

IOWA DEPARTMENT OF TRANSPORTATION

TO OFFICE: Right of Way **DATE:** June 1, 2012
ATTENTION: M. J. Sankey **REF. :** Black Hawk
FROM: Yanxiao Jia **Proj. #:** NHSX-063-6(75)--3H-07
OFFICE: Design **ROW#:** NHSX-063-6(73)--3H-07
SUBJECT: Right of Way Submittal (D5) **PIN:** 08-07-063-010

This project involves the reconstruction of U.S. 63 in Waterloo from Franklin Street north to just south of Newell Street. Traffic will be maintained via staged construction.

Access rights on U.S. 63 were previously acquired; however, additional control will be needed on the side roads to comply with the current access management policy.

The project directory is W:\Projects\0706301008\Design\075_Middle_Section. No printed plan sheets are included with this submittal. PDF files of the sheets can be found on the network in the Projects\0706301008\Design\075_Middle_Section folder. Plans and cross section files have been sheeted for batch plotting. The file, Project Documentation.xlsm has a description of the MicroStation and GEOPAK files, chains and profiles. It also specifies the scale and number of sheets in each file.

Construction need lines required for this project are at the catch (intercept) point and have been added to the design file. The Office of ROW is advised to attach the following design models:

File	Model	Level	Need Type
07063075.dsn	Road_Design_Line_Work	dsnGroundlineIntercept	Permanent/Temp.

There are no proposed culverts on this project. Proposed storm sewer design is in file W:\Projects\0706301008\Design\075_Middle_Section\07063075_DRG.dsn and is referenced into the plan sheets.

No borrow will be needed for this project.

No special mitigation area will be needed for the project.

Underground drainage in the railroad underpass area is being studied by a consultant. However, it is not anticipated that any work that is required to remedy the drainage problem will affect right of way.

The church site on the east side of U.S. 63 between Franklin Street and Almond Street has been purchased and a CVS store will be built later this year. After it has been built the Office of Design will request additional survey to finish up the design between the back of the curb on U.S. 63 and the CVS parking lot. The needs line shown in this area is at the back of curb of the CVS parking lot.

Utilities on this project are as follows:

CenturyLink
MCI
MediaCom
MidAmerican Energy Company
Waterloo Water Works

The current letting date is December 17, 2013.

You may indicate your acceptance or request additional information by e-mail.

YJ:KD:mk

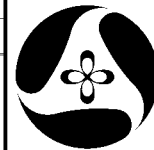
Attach.

cc:	M. J. Kennerly	N. L. McDonald
	K. D. Nicholson	G. A. Novey
	D.L. Little	D. R. Claman
	R. L. Stanley	J. P. Rost
	Judy Lensing	S. C. Marler
	E. J. Ranney	L. C. Funnell
	D. A. Widick	T. L. Gettings
	S. J. Gent	M. A. Swenson
	T. Crouch	J. W. Smith
	E. C. Wright	D. A. Popp
	J. N. McCollough	B. Bradley
	J. Vortherms	V. Dumdei
	M. Callahan	Ed Engle
	Maria Hobbs	Dean Wiebke
	Pete Hjelmstad	Tammy Nicholson

D-5 Checklist

- D-5 shell letter completed
- Complete x-sections available
- Plans and cross section files have been sheeted for batch plotting.
- Culverts and structures complete
- Overhead signs and signals preliminary location identified.
- Structure TS+L for all 4' and larger, pipes or culverts.
- Entrance (PDA) locations match access control letter
- Entrance profile(s) on the plans and x-sections
- Stability berms completed
- Final ditching done
- Borrows identified
- Wetland ROW requirements identified
- Plan sheets checked for Township Range, scale, and other details
- Plan sheets PDFs created and check printed
- Tab sheet for special needs included
- Utility Legend

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 6	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1	Points of Access Tabulation
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 15	U.S. 63 Plan Sheets and Profile Sheets
E Sheets	Side Road Plan and Profile Sheets
* E.1 - 2	Logan Ave./Almond St. Plan Sheet and Profile Sheet
* E.3 - 4	Dane Street Plan Sheet and Profile Sheet
* E.5	Dane Street Alley Relocation Plan and Profile Sheet
G Sheets	Survey Sheets
G.1 - 2	Reference Ties and Bench Marks
J Sheets	Traffic Control and Staging Sheets
* J.1	Traffic Control Plan
M Sheets	Storm Sewer Sheets
M.1 - 2	Storm Sewer Tabulations
M.3	Storm Sewer Legend & Symbol Information Sheet
M.4 - 17	Storm Sewer Plan and Profile Sheets
M.18 - 23	Existing Storm Sewer Removal Sheets
U Sheets	500 Series, Mod.Stds. and Detail Sheets
U.1 - 2	Low Rise Concrete Barrier Detail Sheets
W Sheets	Mainline Cross Sections
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 31	Mainline Cross Sections
X Sheets	Side Road Cross Sections
X.1 - 2	Logan/Almond Street Cross Sections
X.3 - 4	Dane Street Cross Sections
X.5	Alley Relocation Cross Sections
	* Color Plan Sheets



Iowa Department of Transportation

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

BLACK HAWK COUNTY

PCC PAVEMENT - GRADE AND NEW

In Waterloo From Franklin St. N. to Newell St.

SCALES: As Noted

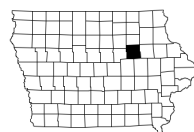
Refer to the Proposal Form for list of applicable specifications.

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



MILEAGE SUMMARY			
Div.	Location	Lin. Ft.	Miles

For Project Location Map
Refer to Sheet A.2



DESIGN DATA URBAN			
2012	AADT	15000	V.P.D.
2032	AADT	19000	V.P.D.
2032	DHV	2000	V.P.H.
	TRUCKS	6	%
	Total		
	Design ESALs	--	

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Yanxiao Jia	Primary Signature Block

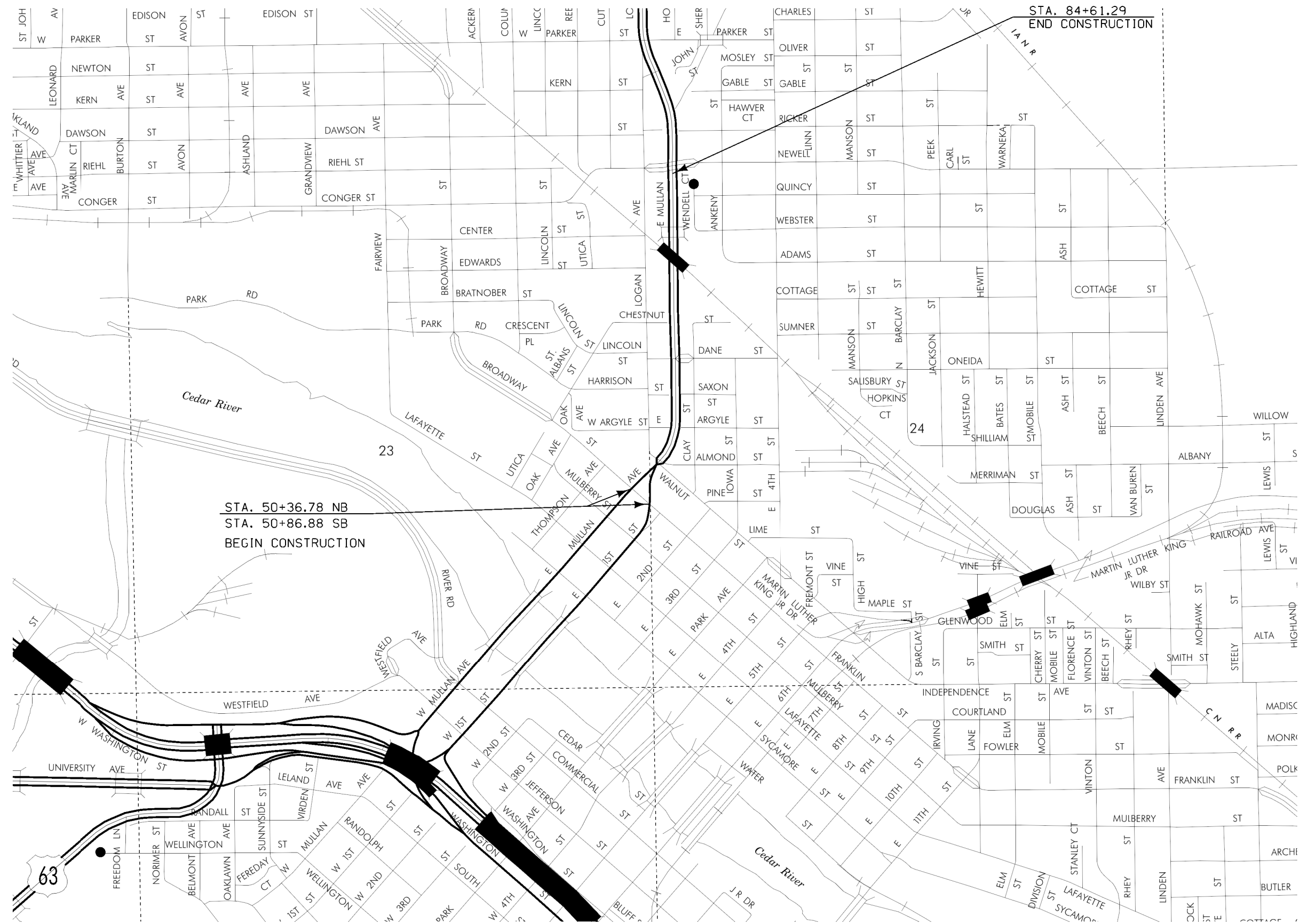
PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - Date: June 1, 2012

REVISIONS	TOTAL

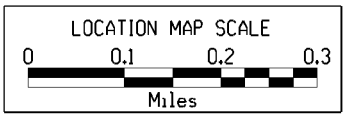
PROJECT IDENTIFICATION NUMBER	08-07-063-010
PROJECT NUMBER	NHSX-063-6(75)--3H-07
R.O.W. PROJECT NUMBER	NHSX-063-6(70)--3H-07



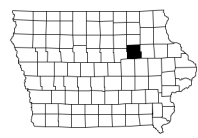
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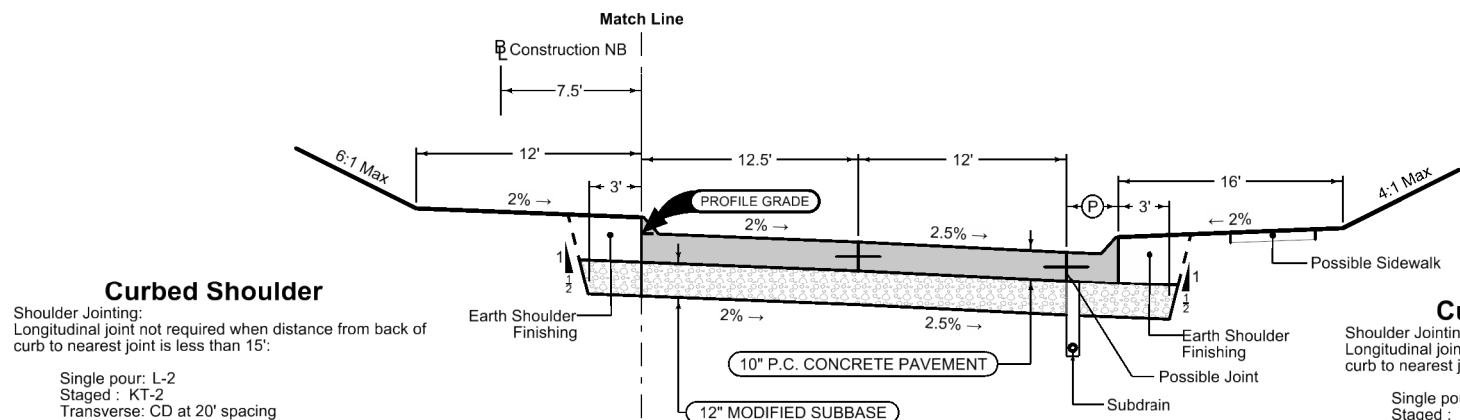
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A Portion of the City of Waterloo



Project Location





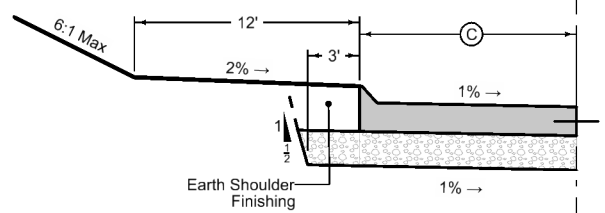
Curbed Shoulder
 Shoulder Jointing:
 Longitudinal joint not required when distance from back of curb to nearest joint is less than 15'.
 Single pour: L-2
 Staged : KT-2
 Transverse: CD at 20' spacing

Curbed Shoulder
 Shoulder Jointing:
 Longitudinal joint not required when distance from back of curb to nearest joint is less than 15'.
 Single pour: L-2
 Staged : KT-2
 Transverse: CD at 20' spacing

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

BEGIN STATION	END STATION
50+36.78	54+10.47

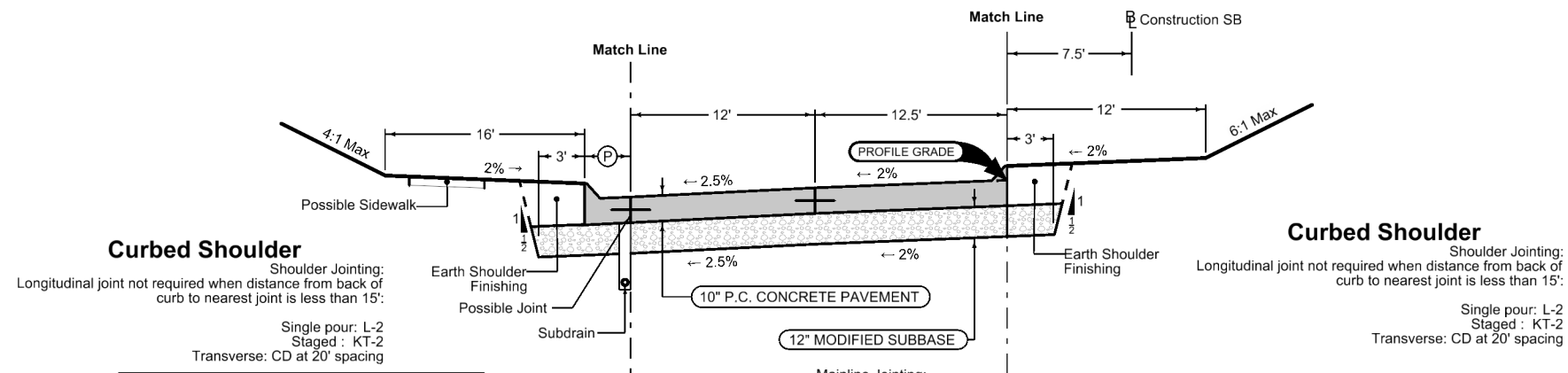
STATION TO STATION		(P) Feet	Curb Type See PV-102
50+66.32	54+10.47	2.50	6" Standard



BEGIN STATION	END STATION	(C) Feet
51+78.85	52+69.19	0.00 - 12.00
52+69.19	54+10.47	12.00

See Tab 100-24 for pavement quantities.

U.S. 63 Northbound



Curbed Shoulder

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

Single pour: L-2
 Staged: KT-2
 Transverse: CD at 20' spacing

Curbed Shoulder

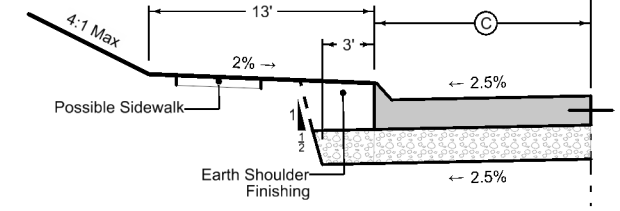
Shoulder Jointing:
 Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

Single pour: L-2
 Staged: KT-2
 Transverse: CD at 20' spacing

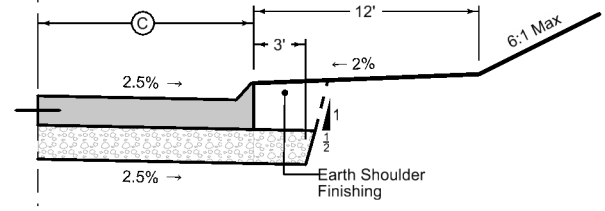
STATION TO STATION		(P) Feet	Curb Type See PV-102
53+21.57	54+10.47	2.50	6" Standard

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

END STATION	BEGIN STATION
50+86.88	54+10.47



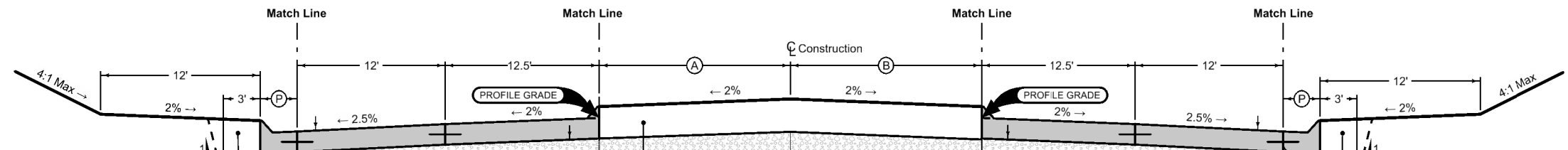
BEGIN STATION	END STATION	(C) Feet
50+86.88	52+44.76	12.50
52+44.76	53+21.57	12.50 - 2.50



BEGIN STATION	END STATION	(C) Feet
50+86.88	52+79.16	12.00
52+79.16	53+63.16	12.00 - 0.00

See Tab 100-24 for pavement quantities.

U.S. 63 Southbound

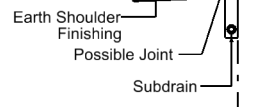


Curbed Shoulder

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

Single pour: L-2
Staged: KT-2
Transverse: CD at 20' spacing

2_Curb_04-19-11			
STATION TO STATION	(P) Feet	Curb Type	See PV-102
54+10.47	74+00.00	2.5	6" Standard
74+00.00	74+50.00	2.5 to 1.5	6" Standard
74+50.00	75+10.00	1.5	6" Standard
84+00.00	84+61.29	2.5	6" Standard

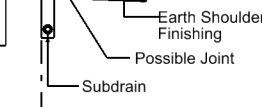


Curbed Shoulder

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

Single pour: L-2
Staged: KT-2
Transverse: CD at 20' spacing

2_Curb_04-19-11			
STATION TO STATION	(P) Feet	Curb Type	See PV-102
54+10.47	72+00.00	2.5	6" Standard
72+00.00	72+50.00	2.5 to 1.5	6" Standard
72+50.00	73+40.00	1.5	6" Standard
79+10.00	84+61.29	2.5	6" Standard



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

BEGIN STATION	END STATION
54+10.47	84+61.29

4DP_Raised_Out_04-19-11			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
54+10.47	67+49.84	7.50	7.50
67+49.84	67+89.84	7.50 - 6.50	7.50
67+89.84	68+09.68	6.50 - 6.00	7.50 - 7.00
68+09.68	68+49.84	6.00	7.00 - 6.00
68+49.84	73+90.00	6.00	6.00
80+50.00	81+96.00	6.00	6.00
81+96.00	82+56.00	6.00 - 7.50	6.00 - 7.50

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

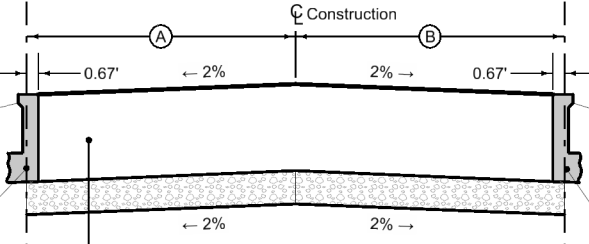
BEGIN STATION	END STATION
54+10.47	84+61.29

Face of Barrier lines up with face of curb.

20" Concrete Barrier. See sheets U.1-U.2.

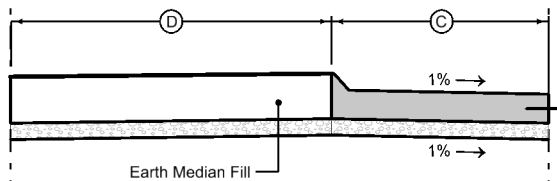
Face of Barrier lines up with face of curb.

20" Concrete Barrier. See sheets U.1-U.2.



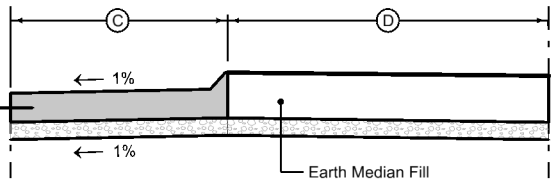
BEGIN STATION	END STATION	(A) Feet	(B) Feet
73+90.00	80+50.00	6.00	6.00

Earth Median Fill will be paved by others when (C) is less than 8 feet wide.



BEGIN STATION	END STATION	(C) Feet	(D) Feet
62+66.64	63+50.00	0.00 - 12.00	15.00 - 3.00
63+50.00	65+02.91	12.00	3.00
82+56.00	83+39.02	0.00 - 12.00	15.00 - 3.00
83+39.02	84+61.29	12.00	3.00

Earth Median Fill will be paved by others when (C) is less than 8 feet wide.



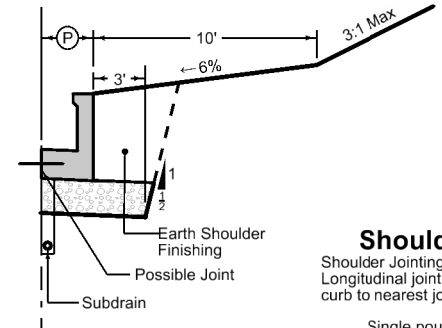
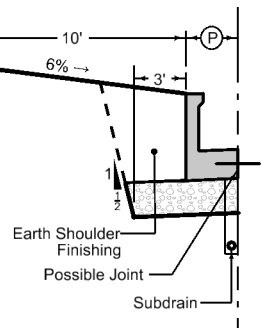
BEGIN STATION	END STATION	(C) Feet	(D) Feet
55+10.72	56+65.00	12.00	3.00
56+65.00	57+50.63	12.00 - 0.00	3.00 - 15.00
65+97.17	67+50.00	12.00	3.00
67+50.00	68+28.67	12.00 - 0.00	3.00 - 15.00

Shoulder with 20" Barrier

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

Single pour: L-2
Staged: KT-2
Transverse: CD at 20' spacing

20" Barrier 05-25-12			
STATION TO STATION	(P) Feet	20" Barrier	See U.1-U.2
75+10.00	79+00.00	2.17	
79+00.00	79+50.00	2.17 to 3.17	
79+50.00	84+00.00	3.17	



Shoulder with 20" Barrier

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

Single pour: L-2
Staged: KT-2
Transverse: CD at 20' spacing

20" Barrier 05-25-12			
STATION TO STATION	(P) Feet	20" Barrier	See U.1-U.2
73+40.00	77+00.00	2.17	
77+00.00	77+50.00	2.17 to 3.17	
77+50.00	79+10.00	3.17	

See Tab 100-24 for pavement quantities.
See Tab 100-18X for 20" barrier quantities.

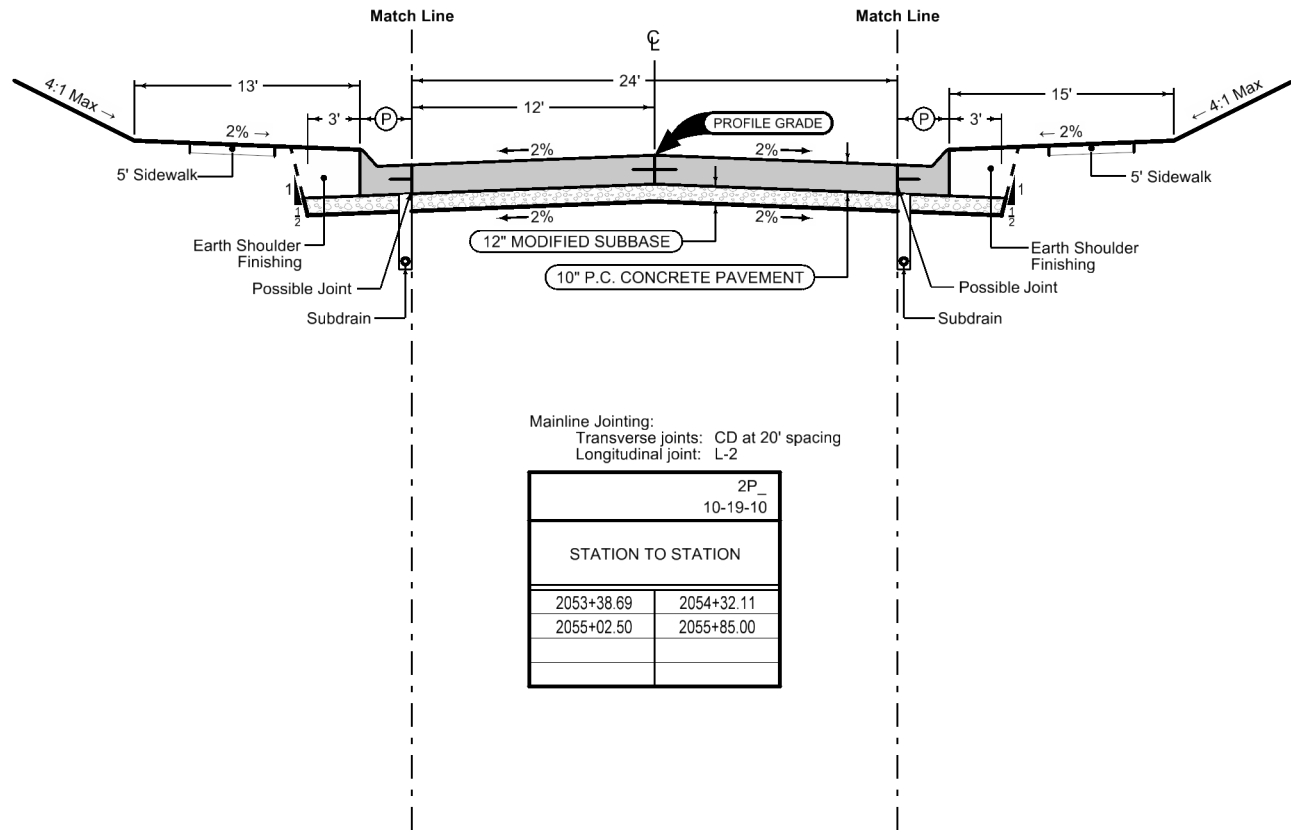
U.S. 63

Curbed Shoulder

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

Single pour: L-2
 Staged : KT-2
 Transverse:C at 20' spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
2053+38.69	2054+05.63	3.50	6" Standard
2055+37.84	2055+85.00	3.50	6" Standard



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

STATION TO STATION	
2053+38.69	2054+32.11
2055+02.50	2055+85.00

Curbed Shoulder

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

Single pour: L-2
 Staged : KT-2
 Transverse:C at 20' spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
2053+38.69	2053+96.47	3.50	6" Standard
2055+27.22	2055+85.00	3.50	6" Standard

See Tab 100-24 for pavement quantities.

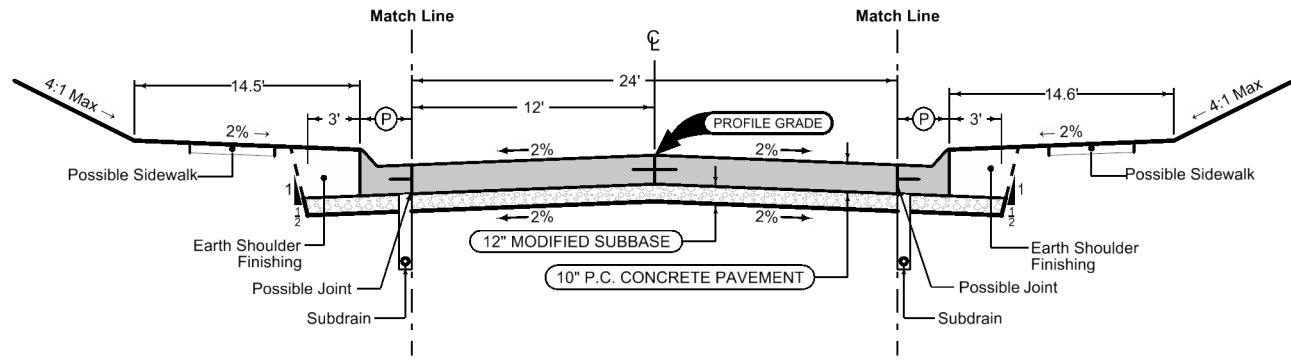
Logan and Almond Streets

Curbed Shoulder

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

Single pour: L-2
 Staged : KT-2
 Transverse:C at 20' spacing

2_Curb_04-19-11			
STATION TO STATION	(P) Feet	Curb Type See PV-102	
3064+32.00	3064+83.68	9.00	6" Standard
3065+86.24	3066+07.12	14.50	No Curb



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

2P_10-19-10	
STATION TO STATION	
3064+32.00	3065+14.63
3065+86.24	3066+07.12

Curbed Shoulder

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

Single pour: L-2
 Staged : KT-2
 Transverse:C at 20' spacing

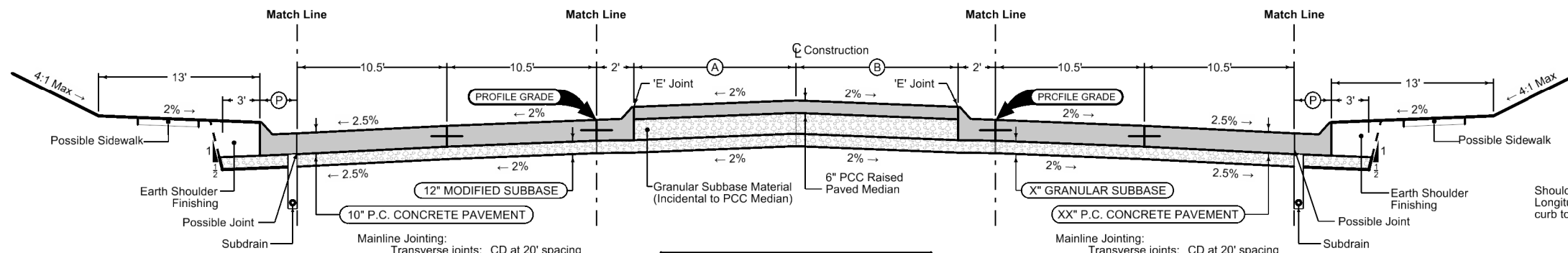
2_Curb_04-19-11			
STATION TO STATION	(P) Feet	Curb Type See PV-102	
3064+32.00	3064+85.57	9.00	6" Standard
3065+86.24	3066+07.12	14.50	No Curb

Curbed Shoulder

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

Single pour: L-2
 Staged : KT-2
 Transverse:C at 20' spacing

2_Curb_04-19-11			
STATION TO STATION	(P) Feet	Curb Type See PV-102	
3066+20.74	3066+22.42	2.00	6" Standard
3066+22.42	3066+32.42	2.00	6" Standard



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

BEGIN STATION	END STATION
3066+07.12	3066+22.42

4DP_Raised_Out_04-19-11			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
3066+07.12	3066+32.42	1.50	1.50

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

BEGIN STATION	END STATION
3066+07.12	3066+22.42

Curbed Shoulder

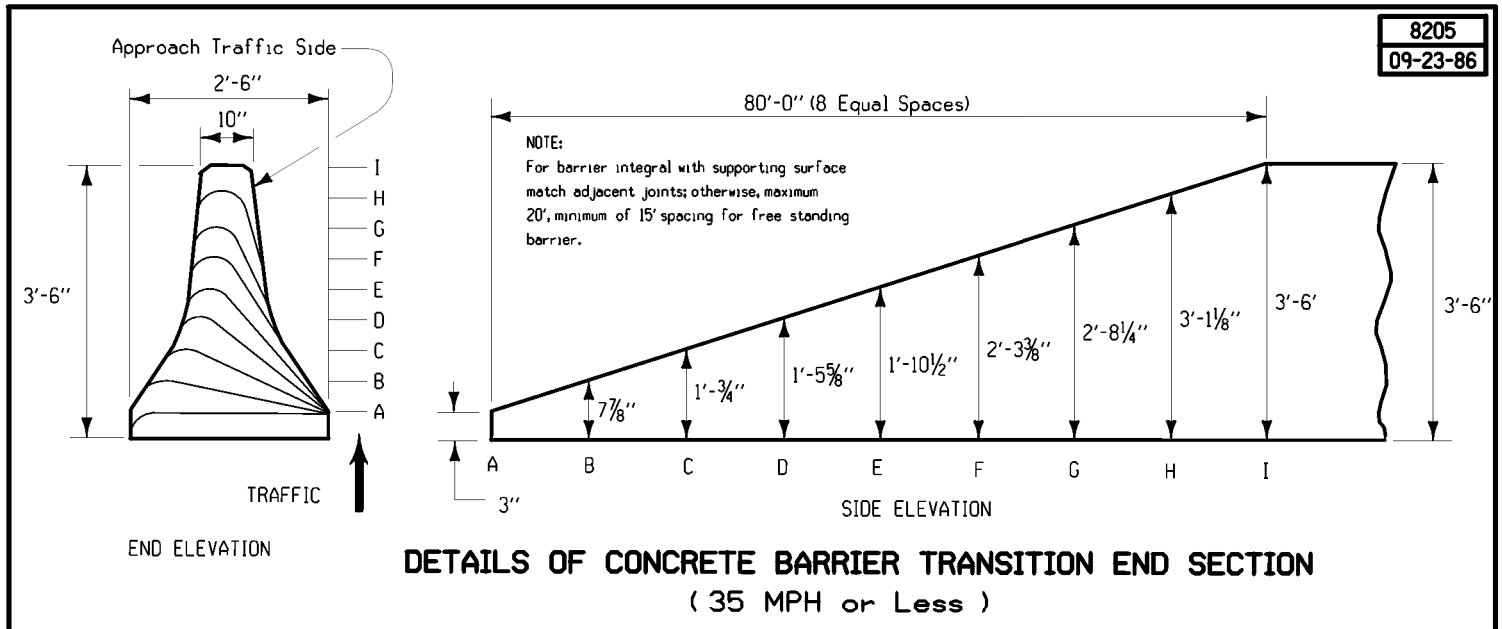
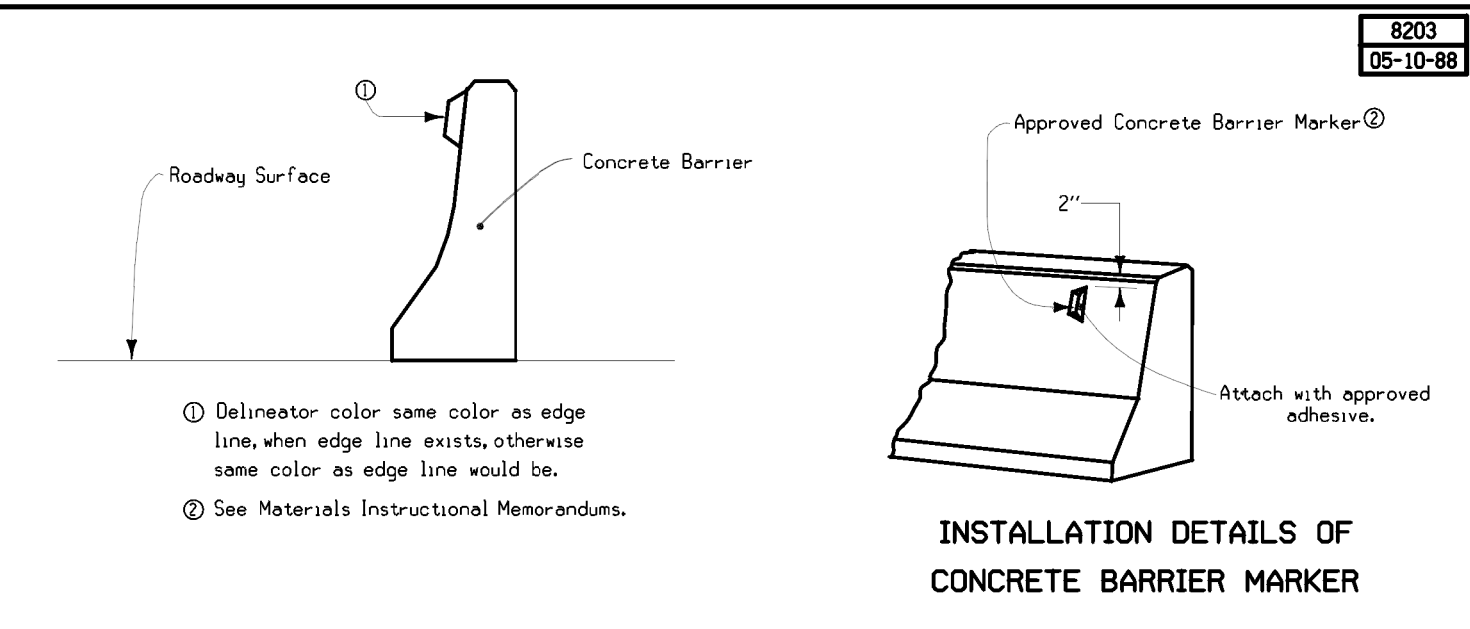
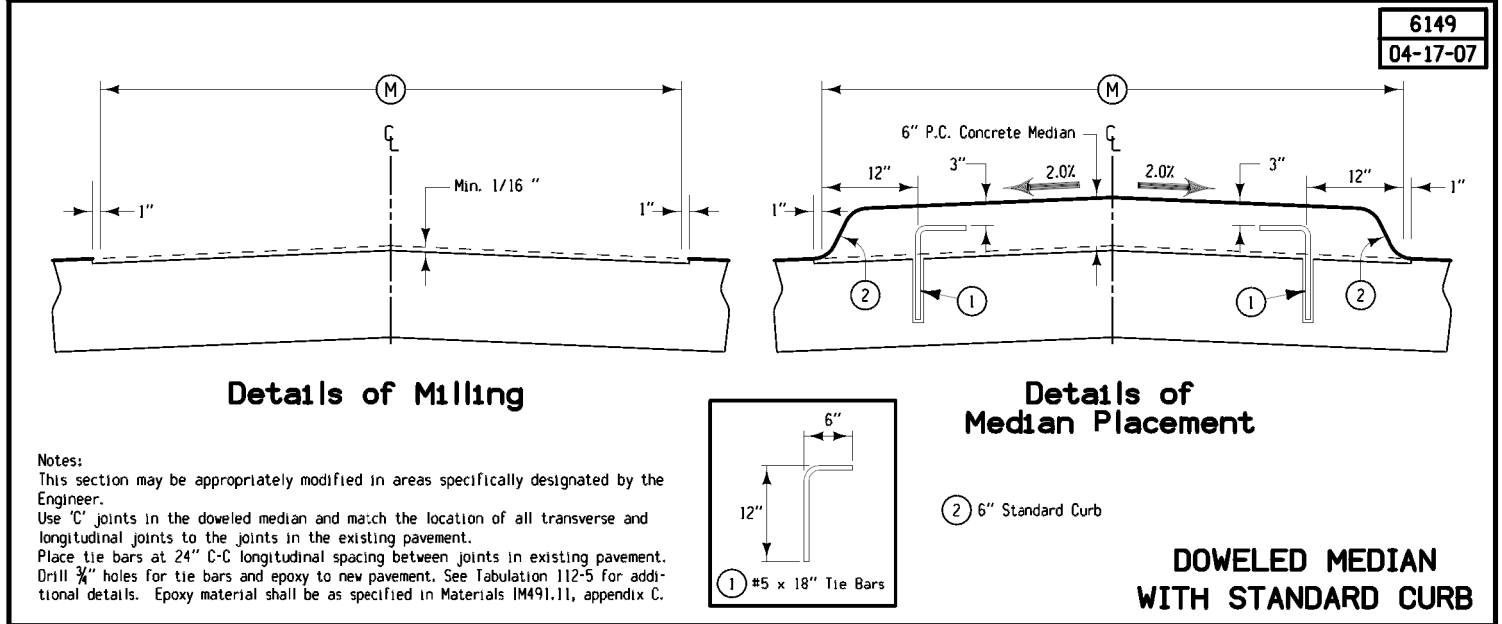
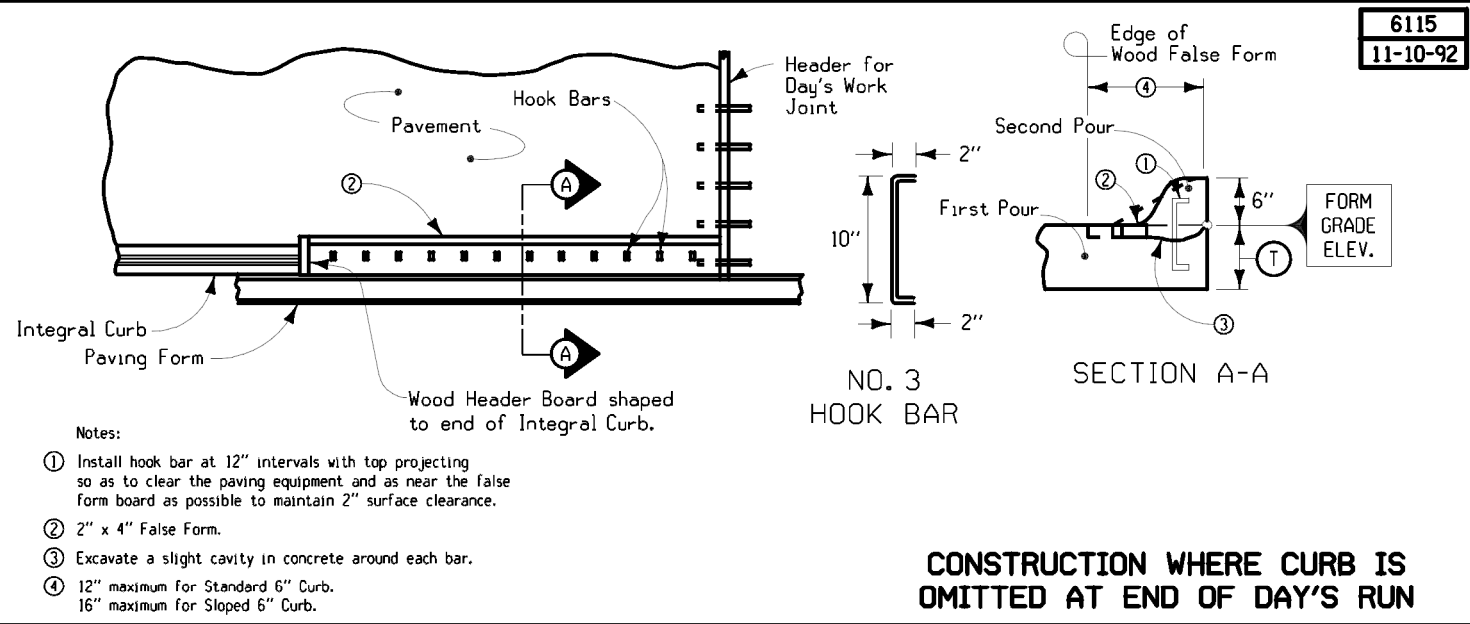
Shoulder Jointing:
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 curb to nearest joint is less than 15':

Single pour: L-2
 Staged : KT-2
 Transverse:C at 20' spacing

2_Curb_04-19-11			
STATION TO STATION	(P) Feet	Curb Type See PV-102	
3066+21.74	3066+22.42	2.00	6" Standard
3066+22.42	3066+32.42	2.00	6" Standard

See Tab 100-24 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

Dane St.



① Refer to MI-210
 ② Refer to RL-8 for Type B or C. Type A per plan.
 Predetermined for access point not constructed with this project.

