SNOW BORROW IMPROVEMENT
STPN-141-2(56)--2J-67
MONONA Co.

LETTING DATE 12/18/18

INDEX OF SHEETS

IOWA DOT

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

MONONA COUNTY

SNOW BORROW IMPROVEMENT

Approximately 2.5 Miles East of County Road L32 to Approximately 0.4 Miles West of County Road L37

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.

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

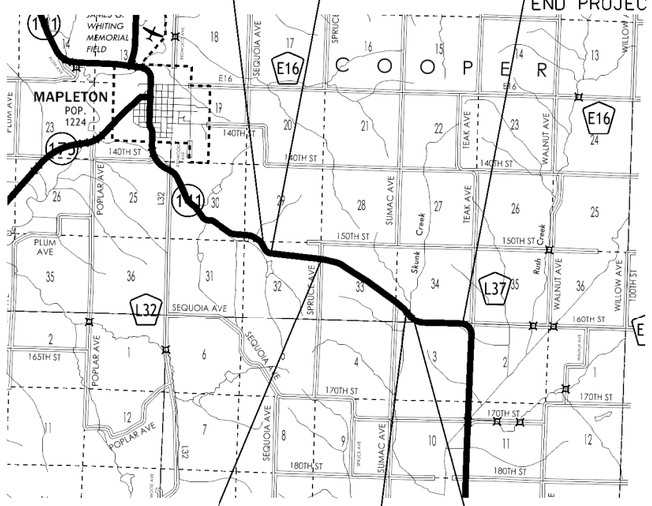
REVISIONS

TOTAL 89
PROJECT IDENTIFICATION NUMBER
96-67-141-230-02
PROJECT NUMBER
STPN-141-2(56)--2J-67
R.O.W. PROJECT NUMBER

STA. 456+50.00
BEGIN PROJECT

STA. 466+00.00
STOP GRADING

STA. 610+23.00
END PROJECT



STA. 499+70.00
RESUME GRADING

STA. 575+00.00
END PROJECT BRFN-141-2(58)--39-67

STA. 570+00.00
Begin Project BRFN-141-2(58)--39-67

MILEAGE SUMMARY

105-1
09-27-94

Div.	Location	Lin. Ft.	Miles
1	Rural:		
	Sta. 456+50.00 to Sta. 610+23.00	15,373.00	2.911
	Omit Sta. 466+00.00 to Sta. 499+70.00	3,370.00	0.638
	RCB (By Others) Sta. 570+00 to 575+00	500.00	0.095
	Total Net Length of Roadway in Project	11,503.00	2.178
	Total Net Length Omitted	3,370.00	0.638
	Total Net Length By Others	500.00	0.095
	Total Net Length of Project	15,373.00	2.911

For Project Location Map
Refer to Sheet A.2

DESIGN DATA RURAL

2019 AADT	1033	V.P.D.
2039 AADT	1220	V.P.D.
2039 DHV	126	V.P.H.
TRUCKS	19	%
Total Design ESALs	--	

LOCATION MAP SCALE
0 1 2 3
Miles

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	Brian T. Higginbotham	Primary Signature Block

PRELIMINARY PLANS

Subject to change by final design.

D5 – Date: 08/14/2017 (REV.)

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER A.1

5:39:40 PM 8/14/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096a01.sht

STA. 456+50.00
BEGIN PROJECT

STA. 466+00.00
STOP GRADING

STA. 610+23.00
END PROJECT

575+00.00
END PROJECT
BRNF-141-2(58)--39-67

STA. 570+00.00
BEGIN PROJECT
BRNF-141-2(58)--39-67

STA. 499+70.00
RESUME GRADING

R-45W R-44W R-43W R-42W

T-85N

T-84N

T-83N

W E S T F O R K

K E N N E B E C

B E L V I D E R E

M A P L E G R A N T

C E N T E R

S T C L A I R

J O R D A N

C O O P E R

S O L D I E R

RODNEY
POP. 50

TICONIC

CASTANA
POP. 147

MAPLETON
POP. 1224

JAMES G. WHITING MEMORIAL FIELD

ONAWA
POP. 2998

TURIN
POP. 68

UTE
POP. 374

SYLVAN RUNKEL STATE PRESERVE

Little Stock River

Outlet Creek

Beaver Creek

Stock Creek

Rush Creek

N

LOCATION MAP SCALE
0 1 2 3
Miles

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER A.2

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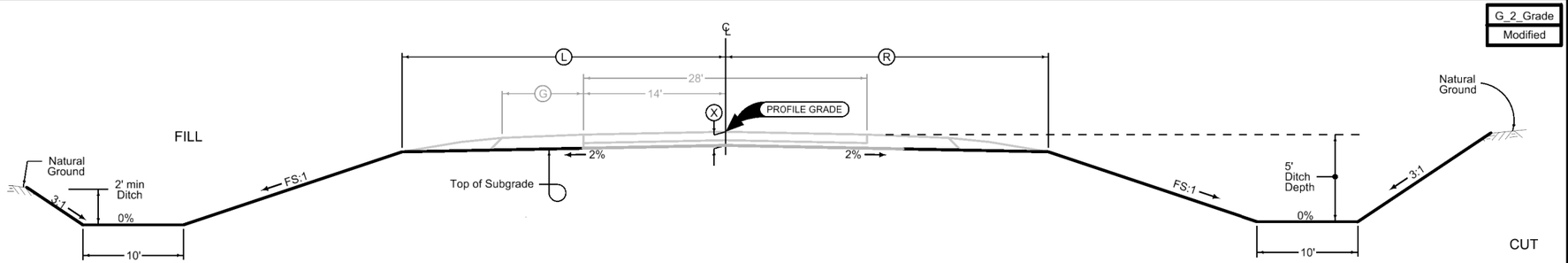
LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	FS
IA 141	456+50.00	466+00.00	26	26	12	4
IA 141	499+70.00	610+23.00	26	26	12	4



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

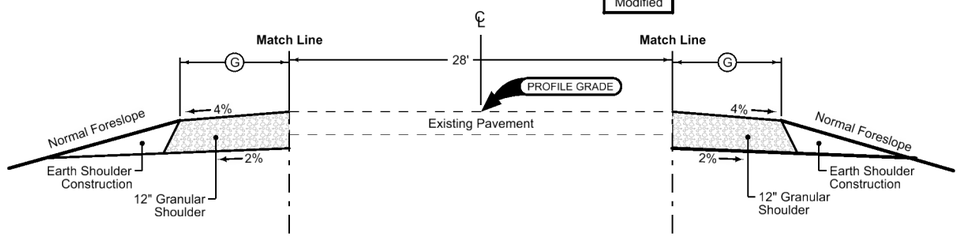
See plan & profile sheets and cross sections for additional details of ditches and backslopes.

2 LANE GRADING

Granular Shoulder

		2_G_ Modified
STATION TO STATION		(G) Feet
499+70.00	556+50.00	6
563+50.00	610+23.00	6

2E_ Modified



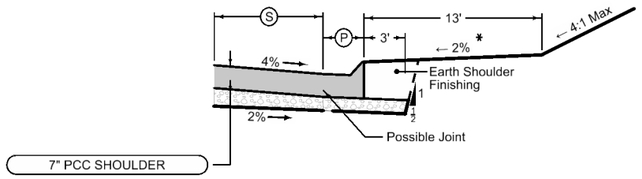
Granular Shoulder

		2_G_ Modified
STATION TO STATION		(G) Feet
456+50.00	466+00.00	6
499+70.00	503+50.00	6
507+80.00	610+23.00	6

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

IA HWY 141



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_ MOD
STATION TO STATION		(P) Feet	Curb Type See PV-102	(S) Feet
503+50	507+80	1	4" SLOPE	6

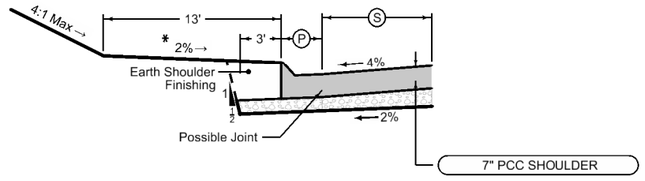
* REFER TO CROSS SECTION FOR MORE DETAILS OF 2% CROSS SLOPE

Curbed Shoulder

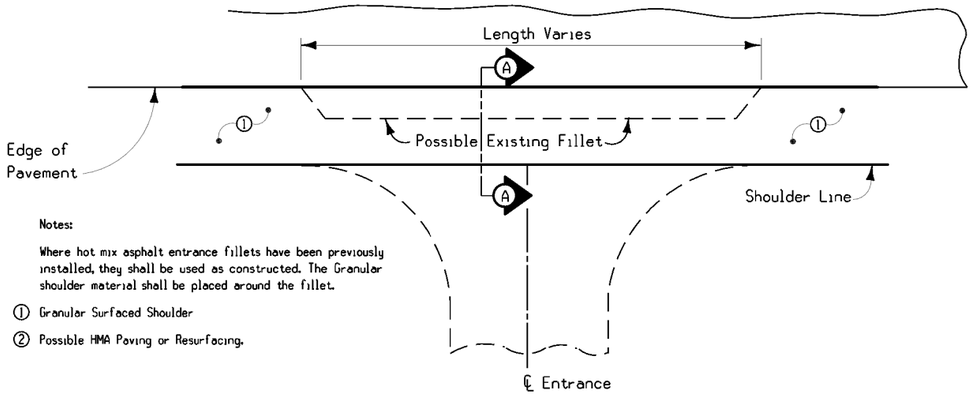
Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

