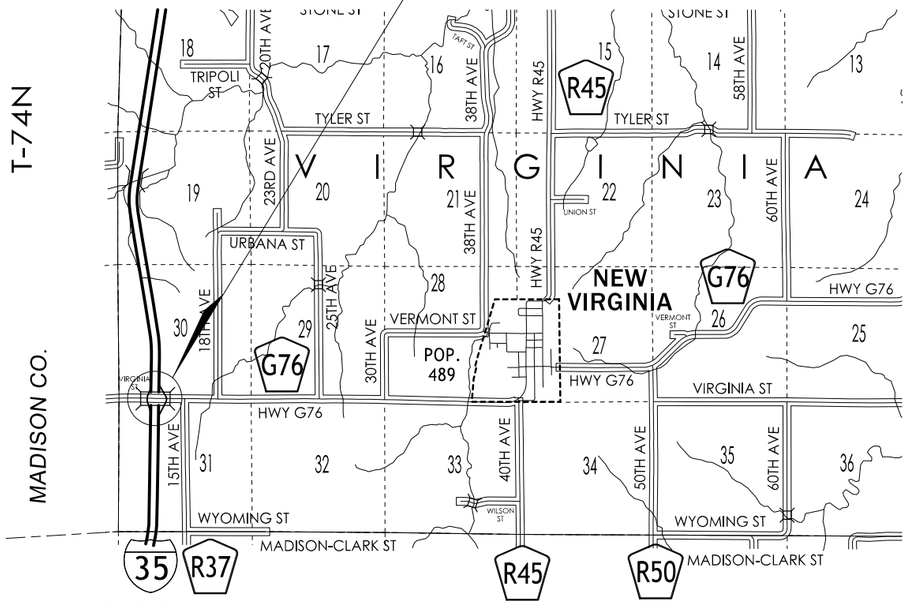
WARREN COUNTY

BRIDGE REPLACEMENT - PPCB

OVER INTERSTATE 35
ON COUNTY ROAD G76

THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2012, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

DESIGN NO. - 816



LOCATION MAP

PROJECT DIRECTORY NAME: -

ENGLISH STANDARD BRIDGE PLANS

STANDARD	ISSUED	REVISED

REVISIONS

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

STANDARD ROAD PLANS

STANDARD ROAD PLANS ARE LISTED ON SHEET NUMBER

DESIGN DATA RURAL

		I-35	G76 EAST	G76 WEST	
2017	AADT	19,700	2,800	520	V.P.D.
2037	AADT	27,800	3,900	750	V.P.D.
202-	DHV	-	-	-	V.P.H.
TRUCKS	2017/2037	28/27	19	18	%
Total Design ESALs		-	-	-	

TOTAL SHEETS
-
PROJECT NUMBER
BRFIMX-035-2(423)44--14-91
R.O.W. PROJECT NUMBER
-
PROJECT IDENTIFICATION NUMBER
12-91-035-020

INDEX OF SHEETS

PRELIMINARY EARTHWORK QUANTITIES

CUT = 92,801 CU.YD.
BORROW = 105,000
EMBANKMENT 35% SHRINK = 197,801 CU. YD.

INDEX OF SEALS

SHEET NO.	NAME	TYPE
V.1	DARIN G. BROWN	STRUCTURAL DESIGN

STRUCTURAL DESIGN

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

Darin G. Brown 15840 IOWA

Signature Date

Darin G. Brown
Printed or Typed Name

My license renewal date is December 31, 2014

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

D5 SUBMITTAL NOT FOR CONSTRUCTION

DESIGN TEAM SCHEMMER	ENGLISH	IOWA DOT * OFFICE OF BRIDGES AND STRUCTURES	FILE NO. -	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER

WARREN COUNTY - DESIGN NO. -

3:22:37 PM ksnook S:\Projects\06241003\9103502012\BRPrelim\91035423 D3(2).str

IOWA DEPARTMENT OF TRANSPORTATION

TO OFFICE: District 5 **DATE:** December 26, 2012

ATTENTION: James V. Armstrong **PROJECT:** Warren County
BRFIMX-035-2(423)44--14-91

FROM: Kevin K. Patel PIN: 12-91-035-020

OFFICE: Design

SUBJECT: Project Concept Statement; (Final Approval, D0)

This project involves the replacement of the County Road G76 bridge (Maint No. 9143.9O035) over I-35 in Warren Co. The new vertical and horizontal alignment for G76 will require the interchange ramps to be reconstructed.

A concept review was held on September 20, 2012. Those present included Greg Mulder and Liz Finarty from the District 5 Office; Dave Mulholland from the Office of Bridges and Structures; Mike Carlson from the Office of Location and Environment; and Kevin Patel and Amy Schleier from the Office of Design.

The alternatives considered were:

1. Construct a 212 ft. x 41 ft. pretensioned prestressed concrete beam bridge immediately south of the existing bridge. The bridge and county road would be raised approximately 2 ft. to provide the desirable clearance over Interstate 35. The new profile requires reconstruction of the county road for approximately half a mile and reconstruction of the interchange ramps. This alternative provides access to the interstate during the majority of construction. This alternative will require right of way. The estimated construction costs are $7,063,400, which includes $200,000 for right of way.

2. Construct a 212' x 40' pretentsioned prestressed concrete beam bridge on the existing horizontal alignment. The vertical alignment will also require a grade raise of approximately 2 ft., thus requiring reconstruction of approximately half a mile of the county road and reconstruction of the interchange ramps. This alternative was dismissed however, due to the inability to maintain access to I-35 from County Road G76 during construction.

The Draft Project Concept Statement was sent out for review and comment with concerns to be resolved by Monday, December 17, 2012. Comments received during the review period have been considered and resolved.

This project is recommended for construction in FY 2017. The Office of Design will coordinate plan preparation with assistance from the Office of Bridges and Structures.

KKP: als
Attach.
cc:

J. F. Adam
K. D. Nicholson
M. D. Masteller
N. L. McDonald
D. R. Claman
E. C. Wright
M. A. Swenson
S. J. Gent
C. C. Poole
J. P. Rost
D. L. Newell
G. L. Mulder
J. Huddle
FHWA
M. E. Khoda

J. R. Selmer
D. L. Maifield
B. R. Smith
G. A. Novey
B. C. Worrel
T. D. Crouch
J. W. Smith
D. E. Sprengeler
S. P. Anderson
S. C. Marler
E. J. Ranney
T. Ehrich
C. E. Belgarde
W. A. Sorenson

M. J. Kennerly
R. L. Stanley
A. A. Welch
P. Lu
N. M. Miller
M. J. Sankey
R. A. Younie
J. Vortherms
B. D. Hofer
L. C. Funnell
D. R. Tebben
J. D. Owen
J. R. Phillips
B. M. Clancy

FINAL PROJECT CONCEPT STATEMENT

Bridge over Interstate 35
on County Road G76

Warren County
BRFIMX-035-2(423)44--14-91
PIN: 12-91-035-020
Maint. No. 9143.9O035
FHWA No. 51180

Highway Division
Office of Design

Kevin K. Patel, P.E.
515-239-1540

December 26, 2012

I. STUDY AREA

A. Project Description

This project involves the replacement of the County Road G76 bridge (Maint No. 9143.9O035) over I-35 in Warren Co.

The preferred alternative is to construct a 212 ft. x 41 ft. pretensioned prestressed concrete beam bridge immediately south of the existing bridge. The bridge and county road would be raised approximately 2 ft. to provide the desirable clearance for interstate traffic. The new profile requires reconstruction of the county road for approximately one-half mile and reconstruction of the interchange ramps. This alternative requires right of way acquisitions, including a former business in the southwest quadrant.

One additional alternative was considered but was not pursued in this concept due to the inability to maintain traffic during construction. This alternative was a diamond interchange on existing horizontal alignment with a 2 ft. increased vertical clearance.

B. Need for Project

This is a 28 ft. x 202 ft. prestressed concrete beam bridge which was built in 1958 and was overlaid with low-slump concrete in 1987. The bridge is classified as structurally deficient due to the condition of the deck and substructure. Mutiple spalled areas with exposed rebars and large delaminations were found at both the top and bottom of the deck in all four spans of the bridge. Both abutments have severe scaling and

delaminations that extend into the bridge seat. Severe pack rust was found on the sliding metal plates. The abutment sole plates are frozen by the pack rust and two masonry plate anchor bars are broken. All the beams of the bridge show certain degrees of deterioration and several impact damages had been recorded. Although most of the damages were epoxy or PCC patched, cracks, rust stains, and exposed strands can be seen from the patches. Due to the poor condition of the overall structure, there is no economical way to fix it. In addition to the structural issues, low vertical clearance (14 ft. 7 in.) at span two of the bridge also needs to be corrected. Therefore, the bridge should be replaced.


Northbound I-35


Southbound I-35

C. Present Facility

The existing structure is a 28 ft. x 202 ft. prestressed concrete bridge constructed in 1958.

I-35 in the project area is a divided 4-lane facility, with two 12 ft. wide traffic lanes in each direction, 10 ft. outside and 6 ft. inside paved shoulders and 4:1 foreslopes, constructed in 1958. The median in the project area is 60 ft. centerline to centerline. HMA resurfacing was accomplished in 1969, 1989 and 2009.

County Road G76 in the project area is 22 ft. wide HMA pavement with 6' wide granular shoulders and 3:1 foreslopes, constructed in 1958. The roadway surface changes from pavement to gravel just west of this interchange.

D. Traffic Estimates

The 2017 and 2037 average daily traffic estimates for I-35 are 19,000 ADT with 25% trucks and 27,800 ADT with 27% trucks, respectively. The 2017 ADT on County Road G76 is 1,400 on the east side of the interchange and 230 on the west side. The 2037 ADT on County Road G76 is predicted to be 2,000 on the east side of the interchange and 330 on the west side. Truck traffic is 18% on the west side and 19% on the east side.

E. Sufficiency Ratings

I-35 is classified as an "interstate" route and is a maintenance service level "A" road with a sufficiency rating of 92. The federal bridge sufficiency rating is 42.

F. Access Control

Access rights have previously been acquired for I-35. Access control rights will be acquired along County Road G76. Accesses west of the interchange will be relocated to meet the 300 ft. access control policy requirement. Accesses east of the interchange meet the 300 ft. requirement.

G. Crash History

During the five-year study period from January 1, 2007 through December 31, 2011, there were 16 crashes including, 2 personal injury crashes and 14 crashes that caused personal property damage only. 7 of the 16 crashes were caused by an animal on the roadway.

II. PROJECT CONCEPT

A. Feasible Alternative - Replace bridge and interchange ramps, realign County Road G76

Replace the existing 202' x 28' prestressed concrete beam bridge on County Road G76 with a 2-span, 212 ft. x 41 ft. pretensioned, prestressed concrete beam bridge on a new vertical and horizontal alignment. The typical cross section adjacent to the bridge will consist of a 24 ft. roadway (28 ft. wide pavement) with 8 ft. effective shoulders (2 ft. paved and 6 ft. granular). The foreslopes will be 6:1/3.5:1 between the ramp terminals and will transition to 3:1 beyond the ramp terminals in order to tie into the existing county road foreslopes.

The vertical alignment for this bridge will be raised approximately of 2 feet to meet minimum vertical clearance requirement of 16.5 ft. The horizontal alignment will be shifted approximately 48 ft. to the south to allow for staged construction. The width of the bridge deck was increased an additional foot (to 41 ft.) in order to accommodate the 5,500 ft. radius horizontal curve on the proposed alignment for G76. The transition from the 41 ft. wide bridge to the adjacent 40 ft. wide roadway section will take place within the bridge approach section. The new horizontal and vertical alignment will require G76 to be reconstructed for approximately one-half mile. Construct new bridge approaches. Replace the existing guardrail with new guardrail and pave the shoulders 20 ft. beyond the ends of the guardrail. Class 10 will be necessary to flatten the existing foreslopes and to construct the new guardrail blisters. Place macadam

revetment for slope protection under the bridge. Construct bridge end drains on the northeast and northwest quadrants of the bridge.

Interstate 35 will be used as constructed; however, by FY 2017 when this project is proposed to be constructed, the high tension cable guardrail will be installed in the median of I-35. The high tension cable will need to be adjusted in the median due to the location of the new bridge pier.

The revised horizontal and vertical profile for G76 will require the existing interchange ramps to be reconstructed. The interchange configuration will remain a standard diamond with 16 ft. wide ramps and 4 ft. inside and 6 ft. outside paved shoulders. The existing entrances on the west side of the interchange will need to be relocated to the west in order to meet current access control policy requirements of 300 ft. from the ramp bifurcation point. These entrances include a residential entrance in the northwest quadrant of the interchange and a field entrance in the southwest quadrant. The field entrance will be reconstructed for approximately 1200 ft. in order to tie into the existing entrance alignment.

It appears that the relocated ramp in the southwest quadrant of the interchange, in addition to the modifications to the field entrance will necessitate the acquisition of the property in this quadrant. This property was a former business. Right of way will also be required in the other quadrants of the reconstructed interchange.

Traffic will be maintained by staged construction, using the existing bridge and ramps while the new bridge and ramps are constructed. There will be a limited closure when the tie-in pavement is constructed. A two-lane paved runaround of approximately 1,600 ft. in length will be constructed on the east side of the interchange to provide interstate access for County Road G76 during construction. The contractor will provide access at all times for the residents on the west side of the interchange as well as to the Kum & Go gas station on the east side of the interchange. The entrances to the gas station will need to be reconstructed and extended in order to tie into the new County Road G76 alignment.

The existing lighting will be removed and replaced at the ramp terminals. All signing for the interchange, mainline guide signs, logo signs and signing on the county road thought the interchange will be replaced

Apply erosion control and rural seeding and fertilizing to all disturbed areas.

Item	Estimated Cost
Bridge Costs	
New Bridge	$ 855,000
Bridge Removal	55,000

Mobilization - 10%	91,000
M & C - 15%	150,000
Bridge Total	**$ 1,151,000**
Roadway Costs	
Bridge Approaches	78,000
Removal of Pavement	103,900
PCC Pavement, 10" (ramps)	576,100
PCC Pavement, 8" (G76)	316,300
Modified Subbase	245,900
Paved Shoulder (ramps)	346,700
Granular Shoulder (G76)	25,200
Class 10, Roadway and Borrow	642,100
Class 13, Waste	354,000
Longitudinal subdrain and outlets	42,500
Steel Guardrail for 2-lane bridge (includes removal)	22,100
Paved shoulder for 2-lane bridge	18,400
Class 10 for guardrail blister	10,800
High Tension Cable Guardrail for median pier	7,700
Bridge End Drains	5,800
Interchange lighting	45,000
Entrance relocations (residence and field entrance)	29,900
Paved entrance reconstruction (Kum & Go)	25,000
Building removal in southwest quadrant	12,000
Clearing and Grubbing	10,200
Seeding and Fertilizing	1,900
Erosion Control	5,000
Wetland Mitigation	50,000
Temporary two-lane paved runaround	511,000
Temporary Luminaires	5,900
Replace all signing through the interchange	75,000
Removal of Asbestos	15,000
Traffic Control - 5%	179,100
Mobilization - 5%	179,100
Subtotal	**3,939,600**
Staging – 15%	590,900
M & C - 30%	1,181,900
Roadway Total	**$ 5,712,400**
Right of Way	**$ 200,000**
Project Total	**$ 7,063,400**

B. Detour Analysis

There will be no off-site detour. Traffic will be maintained via staged construction with traffic utilizing the existing bridge and ramps while the new bridge and ramps are constructed. Temporary connections will be constructed to allow County Road G76 traffic access to the interchange. There will be short-term closures when the tie-in pavement is constructed.

C. Recommendations

It is recommended that the present structure and interchange be replaced as described.

D. Construction Sequence

It is anticipated that all work on this project will be awarded to one prime contractor. The Office of Design will coordinate the plan preparation with assistance from the Office of Bridges and Structures.

E. Special Considerations

Right of Way will be required for this project.

Underground tanks in the northwest and southwest quadrants of the interchange are reportedly removed but an additional investigation will be warranted to document current conditions.

Asbestos was found in the tar sealant in the joints of the concrete slope protection pads and in the sealant in the joints between the pavement approaches and the bridge deck. These materials cannot be removed prior to demolition of the structure.

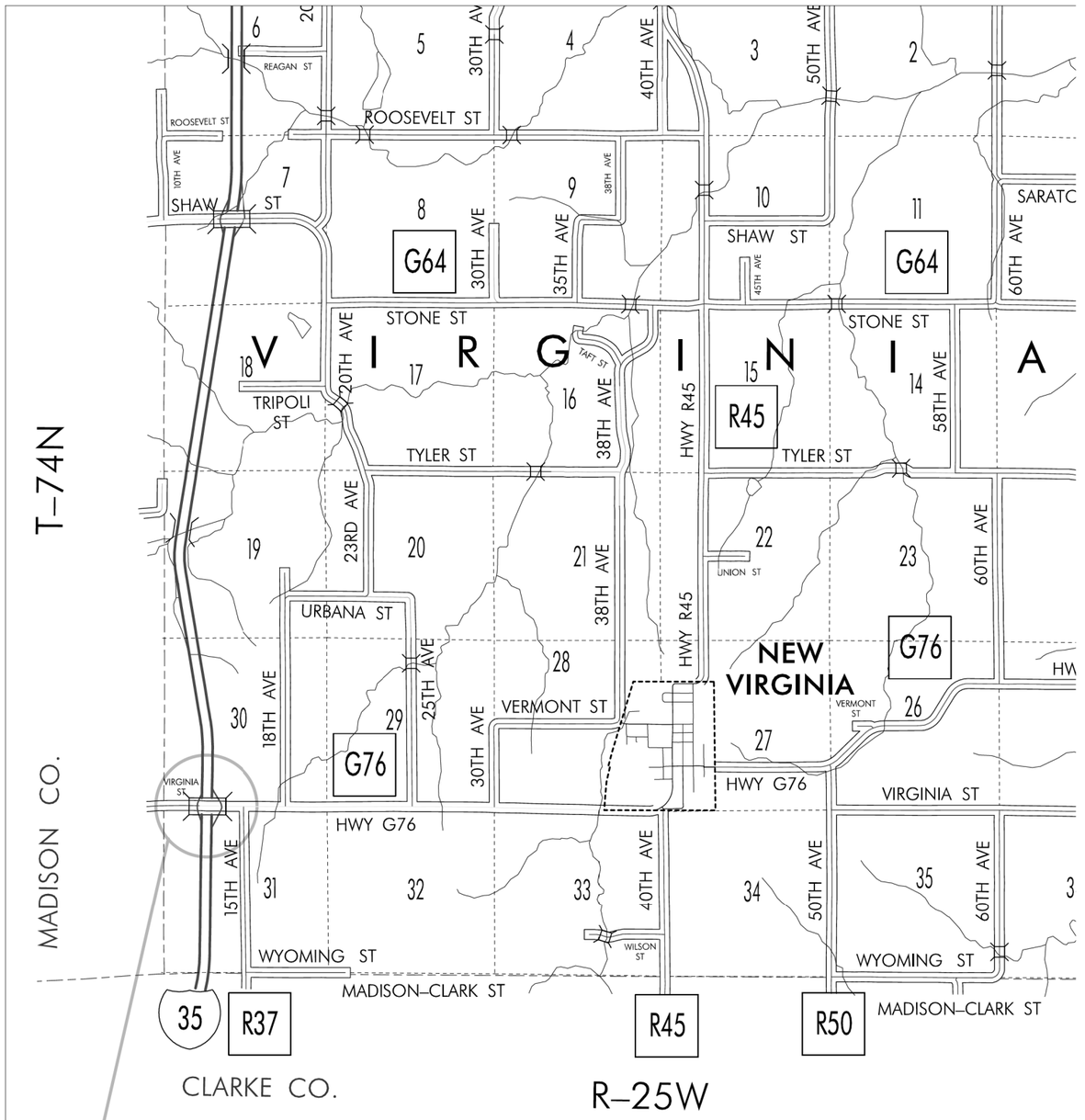
The Office of Location and Environment has reviewed this project and has determined that a Section 404 Permit will be required. It is expected that the work will be covered by Nationwide Permit 14.

There are no sidewalks adjacent to I-35 or County Road G76; therefore, no ADA work is planned in conjunction with this project.

F. Program Status

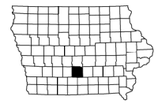
Site data has been developed by the Office of Design. This project is listed in the 2013-2017 Iowa Transportation Improvement Program, with $6,100,000 programmed for replacement in FY 2017. Costs for this project will be eligible for bridge replacement funds. A schedule of events will be developed following approval of the Project Concept.

KKP: als



WARREN COUNTY

I–35
Interchange with Co. Rd. G76
Virginia Township
Sections 30 & 31
T–74N R–25W



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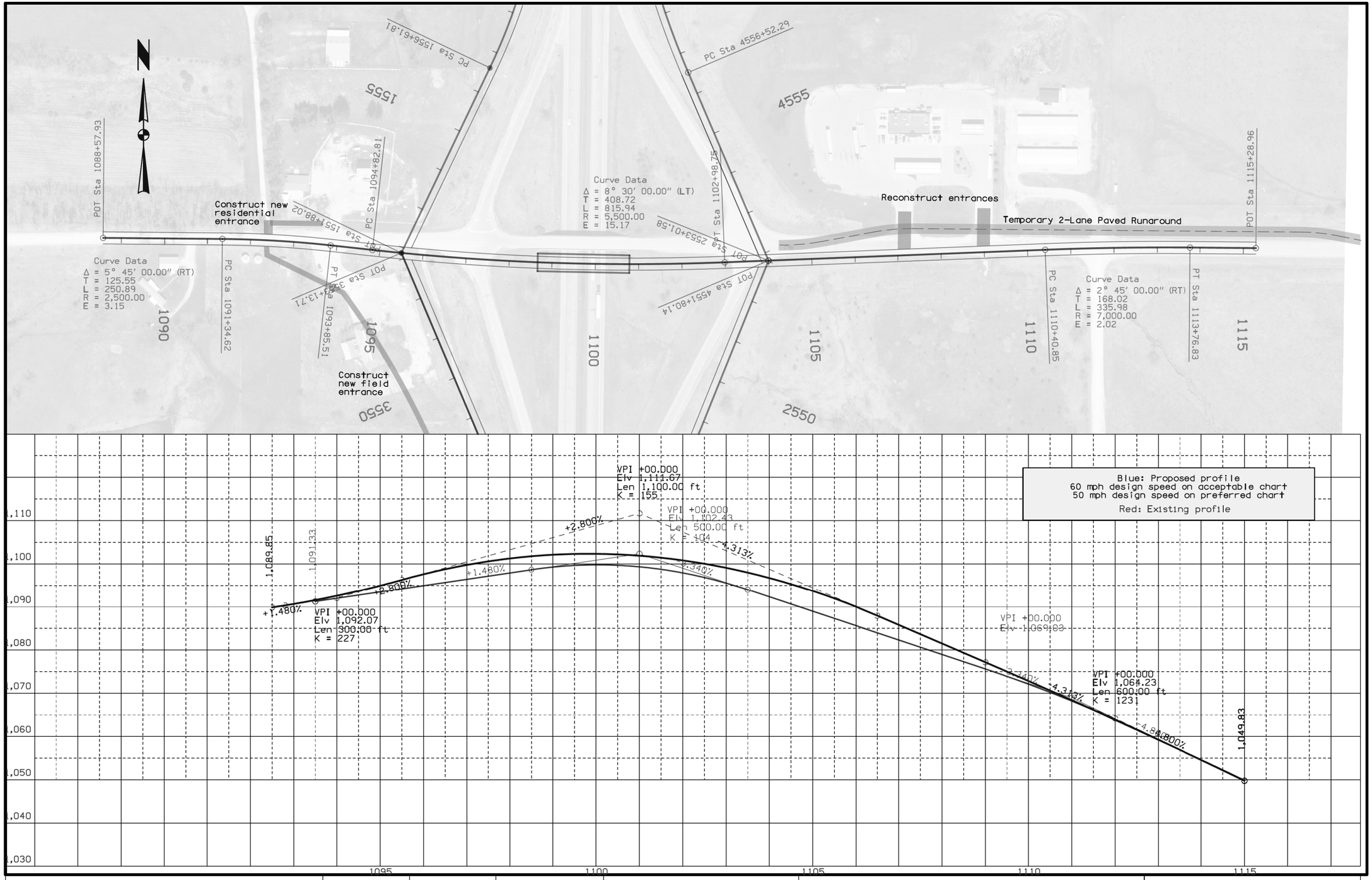
WARREN COUNTY

I-35 / Co. Rd. G76
Interchange

BRFIMX-035-2(423)44--14-91
12-91-035-020

Bridge Maint. #9143.90035
FHWA #51180



ROAD DESIGN • CADD • PRODUCED	STATE OF IOWA	FHWA REGION 7	FISCAL YEAR	COUNTY	PROJECT NUMBER	SHEET NUMBER

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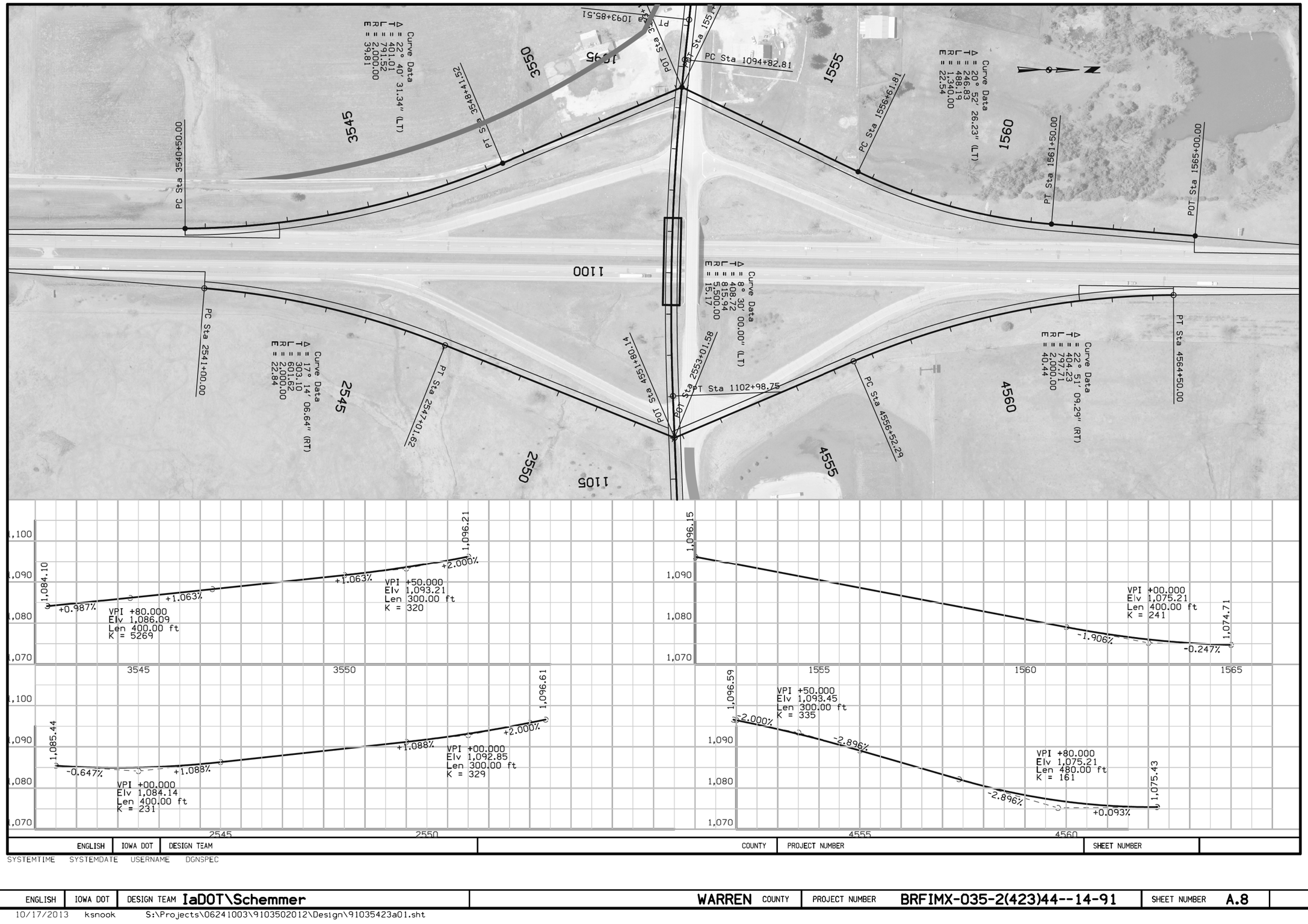

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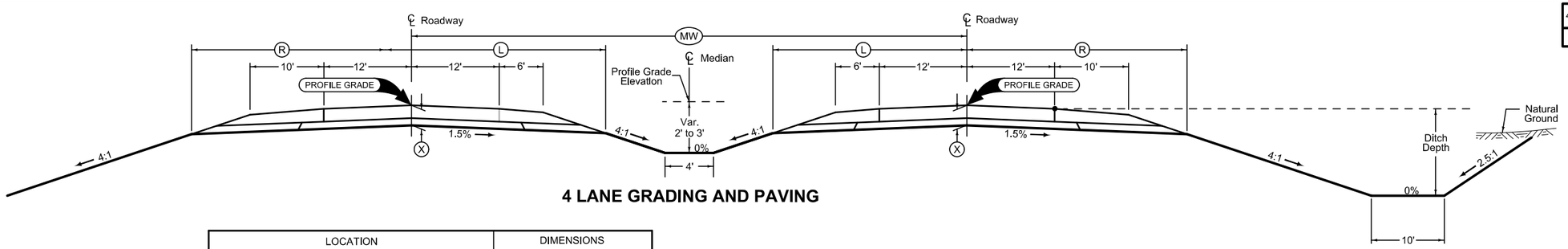


4 LANE GRADING AND PAVING

LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(MW) Feet
I-35	00+00.00	49+78.73	22.5	26.2	14	60
I-35	55+78.73	138+30.00	22.5	26.2	14	60

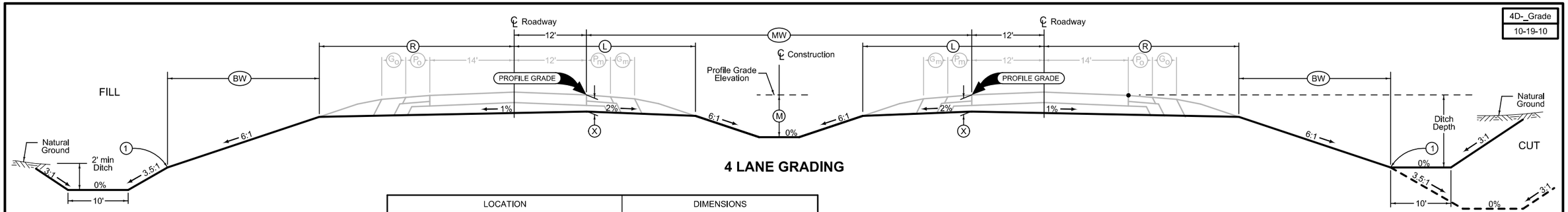
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profiles 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.

EXISTING I-35 AT RAMP A-D TIE INS

4D-_Grade
10-19-10



4 LANE GRADING

LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(MW) Feet	(M) Feet
I-35			28.1	32.1	22	13.9	36	

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.

FUTURE I-35

See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

INTERSTATE 35
EXISTING 4 LANE GRADING AND PAVING

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER B.1

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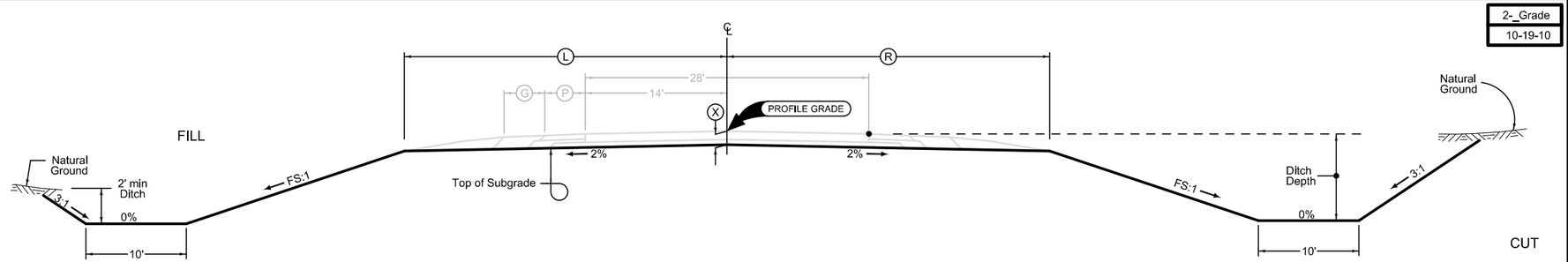
LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	FS
CO. RD. G76	91+84.39	93+92.59	26.3	26.3	14	3:1
CO. RD. G76	105+38.54	112+50.00	26.3	26.3	14	3:1

2-_Grade
10-19-10



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.

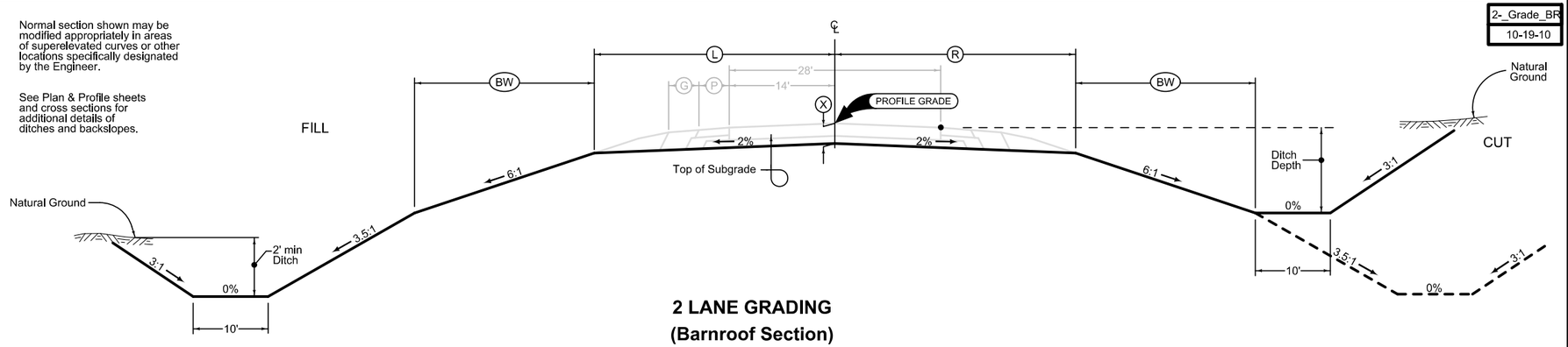
2 LANE GRADING

LOCATION			DIMENSIONS				
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	
CO. RD. G76	93+92.59	98+40.73	29	29	14	13	
CO. RD. G76	100+95.74	105+38.54	29	29	14	13	

2-_Grade_BR
10-19-10

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.



2 LANE GRADING
(Barnroof Section)

LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW_L) Feet	(BW_R) Feet
I35 / CO. RD. G76	A	152+89.01	163+66.68	16.1	30.4	16	13.9	15.6
I35 / CO. RD. G76	B	240+12.53	251+56.42	30.4	16.1	16	15.6	13.9
I35 / CO. RD. G76	C	341+88.27	350+88.32	16.1	30.4	16	13.9	15.6
I35 / CO. RD. G76	D	453+78.49	462+83+57	30.4	16.1	16	15.6	13.9

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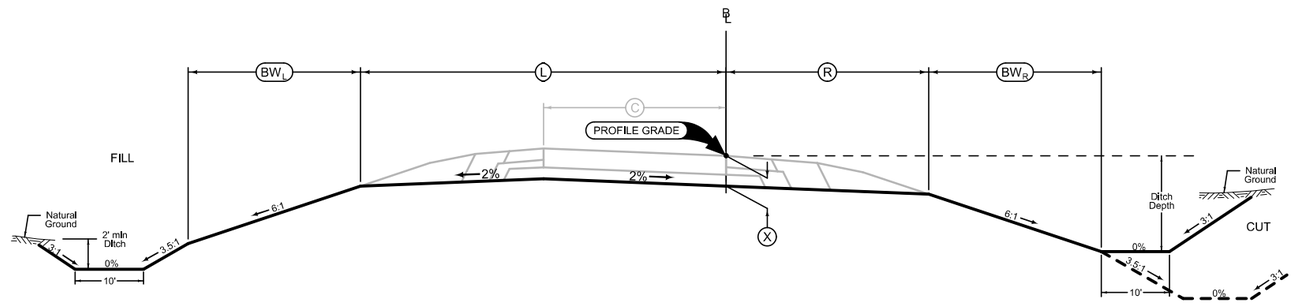
10-19-10



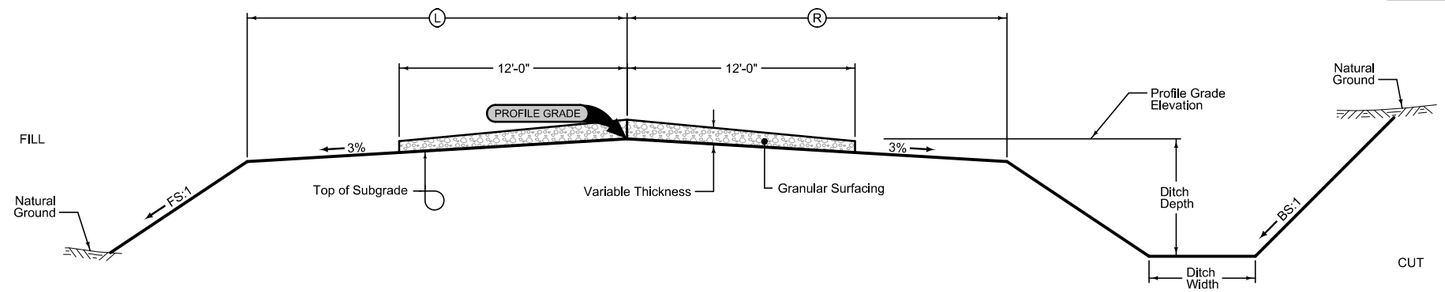
RAMP GRADING

Section view is in direction of traffic.

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

LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	FS	BS
CO. RD. G76	88+50.00	91+84.39	14	14	3:1	3:1

2-GradeGran
10-19-10



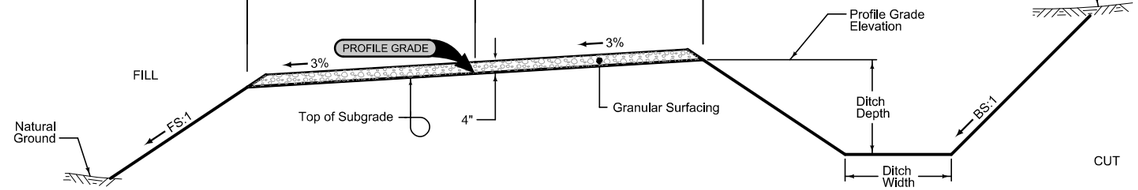
GRADING AND GRANULAR SURFACING

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.

LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	FS	BS
PRIVATE DRIVE	542+81.65	554+54.66	6	6	3:1	3:1

Modified
10-22-13



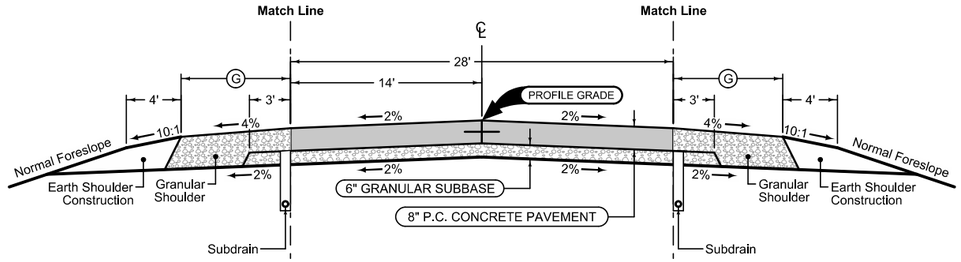
GRADING AND GRANULAR SURFACING

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.

Granular Shoulder

		2_G_ 10-19-10
STATION TO STATION		(G) Feet
92+00.00	98+40.73	6
100+95.74	112+50.00	6



Jointing:
Transverse joints: CD at 20' spacing.

BEGIN STATION	END STATION
92+00.00	98+40.73
100+95.74	112+50.00

Granular Shoulder

		2_G_ 10-19-10
STATION TO STATION		(G) Feet
92+00.00	98+40.73	6
100+95.74	112+50.00	6

See Tab 100-24 for pavement quantities.

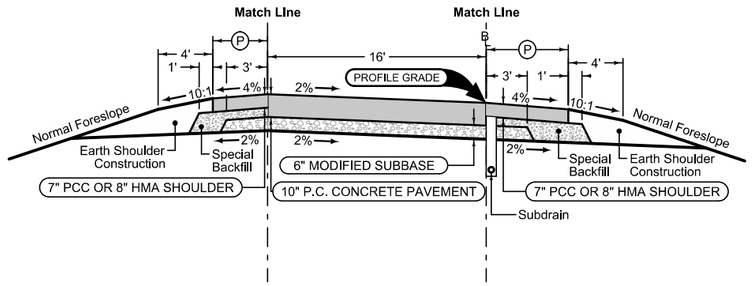
See Tab 112-9 for shoulder quantities.

COUNTY ROAD G76

Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-3
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

1R_P_ALT_ 10-19-10		
BEGIN STATION	END STATION	(P) Feet
152+89.01	163+66.68	4
240+12.53	251+56.42	4
341+88.27	350+88.32	4
453+78.49	462+83+57	4



Section shown in the direction of traffic.

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

1RP_ 10-19-10	
BEGIN STATION	END STATION
152+89.01	163+66.68
240+12.53	251+56.42
341+88.27	350+88.32
453+78.49	462+83+57

Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-3
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

1R_P_ALT_ 10-19-10		
BEGIN STATION	END STATION	(P) Feet
152+89.01	163+66.68	6
240+12.53	251+56.42	6
341+88.27	350+88.32	6
453+78.49	462+83+57	6

See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

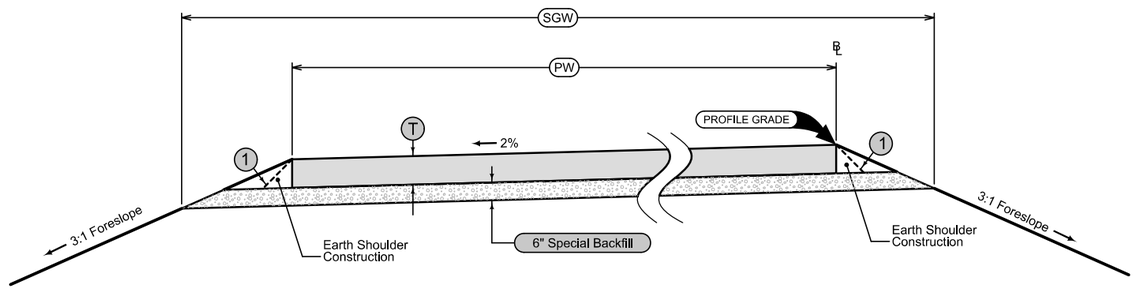
INTERSTATE 35 AND COUNTY ROAD G76
RAMPS A-D

LOCATION			DIMENSIONS						6" Special Backfill	Earth Shoulder Construction
ROAD IDENTIFICATION	STATION TO STATION		HMA			PCC				
			(PW) Feet	(T) Inches	(SGW) Feet	(PW) Feet	(T) Inches	(SGW) Feet	Tons/Station	Station
CO. RD. G76 LT	100+00.00	103+79.67	24	8	27.6	–	--	--		
CO. RD. G76 LT	200+00.00	209+86.95	24	8	27.6	–	--	--		

Quantity calculations based on vertical pavement edges.

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

(1) Possible HMA 1:1 slope



DETOUR PAVING

D_Detour
10-15-13

See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

TEMPORARY PAVING

SURVEY SYMBOLS

- PIP Pipe Culvert
- BLD Building or Foundation
- FWD Wood Fence
- FW Wire Fence
- TDC Tree Deciduous
- FCL Chain Link and Security Fence
- MM Mile Marker Post
- SL Speed Limit Sign
- TEV Evergeen Tree
- SHR Shrub
- SI Sign
- LUM Luminaire
- MH Utility Access (Manhole)
- WV Water Valve
- LP L.P. Tank
- PR Electic Riser Pole
- TV Satelite TV Dish
- EB Electrical Box
- MIS Miscellaneous
- GP Guard Post (Less Than 4 Posts)
- WEL Well
- SEP Septic Tank
- PPA Power Pole Co. 1
- TPD Telephone Pedestal
- CIS Cistern
- SLO Silo
- LIN Miscellaneous Line
- STP Stump
- WHU RV Water Hook Up
- TLNL Tree Line Left
- WM Wind Mill
- TFR Tree Fruit
- TLNR Tree Line Right
- BRG Bridge
- IN Storm Sewer Intake
- CUL Culvert
- LC Lot Corner
- HDG Hedge Row
- GDL Guard Rail Steel
- FLG Flag Poles
- UV Underground Utility Vault
- GPR Guard Post (4 or More Posts)
- TR Telephone Riser Pole
- RET Retaining Walls
- T1 - TLA Underground Telephone Line Co. 1
- EP Edge of Paved Roads (ML or SR)
- EG Edge of Gravel Road
- CU Back of Curb
- GU Gutter In Front of Curb
- SWK Sidewalk
- CON Concrete or A/C Slab
- ENU Edge Unpaved Entrance & Parking
- ENT Centerline BL of Entrance
- SNP Unpaved Shoulder
- RIP Rip-Rap
- EW Edge of Water
- DIK Centerline of Dike or Dam
- W - WLA Underground Water Line Co. 1
- G - GLA Underground Gas Line Co. 1
- E1 - ELA Underground Electric Line Co. 1
- FO - FOA Underground Fiber Optic Line Co. 1

UTILITY LEGEND

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District (QLD2)
- G - Alliant Energy (QLD2)
- E1 - Alliant Energy (QLD2)
- E2 - Iowa Department of Transportation (QLD2)
- FO - MediaCom Communications (QLD2)

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
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

- Reference Point
- Station
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- 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

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER D.1

3:28:58 PM 10/22/2013 ksnook S:\Projects\06241003\9103502012\Design\91035423lgd.sht

(U.A.C.)
Sta 29+80 ℄
36"X39' Rcp Culvert

(EXTEND)
Sta 30+75 ℄
36"X190' Rcp Culvert
D.A. 13.5 Ac
Install 36" 1301 RF-3
F.L. = Lt. 1076.87
Rt. 1071.89

JULIE BINTNER

ELIAS ALVAREZ

U.A.C.
Sta 40+70 ℄
12"X21' Vcp Culvert

FRANK KIRK & TERRY GARNER

Ex. ROW

Gravel

Gravel

Ramp C

Ramp B (SRG76C)

RELOCATED ℄ (SRG76)

POT Sta 26+42.80

POT Sta 34+65.90

POT Sta 52+79.23

25 30 35 40 45 50

1000' Taper 50:1 Ratio

N.B. I-35

Asphalt

N.B. I-35

Asphalt

SURVEY ℄ (SURNBI35)

POT Sta 100

Sta. 29+59.62
Begin Construction

600' Taper 15:1 Ratio

Ramp B

Ramp B (SRG76B)

Ex. ROW

(U.A.C.)
Sta 28+00 ℄
18"X76' Rcp Culvert
3' Dia. Grate Inlet
Rim = 1090.58
I.E. 18" Rcp = 1087.59

(EXTEND)
Sta 36+80 ℄
24"X67' Rcp Culvert
3' Dia. Grate Inlet
Rim = 1086.98
I.E. 24" Rcp = 1084.08
Install 18" 1301 RF-3
F.L. = Lt. 1084.08
Rt. 1083.06

(EXTEND)
Sta 46+40 ℄
18"X123' Rcp Culvert
3' Dia. Grate Inlet
Rim = 1086.98
I.E. 24" Rcp = 1084.01
Install 18" 1301 RF-3
F.L. = Lt. 1084.01
Rt. 1063.83

(EXTEND)
Sta 46+80 ℄
30"X261' Rcp Culvert
D.A. 11.0 Ac
Install 30" 1301 RF-3
F.L. = Lt. 1073.14
Rt. 1064.18

(EXTEND)
Sta 51+00 ℄
18"X82' Rcp Culvert
3' Dia. Grate Inlet
Rim = 1080.40
I.E. 18" Rcp = 1077.43
Install 18" 1301 RF-3
F.L. = Lt. 1077.43
Rt. 1074.09

FRANK KIRK & TERRY GARNER

PAMELA BOLES

KENNETH & NANCY TAYLOR

0 100
FEET

Class 10 Suitable Cut = 3,301 CY
Borrow = 0 CY
Total I35 SOUTH = 3,301 CY

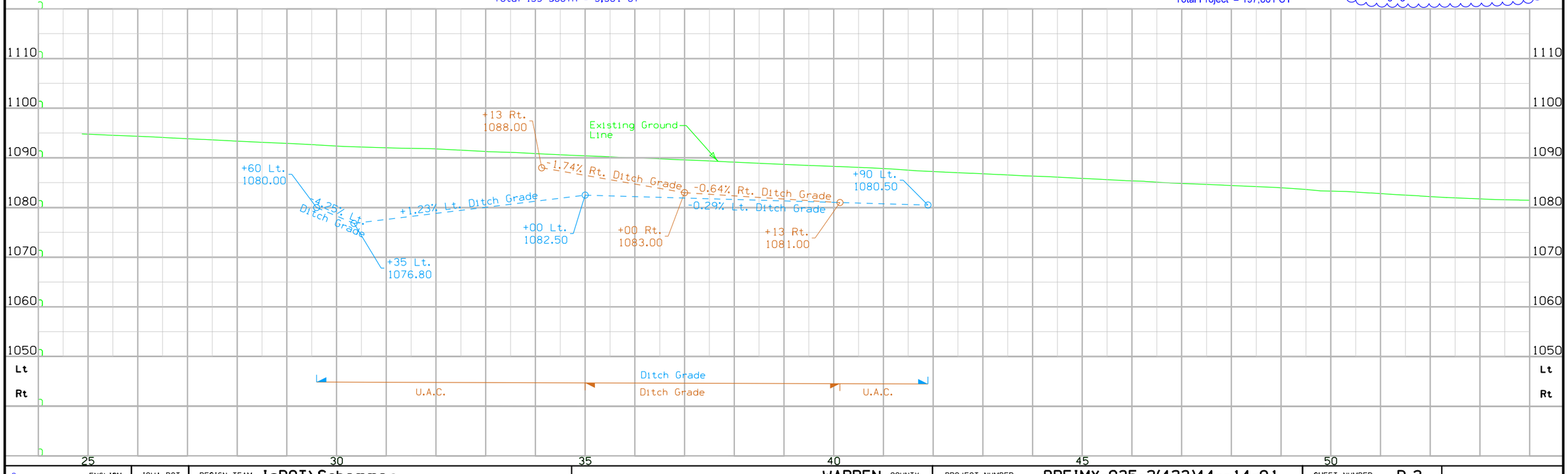
Fill + 35% = 3,301 CY

TOTAL PROJECT SUMMARY:

Class 10 Suitable Cut = 92,801 CY
Borrow = 90,000 CY + 15,000 CY
Total Project = 197,801 CY

Fill + 35% = 197,801 CY

Approx. Borrow with Staging and Detours =105,000 CY



C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER	BRFIMX-035-2(423)44--14-91	SHEET NUMBER D.2

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(EXTEND)
Sta 60+00 ℄
18'X88' Rcp Culvert
3' Dia. Grate Inlet
Rim = 1076.46
I.E. 18" Rcp = 1073.36
Install 18" 1301 RF-5
F.L. = Lt. 1052.59
Rt. 1073.36

(EXTEND)
Sta 68+00 ℄
18"X77' Cmp Culvert
3' Dia. Grate Inlet
Rim = 1072.60
I.E. 18" Rcp = 1069.70
Install 18" 1301 RF-3
F.L. = Lt. 1059.84
Rt. 1069.70

(EXTEND)
Sta 70+50 ℄
36"X38' Cmp Culvert Lt.
2'X3'' RCB Culvert Rt.
D.A. 10.0 Ac
Skew 15° LT. AHD.
Install 36" 1301 RF-3
F.L. LT. = 1011.51
F.L. RT. = 1056.17

(U.A.C.)
Sta 75+40 ℄
18"X85' Rcp Culvert
3' Dia. Grate Inlet
Rim = 1068.63
I.E. 18" Rcp = 1065.48
I.E. 6" Cmp = 1068.08

Ramp B (SRG76A)
Ramp A
Ramp D
Ramp B (SRG76D)
Pond
Ex. ROW
SURVEY ℄ (SURNBI35)
POT Sta 100+00.00 N.B. I-35
Asphalt
N.B. I-35
600' Taper 15:1 Ratio
1000' Taper 50:1 Ratio
PC Sta 66+47.10
PC Sta 70+78.44
PT Sta 80+36.12
PI Sta 75+23.40
Sta. 75+11.01
End Construction
STA. 74+48
CONSTRUCT
TYPE "M" DIKE

(ABANDON)
Sta 62+49 ℄
30"X217' Rcp Culvert
D.A. 8.0 Ac

Sta 63+50
Install 30" 1501 RF-3
Skew 0° LT. AHD.
F.L. = Lt. 1038.00
Rt. 1070.00

(EXTEND)
Sta 74+75 ℄
24"X164' Rcp Culvert
D.A. 4.0 Ac
Install 24" 1301 RF-3
F.L. = Lt. 1052.20
Rt. 1067.52

0 100 FEET

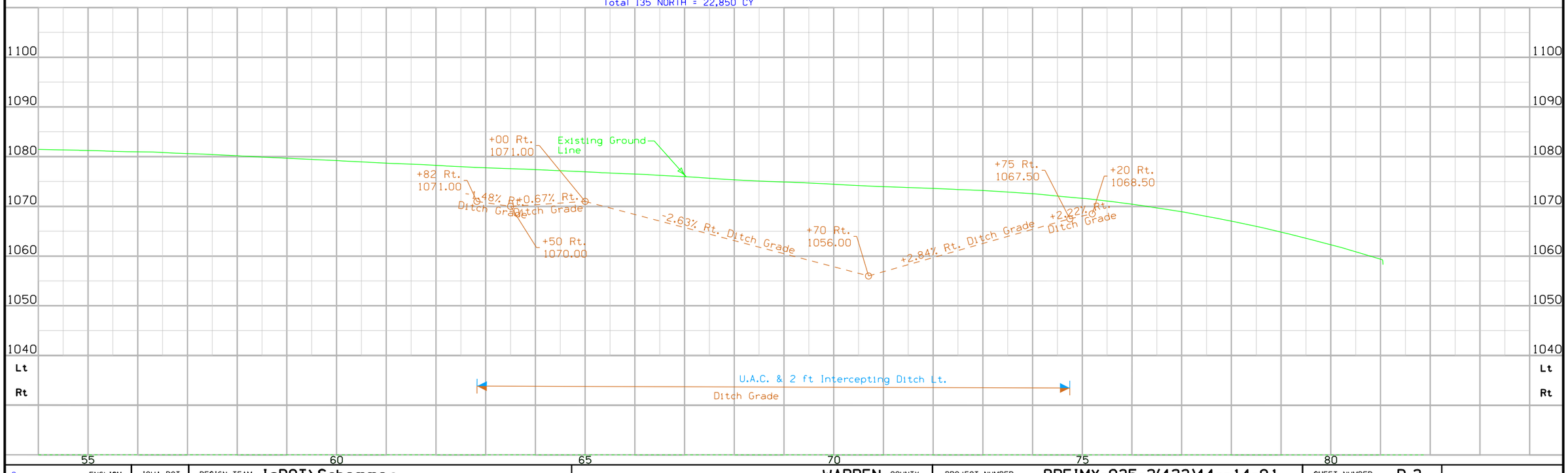
Curve Data
Δ = 10° 14' 27.78" (LT)
T = 513.46
L = 1,024.18
R = 5,730.00
E = 22.96
e = 3.4%
L = 153'
x = 90'

Curve Data
Δ = 10° 14' 27.78" (LT)
T = 513.46
L = 1,024.18
R = 5,730.00
E = 22.96

GARY A. YAWN &
IRENE V. MCCOY

Class 10 Suitable Cut = 22,850 CY
Borrow = 0 CY
Total I35 NORTH = 22,850 CY

Fill + 35% = 22,900 CY



C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER D.3

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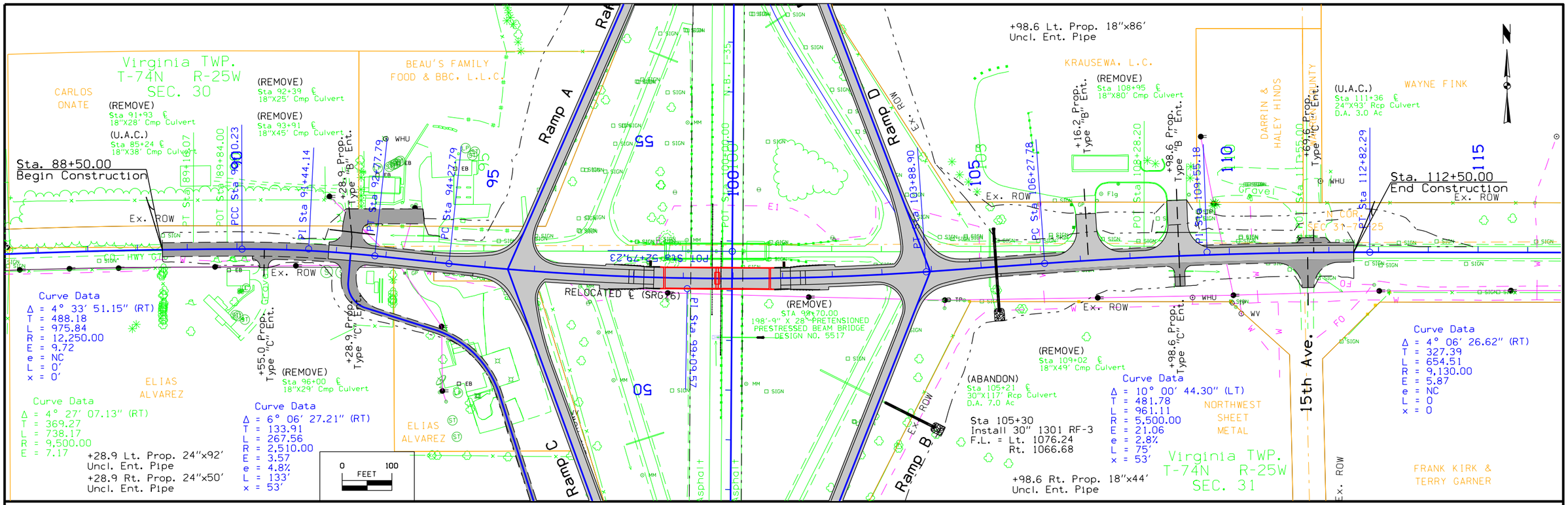

C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER E.1	

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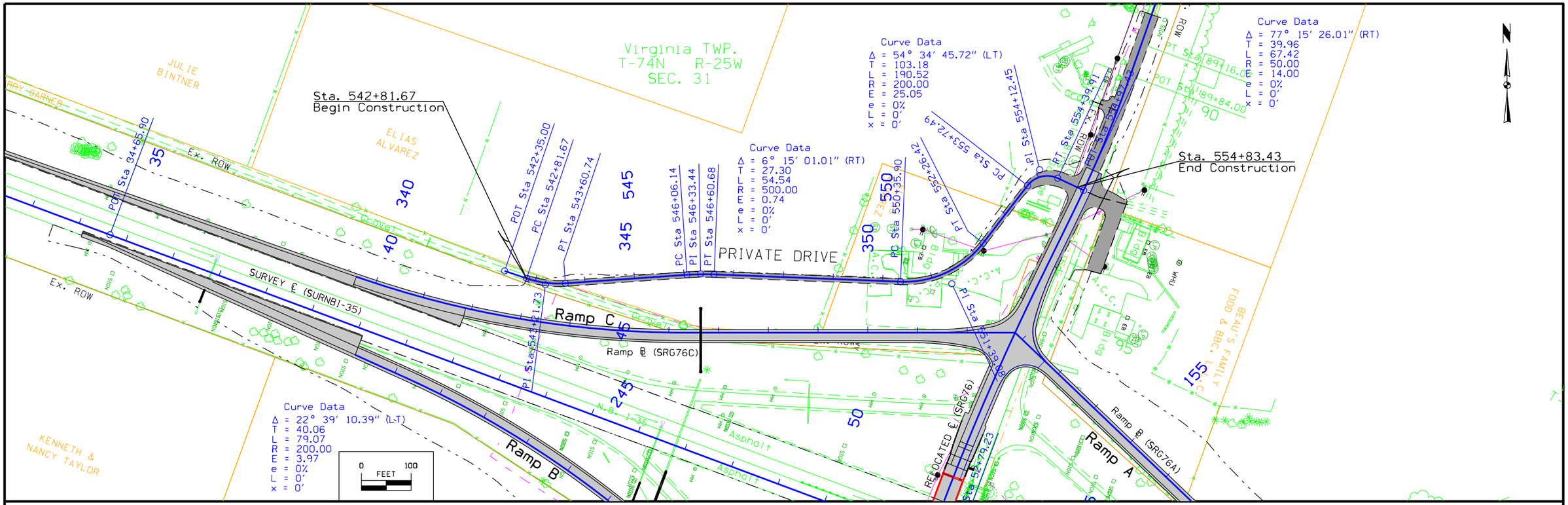

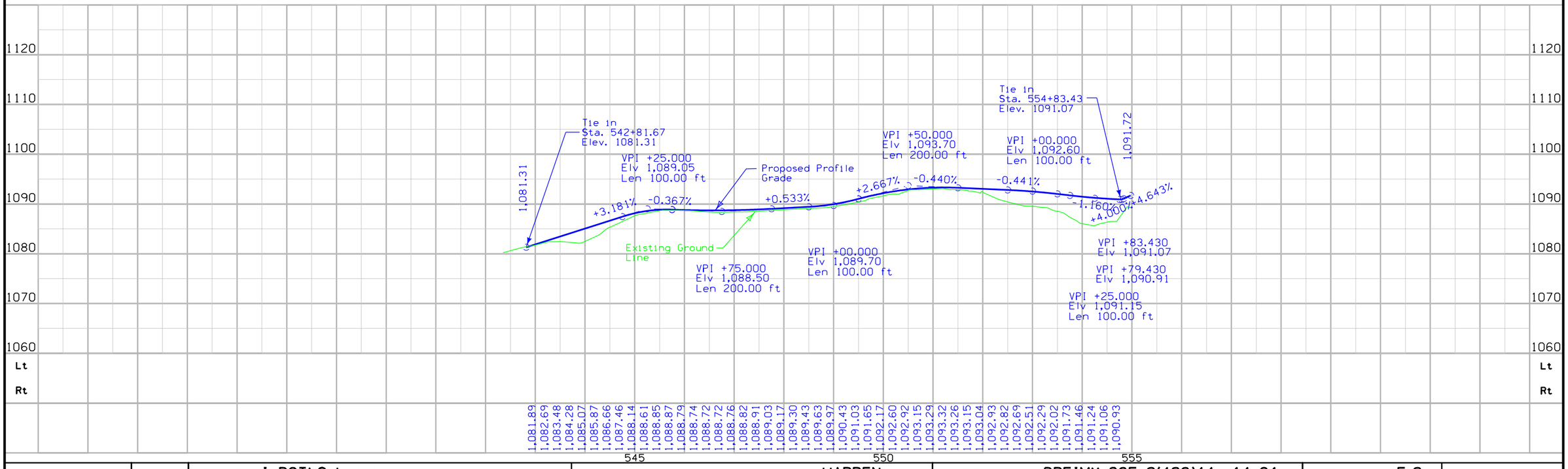

C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER E.2	

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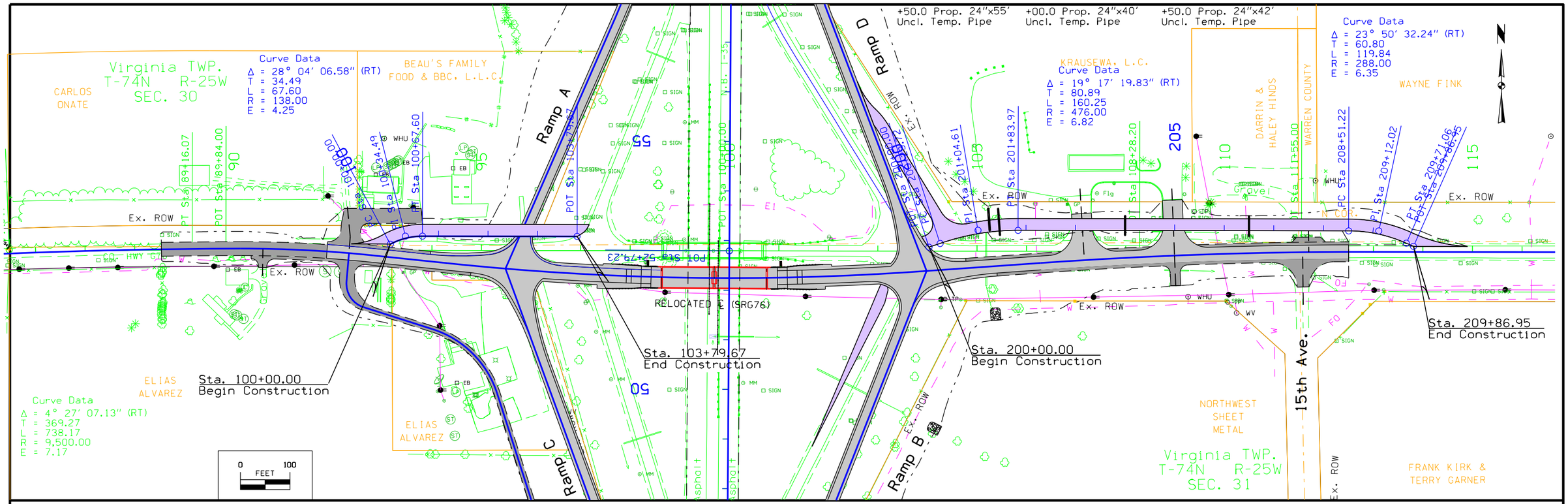
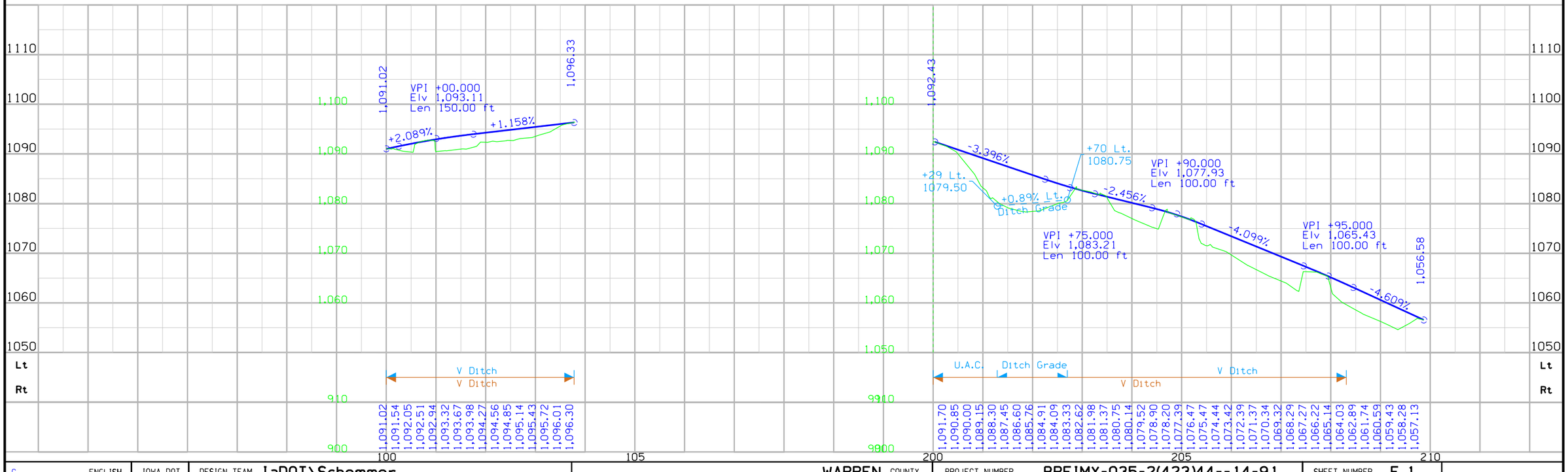

Virginia TWP.
T-74N R-25W
SEC. 30
CARLOS ONATE
BEAU'S FAMILY FOOD & BBC, L.L.C.
ELIAS ALVAREZ
KRAUSEWA, L.C.
DARRIN & HALEY HINDS
WAYNE FINK
NORTHWEST SHEET METAL
FRANK KIRK & TERRY GARNER
Virginia TWP.
T-74N R-25W
SEC. 31
Curve Data
Δ = 28° 04' 06.58" (RT)
T = 34.49
L = 67.60
R = 138.00
E = 4.25
Curve Data
Δ = 4° 27' 07.13" (RT)
T = 369.27
L = 738.17
R = 9,500.00
E = 7.17
Curve Data
Δ = 19° 17' 19.83" (RT)
T = 80.89
L = 160.25
R = 476.00
E = 6.82
Curve Data
Δ = 23° 50' 32.24" (RT)
T = 60.80
L = 119.84
R = 288.00
E = 6.35
+50.0 Prop. 24"x55' Uncl. Temp. Pipe
+00.0 Prop. 24"x40' Uncl. Temp. Pipe
+50.0 Prop. 24"x42' Uncl. Temp. Pipe
Ramp A
Ramp B
Ramp C
Ramp D
Ex. ROW
RELOCATED ℄ (SRG76)
Sta. 100+00.00
Begin Construction
Sta. 103+79.67
End Construction
Sta. 200+00.00
Begin Construction
Sta. 209+86.95
End Construction
15th Ave.
N.B. I-35
0 FEET 100


VPI +00.000
Elv 1,093.11
Len 150.00 ft
+2.089%
+1.158%
VPI +75.000
Elv 1,083.21
Len 100.00 ft
-3.396%
-2.456%
-4.099%
-4.609%
VPI +90.000
Elv 1,077.93
Len 100.00 ft
VPI +95.000
Elv 1,065.43
Len 100.00 ft
+70 Lt.
1080.75
+29 Lt.
1079.50
+0.89% Lt.
Ditch Grade
V Ditch
U.A.C.
Ditch Grade
Lt
Rt

Survey Information

General Information

Measurement units for this survey are US survey feet. This survey is for proposed bridge replacement. This project is a complete field survey for the digital terrain model.