POINTS OF ACCESS

Refer to Cross-Sections

Location		Type ② A, B, C, or Predetermined	Length of Opening			W	PR ① ②	SR ②	Pipe Culvert (RF-30A or RF-30B)					Aprons	Driveway Surface Area		Driveway Surfacing Material	Remarks	
Station	Side		Case ①	1½" Dropped Curb	3" Dropped Curb				H	Size	Pipe Length	Lt. ②	Rt. ②		No.	HMA			PCC
				1 or 2	LF					LF	IN	LF	LF			LF			LF
2053+68.7	Rt.	B	2	31.0		21.6									28.7		Logan Street		
3064+46.8	Rt.	B (Alley)	2	23.0		15.0									16.2		Dane Street Alley		

SURVEY SYMBOLS

	Interstate Highway Symbol		Cistern
	U.S. Highway Symbol		L.P. Gas Tank (No Footing)
	Iowa Highway Symbol		Underground Storage Tank
	County Road Highway Symbol		Latrine
	Evergreen Tree		Luminaire
	Deciduous Tree		Traffic Signal
	Fruit Tree		Traffic Signal with Luminaire
	Shrub (Bushes)		Telephone Pedestal
	Timber		Television Pedestal
	Hedge		Telephone Pole
	Stump		Telephone Pole (Second Company)
	Swamp		Telephone Pole (Third Company)
	Rock Outcrop		Telephone Pole (Fourth Company)
	Broken Concrete		Telephone Pole (Fifth Company)
	Revetment (Rip Rap)		Power Pole
	Cemetery		Power Pole (Second Company)
	Grave		Power Pole (Third Company)
	Cave		Power Pole (Fourth Company)
	Sink Hole		Power Pole (Fifth Company)
	Board Fence		Electrical Highline Tower (Metal or Concrete)
	Chain Link or Security Fence		Telephone Riser Pole
	Wire Fence		Power Riser Pole
	Terrace		Telegraph Pole
	Earth Dam or Dike (Existing)		Satellite TV Dish
	Earth Dam or Dike (Proposed)		Water Hook Up
	Tile Outlet		Radio Tower
	Edge of Water		Tower Anchor
	Existing Drainage		
	Proposed Drainage		
	Right of Way Rail or Lot Corner		
	Concrete Monument		
	Well		
	Windmill		
	Beehive Intake		
	Existing Intake		
	Proposed Intake		
	Existing Utility Access (Manhole)		
	Proposed Utility Access (Manhole)		
	Fire Hydrant		
	Water Hydrant (Rural)		

UTILITY LEGEND

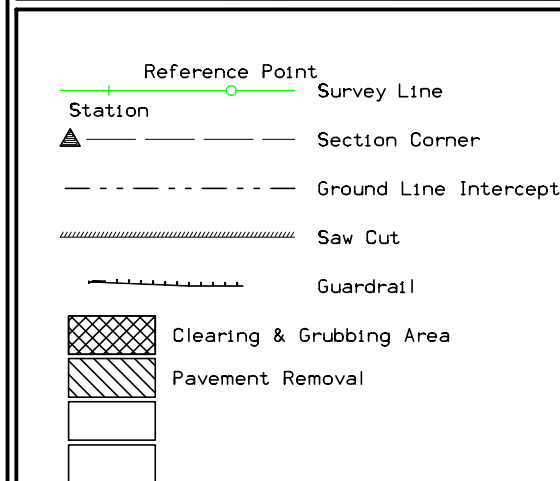
	Existing Water Line
	Existing Water Line (Second Company)
	Existing Sanitary Sewer Line
	Existing Telephone Line
	Existing Telephone Line (Second Company)
	Existing Fiber Optics Telephone Line
	Existing Storm Sewer Line
	Existing Gas Line
	Existing High Pressure Gas Line
	Existing Gas Line (Second Company)
	Existing High Pressure Gas Line (Second Company)
	Existing Power Line
	Existing Power Line (Second Company)
	Cable Television Line
	Guardrail (Beam or Cable)
	Guard Post (one or two)
	Guard Post (over two)
	Filler Pipe
	Gas Valve
	Water Valve
	Speed Limit Sign
	Mile Marker Post
	Sign
	Traffic Signal Control Box
	Rail Road Signal Control Box
	Telephone Switch Box
	Electric Box

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

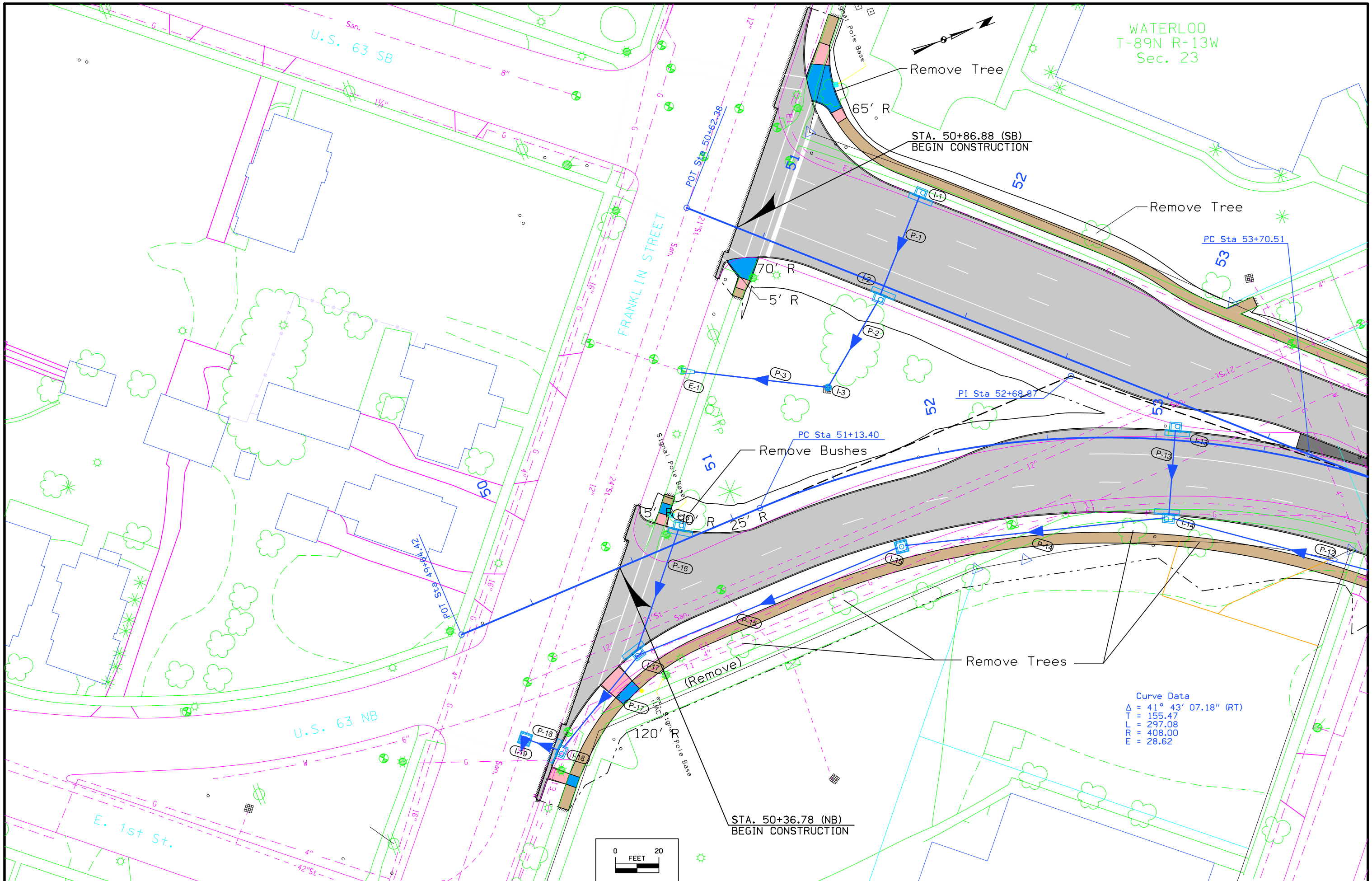


RIGHT-OF-WAY LEGEND

	Proposed Right-of-Way
	Existing and Proposed Right-of-Way
	Easement and Existing Right-of-Way
	Borrow
	Easement (Temporary)
	Easement
	Excess
	Access Control

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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



WATERLOO
T-89N R-13W
Sec. 23

Remove Tree

STA. 50+86.88 (SB)
BEGIN CONSTRUCTION

Remove Tree

PC Sta 53+70.51

PC Sta 51+13.40

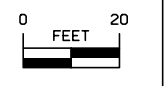
Remove Bushes

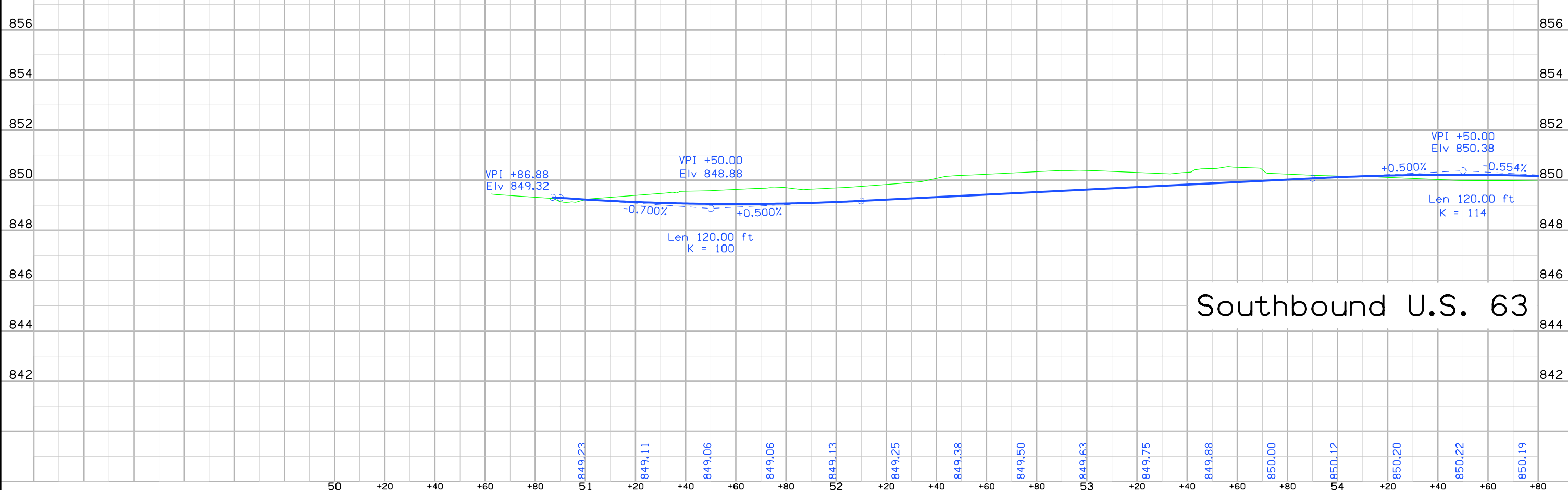
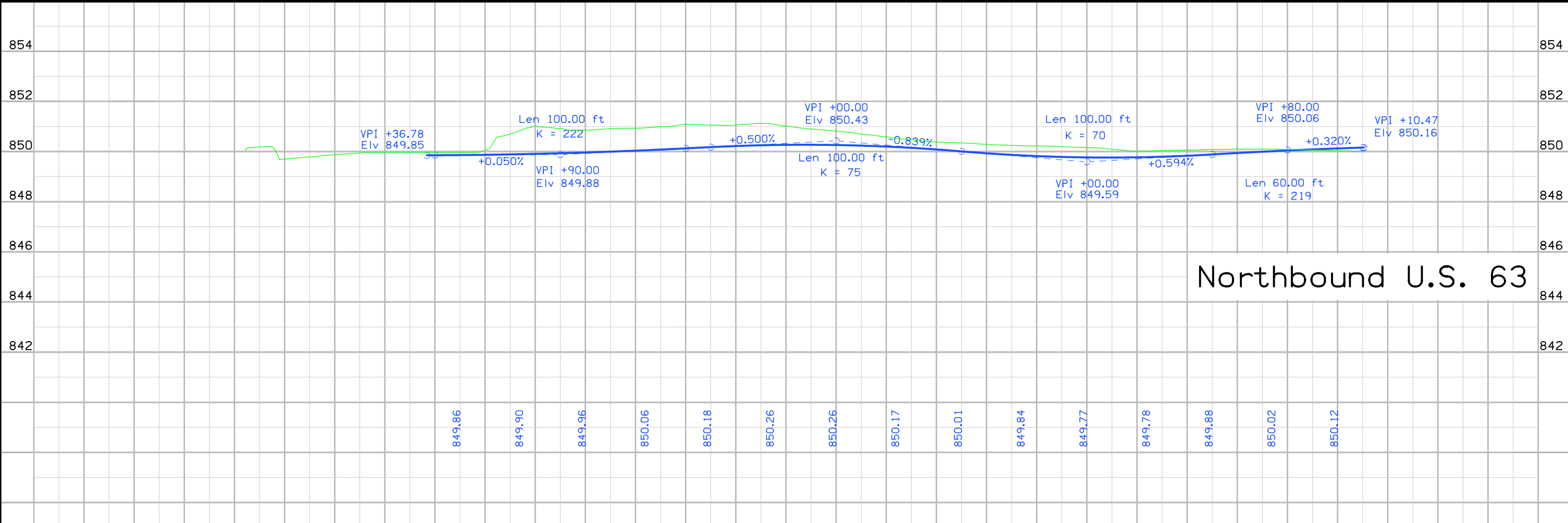
Remove Trees

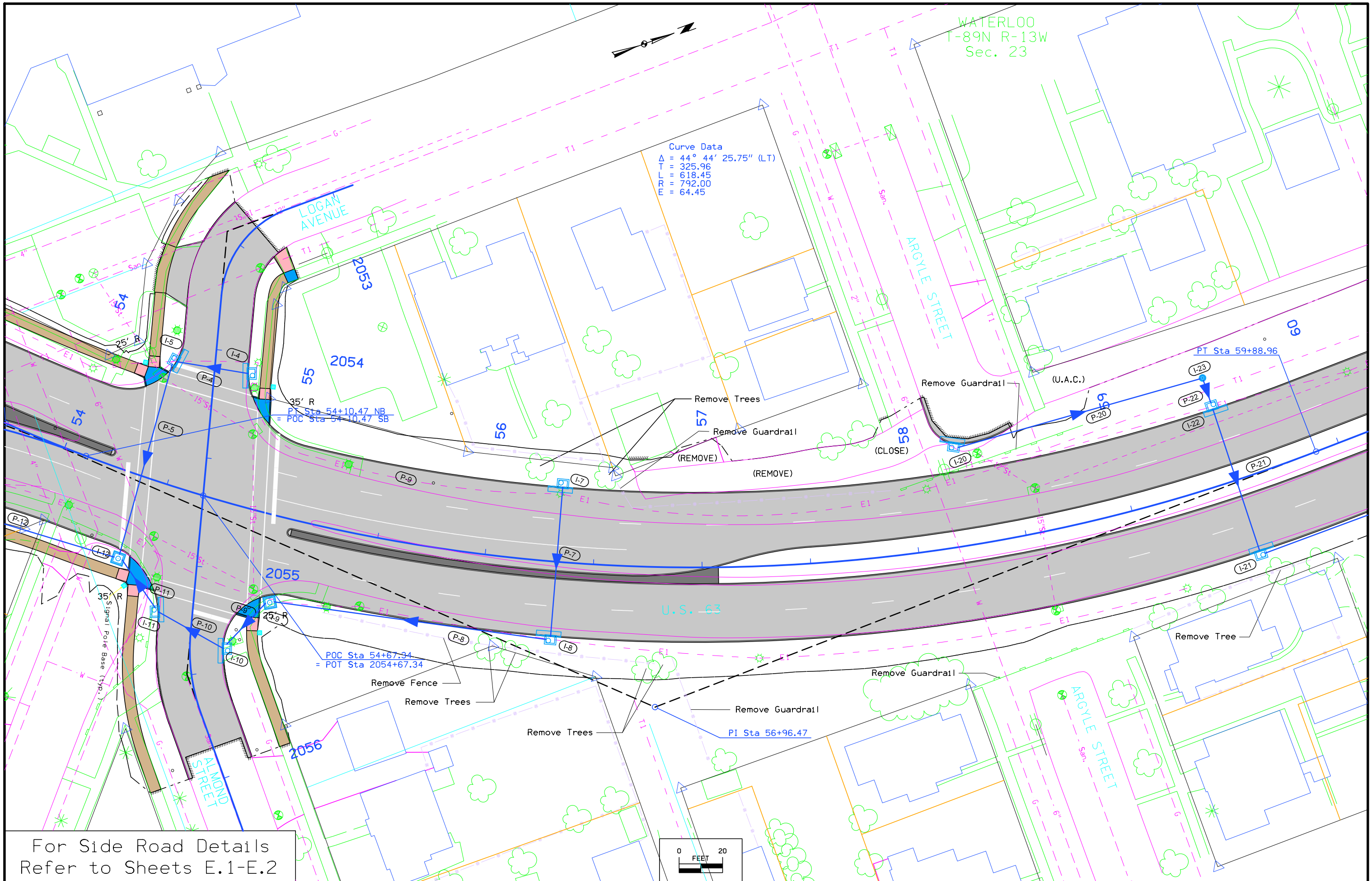
(Remove)

STA. 50+36.78 (NB)
BEGIN CONSTRUCTION

Curve Data
 $\Delta = 41^\circ 43' 07.18''$ (RT)
 T = 155.47
 L = 297.08
 R = 408.00
 E = 28.62



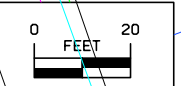


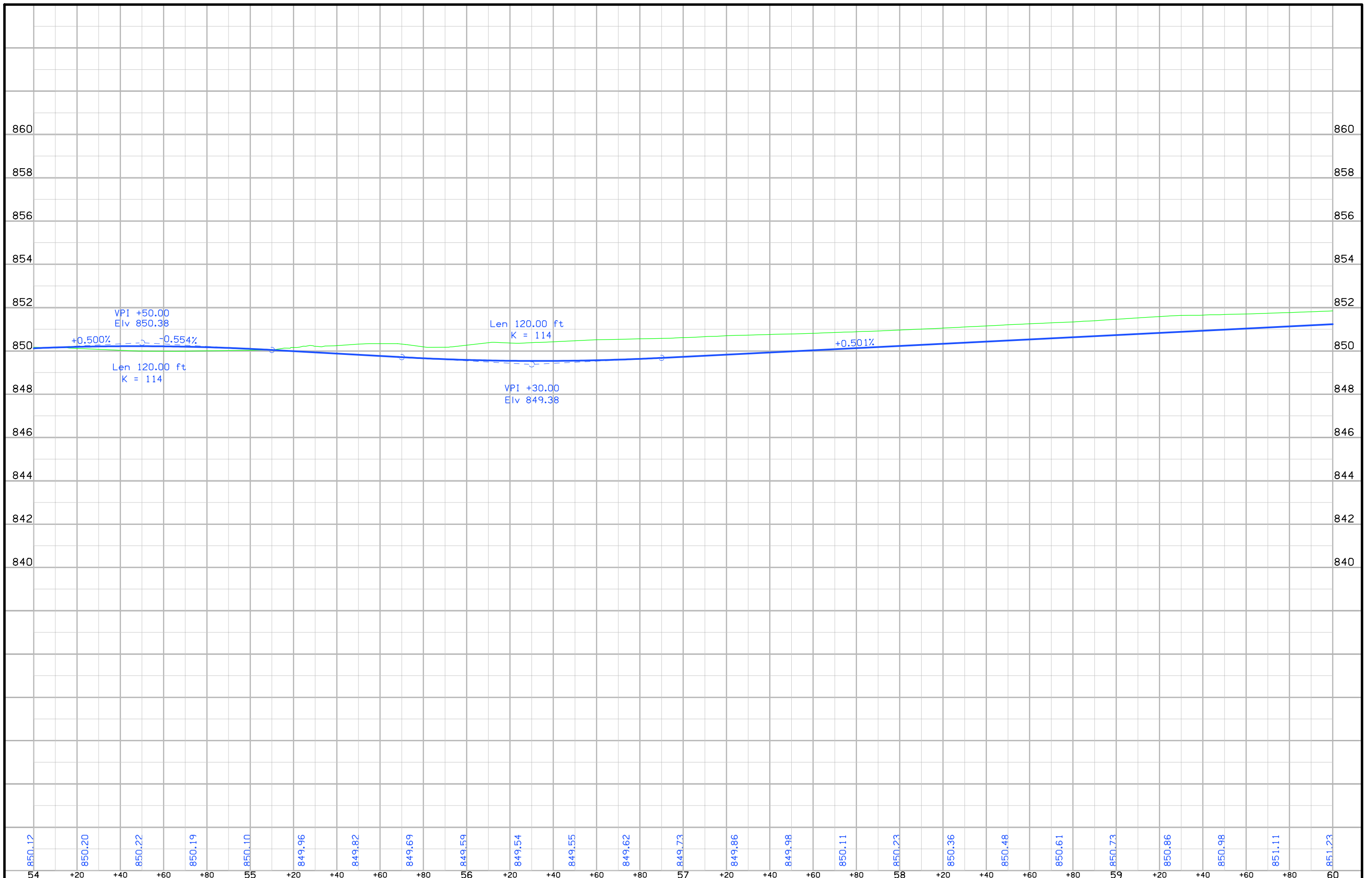


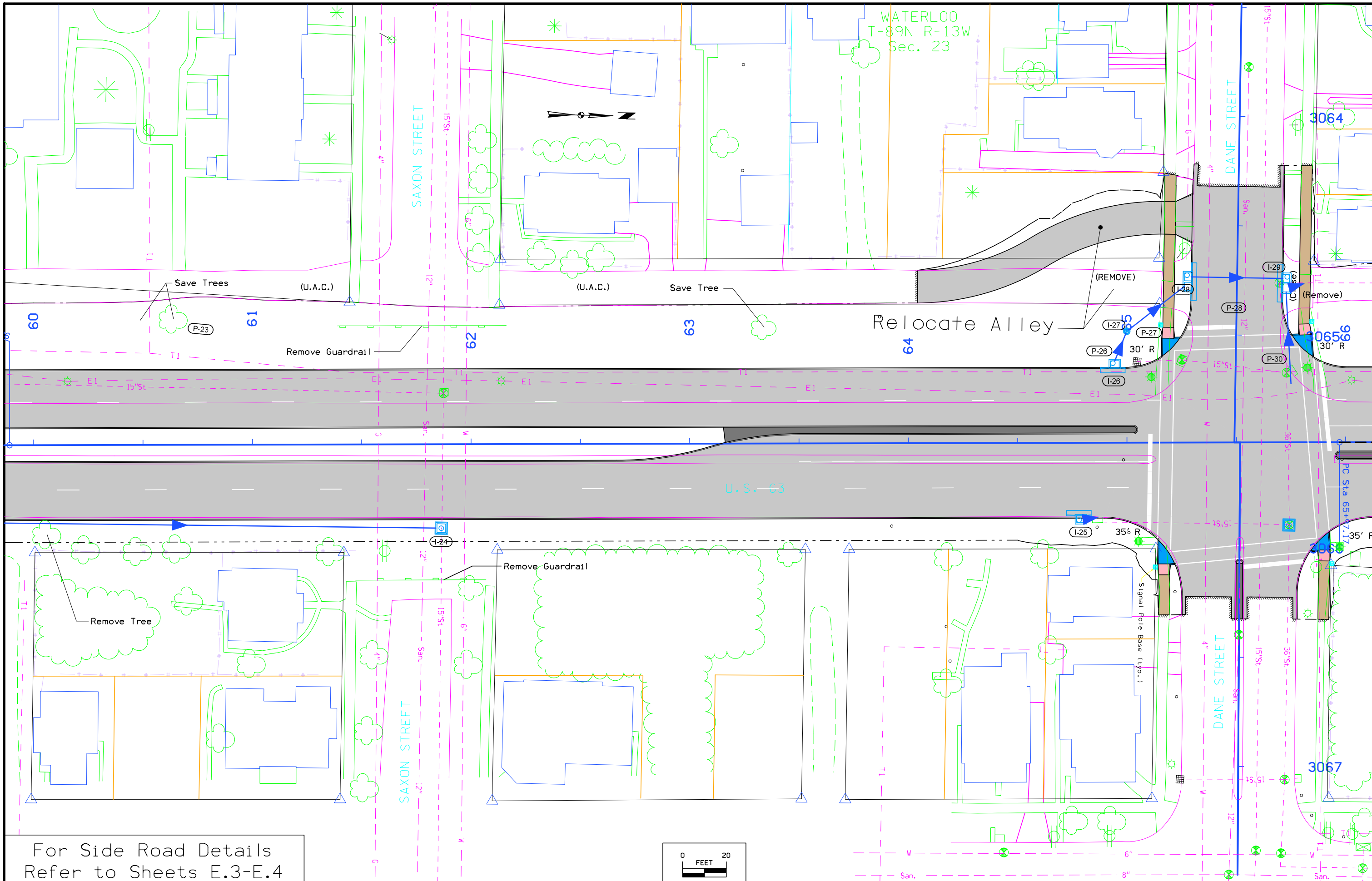
Curve Data
 $\Delta = 44^\circ 44' 25.75''$ (LT)
 T = 325.96
 L = 618.45
 R = 792.00
 E = 64.45

WATERLOO
 T-89N R-13W
 Sec. 23

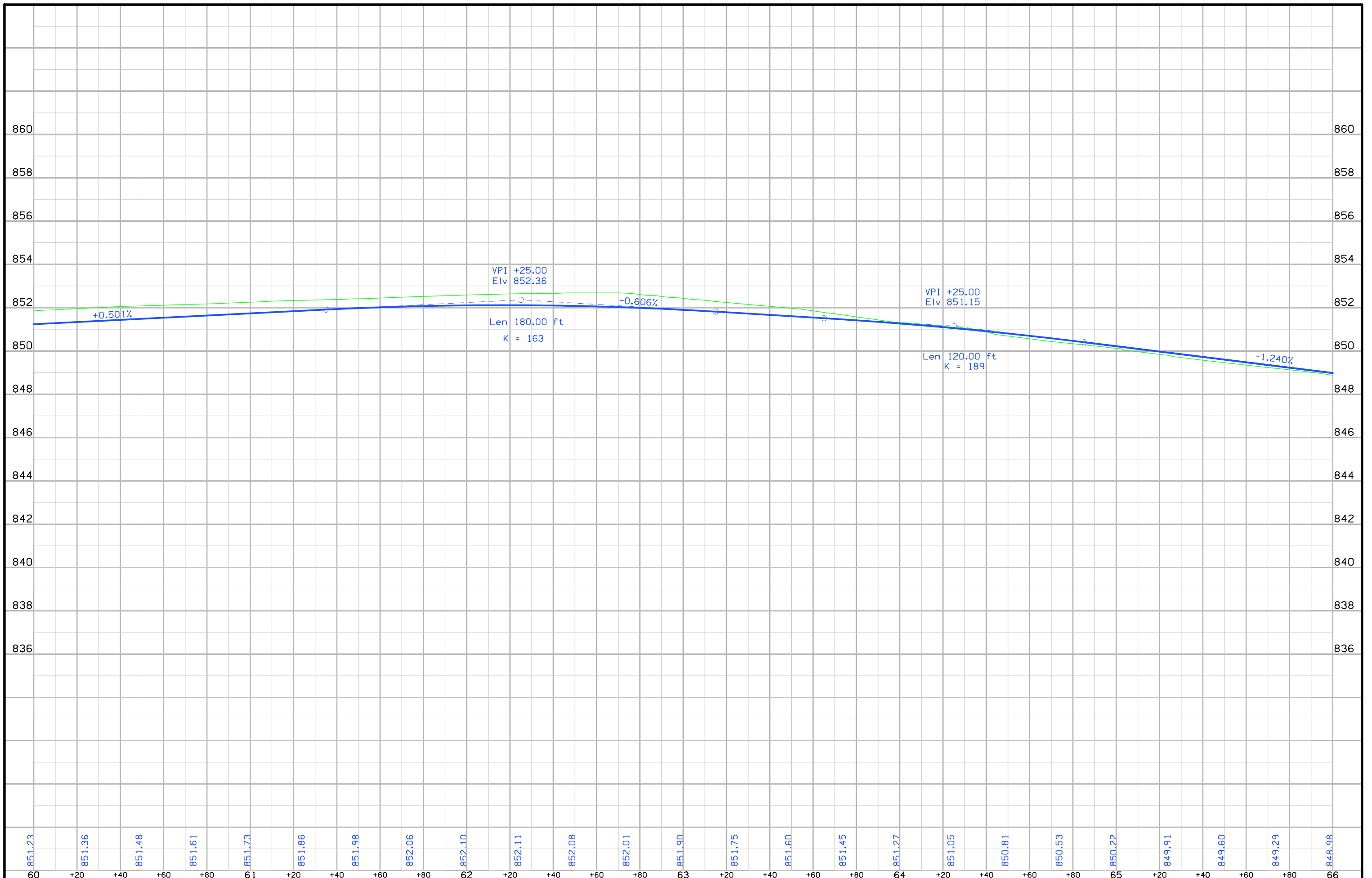
For Side Road Details
 Refer to Sheets E.1-E.2







For Side Road Details
Refer to Sheets E.3-E.4

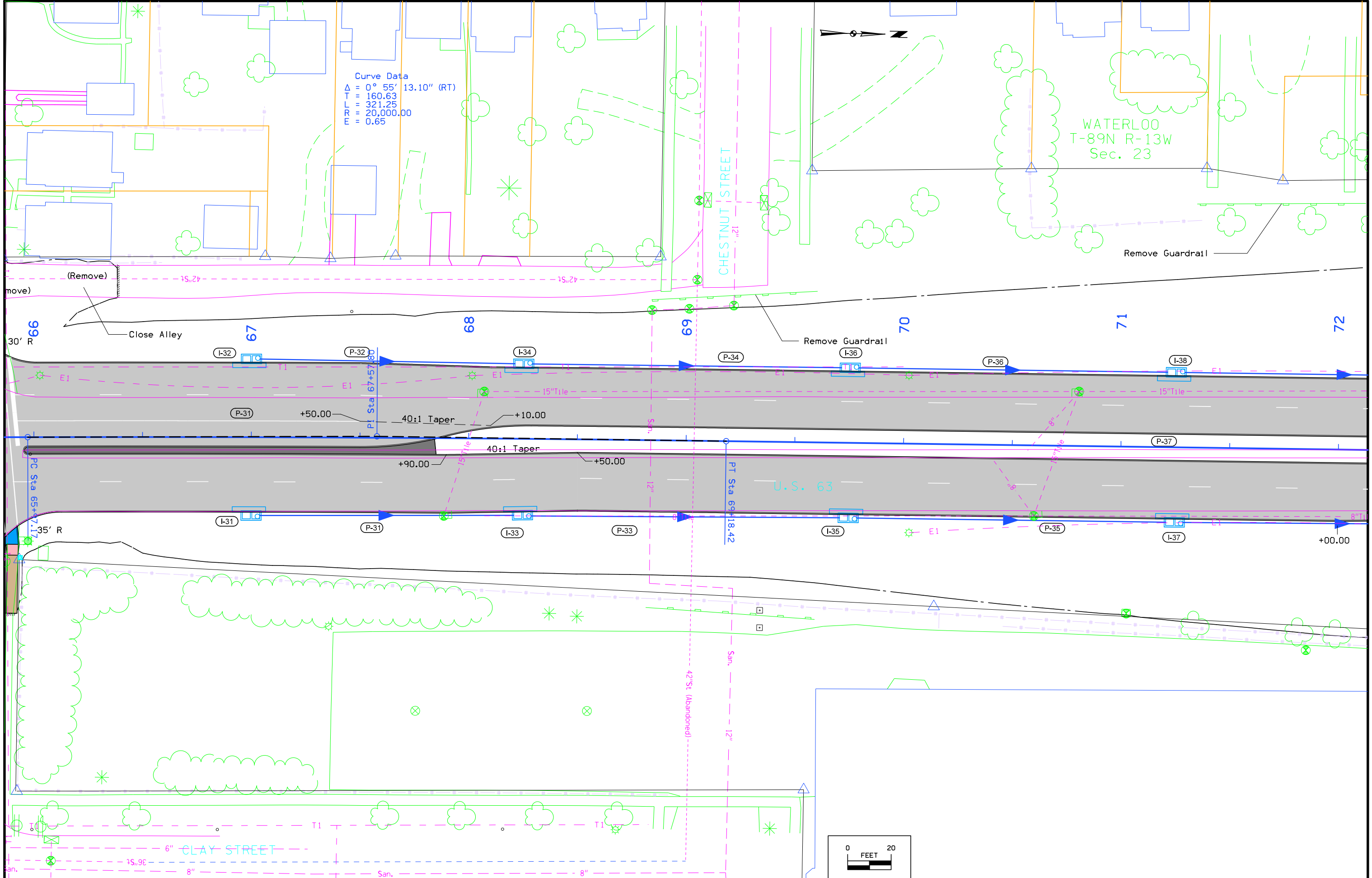


Curve Data
 $\Delta = 0^\circ 55' 13.10''$ (RT)
 $T = 160.63$
 $L = 321.25$
 $R = 20,000.00$
 $E = 0.65$

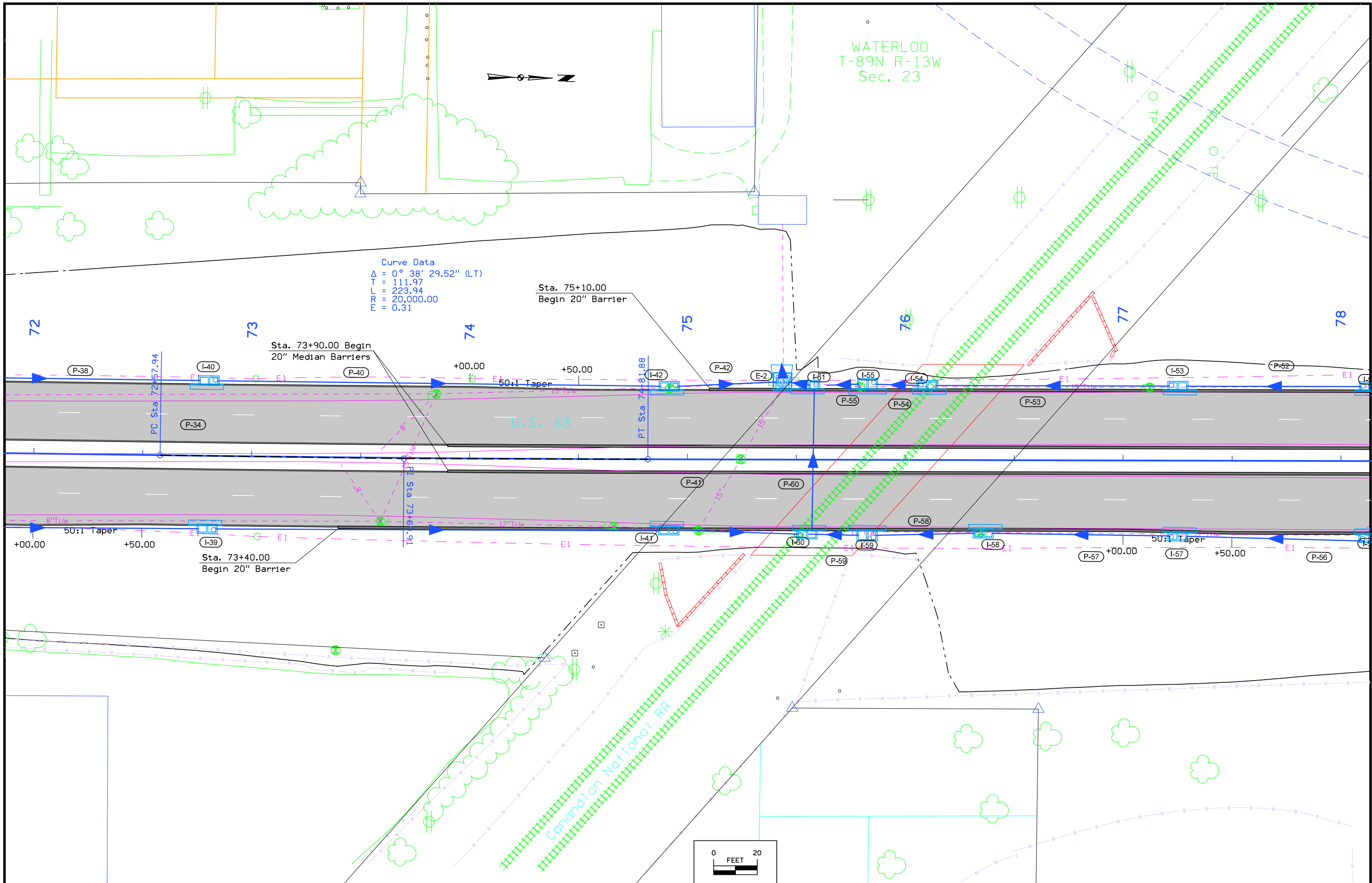
WATERLOO
 T-89N R-13W
 Sec. 23

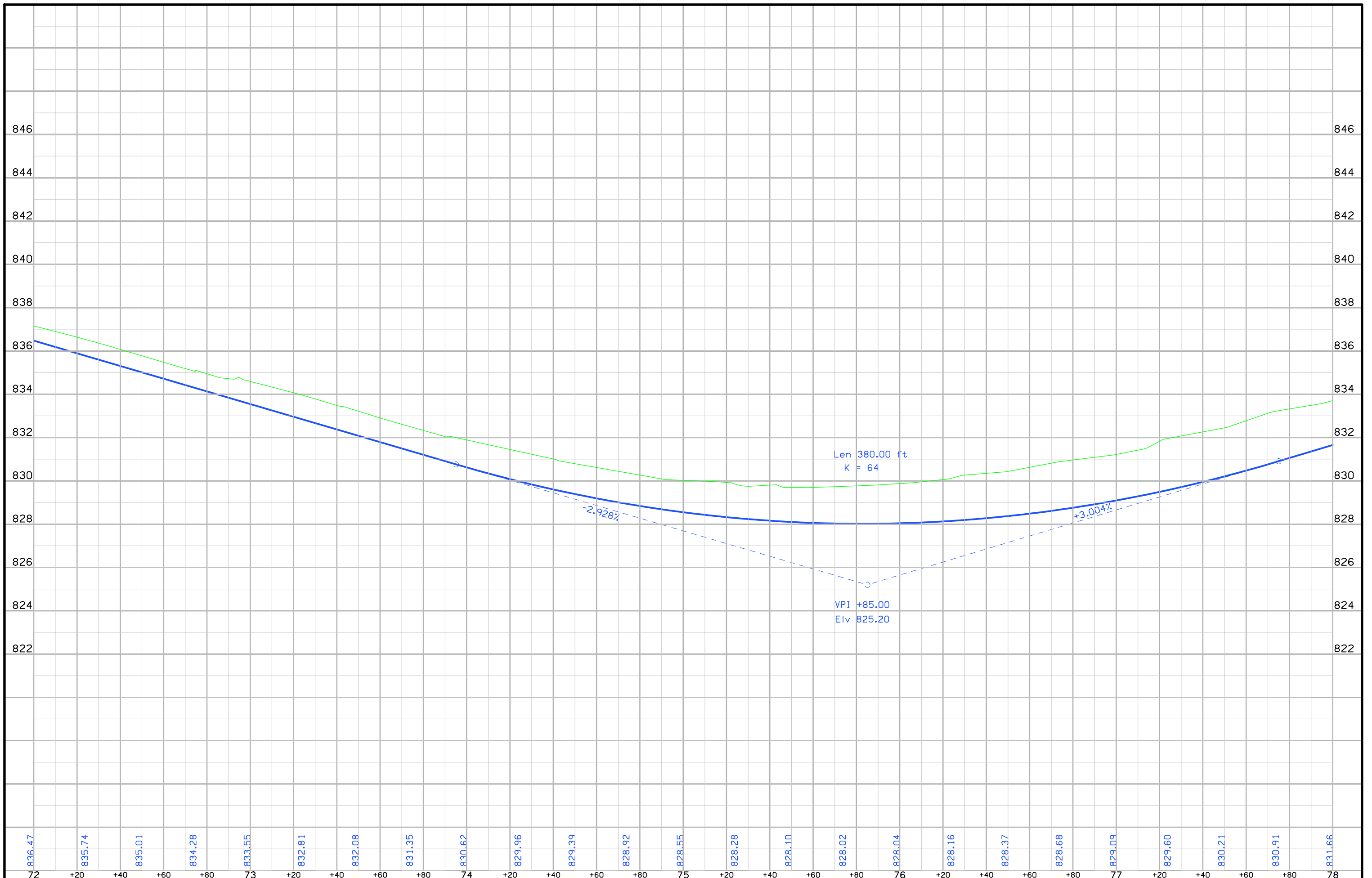
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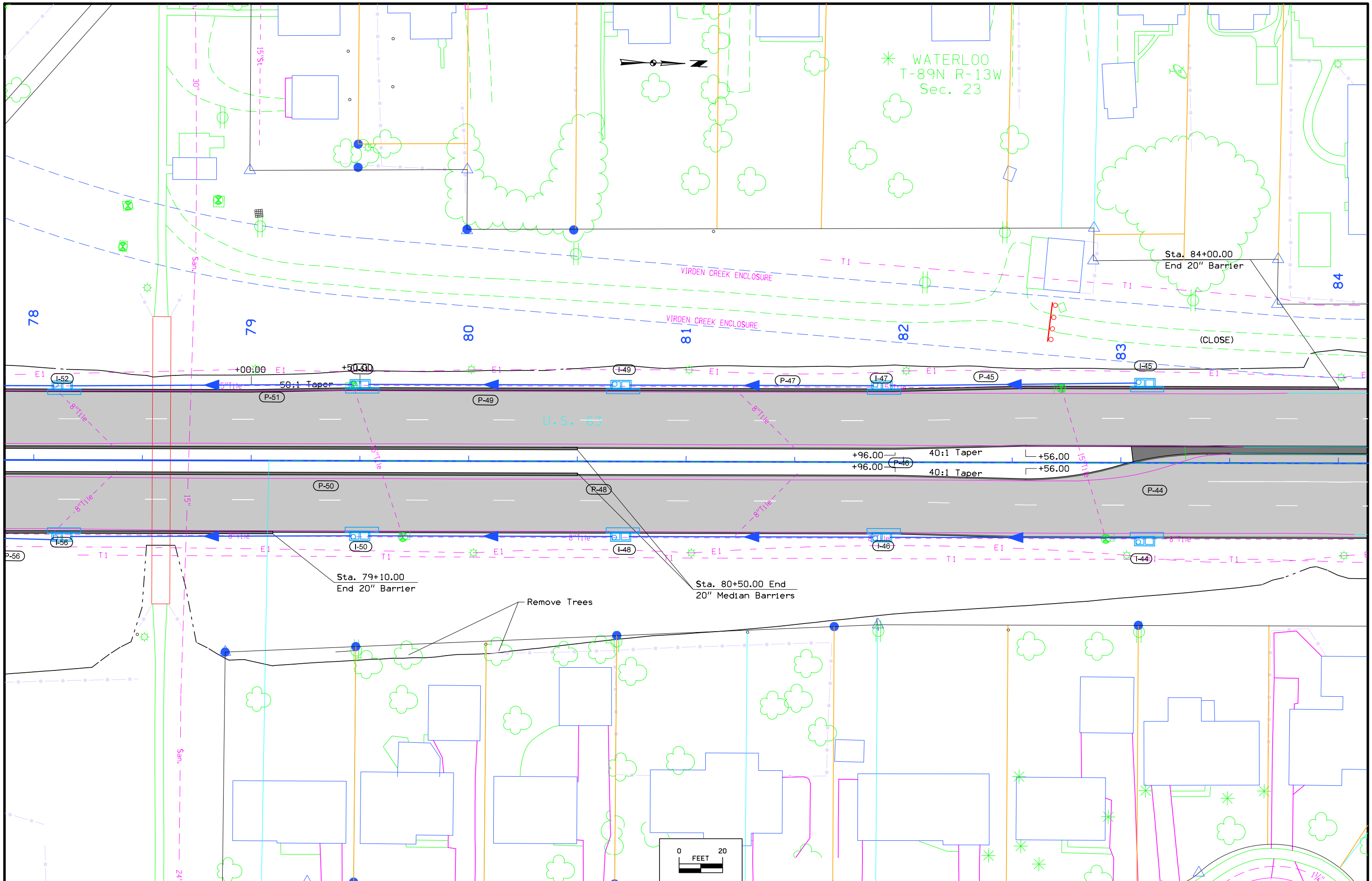
6" CLAY STREET