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

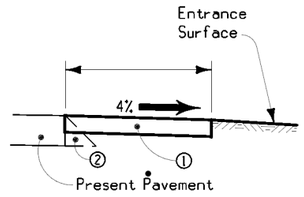
				2_Curb_ MOD
STATION TO STATION		(P) Feet	Curb Type See PV-102	(S) Feet
556+50	563+50	1	4" SLOPE	6



7117
10-02-01

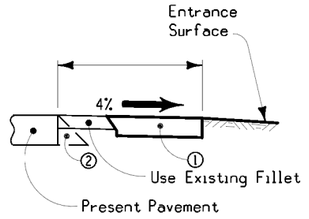


Plan



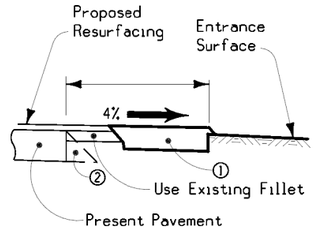
Section A-A

Without Fillet



Section A-A

With Previous Fillet

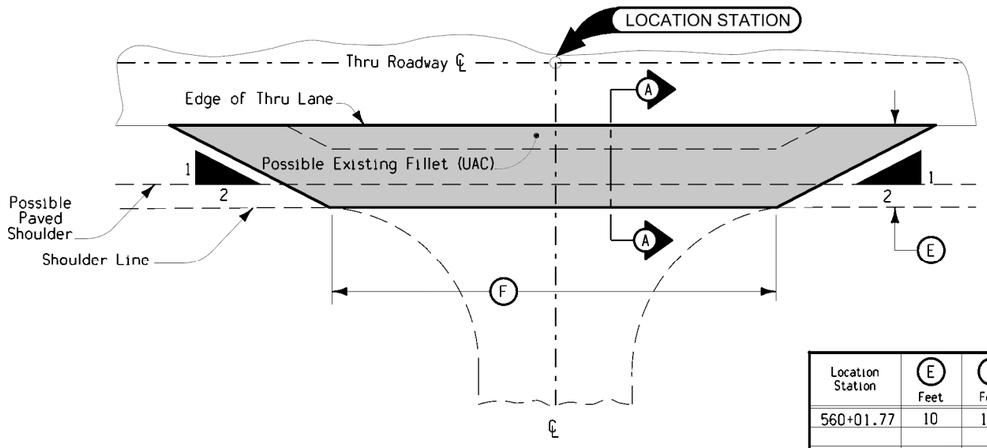


Section A-A

With Previous Fillet
And Resurfacing Less than 1½"

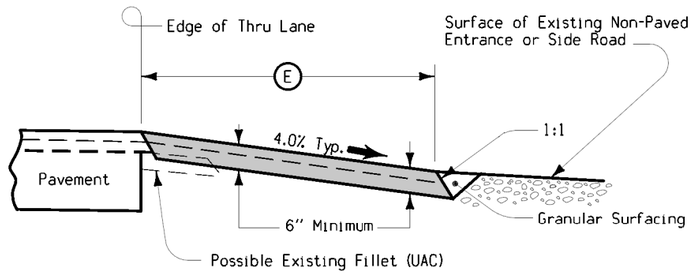
GRANULAR SHOULDER CONSTRUCTION THRU ENTRANCES

7148
10-21-14



PLAN

Location Station	E Feet	F Feet
560+01.77	10	100



SECTION A-A

Special shaping of existing surface prior to placement of fillet may be required by the Engineer and is incidental to other work on the project.

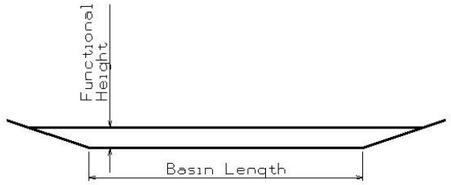
Quantites included with mainline quantities.

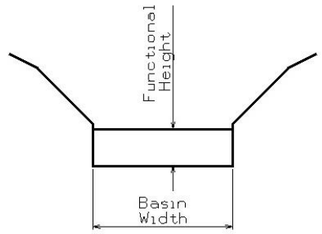
FILLET FOR NON-PAVED ENTRANCES OR SIDE ROADS

100-14
10-18-16

SILT BASINS

Possible Standard: EW-403





* The functional height used in the volume equation is 95% of effective height. Effective height is 3 feet as shown in EW-403.
* Volume equation: (0.5*Length*(Width*Height+Width*(Height-Length*Avg%Slope))

Basin No.	Location		Bid Items		Stormwater Storage Volume Summary					Remarks
	Station	Side	Installation	Removal	Basin Width	Basin Length	Height	Avg. % Slope	Volume*	
			EACH	EACH	FT	FT	FT		CF	
3	503+70	LT	1		10.0	50.0	2.85	0.5%	1362.5	
4	520+95	LT	1		10.0	50.0	2.85	0.9%	1315.0	
6	549+50	LT	1		10.0	50.0	2.85	1.0%	1300.0	
11	513+00	RT	1		10.0	50.0	2.85	2.0%	1175.0	
13	533+25	RT	1		10.0	50.0	2.85	0.4%	1380.0	

100-16
10-19-10

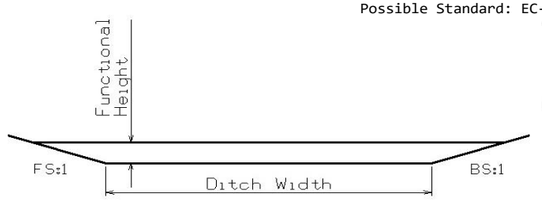
TABULATION OF INTERCEPTING DITCHES

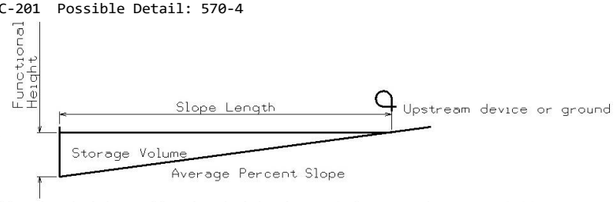
Location		Side	Length	Remarks
Station	to Station		LF	
504+50	509+00	LT	450.0	
546+00	552+50	RT	650.0	
554+50	558+00	LT	350.0	
575+00	586+50	LT	1150.0	

100-18
10-18-16

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201 Possible Detail: 570-4





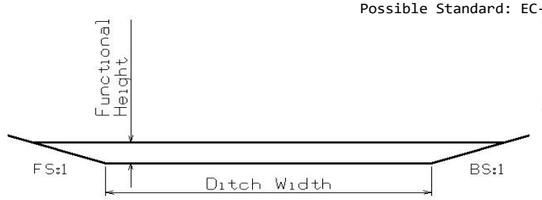
* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

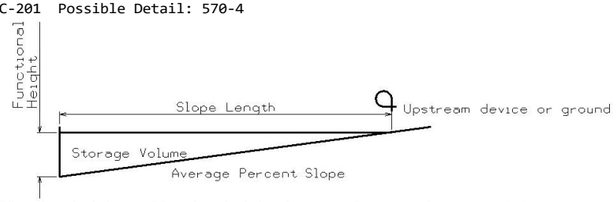
Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks
		Station	Side	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
				LF	LF	LF	FS:1	BS:1	FT		CF	
1	1	457+30	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.8%	394.9	
1	1	457+70	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.8%	394.9	
1	1	458+10	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.8%	394.9	
1	1	458+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.8%	394.9	
1	1	460+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
1	1	460+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
1	1	460+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
1	1	461+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	0.5%	1382.0	
1	1	462+40	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
1	1	462+65	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
1	1	462+90	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
1	1	463+15	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
1	1	463+40	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
1	1	463+65	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
1	1	463+90	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
1	1	464+15	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
2	1	501+10	LT	24.0	2.4	12.0	4.0	3.0	10.0	0.5%	2764.0	
3	1	502+65	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.9%	345.5	
3	1	503+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.9%	345.5	
3	1	503+35	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.9%	345.5	
3	1	509+10	LT	24.0	2.4	12.0	4.0	3.0	10.0	1.4%	987.1	

100-18
10-18-16

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201 Possible Detail: 570-4





* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks
		Station	Side	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
				LF	LF	LF	FS:1	BS:1	FT		CF	
3	1	510+10	LT	24.0	2.4	12.0	4.0	3.0	10.0	1.4%	987.1	
3	1	511+30	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.6%	493.6	
3	1	511+80	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.6%	493.6	
3	1	512+30	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.6%	493.6	
4	1	513+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.5%	493.6	
4	1	513+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.5%	493.6	
4	1	514+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.5%	493.6	
4	1	514+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.5%	493.6	
4	1	514+95	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.5%	493.6	
4	1	515+30	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.8%	345.5	
4	1	515+65	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.8%	345.5	
4	1	516+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.8%	345.5	
4	1	519+55	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.9%	345.5	
4	1	519+90	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.9%	345.5	
4	1	520+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.9%	345.5	
4	1	520+60	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.9%	345.5	
4	1	522+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	0.9%	1530.1	
4	1	524+05	LT	24.0	2.4	12.0	4.0	3.0	10.0	0.9%	1530.1	
4	1	528+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.3%	592.3	
4	1	528+60	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.3%	592.3	
5	1	529+45	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.0%	444.2	

