IOWA DEPARTMENT OF TRANSPORTATION

TO OFFICE:	Right of Way	**DATE:**	May 28, 2013
ATTENTION:	M. J. Sankey	**REF. :**	Louisa County
		Proj. #	NHS-061-3(48)--19-58
FROM:	Dave Skogerboe	ROW #	NHSN-061-3(55)--2R-58
		PIN:	09-58-061-030
OFFICE:	Design		

SUBJECT: Right of Way Revision

This project is the reconstruction of U.S. 61 from 130th Street, approximately 2 miles south of IA 92, north to the Muscatine County line. The total length of the project is approximately 6 miles long. The proposed project involves converting the existing 2-lane roadway to a 4-lane facility on a relocated alignment. The new alignment begins on the west side of existing U.S. 61 and then crosses over to the east side of existing U.S. 61, just north of the 160th Street intersection. The typical section will provide a 26 ft. wide pavement with 8 ft. outside shoulders (4 ft. paved and 4 ft. granular) and 6 ft. inside shoulders (4 ft. paved and 2 ft. granular) with an 82 ft. wide median and 6:1/3.5:1 outside foreslopes. Diamond interchanges will be constructed at Iowa 92 and 170th Street. The interchange ramps will consist of 16 ft. wide pavement with 6 ft. and 4 ft. granular shoulders.

This revision is to upgrade the (D5) right of way submittal of September 21, 2012.

This revision is being made at the request of Louisa County to add a connection from existing US 61 to 160th Street.

Included in this submittal are Sheets: D.7, E.12, X.100-X.110

No printed plan sheets are included with this revision. A description of the MicroStation and GEOPAK files, chains, and profiles are included in ("Project Documentation Shell.xls"). It also specifies the scale and number of sheets in each file. PDF files of the sheets can be found on the network in pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5806103009\Design\Design Events\D5\Revision_2013-05-28\ folder.

The current letting date is 7/15/14.

If you have any questions, please feel free to contact us.

RDS:NAT
Attach.

cc:	M. J. Kennerly	N. L. McDonald	K. D. Nicholson
	G. A Novey	D. L. Maifield	D. R. Claman
	R. L. Stanley	J. P. Rost	Khyle Clute
	E. J. Ranney	L. C. Funnell	T. L. Gettings

D. A. Widick
M. A. Swenson
S. J. Gent
J. N. McCollough
M. Van Dyke
Ed Engle

S. C. Marler
J. W. Smith
T. Crouch
B. Bradley
B. Clancy

D. A. Popp
E. Wright
J. Vortherms
J. V. Armstrong
Maria Hobbs

LETTING DATE

LOUISA Co.

PCC PAVEMENT - GRADE AND NEW

NHS-061-3(48)--19-58

Iowa Department of Transportation

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

LOUISA COUNTY

PCC PAVEMENT - GRADE AND NEW

US 61 From Approx. 2 Miles South of Ia. 92 (130th St.) N. To Muscatine Co. Line

SCALES: As Noted

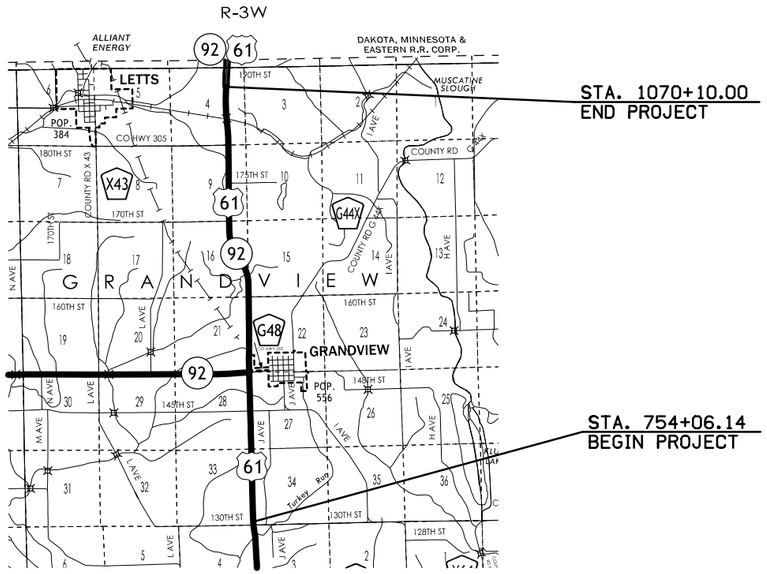
Refer to the Proposal Form for list of applicable specifications.

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

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

REVISIONS

TOTAL
PROJECT IDENTIFICATION NUMBER
09-58-061-030
PROJECT NUMBER
NHS-061-3(48)--19-58
R.O.W. PROJECT NUMBER
NHSN-061-3(55)--2R-58
NHSN-061-3(55)--2R-58



MILEAGE SUMMARY

105-1
09-27-94

Div.	Location	Lin. Ft.	Miles
1	RURAL:		
	Sta. 754+06.14 to Sta. 1070+10.00	31,603.86	
	Deduct Dual Bridges Sta. 956+40 +/-	240.00	
	Deduct Dual Bridges Sta. 964+95 +/-	205.00	
	Deduct Single Bridge Sta. 1037+40 +/-	200.00	
	TOTAL:	30,958.86	5.863

DESIGN DATA RURAL

2015 AADT	5700	V.P.D.
2035 AADT	--	V.P.D.
20-- DHV	--	V.P.H.
TRUCKS	16	%
Total Design ESALs	--	

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	Jim Schoenrock	Primary Signature Block
X	Robert L. Stanley	Soils Signature Block

LOCATION MAP SCALE
0 1 2 3
Miles

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN – Date: 09-21-2012

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER A.1

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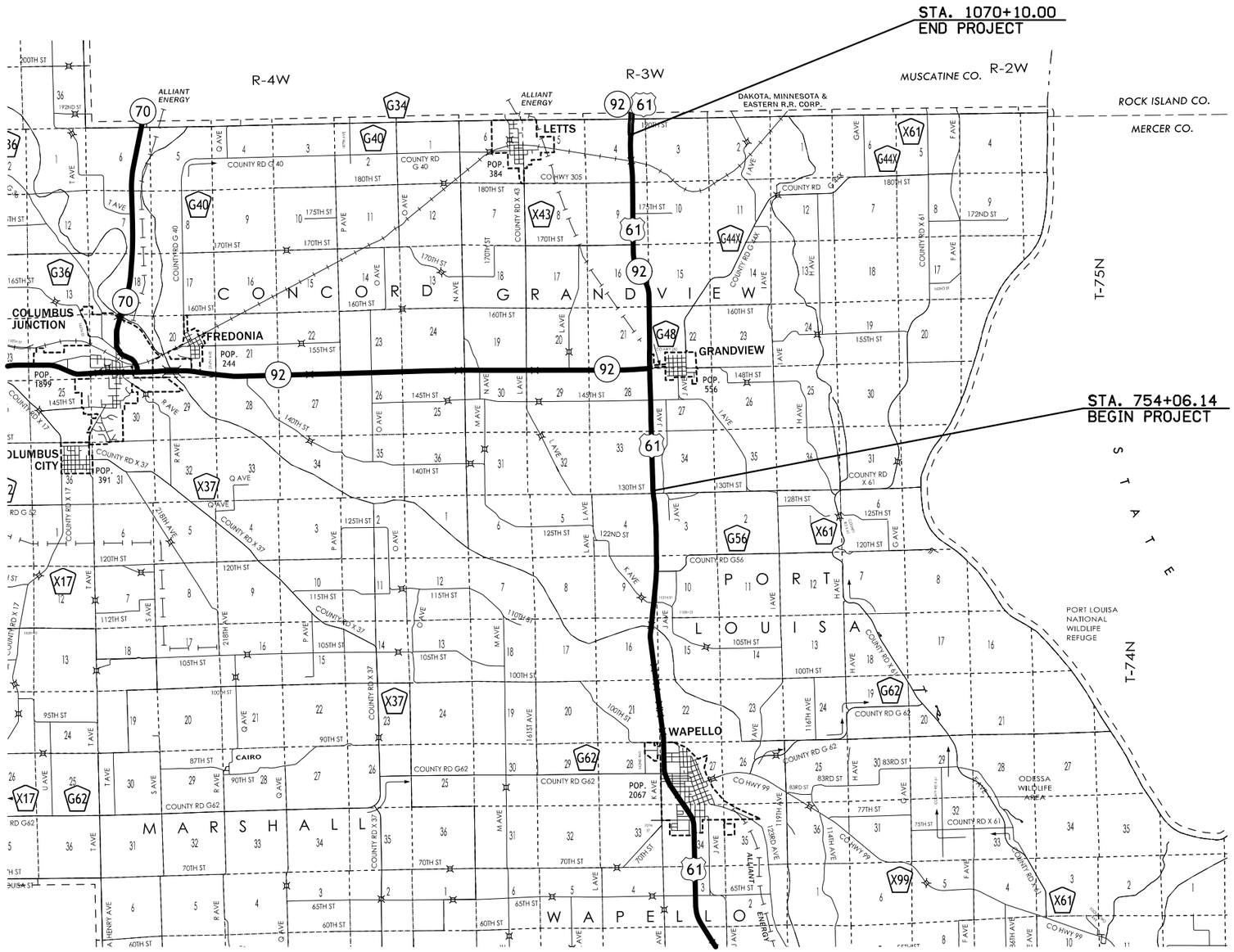

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER A.2

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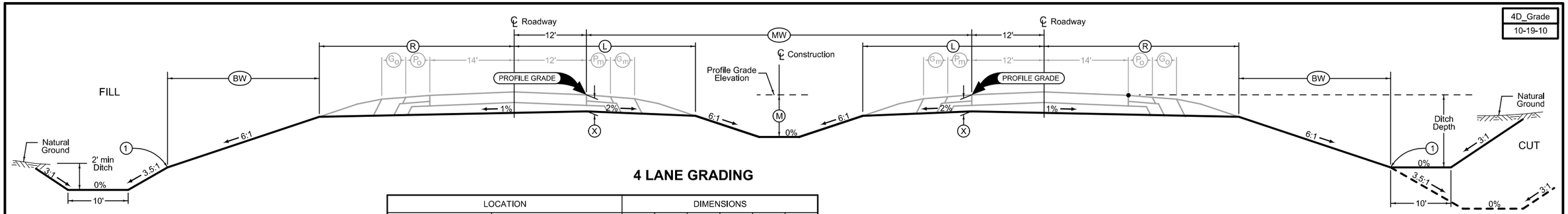
4D_Grade
10-19-10



4 LANE GRADING

LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(MW) Feet	(M) Feet
US 61	754+06	986+83	29.2	33.1	18	20.4	82	4
US 61	986+83	1048+90	29.2	33.1	18	20.4	82-184	4
US 61	1048+90	1070+10	29.2	33.1	18	20.4	82-70	4

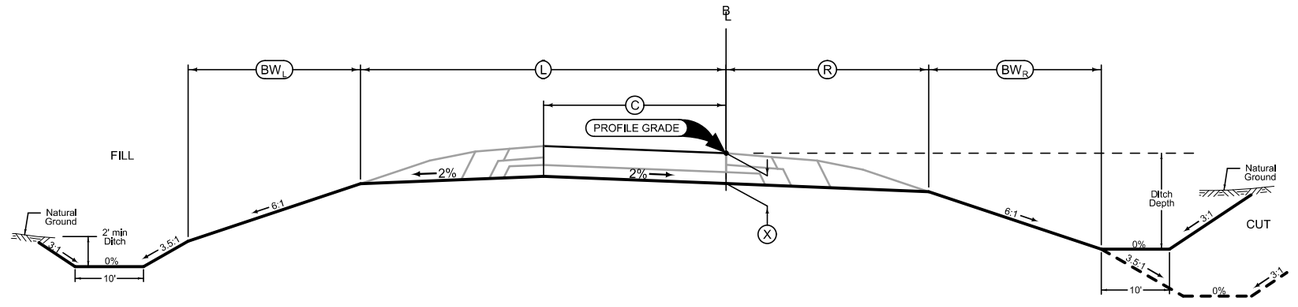
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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.

1R_Grade
10-18-11

LOCATION				DIMENSIONS					
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(C) Feet	(X) Inches	(BW_L) Feet	(BW_R) Feet
US 61\ IA 92	A	1556+28	1570+50	30.4	16.1	16	16	21.2	21.5
US 61\ IA 92	B	2543+50	2556+69	30.4	16.1	16	16	21.2	21.5
US 61\ IA 92	C	3544+80	3556+42	30.4	16.1	16	16	21.2	21.5
US 61\ IA 92	D	4556+50	4580+50	30.4	16.1	16	16	21.2	21.5
US 61\ 170th	A	5564+70	5579+25	30.4	16.1	16	16	21.2	21.5
US 61\ 170th	B	6551+00	6564+12	30.4	16.1	16	16	21.2	21.5
US 61\ 170th	C	7550+50	7565+89	30.4	16.1	16	16	21.2	21.5
US 61\ 170th	D	8563+94	8579+00	30.4	16.1	16	16	21.2	21.5



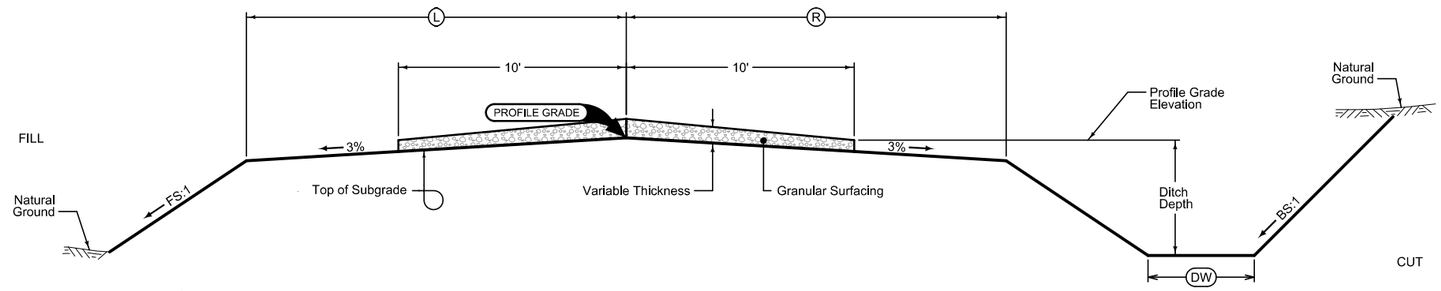
RAMP GRADING

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.

2_GradeGran
04-17-12

LOCATION			DIMENSIONS				
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	FS	BS	(DW) Feet
145th	2803+75	2818+03	13	13	3:1	2.5:1	10
175th	9970+20	10001+25	12	12	3:1	2.5:1	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.

Place Granular Surfacing as follows:
Grading design application rate is ___ tons per mile.
Paving design application rate is ___ tons per mile.

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER B.1

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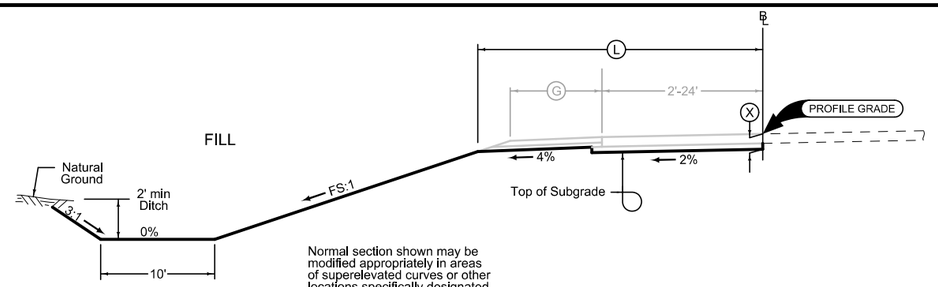
LOCATION			DIMENSIONS		
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(X) Inches	FS
DET61_905	301+26.75	304+55.63	12.5-29.2	20/21	3
DET61_905	311+33.17	315+71.08	30.4-16.7	20/21	3
DET61_985	400+86.04	406+65.05	16.3-29.2	20/21	3
DET61_985	433+27.32	438+24.79	29.2-12.5	20/21	3



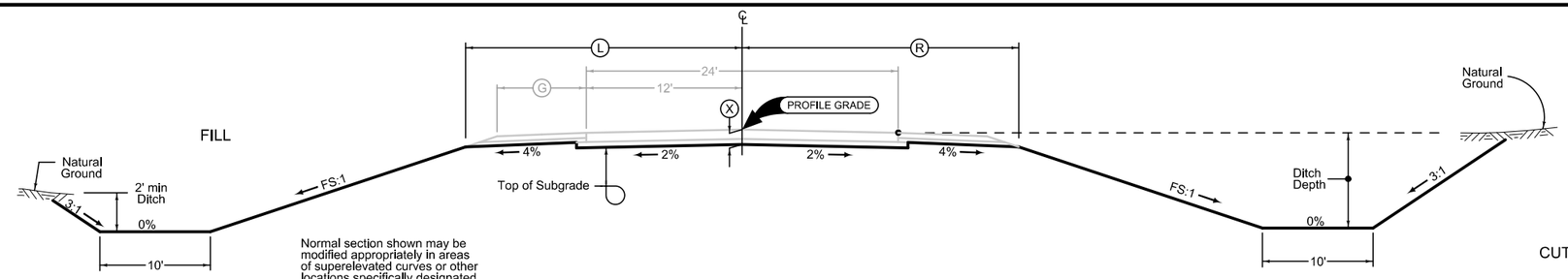
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See plan & profile sheets and cross sections for additional details of ditches and backslopes.

DETOUR TAPER GRADING

Detour-1
xx

LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	FS
DET61_905	304+55.63	311+33.17	17.2	17.2	20/21	3
DET61_985	406+65.05	433+27.32	17.2	17.2	20/21	3



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 DETOUR GRADING

Detour-2
xx

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER B.2

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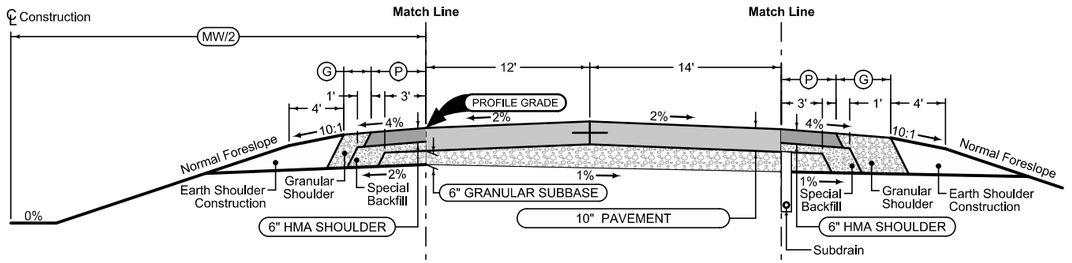
Combination Shoulder

Shoulder Jointing:
Longitudinal joint: B

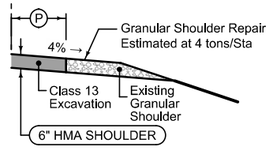
				4_C_ 10-19-10
Direction of Travel	BEGIN STATION	END STATION	(P) Feet	(G) Feet
Both	754+06	1012+02	4	2
SB	1012+02	1070+10	4	2



Section shown in the direction of traffic.

Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

			4DP_ 10-19-10
Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
Both	754+06	986+83	82
SB	986+83	1048+90	82
SB	1048+90	1070+10	82-70
NB	1986+83	2011+90	Var



Combination Shoulder

Shoulder Jointing:
Longitudinal joint: B

				4_C_ 10-19-10
Direction of Travel	BEGIN STATION	END STATION	(P) Feet	(G) Feet
SB	754+06	769+60	4	4
Both	769+60	1012+02	4	4
SB	1012+02	1070+10	4	4

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

			3R_Shldr_Paved_ 04-19-11
Direction of Travel	STATION TO STATION		(P) Feet
NB	754+06	769+60	4

See Tab 100-24 for pavement quantities.

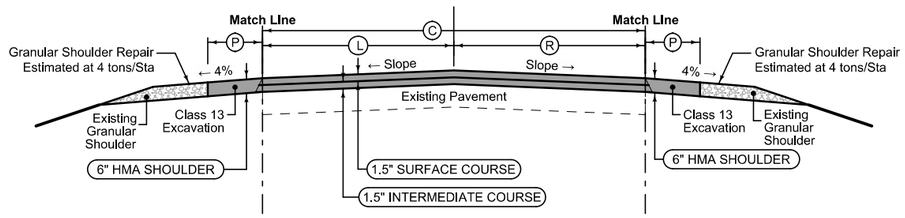
See Tab 112-9 for shoulder quantities.

US 61

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

3R_Shldr_Paved_ 04-19-11		
STATION TO STATION		(P) Feet
2011+90	2049+21	8



3R_Overlay_ 04-19-11				
STATION TO STATION		(C) Feet	(L) Feet	(R) Feet
2011+90	2049+21	24	12	12

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

3R_Shldr_Paved_ 04-19-11		
STATION TO STATION		(P) Feet
2011+90	2049+21	8

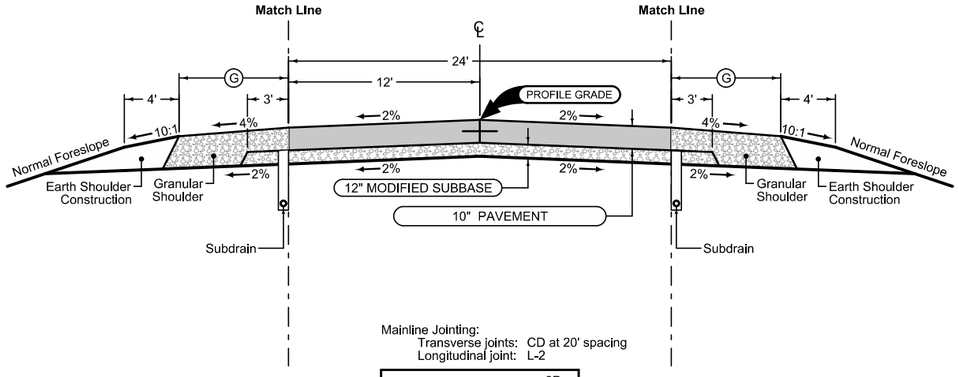
See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

US 61 - NB

Granular Shoulder

2_G_SR_ 10-19-10		
STATION TO STATION		(G) Feet
2818+00	2825+90.00	6



Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

2P_ 10-19-10	
STATION TO STATION	
2818+00	2825+90.00

Granular Shoulder

2_G_SR_ 10-19-10		
STATION TO STATION		(G) Feet
2818+00	2825+90.00	6

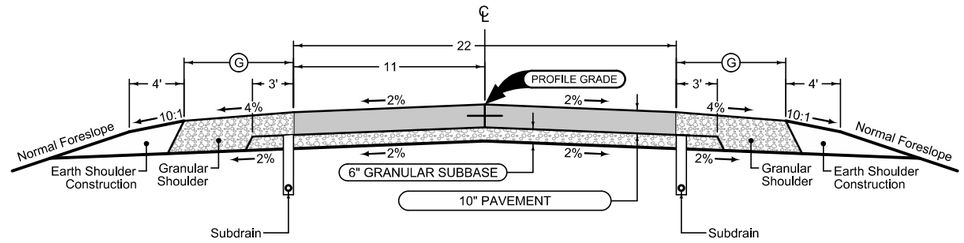
See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

145th St

Granular Shoulder

2_G_SR_ 10-19-10		
STATION TO STATION		Ⓖ Feet
3945+47	8970+20	6



Granular Shoulder

2_G_SR_ 10-19-10		
STATION TO STATION		Ⓖ Feet
3945+47	8970+20	6

Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

2P_ 10-19-10	
STATION TO STATION	
3945+47	8970+20

Sta 3947+47.70 BK = Sta 8958+09.61 AH

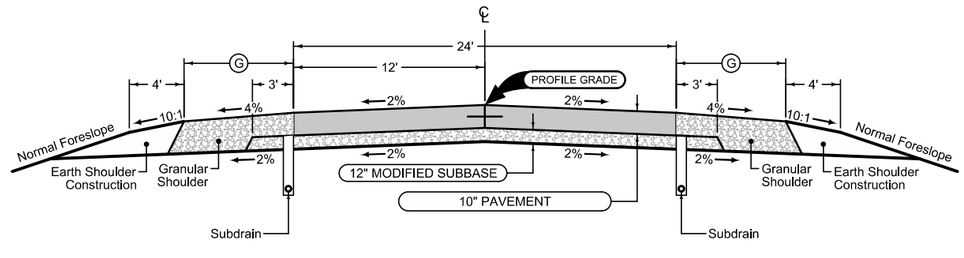
See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

170th St

Granular Shoulder

2_G_SR_ 10-19-10		
STATION TO STATION		Ⓖ Feet
961+82	964+32	6



Granular Shoulder

2_G_SR_ 10-19-10		
STATION TO STATION		Ⓖ Feet
961+82	964+32	6

Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

2P_ 10-19-10	
STATION TO STATION	
961+82	964+32

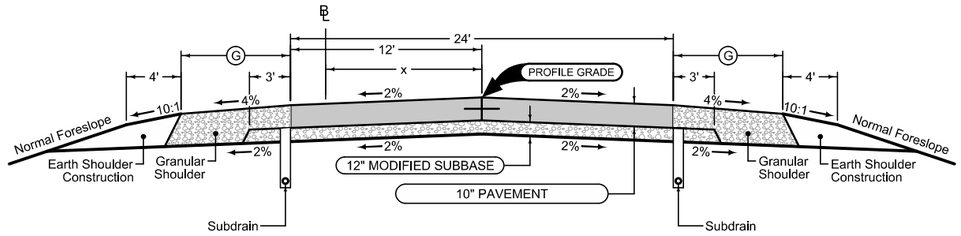
See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

Existing US 61 reconstruction 170th St

Granular Shoulder

2_G_SR_ 10-19-10		
STATION TO STATION		(G) Feet
851+25	856+37	6



Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

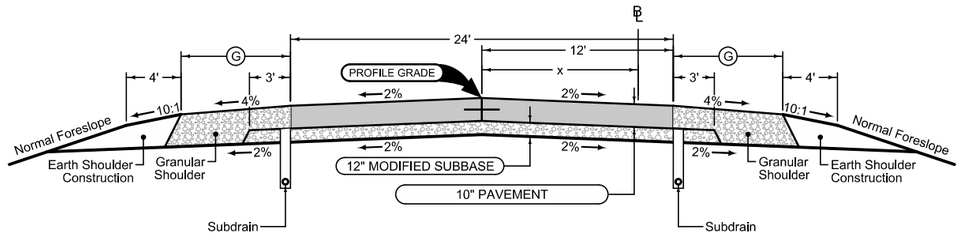
STATION TO STATION		x Feet
851+25	856+37	12

Granular Shoulder

2_G_SR_ 10-19-10		
STATION TO STATION		(G) Feet
851+25	856+37	6

Granular Shoulder

2_G_SR_ 10-19-10		
STATION TO STATION		(G) Feet
856+37	863+00	6



Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

STATION TO STATION		x Feet
856+37	863+00	12 - 0

Granular Shoulder

2_G_SR_ 10-19-10		
STATION TO STATION		(G) Feet
856+37	863+00	6

See Tab 100-24 for pavement quantities.

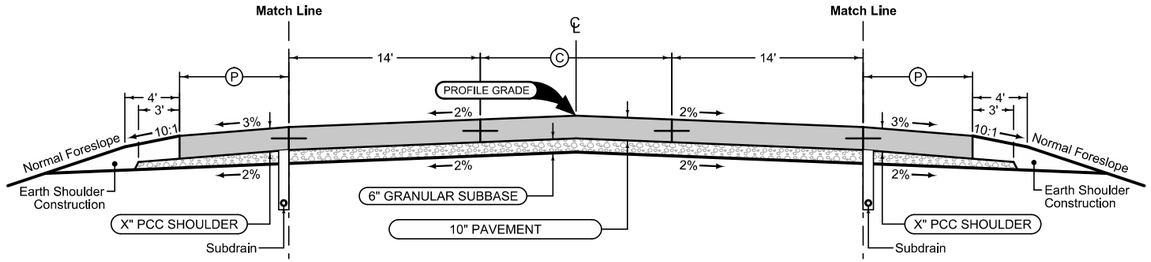
See Tab 112-9 for shoulder quantities.

Existing US 61 reconstruction IA 92

Full Depth PCC Shoulder

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

2_P_FullPCC_ 10-19-10		
STATION TO STATION		(P) Feet
502+75	503+05	3-8
503+05	513+70	8
516+99	521+60	8



Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

2P_TWLTL_ 10-19-10		
STATION TO STATION		(C) Feet
502+75	507+07	0 -16
507+07	516+87	16
516+87	521+60	16 - 0

Full Depth PCC Shoulder

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

2_P_FullPCC_ 10-19-10		
STATION TO STATION		(P) Feet
506+80	521+60	8

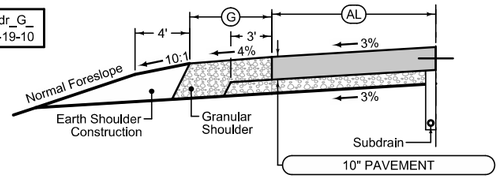
Auxiliary Lane

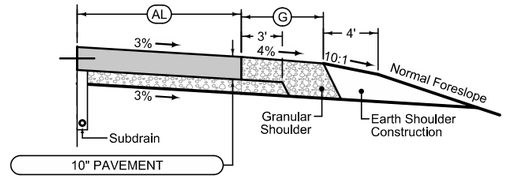
Longitudinal joint: L or KT
Transverse joint: Match Mainline

2_AuxLane_PCC_ 10-19-10			
STATION TO STATION		(AL) Feet	(G) Feet
513+70	516+75	10	6

Auxiliary Lane Granular Shoulder

2_AL_Shldr_G_ 10-19-10





Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

2_AuxLane_PCC_ 10-19-10			
STATION TO STATION		(AL) Feet	(G) Feet
499+40	502+49	0-10	6
502+49	506+80	10	6

Auxiliary Lane Granular Shoulder

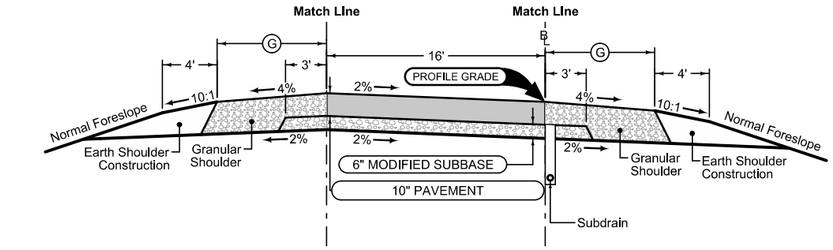
2_AL_Shldr_G_ 10-19-10

See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

Granular Shoulder

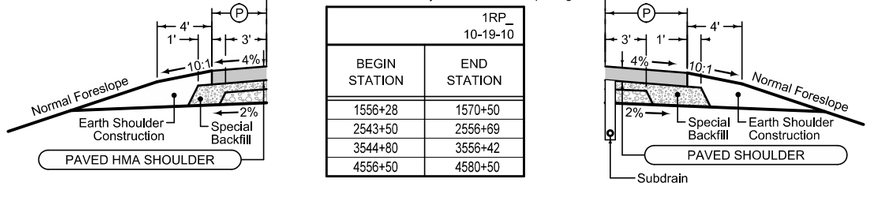
1R_G_ 10-19-10		
BEGIN STATION	END STATION	(G) Feet
2543+50	2556+69	4
4556+50	4580+50	4



Section shown In the direction of traffic.

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

1RP_ 10-19-10	
BEGIN STATION	END STATION
1556+28	1570+50
2543+50	2556+69
3544+80	3556+42
4556+50	4580+50



Granular Shoulder

1R_G_ 10-19-10		
BEGIN STATION	END STATION	(G) Feet
2543+50	2556+69	6
4556+50	4580+50	6

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
1556+28	1570+50	4
3544+80	3556+42	4

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
1556+28	1570+50	6
3544+80	3556+42	6

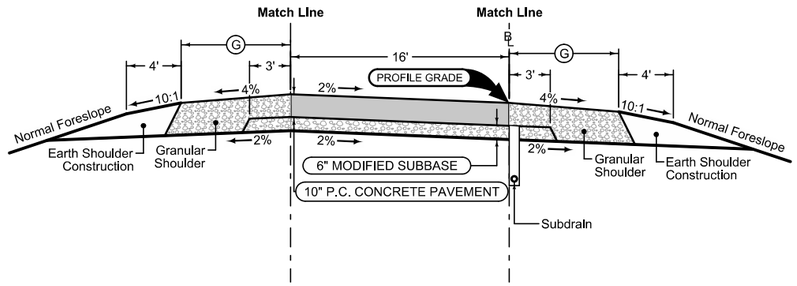
See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

US-61\IA-92 Interchange Ramps

Granular Shoulder

		1R_G_ 10-19-10
BEGIN STATION	END STATION	(G) Feet
5564+70	5579+25	4
6551+00	6564+12	4
7550+50	7565+89	4
8563+94	8579+00	4



Section shown in the direction of traffic.

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

	1RP_ 10-19-10
BEGIN STATION	END STATION
5564+70	5579+25
6551+00	6564+12
7550+50	7565+89
8563+94	8579+00

Granular Shoulder

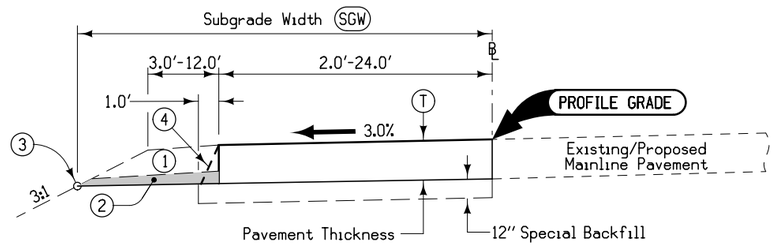
		1R_G_ 10-19-10
BEGIN STATION	END STATION	(G) Feet
5564+70	5579+25	6
6551+00	6564+12	6
7550+50	7565+89	6
8563+94	8579+00	6

See Tab 100-24 for pavement quantities.

See Tab 112-9 for shoulder quantities.

US-61/170th St Interchange Ramps

DETOUR-3
XX

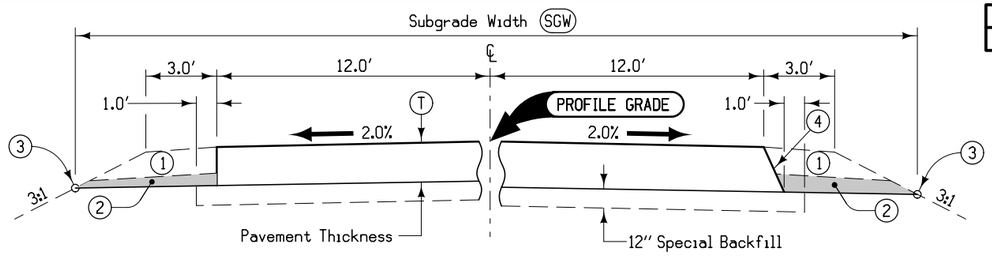


TYPICAL CROSS SECTION
DETOUR TAPER PAVEMENT ALTERNATES

Location		Pavement Alternates HMA T Inches	HMA SGW Feet	PCC T Inches	PCC SGW Feet	12" Special Backfill (5) Tons	Granular Shoulders (5) Tons	Earth Shoulder Construction Sta.
Station To Station								
DET61_905								
301+26.75	304+55.63	9	12.5-29.2	8	12.2-28.9	-	-	-
311+33.17	315+71.08	9	30.4-16.7	8	30.1-16.4	-	-	-
DET61_985								
400+86.04	406+65.05	9	16.3-29.2	8	16.0-28.9	-	-	-
433+27.32	438+24.79	9	29.2-12.5	8	28.9-12.2	-	-	-

1. 6" Granular Shoulder quantity calculation based on a vertical pavement face.
2. Earth Shoulder Construction
3. Subgrade Hinge Point
4. Possible 1:1 Slope
5. Per Station

DETOUR-4
XX

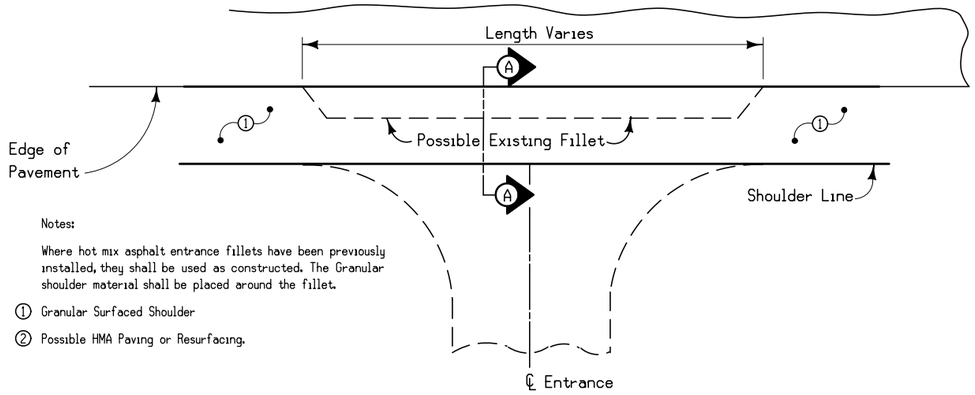


TYPICAL CROSS SECTION
DETOUR 2-LANE PAVEMENT ALTERNATES

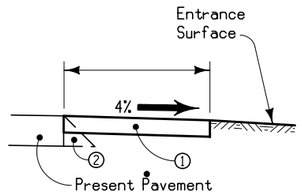
Location		Pavement Alternates HMA T Inches	HMA SGW Feet	PCC T Inches	PCC SGW Feet	12" Special Backfill (5) Tons	Granular Shoulders (5) Tons	Earth Shoulder Construction Sta.
Station To Station								
DET61_905								
304+55.63	311+33.17	9	34.4	8	33.8	-	-	-
DET61_985								
406+65.05	433+27.32	9	34.4	8	33.8	-	-	-

1. 6" Granular Shoulder quantity calculation based on a vertical pavement face.
2. Earth Shoulder Construction
3. Subgrade Hinge Point
4. Possible 1:1 Slope
5. Per Station

7117
10-02-01

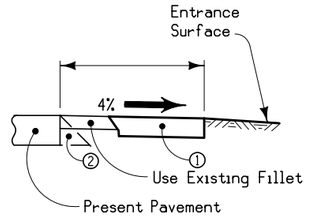


Plan



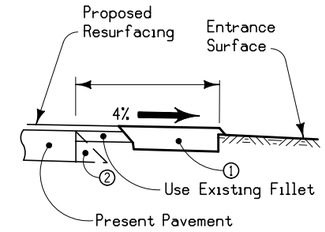
Section A-A

Without Fillet



Section A-A

With Previous Fillet

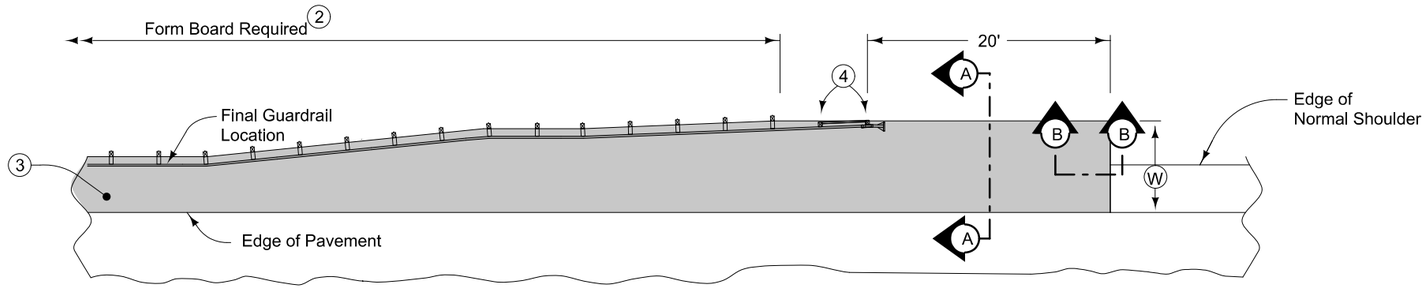


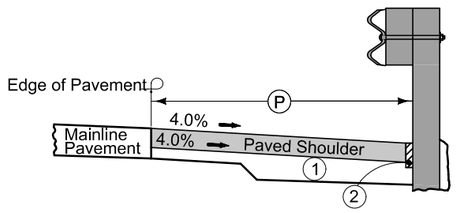
Section A-A

With Previous Fillet
And Resurfacing Less than 1½"

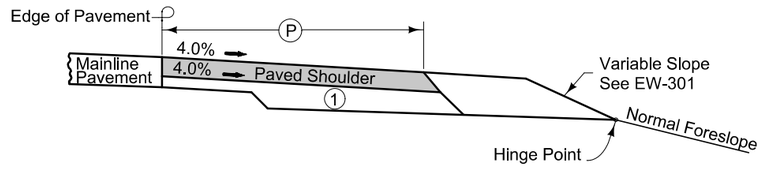
GRANULAR SHOULDER CONSTRUCTION THRU ENTRANCES

7156
04-17-12

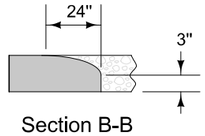




Typical Section with Form Board



Section A-A



Section B-B
Roll down at granular shoulder or earth.

6" HMA Paved Shoulder at guardrail. 7" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse joints in shoulder at mid-panel of the mainline pavement. Place longitudinal joint at W/2 from edge of mainline pavement when W is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal & reinstallation of guardrail will be allowed with no additional payment.

Refer to Shoulder tabulation (112-9) for quantities.

① 6" subgrade treatment.

② When guardrail posts are installed prior to construction of paved shoulder, nail 1" x 6" untreated form boards along the face of guardrail posts for the length shown. This board is to prevent shoulder material from contacting the sides of the posts and altering the function of the guardrail. Form board not required for final 2 posts.

③ Continue paved shoulder to existing paved shoulder or 20' beyond the end of guardrail.

④ Shoulder may be notched for final 2 posts or post sleeves may be installed through pavement.

PAVED SHOULDER AT GUARDRAIL

SURVEY SYMBOLS

- MIS Miscellaneous
- LIN Miscellaneous Line
- PIP Pipe Culvert
- TIL Tile Line
- OUT Tile Outlet
- IN Storm Sewer Intake
- CUL Culvert
- INB Storm Sewer Beehive Intake
- MM Mile Marker Post
- RRW Railroad Switch
- RRS Railroad Signal
- RRF Railroad Frog
- EB Electrical Box
- BRG Bridge
- GDL Guard Rail Steel
- BB Billboard
- SL Speed Limit Sign
- PPA Power Pole Co. 1
- TA Tower Anchor
- PR Electic Riser Pole
- LUM Luminaire
- MH Utility Access (Manhole)
- SI Sign
- PPC Power Pole Co. 3
- LC Lot Corner
- TEV Evergeen Tree
- TDC Tree Deciduous
- HDG Hedge Row
- SHR Shrub
- HT Electrical Highline Tower
- TPD Telephone Pedestal
- TSG Traffic Signal
- GV Gas Valve
- UV Underground Utility Vault
- FW Wire Fence
- GPR Guard Post (4 or More Posts)
- BLD Building or Foundation
- FCL Chain Link and Security Fence
- BNK Stream Bank
- EP Edge of Paved Roads (ML or SR)
- SNP Unpaved Shoulder
- DIK Centerline of Dike or Dam
- SNK Sink Hole
- D Centerline Draw or Stream (Down)
- DU Centerline Draw or Stream (Up)
- EG Edge of Gravel Road
- ENU Edge Unpaved Entrance & Parking
- SH Paved Shoulder
- ENT Centerline BL of Entrance
- CON Concrete or A/C Slab
- ENP Edge Paved Entrance & Park Lot
- RR Centerline of Railroad Tracks
- EW Edge of Water
- CU Back of Curb
- GU Gutter In Front of Curb
- E1 ELA Underground Electric Line Co. 1
- E2 ELB Underground Electric Line Co. 2
- T1 TLA Underground Telephone Line Co. 1
- F04 FOD Underground Fiber Optic Co. 4
- GHA Underground High Pres Gas Co 1
- F03 FOC Underground Fiber Optic Co. 3
- F0 FOA Underground Fiber Optic Co. 1
- BL Topo Breakline
- BLD Building or Foundation
- SWP Swamp or Marsh
- SWK Sidewalk
- WM Wind Mill
- LP L.P. Tank
- TV Satelite TV Dish
- BB Billboard
- FLG Flag Poles
- RET Retaining Walls
- FCL Chain Link and Security Fence
- C Centerline BL of Road (ML or SR)
- FWD Wood Fence
- SHR Shrub
- TER Terrace

UTILITY LEGEND

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annkreiss@alliantenergy.com

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Windstream Communications of Iowa
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Mt. Pleasant, IA 52641
319-385-5004
kelly.eggers@iowatelecom.com

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING	**Design Color No.**	
Yellow	(4)	Highlight for Critical Notes or Features
Red	(3)	Delineates Restricted Areas
Lavender	(9)	Temporary Pavement Shading
Gray, Light	(48)	Proposed Pavement Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

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

RIGHT-OF-WAY LEGEND

- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- C/A Access Control
- Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER D.1

10:36:54 AM 9/20/2012 nthede W:\Projects2\P0102000\5806103009\Design\58061048lgd.sht

GRANDVIEW TWP.
T-75N R-3W
SEC. 33

GRANDVIEW TWP.
T-75N R-3W
SEC. 34

Sta. 777+00
Install 24" x 84' 2000D
F.L. = Lt. 664.45
Rt. 667.66

130TH ST

US 61 (ML61)

Sta. 754+06.14
Begin Construction
PI Sta 750+13.79

POT Sta 754+06.14

PT Sta 754+06.14

APPROX. SEC. LINE

(Remove)
18" X 62' CMP

(Remove)
18" X 45' CMP

+59 Field Ent.
(Close)

(Proposed)
+49 Type C Ent.

(Proposed)
18" Unclassified

(Remove)
18" X 46' CMP

(Proposed)
+49 Type C Jt. Ent.

(U.A.C.)
18" X 46' CMP

Curve Data
Δ = 7° 10' 36.64" (RT)
T = 343.42
L = 785.77
R = 6,144.70
M = 12.58

Sta. 753+22.7
24" cir X 109' RF-1 CMP
Through Existing 5 X 7 X 43.0 Stock Pass
D.A. = 13 Ac. R-F

(U.A.C.)
24" X 91' CMP
D.A. = 6 Ac. R.

0 100
FEET

VPI +50.000
Elv 671.22
Len 250.00 ft

+1.524%
+1.000%
+1.18% Rt. Ditch
+1.21% Lt. Ditch Grade
+2.33% Lt.

Begin Construction
Sta. 754+06.14
Elev. 637.02

637.02

+20 Lt.
654.70

+50 Lt.
655.40

+30 Rt.
657.90

5' Ditch
4' Median Ditch
Ditch Grade
UAC

Lt Med Rt

637.31 637.69 638.07 638.45 638.84 639.22 639.60 639.98 640.36 640.74 641.12 641.50 641.88 642.26 642.65 643.03 643.41 643.79 644.17 644.55 644.93 645.31 645.69 646.07 646.46 646.84 647.22 647.60 647.98 648.36 648.74 649.12 649.50 649.88 650.27 650.65 651.03 651.41 651.79 652.17 652.55 652.93 653.31 653.69 654.08 654.46 654.84 655.22 655.60 655.98 656.36 656.74 657.12 657.50 657.89 658.27 658.65 659.03 659.41 659.79 660.17 660.55 660.93 661.31 661.70 662.08 662.46 662.84 663.22 663.60 663.98 664.36 664.74 665.12 665.51 665.89 666.27 666.65 667.03 667.41 667.79 668.17 668.55 668.93 669.32 669.69 670.05 670.40 670.73 671.06 671.37 671.66 671.94 672.21 672.47 672.72 672.97 673.22 673.47 673.72

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER D.2

8:12:16 AM 3/25/2013 nthede c:\pw_work\pwmain\nthede\d0122339\58061048d02.sht

GRANDVIEW TWP.
T-75N R-3W
SEC. 33

Sta. 796+15
Install 36" x 252' 2000D
Skew = 07° RT. Ahd.
Lt. 666.16
F.L. = Rt. 667.05
Other 666.59

Sta. 802+50
Install 24" x 78' 2000D
F.L. = Lt. 671.32
Rt. 673.98
Other 673.05

GRANDVIEW TWP.
T-75N R-3W
SEC. 28

(Remove)
18" X 48' CMP

(Proposed)
+83 Type C Jt Ent.

(Proposed)
18" Unclassified

(Proposed)
+71 Field Ent.

(Proposed)
+10 Type C Jt Ent.

(Proposed)
+36 Field Ent.

Sta 783+28.71
0°05'50.0" Rt.
Δ = No Curve

PC Sta 793+27.09

PI Sta 802+97.74
0°30'33.6" Rt.
No Curve

US 61 (ML61)

APPROX. SEC. LINE

(Obliterate)
Existing US 61

PI Sta 802+41.03

U.A.C.
18" X 48' CMP

(Proposed)
+71 Field Ent.

(Proposed)
+83 Type C Jt Ent.

(Plug and Abandon)
Sta. 796+53.2
36" cir X 109'
Extensions of 3 X 2 X 59.3 RCB
D.A. = 4 Ac. F-R

(Proposed)
+80 Type C Jt Ent.

(Remove)
Sta. 807+68.2
42" X 102.5' CMP RF-1
Through Existing 5 X 6 X 38.0 RCB
D.A. = 35 Ac. F.

Curve Data
Δ = 10° 08' 29.27" (LT)
T = 913.95
L = 1,823.12
R = 10,300.00
E = 40.47

GRANDVIEW TWP.
T-75N R-3W
SEC. 34

GRANDVIEW TWP.
T-75N R-3W
SEC. 27

0 100
FEET

VPI +40.000
Elv 684.12
Len 1,000.00 ft
+1.000%
-0.500%

VPI +80.000
Elv 677.40
Len 400.00 ft
-0.500%
+0.700%

Grade
+50 Lt. 674.70
+50 Rt. 674.70
-0.71% Rt. Ditch Grade
-0.83% Lt. Ditch Grade
+80 Lt. 666.17
+30 Rt. 667.05
+0.99% Rt. Ditch Grade
+0.76% Lt. Ditch Grade
+80 Lt. 671.51
+80 Rt. 673.51
-0.46% Rt. Ditch Grade
-0.50% Lt. Ditch Grade
+20 Lt. 669.30
+20 Rt. 671.50

Lt Med Rt
Ditch Grade
4' Median Ditch
Ditch Grade

673.97 674.22 674.47 674.72 674.97 675.22 675.47 675.72 675.97 676.22 676.47 676.72 676.97 677.22 677.47 677.72 677.97 678.22 678.47 678.72 678.97 679.22 679.46 679.69 679.92 680.13 680.33 680.53 680.71 680.89 681.06 681.21 681.36 681.50 681.63 681.75 681.86 681.96 682.05 682.13 682.21 682.27 682.32 682.37 682.40 682.43 682.45 682.45 682.45 682.44 682.42 682.39 682.35 682.30 682.24 682.17 682.10 682.01 681.91 681.81 681.69 681.57 681.45 681.32 681.20 681.07 680.95 680.82 680.70 680.57 680.45 680.32 680.20 680.07 679.95 679.82 679.70 679.57 679.45 679.32 679.20 679.07 678.95 678.82 678.70 678.57 678.45 678.32 678.22 678.13 678.07 678.02 677.99 677.98 677.99 678.01 678.06 678.12 678.21 678.31 678.43 678.57 678.73 678.90 679.08 679.25 679.43 679.60 679.78 679.95 680.13 680.30 680.48 680.65 680.83 681.00 681.18 681.35 681.53 681.70

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER D.3

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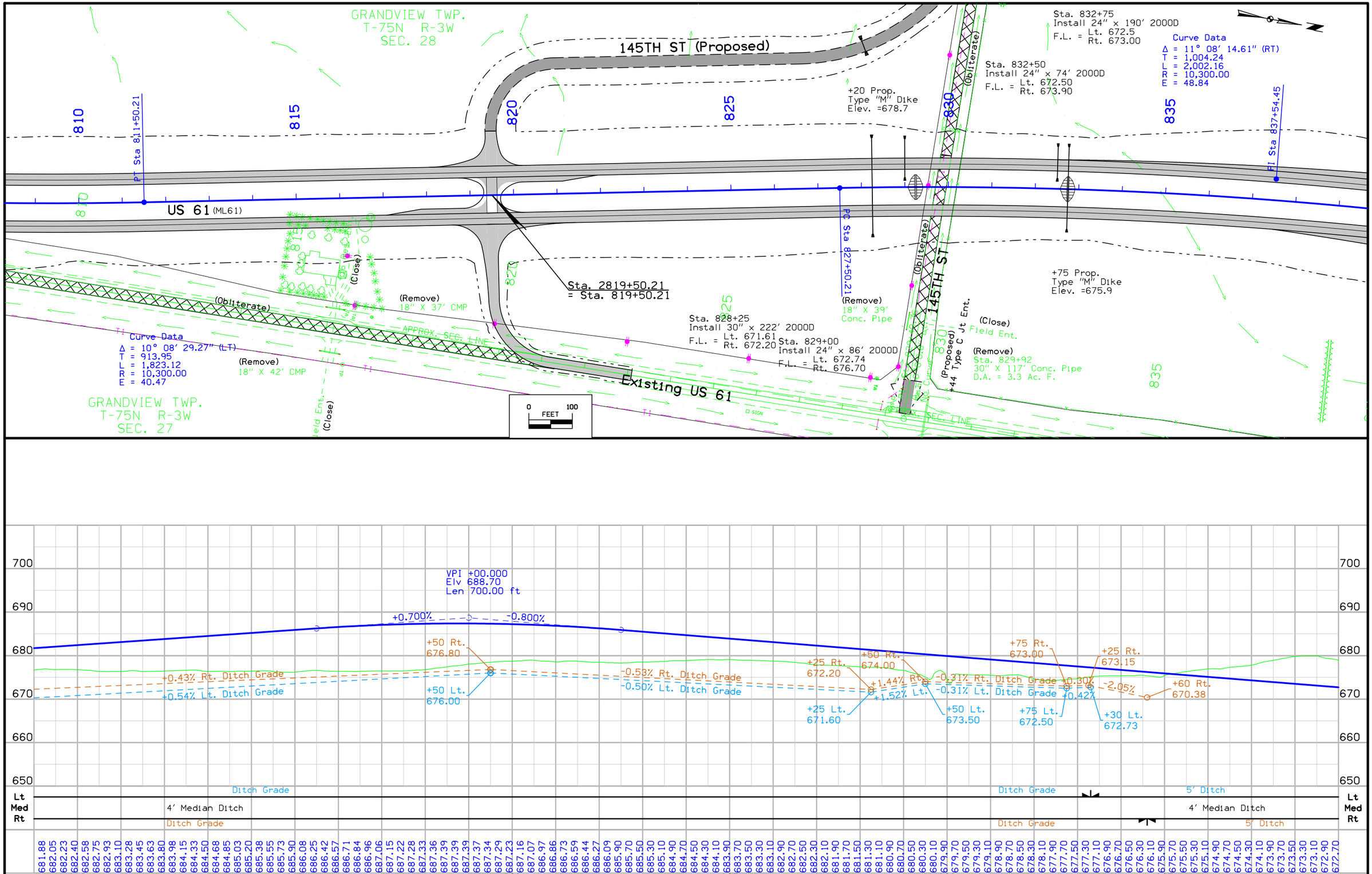


C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER D.4

8:43:15 AM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048d02.sht

Curve Data
Δ = 11° 08′ 14.61″ (RT)
T = 1,004.24
L = 2,002.16
R = 10,300.00
E = 48.84

Sta. 844+00
Install 78″ x 336′ 2000D
Skew = 10° LT. Ahd.
F.L. = Lt. 652.47
Rt. 653.81

GRANDVIEW TWP.
T-75N R-3W
SEC. 28

Sta. 1556+90 Ramp A
Install 36″ x 86′ 2000D
Skew = 12° RT. Ahd.
F.L. = Lt. 659.00
Rt. 660.00

Sta. 1560+50 Ramp A
Install 36″ 66′ 2000D
Skew = 05° LT. Ahd.
F.L. = Lt. 660.10
Rt. 660.50

GRANDVIEW TWP.
T-75N R-3W
SEC. 21

IA 92

Sta. 857+25.83
Install 36″ x 300′ 3000D
Skew = 2.6° RT. Ahd.
F.L. = Lt. 661.27
Rt. 664.43

Sta. 3555+90 Ramp C
Install 30″ x 64′ 2000D
Skew = 05° LT. Ahd.
F.L. = Lt. 661.24
Rt. 661.58

840 845 850 855 860 865

US 61 (ML61)

PT Sta 847+52.35

510
+20 Field Ent.
(Close)

(Remove)
Two 24″ X
24′ CMP

Sta. 855+84.09
Install 24″ x 286′ 3000D
Skew = 3.6° RT. Ahd.
F.L. = Lt. 662.25
Rt. 663.54

Sta. 510+38.38
= Sta. 856+52.82

Sta. 860+40
Install 30″ x 360′ 3750D
F.L. = Lt. 661.25
Rt. 662.93

Sta. 2556+17 Ramp B
Install 24″ x 88′ 2000D
Skew = 15° RT. Ahd.
F.L. = Lt. 664.54
Rt. 664.98

Sta. 841+75
Install 24″ 110′ 2000D
F.L. = Lt. 667.09
Rt. 663.22
Other 666.14

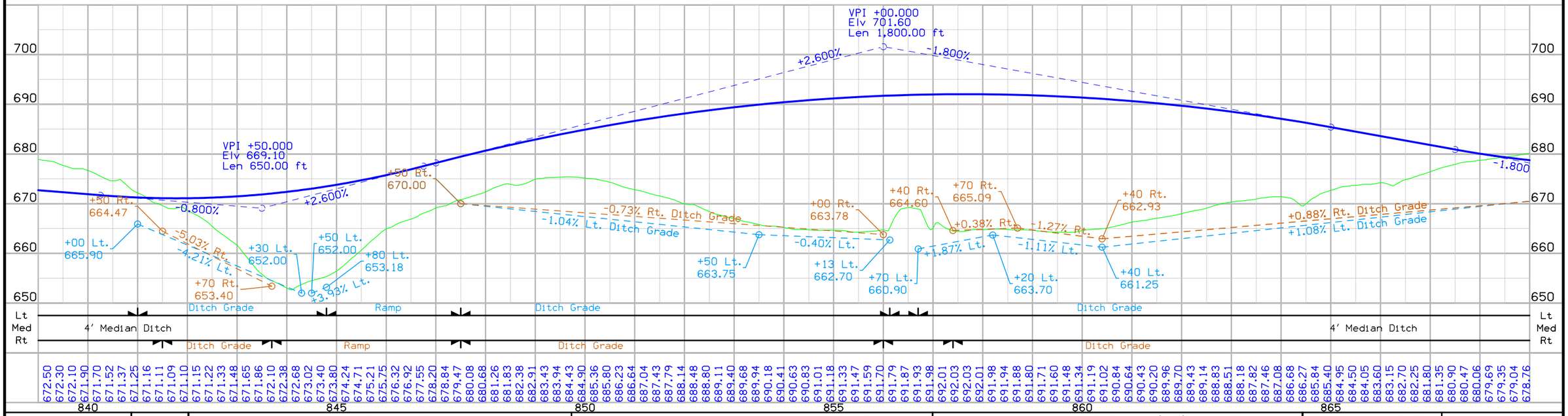
+27 Field Ent.

0 FEET 100

Sta. 4557+30 Ramp D
Install 52″ x 32″ x92′ 2000D
Skew = 07° LT. Ahd.
Lt. 664.90
F.L. = Rt. 666.00

Sta. 4560+40 Ramp D
Install 30″ x 90′ 2000D
F.L. = Lt. 663.73
Rt. 664.73

Field Ent.



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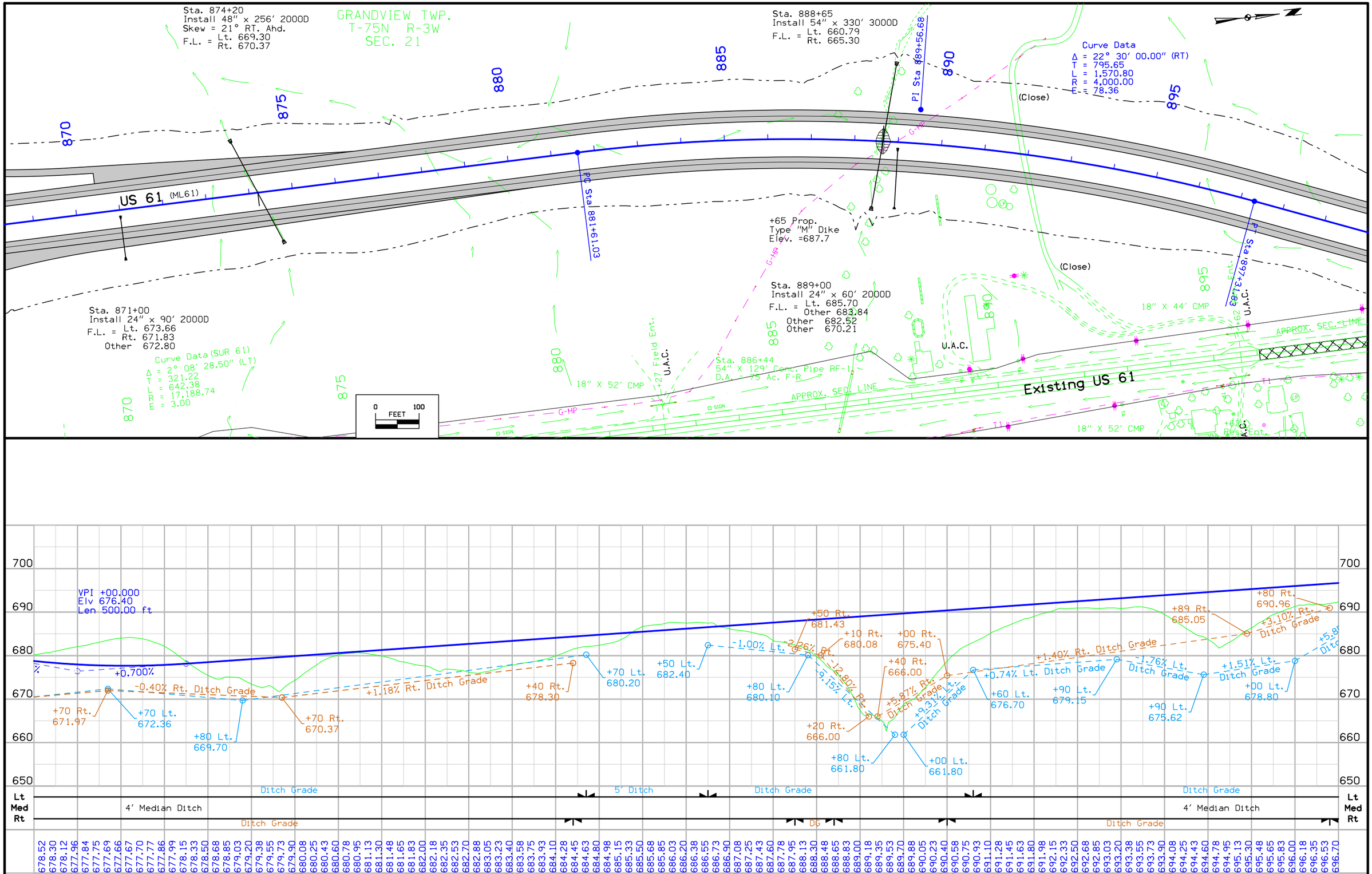

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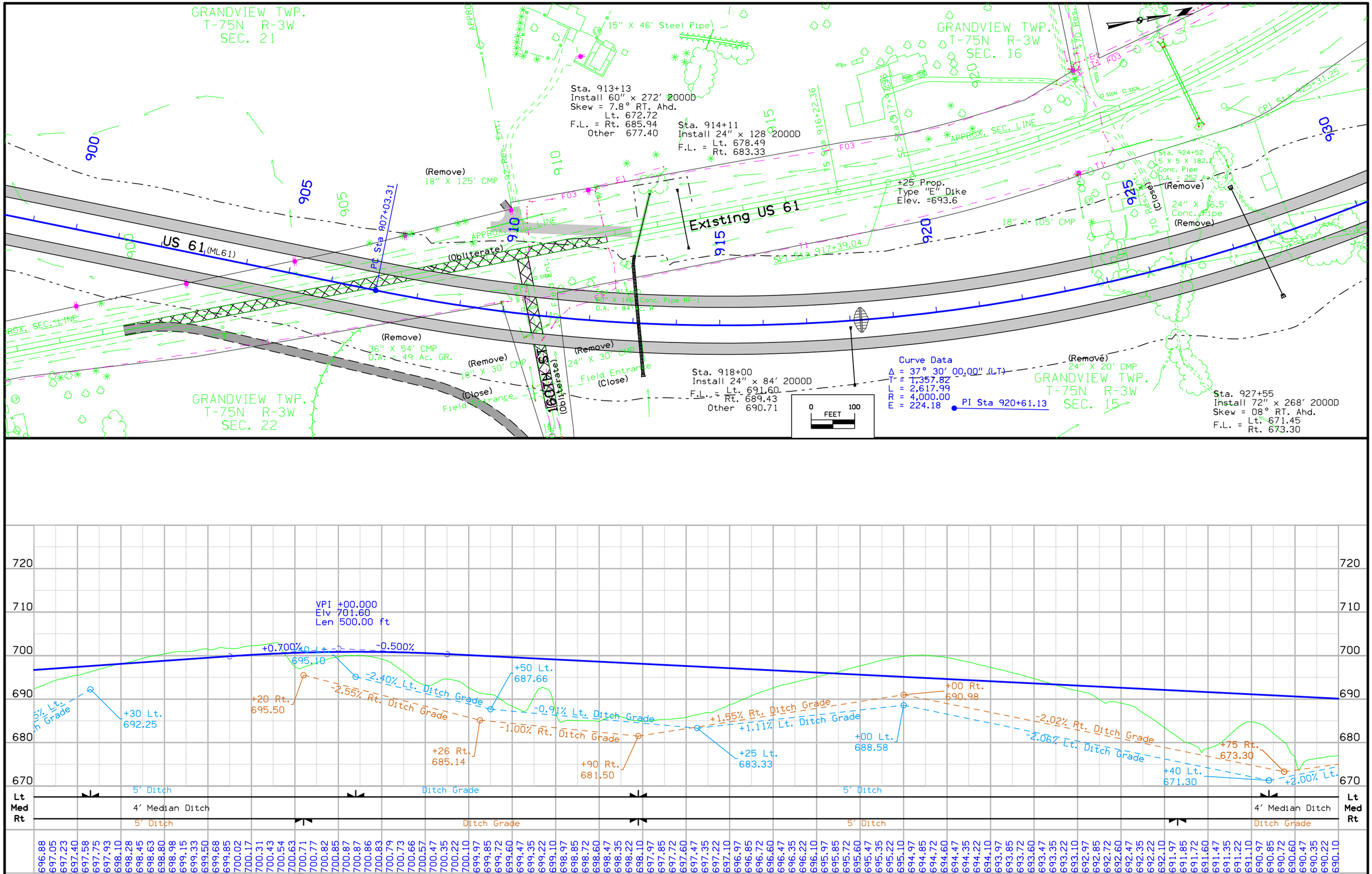

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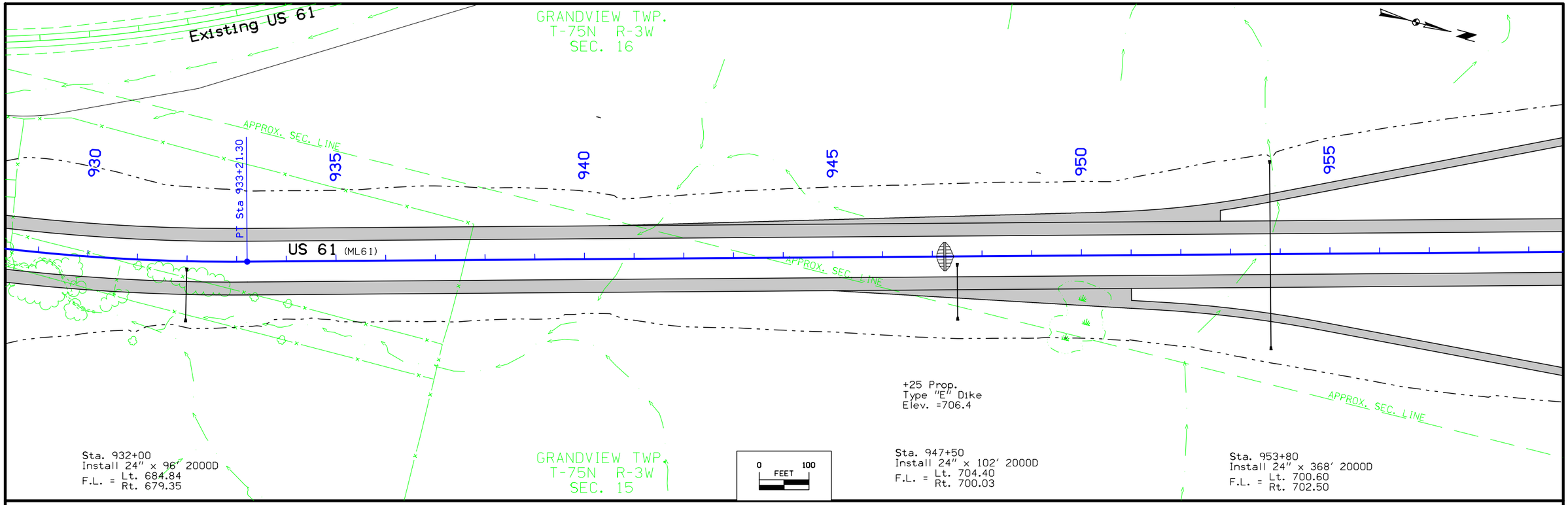

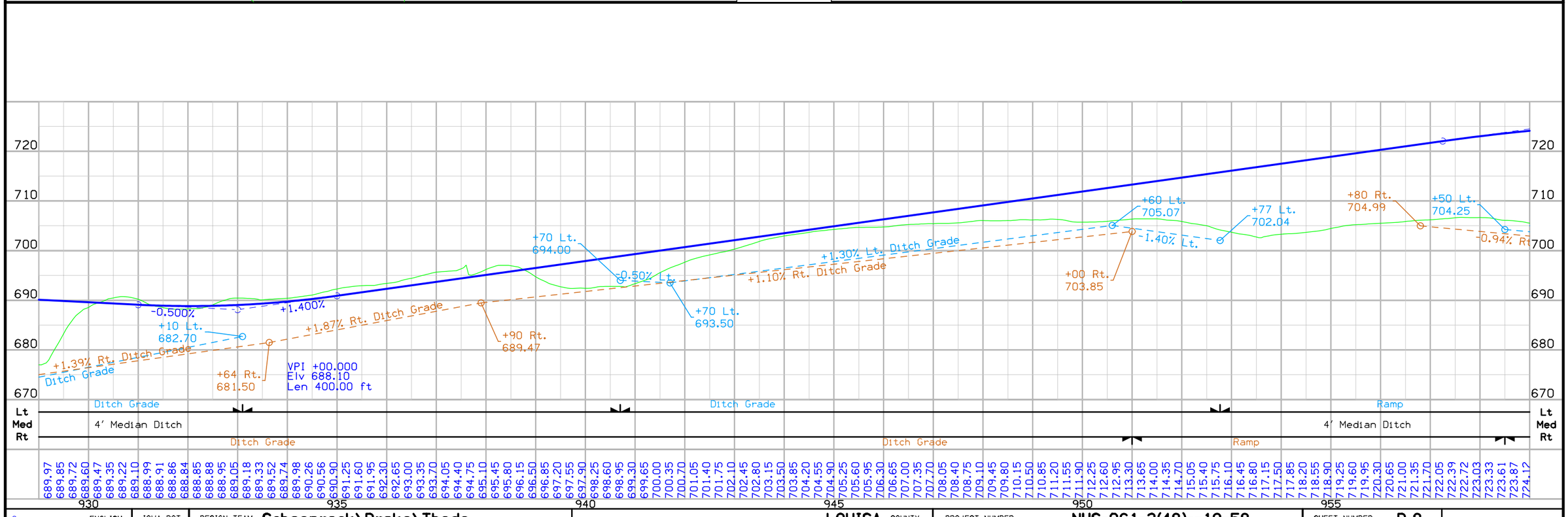

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10:37:14 AM 9/20/2012 nthede W:\Projects2\P0102000\5806103009\Design\58061048d02.sht

GRANDVIEW TWP.
T-75N R-3W
SEC. 16

GRANDVIEW TWP.
T-75N R-3W
SEC. 9

(Remove)
30" X 35' CMP

Sta. 5573+40 Ramp A
Install 36" x 64' 2000D
Lt. 695.60
F.L. = Rt. 696.28

18" X 66' CMP
(Remove)

(Close)
+59 Field Entr

(Obliterate)

Existing US 61

Sta. 986+35
Install 24" x 82' 2000D
F.L. = Lt. 691.39
Rt. 694.53

Sta. 986+54.68
Install 59"x36" x 204' 2000D
Skew = 20° LT. Ahd.
F.L. = Lt. 691.10
Rt. 692.37

Sta. 986+65.32
Install 59"x36" x 204' 2000D
Skew = 20° LT. Ahd.
F.L. = Lt. 691.10
Rt. 692.37

960 965 970 975 980 985

US 61 (ML61)

Sta. 8964+89.27 R 2
= Sta. 964+90.56

175TH ST

PC Sta 988+21.30

Approximate power line location Sta. 978+34

Sta. 971+55
Install 36" x 412' 3000D
Skew = 45° LT. Ahd.
F.L. = Lt. 696.28
Rt. 698.00

Sta. 6563+50 Ramp B
Install 44"x27" x 64' 2000D
F.L. = Lt. 700.10
F.L. = Rt. 700.70

0 100
FEET

(Remove)
Sta. 986+15.3
59" X 36" 86' Conc. Arch
D.A. = 136 Ac. F-R

VPI +00.000
Elv 732.90
Len 1,550.00 ft

+1.400%
-2.400%
-2.400%
-0.500%

730 720 710 700 690 680

+70 Rt.
700.10
-0.90% Lt. Ditch Grade
-0.10% Rt. Ditch Grade
-0.20% Lt.
+83 Rt.
700.28
+90 Lt.
699.39
+48 Rt.
699.05
+88 Lt.
699.19
-0.20% Rt. Ditch Grade
-0.23% Lt. Ditch Grade
+80 Rt.
698.00
+70 Lt.
698.07
+58 Lt.
696.48
+71 Rt.
696.60
VPI +50.000
Elv 702.90
Len 350.00 ft
-0.34% Rt. Ditch Grade
-0.38% Lt. Ditch Grade
+25 Lt.
694.08
+10 Lt.
690.68
+10
692.

Lt Med Rt
4' Median Ditch
Ditch Grade
Ramp
Ditch Grade
Ramp
Ditch Grade
4' Median Ditch
Lt Med Rt

724.36 724.58 724.78 724.97 725.15 725.31 725.45 725.58 725.69 725.79 725.87 725.93 725.99 726.02 726.04 726.05 726.04 726.01 725.97 725.91 725.84 725.76 725.65 725.54 725.40 725.26 725.09 724.91 724.72 724.51 724.29 724.05 723.79 723.52 723.24 722.93 722.62 722.29 721.94 721.58 721.20 720.81 720.40 719.97 719.53 719.08 718.61 718.12 717.62 717.11 716.58 716.03 715.47 714.89 714.30 713.70 713.10 712.50 711.90 711.30 710.70 710.10 709.50 708.90 708.30 707.70 707.10 706.52 705.97 705.45 704.97 704.52 704.11 703.73 703.39 703.07 702.80 702.55 702.34 702.17 702.02 701.90 701.77 701.65 701.52 701.40 701.27 701.15 701.02 700.90 700.77 700.65 700.52 700.40 700.27 700.15 700.02 699.90 699.77 699.65 699.52 699.40 699.27 699.15 699.02 698.90 698.77 698.65 698.52 698.40 698.27 698.15 698.02 697.90 697.77 697.65 697.52 697.40 697.27 697.15

960 965 970 975 980 985

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER D.9

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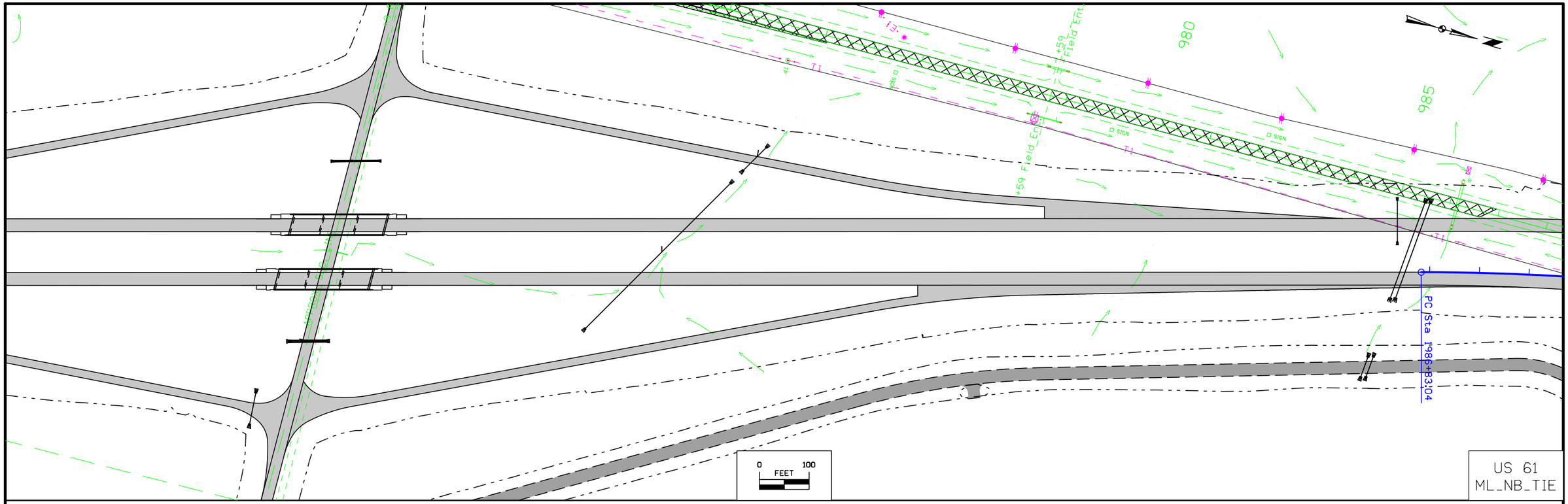
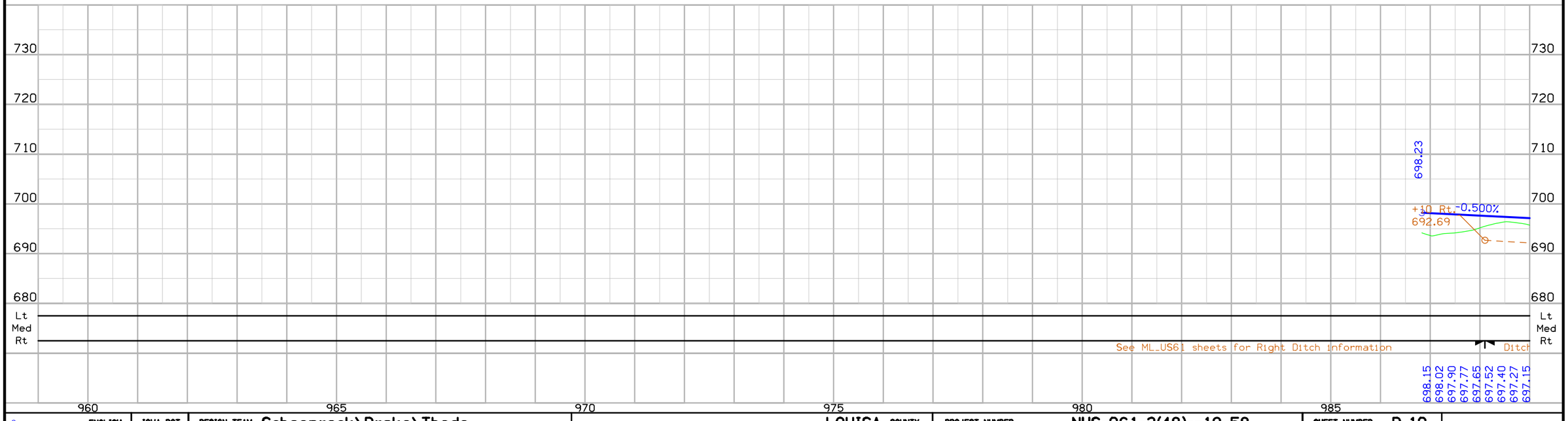




C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER	NHS-061-3(48)--19-58	SHEET NUMBER D.10

2:06:05 PM 1/10/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048d02.sht

GRANDVIEW TWP.
T-75N R-3W
SEC. 9

Sta. 1009+60
Install 59"x36" x 128' 2000D
Skew = 35° LT. Ahd.
F.L. = Lt. 679.30
Rt. 680.43

Sta. 1009+72.21
Install 59"x36" x 128' 2000D
Skew = 35° LT. Ahd.
F.L. = Lt. 679.30
Rt. 680.43

Curve Data (SBL)
Δ = 13° 15' 00.00" (RT)
T = 545.89
L = 1,086.90
R = 4,700.00
E = 31.60

42" X 56' CMP
(Remove)

(Close)
+14 Field Ent.

PT Sta 993+67.19

US 61 (ML61)

(Remove)
Two 48" X 48' CMPs

(Close)
+92 Field Ent.

PT Sta 999+08.21

Sta. 1018+67.51
= Sta. 201015+88.71

PC Sta 988+21.30

(Obliterate)

175TH ST

Curve Data (NBL)
Δ = 15 13' 08.61" (RT)
T = 621.93
L = 1,236.67
R = 4,700.00
E = 40.97

+25 Prop.
Type "E" Dike
Elev. =691.2

(Remove)
30" X 41' CMP
D.A. = 13 Ac. GR.

(Remove)
18" X 41' CMP

(Proposed)
+10 Type C Entrance

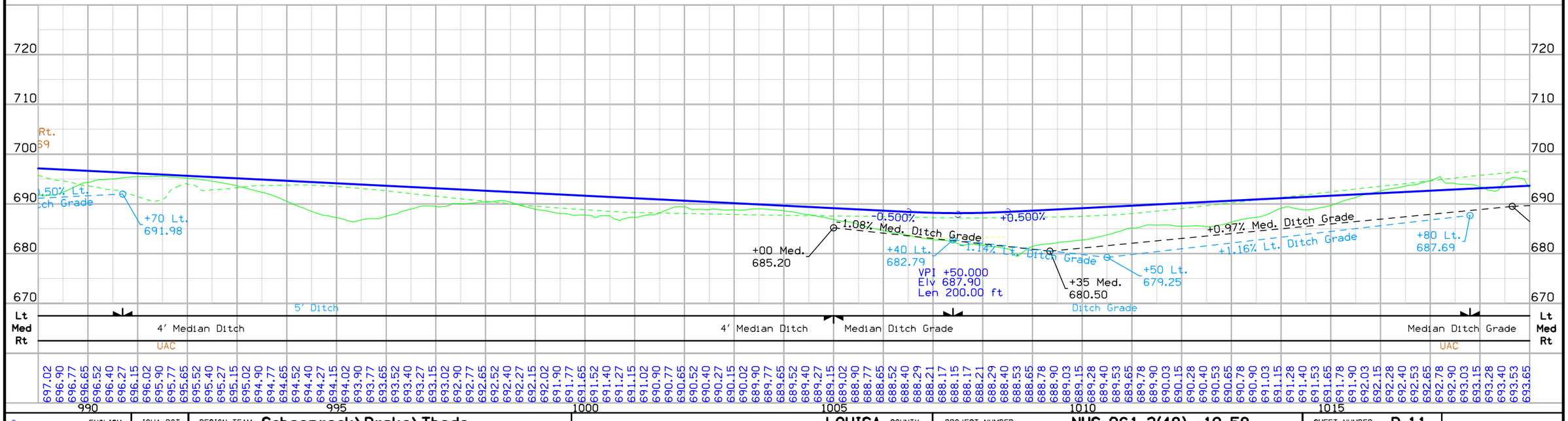
Existing US 61

Ent
(U.A.C.)

(Remove)
Sta. 1007+04.8
59" X 36" 87' Conc. Arch
D.A. = 155 Ac. F-GR

Sta. 1011+90.00
Stop Grading & Paving (NBL)
Begin Milling & Resurfacing

0 100
FEET



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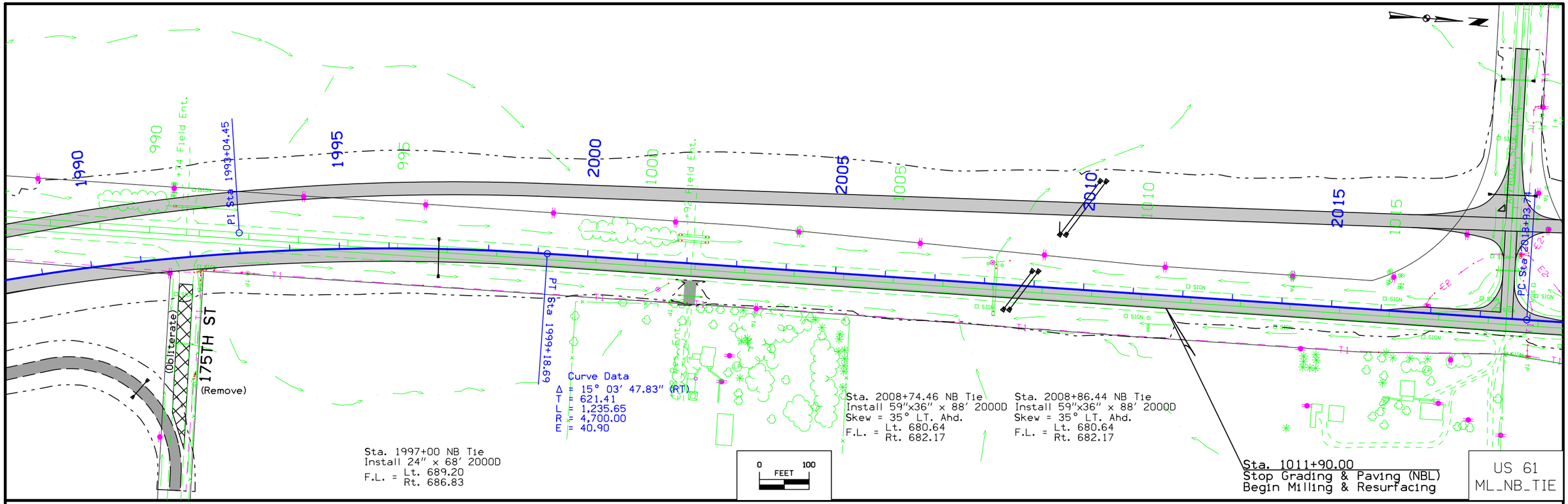

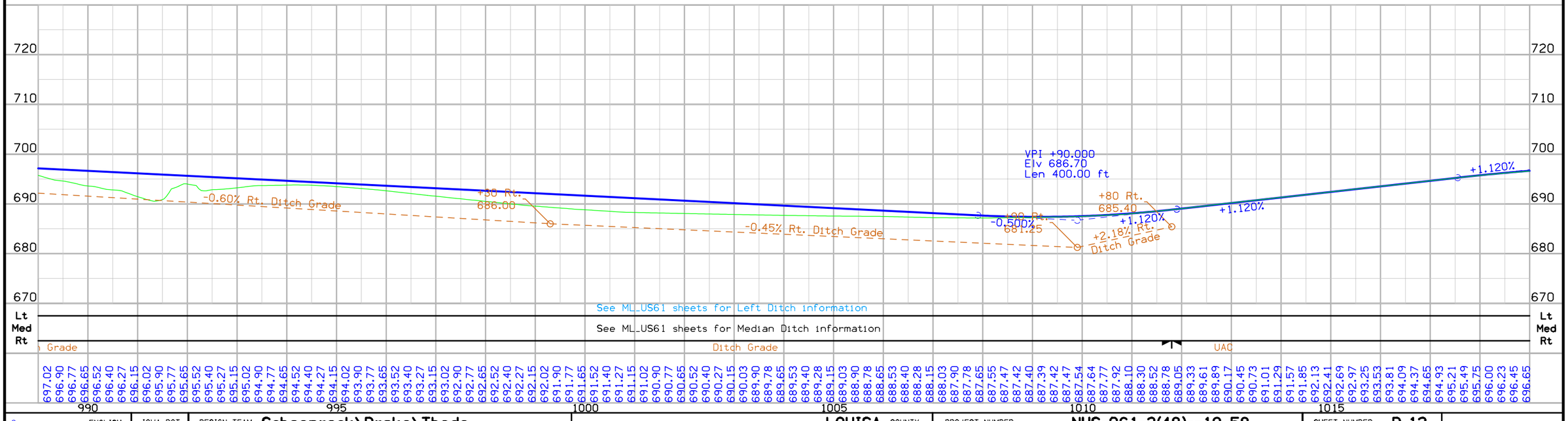

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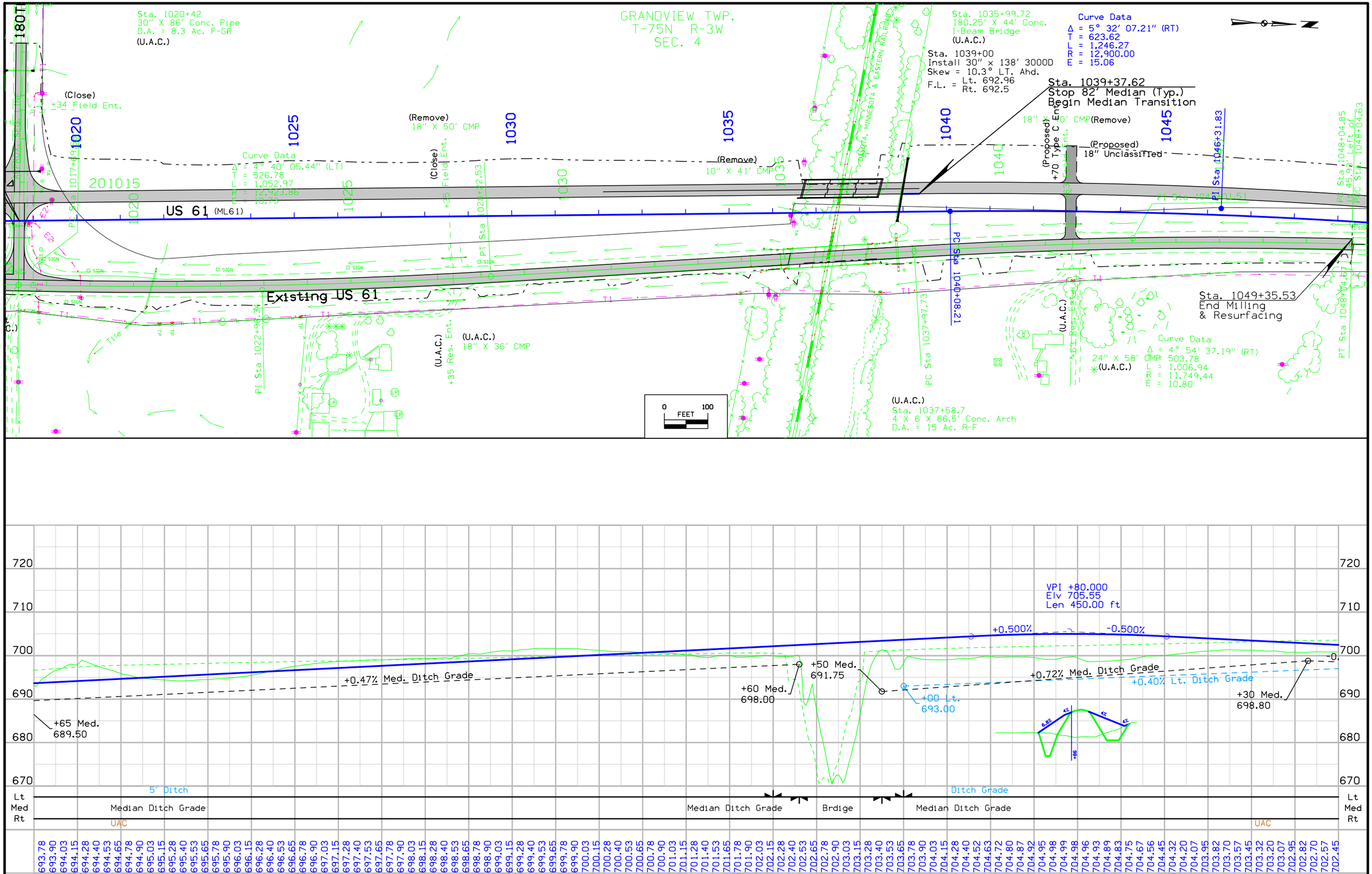

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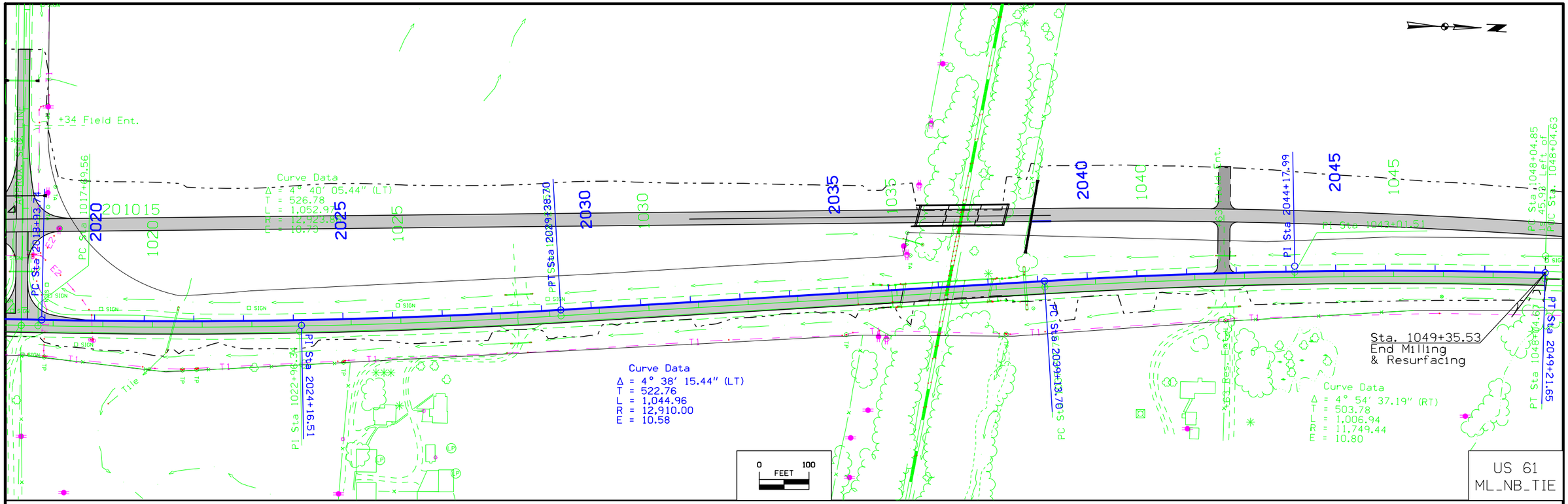

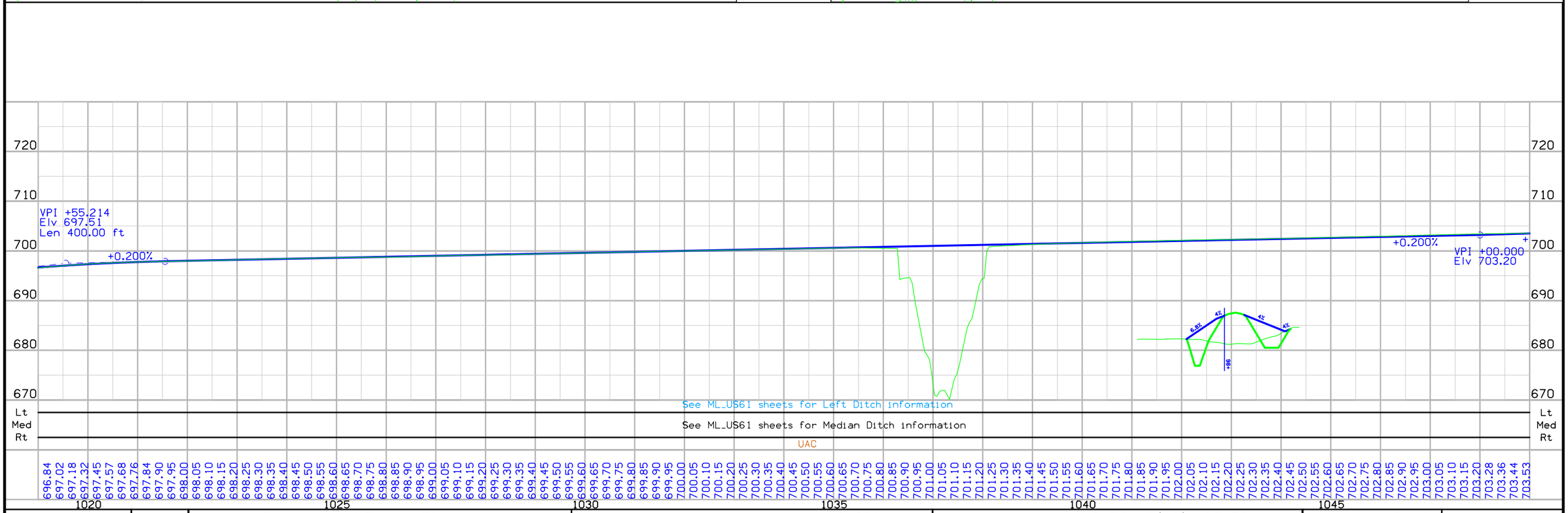

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER D.14	

8:12:42 AM 3/25/2013 nthede c:\pw_work\pwmain\nthede\d0122339\58061048d02.sht

Sta. 1050+50
Install 24" x 60' 2000D
F.L. = Lt. 697.60
Rt. 698.80

GRANDVIEW TWP.
T-75N R-3W
SEC.

SEVENTY SIX TWP.
T-76N R-3W
SEC. 33

Curve Data
Δ = 1° 54' 42.80" (LT)
T = 199.33
L = 398.63
R = 11,946.18
E = 1.66

Sta. 1051+80.46
Stop Median Transition
Begin 64' Median (Typ.)

18" X 40' CMP (Remove)

(Proposed) 18" Unclassified ±70 Type C Ent.

(Close) +40 Field Ent.

(Remove) 24" X 50' CMP

24" X 203' CMP

+31 Rt. Res. Ent. APPROX. SEC. LINE

SPI Sta 1078+83.30

POT Sta 1077+82.47

PC Sta 1048+04.85
L 45.93' Left of
POC Sta 1048+04.63

PI Sta 1053+73.80

(Obliterate)

US 61 (ML61)

PT Sta 1048+04.63

18" X 38' CMP

Sta. 1049+35.53
End Milling
& Resurfacing

+61 Field Ent. (U.A.C.)

PT Sta 1052+54.48

Curve Data
Δ = 5° 27' 24.49" (RT)
T = 568.95
L = 1,137.04
R = 11,938.76
E = 13.55

PRC Sta 1059+41.89

PI Sta 1061+41.22
+40 Farm Ent.
(Close)

24" X 102' CMP (Remove)

Sta. 1070+10.00
End Construction

24" X 123' CMP

190TH ST

TS Sta 1076+53.50

(Extend)
Sta. 1057+92
30" X 146' Conc. Pipe
D.A. = 9 Ac. R

(Plug and Abandon)
18" X 96.5' Conc. Pipe
D.A. = 0.6 Ac. Median

0 100 FEET

(Plug and Abandon)
18" X 87' Conc. Pipe
D.A. = 1.7 Ac. Median

24" X 113' CMP
D.A. = 3.2 Ac. GR.

Sta. 1074+45
48" X 275' Conc. Pipe
D.A. = 64 Ac. R.

VPI +30.000
Elv 700.80
Len 450.00 ft

VPI +60.000
Elv 730.79
Len 480.00 ft

End Construction
Sta. 1070+10
Elev. 732.66

-0.500%
+1.840%
+1.27% Med.
+1.71% Med. Ditch Grade
+2.15% Lt. Ditch Grade
+3.19% Lt. Ditch Grade
+0.780%
+1.840%
.36% Med.
+0.53% Med.

+50 Med. 698.00
+00 Med. 698.80
+30 Lt. 698.32
+00 Med. 702.60
+70 Lt. 707.22
+1.62% Lt.
+20 Lt. 706.00
+00 Med. 711.15
+00 Lt. 707.30
+30 Lt. 714.40
+90 Lt. 719.50

Ditch Grade | 5' Ditch | Ditch Grade | UAC

Lt Med Rt

Median Ditch Grade
UAC

4' Median Ditch
UAC

Lt Med Rt

702.32 702.20 702.07 701.95 701.84 701.75 701.70 701.68 701.70 701.75 701.83 701.94 702.08 702.26 702.47 702.71 702.99 703.29 703.63 704.01 704.41 704.85 705.31 705.77 706.23 706.69 707.15 707.61 708.07 708.53 708.99 709.45 709.91 710.37 710.83 711.29 711.75 712.21 712.67 713.13 713.59 714.05 714.51 714.97 715.43 715.89 716.35 716.81 717.27 717.73 718.19 718.65 719.11 719.57 720.03 720.49 720.95 721.41 721.87 722.33 722.79 723.25 723.71 724.17 724.63 725.09 725.55 726.01 726.47 726.92 727.35 727.78 728.19 728.58 728.96 729.33 729.68 730.02 730.35 730.66 730.96 731.25 731.52 731.77 732.02 732.25 732.46 732.66

1050 1055 1060 1065 1070 1075

740 730 720 710 700 690

C | ENGLISH | IOWA DOT | DESIGN TEAM Schoenrock\Drake\Thede | LOUISA COUNTY | PROJECT NUMBER NHS-061-3(48)--19-58 | SHEET NUMBER D.15

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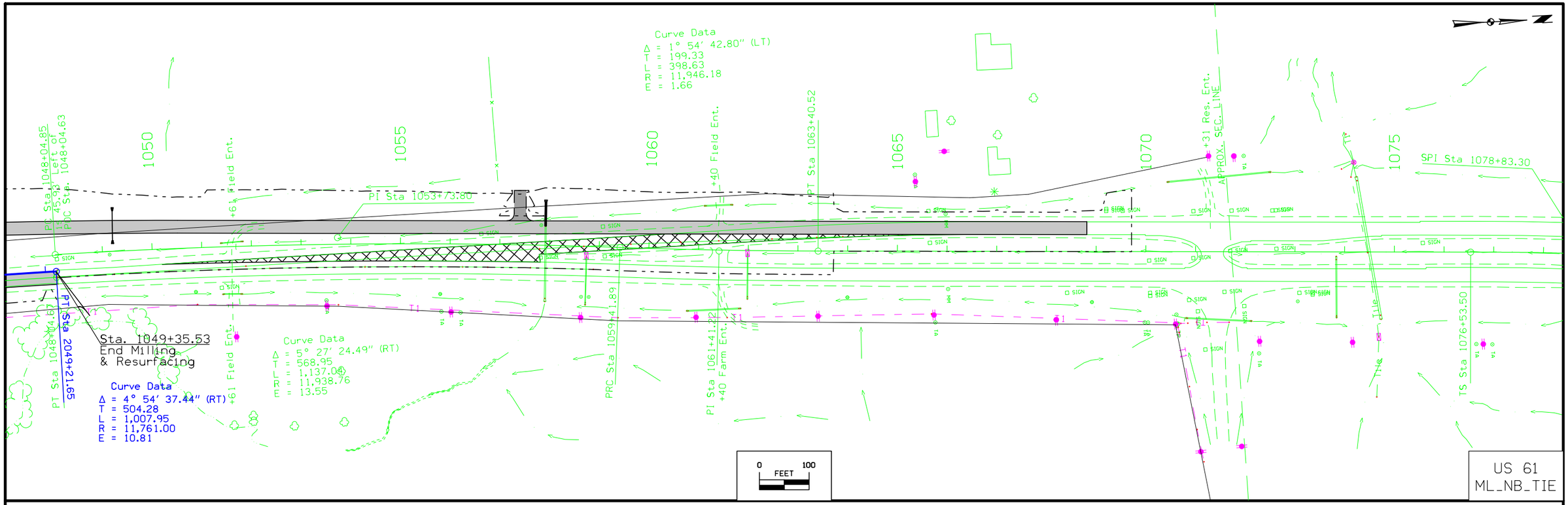

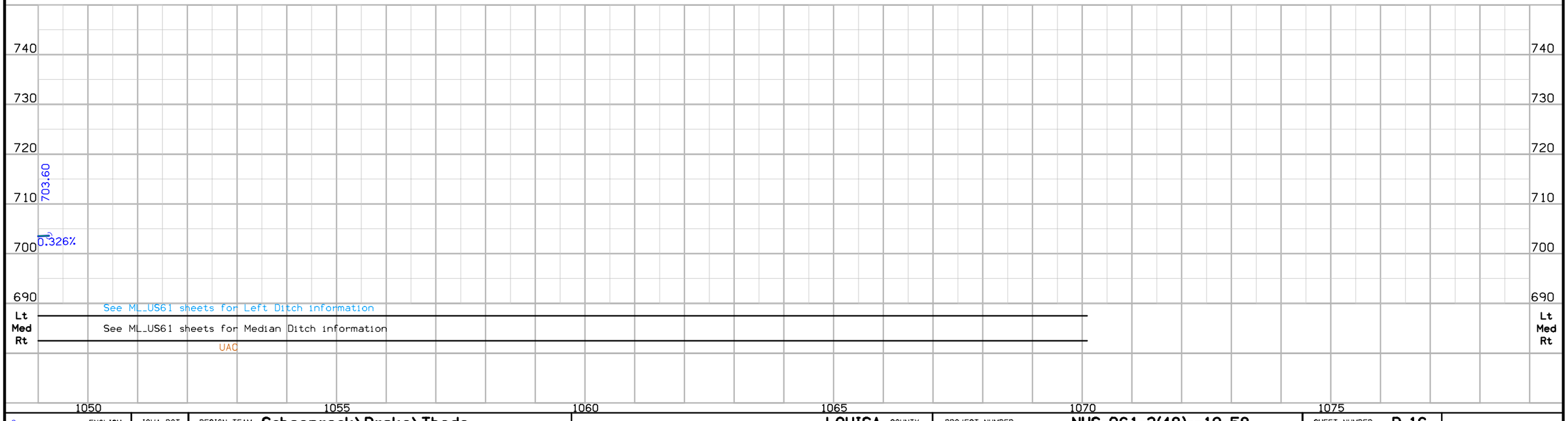

C ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER	NHS-061-3(48)--19-58	SHEET NUMBER	D.16

10:37:28 AM 9/20/2012 nthede W:\Projects2\P0102000\5806103009\Design\58061048d02.sht

Sta. 2804+50
Install 30" x 30' 2000D
F.L. = Lt. 668.29
Rt. 667.54

Sta. 2808+50
Install 44" x 27" x30' 2000D
F.L. = Lt. 671.00
Rt. 670.00

Sta. 2825+90.00
End Paving

PI Sta 2807+49.74

PC Sta 2803+74.91

PT Sta 2809+99.97

PT Sta 2818+00.21

PI Sta 2817+14.59

PC Sta 2815+64.59

PI Sta 2823+15.06

PT Sta 2823+98.55

PC Sta 2821+89.67

Sta. 2803+74.91
Begin Granular

Sta. 2818+73.21
End Granular
Begin Paving

Sta. 2819+50.21
= Sta. 819+50.21

Curve Data
Δ = 79° 35' 07.06" (RT)
T = 374.83
L = 625.06
R = 450.00
E = 135.66

Curve Data
Δ = 90° 00' 00.00" (LT)
T = 150.00
L = 235.62
R = 150.00
E = 62.13

Curve Data
Δ = 79° 47' 07.06" (LT)
T = 125.39
L = 208.88
R = 150.00
E = 45.50

2805
2810
2815
2820
2825

0 100 FEET

145th Street

Begin Grading
Sta. 2803+74.91
Elev. 672.28

VPI +81.000
Elv 671.50
Len 170.00 ft

VPI +83.000
Elv 682.62
Len 160.00 ft

Sta. 2818+83
Elev. 687.62

VPI +83.000
Elv 687.62

VPI +17.000
Elv 687.62

Sta. 2820+17
Elev. 687.62

VPI +40.892
Elv 682.15
Len 294.21 ft

End Grading
Sta. 2825+90
Elev. 683.90

672.28
683.90

-0.820%
+0.34%
-2.95%
+1.25% Rt DG
+1.20% Rt DG
-0.30%
-0.30%
+0.925%
+0.925%
+2.500%
+0.77%
+0.82%
-2.442%
+0.500%
+0.39% Lt Ditch Grade
-0.50% Rt Ditch Grade

+86 Rt 669.40
+86 Lt 668.50
+50 Rt 667.51
+50 Lt 668.28
+16 Lt 671.60
+96 Rt 670.46
+50 Lt 671.20
+50 Rt 670.00
+10 Lt 674.20
+10 Rt 673.80
+30 Lt 675.90
+30 Rt 675.60

700
690
680
670
660
650
640

Lt
Rt

U.A.C.
U.A.C.
Ditch Grade
Ditch Grade
U.A.C.
U.A.C.

672.16 671.90 671.90 672.15 672.60 673.06 673.52 673.99 674.45 674.91 675.37 675.84 676.30 676.76 677.22 677.69 678.15 678.61 679.08 679.54 680.00 680.46 680.93 681.39 681.85 682.42 683.24 684.30 685.54 686.79 687.62 687.62 687.62 686.80 685.55 684.47 683.64 683.06 682.73 682.65 682.82

2805 2810 2815 2820 2825 2830

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER E.1	

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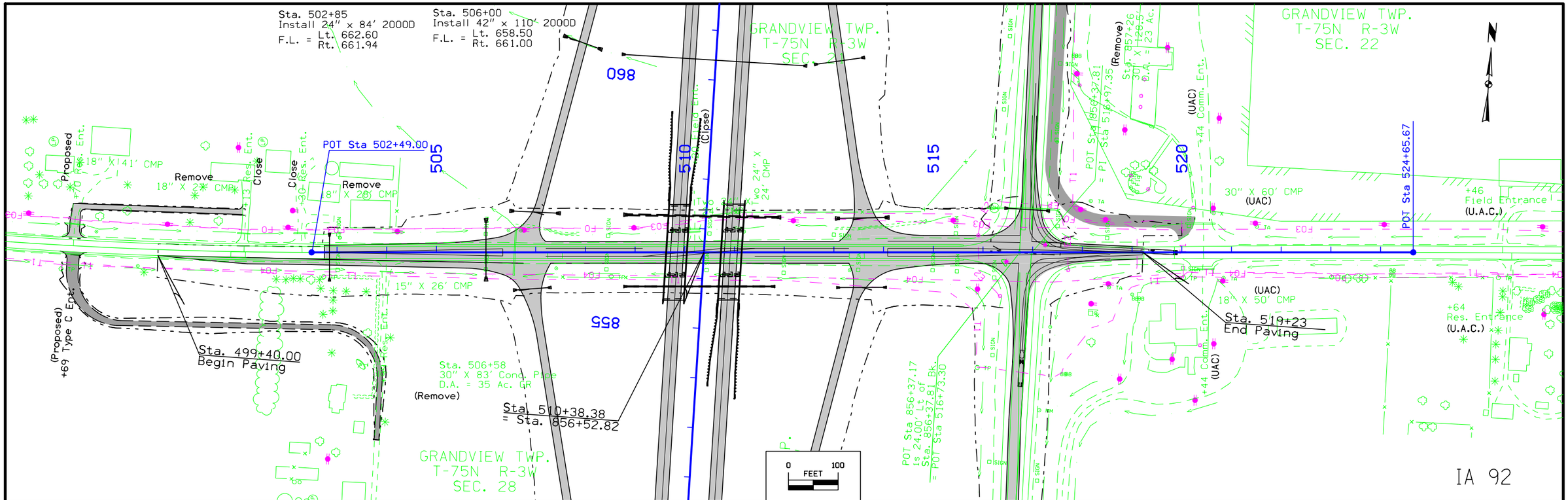

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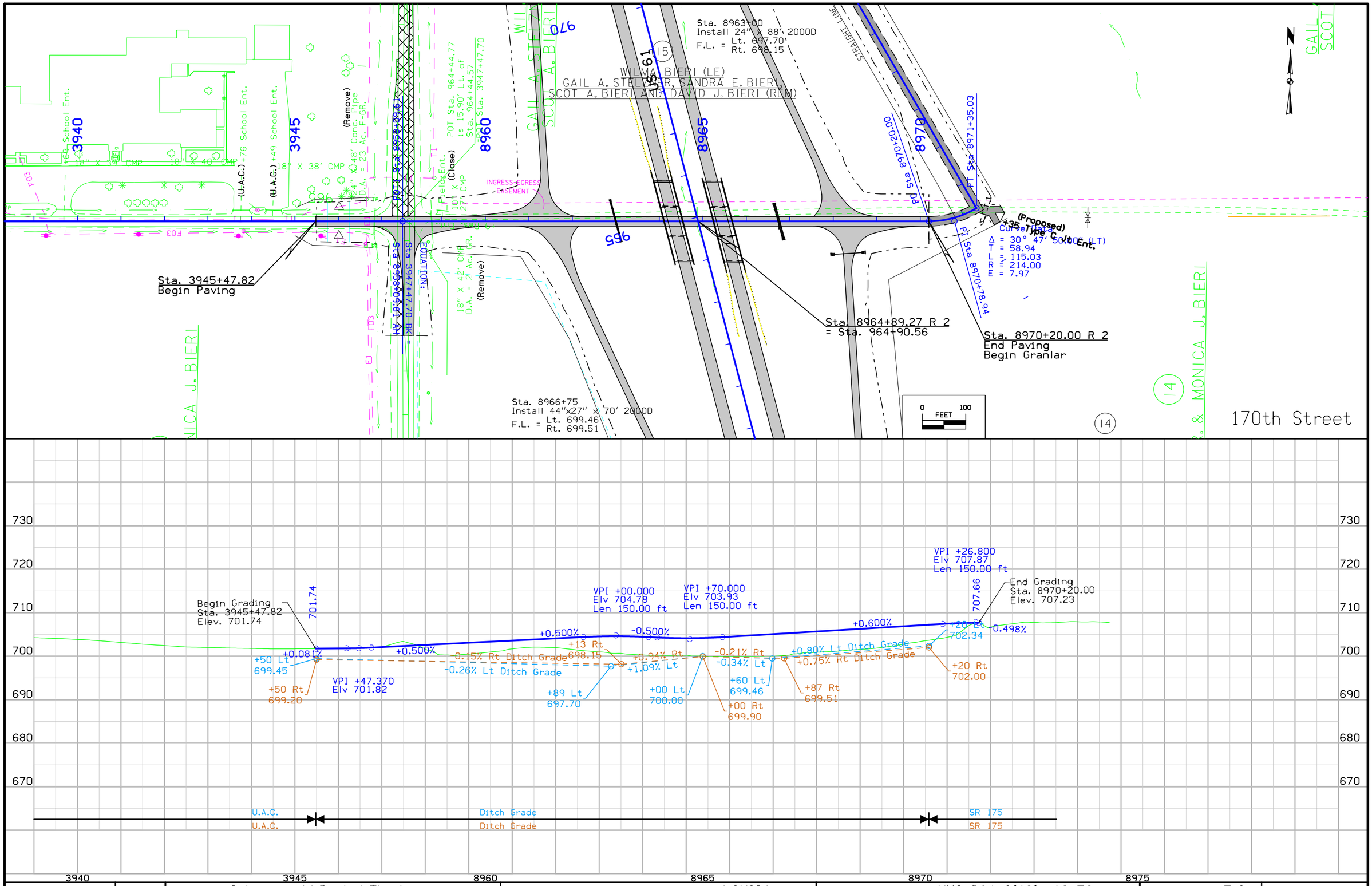

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER E.3	

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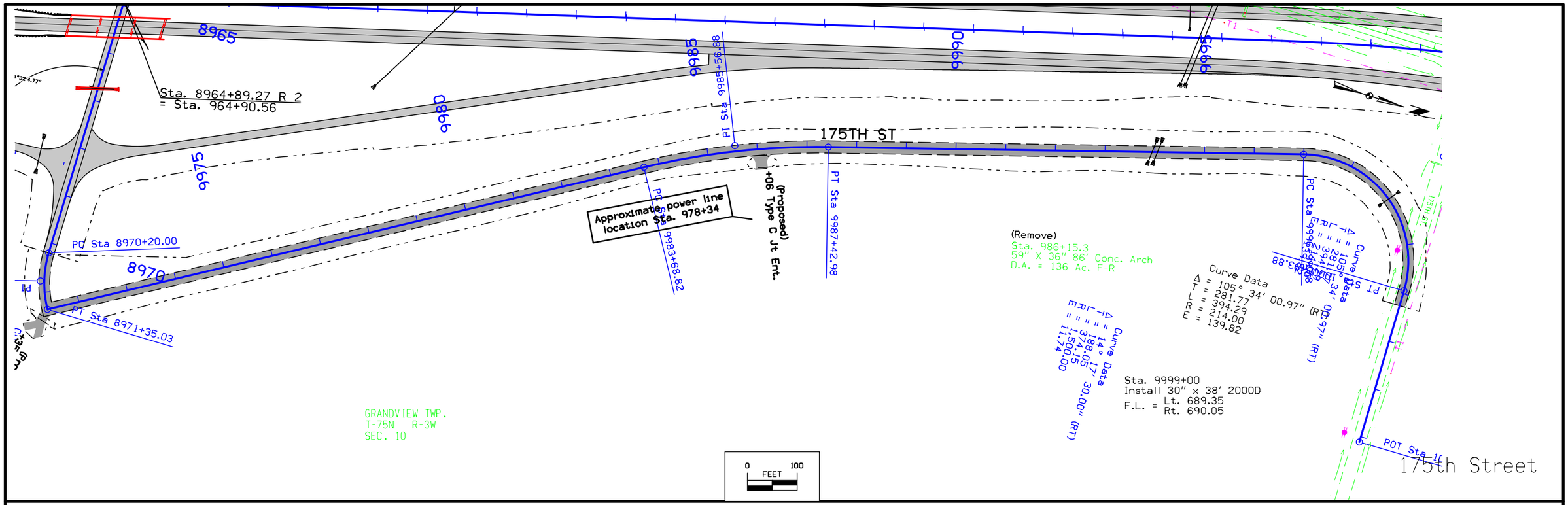
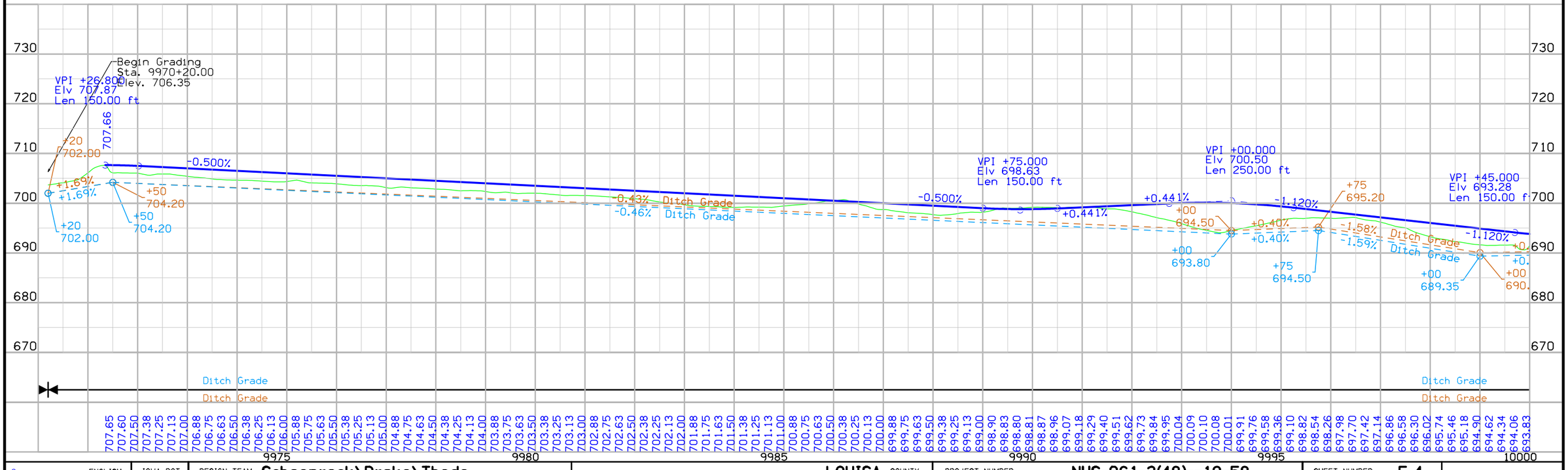
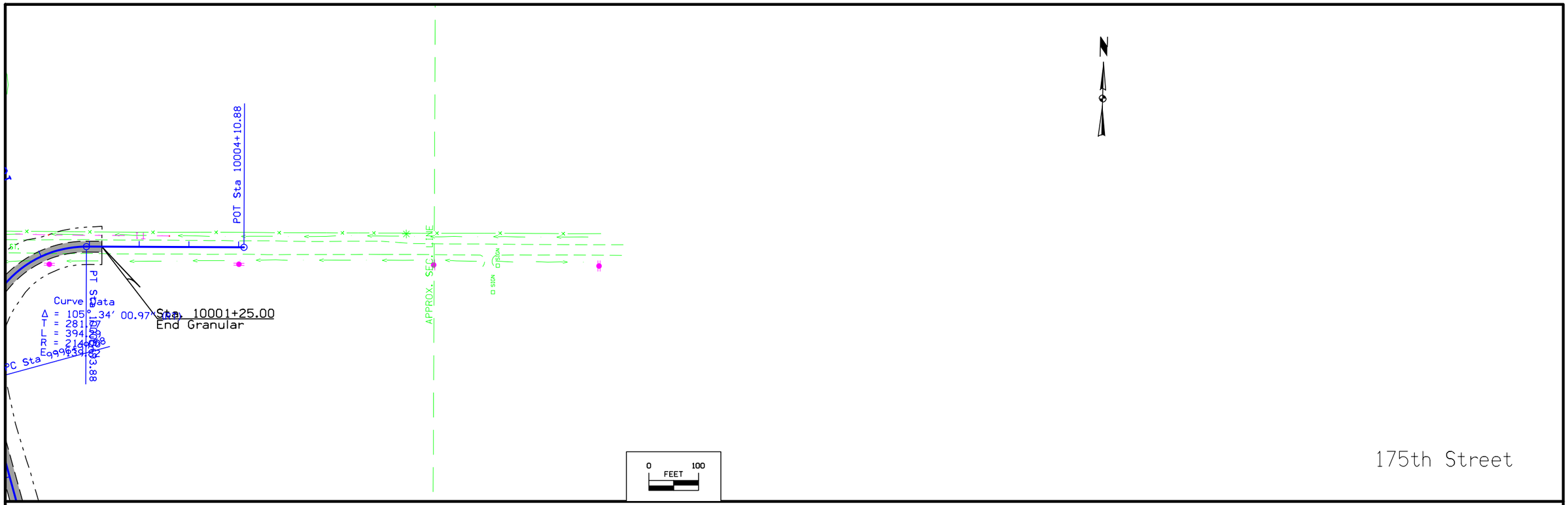
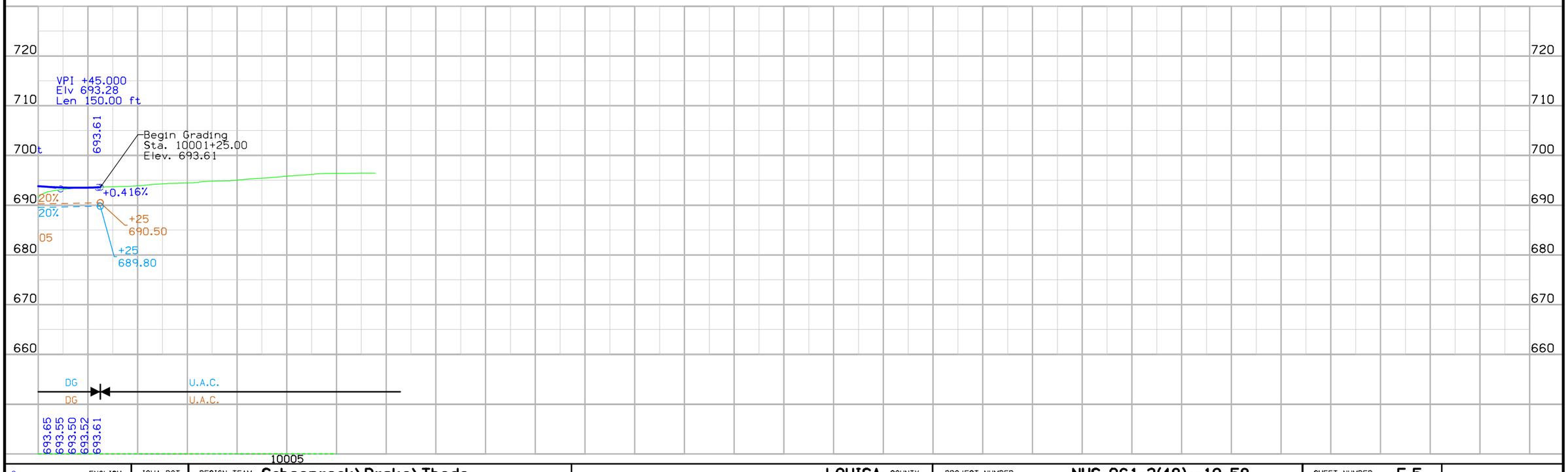




C ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER E.4	

8:32:53 AM 3/25/2013 nthede c:\pw_work\pwmain\nthede\d0122339\58061048E_01.sht





C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER	NHS-061-3(48)--19-58	SHEET NUMBER E.5

8:32:54 AM 3/25/2013 nthede c:\pw_work\pwmain\nthede\d0122339\58061048E_01.sht

Sta. 201014+75
Install 24" x 86' 2000D
F.L. = Lt. 688.38
Rt. 687.89

Sta. 201012+43
Install 24" x xx' 2000D
F.L. = Lt. XX
Rt. XX

(Close)

+34 Field Ent.

201010

201015

PC Sta 1017+69.56

POT Sta 201017+35.88

+26.46
88.4' RT

(Proposed)
+90 Type C Ent.

Sta. 201011+80.00
Begin Grade Pave

(Proposed)
18" Unclassified

POT Sta 1201009+00.00

(Proposed)
18" Unclassified

(Proposed)
+90 Type C Ent.

+38 Field Ent.

(Close)

Sta. 201012+43
24" X 56' Conc. Pipe
D.A. = 4 Ac. GR

Sta. 201016+58
18" X 50' Conc. Pipe
D.A. = 2 Ac. F

+36 Res. Ent.
(U.A.C.)

PI Sta 1017+35.88
Δ = 0°1'50.2" Rt.
No Curve
POT Sta 201017+35.88

0 50
FEET

180th St

-0.7% +4% -4%

710
705
700
695
690
685
680
675

VPI +90.000
Elv 697.17

Len 207.53 ft

Begin Construction
Sta. 201011+80
Elev. 697.26

697.26

-0.080%

+80 Lt.
693.50

+40 Lt.
692.00

-2.50% Lt.

+25 Lt.
692.68

+0.80% Lt.

-2.92% Lt. Ditch Grade

+45 Rt.
691.15

+0.80% Rt.

+25 Rt.
691.79

-2.56% Rt. Ditch Grade

VPI +60.000
Elv 691.99

-3.045%

Sta. 201020+21
Elev. 693.45

VPI +21.690
Elv 693.45

+2.370%

+75 Lt.
688.30

+75 Rt.
687.95

VPI +47.700
Elv 693.49

Sta. 201020+47
Elev. 693.49

-2.500%

VPI +80.000
Elv 692.68

696.25

+2.480%

End Construction
Sta. 201017+24
Elev. 696.25

Lt
Rt

UAC

Ditch Grade

Ditch Grade

697.26 697.25 697.23 697.19 697.14 697.08 697.00 696.91 696.80 696.68 696.55 696.40 696.24 696.06 695.87 695.66 695.44 695.20 694.96 694.69 694.41 694.12 693.82 693.51 693.23 693.00 692.82 692.71 692.64 692.64 692.69 692.80 692.96 693.18 693.41 693.47 693.48 693.43 693.20 693.05 693.00 693.04 693.19 693.43 693.68 693.92 694.17 694.42 694.67 694.92 695.16 695.41 695.66 695.91 696.16

201006 201007 201008 201009 201010 201011 201012 201013 201014 201015 201016 201017

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER E.6

8:32:57 AM 3/25/2013 nthede c:\pw_work\pwmain\nthede\d0122339\58061048E_01.sht

Sta. 857+25
Install 30" x 78' 2000D
F.L. = Lt. 668.66
Rt. 669.78

Sta. 863+00.00
End Paving

Sta. 856+37.17
= Sta. 516+73.30

Sta. 851+25.16
Begin Paving

(SUR 61)

Existing 61

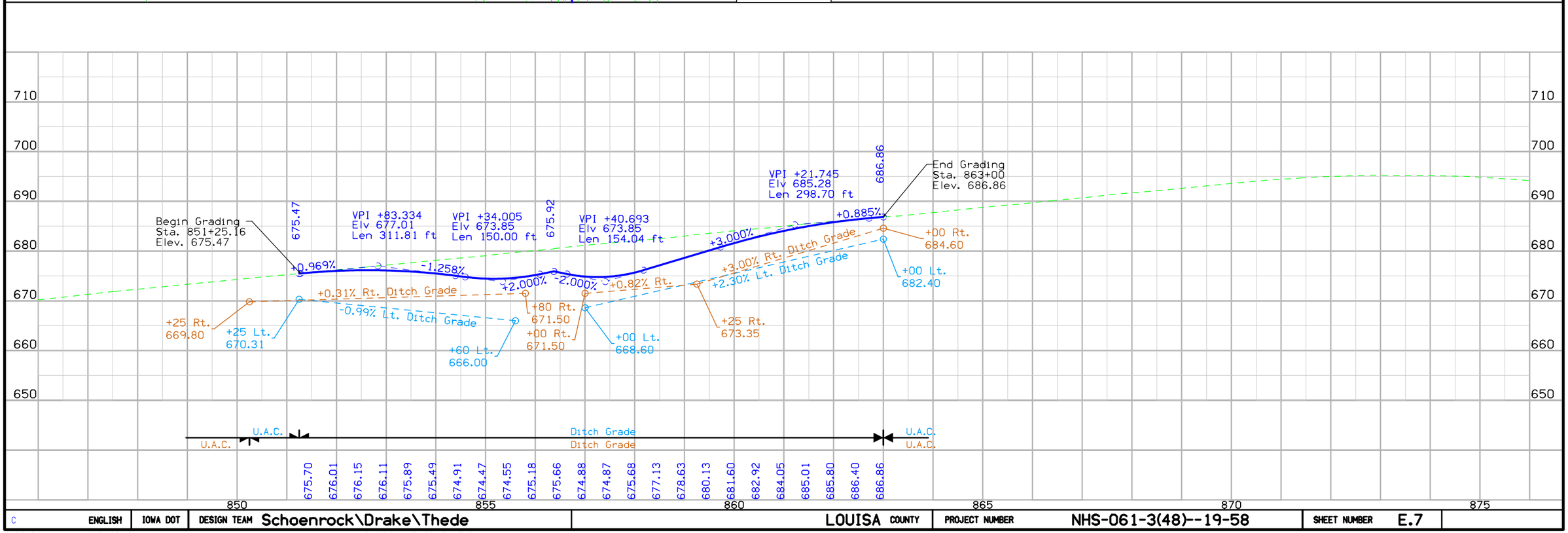
Sta. 857+26
30" X 128.5' Conc. Pipe
D.A. = 23 Ac. R

Sta. 872+26
42" X 137' Conc. Pipe
D.A. = 47 Ac. R

+27 Field Ent.
18" X 53' CMP
90' CMP
= 6 Ac. GR.
+27 Comm. Ent.
C.B.
+44 Comm. Ent.
(Prop.)
+52 Field Ent.
(U.A.C.)
G-HP
+29 Comm. Ent.
Fig.
T1
F04
18" X 50'
30" X 60'

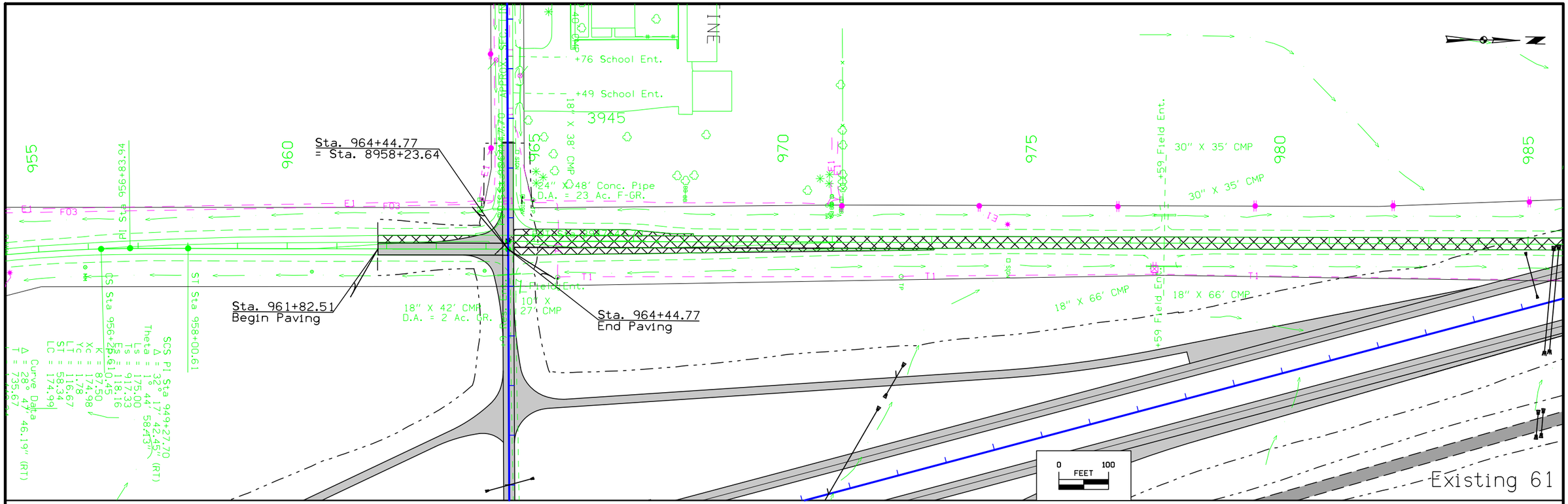
0 FEET 100

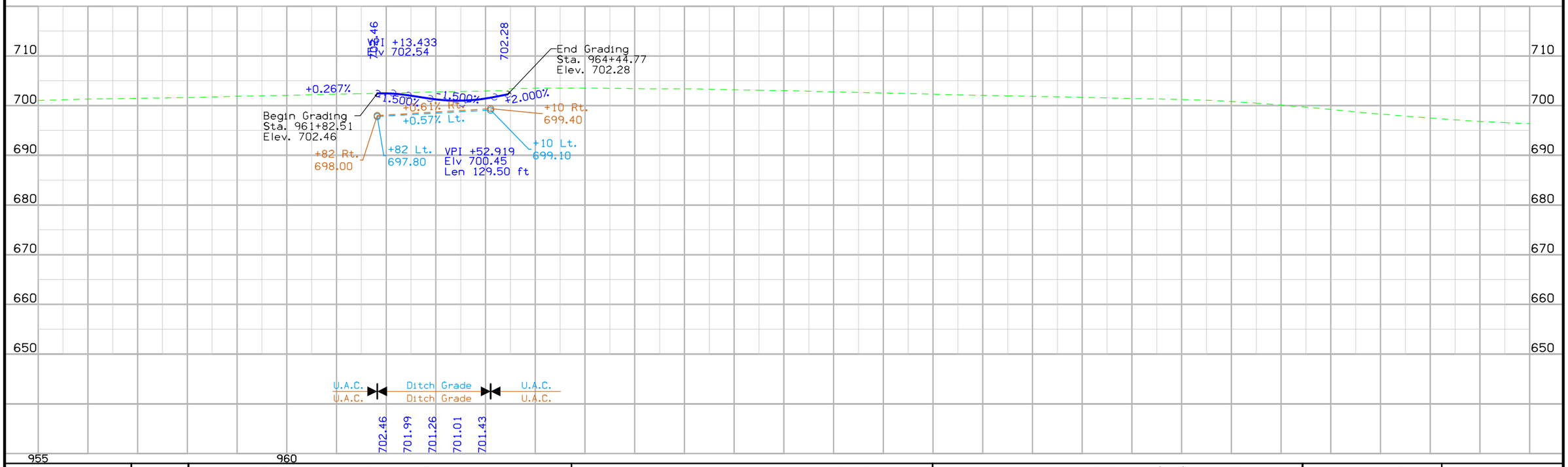
Existing 61



C ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER E.7	

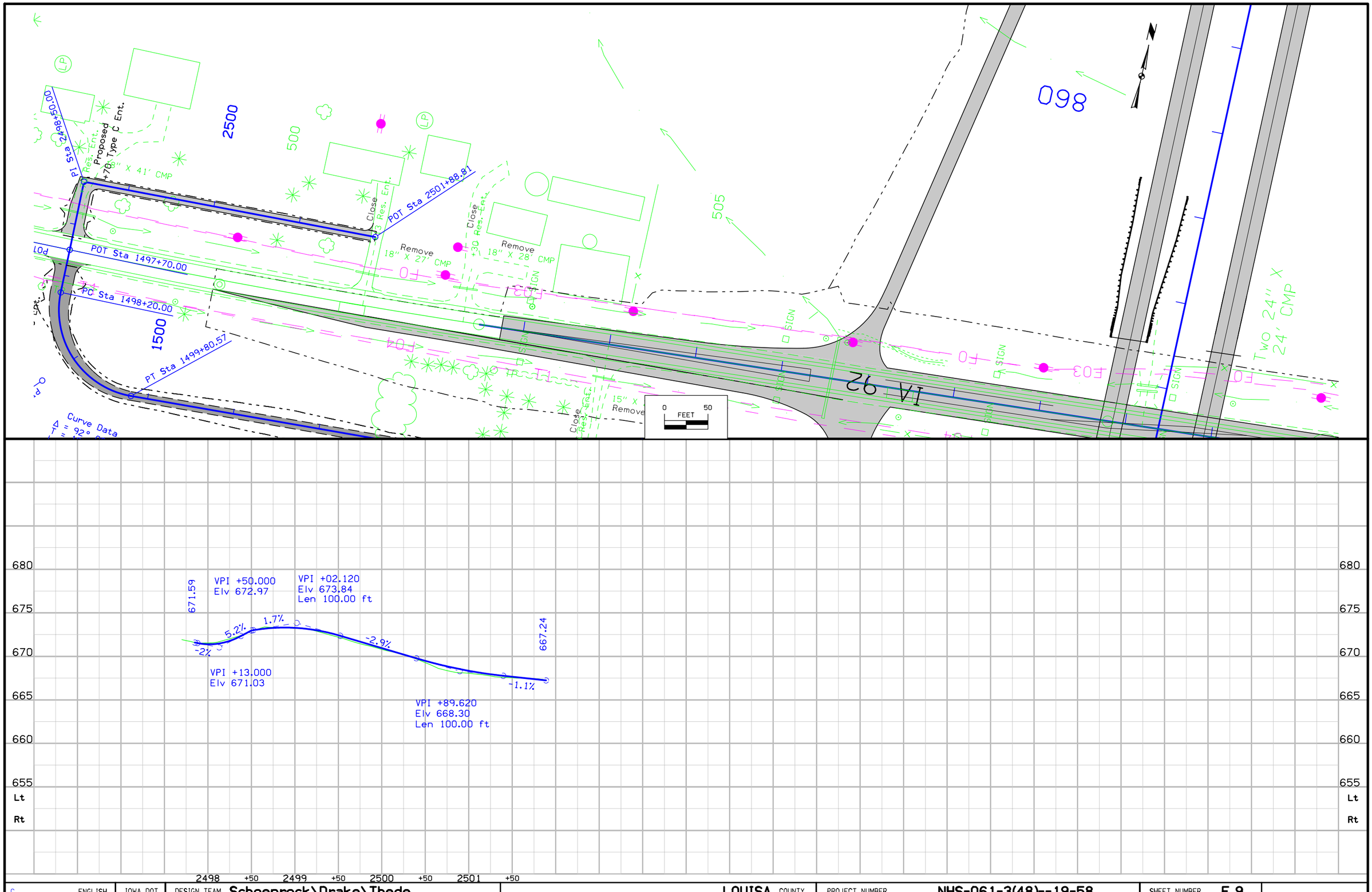
8:32:59 AM 3/25/2013 nthede c:\pw_work\pwmain\nthede\d0122339\58061048E_01.sht





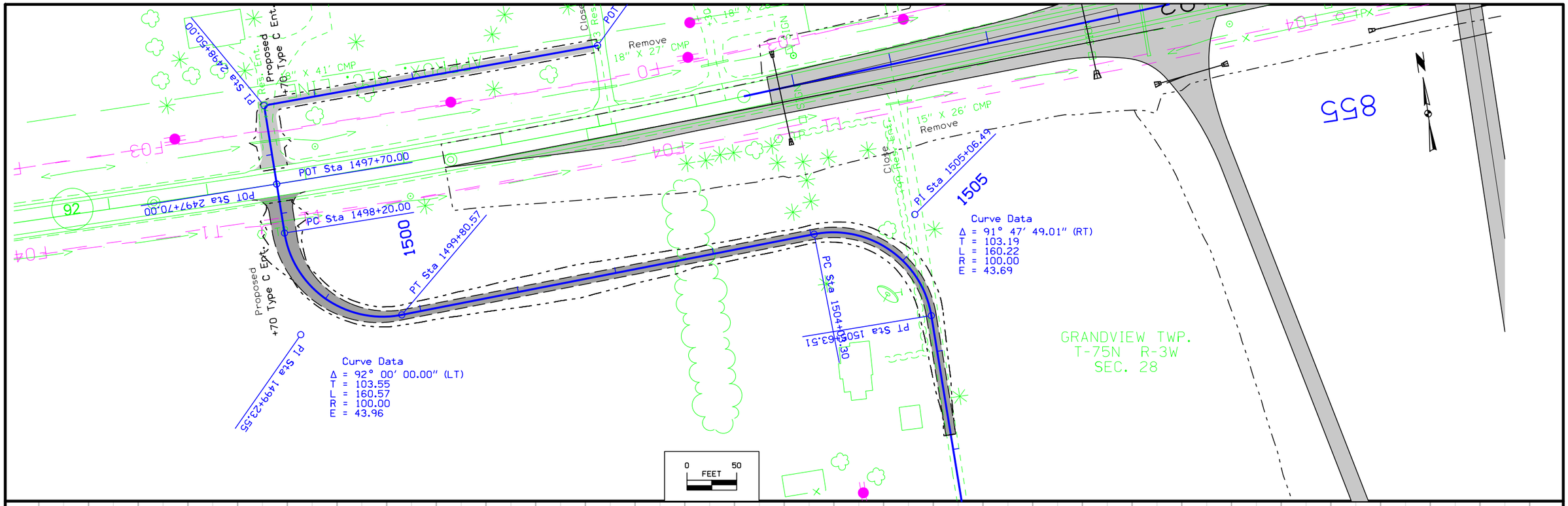
C ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER E.8	

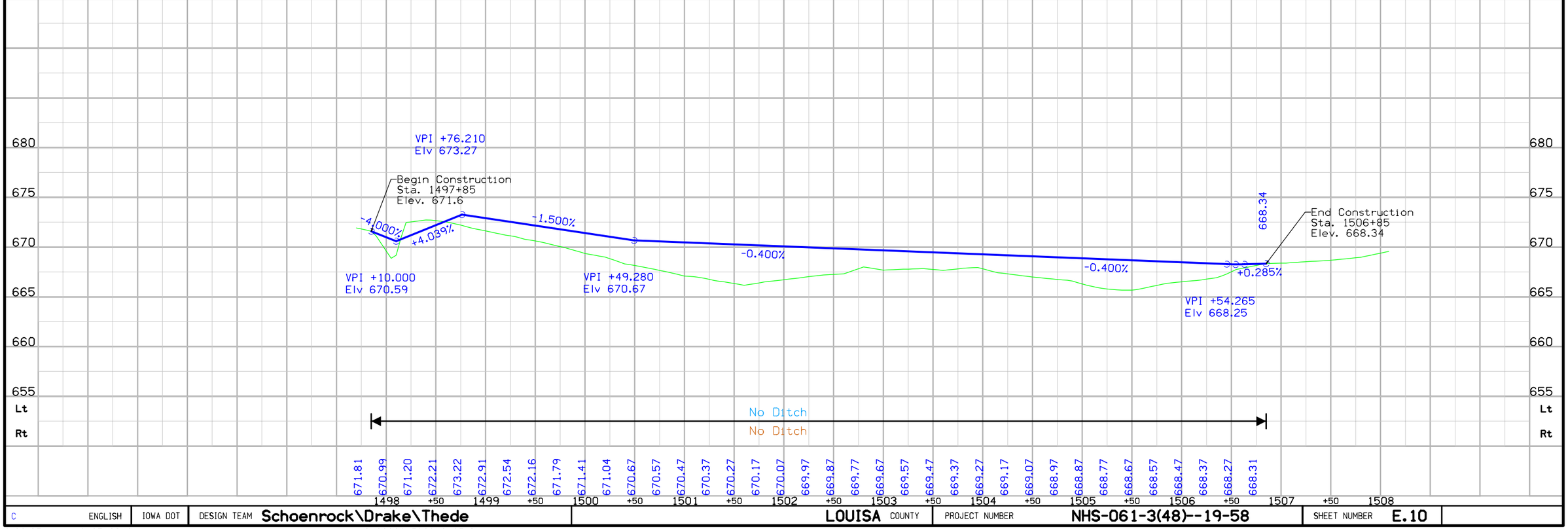
8:33:01 AM 3/25/2013 nthede c:\pw_work\pwmain\nthede\d0122339\58061048E_01.sht



C ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER E.9	

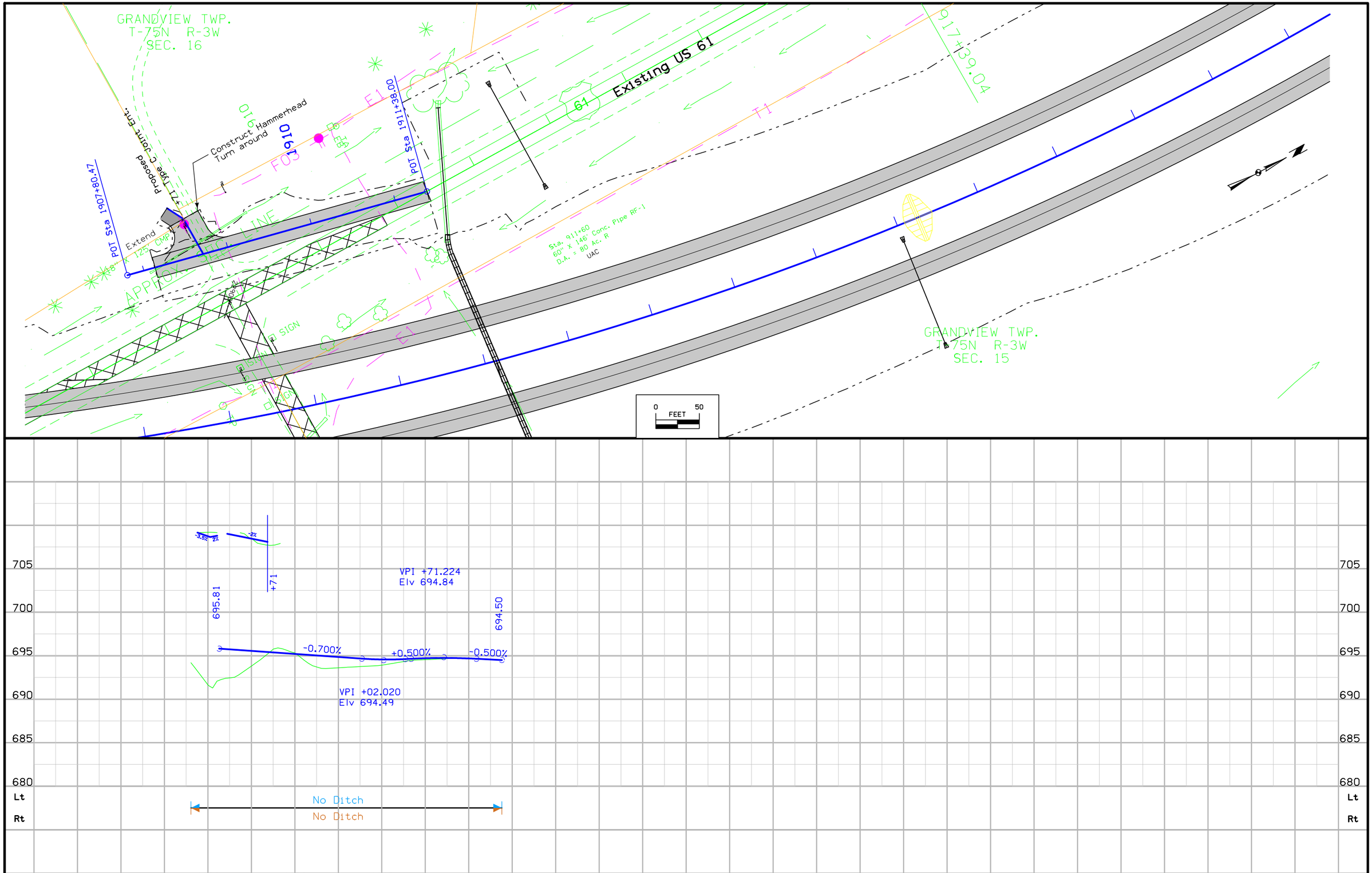
8:33:03 AM 3/25/2013 nthede c:\pw_work\pwmain\nthede\d0122339\58061048E_01.sht





C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER E.10	

8:33:05 AM 3/25/2013 nthede c:\pw_work\pwmain\nthede\d0122339\58061048E_01.sht



C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER E.11

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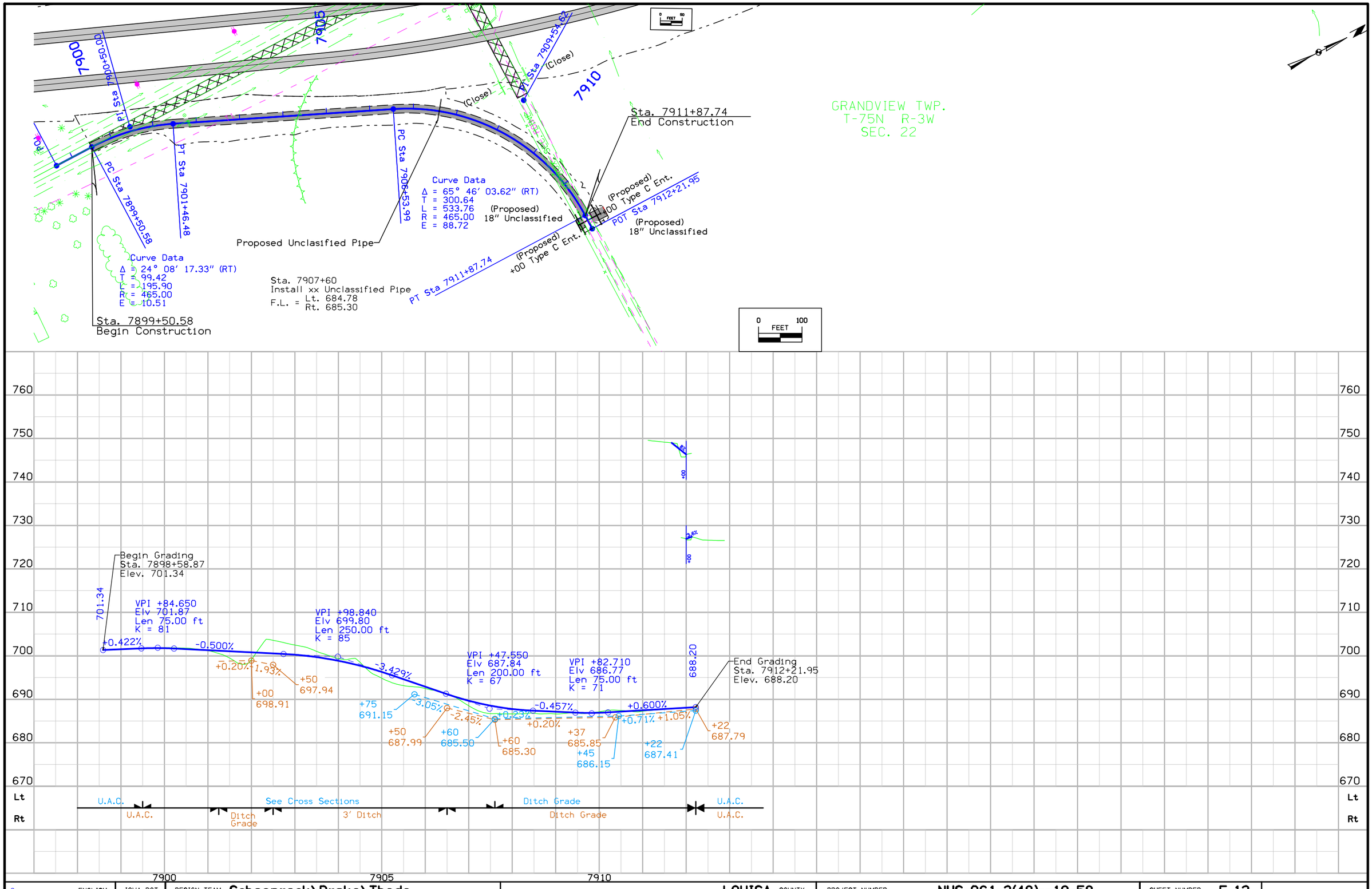


C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER E.12	

9:01:06 AM 6/18/2013 nthede pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\58061030O9\Design\58061048E_01.sht

GRANDVIEW TWP.
T-75N R-3W
SEC. 21

PC Sta 300+00.00
= POT Sta 899+84.54 ML61

PC Sta 300+00.00

300

Curve Data
Δ = 22° 30' 14.66" (LT)
T = 795.80
L = 1,571.08
R = 4,000.00
E = 78.39

305

Sta. 304+55.63
Begin Detour Profile Grade

Sta. 308+00.00
Install xx" X xx' CMP
F.L. = Lt. xx
Rt. xx

Sta. 301+26.75
Begin Construction

DETOUR (DET61 905)

US 61 (ML61)

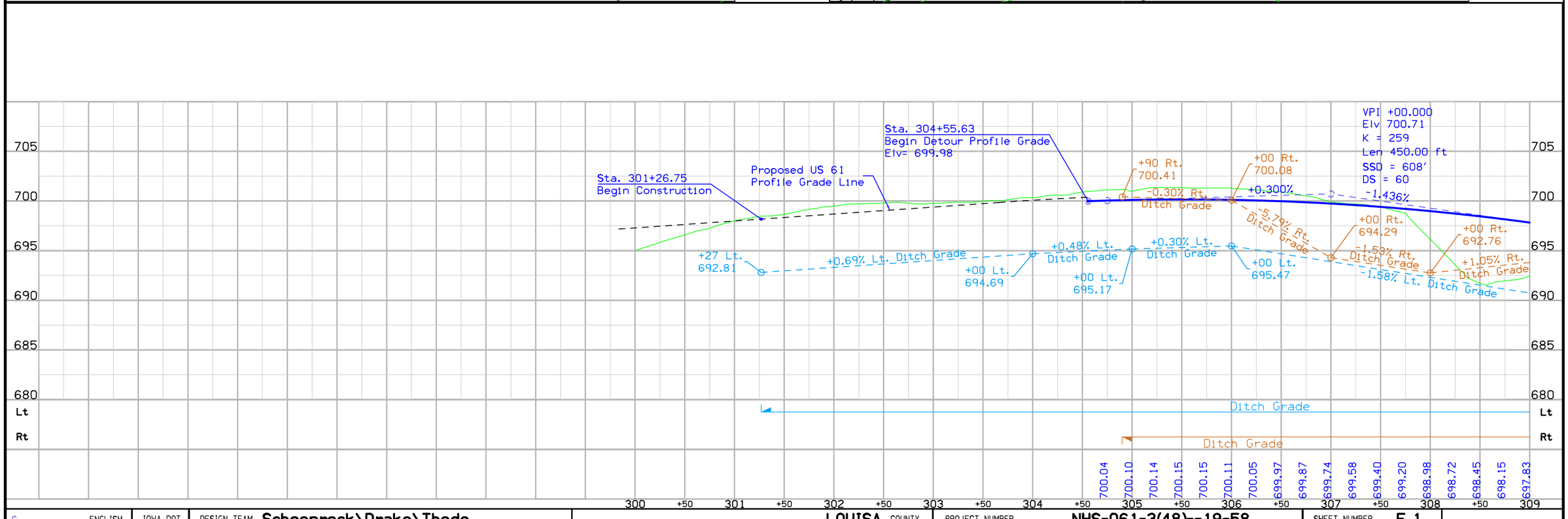
PI Sta 307+95.80

Existing US 61

GRANDVIEW TWP.
T-75N R-3W
SEC. 22

0 FEET 50

DETOUR
DET61_905



C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER	NHS-061-3(48)--19-58	SHEET NUMBER F.1

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GRANDVIEW TWP.
T-75N R-3W
SEC. 21

GRANDVIEW TWP.
T-75N R-3W
SEC. 16

GRANDVIEW TWP.
T-75N R-3W
SEC. 22

GRANDVIEW TWP.
T-75N R-3W
SEC. 15

Sta. 308+00.00
Install xx" X xx' CMP
F.L. = Lt. xx
Rt. xx

+36 Prop Type "C" Ent 24" Uncl Ent Pipe +92 Res. Ent.

310

Curve Data
Δ = 22° 30' 14.66" (LT)
T = 795.80
L = 1,571.08
R = 4,000.00
E = 78.39

Remove
8" X 125' CMP

Sta. 311+33.17
End Detour Profile Grade

315

PT Sta 315+71.08

POT Sta 316+48.93

POT Sta 316+48.93 DET61_905
= POT Sta 915+00.00 SUR061B

DETOUR (DET61 905)

Existing US 61

Sta. 315+71.08
End Construction

PI Sta 307+95.80

US 61 (ML61)

+92 Field Ent.

Sta. 911+60
60" X 146' Conc. Pipe RF-1
D.A. = 84 Ac. R

0 FEET 50

DETOUR
DET61_905

VPI +00.000
Elv 700.71
K = 259
Len 450.00 ft
SSD = 608'
DS = 60
-1.436%

+00 Rt.
694.29
-1.58% Rt. Ditch Grade
-1.58% Lt. Ditch Grade

+00 Rt.
692.76
+1.05% Rt. Ditch Grade

-1.436%

+98 Rt.
695.89
-0.800%

Sta. 311+33.17
Begin Detour Profile Grade
Elv= 695.18

Sta. 315+71.08
End Construction

VPI +25.000
Elv 696.05
K = 314
Len 200.00 ft
DS = 60

+85 Lt.
687.81

Ditch Grade
U.A.C.
Ditch Grade

699.58 699.40 699.20 698.98 698.72 698.45 698.15 697.83 697.48 697.13 696.80 696.49 696.20 695.93 695.69 695.46 695.25

307 +50 308 +50 309 +50 310 +50 311 +50 312 +50 313 +50 314 +50 315 +50 316

705 700 695 690 685 680

Lt
Rt

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER F.2

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GRANDVIEW TWP.
T-75N R-3W
SEC. 9

PC Sta 400+00.00 DET61_985
= POT Sta 971+94.50 SUR061C

PC Sta 400+00.00

Sta. 400+86.04
Begin Construction

Sta. 406+65.05
Begin Detour Profile Grade

Curve Data
Δ = 8° 21′ 05.81″ (LT)
T = 666.59
L = 1,330.82
R = 9,130.00
E = 24.30

30″ X 35′ CMP

+59 Field Ent.

18″ X 66′ CMP

PI Sta 406+66.59

Existing US 61

DETOUR (DET61 985)

US 61 (ML61)

DETOUR
DET61_985

0 FEET 50

710
705
700
695
690
685
Lt
Rt

Sta. 400+86.04
Begin Construction

Sta. 406+65.05
Begin Detour Profile Grade
Elv= 700.42

+19 Rt.
700.40

+00 Lt.
695.99

-0.700%

-1.72% Rt. Ditch Grade

-0.59% Lt. Ditch Grade

U.A.C.

Ditch Grade

Ditch Grade

700.35 700.18 700.00 699.83 699.65 699.48 699.30 699.13 698.95 698.78 698.60 698.43 698.25 698.08 697.90 697.73 697.55 697.38 697.20 697.03 696.85 696.68

400 +50 401 +50 402 +50 403 +50 404 +50 405 +50 406 +50 407 +50 408 +50 409 +50 410 +50 411 +50 412

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER F.3

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GRANDVIEW TWP.
T-75N R-3W
SEC. 9

PT Sta 413+30.82

Sta. 986+15.3
59" X 36" 86' Conc. Arch
D.A. = 136 Ac. F-R

415

420

425

Curve Data
Δ = 13° 39' 52.44" (RT)
T = 297.14
L = 591.46
R = 2,480.00
E = 17.74

PI Sta 424+43.52

DETOUR (DET61 985)

42" X 56' CMP

+74 Field Ent.

PC Sta 421+46.38

PT Sta 427+37.84

US 61 (ML61)

Existing US 61

0 50 FEET

DETOUR
DET61_985

VPI +00.000
Elv 695.77
K = 249
Len 250.00 ft
SSD = 786'
DS = 60

-0.700%
+0.500%
+0.500%
-0.506%
-0.506%

+50 Rt.
691.27

+50 Lt.
690.98

VPI +25.000
Elv 694.40
K = 208
Len 250.00 ft
DS = 60

-0.32% Rt. Ditch Grade

-0.40% Lt. Ditch Grade

+00 Rt.
686.63

Ditch Grade

Ditch Grade

412	+50	413	+50	414	+50	415	+50	416	+50	417	+50	418	+50	419	+50	420	+50	421	+50	422	+50	423	+50	424	+50	425	+50	426	+50	427
Lt	696.50	696.33	696.15	695.98	695.80	695.63	695.45	695.27	695.12	694.98	694.88	694.81	694.77	694.76	694.78	694.83	694.91	695.02	695.15	695.26	695.35	695.41	695.45	695.46	695.45	695.41	695.35	695.26	695.14	695.02
Rt	694.89	694.76	694.64	694.51	694.38	694.26	694.13	694.00	693.88	693.75	693.63	693.50	693.37	693.25	693.12	692.99	692.87	692.74	692.61	692.49	692.36	692.23	692.11	691.98	691.86	691.73	691.60	691.48	691.35	691.22

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER F.4

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GRANDVIEW TWP.
T-75N R-3W
SEC. 9

Curve Data
Δ = 7° 07′ 30.06″ (LT)
T = 568.41
L = 1,135.36
R = 9,130.00
E = 17.68

PC Sta 428+80.70
PT Sta 427+37.84
PI Sta 434+49.11
PT Sta 440+16.06
PC Sta 440+16.06 DET61_985
= POT Sta 1013+28.41 ML61
Sta. 433+27.32
End Detour Profile Grade
Sta. 438+24.79
End Construction

DETOUR (DET61 985)
US 61 (ML61)
Existing US 61
DETOUR
DET61_985

Two 48″ X 48′ CMPs
+92 Field Ent.
Sta. 1007+04.8
59″ X 36″ 87′ Conc. Arch
D.A. = 155 Ac. F-GR
Tile

0 FEET 50

+76 Rt.
688.65
+25 Lt.
683.08
+0.35% Rt. Ditch Grade
Proposed US 61
Profile Grade Line
Ditch Grade
U.A.C. (Proposed ML Embankment)

691.10 690.97 690.84 690.72 690.59 690.46 690.34 690.21 690.08 689.96 689.83 689.71 689.58 689.45 689.33 689.20 689.07 688.95 688.82 688.69 688.57 688.44 688.31 688.19 688.06

427 +50 428 +50 429 +50 430 +50 431 +50 432 +50 433 +50 434 +50 435 +50 436 +50 437 +50 438 +50 439 +50 440

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER F.5

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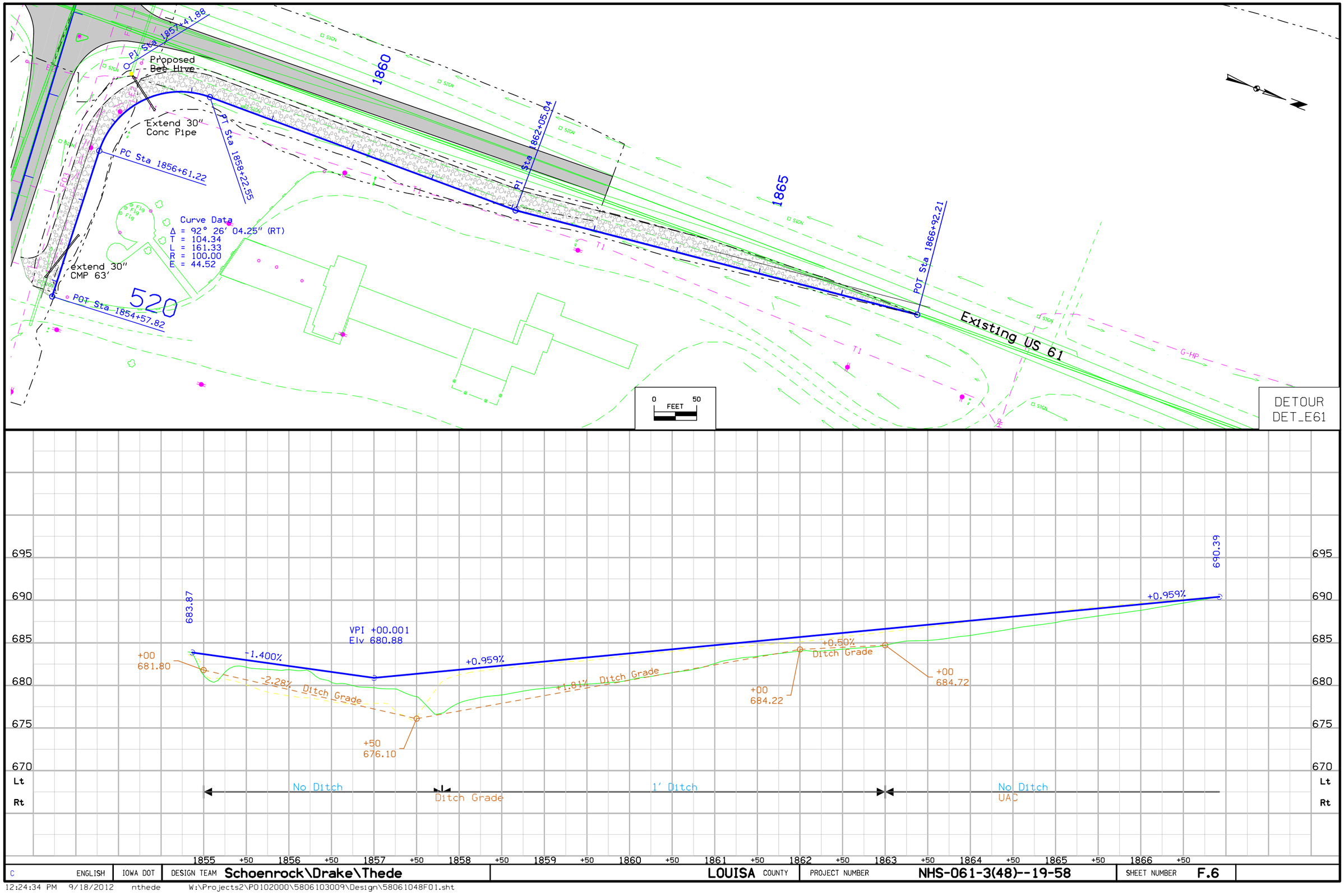

C ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER F.6	

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SURVEY INFORMATION

General Information

The coordinates used on this project are the same as IDOT GPS Network survey. IDOT GPS Control network monuments & benchmarks found in the area were held fixed in the Horizontal Calibration of this project.

State Plane Coordinate values of all Horizontal control in the area were converted to the IDOT network adjustment values then held fixed in the calibration.

12-2006 ASI Points (4,5,6,7,8,15,16,17,19,20,506,507) were held fixed in Horizontal and Vertical RTK Calibration of this project 1-2006 ASI Point (506) "A CBN Point Ardon Az Mk Reset" was held fixed in Horizontal RTK Calibration of this project 4-2000 ASI Points [143,144,147,505] were held in the Horizontal and Vertical RTK Calibration of this project 14 –2001 IDOT Points (38-50,52) Horizontal Calibration of this project

Vertical Datum

This survey is relative to NAVD 88 vertical datum. NGS datasheets show a vertical difference of 0.20' (88 Lower than 29) between NAVD88 to NGVD29.

A Bench level run was made between two 2006 ASI monument points, holding the published elevations of 2006ASI16 & 2006ASI4 fixed in the adjustment.

Vertical Equations:

All ASI Marks found near this project were held fixed vertically in the calibration

BM # 505 this survey Elev. = 720.91 (NAVD 88 datum)
=USGS 1 DRL 1964 Elev. = 720.91 (NAVD 88 datum)
=USGS 1 DRL 1964 Elev. = 721.105 (NAVD 29 datum)

BM # 507 this survey Elev. = 696.820 (NAVD 88 datum)
=USGS 4 DRL 1964 Elev. = 696.820 (NAVD 88 datum)
=USGS 4 DRL 1964 Elev. = 697.020 (NAVD 29 datum)

ASI Marks 16,7 and 4 were held fixed in the digital level run. The ASI published elevations on BM 516 (6), BM 607 (7) & BM 504 (4) were held fixed in a digital level run. A bench level run directly between BM 516 & BM 504 was observed. The total length of the run was 8.1 miles with a missed closure of 0.055 feet. The least squared adjustment values of the marks along the level run were held fixed on this survey.

BM # 516 this survey Elev. = 634.565 (NAVD 88 datum)
CP#16 (2006ASI survey) Elev. = 634.565 (NAVD 88 datum)

BM #607 this survey Elev. = 690.485 (NAVD 88 datum)
CP#7 (2006ASI survey) Elev. = 690.485 (NAVD 88 datum)

BM # 504 this survey Elev. = 733.210 (NAVD 88 datum)
CP# 4 (2006ASI survey) Elev. = 733.210 (NAVD 88 datum)

Alignments

The mainline alignment is a retrace of the alignments found on the Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan. Four alignments were created because of the horizontal offsets found along this project. Four Mainline alignments are as follows

ML1 alignment from Sta 720+69.185 to Sta 856+37.808 then 24' Offset Left to Ali ML2
ML2 alignment from Sta 856+37.17 to Sta 964+44.766 then 15.9' Offset left to ML3
ML3 alignment from Sta 964+44.766 to Sta 1048+04.672 then 45.93' Offset left to ML4
ML4 alignment from Sta 1048+04.85 to Sta 1031+79.792

Alignment Equations
Begin Alignment ML1

POT Sta 720+69.185 This Survey (Fd IDOT Hinge Nail)
= POT Sta 720+70.66 AB Stationing Ahead Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan
= POT Sta 720+71.51 AB Stationing Back Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan
= Equation found on AB Plan

PI Sta 741+45.164 This Survey (Fd Rusted Nail)
= PI Sta 741+46.49 AB Stationing Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan

PI Sta 750+13.793 This Survey (Fd IDOT Hinge Nail)
= PI Sta 750+15.08 AB Stationing Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan

PT Sta 754+06.141 This Survey (Fd IDOT Hinge Nail)
= PT Sta 754+07.50 AB Stationing Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan

ML1 Stationing held fixed here backed up and carried forward from AB POT Equation Point where
POT Sta 754+14.22 This Survey (Computed point using plan distance of 7.98 ahead of AB PT Sta 754+07.50)
= POT Sta 754+14.22 AB Stationing Ahead (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)
= POT Sta 754+15.48 AB Stationing Back (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

PI Sta 783+28.707 This Survey (Fd IDOT Hinge Nail)
=PI Sta 783+29.09 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

PI Sta 802+97.698 This Survey (Fd IDOT Hinge Nail)
=PI Sta 802+98.09 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

PI Sta 829+43.759 This Survey (Fd IDOT Hinge Nail)
=PI Sta 829+44.20 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

PI Sta 850+40.91 This Survey (Reset from Ref Ties)
=PI Sta 850+40.70 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

PI Sta 856+37.808 This Survey = End of ML1(Reset on Ia 92 East West Alignment A1)
=PI Sta 516+97.353 This Survey Ia 92 Alignment
=PI Sta 516+97.35 Ia 92 AB Stationing (Louisa Co. Plan Page 7 F-61-3(2)—20-58 1972 AB Plan)

SURVEY INFORMATION

Begin Alignment ML2

PI Sta 856+37.17 This Survey = Begin End of ML2(Reset on Ia 92 East West Alignment A1)
=PI Sta 516+73.30 This Survey Ia 92 Alignment
=24.00 Lt of Plan Sta 856+37.10 AB Stationing (Louisa Co. Plan Page 7 F-61-3(2)—20-58 1972 AB Plan)

ML2 Stationing held fixed backed up and carried forward here
PI Sta 866+44.03 This Survey
=PI Sta 866+44.03 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

PI Sta 872+86.412 This Survey
=PI Sta 872+86.41 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

PI Sta 872+86.412 This Survey
=PI Sta 872+86.41 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

TS Sta 916+22.363 This Survey (Fd IDOT Hinge Nail)
=TS Sta 916+22.62 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

PI Sta 925+37.882 This Survey
=PI Sta 925+37.14 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

PI Sta 949+27.699 This Survey (Fd Rebar)
=PI Sta 949+28.05 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

PI Sta 964+44.766 This Survey = End of ML2(Fd Bent Nail Reset Mag Nail)
=PI Sta 964+45.00 Ia 92 AB Stationing (Louisa Co. Plan Page 7 F-61-3(2)—20-58 1972 AB Plan)

Begin Alignment ML3

=PI Sta 964+47.70 This Survey (Fd IDOT Hinge Nail)
=16.00 Lt of Sta 965+45.0 AB O.R. Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)
=15.90 Lt of ML2 Alignment Sta 964+44.568 This Survey
=PI Sta 3947+47.70 170th St. Alignment This Survey

ML3 Stationing held fixed here backed up and carried forward from AB Equation Point where
Sta 967+45.0 (OR Back)
=Sta967+47.7 (OR Ahead)
=Sta 967+47.70 This Survey

PI Sta 990+77.64 This Survey (Fd IDOT Hinge Nail)
=PI Sta 990+77.67 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

POT Sta 1017+35.88 This Survey (Fd IDOT Hinge Nail)
=POT Sta 1017+36.06 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)
=PI Sta 201017+35.88 Hwy 305 Stationing This Survey

PI Sta 1022+96.34 This Survey (Fd IDOT Hinge Nail)
=PI Sta 1022+96.58 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)

PI Sta 1043+01.51 This Survey (Computed)
=PI Sta 1043+01.66 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)
=PI Sta 13+11.145 AB Stationing (Louisa Co. Plan NHSX-61-4(91)—3H-70 Metric PCC Plan)

PT Sta 1048+04.67 This Survey End ML3(Computed)
=PT Sta 1048+04.85 AB Stationing (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)
=PT Sta 14+64.518 Metric Back (Louisa Co. Plan NHSX-61-4(91)—3H-70 Metric PCC Plan)
= 14.00 Meters East and Rt of PC Sta 14+63.946 AB Stationing (Louisa Co. Plan NHSX-61-4(91)—3H-70 Metric PCC Plan)

Begin Alignment ML4

PC Sta 1048+04.85 This Survey Begin ML4
=PC Sta 14+63.946 AB Stationing (Louisa Co. Plan NHSX-61-4(91)—3H-70 Metric PCC Plan)
= 14.00 Meters West and Lt of AB PT Sta 1048+04.85 (Louisa Co. Plan NHS-61-3(28)—19-58 Paving Plan)
= 14.00 Meters West and Lt of PC Sta 14+64.518 Metric Survey Stationing (Louisa Co. Plan NHSX-61-4(91)—3H-70 Metric PCC Plan)

PI Sta 1053+73.80 This Survey
=PI Sta 16+37.362 AB Stationing (Louisa Co. Plan NHSX-61-4(91)—3H-70 Metric PCC Plan)

PRC Sta 1059+41.89 This Survey
=PRC Sta 18+10.520 AB Stationing (Louisa Co. Plan NHSX-61-4(91)—3H-70 Metric PCC Plan)

PT Sta 1063+40.52 This Survey (Fd rebar 12" Deep)
=PT Sta 19+32.022 AB Stationing (Louisa Co. Plan NHSX-61-4(91)—3H-70 Metric PCC Plan)

PI Sta 1085+07.72 This Survey
=PI Sta 25+92.602 AB Stationing (Louisa Co. Plan NHSX-61-4(91)—3H-70 Metric PCC Plan)

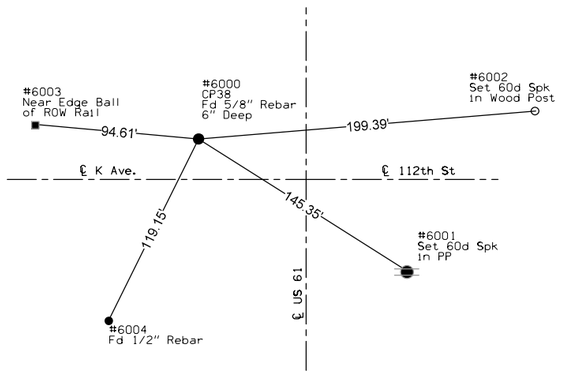
SURVEY INFORMATION

500	462467.616	2273734.222	620.860	745+93.43	44.622	BM	CUT "X" ON INLET END 24" RCP APRON
501	462920.412	2274164.798	625.316	750+07.98	528.711	BM	SET RR SPK N SIDE PP
502	463699.336	2273704.220	642.039	758+33.56	101.091	BM	SET RR SPK W. SIDE POST
503	465076.810	2273645.842	661.157	772+12.10	79.880	BM	SET 60D SPK N. SIDE POST
504	494637.280	2272212.175	733.210	1071+16.15	423.003	BM	LOUISA CO MONU ASI4 BERNTSEN ROD_CAP W/5" LID =2006ASI4 COUNTY MONU EL=733.210
505	502407.282	2260995.217	720.910	1085+84.77	-12729.140	BM	USGSMONU 1DRL1964(88_3RD) =2000ASI505
506	466801.640	2273599.106	675.929	789+37.66	78.995	BM	SET 60D SPK N. SIDE POST
507	472331.305	2283889.326	696.820	842+01.12	10508.096	BM	USGSMONU 4DRL1964(88_3RD) =2006ASI507
508	467637.700	2273595.354	676.356	797+73.53	96.858	BM	FD 60D SPK S. SIDE POST =BM80A 1994 AB PLAN NHS-61-3(28)--19-58 EL=676.62
509	468630.801	2273523.754	674.477	807+68.16	50.878	BM	SET MAG NAIL ON INLET 42" CMP
510	469513.418	2273530.603	679.603	816+50.31	80.398	BM	SET 60D SPK N. SIDE POST
511	469840.387	2273375.350	679.255	819+81.16	-66.404	BM	FD RR SPK E SIDE PP
512	470774.475	2273536.391	678.926	829+10.80	118.580	BM	FD RR SPK W SIDE PP =BM2 1969 AB PLAN F-61-3(2)--20-58 EL=686.16
513	470771.510	2273301.301	679.740	829+13.88	-116.509	BM	FD RR SPK NE SIDE PP =BM83 1994 AB PLAN NHS-61-3(28)--19-58 EL=680.05
514	471982.739	2273429.060	665.057	841+21.43	42.328	BM	FD IHC BM ON IN HDWL 5X5 RCB =BM84 1994 AB PLAN NHS-61-3(28)–19-58 EL=665.40 =BM3 1969 AB PLAN CM:F-61-3(2)--20-58 CM:EL=672.50
515	472411.996	2273423.842	664.847	845+50.67	48.140	BM	FD IHC BM ON IN HDWL 4X3 RCB =BM4 1969 AB PLAN F-61-3(2)--20-58 EL=672.12
517	473550.471	2273195.308	673.245	856+93.06	-137.92	BM	FD RR SPK S SIDE PP =BM5 1969 AB PLAN F-61-3(2)–20-58 EL=680.47 =BM85 1994 AB PLAN NHS-61-3(28)--19-58 EL=673.60
518	474692.835	2273459.063	694.834	868+36.69	129.762	BM	FD 60D SPK IN W. SIDE RR TIE =BM86 1994 AB PLAN NHS-61-3(28)–19-58 EL=695.10
519	475084.620	2273392.134	688.245	872+26.64	54.455	BM	CUT "X" ON INLET 42" RCP
520	476366.386	2273454.289	688.468	885+06.57	124.662	BM	SET RR SPK W SIDE PP
521	476797.336	2273275.148	687.524	889+39.22	-50.339	BM	FD RR SPK E SIDE PP =BM88A 1994 AB PLAN NHS-61-3(28)--19-58 EL=687.85
522	477967.691	2273235.837	703.155	901+09.90	-78.428	BM	FD RR SPK E SIDE PP =BM89A 1994 AB PLAN NHS-61-3(28)--19-58 EL=703.62
523	478916.656	2273191.488	692.868	910+59.24	-113.676	BM	FD RR SPK E SIDE PP =BM90A 1994 AB PLAN NHS-61-3(28)--19-58 EL=693.27
524	480060.092	2273122.020	690.880	922+29.00	-126.922	BM	SET RR SPK S SIDE PP
525	480325.153	2273284.743	677.247	924+51.49	92.007	BM	FD REBAR ON INLET HDWL 5 X 5 RCB
526	481229.595	2272687.139	697.155	935+21.26	-56.645	BM	60D SPK IN W. SIDE POST
527	482230.921	2272231.860	692.565	946+22.62	55.159	BM	CUT "X" INLET HDWL 5 X 7 CONC ARCH
528	482988.829	2272044.941	697.068	954+21.97	61.168	BM	SET RR SPK S SIDE PP
529	483951.658	2271859.135	701.099	963+93.03	-101.68	BM	RR SPK N. SIDE LUM
530	485229.521	2271861.004	699.139	976+73.97	-73.14	BM	SET RR SPK E SIDE PP
531	486172.066	2271971.039	693.852	986+15.51	44.84	BM	CUT "X" INLET APRON 36" RCP
532	486598.656	2271830.504	696.123	990+43.31	-92.10	BM	FD RR SPK E SIDE PP =BM96A 1994 AB PLAN NHS-61-3(28)--19-58 EL=696.57
533	487610.255	2271821.126	689.807	1000+54.95	-92.96	BM	SET RR SPK S SIDE PP
534	488105.163	2271826.674	683.398	1005+49.80	-83.25	BM	FD RR SPK E SIDE PP =BM97A 1994 AB PLAN NHS-61-3(28)--19-58 EL=683.83
535	489059.761	2271822.201	693.297	1015+04.40	-79.70	BM	FD RR SPK E SIDE PP =BM97B 1994 AB PLAN NHS-61-3(28)--19-58 EL=693.83
536	489586.168	2271942.103	694.470	1020+28.87	47.084	BM	CUT "X" IN INLET 30" RCP
537	491058.445	2271764.244	703.240	1035+08.76	-23.140	BM	CUT "X" SW WING OF BRIDGE
538	491313.326	2271801.104	698.631	1037+59.33	36.317	BM	CUT "X" ON INLET END 4 X 6 CONC ARCH CULV
539	492709.803	2271853.611	701.907	1051+65.53	181.358	BM	SET RR SPK W SIDE PP
540	493880.012	2271876.516	722.422	1063+41.12	130.682	BM	SET RR SPK W SIDE PP
541	495009.556	2271938.946	719.518	1074+72.39	129.170	BM	CUT "X" ON INLET 48" RCP
542	495825.173	2272052.885	746.493	1083+38.46	120.163	BM	SET RR SPK E SIDE PP
600	473414.390	2270752.840	666.488	855+77.79	-2605.582	BM	SET RR SPK S SIDE PP
602	473635.646	2274960.208	699.131	857+60.16	1627.76	BM	SET RR SPK S SIDE PP
607	478771.186	2274038.620	690.485	909+05.66	732.022	BM	LOUISA CO MONU ASI7 BERNTSEN ROD_CAP W/5" LID =2006ASI7 COUNTY MONU EL=690.485

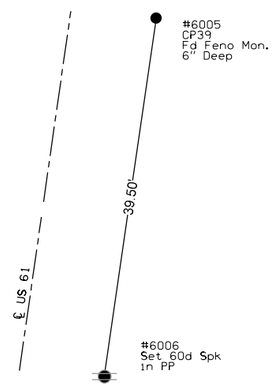
Along Ia 92

601	473382.163	2272321.826	664.184	506+55.77	41.073	BM	CUT "X" INLET APRON 30" R

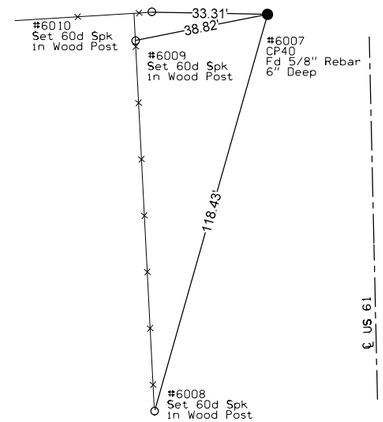
C.P. NO STATIONING
C.P. 38, Fd 5/8" Rebar 6" Deep
N=453672.150 E=2273644.760



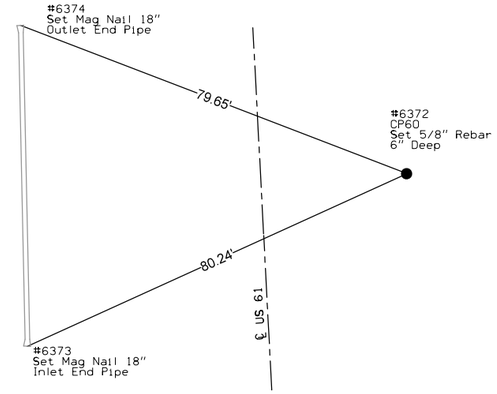
C.P. NO STATIONING
C.P. 39, Fd Feno Monument 6" Deep
N=456670.060 E=2273992.528



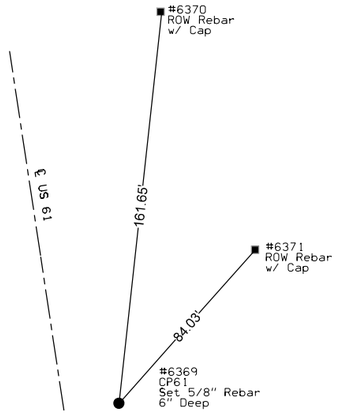
C.P. STA 730+15.98 LEFT 141.45
C.P. 40, Fd 5/8" Rebar 6" Deep
N=460882.277 E=2273676.773



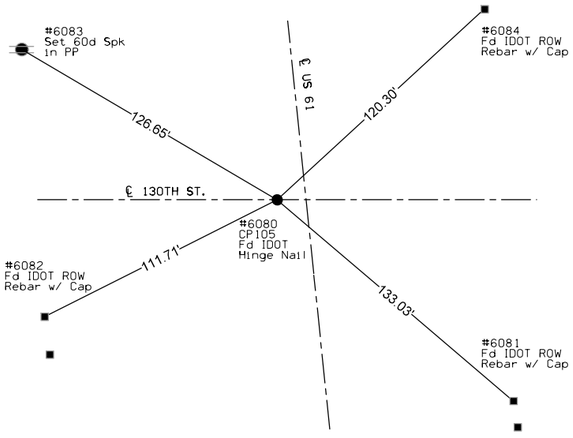
C.P. STA 735+13.36 RIGHT 28.16
C.P. 60, Set 5/8" Rebar 6" Deep
N=461387.799 E=2273820.305



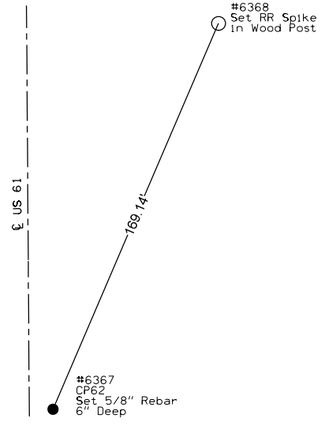
C.P. STA 744+54.24 RIGHT 33.57
C.P. 61, Set 5/8" Rebar 6" Deep
N=462328.360 E=2273744.772



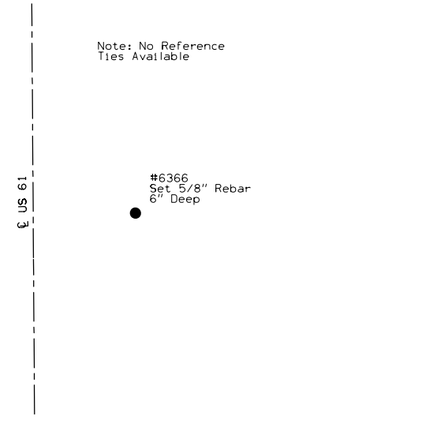
C.P. STA 750+13.26 LEFT 12.58
C.P. 105, Fd IDOT Hinge Nail
N=462876.072 E=2273625.301



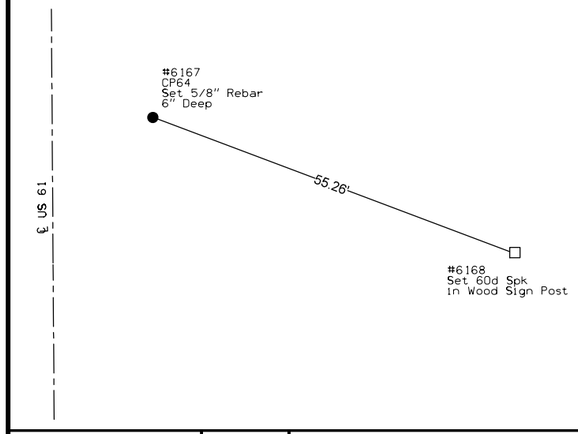
C.P. STA 756+79.91 RIGHT 30.36
C.P. 62, Set 5/8" Rebar 6" Deep
N=463543.834 E=2273637.658



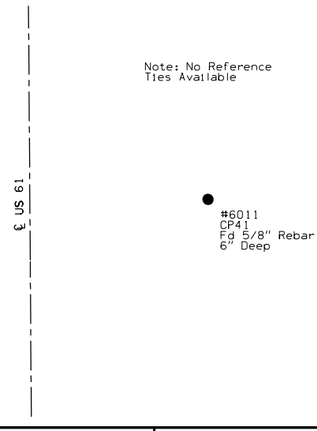
C.P. STA 764+69.07 RIGHT 28.21
C.P. 63, Set 5/8" Rebar 6" Deep
N=464332.650 E=2273614.226



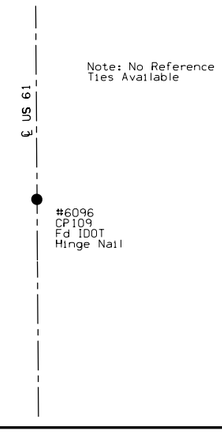
C.P. STA 772+32.84 RIGHT 28.71
C.P. 64, Set 5/8" Rebar 6" Deep
N=465096.155 E=2273594.135



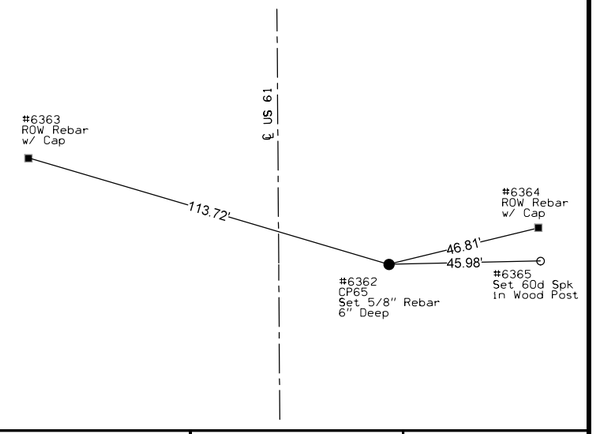
C.P. STA 780+21.33 RIGHT 28.06
C.P. 41, Fd 5/8" Rebar 6" Deep
N=465884.348 E=2273572.214



C.P. STA 783+28.71 RIGHT 0.00
C.P. 109, Fd IDOT Hinge Nail
N=466190.853 E=2273535.880



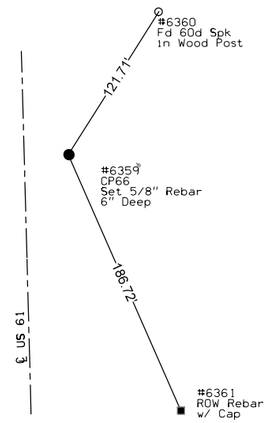
C.P. STA 789+37.88 RIGHT 33.02
C.P. 65, Set 5/8" Rebar 6" Deep
N=466800.674 E=2273553.141



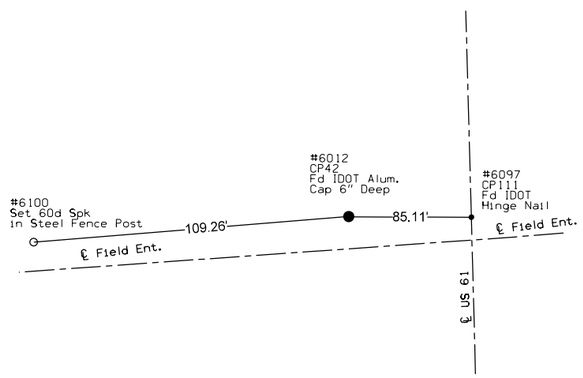
ENGLISH	IOWA DOT	DESIGN TEAM WHKS & CO.	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER G.4

12:52:43 PM 8/8/2012 nthede W:\Projects2\P0102000\5806103009\Design\58061048g01.sht

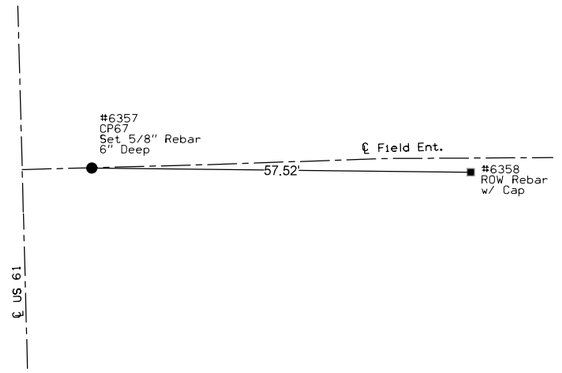
C.P. STA 796+72.42 RIGHT 29.08
C.P. 66, Set 5/8" Rebar 6" Deep
N=467534.865 E=2273530.216



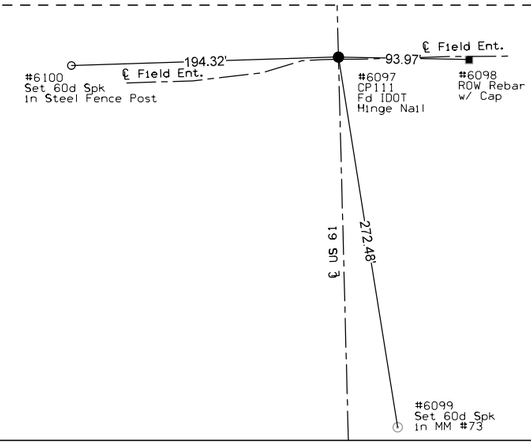
C.P. STA 802+95.23 LEFT 85.07
C.P. 42, Fd IDOT Alum. Cap 6" Deep
N=468154.520 E=2273400.000



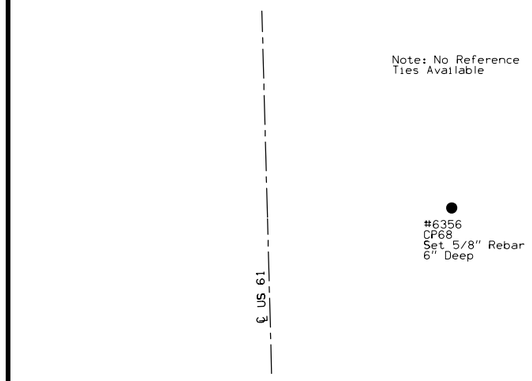
C.P. STA 802+95.66 RIGHT 36.43
C.P. 67, Set 5/8" Rebar 6" Deep
N=468158.085 E=2273521.362



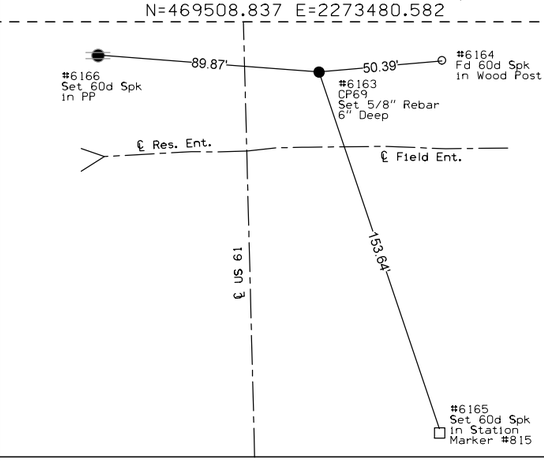
C.P. STA 802+97.70 RIGHT 0.00
C.P. 111, Fd IDOT Hinge Nail
N=468159.186 E=2273484.978



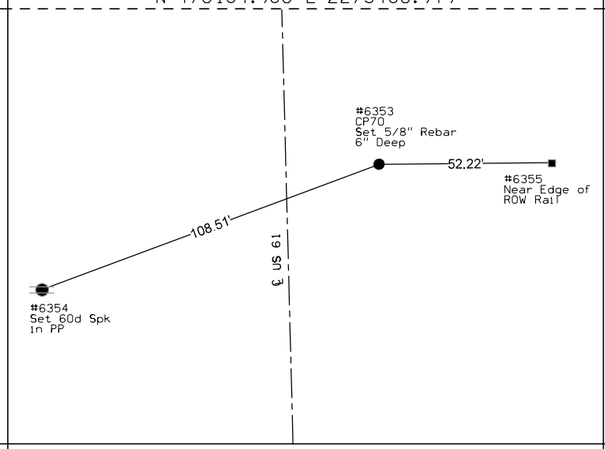
C.P. STA 809+01.74 RIGHT 28.99
C.P. 68, Set 5/8" Rebar 6" Deep
N=468763.772 E=2273498.442



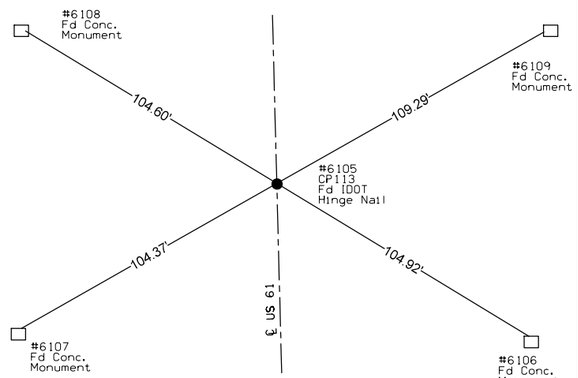
C.P. STA 816+47.02 RIGHT 30.28
C.P. 69, Set 5/8" Rebar 6" Deep
N=469508.837 E=2273480.582



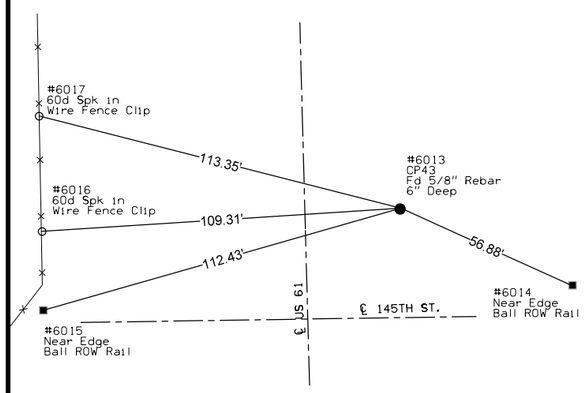
C.P. STA 823+23.44 RIGHT 28.02
C.P. 70, Set 5/8" Rebar 6" Deep
N=470184.980 E=2273460.949



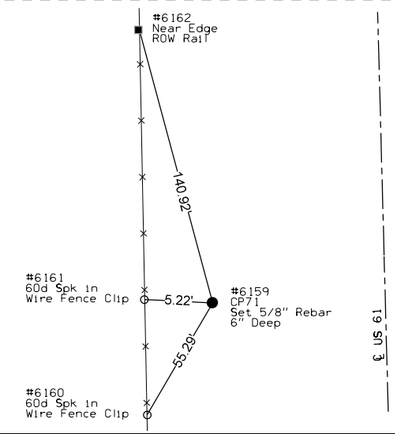
C.P. STA 829+43.76 RIGHT 0.00
C.P. 113, Fd IDOT Hinge Nail
N=470804.374 E=2273417.004



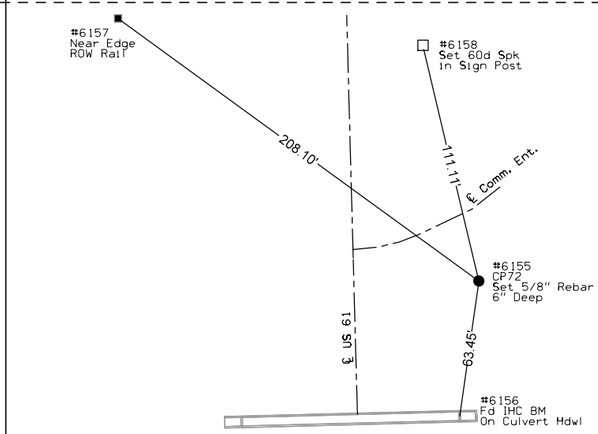
C.P. STA 830+41.33 RIGHT 28.83
C.P. 43, Fd 5/8" Rebar 6" Deep
N=470902.650 E=2273443.314



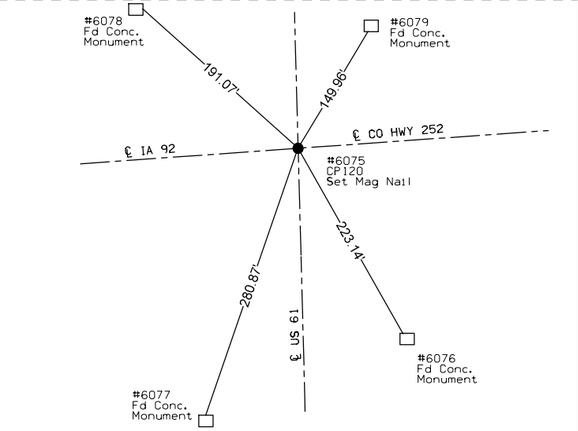
C.P. STA 838+33.65 LEFT 85.90
C.P. 71, Set 5/8" Rebar 6" Deep
N=471691.762 E=2273308.265



C.P. STA 846+13.34 RIGHT 58.70
C.P. 72, Set 5/8" Rebar 6" Deep
N=472474.913 E=2273432.785



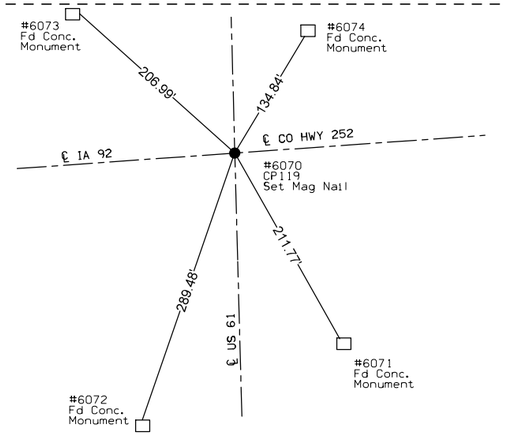
C.P. STA 856+36.30 LEFT 24.00
C.P. 120, Set Mag Nail
N=473495.996 E=2273333.793



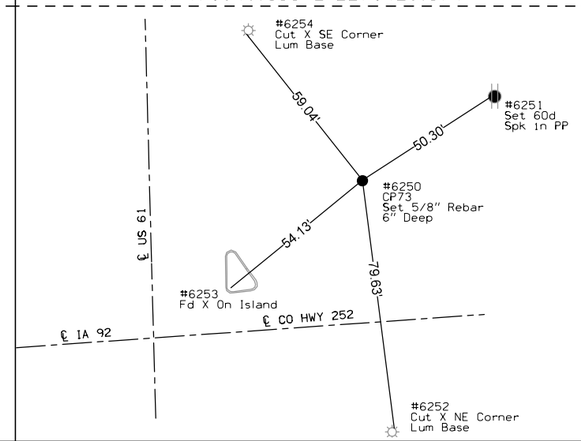
ENGLISH	IOWA DOT	DESIGN TEAM WHKS & CO.	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER G.5

12:52:43 PM 8/8/2012 nthede W:\Projects2\P0102000\5806103009\Design\58061048g01.sht

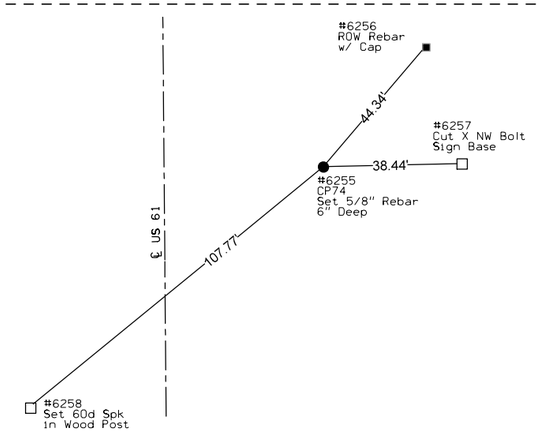
C.P. STA 856+37.81 RIGHT 0.00
C.P. 119, Set Mag Nail
N=473497.720 E=2273357.781



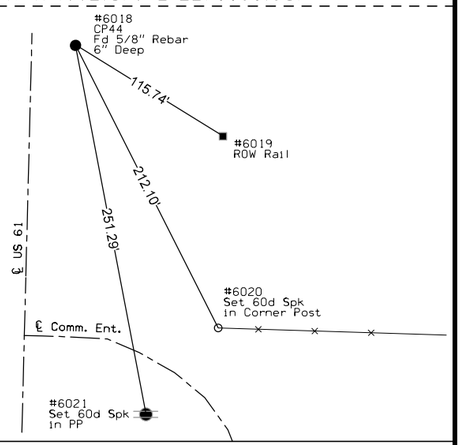
C.P. STA 856+88.34 RIGHT 91.81
C.P. 73, Set 5/8" Rebar 6" Deep
N=473548.100 E=2273425.074



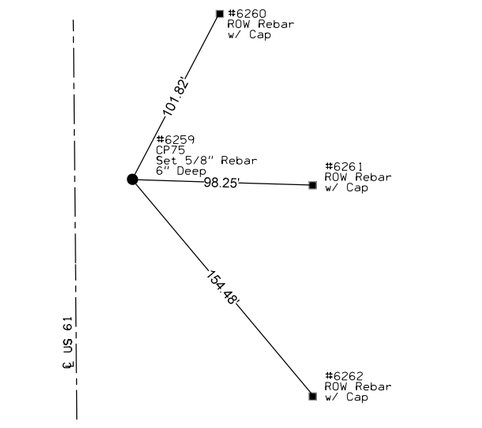
C.P. STA 862+89.51 RIGHT 45.79
C.P. 74, Set 5/8" Rebar 6" Deep
N=474148.771 E=2273372.901



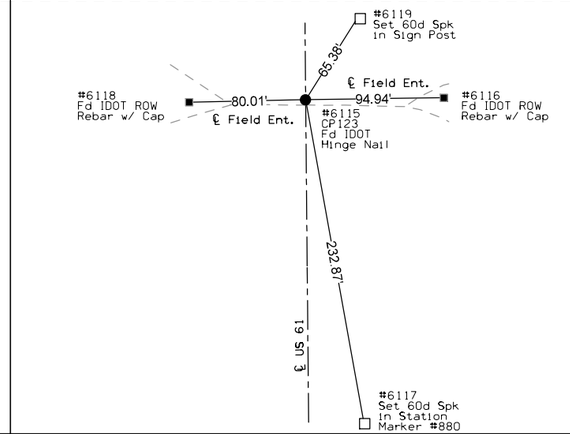
C.P. STA 870+24.20 RIGHT 29.58
C.P. 44, Fd 5/8" Rebar 6" Deep
N=474882.178 E=2273363.517



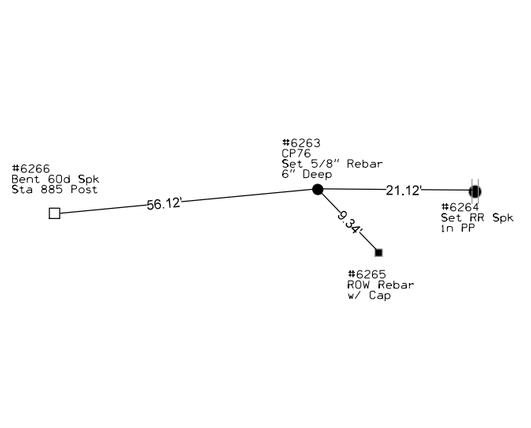
C.P. STA 877+27.05 RIGHT 31.91
C.P. 75, Set 5/8" Rebar 6" Deep
N=475586.011 E=2273369.016



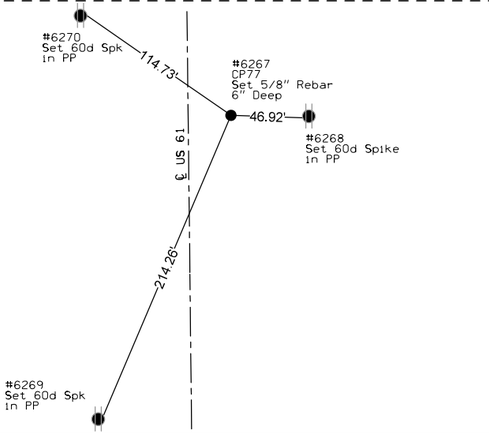
C.P. STA 882+31.09 RIGHT 0.04
C.P. 123, Fd IDOT Hinge Nail
N=476089.719 E=2273332.316



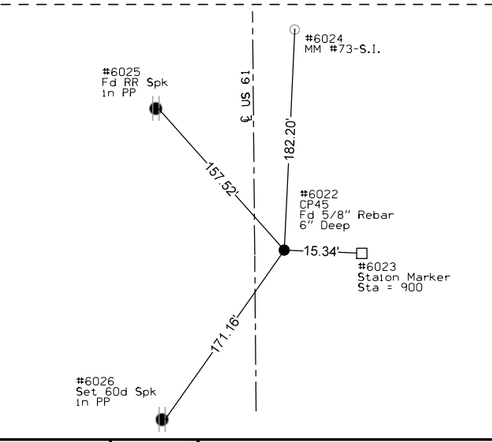
C.P. STA 885+06.88 RIGHT 103.54
C.P. 76, Set 5/8" Rebar 6" Deep
N=476366.489 E=2273433.167



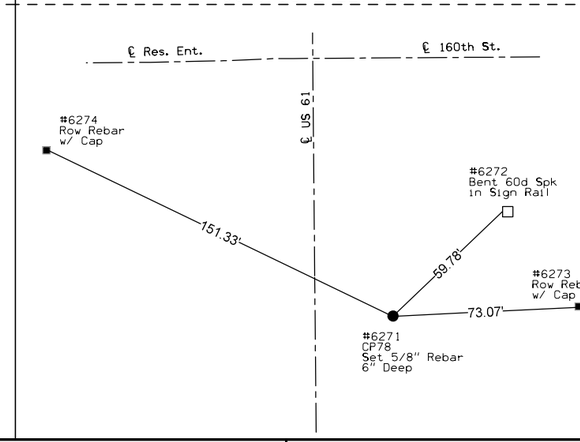
C.P. STA 892+61.86 RIGHT 27.28
C.P. 77, Set 5/8" Rebar 6" Deep
N=477120.708 E=2273349.673



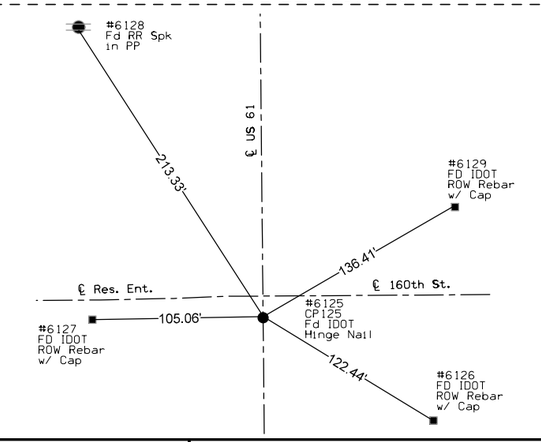
C.P. STA 899+91.15 RIGHT 25.14
C.P. 45, Fd 5/8" Rebar 6" Deep
N=477849.936 E=2273340.536



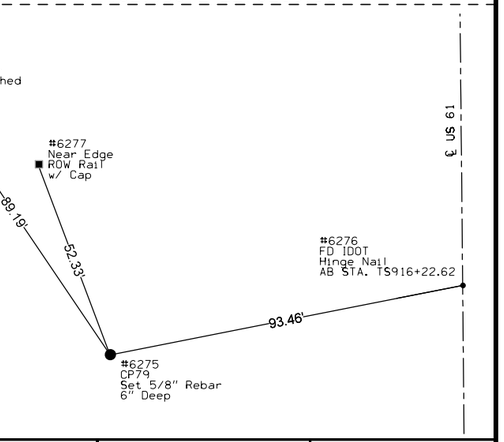
C.P. STA 908+10.97 RIGHT 30.81
C.P. 78, Set 5/8" Rebar 6" Deep
N=478669.780 E=2273338.343



C.P. STA 908+78.89 RIGHT 0.16
C.P. 125, Fd IDOT Hinge Nail
N=478737.400 E=2273307.046



C.P. STA 916+05.31 LEFT 91.81
C.P. 79, Set Rebar 6" Deep
N=479462.908 E=2273208.114



ENGLISH	IOWA DOT	DESIGN TEAM WHKS & CO.	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER G.6

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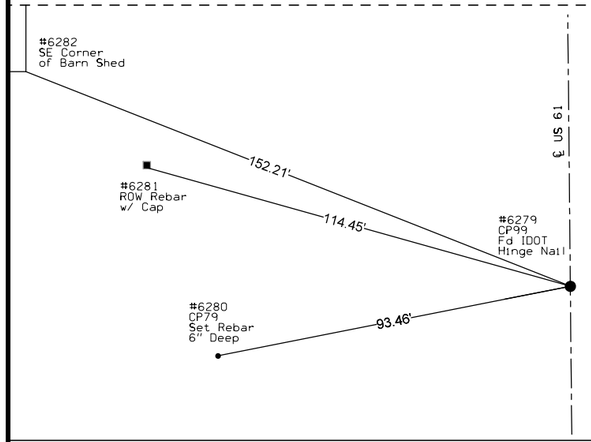
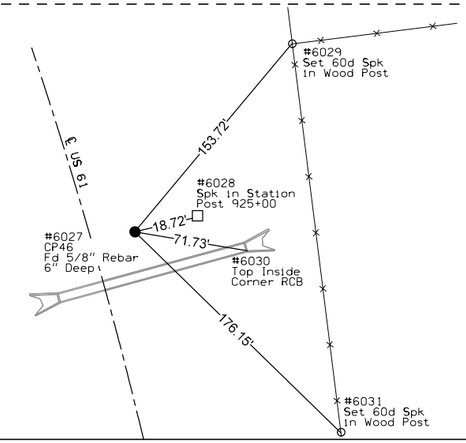
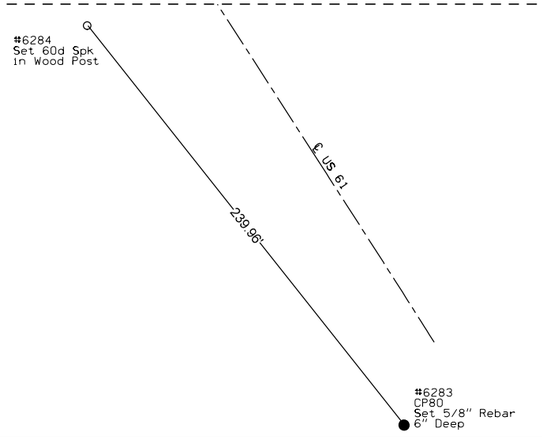
C.P. STA 916+22.50 RIGHT 0.05
C.P. 99, Fd IDOT Hinge Nail
N=479480.976 E=2273299.812



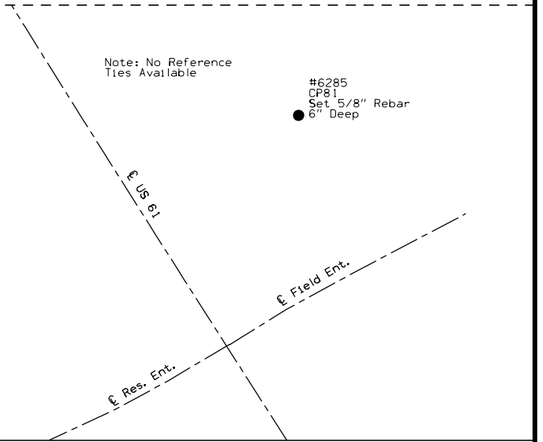
C.P. STA 924+78.94 RIGHT 27.60
C.P. 46, Fd 5/8" Rebar 6" Deep
N=480334.765 E=2273215.166



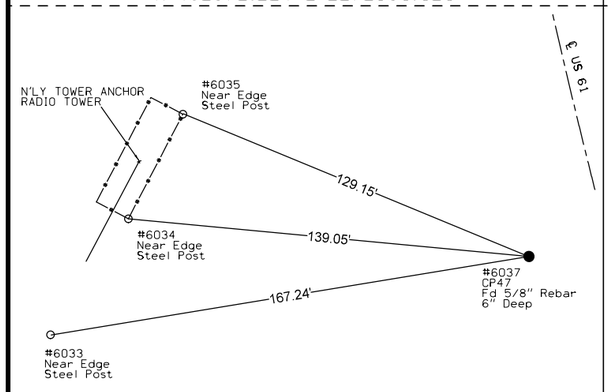
C.P. STA 932+81.92 LEFT 32.45
C.P. 80, Set 5/8" Rebar 6" Deep
N=481041.529 E=2272836.184



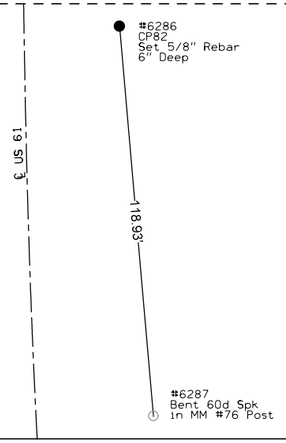
C.P. STA 940+95.71 RIGHT 32.23
C.P. 81, Set 5/8" Rebar 6" Deep
N=481760.625 E=2272451.207



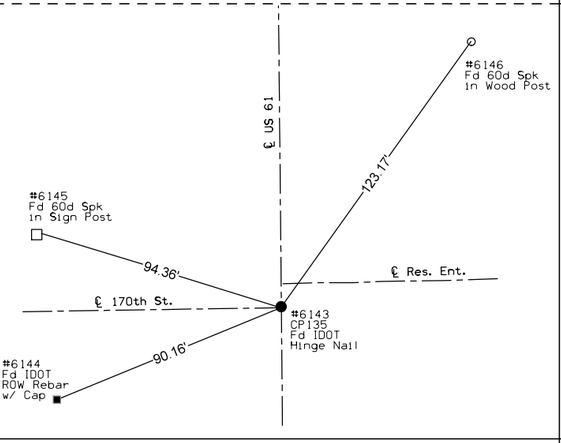
C.P. STA 950+11.97 LEFT 27.85
C.P. 47, Fd 5/8" Rebar 6" Deep
N=482572.224 E=2272031.121



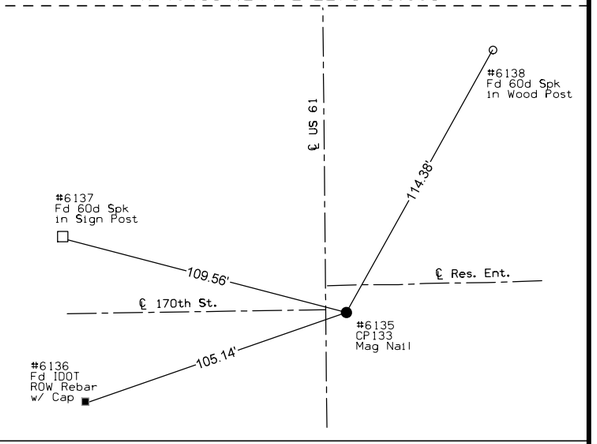
C.P. STA 957+12.71 RIGHT 29.04
C.P. 82, Set 5/8" Rebar 6" Deep
N=483272.684 E=2271995.761



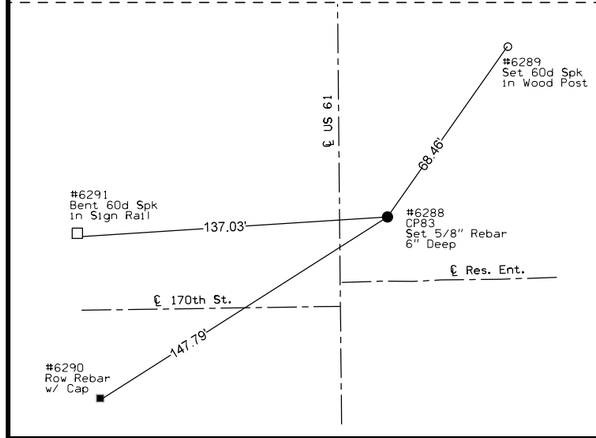
C.P. STA 964+44.57 LEFT 15.90
C.P. 135, Fd IDOT Hinge Nail
N=484003.914 E=2271944.487



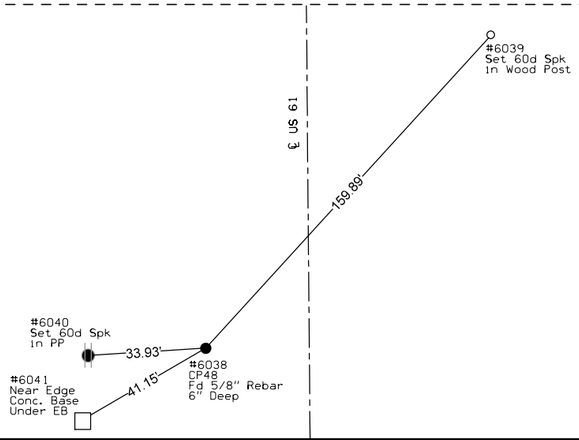
C.P. STA 964+44.77 RIGHT 0.00
C.P. 133, Mag Nail
N=484004.244 E=2271960.380



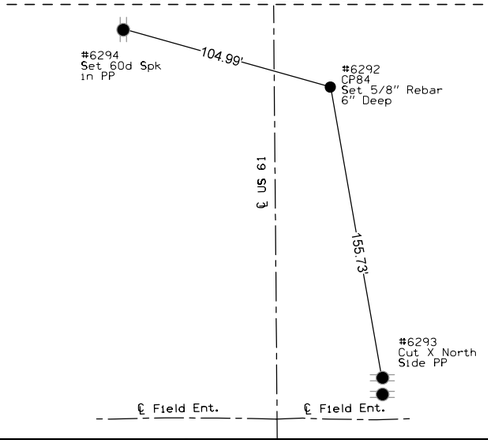
C.P. STA 964+83.75 RIGHT 46.68
C.P. 83, Set 5/8" Rebar 6" Deep
N=484040.360 E=2271990.859



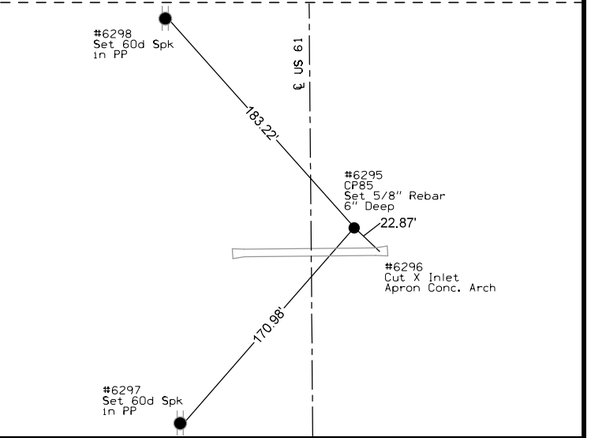
C.P. STA 971+21.28 LEFT 39.35
C.P. 48, Fd 5/8" Rebar 6" Deep
N=484677.133 E=2271899.460



C.P. STA 979+20.95 RIGHT 25.98
C.P. 84, Set 5/8" Rebar 6" Deep
N=485477.328 E=2271958.039



C.P. STA 986+31.44 RIGHT 28.40
C.P. 85, Set 5/8" Rebar 6" Deep
N=486187.812 E=2271954.465



ENGLISH	IOWA DOT	DESIGN TEAM WHKS & CO.	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER G.7

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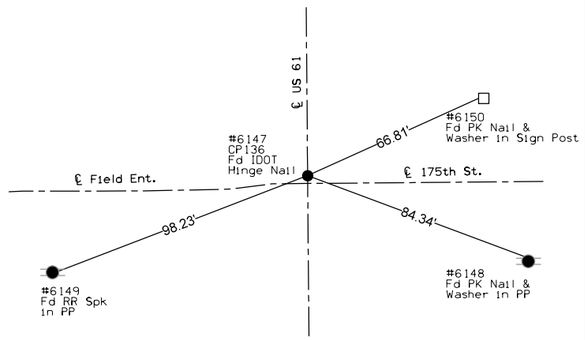
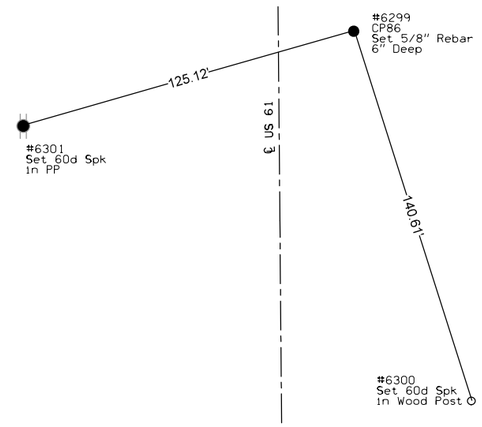
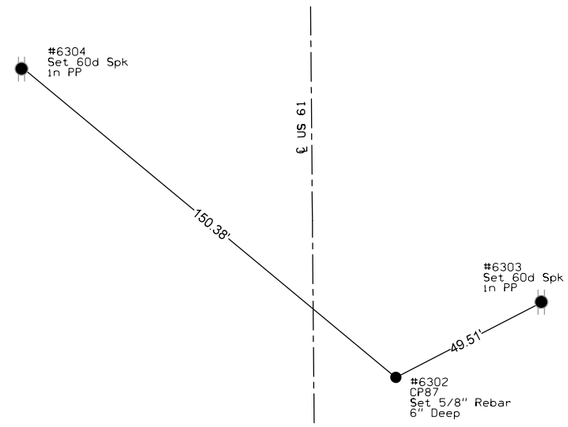
C.P. STA 990+77.64 RIGHT 0.00
C.P. 136, Fd IDOT Hinge Nail
N=486633.759 E=2271922.308



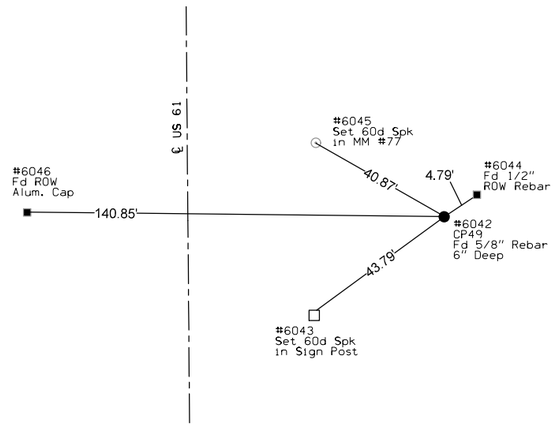
C.P. STA 993+37.83 RIGHT 27.50
C.P. 86, Set 5/8" Rebar 6" Deep
N=486894.176 E=2271947.616



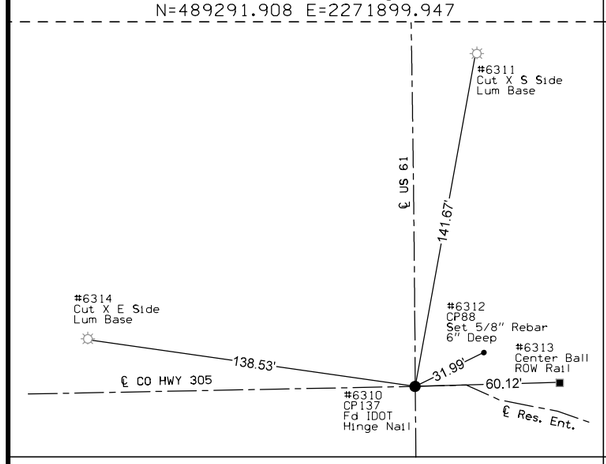
C.P. STA 1002+06.75 RIGHT 25.83
C.P. 87, Set 5/8" Rebar 6" Deep
N=487763.049 E=2271938.643



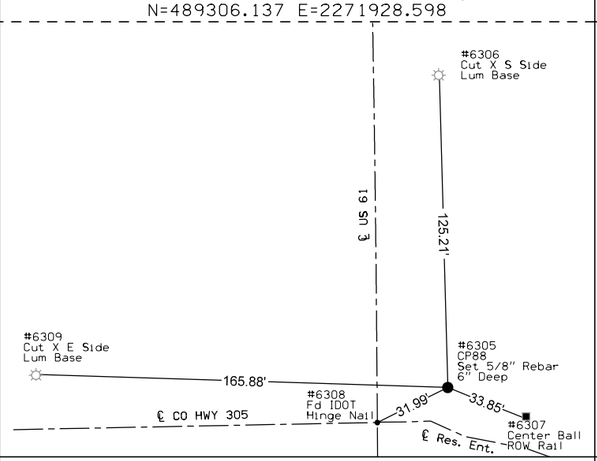
C.P. STA 1009+97.16 RIGHT 70.94
C.P. 49, Fd 5/8" Rebar 6" Deep
N=488553.813 E=2271977.096



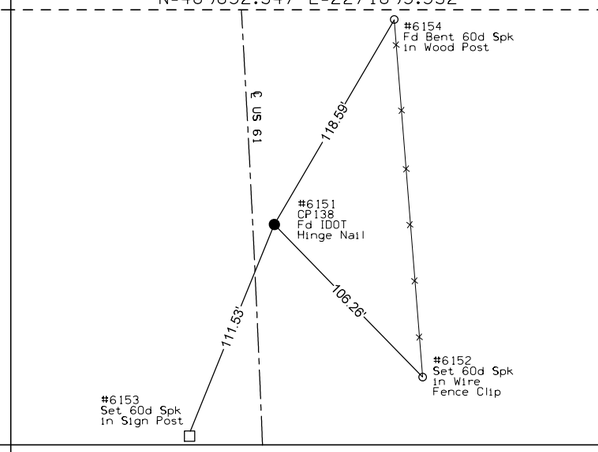
C.P. STA 1017+35.88 RIGHT 0.00
C.P. 137, Fd IDOT Hinge Nail
N=489291.908 E=2271899.947



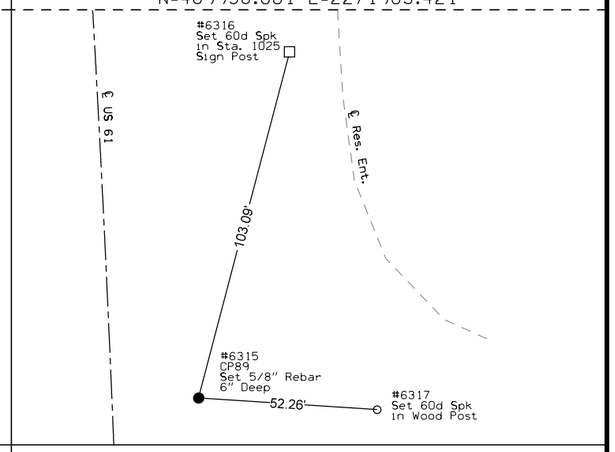
C.P. STA 1017+49.88 RIGHT 28.76
C.P. 88, Set 5/8" Rebar 6" Deep
N=489306.137 E=2271928.598



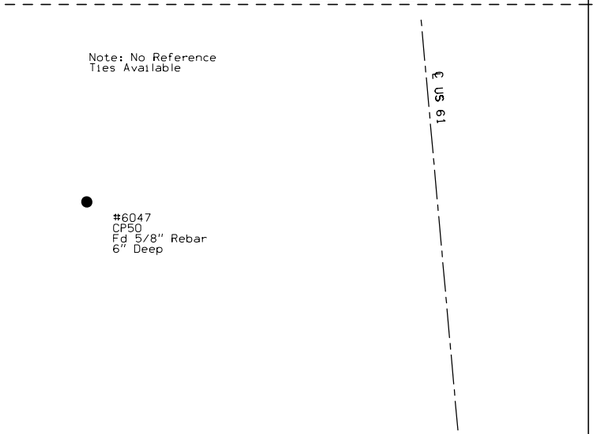
C.P. STA 1022+96.05 RIGHT 10.73
C.P. 138, Fd IDOT Hinge Nail
N=489852.347 E=2271895.532



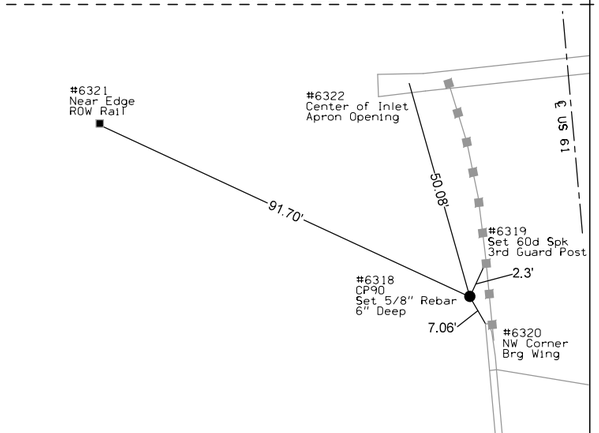
C.P. STA 1024+01.00 RIGHT 24.17
C.P. 89, Set 5/8" Rebar 6" Deep
N=489958.001 E=2271903.421



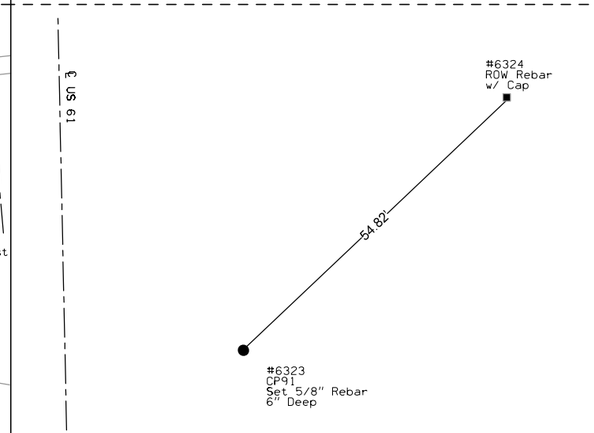
C.P. STA 1030+01.31 LEFT 69.59
C.P. 50, Fd 5/8" Rebar 6" Deep
N=490548.873 E=2271763.259



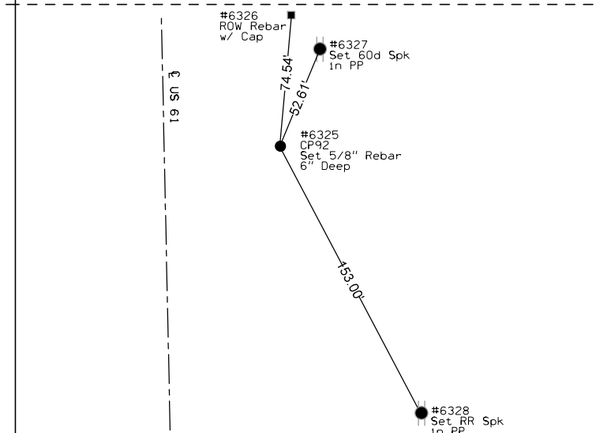
C.P. STA 1037+09.04 LEFT 26.57
C.P. 90, Set 5/8" Rebar 6" Deep
N=491257.622 E=2271742.952



C.P. STA 1045+03.74 RIGHT 27.08
C.P. 91, Set 5/8" Rebar 6" Deep
N=492053.784 E=2271746.730



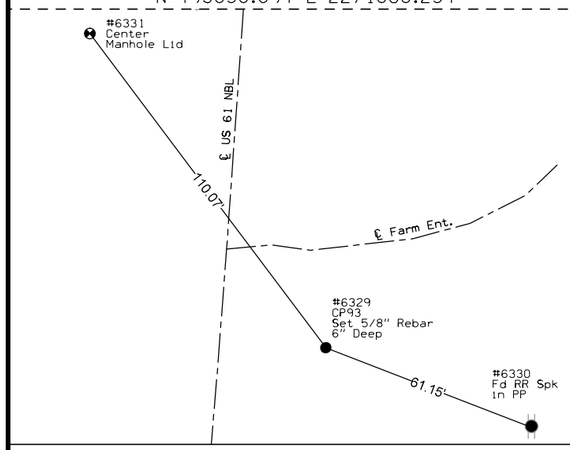
C.P. STA 1053+00.22 RIGHT 105.78
C.P. 92, Set 5/8" Rebar 6" Deep
N=492845.116 E=2271782.132



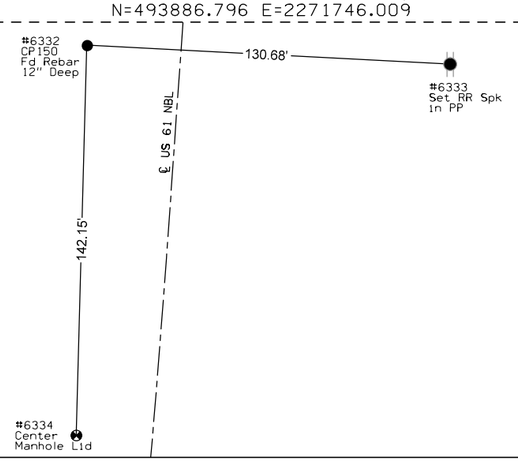
ENGLISH	IOWA DOT	DESIGN TEAM WHKS & CO.	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER G.8

12:52:45 PM 8/8/2012 nthede W:\Projects2\P0102000\5806103009\Design\58061048g01.sht

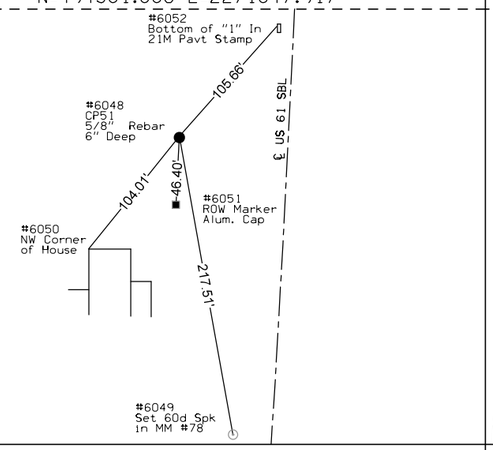
C.P. STA 1061+15.74 RIGHT 77.28
C.P. 93, Set 5/8" Rebar 6" Deep
N=493656.694 E=2271808.254



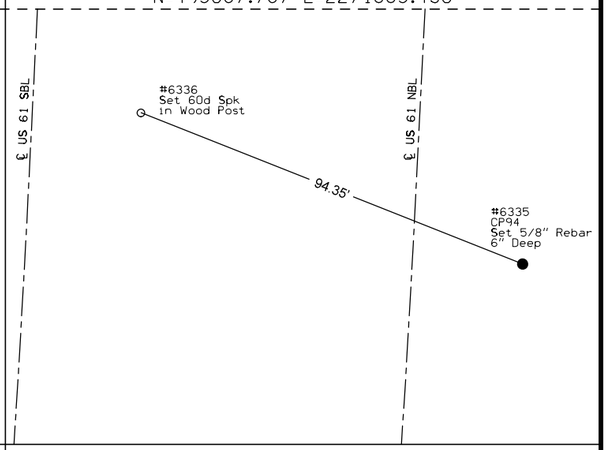
C.P. STA 1063+40.52 RIGHT 0.00
C.P. 150, Fd Rebar 12" Deep
N=493886.796 E=2271746.009



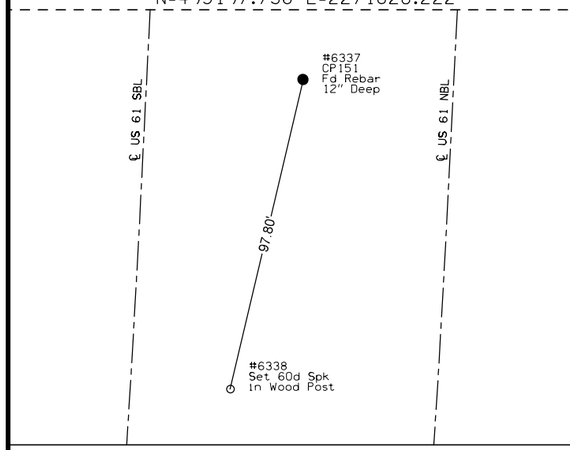
C.P. STA 1068+09.08 LEFT 124.78
C.P. 51, 5/8" Rebar 6" Deep
N=494361.660 E=2271647.917



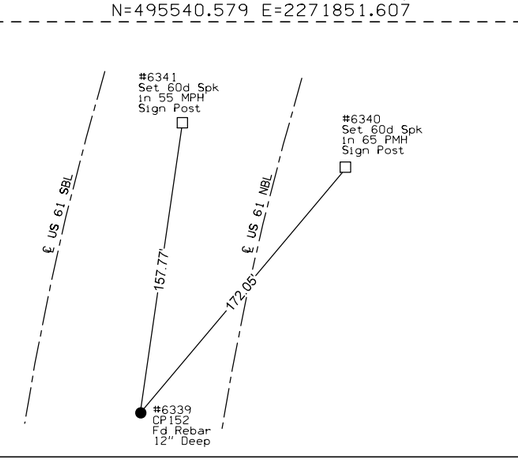
C.P. STA 1075+27.48 RIGHT 72.45
C.P. 94, Set 5/8" Rebar 6" Deep
N=495067.767 E=2271885.430



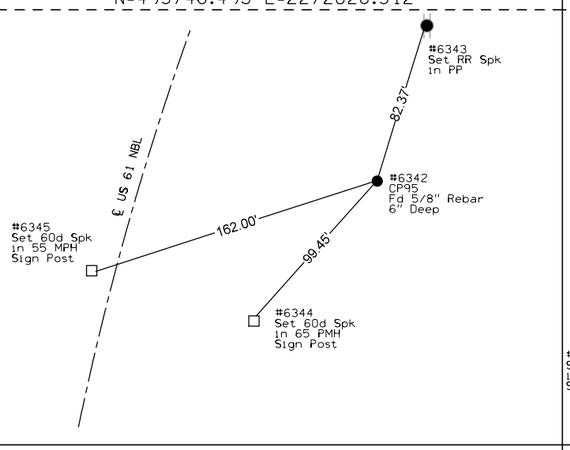
C.P. STA 1076+53.56 RIGHT 0.00
C.P. 151, Fd Rebar 12" Deep
N=495197.736 E=2271820.222



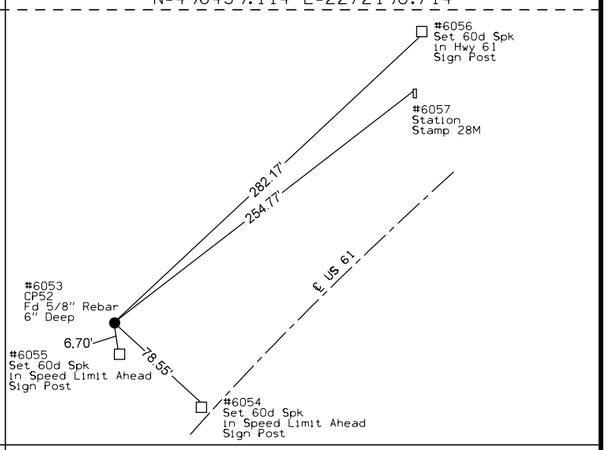
C.P. STA 1079+98.00 LEFT 0.09
C.P. 152, Fd Rebar 12" Deep
N=495540.579 E=2271851.607



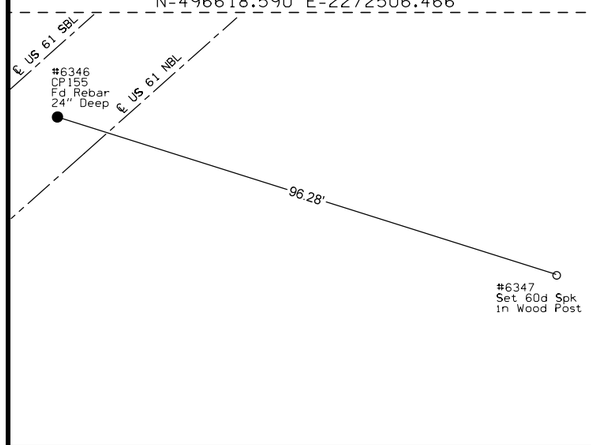
C.P. STA 1082+49.55 RIGHT 123.59
C.P. 95, Fd 5/8" Rebar 6" Deep
N=495746.493 E=2272028.512



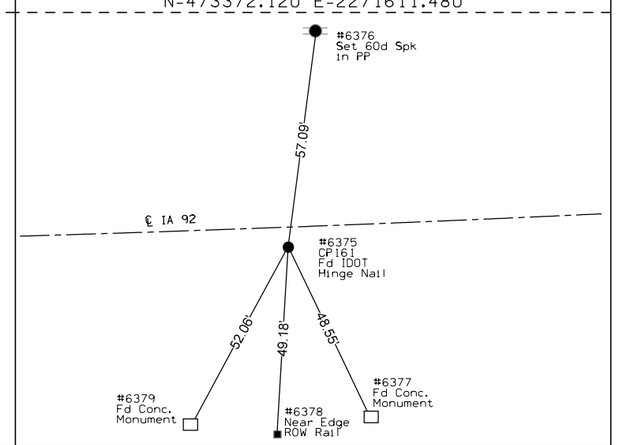
C.P. STA 1089+42.42 LEFT 88.66
C.P. 52, Fd 5/8" Rebar 6" Deep
N=496439.114 E=2272190.714



C.P. STA 1092+88.60 LEFT 0.00
C.P. 155, Fd Rebar 24" Deep
N=496618.590 E=2272506.466



C.P. STA 499+46.66 RIGHT 5.16
C.P. 161, Fd IDOT Hinge Nail
N=473372.120 E=2271611.480



ENGLISH	IOWA DOT	DESIGN TEAM WHKS & CO.	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER G.9

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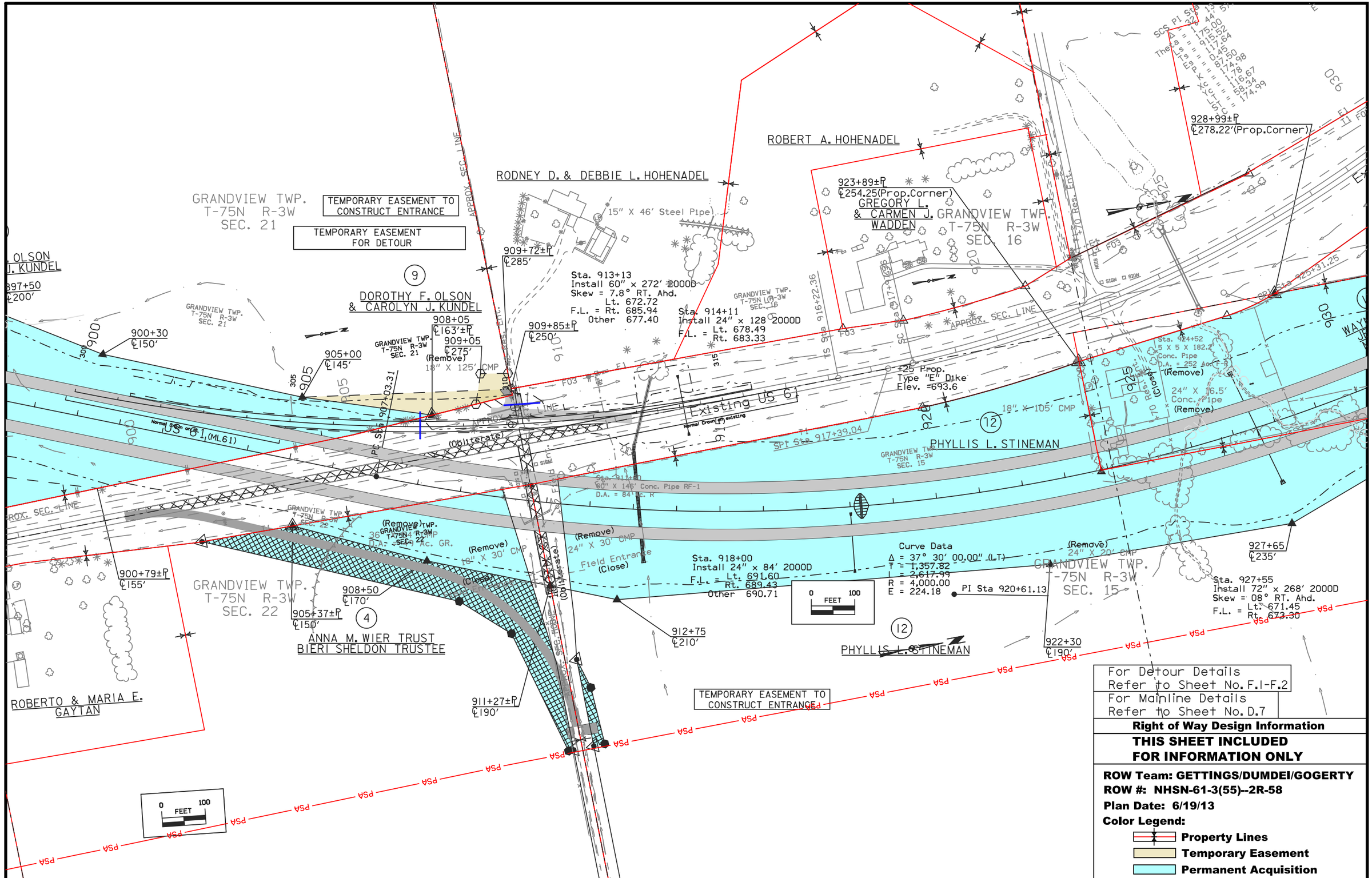

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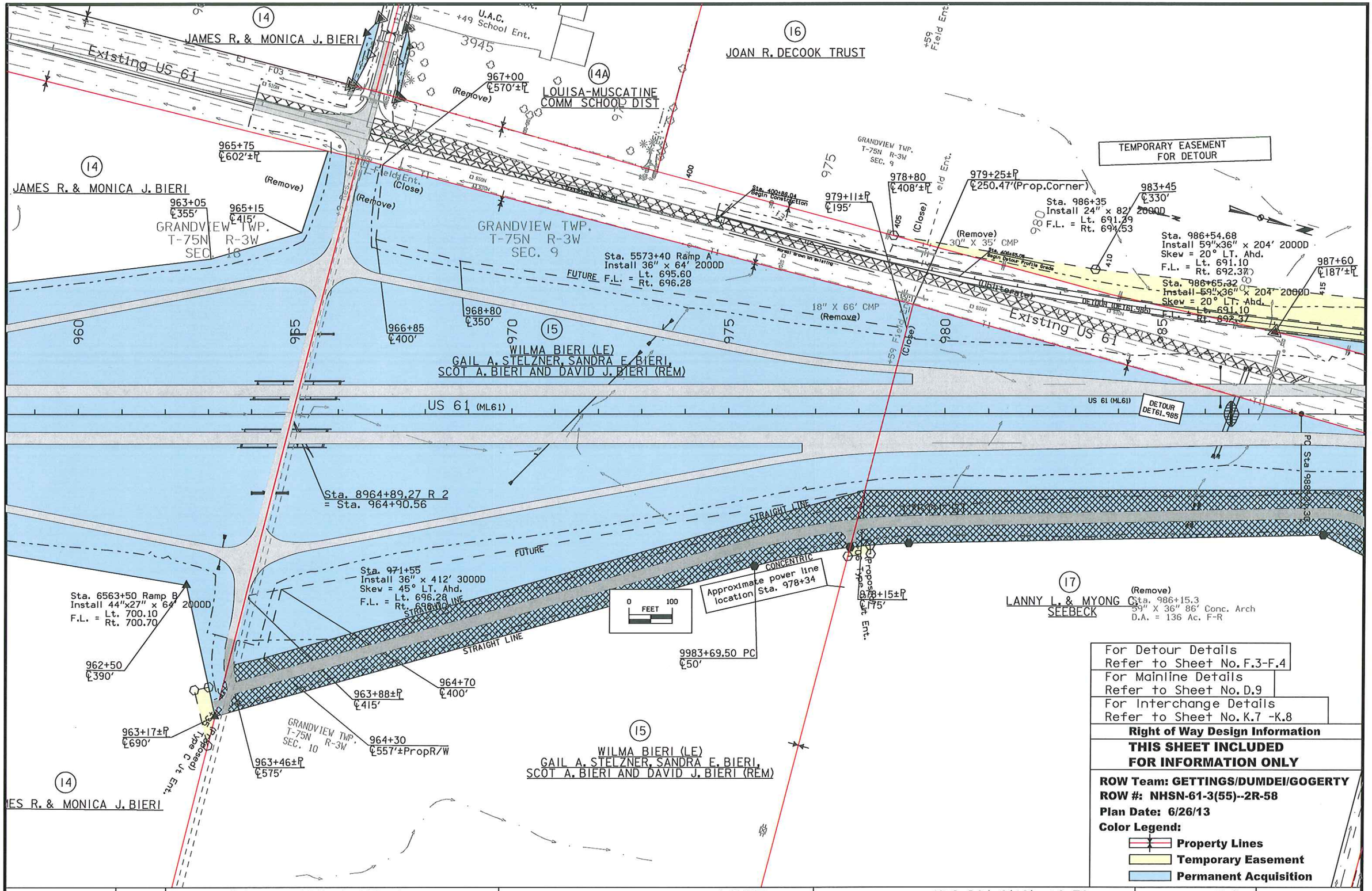

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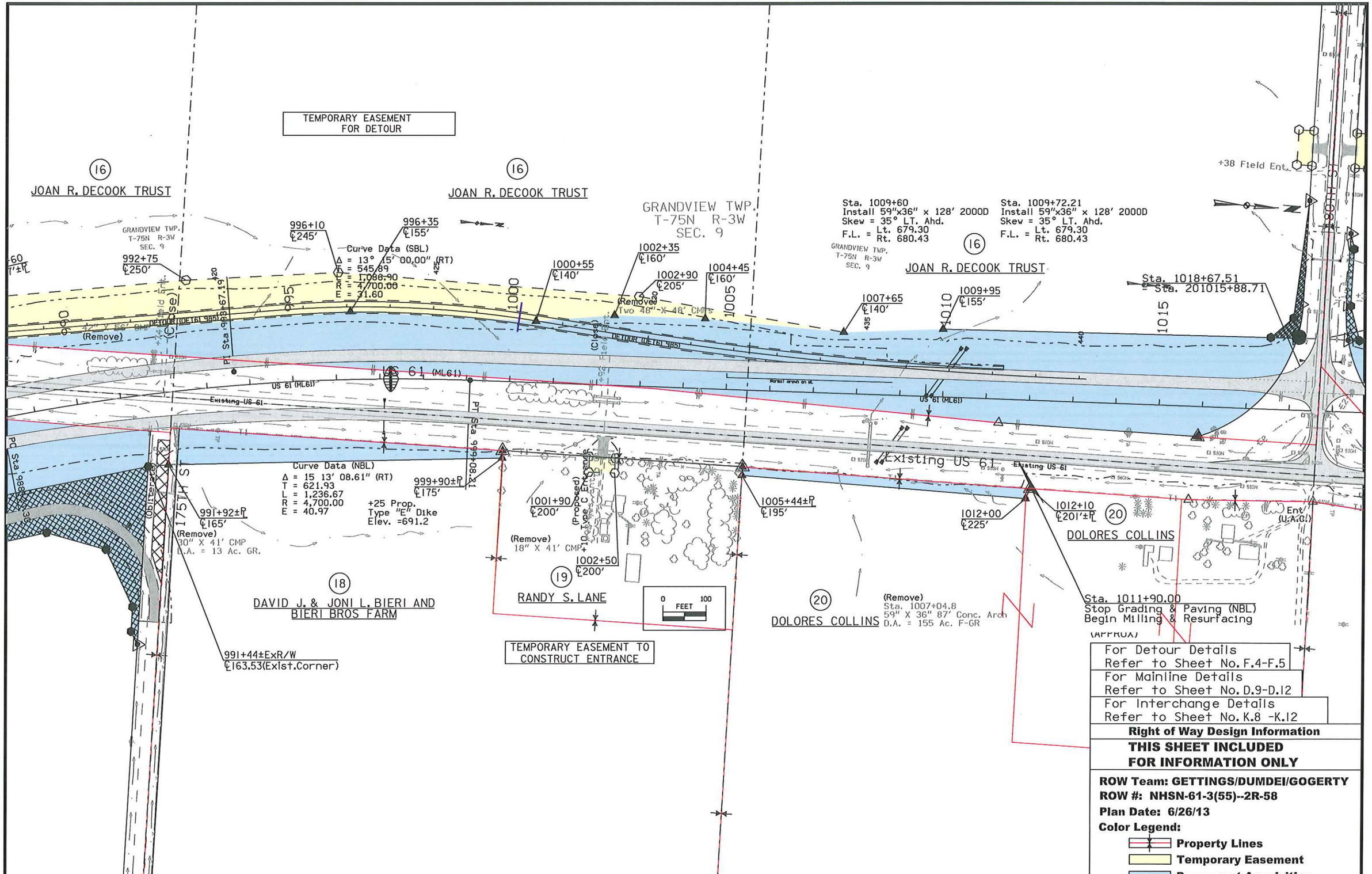

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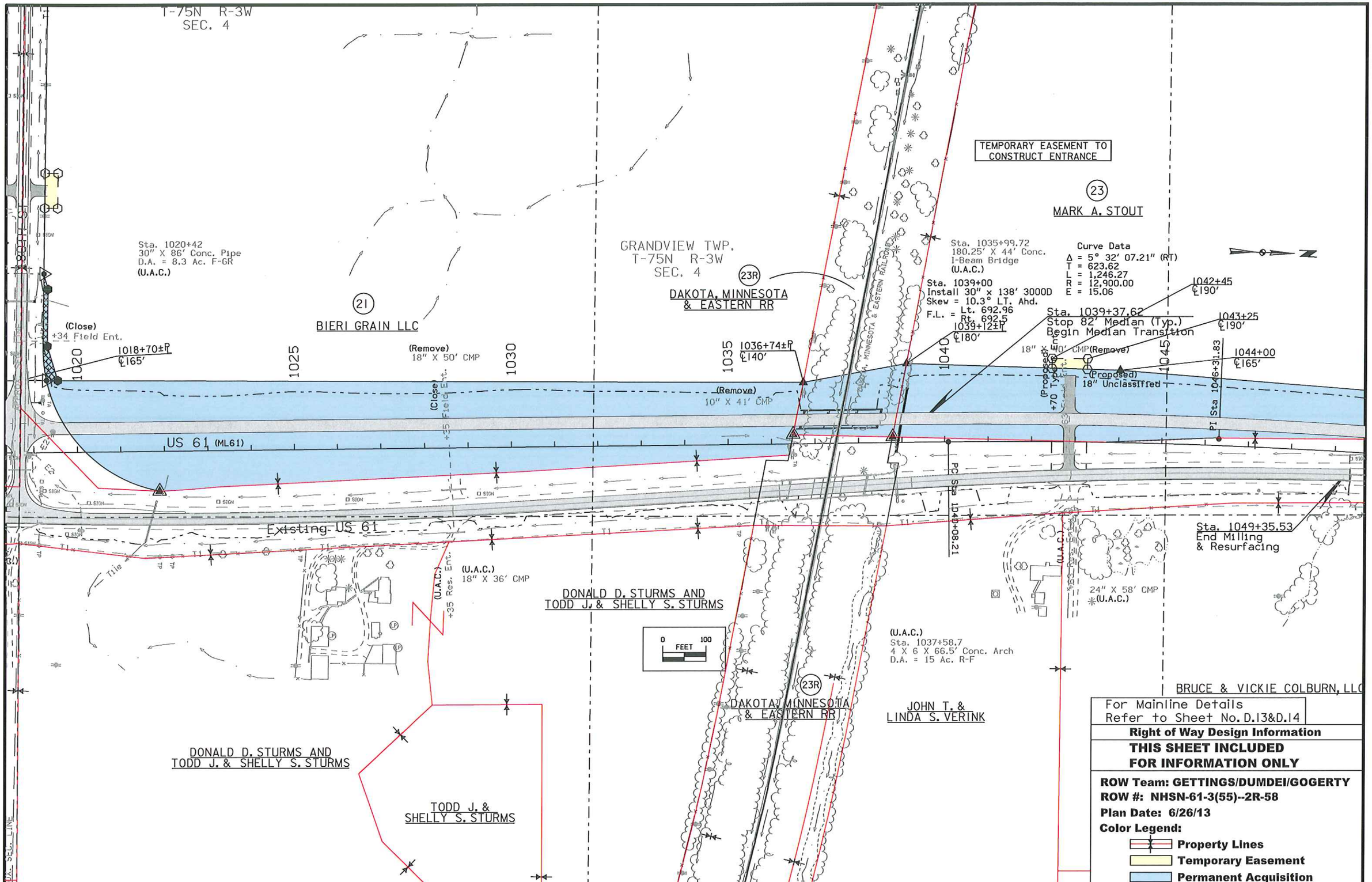

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Sta. 1050+50
Install 24" x 60' 2000D
F.L. = Lt. 697.60
Rt. 698.80

(23)
MARK A. STOUT

Sta. 1051+80.46
Stop Median Transition
Begin 64' Median (Typ.)

18" X 40' CMP
(Remove)

+61 Field Ent.
(Close)

GRANDVIEW TWP.
T-75N R-3W
SEC. 4

1050 1055 1060 1065 1070 1075

1058+24±P
℄145'

(Proposed)
Type C Ent.
+70

(Proposed)
18" Unclassified

(Close)
+40 Field Ent.

(26)
ELMER CARLSON FARMS, LLC.

1063+00
℄150'

(Remove)
24" X 50' CMP

1065+30
℄118'

24" X 203' CMP

+31 Res. Ent.

SEVENTY SIX TWP.
T-76N R-3W
SEC. 33

PDT Sta 1077+82.47

US 61 (ML61)

(Obliterate)

18" X 38' CMP

Sta. 1049+35.53
End Milling
& Resurfacing

P.T. Sta 1052+54.48

+61 Field Ent.
(U.C.)

+40 Farm Ent.
(Close)

24" X 102' CMP
(Remove)

Sta. 1070+10.00
End Construction

24" X 123' CMP

190TH ST

The Trail

(Extend)
Sta. 1057+92
30" X 146' Conc. Pipe
D.A. = 9 Ac. R

(Plug and Abandon)
18" X 96.5' Conc. Pipe
D.A. = 0.6 Ac. Median

0 100
FEET

(Plug and Abandon)
18" X 87' Conc. Pipe
D.A. = 1.7 Ac. Median

24" X 113' CMP
D.A. = 3.2 Ac. GR.

Sta. 1074+45
48" X 275' Conc. Pipe
D.A. = 64 Ac. R.

COLBURN, LLC.

(26)
ELMER CARLSON FARMS, LLC.

(26)
ELMER CARLSON FARMS, LLC.

For Mainline Details
Refer to Sheet No. D.15&D.16

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: GETTINGS/DUMDEI/GOGERTY
ROW #: NHSN-61-3(55)--2R-58
Plan Date: 6/26/13
Color Legend:
- **Property Lines**
- **Temporary Easement**
- **Permanent Acquisition**

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER H.11

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(16)
JOAN R. DECOOK TRUST

(14A)
LOUISA-MUSCATINE COMM SCHOOL DIST

ACQUIRE ACCESS CONTROL ON S.R. FROM 8961+35 TO 3944+73

GRANDVIEW TWP. T-75N R-3W SEC. 9

3946+65±P
℄55'

3945+45
℄50'

3945+05
℄33'±ExR/W

Begin Grading
Sta. 3945+47.82
Elev. 701.74

3945+00
℄33'±ExR/W

Sta. 3945+47.82
Begin Paving

3945+40
℄55'

3946+64±ExR/W
℄60'

(14)
JAMES R. & MONICA J. BIERI

(15)
WILMA BIERI (LE)
GAIL A. STELZNER, SANDRA E. BIERI,
SCOT A. BIERI AND DAVID J. BIERI (REM)

FUTURE

STRAIGHT LINE

Sta. 8963+00
Install 24" x 88' 2000D
F.L. = Lt. 697.70
Rt. 698.15

POT Sta. 964+44.77 is 15.90' Lt. of Sta. 964+44.57
POT Sta. 3947+47.70

Sta. 8964+89 = Sta. 964+90

Sta. 8966+75
Install 44"x27" x 70' 2000D
F.L. = Lt. 699.46
Rt. 699.51

Sta 3947+47.70 BK = Sta 8958+00.00 AH

EQUATION

18" X 42' CMP
D.A. = 2 Ac.
(Remove)

18" X 38' CMP

24" X 48' Conc. Pipe
D.A. = 23 Ac. F-GR.

Field Ent.
10' x 27' CMP
(Close)

SPI Sta 956+83

ST Sta 958+00.61

CS Sta 956+25.61

Curve Data
Δ = 28° 47' 46.19" (RT)
T = 735.67
L = 1,440.24
R = 2,865.64
E = 92.92

27.70
6.45"
13"

Sta. 8968+32 BK = Sta. 8970+20.00 AH

POT Sta. 8970+20.00

Sta. 8971+35.03

End Grading
Sta. 8970+20.00
Elev. 707.23

Curve Data 8972+70 R 2
Δ = 30° 47' 60.00" (LT)
T = 58.94
L = 115.03
R = 214.00
E = 7.97

Sta. 8970+78.94

TEMPORARY EASEMENT TO CONSTRUCT ENTRANCE

ACQUIRE ACCESS CONTROL ON S.R. FROM 8968+32 TO 8971+43.26

0 100 FEET

Sta. 8970+20.00 R 2
End Paving
Begin Granlar

8971+55 R 2
℄55'

8971+40 R 2
℄24'±PropR/W

(14)
JAMES R. & MONICA J. BIERI

170th Street

VPI +26.800
Elv 707.87

For Side Road Details Refer to Sheet No. E.3

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: GETTINGS/DUMDEI/GOGERTY
ROW #: NHSN-61-3(55)--2R-58
Plan Date: 6/26/13
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER HE.3

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(14)
R. & MONICA J. BIERI

18" X 42' CMP
D.A. = 2 Ac. GR.
(Remove)

10" X 27' CMP
(Remove)

+59 Field Ent.

POT Sta. 964+44.77
is 15.90' Lt. of
Sta. 964+44.57
POT Sta. 3947+47.70

Existing US 61

Sta. 400+86.04
Begin Construction

+59 Field Ent.

30" X 35' CMP
(Remove)

Sta. 405+55.06
Begin Detour Profile Grade

DETOUR (DET61-985)

Sta. 985+15.3
59" X 66' Conc. Arch
D.A. = 136 Ac. F-R

(Remove)

(16)
JOAN R. DECOOK TRUST

30" X 35' CMP
(Remove)

+59 Field Ent.

Sta. 985+15.3
59" X 66' Conc. Arch
D.A. = 136 Ac. F-R
(Remove)

DETOUR (DET61-985)

+59 Field Ent.

PT Sta 1993+67.10

Existing US 61

FUTURE

18" X 66' CMP
(Remove)

+59 Field Ent.

(15)
WILMA BIERI (LE)
GAIL A. STELZNER, SANDRA E. BIERI,
SCOT A. BIERI AND DAVID J. BIERI (REM)

(Remove)
Sta. 986+15.3
59" X 36" 86' Conc. Arch
D.A. = 136 Ac. F-R

(ML61)

US 61 (ML61)

DETOUR
DET61-985

Begin Grading
Sta. 8970+20.00
Elev. 706.35
Sta. 8964+89.27 R 2
= Sta. 964+90.56

GRANDVIEW TWP.
T-75N R-3W
SEC. 10

PC Sta 9885+56.88

PC Sta 9885+56.88

PC Sta 9885+56.88

GRANDVIEW TW
T-75N R-3W
SEC. 4

21

BIERI GRAIN LLC

TEMPORARY EASEMENT TO CONSTRUCT ENTRANCE

201014+23±PropR/W
℄85′

201011+80
℄50′±ExR/W

201010+30
℄80′

201013+45
℄60′

201012+15
℄60′

201009+50
℄80′

Sta. 201012+43
24" Sta. 201012+43 Pipe
D.A. = Ac.
Install 24" x xx' 2000D
F.L. = Lt. XX
Rt. XX

Sta. 201014+75
Install 24" x 86' 2000D
F.L. = Lt. 688.38
Rt. 687.89

Sta. 201016+58
18" X 50' Conc. Pipe
D.A. = 2 Ac. F

2020

2015

(Close)
+34 Field Ent.

(Proposed)
+90 Type C Ent.

Sta. 201011+80.00
Begin Grade Pave
(Proposed)
18" Unclassified

201010

201009+50
℄85′

201010+30
℄85′

201011+10
℄50′±ExR/W

201013+80
℄70′

201014+27±PropR/W
℄120′

(Close)
+38 Field Ent.

(Proposed)
+90 Type C Ent.

(Proposed)
18" Unclassified

ACQUIRE ACCESS CONTROL ON S.R. FROM 201015+88.71 TO 201013+72

16

JOAN R. DECOOK TRUST

TEMPORARY EASEMENT TO CONSTRUCT ENTRANCE

2015

1015

0 FEET 50

DONALD D. STU
TODD U. & SHELL

Sc Rec. Ent.
(U.A.C.)

POT Sta. 201017+35.88

+46.46
88.4' RT

20

DOLORES COLLI

180th St

For Side Road Details
Refer to Sheet No. E.6

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: GETTINGS/DUMDEI/GOGERTY
ROW #: NHSN-61-3(55)--2R-58
Plan Date: 6/26/13
Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER HE.6

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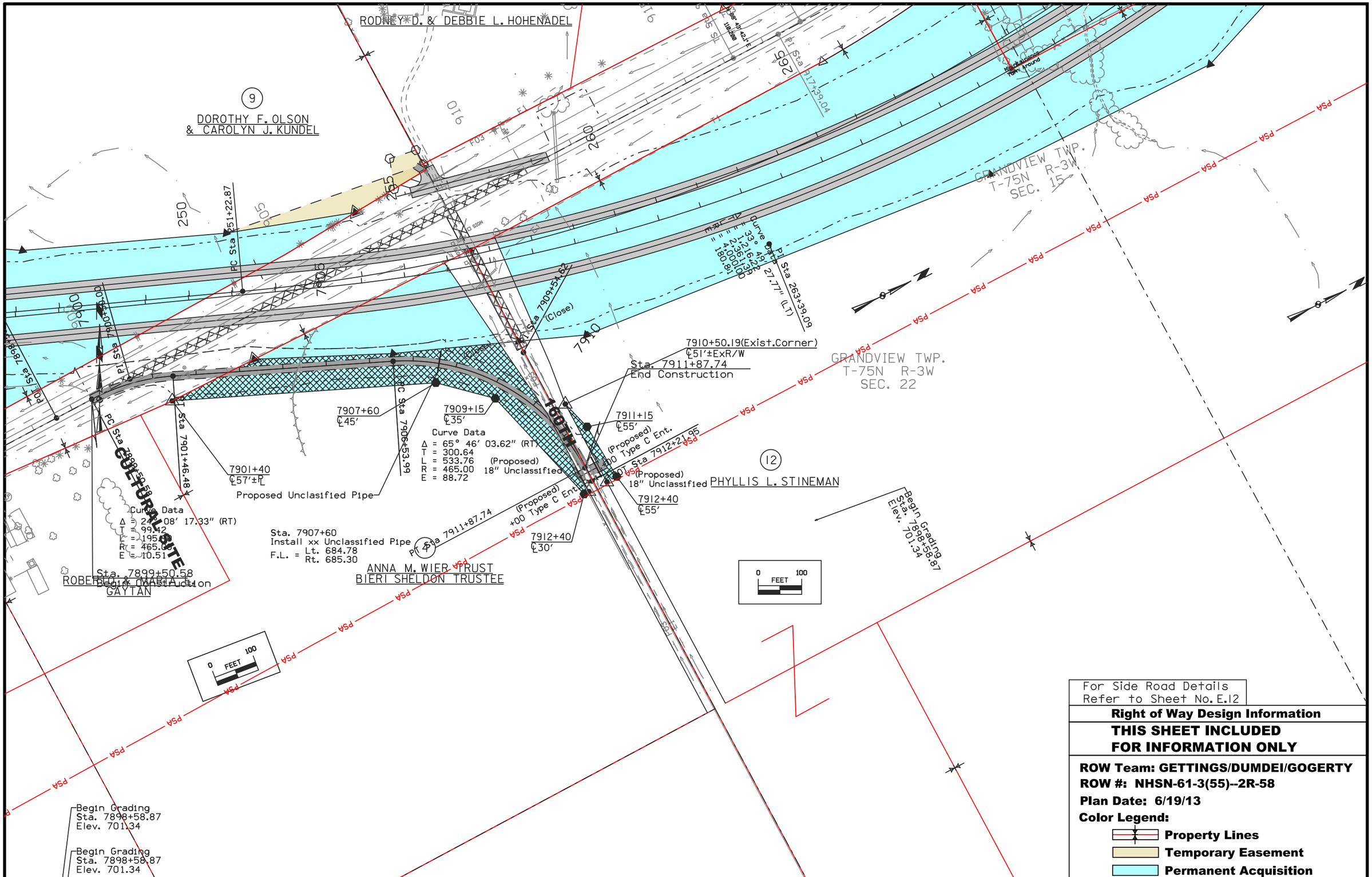

For Side Road Details
Refer to Sheet No. E.12

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: GETTINGS/DUMDEI/GOGERTY
ROW #: NHSN-61-3(55)--2R-58
Plan Date: 6/19/13
Color Legend:
- **Property Lines**
- **Temporary Easement**
- **Permanent Acquisition**

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER HE.8

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108-23A
08-01-08

TRAFFIC CONTROL PLAN

Existing US-61:
- Maintain one lane of traffic in each direction.

Sideroads: 130th St., 145th St. IA-92, 160th St., 170th St., 175th St., 180th St., 190th St.
- Maintain traffic in each direction except as noted below.

IA-92:
- Stage 1, IA-92 will be closed during reconstruction from Sta 490+40 to 512+00.

180th St.:
- Closed to traffic during reconstruction.

102-15
08-01-08

TABULATION OF SPECIAL EVENTS

Event	Location	Date
None provided at this time.		

111-01
04-17-12

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work

108-26A
08-01-08

STAGING NOTES

STAGE I TRAFFIC:
1. Maintain traffic in the existing lanes at all times for the following roadways:
   US 61, 130th St., 160th St., 170th St., 175th St., 180th St(G-48), and 190th St.
- Detour IA 92 traffic during construction on IA 92.
- Close 145th St. West of US 61.
- All farmstead and field entrances are to remain open to traffic at all times.

STAGE I CONSTRUCTION:
Phase 1.
1. Construct cross over at Sta. 1100+00
2. Construction of all Stage I pipes and culverts.
3. Grade US 61:
   SB lanes from Sta. 754+06 and Sta. 805+00.
   NB and SB lanes from Sta. 805+00 and Sta. 902+00.
   SB lanes from Sta. 902+00 to 905+60.
   NB lanes from Sta. 907+50 to 910+75.
   NB and SB lanes from Sta. 910+75 to 985+80.
   NB lanes from Sta. 985+80 to 990+25.
   SB lanes from Sta. 993+30 to Sta. 1070+10.
4. Grade crossover at Sta. 760+00.
5. Grade relocated 145th St.
6. Grade detour pavement on US 61 between Sta. 903+00 and Sta. 914+00.
7. Grade and surface 175th St, maintain connection to existing US 61.
8. Grade 170th St. East of existing US.
9. Grade detour pavement on US 61 between Sta. 980+00 and Sta. 1006+00.
10. Grade all ramps at IA 92 interchange and 170th St interchange.

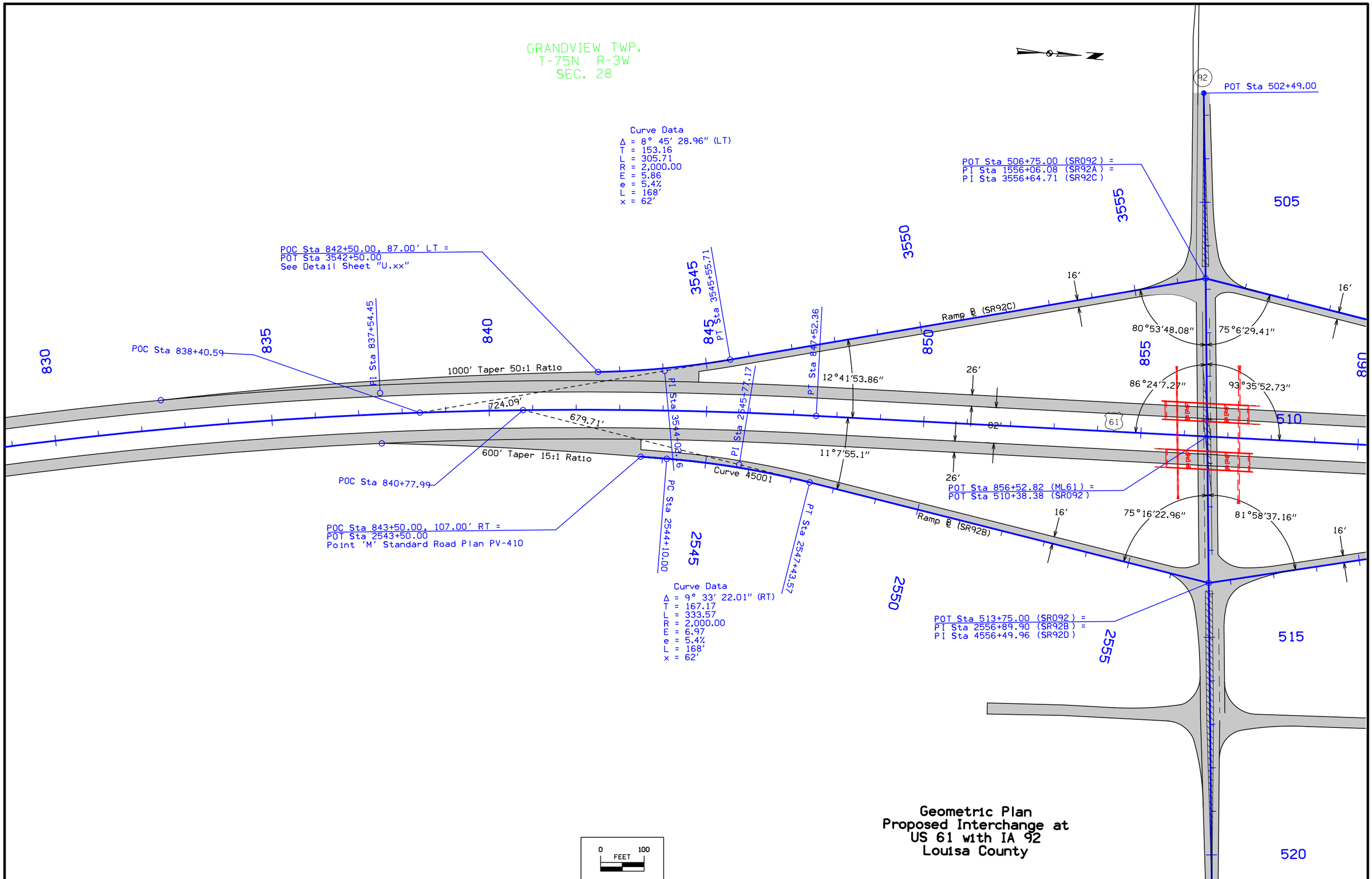
Phase 2.
1. Pave all sections of roadway previously graded in Phase 1 construction.
2. Grade and Pave IA 92 from Sta. 499+40 to Sta. 512+00
3. Build NB & SB bridges at the IA 92 Interchange
4. Build NB & SB bridges at the 170th St. Interchange
5. Build the US 61 SB bridge over the DM&E RR
6. Construct lighting at both the IA 92 and 170th St. interchanges.
7. Grade and Pave 180th St.