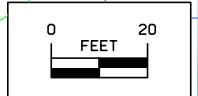


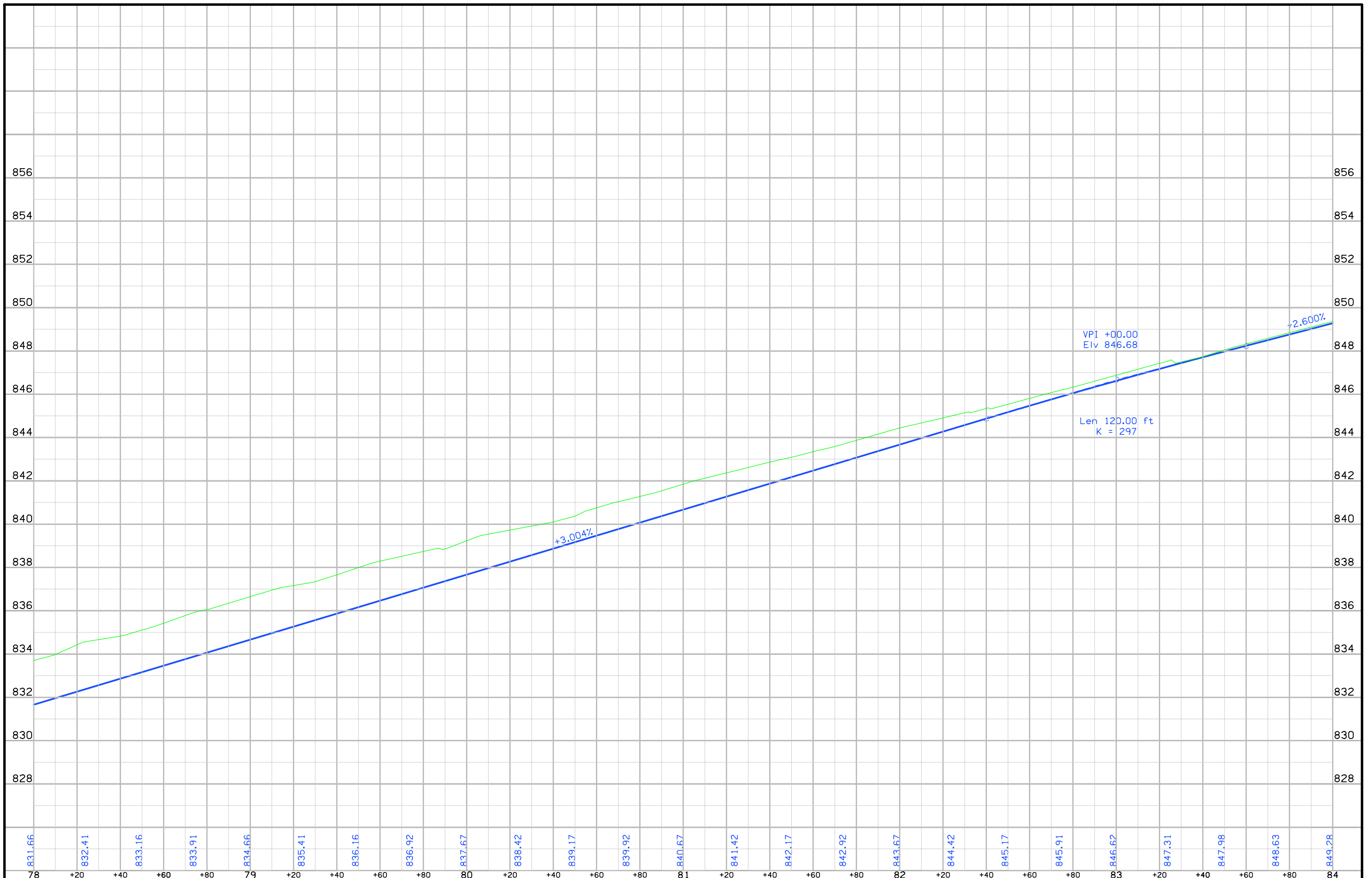


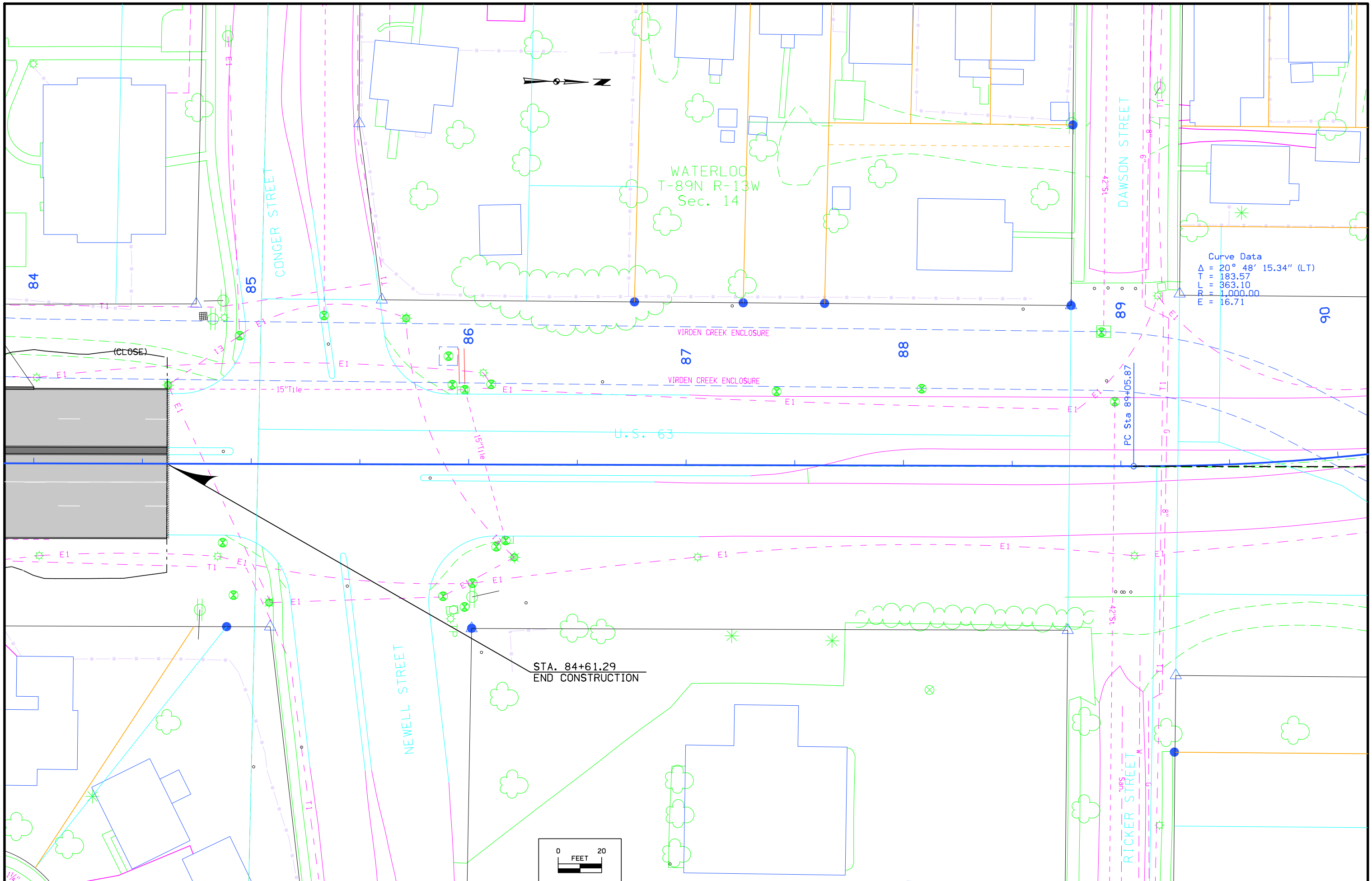


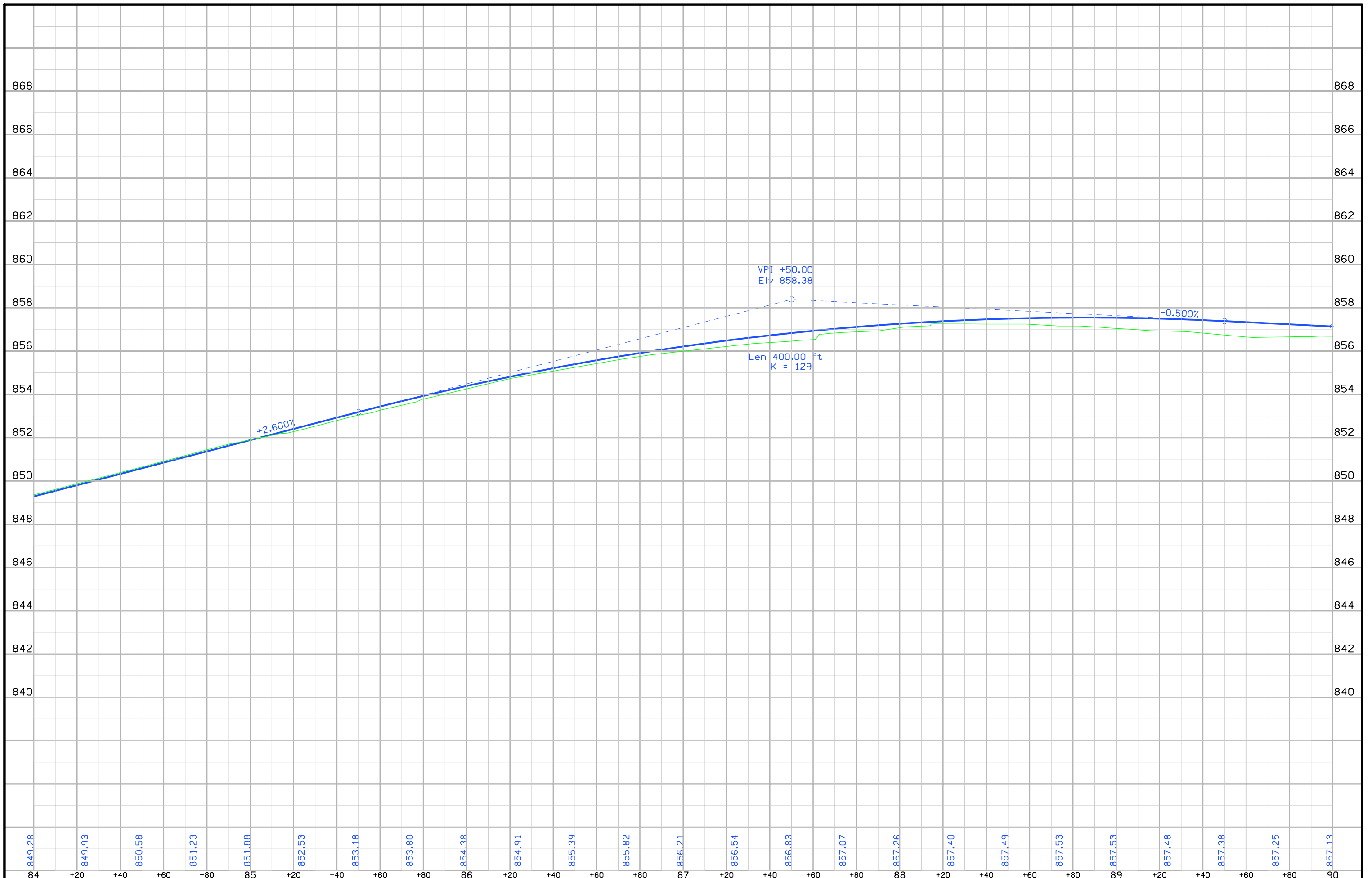
* WATERLOO
T-89N R-13W
Sec. 23

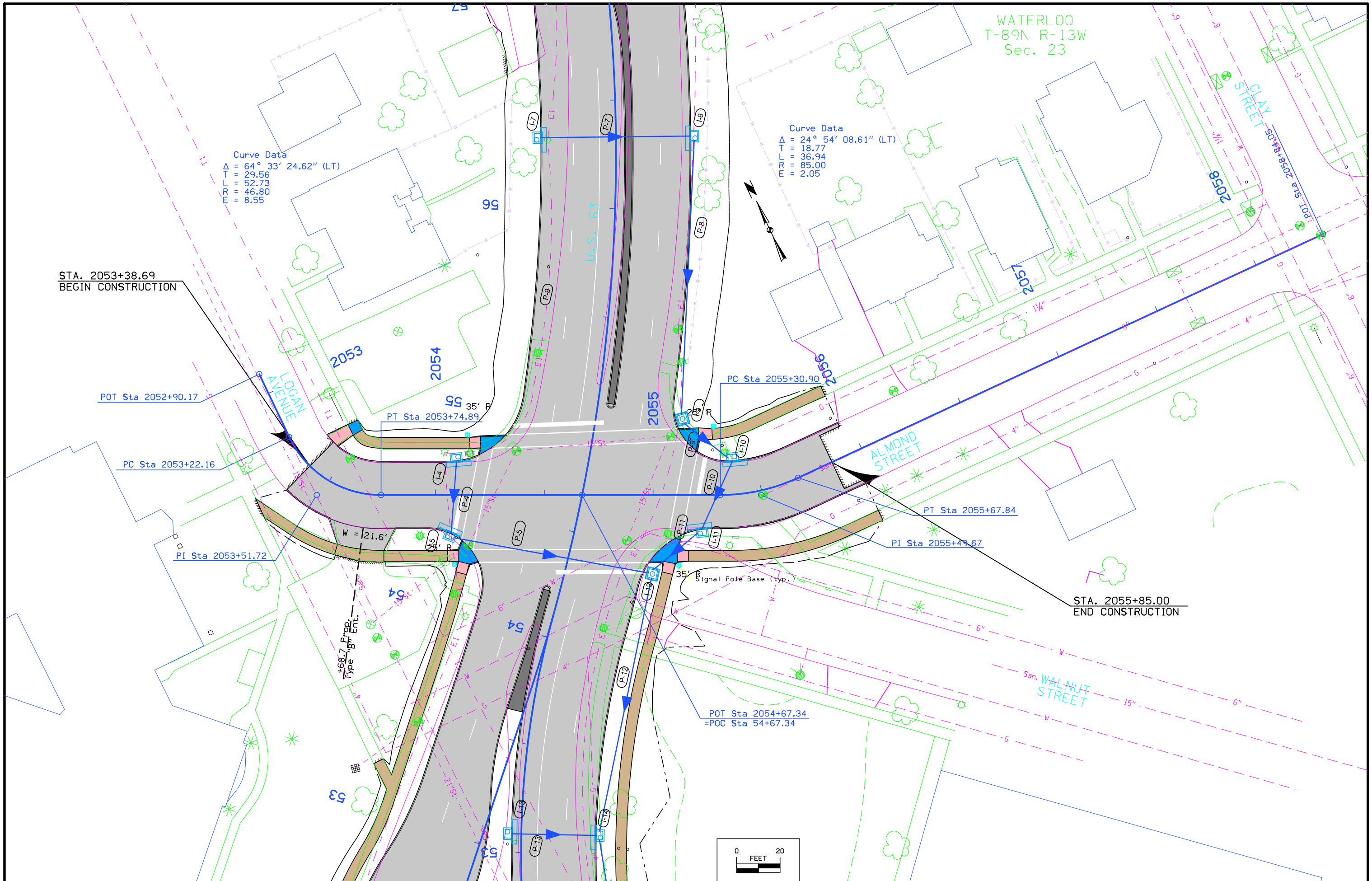
U.S. 63

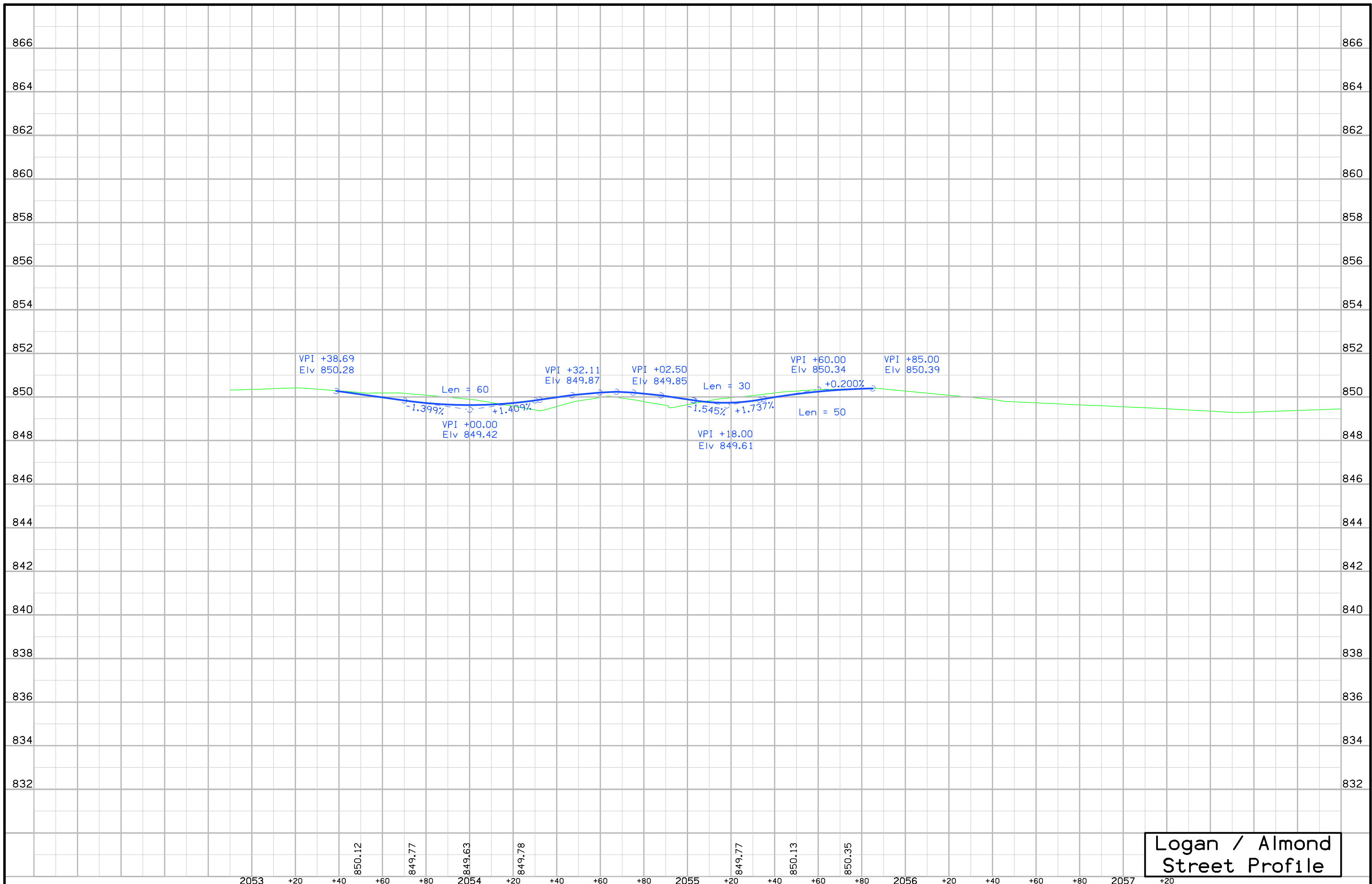




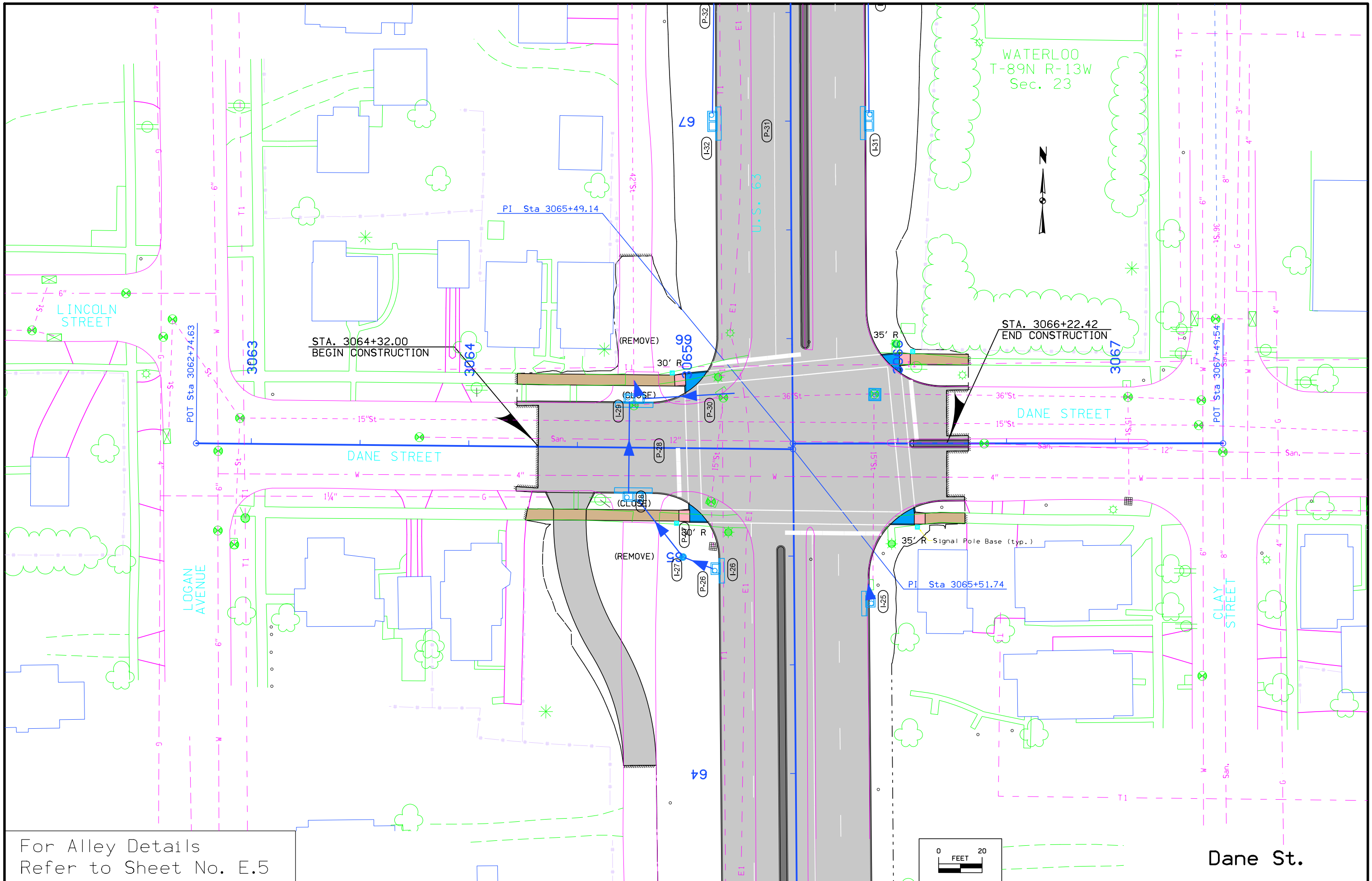






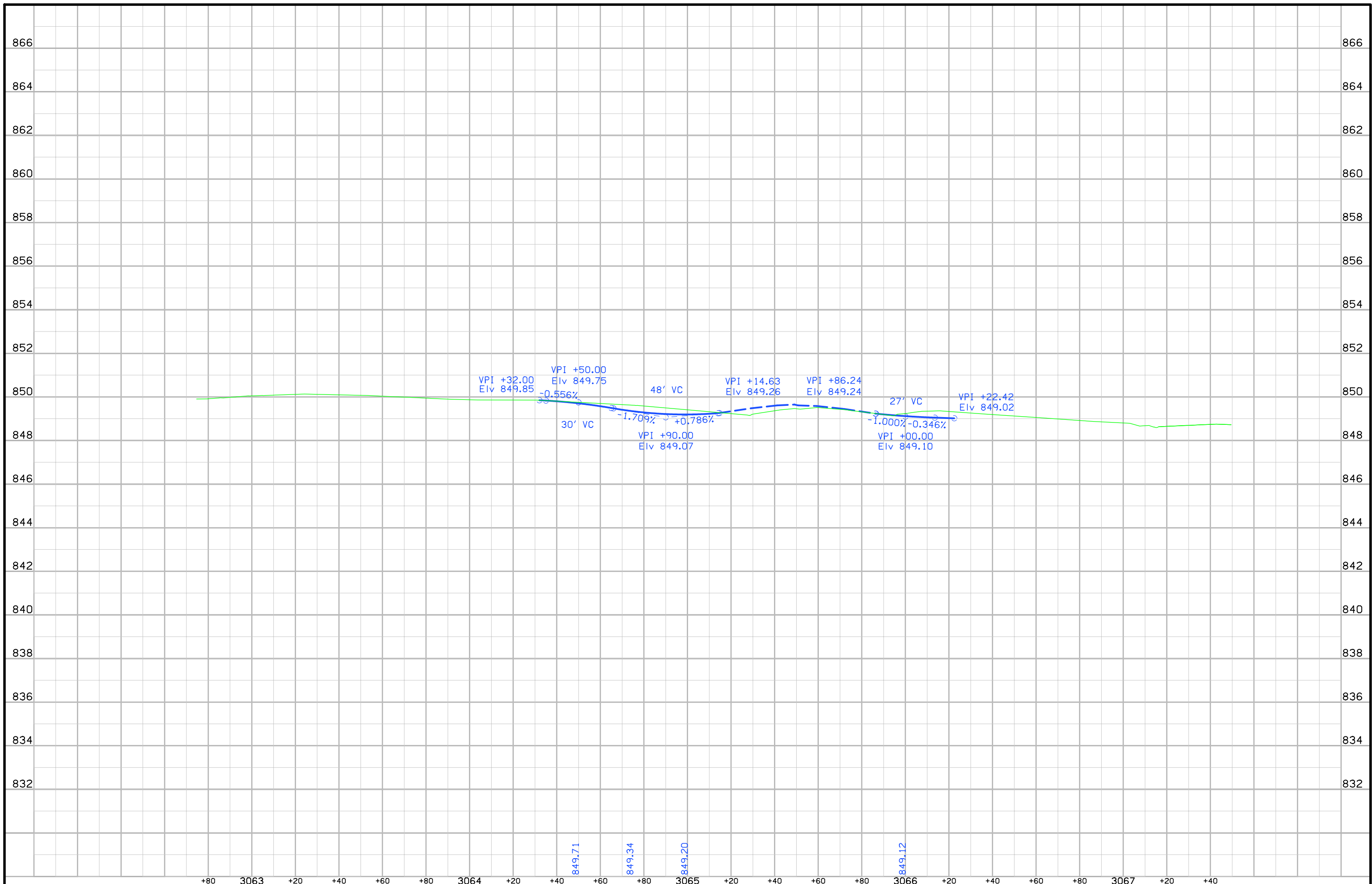


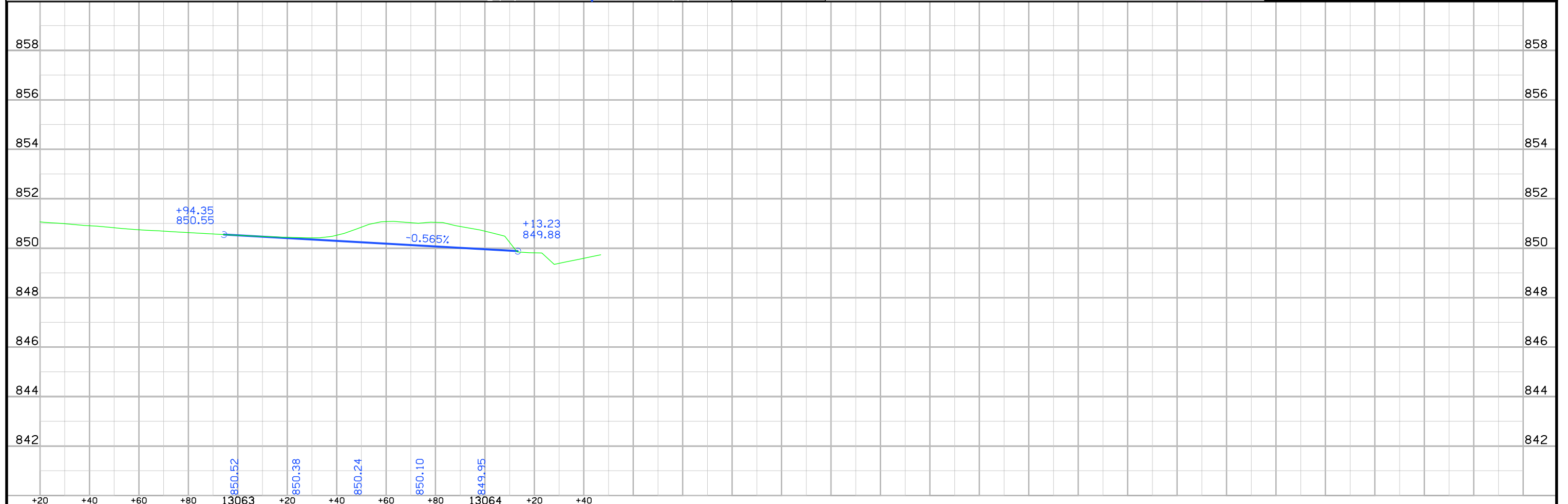
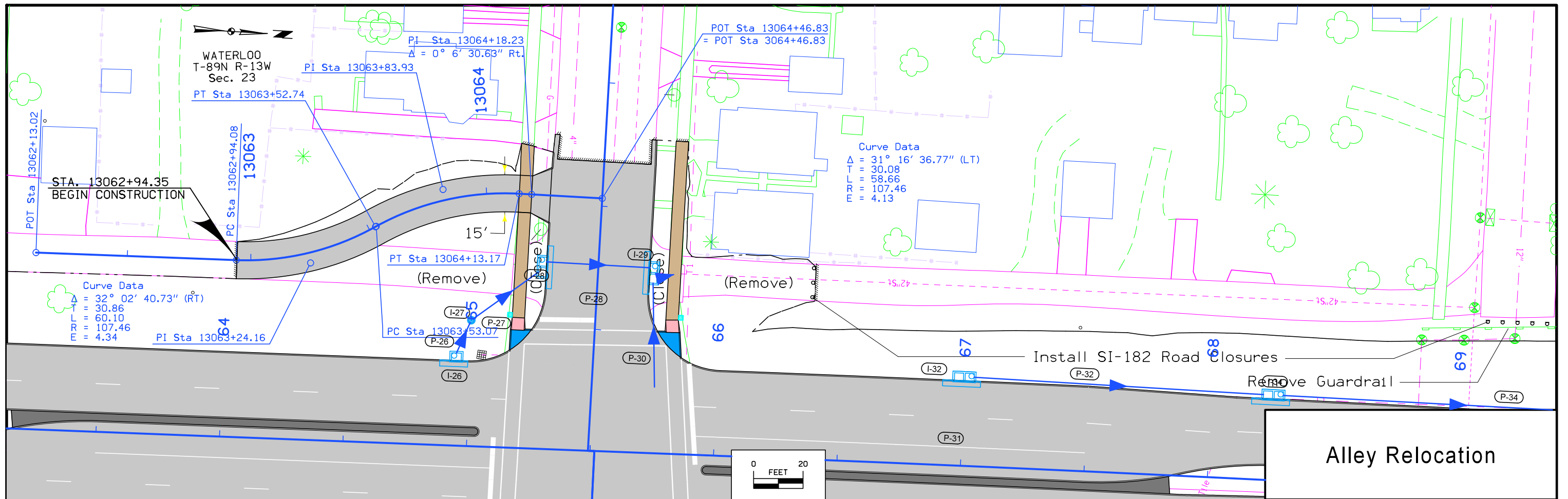
Logan / Almond
Street Profile



For Alley Details
Refer to Sheet No. E.5

Dane St.





Survey Information

General Information

Additional Survey information made at the request of Jia Yanxiao. Request includes as built alignments, Storm sewer Flow line information and clearance information at the Railroad Bridge and pedestrian bridge.

Vertical Control

Vertical datum for this survey is relative to NAVD88.

Datum Benchmark

CP # 302 this survey = (NGS M95) Elevation = 1086.42 NAVD 88 Adjusted

No As Built Plan benchmarks could be located.

Horizontal and Vertical Control

The previous consultant survey did not provide information with respect to horizontal project datum or project coordinate system. No G sheet was provided. No control point coordinates were documented. Because the current mapping is tied to an unknown coordinate system it was necessary to determine the coordinate system by relating measurements between objects in the microstation file. The coordinates of objects in the microstation file have the values nearly the same as those in the Iowa State Plane North Zone. The coordinates of control points in the mapping file were assumed to be state plane coordinates and were used to stakeout and locate project control. Although the control could be located it was only approximately at a survey quality state plane coordinate position. Therefore it was necessary to make a small translation from state plane coordinates to project coordinates. The first step in this process was to determine how the project grid distance related to the true ground distance. The true ground distance between a control point just north of Franklin to a control point just north of Newell St. was measured as 3821.47. A state plane grid distance was measured as 3821.14 ft. The project mapped grid distance is 3821.00. The observed linear error between ground distance and project mapping distance is 123 ppm or about 1 part in 8000. This is also equivalent to 1000 ft. in project length = 1000.12 ft. in true ground length.

The project azimuth between the two control points is 1° 37' 34".

The measured state plane grid azimuth is 1° 37' 41".

To best fit project control a modified state plane coordinate system was developed related to the (NAD83(CORS))(EPOCH 2002.00) Geodetic Reference Frame. Iowa North Zone Coordinate system US ft. as broadcast by IARTN. NAVD88 Elevations were computed using Geoid 09 from broadcast Iowa RTN ellipsoidal height.

The project coordinate system was modified from the said reference frame as follows:

Reference Frame Ia State Plane North Zone coordinate
Pt. 300: N= 3650876.714, E=5234936.921 ELEV=836.316
Project Pt. 300: N= 3650876.494, E=5234937.051 ELEV= 836.516

The state plane coordinate system was translated

N: -0.217 E:+0.130 ELEV: + 0.20 at Pt. 300

The coordinate system was rotated - 6 arc seconds about Pt 300.

The coordinate system was scaled 0.99997 about Pt. 300.

As a result of using these parameters the standard deviation of coordinate pair differences of 5 observed project control marks along the project vs. the project coordinates of these points from the mapping file were N=0.016 ft. E= 0.017 ft. and ELEV= 0.036 ft. All data collected for this additional survey is relative to this modified system. This survey produced a project G sheet with control based on survey observation using these parameters. Topcon Toposurv users can access a .tsj file in the preliminary survey project folder with these parameters set up for future GPS/GNSS survey work. No localization will be necessary when using these parameters.

PLEASE NOTE THAT DUE TO LINEAR GROUND ERROR INTRODUCED BY USING THIS COORDINATE SYSTEM A SCALE FACTOR OF 0.99988 MUST BE APPLIED TO GROUND DISTANCES TO LAY OUT A PROJECT PLAN DISTANCE OR TO STAKE OUT A PROJECT COORDINATE USING TOTAL STATION EQUIPMENT. 1000 FT. GROUND = 999.88 FT. PLAN.

Alignment Information

The design alignment for this project was provided by a consulting firm. There was no information provided relating the proposed design alignment to existing as built alignments although some of the alignment control was used by the consultant as project control. This survey identified and created the as built geopak alignments from two plans. 1963 as built plan UN 1119 1963 as built plan UN 202

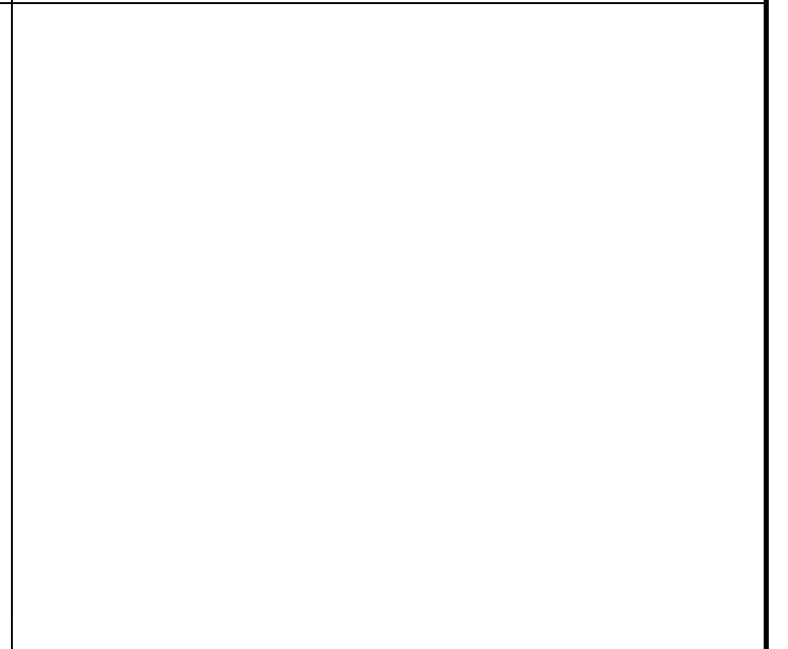
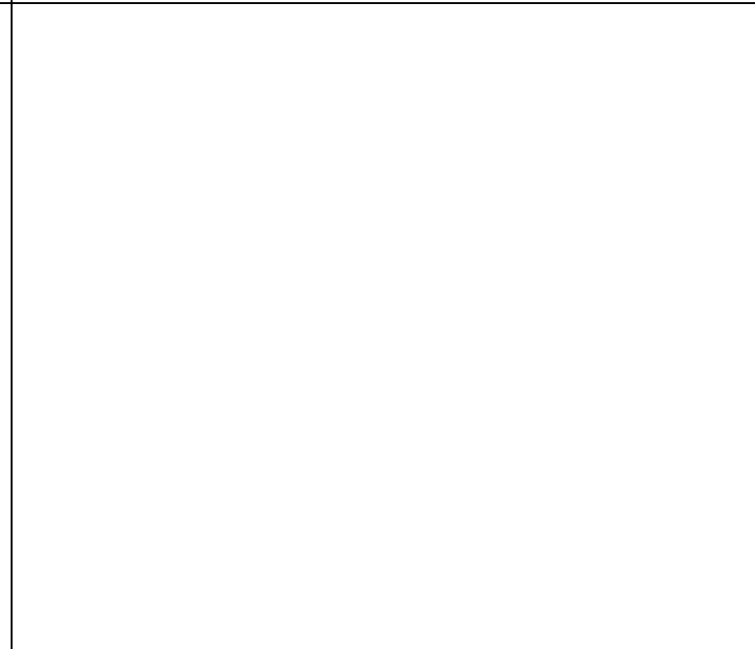
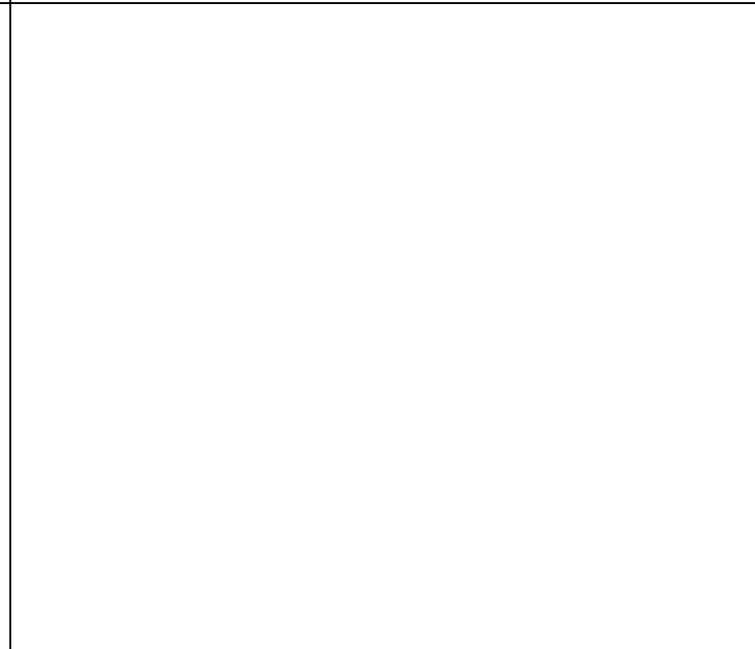
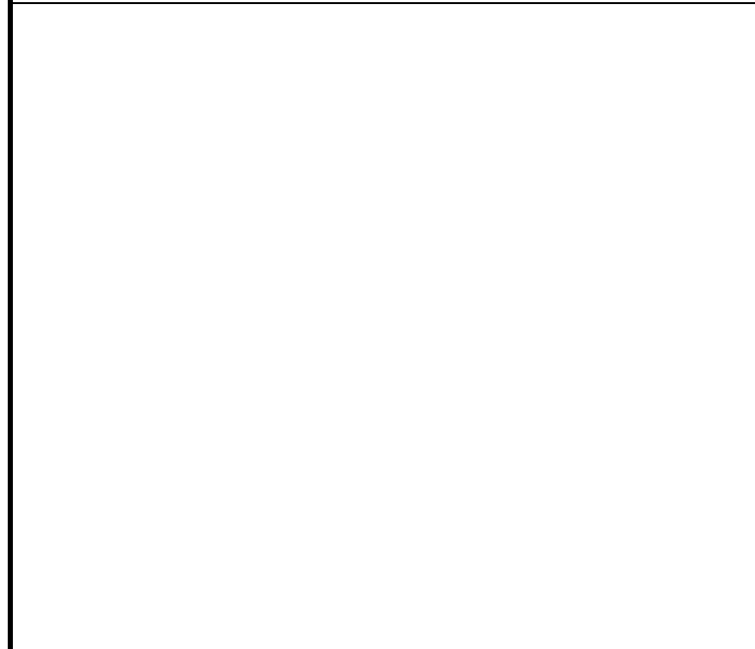
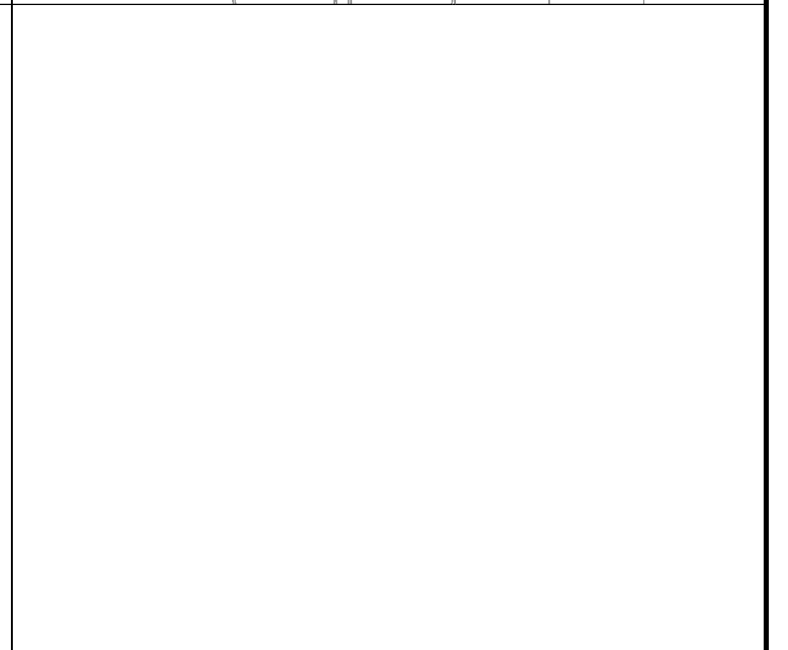
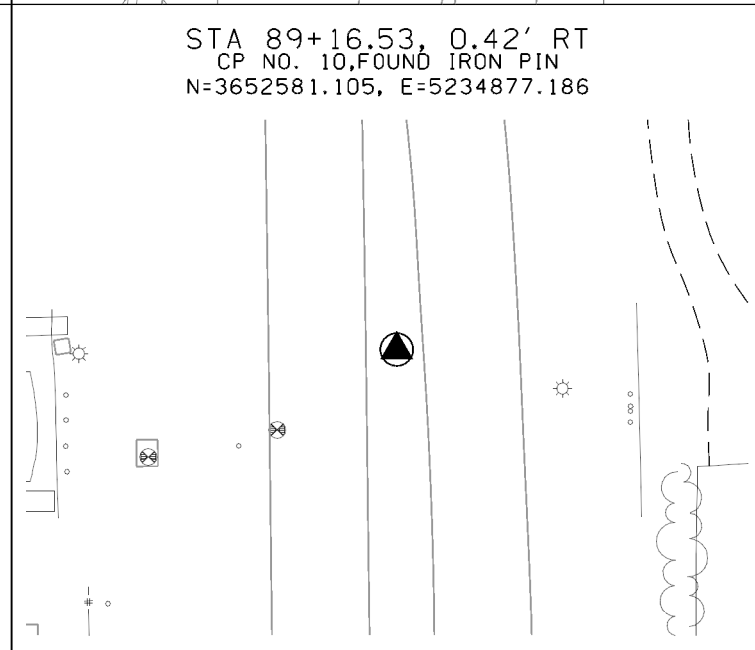
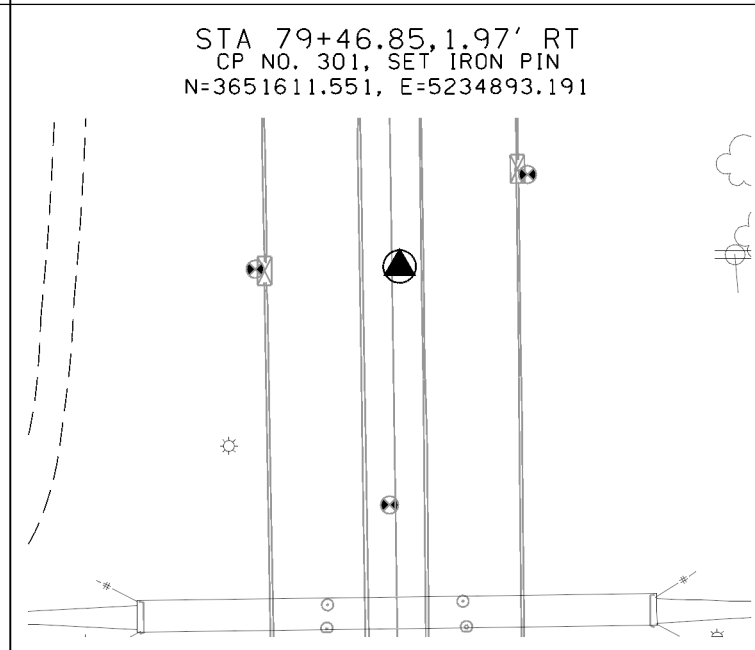
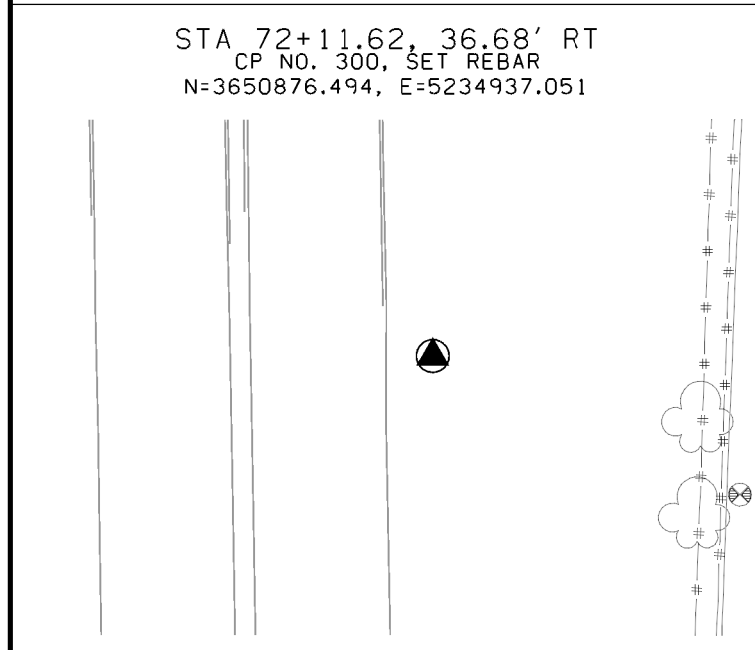
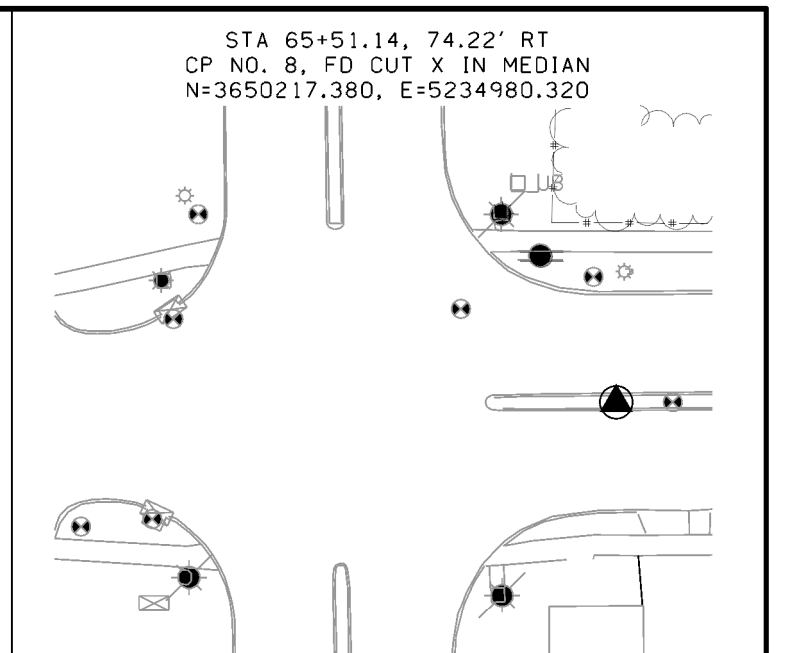
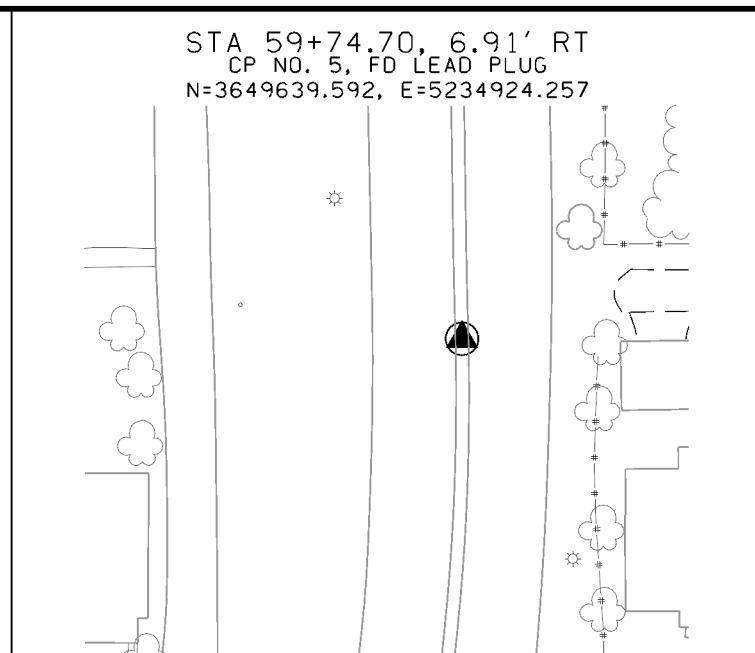
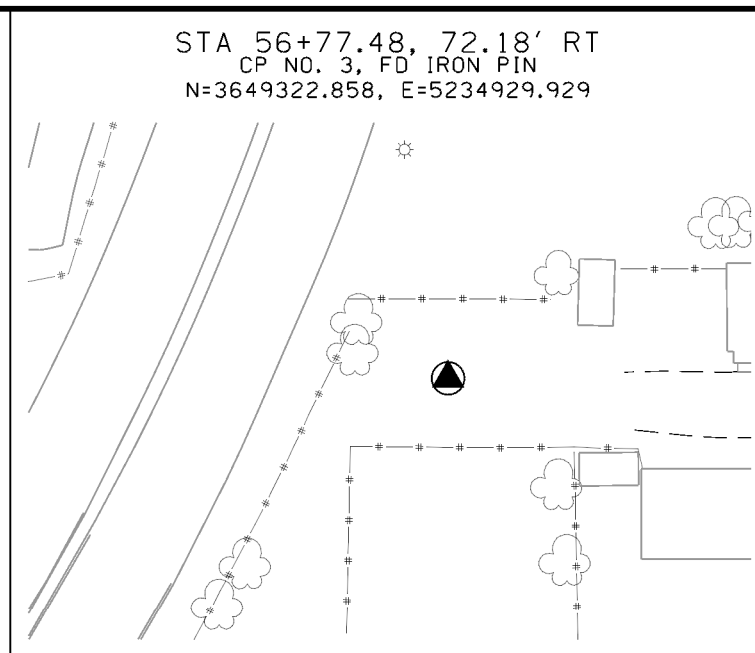
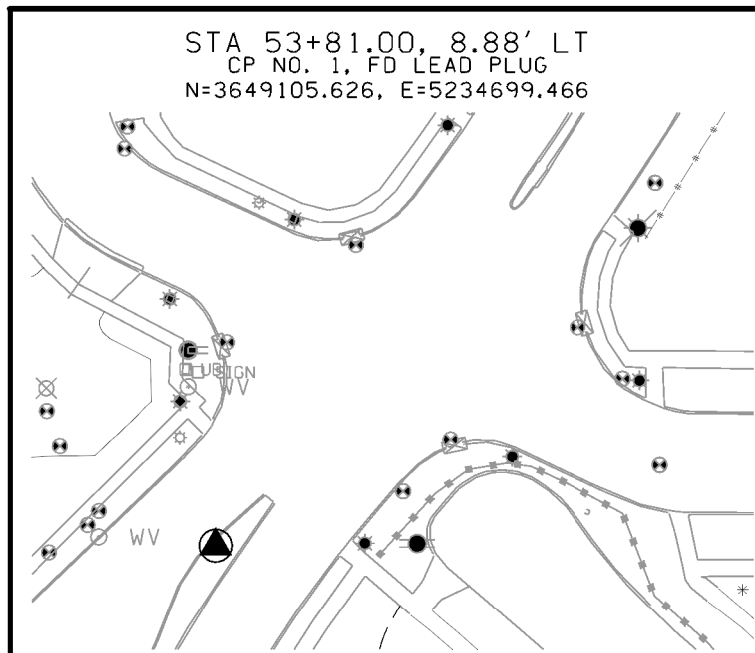
As built Alignments were created for:

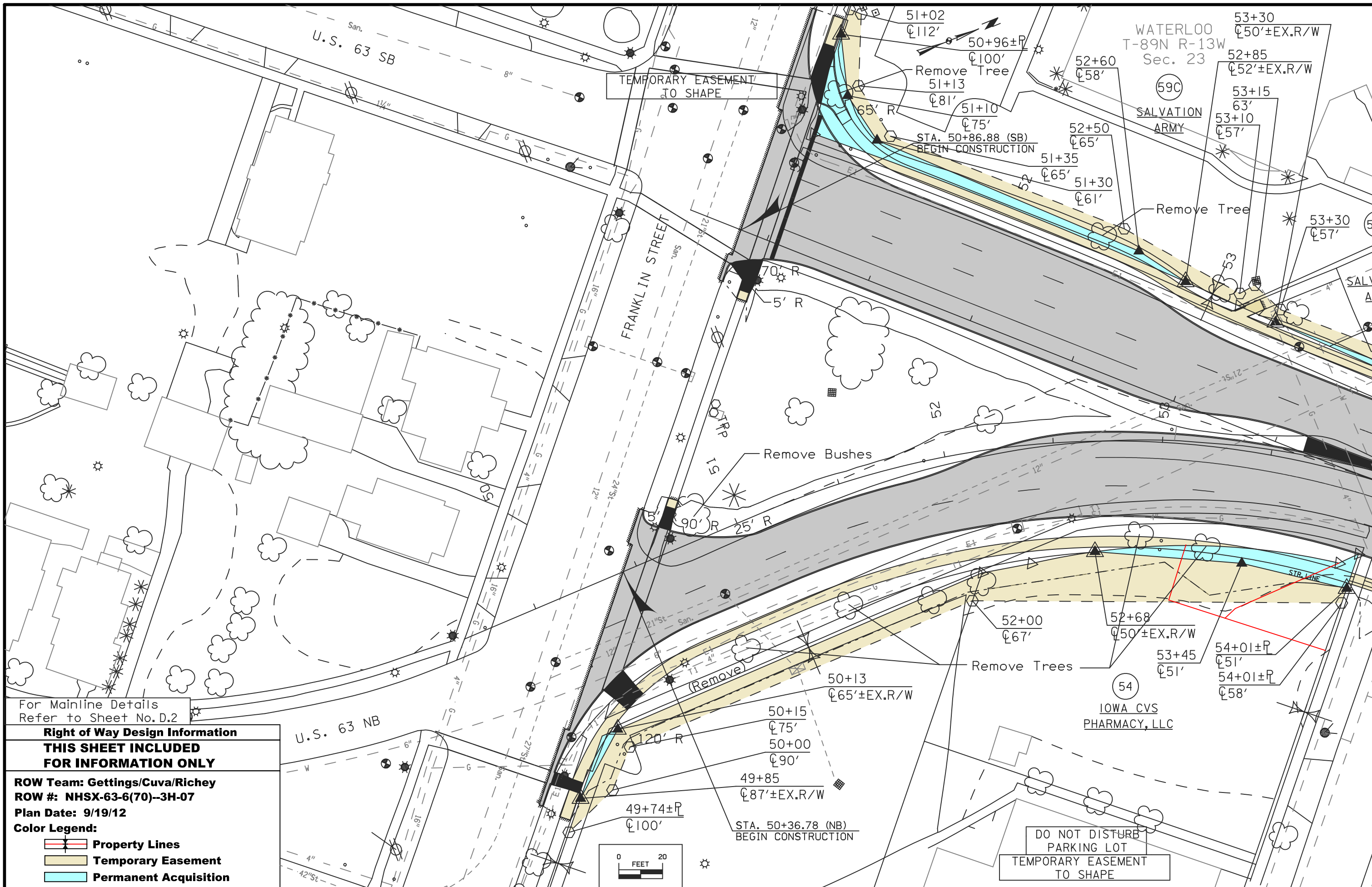
- 1)NB US 63 through the Franklin St. Intersection
- 2)SB US 63 through the Franklin St. Intersection continuing north along the centerline of US 63 two way traffic through Newell St.
- 3) Franklin St.