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201 Possible Detail: 570-4

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks
		Station	Side	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
				LF	LF	LF	FS:1	BS:1	FT		CF	
5	1	529+90	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.0%	444.2	
5	1	530+35	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.0%	444.2	
5	1	530+80	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.0%	444.2	
5	1	531+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.0%	444.2	
5	1	531+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.0%	444.2	
5	1	532+05	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.5%	246.8	
5	1	532+30	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.5%	246.8	
5	1	532+55	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.5%	246.8	
5	1	532+80	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.5%	246.8	
5	1	533+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.4%	592.3	
5	1	534+10	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.4%	592.3	
5	1	534+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.4%	592.3	
5	1	535+30	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.4%	592.3	
5	1	535+90	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.4%	592.3	
5	1	536+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.4%	592.3	
5	1	537+10	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.4%	592.3	
5	1	537+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.4%	592.3	
6	1	538+90	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.1%	444.2	
6	1	539+35	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.1%	444.2	
6	1	539+80	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.1%	444.2	
6	1	540+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.1%	444.2	
6	1	540+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.1%	444.2	
6	1	541+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	3.1%	444.2	
6	1	541+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	541+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	541+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	542+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	542+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	542+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	542+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	543+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	543+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	543+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	543+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	544+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	544+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	544+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	544+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
6	1	549+80	LT	24.0	2.4	12.0	4.0	3.0	10.0	1.0%	691.0	
6	1	550+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
6	1	550+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
6	1	551+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
6	1	551+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
6	1	551+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
6	1	551+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
6	1	552+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
6	1	552+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
6	1	552+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
7	1	553+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	553+30	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	553+60	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	553+90	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	554+20	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	554+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	554+80	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	555+10	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	555+40	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	555+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	556+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	556+30	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	

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SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201 Possible Detail: 570-4

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks
		Station	Side	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
				LF	LF	LF	FS:1	BS:1	FT		CF	
7	1	556+60	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	556+90	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	557+20	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
7	1	557+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
7	1	557+80	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
7	1	558+10	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
7	1	558+40	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
7	1	558+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
7	1	559+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
7	1	559+30	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
7	1	559+60	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
7	1	559+90	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
7	1	560+20	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
7	1	562+20	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	562+55	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	562+90	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	563+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	563+60	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	563+95	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	564+30	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	565+35	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	565+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	566+05	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	566+40	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	566+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	567+10	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	567+45	LT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
7	1	567+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.1%	246.8	
7	1	568+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.1%	246.8	
7	1	568+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.1%	246.8	
7	1	568+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.1%	246.8	
7	1	568+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.1%	246.8	
7	1	569+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	6.1%	246.8	
7	1	569+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
7	1	569+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
7	1	569+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
7	1	570+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	575+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.5%	246.8	
8	1	575+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.5%	246.8	
8	1	575+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.5%	246.8	
8	1	575+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.5%	246.8	
8	1	576+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.5%	246.8	
8	1	576+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.5%	246.8	
8	1	576+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.5%	246.8	
8	1	576+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.5%	246.8	
8	1	577+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.5%	246.8	
8	1	577+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.5%	246.8	
8	1	577+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	577+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	578+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	578+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	578+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	578+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	579+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	579+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	579+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	579+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	580+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	580+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	580+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	581+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	581+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	581+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	581+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201 Possible Detail: 570-4

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks
		Station	Side	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
				LF	LF	LF	FS:1	BS:1	FT		CF	
8	1	582+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	582+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	582+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	582+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	583+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	583+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	583+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	583+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	584+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	584+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	584+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	584+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	585+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	585+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	585+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	585+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.9%	246.8	
8	1	586+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
8	1	586+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
8	1	587+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
8	1	587+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
8	1	588+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
8	1	588+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
8	1	589+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
8	1	589+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
8	1	590+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
9	1	591+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.3%	592.3	
9	1	591+60	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.3%	592.3	
9	1	592+20	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.3%	592.3	
9	1	592+80	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.3%	592.3	
9	1	593+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.7%	246.8	
9	1	593+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.7%	246.8	
9	1	593+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.7%	246.8	
9	1	594+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.7%	246.8	
9	1	594+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.7%	246.8	
9	1	594+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.7%	246.8	
9	1	594+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.7%	246.8	
9	1	595+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.7%	246.8	
9	1	595+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.7%	246.8	
9	1	595+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.7%	246.8	
9	1	597+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.7%	246.8	
9	1	597+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.7%	246.8	
9	1	597+75	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.7%	246.8	
9	1	598+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.7%	246.8	
9	1	598+25	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.7%	246.8	
9	1	598+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	7.7%	246.8	
9	1	599+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.0%	345.5	
9	1	599+30	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.0%	345.5	
9	1	599+60	LT	24.0	2.4	12.0	4.0	3.0	10.0	5.0%	345.5	
9	1	600+20	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.8%	493.6	
9	1	600+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.8%	493.6	
9	1	601+20	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.8%	493.6	
9	1	601+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.8%	493.6	
9	1	602+20	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.7%	493.6	
9	1	602+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.7%	493.6	
9	1	603+20	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.7%	493.6	
9	1	603+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.7%	493.6	
9	1	604+20	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.7%	493.6	
9	1	604+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.7%	493.6	
9	1	606+20	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.7%	493.6	
9	1	606+70	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.7%	493.6	
9	1	608+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	0.6%	987.1	
9	1	609+00	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.8%	493.6	
9	1	609+50	LT	24.0	2.4	12.0	4.0	3.0	10.0	2.8%	493.6	

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SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201 Possible Detail: 570-4

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks
		Station	Side	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
				LF	LF	LF	FS:1	BS:1	FT		CF	
10	1	500+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	501+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	501+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	501+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	501+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	502+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	502+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	502+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	502+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	503+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	503+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	503+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	503+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	504+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	504+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.6%	246.8	
10	1	505+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
10	1	506+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
10	1	506+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
10	1	507+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
10	1	507+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
10	1	508+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
10	1	508+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
10	1	509+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
10	1	509+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
11	1	510+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
11	1	510+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
11	1	510+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
11	1	510+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
11	1	514+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
11	1	515+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
11	1	515+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
11	1	515+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.0%	246.8	
12	1	516+30	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.6%	493.6	
12	1	516+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.6%	493.6	
12	1	517+30	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.6%	493.6	
12	1	517+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.6%	493.6	
12	1	518+30	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.6%	493.6	
12	1	518+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.6%	493.6	
12	1	519+30	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.6%	493.6	
12	1	519+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.6%	493.6	
12	1	520+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	1.0%	691.0	
12	1	522+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.2%	592.3	
12	1	526+60	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.2%	592.3	
12	1	523+20	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.2%	592.3	
12	1	523+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.2%	592.3	
12	1	524+40	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.2%	592.3	
12	1	525+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.2%	592.3	
12	1	525+60	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.2%	592.3	
12	1	526+20	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.2%	592.3	
13	1	527+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.0%	740.4	
13	1	528+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.0%	740.4	
13	1	528+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.0%	740.4	
13	1	529+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.0%	740.4	

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201 Possible Detail: 570-4

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks
		Station	Side	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
				LF	LF	LF	FS:1	BS:1	FT		CF	
13	1	533+70	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.0%	394.9	
13	1	534+20	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.0%	394.9	
13	1	538+15	RT	24.0	2.4	12.0	4.0	3.0	10.0	0.7%	1530.1	
14	1	540+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.1%	592.3	
14	1	541+40	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.1%	592.3	
14	1	542+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.1%	592.3	
14	1	542+35	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	542+70	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	543+05	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	543+40	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	543+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	544+10	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	544+45	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	544+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	545+15	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	545+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	545+85	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	546+20	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	546+55	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	546+90	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	547+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	547+60	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	547+95	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	548+30	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	548+65	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	549+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	549+35	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	549+70	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.1%	345.5	
14	1	550+30	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	550+60	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	550+90	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	551+20	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	551+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	551+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	552+10	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	552+40	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	552+70	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	553+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	553+30	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	553+60	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	553+90	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	554+20	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	554+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	554+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	555+10	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	555+40	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	555+70	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	556+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	556+30	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	556+60	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	556+90	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	557+20	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.2%	296.1	
14	1	557+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
14	1	557+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
14	1	558+10	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
14	1	558+40	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
14	1	558+70	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
14	1	559+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
14	1	561+60	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
14	1	561+90	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.3%	296.1	
14	1	562+35	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	562+70	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	563+05	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	563+40	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	

100-18
10-18-16

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201 Possible Detail: 570-4

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks
		Station	Side	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
				LF	LF	LF	FS:1	BS:1	FT		CF	
14	1	563+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	564+10	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	564+45	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	564+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	565+15	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	565+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	565+85	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	566+20	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	566+55	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	566+90	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	567+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	567+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.2%	345.5	
14	1	567+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.1%	246.8	
14	1	568+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.1%	246.8	
14	1	568+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.1%	246.8	
14	1	568+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.1%	246.8	
14	1	568+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.1%	246.8	
14	1	569+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
14	1	569+30	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
14	1	569+60	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
14	1	569+90	RT	24.0	2.4	12.0	4.0	3.0	10.0	5.4%	296.1	
15	1	577+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.3%	444.2	
15	1	578+20	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.3%	444.2	
15	1	570+65	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.3%	444.2	
15	1	579+10	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.3%	444.2	
15	1	579+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	579+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	580+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	580+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	580+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	581+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	582+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	582+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	582+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	582+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	583+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	583+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	583+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	583+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	584+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	584+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	584+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	584+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	585+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	585+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	585+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	585+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	6.8%	246.8	
15	1	586+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
15	1	586+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
15	1	587+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
15	1	587+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
15	1	588+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
15	1	588+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
15	1	589+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
15	1	589+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
15	1	590+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.9%	493.6	
16	1	591+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.3%	592.3	
16	1	591+60	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.3%	592.3	
16	1	592+20	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.3%	592.3	
16	1	592+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.3%	592.3	