STAGE II TRAFFIC: See F sheets for Detour Locations
1. Maintain traffic on US 61 using the cross over at 760+00 to new SB Lanes, use SB on and off ramps at IA 92, detour at 905+00 to existing US 61 lanes, detour at 985+00 to new SB lanes, cross over at 1100+00.
2. Maintain traffic on existing 130th St., 175th St., 180th St(G-48), and 190th St.
3. Close 160th St.
4. Open new 145th St.
5. Maintain traffic on IA 92 using detour pavement

STAGE II CONSTRUCTION:
Phase 1.
1. Grade and Pave US 61:
   NB lanes from 754+06 to 805+00
   NB lanes from 902+00 to 907+50
   NB lanes from 990+25 to 1049+35
   SB lanes from 905+60 to 910+75
   SB lanes from 985+80 to 993+30
2. Grade and Pave IA 92 from Sta. 512+00 to 520+92
3. Remove and reconstruct existing US 61 from 848+65 to 863+00
4. Finish Grade and Pave 145th St.
5. Finish Grade and Pave 170th St.
6. Finish Grade and Pave tie-in of 180th St.(G-48) with proposed US 61.

STAGE III TRAFFIC:
1. Open new US 61.
2. Open all side roads to final traffic.

STAGE III CONSTRUCTION:
1. Remove detour pavement between Sta. 903+00 and Sta. 914+00.
2. Remove detour pavement between Sta. 980+00 and Sta. 1006+00.
3. Remove and reconstruct existing US 61 from 961+82 to 170th St.
4. Obliterate existing US 61 from 803+50 to 823+00
5. Obliterate existing US 61 from 964+45 to 985+00
6. Construct signing.
7. Construct erosion control.



Geometric Plan
Proposed Interchange at
US 61 with IA 92
Louisa County

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER K.1

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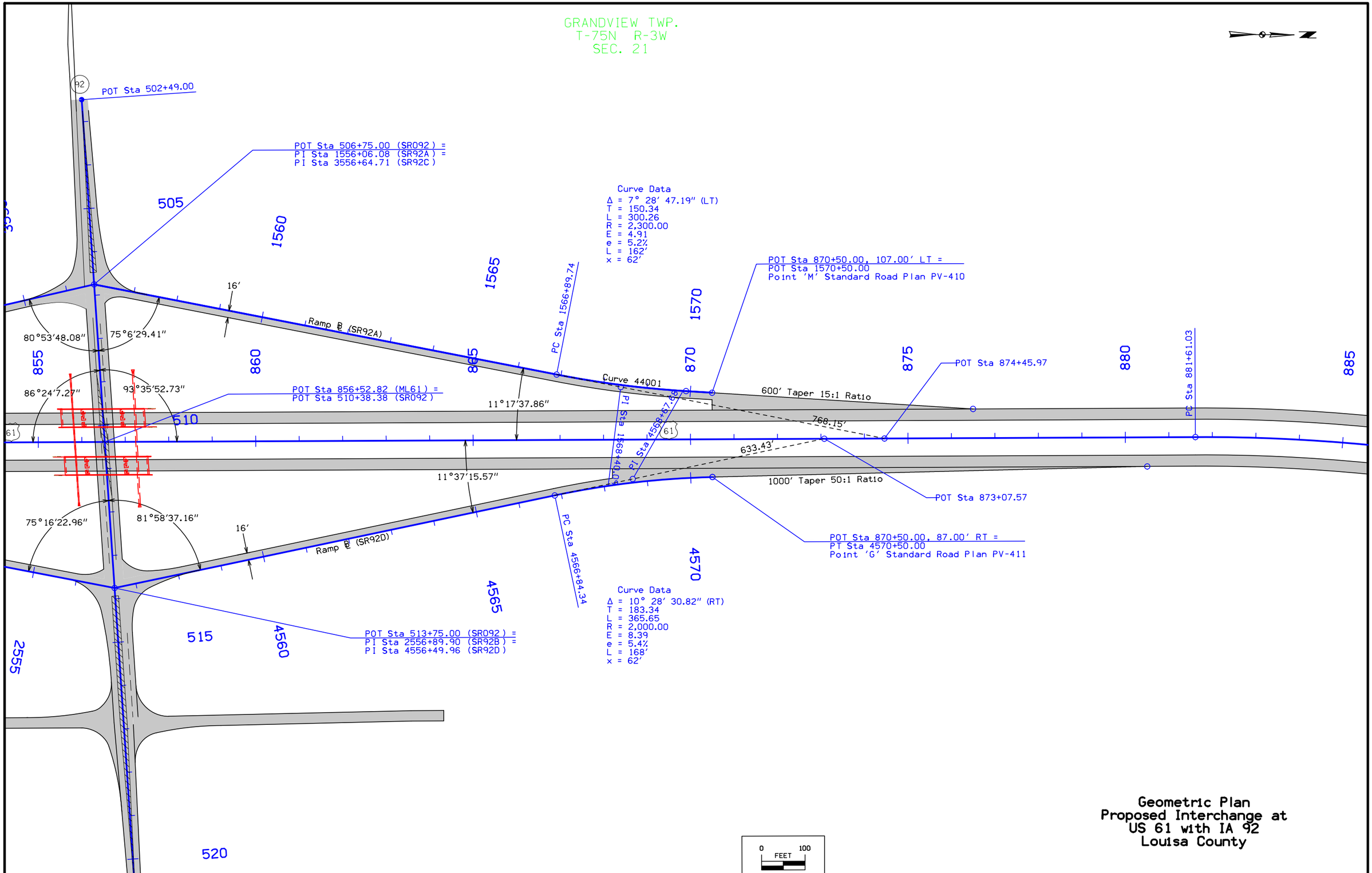

Geometric Plan
Proposed Interchange at
US 61 with IA 92
Louisa County

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER K.2

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GRANDVIEW TWP.
T-75N R-3W
SEC. 21

RAMP A

Curve Data
Δ = 7° 27′ 42.86″ (LT)
T = 149.98
L = 299.54
R = 2,300.00
E = 4.88
e = 5.2%
L = 162′
x = 62′

PI Sta 1556+06.08 (SR92A) =
POT Sta 506+75.00 (SR092)

POT Sta 1570+50.00 (SR92A)=
POT Sta 870+50.00, 107.00′ LT (ML61)
Point 'M' Standard Road Plan PV-410

1560
1565
1570

PC Sta 1566+90.46
PT Sta 1569+90.00
PI Sta 1568+40.44

Ramp A B (SR92A)
Curve 44001
600′ Taper 15:1 Ratio
75°6′29.41″
61
0 FEET 100
G-HP

Tie in
Sta 1556+28.84
Elev 667.74

VPI +50.000
Elv 663.76
Len 250.00 ft
K = 78

VPI +75.000
Elv 676.78
Len 500.00 ft
K = 332

Tie in
Sta 1570+50.00
Elev 676.51

-1.800%
+1.408%
-0.100%
+1.18%
-0.37%
+0.47% Lt Ditch Grade
+1.72% Rt Ditch Grade
+1.70% Lt Ditch Grade
-1.50%
+1.00% Lt Ditch Grade

+10 Rt
660.20
+10 Rt
661.38
+70 Lt
658.90
+45 Lt
661.67
+50 Lt
660.10
+50 Rt
660.50
+30
663.60
+50 Lt
670.30
+50 Lt
672.18

690
680
670
660
650
640

667.36 666.91 666.46 666.01 665.60 665.27 665.02 664.85 664.76 664.75 664.83 664.98 665.21 665.52 665.87 666.23 666.58 666.93 667.28 667.63 667.98 668.34 668.69 669.04 669.39 669.74 670.10 670.45 670.80 671.15 671.50 671.86 672.21 672.56 672.91 673.26 673.61 673.93 674.24 674.52 674.79 675.04 675.27 675.48 675.67 675.84 676.00 676.13 676.25 676.34 676.42 676.48 676.52 676.55 676.55 676.53 676.51

1560 1565 1570

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER K.3

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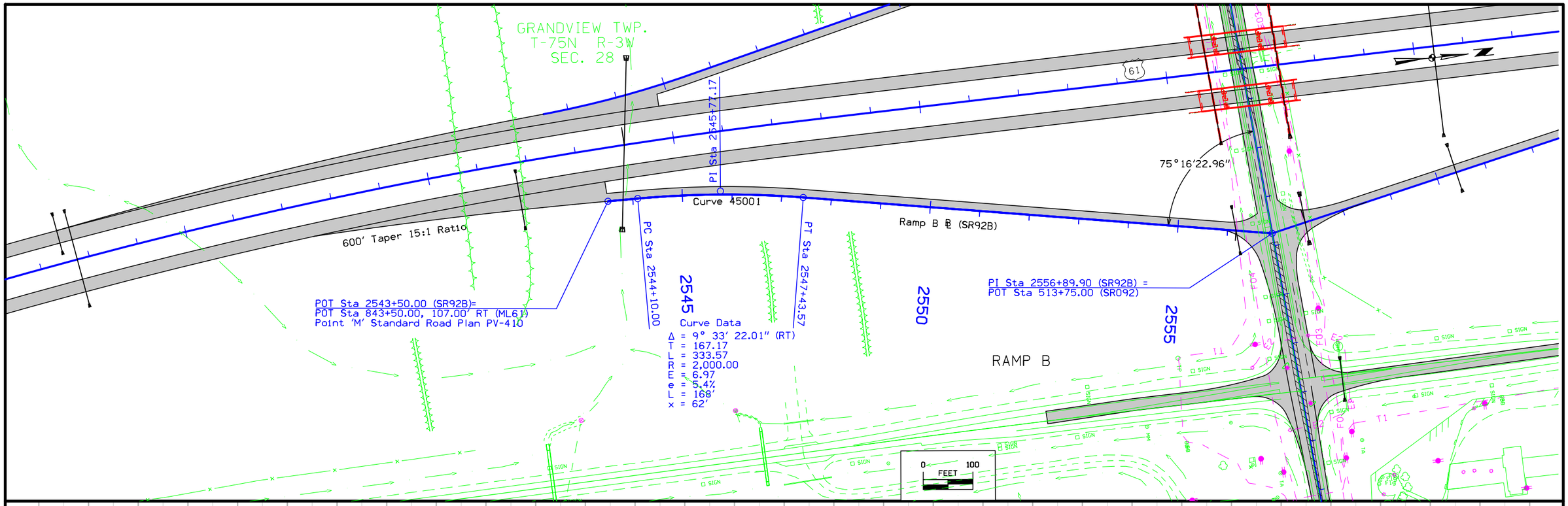

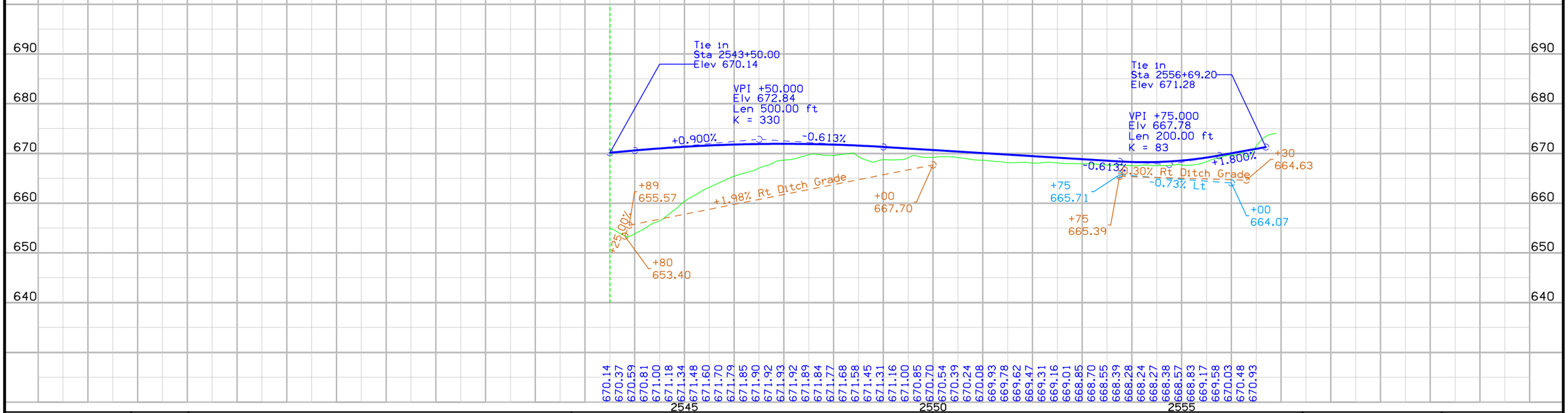

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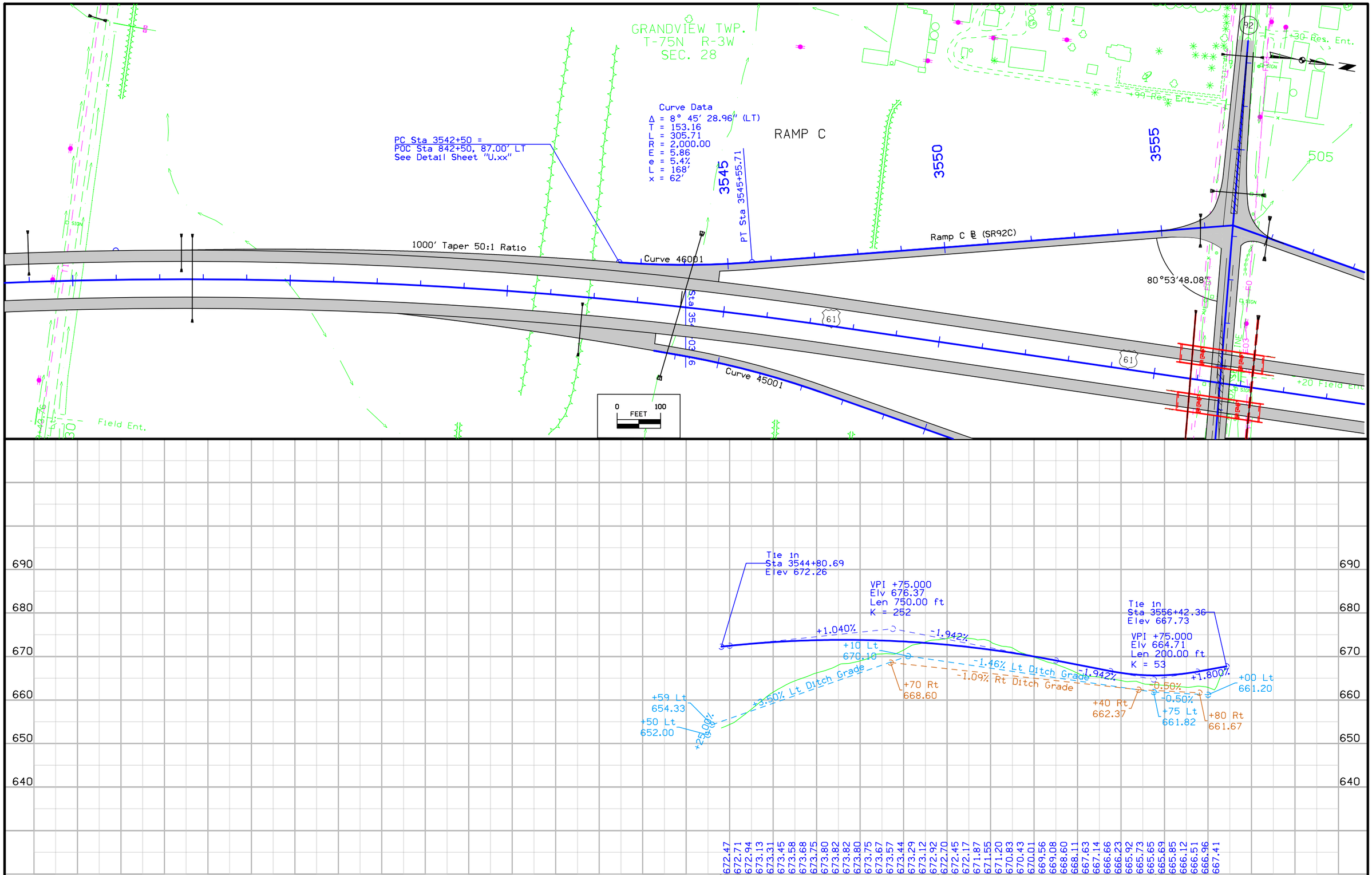

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GRANDVIEW TWP.
T-75N R-3W
SEC. 21

61

PI Sta 4568+67.89

81°59'32.05"

Curve 47002

1000' Taper 50:1 Ratio

Ramp D B (SR92D)

PC Sta 4566+84.84

PT Sta 4570+50.00 (SR92D) =
POT Sta 870+50.00, 87.00' RT (ML61)
Point 'G' Standard Road Plan PV-411

4560

4570

PI Sta 4556+48.40 (SR92D) =
POT Sta 513+75.00 (SR092)

RAMP D

Curve Data
Δ = 10° 27' 39.78" (RT)
T = 183.09
L = 365.16
R = 2,000.00
E = 8.36
e = 5.4%
L = 168'
x = 62'

APPROX. SEC. LINE

APPROX. SEC. LINE

G-HP

G-HP

18" X 52' CMP

0 100
FEET

Tie in
Sta 4568+21.33
Elev 677.99

VPI +50.000
Elv 681.37
Len 700.00 ft
K = 249

Tie in
Sta 4556+71.88
Elev 671.29

VPI +00.000
Elv 668.99
Len 150.00 ft
K = 40

+1.905%

-0.910%

-1.900%

+0.40%

-1.00%

+0.40%

-1.00%

+0.67% Rt Ditch Grade

+58 Rt
666.55

+40 Rt
664.73

+20 Rt
666.00

+21 Rt
670.00

+30 Lt
665.50

+25 Lt
665.88

+40 Lt
663.73

690
680
670
660
650
640

671.24 670.79 670.34 669.96 669.74 669.68 669.77 670.02 670.41 670.89 671.37 671.84 672.32 672.80 673.27 673.75 674.22 674.70 675.16 675.60 676.02 676.41 676.77 677.11 677.42 677.71 677.97 678.21 678.42 678.61 678.77 678.91 679.02 679.10 679.17 679.20 679.21 679.20 679.16 679.10 679.01 678.89 678.75 678.59 678.40 678.18

4560 4565 4570

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER K.6	

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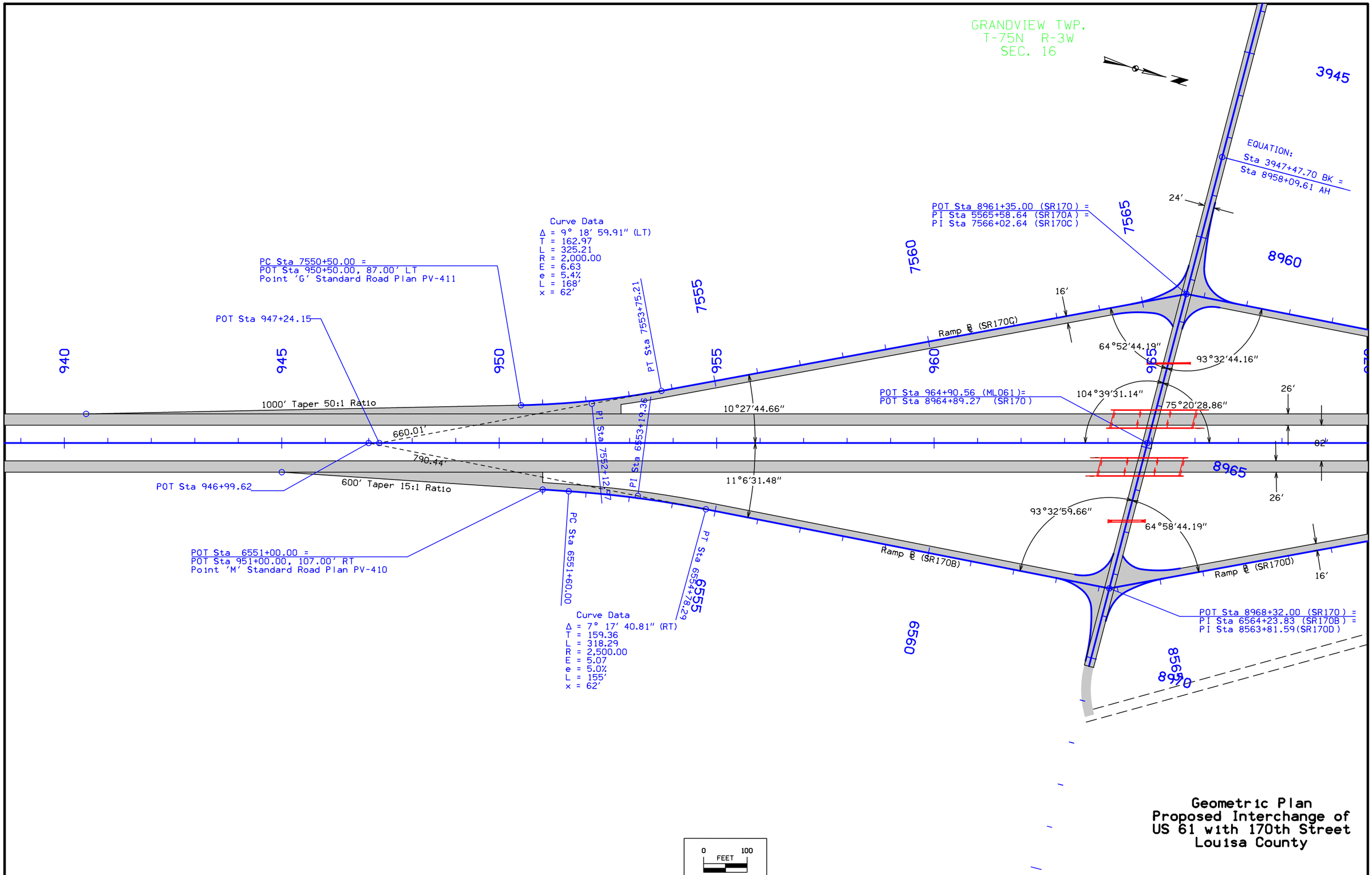

Geometric Plan
Proposed Interchange of
US 61 with 170th Street
Louisa County

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER K.7

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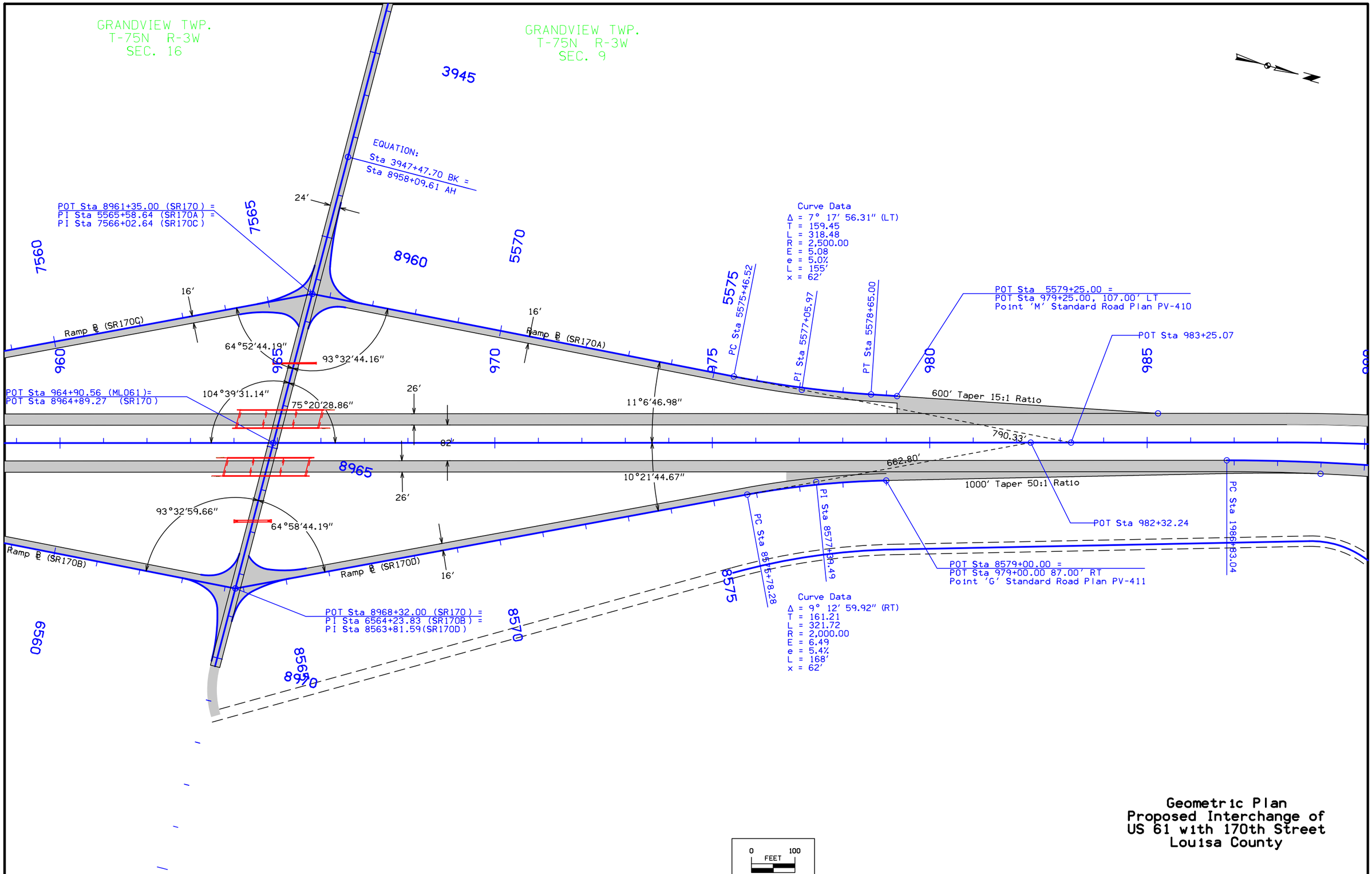

Geometric Plan
Proposed Interchange of
US 61 with 170th Street
Louisa County

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER K.8

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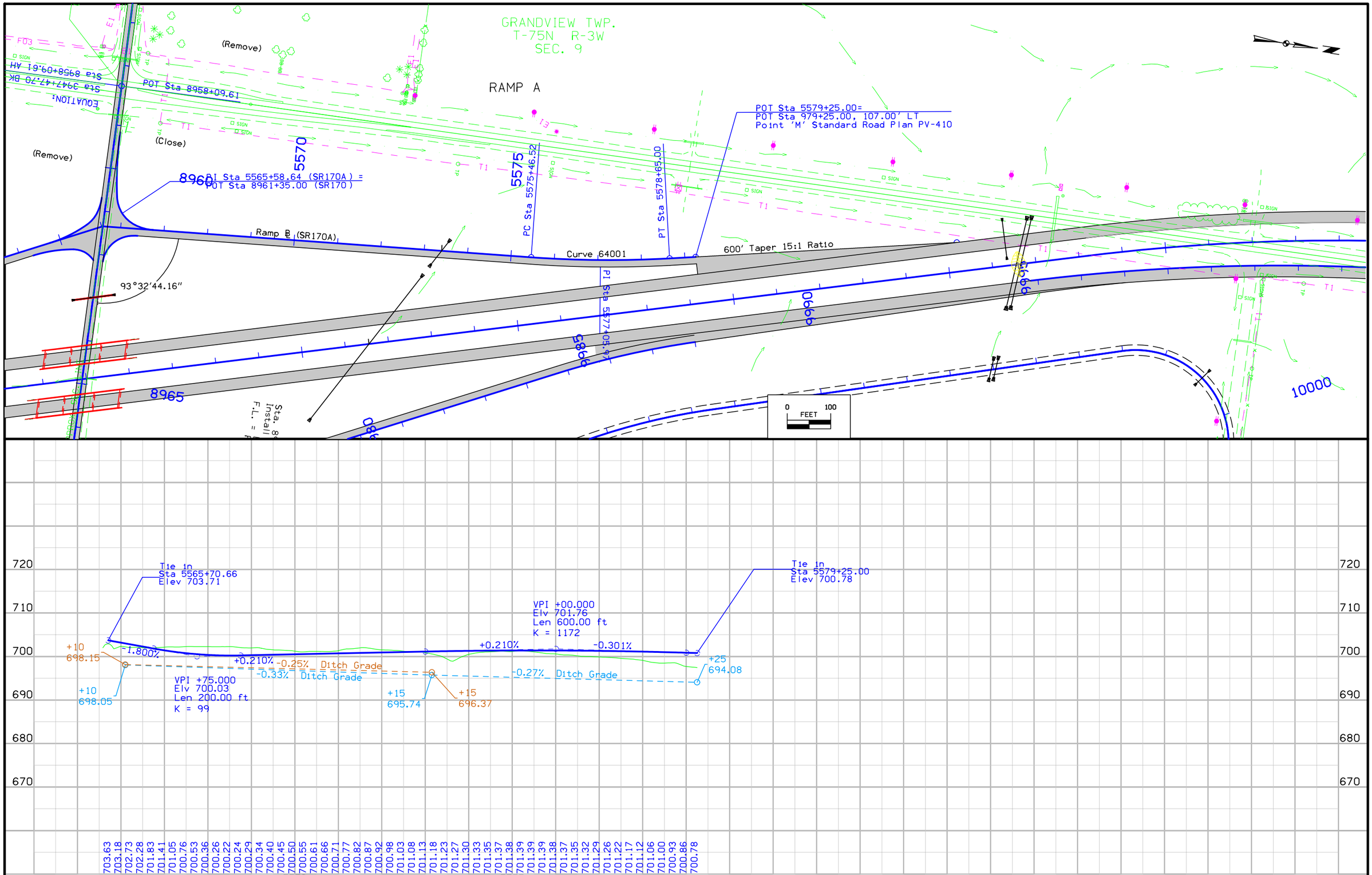

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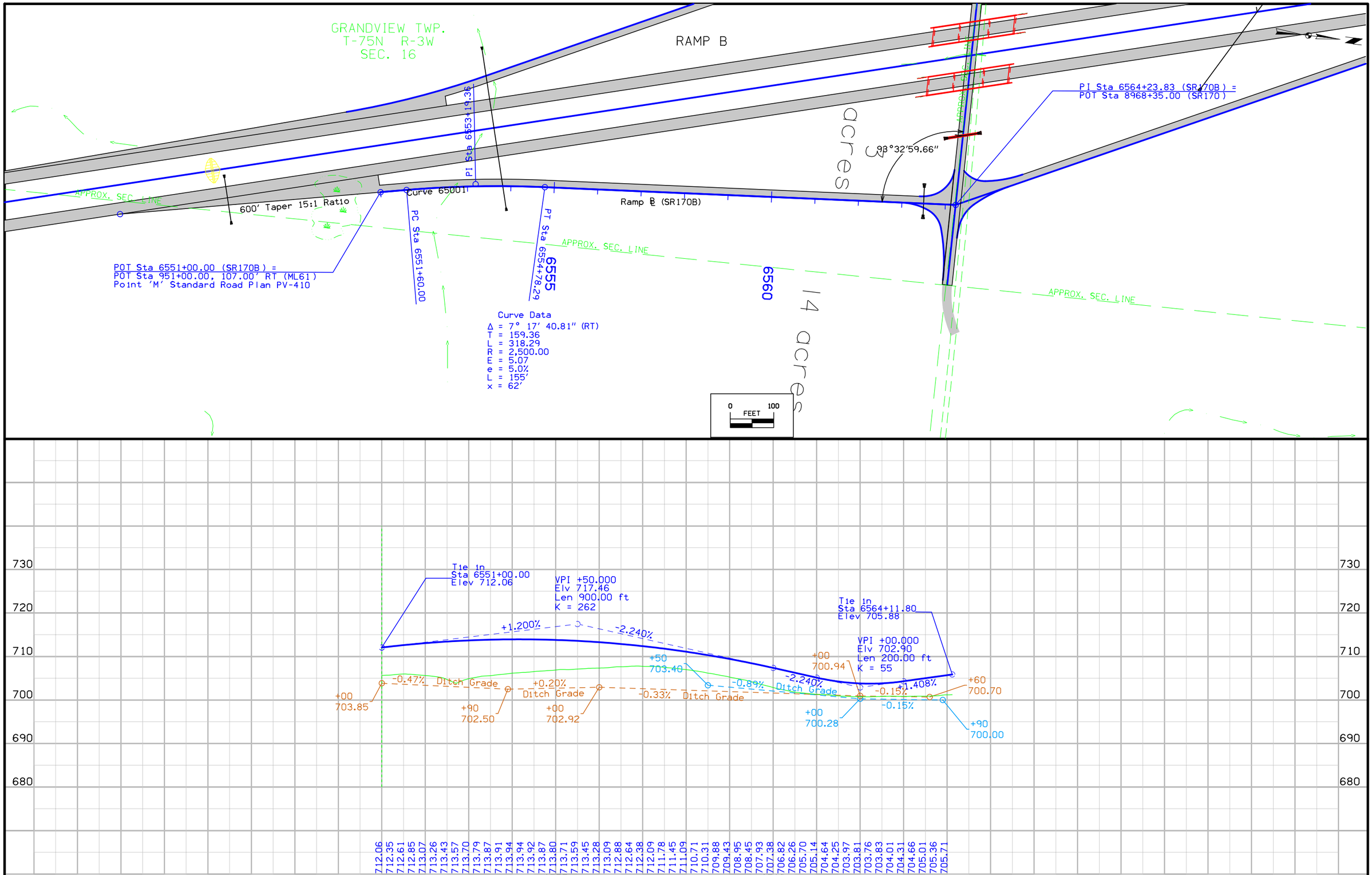

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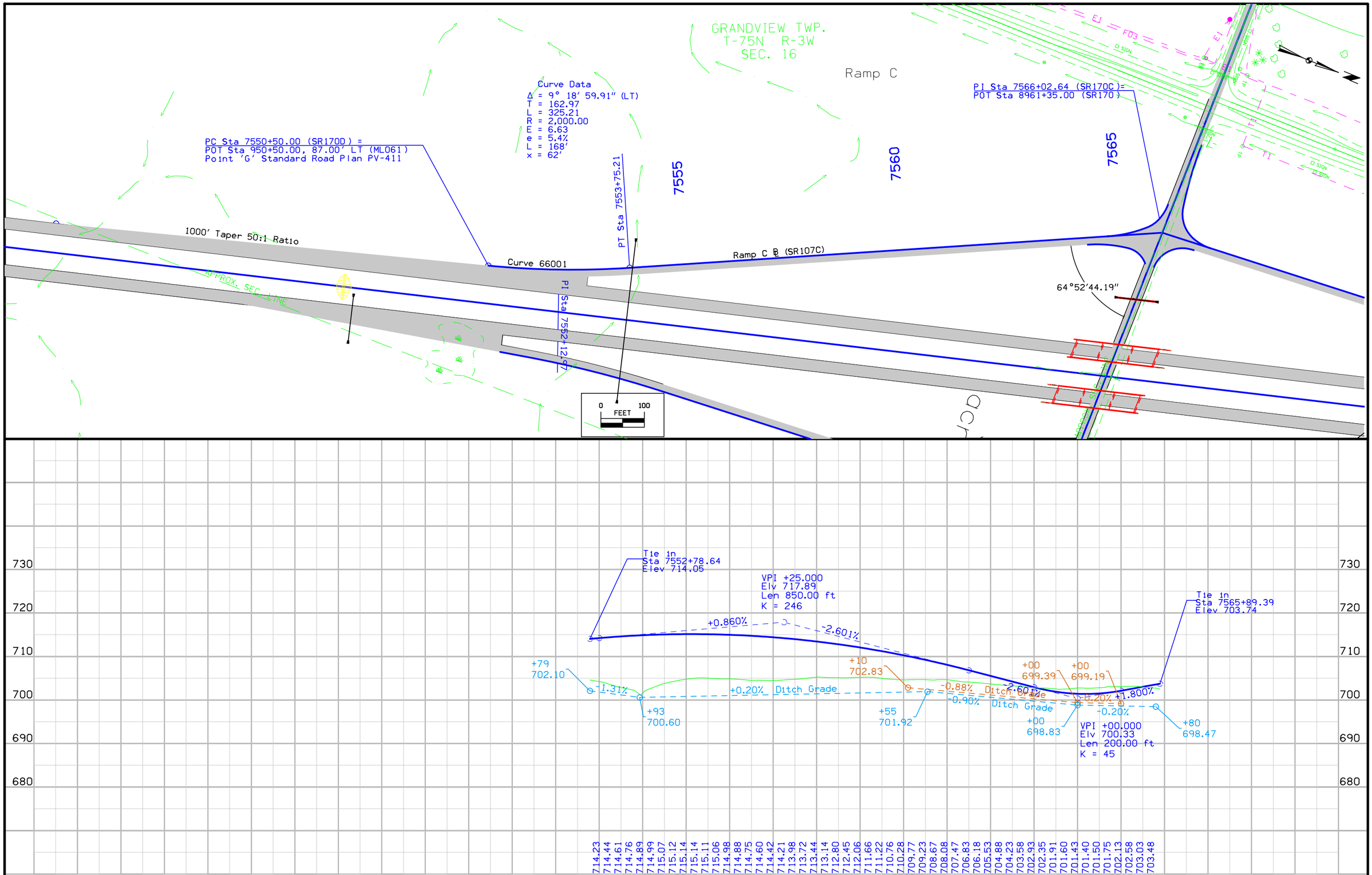

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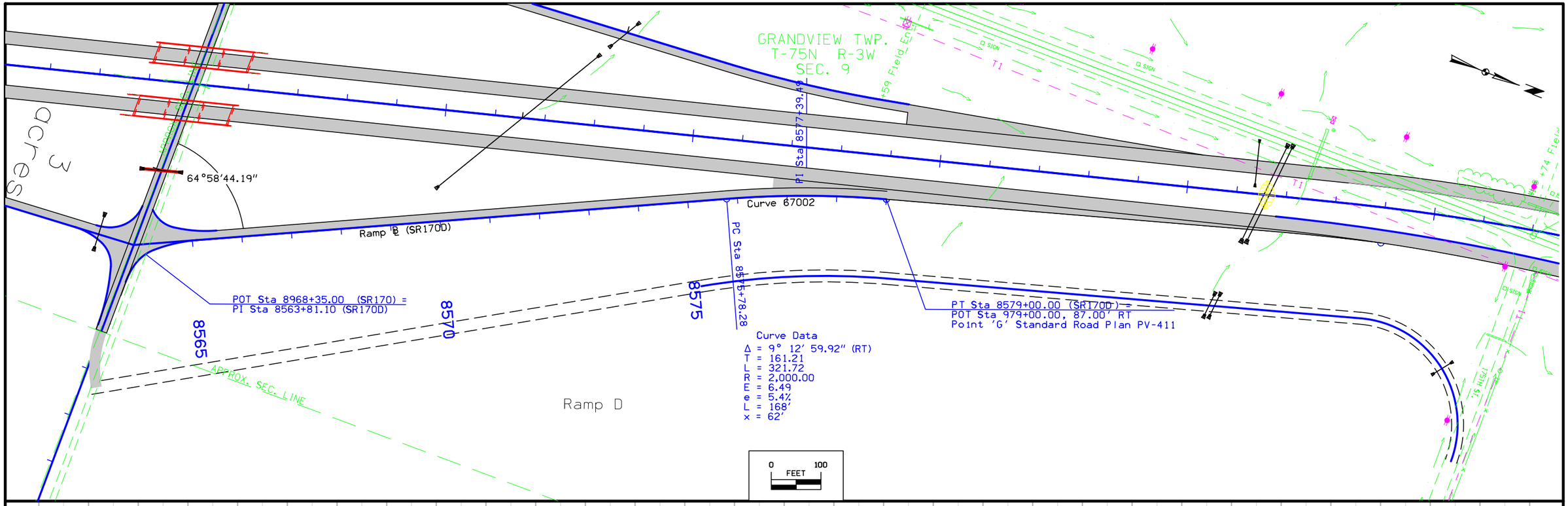

C ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER K.12

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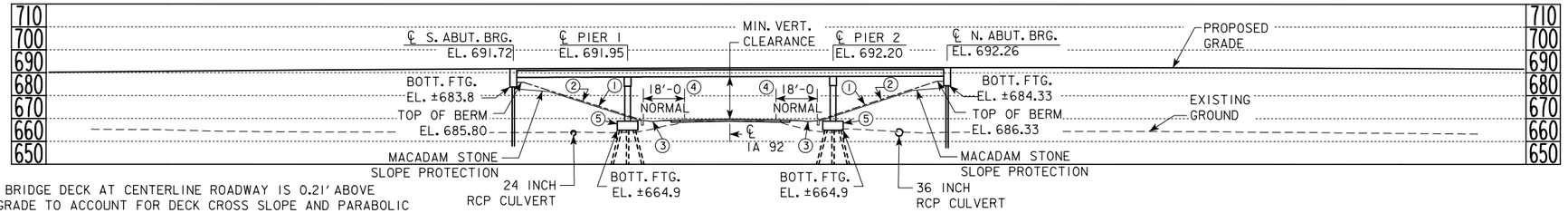
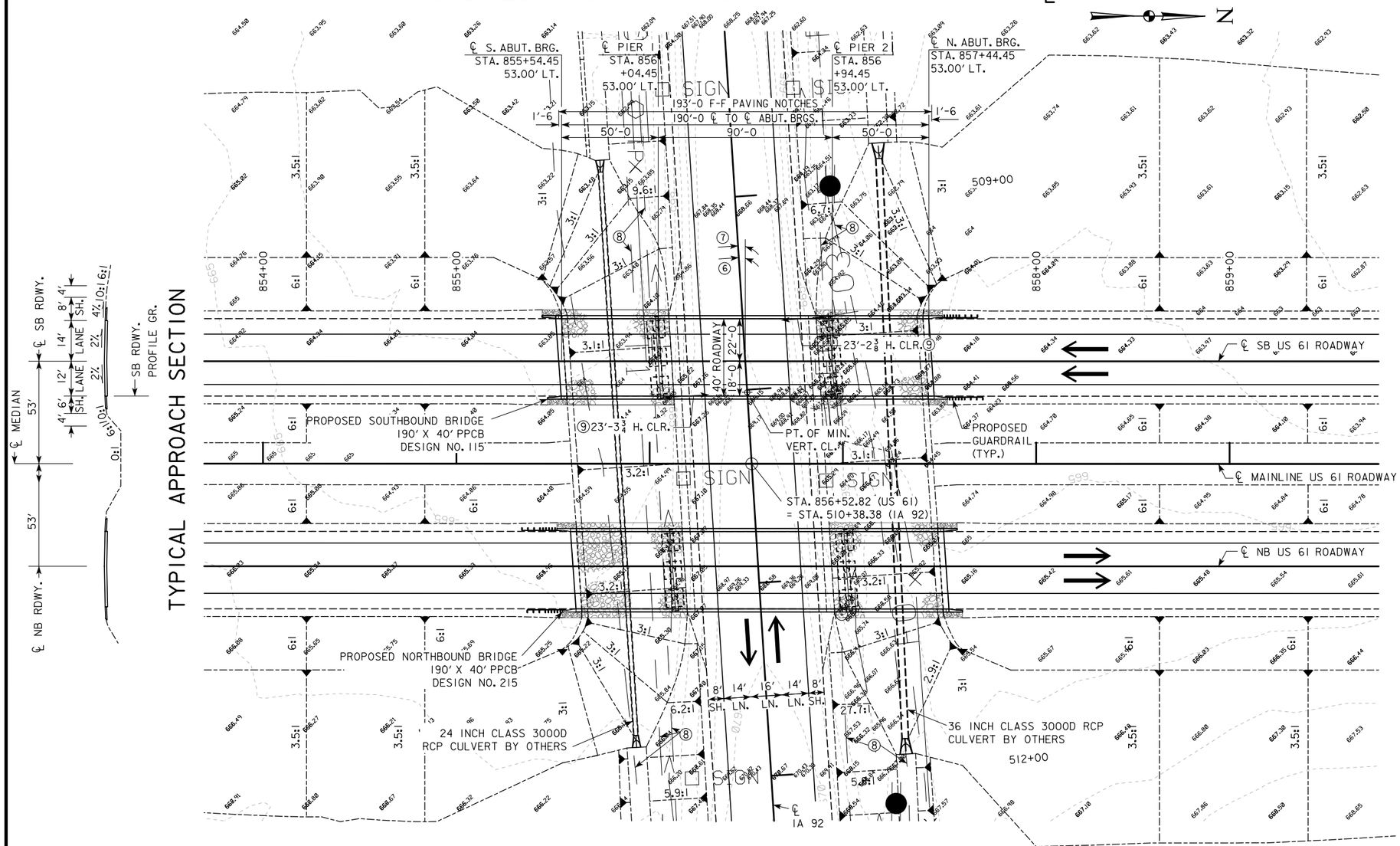
BENCH MARK NO. 517 STA. 856+93.06 137.92' LT EL. 673.245 FOUND RR SPIKE SOUTH SIDE OF POWER POLE (STATIONING ALONG EXISTING US 61 ℄ ALIGNMENT; SEE D SHEETS FOR DETAILS)

① GRADING SURFACE ② 3.1:1 NORMAL BERM SLOPE ③ RL-13 GRADING ④ MEASURED FROM EDGE OF DRIVING LANE TO TOE OF BERM ⑤ FRAME PIER



NOTE: TOP OF BRIDGE DECK AT CENTERLINE ROADWAY IS 0.21' ABOVE THE PROFILE GRADE TO ACCOUNT FOR DECK CROSS SLOPE AND PARABOLIC CROWN.

SOUTHBOUND BRIDGE LONGITUDINAL SECTION ALONG ℄ ROADWAY



SOUTHBOUND BRIDGE SITUATION PLAN

TYPICAL APPROACH SECTION

⑥ BRIDGE SKEW 4°

⑦ ROADWAY SKEW 3° 35' 52.80". ROADWAY SKEW ANGLE IS MEASURED FROM LINE NORMAL TO ℄ OF US 61 TO ROADWAY SURVEY ℄ OF IA 92. ROADWAY ℄ OF US 61 ALONG ℄ OF SOUTHBOUND LANES.

⑧ CONTRACTOR TO VERIFY LOCATION AND DEPTH OF FIBER OPTIC AND TELEPHONE UTILITIES PRIOR TO GRADING WORK; NOTIFY ENGINEER OF CONFLICTS WITH PROPOSED GRADING

⑨ MEASURED FROM EDGE OF DRIVING LANE TO FACE OF PIER WALL

UTILITIES LEGEND:

FO- FIBER OPTIC - WINDSTREAM
FO3 - FIBER OPTIC - PAETEC
FO4 - FIBER OPTIC - MUTUAL TEL. CO. OF MORNING SUN, IA
TI - TELEPHONE - WINDSTREAM
-●- POWER POLE - EASTERN IOWA LIGHT AND POWER

2.6000% -1.8000%

VPI STA = 856+00.00 VC = 1,800'
VPI ELEV = 701.60

PROPOSED PROFILE GRADE US 61

0.5000%

VPI STA = 505+00.51 VPI STA = 517+25.00
VPI ELEV = 667.28 VPI ELEV = 673.40

PROPOSED PROFILE GRADE IA 92

MINIMUM VERTICAL CLEARANCE

OVERHEAD STATION = 856+50.49, 36.92' LT
OVERHEAD ELEVATION = 691.84
DEPTH OF SUPERSTRUCTURE = 3.83'
IA 92 STATION = 510+01.39
IA 92 ELEVATION = 669.79
MINIMUM VERTICAL CLEARANCE = 18.22'

TRAFFIC ESTIMATE

2016 AADT	5,629	V.P.D.
2036 AADT	7,677	V.P.D.
202_ DHV	_	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	_	

LOCATION

SOUTHBOUND U.S. 61 OVER IA 92
T-75 N R-3 W
SECTION 28
GRANDVIEW TOWNSHIP
LOUISA COUNTY
BRIDGE MAINT. NO.
LATITUDE 41.276543°
LONGITUDE -91.199562°

0 ENGLISH 60
SCALE IN FEET

TYPE TL-4 BRIDGE RAILING PROPOSED

DESIGN FOR 4° SKEW R.A.

190'-0 X 40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

50'-0 END SPANS 90'-0 INTERIOR SPAN

SOUTHBOUND BRIDGE SITUATION PLAN

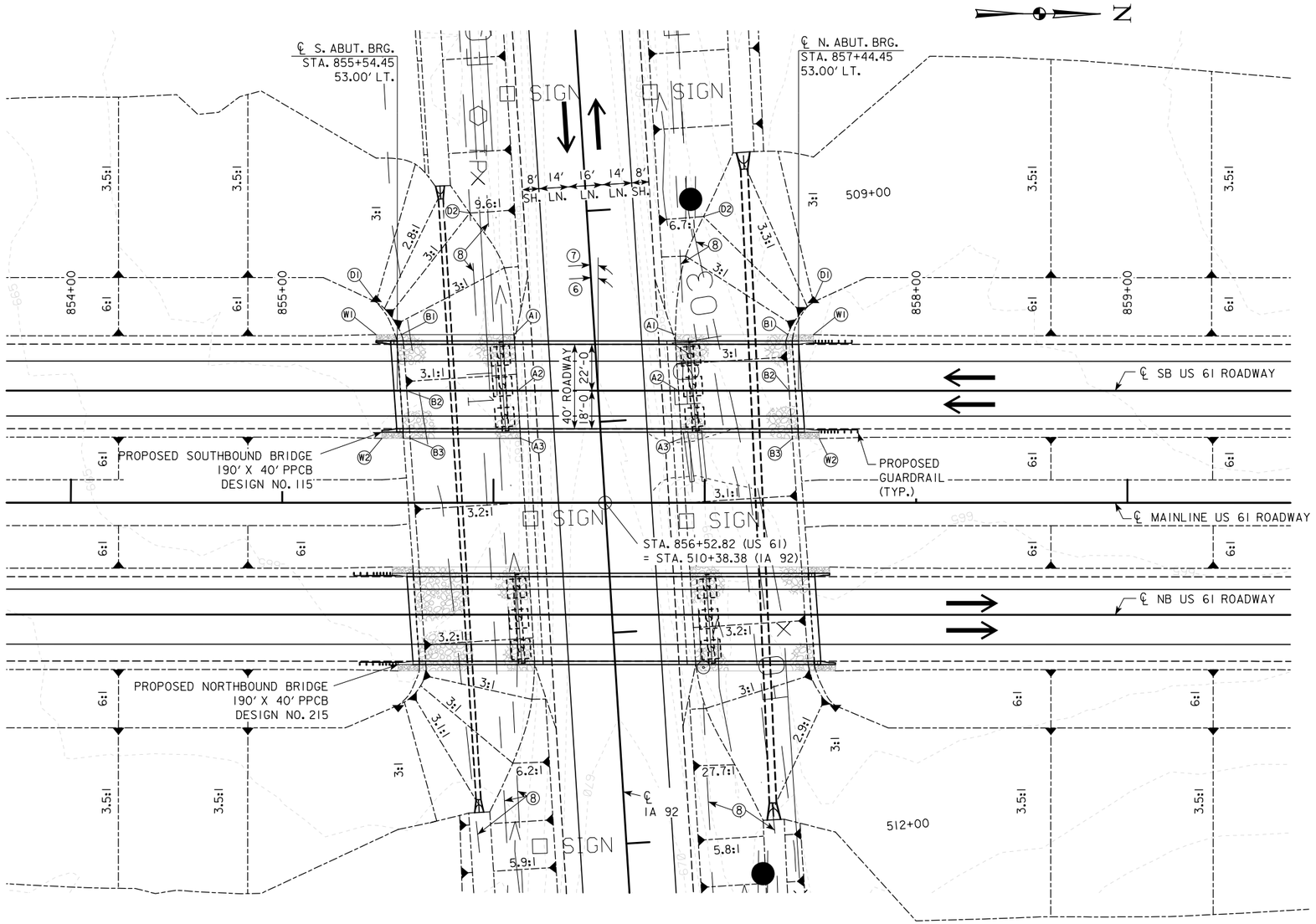
STATION 856+49.45, 53.00' LT BTB BEAM

LOUISA COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 4 FILE NO. 30755 DESIGN NO. 115

DESIGN TEAM	LOUISA COUNTY	PROJECT NUMBER NHSX-061-3(70)--3H-58	SHEET NUMBER V.1



SITE PLAN

BERM SLOPE LOCATION TABLE
SOUTHBOUND BRIDGE

	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
A1	856+09.73	79.58' LT	668.88	856+86.09	79.58' LT	668.90
A2	856+11.42	53.00' LT	669.01	856+87.54	53.00' LT	669.03
A3	856+12.83	30.42' LT	669.12	856+88.98	30.42' LT	669.15
B1	855+56.46	79.58' LT	685.80	857+39.31	79.58' LT	686.33
B2	855+58.97	53.00' LT	685.80	857+39.94	53.00' LT	686.33
B3	855+60.54	30.42' LT	685.80	857+41.52	30.42' LT	686.33
D1	855+44.41	95.02' LT	685.80	857+51.43	94.99' LT	686.33
D2	855+88.76	137.09' LT	665.79	856+99.42	135.45' LT	664.96
W1	855+44.40	79.58' LT	690.98	857+51.41	79.58' LT	691.57
W2	855+47.20	30.42' LT	691.11	857+54.21	30.42' LT	691.69

W - END WING / EROSION STONE
BERM SLOPE TABLE ELEVATIONS REFLECT GRADING SURFACE

⑥ BRIDGE SKEW 4°

⑦ ROADWAY SKEW 3° 35' 52.80". ROADWAY SKEW ANGLE IS MEASURED FROM LINE NORMAL TO ℄ OF US 61 TO ROADWAY SURVEY ℄ OF IA 92. ROADWAY ℄ OF US 61 ALONG ℄ OF SOUTHBOUND LANES.

⑧ CONTRACTOR TO VERIFY LOCATION AND DEPTH OF FIBER OPTIC AND TELEPHONE UTILITIES PRIOR TO GRADING WORK; NOTIFY ENGINEER OF CONFLICTS WITH PROPOSED GRADING

0 ENGLISH 60
SCALE IN FEET

DESIGN FOR 4° SKEW R.A.

190'-0 X 40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

50'-0 END SPANS 90'-0 INTERIOR SPAN

SB BRIDGE SITUATION (SITE) PLAN

STATION 856+49.45, 53.00' LT BTB BEAM

LOUISA COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 4 FILE NO. 30755 DESIGN NO. 115

DESIGN TEAM | LOUISA COUNTY | PROJECT NUMBER NHSX-061-3(70)--3H-58 | SHEET NUMBER V.2

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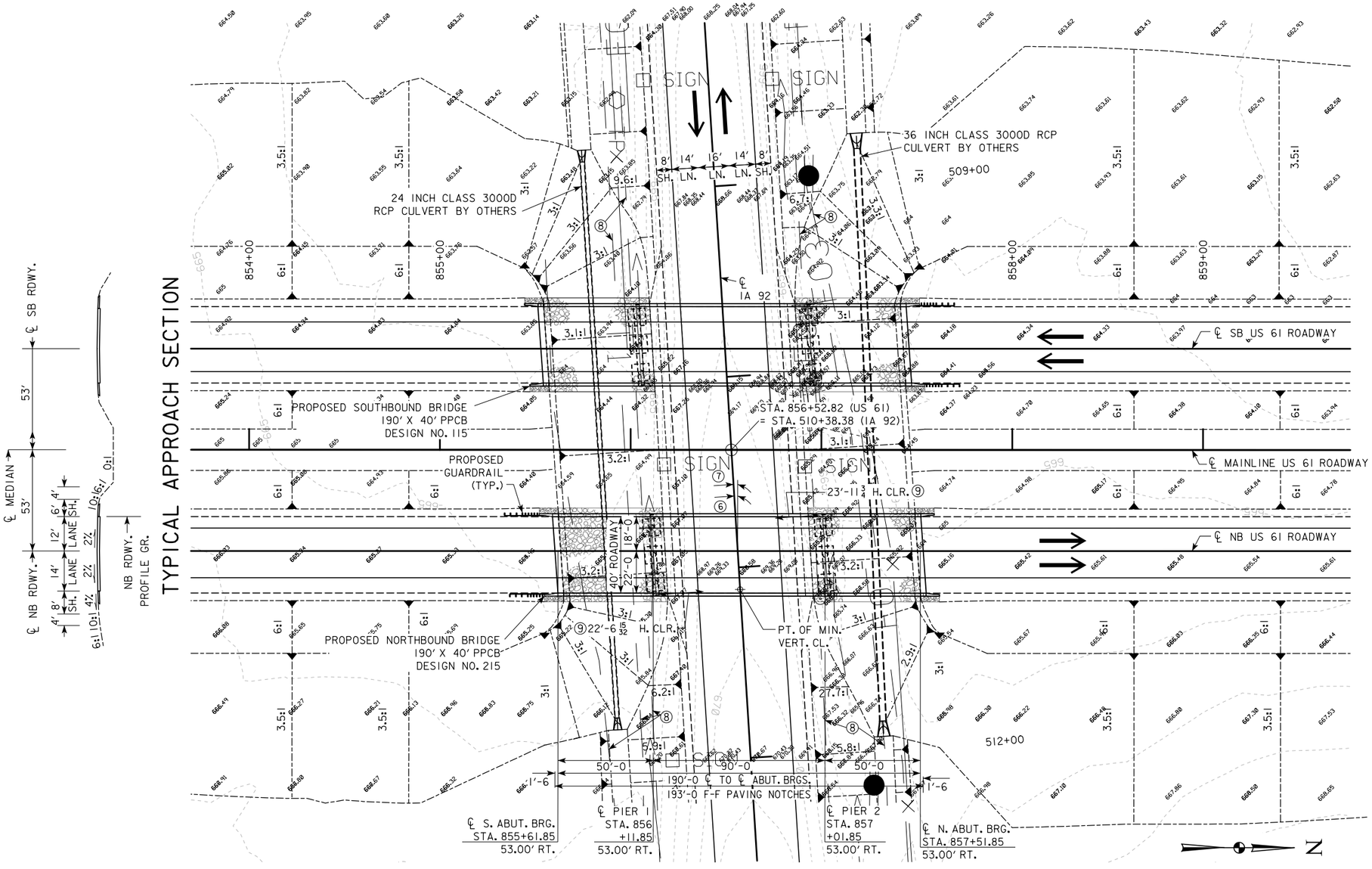
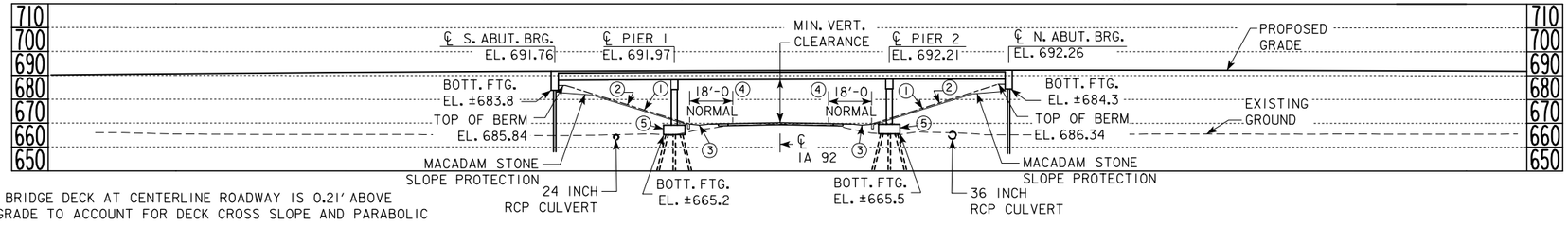


NORTHBOUND BRIDGE SITUATION PLAN

BENCH MARK NO. 517 STA. 856+93.06 137.92' LT EL. 673.245 FOUND RR SPIKE SOUTH SIDE OF POWER POLE (STATIONING ALONG EXISTING US 61 ℄ ALIGNMENT; SEE D SHEETS FOR DETAILS)

① GRADING SURFACE ② 3.2:1 NORMAL BERM SLOPE ③ RL-13 GRADING ④ MEASURED FROM EDGE OF DRIVING LANE TO TOE OF BERM ⑤ FRAME PIER



NOTE: TOP OF BRIDGE DECK AT CENTERLINE ROADWAY IS 0.21' ABOVE THE PROFILE GRADE TO ACCOUNT FOR DECK CROSS SLOPE AND PARABOLIC CROWN.

NORTHBOUND BRIDGE LONGITUDINAL SECTION ALONG ℄ ROADWAY

TYPICAL APPROACH SECTION

⑥ BRIDGE SKEW 4°

⑦ ROADWAY SKEW 3° 35' 52.80". ROADWAY SKEW ANGLE IS MEASURED FROM LINE NORMAL TO ℄ OF US 61 TO ROADWAY SURVEY ℄ OF IA 92. ROADWAY ℄ OF US 61 ALONG ℄ OF SOUTHBOUND LANES.

⑧ CONTRACTOR TO VERIFY LOCATION AND DEPTH OF FIBER OPTIC AND TELEPHONE UTILITIES PRIOR TO GRADING WORK; NOTIFY ENGINEER OF CONFLICTS WITH PROPOSED GRADING

⑨ MEASURED FROM EDGE OF DRIVING LANE TO FACE OF PIER WALL

UTILITIES LEGEND:

FO- FIBER OPTIC - WINDSTREAM
FO3 - FIBER OPTIC - PAETEC
FO4 - FIBER OPTIC - MUTUAL TEL. CO. OF MORNING SUN, IA
TI - TELEPHONE - WINDSTREAM
-●- POWER POLE - EASTERN IOWA LIGHT AND POWER

2.6000% -1.8000%

VPI STA = 856+00.00 VC = 1,800'
VPI ELEV = 701.60

PROPOSED PROFILE GRADE US 61

0.5000%

VPI STA = 505+00.51 VPI STA = 517+25.00
VPI ELEV = 667.28 VPI ELEV = 673.40

PROPOSED PROFILE GRADE IA 92

MINIMUM VERTICAL CLEARANCE

OVERHEAD STATION = 856+57.41, 73.09' RT
OVERHEAD ELEVATION = 691.77
DEPTH OF SUPERSTRUCTURE = 3.83'
IA 92 STATION = 511+11.61
IA 92 ELEVATION = 670.33
MINIMUM VERTICAL CLEARANCE = 17.61'

TRAFFIC ESTIMATE

2016 AADT	5,629	V.P.D.
2036 AADT	7,677	V.P.D.
202_ DHV	_	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	_	

LOCATION

NORTHBOUND U.S. 61 OVER IA 92
T-75 N R-3 W
SECTION 28
GRANDVIEW TOWNSHIP
LOUISA COUNTY
BRIDGE MAINT. NO.
LATITUDE 41.276559°
LONGITUDE -91.199175°

0 ENGLISH 60
SCALE IN FEET

TYPE TL-4 BRIDGE RAILING PROPOSED

DESIGN FOR 4° SKEW R.A.

190'-0 X 40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

50'-0 END SPANS 90'-0 INTERIOR SPAN

NORTHBOUND BRIDGE SITUATION PLAN

STATION 856+56.85, 53.00' RT BTB BEAM

LOUISA COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 3 OF 4 FILE NO. 30755 DESIGN NO. 215

DESIGN TEAM	LOUISA COUNTY	PROJECT NUMBER NHSX-061-3(70)--3H-58	SHEET NUMBER V.3

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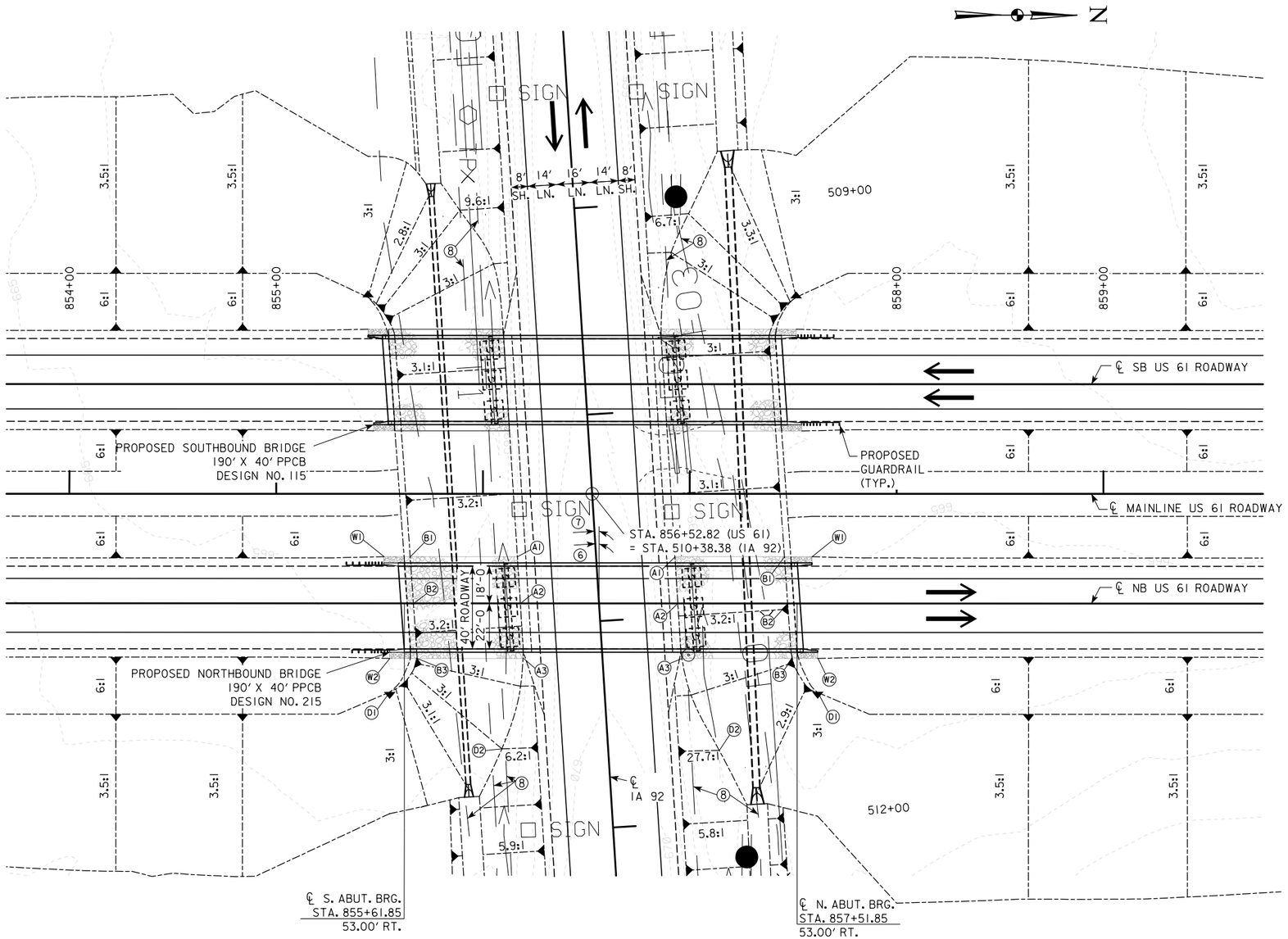


SITE PLAN

BERM SLOPE LOCATION TABLE
NORTHBOUND BRIDGE

	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
A1	856+16.65	30.42' RT	669.43	856+92.90	30.42' RT	669.45
A2	856+18.06	53.00' RT	669.54	856+94.22	53.00' RT	669.56
A3	856+19.39	79.58' RT	669.67	856+96.21	79.58' RT	669.70
B1	855+64.78	30.42' RT	685.84	857+45.76	30.42' RT	686.34
B2	855+66.36	53.00' RT	685.84	857+47.33	53.00' RT	686.34
B3	855+68.12	79.58' RT	685.84	857+49.63	79.58' RT	686.34
D1	855+54.87	95.90' RT	685.84	857+61.88	96.05' RT	686.34
D2	856+09.15	123.31' RT	666.74	857+14.24	124.00' RT	668.84
W1	855+52.09	30.42' RT	691.14	857+59.09	30.42' RT	691.69
W2	855+54.88	79.58' RT	691.03	857+61.89	79.58' RT	691.57

W - END WING / EROSION STONE
BERM SLOPE TABLE ELEVATIONS REFLECT GRADING SURFACE

⑥ BRIDGE SKEW 4°

⑦ ROADWAY SKEW 3° 35' 52.80". ROADWAY SKEW ANGLE IS MEASURED FROM LINE NORMAL TO ℄ OF US 61 TO ROADWAY SURVEY ℄ OF IA 92. ROADWAY ℄ OF US 61 ALONG ℄ OF SOUTHBOUND LANES.

⑧ CONTRACTOR TO VERIFY LOCATION AND DEPTH OF FIBER OPTIC AND TELEPHONE UTILITIES PRIOR TO GRADING WORK; NOTIFY ENGINEER OF CONFLICTS WITH PROPOSED GRADING

0 ENGLISH 60
SCALE IN FEET

DESIGN FOR 4° SKEW R.A.

190'-0 X 40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

50'-0 END SPANS 90'-0 INTERIOR SPAN

NB BRIDGE SITUATION (SITE) PLAN

STATION 856+56.85, 53.00' RT BTB BEAM

LOUISA COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

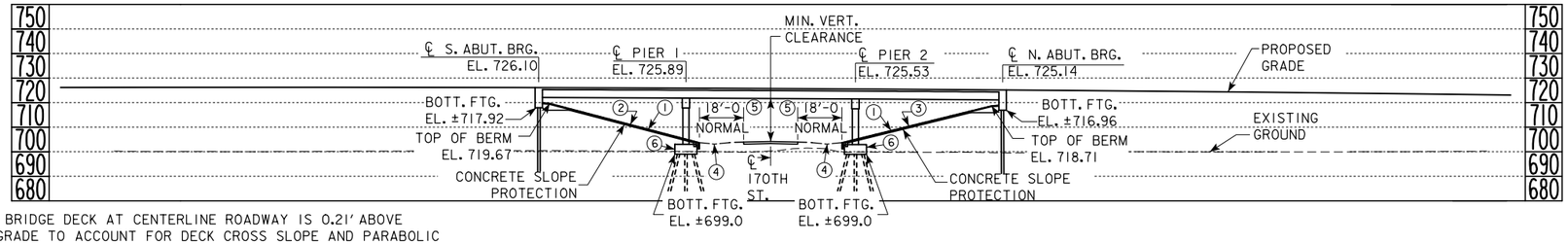
DESIGN SHEET NO. 4 OF 4 FILE NO. 30755 DESIGN NO. 215

DESIGN TEAM | LOUISA COUNTY | PROJECT NUMBER NHSX-061-3(70)--3H-58 | SHEET NUMBER V.4

5/16/2012 7:59:10 AM dmulho1 W:\Projects2\P0102000\5806103009\BRPrelim\58061070.str TSL_58_0215_1 11x17_pdf.pltcfg

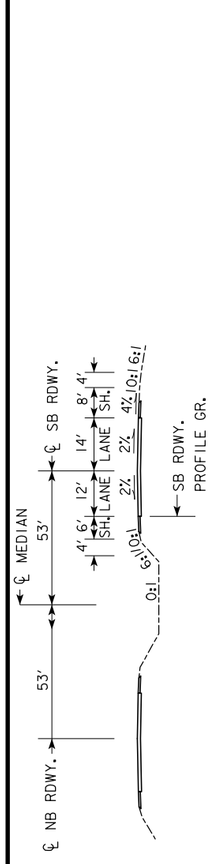
BENCH MARK NO. 529 STA. 963+93.03 101.68' LT EL. 701.099 RR SPIKE IN NORTH SIDE OF LUMINAIRE (STATIONING ALONG EXISTING US 61 ℄ ALIGNMENT; SEE D SHEETS FOR DETAILS)

① GRADING SURFACE ② 3.6:1 NORMAL BERM SLOPE ③ 3.9:1 NORMAL BERM SLOPE ④ RL-13 GRADING ⑤ MEASURED FROM EDGE OF DRIVING LANE TO TOE OF BERM ⑥ FRAME PIER

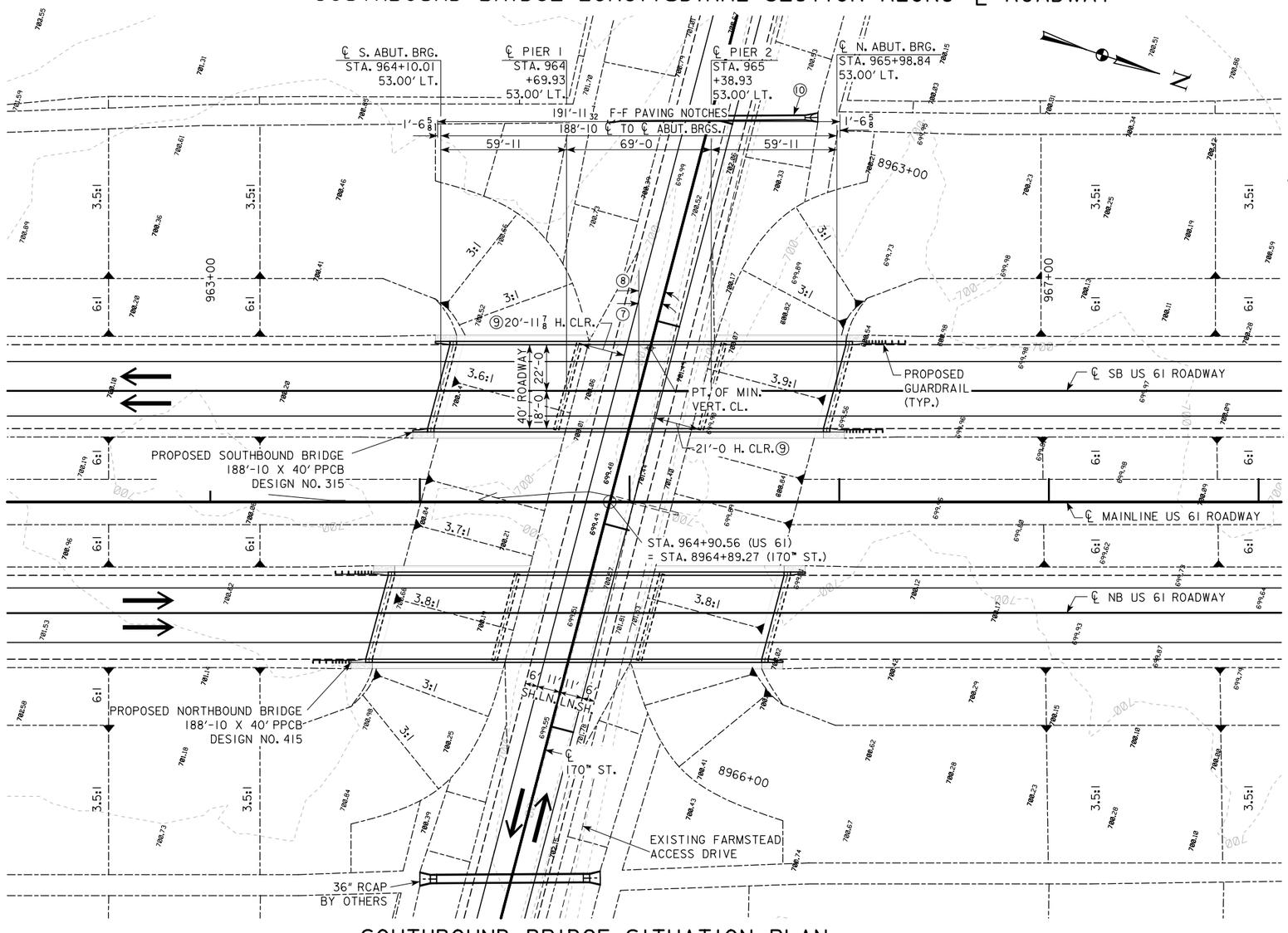


NOTE: TOP OF BRIDGE DECK AT CENTERLINE ROADWAY IS 0.21' ABOVE THE PROFILE GRADE TO ACCOUNT FOR DECK CROSS SLOPE AND PARABOLIC CROWN.

SOUTHBOUND BRIDGE LONGITUDINAL SECTION ALONG ℄ ROADWAY



TYPICAL APPROACH SECTION



SOUTHBOUND BRIDGE SITUATION PLAN

⑦ BRIDGE SKEW 15°

⑧ ROADWAY SKEW 14° 39' 31.32". ROADWAY SKEW ANGLE IS MEASURED FROM LINE NORMAL TO ℄ OF US 61 TO PROPOSED ROADWAY ℄ OF 170TH STREET. ROADWAY ℄ OF US 61 ALONG ℄ OF SOUTHBOUND LANES.

⑨ MEASURED FROM EDGE OF DRIVING LANE TO FACE OF PIER WALL

⑩ 24" RCP BY OTHERS

UTILITIES LEGEND:

E1 - ELECTRIC - EASTERN IOWA LIGHT AND POWER
FO3 - FIBER OPTIC - PAETEC
TI - TELEPHONE - WINDSTREAM COMMUNICATIONS

NOTE: UTILITY MAIN LINES ALONG EXISTING US 61 ALIGNMENT; SERVICE LINES FROM MAINS MAY BE PRESENT ALONG EXISTING FARMSTEAD ACCESS DRIVE

1.4000% -2.4000%

VPI STA = 965+00.00 VC = 1,550'
VPI ELEV = 732.90

PROPOSED PROFILE GRADE US 61

-0.500% 0.600%

VPI STA = 8964+70.00 VC = 150'
VPI ELEV = 703.93

PROPOSED PROFILE GRADE 170TH STREET

MINIMUM VERTICAL CLEARANCE

OVERHEAD STATION = 965+09.79, 73.50' LT
OVERHEAD ELEVATION = 725.35
DEPTH OF SUPERSTRUCTURE = 4.08'
170TH ST. STATION = 8964+13.30
170TH ST. ELEVATION = 704.22
MINIMUM VERTICAL CLEARANCE = 17.05'

TRAFFIC ESTIMATE

2016	AADT	6,225	V.P.D.
2036	AADT	8,489	V.P.D.
202_	DHV	_	V.P.H.
TRUCKS		18	%
TOTAL DESIGN ESALs		_	

LOCATION

SOUTHBOUND U.S. 61 OVER 170TH STREET
T-75 N R-3 W
SECTION 16
GRANDVIEW TOWNSHIP
LOUISA COUNTY
BRIDGE MAINT. NO.
LATITUDE 41.305540°
LONGITUDE -91.198829°

0 ENGLISH 60
SCALE IN FEET

TYPE TL-4 BRIDGE RAILING PROPOSED

DESIGN FOR 15° SKEW L.A.

188'-10 X 40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

59'-11 END SPANS 69'-0 INTERIOR SPAN

SOUTHBOUND BRIDGE SITUATION PLAN

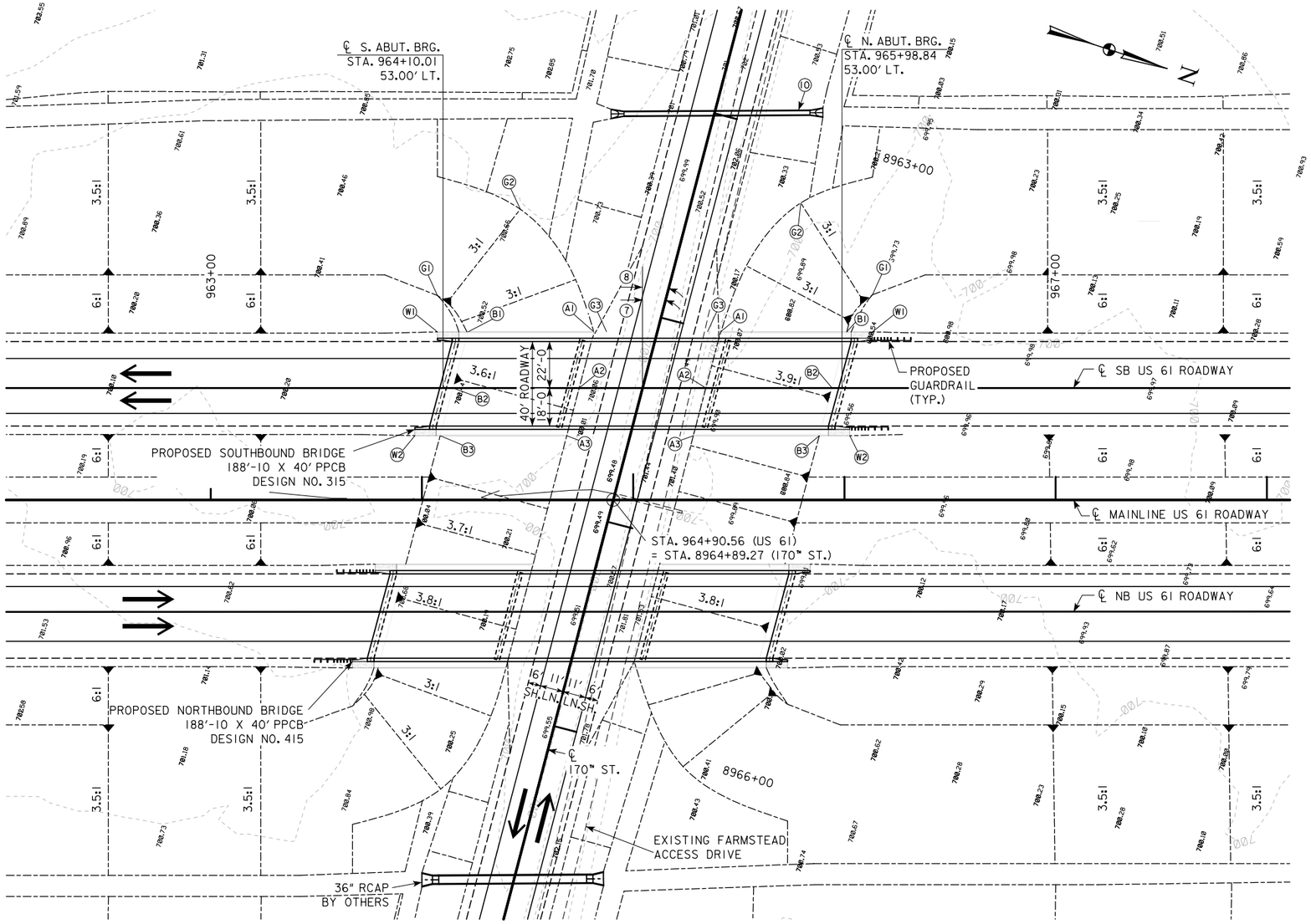
STATION 965+04.43, 53.00' LT B BEAM

LOUISA COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 4 FILE NO. 30755 DESIGN NO. 315

DESIGN TEAM	LOUISA COUNTY	PROJECT NUMBER NHSX-061-3(71)--3H-58	SHEET NUMBER V.1



SOUTHBOUND BRIDGE SITE PLAN

BERM SLOPE LOCATION TABLE SOUTHBOUND BRIDGE

	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
A1	964+81.40	79.58' LT	703.76	965+41.37	79.58' LT	703.81
A2	964+74.45	53.00' LT	703.69	965+34.39	53.00' LT	703.72
A3	964+68.54	30.42' LT	703.67	965+28.52	30.42' LT	703.68
B1	964+21.79	79.58' LT	719.67	966+01.10	79.58' LT	718.71
B2	964+14.67	53.00' LT	719.67	965+94.18	53.00' LT	718.71
B3	964+08.62	30.42' LT	719.67	965+88.13	30.42' LT	718.71
G1	964+07.35	96.83' LT	719.67	966+13.28	97.14' LT	718.71
G2	964+46.56	137.67' LT	700.95	965+79.32	140.65' LT	700.20
G3	964+87.42	79.58' LT	702.79	965+35.15	79.58' LT	702.79
W1	964+07.35	79.58' LT	725.42	966+13.28	79.58' LT	724.33
W2	963+96.63	30.42' LT	725.56	966+02.57	30.42' LT	724.54

W - END WING / EROSION STONE
BERM SLOPE TABLE ELEVATIONS REFLECT GRADING SURFACE

NOTE: ADJUST STANDARD ROAD PLAN RL-13 GRADING AS NECESSARY TO ACHIEVE ELEVATIONS SHOWN AT G3 POINTS.

⑦ BRIDGE SKEW 15°

⑧ ROADWAY SKEW 14° 39' 31.32". ROADWAY SKEW ANGLE IS MEASURED FROM LINE NORMAL TO ℄ OF US 61 TO PROPOSED ROADWAY ℄ OF 170TH STREET. ROADWAY ℄ OF US 61 ALONG ℄ OF SOUTHBOUND LANES.

⑩ 24" RCP BY OTHERS

0 ENGLISH 60
SCALE IN FEET

DESIGN FOR 15° SKEW L.A.

188'-10 X 40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

59'-11 END SPANS 69'-0 INTERIOR SPAN

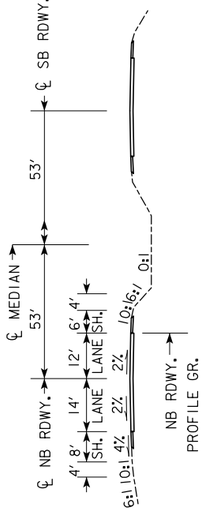
SB BRIDGE SITUATION PLAN-SITE

STATION 965+04.43, 53.00' LT B BEAM

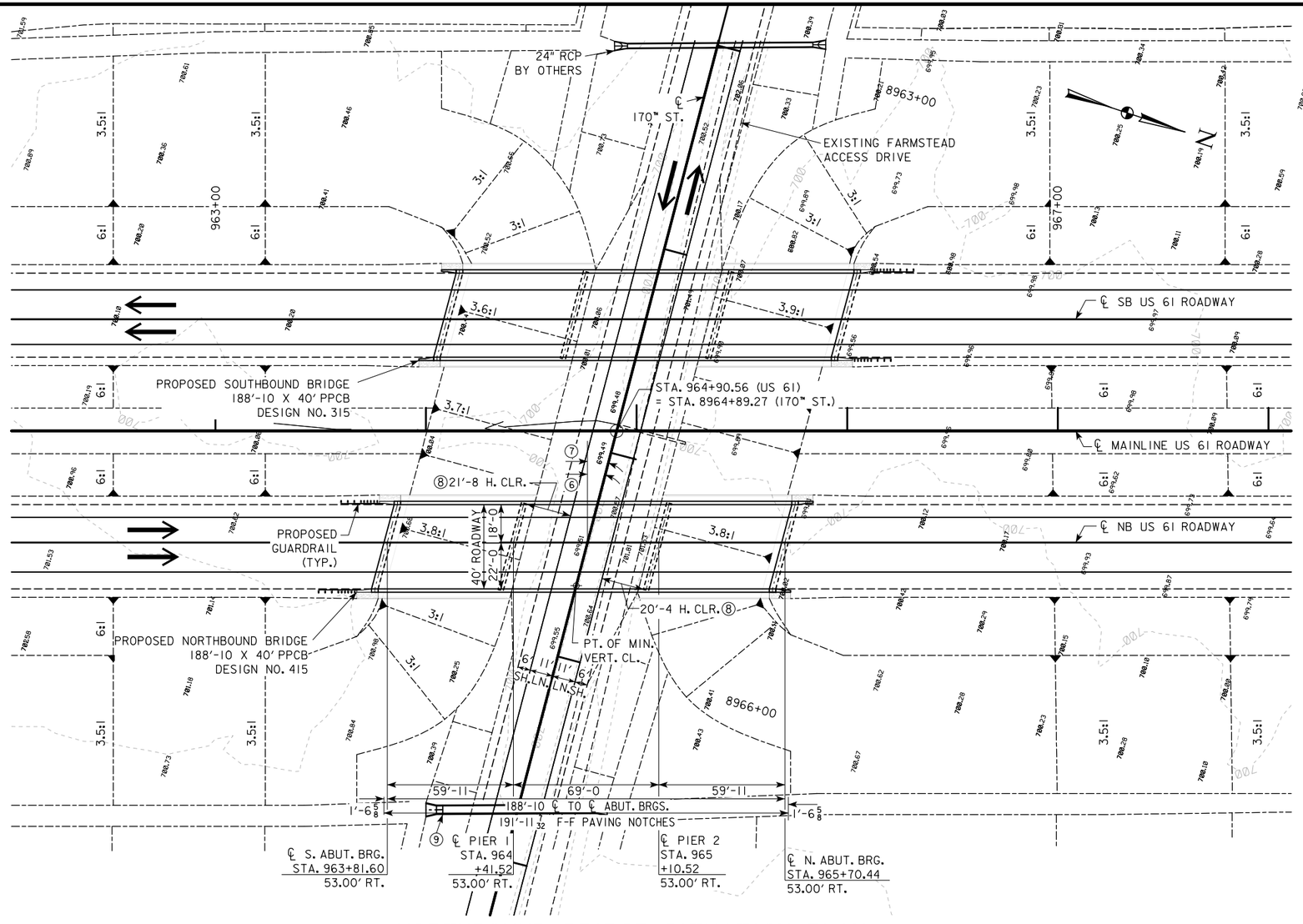
LOUISA COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 4 FILE NO. 30755 DESIGN NO. 315



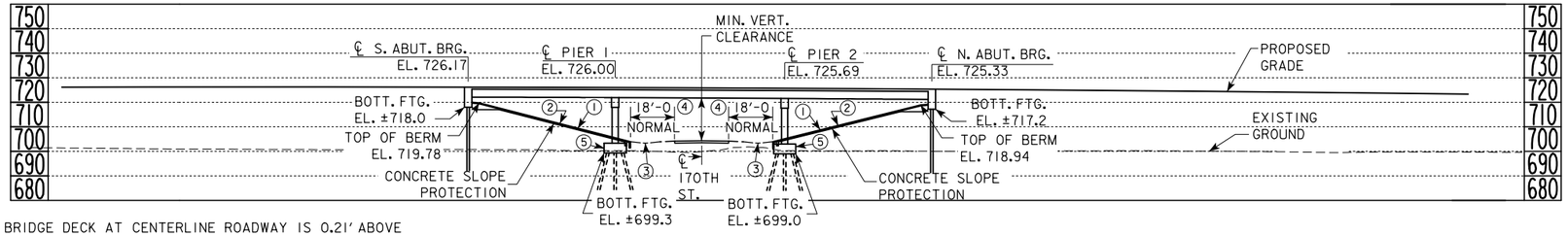
TYPICAL APPROACH SECTION



NORTHBOUND BRIDGE SITUATION PLAN

BENCH MARK NO. 529 STA. 963+93.03 101.68' LT EL. 701.099 RR SPIKE IN NORTH SIDE OF LUMINAIRE (STATIONING ALONG EXISTING US 61 ℄ ALIGNMENT; SEE D SHEETS FOR DETAILS)

① GRADING SURFACE ② 3.8:1 NORMAL BERM SLOPE ③ RL-13 GRADING ④ MEASURED FROM EDGE OF DRIVING LANE TO TOE OF BERM ⑤ FRAME PIER



NOTE: TOP OF BRIDGE DECK AT CENTERLINE ROADWAY IS 0.21' ABOVE THE PROFILE GRADE TO ACCOUNT FOR DECK CROSS SLOPE AND PARABOLIC CROWN.

NORTHBOUND BRIDGE LONGITUDINAL SECTION ALONG ℄ ROADWAY

⑥ BRIDGE SKEW 15°

⑦ ROADWAY SKEW 14° 39' 31.32". ROADWAY SKEW ANGLE IS MEASURED FROM LINE NORMAL TO ℄ OF US 61 TO PROPOSED ROADWAY ℄ OF 170TH STREET. ROADWAY ℄ OF US 61 ALONG ℄ OF NORTHBOUND LANES.

⑧ MEASURED FROM EDGE OF DRIVING LANE TO FACE OF PIER WALL

⑨ 36" RCAP BY OTHERS

UTILITIES LEGEND:

EI - ELECTRIC - EASTERN IOWA LIGHT AND POWER
FO3 - FIBER OPTIC - PAETEC
TI - TELEPHONE - WINDSTREAM COMMUNICATIONS

NOTE: UTILITY MAIN LINES ALONG EXISTING US 61 ALIGNMENT; SERVICE LINES FROM MAINS MAY BE PRESENT ALONG EXISTING FARMSTEAD ACCESS DRIVE

1.4000% -2.4000%

VPI STA = 965+00.00 VC = 1,550'
VPI ELEV = 732.90

PROPOSED PROFILE GRADE US 61

-0.500% 0.600%

VPI STA = 8964+70.00 VC = 150'
VPI ELEV = 703.93

PROPOSED PROFILE GRADE 170TH STREET

MINIMUM VERTICAL CLEARANCE

OVERHEAD STATION = 964+71.34, 73.50' RT
OVERHEAD ELEVATION = 725.53
DEPTH OF SUPERSTRUCTURE = 4.08'
170TH ST. STATION = 8965+65.24
170TH ST. ELEVATION = 704.50
MINIMUM VERTICAL CLEARANCE = 16.95'

TRAFFIC ESTIMATE

2016 AADT	6,225	V.P.D.
2036 AADT	8,489	V.P.D.
202_ DHV	-	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	-	

LOCATION

NORTHBOUND U.S. 61 OVER 170TH STREET
T-75 N R-3 W
SECTION 16
GRANDVIEW TOWNSHIP
LOUISA COUNTY
BRIDGE MAINT. NO.
LATITUDE 41.305537°
LONGITUDE -91.198430°

0 ENGLISH 60
SCALE IN FEET

TYPE TL-4 BRIDGE RAILING PROPOSED

DESIGN FOR 15° SKEW L.A.

188'-10 X 40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

59'-11 END SPANS 69'-0 INTERIOR SPAN

NORTHBOUND BRIDGE SITUATION PLAN

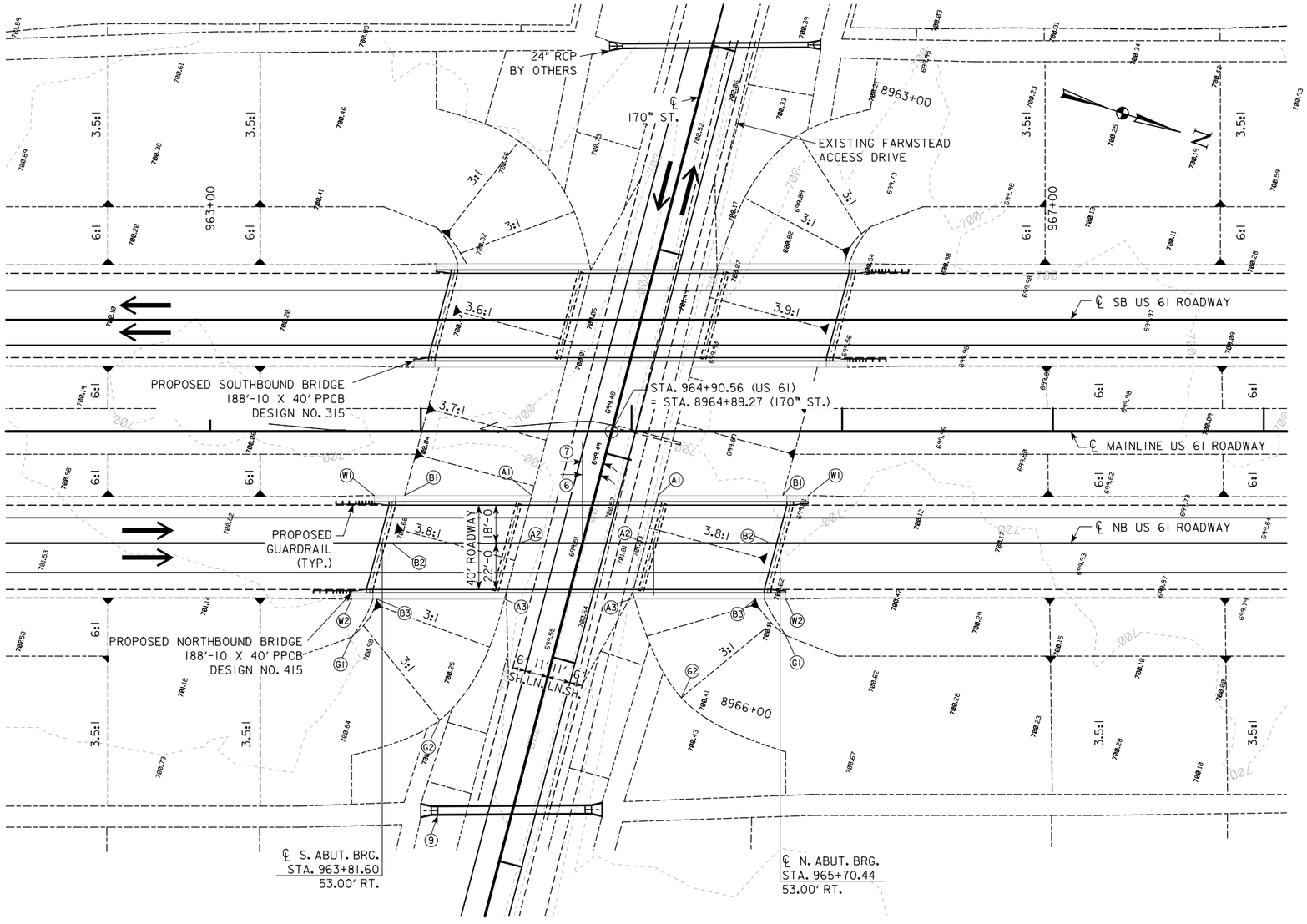
STATION 964+76.70, 53.00' RT B BEAM

LOUISA COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 3 OF 4 FILE NO. 30755 DESIGN NO. 415

DESIGN TEAM	LOUISA COUNTY	PROJECT NUMBER NHSX-061-3(71)--3H-58	SHEET NUMBER V.3



NORTHBOUND BRIDGE SITE PLAN

BERM SLOPE LOCATION TABLE
NORTHBOUND BRIDGE

	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
A1	964+52.63	30.42' RT	703.83	965+12.58	30.42' RT	703.76
A2	964+46.72	53.00' RT	703.96	965+06.67	53.00' RT	703.87
A3	964+39.76	79.58' RT	704.12	965+00.28	79.58' RT	704.03
B1	963+92.31	30.42' RT	719.78	965+71.83	30.42' RT	718.94
B2	963+86.29	53.00' RT	719.78	965+65.78	53.00' RT	718.94
B3	963+79.21	79.58' RT	719.78	965+58.65	79.58' RT	718.94
G1	963+67.16	97.61' RT	719.78	965+73.09	96.77' RT	718.94
G2	964+08.93	136.90' RT	700.31	965+23.62	126.33' RT	700.38
W1	963+77.87	30.42' RT	725.61	965+83.81	30.42' RT	724.67
W2	963+67.16	79.58' RT	725.51	965+73.09	79.58' RT	724.63

W - END WING / EROSION STONE
BERM SLOPE TABLE ELEVATIONS REFLECT GRADING SURFACE

⑥ BRIDGE SKEW 15°

⑦ ROADWAY SKEW 14° 39' 31.32". ROADWAY SKEW ANGLE IS MEASURED FROM LINE NORMAL TO ℄ OF US 61 TO PROPOSED ROADWAY ℄ OF 170" STREET. ROADWAY ℄ OF US 61 ALONG ℄ OF NORTHBOUND LANES.

⑨ 36" RCAP BY OTHERS

0 ENGLISH 60
SCALE IN FEET

DESIGN FOR 15° SKEW L.A.

188'-10 X 40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

59'-11 END SPANS 69'-0 INTERIOR SPAN

NB BRIDGE SITUATION PLAN-SITE

STATION 964+76.70, 53.00' RT B BEAM

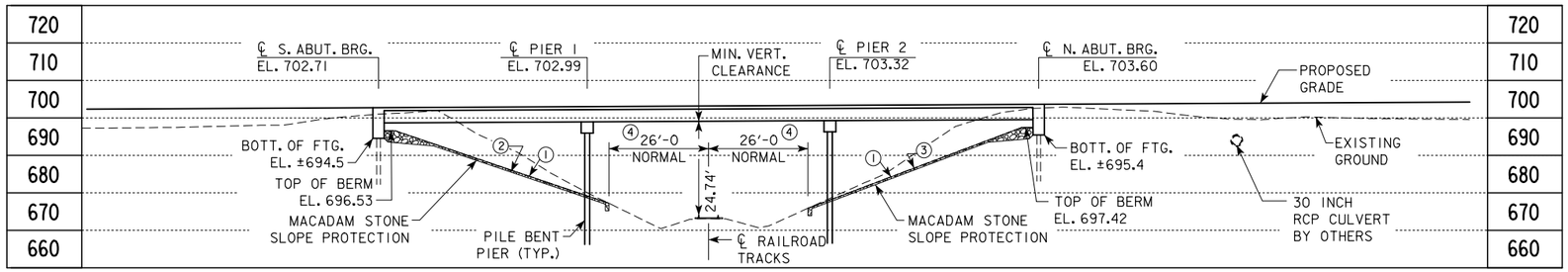
LOUISA COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 4 OF 4 FILE NO. 30755 DESIGN NO. 415

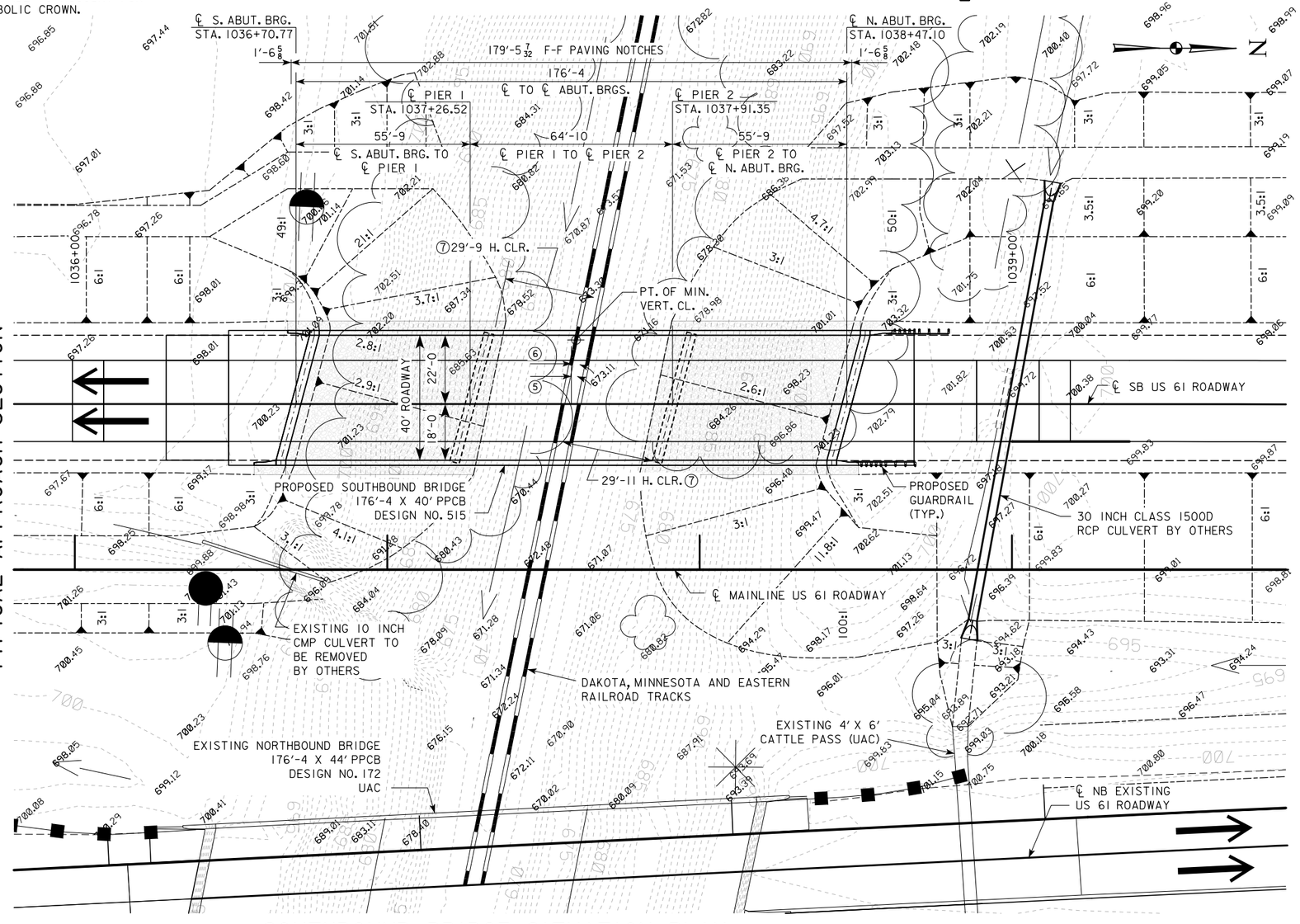
BENCH MARK NO. 538 STA. 1037+59.33 36.32' RT EL. 698.631 CUT X ON OUTLET END OF 4X6 CONC. CATTLE PASS (STATIONING ALONG EXISTING US 61 ℄ ALIGNMENT; SEE D SHEETS FOR DETAILS)

① GRADING SURFACE ② 2.9:1 NORMAL BERM SLOPE ③ 2.6:1 NORMAL BERM SLOPE ④ MEASURED FROM ℄ OF RAILROAD TRACKS TO TOE OF BERM

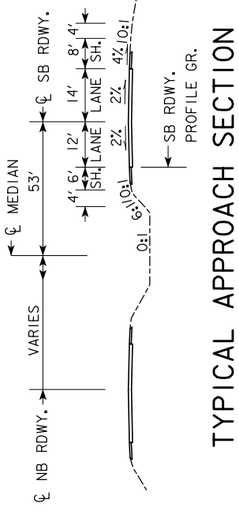


NOTE: TOP OF BRIDGE DECK AT CENTERLINE ROADWAY IS 0.21' ABOVE THE PROFILE GRADE TO ACCOUNT FOR DECK CROSS SLOPE AND PARABOLIC CROWN.

SOUTHBOUND BRIDGE LONGITUDINAL SECTION ALONG ℄ ROADWAY



TYPICAL APPROACH SECTION



SOUTHBOUND BRIDGE SITUATION PLAN

⑤ BRIDGE SKEW 15°

⑥ RAILROAD SKEW 11° 53' 28.32". RAILROAD SKEW ANGLE IS MEASURED FROM LINE NORMAL TO ℄ OF US 61 TO CENTERLINE OF EXISTING RAILROAD TRACKS. ROADWAY ℄ OF US 61 ALONG ℄ OF SOUTHBOUND LANES.

⑦ MEASURED FROM CENTERLINE OF RAILROAD TRACKS TO FACE OF PIER COLUMN

UTILITIES LEGEND:

TI - TELEPHONE - WINDSTREAM COMMUNICATIONS
- EASTERN IOWA LIGHT AND POWER UTILITY POLE
- DAKOTA, MINNESOTA AND EASTERN RAILROAD UTILITY POLE

0.5000%

VPI STA = 1007+50.00 VPI STA = 1042+80.00
VPI ELEV = 687.90 VPI ELEV = 705.55

PROPOSED PROFILE GRADE US 61

MINIMUM VERTICAL CLEARANCE

OVERHEAD STATION = 1037+60.40, 73.50' LT
OVERHEAD ELEVATION = 702.81
DEPTH OF SUPERSTRUCTURE = 4.08'
TOP OF RAIL ELEVATION = 673.99
MINIMUM VERTICAL CLEARANCE = 24.74'

TRAFFIC ESTIMATE

2016	AADT	6,298	V.P.D.
2036	AADT	8,589	V.P.D.
202_	DHV	-	V.P.H.
TRUCKS		18	%
TOTAL DESIGN ESALs		-	

LOCATION

SOUTHBOUND U.S. 61 OVER
DAKOTA, MINNESOTA AND EASTERN RAILROAD
T-75 N R-3 W
SECTION 4
GRANDVIEW TOWNSHIP
LOUISA COUNTY
BRIDGE MAINT. NO.
LATITUDE 41.325262°
LONGITUDE -91.201579°

0 ENGLISH 40
SCALE IN FEET

TYPE TL-4 BRIDGE RAILING PROPOSED

DESIGN FOR 15° SKEW L.A.

176'-4 X 40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

59'-9 END SPANS 64'-10 INTERIOR SPAN

SOUTHBOUND BRIDGE SITUATION PLAN

STATION 1037+58.94, 53.00' LT B BEAM

LOUISA COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 2 FILE NO. 30755 DESIGN NO. 515

DESIGN TEAM	LOUISA COUNTY	PROJECT NUMBER NHSX-061-3(72)--3H-58	SHEET NUMBER V.1

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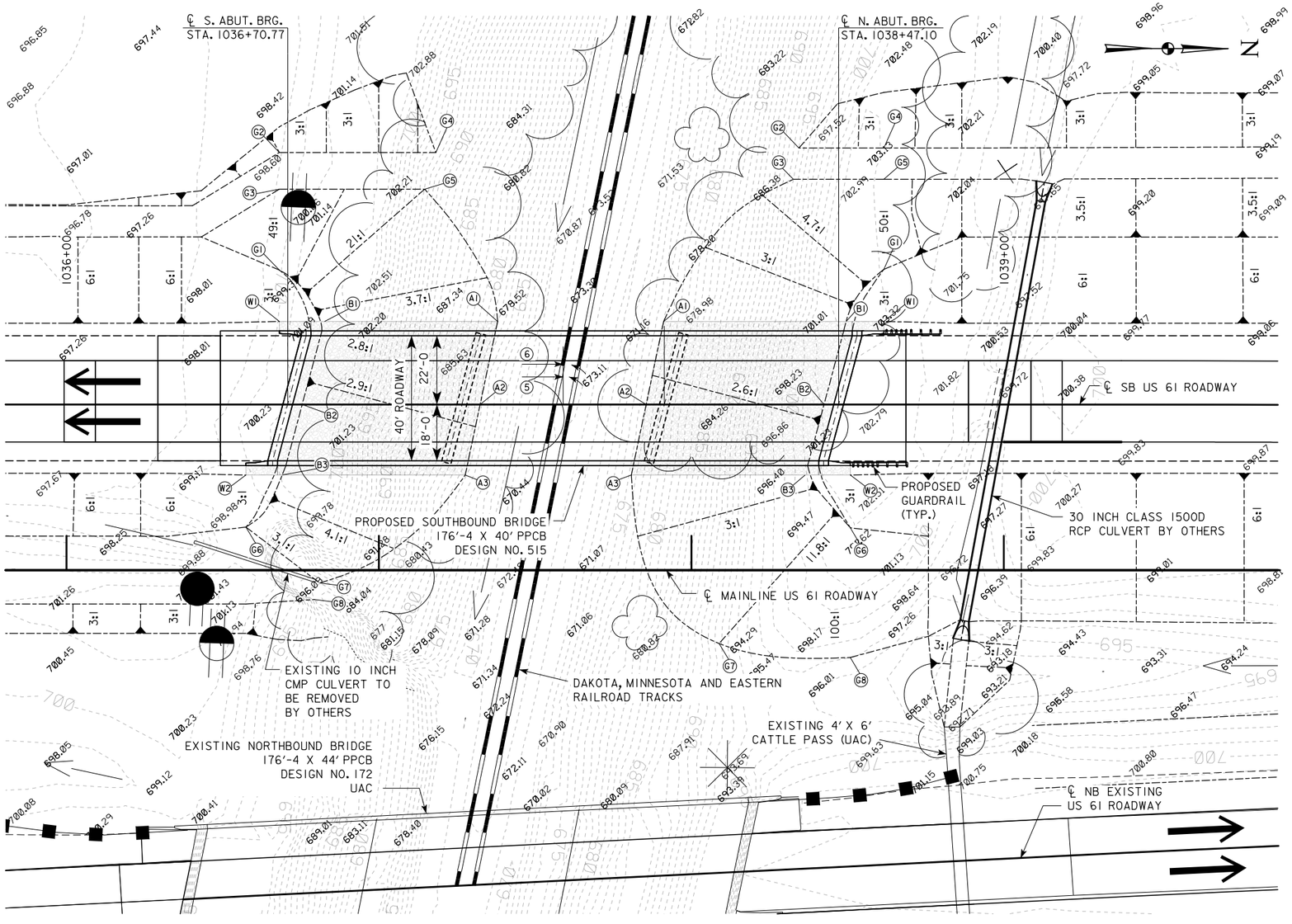

SOUTHBOUND BRIDGE SITE PLAN

BERM SLOPE LOCATION TABLE
SOUTHBOUND BRIDGE

	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
A1	1037+37.96	79.58' LT	678.00	1037+91.10	79.58' LT	676.00
A2	1037+32.37	53.00' LT	677.20	1037+85.51	53.00' LT	675.80
A3	1037+27.61	30.42' LT	677.20	1037+80.75	30.42' LT	675.20
B1	1036+82.55	79.58' LT	696.53	1038+49.50	79.58' LT	697.42
B2	1036+75.43	53.00' LT	696.53	1038+42.44	53.00' LT	697.42
B3	1036+69.01	30.42' LT	696.53	1038+36.39	30.42' LT	697.42
G1	1036+68.11	96.01' LT	696.53	1038+61.55	96.26' LT	697.42
G2	1036+68.11	133.66' LT	696.00	1038+34.41	135.06' LT	694.00
G3	1036+68.11	121.93' LT	696.00	1038+32.62	125.06' LT	694.00
G4	1037+18.18	133.66' LT	694.00	1038+61.55	135.06' LT	696.85
G5	1037+14.63	121.93' LT	694.00	1038+61.55	125.06' LT	696.85
G6	1036+57.40	13.77' LT	696.53	1038+50.83	13.52' LT	697.42
G7	1036+81.10	4.16' LT	687.00	1038+08.84	23.48' LT	692.66
G8	1036+79.37	9.41' LT	687.00	1038+50.83	27.98' LT	697.01
W1	1038+68.11	79.58' LT	702.01	1038+61.55	79.58' LT	702.98
W2	1038+57.40	30.42' LT	702.08	1038+50.83	30.42' LT	703.04

W - END WING / EROSION STONE
BERM SLOPE TABLE ELEVATIONS REFLECT GRADING SURFACE

⑤ BRIDGE SKEW 15°

⑥ RAILROAD SKEW 11° 53' 28.32". RAILROAD SKEW ANGLE IS MEASURED FROM LINE NORMAL TO ℄ OF US 61 TO CENTERLINE OF EXISTING RAILROAD TRACKS. ROADWAY ℄ OF US 61 ALONG ℄ OF SOUTHBOUND LANES.

0 ENGLISH 40
SCALE IN FEET

DESIGN FOR 15° SKEW L.A.

176'-4 X 40'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

59'-9 END SPANS 64'-10 INTERIOR SPAN

SB BRIDGE SITUATION PLAN-SITE

STATION 1037+58.94, 53.00' LT B BEAM

LOUISA COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 2 FILE NO. 30755 DESIGN NO. 515

DESIGN TEAM | LOUISA COUNTY | PROJECT NUMBER NHSX-061-3(72)--3H-58 | SHEET NUMBER V.2

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LINE STYLE 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

LINE STYLE 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.

SYMBOL LEGEND OF CROSS SECTION SHEETS

Existing ROW — Existing Right-of-Way Limit

Proposed ROW — Proposed Right-of-Way Limit

Temporary ROW — Temporary Right-of-Way Limit

CROSS SECTION LEGEND AND SYMBOL INFORMATION SHEET

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

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.1

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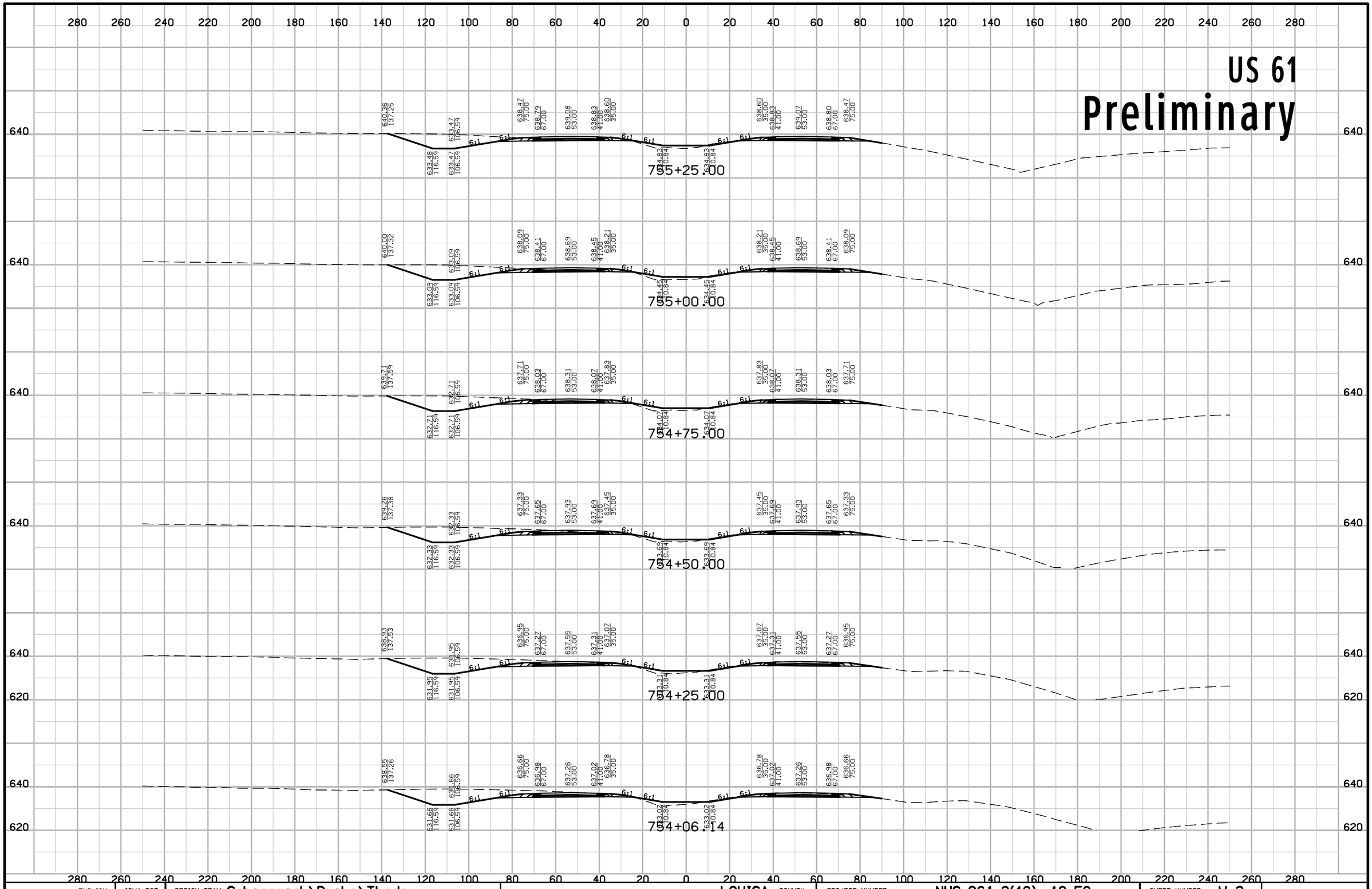

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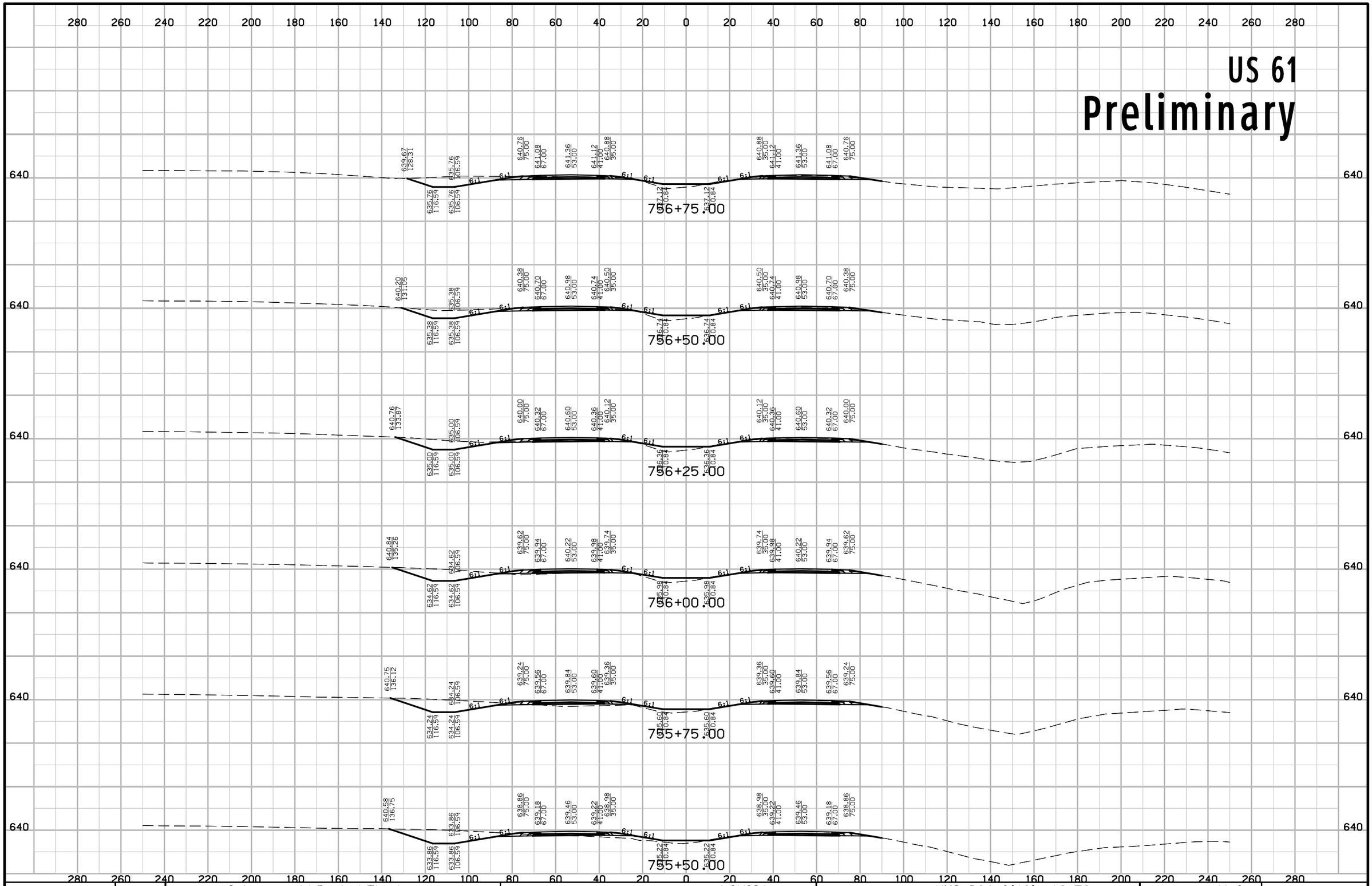

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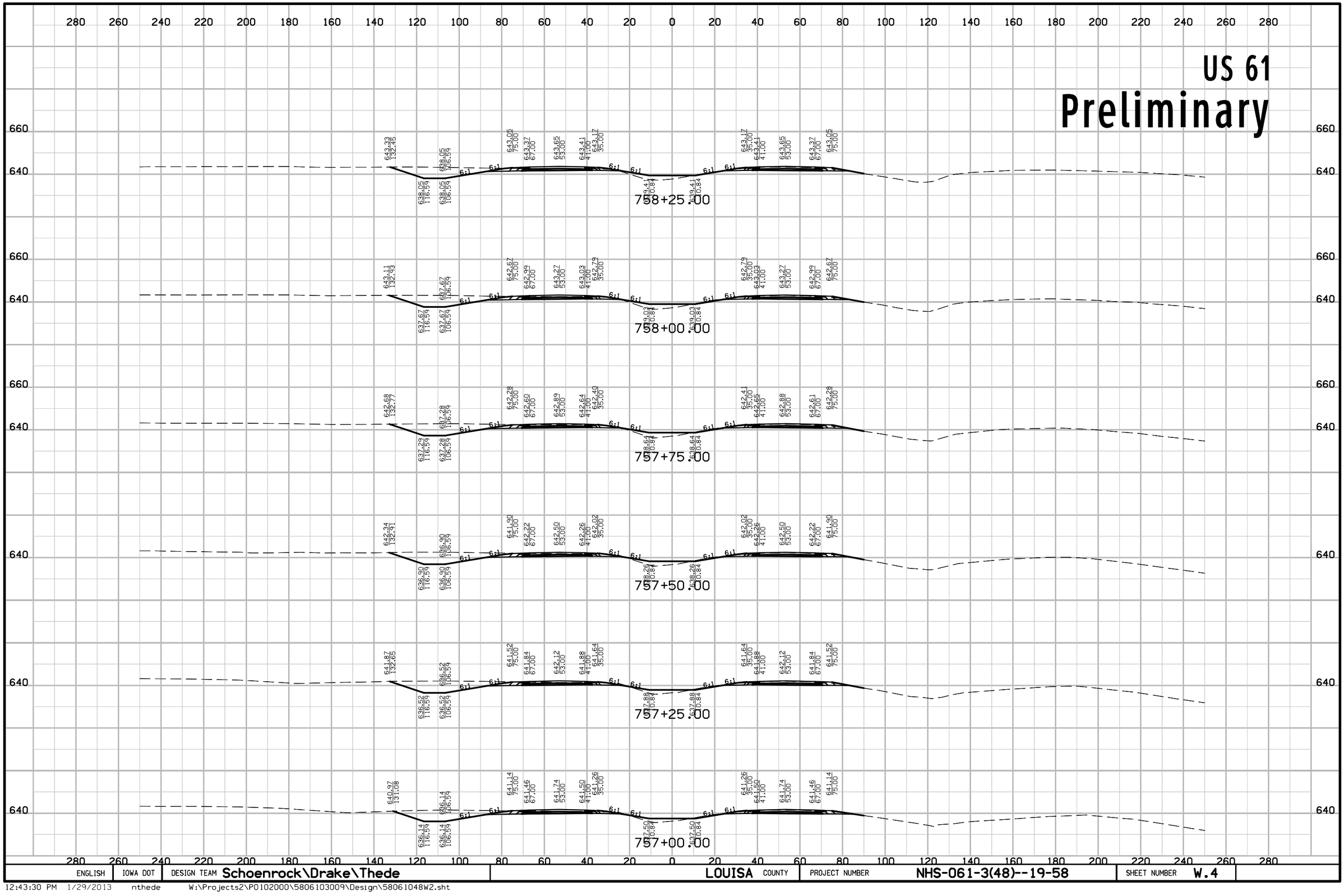

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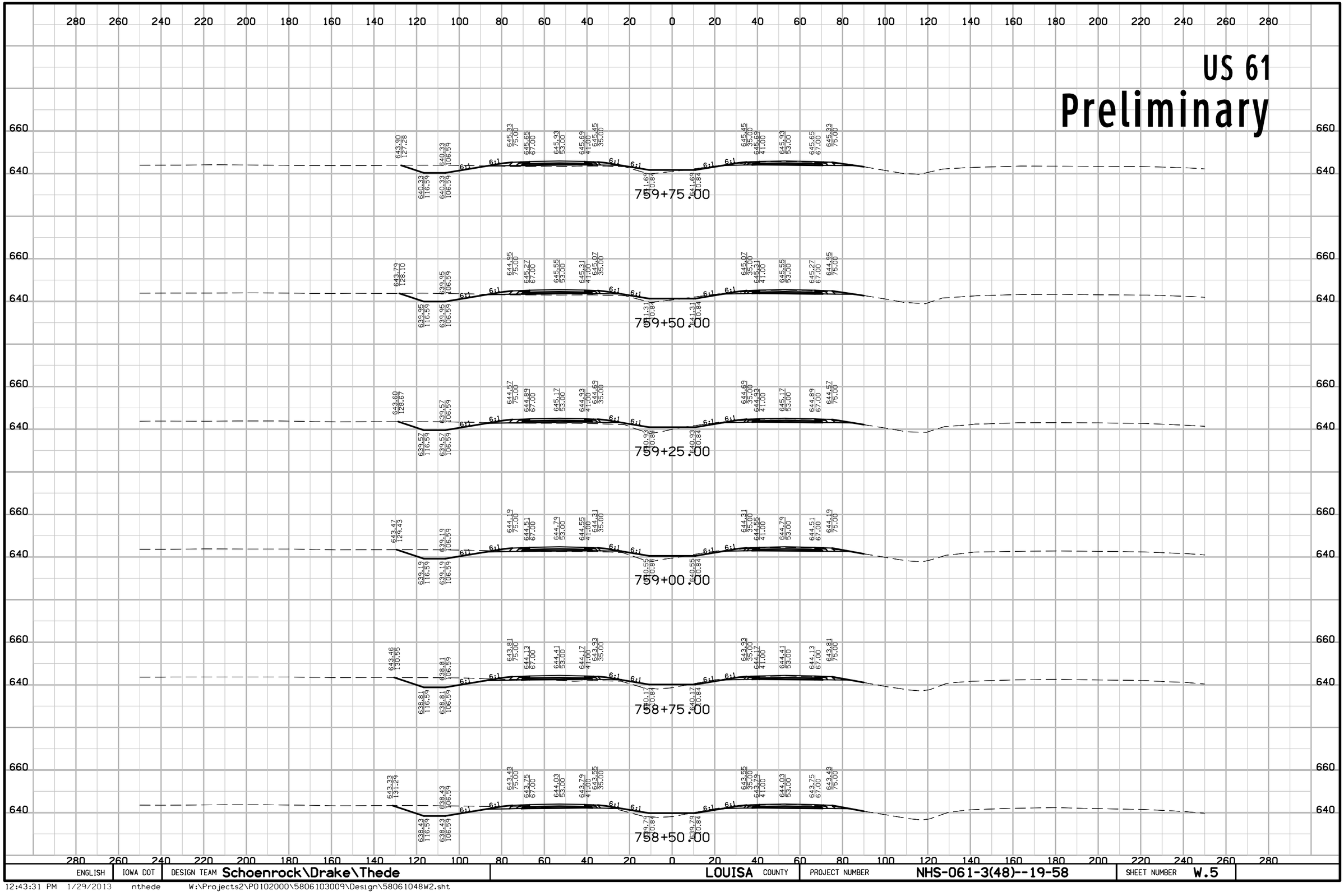

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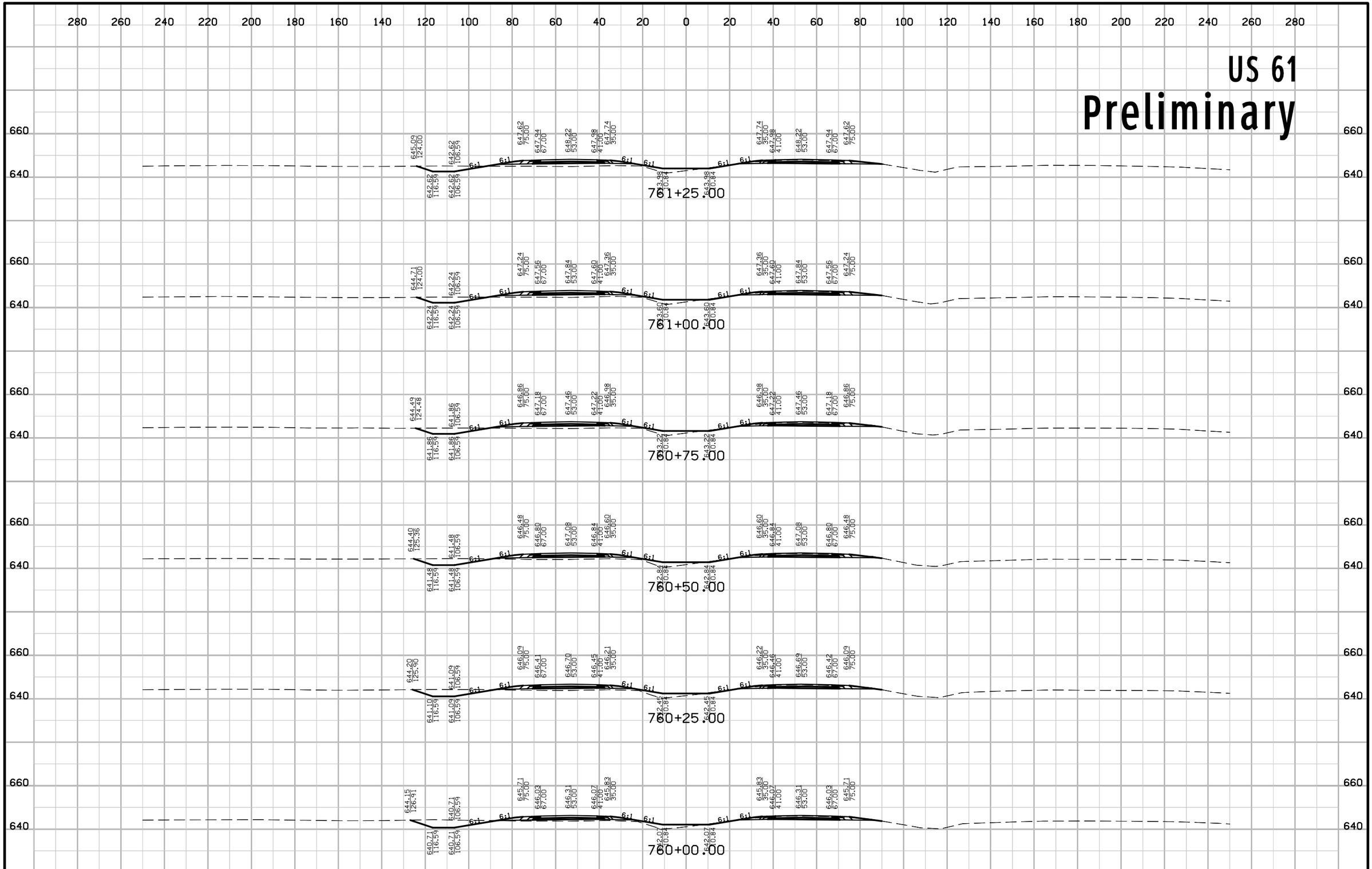

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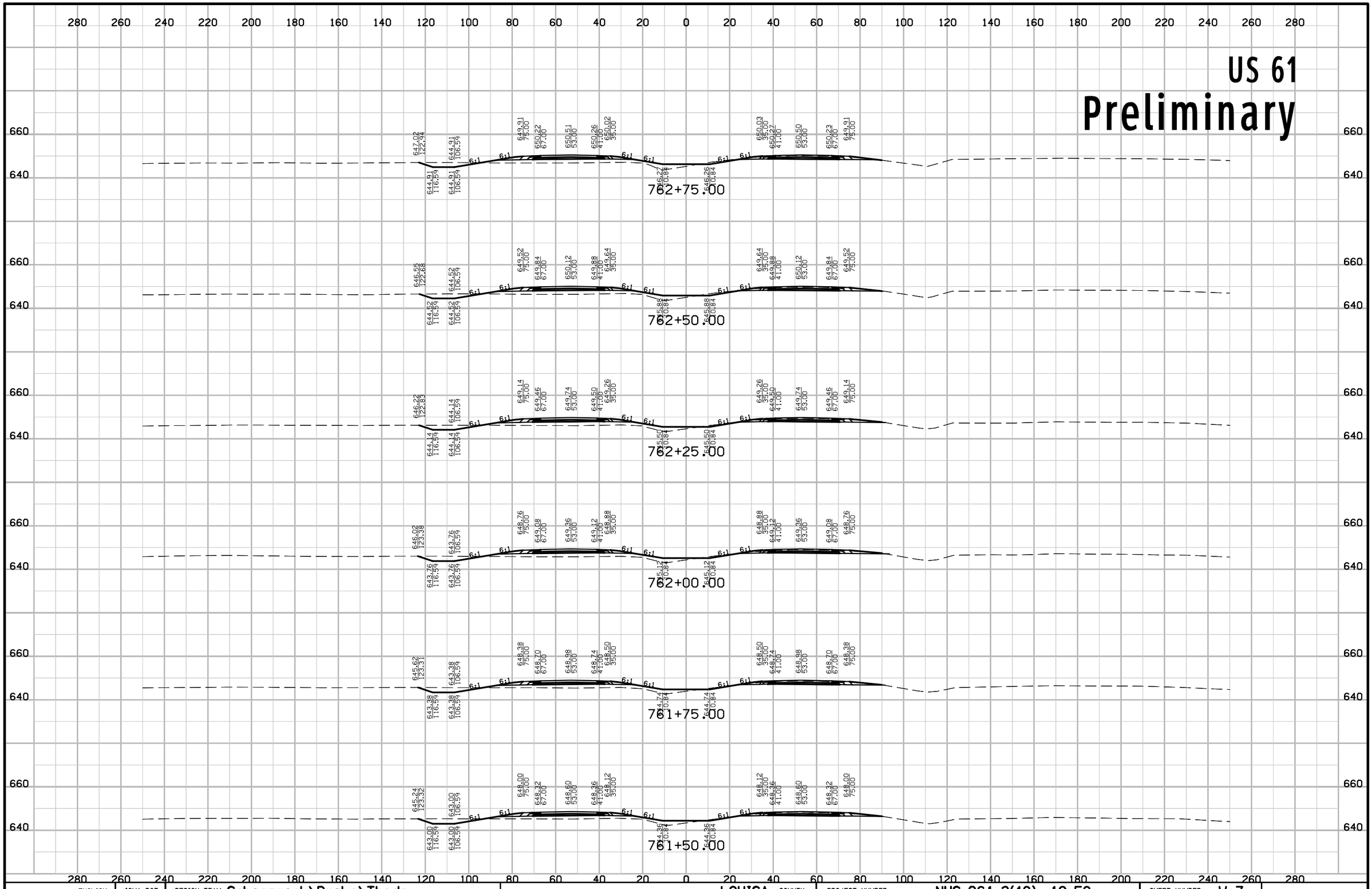

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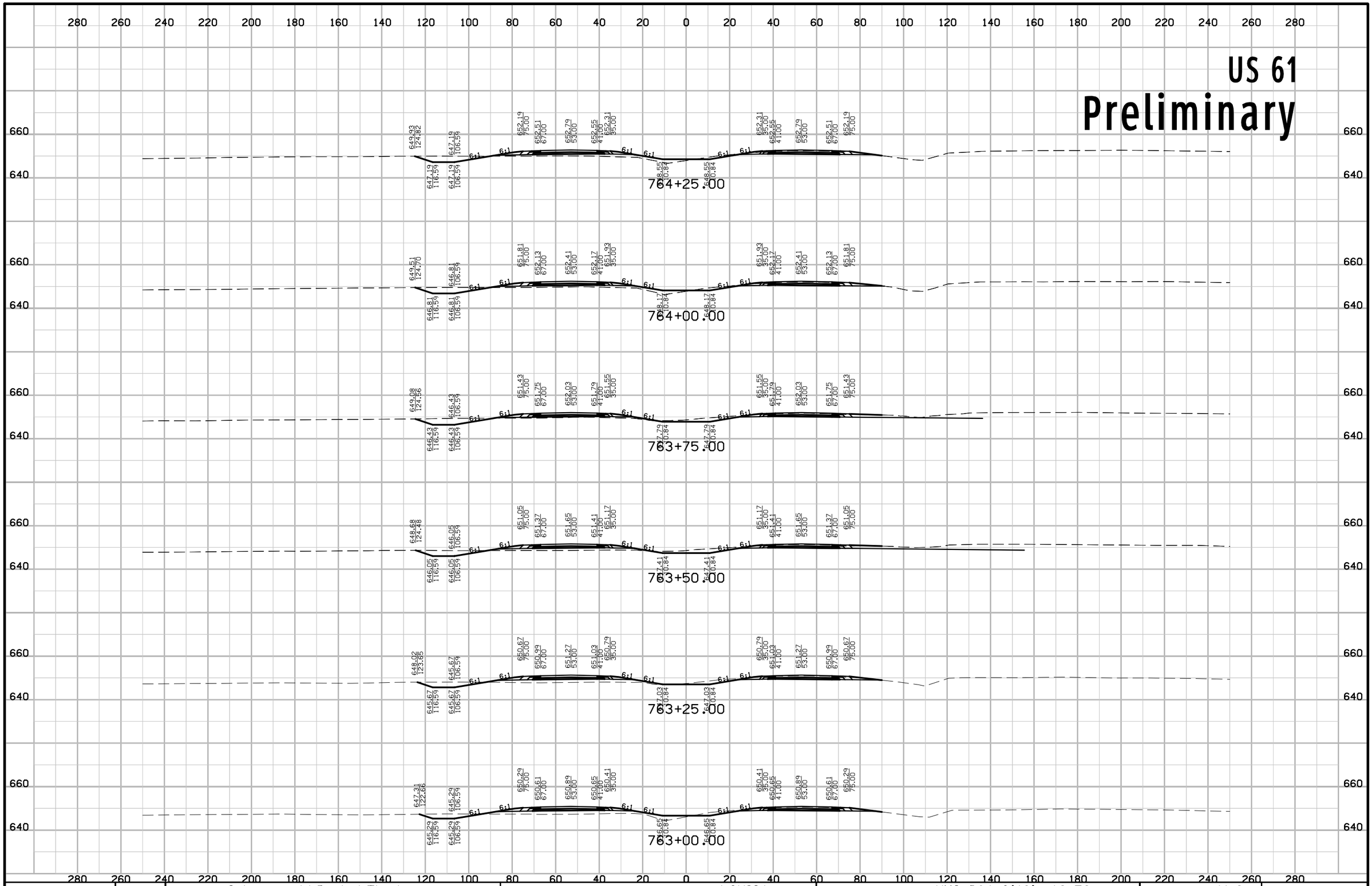

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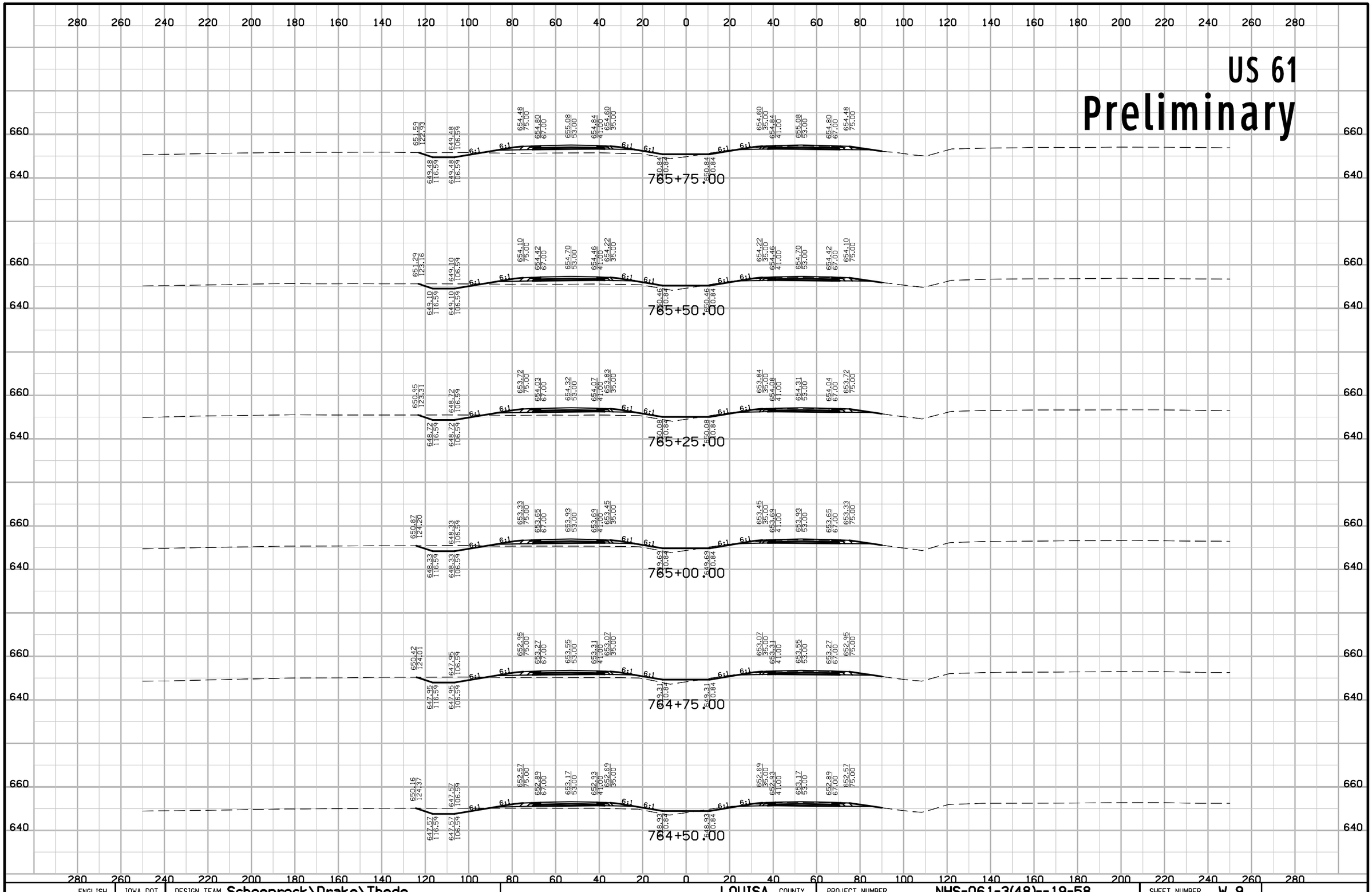

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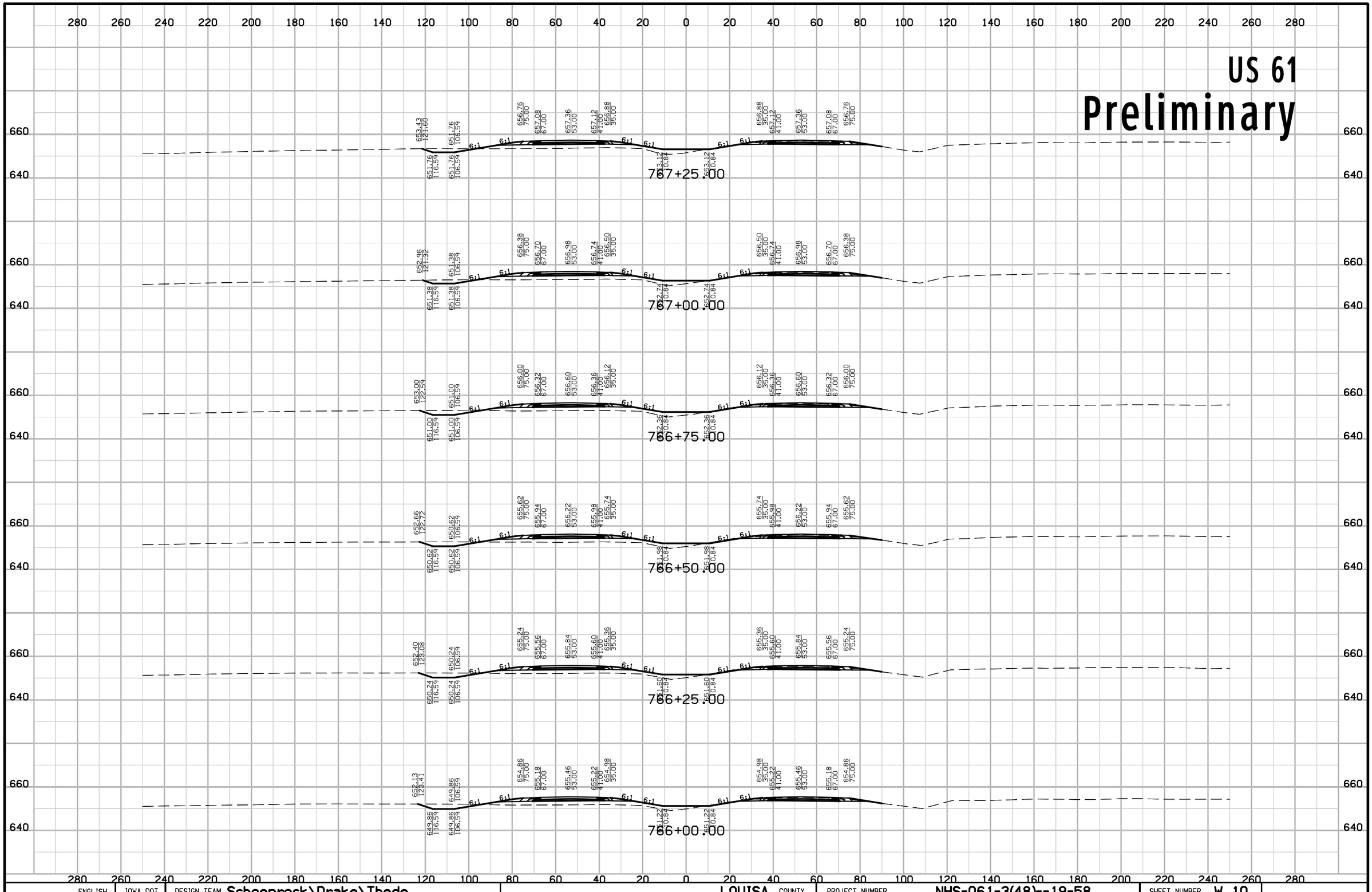

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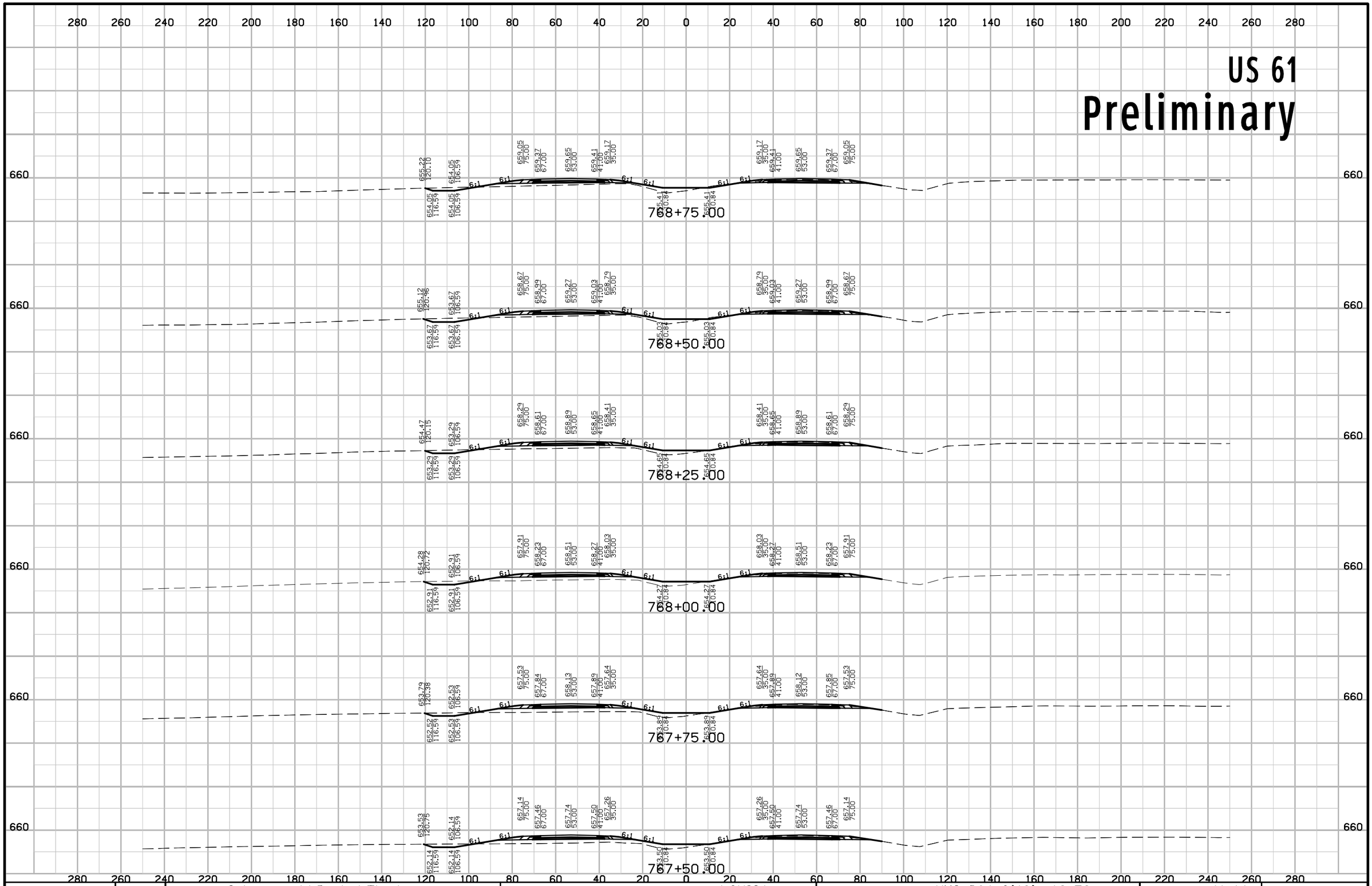

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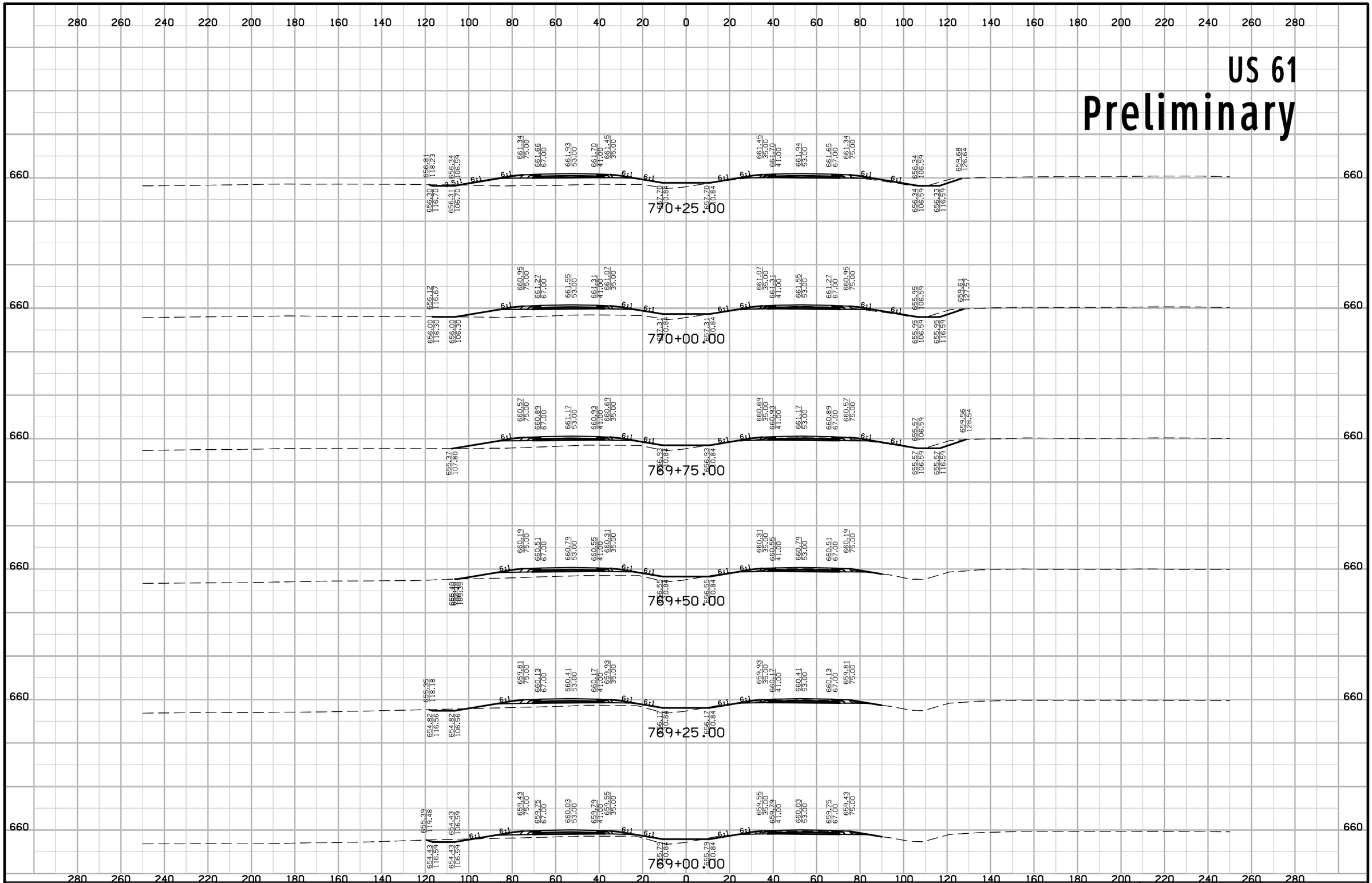

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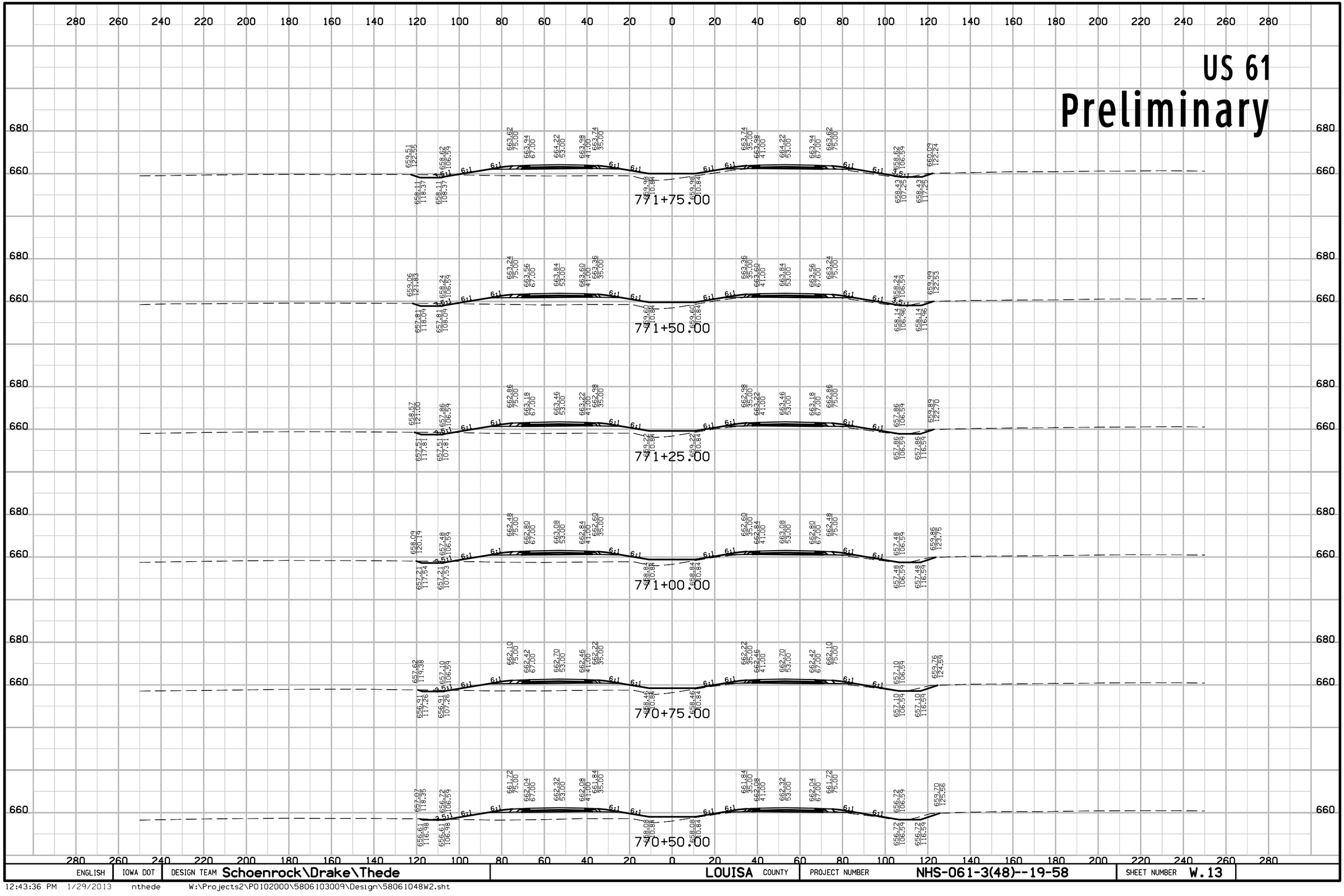

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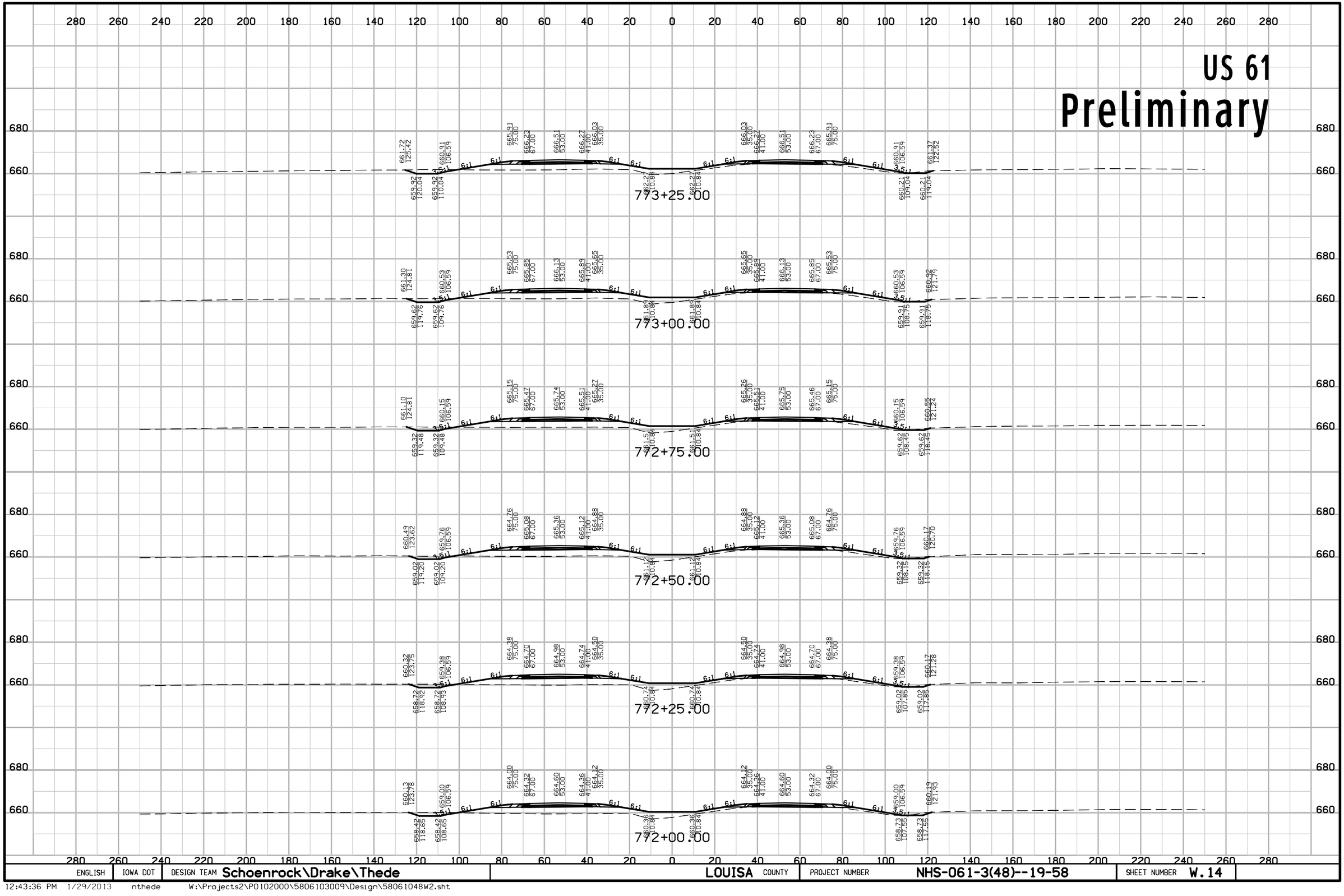

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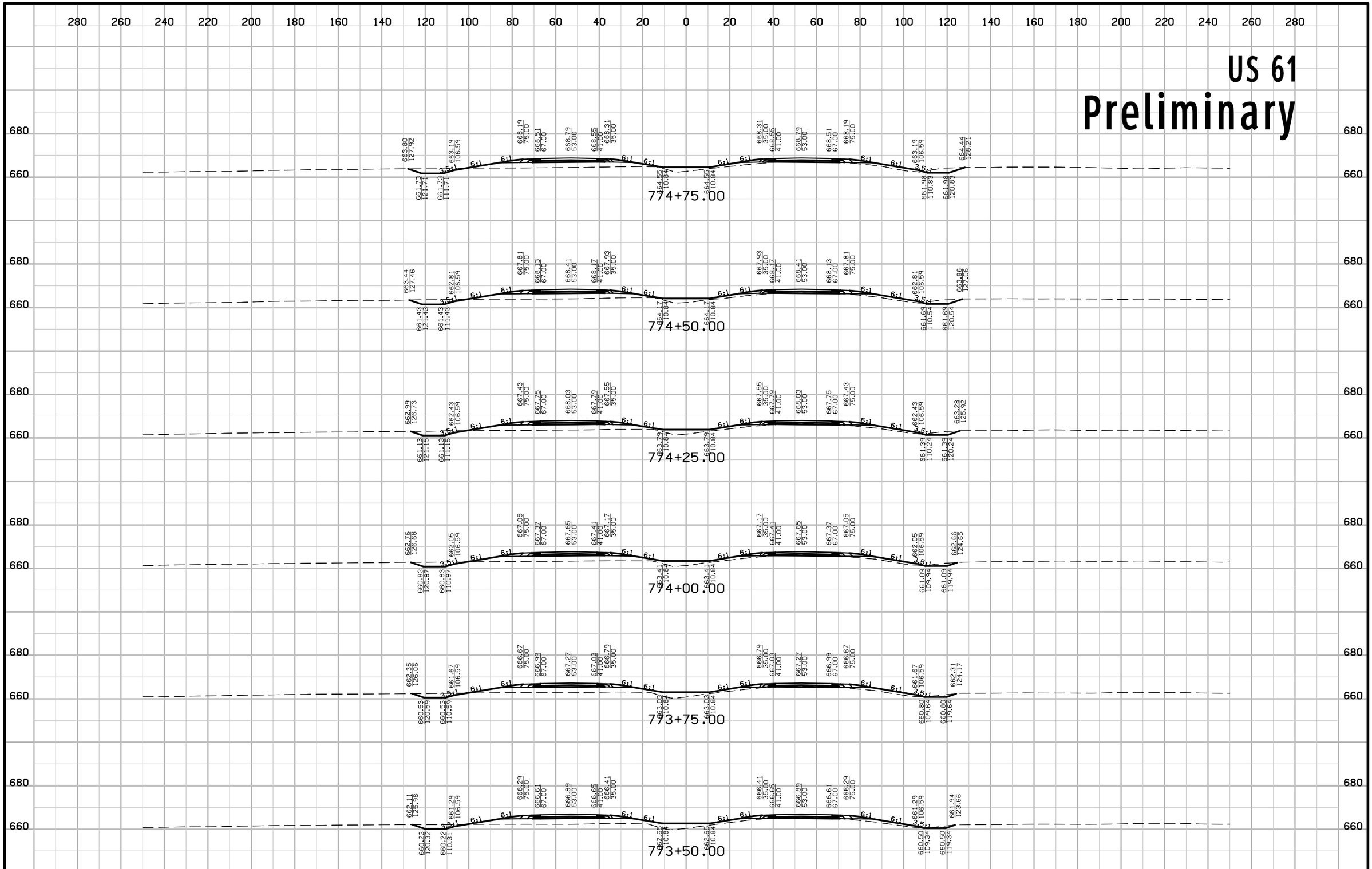

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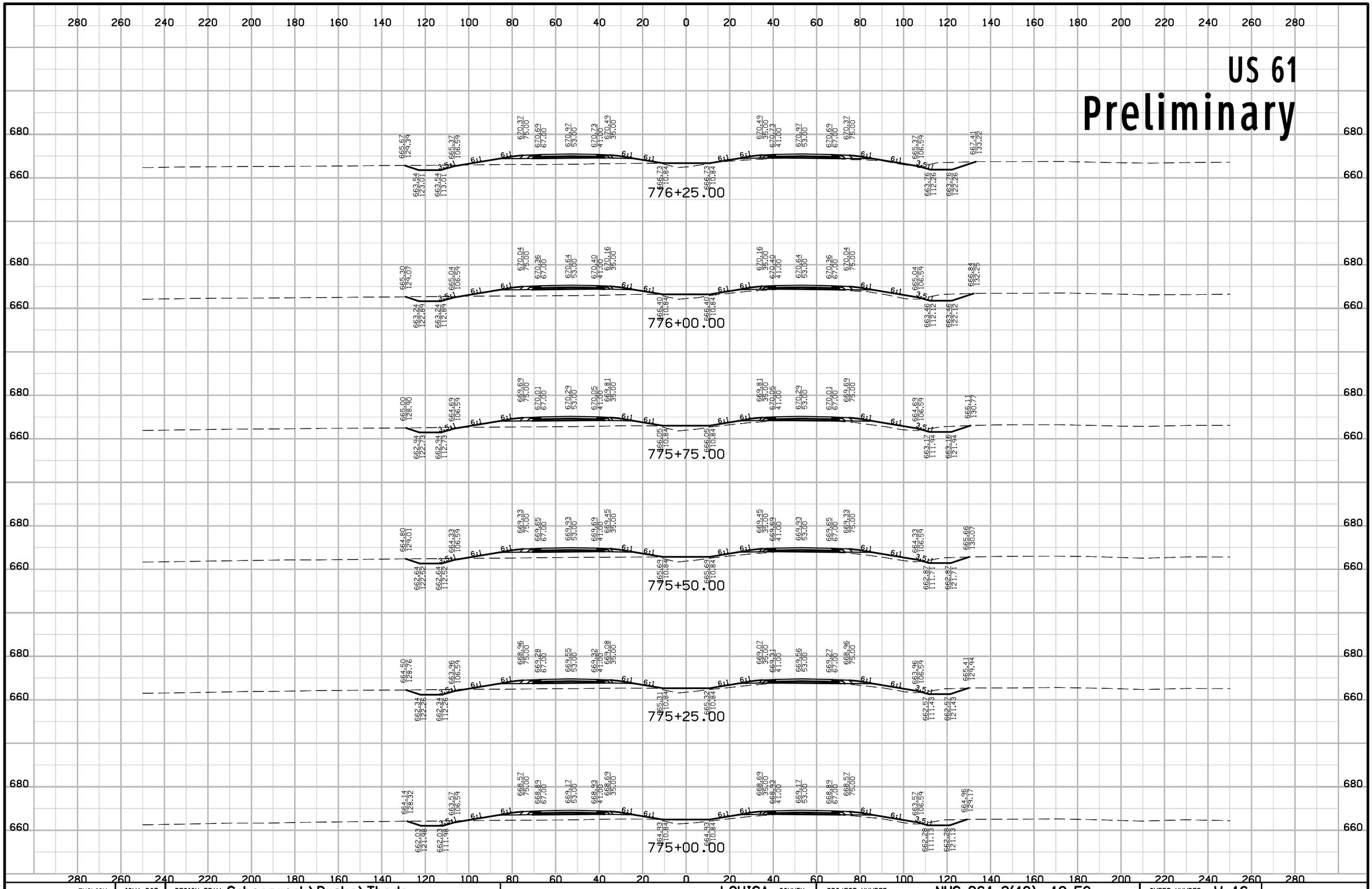

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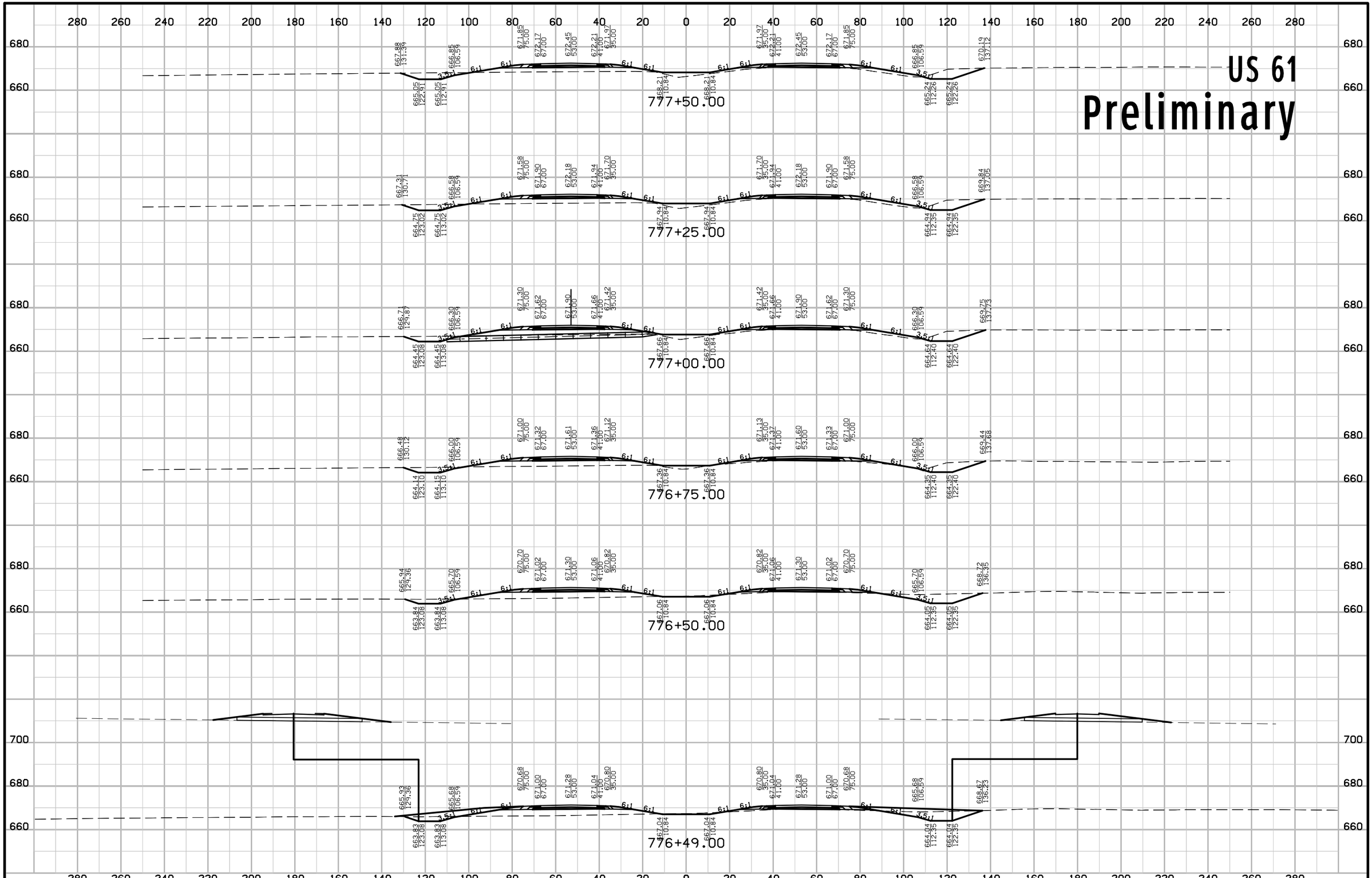

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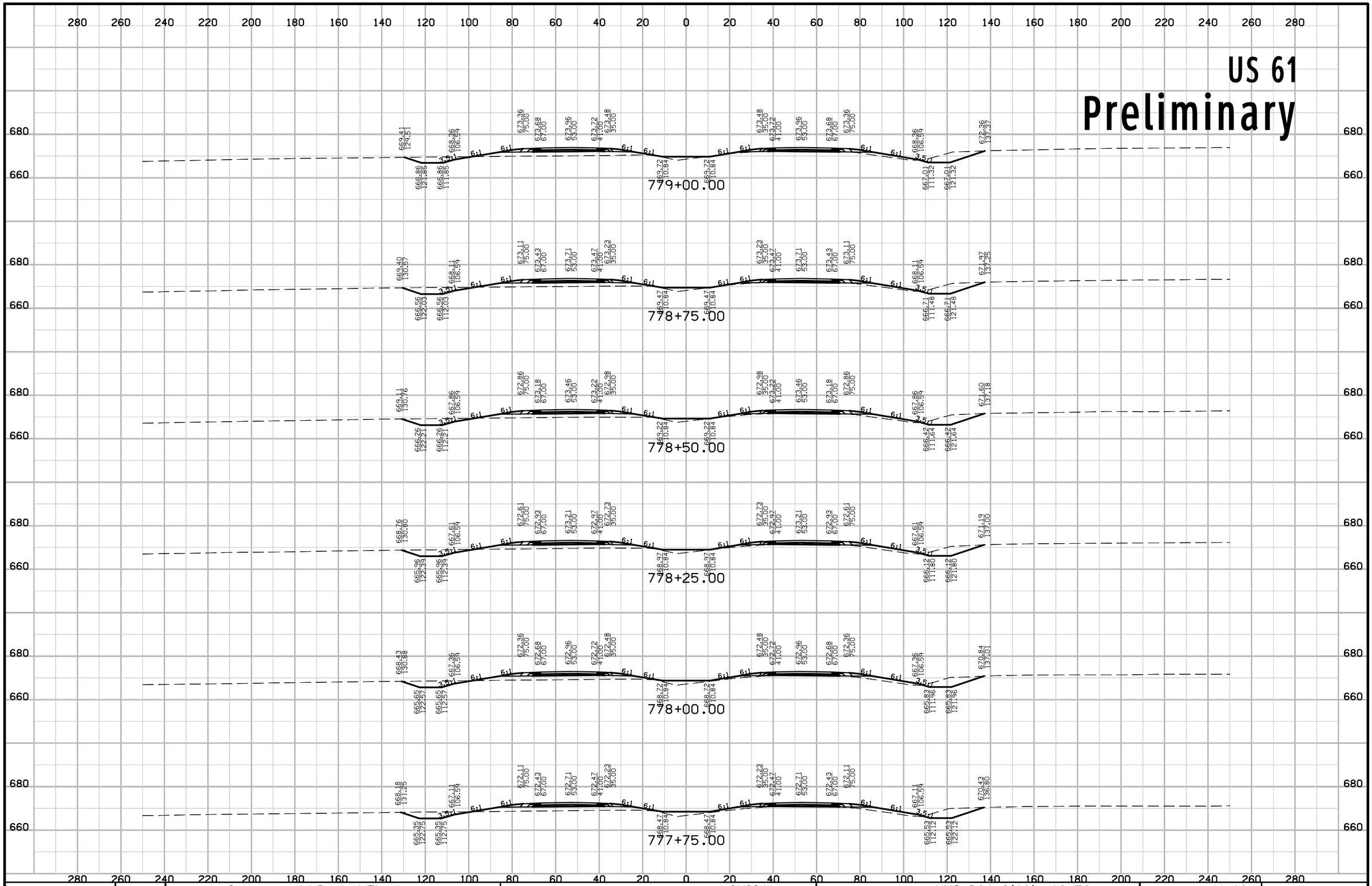

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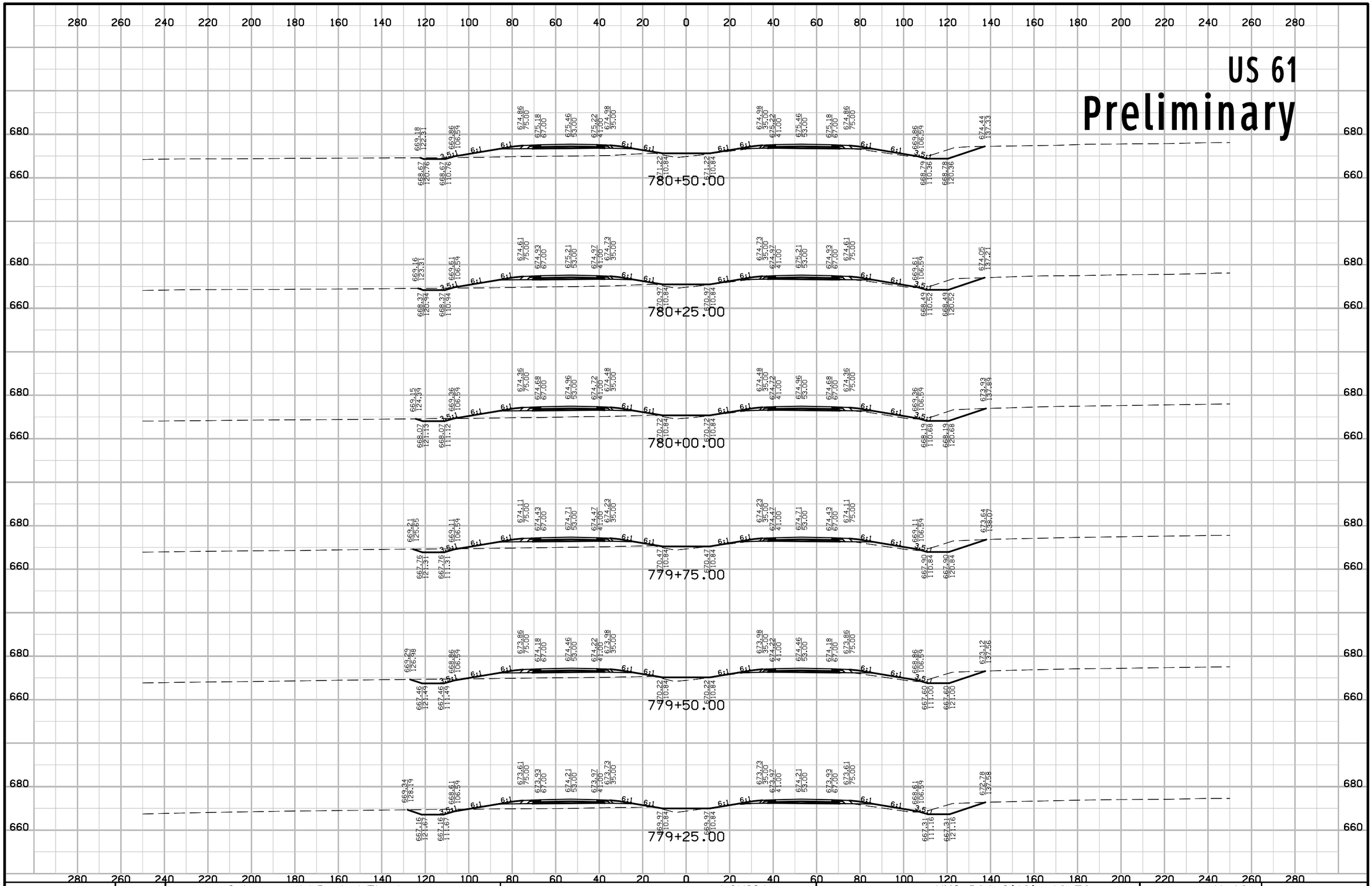

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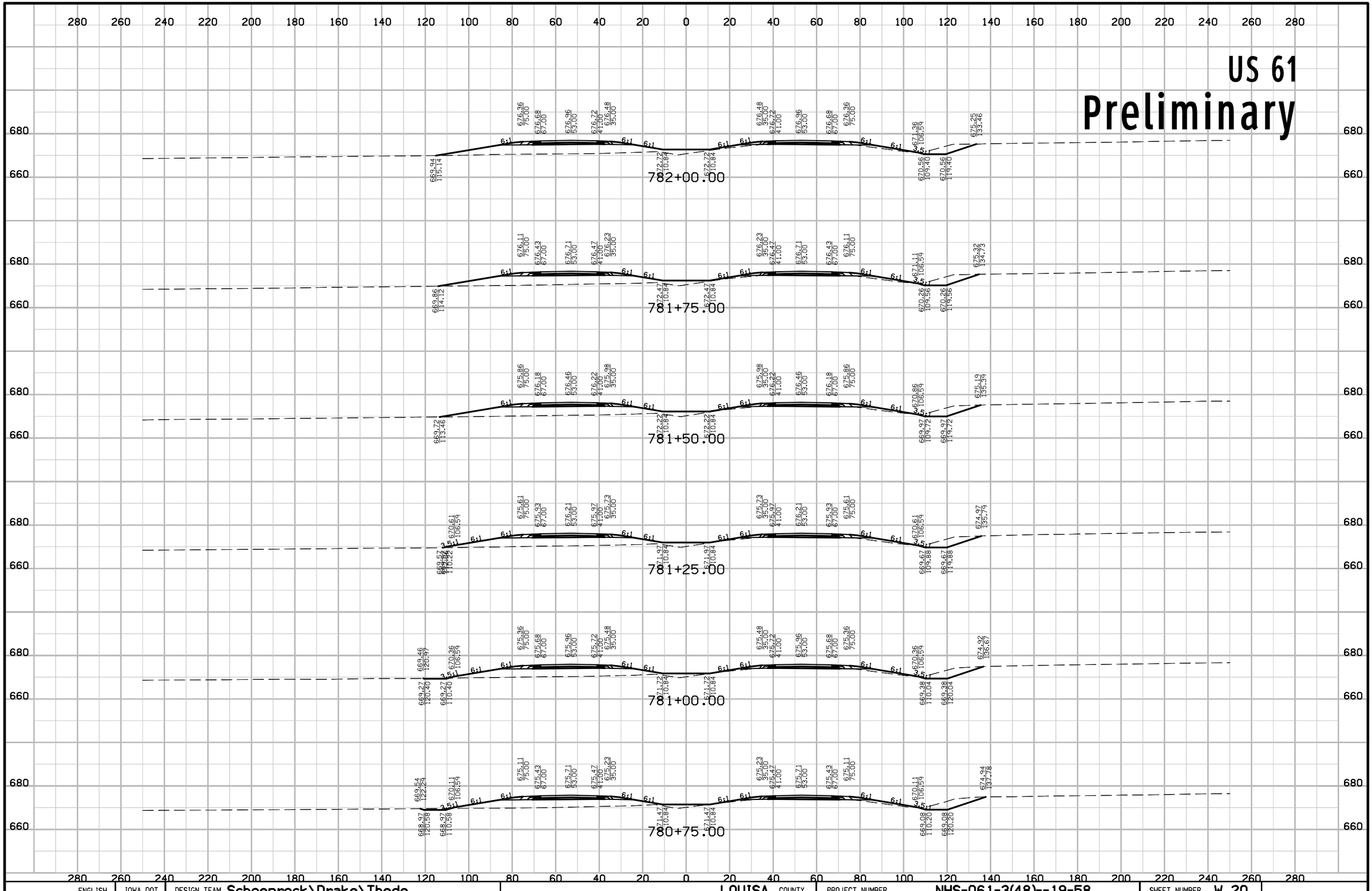

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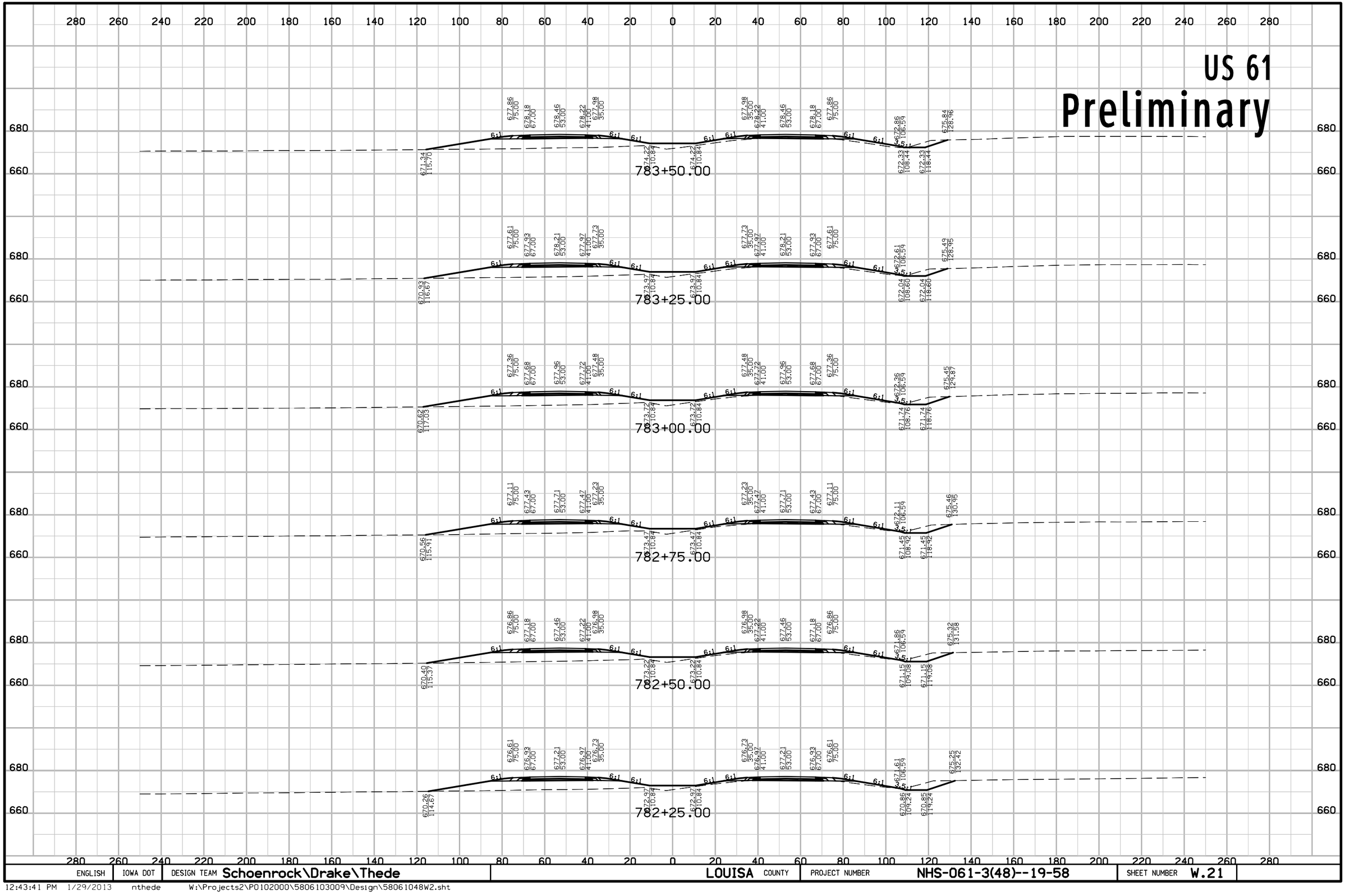

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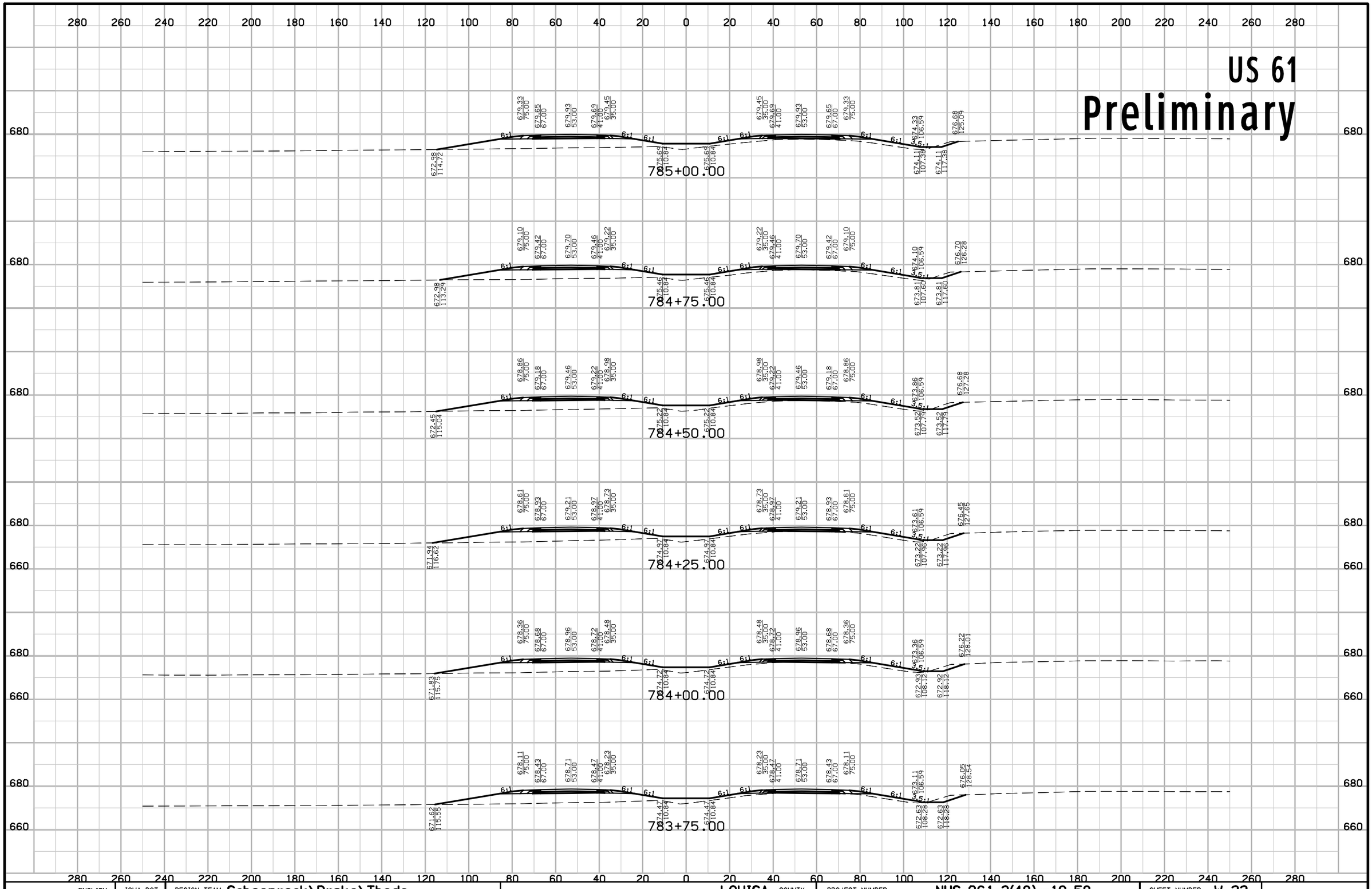

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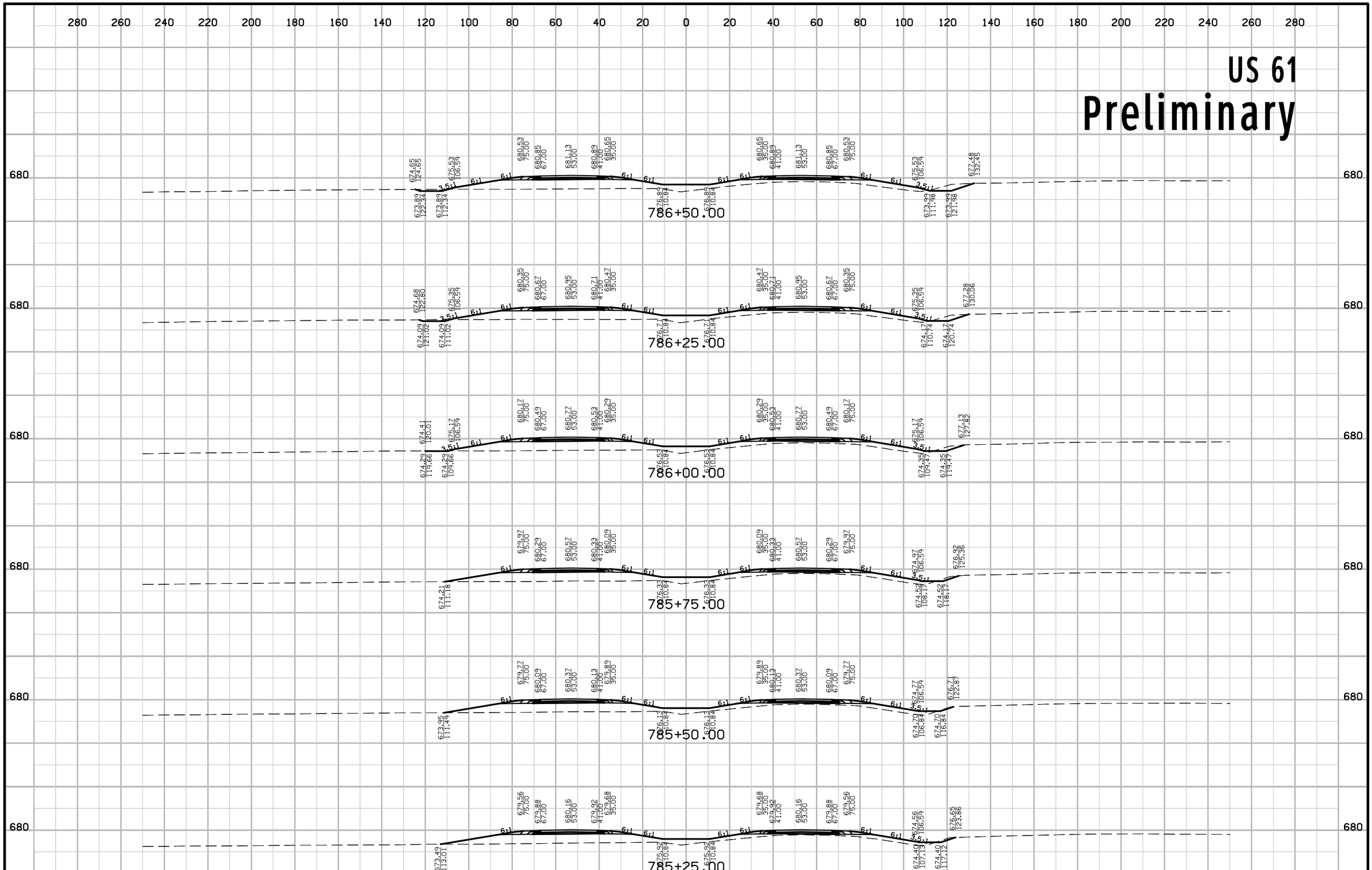

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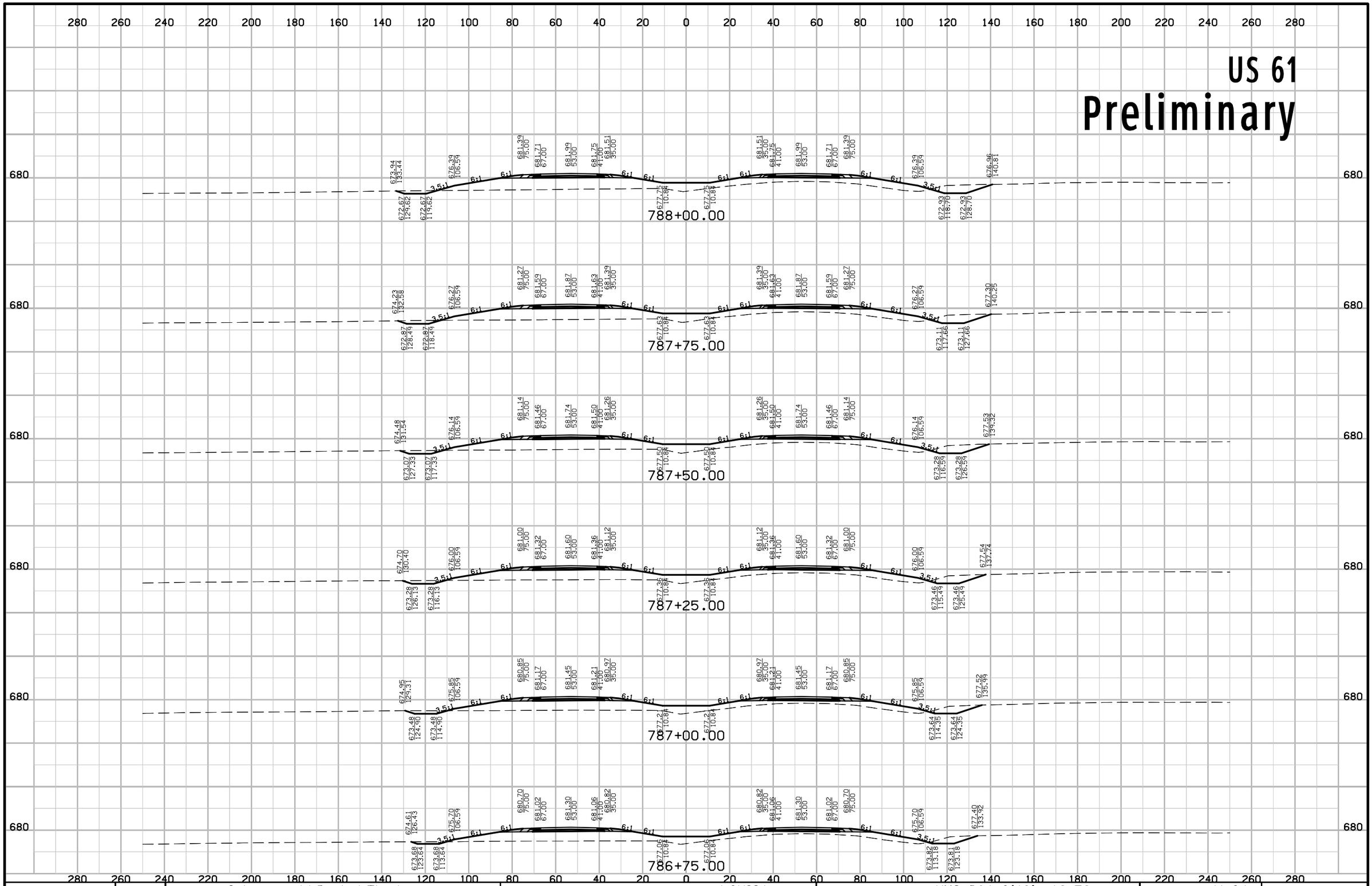

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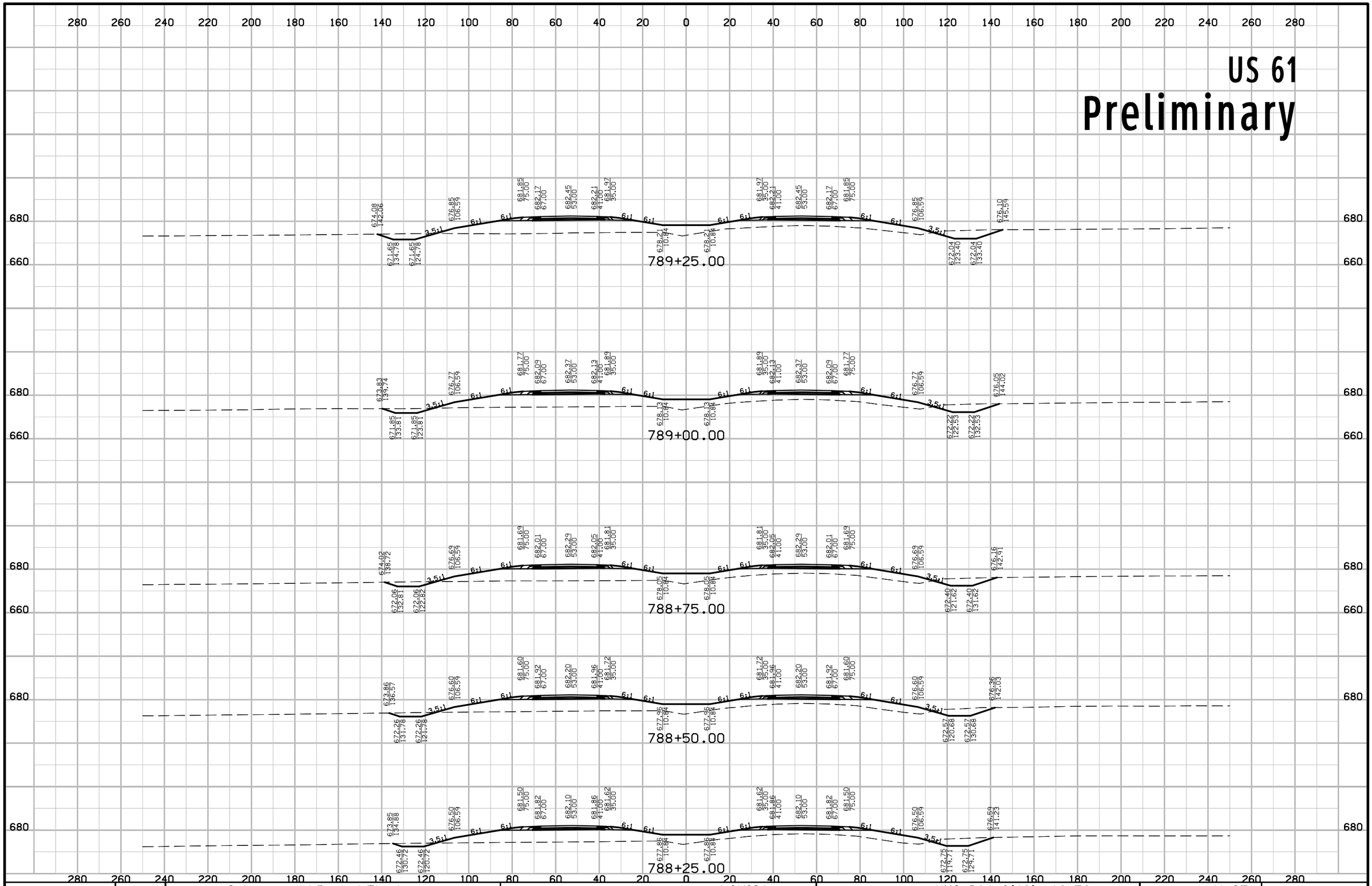

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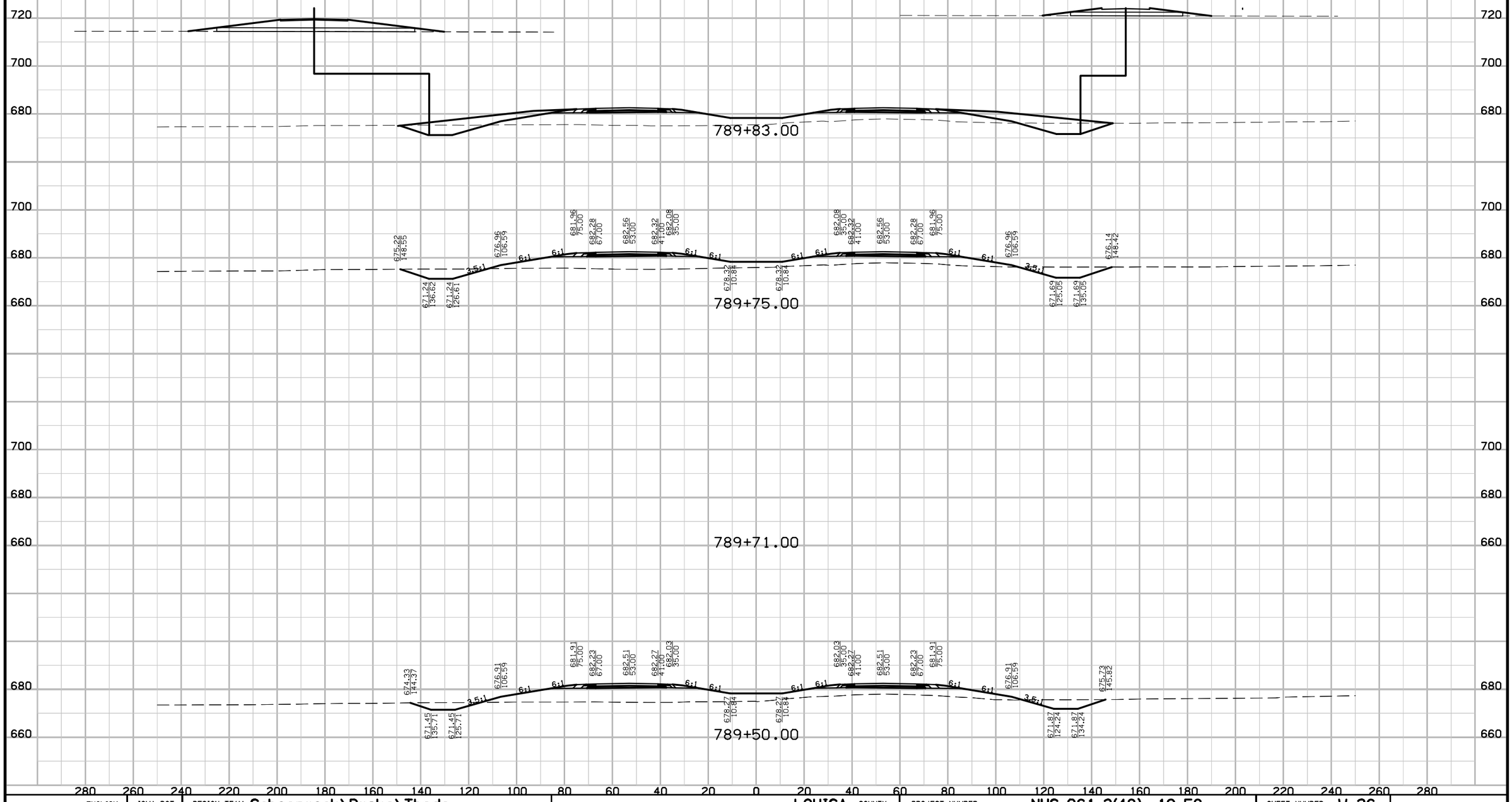

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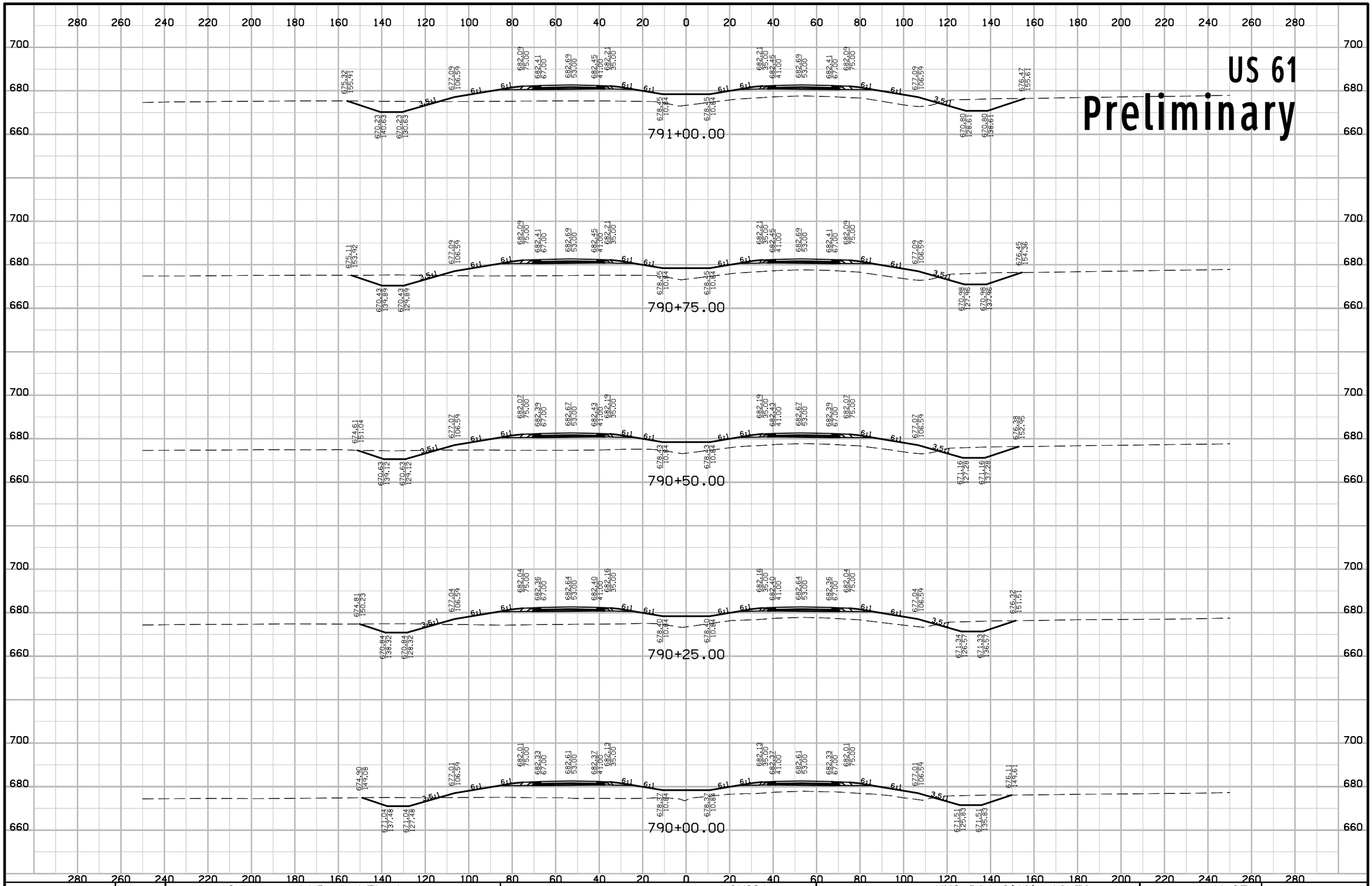

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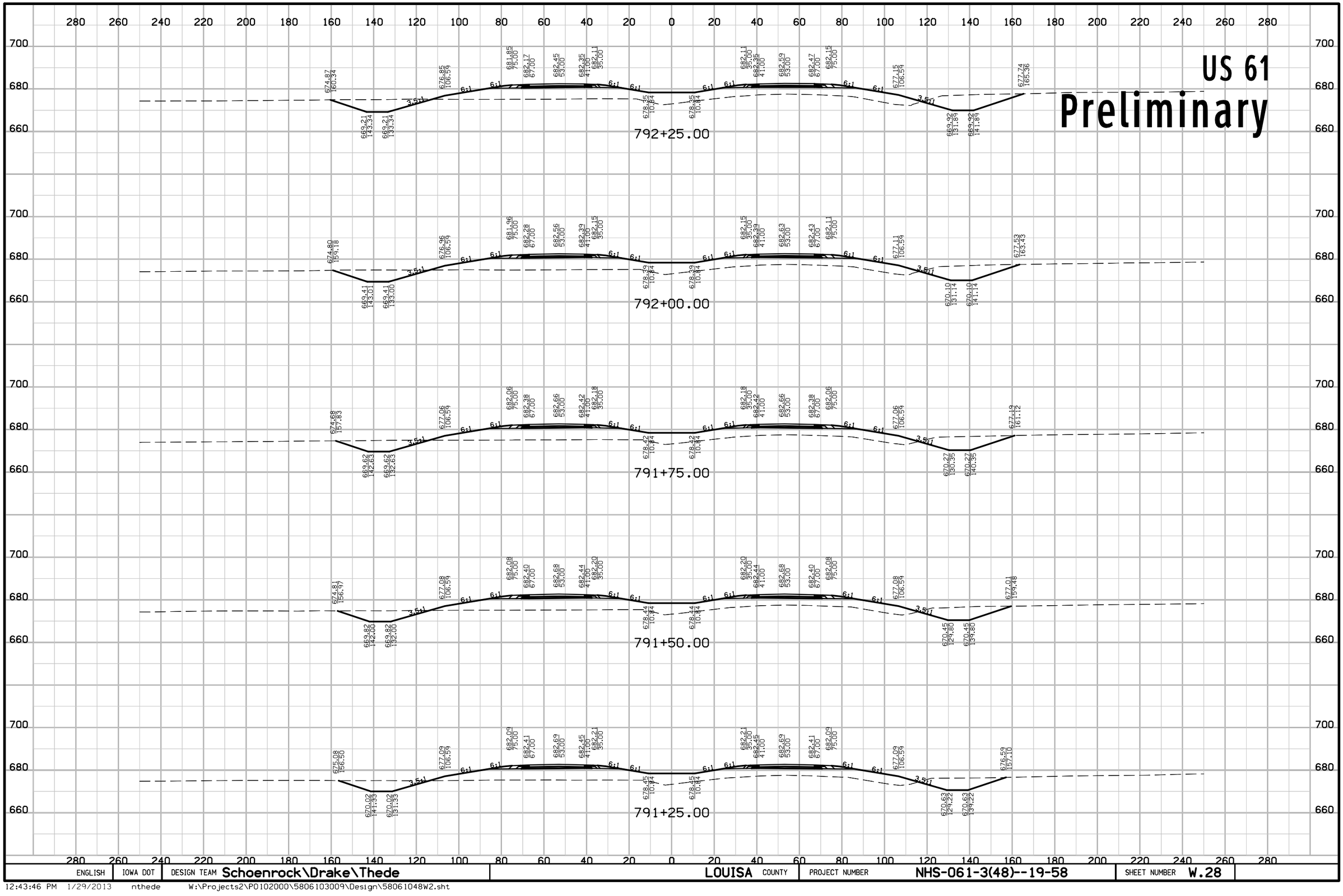

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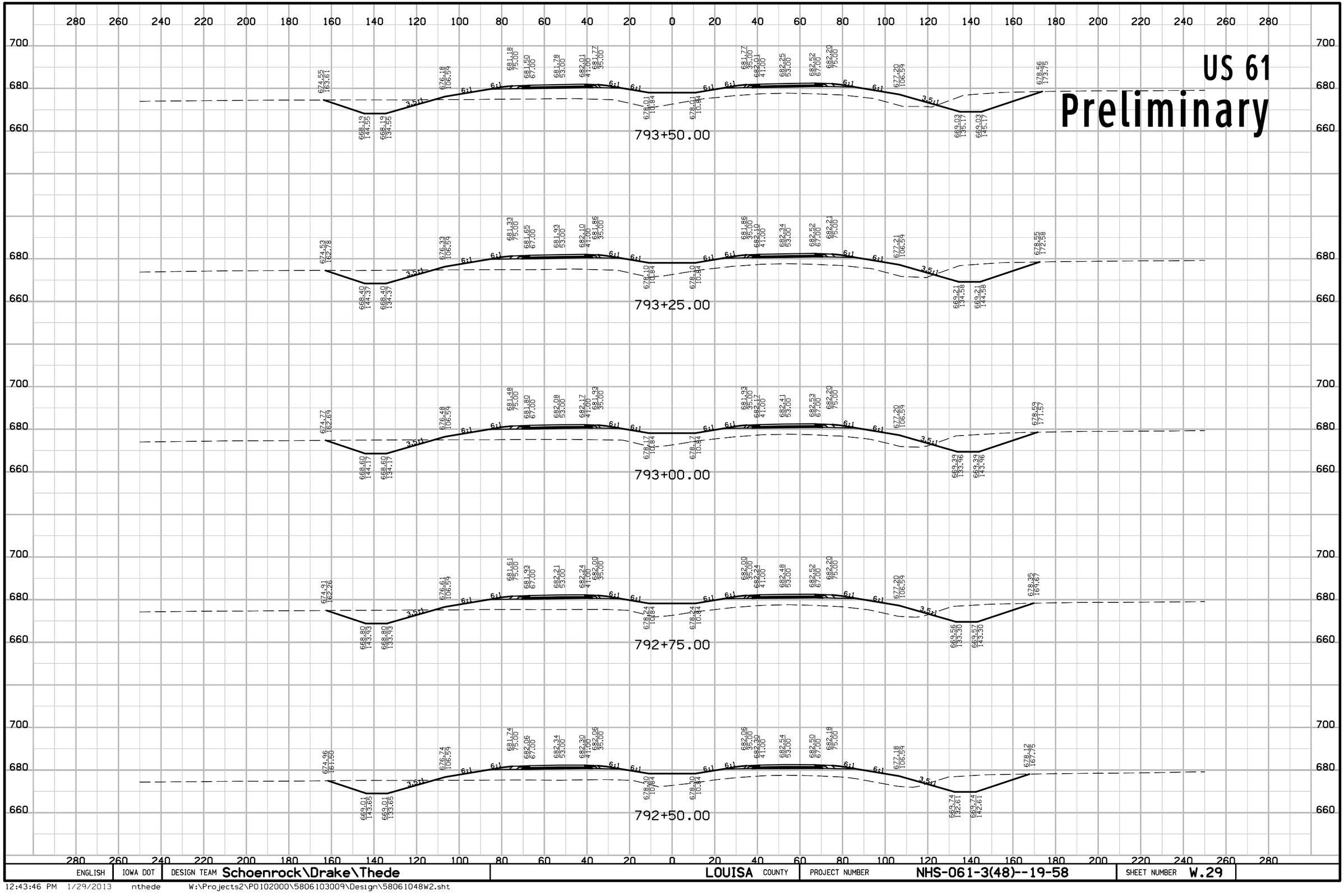

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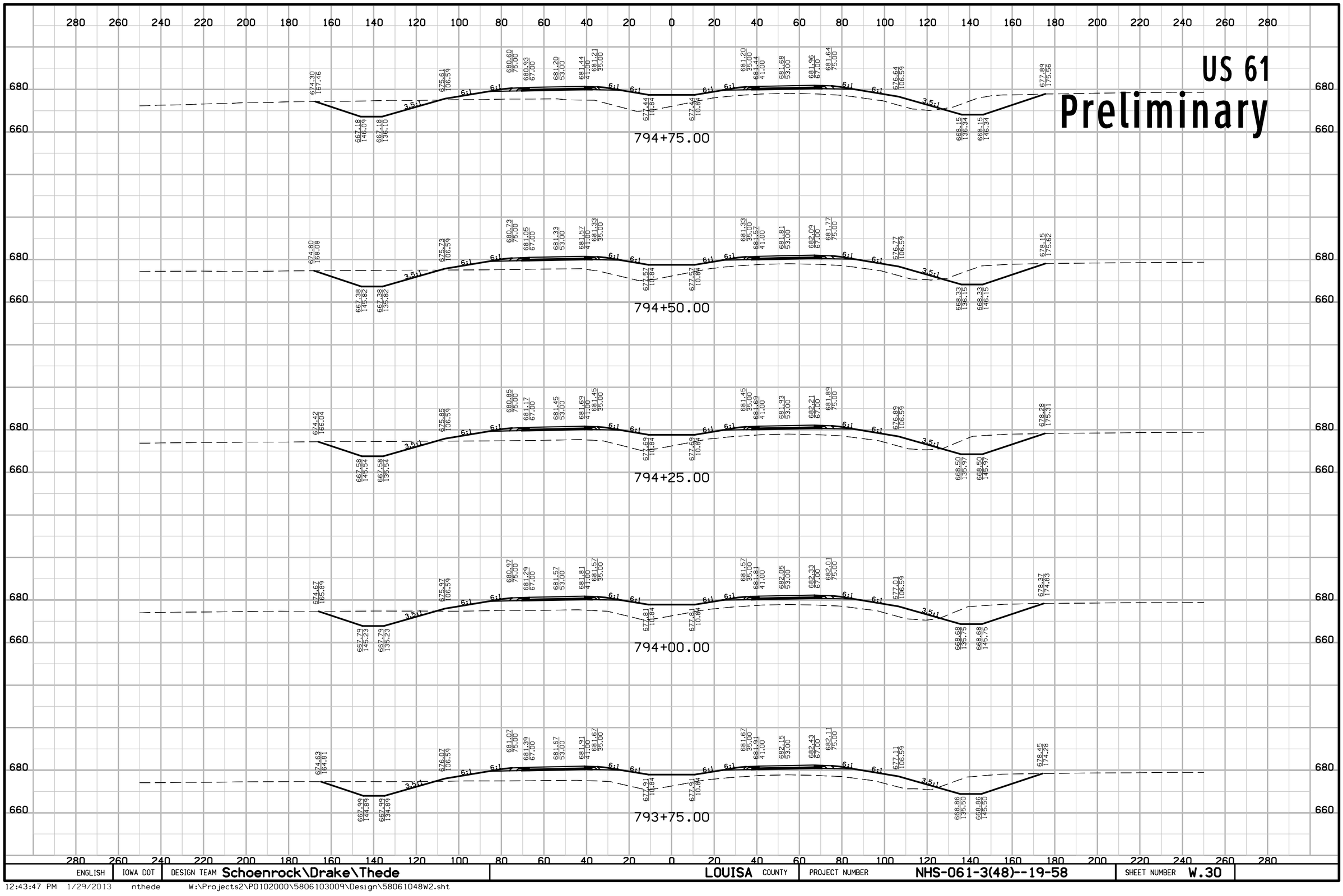

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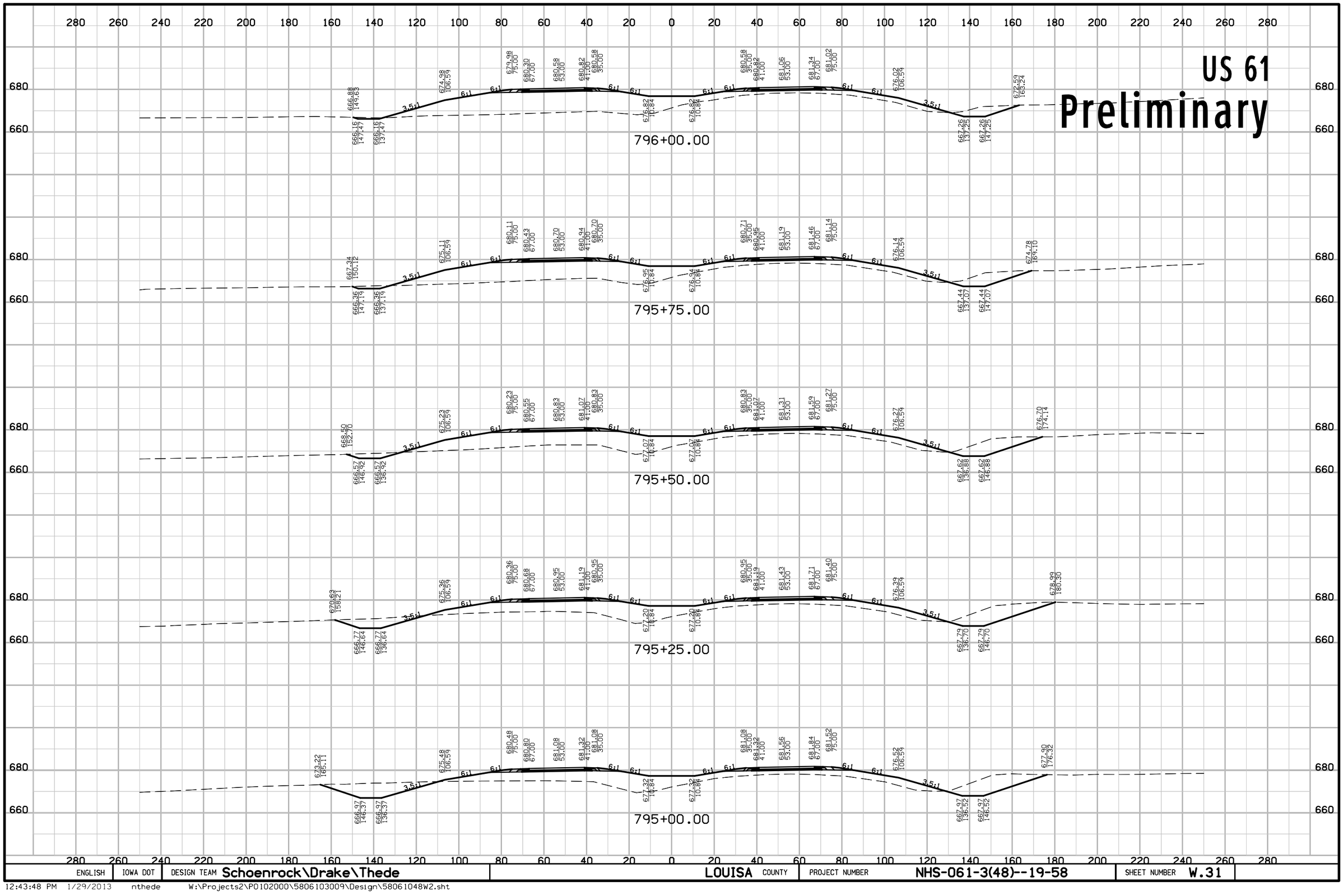

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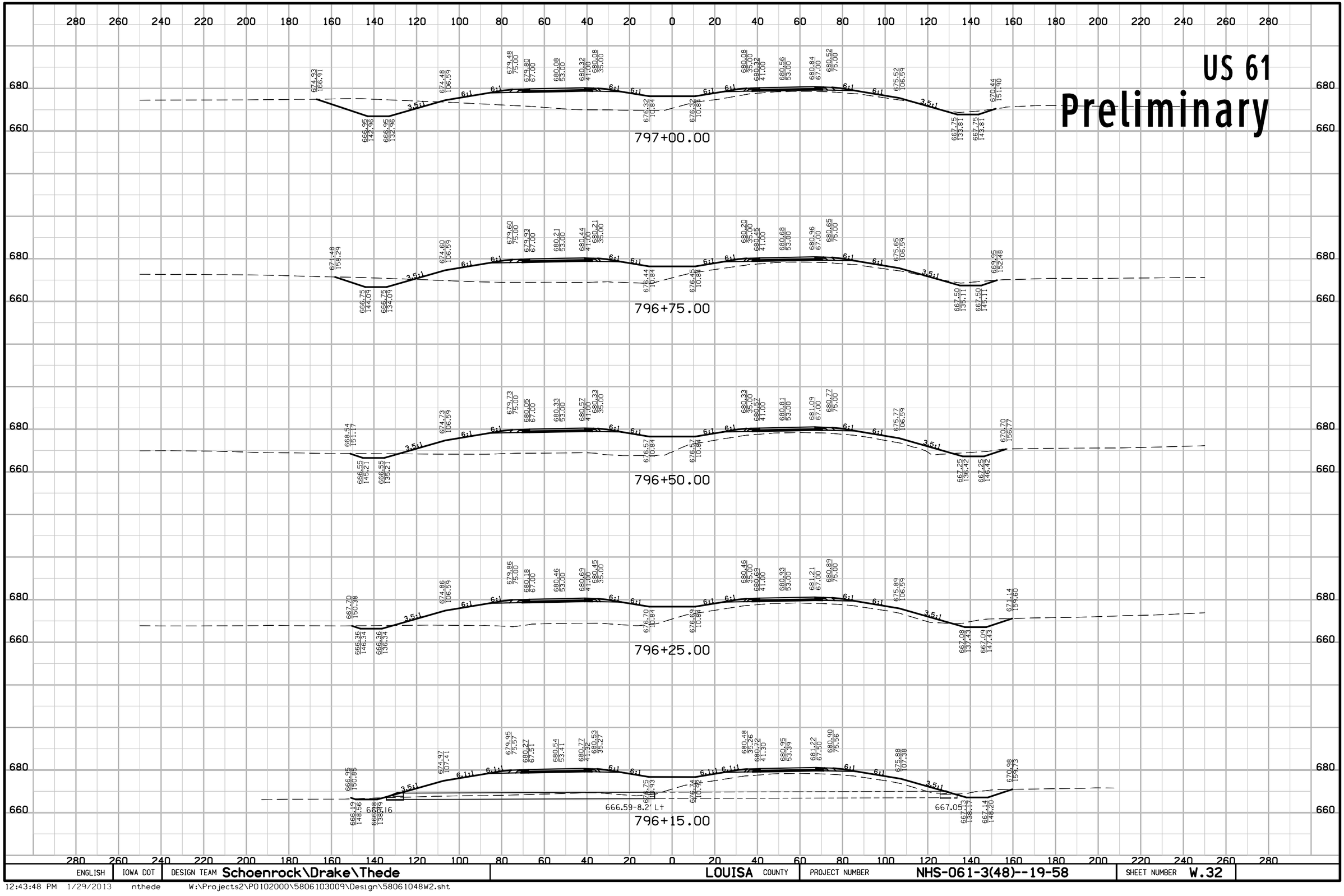

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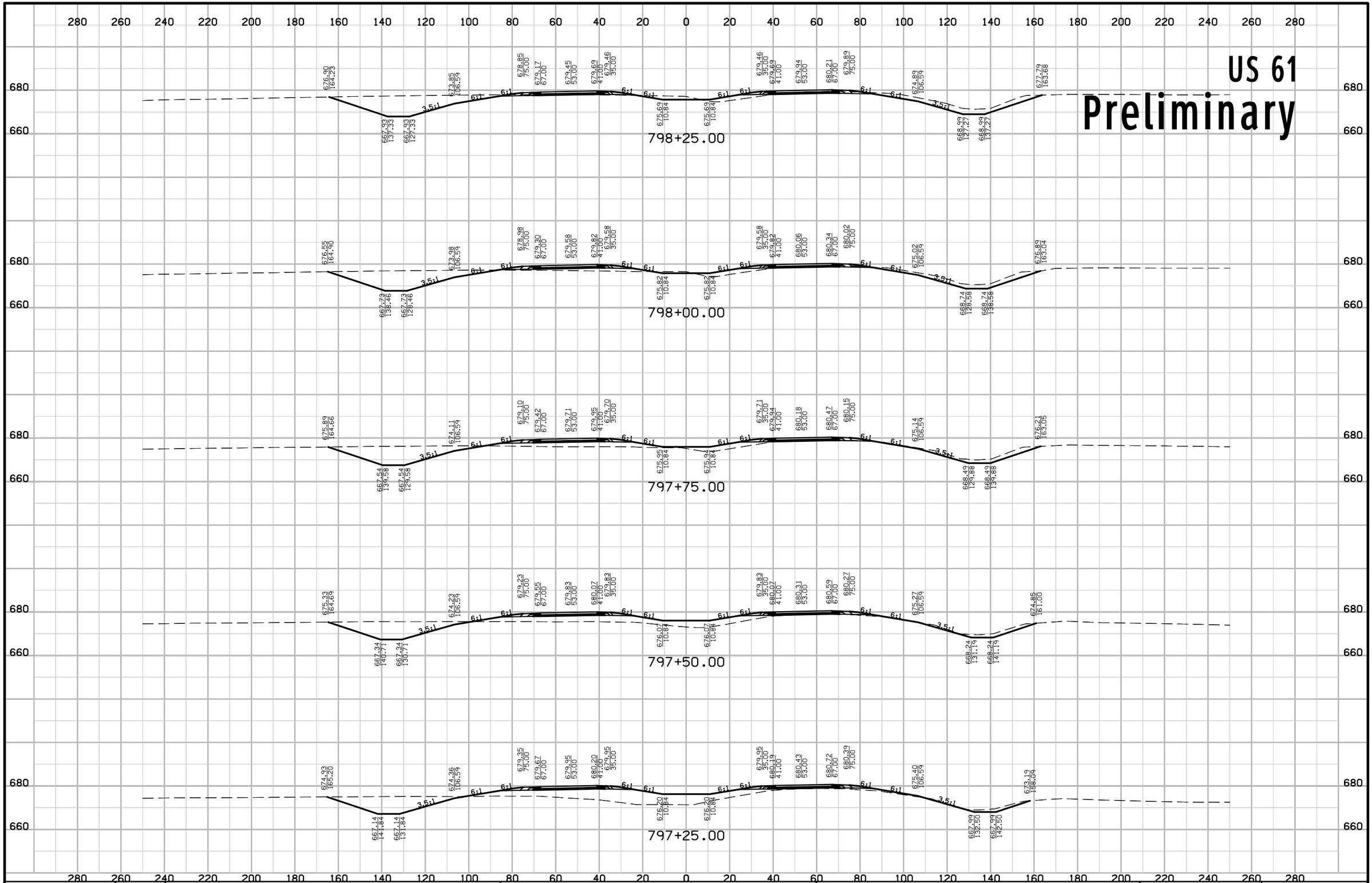
US 61

Preliminary



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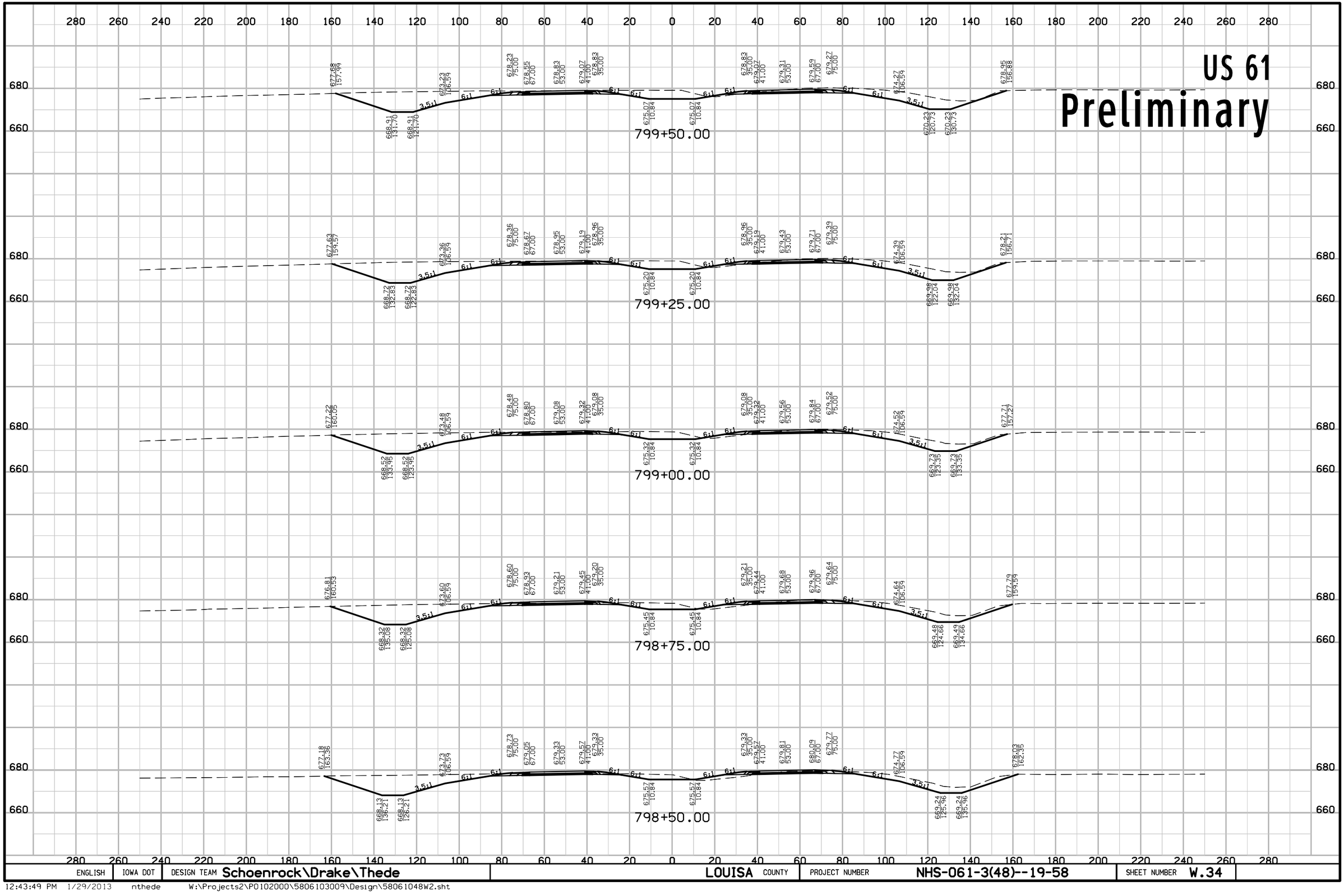
US 61

Preliminary



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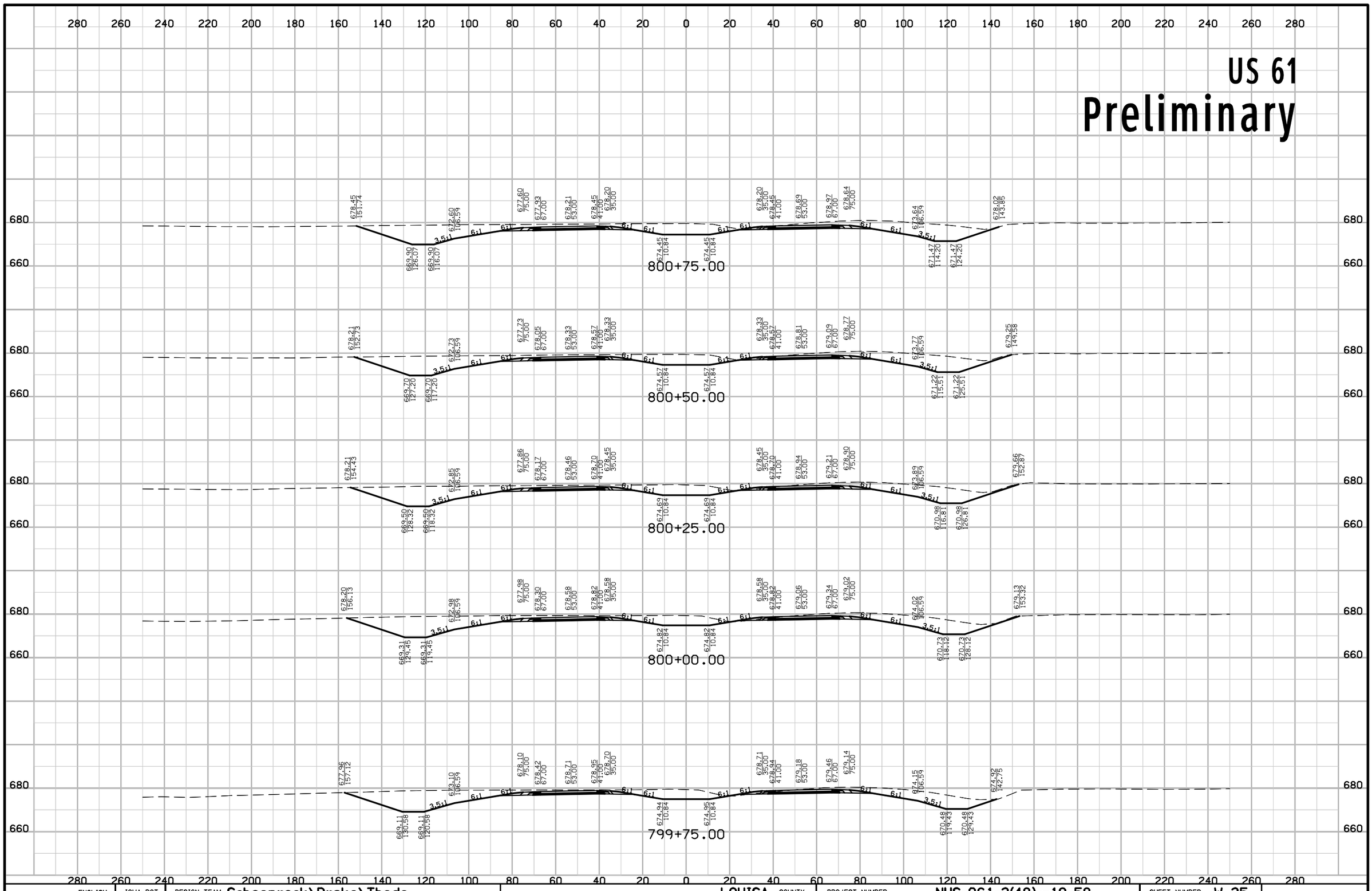
US 61
Preliminary



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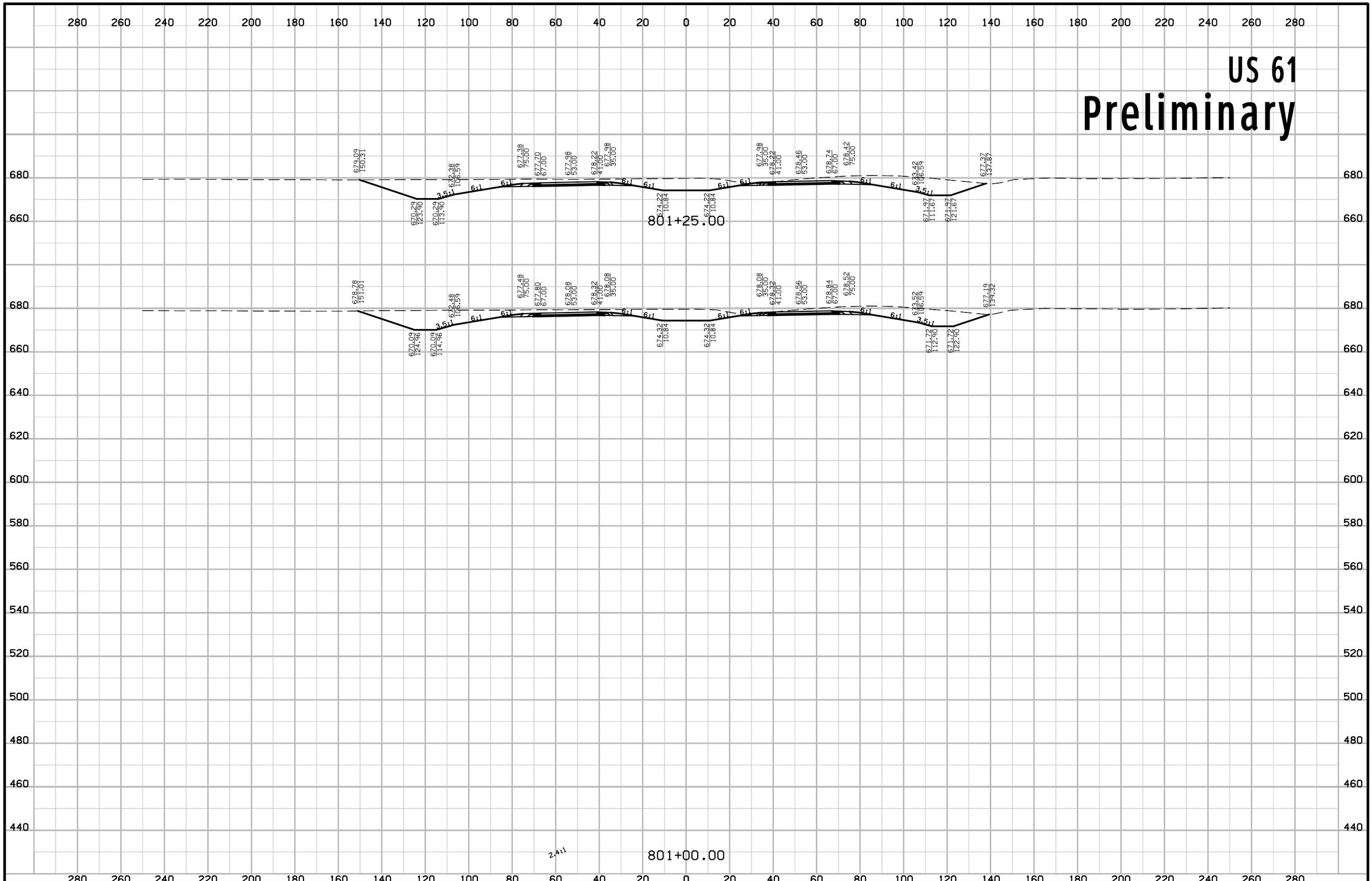
US 61

Preliminary



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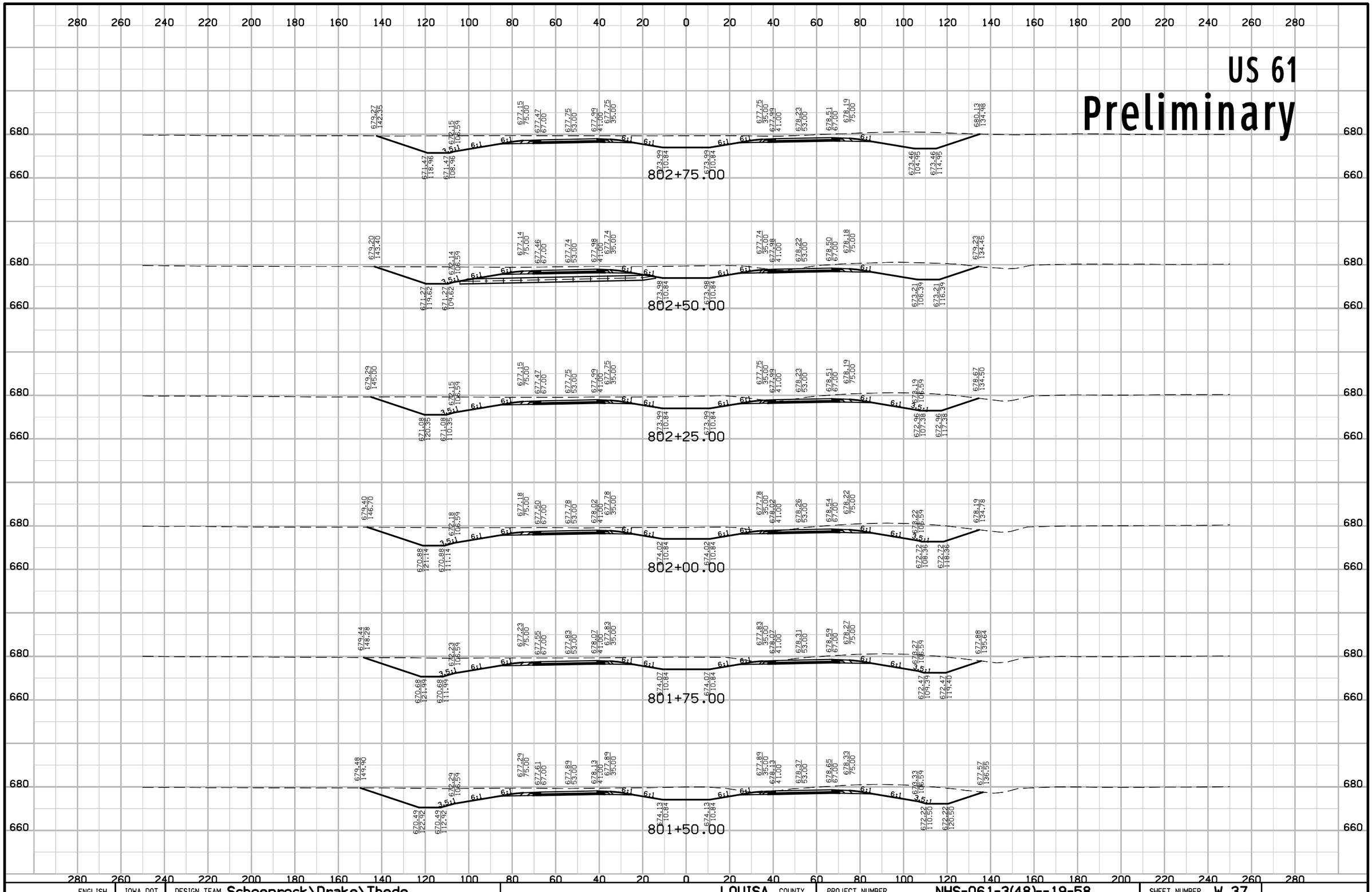
US 61

Preliminary



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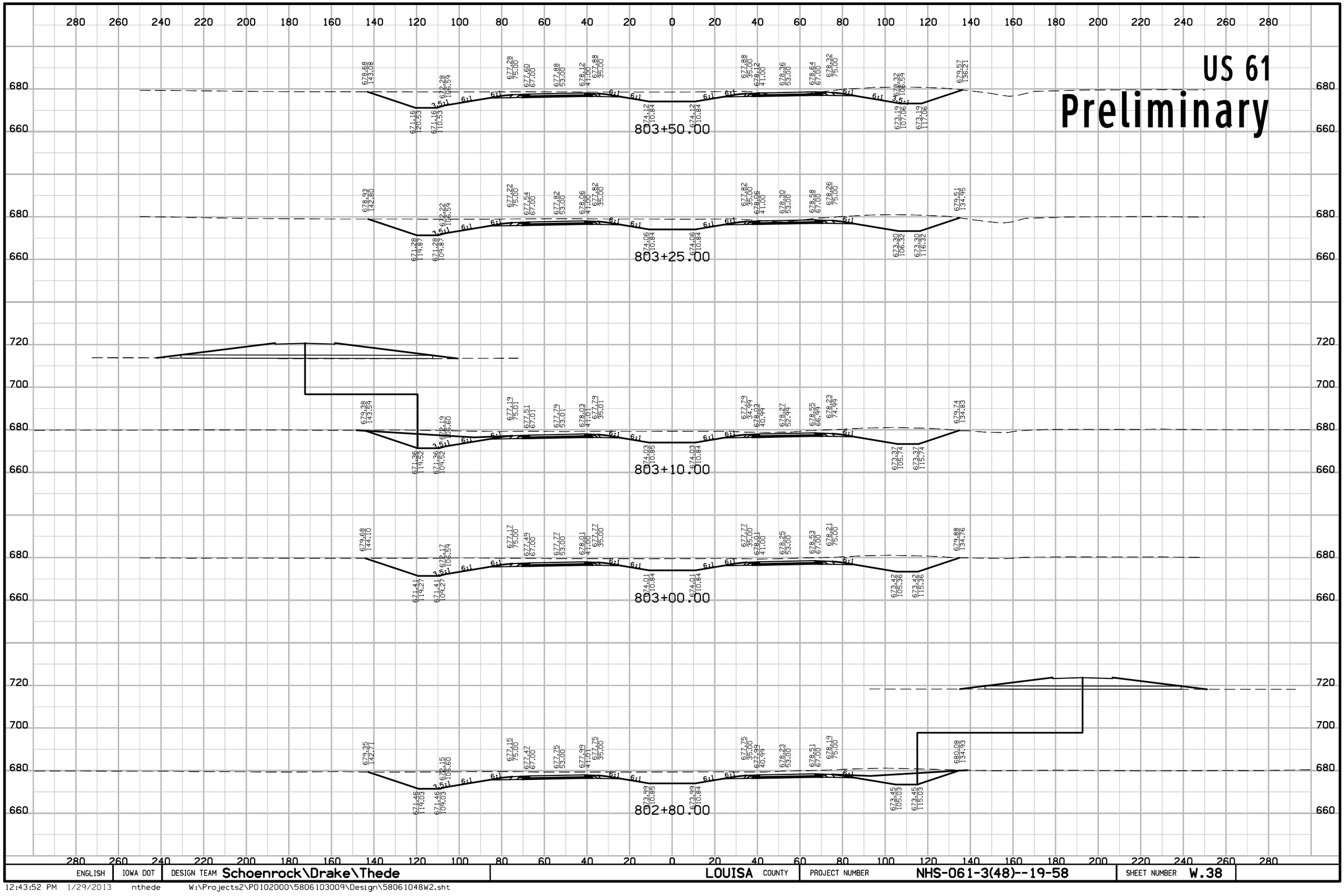
US 61

Preliminary



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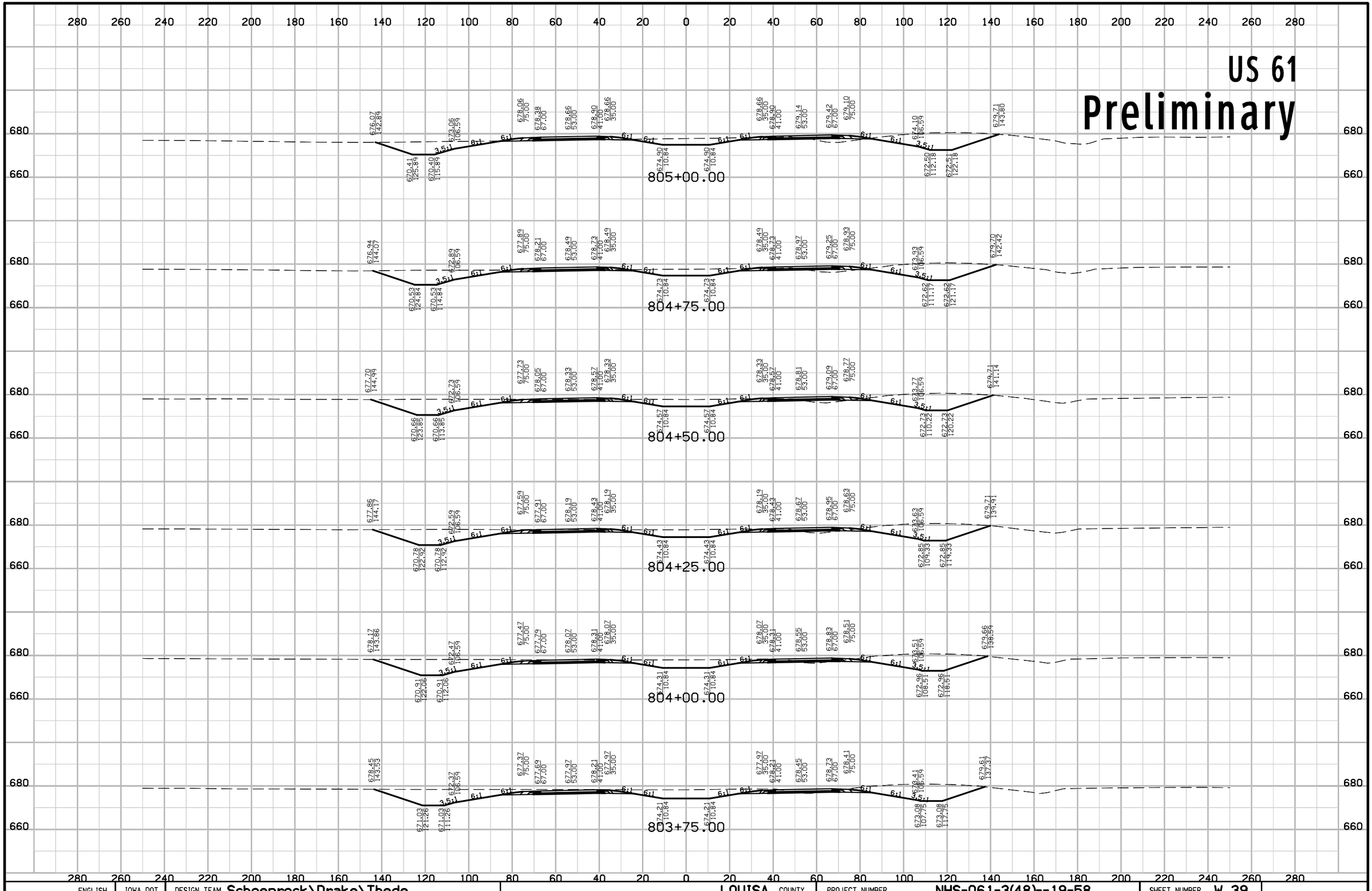
US 61

Preliminary



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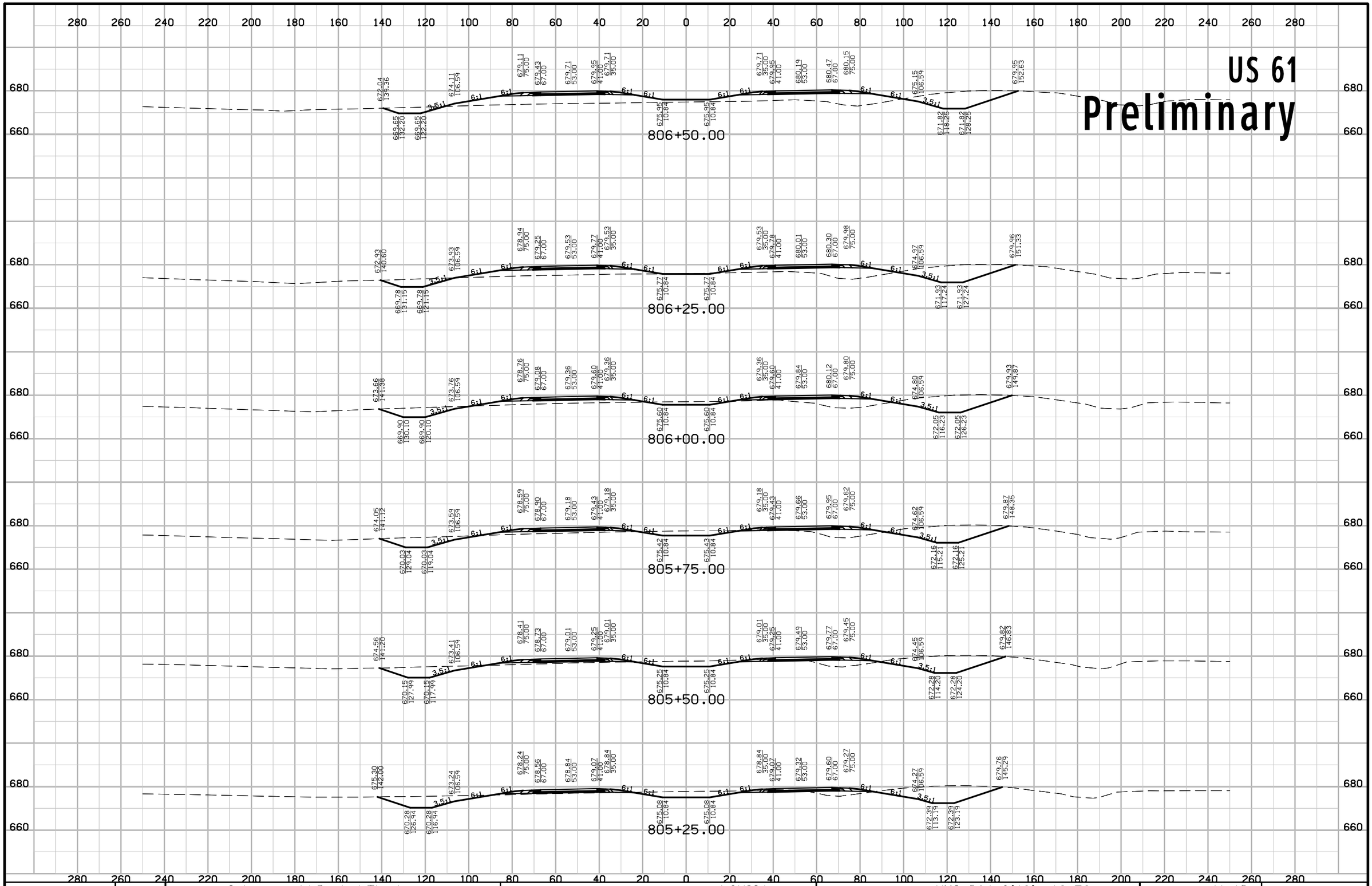
US 61

Preliminary



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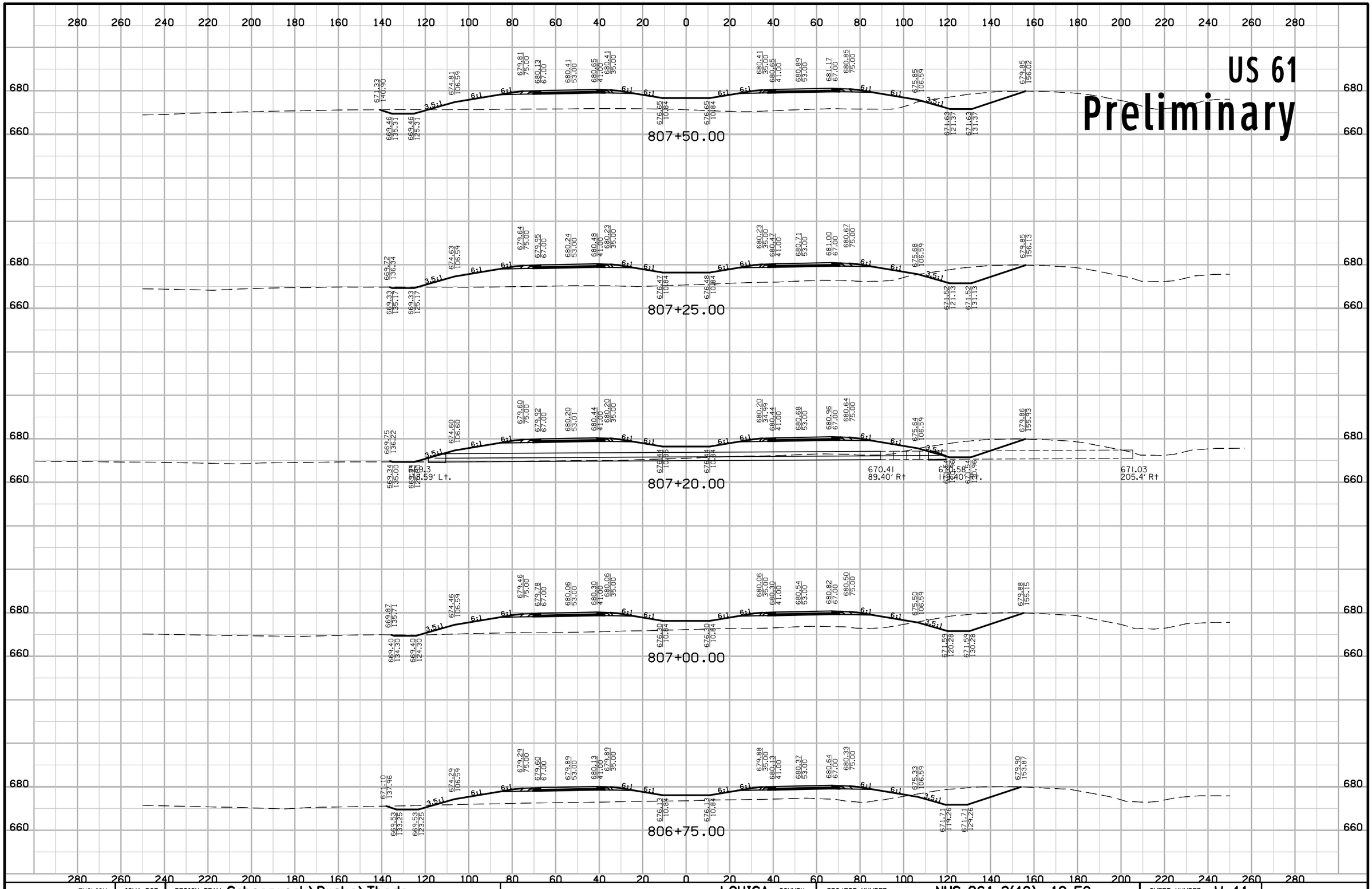
US 61

Preliminary



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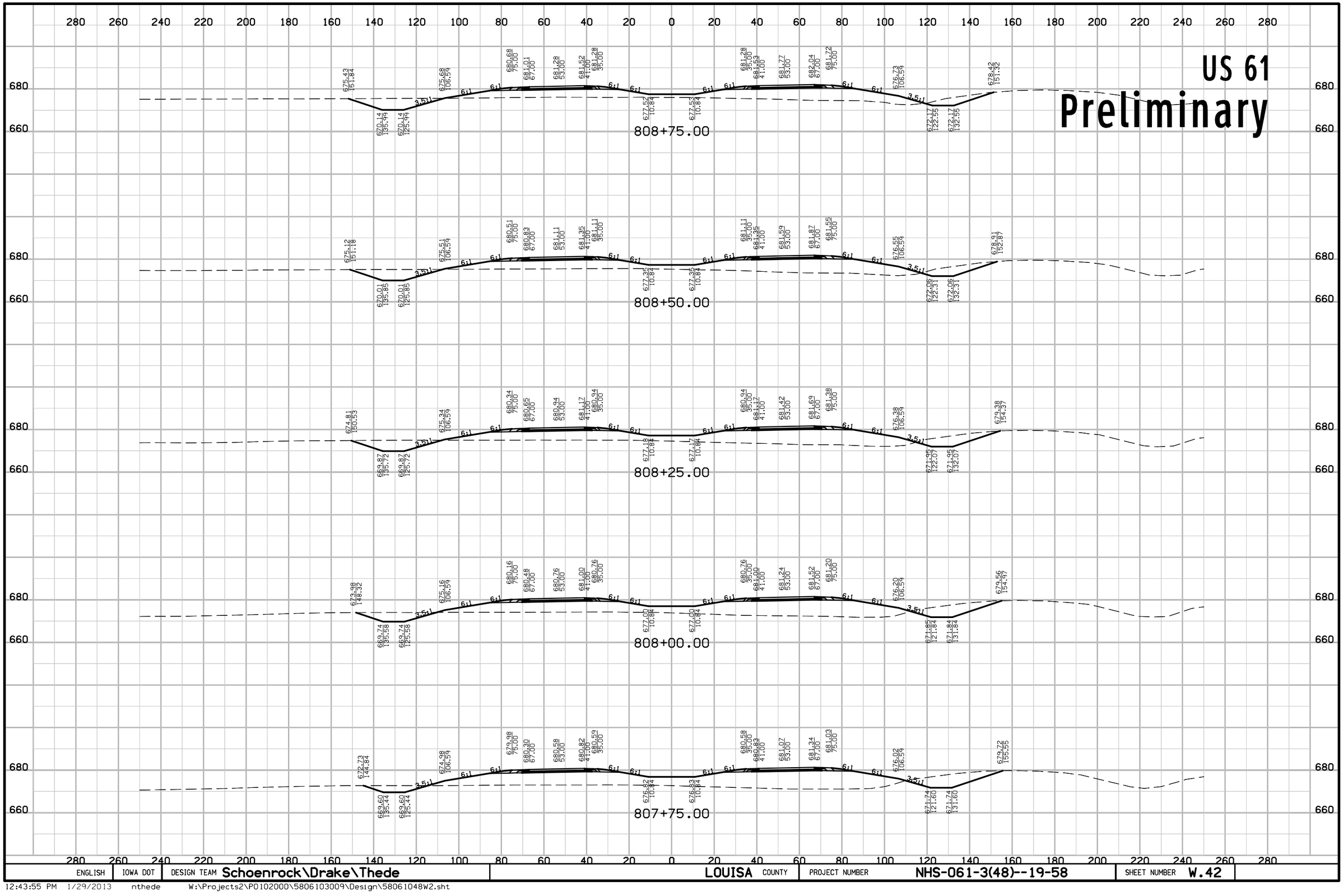
US 61

Preliminary



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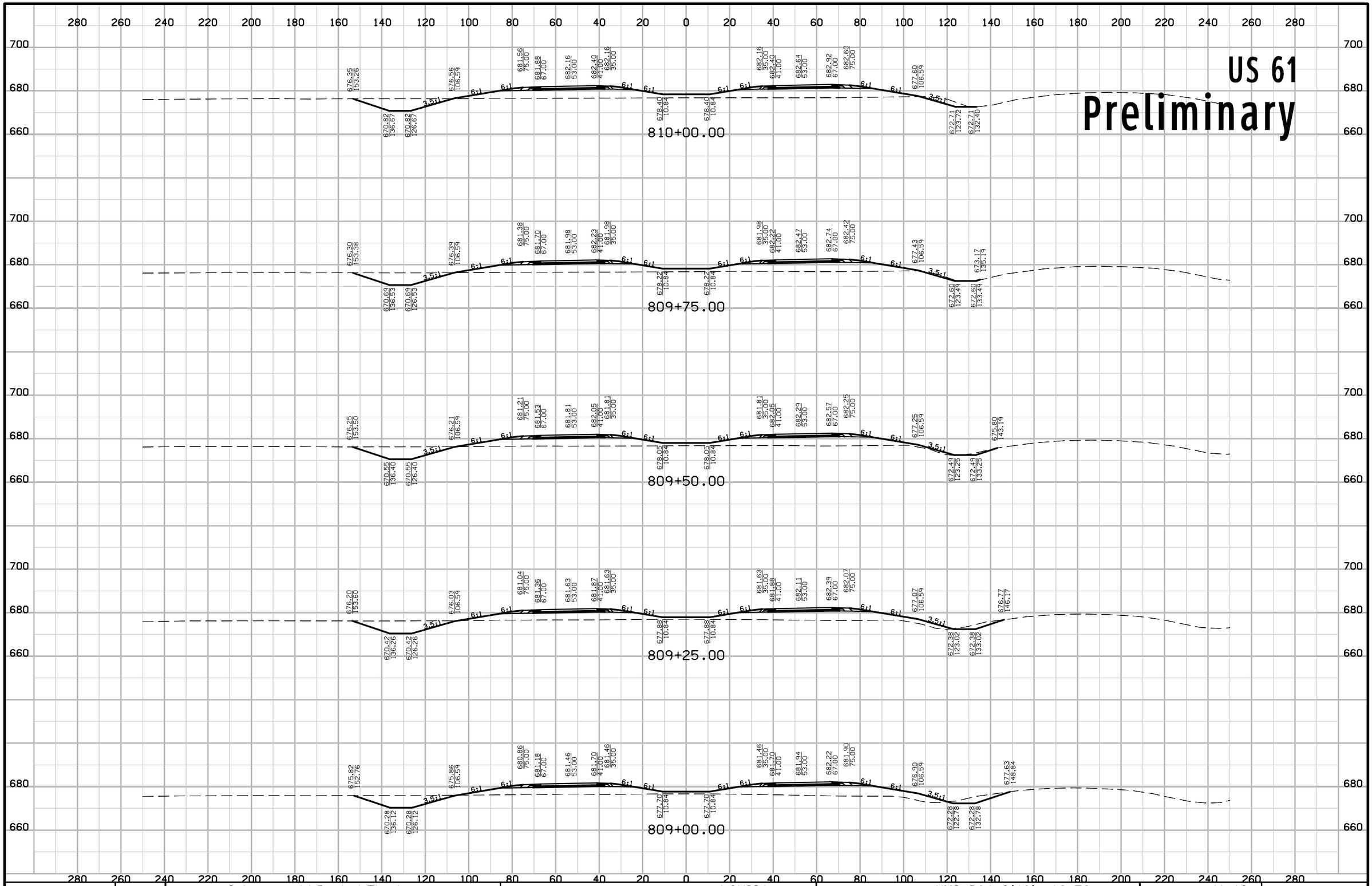
US 61

Preliminary



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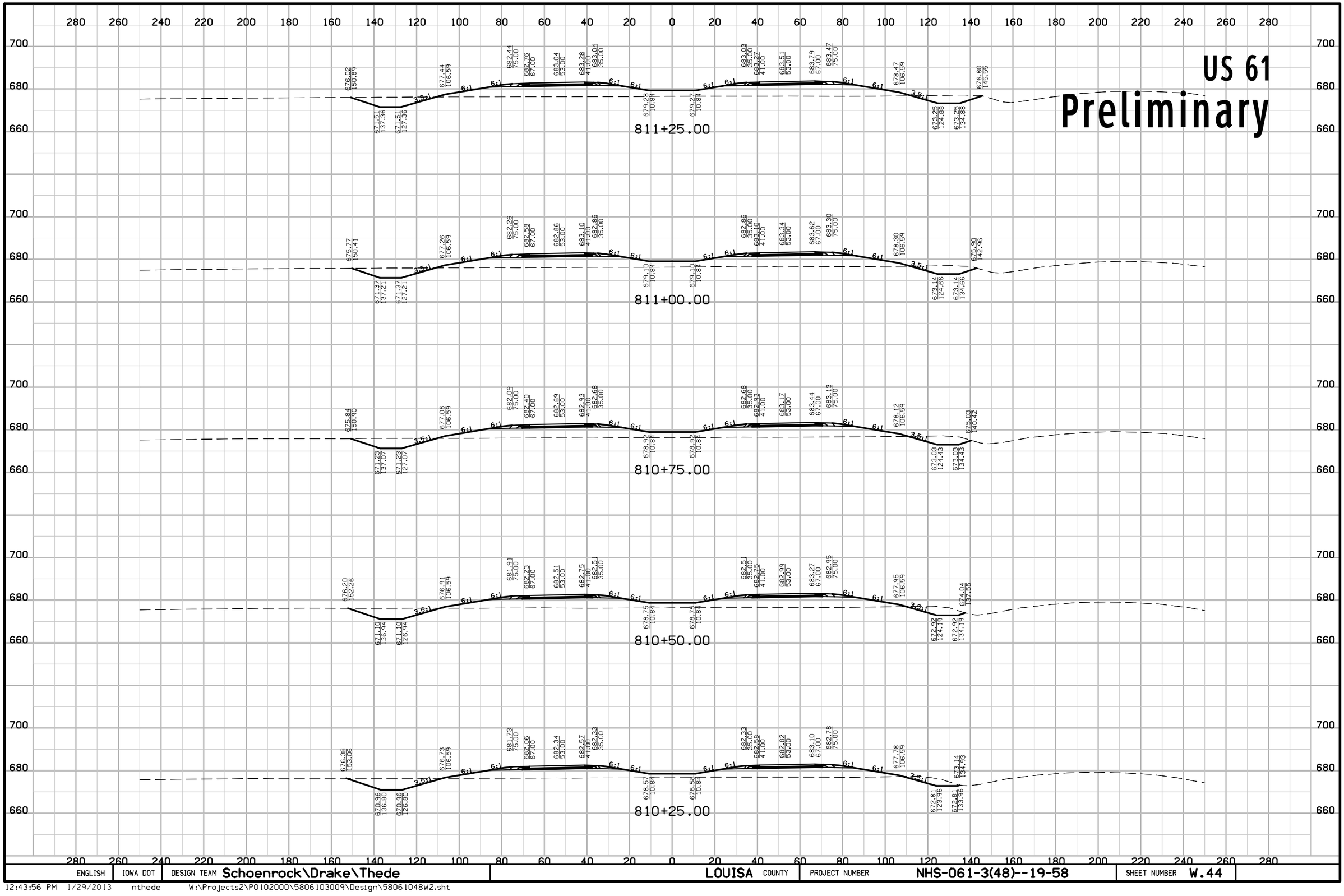
US 61

Preliminary



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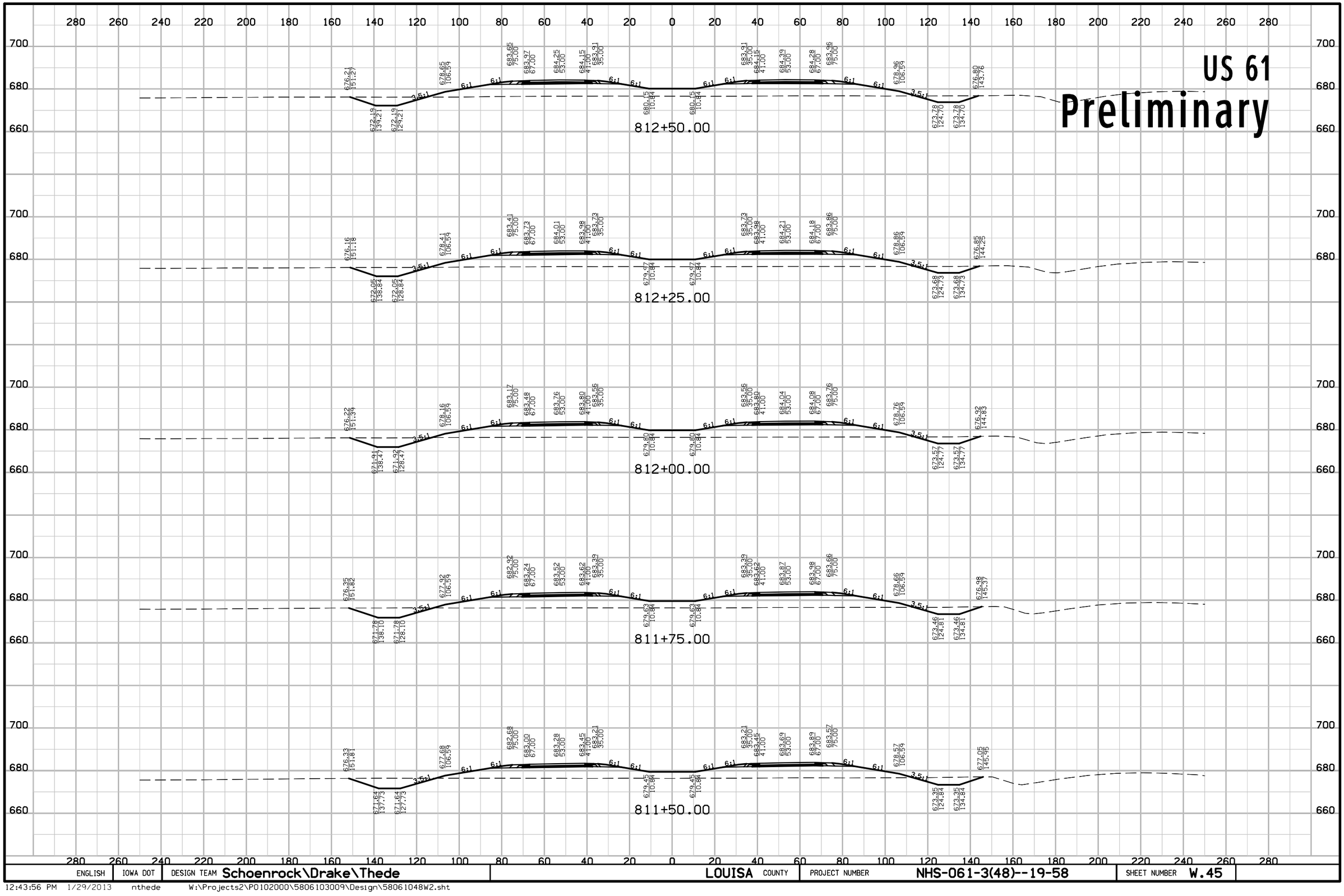
US 61