Stationing for the US 63 NB and SB alignment was equated to plan UN 202 at a found lead plug at PC Station 1238+71.8. Stationing was run without equation back through Franklin St. and ahead through Newell St. to a found x at plan PC Station 1274+08.8. The survey station at the PC is

VERTICAL CONTROL

Point	North	East	Elevation	Station	Offset	Feature	Description
1	3649105.626	5234699.466	850.461	53+81.00	-8.884	CP	FD LEAD PLUG
502	3650237.714	5234670.839	850.294	65+77.58	-234.797	BM	TOP RIM AT NOTCH IN SE EDGE STEEL QWEST MH
501	3651531.684	5234816.241	853.139	78+68.13	-76.163	BM	CUT X IN CONC WING
500	3652556.055	5234815.375	853.427	88+92.40	-61.811	BM	CUT X IN CONC MH TOP



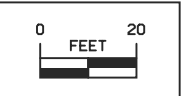


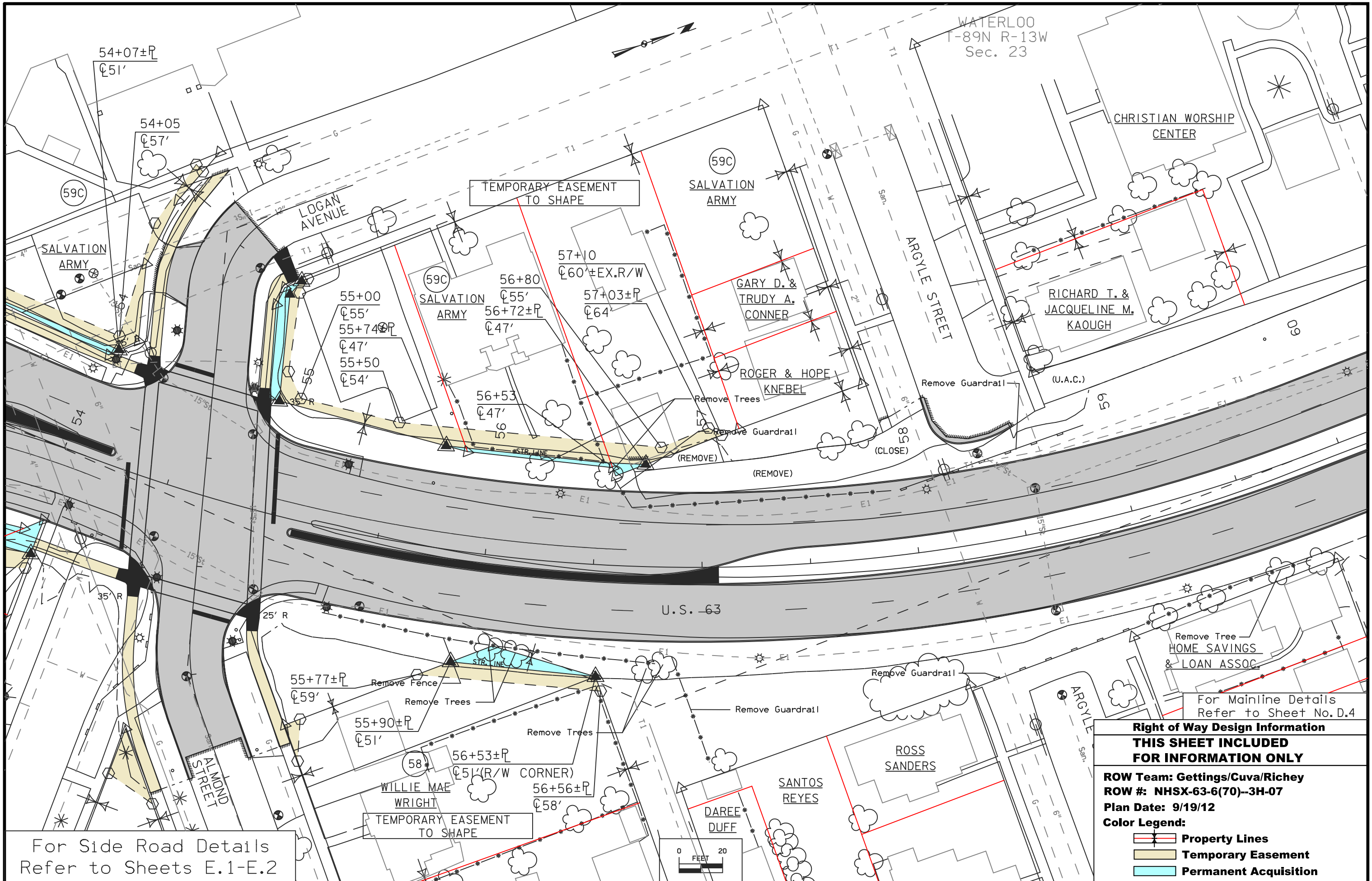
For Mainline Details
Refer to Sheet No. D.2

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Gettings/Cuva/Richey
ROW #: NHSX-63-6(70)--3H-07
Plan Date: 9/19/12

- Color Legend:**
- Property Lines
 - Temporary Easement
 - Permanent Acquisition





For Side Road Details
Refer to Sheets E.1-E.2

For Mainline Details
Refer to Sheet No. D.4

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Gettings/Cuva/Richey	
ROW #: NHSX-63-6(70)--3H-07	
Plan Date: 9/19/12	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

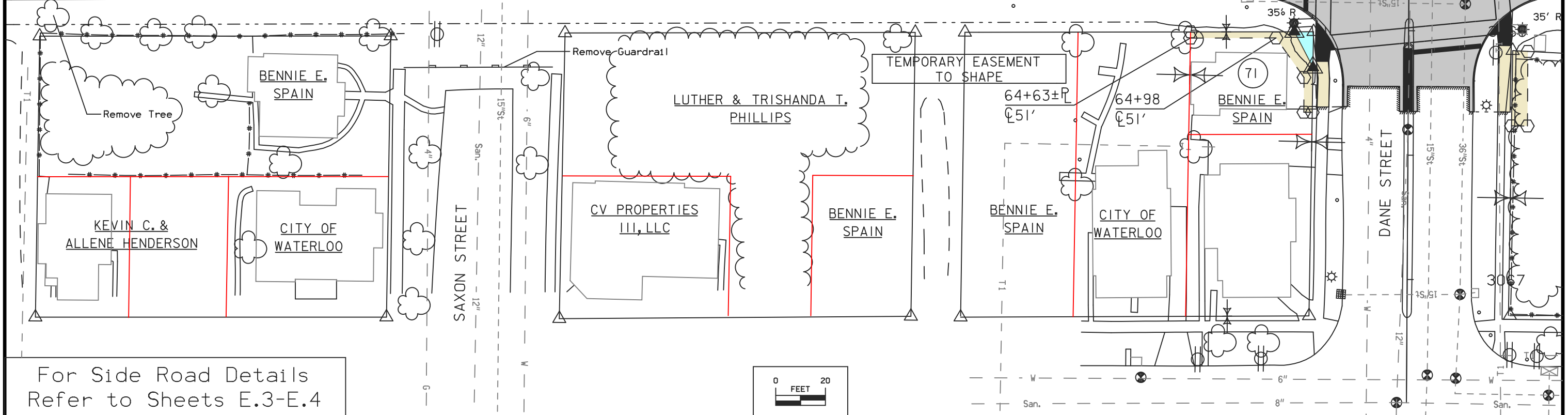
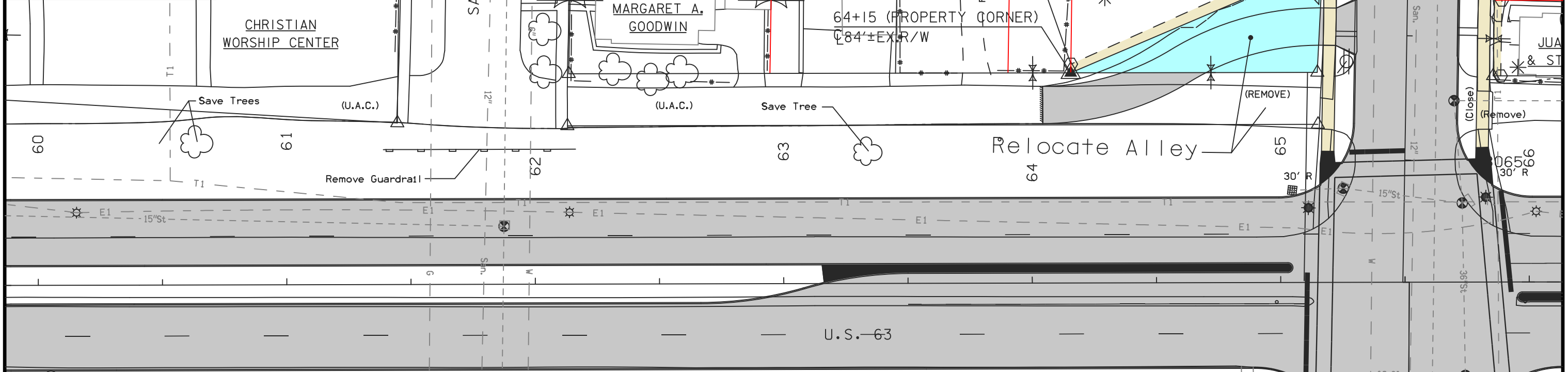


Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

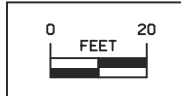
ROW Team: Gettings/Cuva/Richey
ROW #: NHSX-63-6(70)-3H-07
Plan Date: 9/19/12
Color Legend:

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

For Mainline Details
Refer to Sheet No. D.6



For Side Road Details
Refer to Sheets E.3-E.4



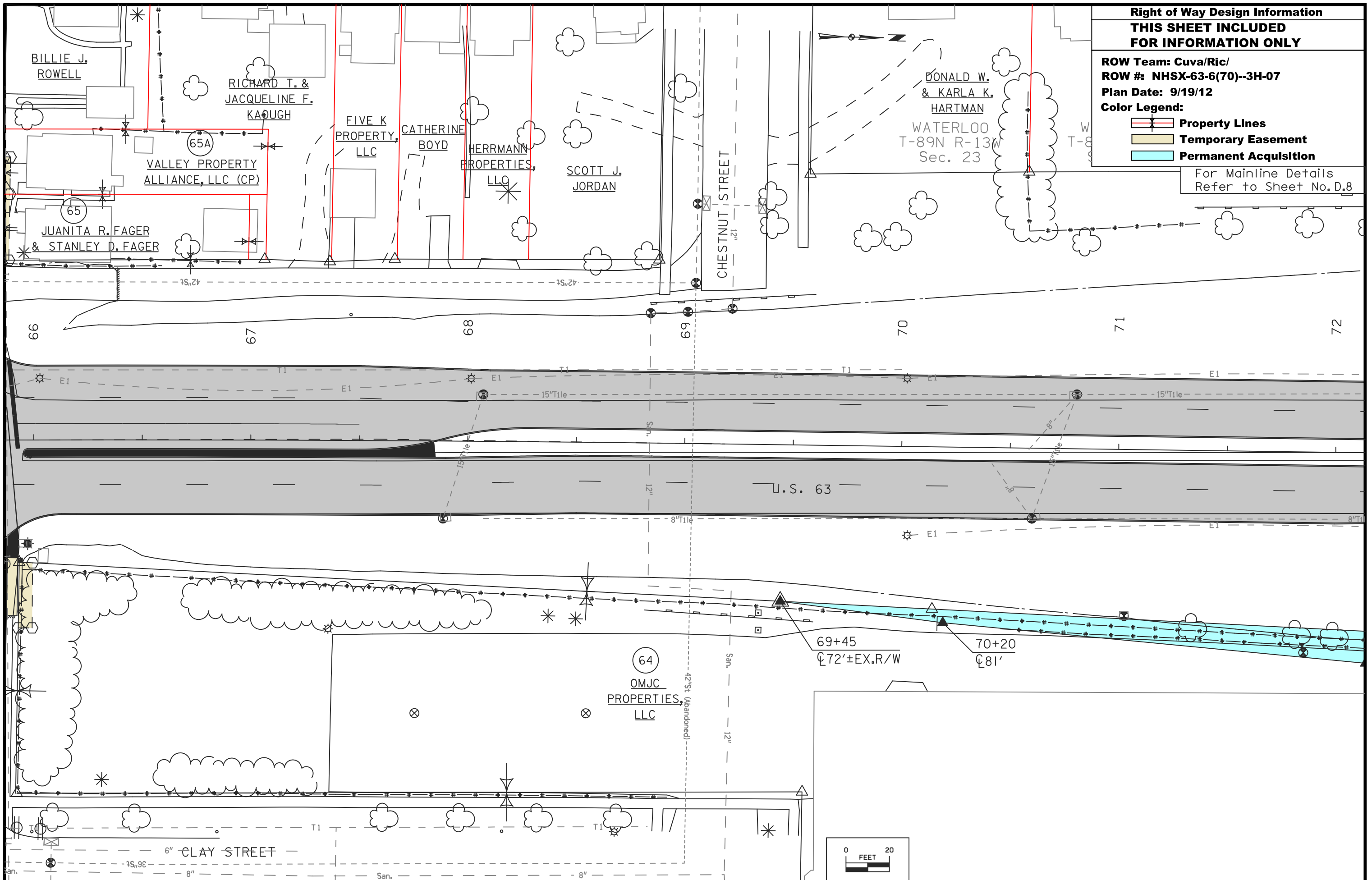
Right of Way Design Information

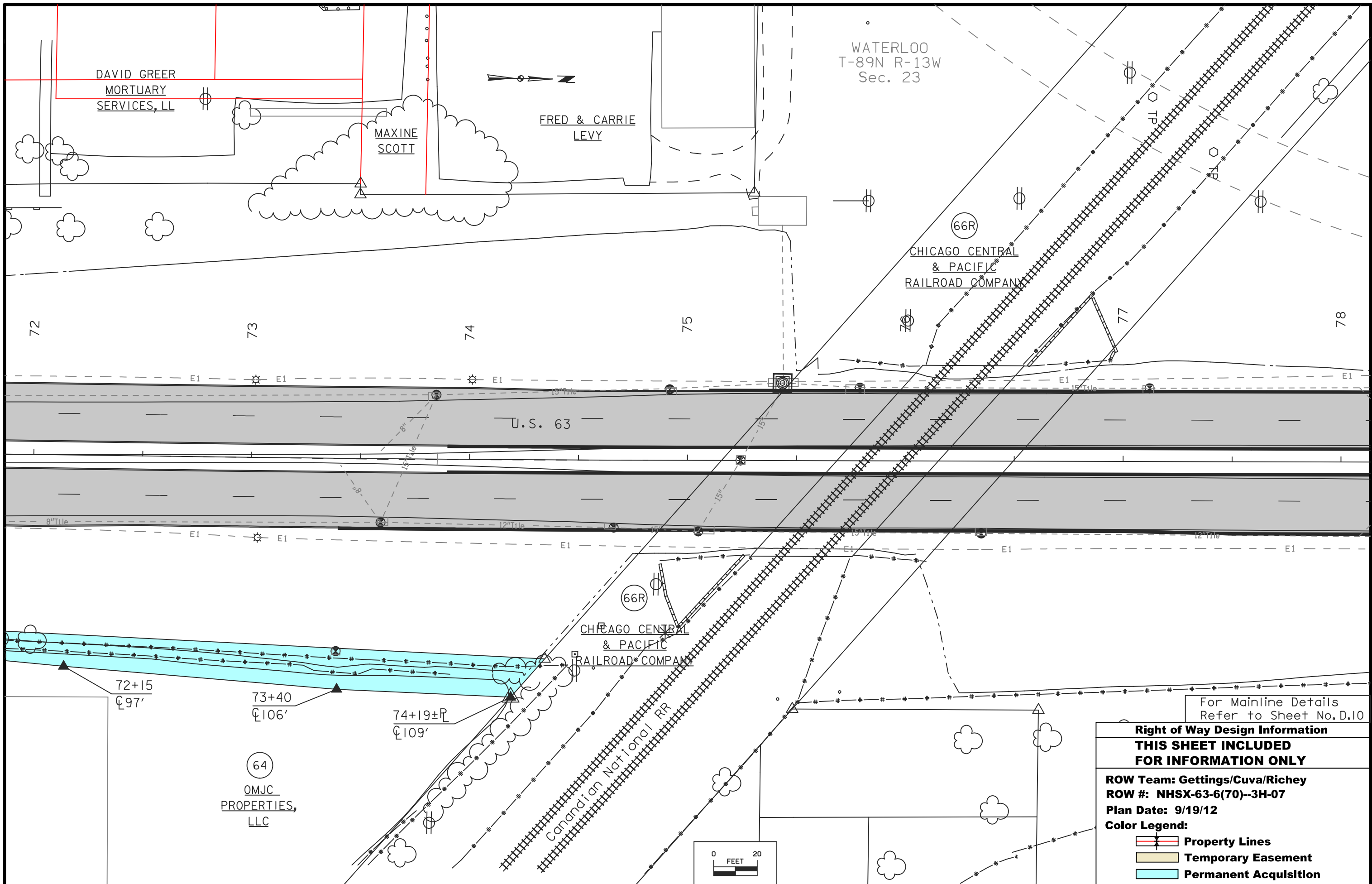
THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: Cuva/Ric/
ROW #: NHSX-63-6(70)--3H-07
Plan Date: 9/19/12
Color Legend:

-  Property Lines
-  Temporary Easement
-  Permanent Acquisition

For Mainline Details Refer to Sheet No. D.8





WATERLOO
T-89N R-13W
Sec. 23

DAVID GREER
MORTUARY
SERVICES, LL

MAXINE
SCOTT

FRED & CARRIE
LEVY

66R
CHICAGO CENTRAL
& PACIFIC
RAILROAD COMPANY




66R
CHICAGO CENTRAL
& PACIFIC
RAILROAD COMPANY

64
OMJC
PROPERTIES,
LLC

U.S. 63

Canadian National RR

For Mainline Details
Refer to Sheet No. D.10

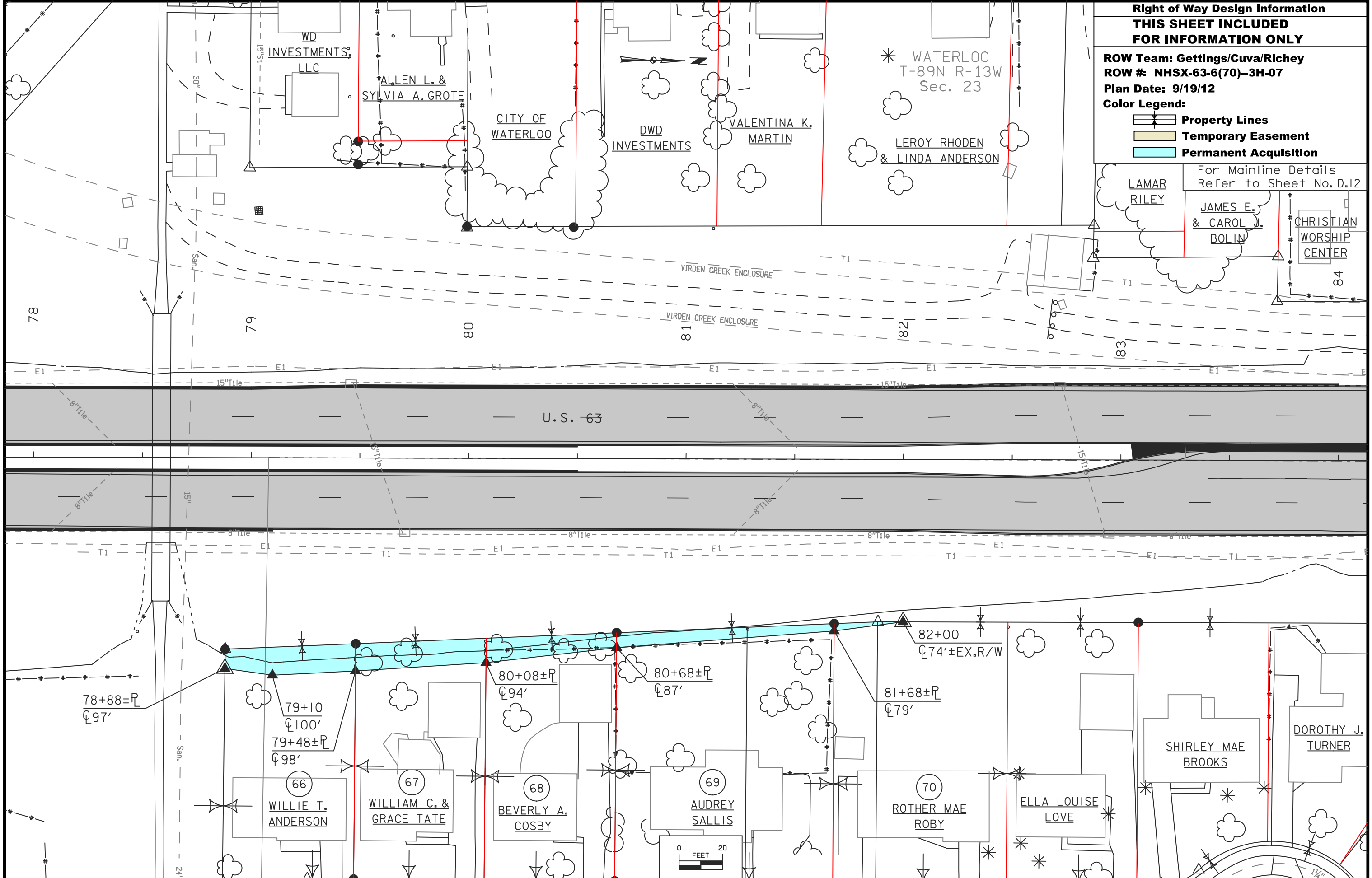
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THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Gettings/Cuva/Richey	
ROW #: NHSX-63-6(70)--3H-07	
Plan Date: 9/19/12	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

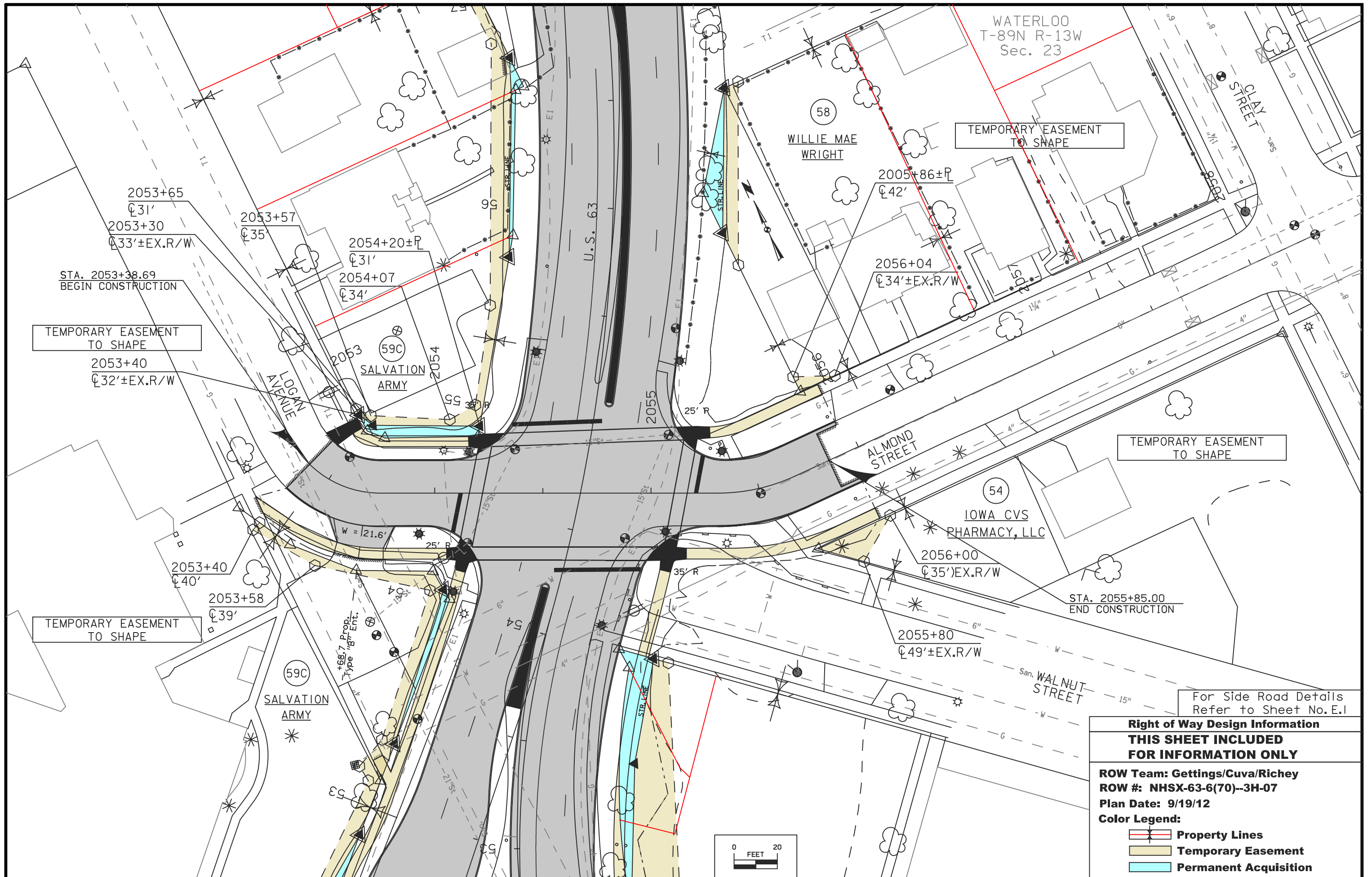


Right of Way Design Information
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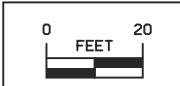
ROW Team: Gettings/Cuva/Richey
ROW #: NHSX-63-6(70)--3H-07
Plan Date: 9/19/12
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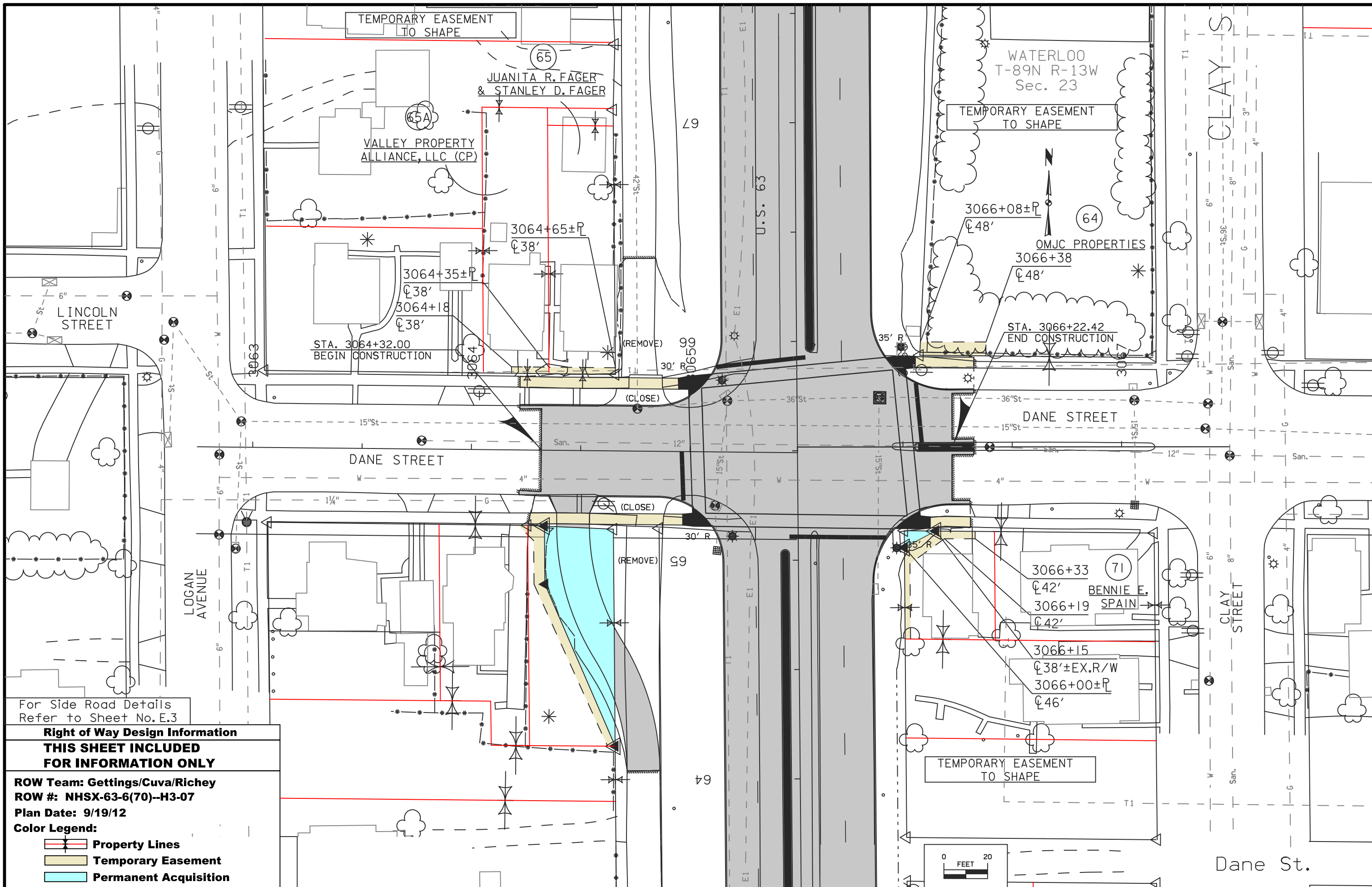
- Property Lines**
- Temporary Easement**
- Permanent Acquisition**





Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Gettings/Cuva/Richey	
ROW #: NHSX-63-6(70)--3H-07	
Plan Date: 9/19/12	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition





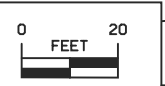
For Side Road Details
Refer to Sheet No. E.3

Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: Gettings/Cuva/Richey
ROW #: NHSX-63-6(70)--H3-07
Plan Date: 9/19/12

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition



TRAFFIC CONTROL PLAN

Traffic shall be maintained in both directions on US 63 at all times.

STAGING NOTES

Stage 1: Traffic on northbound lanes, construction on southbound lanes.

Stage 2: Traffic on southbound lanes, construction on northbound lanes.

STORM SEWER

* Bid Item
** For SW-545

For bedding and backfill purposes under Primary roads, use material complying with Article 4120.04 (Class A Crushed Stone) of the Standard Specifications for all bedding and backfill. Place and compact the material according to Article 2435.03, A and Article 2552.03, E (Class I materials).

INTAKES AND UTILITY ACCESSES						PIPES													
						Design Length, Slope, and Flowlines are calculated from inside wall to inside wall along CL of pipe. An additional 6 ft length is added to Design Length to account for estimated length to center of structures.													
No.	Location Station and Offset	*Type or Standard Road Plan	Form Grade	Bottom Well	Extensi on Length*	Notes	Line Number	Intake/ Utility Access No.		Class 'D'	Pipe Diameter	Bid* Length	Design Length	Slope %	Flow Lines			Pipe Profile Sheet No.	Notes
			Elev.	Elev.	FT			From	To		IN	FT	FT		Inlet Elevation	Outlet Elevation	Other Elevation		
I-58	76+35.87, 32.05	SW-509	828.44	823.45		Existing 15" Pipe In	P-60	I-60	I-61	2000	24	71	65	0.40	822.86	822.6			
I-59	75+82.58, 32.67	SW-510	829.10	822.61			P-61	I-61	E-2	2000	24	16	10	1.00	822.6	822.5			
I-60	75+51.90, 32.67	SW-509	829.17	822.36															
I-61	75+60.00, -32.67	SW-509	829.14	822.10															
		Total:																	
		15'X4' CONC BASIN & Steel Grate	1.00								15	173							
		4' X 4' CONC BASIN	1.00								18	1527							
		RF-2	1.00								24	2619							
		RF-21	1.00								36	61							
		SW-402 (4' x 4')	6.00																
		SW-507	18.00																
		SW-509	30.00																
		SW-510	2.00																
		SW-512 (24" Type 5 Casting)	1.00																
		SW-512 (24" Type 5 Casting)	2.00																

SURVEY SYMBOLS

	Interstate Highway Symbol		Cistern
	U.S. Highway Symbol		L.P. Gas Tank (No Footing)
	Iowa Highway Symbol		Underground Storage Tank
	County Road Highway Symbol		Latrine
	Evergreen Tree		Luminaire
	Deciduous Tree		Traffic Signal
	Fruit Tree		Traffic Signal with Luminaire
	Shrub (Bushes)		Telephone Pedestal
	Timber		Television Pedestal
	Hedge		Telephone Pole
	Stump		Telephone Pole (Second Company)
	Swamp		Telephone Pole (Third Company)
	Rock Outcrop		Telephone Pole (Fourth Company)
	Broken Concrete		Telephone Pole (Fifth Company)
	Revetment (Rip Rap)		Power Pole
	Cemetery		Power Pole (Second Company)
	Grave		Power Pole (Third Company)
	Cave		Power Pole (Fourth Company)
	Sink Hole		Power Pole (Fifth Company)
	Board Fence		Electrical Highline Tower (Metal or Concrete)
	Chain Link or Security Fence		Telephone Riser Pole
	Wire Fence		Power Riser Pole
	Terrace		Telegraph Pole
	Earth Dam or Dike (Existing)		Satellite TV Dish
	Earth Dam or Dike (Proposed)		Water Hook Up
	Tile Outlet		Radio Tower
	Edge of Water		Tower Anchor
	Existing Drainage		
	Proposed Drainage		
	Right of Way Rail or Lot Corner		
	Concrete Monument		
	Well		
	Windmill		
	Beehive Intake		
	Existing Intake		
	Proposed Intake		
	Existing Utility Access (Manhole)		
	Proposed Utility Access (Manhole)		
	Fire Hydrant		
	Water Hydrant (Rural)		

UTILITY LEGEND

	Existing Water Line
	Existing Water Line (Second Company)
	Existing Sanitary Sewer Line
	Existing Telephone Line
	Existing Telephone Line (Second Company)
	Existing Fiber Optics Telephone Line
	Existing Storm Sewer Line
	Existing Gas Line
	Existing High Pressure Gas Line
	Existing Gas Line (Second Company)
	Existing High Pressure Gas Line (Second Company)
	Existing Power Line
	Existing Power Line (Second Company)
	Cable Television Line
	Guardrail (Beam or Cable)
	Guard Post (one or two)
	Guard Post (over two)
	Filler Pipe
	Gas Valve
	Water Valve
	Speed Limit Sign
	Mile Marker Post
	Sign
	Traffic Signal Control Box
	Rail Road Signal Control Box
	Telephone Switch Box
	Electric Box

PLAN VIEW COLOR LEGEND OF STORM SEWER SHEETS

LINEWORK	Design Color No.	Description
Gray, Dark	(112)	Existing Topographic Features, Utilities, and Labels
Black	(17)	Proposed Storm Sewer Details, Alignment, Stationing, Tic Marks, and Alignment Annotation
SHADING	Design Color No.	Description
Gray, Light	(48)	Proposed Pavement Shading

PROFILE VIEW COLOR LEGEND OF STORM SEWER SHEETS

LINEWORK	Design Color No.	Description
Gray, Dark	(112)	Existing Ground Line Profile and Existing Utilities Information
Black	(17)	Proposed Pipes and Intakes

PLAN VIEW LINE STYLE LEGEND OF STORM SEWER SHEETS

	Plug and Abandon Existing Pipe or Structure
	Removal of Existing Pipe or Structure
	Previously Constructed Pipe or Structure
	Direction of Pipe Flow

PROFILE VIEW LINE STYLE LEGEND OF STORM SEWER SHEETS

	Existing Ground
	Proposed Ground
	Previously Constructed Pipe or Structure
	Proposed Pipe or Structure

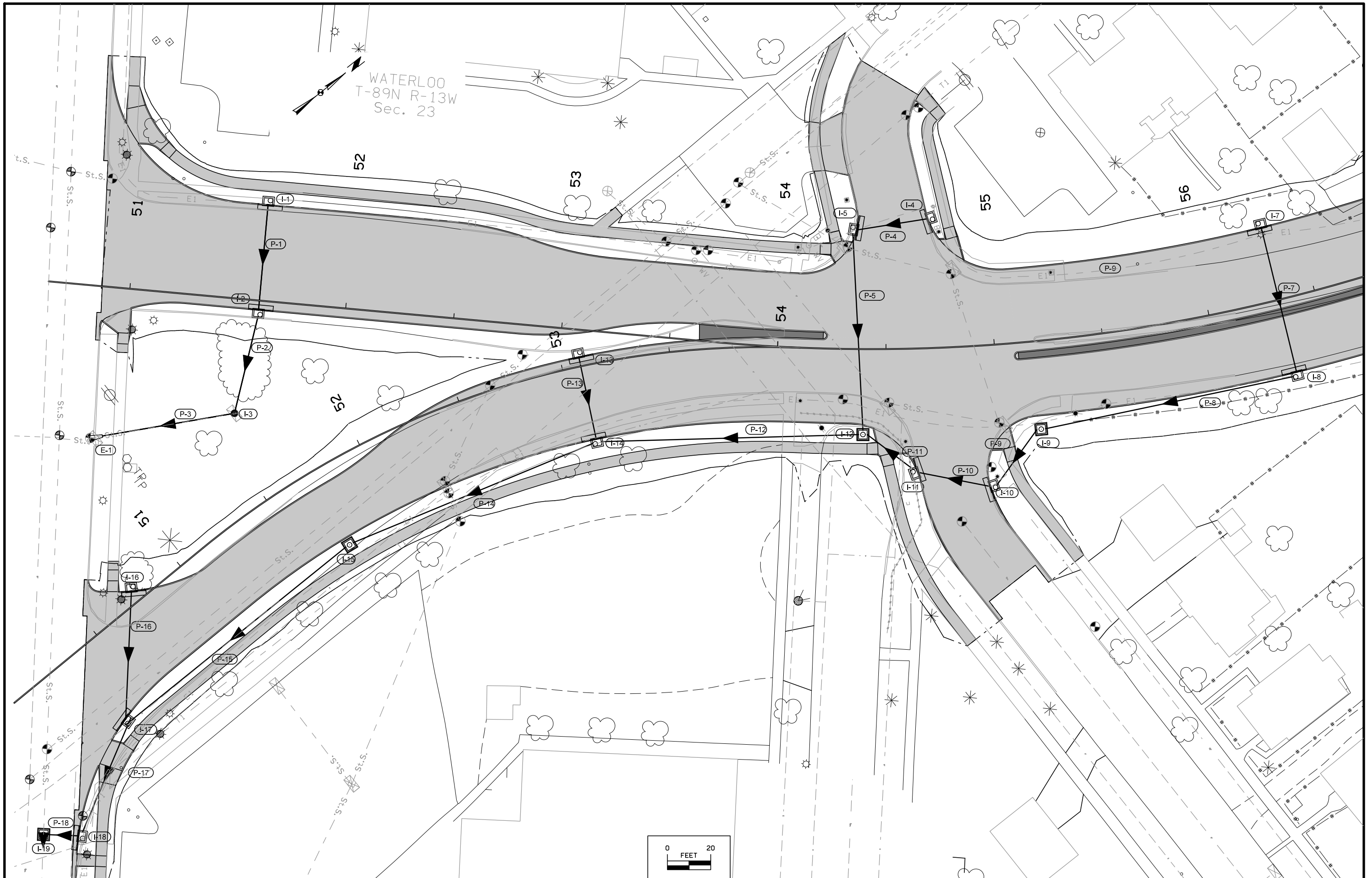
	Reference Point
	Station
	Section Corner
	Ground Line Intercept
	Saw Cut
	Guardrail
	Clearing & Grubbing Area
	Pavement Removal

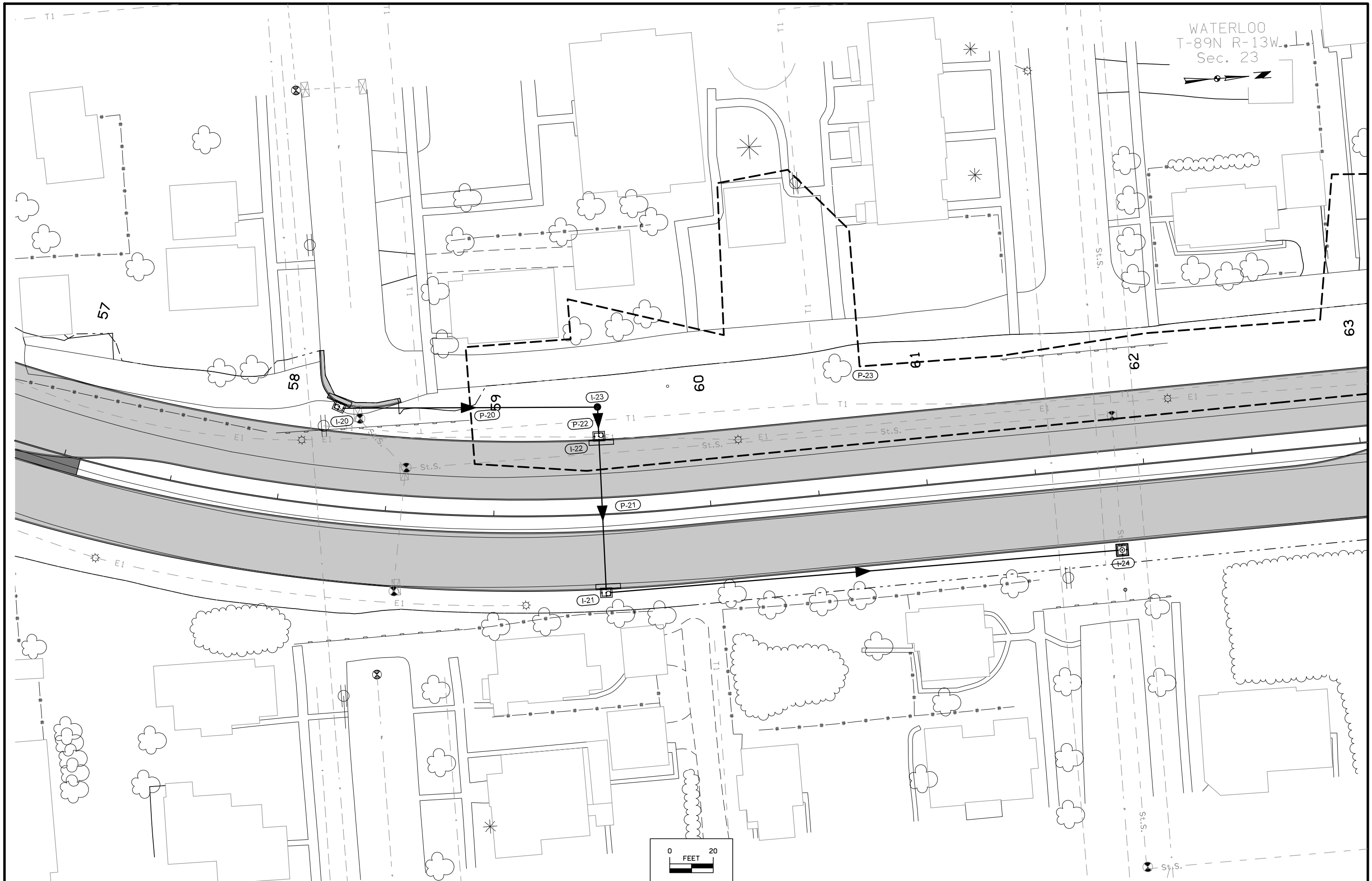
RIGHT-OF-WAY LEGEND

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

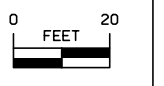
STORM SEWER LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES M)

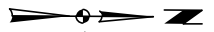




WATERLOO
T-89N R-13W
Sec. 23



WATERLOO
T-89N R-13W
Sec. 23



70

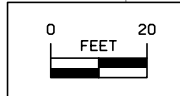
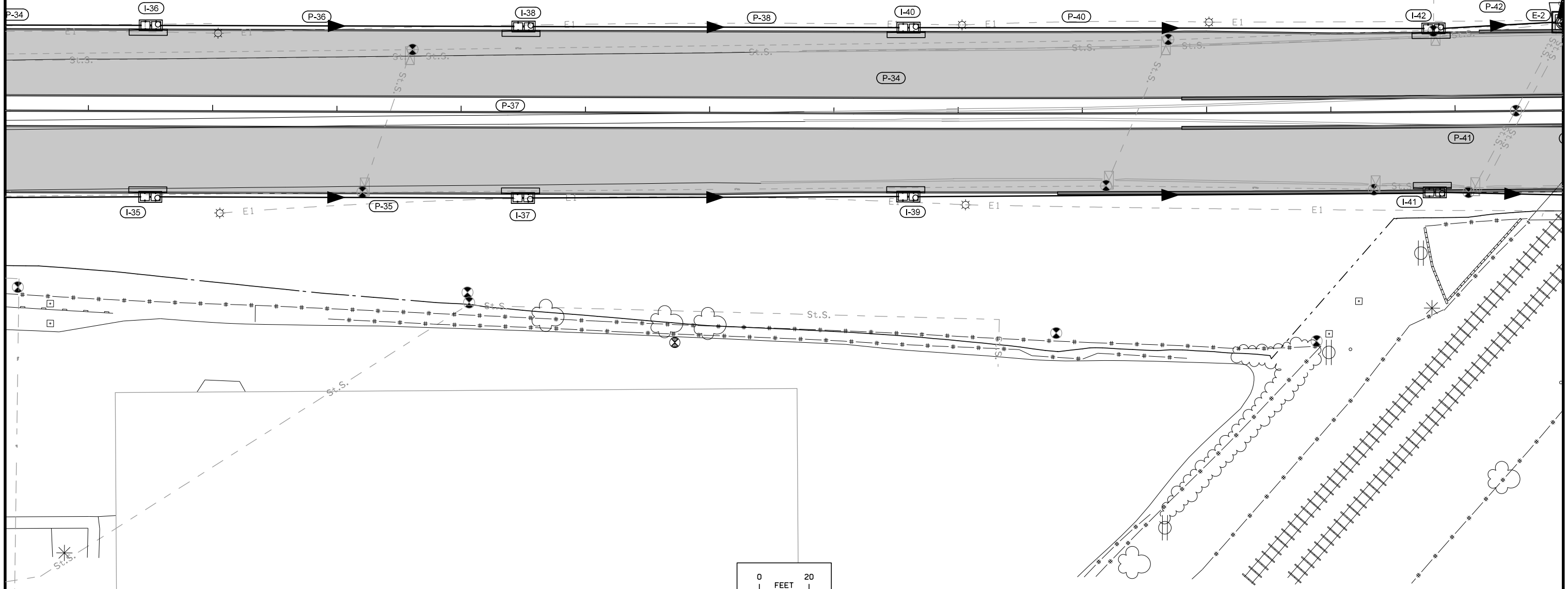
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72