Vertical Control

Vertical control for this survey is based on NAVD88 datum relative to a previous IDOT GPS control survey. Elevations were transferred to the project at Pt. 100 and 101 using Robotic Total Station observations from IDOT control points G036 and G037. Additional IDOT control points G034, G035, and G038 were used as checks along the project corridor.

Horizontal Control

The project coordinate system used for the survey is Modified Iowa State Plane South in US feet units. This survey control is relative to IDOT control points G034, G035, G036, G037, and G038. Schemmer control points 100 and 101 were set using Robotic Total Station off of IDOT G036 and G037. A GPS calibration was then performed holding Schemmer control points 100 and 101 and IDOT control points G036, G037, and G038. The calibration was based at control point 105, N=428919.151, E=1562868.089, Elevation=1085.23.

Alignment Information

The horizontal alignment for this survey is a retrace of As-built Plans No. IN-I-IG-35-2(8)43 and recovered IDOT control points G035 & G039. Survey stationing was held at P.I. Station 75+25.40 (G039) and stationed on tangent back to P.I. Station 0+00.26 this survey (G035), as-built P.I. Station 524+01.60. The horizontal alignment was stationed ahead and back of P.I. Station 75+25.40 without equation.

Survey stationing relates to plan stationing as follows:

POT Sta. 26+42.80 As-built Plans No. IN-I-IG-35-2(8)43
= Survey POT Sta. 26+42.80

POT Sta. 34+65.90 As-built Plans No. IN-I-IG-35-2(8)43
= Survey POT Sta. 34+65.90

POT Sta. 52+78.60 As-built Plans No. IN-I-IG-35-2(8)43
= Survey POT Sta. 52+79.23

POT Sta. 66+47.10 As-built Plans No. IN-I-IG-35-2(8)43
= Survey POT Sta. 66+47.10

PI Sta. 75+25.40 As-built Plans No. IN-I-IG-35-2(8)43
= Survey PI Sta. 75+25.40

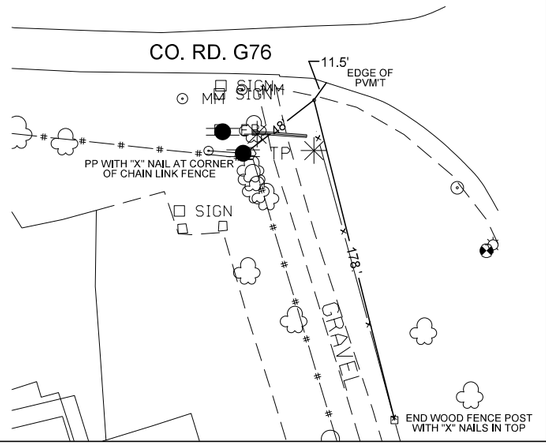
PI Sta. 87+84.60 As-built Plans No. IN-I-IG-35-2(8)43
= Survey PI Sta. 87+84.60

Geopak Alignment Chains created:
SURNBI35 INTERSTATE 35 NORTHBOUND
SURG76 COUNTY ROAD G76 MAINLINE
SURRMPB RAMP B
SURRMPC RAMP C
SURRMPD RAMP D
SURRMPE RAMP E

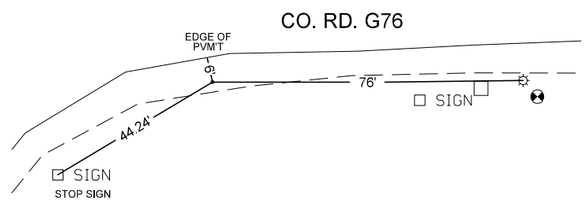
VERTICAL CONTROL

Point	North	East	Elevation	Station	Offset	Feature	Description
G034	419944.1900	1561445.2400	1101.7700	Off Chain	Off Chain	BM	FD. 5/8" REBAR 6" DEEP ALONG E. SHOULDER ADJACENT TO DELINEATOR POST #42.15, 5.7' W. OF DELINEATOR POST #42.15, 3' E. OF E. SHOULDER OF NB LANES I-35.
G035	423550.1900	1562190.8600	1094.1000	Off Chain	Off Chain	BM	FD. 3/4" REBAR 2.0' DEEP. È20' AHEAD OF WARREN COUNTY SIGN, 6' E. OF E. SHOULDER OF NB LANES I-35, È13' BACK OF DELINEATOR POST # 42.85.
G036	426449.7000	1562256.0100	1091.1500	28+99.69	24.51	BM	FD. 5/8" REBAR 6" DEEP ALONG E SHOULDER AND ADJACENT TO DELINEATOR POST #43.40, 6" W. OF DELINEATOR POST #43.40, 2.5' E. OF E. SHOULDER OF NB LANES I-35.
G037	428282.2900	1562283.0300	1082.8200	47+32.48	25.20	BM	FD. 5/8" REBAR 6" DEEP ALONG E SHOULDER AND ADJACENT TO DELINEATOR POST #43.75, 5' W. OF DELINEATOR POST #43.75, 3.8' E. OF E. SHOULDER OF NB LANES I-35, 46.5' AHEAD OF EXIT #43 RAMP SIGN.
G038	430862.8000	1562350.5100	1073.4700	73+10.58	63.21	BM	FD. FENO MONUMENT 8" DEEP ALONG TOP OF E. BACKSLOPE, 3' AHEAD AND 22' E. OF SPEED LIMIT SIGN, 76' BACK OF DELINEATOR POST #44.25, 41' E. OF E. SHOULDER OF NB LANES I-35.

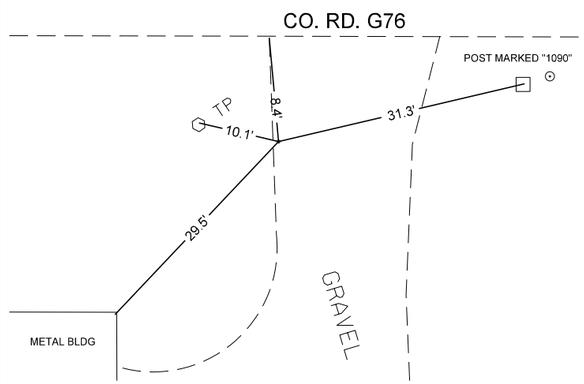
CP STA 52+53.08, -383.15 (SURNBI35)
CP No. 100, Set 5/8" REBAR, Set 250 FT WEST OF CO. RD. G76 BRIDGE
N=428807.9540, E=1561882.9400



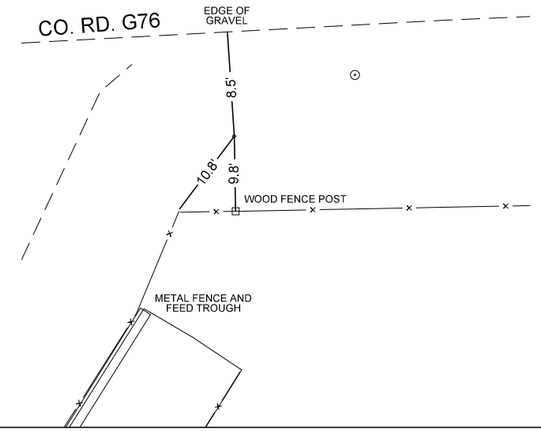
CP STA 52+57.85, 421.84 (SURNBI35)
CP No. 101, Set 5/8" REBAR, Set 350 FT EAST OF CO. RD. G76 BRIDGE
N=428801.1630, E=1562687.8830



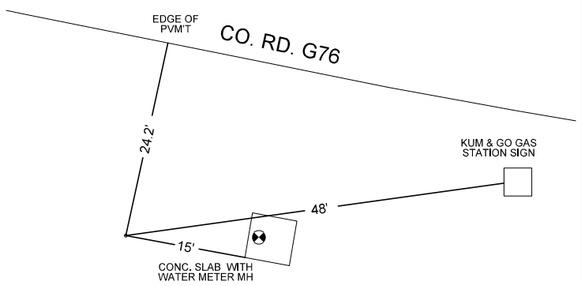
CP STA 52+56.21, -950.41 (SURNBI35)
CP No. 102, Set 5/8" REBAR, Set 818 FT WEST OF CO. RD. G76 BRIDGE
N=428819.1850, E=1561315.7420



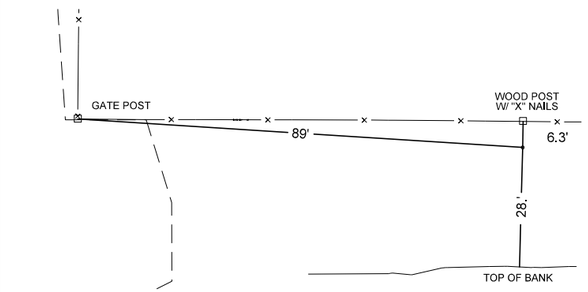
CP STA 52+33.78, -1608.02 (SURNBI35)
CP No. 103, Set 5/8" REBAR, Set 1,840 FT WEST OF CO. RD. G76 BRIDGE
N=428806.1880, E=1560657.9160



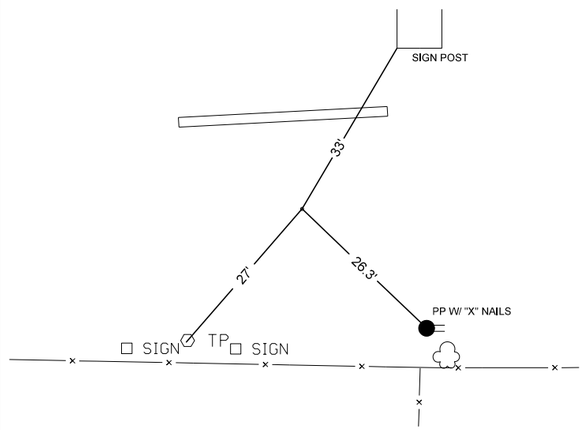
CP STA 53+78.37, 600.30 (SURNBI35)
CP No. 105, Set 5/8" REBAR, Set 540 FT EAST OF CO. RD. G76 BRIDGE
N=428919.1490, E=1562868.0890



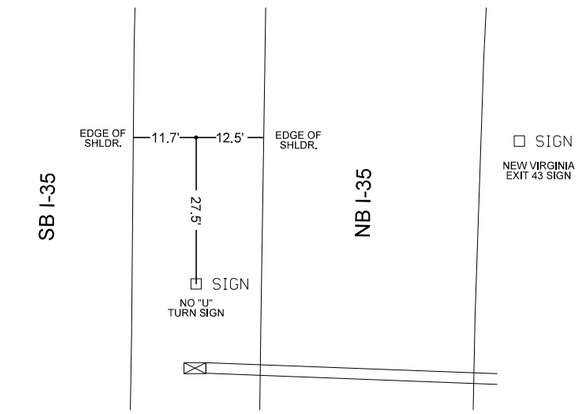
CP STA 53+79.56,1287.65 (SURNBI35)
CP No. 106, Set 5/8" REBAR, Set 1,220 FT EAST OF CO. RD. G76 BRIDGE
N=428910.5140, E=1563555.3780



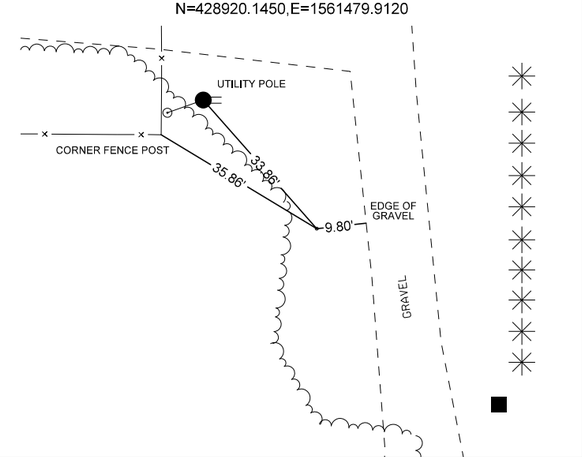
CP STA 52+33.66, 2466.62 (SURNBI35)
CP No. 107, Set 5/8" REBAR, Set 2,400 FT EAST OF CO. RD. G76 BRIDGE
N=428747.7190, E=1564732.1410



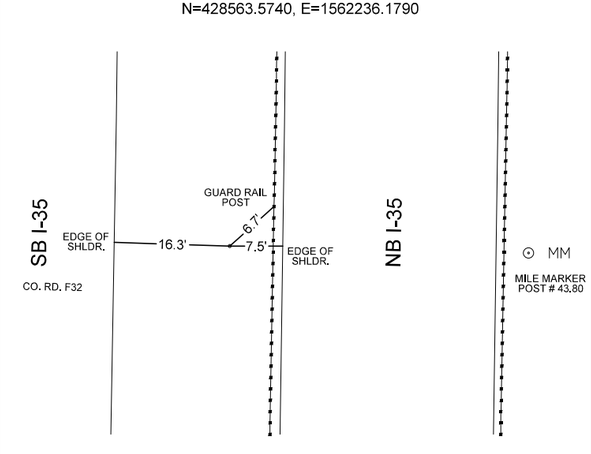
CP STA 37+27.81, -31.62 (SURNBI35)
CP No. 108, Set 5/8" REBAR, Set 1,554 FT SOUTH OF CO. RD. G76 BRIDGE
N=427277.8060, E=1562212.6070



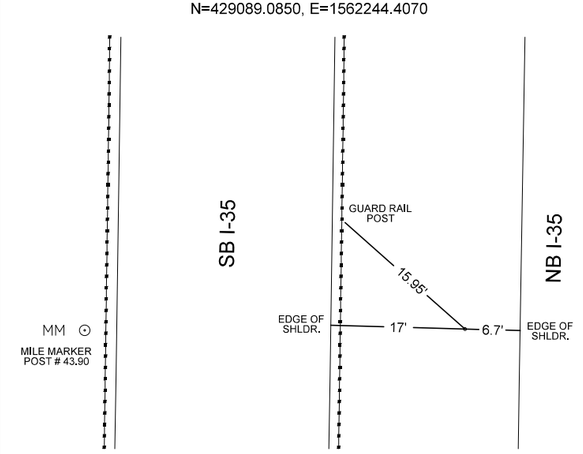
CP STA 53+59.50, -787.74 (SURNBI35)
CP No. 109, Set 5/8" REBAR, Set 650 FT WEST OF CO. RD. G76 BRIDGE
N=428920.1450,E=1561479.9120



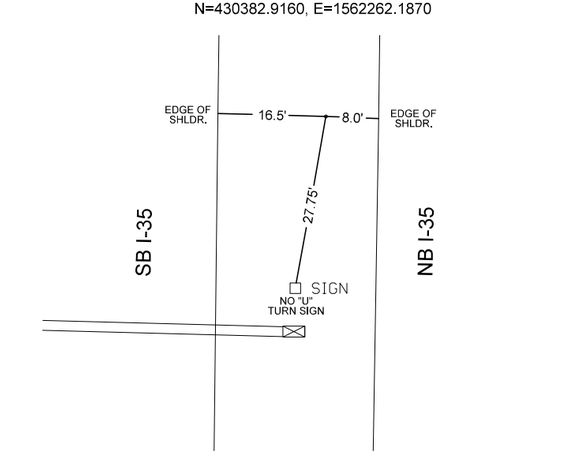
CP STA 50+13.78, -24.14 (SURNBI35)
CP No. 110, Set 5/8" REBAR, Set 265 FT SOUTH OF CO. RD. G76 BRIDGE
N=428563.5740, E=1562236.1790



CP STA 55+39.82, -25.90 (SURNBI35)
CP No. 111, Set 5/8" REBAR, Set 260 FT NORTH OF CO. RD. G76 BRIDGE
N=429089.0850, E=1562244.4070



CP STA 68+33.31, -26.49 (SURNBI35)
CP No. 112, Set 5/8" REBAR, Set 1,550 FT NORTH OF CO. RD. G76 BRIDGE
N=430382.9160, E=1562262.1870

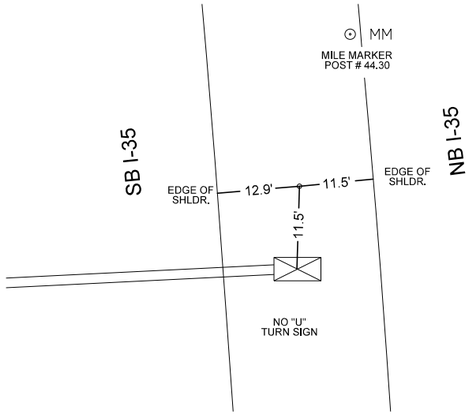


ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER G.2

CP STA 75+53.90, -29.62 (SURNBI35)

CP No. 113, Set 5/8" REBAR, Set 2,270 FT NORTH OF CO. RD. G76 BRIDGE

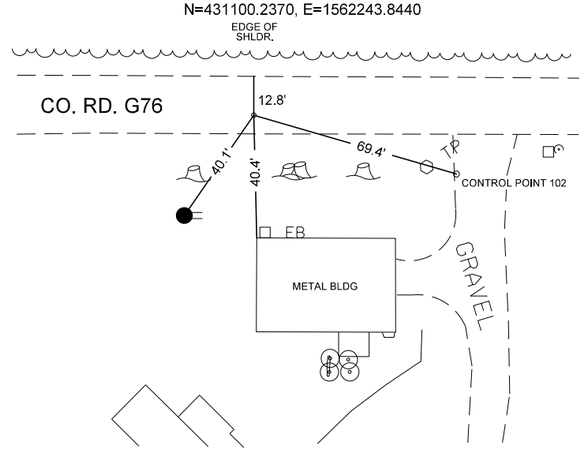
N=431100.2370, E=1562243.8440



CP STA 52+74.24, -1017.60 (SURNBI35)

CP No. 115061, Found 5/8" REBAR, Found 885' WEST OF CO. RD. G76 BRIDGE

N=431100.2370, E=1562243.8440



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER G.3

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Warren	ROW: IMN-035-2(425)44--0E-91			PIN 035-020												
	Co Rd G76 (New Virginia) Interchange															
		STATE		COUNTY		CITY			BORROW							
PARCEL NO.	OWNER NAME	FEE	EASE	FEE	EASE	FEE	EASE	EXCESS	FEE	T.E.	MITIGATION	OTHER	HOUSE	BUILDING(S)	A/C ONLY	TOTAL ACQ.
1	KENNETH E TAYLOR - Fee	.97 AC														
2	JERET C KOENIG - Fee ELIAS ALVAREZ - CP1	.88 AC		.83 AC												
3	NORTHWEST SHEET METAL, INC. - Fee	1.19 AC														
4	ELIAS ALVAREZ - Fee		.9 AC		1.6 AC											
5	CARLOS ONATE - Fee				.05 AC											
6	Beau's Family Food & BBQ, L.L.C. - Fee	1.11 AC			.01 AC											
7	KRAUSEWA, L.C. - Fee	.79 AC														
8	GARY A YAWN - Fee	.23 AC														
9	JAMES D STUART - Fee	2.13 AC														
10	FRANK KIRK - Fee TERRY GARNER - CP1	.5 AC														
10 Parcels	"TOTALS	7.8 AC	0.9 AC	0.83 AC	1.66 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC					
		0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF								

JULIE BINTNER RESIDUAL TRUST

(2) FEE: JERET C. & CAROLINE E. KOENIG
C.P.: ELIAS ALVAREZ

(1) KENNETH E. & NANCY TAYLOR

(3) NORTHWEST SHEET METAL, INC.

(U.A.C.)
Sta 29+80 ℄
36"X39' Rcp Culvert

(EXTEND)
Sta 30+75 ℄
36"X190' Rcp Culvert
D.A. 13.5 Ac
Install 36" 1301 RF-3
F.L. = Lt. 1076.87
Rt. 1071.89

U.A.C.
Sta 40+70 ℄
12"X21' Vcp Culvert

POT Sta 26+42.80

POT Sta 34+65.90

1000' Taper 50:1 Ratio

600' Taper 15:1 Ratio

Sta. 29+59.62
Begin Construction

(U.A.C.)
Sta 28+00 ℄
18"X76' Rcp Culvert
3' Dia. Grate Inlet
Rim = 1090.58
I.E. 18" Rcp = 1087.59

(EXTEND)
Sta 36+80 ℄
24"X67' Rcp Culvert
3' Dia. Grate Inlet
Rim = 1086.98
I.E. 24" Rcp = 1084.08
Install 18" 1301 RF-3
F.L. = Lt. 1084.08
Rt. 1083.06

38+63±P
℄115'

(EXTEND)
Sta 46+40 ℄
18"X123' Rcp Culvert
3' Dia. Grate Inlet
Rim = 1086.98
I.E. 24" Rcp = 1084.01
Install 18" 1301 RF-3
F.L. = Lt. 1084.01
Rt. 1063.83

44+20
℄220'

(EXTEND)
Sta 46+80 ℄
30"X261' Rcp Culvert
D.A. 11.0 Ac
Install 30" 1301 RF-3
F.L. = Lt. 1073.14
Rt. 1064.18

46+24±P
℄300'

(EXTEND)
Sta 51+60
18"X82' Rcp Culvert
3' Dia. Grate Inlet
Rim = 1080.40
I.E. 18" Rcp = 1077.43
Install 18" 1301 RF-3
F.L. = Lt. 1077.43
Rt. 1074.09

49+60
℄450'

51+20
℄500'

51+35
℄620'

51+83±P
℄735'

+98.6 Rt. Prop. 18"x44' Uncl. Ent. Pipe

51+90
℄505'

53+26±P
℄490'

48+74±P
℄415'

46+45
℄340'

44+08±P
228'

43+50
℄200'±Ex.R/W

Ramp C

Ramp B (SRG76C)

Ramp B

Ramp B (SRG76B)

SURVEY ℄ (SURNBI35)

RELOCATED ℄ (SRG76)

N.B. I-35

Asphalt

Gravel

Ex. ROW

POT Sta 100

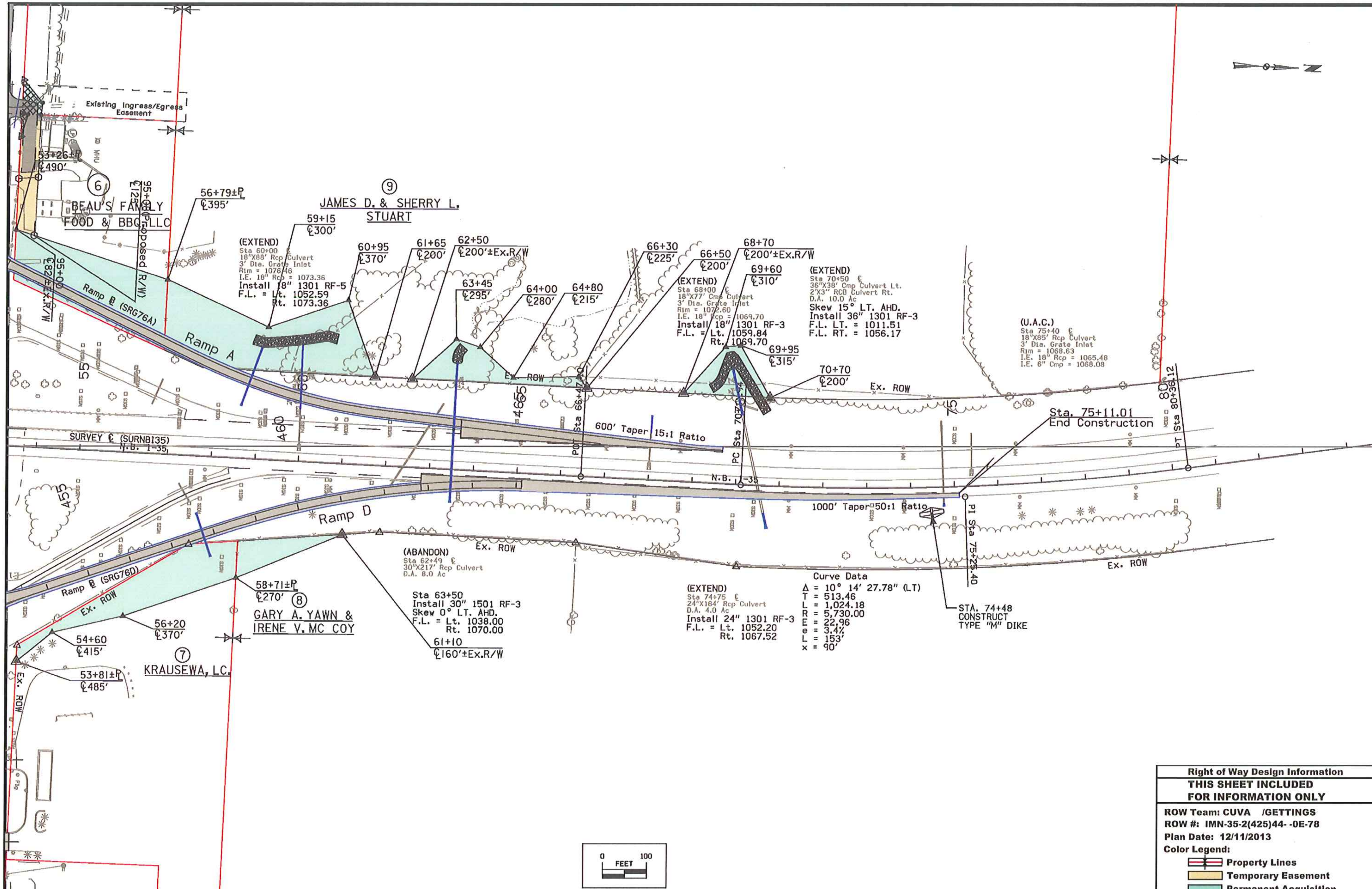
POT Sta 105

0 FEET 100

Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY
ROW Team: GETTINGS/CUVA
ROW #: IMN-35-2(425)44- -0E-91
Plan Date: 12/11/2013
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition

C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER H.1

12:58:54 PM 12/11/2013 ncuva pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9103502012\ROW\91035423h01.sht



Existing Ingress/Egress Easement
53+26±P
℄490'
6
BEAU'S FAMILY FOOD & BBQ, LLC
95+00 (Proposed R/W)
56+79±P
℄395'
9
JAMES D. & SHERRY L. STUART
59+15
℄300'
(EXTEND)
Sta 60+00 ℄
18"X88' Rcp Culvert
3' Dia. Grate Inlet
Install 18" 1301 RF-5
F.L. = Lt. 1052.59
Rt. 1073.36
60+95
℄370'
61+65
℄200'
62+50
℄200'±Ex.R/W
63+45
℄295'
64+00
℄280'
64+80
℄215'
66+30
℄225'
66+50
℄200'
68+70
℄200'±Ex.R/W
69+60
℄310'
(EXTEND)
Sta 68+00 ℄
18"X77' Cmp Culvert
3' Dia. Grate Inlet
Install 18" 1301 RF-3
F.L. = Lt. 1059.84
Rt. 1069.70
(EXTEND)
Sta 70+50 ℄
36"X38' Cmp Culvert Lt.
2'X3" RCB Culvert Rt.
D.A. 10.0 Ac
Skew 15° LT. AHD.
Install 36" 1301 RF-3
F.L. LT. = 1011.51
F.L. RT. = 1056.17
69+95
℄315'
70+70
℄200'
(U.A.C.)
Sta 75+40 ℄
18"X85' Rcp Culvert
3' Dia. Grate Inlet
Ramp B (SRG76A)
Ramp A
Ex. ROW
600' Taper 15:1 Ratio
SURVEY ℄ (SURNBI35)
N.B. I-35
PC Sta 70+
PT Sta 80+36.12
Sta. 75+11.01
End Construction
455
460
465
Ramp D
1000' Taper 50:1 Ratio
PI Sta 75+25.40
(ABANDON)
Sta 62+49 ℄
30"X217' Rcp Culvert
D.A. 8.0 Ac
Ramp B (SRG76D)
Ex. ROW
58+71±P
℄270'
8
GARY A. YAWN & IRENE V. MC COY
56+20
℄370'
54+60
℄415'
7
KRAUSEWA, LC.
53+81±P
℄485'
Sta 63+50
Install 30" 1501 RF-3
Skew 0° LT. AHD.
F.L. = Lt. 1038.00
Rt. 1070.00
61+10
℄160'±Ex.R/W
(EXTEND)
Sta 74+75 ℄
24"X164' Rcp Culvert
D.A. 4.0 Ac
Install 24" 1301 RF-3
F.L. = Lt. 1052.20
Rt. 1067.52
Curve Data
Δ = 10° 14' 27.78" (LT)
T = 513.46
L = 1,024.18
R = 5,730.00
E = 22.96
e = 3.4%
L = 153'
x = 90'
STA. 74+48
CONSTRUCT
TYPE "M" DIKE
0 FEET 100

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: CUVA /GETTINGS
ROW #: IMN-35-2(425)44- -0E-78
Plan Date: 12/11/2013
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition

C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER H.2

12:59:06 PM 12/11/2013 ncuva pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9103502012\ROW\91035423h01.sht

Sta. 88+50.00
Begin Construction

Sta. 100+60.00
Begin Construction

Sta. 103+79.67
End Construction

Sta. 200+00.00
Begin Construction

Sta. 112+50.00
End Construction

Sta. 209+86.95
End Construction

Virginia TWP.
T-74N R-25W
SEC. 30

Virginia TWP.
T-74N R-25W
SEC. 31

N COR.
SEC. 31-74-25

Ramp A
Ramp B
Ramp C
Ramp D

N.B. I-35

Asphalt

Gravel

15th Ave.

RELOCATED ℄ (SRG76)

CO. HWY G16

TEMPORARY EASEMENT TO CONSTRUCT TEMPORARY DETOUR

TEMPORARY EASEMENT TO CONSTRUCT ENTRANCE

TEMPORARY EASEMENT TO CONSTRUCT ENTRANCE

92+39±P
℄70'

92+10
℄100'

92+36±P
℄100'

92+90
℄61'±Ex.R/W

93+75
℄115'

93+85
℄71'±Ex.R/W

95+00
℄82'±Ex.R/W

91+65
℄51'±Ex.R/W

90+35
℄45'

90+75
℄45'

+28.9 Prop. Type "B" Ent.

+28.9 Prop. Type "C" Ent.

+55.0 Prop. Type "C" Ent.

+16.2 Prop. Type "B" Ent.

+98.6 Prop. Type "B" Ent.

+98.6 Prop. Type "C" Ent.

Ingress/Egress Easement

⑤ CARLOS ONATE

⑥ BEAUS FAMILY FOOD & BBQ, LLC

⑦ KRAUSEWA, LC

⑧ GARY A. YAWN & IRENE V. MC COY

⑨ JAMES D. & SHERRY L. STUART

② FEE: JERET C. & CAROLINE E. KOENIG
C.P.: ELIAS ALVAREZ

+28.9 Lt. Prop. 24"x92'
Uncl. Ent. Pipe
+28.9 Rt. Prop. 24"x50'
Uncl. Ent. Pipe

+50.0 Prop. 24"x35'
Uncl. Temp. Pipe

+98.6 Lt. Prop. 18"x86'
Uncl. Ent. Pipe

+50.0 Prop. 24"x40'
Uncl. Temp. Pipe

+50.0 Prop. 24"x42'
Uncl. Temp. Pipe

+98.6 Rt. Prop. 18"x44'
Uncl. Ent. Pipe

③ NORTHWEST SHEET METAL, INC.

① KENNETH E. & NANCY TAYLOR

0 FEET 100

Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: CUVA /GETTINGS
ROW #: IMN-35-2(425)44- -0E-91
Plan Date: 12/11/13
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition

C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER HE.1

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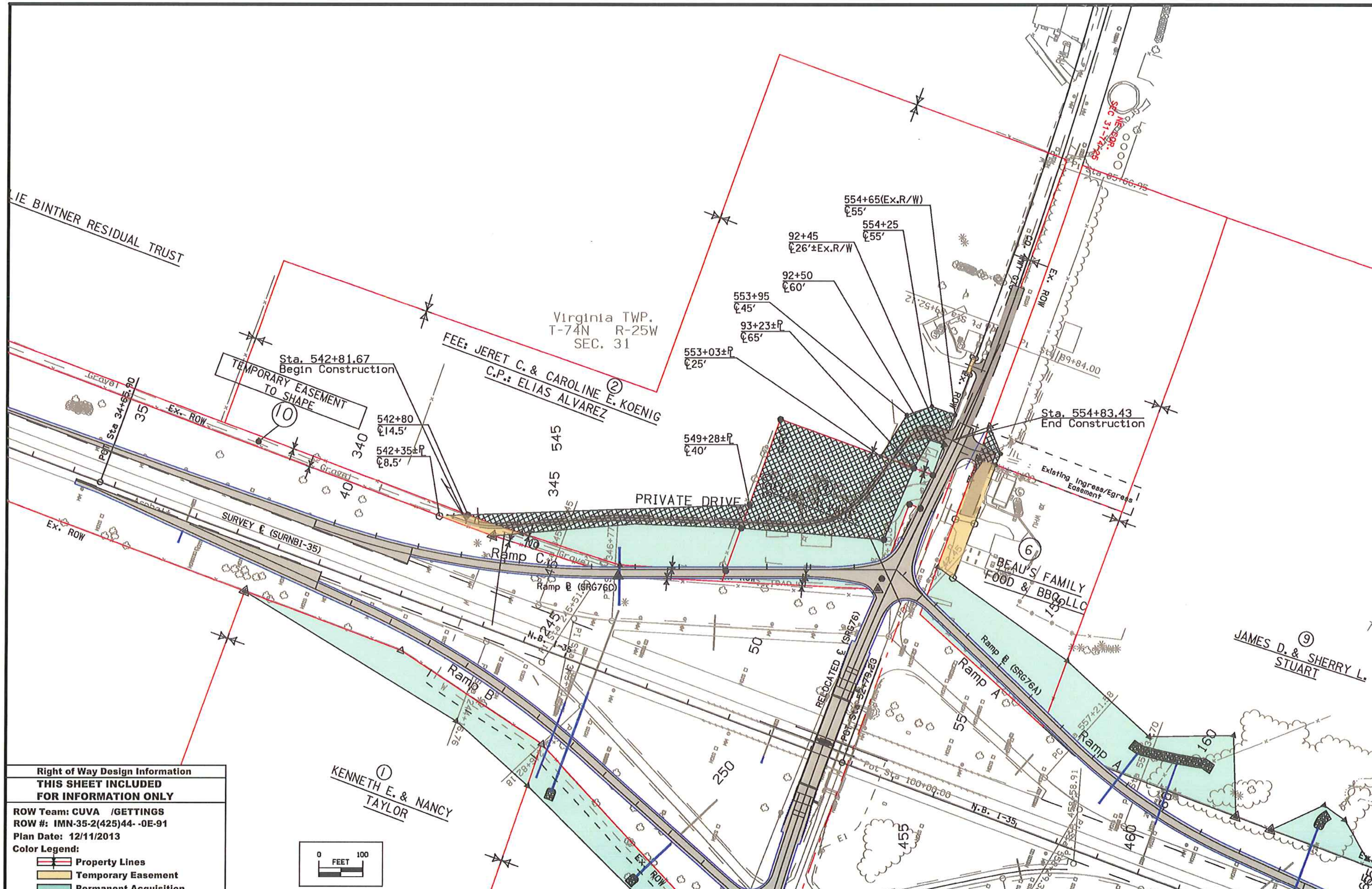

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: CUVA /GETTINGS
ROW #: IMN-35-2(425)44- -0E-91
Plan Date: 12/11/2013
Color Legend:

- **Property Lines**
- **Temporary Easement**
- **Permanent Acquisition**

C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER HE.2

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108-26A
08-01-08

STAGING NOTES

Maintain two lanes of traffic on County Road G76 at all times.
1. Construct bridge and approaches while maintaining existing traffic.
2. After completion of approaches construct two lane temporary surfacing as shown on J.3
3. Install temporary traffic control and move traffic to temporary roadways.
4. Construct County Road G76 beyond bridge and approaches, keeping existing ramps open to traffic.

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Brown, Med	(237)	Future Proposed Pavement Shading

CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

- Pavement Removal
- Proposed Granular Subbase
- Proposed Special Backfill
- Temporary Barrier Rail
- Proposed Granular Shoulder
- Temporary Shoulder
- Existing Shoulder Strengthening
- Permanent Barrier Rail
- Channelizing Device

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

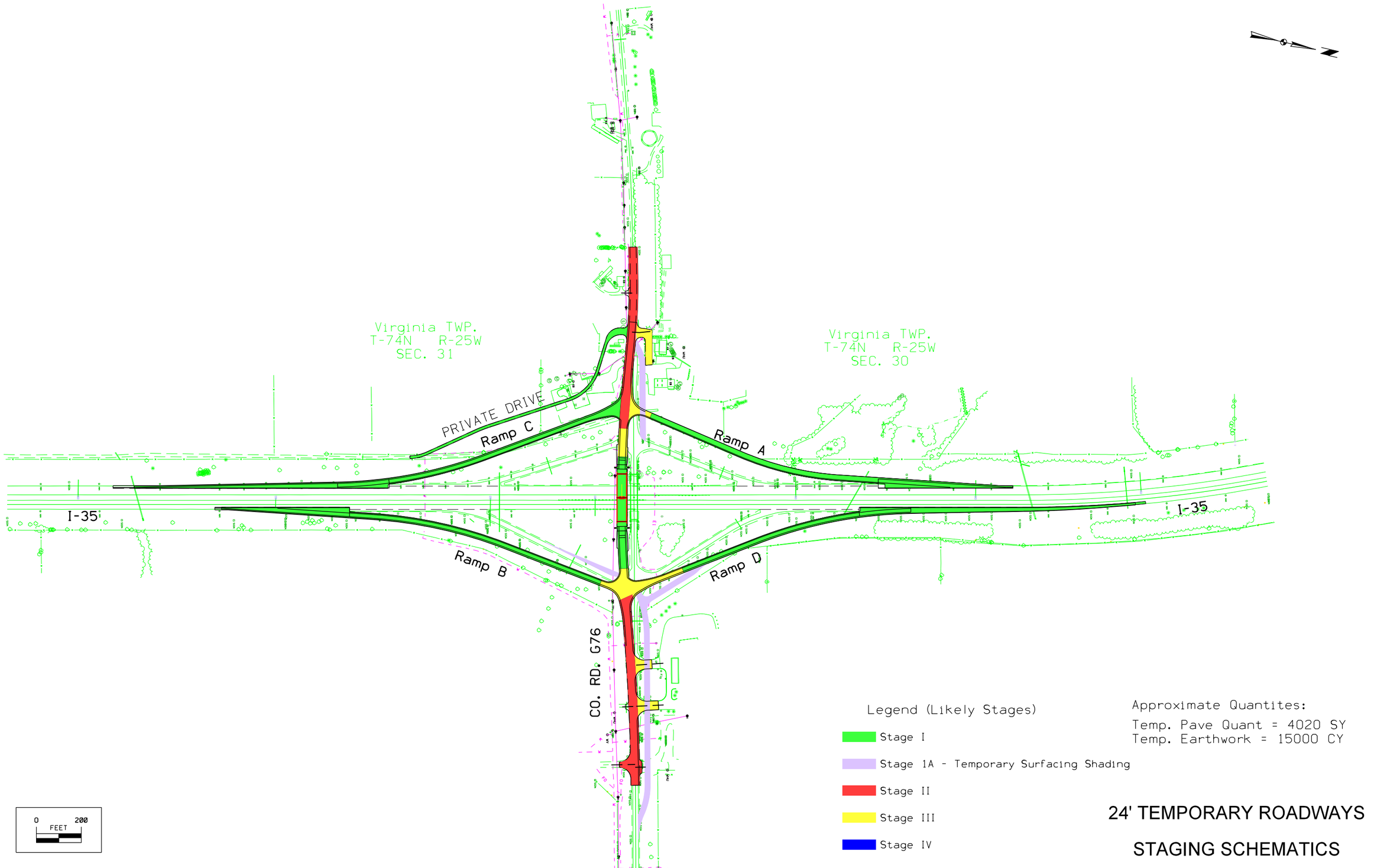
PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

- Channelizing Device
- Drum
- Temporary Lane Seperator
- Tubular Marker
- Channelizer Marker
- Concrete Barrier Marker
- Delineator
- Temporary Barrier Rail
- Pavement Removal
- Crash Cushion
- Traffic Signal
- Flagger
- Temporary Floodlighting
- Traffic Sign
- Type III Barricade
- Type A Warning Light
- Direction of Traffic
- Road Closure

NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

TRAFFIC CONTROL AND STAGING LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES J)



C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER	BRFIMX-035-2(423)44--14-91	SHEET NUMBER J.3

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Curve Data (SRG76AR-1)
Δ = 22° 39′ 10.39″ (LT)
T = 40.06
L = 79.07
R = 200.00
E = 3.97
e = 0%
L = 0′
x = 0′

Curve Data (SRG76AR-3)
Δ = 54° 34′ 45.72″ (LT)
T = 103.18
L = 190.52
R = 200.00
E = 25.05
e = 0%
L = 0′
x = 0′

Curve Data (SRG76AR-4)
Δ = 77° 15′ 26.01″ (RT)
T = 39.96
L = 67.42
R = 50.00
E = 14.00
e = 0%
L = 0′
x = 0′

Curve Data (SRG76-2)
Δ = 6° 06′ 27.21″ (RT)
T = 133.91
L = 267.56
R = 2,510.00
E = 3.57
e = 4.8%
L = 133′
x = 53′

Virginia TWP.
T-74N R-25W
SEC. 31

Curve Data (SRG76C-1)
Δ = 19° 17′ 29.67″ (LT)
T = 339.92
L = 673.40
R = 2,000.00
E = 22.68
e = 5.4%
L = 168′
x = 62′

Curve Data (SRG76AR-2)
Δ = 6° 15′ 01.01″ (RT)
T = 27.30
L = 54.54
R = 500.00
E = 0.74
e = 0%
L = 0′
x = 0′

PCC Sta 90+10.23
CURVE SRG76-2
PI Sta 91+44.14
POT Sta 554+97.43
PT Sta 92+77.79
POT Sta 95+46.39 (SRG76) =
POT Sta 151+80.04 (SRG76A)
POT Sta 352+97.28 (SRG76C)
PC Sta 94+27.79
PI Sta 554+12.45
PT Sta 554+39.91
PC Sta 553+72.49
PT Sta 552+26.42
PC Sta 550+35.00
SRG76AR-4
SRG76AR-3
PI Sta 551+30.68
CURVE SRG76-3
PRIVATE DRIVE
POT Sta 542+35.00
PC Sta 542+81.67
PT Sta 543+60.74
PC Sta 546+06.14
PT Sta 546+33.02
PC Sta 546+33.44
PI Sta 546+60.68
PT Sta 546+60.88
SRG76AR-1
SRG76AR-2
CURVE SRG76C-1
POT Sta 339+59.62 (SRG76C) =
POT Sta 39+59.62 94.0′ LT (MLNBI35)
Point 'G' Standard Road Plan PV-411
POT Sta 41+89.99 (MLNBI35)
POT Sta 34+65.90
PC Sta 339+59.62
1000′ Taper 50:1 Ratio
451.03′
Ramp C
Ramp B (SRG76C)
16′ 6′
4′
20°26′14.42″
65°11′30.48″
71°06′17.51″
Ramp B (SRG76A)
Ramp A
PC Sta 157+36.44
23°15′57.59″
POT Sta 52+24.54 (MLNBI35) =
POT Sta 99+98.24 (SRG76)
PI Sta 99+09.57
POT Sta 52+79.23
60′
44′-2″
SURVEY ℄ (SURNBI-35)
600′ Taper 15:1 Ratio
524.03′
CURVE SRG76B-1
Ramp B
Ramp B (SRG76B)
PI Sta 244+24.24
PI Sta 242+49.56
PT Sta 247+25.02
21°10′54.22″
64°24′44.55″
73°04′49.92″
RELOCATED ℄ (SRG76)
16′ 4′
6′
Ramp D
Ramp D (SRG76D)
21°19′31.32″
PC Sta 45
PI Sta 103+88.90
POT Sta 103+97.04 (SRG76) =
POT Sta 252+96.81 (SRG76B)
POT Sta 451+81.36 (SRG76D)
PC Sta 106+27.78
PI Sta 109+55.18
CURVE G76-4
14′
6′
Curve Data (SRG76-4)
Δ = 4° 06′ 26.62″ (RT)
T = 327.39
L = 654.51
R = 9,130.00
E = 5.87
e = 0.0%
L = 0′
x = 0′
Curve Data (SRG76B-1)
Δ = 17° 22′ 03.55″ (RT)
T = 305.47
L = 606.25
R = 2,000.00
E = 22.19
e = 5.4%
L = 168′
x = 62′
POT Sta 240+12.53 (SRG76B) =
POT Sta 40+12.53 54.0′ RT (MLNBI35)
Point 'M' Standard Road Plan PV-410
POT Sta 240+12.53
PC Sta 241+18.78
POT Sta 42+13.31 (MLNBI35)
Curve Data (SRG76-3)
Δ = 10° 00′ 44.30″ (LT)
T = 481.78
L = 961.11
R = 5,500.00
E = 21.06
e = 2.8%
L = 75′
x = 53′
Sta. 29+59.62
Begin Construction
0 100
FEET

C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER	BRFIMX-035-2(423)44--14-91	SHEET NUMBER K.1

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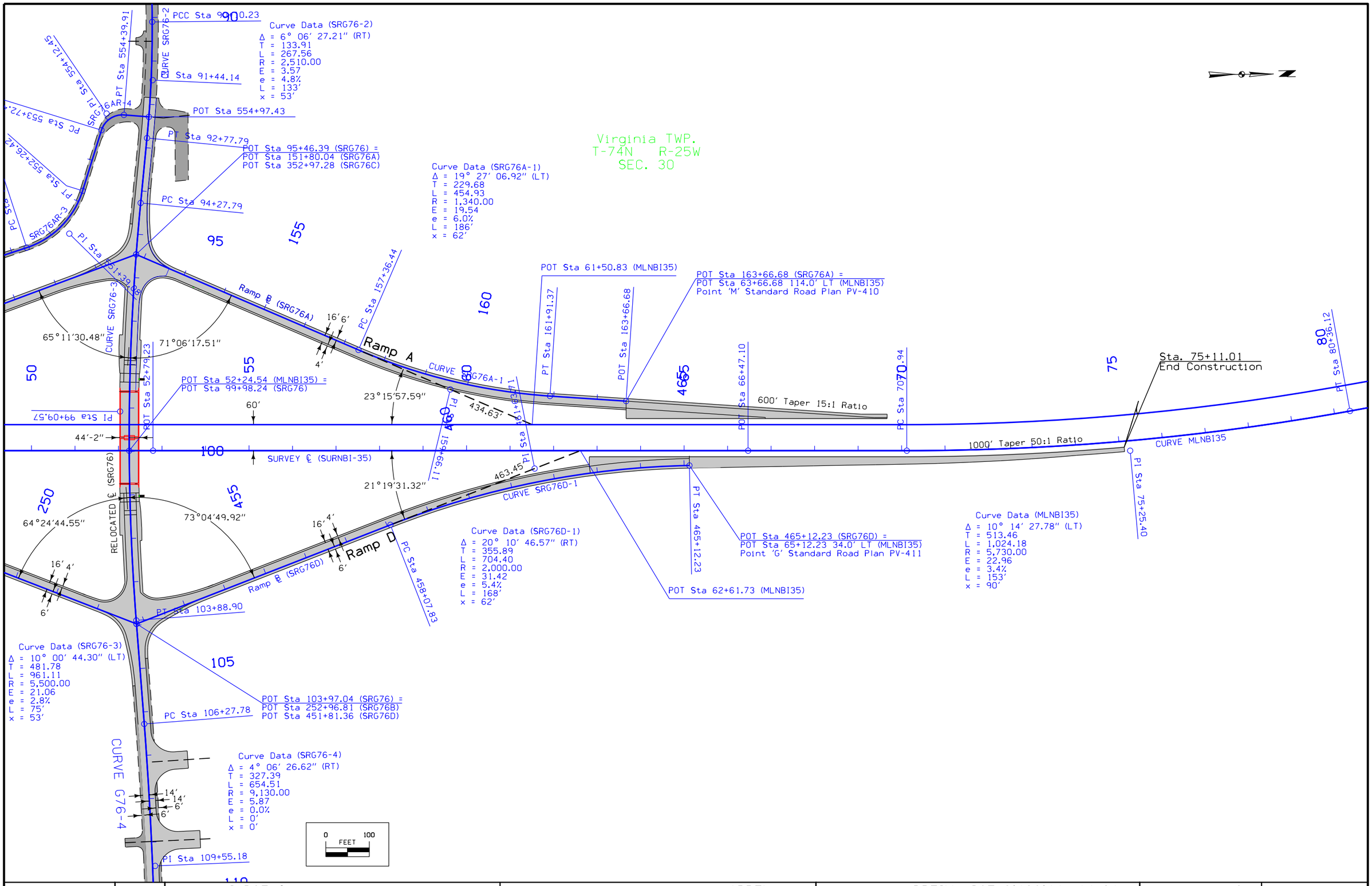

C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER	BRFIMX-035-2(423)44--14-91	SHEET NUMBER K.2

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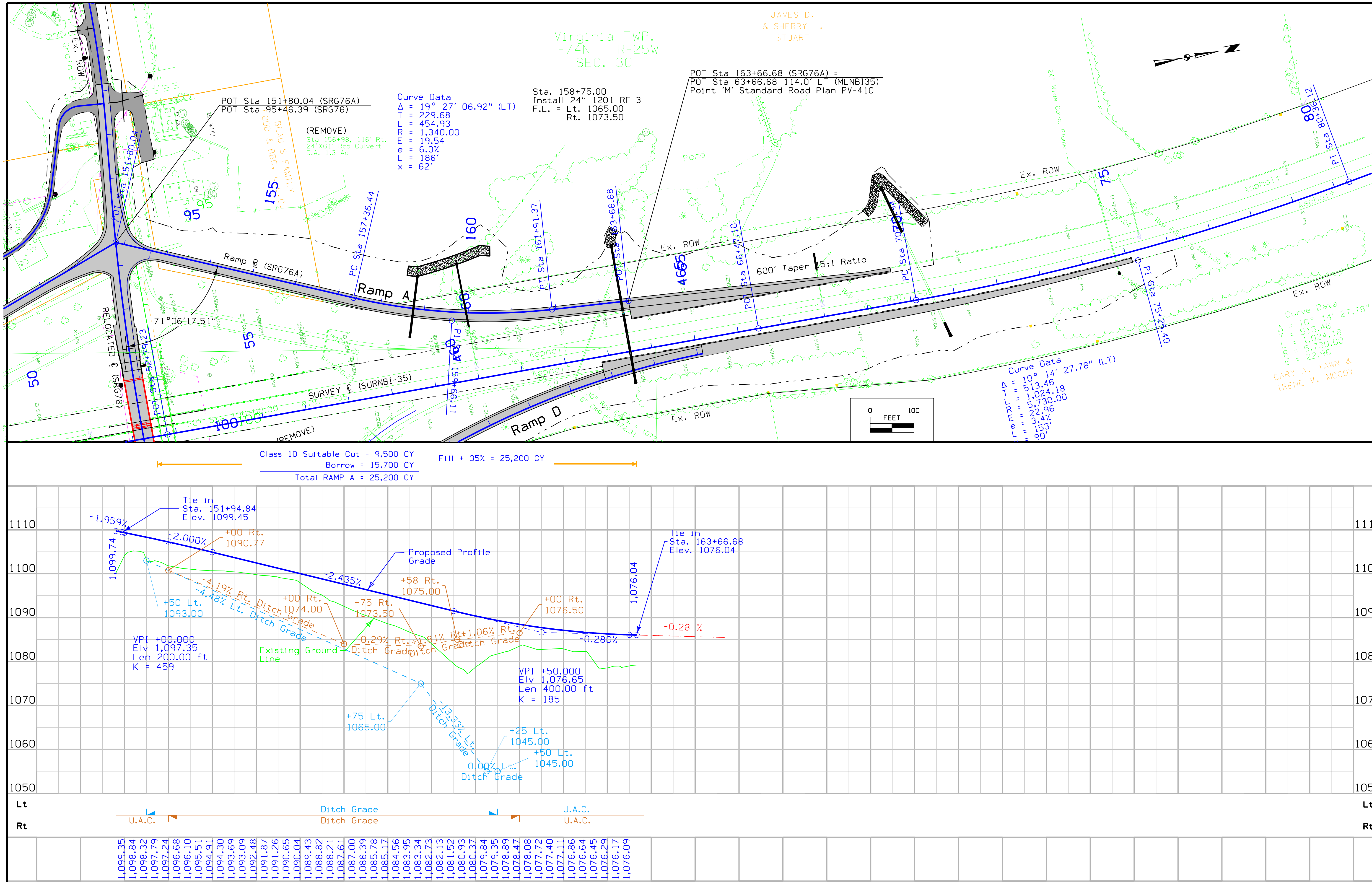


C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER K.3

ELIAS ALVAREZ

JULIE BINTNER

KENNETH & NANCY TAYLOR

KENNETH & NANCY TAYLOR

NORTHWEST SHEET METAL

KRAUSEWA, L.C.