Preliminary



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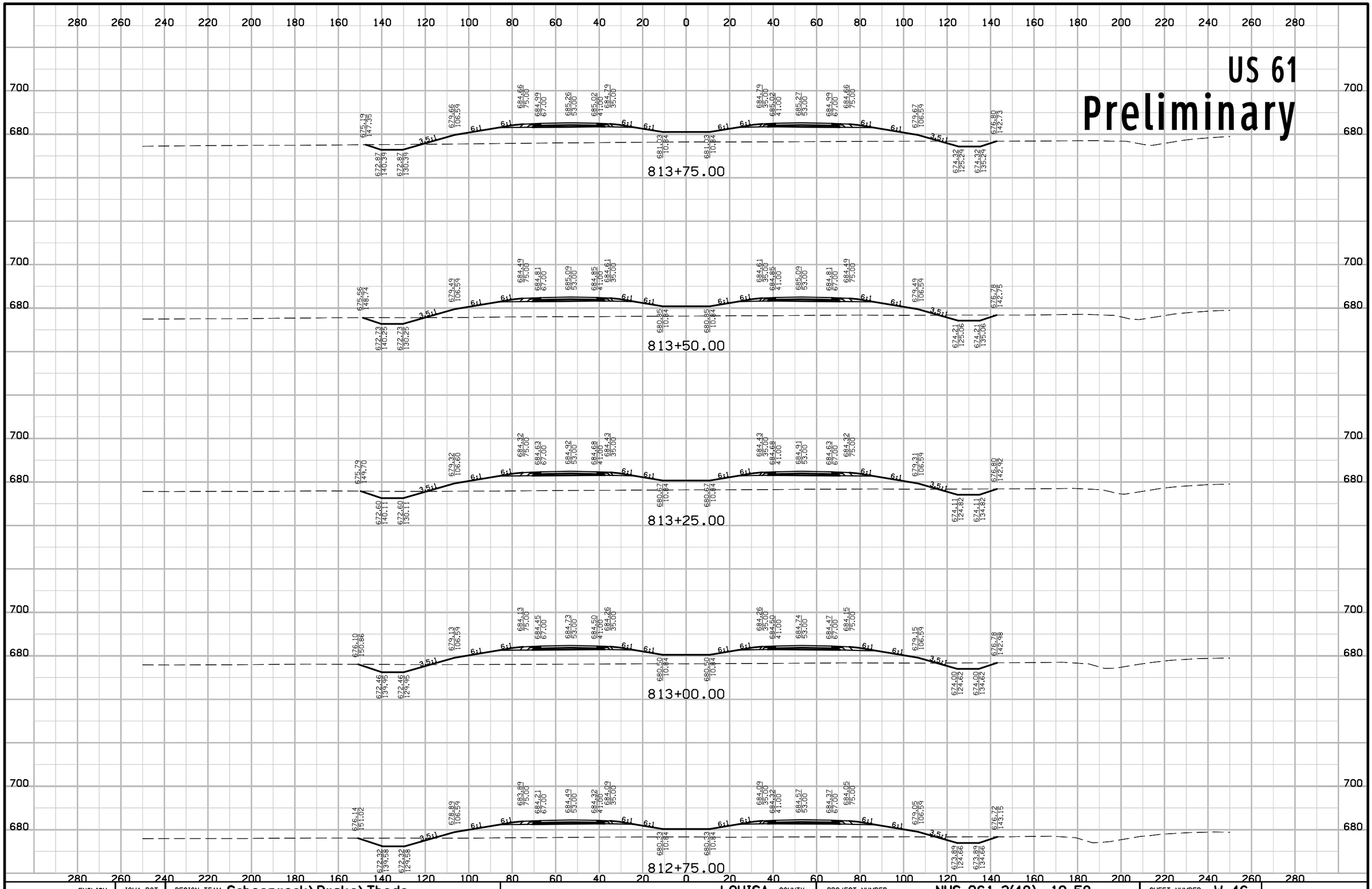
US 61

Preliminary



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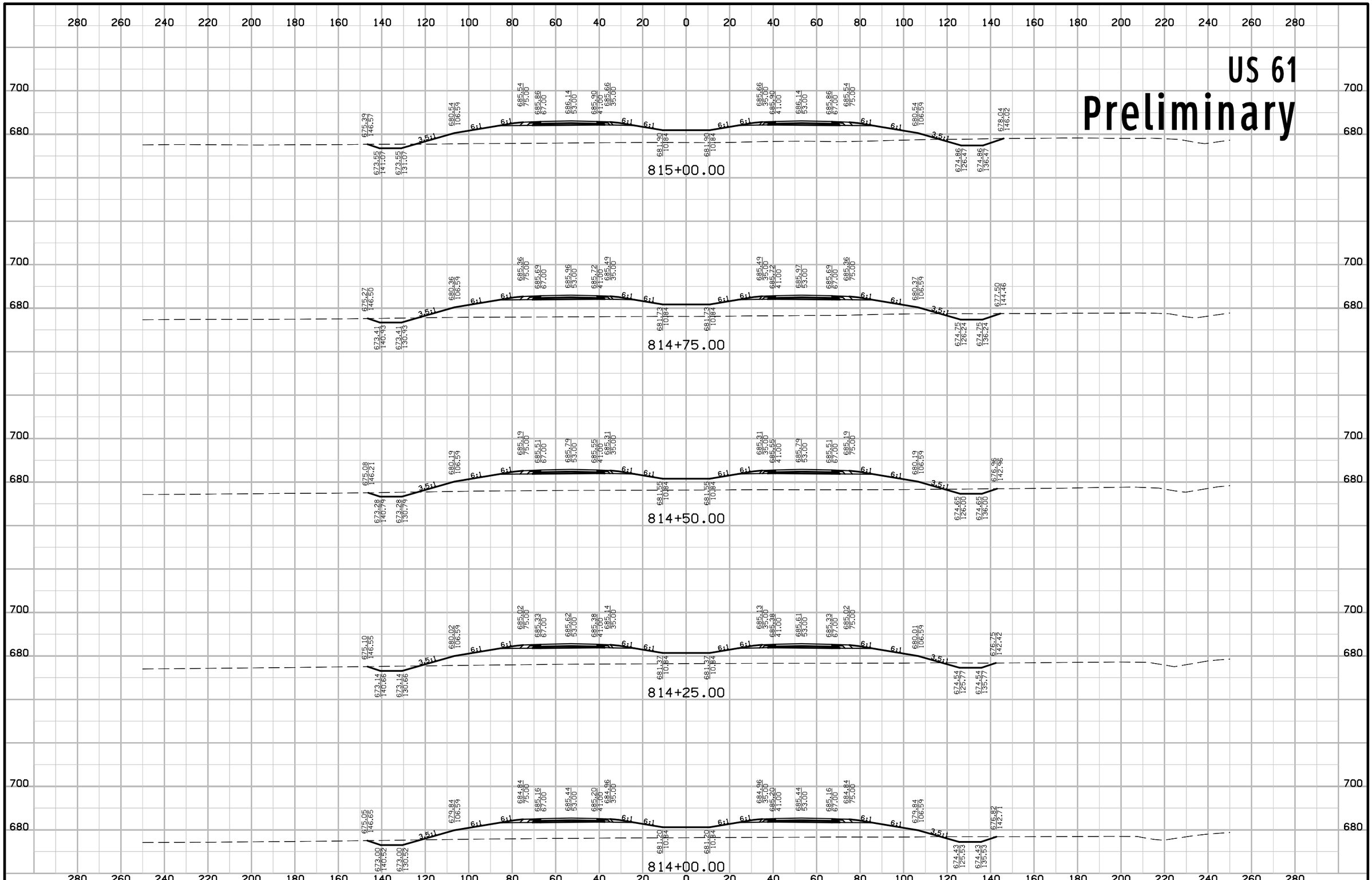
US 61

Preliminary



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US 61

Preliminary

816+25.00

816+00.00

815+75.00

815+50.00

815+25.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.48

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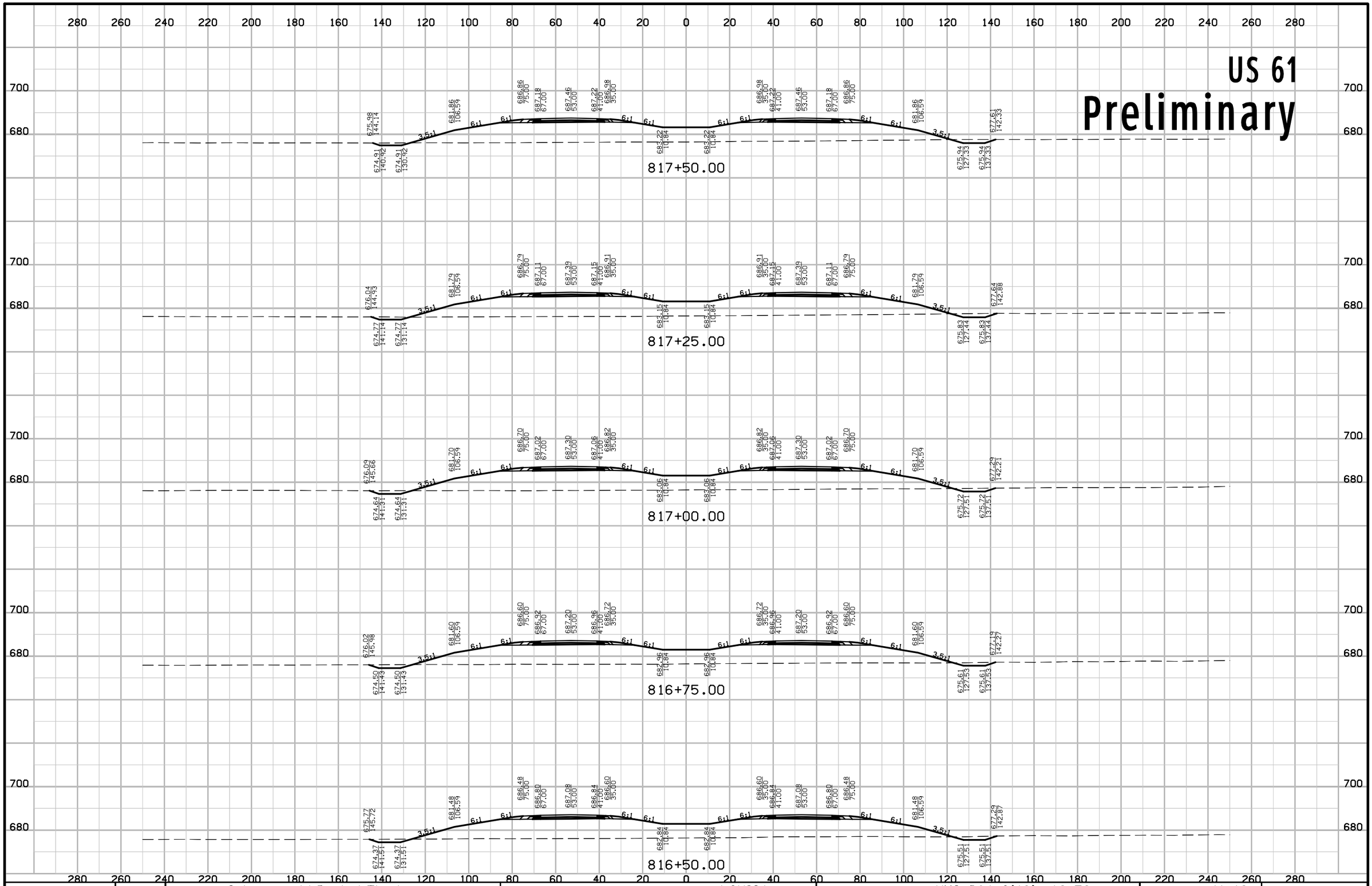
US 61

Preliminary



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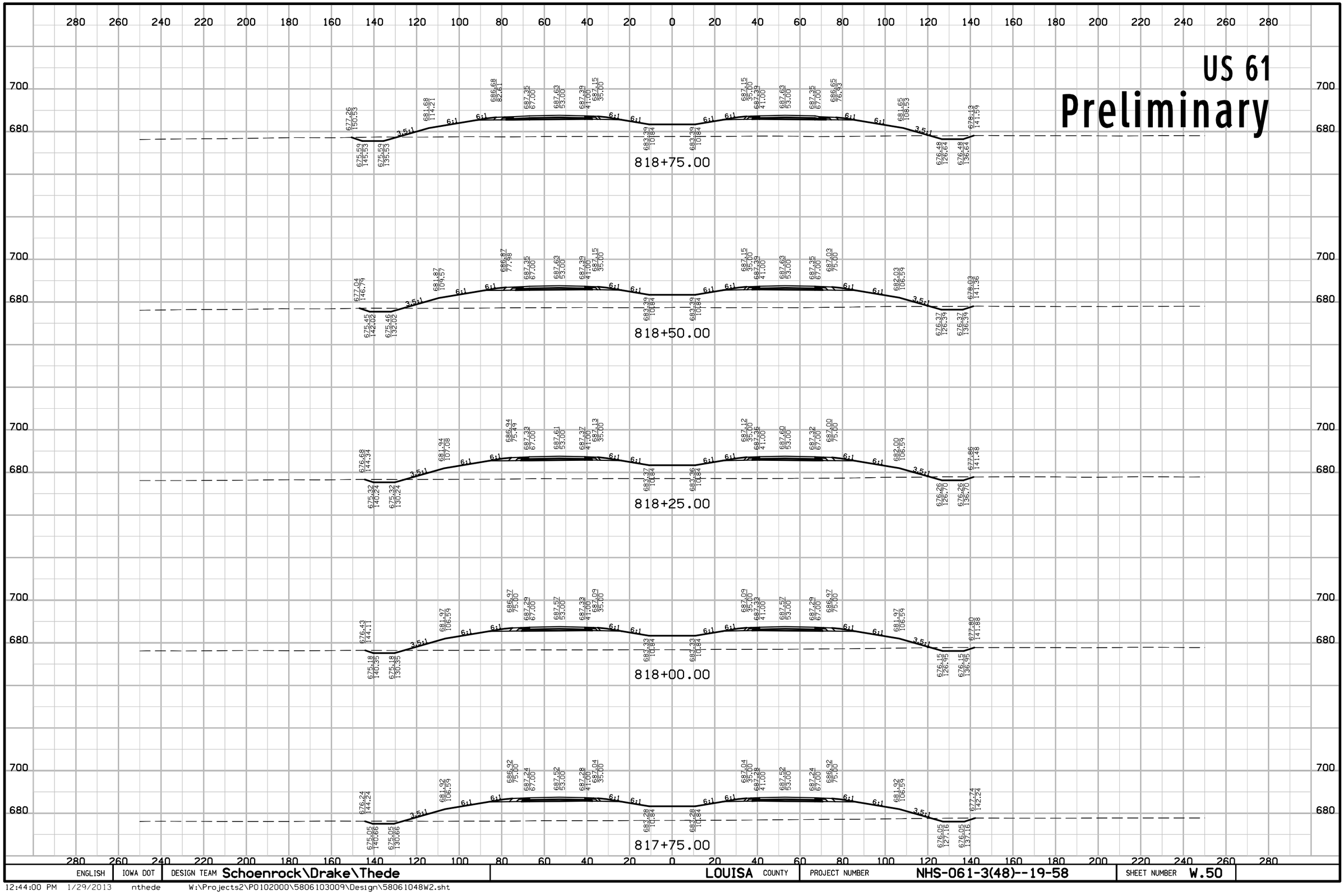
US 61

Preliminary



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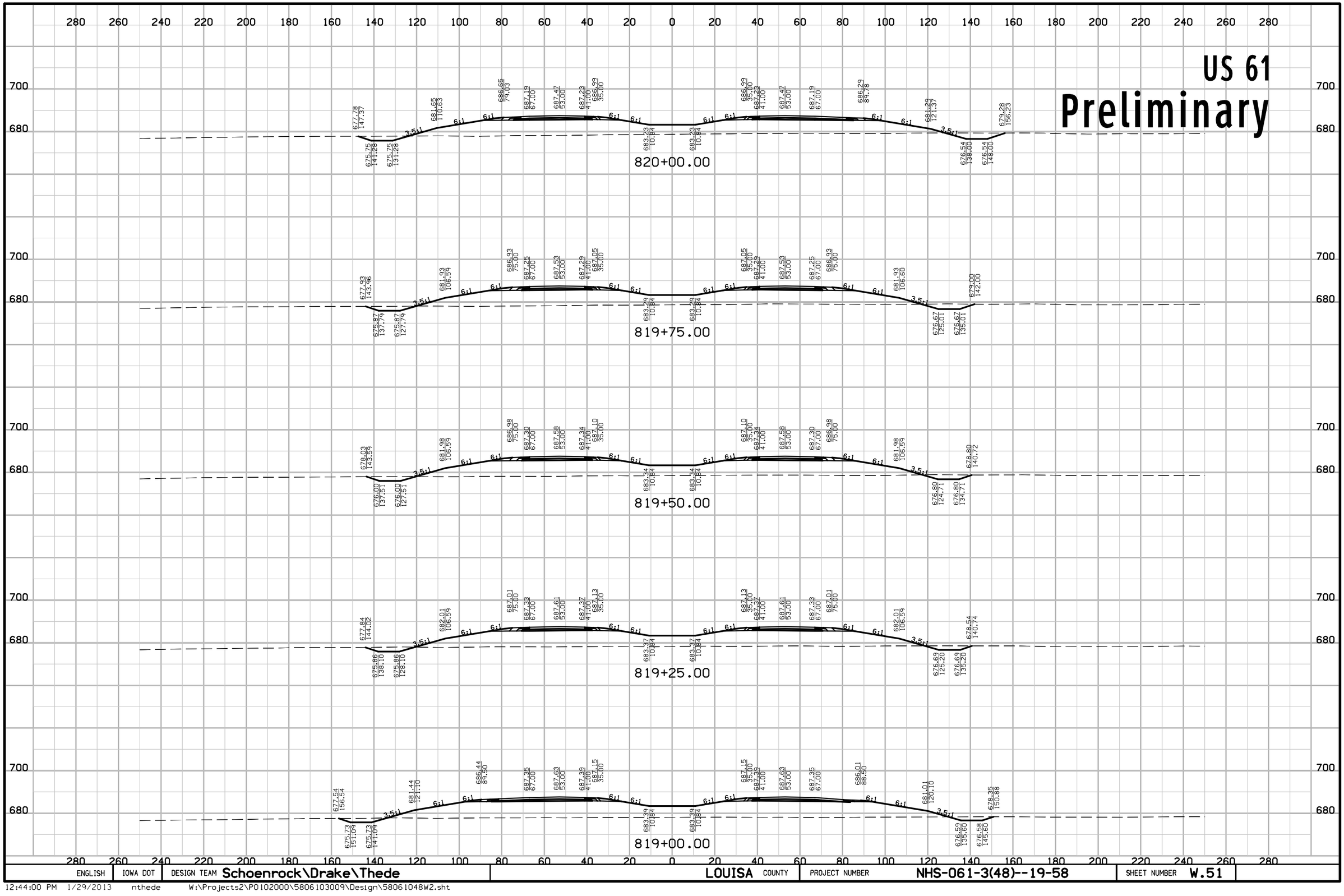
US 61

Preliminary



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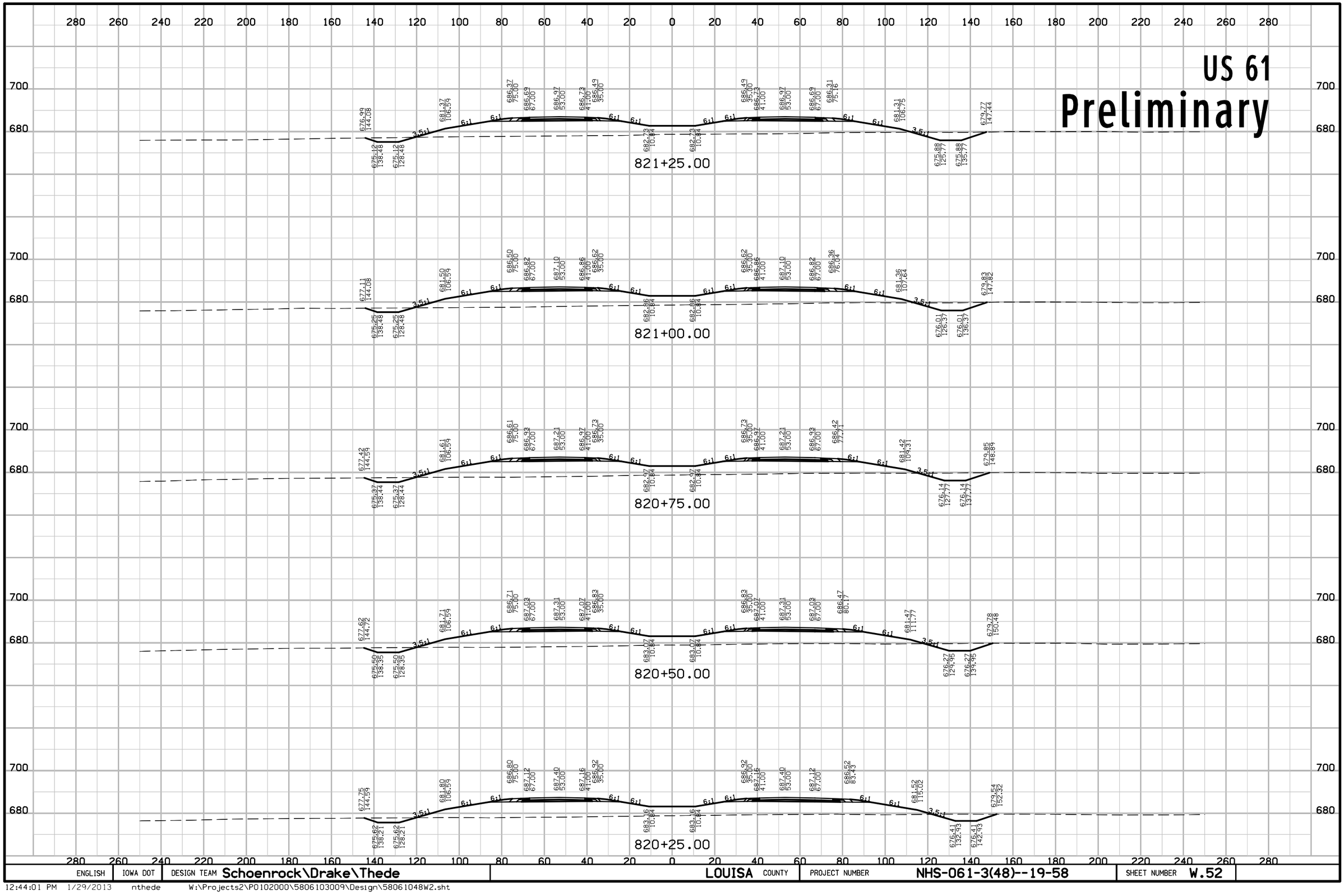
US 61

Preliminary



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US 61

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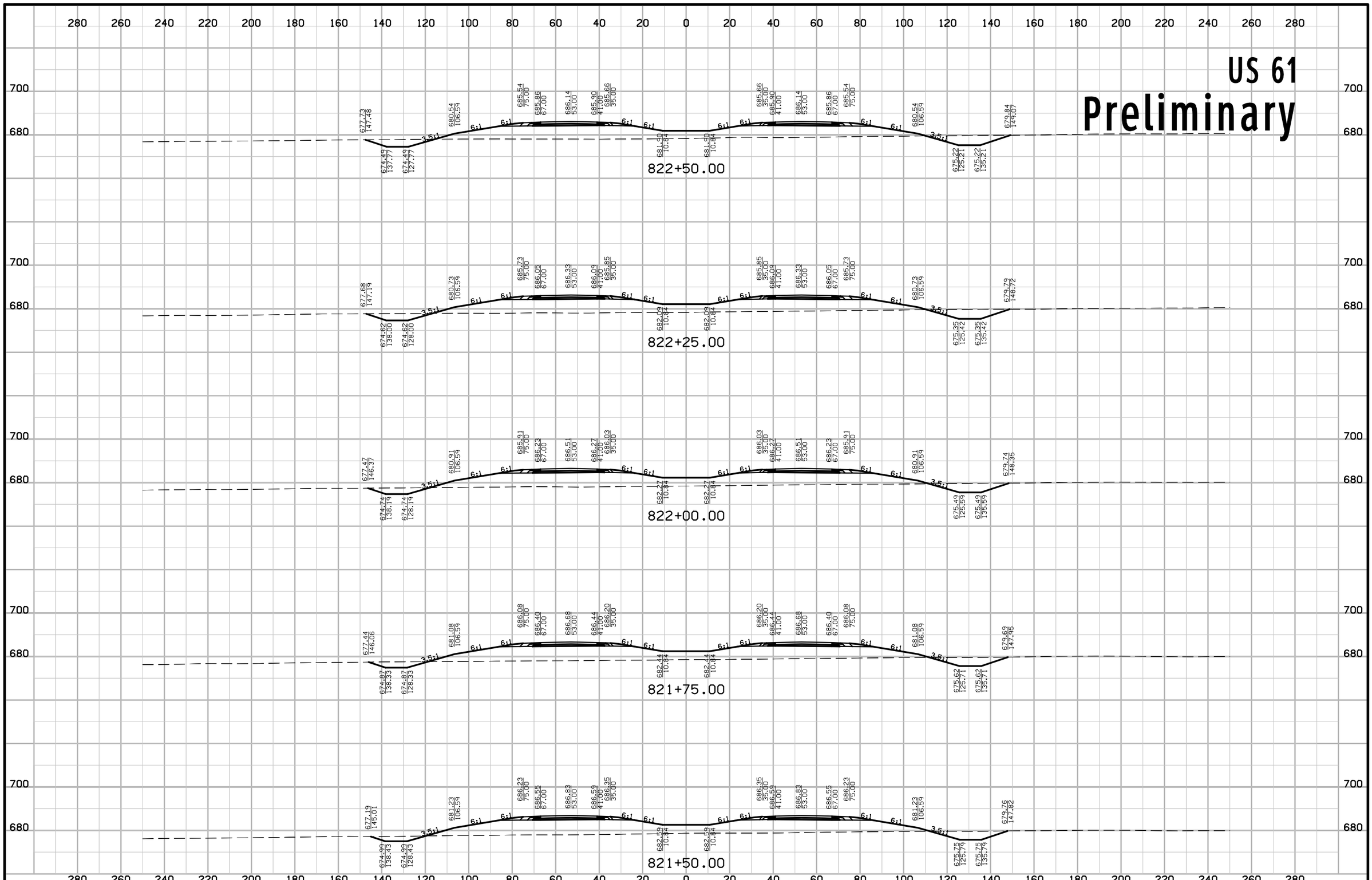

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US 61

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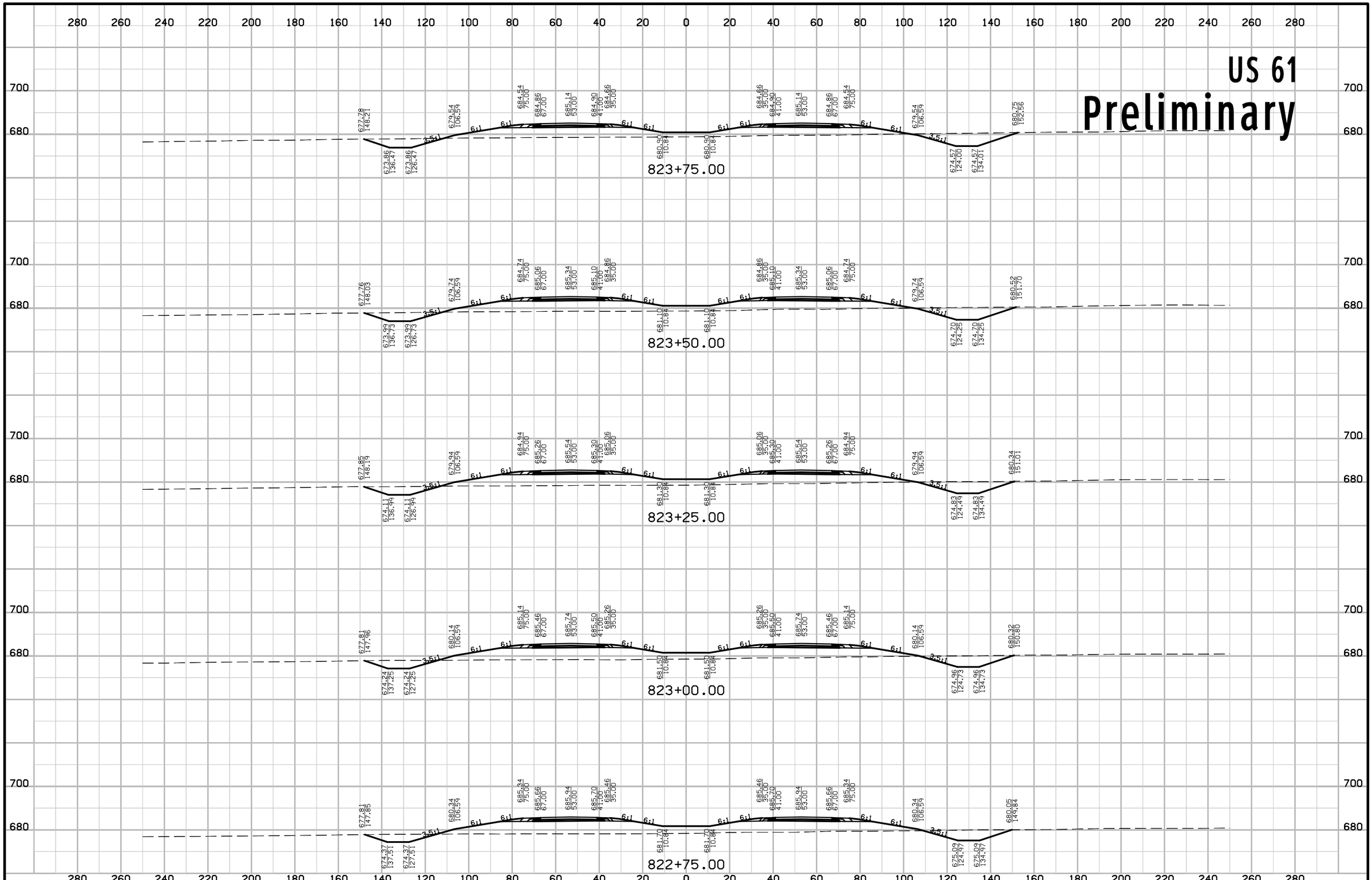

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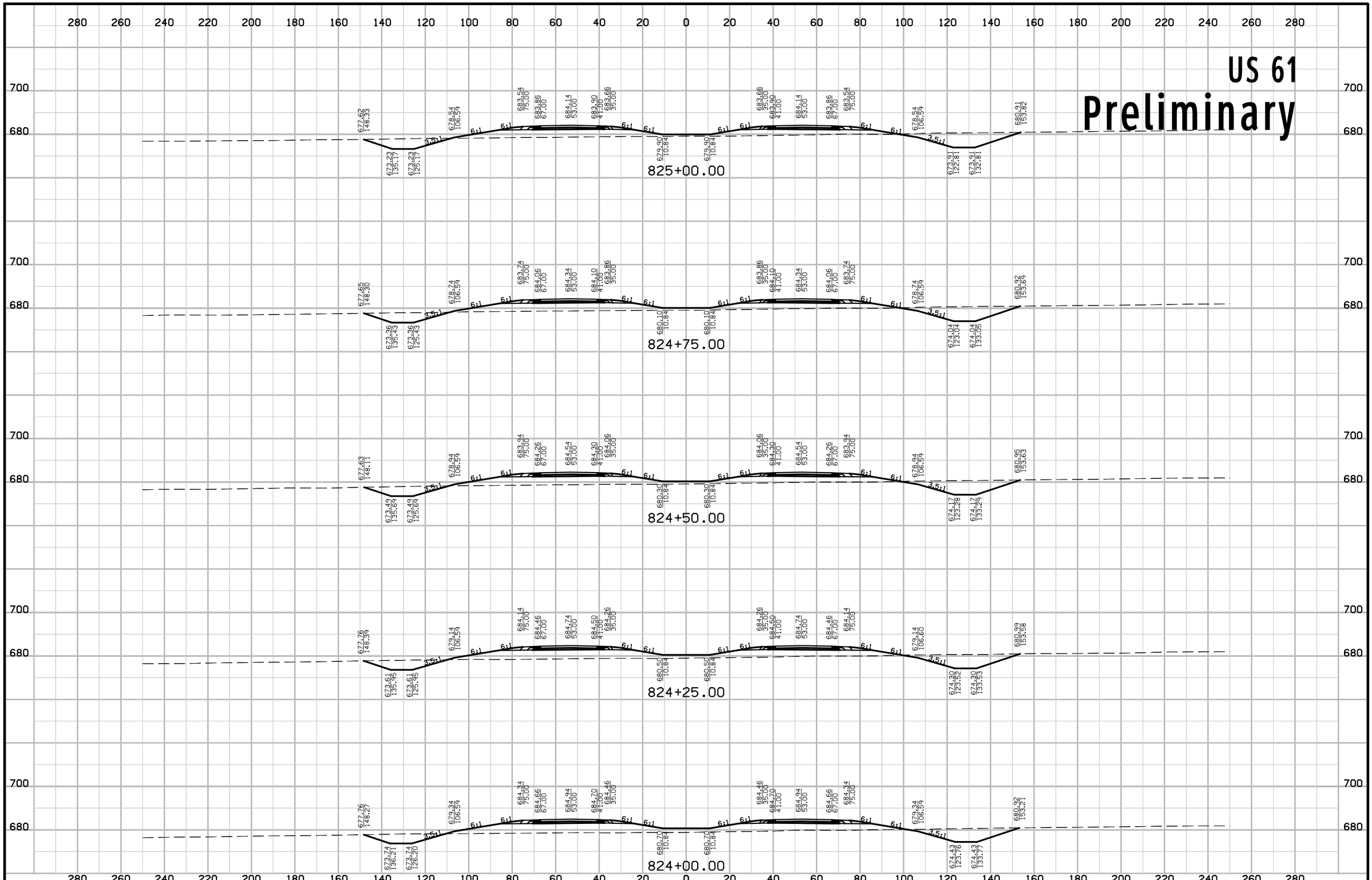
US 61

Preliminary



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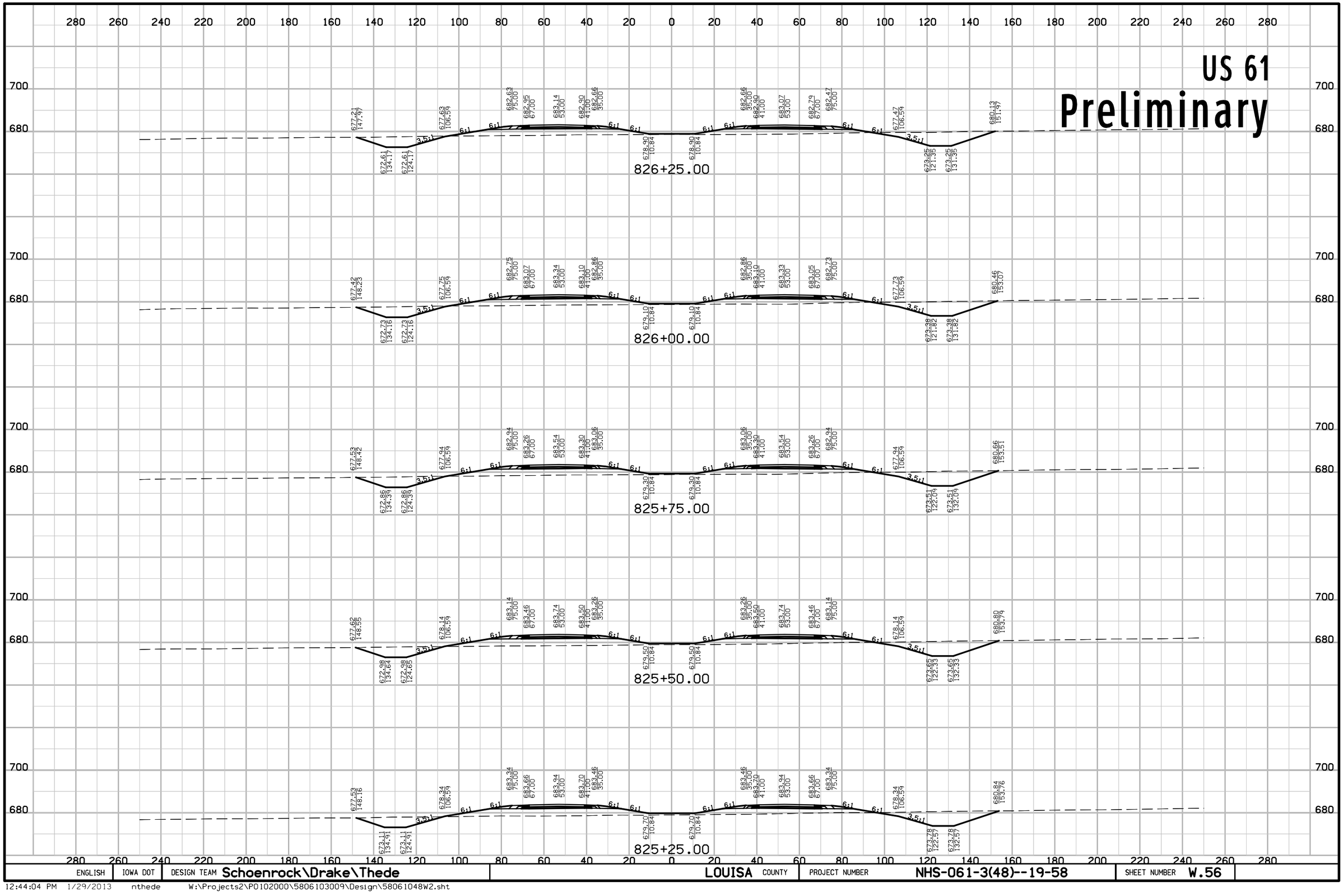
US 61

Preliminary



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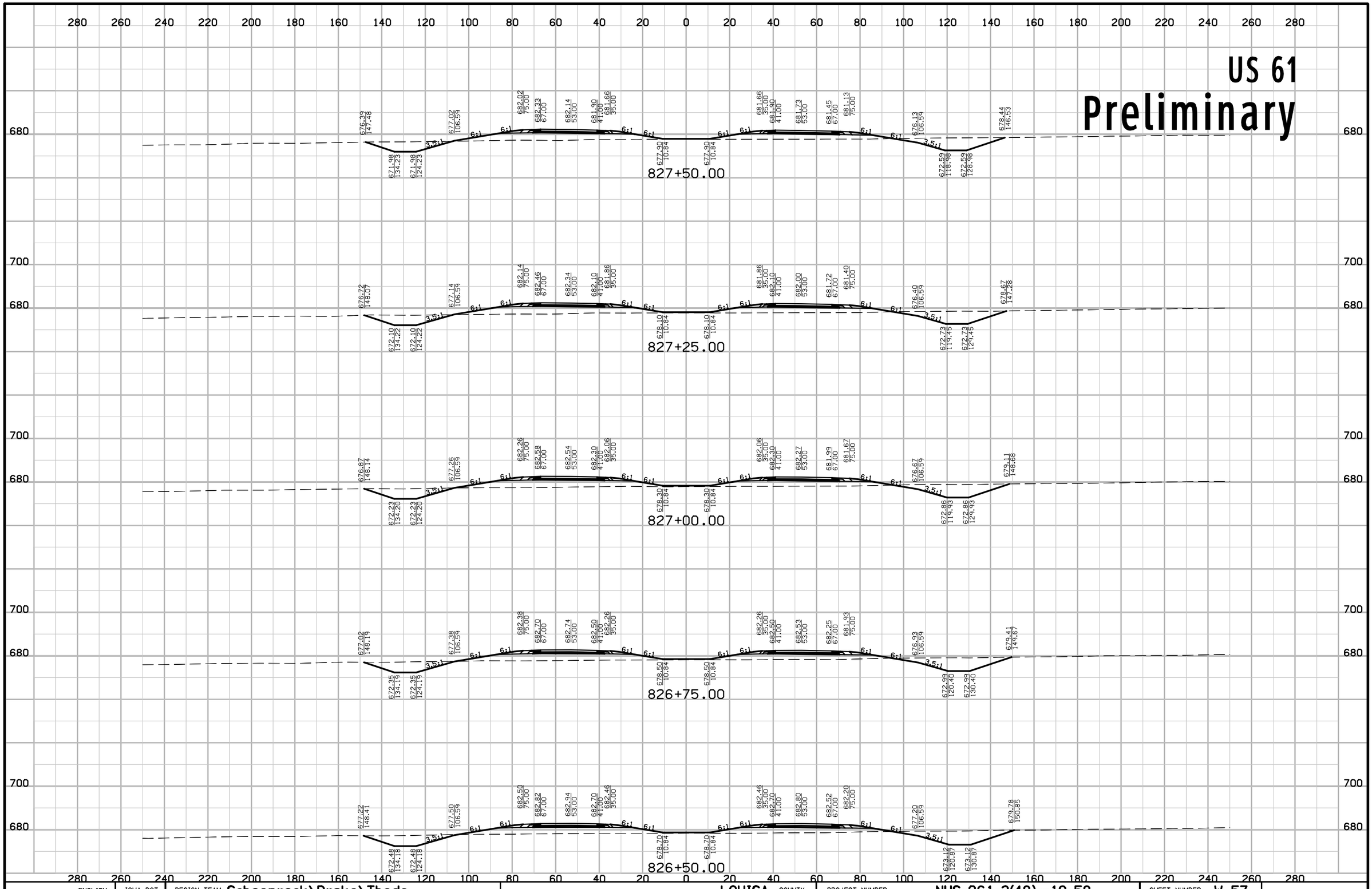
US 61

Preliminary



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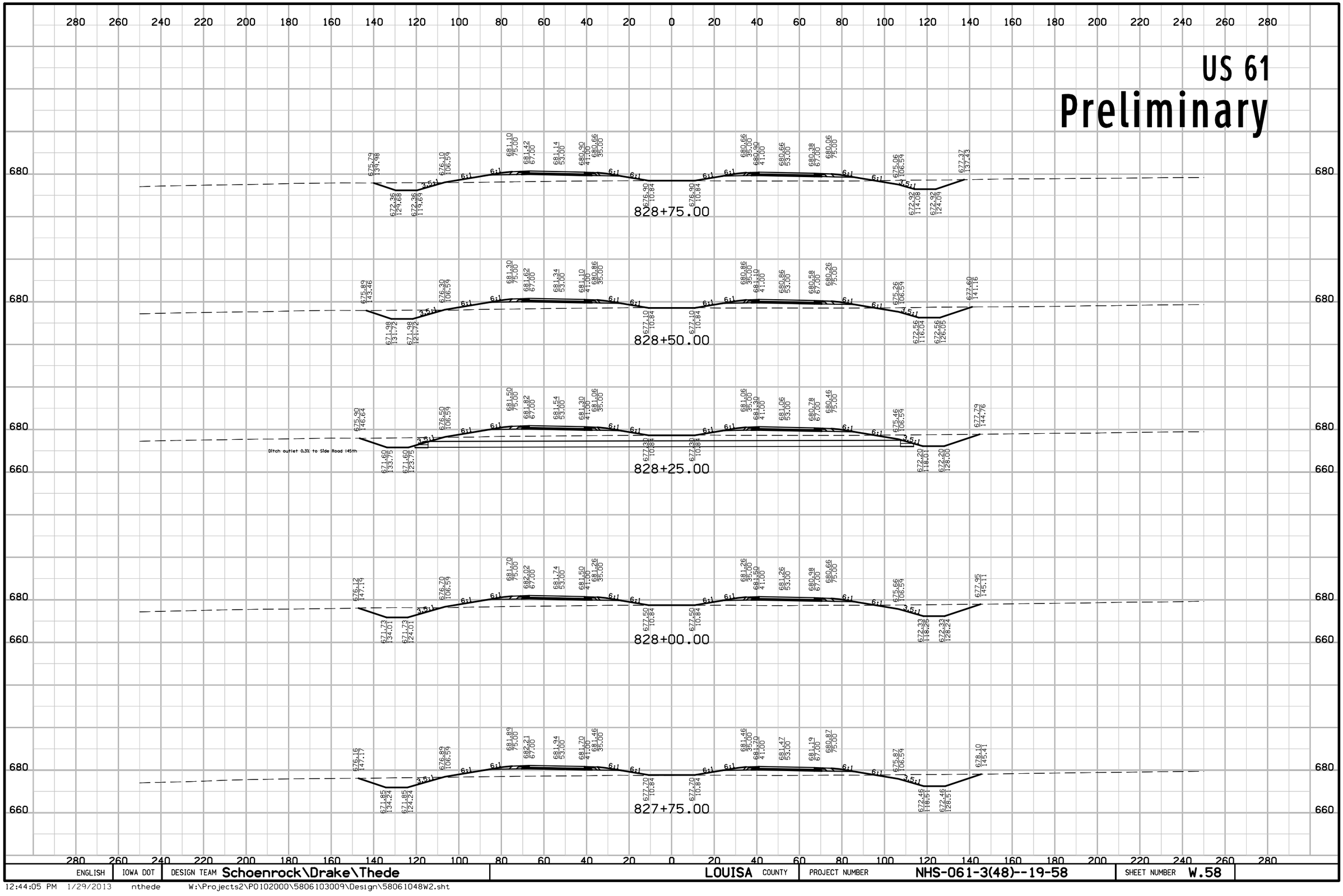
US 61

Preliminary



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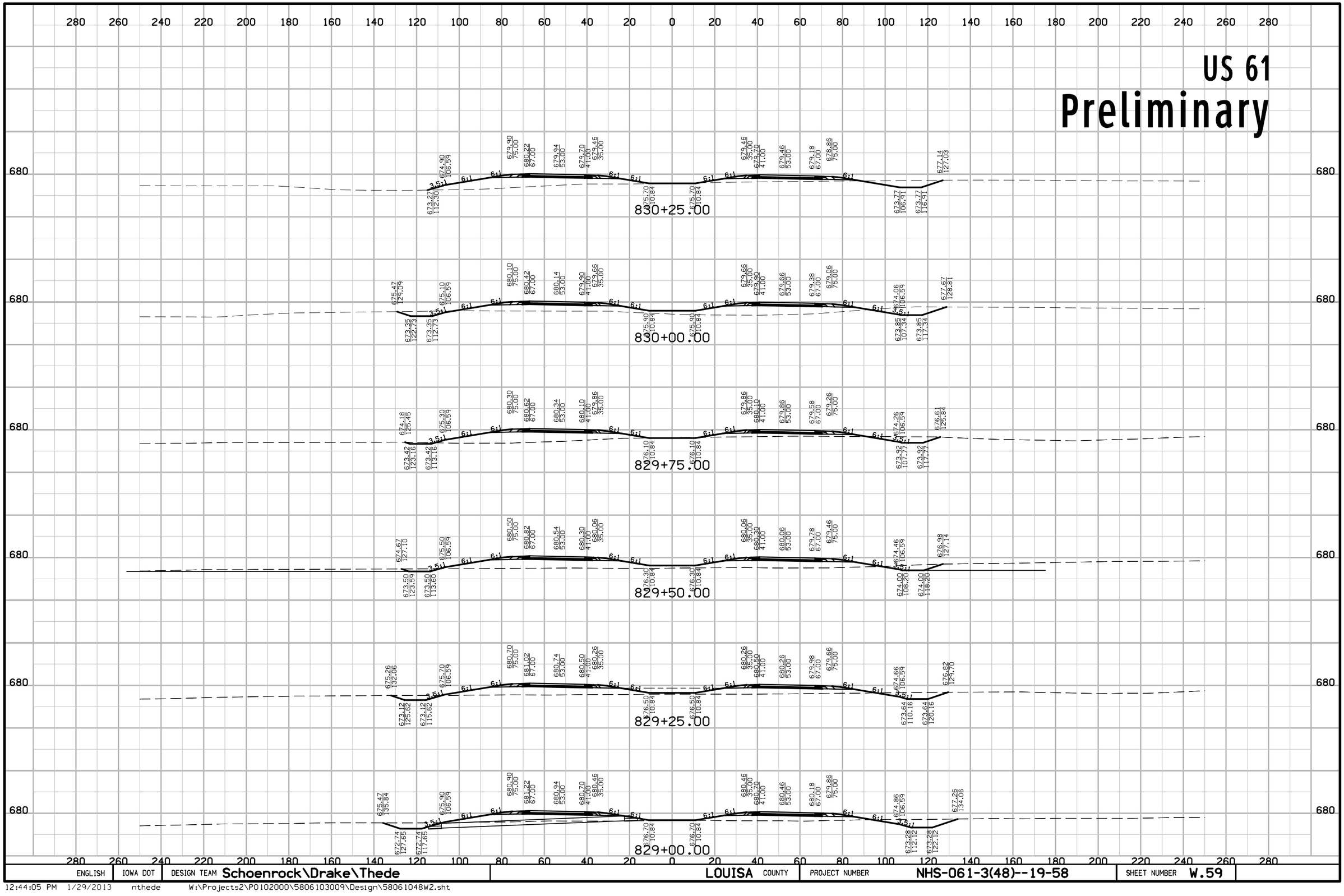
US 61

Preliminary



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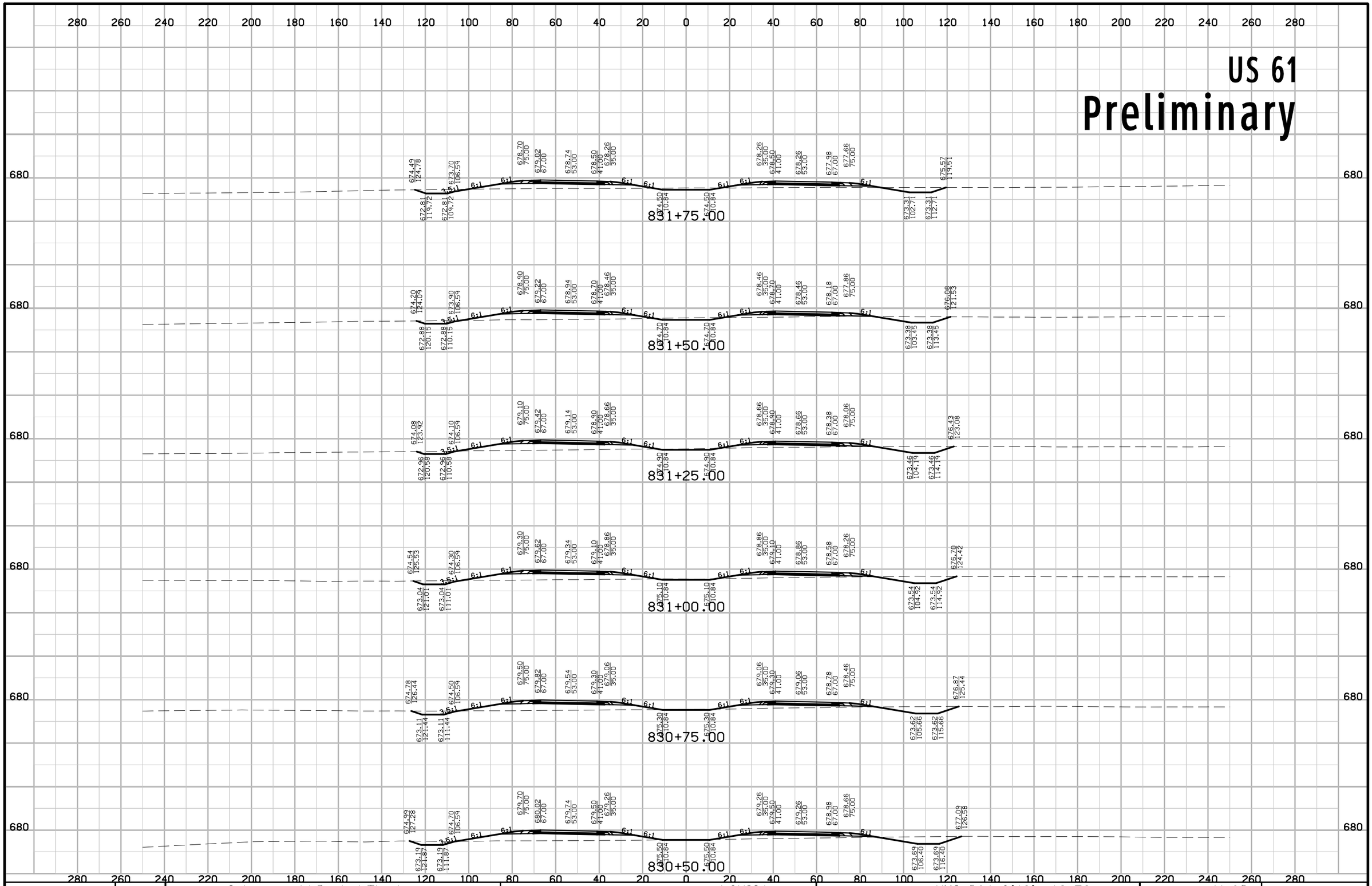
US 61

Preliminary



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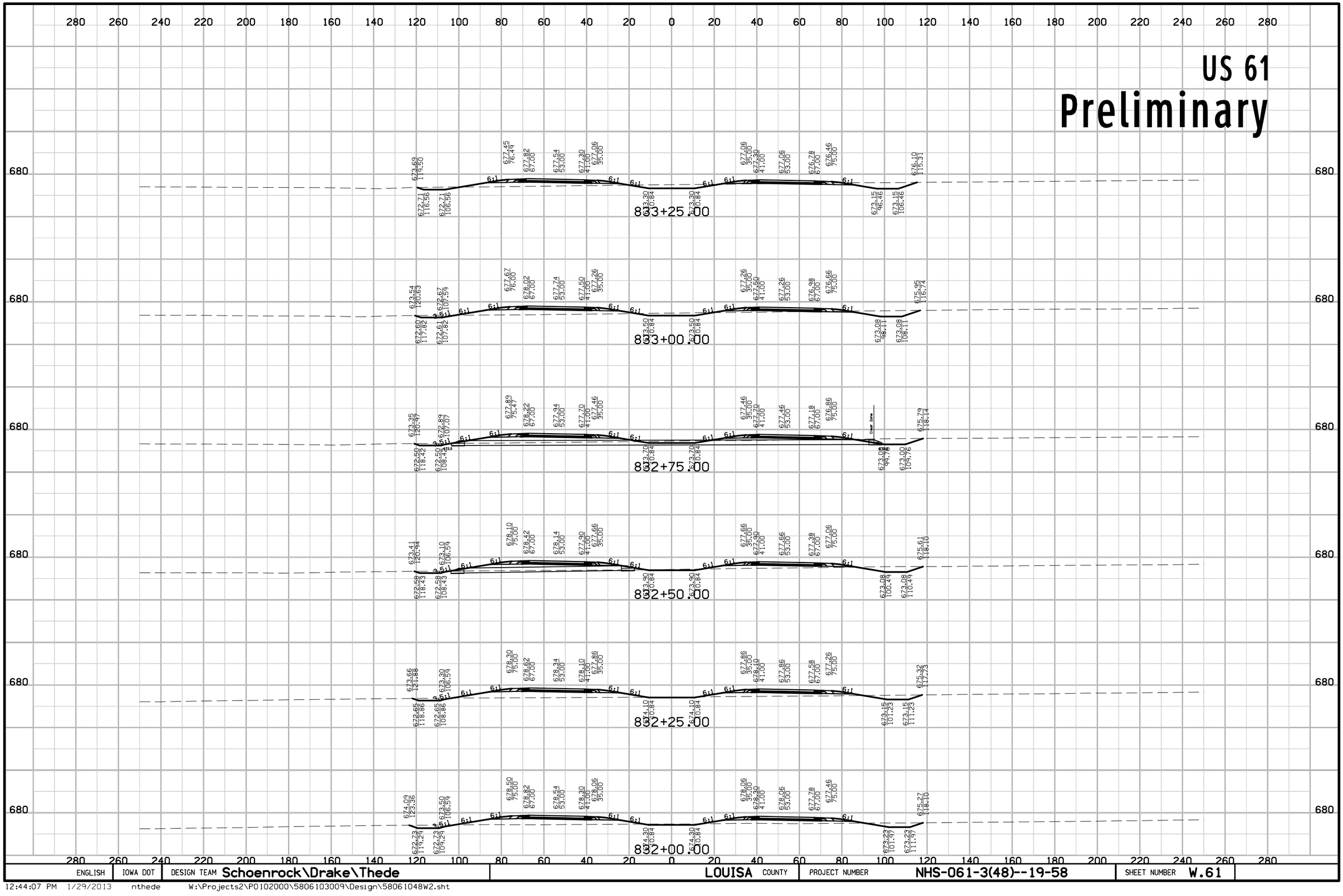
US 61

Preliminary



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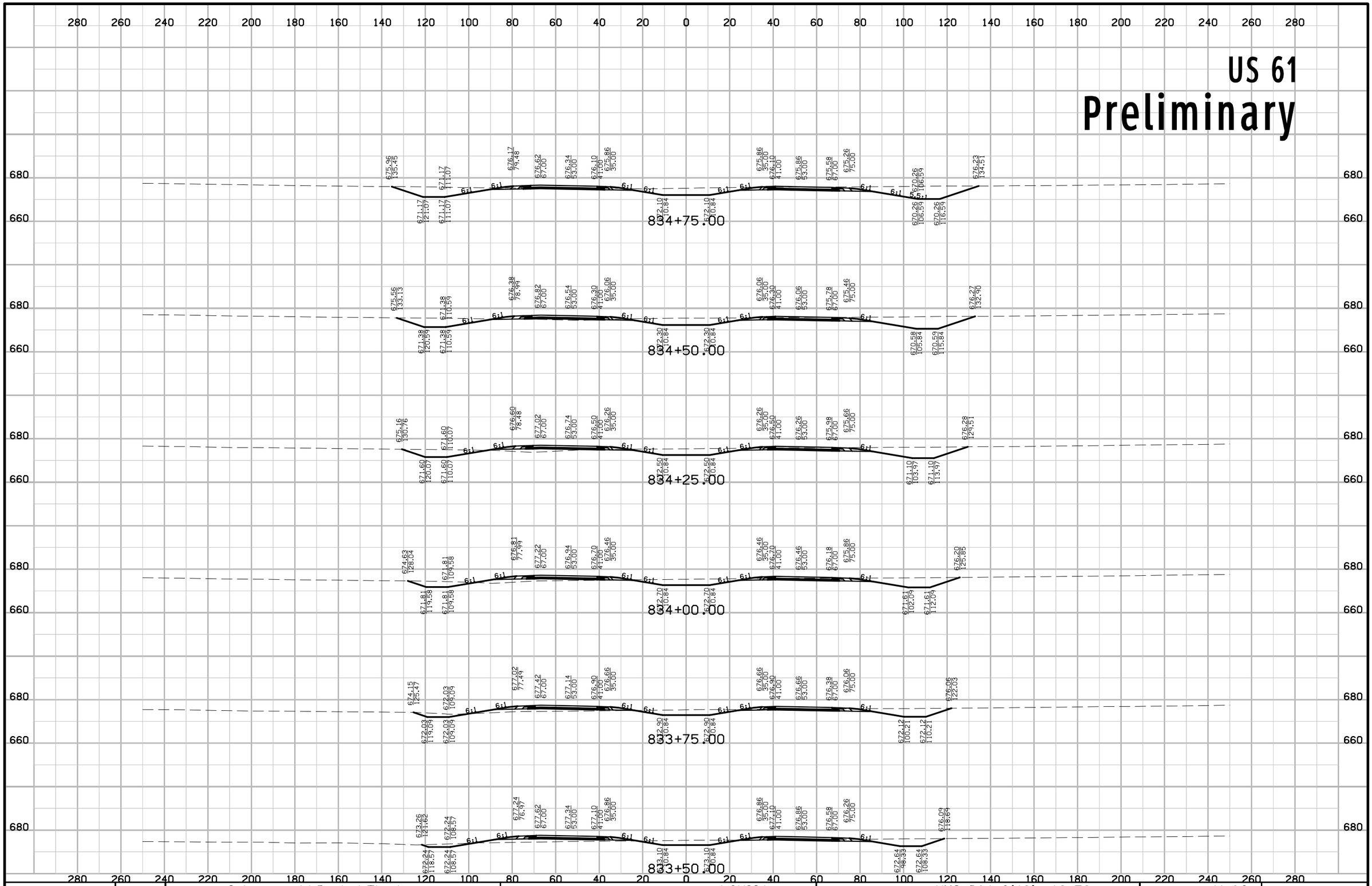
US 61

Preliminary



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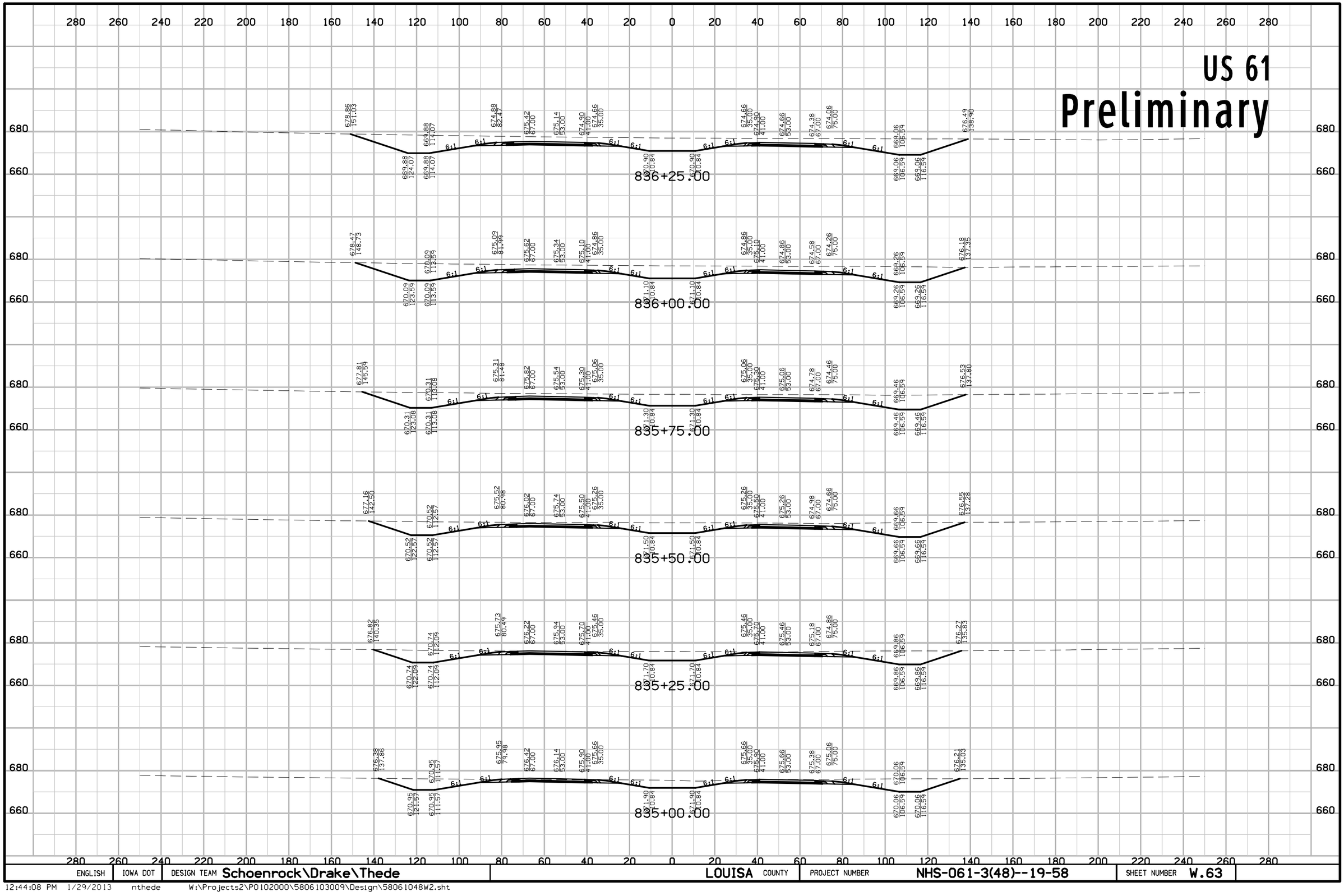
US 61

Preliminary



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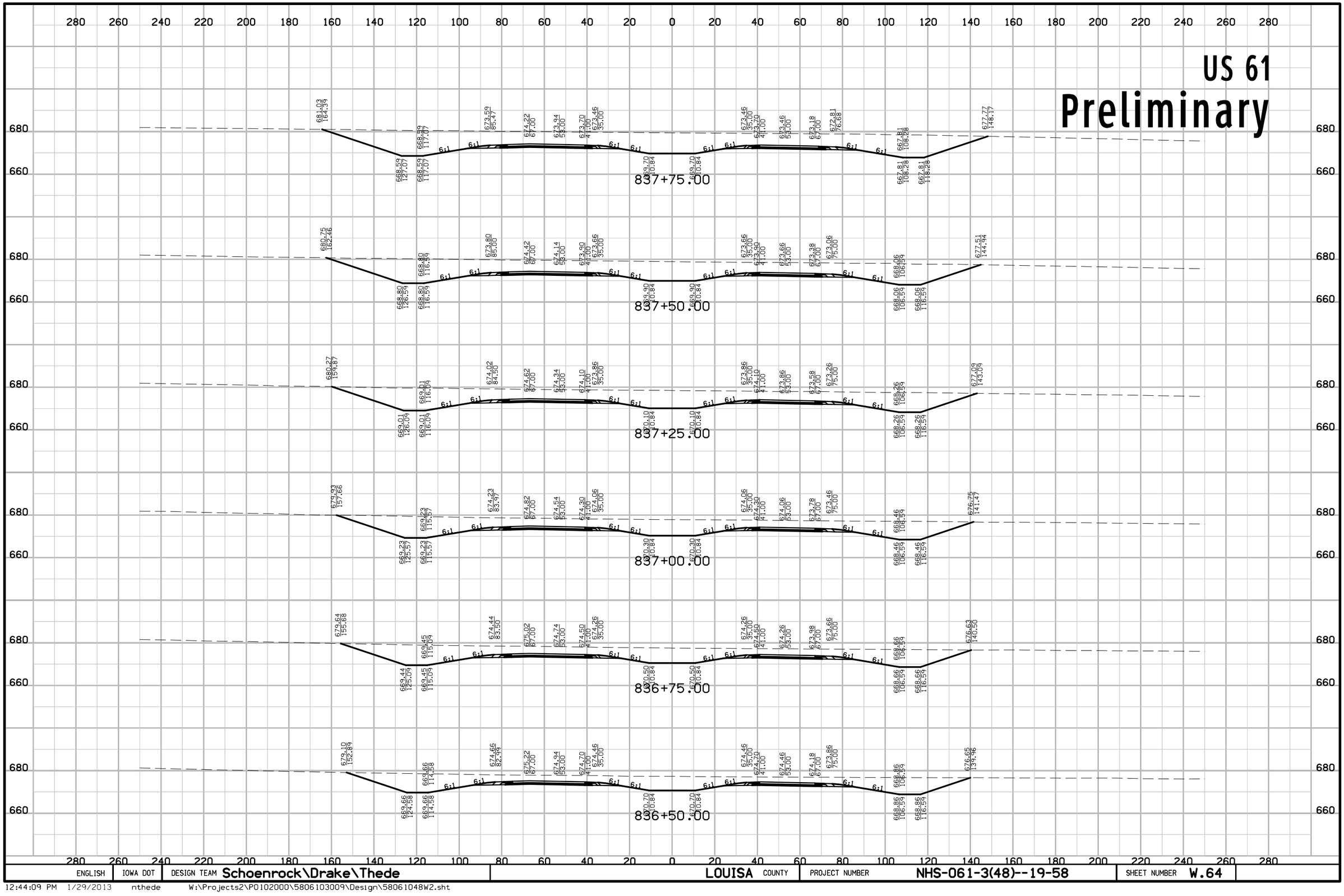
US 61

Preliminary



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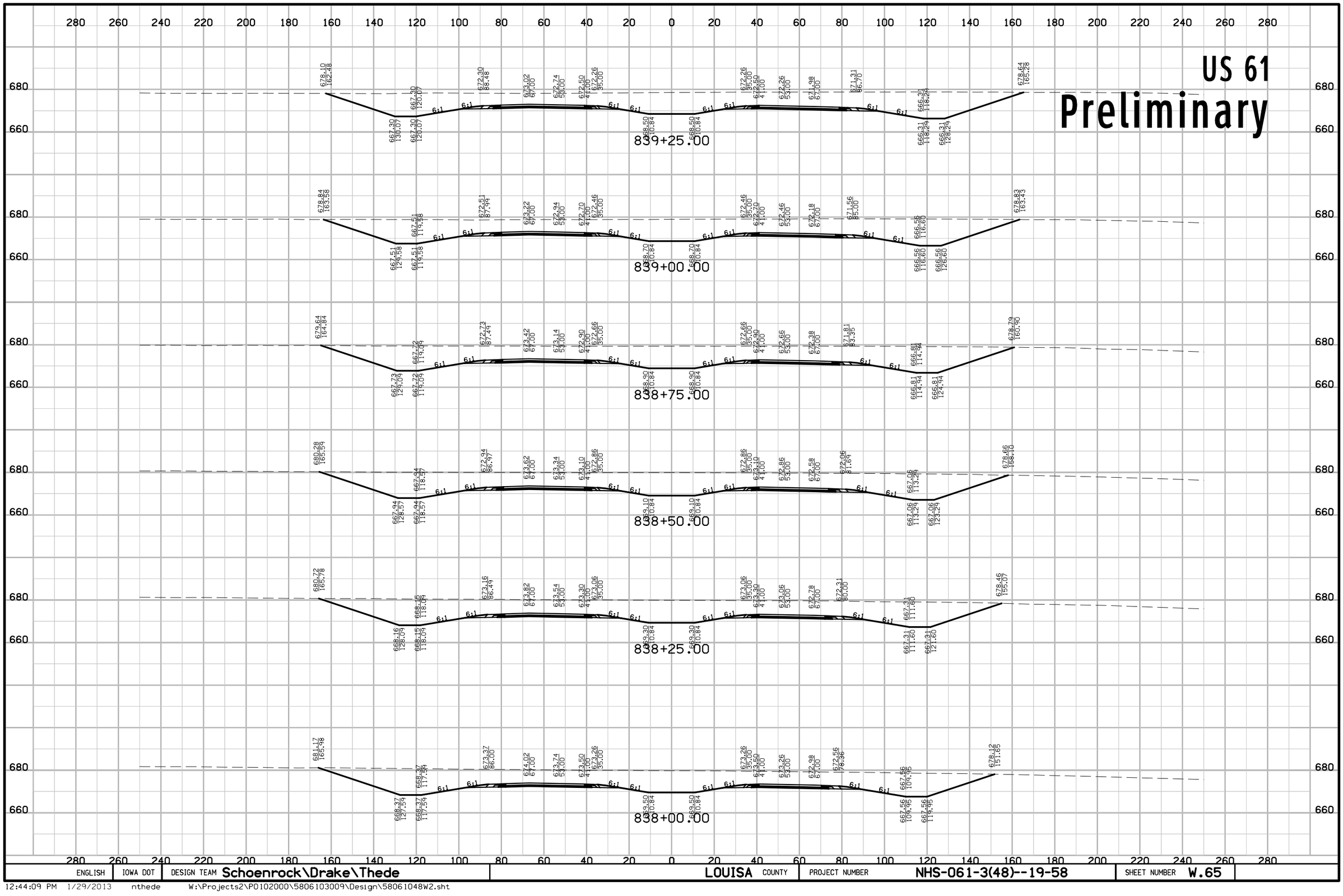
US 61

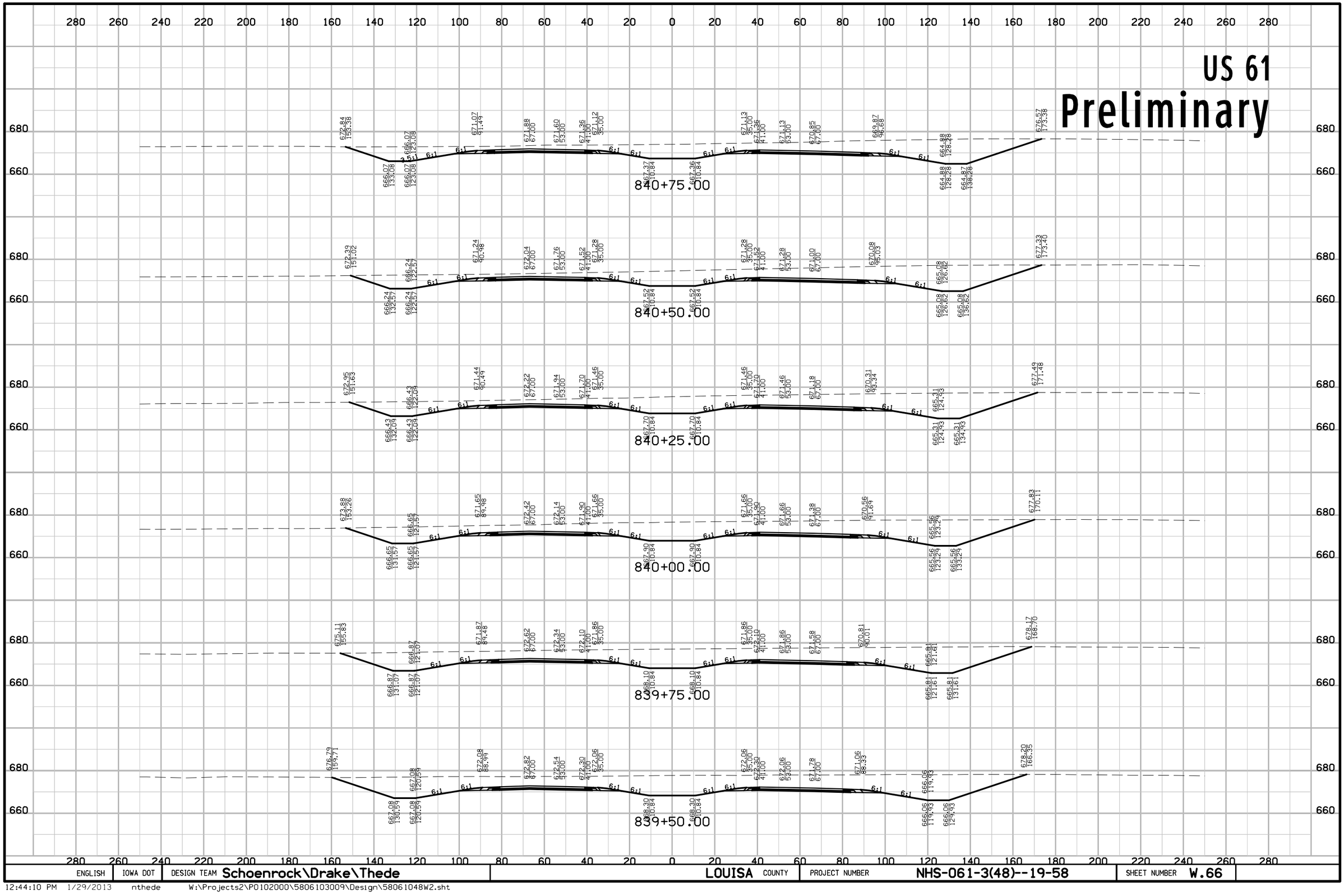
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.65

US 61

Preliminary



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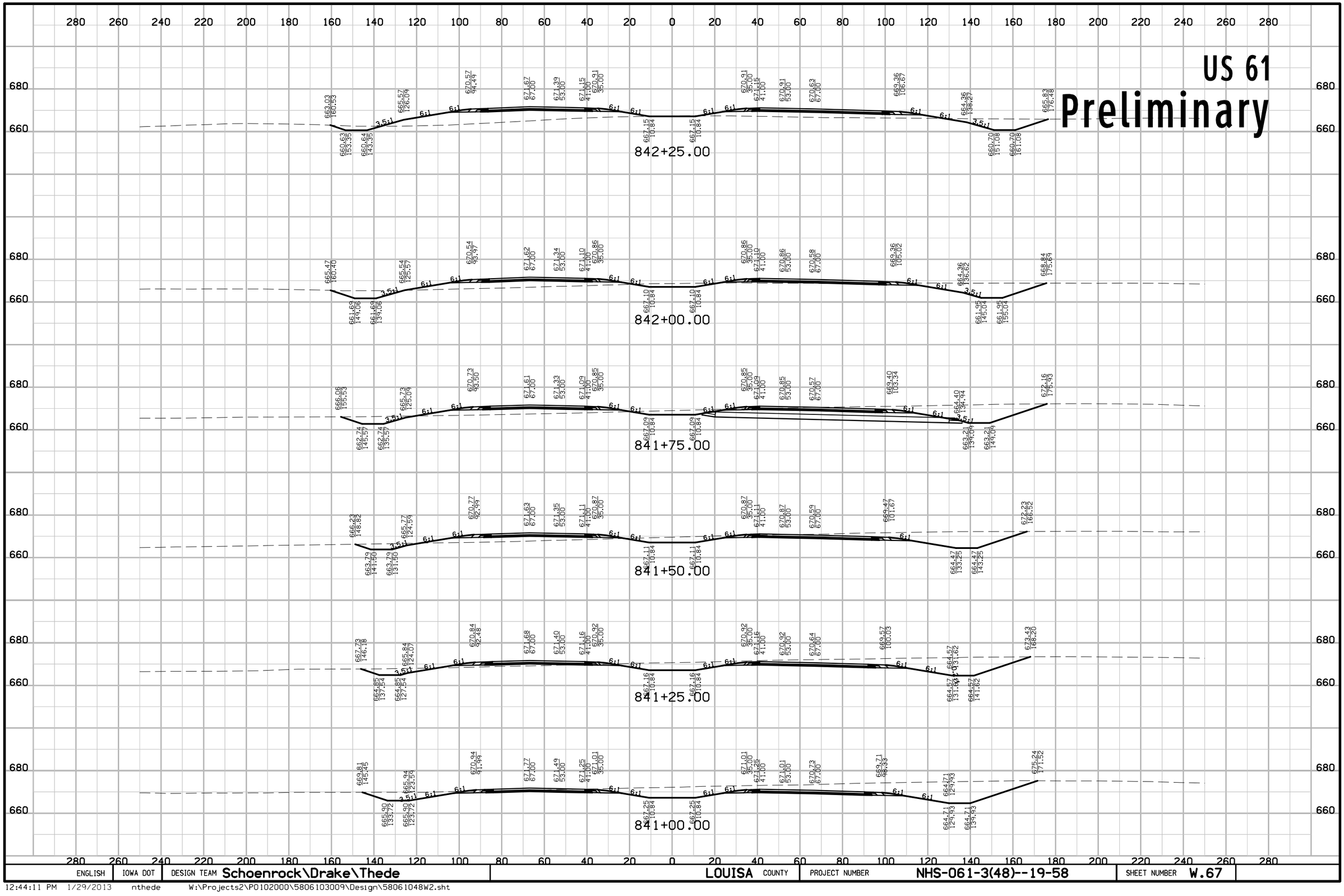
US 61

Preliminary



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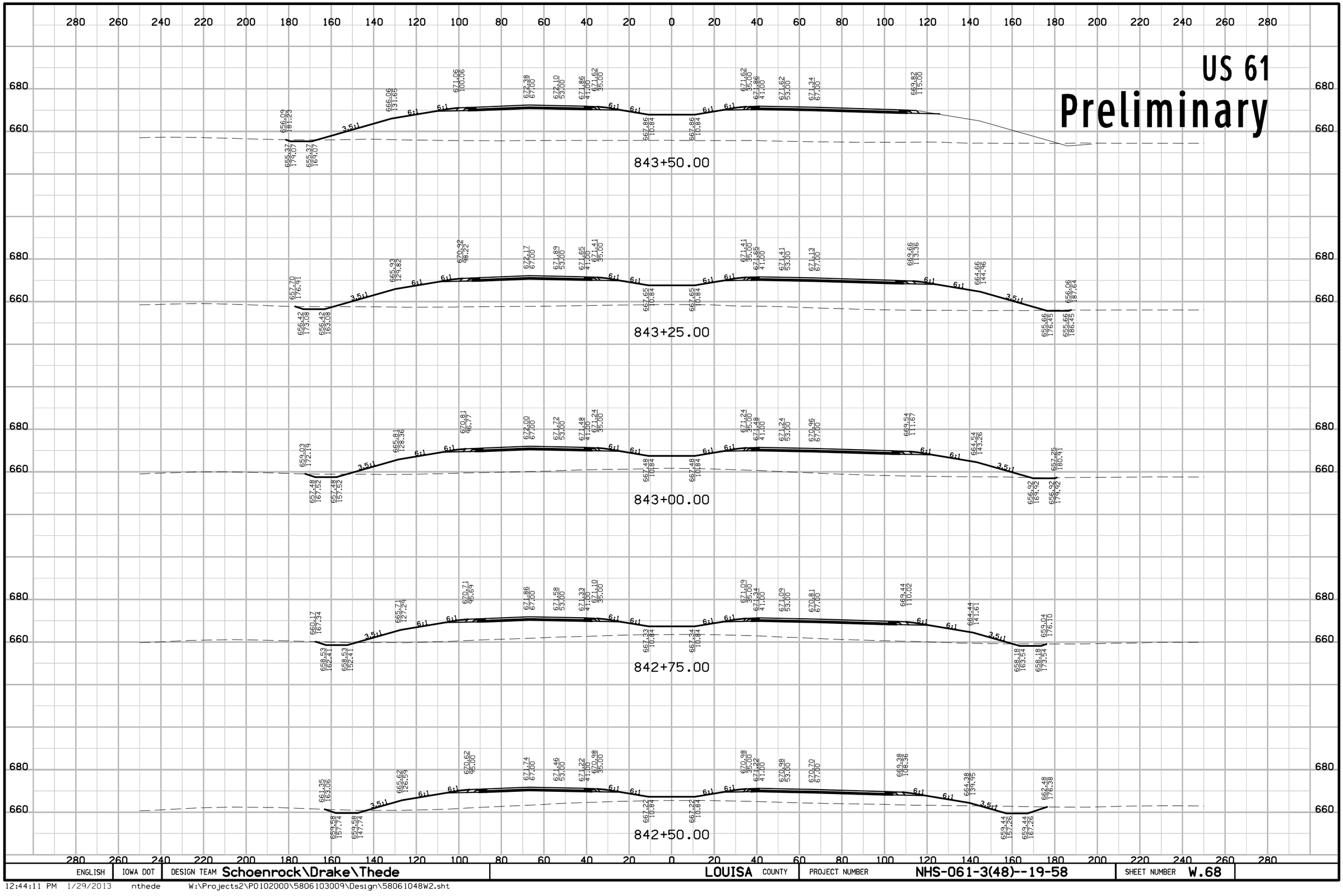
US 61

Preliminary



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US 61

Preliminary

844+50.00

844+25.00

SKEWED

844+00.10

844+00.00

843+75.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.69

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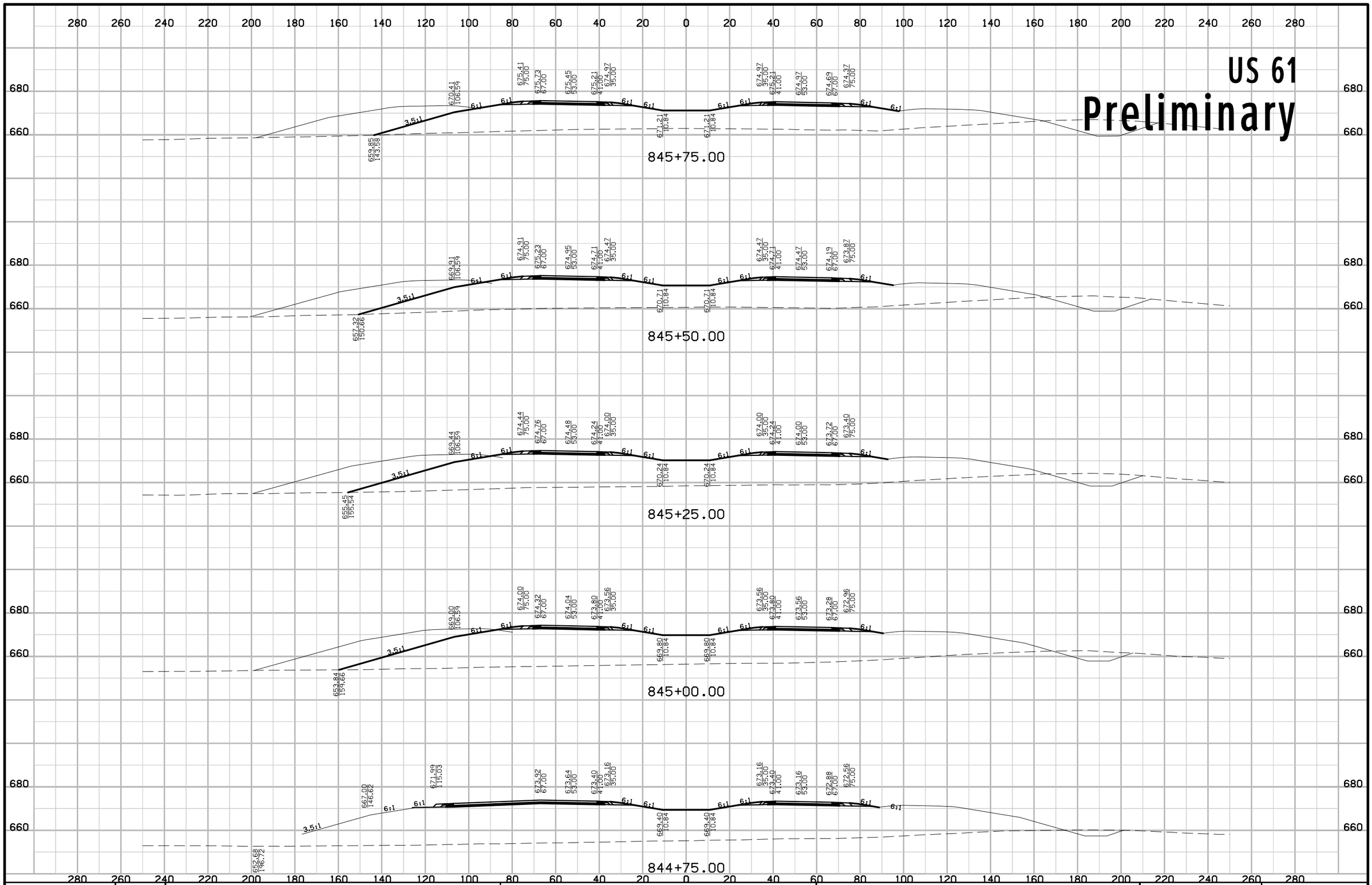
US 61

Preliminary



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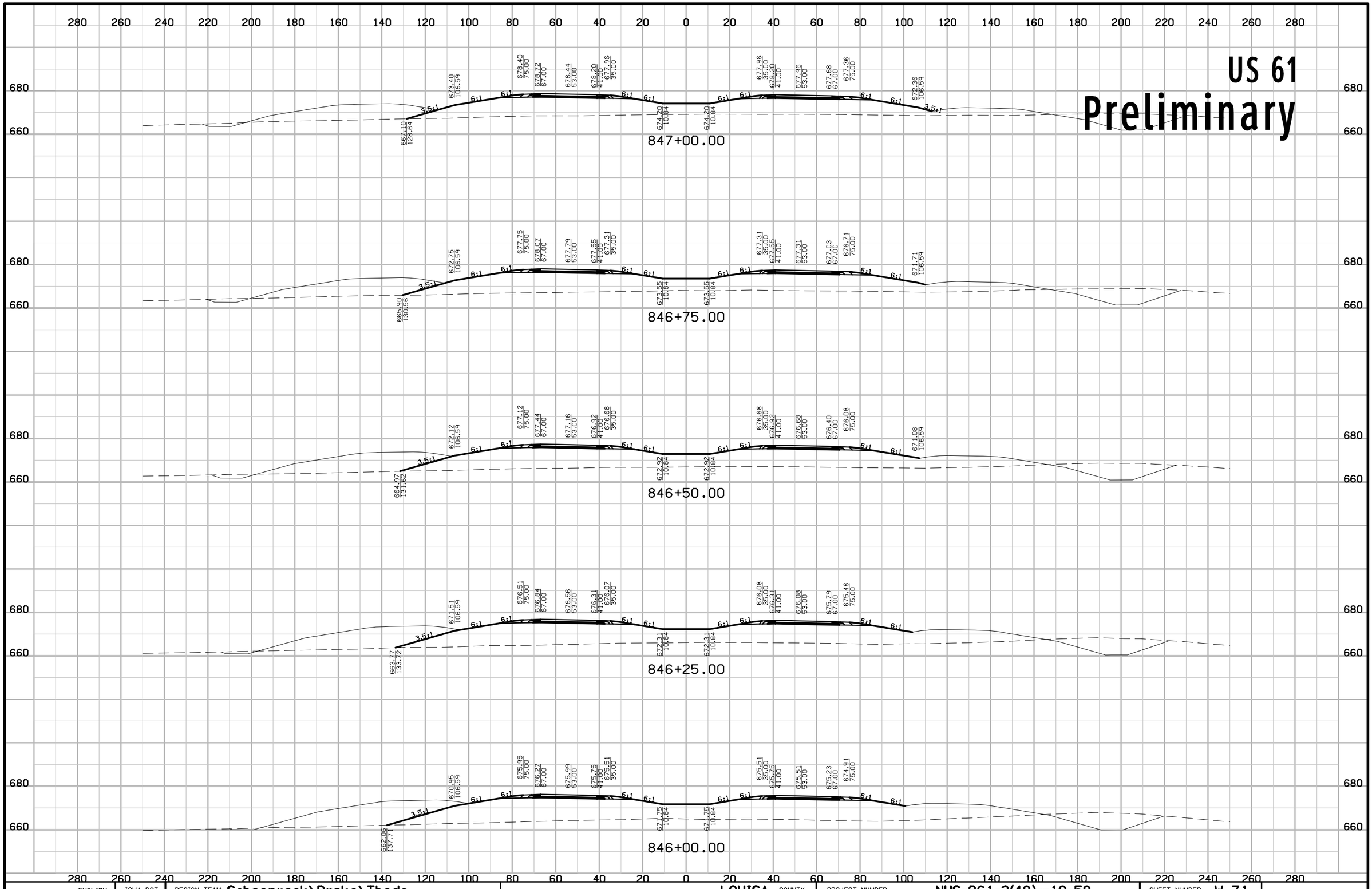
US 61

Preliminary



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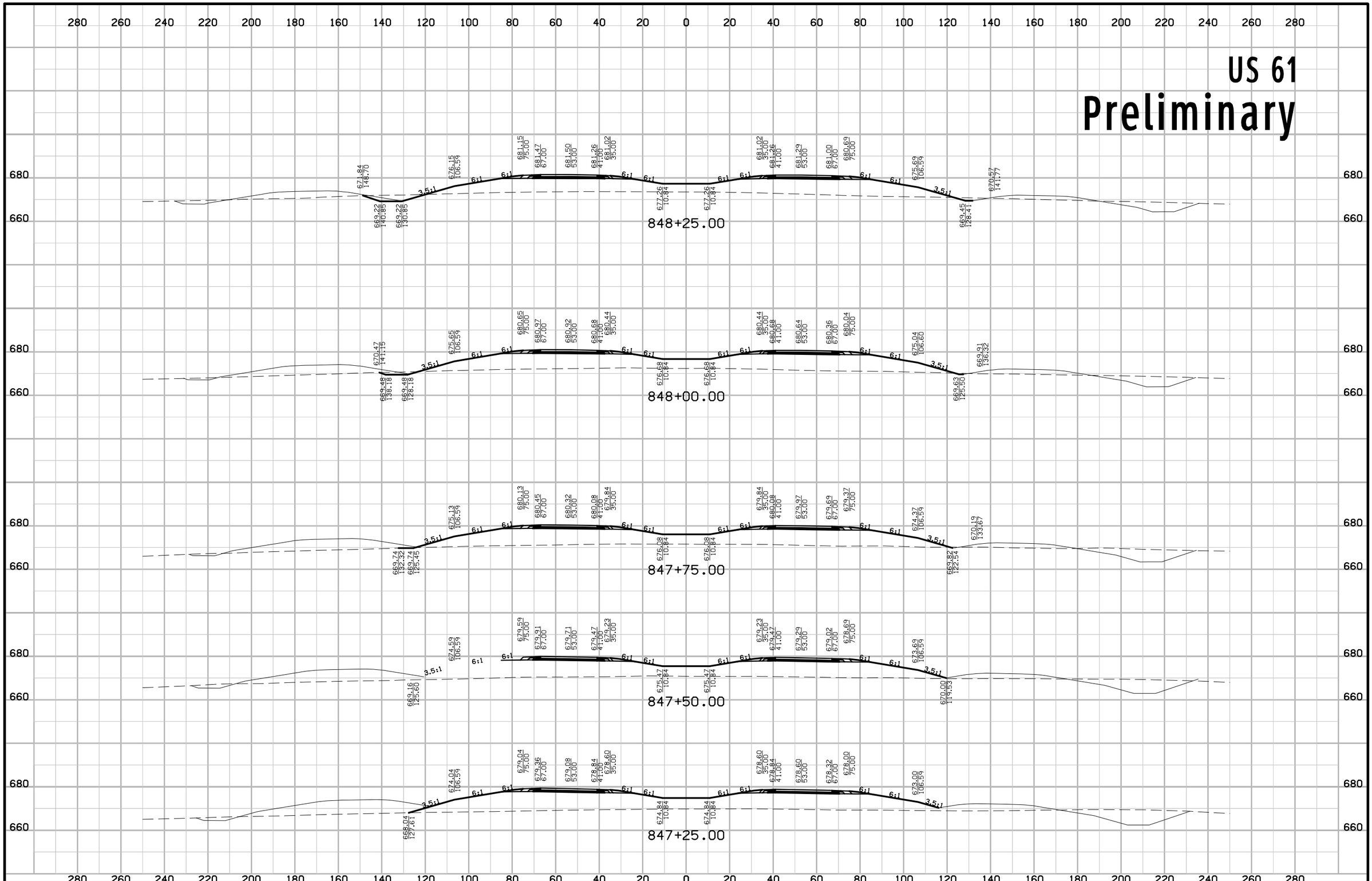
US 61

Preliminary



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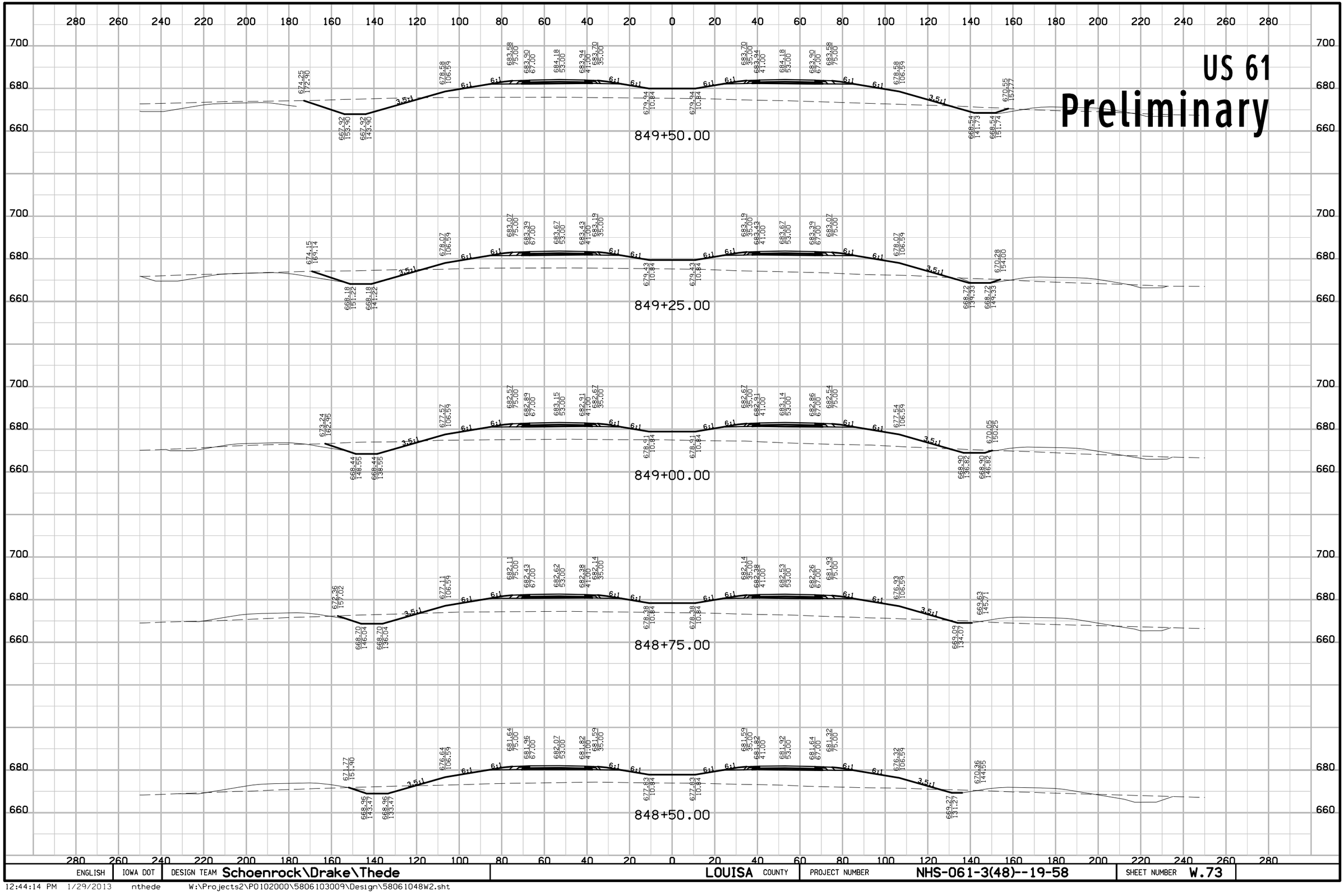
US 61

Preliminary



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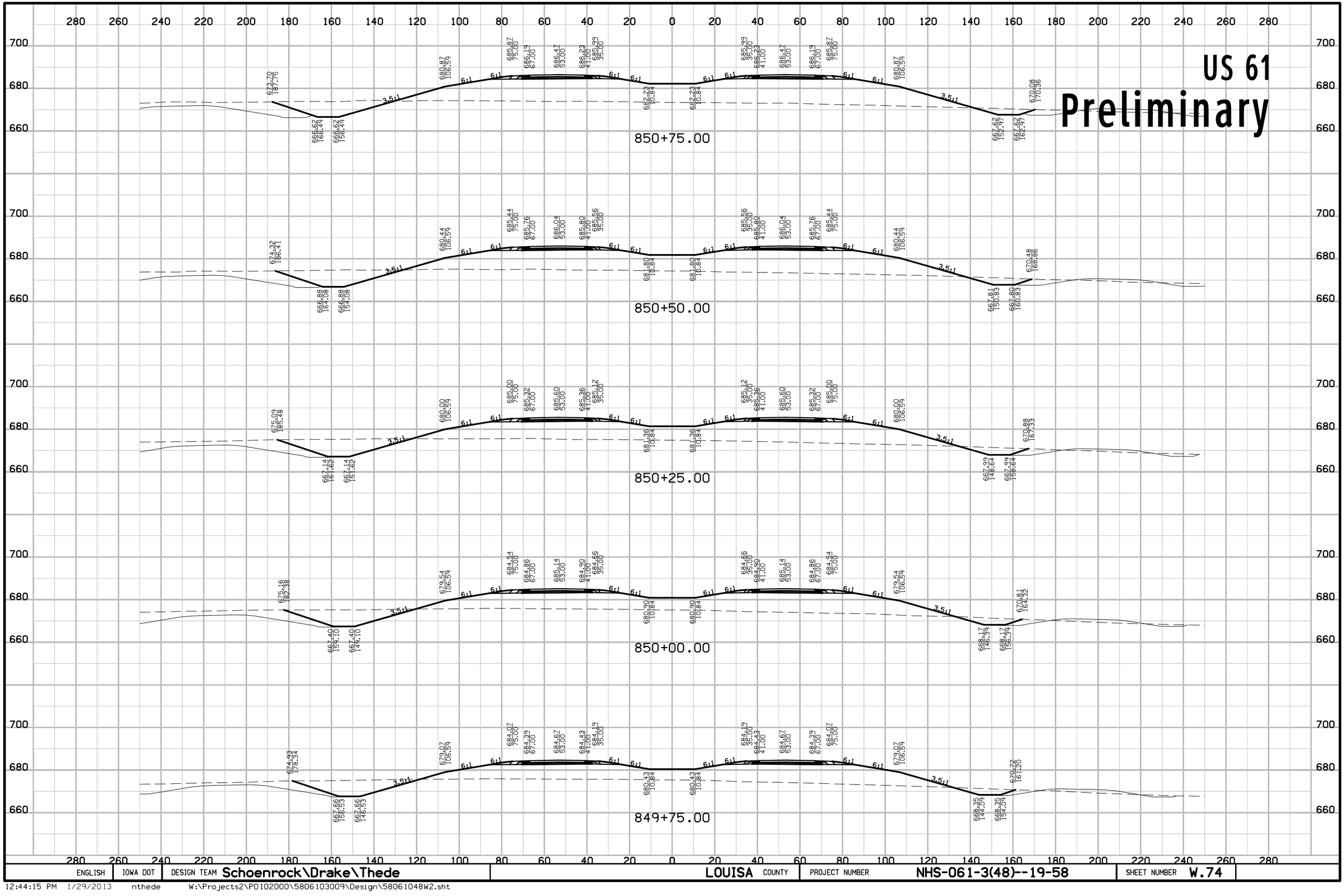
US 61

Preliminary



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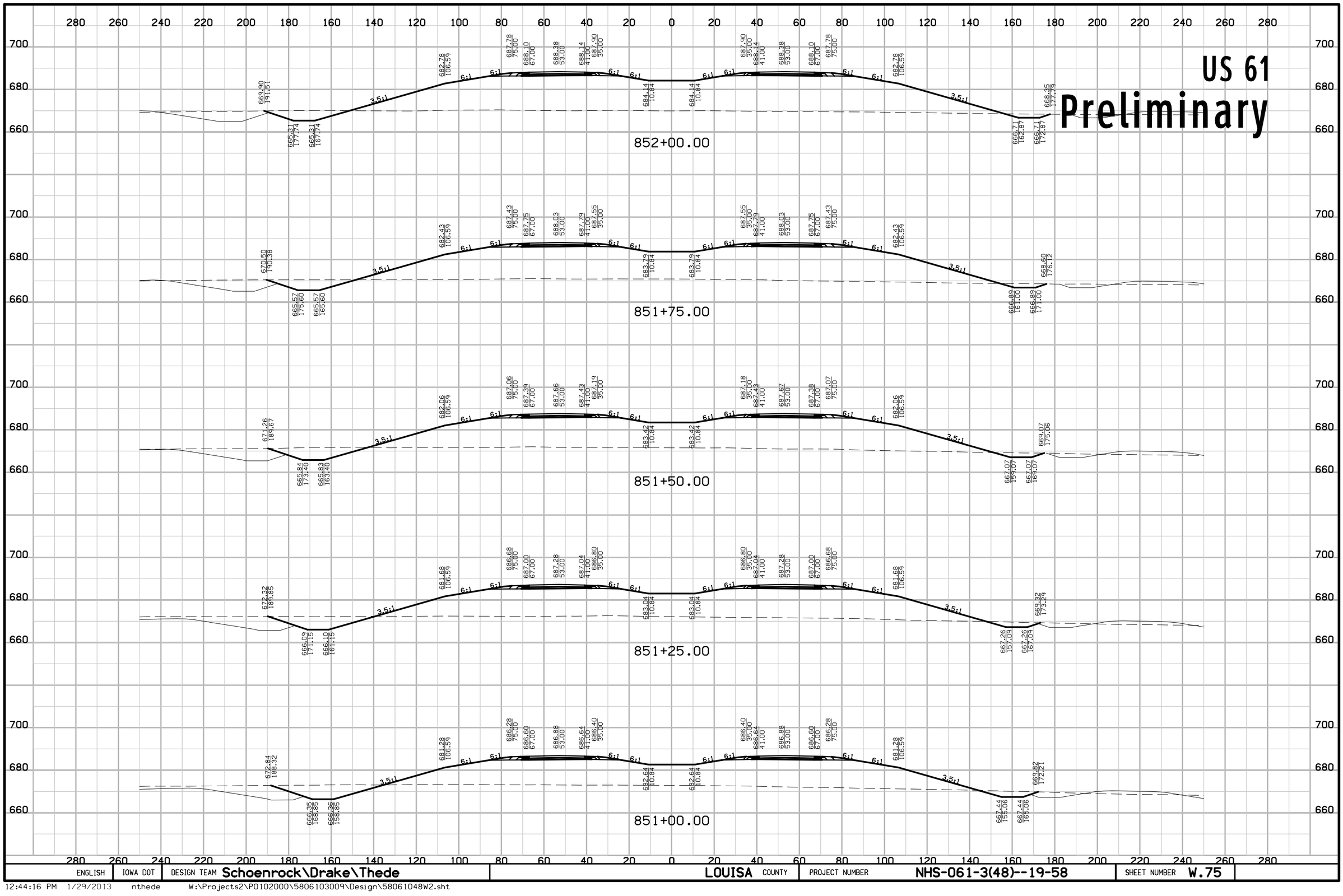
US 61

Preliminary



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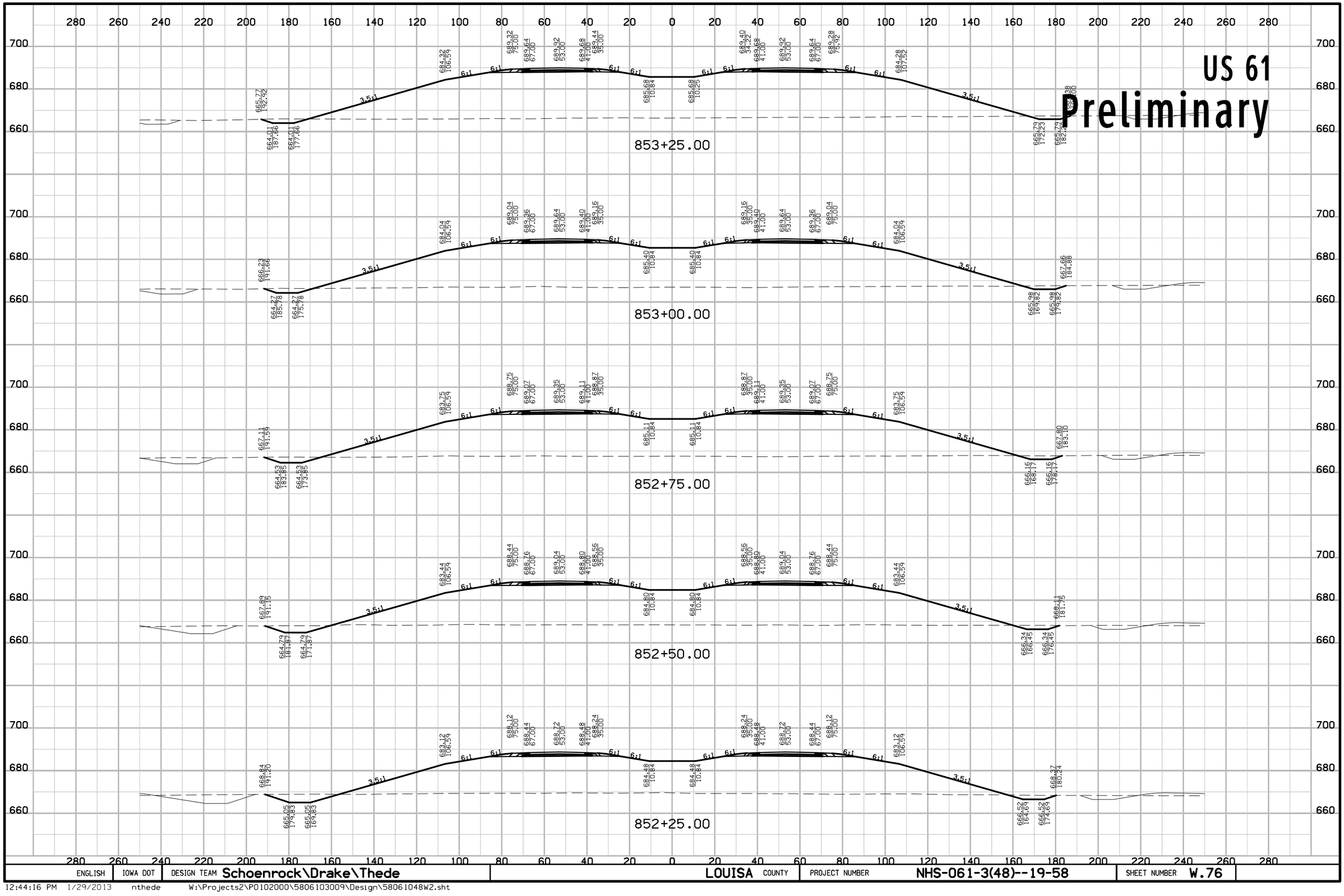
US 61

Preliminary



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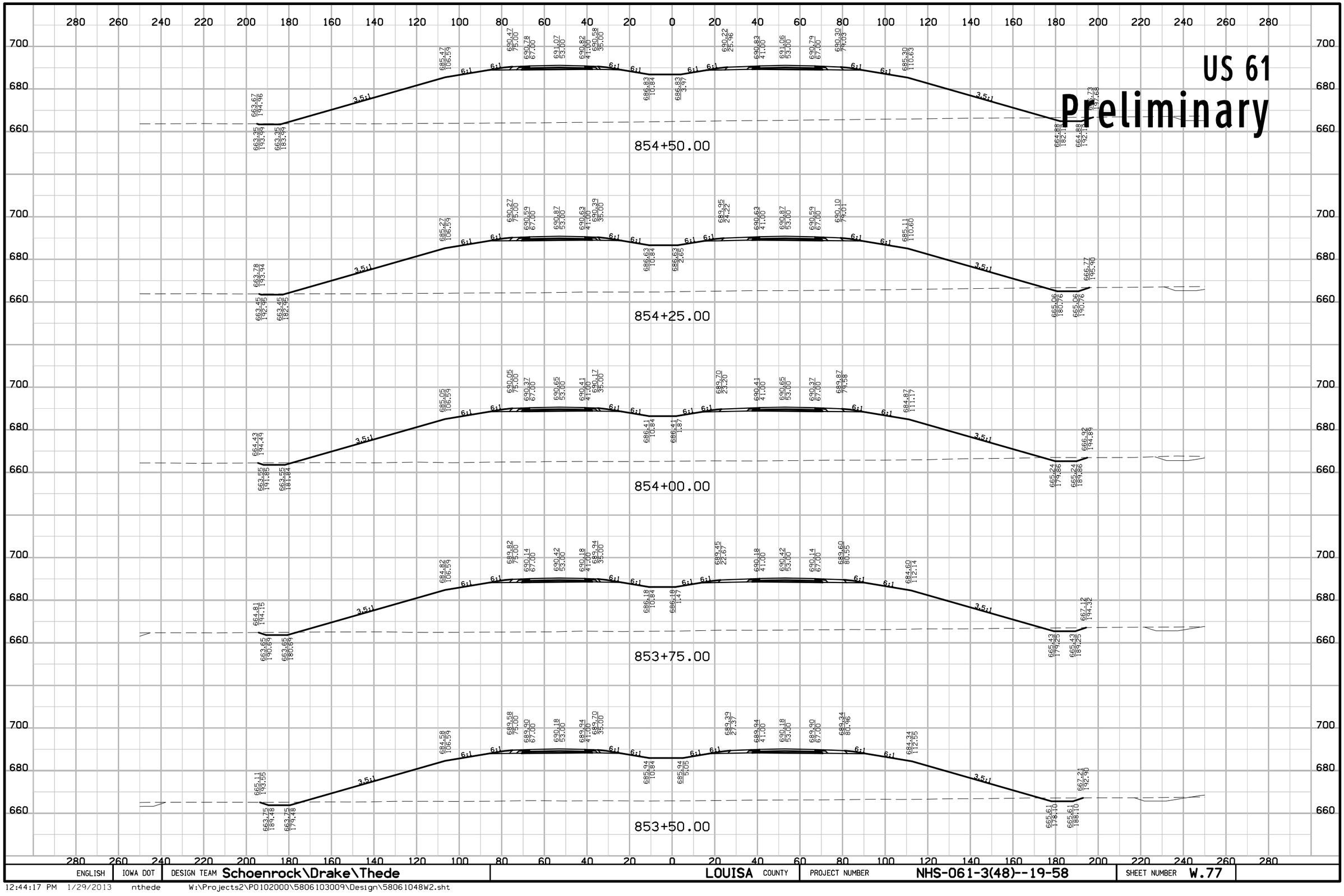
US 61

Preliminary



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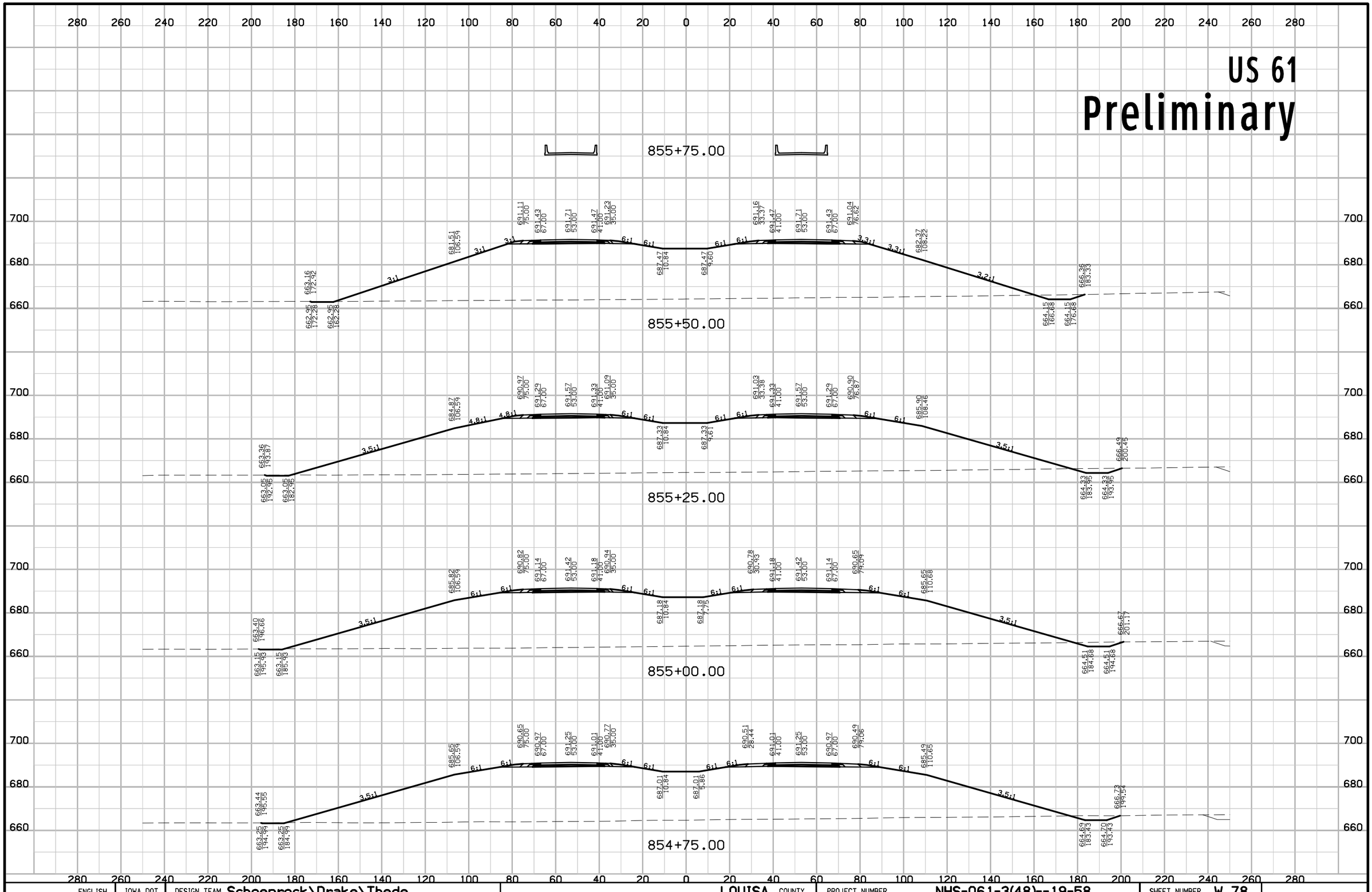
US 61
Preliminary



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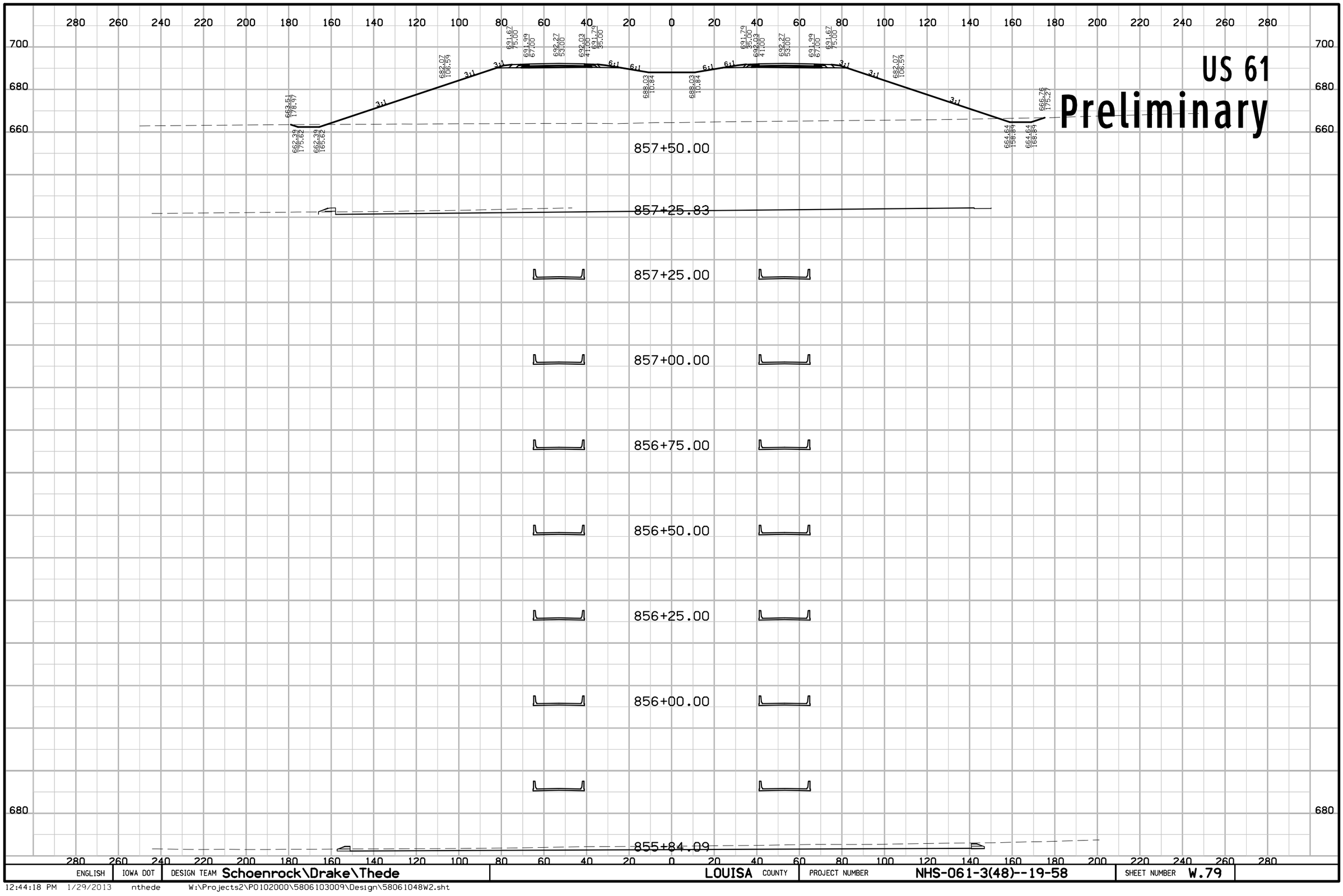
US 61

Preliminary



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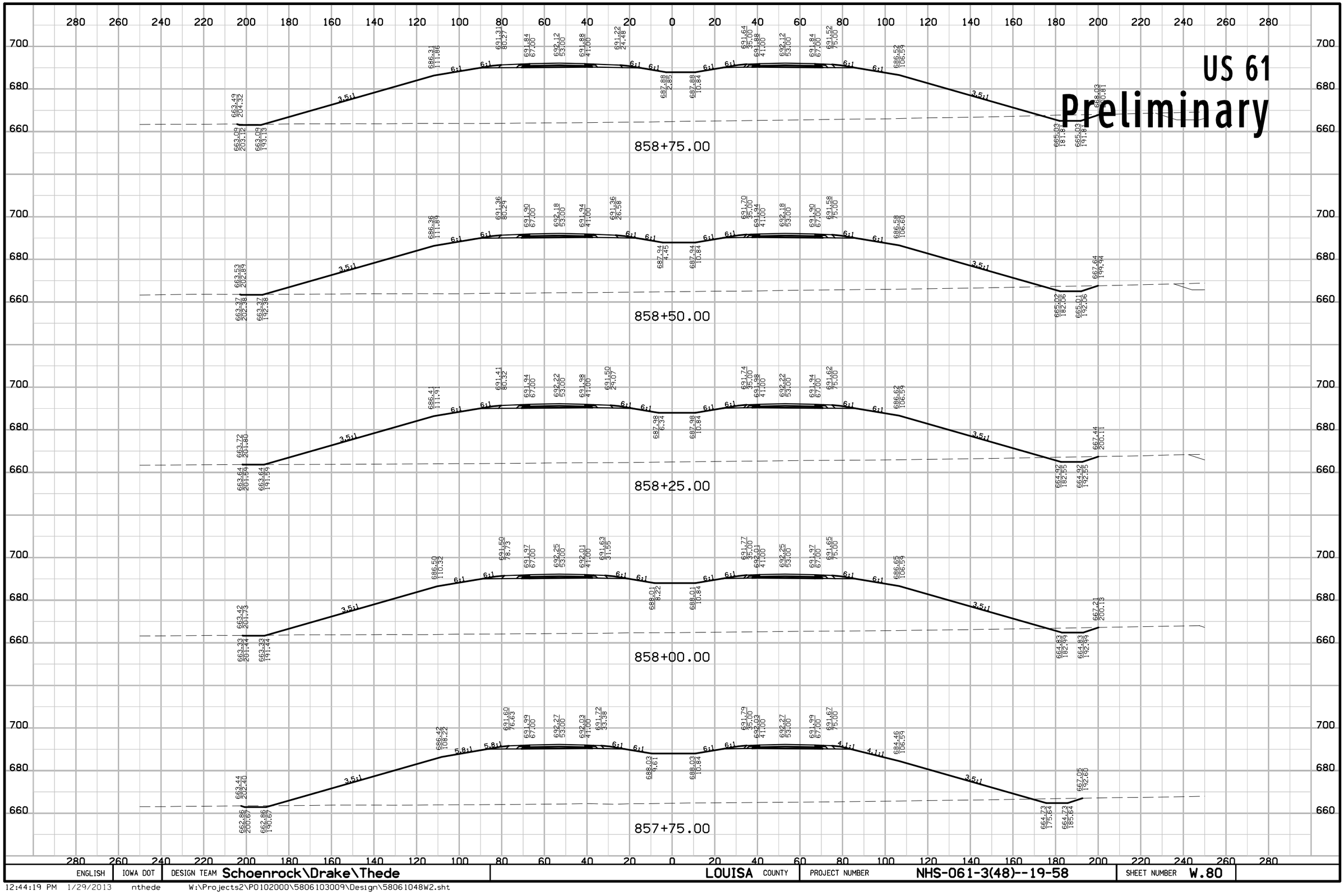
US 61

Preliminary



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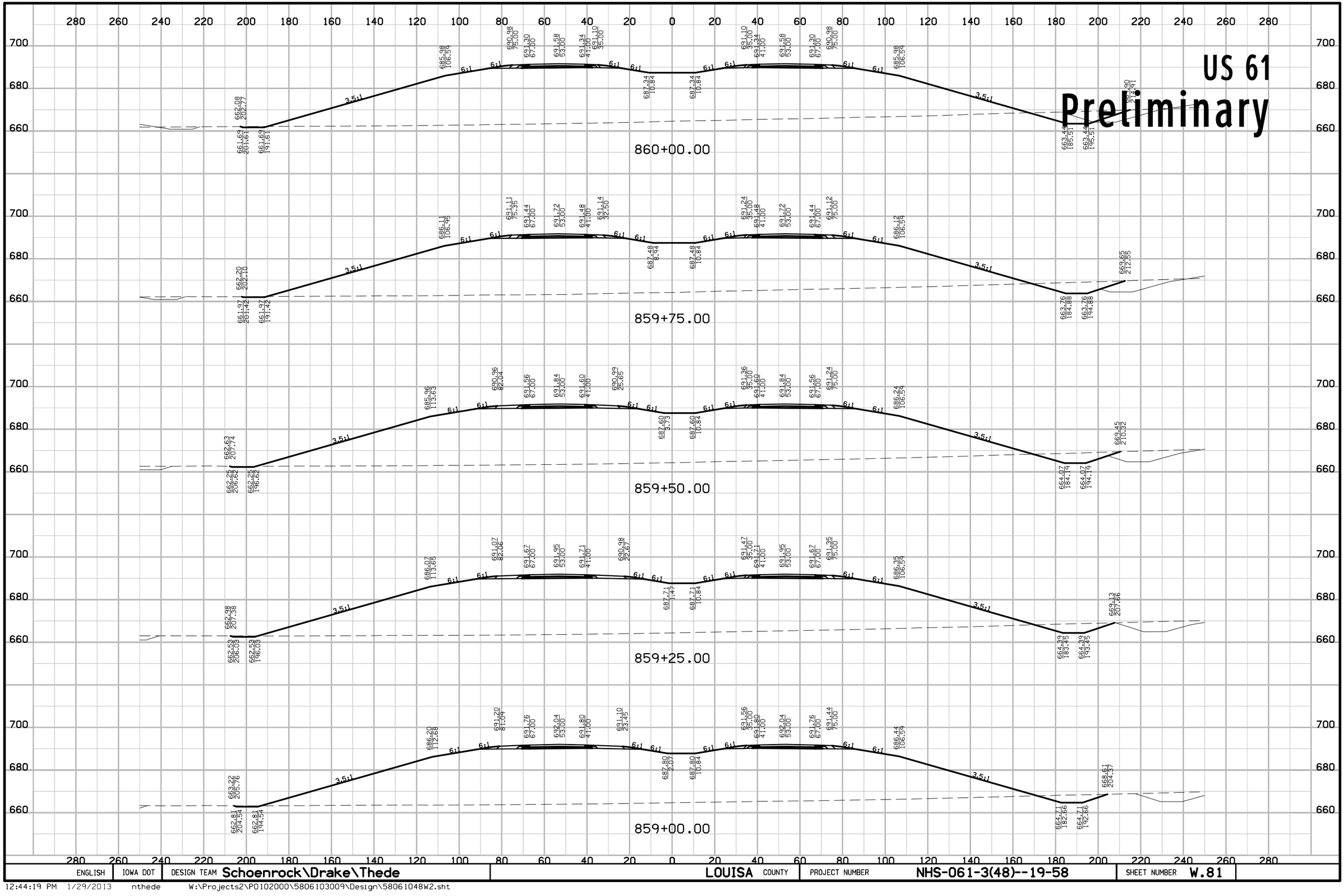
US 61

Preliminary



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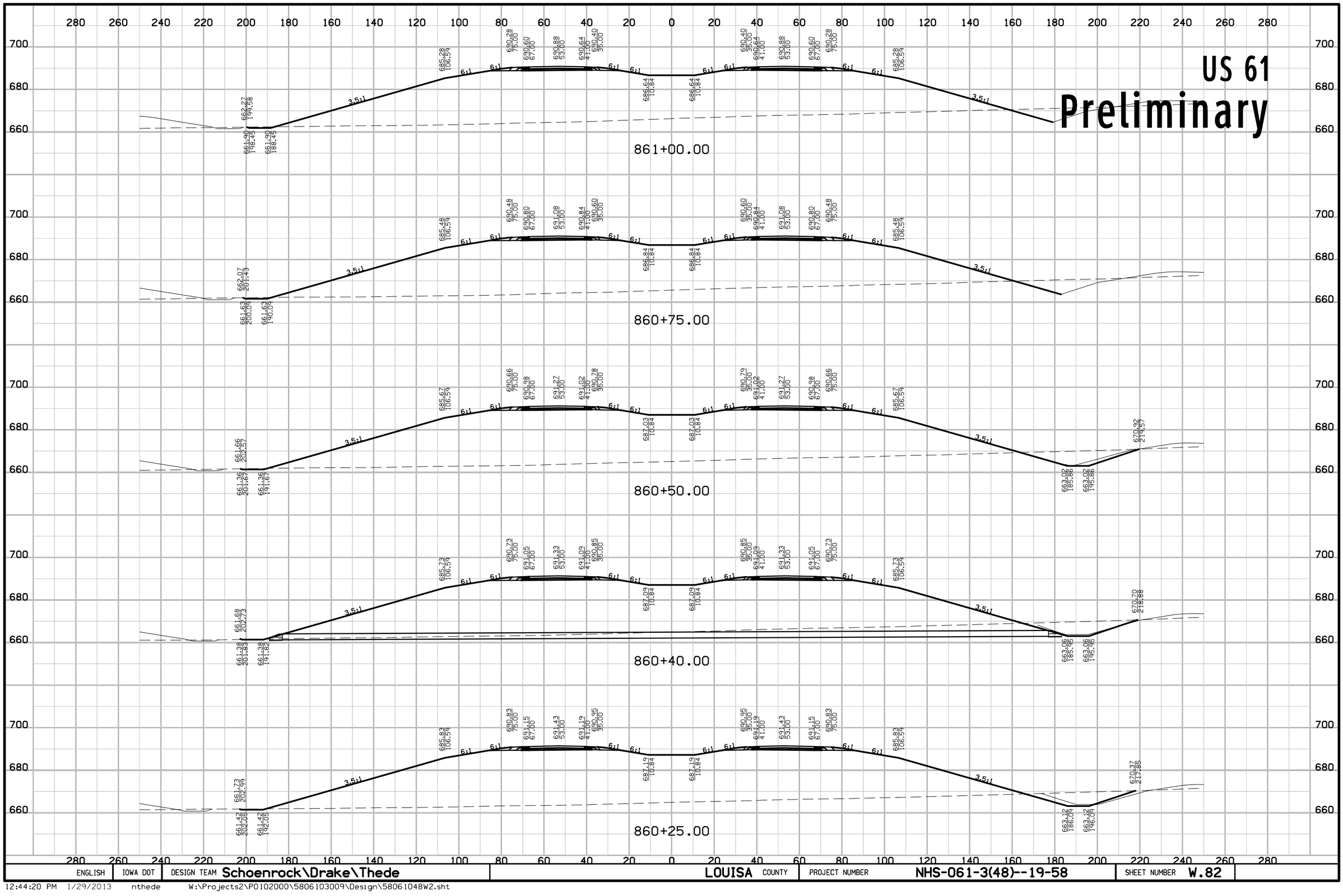
US 61

Preliminary



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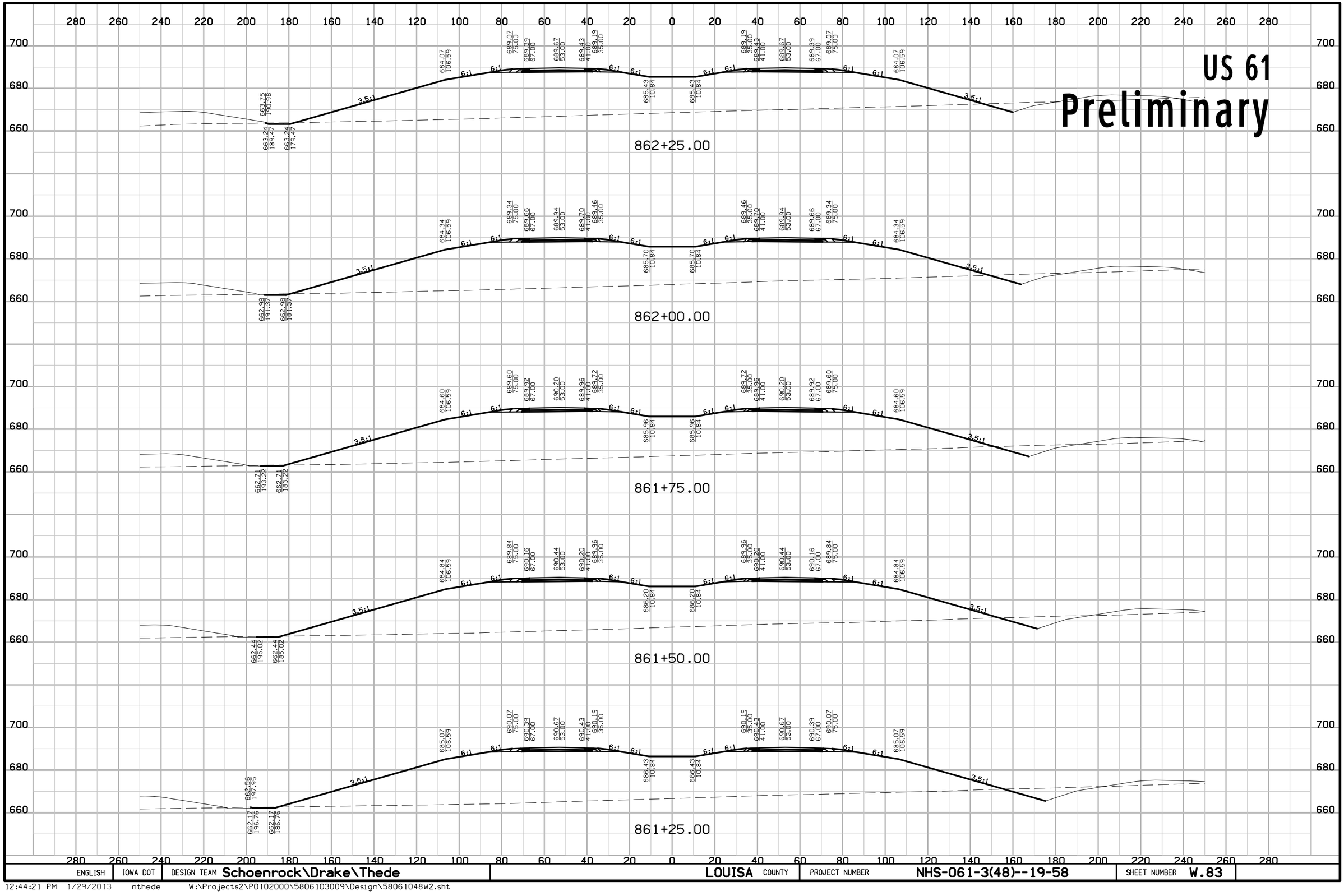
US 61

Preliminary



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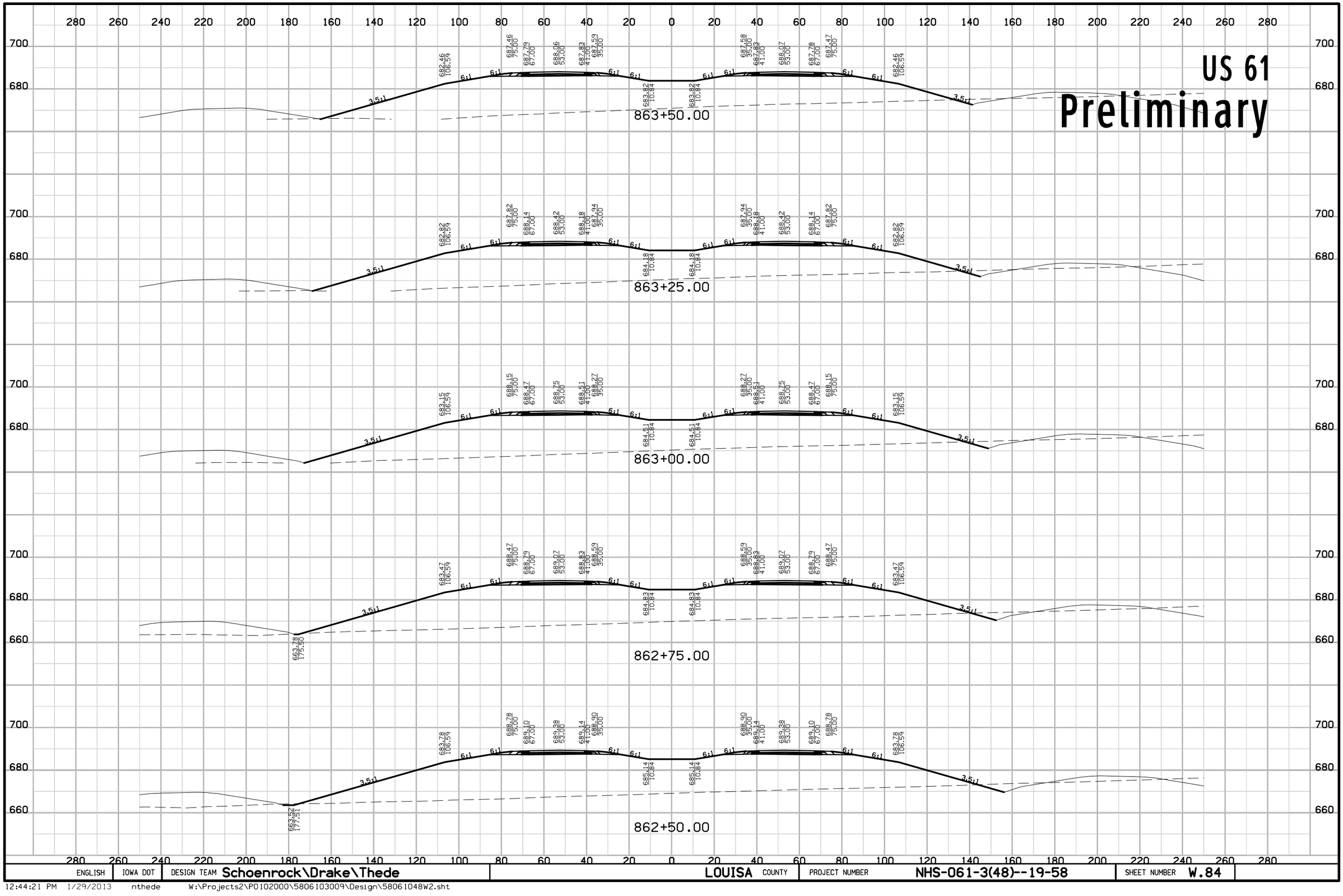
US 61

Preliminary



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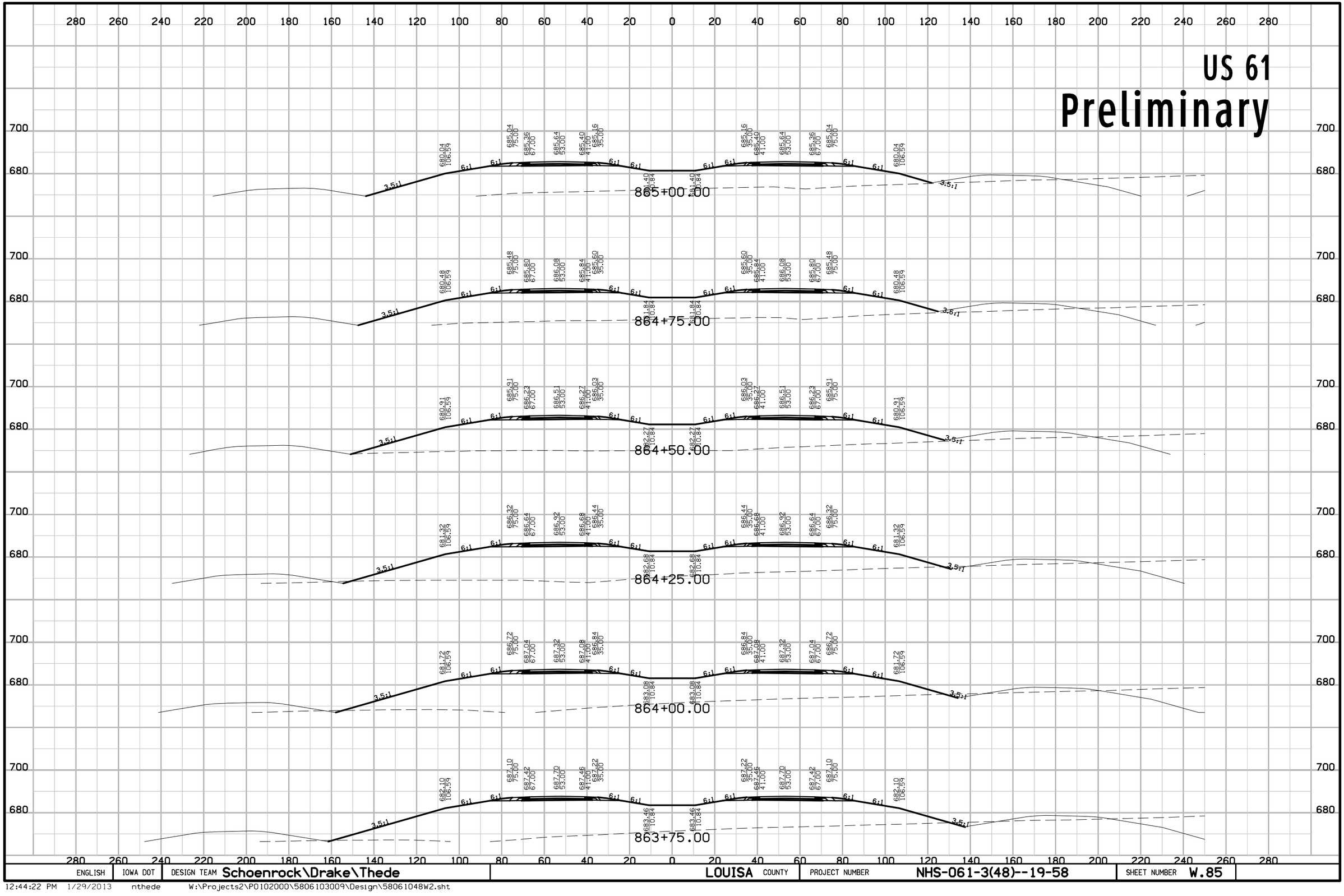
US 61
Preliminary



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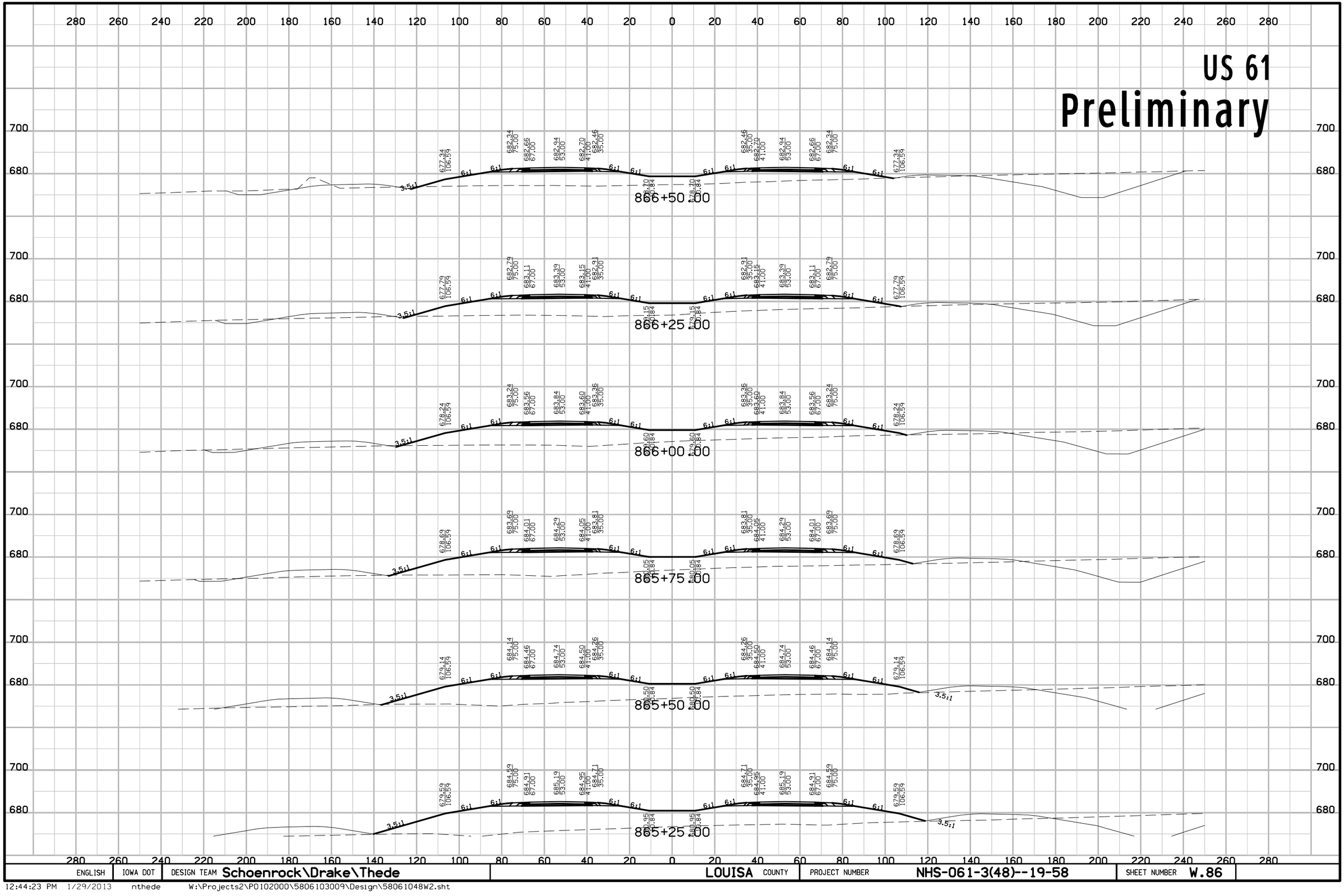
US 61

Preliminary



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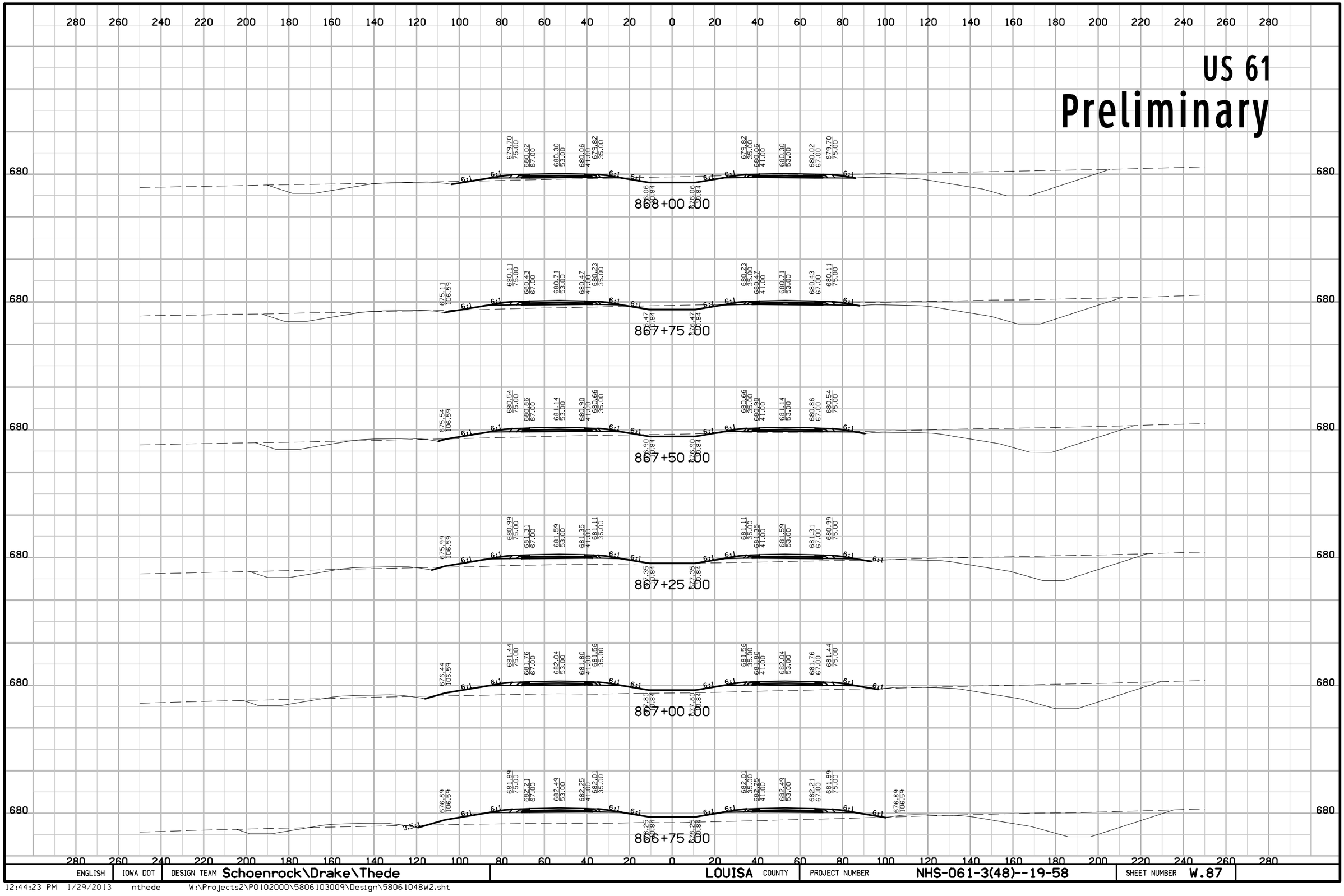
US 61
Preliminary



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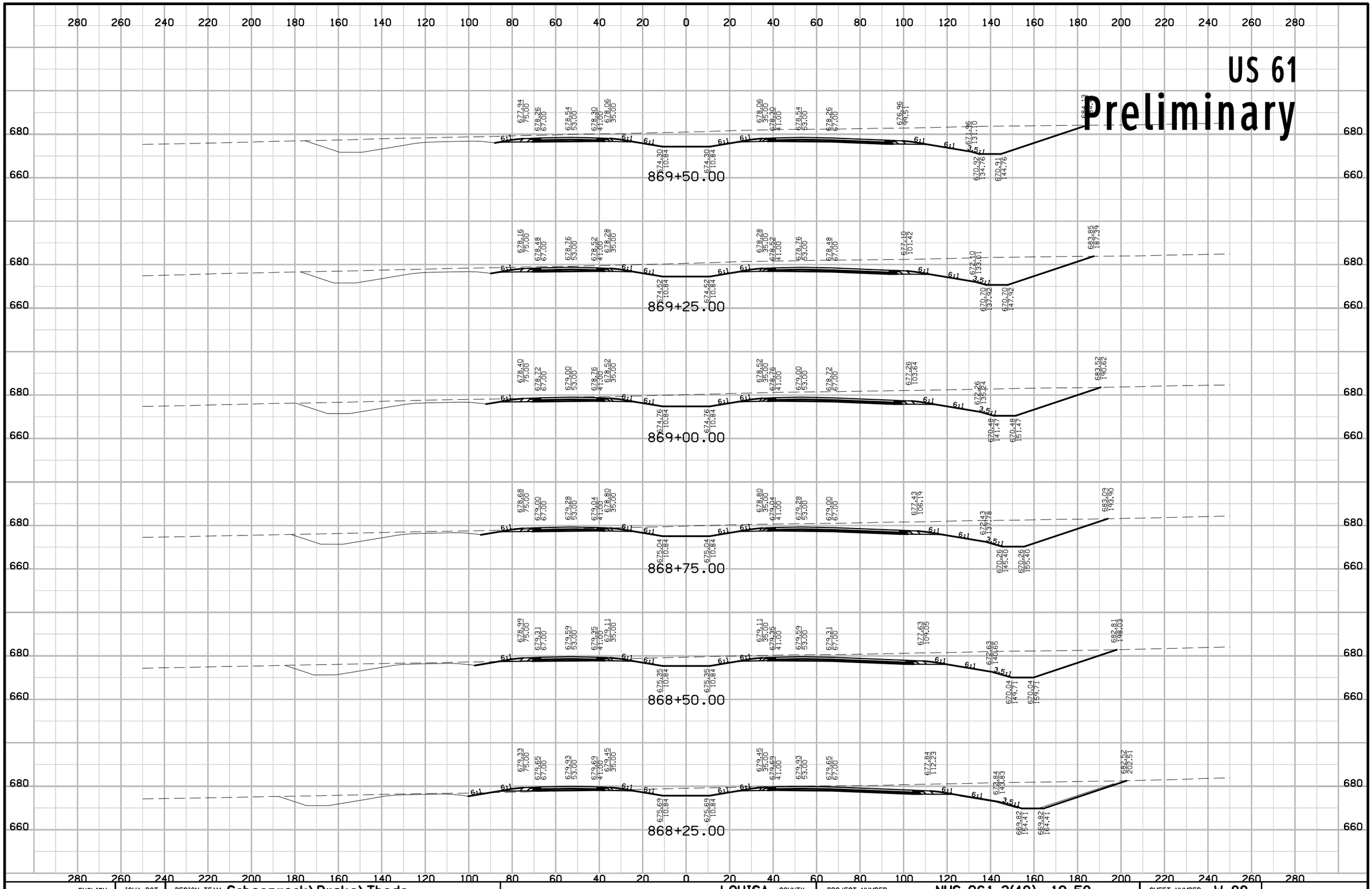
US 61

Preliminary



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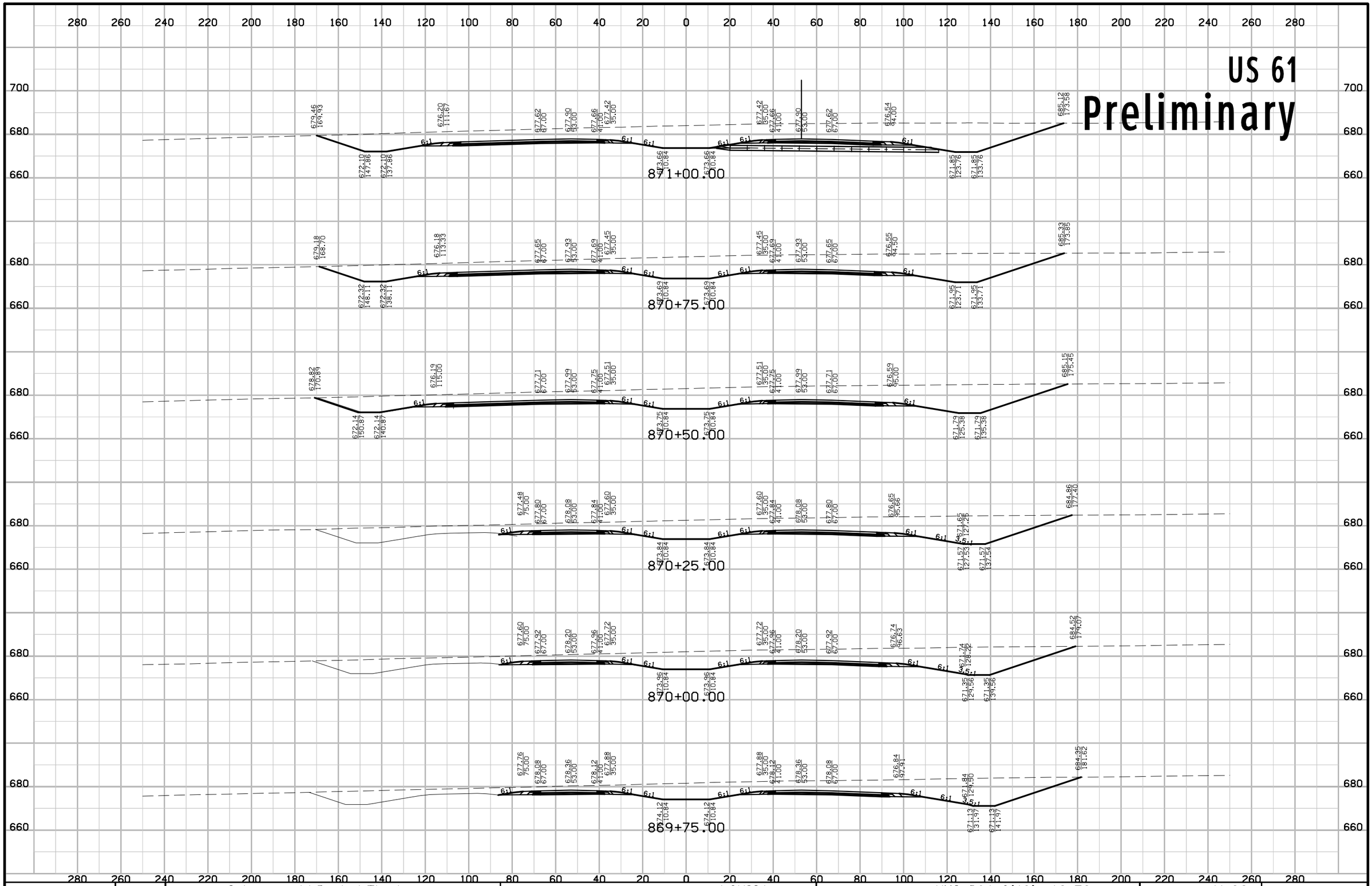
US 61

Preliminary



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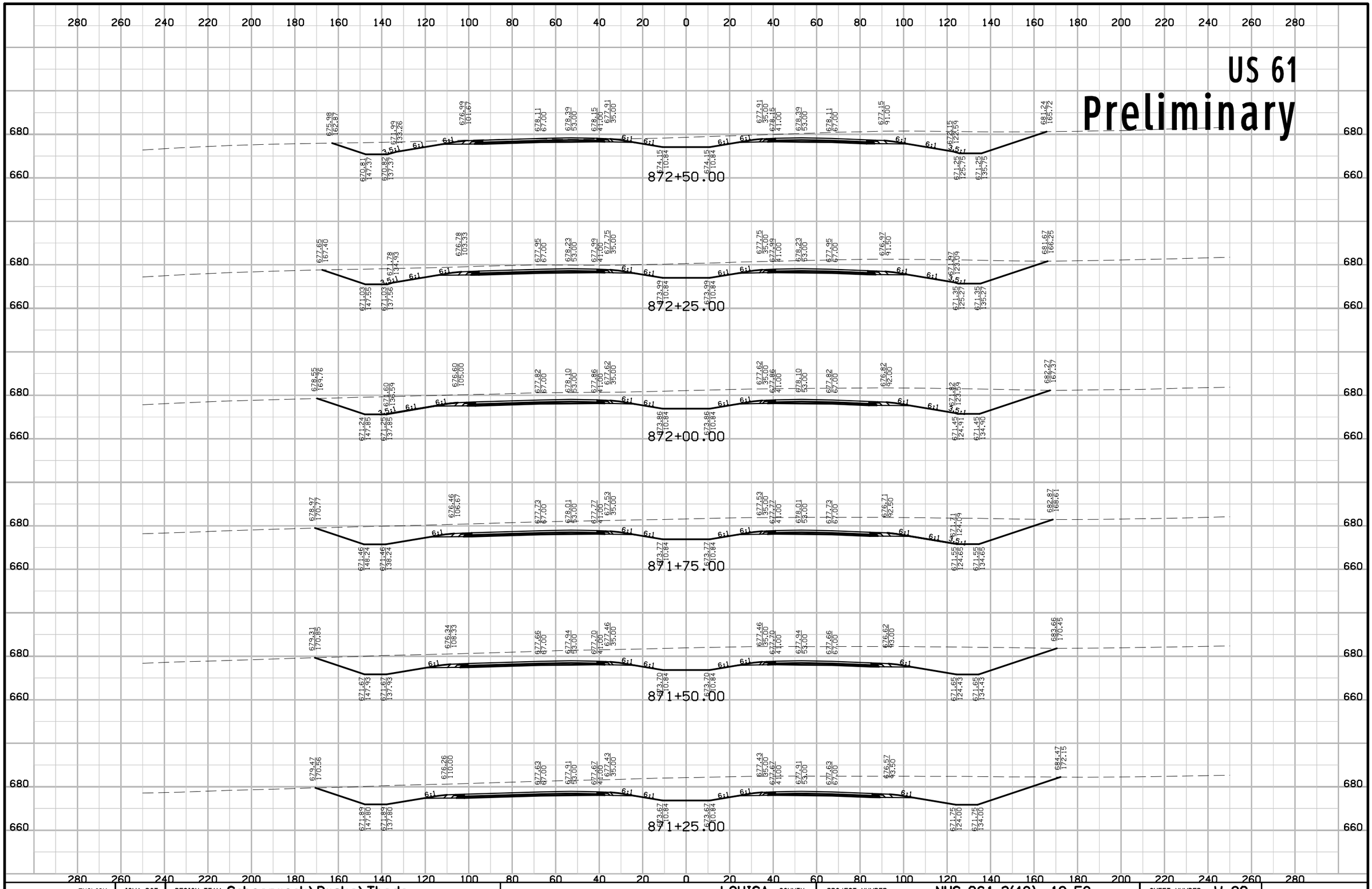
US 61

Preliminary



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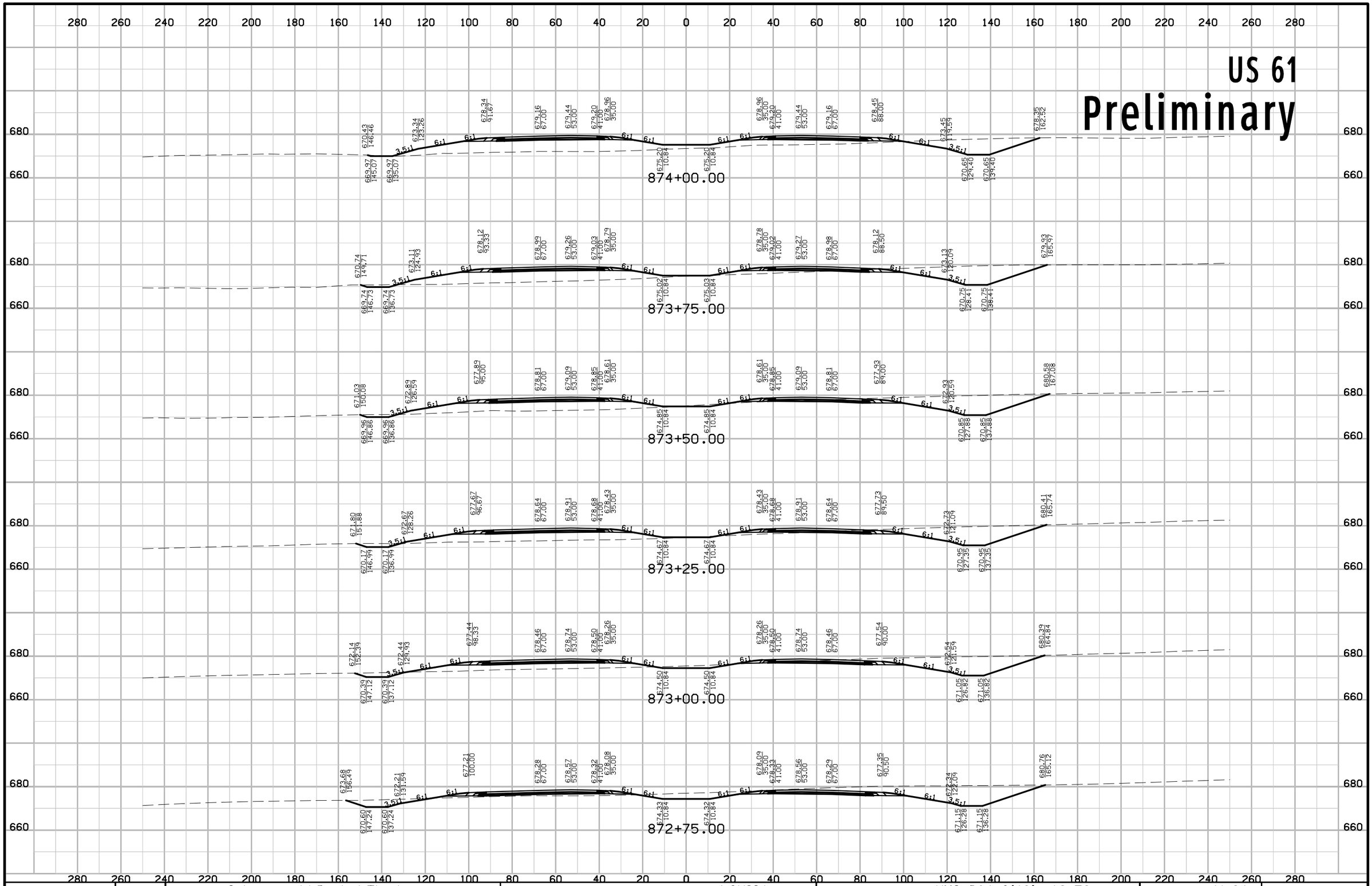
US 61

Preliminary



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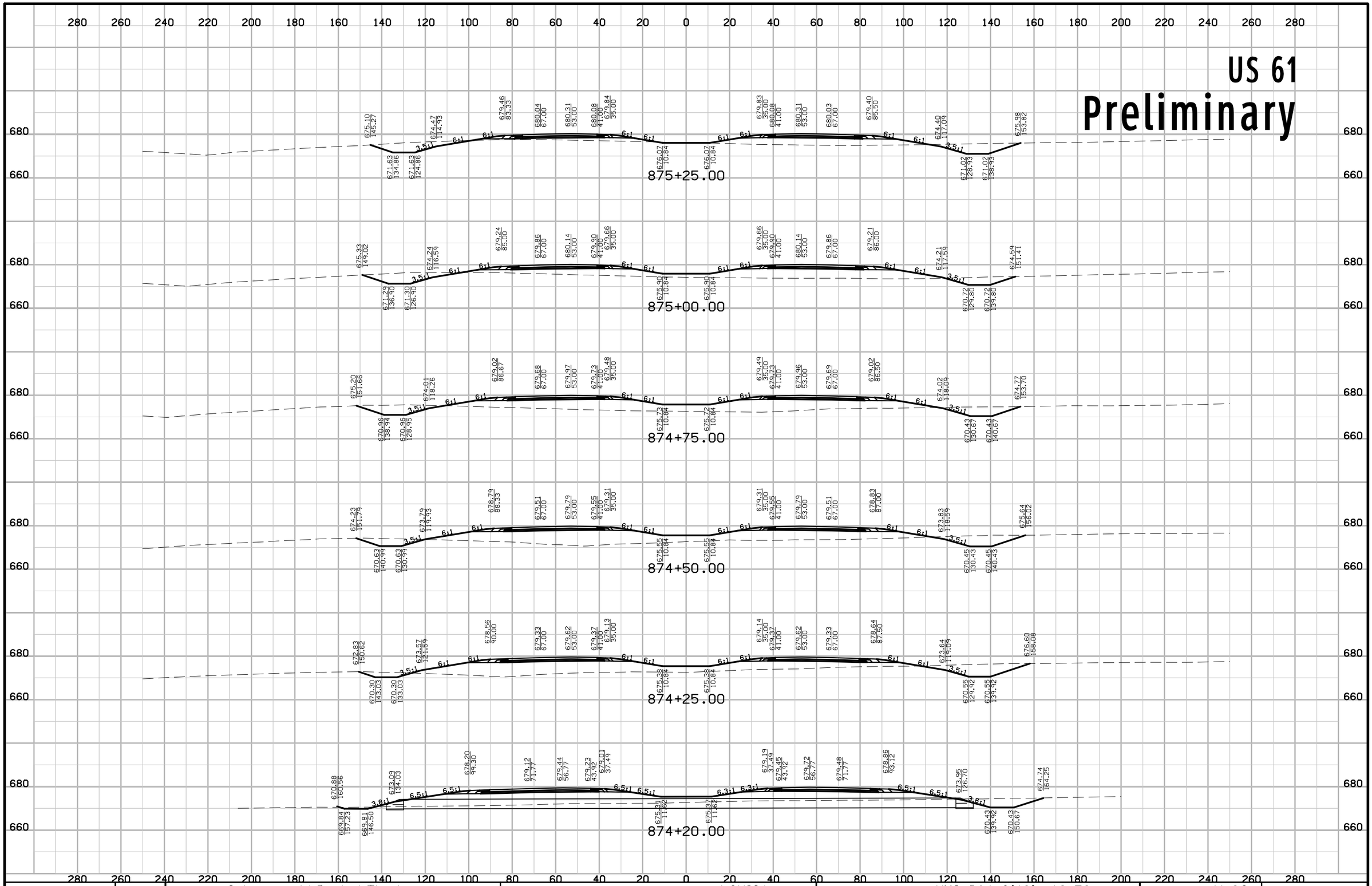
US 61

Preliminary



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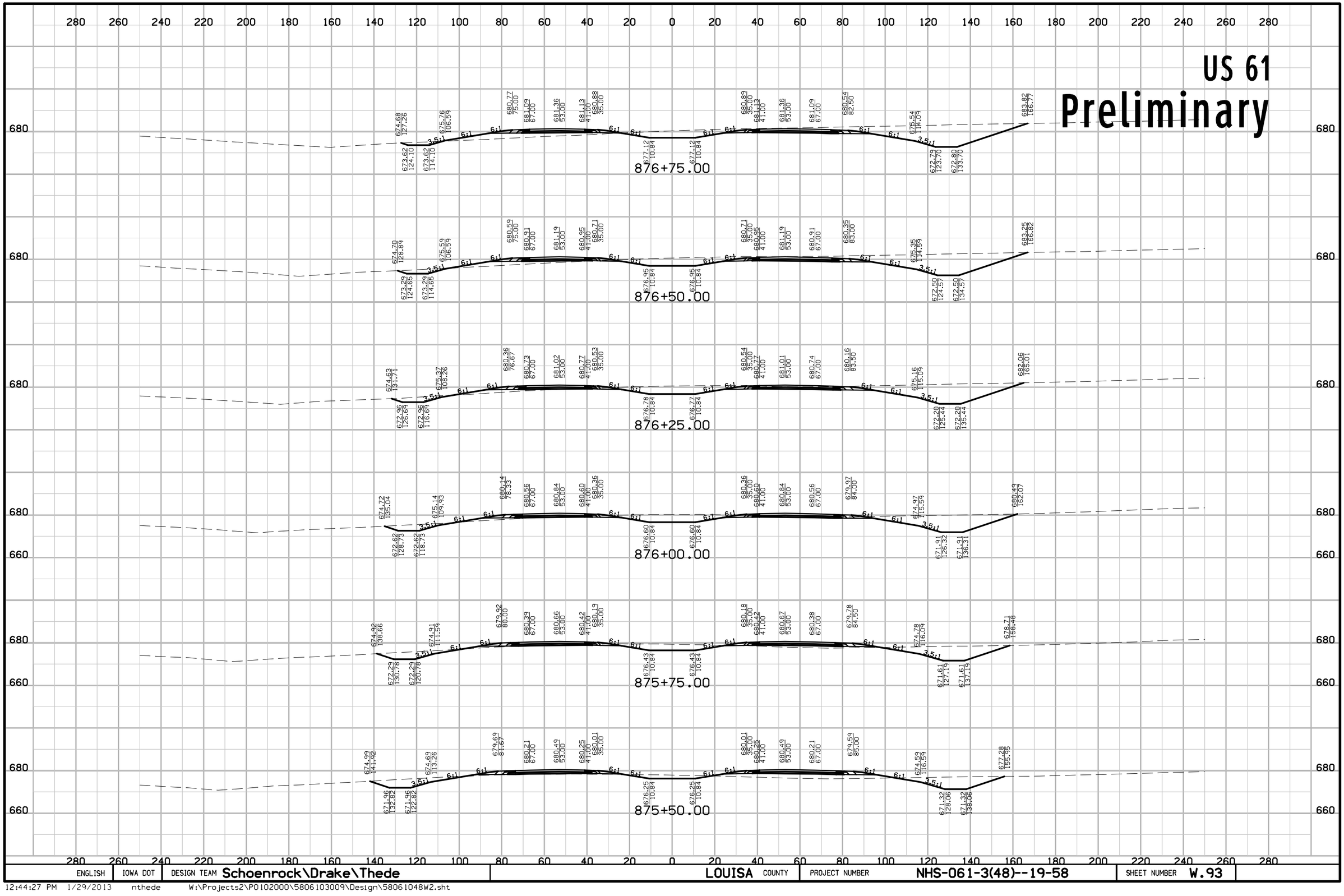
US 61

Preliminary



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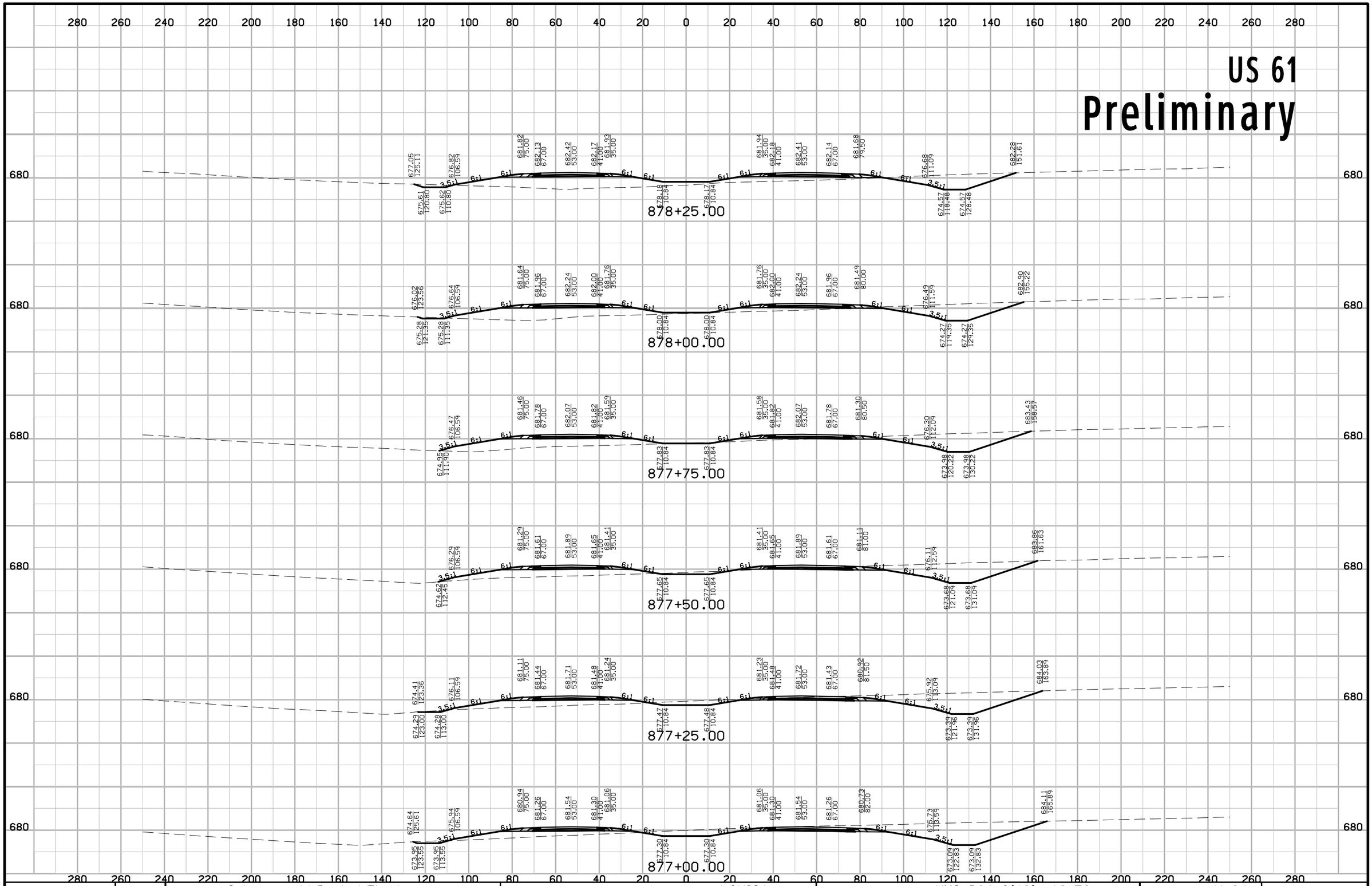
US 61

Preliminary



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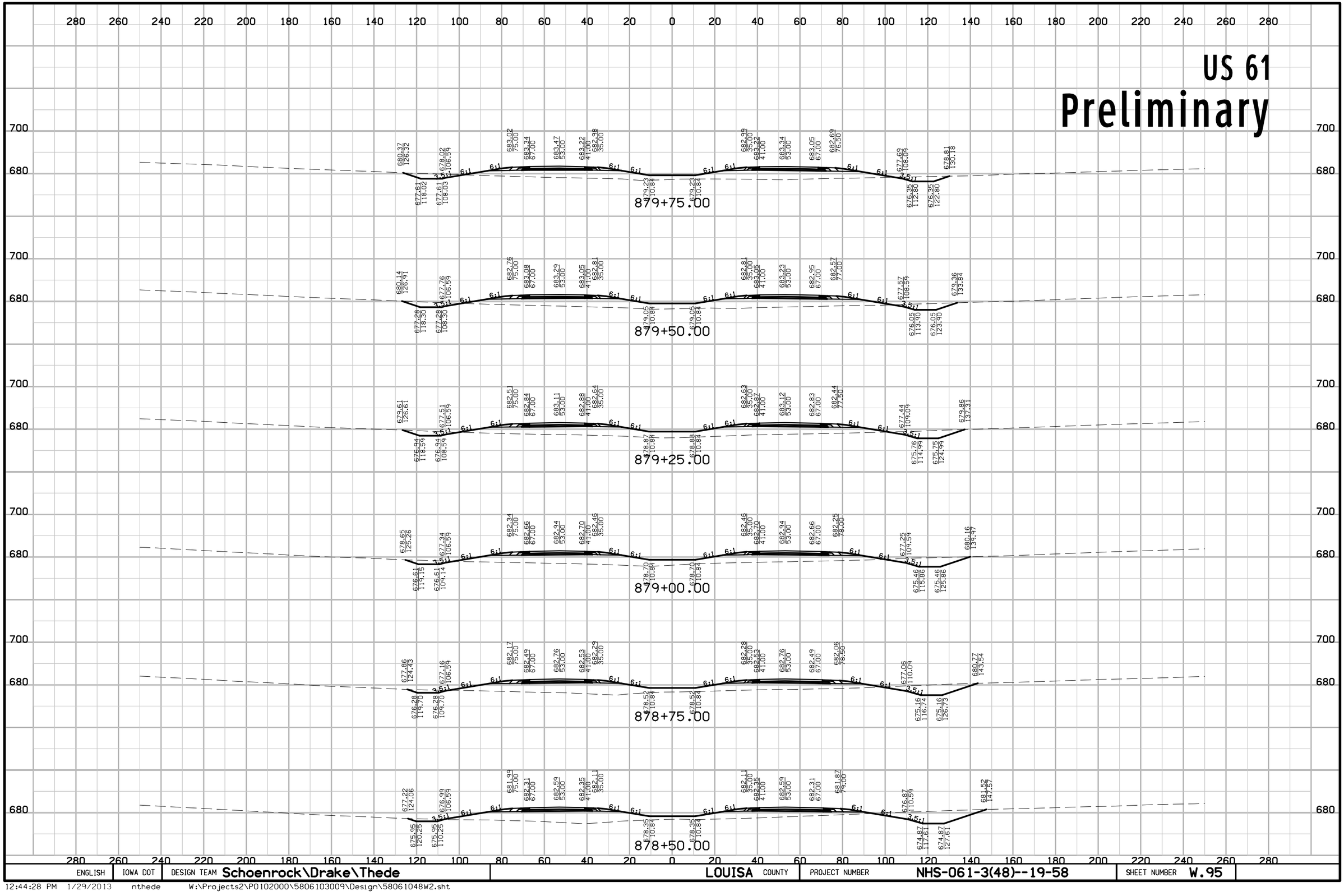
US 61

Preliminary



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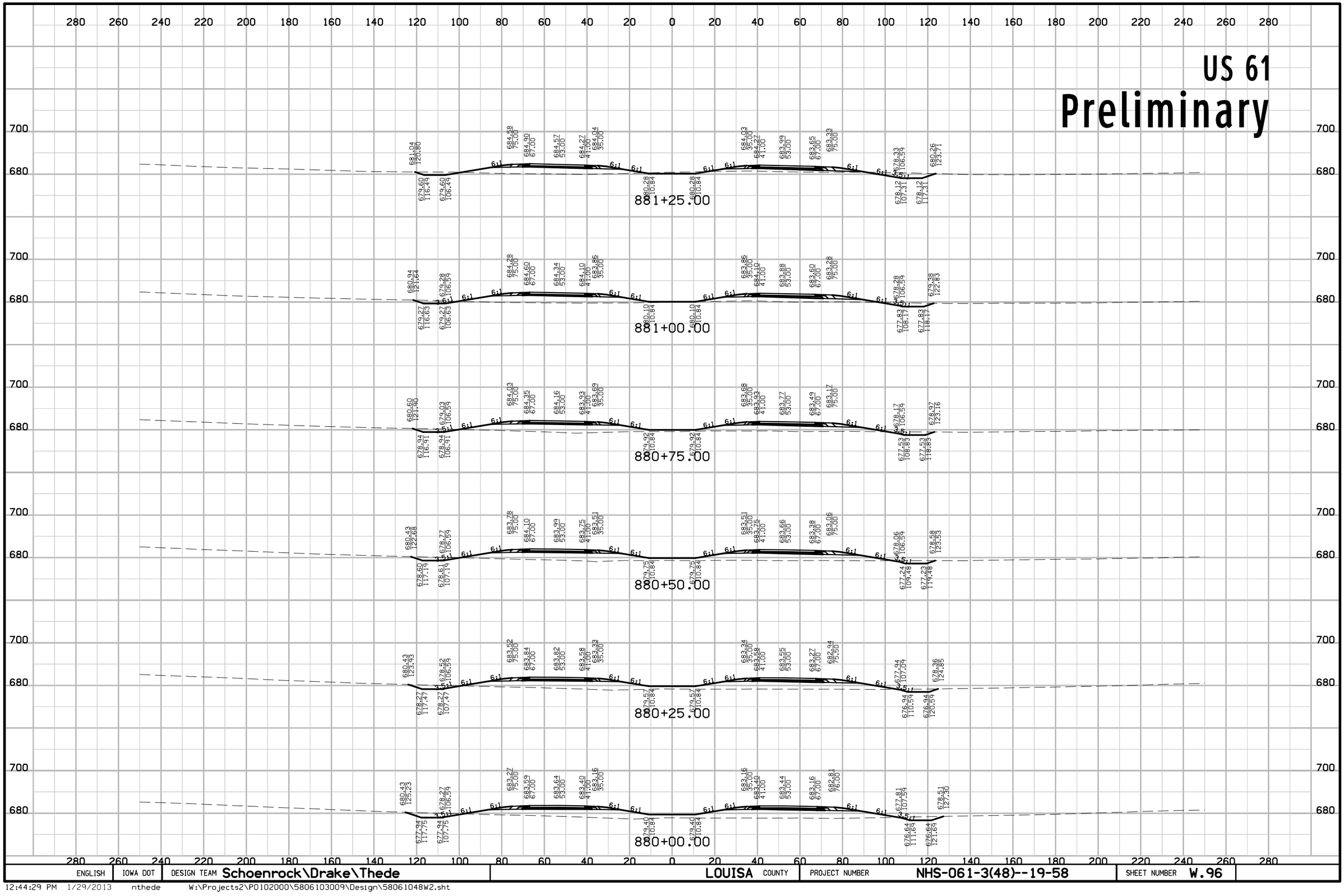
US 61

Preliminary



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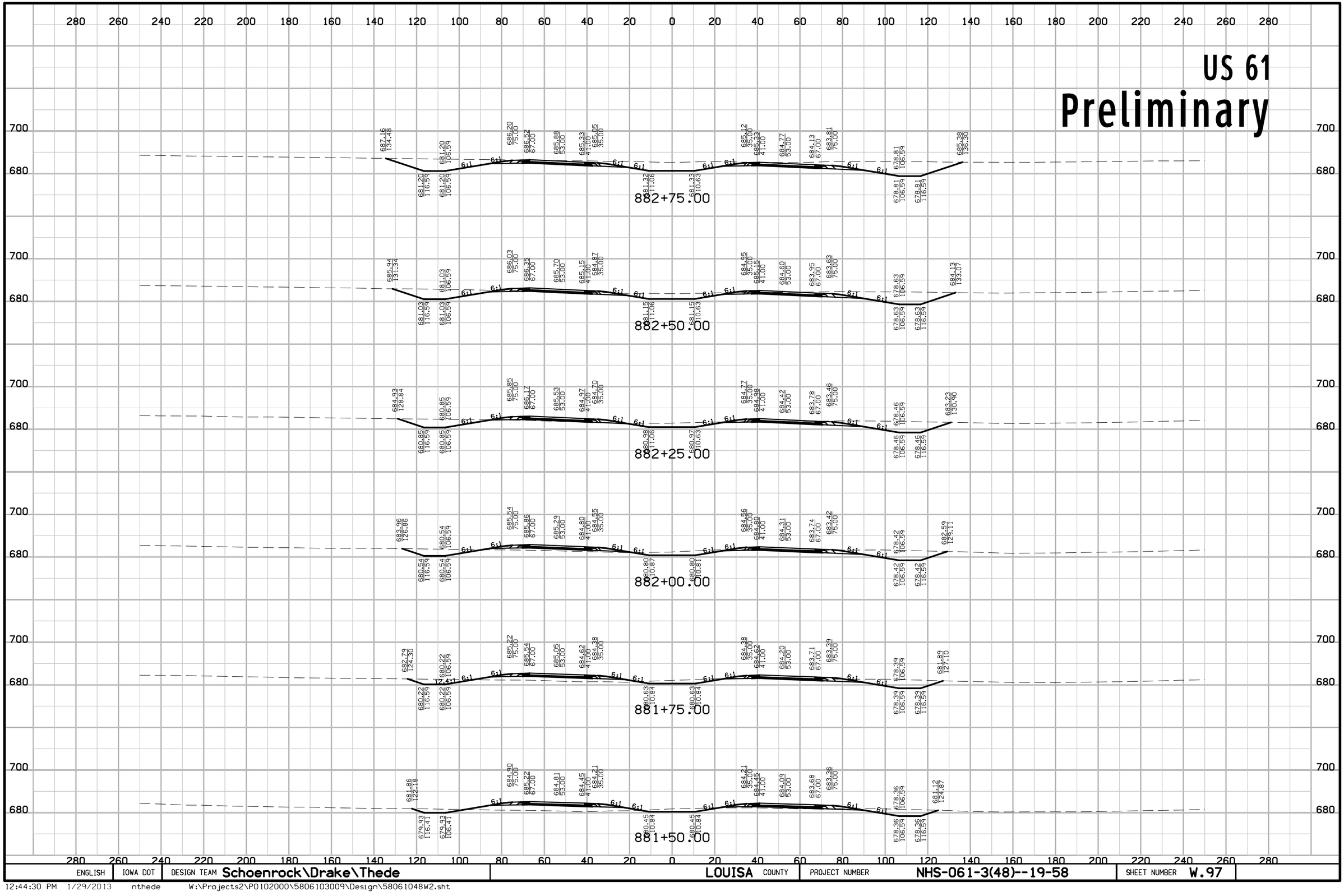
US 61

Preliminary



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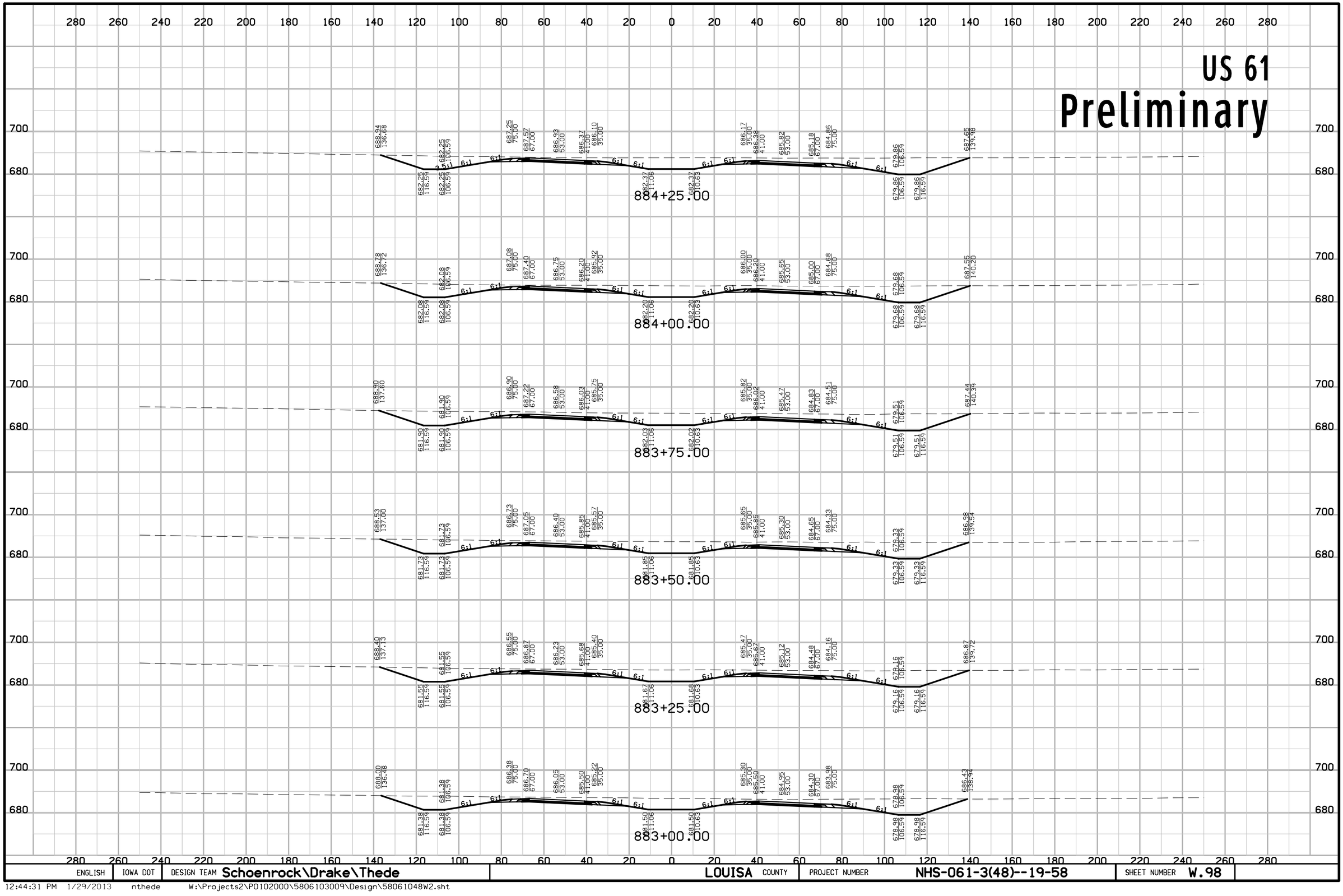
US 61

Preliminary



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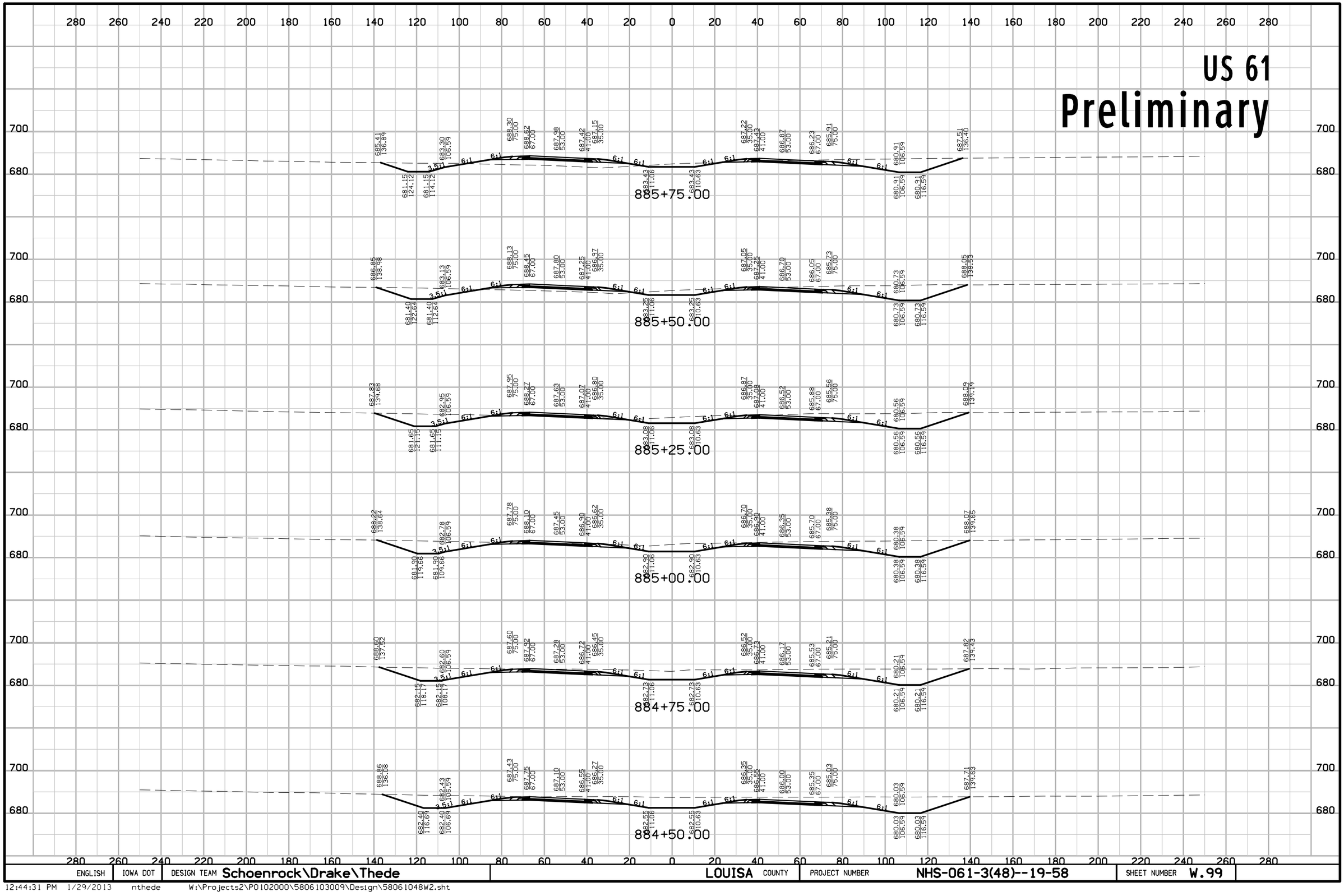
US 61

Preliminary



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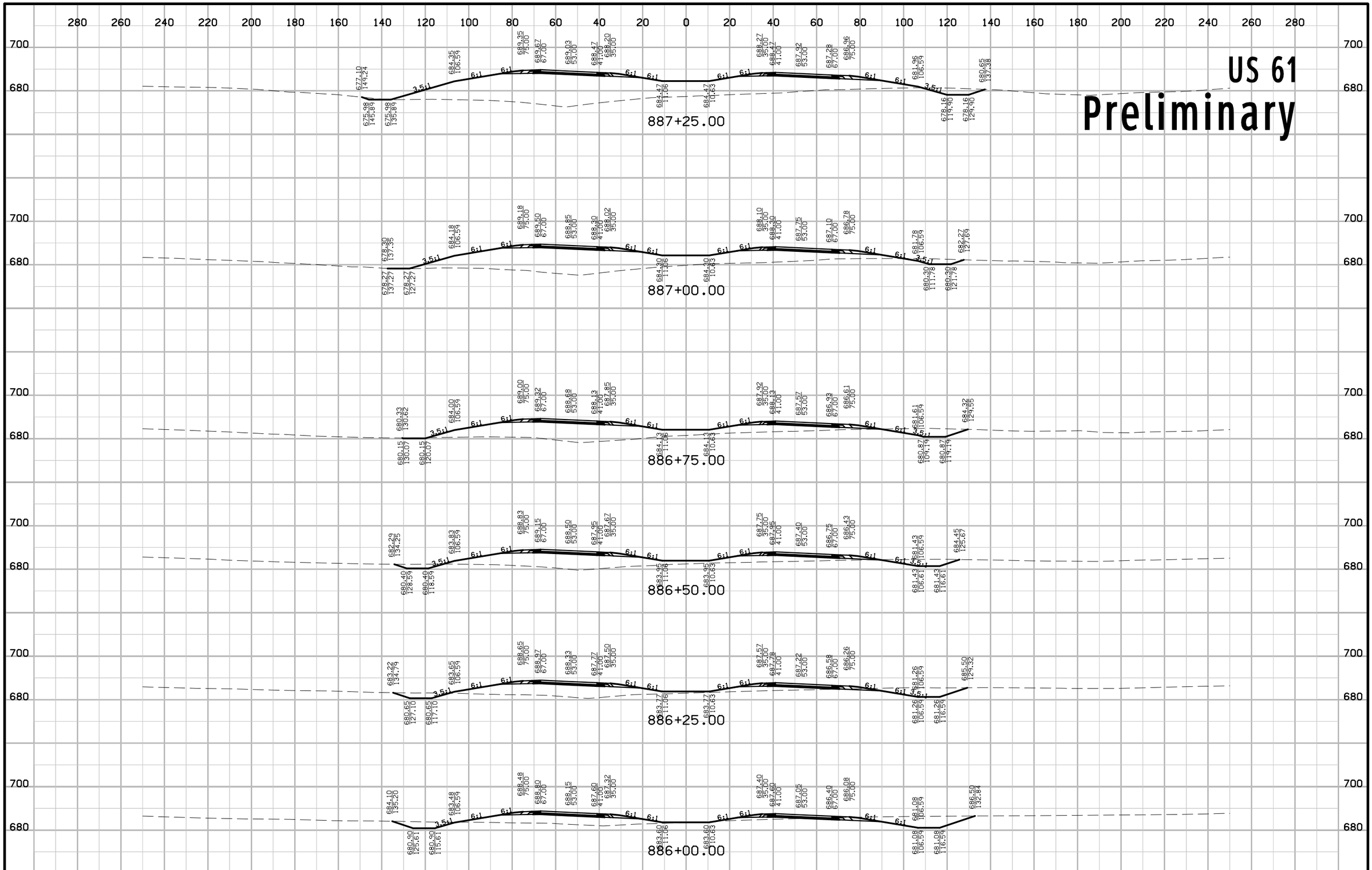
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.100

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US 61

Preliminary

888+50.00

888+25.00

888+00.00

887+75.00

887+50.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.101

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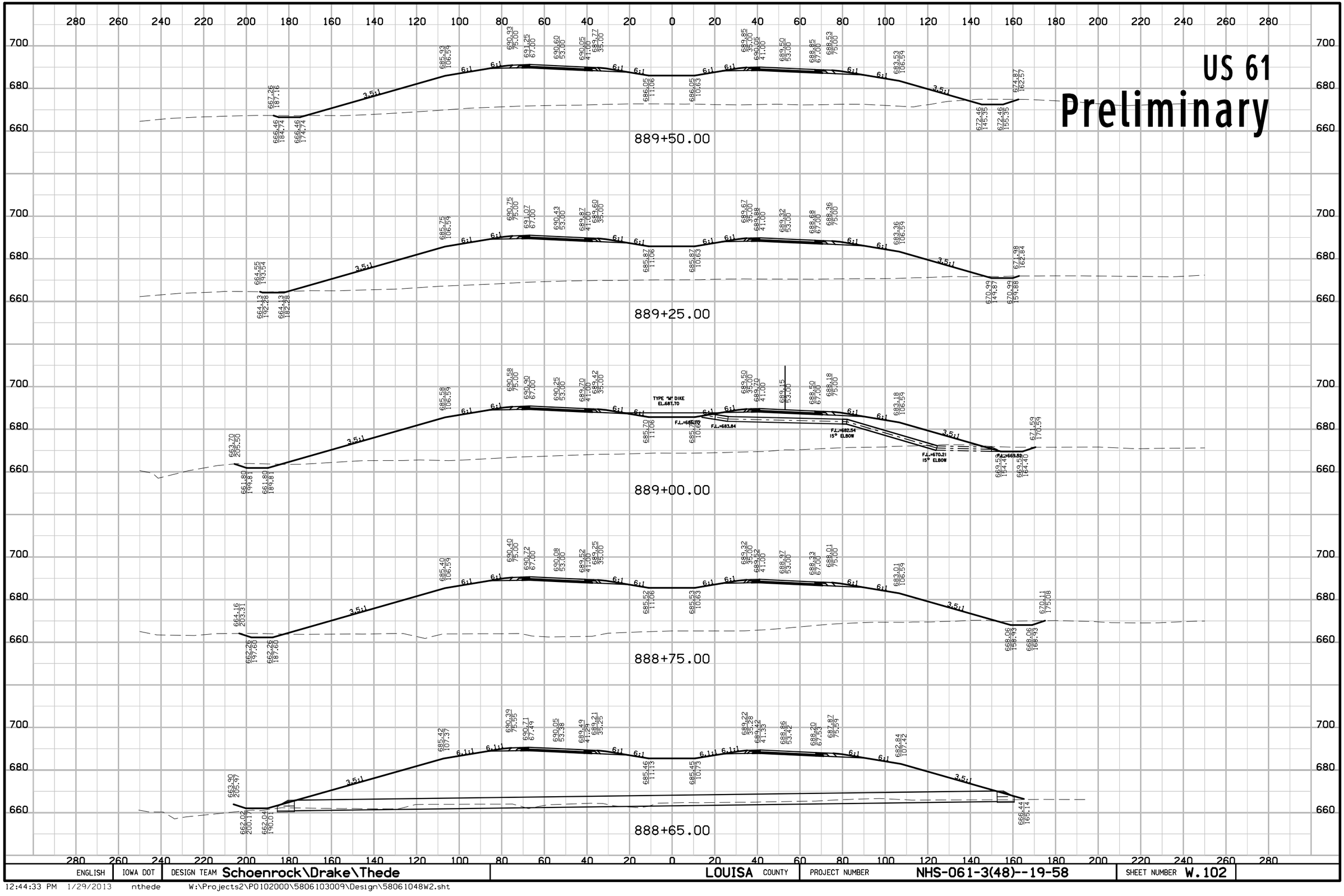
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.102

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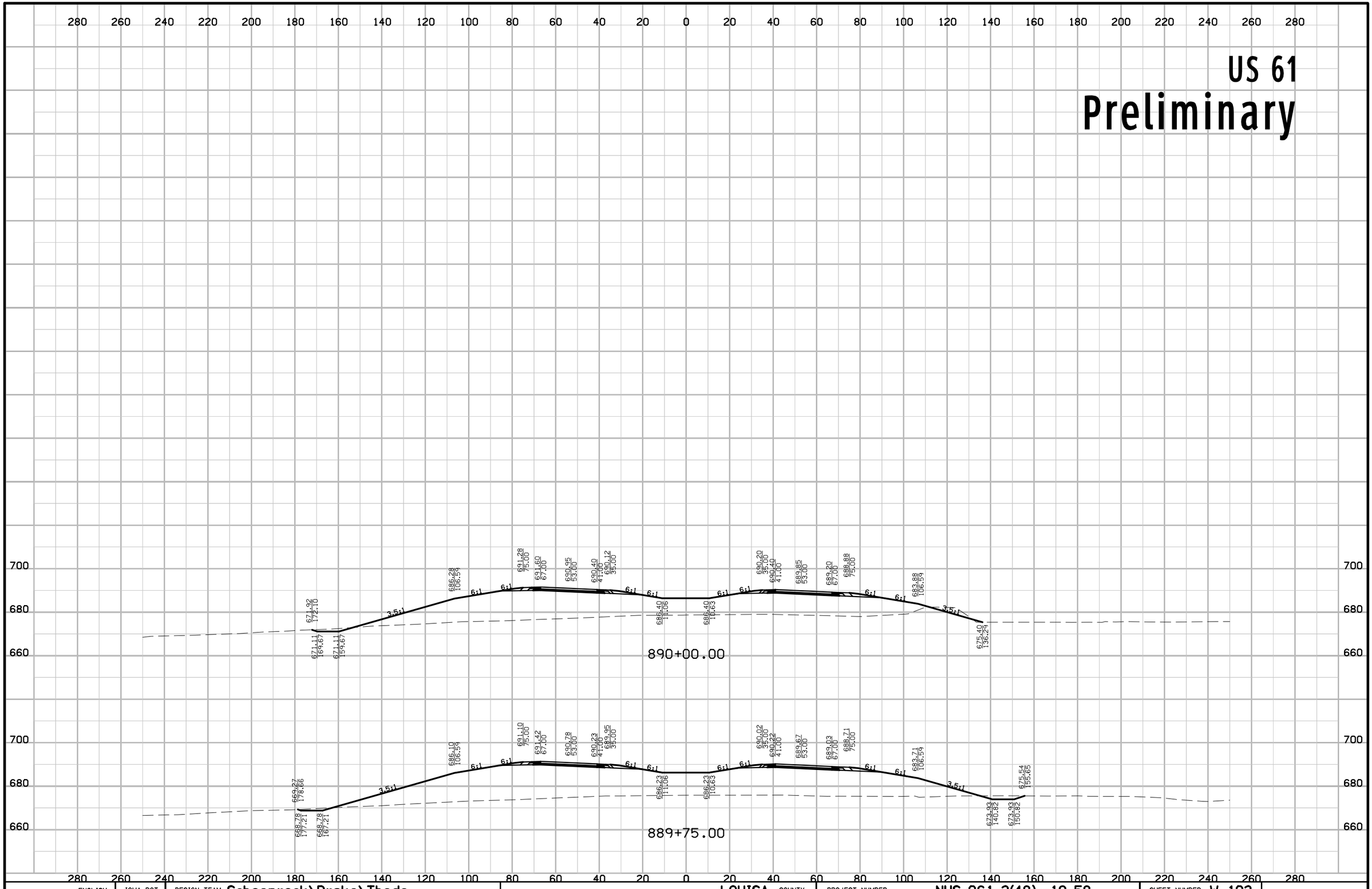
US 61

Preliminary



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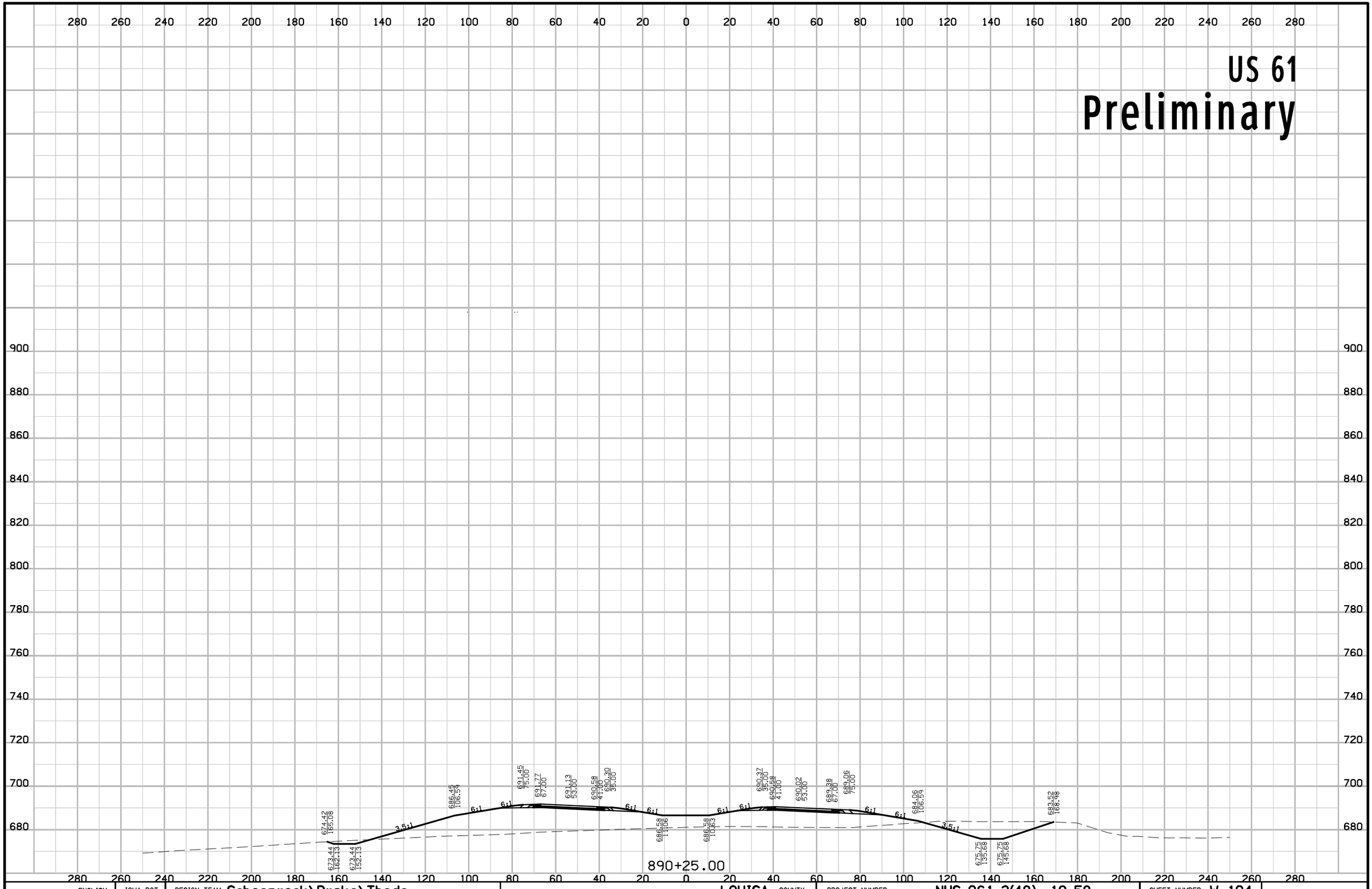
US 61
Preliminary



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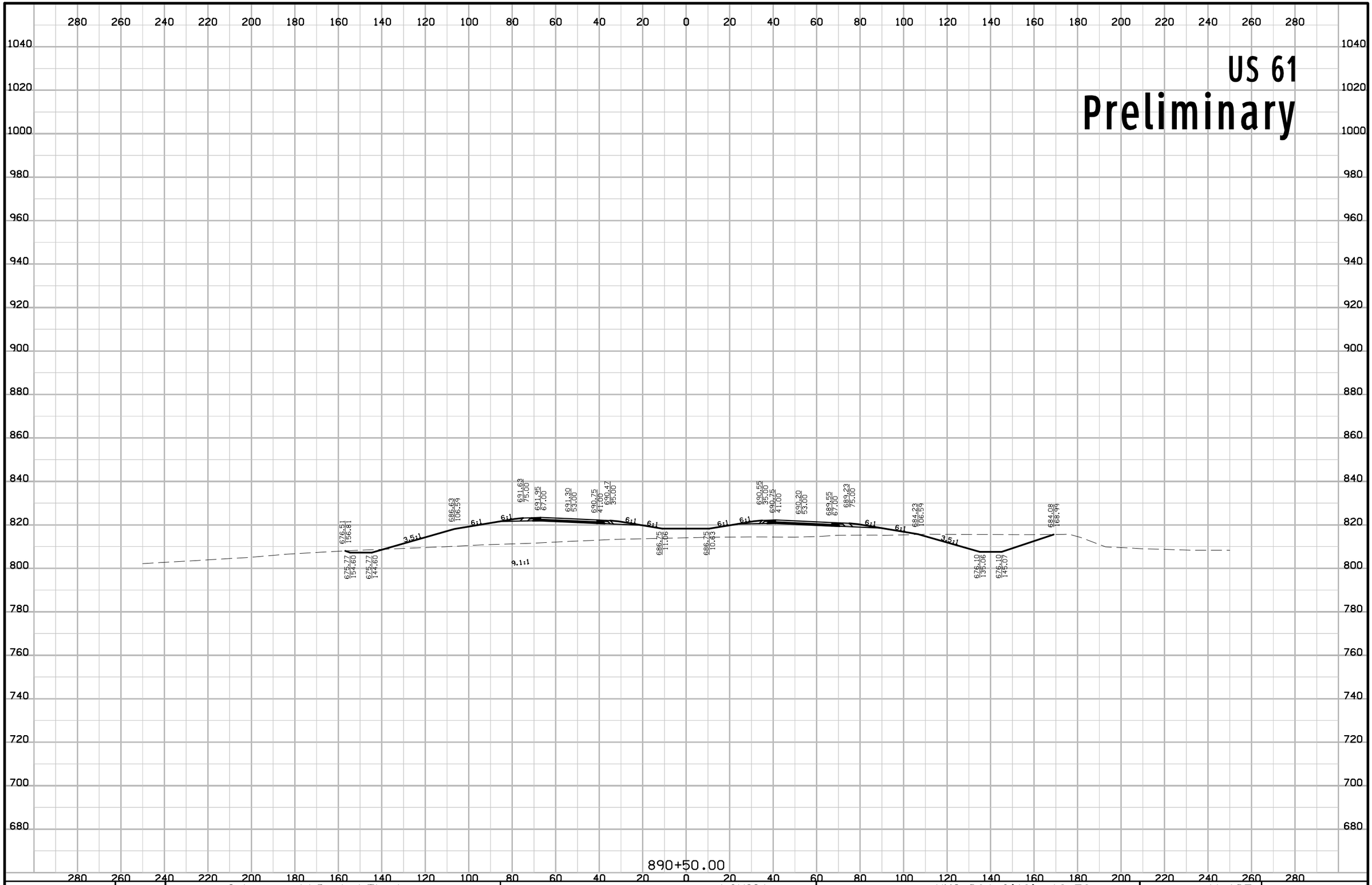
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.105

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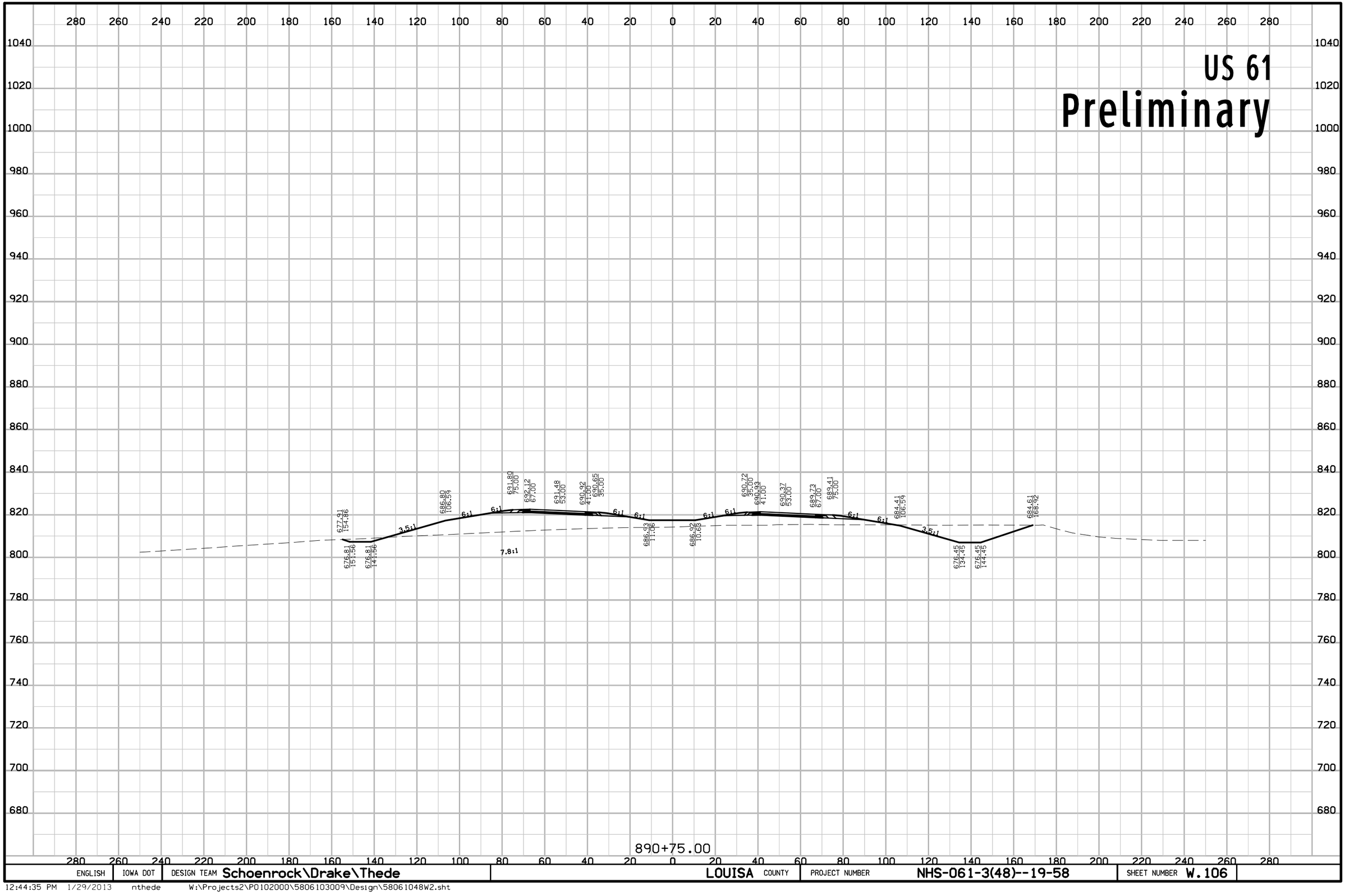
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.106

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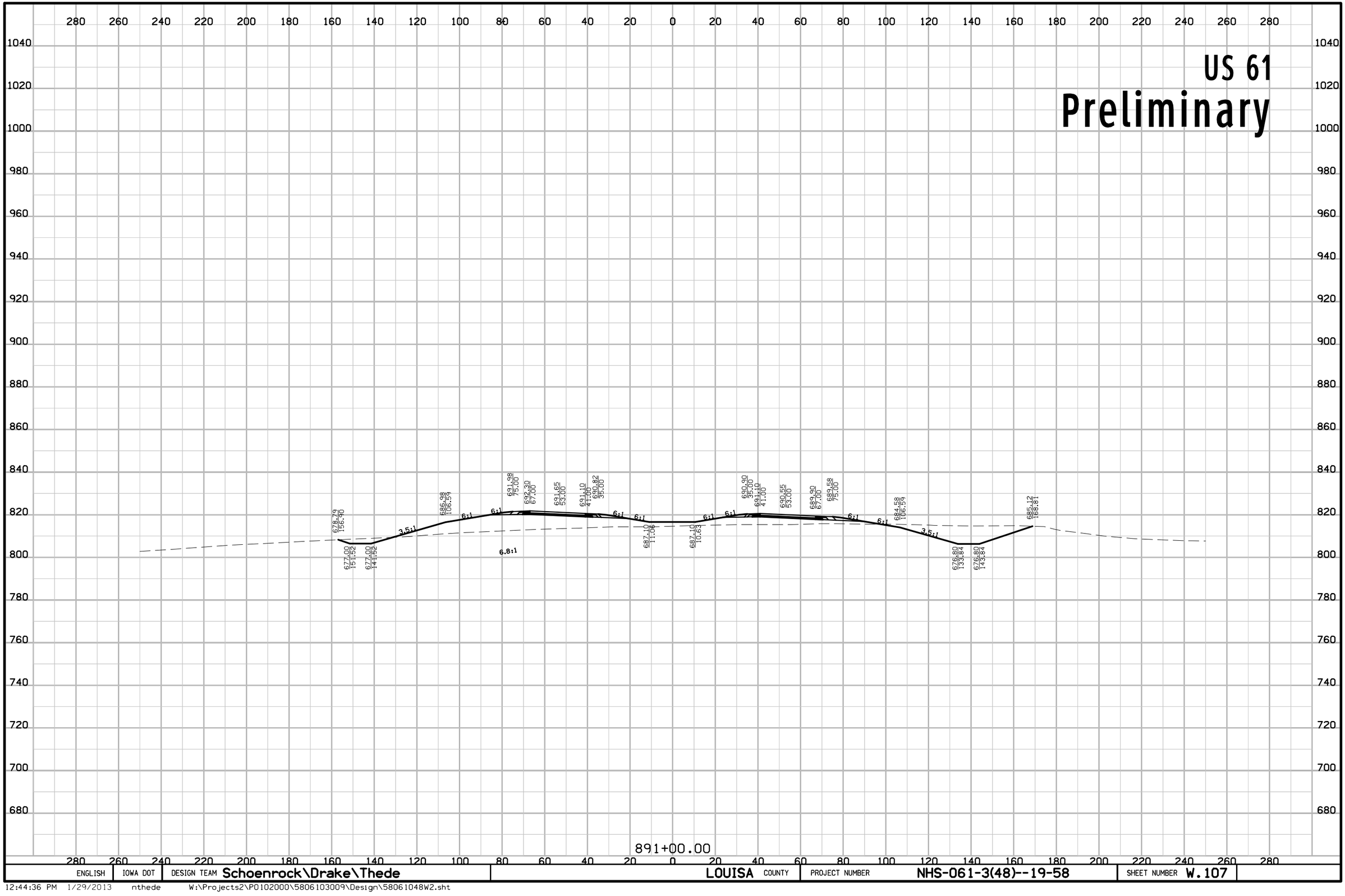
US 61
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.107

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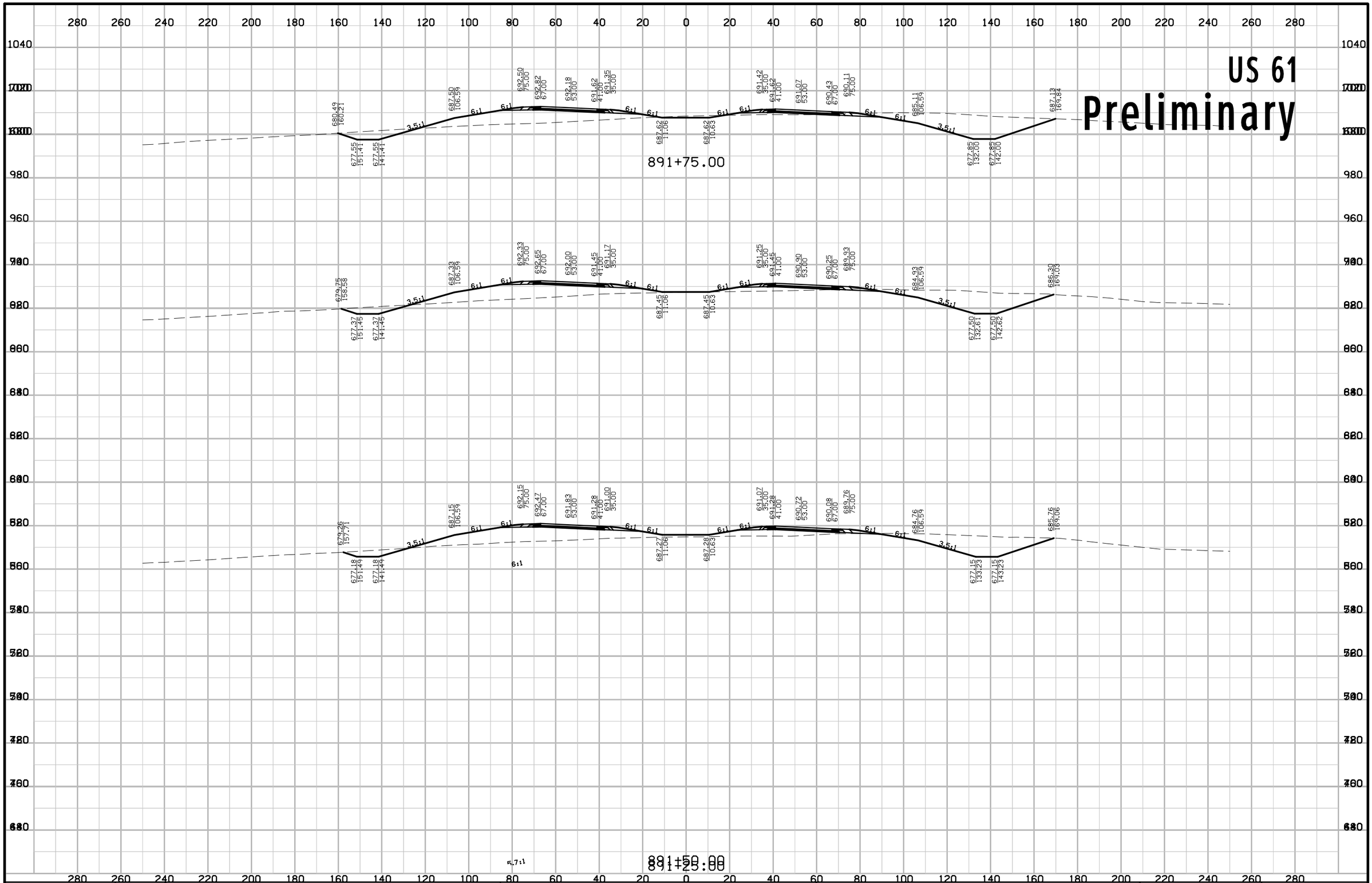
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.108

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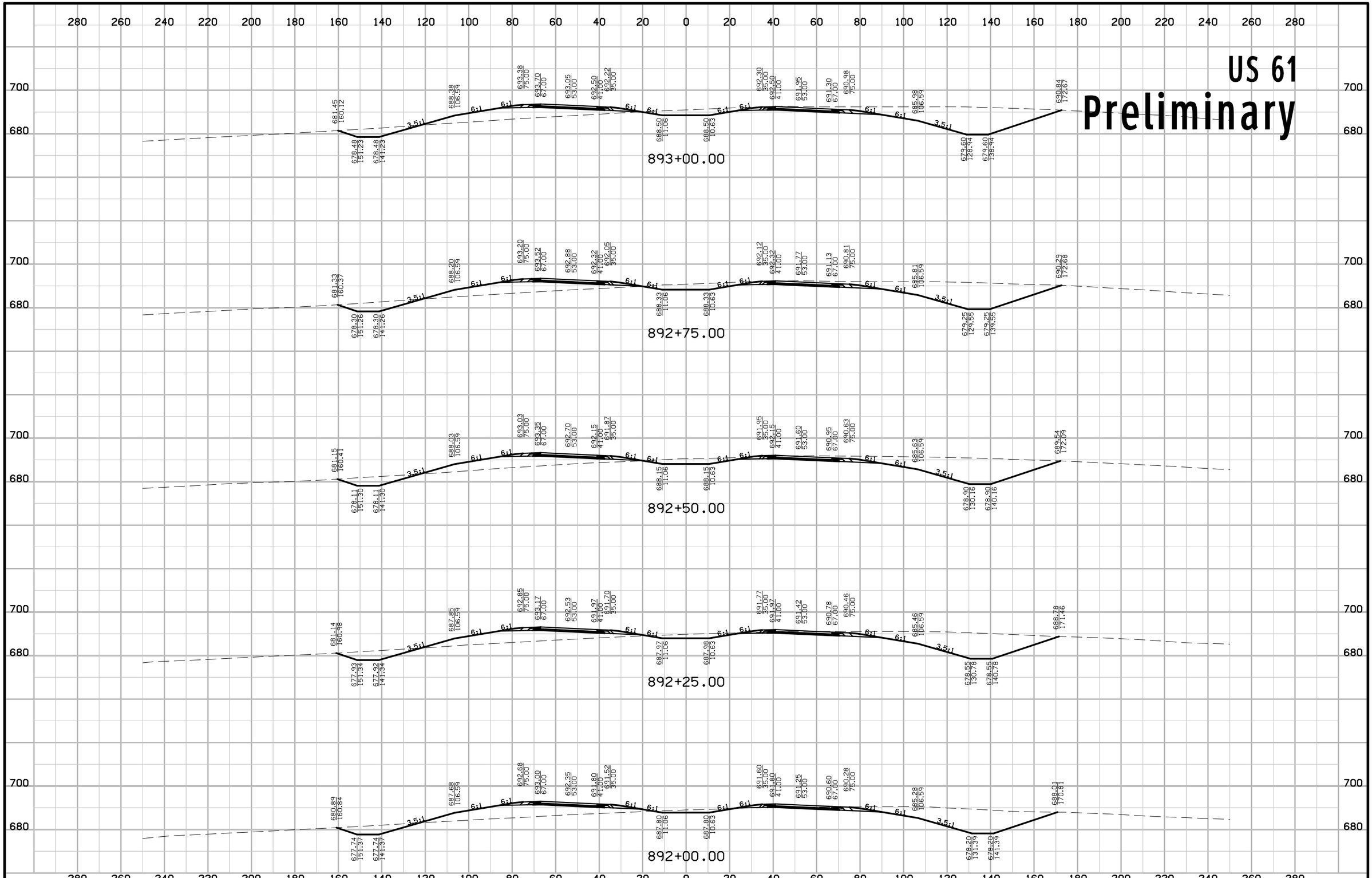
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.109

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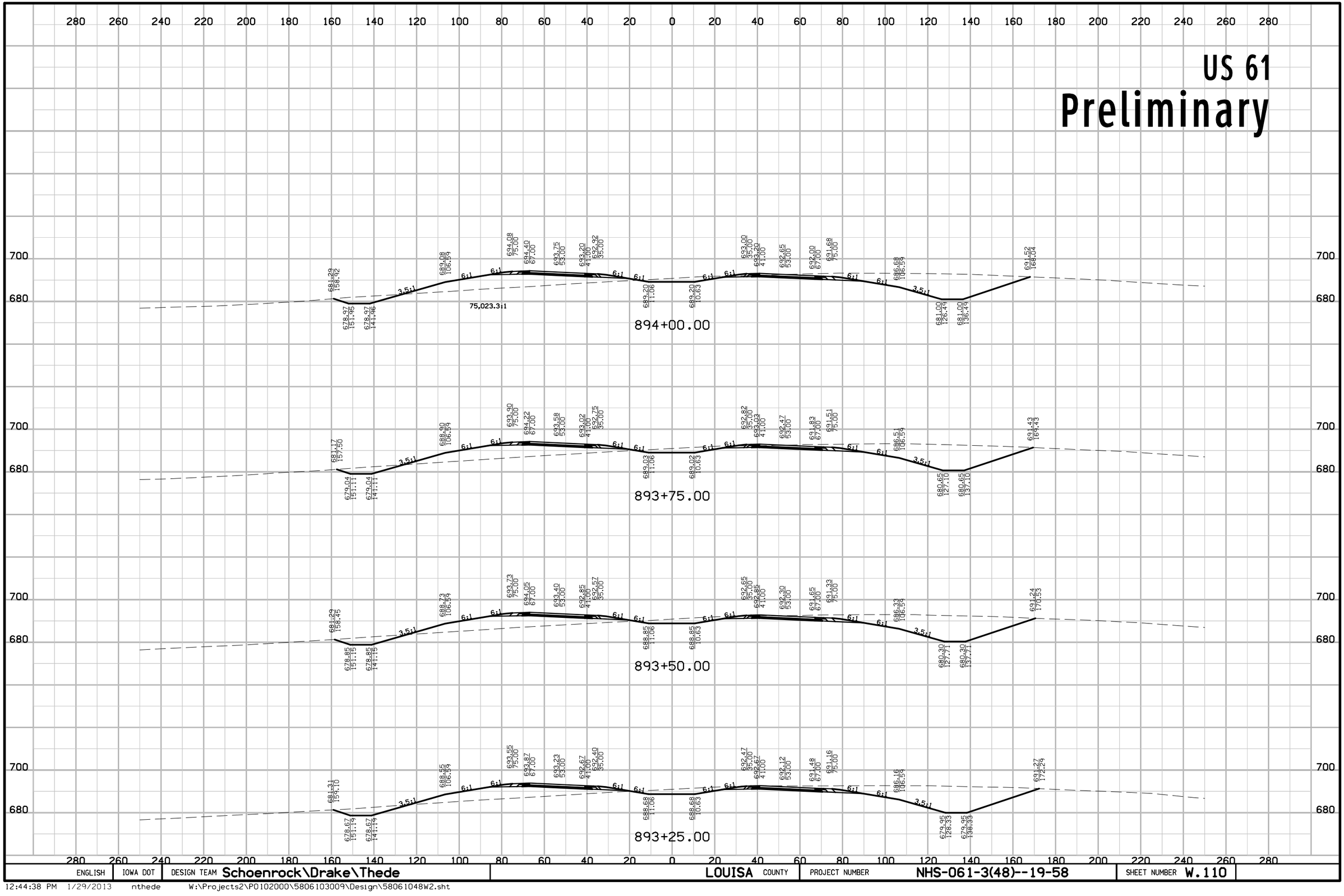
US 61
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.110

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US 61

Preliminary

902+75.00

902+50.00

902+25.00

902+00.00

901+75.00

901+50.00

ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER W.111

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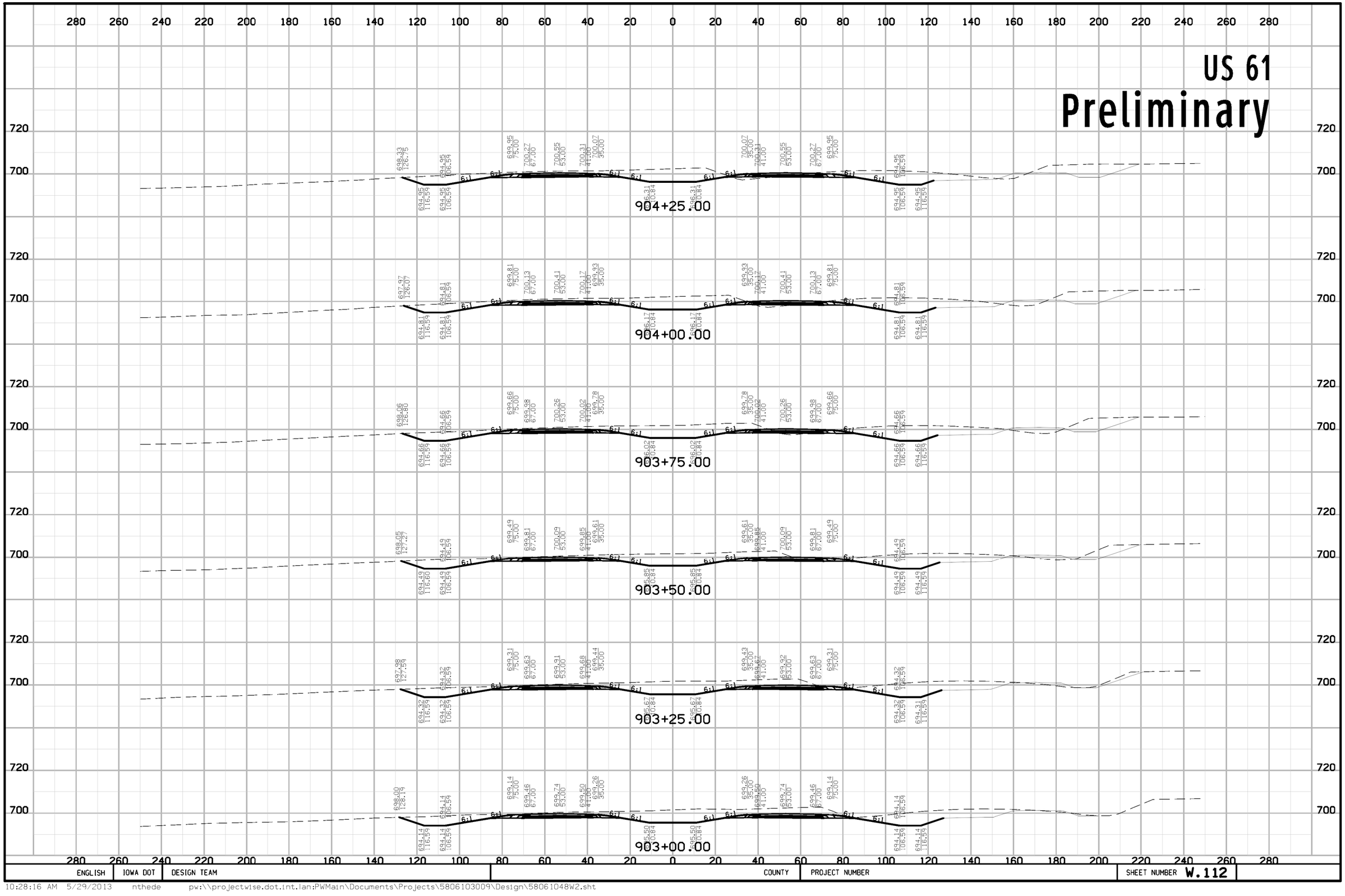
US 61

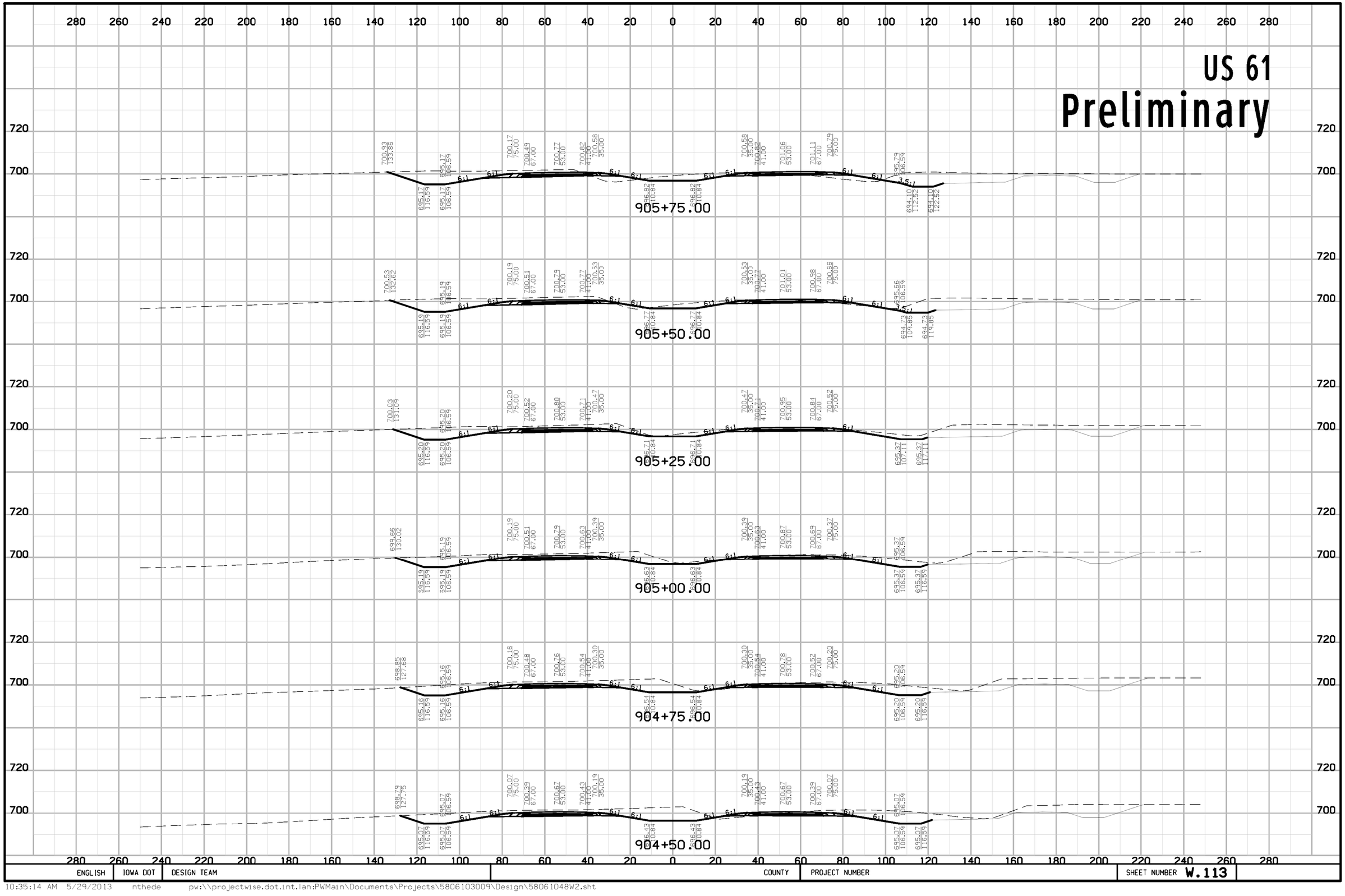
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER W.112

US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.113

US 61

Preliminary

907+25.00

907+00.00

906+75.00

906+50.00

906+25.00

906+00.00

ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER W.114

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US 61

Preliminary

908+50.00

908+25.00

908+00.00

907+75.00

907+50.00

ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.115

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US 61

Preliminary

909+75.00

909+50.00

909+25.00

909+00.00

908+75.00

ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER W.116

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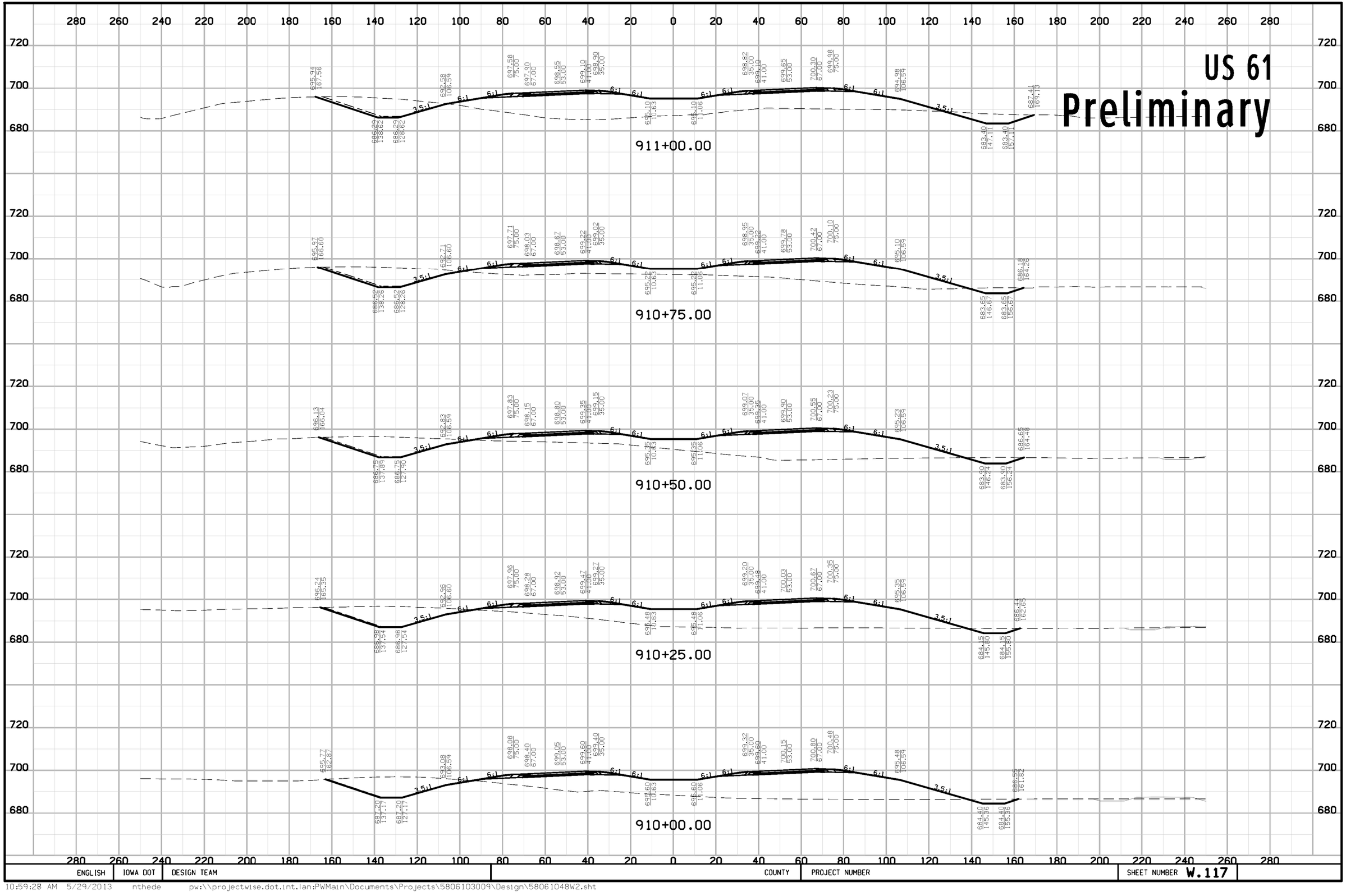
US 61

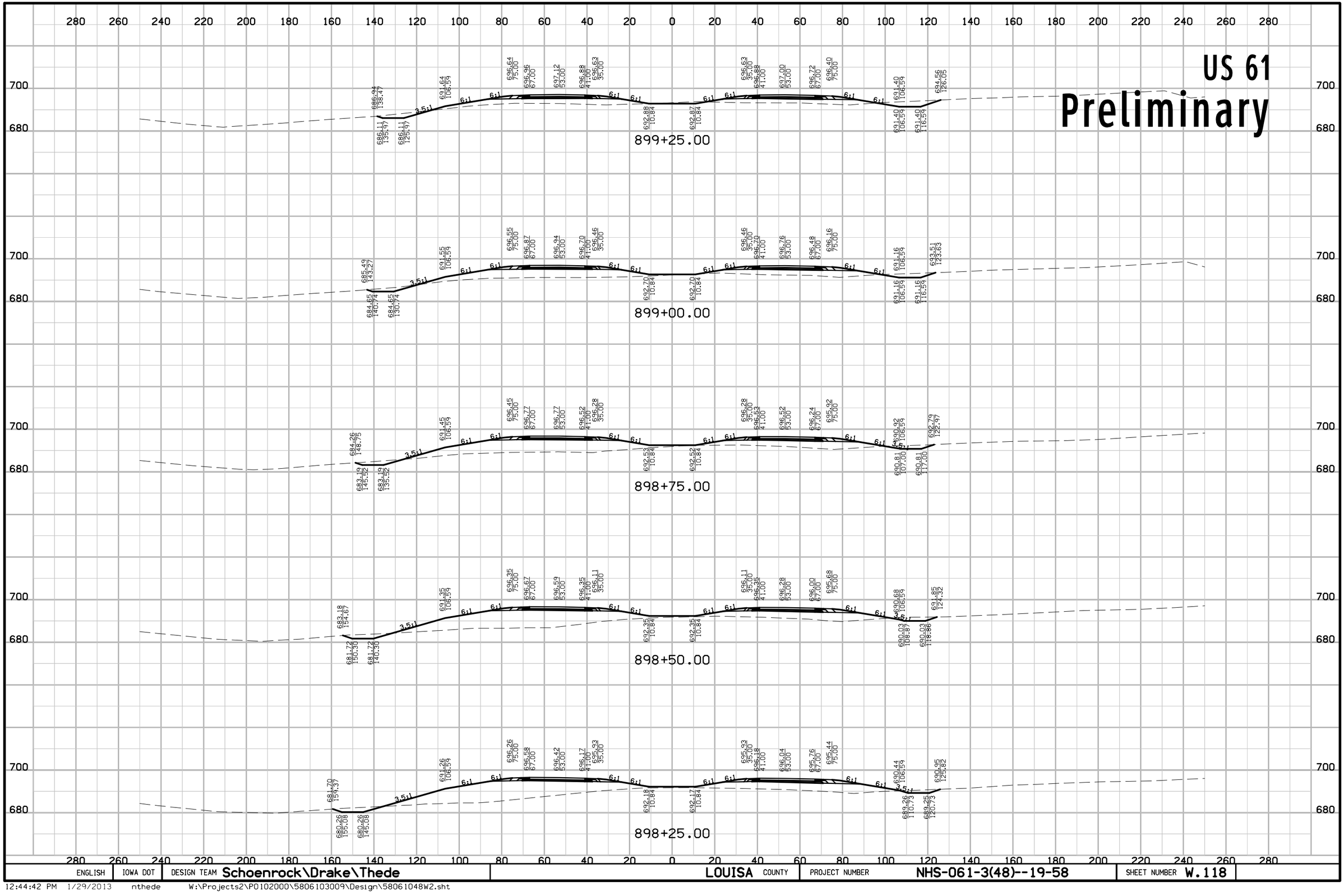
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.117

US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.118

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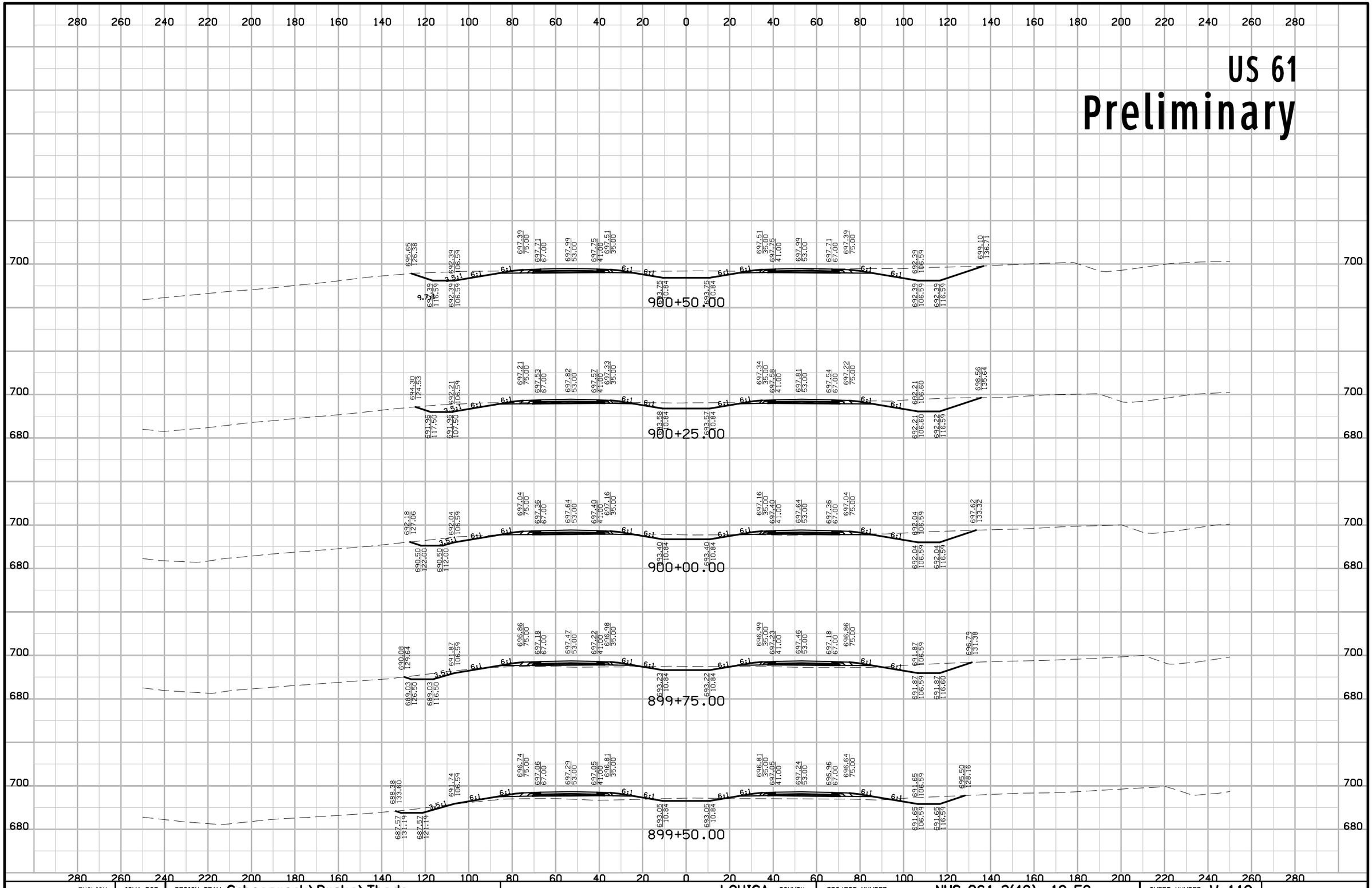
US 61
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.119

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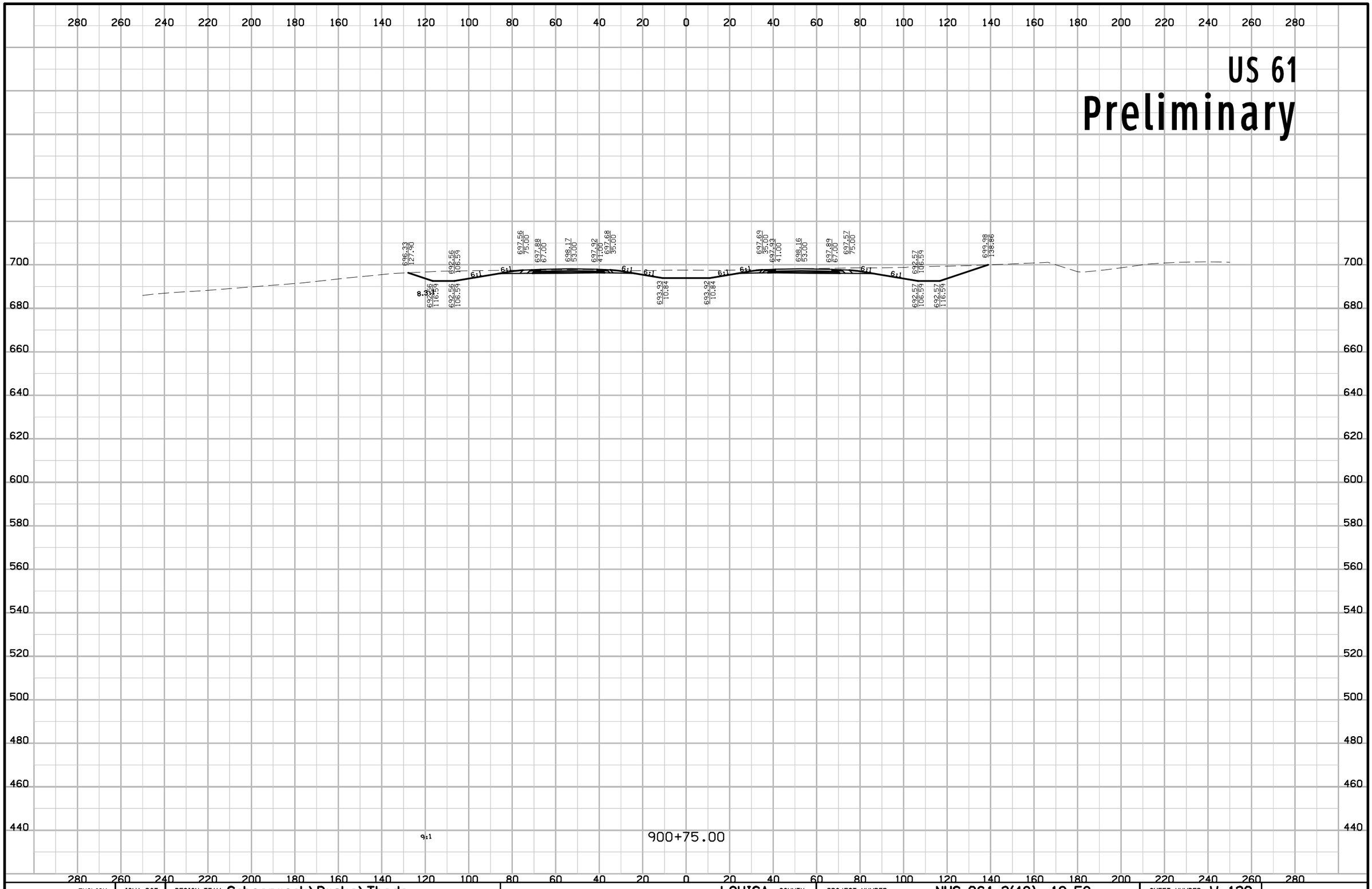
US 61
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.120

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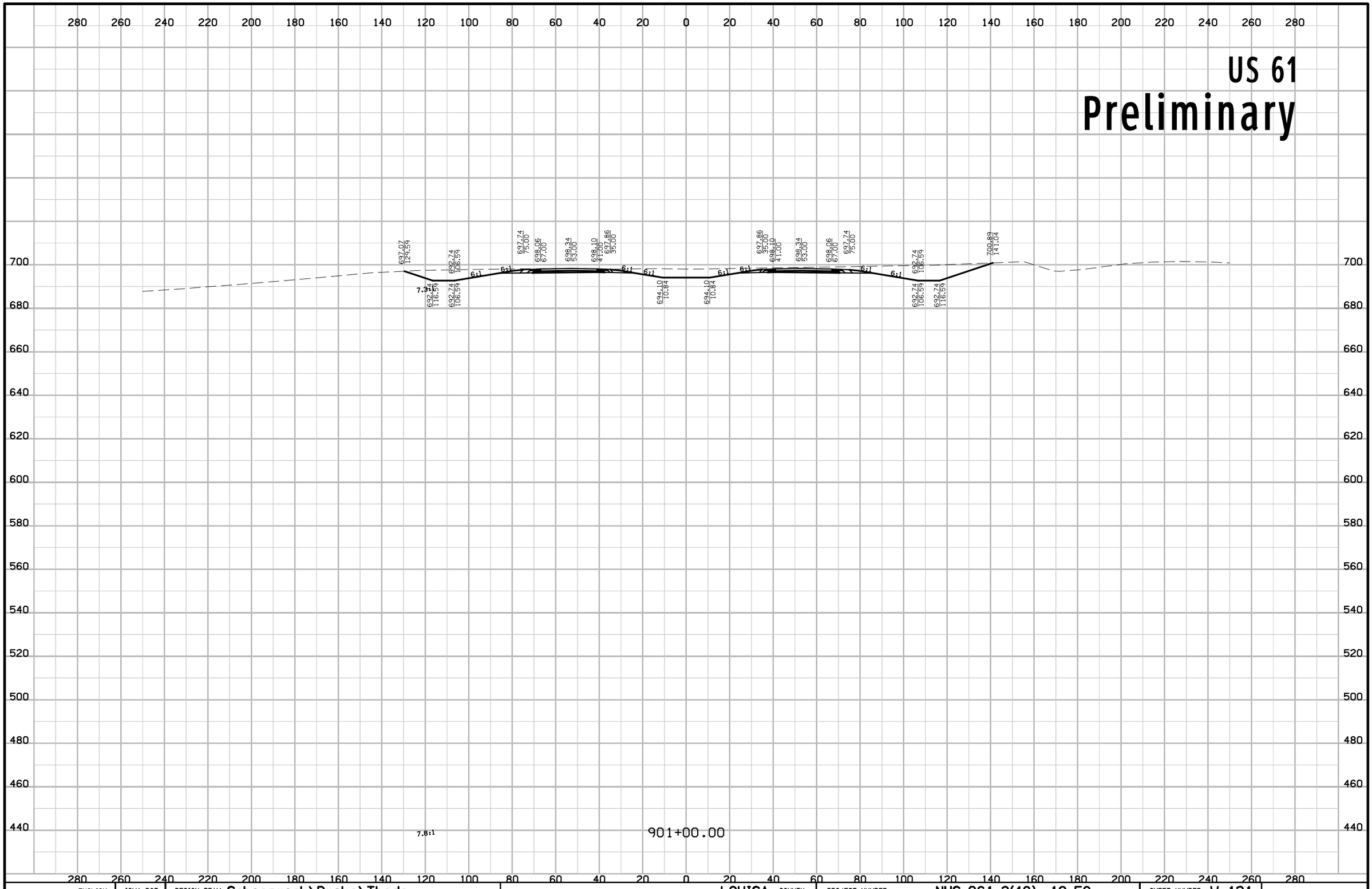
US 61
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.121

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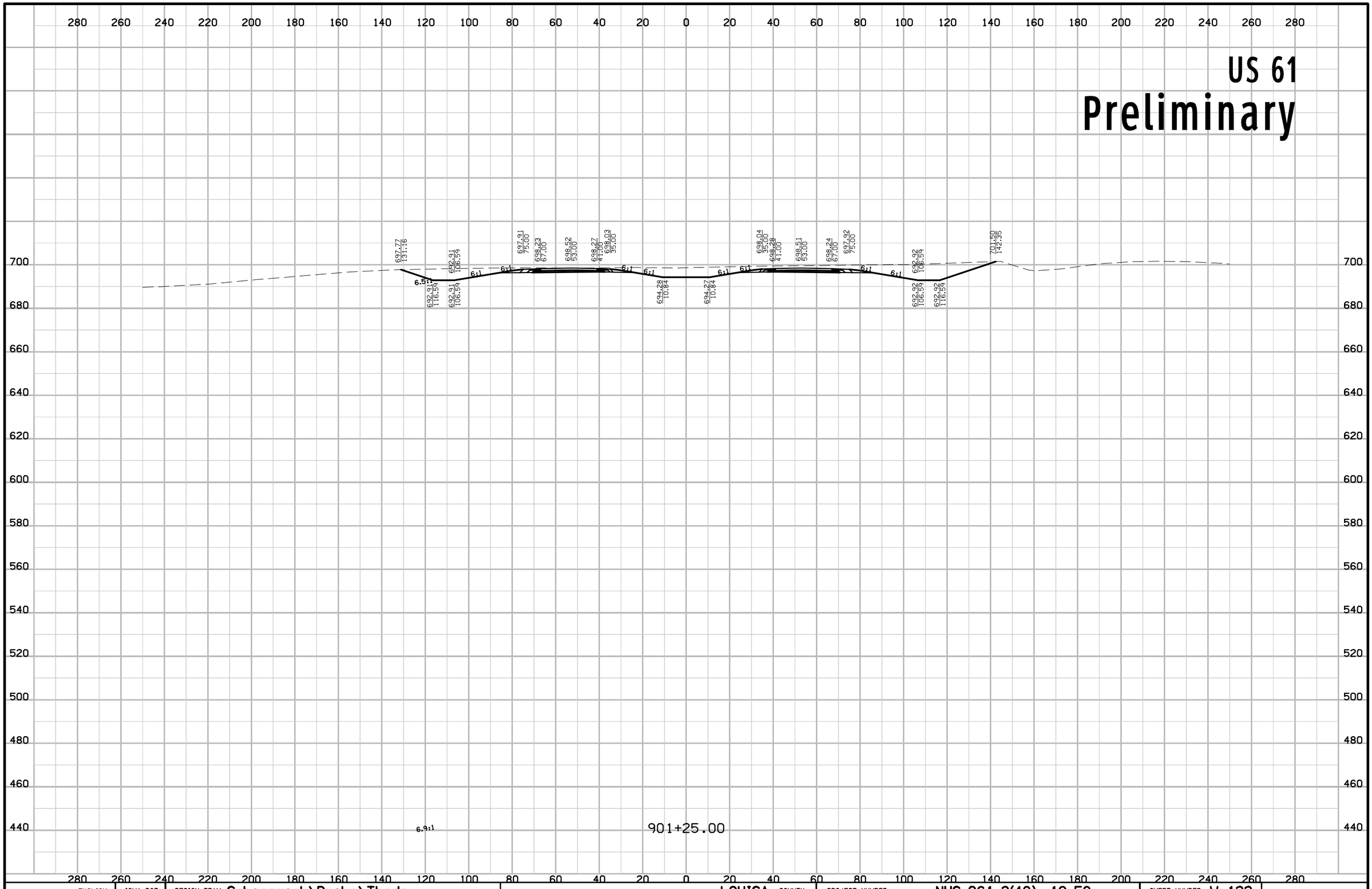
US 61

Preliminary



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US 61

Preliminary

902+75.00

902+50.00

902+25.00

902+00.00

901+75.00

901+50.00

ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER W.111

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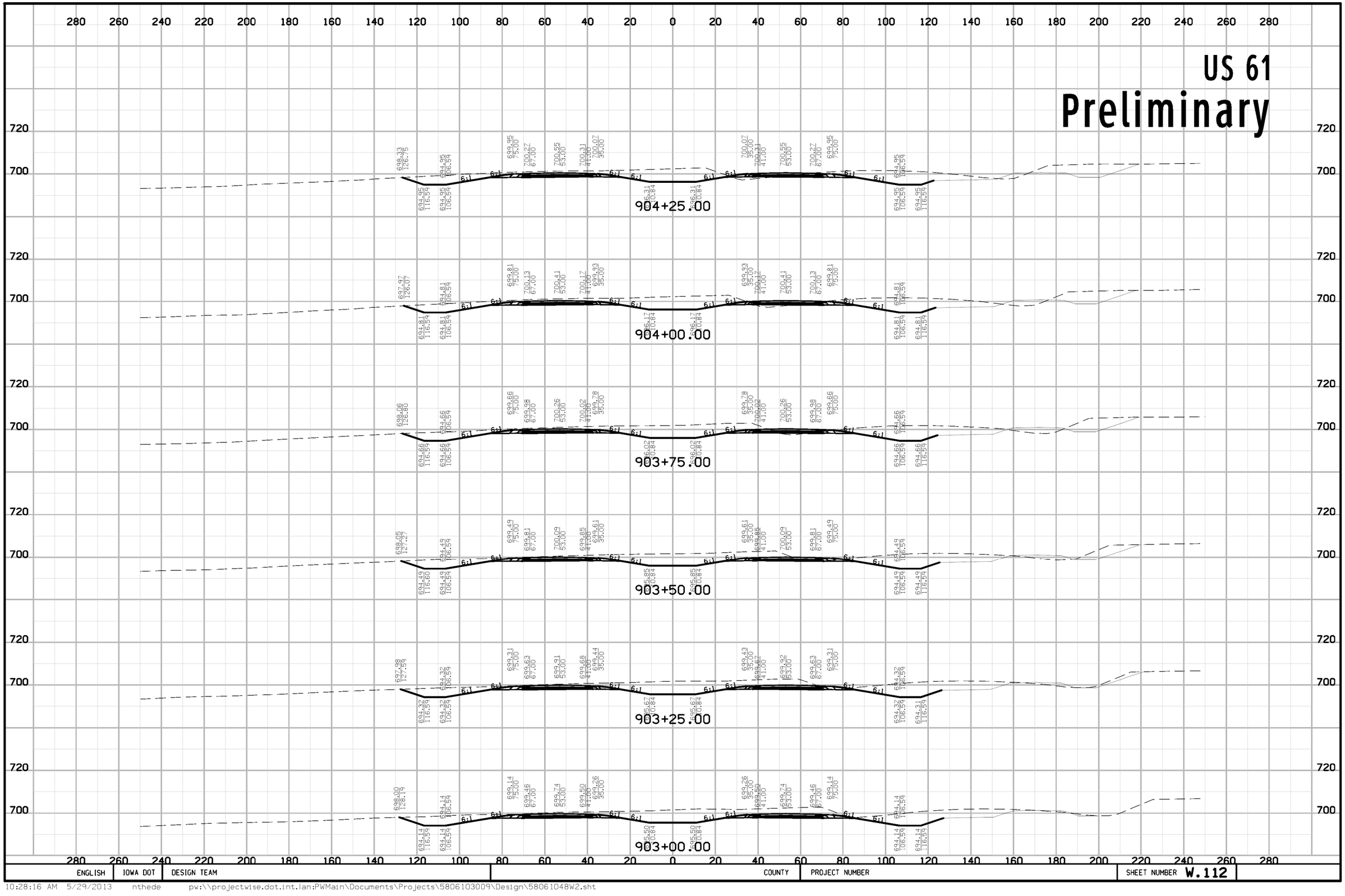
US 61

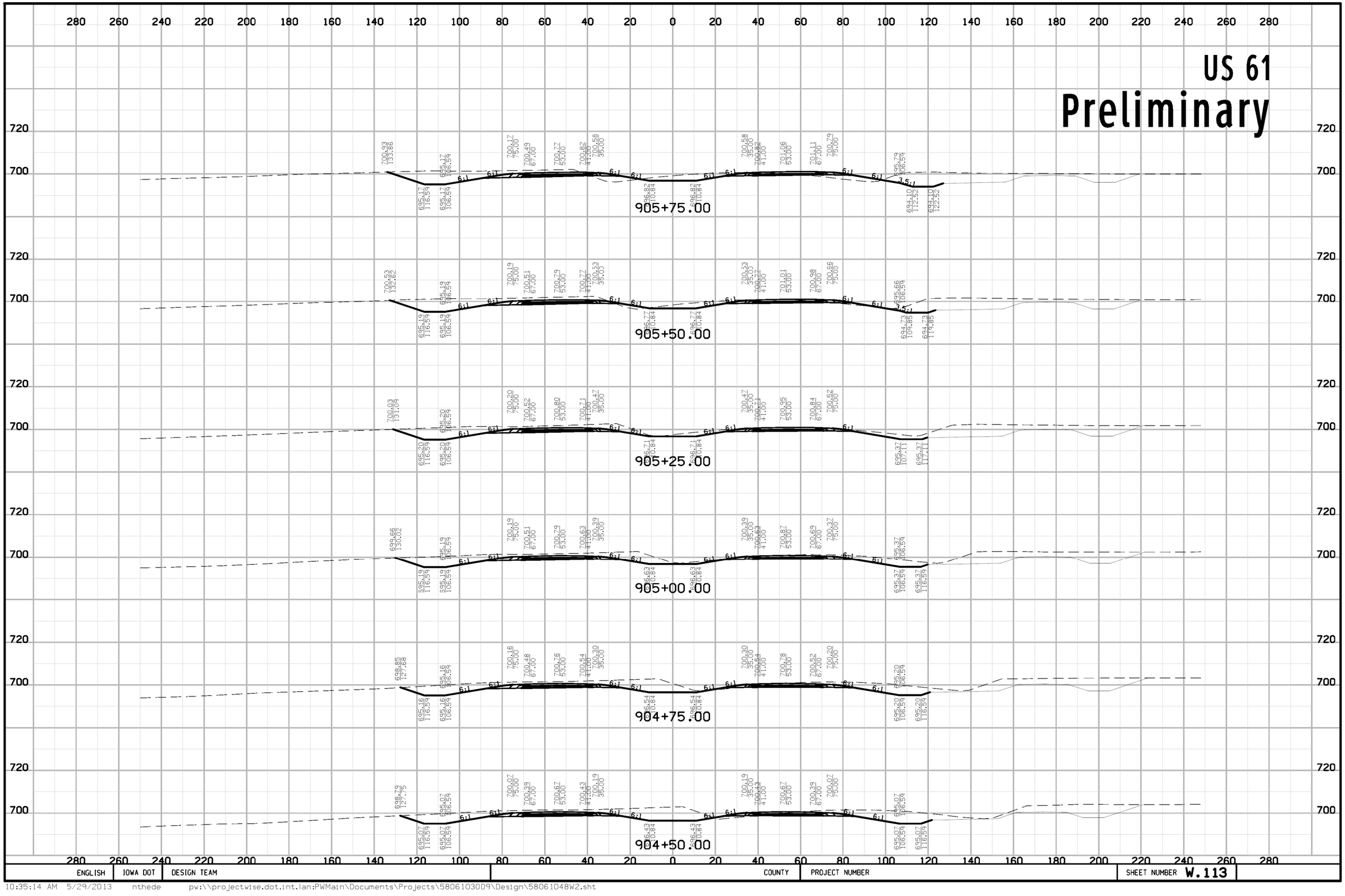
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER W.112

US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.113

US 61

Preliminary

907+25.00

907+00.00

906+75.00

906+50.00

906+25.00

906+00.00

ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER W.114

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US 61

Preliminary

908+50.00

908+25.00

908+00.00

907+75.00

907+50.00

ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.115

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US 61

Preliminary

909+75.00

909+50.00

909+25.00

909+00.00

908+75.00

ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER W.116

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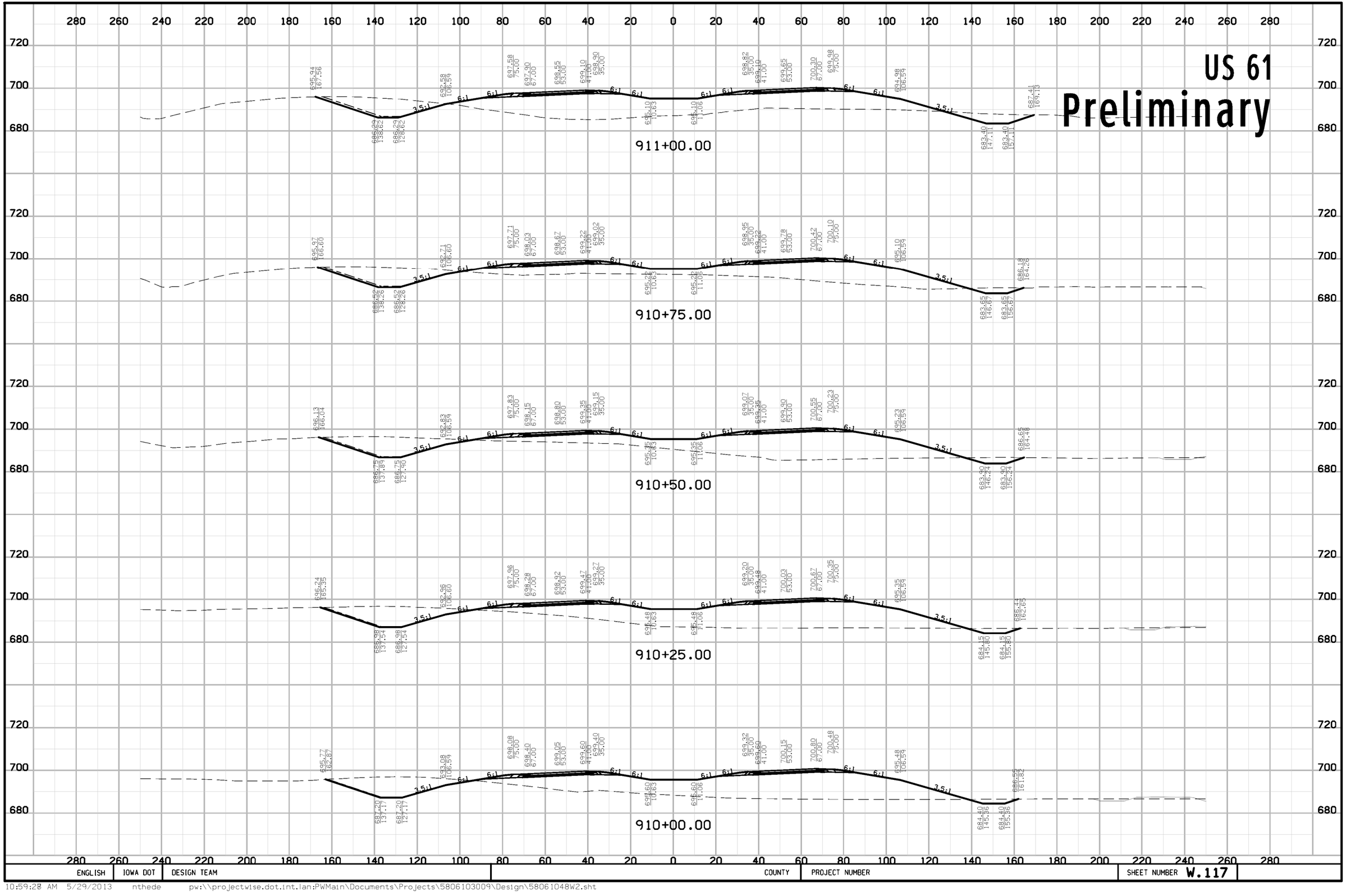
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.117

US 61

Preliminary

912+50.00

912+25.00

912+00.00

911+75.00

911+50.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.131

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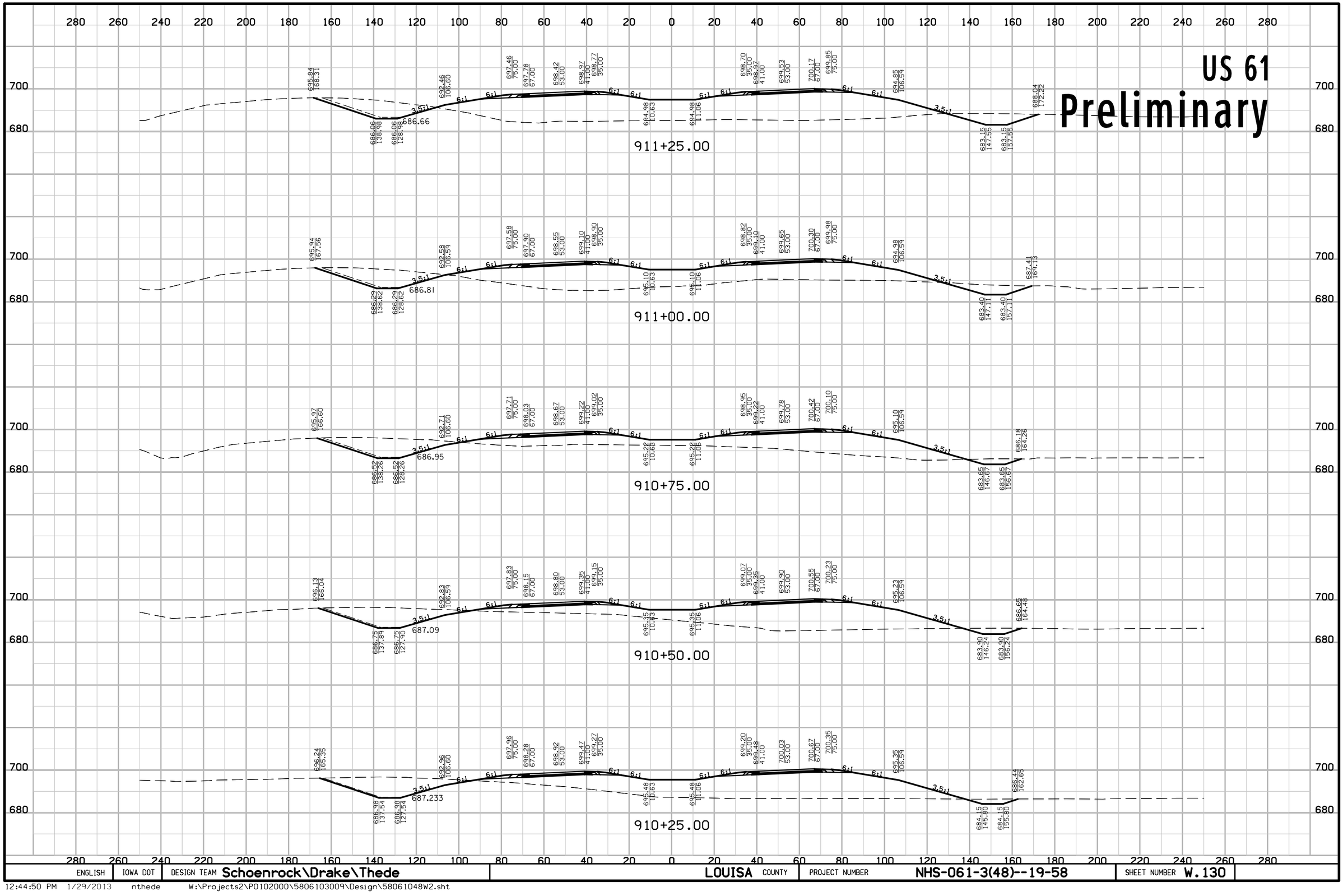
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.130

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US 61

Preliminary

913+50.00

913+25.00

913+20.00

913+00.00

912+75.00

4 - RF-13 SINGLE BEVEL "D" SECTIONS WITH 5° BEVEL

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.132

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US 61

Preliminary

914+62.94

914+50.00

914+25.00

914+00.00

913+75.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.133

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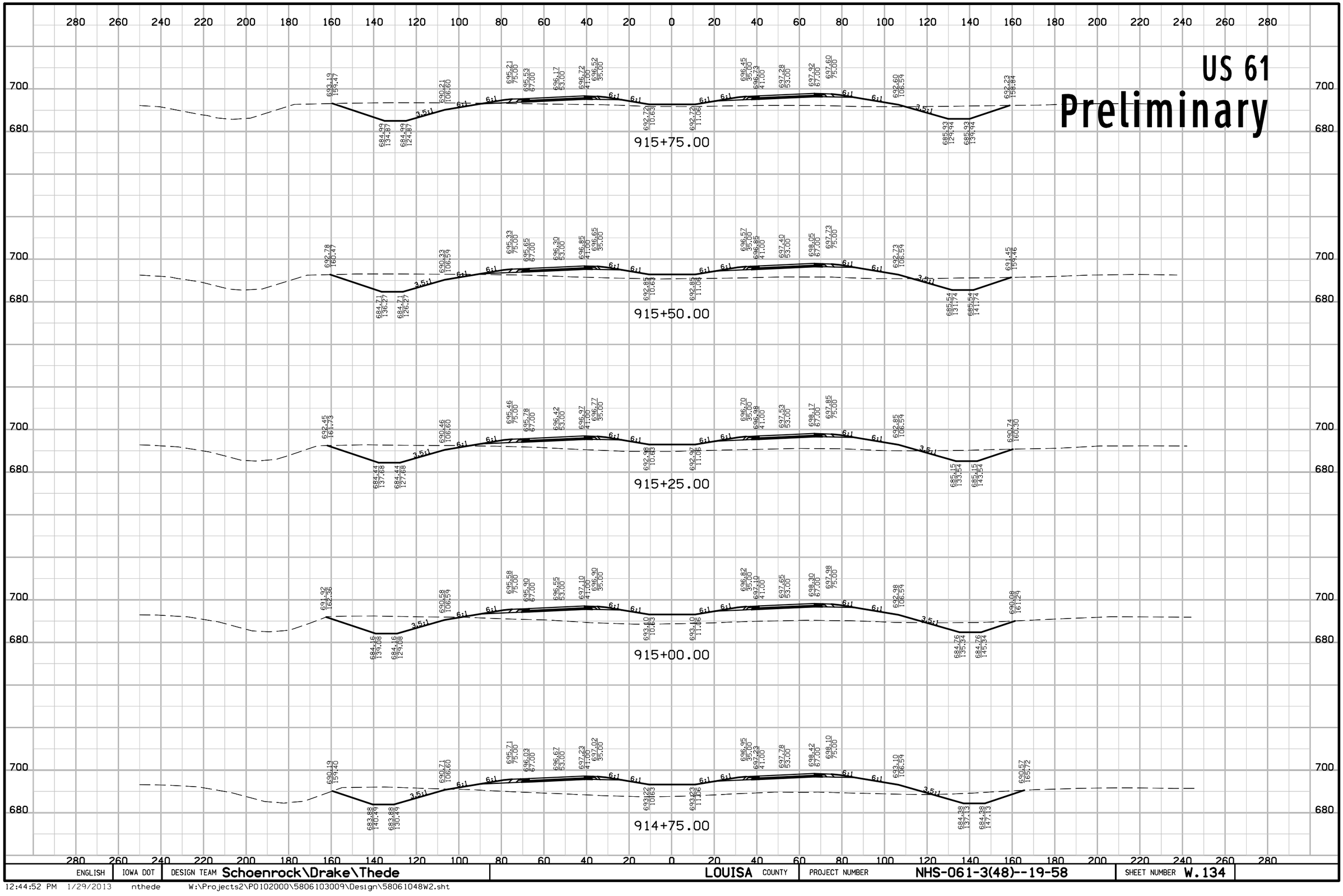
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.134