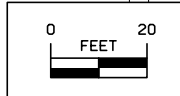
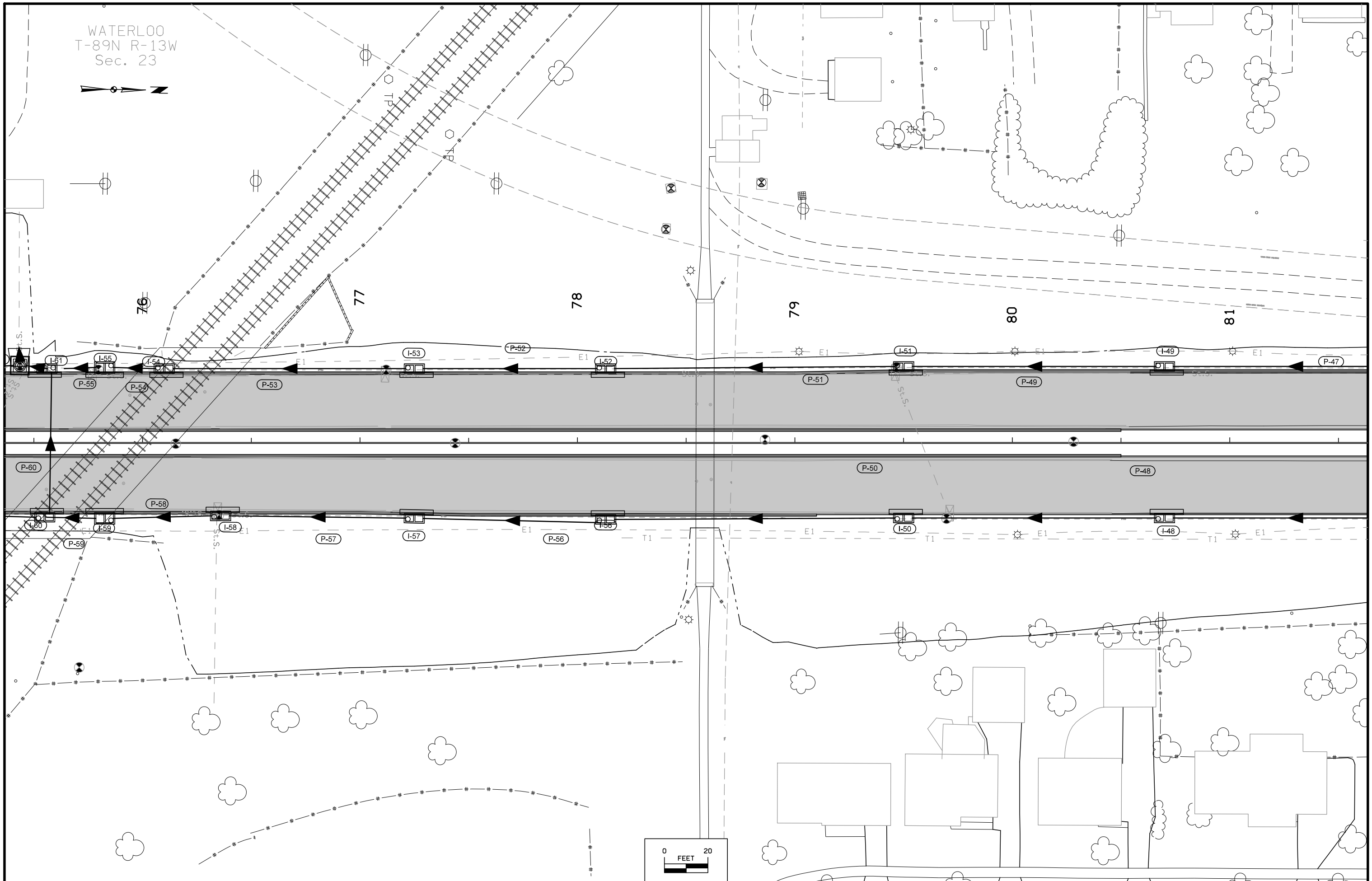
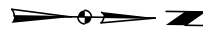
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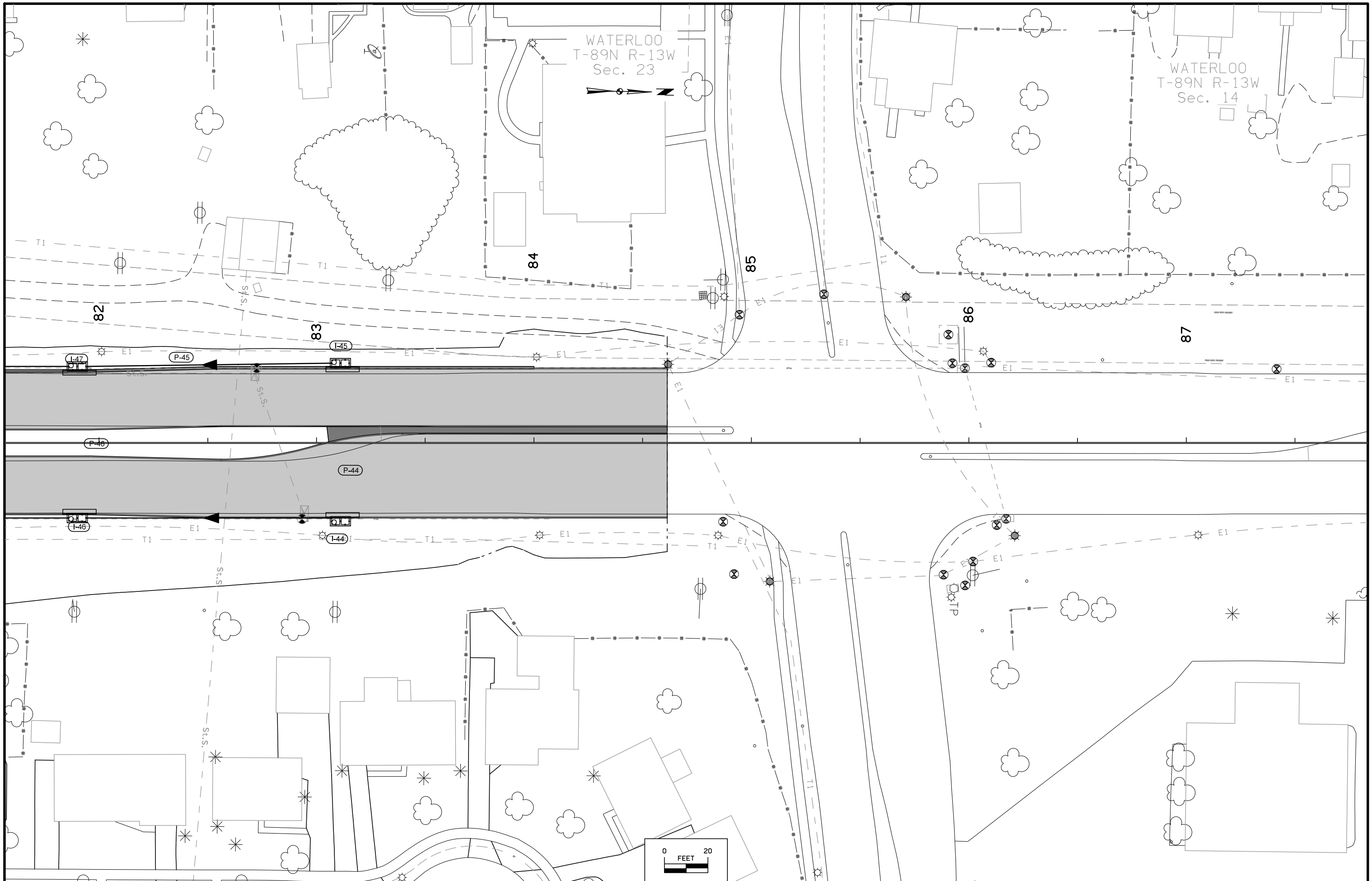
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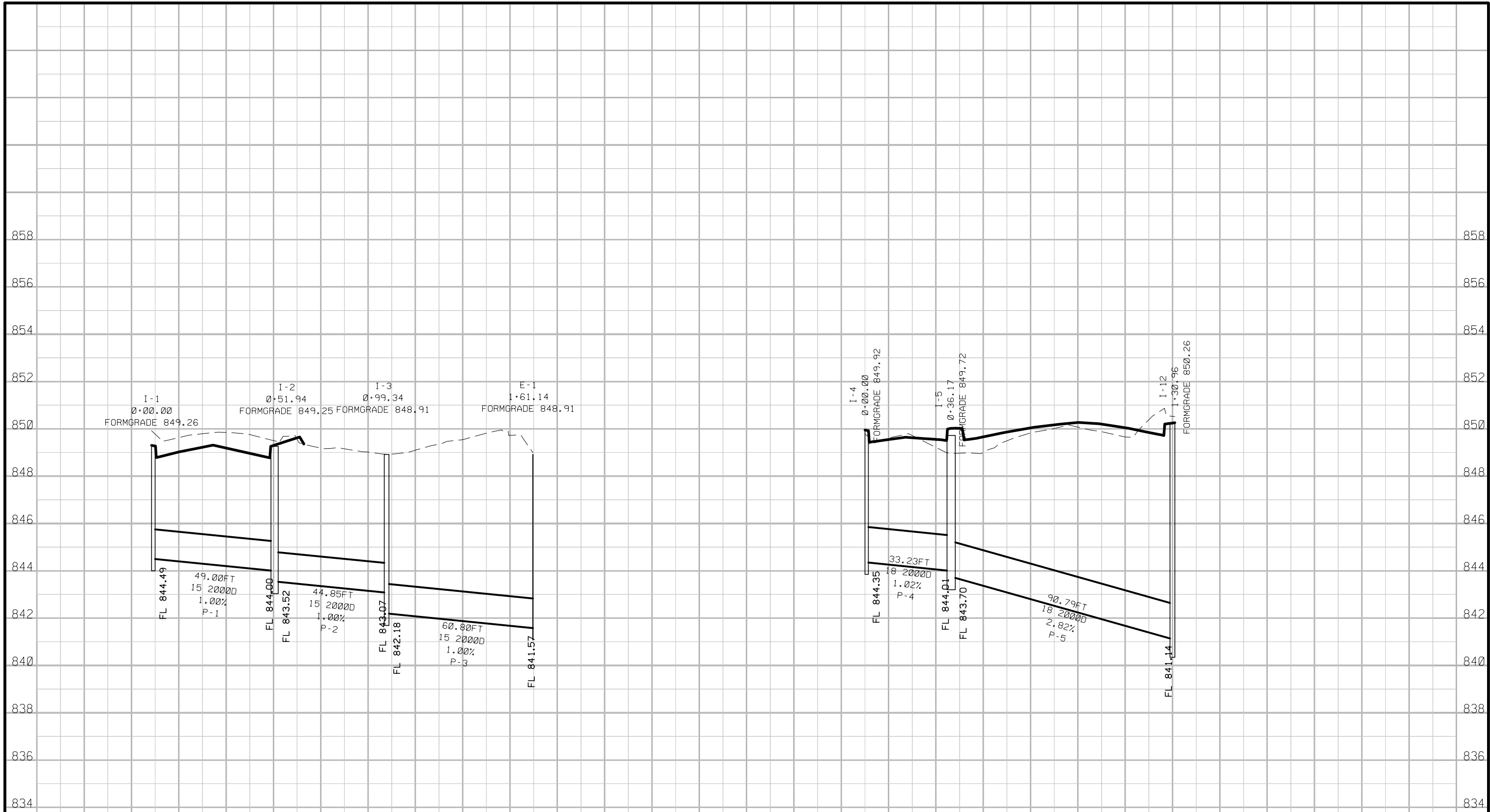
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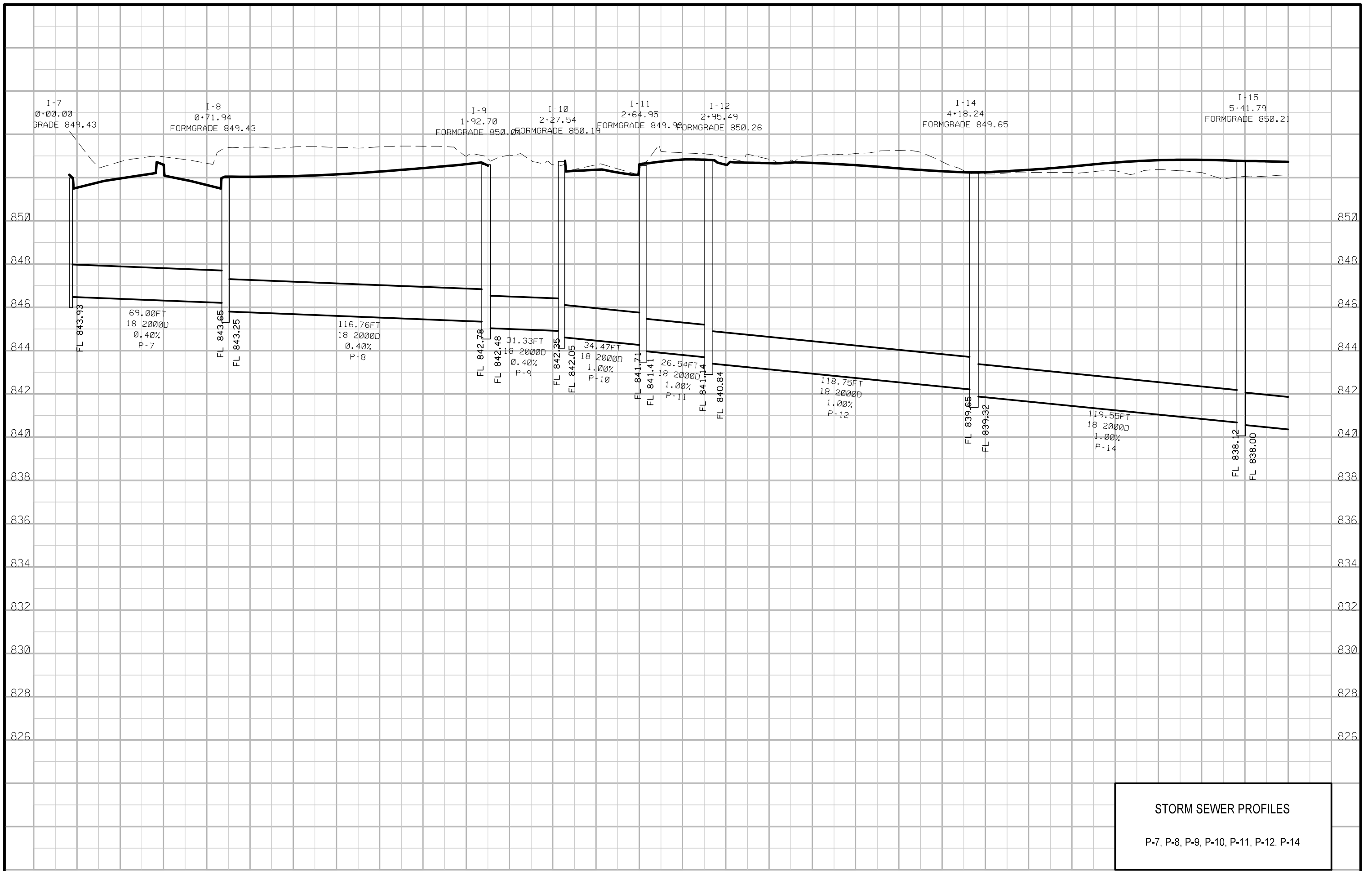
WATERLOO
T-89N R-13W
Sec. 23



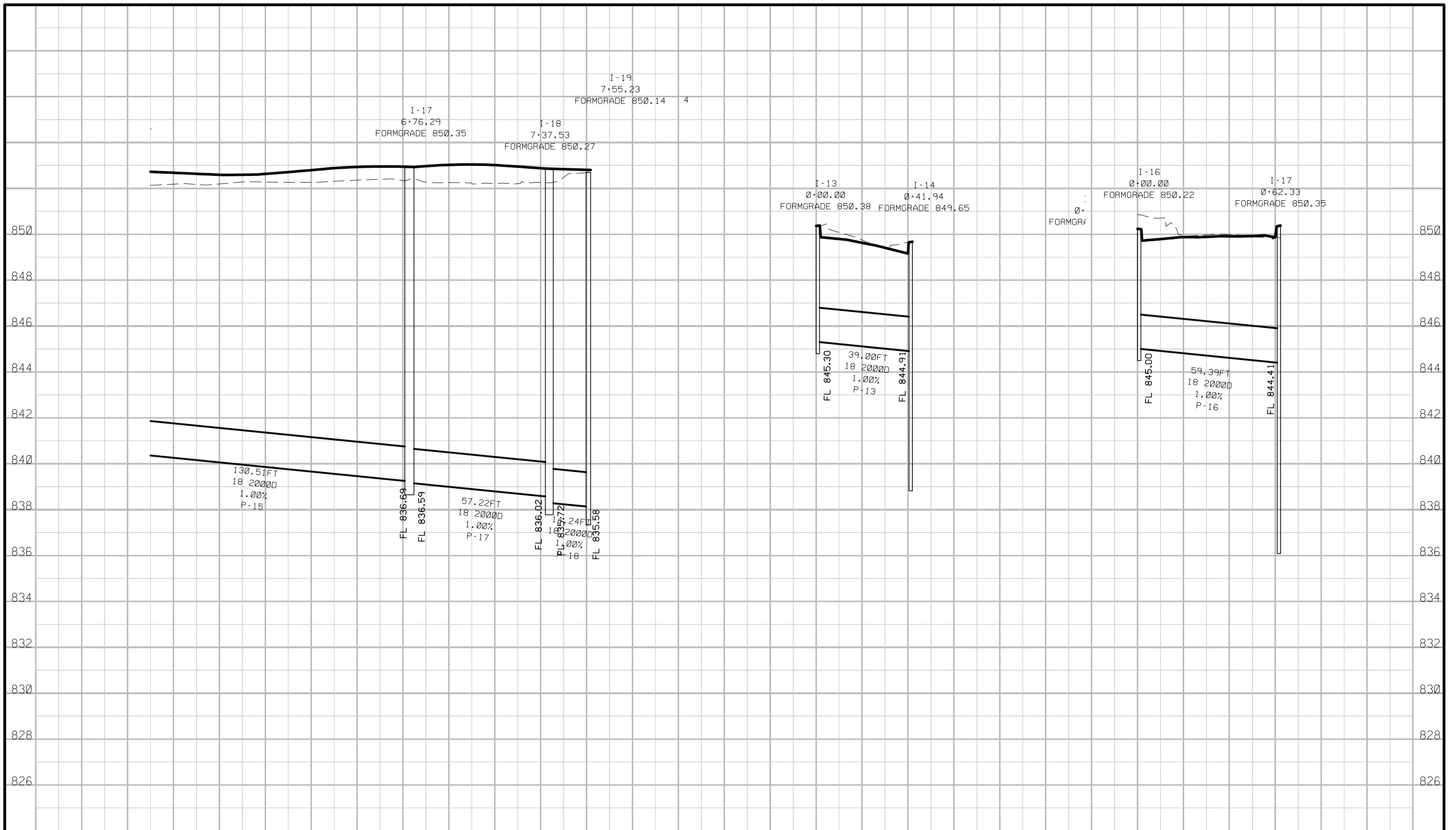




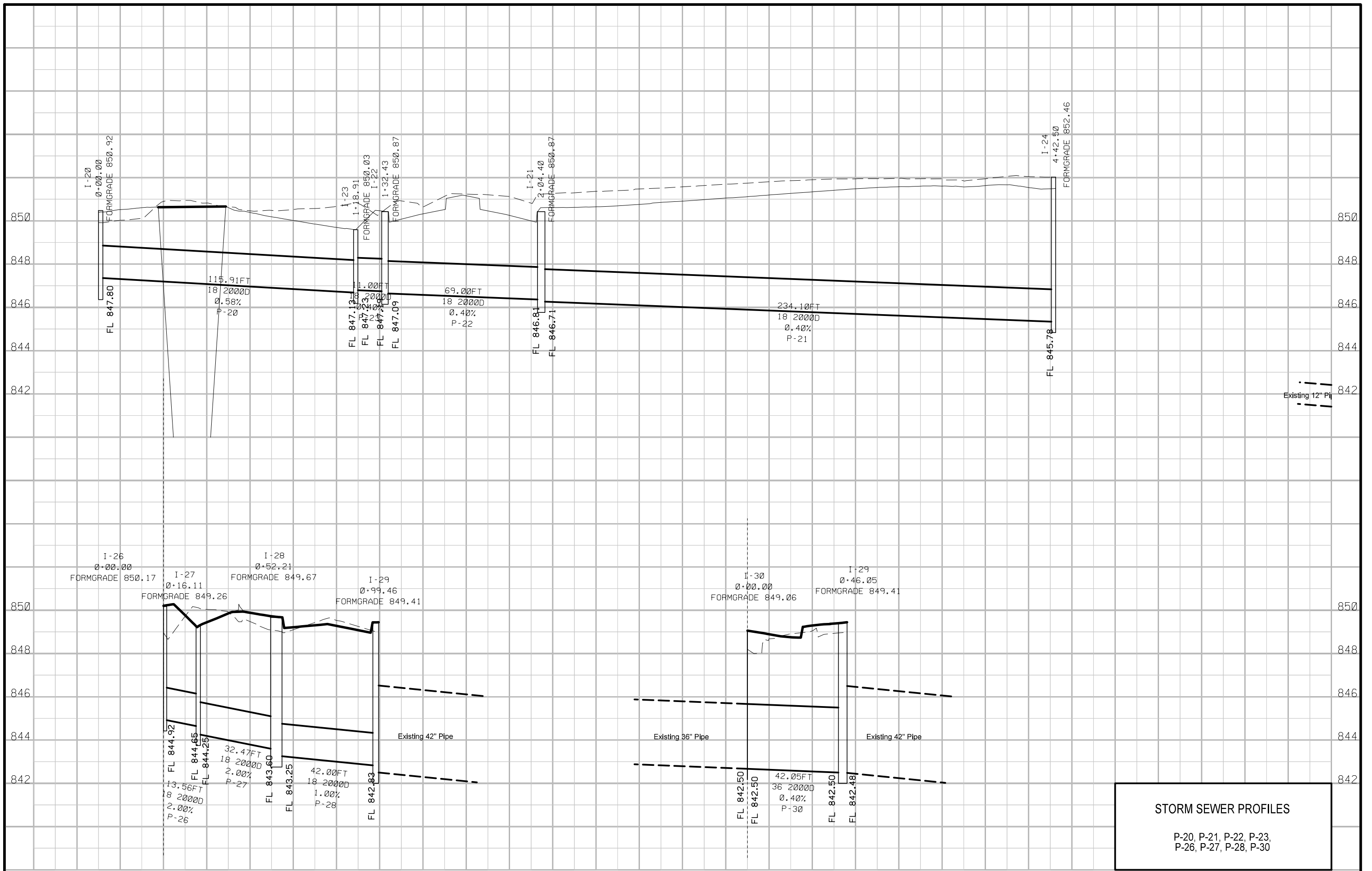
STORM SEWER PROFILES
P-1, P-2, P-3, P-4, P-5



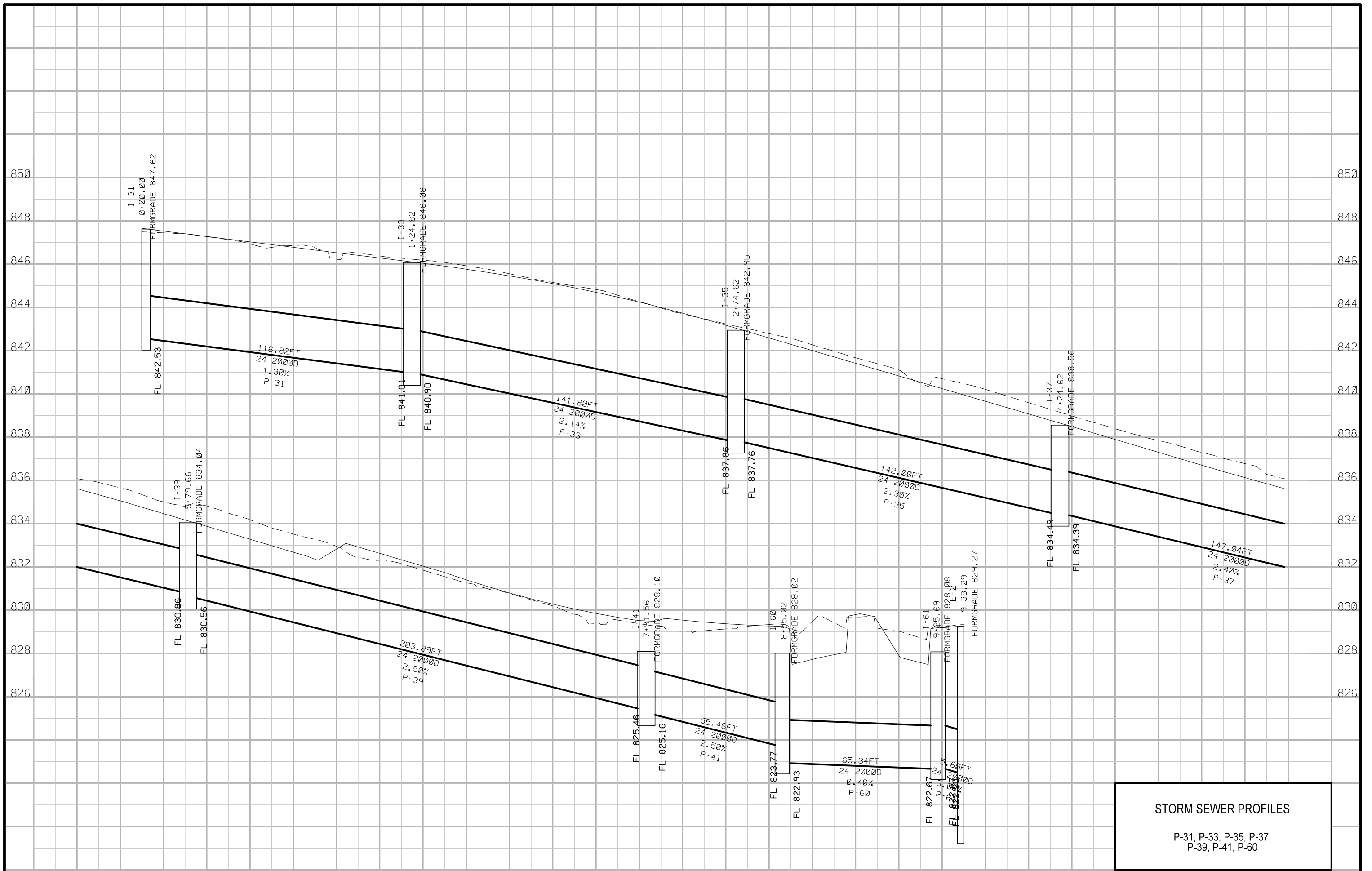
STORM SEWER PROFILES
P-7, P-8, P-9, P-10, P-11, P-12, P-14



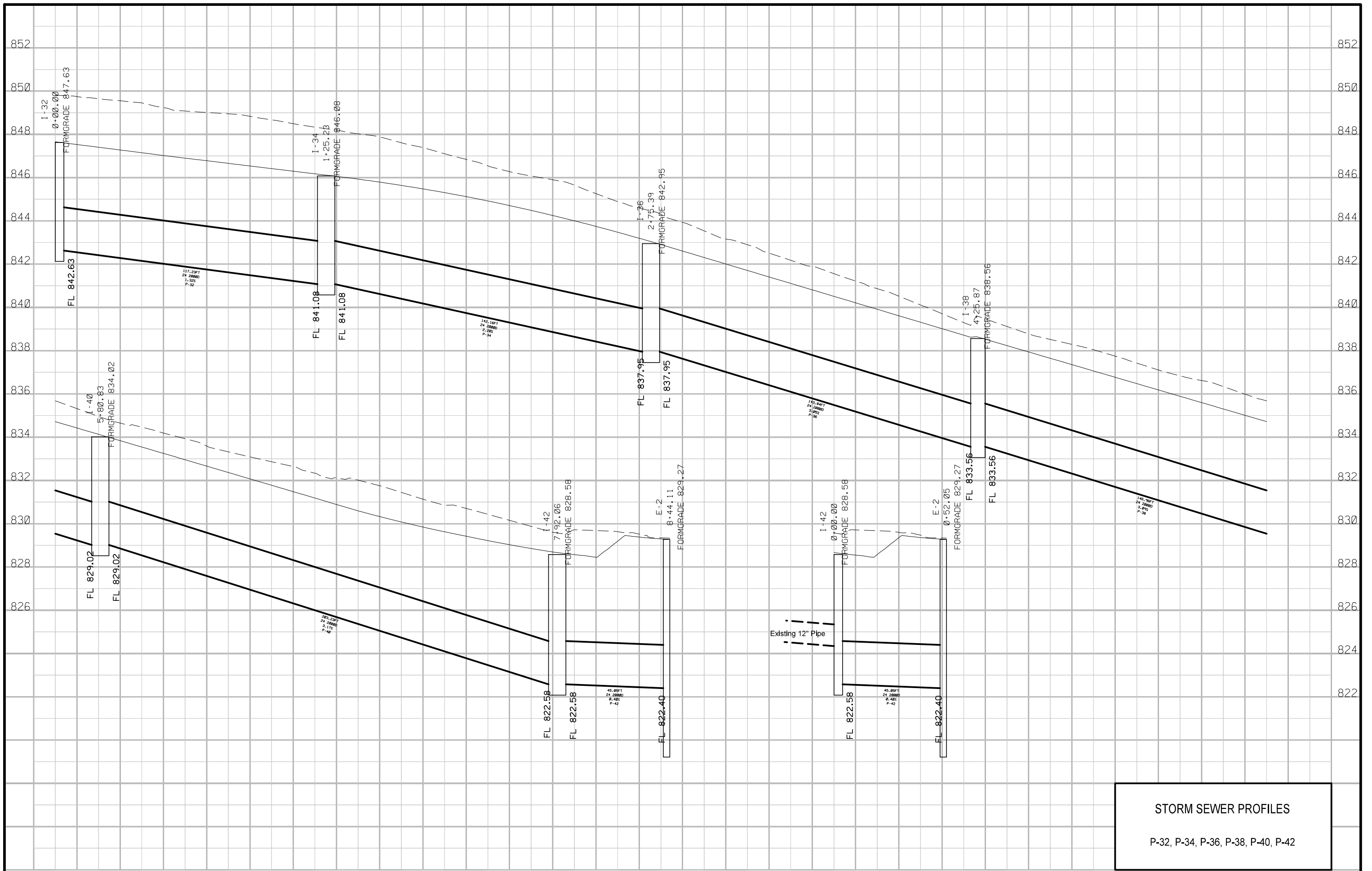
STORM SEWER PROFILES
 P-13, P-15, P-16, P-17, P-18,



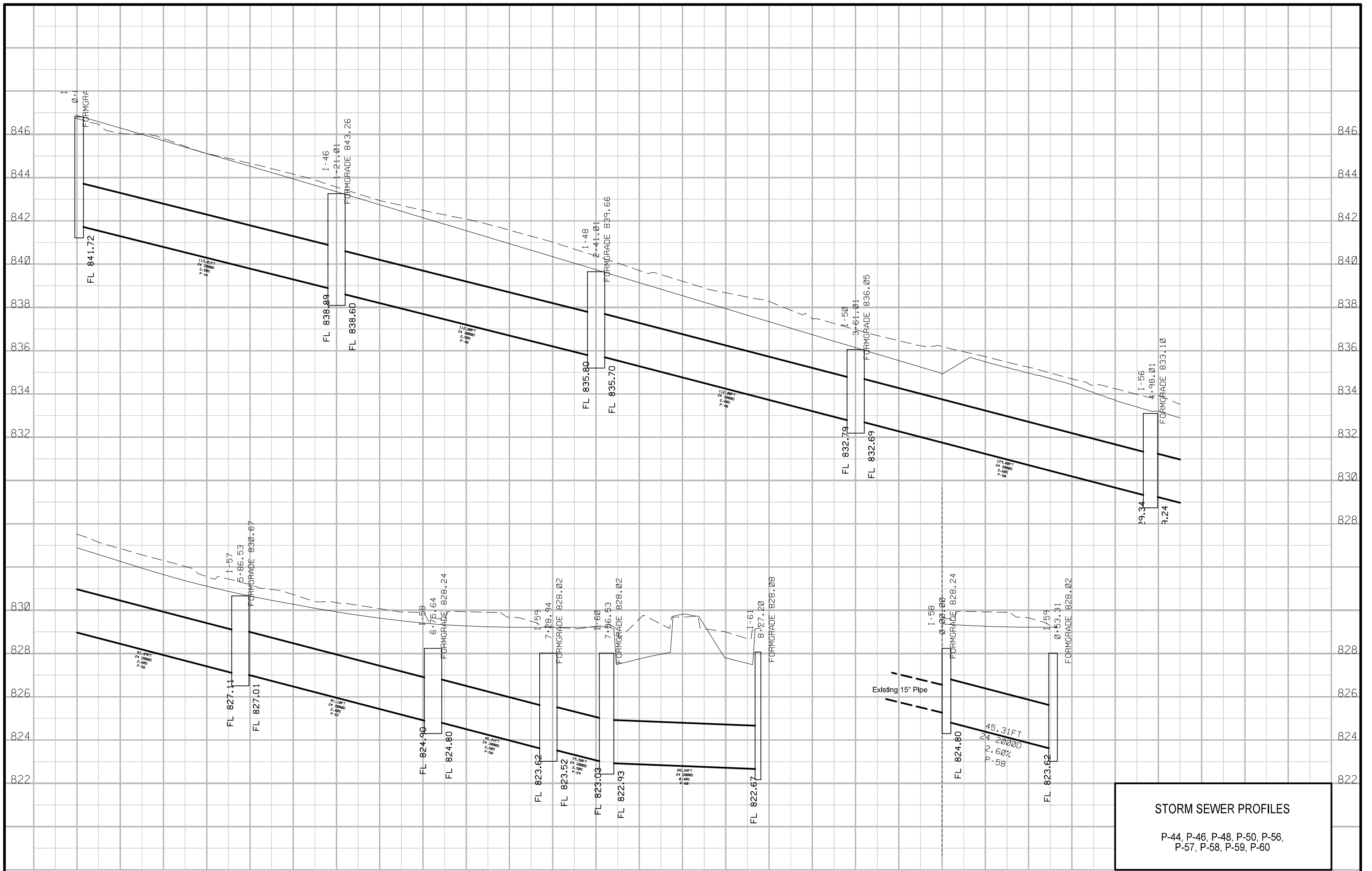
STORM SEWER PROFILES
 P-20, P-21, P-22, P-23,
 P-26, P-27, P-28, P-30

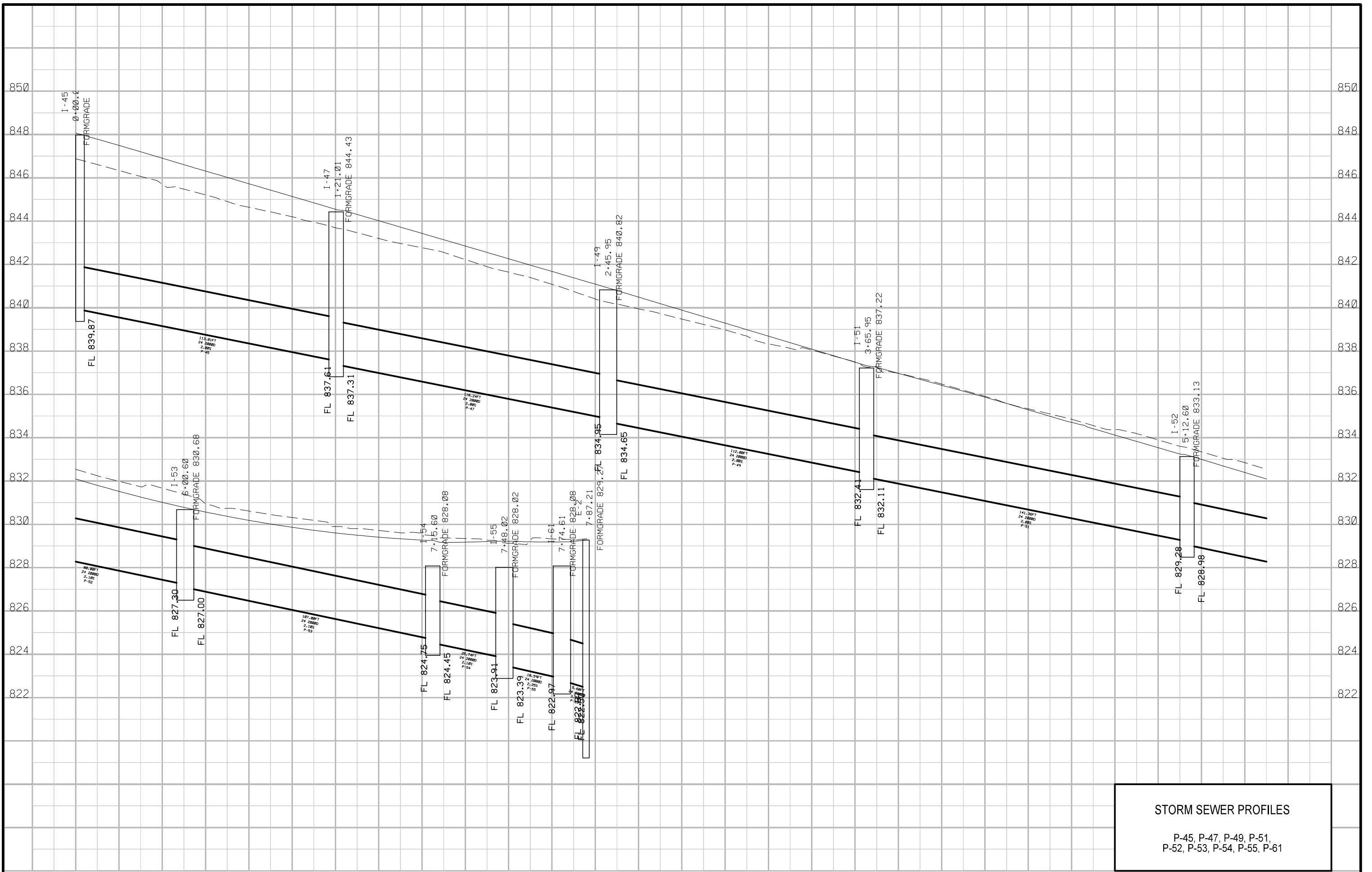


STORM SEWER PROFILES
 P-31, P-33, P-35, P-37,
 P-39, P-41, P-60

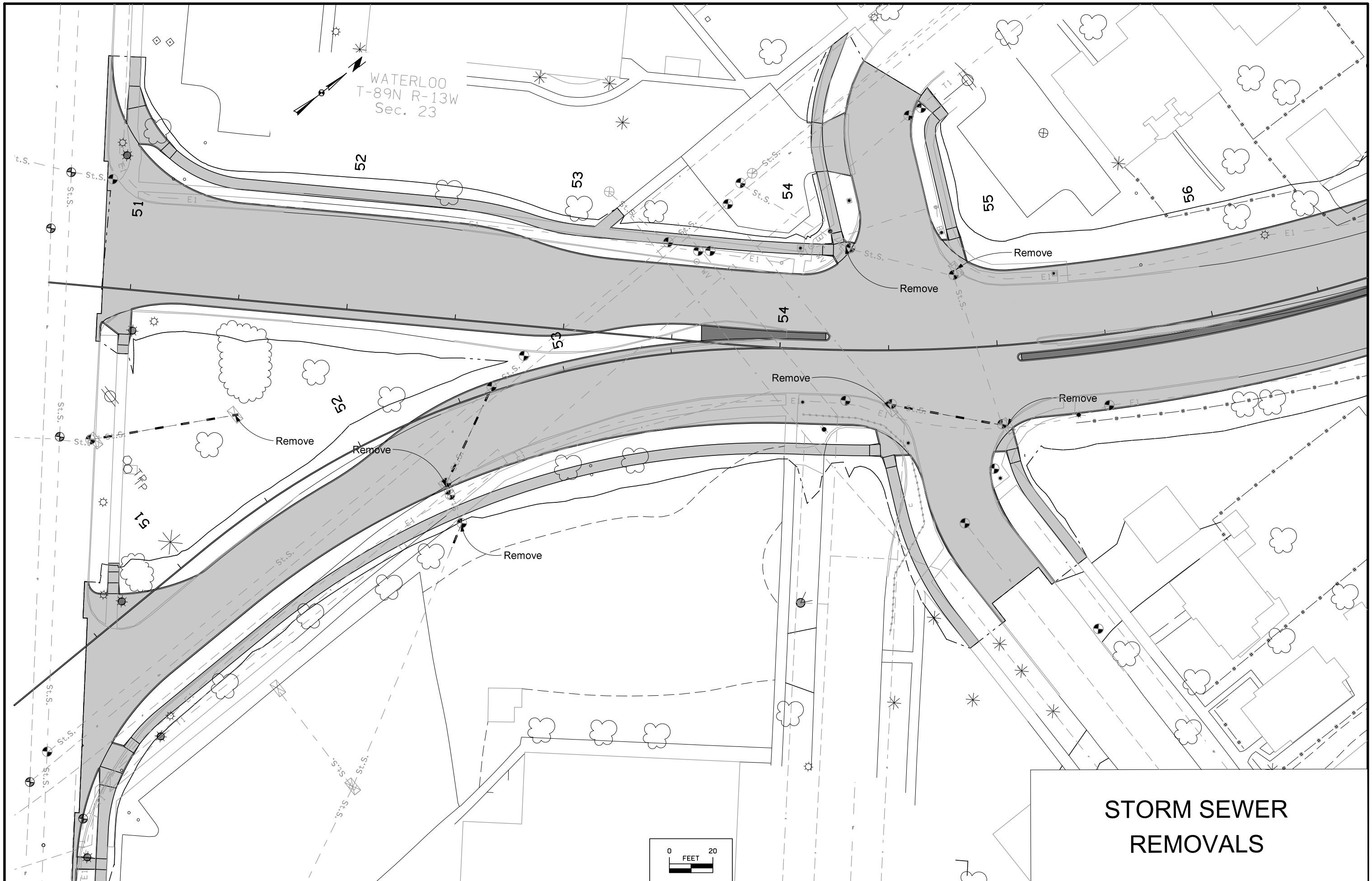


STORM SEWER PROFILES
P-32, P-34, P-36, P-38, P-40, P-42





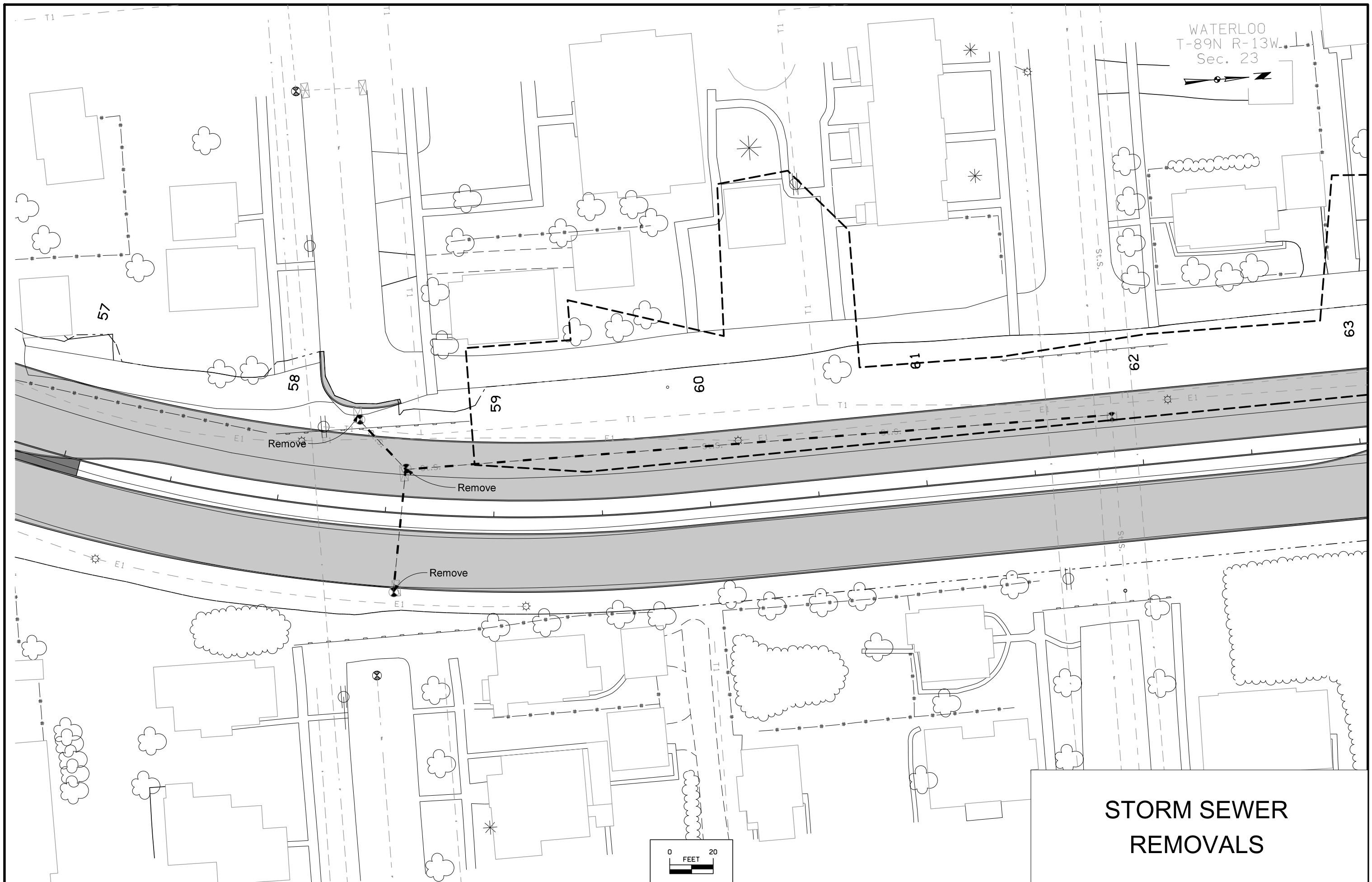
STORM SEWER PROFILES
 P-45, P-47, P-49, P-51,
 P-52, P-53, P-54, P-55, P-61



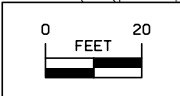
WATERLOO
T-89N R-13W
Sec. 23

STORM SEWER REMOVALS

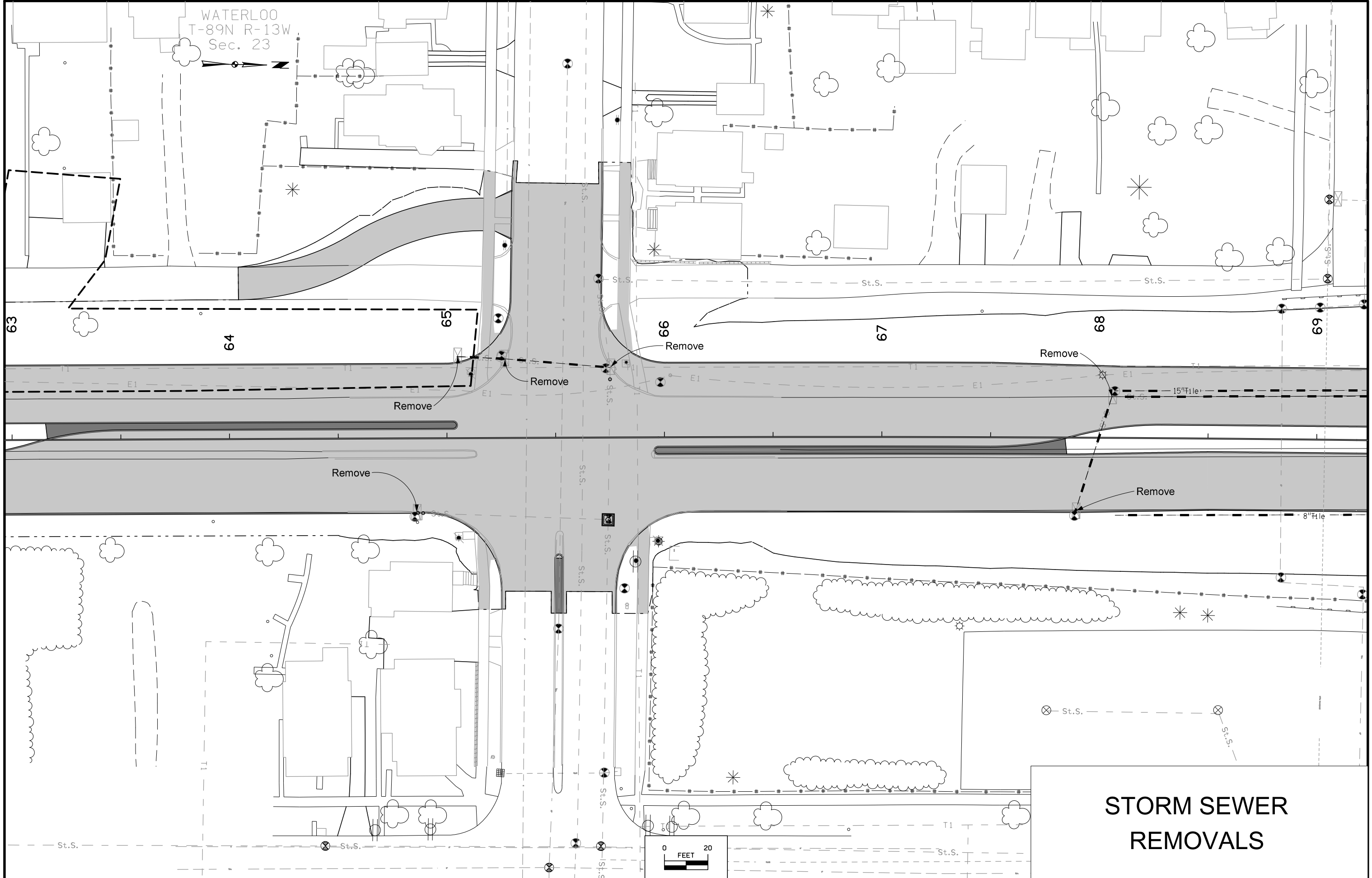
WATERLOO
T-89N R-13W
Sec. 23



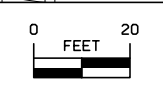
STORM SEWER REMOVALS



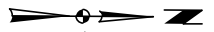
WATERLOO
T-89N R-13W
Sec. 23



STORM SEWER REMOVALS



WATERLOO
T-89N R-13W
Sec. 23



70

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Remove

Remove

Remove

Remove

Remove

Remove

Remove

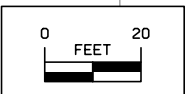
Remove

St.S.

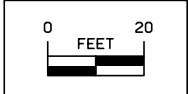
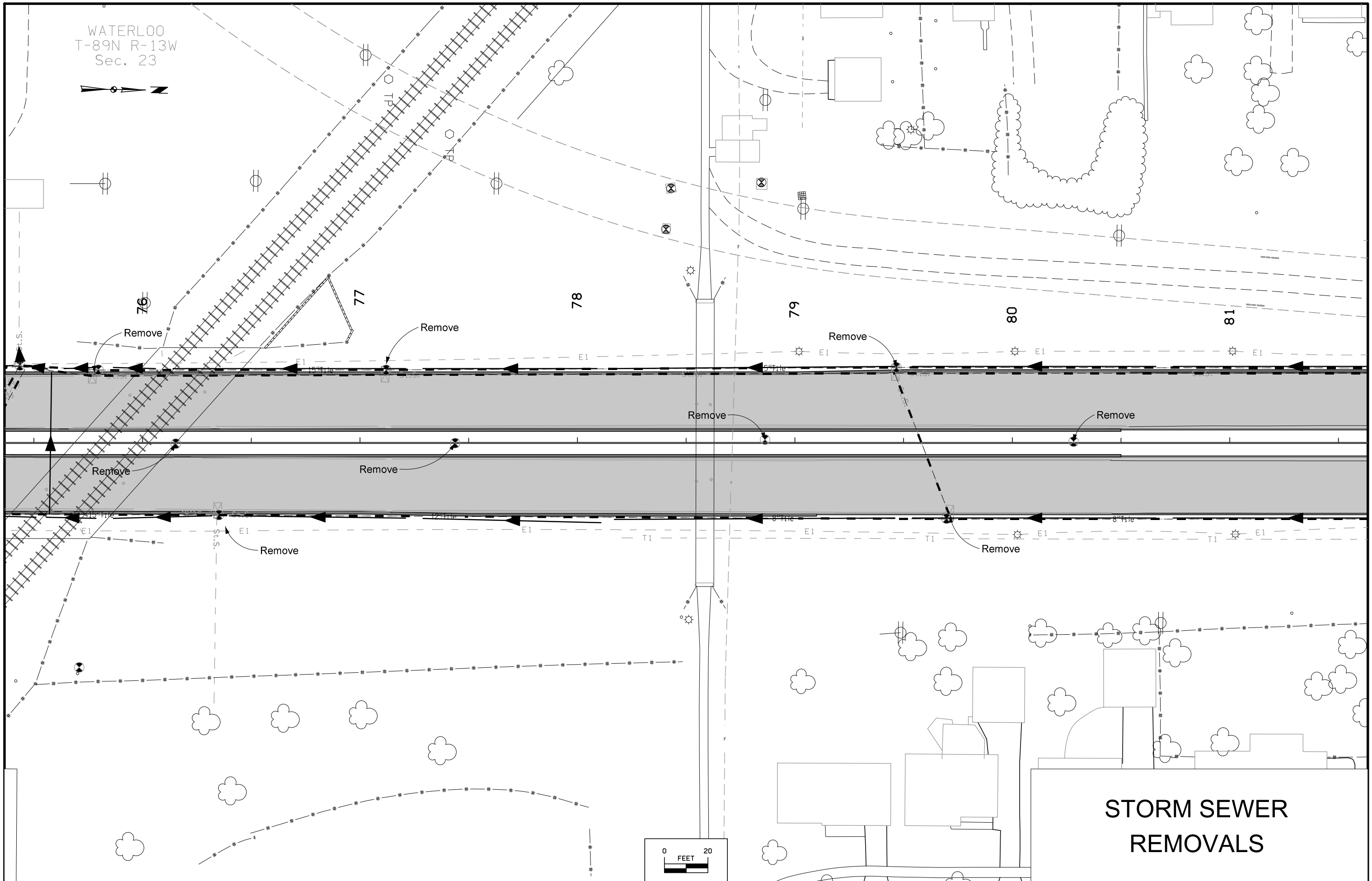
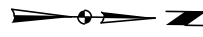
St.S.

St.S.