Virginia TWP.
T-74N R-25W
SEC. 31

Ramp C

Ramp B

Ramp D

Ramp B (SRG76B)

SURVEY ℄ (SURNBI-35)

RELOCATED ℄ (SRG76)

N.B. I-35

Gravel

Asphalt

Ex. ROW

(REMOVE)
Sta 245+46, 65' Lt.
15"x24' Hdpe Culvert

(EXTEND)
Sta 250+20 ℄
30"x145' Rcp Culvert
D.A. 3.0 Ac
Install 30" 1301 RF-3
Skew 5° LT. AHD.
F.L. = Lt. 1067.36
Rt. 1061.28

64°24'44.55"

600'- Taper 15:1 Ratio

Curve Data
Δ = 17° 22' 03.55" (RT)
T = 305.47
L = 606.25
R = 2,000.00
E = 22.19
e = 5.4%
L = 168'
x = 62'

POT Sta 240+12.53 (SRG76B) =
POT Sta 40+12.53 54.0' RT (MLNBI35)
Point 'M' Standard Road Plan PV-410

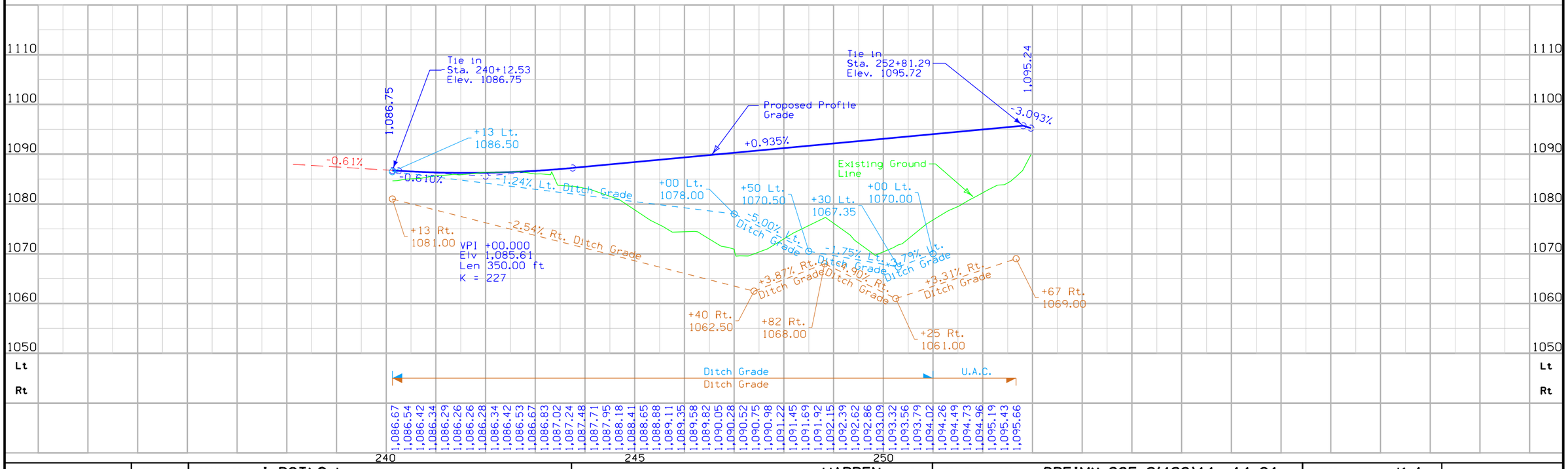
POT Sta 252+96.81 (SRG76B) =
POT Sta 103+97.04 (SRG76)

POT Sta 34+65.90
POT Sta 240+12.53
PT Sta 241+18.78
PI Sta 244+24.24
PT Sta 247+26.02
POT Sta 252+96.81
POT Sta 100+00.00
POT Sta 108+28.20

0 100 FEET

Class 10 Suitable Cut = 14,300 CY
Borrow = 52,500 CY
Total RAMP B = 66,800 CY

Fill + 35% = 66,800 CY



C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER	BRFIMX-035-2(423)44--14-91	SHEET NUMBER K.4

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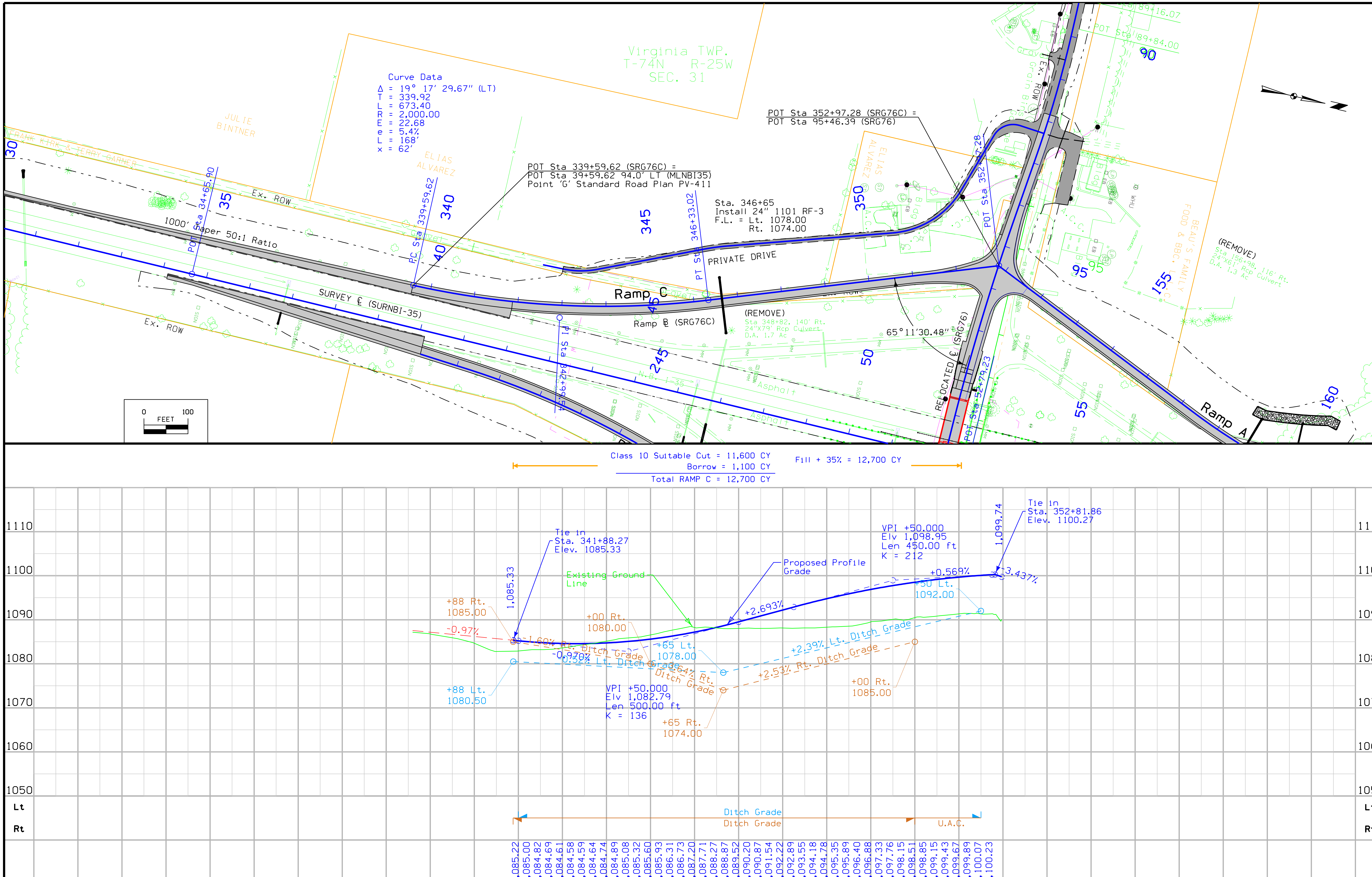

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER K.5	

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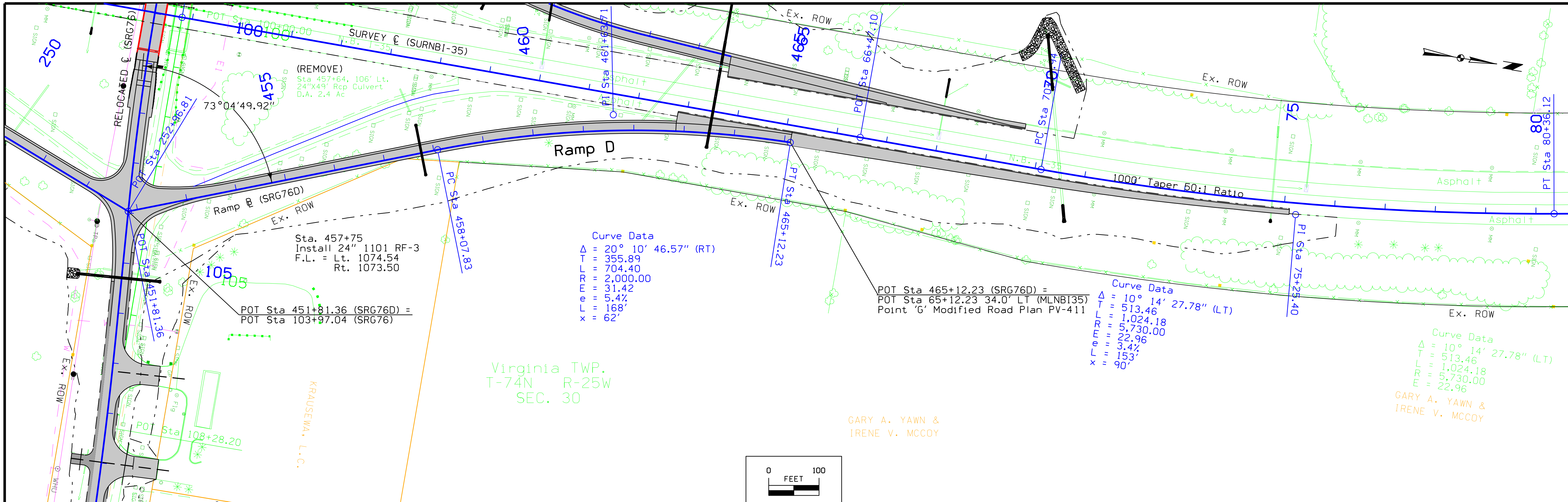

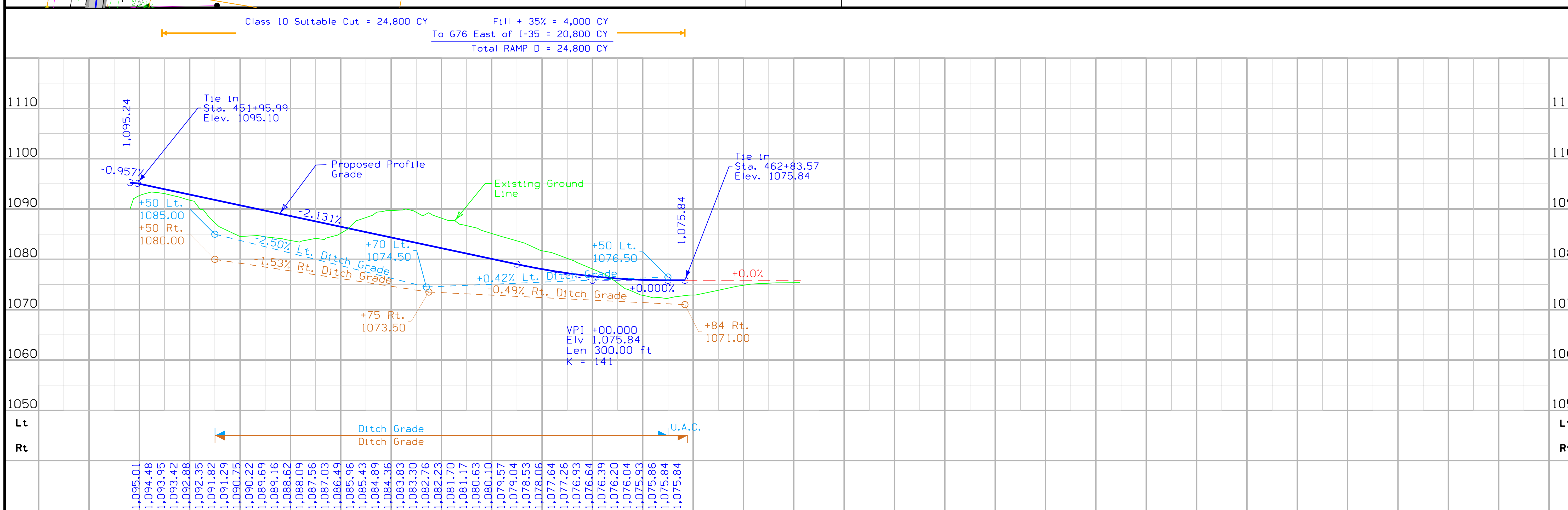

C	ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER	BRFIMX-035-2(423)44--14-91	SHEET NUMBER	K.6

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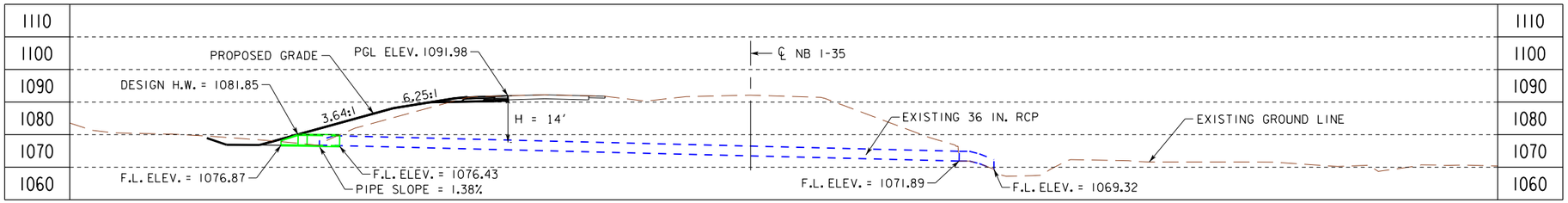
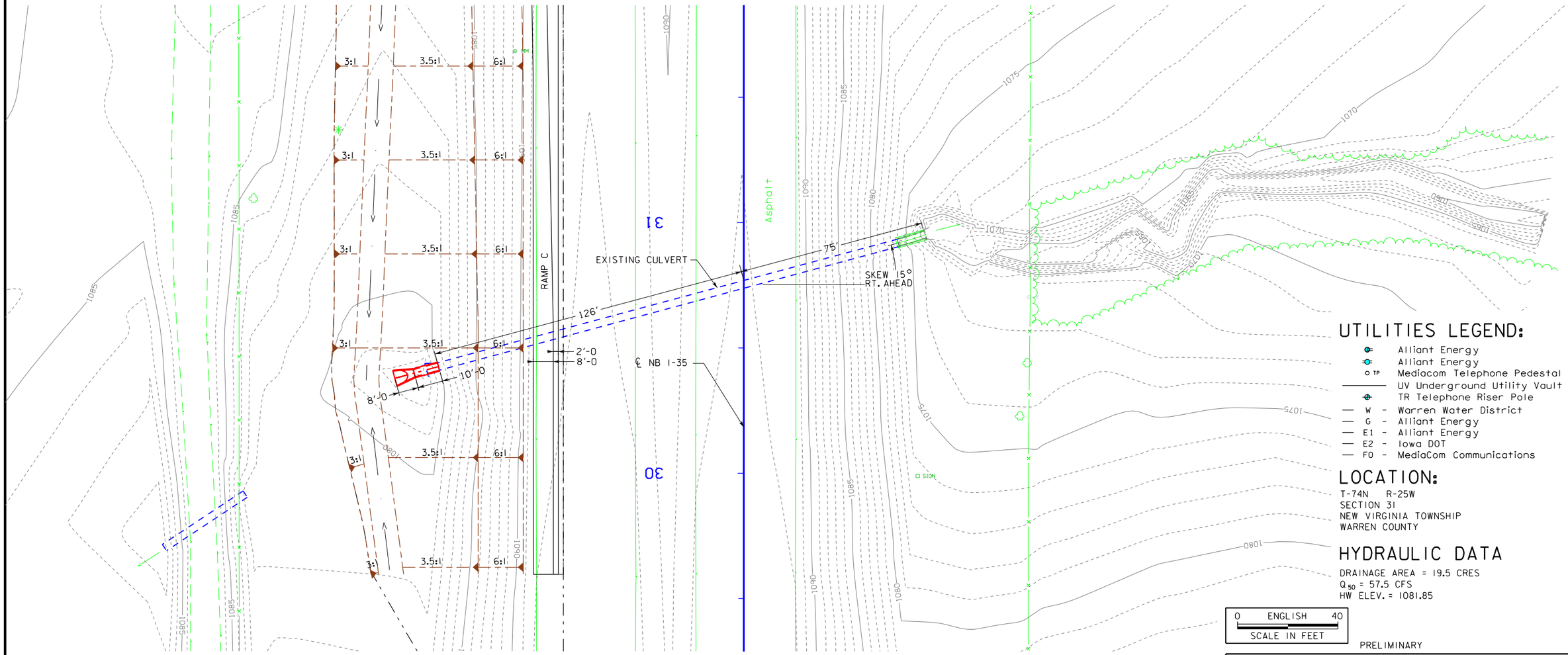
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



BENCH MARK GO36
Sta. 29+00, 24' Rt. Elev. 1091.15
5/8" REBAR 6" DEEP
Note: Station and Offset Based on I-35 Survey Centerline

N

LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 31
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 19.5 CRES
Q_{50} = 57.5 CFS
HW ELEV. = 1081.85

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

STA. 30+75
EXTEND 36 IN. RCP
SKEW 15°
F.L. LT 1076.87
F.L. RT 1071.89
DA 19.5 ACRES (Hilly)

DESIGN FOR 15° SKEW

EXISTING 36" X 190'
REINFORCED CONCRETE PIPE
EXTEND 10' LT.
PLAT PLAN
WARREN COUNTY

STA. 30+75.00 OCTOBER, 2013

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.1

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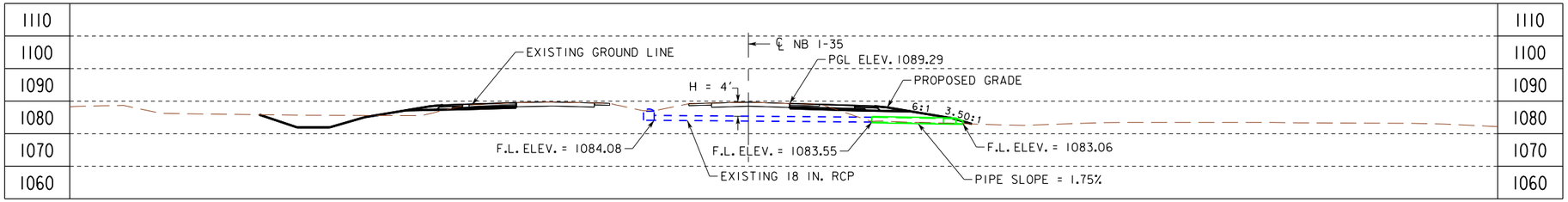
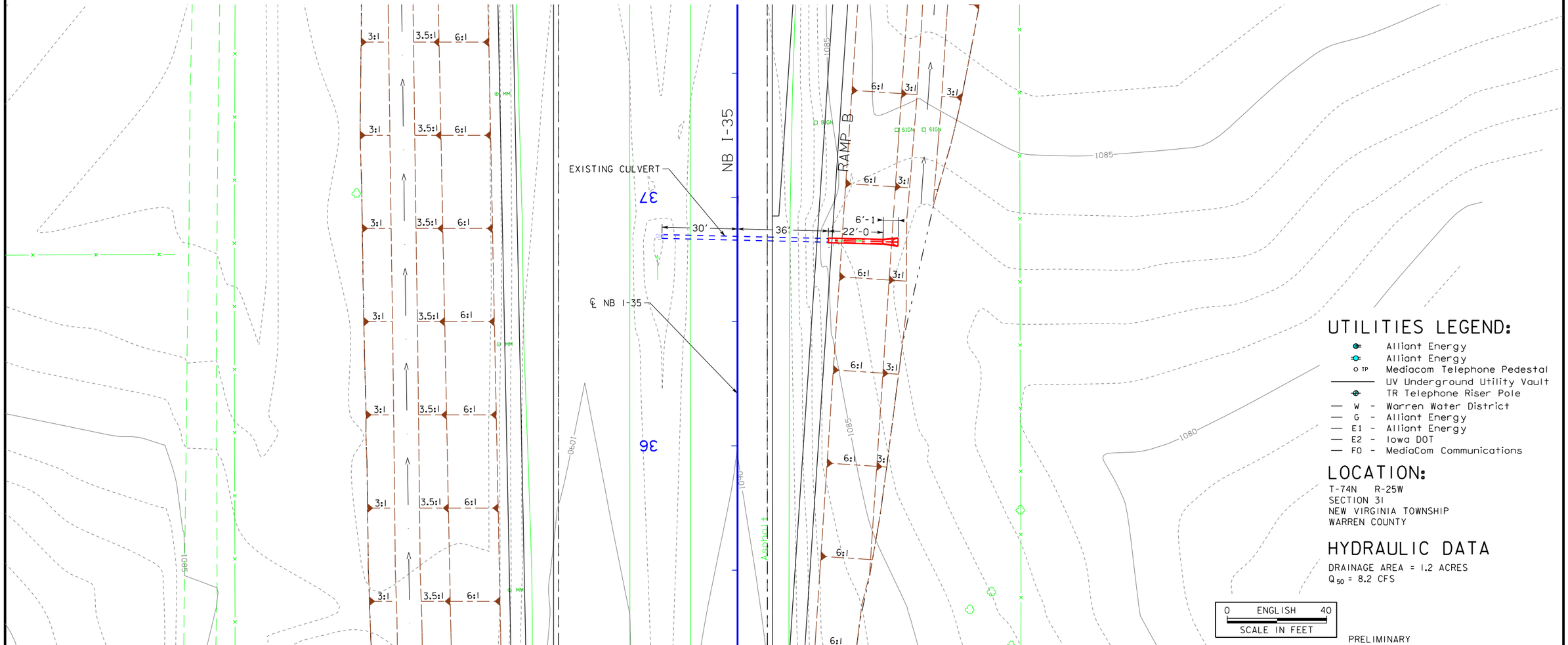
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



LONGITUDINAL SECTION ALONG ℄ CULVERT

BENCH MARK G036
Sta. 29+00, 24' Rt. Elev. 1091.15
5/8" REBAR 6" DEEP
Note: Station and Offset Based on I-35 Survey Centerline

N



PLAT PLAN

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 31
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.2 ACRES
Q_{50} = 8.2 CFS

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

STA. 36+80
EXTEND 18 IN. RCP
SKEW 0°
F.L. LT 1084.08
F.L. RT 1083.06
DA 1.2 ACRES (Hilly)

DESIGN FOR 0° SKEW

EXISTING 18" X 62'
REINFORCED CONCRETE PIPE
EXTEND 22' RT.
PLAT PLAN
WARREN COUNTY

STA. 36+80.00 OCTOBER, 2013

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER V.2

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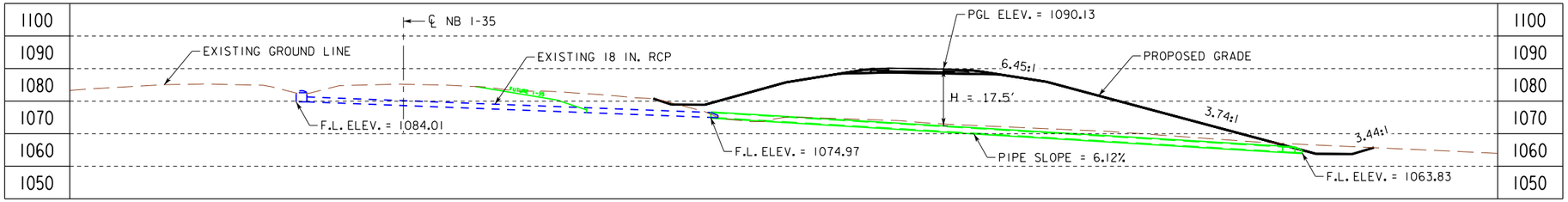
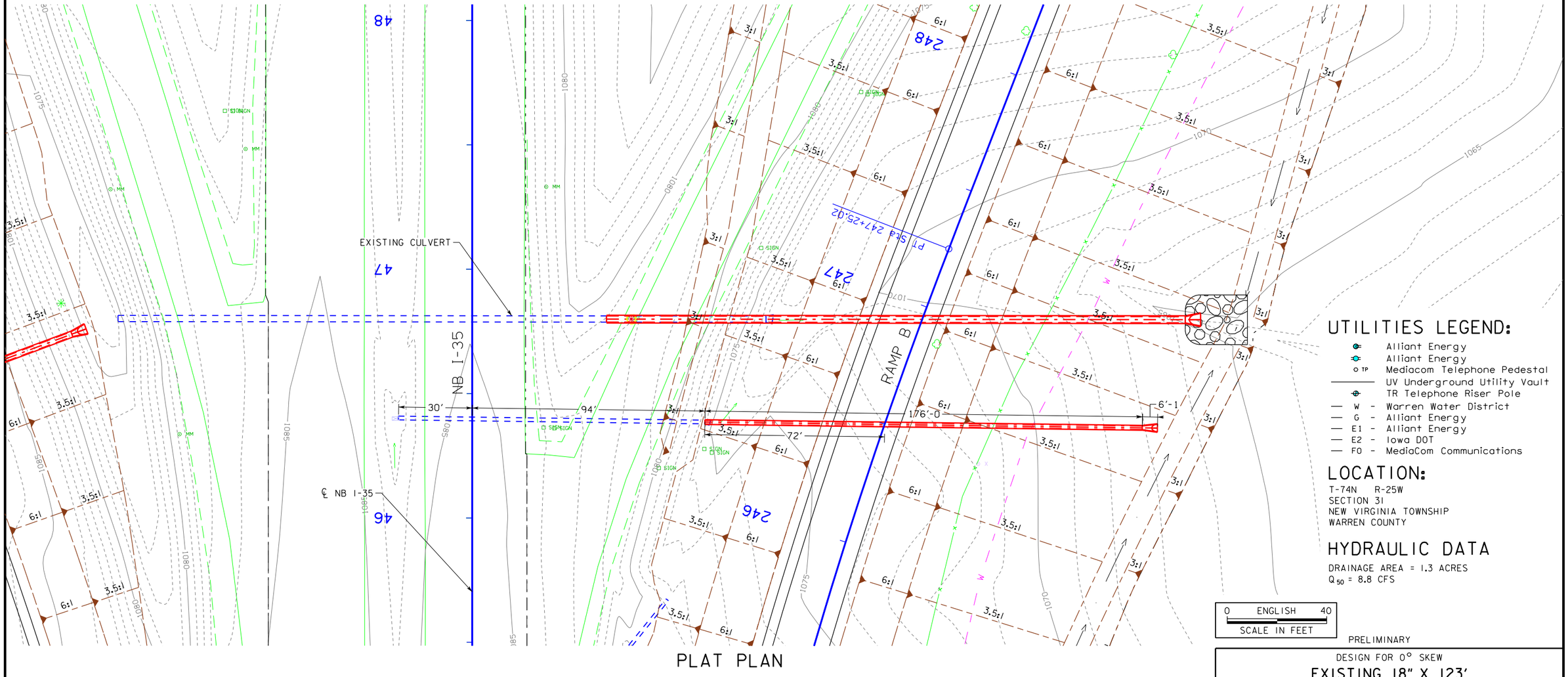
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



BENCH MARK GO37
Sta. 47+33, 24' Rt. Elev. 1082.82
5/8" REBAR 6" DEEP
Note: Station and Offset Based on I-35 Survey Centerline

N

LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

STA. 46+40
EXTEND 18 IN. RCP
SKEW 0°
F.L. LT 1084.01
F.L. RT 1063.83
DA 1.3 ACRES (Hilly)

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 31
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.3 ACRES
Q_{50} = 8.8 CFS

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

DESIGN FOR 0° SKEW
EXISTING 18" X 123'
REINFORCED CONCRETE PIPE
EXTEND 176' RT.
PLAT PLAN
WARREN COUNTY

STA. 46+40.00 OCTOBER, 2013

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.3

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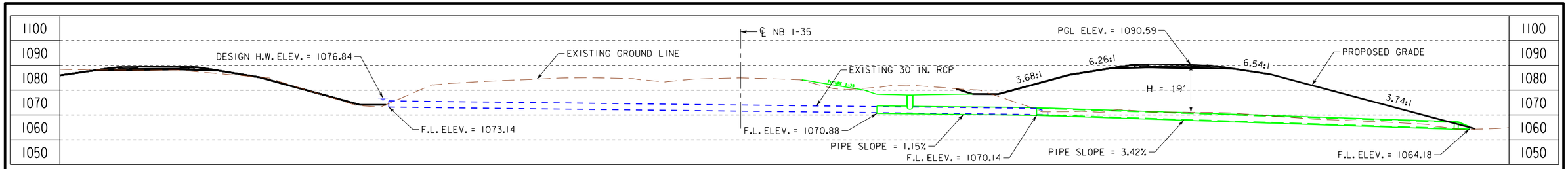
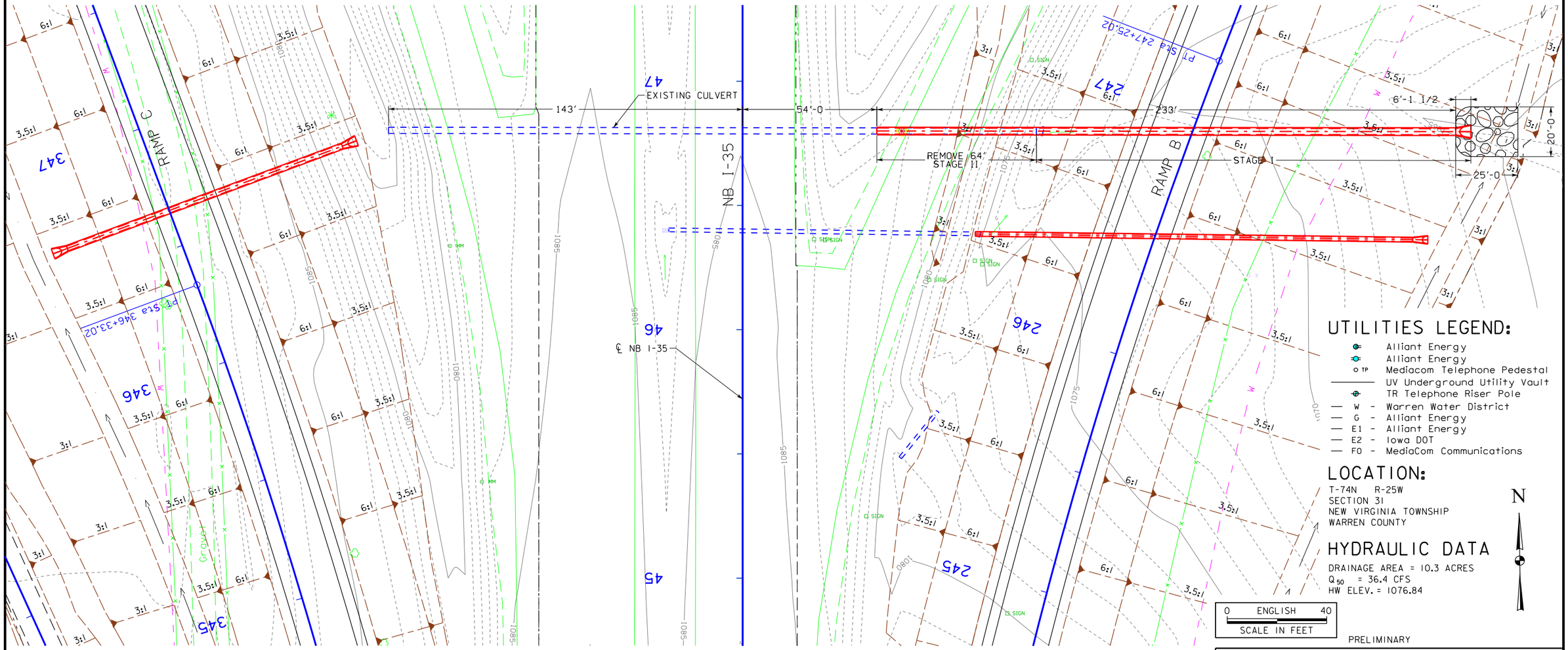


NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.

LONGITUDINAL SECTION ALONG ℄ CULVERT

BENCH MARK GO37, Sta. 47+33, 24' Rt. Elev. 1082.82, 5/8" REBAR 6" DEEP
Note: Station and Offset Based on I-35 Survey Centerline



UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 31
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

N

HYDRAULIC DATA

DRAINAGE AREA = 10.3 ACRES
Q_{50} = 36.4 CFS
HW ELEV. = 1076.84

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

ESTIMATED REVETMENT QUANTITIES

LOCATION	REVETMENT CL. E (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	60	65.6	37.1
TOTALS	60	65.6	37.1

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

PLAT PLAN

STA. 46+80
EXTEND 30 IN. RCP
SKEW 0°
F.L. LT 1073.14
F.L. RT 1064.18
DA 10.3 ACRES (Hilly)

DESIGN FOR 0° SKEW

EXISTING 30" X 230' REINFORCED CONCRETE PIPE EXTEND 233' RT.

PLAT PLAN

STA. 46+80.00 OCTOBER, 2013

WARREN COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.4

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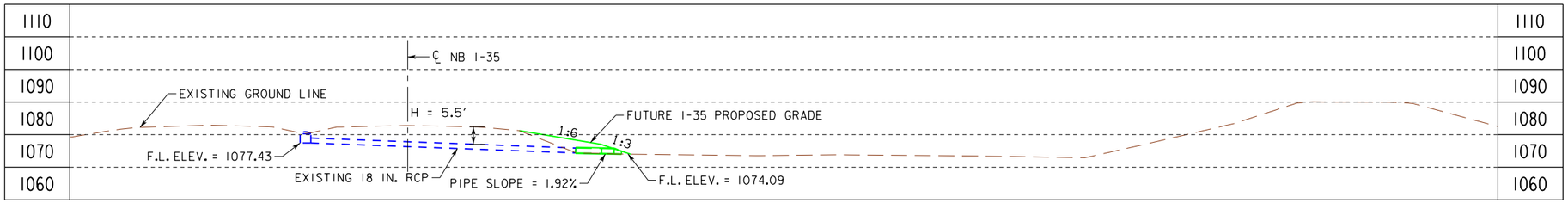
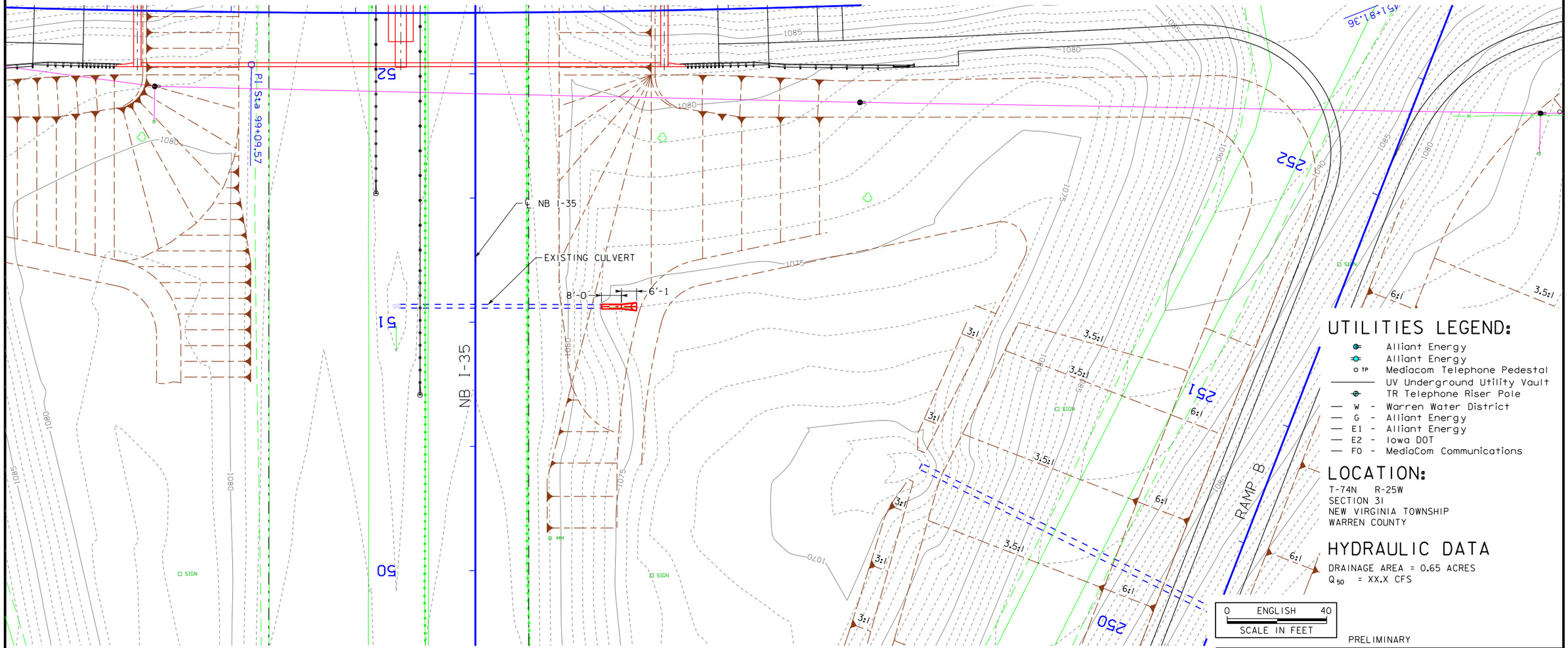
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



BENCH MARK G037
Sta. 47+33, 24' Rt. Elev. 1082.82
5/8" REBAR 6" DEEP
Note: Station and Offset Based on I-35 Survey Centerline

N

LONGITUDINAL SECTION ALONG ℄ CULVERT



UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 31
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 0.65 ACRES
Q_{50} = XX.X CFS

0 ENGLISH 40
SCALE IN FEET

PLAT PLAN

STA. 51+00
EXTEND 18 IN. RCP
SKEW 0°
F.L. LT 1077.43
F.L. RT 1074.09
DA 0.65 ACRES (Hilly)

PRELIMINARY

DESIGN FOR 0° SKEW

EXISTING 18" X 82' REINFORCED CONCRETE PIPE CULVERT EXTEND 8' RT.

PLAT PLAN

STA. 51+00.00 OCTOBER, 2013

WARREN COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER V.5

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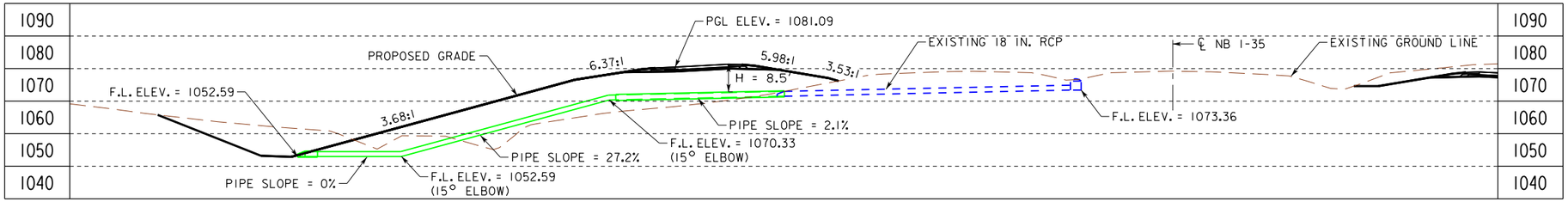
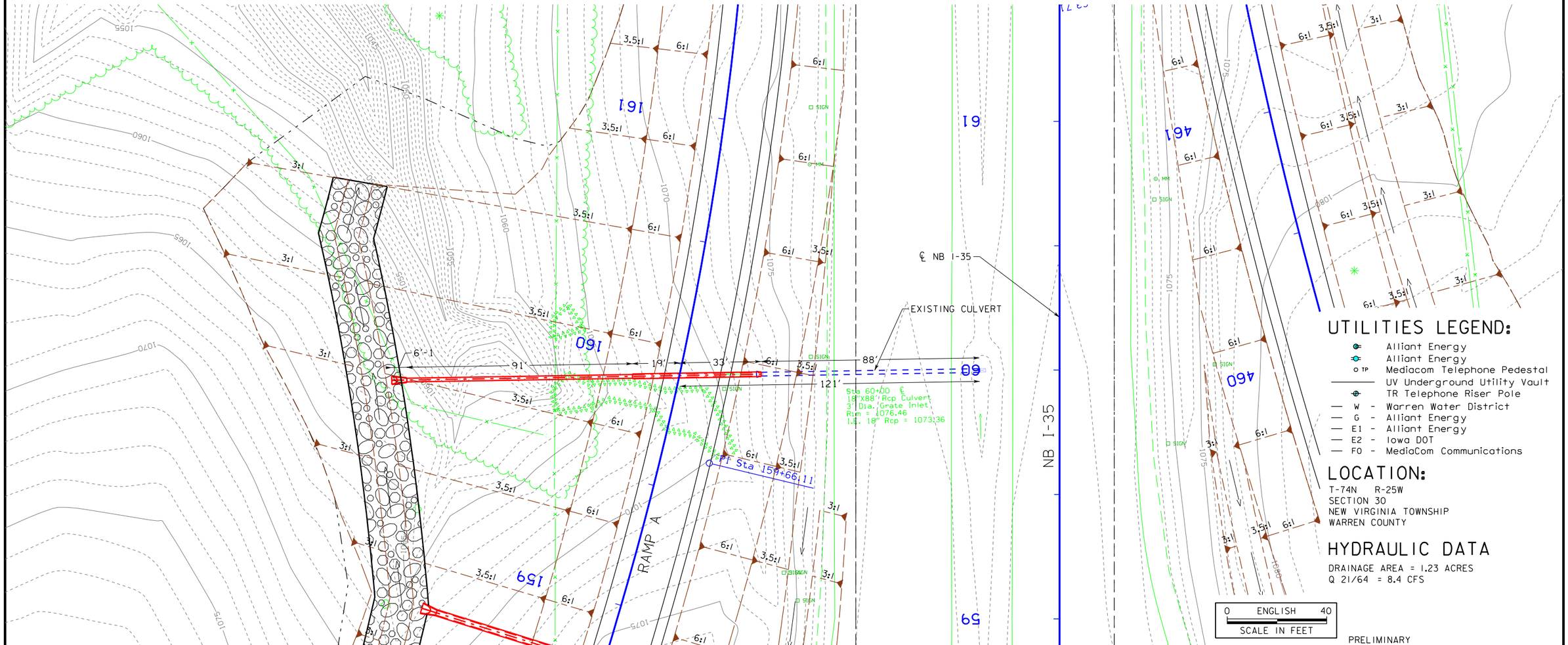
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



BENCH MARK GO38
Sta. 73+11, 63' Rt. Elev. 1073.47
FENO MONUMENT 8" DEEP
Note: Station and Offset Based on I-35 Survey Centerline

N

LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 30
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.23 ACRES
Q 21/64 = 8.4 CFS

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

STA. 60+00
EXTEND 18 IN. RCP
SKEW 0°
F.L. LT 1052.59
F.L. RT 1073.36
DA 1.23 ACRES (Hilly)

DESIGN FOR 0° SKEW

EXISTING 18" X 88' REINFORCED CONCRETE & CORRUGATED METAL PIPE EXTEND 143' LT.

STA. 60+00.00

PLAT PLAN

OCTOBER, 2013

WARREN COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER V.6

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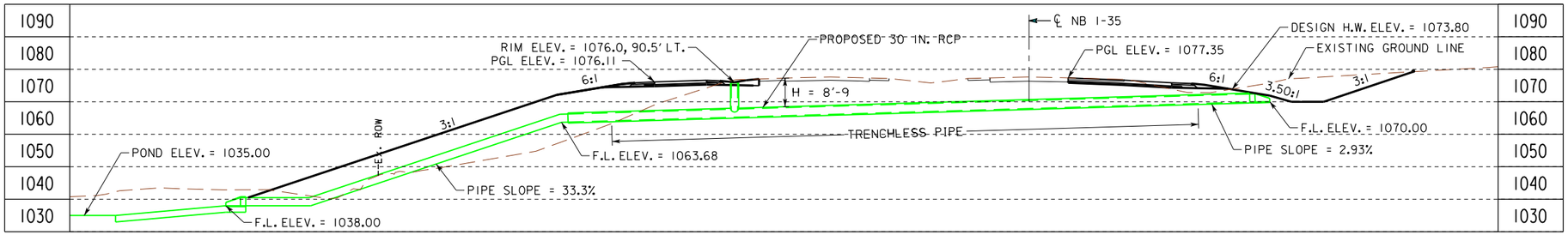
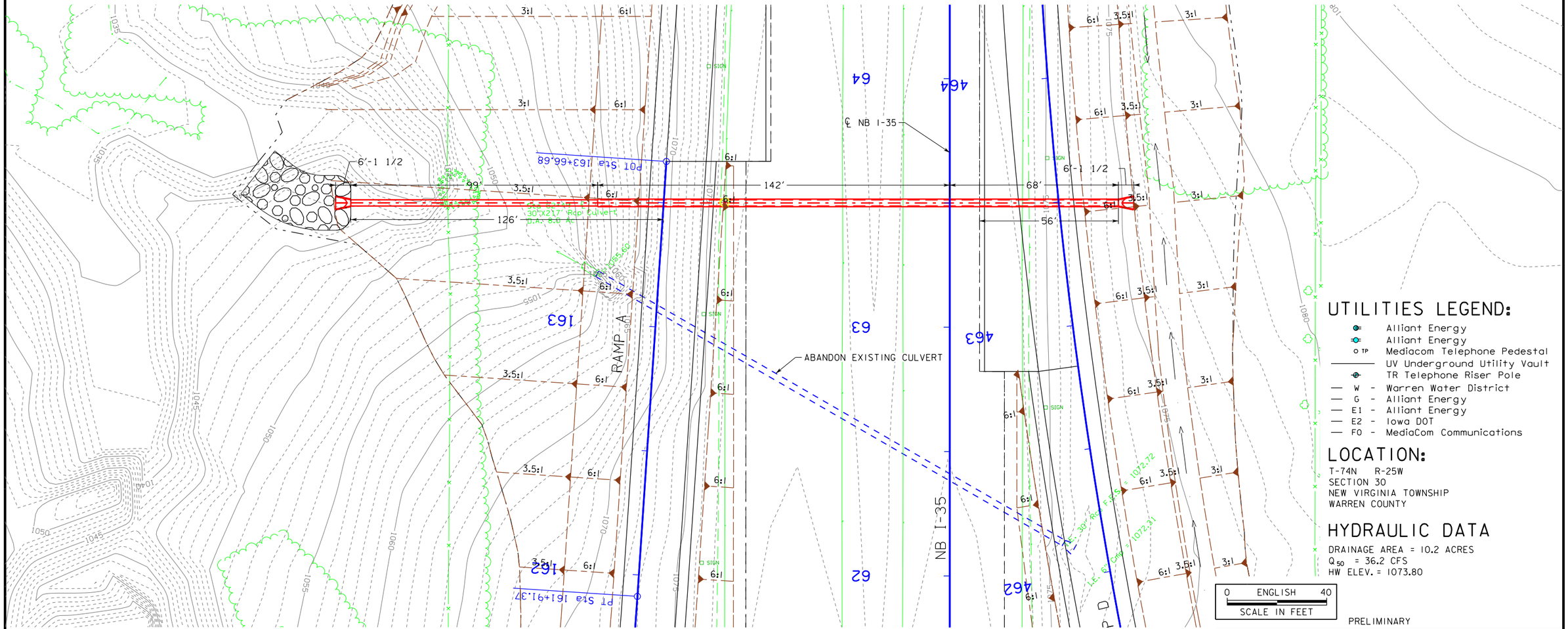
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



LONGITUDINAL SECTION ALONG ℄ CULVERT

BENCH MARK G038
Sta. 73+11, 63' Rt. Elev. 1073.47
FENO MONUMENT 8" DEEP
Note: Station and Offset
Based on I-35 Survey Centerline

N



PLAT PLAN

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 30
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 10.2 ACRES
Q_{50} = 36.2 CFS
HW ELEV. = 1073.80

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

ESTIMATED REVETMENT QUANTITIES

LOCATION	REVETMENT CL. E (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	106	127	66
TOTALS	106	127	66

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

STA. 63+50
INSTALL 30 IN. X 318' RCP
SKEW 0°
F.L. LT 1038.00
F.L. RT 1070.00
DA 10.2 ACRES (Hilly)

DESIGN FOR 0° SKEW

INSTALL 30" X 210' TRENCHLESS RCP AND 30" X 99' CMP

STA. 63+50.00

PLAT PLAN
WARREN COUNTY

OCTOBER, 2013

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.7

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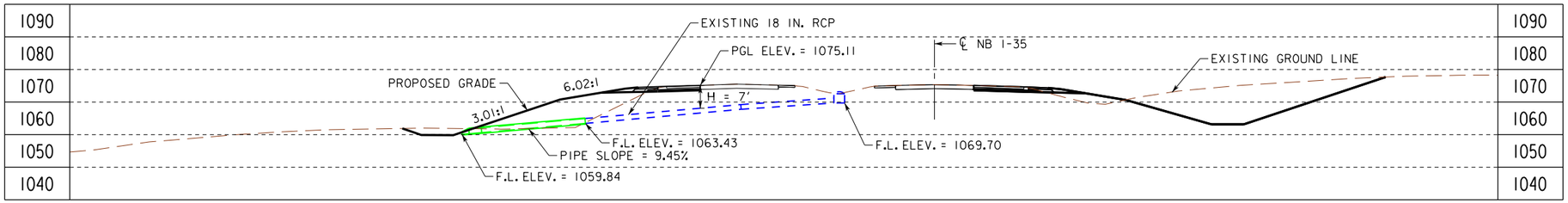
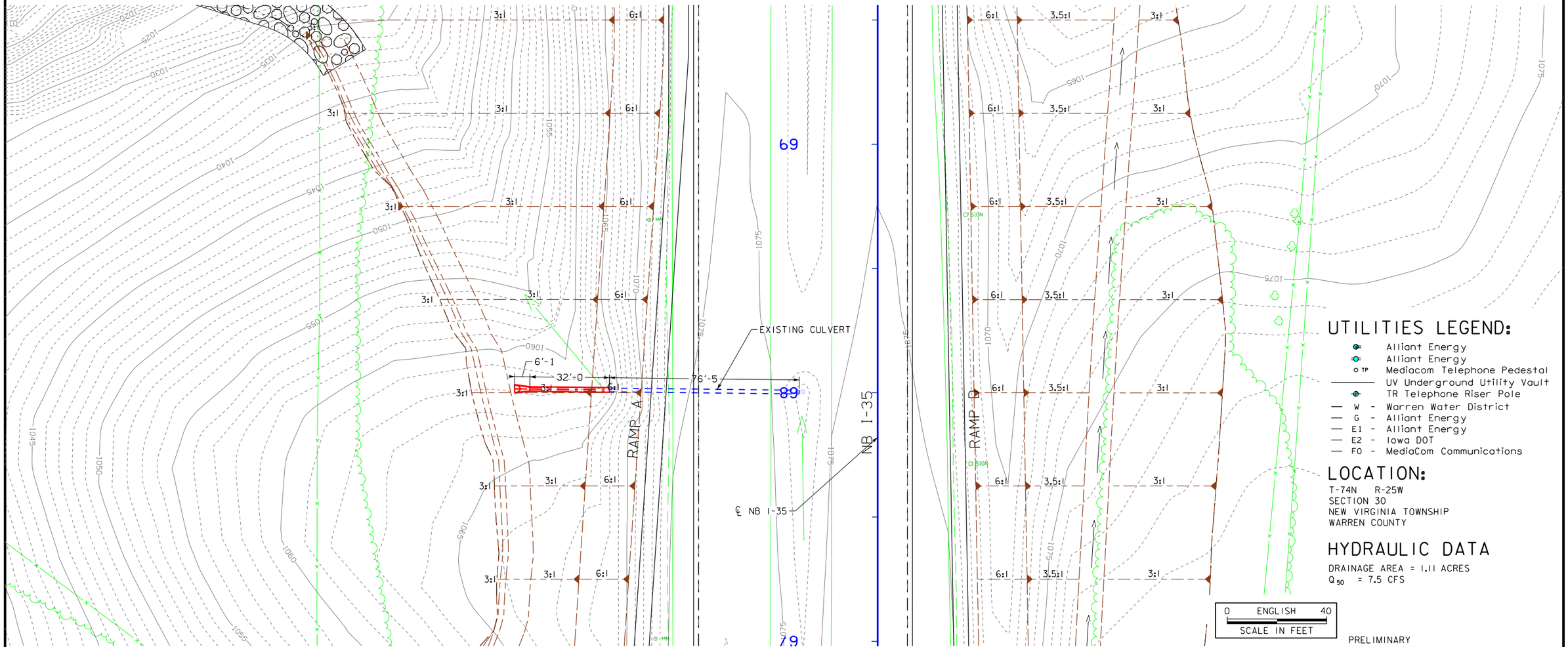
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



LONGITUDINAL SECTION ALONG ℄ CULVERT

BENCH MARK G038
Sta. 73+11, 63' Rt. Elev. 1073.47
FENO MONUMENT 8" DEEP
Note: Station and Offset
Based on I-35 Survey Centerline

N



PLAT PLAN

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- o TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 30
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.11 ACRES
Q_{50} = 7.5 CFS

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

STA. 68+00
EXTEND 18 IN. RCP
SKEW 0°
F.L. LT 1059.84
F.L. RT 1069.70
DA 1.11 ACRES (Hilly)

DESIGN FOR 0° SKEW

EXISTING 18" X 76' REINFORCED CONCRETE PIPE CULVERT EXTEND 32' LT.

PLAT PLAN

STA. 68+00.00 OCTOBER, 2013

WARREN COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.8

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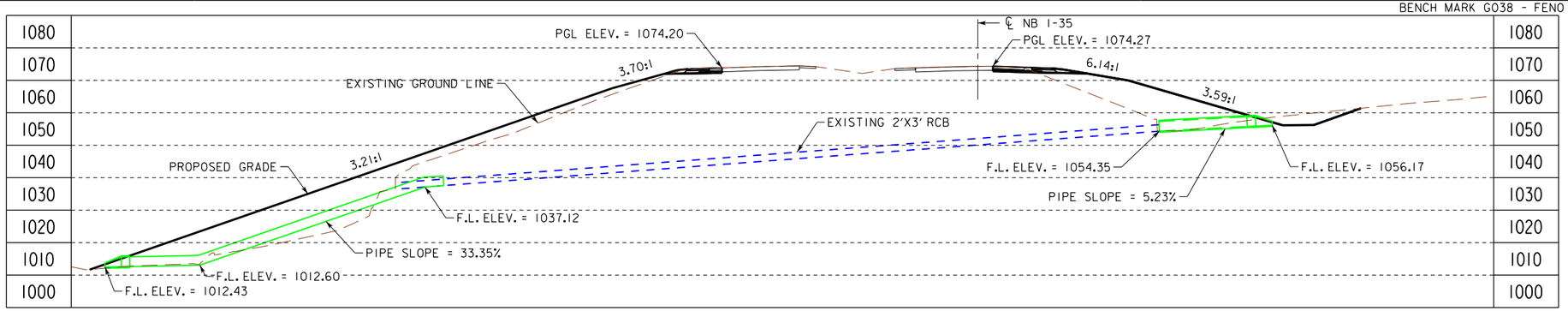
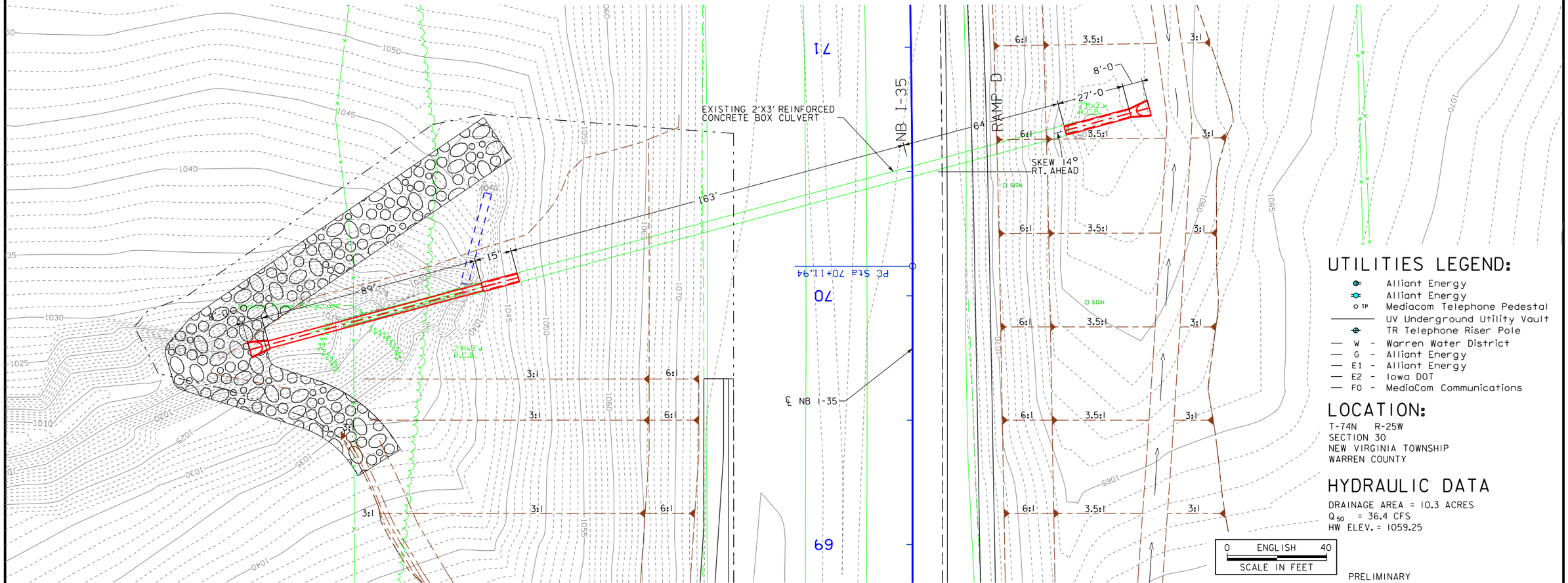
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.

BENCH MARK G038 - FENO MONUMENT 8" DEEP, ELEVATION 1073.47



LONGITUDINAL SECTION ALONG ℄ CULVERT



UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 30
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 10.3 ACRES
Q_{50} = 36.4 CFS
HW ELEV. = 1059.25

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

ESTIMATED REVETMENT QUANTITIES

LOCATION	REVETMENT CL. E (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	595	663	367
TOTALS	595	663	367

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

SITUATION PLAN

STA. 70+50
EXTEND 2'X3' RCB
SKEW 14° RT. AHD.
F.L. LT 1011.51
F.L. RT 1056.17
DA 10.3 ACRES (Hilly)

DESIGN FOR 15° SKEW

EXISTING 2' X 3' REINFORCED CONCRETE BOX CULVERT EXTEND 36"X104' LT. CMP & 36"X27' RT. RCP

STA. 70+50.00

SITUATION PLAN

OCTOBER, 2013

WARREN COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER V.9

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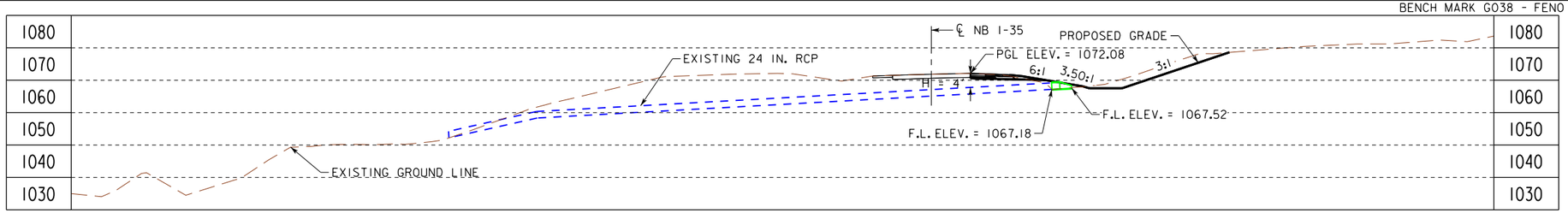
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.