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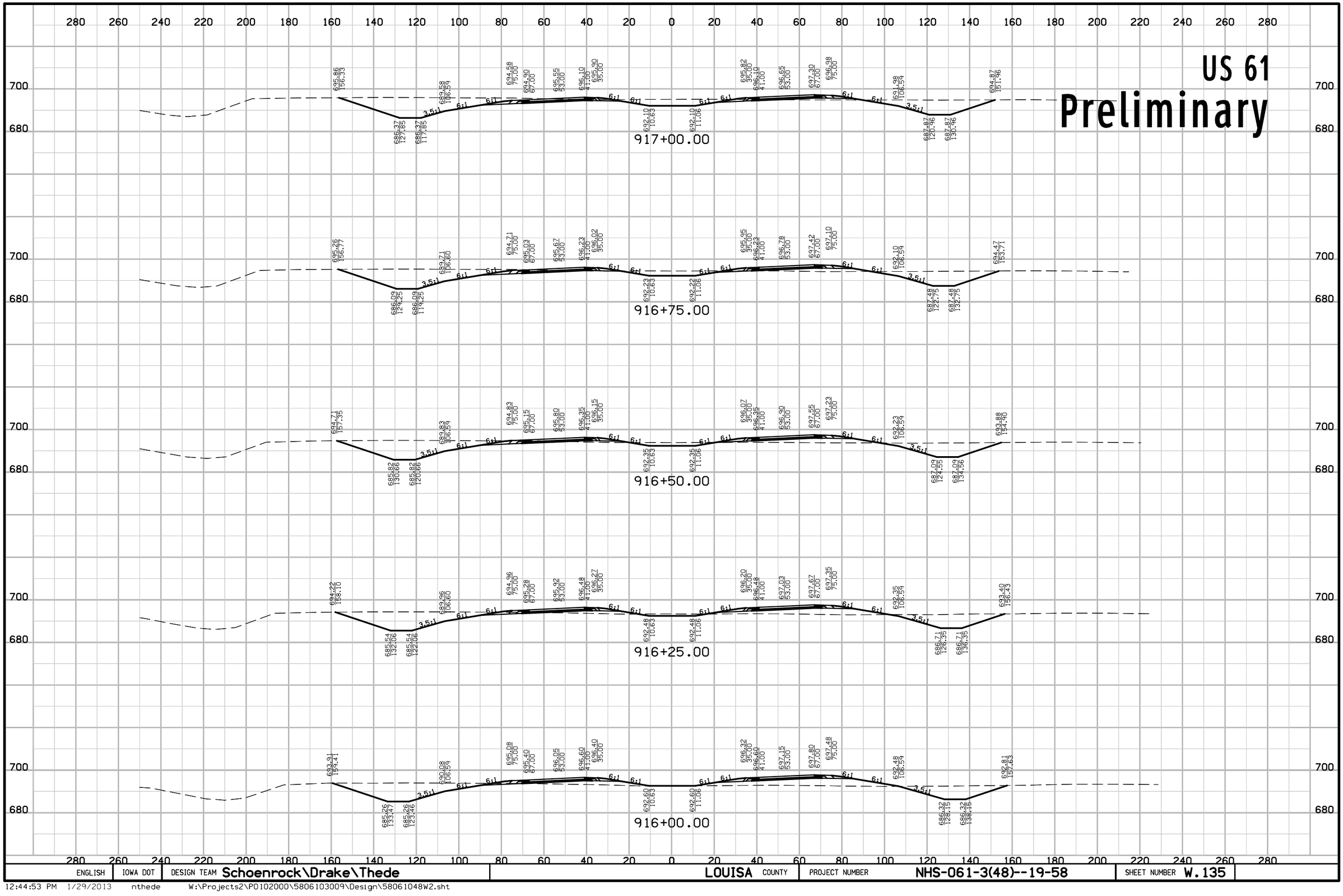
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.135

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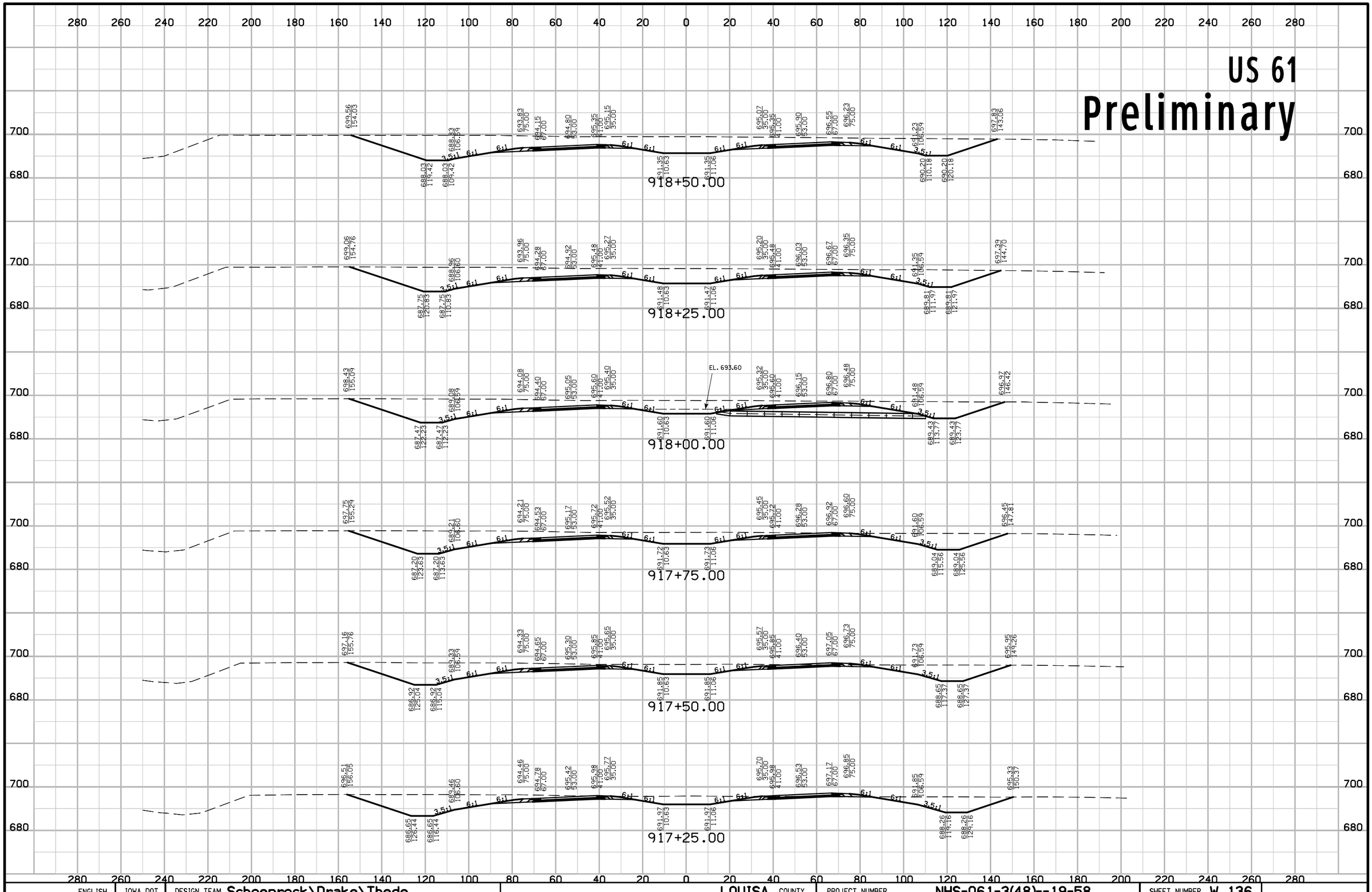
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.136

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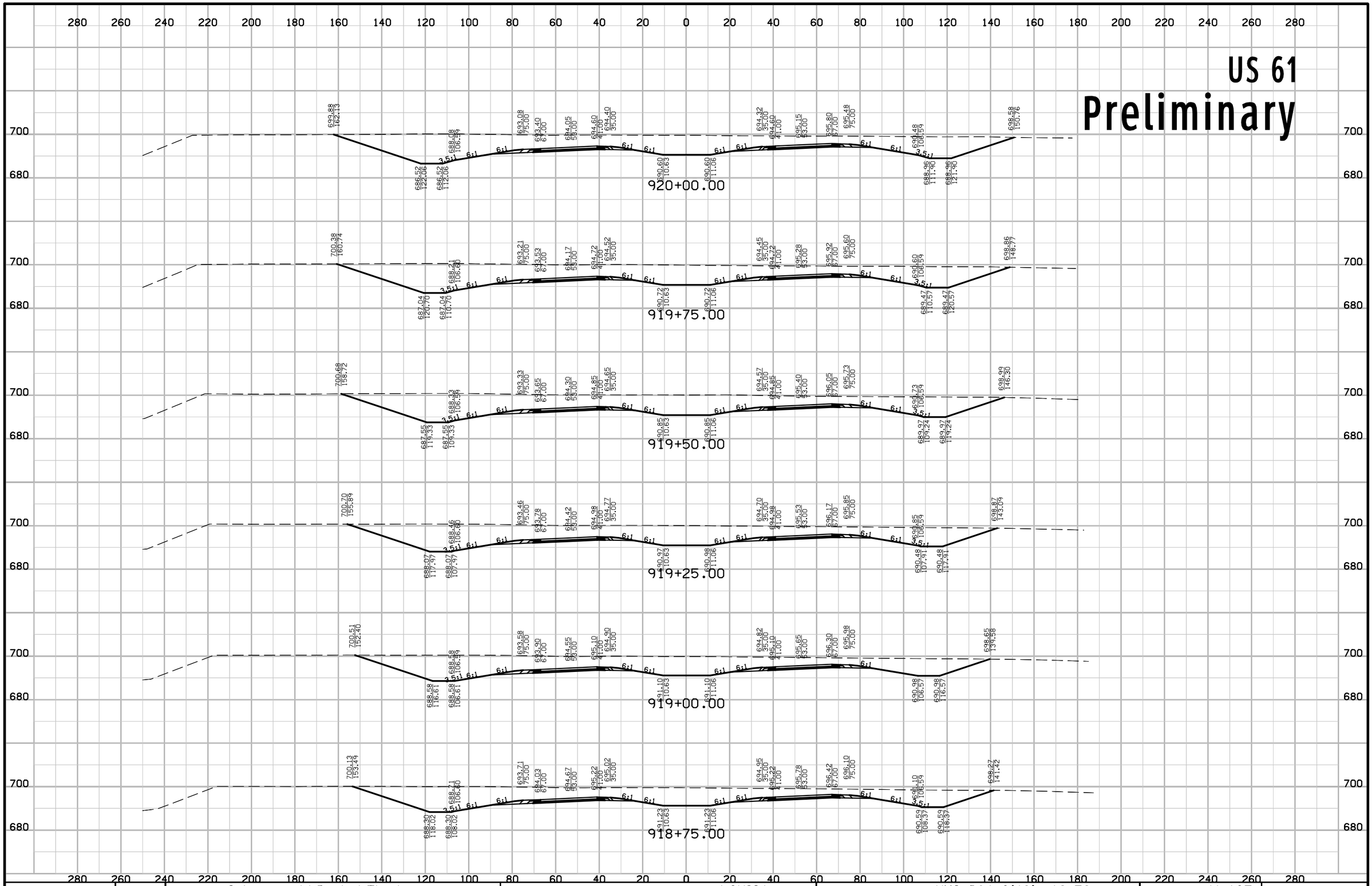
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.137

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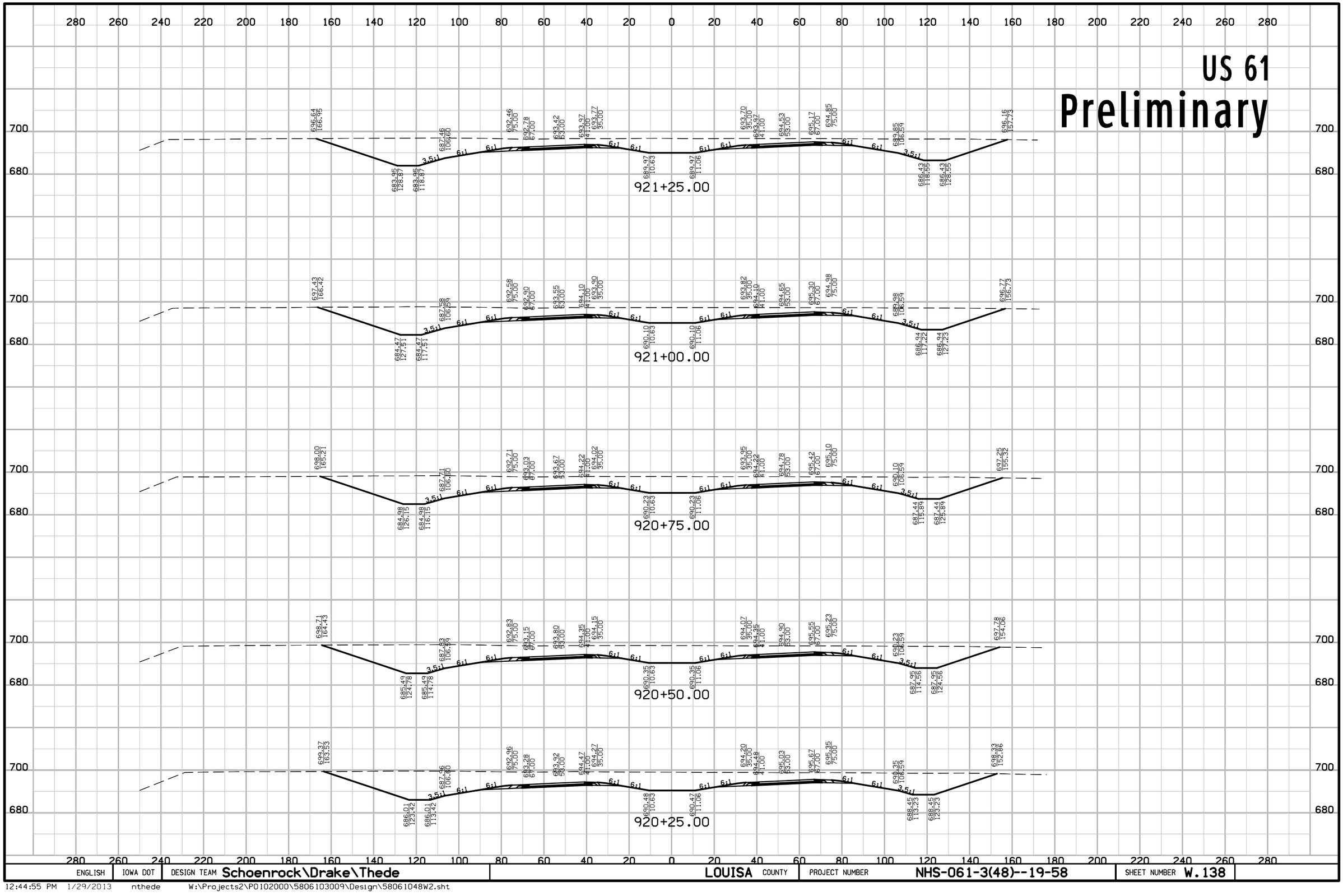
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.138

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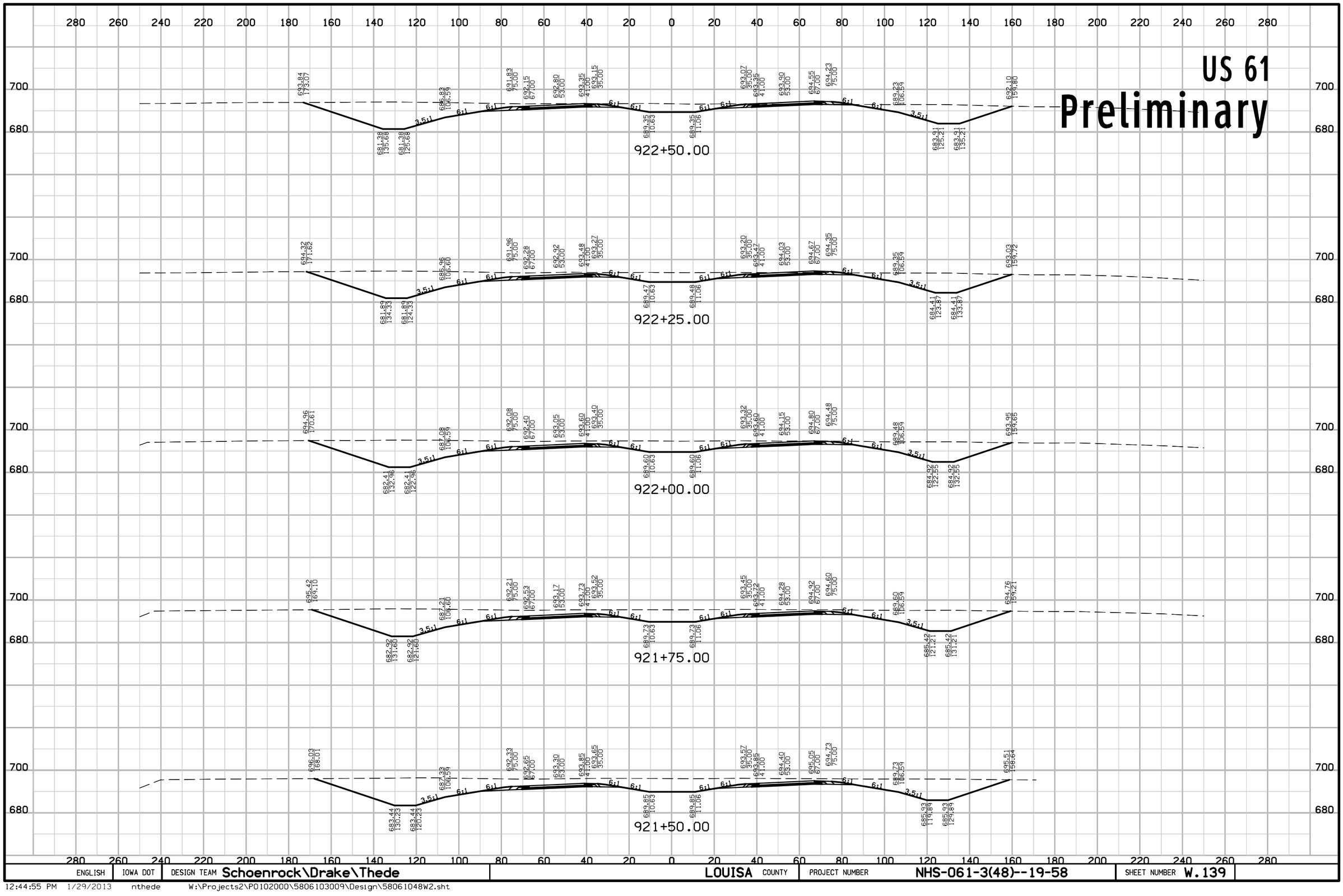
US 61

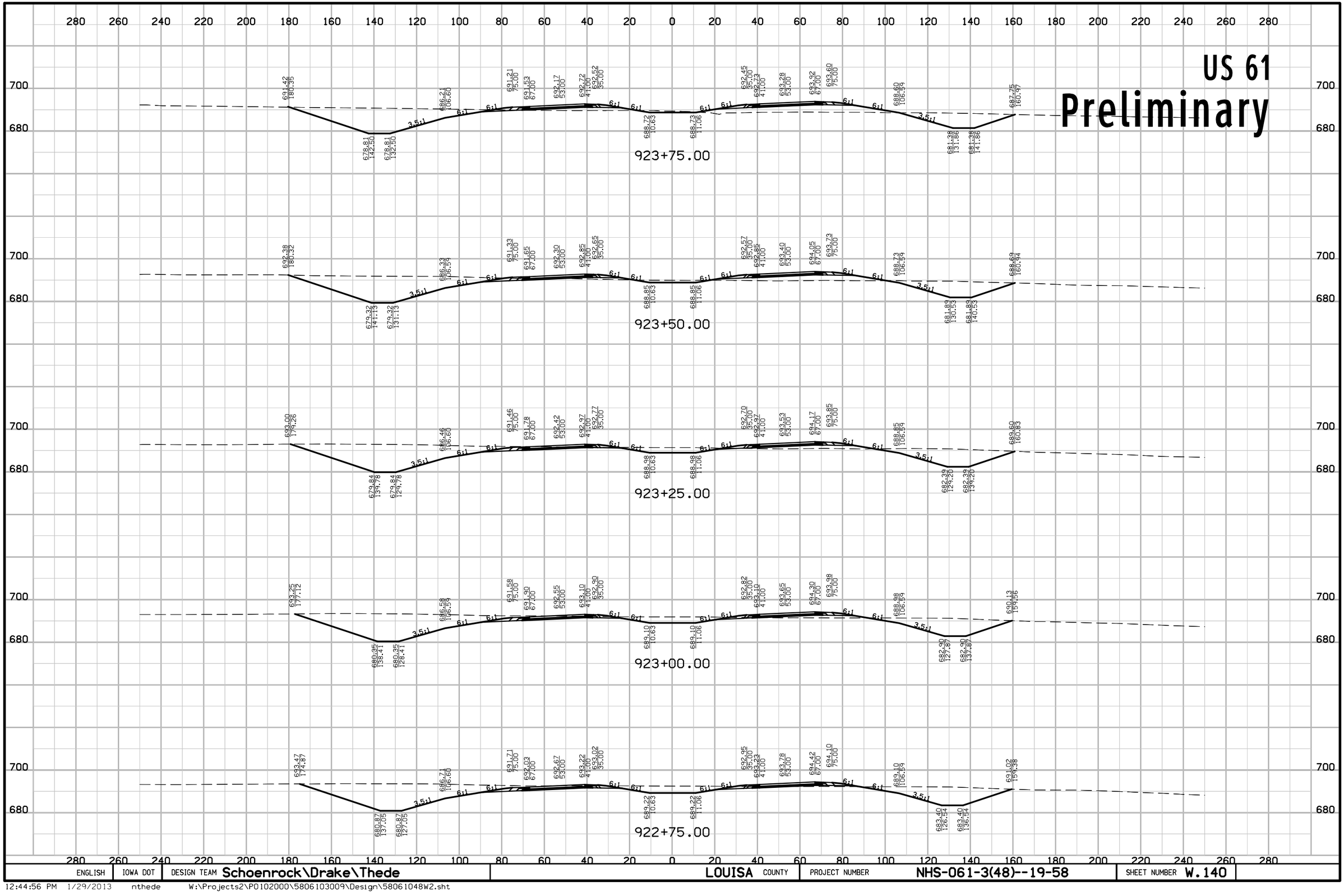
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.139

US 61

Preliminary



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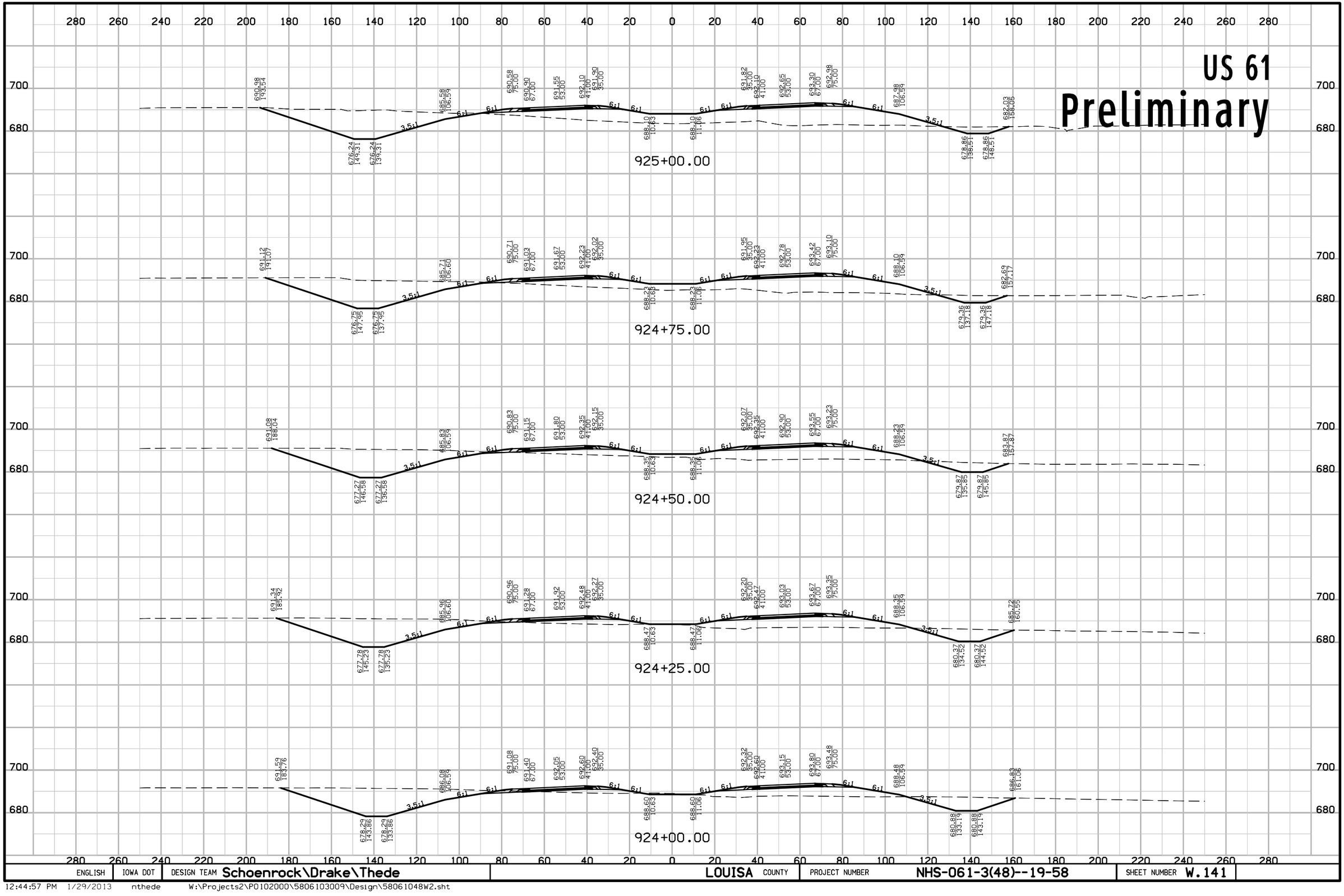
US 61

Preliminary



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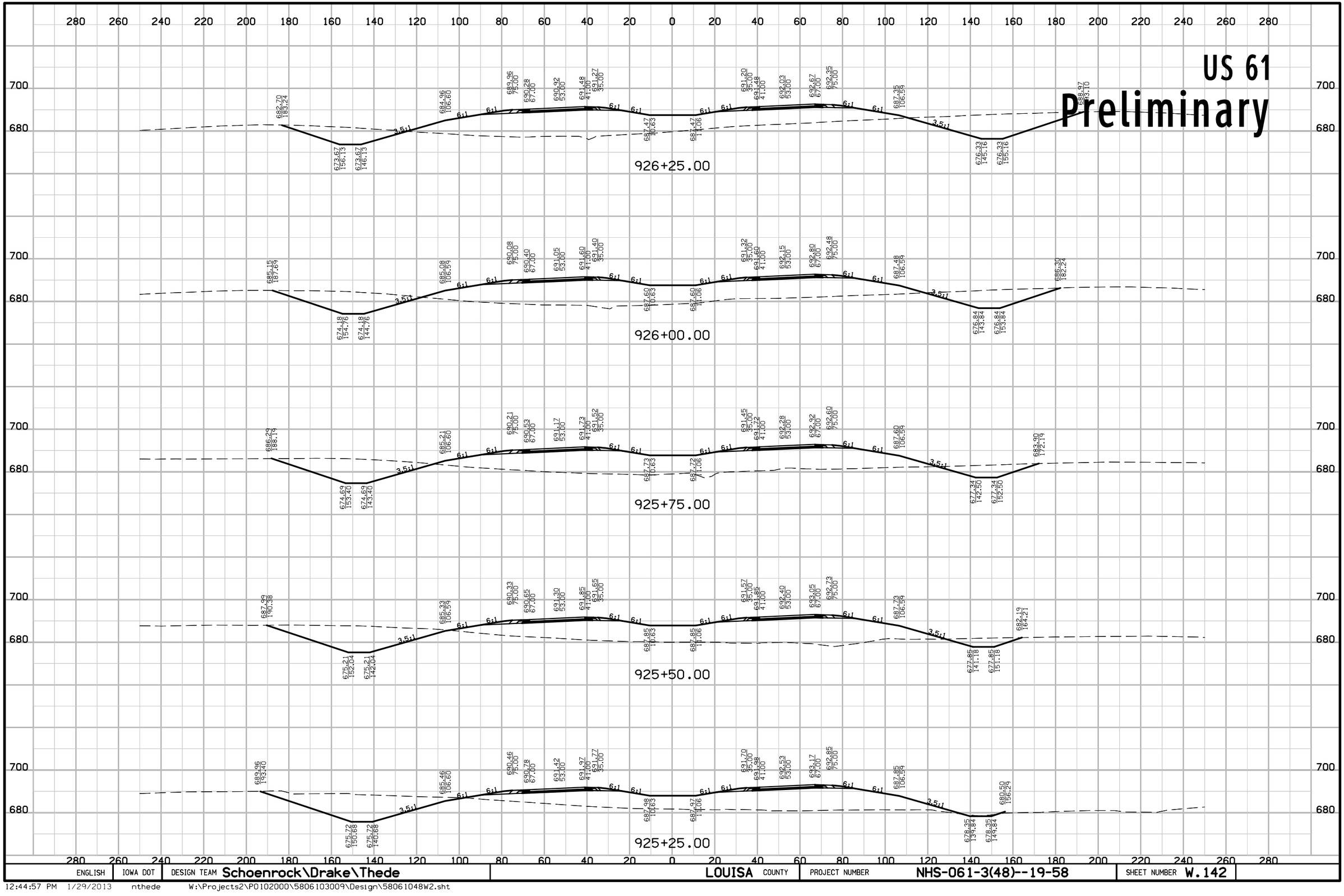
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.142

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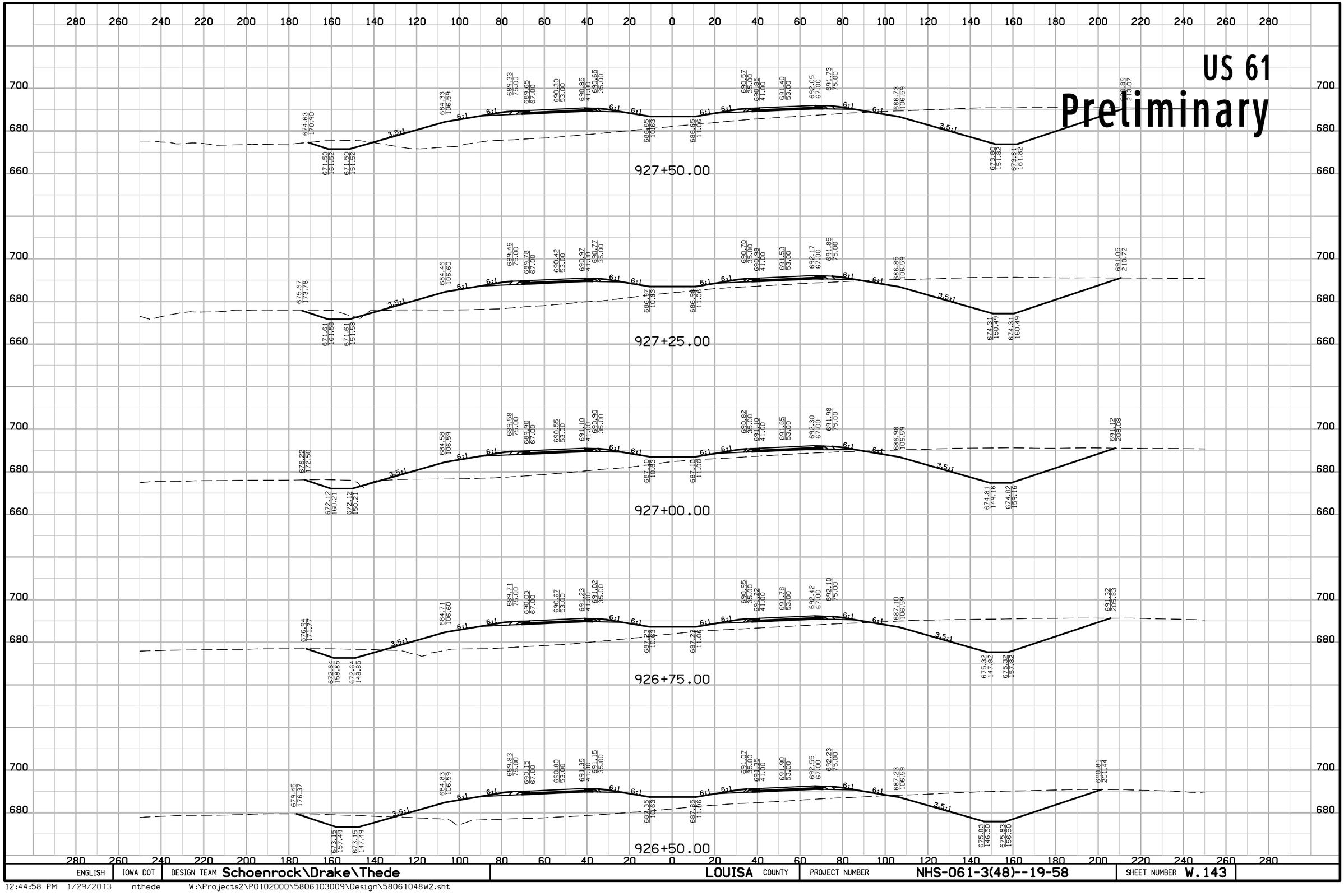
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.143

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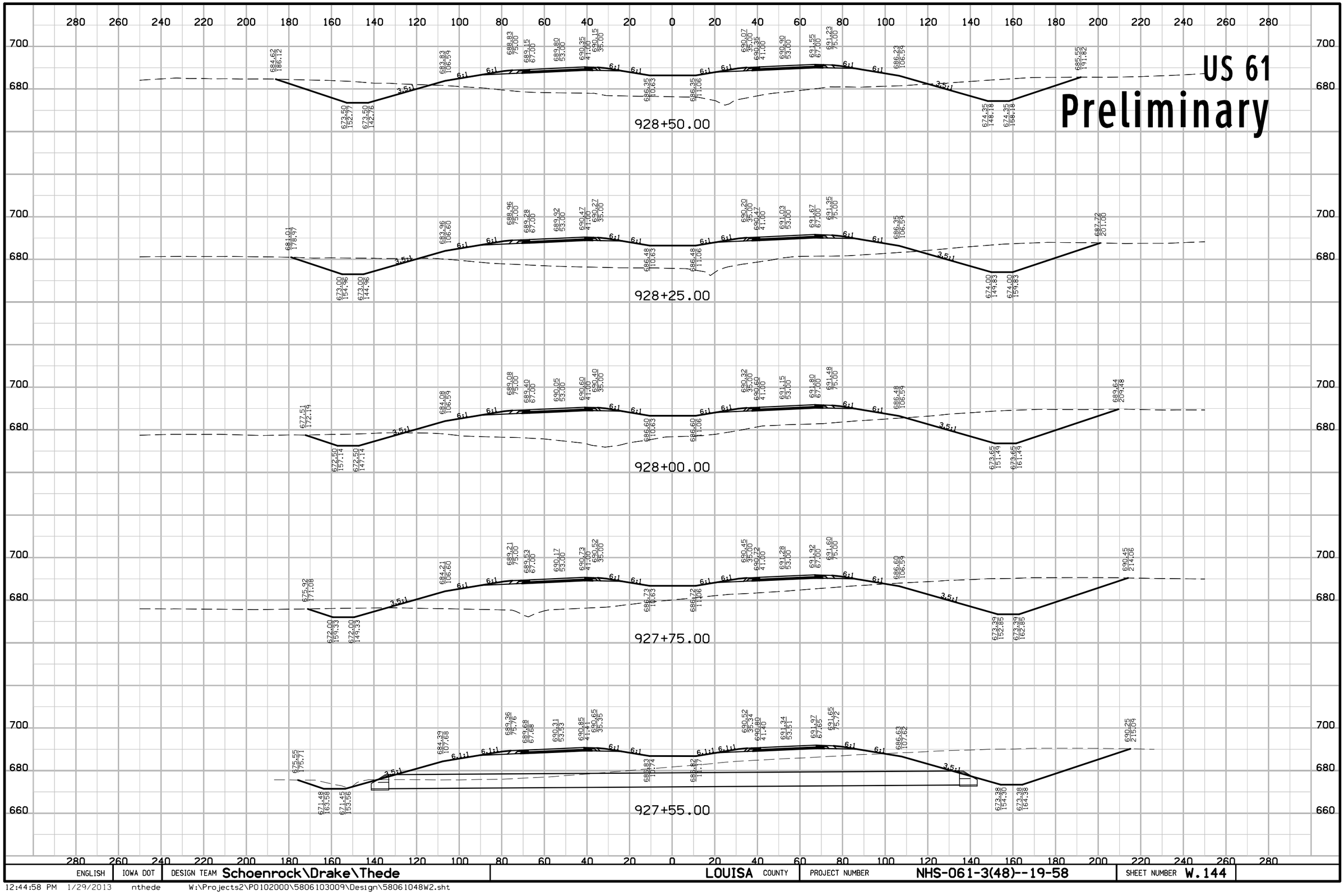
US 61

Preliminary



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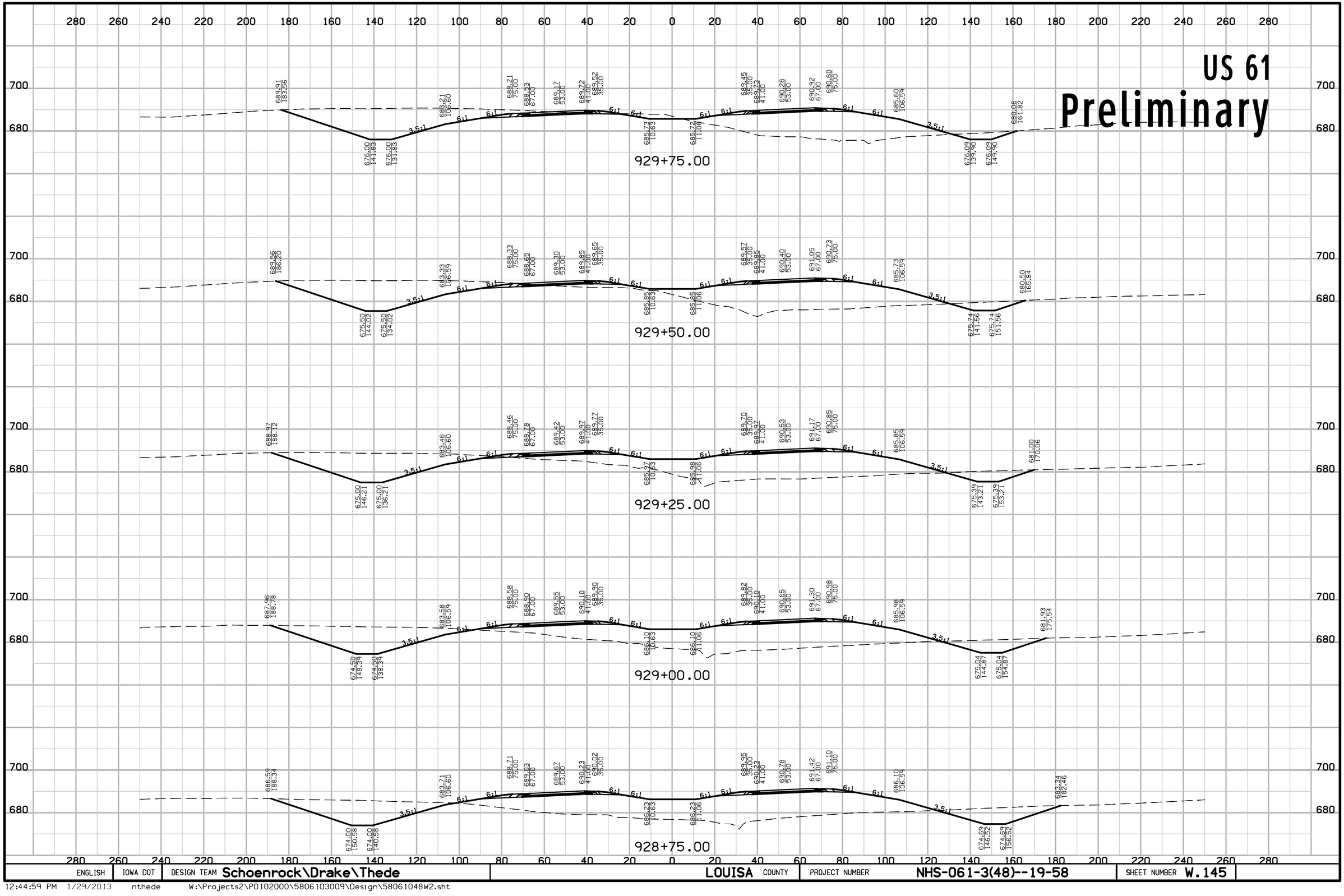
US 61

Preliminary



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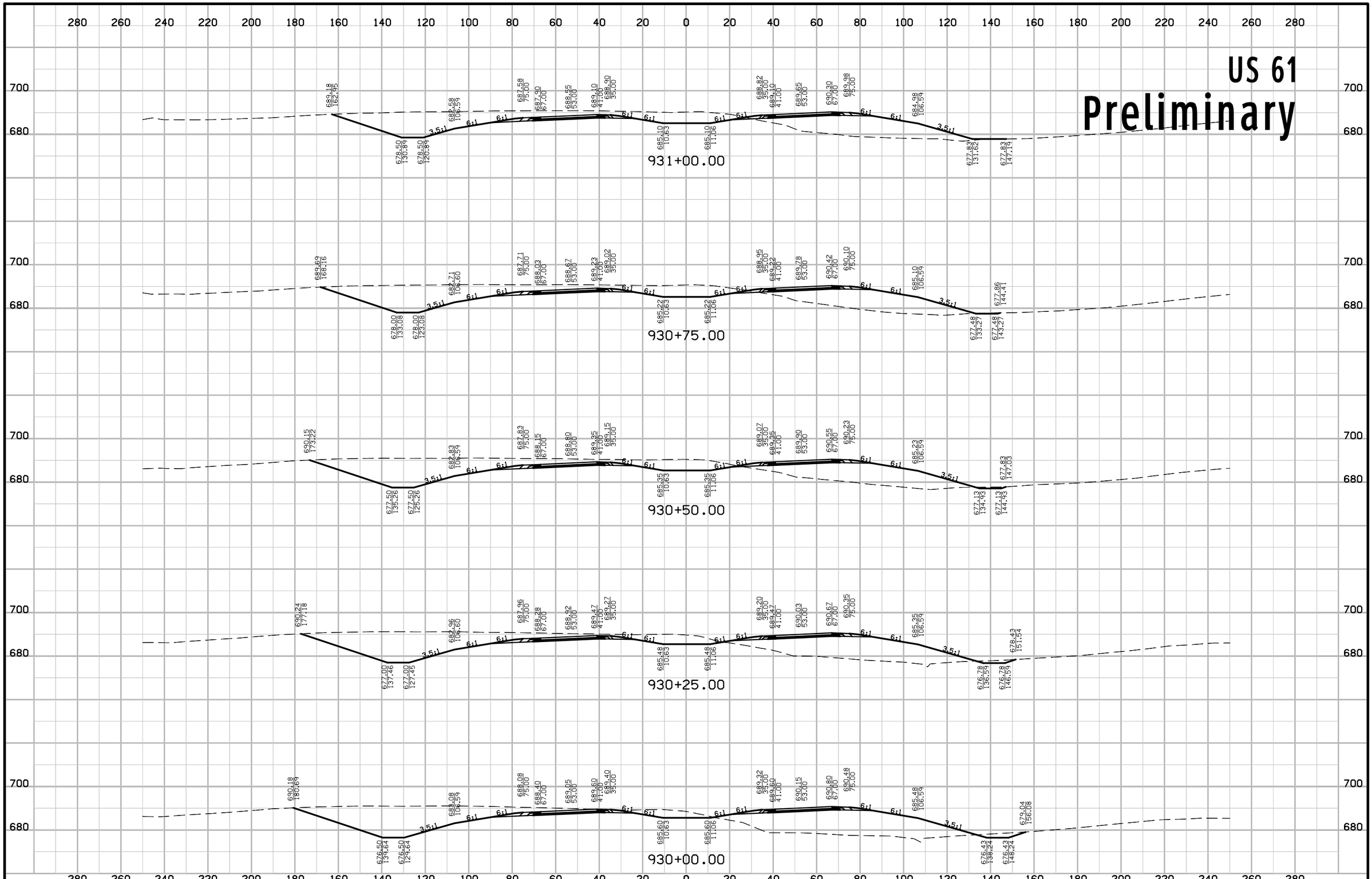
US 61

Preliminary



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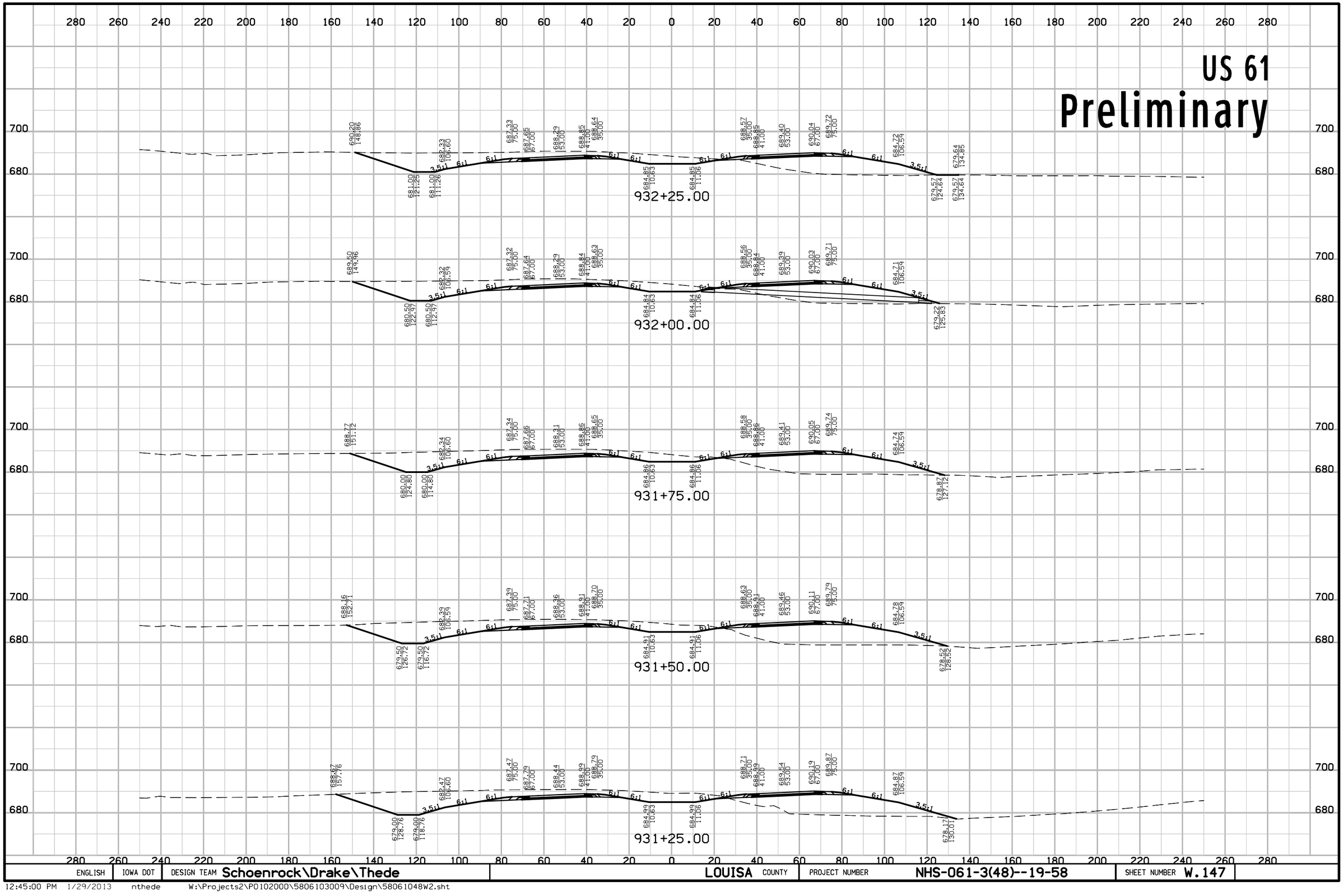
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.147

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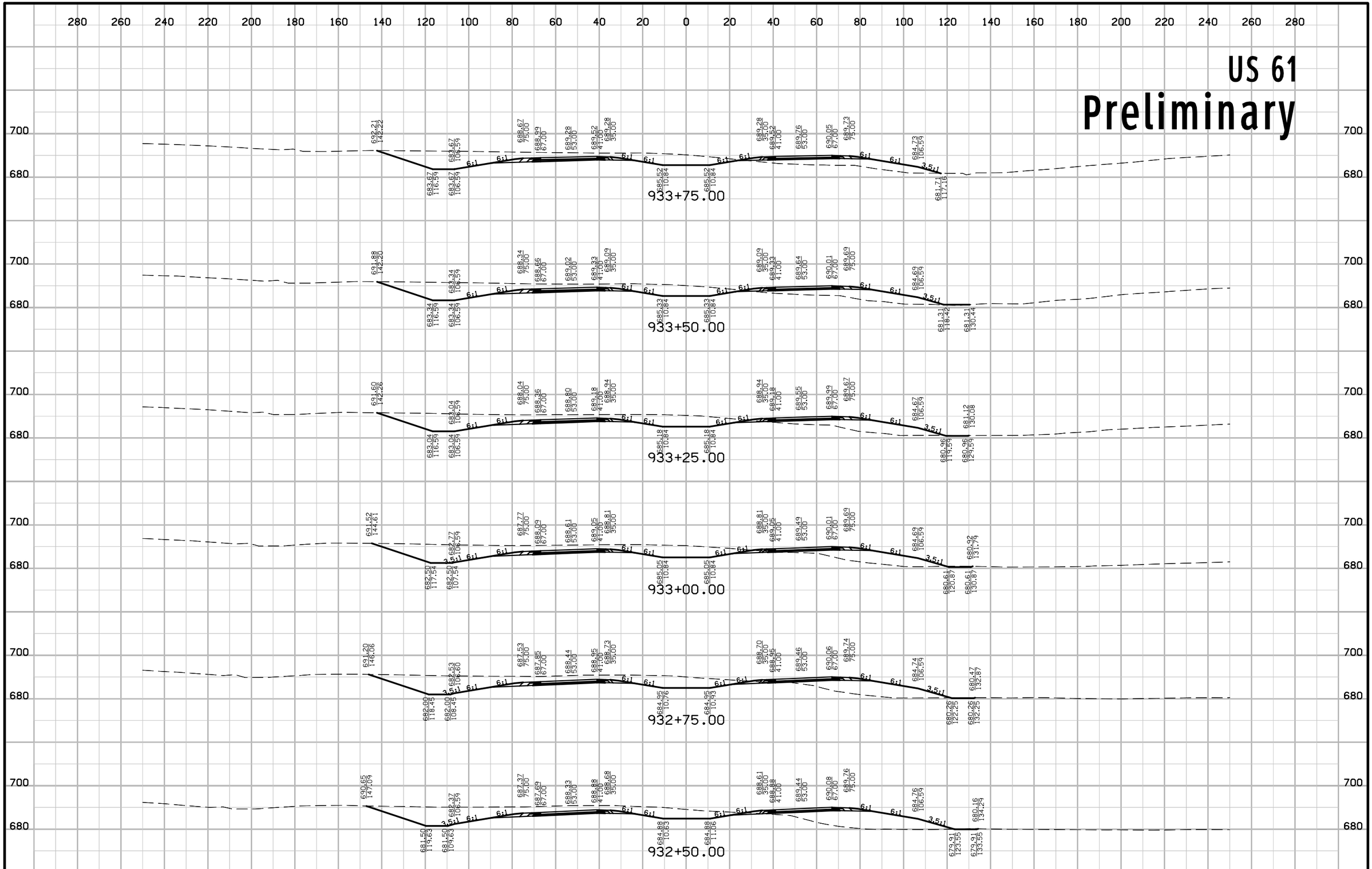
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.148

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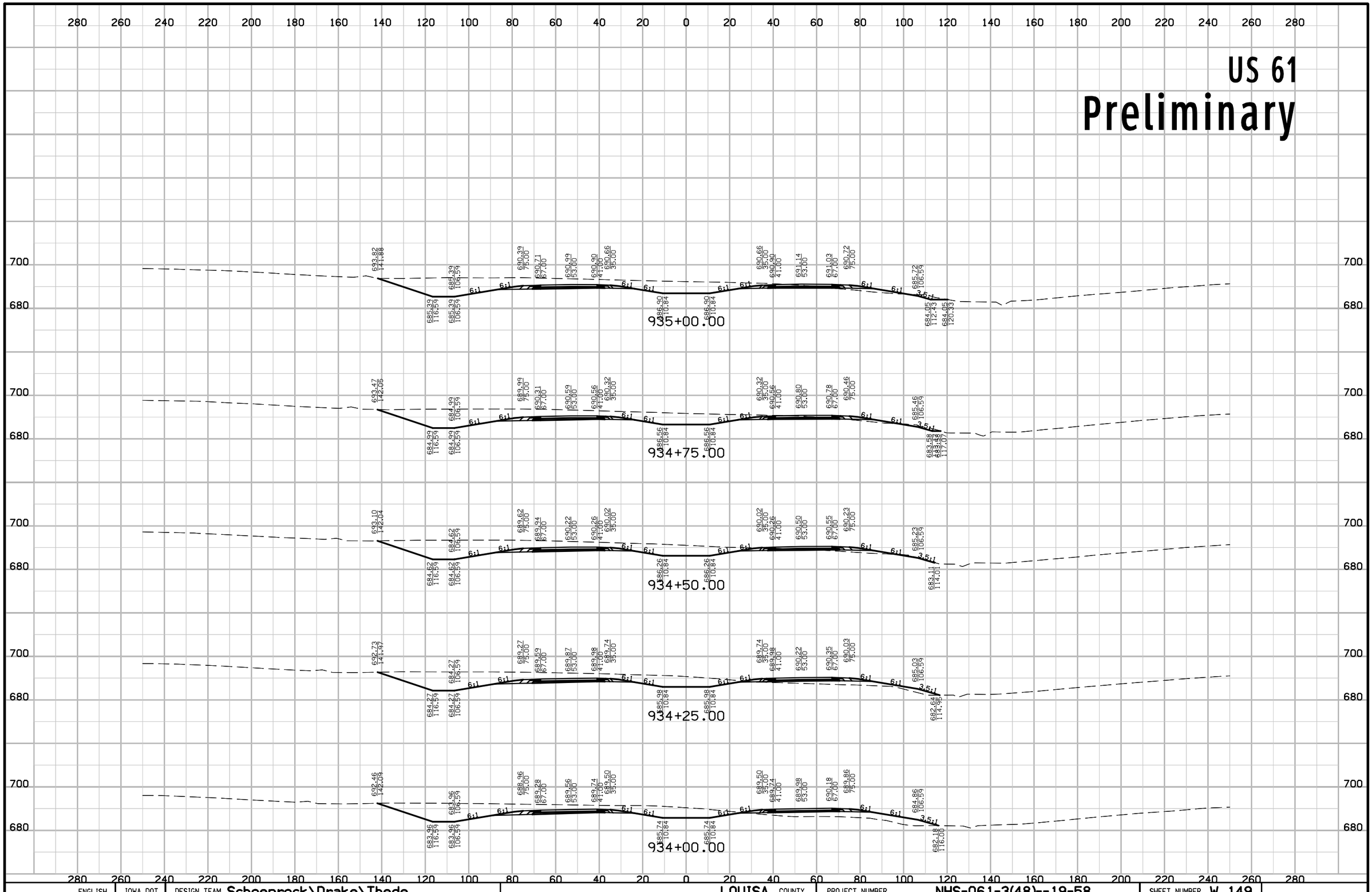
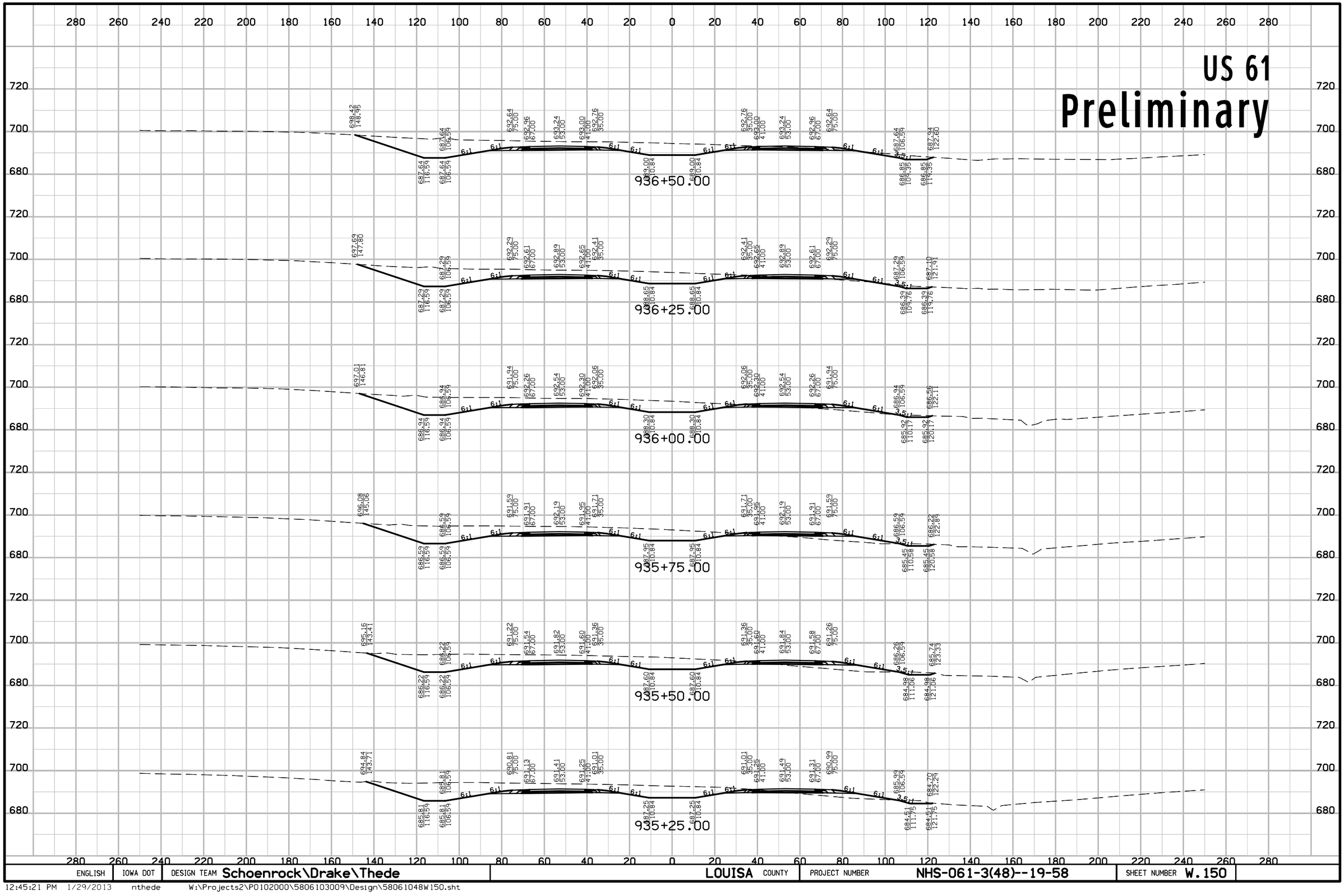
US 61
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.149

US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.150

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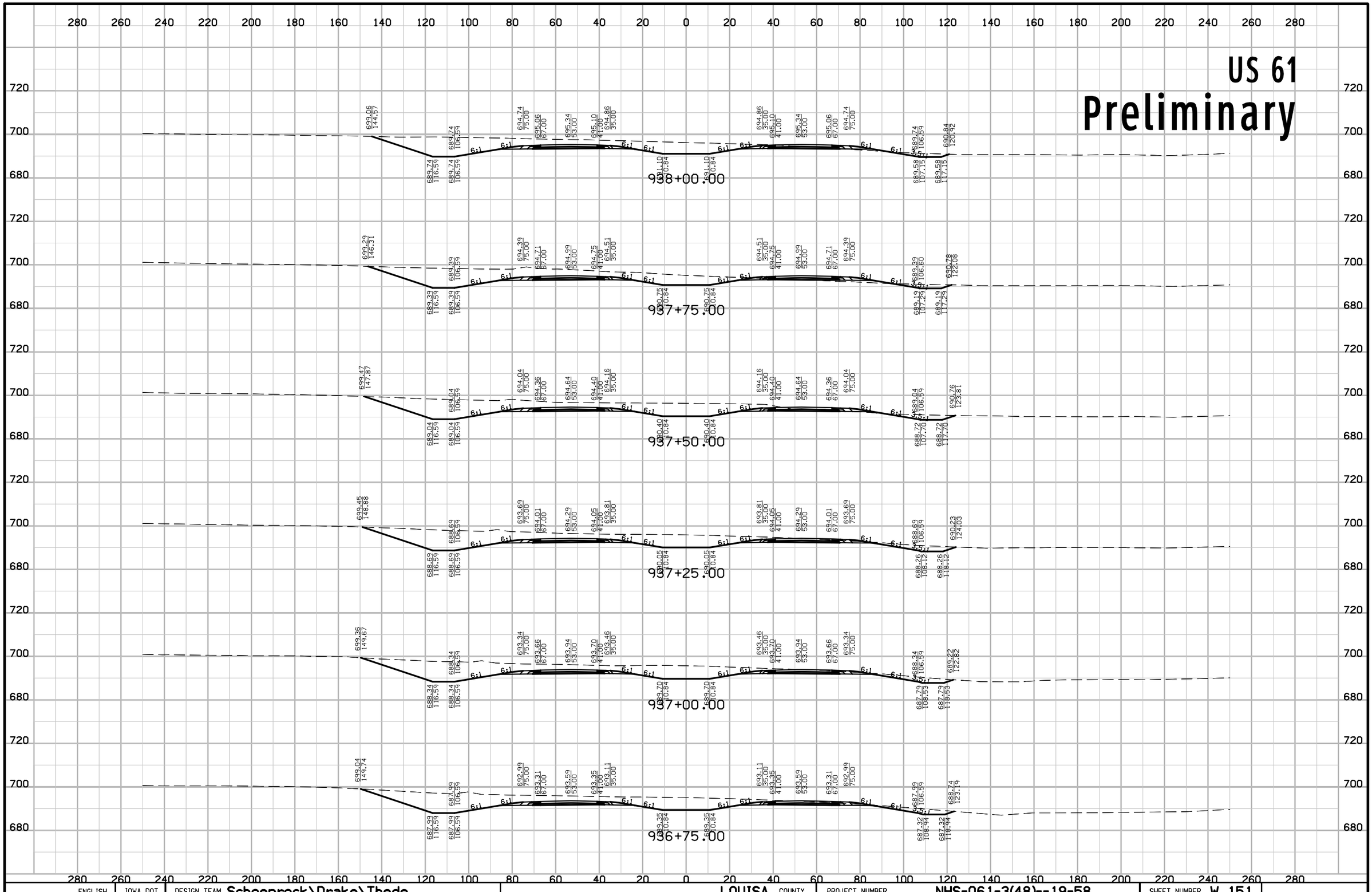
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.151

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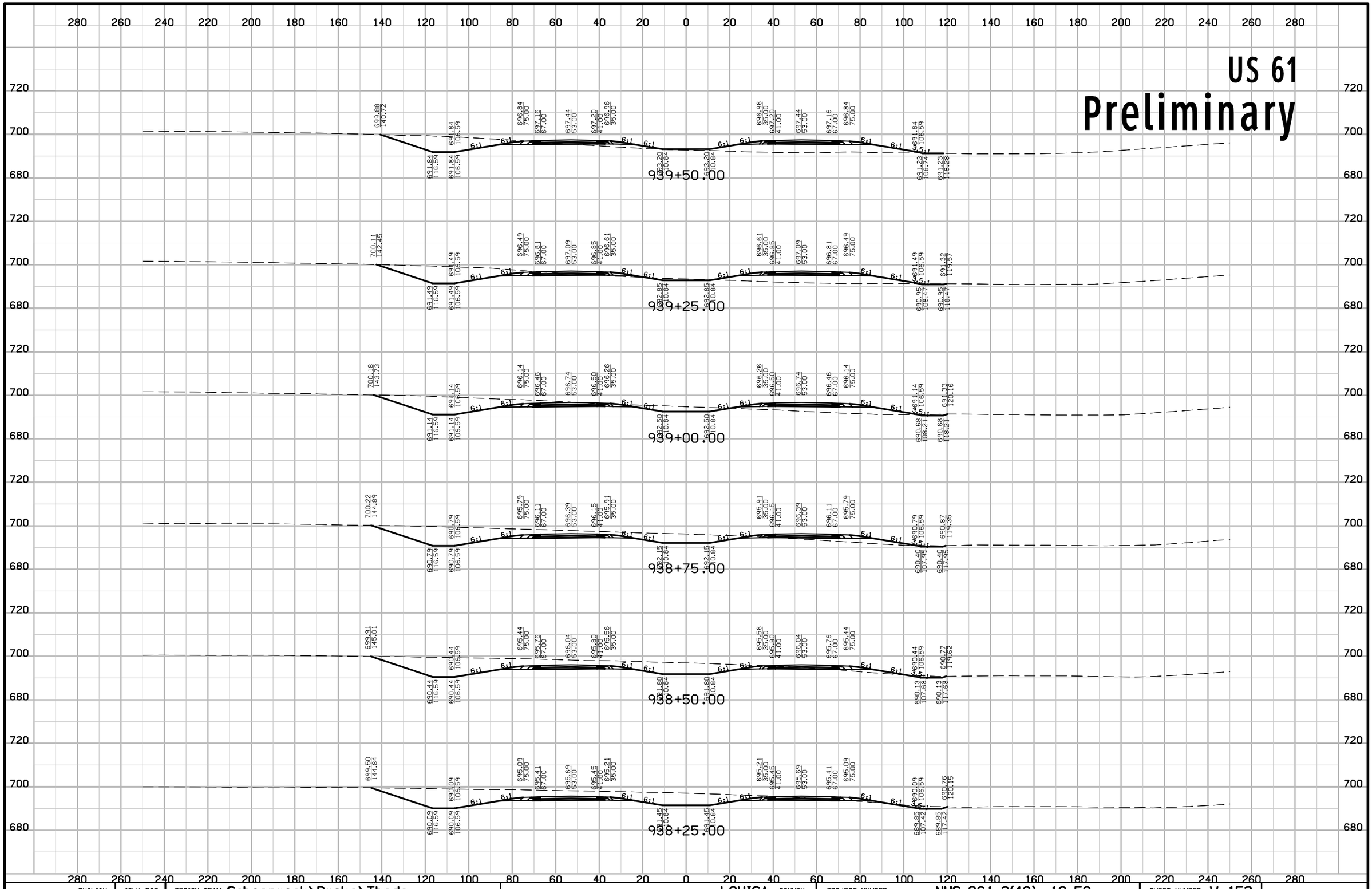
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.152

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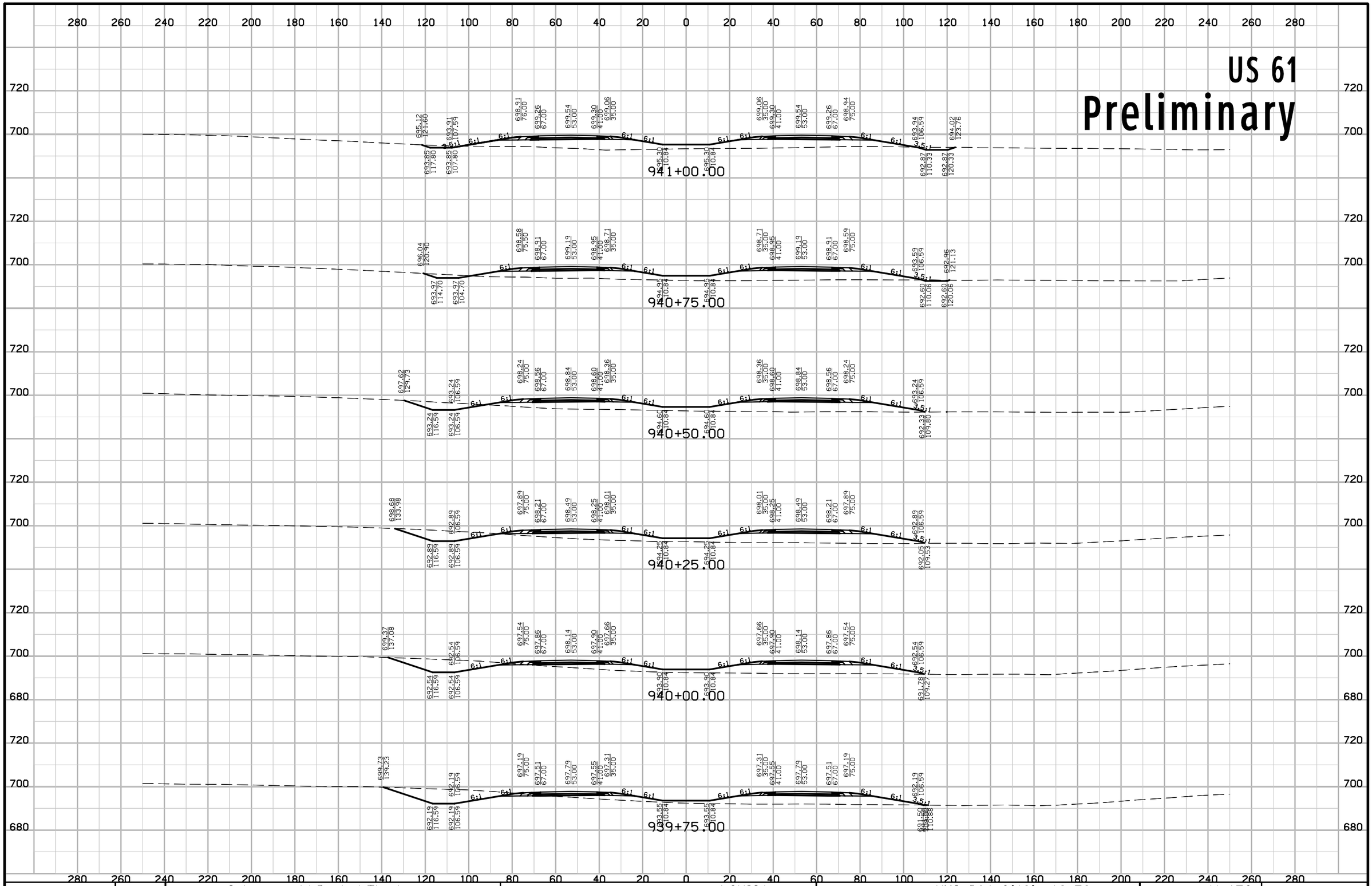
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.153

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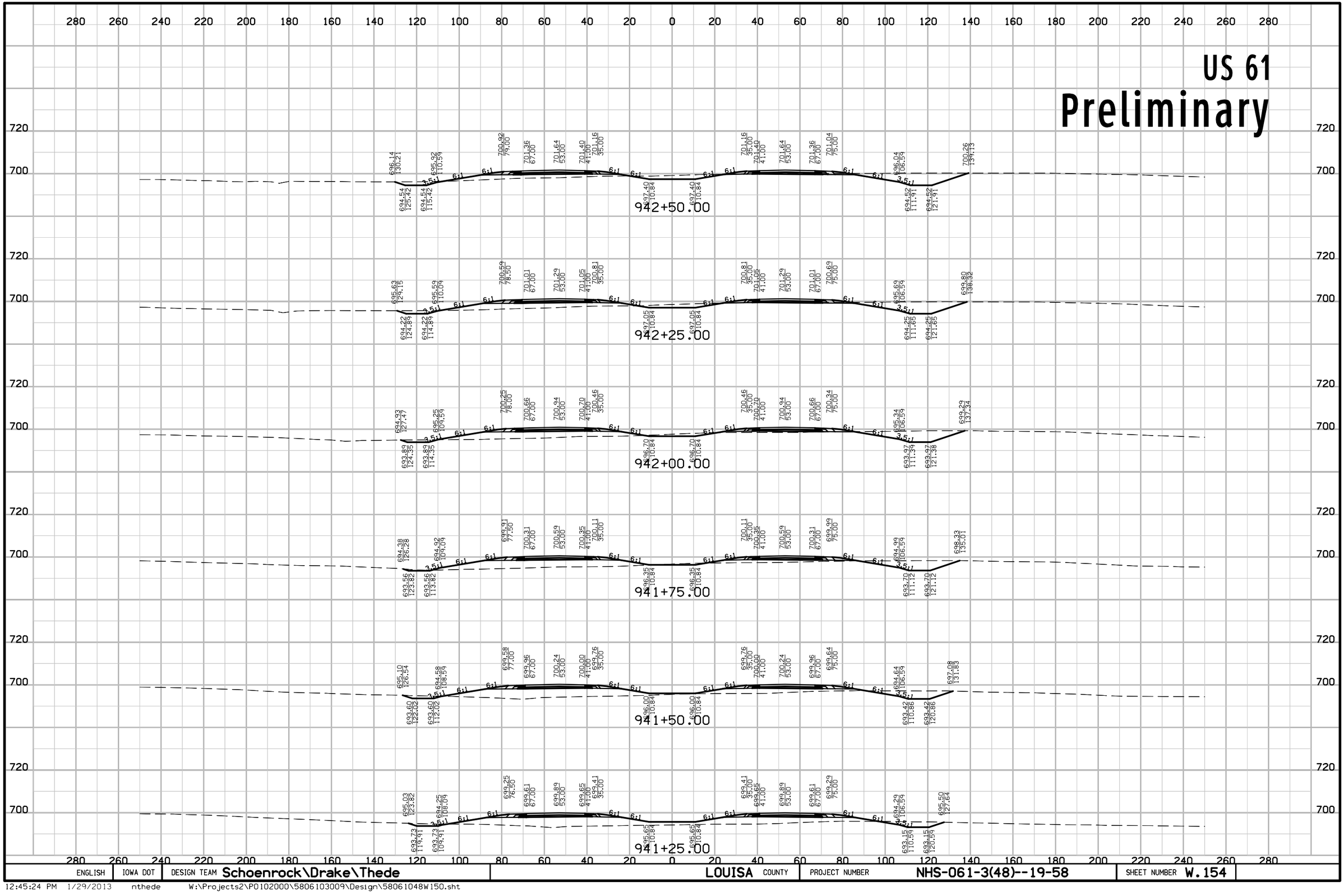
US 61

Preliminary



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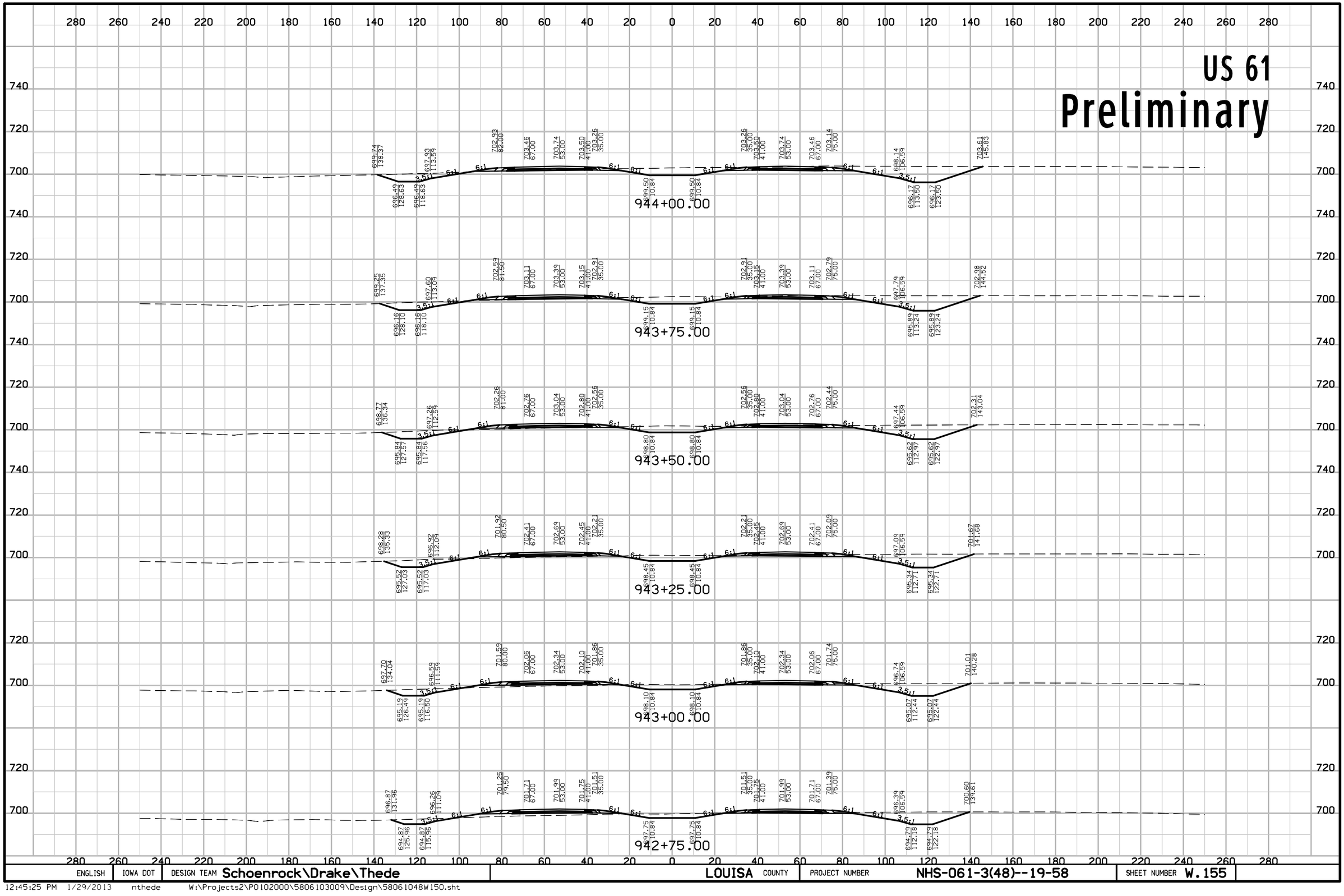
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.155

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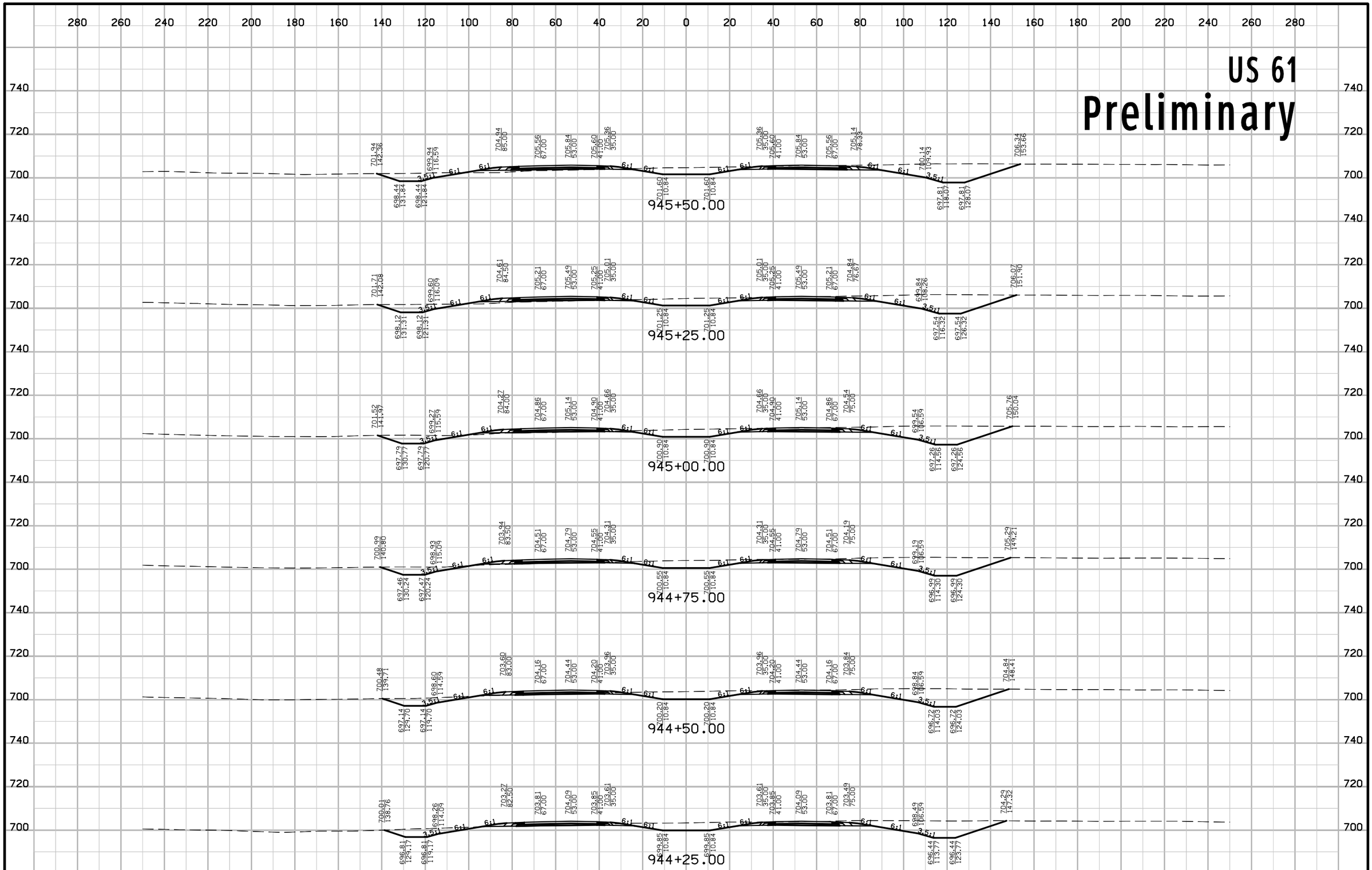
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.156

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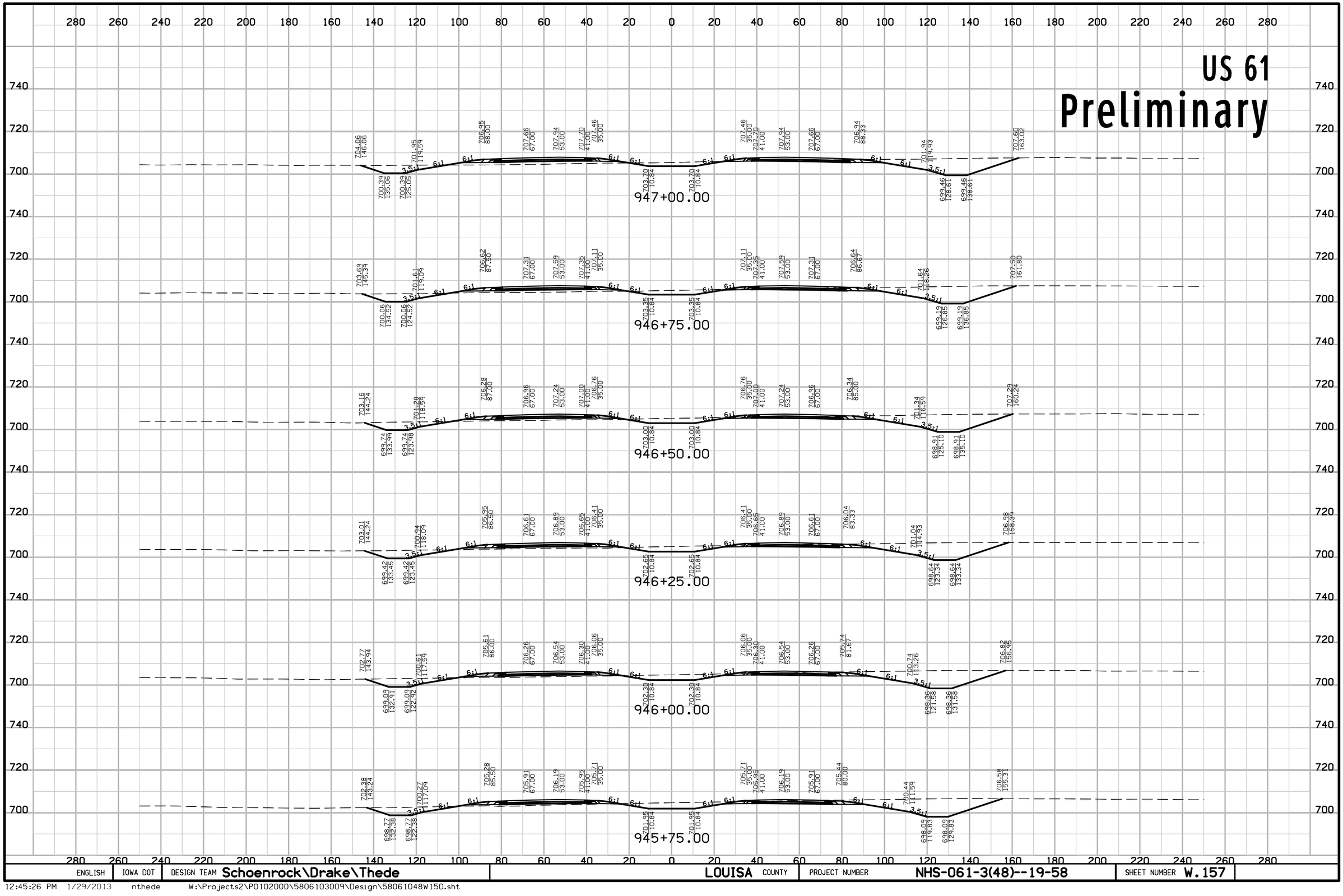
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.157

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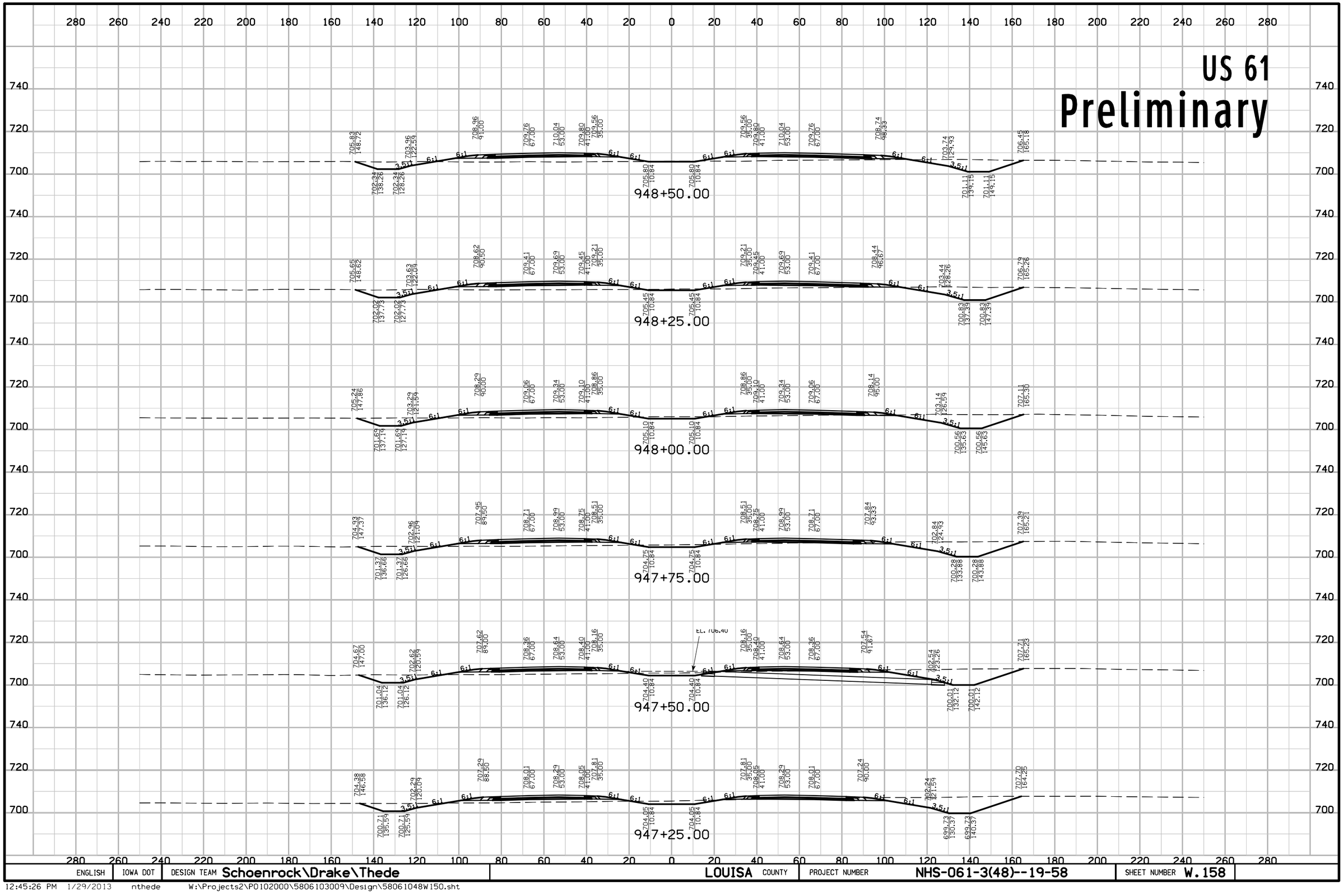
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.158

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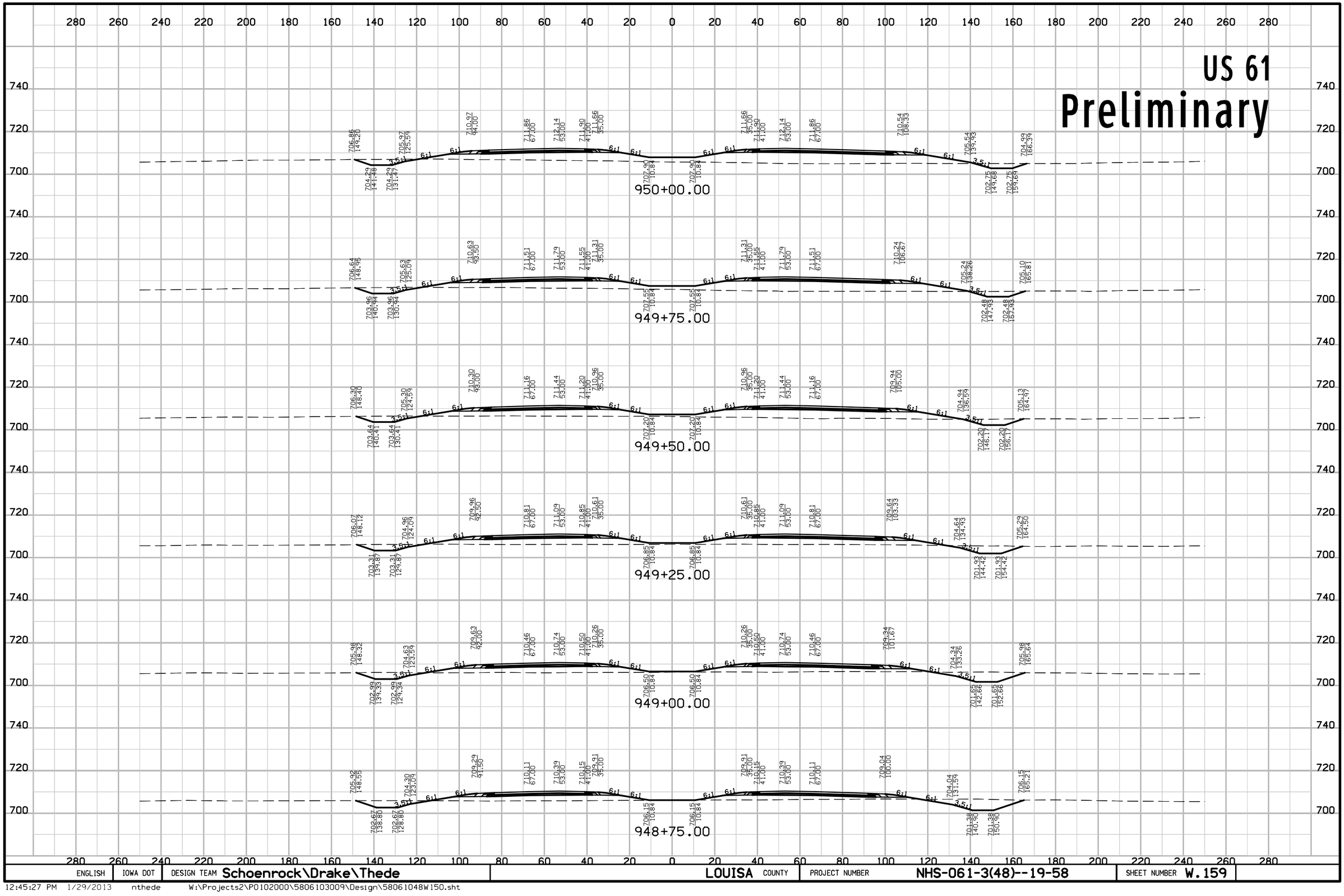
US 61

Preliminary



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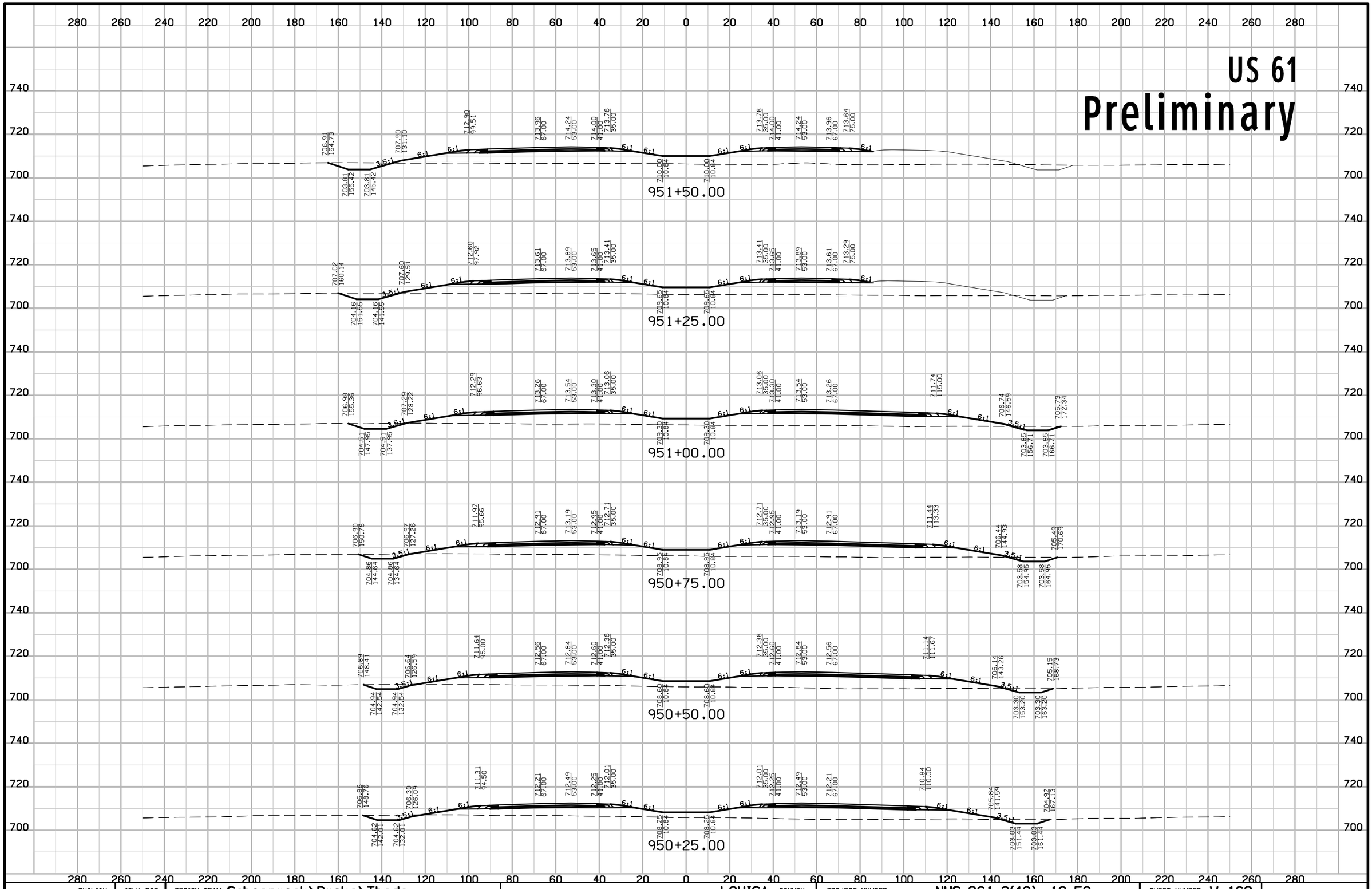
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.160

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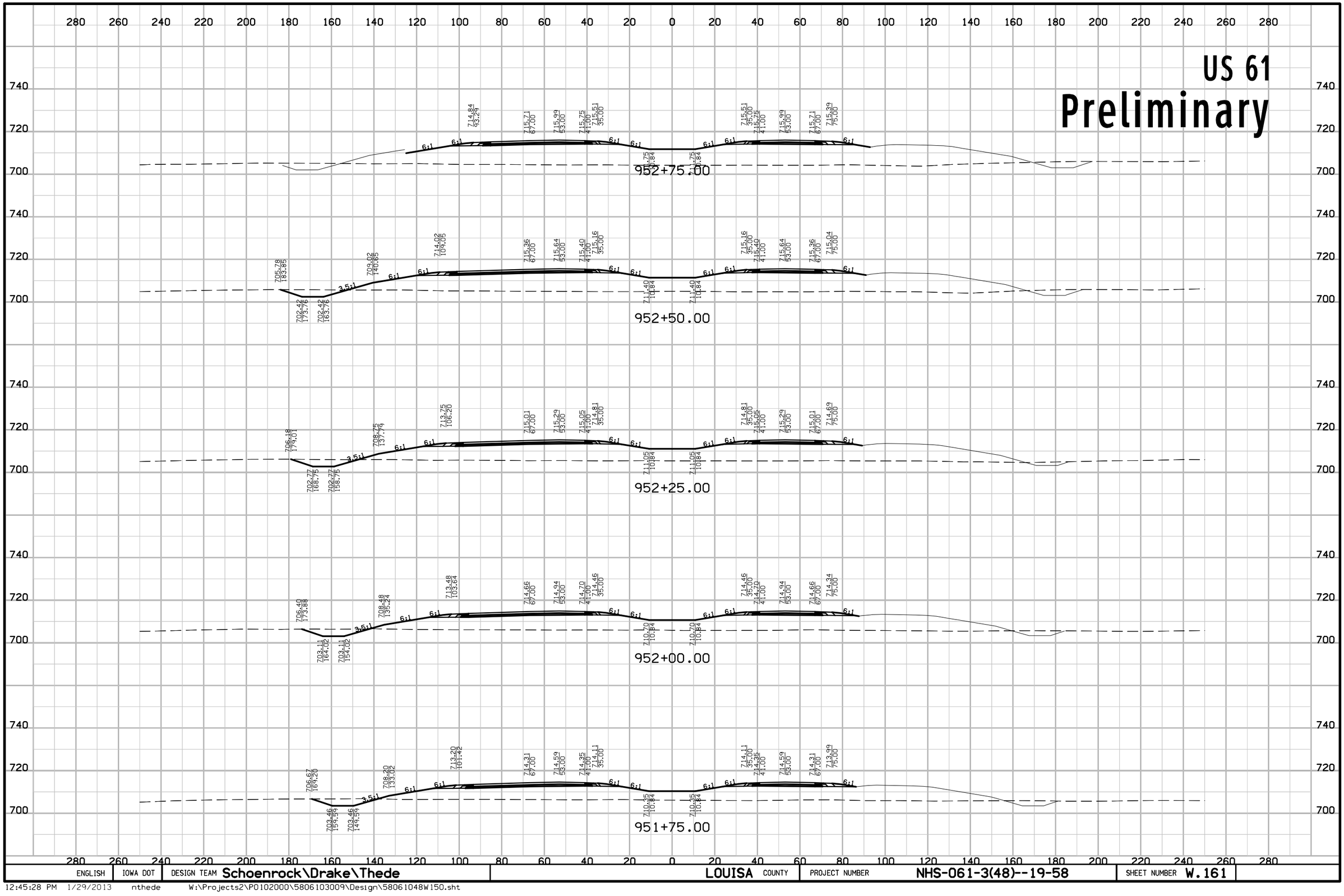
US 61

Preliminary



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US 61

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

740
720

717.49 75.00 | 717.81 67.00 | 718.09 53.00 | 717.85 41.00 | 717.61 35.00 | 717.61 35.00 | 717.85 41.00 | 718.09 53.00 | 717.81 67.00 | 717.49 75.00 | 712.49 106.59

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1

13.85 0.84 | 13.85 0.84

954+25.00

740
720

717.14 75.00 | 717.46 67.00 | 717.74 53.00 | 717.50 41.00 | 717.26 35.00 | 717.26 35.00 | 717.50 41.00 | 717.74 53.00 | 717.46 67.00 | 717.14 75.00

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1

13.50 0.84 | 13.50 0.84

954+00.00

740
720
700

716.79 75.00 | 717.11 67.00 | 717.39 53.00 | 717.15 41.00 | 716.91 35.00 | 716.91 35.00 | 717.15 41.00 | 717.39 53.00 | 717.11 67.00 | 716.79 75.00

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1

13.15 0.84 | 13.15 0.84

953+75.00

740
720

716.44 75.00 | 716.76 67.00 | 717.04 53.00 | 716.80 41.00 | 716.56 35.00 | 716.56 35.00 | 716.80 41.00 | 717.04 53.00 | 716.76 67.00 | 716.44 75.00

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1

12.80 0.84 | 12.80 0.84

953+50.00

740
720

716.09 75.00 | 716.41 67.00 | 716.69 53.00 | 716.45 41.00 | 716.21 35.00 | 716.21 35.00 | 716.45 41.00 | 716.69 53.00 | 716.41 67.00 | 716.09 75.00

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1

12.45 0.84 | 12.45 0.84

953+25.00

740
720

715.74 75.00 | 716.06 67.00 | 716.34 53.00 | 716.10 41.00 | 715.86 35.00 | 715.86 35.00 | 716.10 41.00 | 716.34 53.00 | 716.06 67.00 | 715.74 75.00

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1

12.10 0.84 | 12.10 0.84

953+00.00

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 Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.162

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US 61

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

740
720

955+75.00

714.59 106.59 | 719.59 75.00 | 719.91 67.00 | 720.19 53.00 | 719.95 41.00 | 719.71 35.00 | 715.95 100.84 | 715.95 100.84 | 719.71 35.00 | 719.95 41.00 | 720.19 53.00 | 719.91 67.00 | 719.59 75.00 | 714.59 106.59

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 3.5:1

955+50.00

714.24 106.59 | 719.24 75.00 | 719.56 67.00 | 719.84 53.00 | 719.60 41.00 | 719.36 35.00 | 715.60 100.84 | 715.60 100.84 | 719.36 35.00 | 719.60 41.00 | 719.84 53.00 | 719.56 67.00 | 719.24 75.00 | 714.24 106.59

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 3.5:1

955+25.00

713.89 106.59 | 718.89 75.00 | 719.21 67.00 | 719.49 53.00 | 719.25 41.00 | 719.01 35.00 | 715.25 100.84 | 715.25 100.84 | 719.01 35.00 | 719.25 41.00 | 719.49 53.00 | 719.21 67.00 | 718.89 75.00 | 713.89 106.59

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 3.5:1

955+00.00

713.54 106.59 | 718.54 75.00 | 718.86 67.00 | 719.14 53.00 | 718.90 41.00 | 718.66 35.00 | 714.90 100.84 | 714.90 100.84 | 718.66 35.00 | 718.90 41.00 | 719.14 53.00 | 718.86 67.00 | 718.54 75.00 | 713.54 106.59

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 3.5:1

954+75.00

713.19 106.59 | 718.19 75.00 | 718.51 67.00 | 718.79 53.00 | 718.55 41.00 | 718.31 35.00 | 714.55 100.84 | 714.55 100.84 | 718.31 35.00 | 718.55 41.00 | 718.79 53.00 | 718.51 67.00 | 718.19 75.00 | 713.19 106.59

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 3.5:1

954+50.00

712.84 106.59 | 717.84 75.00 | 718.16 67.00 | 718.44 53.00 | 718.20 41.00 | 717.96 35.00 | 714.20 100.84 | 714.20 100.84 | 717.96 35.00 | 718.20 41.00 | 718.44 53.00 | 718.16 67.00 | 717.84 75.00 | 712.84 106.59

6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 6:1 3.5:1

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 Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.163

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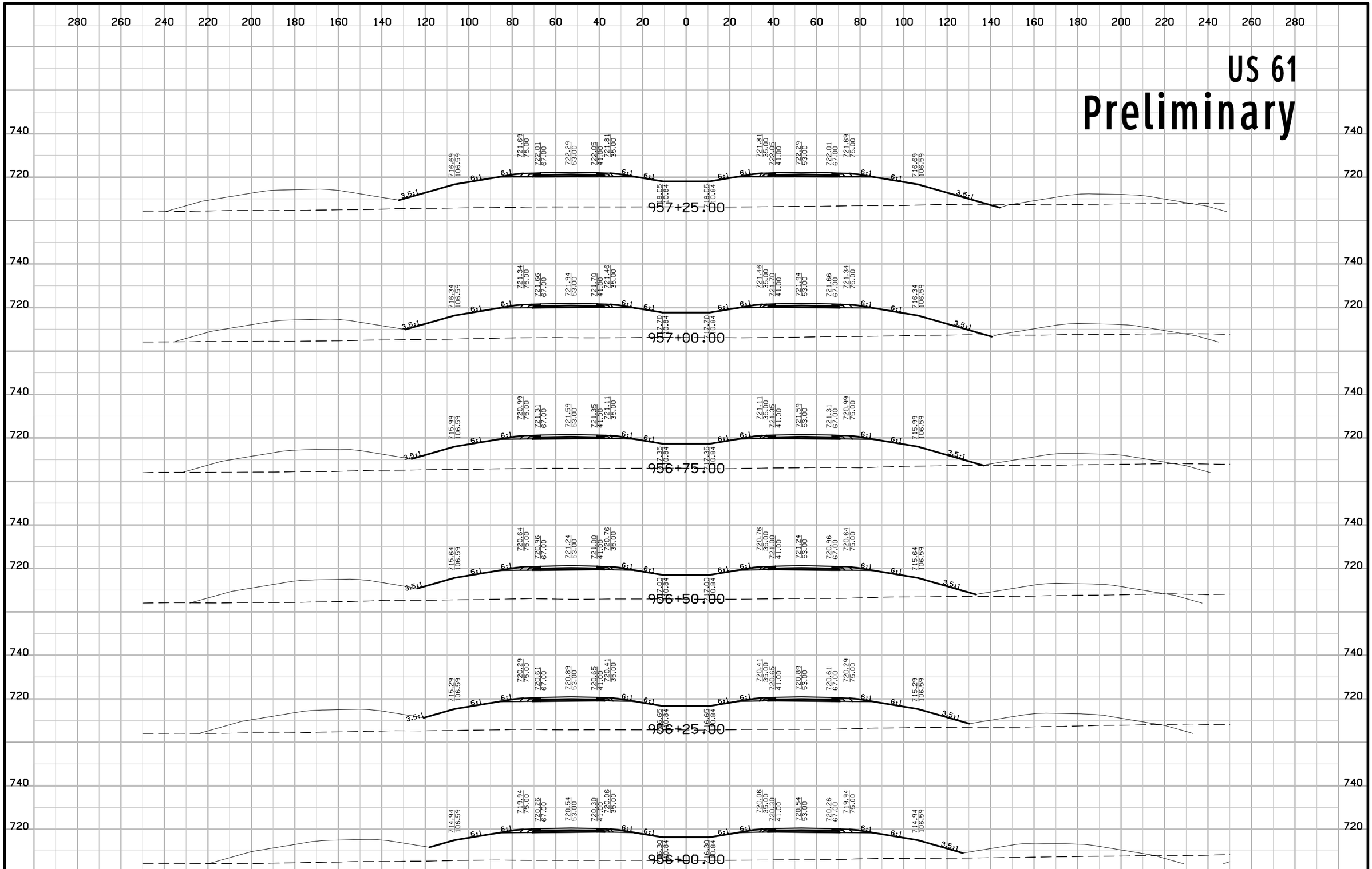
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.164

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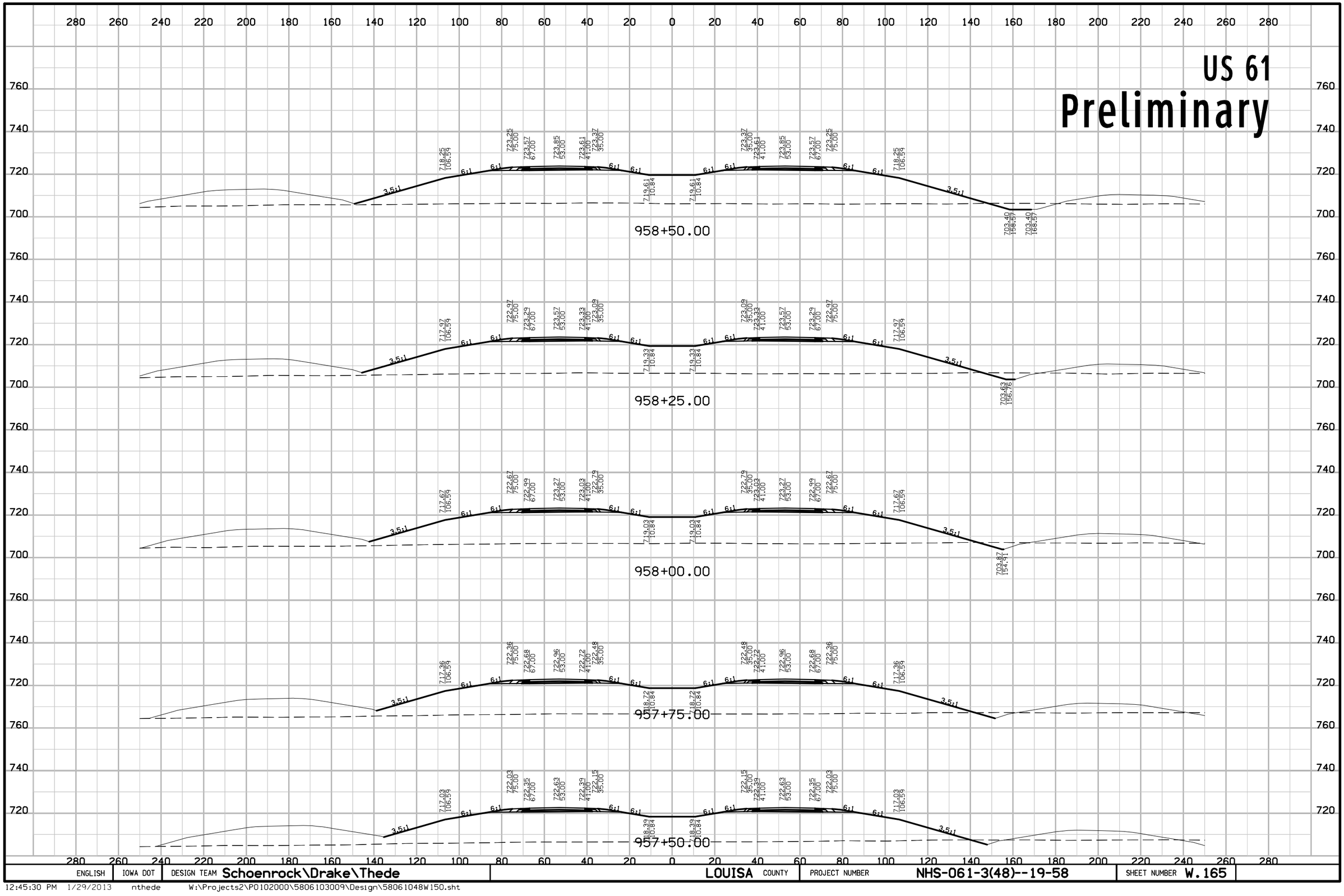
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.165

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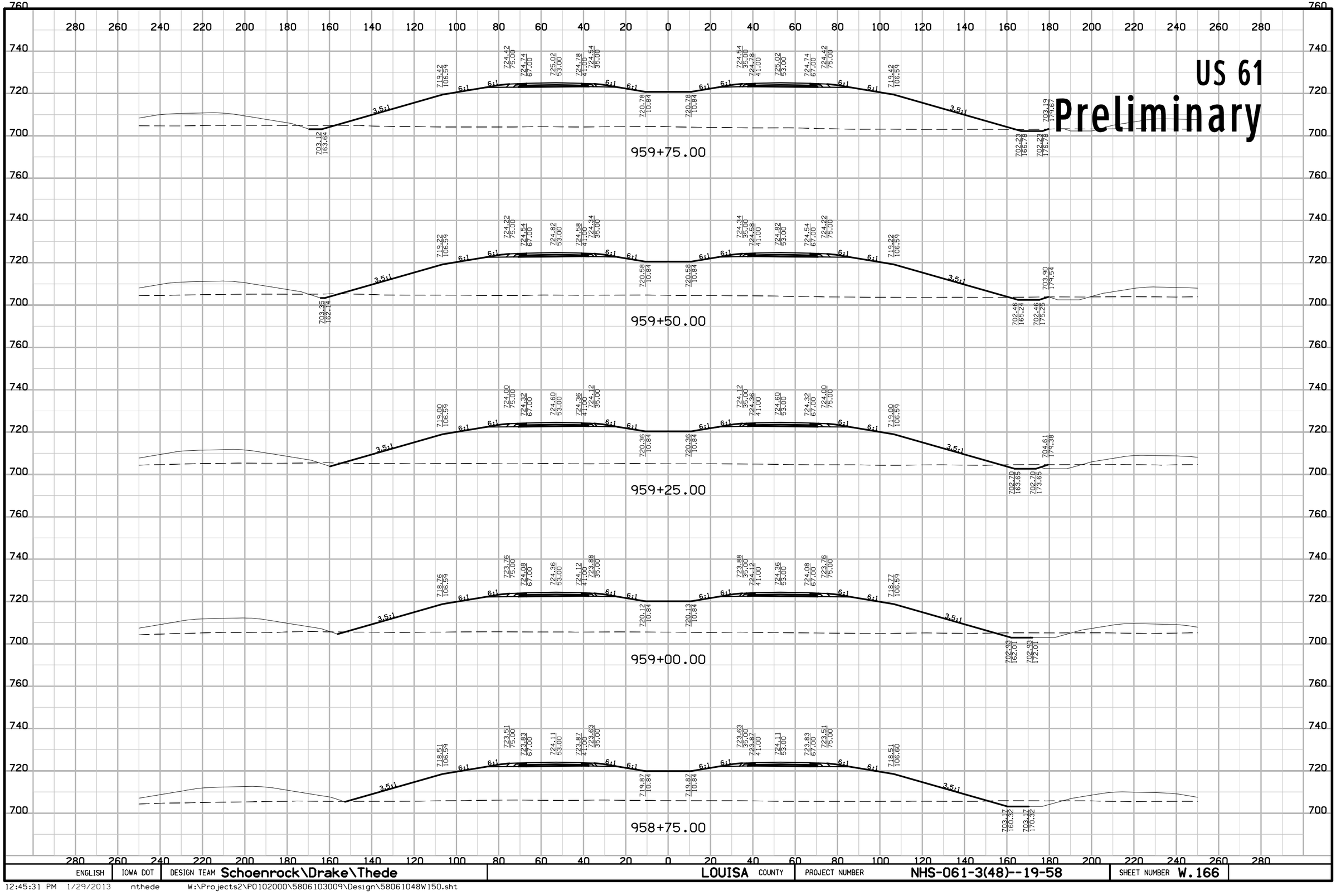
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.166

12:45:31 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048W150.sht

US 61

Preliminary

961+00.00

960+75.00

960+50.00

960+25.00

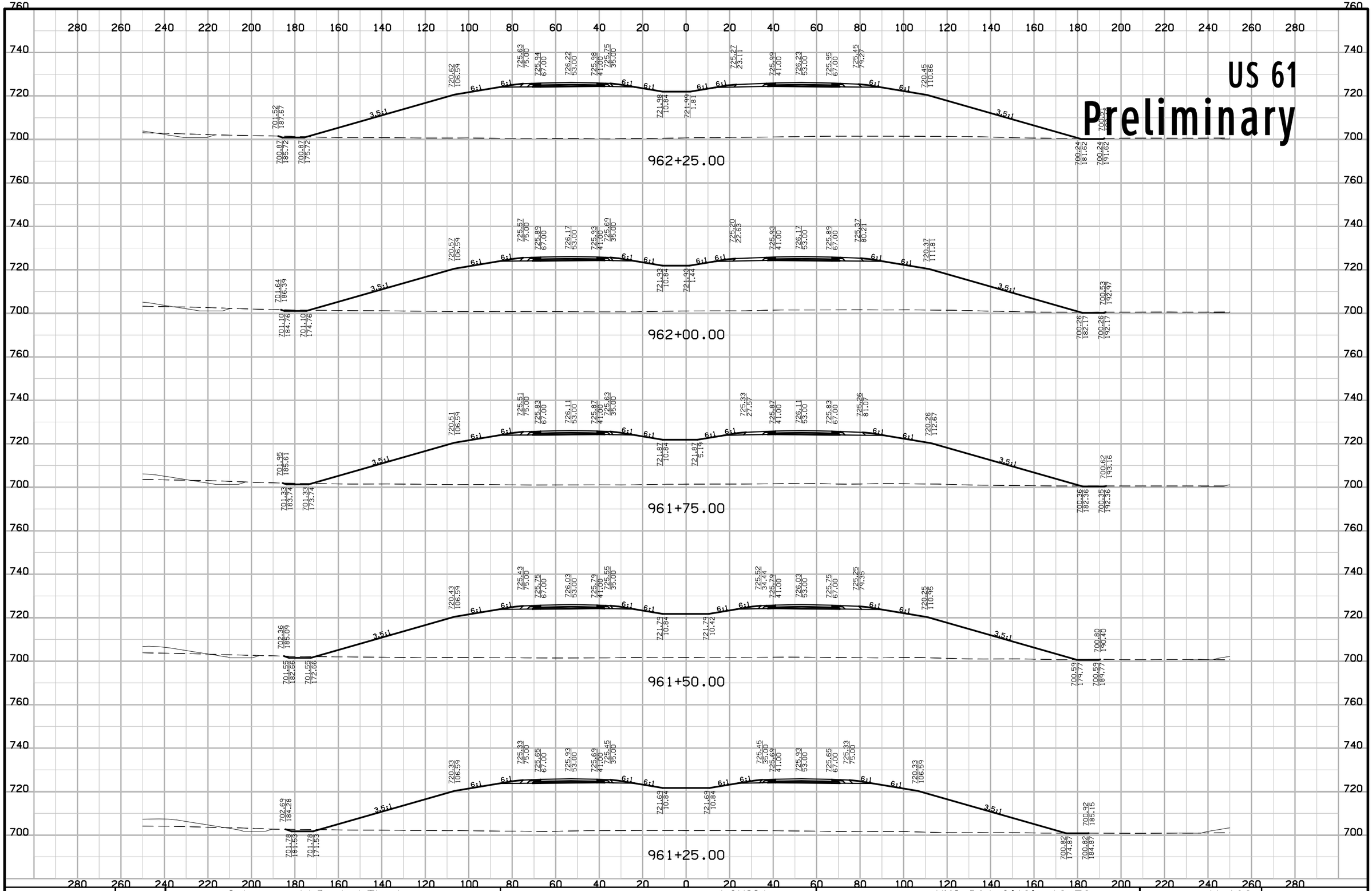
960+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.167

12:45:32 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048W150.sht

US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.168

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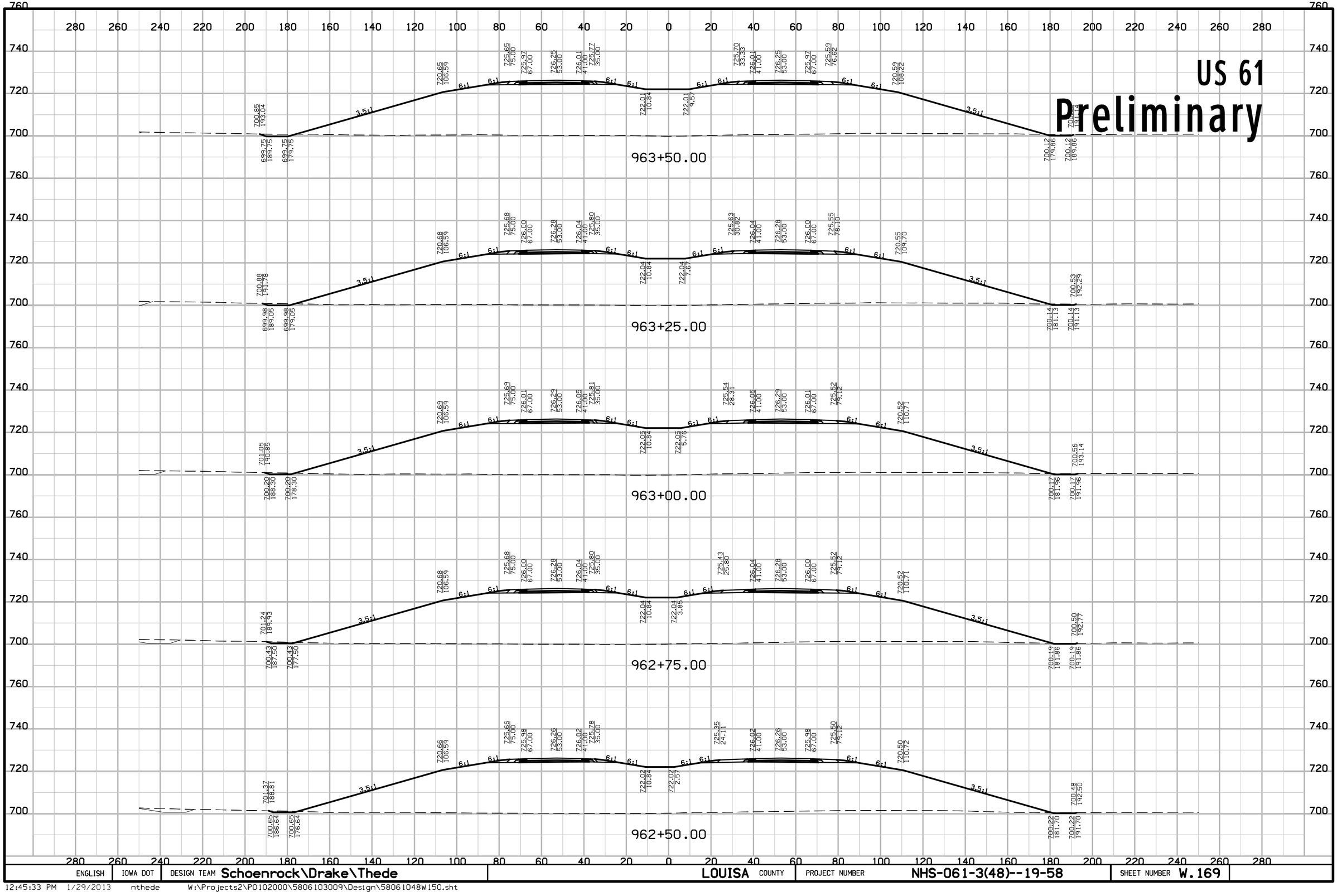
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.169

12:45:33 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048W150.sht

US 61

Preliminary

965+00.00

964+75.00

964+50.00

964+25.00

964+00.00

963+75.00

701.04
194.95

699.52
190.40

699.52
180.40

720.61
106.59

725.61
75.00

725.93
67.00

726.21
53.00

725.97
41.00

725.73
35.00

721.97
10.84

721.97
10.23

725.70
34.19

725.97
41.00

726.21
53.00

725.93
67.00

725.61
75.00

720.61
106.59

700.36
177.48

6:1

3.5:1

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.170

12:45:33 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048W150.sht

US 61

Preliminary

966+25.00

966+00.00

965+75.00

965+50.00

965+25.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER	NHS-061-3(48)--19-58	SHEET NUMBER W.171

12:45:34 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048W150.sht

US 61

Preliminary

967+50.00

967+25.00

967+00.00

966+75.00

966+50.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.172	

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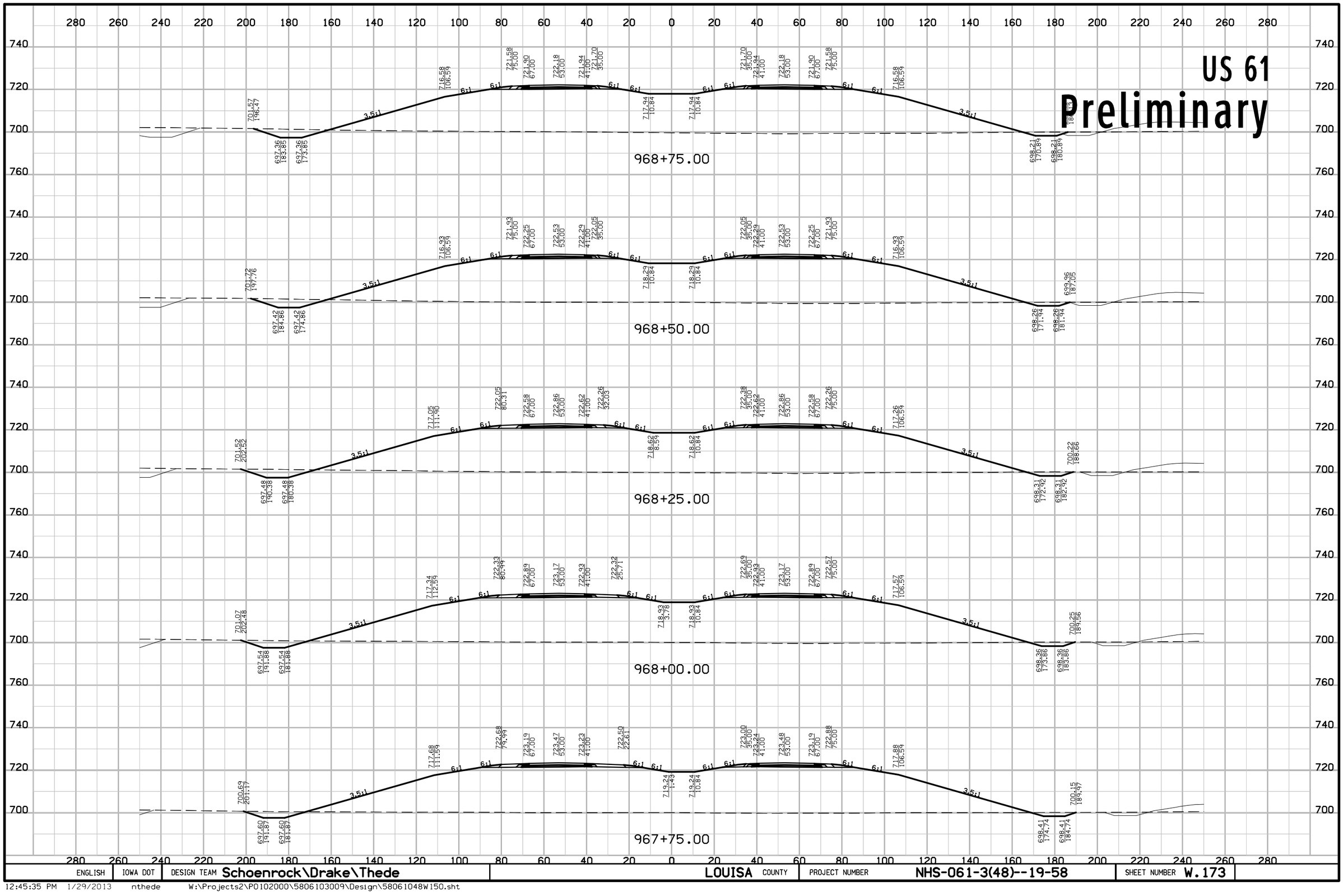
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.173

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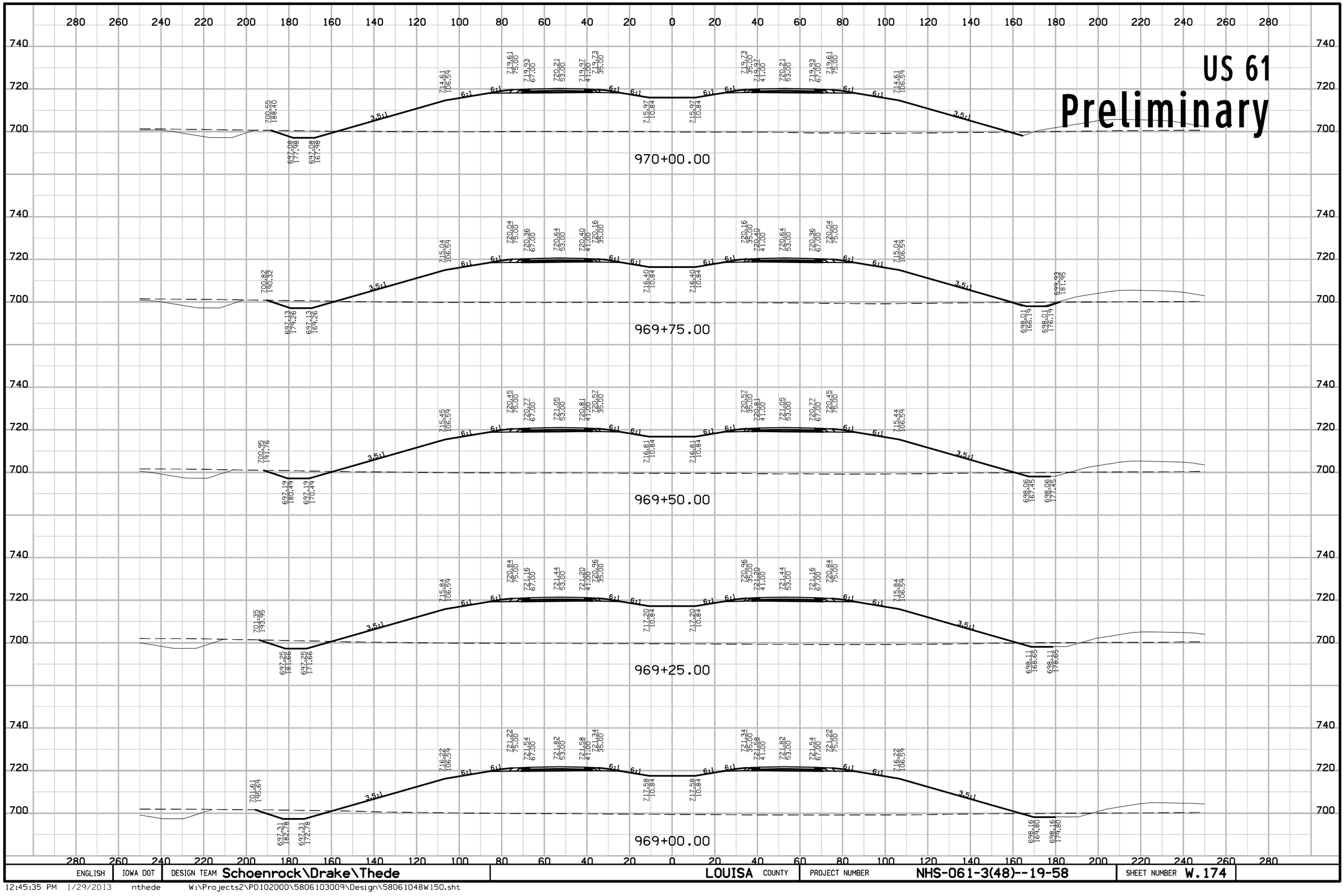
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.174

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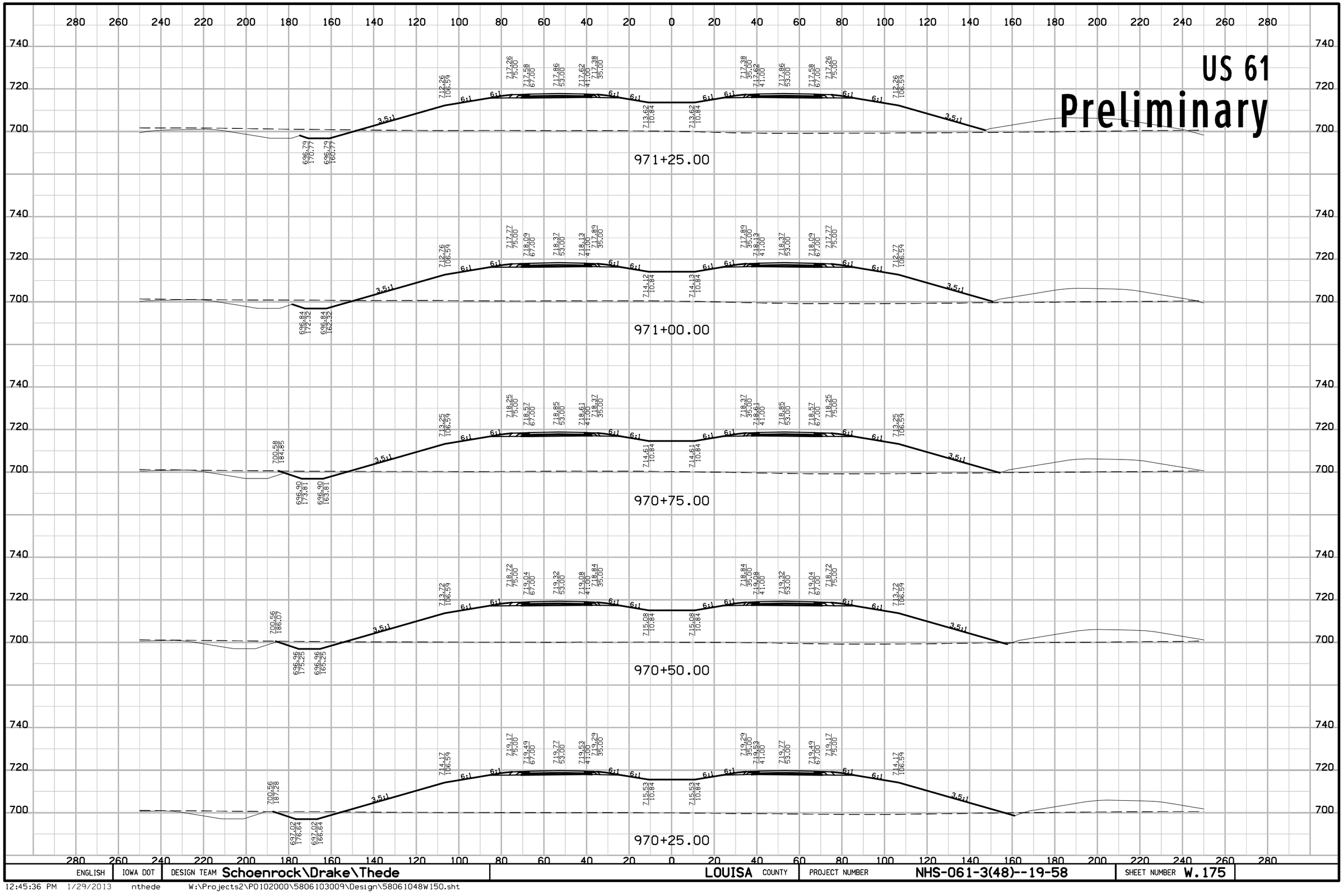
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.175

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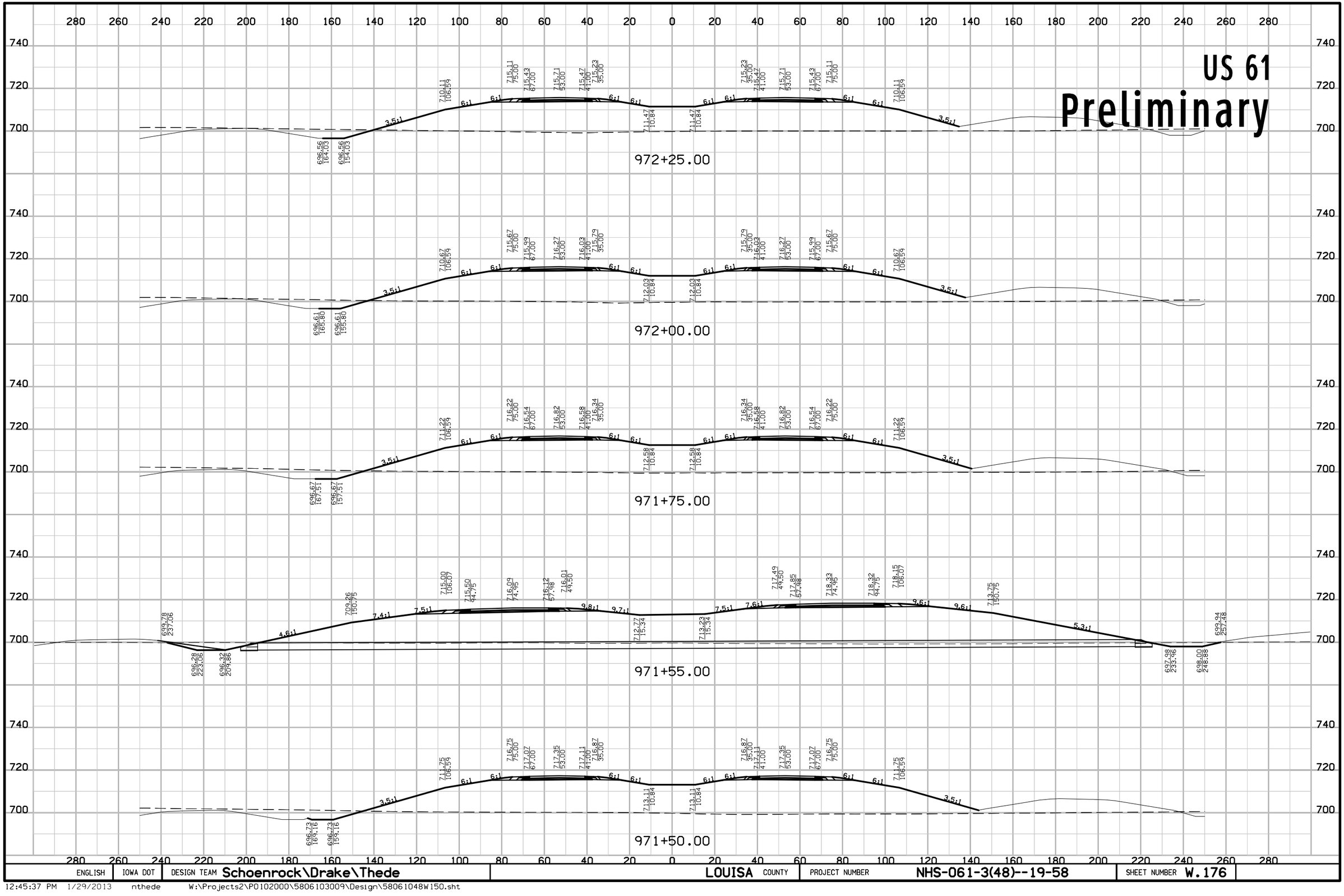
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.176

12:45:37 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048W150.sht

US 61

Preliminary

973+75.00

973+50.00

973+25.00

973+00.00

972+75.00

972+50.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER	NHS-061-3(48)--19-58	SHEET NUMBER W.177

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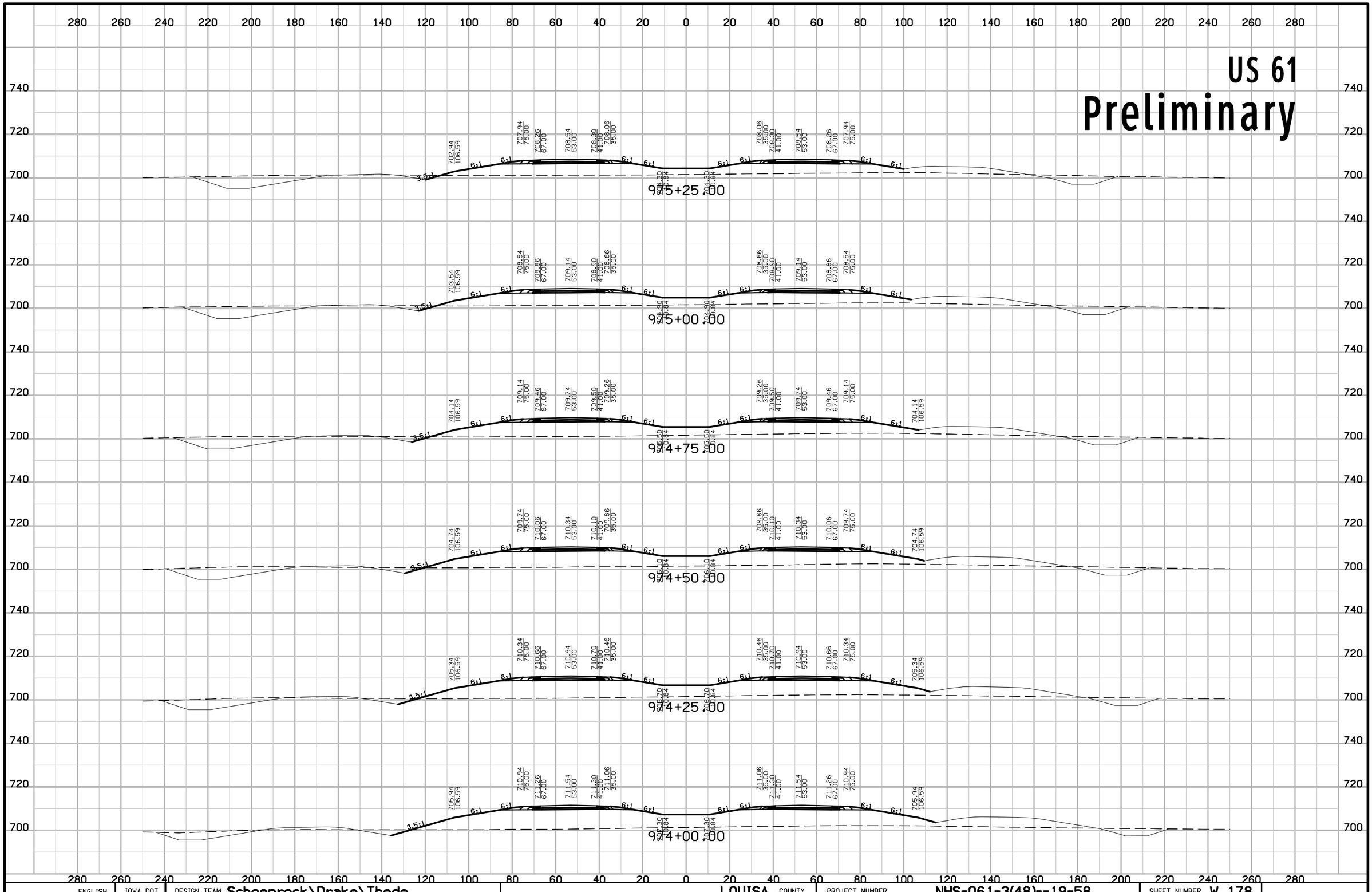
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.178

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US 61

Preliminary

976+75.00

976+50.00

976+25.00

976+00.00

975+75.00

975+50.00

ENGLISH | IOWA DOT | DESIGN TEAM Schoenrock\Drake\Thede | LOUISA COUNTY | PROJECT NUMBER NHS-061-3(48)--19-58 | SHEET NUMBER W.179

12:45:38 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048W150.sht

US 61

Preliminary

978+25.00

978+00.00

977+75.00

977+50.00

977+25.00

977+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.180

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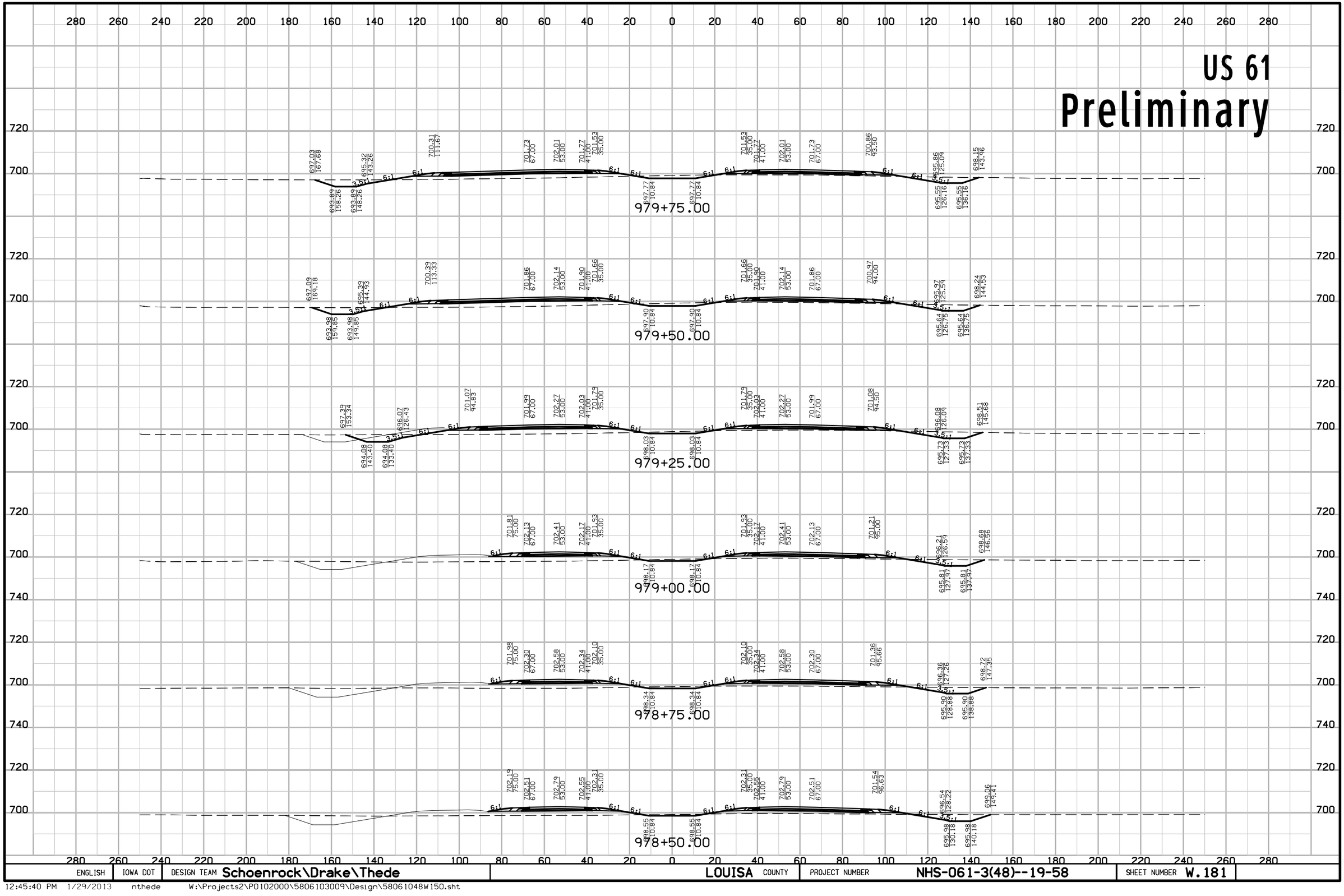
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.181

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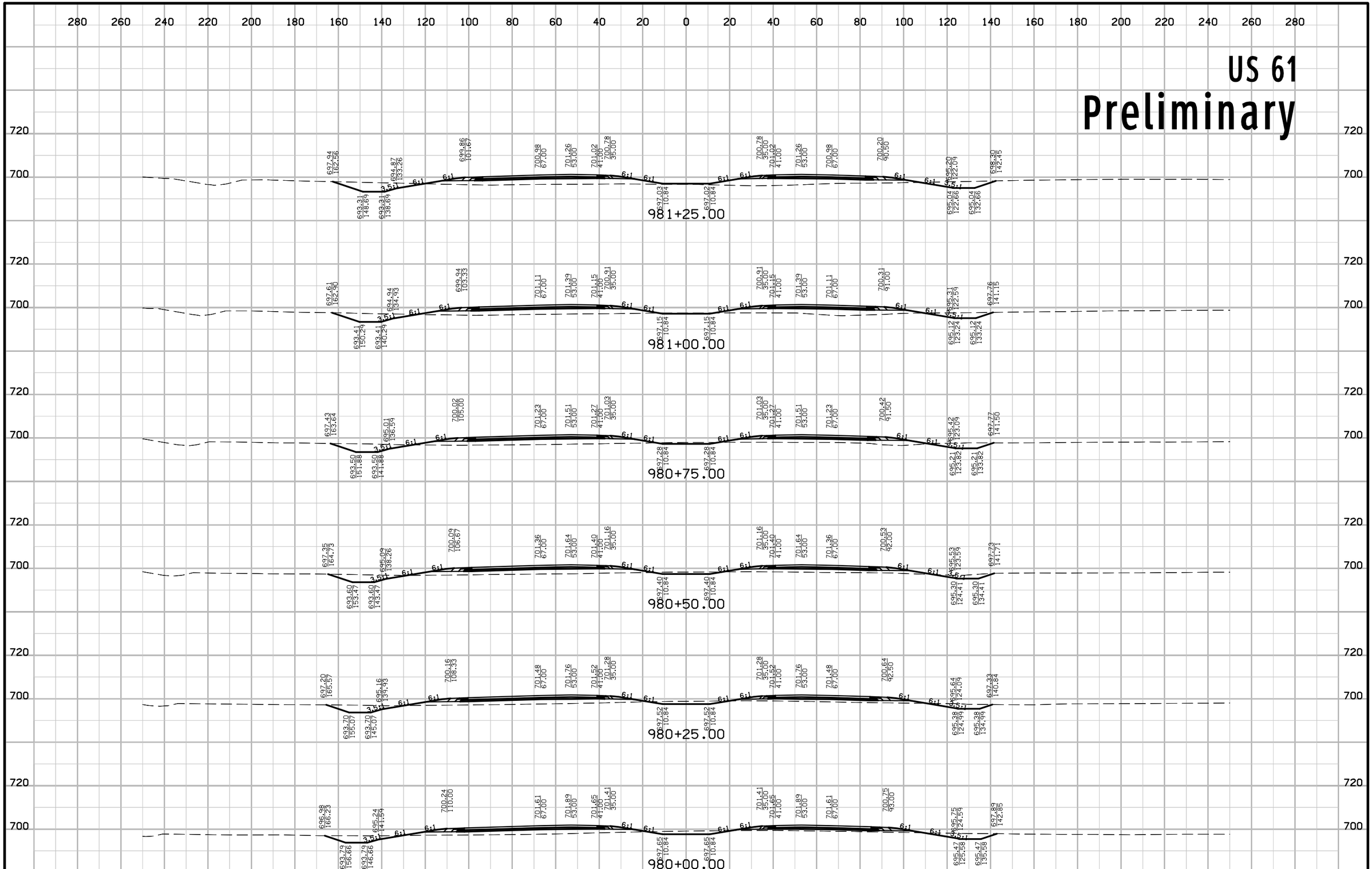
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.182

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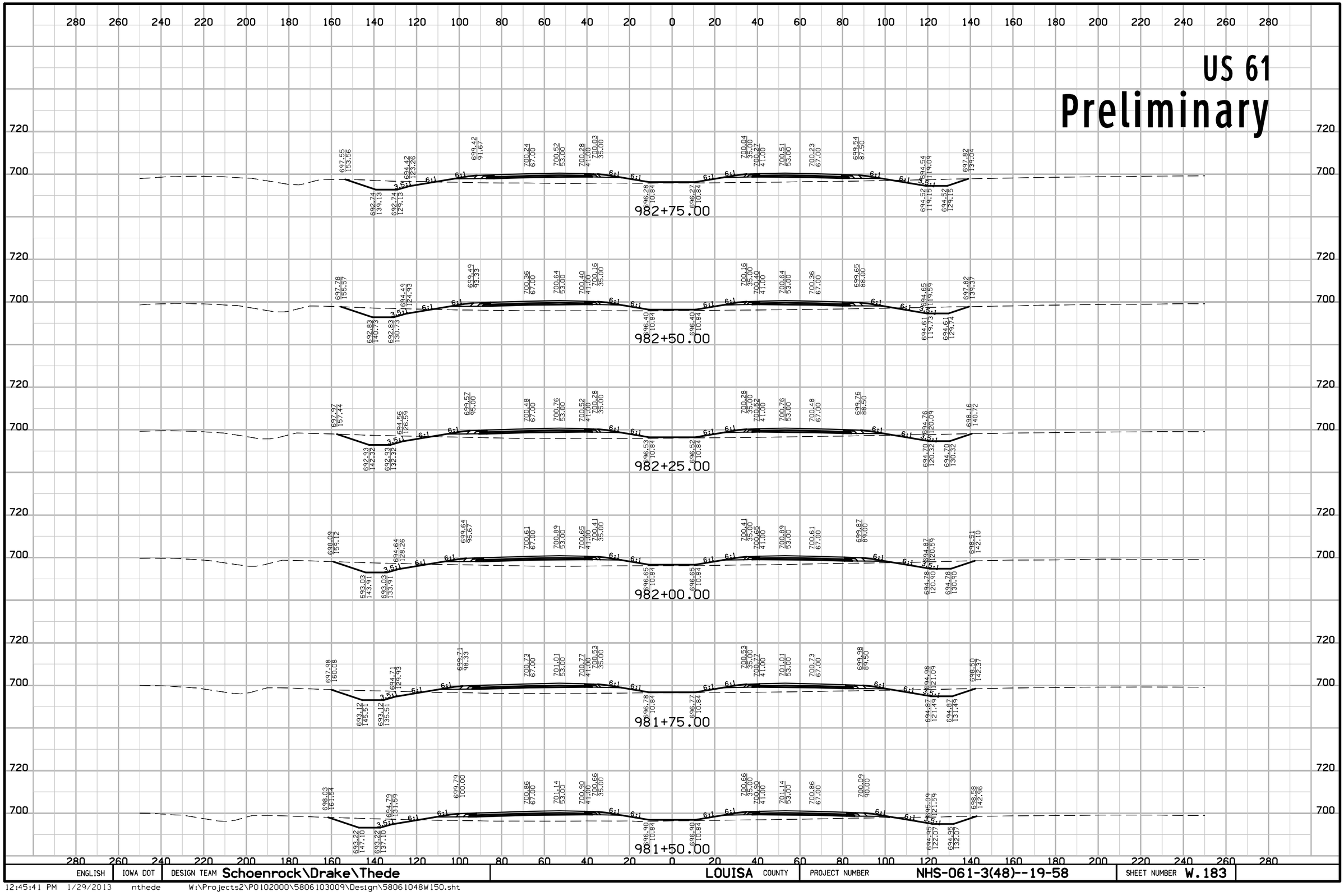
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.183

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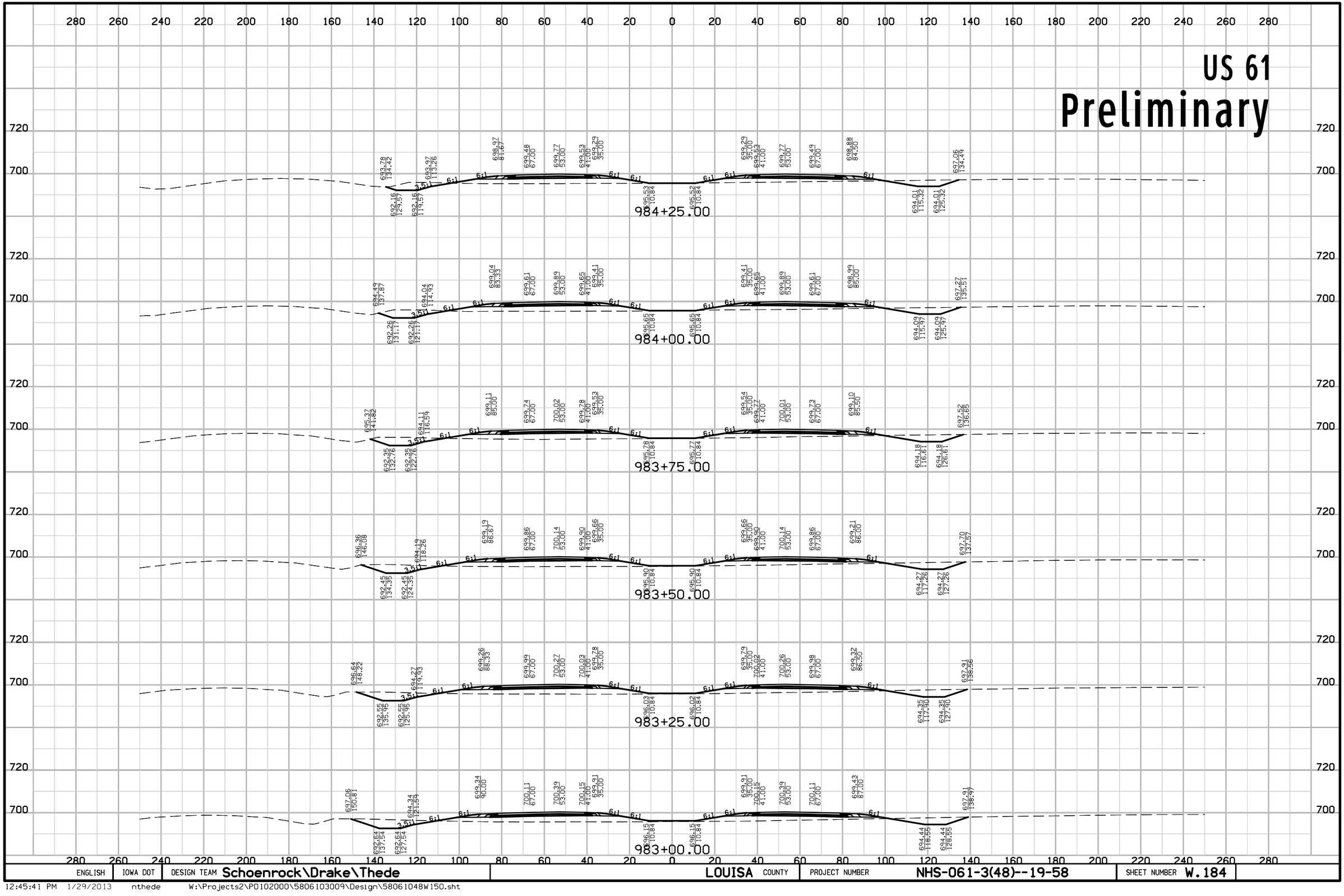
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.184

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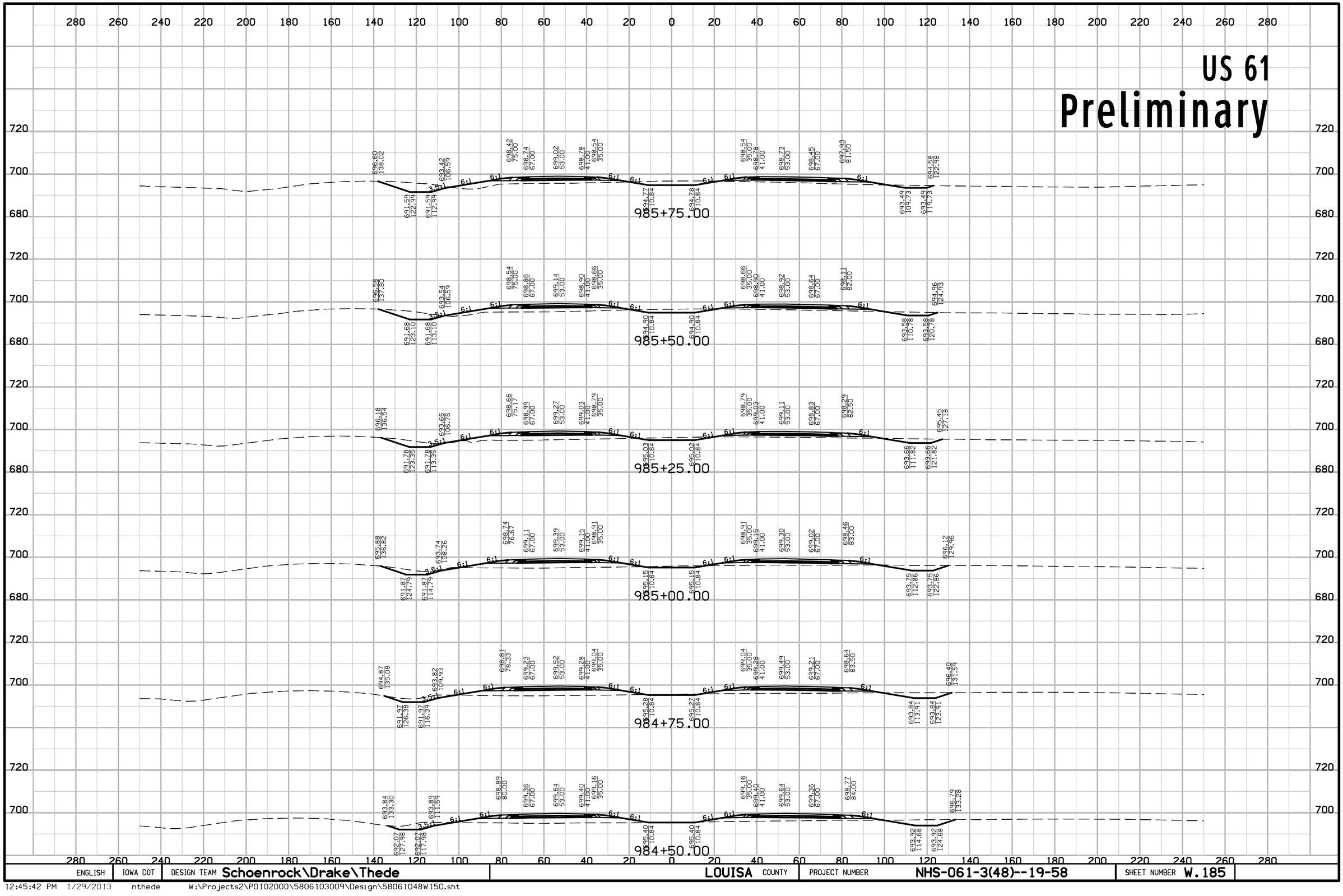
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.185

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US 61

Preliminary

987+25.00

987+00.00

986+75.00

986+60.00

691.1

692.37 Planks

986+50.00

Install median drain at Sta 986+35

986+25.00

986+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.186

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US 61

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

700

989+75.00

989+50.00

989+25.00

989+00.00

988+75.00

988+50.00

988+25.00

988+00.00

987+75.00

987+50.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.187

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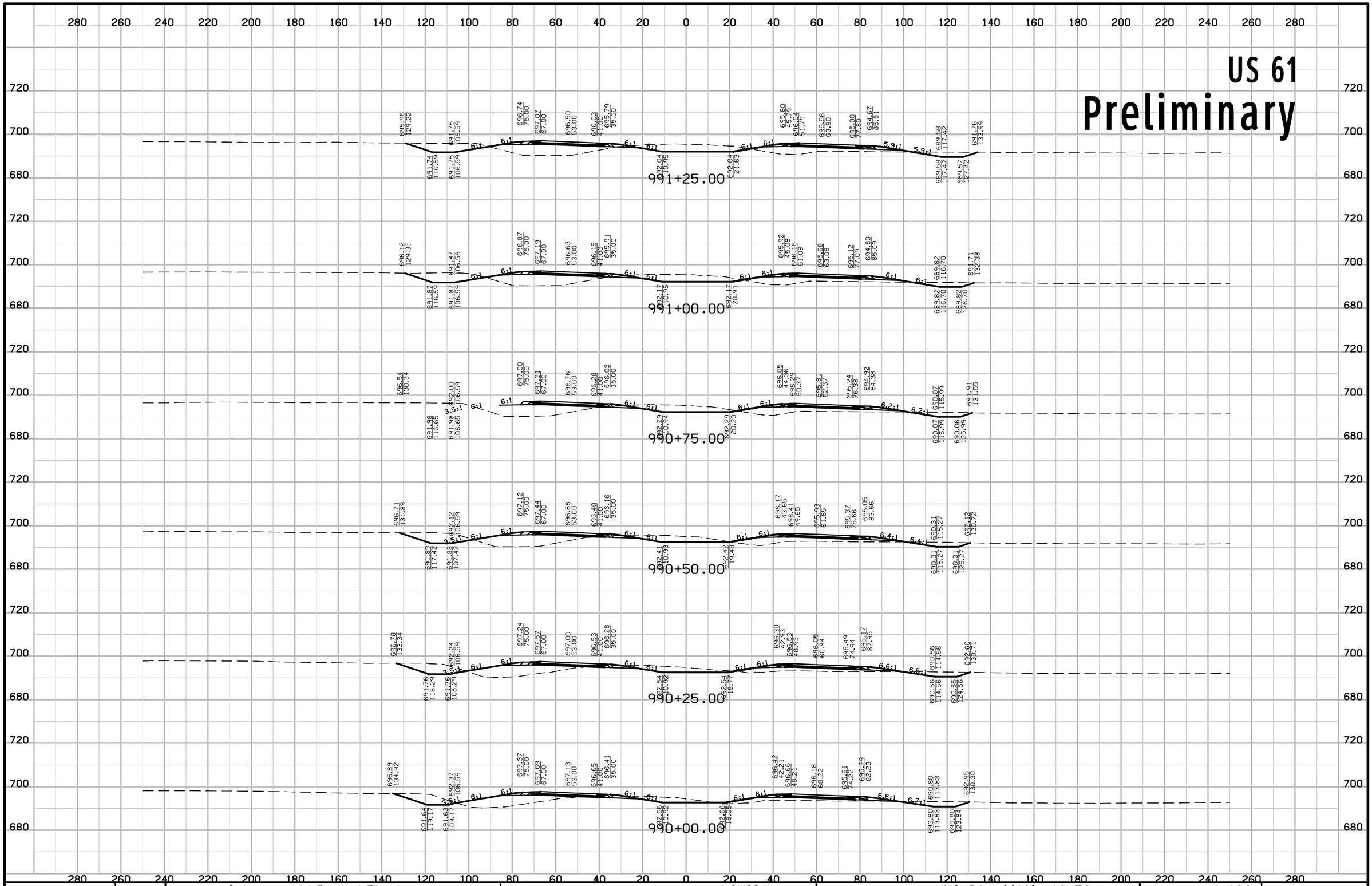
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.188

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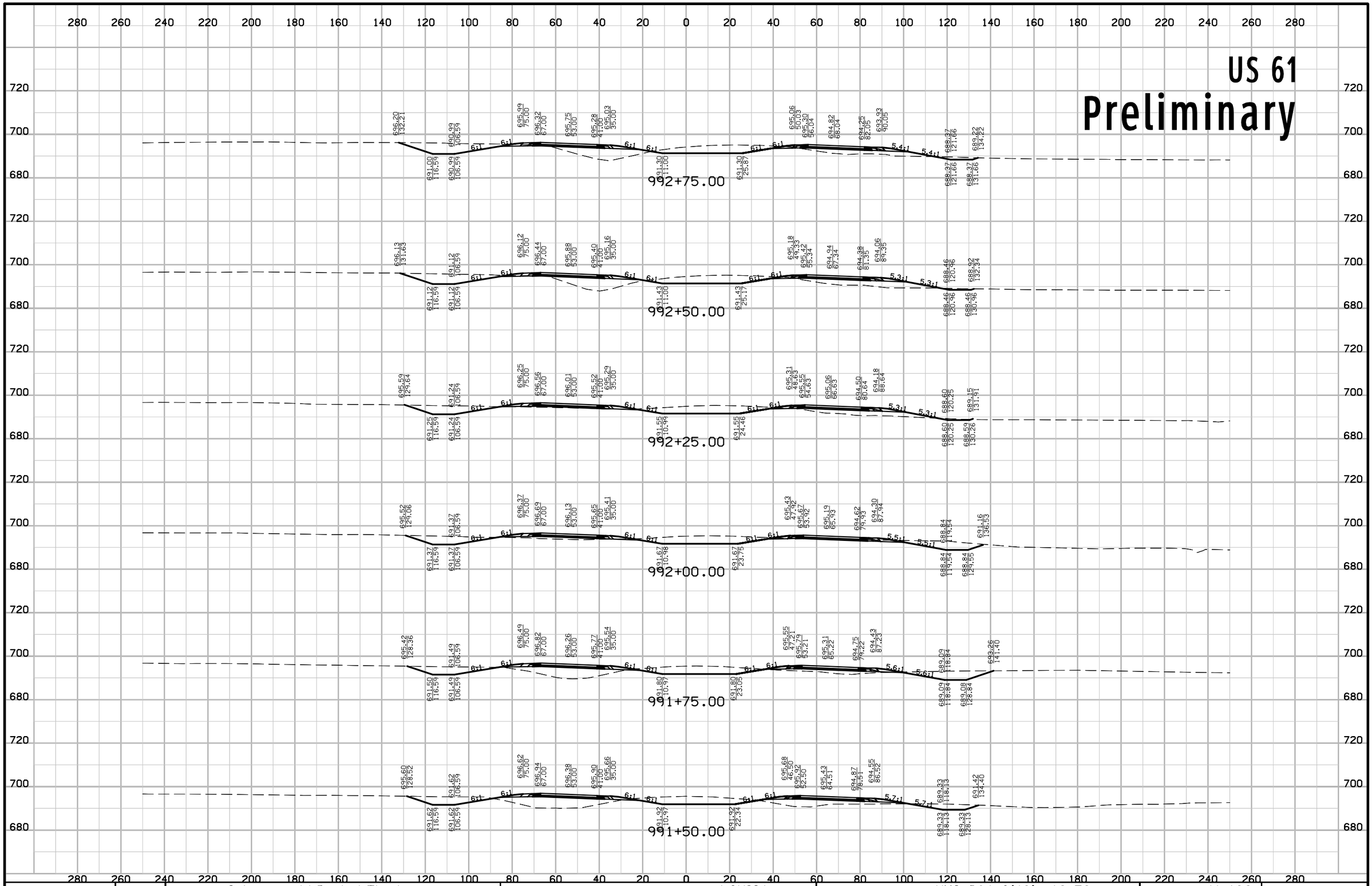
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.189

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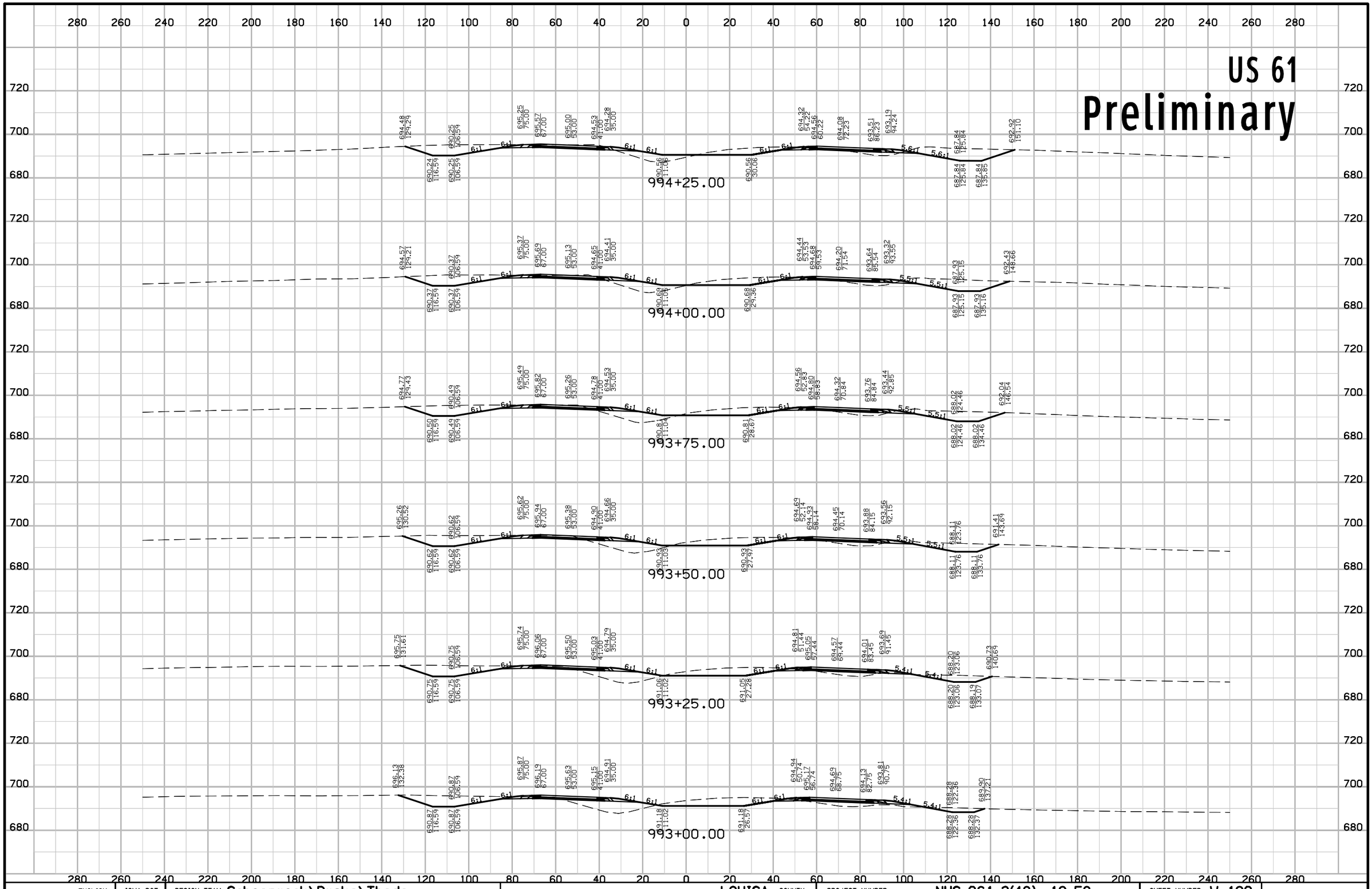
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.190

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US 61

Preliminary

995+75.00

995+50.00

995+25.00

995+00.00

994+75.00

994+50.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.191

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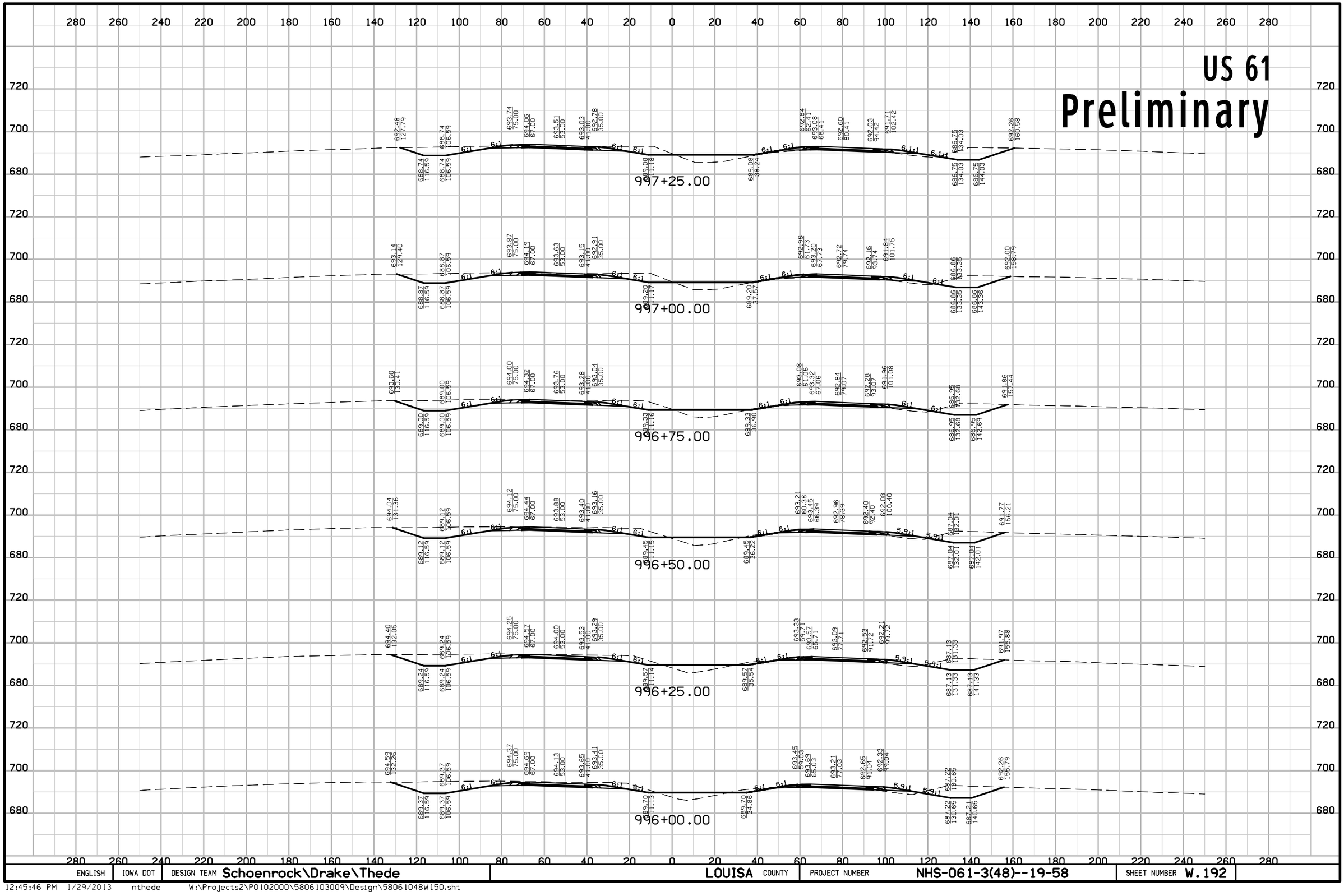
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.192

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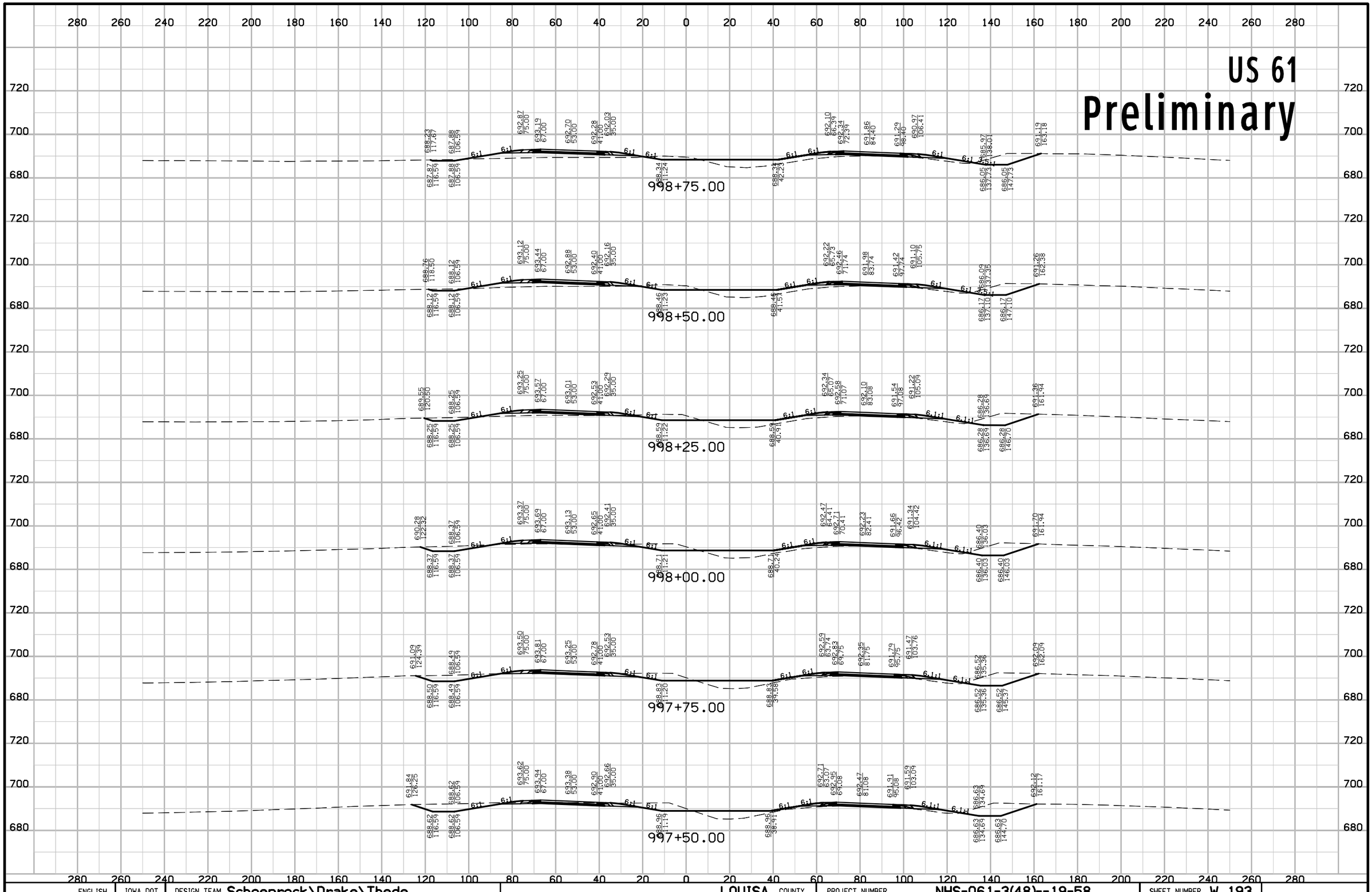
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.193

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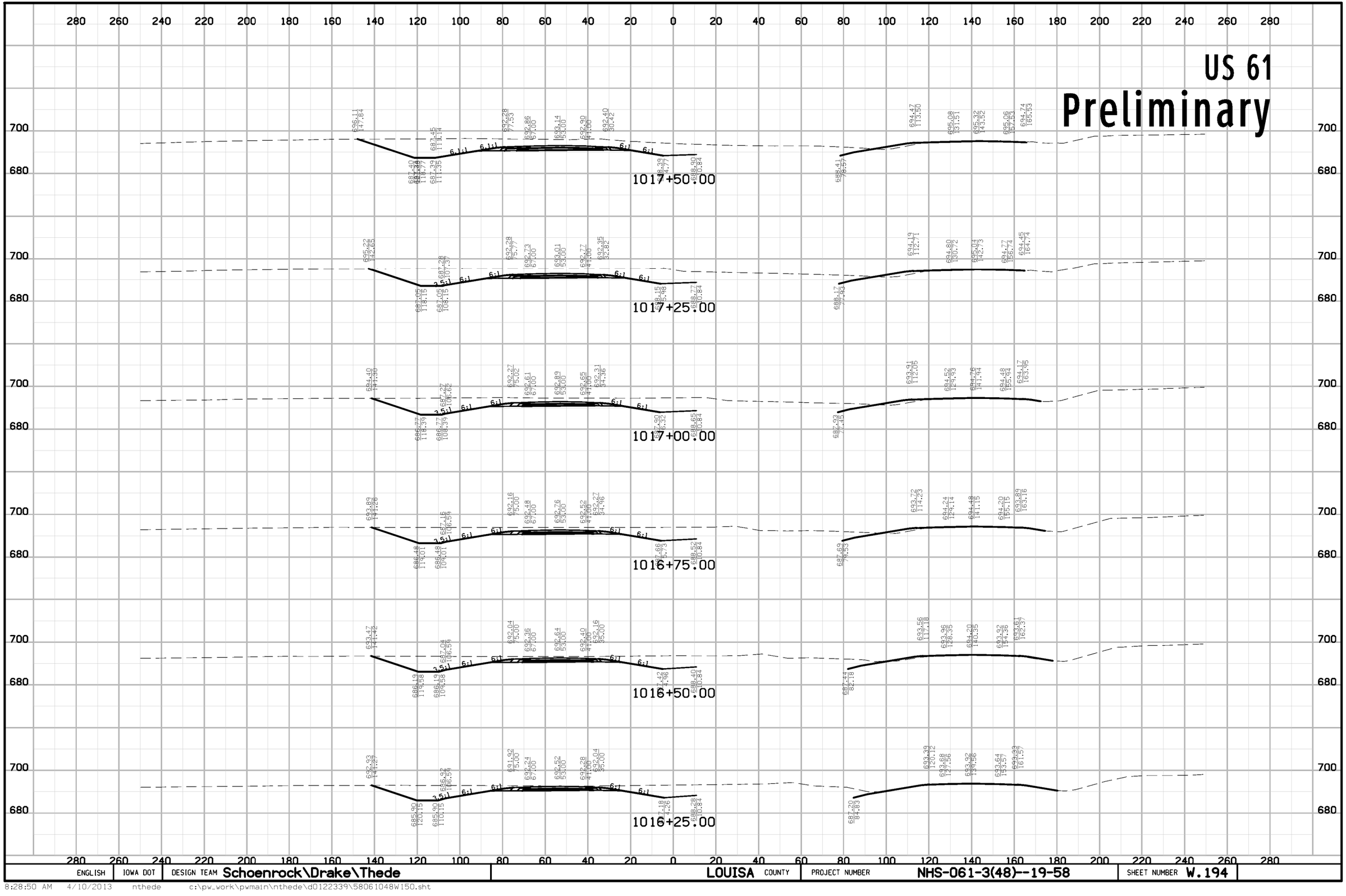
US 61

Preliminary



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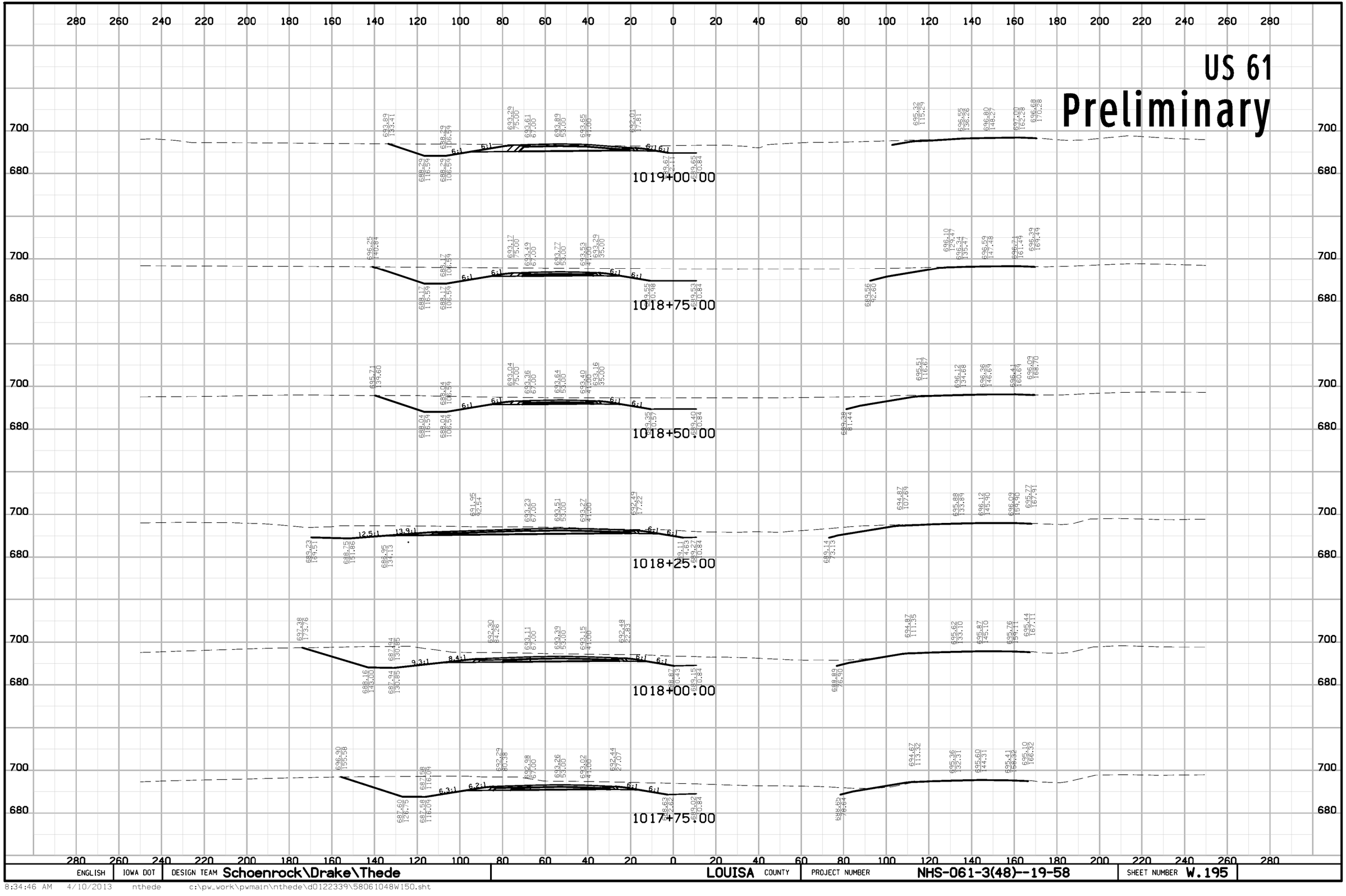
US 61

Preliminary



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US 61

Preliminary

1003+25.00

1003+00.00

1002+75.00

1002+50.00

1002+25.00

1002+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.196

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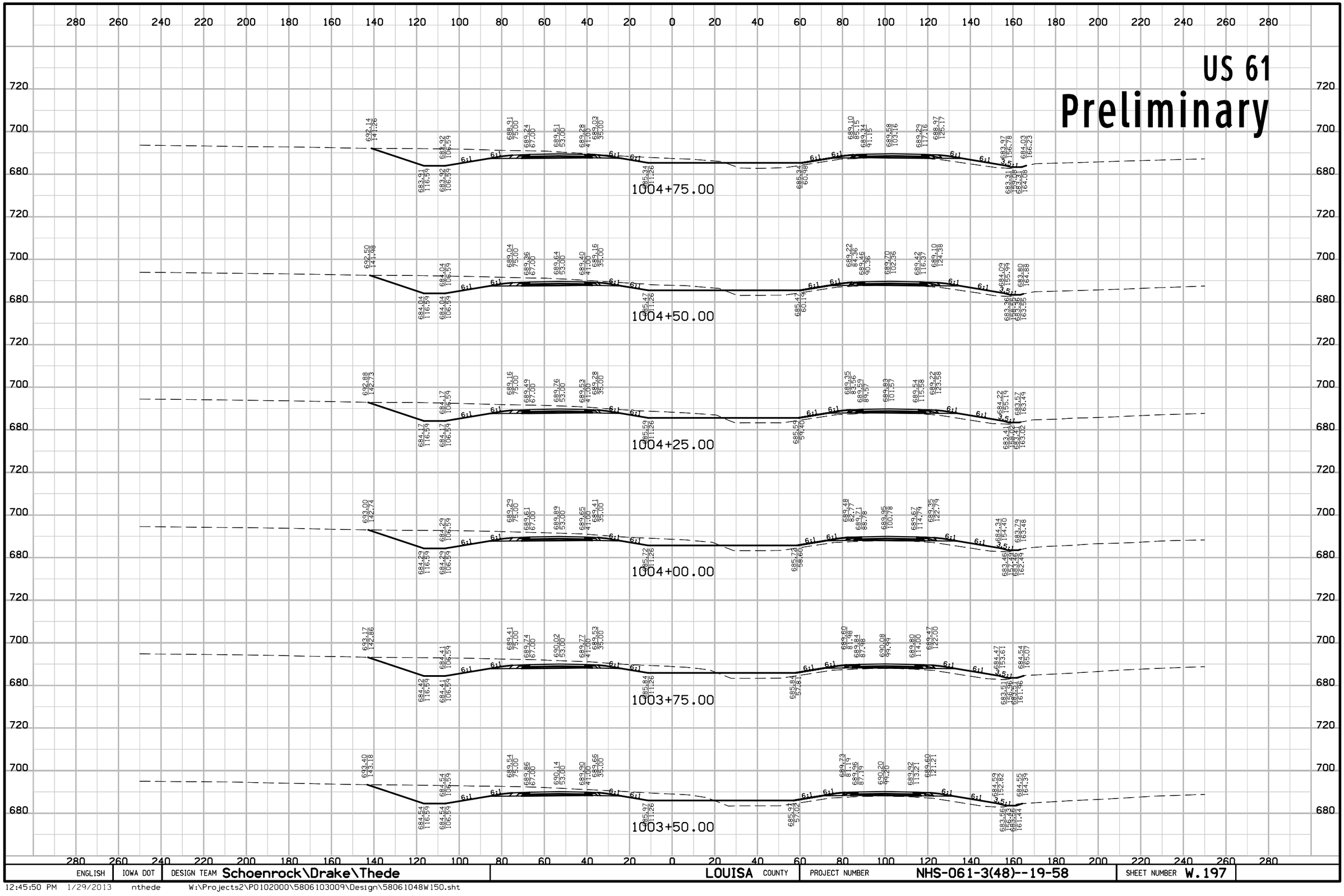
US 61

Preliminary



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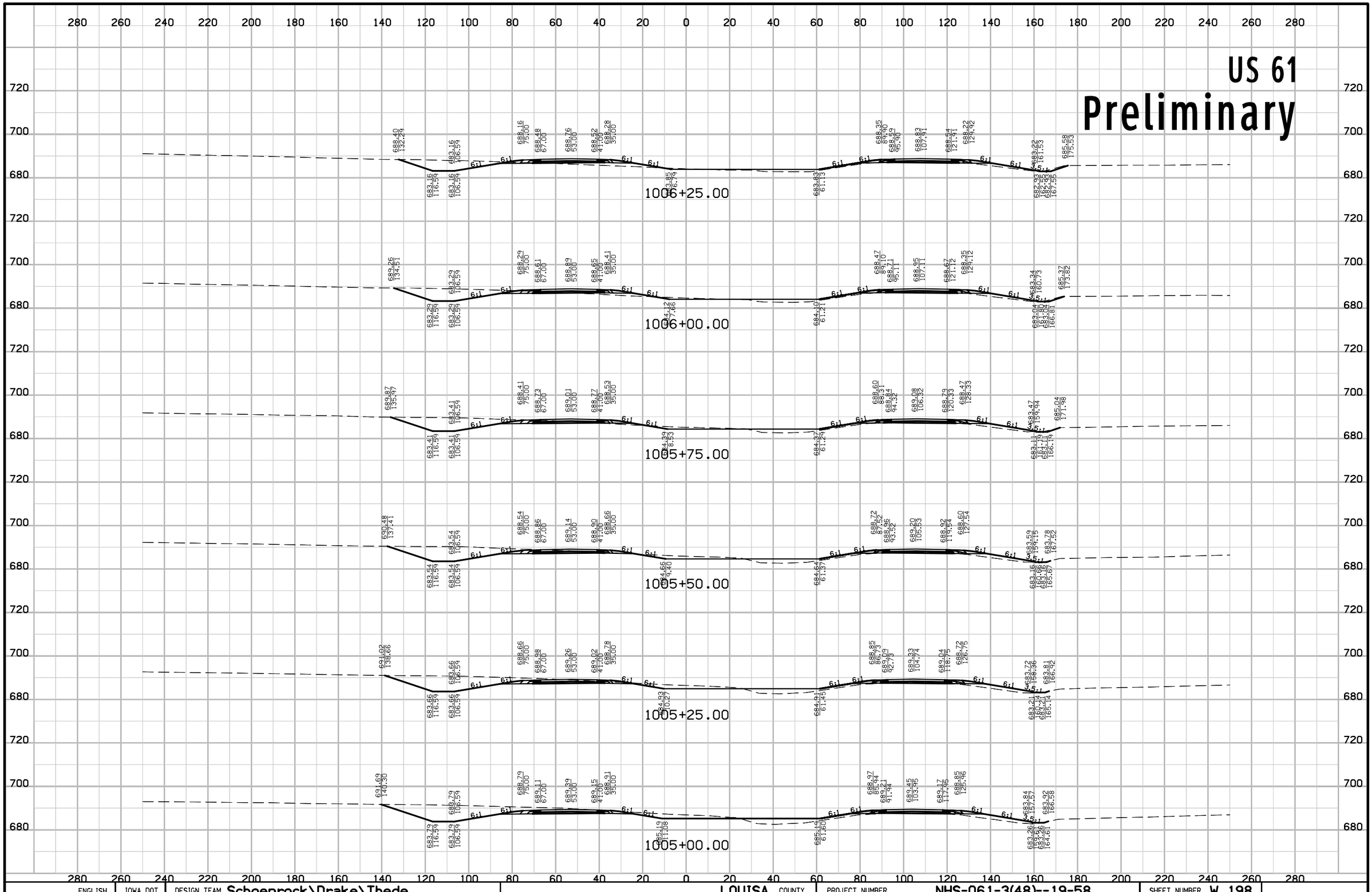
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.198

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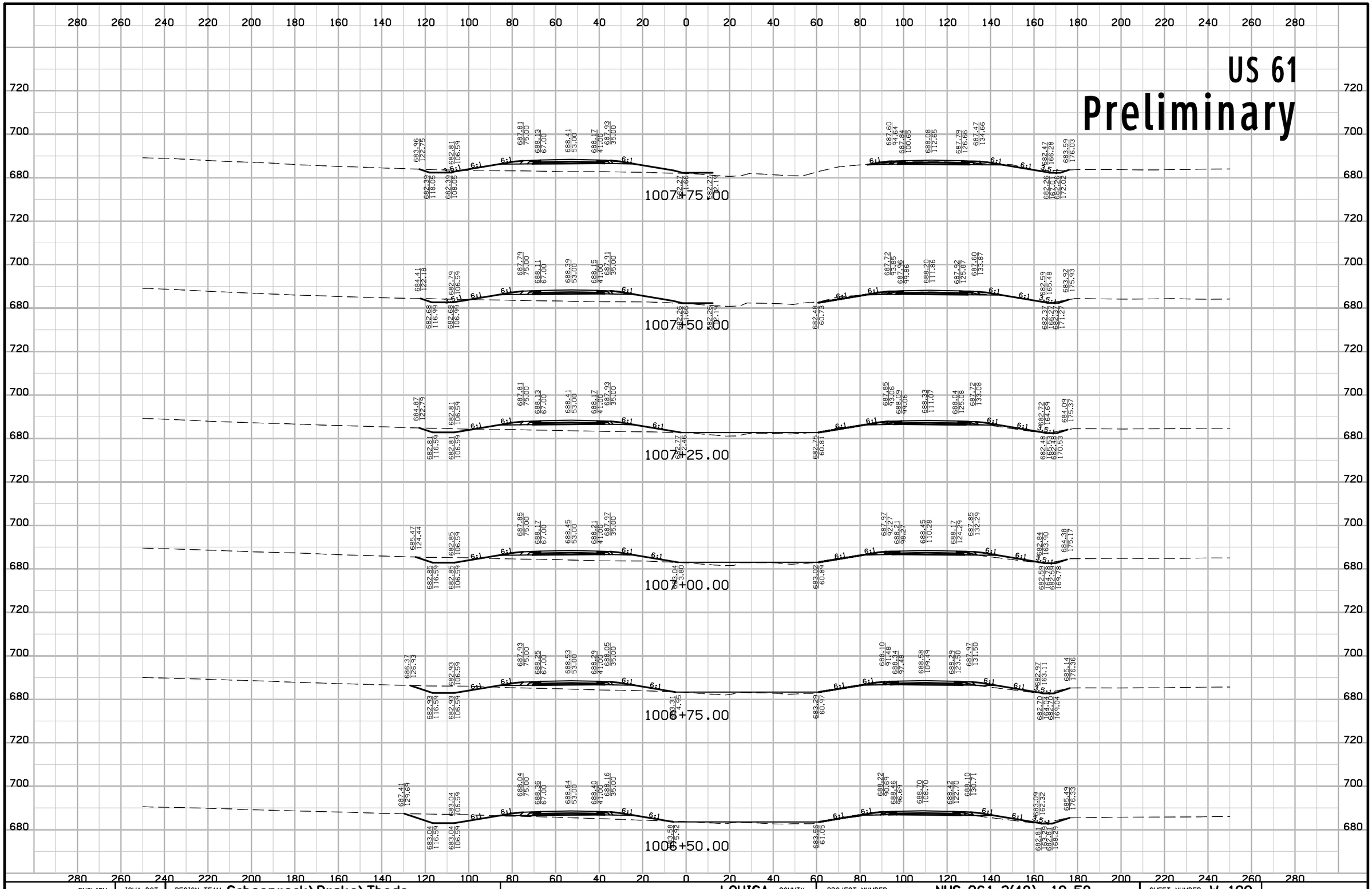
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.199

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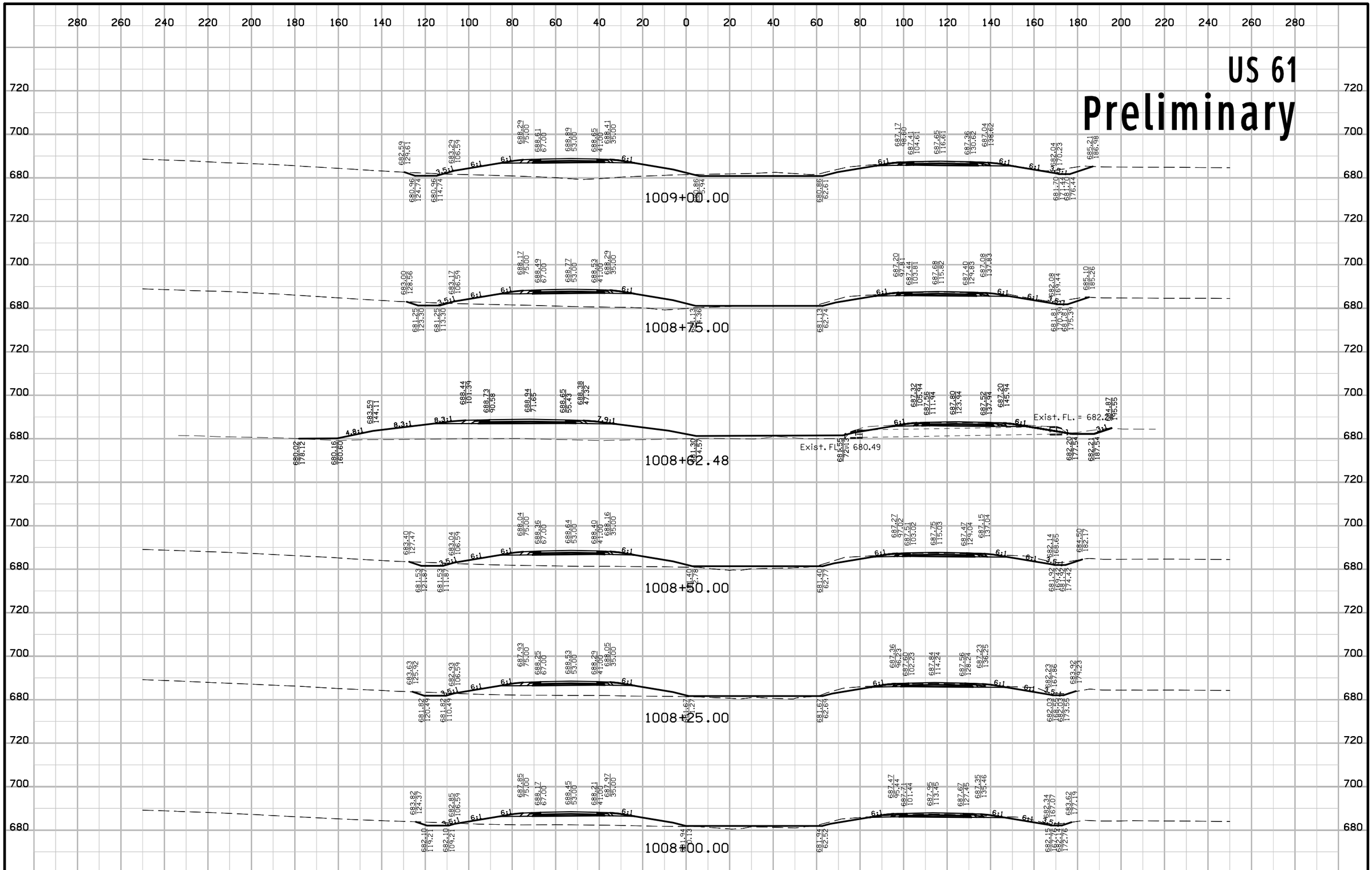
US 61

Preliminary



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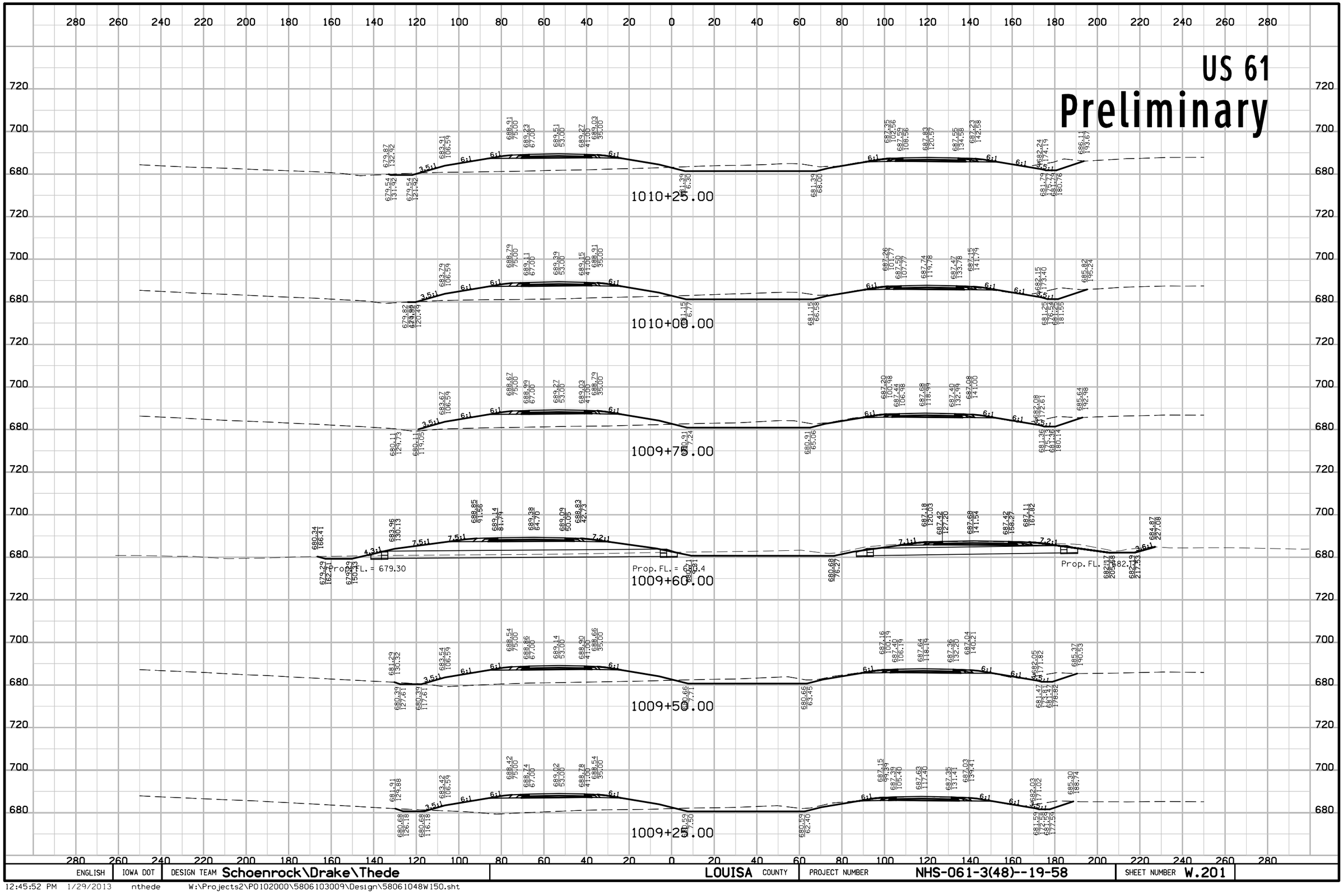
US 61

Preliminary



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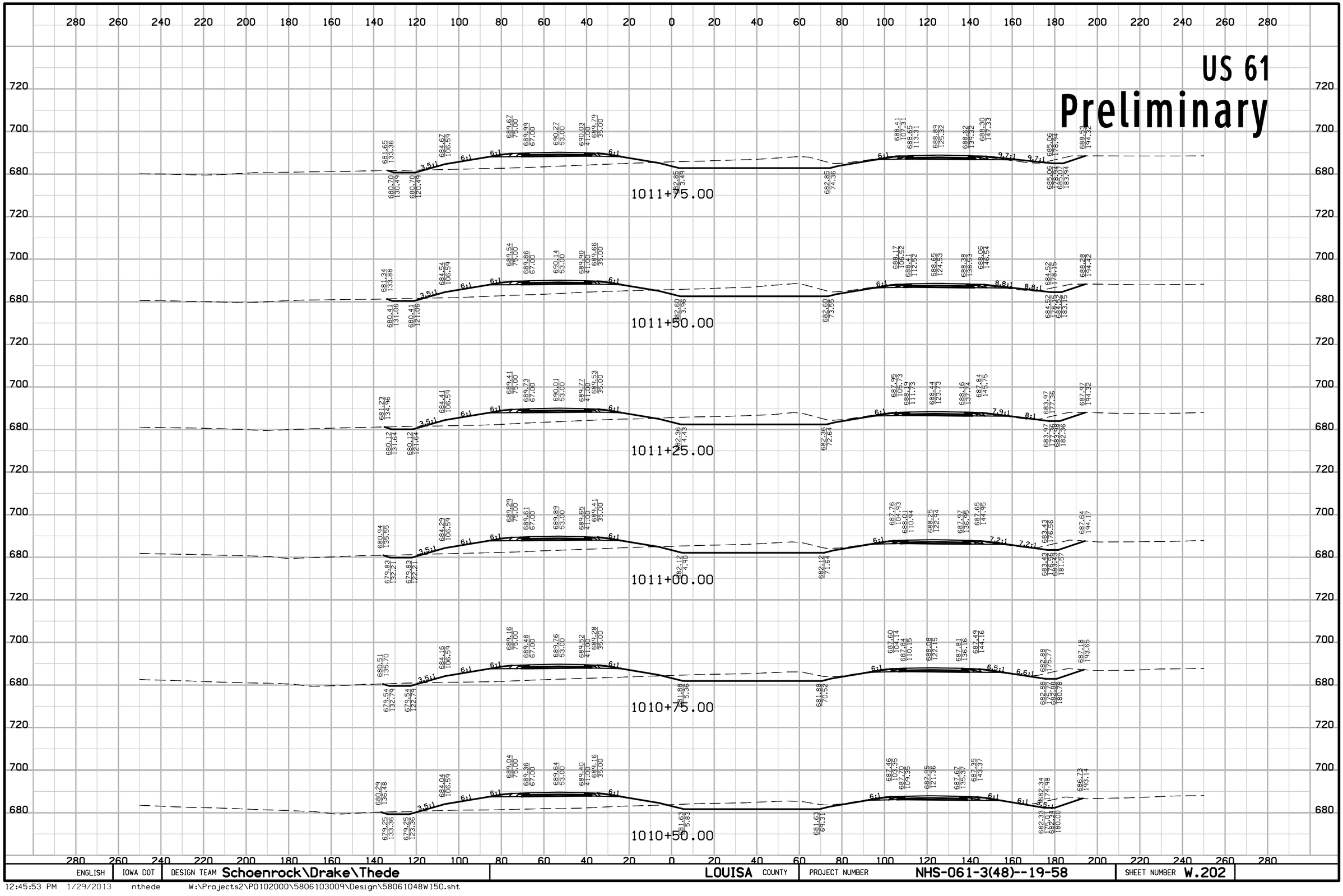
US 61

Preliminary



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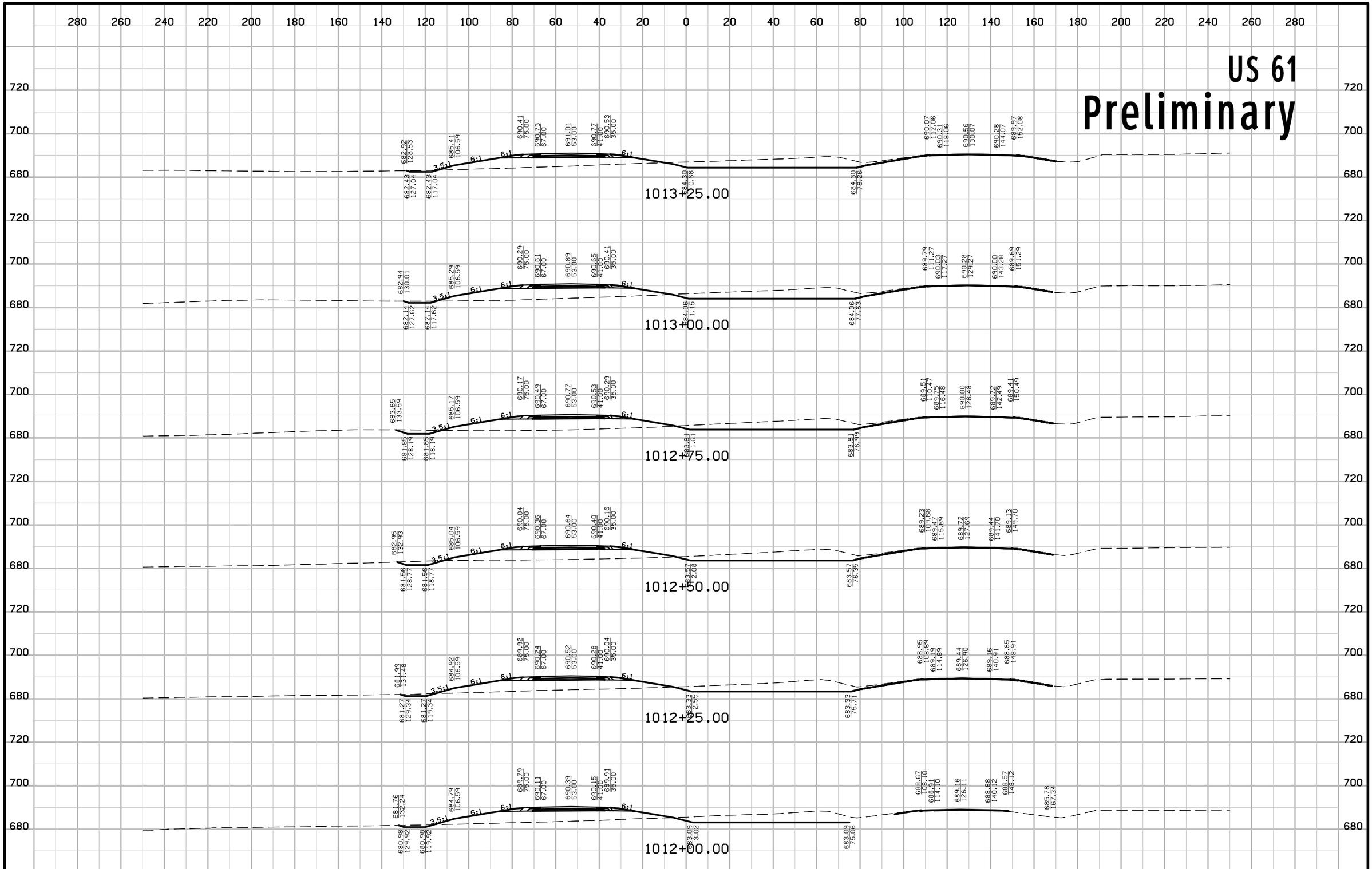
US 61

Preliminary



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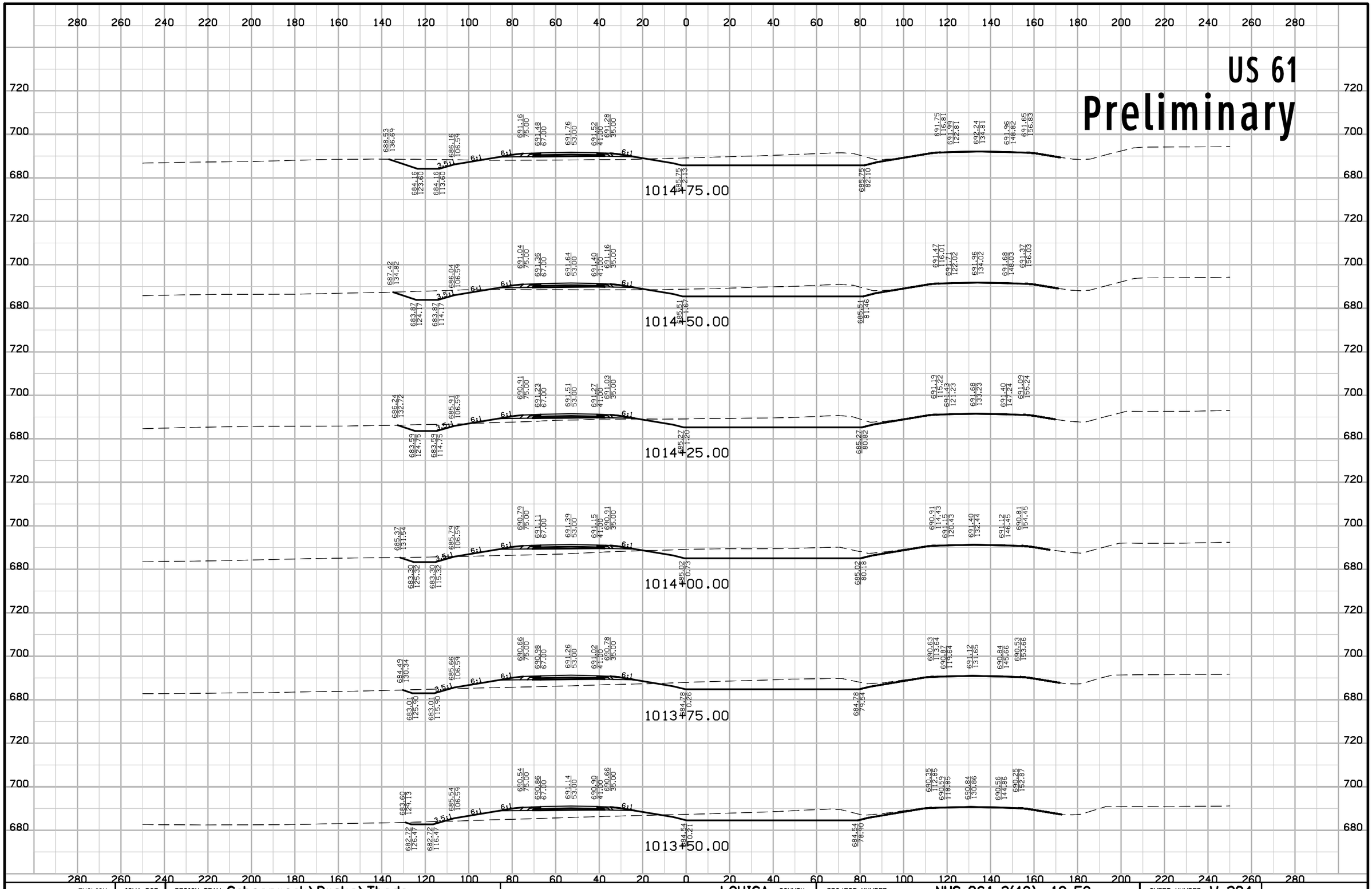
US 61

Preliminary



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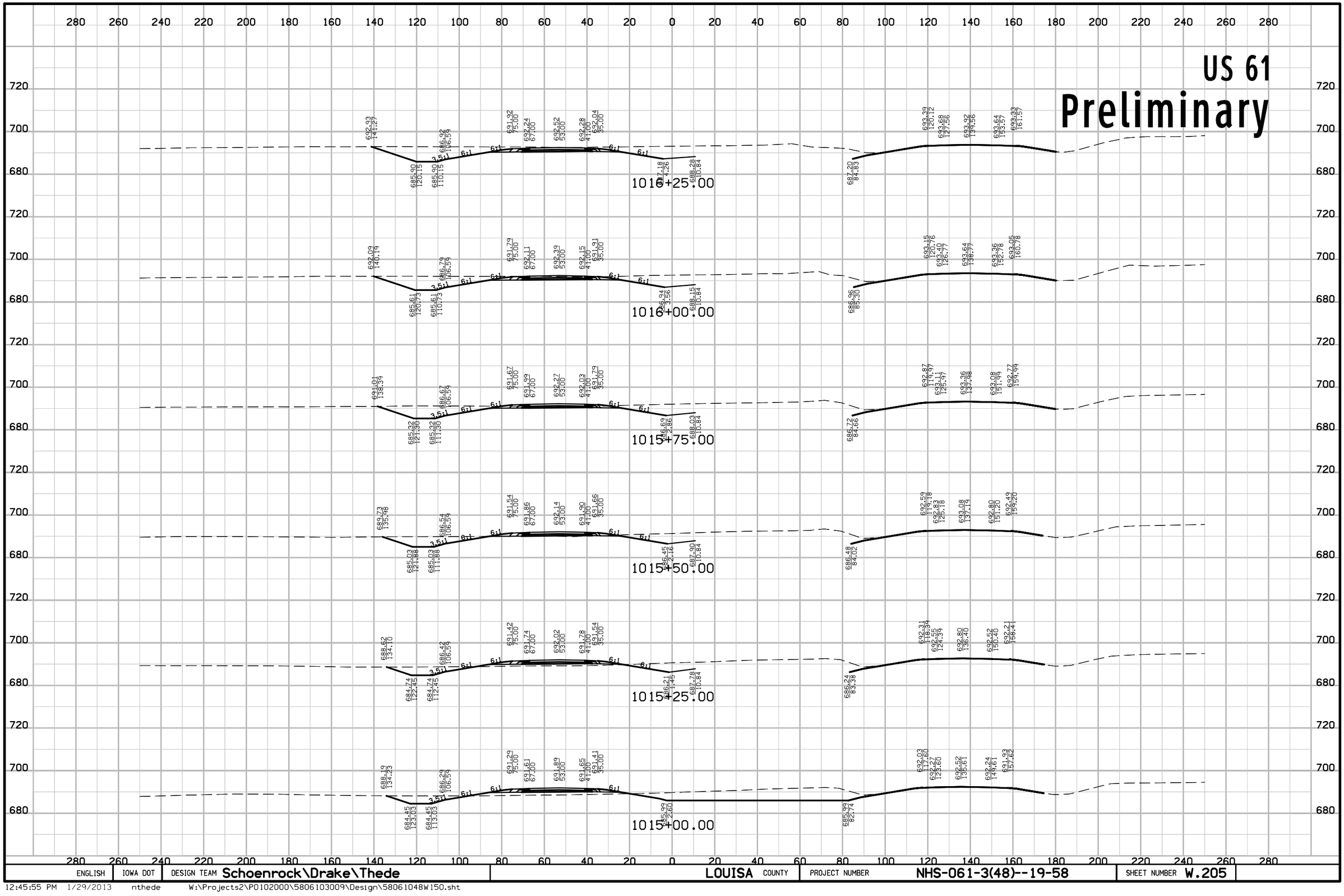
US 61

Preliminary



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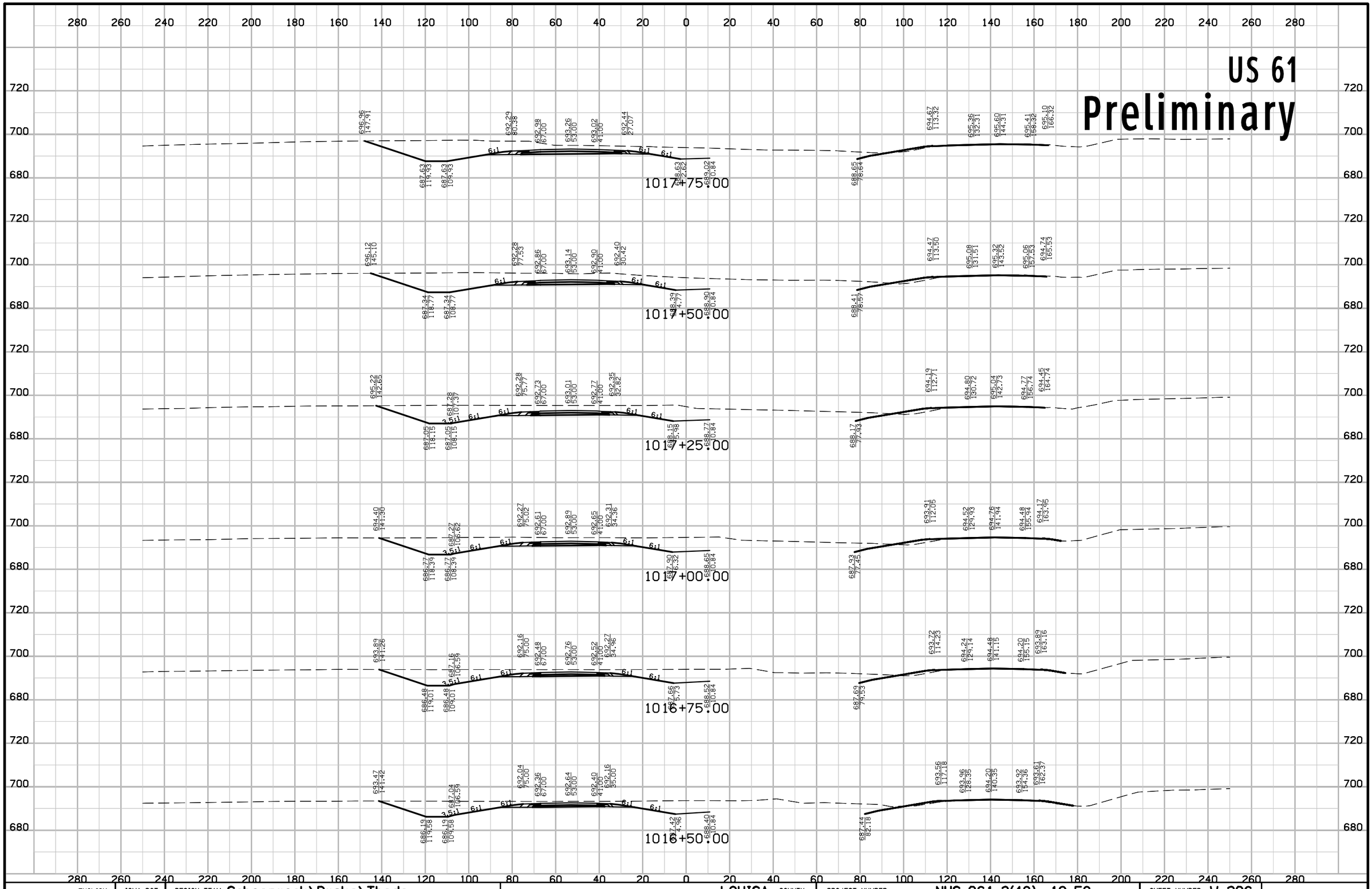
US 61

Preliminary



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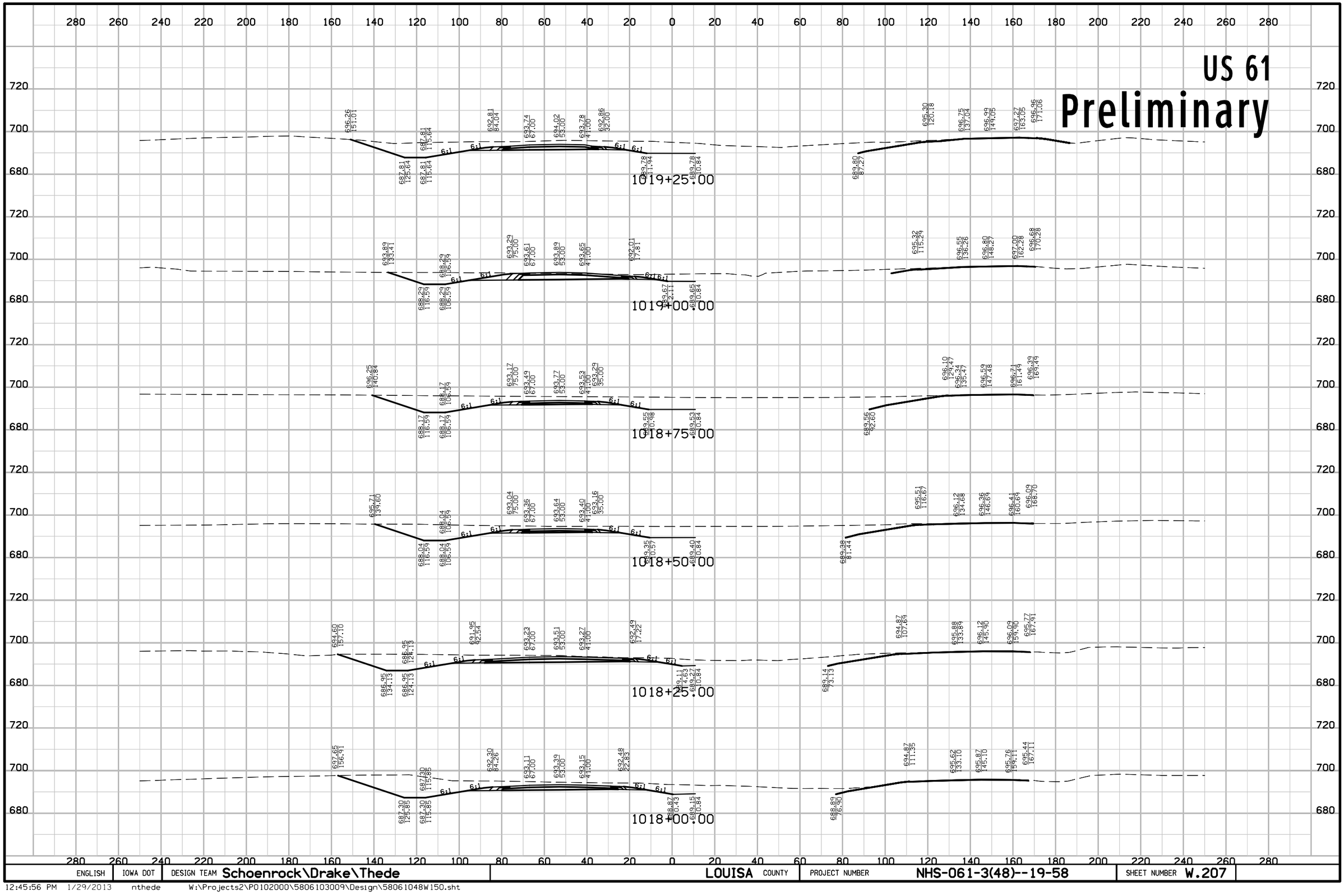
US 61

Preliminary



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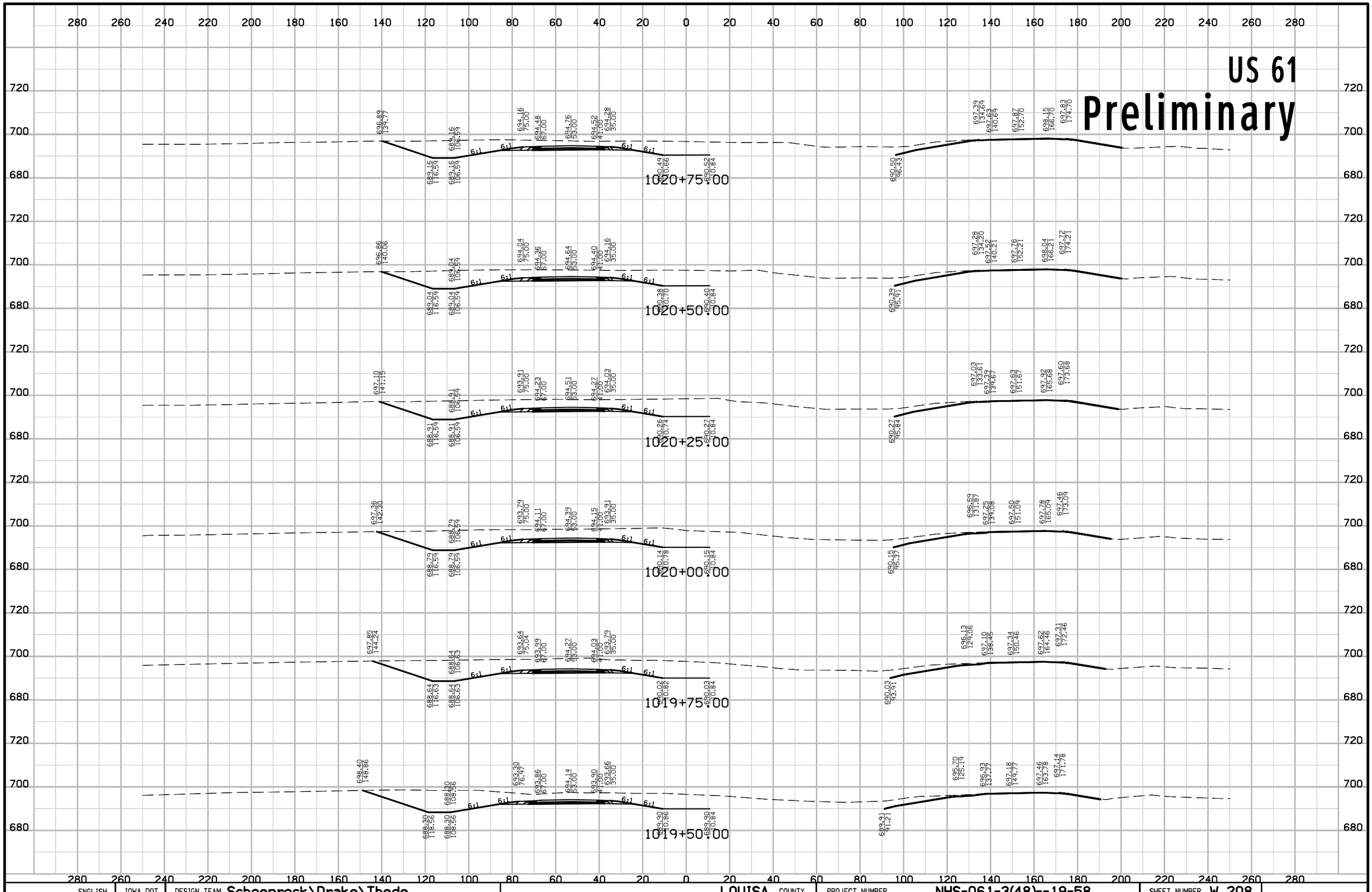
US 61

Preliminary



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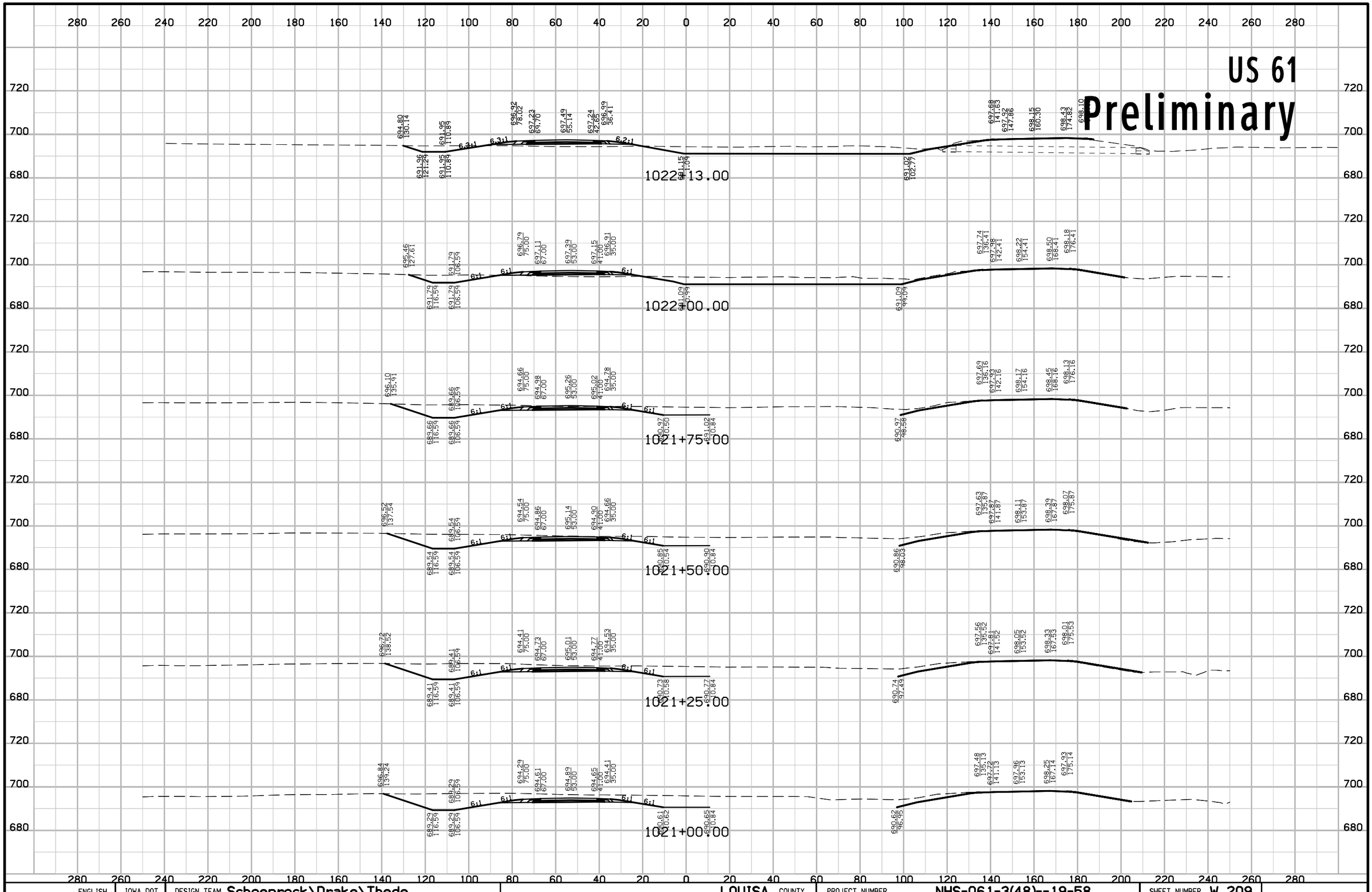
US 61

Preliminary



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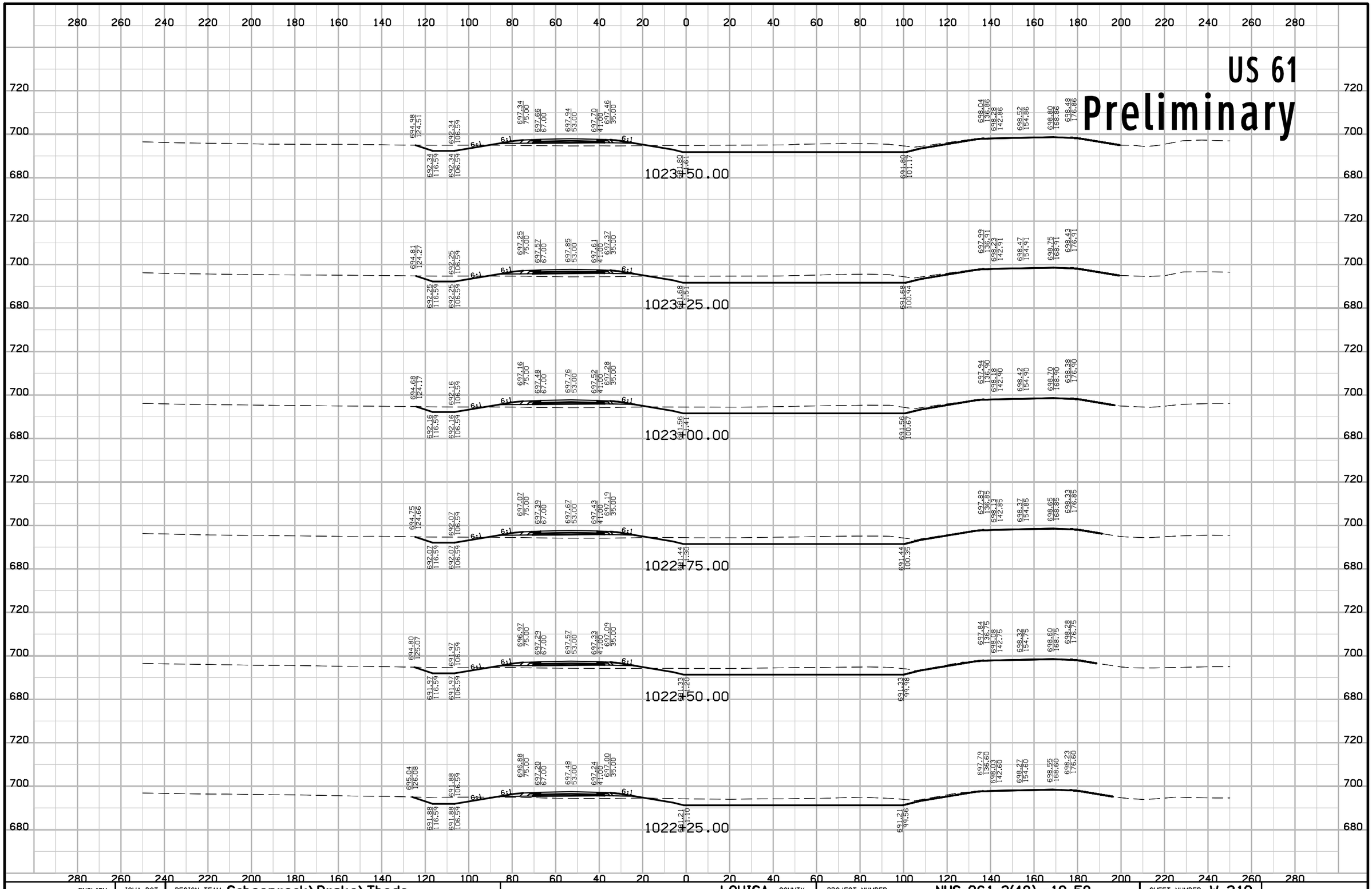
US 61

Preliminary



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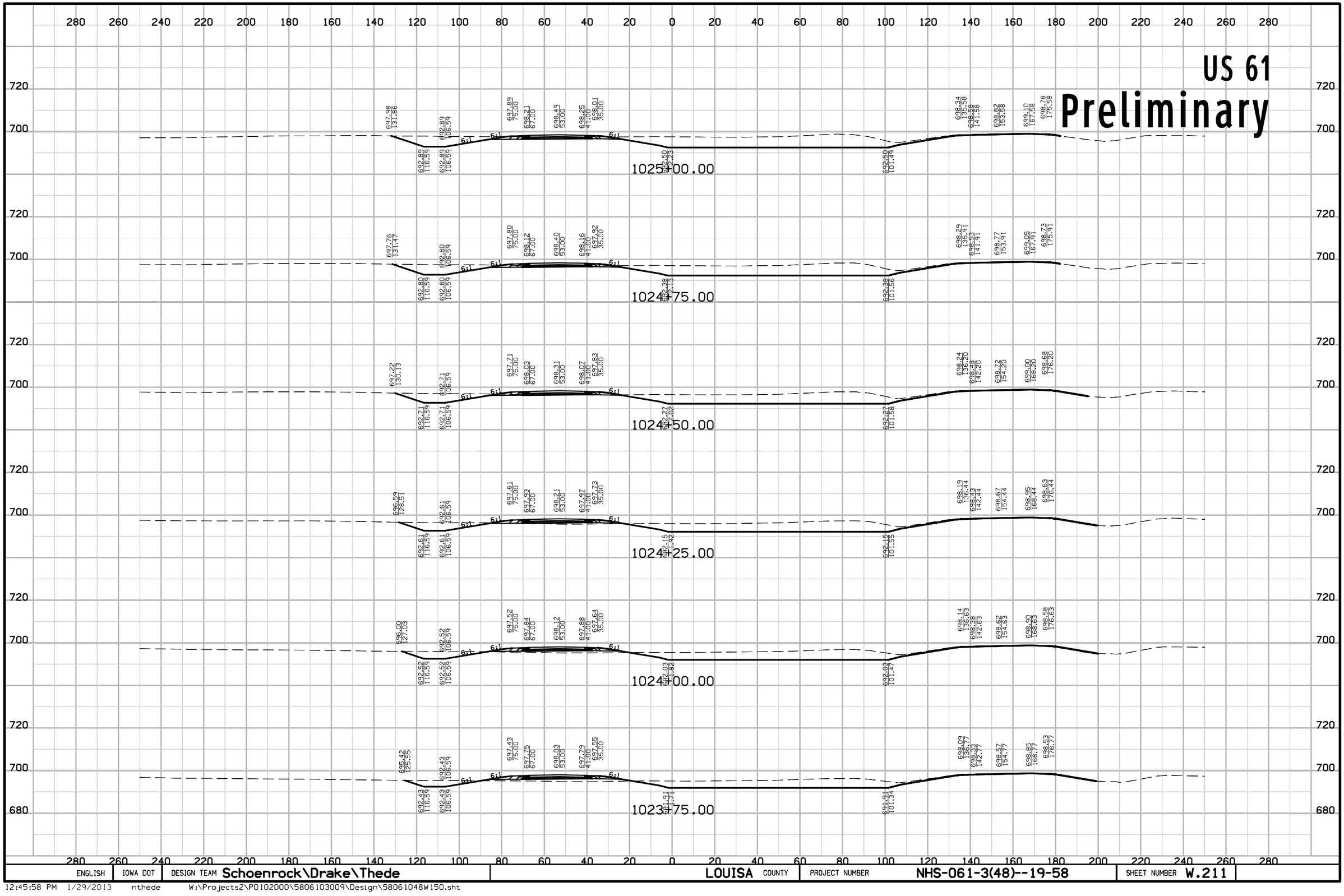
US 61

Preliminary



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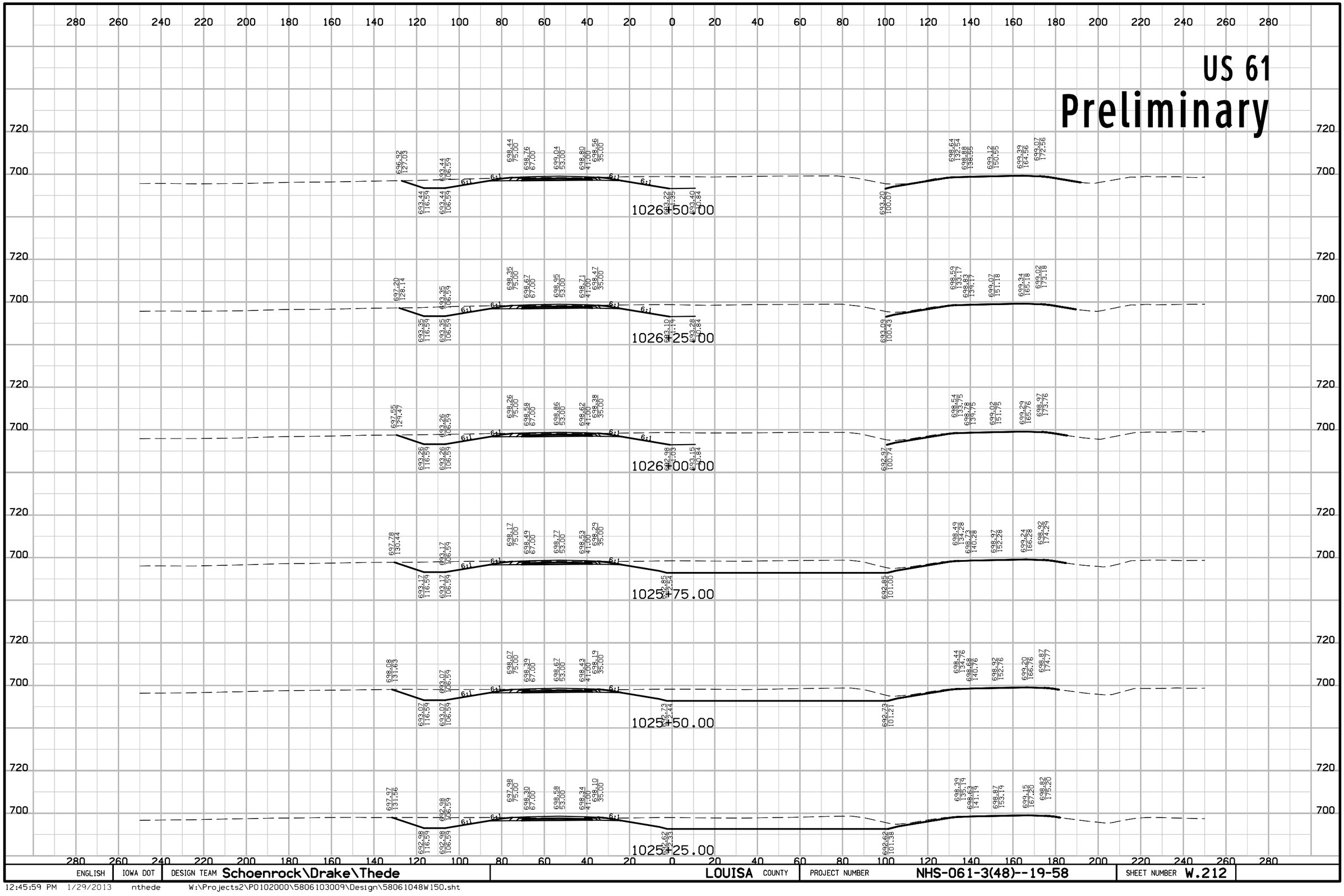
US 61

Preliminary



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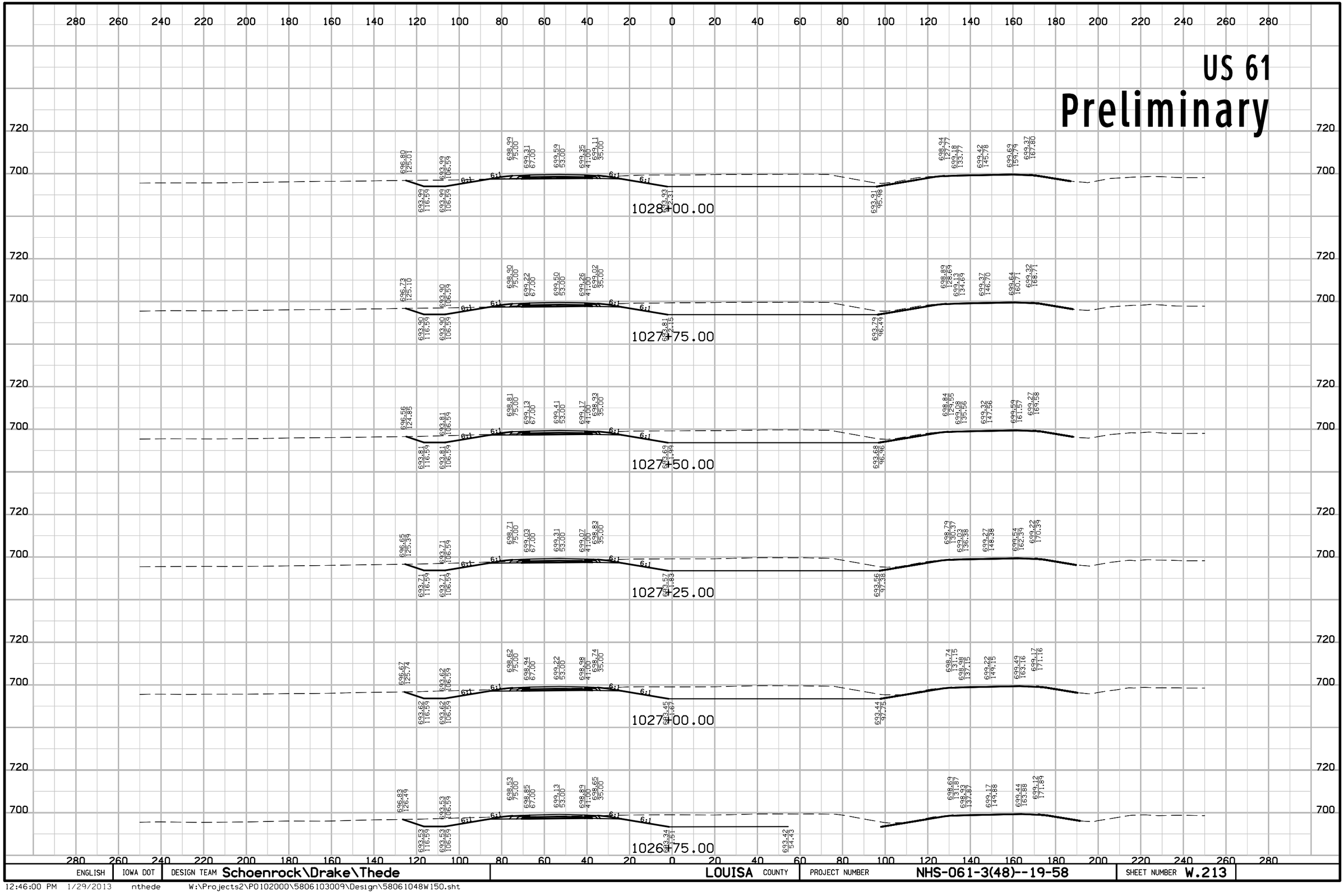
US 61

Preliminary



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US 61

Preliminary

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720 700

698.79 129.33 | 694.54 116.59 | 694.54 106.59 | 699.54 75.00 | 699.86 67.00 | 700.14 53.00 | 699.90 41.00 | 699.66 35.00 | 694.64 93.27 | 694.62 91.87 | 699.24 121.24 | 699.48 127.25 | 699.72 139.27 | 699.91 153.28 | 699.59 161.29

6:1 6:1 6:1 6:1

1029+50.00

698.26 128.04 | 694.45 116.59 | 694.45 106.59 | 699.45 75.00 | 699.77 67.00 | 700.05 53.00 | 699.81 41.00 | 699.67 35.00 | 694.52 93.11 | 694.50 92.68 | 699.19 122.45 | 699.43 128.46 | 699.67 140.47 | 699.94 154.49 | 699.62 162.50

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1029+25.00

697.78 126.85 | 694.36 116.59 | 694.36 106.59 | 699.36 75.00 | 699.68 67.00 | 699.96 53.00 | 699.72 41.00 | 699.48 35.00 | 694.40 92.95 | 694.38 93.44 | 699.14 122.61 | 699.38 129.62 | 699.62 141.63 | 699.89 155.65 | 699.57 163.65

6:1 6:1 6:1 6:1

1029+00.00

697.36 125.89 | 694.26 116.59 | 694.26 106.59 | 699.26 75.00 | 699.58 67.00 | 699.86 53.00 | 699.62 41.00 | 699.38 35.00 | 694.28 92.79 | 694.26 94.14 | 699.09 124.72 | 699.33 130.73 | 699.57 142.74 | 699.84 156.75 | 699.52 164.76

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1028+75.00

697.14 125.49 | 694.17 116.59 | 694.17 106.59 | 699.17 75.00 | 699.49 67.00 | 699.77 53.00 | 699.53 41.00 | 699.29 35.00 | 694.16 92.63 | 694.15 94.80 | 699.04 125.79 | 699.28 131.79 | 699.52 143.80 | 699.79 157.82 | 699.47 165.82

6:1 6:1 6:1 6:1

1028+50.00

696.89 125.01 | 694.08 116.59 | 694.08 106.59 | 699.08 75.00 | 699.40 67.00 | 699.68 53.00 | 699.44 41.00 | 699.20 35.00 | 694.05 92.47 | 694.03 95.42 | 698.99 126.80 | 699.23 132.81 | 699.47 144.82 | 699.74 158.83 | 699.42 166.83

6:1 6:1 6:1 6:1

1028+25.00

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 Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.214

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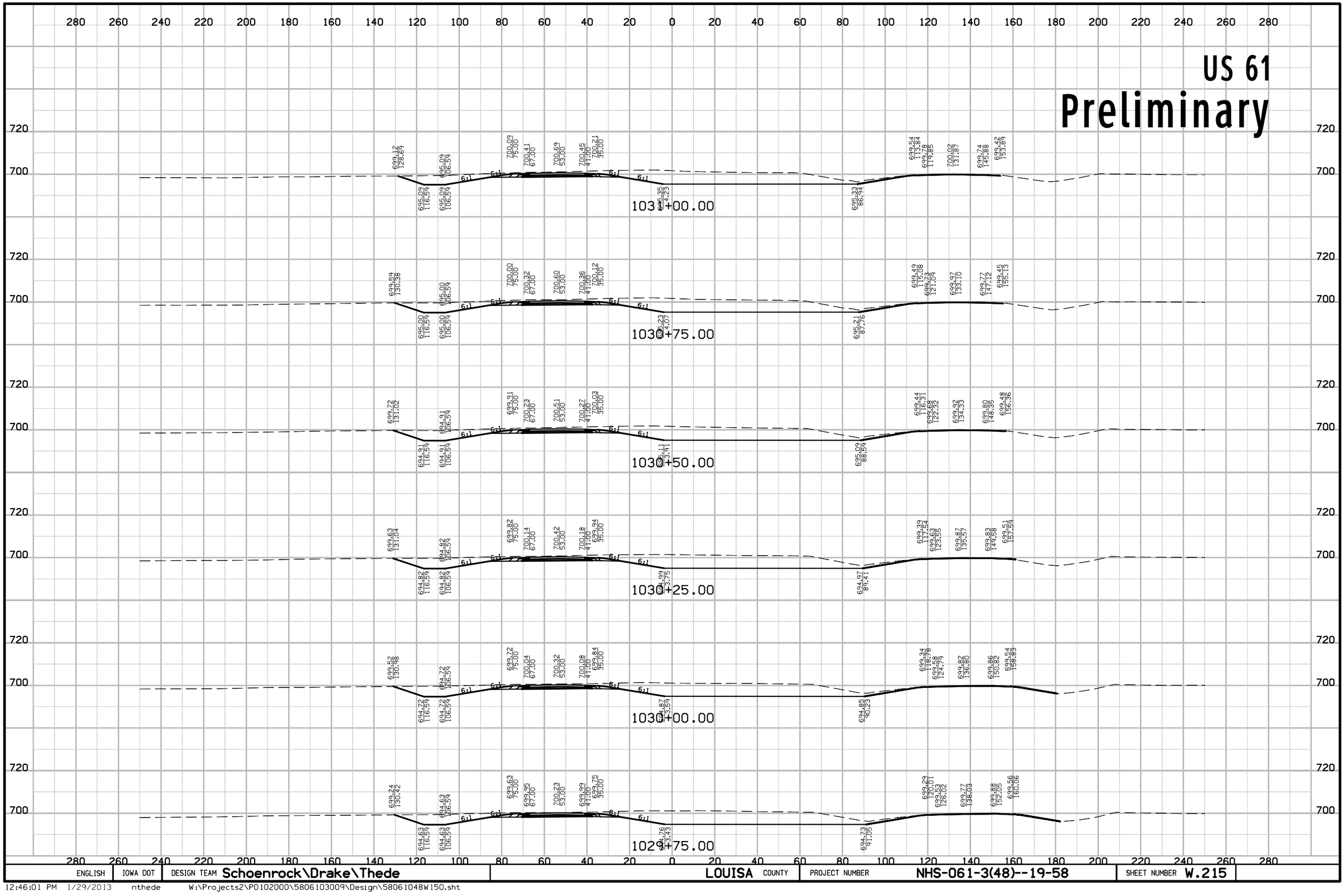
US 61

Preliminary



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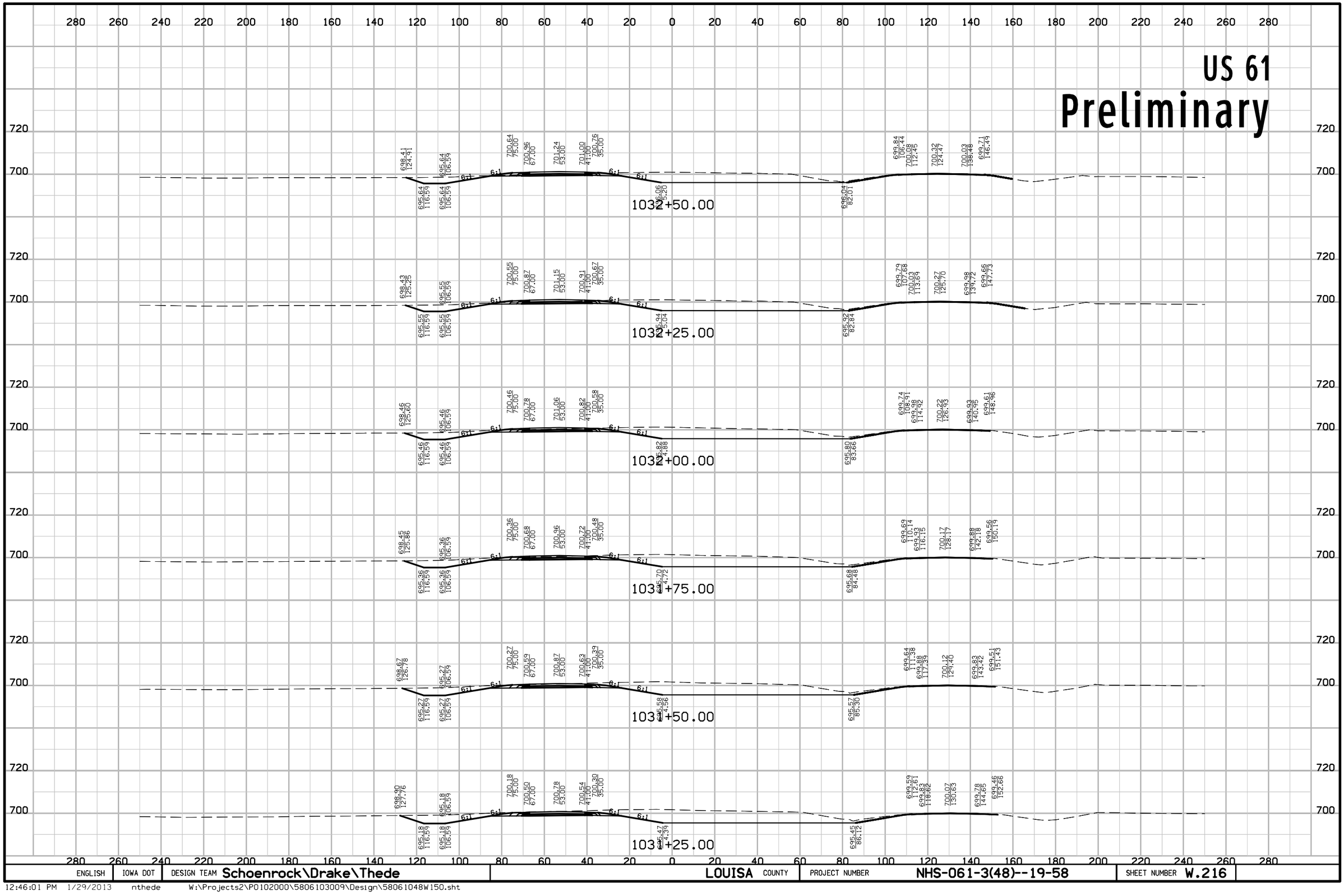
US 61

Preliminary



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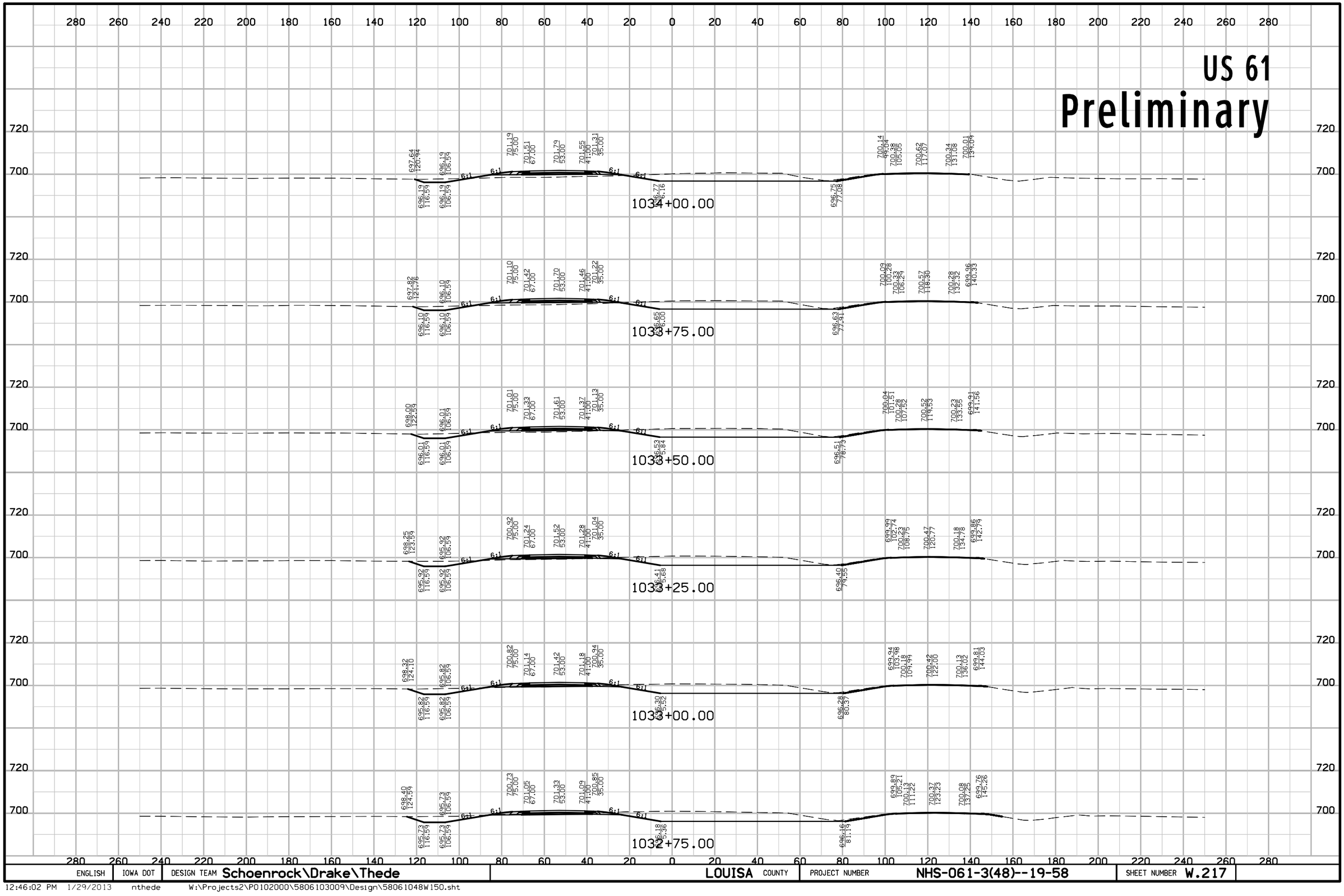
US 61

Preliminary



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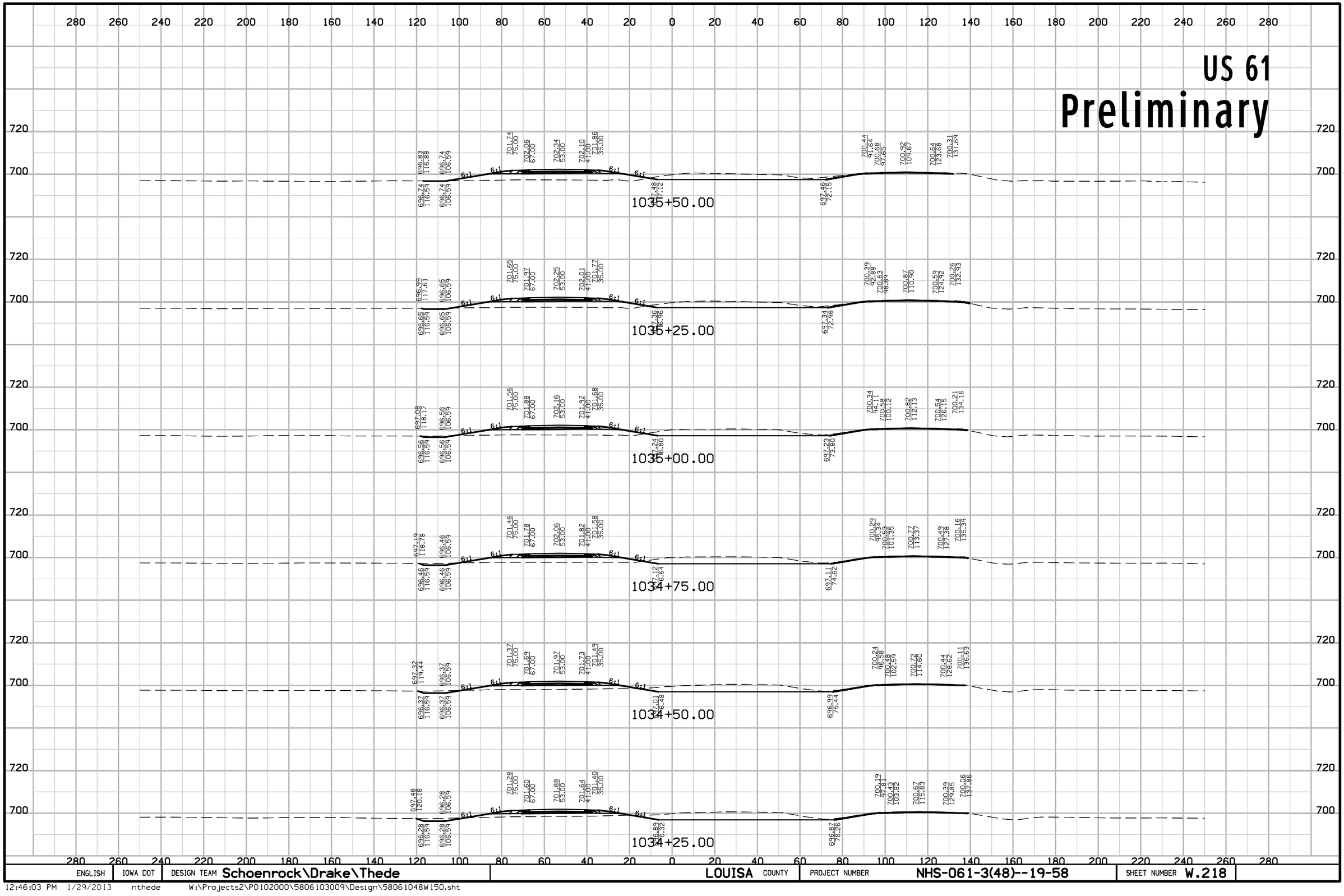
US 61

Preliminary



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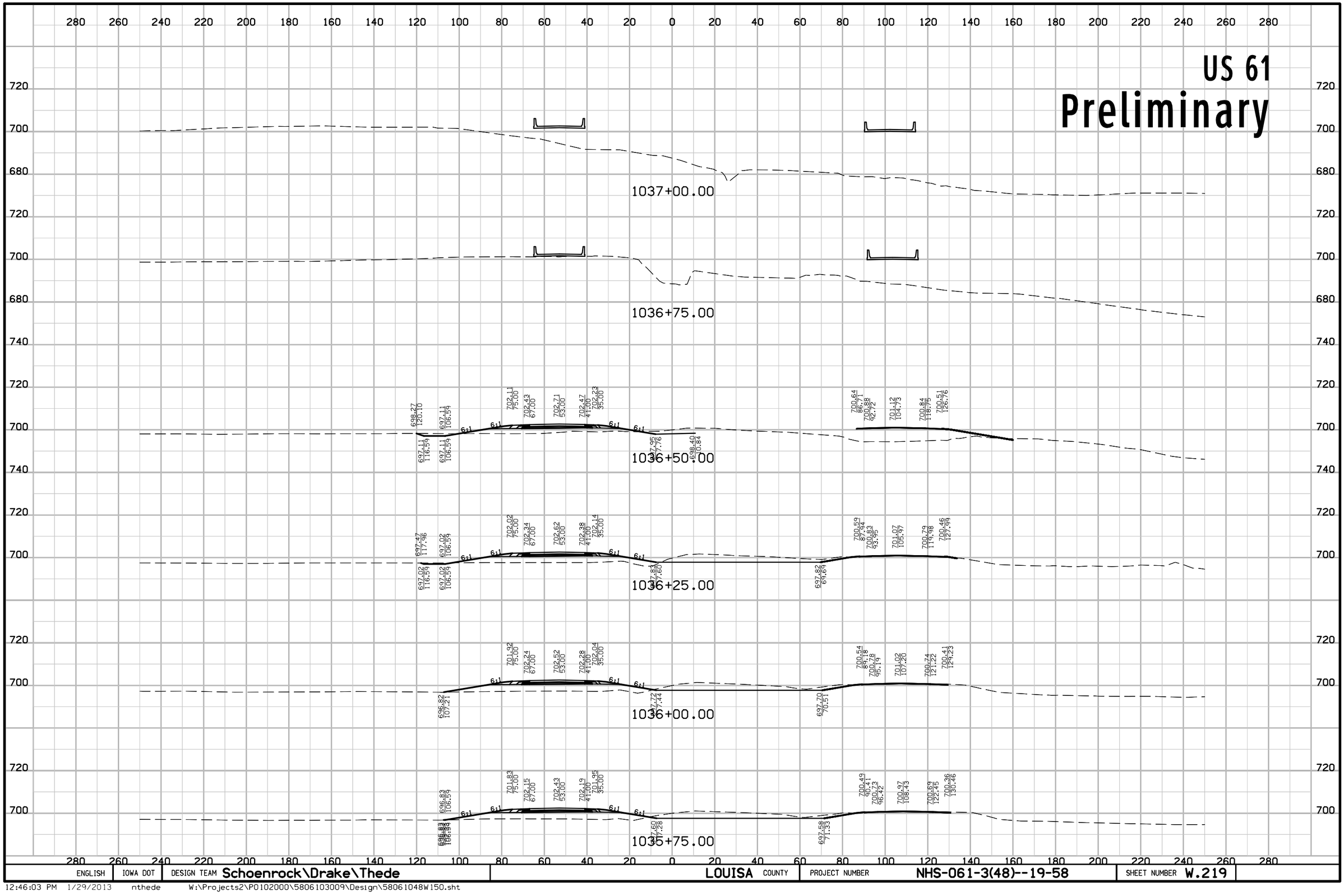
US 61
Preliminary



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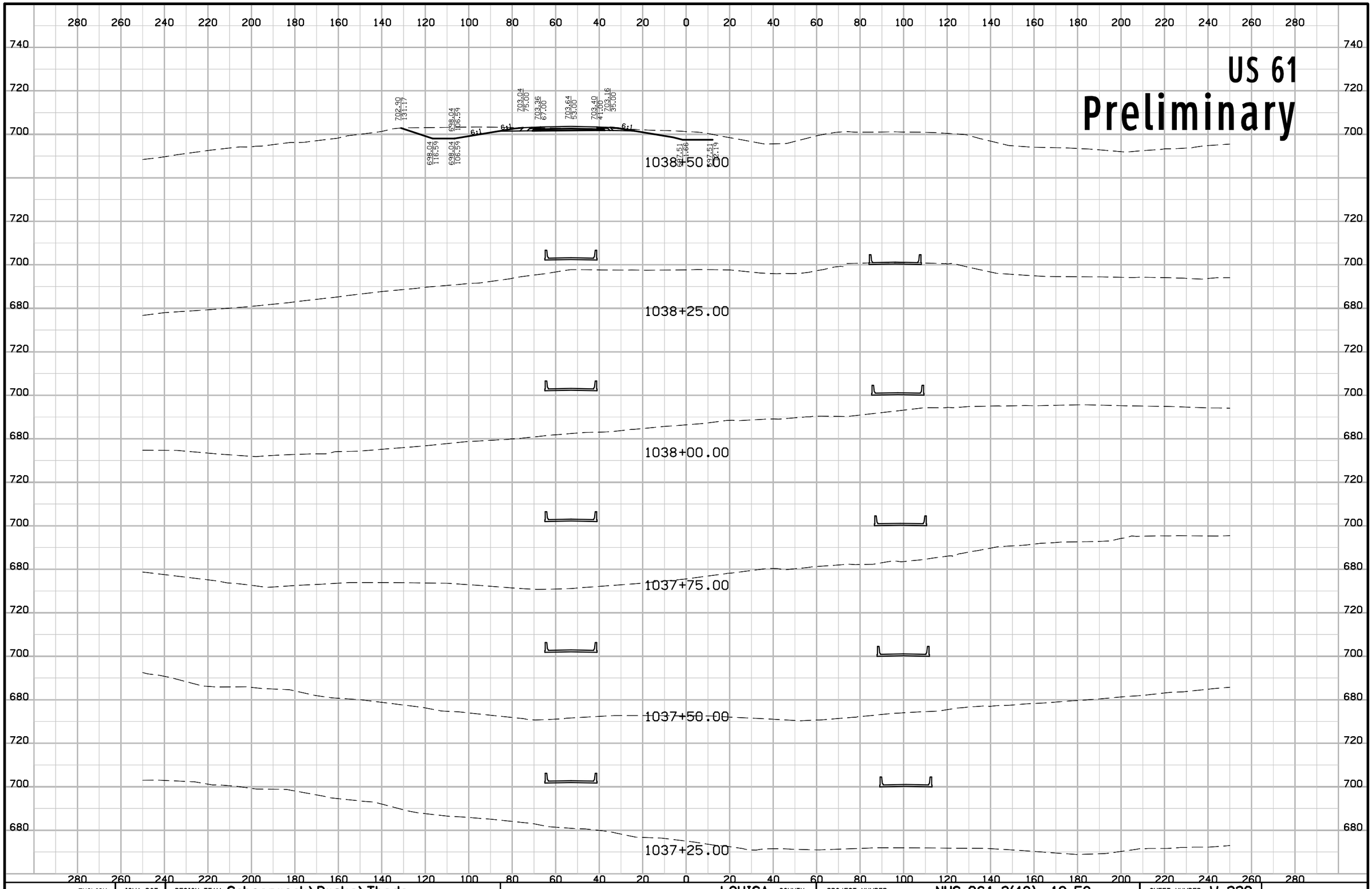
US 61