SILT FENCES FOR DITCH CHECKS

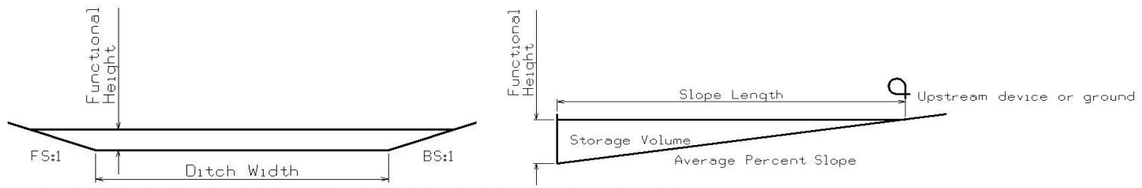
Possible Standard: EC-201 Possible Detail: 570-4

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: $[0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]$

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks
		Station	Side	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
				LF	LF	LF	FS:1	BS:1	FT		CF	
16	1	593+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	7.4%	246.8	
16	1	593+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	7.4%	246.8	
16	1	593+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	7.4%	246.8	
16	1	594+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	7.4%	246.8	
16	1	594+25	RT	24.0	2.4	12.0	4.0	3.0	10.0	7.4%	246.8	
16	1	594+50	RT	24.0	2.4	12.0	4.0	3.0	10.0	7.4%	246.8	
16	1	594+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	7.4%	246.8	
16	1	597+95	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.3%	444.2	
16	1	598+40	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.3%	444.2	
16	1	598+70	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.6%	345.5	
16	1	599+05	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.6%	345.5	
16	1	599+40	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.6%	345.5	
16	1	599+75	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.6%	345.5	
16	1	600+10	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.6%	345.5	
16	1	600+45	RT	24.0	2.4	12.0	4.0	3.0	10.0	4.6%	345.5	
16	1	601+15	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.1%	493.6	
16	1	601+60	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.1%	493.6	
16	1	603+00	RT	24.0	2.4	12.0	4.0	3.0	10.0	1.0%	1530.1	
16	1	604+60	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.2%	592.3	
16	1	605+20	RT	24.0	2.4	12.0	4.0	3.0	10.0	2.2%	592.3	
16	1	605+80	RT	24.0	2.4	12.0	4.0	3.0	10.0	3.1%	444.2	

ROCK CHECK DAM

Possible Detail: 570-2

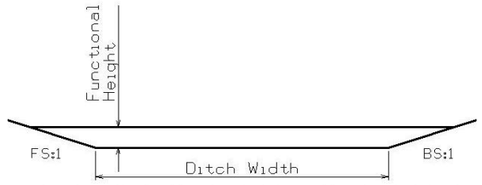


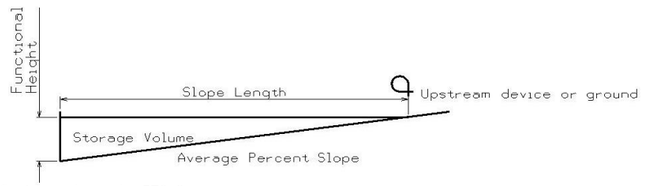
* The functional height used in the volume equation is 90% of effective height. Effective height is 2 feet as shown in 570-2.
* Volume equation: $[0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]$

Basin No.	Location			Bid Items			Stormwater Storage Volume Summary					Remarks
	Station	Side	Offset	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
			FT	LF	Each	Each	FS:1	BS:1	FT		CF	
1	459+06.25	RT	74.6	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
1	459+26.25	RT	82.9	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
1	459+46.25	RT	91.3	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
1	464+35	RT	80.8	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
1	464+55	RT	76.3	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
1	464+75	RT	71.5	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	504+93	LT	132.2	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	505+13	LT	128.6	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	505+33	LT	123.1	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	505+53	LT	117.1	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	505+73	LT	111.3	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	505+93	LT	105.4	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	506+13	LT	99.6	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	506+33	LT	94.2	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	506+53	LT	88.8	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	506+73	LT	83.3	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	506+93	LT	77.9	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	507+13	LT	72.3	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	

ROCK CHECK DAM

Possible Detail: 570-2





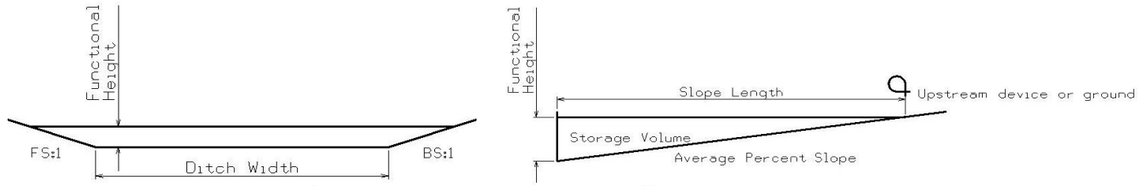
* The functional height used in the volume equation is 90% of effective height. Effective height is 2 feet as shown in 570-2.

* Volume equation: $[0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]$

Basin No.	Location			Bid Items			Stormwater Storage Volume Summary					Remarks
	Station	Side	Offset	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
			FT	LF	Each	Each	FS:1	BS:1	FT		CF	
3	507+33	LT	66.5	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	507+53	LT	60.8	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	507+73	LT	55.1	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
3	507+93	LT	49.2	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
4	525+66	LT	138.6	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
4	525+86	LT	132.5	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
4	526+06	LT	126.4	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
4	526+26	LT	120.0	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
4	526+46	LT	113.6	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
4	526+66	LT	106.8	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
4	526+86	LT	99.5	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
4	527+06	LT	92.1	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
4	527+26	LT	84.5	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
4	527+46	LT	76.5	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
6	545+26	LT	173.9	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	454+46	LT	169.5	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	545+66	LT	165.2	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	545+86	LT	161.0	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	546+06	LT	156.7	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	546+26	LT	152.3	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	546+46	LT	147.9	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	546+66	LT	143.5	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	546+86	LT	139.1	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	547+06	LT	134.7	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	547+26	LT	130.1	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	547+46	LT	125.5	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	547+66	LT	121.1	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	547+86	LT	116.6	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	548+06	LT	112.1	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
6	548+26	LT	107.6	7.5	3	3	4.0	3.0	10.0	9.6%	293.4	
9	595+76	LT	57.6	7.5	3	3	4.0	3.0	10.0	9.3%	293.4	
9	595+96	LT	60.2	7.5	3	3	4.0	3.0	10.0	9.3%	293.4	
9	596+16	LT	62.8	7.5	3	3	4.0	3.0	10.0	9.3%	293.4	
9	596+36	LT	65.6	7.5	3	3	4.0	3.0	10.0	9.3%	293.4	
9	596+56	LT	68.5	7.5	3	3	4.0	3.0	10.0	9.3%	293.4	
9	596+76	LT	71.5	7.5	3	3	4.0	3.0	10.0	9.3%	293.4	
11	511+23	RT	72.3	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
11	511+43	RT	79.6	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
11	511+63	RT	86.9	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
11	511+83	RT	93.8	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
11	512+03	RT	100.7	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
11	512+23	RT	108.0	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
11	512+43	RT	115.4	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
11	513+54	RT	117.5	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
11	513+74	RT	109.7	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
11	513+94	RT	101.7	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
11	514+14	RT	93.6	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
11	514+34	RT	85.1	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	

ROCK CHECK DAM

Possible Detail: 570-2



* The functional height used in the volume equation is 90% of effective height. Effective height is 2 feet as shown in 570-2.

* Volume equation: $[0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]$

Basin No.	Location			Bid Items			Stormwater Storage Volume Summary					Remarks
	Station	Side	Offset	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg. % Slope	Volume*	
			FT	LF	Each	Each	FS:1	BS:1	FT		CF	
13	529+96	RT	51.9	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	530+16	RT	56.9	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	530+36	RT	62.1	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	530+56	RT	67.3	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	530+76	RT	72.4	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	530+96	RT	77.5	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	531+16	RT	82.6	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	531+36	RT	87.8	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	531+56	RT	92.9	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	531+76	RT	97.9	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	531+96	RT	102.9	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	532+16	RT	108.1	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	532+36	RT	113.3	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	532+56	RT	118.6	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	532+76	RT	124.5	7.5	3	3	4.0	3.0	10.0	9.9%	293.4	
13	534+74	RT	108.3	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
13	534+94	RT	101.9	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
13	535+14	RT	95.5	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
13	535+34	RT	89.8	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
13	535+54	RT	83.9	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
13	535+74	RT	78.0	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
13	535+94	RT	72.4	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
13	536+14	RT	66.8	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
13	536+34	RT	31.3	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
13	536+54	RT	55.9	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
13	536+74	RT	50.2	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
15	575+04	RT	86.6	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
15	575+24	RT	83.4	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
15	575+44	RT	80.1	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
15	575+64	RT	76.8	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
15	575+84	RT	73.5	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
15	576+04	RT	70.4	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
15	576+24	RT	67.2	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
15	576+44	RT	64.0	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
15	576+64	RT	60.7	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
15	576+84	RT	57.4	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
15	577+04	RT	54.1	7.5	3	3	4.0	3.0	10.0	10.0%	293.4	
16	595+26	RT	70.4	7.5	3	3	4.0	3.0	10.0	9.8%	293.4	
16	595+46	RT	73.7	7.5	3	3	4.0	3.0	10.0	9.8%	293.4	
16	595+66	RT	76.8	7.5	3	3	4.0	3.0	10.0	9.8%	293.4	
16	595+86	RT	79.8	7.5	3	3	4.0	3.0	10.0	9.8%	293.4	
16	596+06	RT	82.8	7.5	3	3	4.0	3.0	10.0	9.8%	293.4	
16	596+26	RT	85.9	7.5	3	3	4.0	3.0	10.0	9.8%	293.4	
16	596+46	RT	89.2	7.5	3	3	4.0	3.0	10.0	9.8%	293.4	
16	596+66	RT	92.5	7.5	3	3	4.0	3.0	10.0	9.8%	293.4	
16	596+86	RT	95.9	7.5	3	3	4.0	3.0	10.0	9.8%	293.4	
16	597+06	RT	99.3	7.5	3	3	4.0	3.0	10.0	9.8%	293.4	
16	597+26	RT	102.9	7.5	3	3	4.0	3.0	10.0	9.8%	293.4	