BENCH MARK G038 - FENO MONUMENT 8" DEEP, ELEVATION 1073.47



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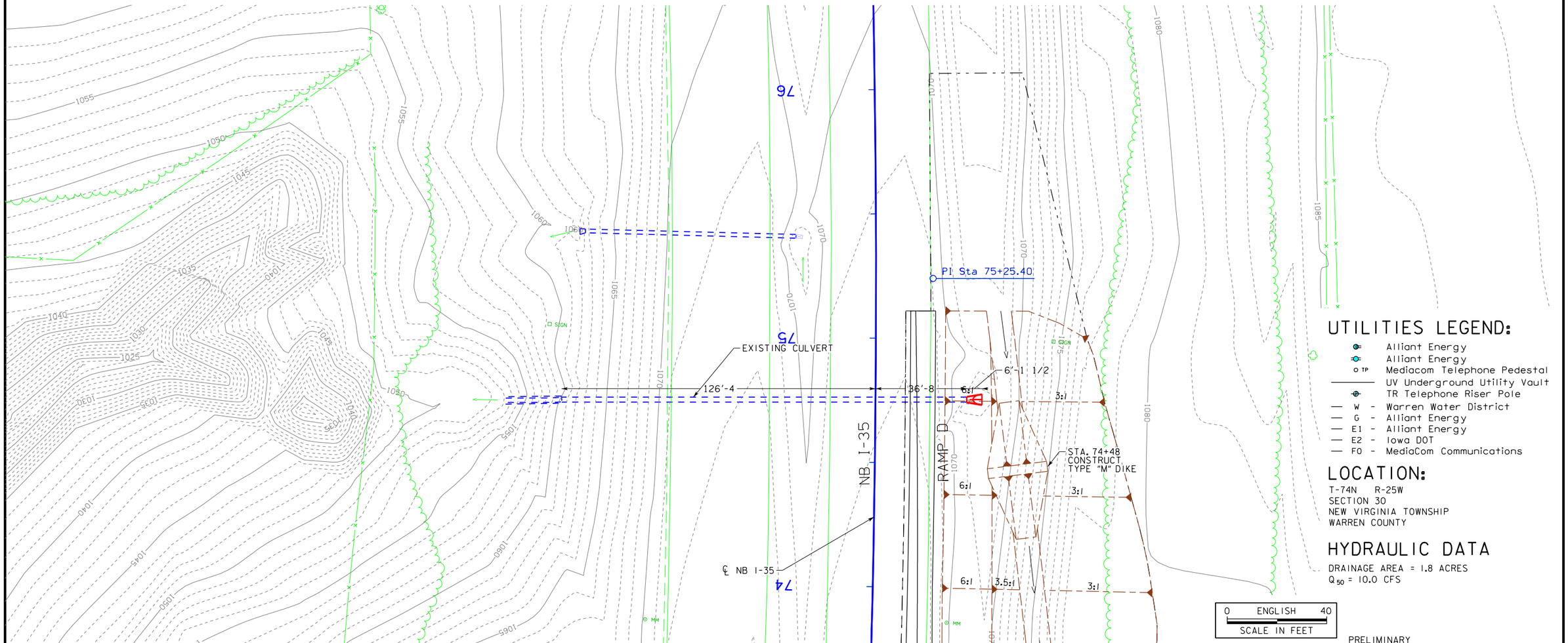
LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 30
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.8 ACRES
Q_{50} = 10.0 CFS

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

STA. 74+75
EXTEND 24 IN. RCP
SKEW 0°
F.L. LT 1052.20
F.L. RT 1067.52
DA 1.8 ACRES (Hilly)

DESIGN FOR 0° SKEW

EXISTING 24" X 164' REINFORCED CONCRETE PIPE CULVERT INSTALL RF-3 APRON

PLAT PLAN

STA. 74+75.00 OCTOBER, 2013

WARREN COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER V.10

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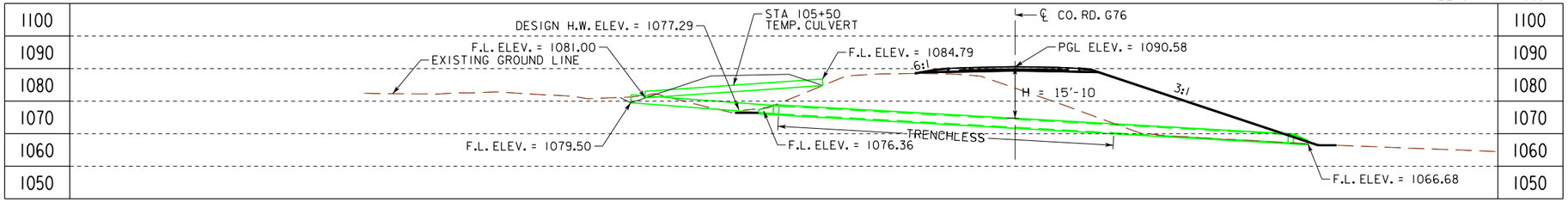
BENCH MARK G037 - 5/8" REBAR 6" DEEP, ELEVATION 1082.82

NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



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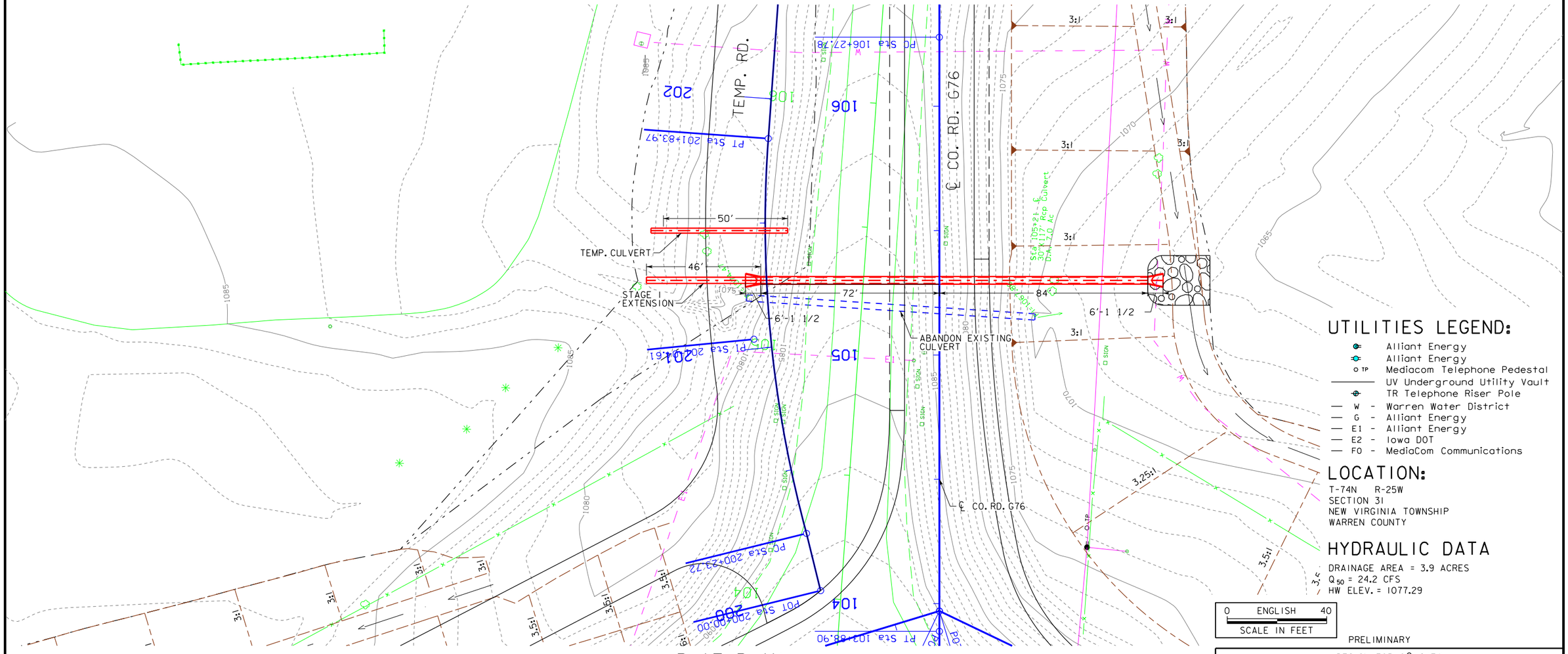
LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 31
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 3.9 ACRES
Q_{50} = 24.2 CFS
HW ELEV. = 1077.29

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

ESTIMATED REVETMENT QUANTITIES

LOCATION	REVETMENT CL. E (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	60	65.6	37.1
TOTALS	60	65.6	37.1

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

STA. 105+50
24" UNCL. TEMP
CULVERT

STA. 105+30
30 IN. RCP
SKEW 0°
F.L. LT 1076.24
F.L. RT 1066.68
DA 3.9 ACRES (Hilly)

DESIGN FOR 0° SKEW

INSTALL 30" X 156' TRENCHLESS REINFORCED CONCRETE PIPE

STA. 105+30.00

PLAT PLAN

WARREN COUNTY

OCTOBER, 2013

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.11

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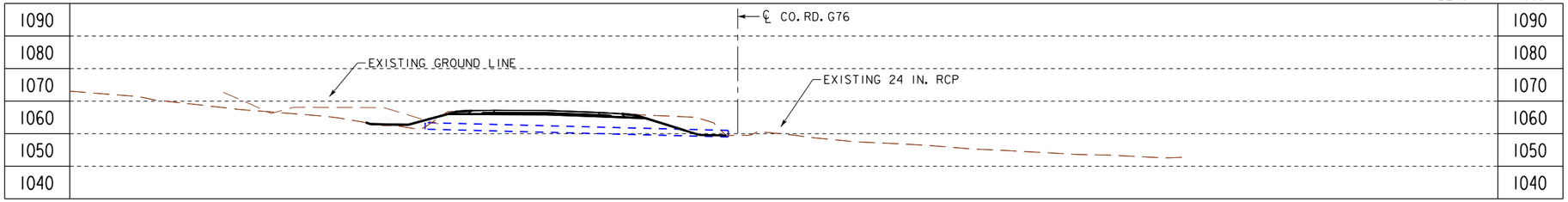
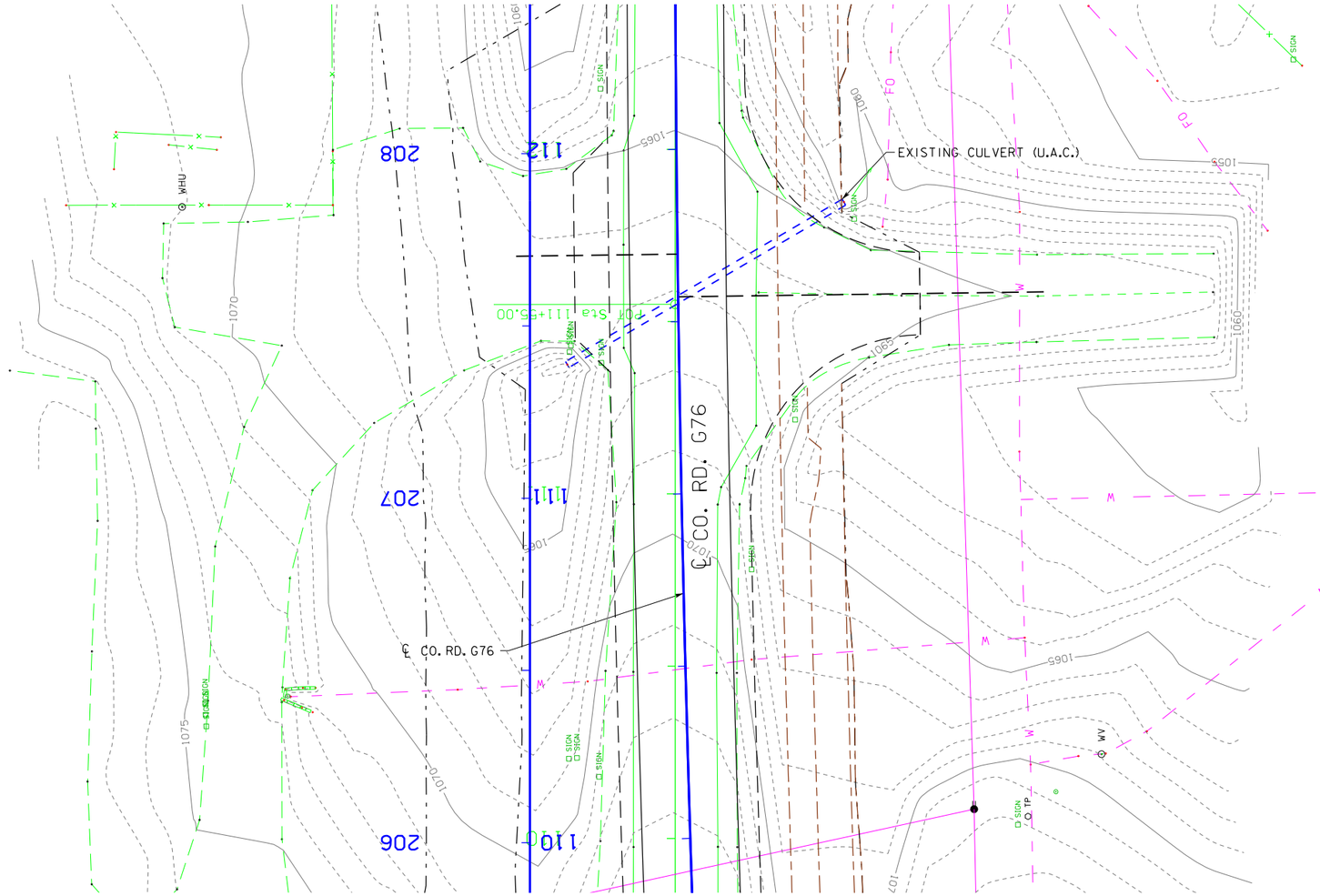
BENCH MARK G037 - 5/8" REBAR 6" DEEP, ELEVATION 1082.82

NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 31
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 1.7 ACRES

STA. 111+36
U.A.C. 24 IN. RCP
SKEW 30° RT. AHD.
F.L. LT 1061.41
F.L. RT 1059.00
DA 1.7 ACRES (Hilly)

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

DESIGN FOR 30° SKEW

EXISTING 24" X 93' REINFORCED CONCRETE PIPE CULVERT USE AS CONSTRUCTED

PLAT PLAN

STA. 111+36.00 — OCTOBER, 2013

WARREN COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.12

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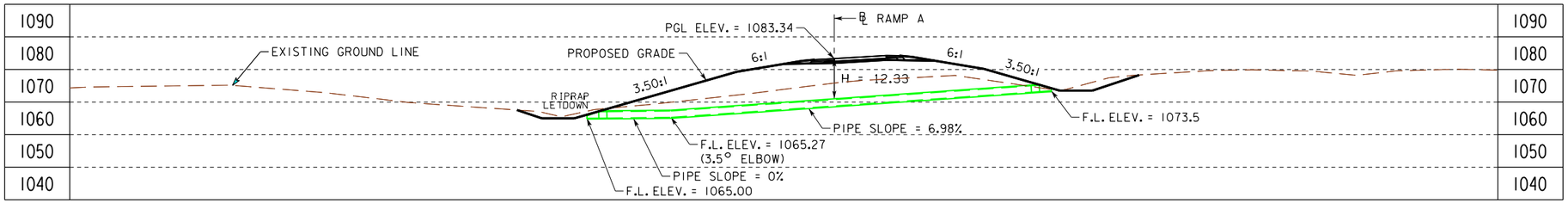
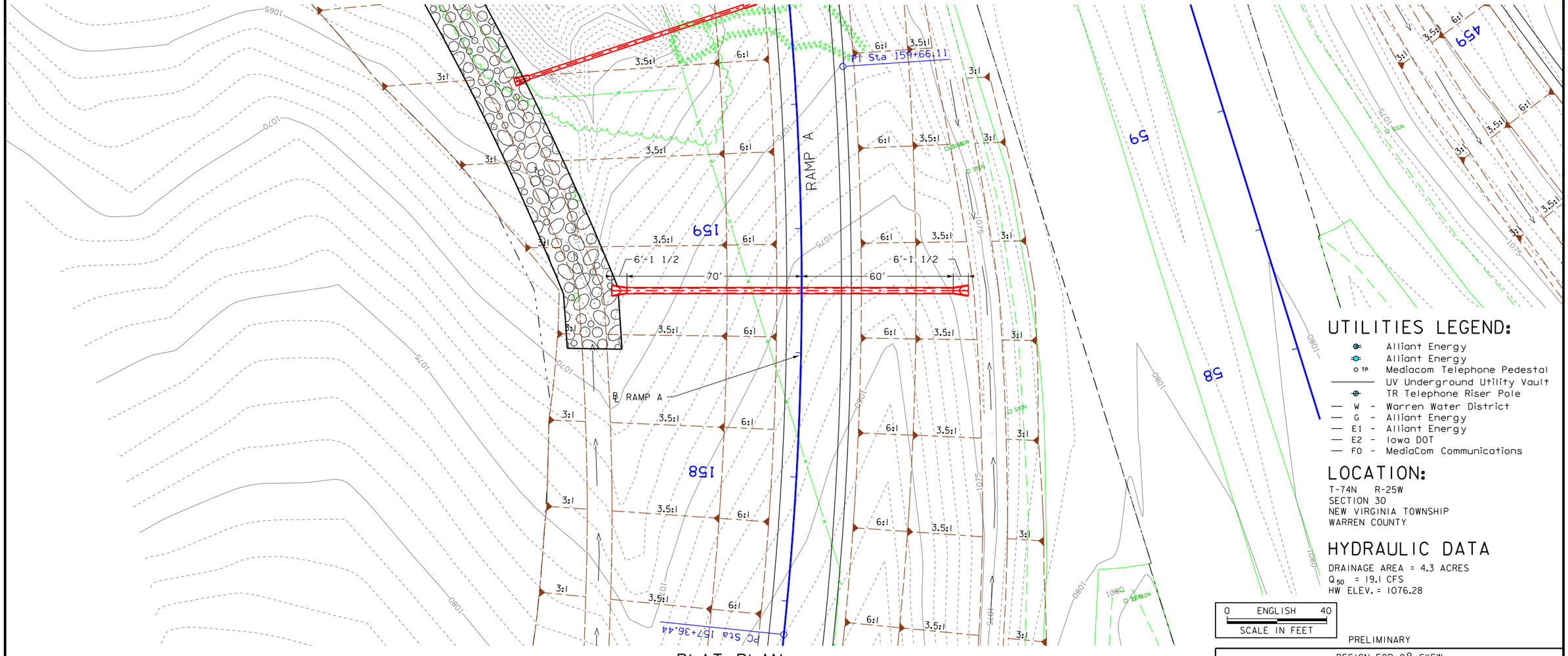
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



LONGITUDINAL SECTION ALONG ℄ CULVERT

BENCH MARK G038
Sta. 73+11, 63' Rt. Elev. 1073.47
FENO MONUMENT 8" DEEP
Note: Station and Offset
Based on I-35 Survey Centerline

N



PLAT PLAN

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 30
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 4.3 ACRES
Q_{50} = 19.1 CFS
HW ELEV. = 1076.28

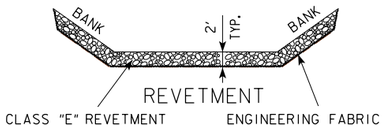
0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

ESTIMATED REVETMENT QUANTITIES

LOCATION	REVETMENT CL. E (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	500	561	309
TOTALS	500	561	309

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



STA. 158+75
INSTALL 24 IN. RCP
SKEW 0°
F.L. LT 1065.00
F.L. RT 1073.50
DA 4.3 ACRES (Hilly)

DESIGN FOR 0° SKEW
INSTALL 24" X 130'
REINFORCED CONCRETE PIPE

STA. 158+75.00

PLAT PLAN
WARREN COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

OCTOBER, 2013

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.13

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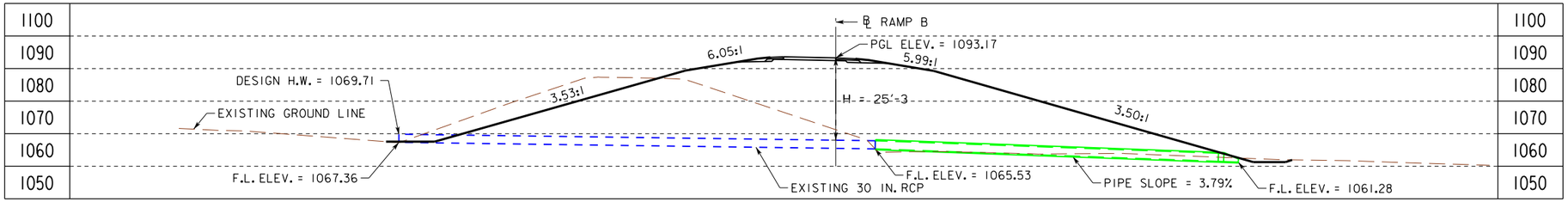
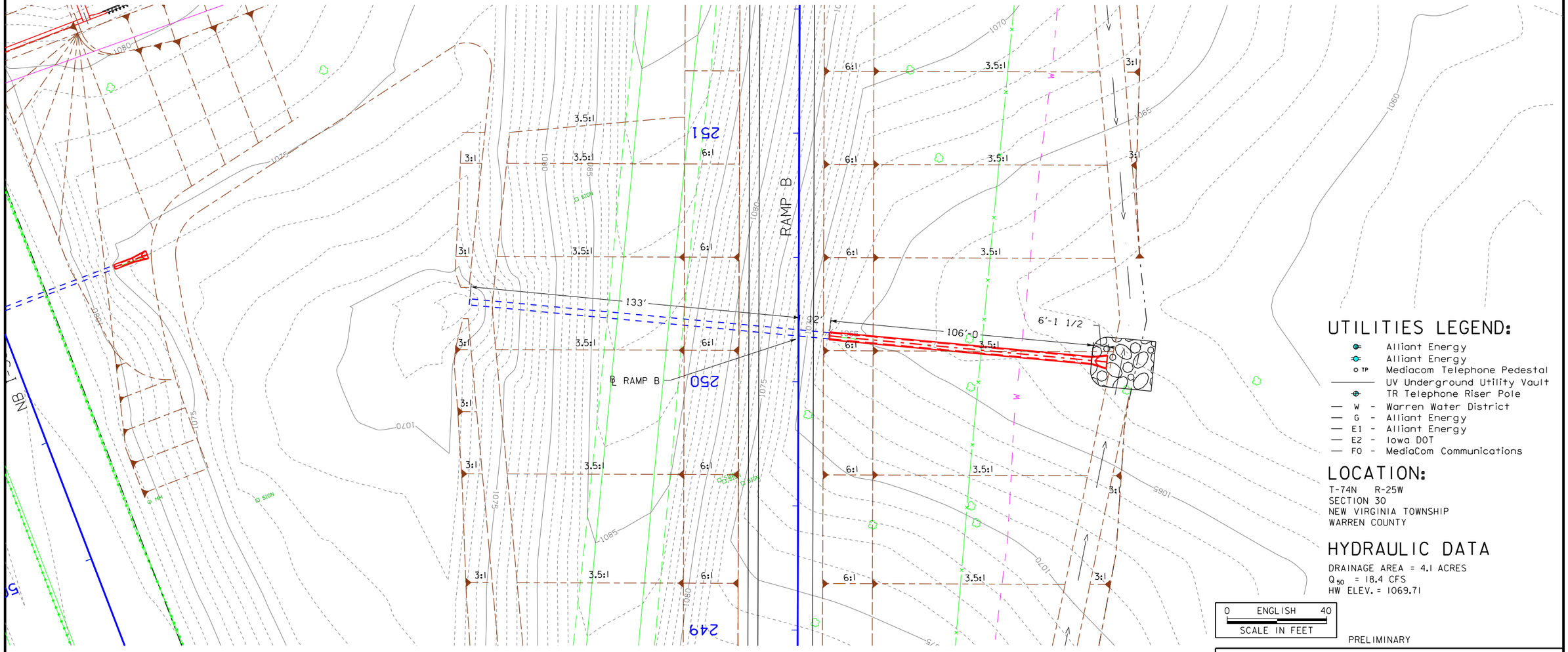
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



BENCH MARK G038
Sta. 73+11, 63' Rt. Elev. 1073.47
FENO MONUMENT 8" DEEP
Note: Station and Offset
Based on I-35 Survey Centerline

N

LONGITUDINAL SECTION ALONG ℄ CULVERT



UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 30
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 4.1 ACRES
Q_{50} = 18.4 CFS
HW ELEV. = 1069.71

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

ESTIMATED REVETMENT QUANTITIES

LOCATION	REVETMENT CL. E (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	60	65.6	37.1
TOTALS	60	65.6	37.1

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

PLAT PLAN

STA. 250+20
EXTEND 30 IN. RCP
SKEW 5° LT. AHD.
F.L. LT 1067.36
F.L. RT 1061.28
DA 4.1 ACRES (Hilly)

DESIGN FOR 5° LT. AHD. SKEW
EXISTING 30" X 145'
REINFORCED CONCRETE PIPE
EXTEND 106' RT.
PLAT PLAN
STA. 250+20.00 OCTOBER, 2013
WARREN COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.14

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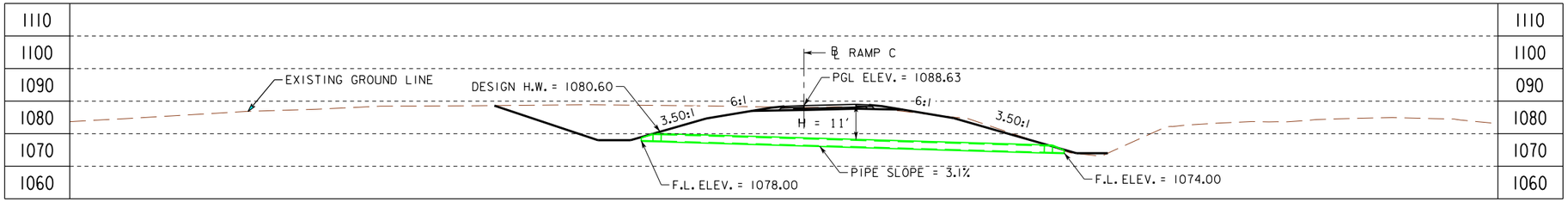
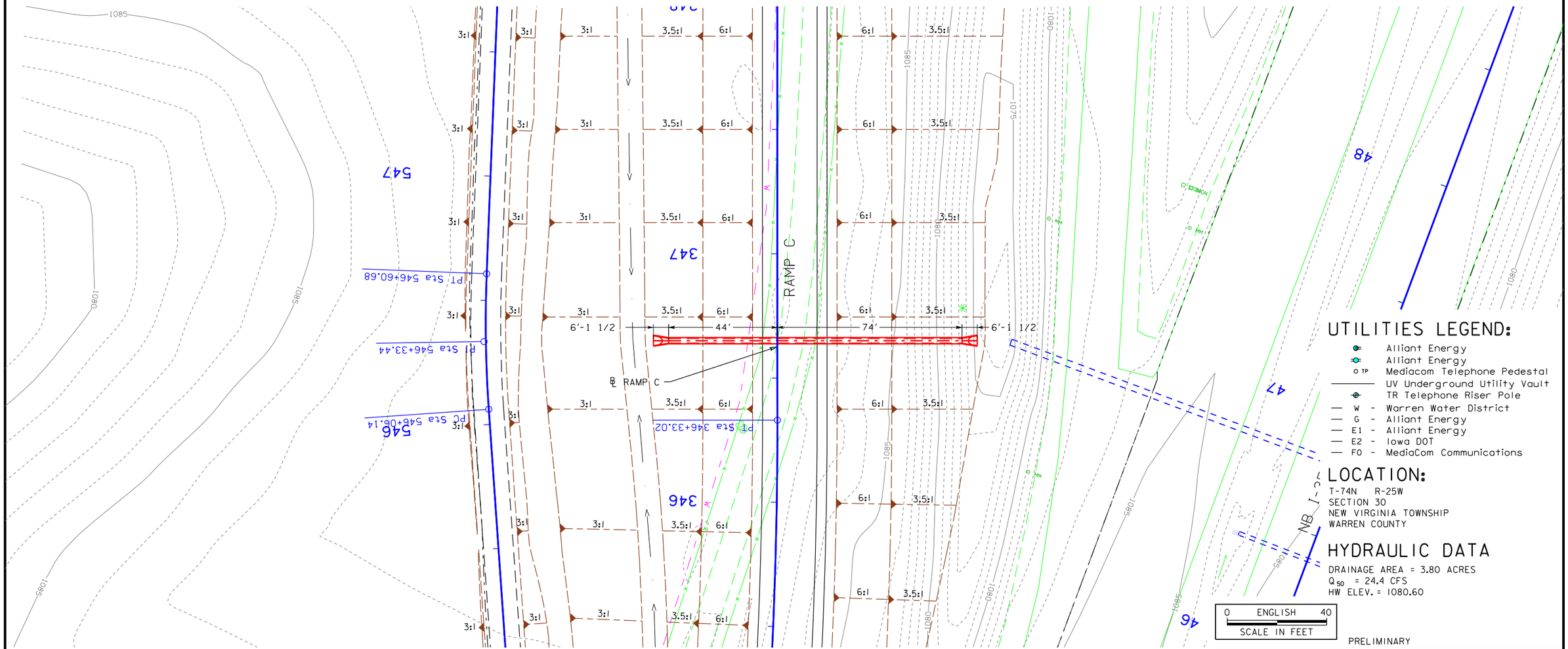
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



LONGITUDINAL SECTION ALONG ℄ CULVERT

BENCH MARK G038
Sta. 73+11, 63' Rt. Elev. 1073.47
FENO MONUMENT 8" DEEP
Note: Station and Offset
Based on I-35 Survey Centerline

N



PLAT PLAN

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 30
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 3.80 ACRES
Q_{50} = 24.4 CFS
HW ELEV. = 1080.60

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

STA. 346+65
INSTALL 24 IN. RCP
SKEW 0°
F.L. LT 1078.00
F.L. RT 1074.00
DA 3.8 ACRES (Hilly)

DESIGN FOR 0° SKEW

INSTALL 24" X 118'
REINFORCED CONCRETE PIPE

STA. 346+65.00

PLAT PLAN
WARREN COUNTY

OCTOBER, 2013

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.15

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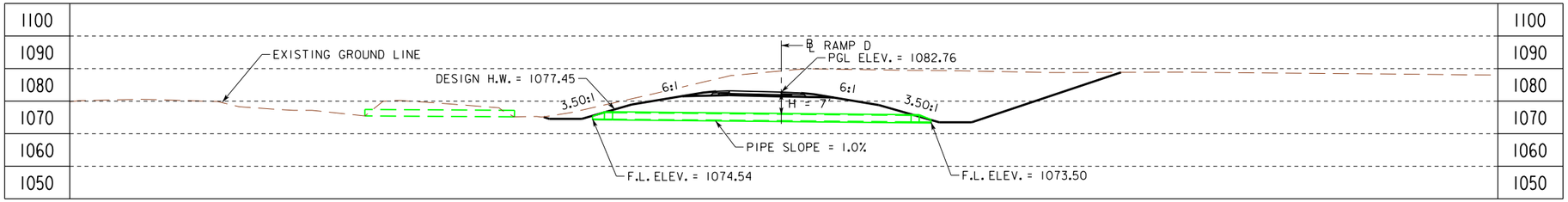
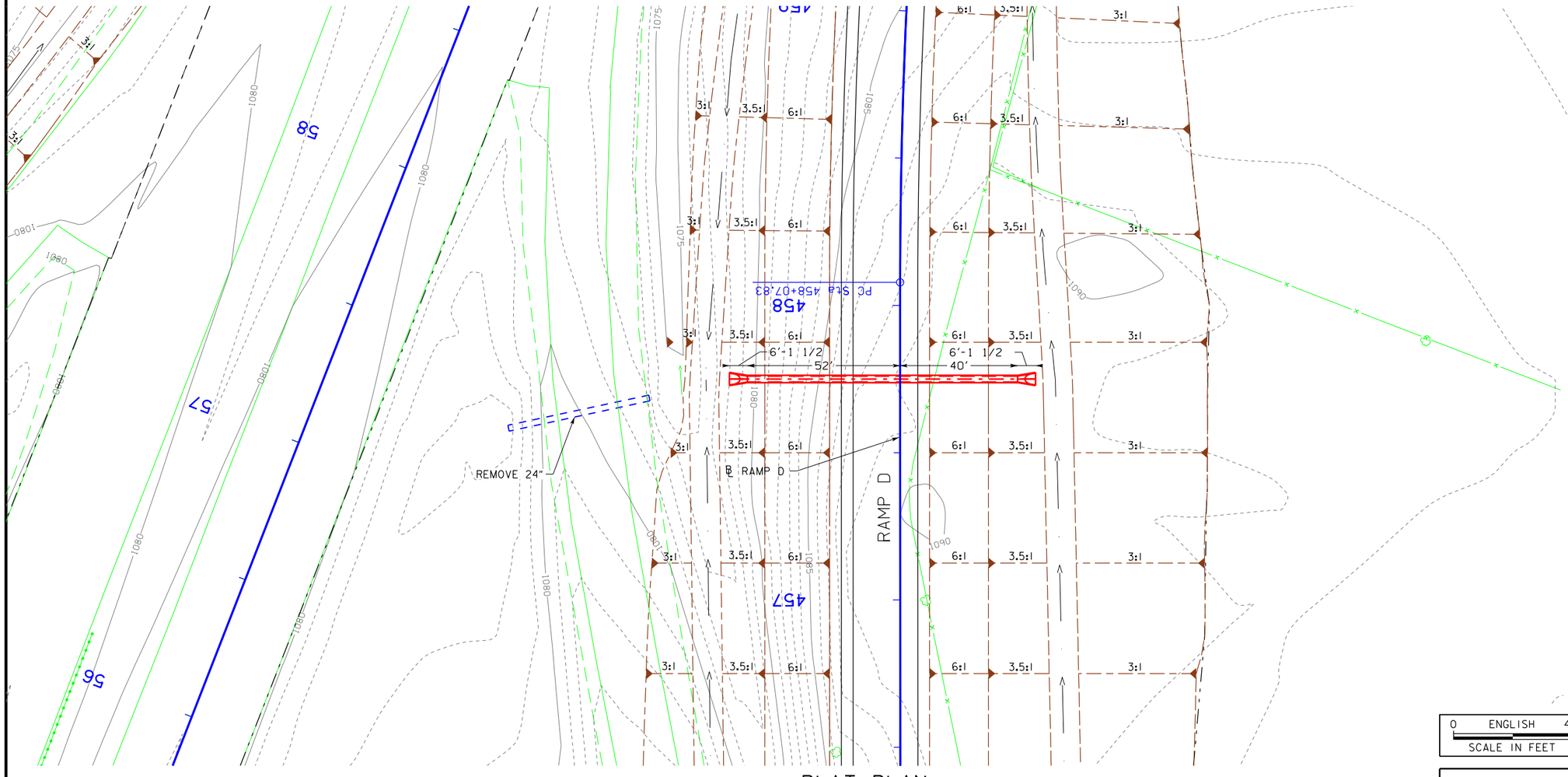
NOTES:
ALL UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.



LONGITUDINAL SECTION ALONG ℄ CULVERT

BENCH MARK G038
Sta. 73+11, 63' Rt. Elev. 1073.47
FENO MONUMENT 8" DEEP
Note: Station and Offset
Based on I-35 Survey Centerline

N



PLAT PLAN

UTILITIES LEGEND:

- Alliant Energy
- Alliant Energy
- TP Mediacom Telephone Pedestal
- UV Underground Utility Vault
- TR Telephone Riser Pole
- W - Warren Water District
- G - Alliant Energy
- E1 - Alliant Energy
- E2 - Iowa DOT
- FO - MediaCom Communications

LOCATION:

T-74N R-25W
SECTION 30
NEW VIRGINIA TOWNSHIP
WARREN COUNTY

HYDRAULIC DATA

DRAINAGE AREA = 4.5 ACRES
Q_{50} = 19.8 CFS
HW ELEV. = 1077.45

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

STA. 457+75
INSTALL 24 IN. RCP
SKEW 0°
F.L. LT 1074.54
F.L. RT 1073.50
DA 4.5 ACRES (Hilly)

DESIGN FOR 0° SKEW

INSTALL 24" X 92'
REINFORCED CONCRETE PIPE

STA. 457+75.00

PLAT PLAN
WARREN COUNTY

OCTOBER, 2013

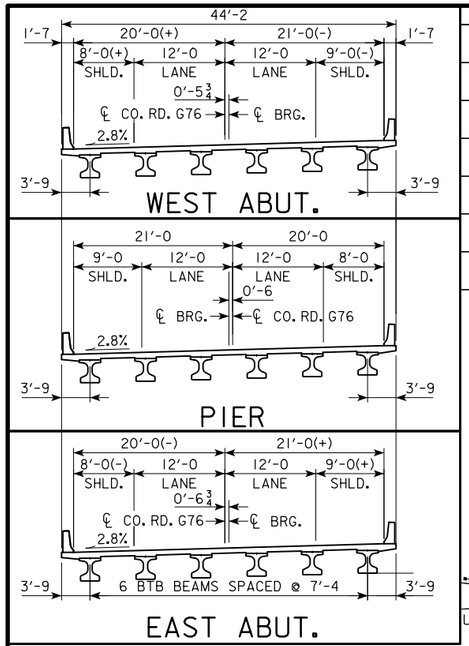
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

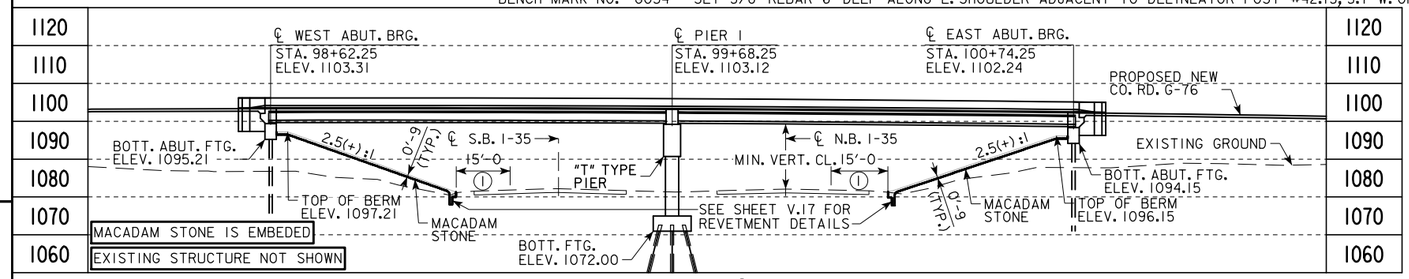
DESIGN SHEET NO. 1 OF 1 FILE NO. - DESIGN NO. -

DESIGN TEAM : SCHEMMER	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER V.16

12:26:47 PM ksnook S:\Projects\06241003\9103502012\Design\91035423_culvert.str

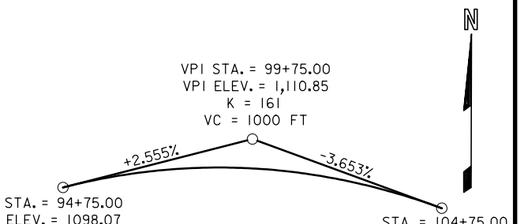
BENCH MARK NO. G034 - SET 5/8" REBAR 6" DEEP ALONG E. SHOULDER ADJACENT TO DELINEATOR POST #42.15, 5.7' W. OF DELINEATOR POST #42.15, 3' E. OF E. SHOULDER OF NB LANES 1-35.



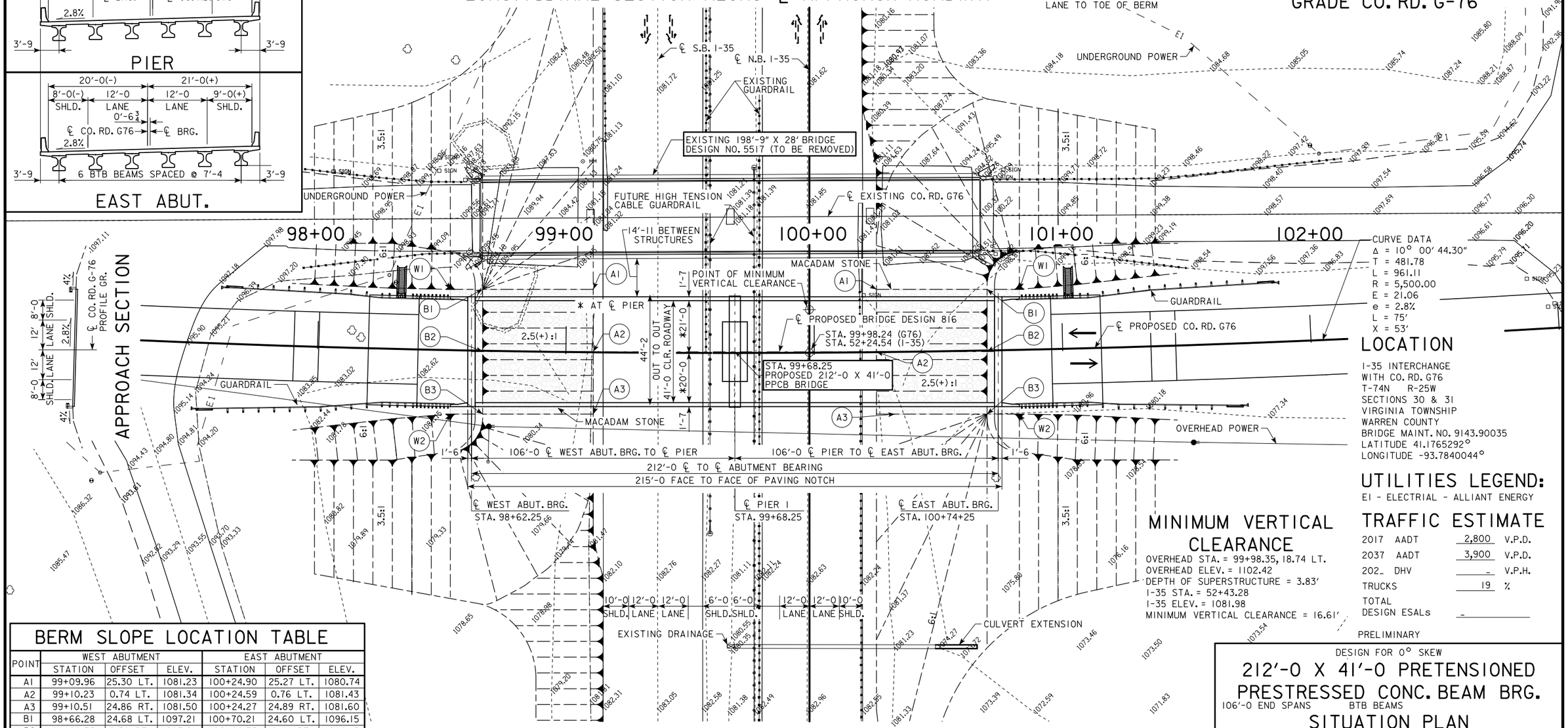


LONGITUDINAL SECTION ALONG ℄ APPROACH ROADWAY

① MEASURED FROM EDGE OF DRIVING LANE TO TOE OF BERM



PROPOSED PROFILE GRADE CO. RD. G-76



APPROACH SECTION

BERM SLOPE LOCATION TABLE

POINT	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	99+09.96	25.30 LT.	1081.23	100+24.90	25.27 LT.	1080.74
A2	99+10.23	0.74 LT.	1081.34	100+24.59	0.76 LT.	1081.43
A3	99+10.51	24.86 RT.	1081.50	100+24.27	24.89 RT.	1081.60
B1	98+66.28	24.68 LT.	1097.21	100+70.21	24.60 LT.	1096.15
B2	98+66.75	0.39 RT.	1097.21	100+69.75	0.48 RT.	1096.15
B3	98+66.19	25.47 RT.	1097.21	100+69.26	25.56 RT.	1096.15
W1	98+53.23	24.43 LT.	1102.70	100+83.26	24.34 LT.	1101.54
W2	98+54.25	25.72 RT.	1103.94	100+82.20	25.82 RT.	1102.78

ALL POINTS REFLECT GRADING SURFACE & ARE TAKEN FROM SURVEY ℄

NOTES:
ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.
TL-4 BARRIER RAIL.

SITUATION PLAN

NOTE: 2-SPAN GRADING SHOWN

0 ENGLISH 40
SCALE IN FEET

CURVE DATA

Δ = 10° 00' 44.30"
T = 481.78
L = 961.11
R = 5,500.00
E = 21.06
e = 2.8%
L = 75'
X = 53'

LOCATION

I-35 INTERCHANGE
WITH CO. RD. G76
T-74N R-25W
SECTIONS 30 & 31
VIRGINIA TOWNSHIP
WARREN COUNTY
BRIDGE MAINT. NO. 9143.90035
LATITUDE 41.1765292°
LONGITUDE -93.7840044°

UTILITIES LEGEND:

EI - ELECTRIAL - ALLIANT ENERGY

TRAFFIC ESTIMATE

2017 AADT	2,800	V.P.D.
2037 AADT	3,900	V.P.D.
202_ DHV	-	V.P.H.
TRUCKS	19	%
TOTAL DESIGN ESALs	-	

MINIMUM VERTICAL CLEARANCE

OVERHEAD STA. = 99+98.35, 18.74 LT.
OVERHEAD ELEV. = 1102.42
DEPTH OF SUPERSTRUCTURE = 3.83'
I-35 STA. = 52+43.28
I-35 ELEV. = 1081.98
MINIMUM VERTICAL CLEARANCE = 16.61'

PRELIMINARY

DESIGN FOR 0° SKEW

212'-0 X 41'-0 PRETENSIONED PRESTRESSED CONC. BEAM BRG.

106'-0 END SPANS BTB BEAMS

SITUATION PLAN

STA. 99+68.25 AUGUST, 2013

WARREN COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 2 FILE NO. 30981 DESIGN NO. 816

DESIGN TEAM SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.17

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BENCH MARK NO. G034 - SET 5/8" REBAR 6" DEEP ALONG E. SHOULDER ADJACENT TO DELINEATOR POST #42.15, 5.7' W. OF DELINEATOR POST #42.15, 3' E. OF E. SHOULDER OF NB LANES I-35.

S.B. OFF RAMP TRAFFIC ESTIMATE

2017 AADT	1030	V.P.D.
2037 AADT	2093	V.P.D.
202_ DHV	_	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	_	

N.B. ON RAMP TRAFFIC ESTIMATE

2017 AADT	767	V.P.D.
2037 AADT	1094	V.P.D.
202_ DHV	_	V.P.H.
TRUCKS	19	%
TOTAL DESIGN ESALs	_	

N

BASELINE PROPOSED S.B. OFF RAMP

EXISTING S.B. OFF RAMP

℄ S.B. I-35

℄ N.B. I-35

EXISTING N.B. ON RAMP

NOTE: 2-SPAN GRADING SHOWN

BASELINE PROPOSED N.B. ON RAMP

C3

C2

C1

95+00

100+00

105+00

UNDERGROUND POWER

EXISTING 198'-9" X 28' BRIDGE DESIGN NO. 5517 (TO BE REMOVED)

℄ EXISTING CO. RD. G76

STA. 95+45.84

STA. 103+97.04

℄ PROPOSED CO. RD. G76

VARIES 1'-7

44'-2 OUT TO OUT

1'-7

B

OVERHEAD POWER

STA. 99+68.25
PROPOSED 212'-0 X 41'-0
PPCB BRIDGE

UTILITY WATER

END OF FLOOR 1'-6

106'-0 ℄ WEST ABUT. BRG. TO ℄ PIER

106'-0 ℄ PIER TO ℄ EAST ABUT. BRG.

END OF FLOOR 1'-6

℄ WEST ABUT. BRG. STA. 98+62.25

℄ PIER 1 STA. 99+68.25

℄ EAST ABUT. BRG. STA. 100+74+25

EXISTING N.B. OFF RAMP

BASELINE PROPOSED N.B. OFF RAMP

N.B. OFF RAMP TRAFFIC ESTIMATE

2017 AADT	397	V.P.D.
2037 AADT	566	V.P.D.
202_ DHV	_	V.P.H.
TRUCKS	19	%
TOTAL DESIGN ESALs	_	

S.B. ON RAMP TRAFFIC ESTIMATE

2017 AADT	456	V.P.D.
2037 AADT	649	V.P.D.
202_ DHV	_	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	_	

BASELINE PROPOSED S.B. ON RAMP

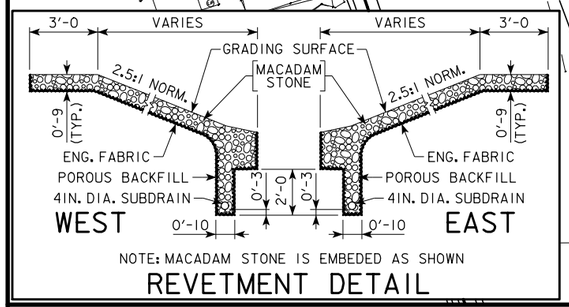
EXISTING S.B. ON RAMP

UTILITIES LEGEND:

E1 - ELECTRIAL - ALLIANT ENERGY
W - WATER

UTILITY WATER

PRELIMINARY



NOTE: MACADAM STONE IS EMBEDED AS SHOWN

REVETMENT DETAIL

RECOVERABLE BERM LOCATION TABLE

POINT	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
B	98+66.28	24.68 LT.	1097.21	100+69.26	25.56 RT.	1096.15
C1	99+09.74	146.06 LT.	1080.73	100+23.73	143.83 RT.	1081.98
C2	99+04.20	181.58 LT.	1080.32	100+27.67	183.29 RT.	1080.57
C3	99+13.19	217.46 LT.	1080.81	100+17.63	222.79 RT.	1082.83

SITE PLAN

DESIGN FOR 0° SKEW

212'-0 X 41'-0 PRETENSIONED PRESTRESSED CONC. BEAM BRG.

106'-0 END SPANS BTB BEAMS

SITUATION PLAN - SITE

STA. 99+68.25

AUGUST, 2013

WARREN COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 2 FILE NO. 30981 DESIGN NO. 816

DESIGN TEAM SCHEMMER | WARREN COUNTY | PROJECT NUMBER BRFIMX-035-2(423)44--14-91 | SHEET NUMBER V.18

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LEGEND OF CROSS SECTION SHEETS (ROAD)

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

LEGEND OF CROSS SECTION SHEETS (SOILS)

- TS — Topsoil (Class 10)
- TS A — Topsoil (Type A Disposal)
- TS B — Topsoil (Type B Disposal)
- TS C — Topsoil (Type C Disposal)
- CL 10 — Class 10 Materials
- SEL LO — Select Loams And Clay-Loams
- SEL SA — Select Sand
- UNS A — Unsuitable Type A Disposal
- UNS B — Unsuitable Type B Disposal
- UNS C — Unsuitable Type C Disposal
- SHALE — Shale
- WASTE — Waste
- B&W LS — Broken and Weathered Rock
- ROCK — Solid Rock
- BLDRS — Boulders

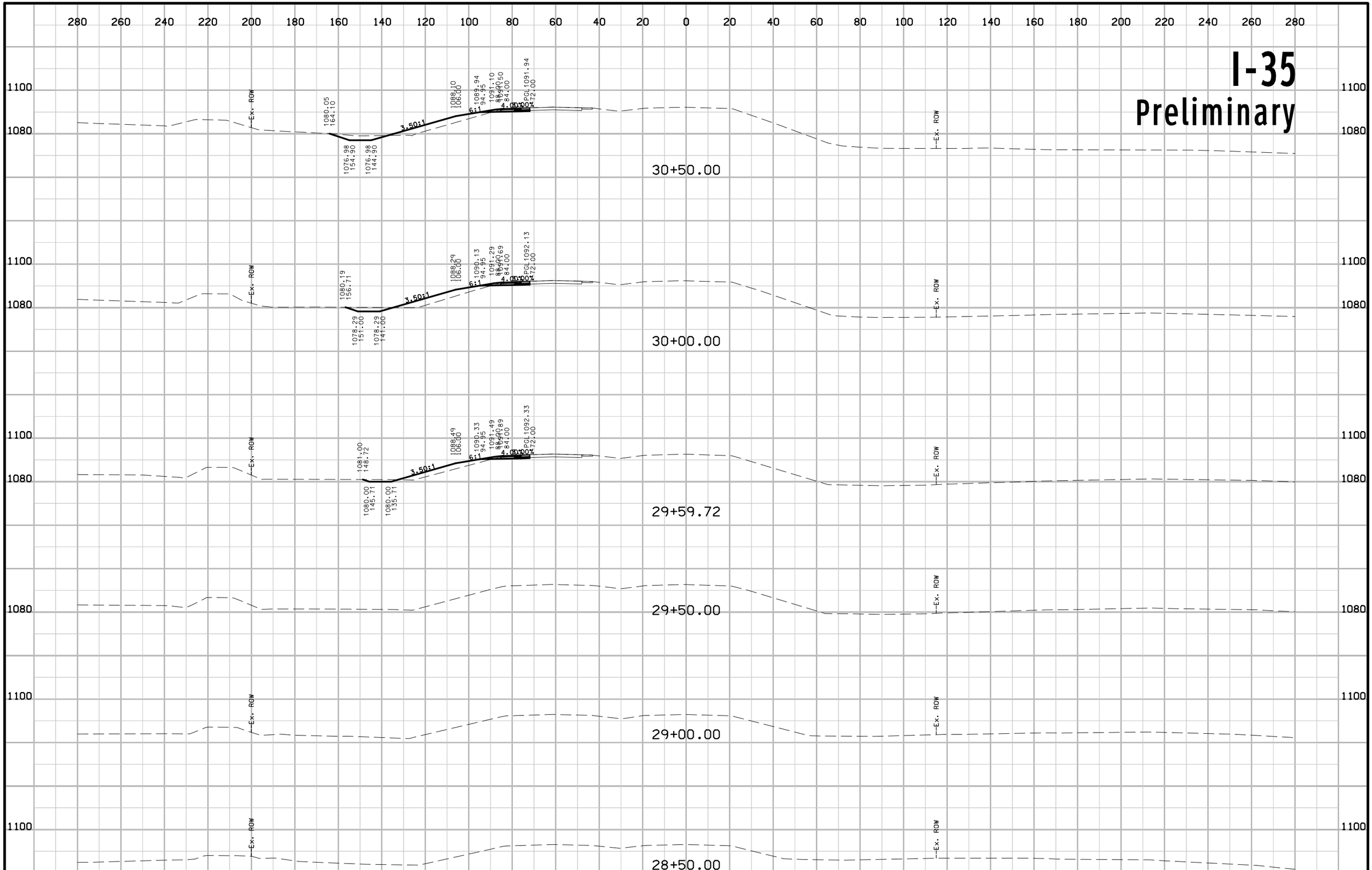
Note: All layer lines and descriptions identify layers above the line.