Preliminary



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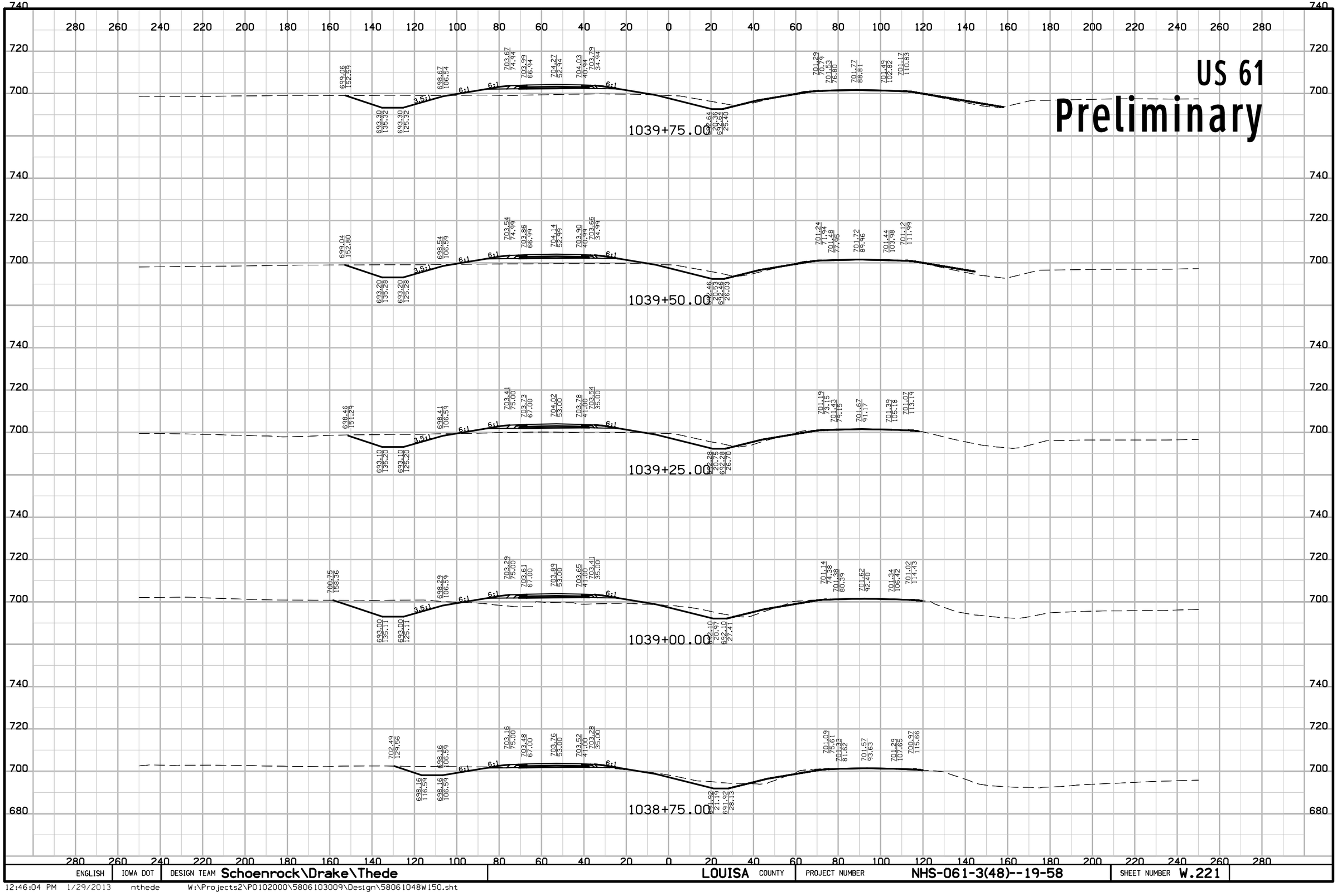
US 61

Preliminary



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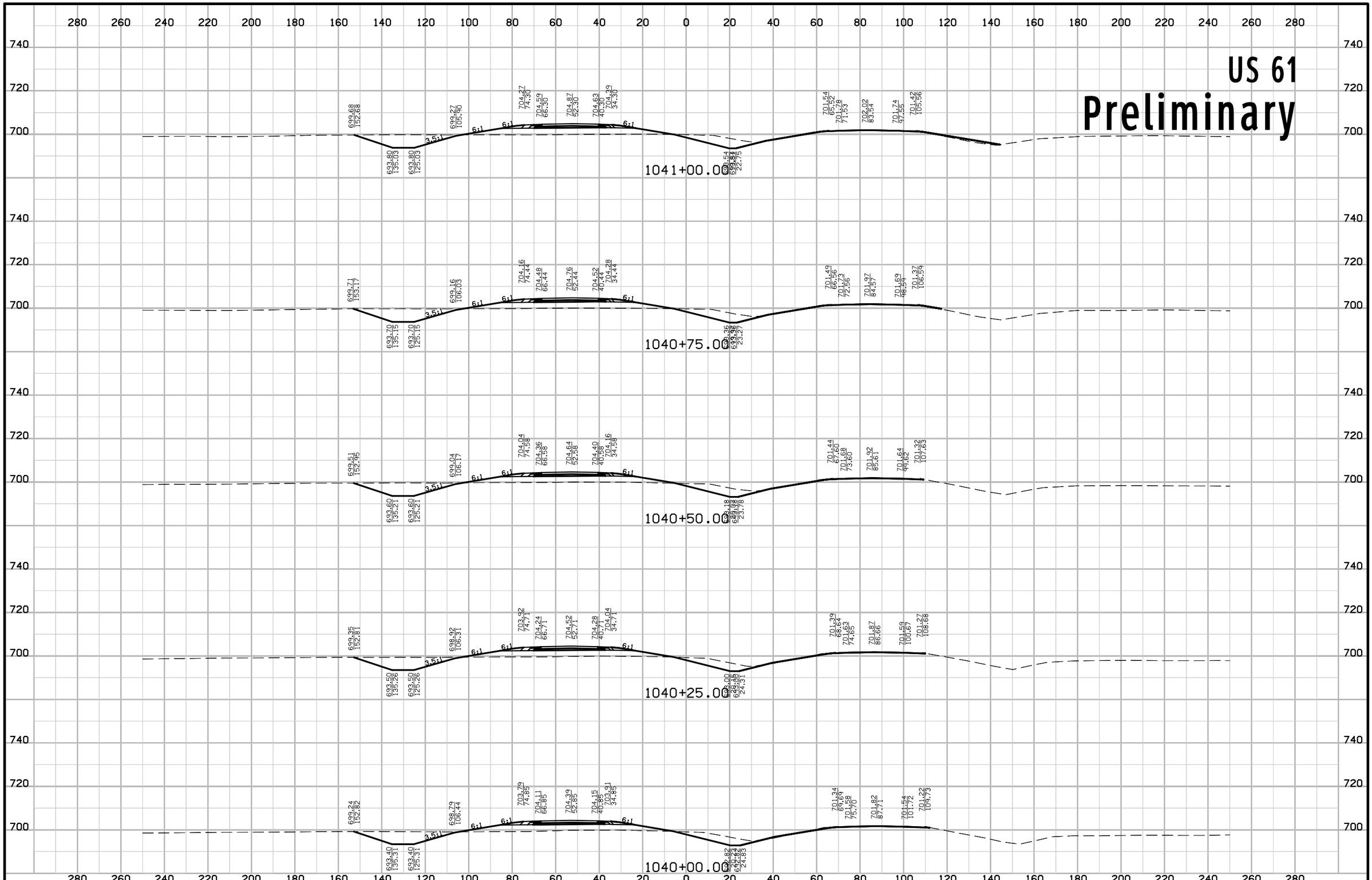
US 61

Preliminary



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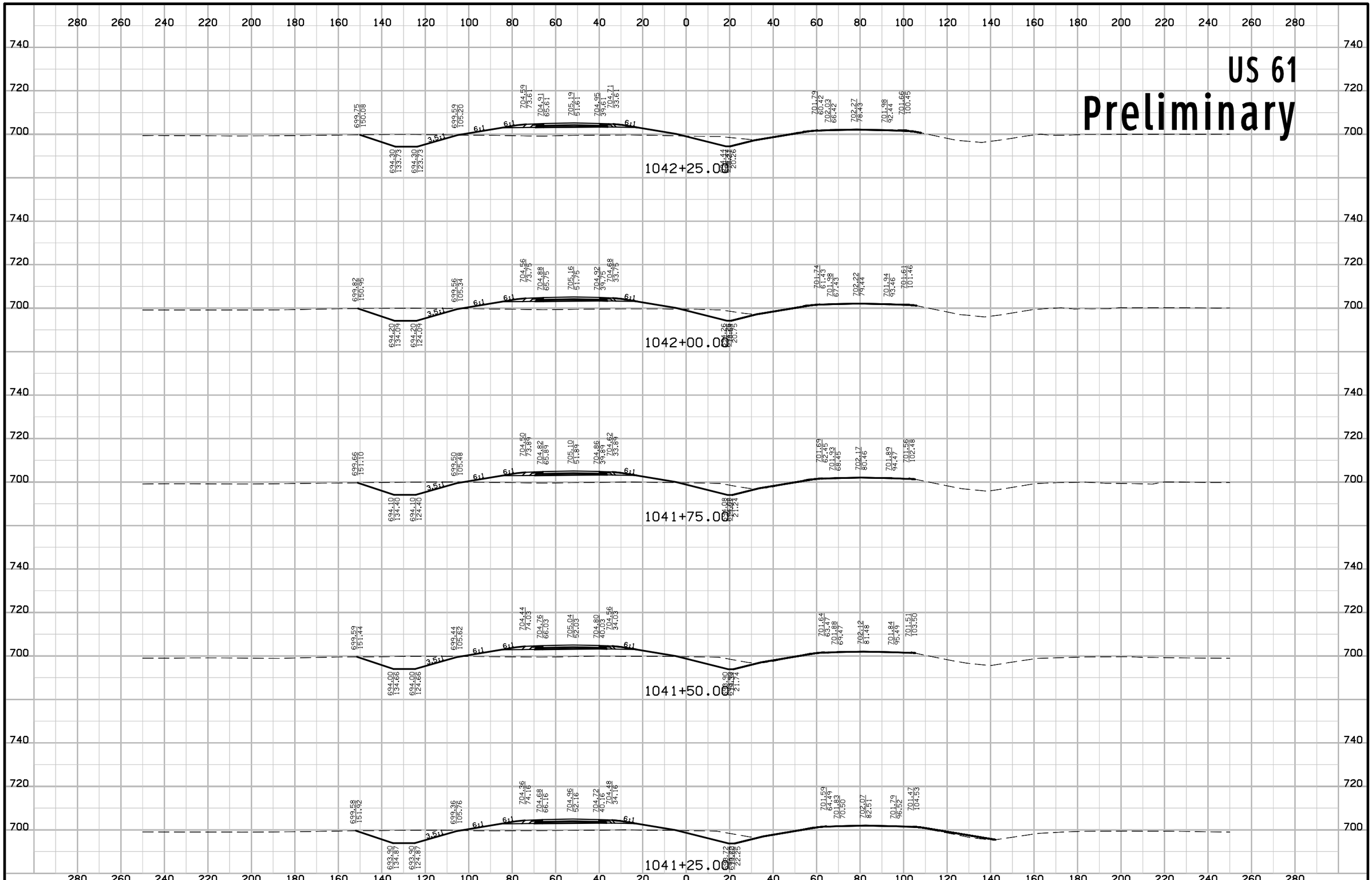
US 61

Preliminary



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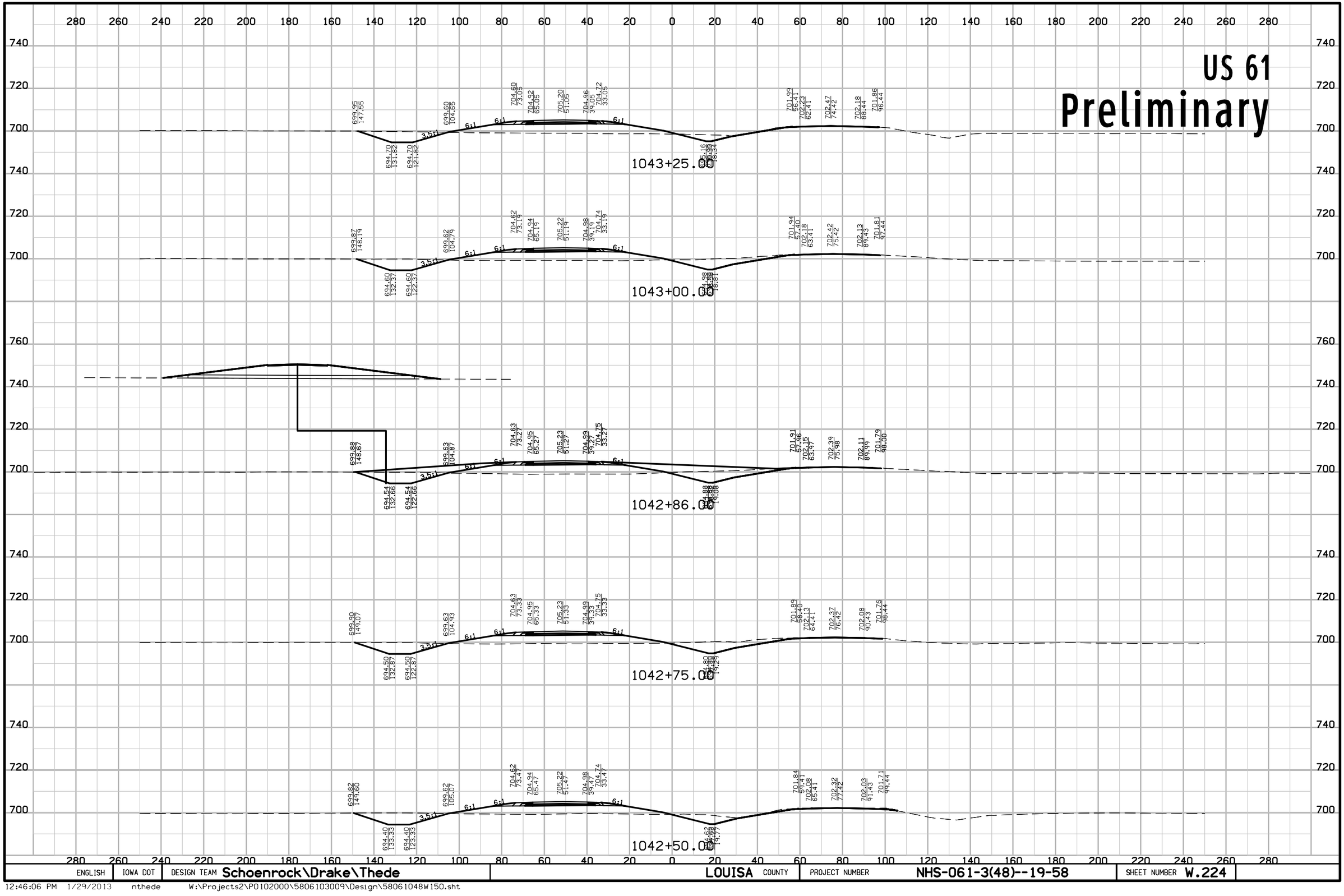
US 61

Preliminary



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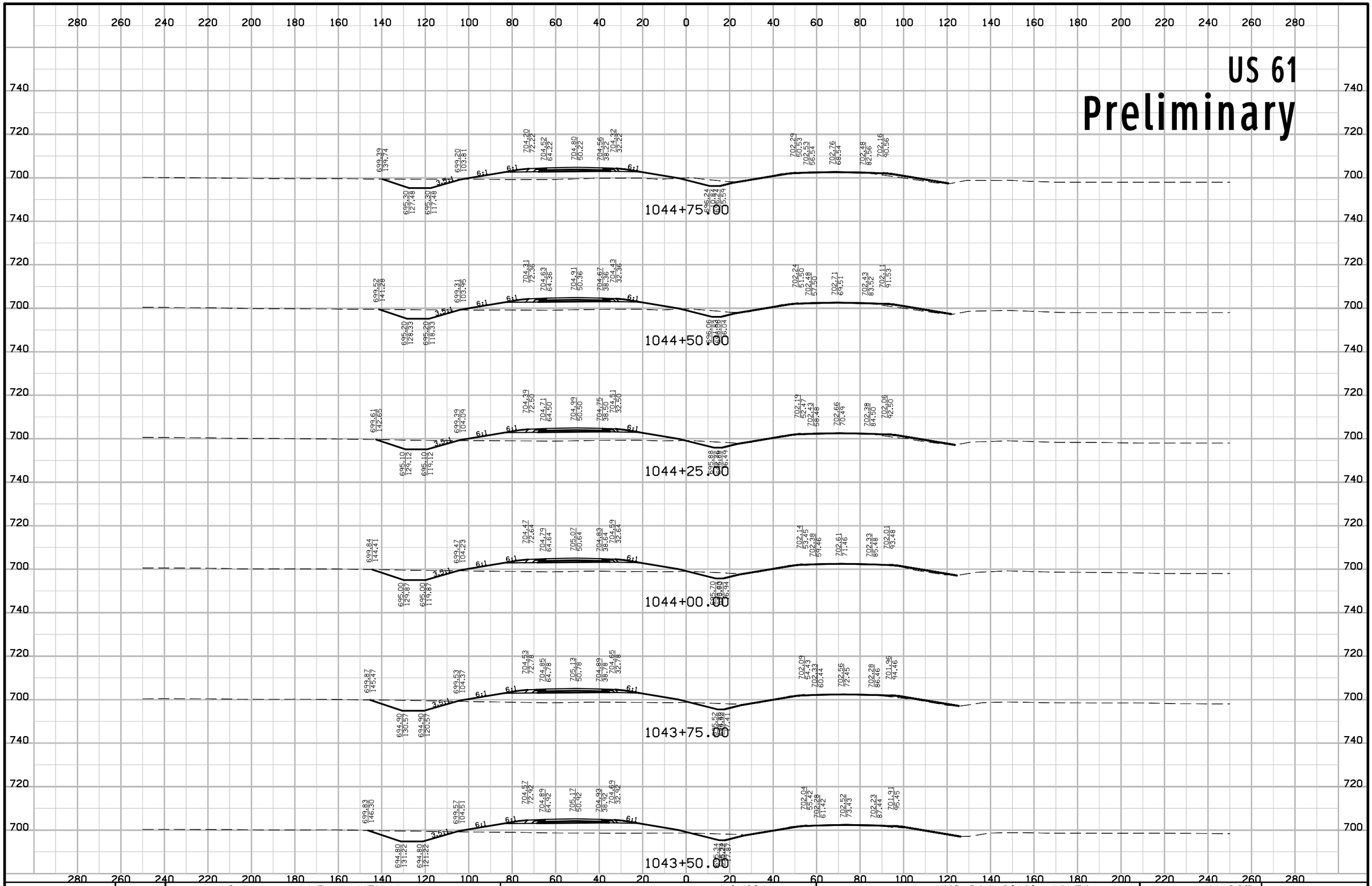
US 61
Preliminary



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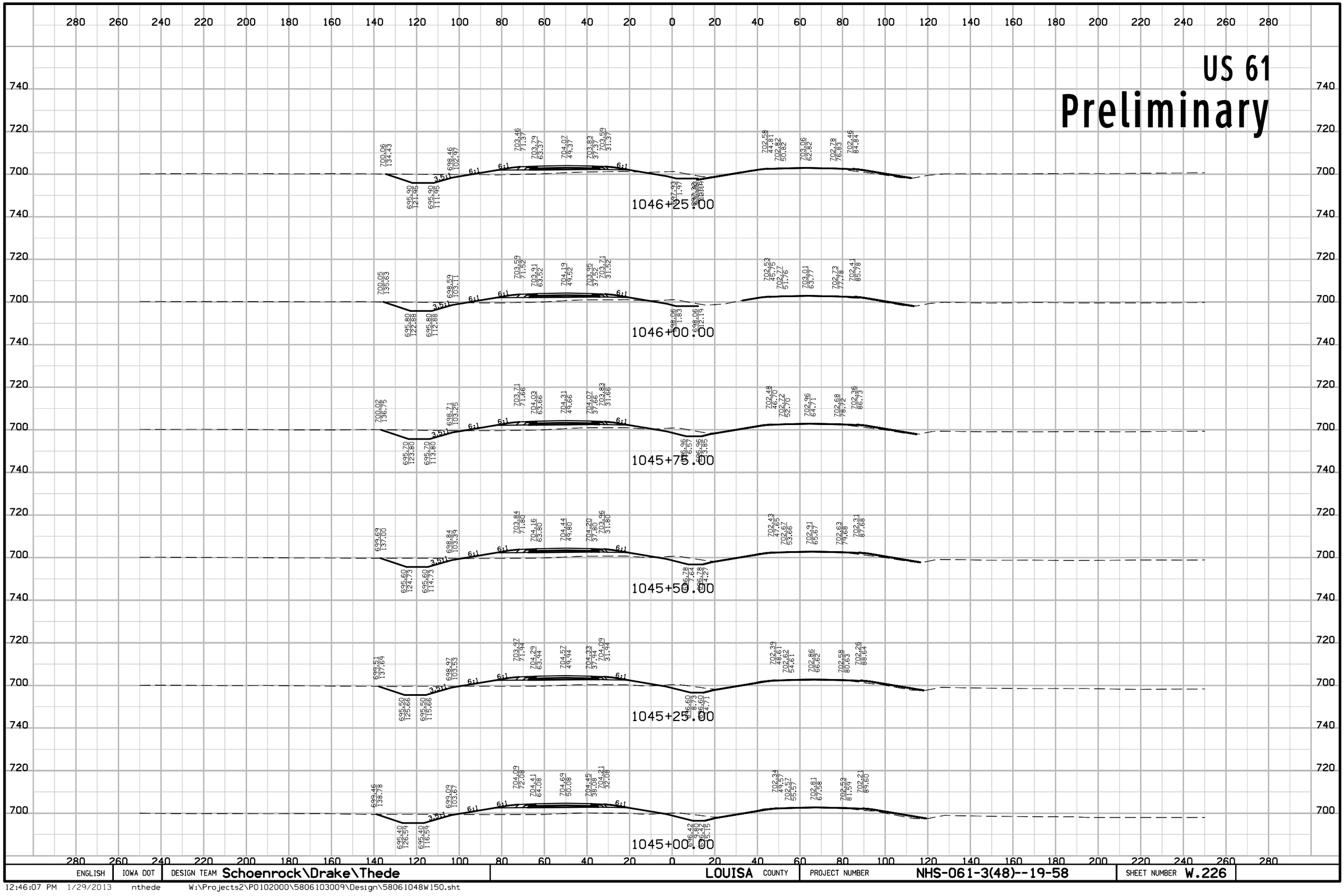
US 61

Preliminary



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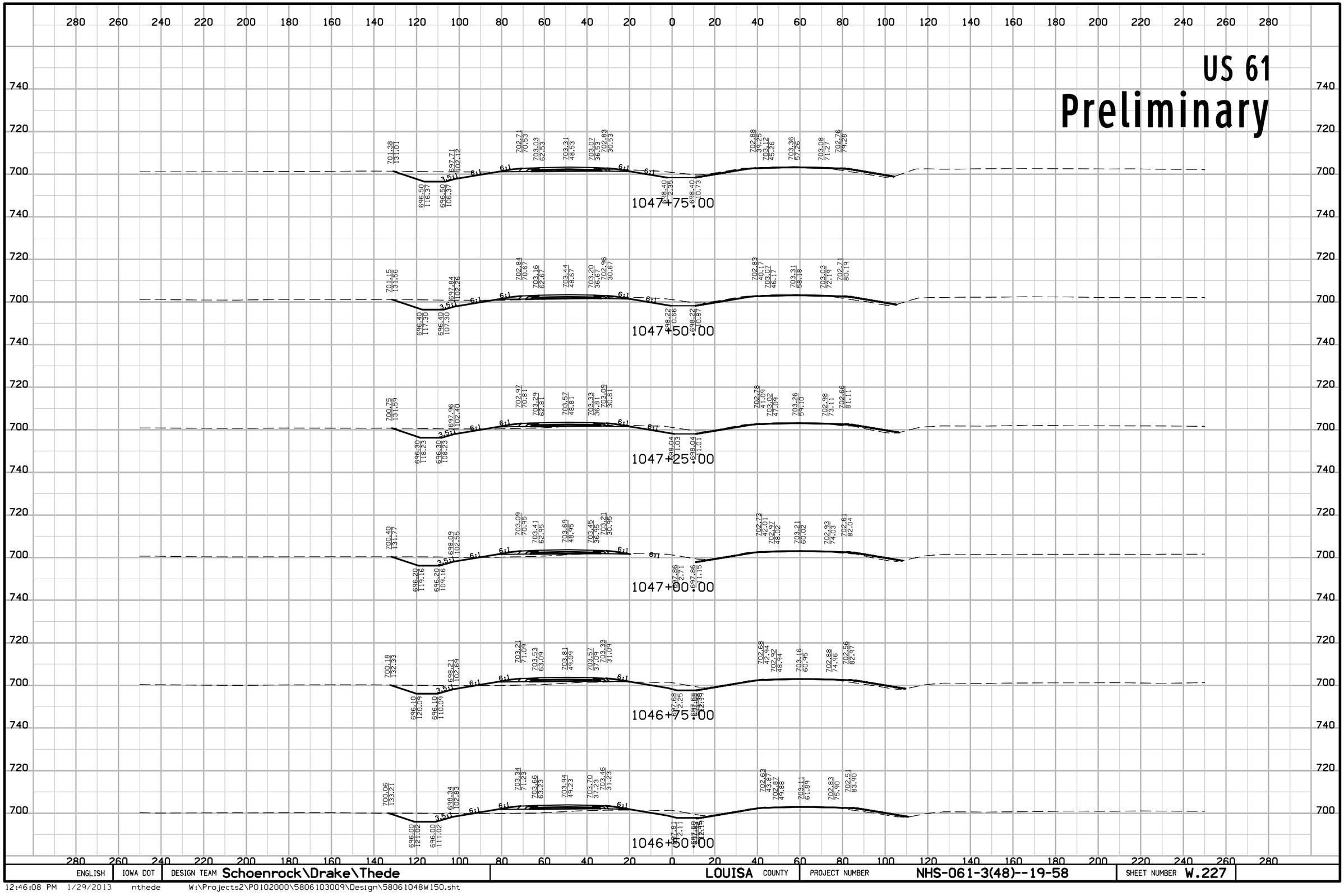
US 61

Preliminary



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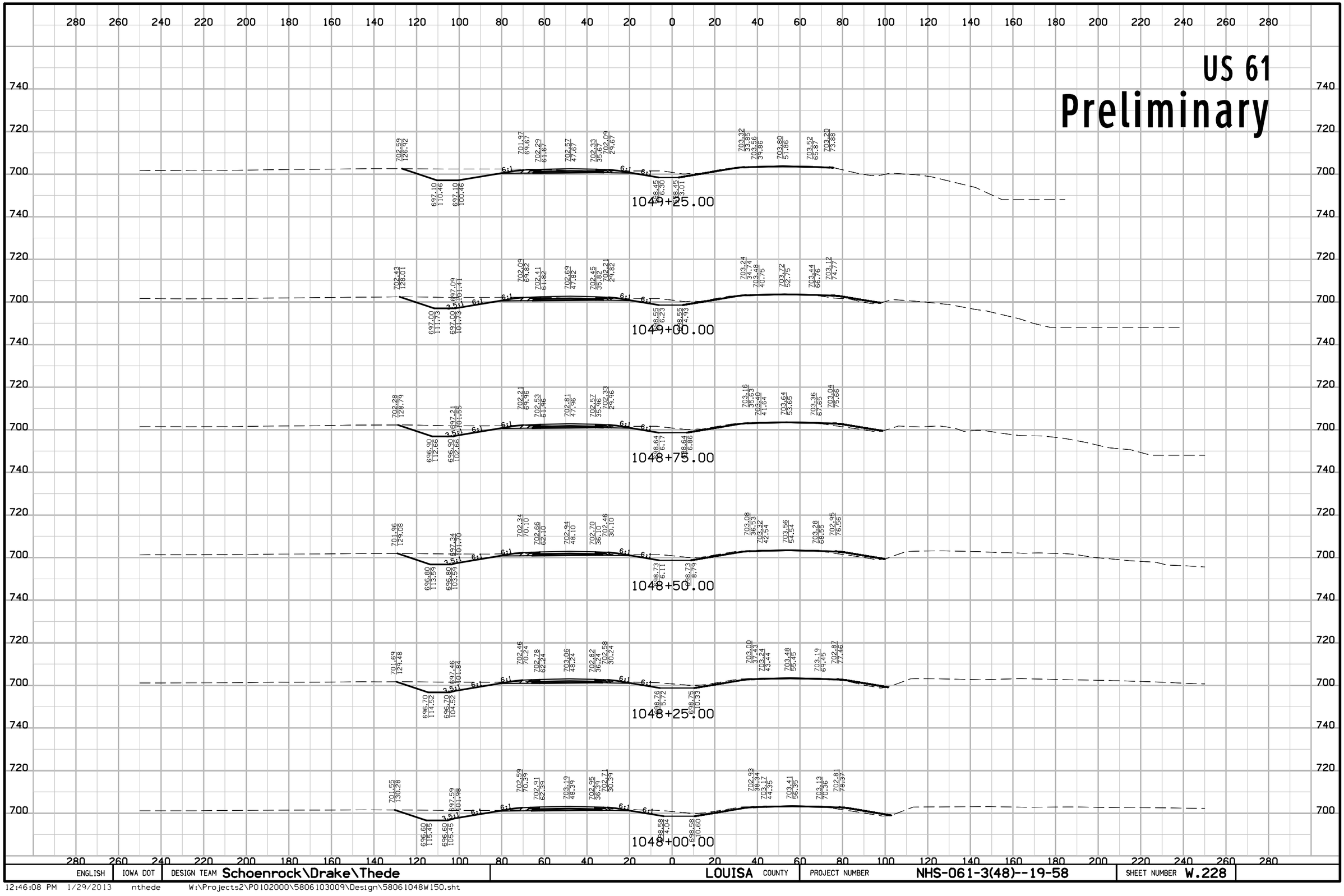
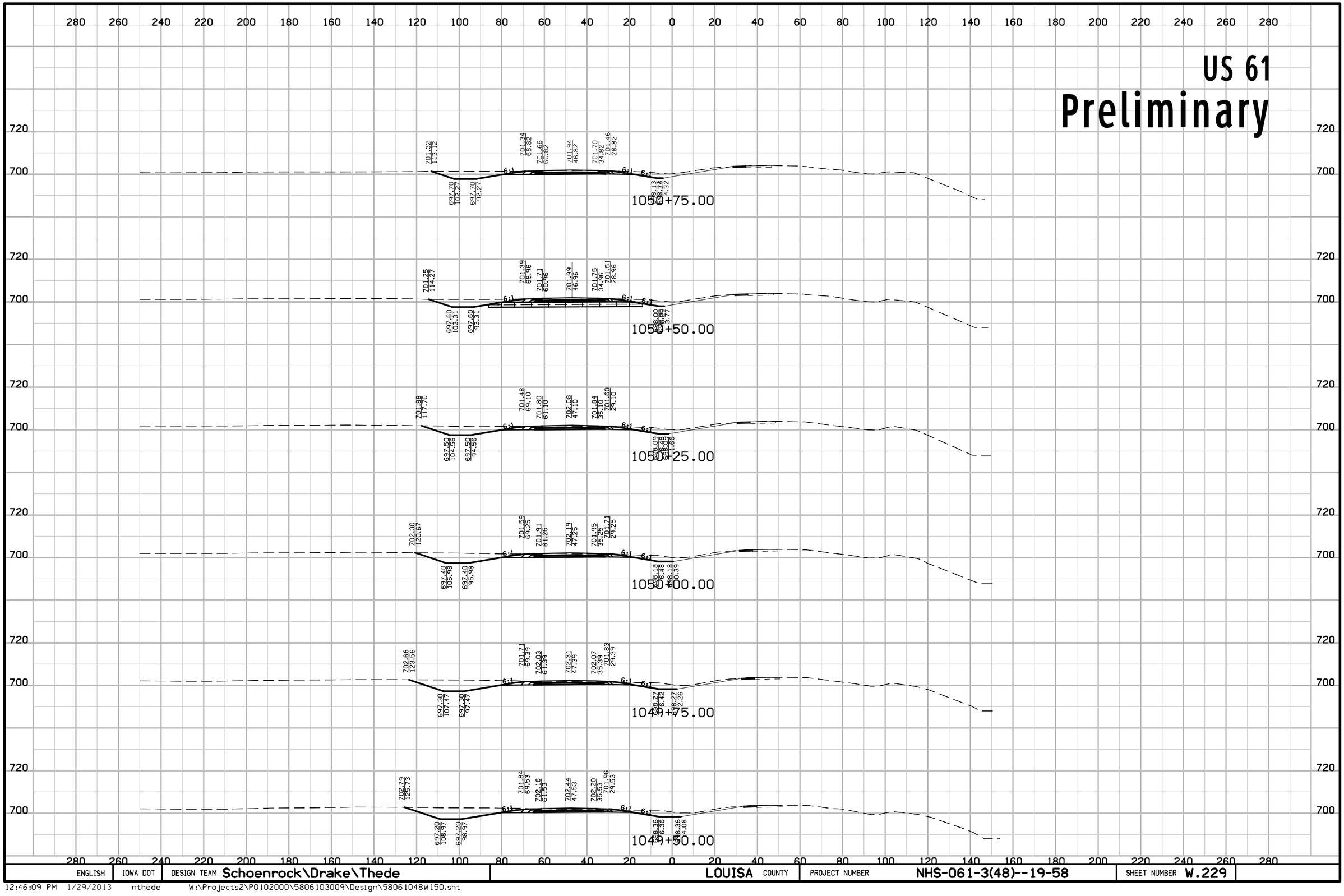
US 61

Preliminary



US 61

Preliminary



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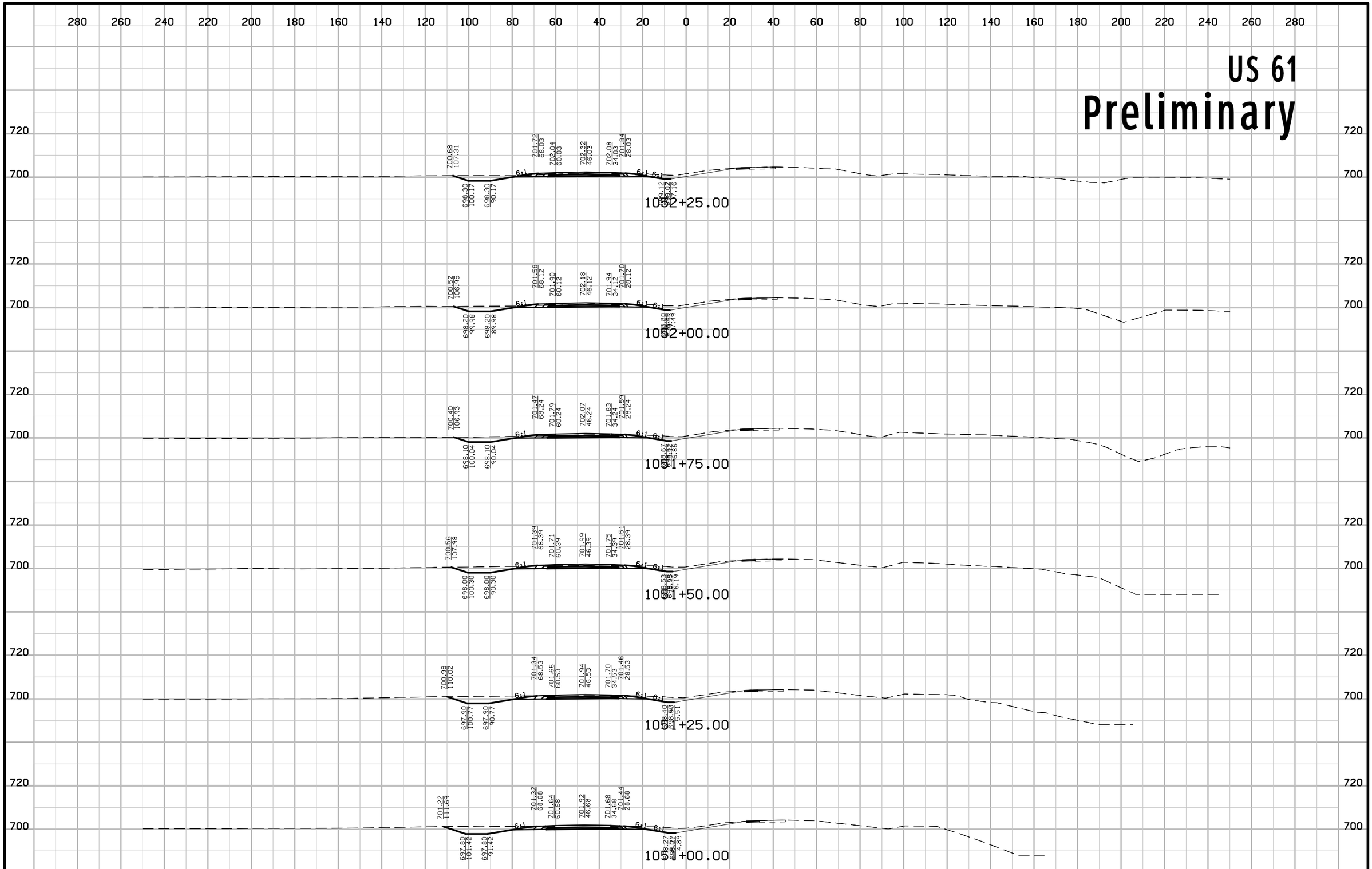
US 61
Preliminary



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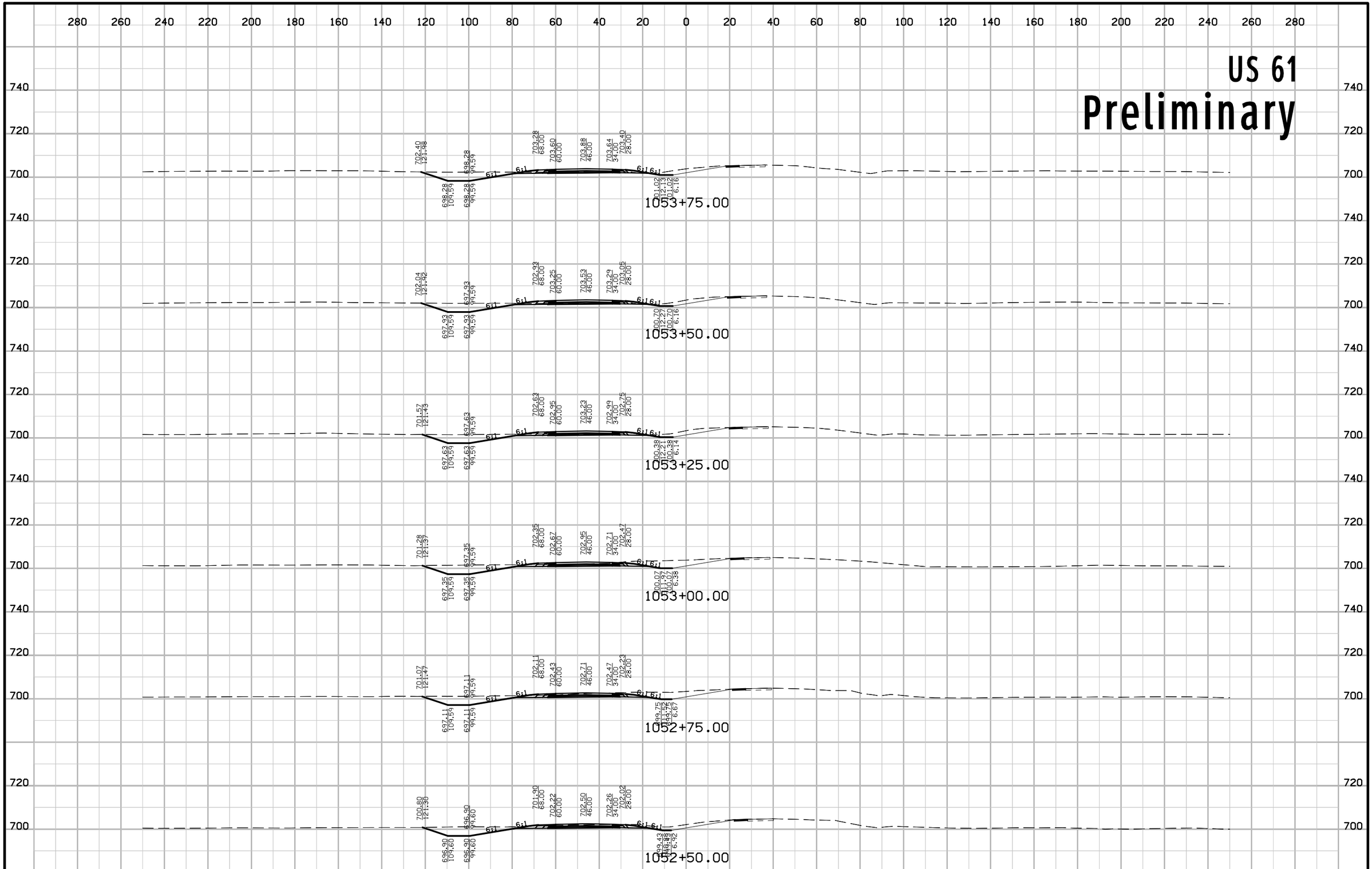
US 61

Preliminary



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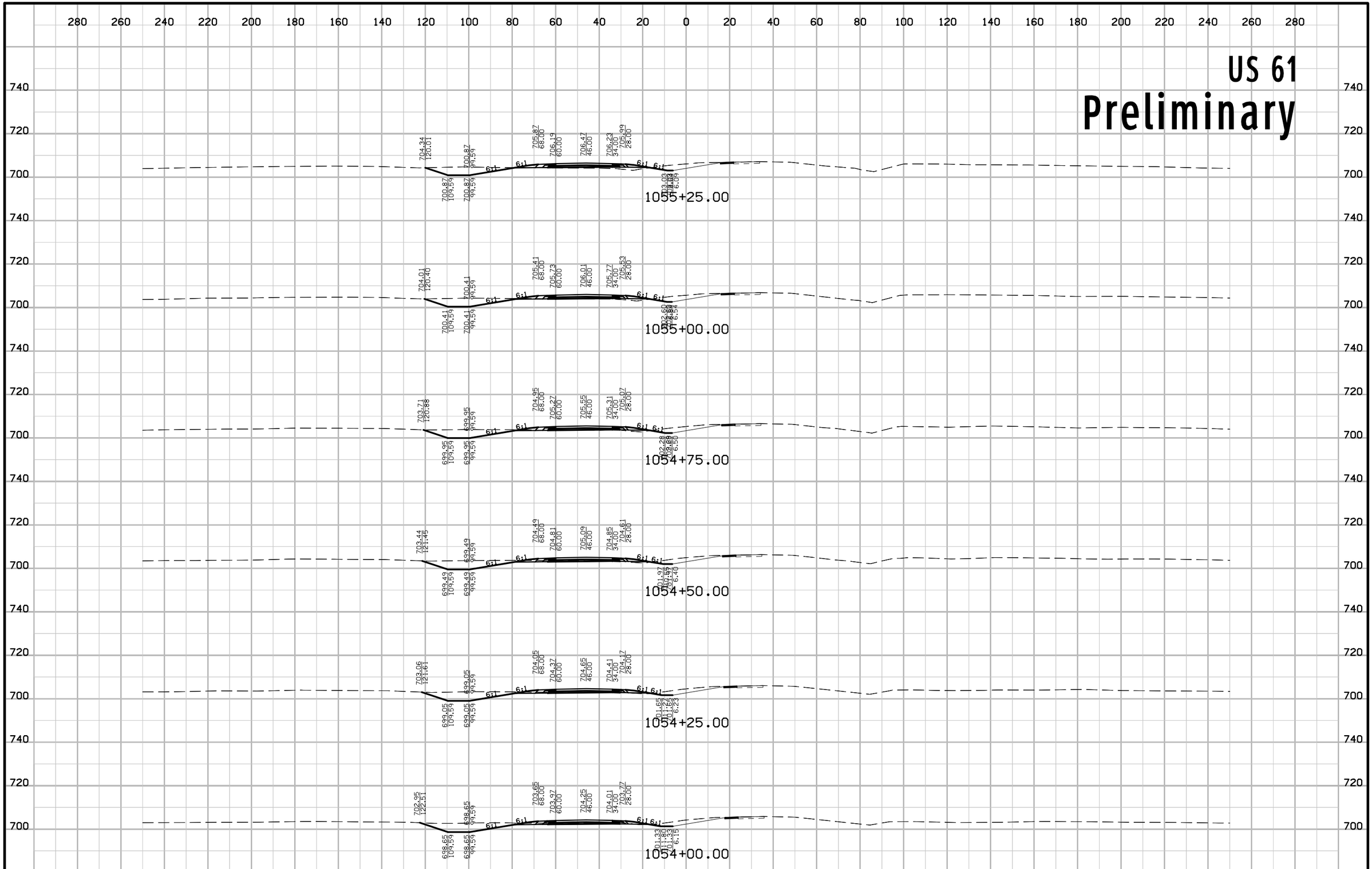
US 61

Preliminary



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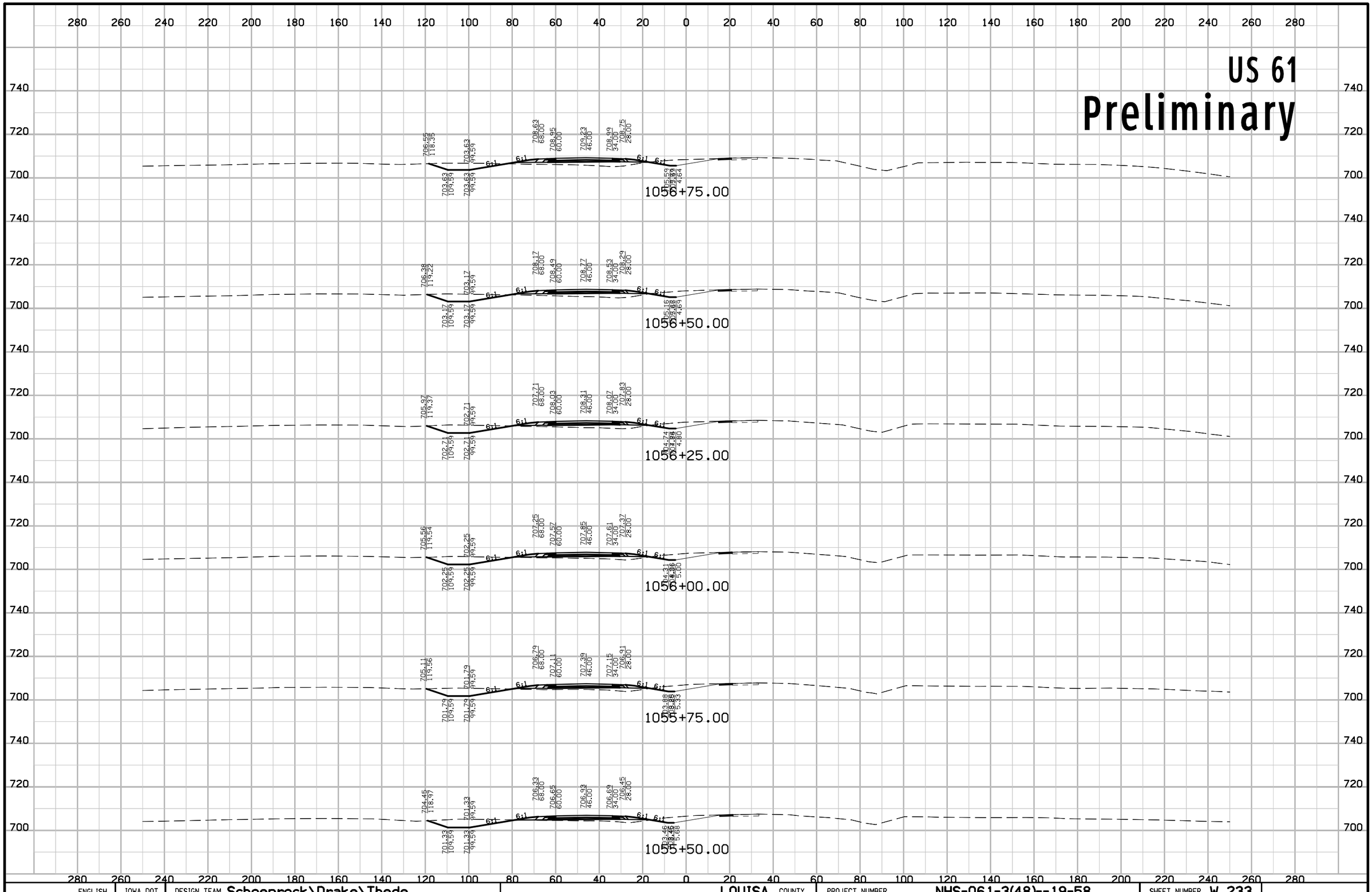
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.233

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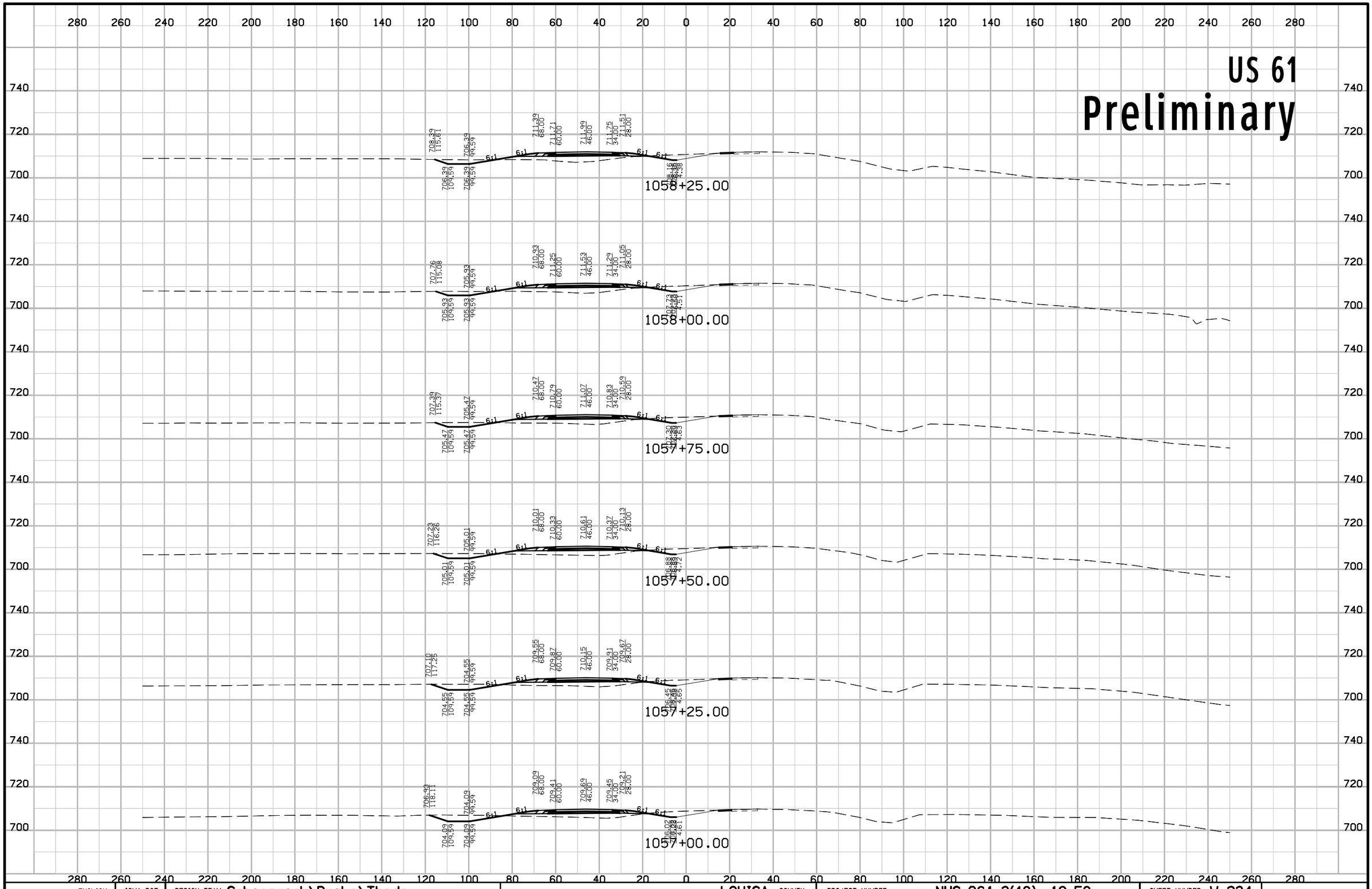
US 61

Preliminary



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US 61

Preliminary

1059+25.00

1059+20.66

1059+00.00

1058+75.00

1058+70.00

1058+50.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.235

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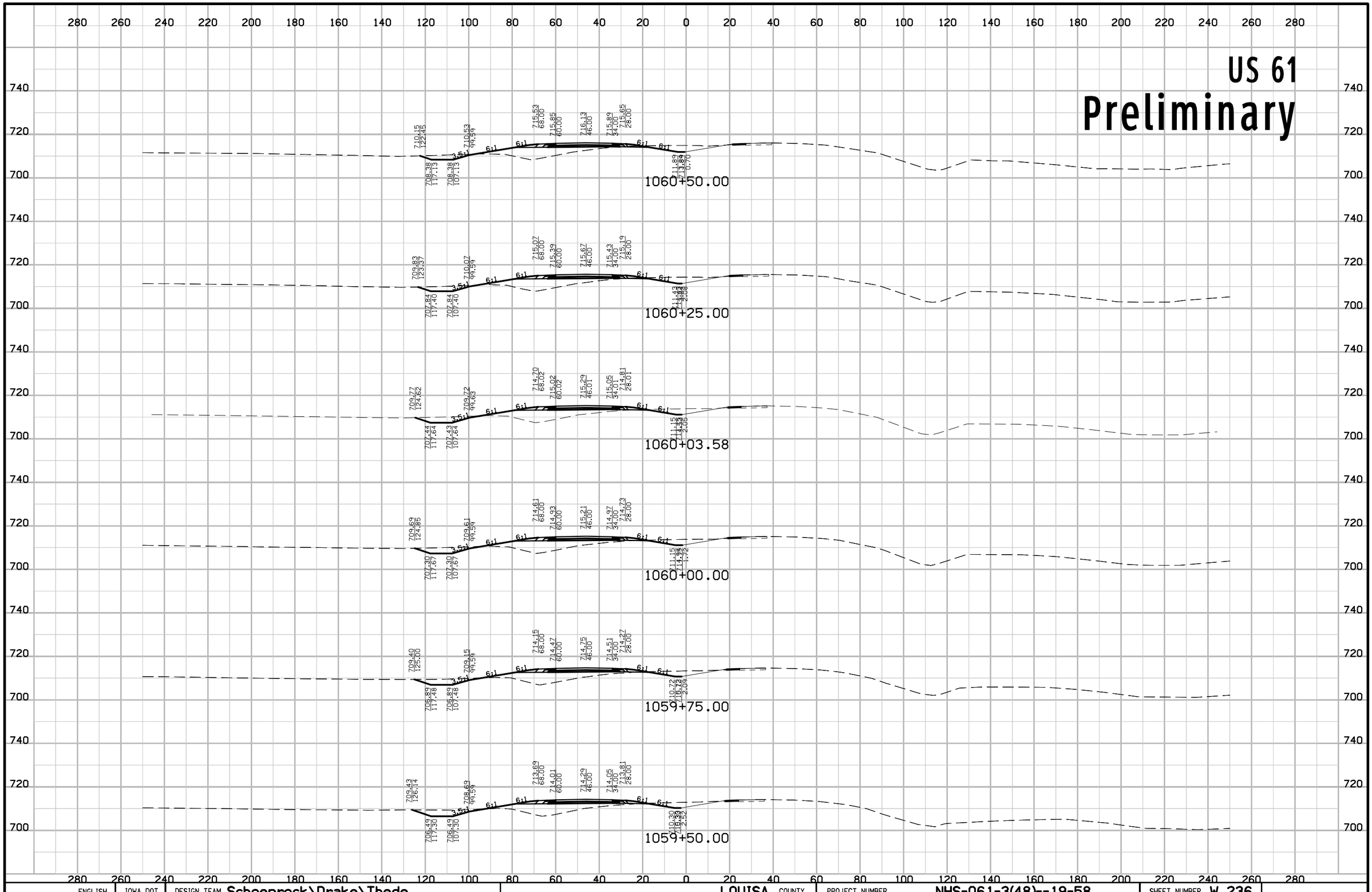
US 61

Preliminary



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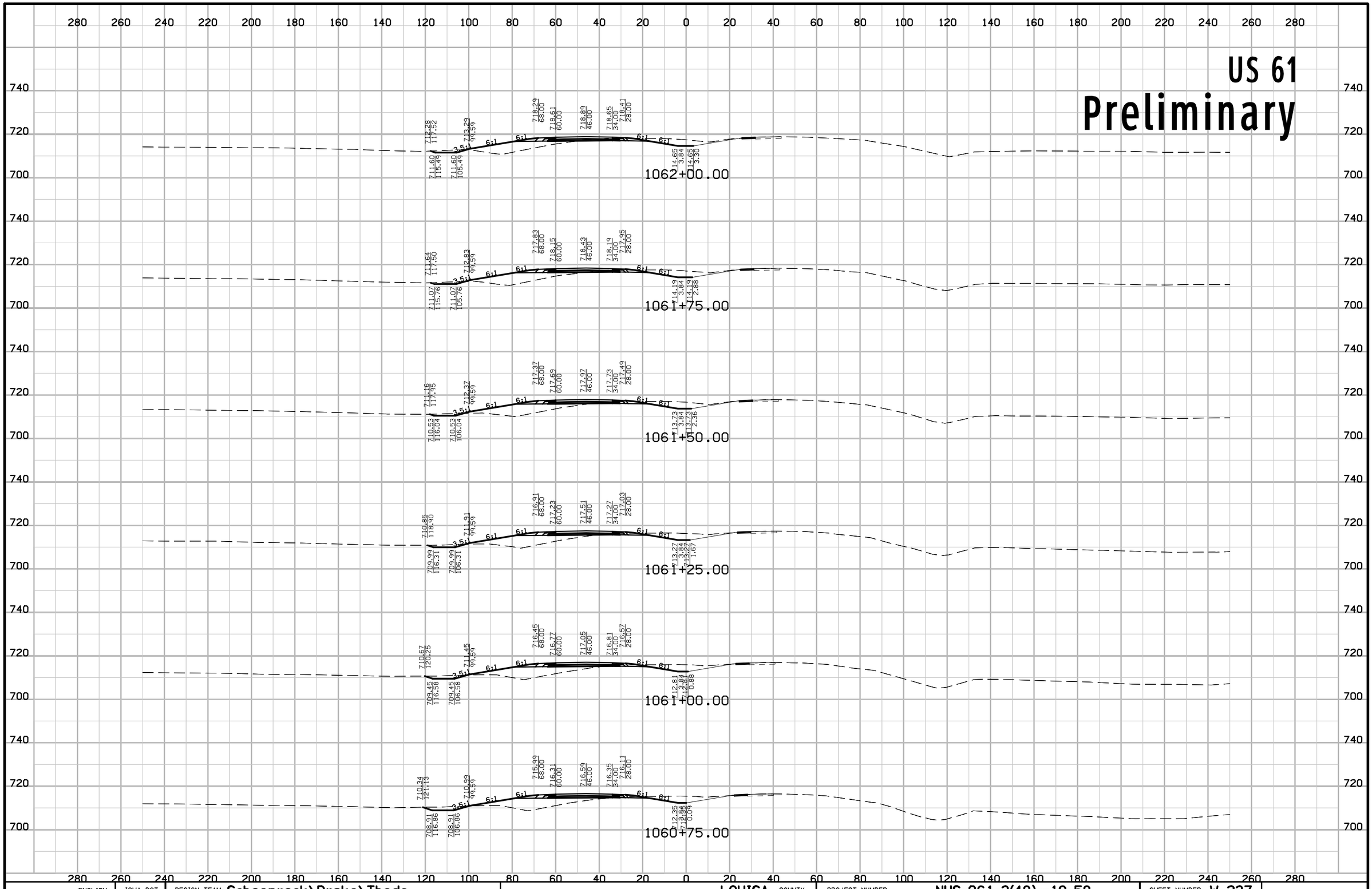
US 61

Preliminary



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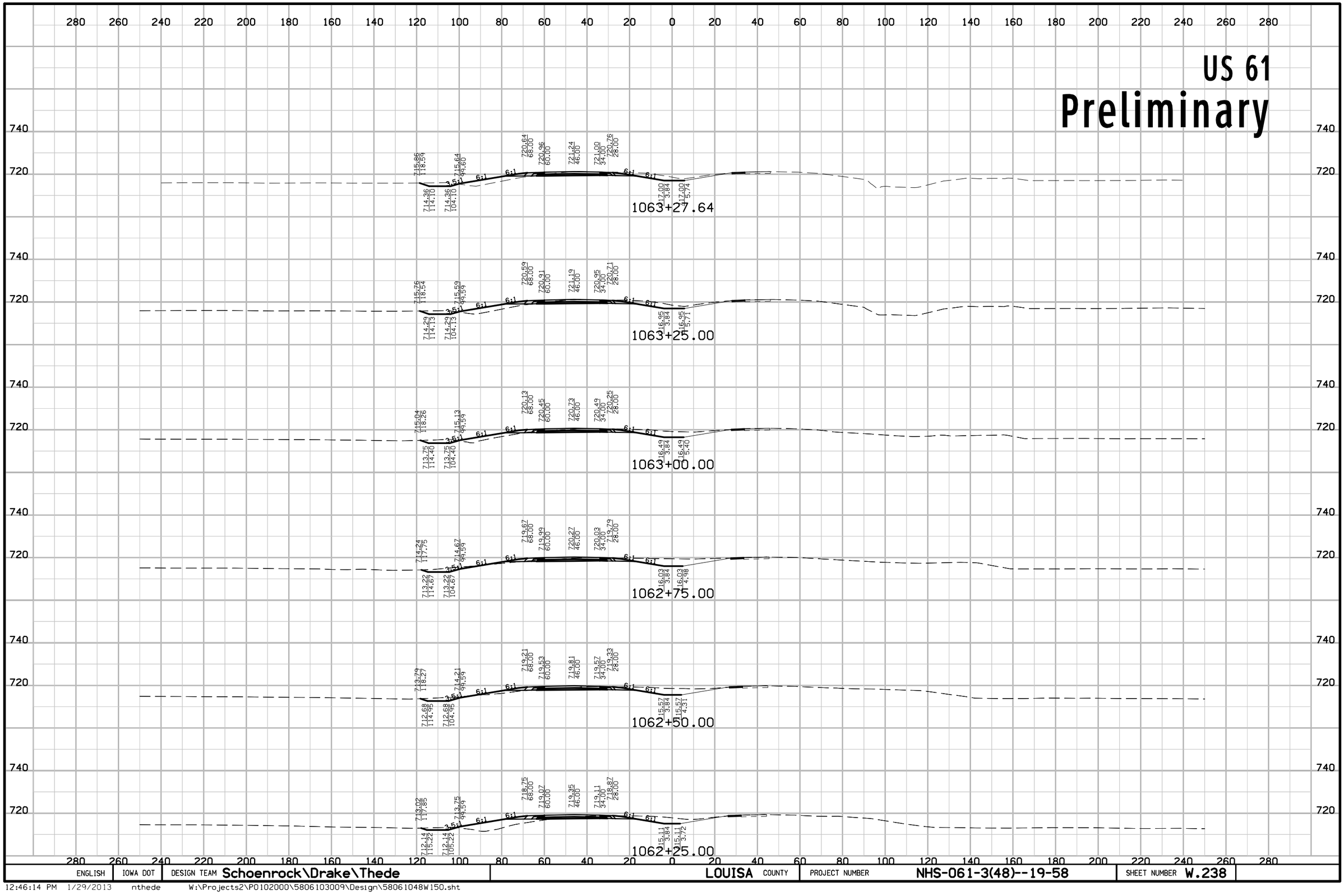
US 61

Preliminary



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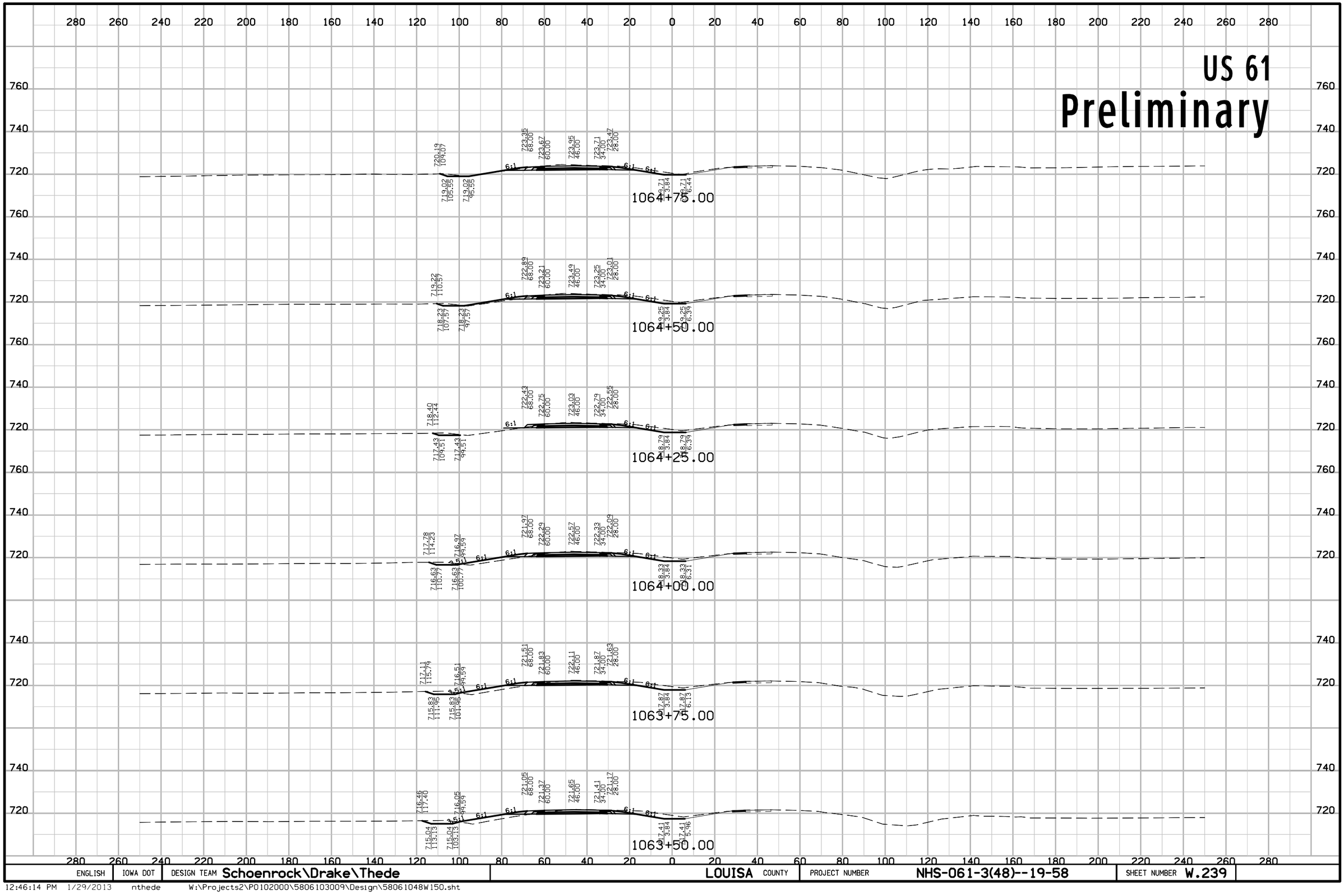
US 61
Preliminary



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US 61

Preliminary

1066+25.00

1066+00.00

1065+75.00

1065+50.00

1065+25.00

1065+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.240

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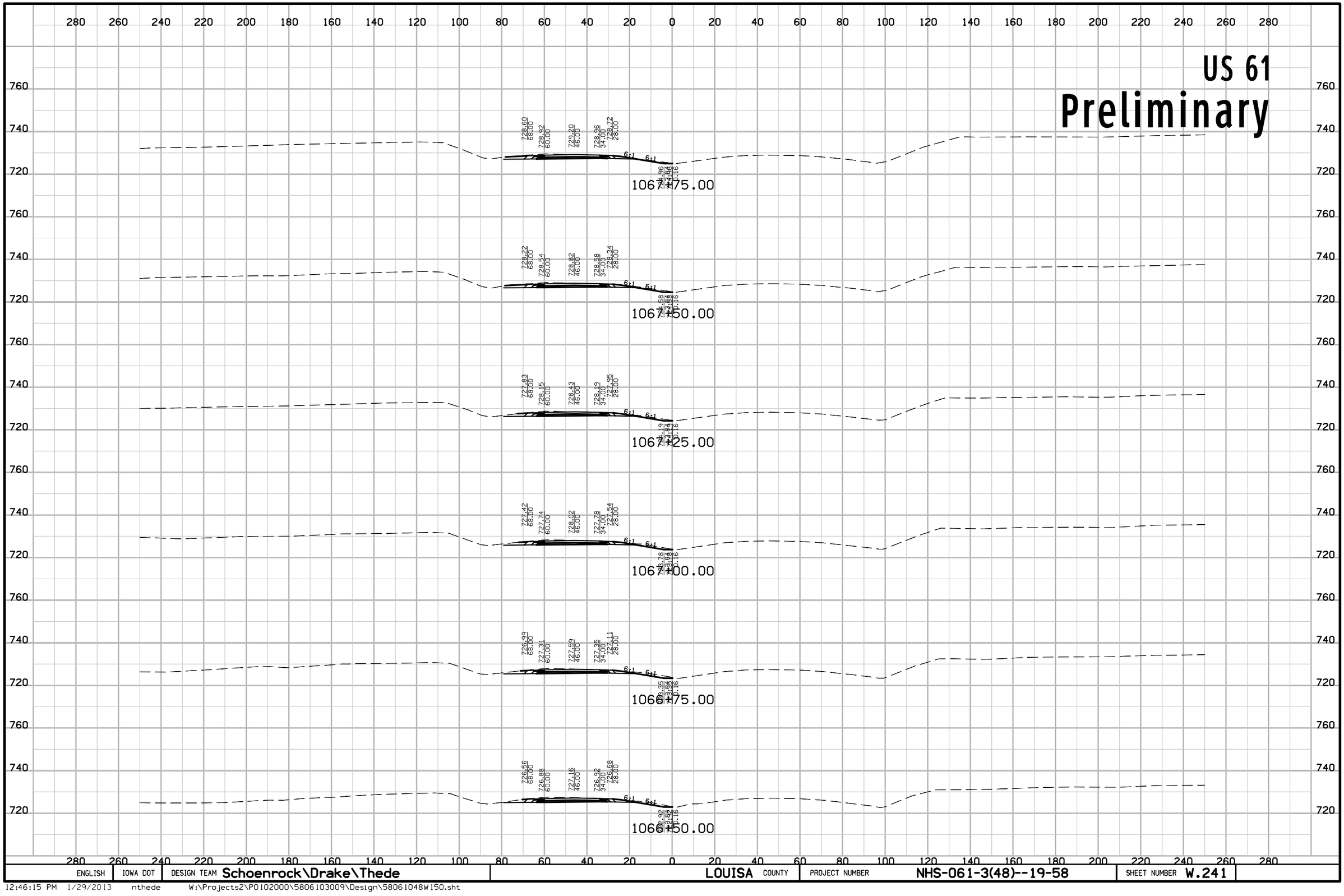
US 61

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.241

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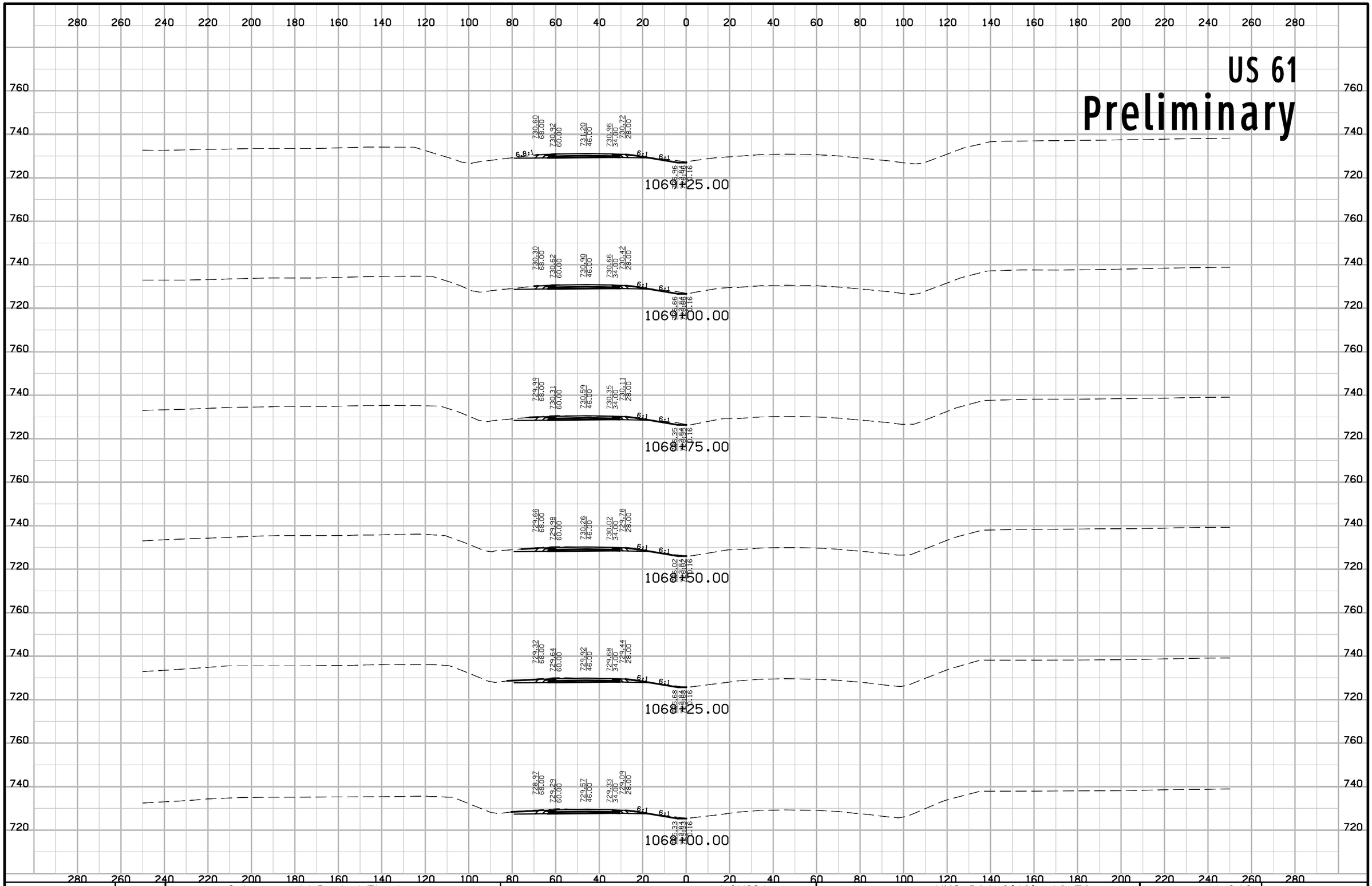
US 61

Preliminary



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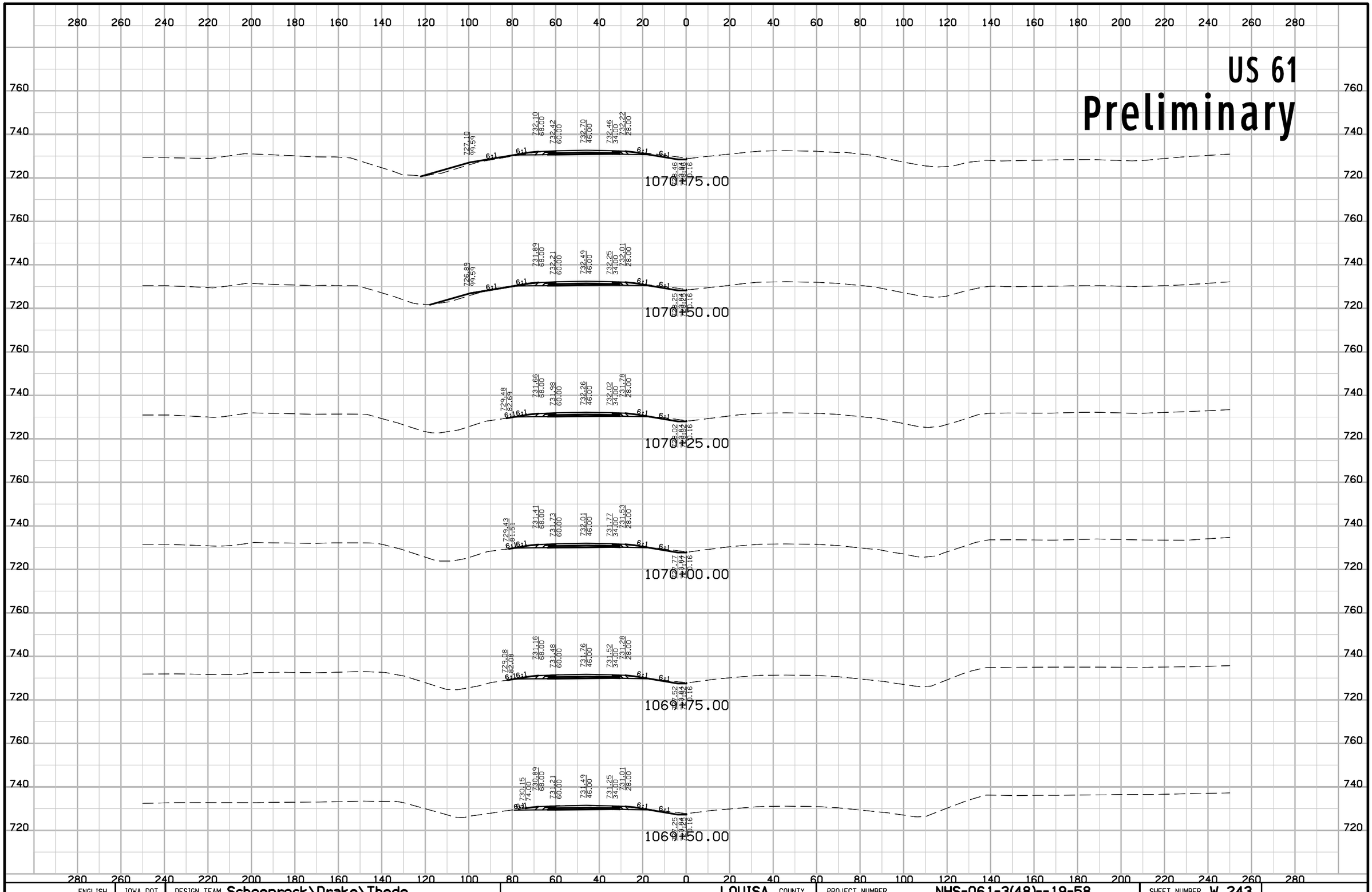
US 61

Preliminary



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US 61

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

740

1072+50.00

740

1072+25.00

740

1072+00.00

740

720

1071+75.00

740

720

1071+50.00

740

720

1071+25.00

760

740

720

727.30
99.59
6:1
6:1
732.30
68.00
732.62
60.00
732.90
46.00
732.66
34.00
732.42
28.00
6:1
6:1
729.66
728.84
729.16

1071+00.00

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 Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER W.244

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IA 92
Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

690
680
670
660

Existing ROW

Existing ROW

498+00.00

497+75.00

497+70.00

700
690
680
670
660

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.1

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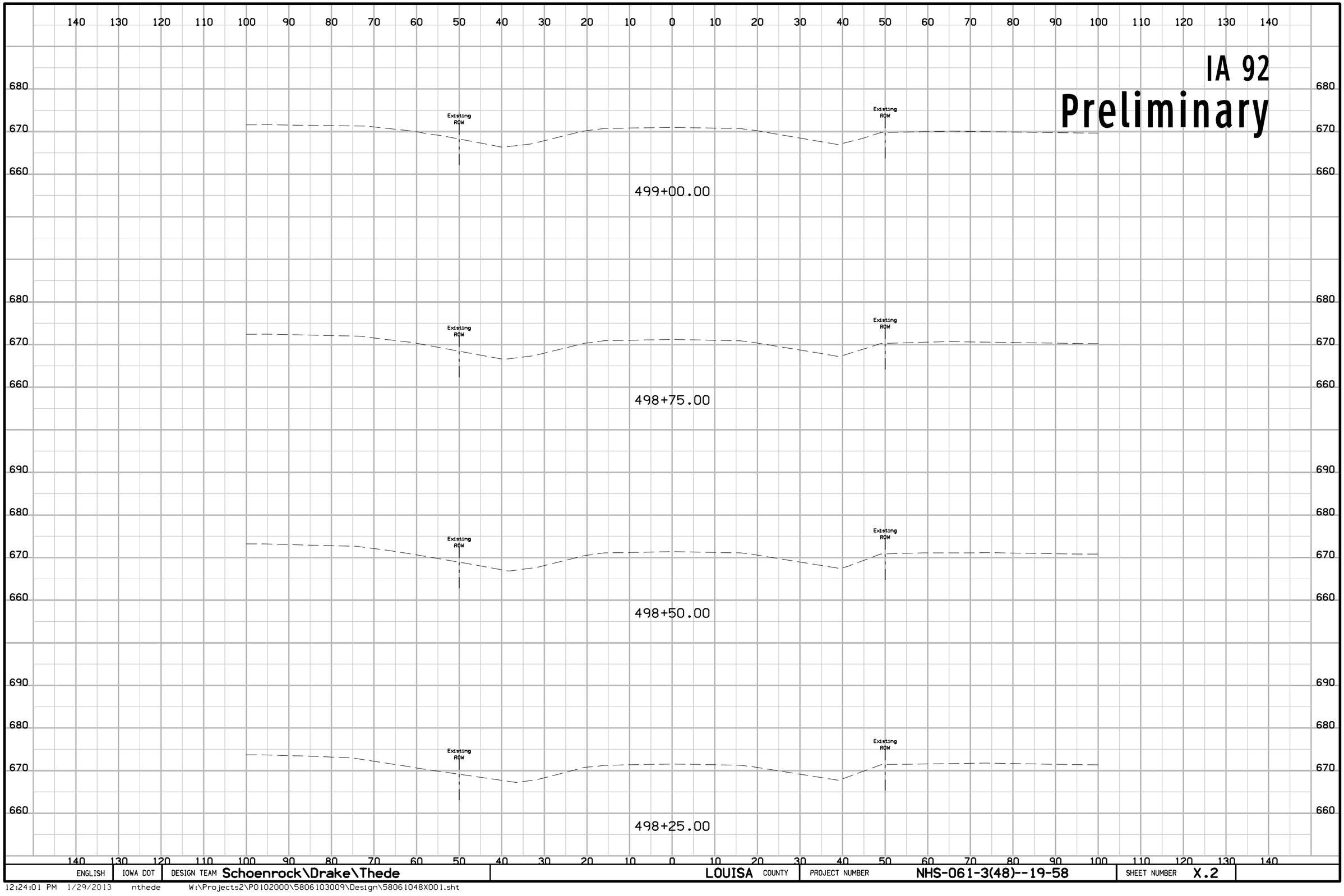
IA 92

Preliminary



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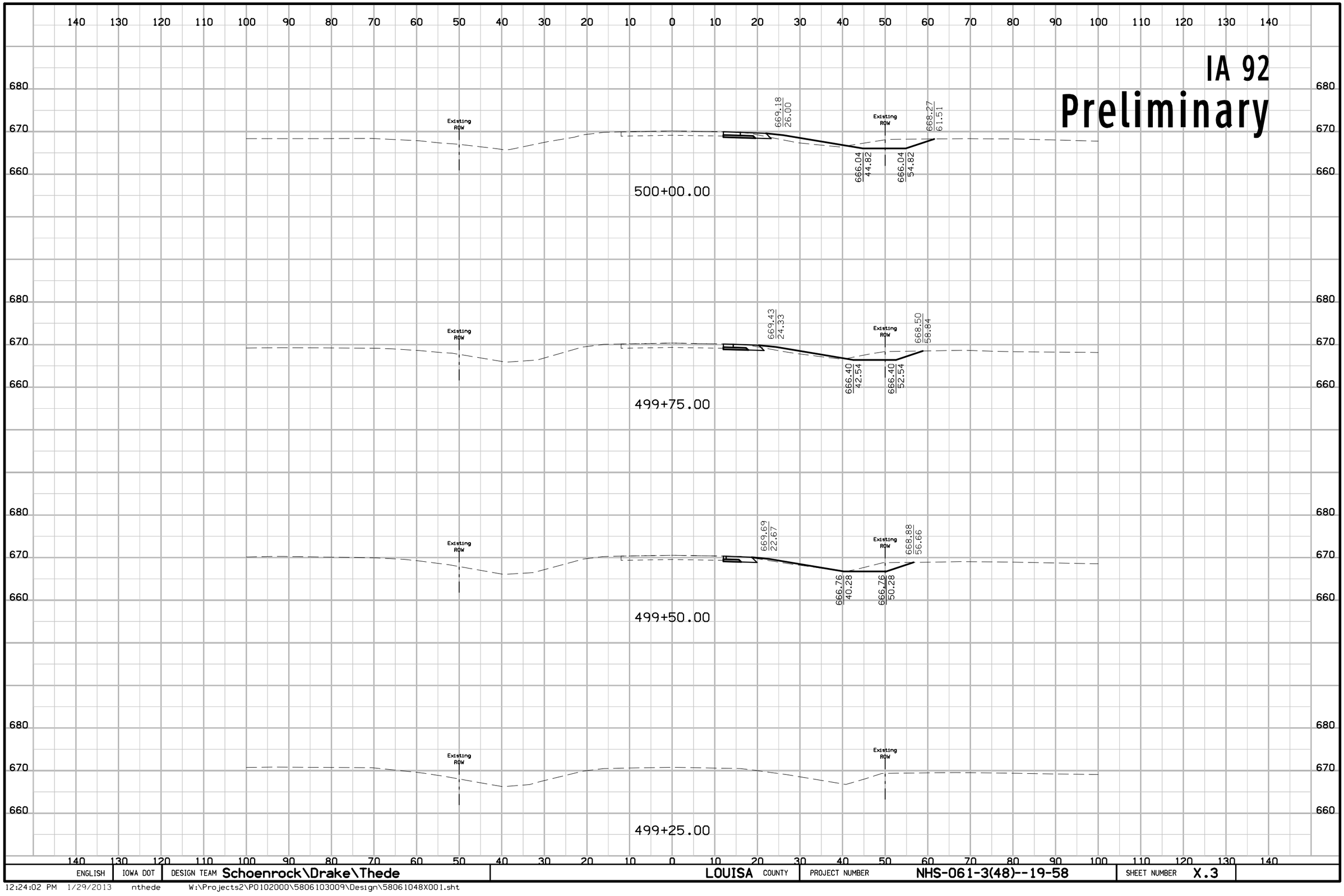
IA 92

Preliminary



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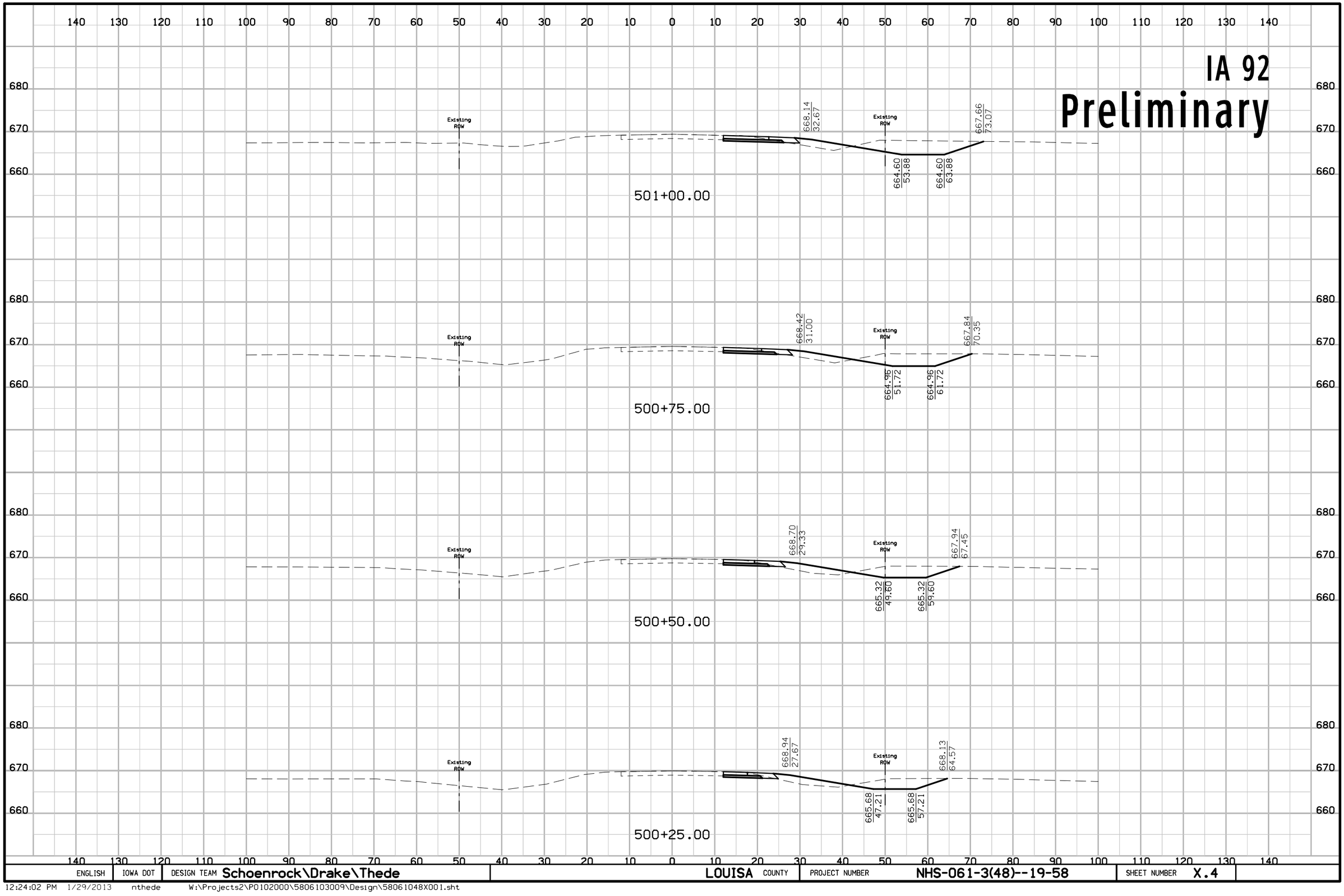
IA 92

Preliminary



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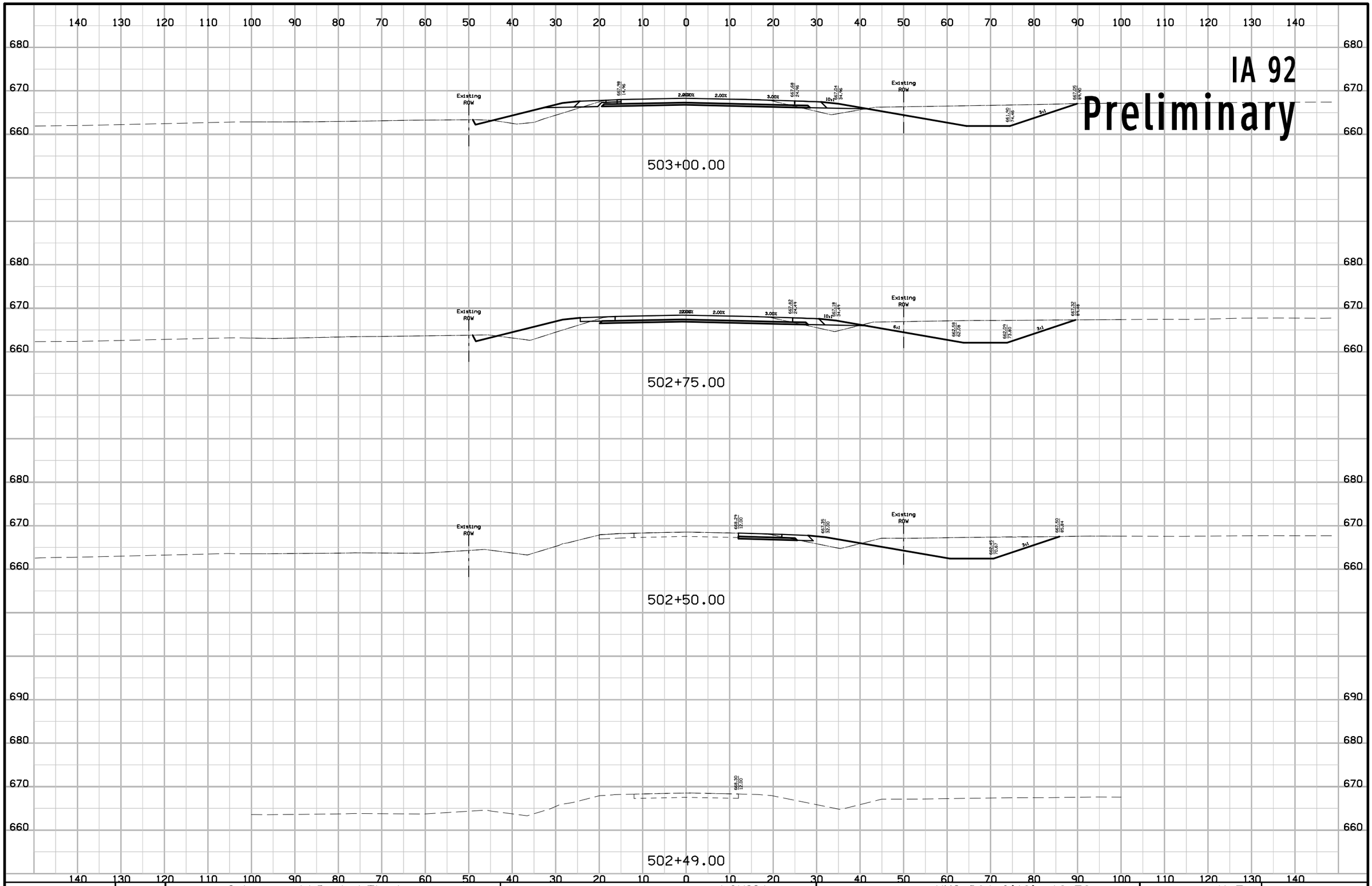
IA 92

Preliminary



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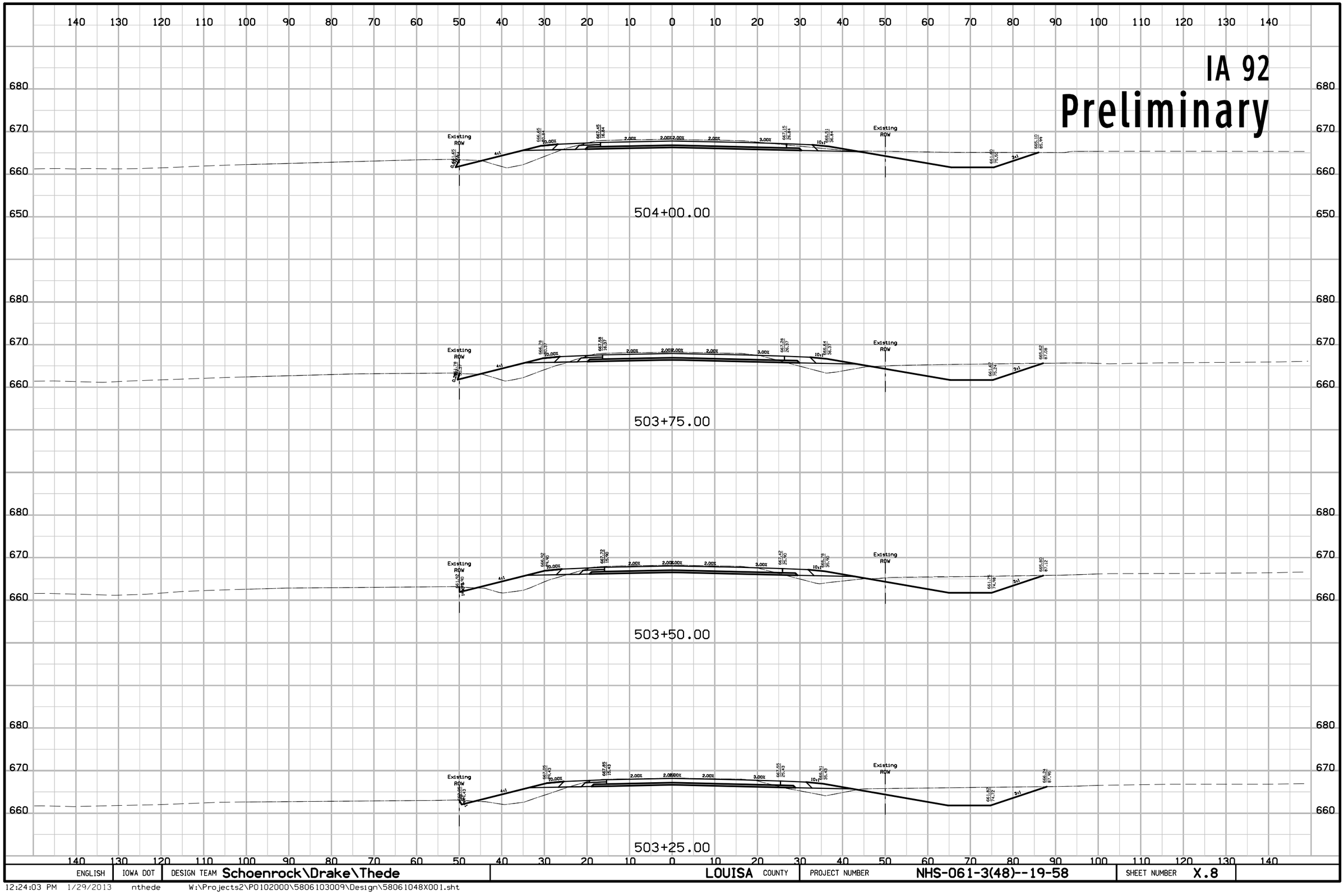
IA 92
Preliminary



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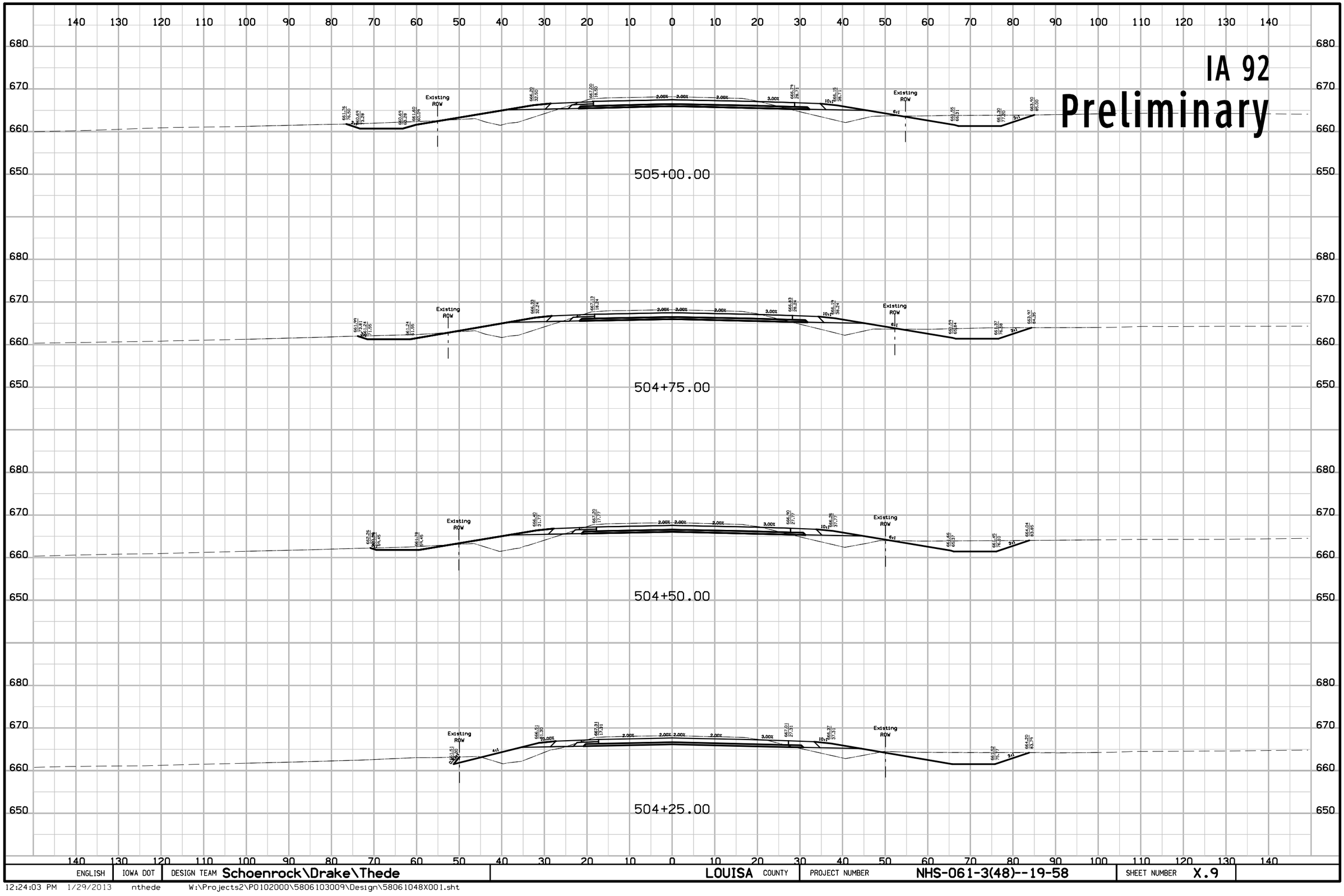
IA 92

Preliminary



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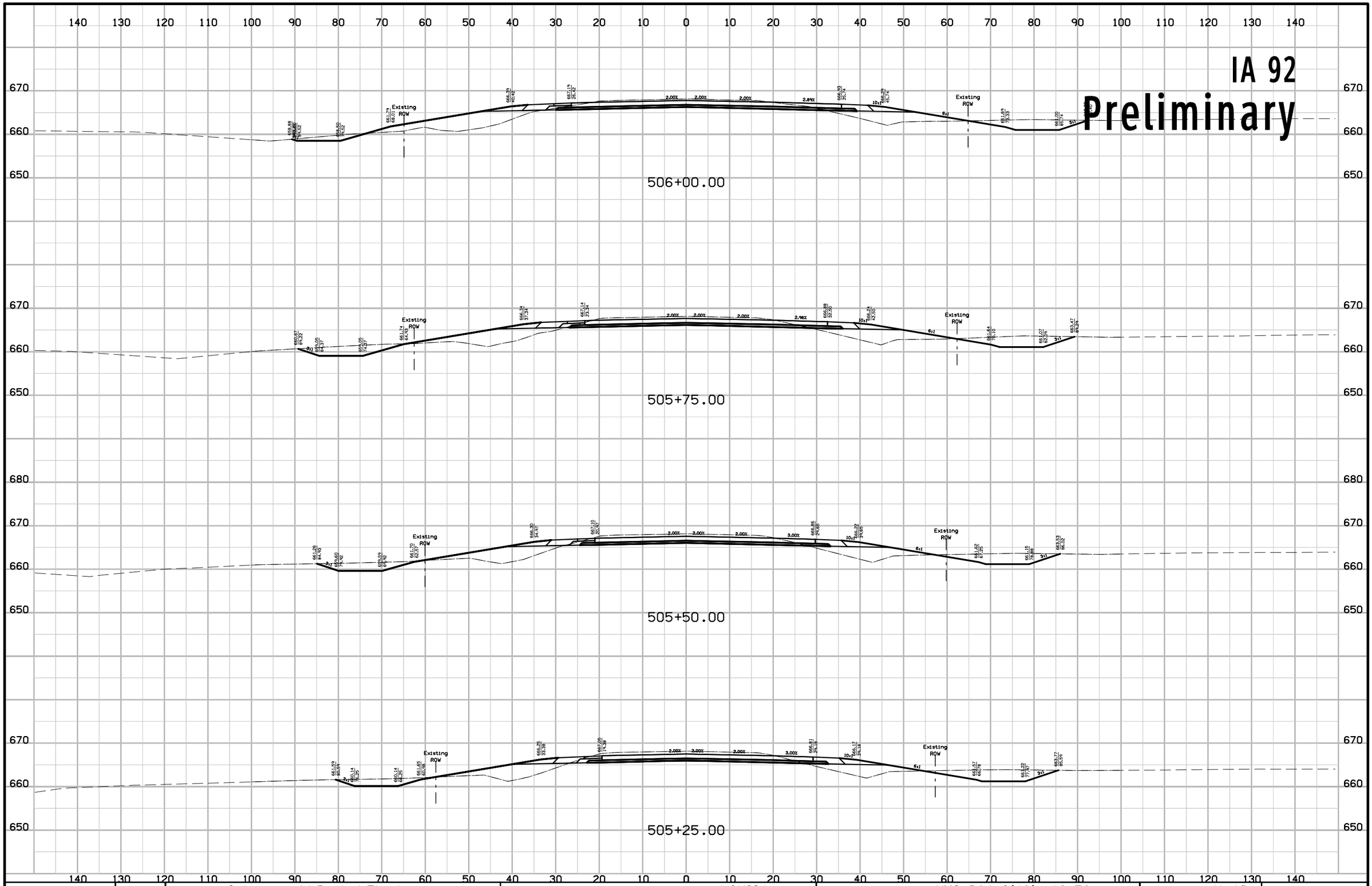
IA 92

Preliminary



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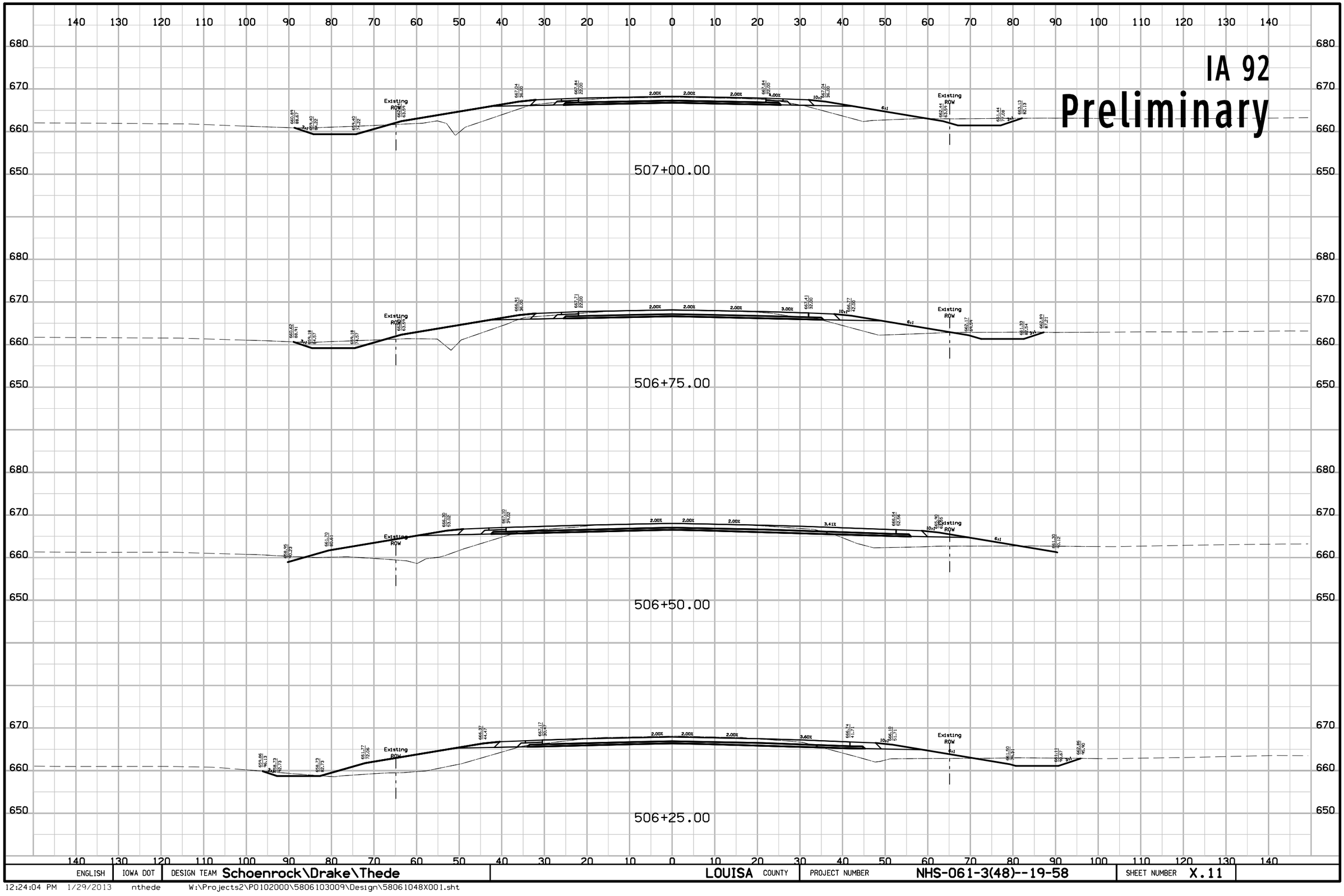
IA 92

Preliminary



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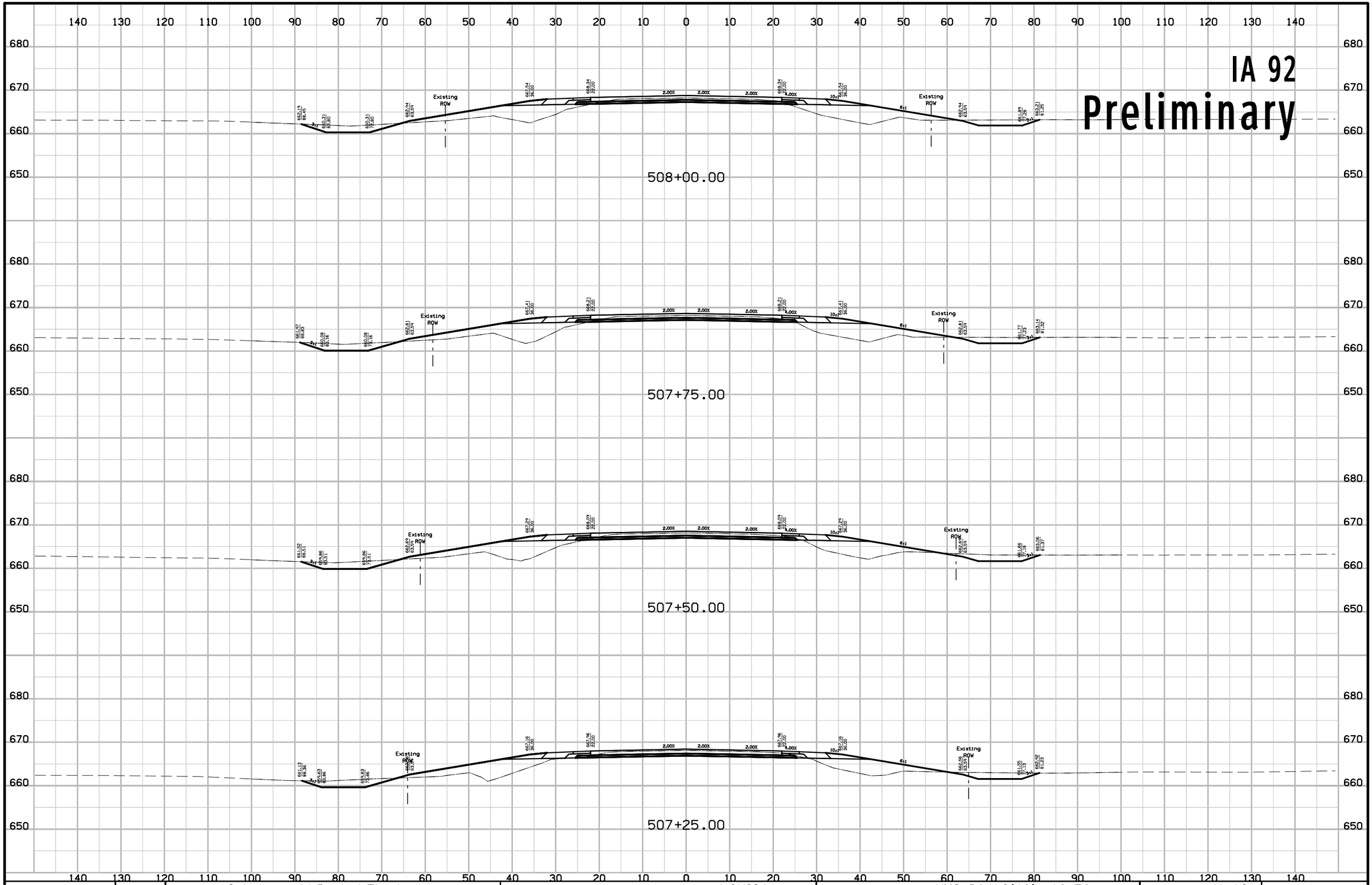
IA 92

Preliminary



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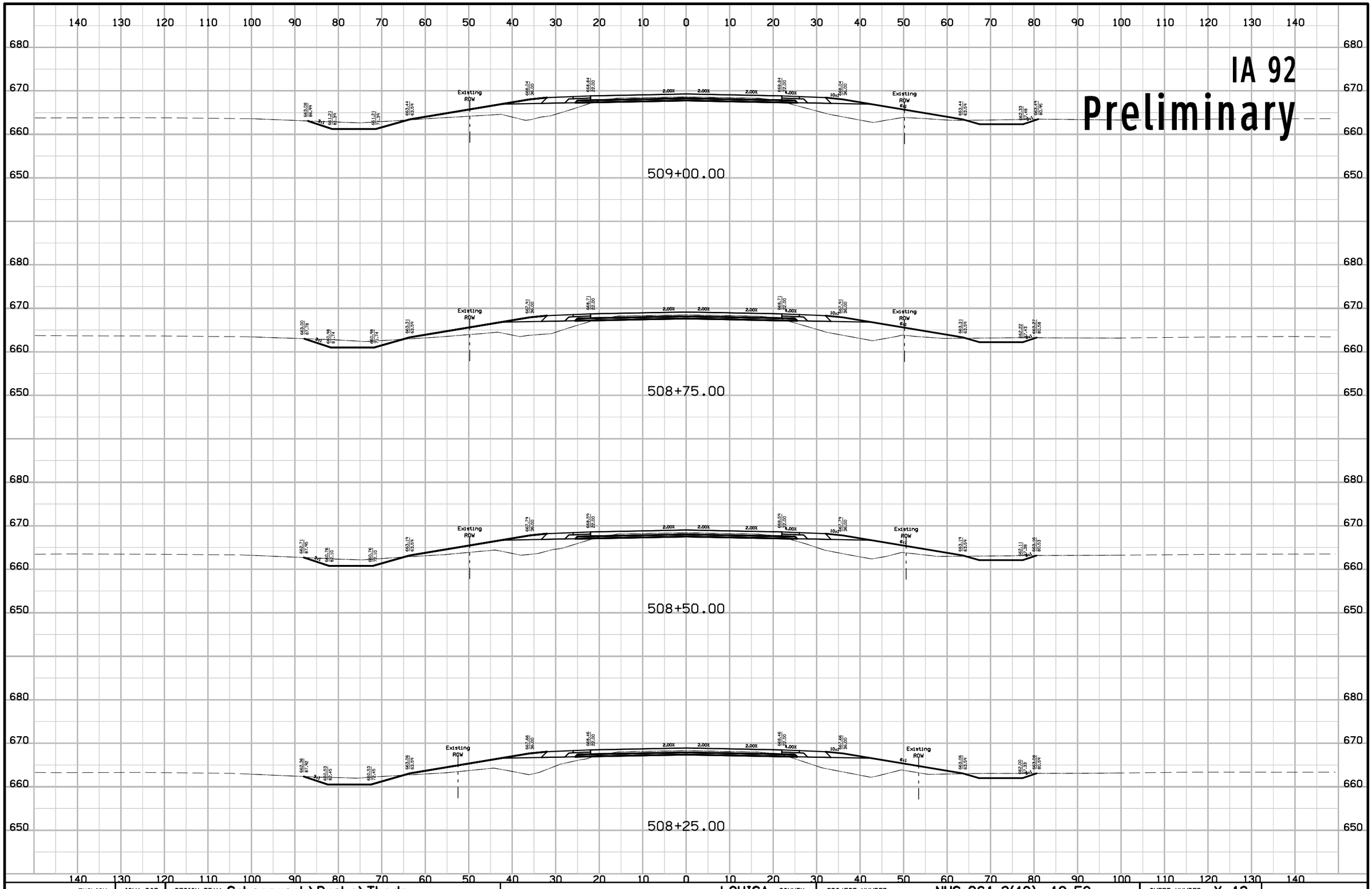
IA 92

Preliminary



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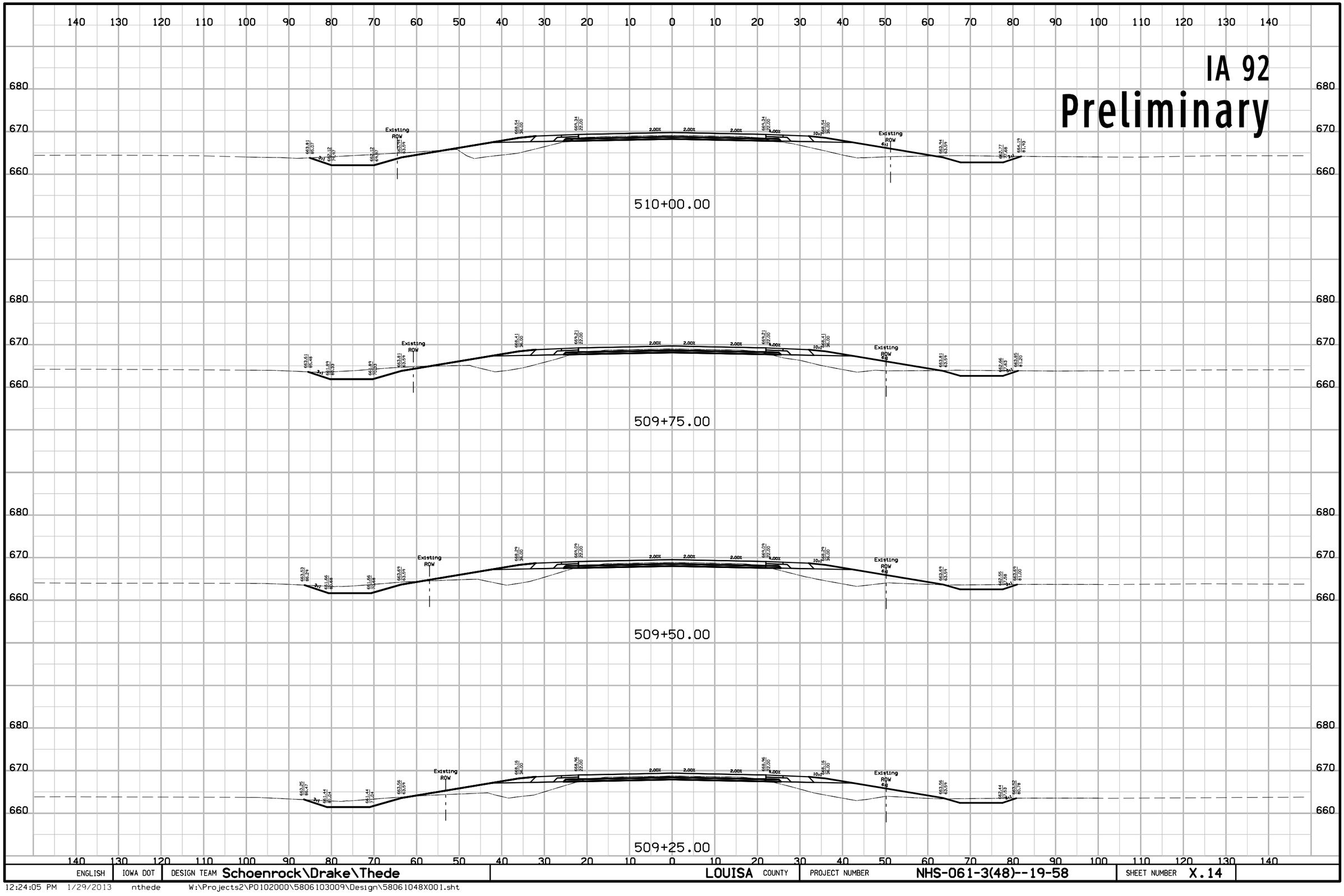
IA 92

Preliminary



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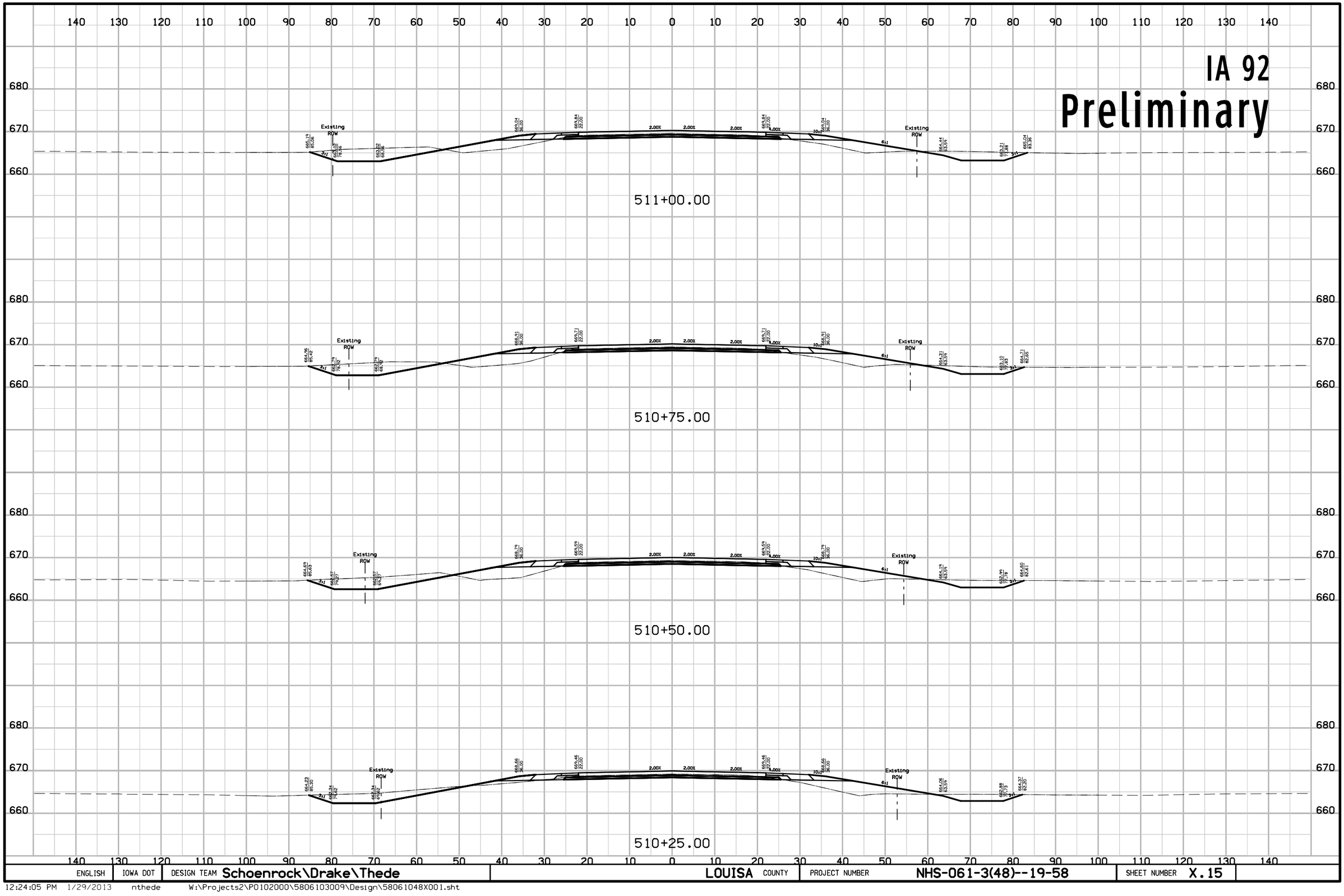
IA 92

Preliminary



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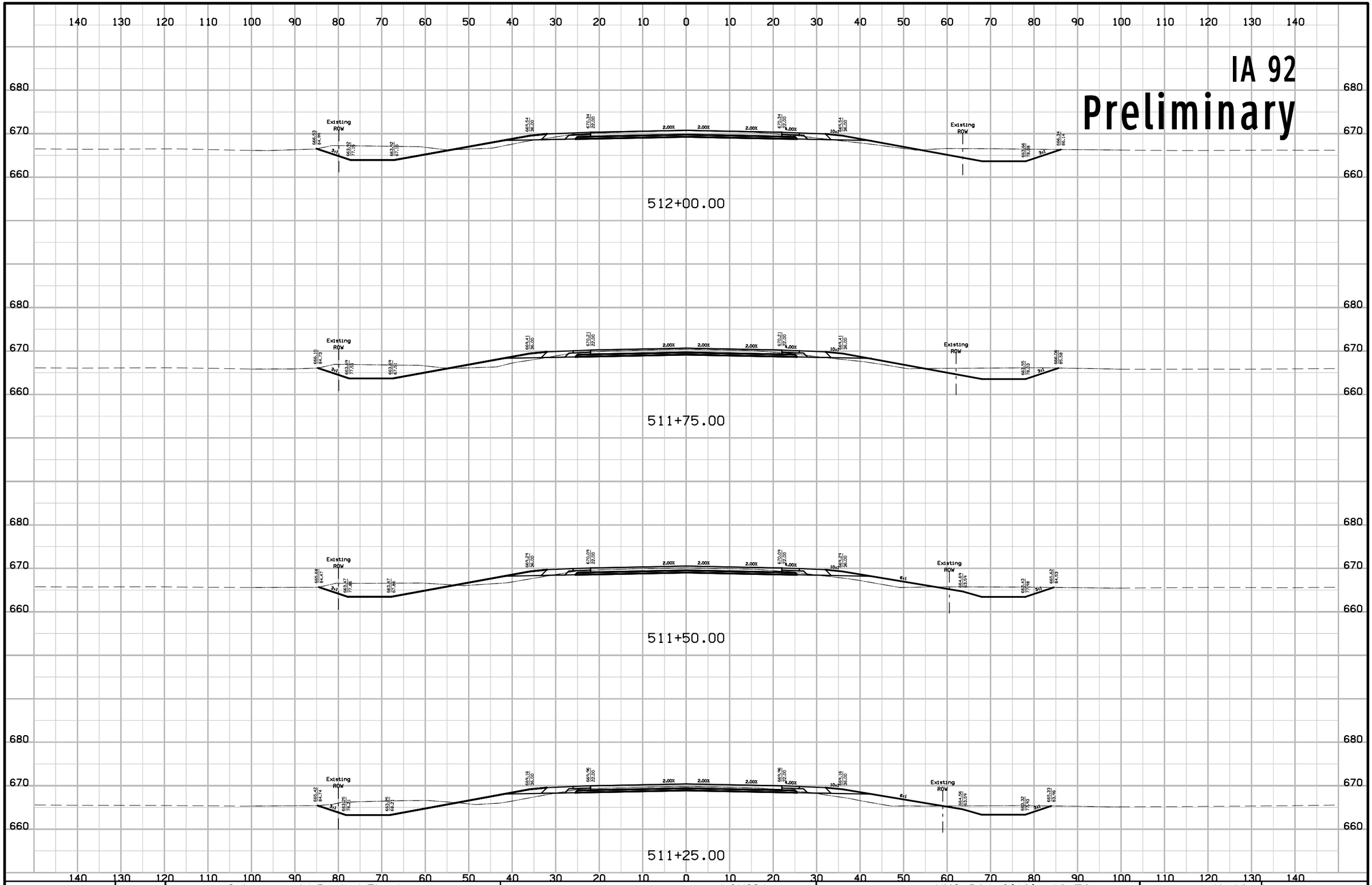
IA 92

Preliminary



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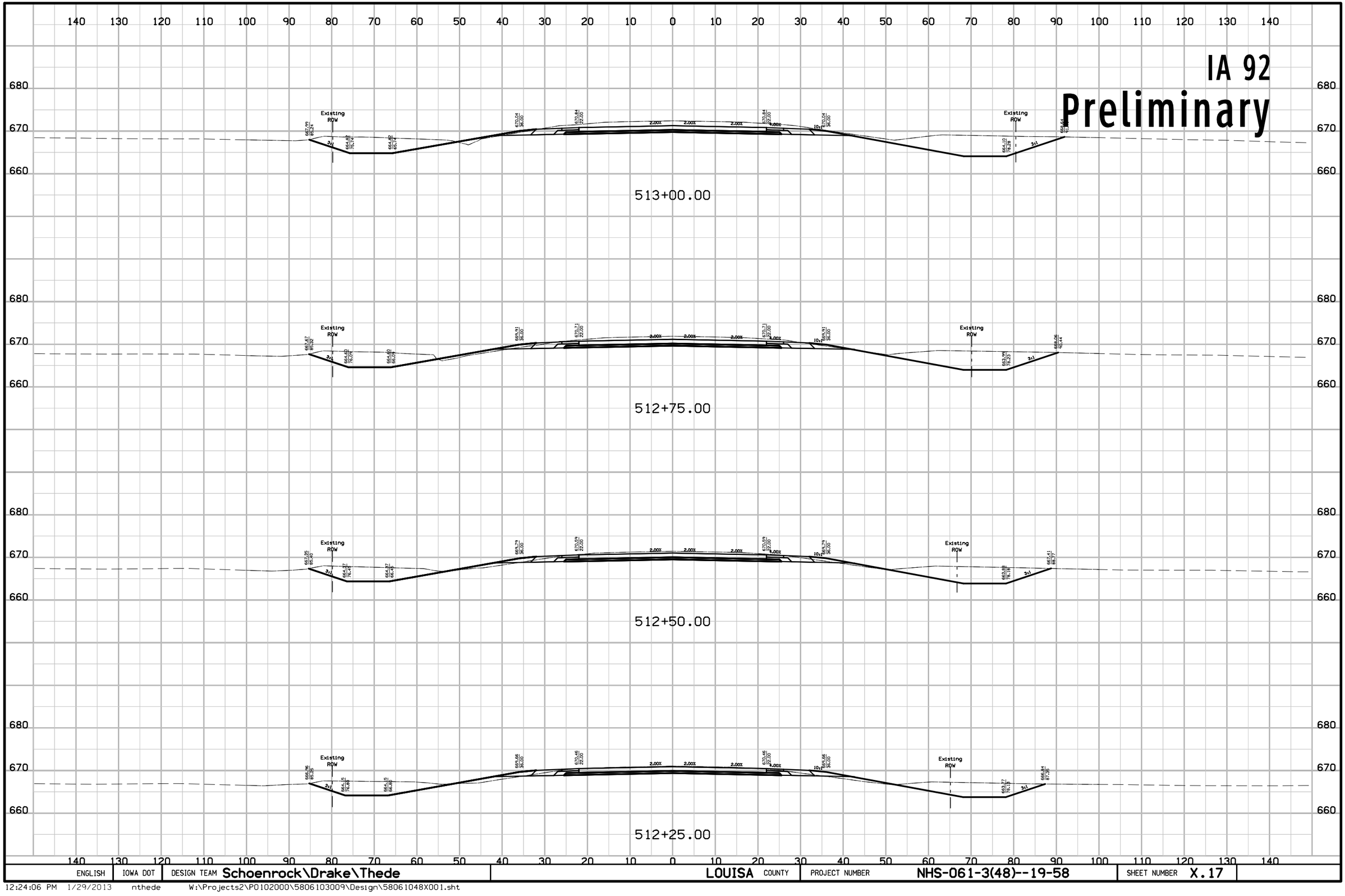
IA 92

Preliminary



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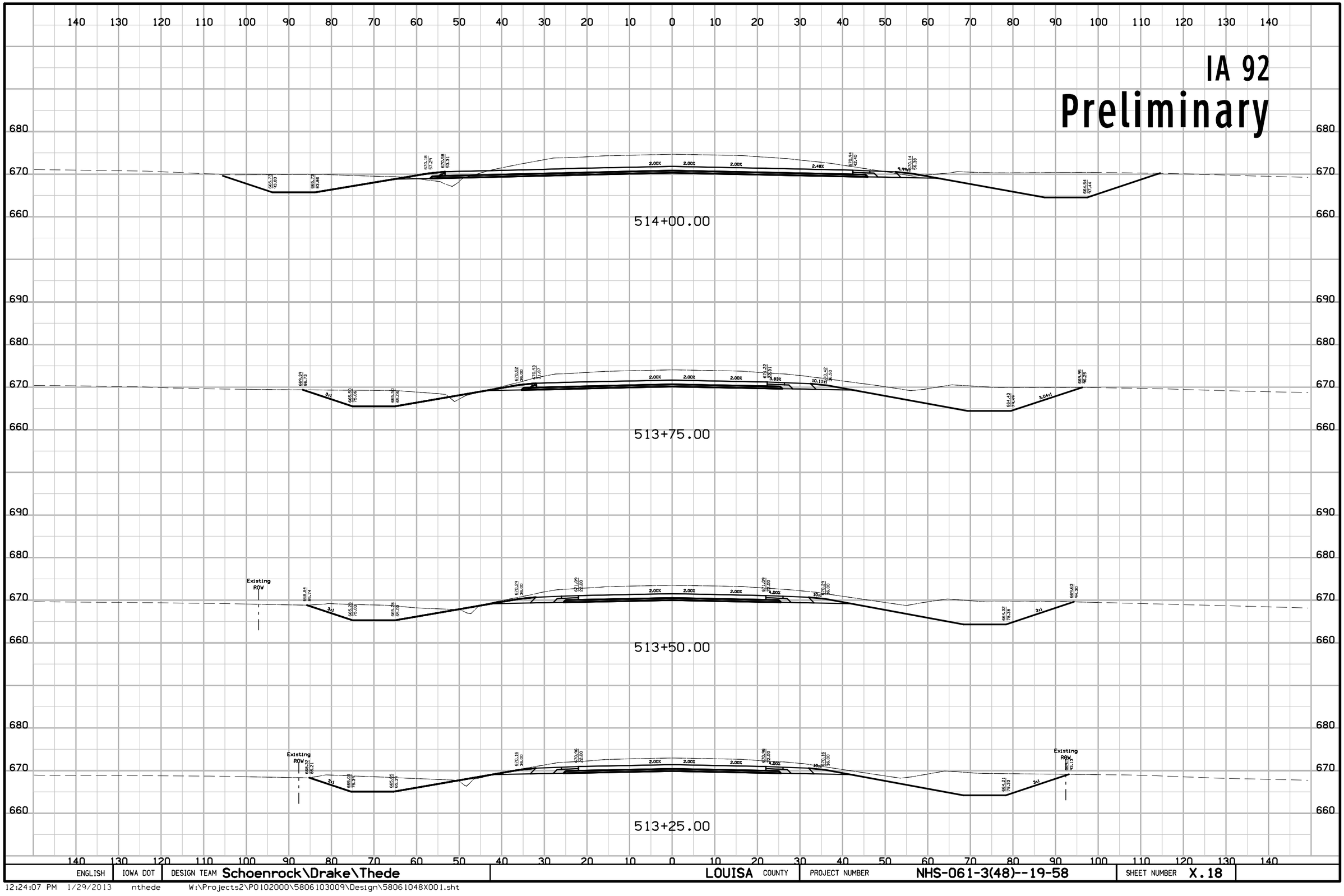
IA 92

Preliminary



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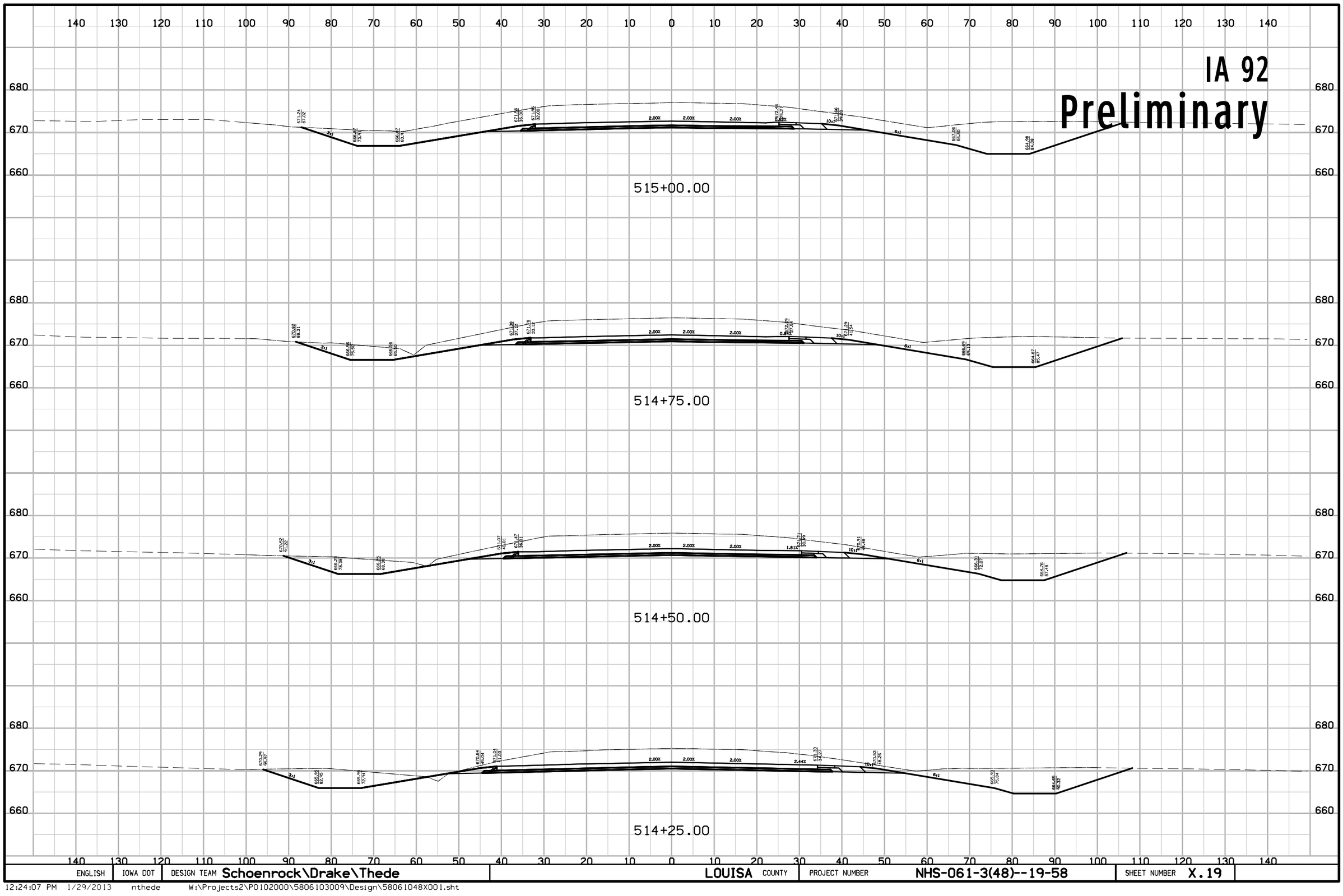
IA 92

Preliminary



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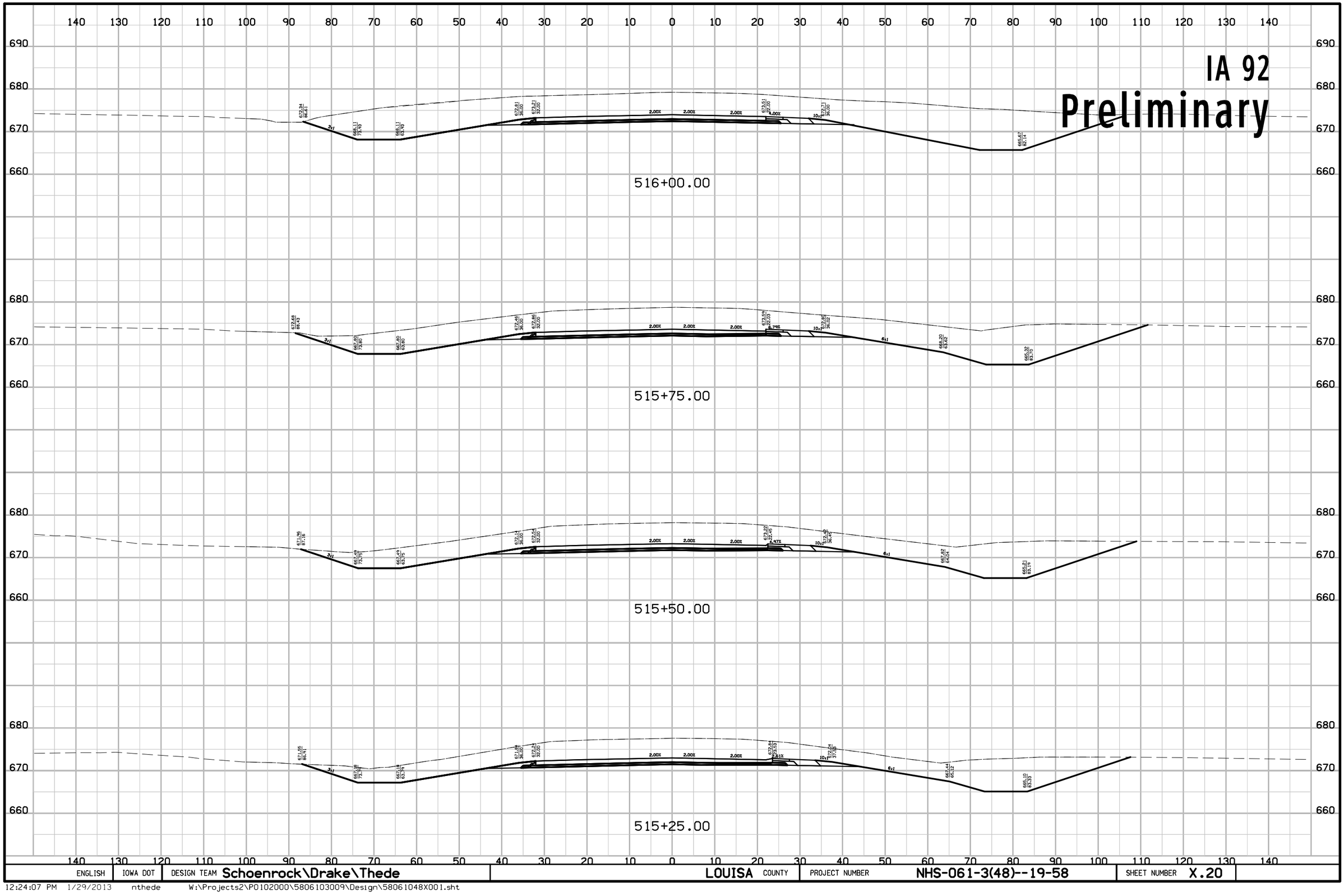
IA 92

Preliminary



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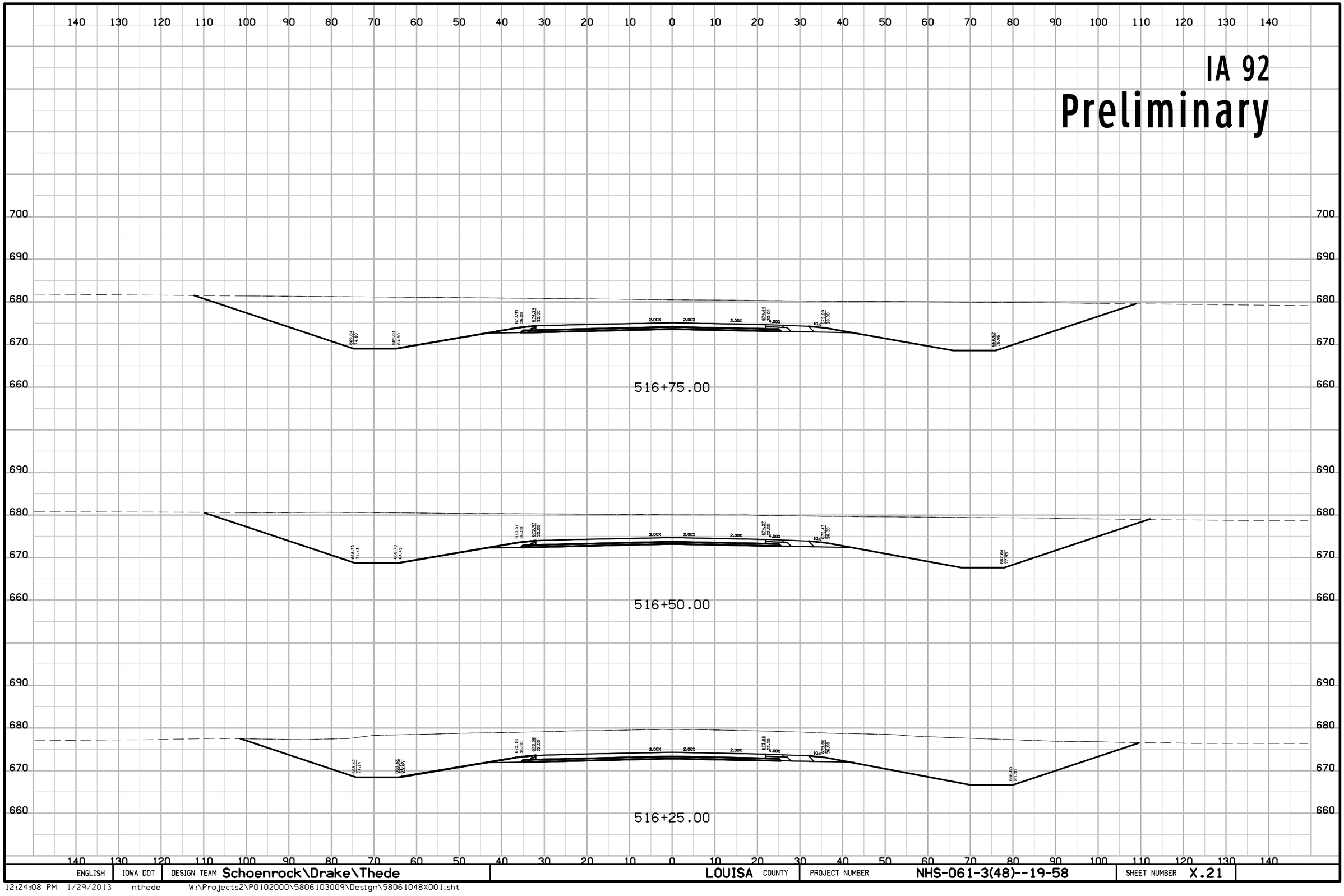
IA 92

Preliminary



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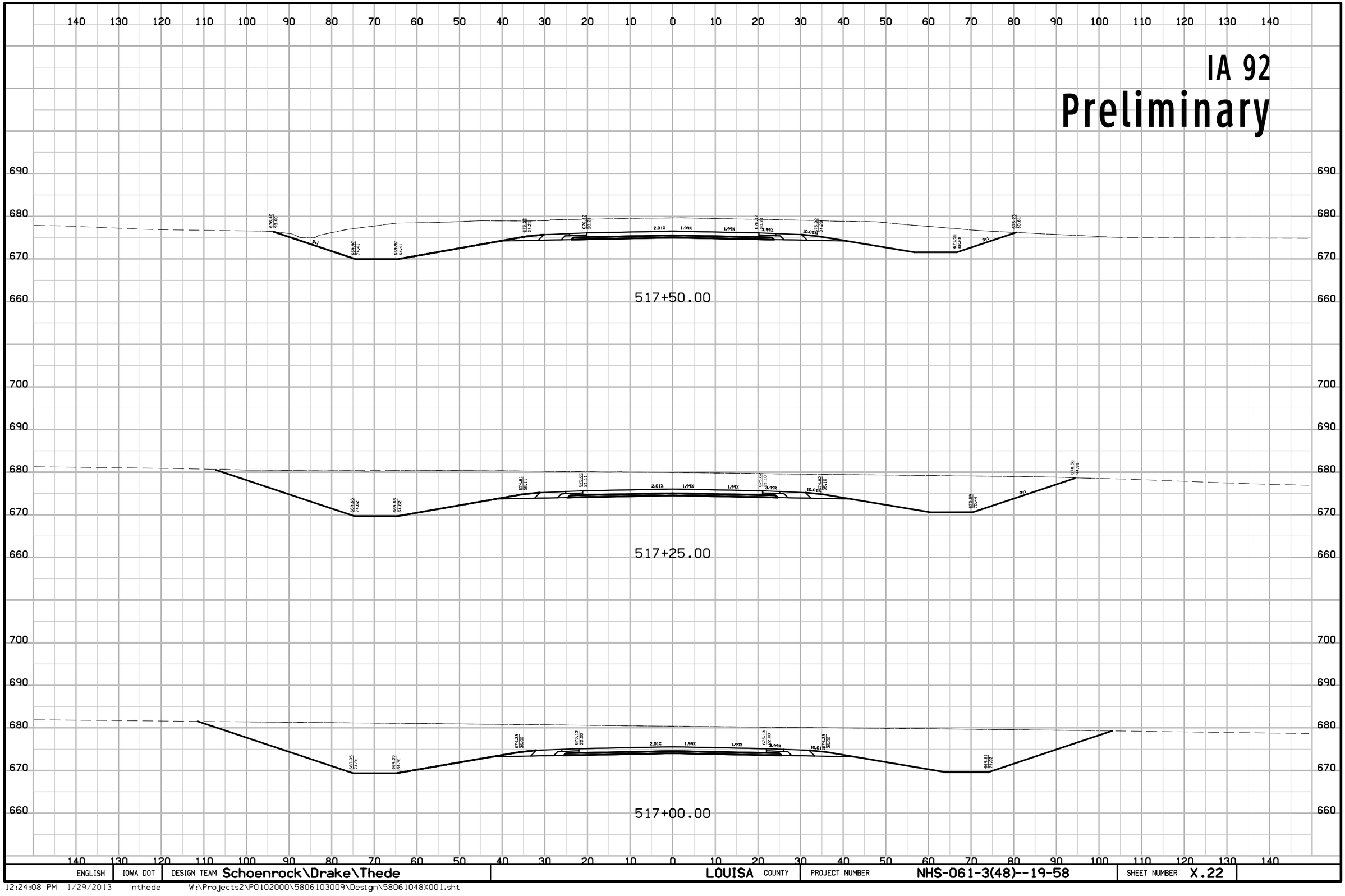
IA 92

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.22

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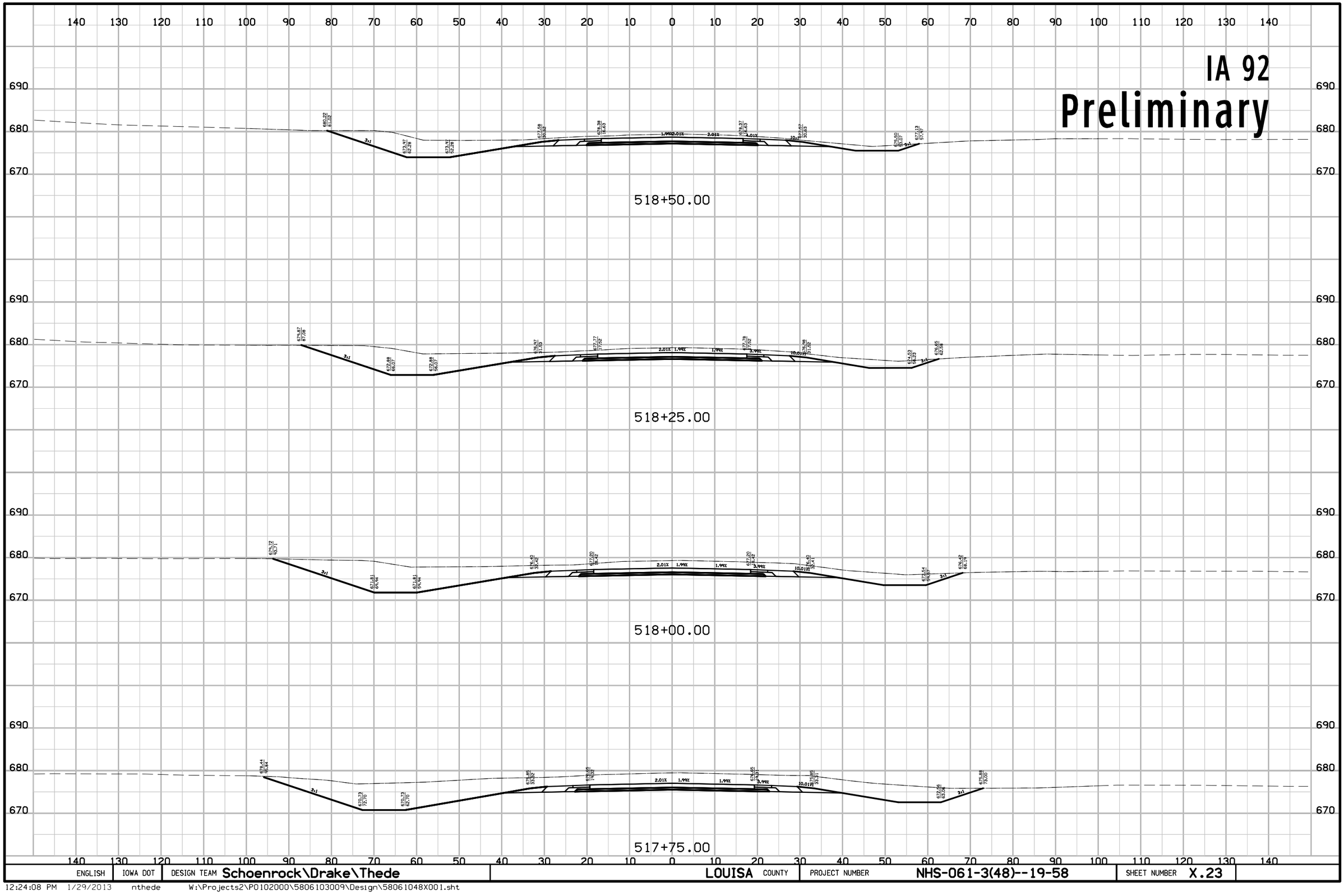
IA 92

Preliminary



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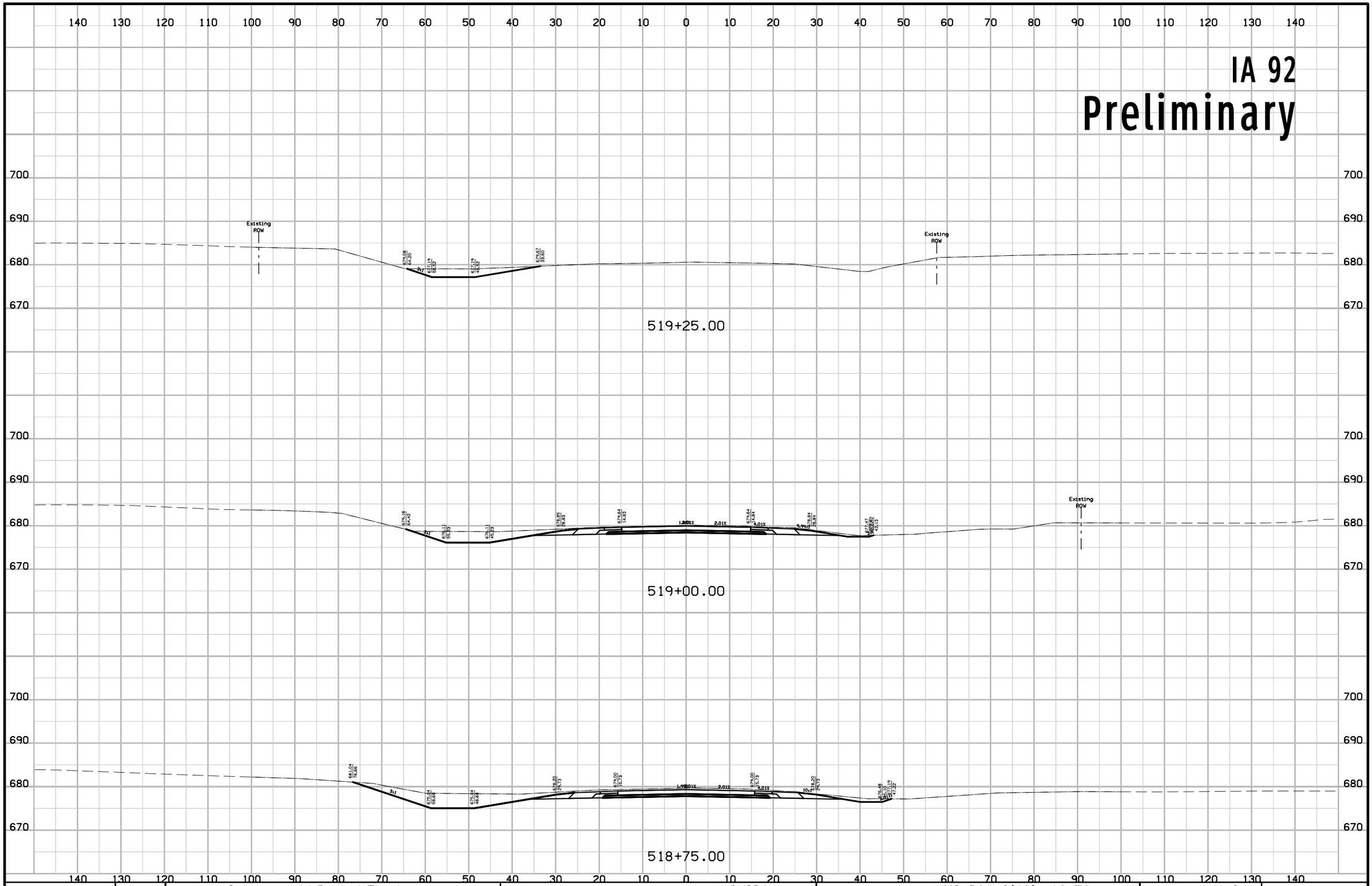
IA 92

Preliminary



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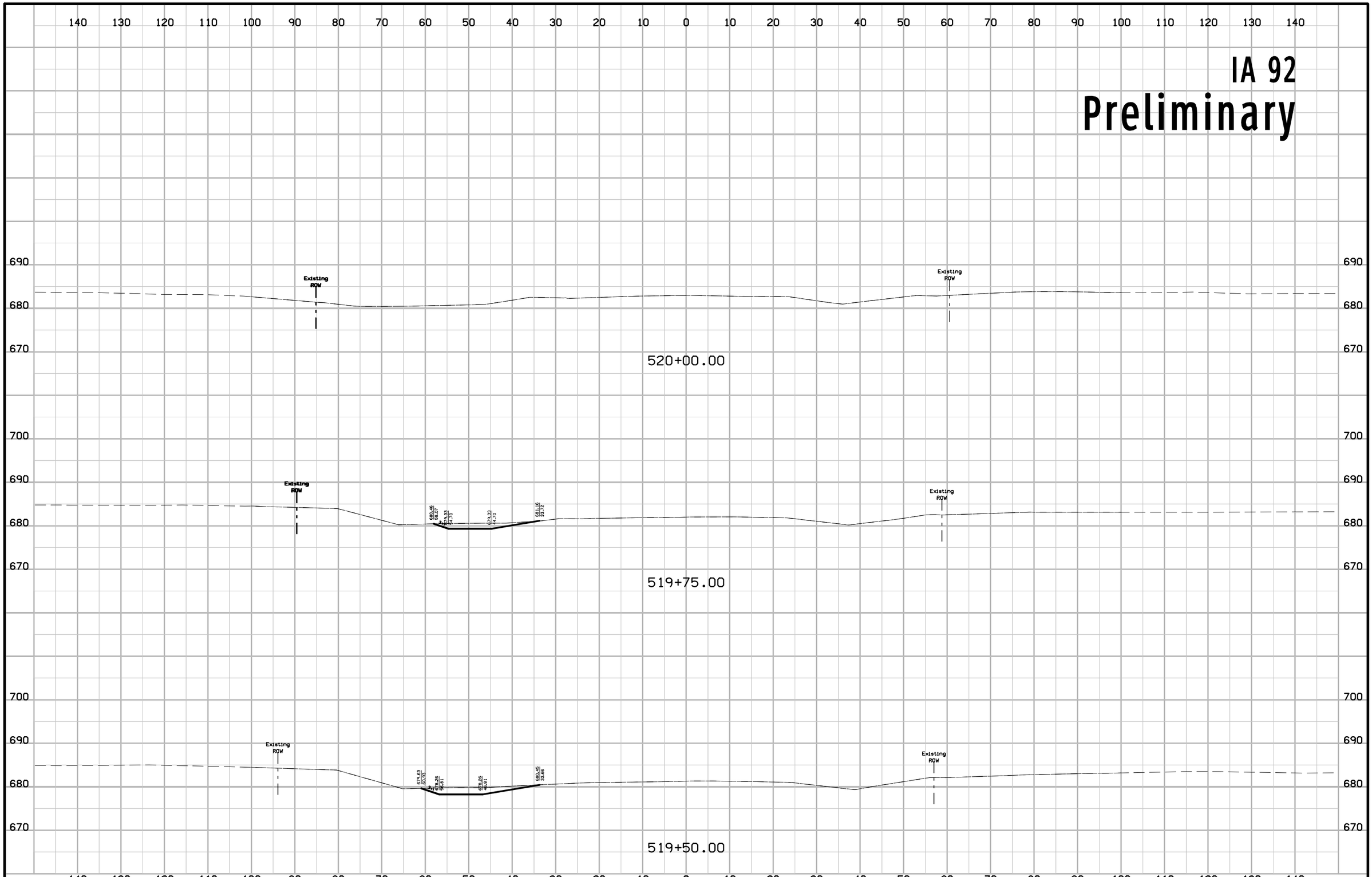

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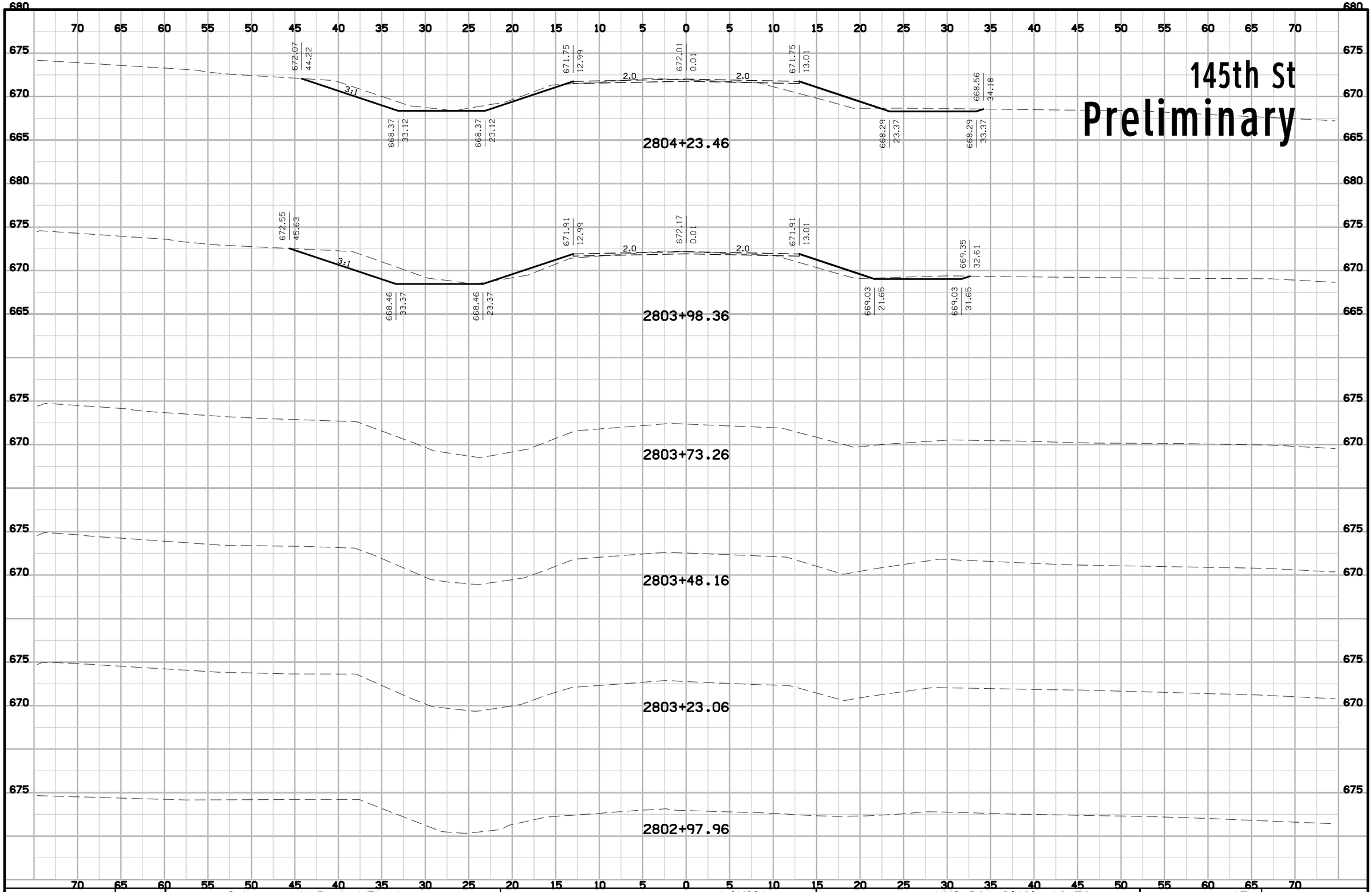
145th St

Preliminary



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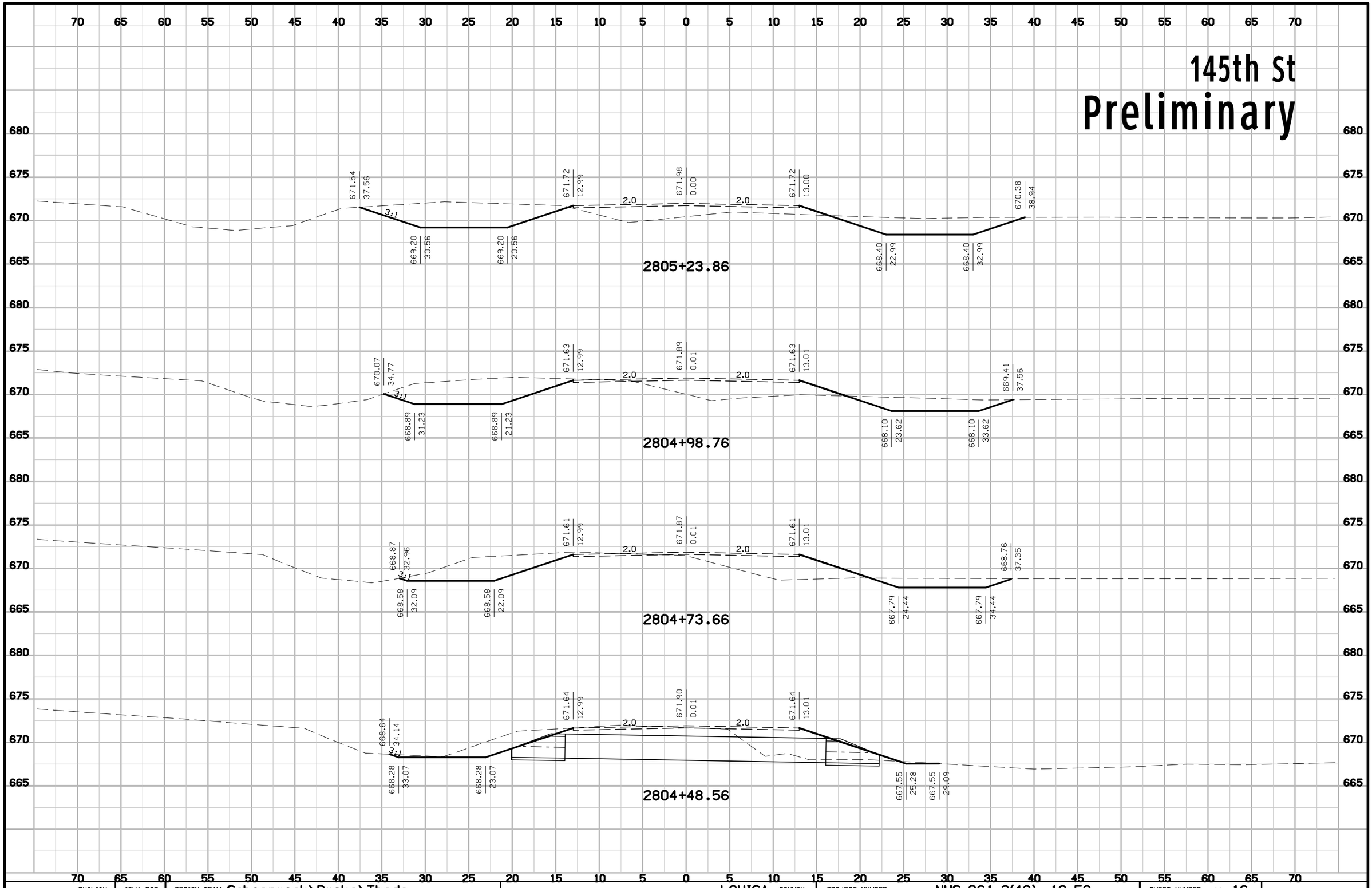
145th St

Preliminary



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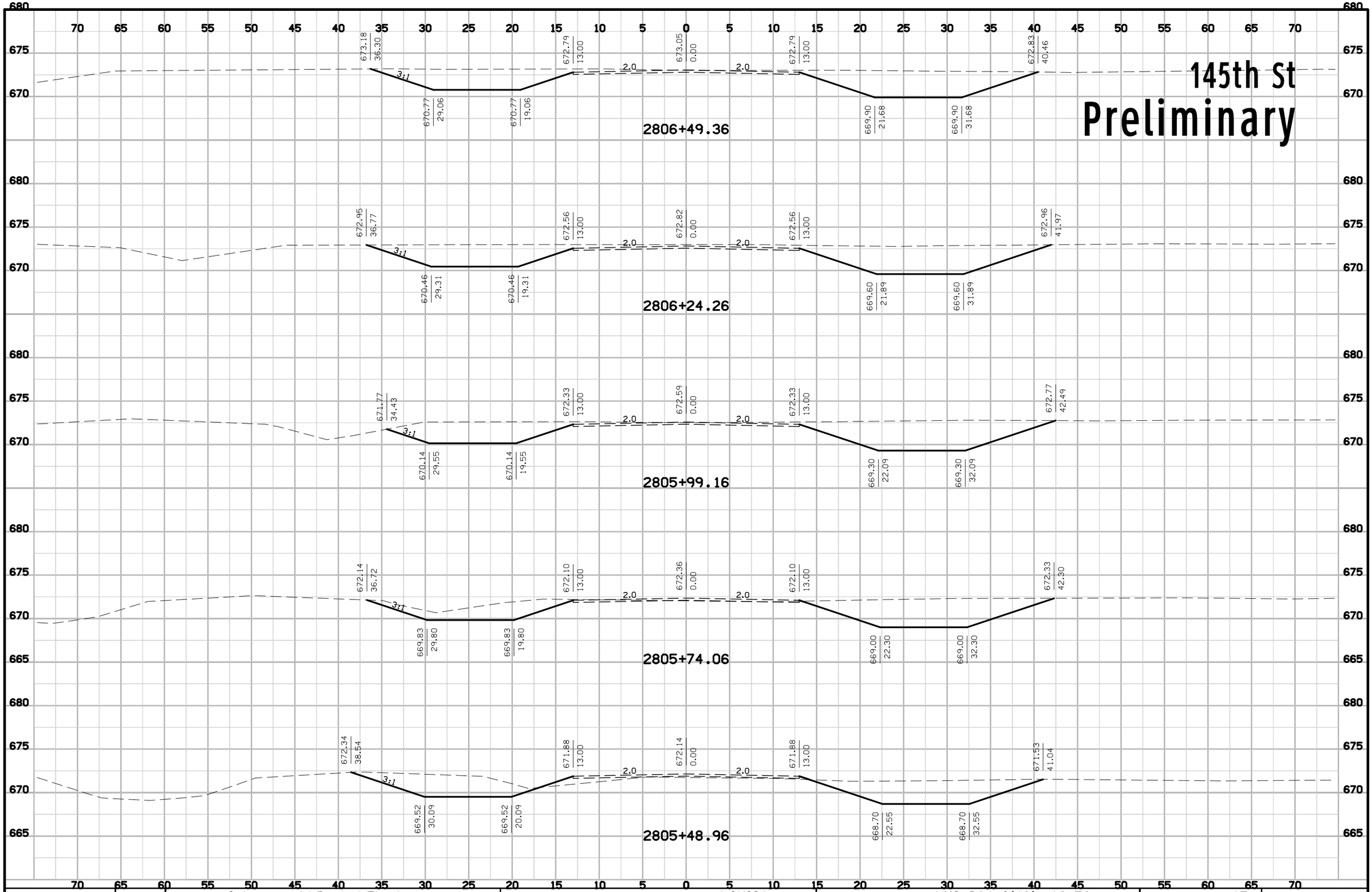
145th St
Preliminary



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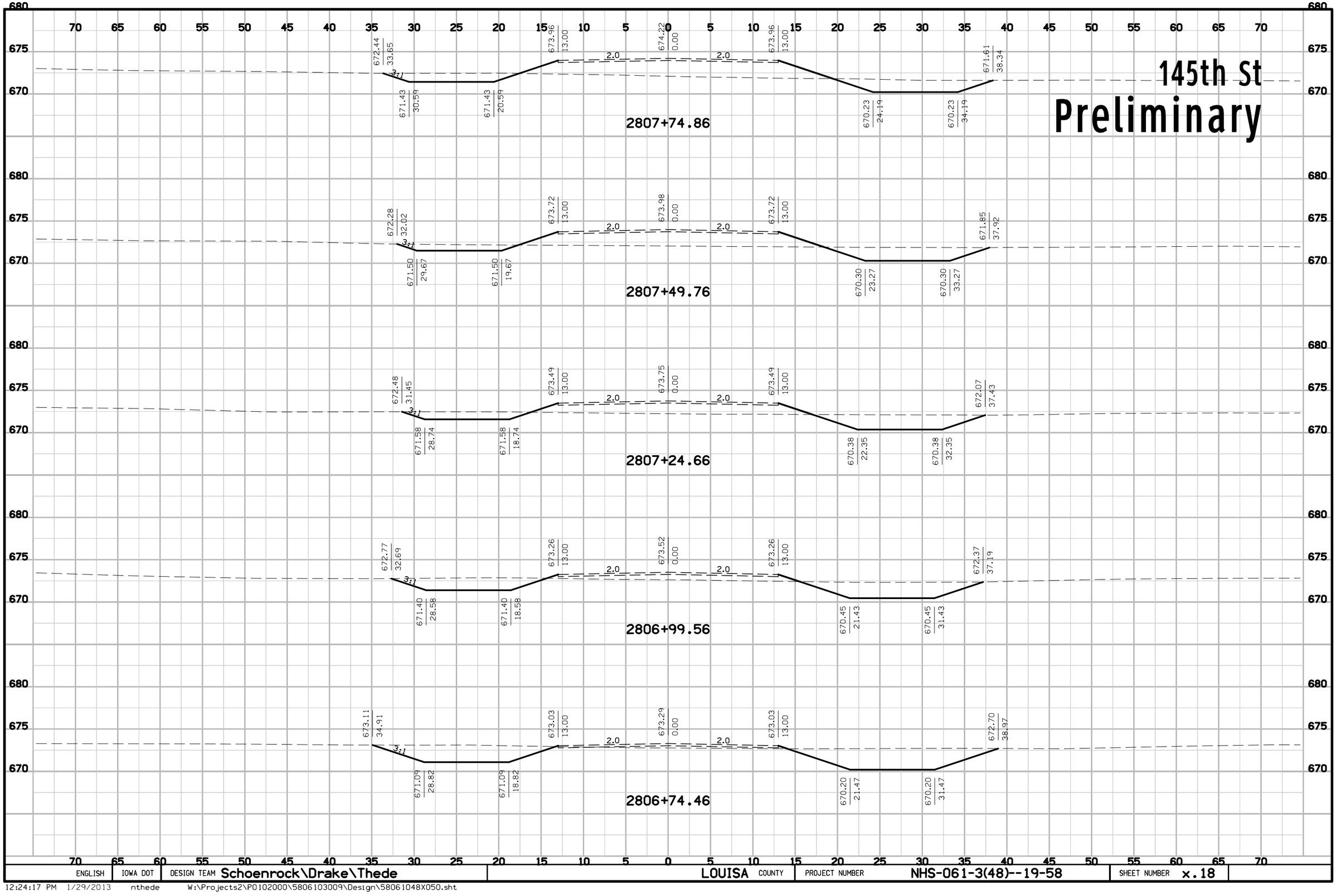
145th St
Preliminary



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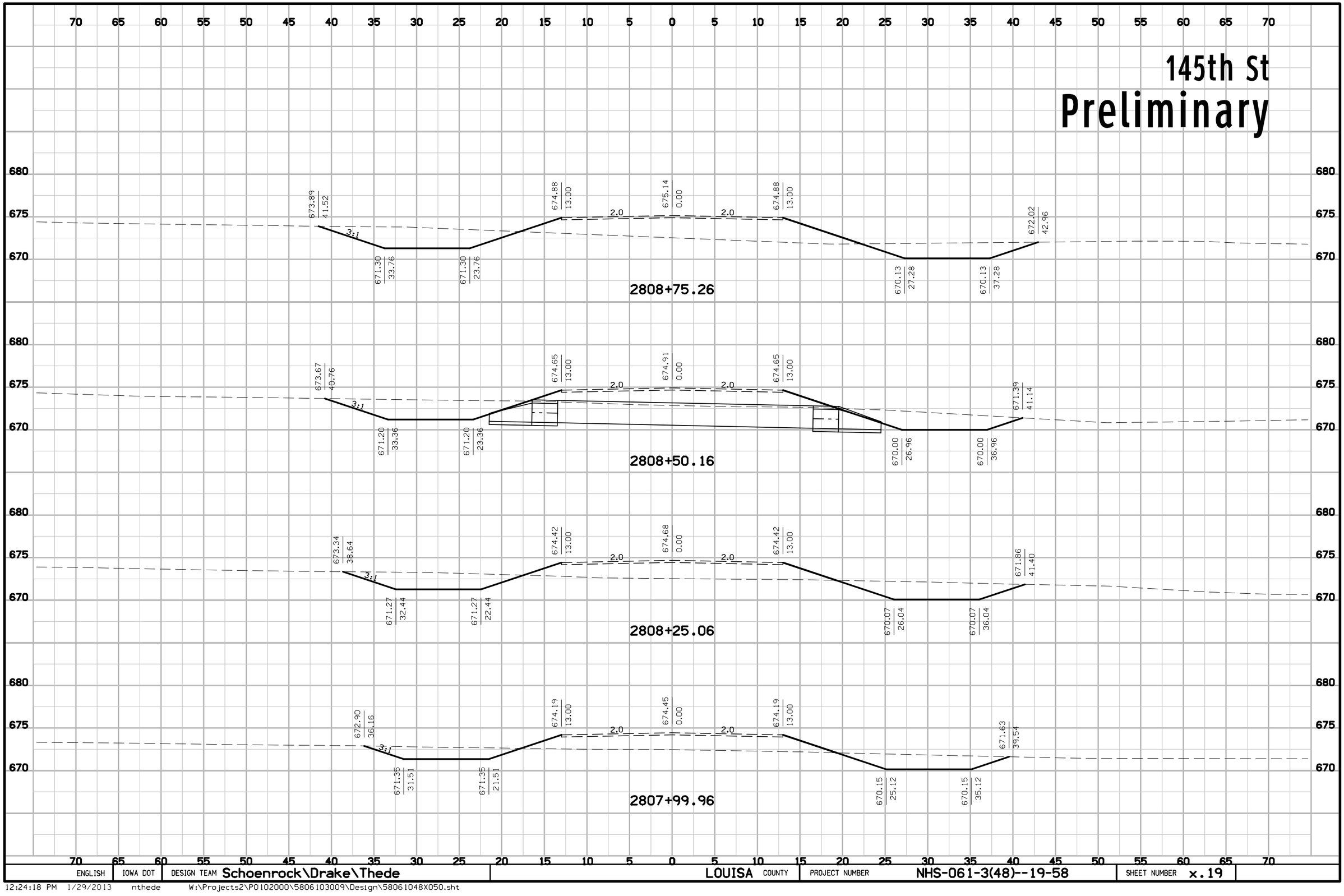
145th St

Preliminary



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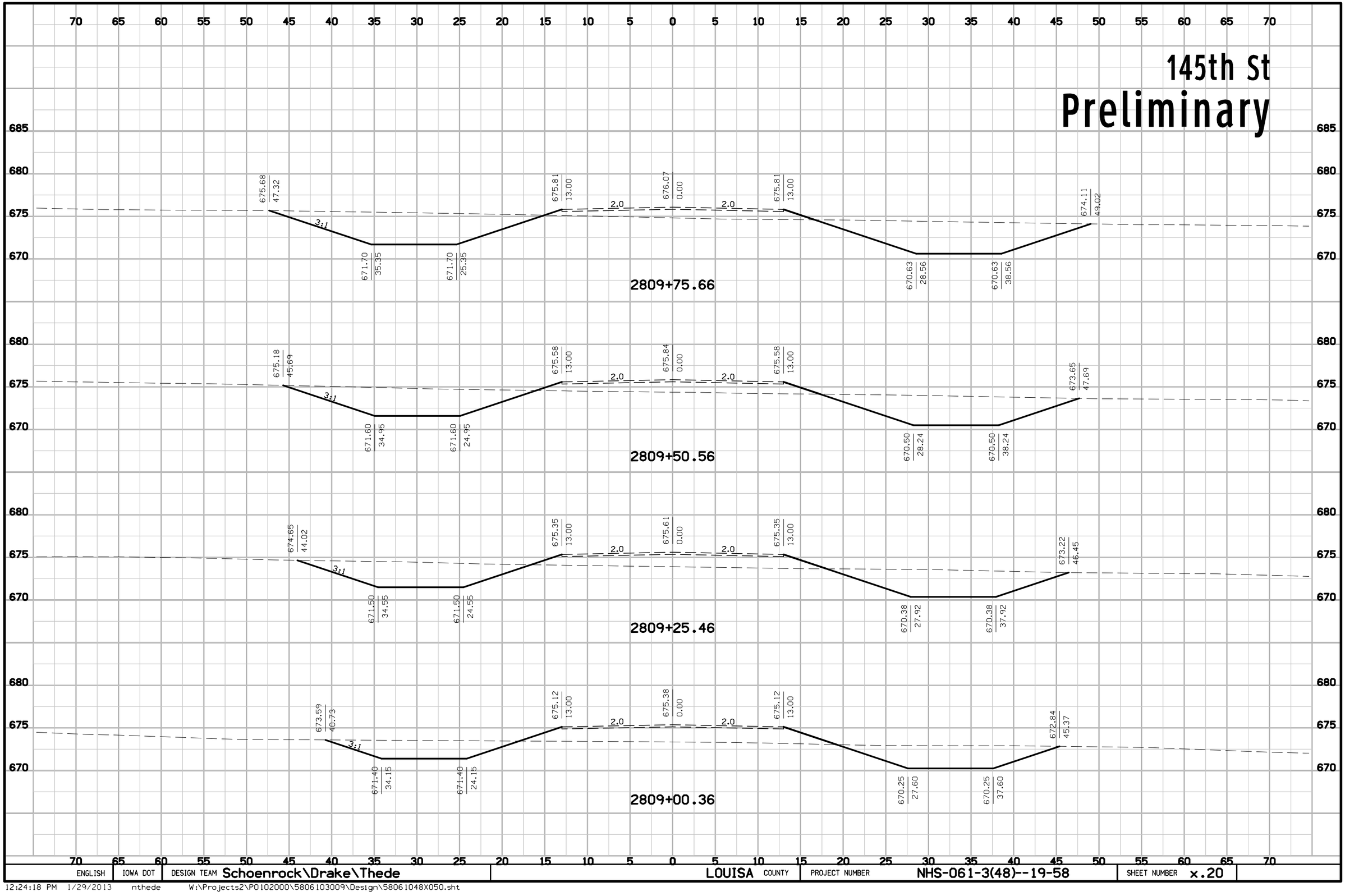
145th St

Preliminary



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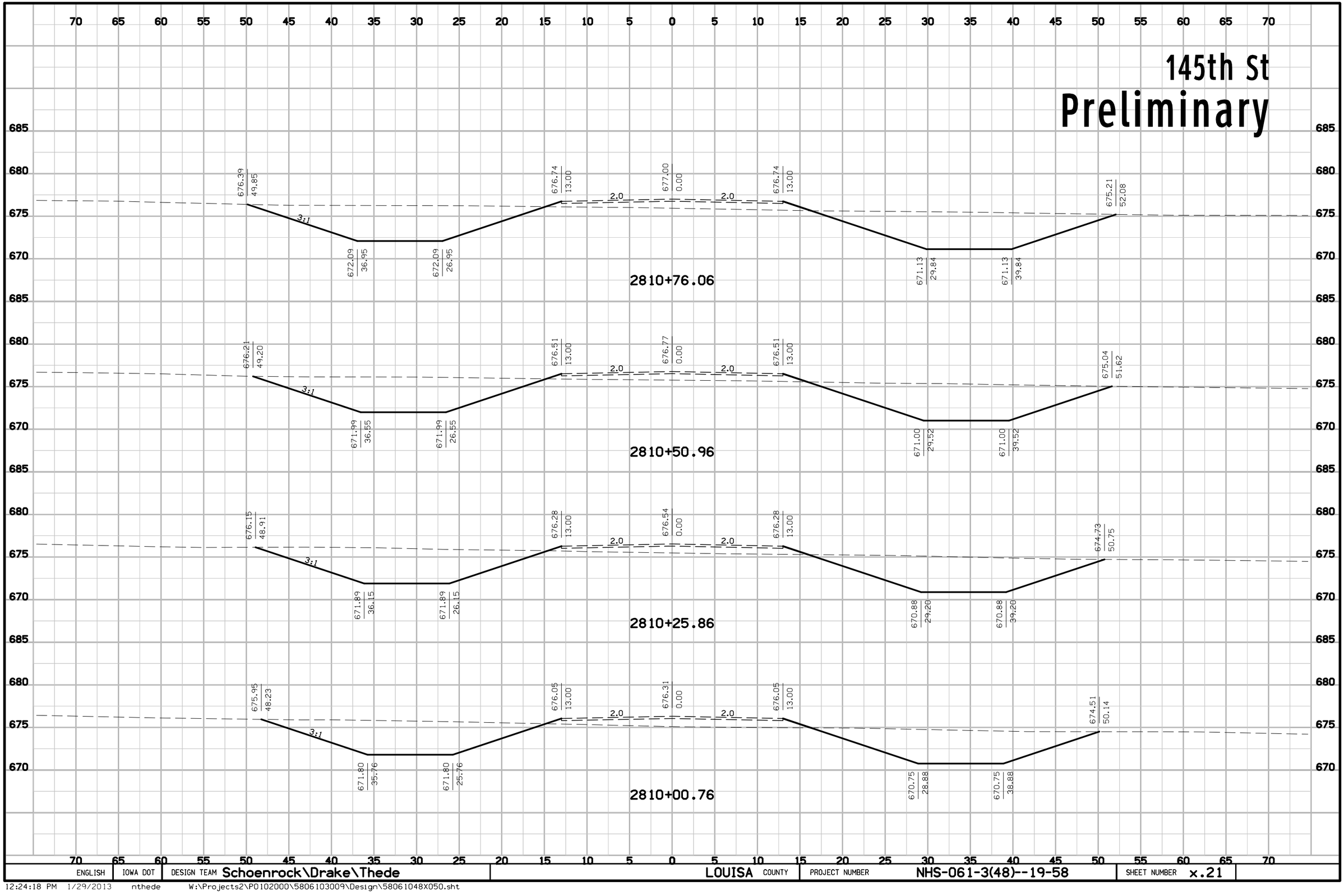
145th St

Preliminary



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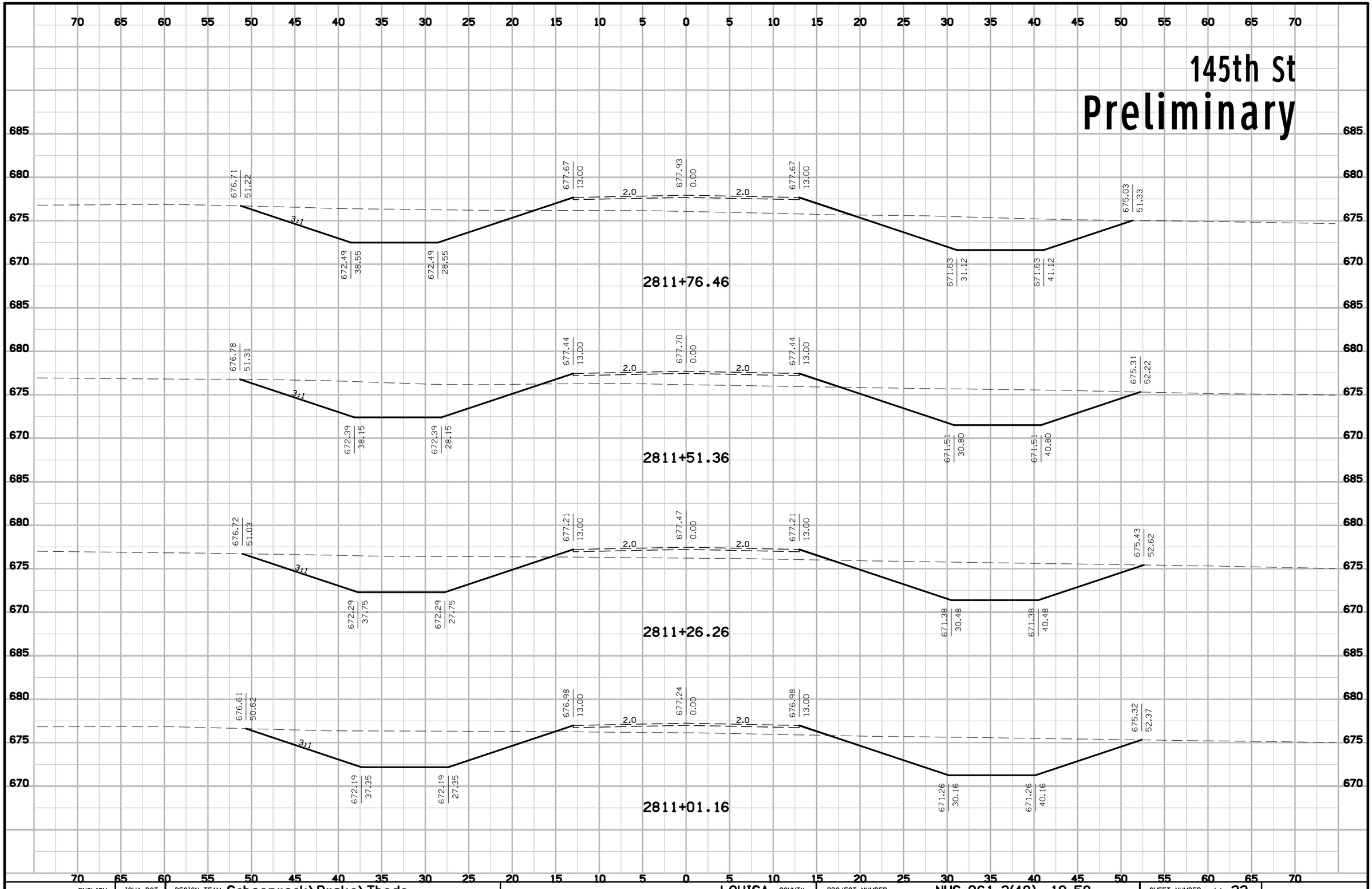
145th St

Preliminary



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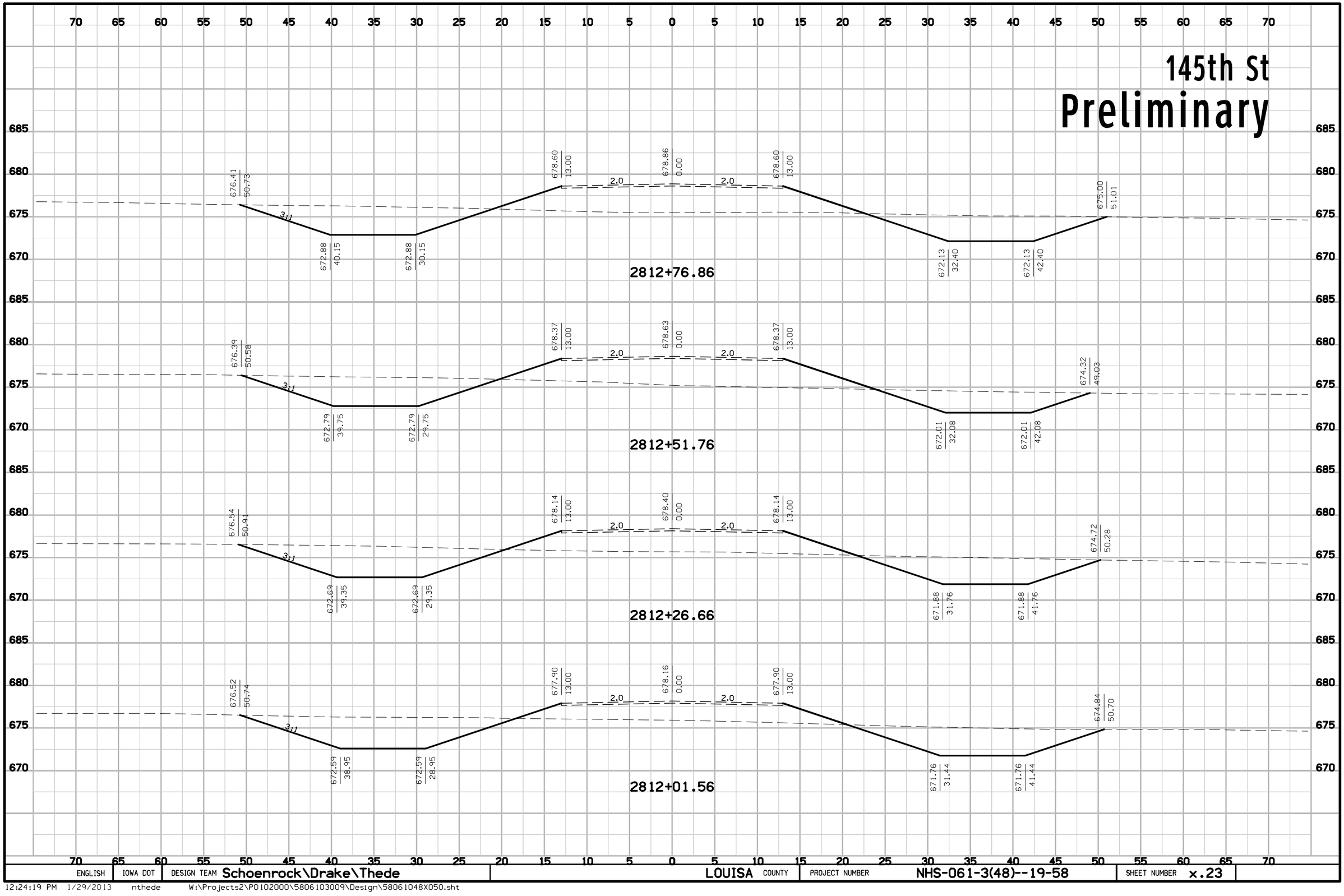
145th St

Preliminary



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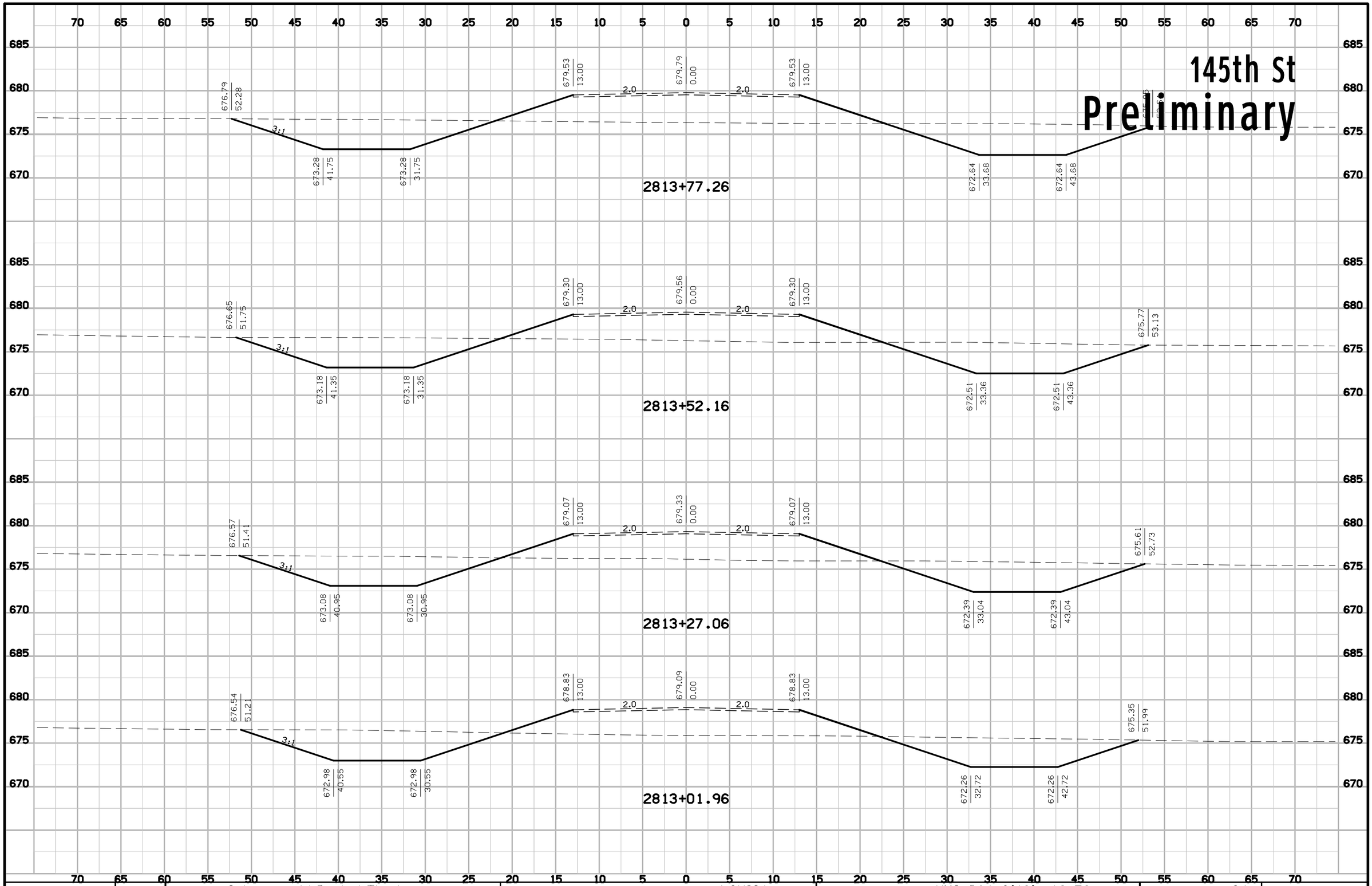
145th St

Preliminary



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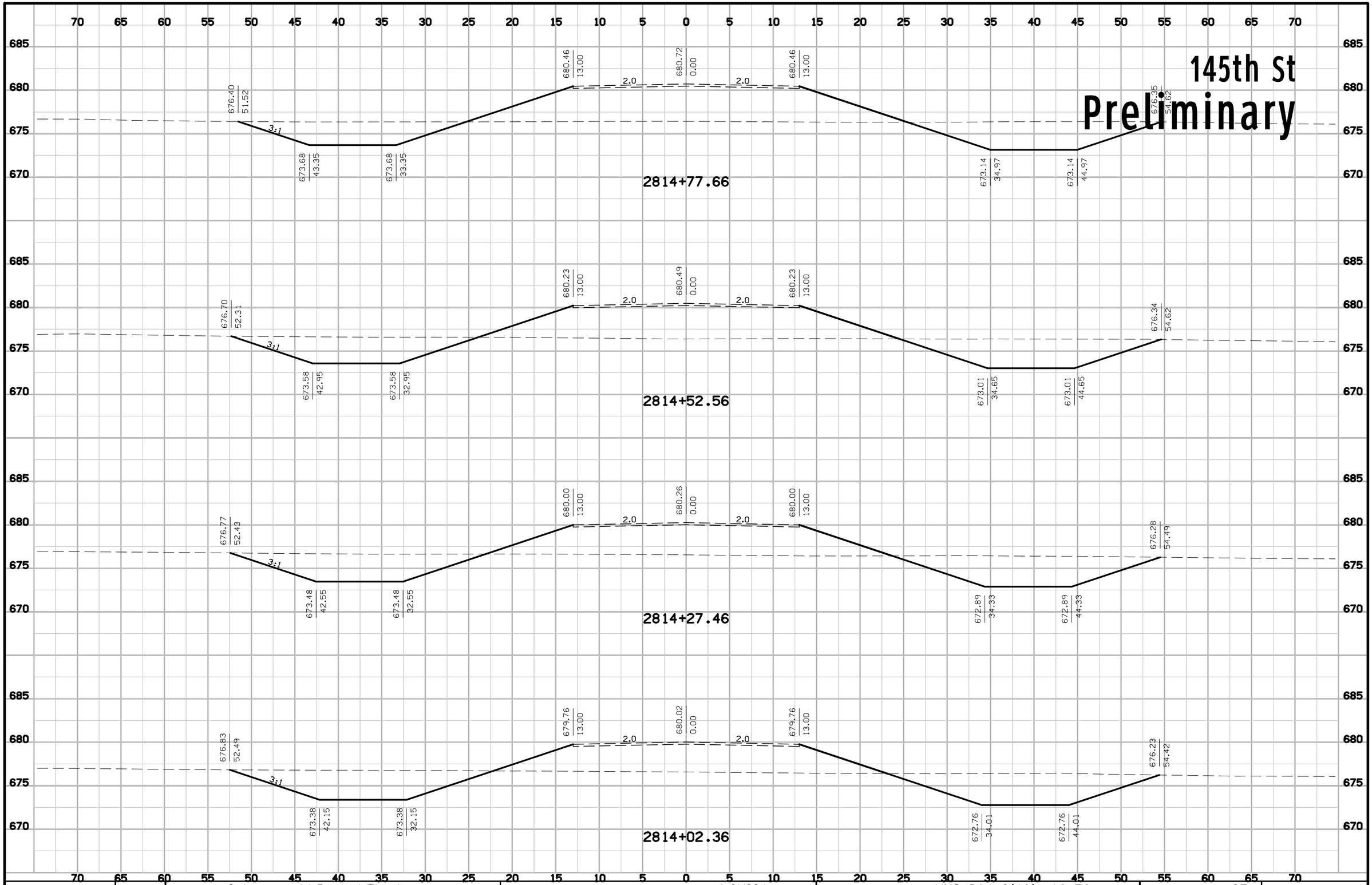
145th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER x.25

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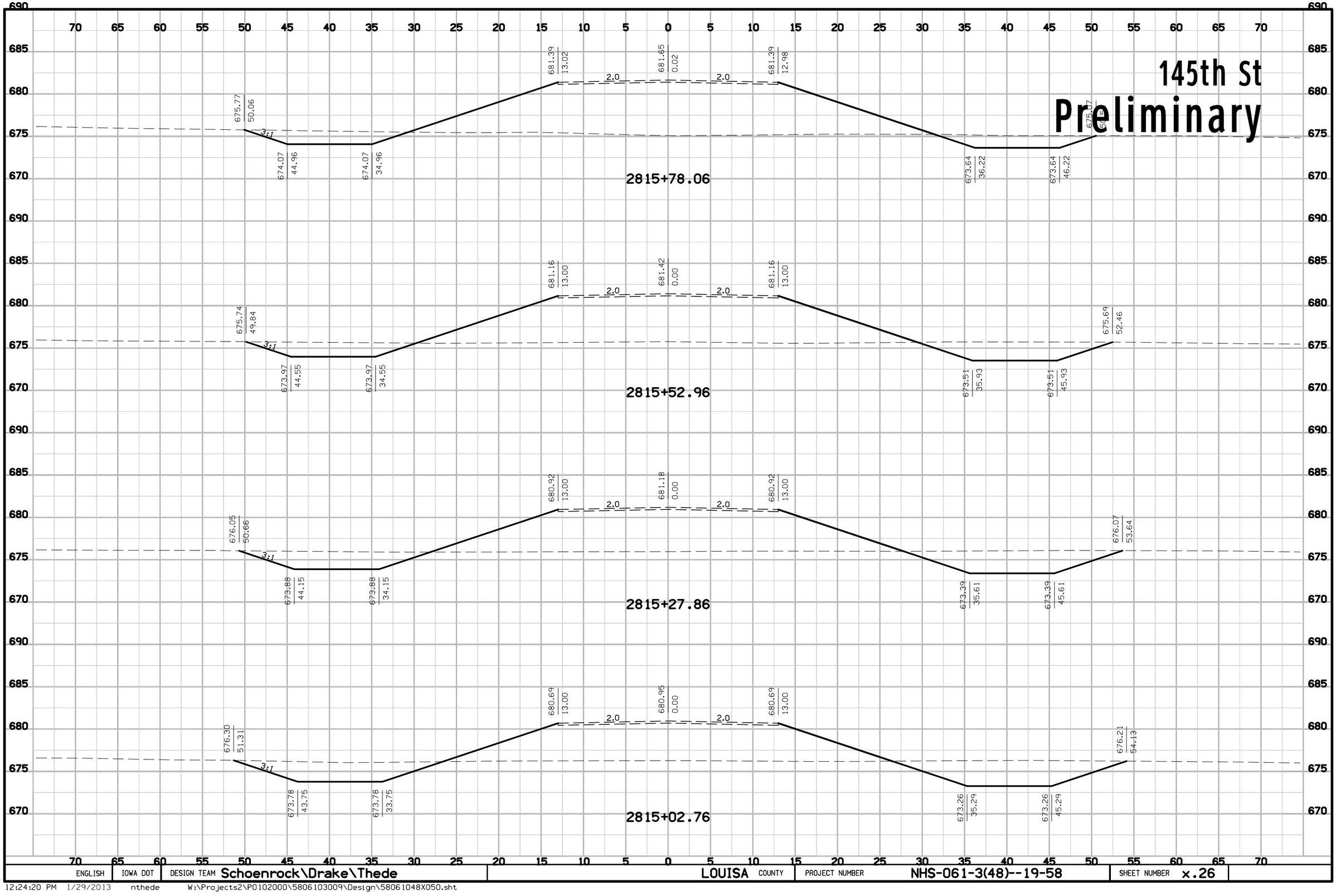
145th St

Preliminary



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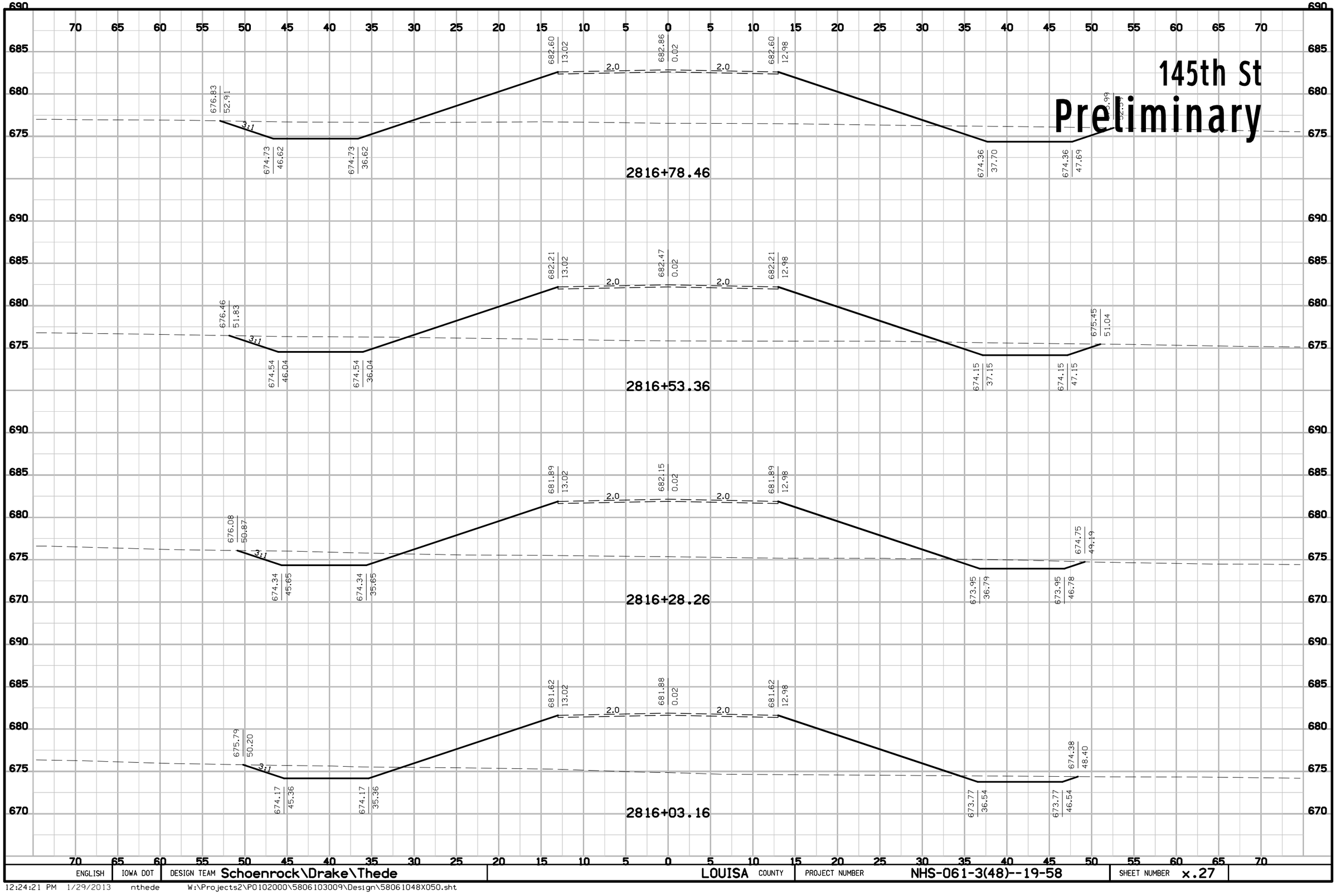
145th St

Preliminary



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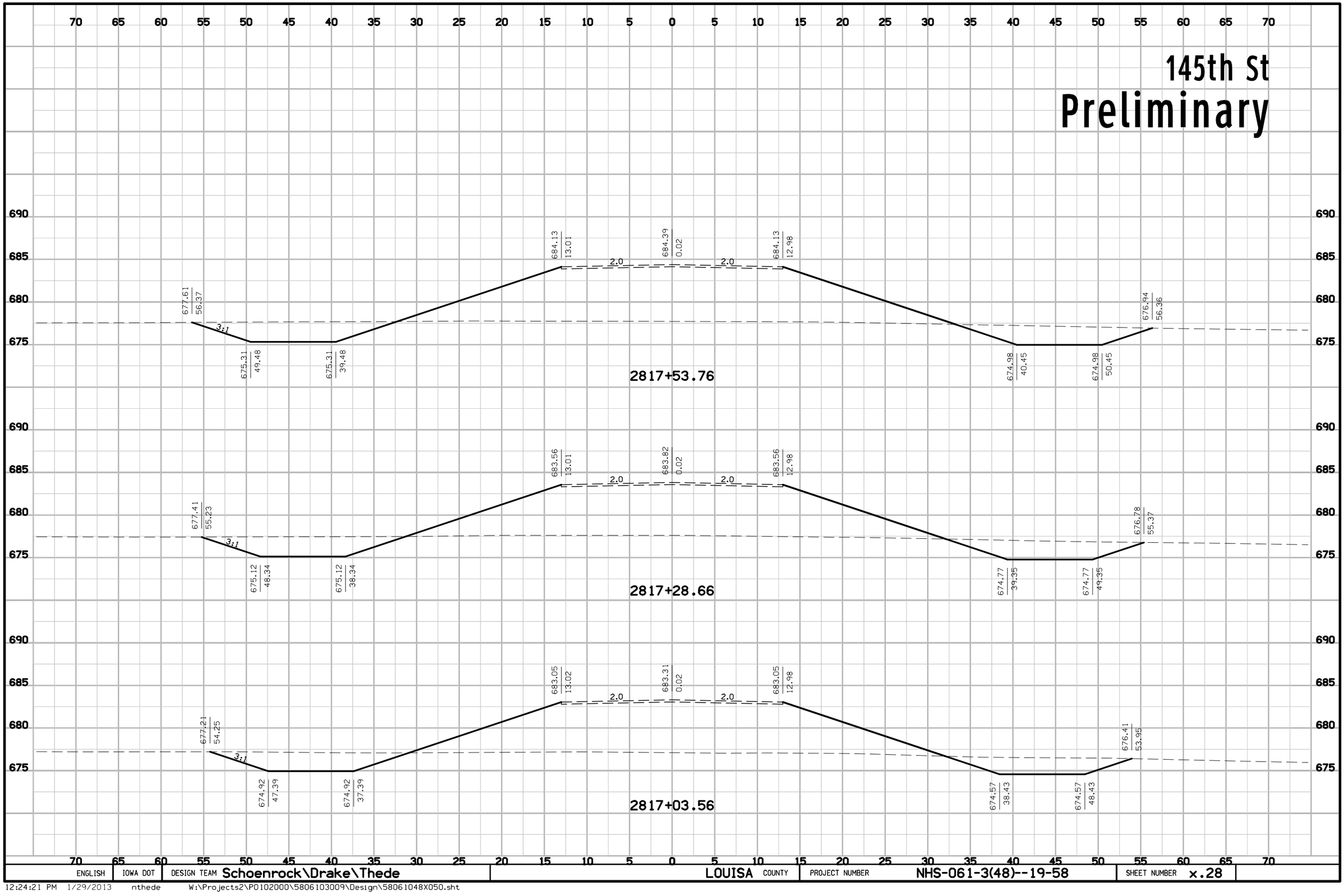
145th St

Preliminary



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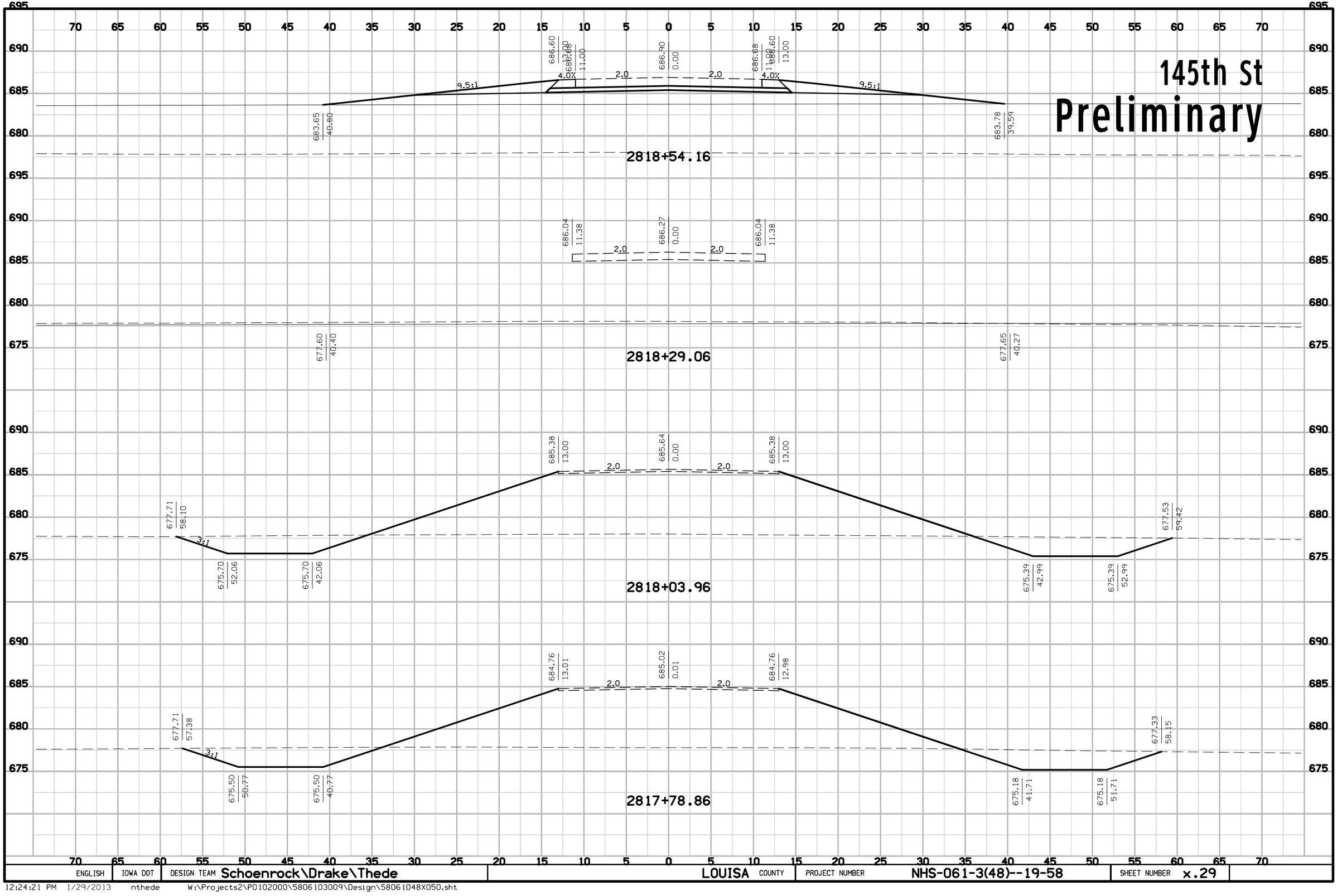
145th St

Preliminary



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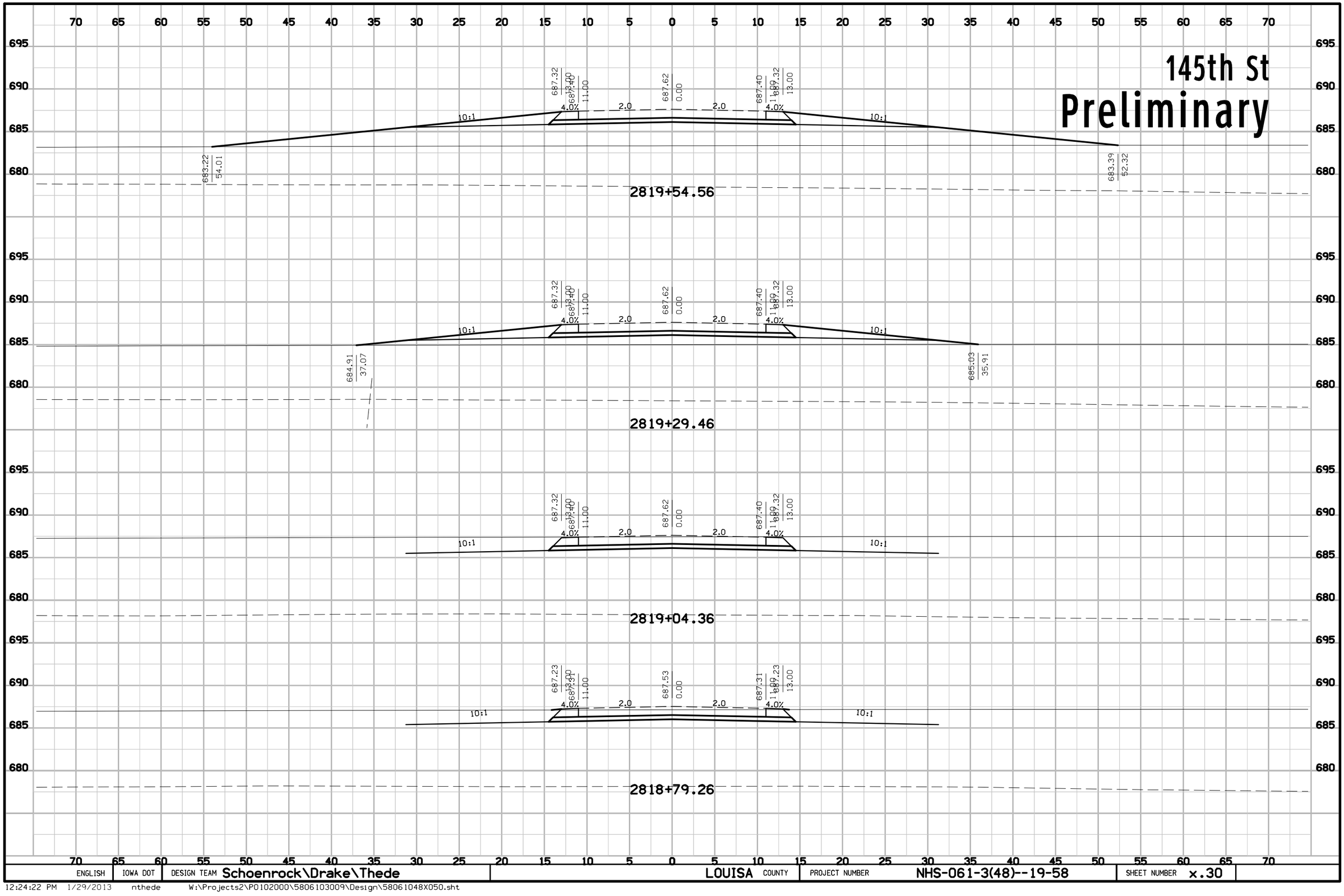
145th St

Preliminary



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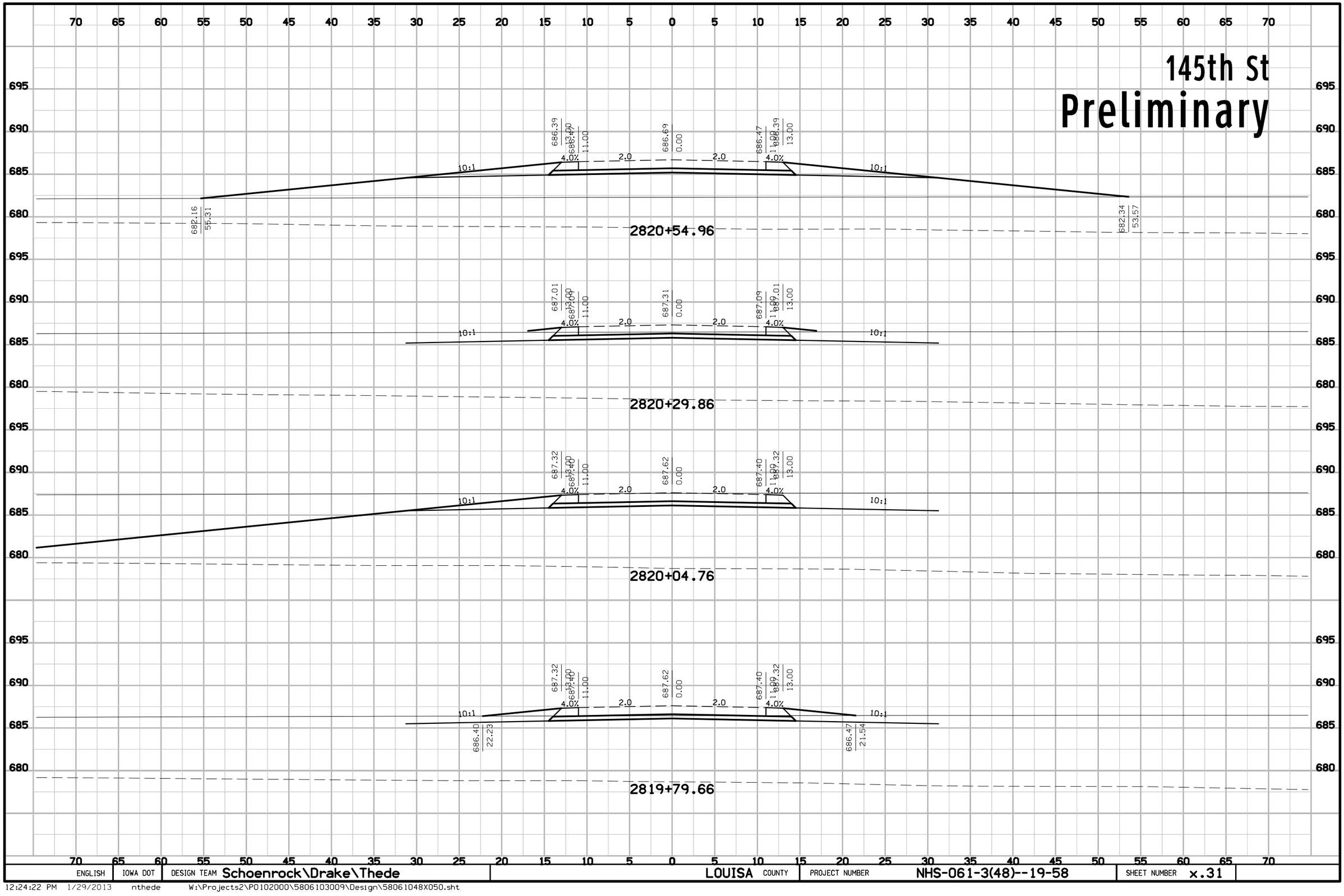
145th St
Preliminary



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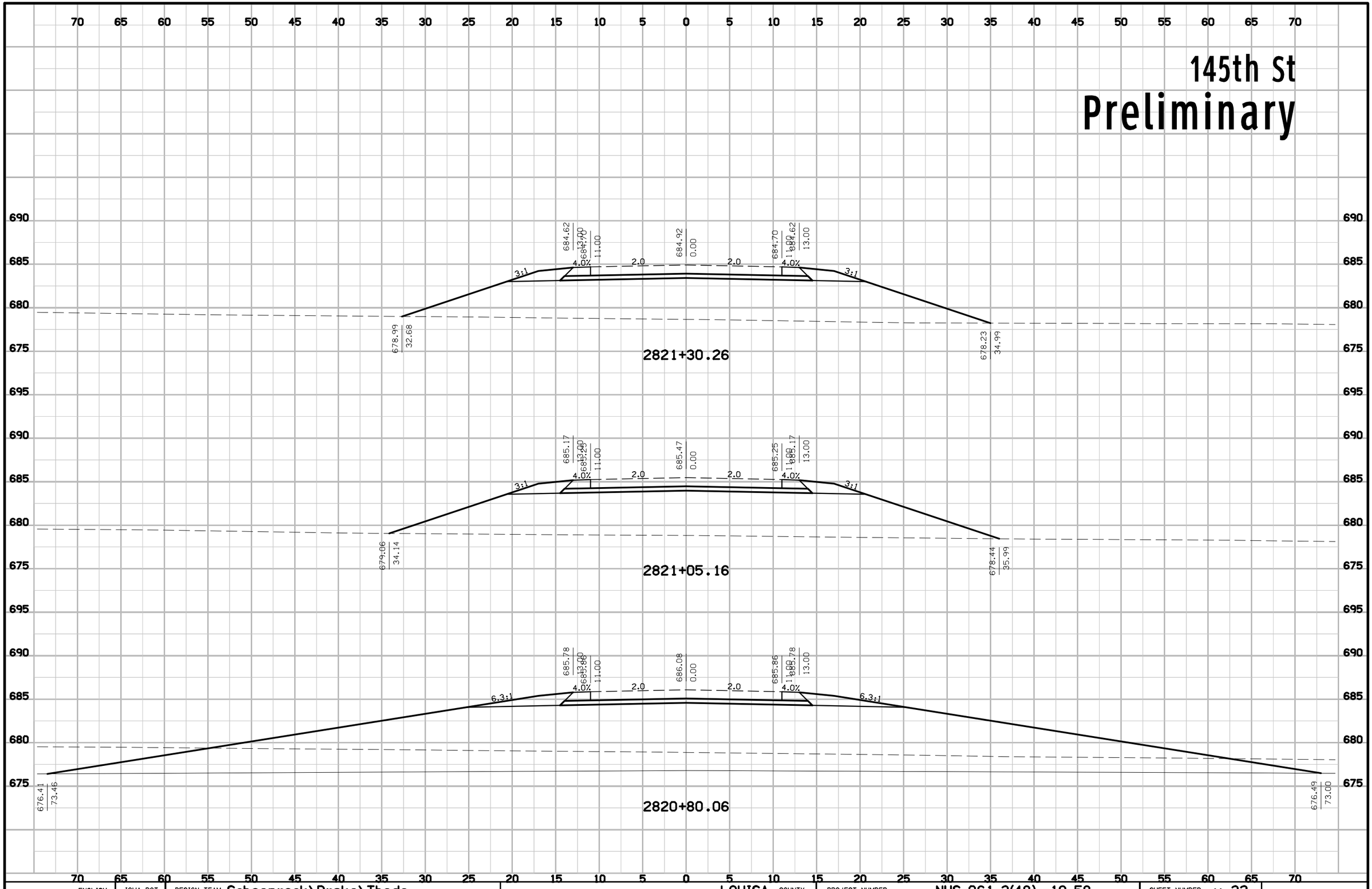
145th St

Preliminary



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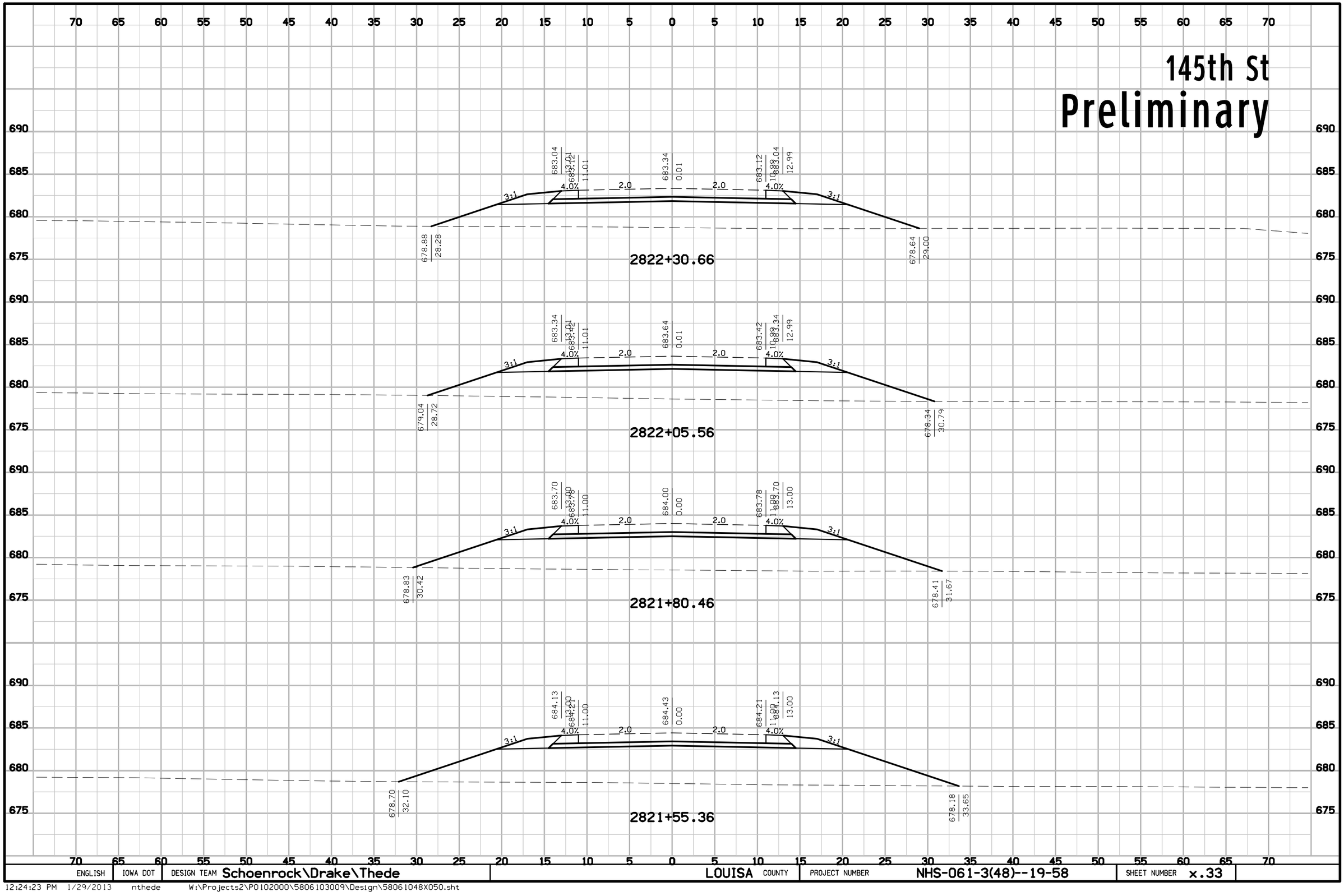
145th St

Preliminary



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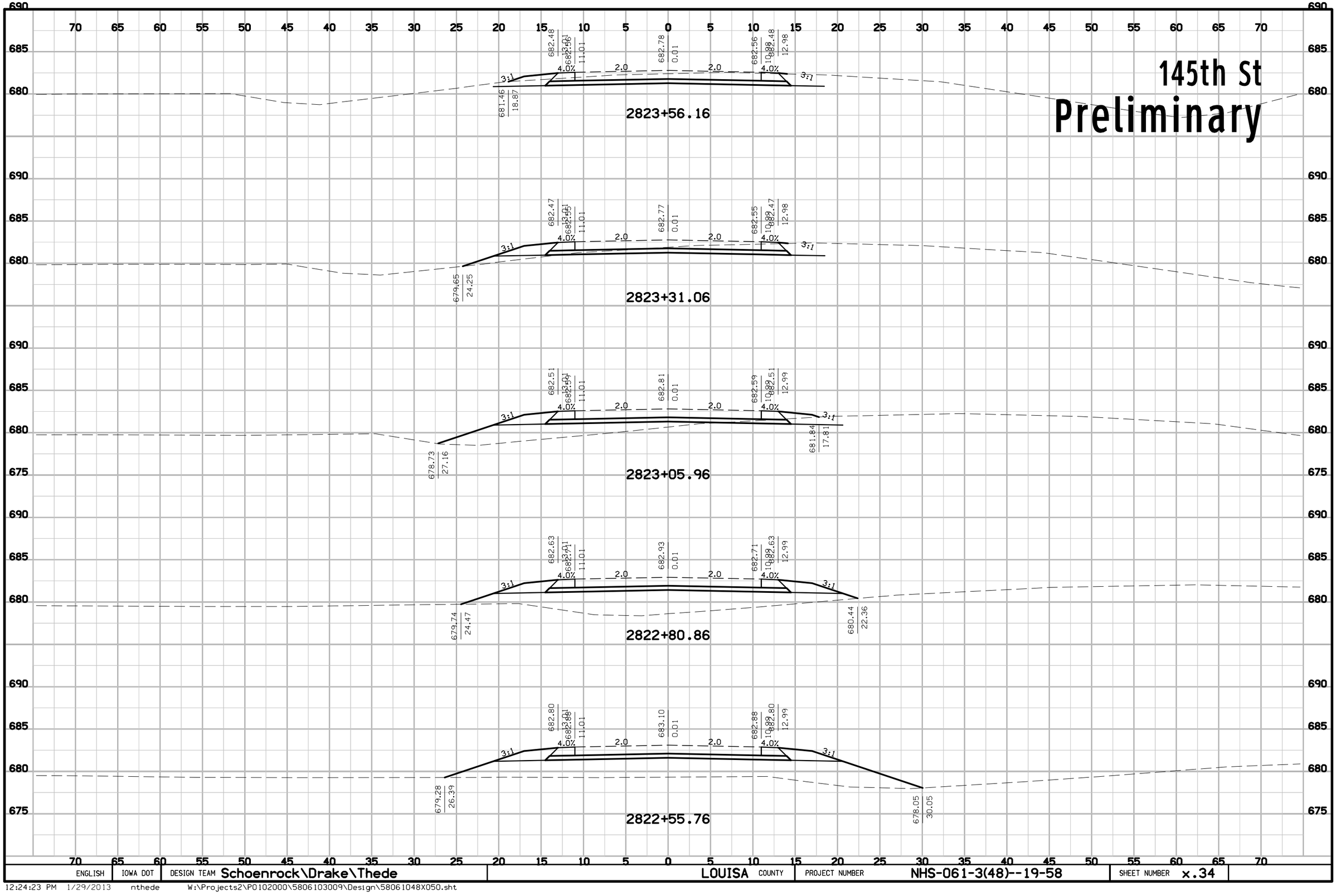
145th St

Preliminary



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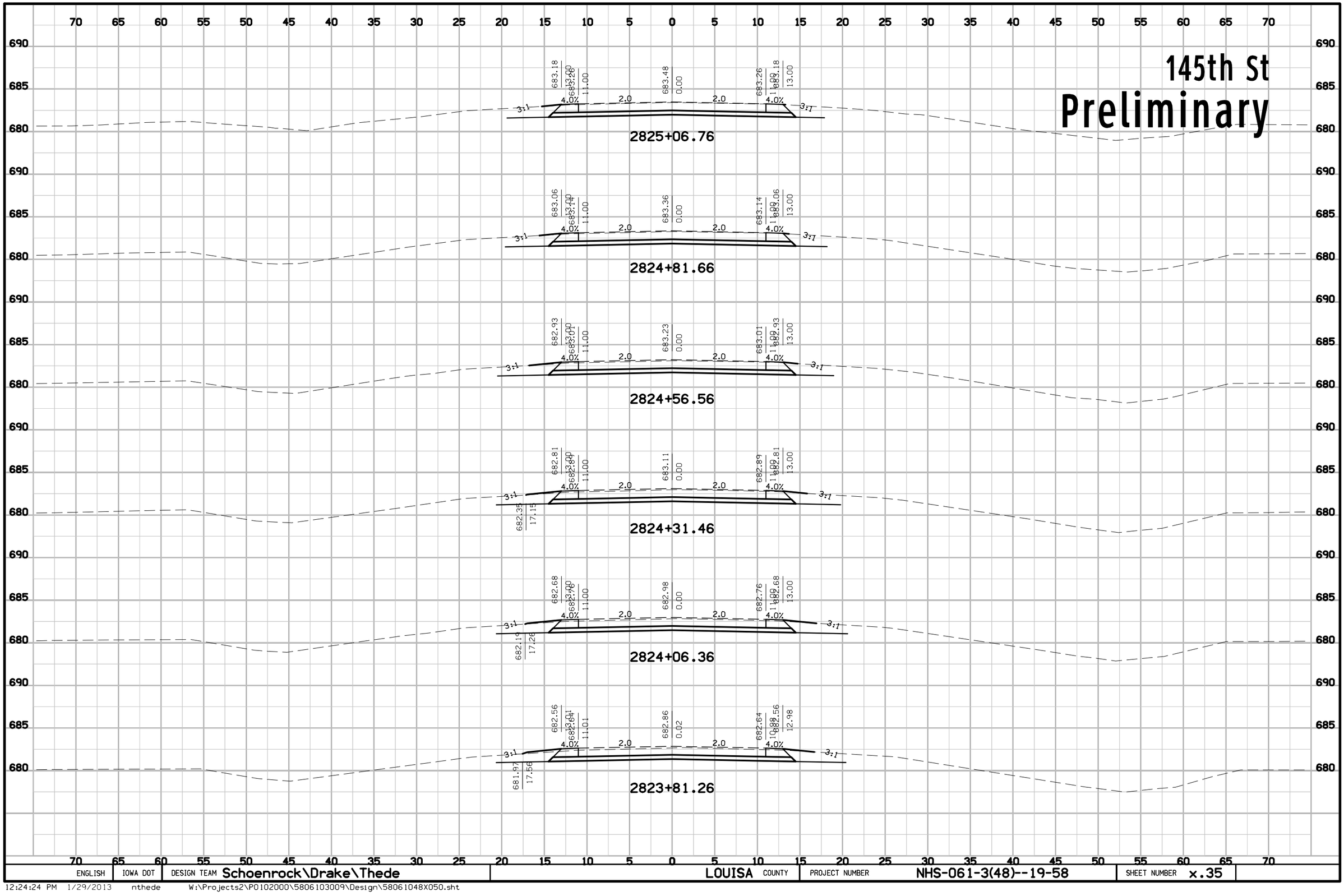
145th St

Preliminary



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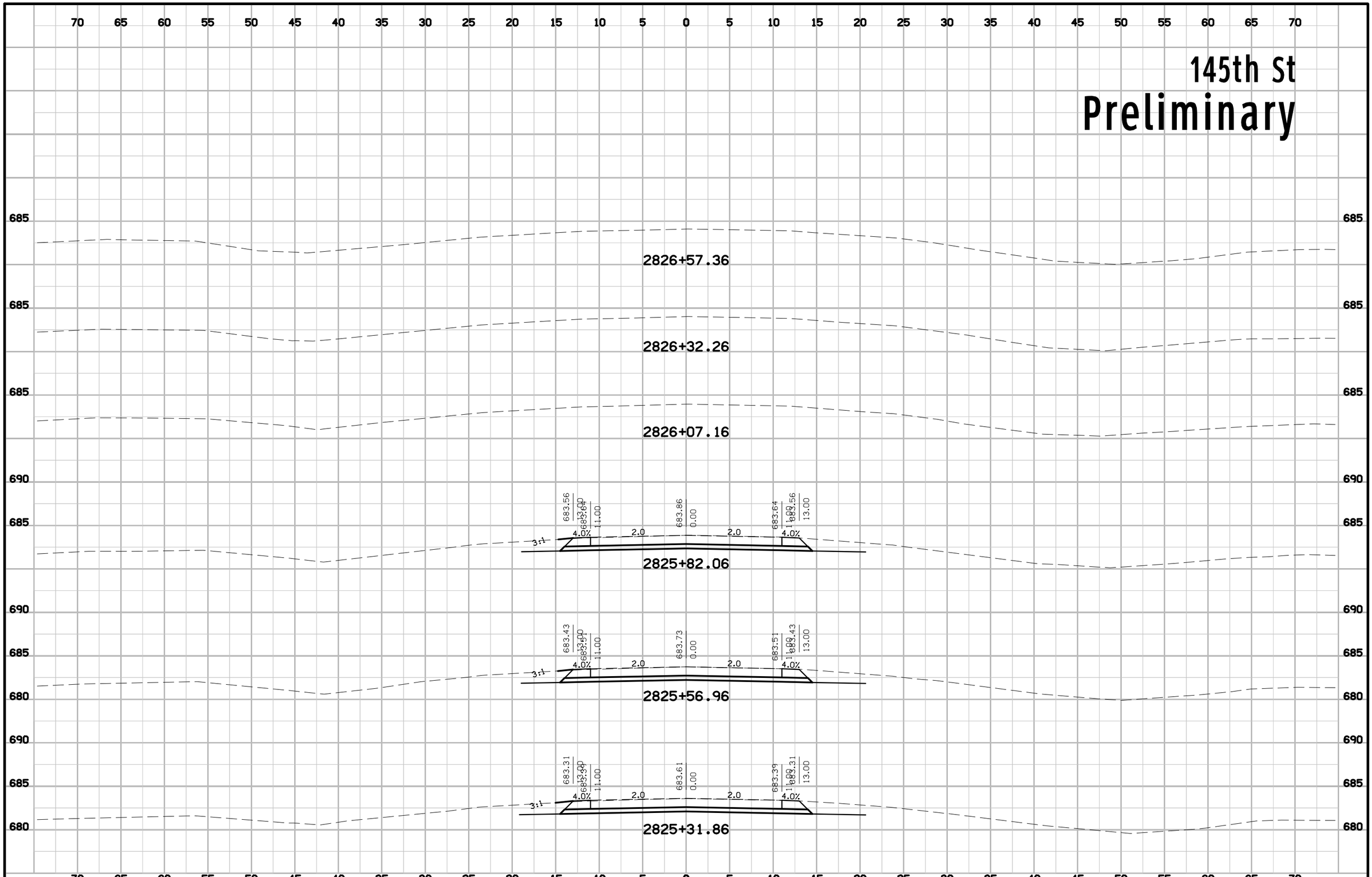

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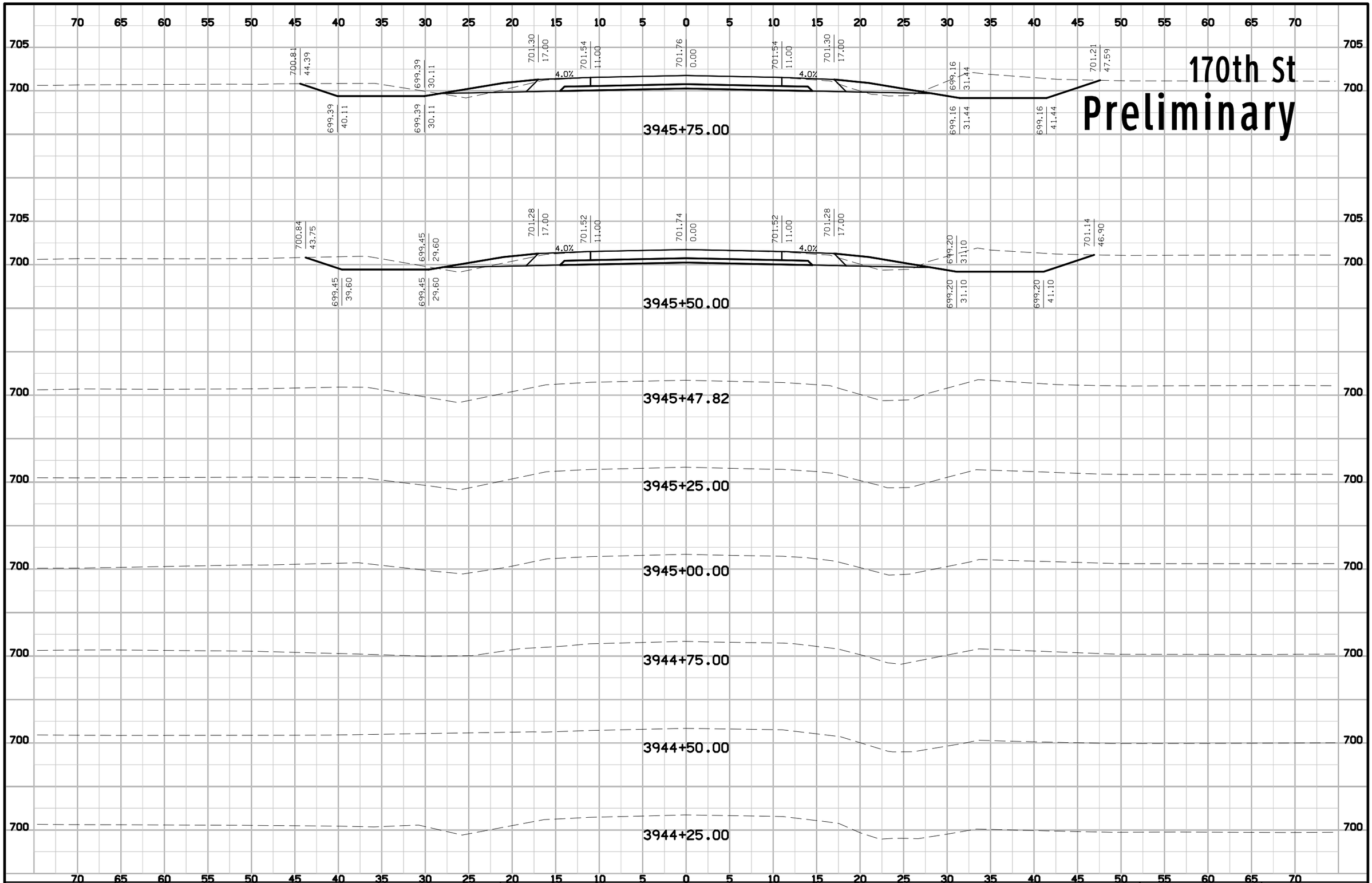
170th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER X.37

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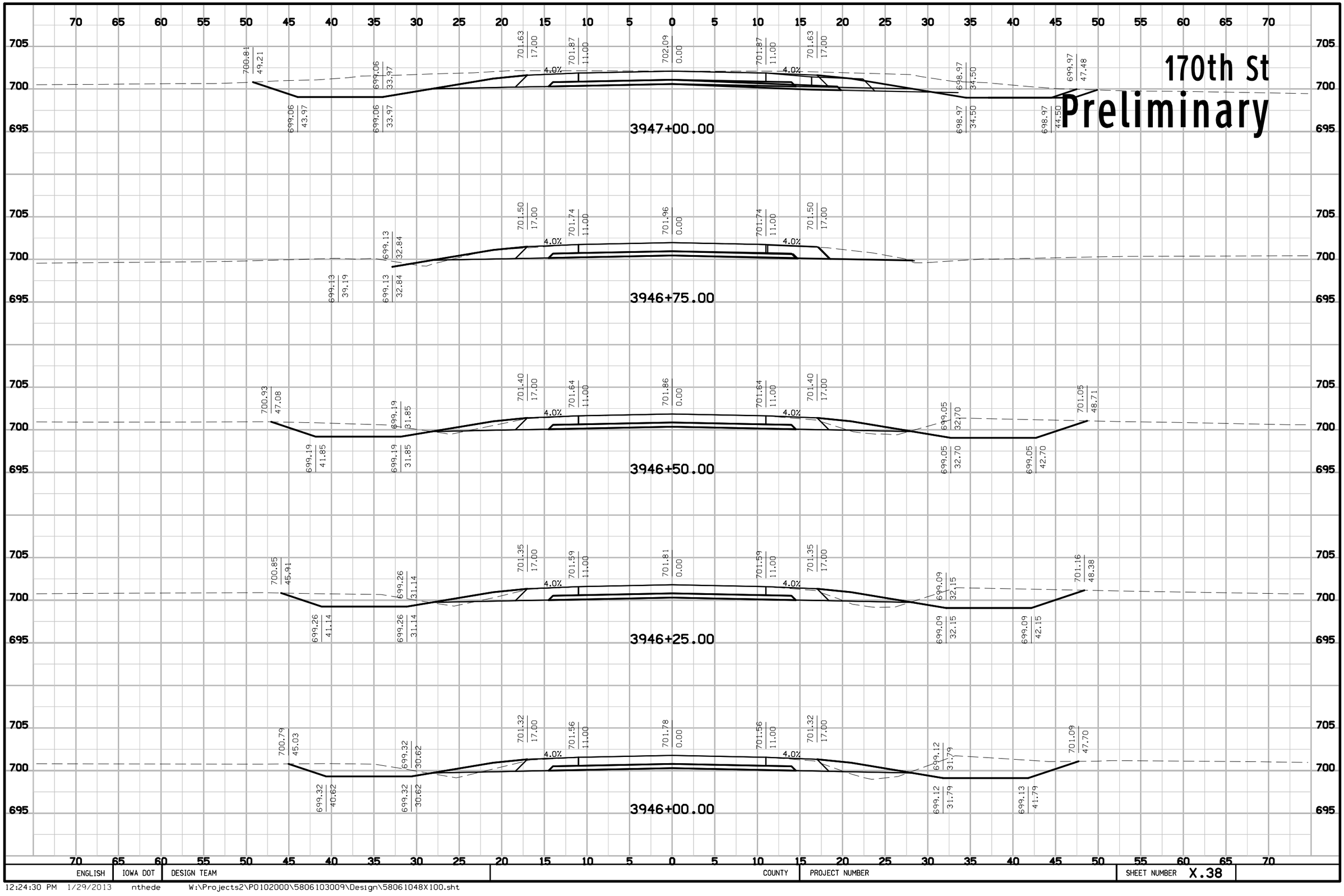
170th St

Preliminary



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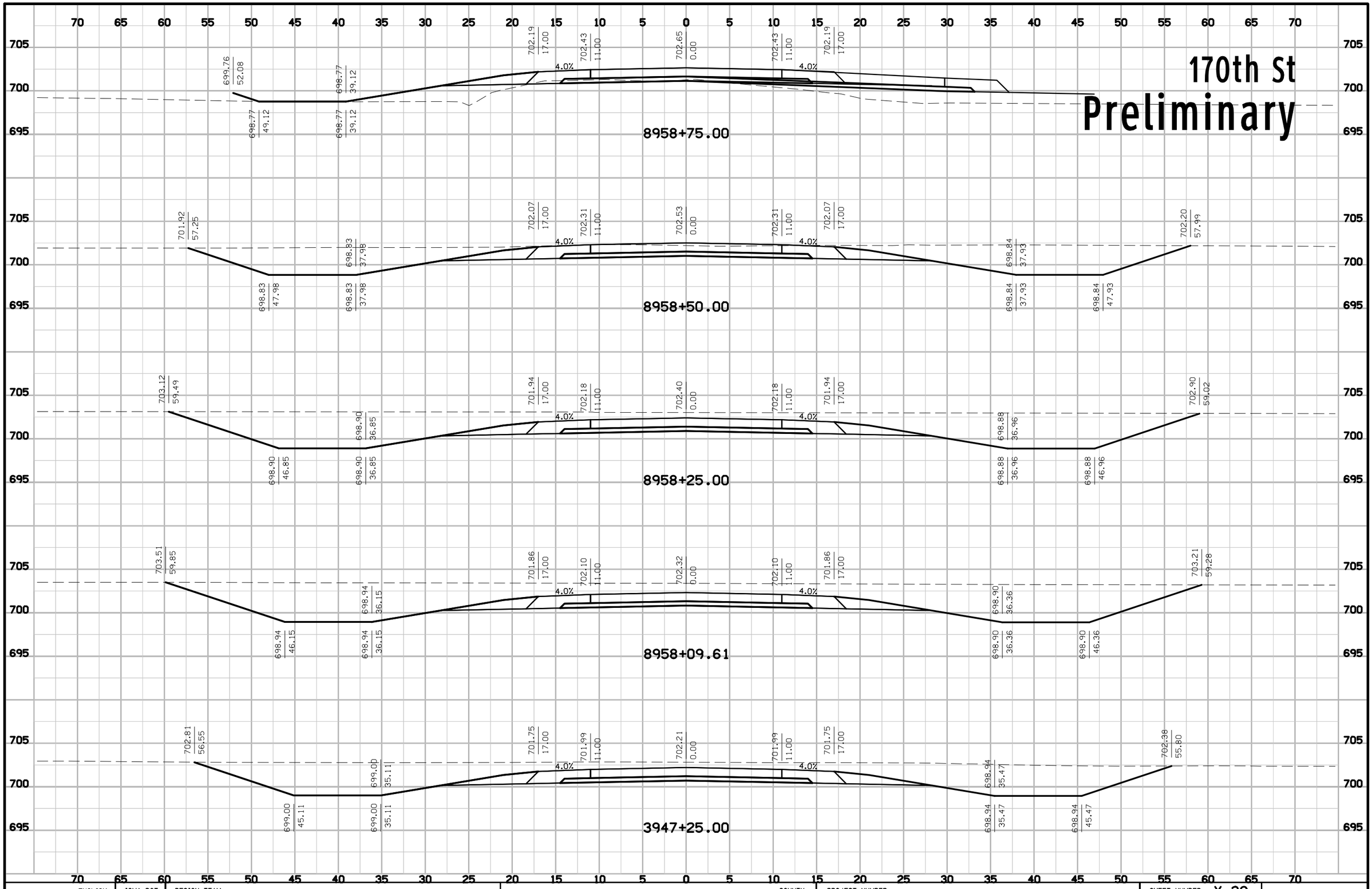
170th St
Preliminary



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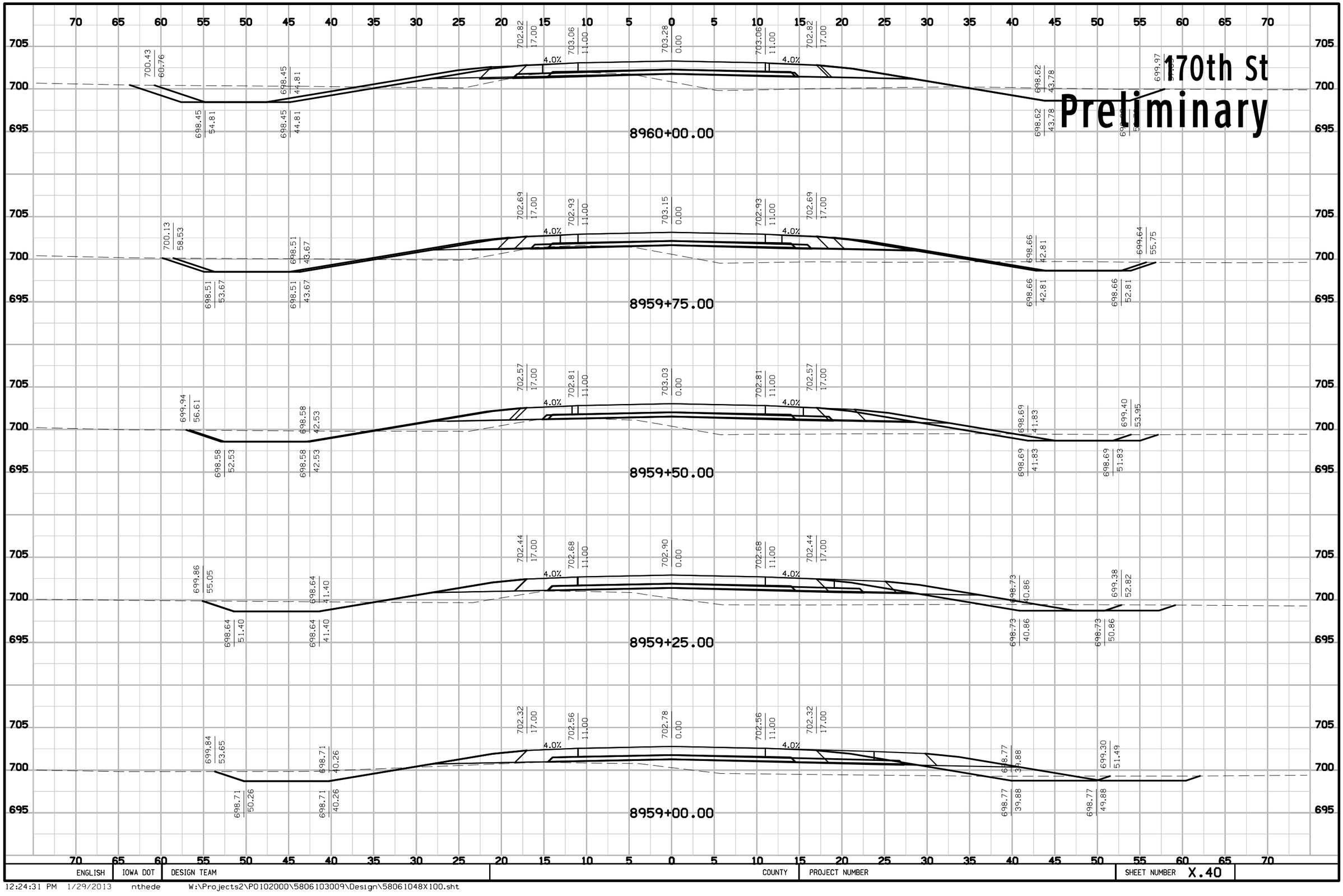
170th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.40

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170th St

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

705
700
695

703.68 11.00 | 703.90 0.00 | 703.68 11.00 | 703.44 17.00
4.0%
8961+25.00

703.78 0.00 | 703.56 11.00 | 703.32 17.00
4.0%
8961+00.00

703.65 0.00 | 703.43 11.00 | 703.19 17.00 | 701.99 67.17
4.0%
698.51 56.71
8960+75.00

701.36 66.22 | 698.32 57.08 | 698.32 47.08 | 703.07 17.00 | 703.31 11.00 | 703.53 0.00 | 703.31 11.00 | 703.07 17.00 | 698.54 45.73 | 698.54 45.73 | 698.54 55.73 | 701.41 64.35
4.0% 4.0%
8960+50.00

700.78 63.13 | 698.38 55.94 | 698.38 45.94 | 702.94 17.00 | 703.18 11.00 | 703.40 0.00 | 703.18 11.00 | 702.94 17.00 | 698.58 44.76 | 698.58 44.76 | 698.58 54.76 | 700.80 61.41
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ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.41

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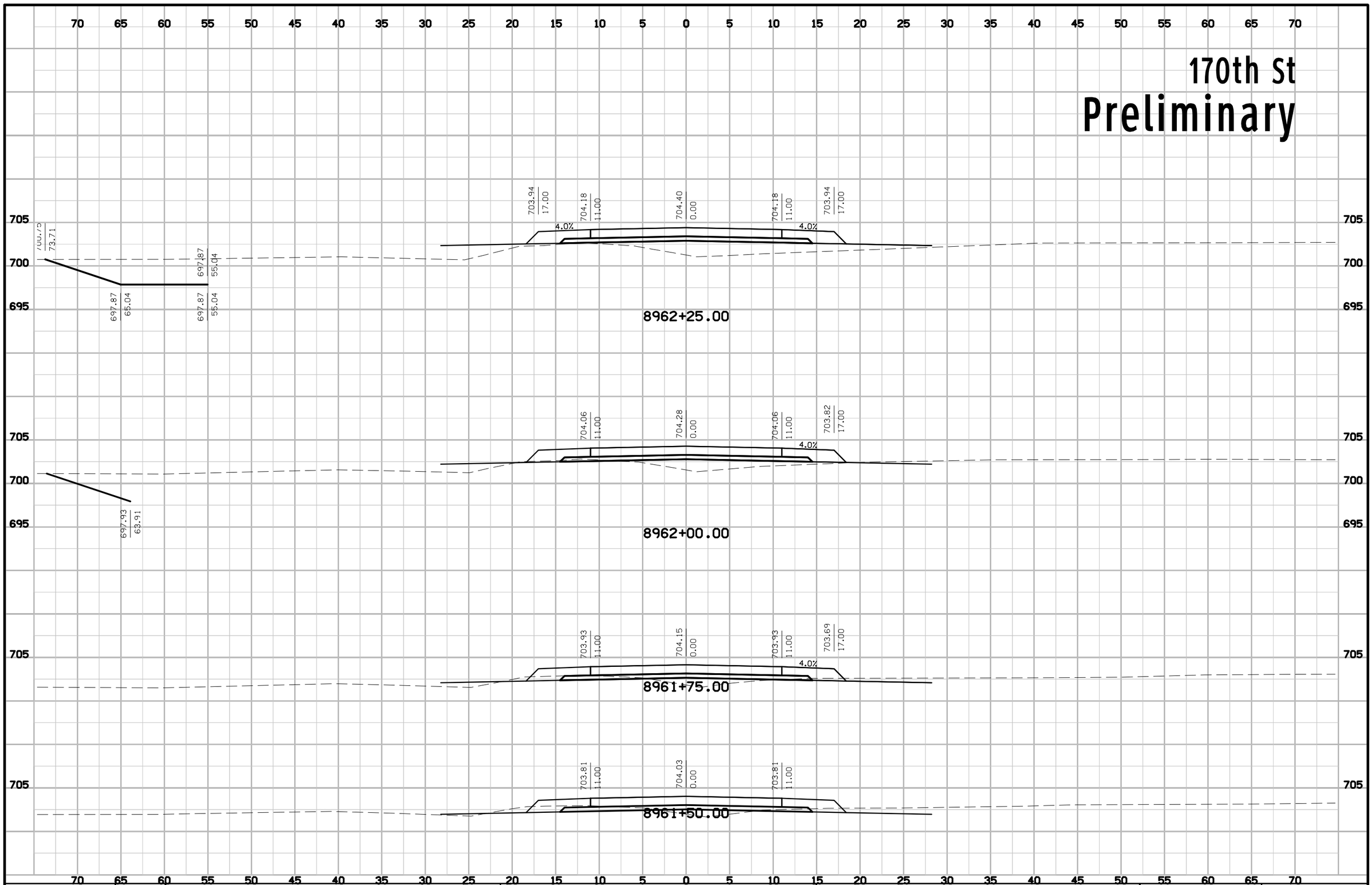
170th St
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER X.42

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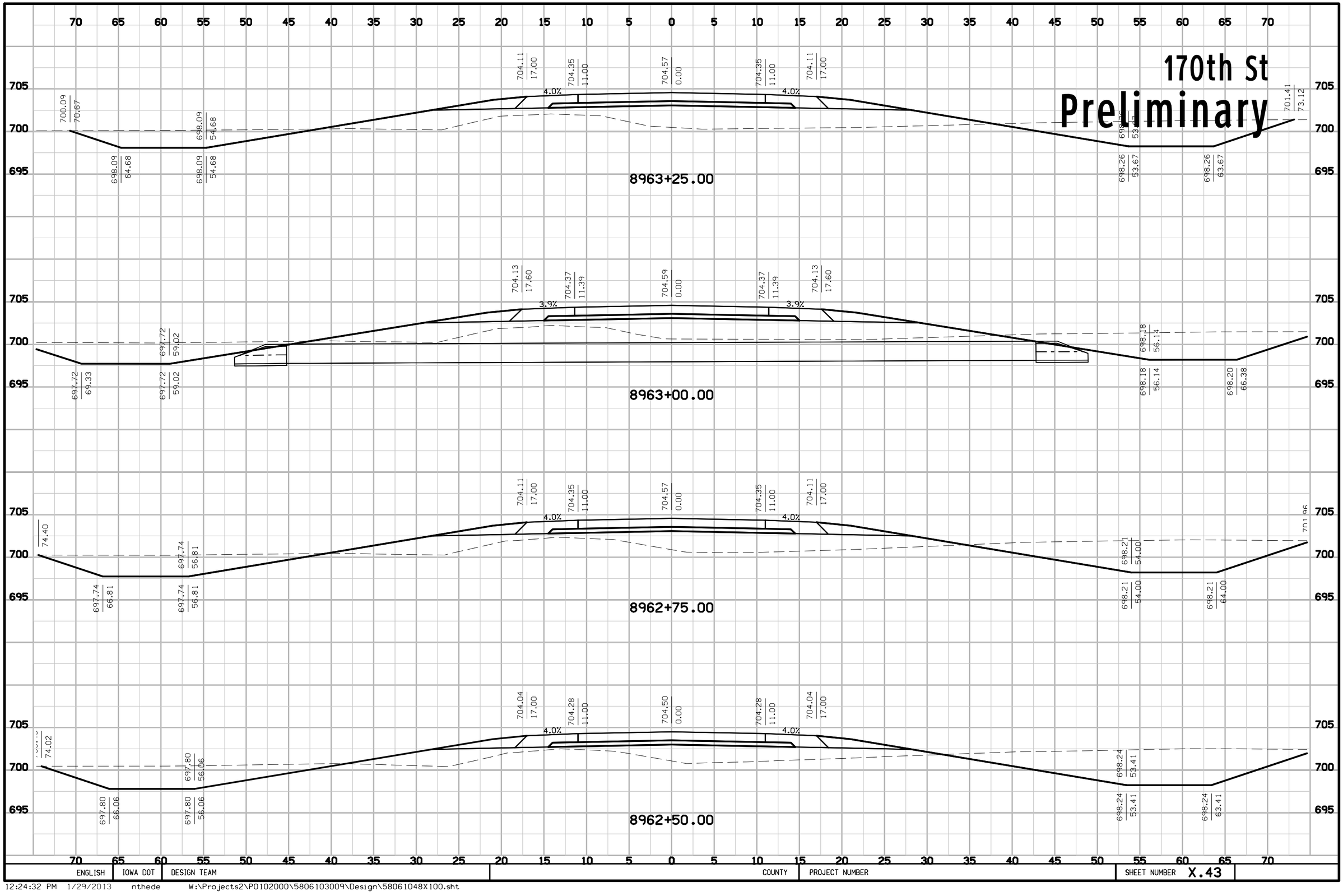
170th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.43

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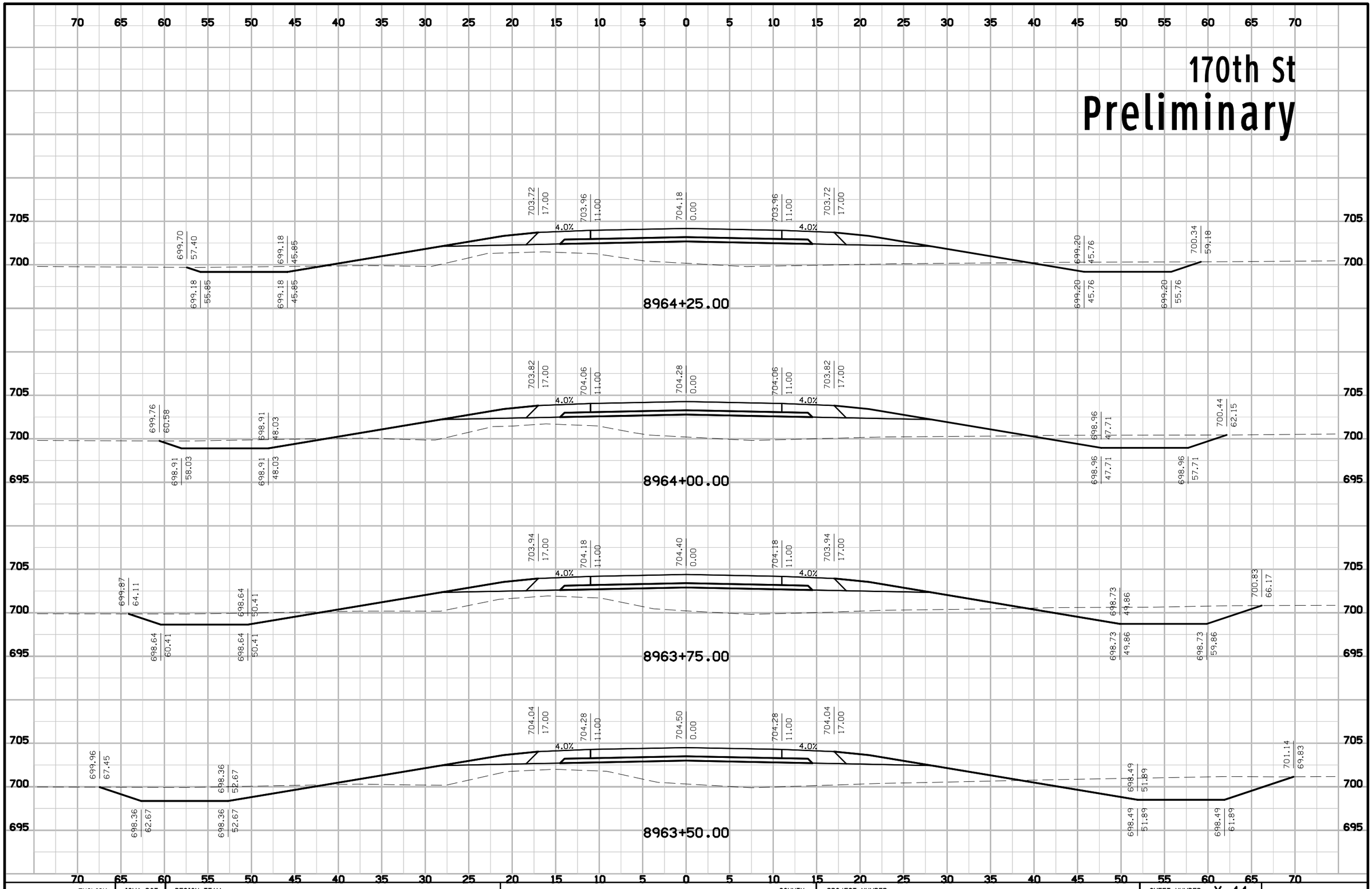
170th St
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.44

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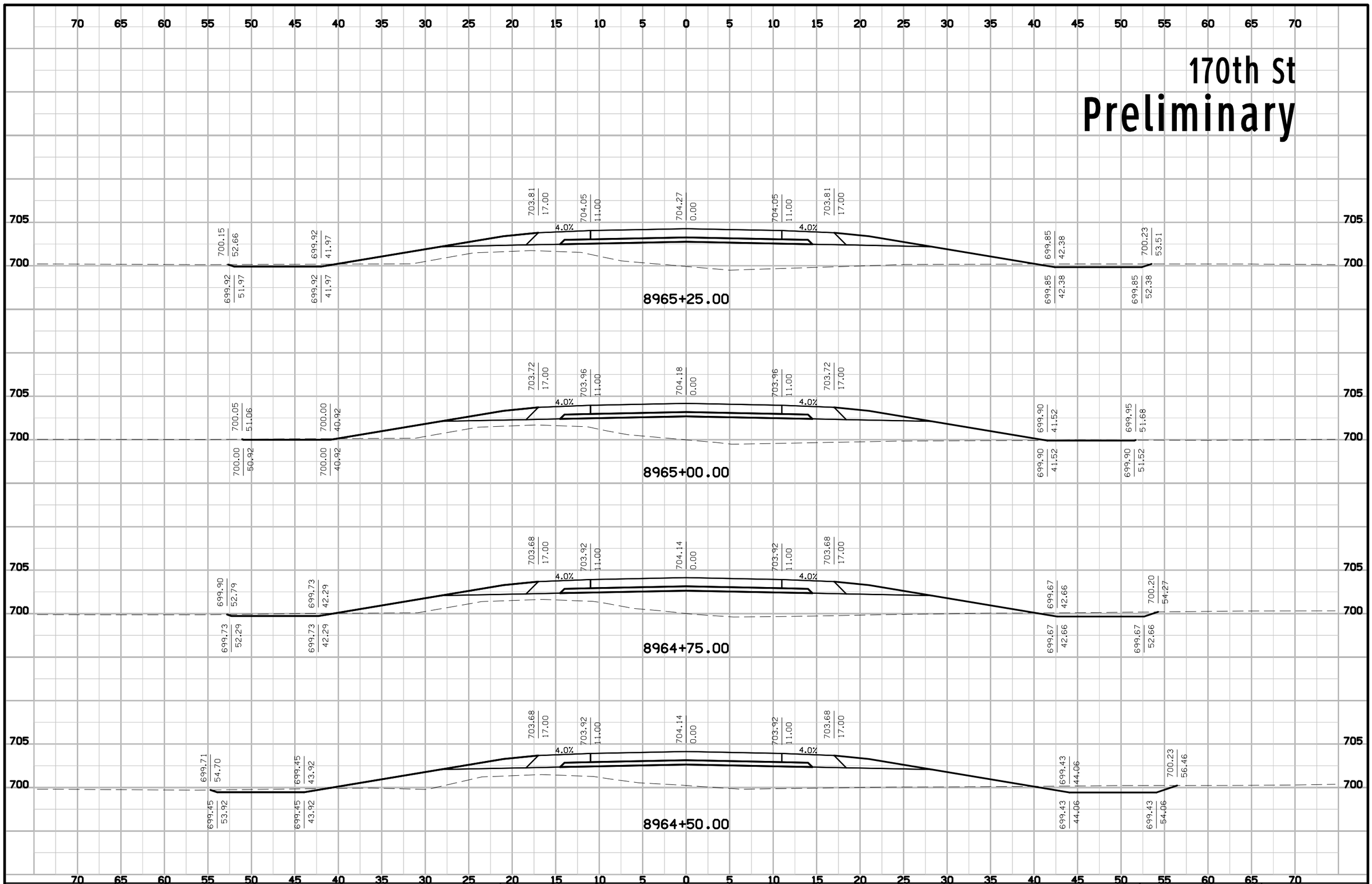
170th St
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.45

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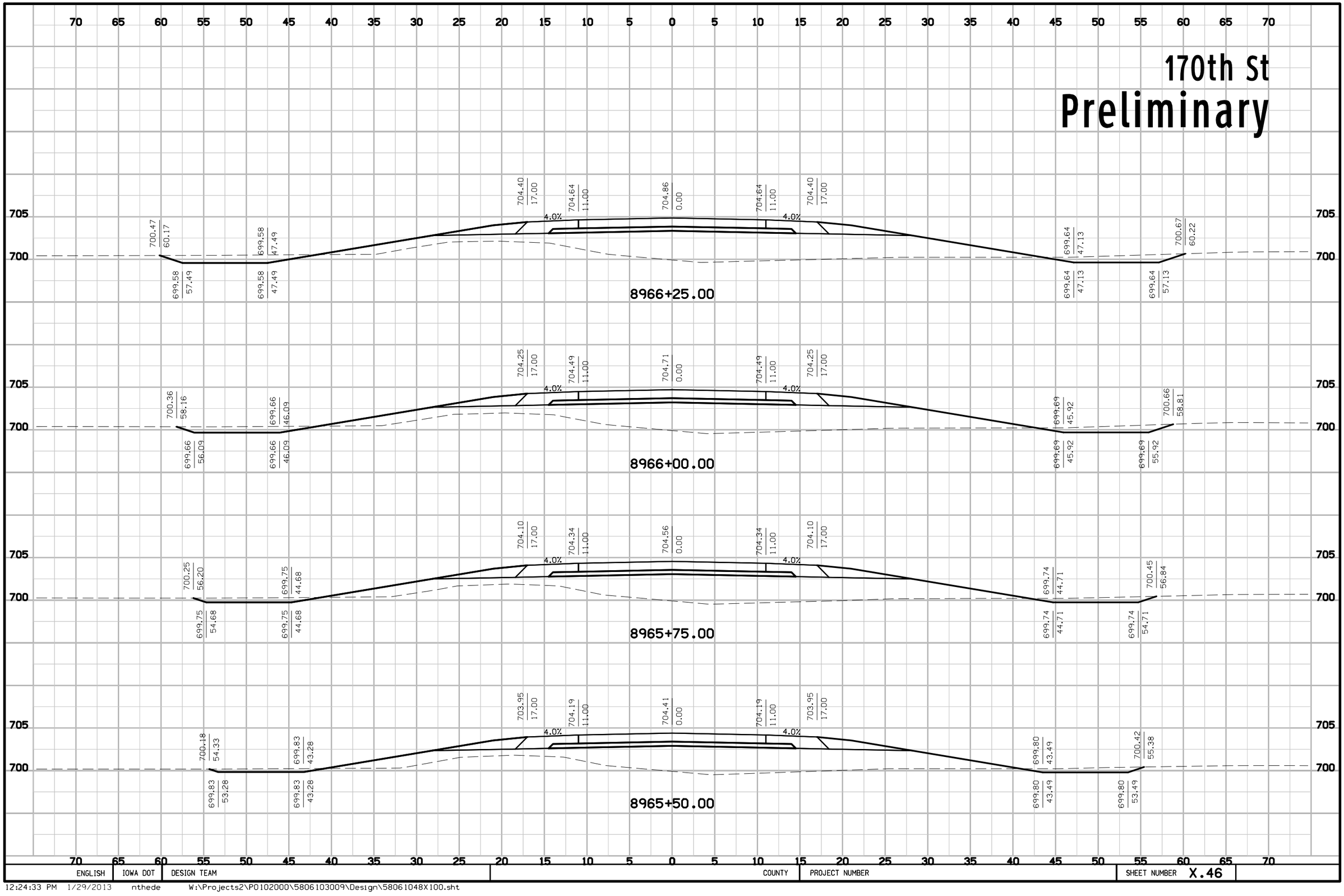
170th St
Preliminary