STORMWATER DRAINAGE BASIN

Basin No.	Station to Station		Side	Disturbed Area Acres	Discharge Point Station	Discharge Point Side	Required Storage Volume CF	Remarks
1	456+50	466+00	RT	1.7	459+90	RT	6084.0	Sharp Curve up-station from project
2	499+70	502+50	LT	0.7	499+70	LT	2592.0	
3	502+50	512+50	LT	2.3	503+70	LT	8136.0	
4	512+50	529+00	LT	3.5	520+95	LT	12492.0	
5	529+00	538+25	LT	1.3	532+94	LT	4680.0	Water drains through pipe to other side
6	538+25	552+70	LT	3.5	549+50	LT	12528.0	
7	552+70	570+00	LT	3.4	570+00	LT	12276.0	Start Skunk Creek Project
8	575+00	590+40	LT	3.4	575+00	LT	12276.0	End Skunk Creek Project
9	590+40	610+23	LT	2.9	608+65	LT	10404.0	Water drains through pipe to other side
10	499+70	509+75	RT	1.1	499+70	RT	3996.0	
11	509+75	515+80	RT	1.0	513+00	RT	3564.0	
12	515+80	526+50	RT	1.3	521+00	RT	4752.0	Water drains through pipe to other side
13	526+50	539+70	RT	1.3	532+94	RT	4680.0	
14	539+70	570+00	RT	3.4	570+00	RT	12276.0	Start Skunk Creek Project
15	575+00	590+40	RT	2.7	575+00	RT	9828.0	End Skunk Creek Project
16	590+40	608+50	RT	2.8	608+50	RT	10152.0	

SUMMARY OF STORMWATER STORAGE

Basin No.	Item	Total Storage Volume Provided CF	Total Storage Volume Required CF	Remarks
1	Silt Fences for Ditch Checks	5676.0		
	Rock Check Dam	1760.4		
		7436.4	**6084.0**	
2	Silt Fences for Ditch Checks	2764.0		
		2592.0	**2592.0**	
3	Silt Fences for Ditch Checks	4491.5		
	Rock Check Dam	4694.4		
	Silt Basins	1362.5		
		10548.4	**8136.0**	
4	Silt Fences for Ditch Checks	9131.0		
	Rock Check Dam	2934.0		
	Silt Basins	1315.0		
		13380.0	**12492.0**	
5	Silt Fences for Ditch Checks	8390.7		
		8390.7	**4680.0**	
6	Silt Fences for Ditch Checks	9279.1		
	Rock Check Dam	4694.4		
	Silt Basins	1300.0		
		15273.5	**12528.0**	
7	Silt Fences for Ditch Checks	14708.4		
		14708.4	**12276.0**	
8	Silt Fences for Ditch Checks	15053.9		
		15053.9	**12276.0**	
9	Silt Fences for Ditch Checks	15251.3		
	Rock Check Dam	1760.4		
		17011.7	**10404.0**	
10	Silt Fences for Ditch Checks	8143.9		
		8143.9	**3996.0**	
11	Silt Fences for Ditch Checks	1974.3		
	Rock Check Dam	3520.8		
	Silt Basin	1175.0		
		6670.1	**3564.0**	
12	Silt Fences for Ditch Checks	9377.8		
		9377.8	**4752.0**	
13	Silt Fences for Ditch Checks	5281.2		
	Rock Check Dam	7628.4		
	Silt Basin	1380.0		
		14289.6	**4680.0**	
14	Silt Fences for Ditch Checks	26800.8		
		26800.8	**12276.0**	
15	Silt Fences for Ditch Checks	11648.2		
	Rock Check Dam	3227.4		
		14875.6	**9828.0**	
16	Silt Fences for Ditch Checks	11204.0		
	Rock Check Dam	3227.4		
		14431.4	**10152.0**	

SURVEY SYMBOLS

- CUL Culvert
- FW Wire Fence
- PIP Pipe Culvert
- TFR Tree Fruit
- MM Mile Marker Post
- TLNL Tree Line Left
- GDL Guard Rail Steel
- OUT Tile Outlet
- SI Sign
- D Centerline Draw or Stream (Down)
- SNP Unpaved Shoulder
- DU Centerline Draw or Stream (Up)
- SH Paved Shoulder
- EP Edge of Paved Roads (ML or SR)
- EG Edge of Gravel Road
- CON Concrete or A/C Slab
- BNK Stream Bank
- EW Edge of Water
- SP Stream Profile
- GR Ground Shot
- BL Topo Breakline
- C Centerline BL of Road (ML or SR)

UTILITY LEGEND
Survey Information

SUB-SURFACE MAPPING QUALITY LEVEL
LEVEL (A) POTHOLE LOCATION OR ACTUAL XYZ Location
LEVEL (B) UTILITY FLAG LOCATION
LEVEL (C) PLOTTED FROM REFERENCE TO GROUND FEATURES
LEVEL (D) PLOTTED FROM UTILITY MAPS OR HEARSAY

- TPD Telephone Pedestal
- PR Electic Riser Pole
- PPA Power Pole Co. 1
- TR Telephone Riser Pole
- TL1D Telephone Line Co. 1 - Quality D

VERTICAL CONTROL

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

- Rock Ditch and Rock Dam Check
- Silt Fence

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER D.1

4:37:01 PM 11/14/2016 SLR W:\Projects\6714123096\Design\HGM\6714123093_lgd.sht

Curve Data
Δ = 55° 17′ 26.53″ (LT)
T = 300.00
L = 552.70
R = 572.74
E = 73.81

STA. 456+50
BEGIN PROJECT

STA. 466+00
STOP GRADING

PC Sta 452+55.87
PI Sta 453+96.87
PT Sta 455+32.36
PC Sta 459+75.99
PI Sta 465+28.69
PI Sta 462+75.99

Sta. 459+77.00 RT
Remove existing Headwall and pipe (RT)
RT: Install 60′ of 42″ RCP with DR-122 connection to existing 3′x3′ RCB and DR-201 Concrete Apron with 12′ x 12′ x2′ deep splash basin
Elev. at apron end: 1210.78

Type "C" Field Ent. (U.A.C.)

Sta. 465+24.29 RT
Build 56 LF of18″ Dia CMP W/ (2) DR-203 Aprons
Inlet: 465+52.05, off-set: 45.58′, Elev at apron end: 1240.82
Outlet: 464+96.24, off-set: 60.81′, Elev at apron end: 1235.28

468+05.58
3 X 4 X 36.3 RCB
W/ 48″ RCP EXTENSIONS
D.A. = 28 Ac - H

473+73.43
2 X 2 X 52.76 RCB
W/ 30″ RCP Extension
D.A. = 34.6 Ac - H

Cooper TWP.
T-85N R-42W
SEC. 32

0 100 FEET

Sta. 456+50.00
Begin Project

Sta. 456+50.00
Stop Grading

+50 Rt.
1228.60
-3.79% Rt. Ditch Grade

+90 Rt.
1219.50
-10.00% Rt. Ditch Grade

+00 Rt.
1216.10

+90 Rt.
1209.50
+6.00% Rt. Ditch Grade

+40 Rt.
1216.80
+0.50% Rt. Ditch Grade

+20 Rt.
1227.60
+6.00% Rt. Ditch Grade

+00 Rt.
1245.60
+10.00% Rt. Ditch Grade

Ditch Grade | Rock Ditch | Ditch Grade | Rock Ditch

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER D.2

9:25:38 AM 11/17/2016 SLR W:\Projects\6714123096\Design\HGM\6714123096D1.dgn

STA. 499+70.00
RESUME GRADING

POT Sta 1501+31.45

POT Sta 1499+39.27

POT Sta 1497+36.06

499+97 Rt. Prop.
Type F Dike
Elev. =1362.58

502+00 Rt. Prop.
Type "C" Ent.

Sta. 502+00 Rt.
Install 24" X 46' DR-651
Lt. 1368.99
Rt. 1373.55

Sta. 499+98.92
Remove Existing Pipe and Structures
Build 24" CMP DR-632 With
(2) DR-203 Aprons
A=18' B=36' C=4' With
(2) 11.25 Degree Collars
Inlet: Sta. 499+99.64, Off-set: 58.76' Elev: 1359.66 at apron end
Outlet: Sta. 499+75.05, Off-set: 117.94' Elev: 1351.93 at apron end
Install 5'x7' Rock basin at outlet. 1' deep

GROUNDLINE INTERCEPT

PC Sta 501+49.22

PT Sta 504+49.21

PC Sta 502+96.52

503+70.00 Install 10' x 50' Silt Basin

+85.55
Type "C" Res. Ent. (U.A.C.)