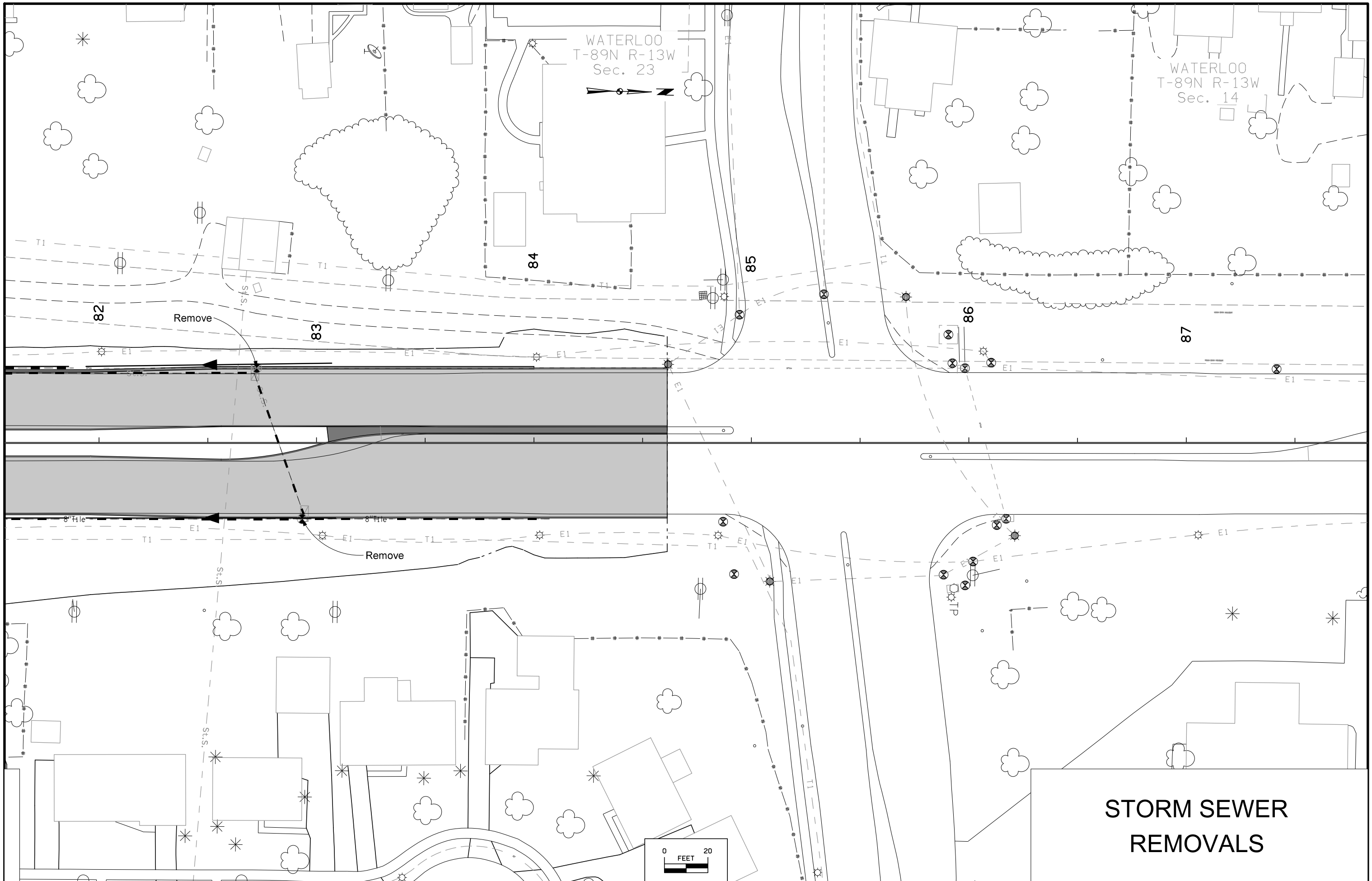
STORM SEWER REMOVALS

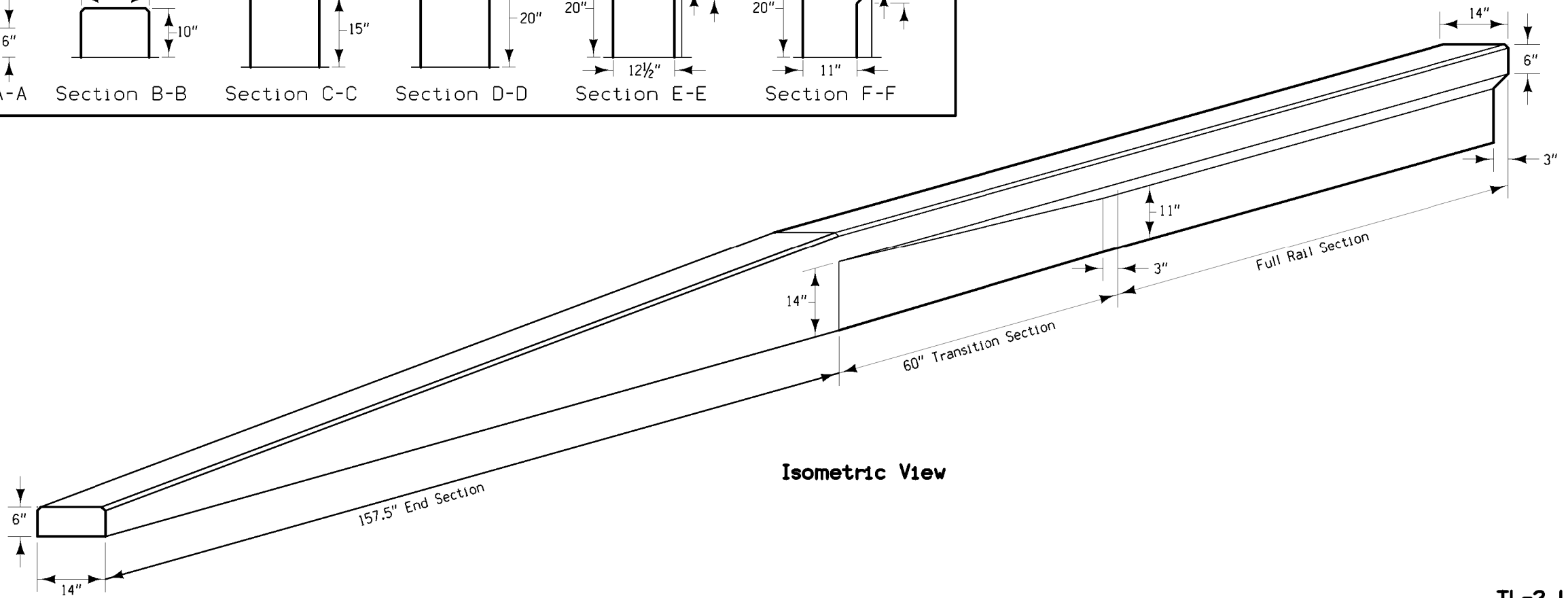
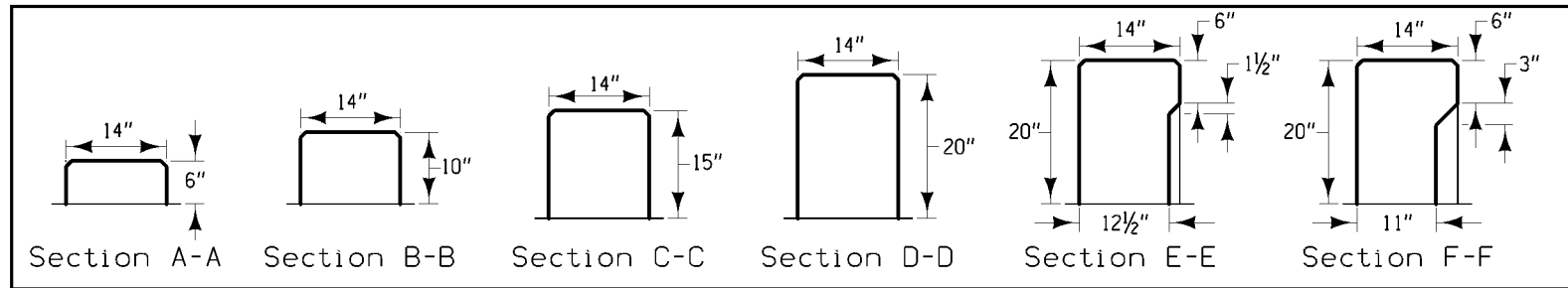
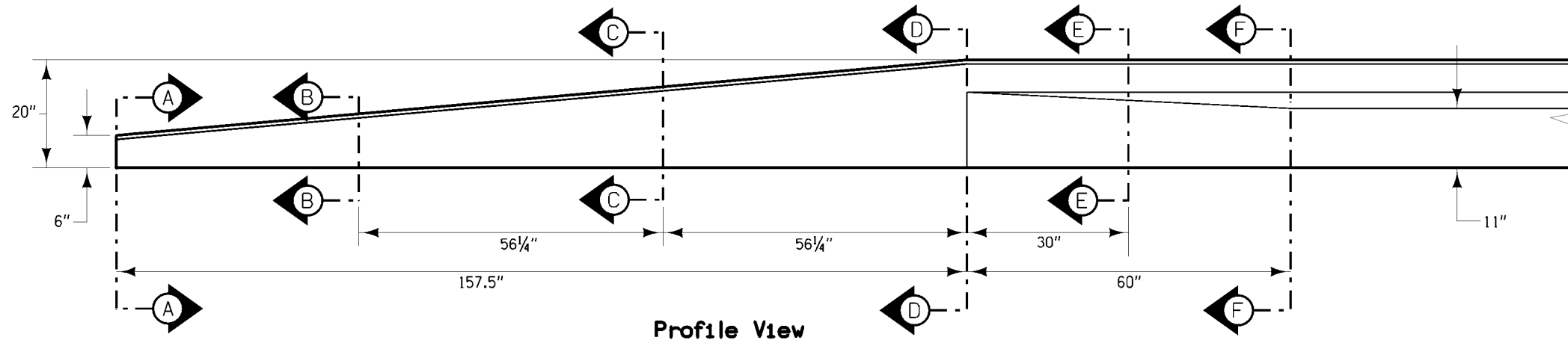
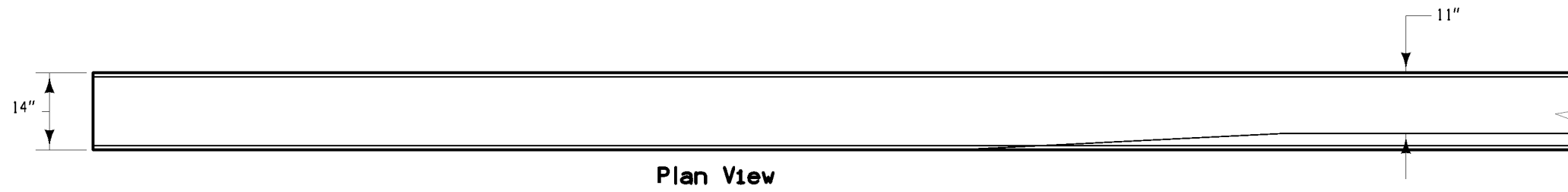


WATERLOO
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Sec. 23

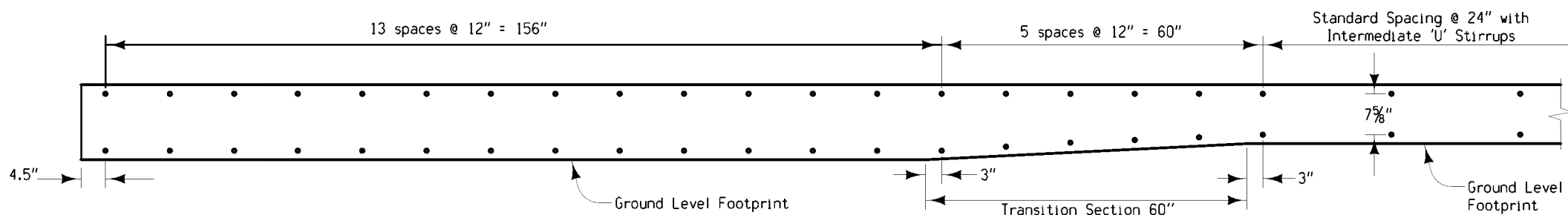


STORM SEWER REMOVALS

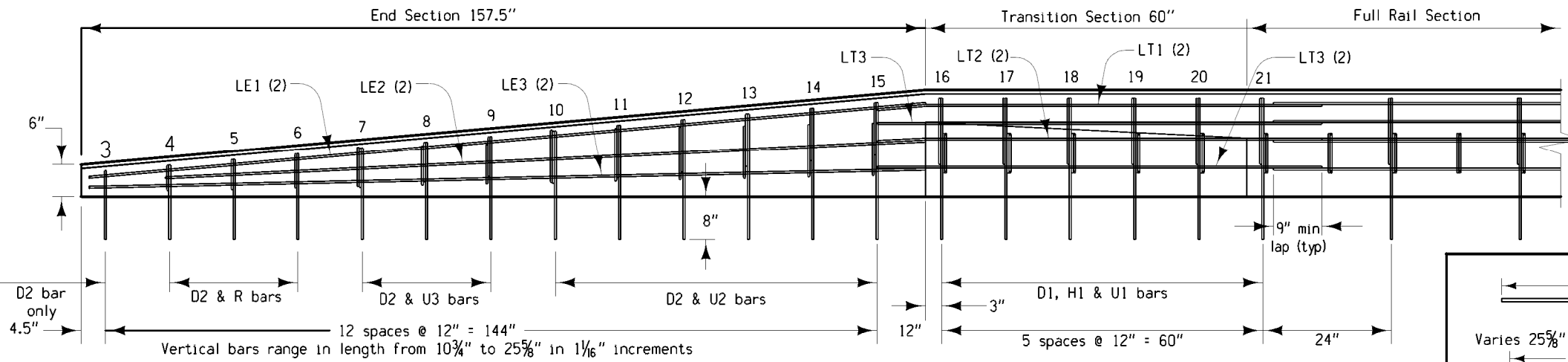




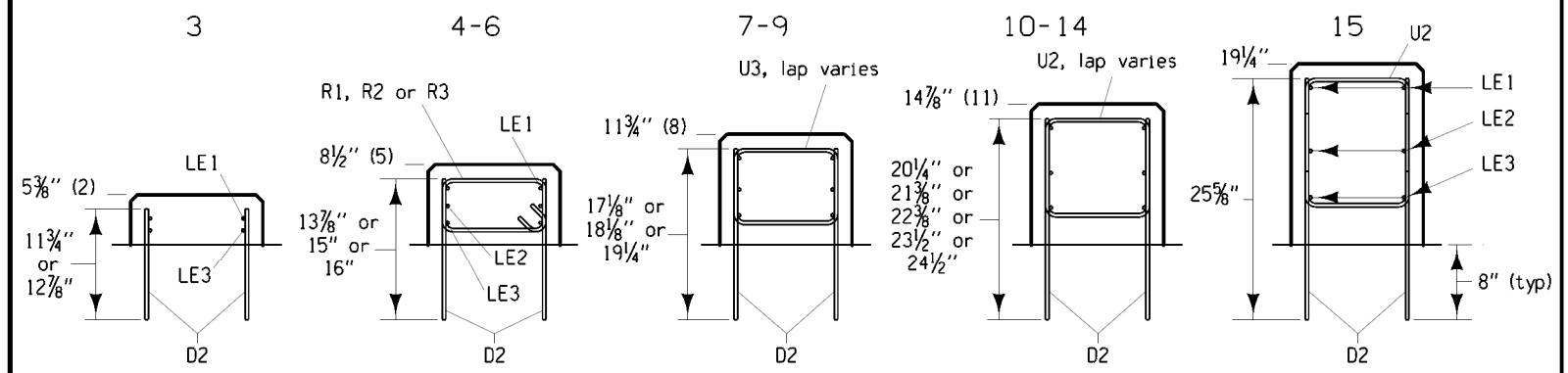
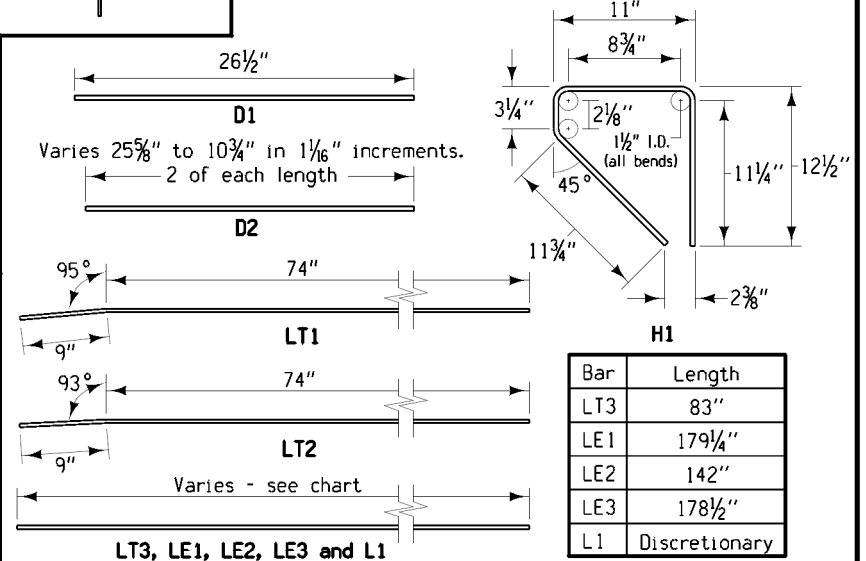
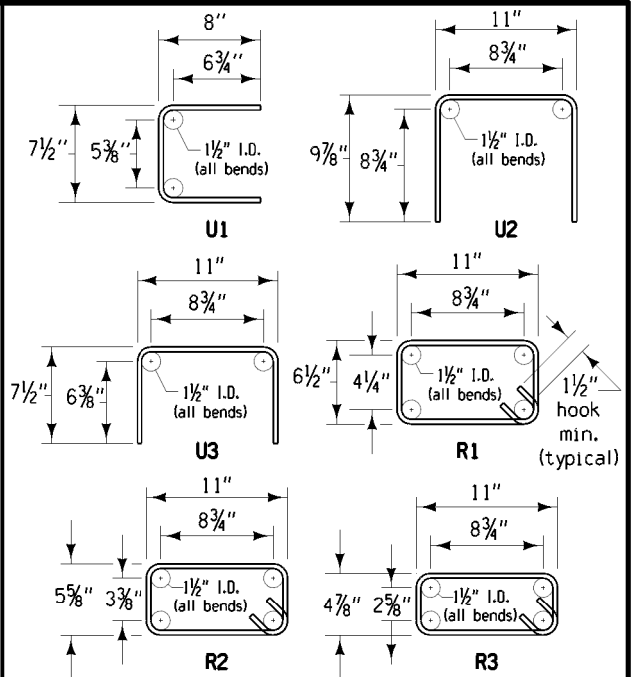
**TL-2 LOW PROFILE
 REINFORCED CONCRETE
 BARRIER
 (SHEET 1 OF 2)**



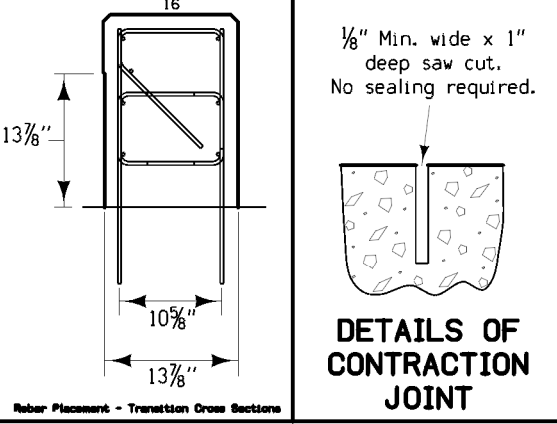
Plan View - Reinforcing



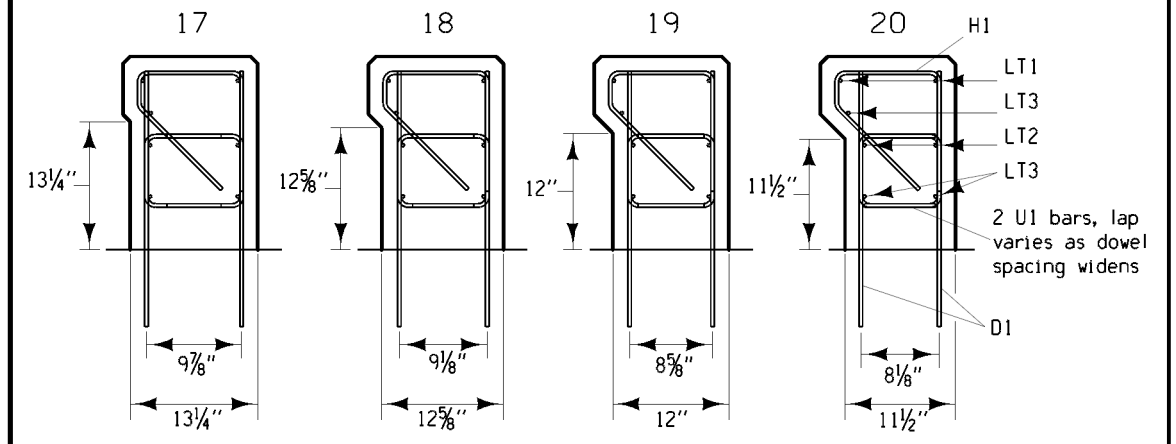
Profile View - Reinforcing



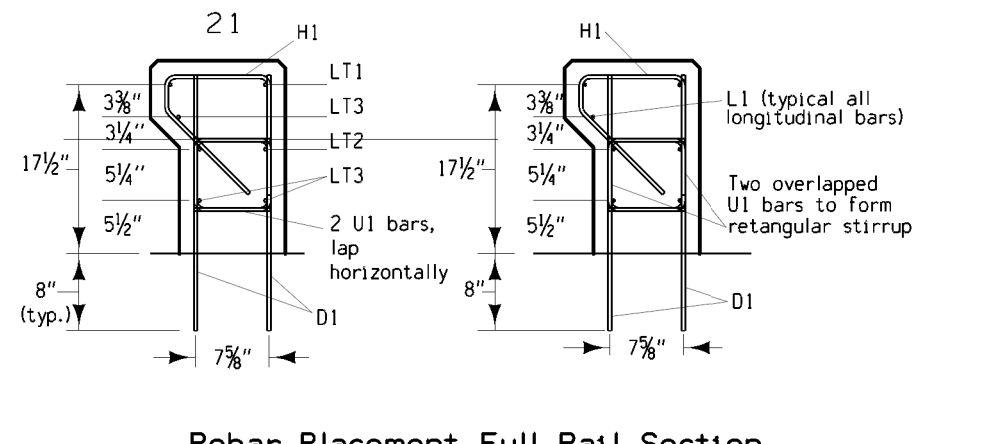
Rebar Placement - Tapered End Cross Sections



DETAILS OF CONTRACTION JOINT



Rebar Placement - Transition Cross Sections



Rebar Placement Full Rail Section

- All bars #3, Grade 60, epoxy-coated. Minimum cover of 1.5".
- Vertical bars shall be installed in drilled holes using polymer grout (Materials I.M. 491.13) or hydraulic cement grout (Materials I.M. 491.11).
- Minimum lap length for longitudinal bars in 9".
- Refer to section 2513.03, B of the Standard Specifications for concrete requirements.
- Use 3/4" chamfer on top corners.
- Contraction joints shall be sawed, as indicated. Spacing shall match pavement joints.

TL-2 LOW PROFILE
REINFORCED CONCRETE
BARRIER
(SHEET 2 OF 2)

LEGEND OF CROSS SECTION SHEETS (ROAD)

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

LEGEND OF CROSS SECTION SHEETS (SOILS)

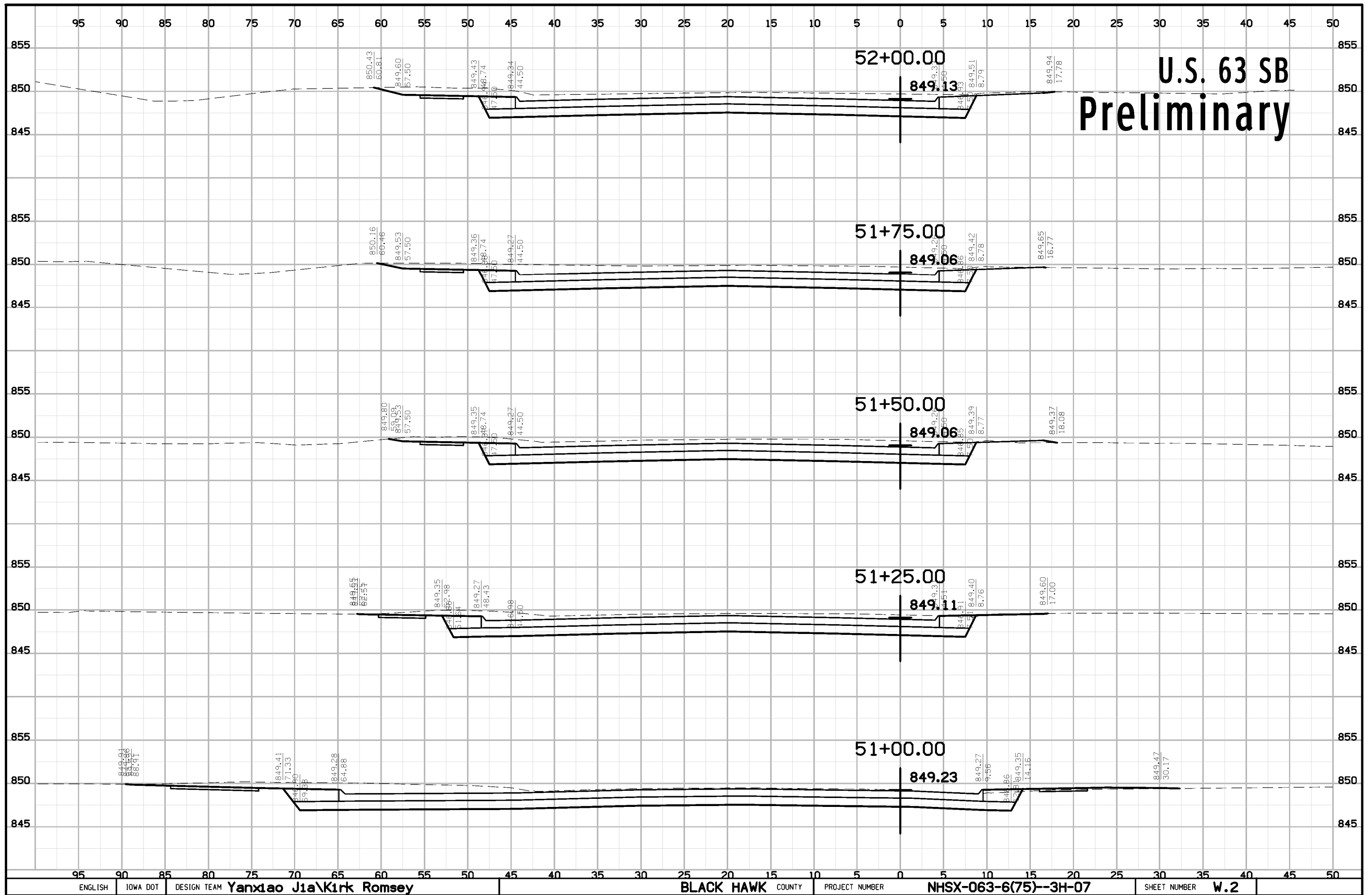
- TS ----- Topsoil (Class 10)
- TS A ----- Topsoil (Type A Disposal)
- TS B ----- Topsoil (Type B Disposal)
- TS C ----- Topsoil (Type C Disposal)
- CL 10 ----- Class 10 Materials
- SEL LO ----- Select Loams And Clay-Loams
- SEL SA ----- Select Sand
- UNS A ----- Unsuitable Type A Disposal
- UNS B -----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

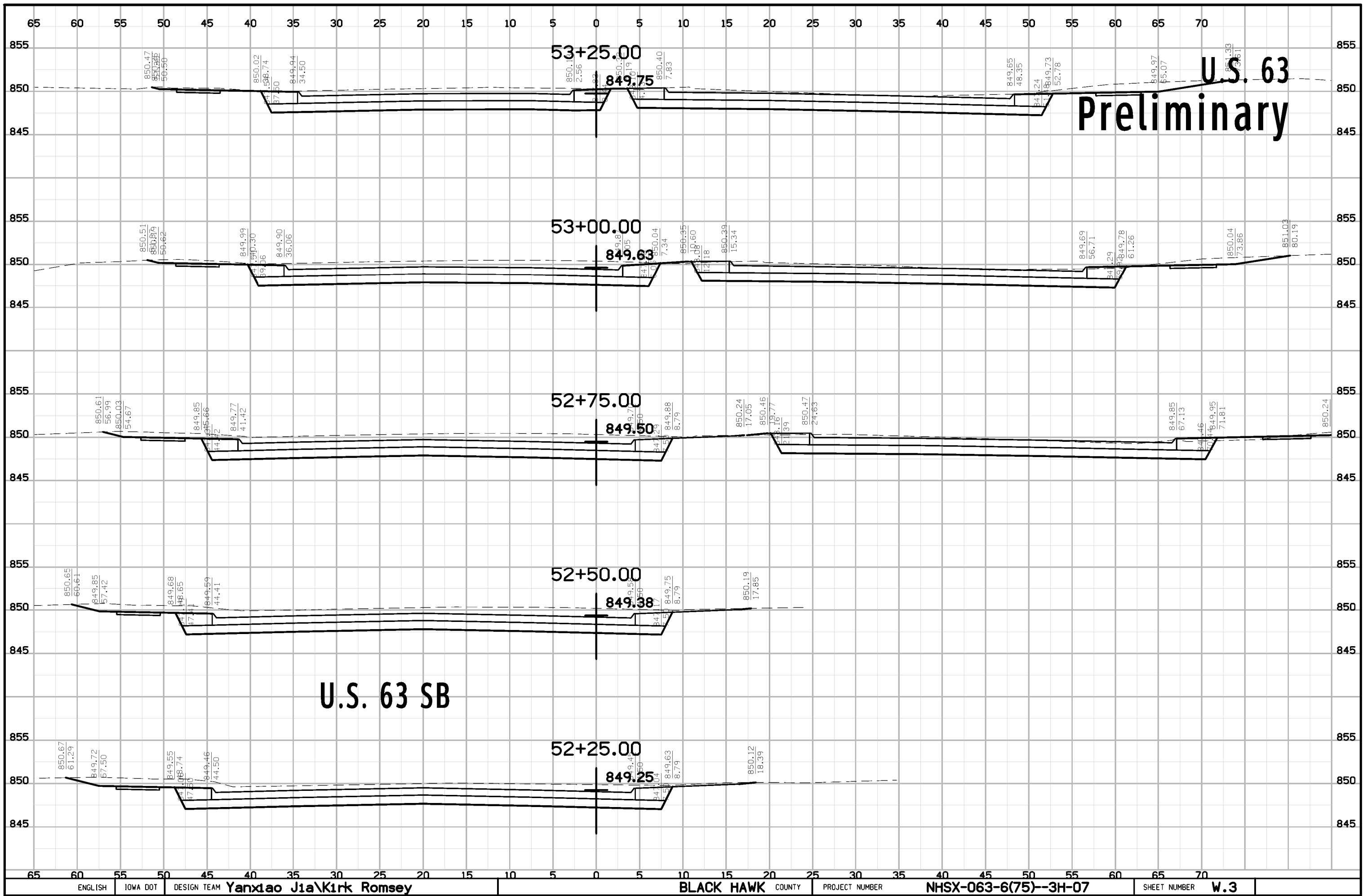
Note: All layer lines and descriptions identify layers above the line.

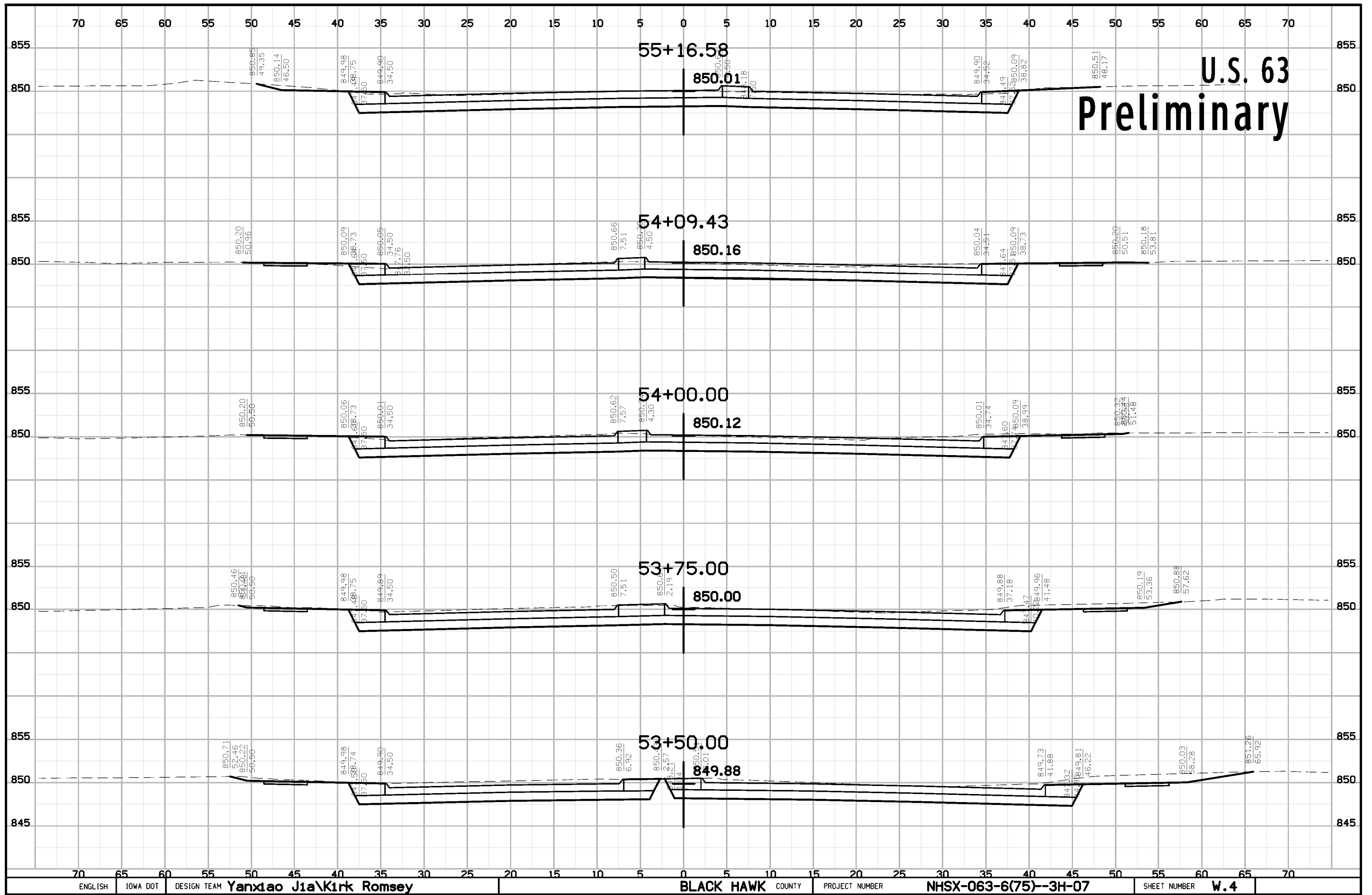
Note: Vertical or near vertical lines connecting soil layers at edges of cross sections are only for the purpose of calculating template quantities and do not depict soil stratification.

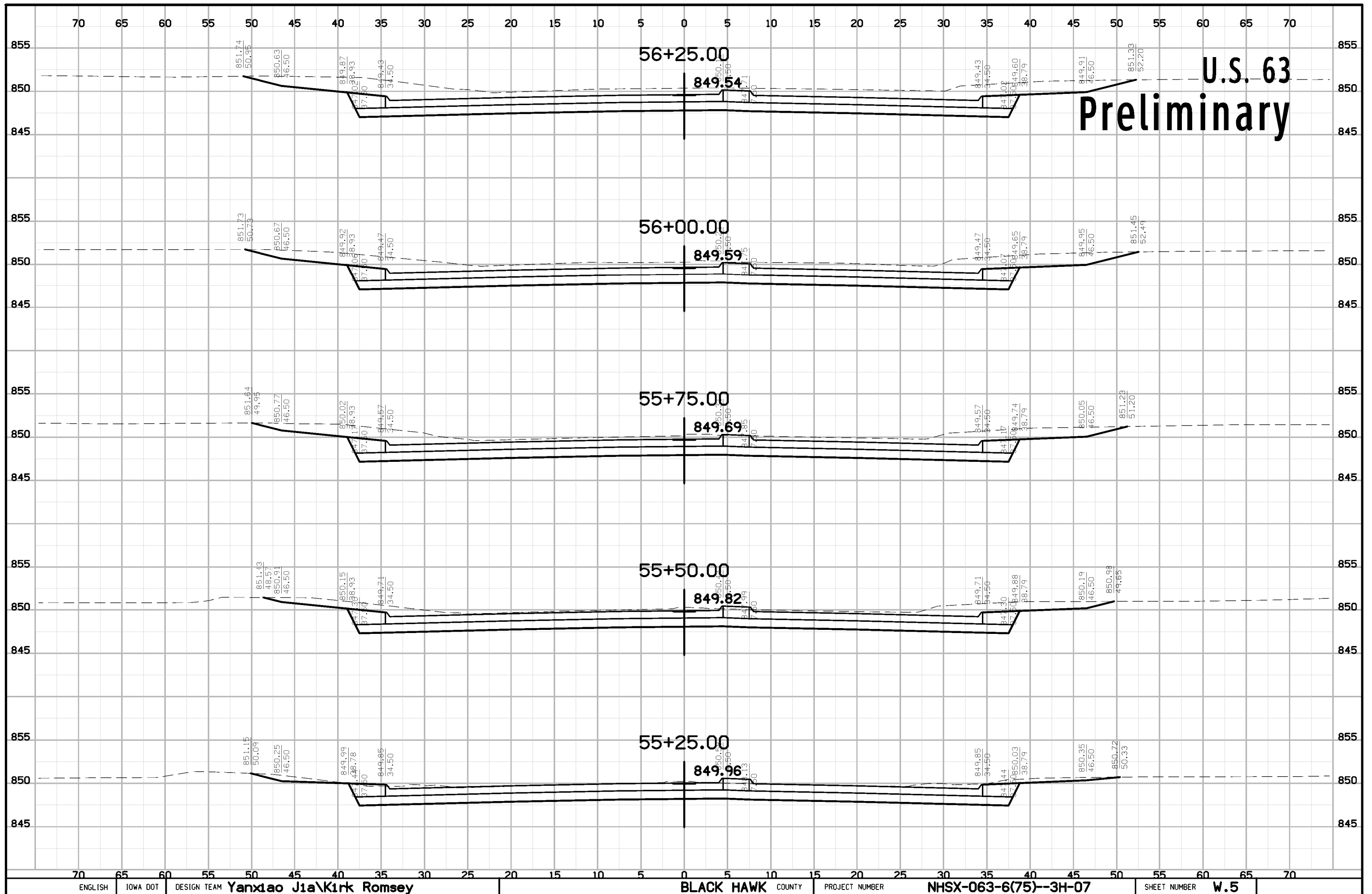
**CROSS SECTION
LEGEND AND SYMBOL
INFORMATION SHEET**

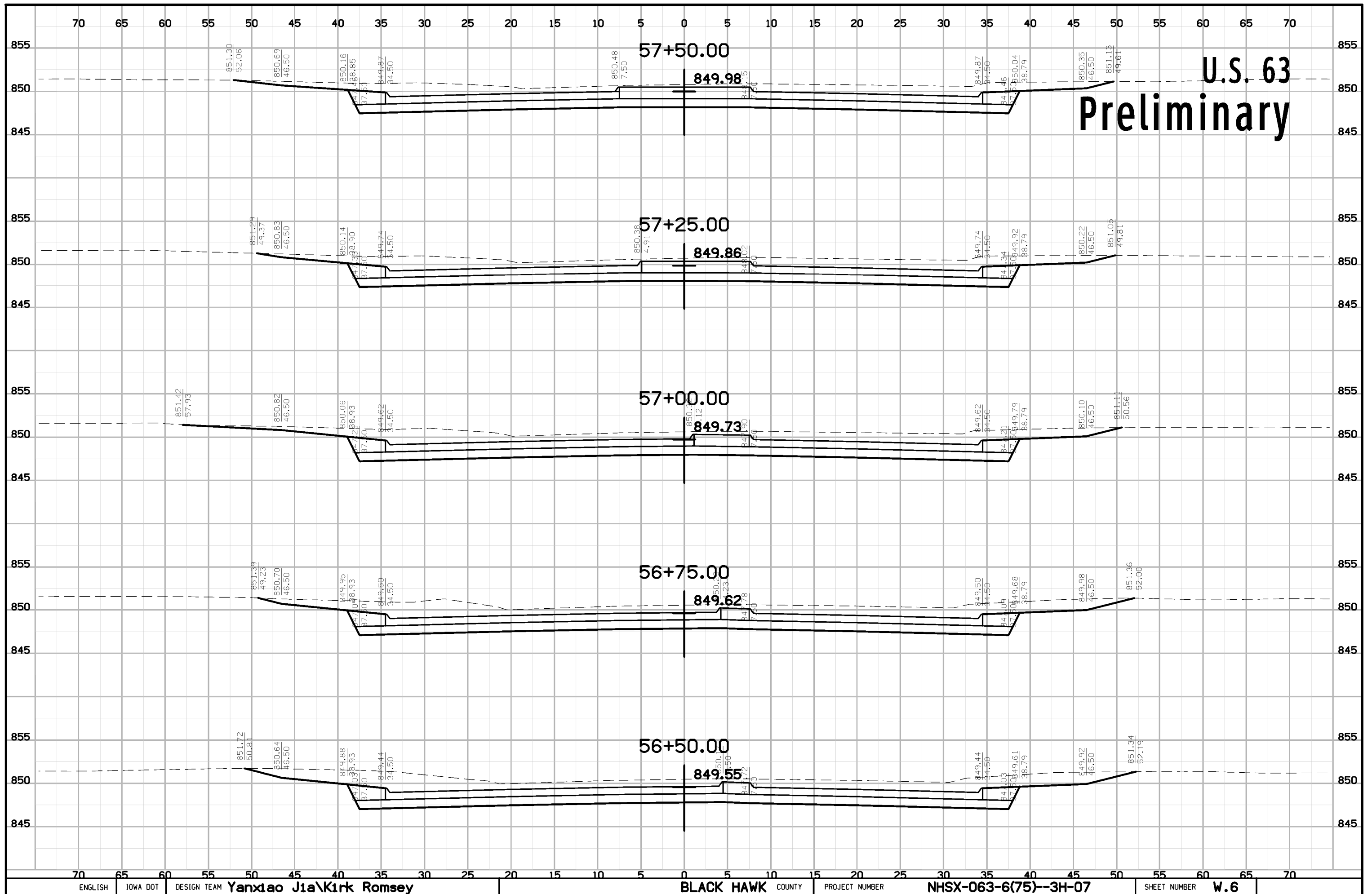
(COVERS SHEET SERIES W, X, Y, & Z)