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

CROSS SECTION LEGEND AND SYMBOL INFORMATION SHEET

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

I-35
Preliminary



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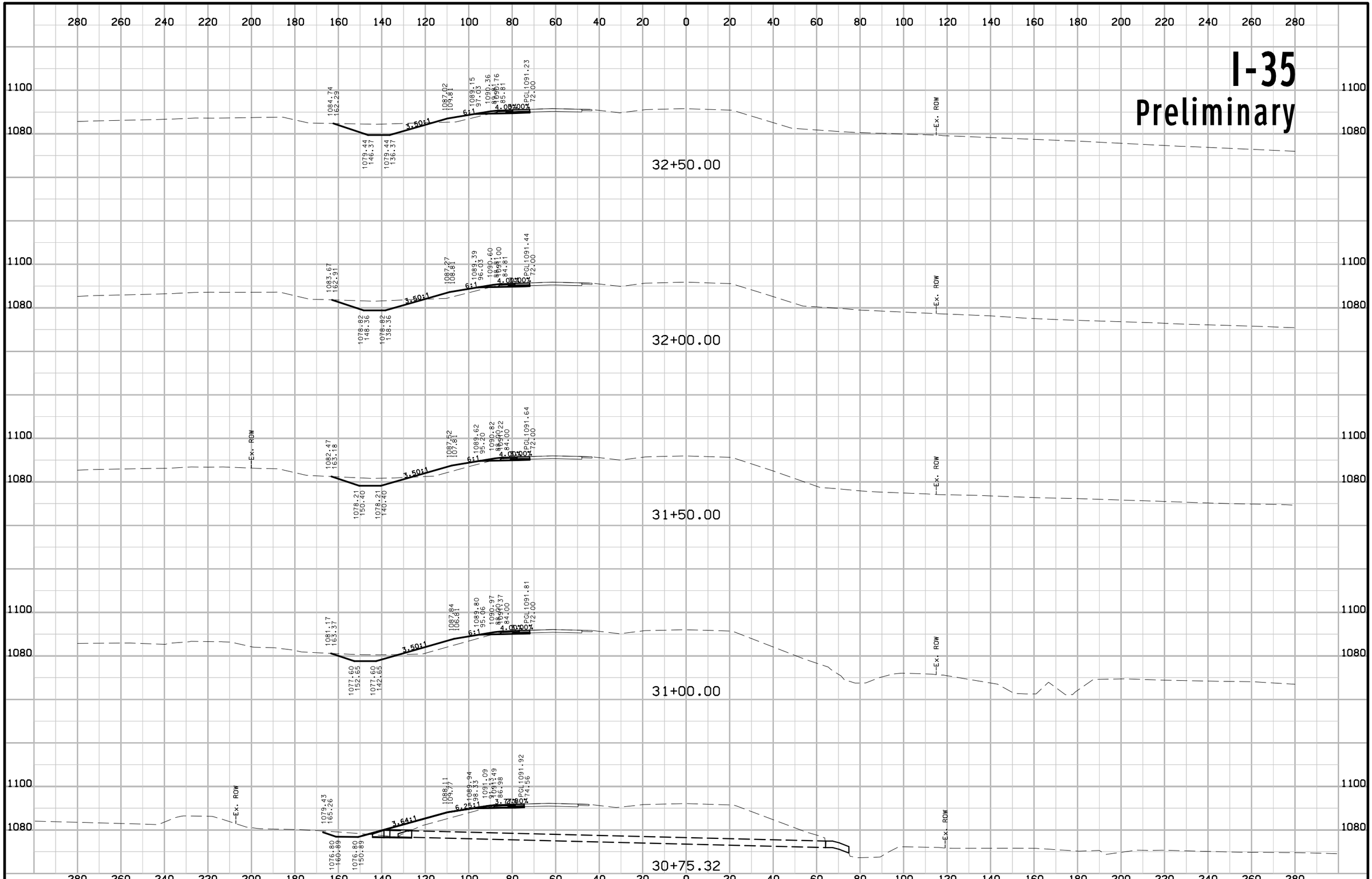
I-35
Preliminary



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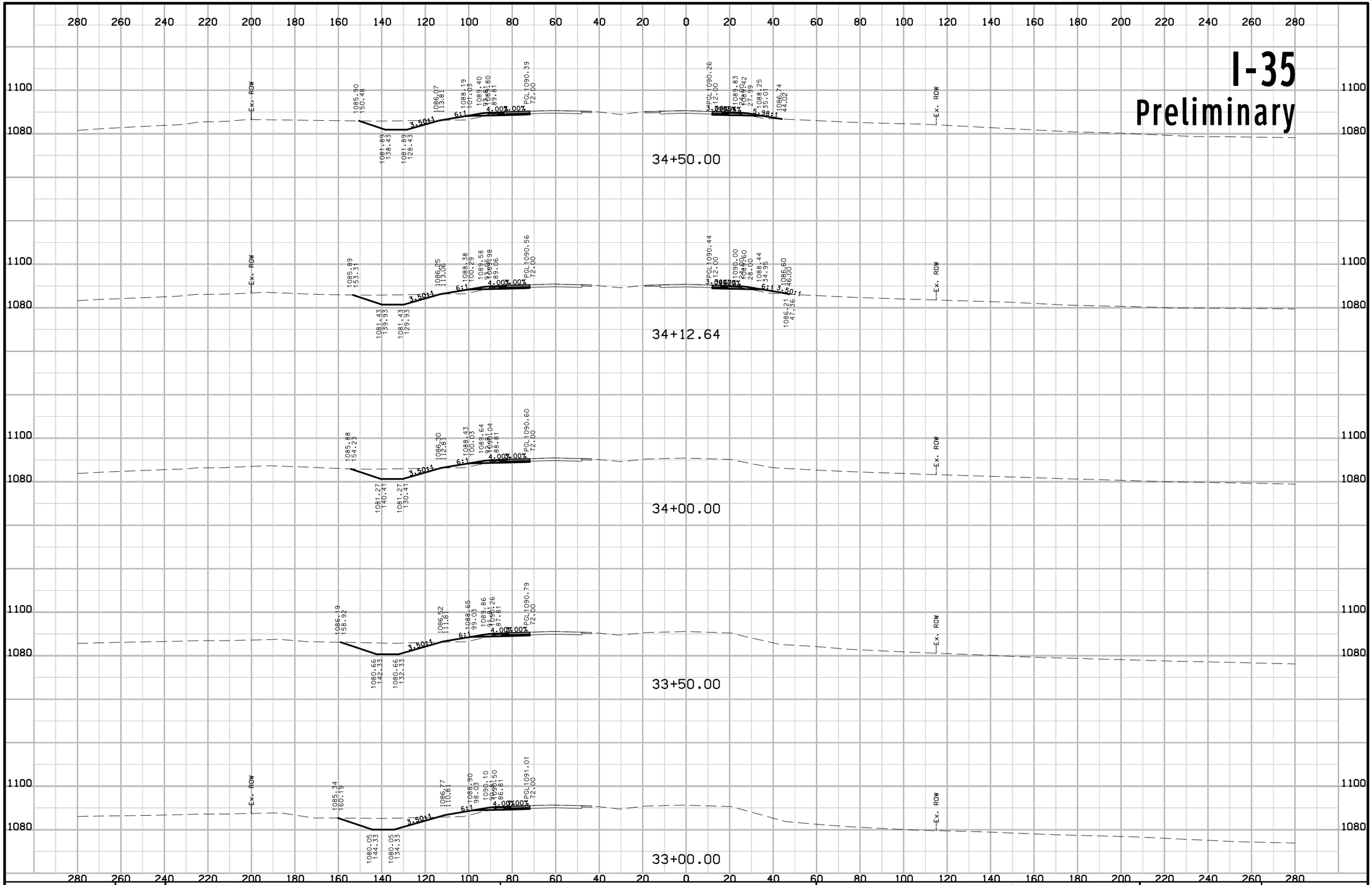
I-35
Preliminary



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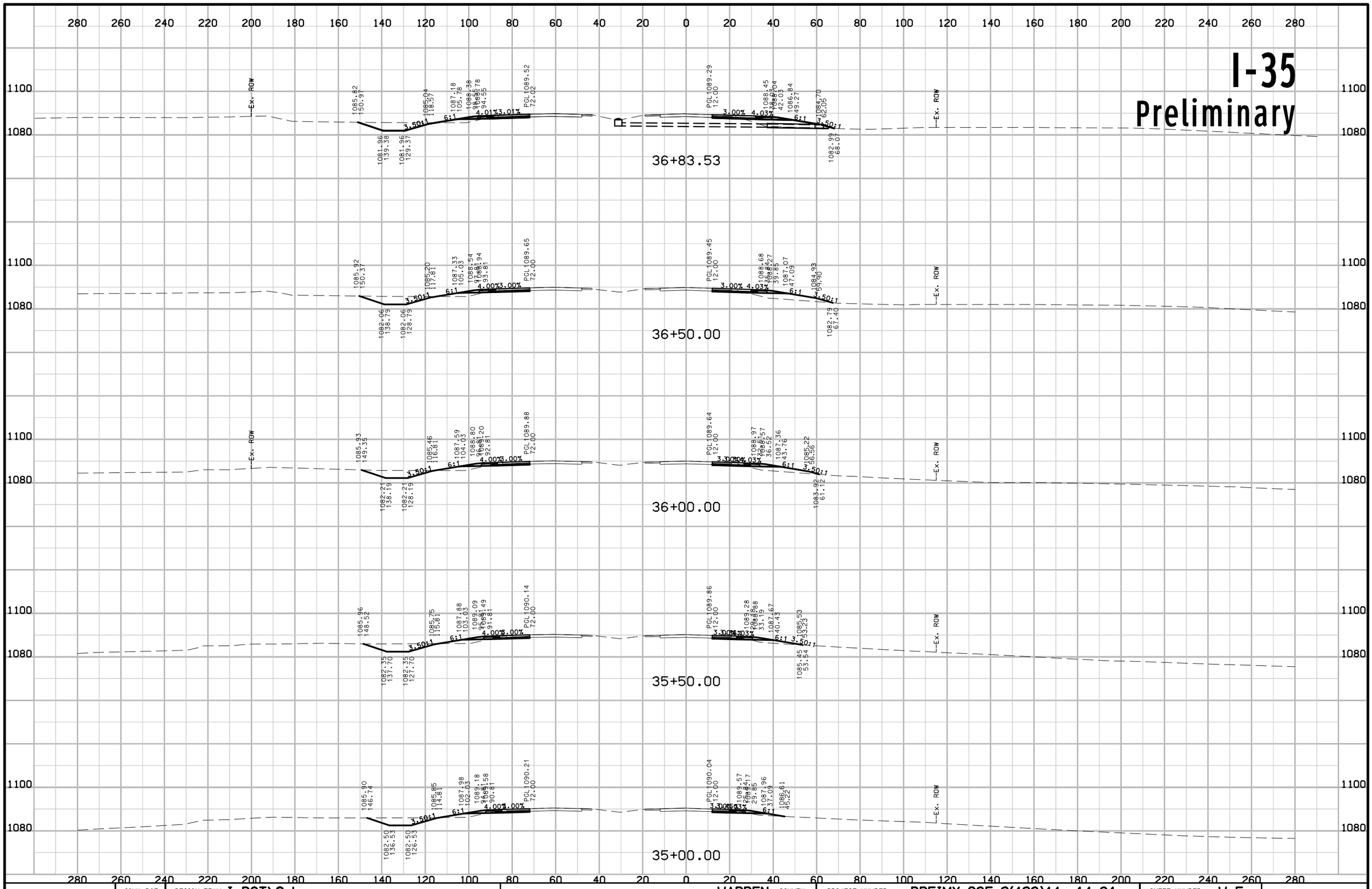
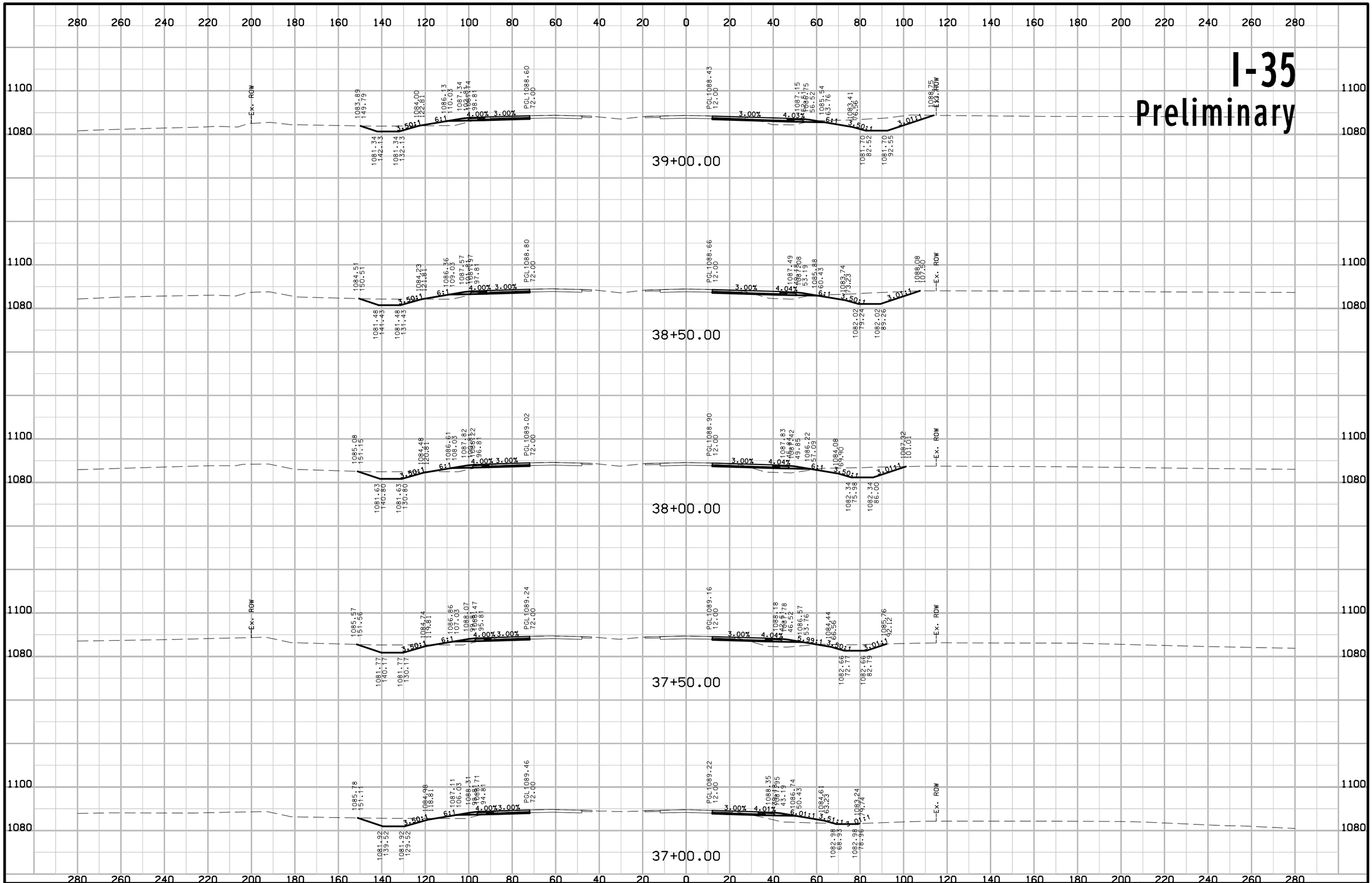
I-35
Preliminary



I-35
Preliminary



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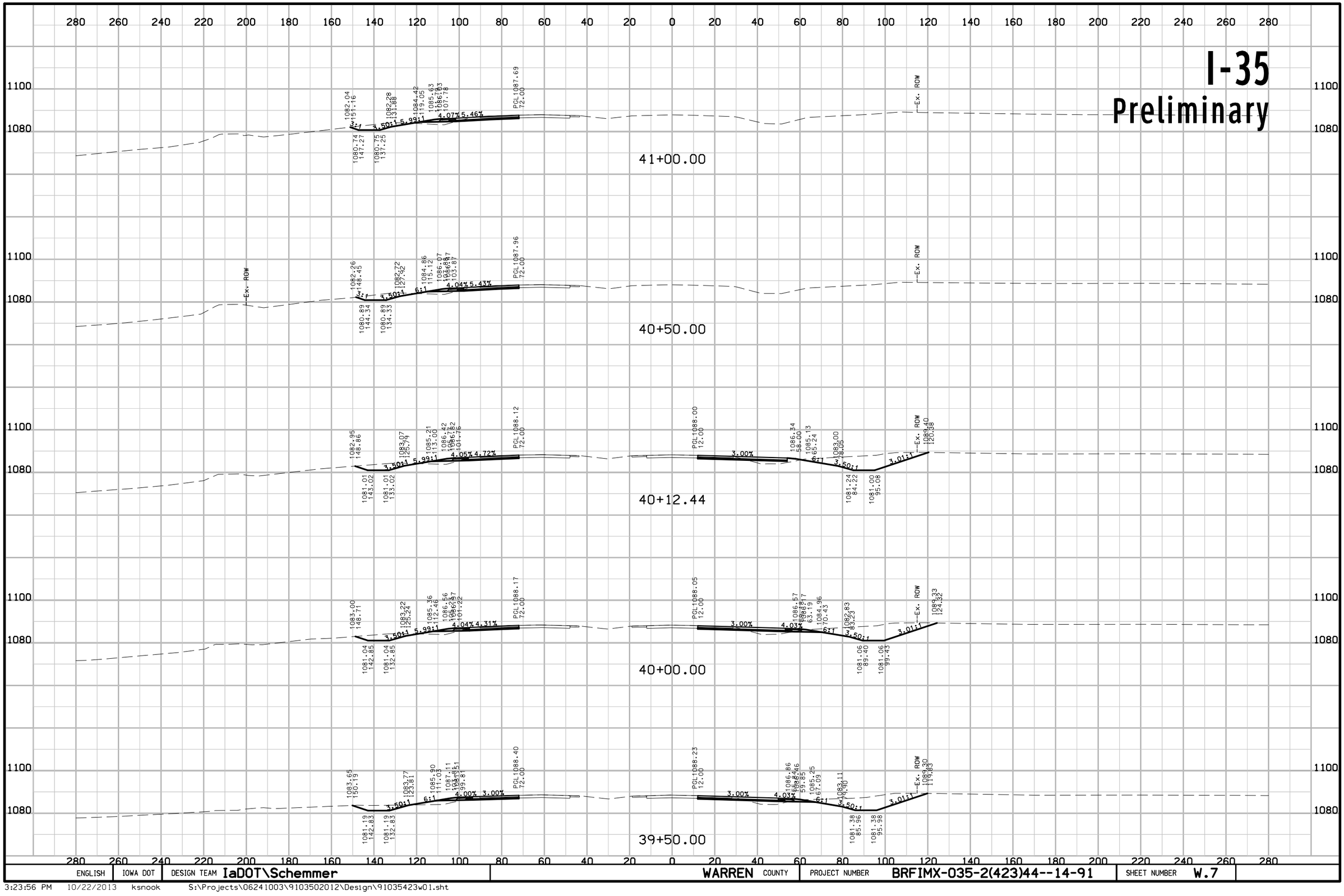
I-35
Preliminary



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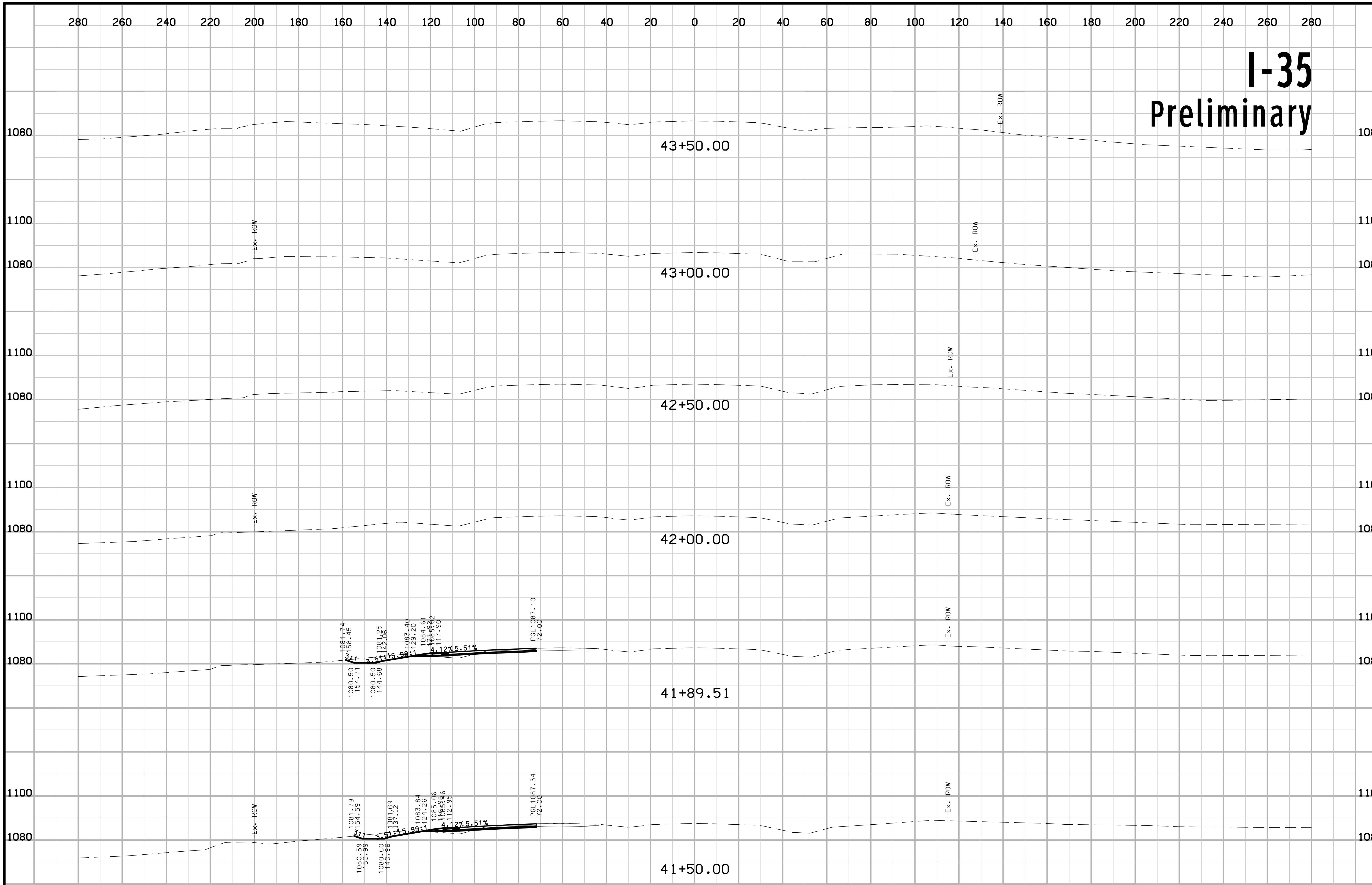

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I-35

Preliminary

46+39.77

46+00.00

45+50.00

45+00.00

44+50.00

44+00.00

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.9	

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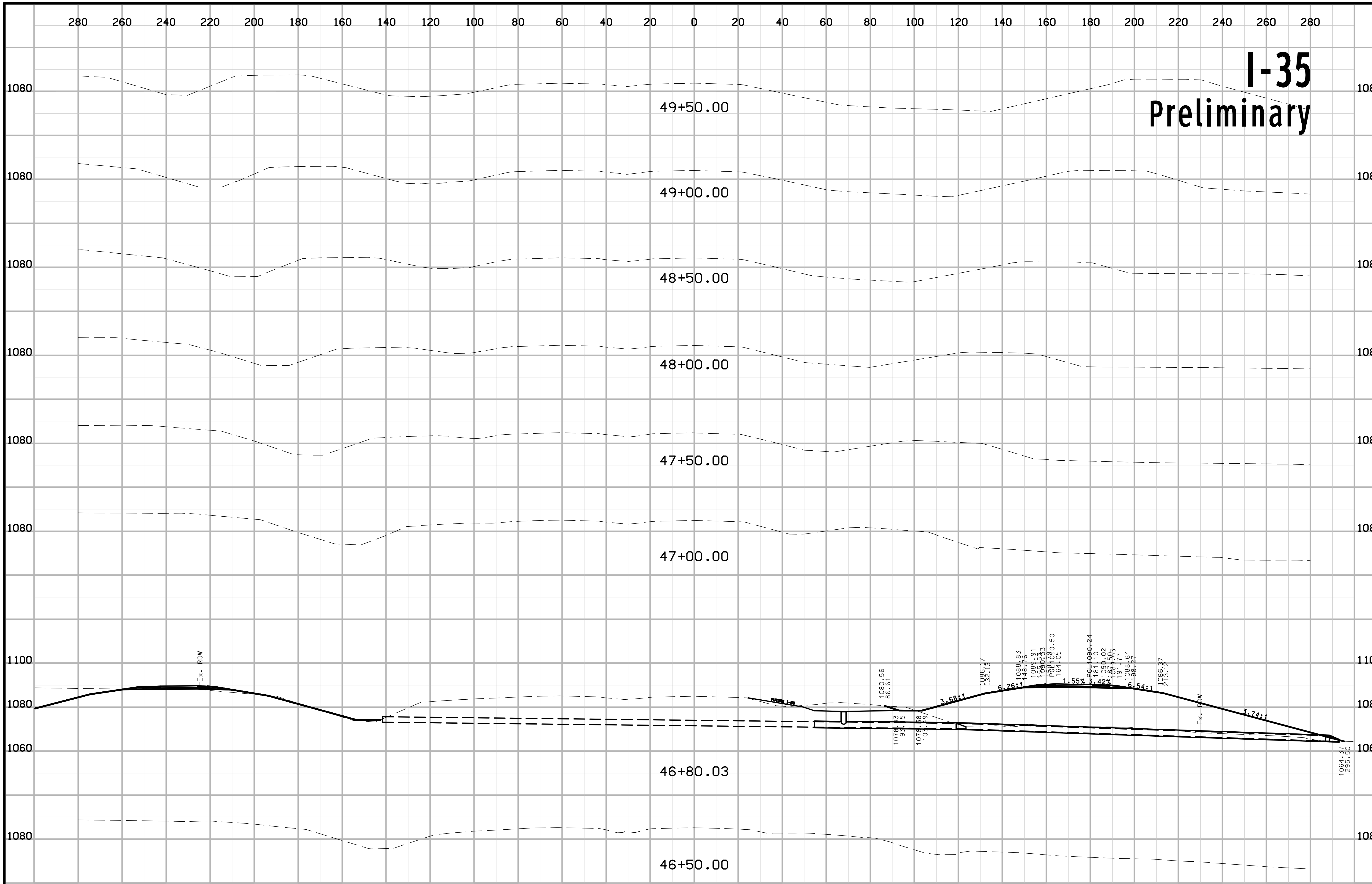

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I-35
Preliminary

280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

53+50.00

53+00.00

52+50.00

1080

52+00.00

1080

1080

51+50.00

1080

1080

51+06.34

1080

1080

51+00.00

1080

1080

50+50.00

1080

1080

50+00.00

1080

280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.11	

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I-35
Preliminary

280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

1100 1080

Ex. ROW

58+00.00

57+50.00

57+00.00

56+50.00

56+00.00

55+50.00

55+00.00

54+50.00

54+00.00

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.12

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I-35
Preliminary

60+00.32

60+00.00

59+50.00

59+00.00

58+50.00

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.13	

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I-35
Preliminary

280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

1080
1060

Ex. ROW

62+50.00

62+00.00

61+50.00

61+00.00

60+50.00

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.14

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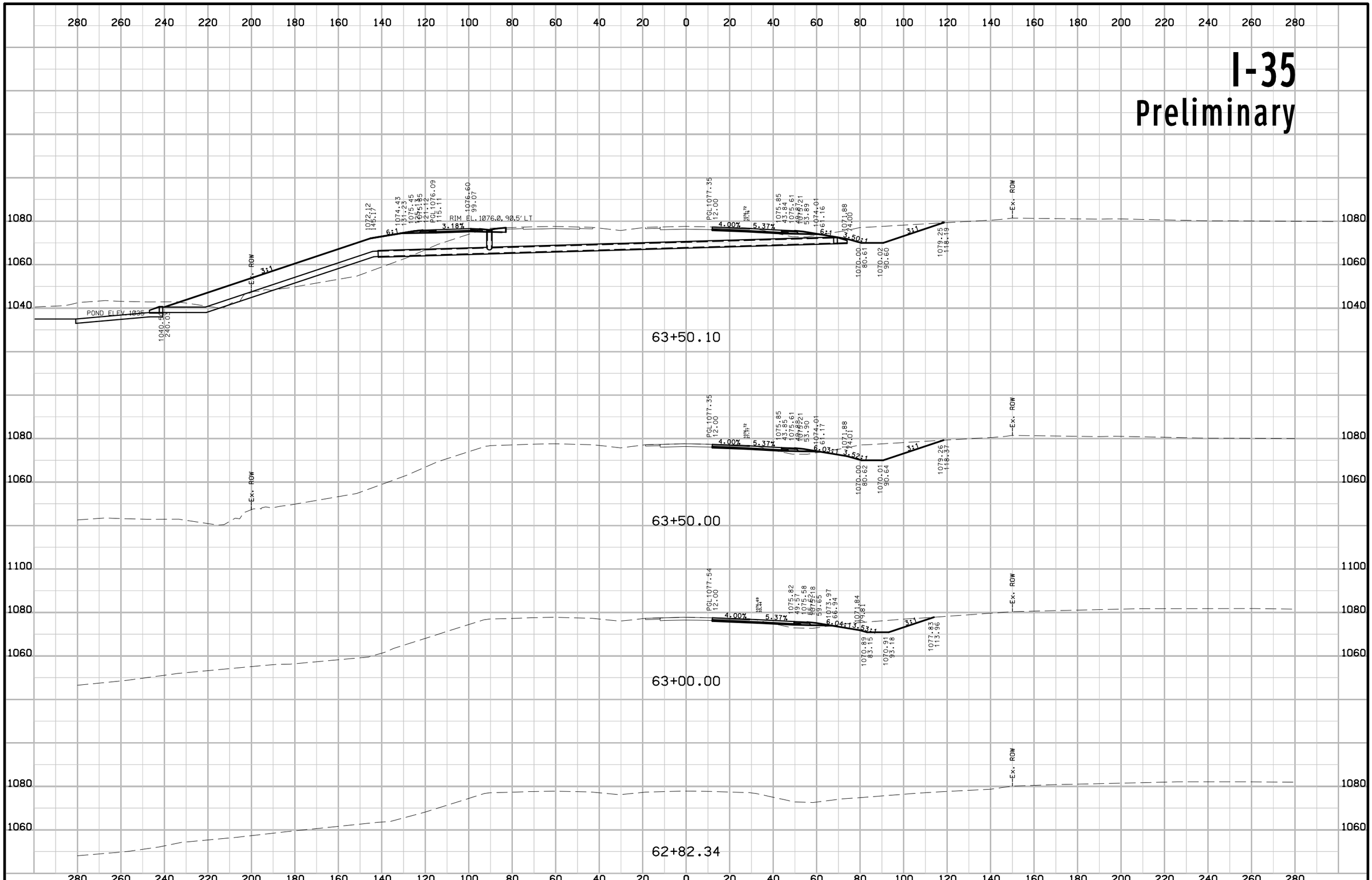
I-35
Preliminary



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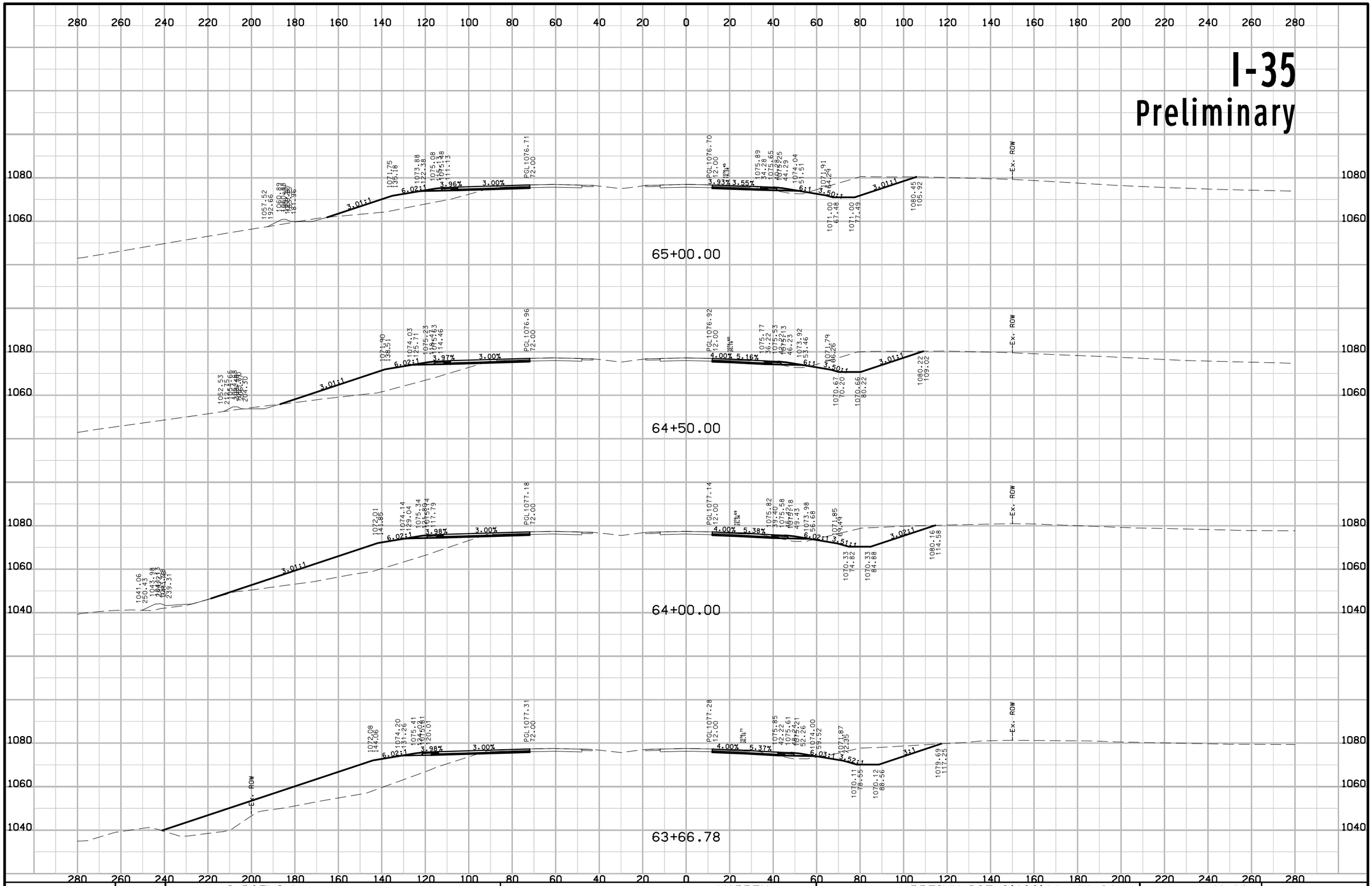
I-35
Preliminary



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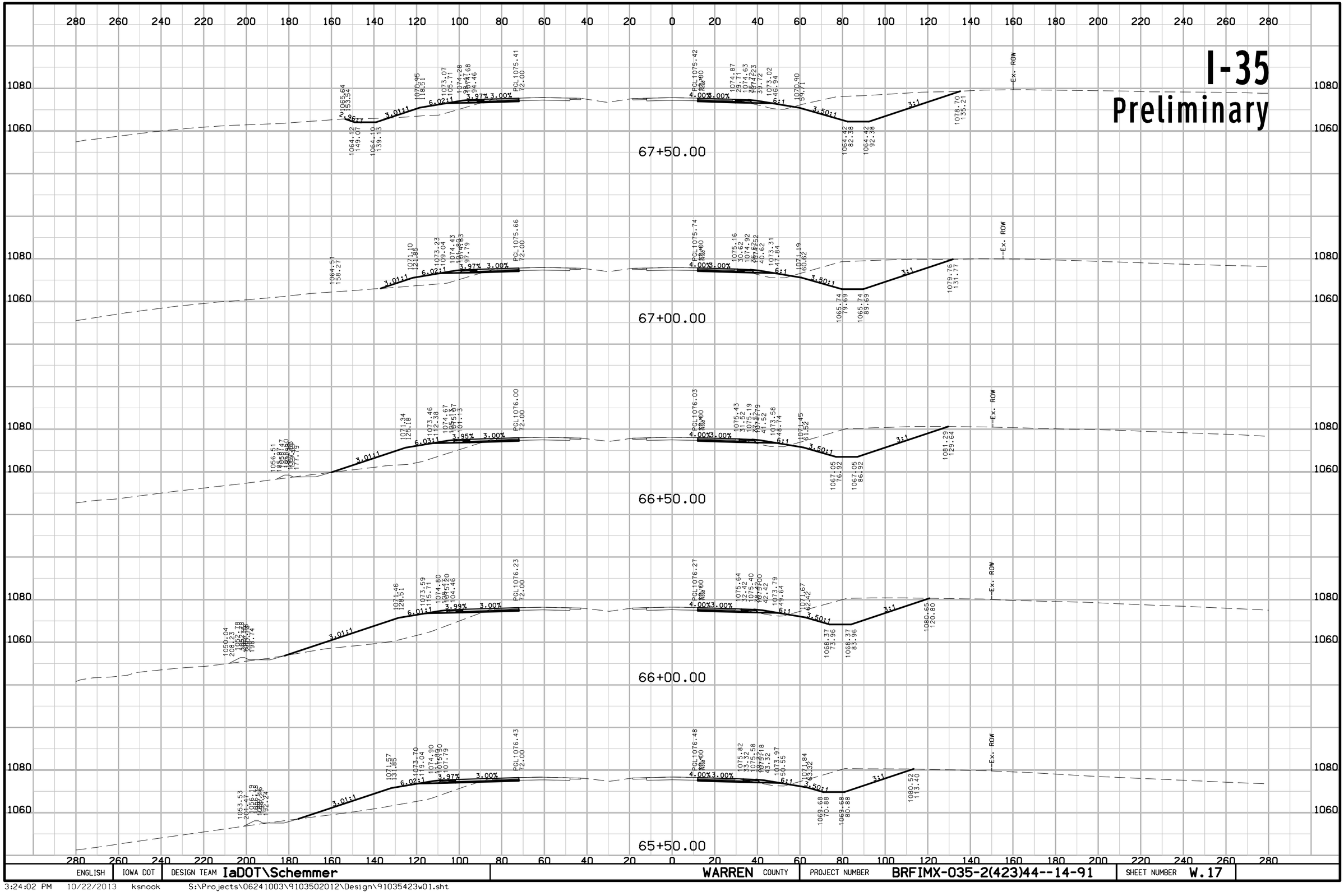
I-35

Preliminary



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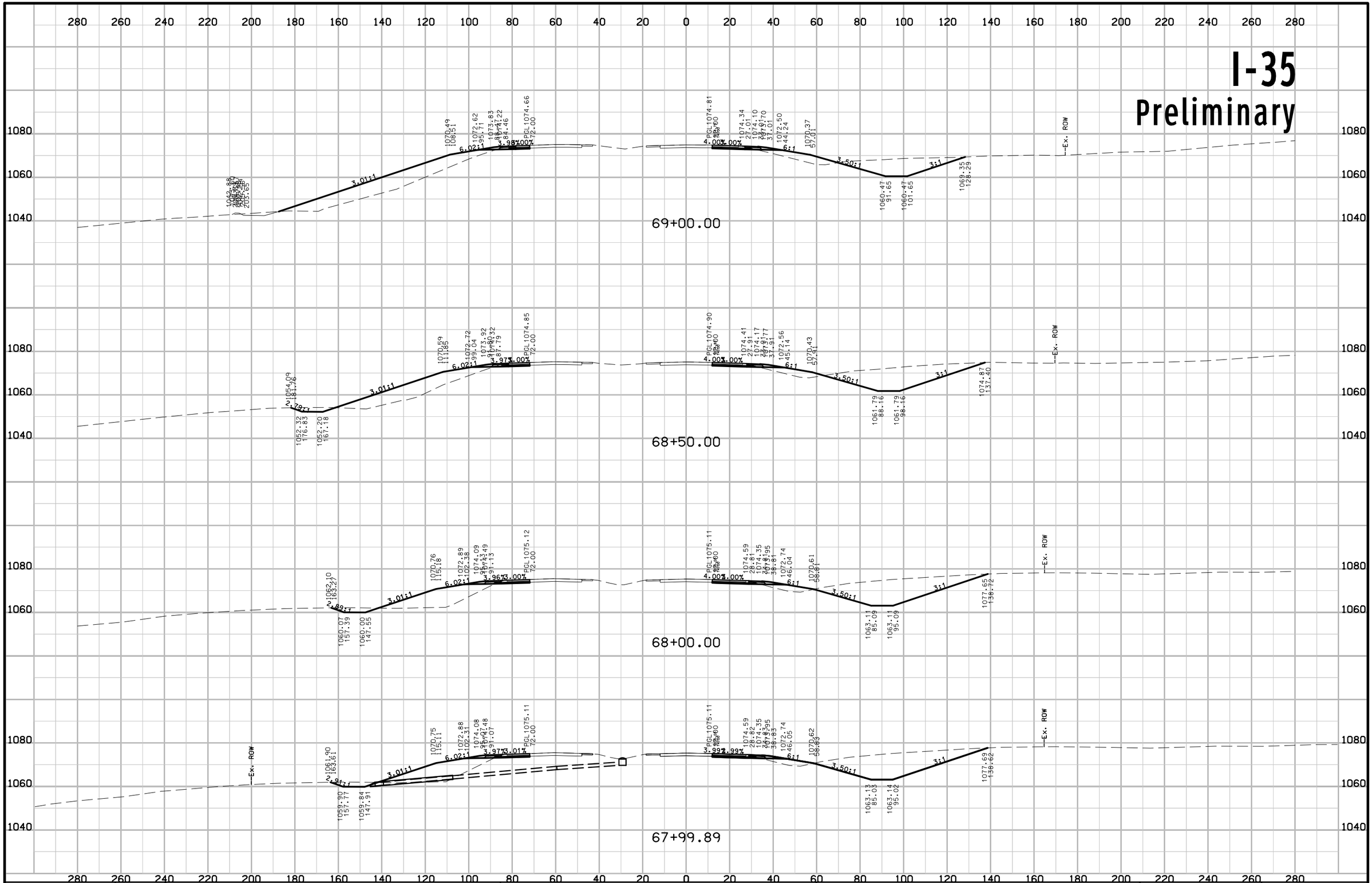
I-35
Preliminary



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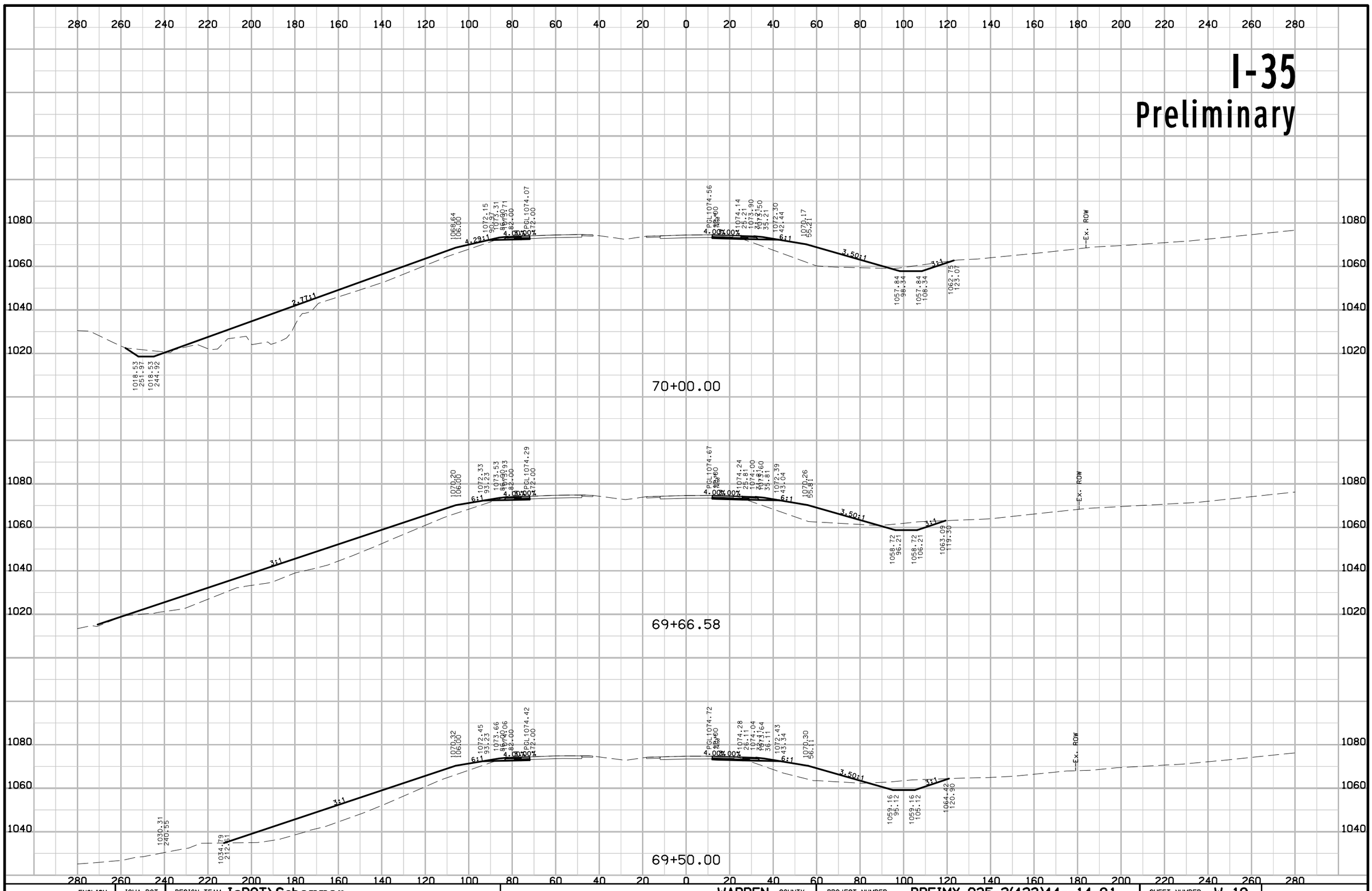
I-35
Preliminary



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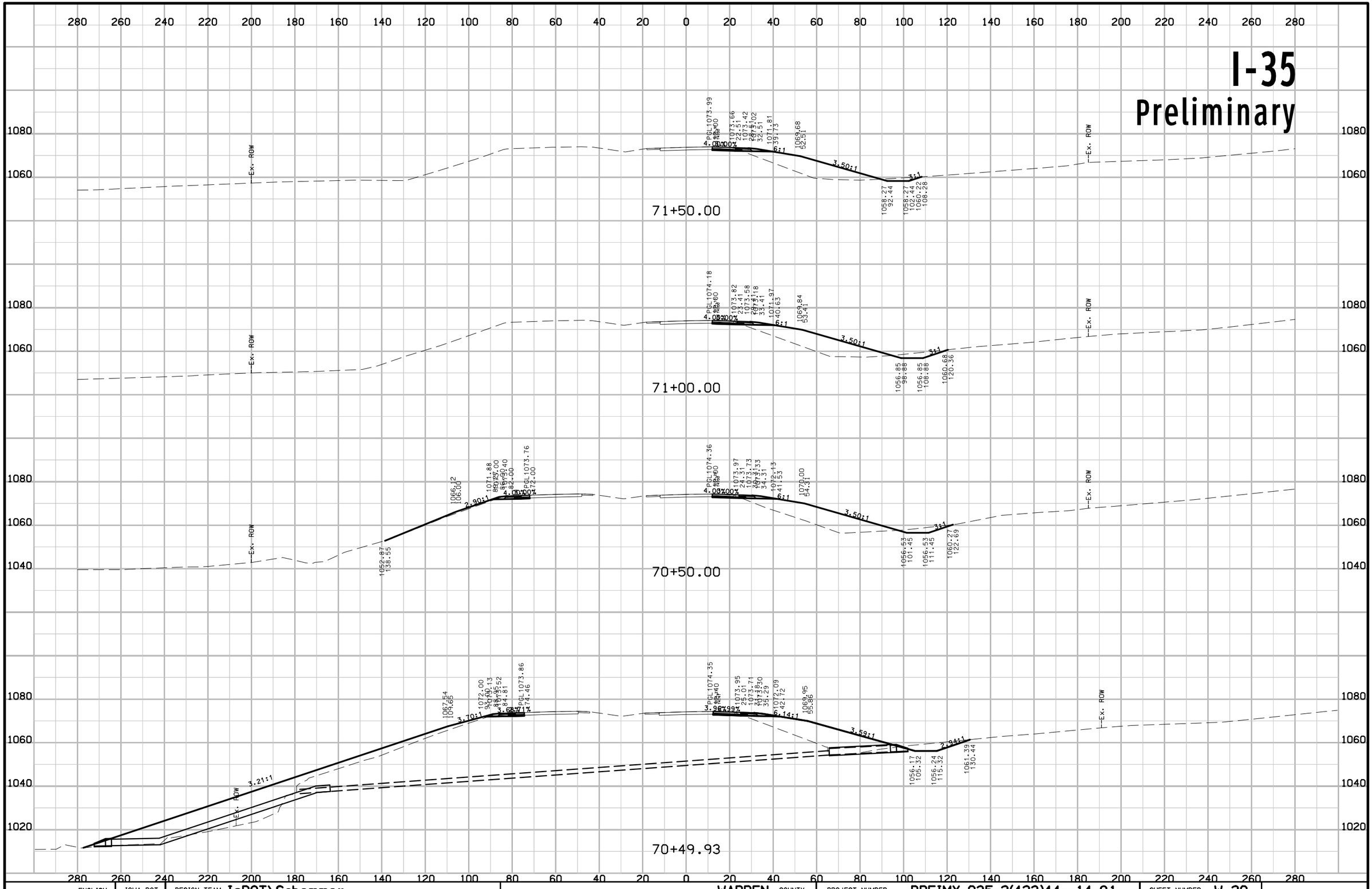
I-35
Preliminary



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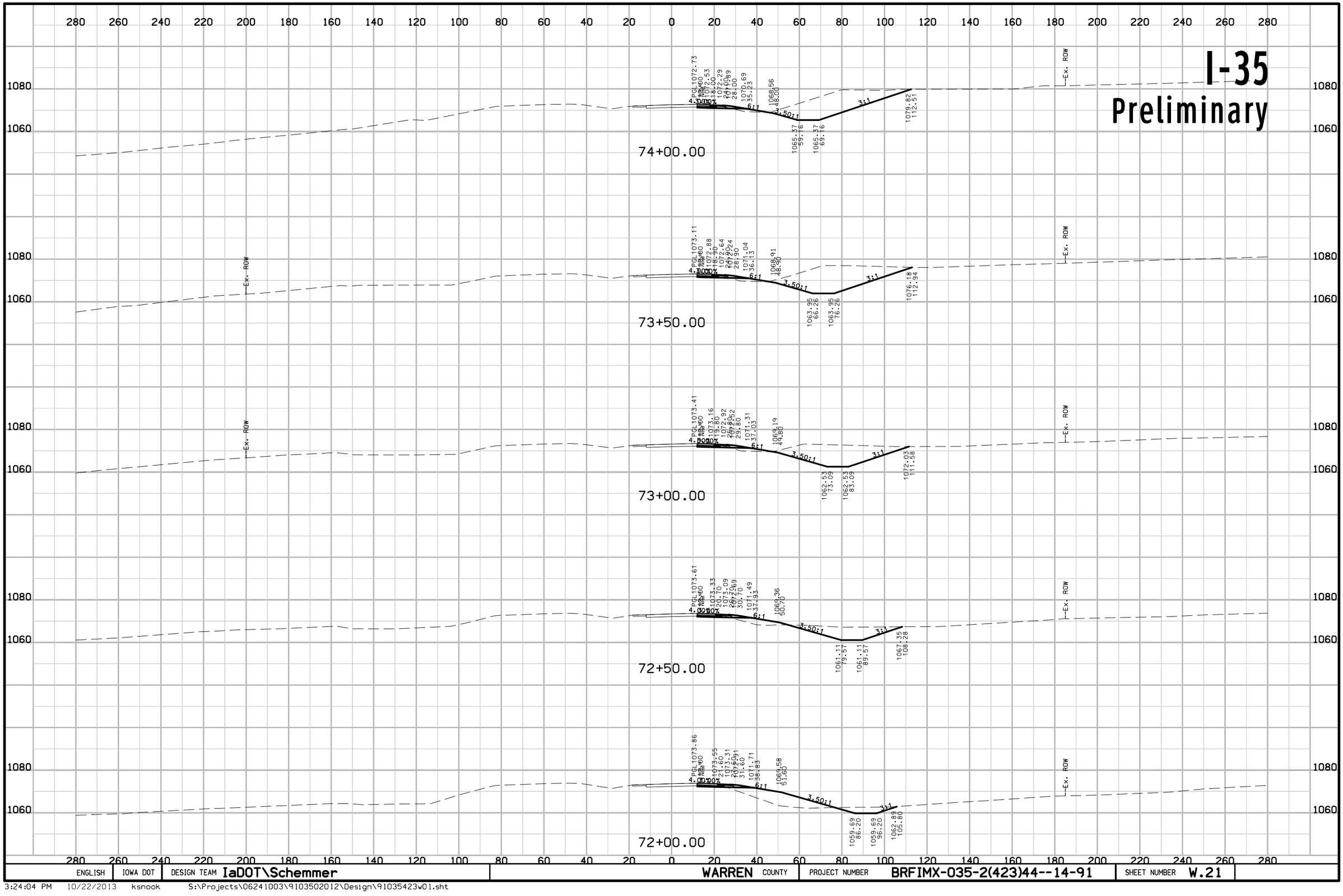
I-35
Preliminary



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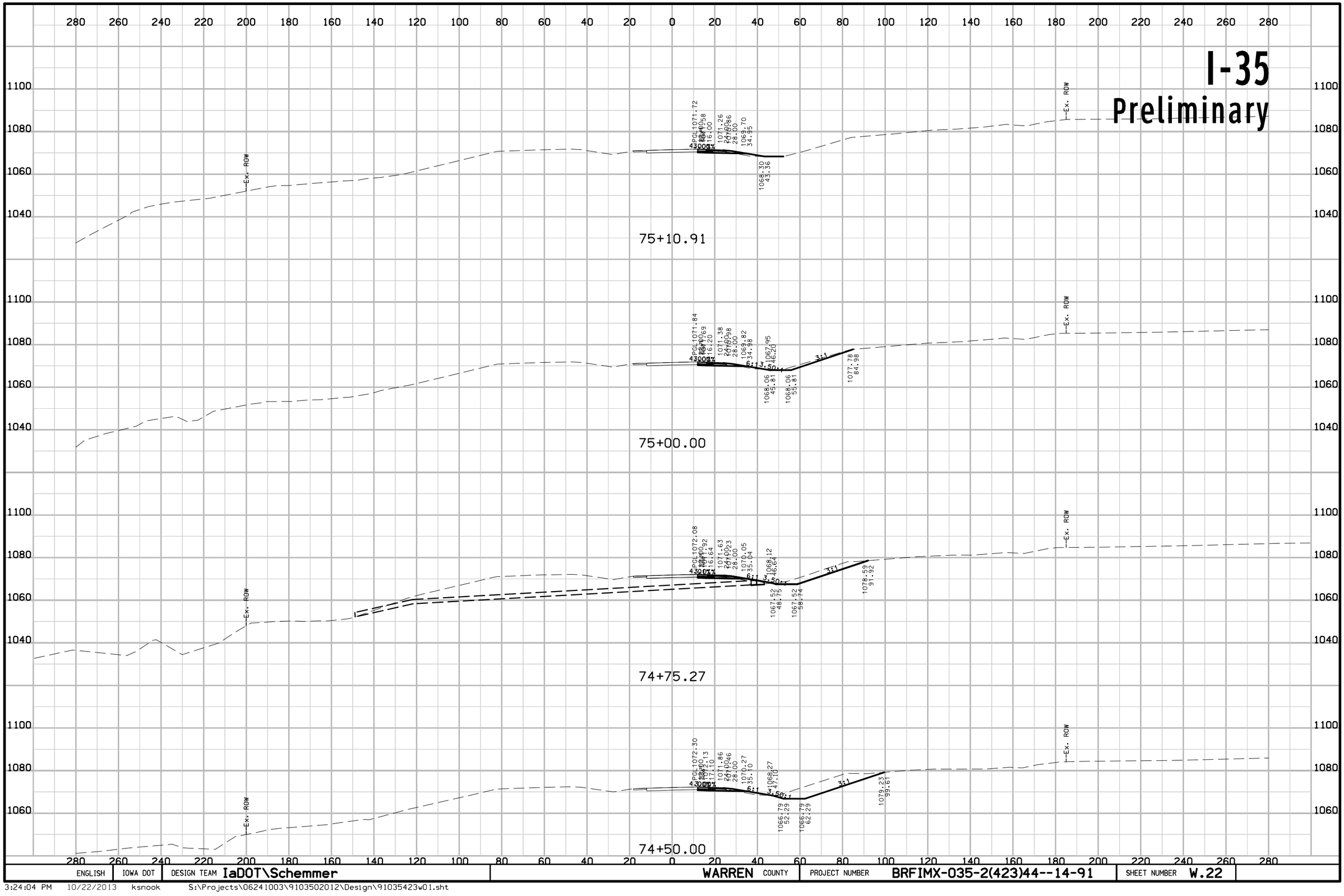
I-35
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.22

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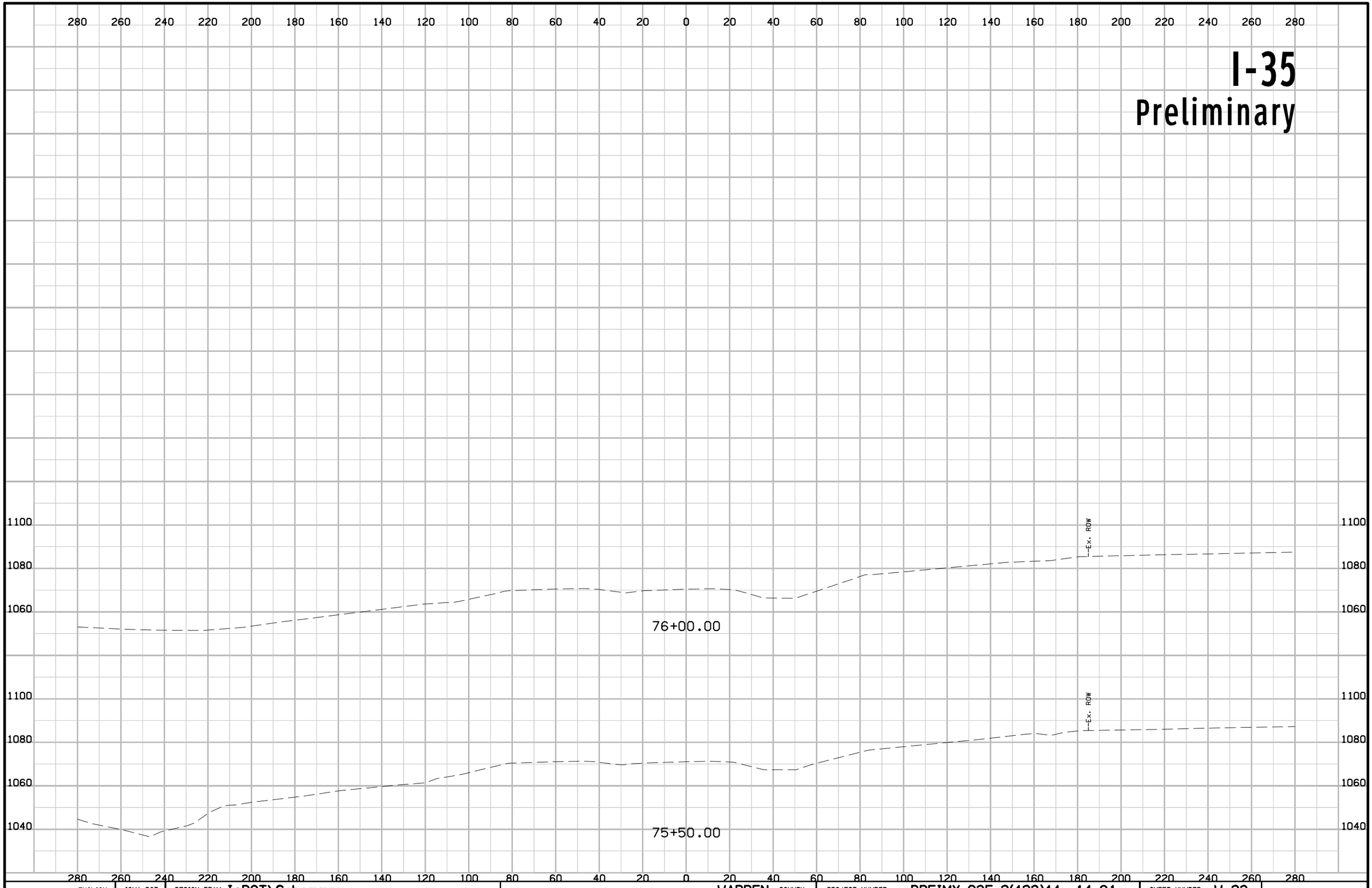
I-35
Preliminary



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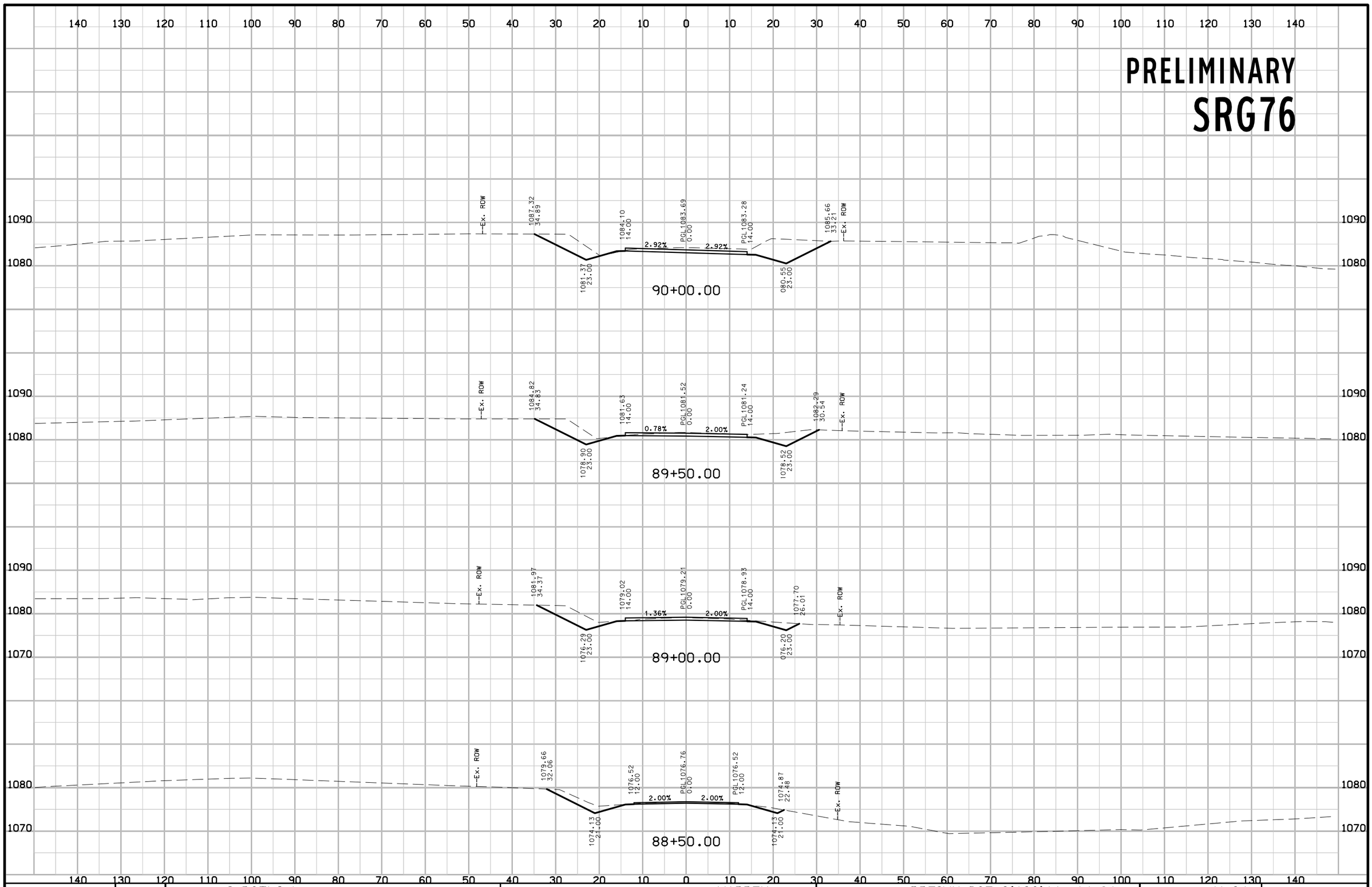
PRELIMINARY

SRG76



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PRELIMINARY
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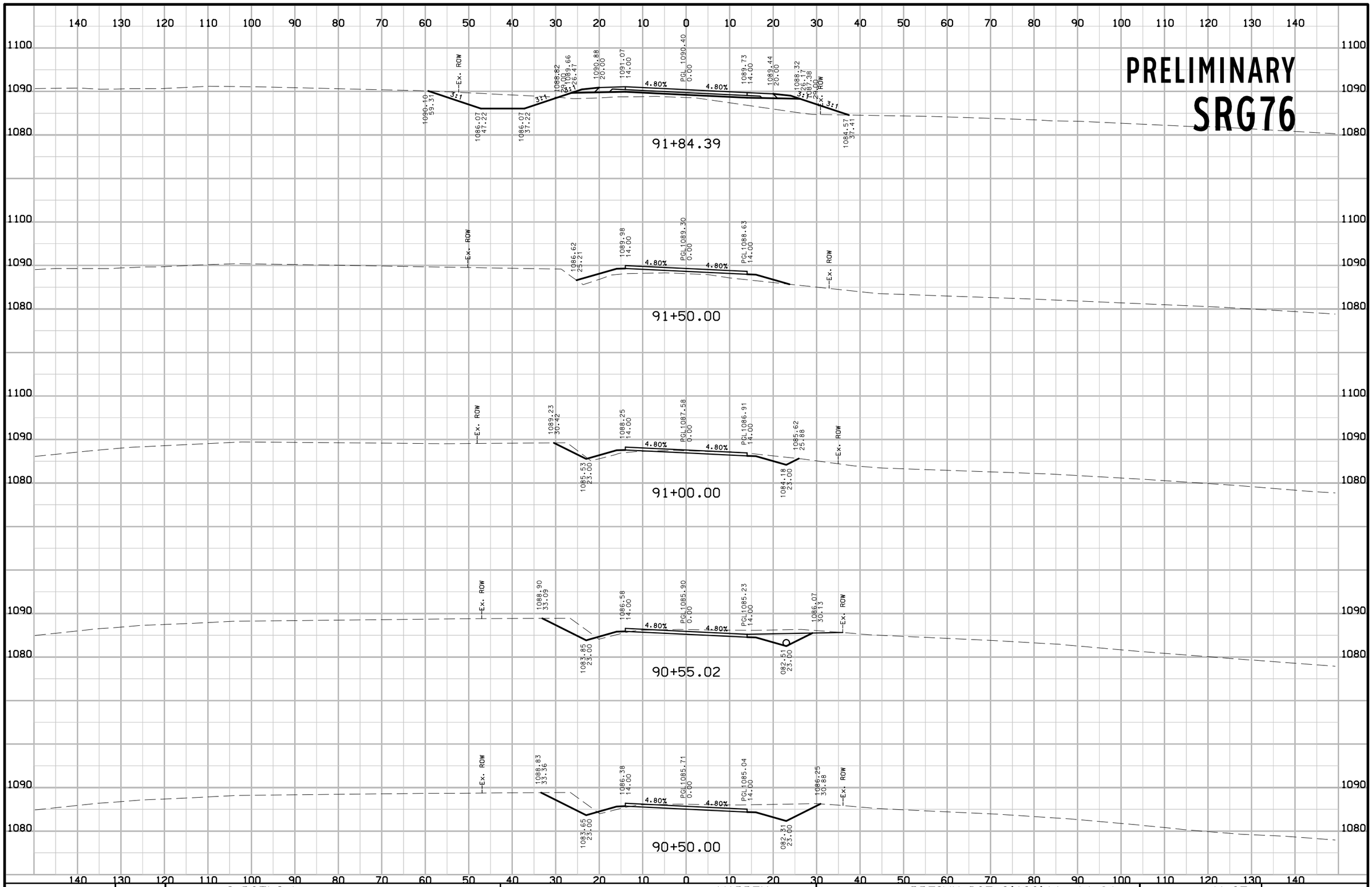

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.25

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PRELIMINARY

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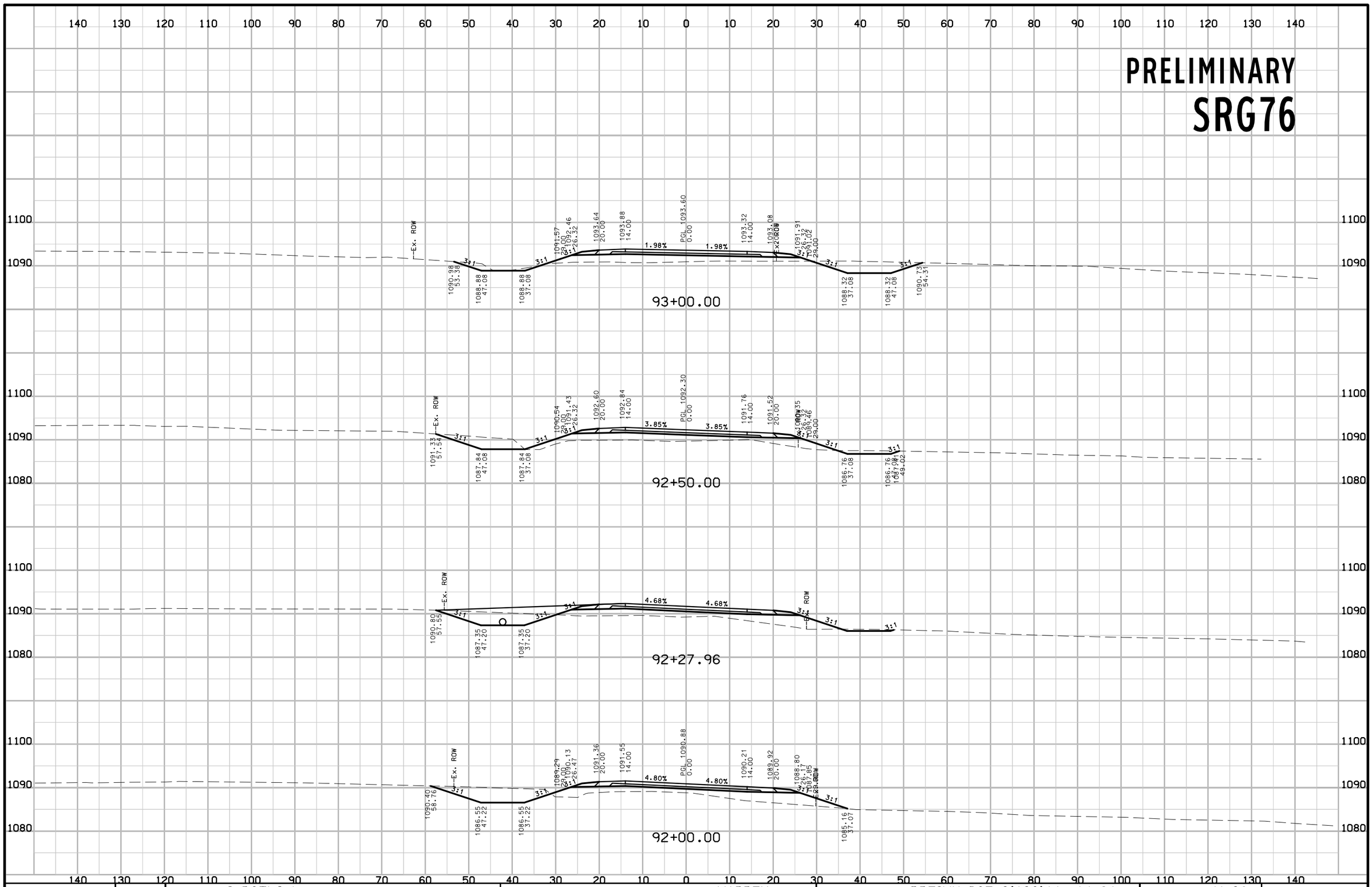