Well Heads

Sta. 504+85.55 RT
Remove existing pipe
Build 490 LF of24" Dia CMP W/ (2) DR-203 Aprons
503+00 Outlet (apron end): off-set 38.06', Elev: 1376.43 (64 LF CMP)
503+70 SW-401 Manhole: off-set 26.65', Elev: 1379.14 (130 LF CMP)
505+03.68 SW-512 Intake: off-set 28.89', Elev: 1386.23 (296 LF CMP)
508+05 Inlet (apron end): off-set 31.90', Elev: 1395.00

PC Sta 511+33.04

513+00.00 Install 10' x 50' Silt Basin

PT Sta 514+18.49

PT Sta 512+76.84

Sta. 516+40.65 LT
Build 48LF of 18" Dia CMP W/ (2) DR-203 Aprons
Inlet: 516+18.29, off-set: 50.95', Elev at apron end: 1390.35
Outlet: 516+71.20, off-set: 55.62', Elev at apron end: 1387.81

+40.65
Type "C" Ent. (U.A.C.)

520+96.77
3 X 2 X 53.66 RCB
D.A. = 2 Ac. - H

520+95.00 Install 10' x 50' Silt Basin

+55.72
Type "C" Field Ent. (U.A.C.) 8" Plastic

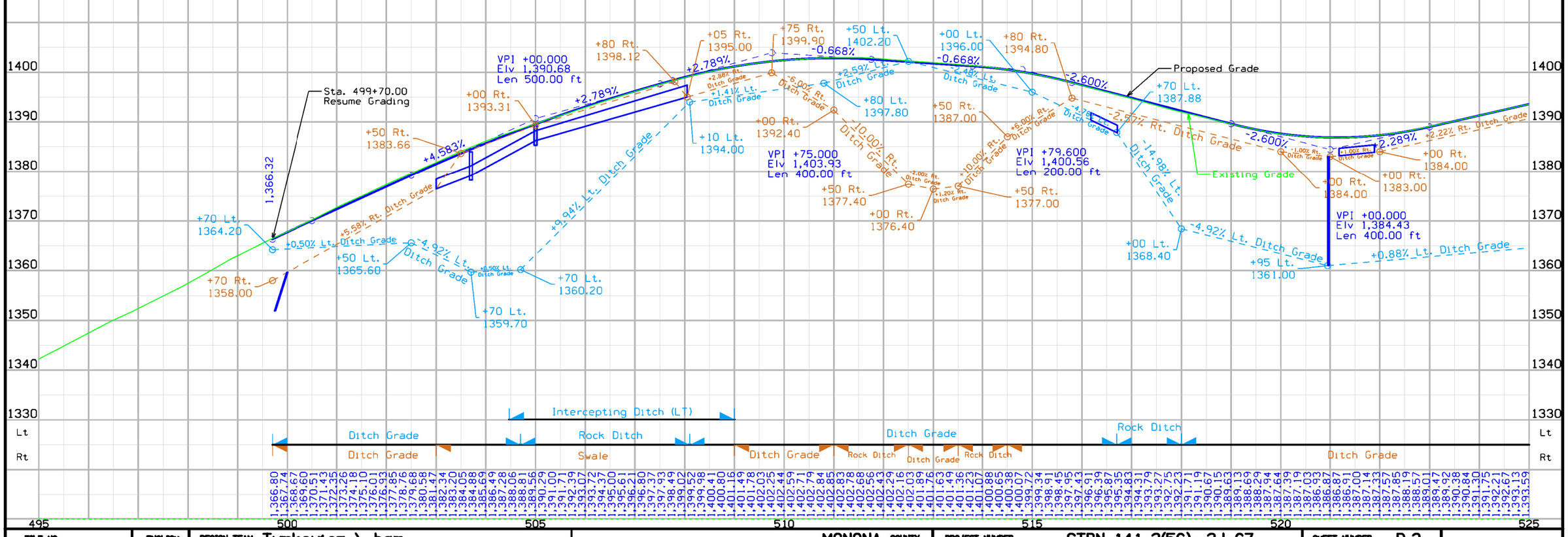
Sta. 520+96.77
Remove existing extensions (Lt and Rt)
Lt: Install 78' of 30" RCP with DR-122 connection to existing 2x2' RCB and DR-201 Concrete Apron.
Elev. at apron end: 1361.02
Rt: Install 4' of 30" RCP with DR-122 connection to existing 2x2' RCB and DR-201 Concrete Apron.
Elev. at apron end: 1383.03

Sta. 521+55.72 RT
Remove existing pipe
Build 68LF of18" Dia CMP W/ (2) DR-203 Aprons
Oulet: 521+15.46, off-set: 39.65', Elev at apron end: 1383.17
Inlet: 521+89.95, off-set: 36.05', Elev at apron end: 1383.89

497+20.93
3 X 2 X 54.56 RCB
W/ 30" RCP Extension
D.A. = 2 Ac. - H
(U.A.C.)

Cooper TWP.
T-85N R-42W
SEC. 33

0 100
FEET



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER D.3

8:09:58 AM 8/16/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096D2.dgn

GROUNDLINE INTERCEPT

532+94.40.
2 X 2 X 63.31 RCB
D.A. = 3.3 Ac - H

533+25.00
Install 10' x 50'
Silt Basin

Sta. 532+94.40
Remove existing headwalls (Lt and Rt)
Lt: Install 18' of 30" RCP with DR-122 connection to existing 2x2' RCB and DR-201 Concrete Apron.
Elev. at apron end: 1374.21
Rt: Install 78' of 30" RCP with DR-122 connection to existing 2x2' RCB and DR-203 CMP Apron.
Elev. at apron end: 1355.80

PI Sta 535+43.27

PI Sta 537+26.06

+25.06
Type "C" Field Ent.
(U.A.C.)

PT Sta 539+08.74

+64.44
Type "C" Field Ent.
(U.A.C.)

513+00.00
Install 10' x 50'
Silt Basin

PI Sta 553+22.52

Clearing and Grubbing

0 100 FEET

+50 Rt. 1394.00 | +2.28% | -3.38% | +80 Lt. 1381.56 | VPI +73.430 Elv 1,379.63 Len 325.00 ft | +00 Rt. 1385.00 | +25 Lt. 1387.00 | +3.00% | +70 Rt. 1387.00 | -3.97% | +00 Rt. 1382.20

+70 Lt. 1387.10 | -1.96% Rt. Ditch Grade | -2.22% Lt. Ditch Grade | -3.01% Lt. Ditch Grade | -9.86% Rt. Ditch Grade | -6.46% Lt. Ditch Grade | +2.41% Lt. Ditch Grade | +0.74% Rt. Ditch Grade | -3.09% Lt. Ditch Grade | -2.09% Rt. Ditch Grade

+00 Lt. 1390.00 | +70 Rt. 1387.74 | +94 Lt. 1374.20 | +00 Lt. 1378.50 | +00 Lt. 1376.50 | -2.00% Lt. Ditch Grade | +00 Lt. 1370.50 | -4.08% Rt. Ditch Grade | -4.00% Lt. Ditch Grade

VPI +75.440
Elv 1,399.89
Len 350.00 ft

+10.05% Lt. Ditch Grade | +50 Lt. 1365.00 | +10.00% Rt. Ditch Grade | +4.00% Rt. Ditch Grade | +50 Rt. 1360.00 | +94 Rt. 1355.80 | +0.36% Rt. Ditch Grade | +50 Rt. 1356.00 | +00 Lt. 1356.50 | -17.20% Lt. | +50 Lt. 1347.90 | +00 Rt. 1349.60 | -10.00% Lt. | +50 Lt. 1337.90 | -20.00% Lt. | +00 Lt. 1327.90 | -11.20% Lt. | +50 Lt. 1322.30 | +50 Lt. 1322.00 | -0.30% Lt. | +70 Lt. 1336.20 | +6.00% Lt. Ditch Grade | +50 Lt. 1323.00 | -5.41% Lt. Ditch Grade | -5.24% Rt. Ditch Grade

VPI +00.000
Elv 1,351.93
Len 600.00 ft

-3.97% | -5.53%

Rock Ditch | Rock Ditch | Ditch Grade | Rock Ditch | Ditch Grade | Rock Ditch | Ditch Grade | Ditch Grade

Lt
Rt

Intercepting Ditch

1394.04 1394.50 1394.96 1395.42 1395.87 1396.30 1396.66 1396.96 1397.19 1397.36 1397.46 1397.50 1397.47 1397.38 1397.22 1397.00 1396.71 1396.36 1395.95 1395.46 1394.92 1394.31 1393.64 1392.96 1392.28 1391.60 1390.93 1390.25 1389.57 1388.89 1388.22 1387.54 1386.86 1386.18 1385.51 1384.83 1384.15 1383.49 1382.95 1382.54 1382.25 1382.08 1382.04 1382.13 1382.27 1382.47 1382.72 1383.02 1383.36 1383.76 1384.20 1384.70 1385.24 1385.83 1386.43 1387.03 1387.63 1388.23 1388.81 1389.34 1389.82 1390.26 1390.65 1390.99 1391.29 1391.54 1391.75 1391.90 1392.02 1392.08 1392.10 1392.07 1392.00 1391.88 1391.71 1391.50 1391.24 1390.93 1390.58 1390.18 1389.73 1389.24 1388.70 1388.12 1387.48 1386.81 1386.08 1385.31 1384.51 1383.72 1382.92 1382.13 1381.34 1380.54 1379.75 1378.95 1378.16 1377.36 1376.57 1375.77 1374.98 1374.18 1373.39 1372.59 1371.80 1371.00 1370.21 1369.41 1368.62 1367.82 1367.03 1366.24 1365.44 1364.65 1363.85 1363.05 1362.24 1361.42 1360.59 1359.75 1358.90 1358.03 1357.16 1356.28 1355.38 1354.48 1353.56 1352.64 1351.70 1350.76 1349.80 1348.84 1347.86 1346.87 1345.87 1344.86 1343.85 1342.82 1341.78 1340.73 1339.67 1338.60 1337.51 1336.42 1335.32 1334.21 1333.11 1332.00 1330.89 1329.78