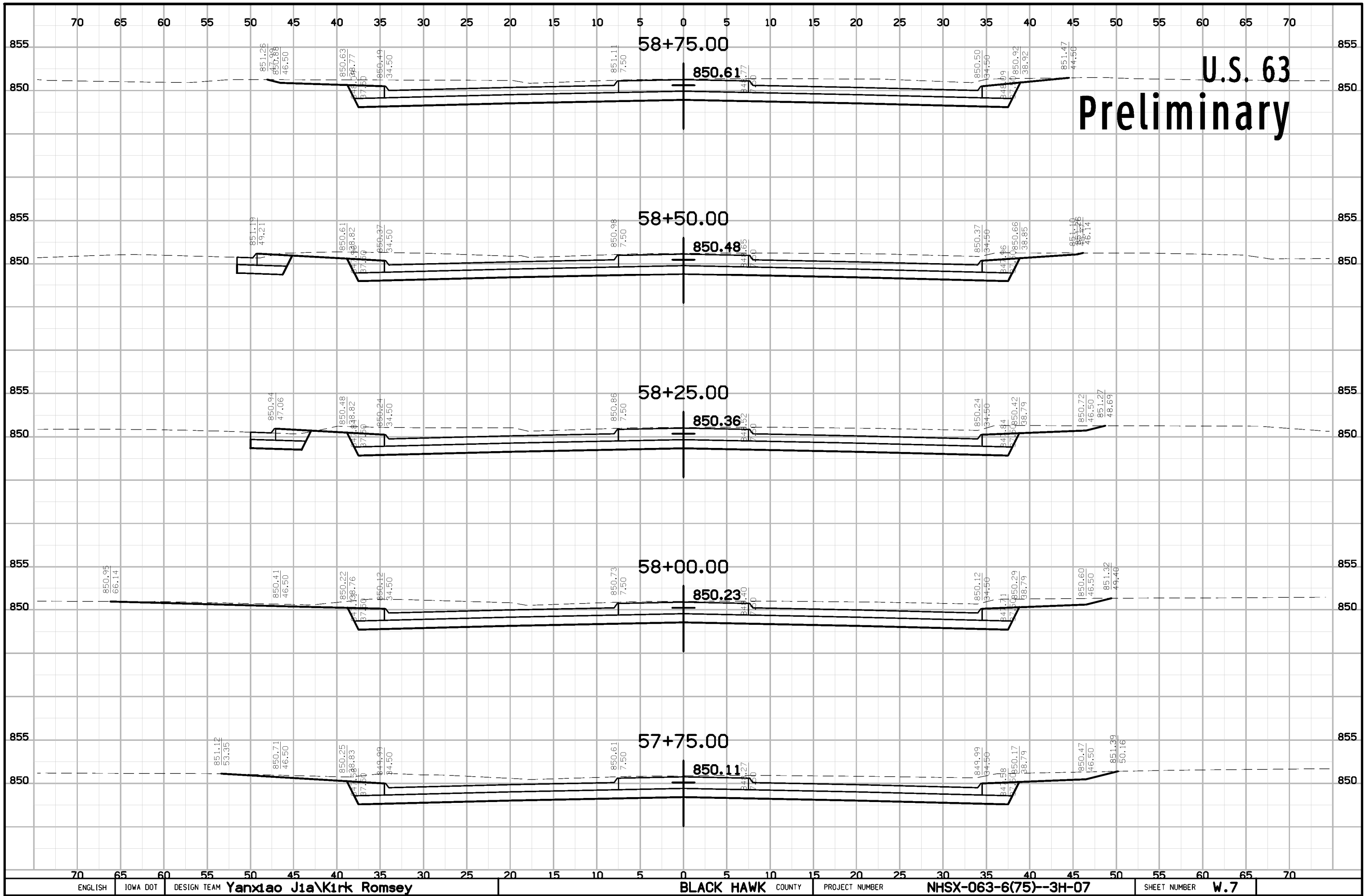


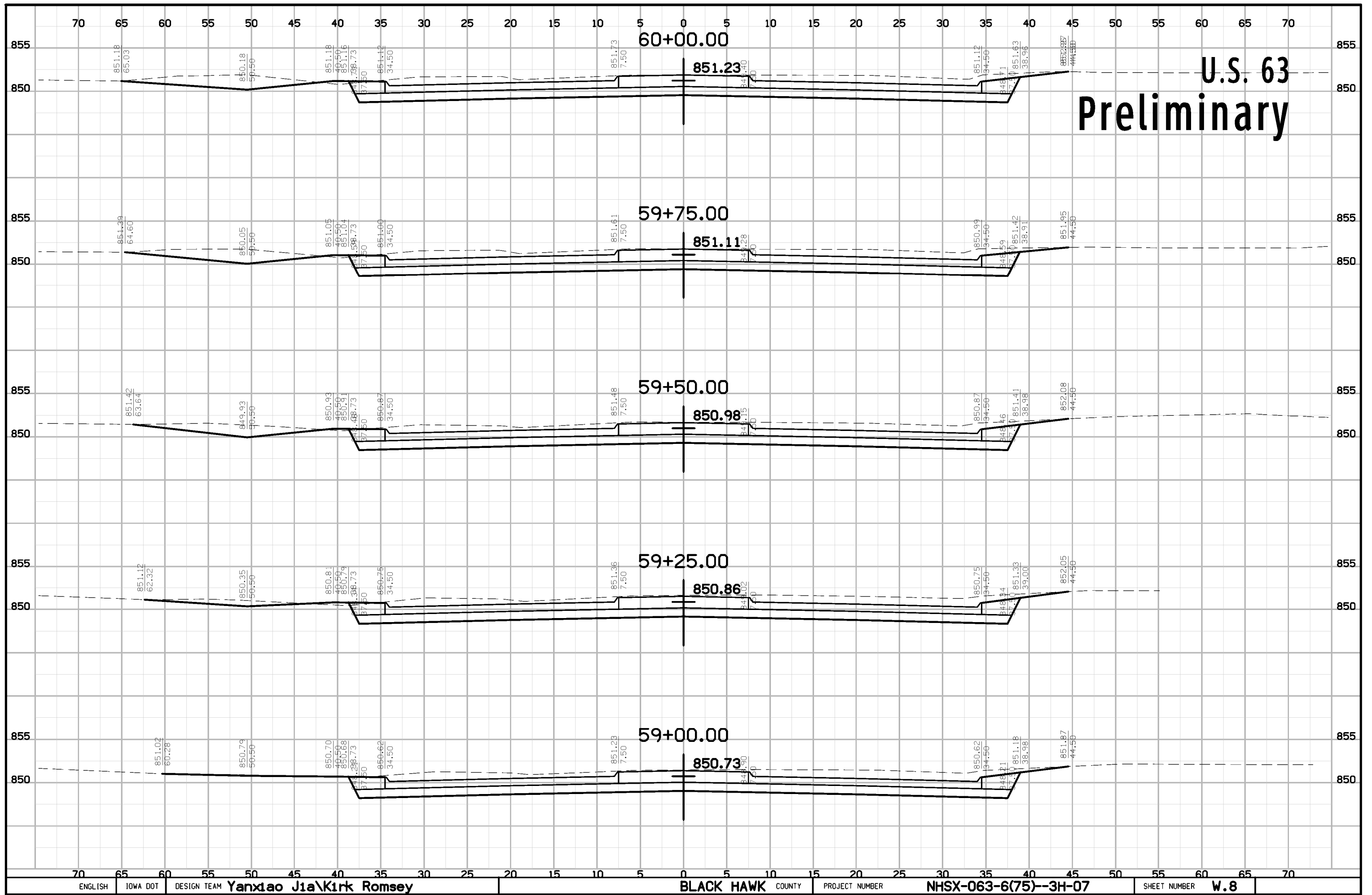


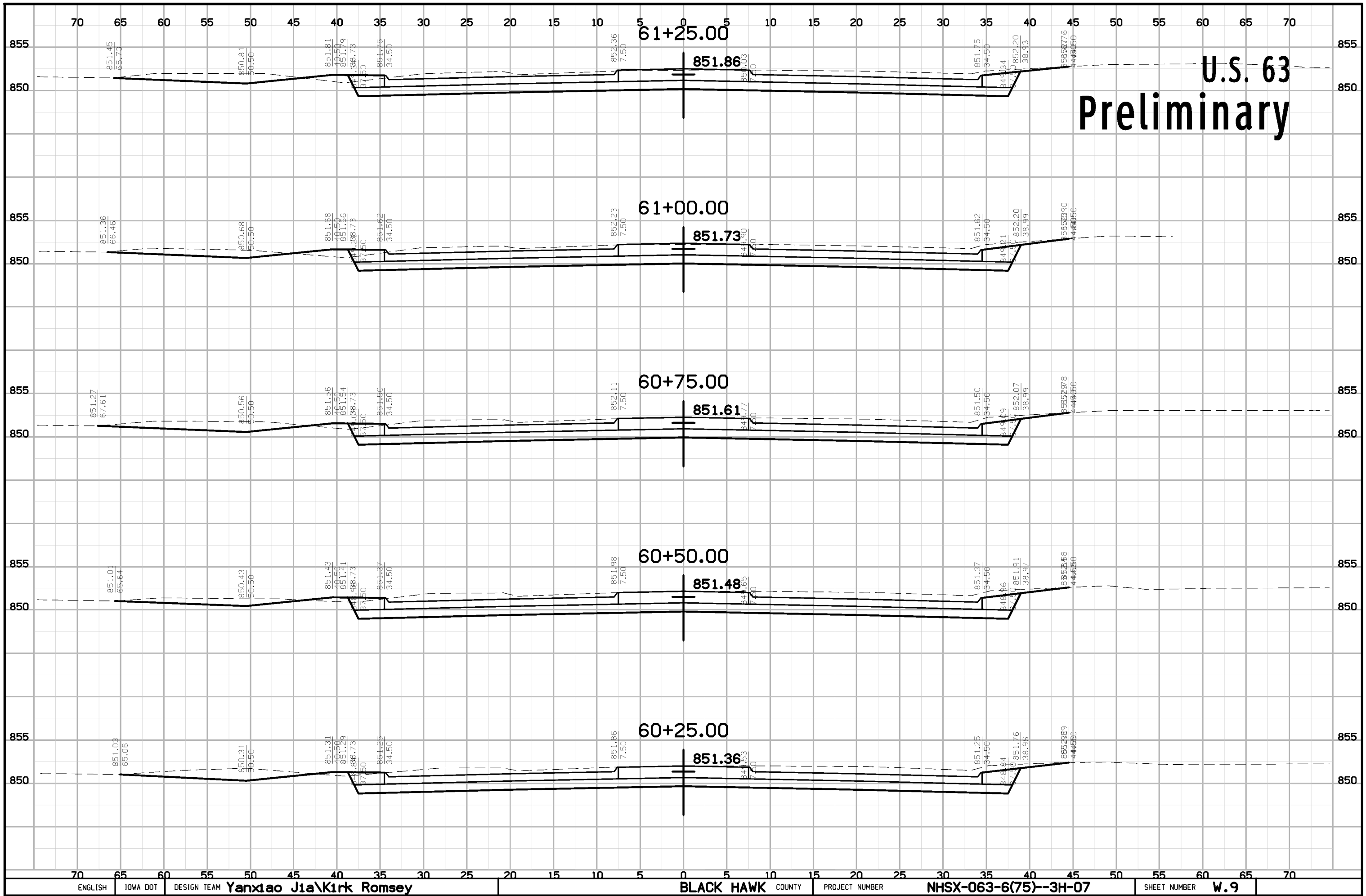




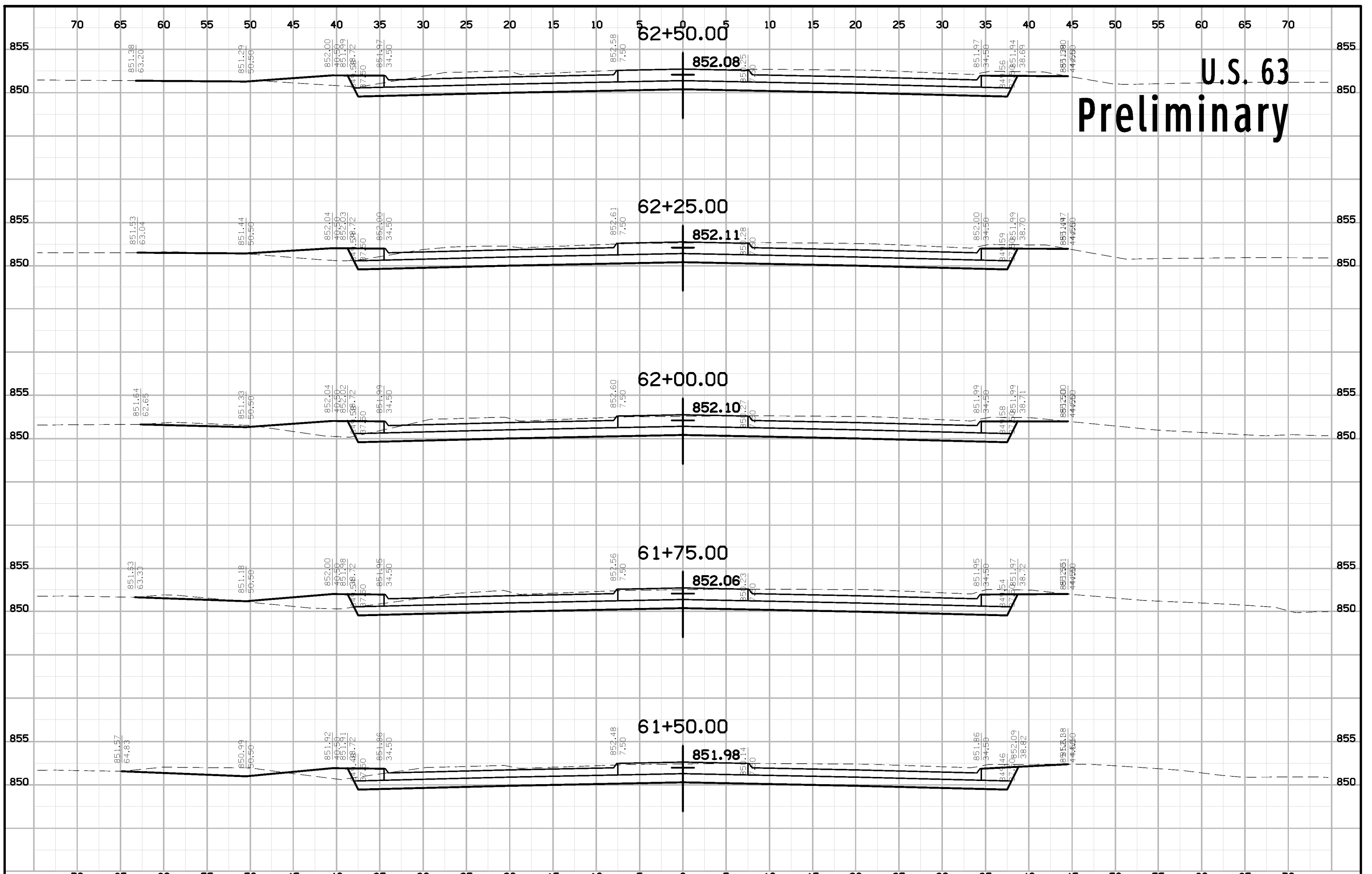


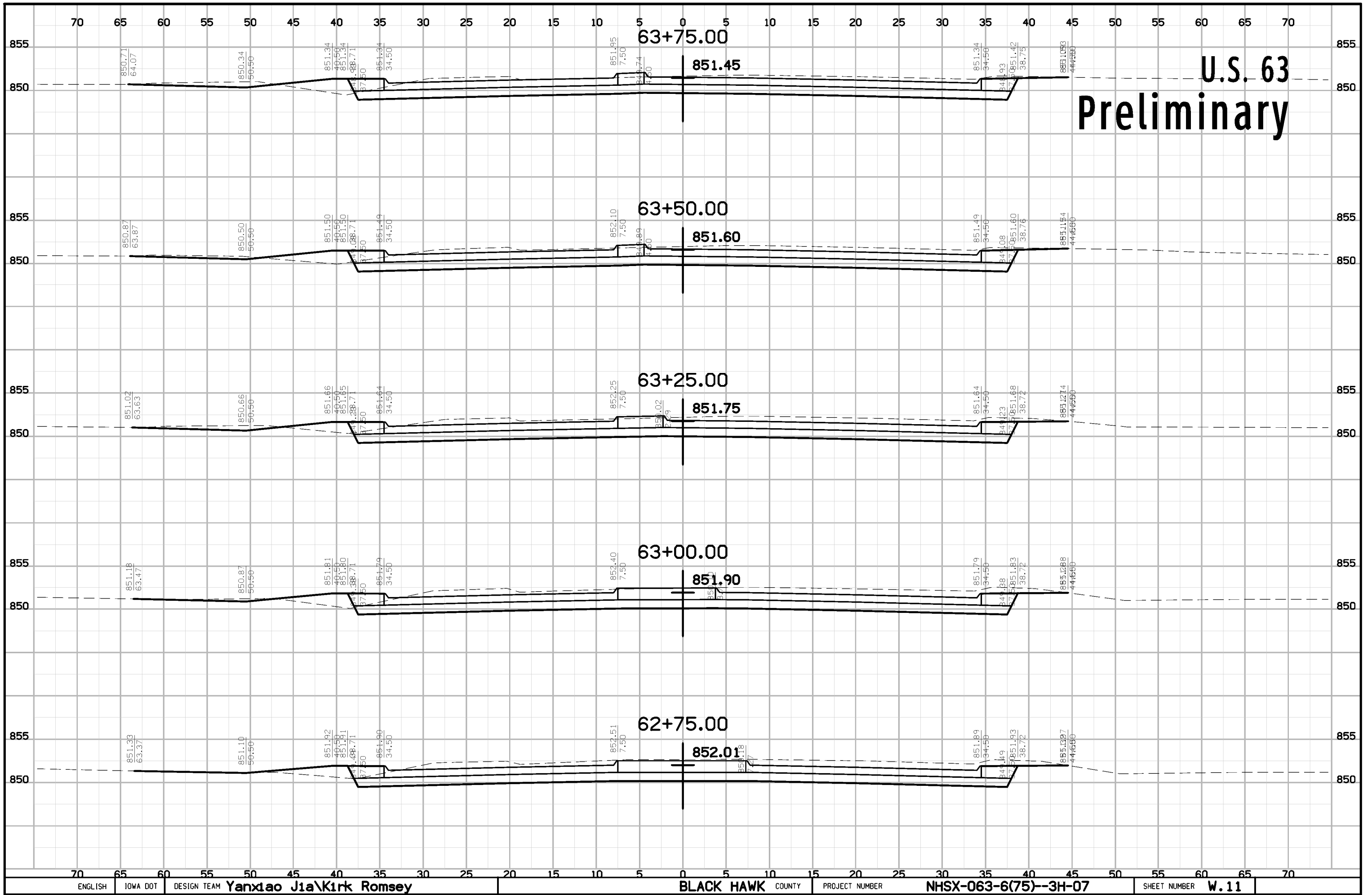


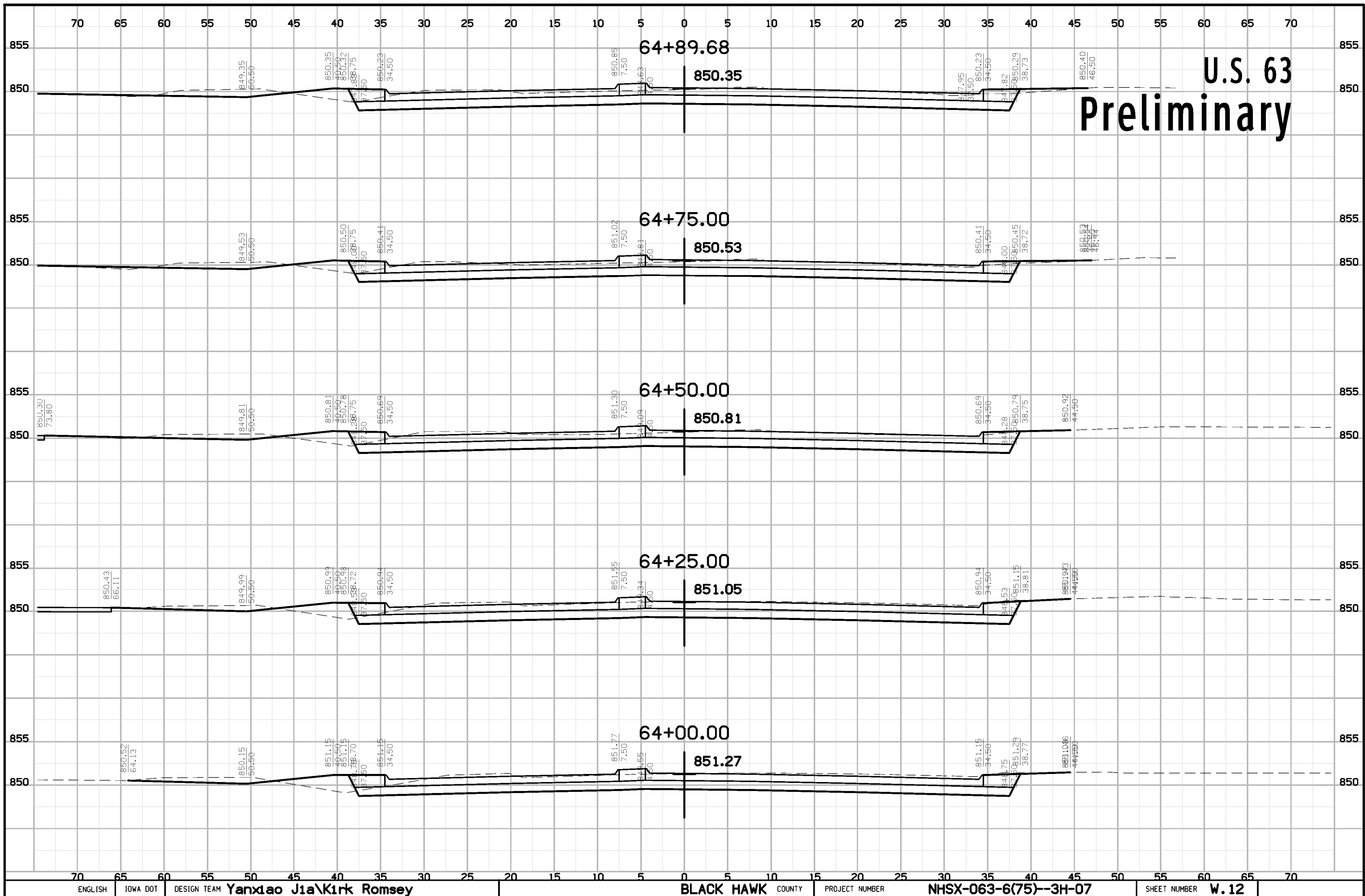




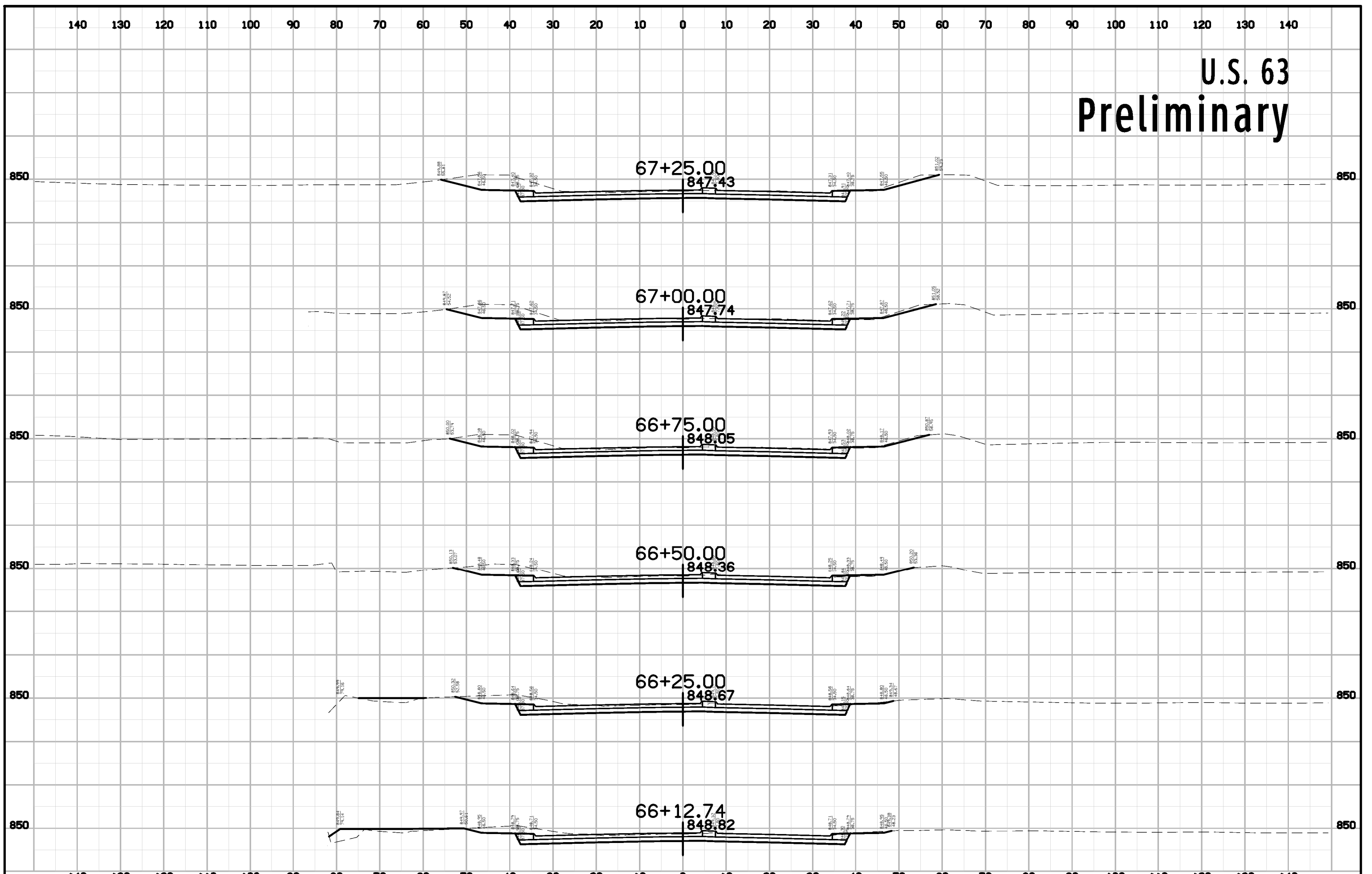
U.S. 63 Preliminary



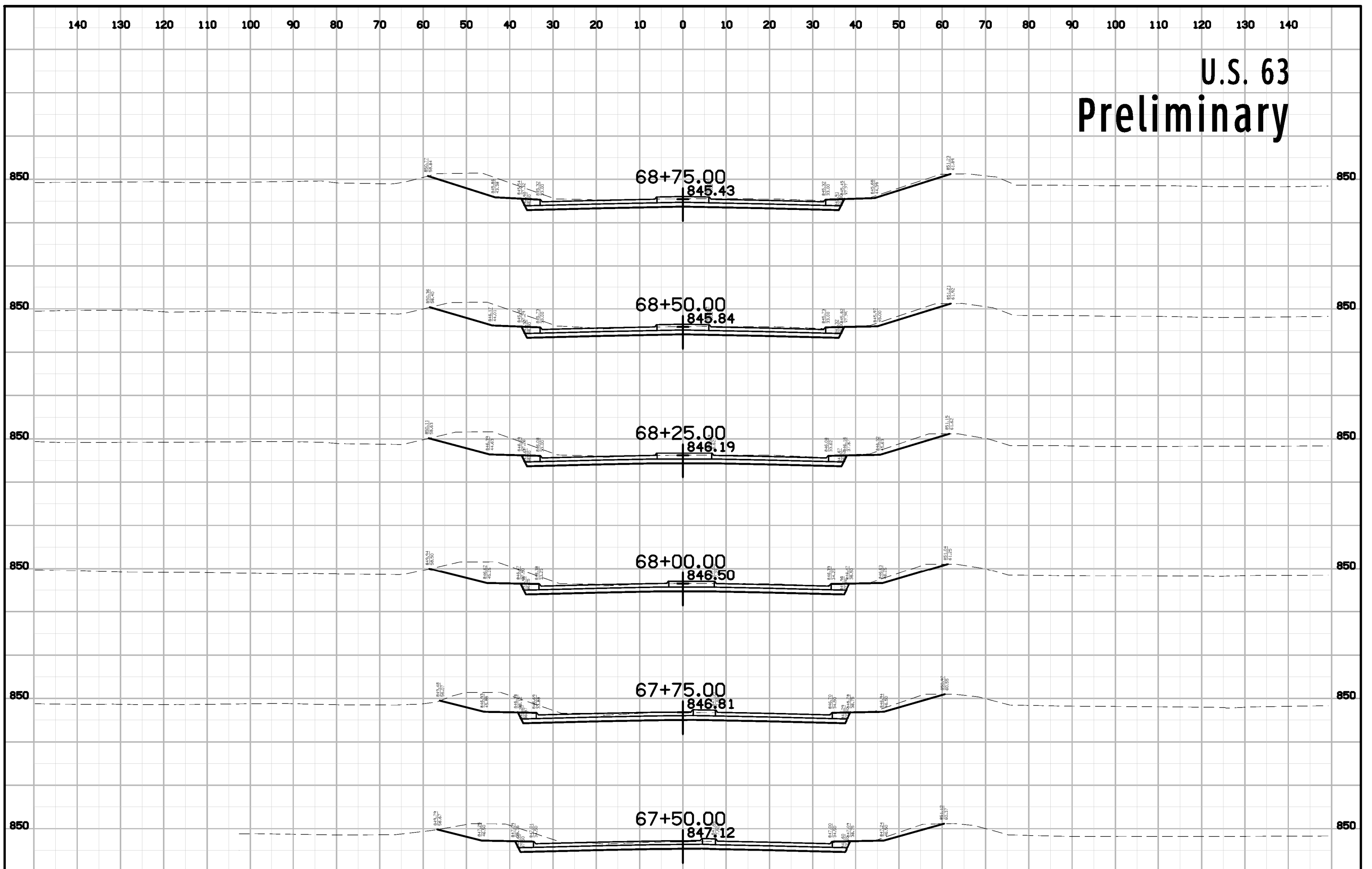




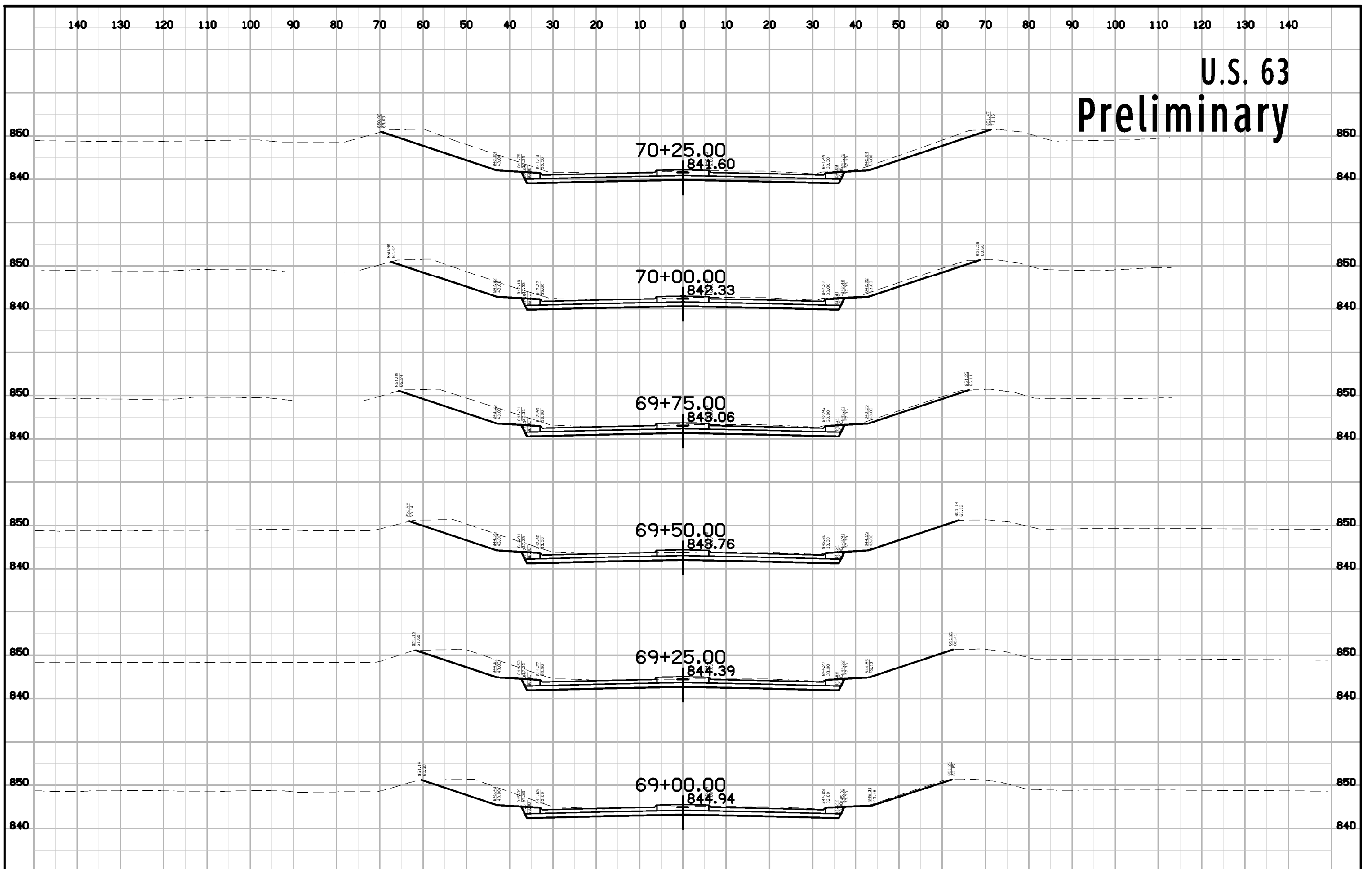
U.S. 63 Preliminary

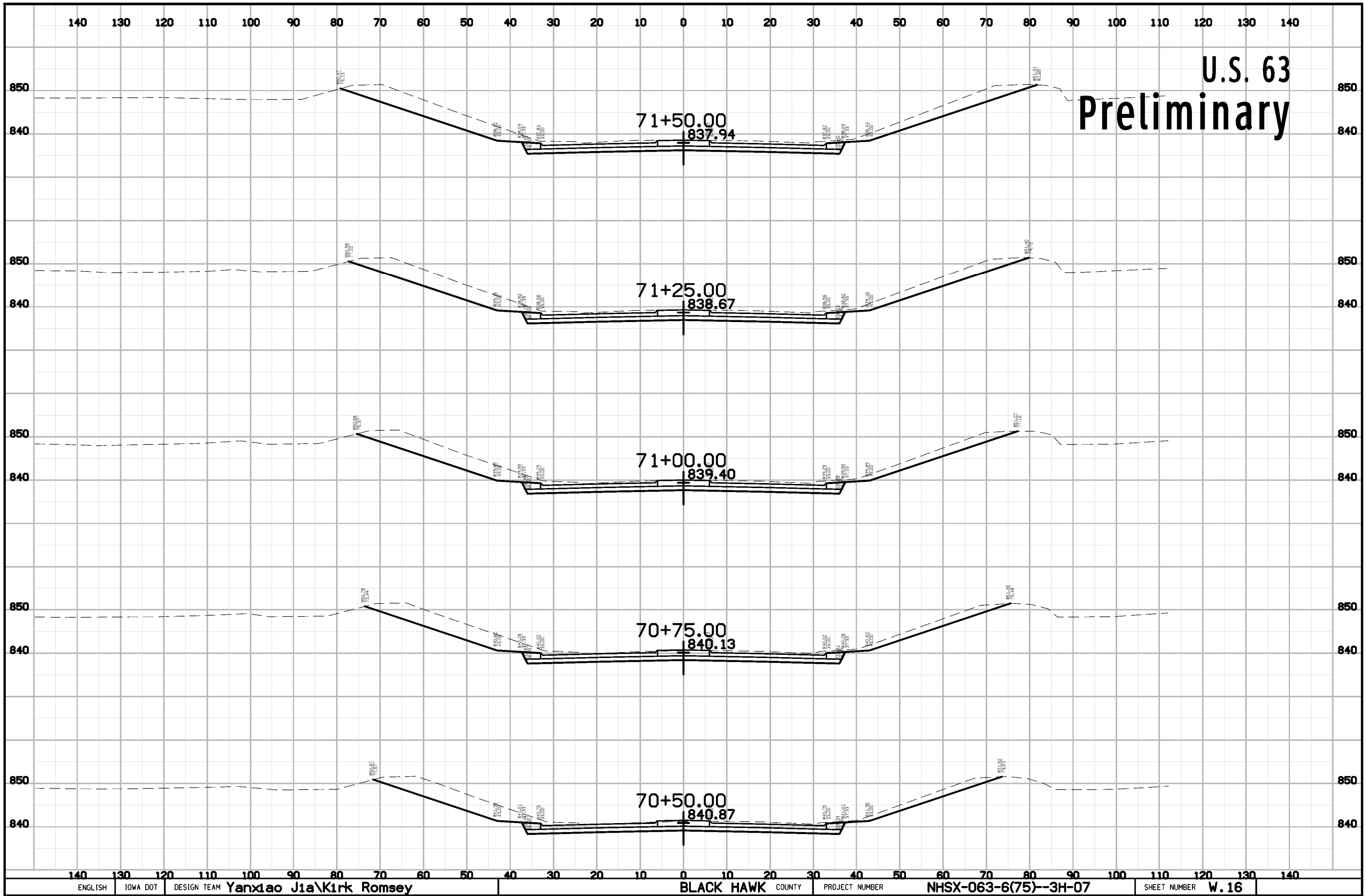


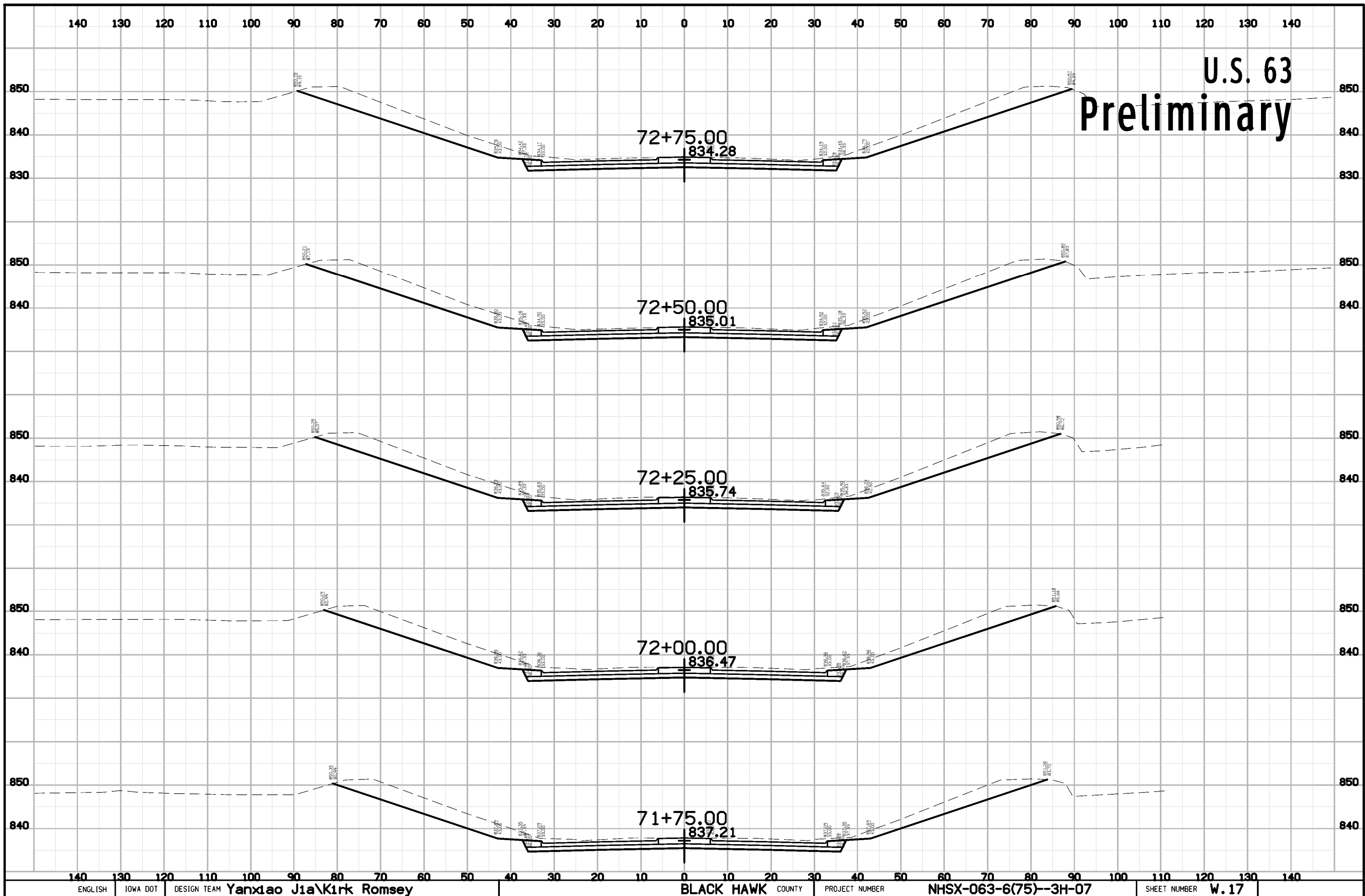
U.S. 63 Preliminary

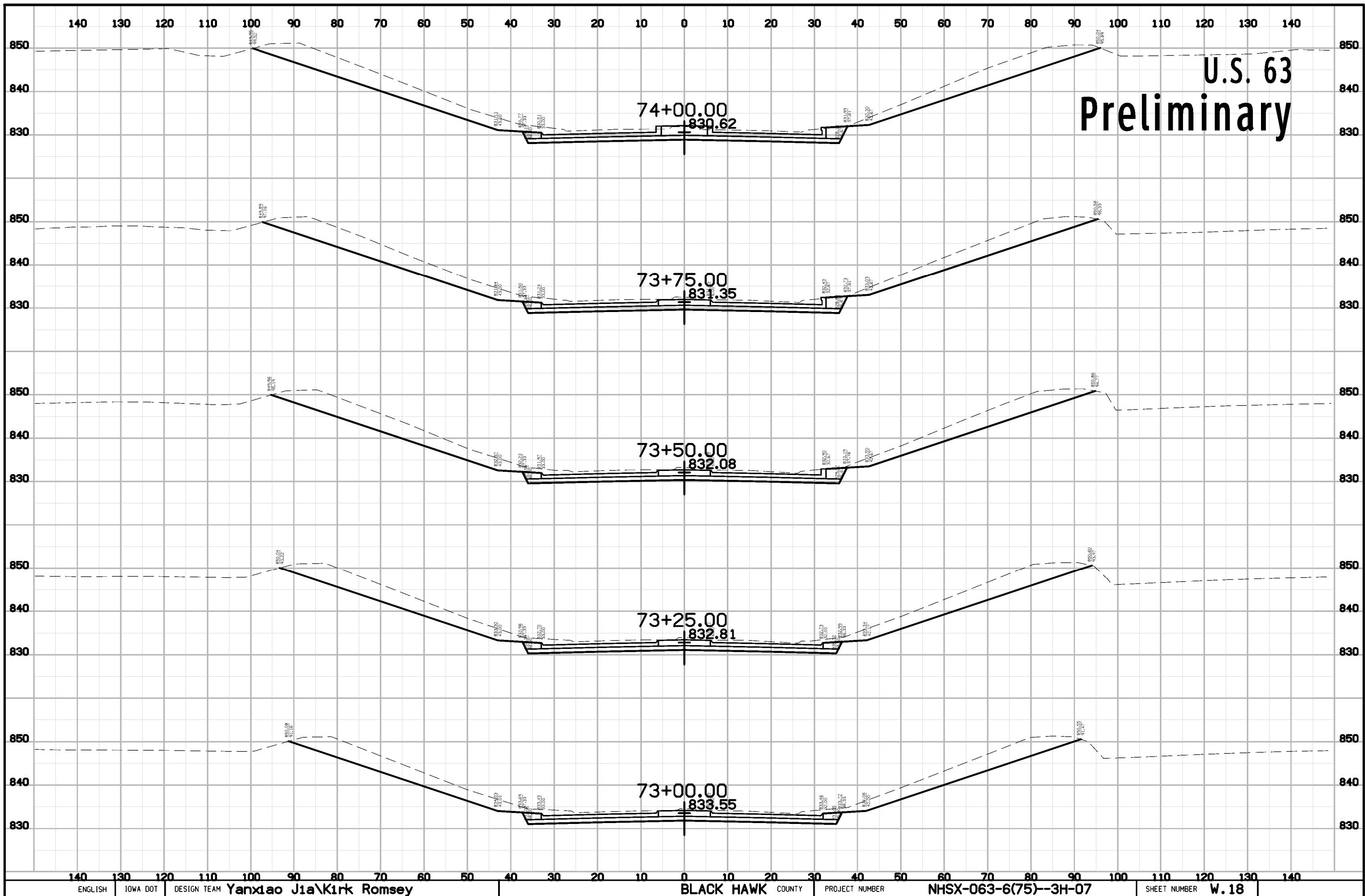


U.S. 63 Preliminary

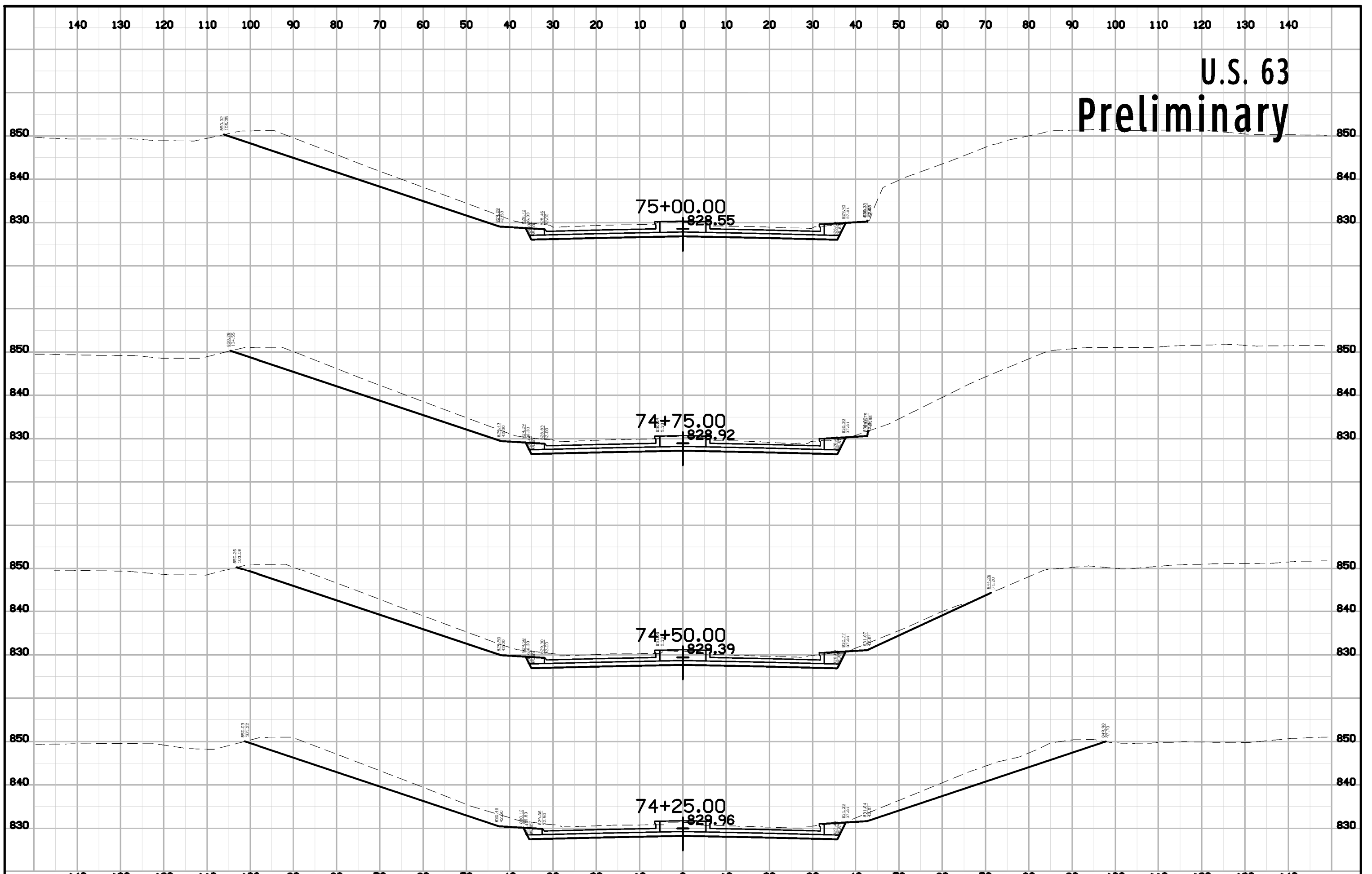




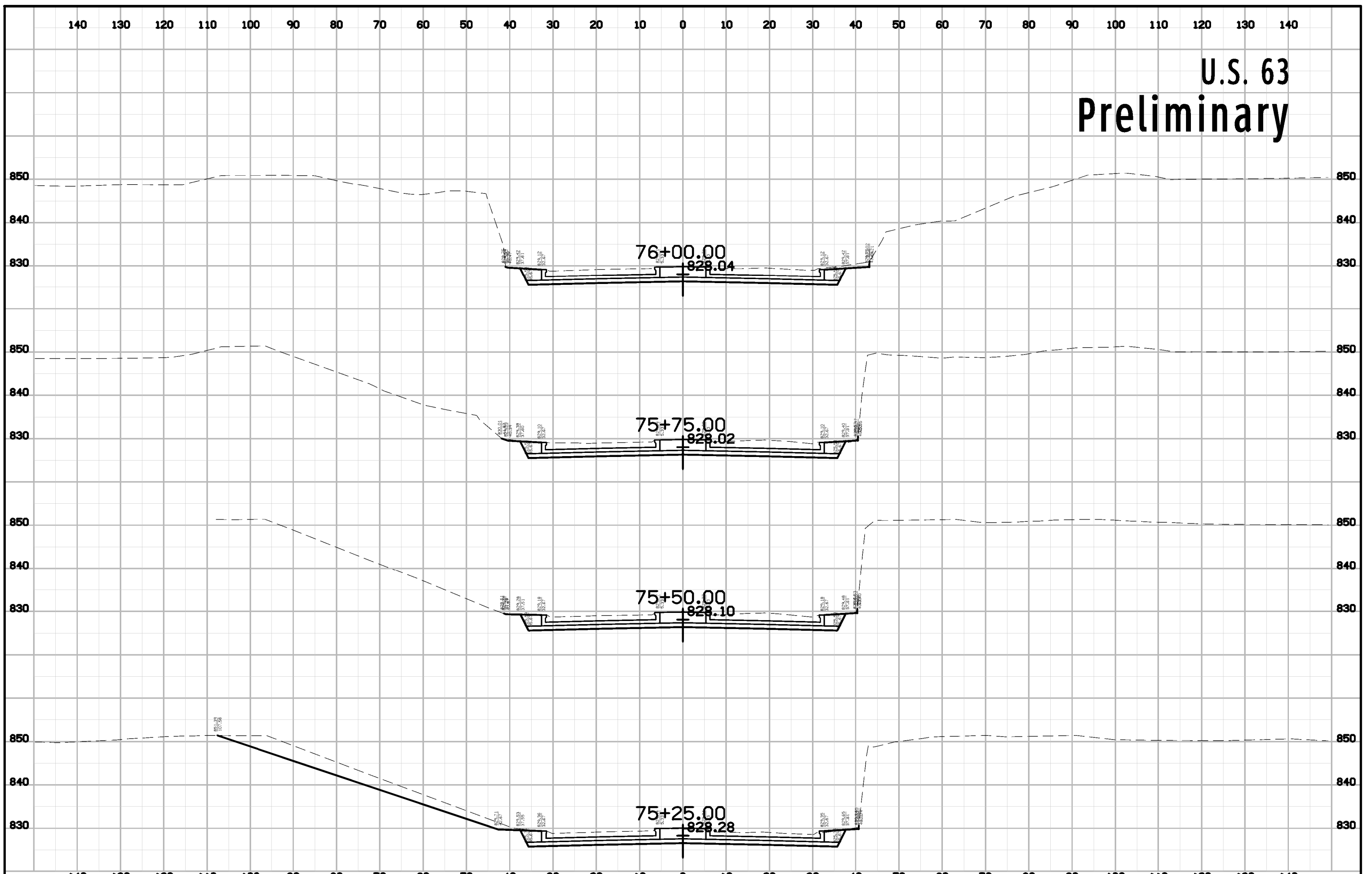


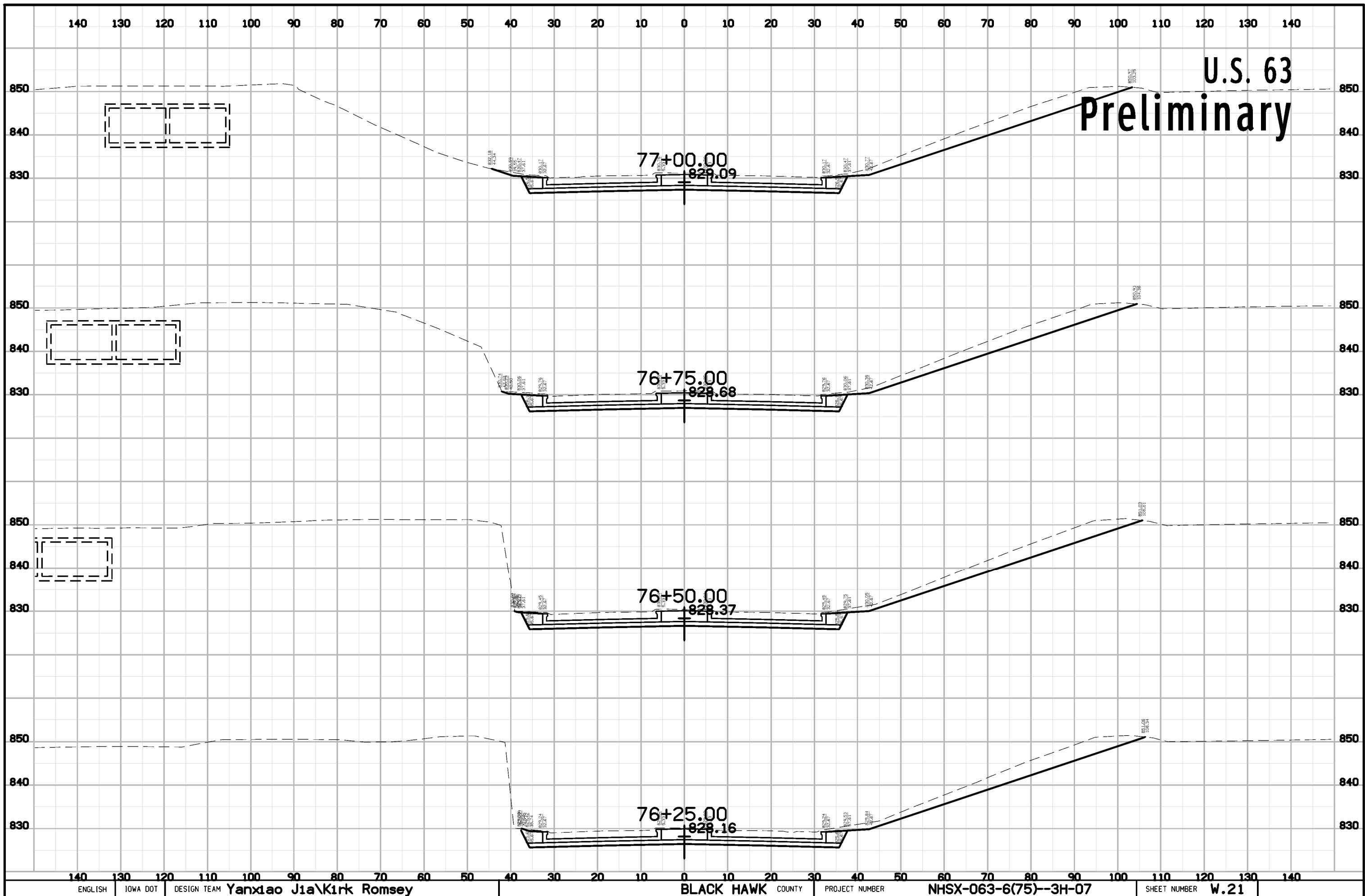


U.S. 63 Preliminary

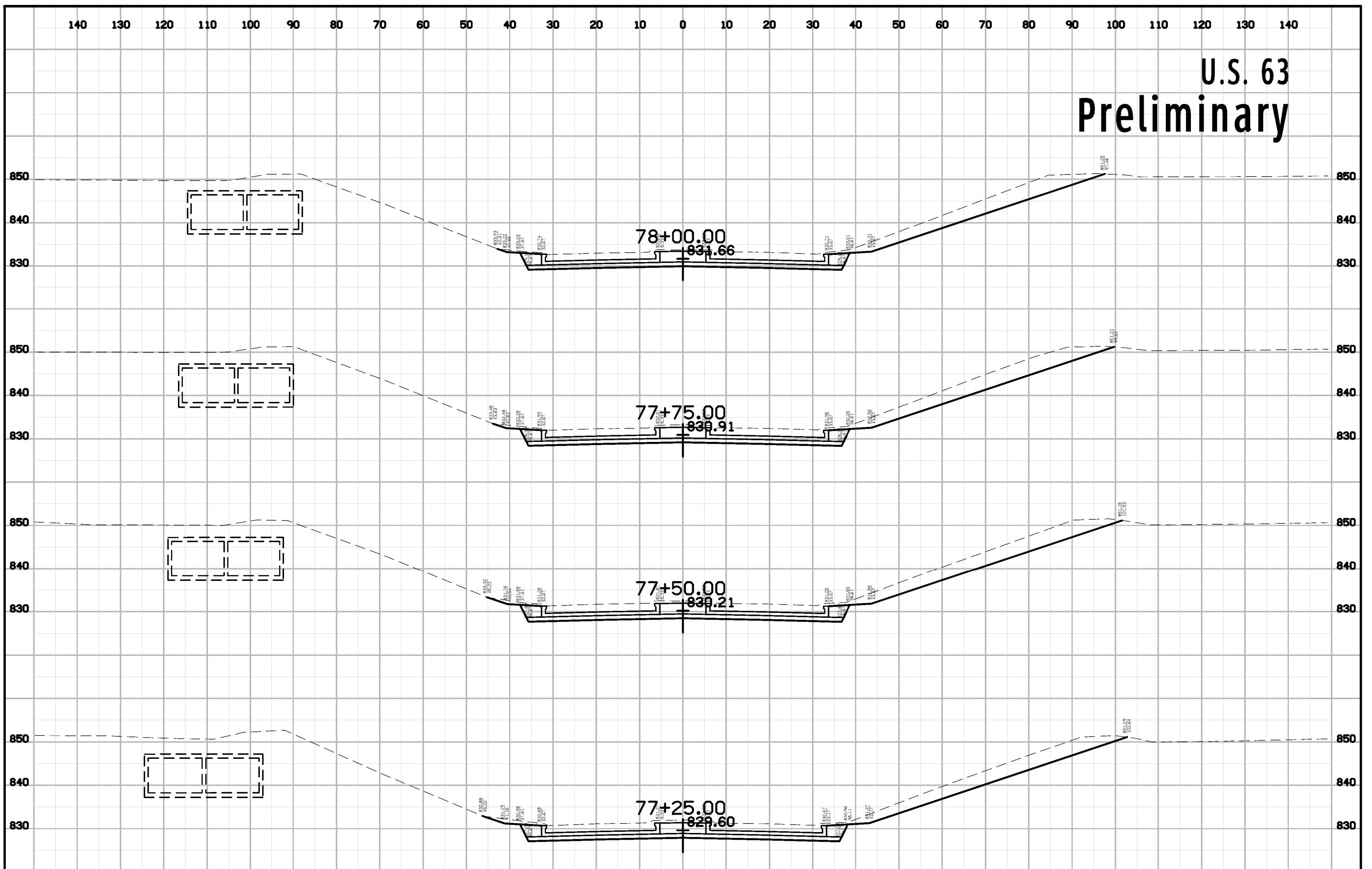


U.S. 63 Preliminary

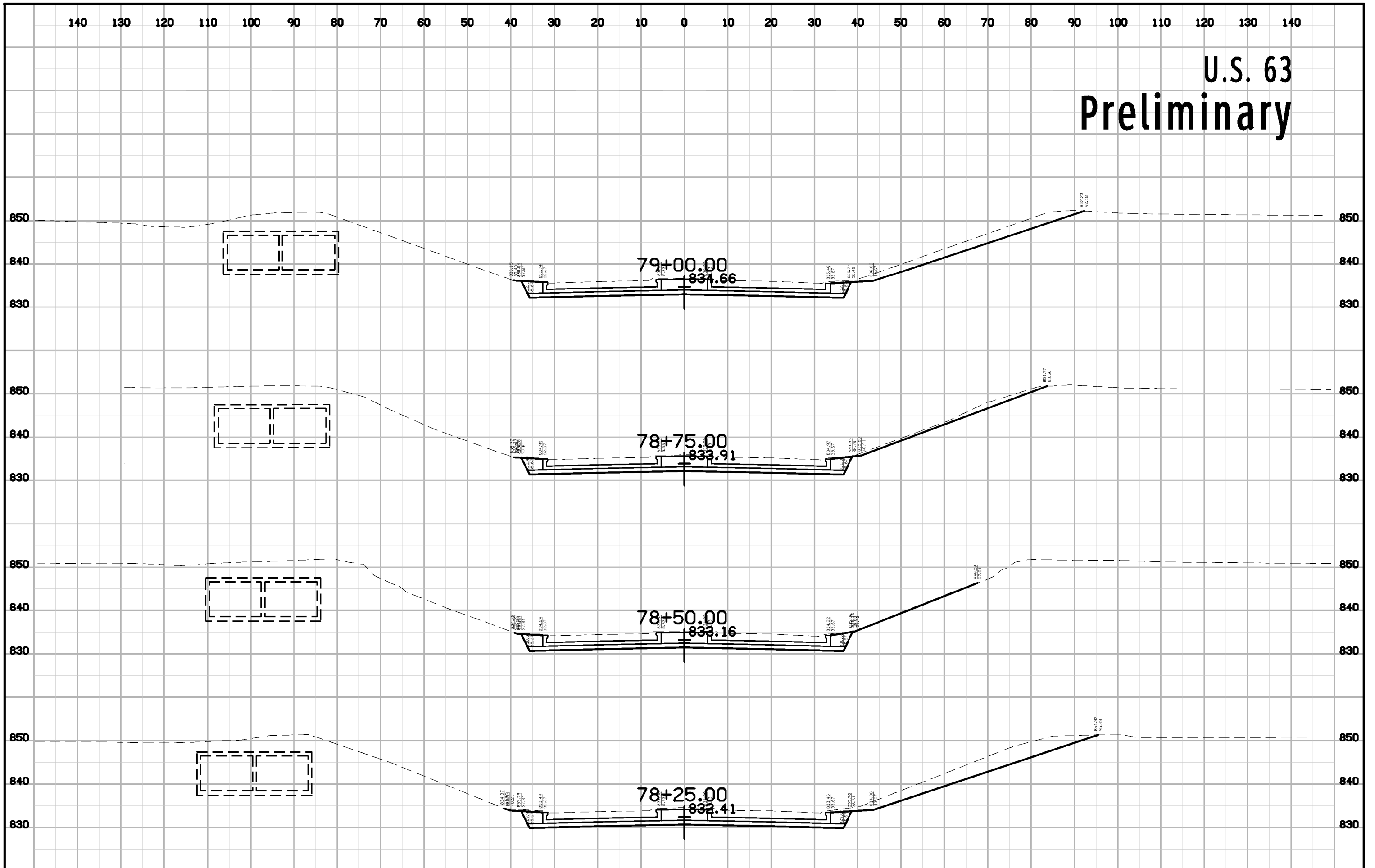