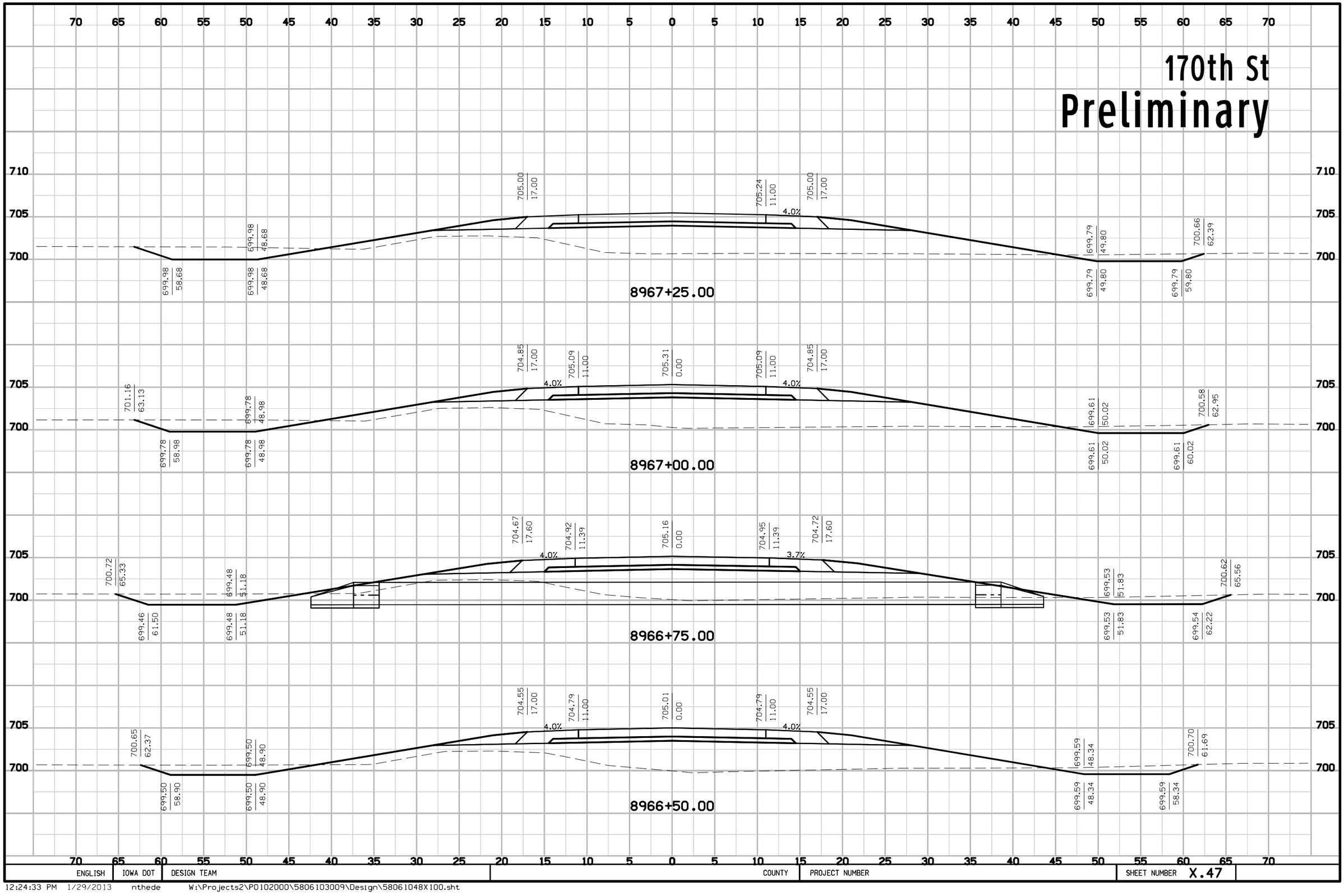


ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.46

12:24:33 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X100.sht

170th St

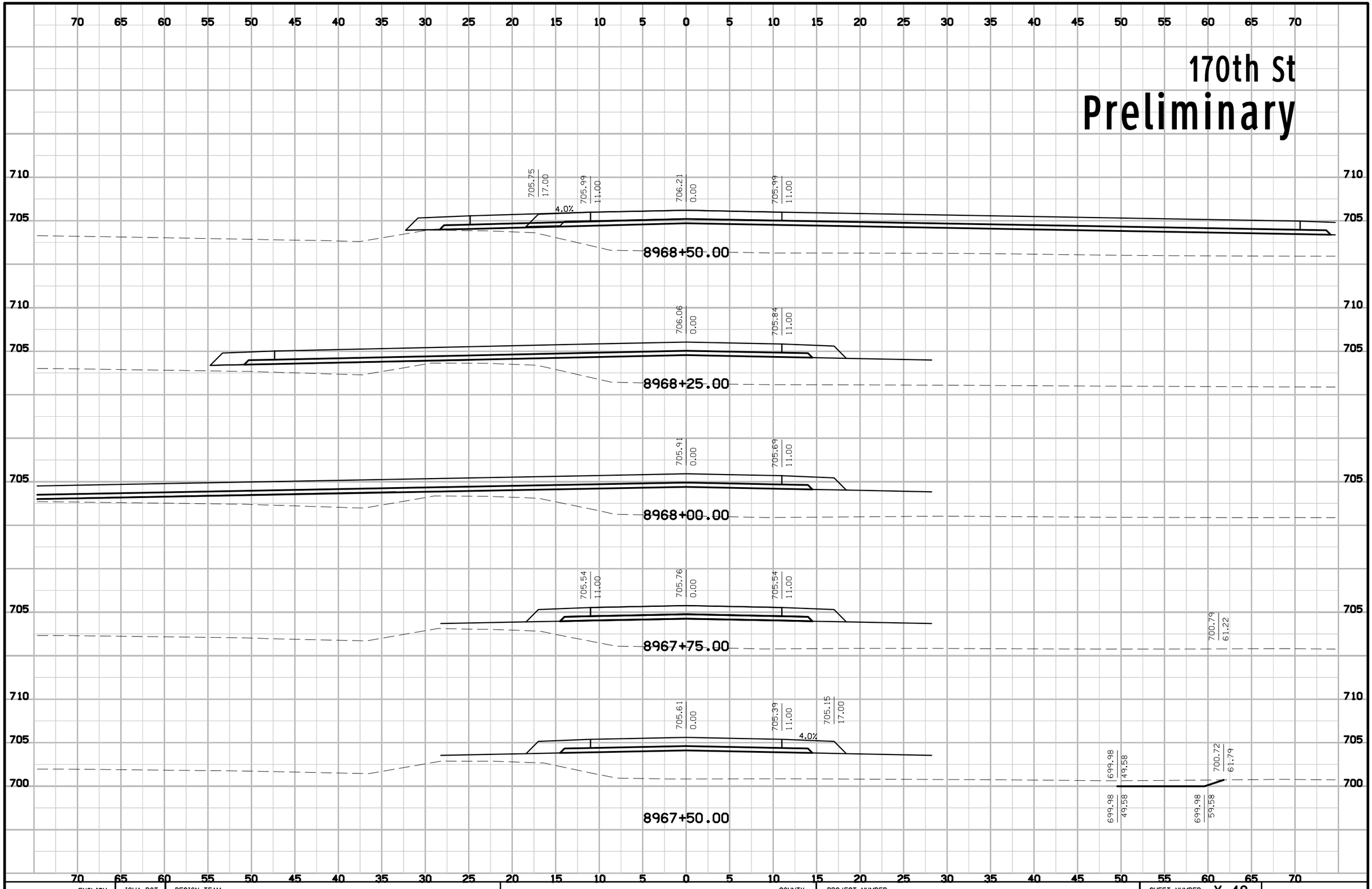
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.47

12:24:33 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X100.sht

170th St
Preliminary

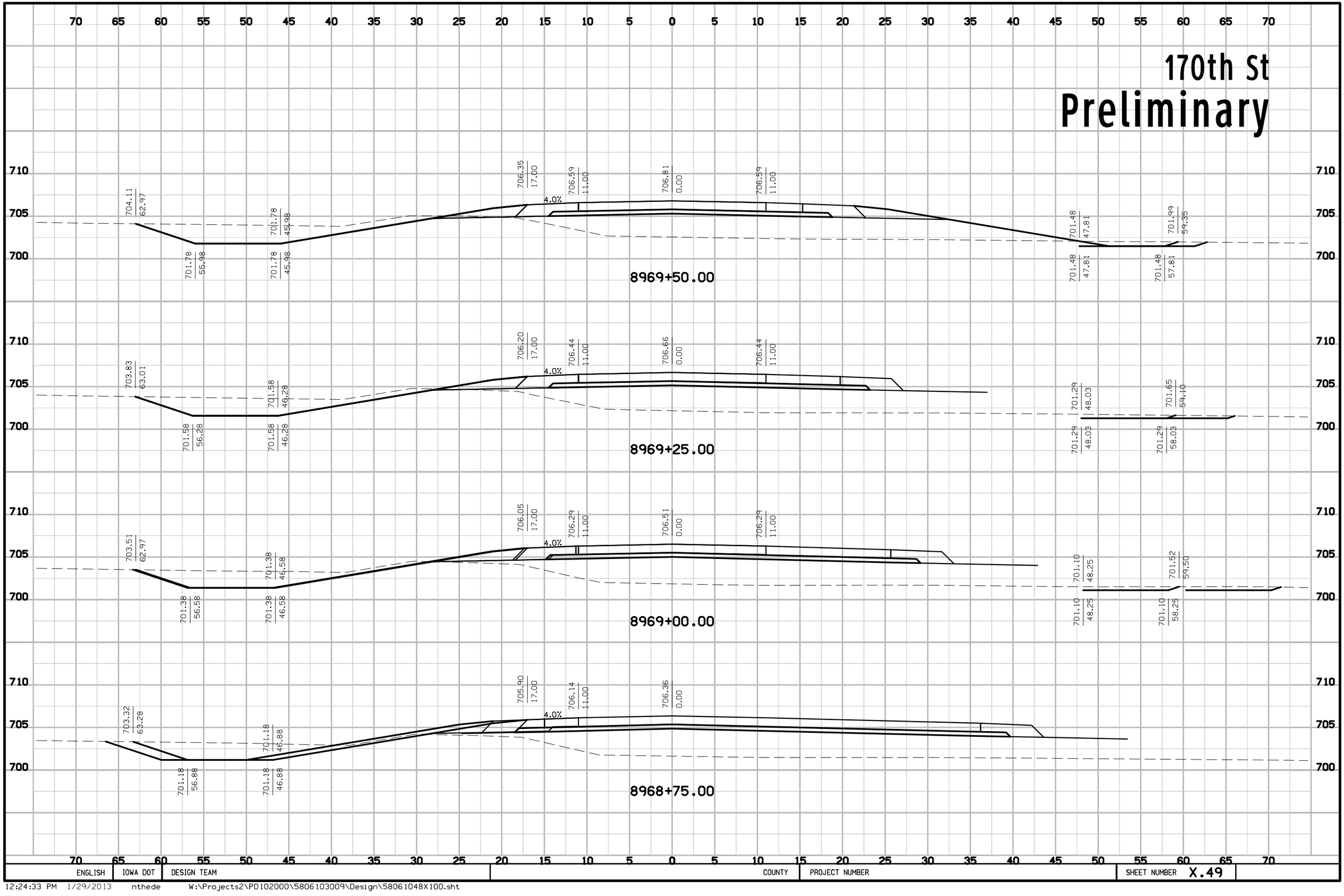


ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER X.48

12:24:33 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X100.sht

170th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.49	

12:24:33 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X100.sht

170th St

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

705 705

8970+50.20

705 705

8970+47.55

705 705

8970+25.00

710 710

705 705

700 700

704.84 62.64

702.34 55.14

702.34 45.14

706.77 17.00

707.01 11.00

707.23 0.00

707.01 11.00

706.77 17.00

4.0% 4.0%

702.00 47.19

702.83 59.68

702.00 47.19

702.00 57.19

8970+20.00

710 710

705 705

700 700

704.61 62.67

702.18 55.38

702.18 45.38

706.65 17.00

706.89 11.00

707.11 0.00

706.89 11.00

706.65 17.00

4.0% 4.0%

701.85 47.37

702.46 59.19

701.85 47.37

701.85 57.37

8970+00.00

710 710

705 705

700 700

704.38 62.87

701.98 55.88

701.98 45.88

706.50 17.00

706.74 11.00

706.96 0.00

706.74 11.00

4.0%

701.66 47.59

702.28 59.42

701.66 47.59

701.66 57.59

8969+75.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.50

12:24:34 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X100.sht

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

170th St

Preliminary

8971+34.32

705 8971+03.95 705

705 8970+76.24 705

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER X.51

12:24:34 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X100.sht

175th St
Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

710
705

707.40 12.94 | 703.78 23.80 | 703.78 38.80 | 705.37 38.57

9971+25.00

707.36 13.00 | 707.36 13.00 | 703.35 25.02 | 703.35 35.02 | 704.70 39.07

9971+00.00

707.27 13.05 | 707.27 12.94 | 702.93 36.08 | 702.93 26.09 | 702.93 25.97 | 702.93 35.97 | 704.19 39.74

9970+75.00

9970+51.72

707.15 13.00 | 707.15 13.00 | 704.88 44.04 | 704.51 36.92 | 702.51 26.92 | 702.51 36.92 | 703.55 40.05

9970+50.00

707.00 13.05 | 707.00 12.94 | 704.72 45.69 | 702.08 37.78 | 702.08 27.79 | 702.08 27.67 | 702.08 37.67 | 703.07 40.62

9970+25.00

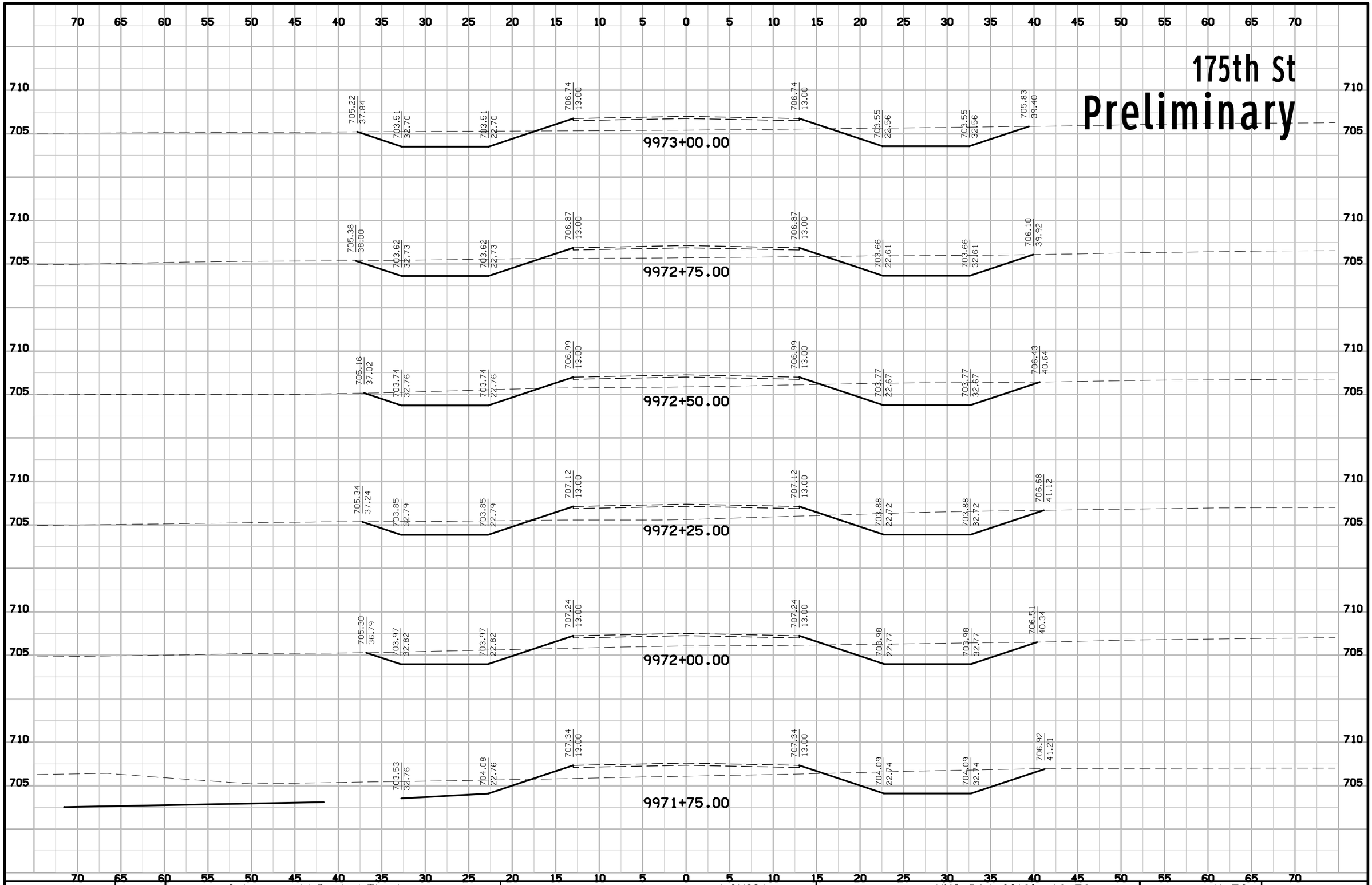
9970+20.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.52

12:24:44 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X150.sht

175th St

Preliminary

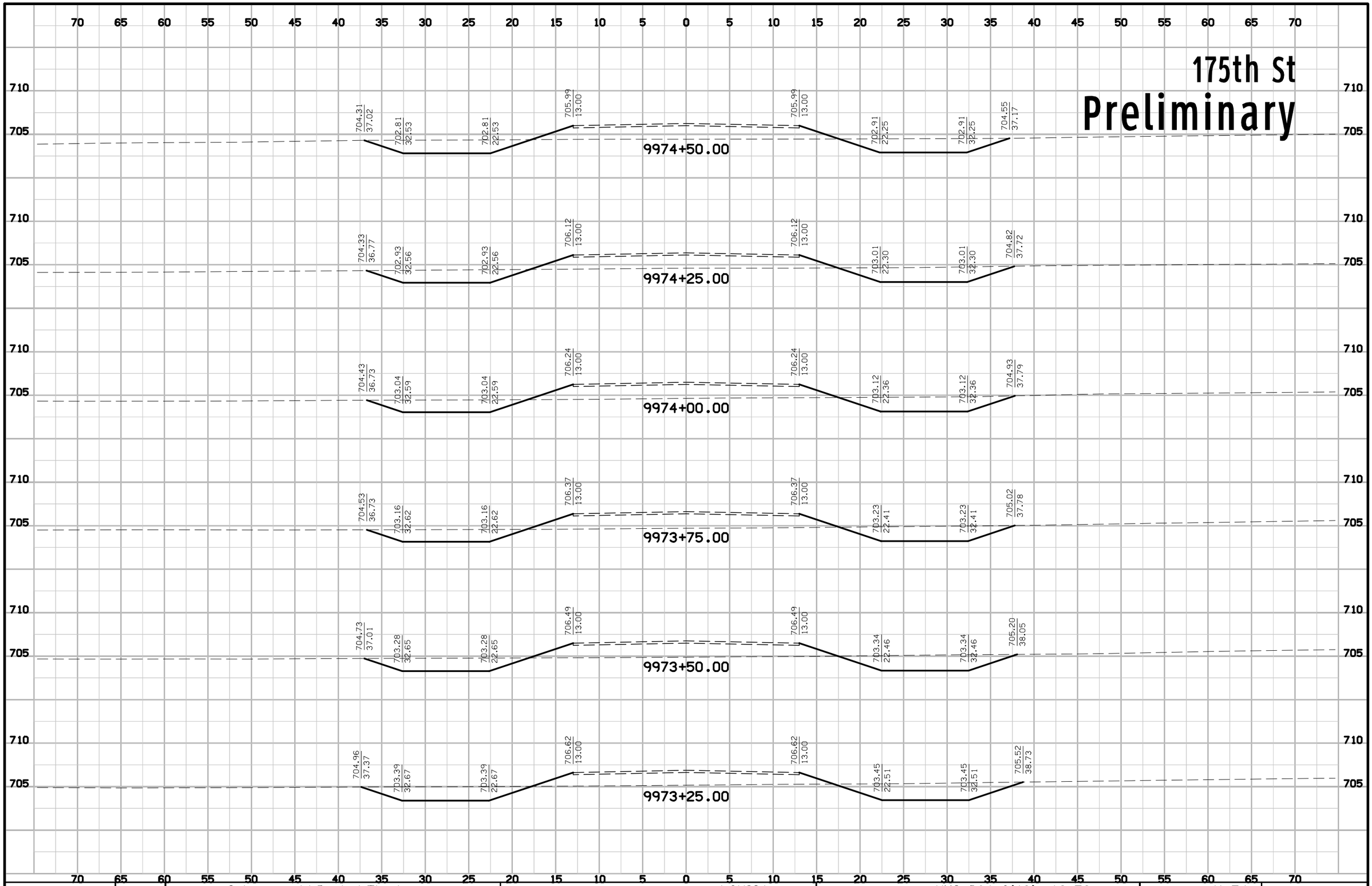


ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.53

12:24:45 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X150.sht

175th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.54

12:24:45 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X150.sht

175th St

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

705

703.28 35.83 | 702.12 32.36 | 702.12 22.36 | 705.24 13.00 | 705.24 13.00 | 702.26 21.94 | 702.26 31.94 | 704.35 38.22

9976+00.00

705

703.38 35.82 | 702.24 32.39 | 702.24 22.39 | 705.37 13.00 | 705.37 13.00 | 702.37 21.99 | 702.37 31.99 | 704.46 38.28

9975+75.00

705

703.74 36.58 | 702.35 32.42 | 702.35 22.42 | 705.49 13.00 | 705.49 13.00 | 702.48 22.05 | 702.48 32.05 | 704.53 38.22

9975+50.00

705

703.81 36.46 | 702.47 32.45 | 702.47 22.45 | 705.62 13.00 | 705.62 13.00 | 702.58 22.10 | 702.58 32.10 | 704.49 37.81

9975+25.00

705

703.81 36.15 | 702.58 32.48 | 702.58 22.48 | 705.74 13.00 | 705.74 13.00 | 702.69 22.15 | 702.69 32.15 | 704.90 38.78

9975+00.00

705

703.99 36.39 | 702.70 32.50 | 702.70 22.50 | 705.87 13.00 | 705.87 13.00 | 702.80 22.20 | 702.80 32.20 | 704.60 37.62

9974+75.00

705

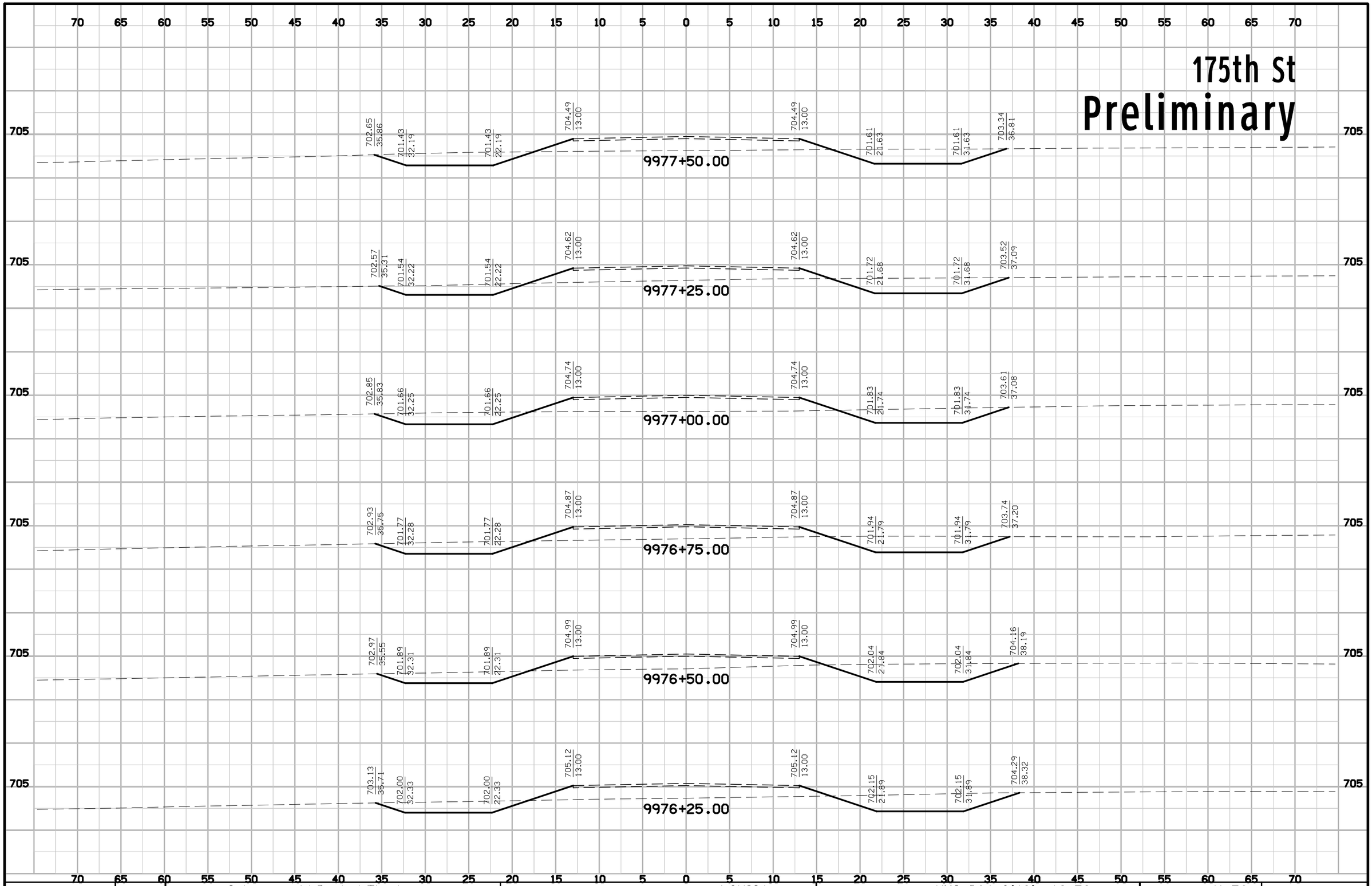
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.55

12:24:45 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X150.sht

175th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.56

12:24:46 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X150.sht

175th St

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

705

701.94 35.63 | 700.73 32.02 | 700.73 22.02 | 703.74 13.00 | 703.74 13.00 | 700.97 21.32 | 700.97 31.32 | 702.57 36.14

9979+00.00

705

701.82 34.96 | 700.85 32.05 | 700.85 22.05 | 703.87 13.00 | 703.87 13.00 | 701.07 21.37 | 701.07 31.37 | 702.91 36.87

9978+75.00

705

702.02 35.25 | 700.96 32.08 | 700.96 22.08 | 703.99 13.00 | 703.99 13.00 | 701.18 21.43 | 701.18 31.43 | 702.97 36.79

9978+50.00

705

702.15 35.32 | 701.08 32.11 | 701.08 22.11 | 704.12 13.00 | 704.12 13.00 | 701.29 21.48 | 701.29 31.48 | 702.96 36.50

9978+25.00

705

702.33 35.54 | 701.20 32.14 | 701.20 22.14 | 704.24 13.00 | 704.24 13.00 | 701.40 21.53 | 701.40 31.53 | 703.14 36.76

9978+00.00

705

702.55 35.87 | 701.31 32.16 | 701.31 22.16 | 704.37 13.00 | 704.37 13.00 | 701.51 21.58 | 701.51 31.58 | 703.19 36.65

9977+75.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.57

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175th St
Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

705

701.37 / 35.85 — 700.04 / 31.85 — 700.04 / 21.85 — 702.99 / 13.00 — 702.99 / 13.00 — 700.32 / 21.01 — 700.32 / 31.01 — 702.11 / 36.37

9980+50.00

705

701.57 / 36.13 — 700.16 / 31.88 — 700.16 / 21.88 — 703.12 / 13.00 — 703.12 / 13.00 — 700.43 / 21.06 — 700.43 / 31.06 — 702.16 / 36.25

9980+25.00

705

701.46 / 35.48 — 700.27 / 31.91 — 700.27 / 21.91 — 703.24 / 13.00 — 703.24 / 13.00 — 700.54 / 21.12 — 700.54 / 31.12 — 702.40 / 36.70

9980+00.00

705

701.55 / 35.44 — 700.39 / 31.94 — 700.39 / 21.94 — 703.37 / 13.00 — 703.37 / 13.00 — 700.64 / 21.17 — 700.64 / 31.17 — 702.60 / 37.03

9979+75.00

705

701.66 / 35.43 — 700.50 / 31.97 — 700.50 / 21.97 — 703.49 / 13.00 — 703.49 / 13.00 — 700.75 / 21.22 — 700.75 / 31.22 — 702.53 / 36.54

9979+50.00

705

701.75 / 35.39 — 700.62 / 31.99 — 700.62 / 21.99 — 703.62 / 13.00 — 703.62 / 13.00 — 700.86 / 21.27 — 700.86 / 31.27 — 702.60 / 36.49

9979+25.00

705

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.58

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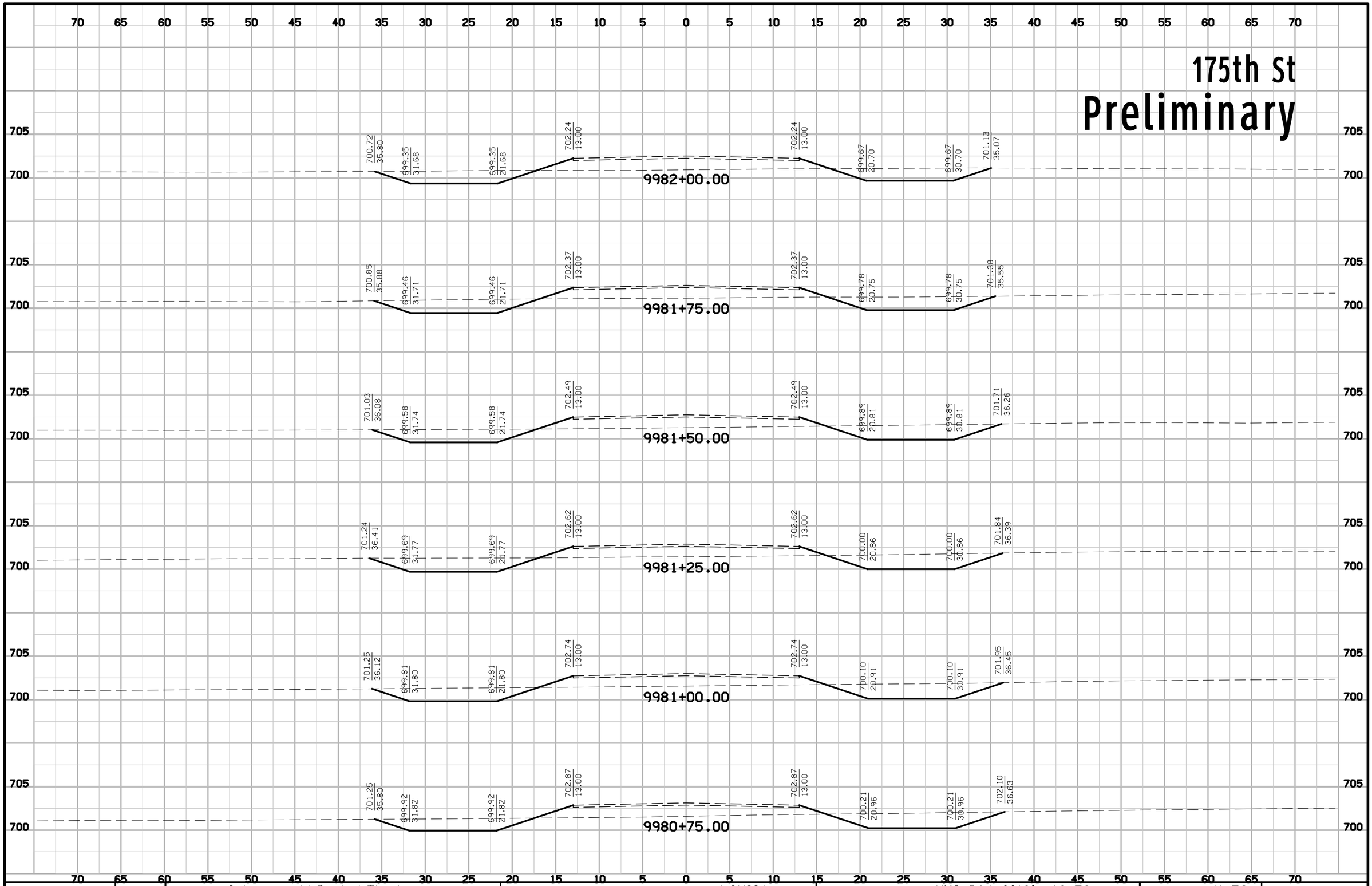
175th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.59

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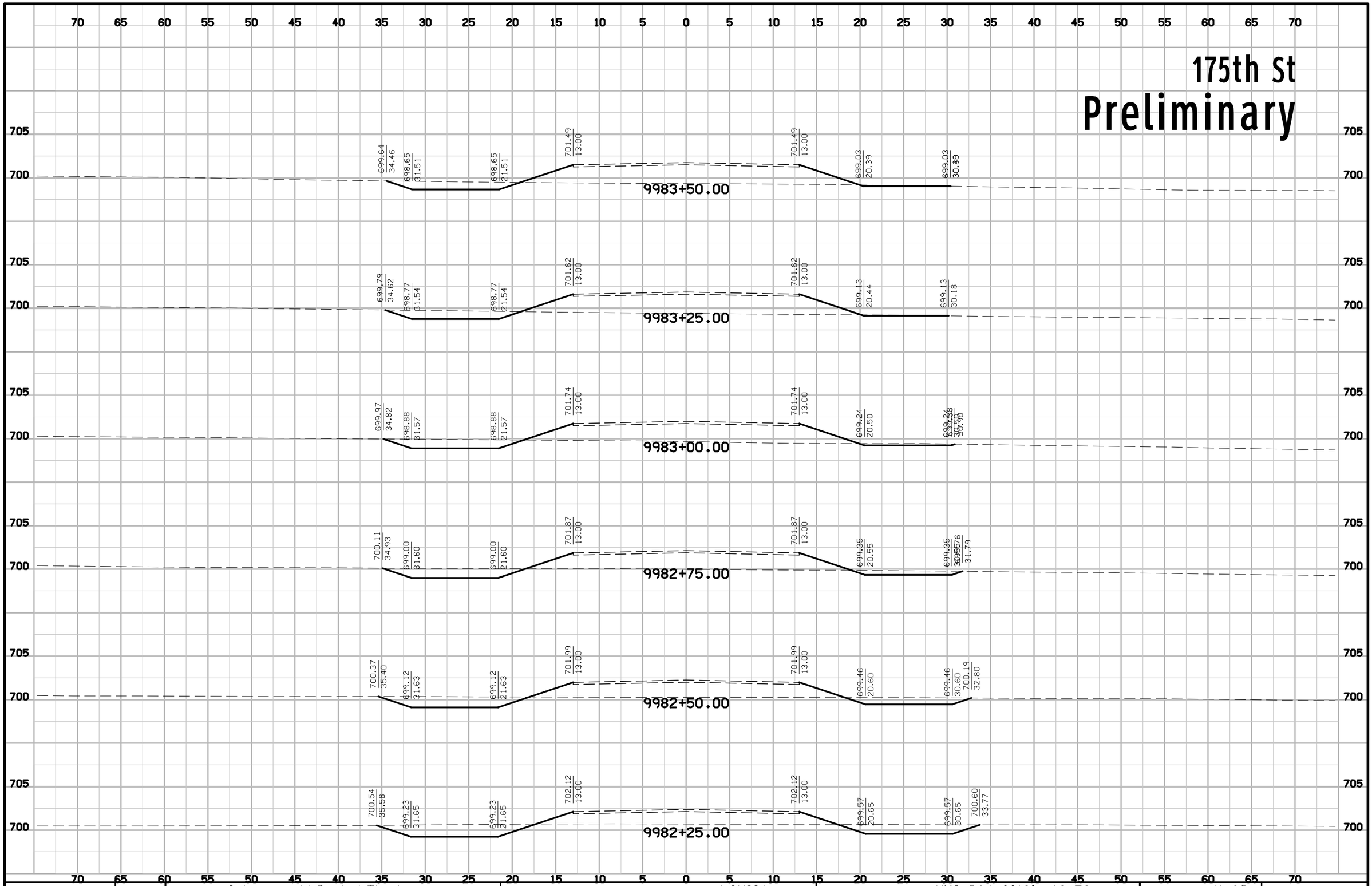
175th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.60

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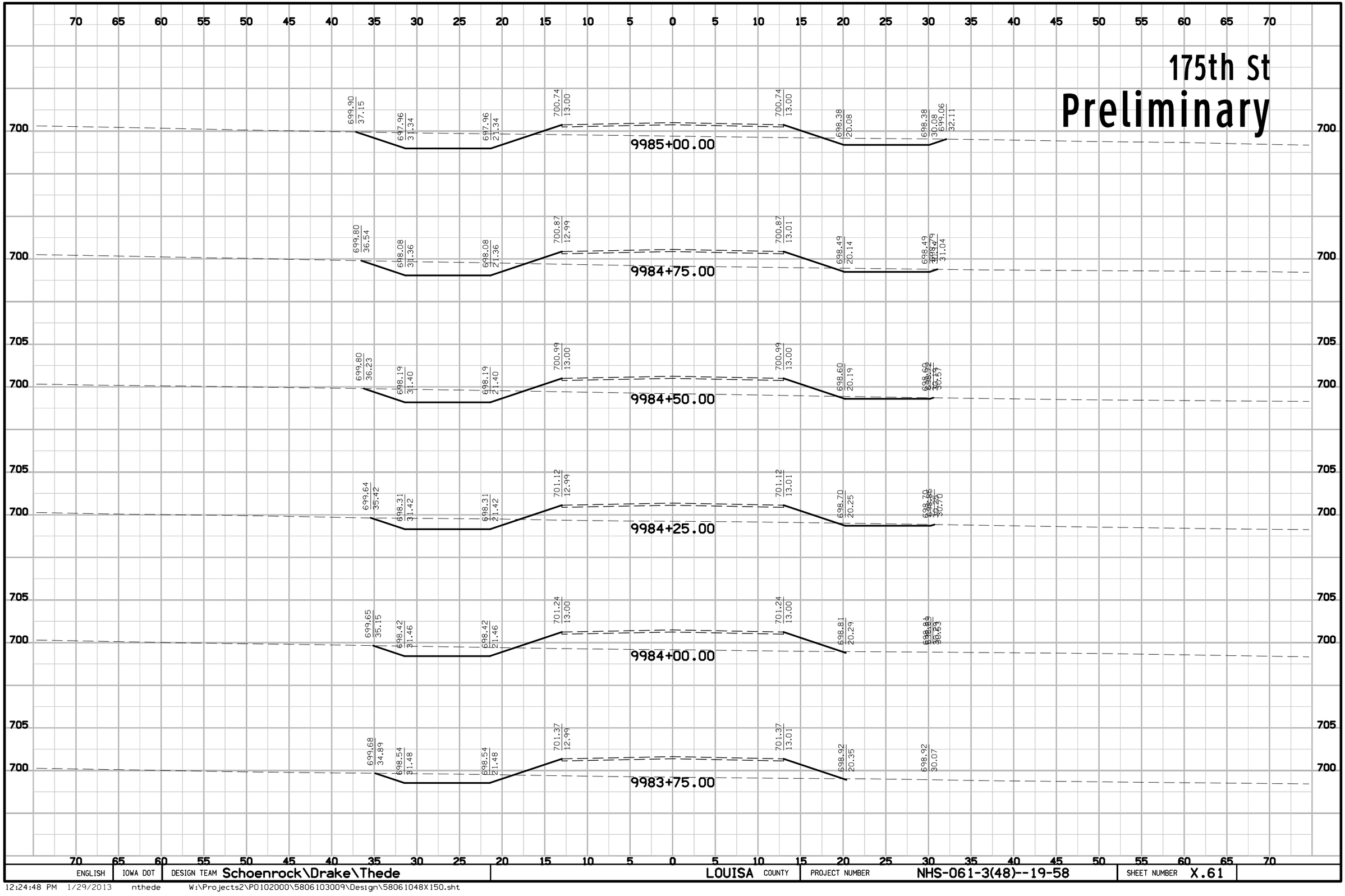
175th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.61

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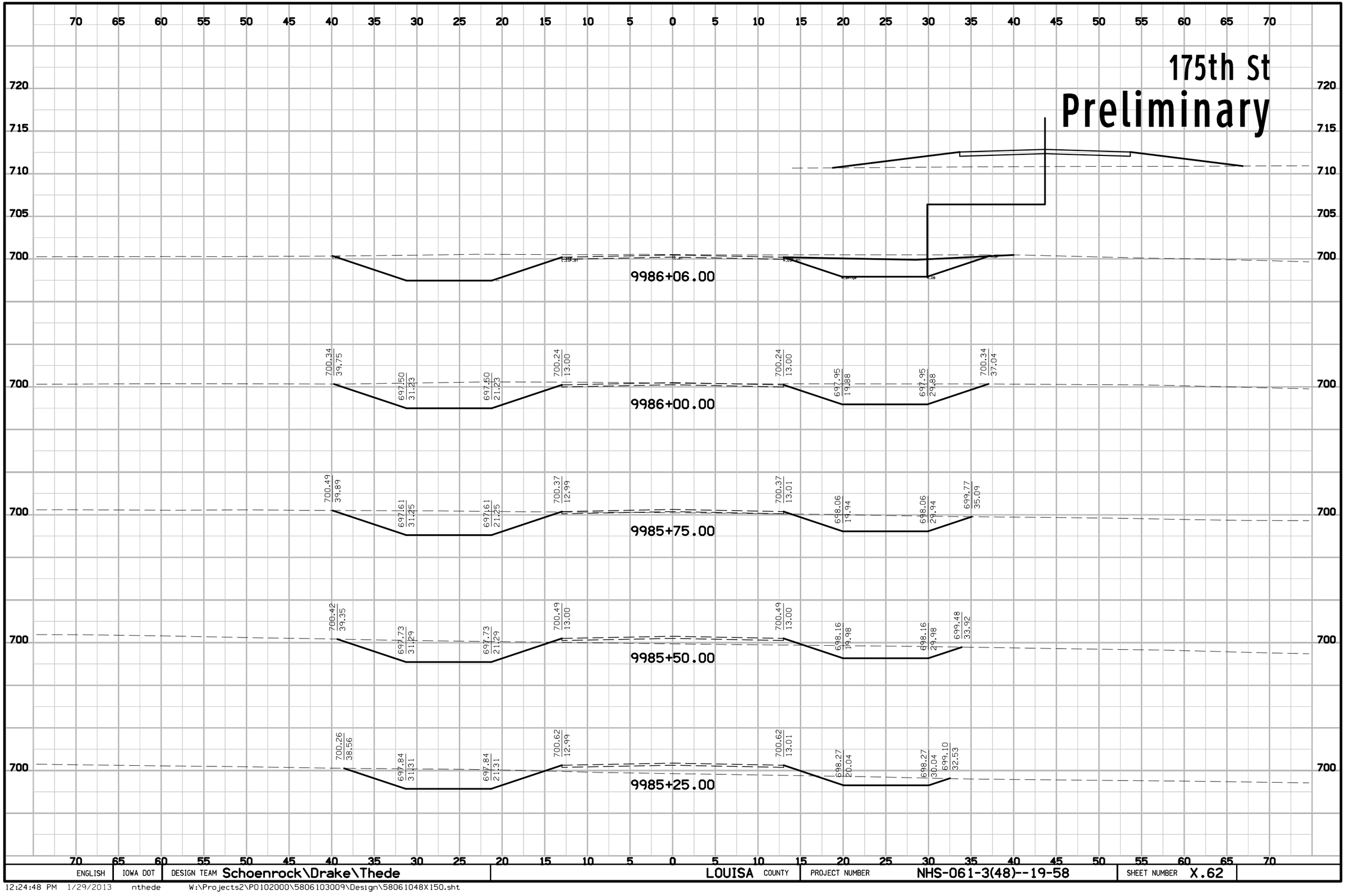
175th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.62

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175th St

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

700

698.01 34.67 | 696.80 31.06 | 696.80 21.06 | 699.49 13.00 | 699.49 13.00 | 697.30 19.57 | 697.30 29.57 | 698.29 32.53

9987+50.00

700

698.32 35.27 | 696.92 31.08 | 696.92 21.08 | 699.62 12.99 | 699.62 13.01 | 697.41 19.63 | 697.41 29.63 | 698.56 33.06

9987+25.00

700

698.51 35.54 | 697.04 31.12 | 697.04 21.12 | 699.74 13.00 | 699.74 13.00 | 697.52 19.67 | 697.52 29.67 | 699.06 34.29

9987+00.00

700

699.16 37.16 | 697.15 31.14 | 697.15 21.14 | 699.87 12.99 | 699.87 13.01 | 697.63 19.73 | 697.63 29.73 | 699.25 34.62

9986+75.00

700

699.87 39.00 | 697.27 31.17 | 697.27 21.17 | 699.99 13.00 | 699.99 13.00 | 697.73 19.77 | 697.73 29.77 | 699.69 35.64

9986+50.00

700

700.36 40.14 | 697.38 31.19 | 697.38 21.19 | 700.12 12.99 | 700.12 13.01 | 697.84 19.83 | 697.84 29.83 | 700.10 36.61

9986+25.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.63

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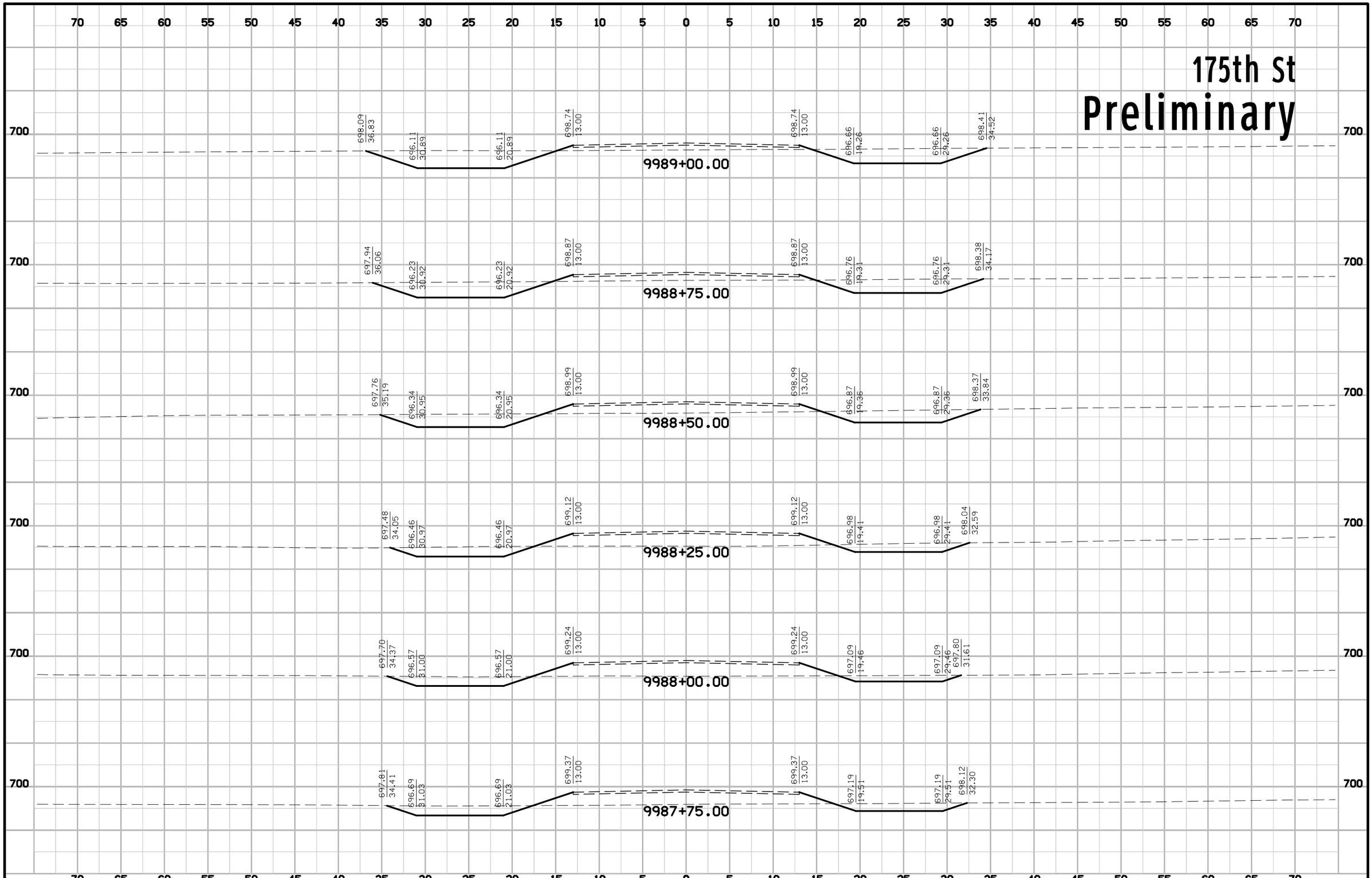

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.64

12:24:49 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X150.sht

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

175th St
Preliminary

700

698.93 / 43.37 — 695.42 / 32.84 — 695.42 / 22.84 — 698.70 / 13.00 — 698.70 / 13.00 — 696.01 / 21.06 — 696.01 / 31.06 — 698.89 / 39.72

9990+50.00

700

699.18 / 43.17 — 695.53 / 32.22 — 695.53 / 22.22 — 698.61 / 13.00 — 698.61 / 13.00 — 696.12 / 20.47 — 696.12 / 30.47 — 698.95 / 38.96

9990+25.00

700

699.15 / 42.22 — 695.65 / 31.72 — 695.65 / 21.72 — 698.55 / 13.00 — 698.55 / 13.00 — 696.22 / 19.99 — 696.22 / 29.99 — 698.95 / 38.17

9990+00.00

700

699.08 / 41.27 — 695.76 / 31.34 — 695.76 / 21.34 — 698.54 / 13.00 — 698.54 / 13.00 — 696.33 / 19.63 — 696.33 / 29.63 — 698.80 / 37.05

9989+75.00

700

699.02 / 40.49 — 695.88 / 31.07 — 695.88 / 21.07 — 698.57 / 13.00 — 698.57 / 13.00 — 696.44 / 19.39 — 696.44 / 29.39 — 698.83 / 36.57

9989+50.00

700

698.43 / 38.23 — 696.00 / 30.92 — 696.00 / 20.92 — 698.64 / 13.00 — 698.64 / 13.00 — 696.55 / 19.26 — 696.55 / 29.26 — 698.74 / 35.83

9989+25.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.65

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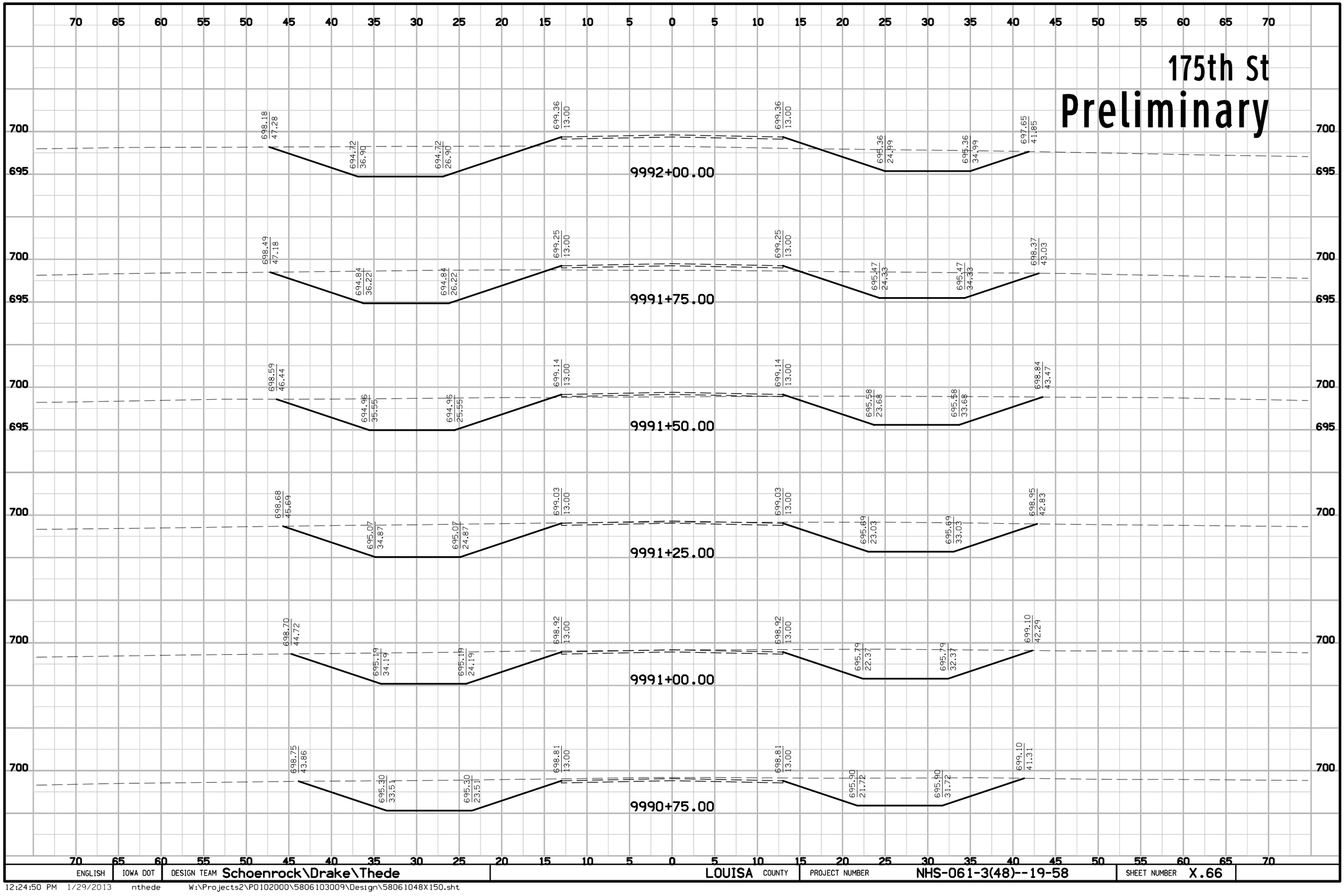
175th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.66

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175th St

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

700
695

695.03 / 43.43
694.03 / 40.44
694.03 / 30.44
699.84 / 13.00

9993+50.00

695.77 / 44.92
694.15 / 40.05
694.15 / 30.05
699.83 / 13.00

9993+25.00

696.54 / 46.38
694.26 / 39.55
694.26 / 29.55
699.78 / 13.00
699.78 / 13.00
694.93 / 27.55
694.93 / 37.84

9993+00.00

697.02 / 46.86
694.38 / 38.93
694.38 / 28.93
699.69 / 13.00
699.69 / 13.00
695.04 / 26.95
695.04 / 36.95
695.73 / 39.01

9992+75.00

697.53 / 47.36
694.49 / 38.26
694.49 / 28.26
699.58 / 13.00
699.58 / 13.00
695.15 / 26.30
695.15 / 36.30
696.26 / 39.63

9992+50.00

697.89 / 47.42
694.61 / 37.58
694.61 / 27.58
699.47 / 13.00
699.47 / 13.00
695.25 / 25.64
695.25 / 35.64
696.99 / 40.84

9992+25.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.67

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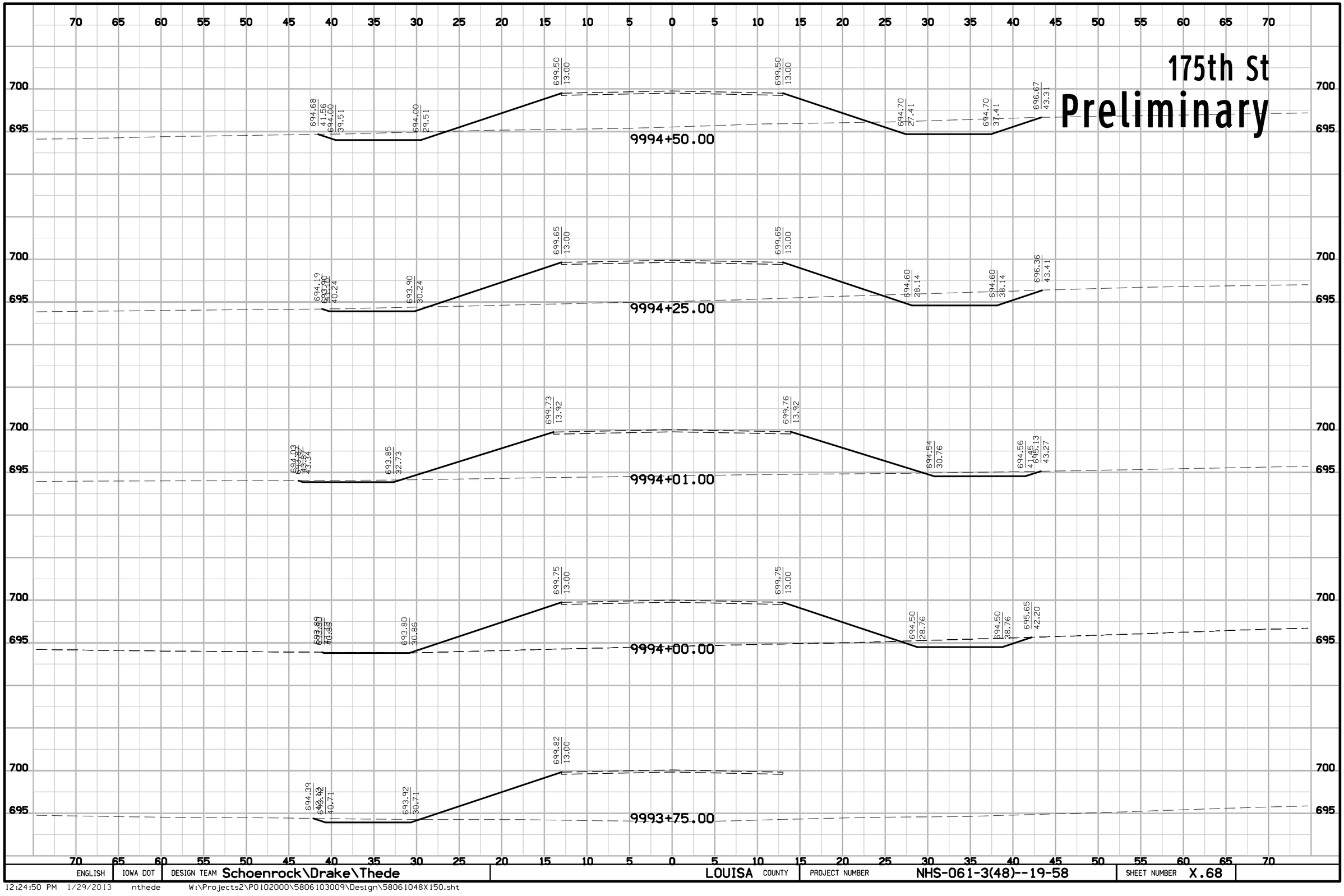
175th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.68

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175th St

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

700
695

696.58 / 42.08
694.11 / 34.67
694.11 / 24.67
698.00 / 13.00
698.00 / 13.00
694.80 / 22.59
694.80 / 32.59
697.18 / 39.71

9996+00.00

696.57 / 40.84
694.45 / 34.48
694.45 / 24.48
698.28 / 13.00
698.28 / 13.00
695.15 / 22.39
695.15 / 32.39
697.20 / 38.54

9995+75.00

696.47 / 41.69
694.40 / 35.48
694.40 / 25.48
698.56 / 13.00
698.56 / 13.00
695.10 / 23.38
695.10 / 33.38
697.17 / 39.61

9995+50.00

696.23 / 42.40
694.30 / 36.62
694.30 / 26.62
698.84 / 13.00
698.84 / 13.00
695.00 / 24.52
695.00 / 34.52
697.30 / 41.42

9995+25.00

695.55 / 41.76
694.20 / 37.70
694.20 / 27.70
699.10 / 13.00
699.10 / 13.00
694.90 / 25.60
694.90 / 35.60
697.30 / 42.80

9995+00.00

695.02 / 41.42
694.10 / 38.66
694.10 / 28.66
699.32 / 13.00
699.32 / 13.00
694.80 / 26.56
694.80 / 36.56
696.87 / 42.79

9994+75.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.69

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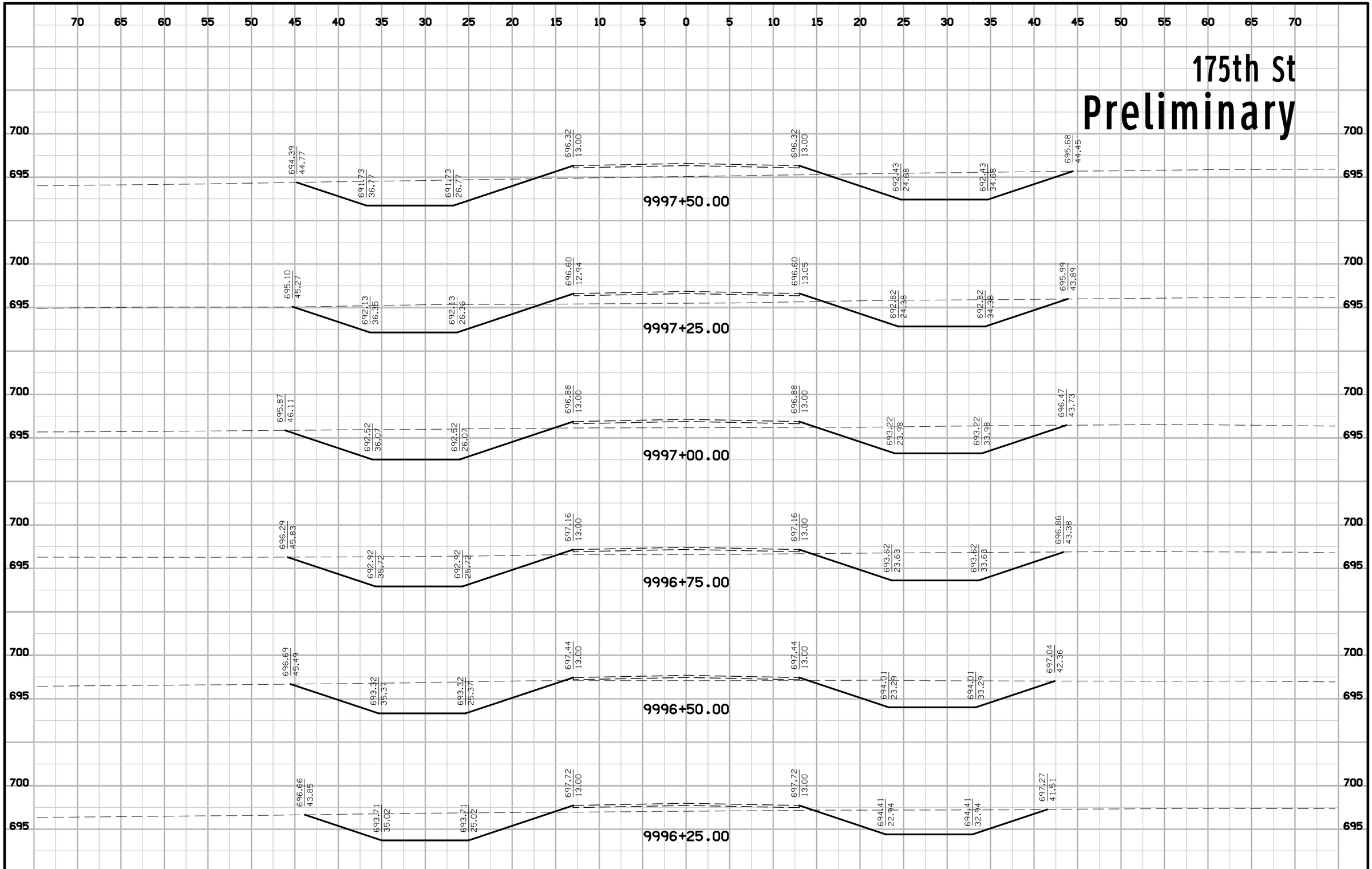
175th St

Preliminary



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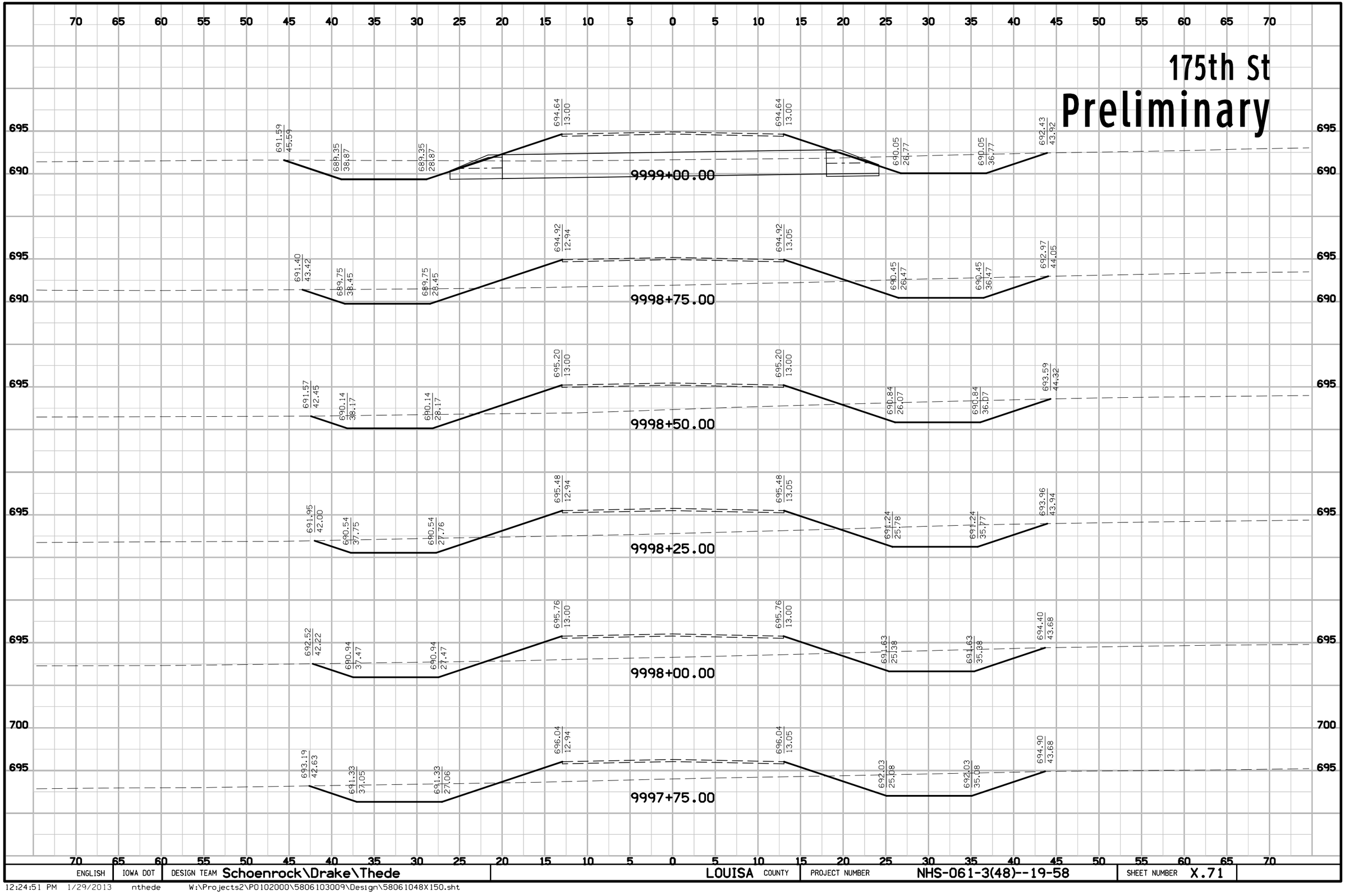
175th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.71

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175th St

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

695
690

690.66 36.93
689.65 33.91
689.65 23.91
693.29 13.00
693.29 13.00
690.35 21.81
690.35 31.81
691.69 35.83

10000+50.00

693.40 12.94
693.40 13.05
689.60 31.98
689.60 24.32
690.30 22.34
690.30 32.34
691.84 36.95

10000+25.00

690.96 39.29
689.55 35.05
689.55 25.05
693.57 13.00
693.57 13.00
690.25 22.95
690.25 32.95
691.91 37.91

10000+00.00

692.53 44.91
689.50 35.84
689.50 25.84
693.80 12.94
693.80 13.05
690.20 23.86
690.20 33.86
691.74 38.46

9999+75.00

692.62 46.41
689.45 36.89
689.45 26.89
694.08 13.00
694.08 13.00
690.15 24.79
690.15 34.79
691.70 39.44

9999+50.00

690.97 42.52
689.40 37.81
689.40 27.81
694.36 12.94
694.36 13.05
690.10 25.83
690.10 35.83
691.97 41.43

9999+25.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.72

12:24:52 PM 1/29/2013 nthede W:\Projects2\P0102000\5806103009\Design\58061048X150.sht

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175th St

Preliminary

10002+50.00

10002+25.00

10002+00.00

690 690

10001+75.00

690 690

10001+50.00

692.23 40.93 | 689.80 33.64 | 689.80 23.64 | 693.35 13.00 | 693.35 13.00 | 690.50 21.54 | 690.50 31.54 | 692.04 36.17

695 695

690 690

10001+25.00

691.77 39.61 | 689.75 33.54 | 689.75 23.54 | 693.26 13.00 | 693.26 13.00 | 690.45 21.44 | 690.45 31.44 | 691.94 35.91

695 695

690 690

10001+00.00

691.19 38.04 | 689.70 33.57 | 689.70 23.57 | 693.25 12.94 | 693.25 13.05 | 690.40 21.59 | 690.40 31.59 | 691.84 35.89

695 695

690 690

10000+75.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.73

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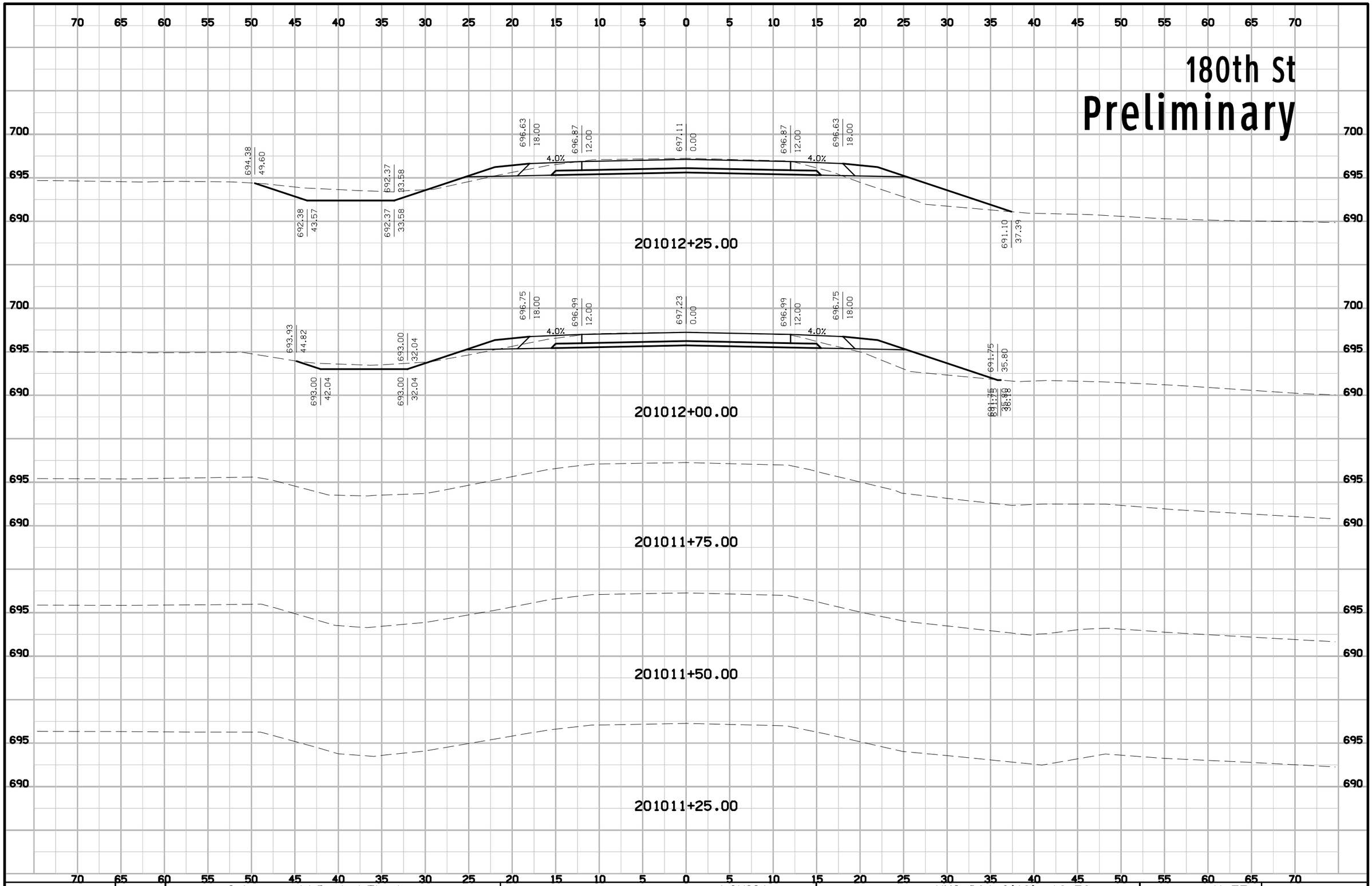
180th St
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.75

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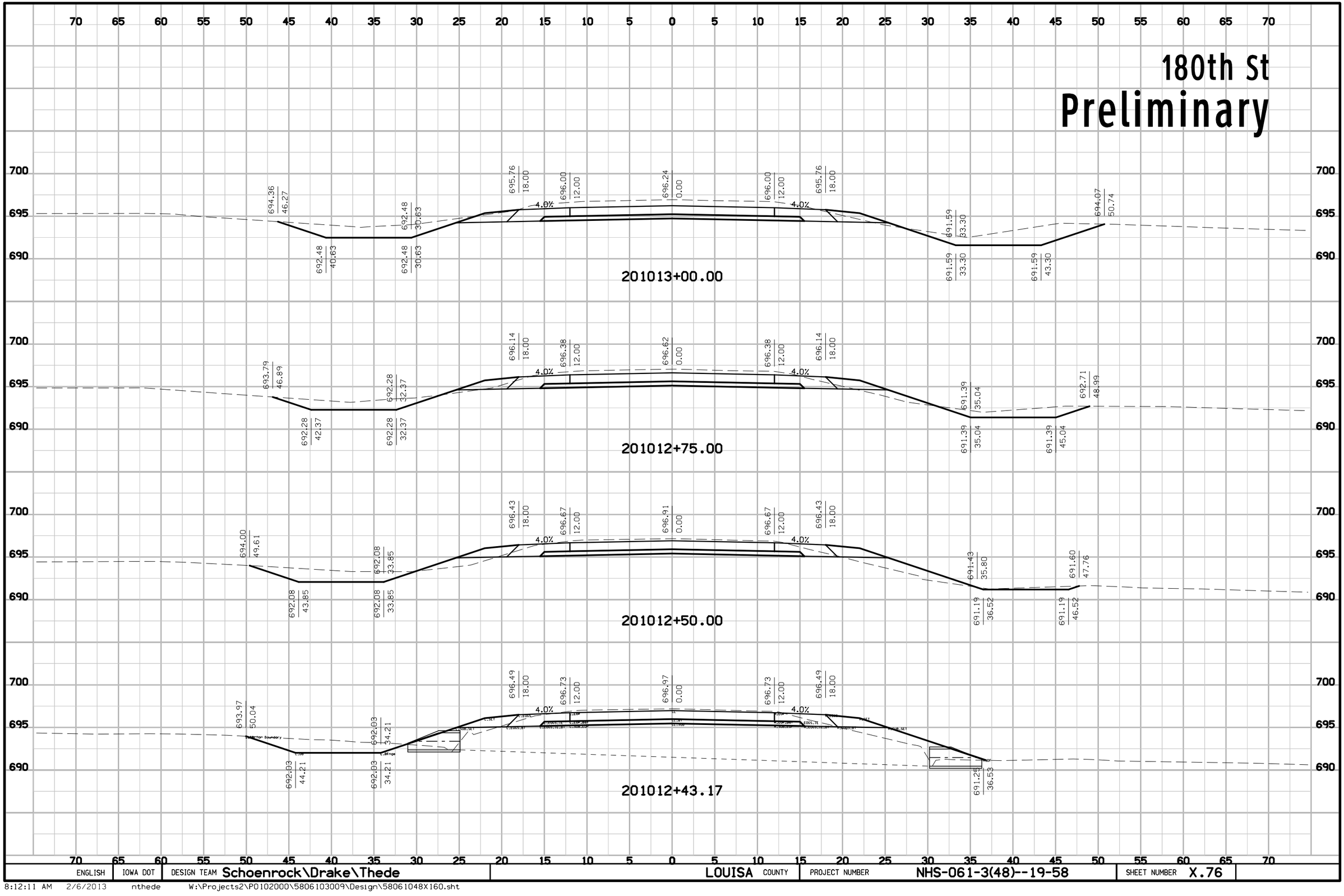
180th St

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.76

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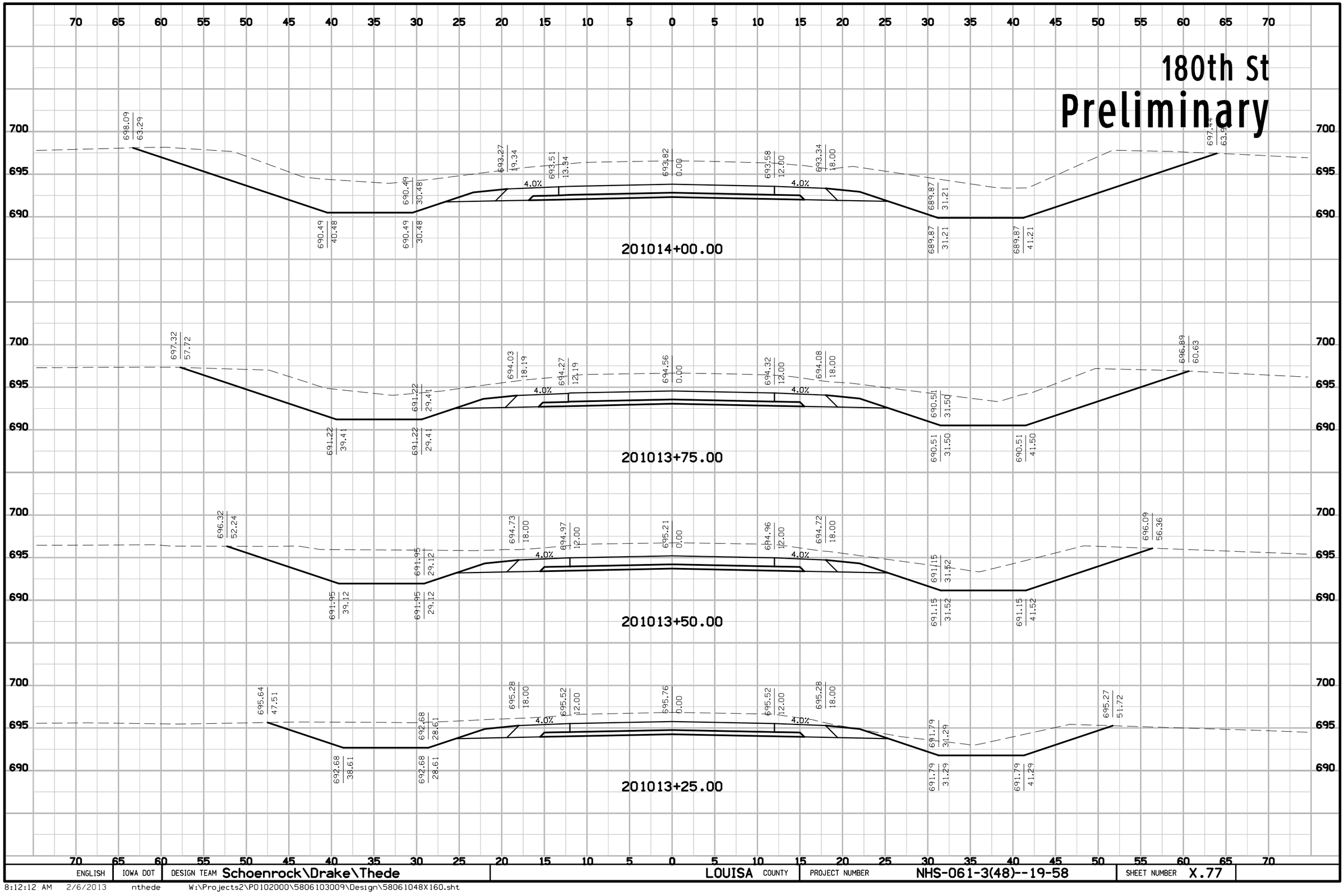
180th St
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.77

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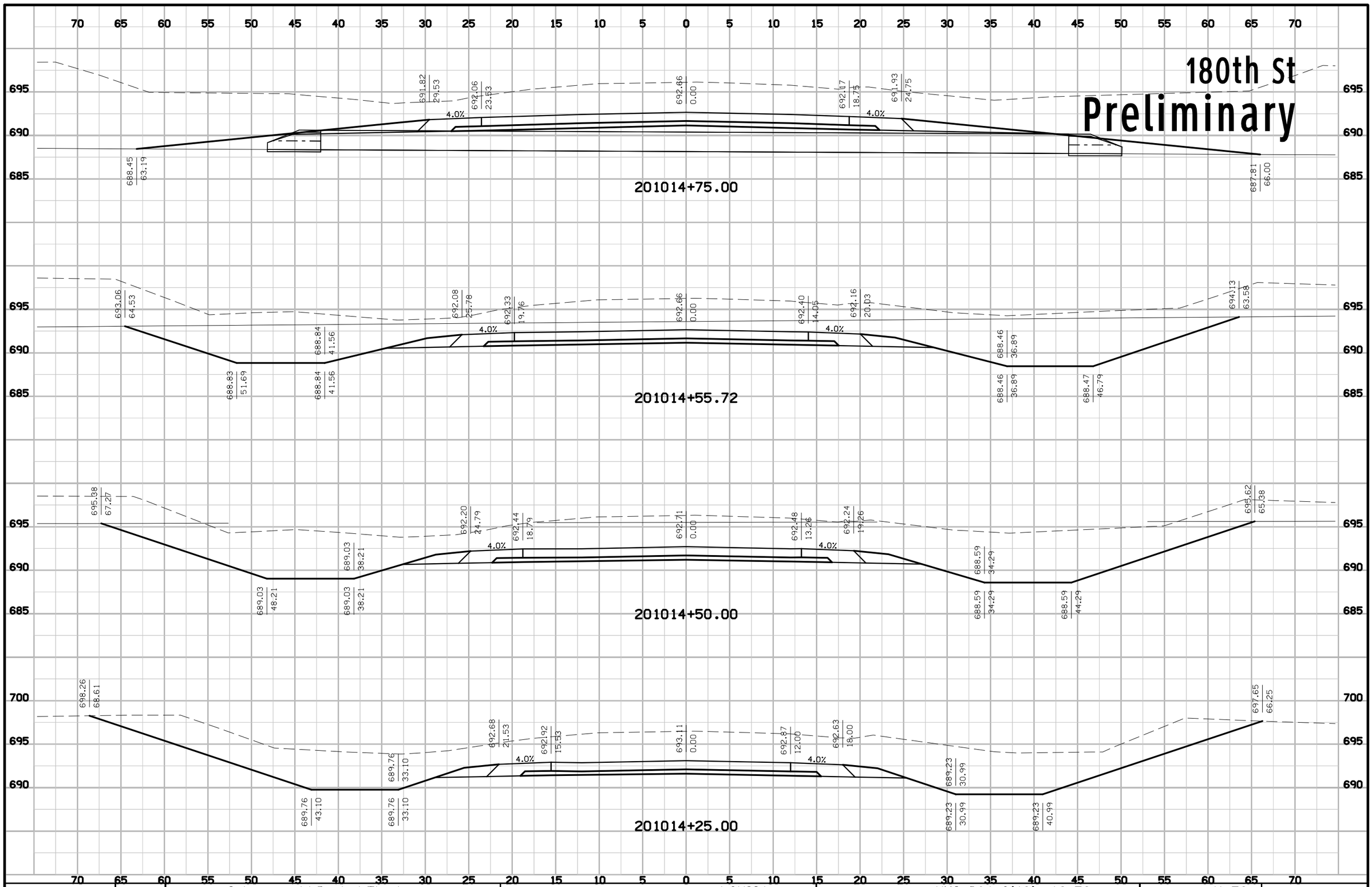
180th St
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.78

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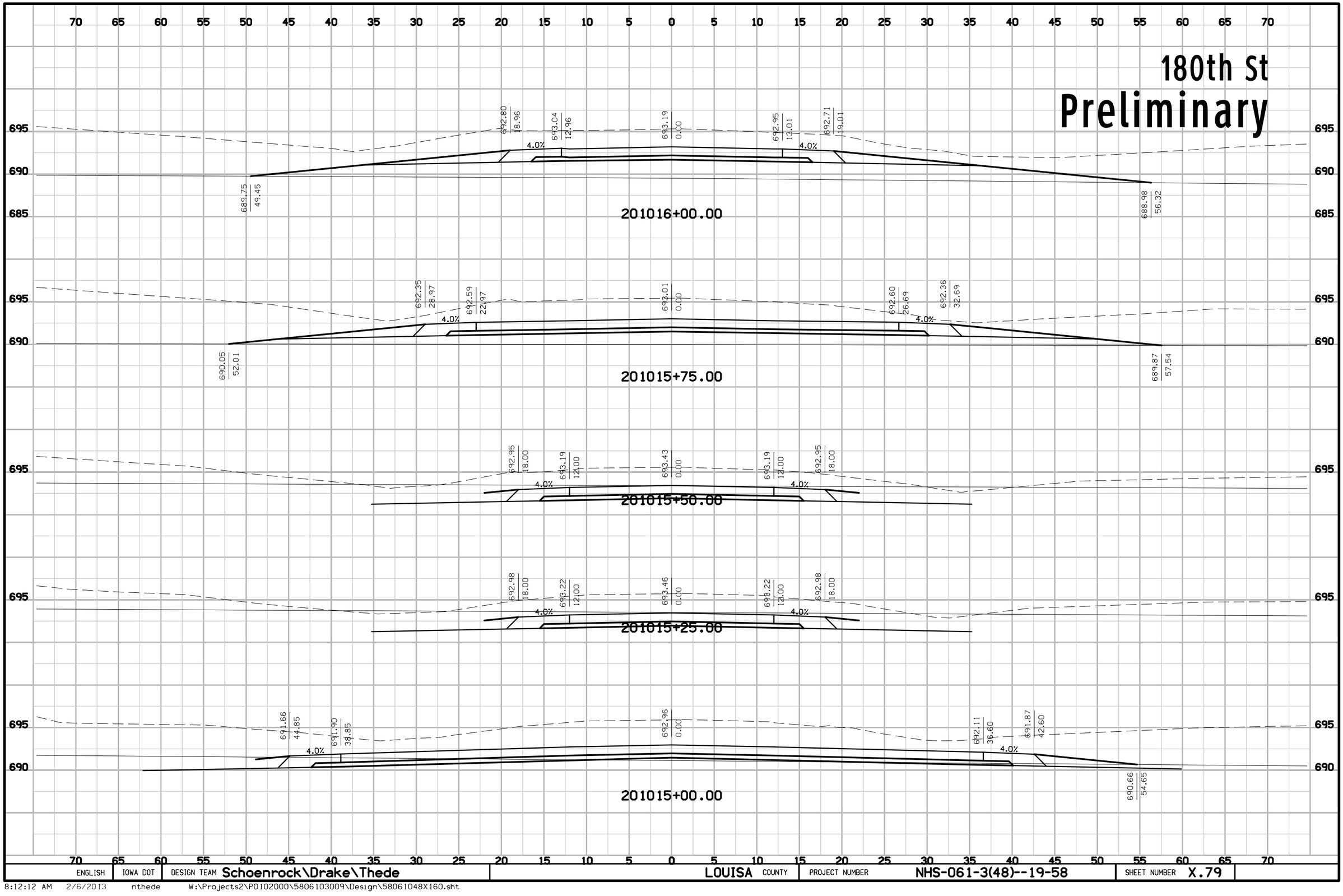
180th St
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.79

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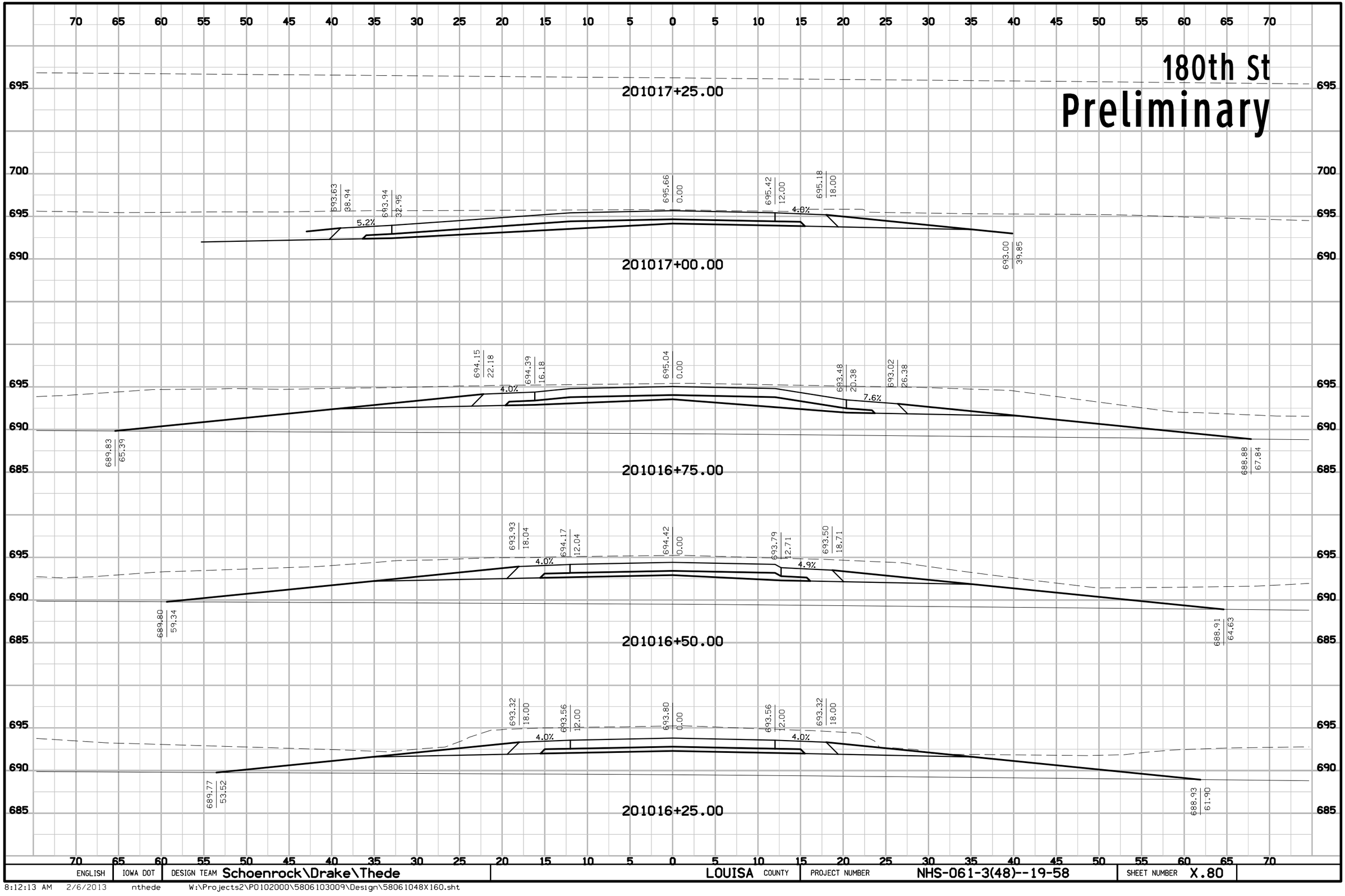
180th St
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.80

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Existing 61
Preliminary

852+25.00

852+00.00

851+75.00

851+50.00

851+25.00

851+00.00

850+75.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.81

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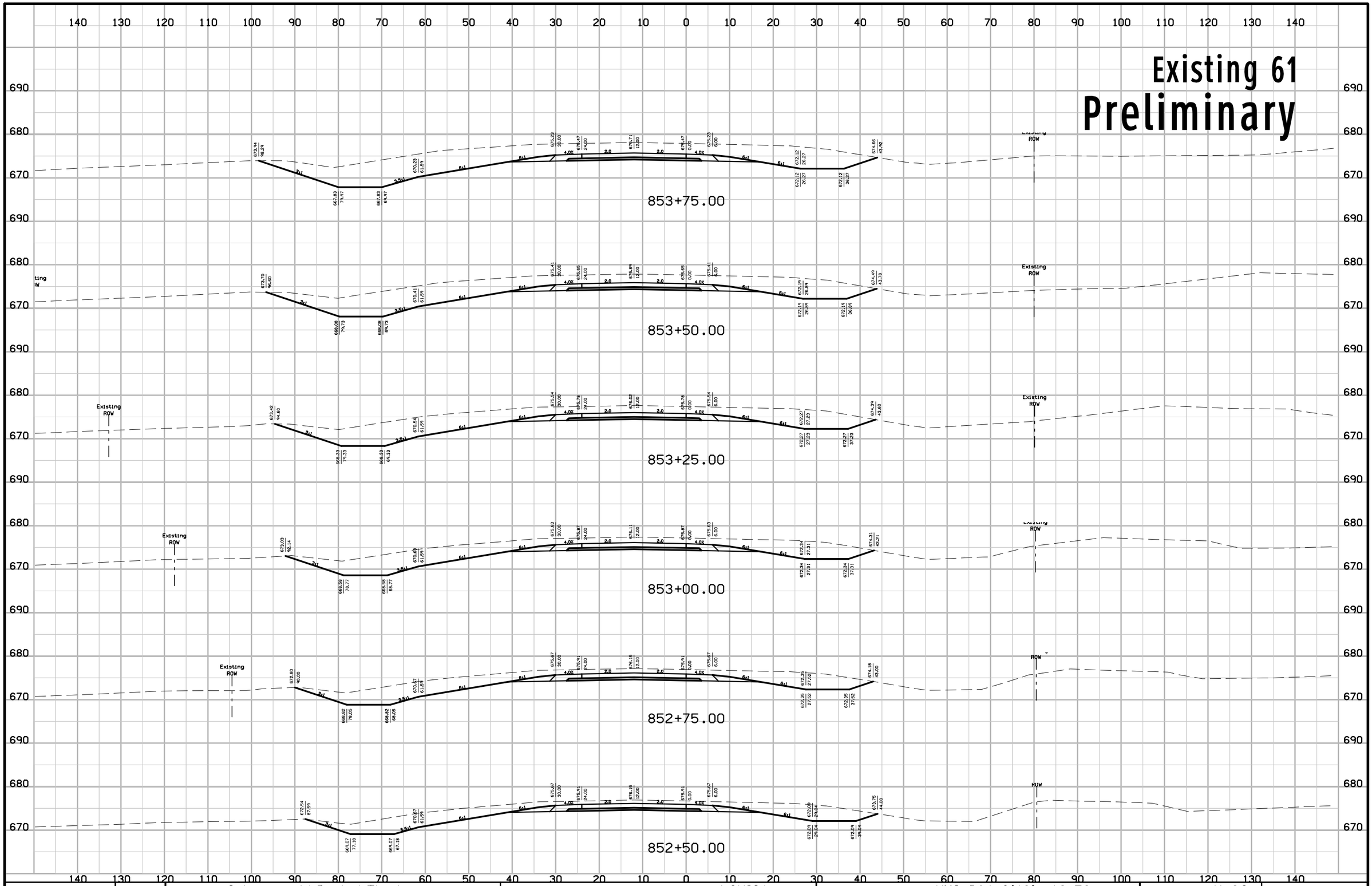
Existing 61
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.82

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Existing 61
Preliminary

855+25.00

855+00.00

854+75.00

854+50.00

854+25.00

854+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.83

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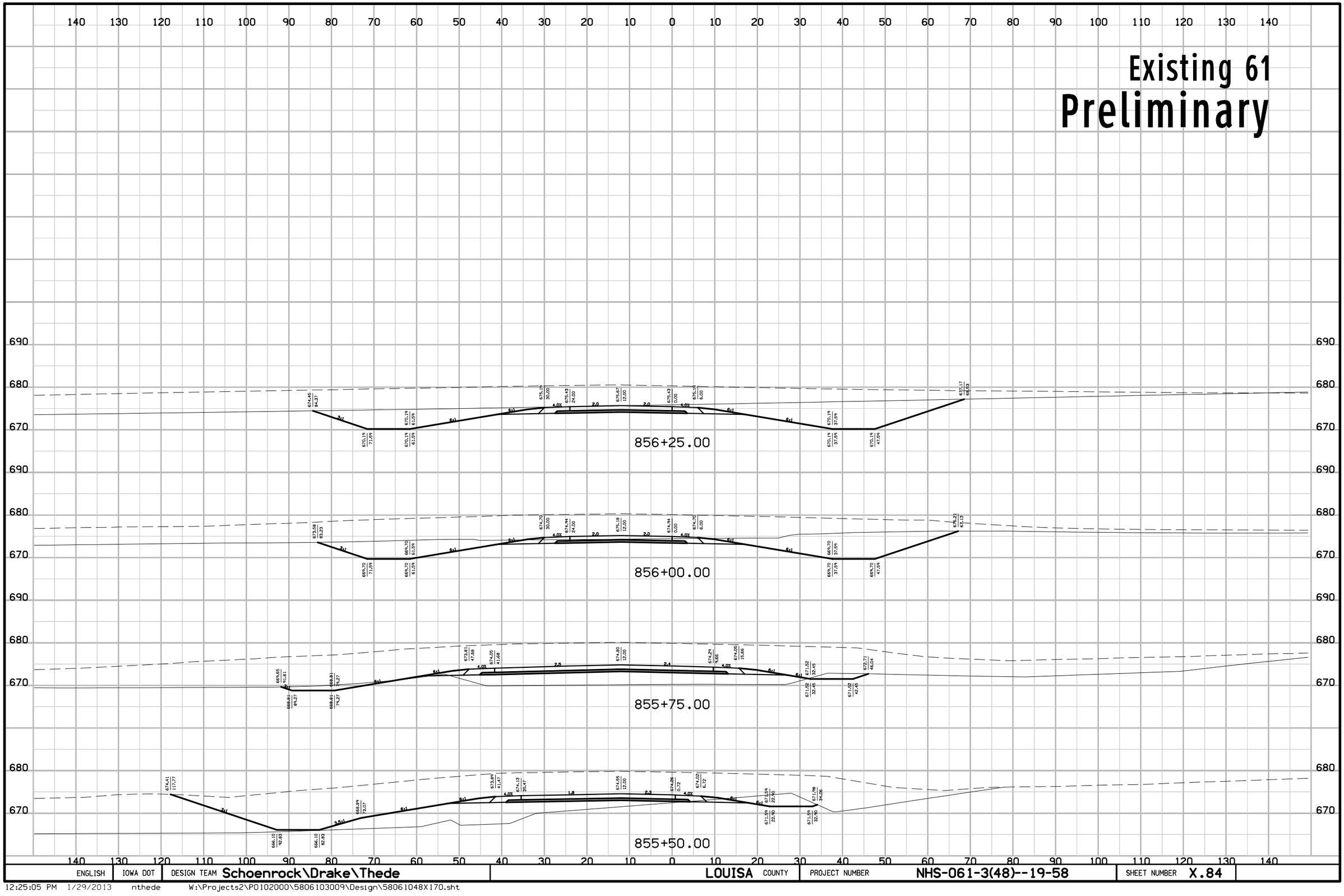
Existing 61
Preliminary



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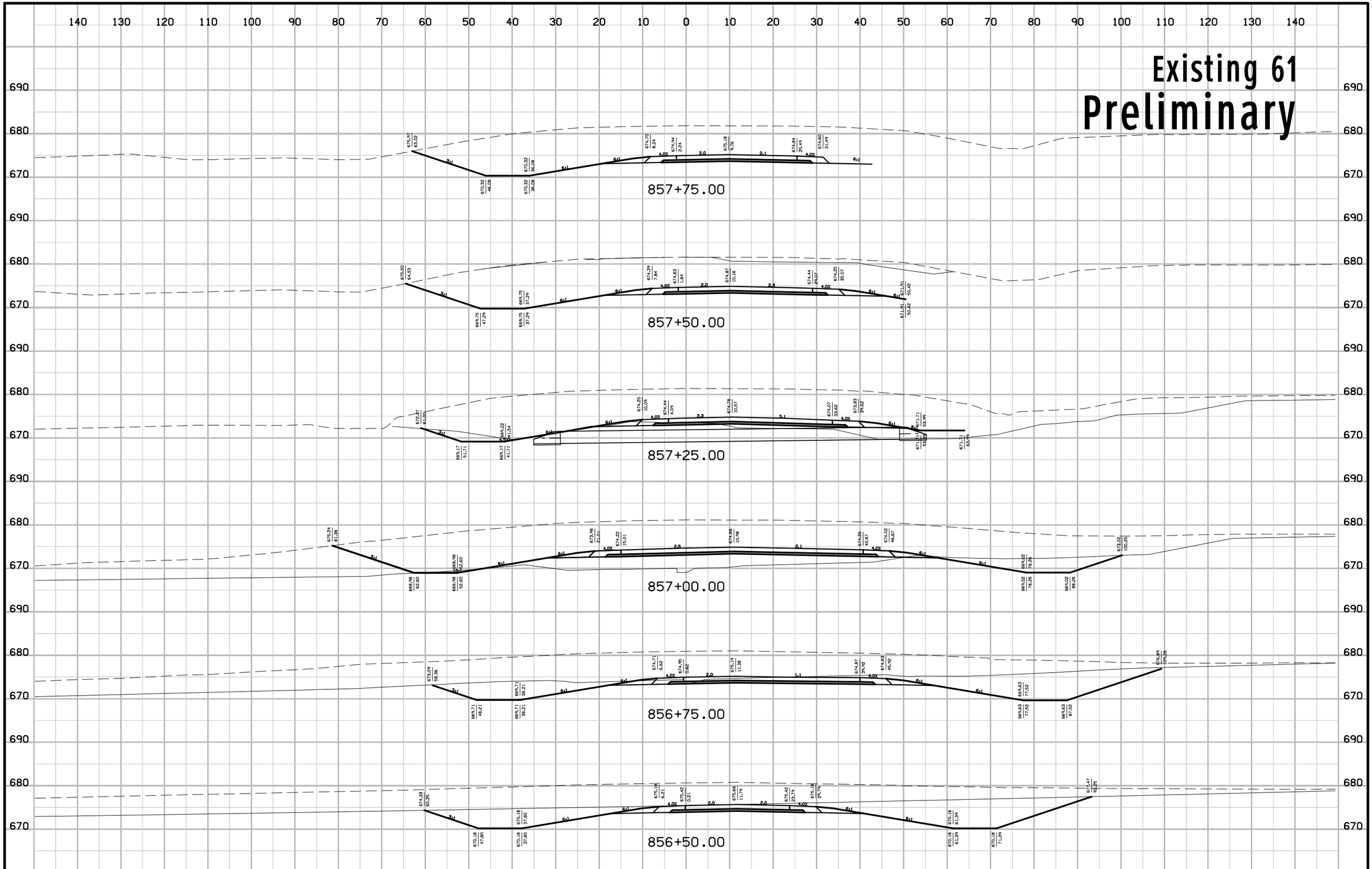
Existing 61
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.81

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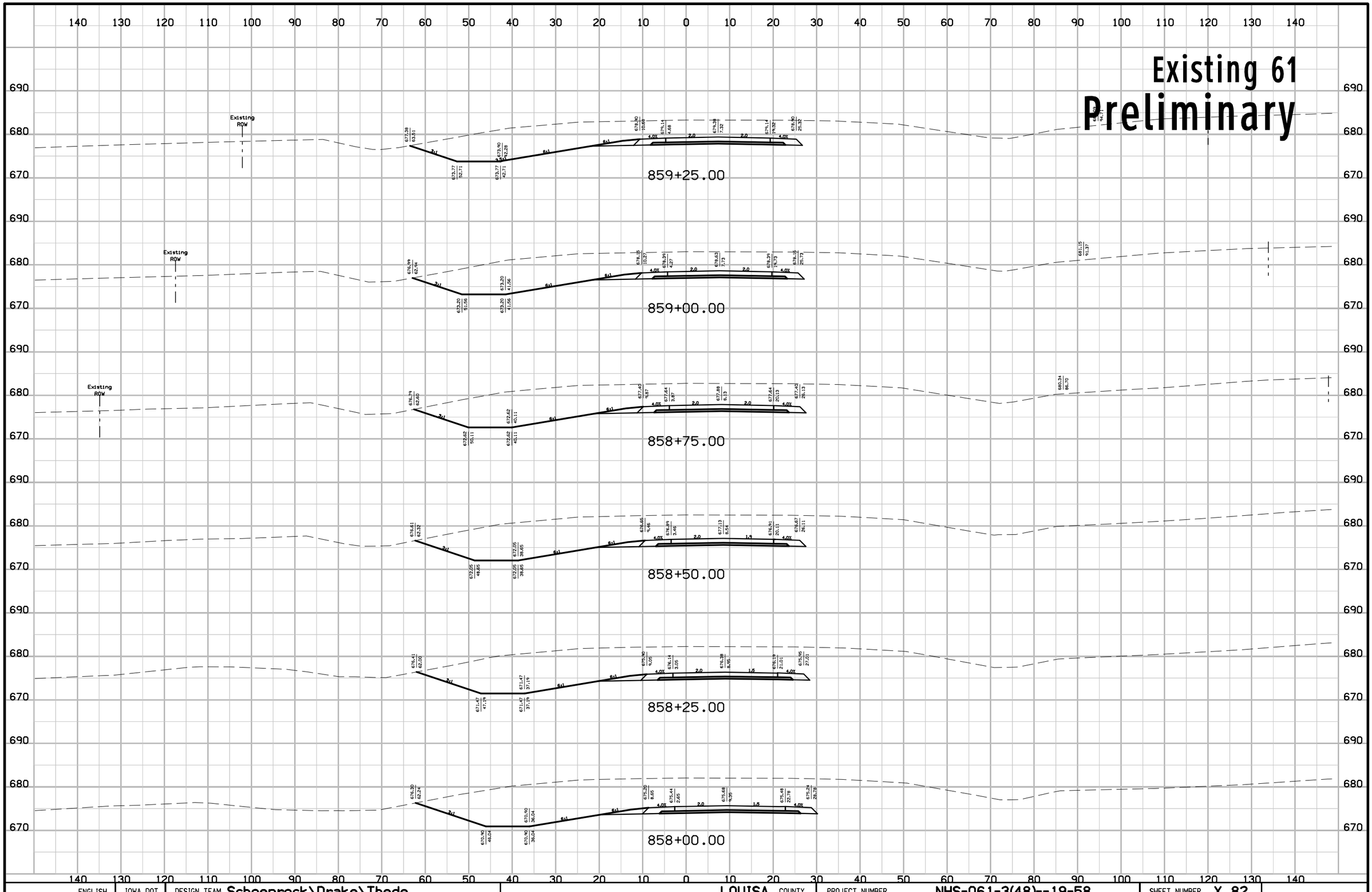
Existing 61
Preliminary



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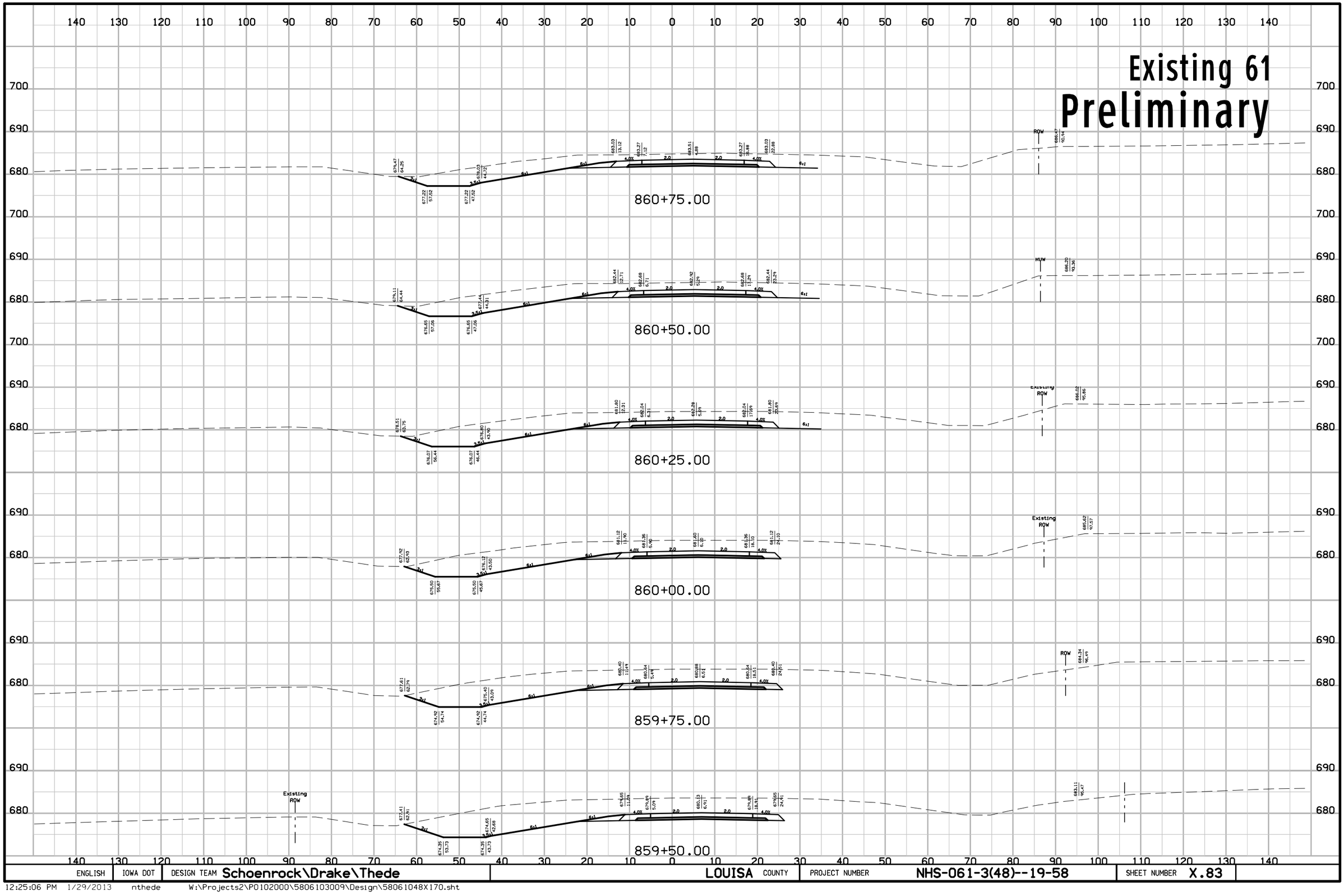
Existing 61
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.83

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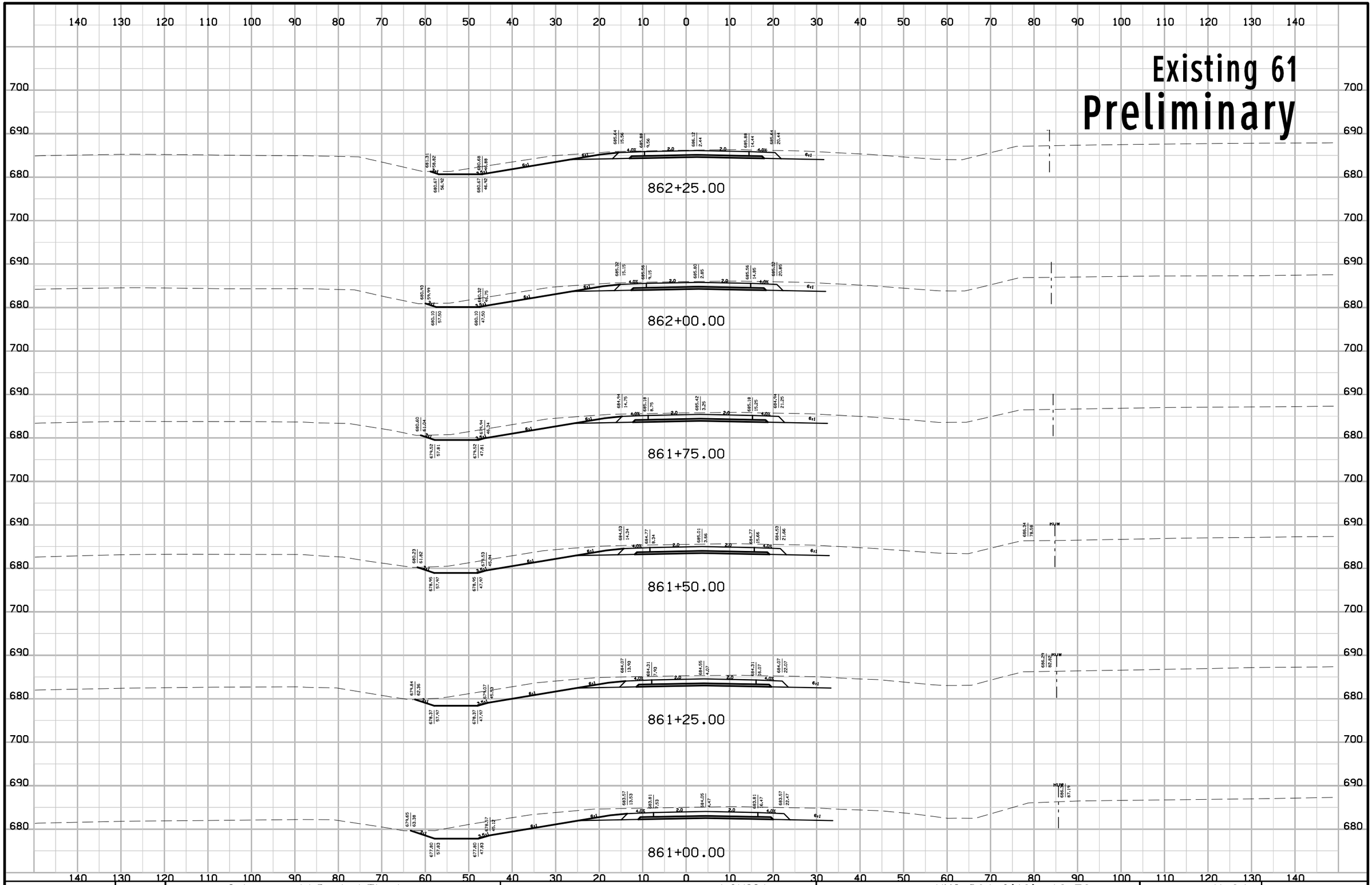
Existing 61
Preliminary



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Existing 61
Preliminary

961+75.00

961+50.00

863+75.00

863+50.00

863+25.00

863+00.00

862+75.00

862+50.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.85

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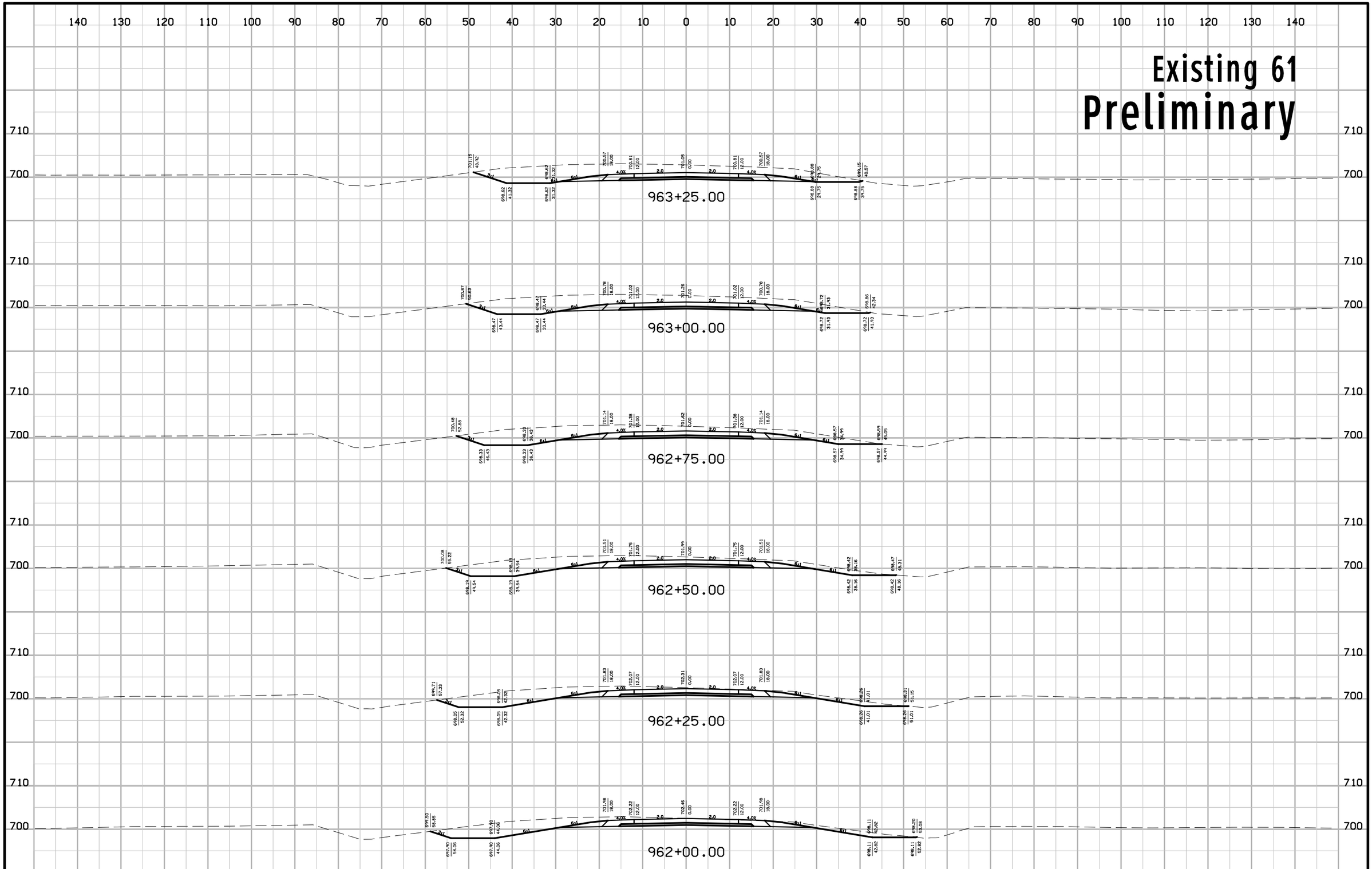
Existing 61
Preliminary



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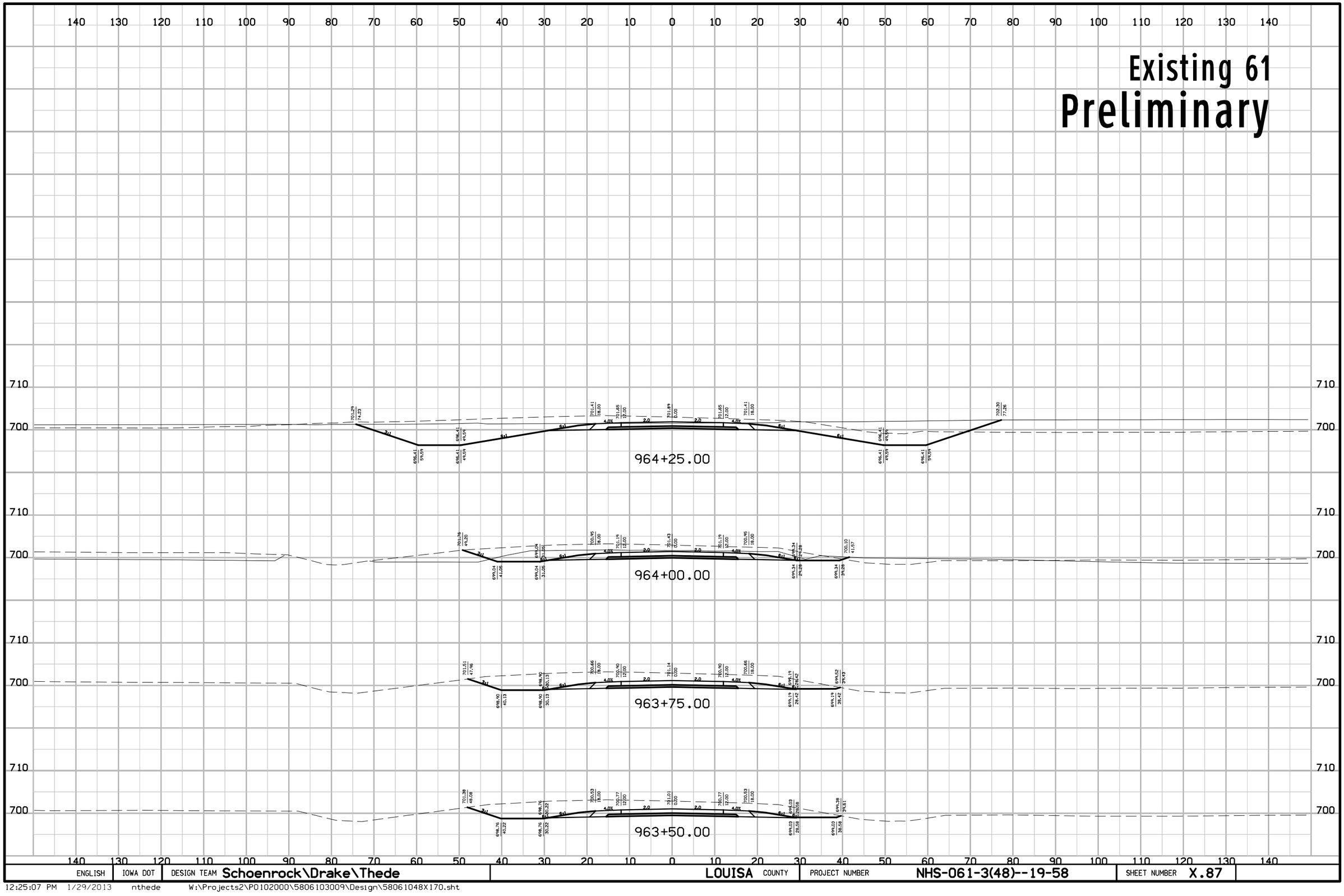
Existing 61
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.87

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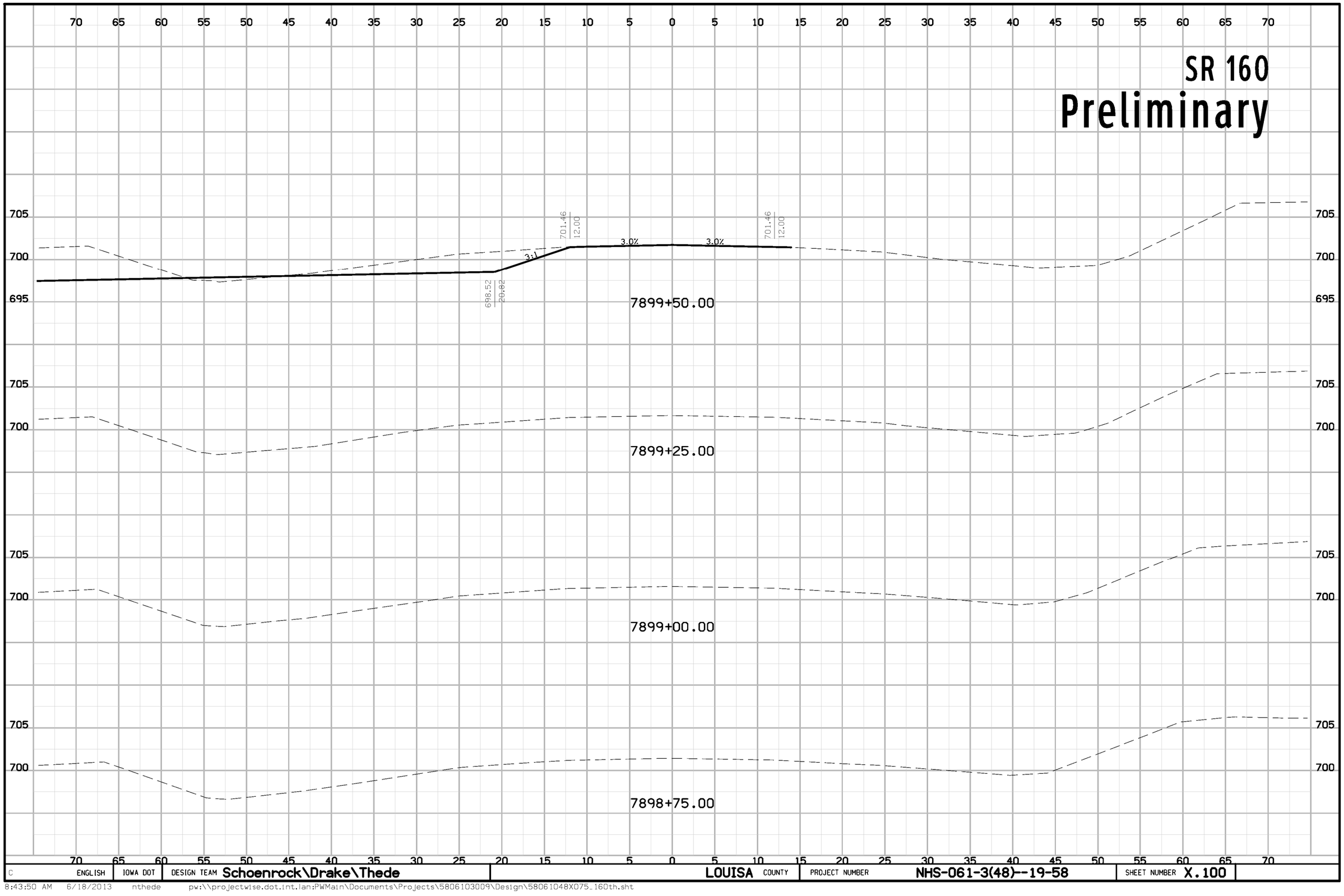
SR 160

Preliminary



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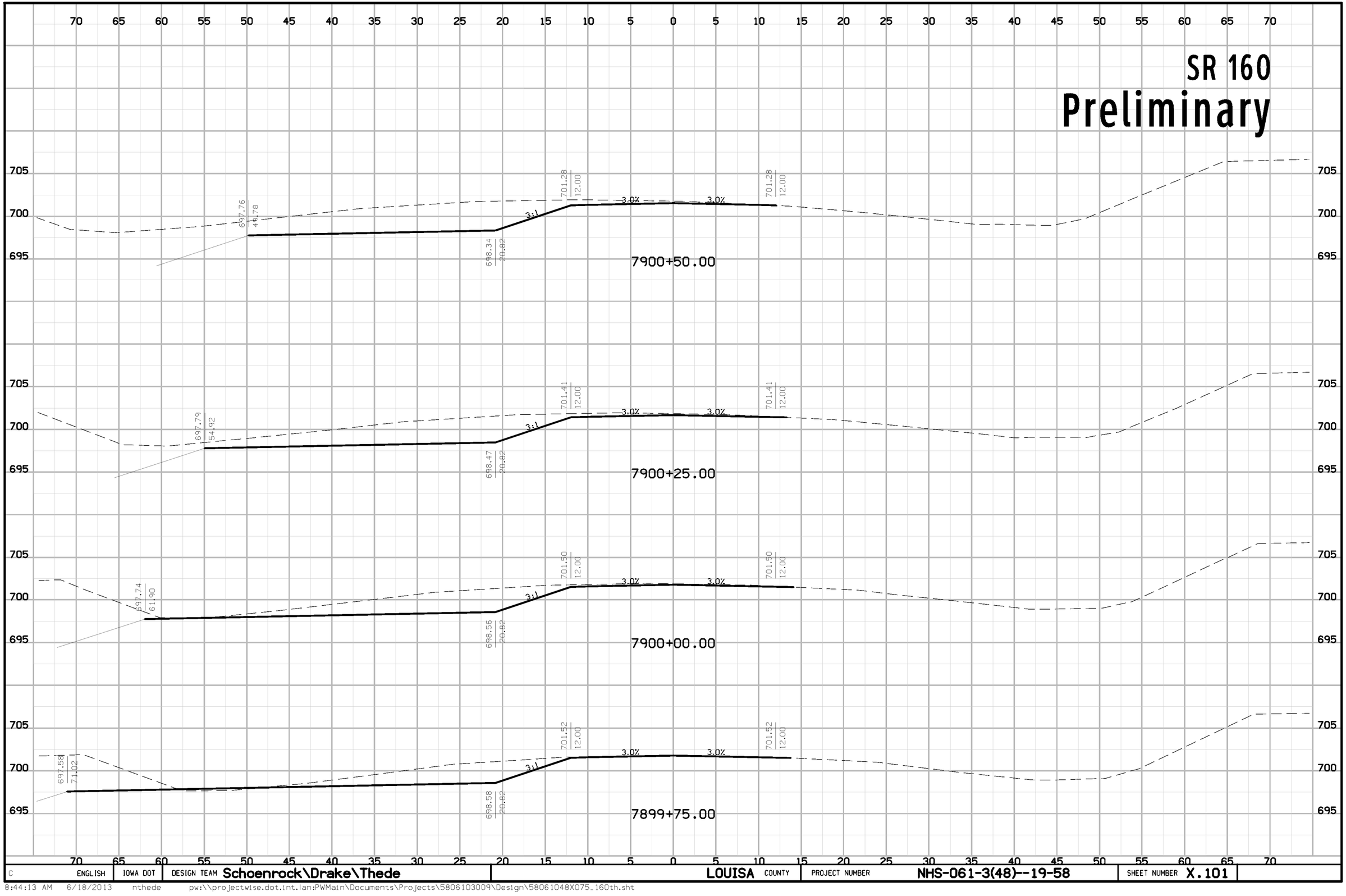
SR 160
Preliminary



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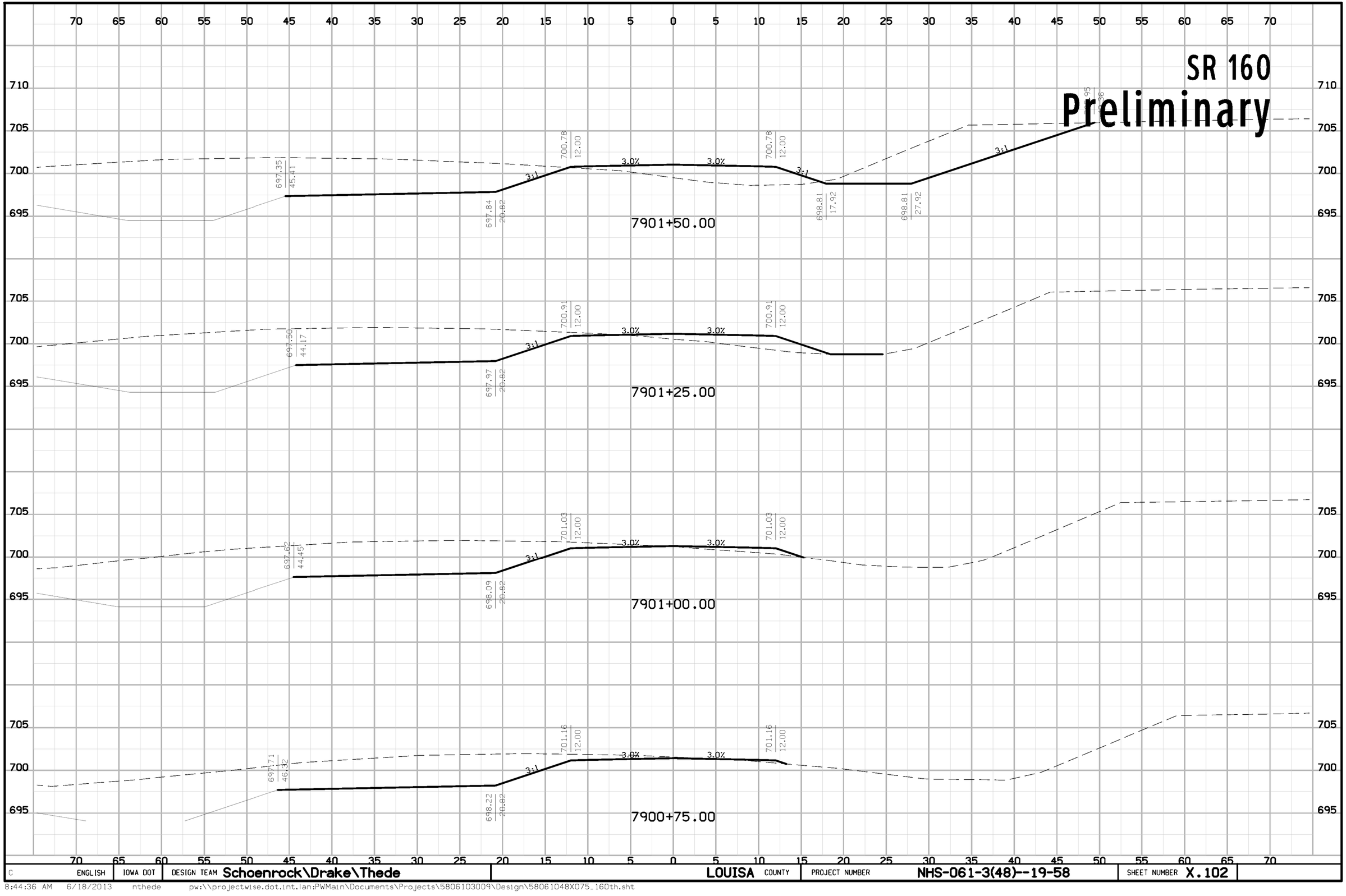
SR 160

Preliminary



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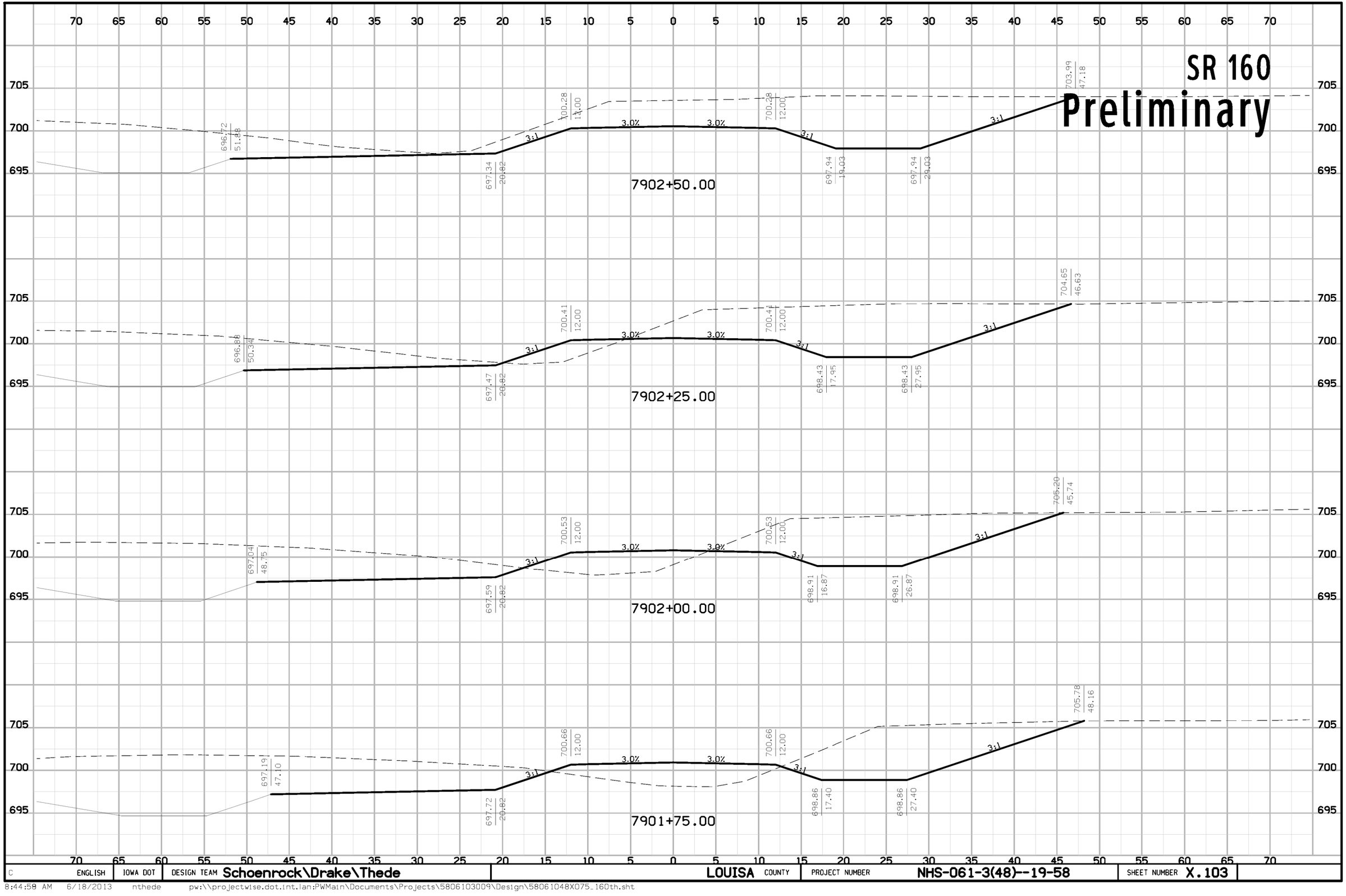
SR 160

Preliminary



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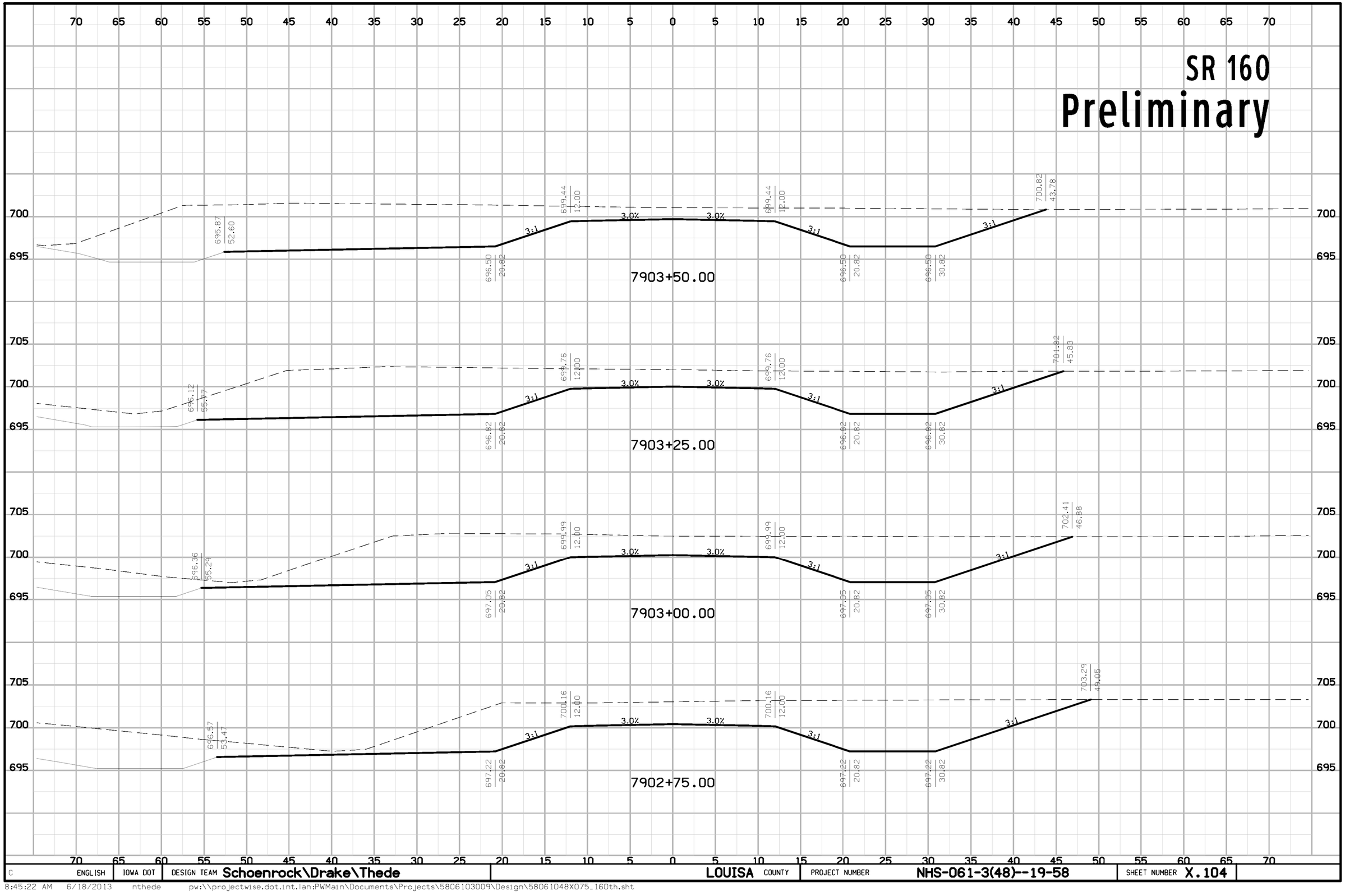
SR 160

Preliminary



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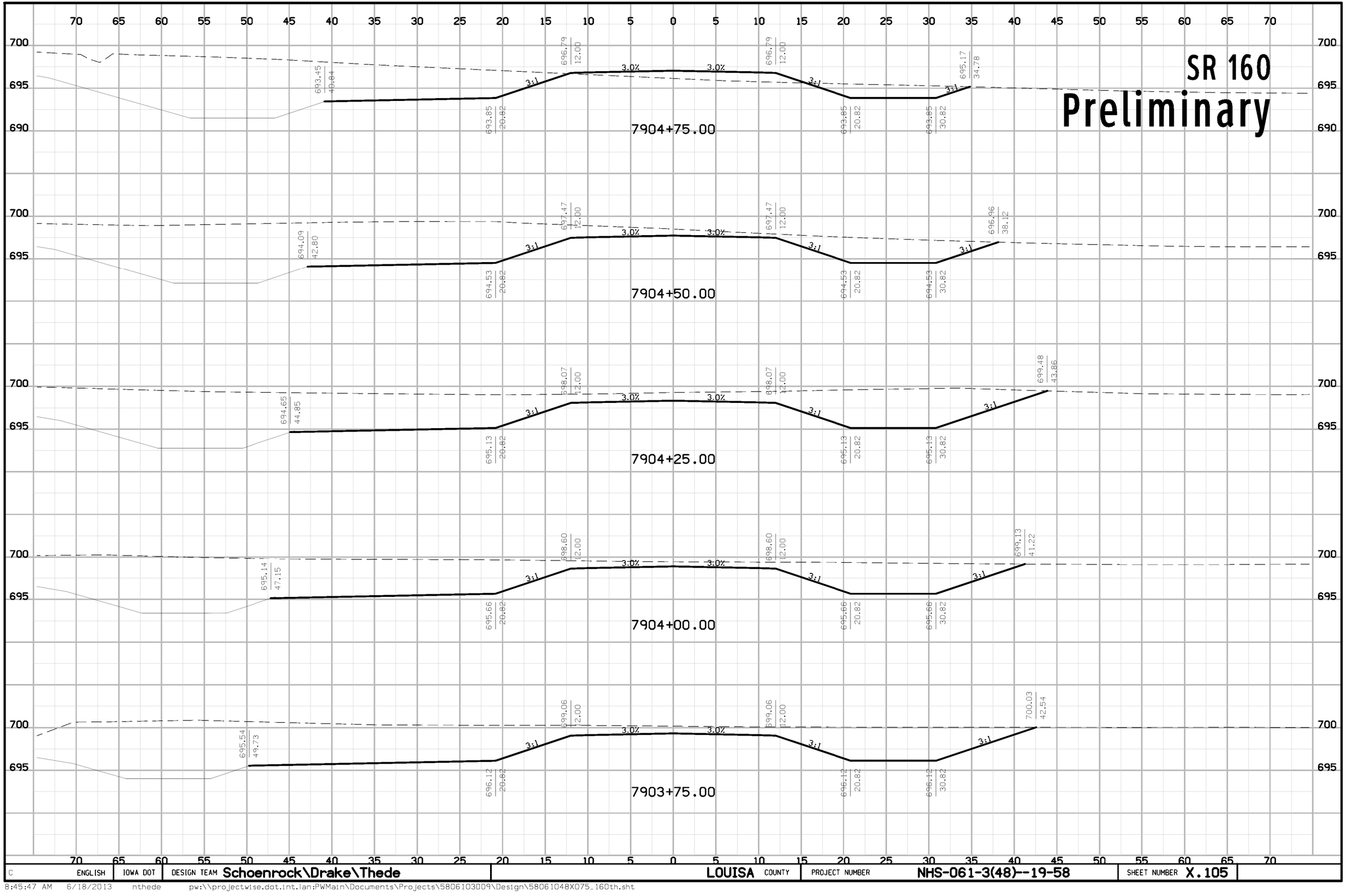
SR 160

Preliminary



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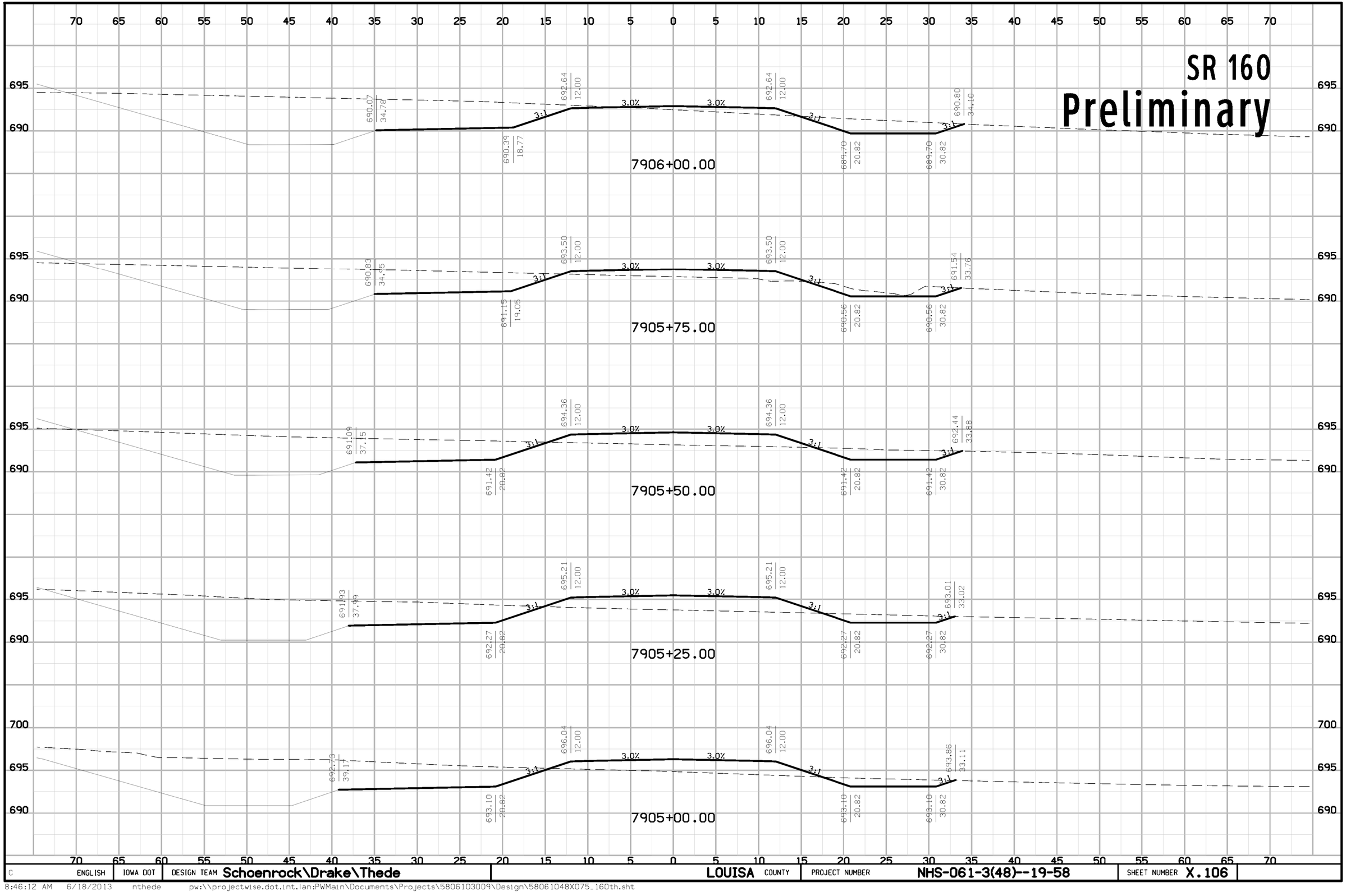
SR 160

Preliminary



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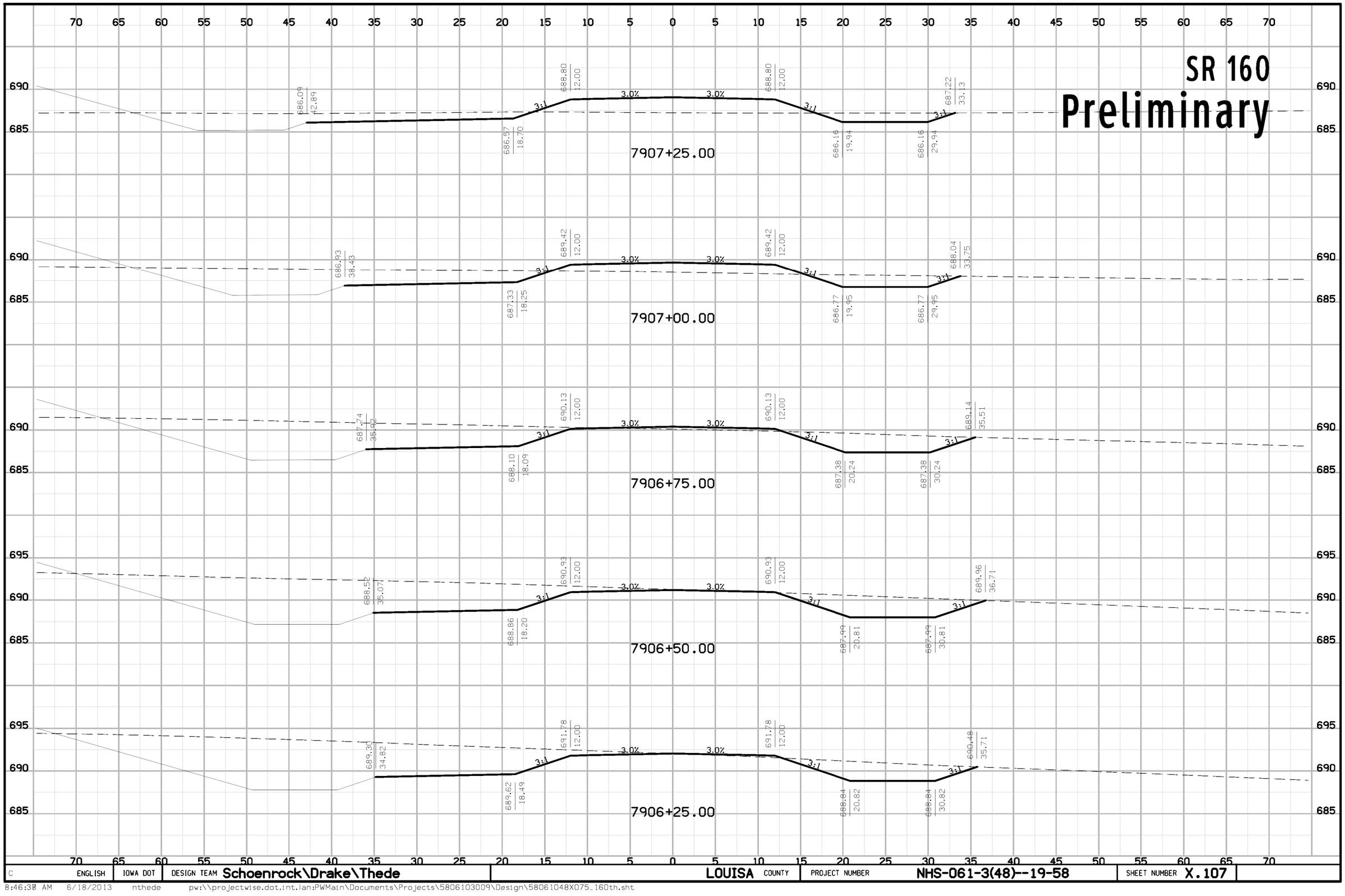
SR 160

Preliminary



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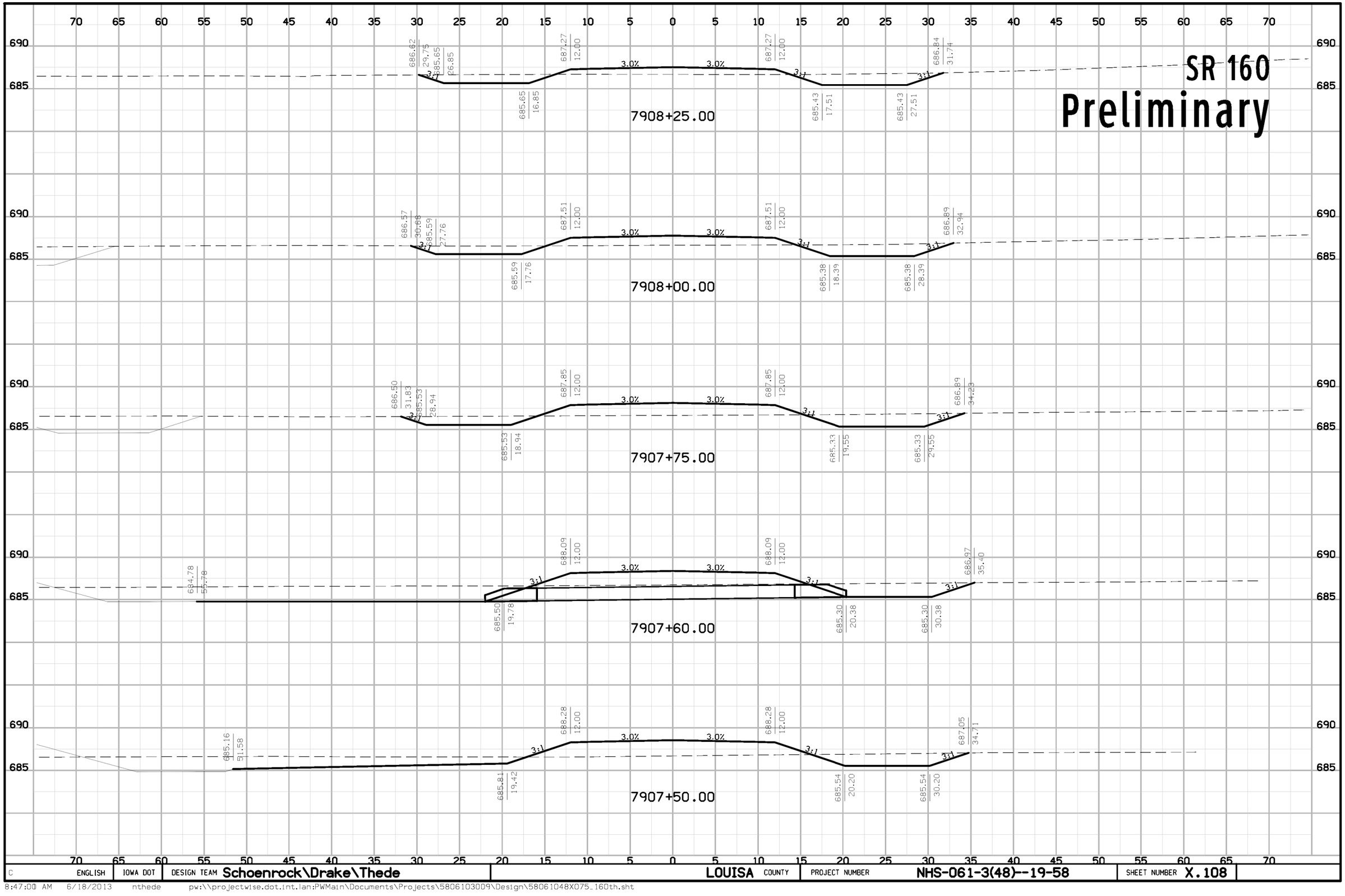
SR 160

Preliminary



C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.108	

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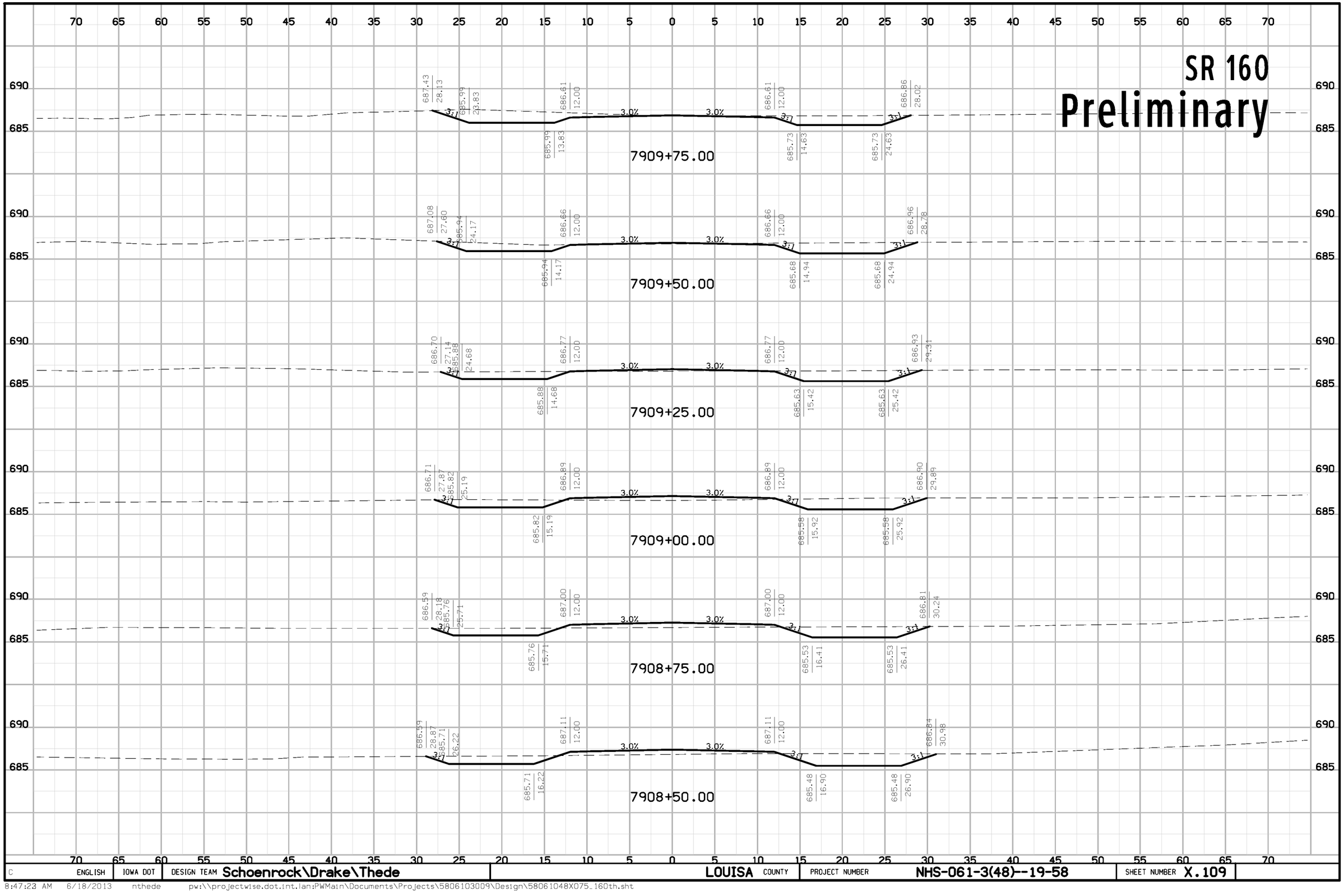
SR 160

Preliminary



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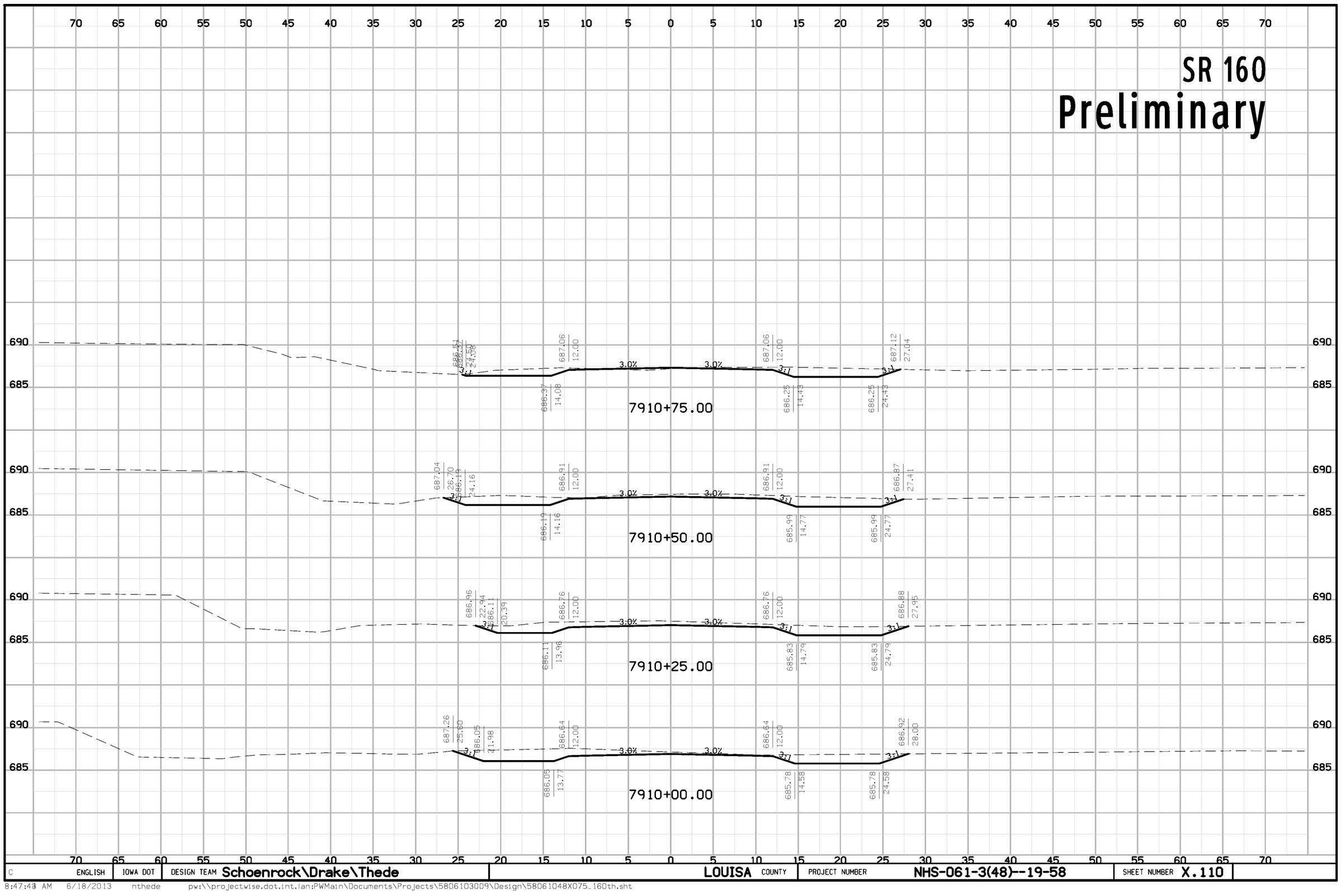
SR 160

Preliminary



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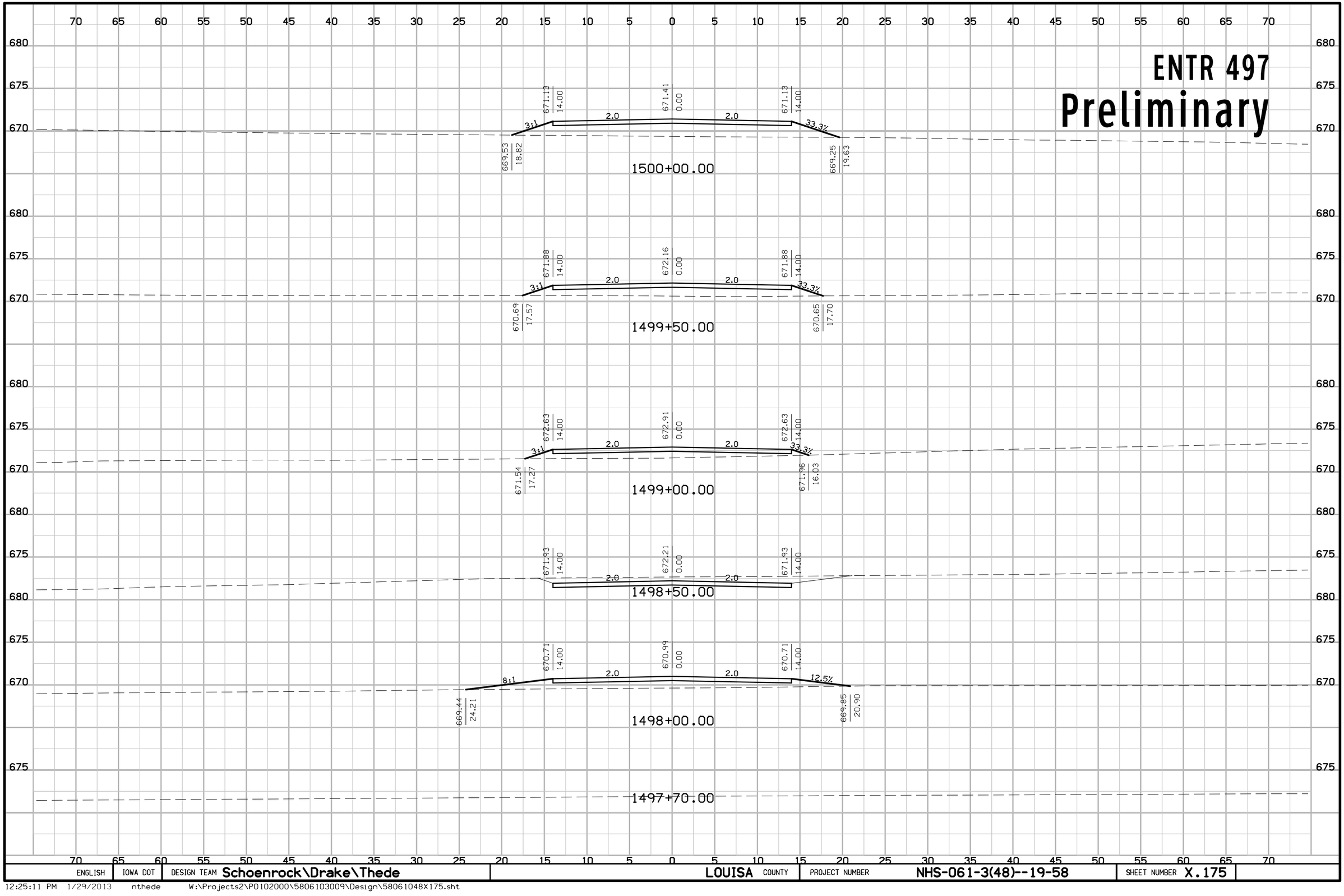
ENTR 497

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.175

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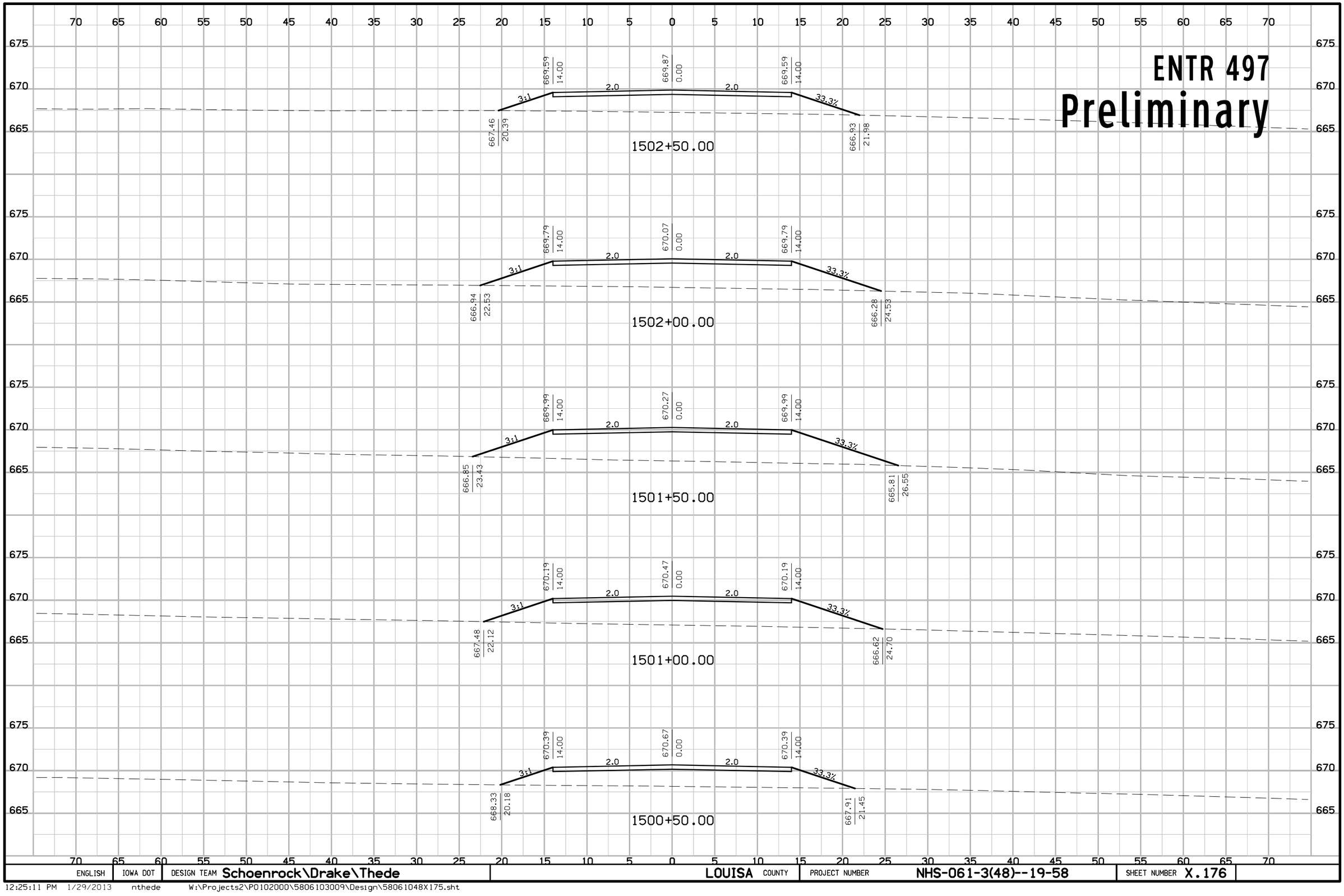
ENTR 497

Preliminary



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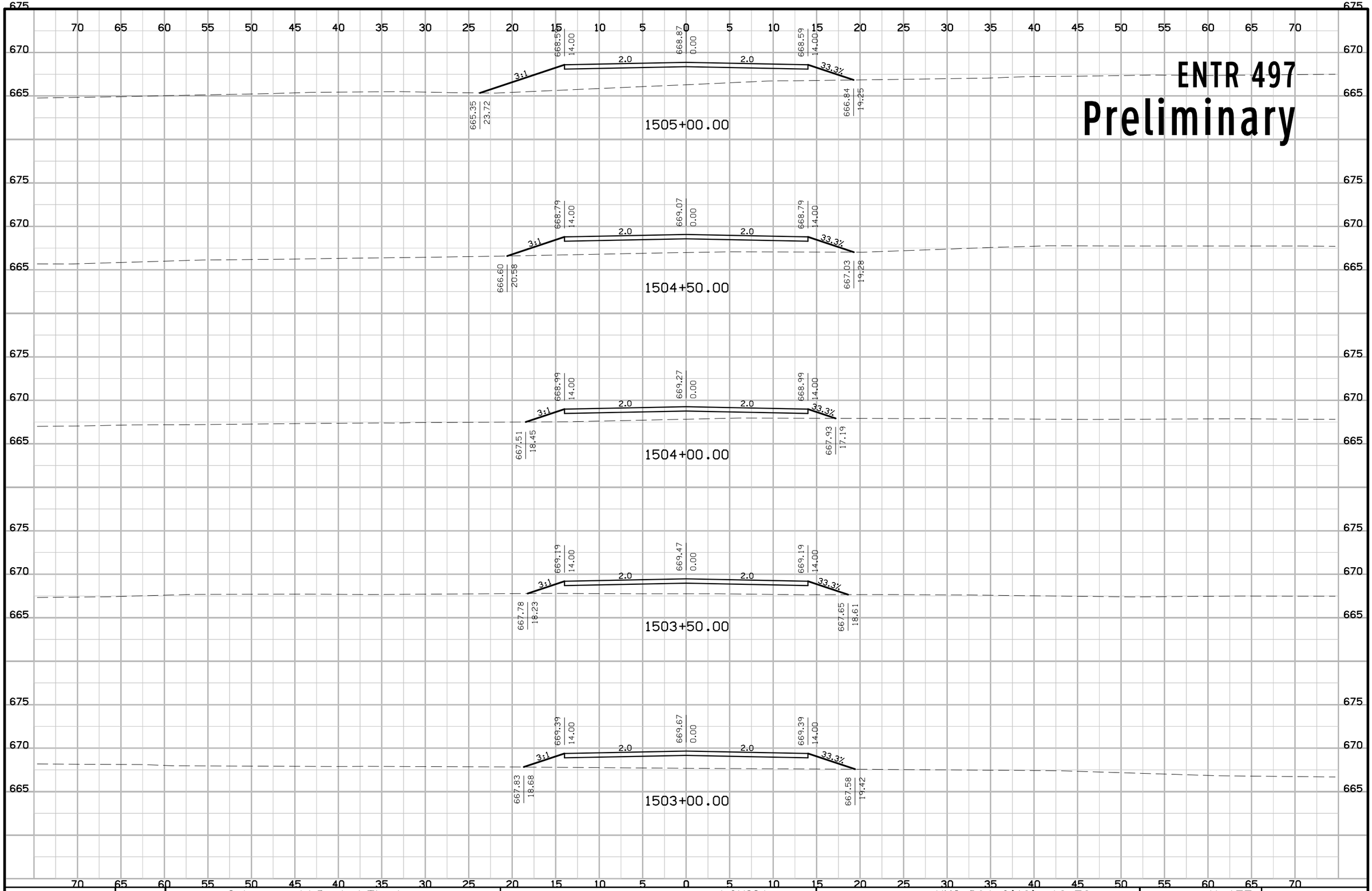
ENTR 497

Preliminary



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ENTR 497

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

670
675
670
665

1507+00.00

667.99
14.00
3:1
2.0
668.27
0.00
2.0
667.99
14.00
667.70
14.88

1506+50.00

668.19
14.00
668.47
0.00
668.19
14.00
3:1
2.0
2.0
33.3%
666.57
18.85
667.10
17.28

1506+00.00

675
670
665

668.39
14.00
668.67
0.00
668.39
14.00
3:1
2.0
2.0
33.3%
665.78
21.82
666.63
19.27

1505+50.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.178

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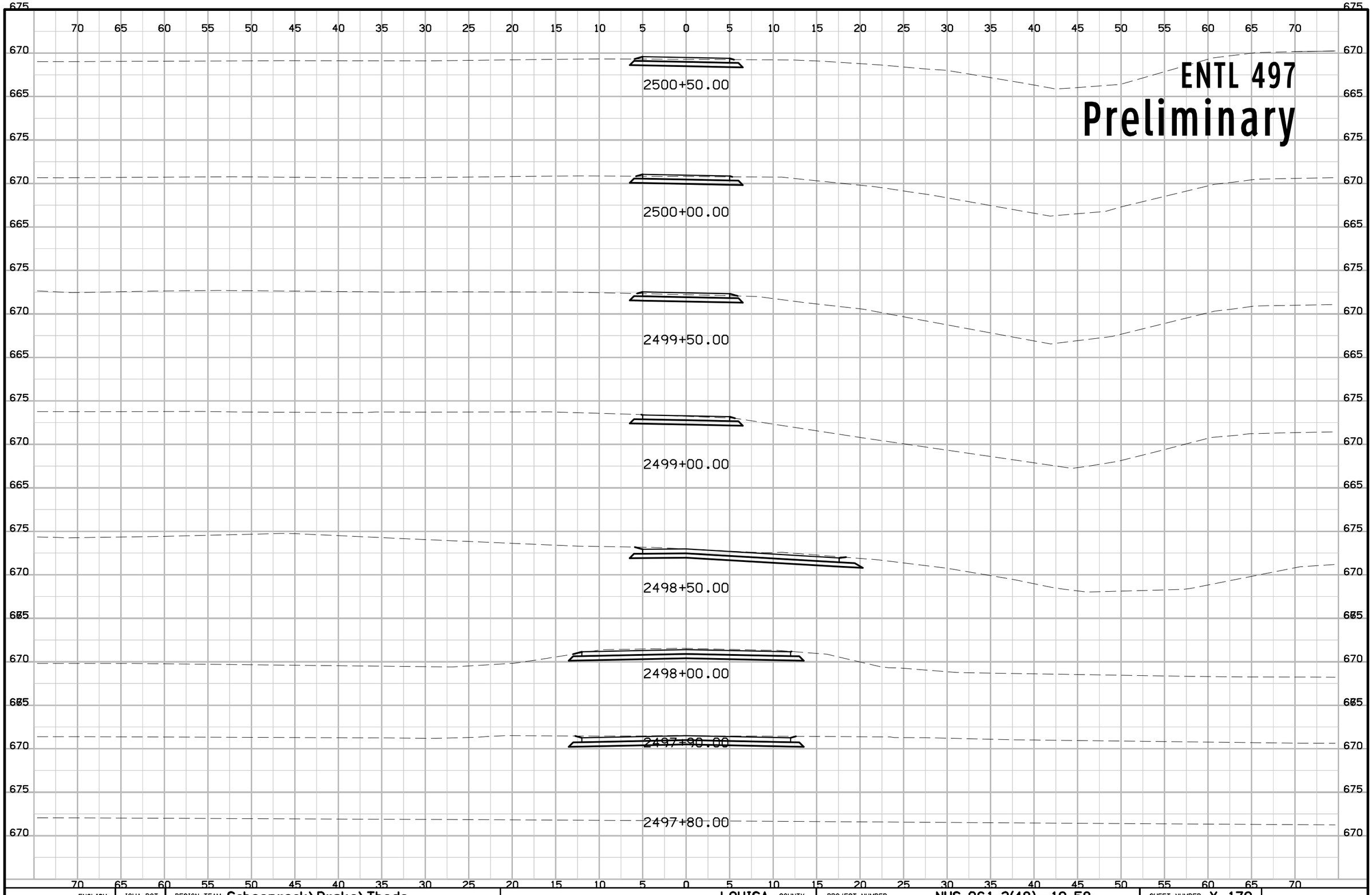
ENTL 497

Preliminary



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ENTL 497

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

670
665
670
665

2501+50.00

2501+00.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.180

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ENT 910

Preliminary

1910+00.00

1909+50.00

1909+00.00

1908+50.00

1908+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.190

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ENT 910

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

695 690 685 680 675

1911+30.00

695 690 685 680 700 695 690 685 680

1911+00.00

1910+50.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.191

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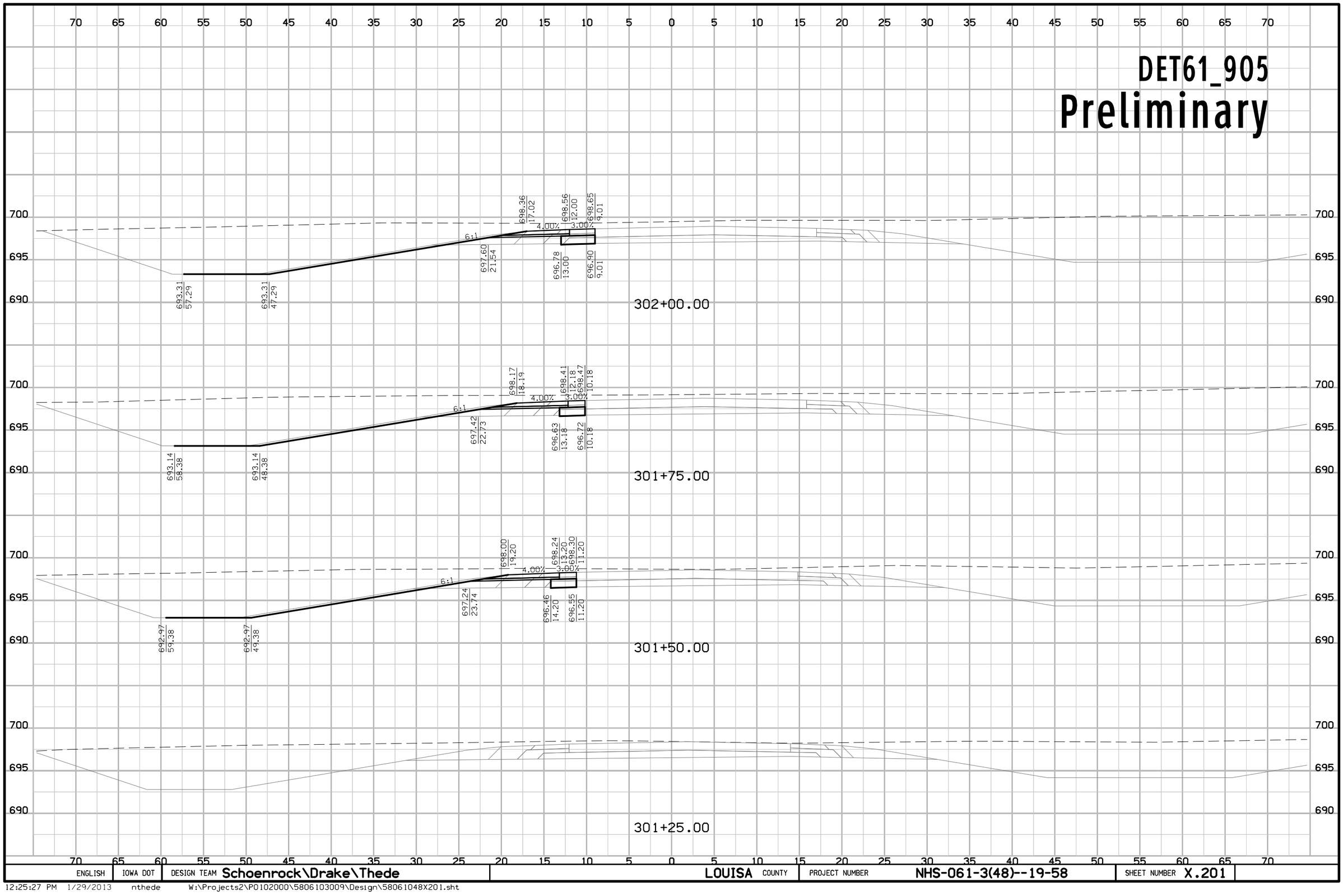
DET61_905

Preliminary



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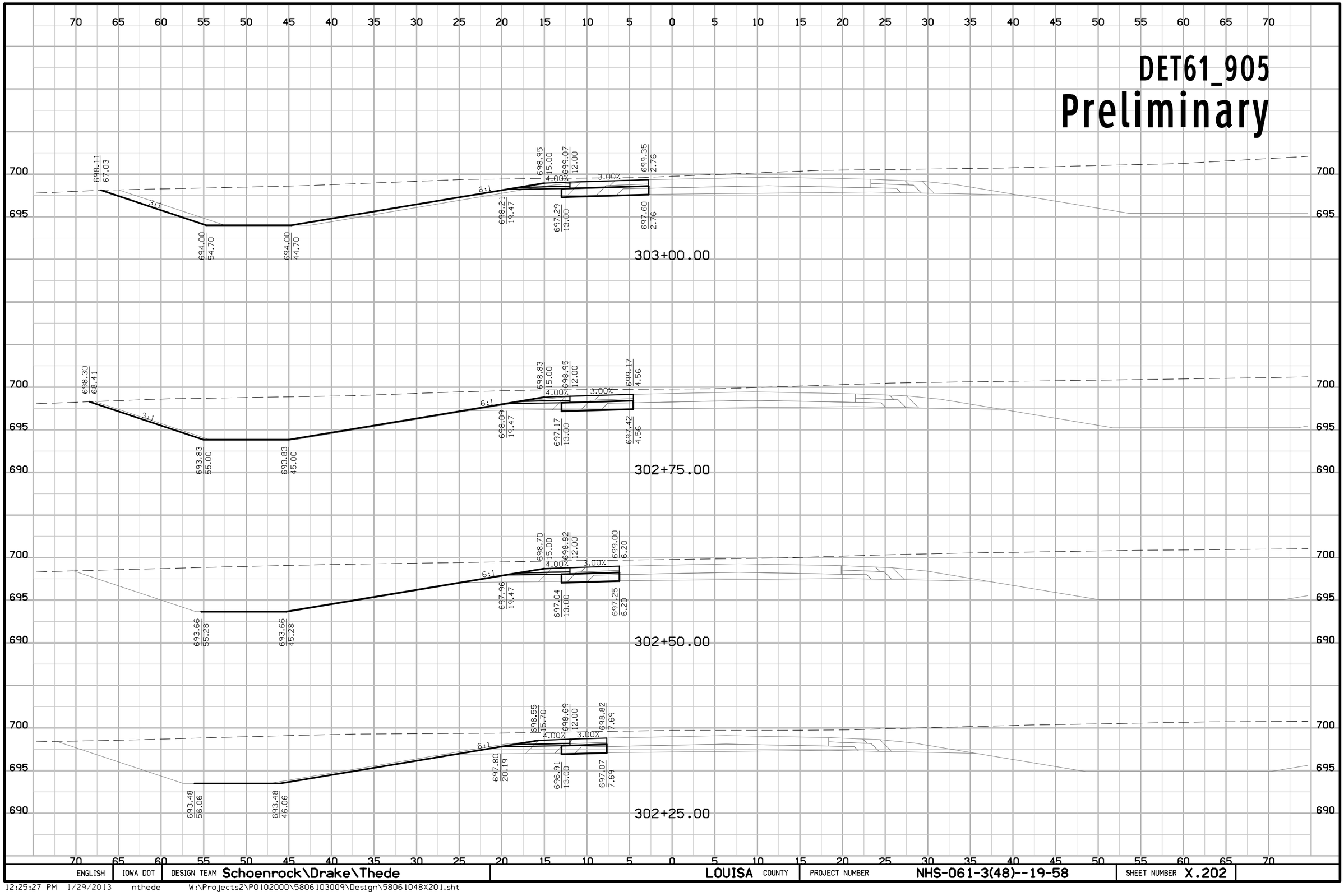
DET61_905

Preliminary



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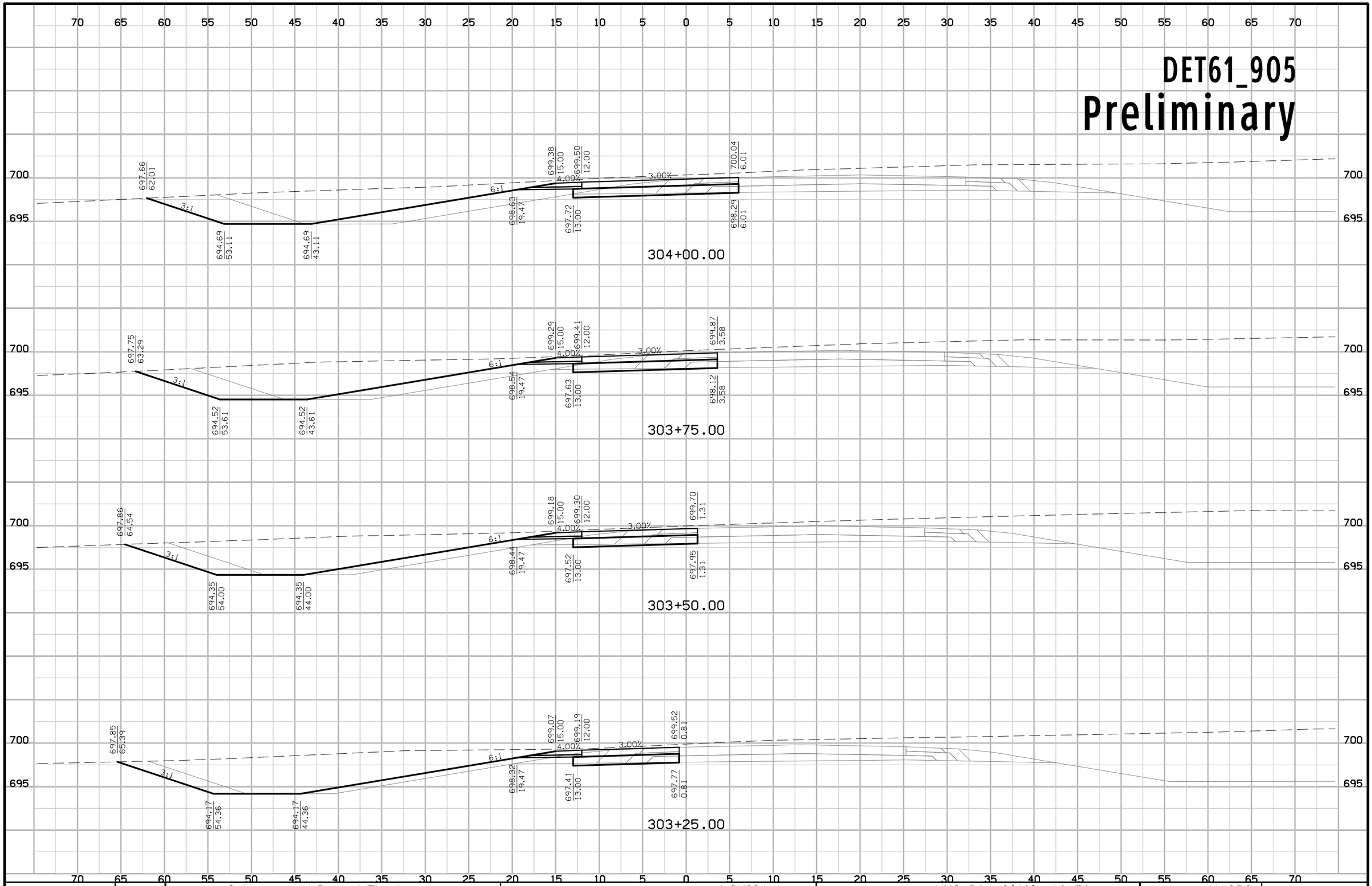
DET61_905
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.203

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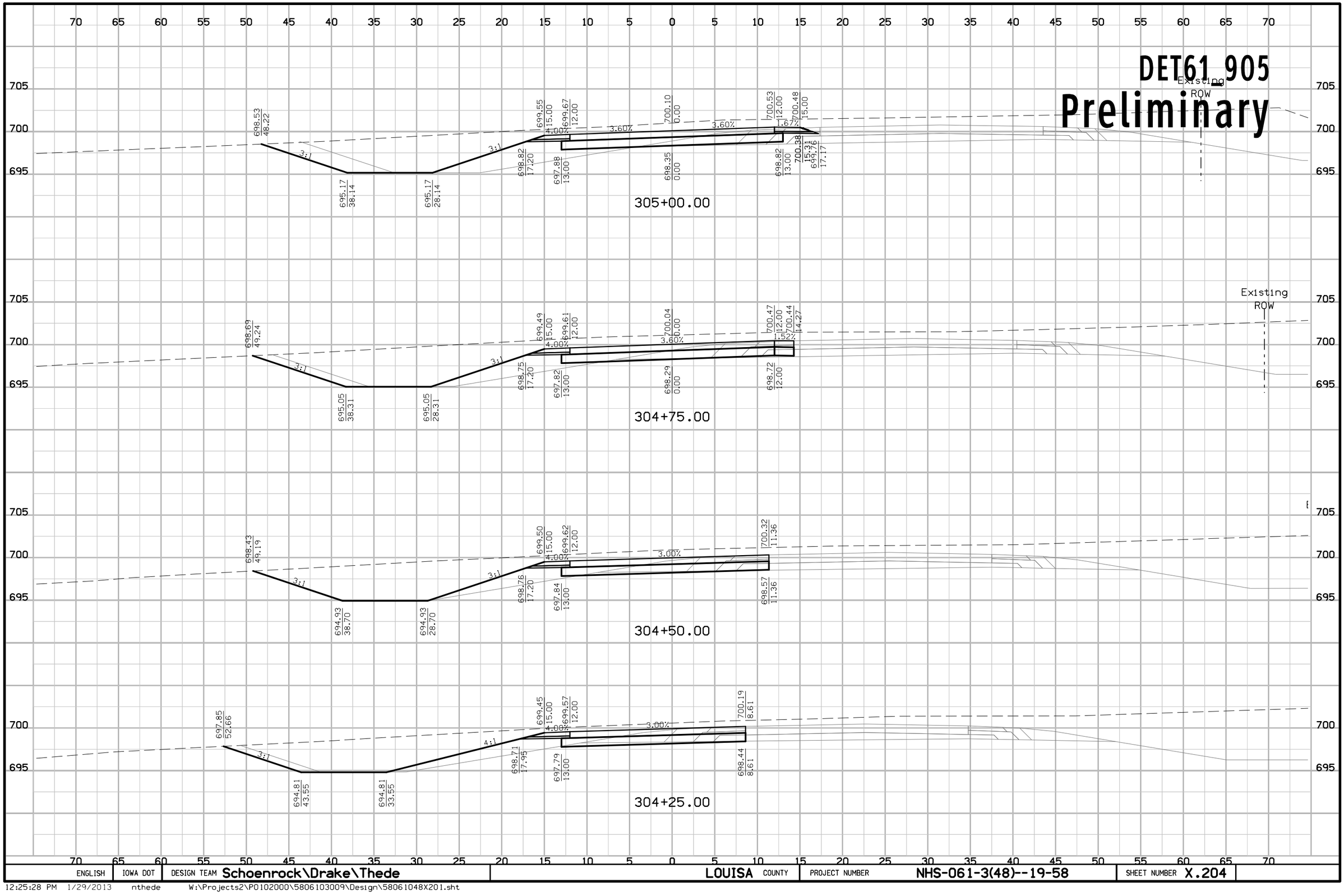
DET61 905

Preliminary



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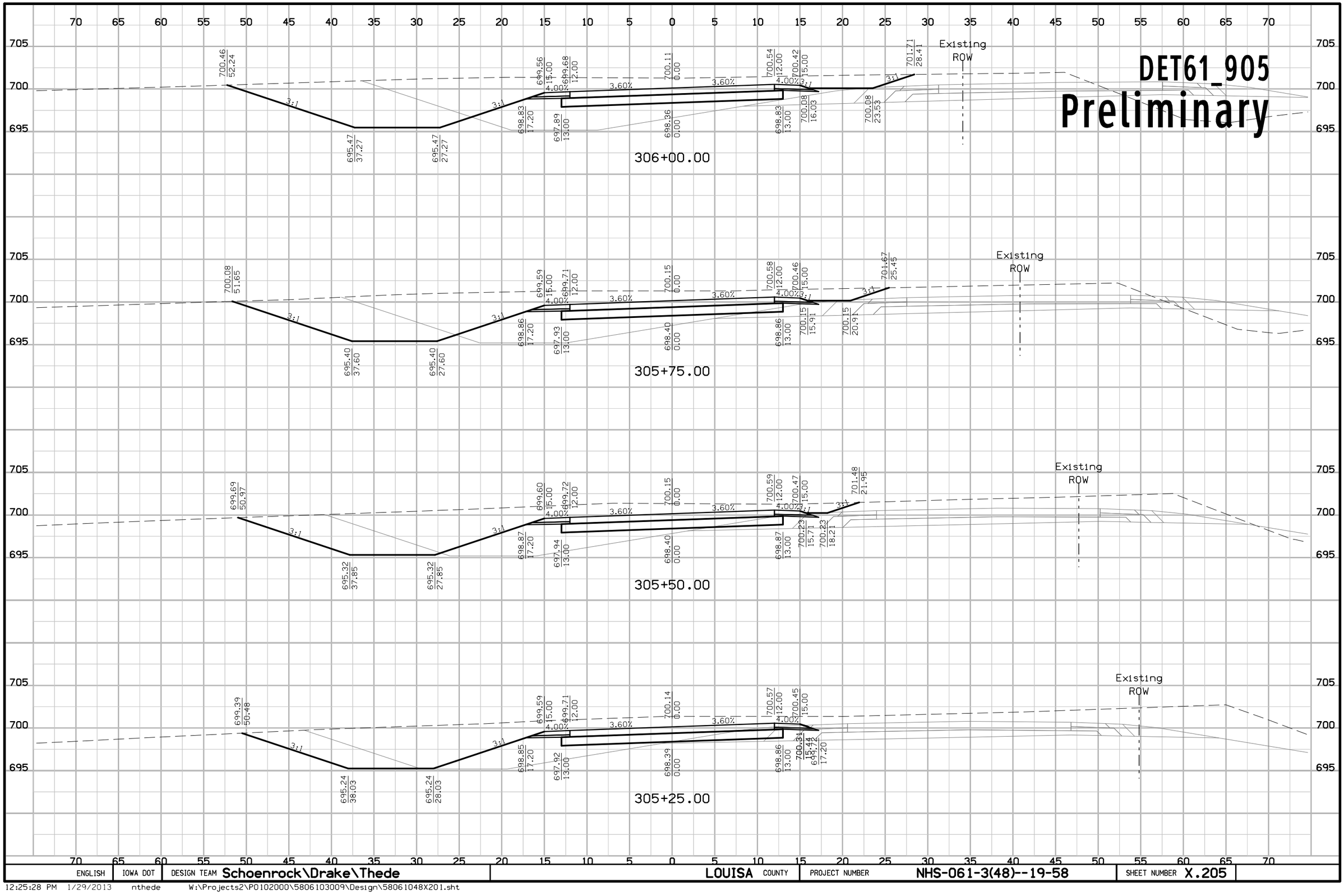
DET61_905

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.205

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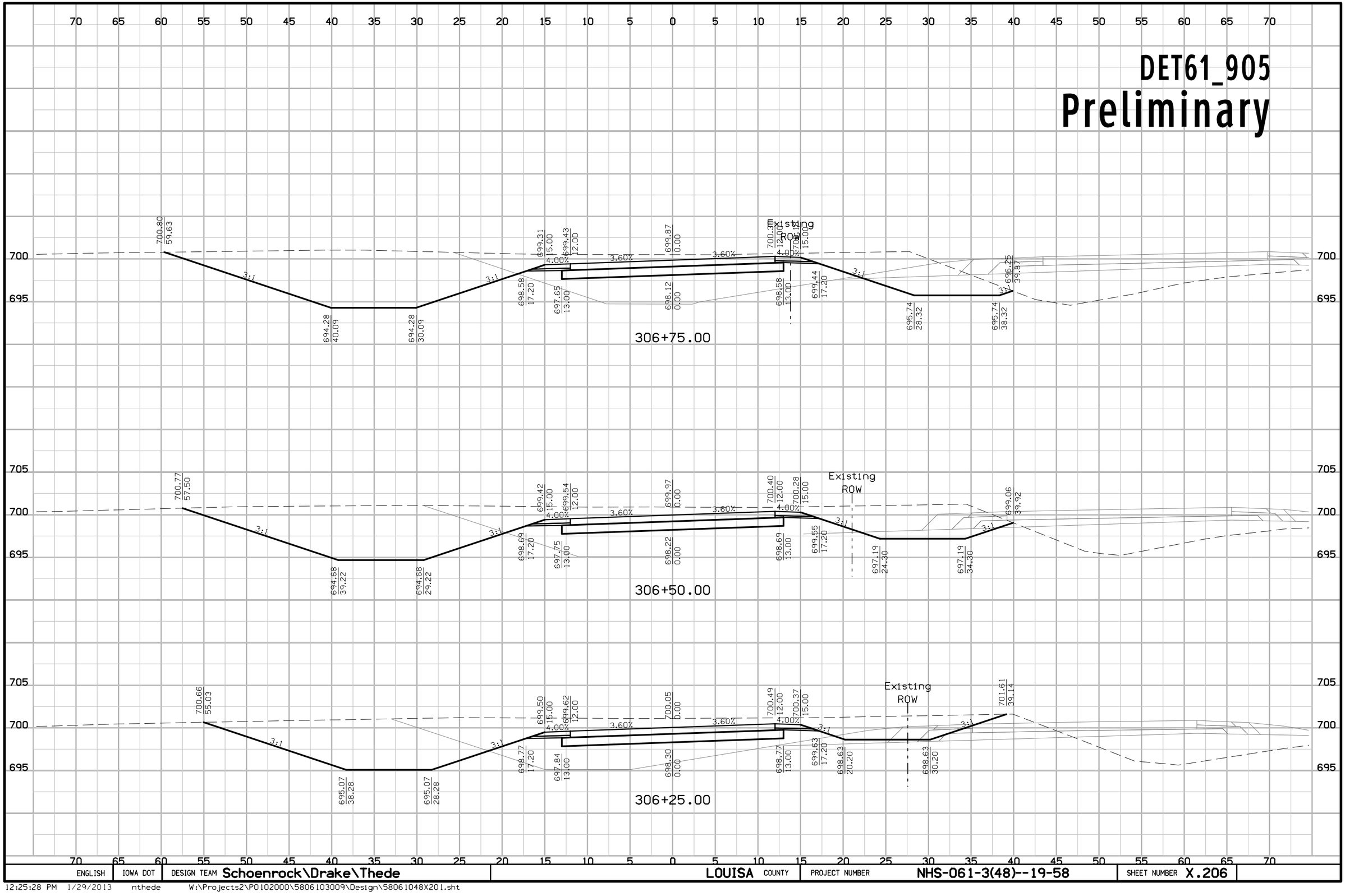
DET61_905

Preliminary



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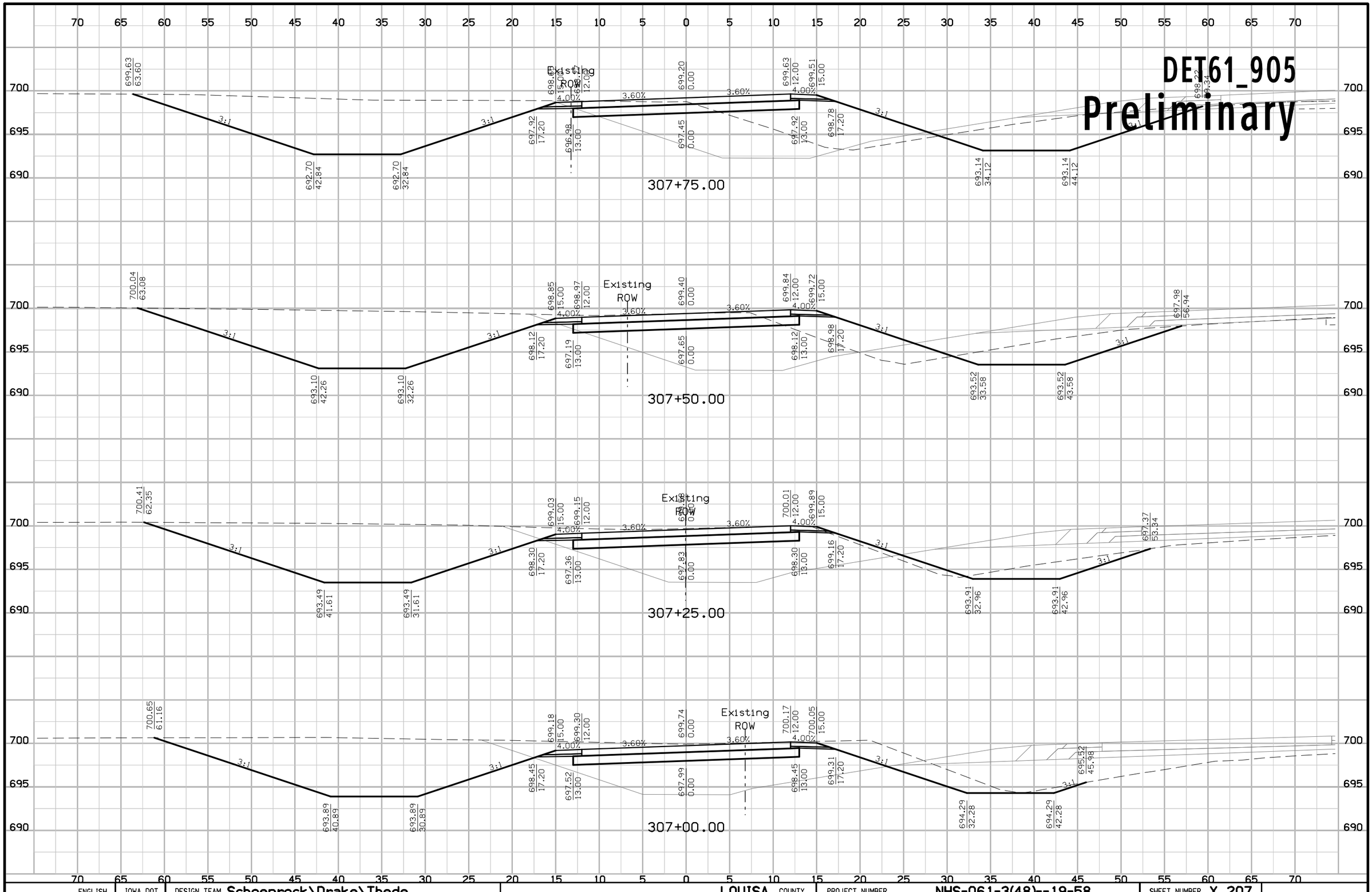
DET61_905

Preliminary



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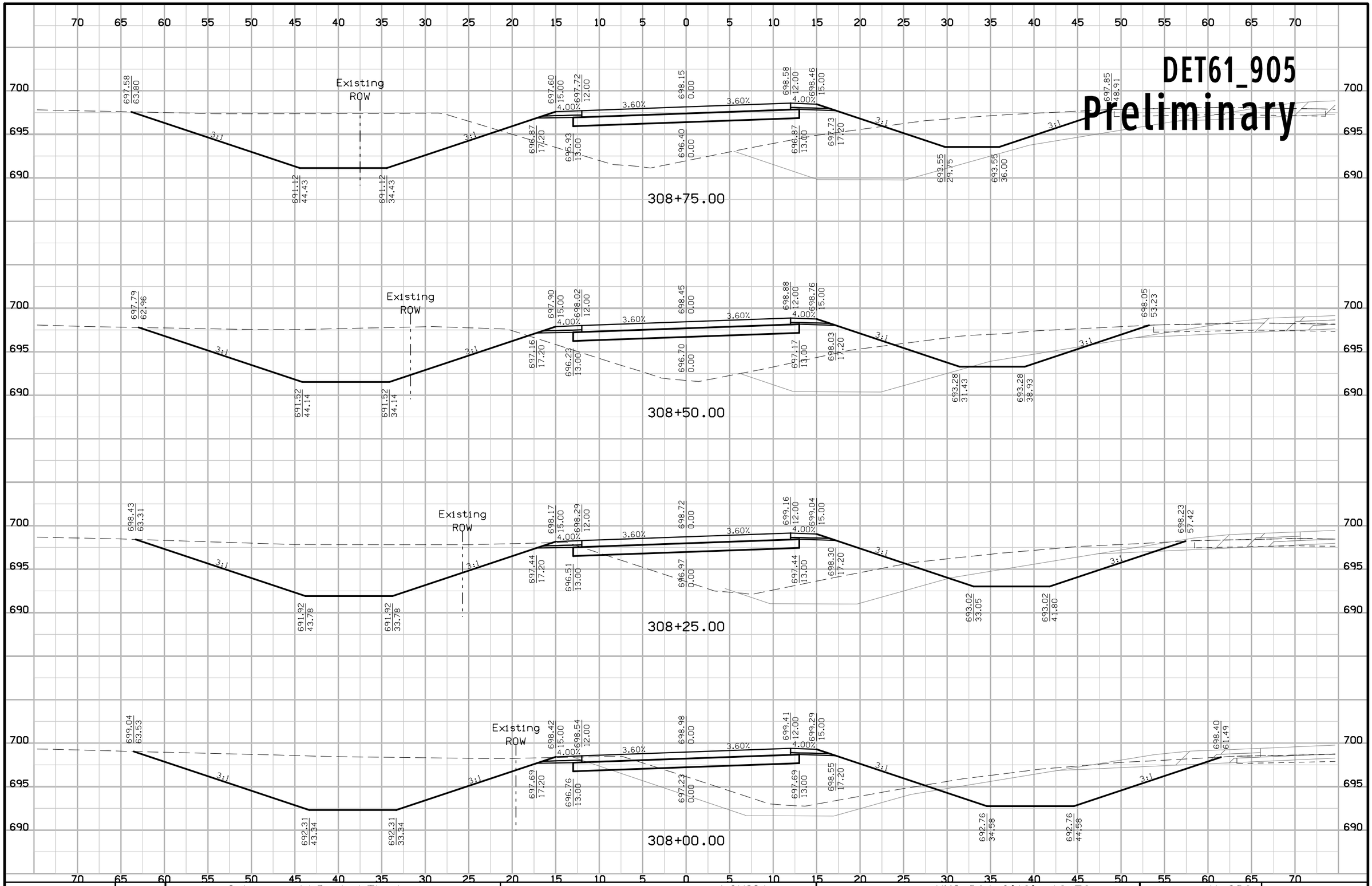
DET61_905

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.208

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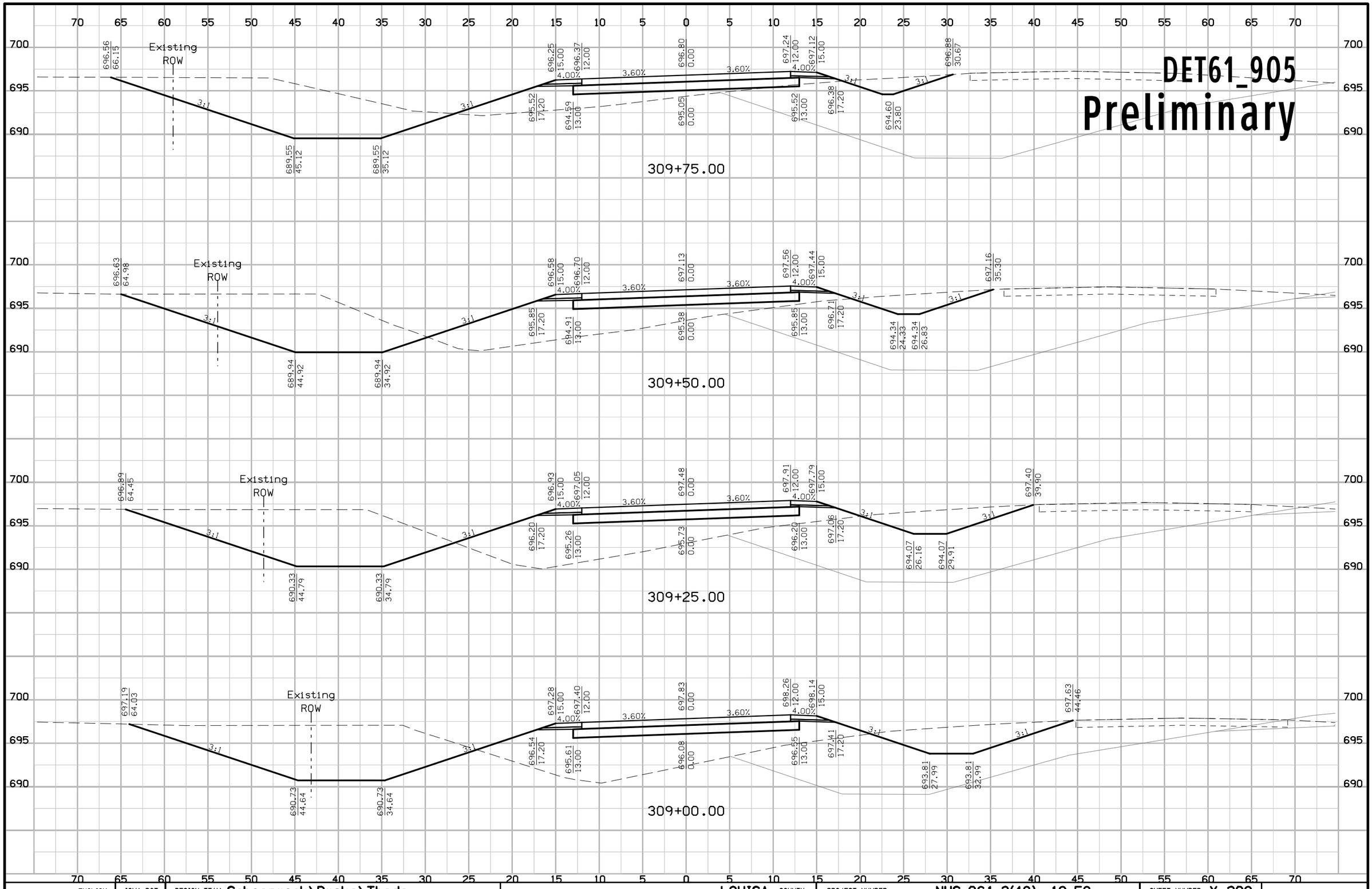
DET61_905

Preliminary



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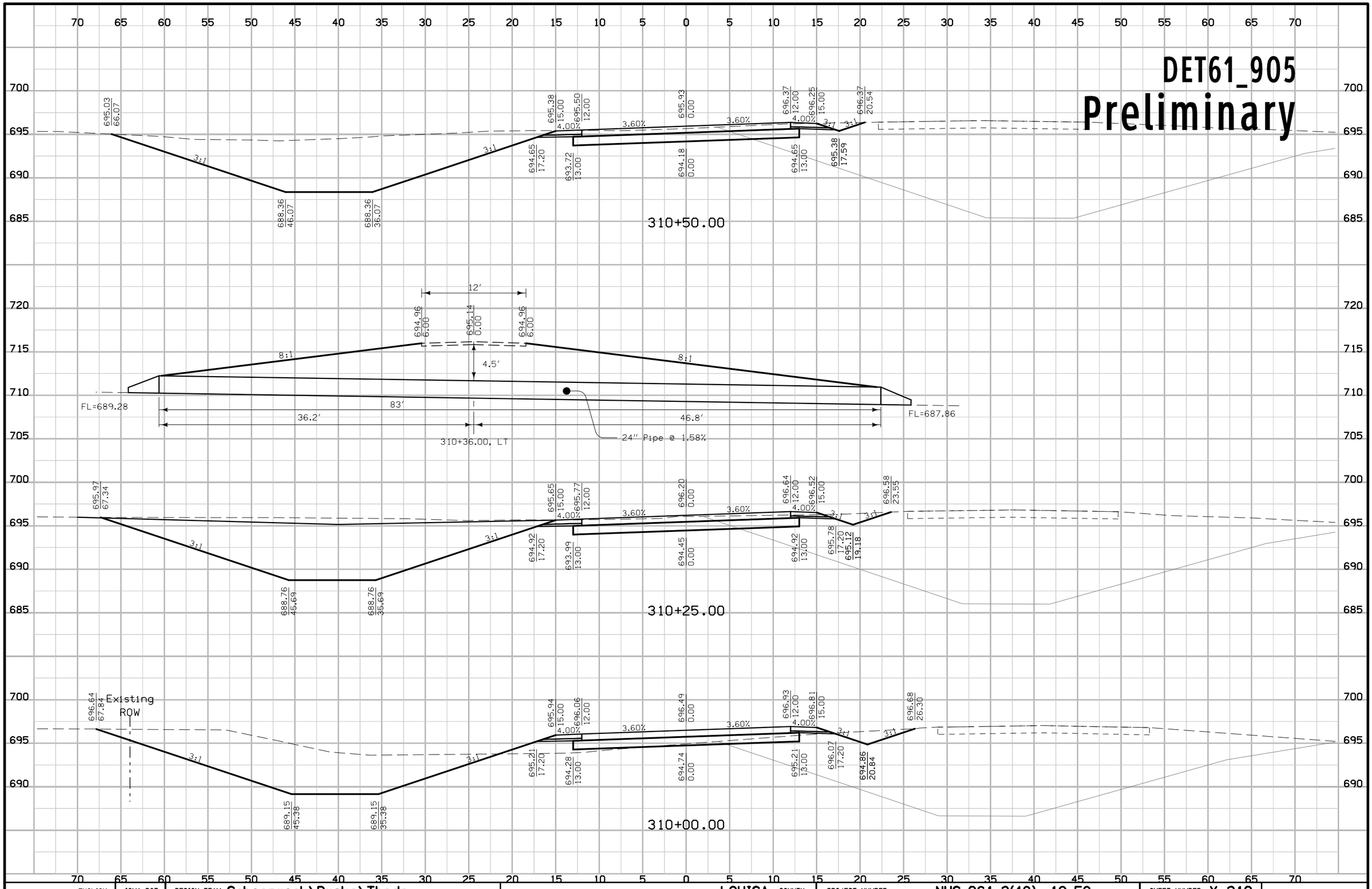
DET61_905

Preliminary



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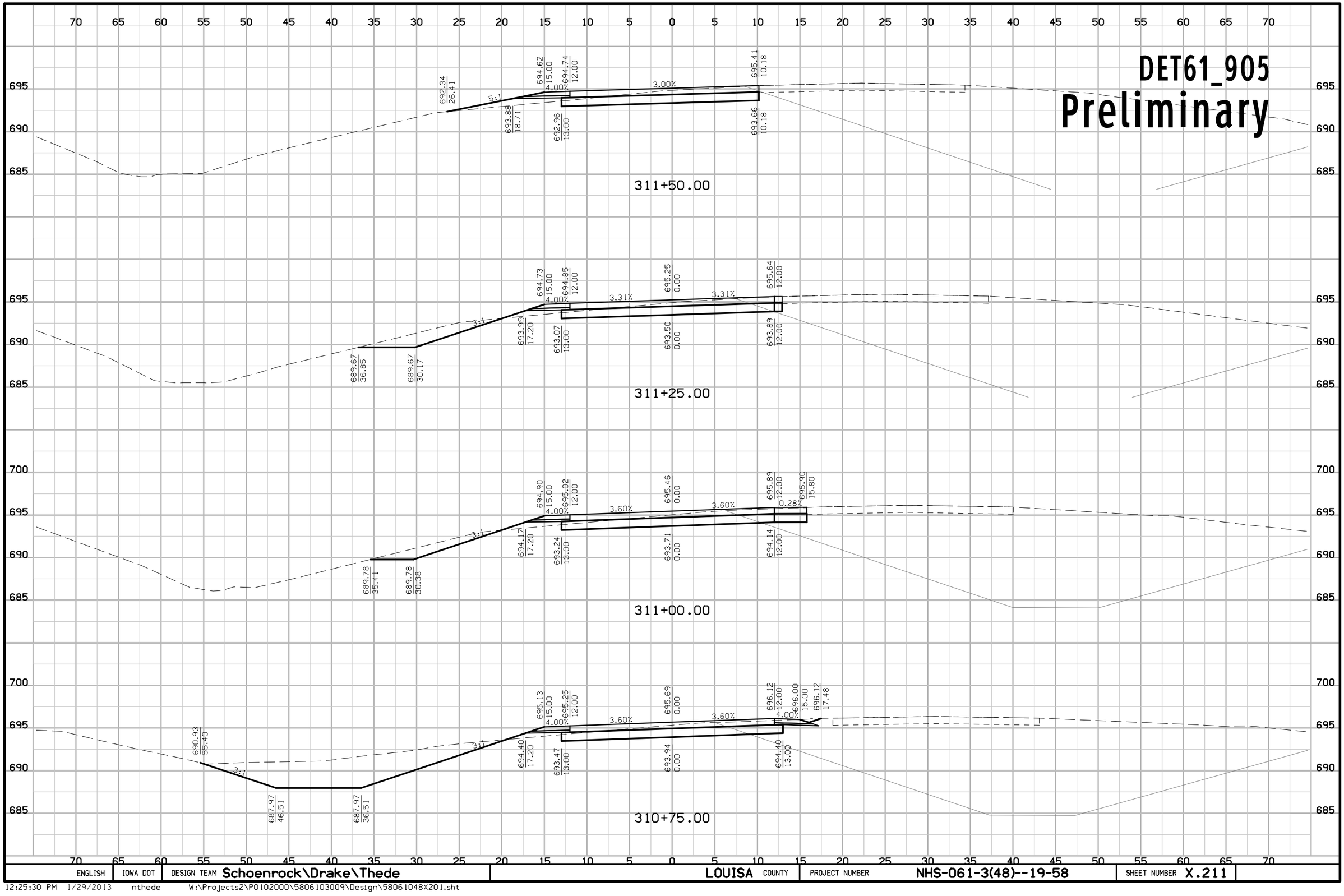
DET61_905

Preliminary



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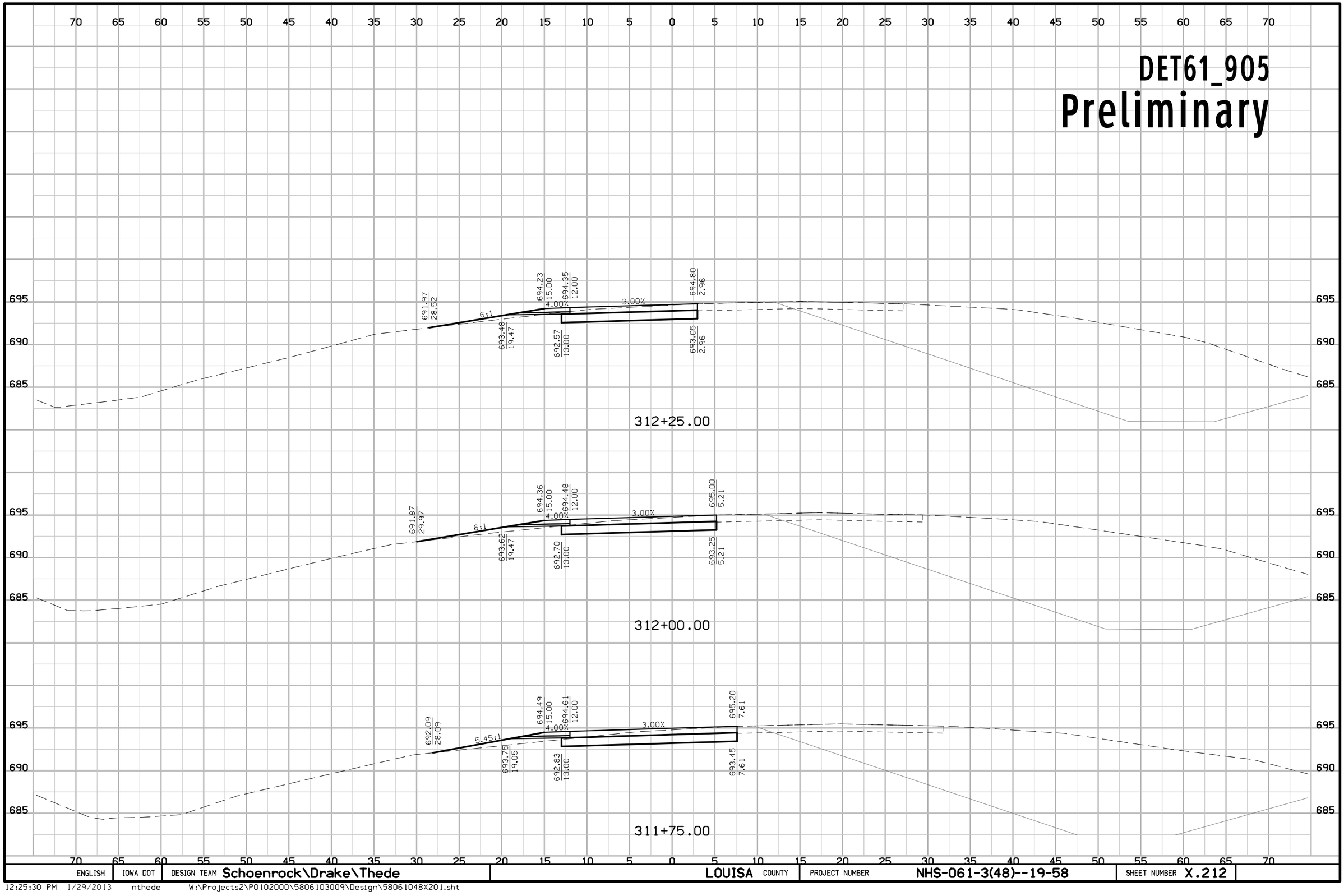
DET61_905

Preliminary



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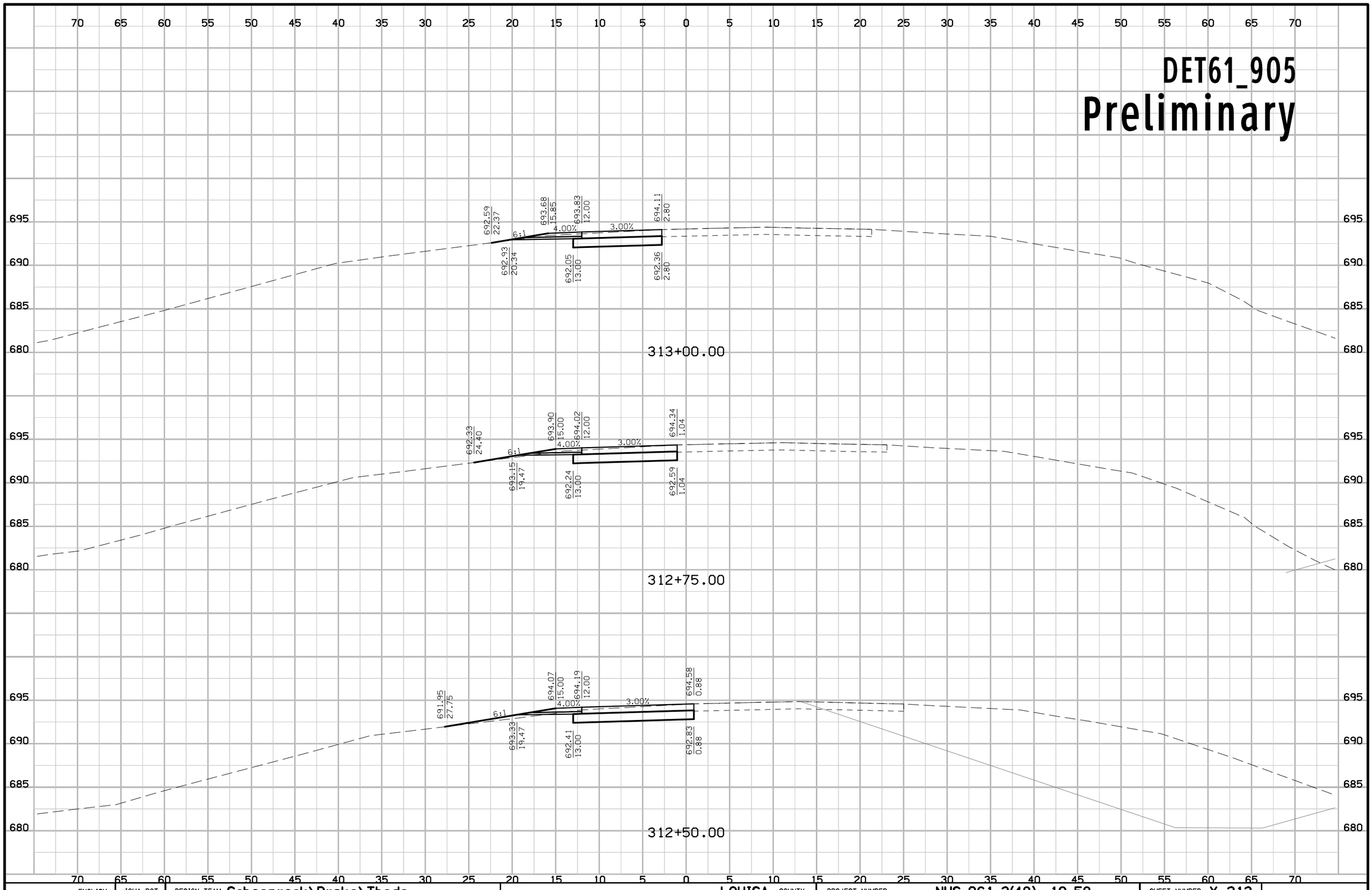
DET61_905

Preliminary



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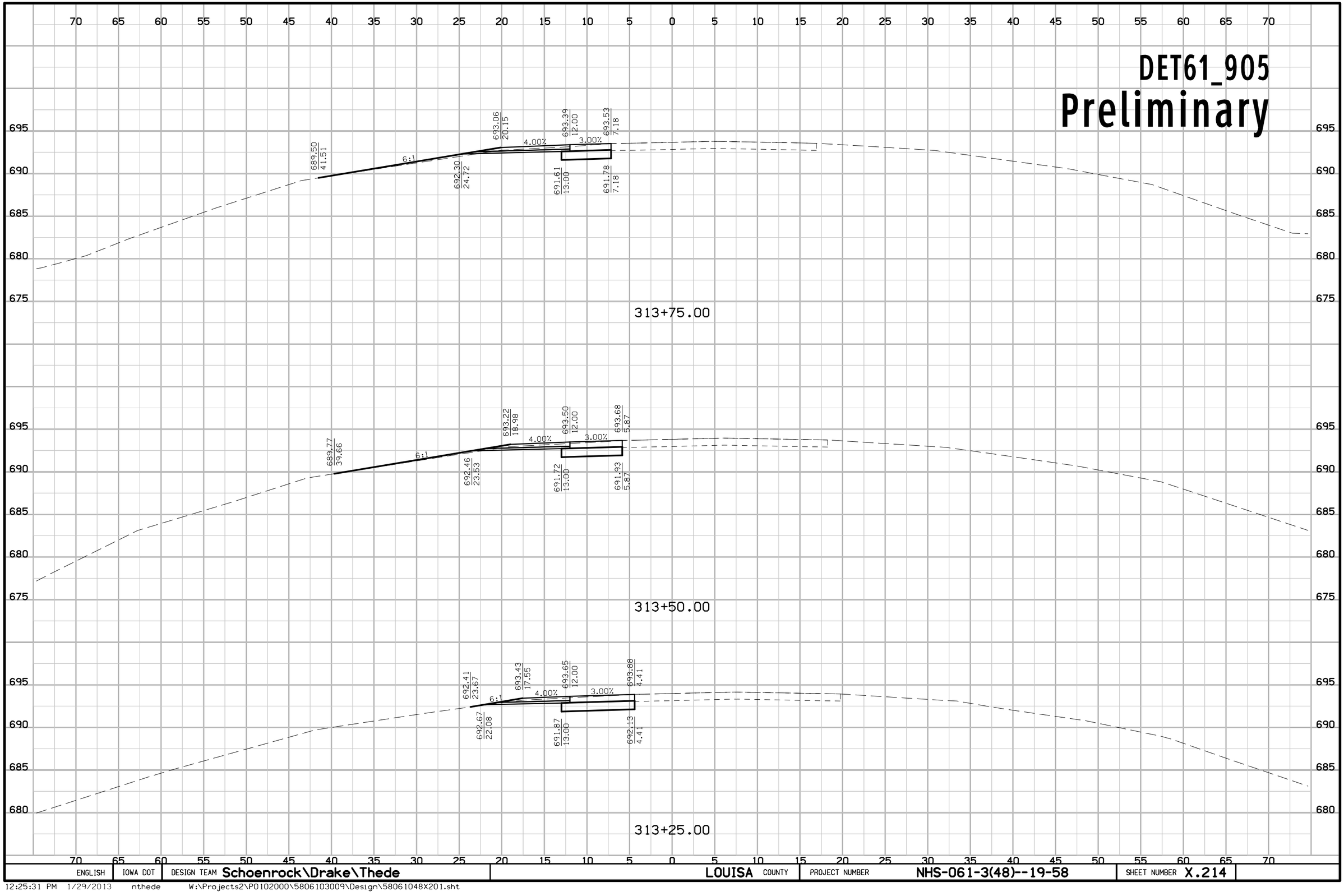
DET61_905

Preliminary



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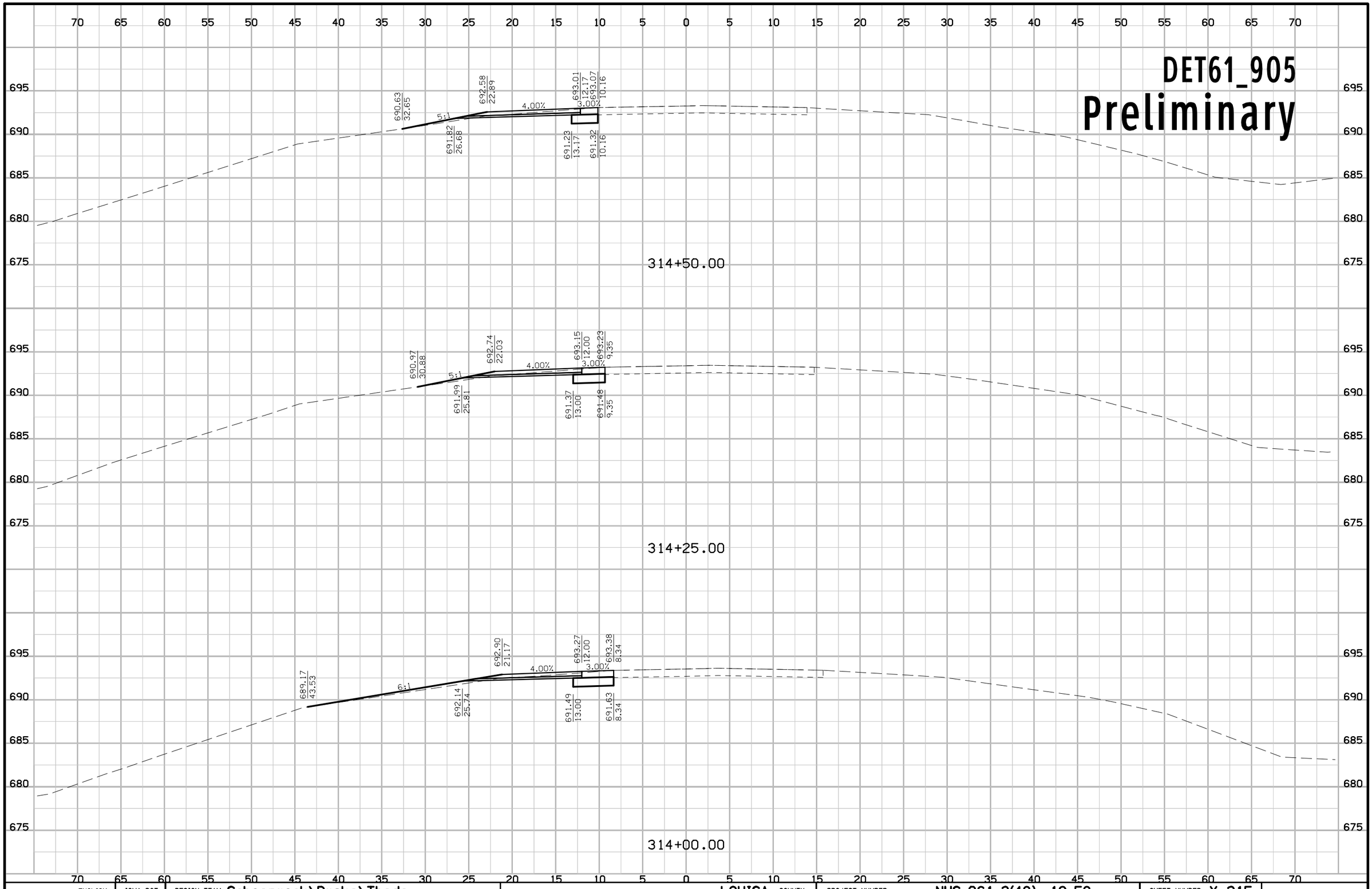
DET61_905

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.215

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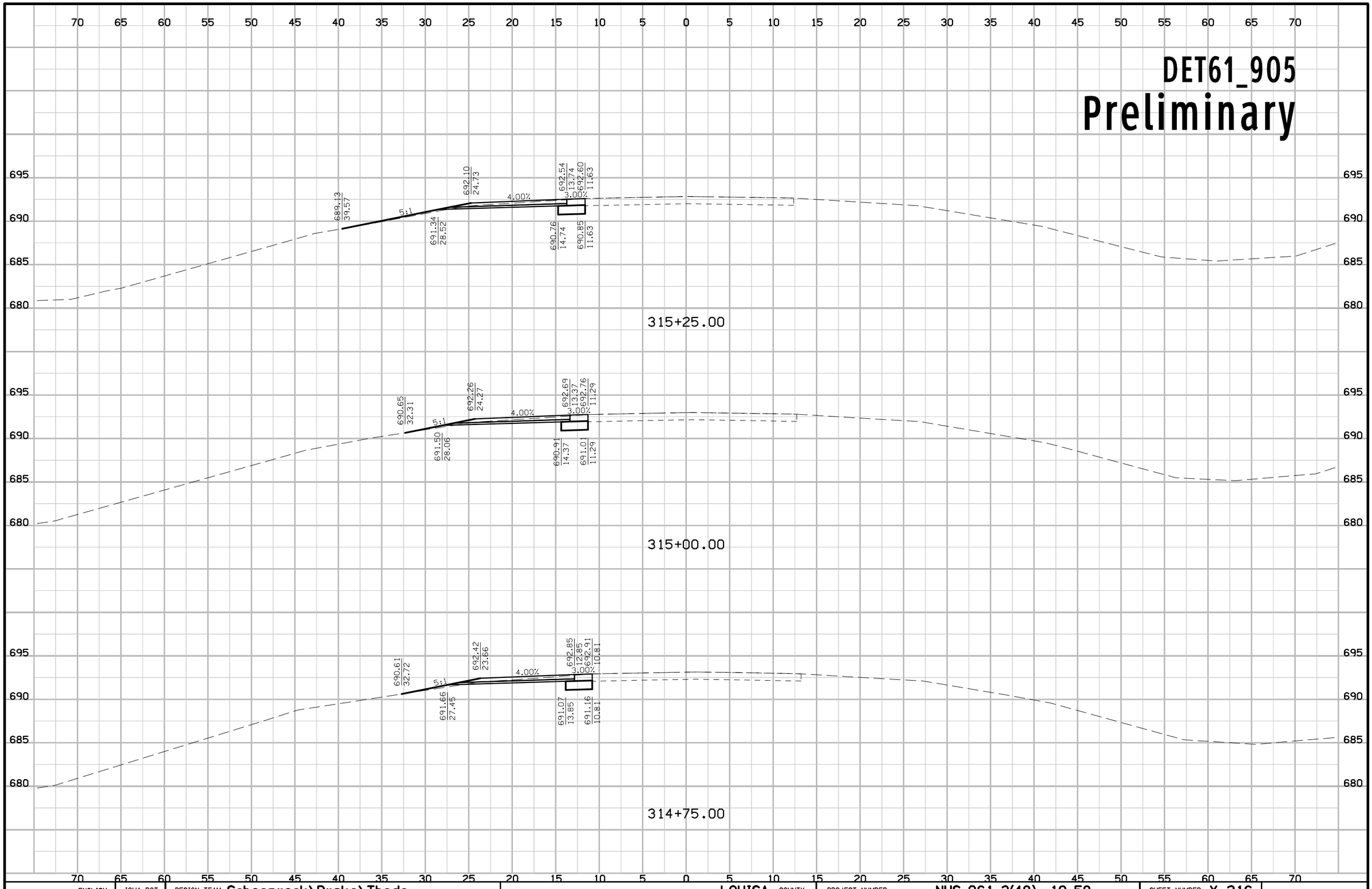
DET61_905

Preliminary



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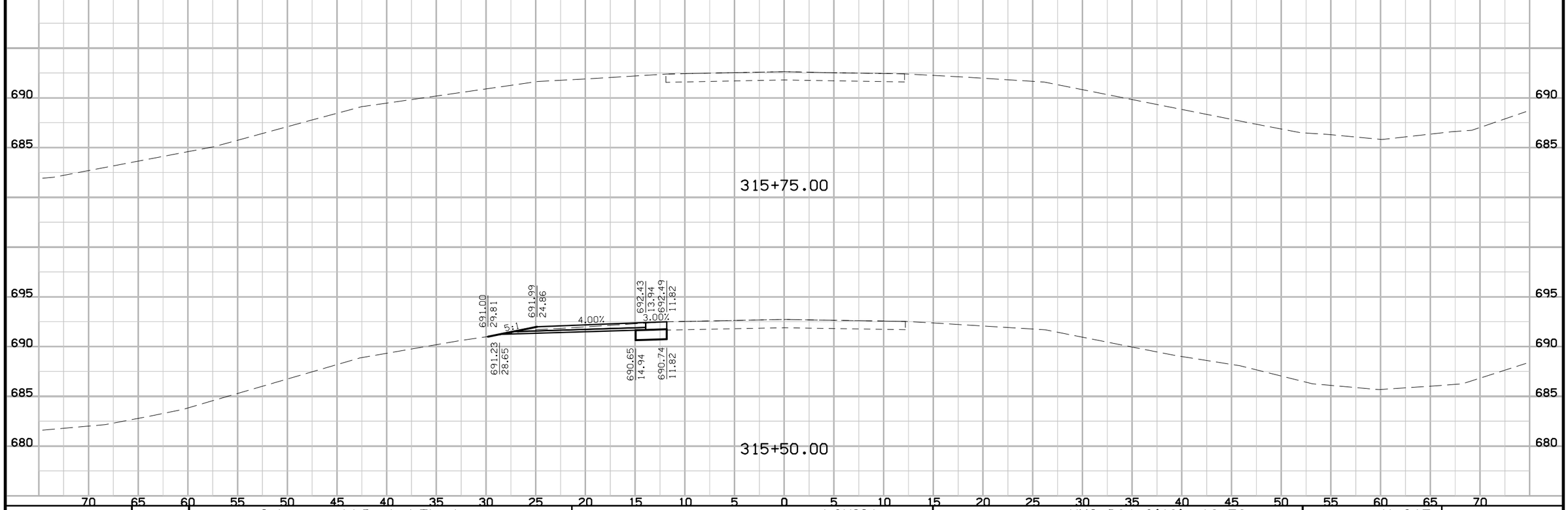
DET61_905

Preliminary



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DET61_985

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

705
700
695

isting ROW

698.91 39.52 | 6:1 | 700.54 29.77 | 701.30 25.17 | 4.00% | 701.80 12.71 | 3.00% | 701.86 10.71 | 700.02 13.71 | 700.11 10.71

Exis RC

401+75.00

sting ROW

699.31 37.88 | 6:1 | 700.60 30.16 | 701.37 25.56 | 4.00% | 701.86 13.15 | 3.00% | 701.92 11.15 | 700.08 14.15 | 700.17 11.15

Exis RC

401+50.00

sting OW

699.12 39.74 | 6:1 | 700.67 30.42 | 701.44 25.83 | 4.00% | 701.93 13.53 | 3.00% | 701.99 11.53 | 700.15 14.53 | 700.24 11.53

Exis RC

401+25.00

ting OW

698.79 42.30 | 6:1 | 700.75 30.57 | 701.52 25.97 | 4.00% | 702.00 13.85 | 3.00% | 702.06 11.85 | 700.22 14.85 | 700.31 11.85

Exis RC

401+00.00

ting OW

Exis R

400+75.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.218

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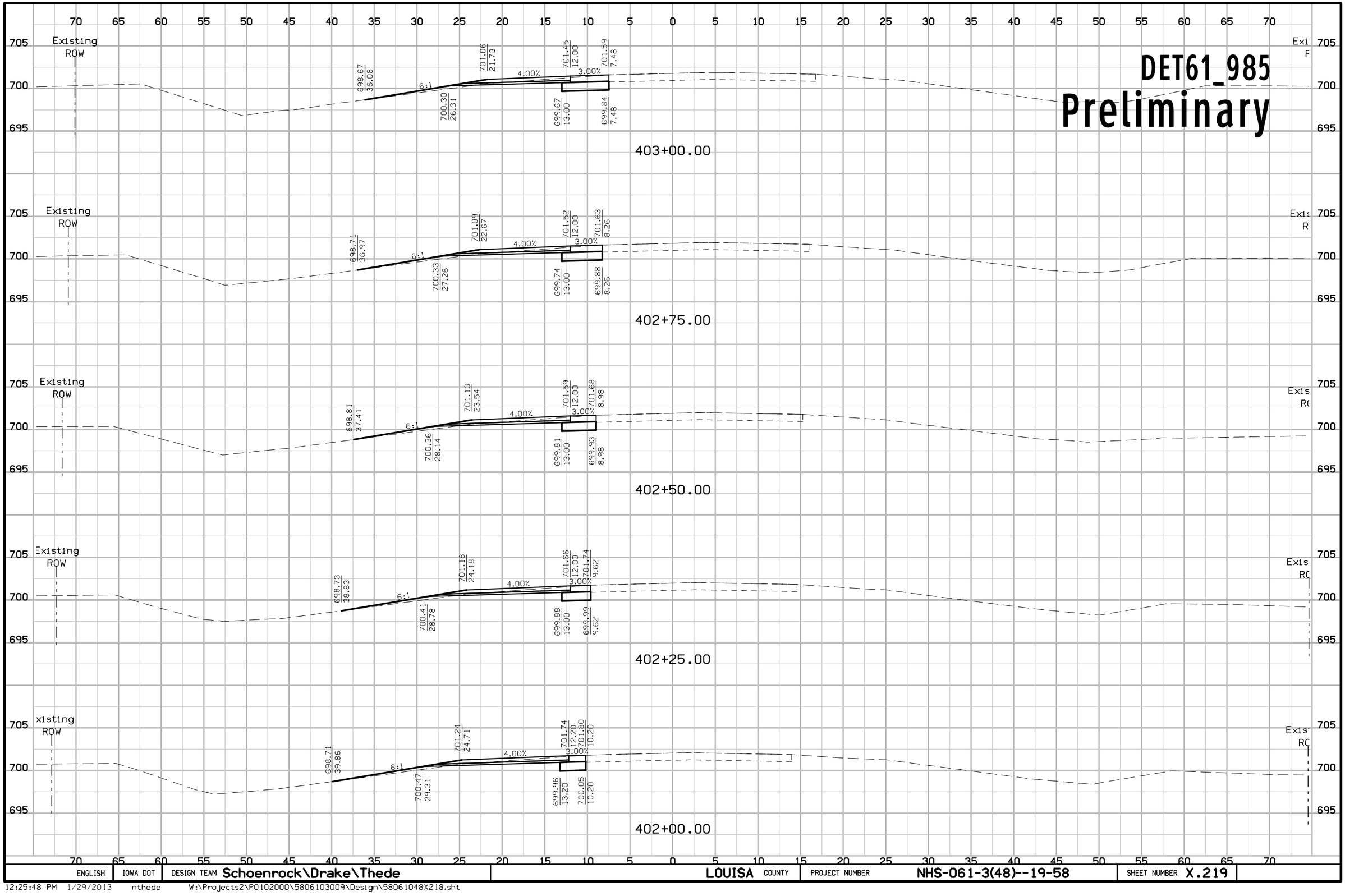
DET61_985

Preliminary



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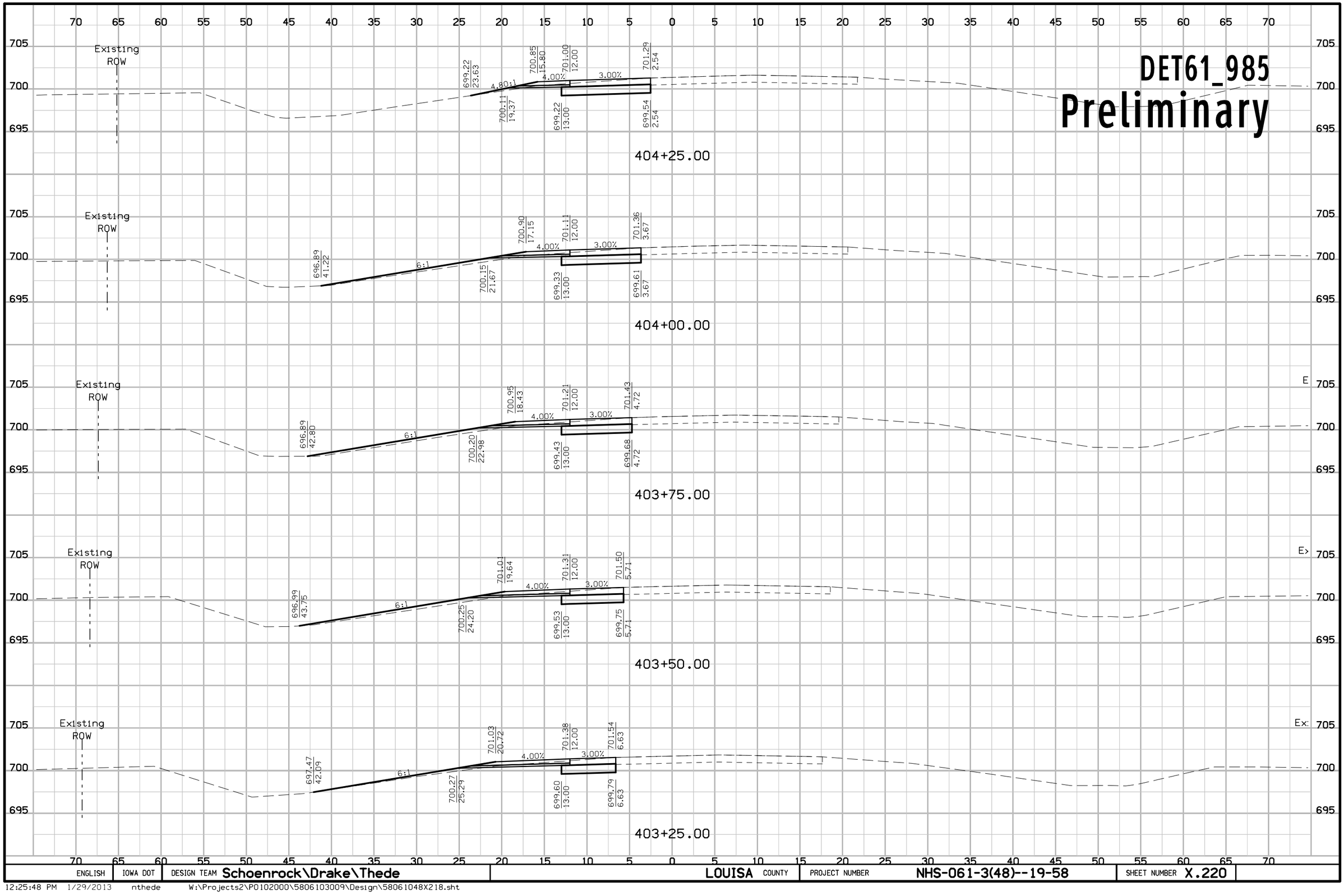
DET61_985

Preliminary



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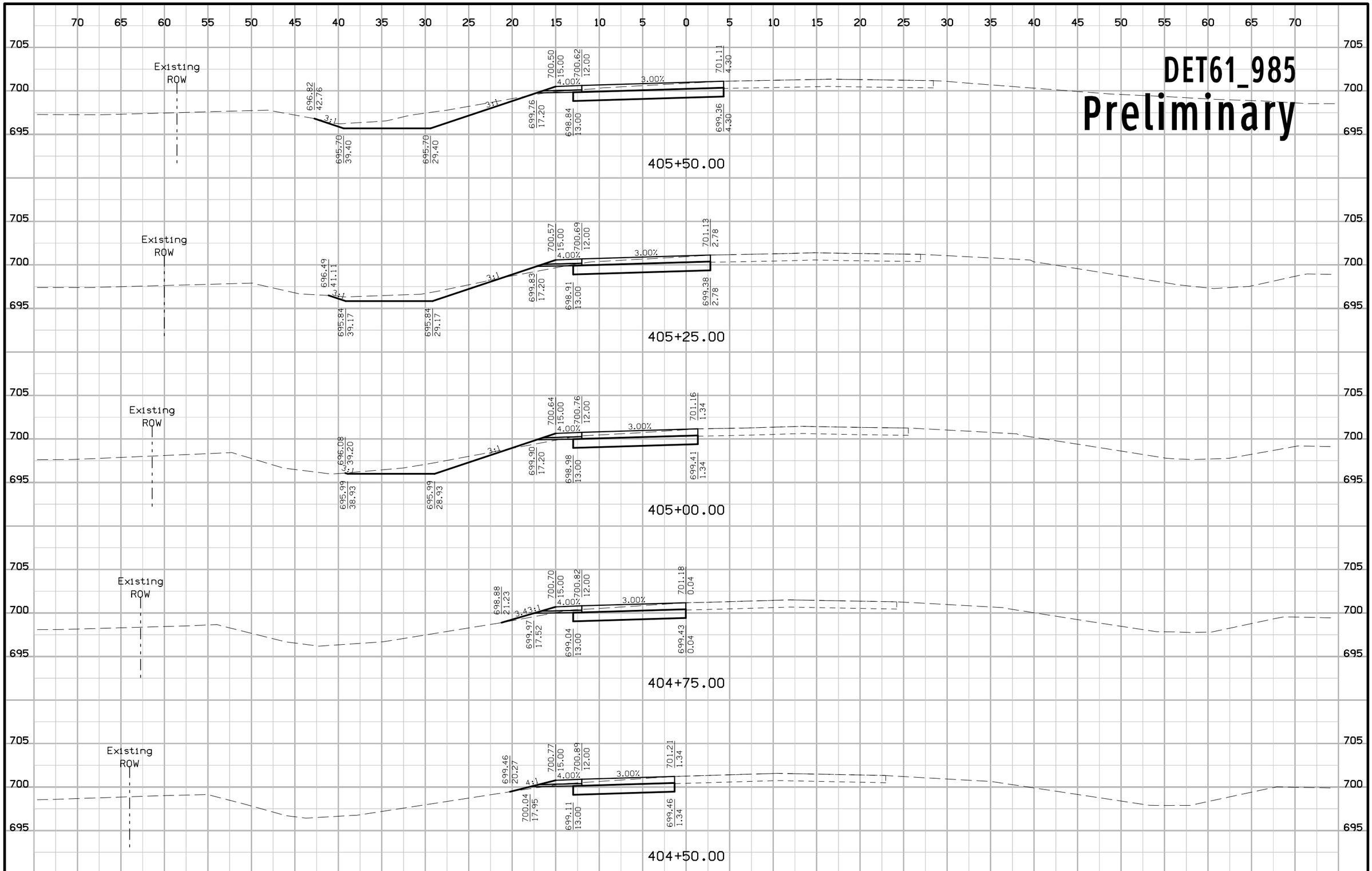

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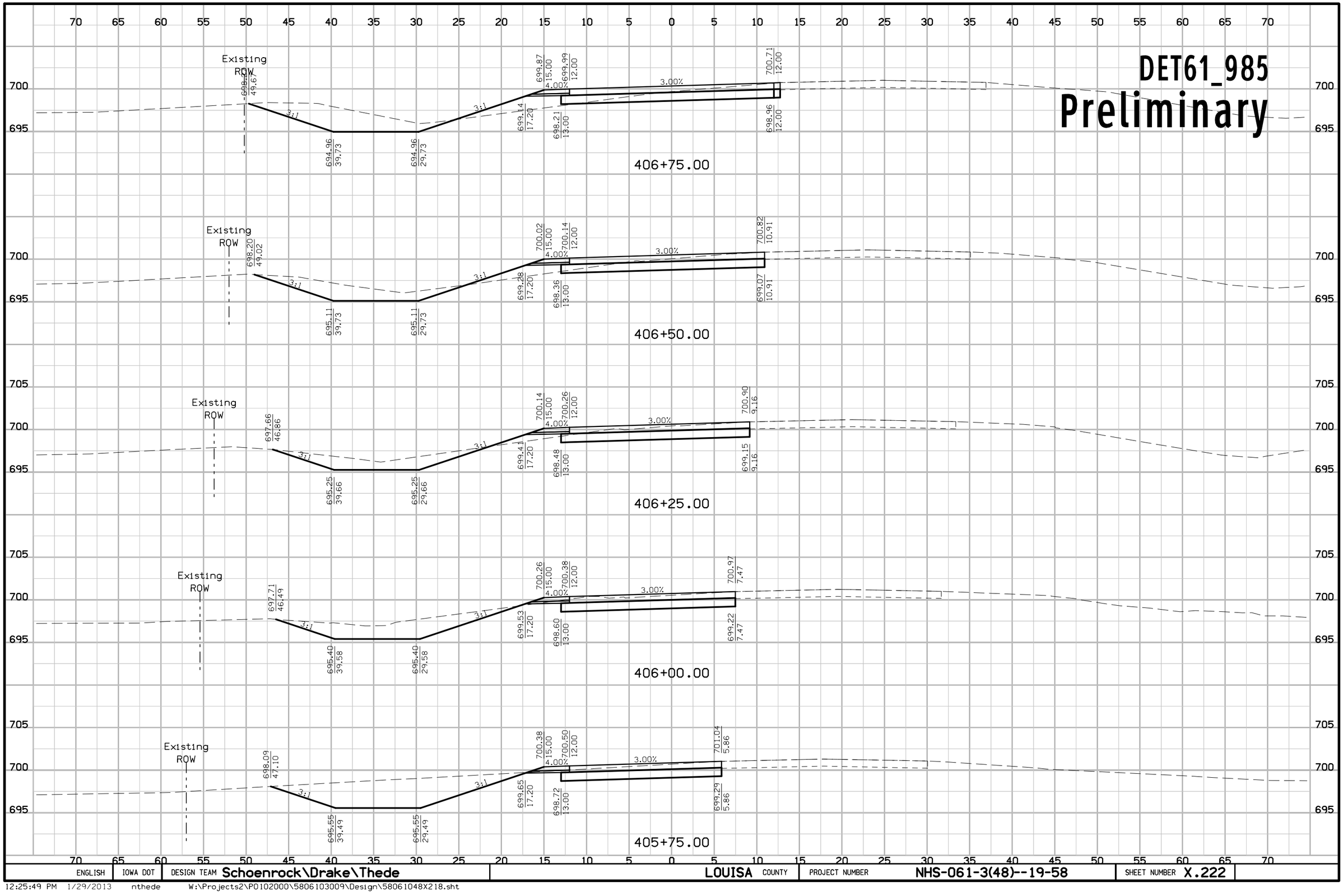

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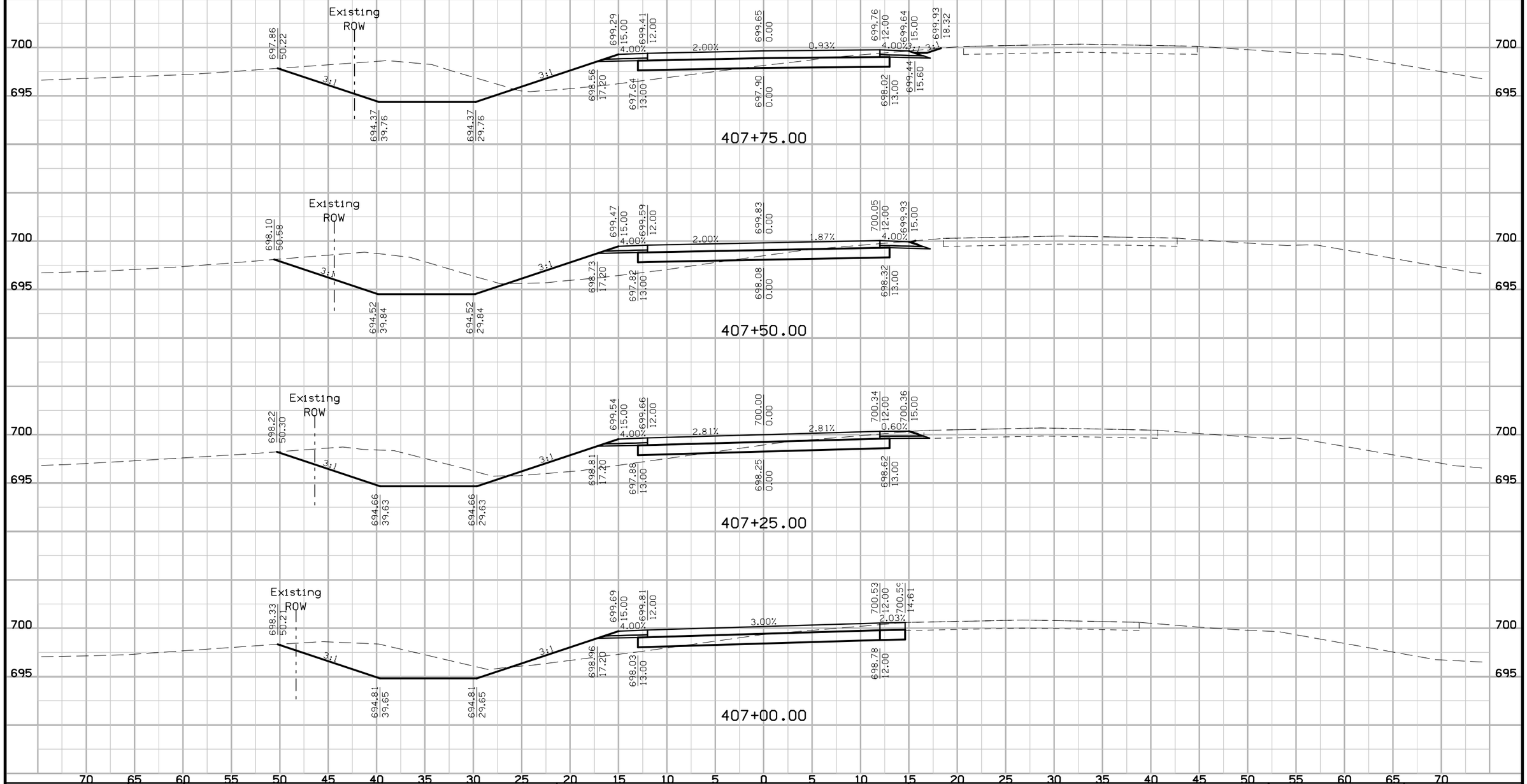
Preliminary



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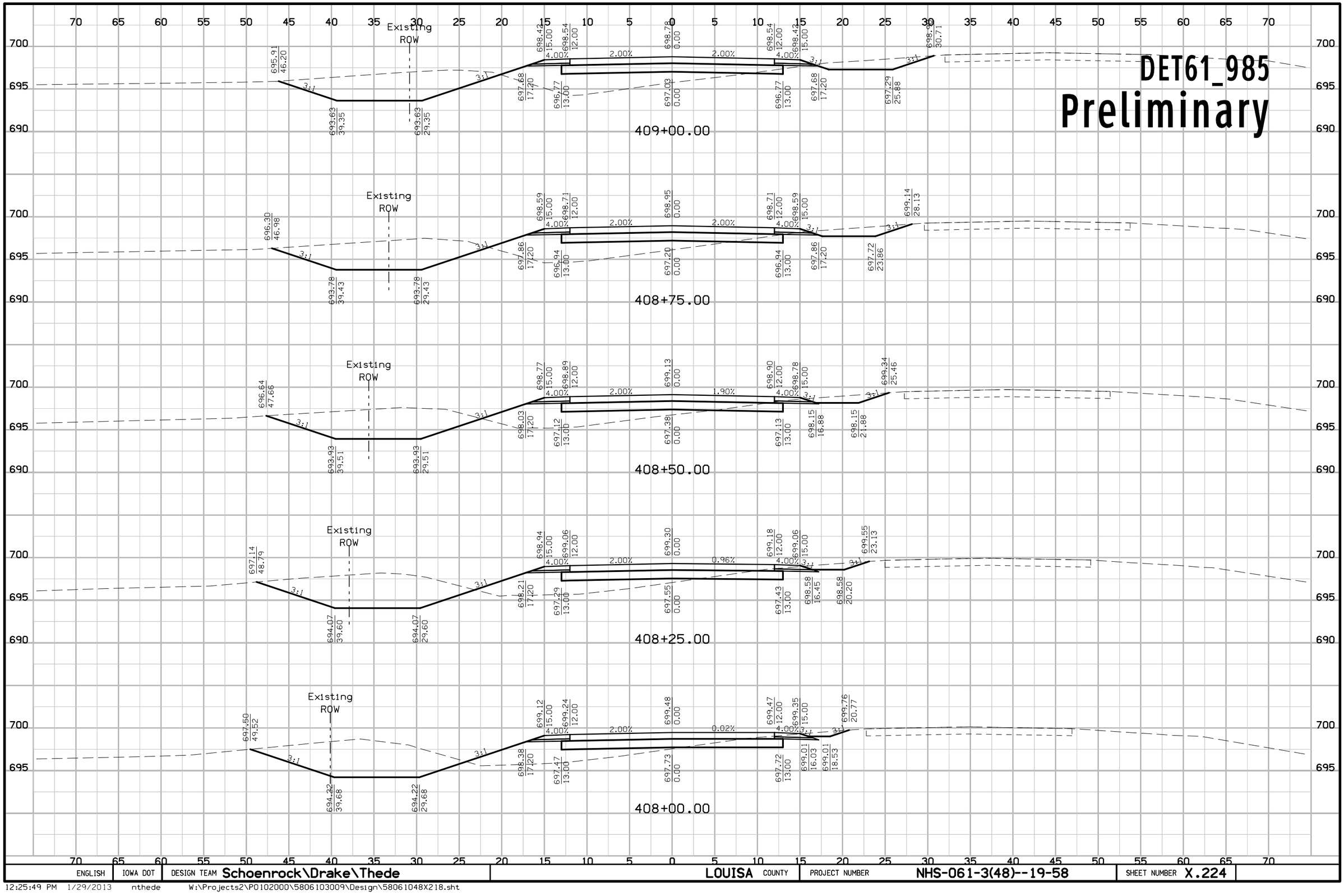

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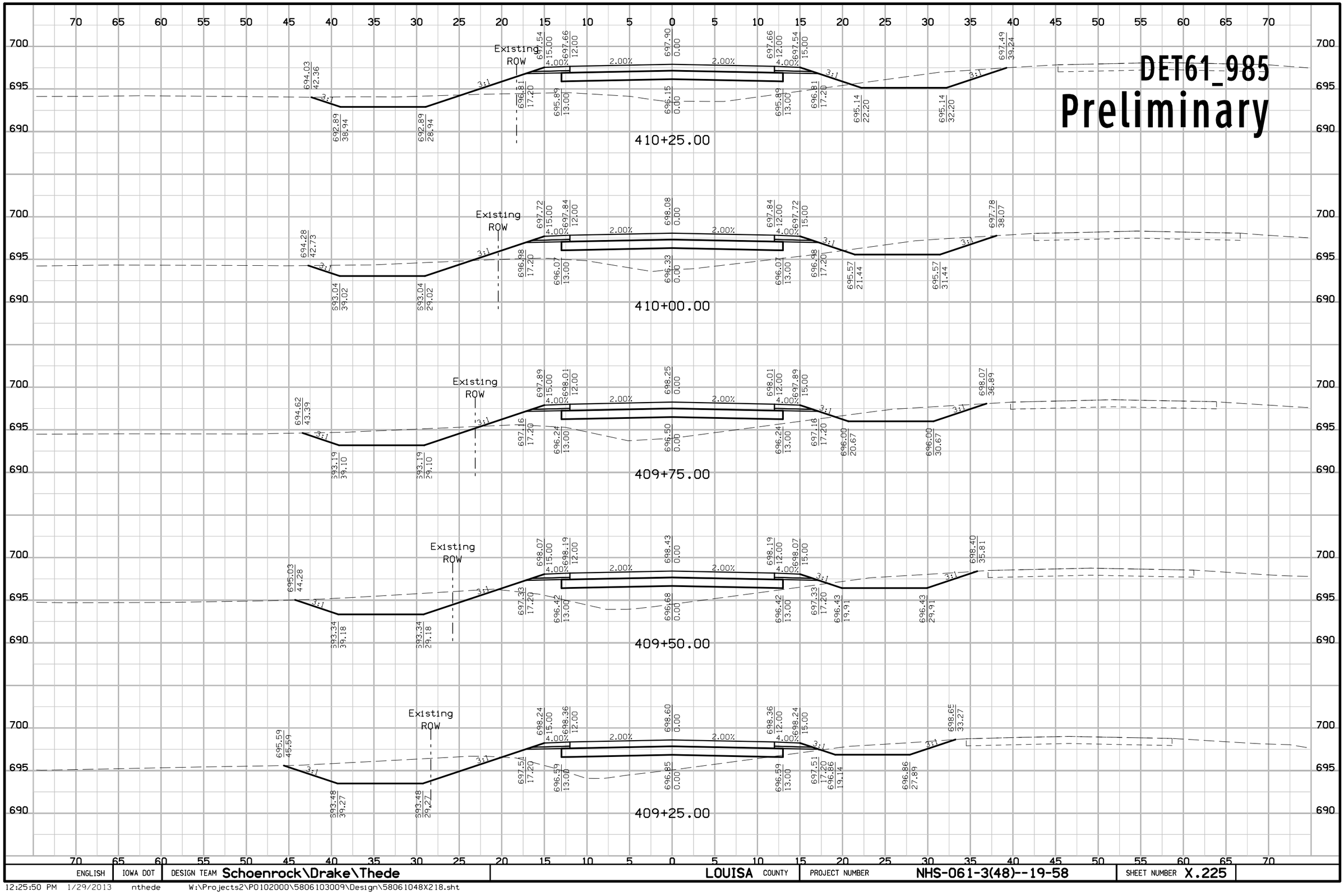

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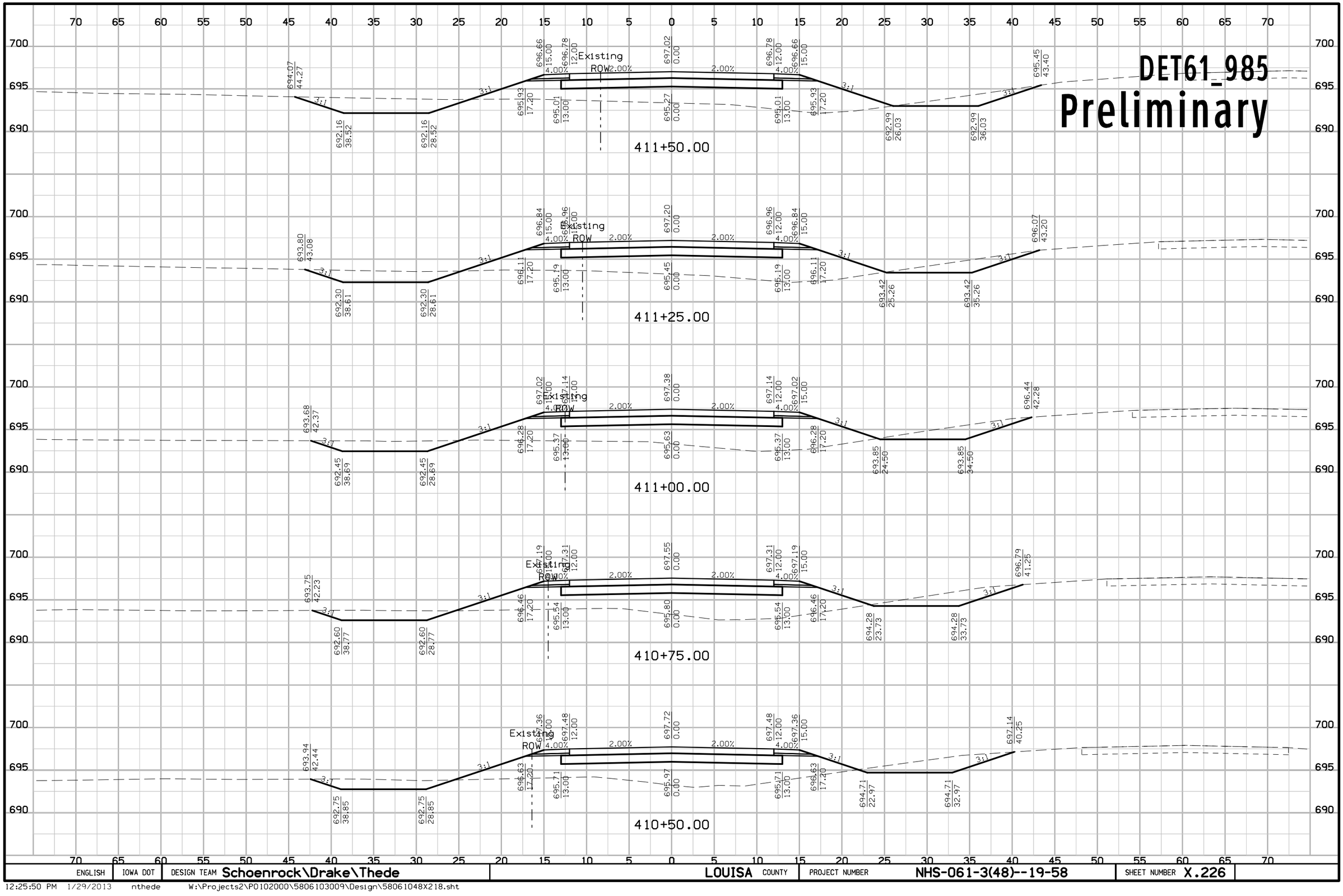
DET61_985

Preliminary



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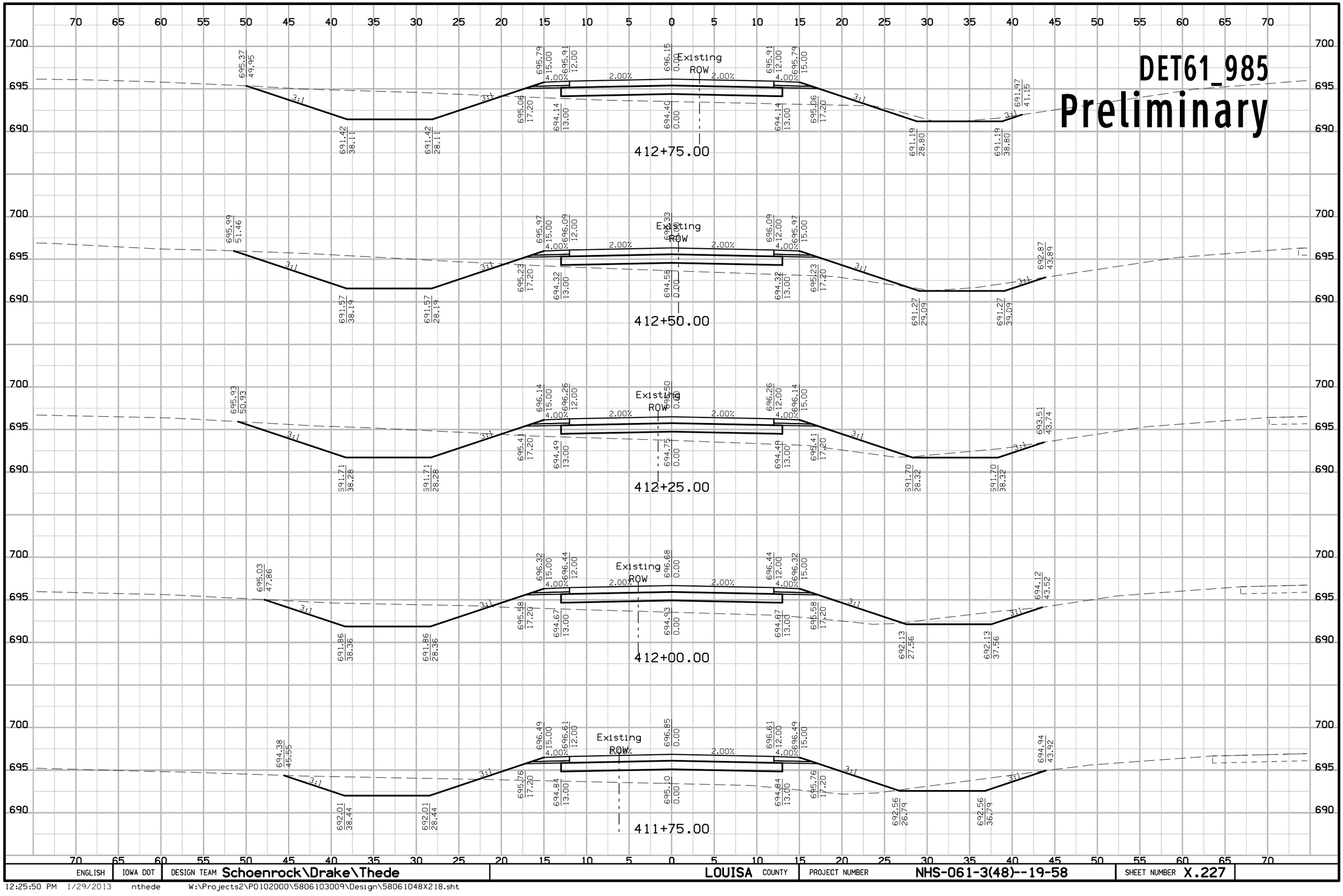
Preliminary



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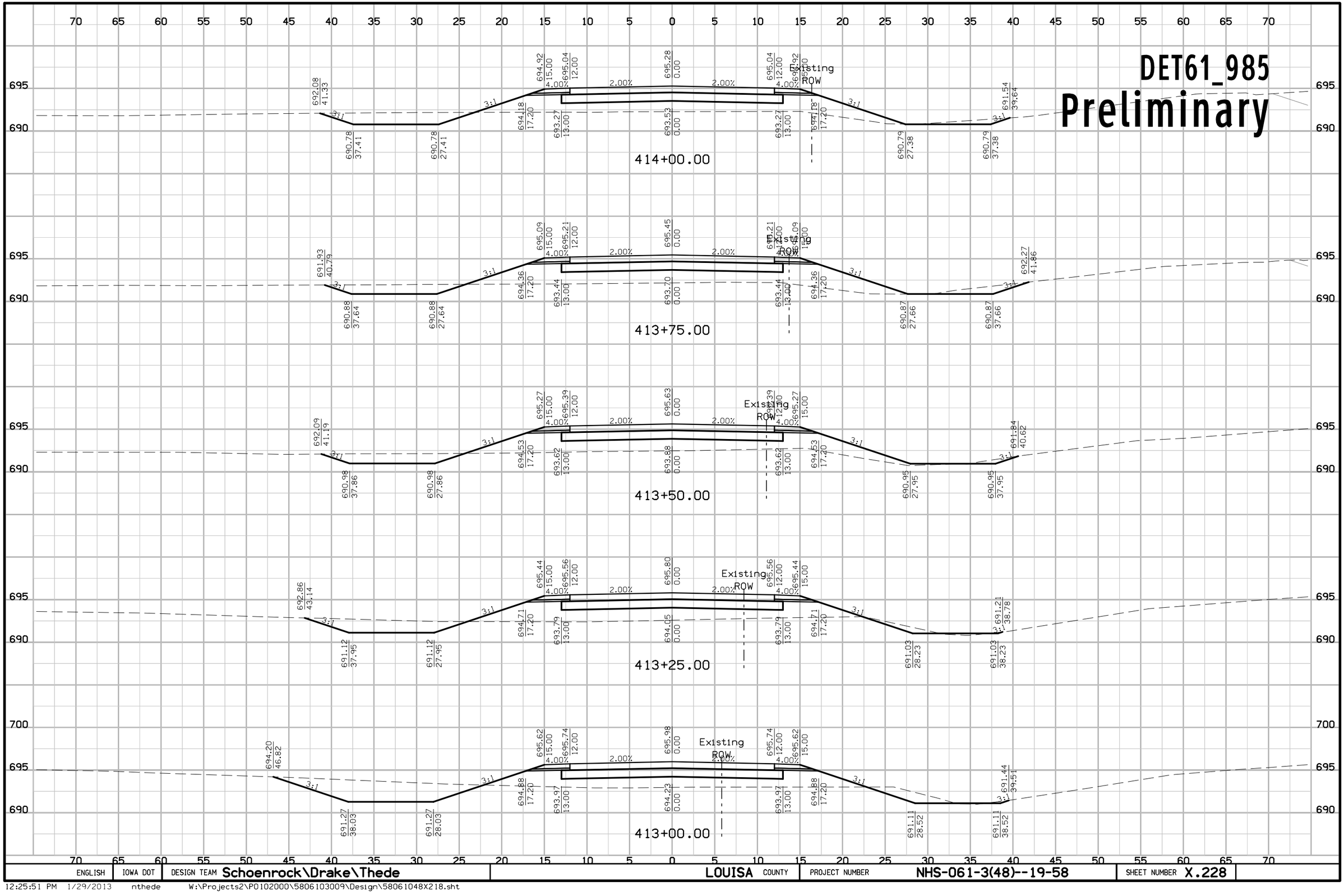
DET61_985