525 530 535 540 545 550 555

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER D.4

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Sta. 560+72.31 LT
Remove existing pipe
Build 738' of 36" Dia CMP W/ (2) DR-203 Aprons
556+25.00 Inlet (apron end): off-set 46.51', Elev: 1317.08 (418 LF CMP)
560+50.00 SW-512 Intake w/ DR-142 tee and (2) DR-122 connections:
off-set 32.43', Elev: 1293.95 (320 LF CMP)
563+73.00 Outlet (apron end): off-set 40.23', Elev: 1278.73

Refer to
Special Provision for
Vibration Monitoring

Sta. 564+67.10 LT
Remove existing pipe
Build 42' of18" Dia CMP W/ (2) DR-203 Aprons
Inlet: 564+51.49, off-set: 45.06', Elev at apron end: 1274.95
Outlet: 564+97.87, off-set: 44.47', Elev at apron end: 1273.32
EC-301 Splash Basin at Outlet

STA. 575+00.00
End Project BRFN-141-2(58)--37-67

STA. 570+00.00
Begin Project BRFN-141-2(58)--37-67

Sta. 581+29.99 RT
Build 68' of18" Dia CMP W/ (2) DR-203 Aprons
Outlet: 580+81.04, off-set: 69.12', Elev at apron end: 1282.21
Inlet: 581+49.94, off-set: 67.10', Elev at apron end: 1286.87

Cap and Abandon Existing
Pipe at Sta. 580+29.21

Sta. 580+29.21
4.5' x 1.5' X 42.7' RCB
D.A. = 5.9 Ac - H

Clearing and Grubbing

Clearing and Grubbing

555 560 565 570 575 580 585

PI Sta 560+53.12

PI Sta 566+34.62

PI Sta 584+24.53

PI Sta 569+28.99

PC Sta 574+49.34

PI Sta

+72.31
Type "C" Residential Ent.
(U.A.C.)
21" X 53.2' Iron Pipe

+67.10
Type "C" Field Ent.
(U.A.C.)
18" X 60.8' C.M.P.

24" X 37.3' C.M.P.
18" X 32.28' VIT
24" X 44.37' C.M.P.

+29.99
Type "C" Field Ent.
(U.A.C.)

36" X 59.52' C.M.P.

24" X 14.1' C.M.P.
+51.07

POT Sta 2559+71.12

2559

18" X 19.0' C.M.P.
+12.27
Type "C" Field Ent.
(U.A.C.)

2558

POT Sta 2557+11.52

PC Sta 563+38.12

560+01.23, 68.79 Rt.
24" X 28.0' C.M.P.
D.A. = 15.6 Ac - H

Sta. 559+51.06 RT
Remove Existing Pipe
Build 34' of 24" CMP W/ (2) DR-203 Aprons
Inlet: 559+26.18, off-set: 42.91', Elev at apron end: 1300.06
Outlet: 559+81.76, off-set: 62.69, Elev at apron end: 1299.40

Sta. 561+12.27 RT
Remove existing pipe
Build 40' of18" Dia CMP W/ (2) DR-203 Aprons
Inlet: 560+92.92, off-set: 44.00', Elev at apron end: 1291.23
Outlet: 561+39.24, off-set: 41.76', Elev at apron end: 1289.51

Sta. 560+01.77 RT (sideroad)
LT: Install (1) DR-203 apron to end of existing 24" CMP
RT: Install 6' of 24" CMP at the end of existing 24"
CMP and (1) DR-203 apron

0 100 FEET

+50 Lt.
1320.39

+25 Rt.
1311.60

+25 Lt.
1317.08

-5.32% Rt. Ditch Grade

+50 Lt.
1298.80

VPI +00.000
Elv 1,291.03
Len 200.00 ft

-5.36%

+00 Rt.
1286.30

-4.61%

+50 Lt.
1284.55

+75 Lt.
1277.63

-4.22% Rt. Ditch Grade

-4.40% Lt. Ditch Grade

+50 Rt.
1263.10

+50 Lt.
1262.20

+00 Lt.
1253.92

+00 Rt.
1253.90

+00 Lt.
1248.00

+00 Rt.
1248.50

VPI +53.900
Elv 1,242.42
Len 325.00 ft

-4.61%

+00 Rt.
1241.47

+00 Lt.
1238.00

Sta. 570+00.00
Begin Project BRFN-141-2(58)--39-67

Sta. 575+00.00
End Project BRFN-141-2(58)--39-67

+00 Lt.
1250.75

+00 Lt.
1258.20

+00 Rt.
1233.00

+00 Lt.
1241.58

+5.98%

+30 Rt.
1266.00

+50 Rt.
1273.33

+5.94% Lt. Ditch Grade

+6.76% Rt. Ditch Grade

Intercepting Ditch

Swale

Ditch Grade

Ditch Grade By Others

Ditch Grade By Others

Intercepting Ditch

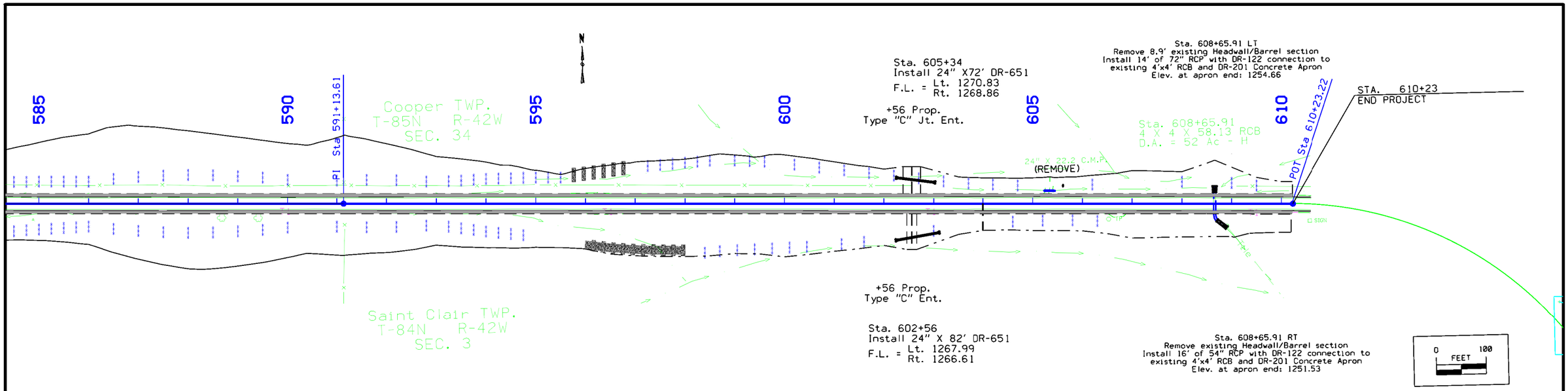
Rock Ditch

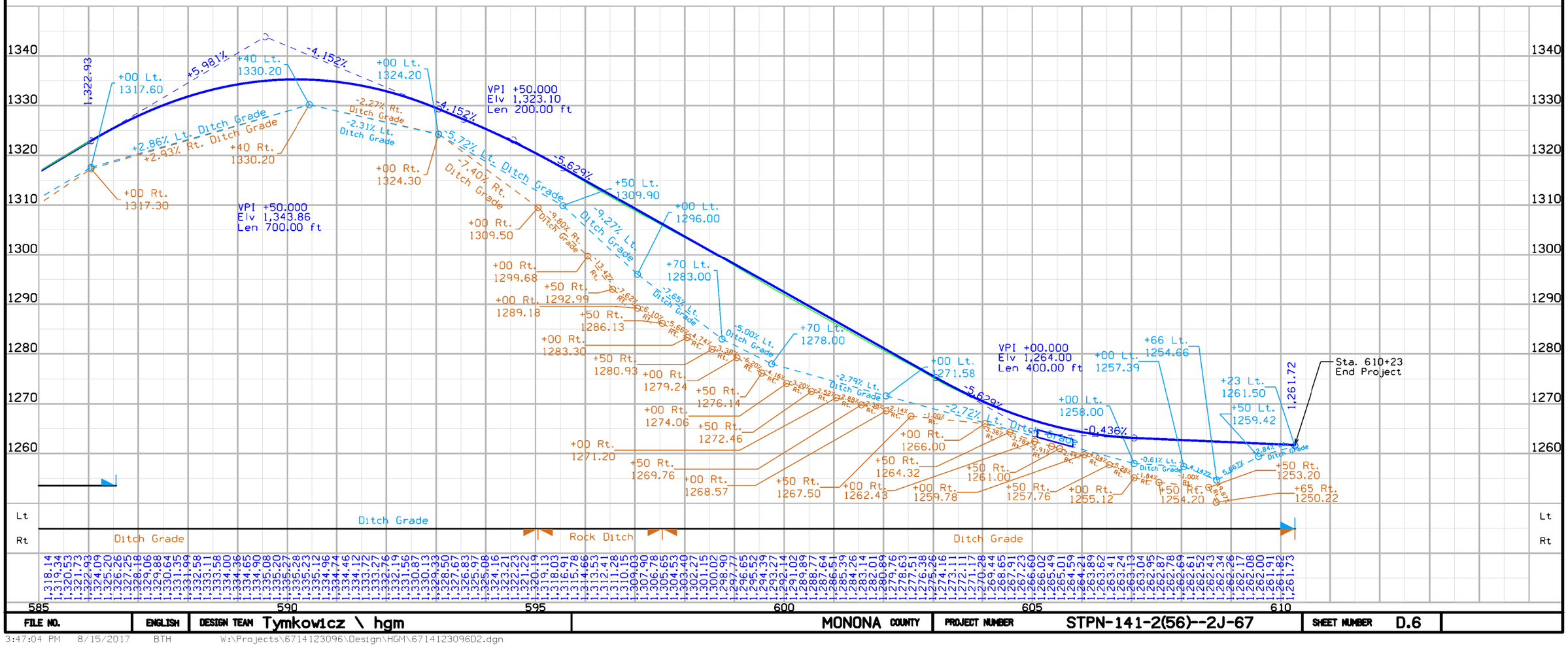
Lt

Rt

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER D.5

2:30:21 PM 5/25/2017 slr W:\Projects\6714123096\Design\HGM\6714123096D2.dgn





FILE NO.	ENGLISH	DESIGN TEAM	MONONA COUNTY	PROJECT NUMBER	SHEET NUMBER
		Tymkowicz \ hgm		STPN-141-2(56)--2J-67	D.6

3:47:04 PM 8/15/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096D2.dgn

108-23A
08-01-08

TRAFFIC CONTROL PLAN

Iowa 141 will be open to traffic during construction.