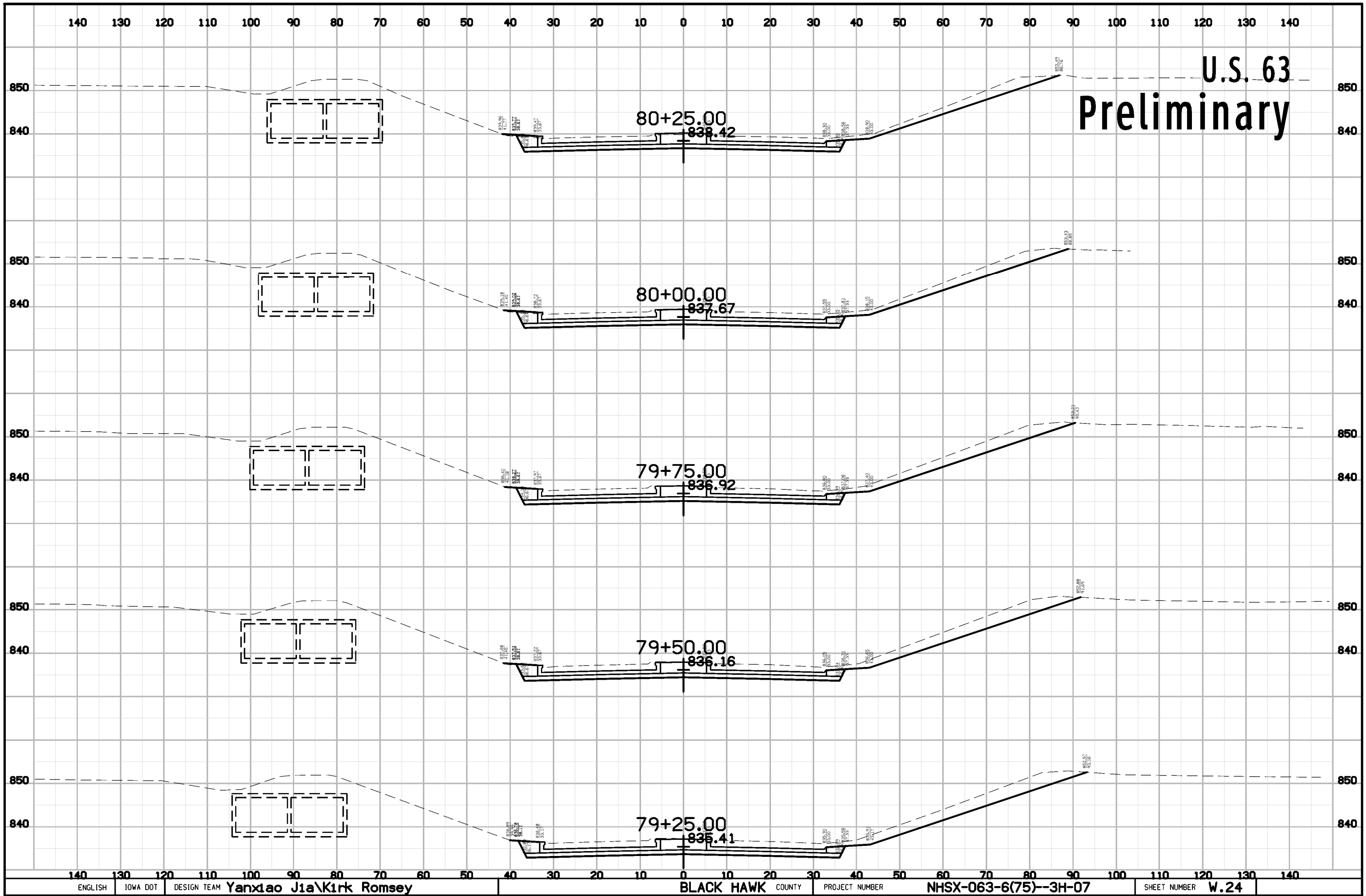


U.S. 63 Preliminary



U.S. 63 Preliminary





U.S. 63
Preliminary

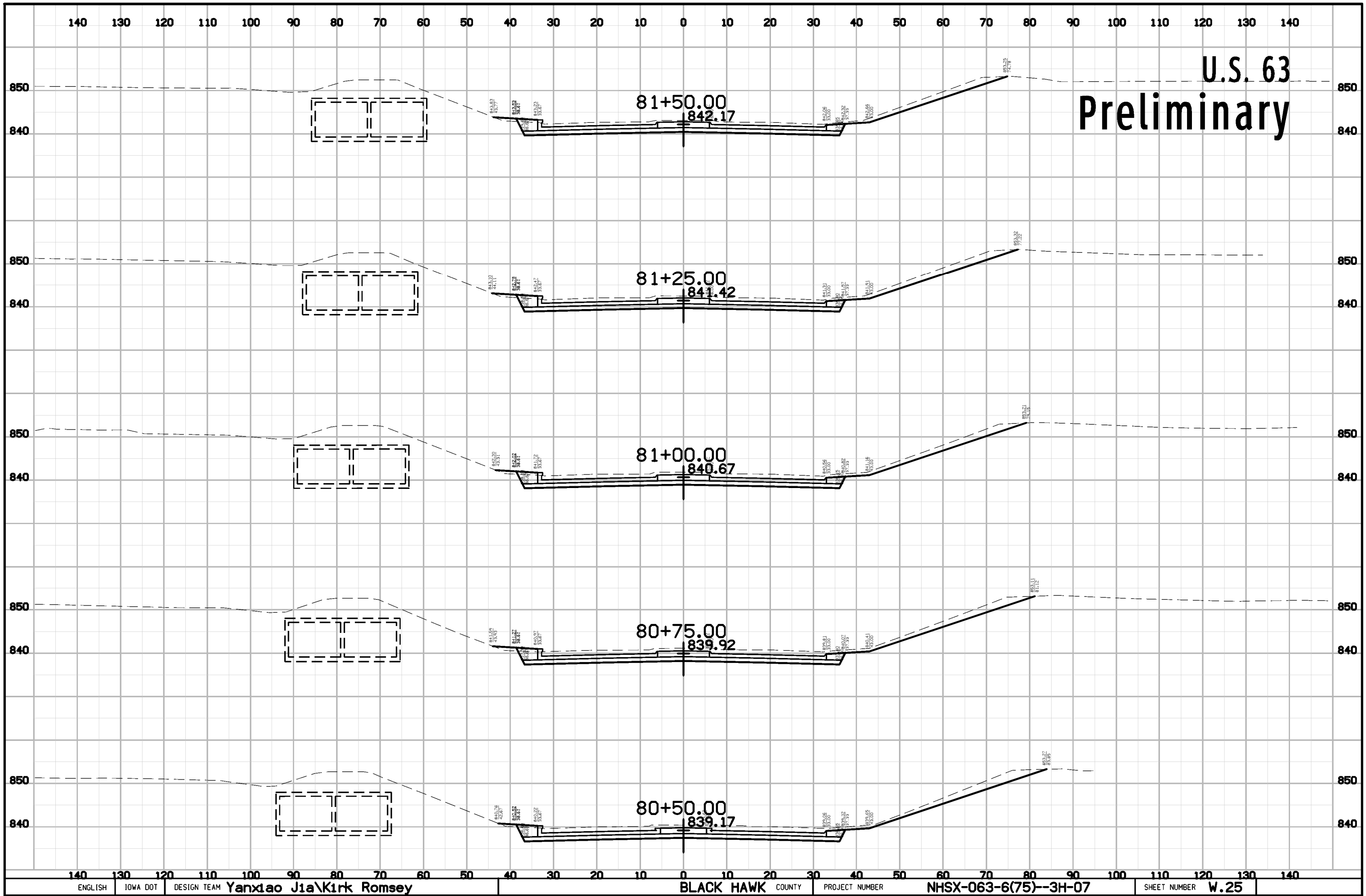
80+25.00
838.42

80+00.00
837.67

79+75.00
836.92

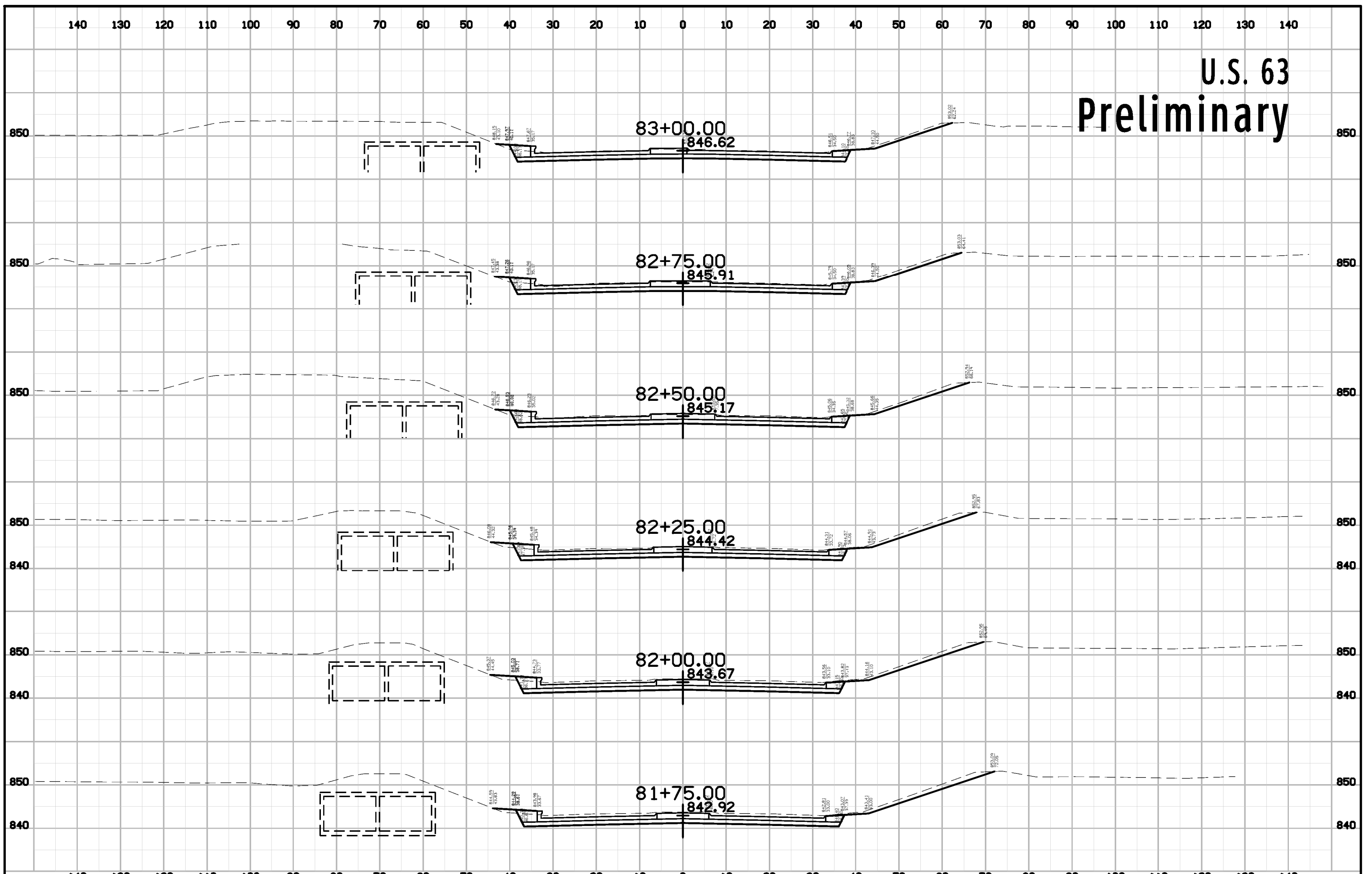
79+50.00
836.16

79+25.00
835.41

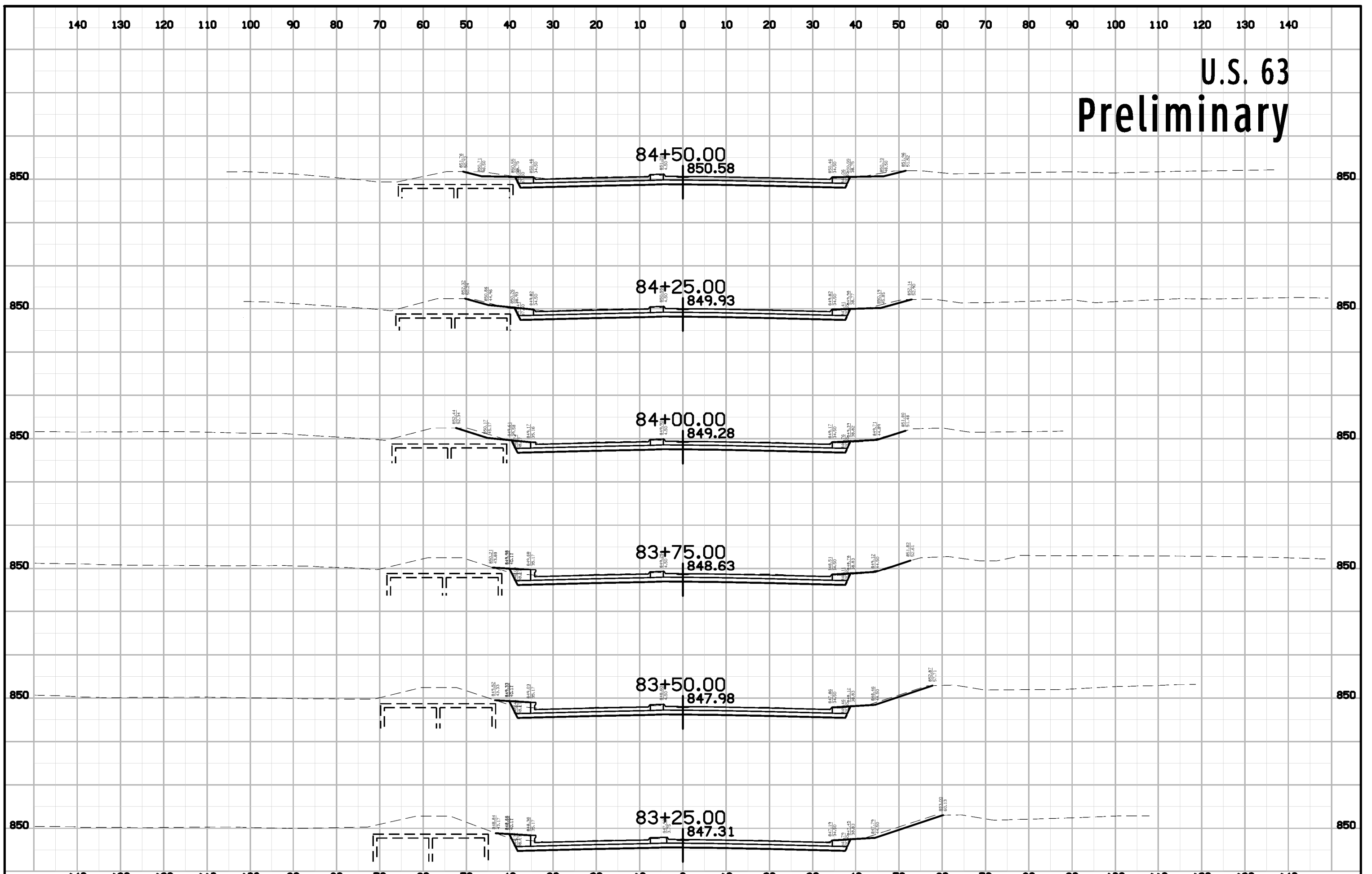


U.S. 63
Preliminary

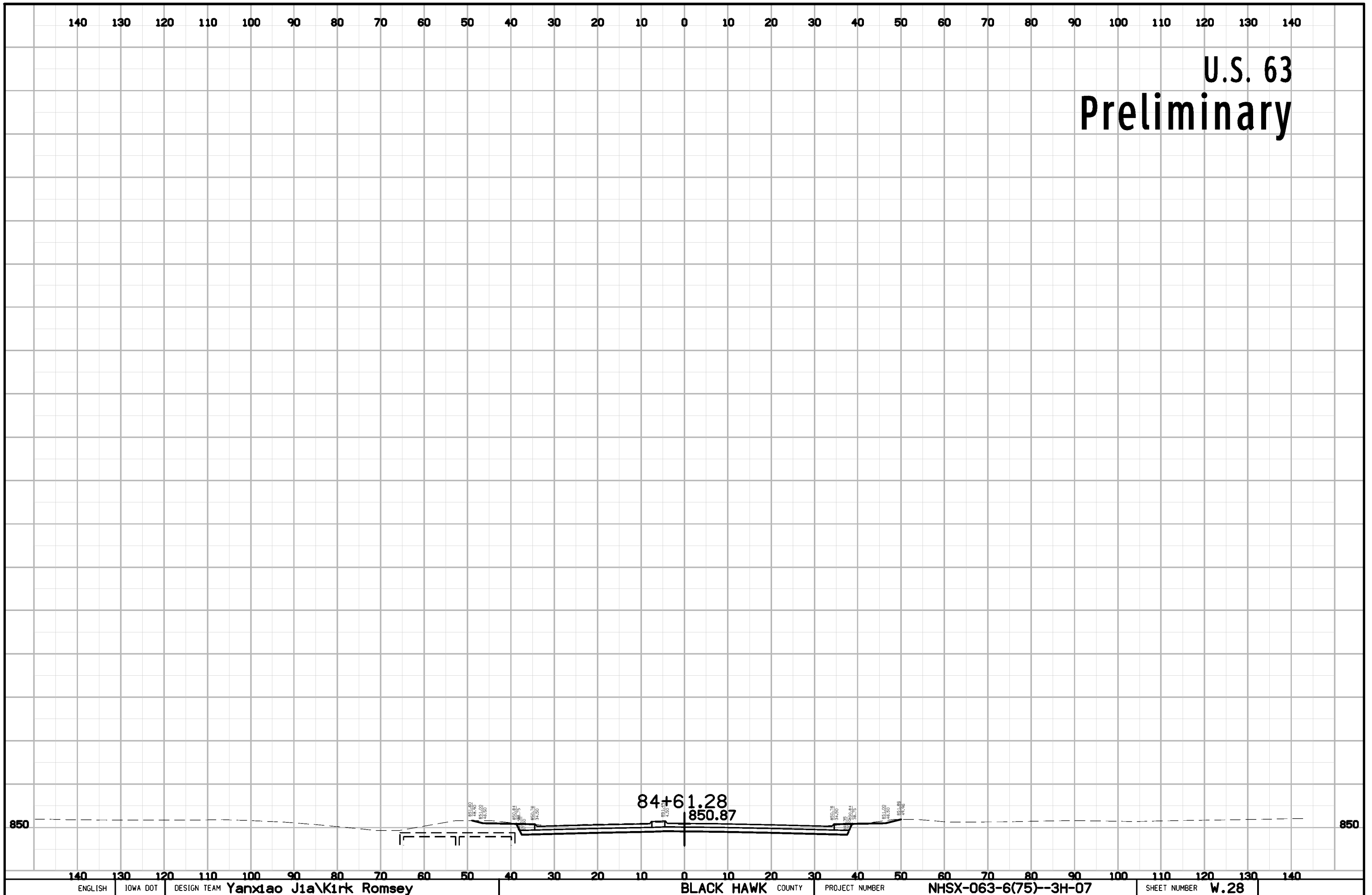
U.S. 63 Preliminary

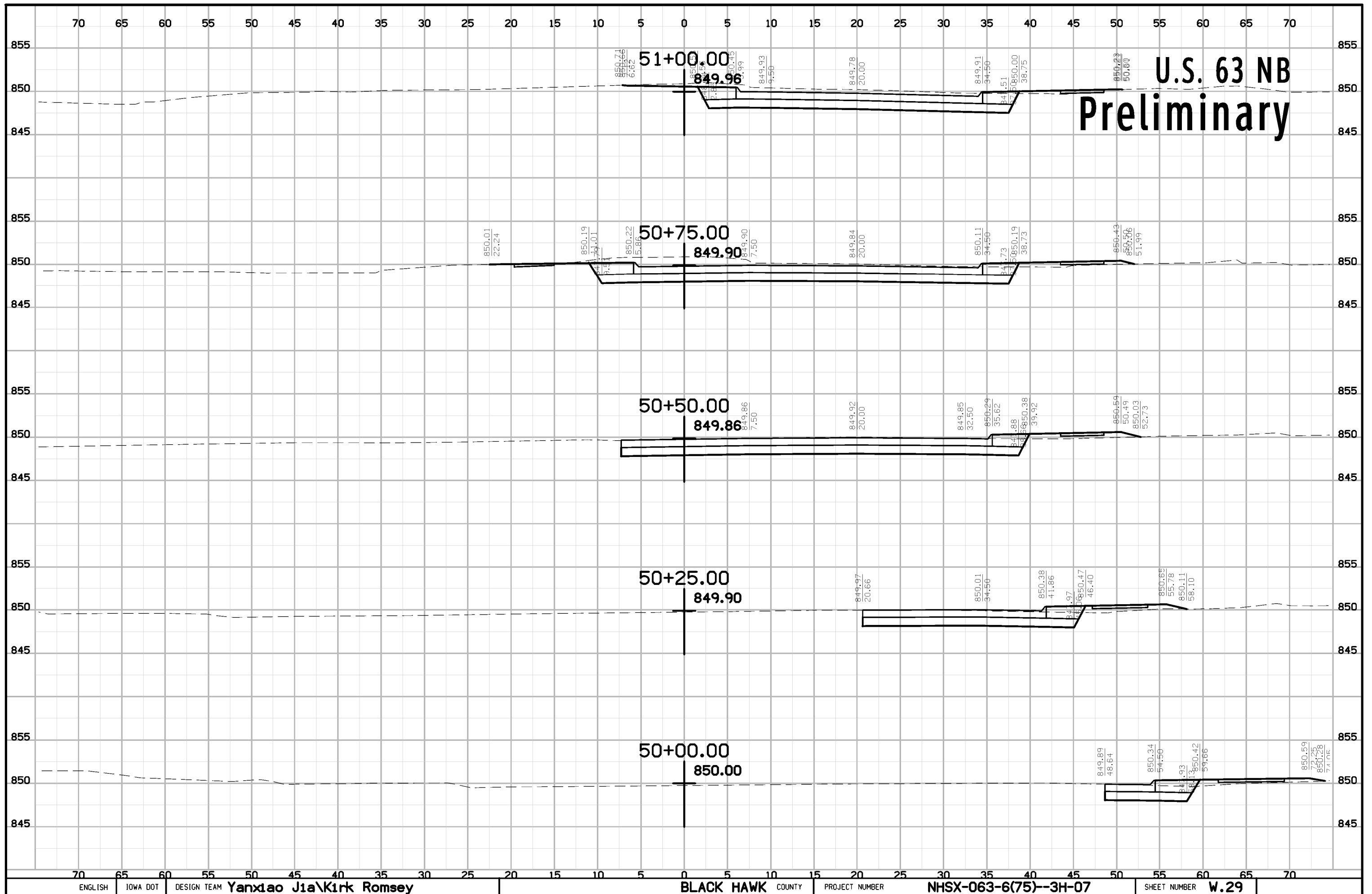


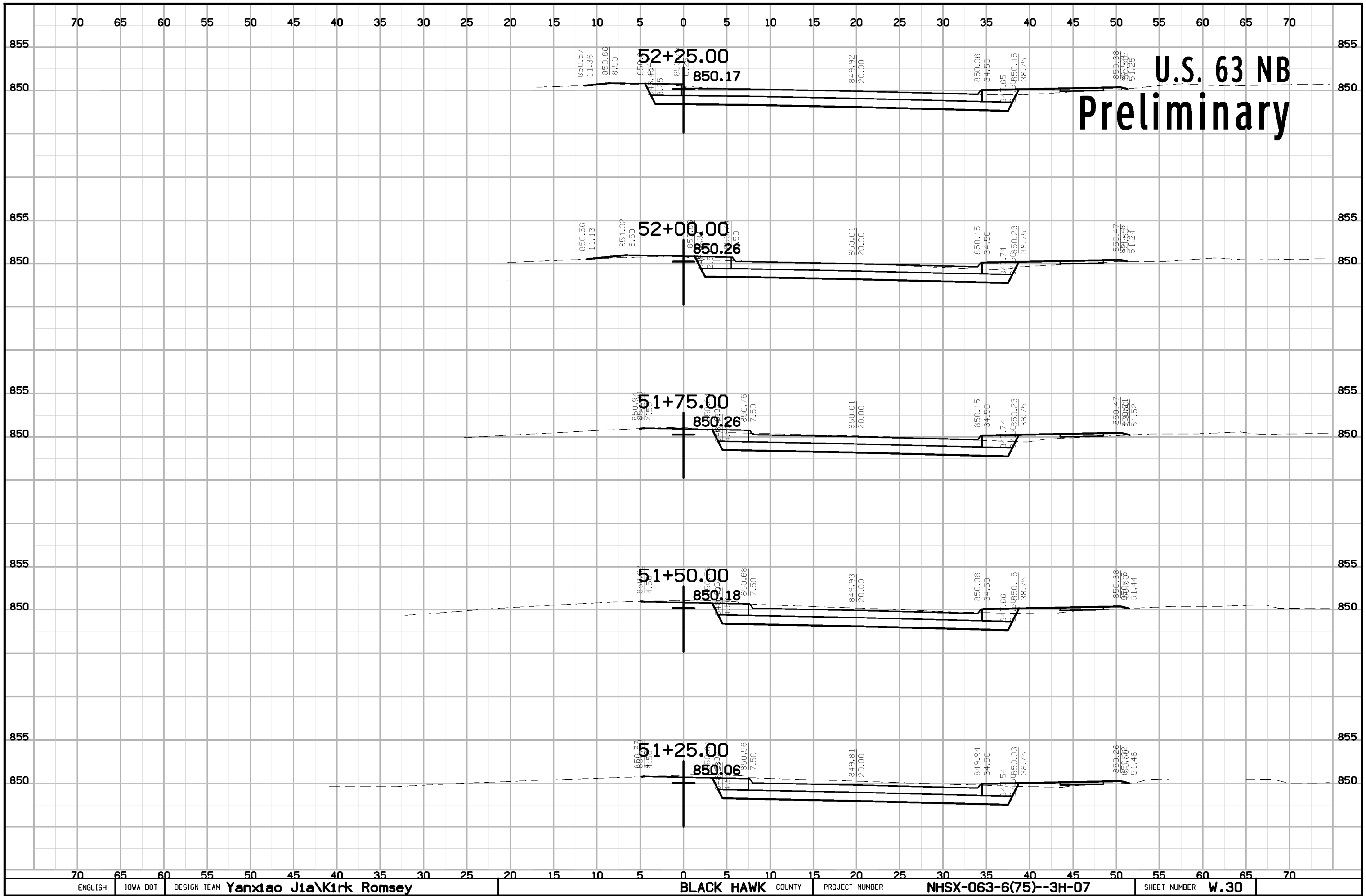
U.S. 63 Preliminary



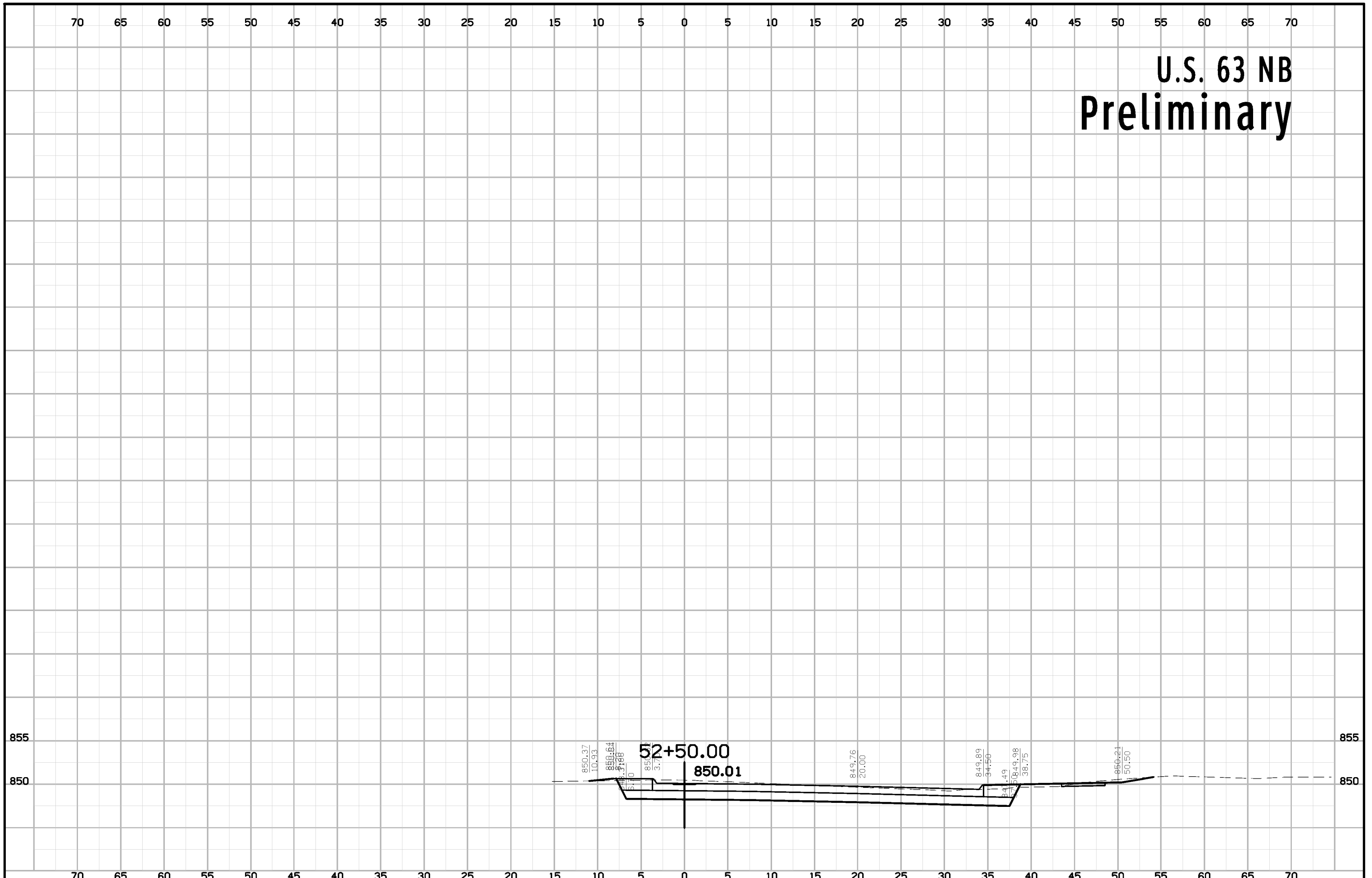
U.S. 63 Preliminary



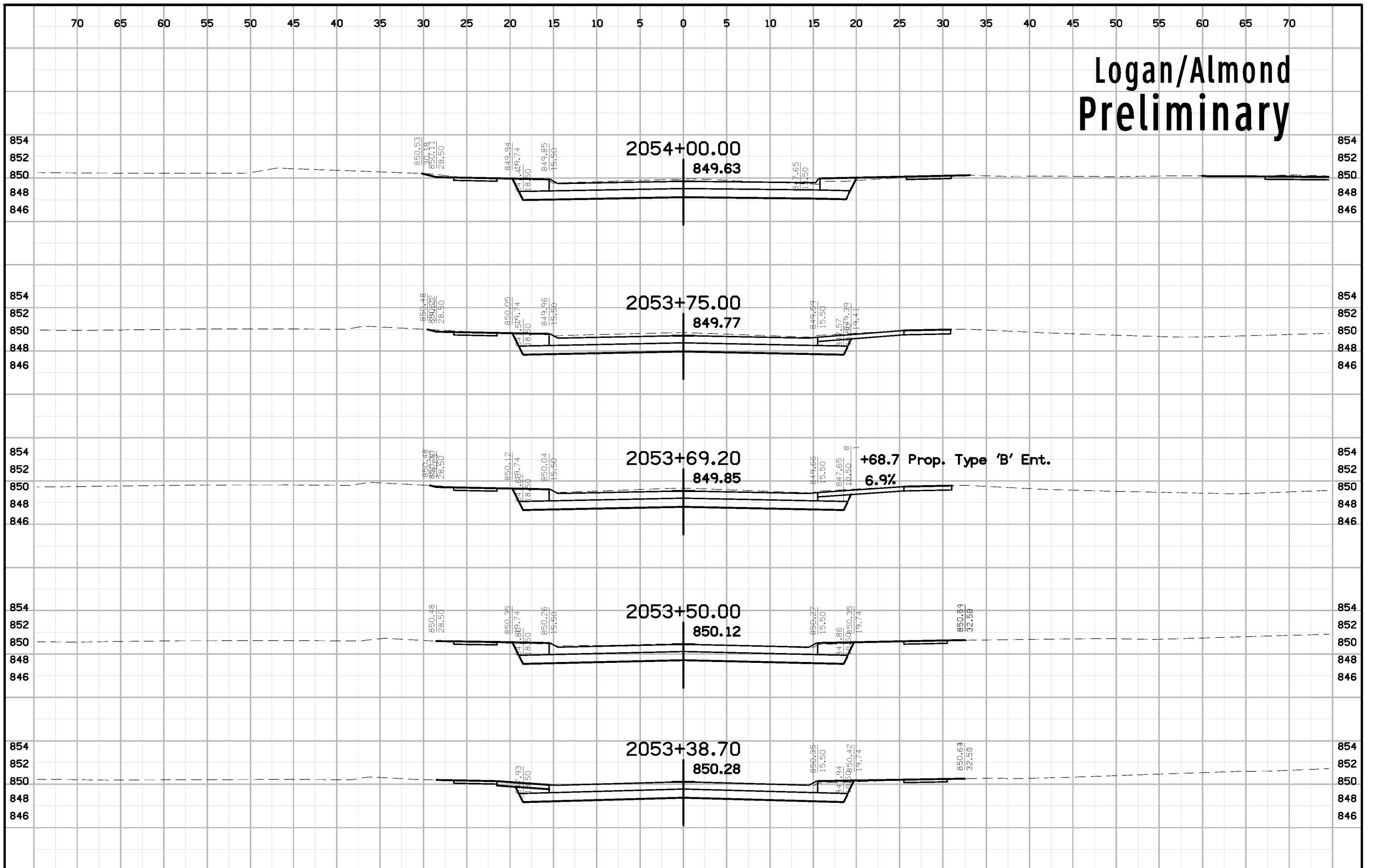




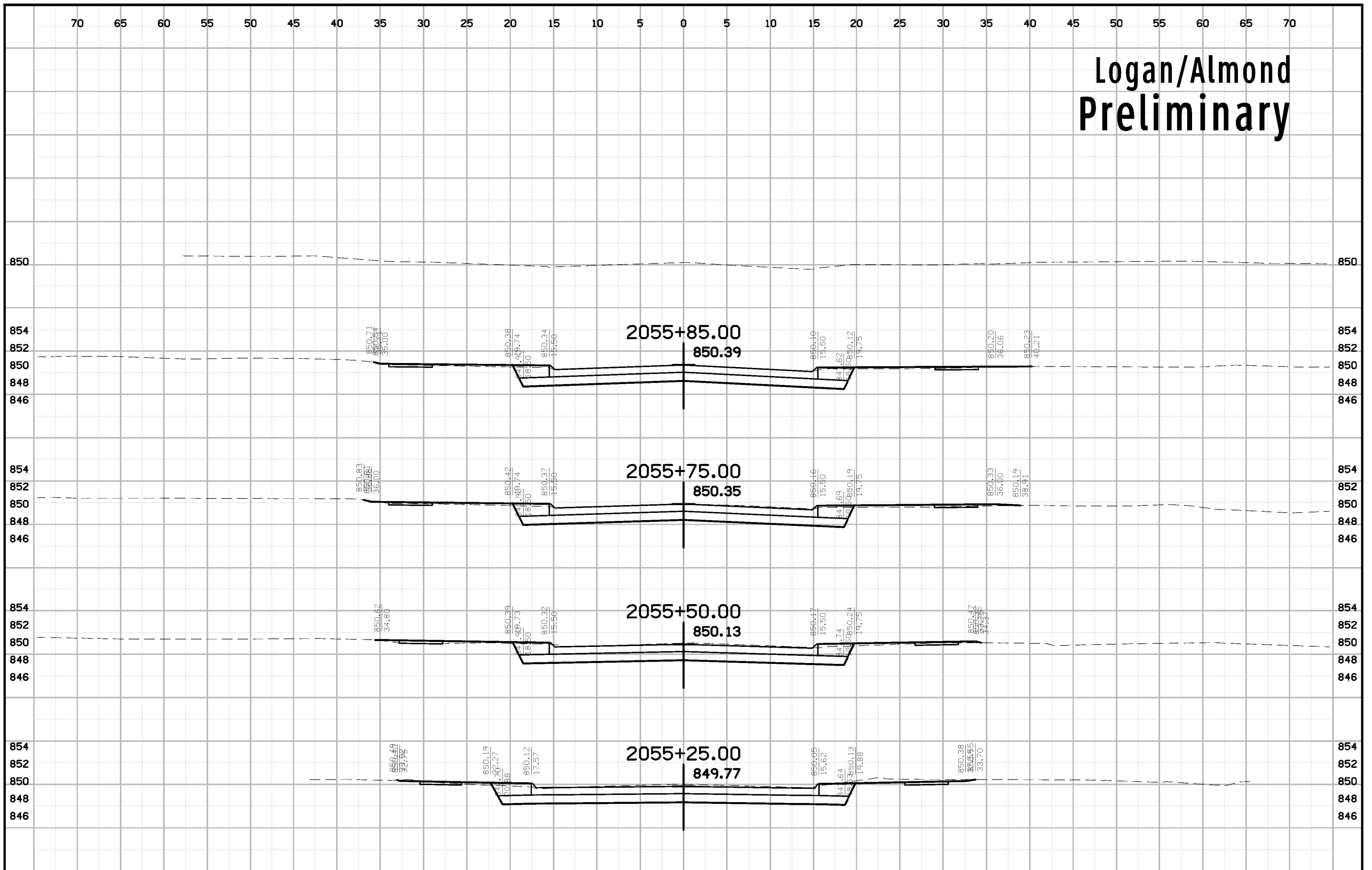
U.S. 63 NB Preliminary



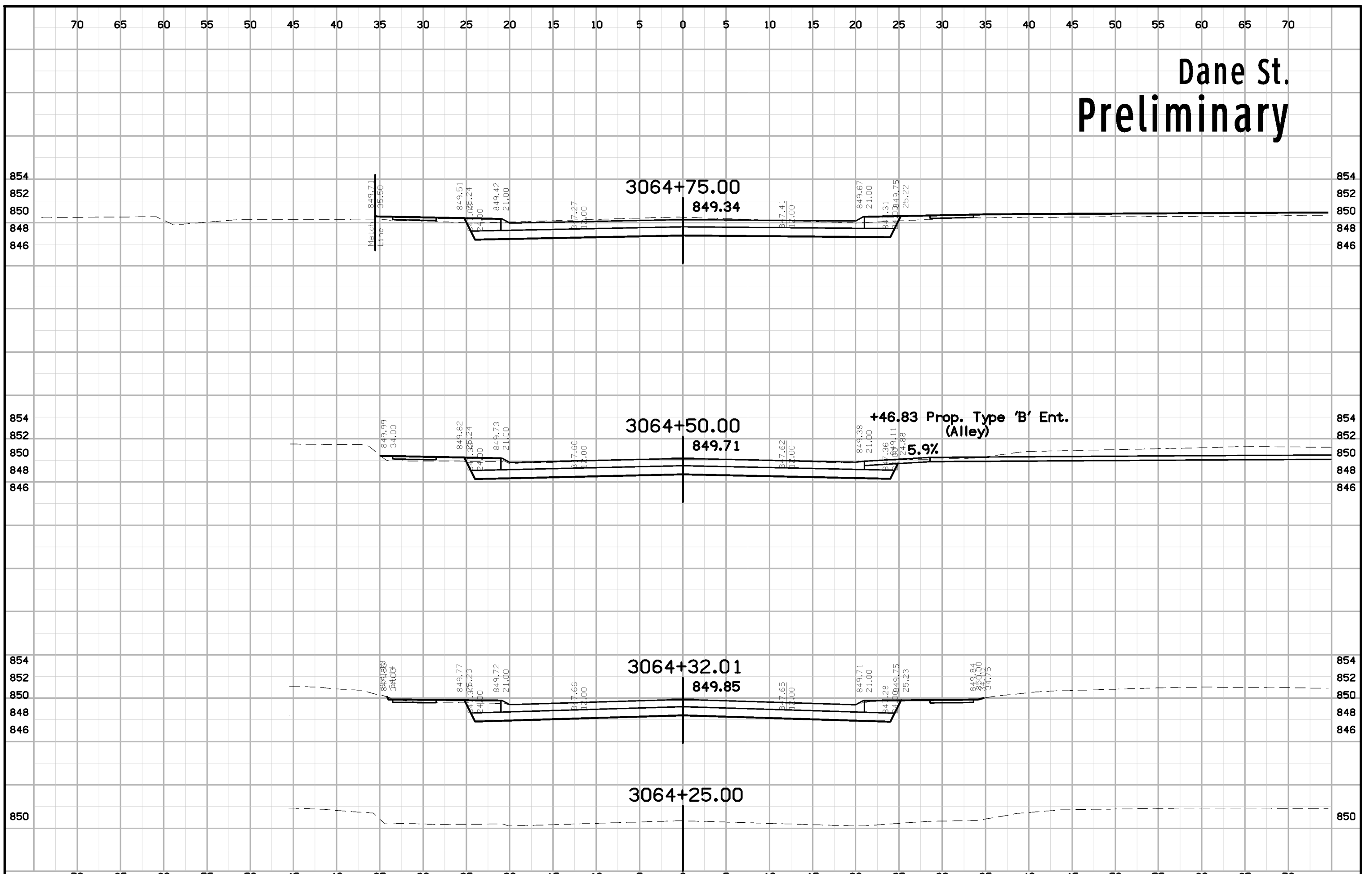
Logan/Almond Preliminary



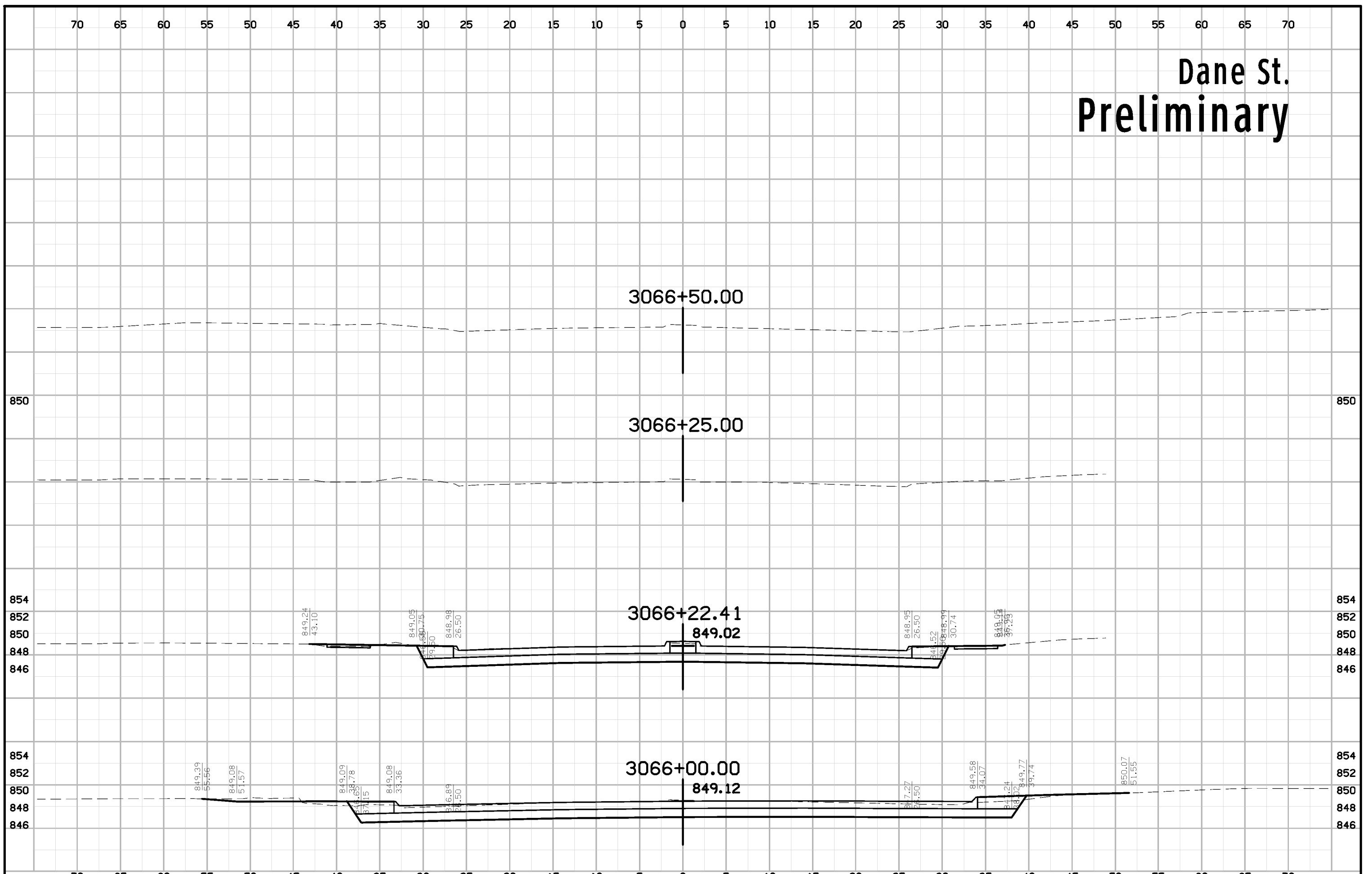
Logan/Almond Preliminary



Dane St. Preliminary



Dane St. Preliminary



Alley Preliminary