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PRELIMINARY
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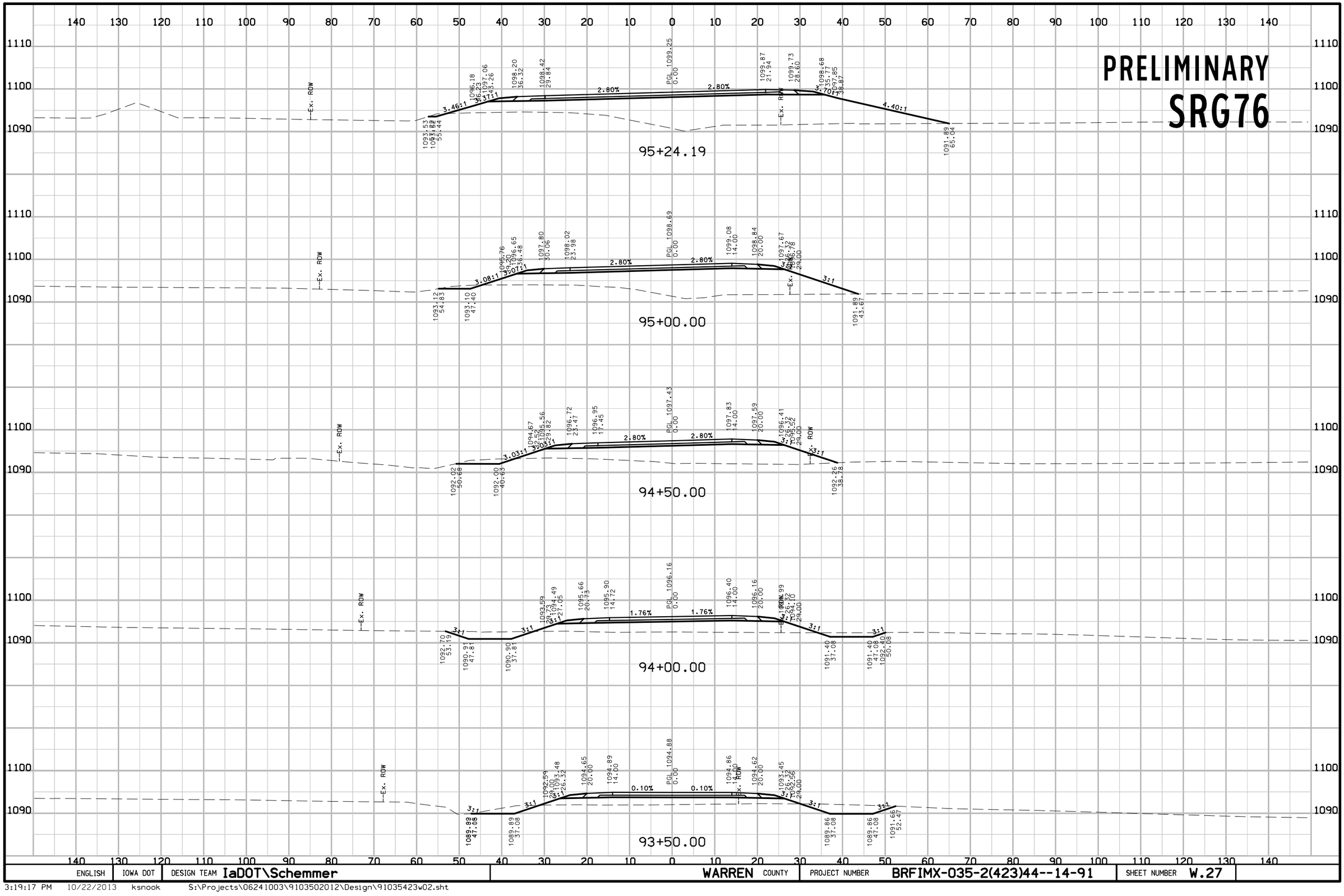

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.27

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PRELIMINARY

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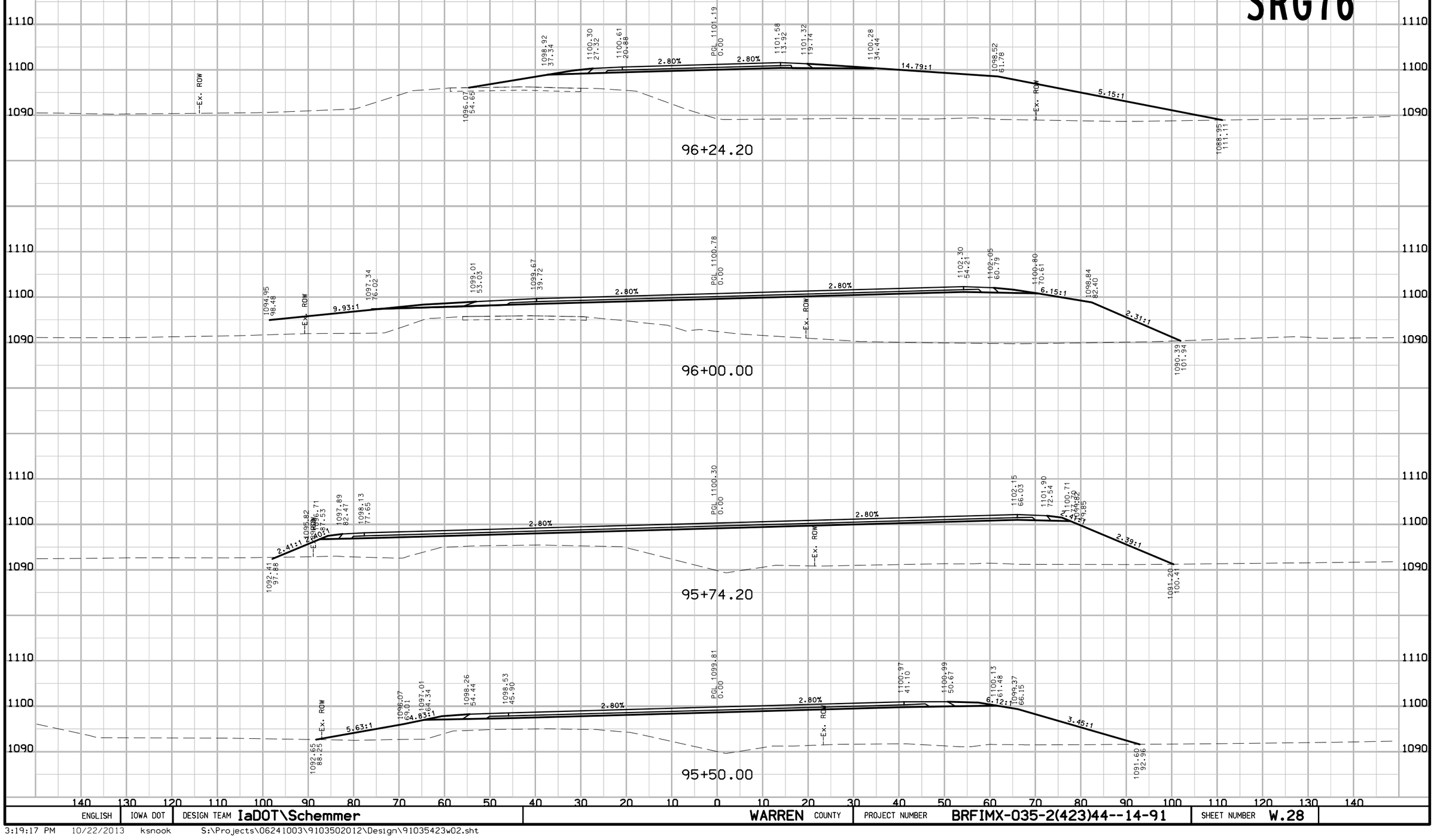

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.28

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PRELIMINARY

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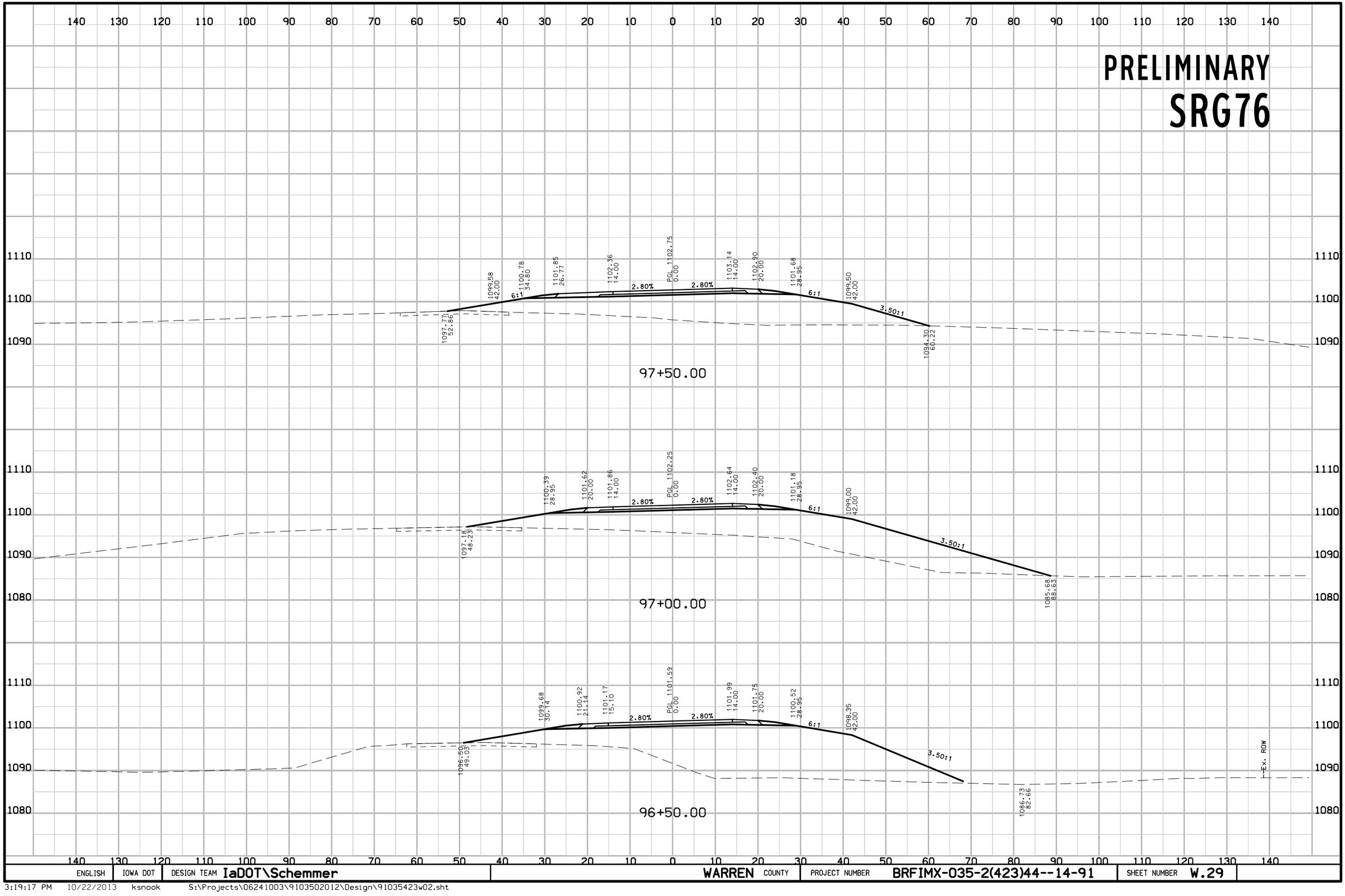

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.29

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PRELIMINARY

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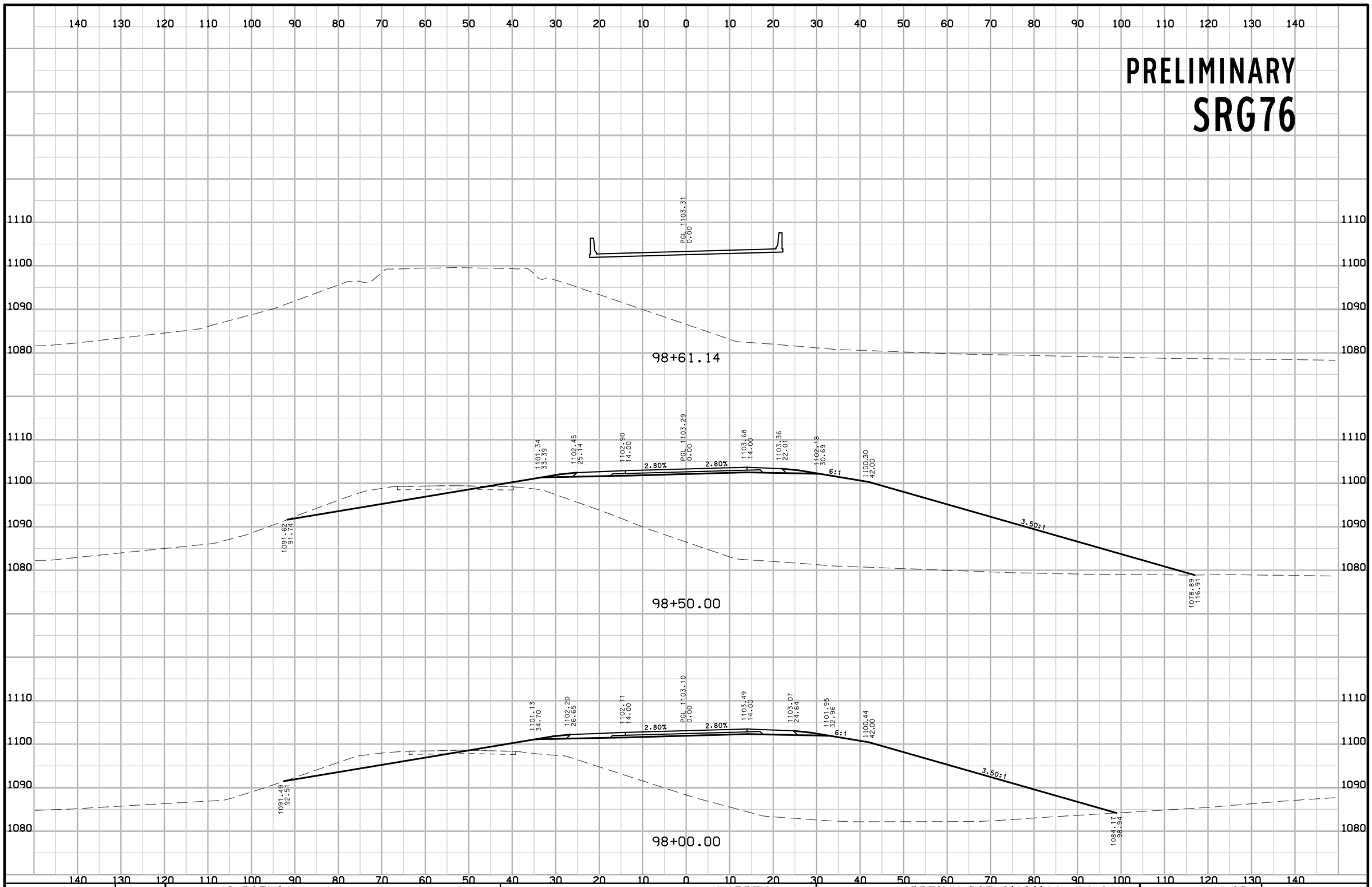

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PRELIMINARY

SRG76

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

1110
1100
1090

PGL 1102.93
0.00

100+00.00

PGL 1103.21
0.00

99+50.00

PGL 1103.33
0.00

99+00.00

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.31

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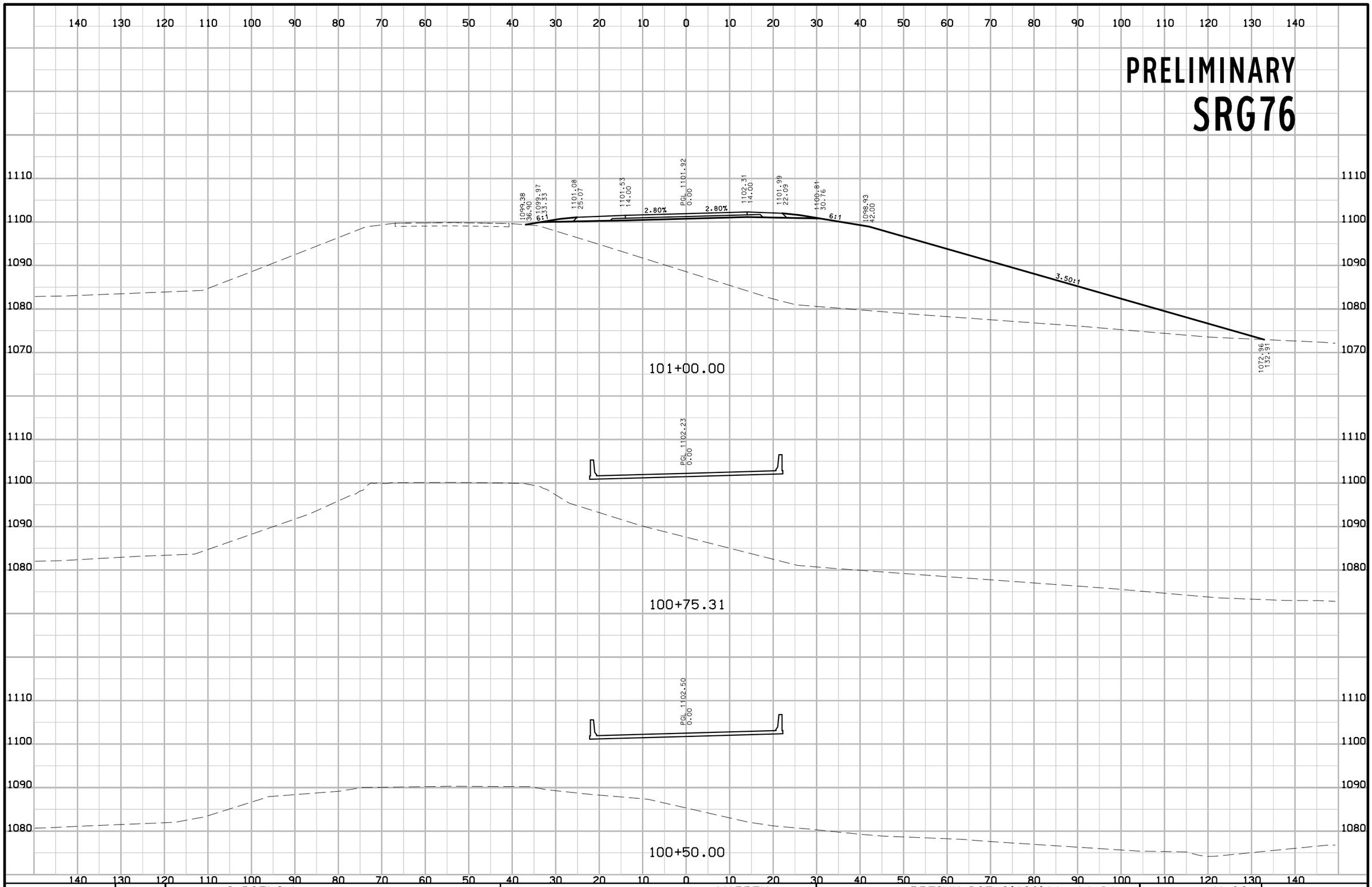
PRELIMINARY

SRG76



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.32

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PRELIMINARY

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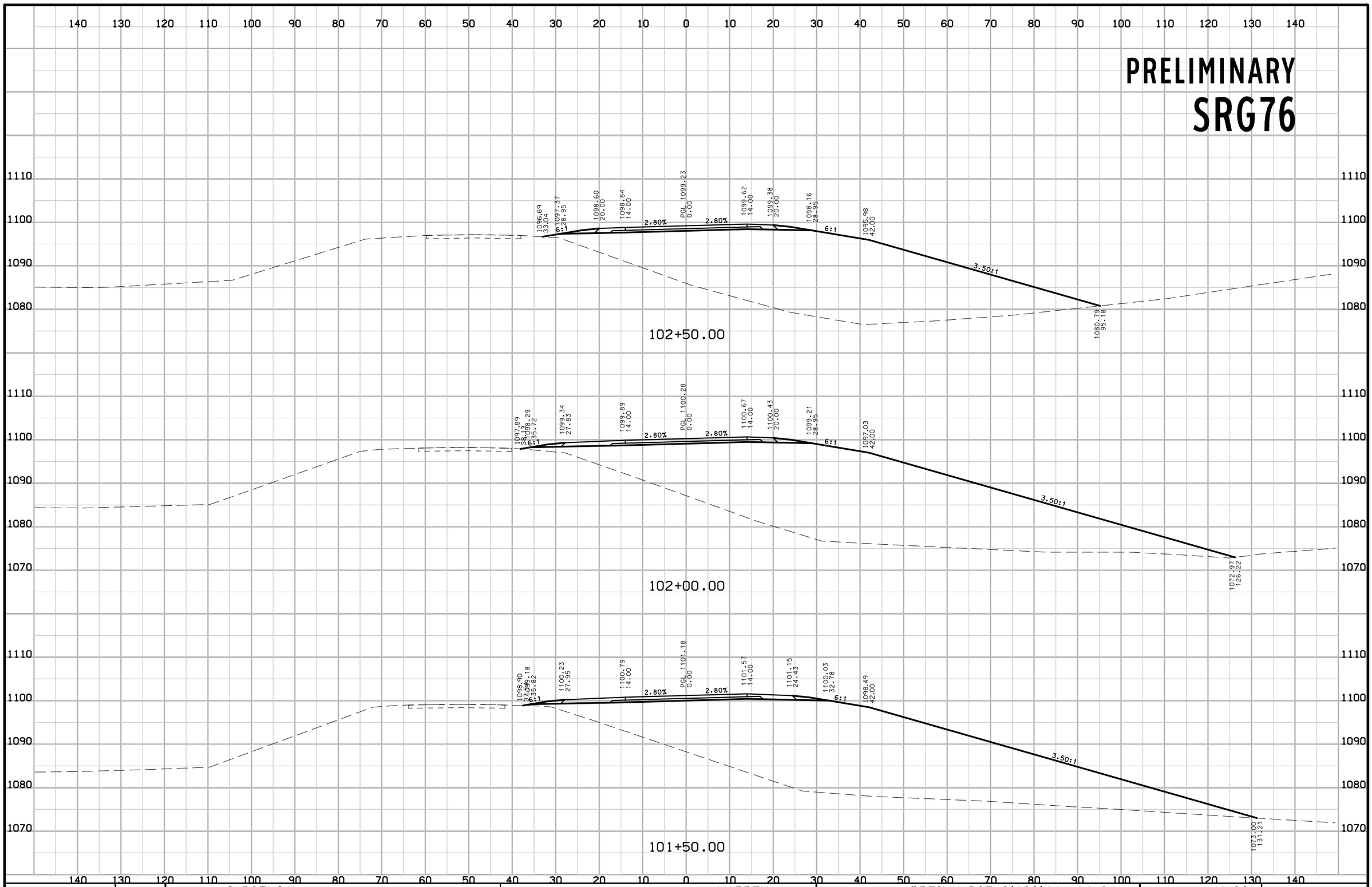

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.33

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PRELIMINARY

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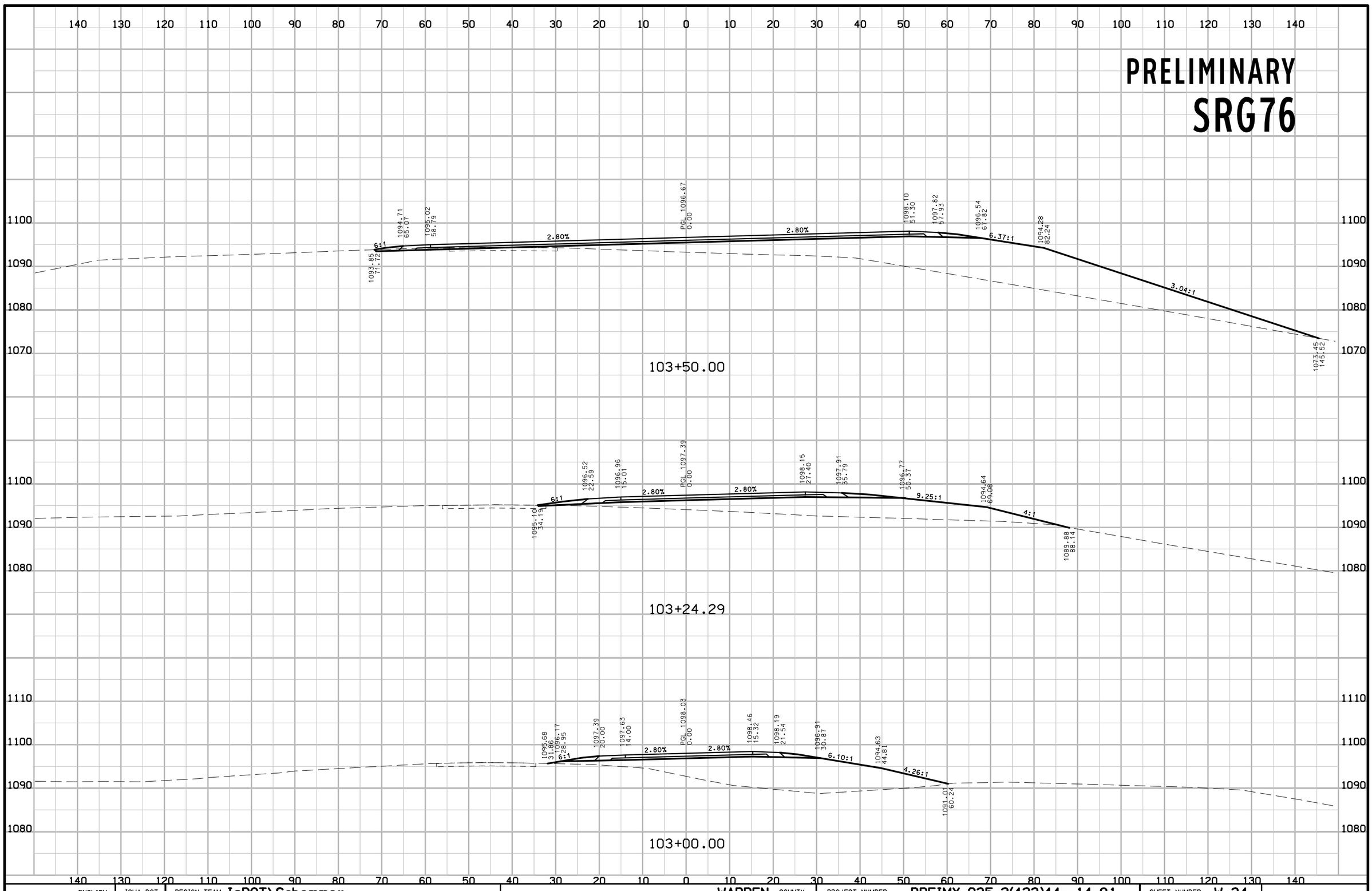

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.34

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PRELIMINARY

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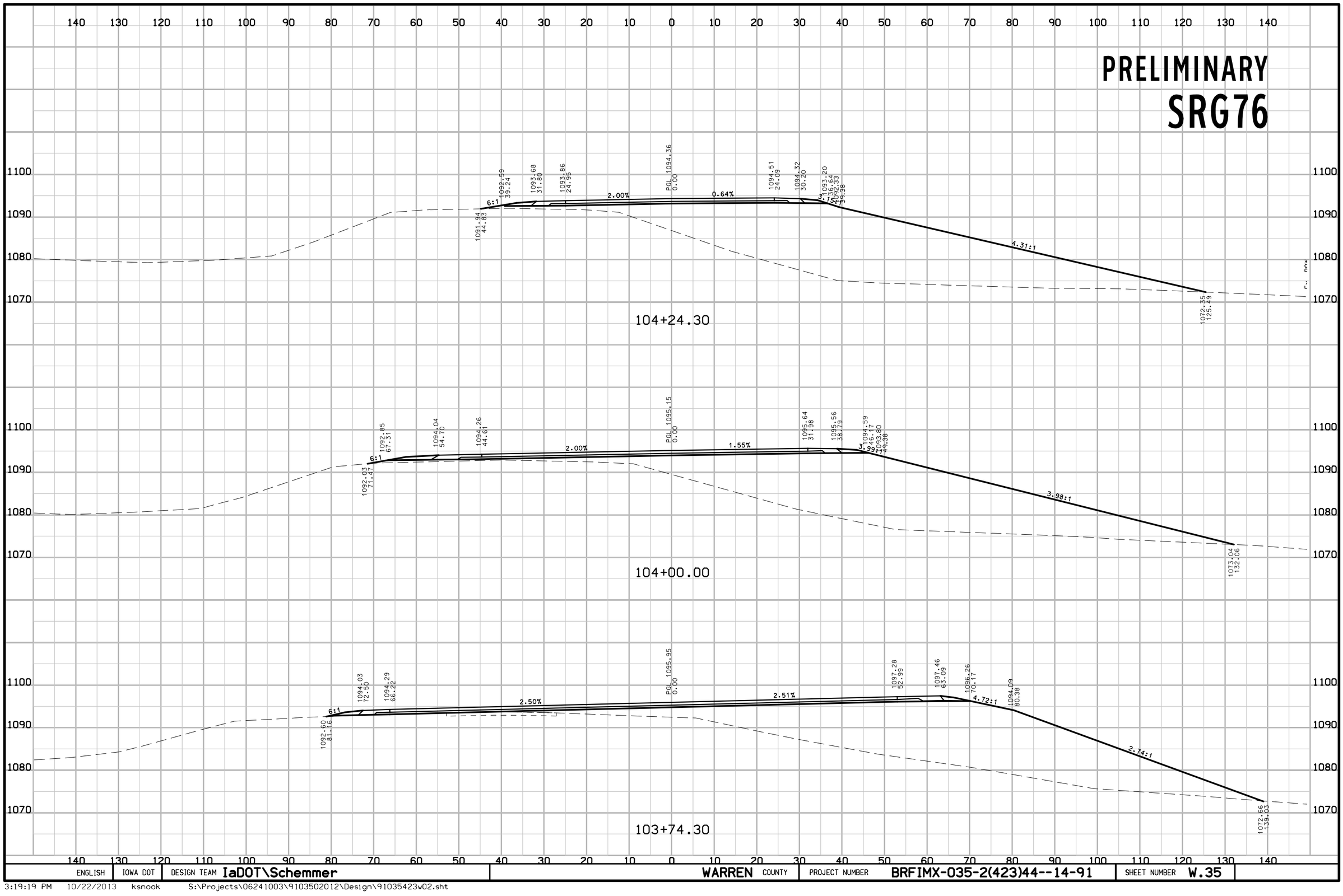

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PRELIMINARY

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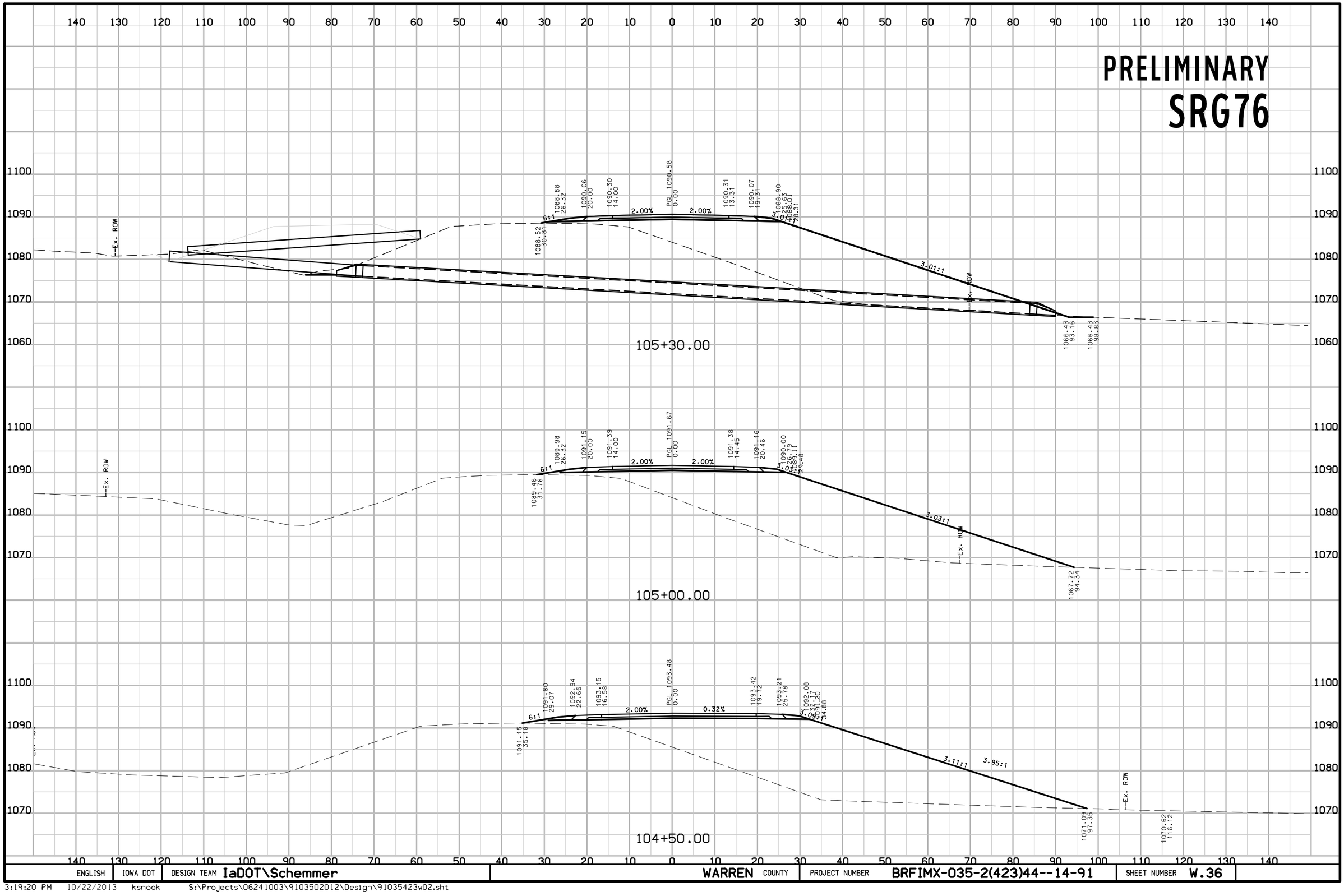

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PRELIMINARY

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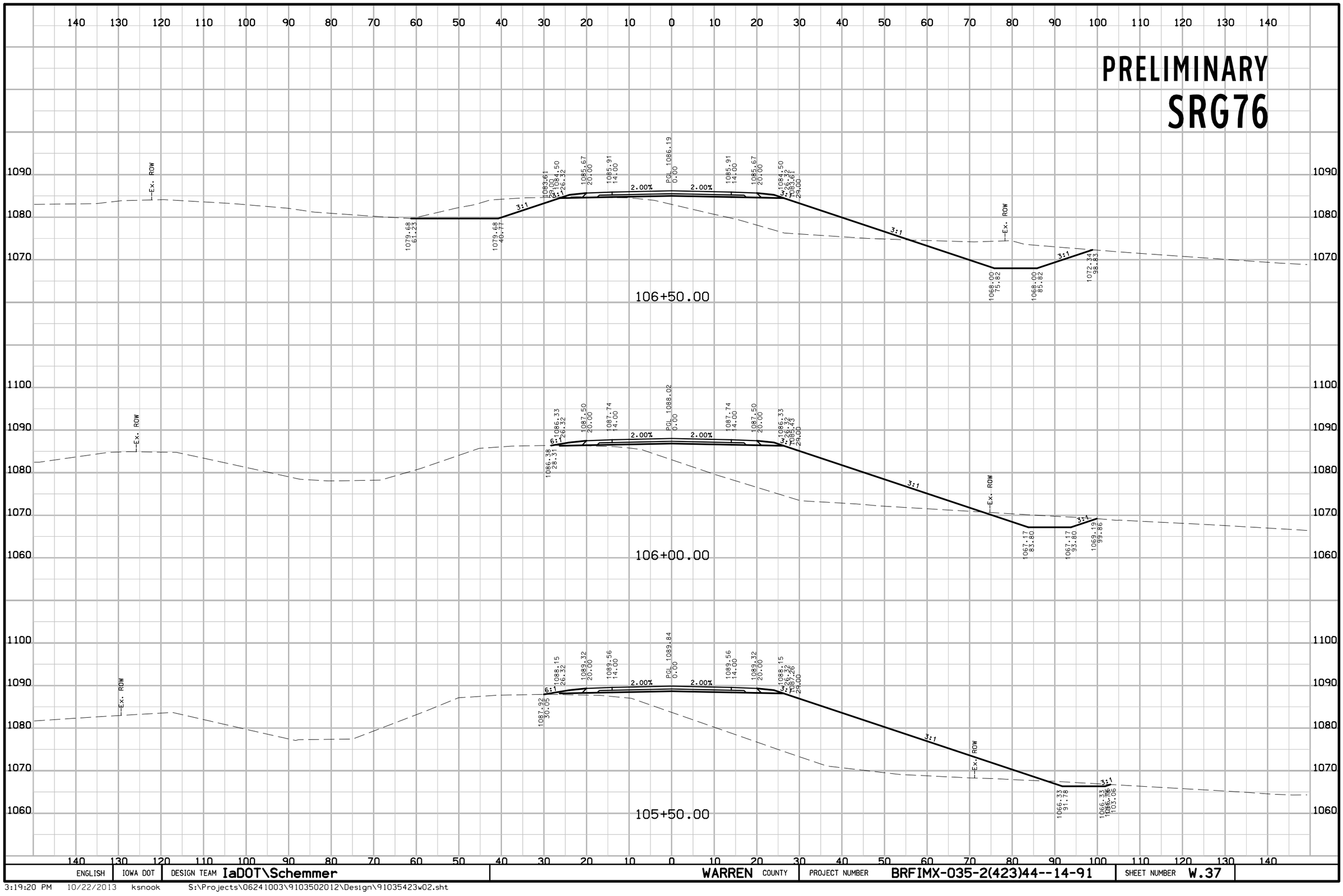

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.37

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PRELIMINARY

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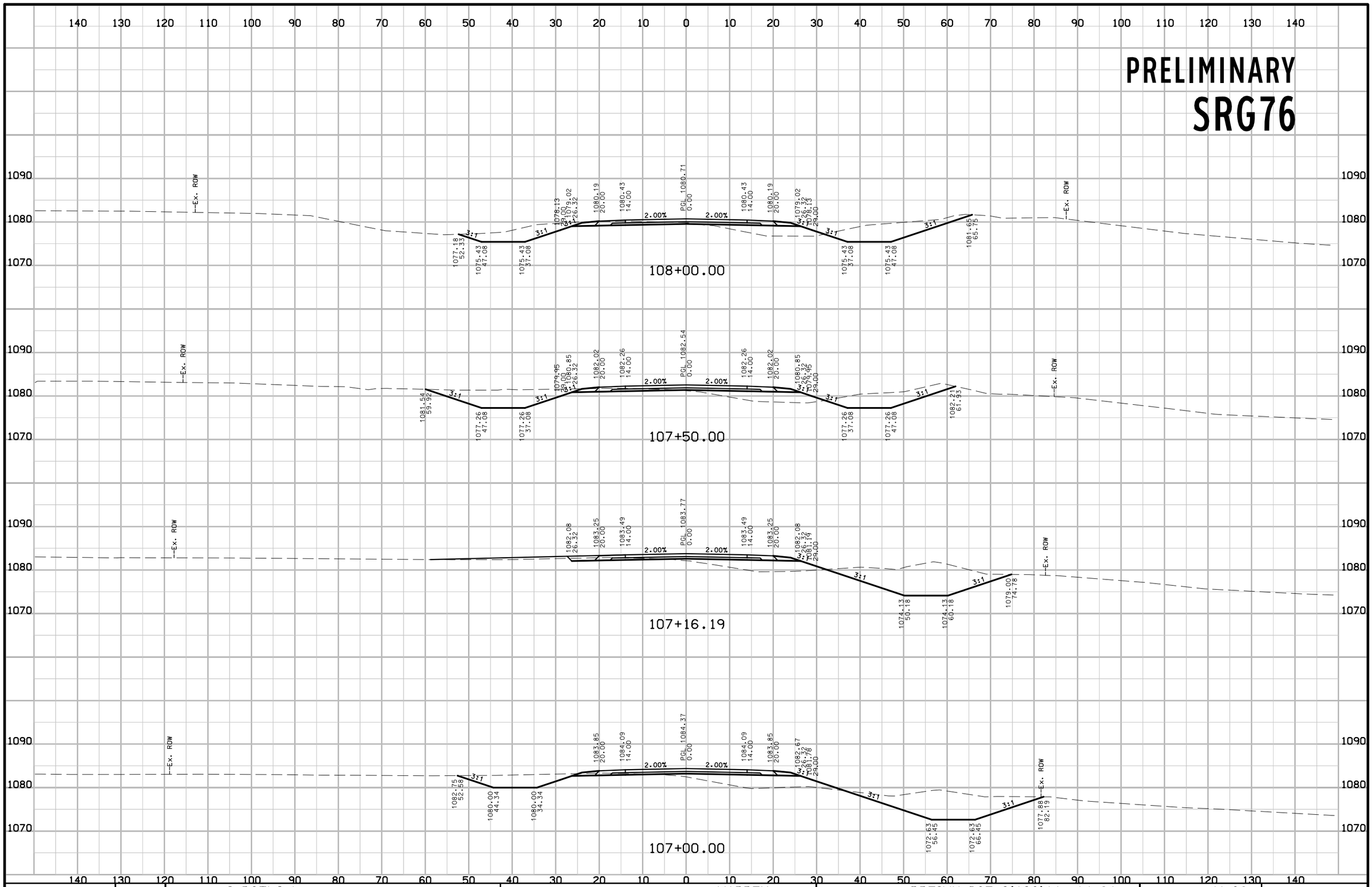

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.38

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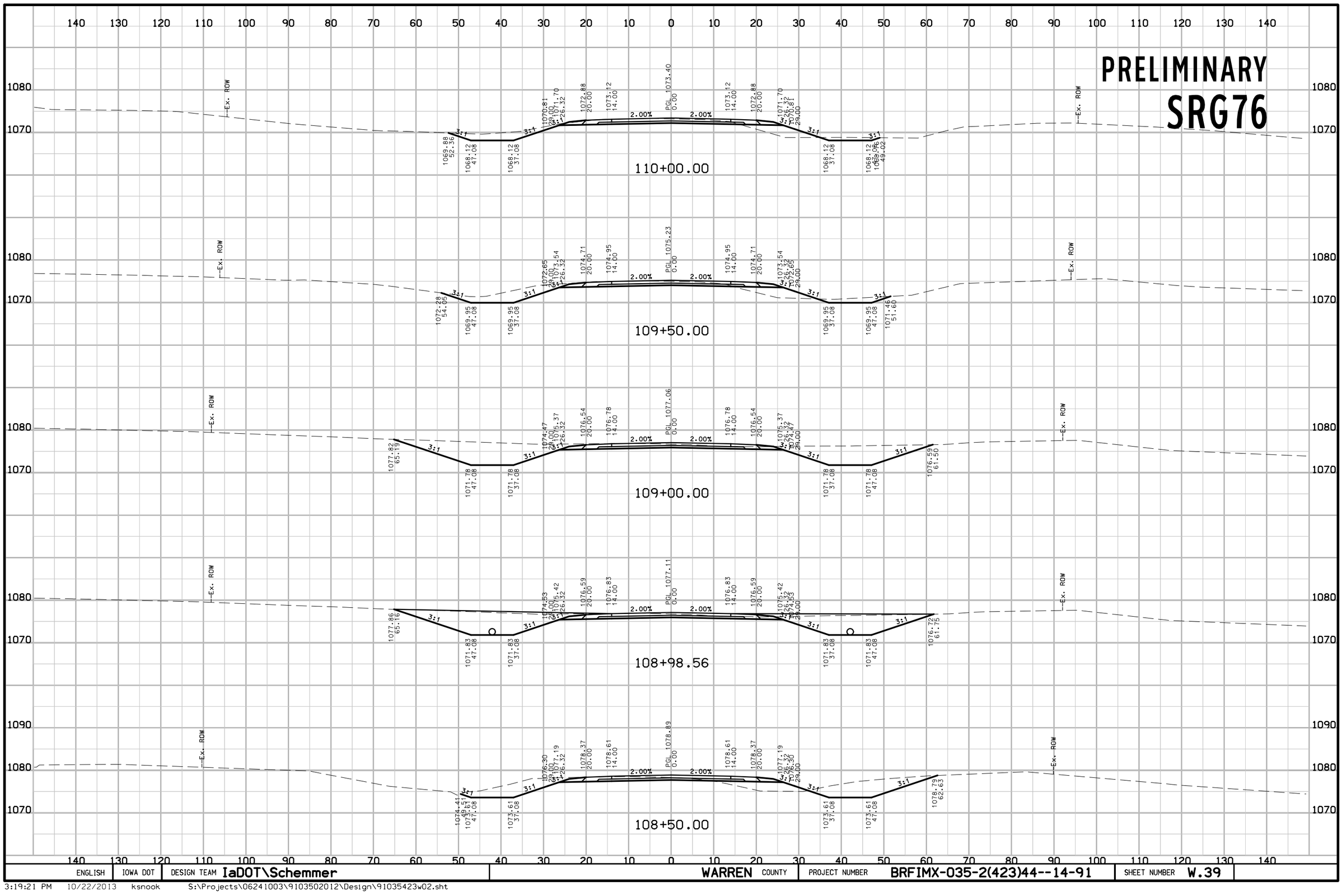
PRELIMINARY

SRG76



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.39

PRELIMINARY
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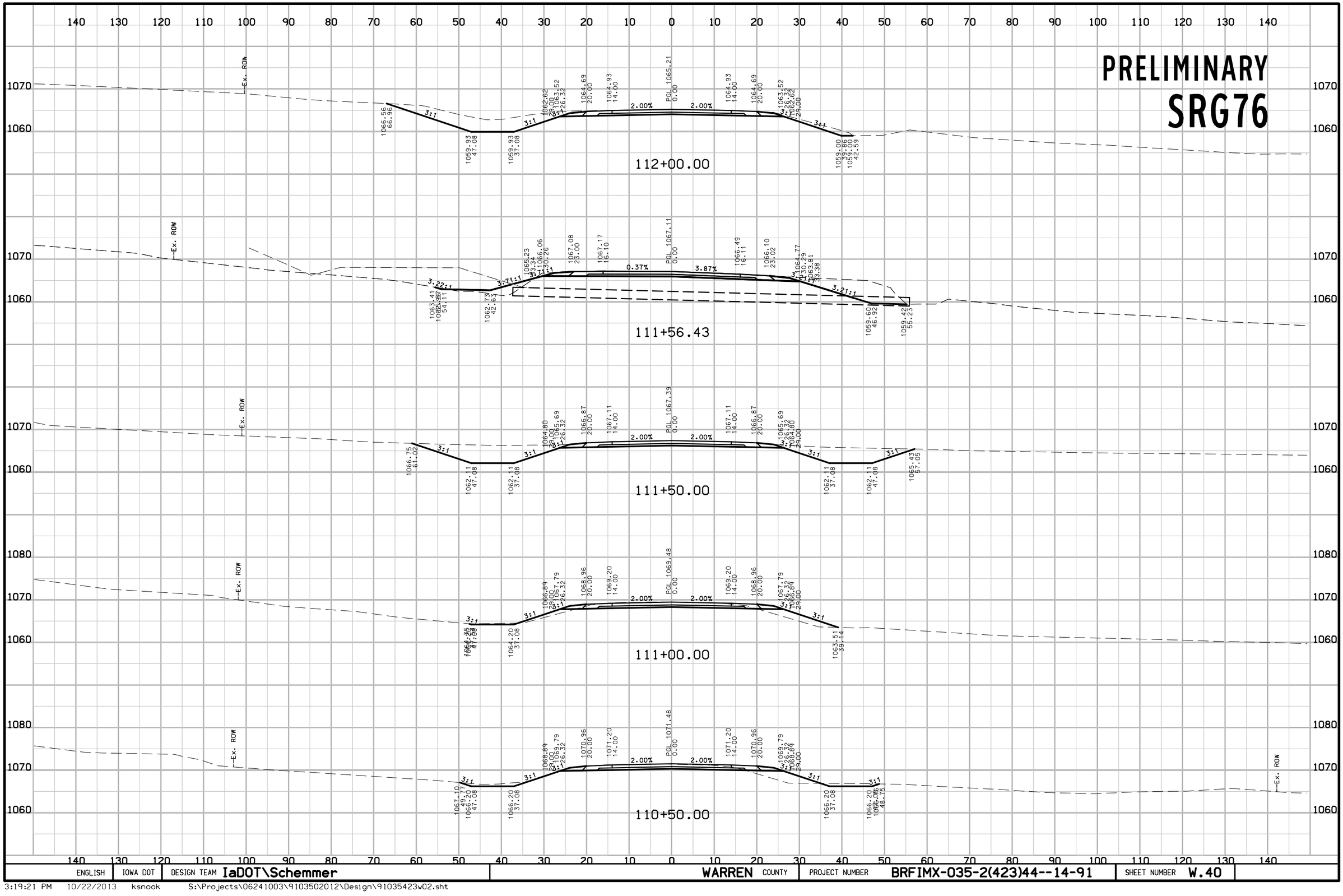

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PRELIMINARY

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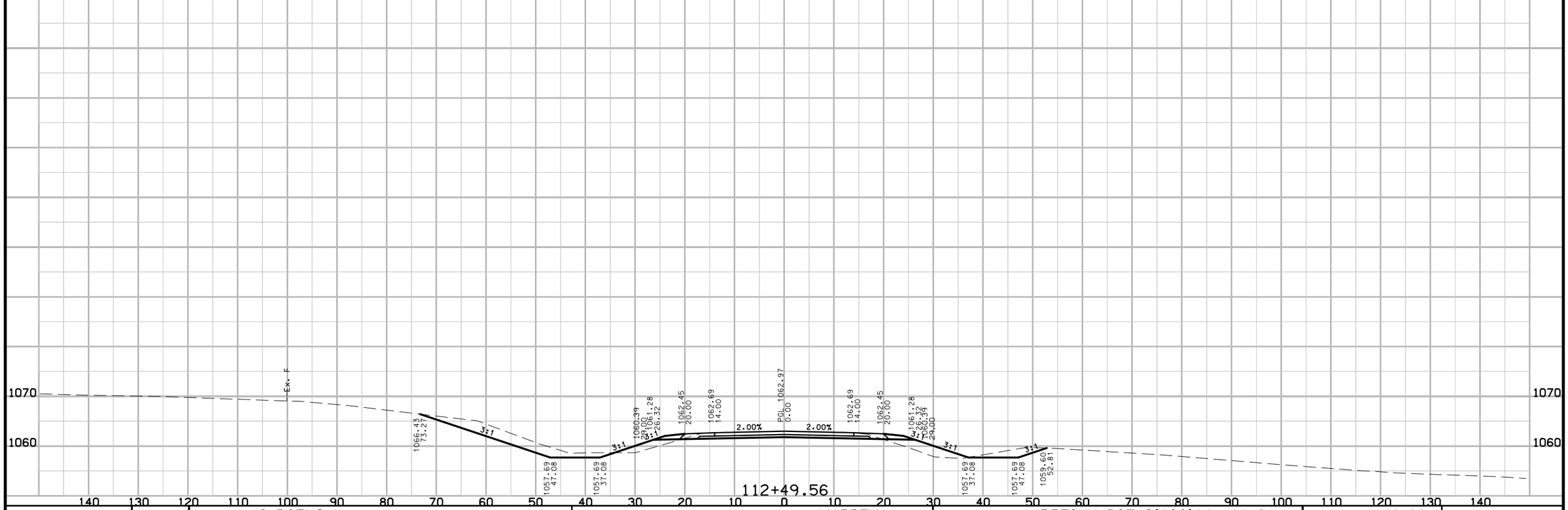

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER W.41

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PRELIMINARY
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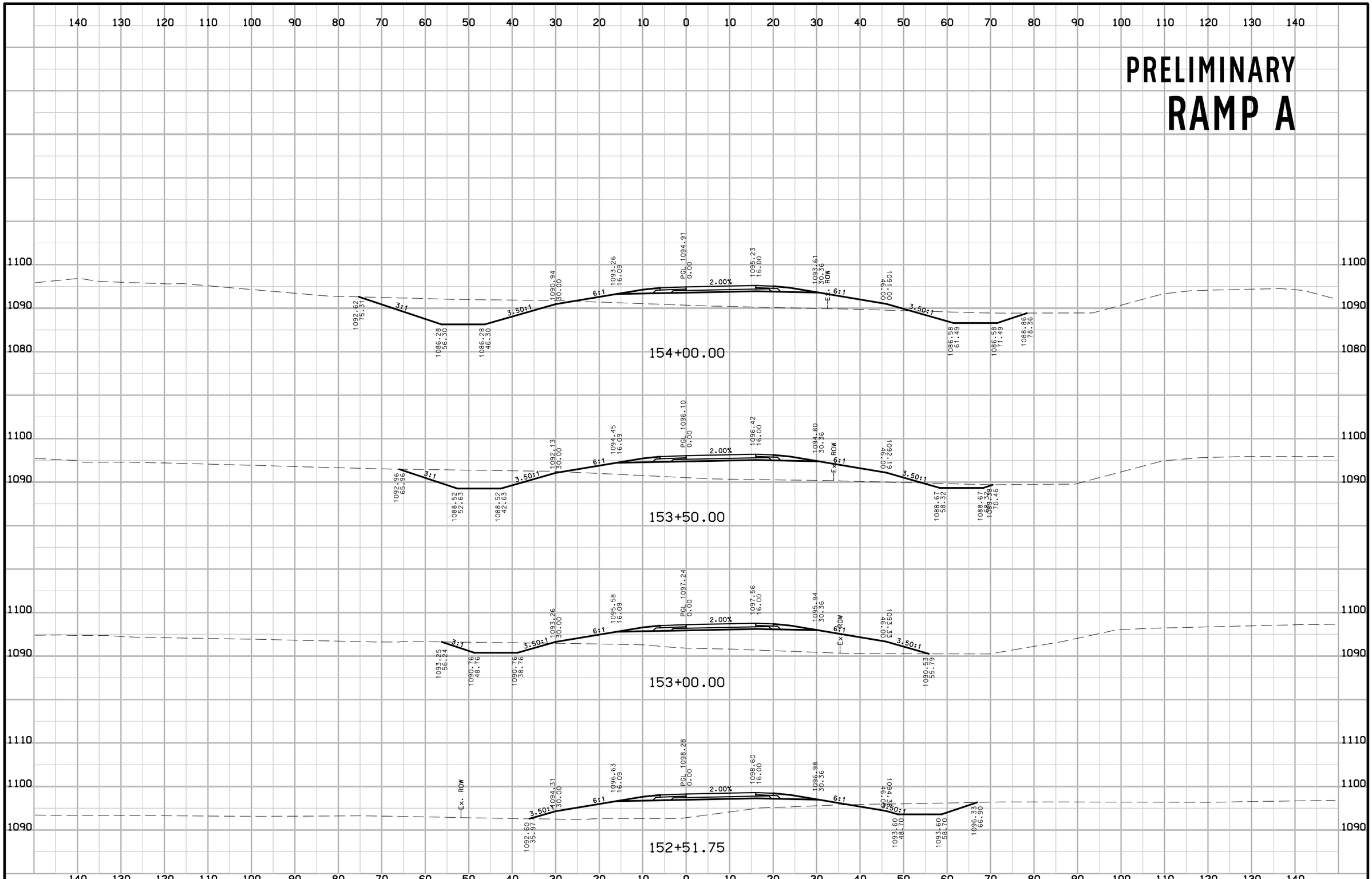

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.1

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PRELIMINARY
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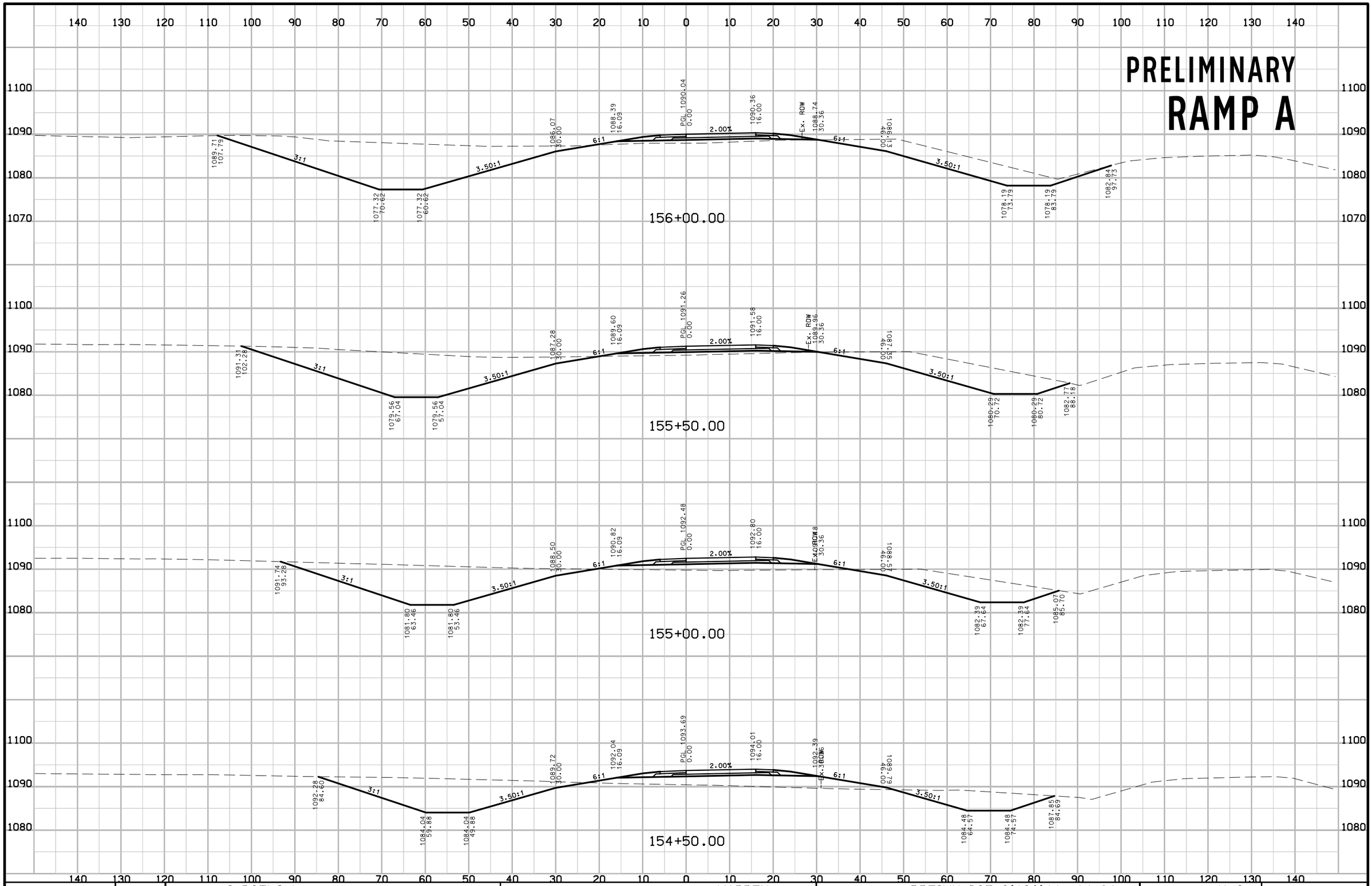