Preliminary



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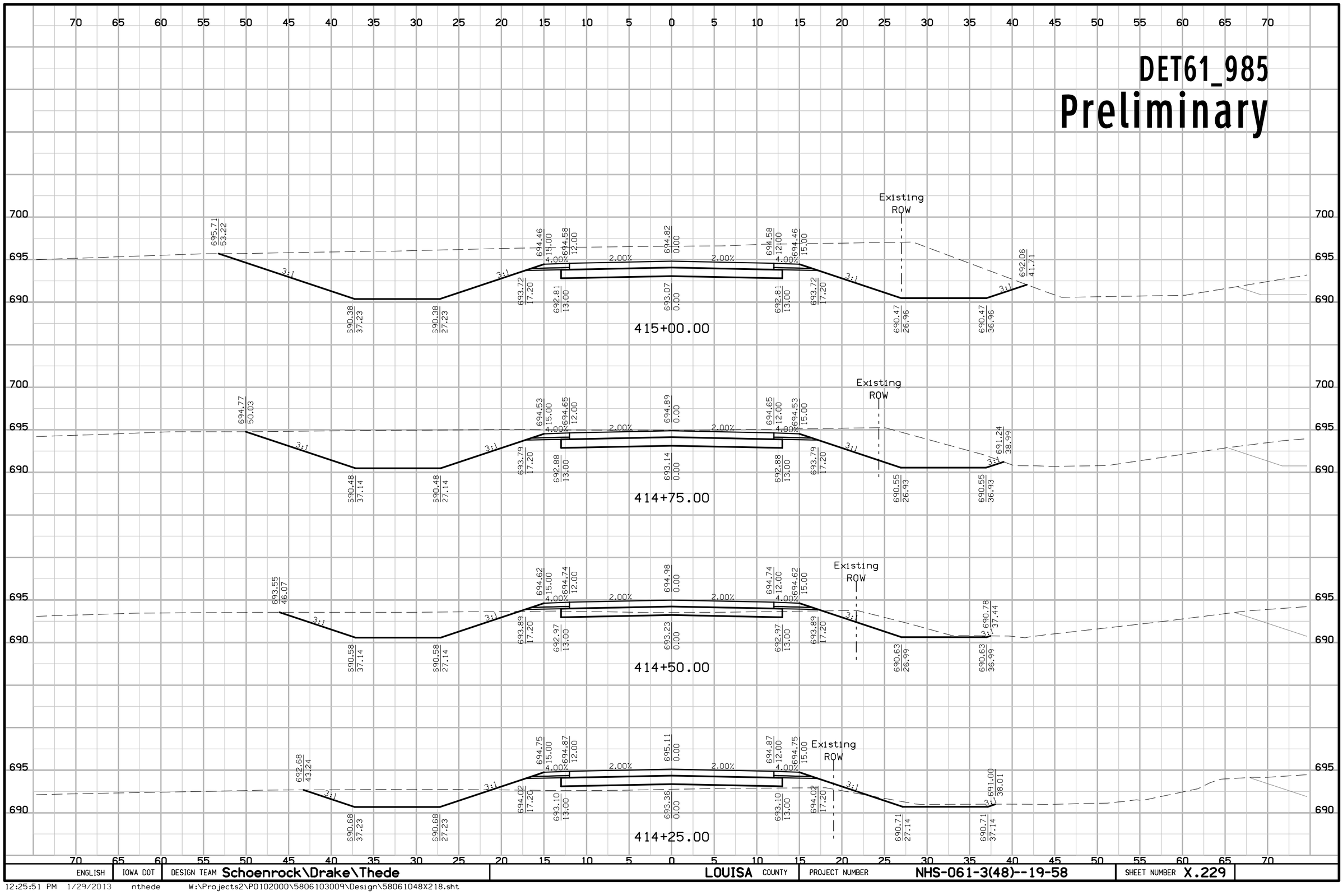
Preliminary



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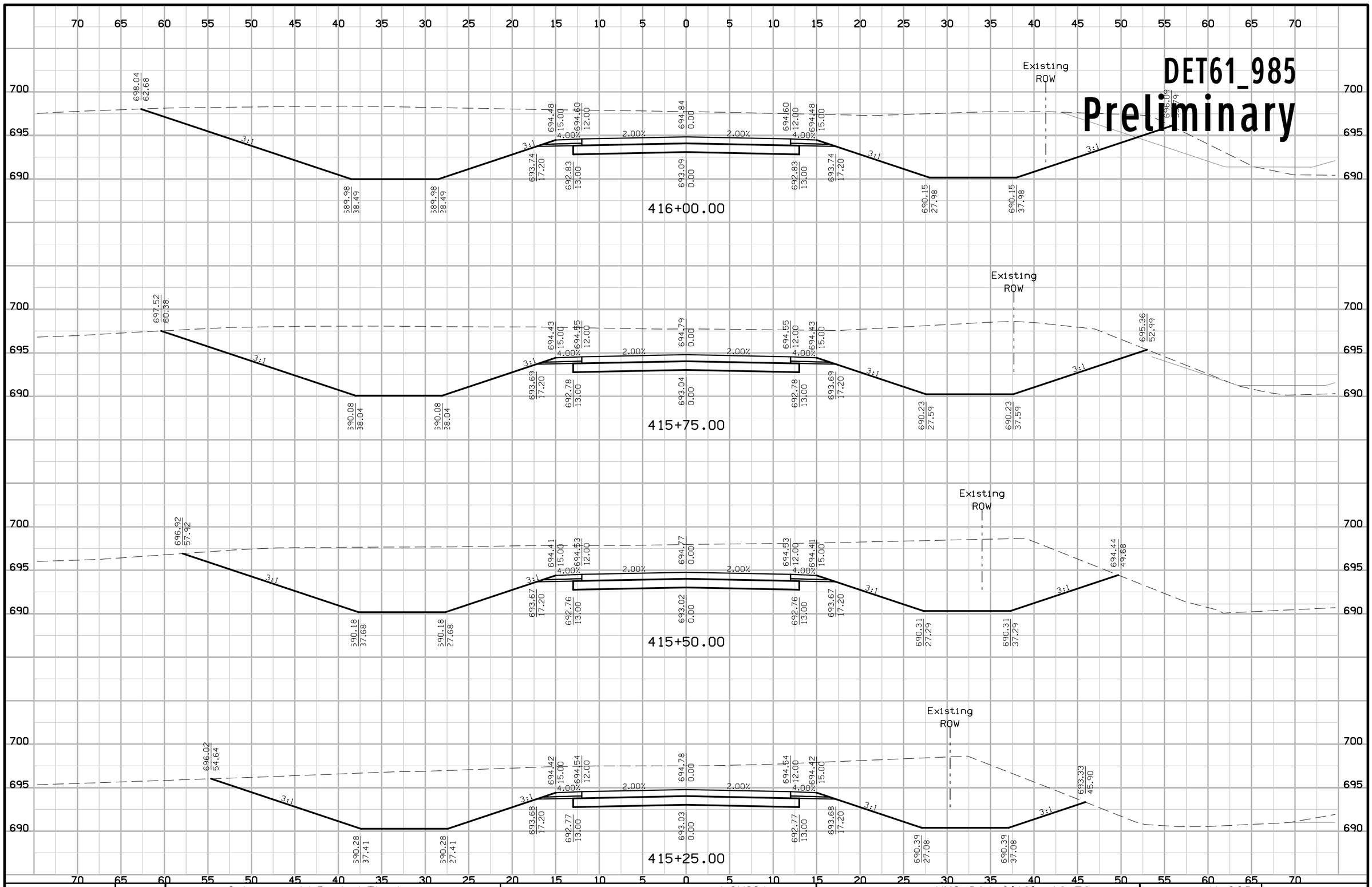
Preliminary



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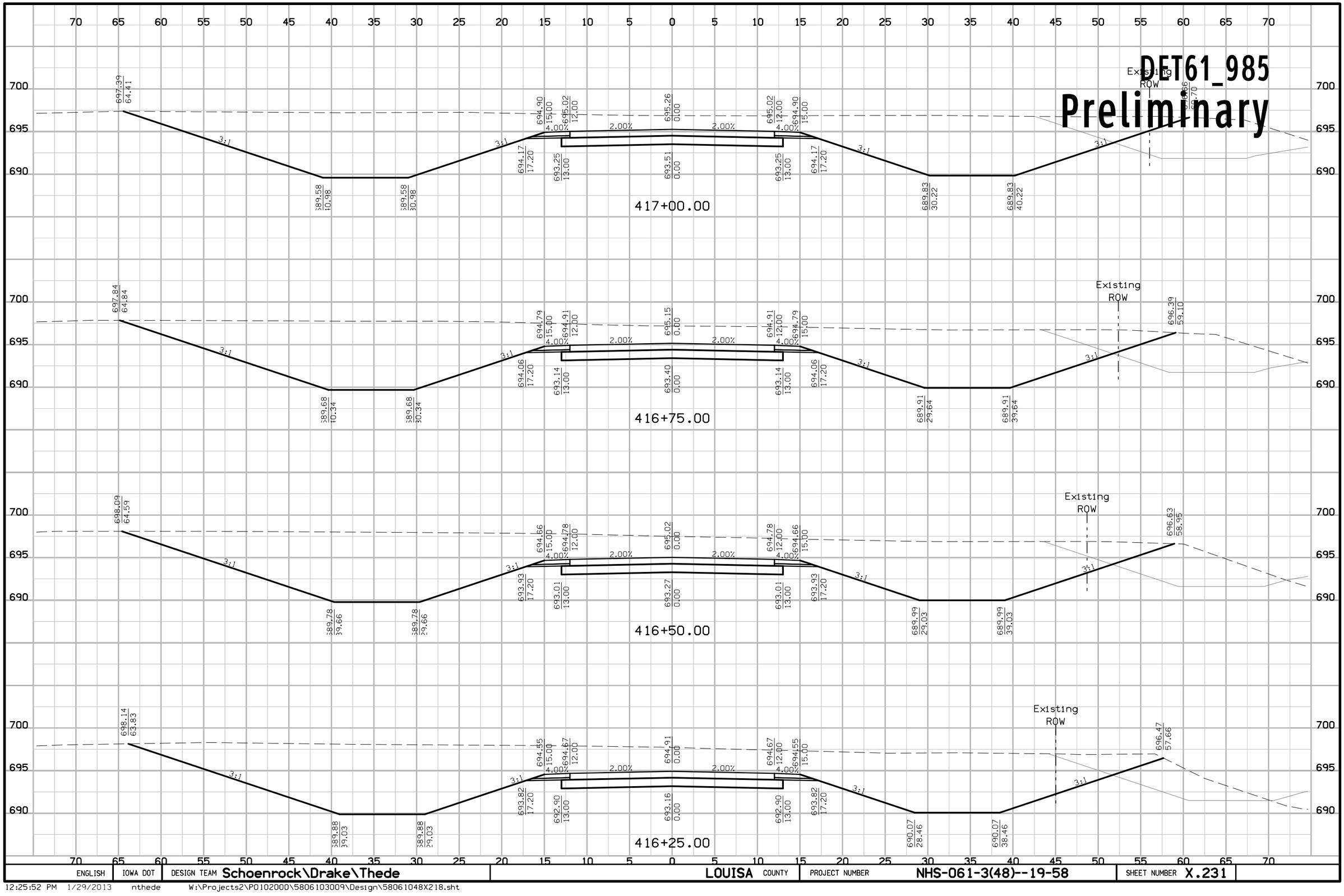

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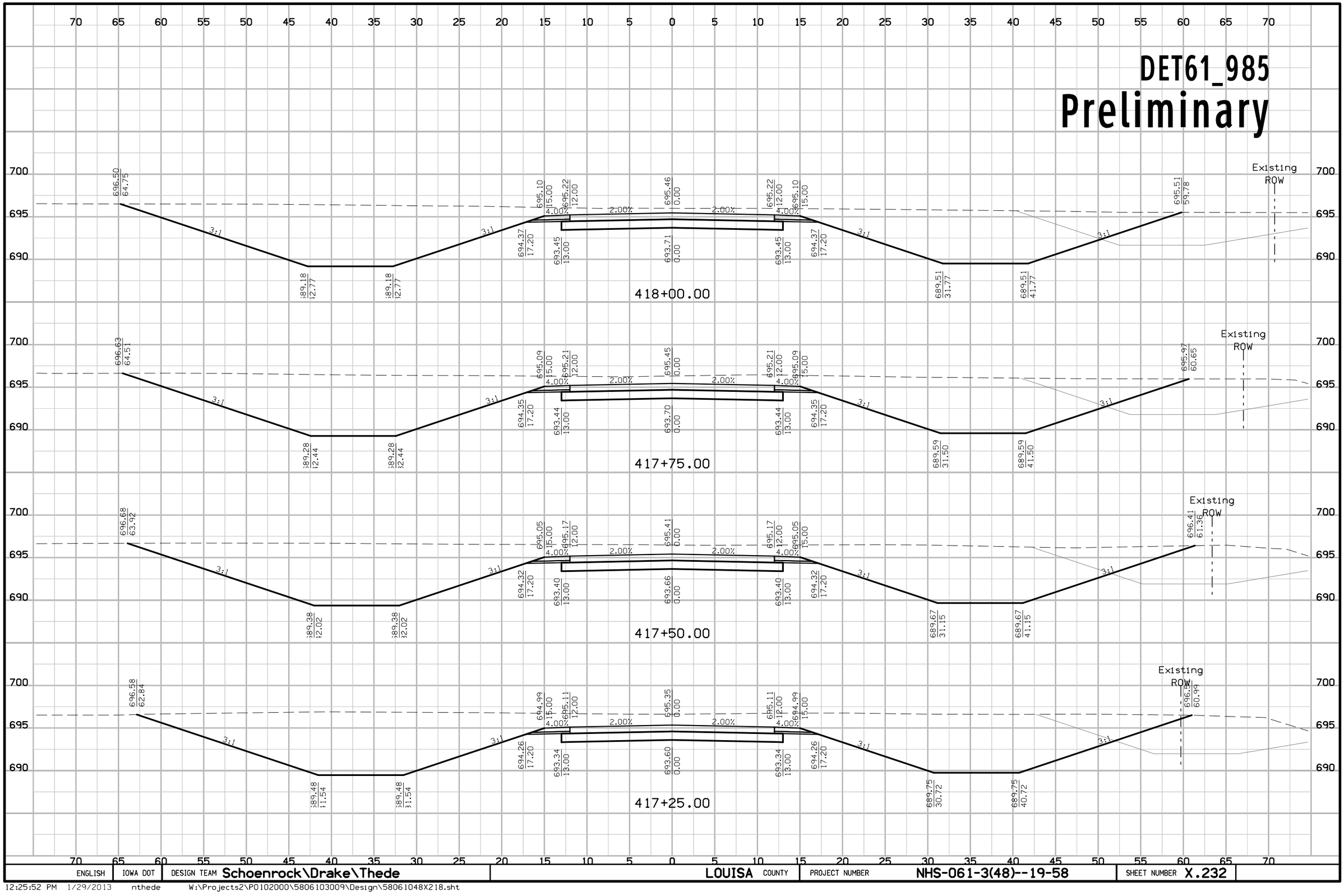
DET61_985

Preliminary



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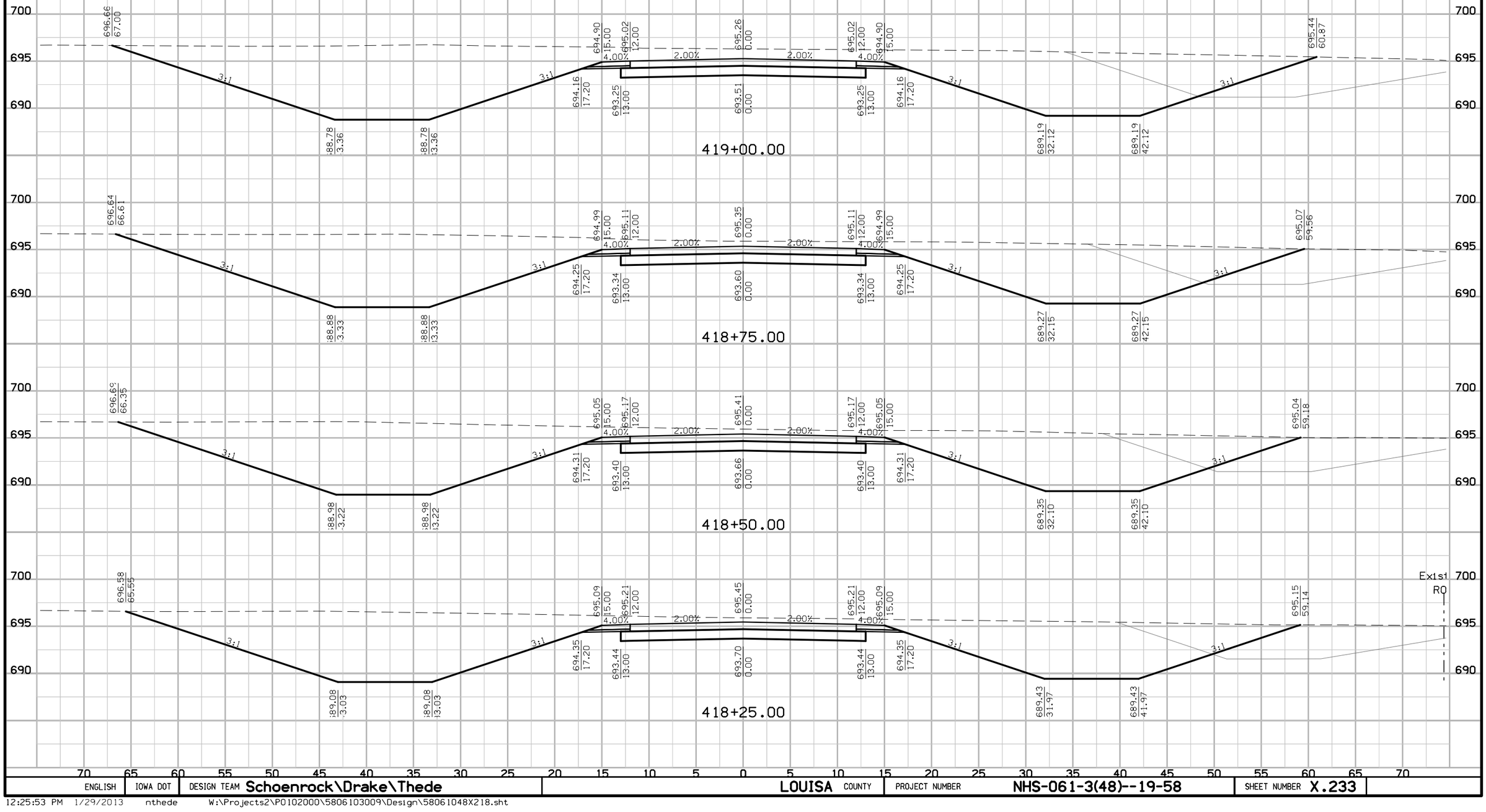

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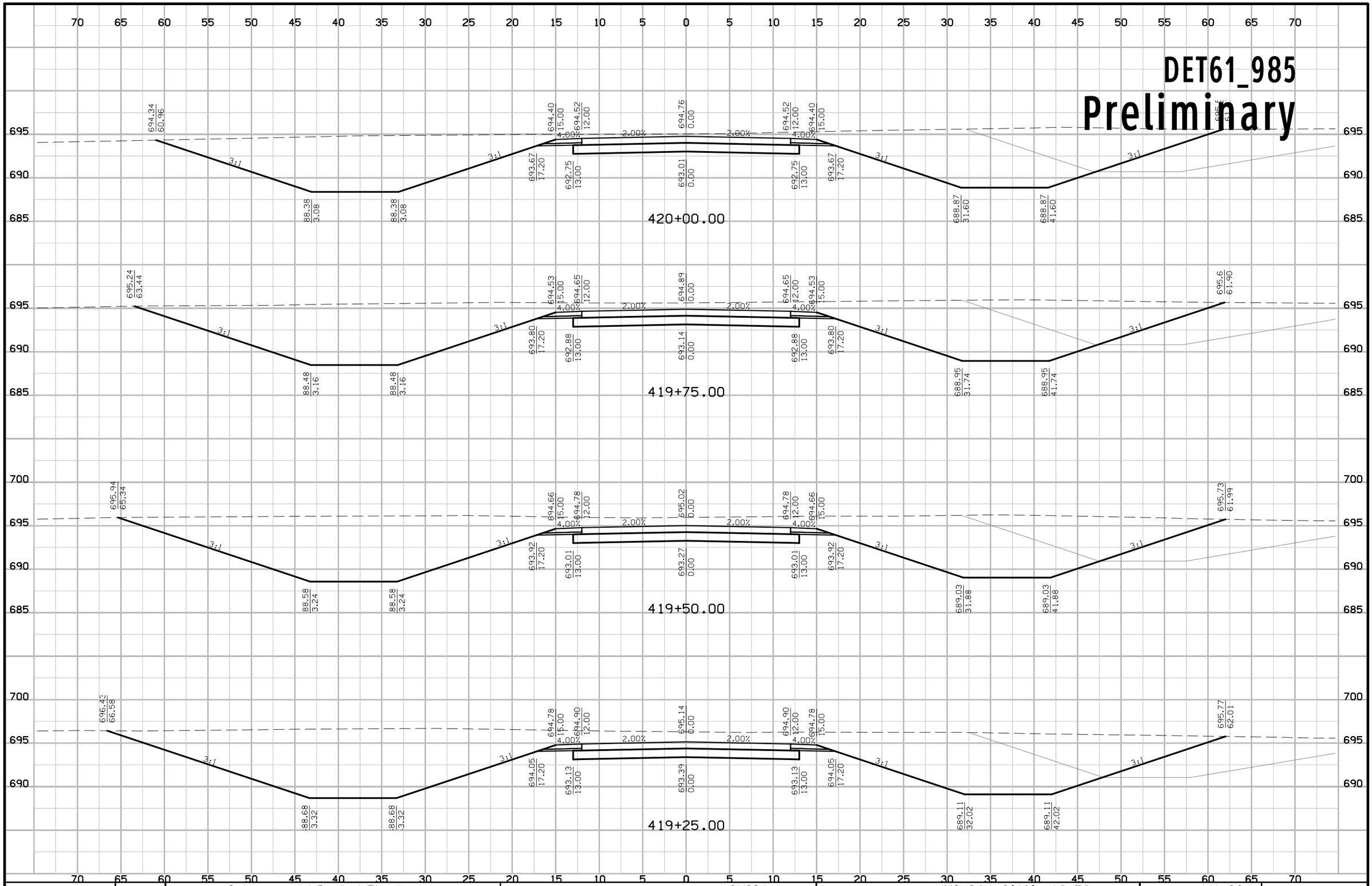

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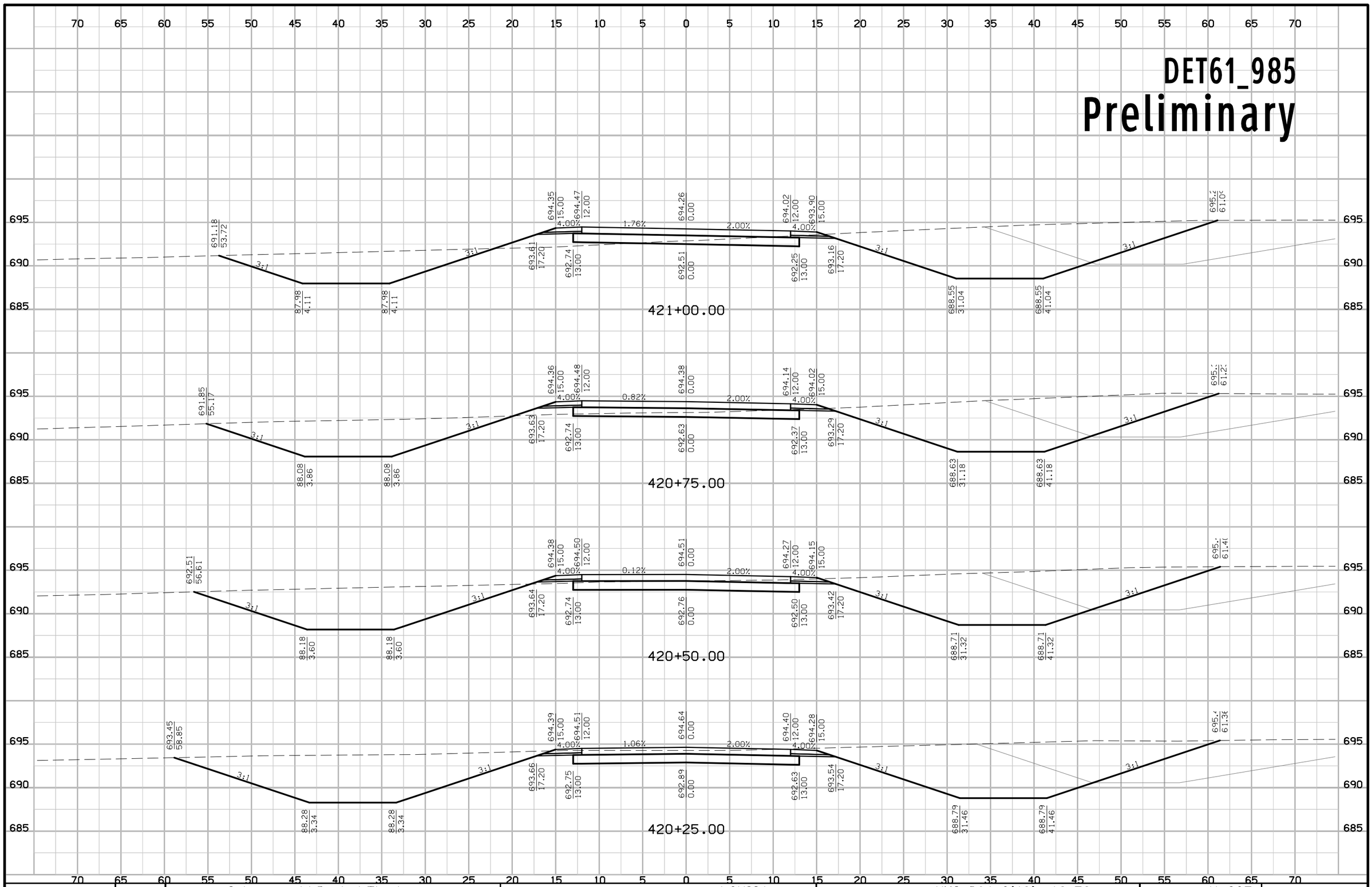
DET61_985

Preliminary



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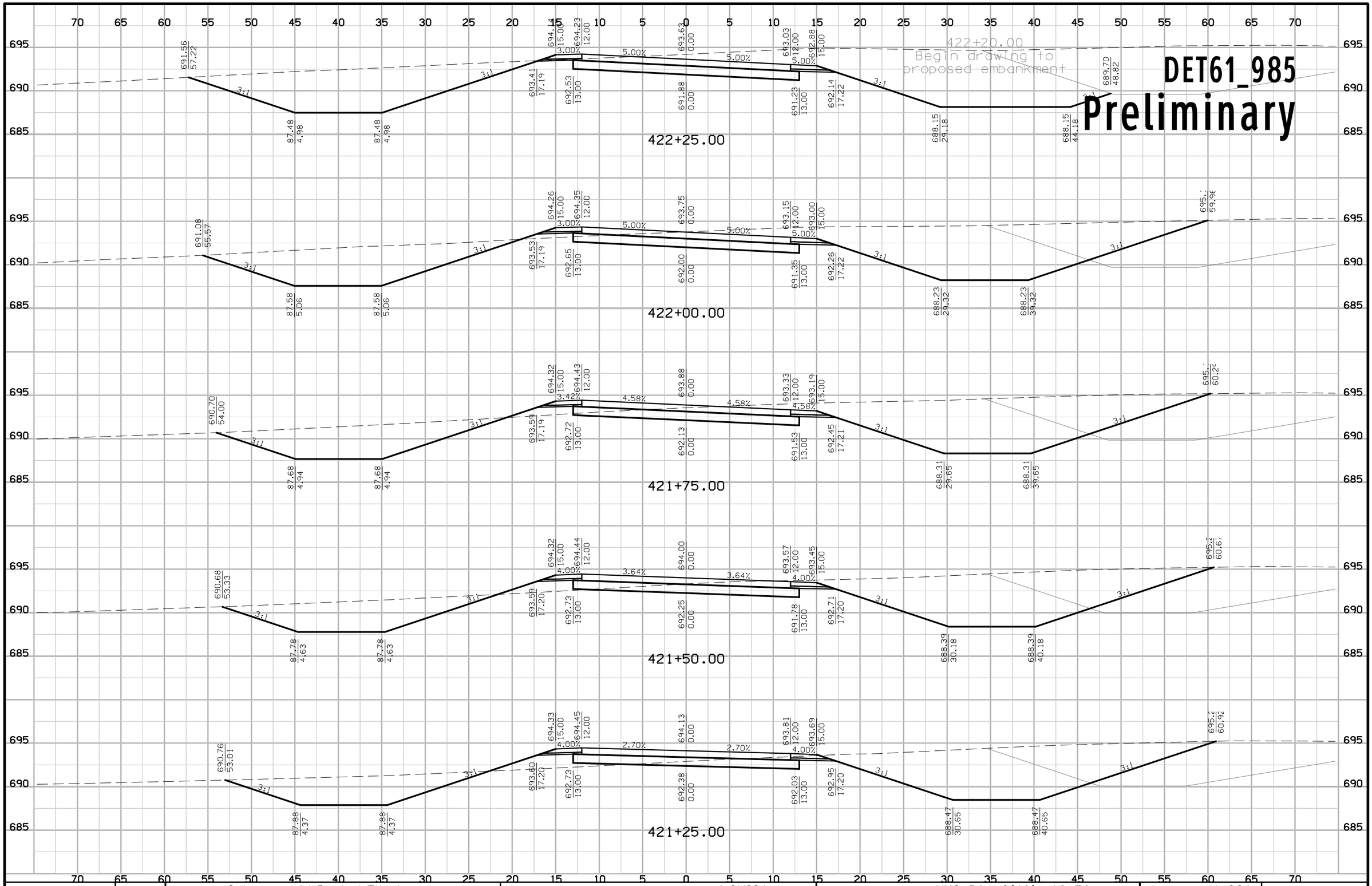

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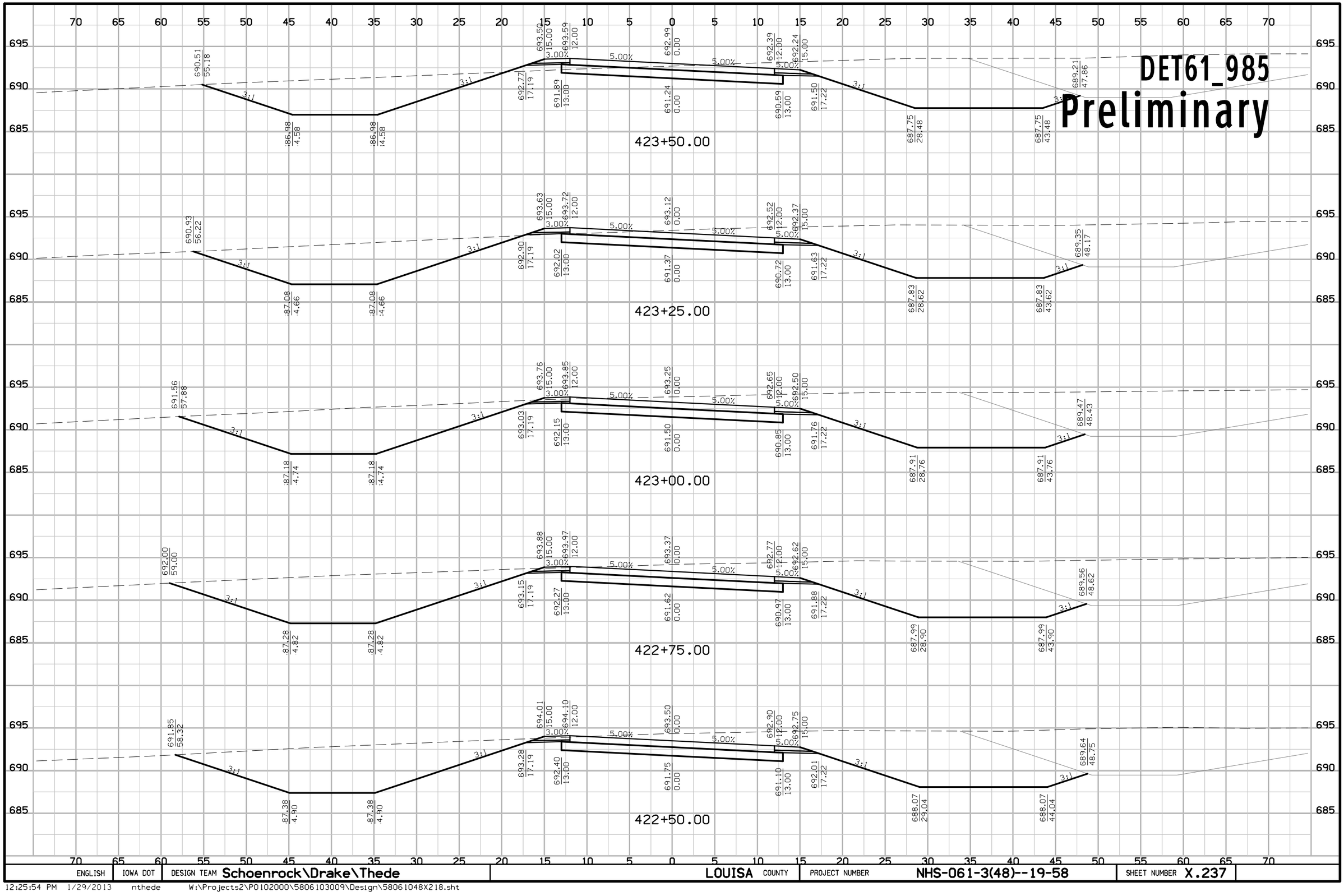

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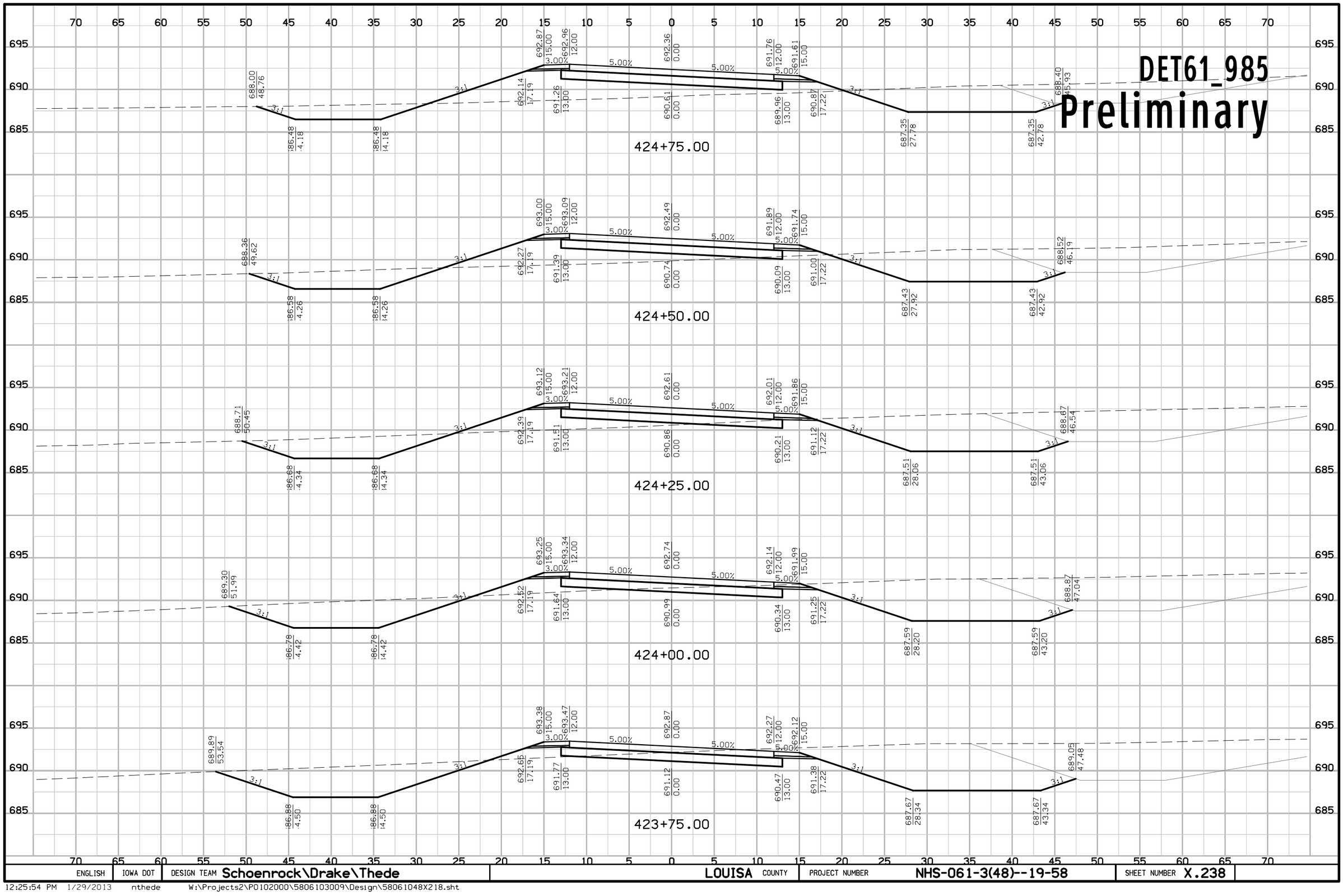

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DET61_985

Preliminary

426+00.00

425+75.00

425+50.00

425+25.00

425+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.239

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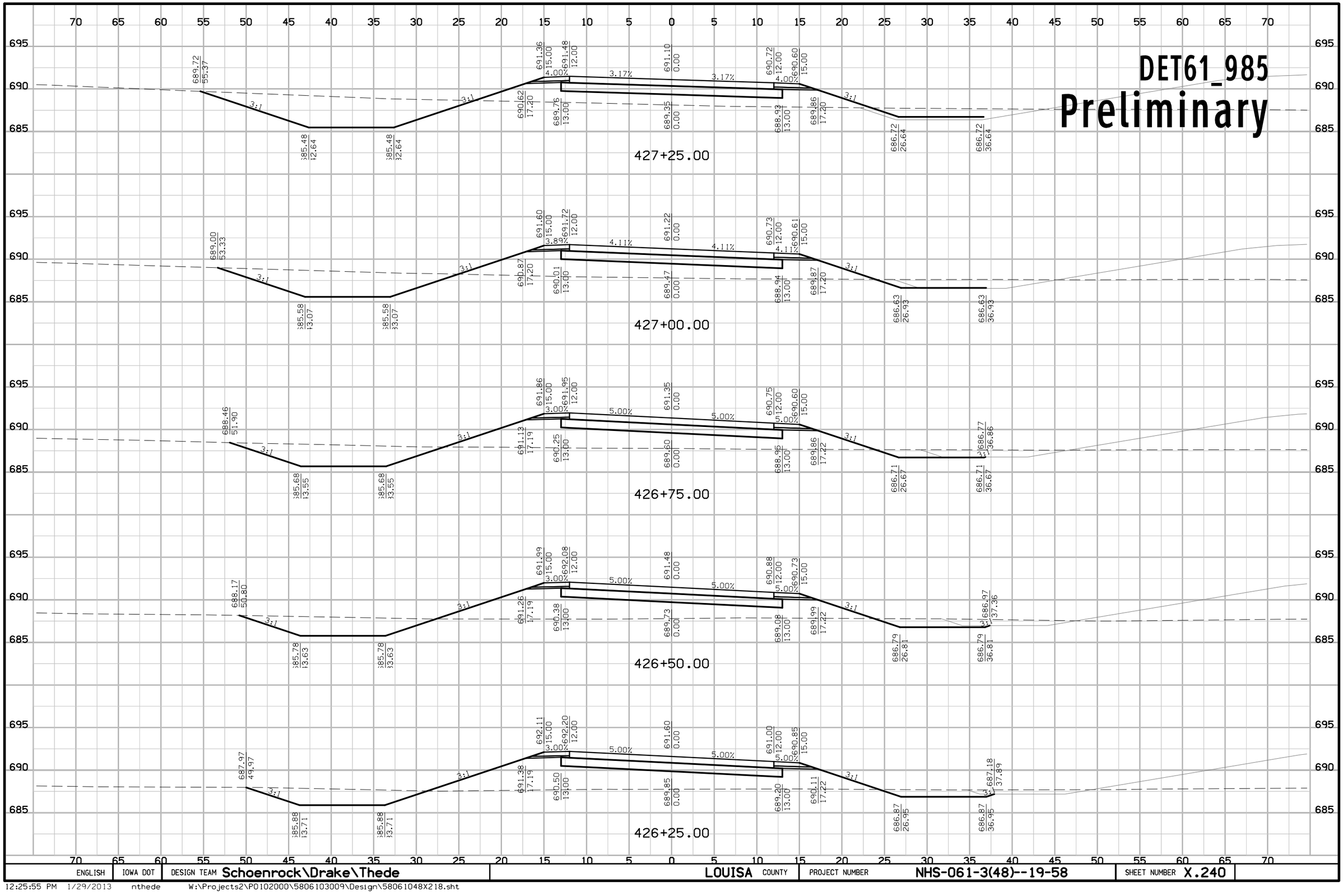

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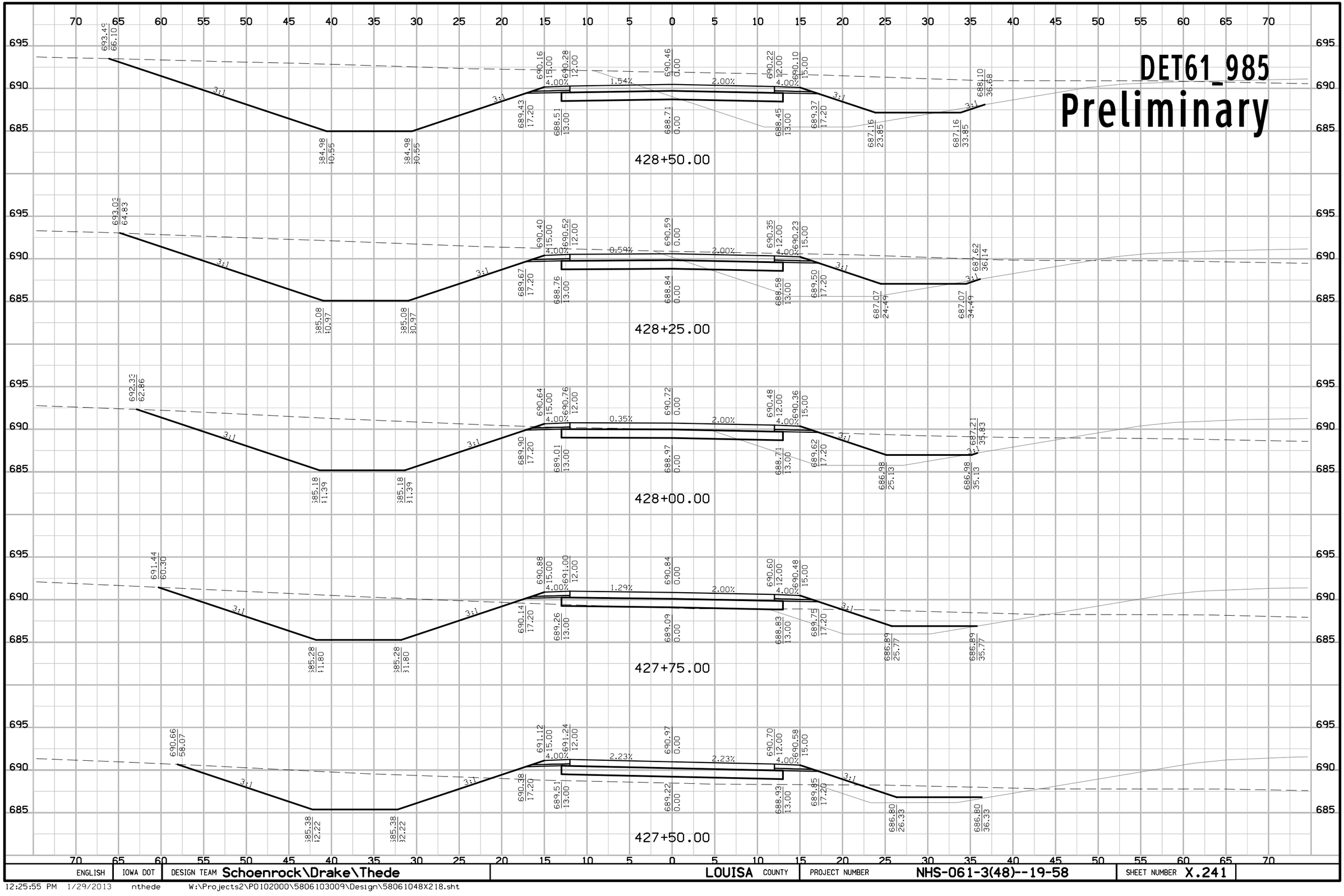
DET61_985

Preliminary



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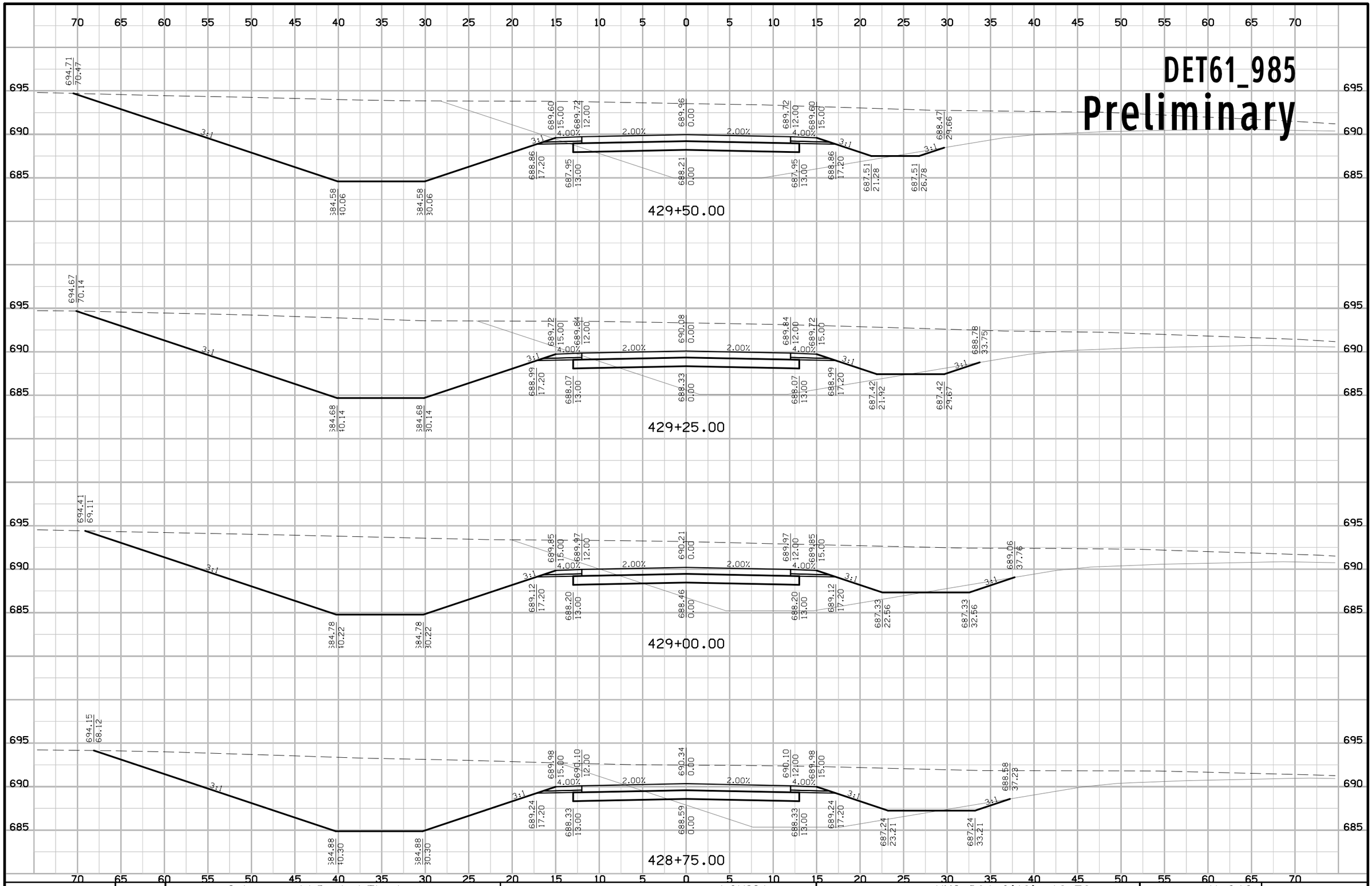
Preliminary



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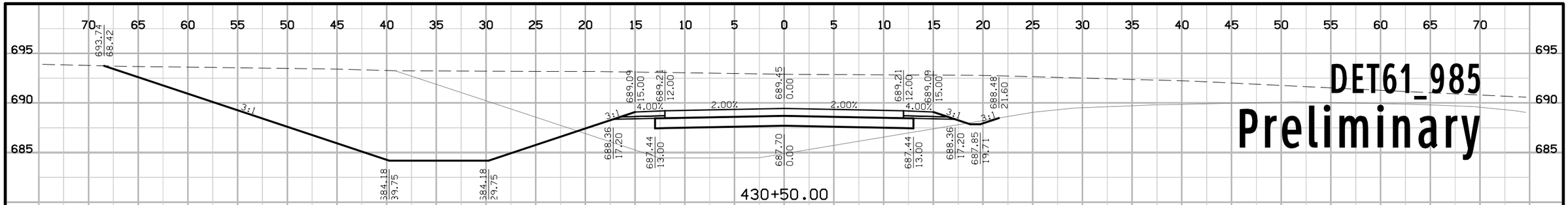
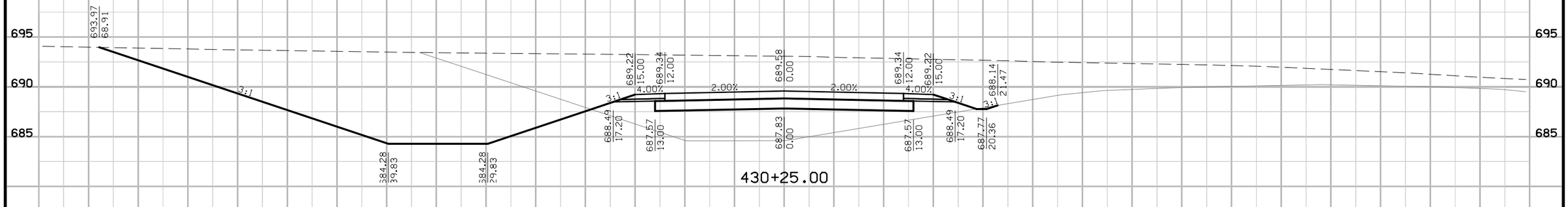
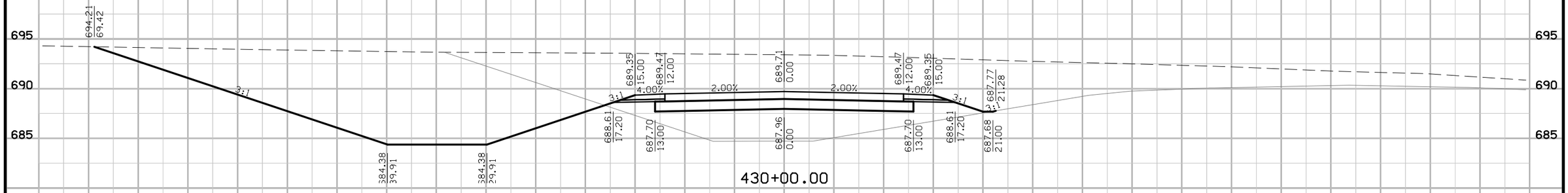
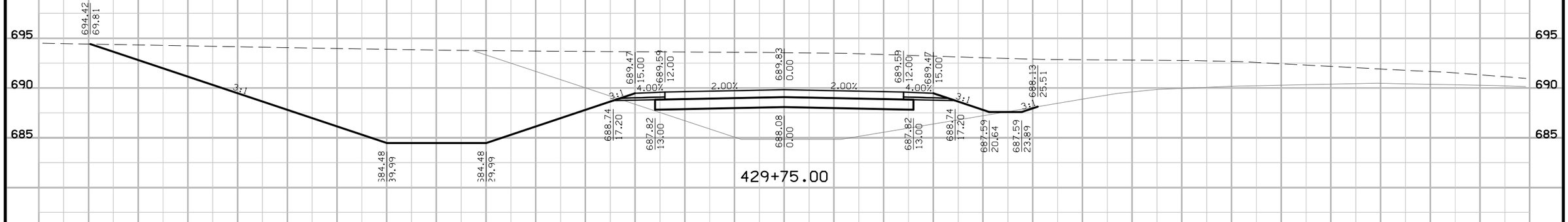
DET61_985

Preliminary









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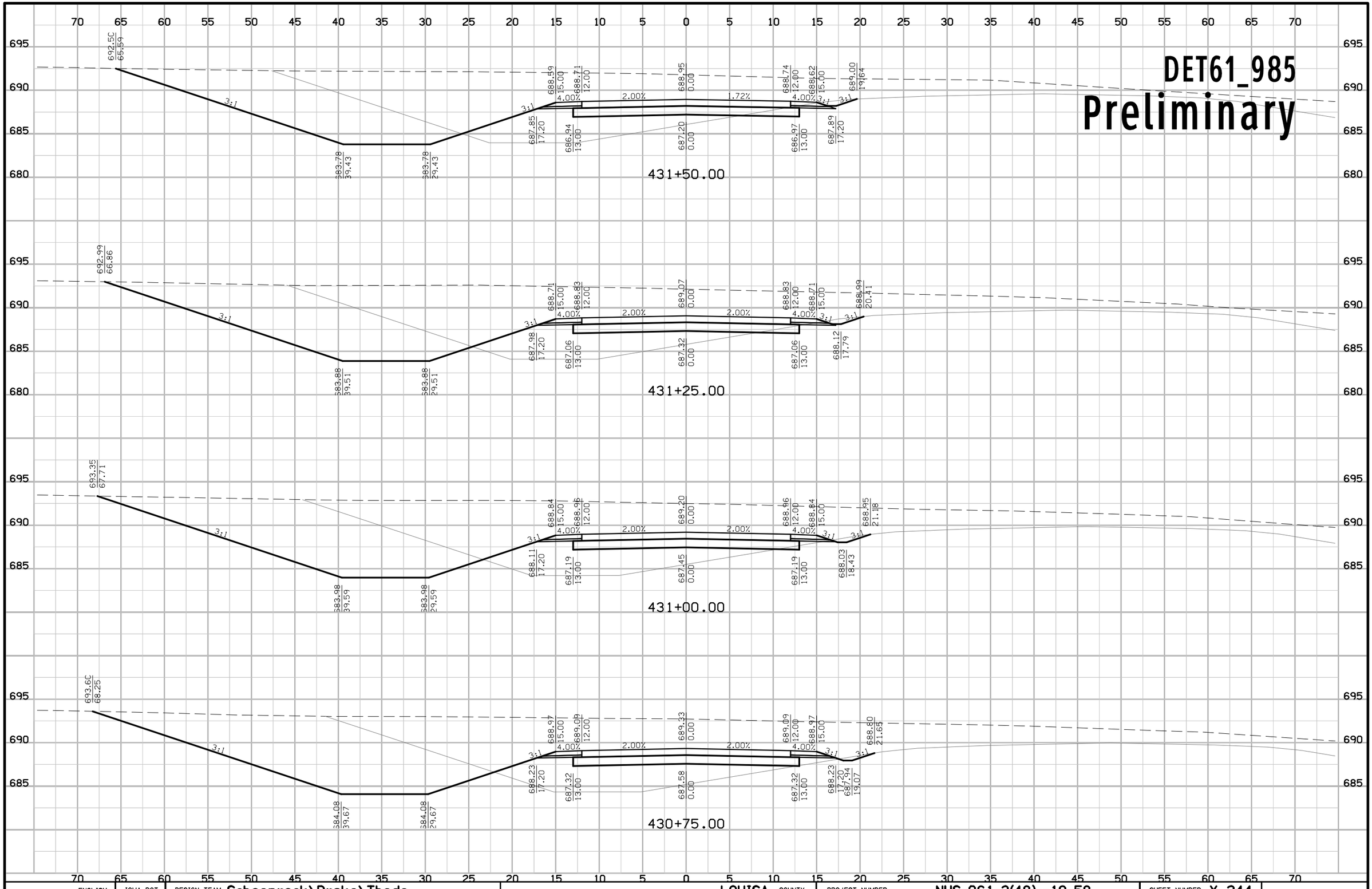
DET61_985

Preliminary



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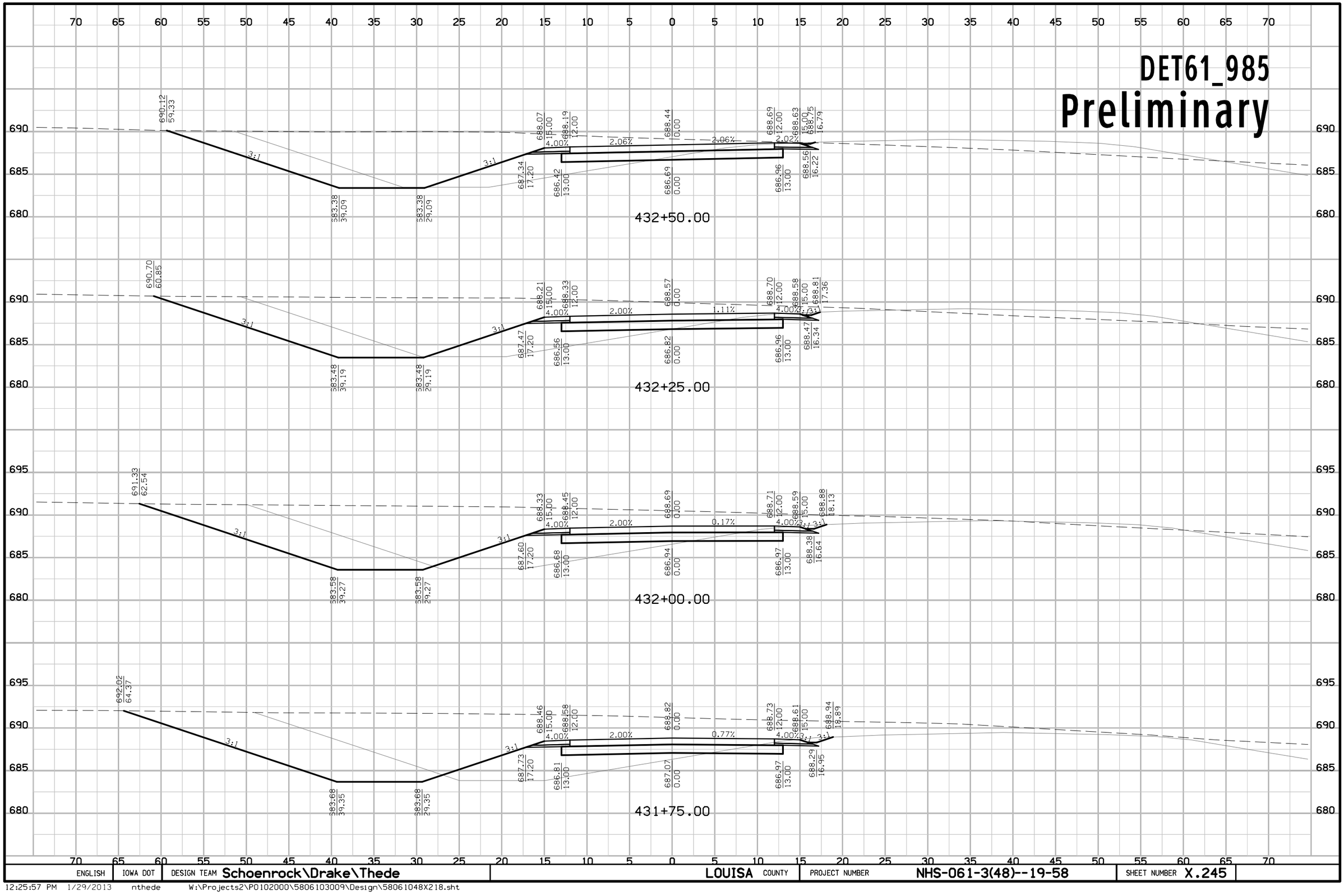
DET61_985

Preliminary



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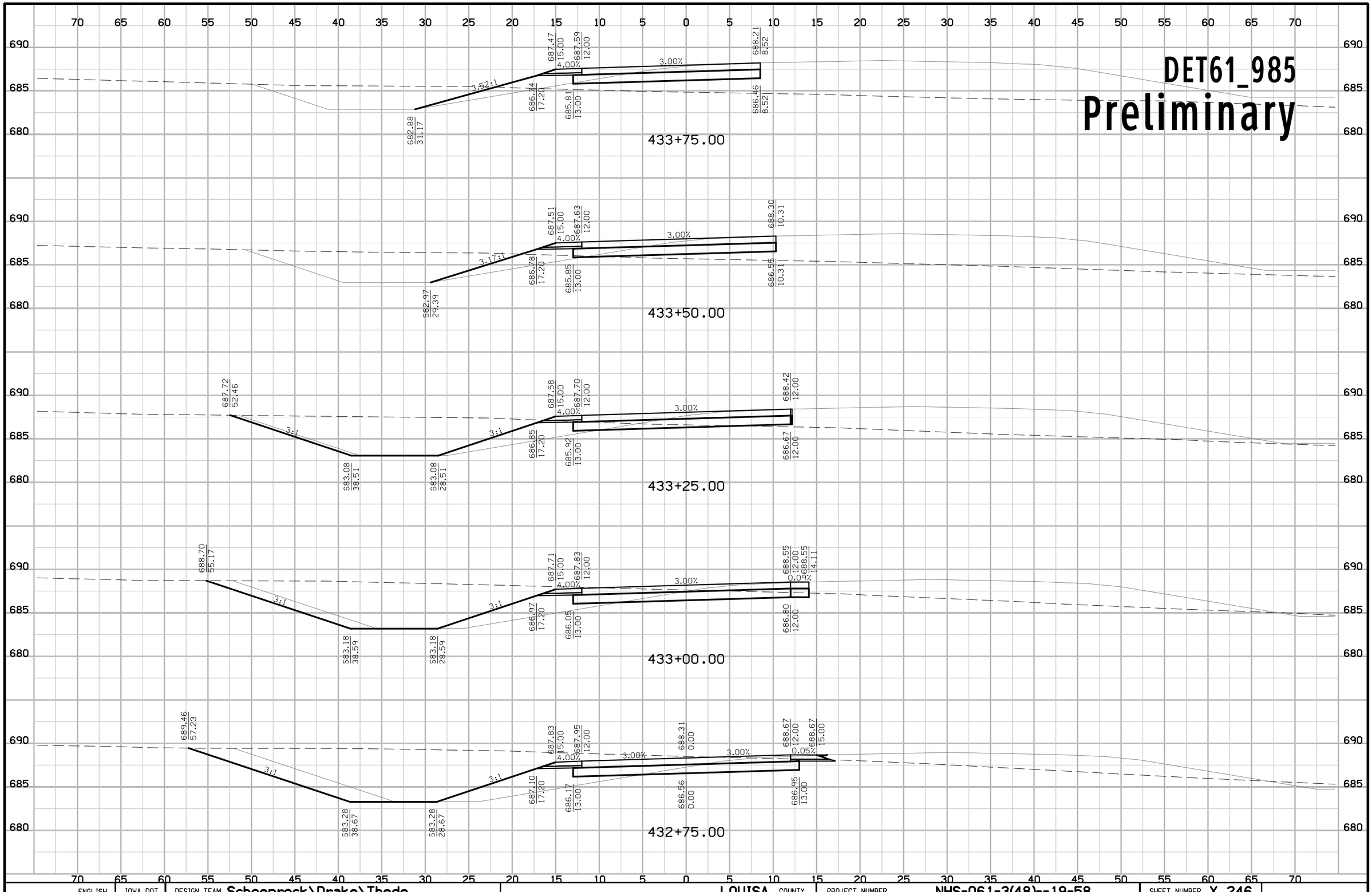
DET61_985

Preliminary



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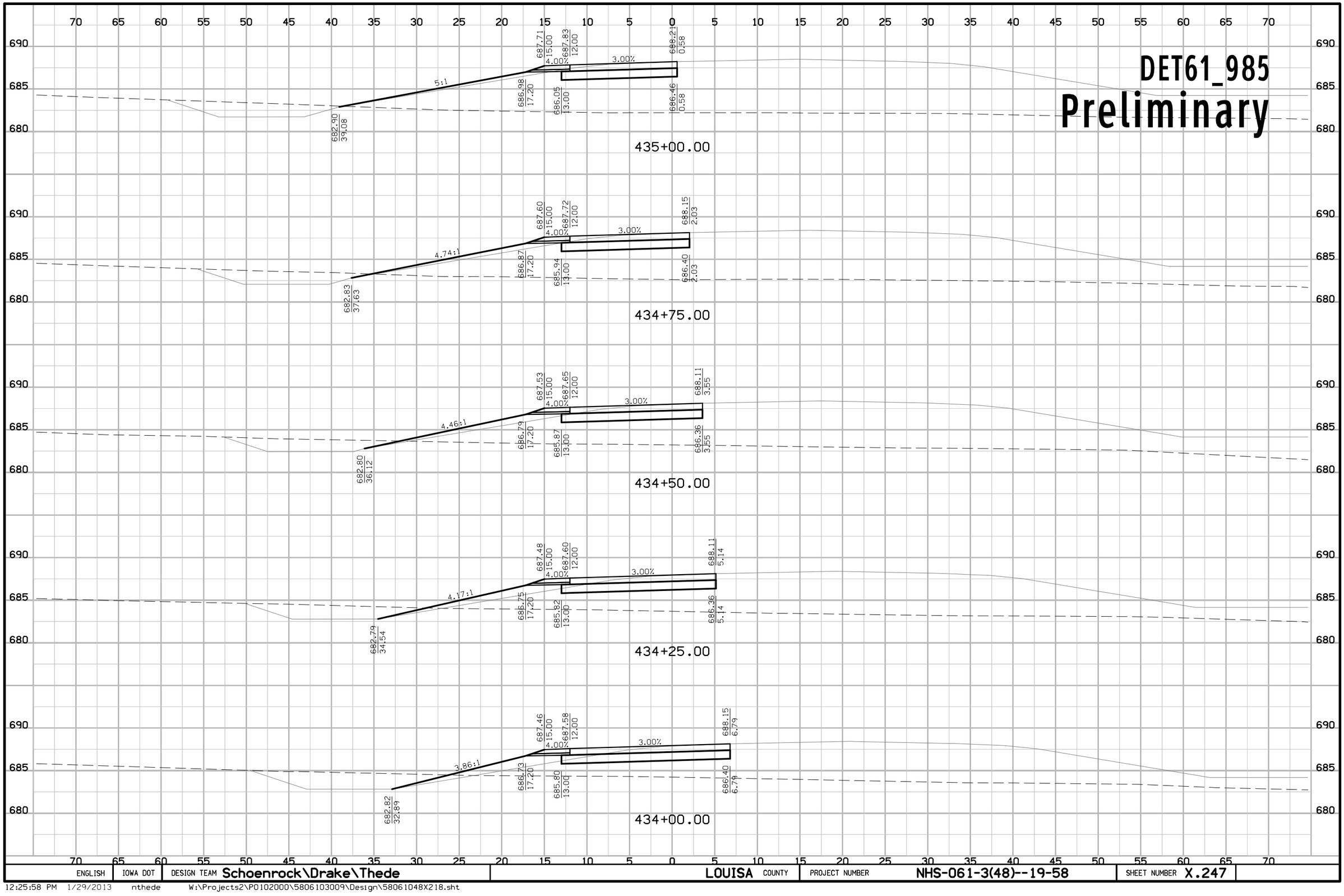
DET61_985

Preliminary



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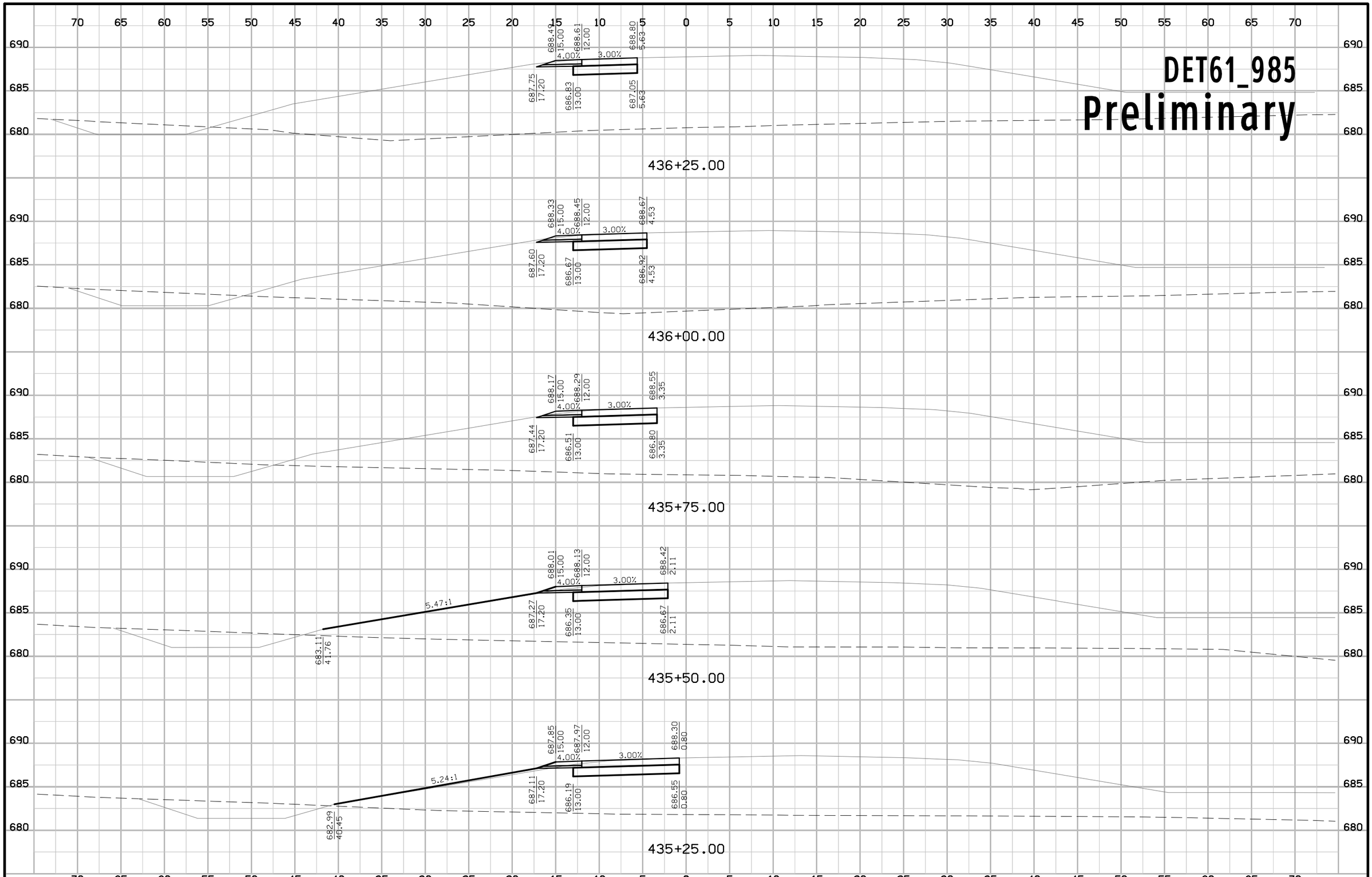

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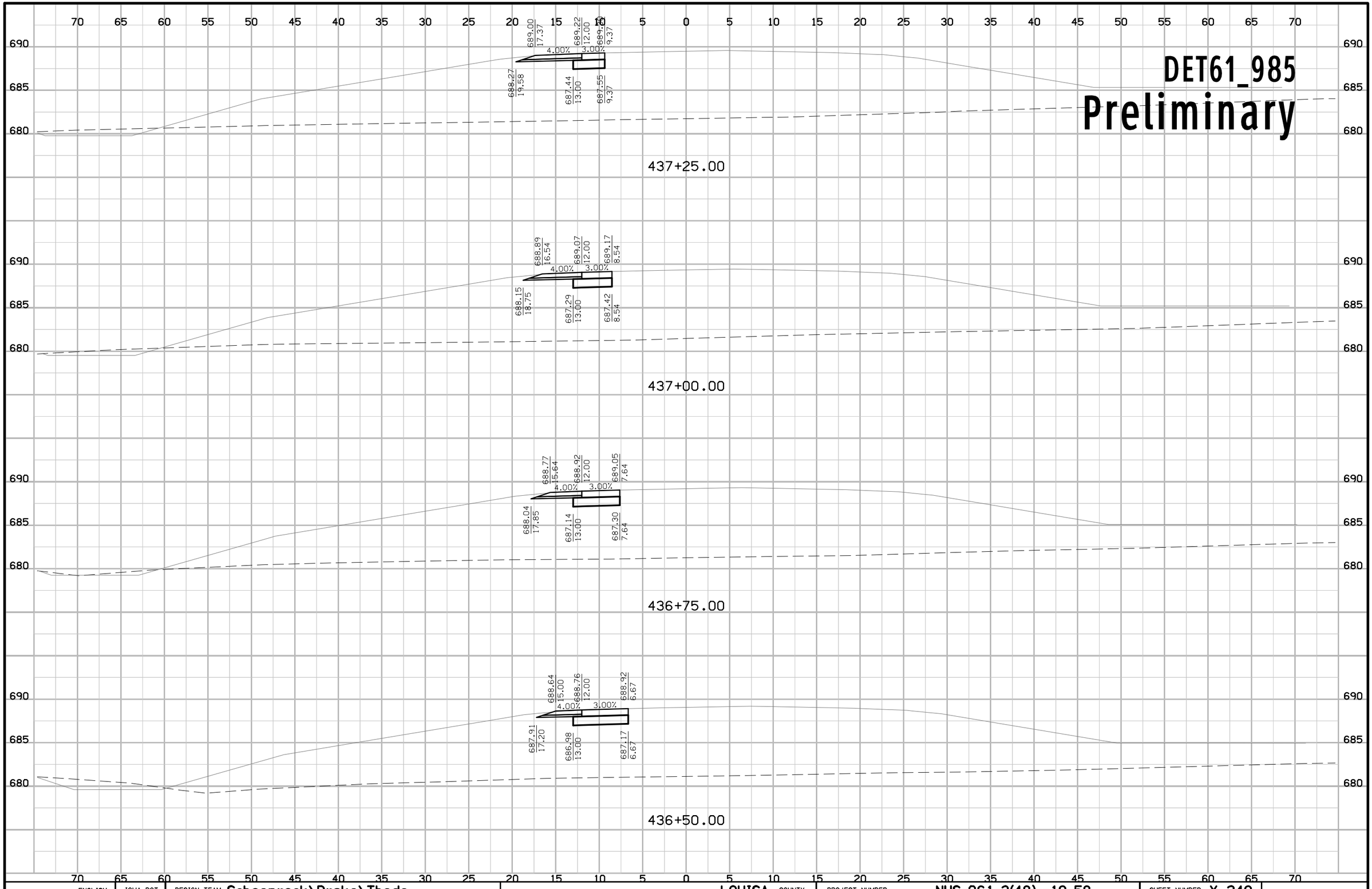
DET61_985

Preliminary



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DET61_985

Preliminary

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685
680

438+25.00

690
685
680

689.37
19.45
4.00%
689.61
13.45
3.00%
689.67
11.45
688.63
21.66
687.83
14.45
687.92
11.45

438+00.00

690
685
680

689.25
18.82
4.00%
689.49
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437+75.00

690
685
680

689.12
18.13
4.00%
689.36
12.13
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10.13
688.39
20.35
687.58
13.13
687.67
10.13

437+50.00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER X.250

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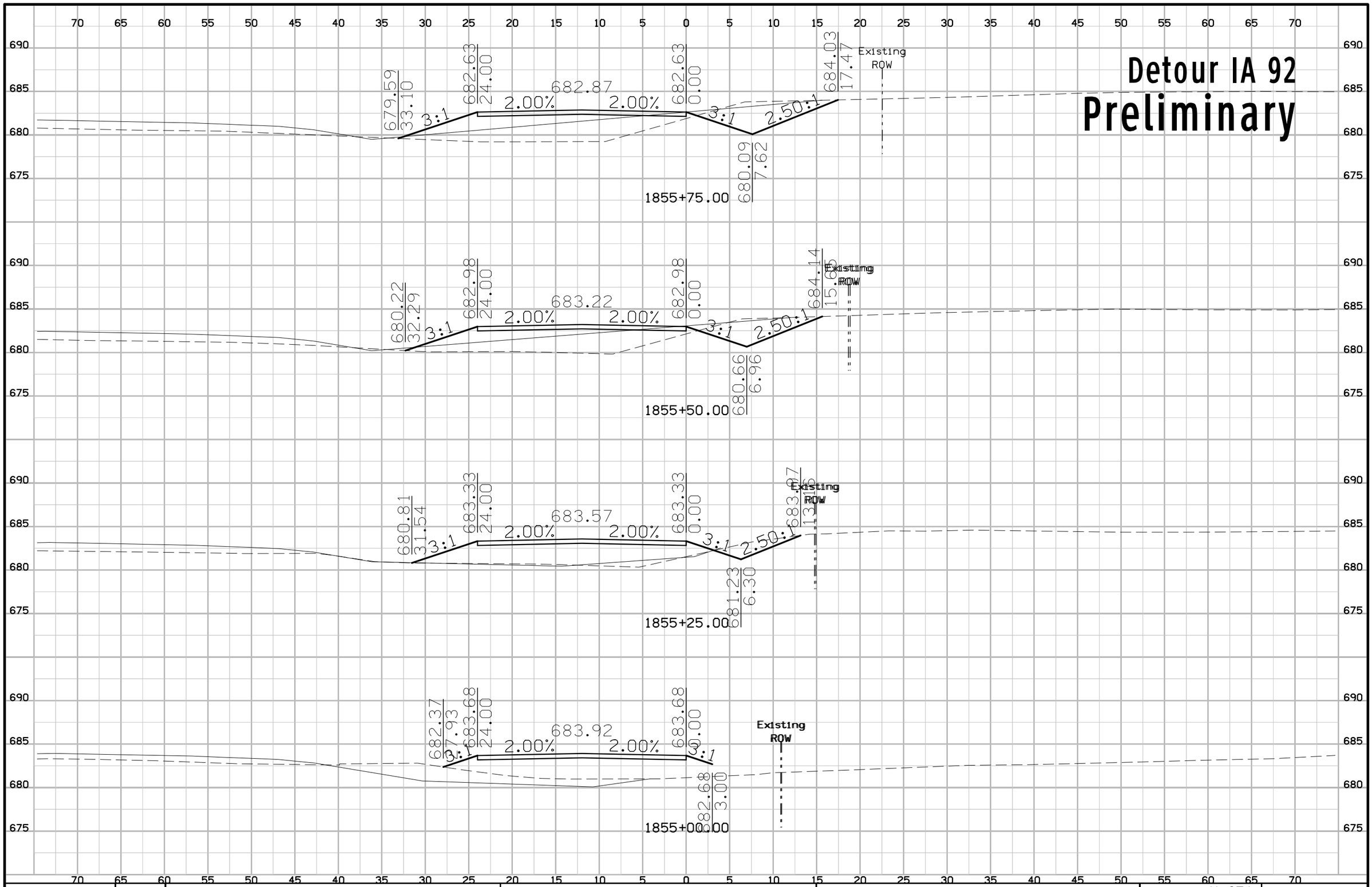
Detour IA 92
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.251	

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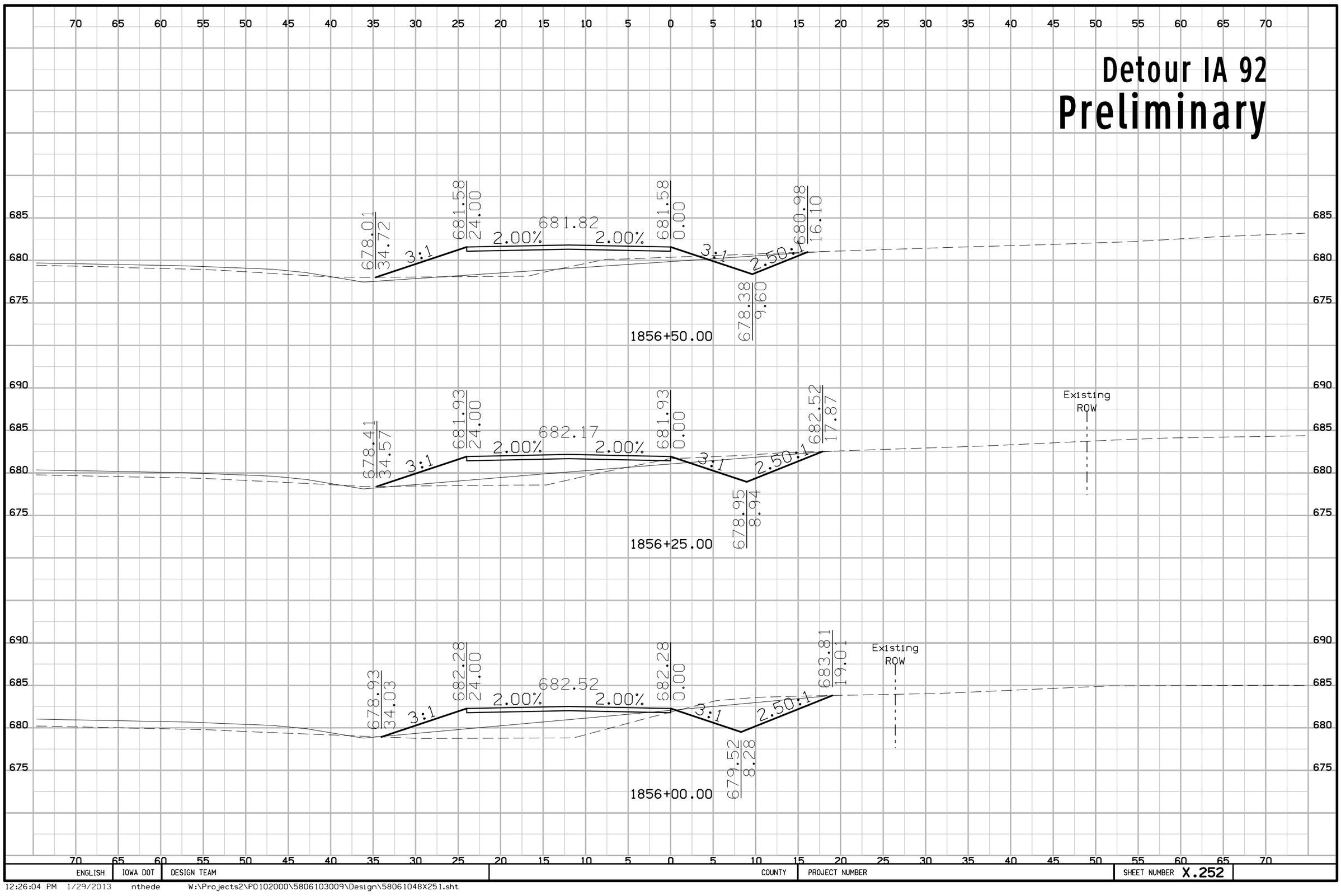
Detour IA 92

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.252

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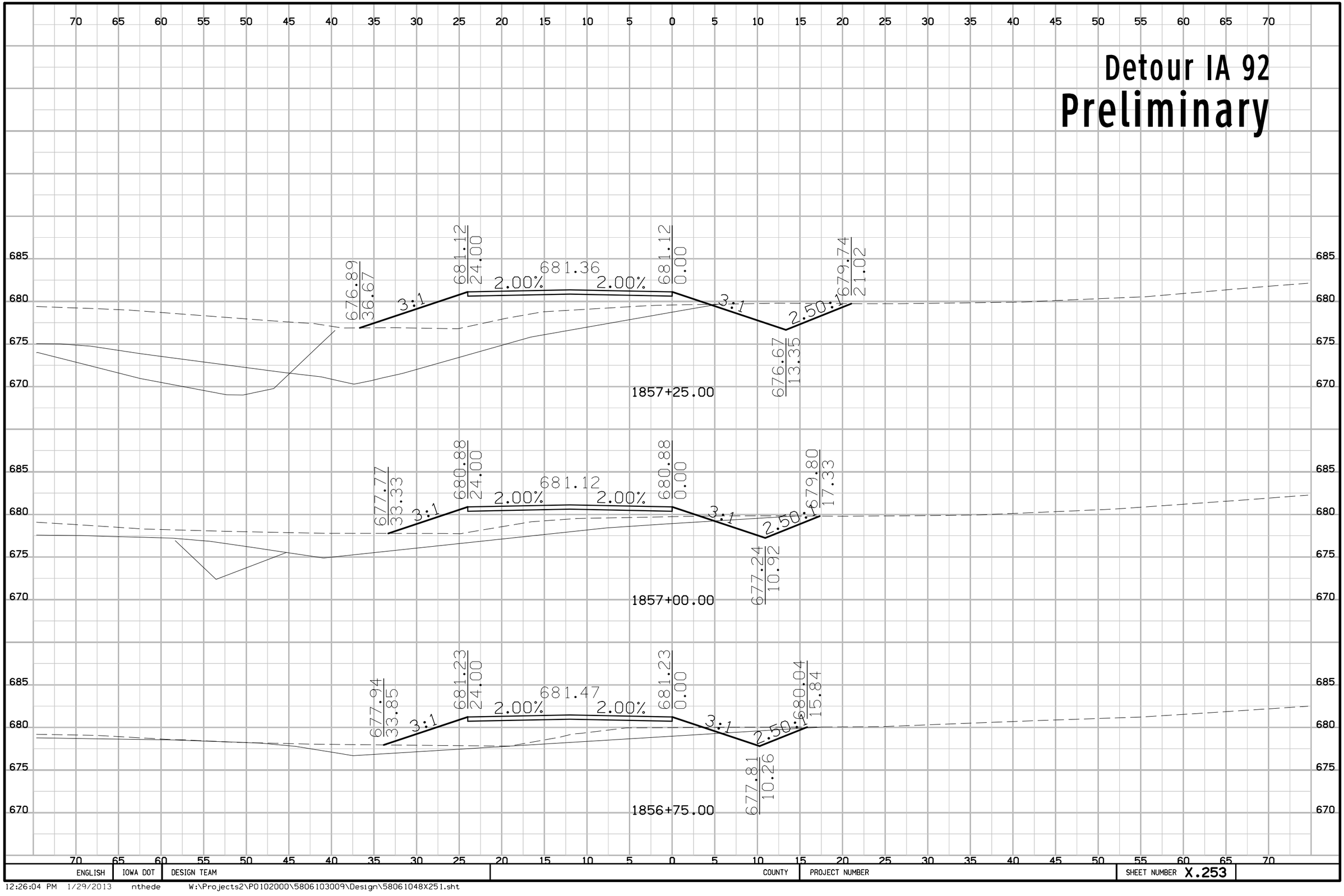
Detour IA 92

Preliminary



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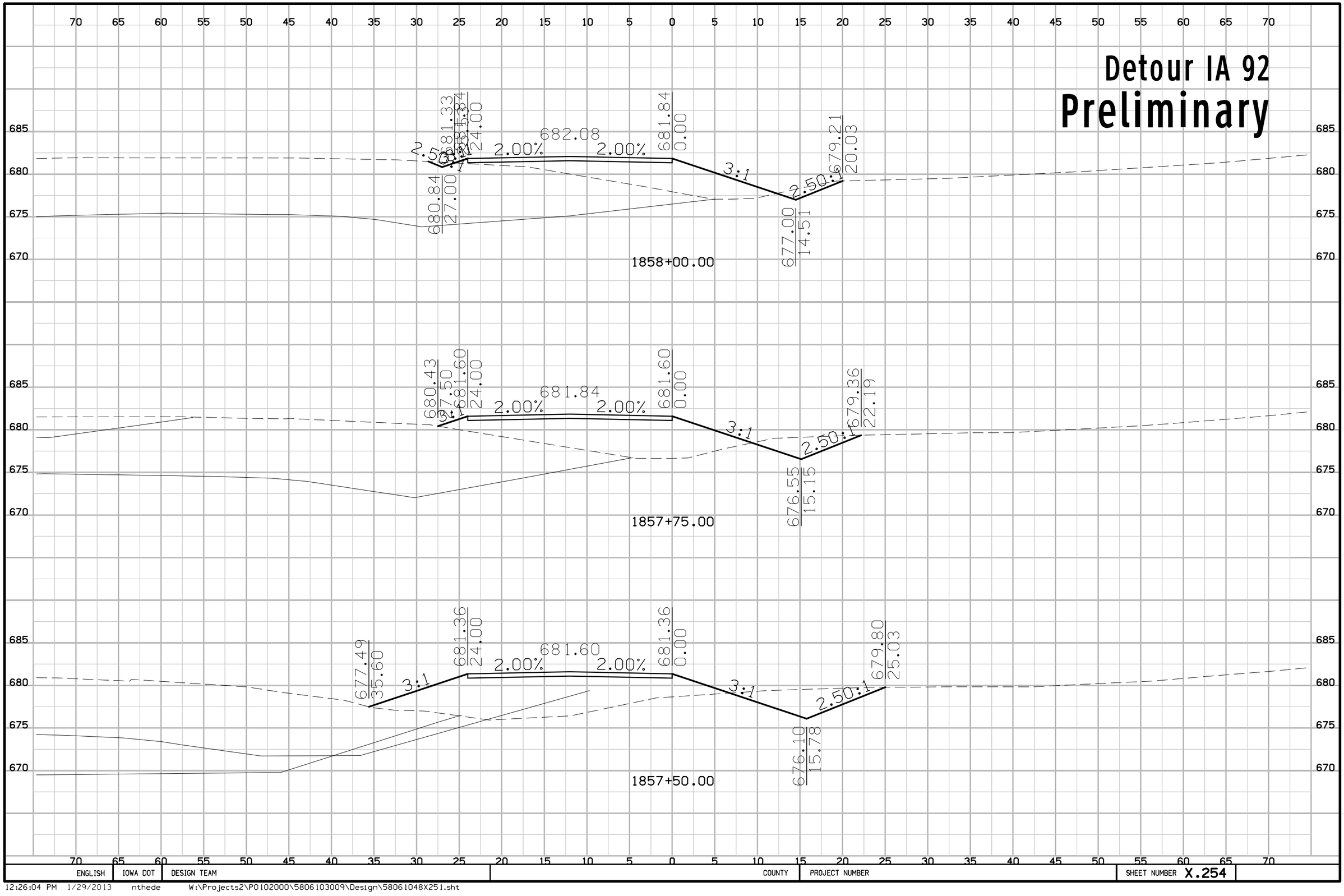
Detour IA 92

Preliminary



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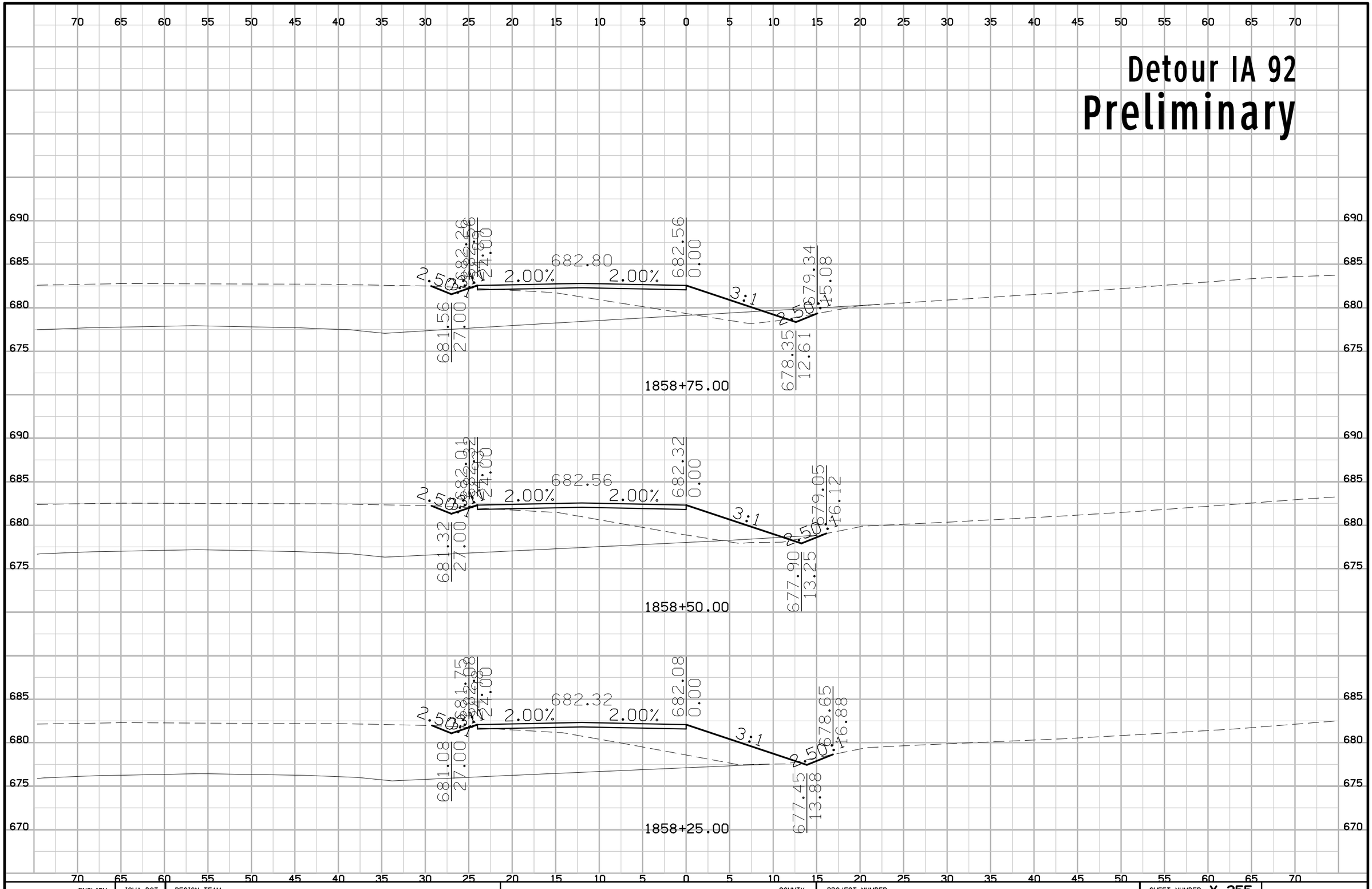
Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER X.255

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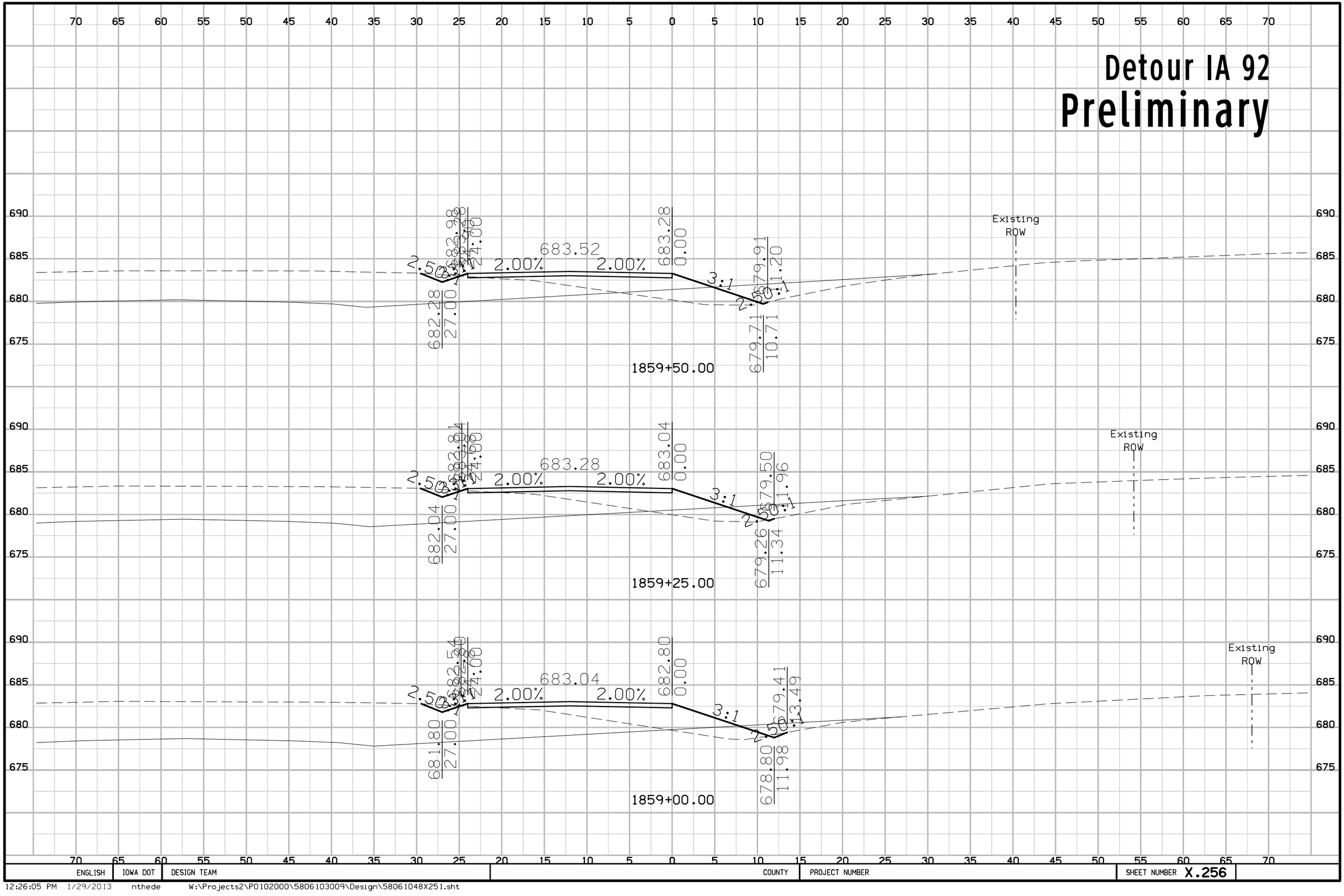
Detour IA 92

Preliminary



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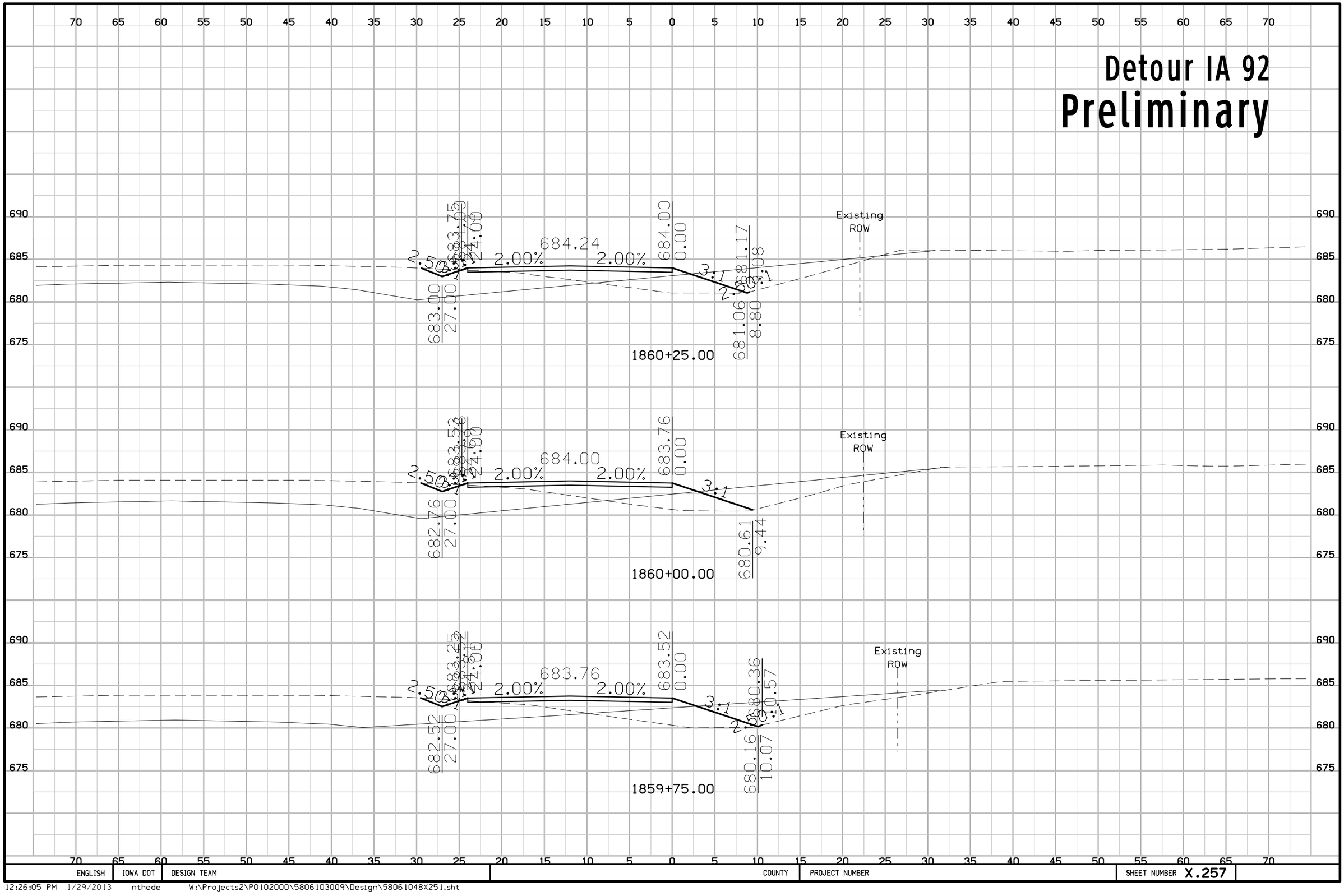
Detour IA 92

Preliminary



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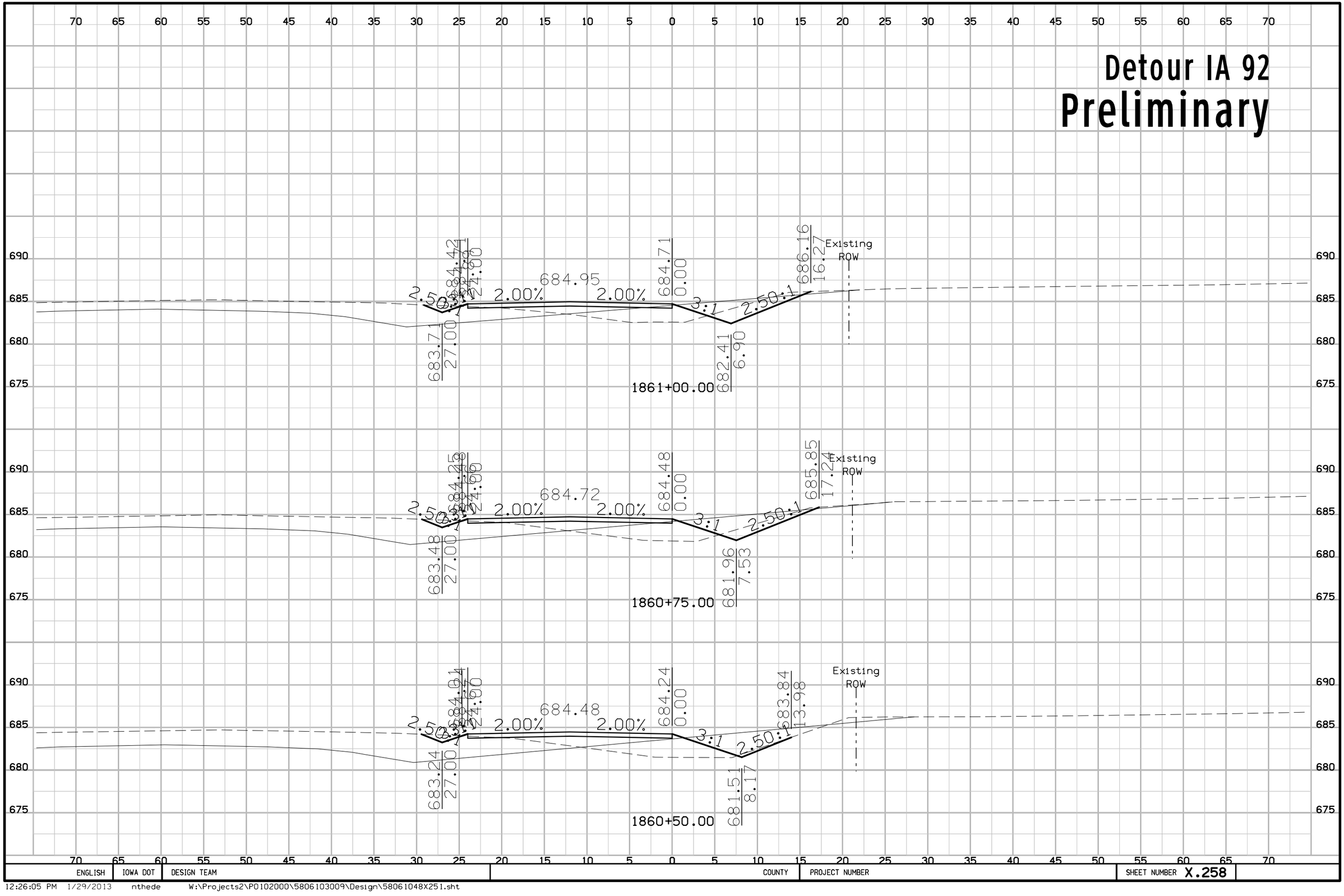
Detour IA 92

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER X.258

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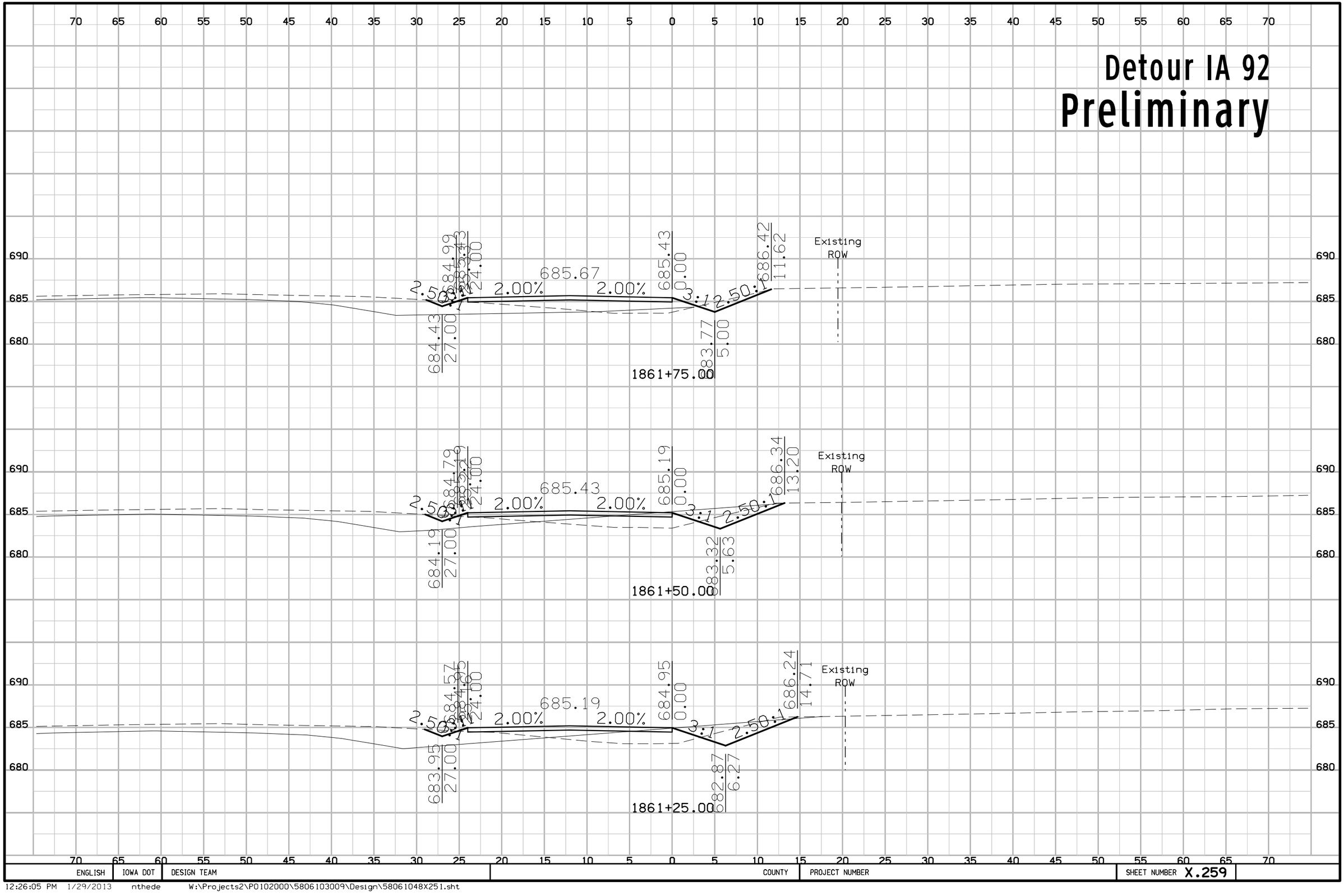
Detour IA 92

Preliminary



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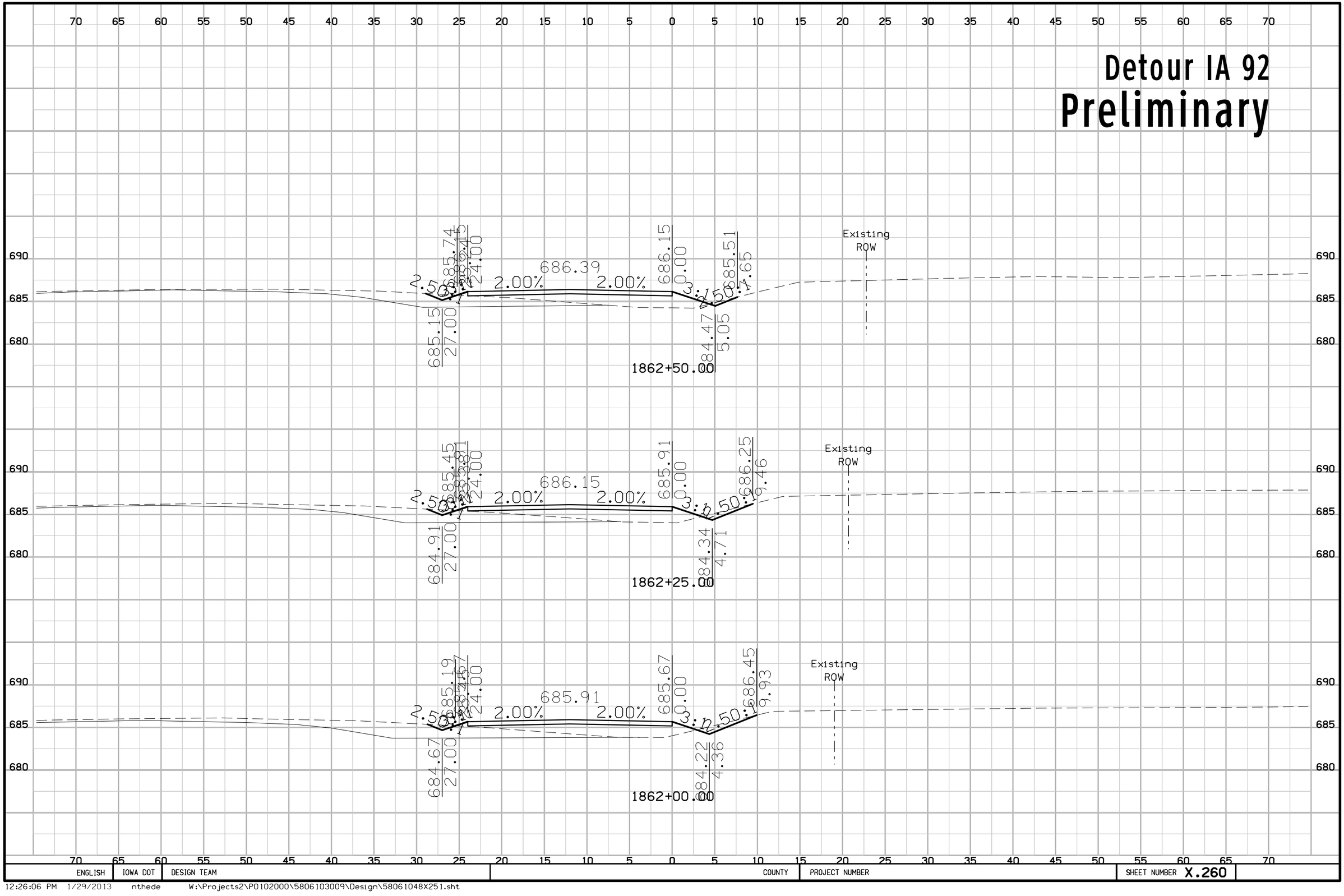
Detour IA 92

Preliminary



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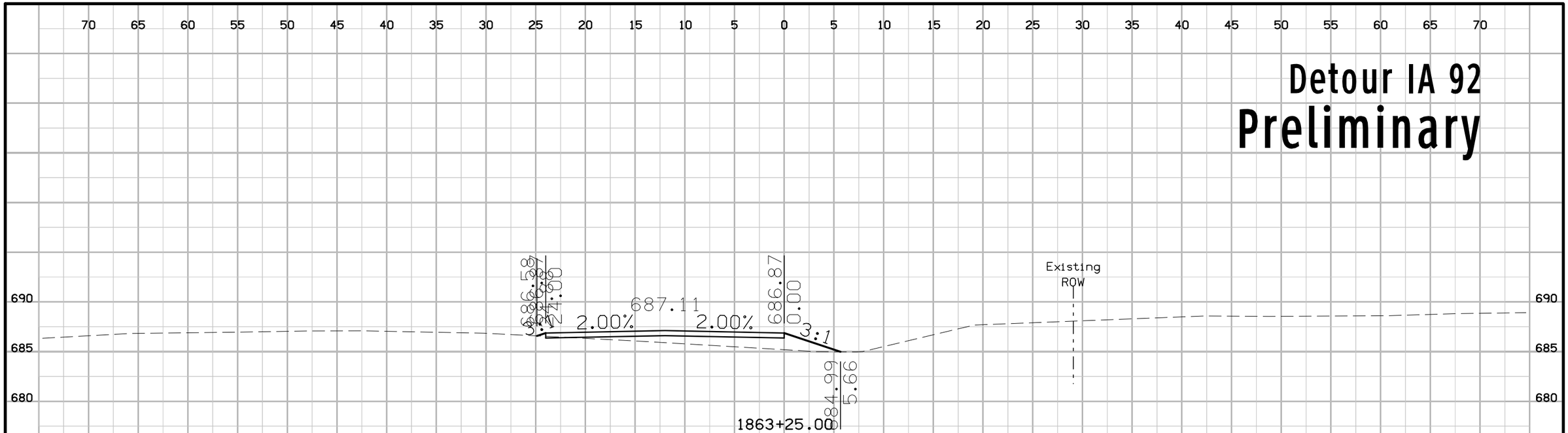
Detour IA 92

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER X.261

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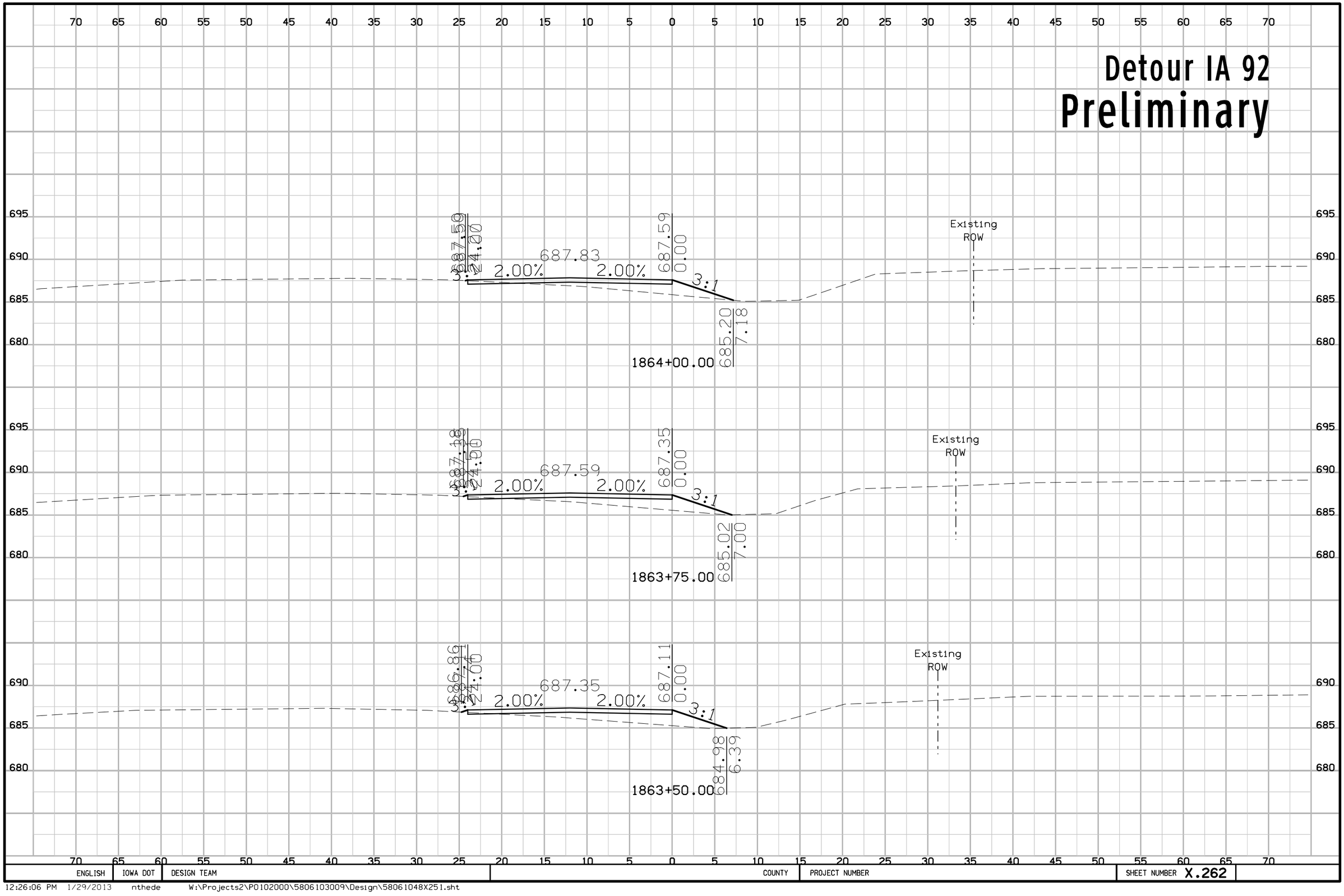
Detour IA 92

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM		COUNTY	PROJECT NUMBER	SHEET NUMBER X.262

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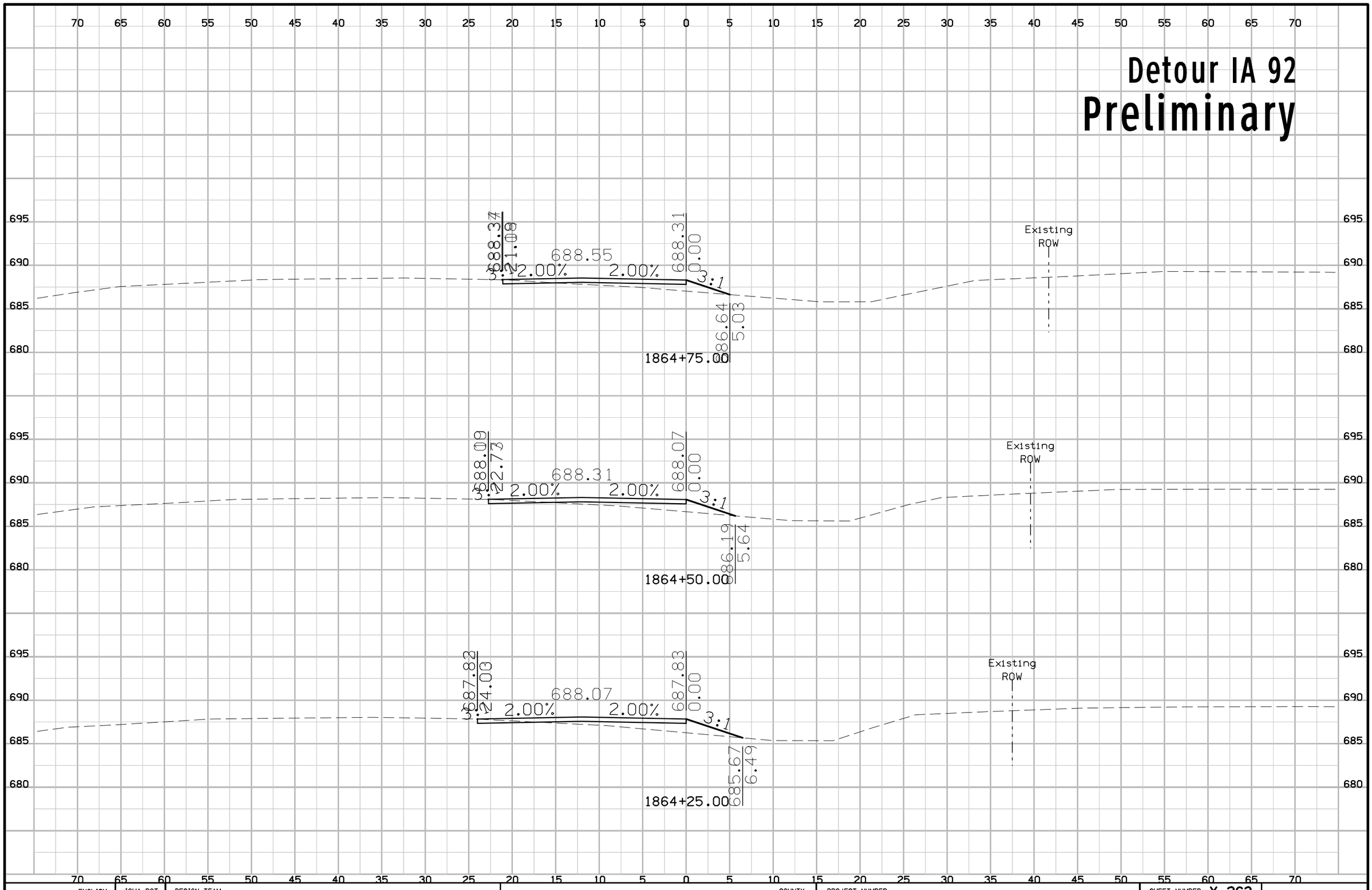
Detour IA 92

Preliminary



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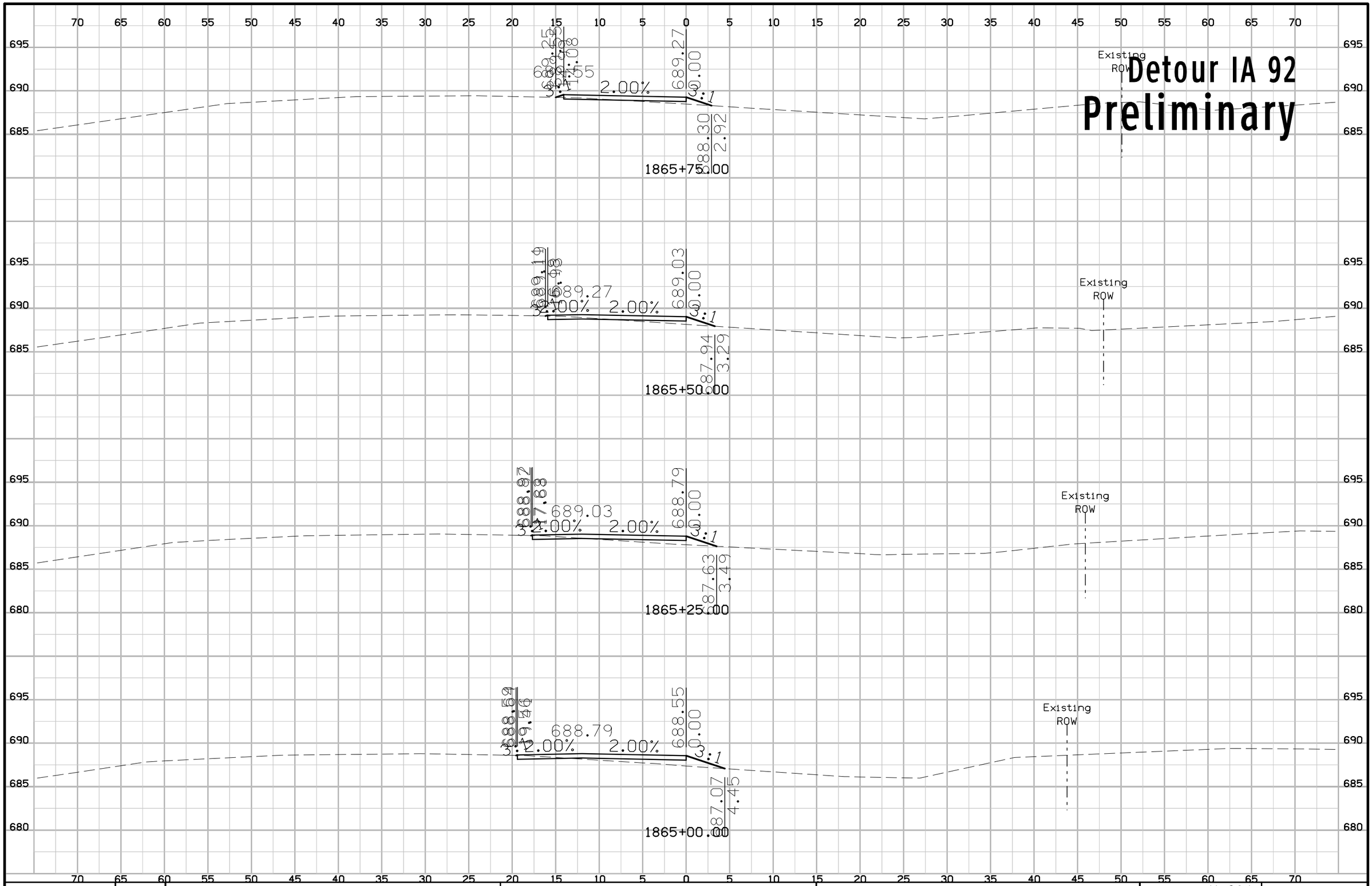
Detour IA 92

Preliminary



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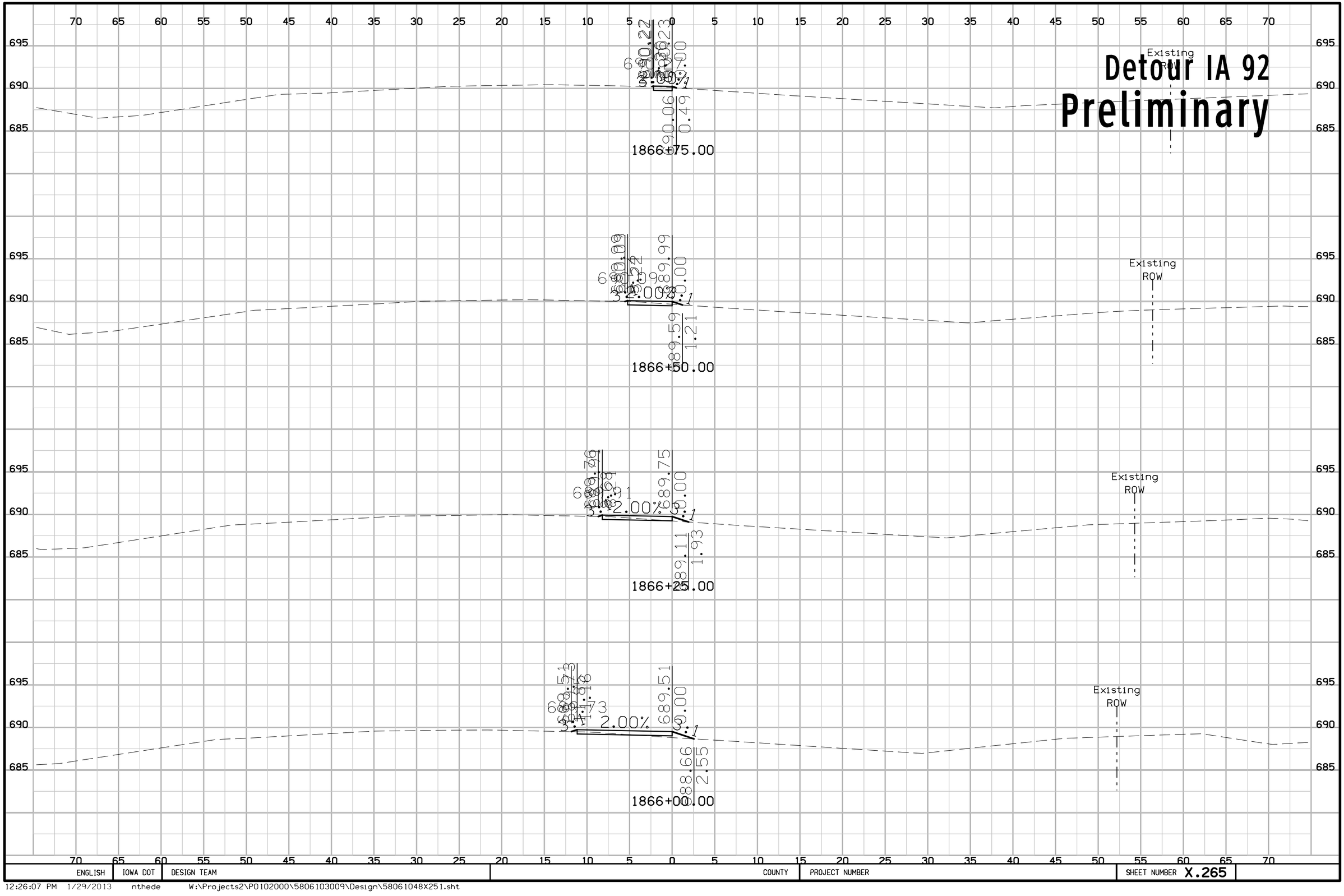
Detour IA 92

Preliminary



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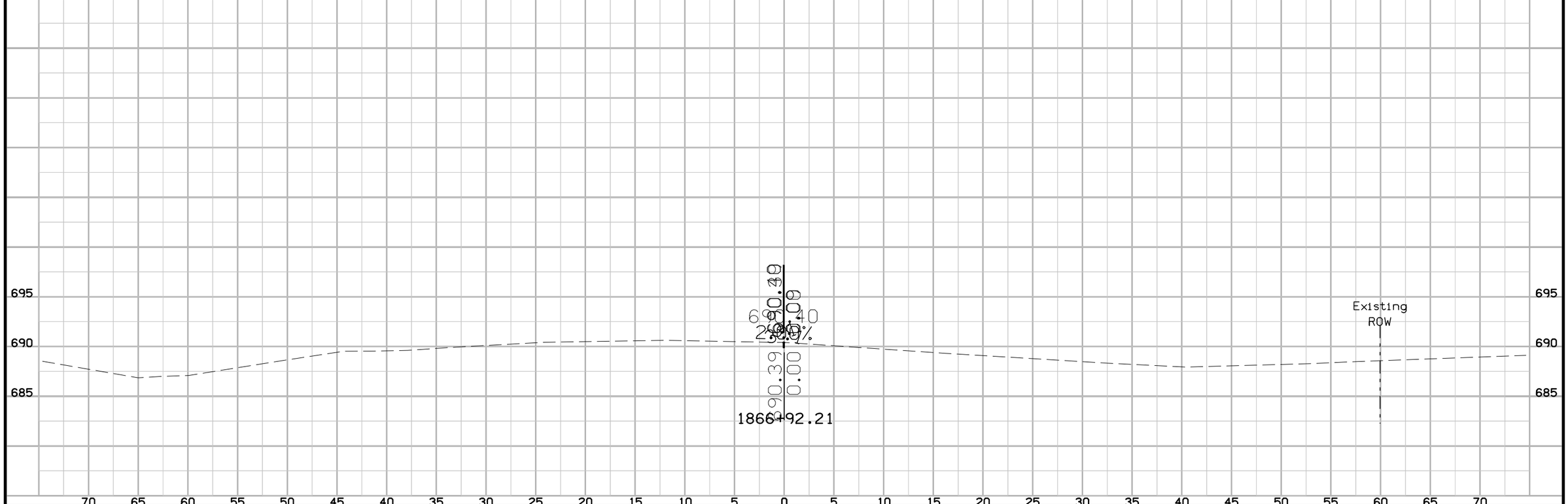
Detour IA 92

Preliminary



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IA92 / US61 Ramp A

Preliminary

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

675 670 665 660 655 675 670

659.67 65.64 658.95 63.50 658.95 53.50 661.67 43.97 666.41 13.93 666.65 7.93 666.49 20.42 663.78 38.67

1556+75.00

663.42 71.29 662.12 67.39 662.12 57.39 662.12 57.39 666.71 28.26 666.95 22.25 667.68 16.00 667.43 24.19 667.27 28.19 665.62 40.10

1556+50.00

670 665 670 665

1556+25.00

670 665

1556+06.08

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER Y.1

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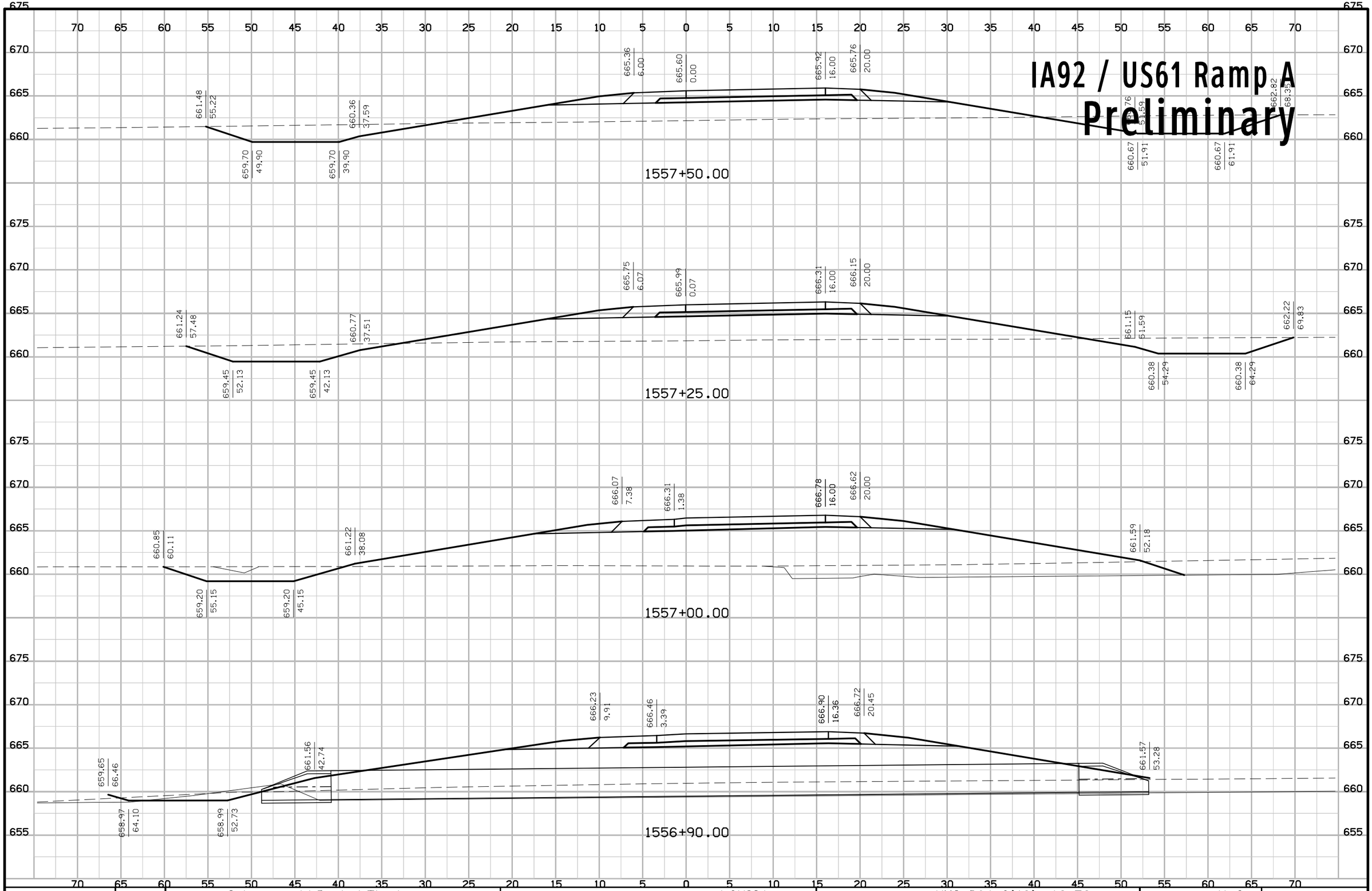
IA92 / US61 Ramp A

Preliminary



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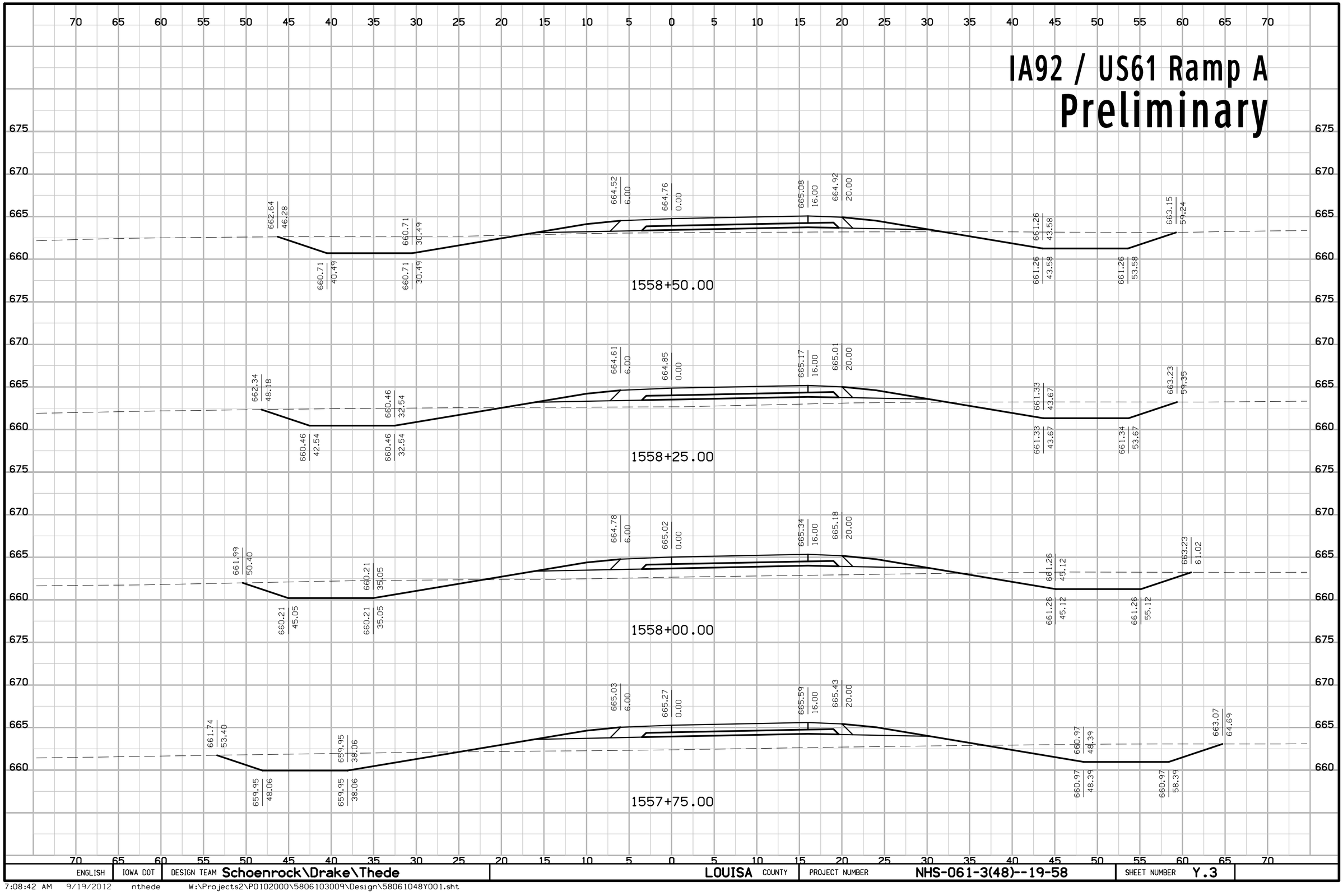
IA92 / US61 Ramp A

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER Y.3

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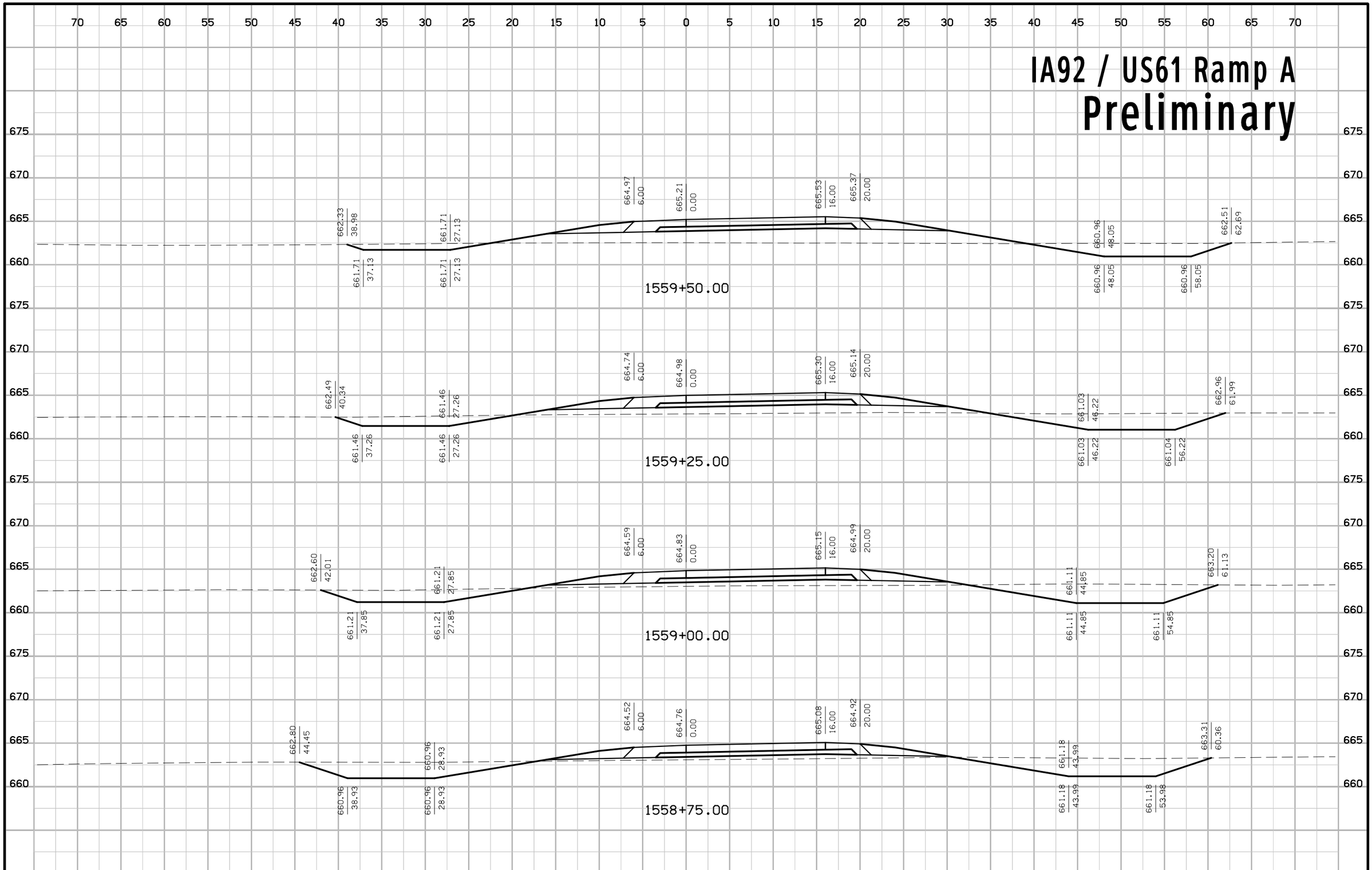
IA92 / US61 Ramp A

Preliminary



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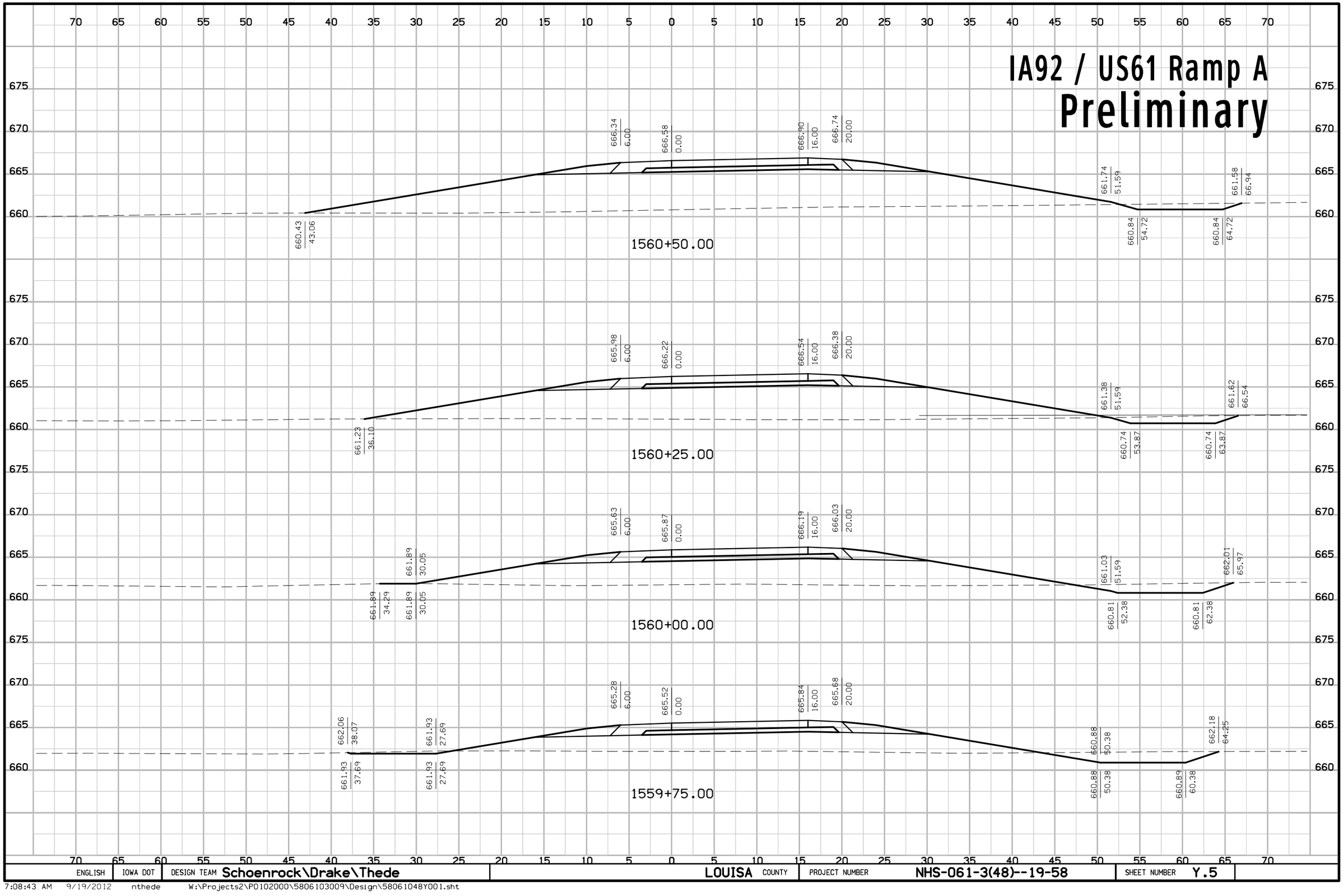
IA92 / US61 Ramp A

Preliminary



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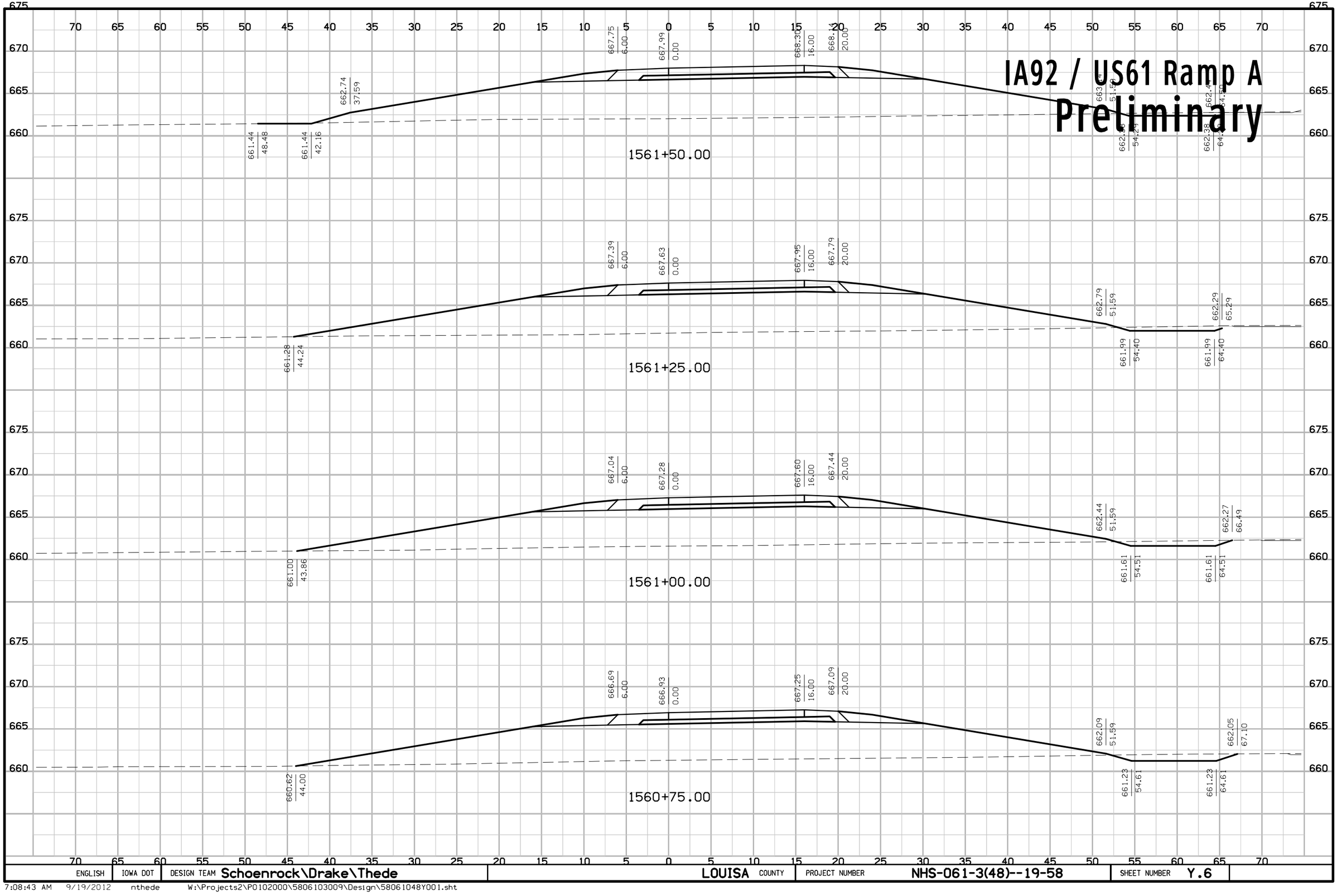
IA92 / US61 Ramp A

Preliminary



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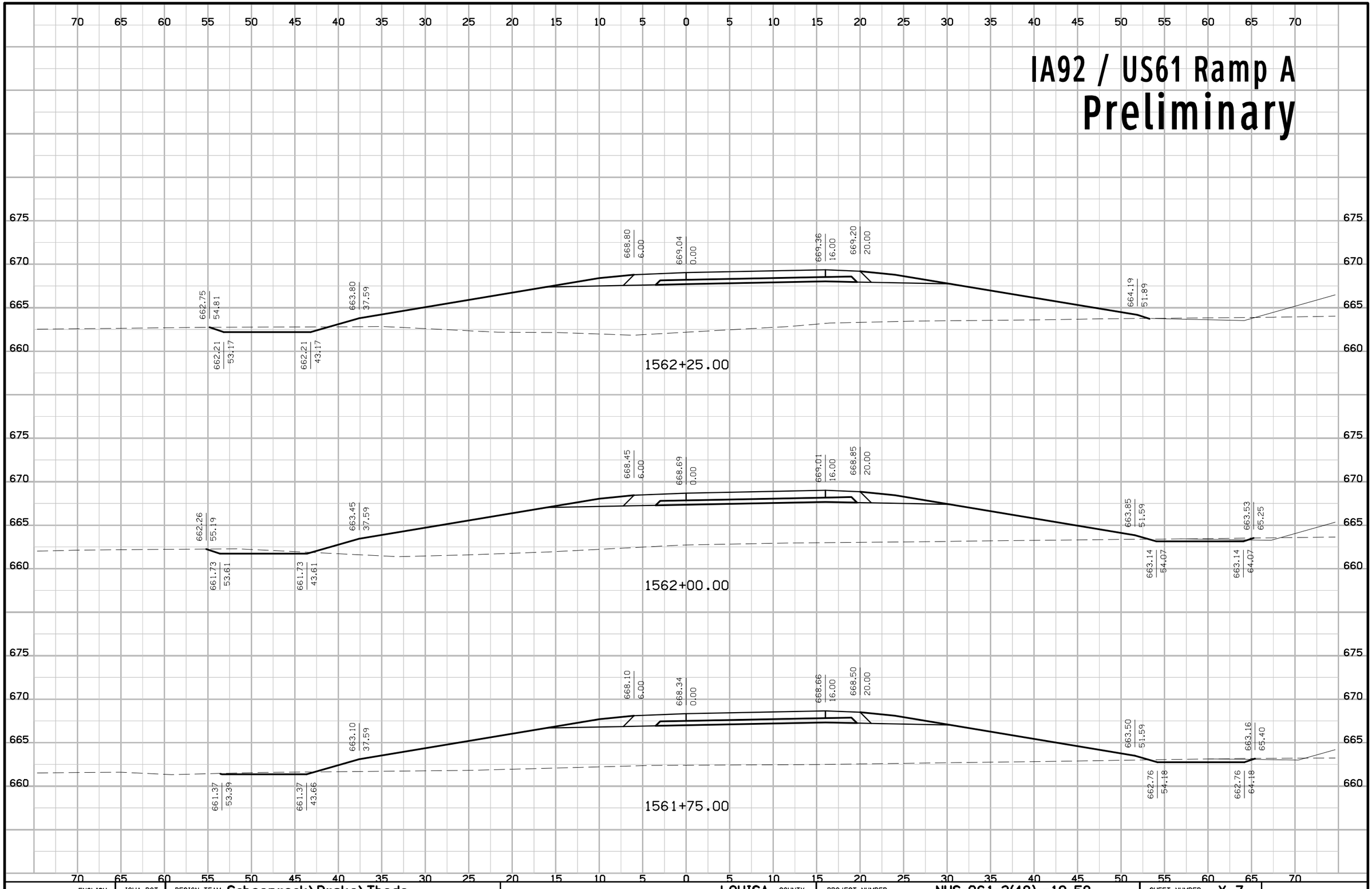
IA92 / US61 Ramp A

Preliminary



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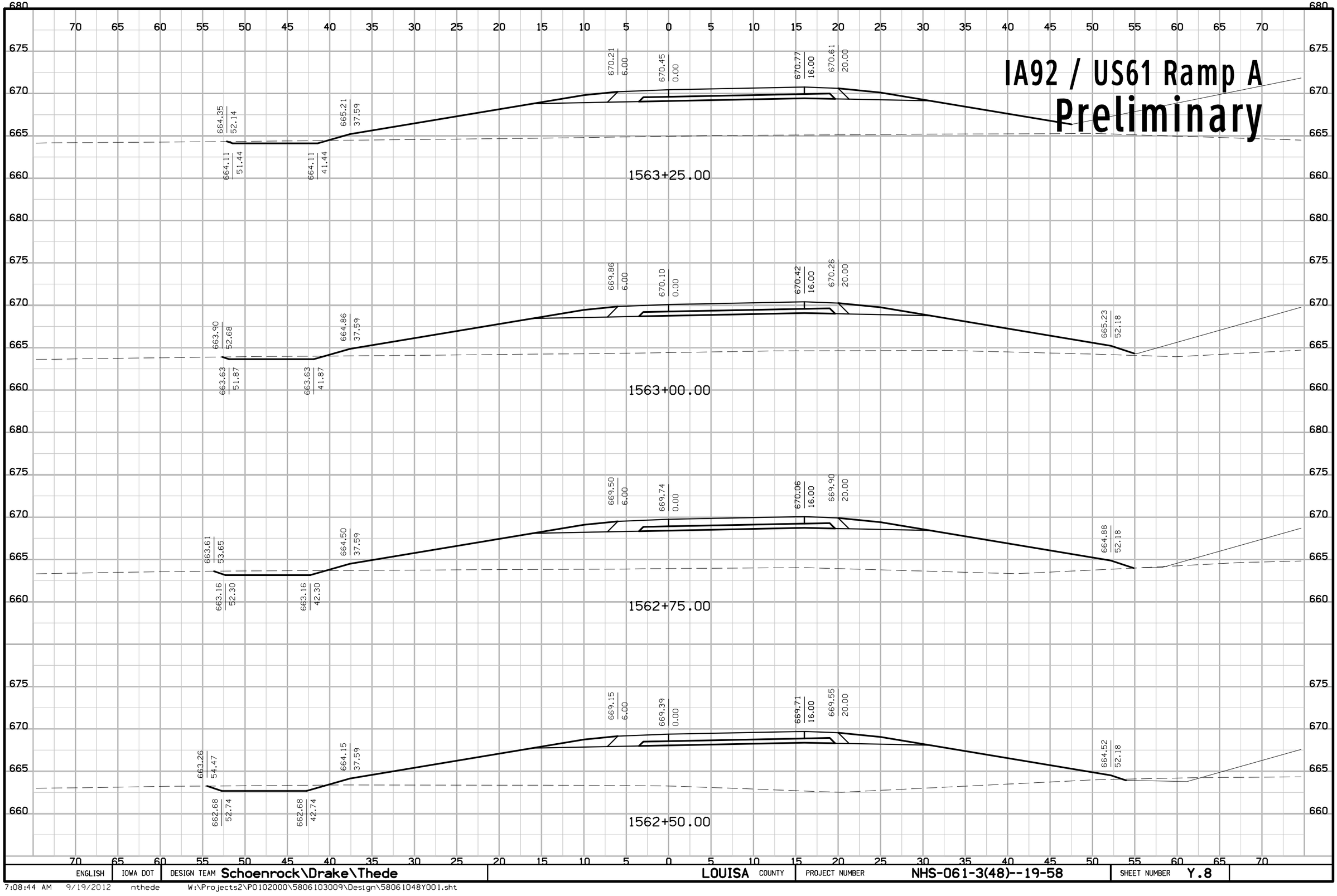
IA92 / US61 Ramp A

Preliminary



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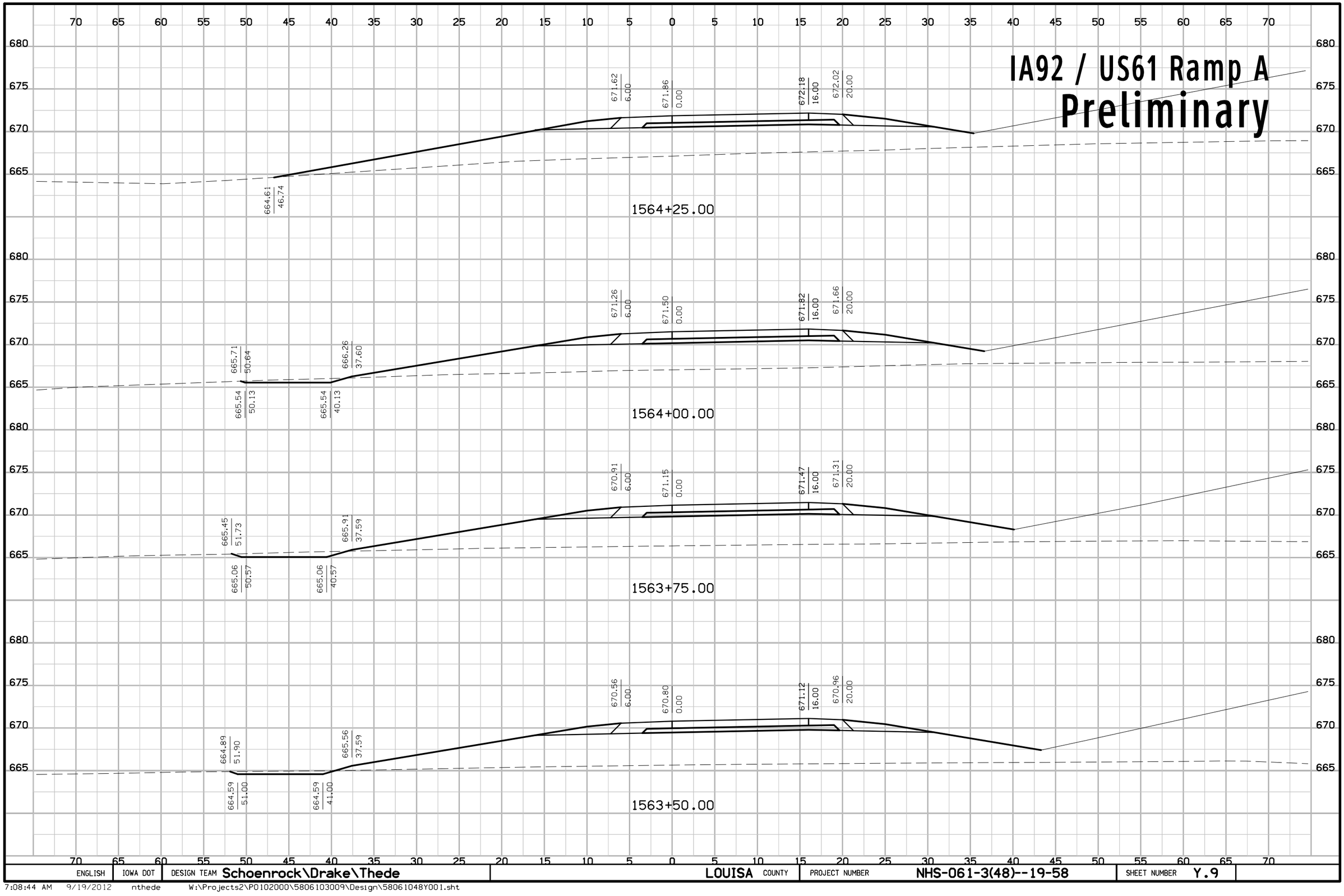
IA92 / US61 Ramp A

Preliminary



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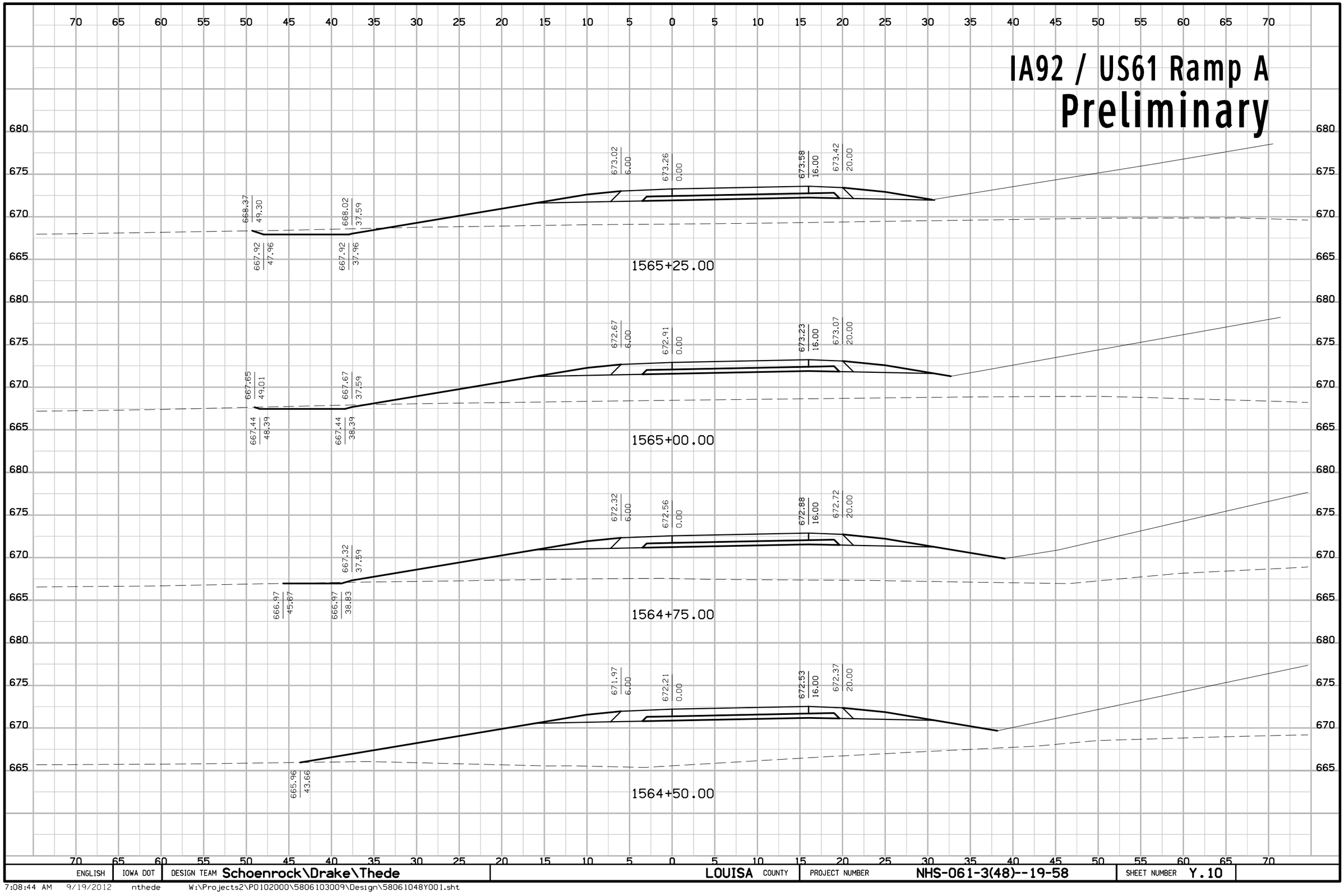
IA92 / US61 Ramp A

Preliminary



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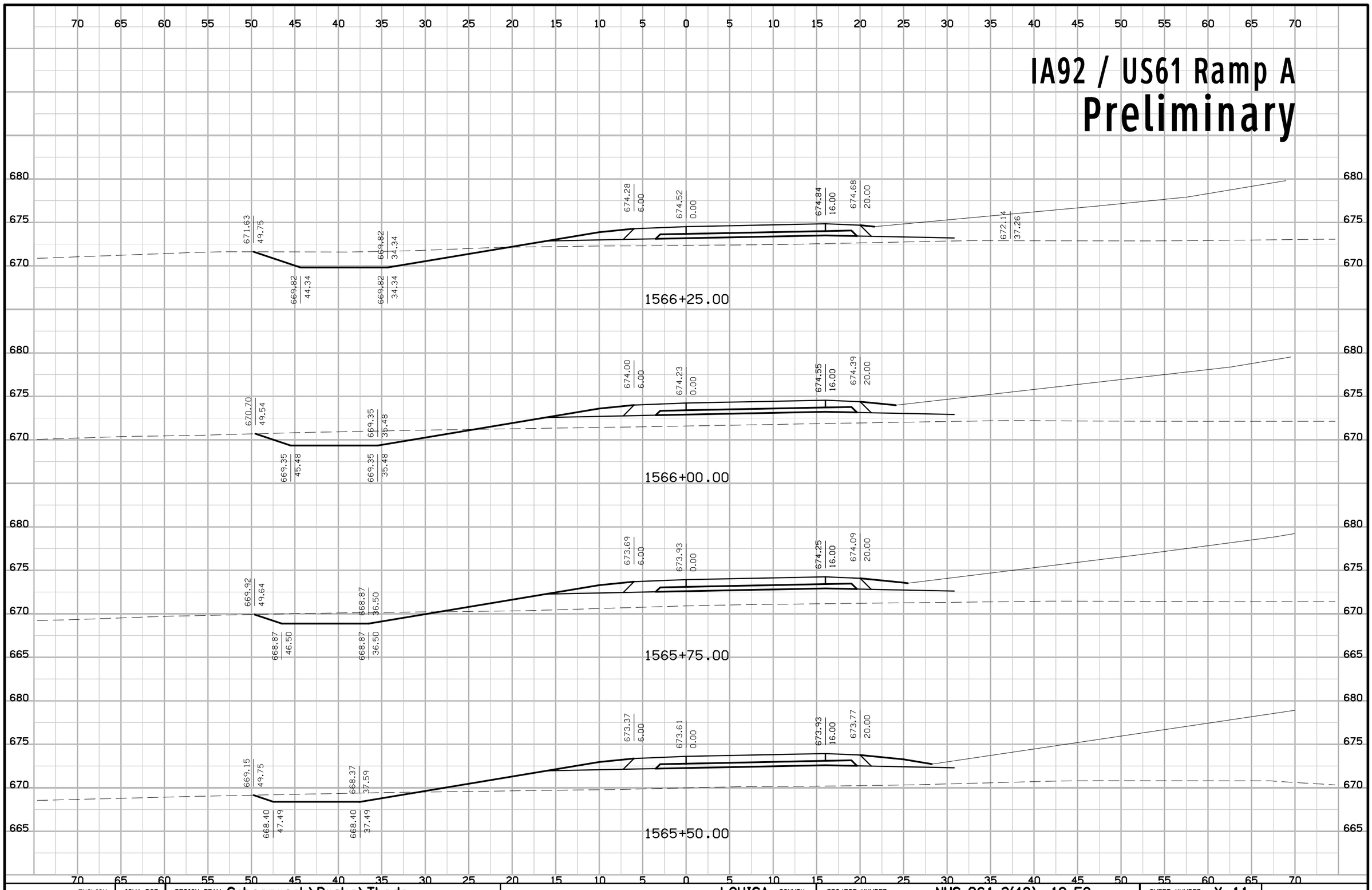
IA92 / US61 Ramp A

Preliminary



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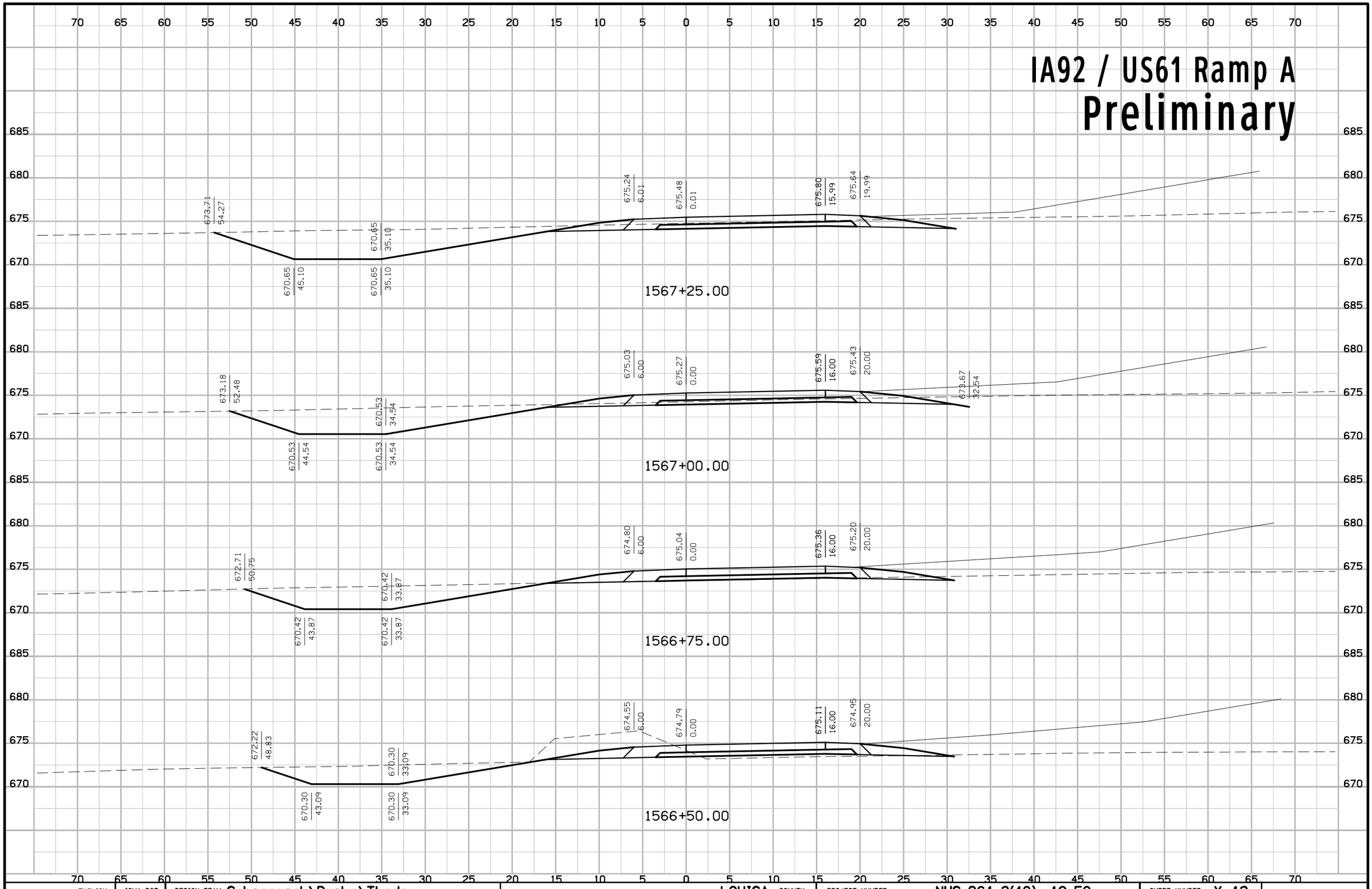
IA92 / US61 Ramp A

Preliminary



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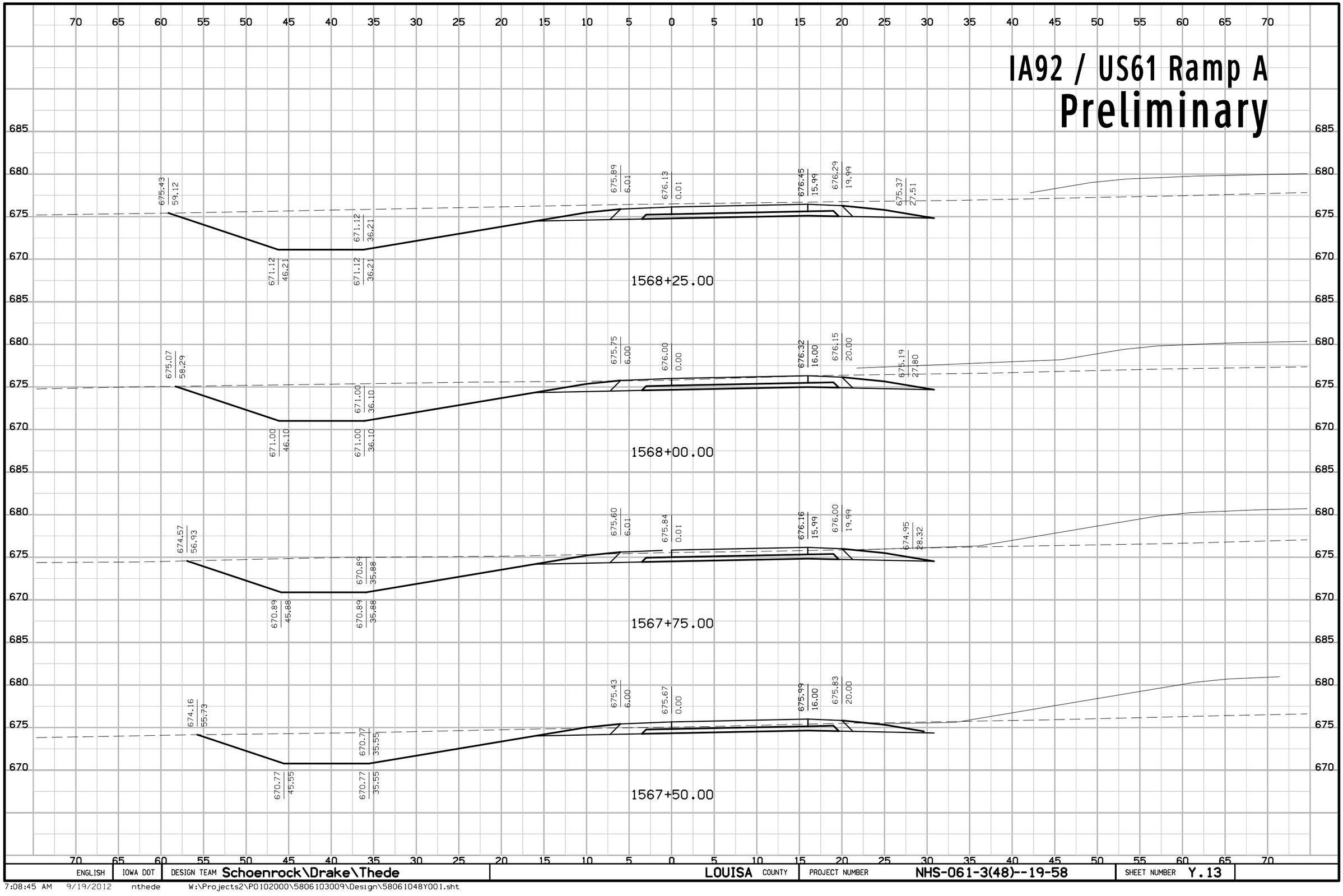
IA92 / US61 Ramp A

Preliminary



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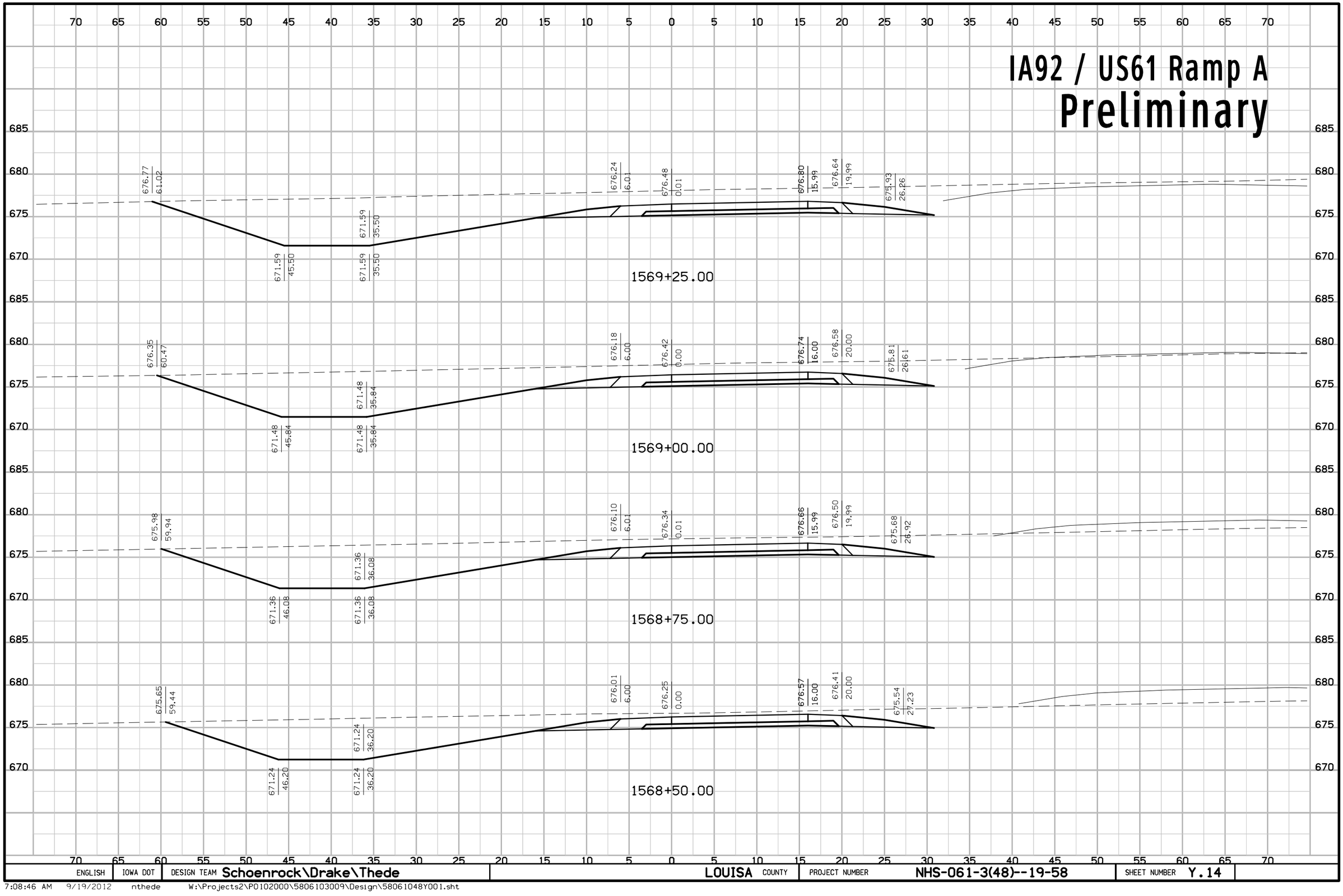
IA92 / US61 Ramp A

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER Y.14

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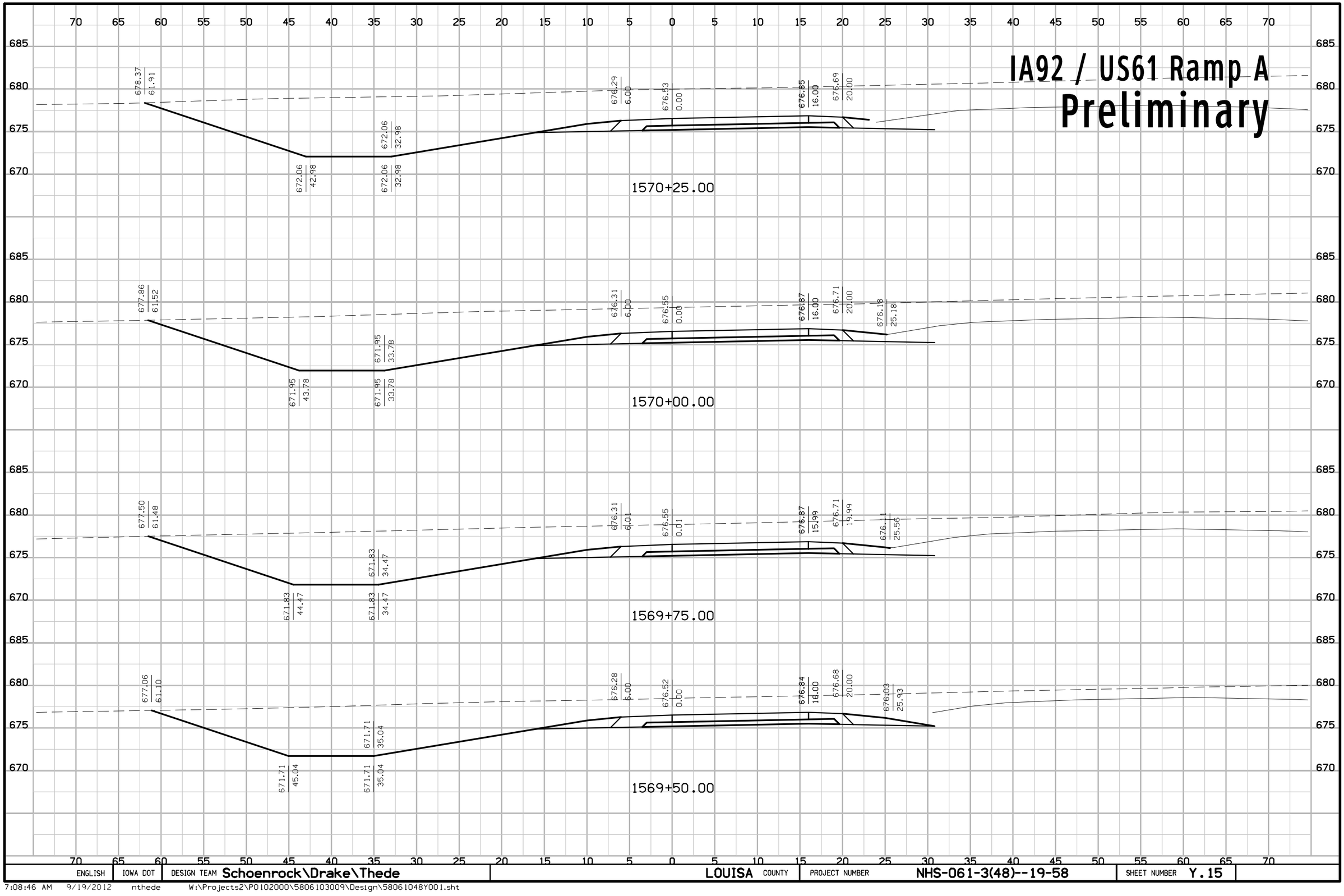
IA92 / US61 Ramp A

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER Y.15

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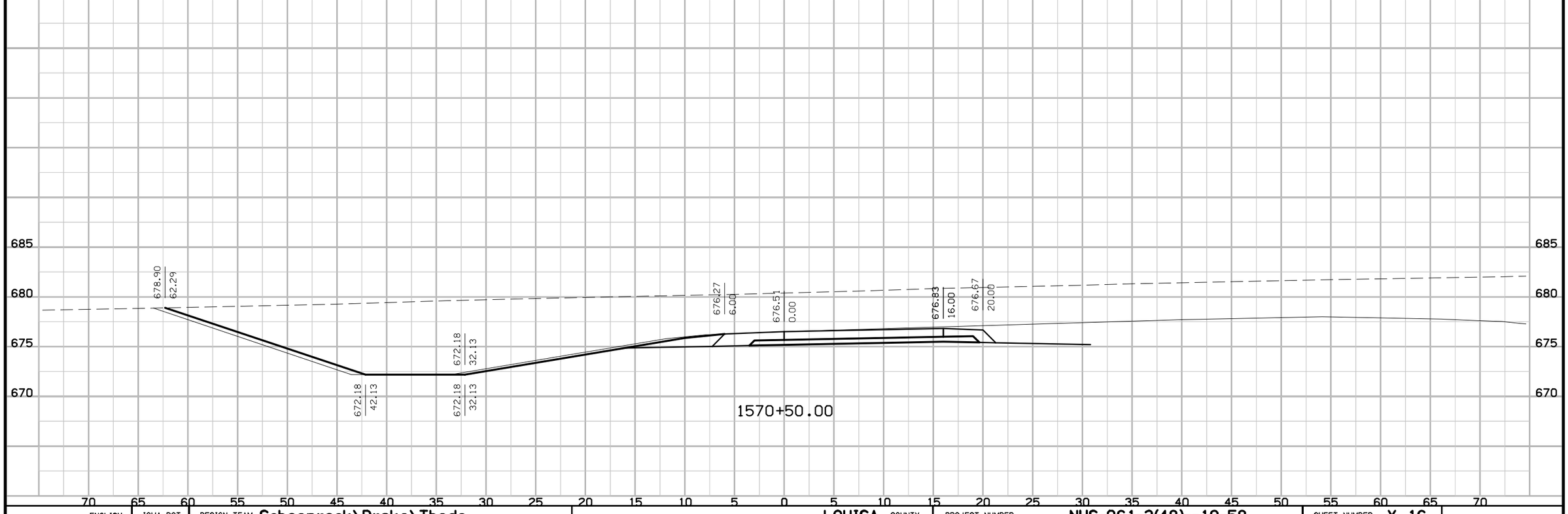
IA92 / US61 Ramp A
Preliminary



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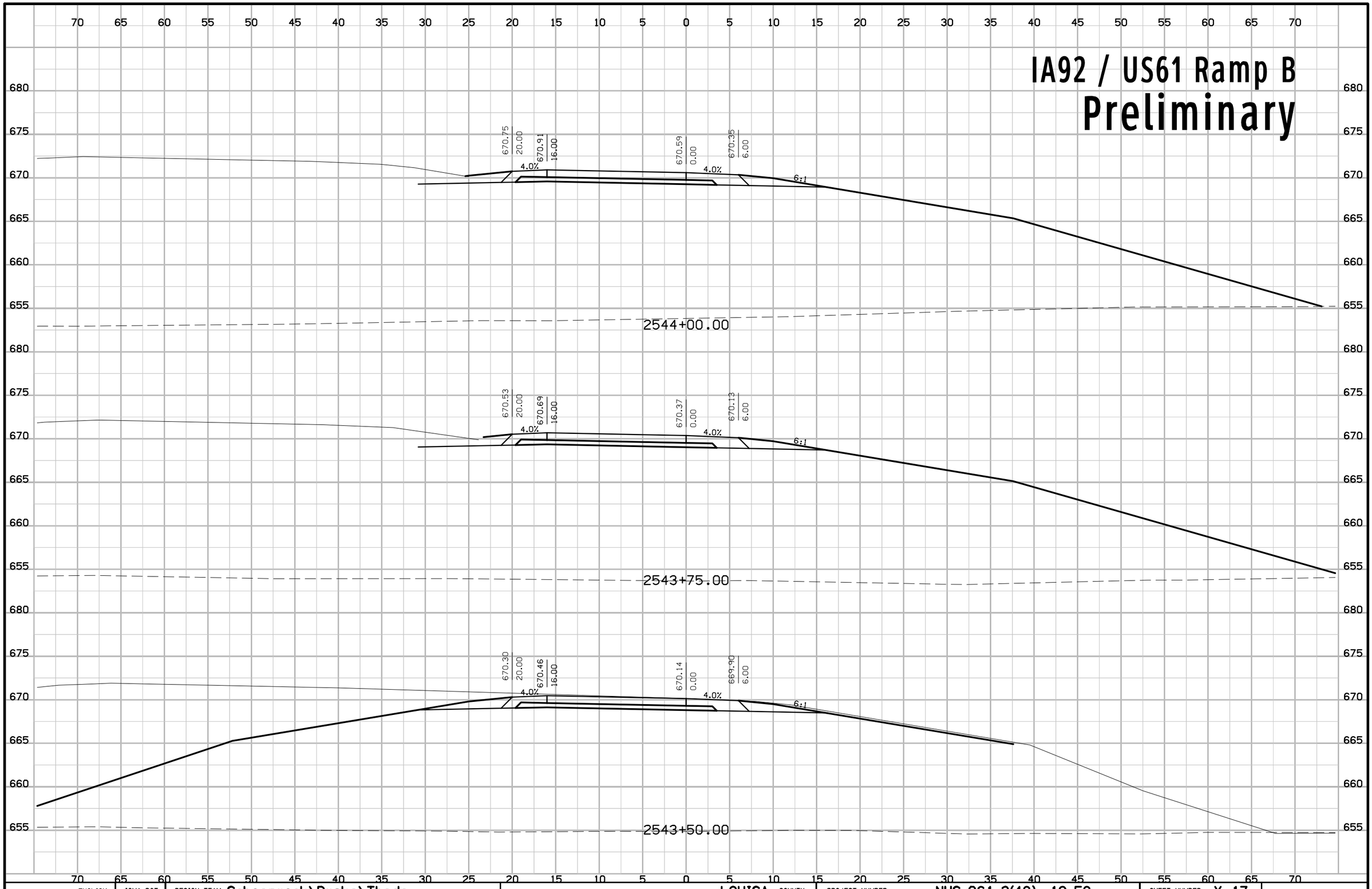
IA92 / US61 Ramp B

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER Y.17

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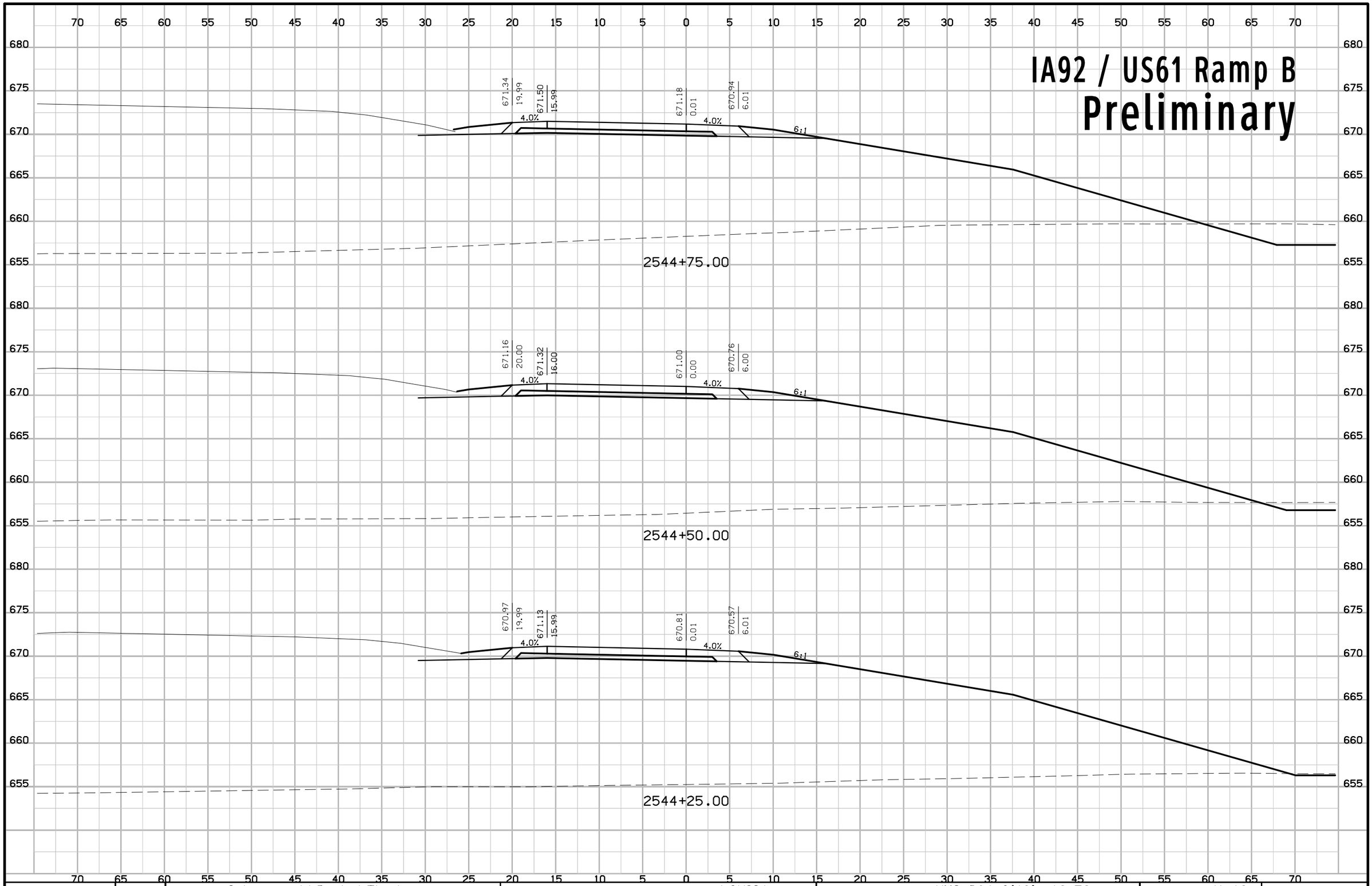
IA92 / US61 Ramp B
Preliminary



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IA92 / US61 Ramp B

Preliminary

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680 675 670 665 660

671.76 | 20.00 | 671.92 | 16.00 | 671.60 | 0.00 | 671.36 | 6.00

4.0% 4.0% 6:1

2545+50.00

671.64 | 19.99 | 671.80 | 15.99 | 671.48 | 0.01 | 671.24 | 6.01

4.0% 4.0% 6:1

2545+25.00

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4.0% 4.0% 6:1

2545+00.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER Y.19

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IA92 / US61 Ramp B

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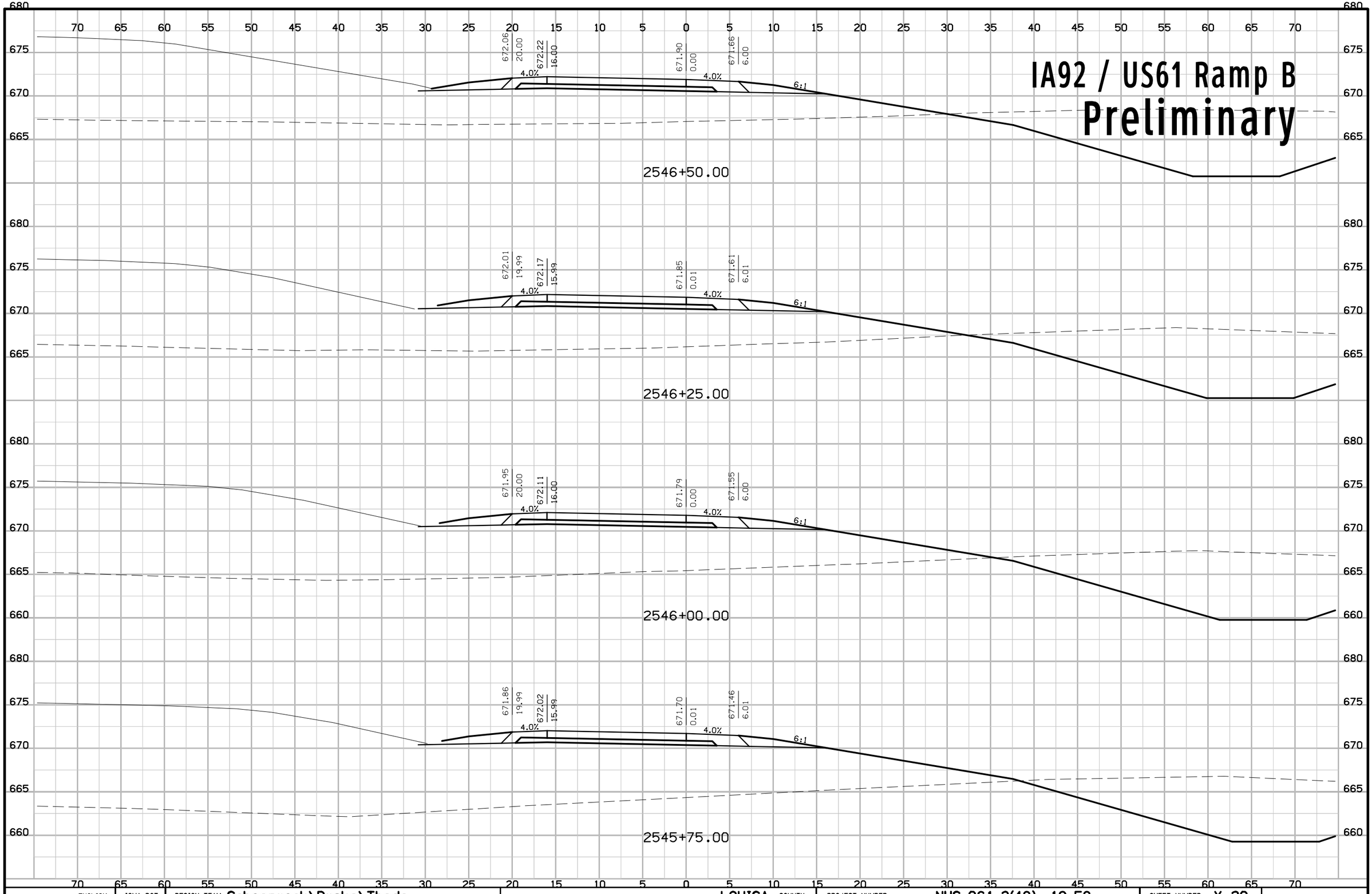

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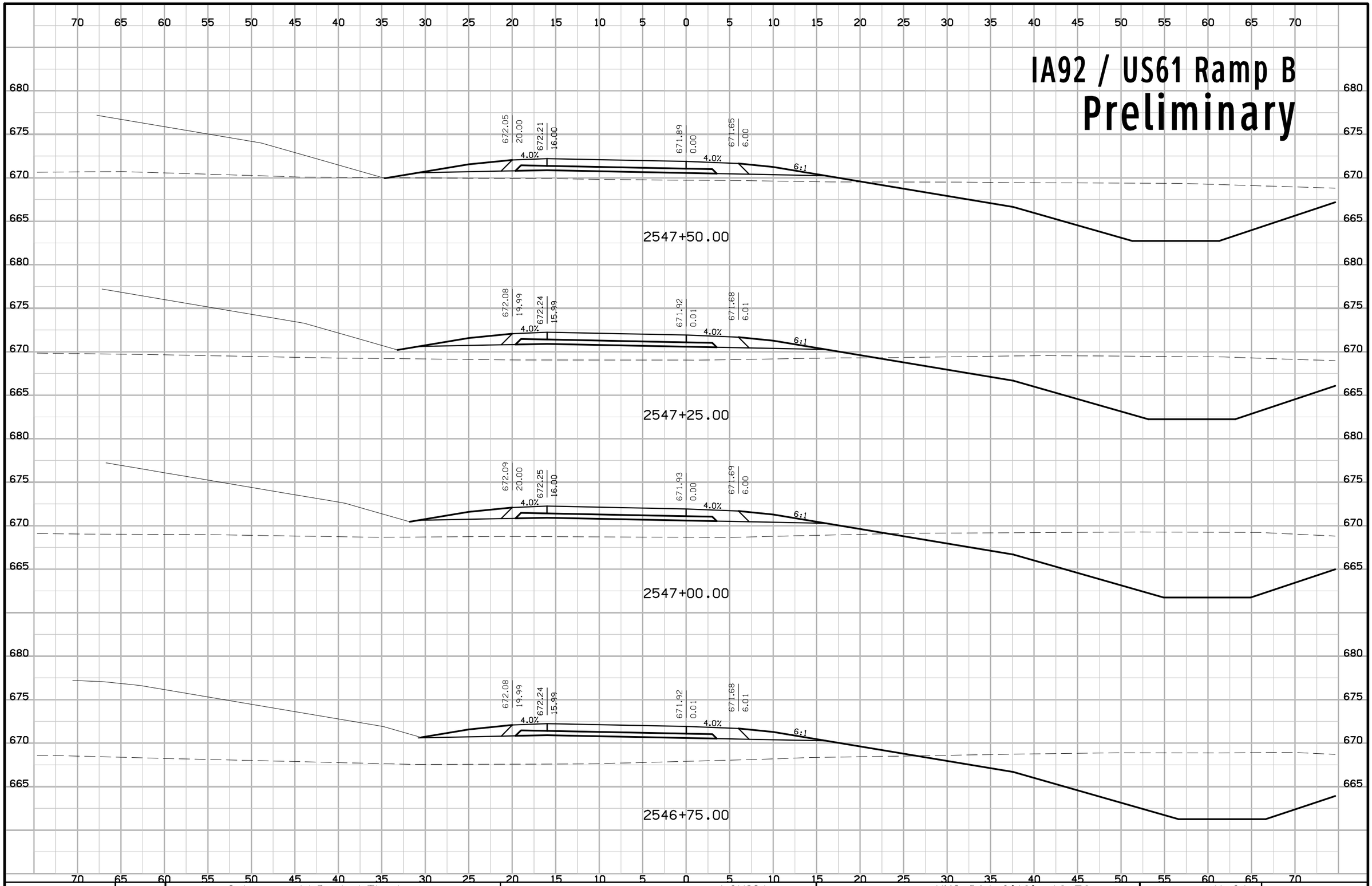

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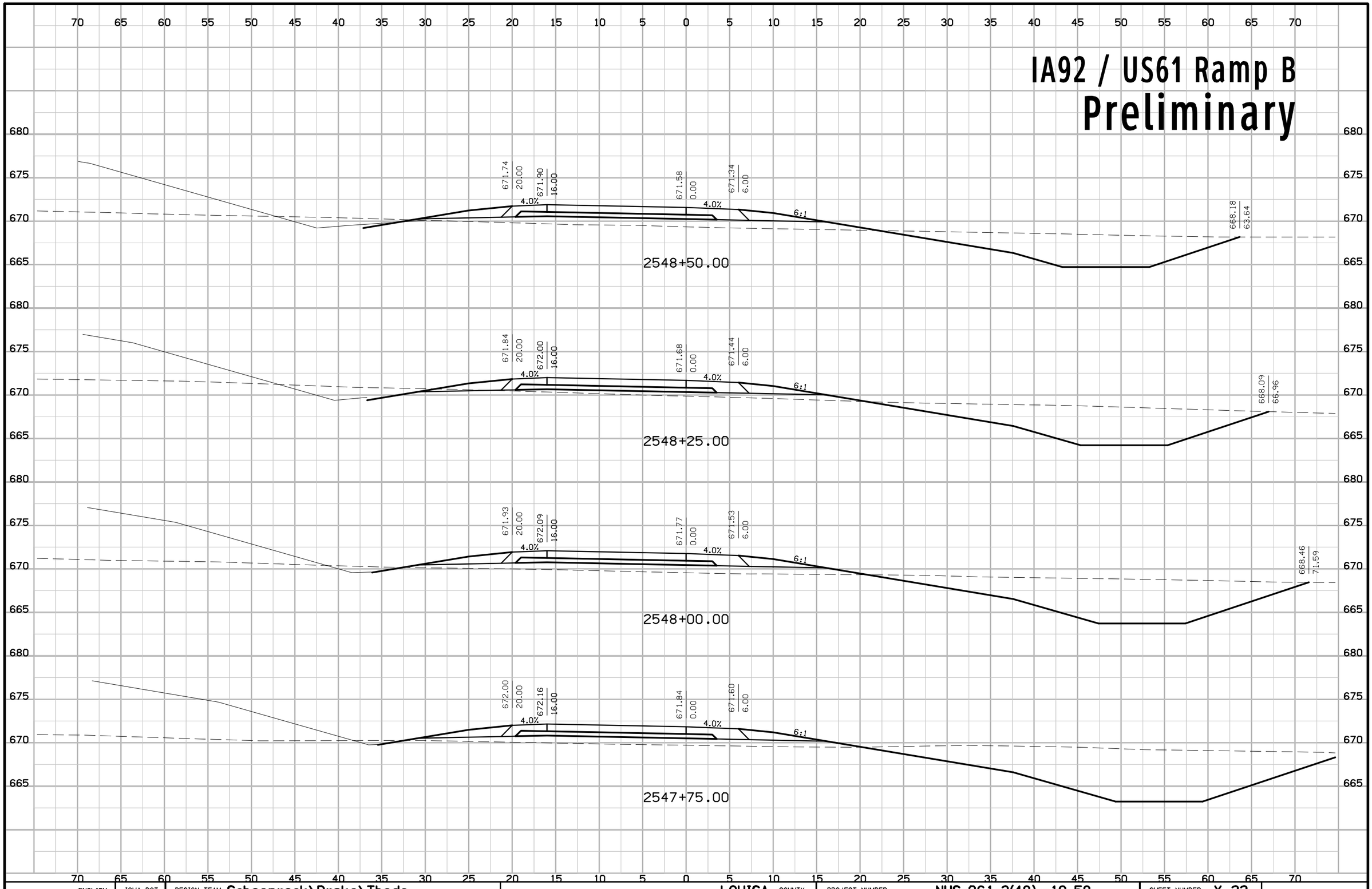

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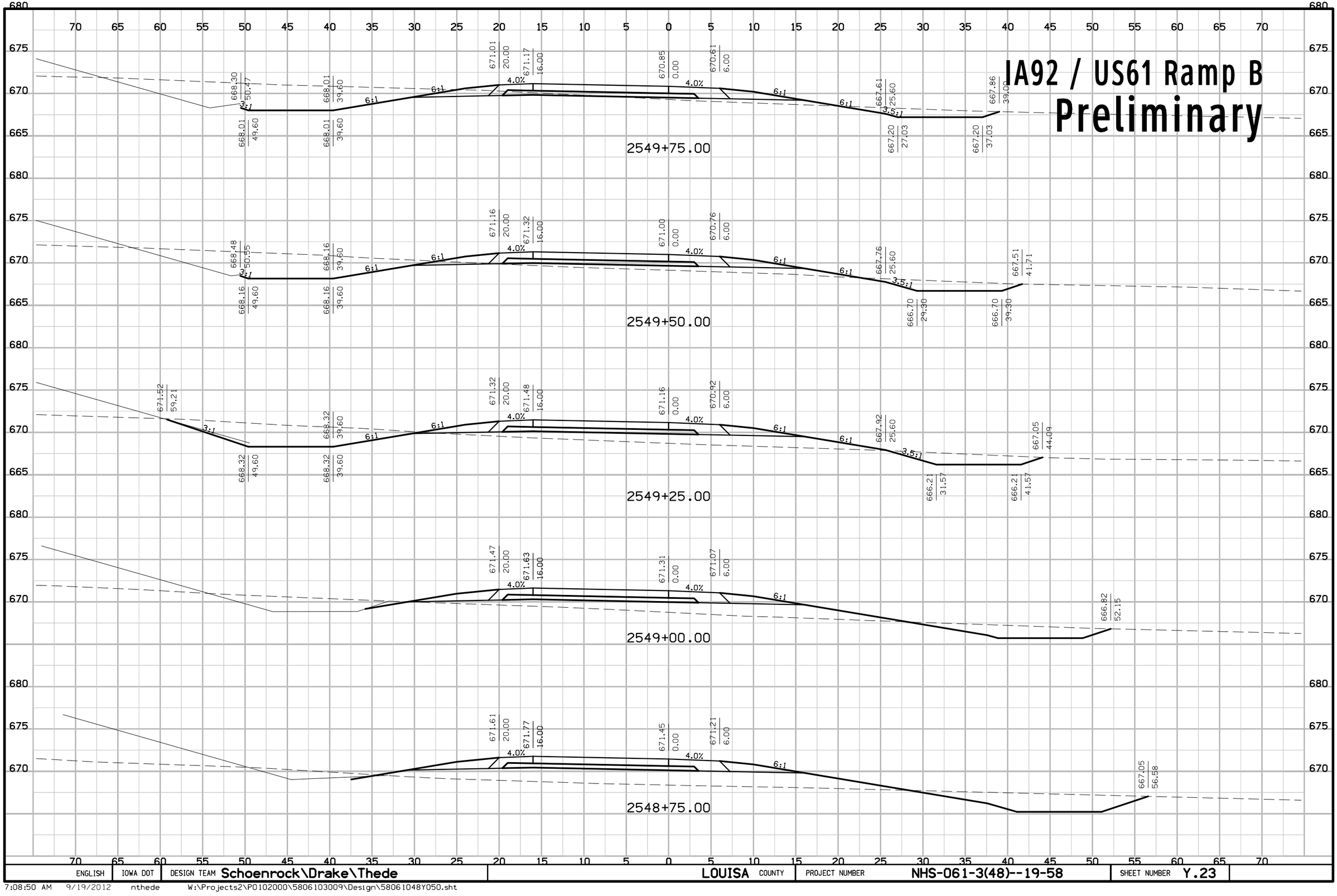
IA92 / US61 Ramp B

Preliminary



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IA92 / US61 Ramp B

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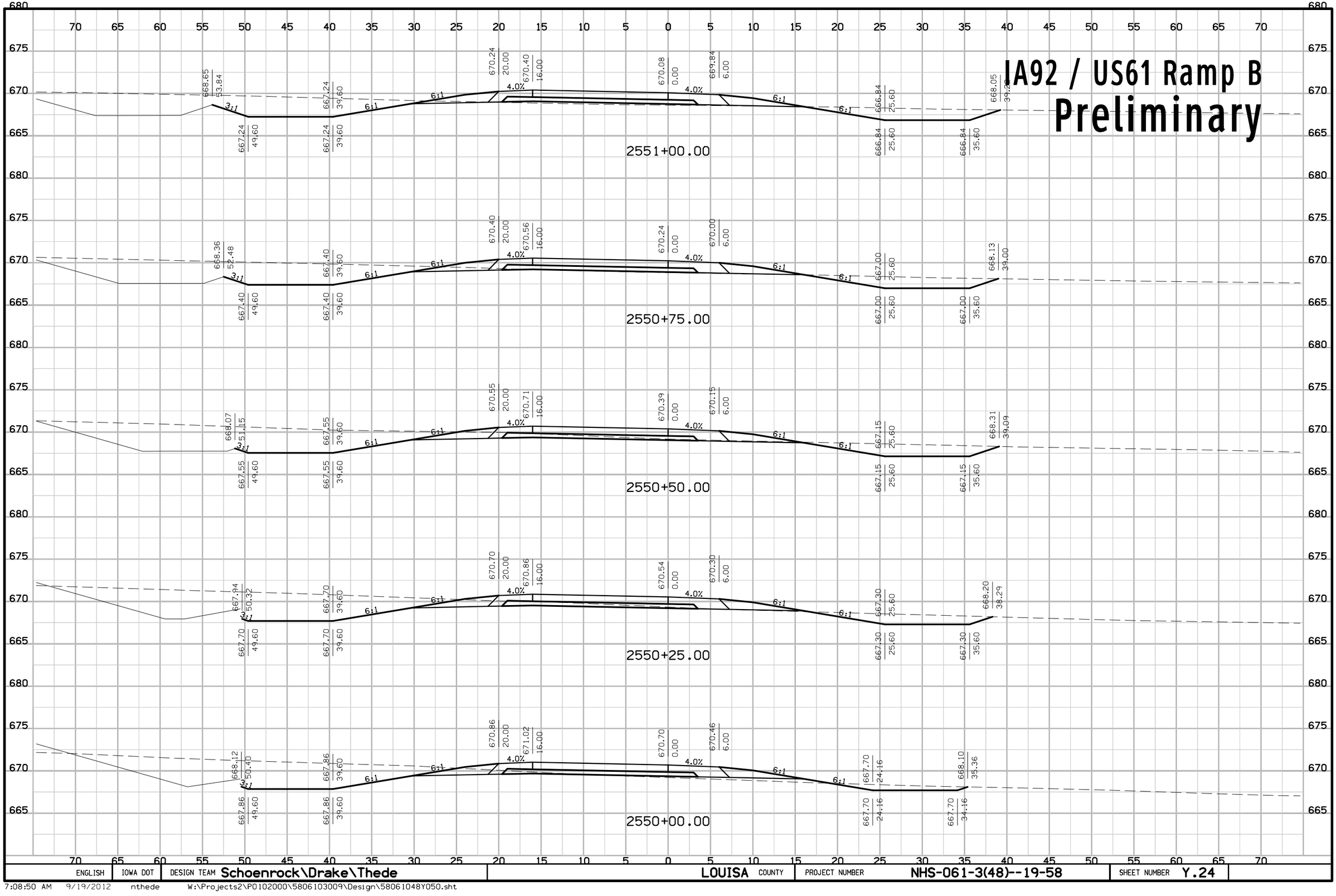

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IA92 / US61 Ramp B

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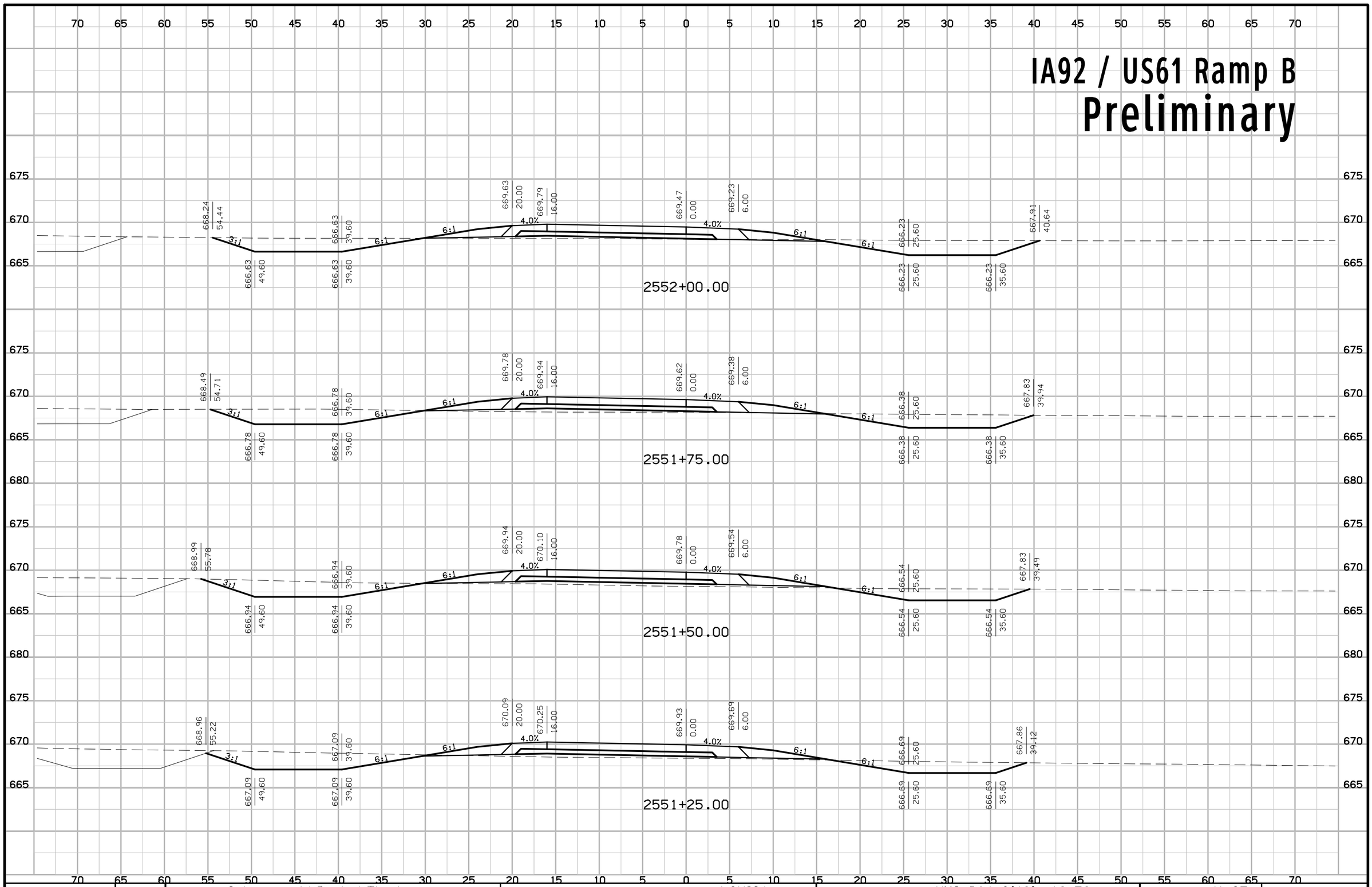

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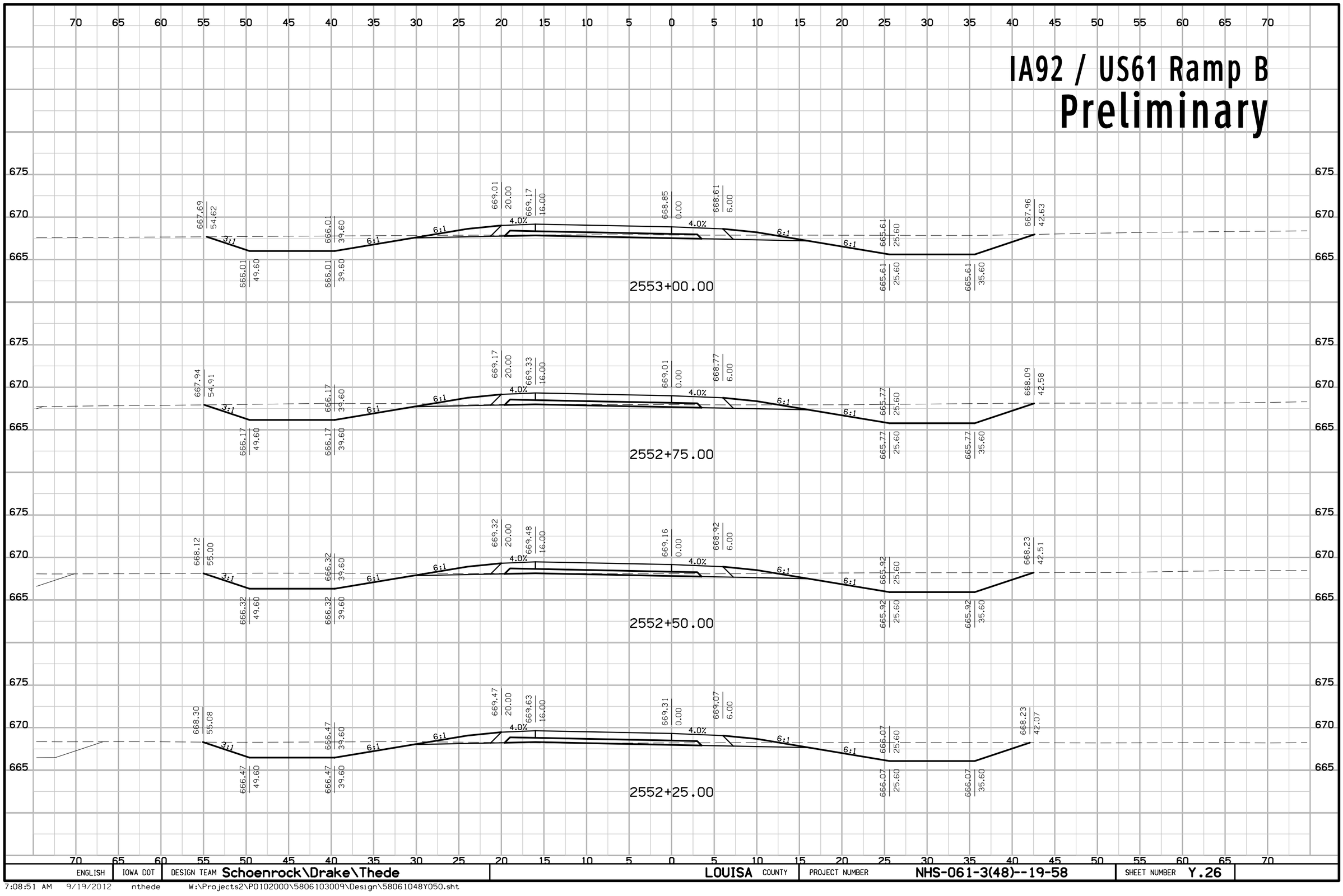
IA92 / US61 Ramp B

Preliminary



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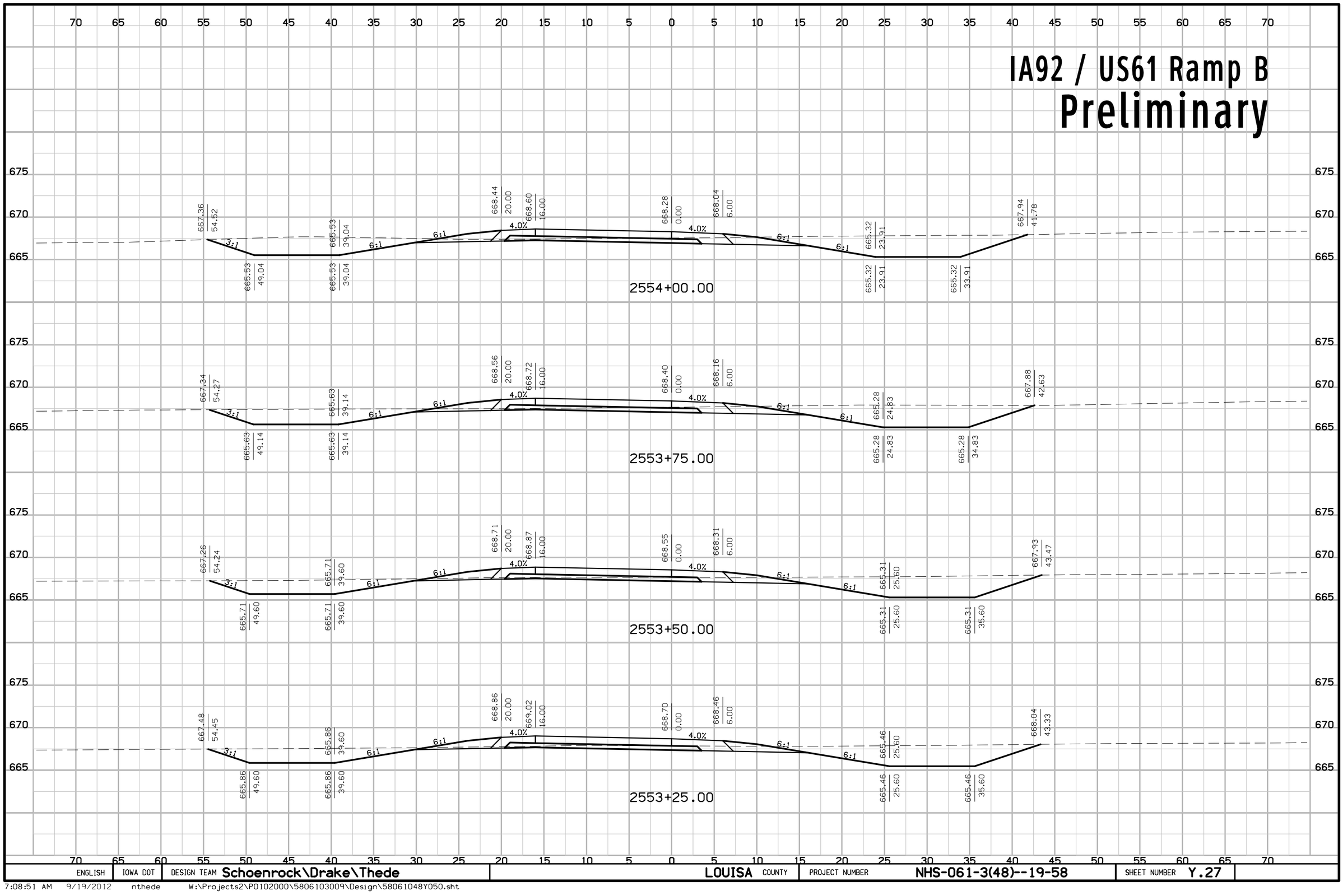
IA92 / US61 Ramp B

Preliminary



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IA92 / US61 Ramp B
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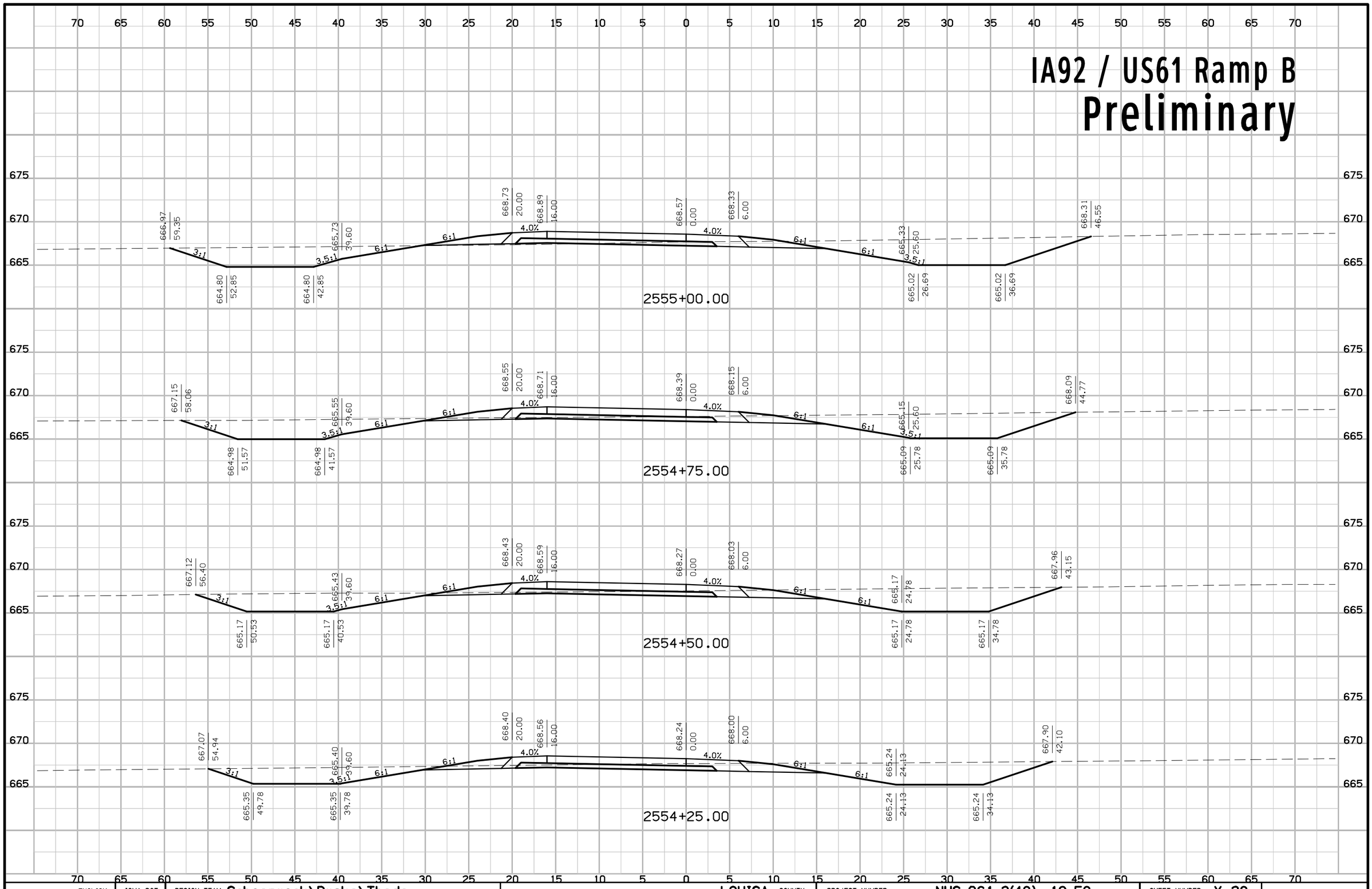

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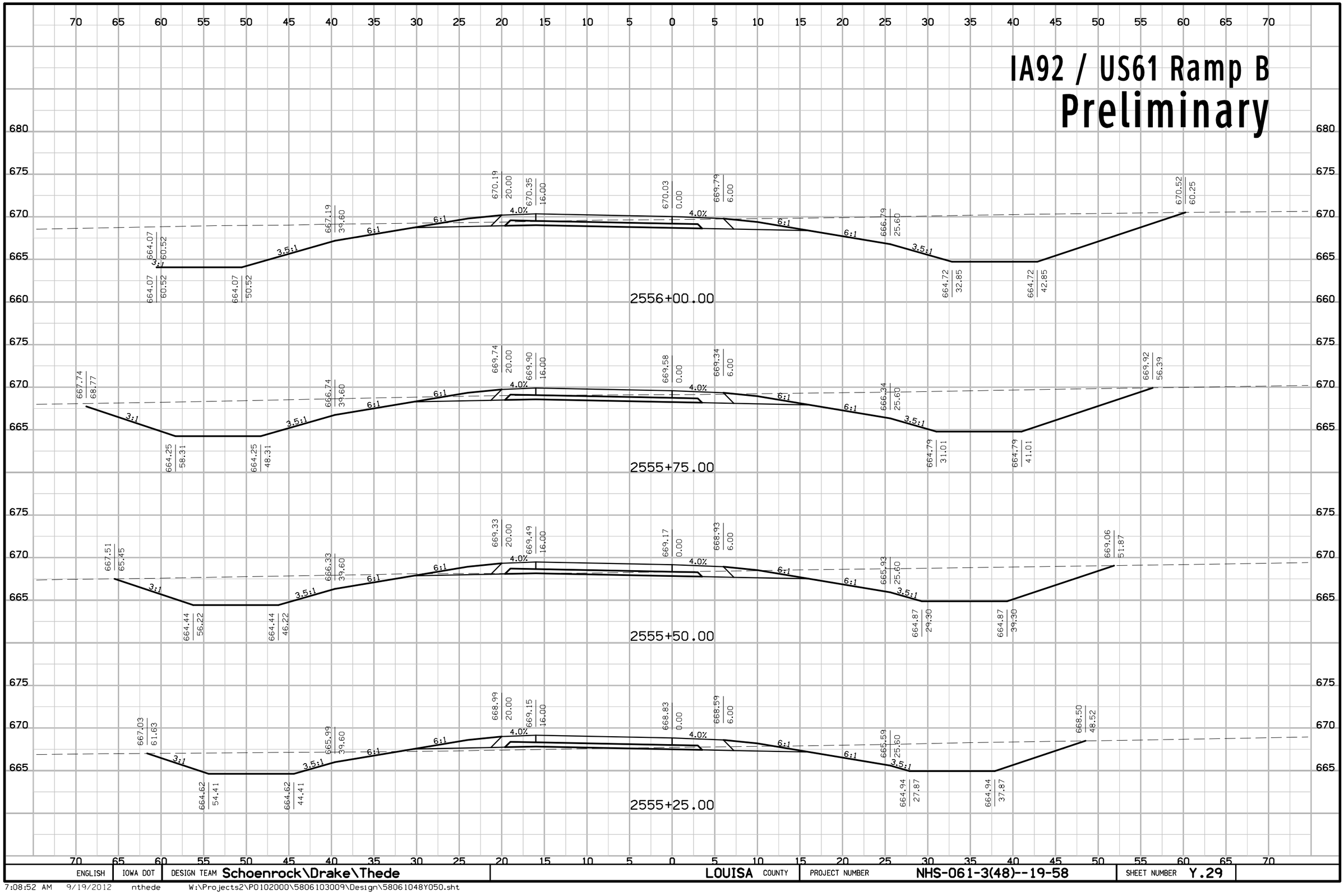
IA92 / US61 Ramp B

Preliminary



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IA92 / US61 Ramp B

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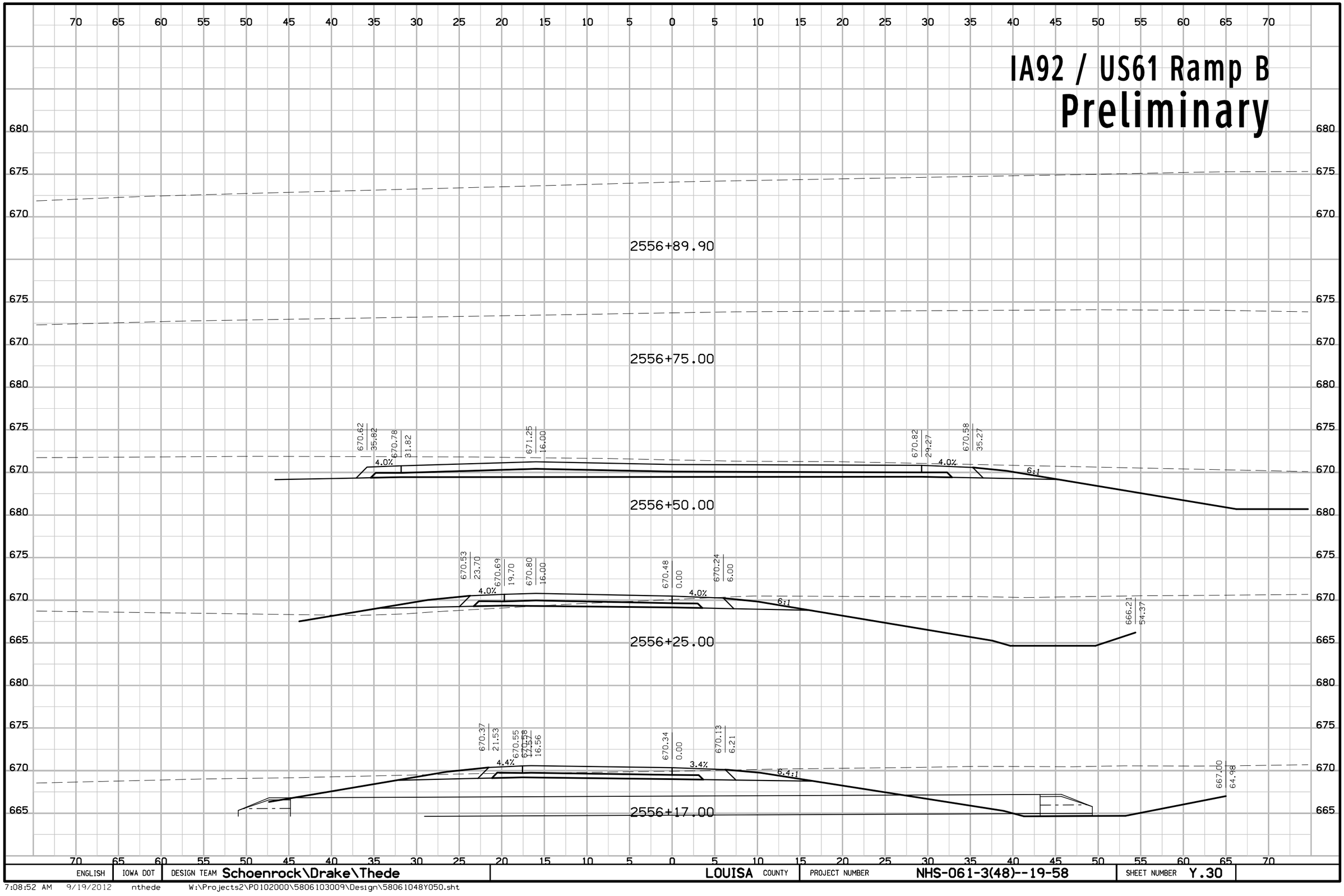

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IA92 / US61 Ramp C

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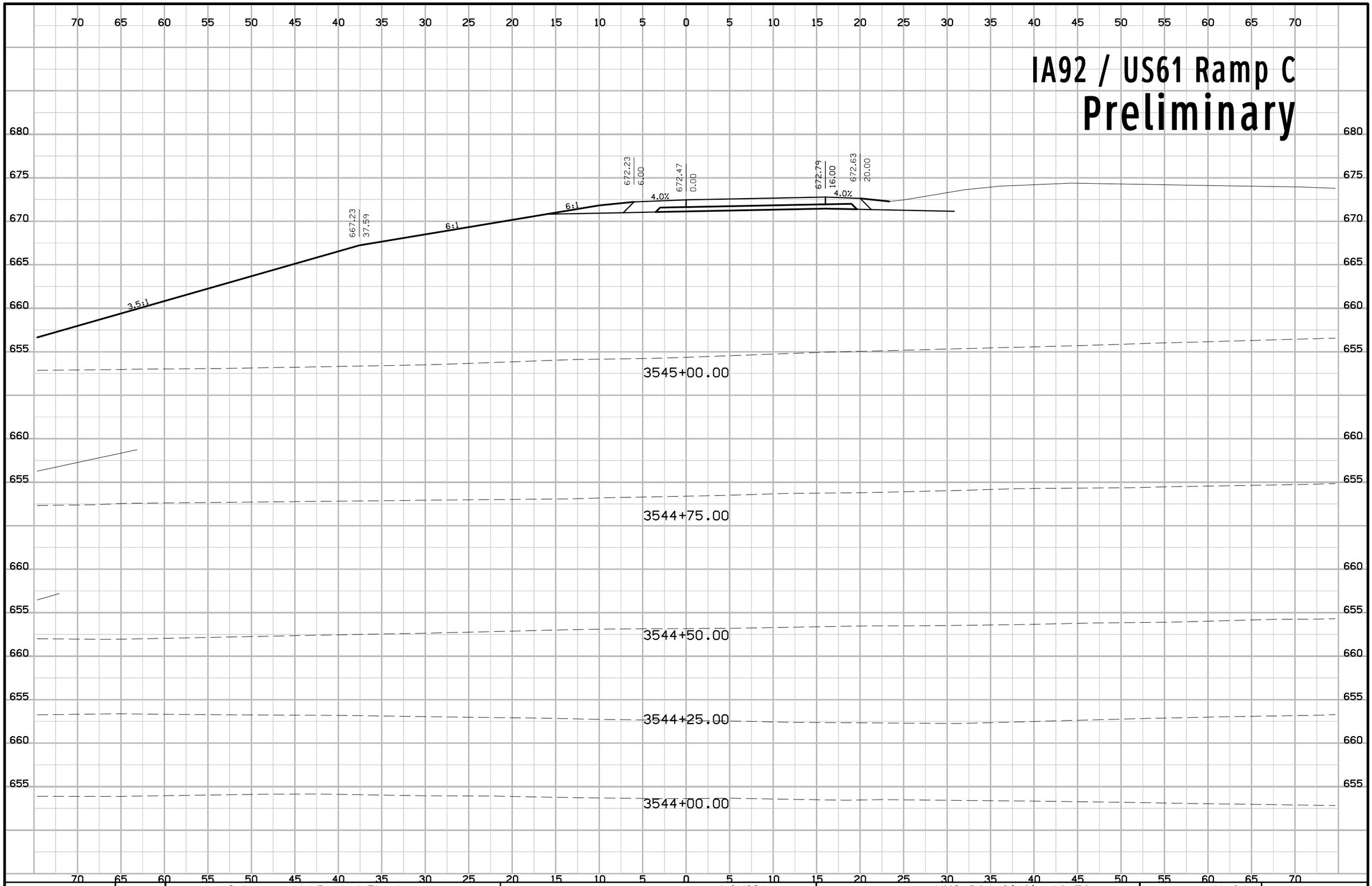

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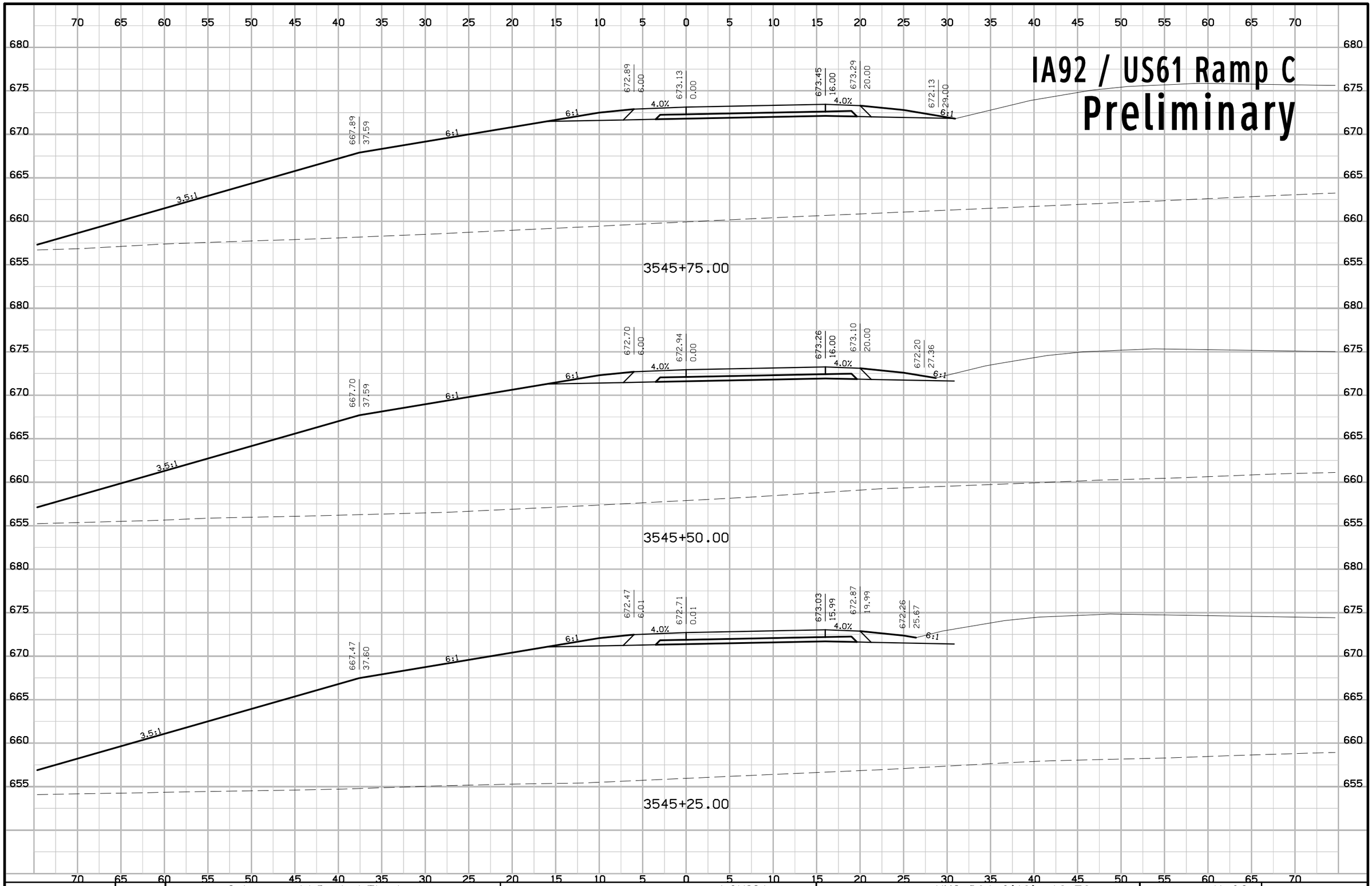
IA92 / US61 Ramp C

Preliminary



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IA92 / US61 Ramp C

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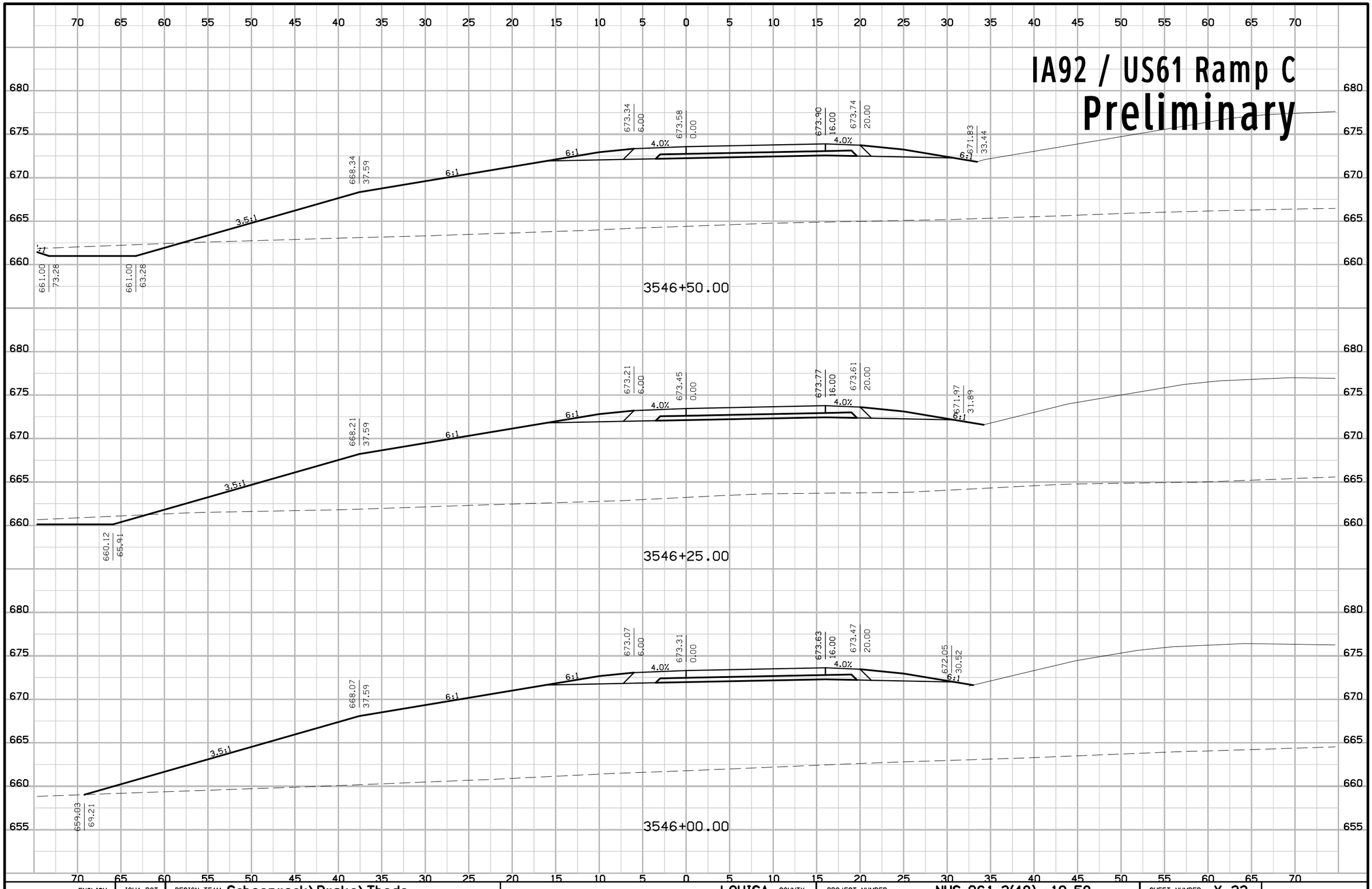

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IA92 / US61 Ramp C

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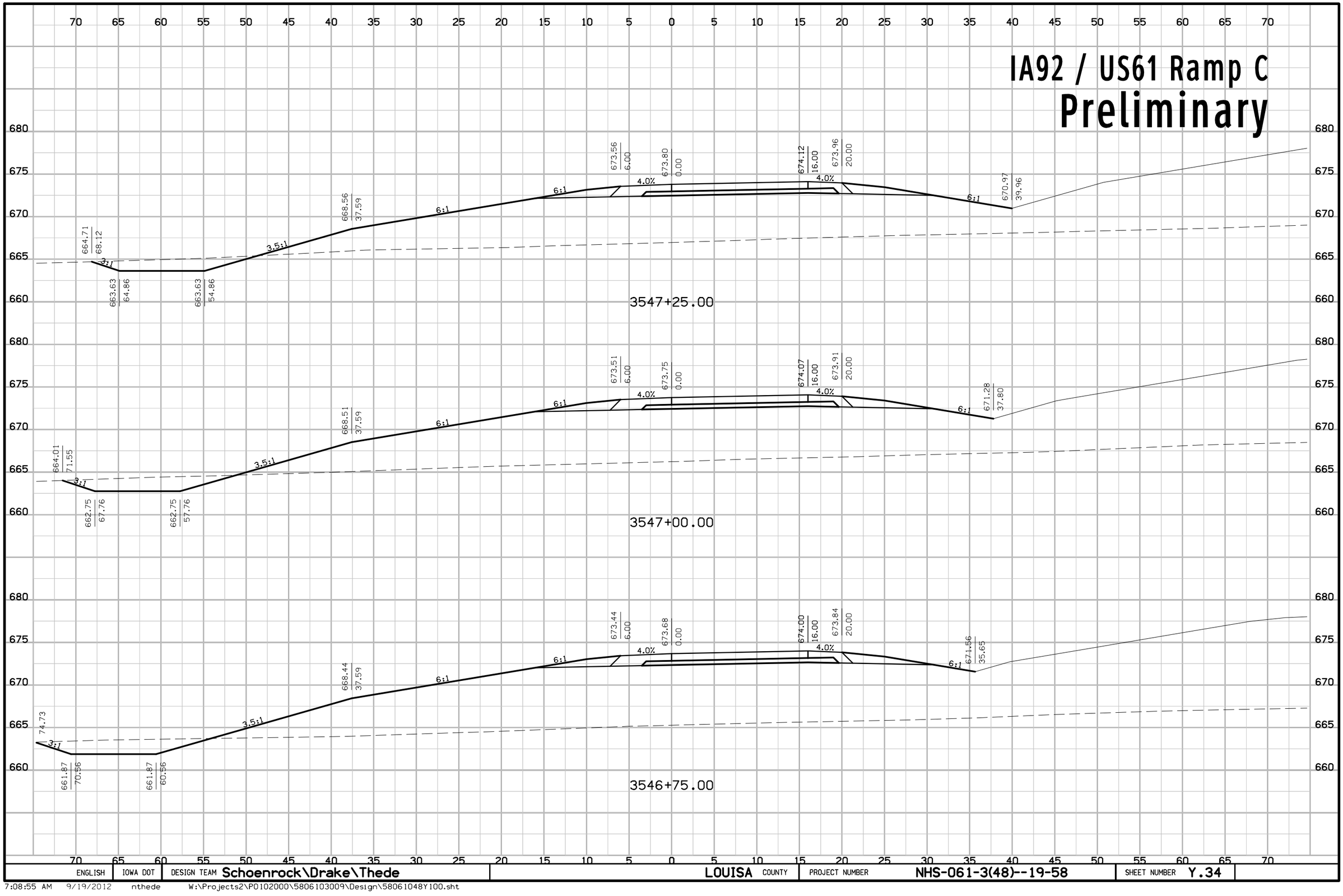

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IA92 / US61 Ramp C

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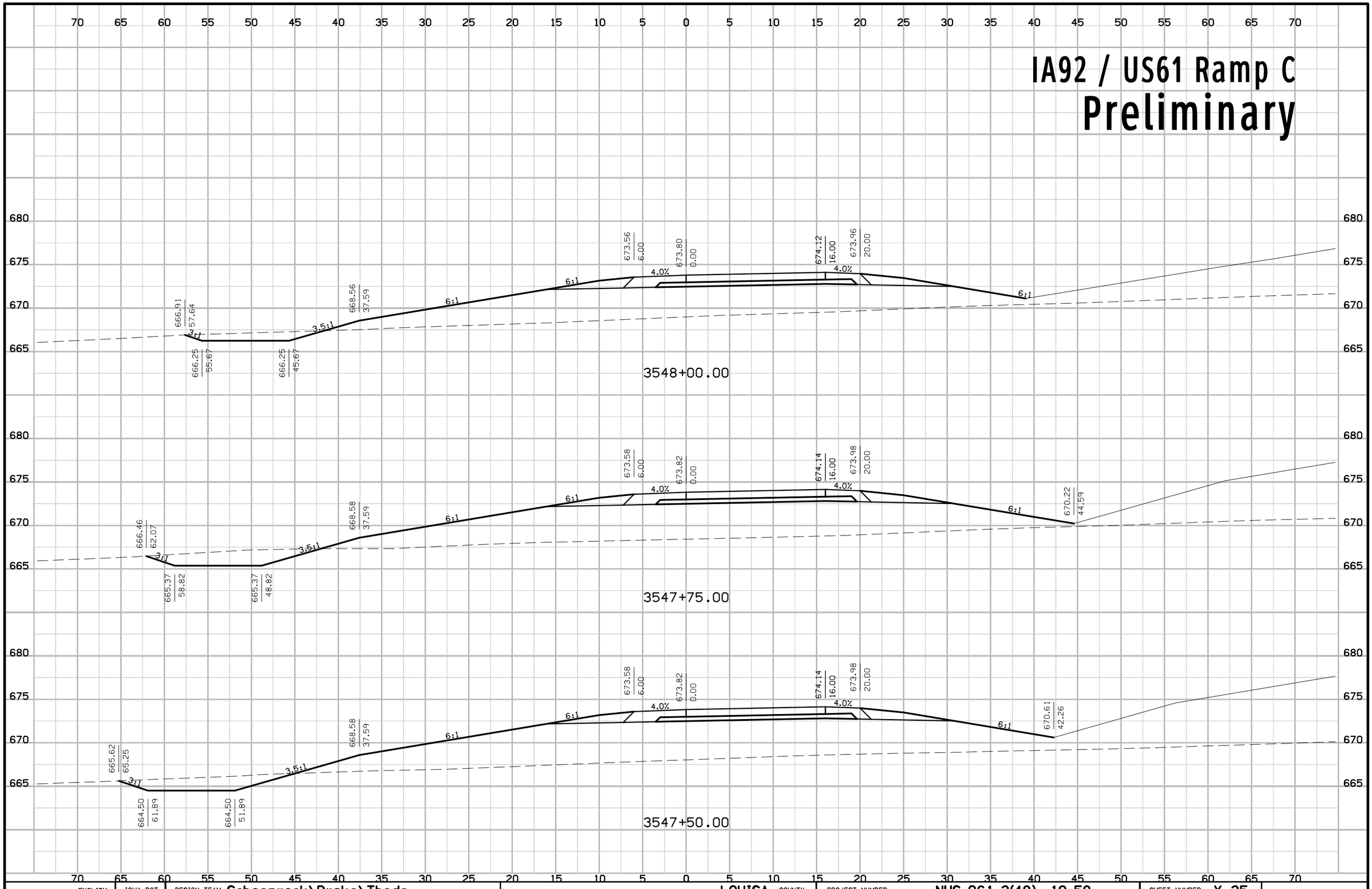

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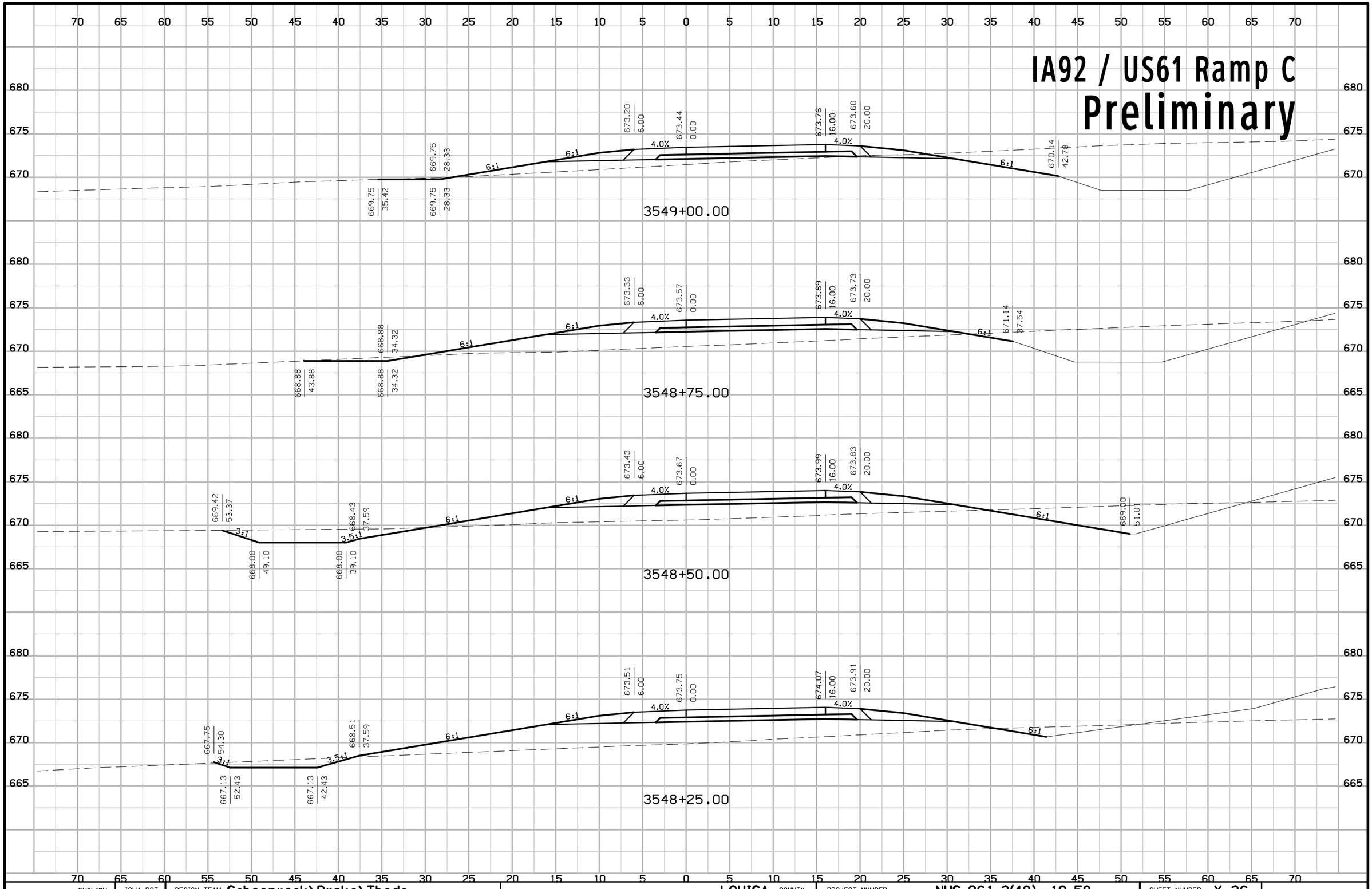
IA92 / US61 Ramp C

Preliminary



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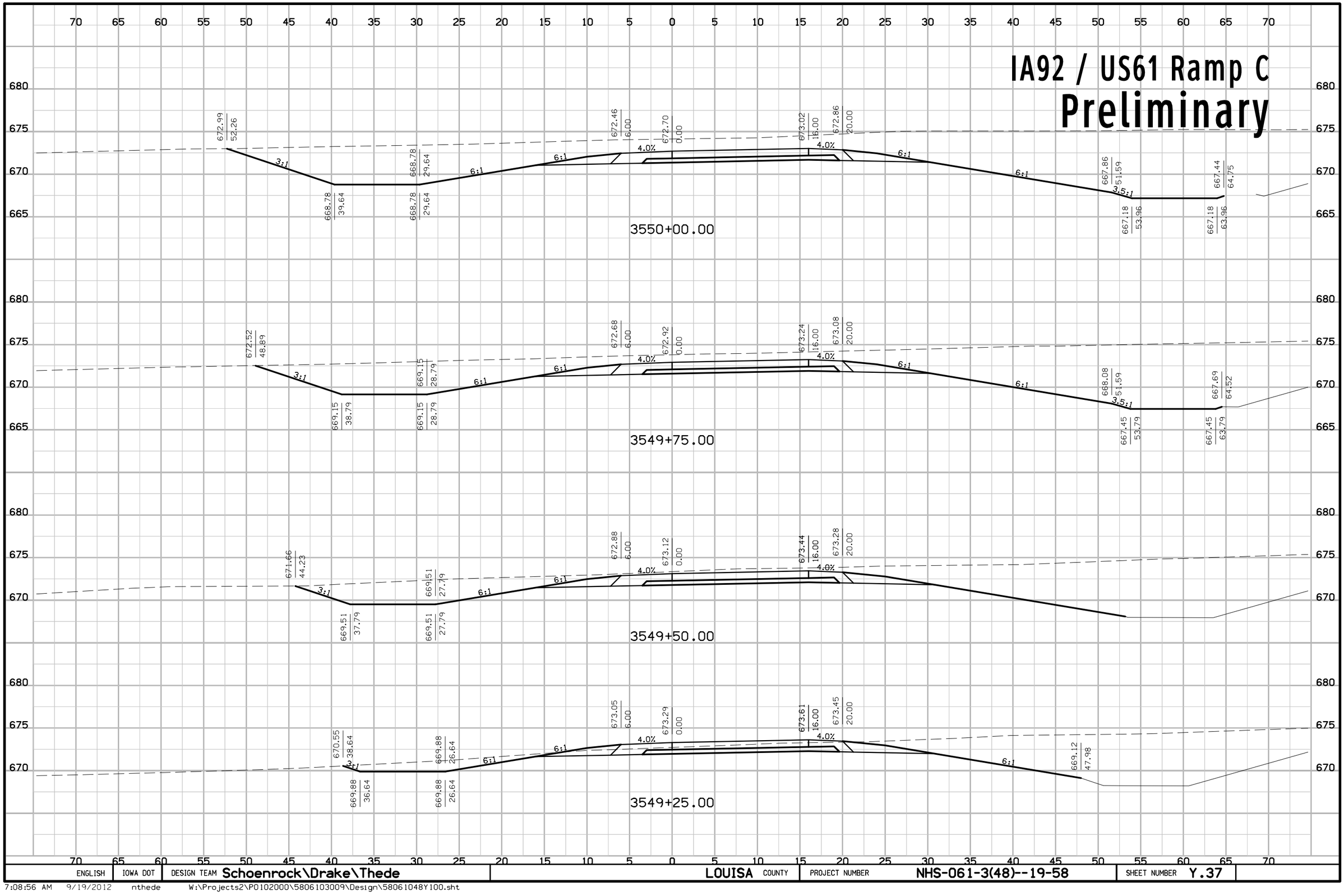
IA92 / US61 Ramp C

Preliminary



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IA92 / US61 Ramp C

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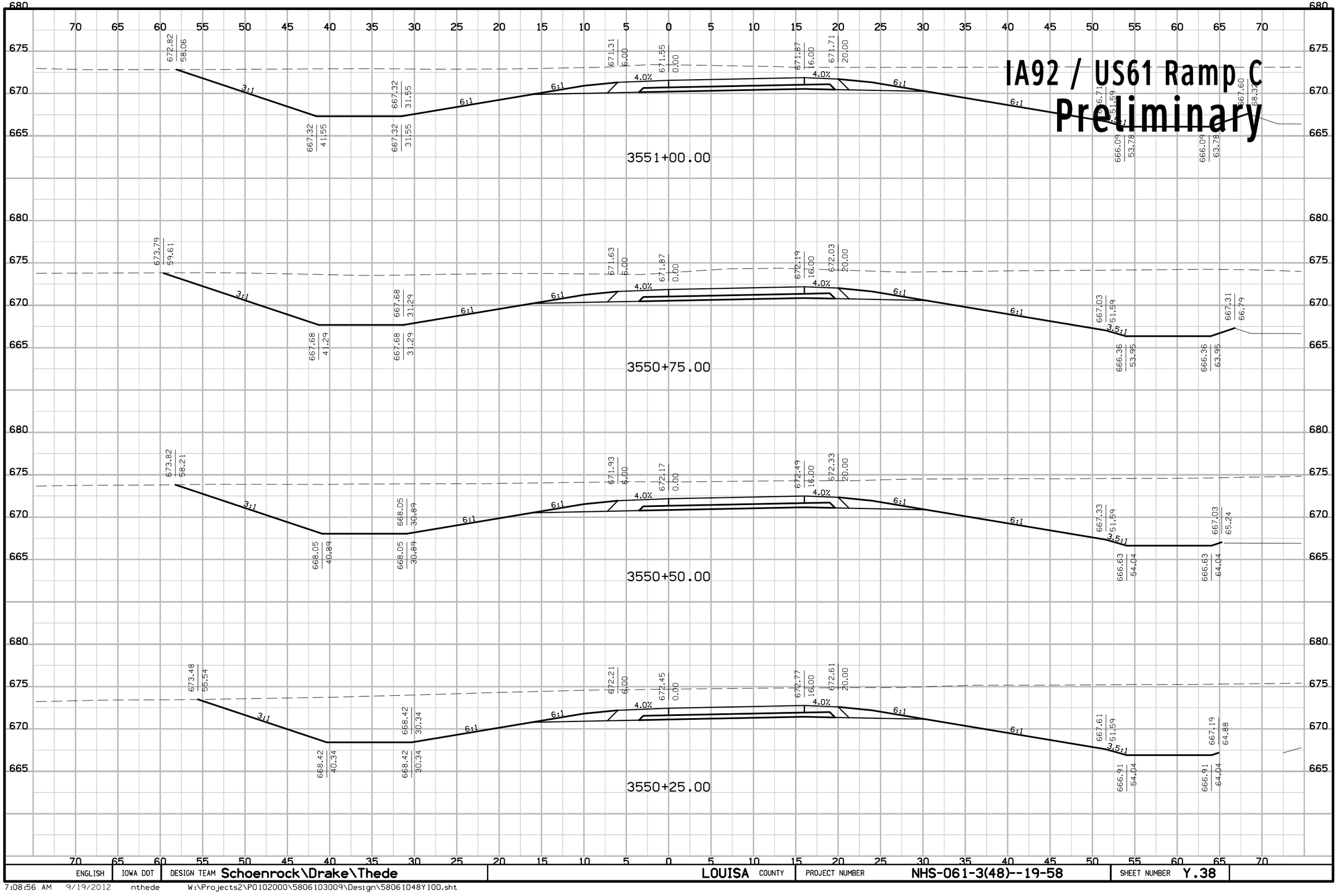

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IA92 / US61 Ramp C

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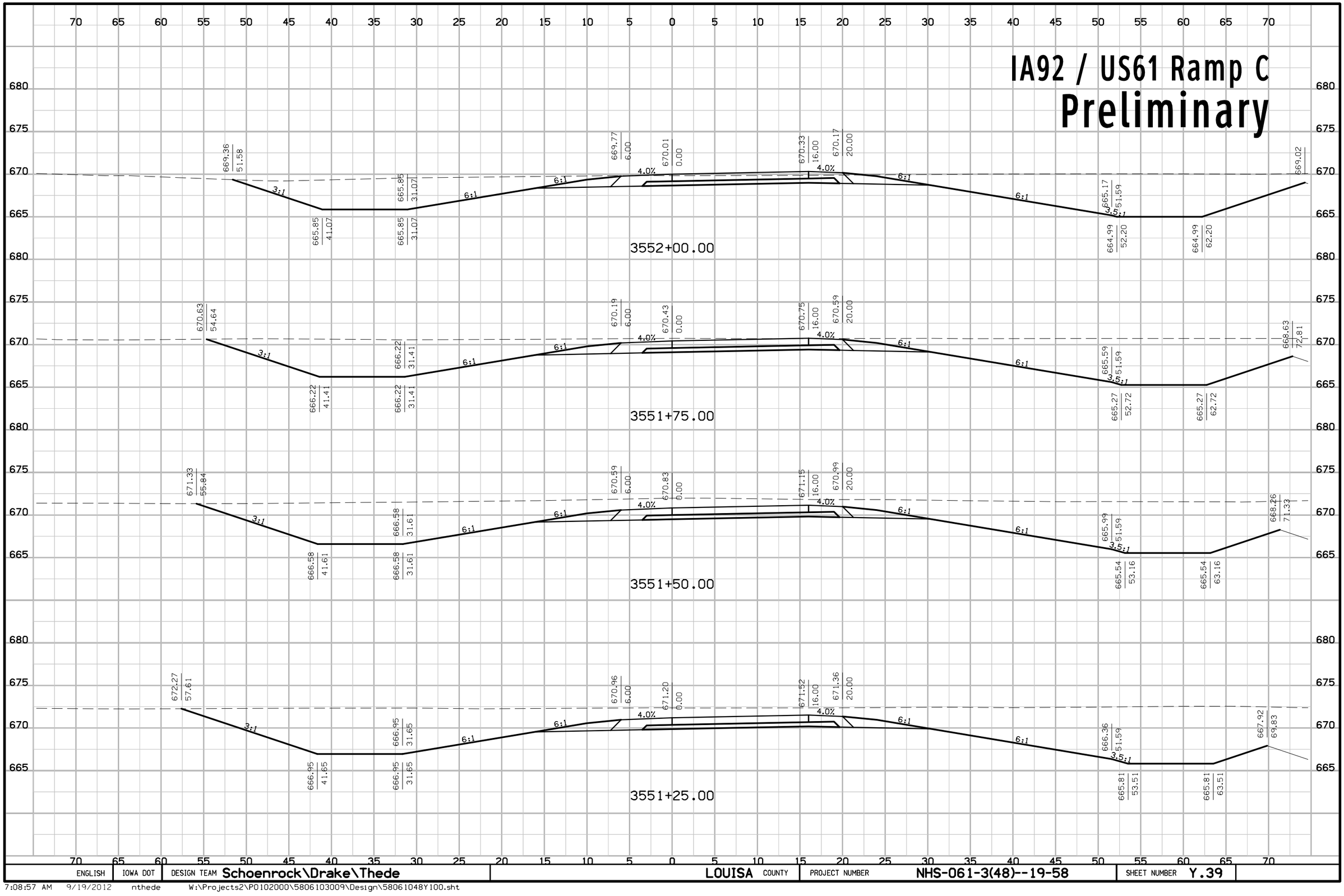

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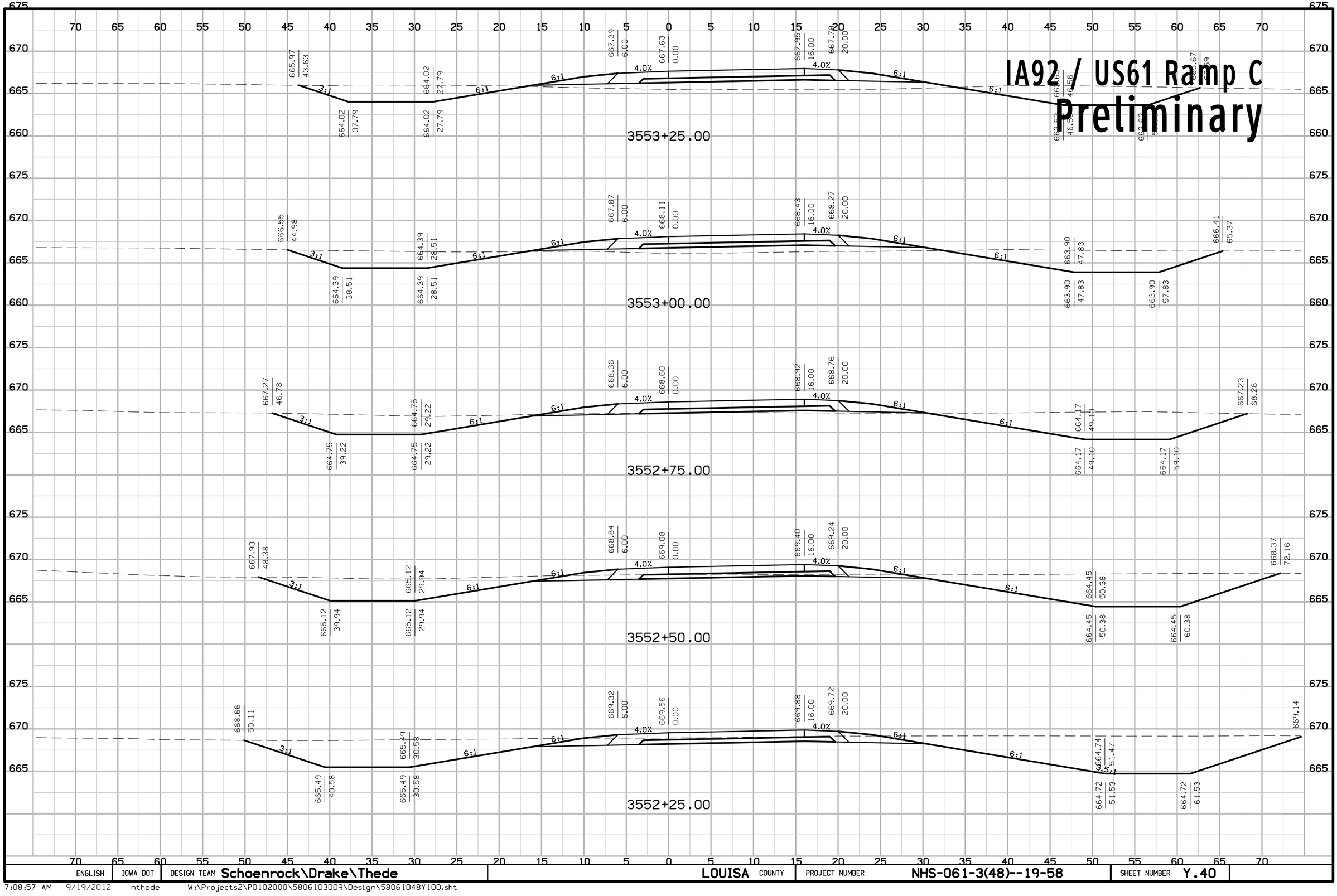
IA92 / US61 Ramp C

Preliminary



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IA92 / US61 Ramp C

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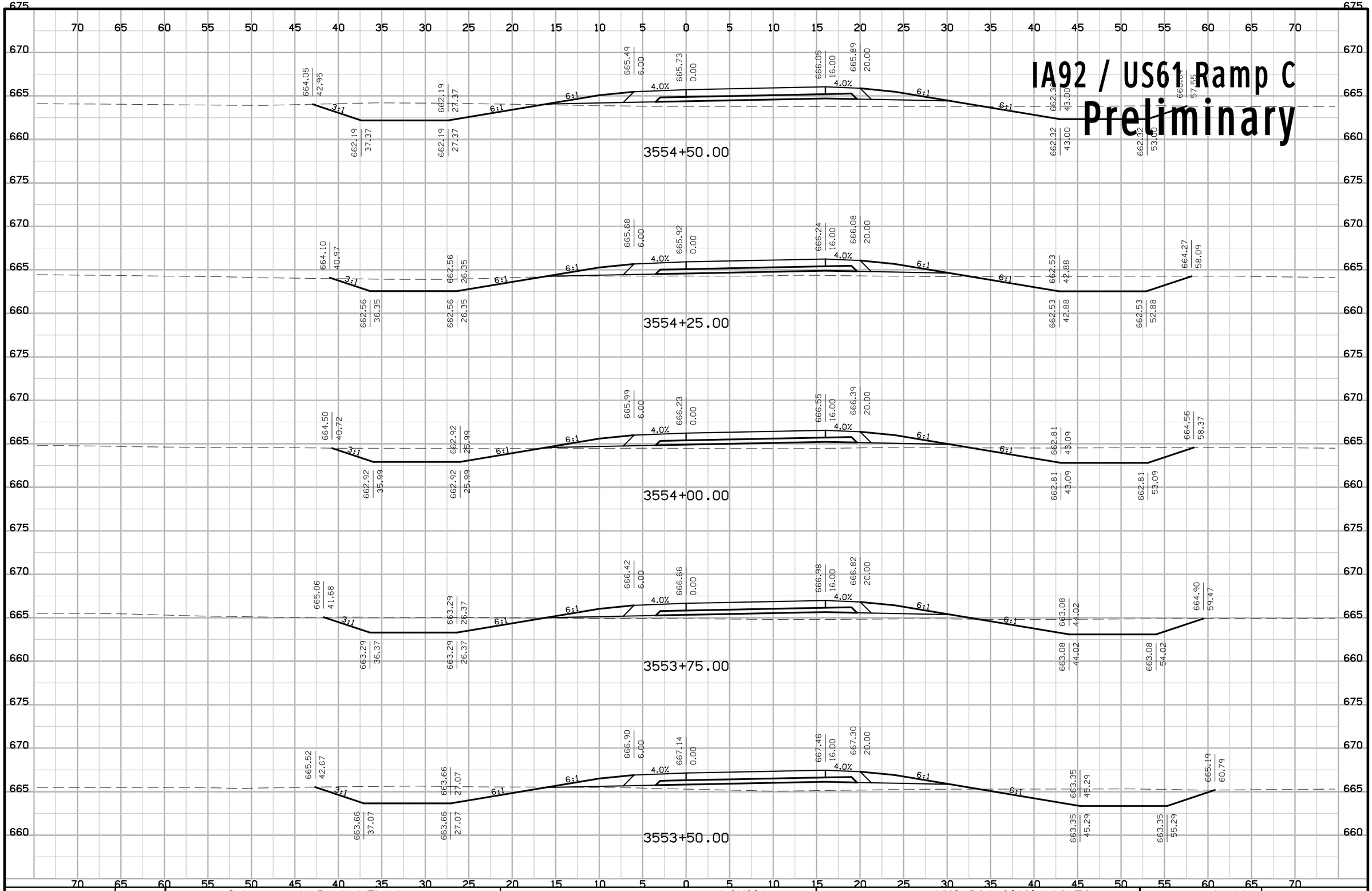

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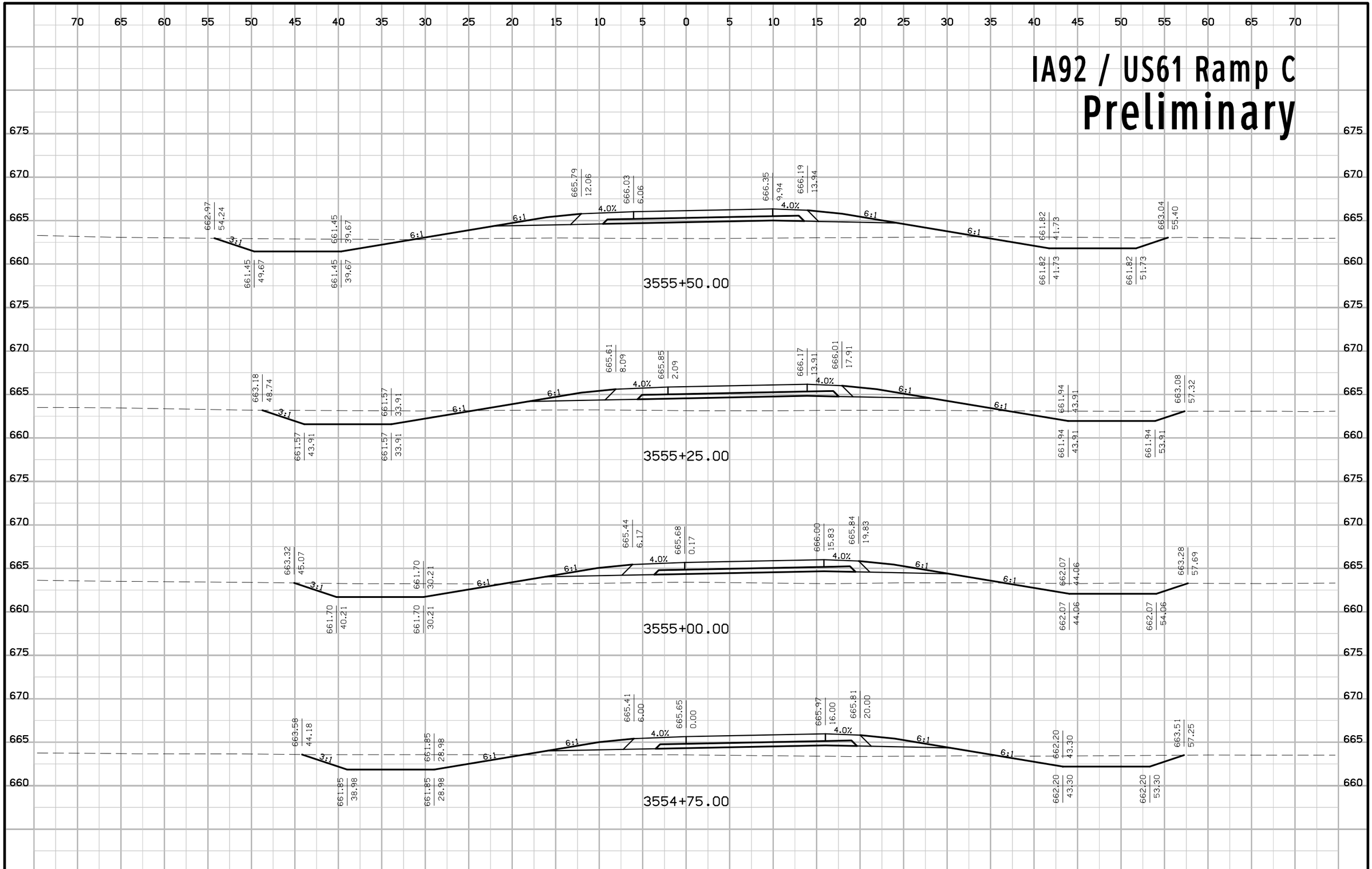