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.2

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PRELIMINARY
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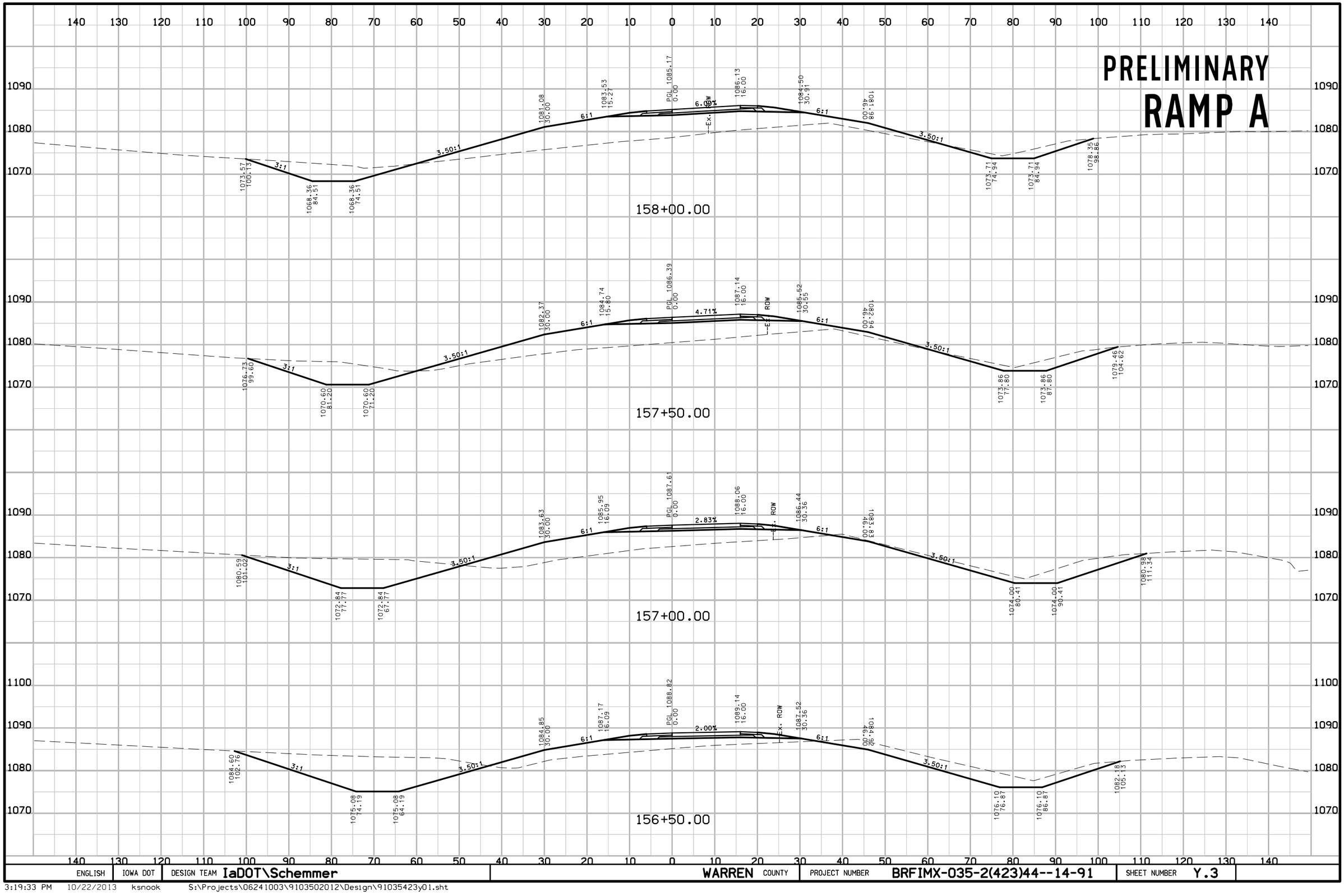

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.3

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PRELIMINARY
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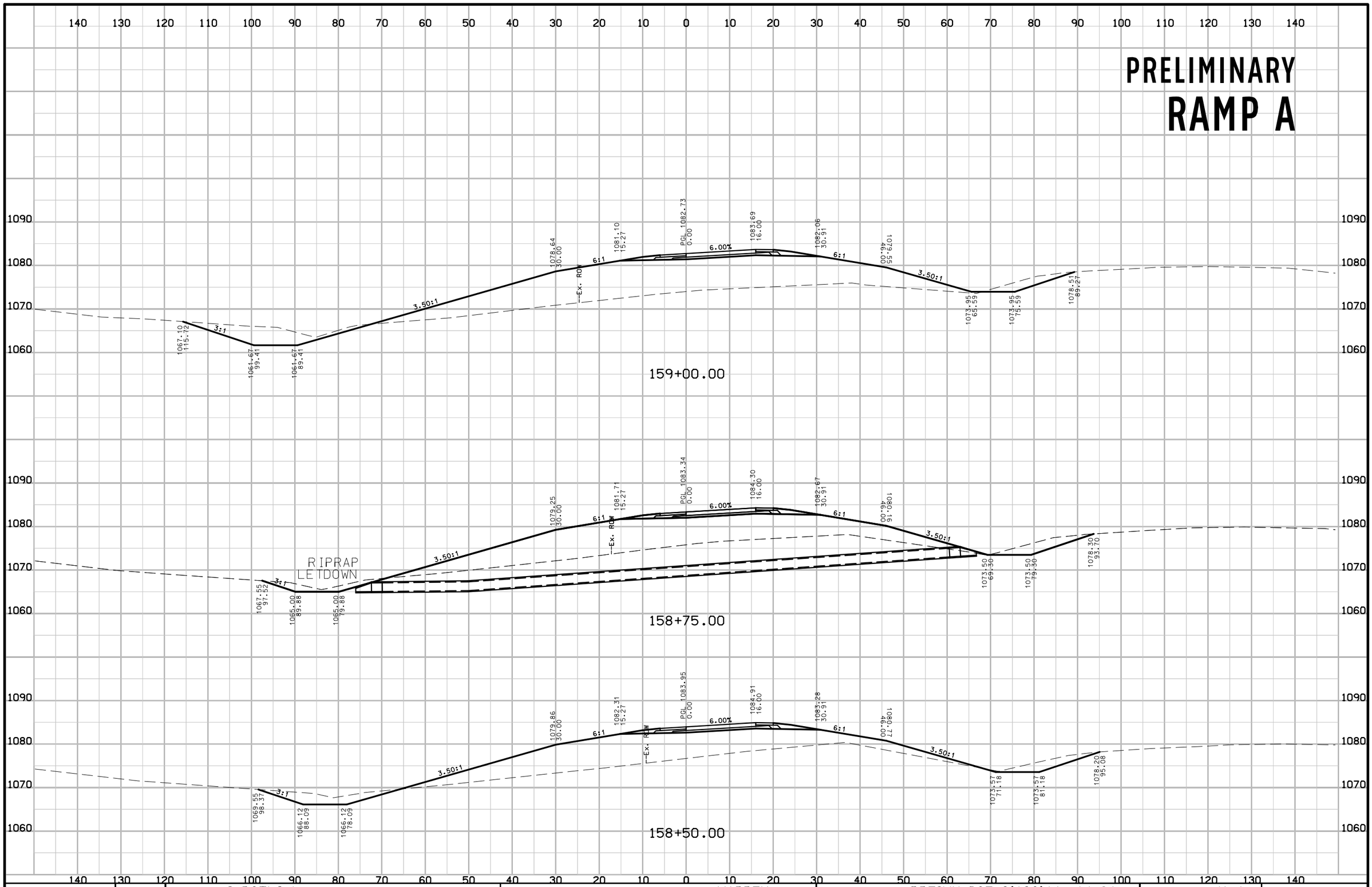

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.4

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PRELIMINARY
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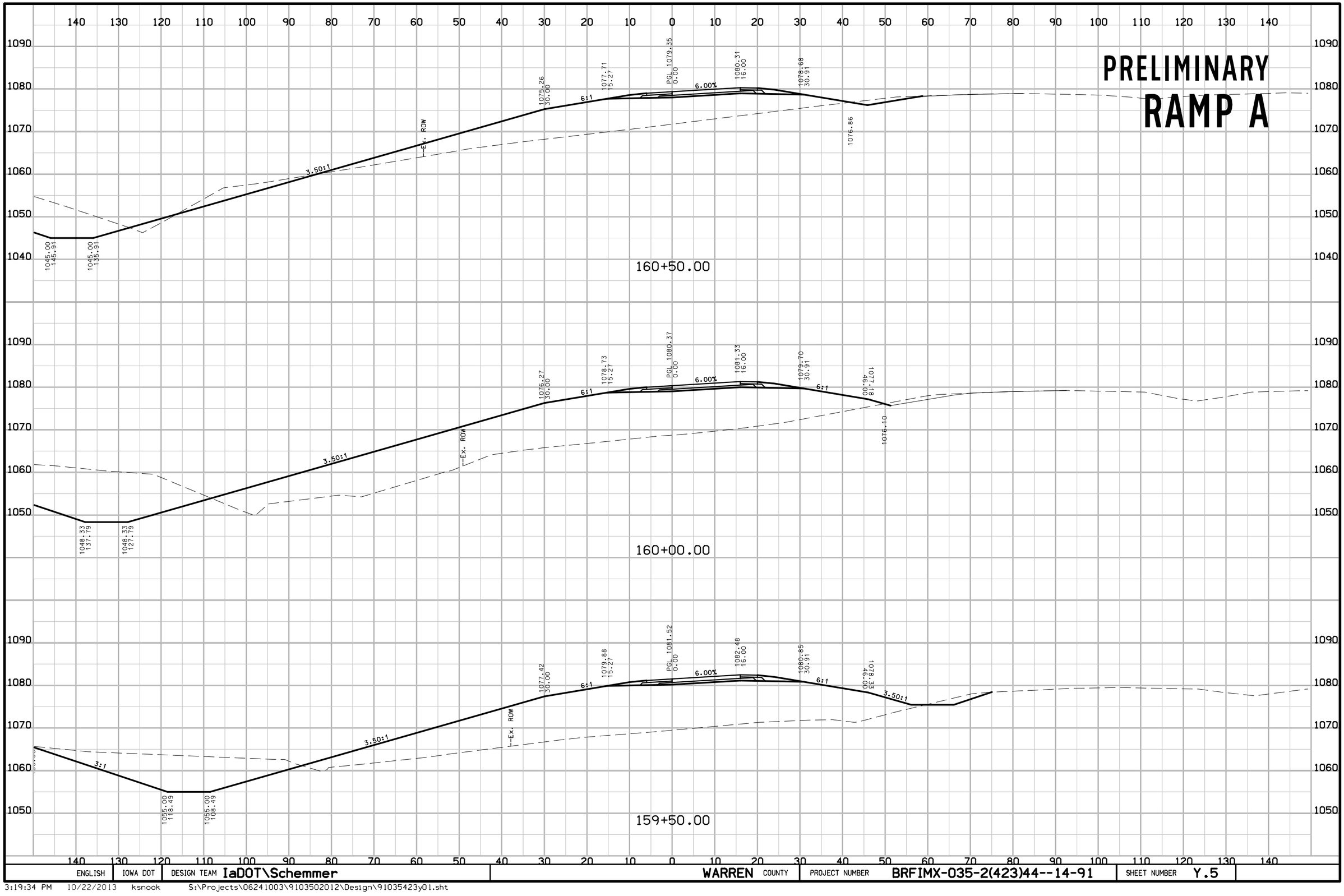

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.5

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PRELIMINARY
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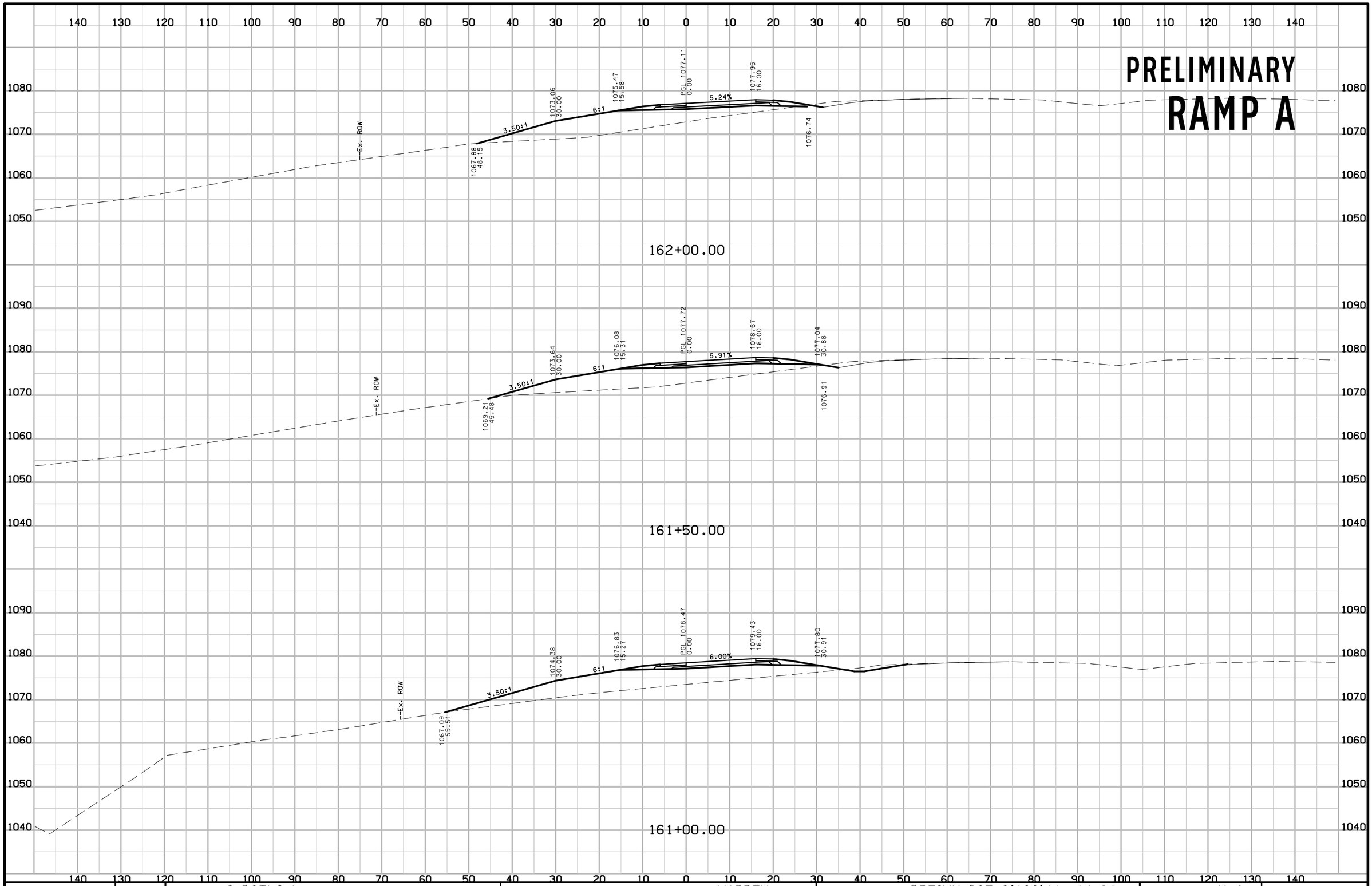

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.6

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PRELIMINARY
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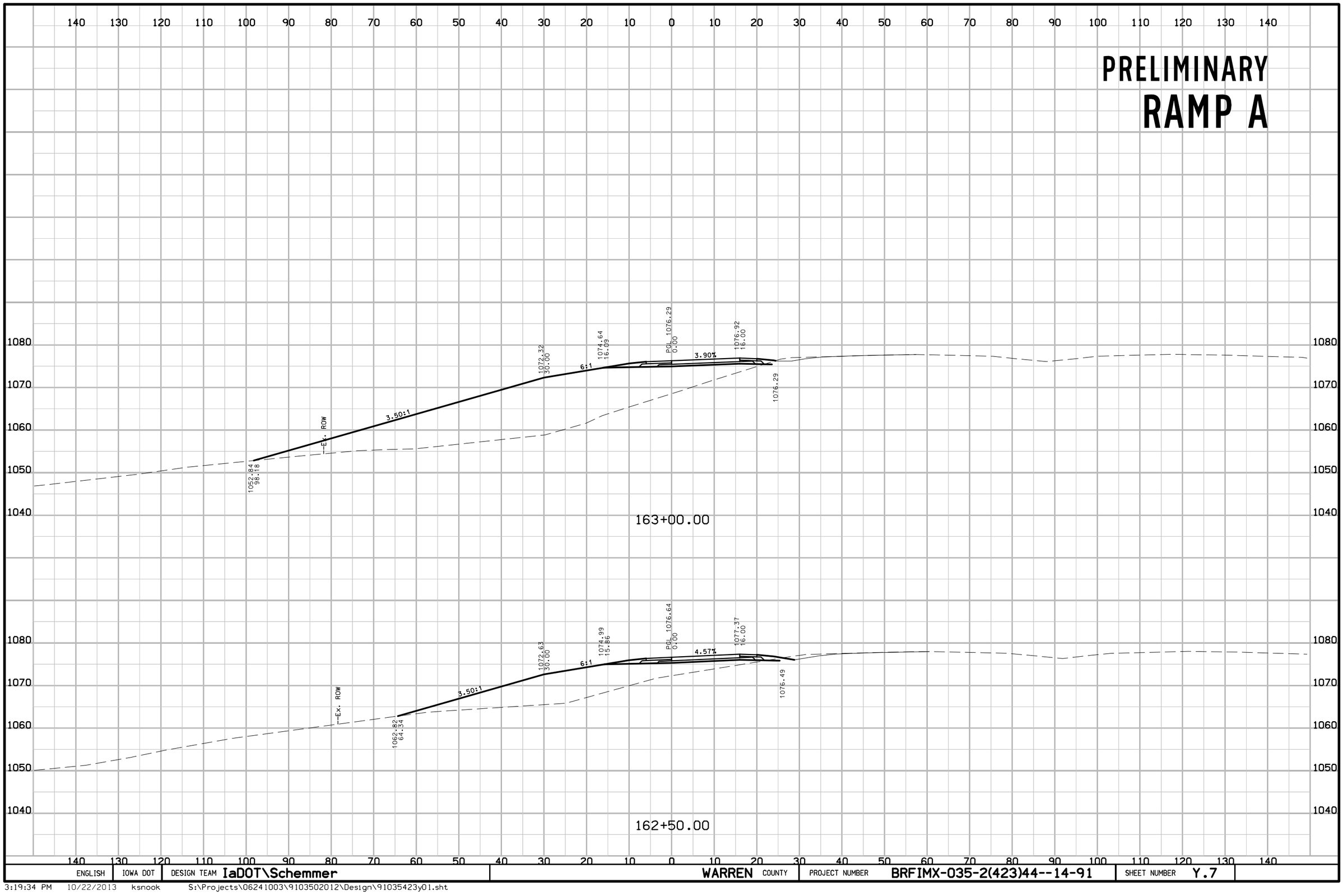

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.7

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PRELIMINARY
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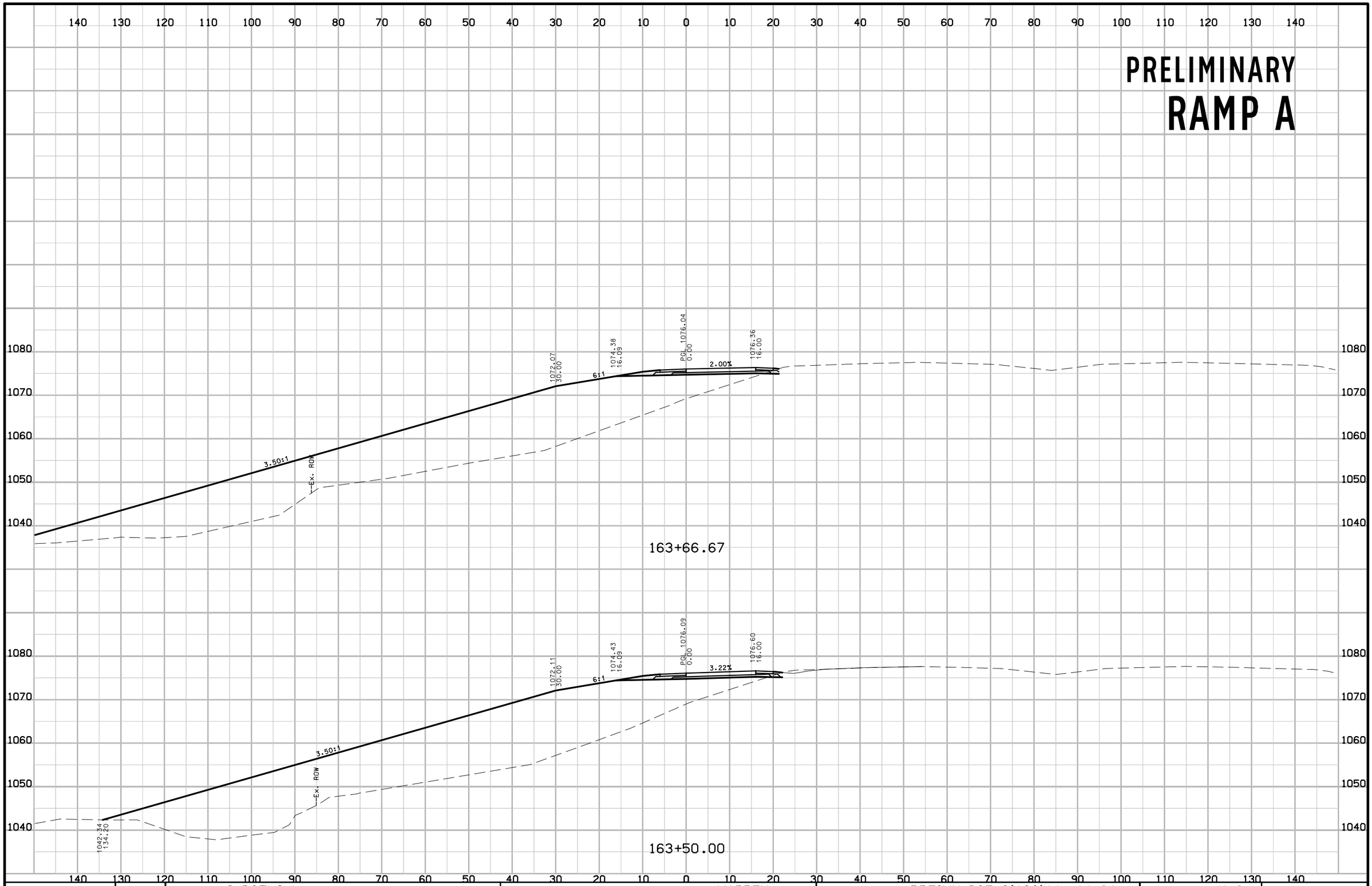

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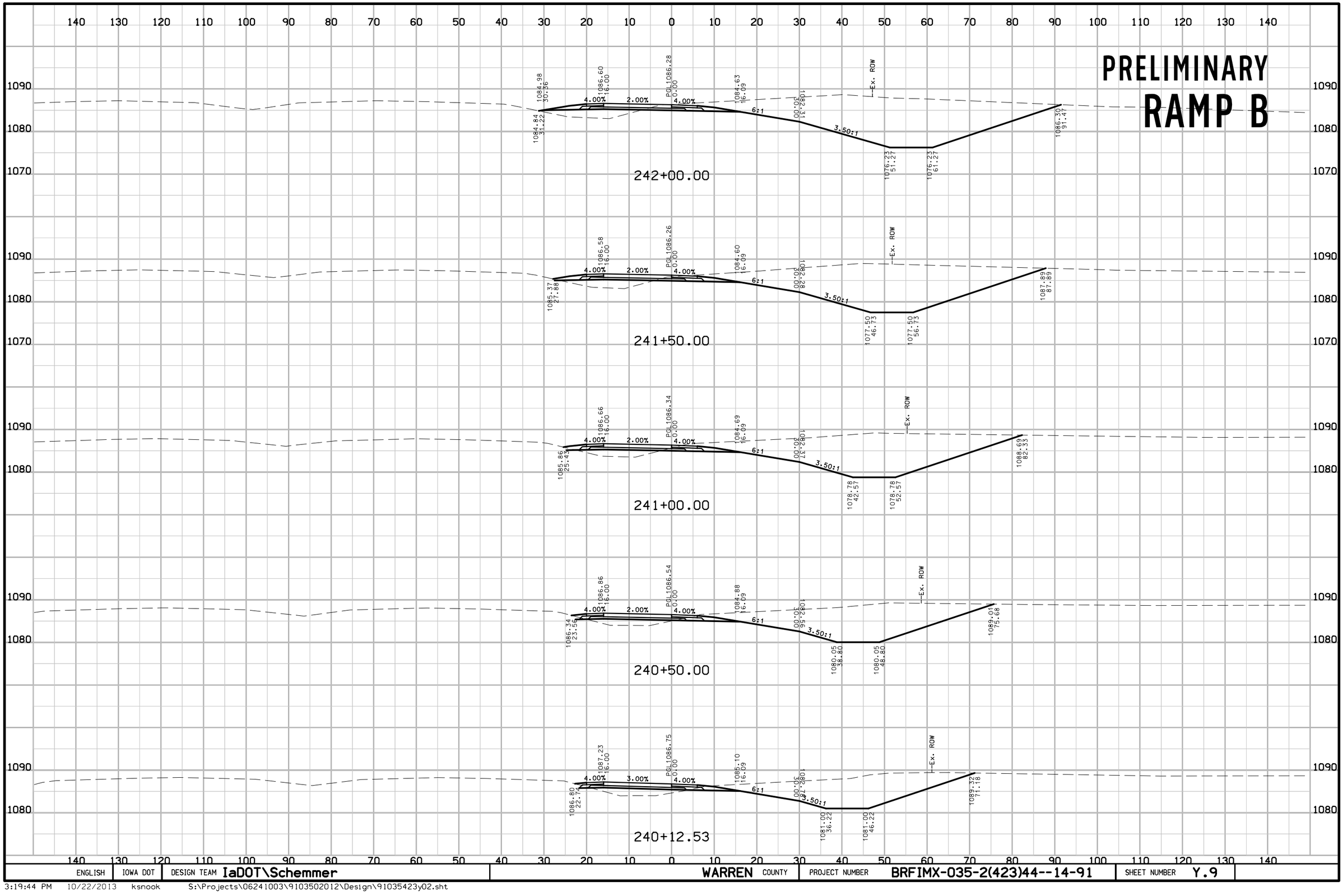
PRELIMINARY
RAMP B



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.9

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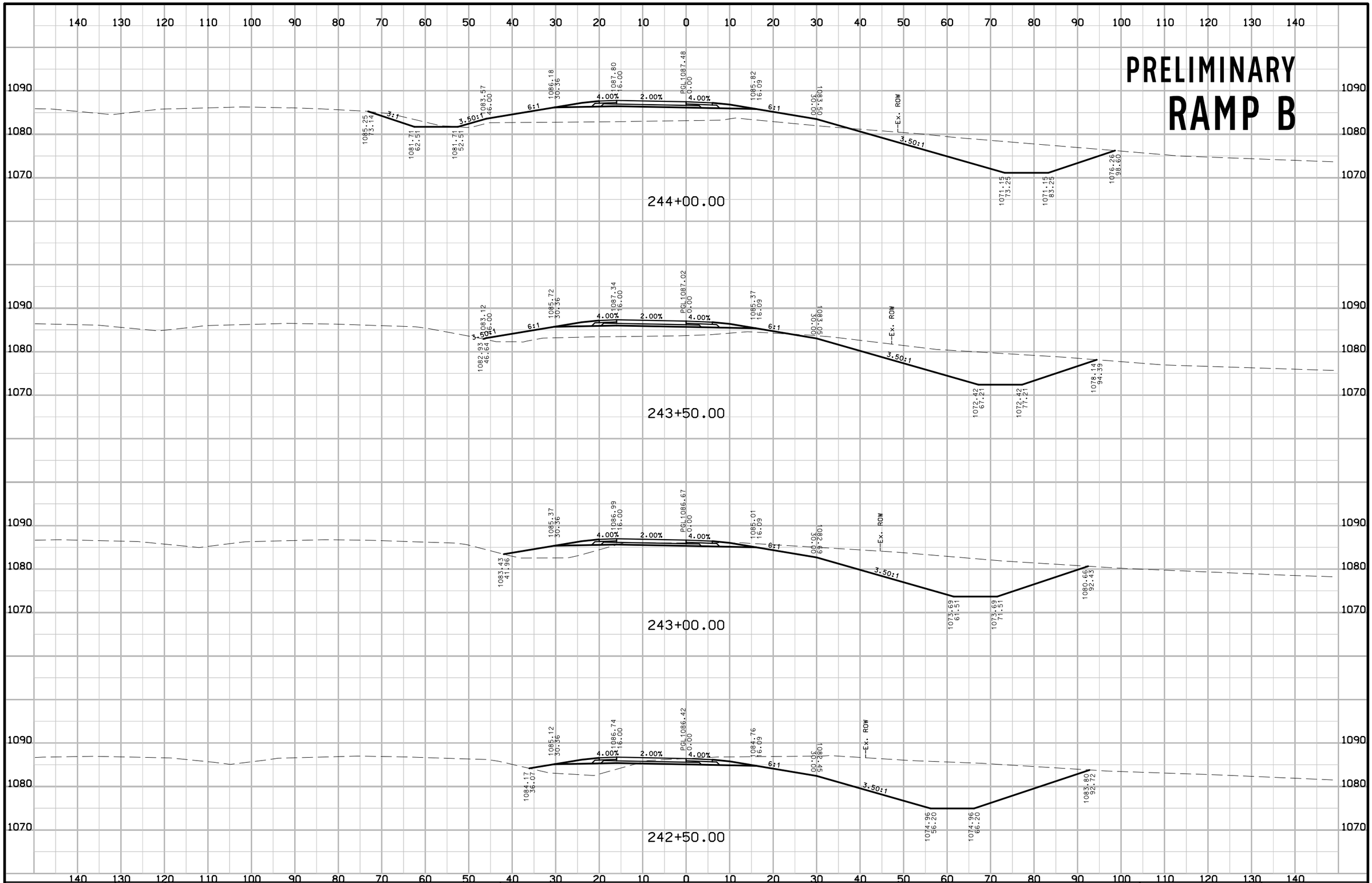
PRELIMINARY
RAMP B



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.10

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PRELIMINARY
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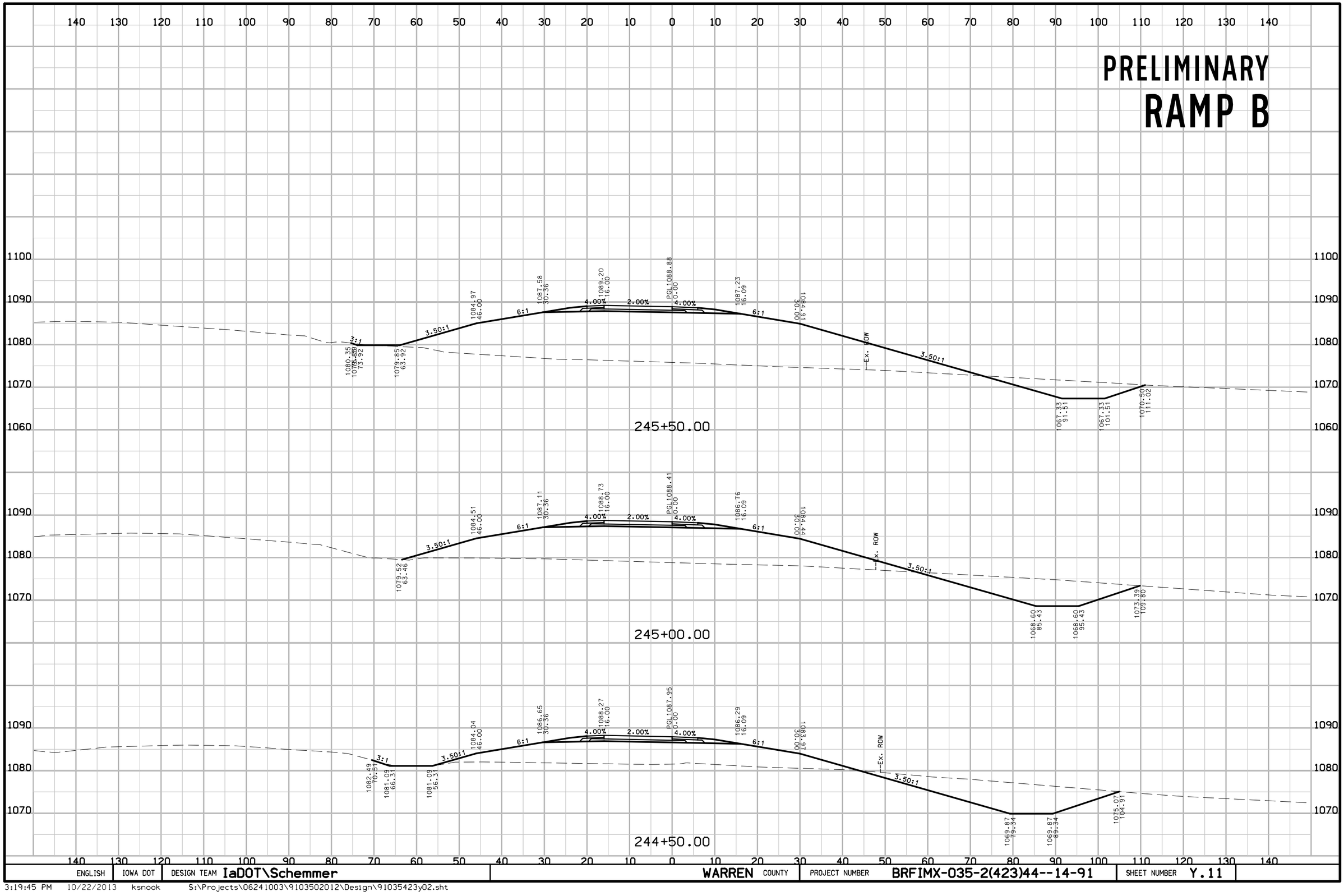

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.11

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PRELIMINARY
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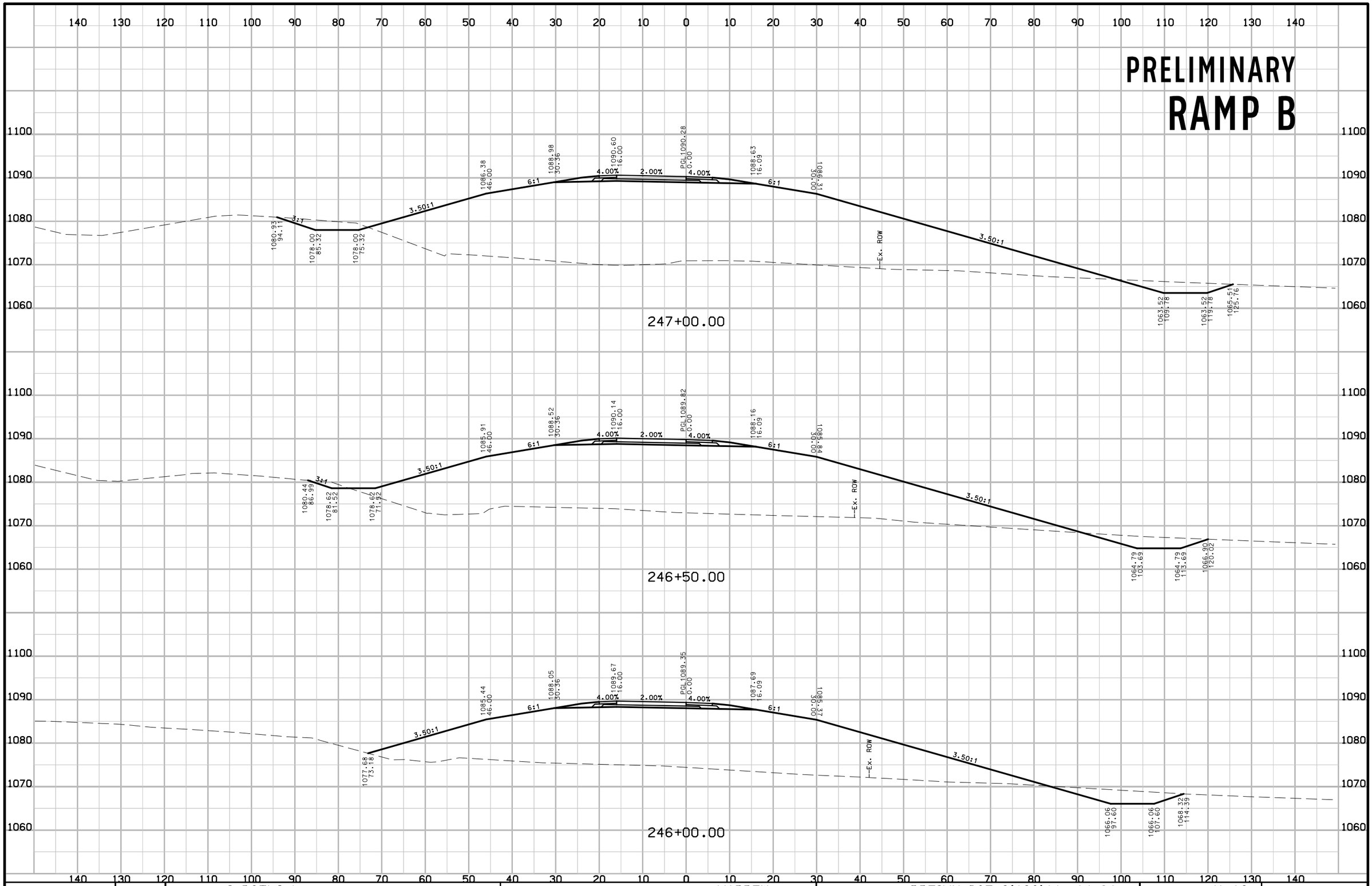

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.12

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PRELIMINARY

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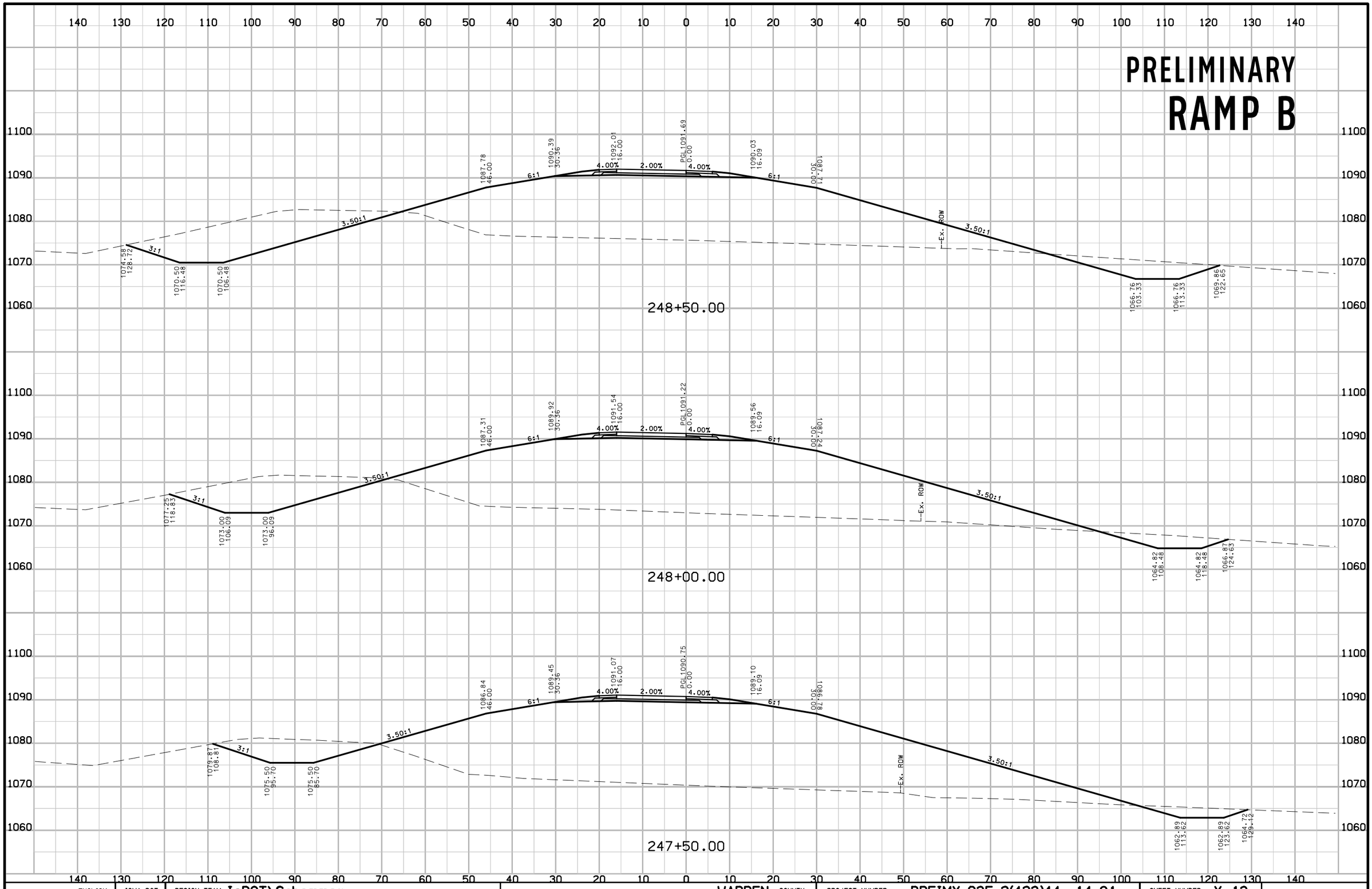

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.13

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PRELIMINARY
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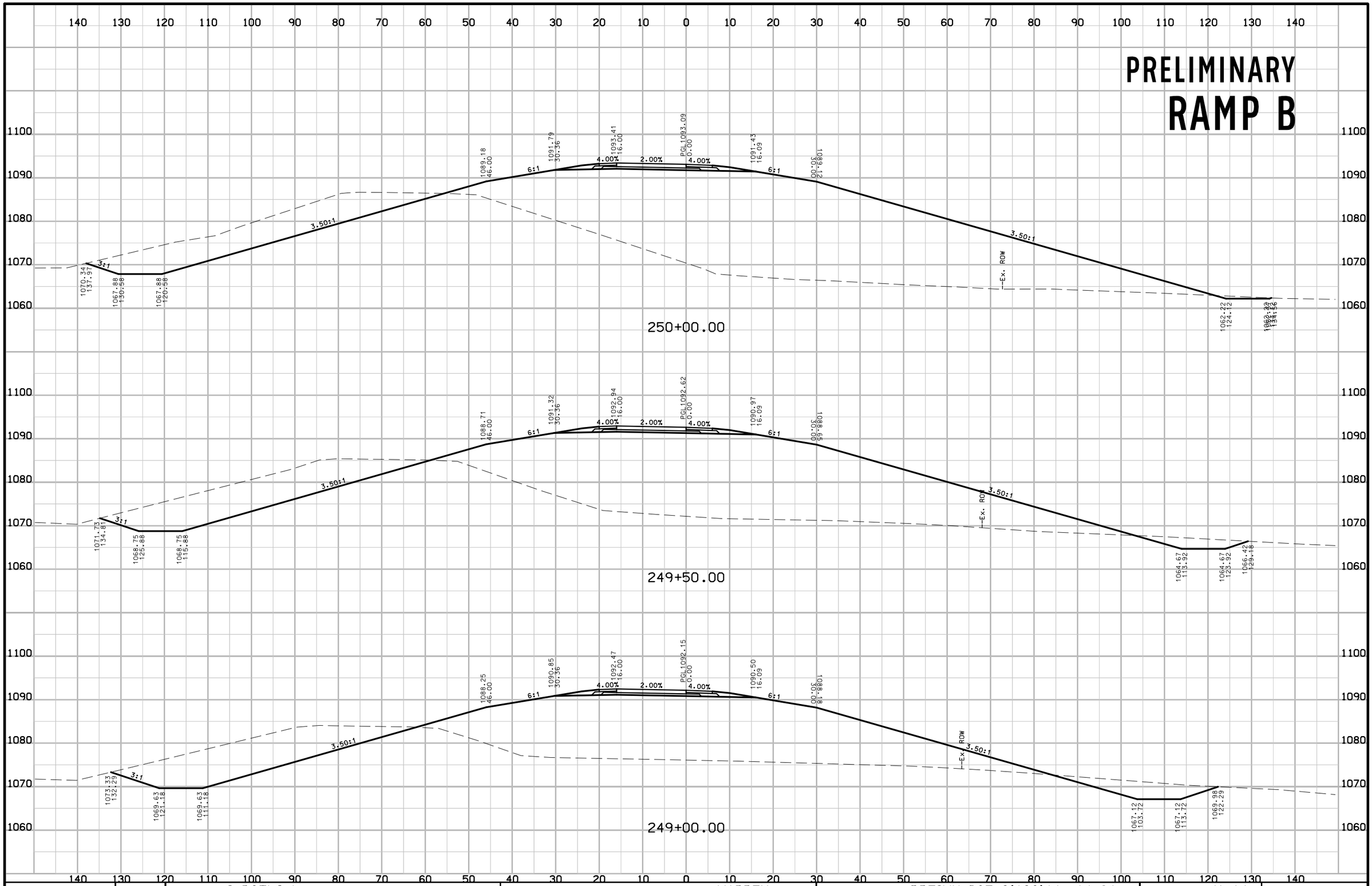

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.14

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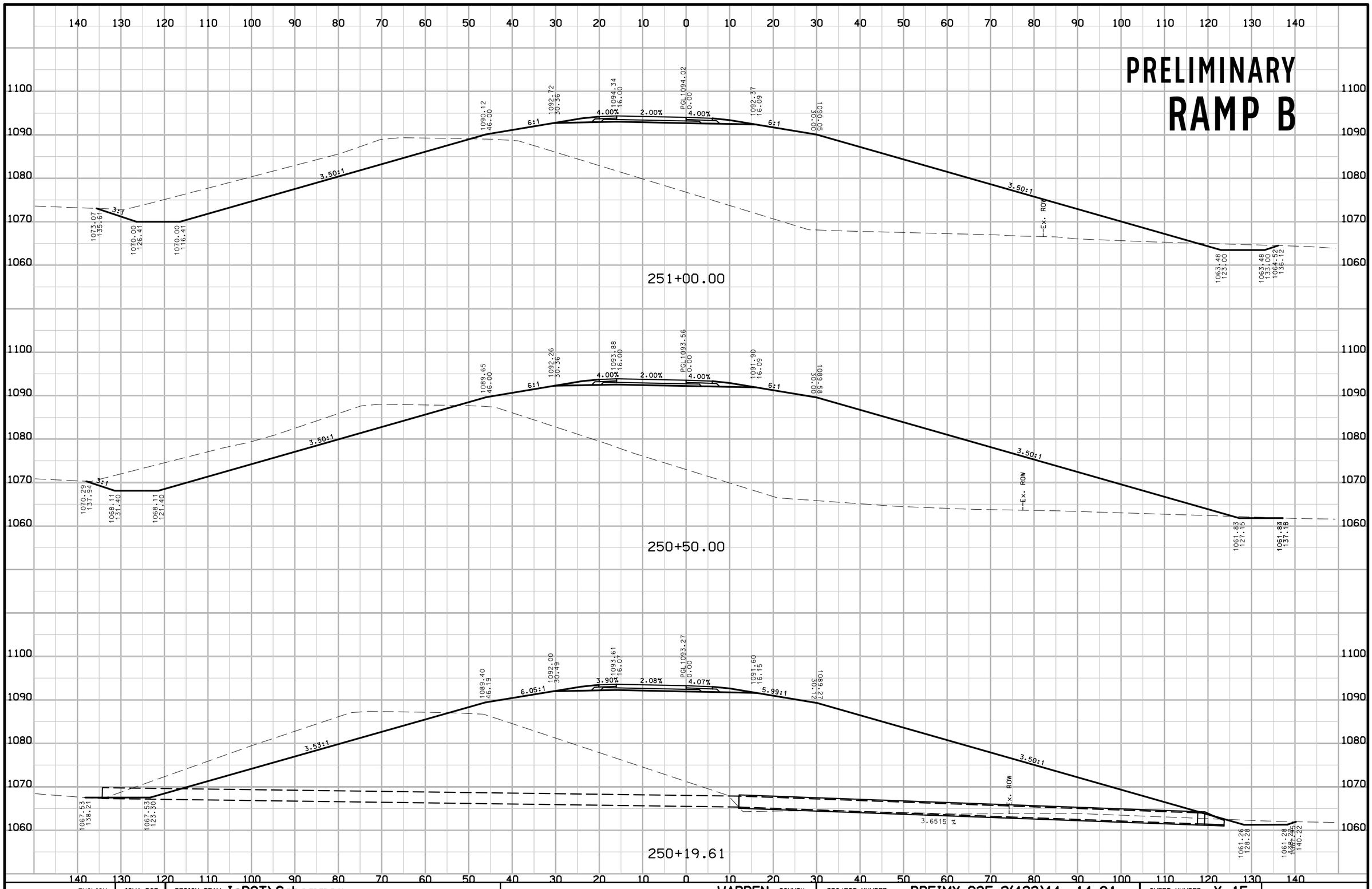

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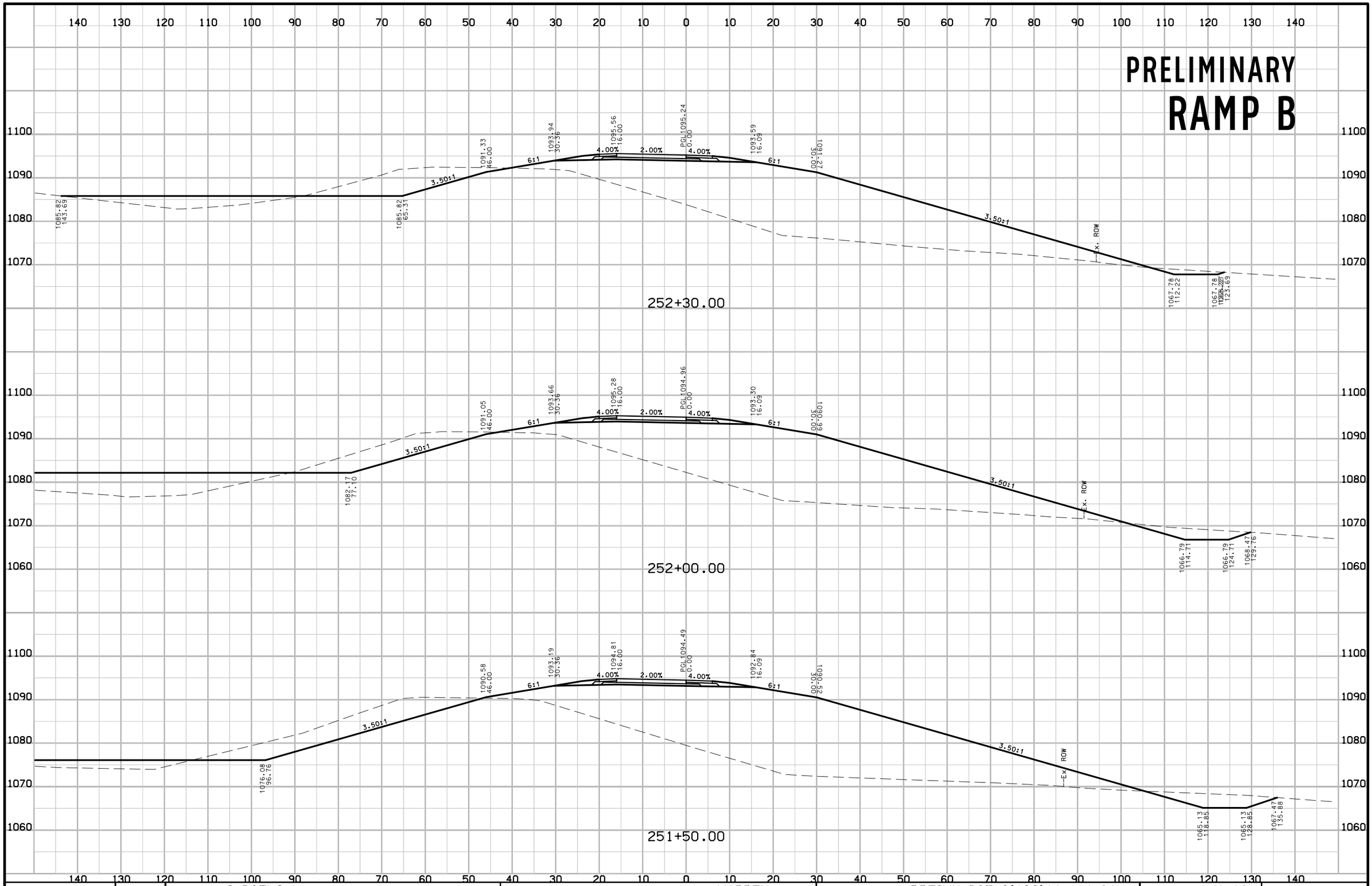

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PRELIMINARY
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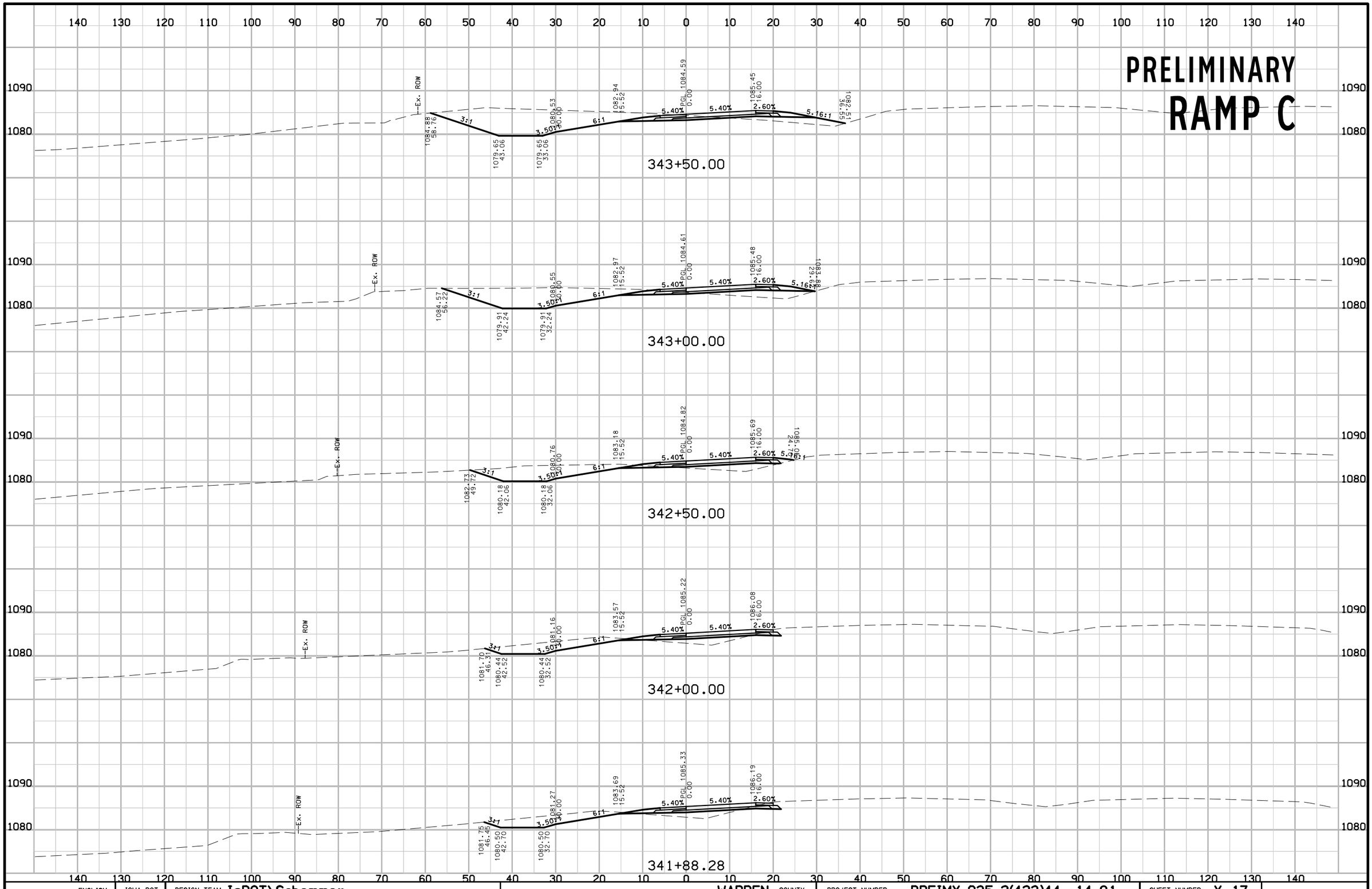

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.17

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PRELIMINARY
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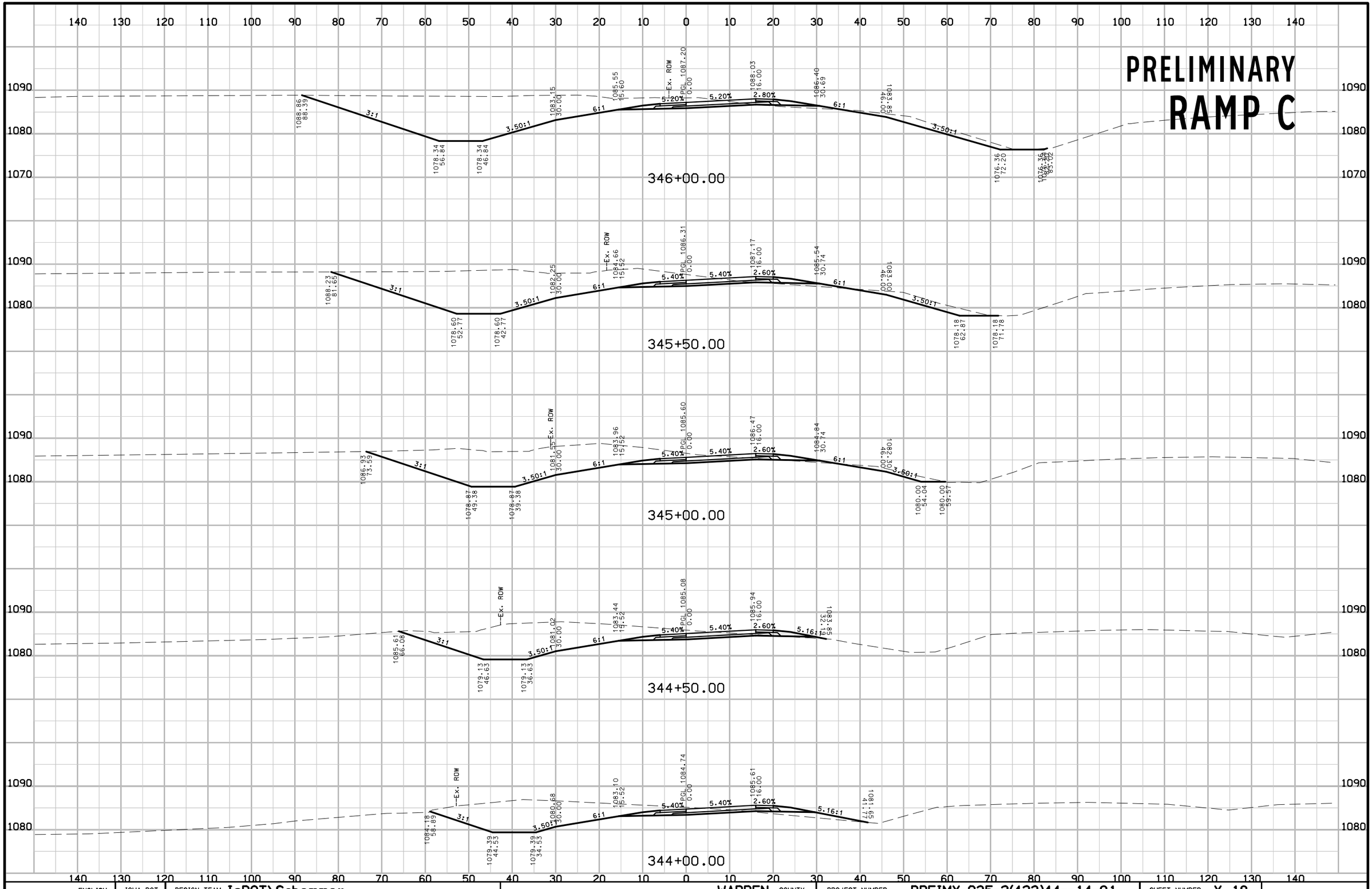

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.18

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PRELIMINARY
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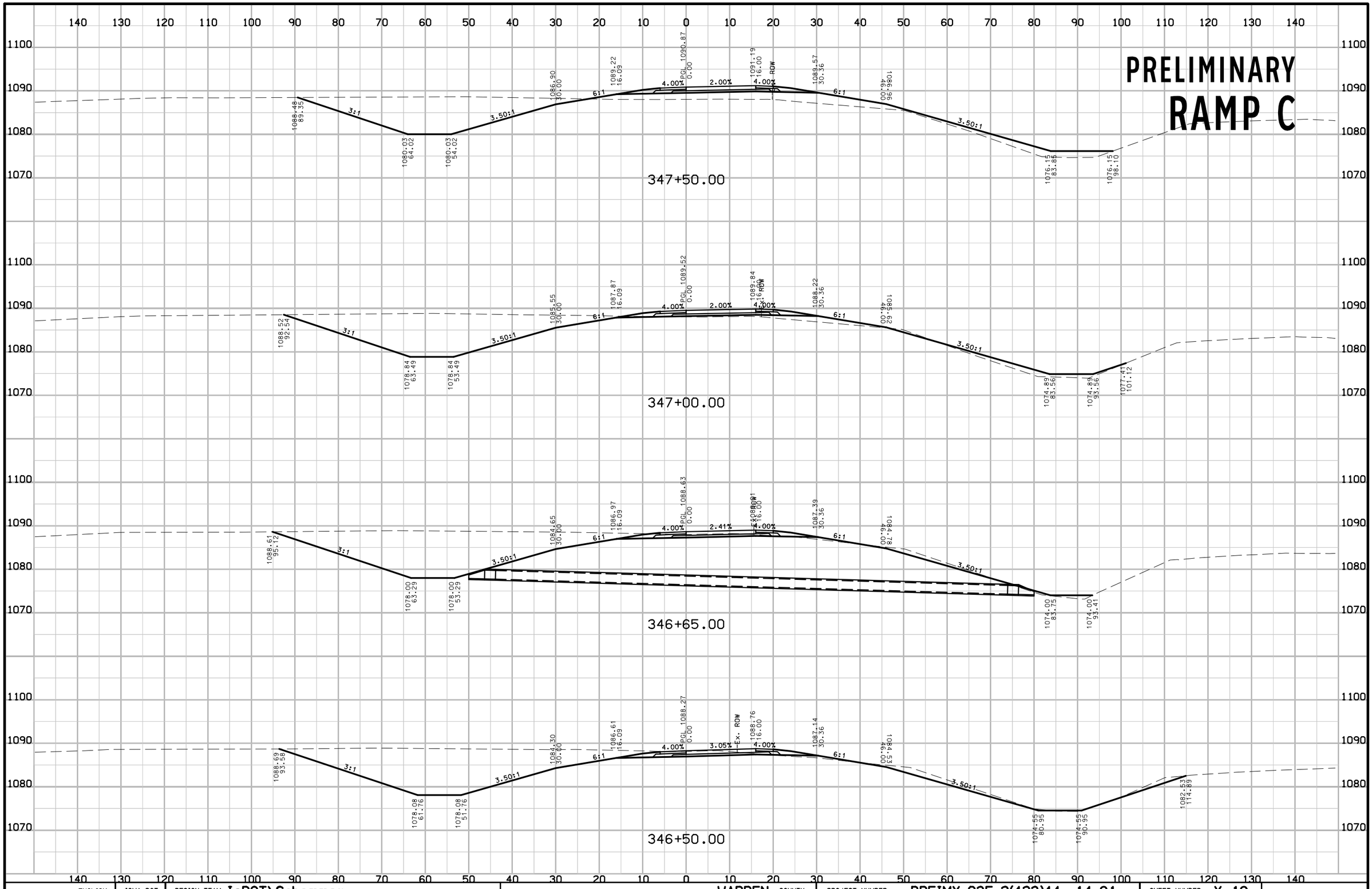