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IA92 / US61 Ramp C
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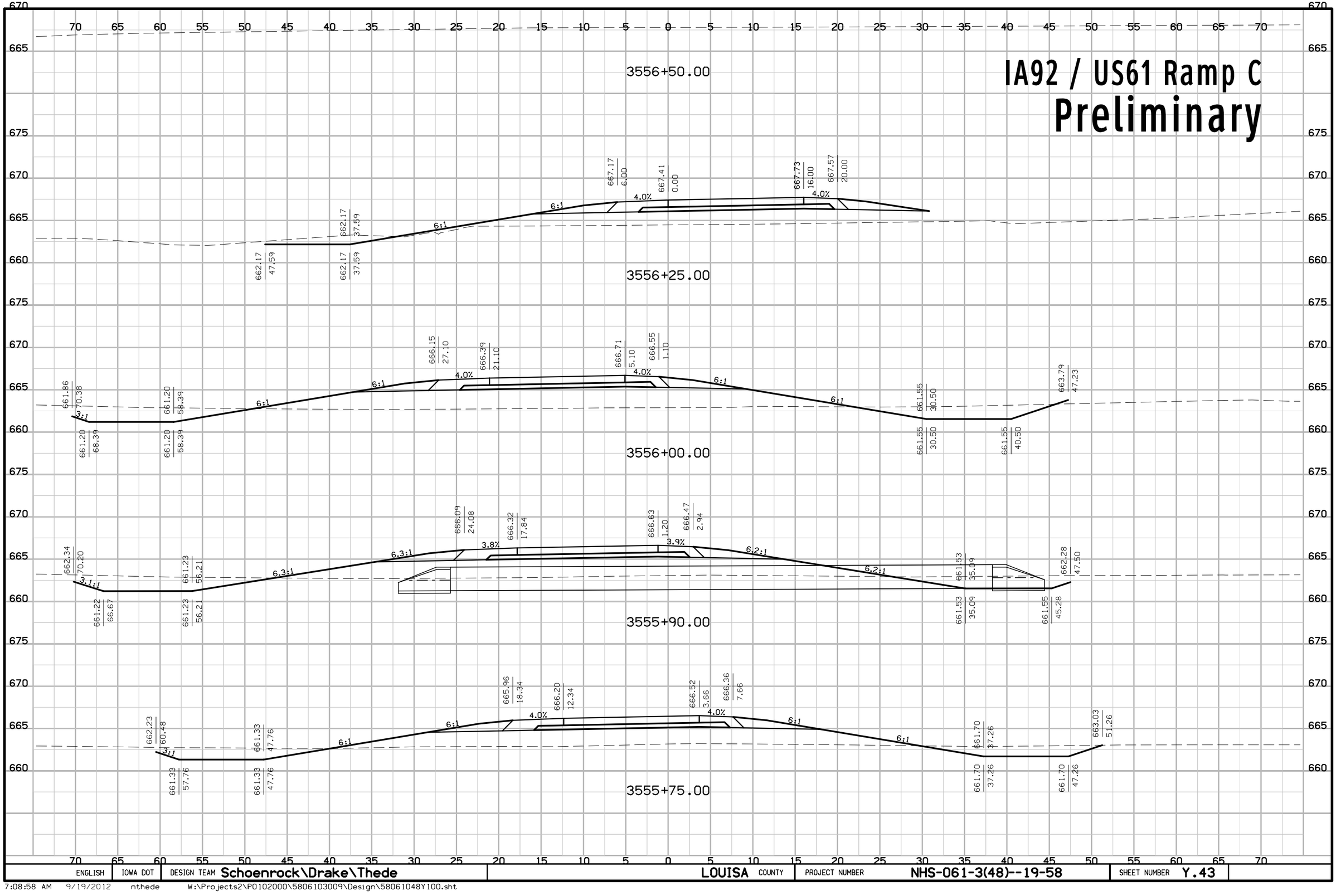

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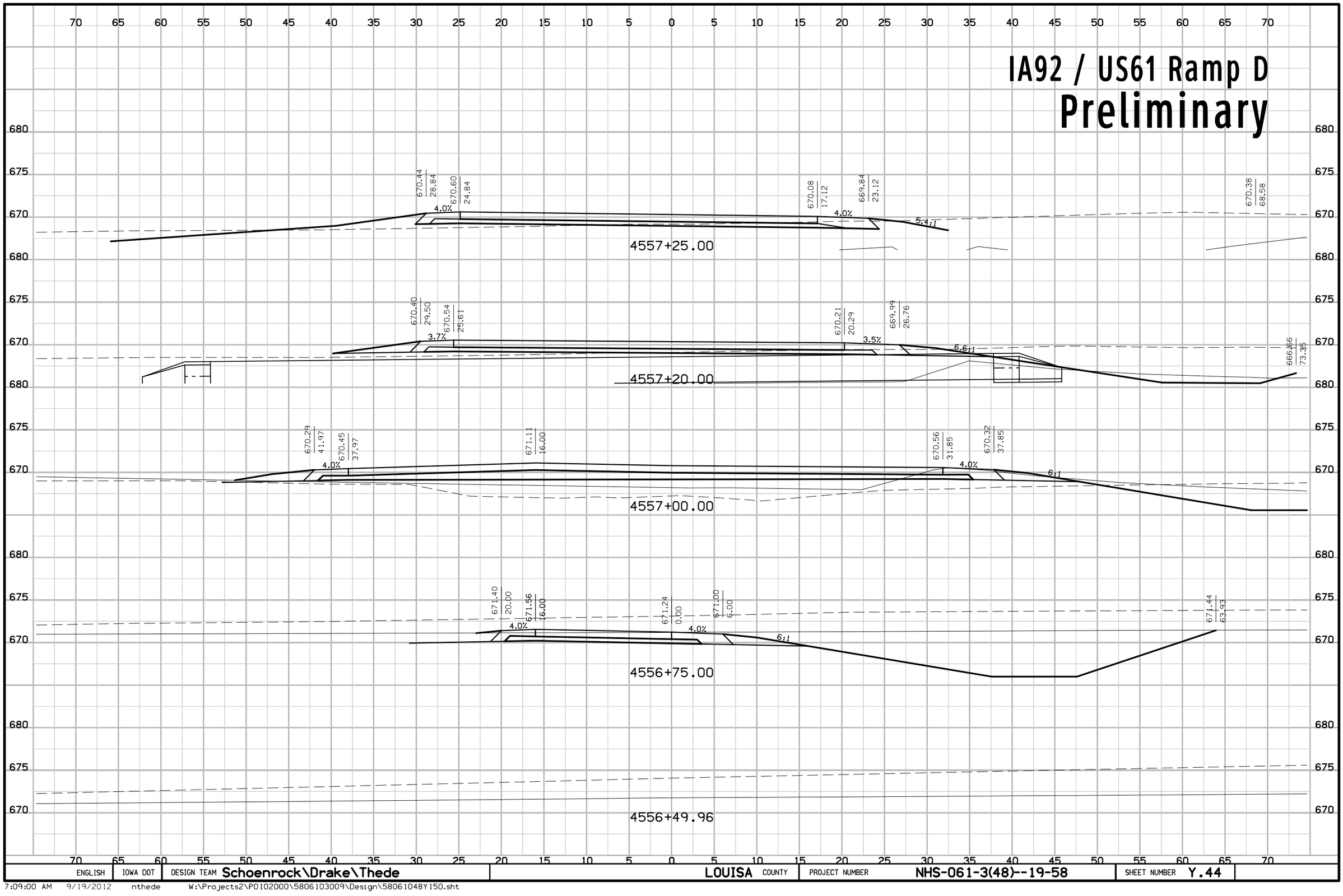
IA92 / US61 Ramp D

Preliminary



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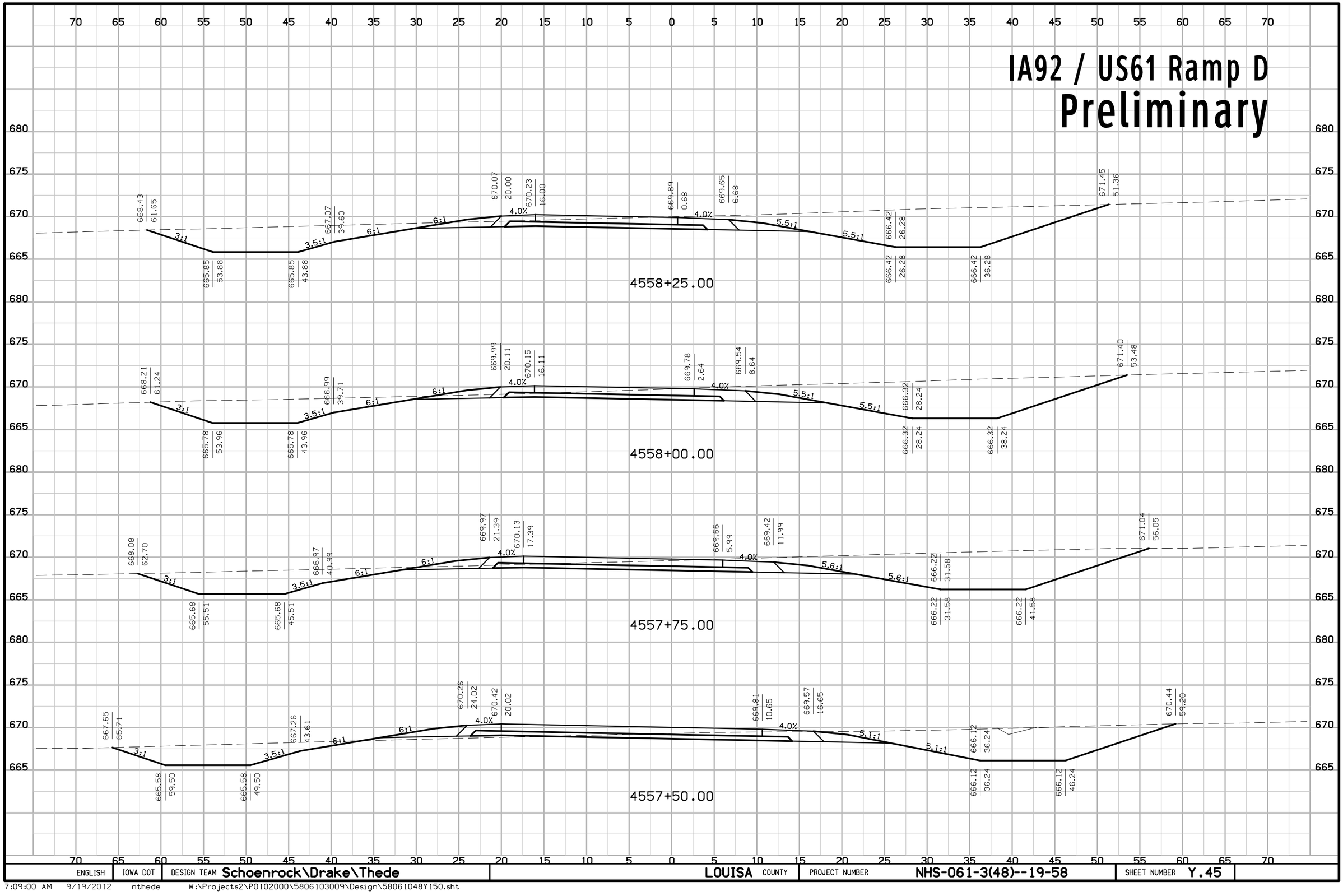

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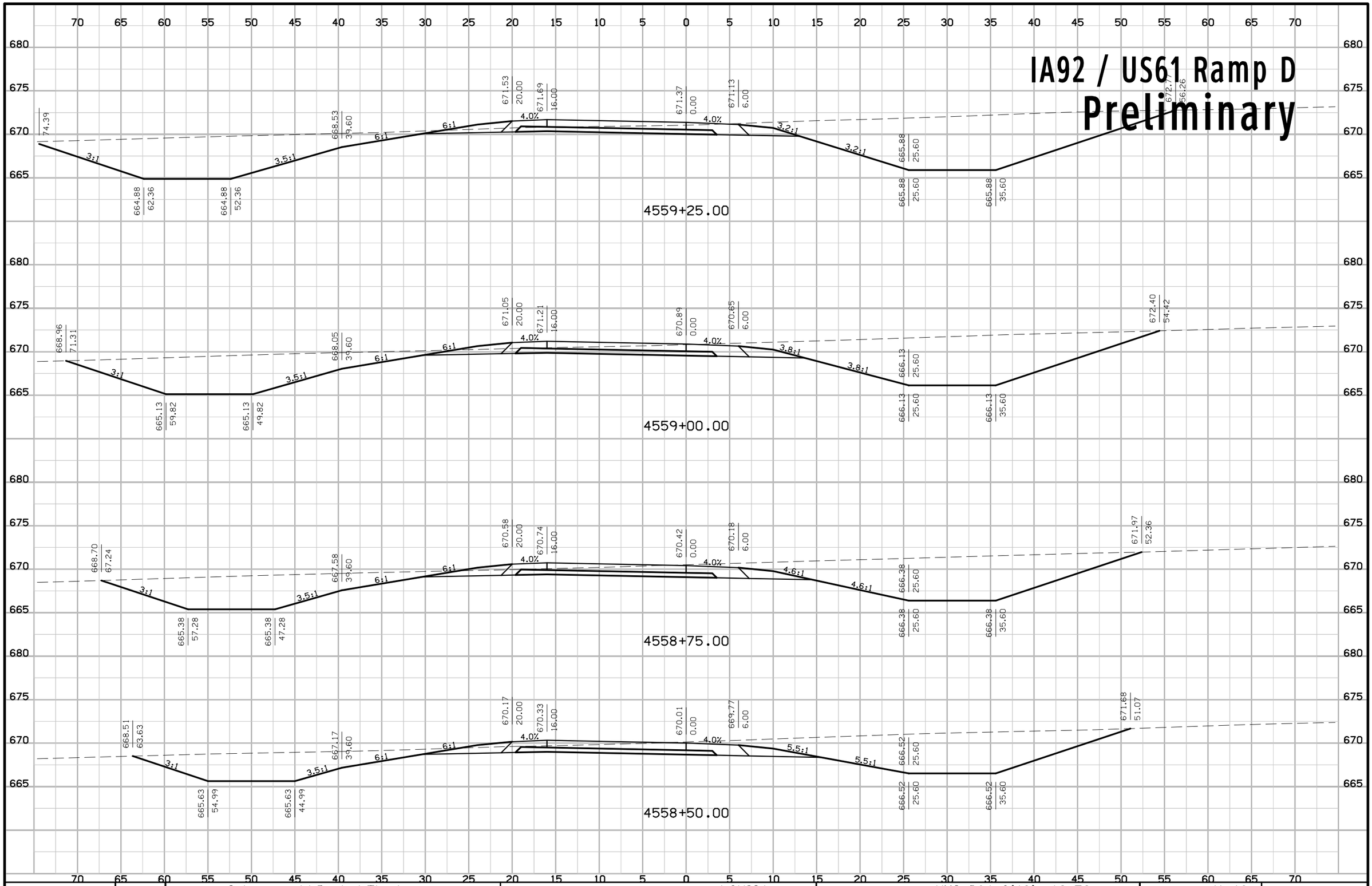

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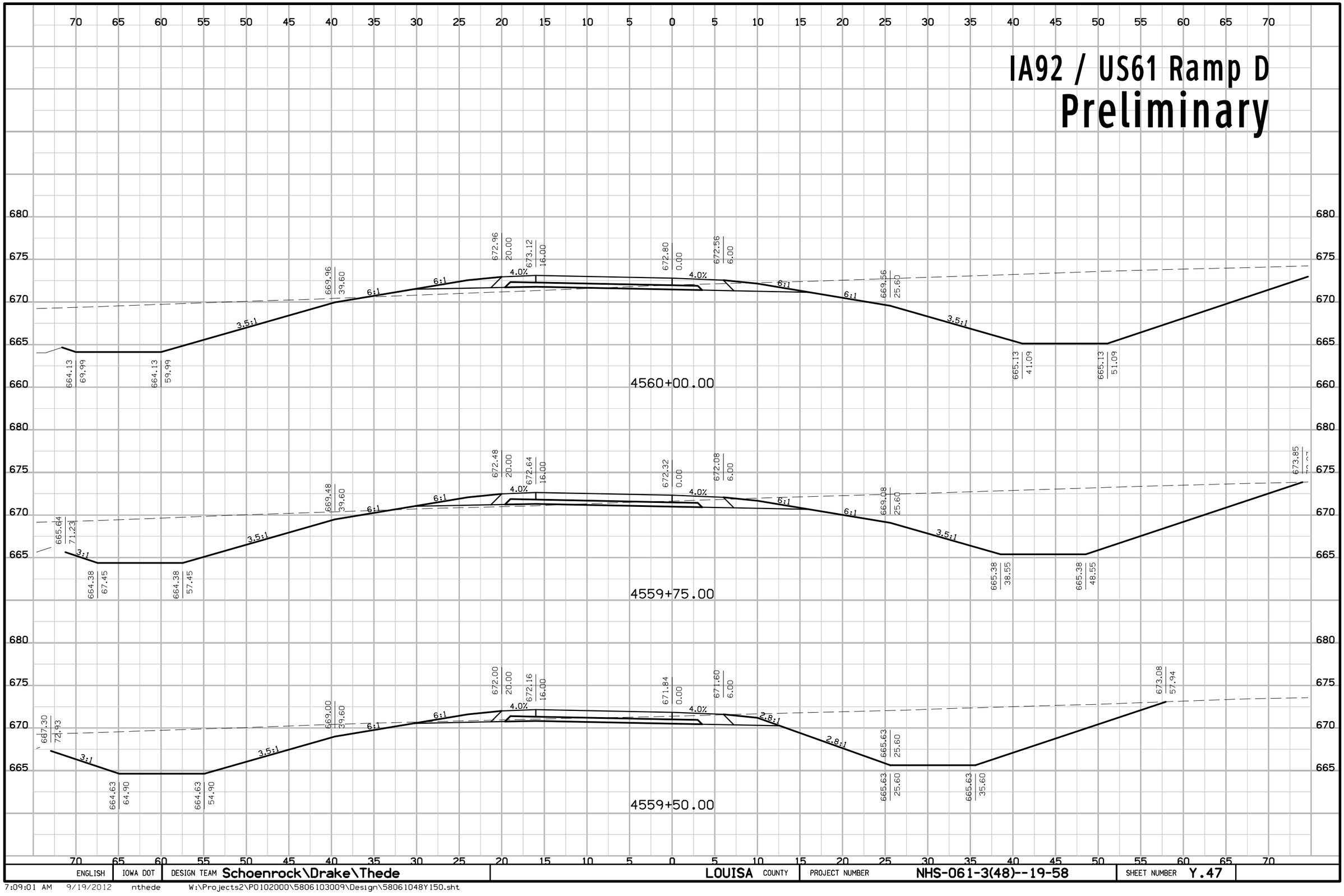
IA92 / US61 Ramp D

Preliminary



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IA92 / US61 Ramp D

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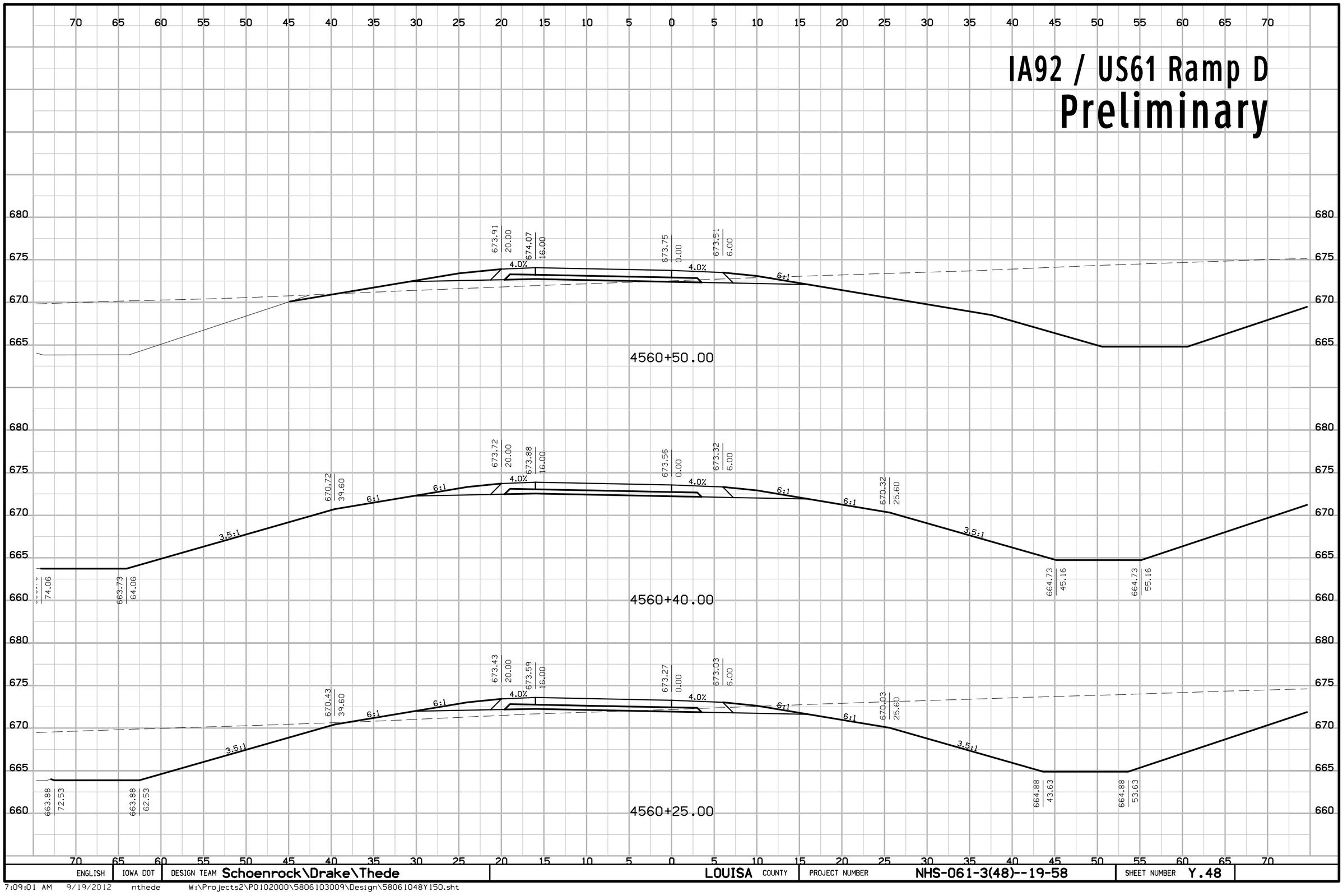

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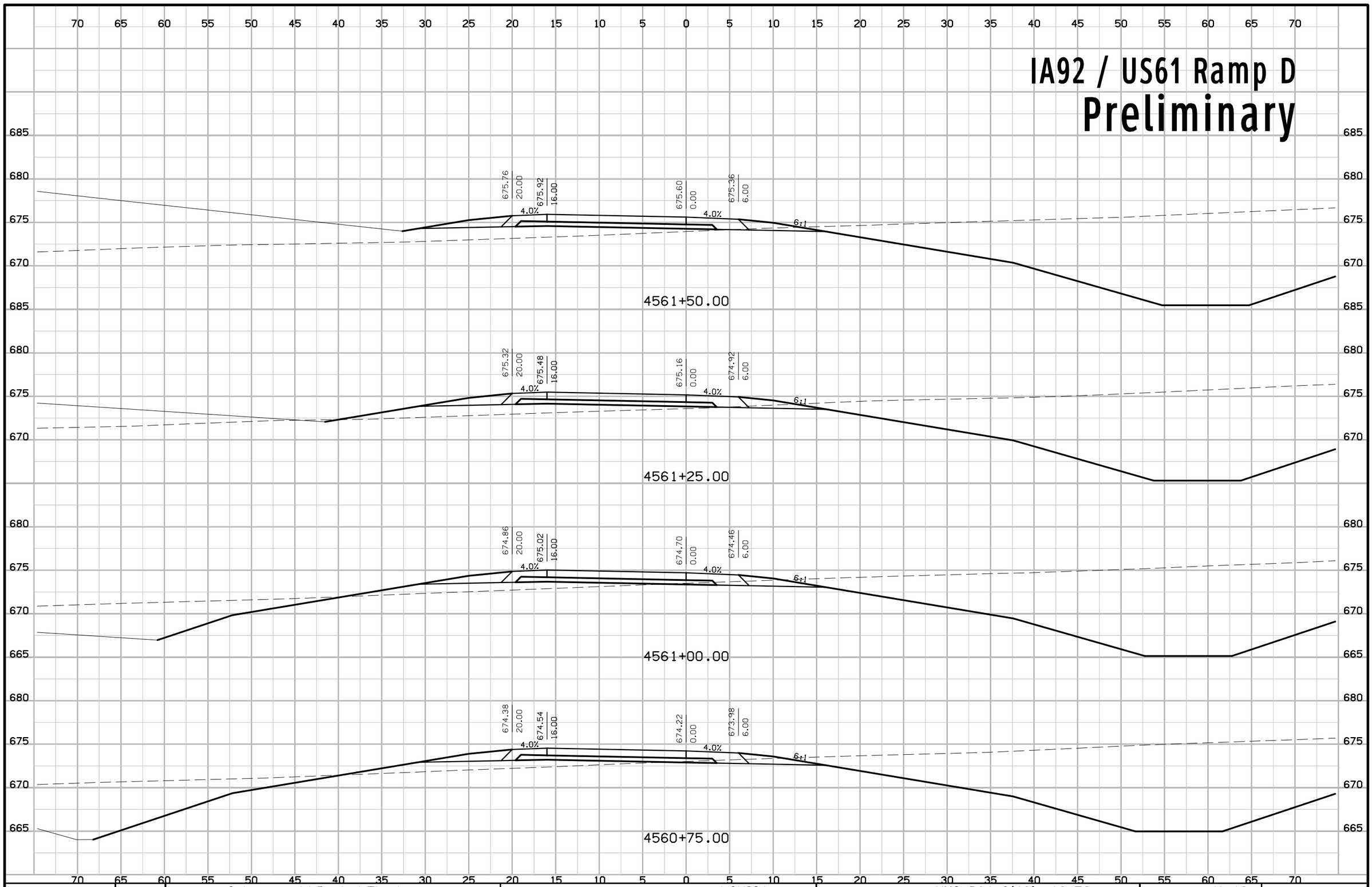

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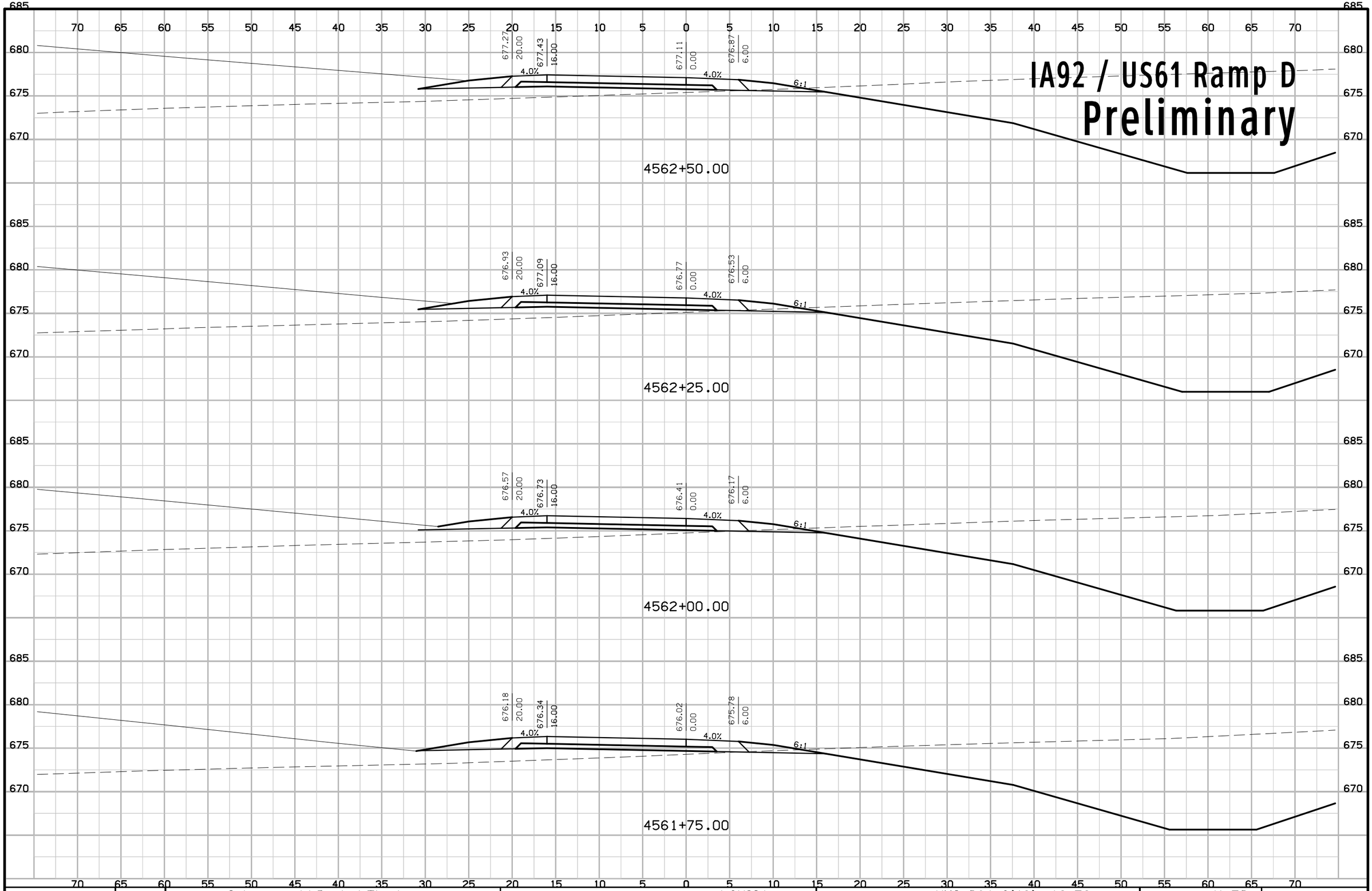
IA92 / US61 Ramp D

Preliminary



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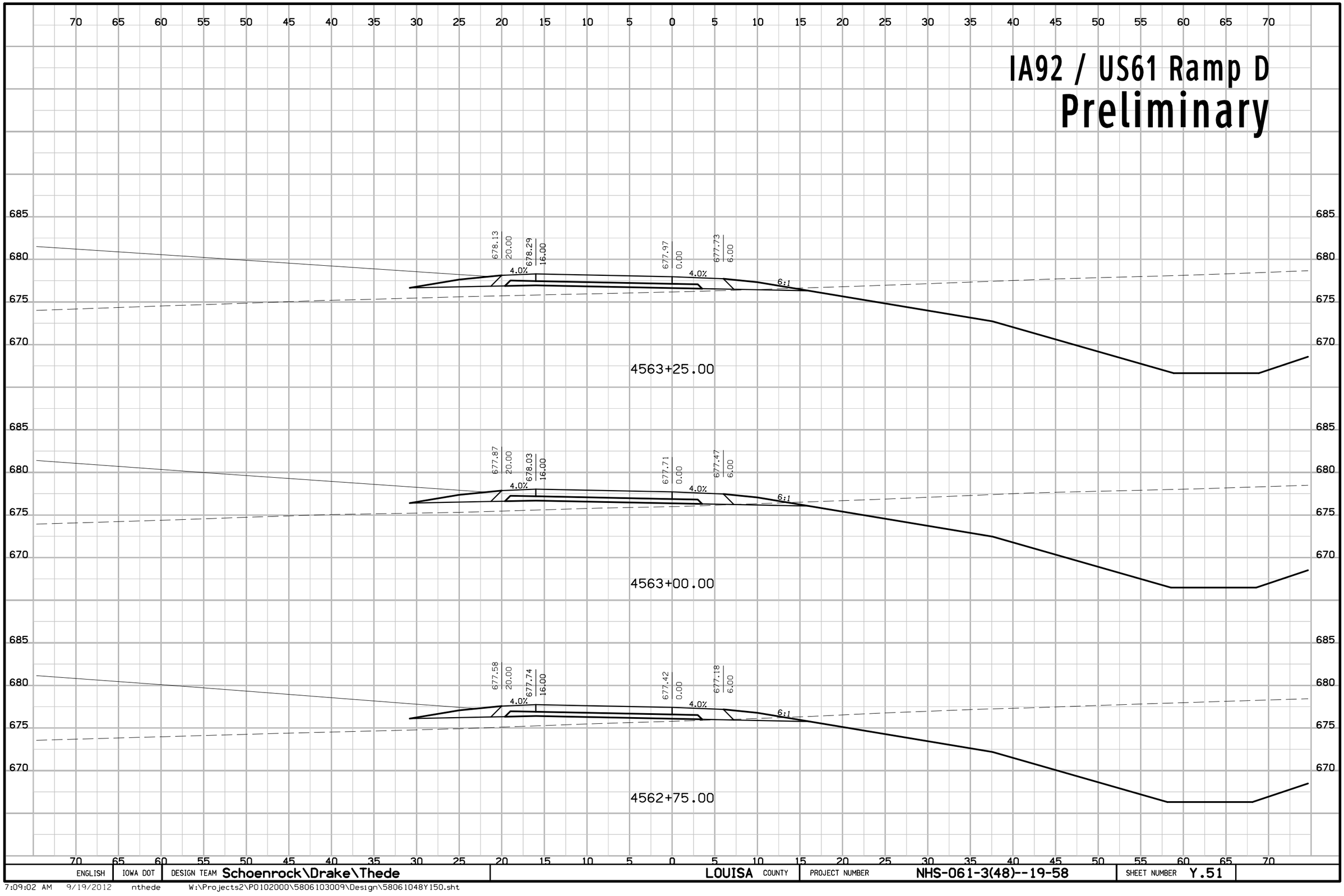
IA92 / US61 Ramp D

Preliminary



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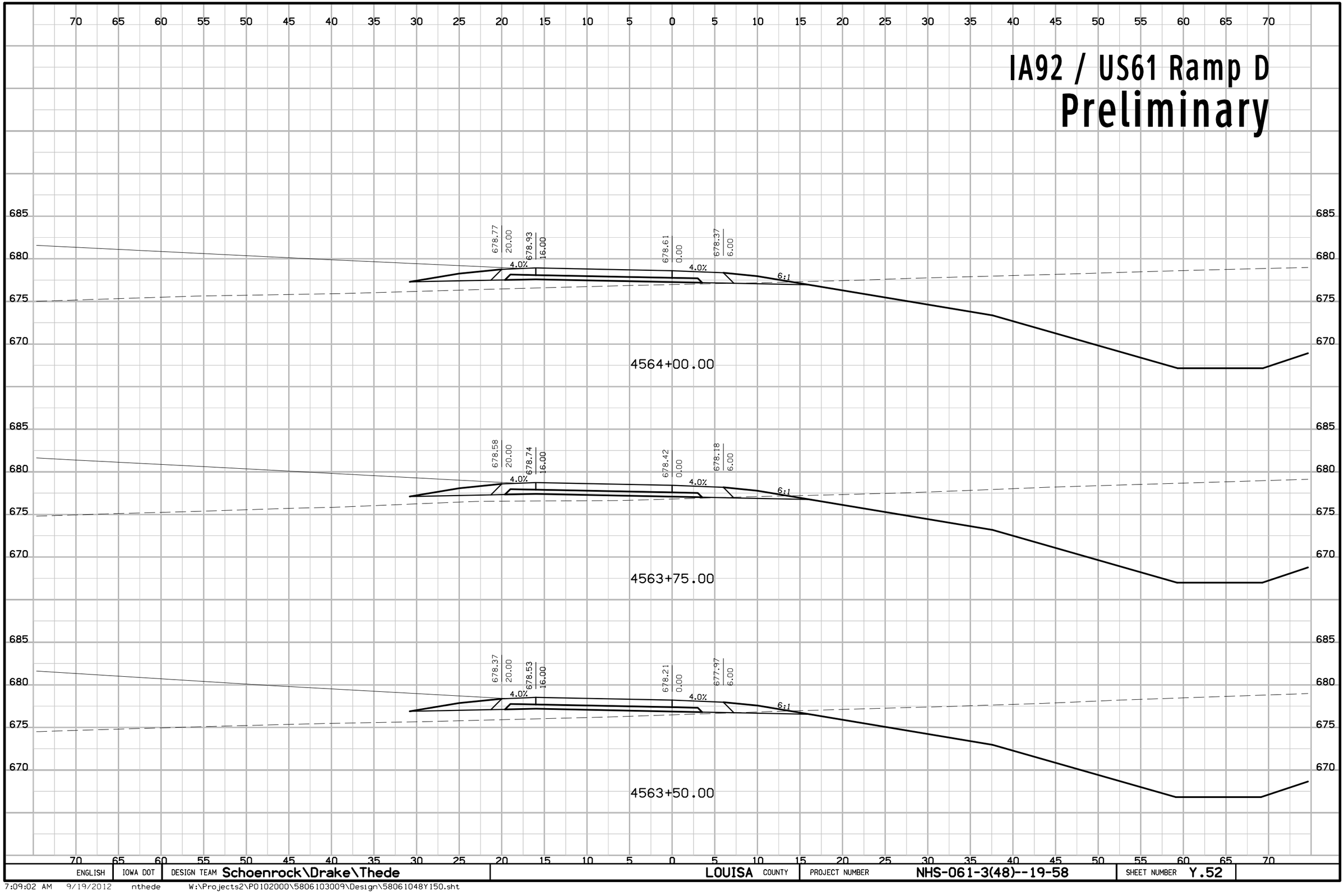
IA92 / US61 Ramp D

Preliminary



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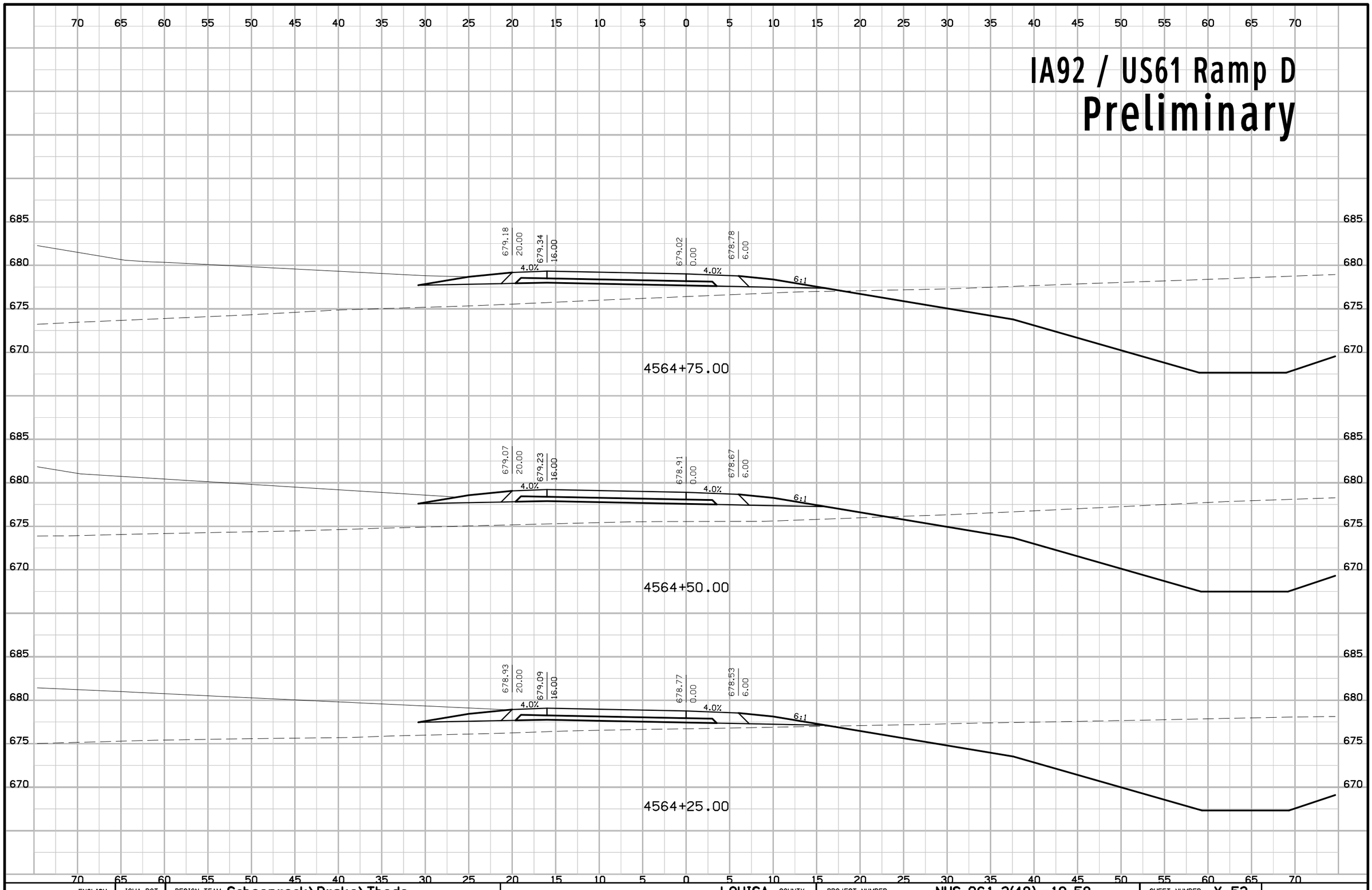
IA92 / US61 Ramp D

Preliminary



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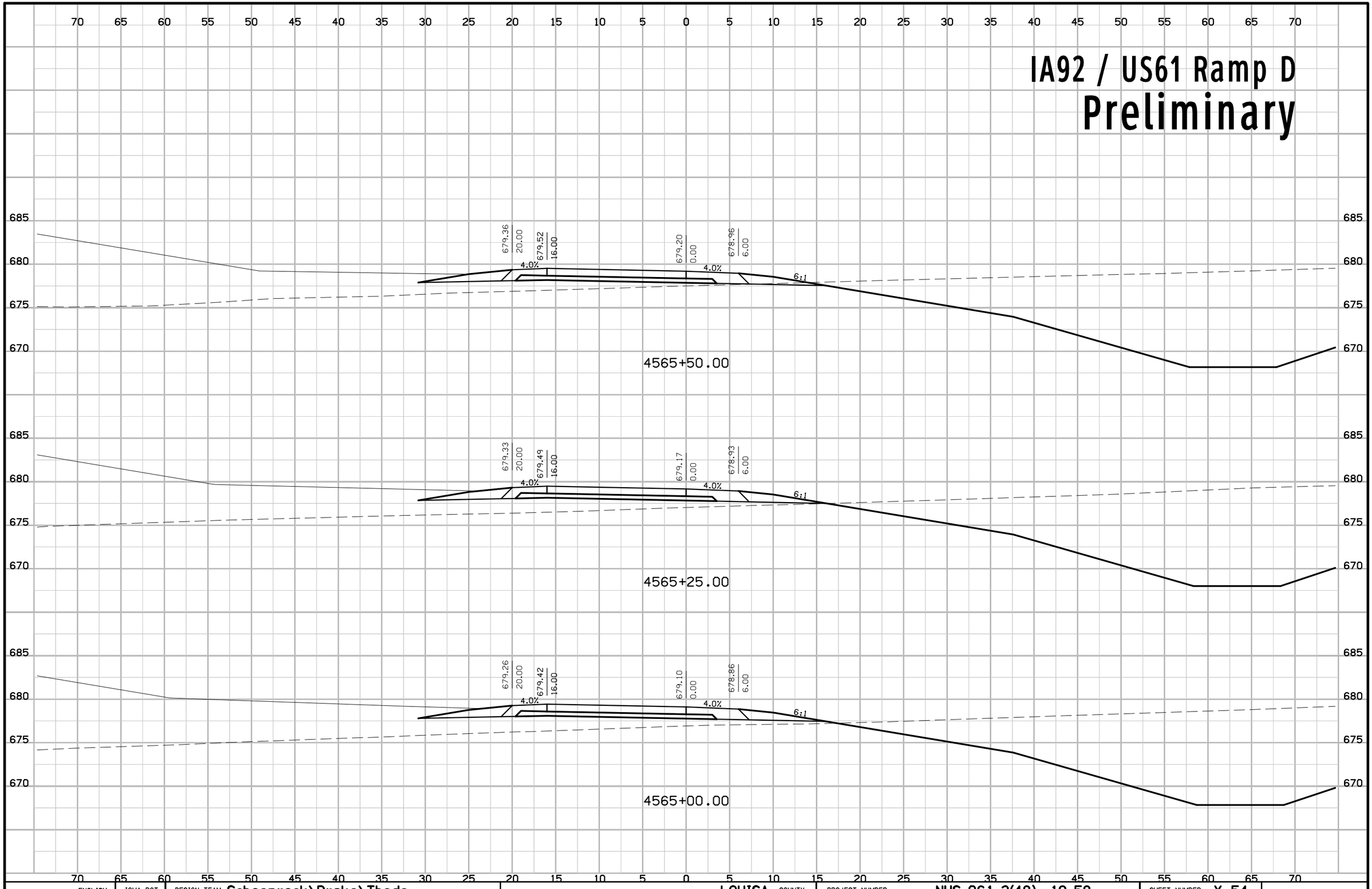
IA92 / US61 Ramp D

Preliminary



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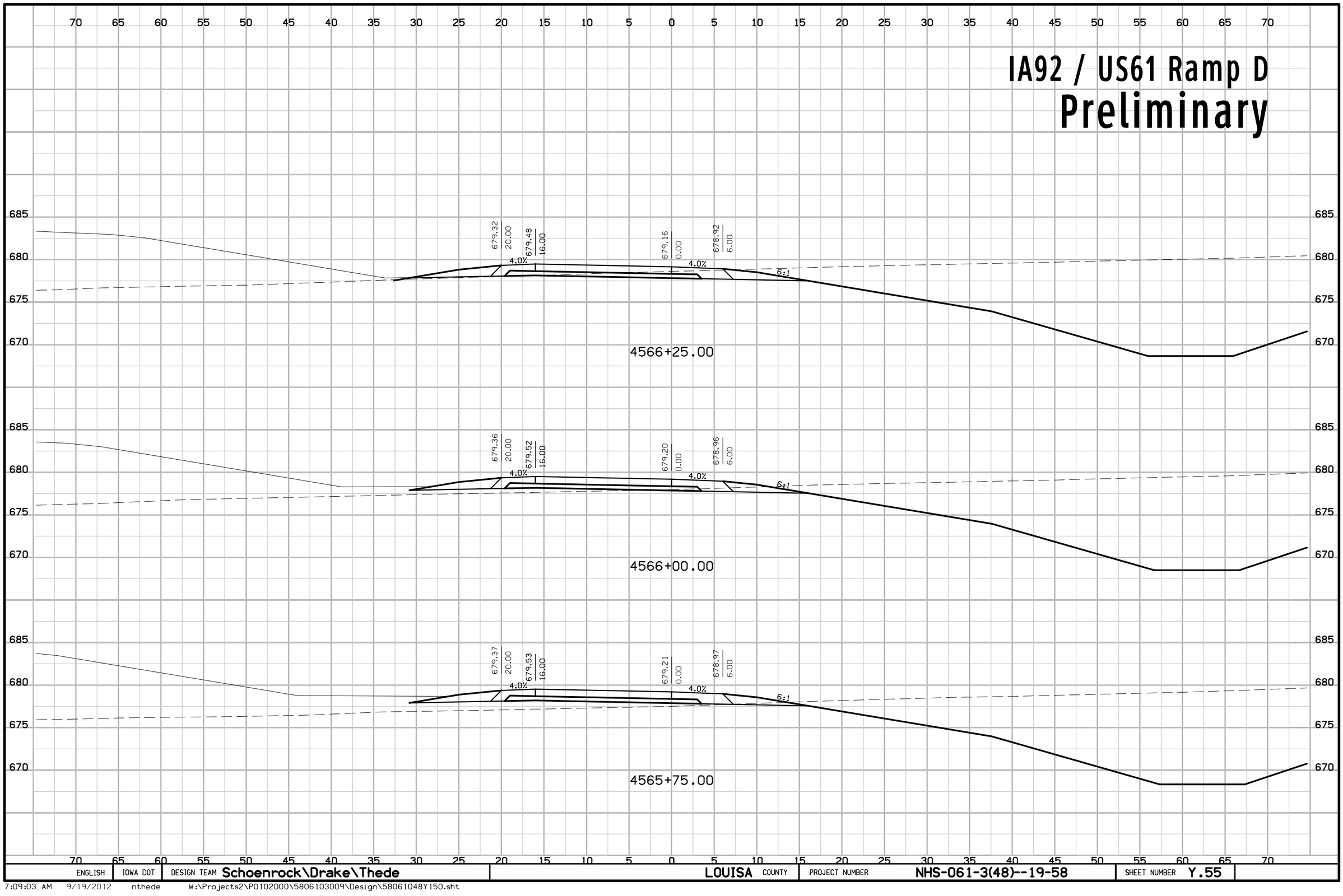
IA92 / US61 Ramp D

Preliminary



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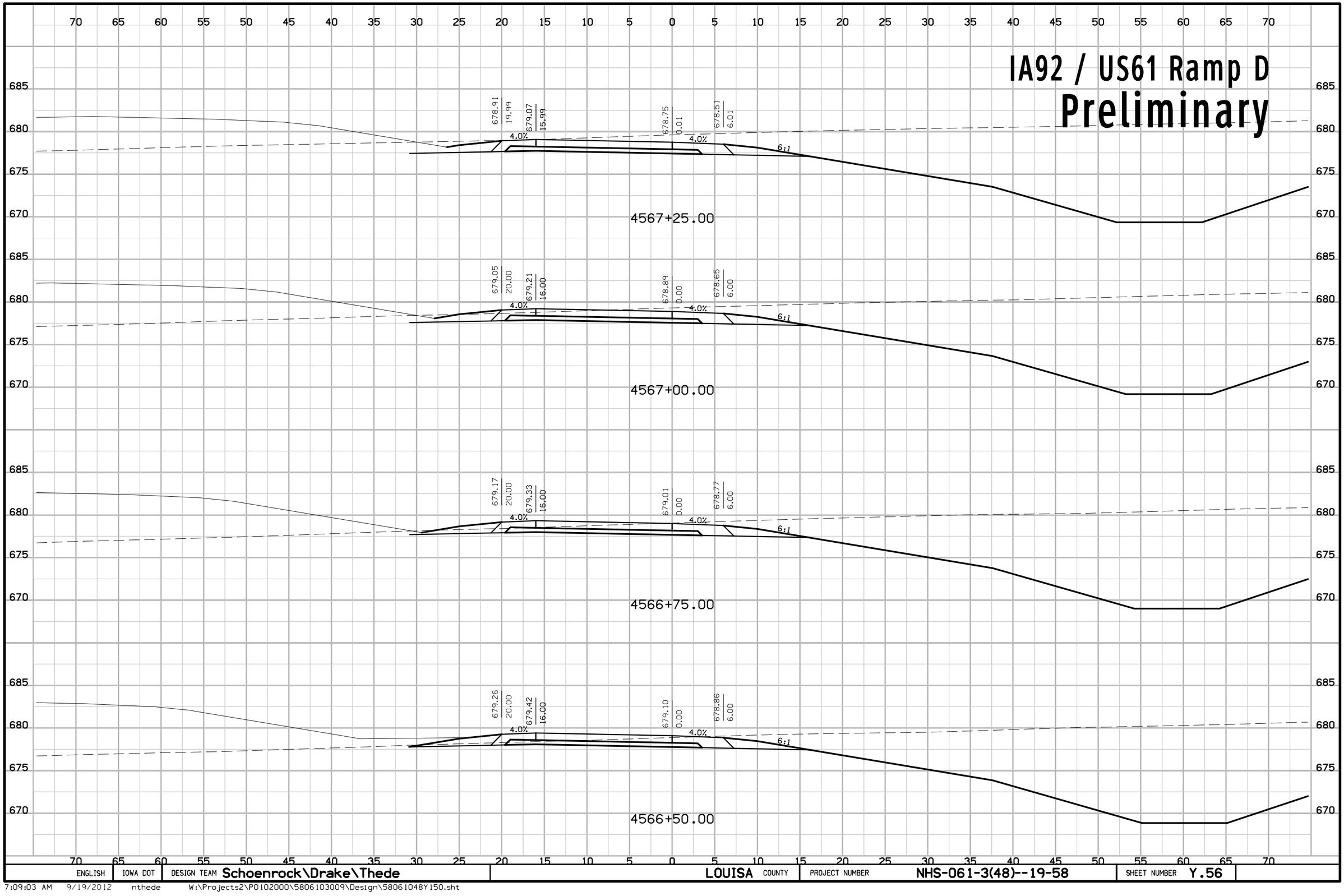
IA92 / US61 Ramp D

Preliminary



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IA92 / US61 Ramp D

Preliminary

4568+50.00

678.34 | 20.00 | 678.50 | 16.00 | 4.0% | 678.18 | 0.00 | 4.0% | 677.94 | 6.00 | 6:1

4568+25.00

4568+00.00

678.56 | 19.99 | 678.72 | 15.99 | 4.0% | 678.40 | 0.01 | 4.0% | 678.16 | 6.01 | 6:1

4567+75.00

678.75 | 20.00 | 678.91 | 16.00 | 4.0% | 678.59 | 0.00 | 4.0% | 678.35 | 6.00 | 6:1

4567+50.00

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER Y.57

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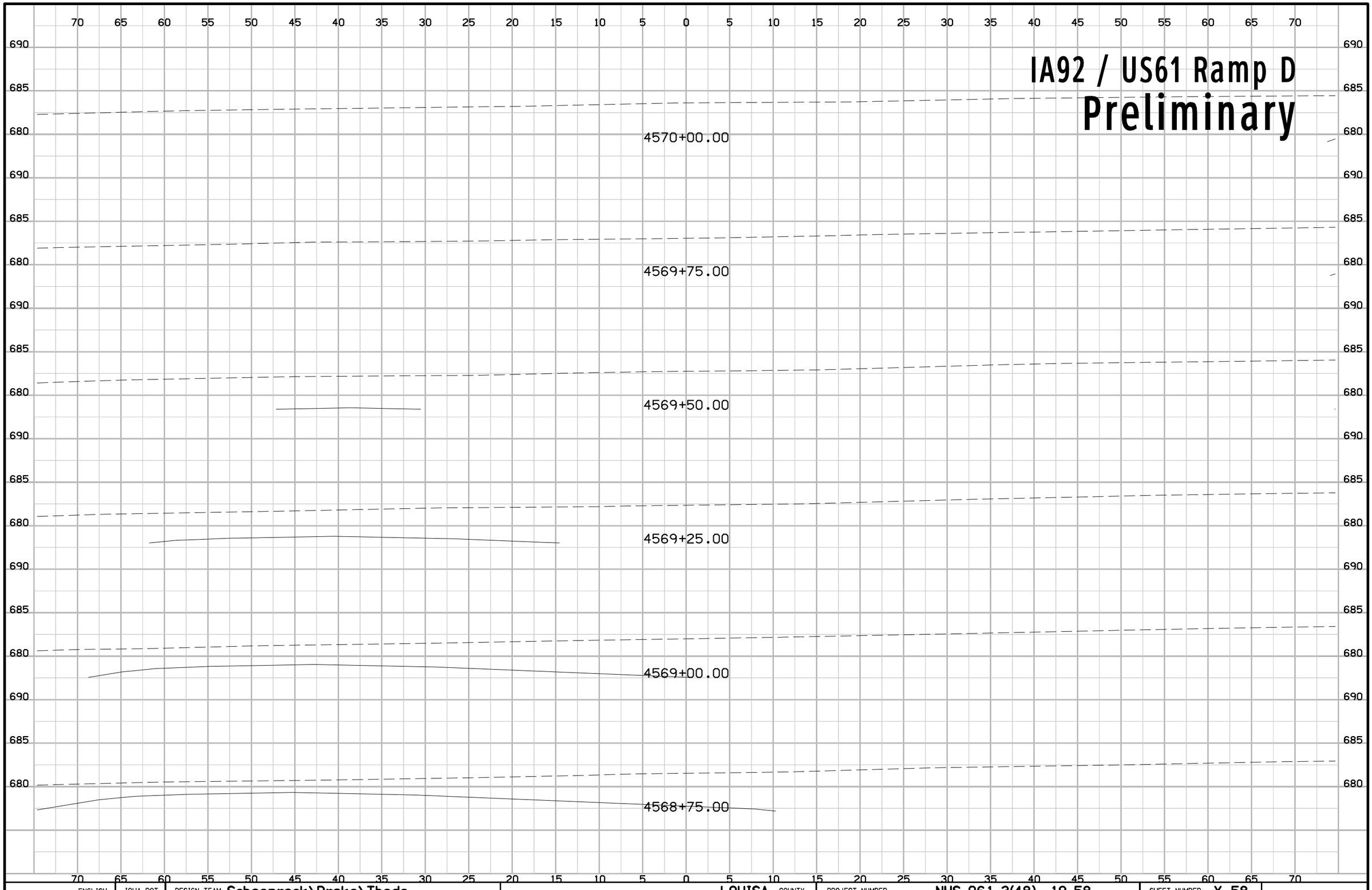
IA92 / US61 Ramp D

Preliminary



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70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

IA92 / US61 Ramp D

Preliminary

690

685

680

4570+25.00

690

685

680

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER Y.59

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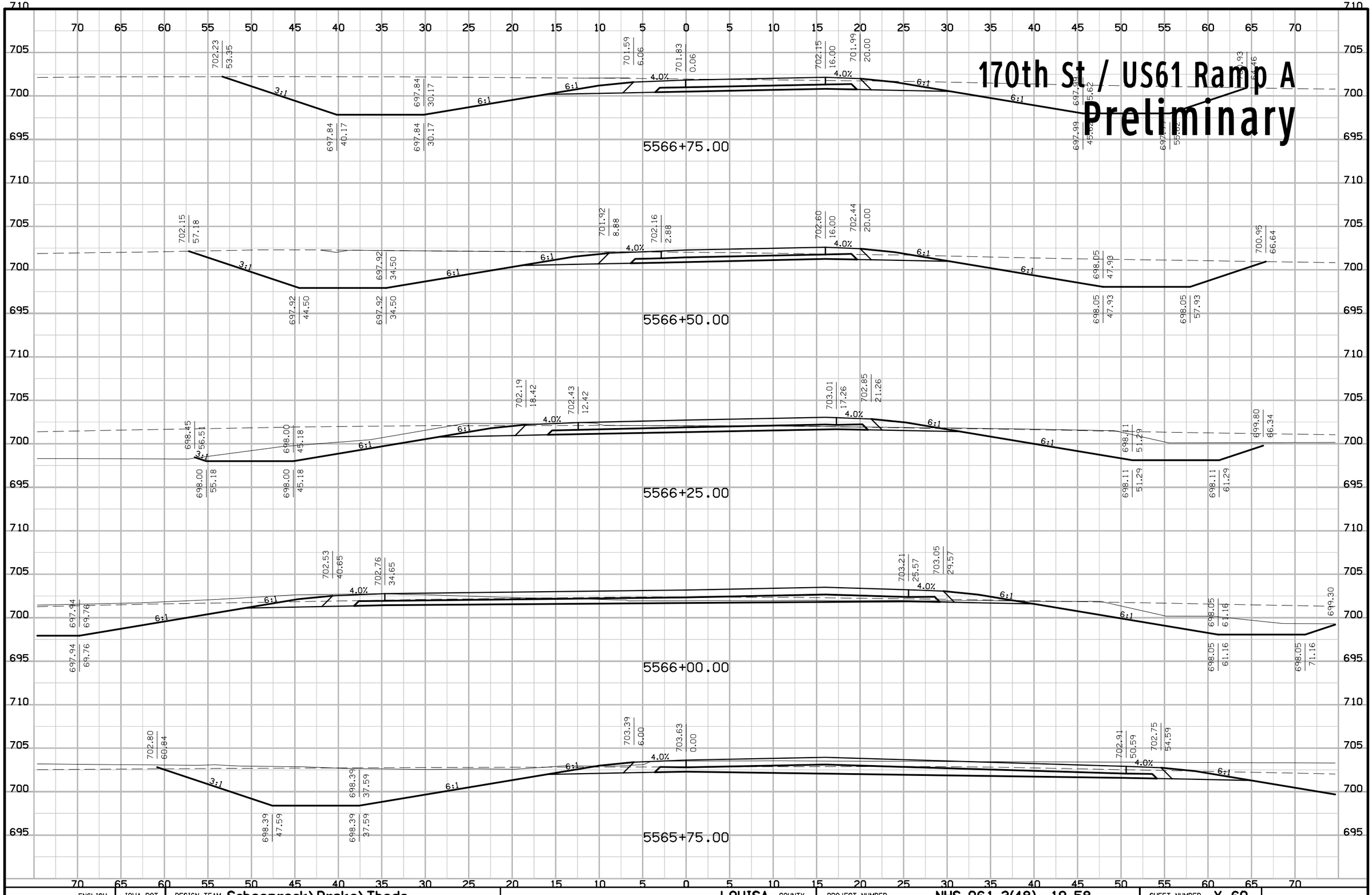
170th St / US61 Ramp A

Preliminary



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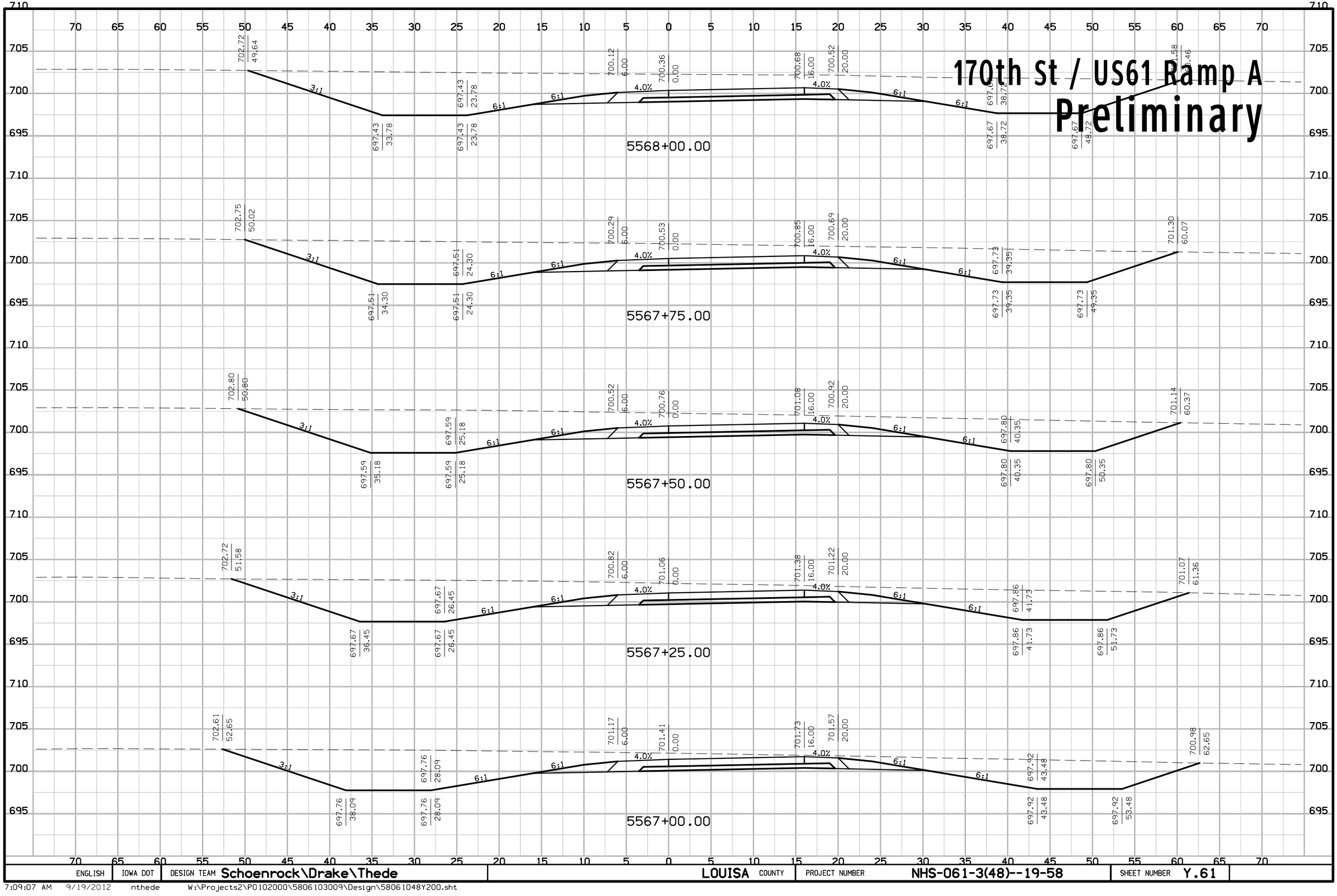
170th St / US61 Ramp A

Preliminary



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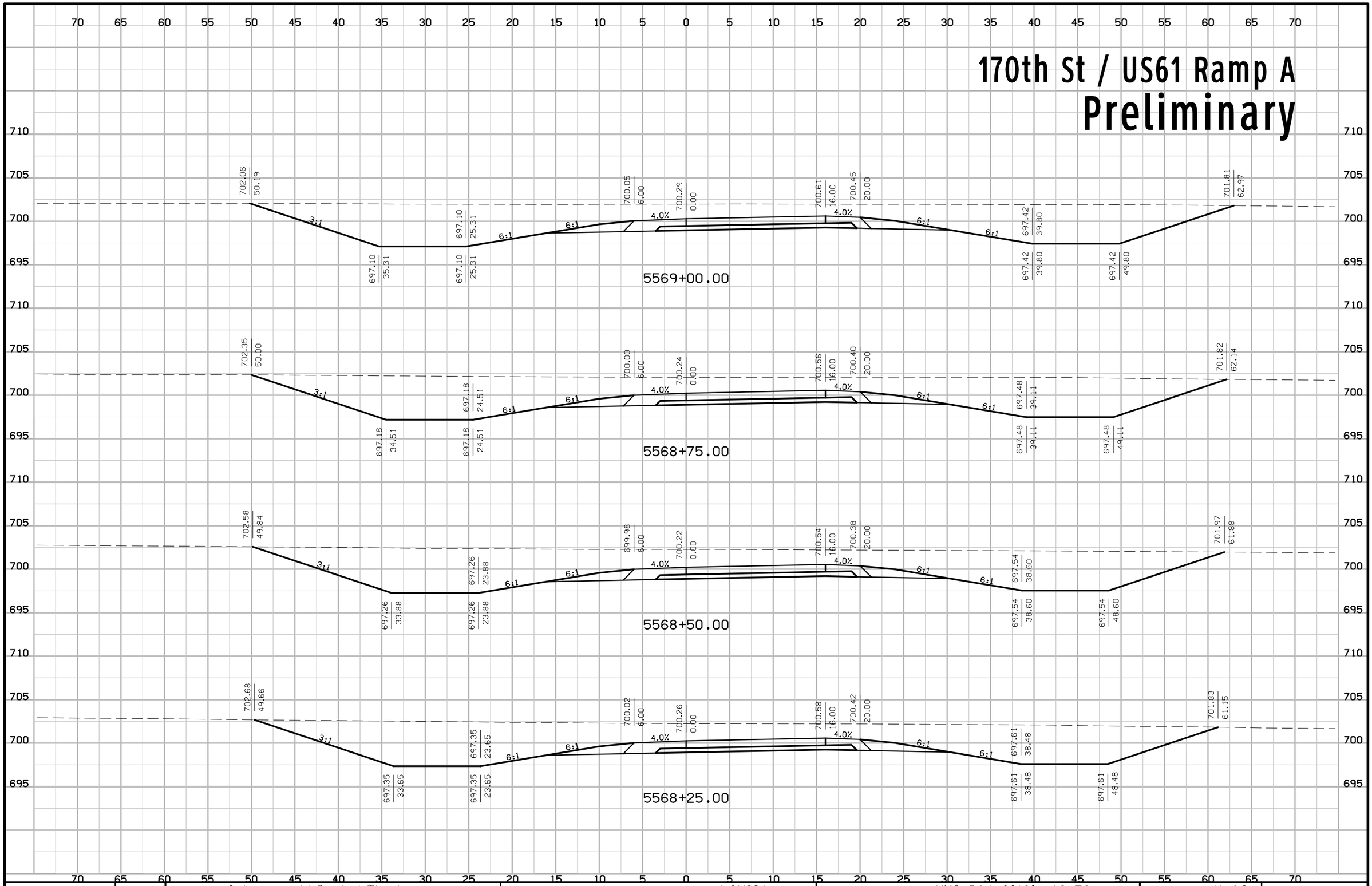
170th St / US61 Ramp A

Preliminary



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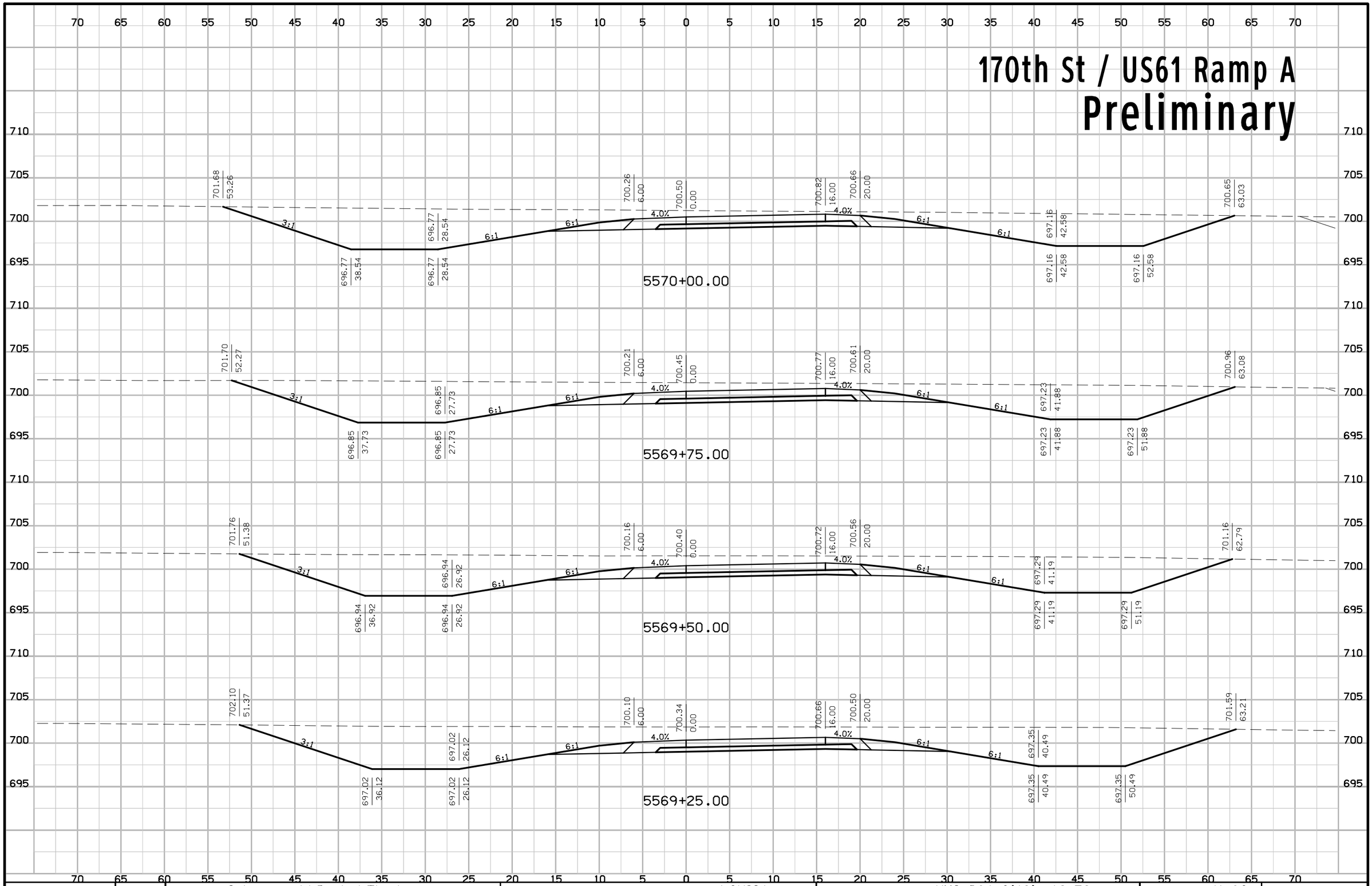
170th St / US61 Ramp A

Preliminary



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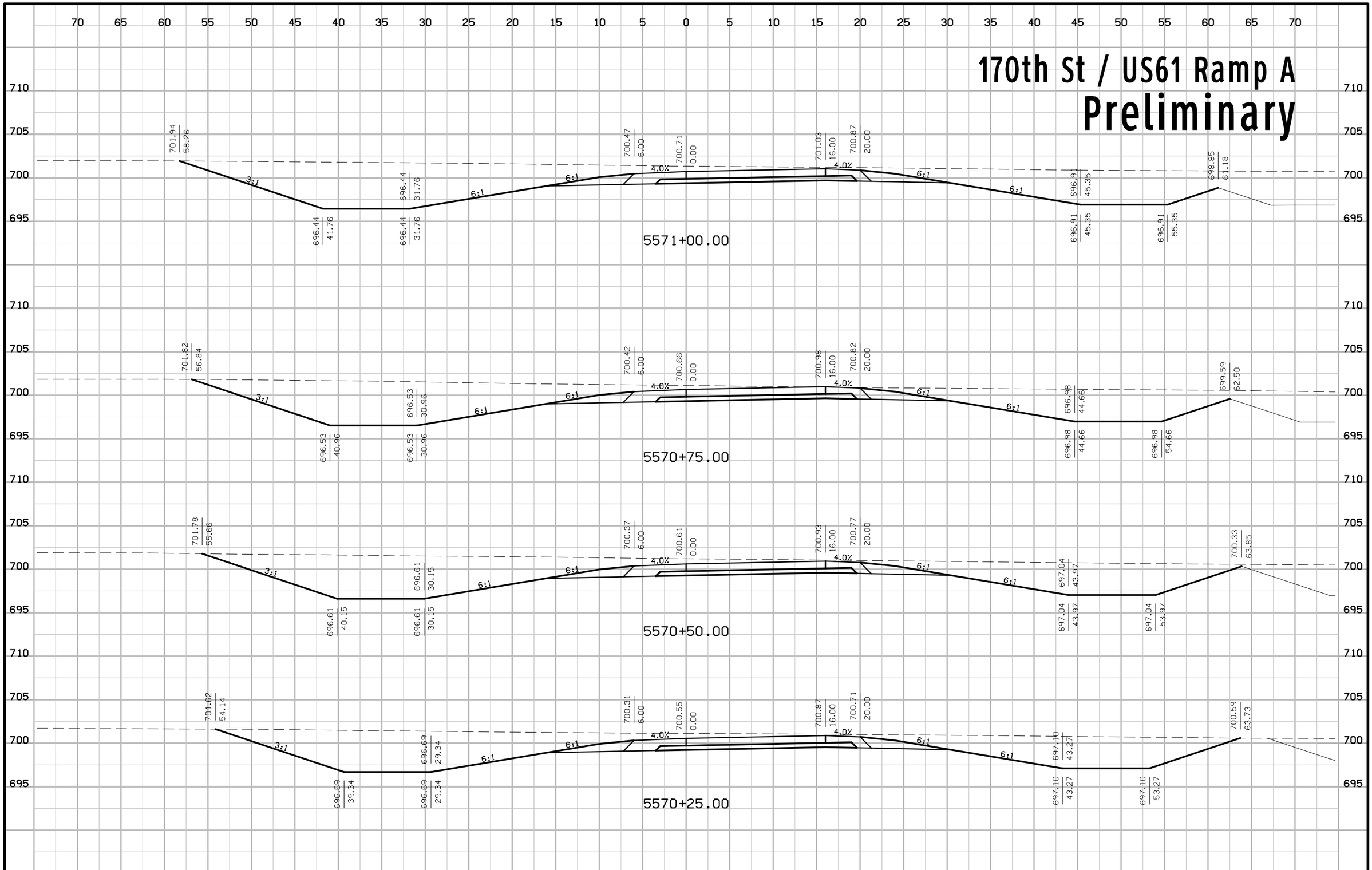
170th St / US61 Ramp A

Preliminary



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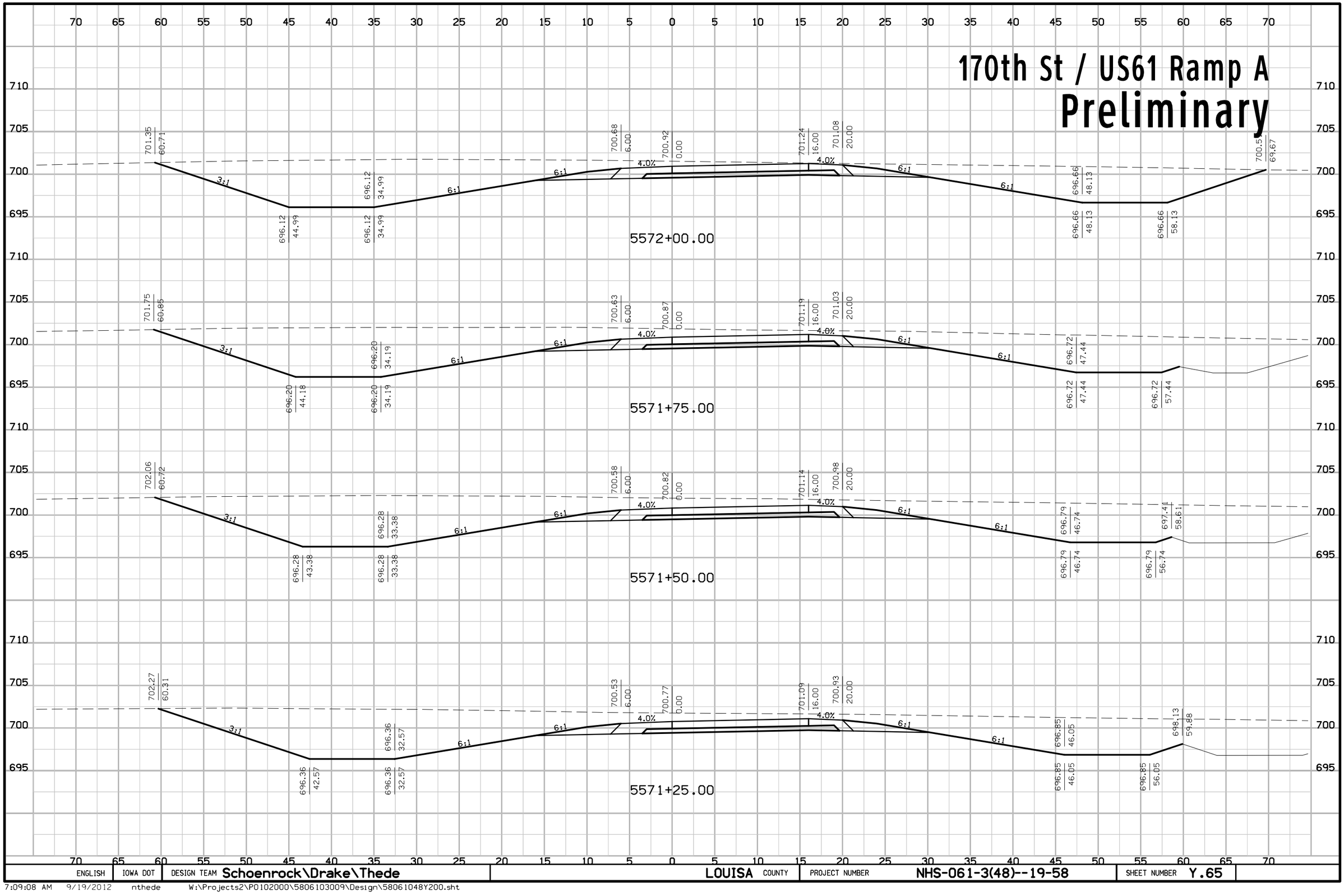
170th St / US61 Ramp A

Preliminary



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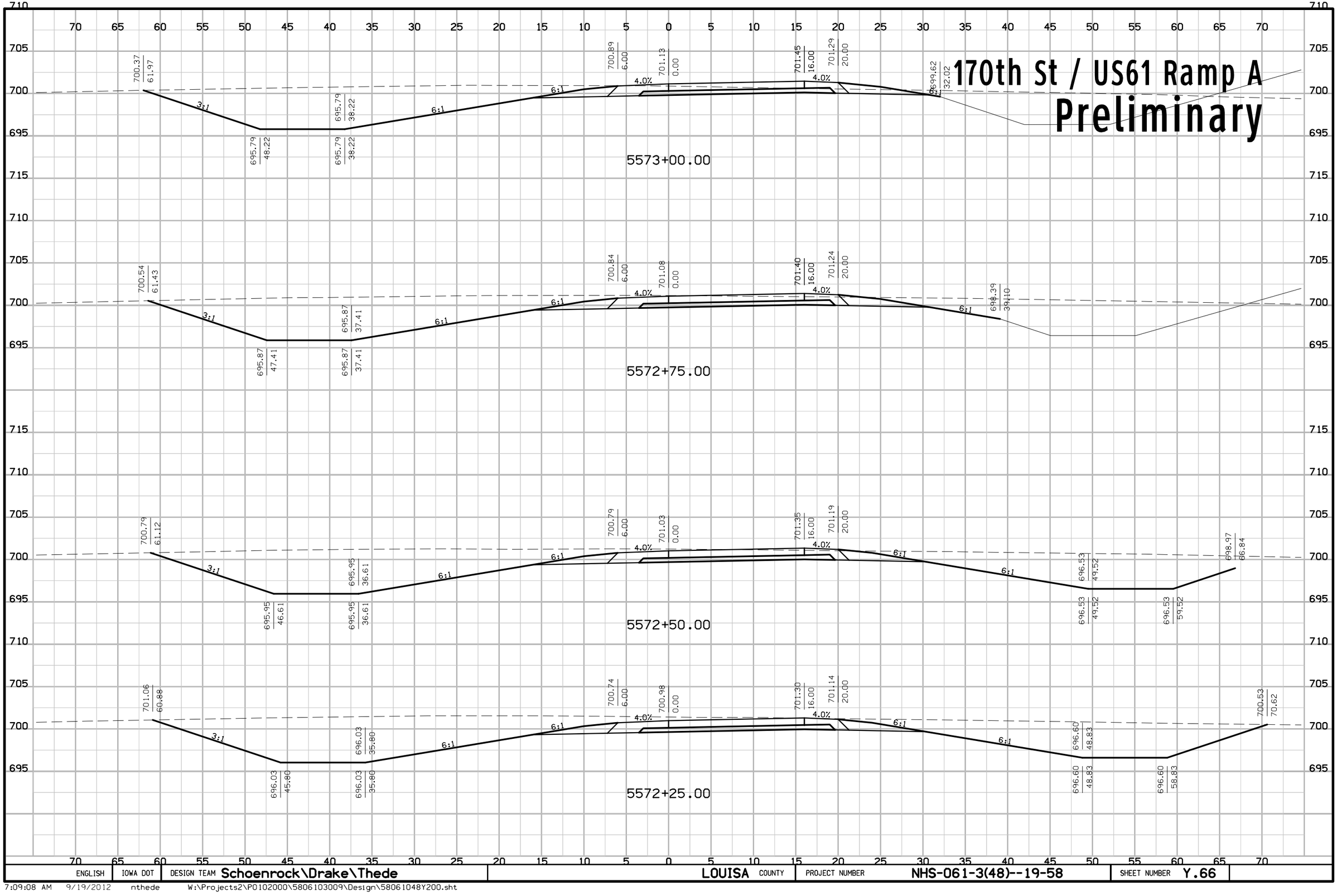
170th St / US61 Ramp A

Preliminary



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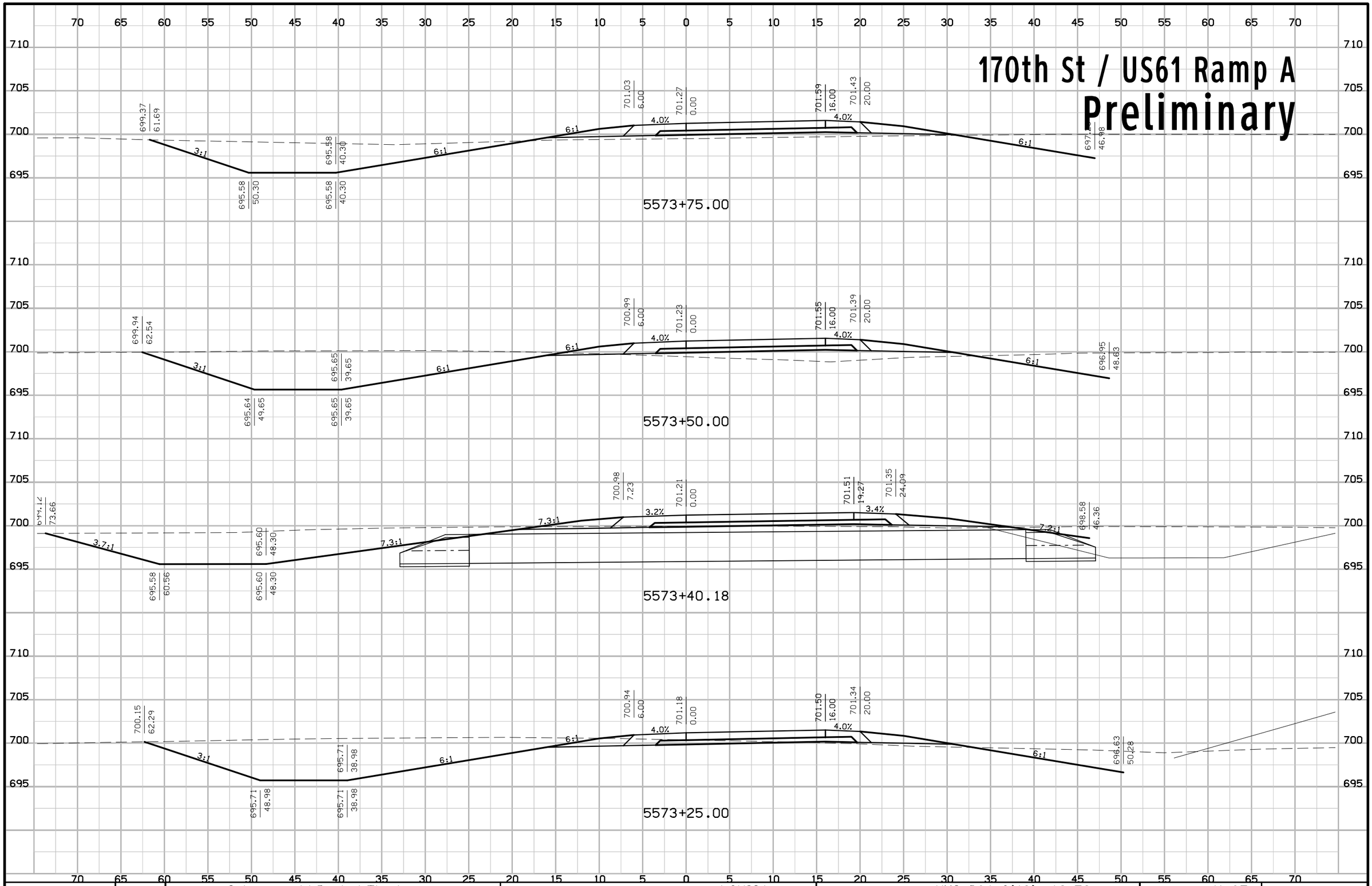
170th St / US61 Ramp A

Preliminary



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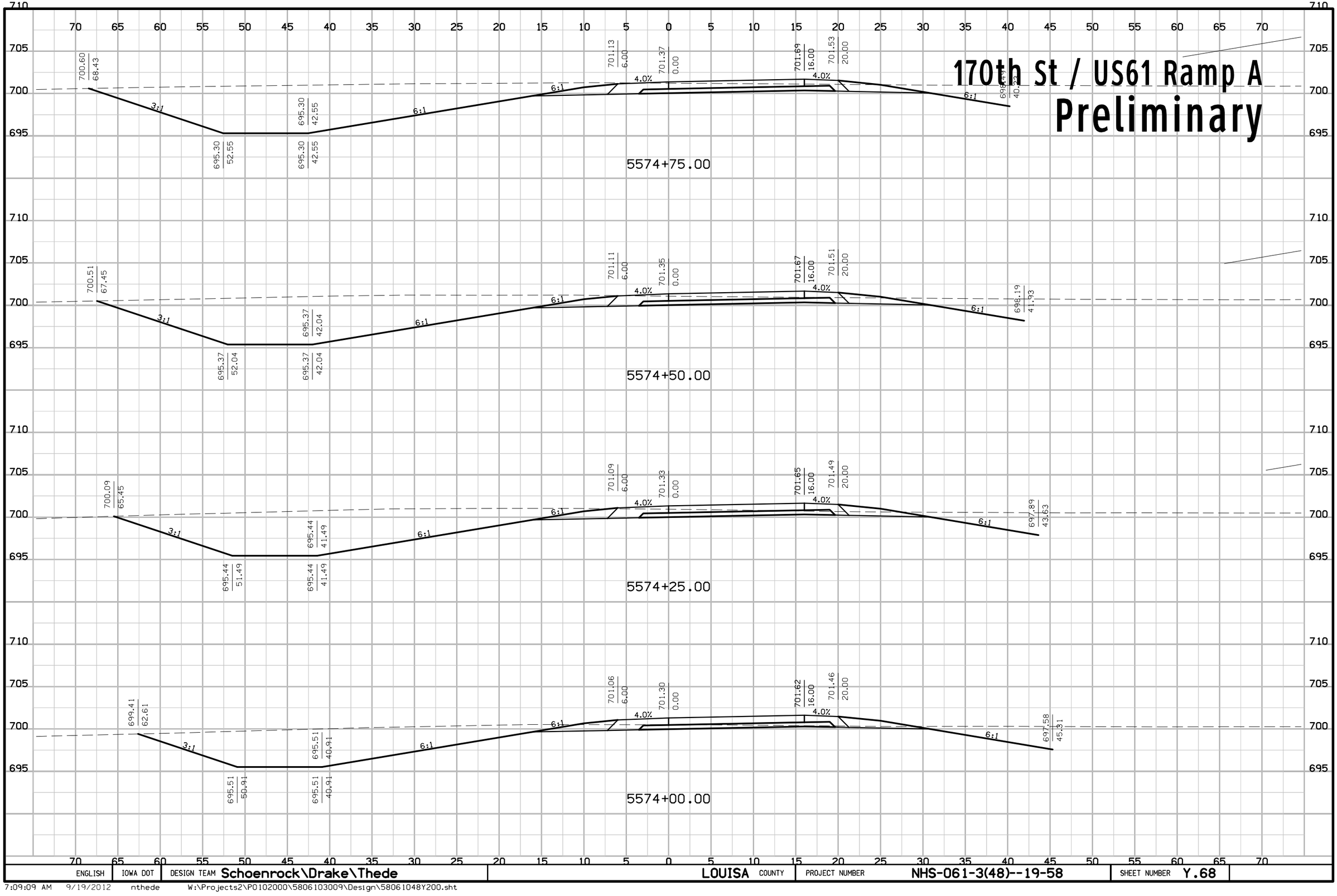
170th St / US61 Ramp A

Preliminary



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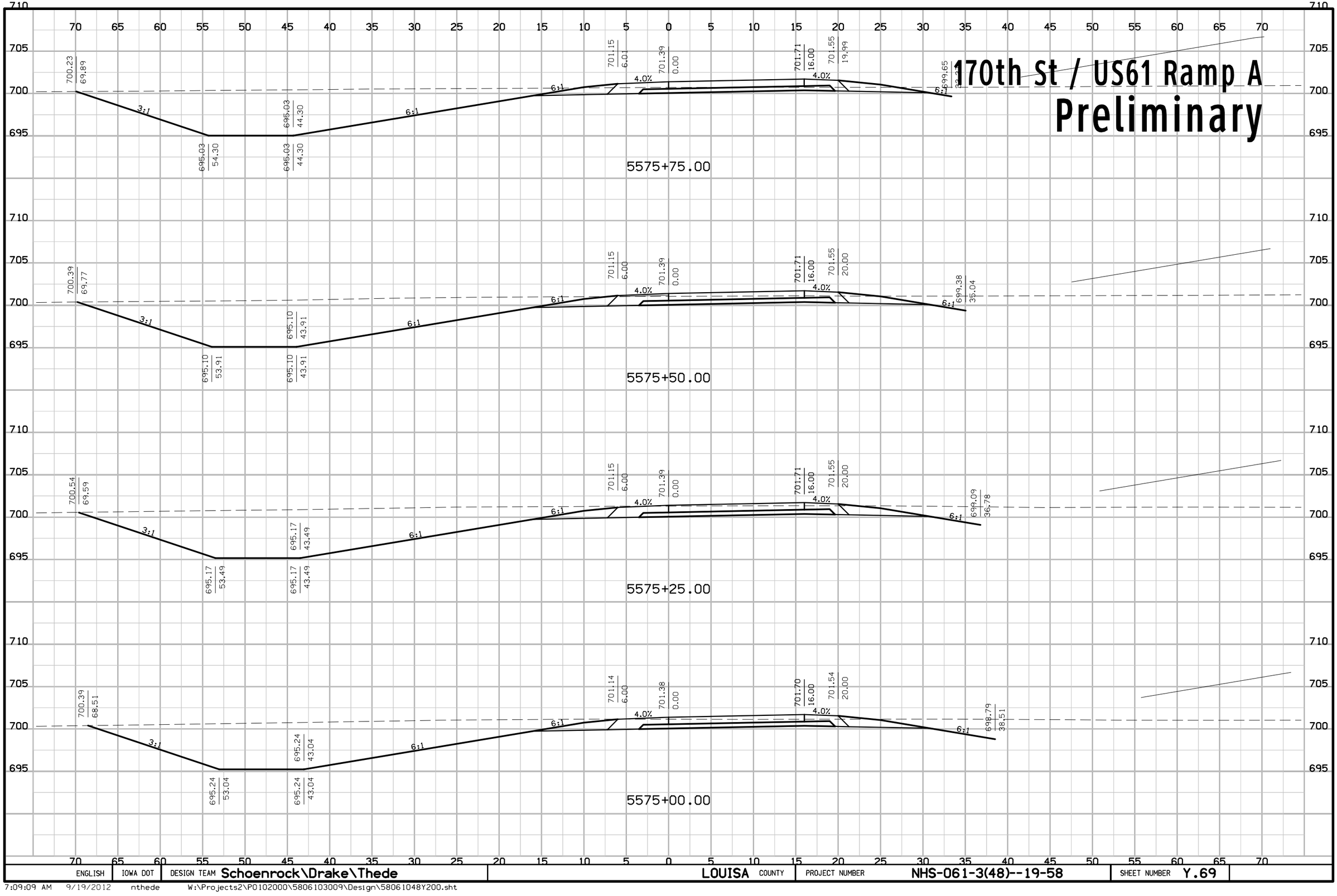
170th St / US61 Ramp A

Preliminary



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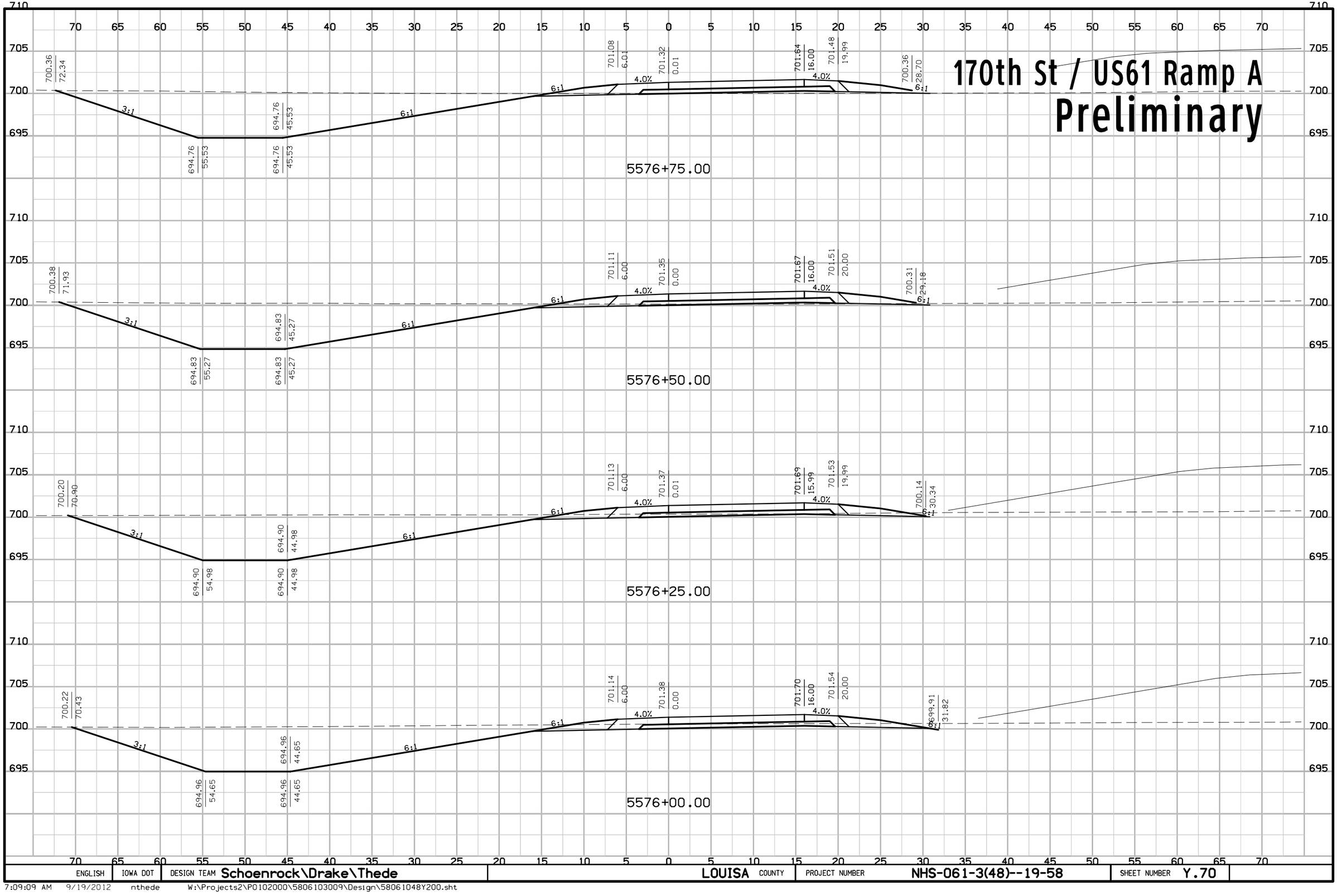
170th St / US61 Ramp A

Preliminary



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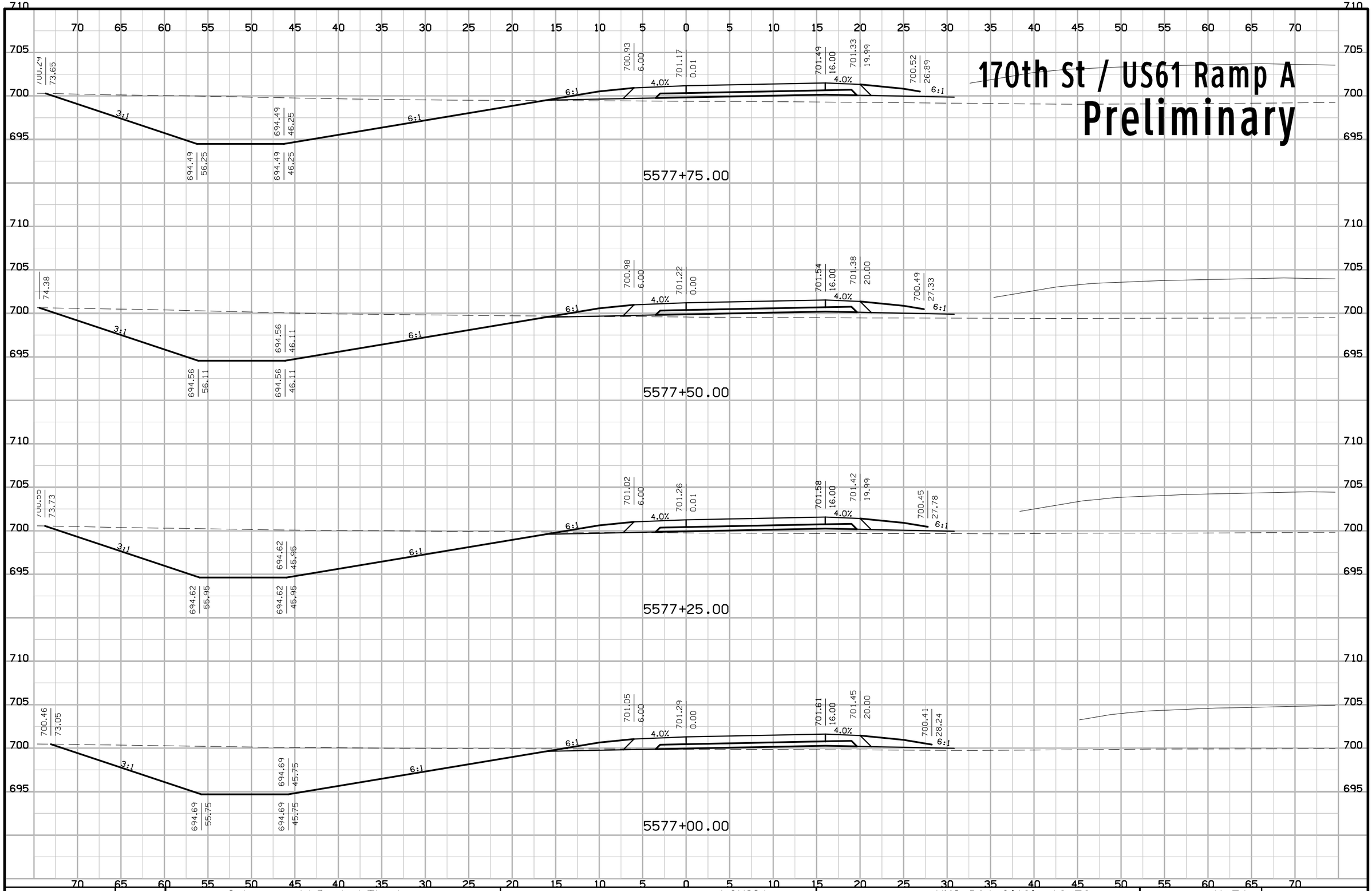
170th St / US61 Ramp A

Preliminary



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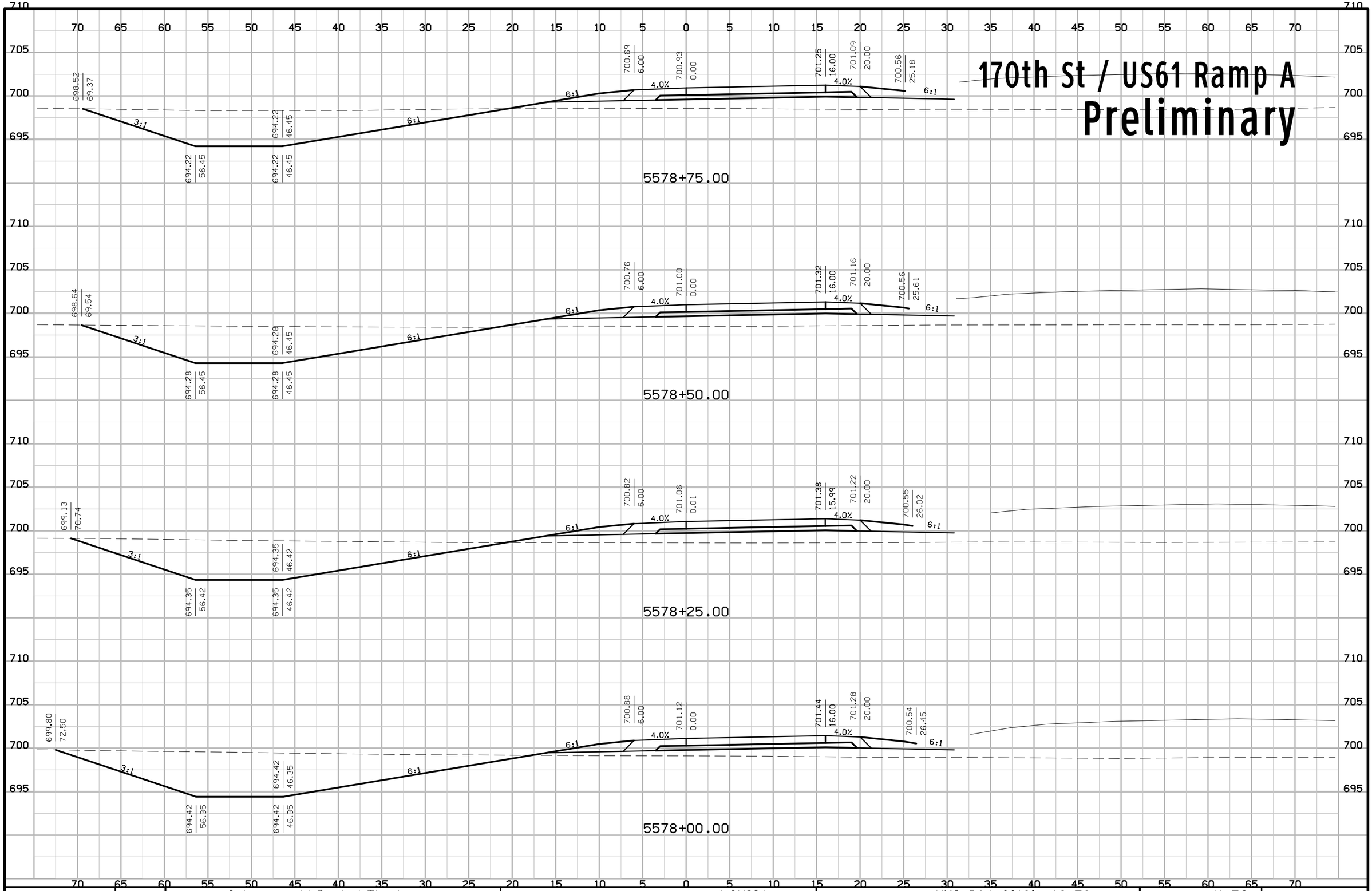
170th St / US61 Ramp A

Preliminary



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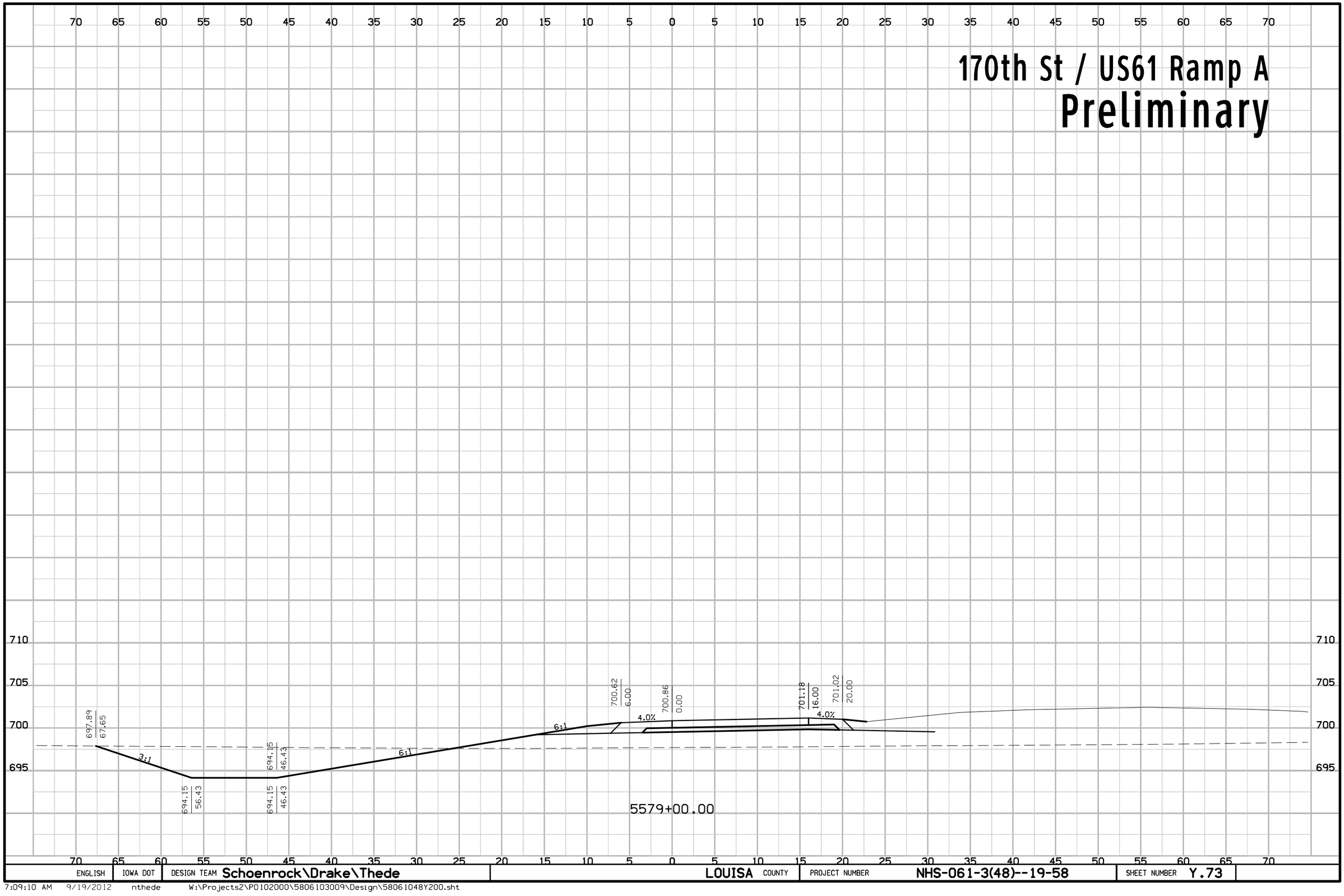
170th St / US61 Ramp A

Preliminary



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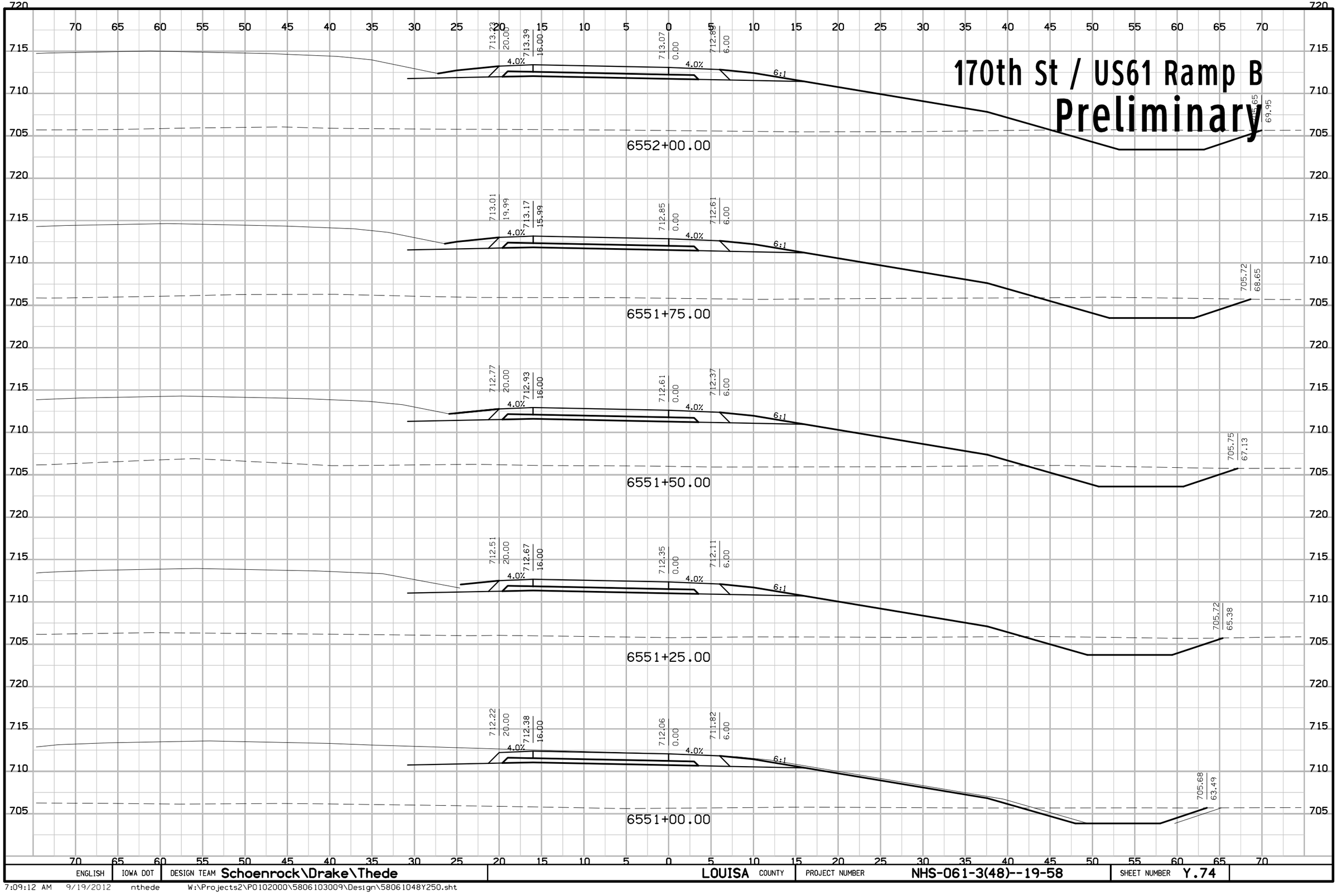
170th St / US61 Ramp B

Preliminary



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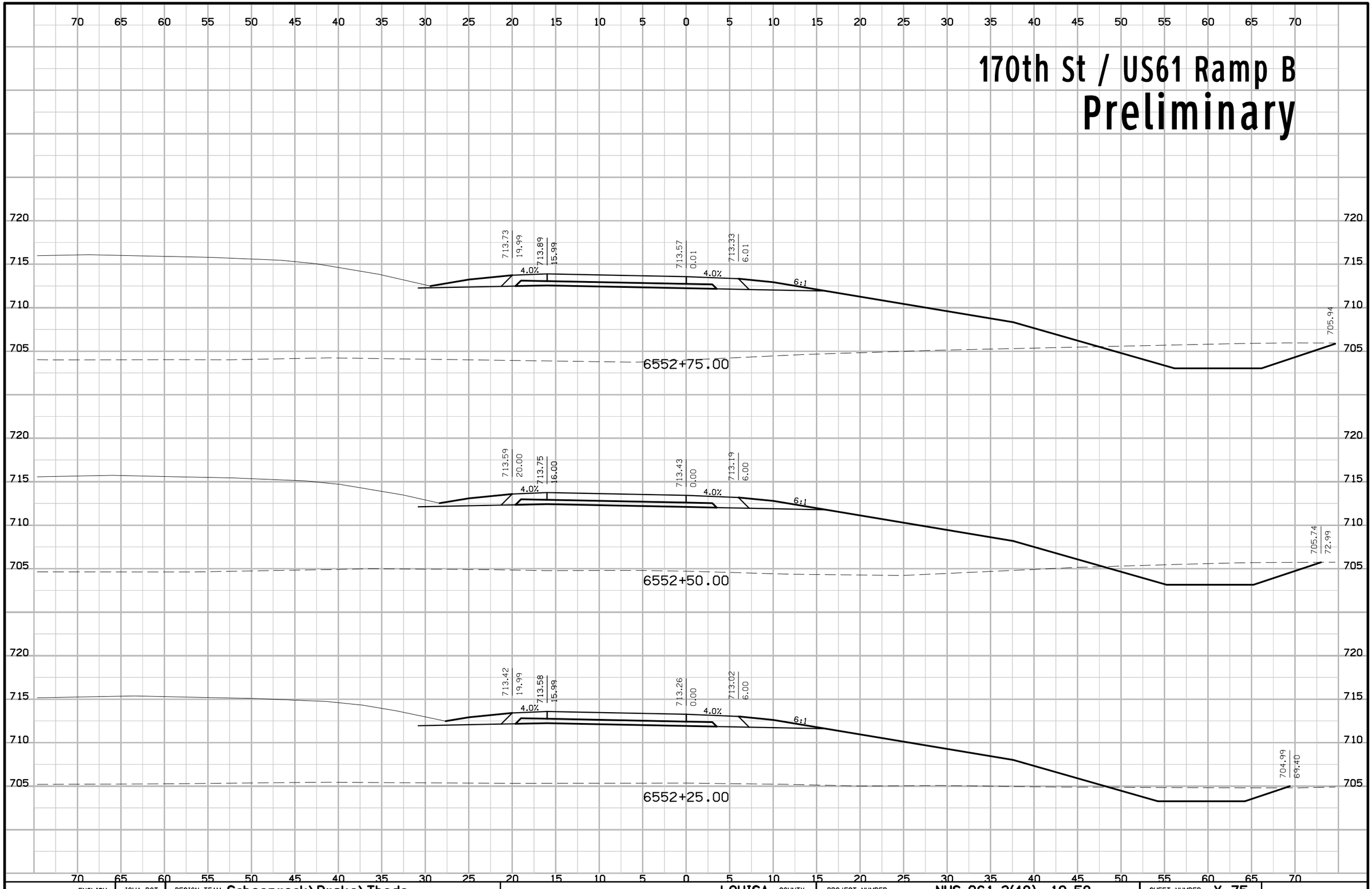
170th St / US61 Ramp B

Preliminary



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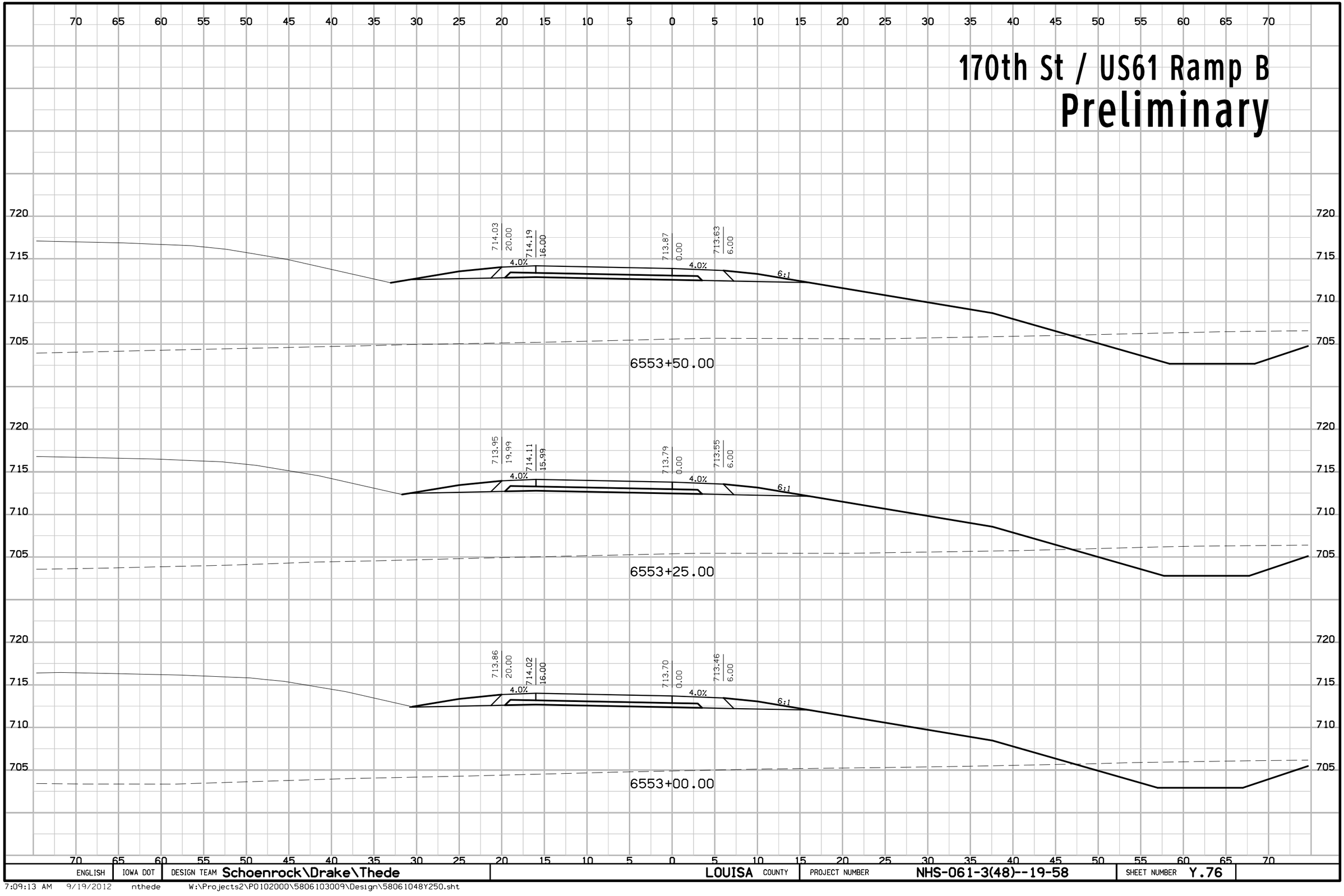
170th St / US61 Ramp B

Preliminary



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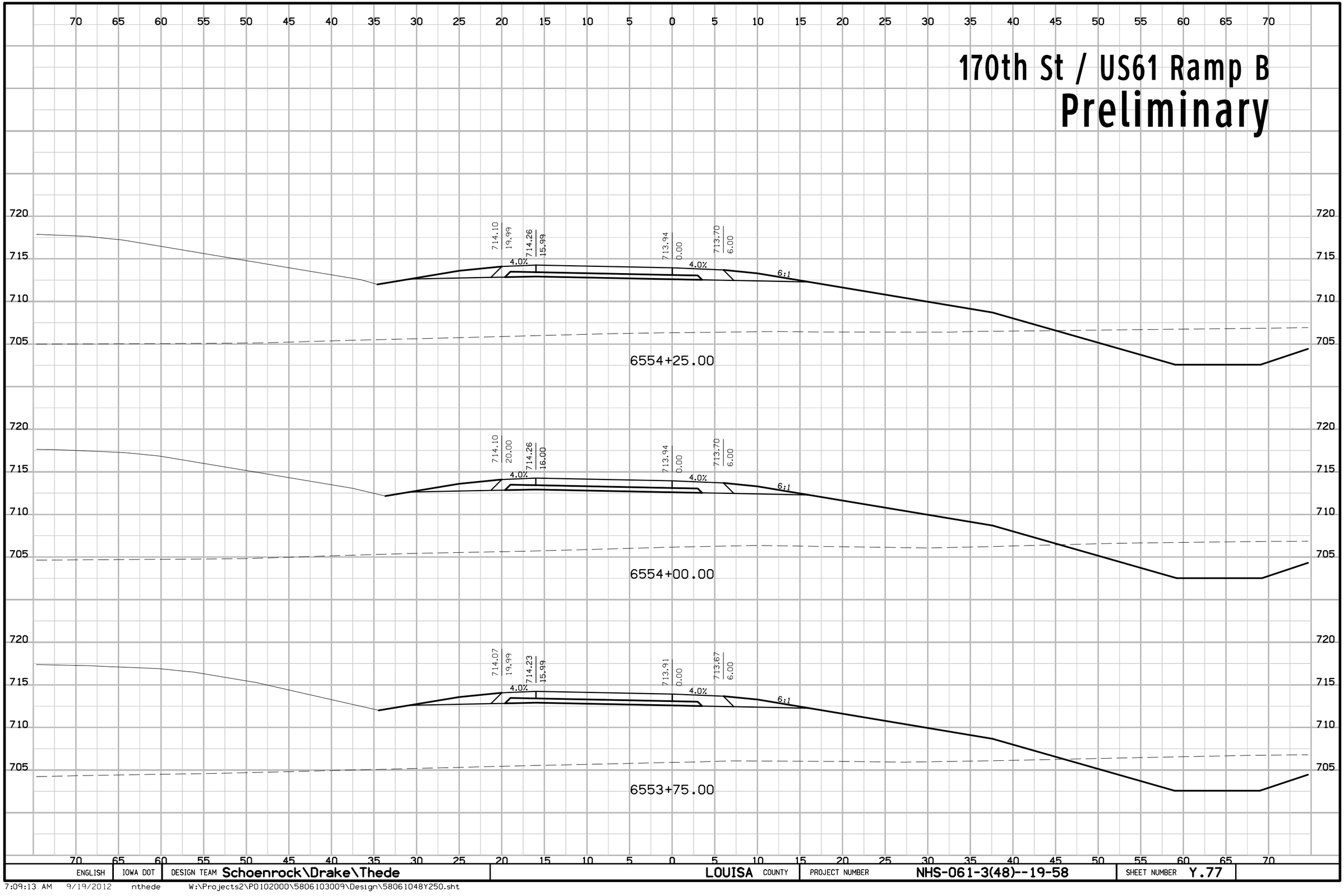
170th St / US61 Ramp B

Preliminary



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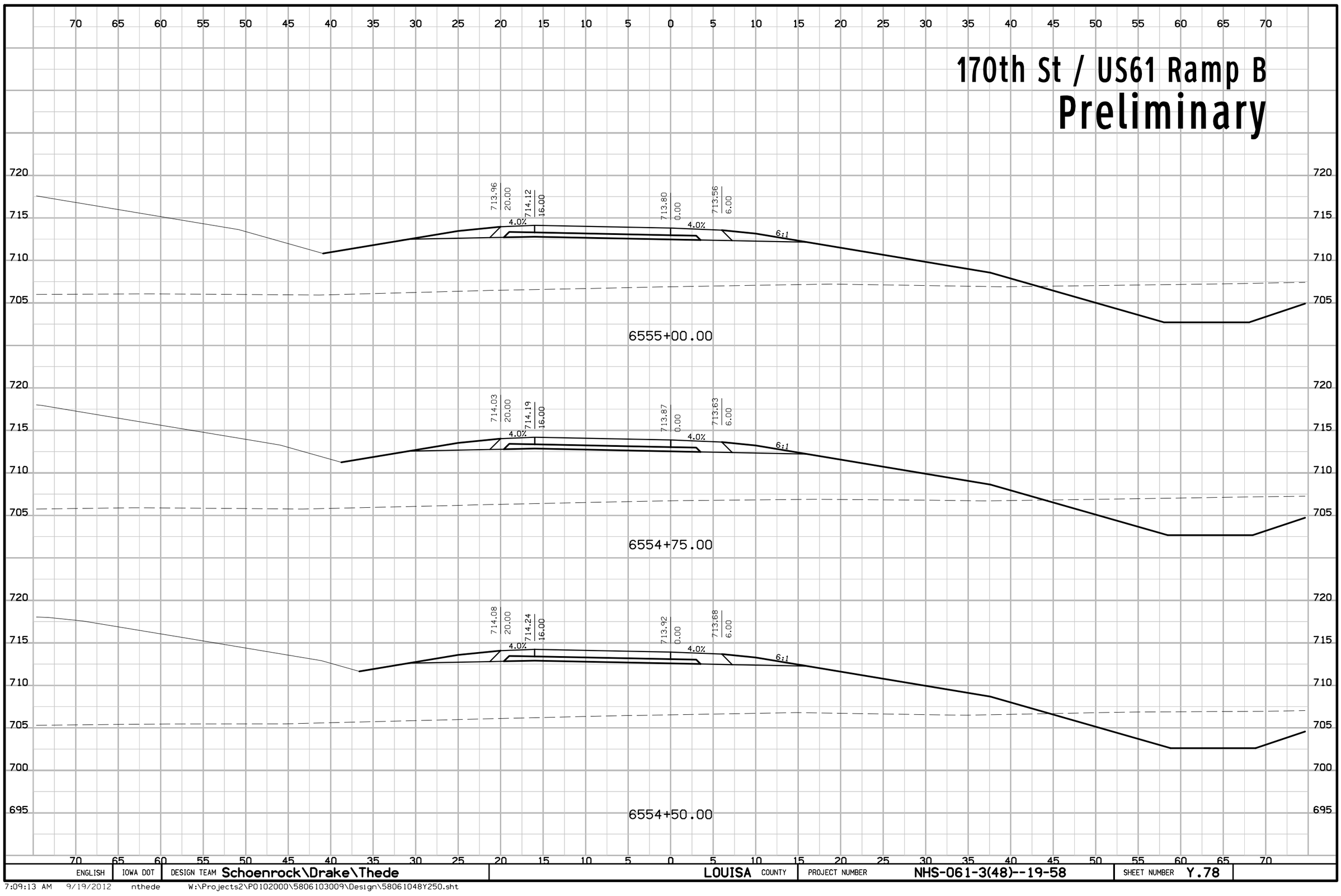
170th St / US61 Ramp B

Preliminary



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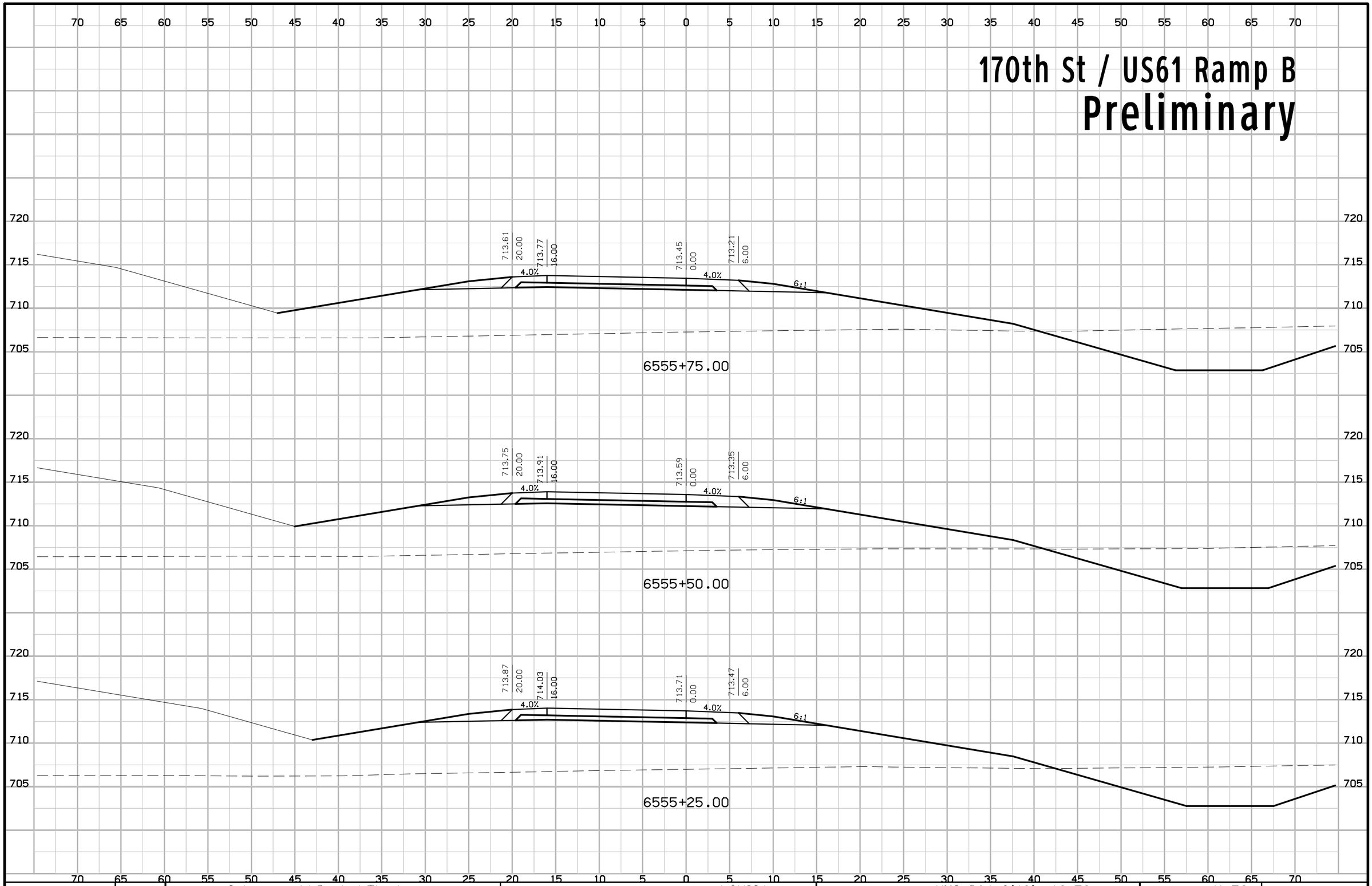
170th St / US61 Ramp B

Preliminary



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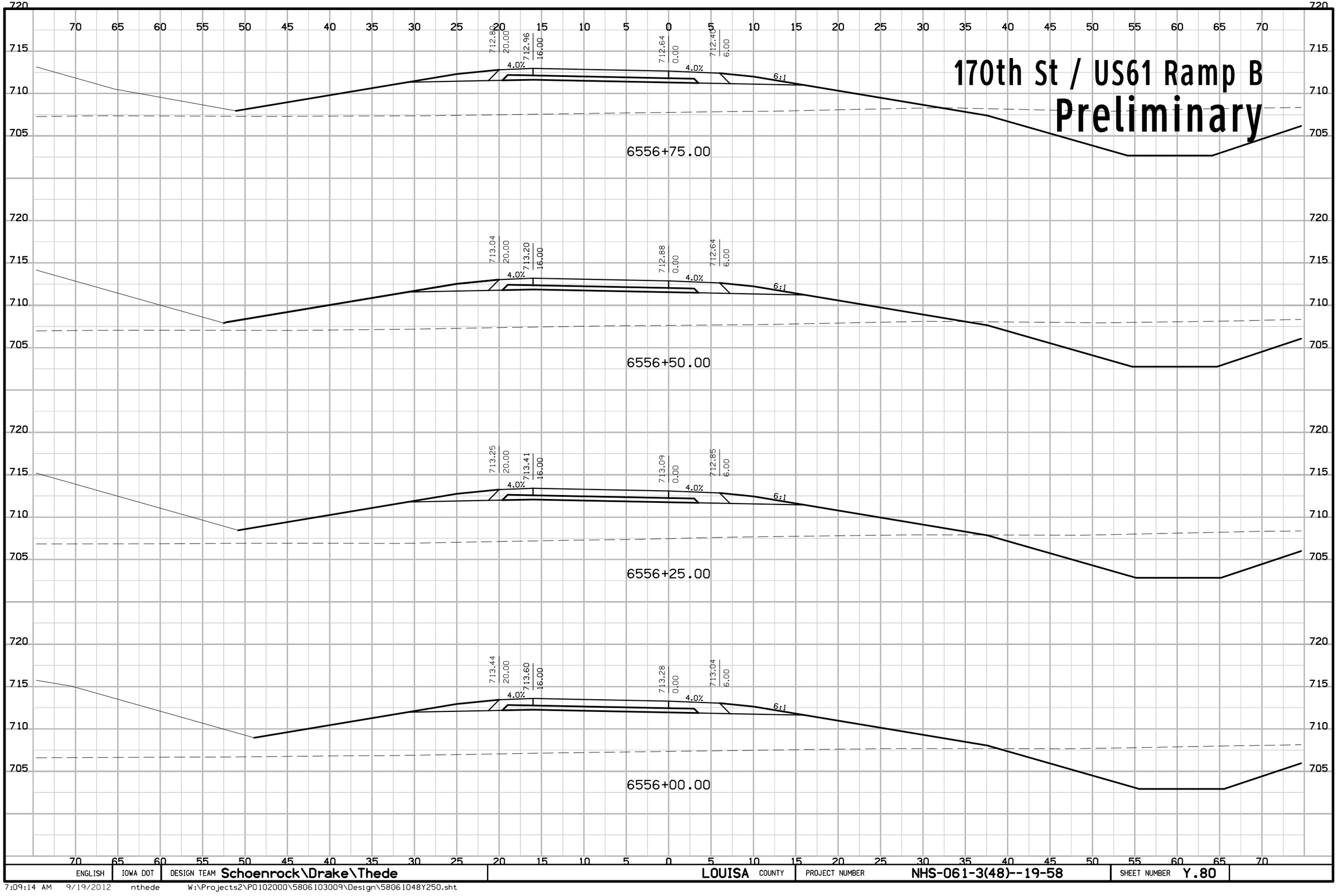
170th St / US61 Ramp B

Preliminary



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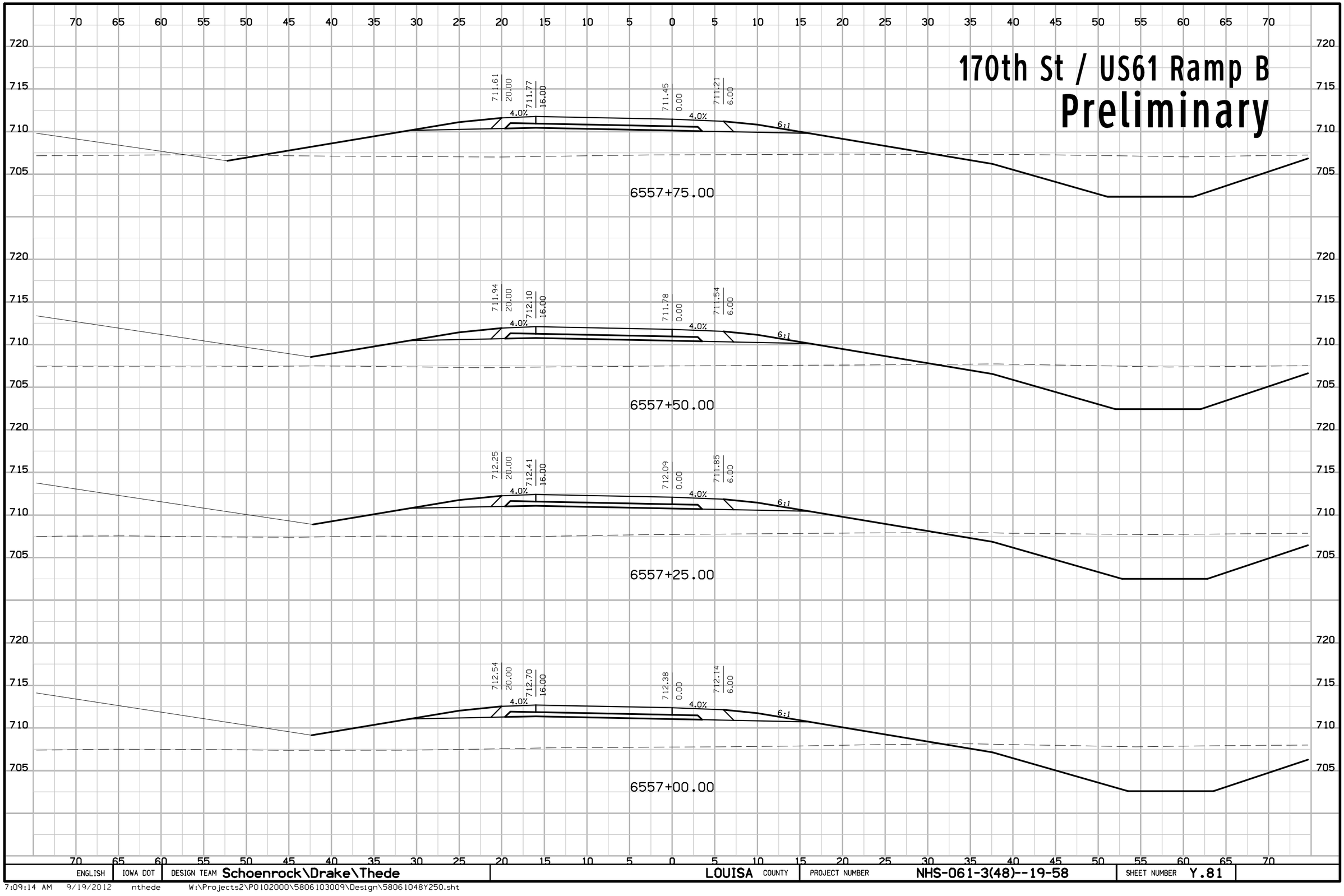
170th St / US61 Ramp B

Preliminary



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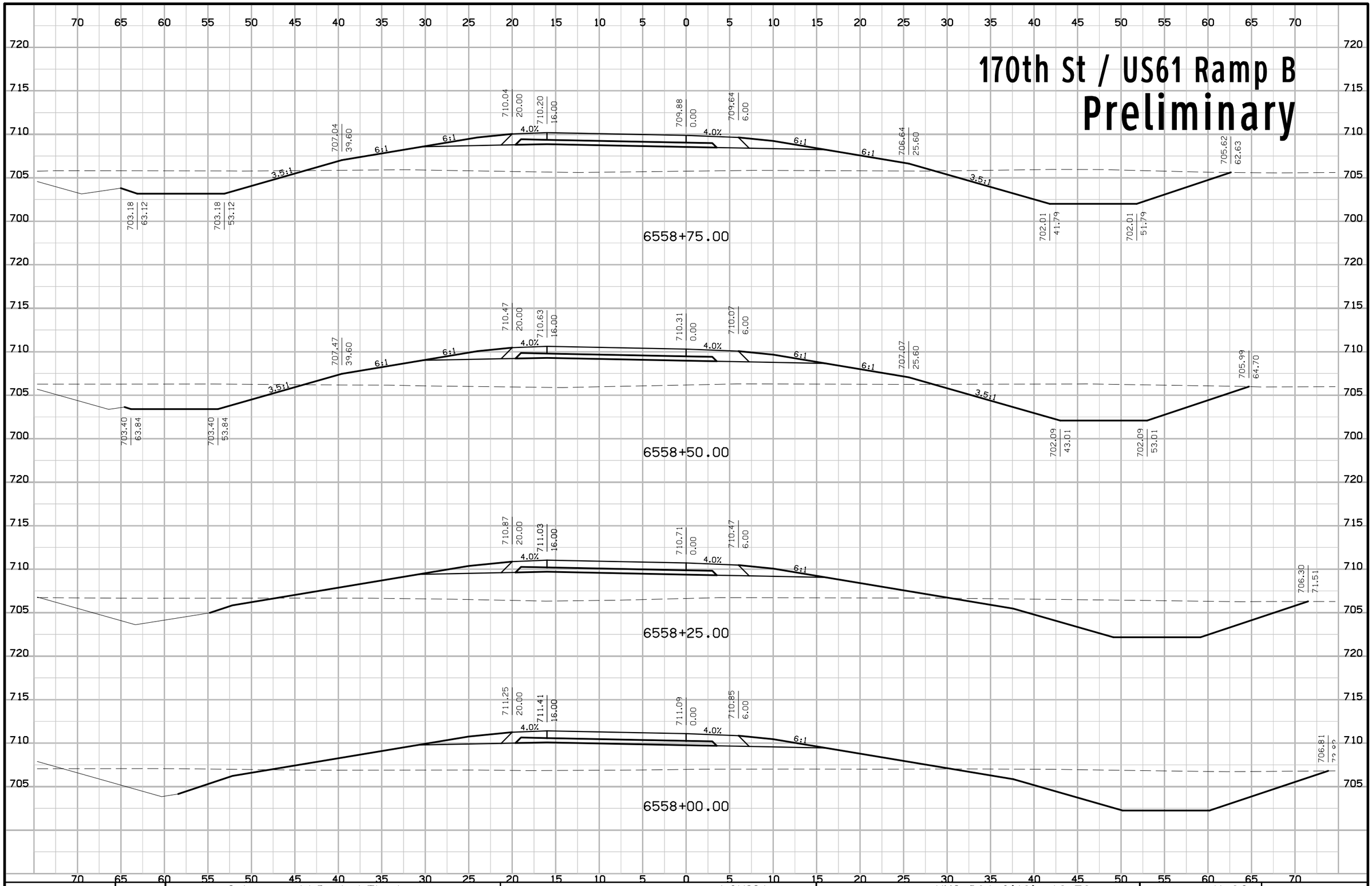
170th St / US61 Ramp B

Preliminary



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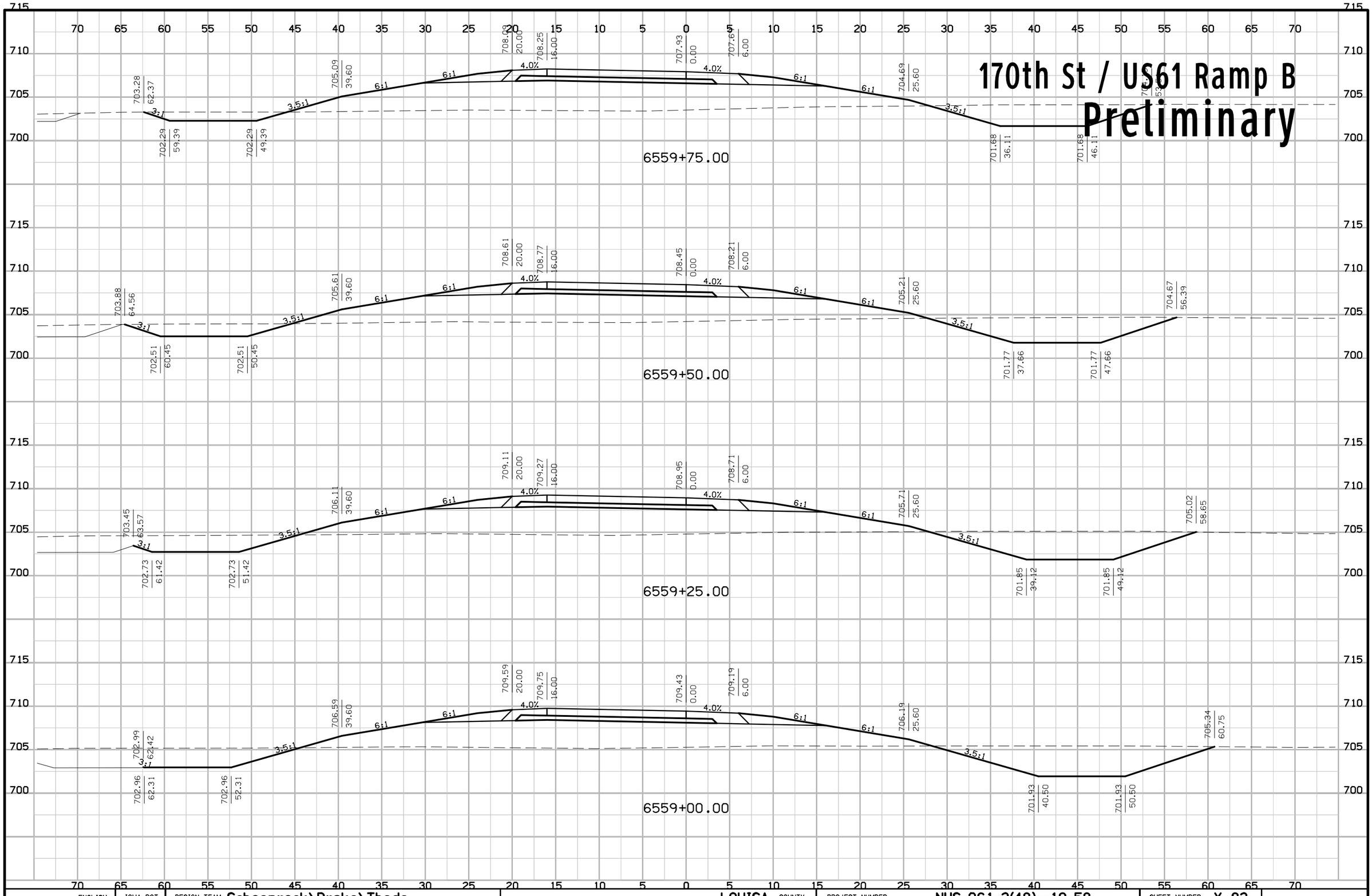
170th St / US61 Ramp B

Preliminary



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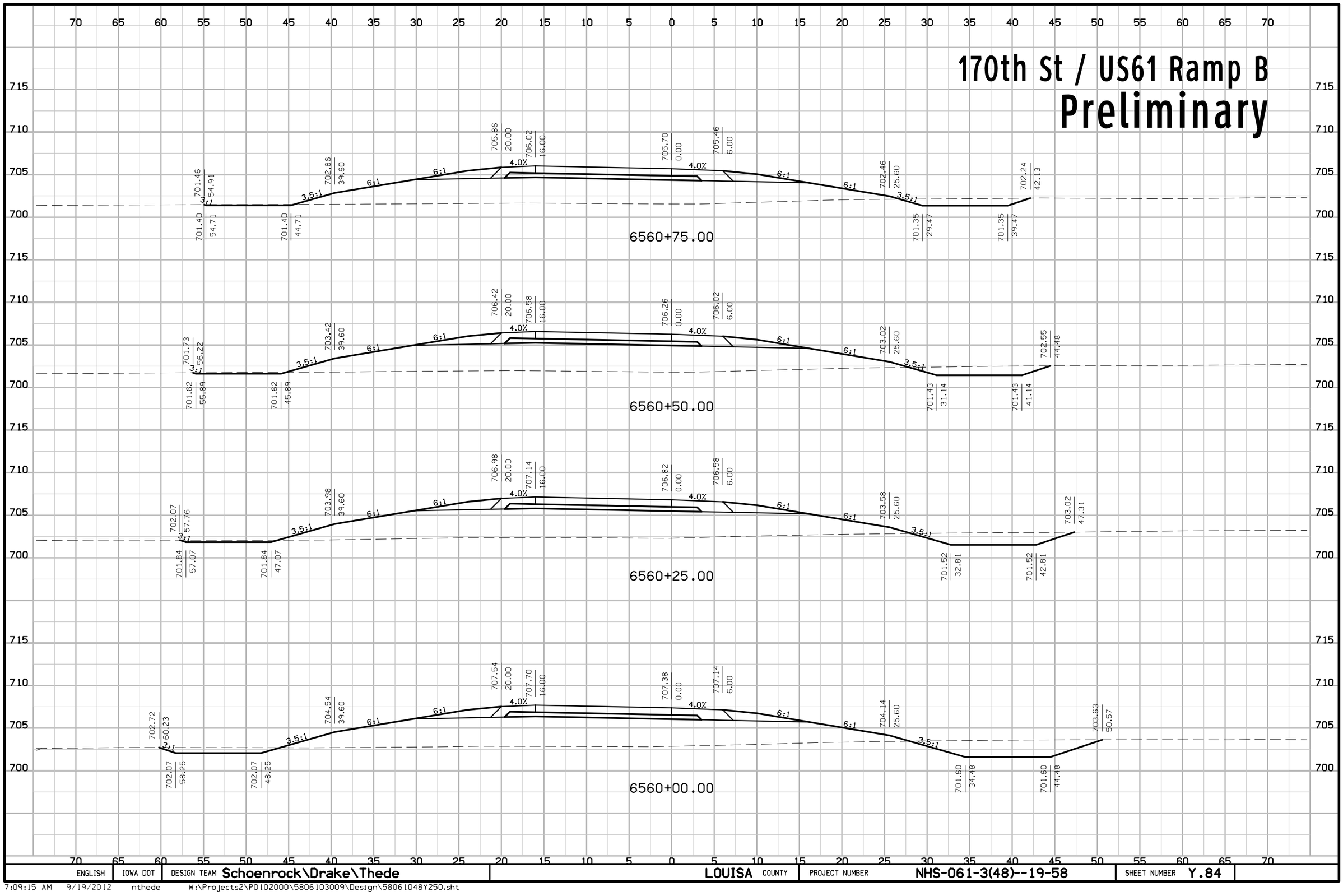
170th St / US61 Ramp B

Preliminary



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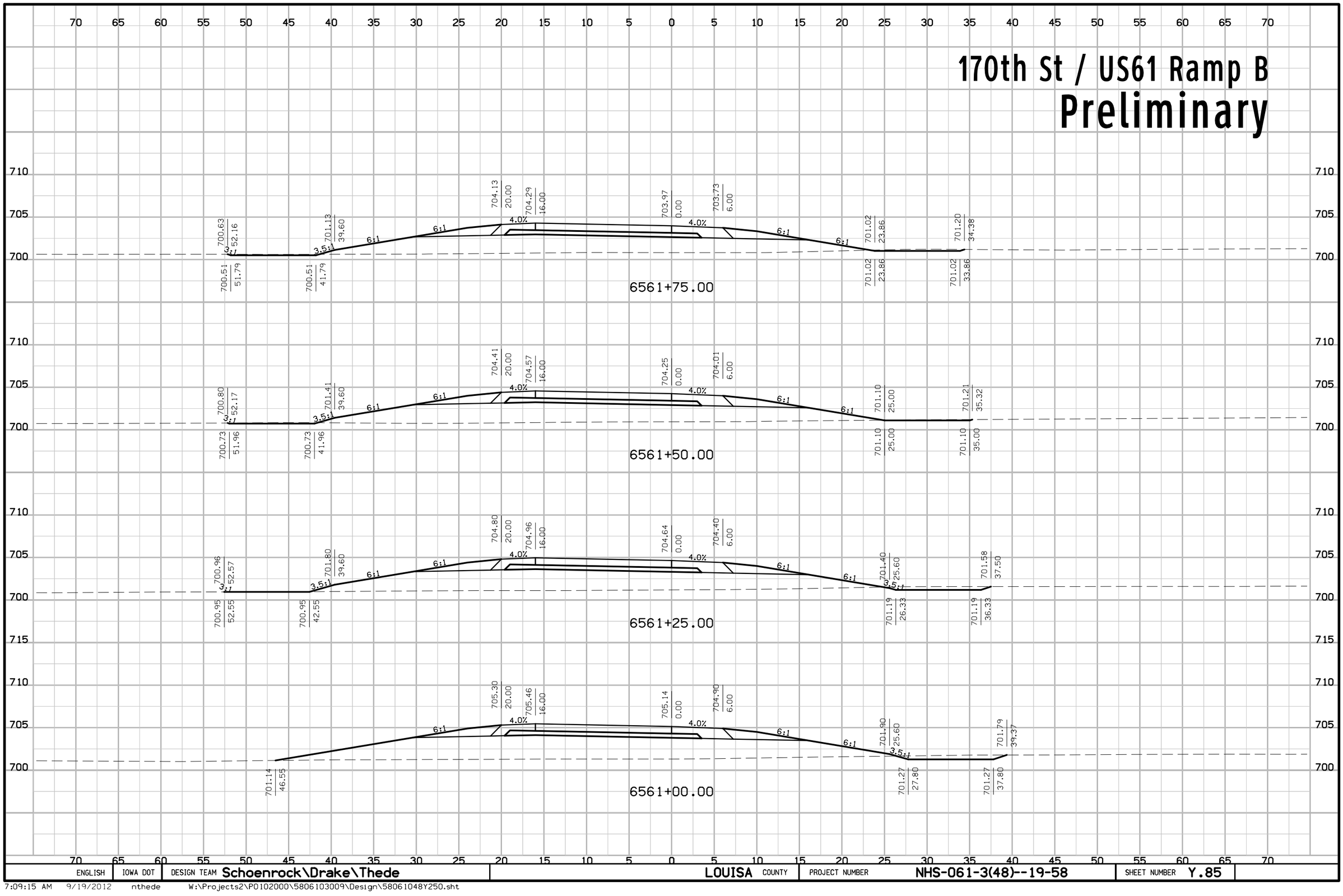
170th St / US61 Ramp B

Preliminary



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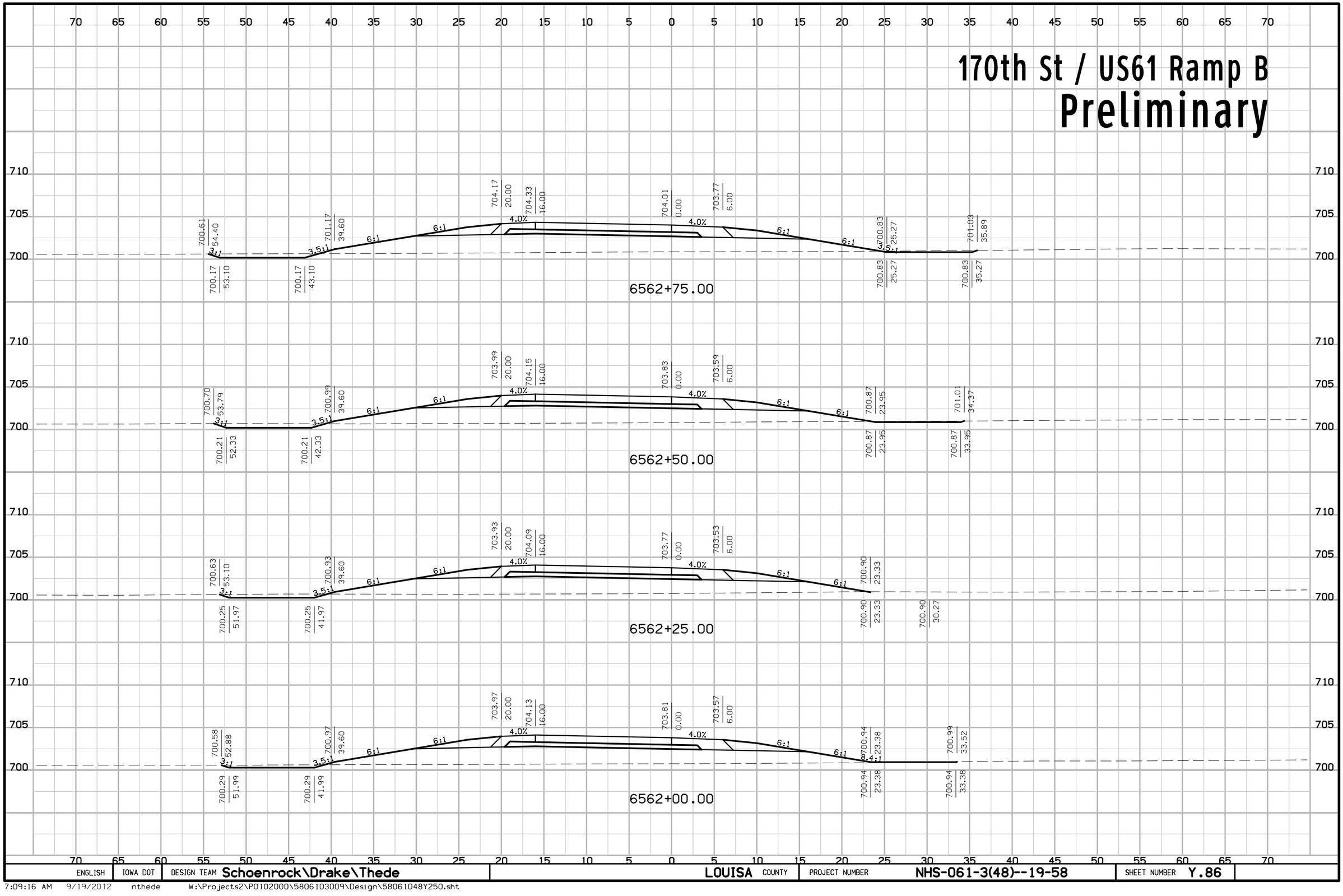
170th St / US61 Ramp B

Preliminary



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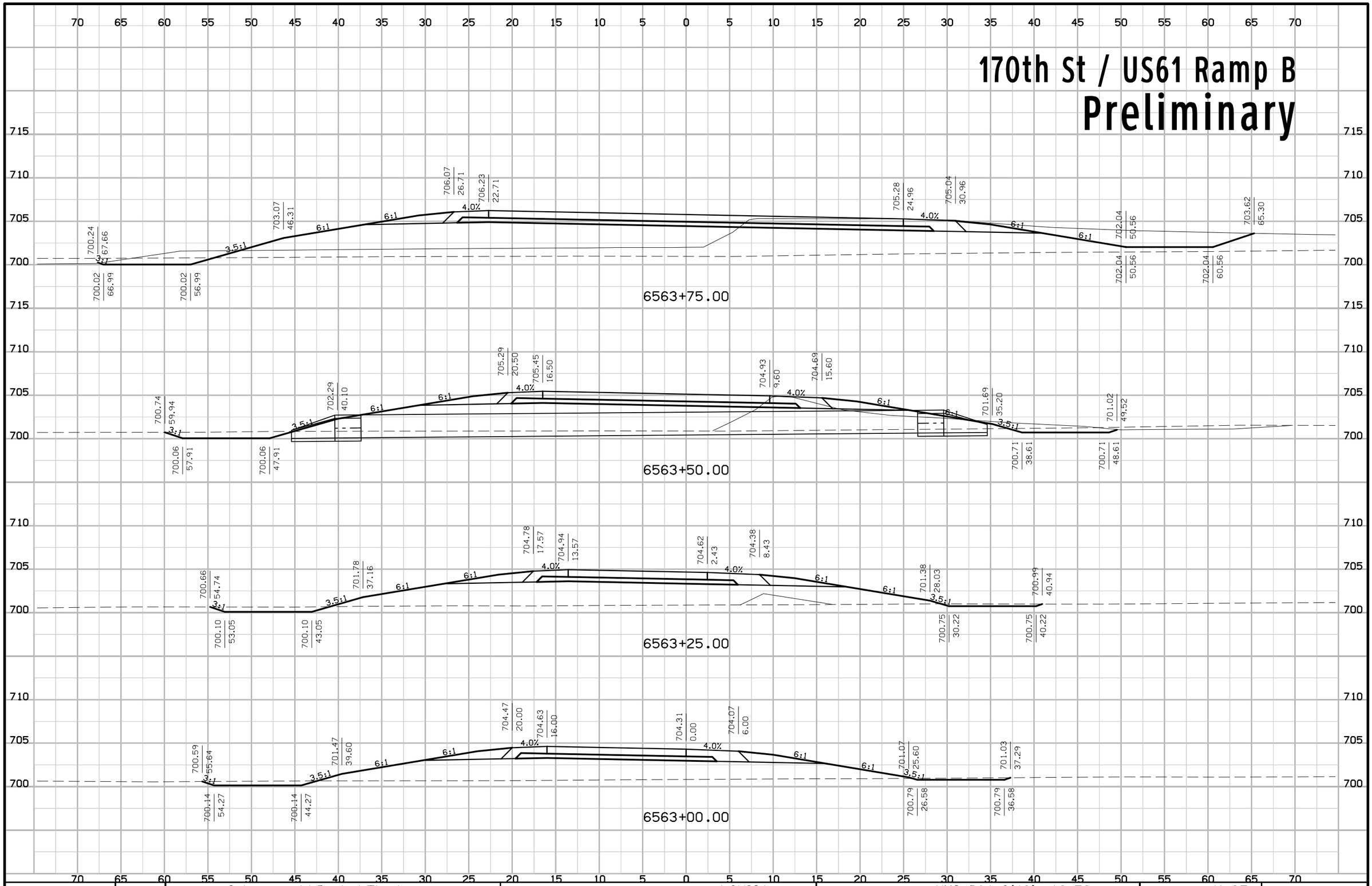
170th St / US61 Ramp B

Preliminary



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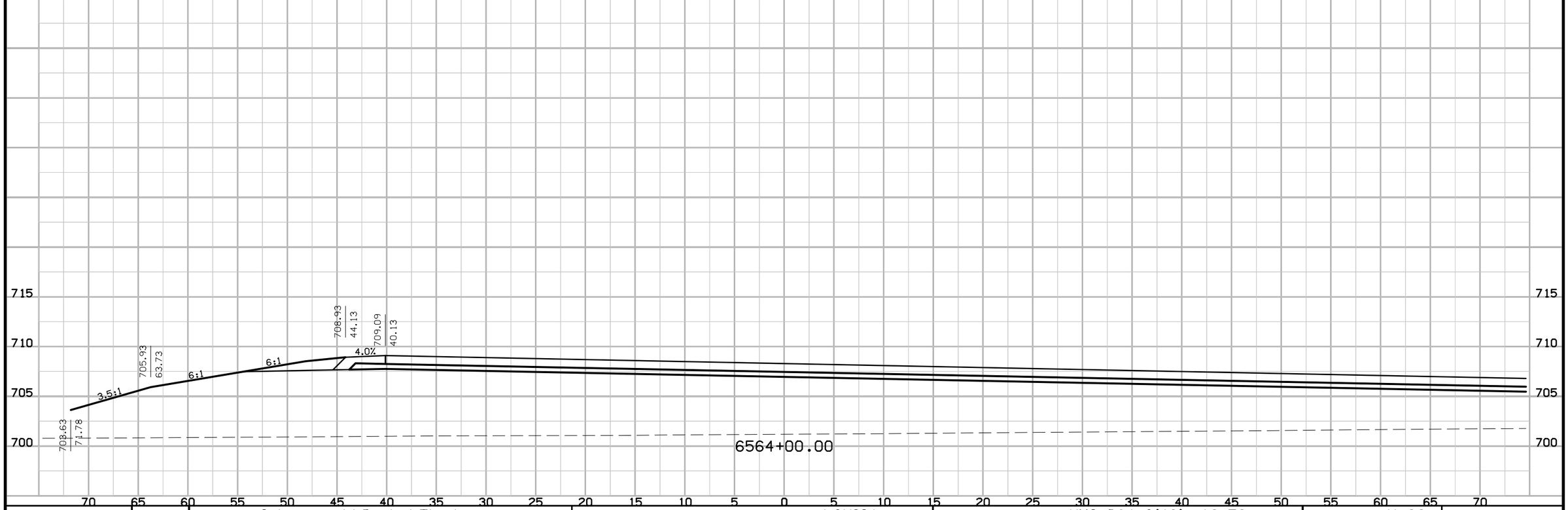
170th St / US61 Ramp B

Preliminary



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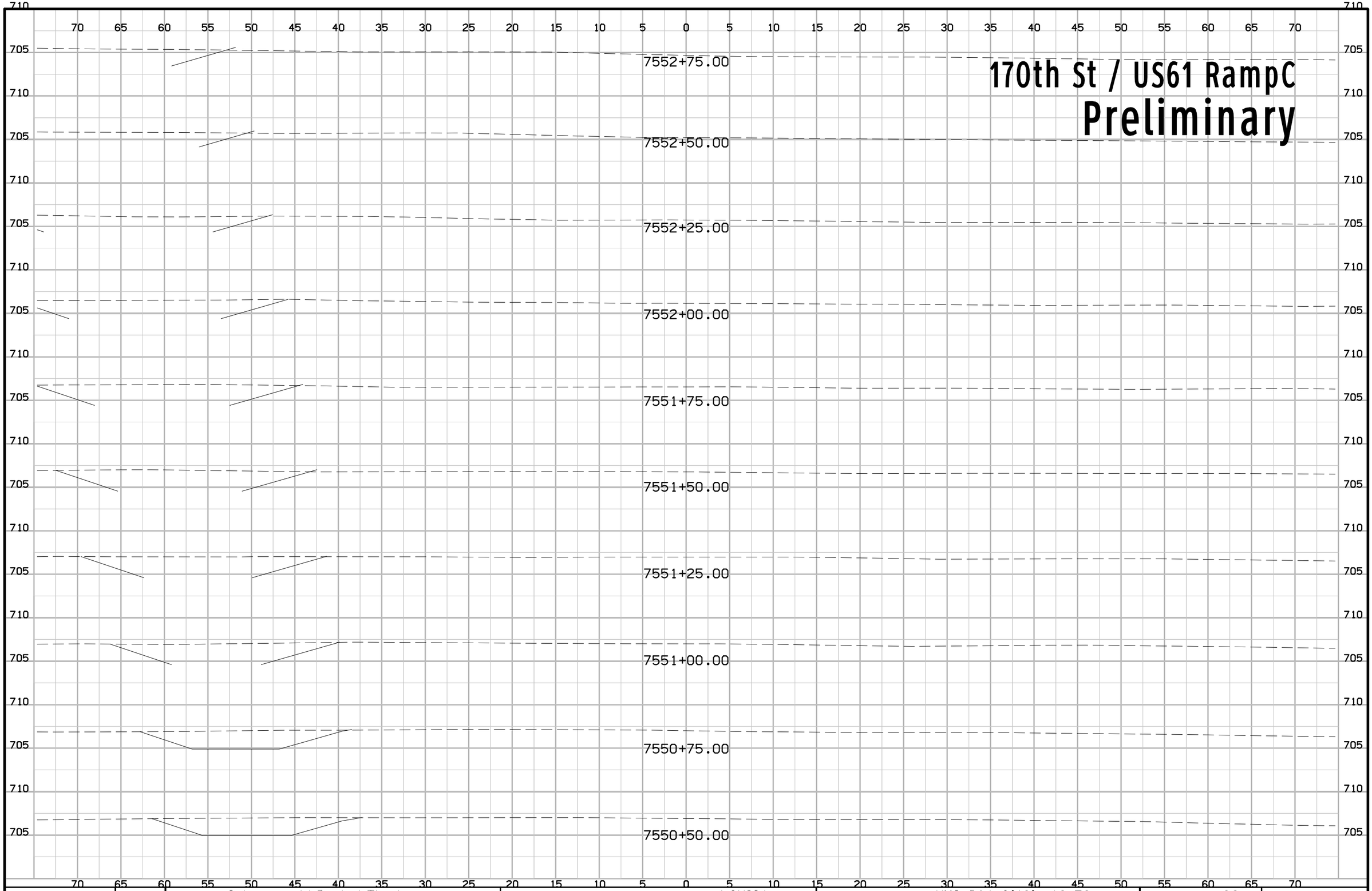
170th St / US61 RampC

Preliminary



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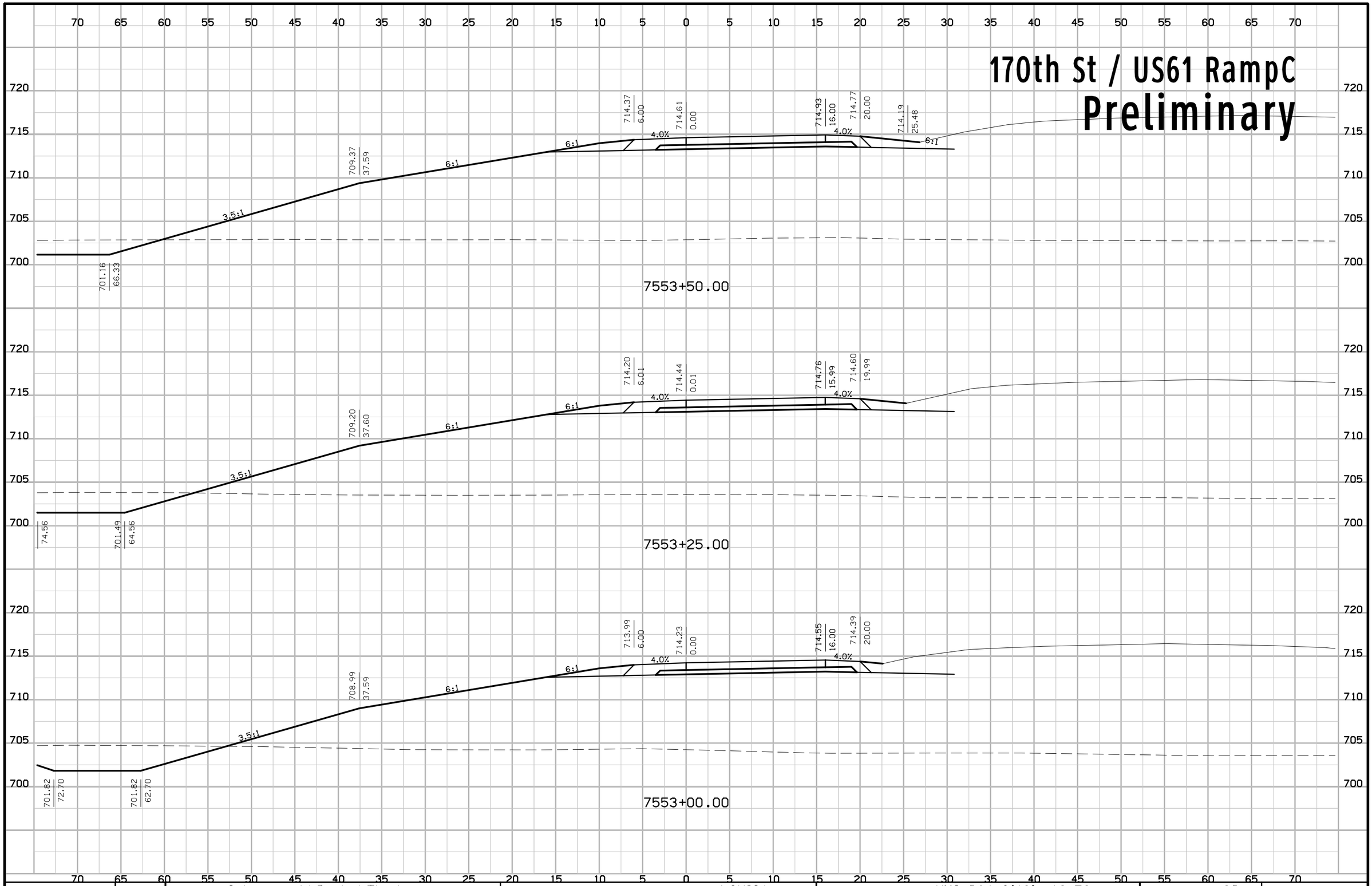
170th St / US61 RampC

Preliminary



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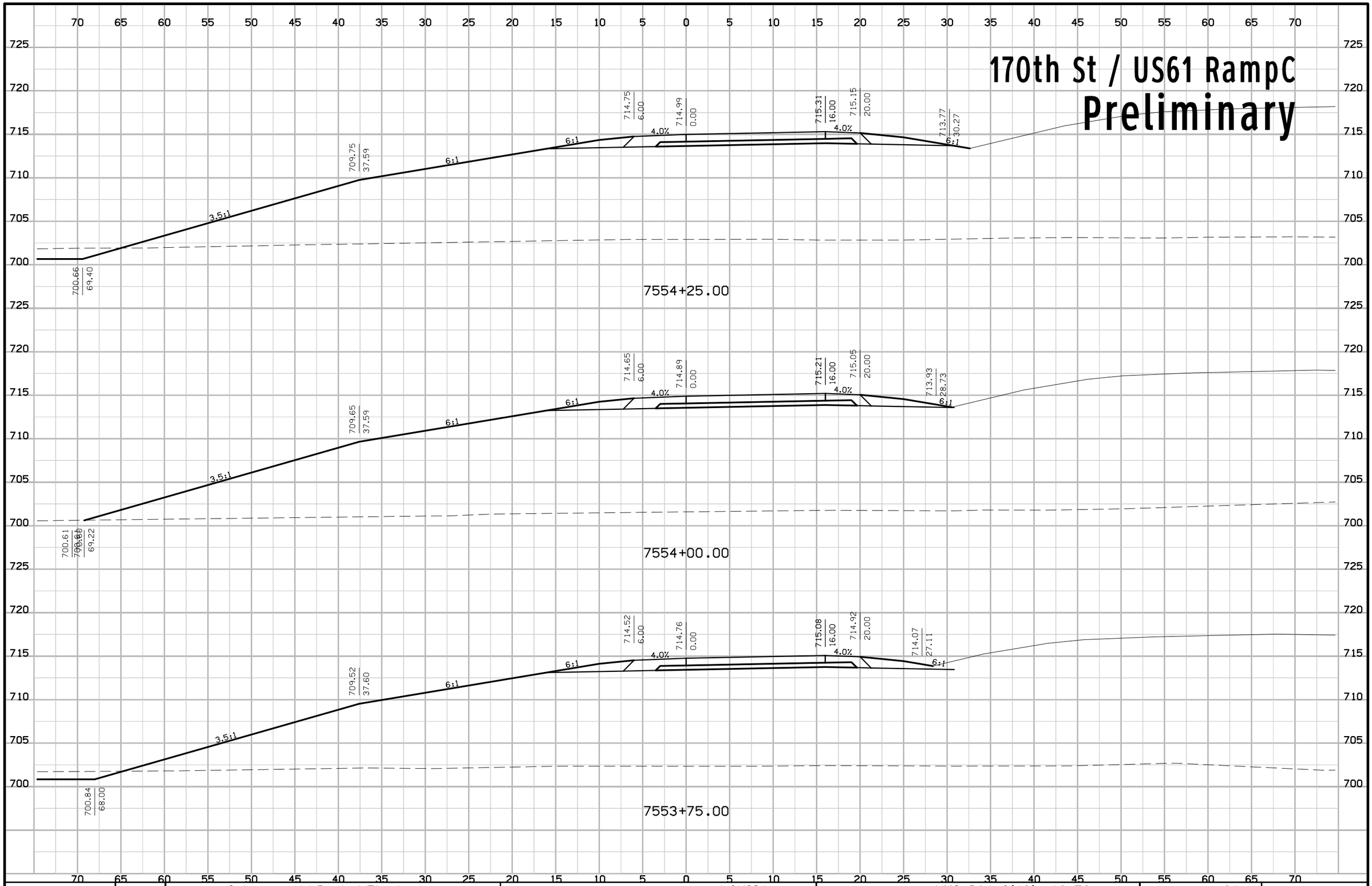
170th St / US61 RampC

Preliminary



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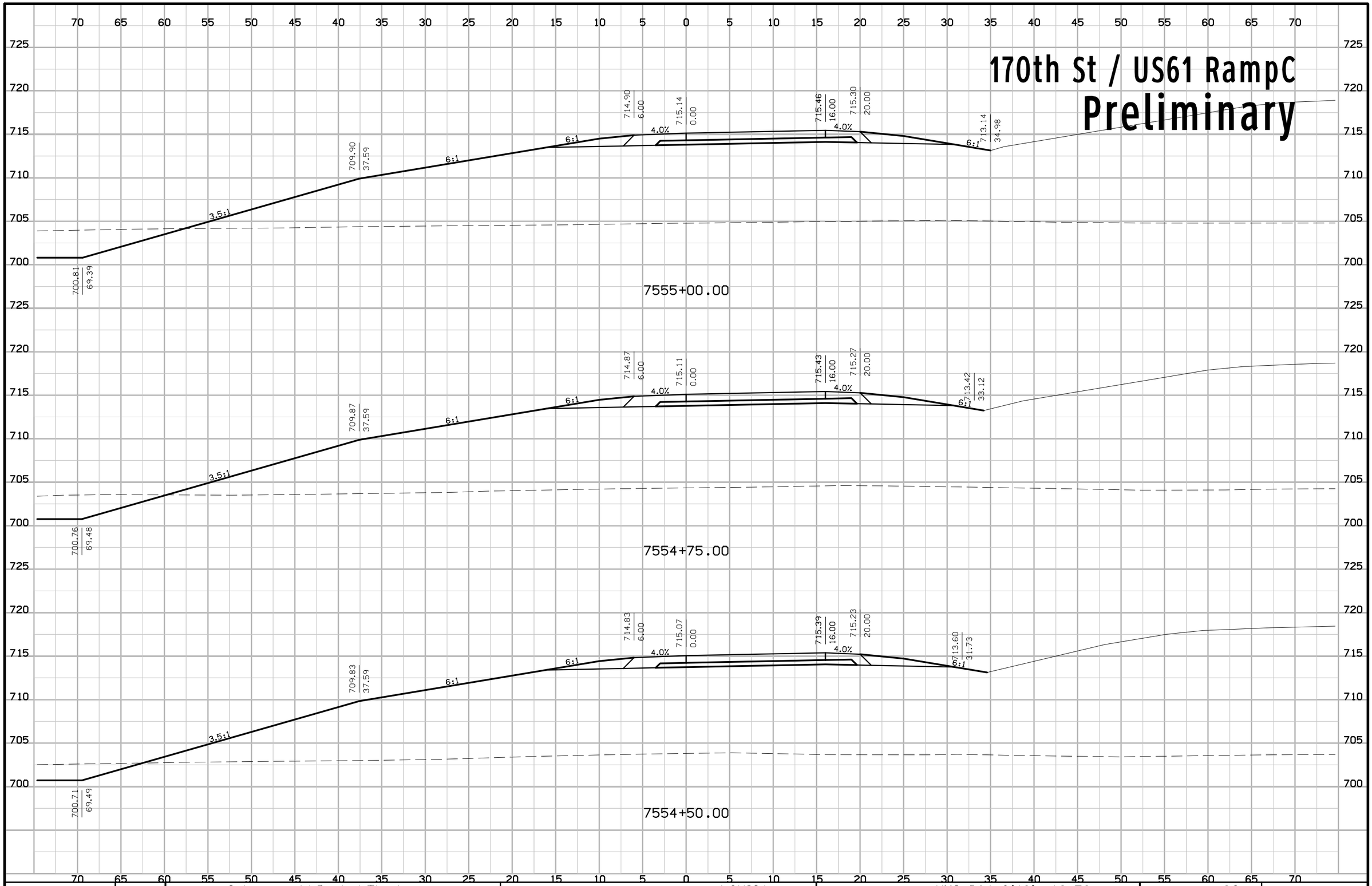
170th St / US61 RampC

Preliminary



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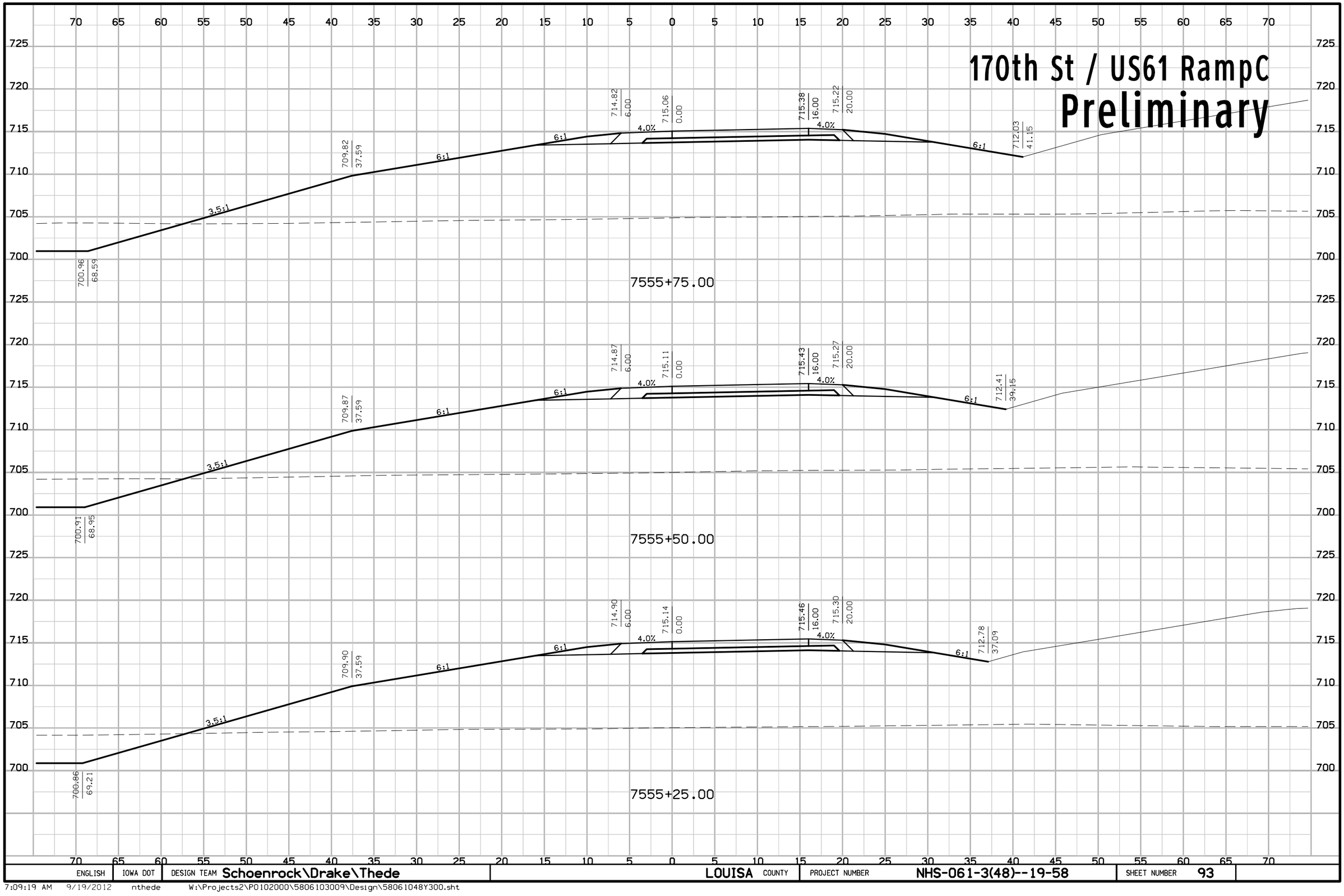
170th St / US61 RampC

Preliminary



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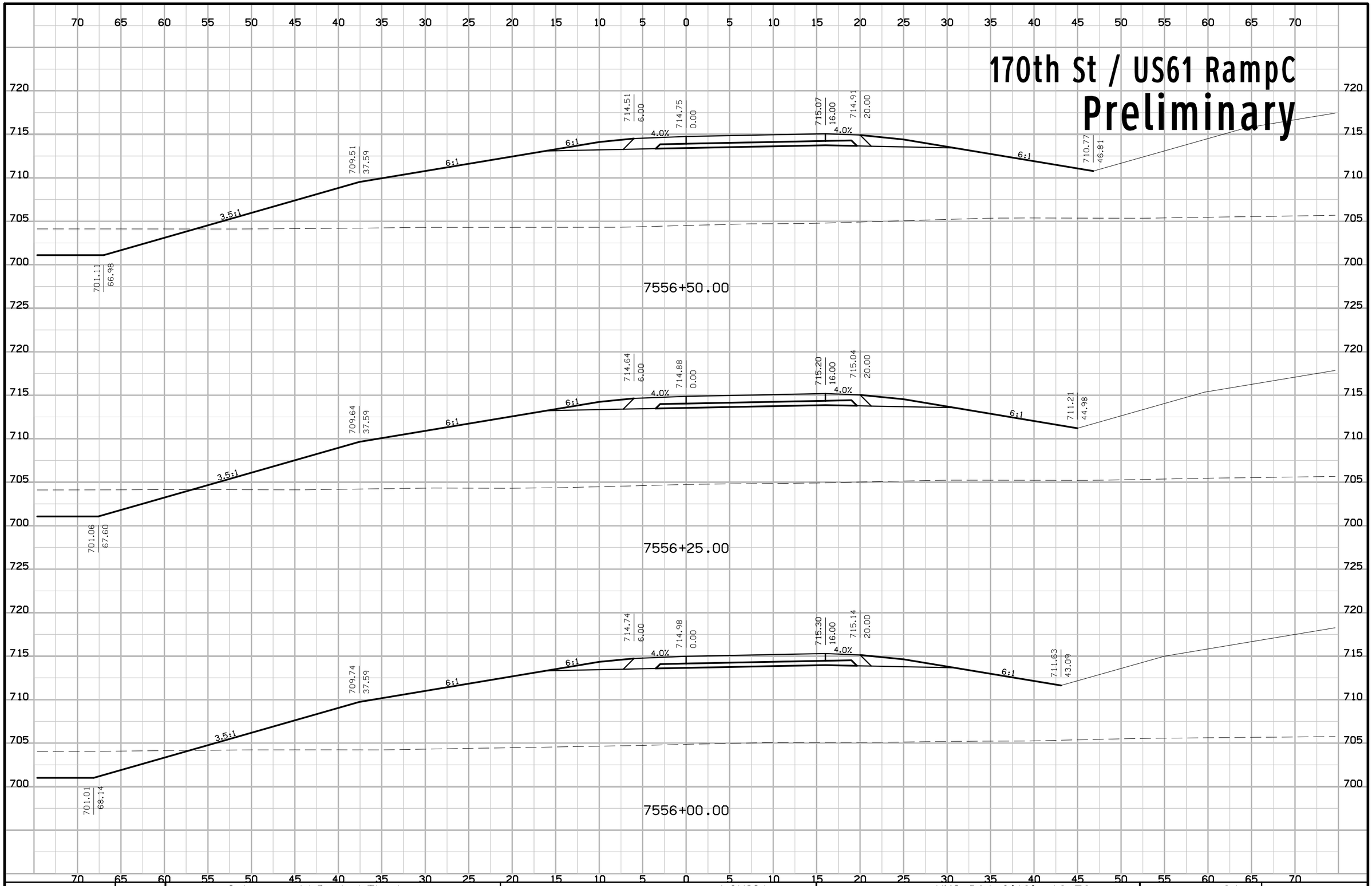
170th St / US61 RampC

Preliminary



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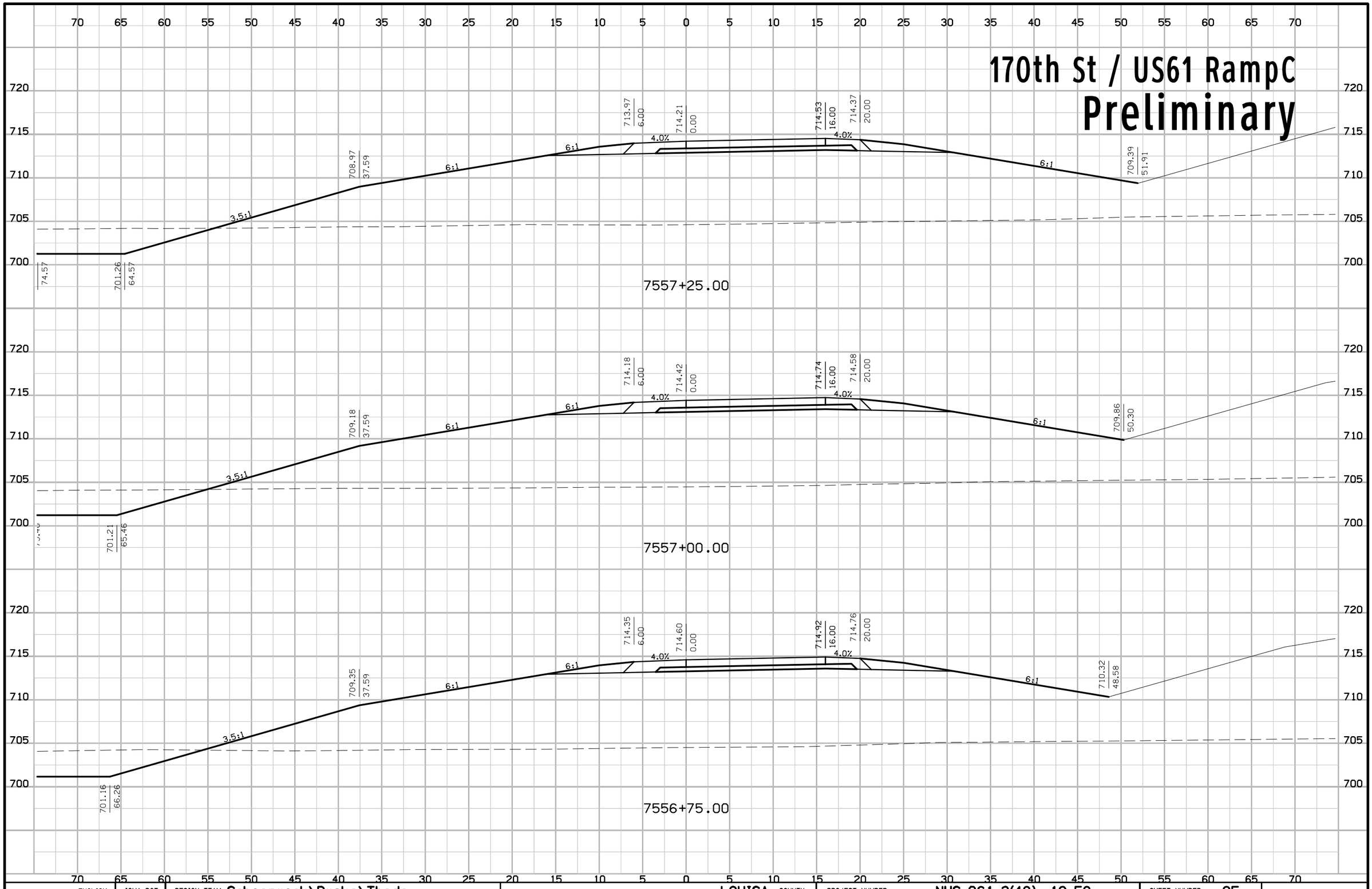
170th St / US61 RampC

Preliminary



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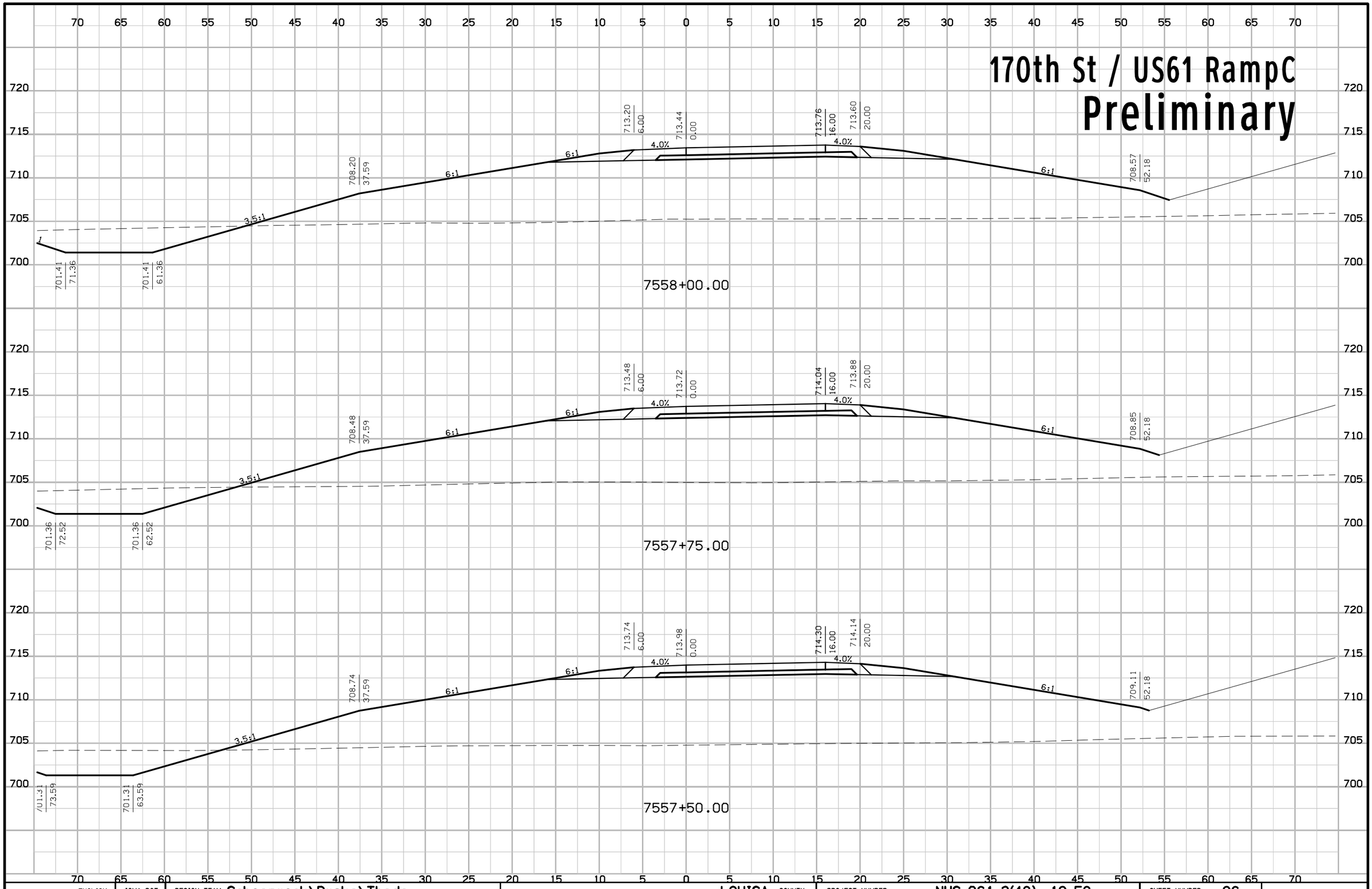
170th St / US61 RampC

Preliminary



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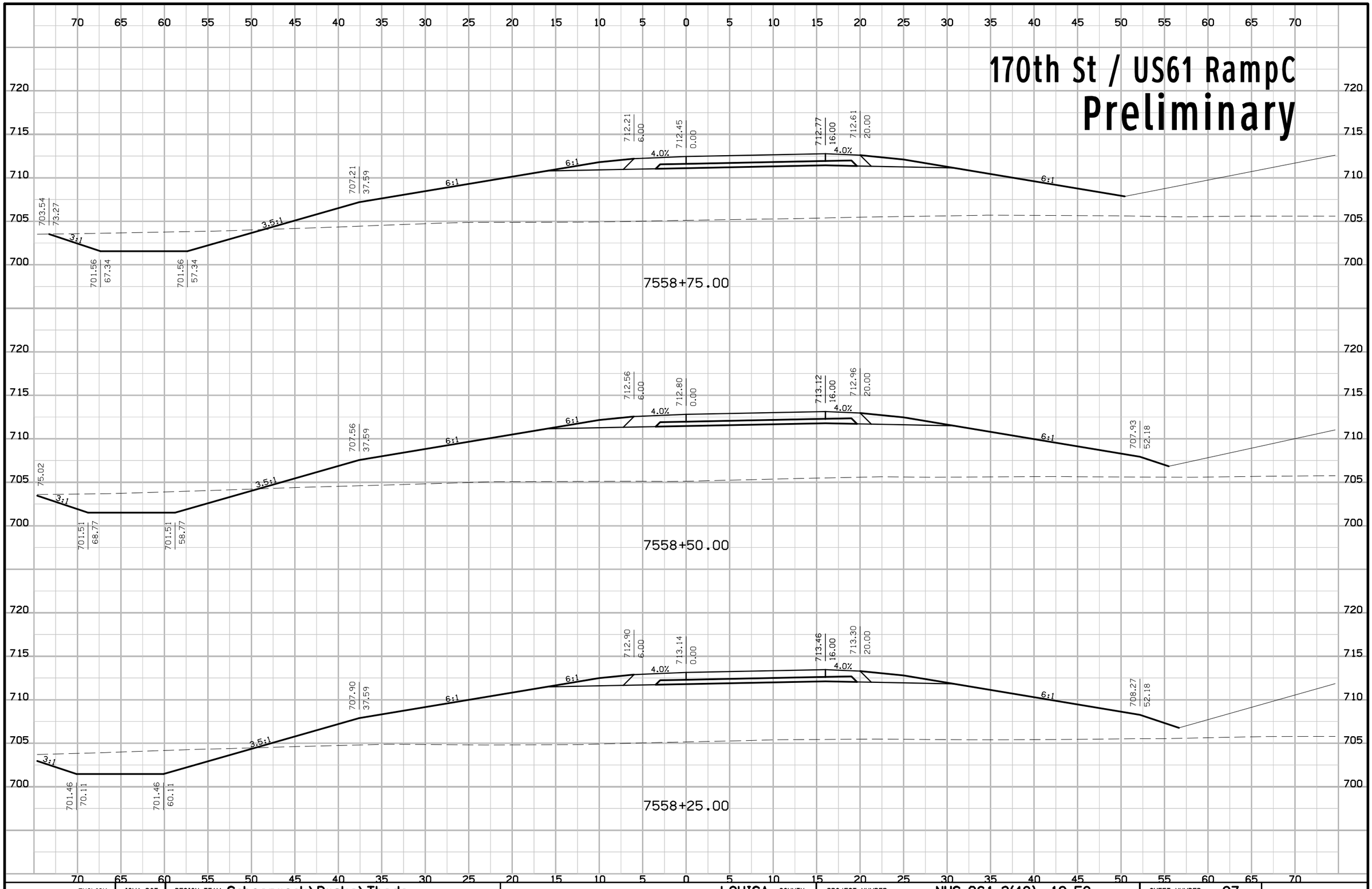
170th St / US61 RampC

Preliminary



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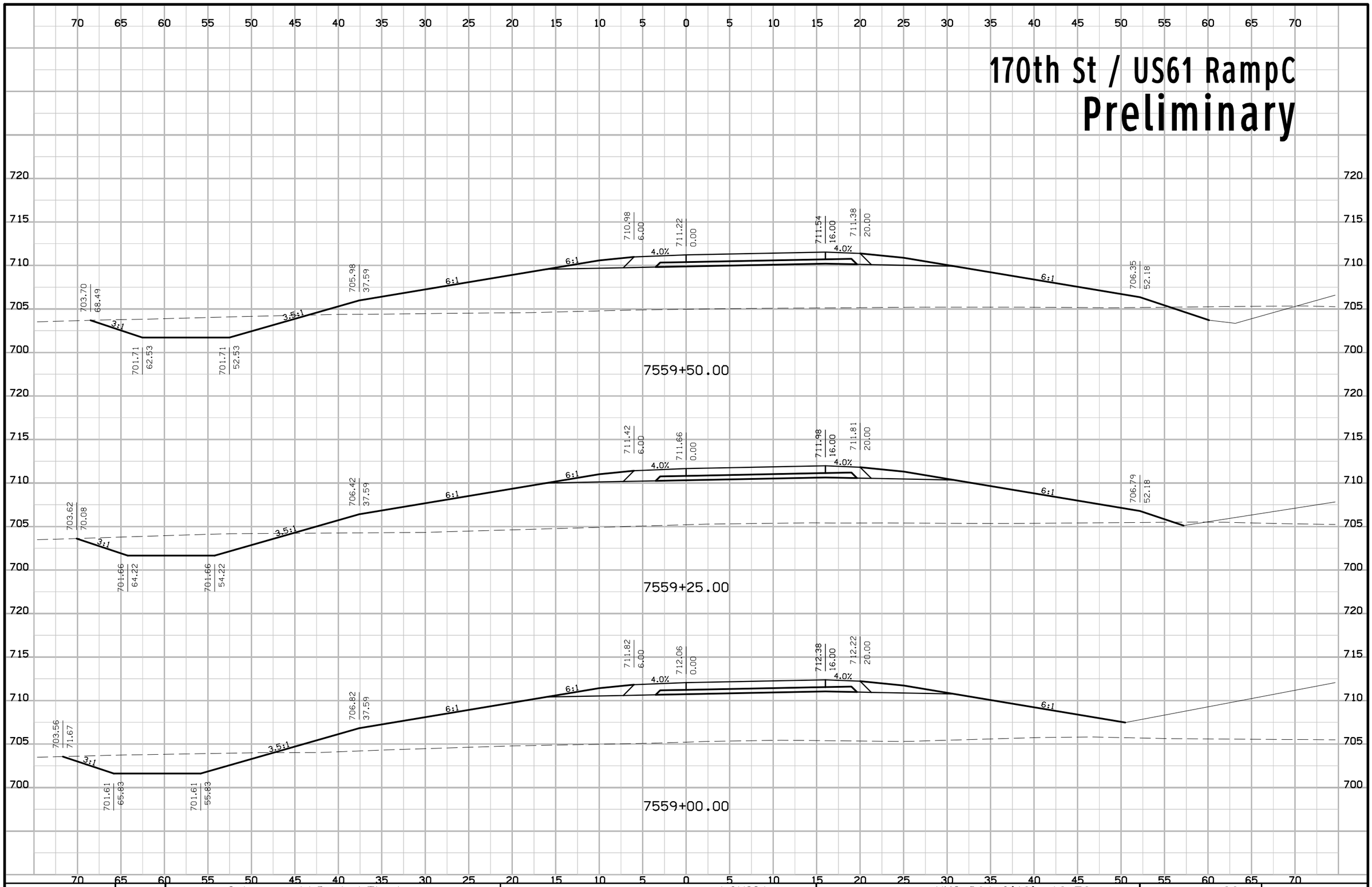
170th St / US61 RampC

Preliminary



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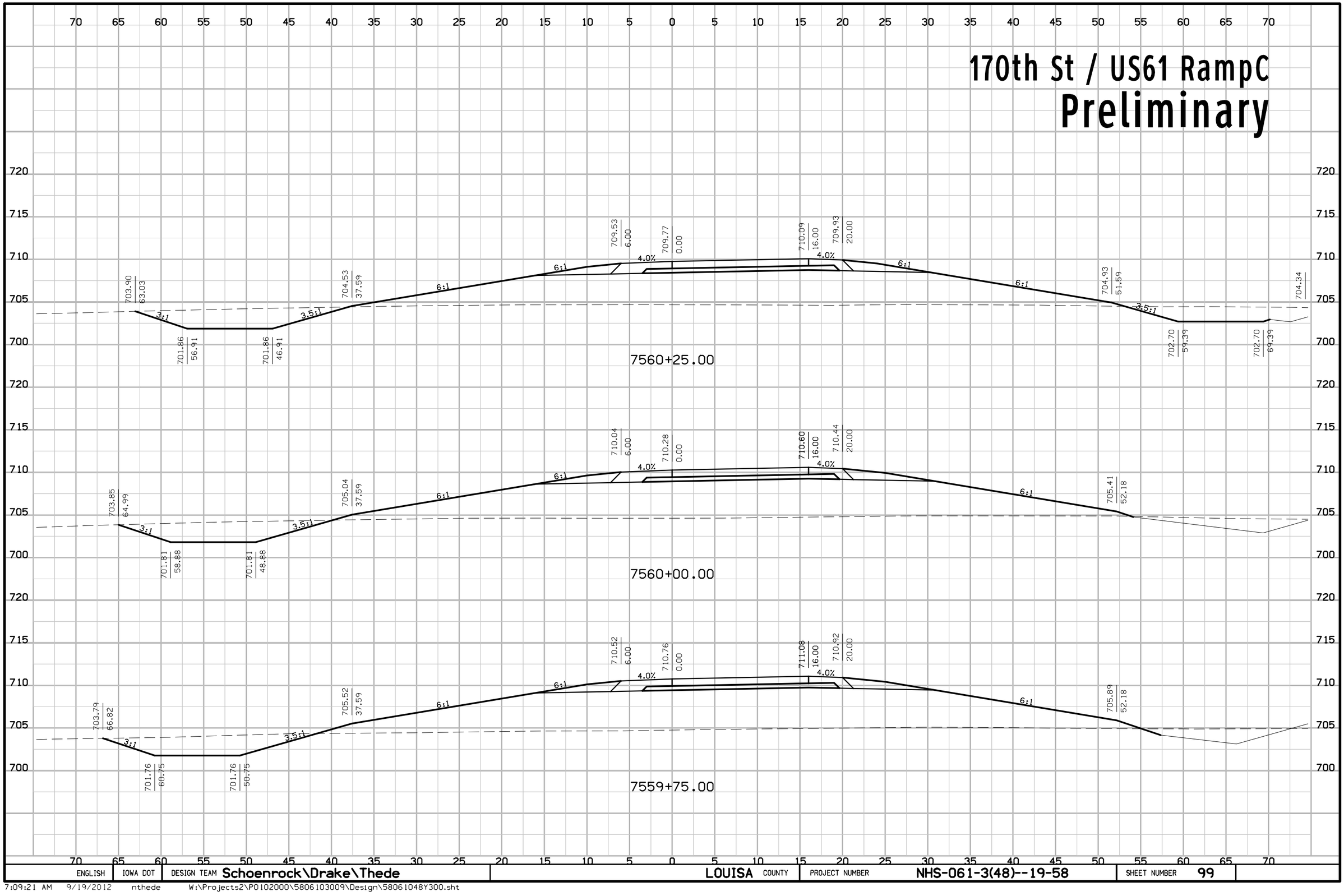
170th St / US61 RampC

Preliminary



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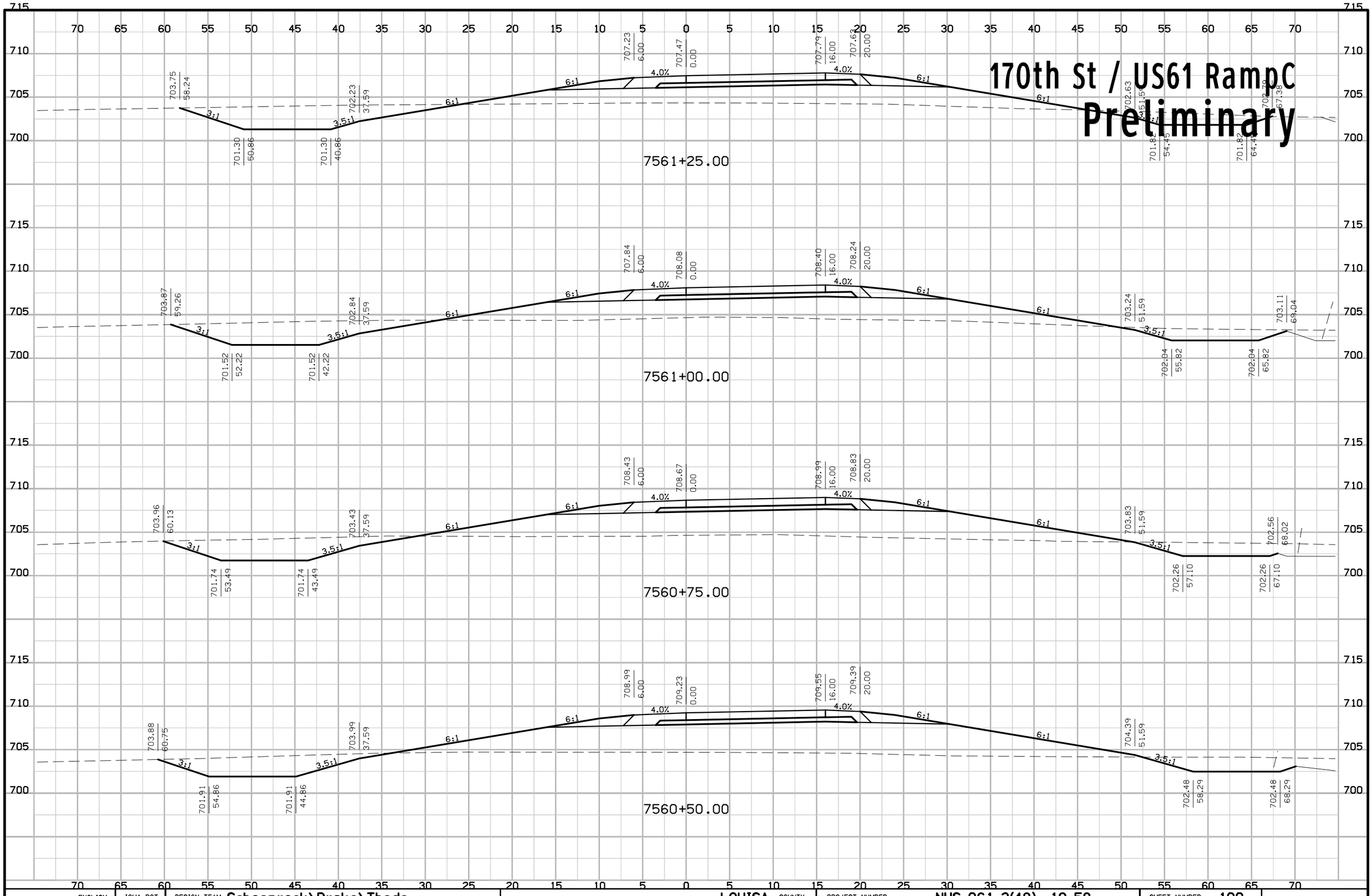
170th St / US61 RampC

Preliminary



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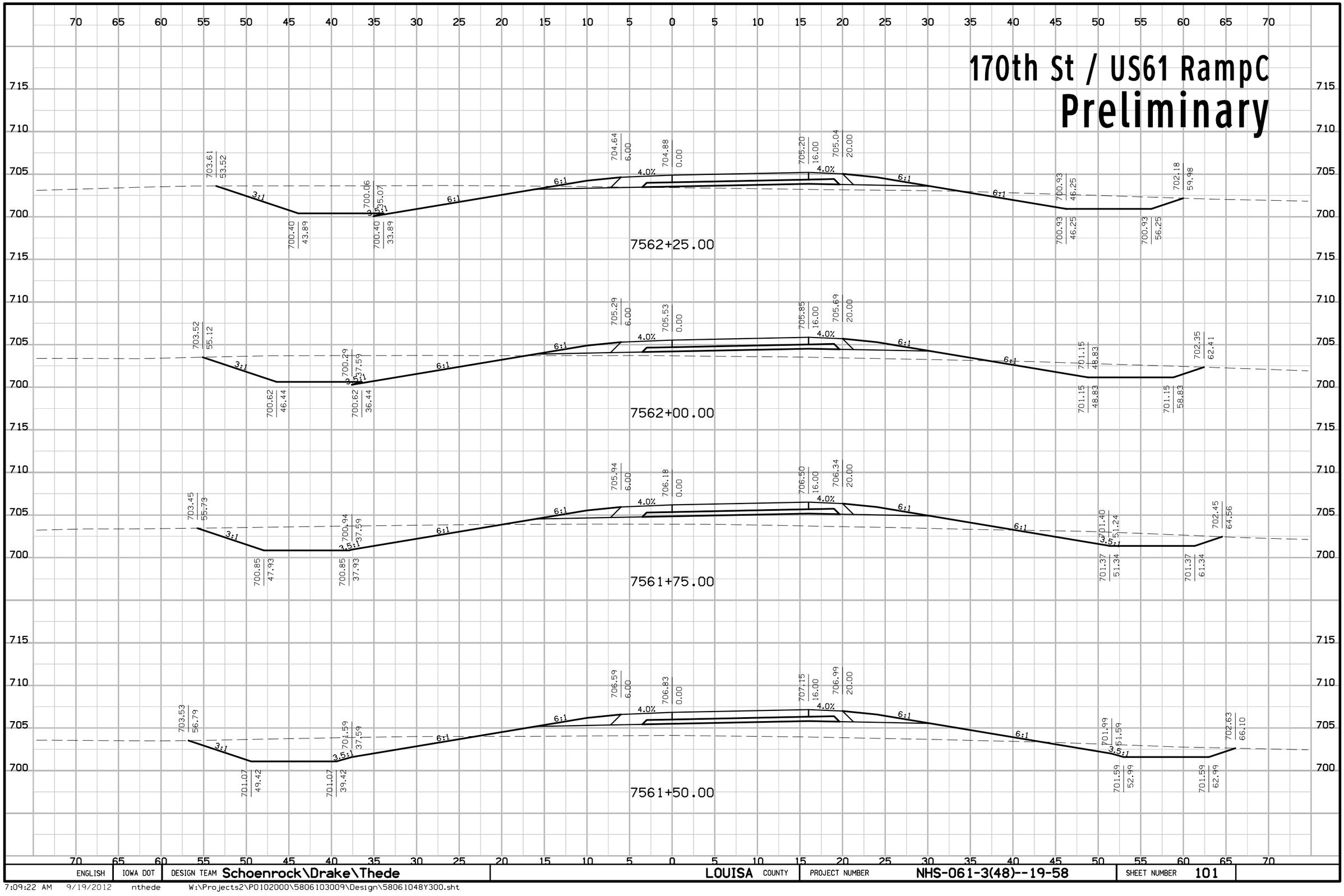
170th St / US61 RampC

Preliminary



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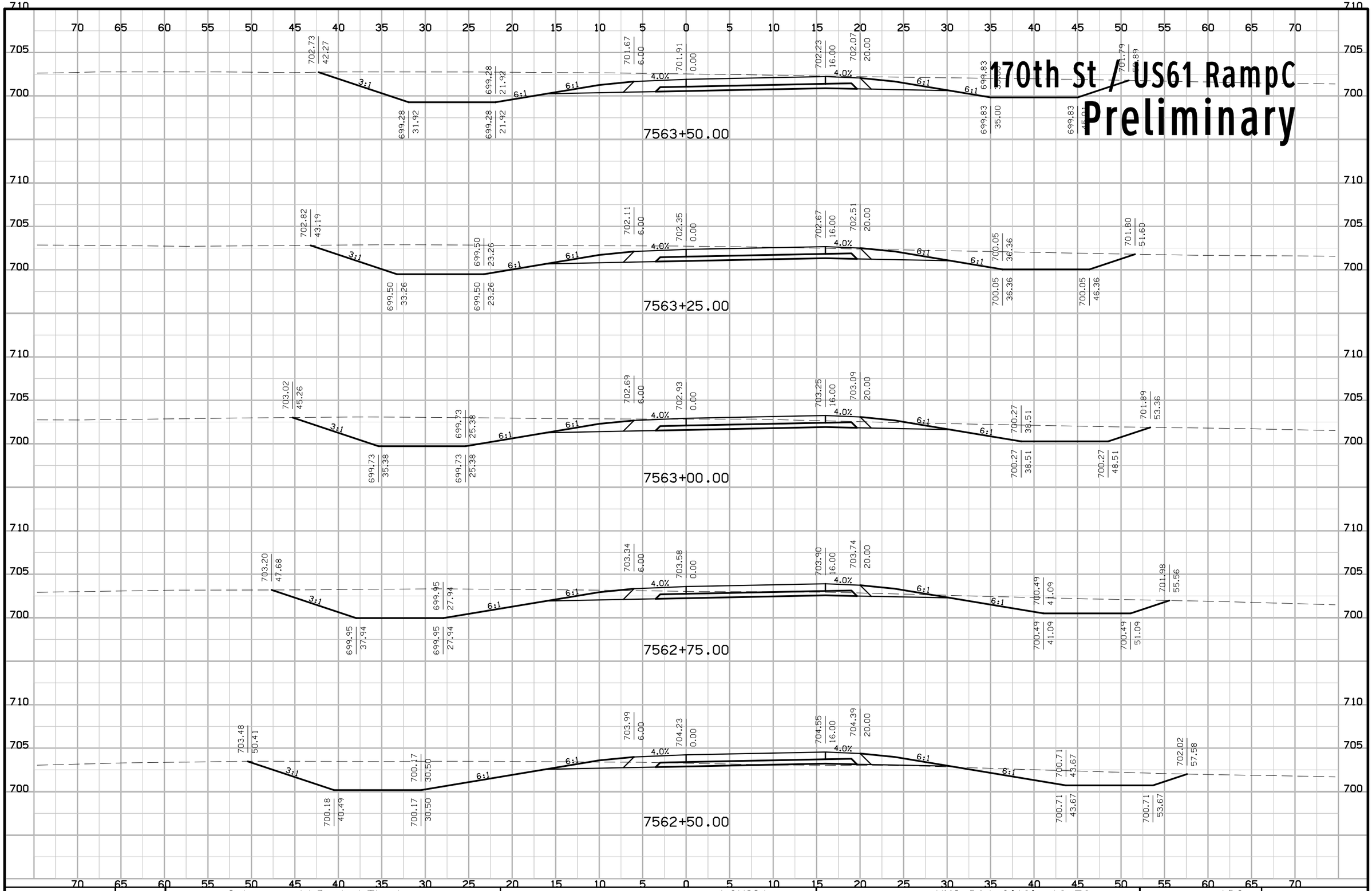
170th St / US61 RampC

Preliminary



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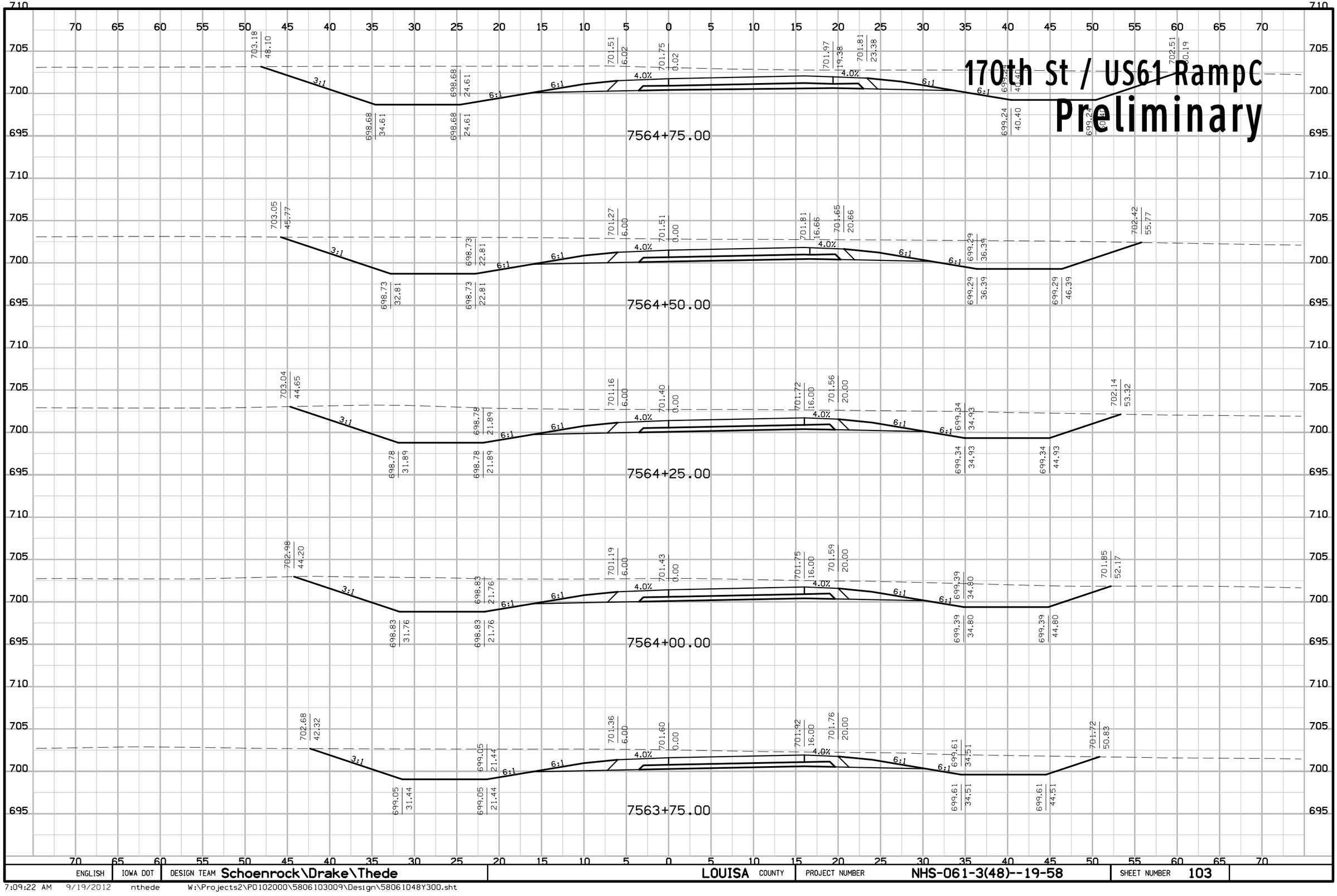
170th St / US61 RampC

Preliminary



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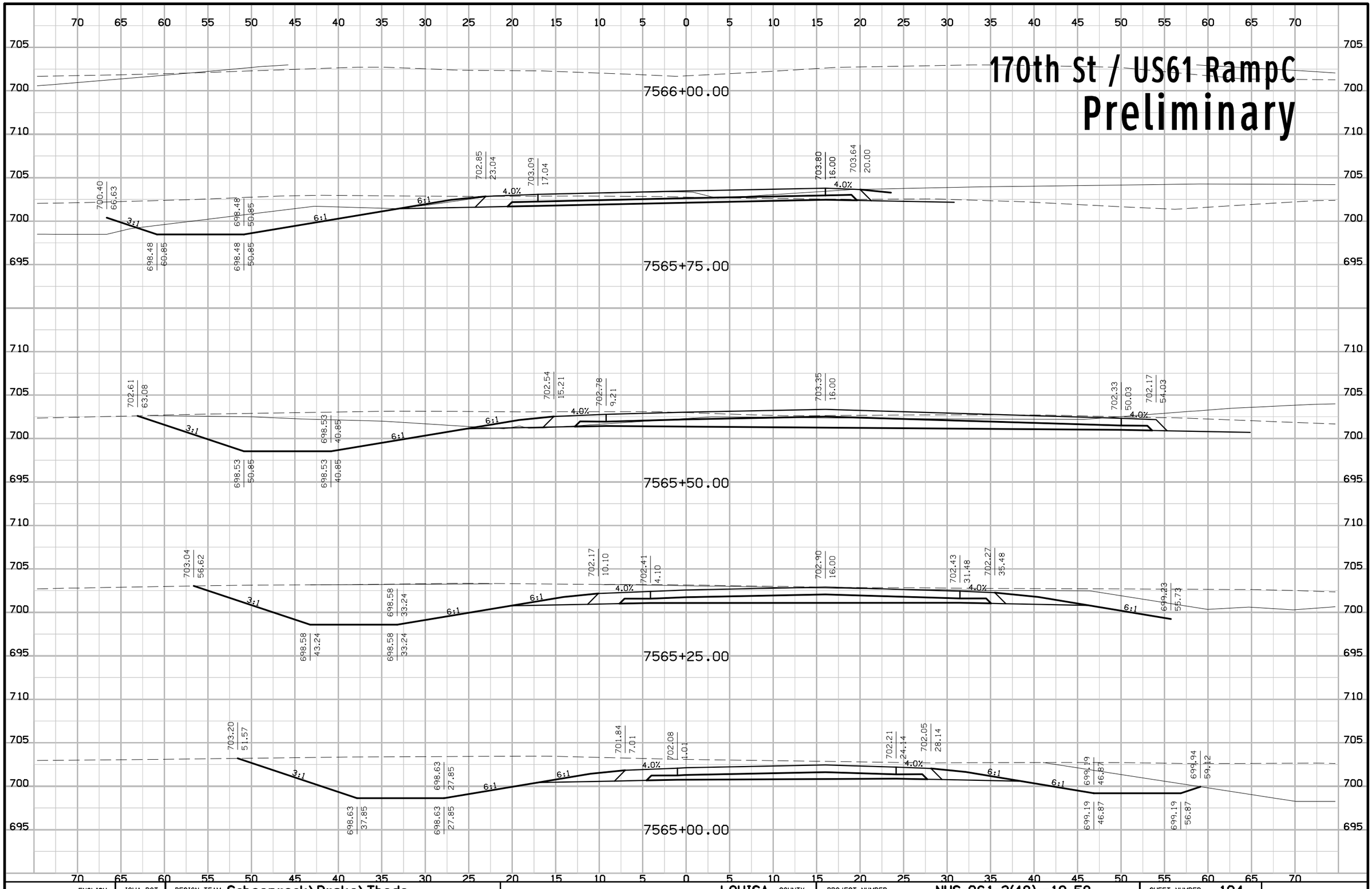
170th St / US61 RampC

Preliminary



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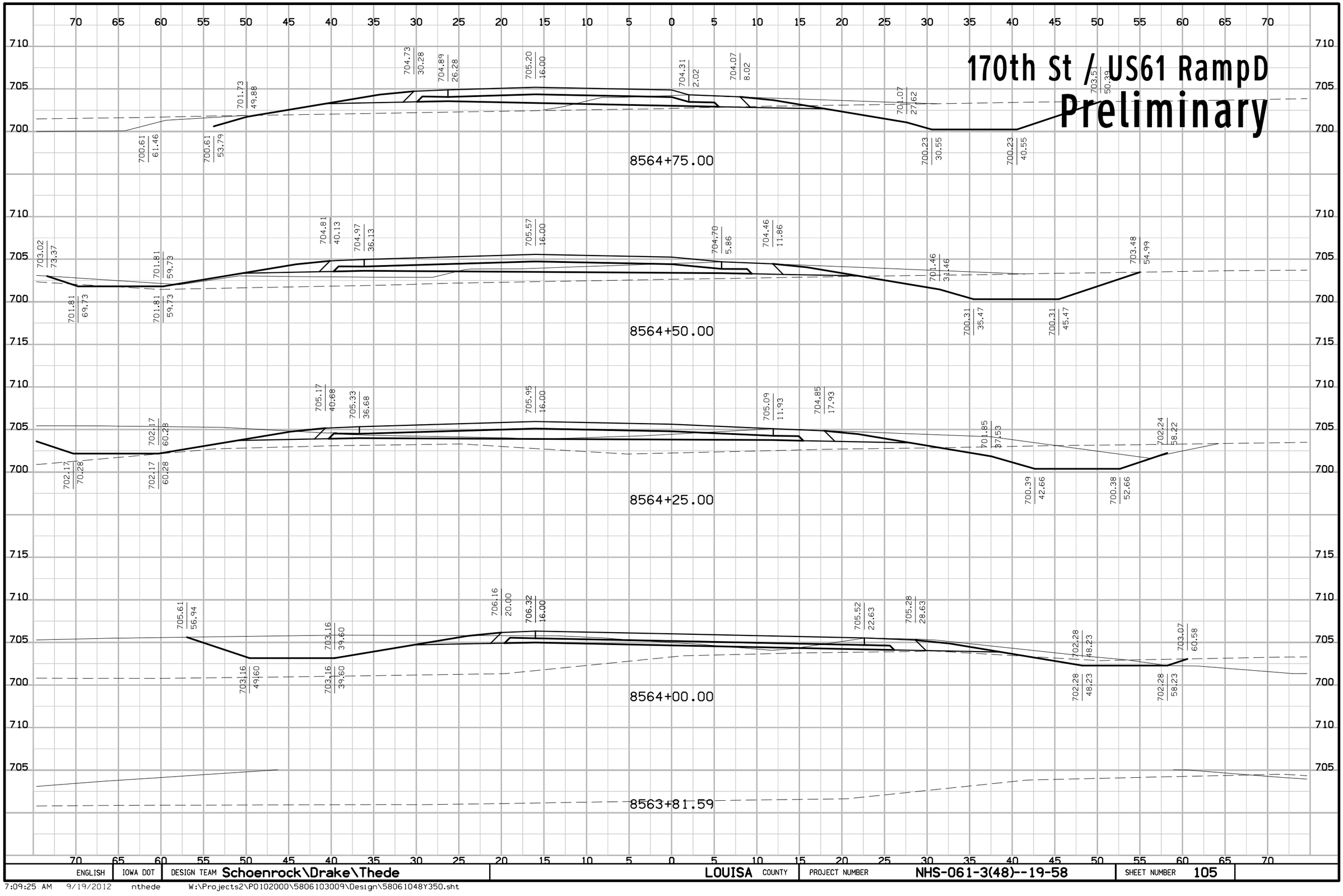
170th St / US61 RampD

Preliminary



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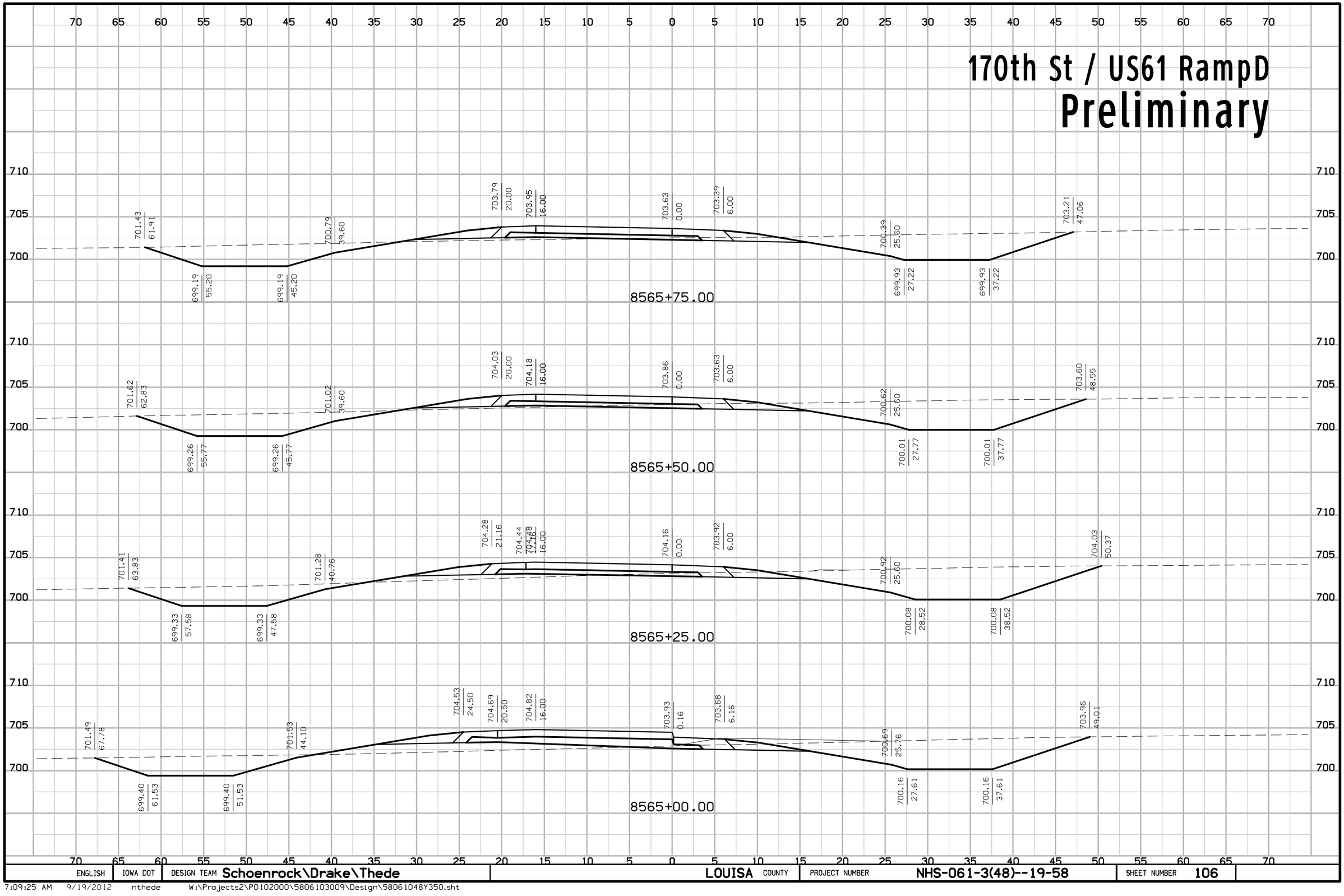
170th St / US61 RampD

Preliminary



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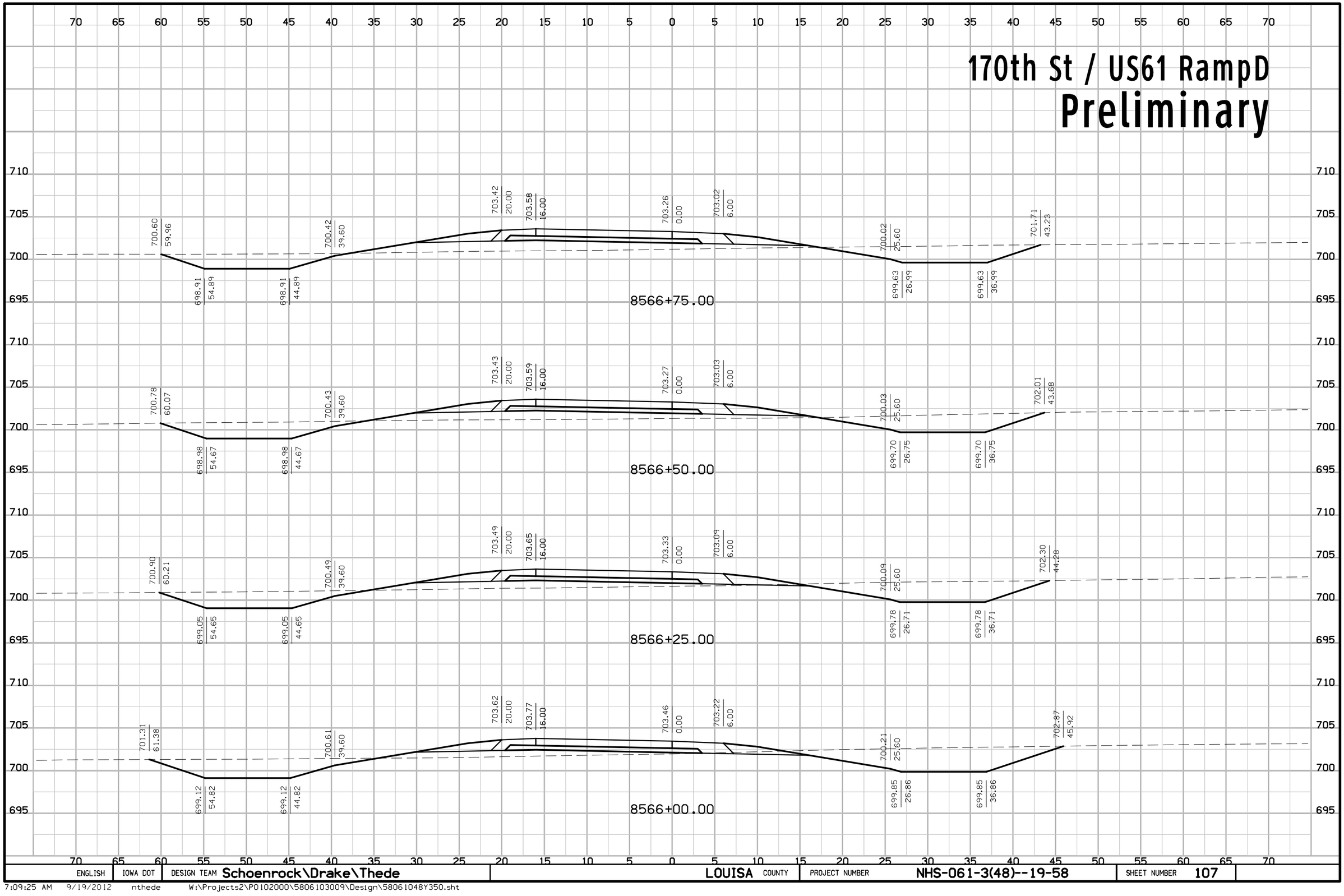
170th St / US61 RampD

Preliminary



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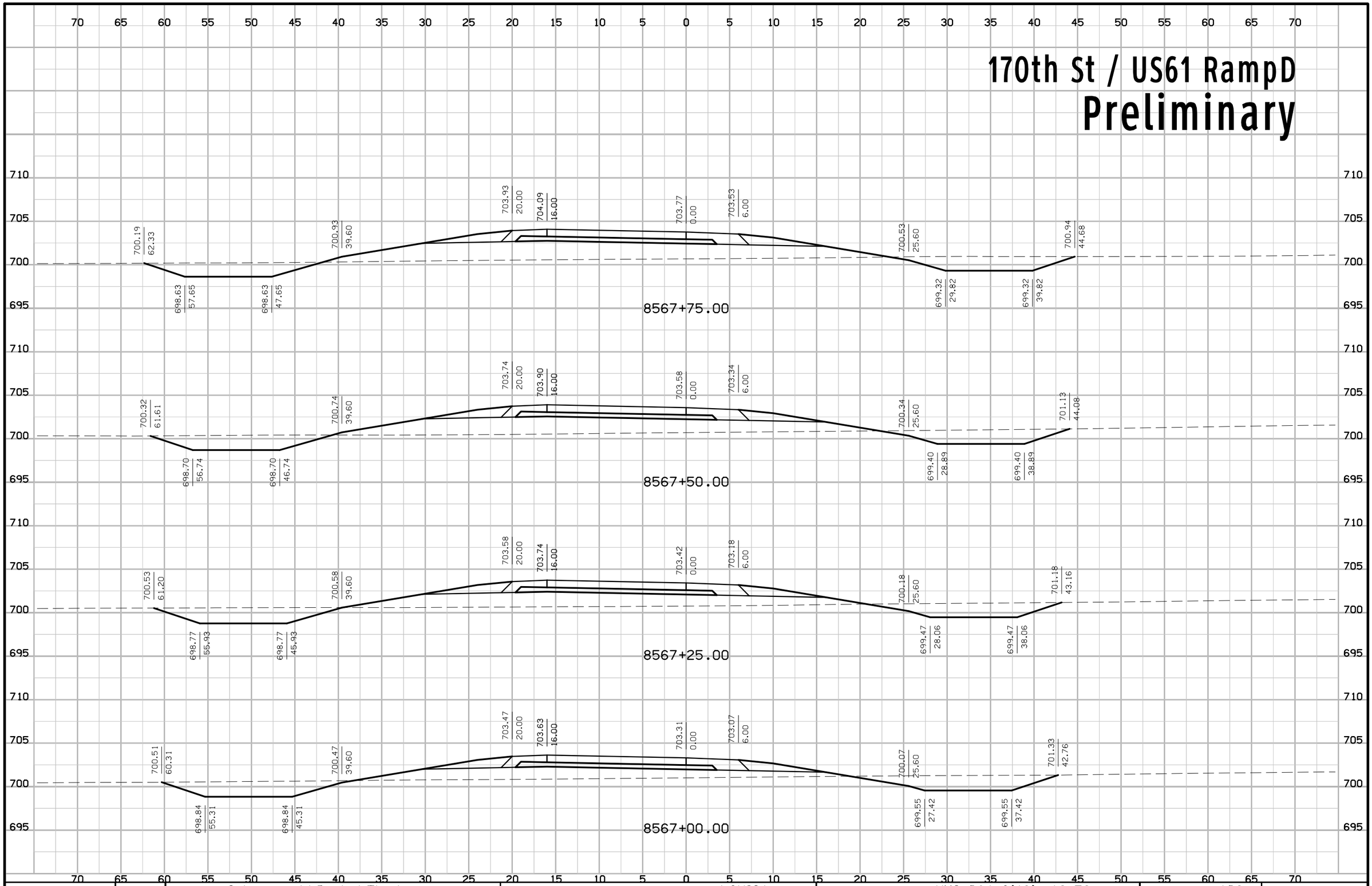
170th St / US61 RampD

Preliminary



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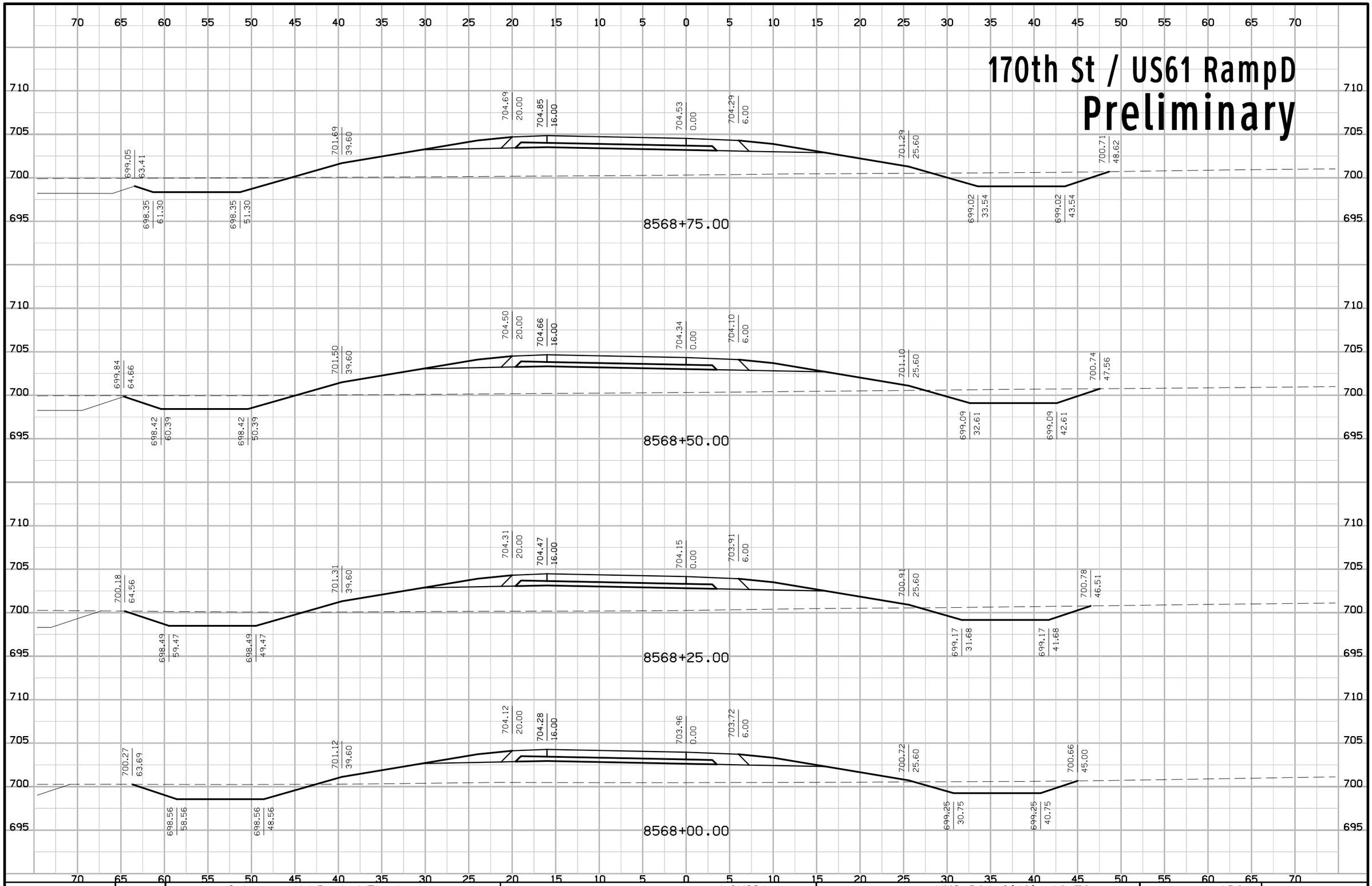
170th St / US61 RampD

Preliminary



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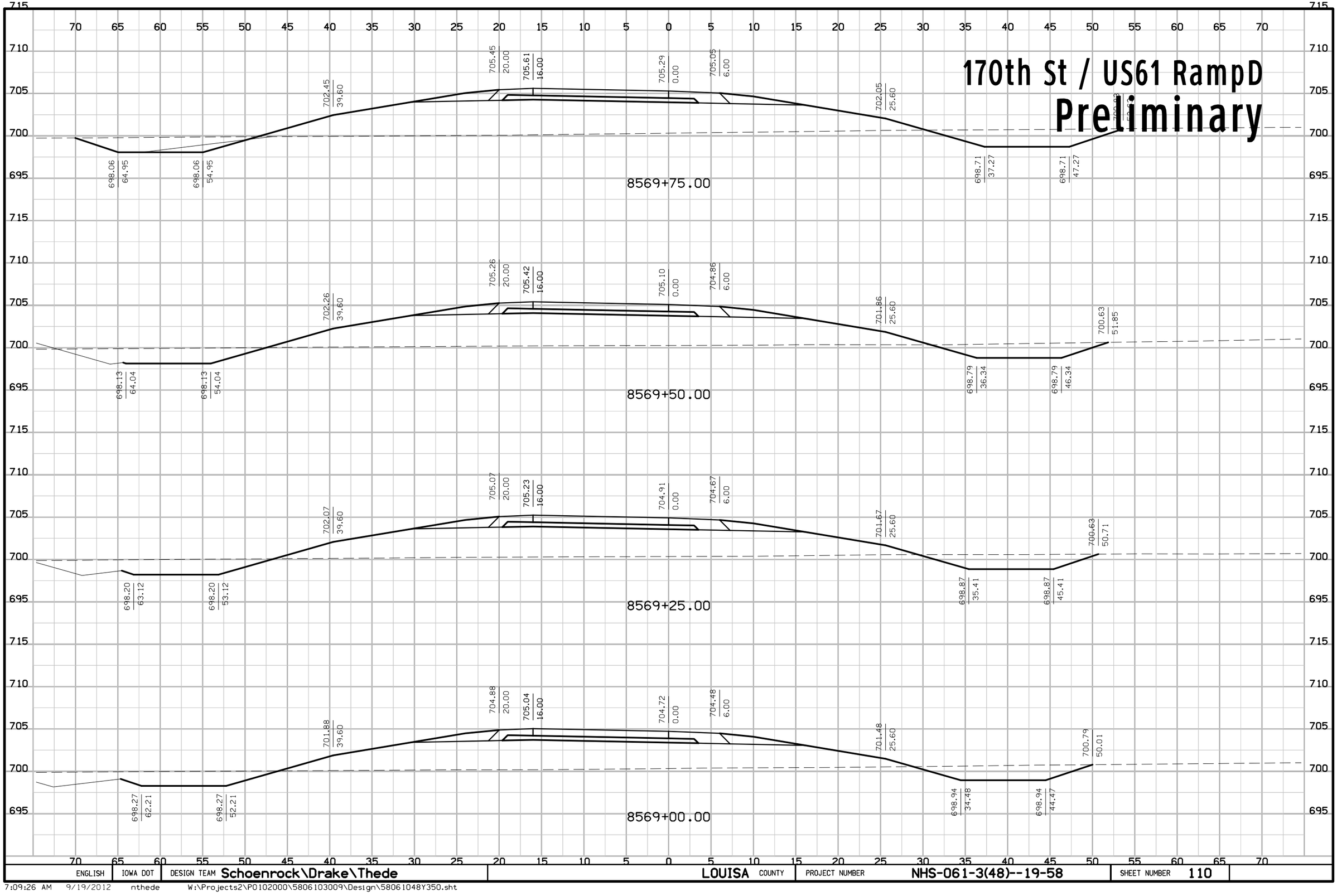
170th St / US61 RampD

Preliminary



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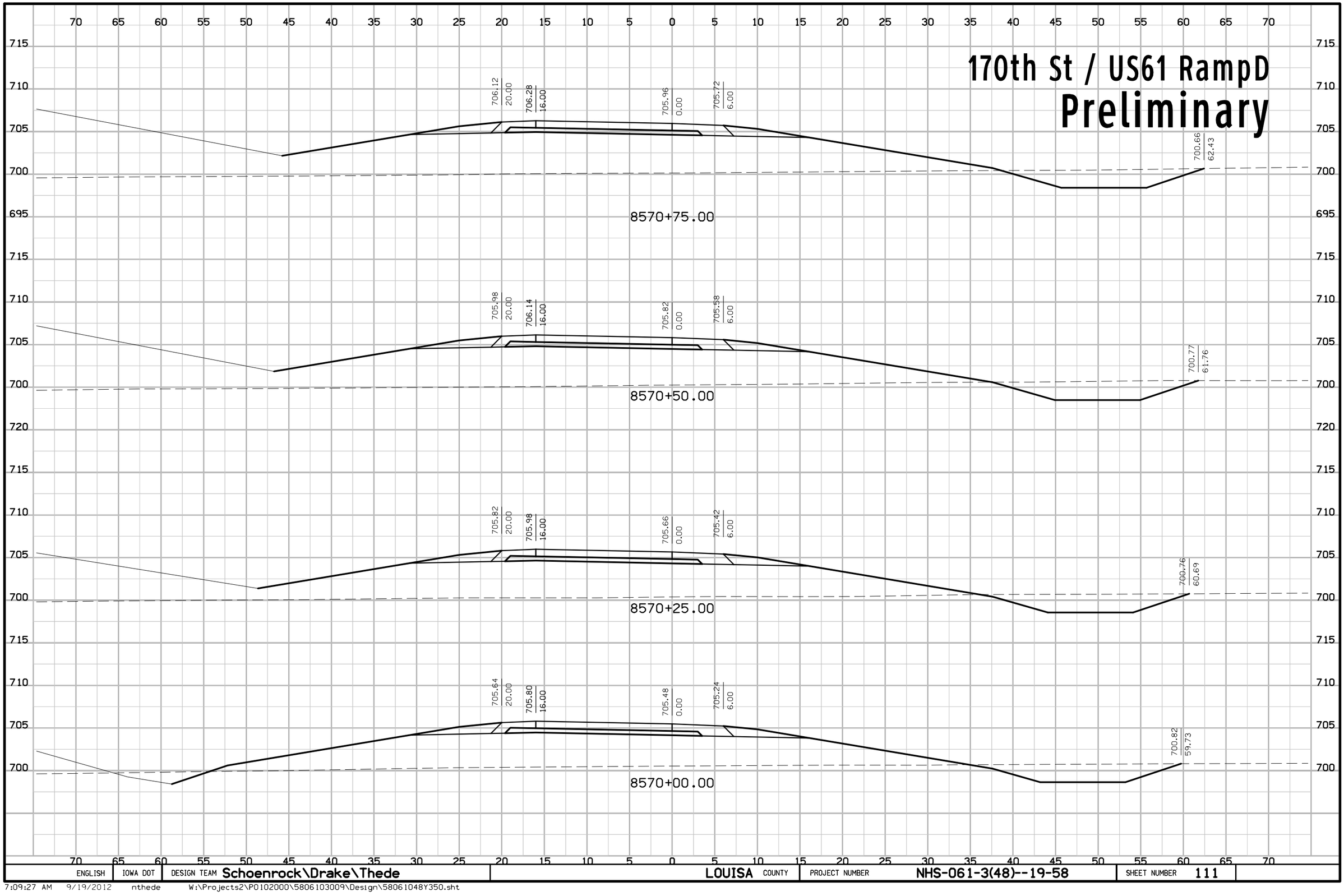
170th St / US61 RampD

Preliminary



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170th St / US61 RampD

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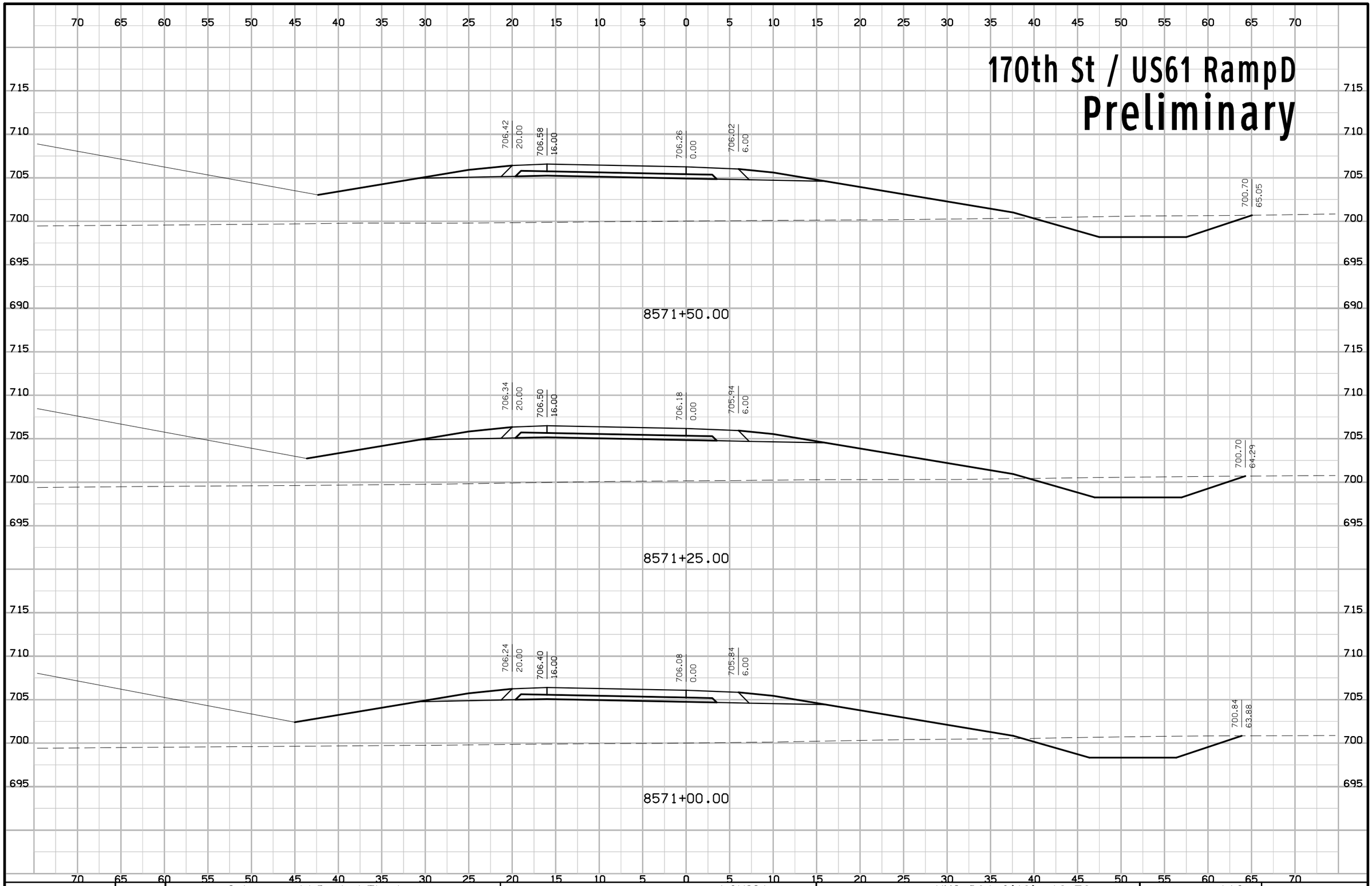

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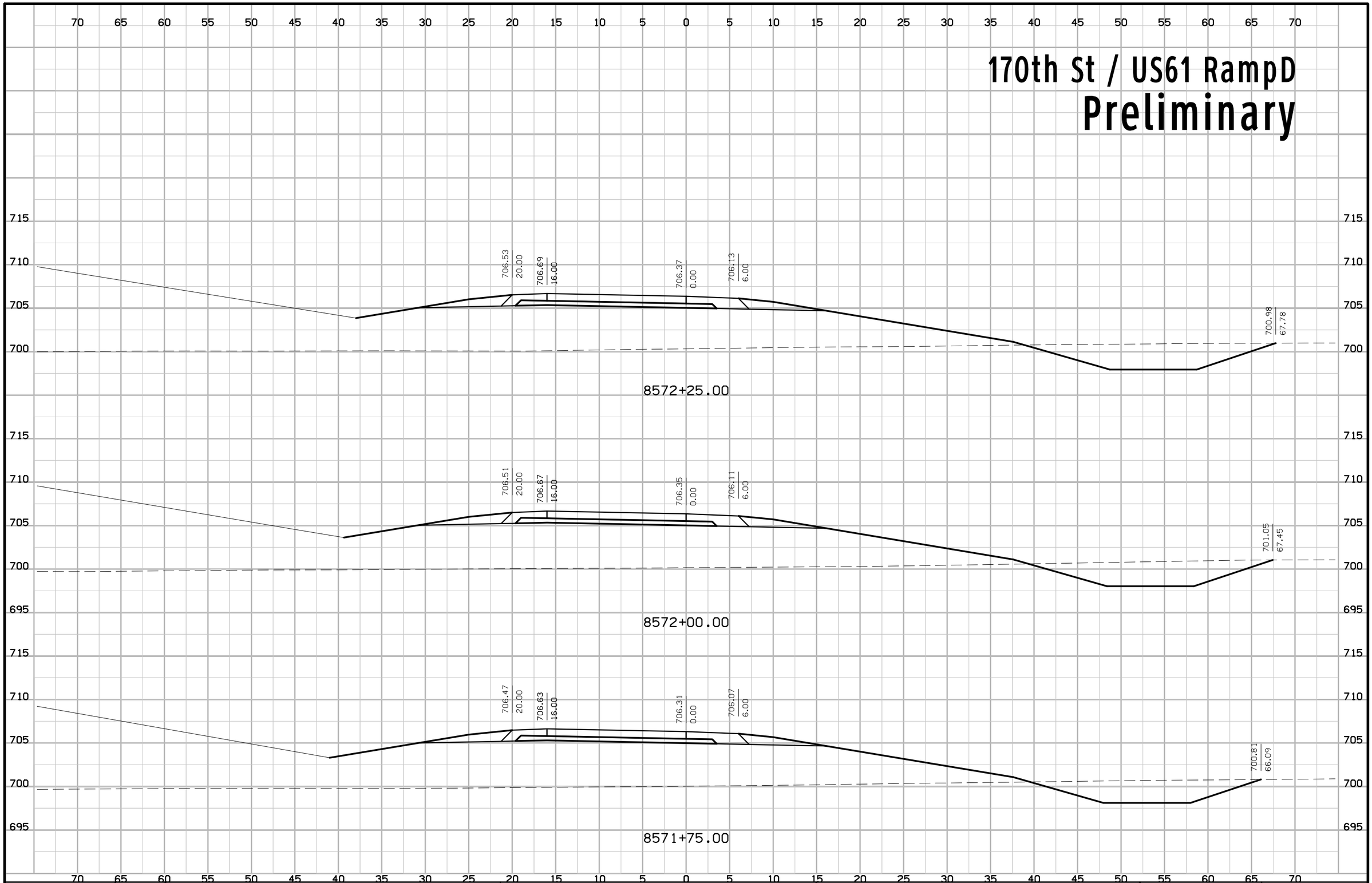
170th St / US61 RampD

Preliminary



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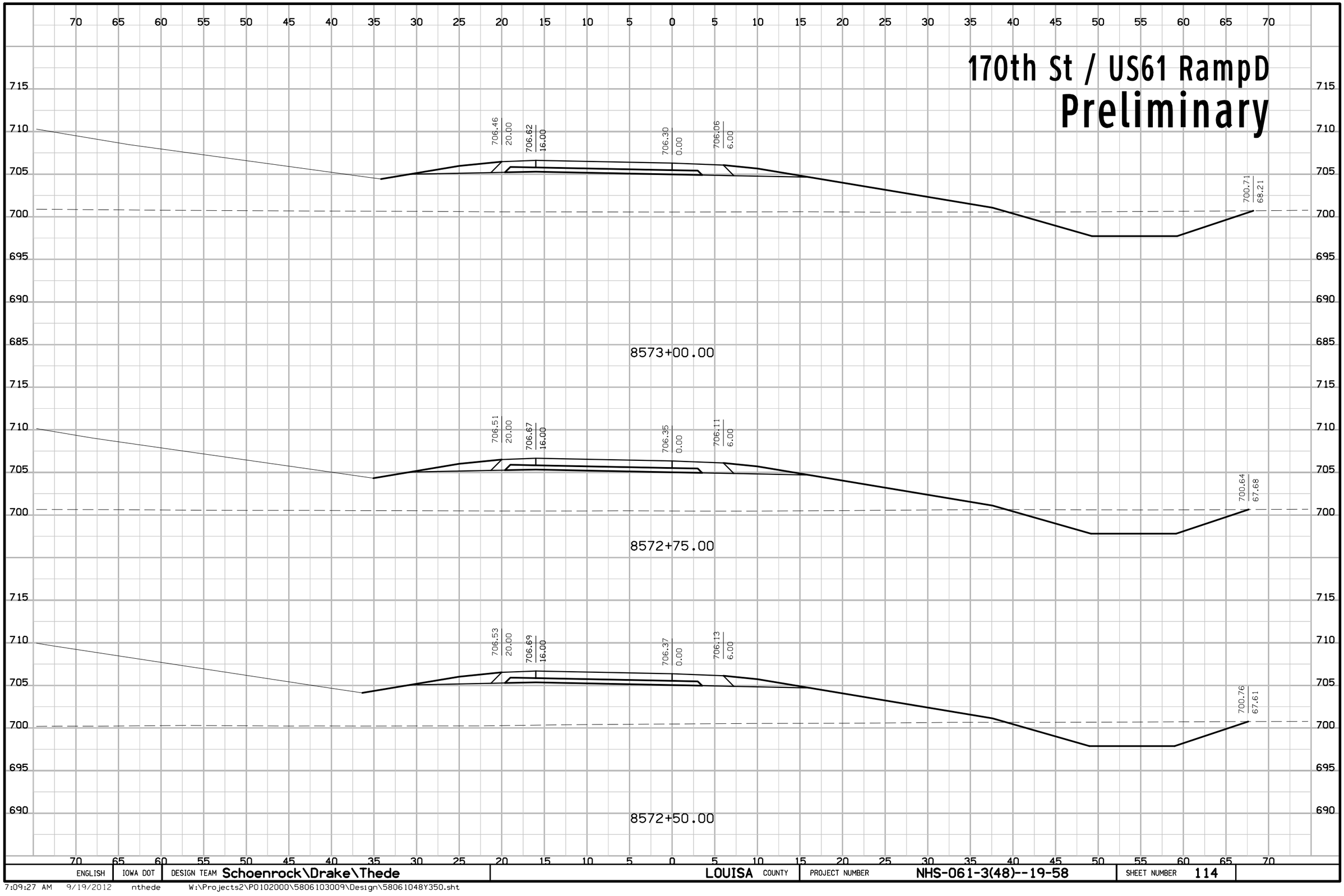
170th St / US61 RampD

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER 114

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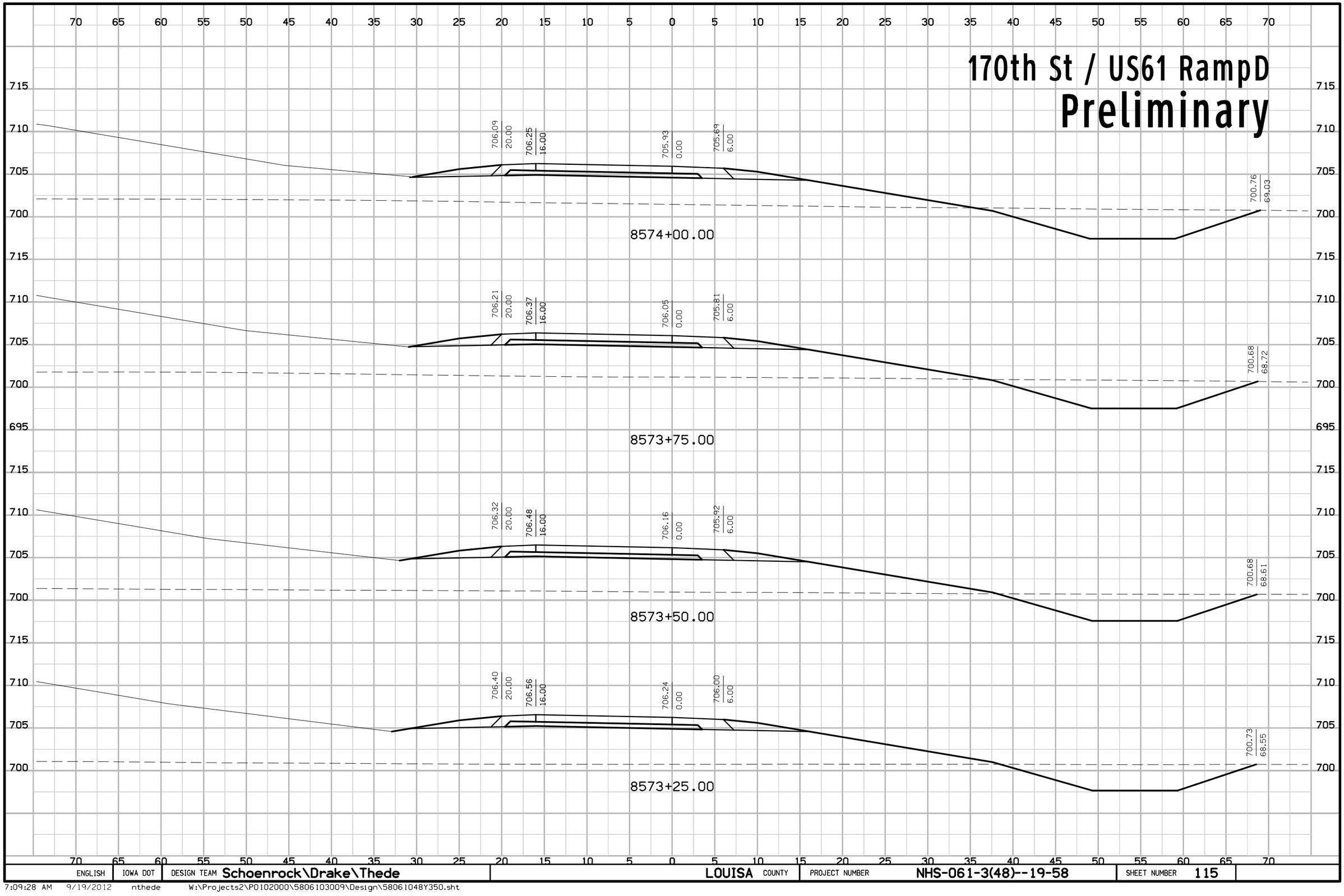
170th St / US61 RampD

Preliminary



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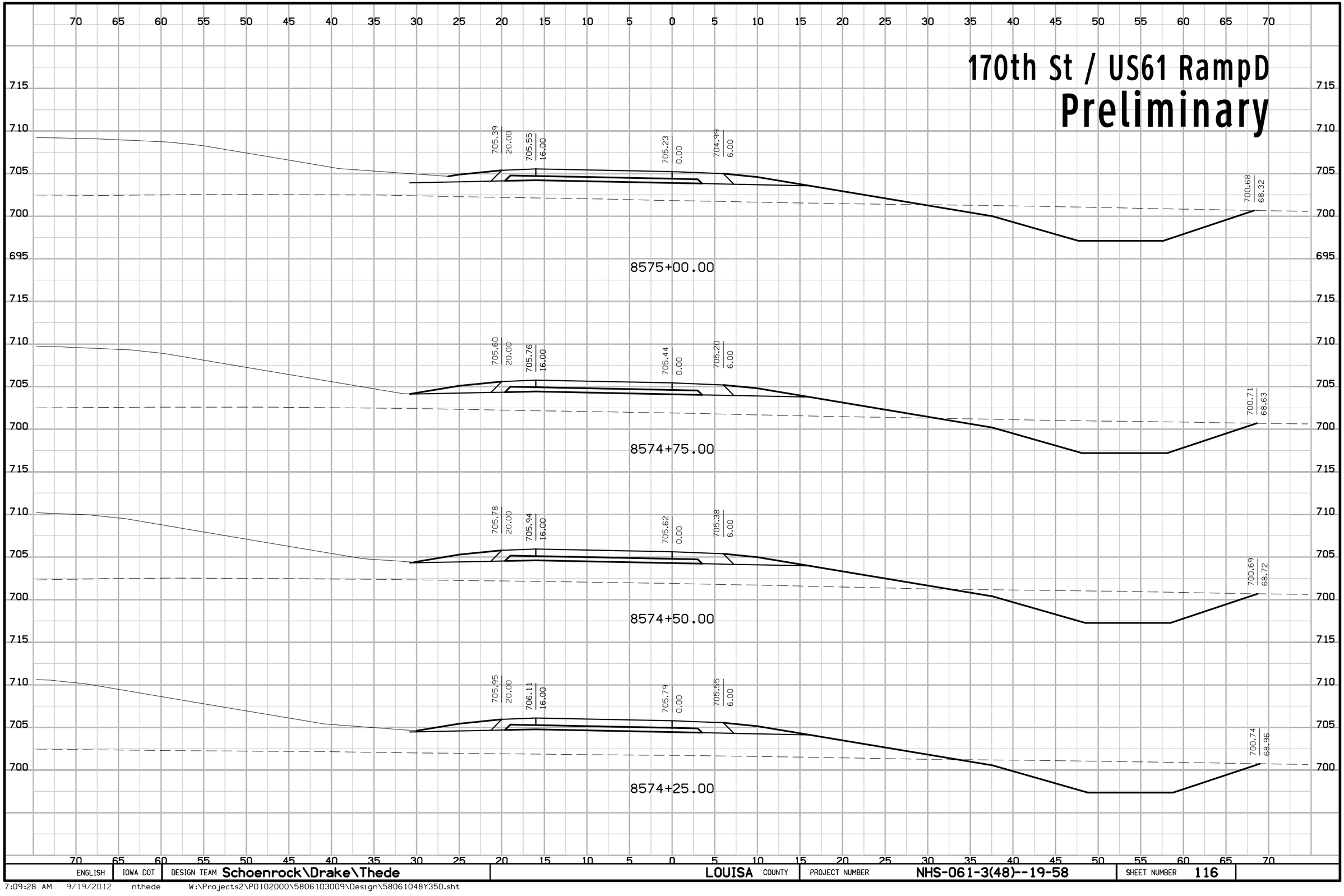
170th St / US61 RampD

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER 116

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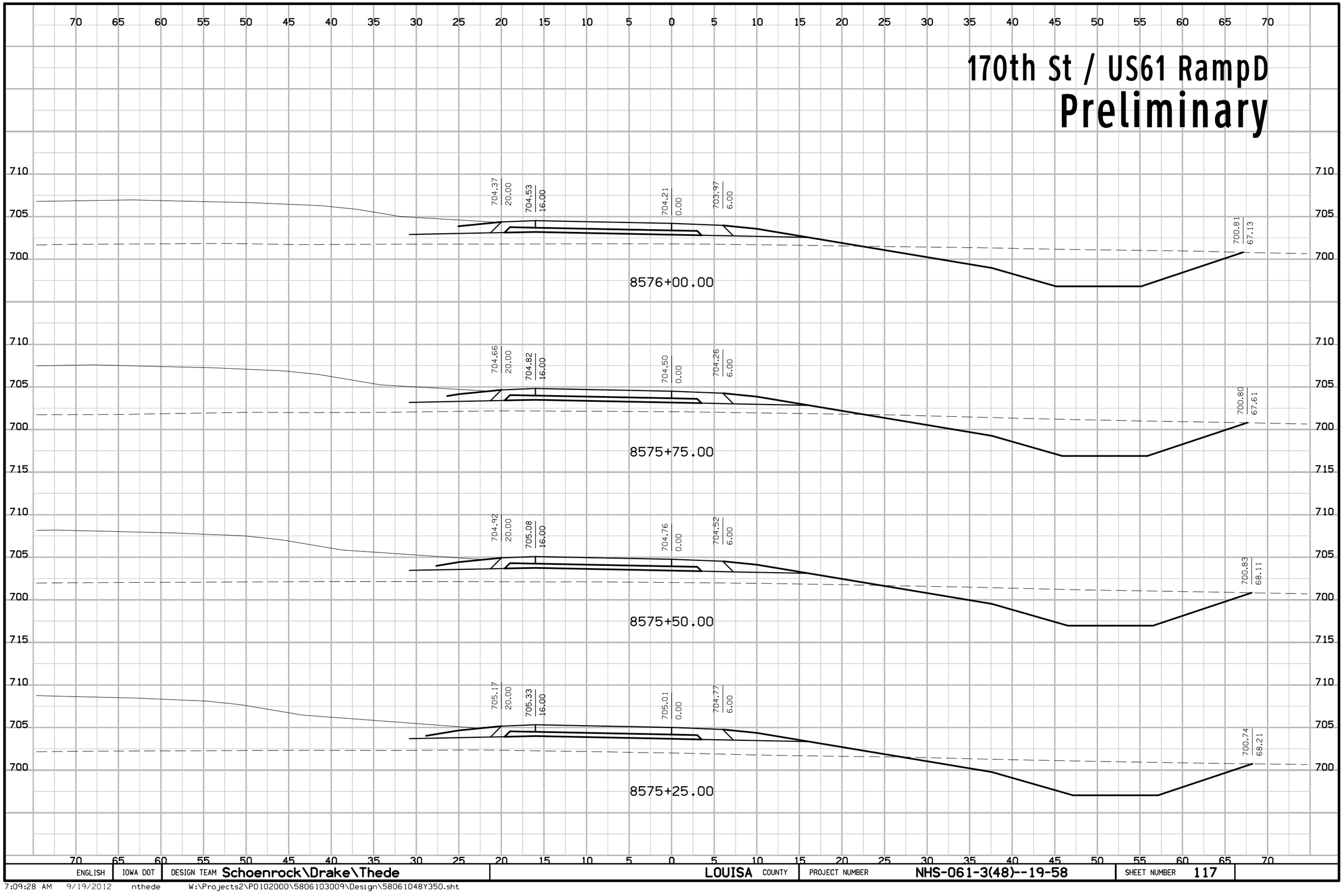
170th St / US61 RampD

Preliminary



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER NHS-061-3(48)--19-58	SHEET NUMBER 117

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170th St / US61 RampD

Preliminary

8578+00.00

8577+75.00

8577+50.00

8577+25.00

8577+00.00

8576+75.00

8576+50.00

703.74 20.00 | 703.90 16.00 | 703.58 0.00 | 703.34 6.00 | 701.01 66.51

8576+25.00

704.07 19.99 | 704.23 15.99 | 703.91 0.01 | 703.67 6.01 | 701.01 67.15

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\Drake\Thede	LOUISA COUNTY	PROJECT NUMBER	NHS-061-3(48)--19-58	SHEET NUMBER 118

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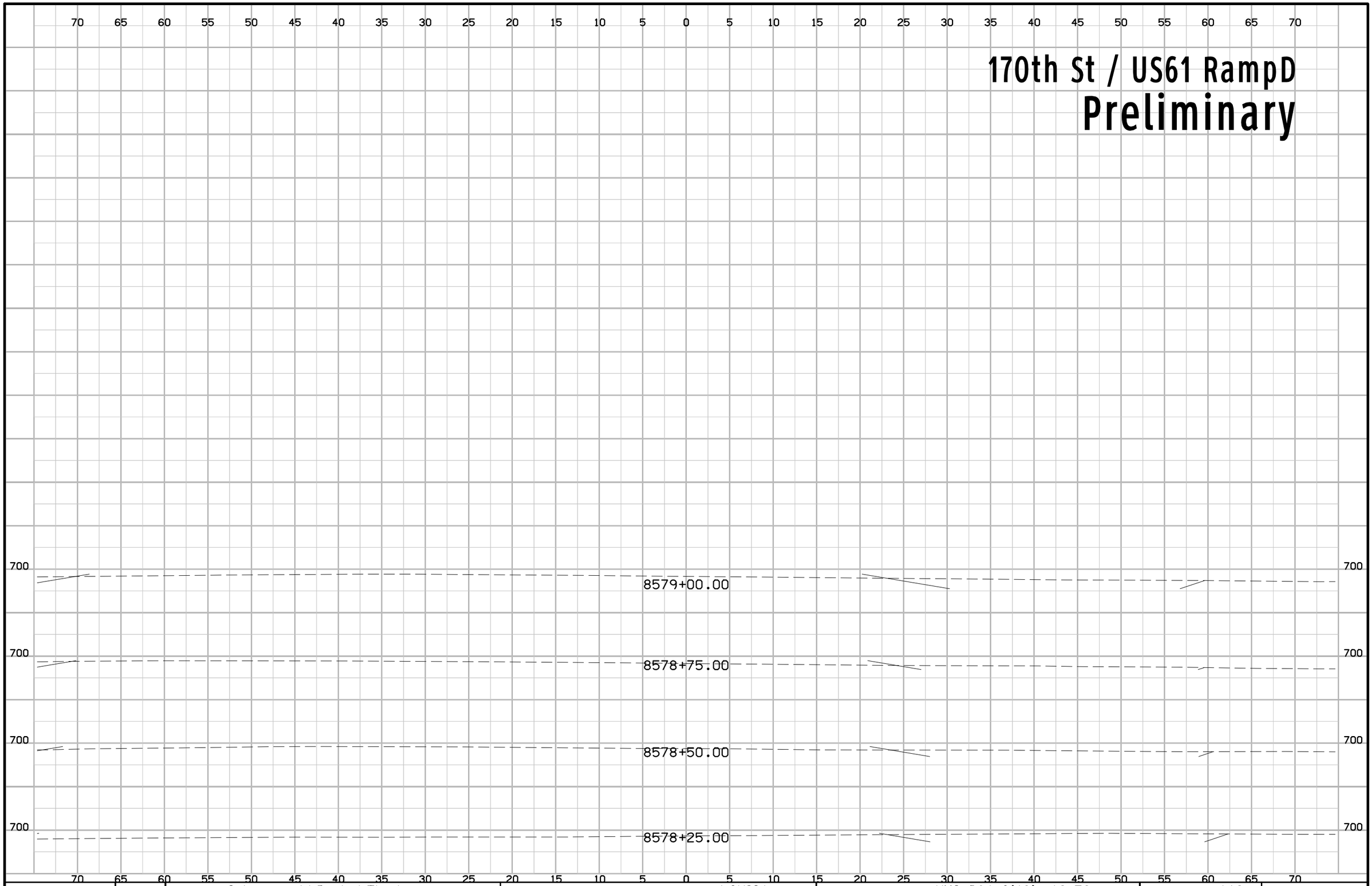
170th St / US61 RampD

Preliminary



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