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.19

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PRELIMINARY
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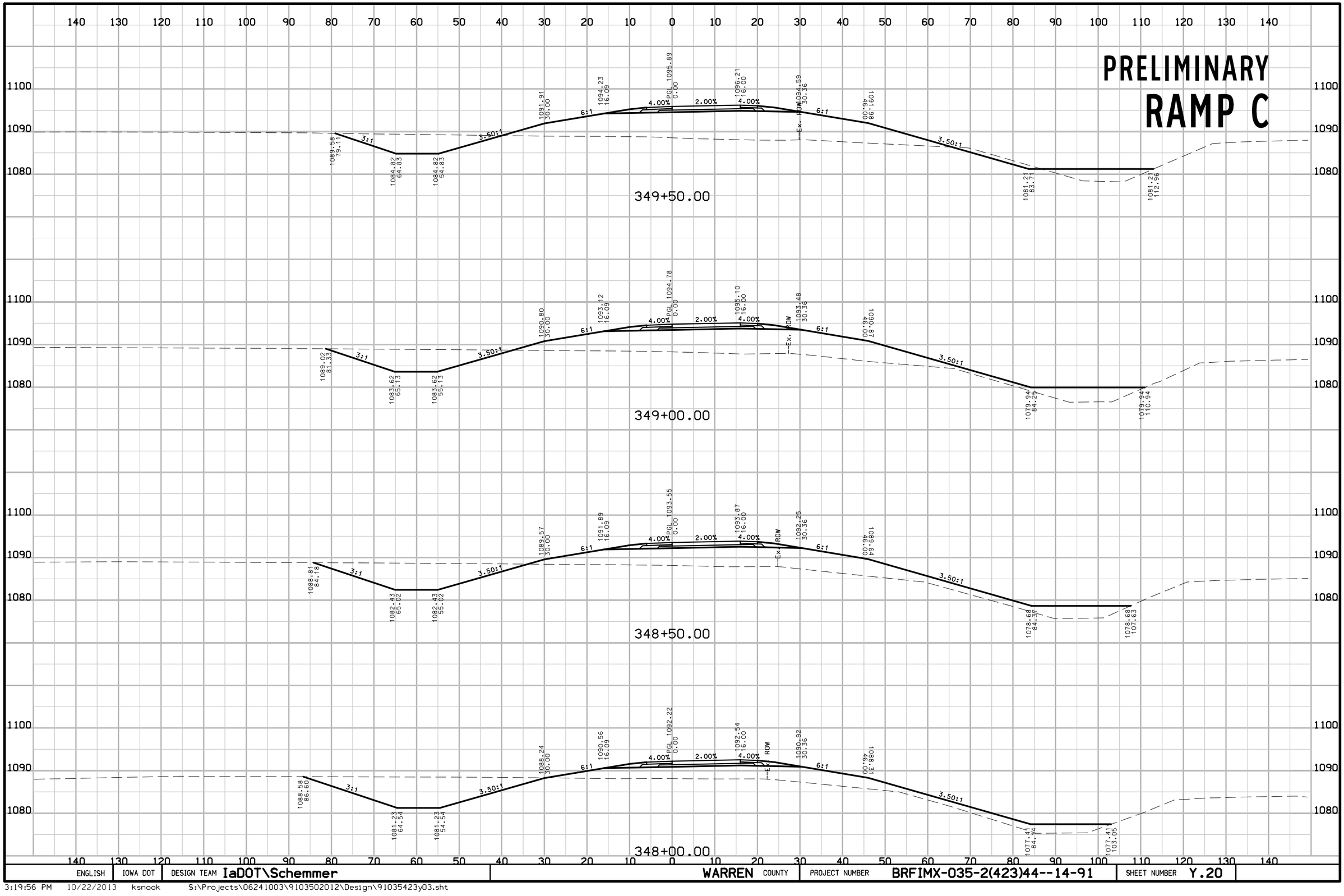

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PRELIMINARY
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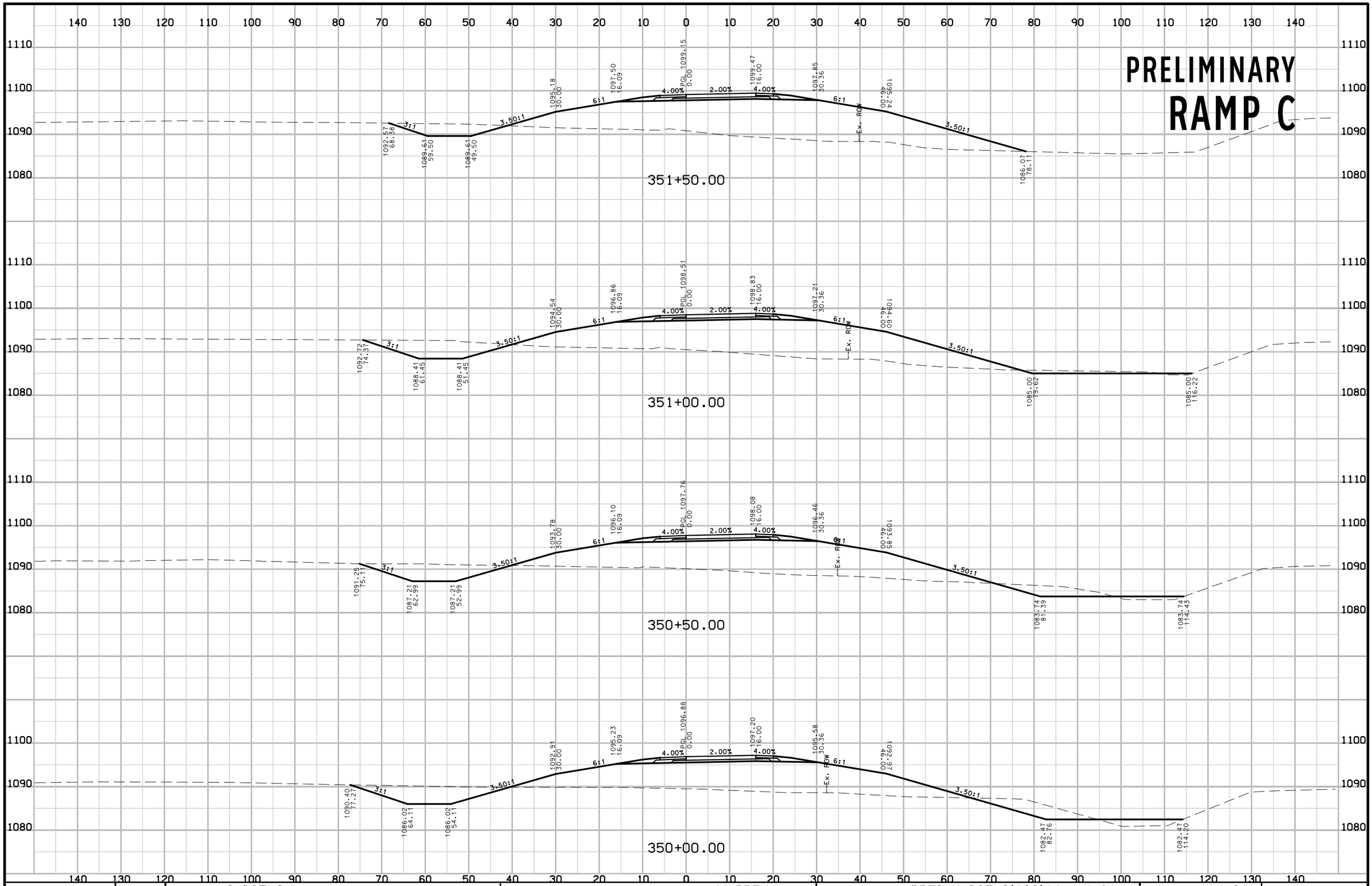

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.21

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PRELIMINARY
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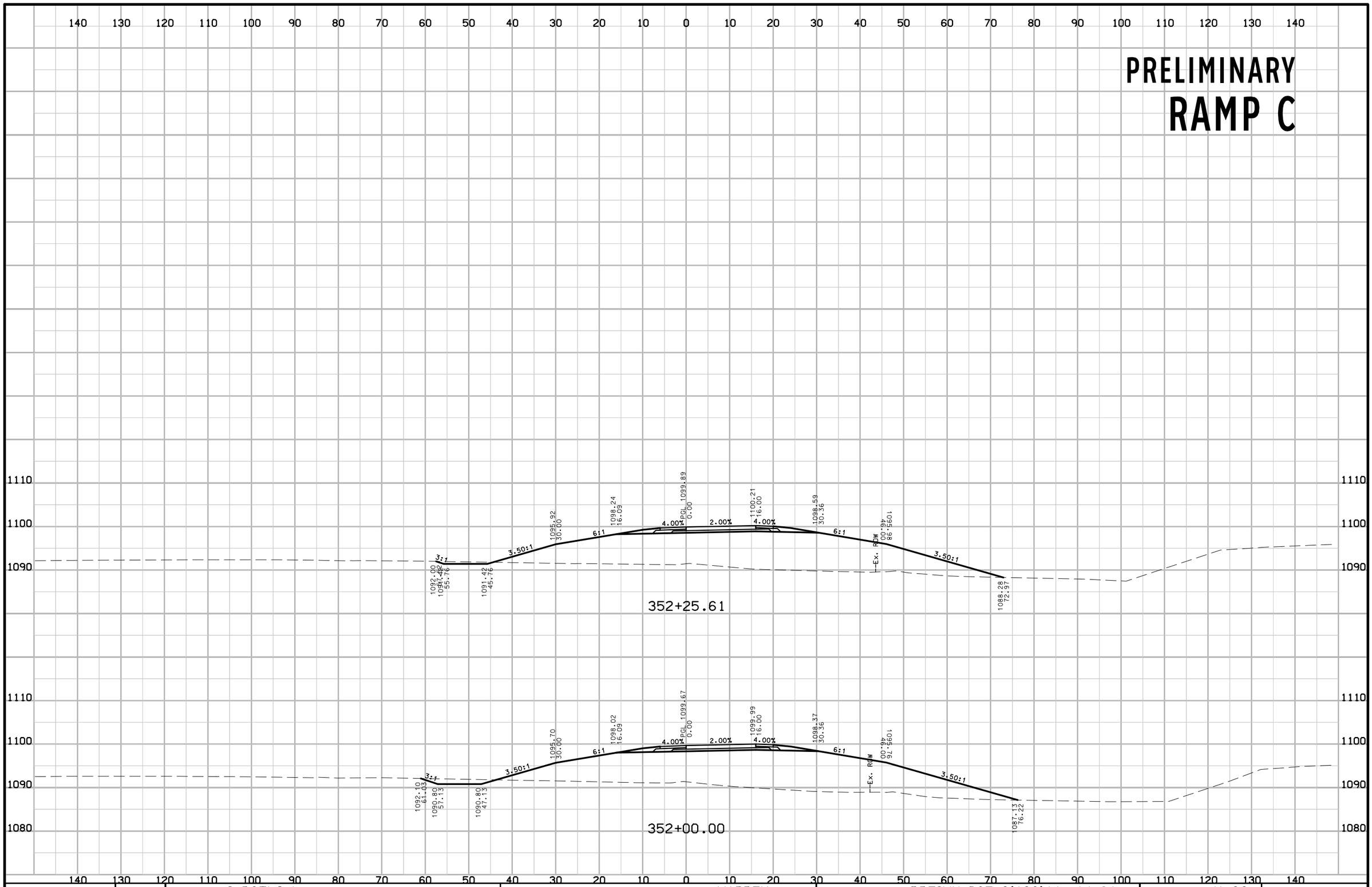

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.22

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PRELIMINARY
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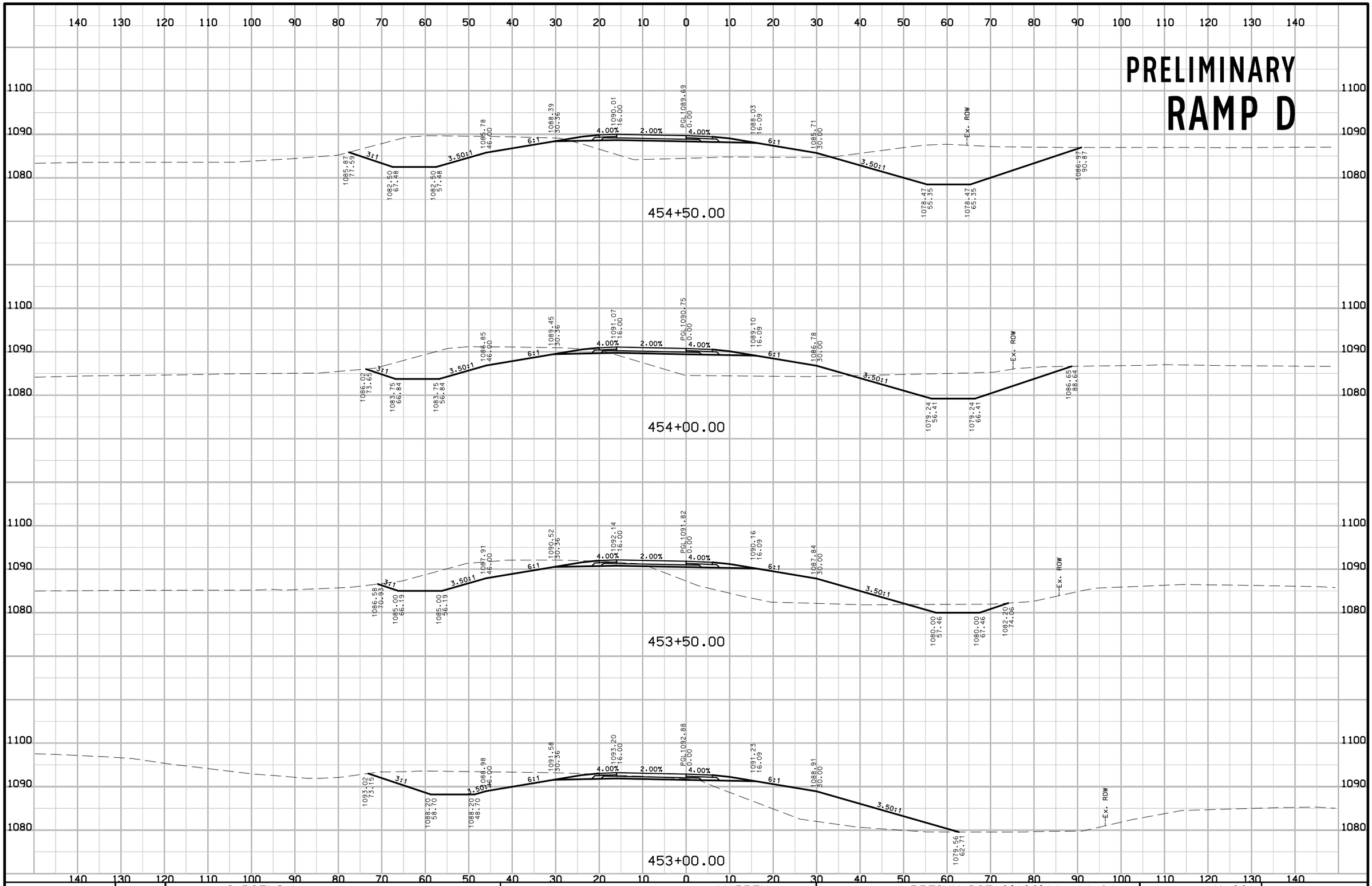

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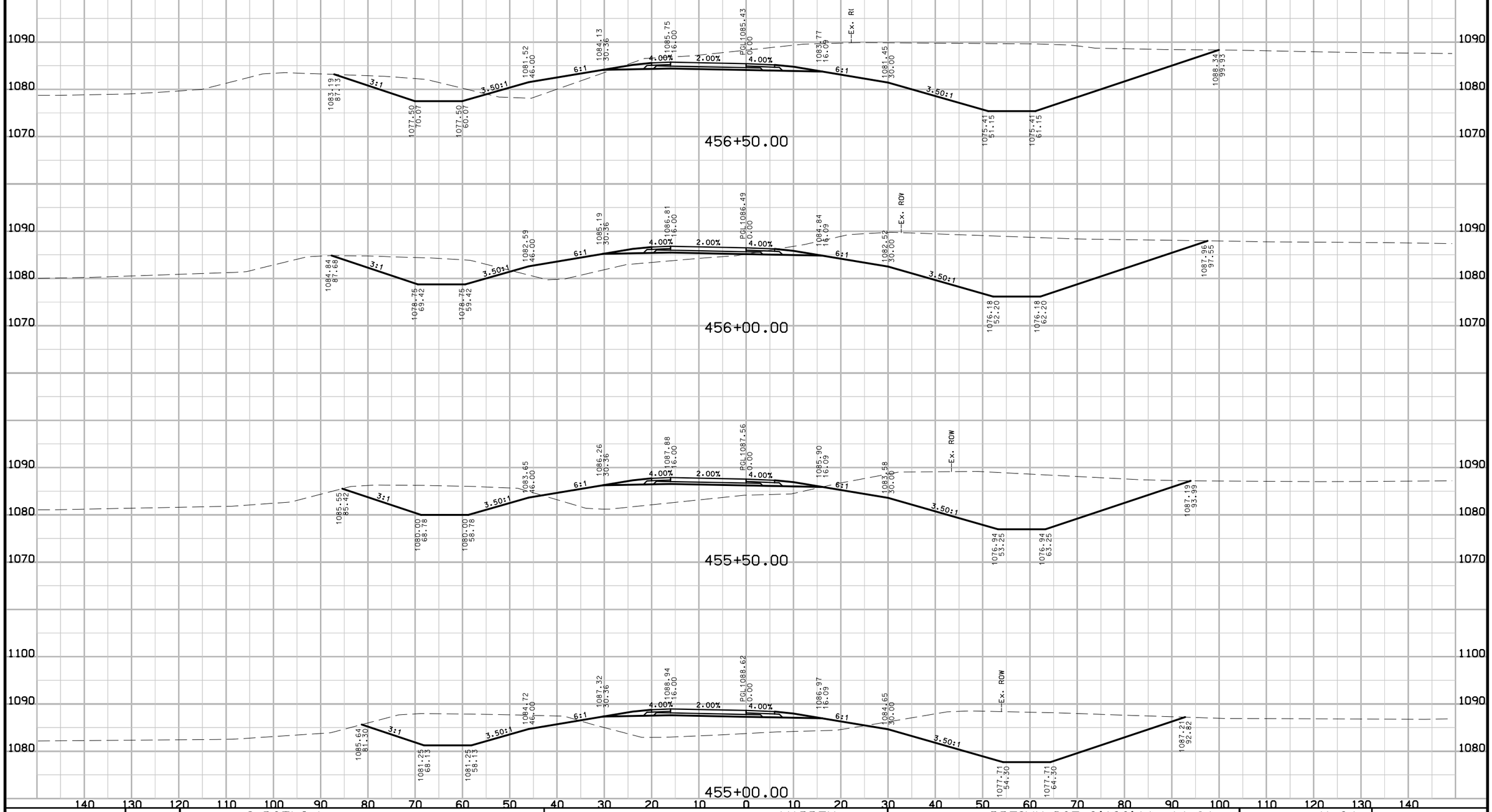

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.24

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PRELIMINARY
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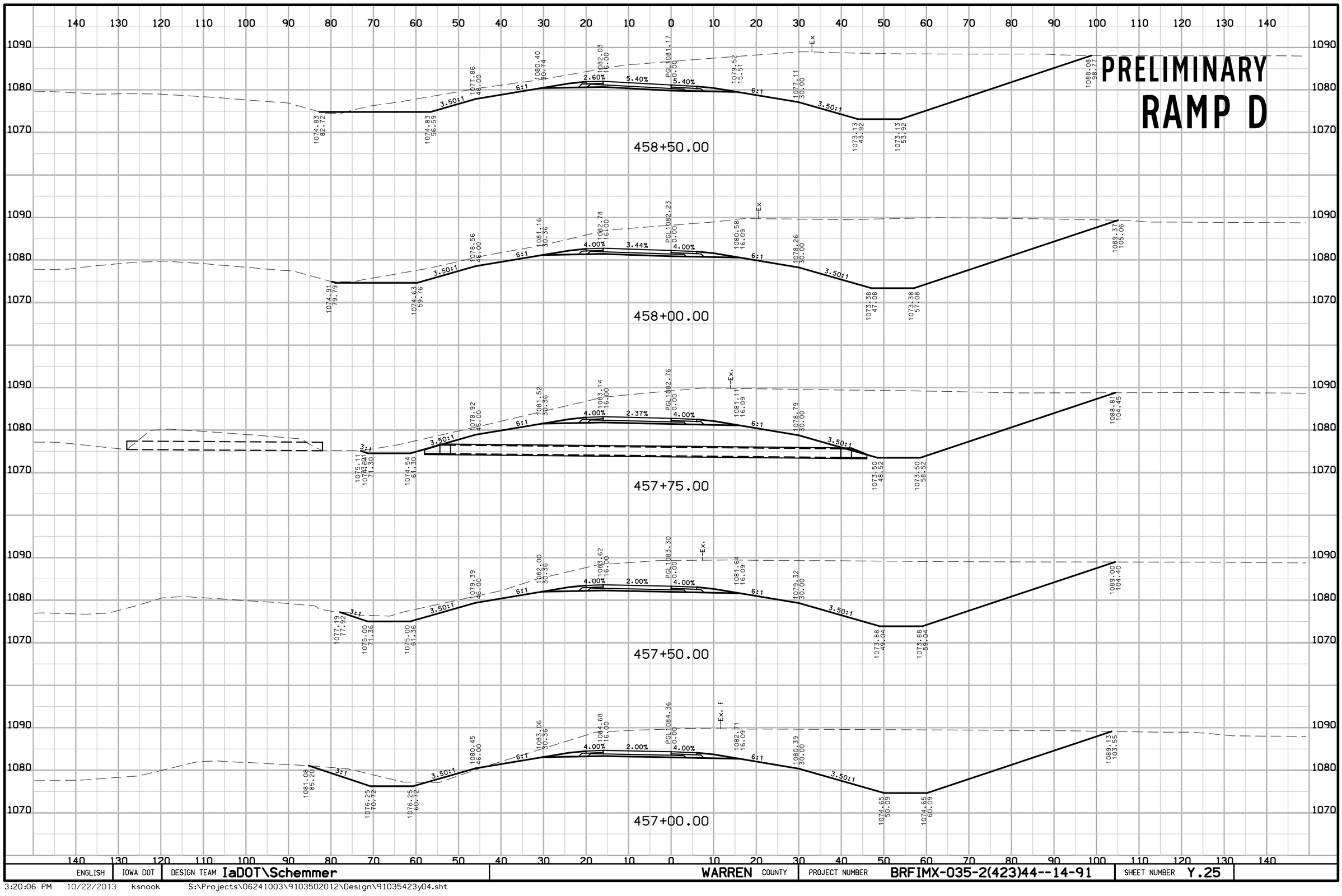

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.25

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PRELIMINARY
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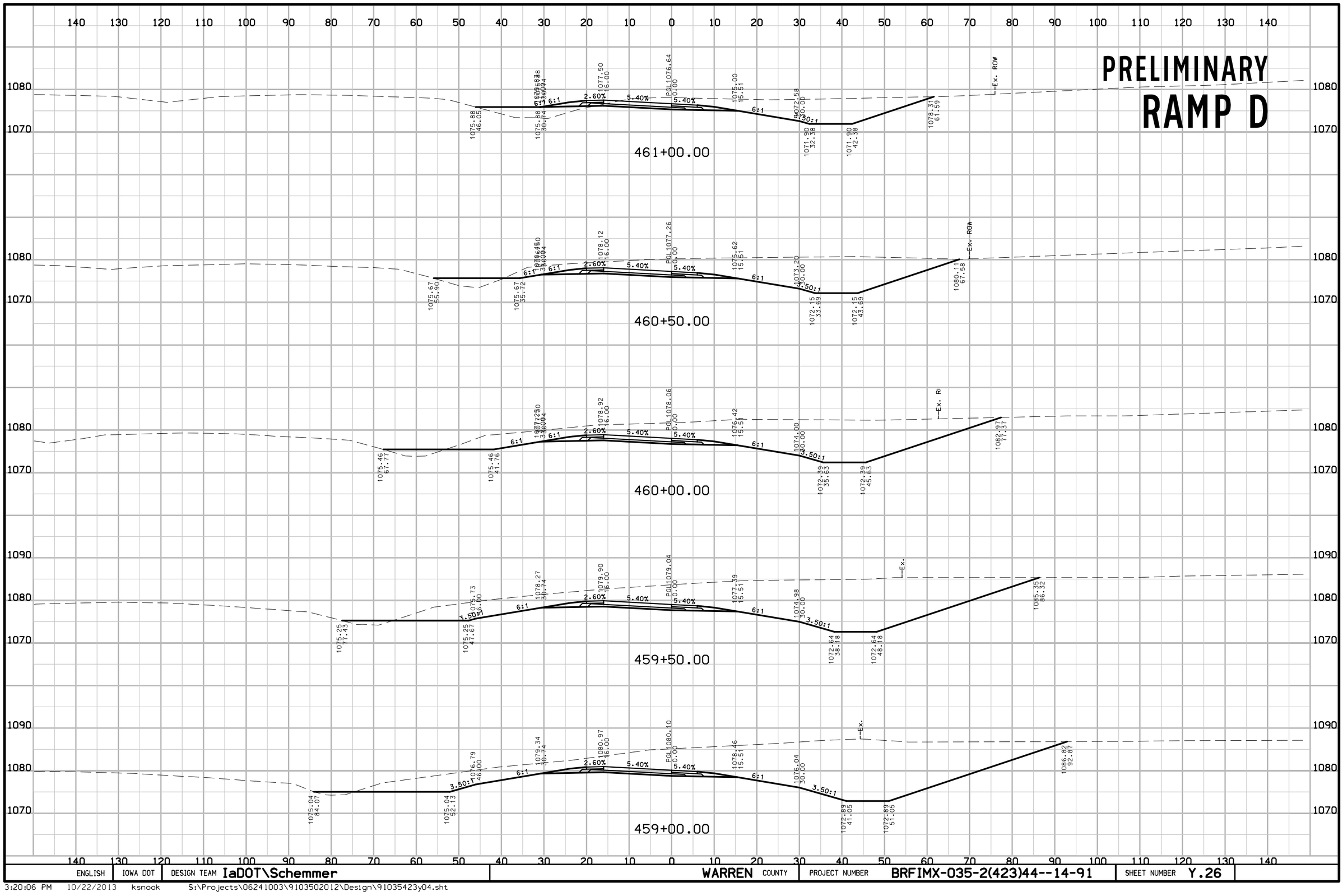

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.26

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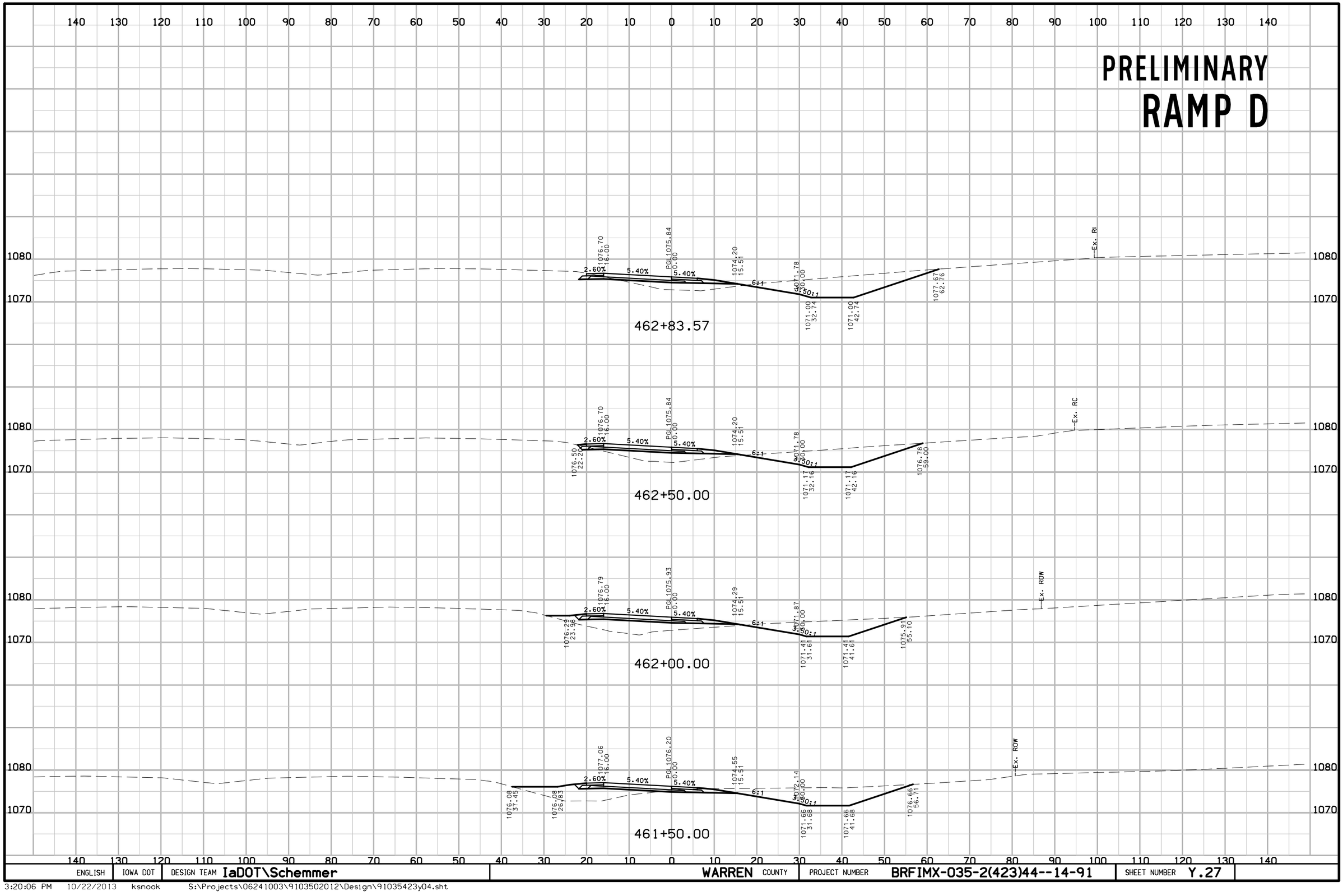
PRELIMINARY
RAMP D



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.27

3:20:06 PM 10/22/2013 ksnook S:\Projects\06241003\9103502012\Design\91035423y04.sht

PRELIMINARY
PRIVATE DRIVEWAY

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

1090
1080

1085.12
10.10
1086.48
6.00
1086.66
0.00
1086.84
6.00
1085.84
23.04
Ex. RO

544+50.00

1081.68
19.64
1084.89
6.00
1085.07
0.00
1085.25
6.00
1084.39
21.55
Ex. Rt

544+00.00

1080.83
13.41
1083.30
6.00
1083.48
0.00
1083.66
6.00
1083.17
15.43
Ex. Rt

543+50.00

1081.47
6.00
1081.89
0.00
1082.07
6.00
1082.76
8.06
Ex. ROW

543+00.00

1081.29
6.00
1081.31
0.00
1081.49
6.00
Ex. ROW
1083.83
13.04

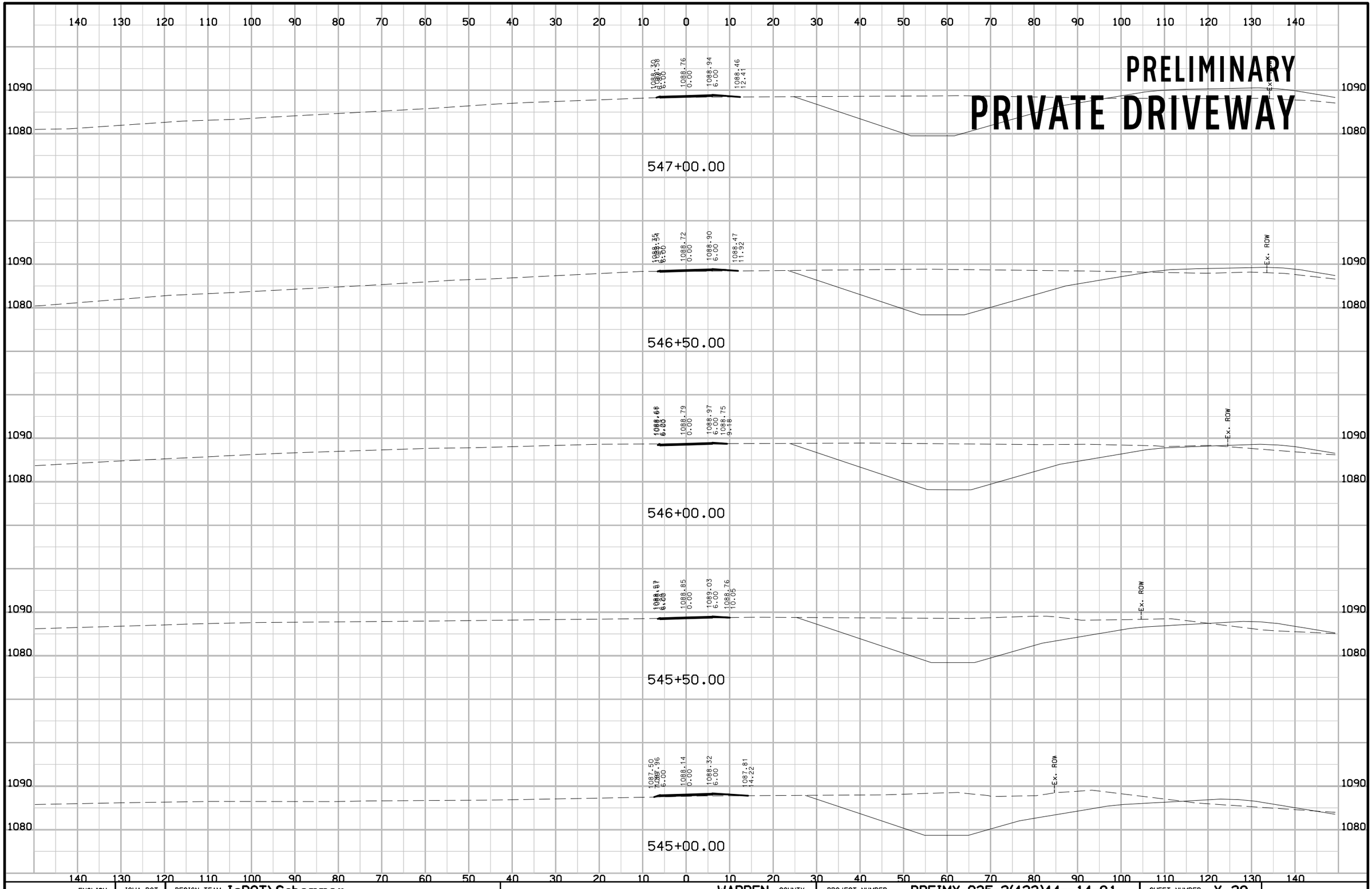
542+81.67

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

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.28

3:20:15 PM 10/22/2013 ksnook S:\Projects\06241003\9103502012\Design\91035423y05.sht

PRELIMINARY
PRIVATE DRIVEWAY



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.29

3:20:15 PM 10/22/2013 ksnook S:\Projects\06241003\9103502012\Design\91035423y05.sht

PRELIMINARY

PRIVATE DRIVEWAY

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

1090
1080

1090.43
1090.85
6.00
1091.03
0.00
1091.21
6.00
1090.21
16.93
EX. ROW

549+50.00

1089.53
1089.79
6.00
1089.97
0.00
1090.15
6.00
1089.41
14.29
EX. ROW

549+00.00

1088.26
1088.43
6.00
1089.43
0.00
1089.61
6.00
1089.04
12.76
EX. ROW

548+50.00

1088.99
1089.17
6.00
1089.17
0.00
1089.35
6.00
1088.78
12.95
EX. ROW

548+00.00

1088.43
1088.73
6.00
1088.91
0.00
1089.09
6.00
1088.55
12.97
EX. ROW

547+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

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.30

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PRELIMINARY
PRIVATE DRIVEWAY

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

1100
1090

1090.17
13.42
1092.64
6.00
1092.82
0.00
1093.00
6.00
1090.93
16.54
Ex. ROW

552+50.00

1092.13
13.42
1092.86
6.00
1093.04
0.00
1093.22
6.00
1092.14
12.41
Ex. ROW

552+00.00

1093.26
0.00
1093.44
6.00
1092.87
10.62

551+50.00

1093.29
0.00
1093.47
6.00
1092.83
11.56

551+00.00

1092.92
0.00
1093.10
6.00
1092.76
9.47
Ex. ROW

550+50.00

1092.17
0.00
1091.22
17.86
Ex. ROW

550+00.00

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.31

3:20:16 PM 10/22/2013 ksnook S:\Projects\06241003\9103502012\Design\91035423y05.sht

PRELIMINARY
PRIVATE DRIVEWAY

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

1090

1084.68
32.79

1090.61
15.00

1091.06
0.00

1091.52
15.17

1088.14
26.15

554+50.00

1100
1090
1080

1083.92
29.98

1091.22
8.07

1091.46
0.00

1091.95
17.47

1088.43
30.19

Ex. ROW

554+00.00

1100
1090

1087.39
19.34

1091.84
6.00

1092.02
0.00

1092.20
6.10

1089.61
16.38

Ex. ROW

553+50.00

1100
1090

1088.98
16.04

1092.33
6.00

1092.51
0.00

1092.69
6.00

1090.09
17.61

Ex. ROW

553+00.00

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

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.32

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PRELIMINARY
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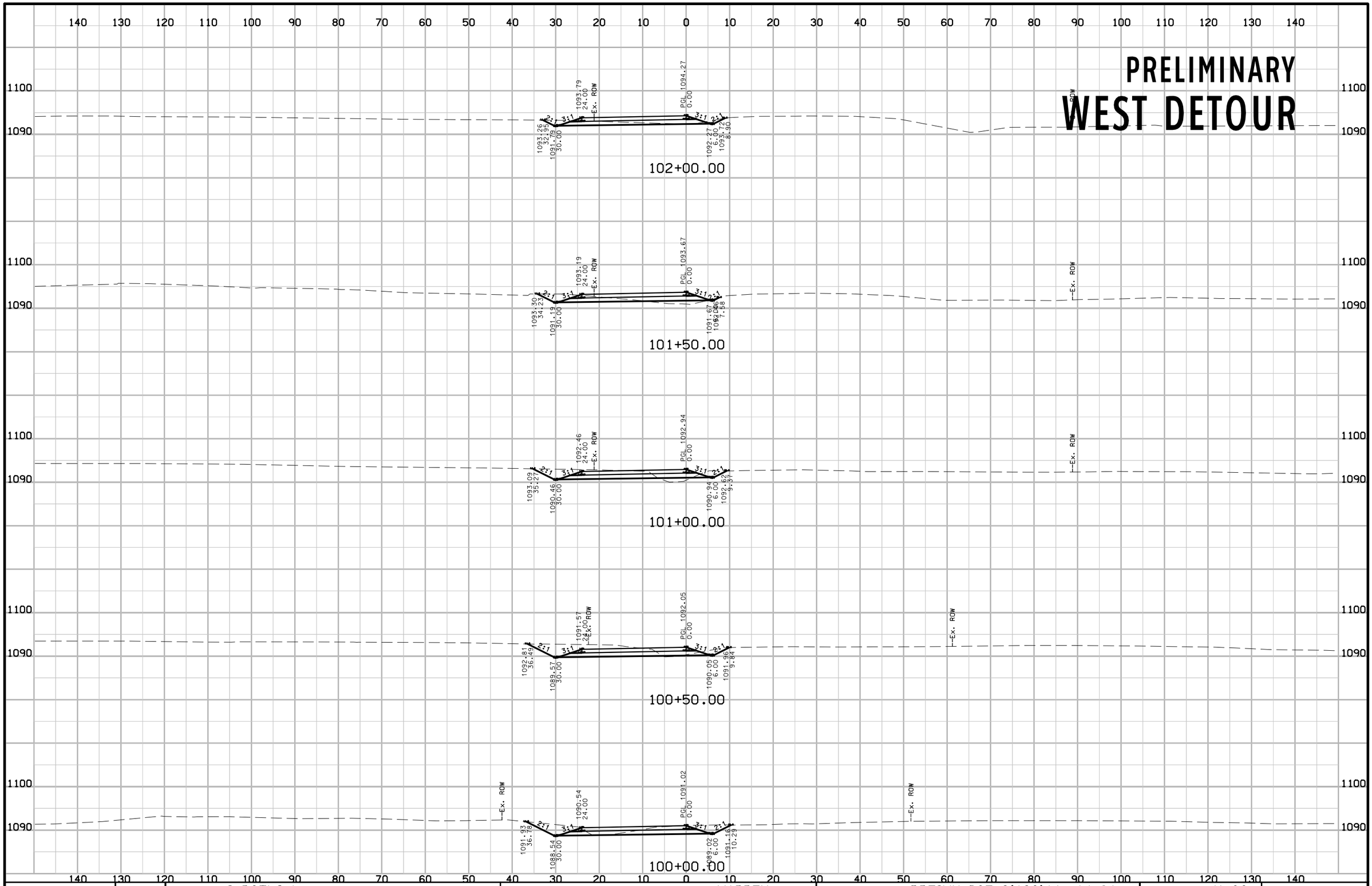

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.33

3:20:24 PM 10/22/2013 ksnook S:\Projects\06241003\9103502012\Design\91035423y06.sht

PRELIMINARY
WEST DETOUR

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

1090

1100

1090

103+79.67

Ex. ROW

1095.53
24.00

PGL 1096.01
0.00

3:1

3:1

2:1

1094.01
6.00

1096.33
10.66

103+50.00

1094.95
24.00

PGL 1095.43
0.00

Ex. ROW

1093.43
6.00

1095.61
10.50

103+00.00

Ex. ROW

1094.37
24.00

PGL 1094.85
0.00

Ex. ROW

1092.85
6.00

1094.76
9.83

102+50.00

Ex. ROW

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

ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.34

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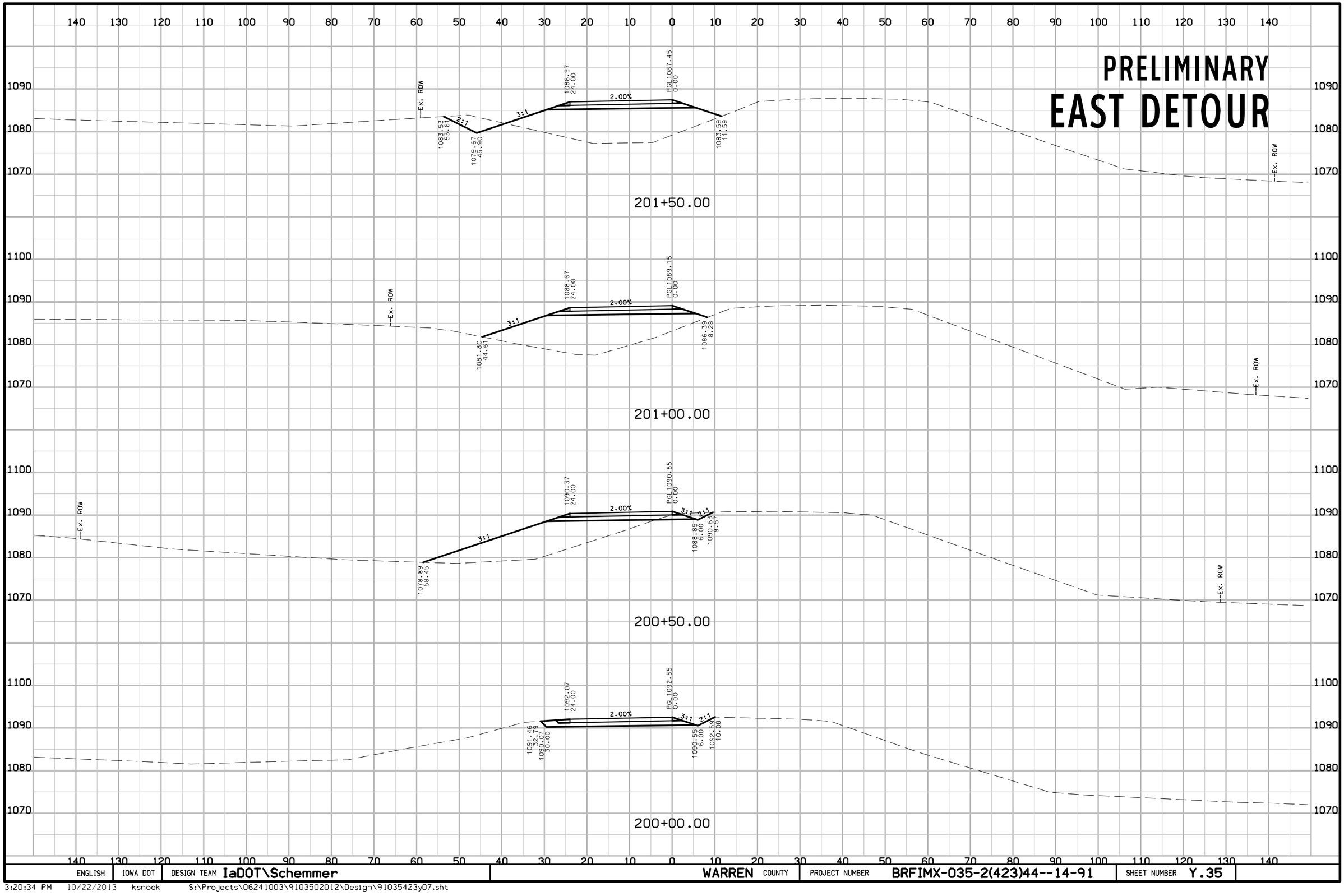
PRELIMINARY
EAST DETOUR



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.35

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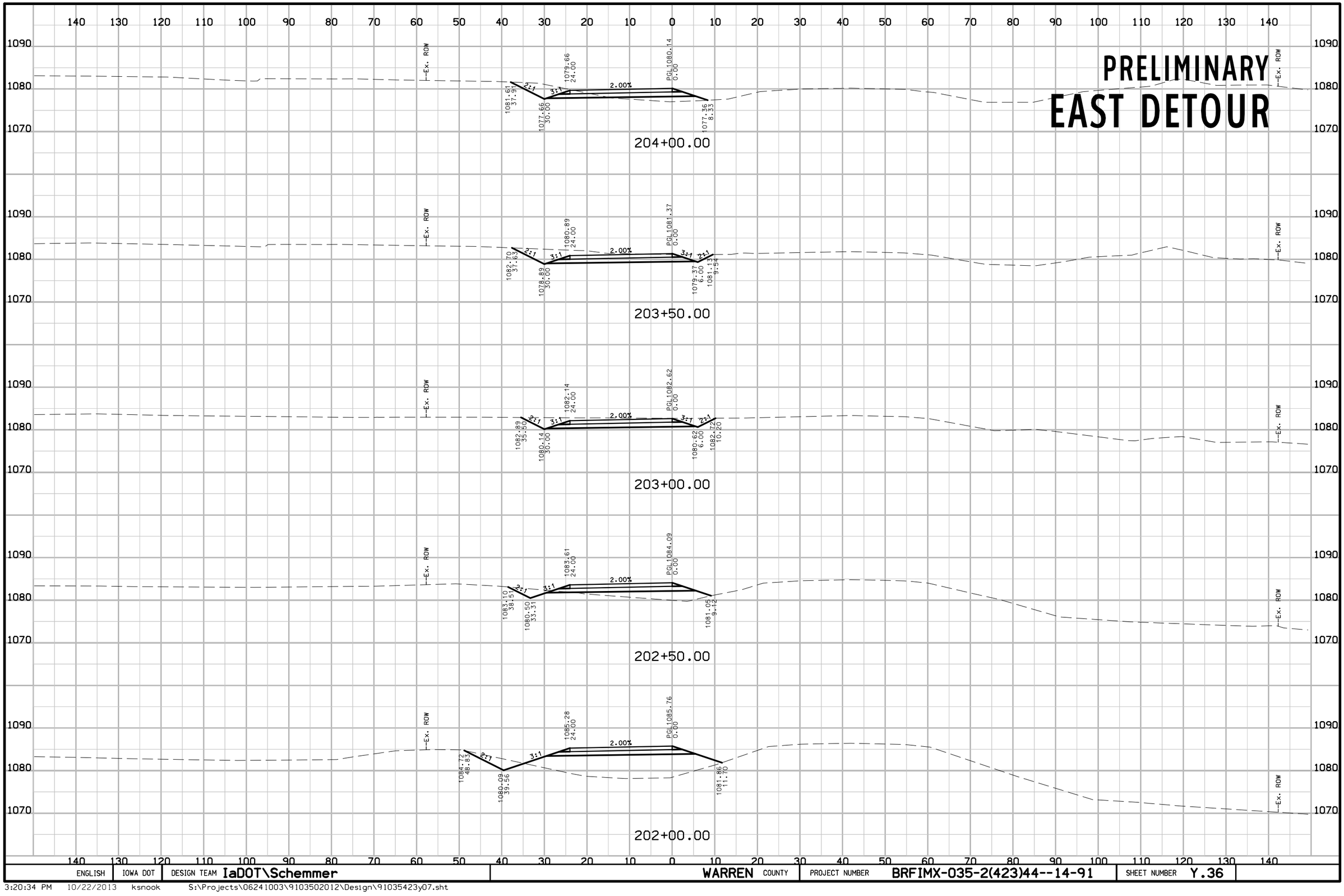
PRELIMINARY
EAST DETOUR



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.36

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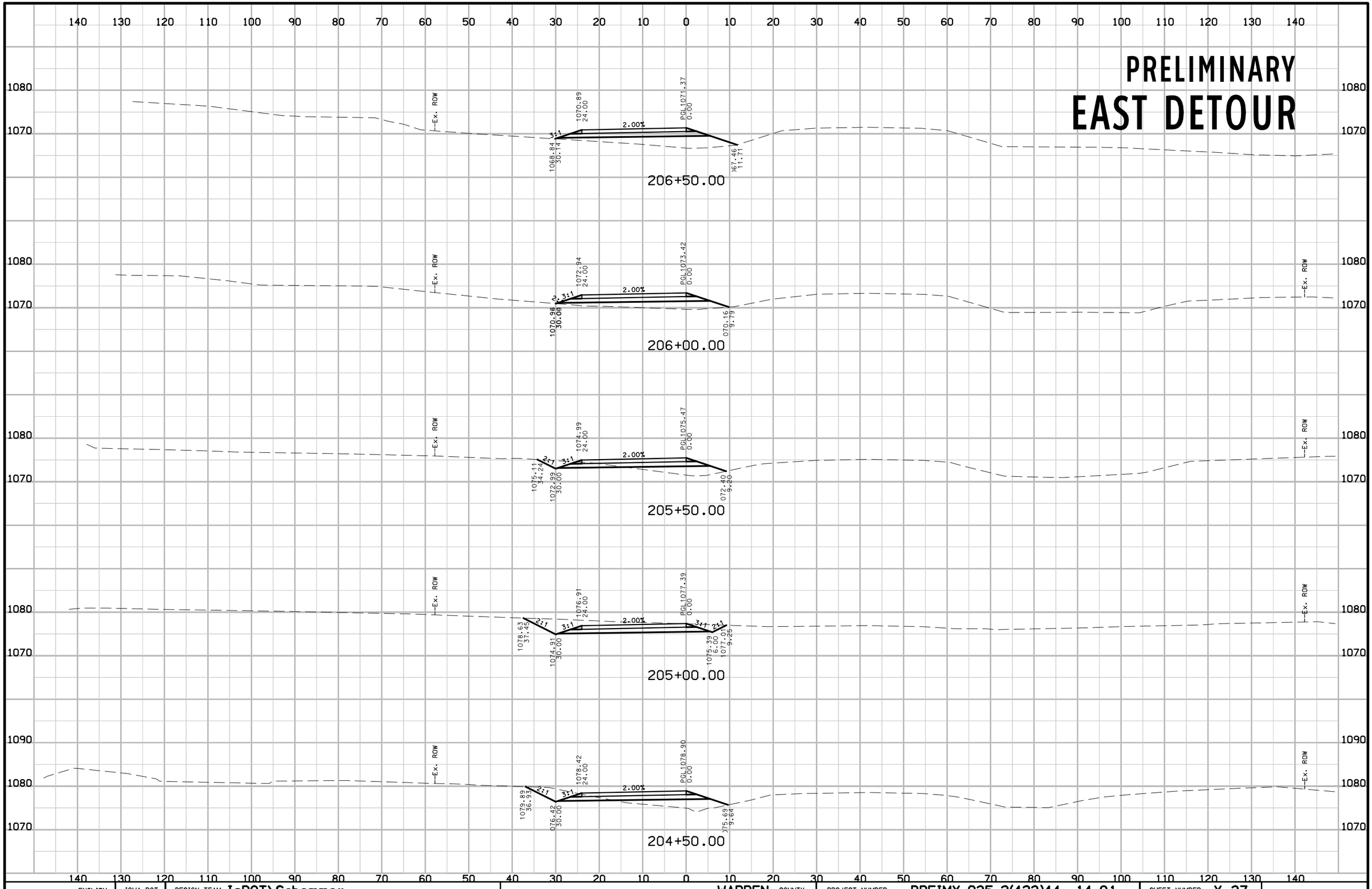
PRELIMINARY
EAST DETOUR



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.37

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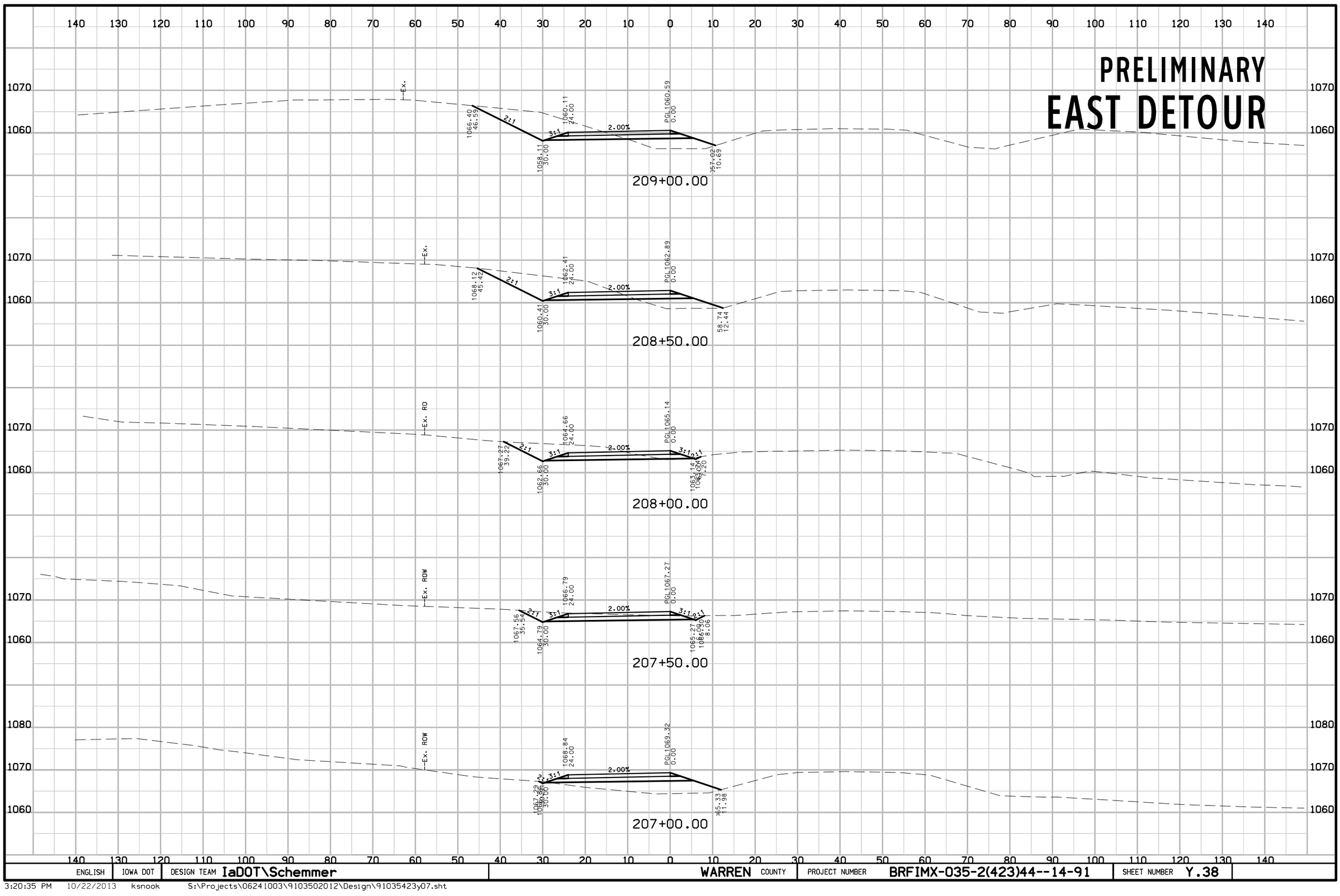
PRELIMINARY
EAST DETOUR



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.38

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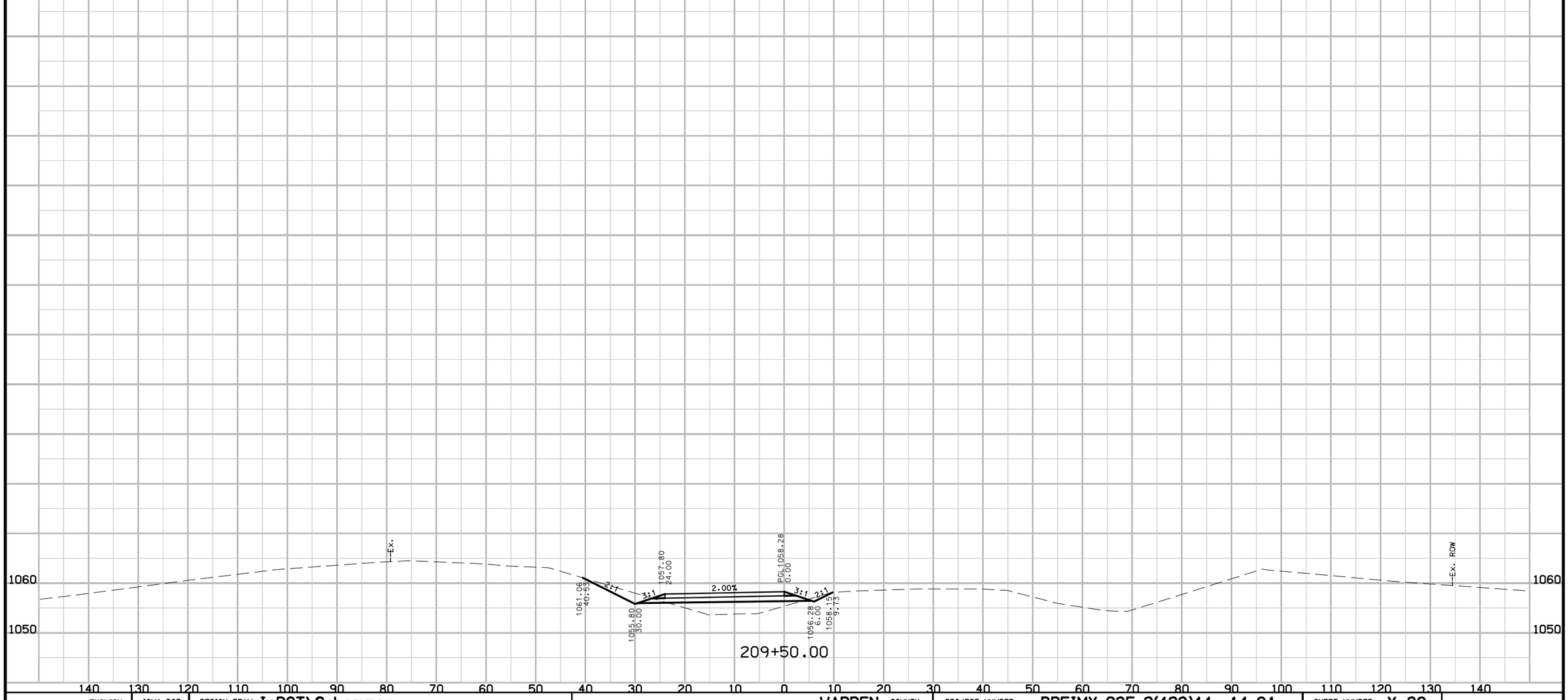
PRELIMINARY
EAST DETOUR



ENGLISH	IOWA DOT	DESIGN TEAM IaDOT\Schemmer	WARREN COUNTY	PROJECT NUMBER BRFIMX-035-2(423)44--14-91	SHEET NUMBER Y.39

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