Construction staging during shouldering and grading operations will require the utilization of the TC-214 Standard Road Plan. One Lane of traffic will be closed during the shouldering and grading operations while utilizing a pilot car and flaggers. Contractor shall maintain access to all properties and all sideroads at all times during construction. Two-way, two-lane traffic shall be re-established at the end of each day.

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
BRFN-141-2(58)--39-67	RCB Culvert Replacement

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)
- SLOPE DRESSING — Slope Dressing Only
- 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

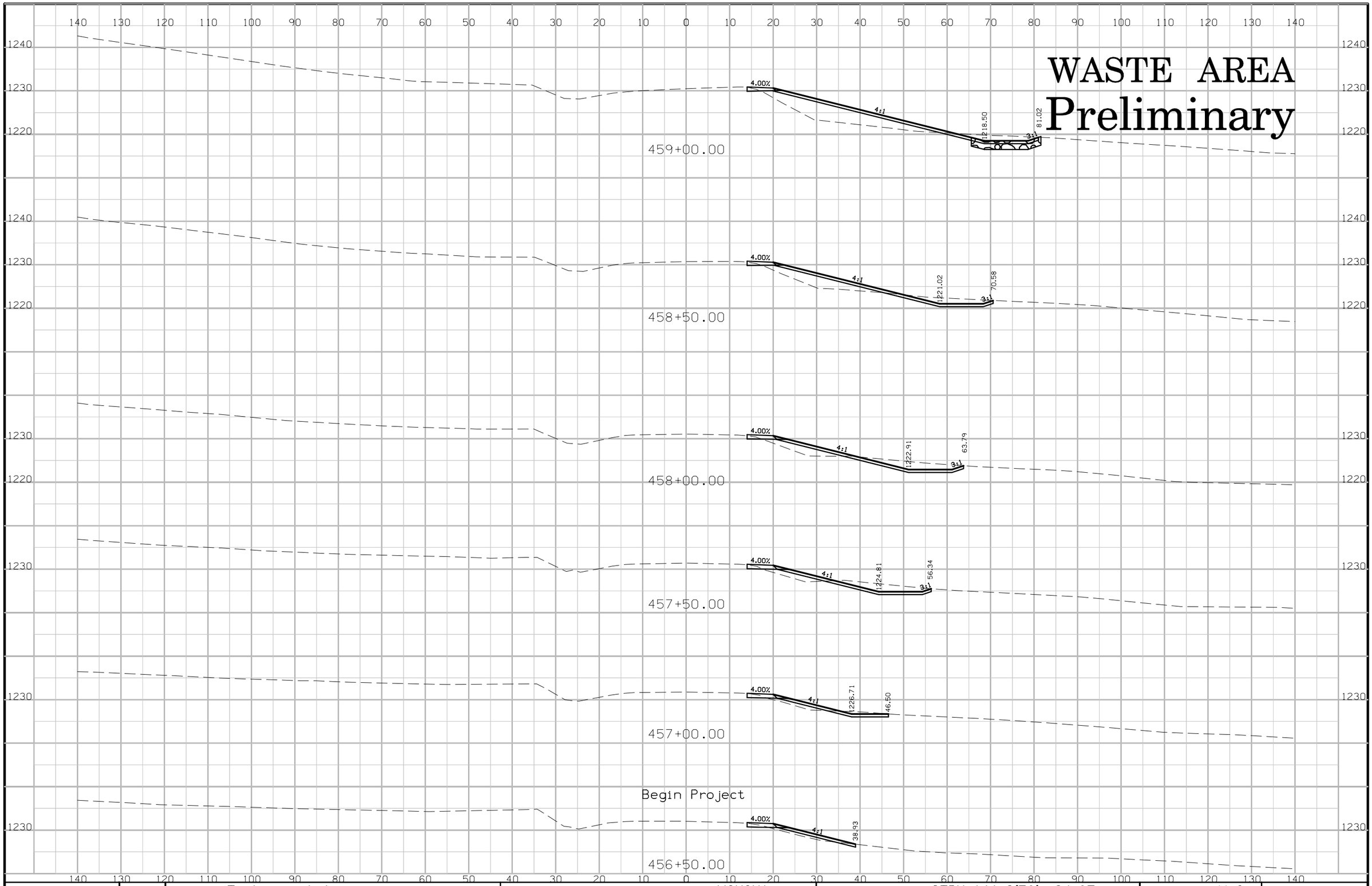
CROSS SECTION LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER W.1

4:49:47 PM 4/1/2016 SLR W:\Projects\6714123096\Design\HGM\6714123093_lgd.sht

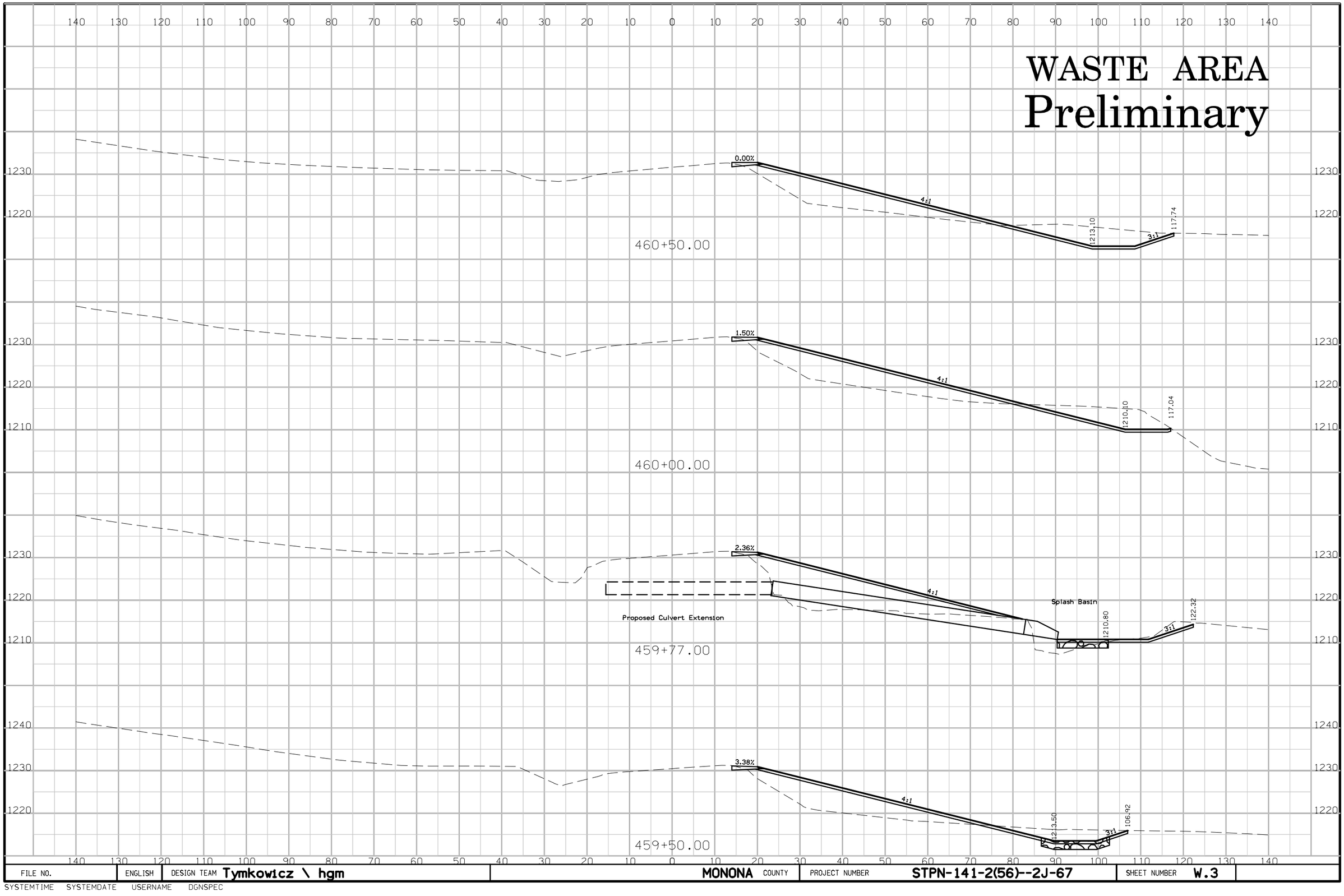
WASTE AREA
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER W.2

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

WASTE AREA
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER W.3

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

WASTE AREA
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

1240
1230
1220

462+50.00

0.00%
4:1
1217.40
3:1
1217.29

462+00.00

0.00%
4:1
1216.60
3:1
1212.78

461+50.00

0.00%
4:1
1216.35
3:1
1209.97

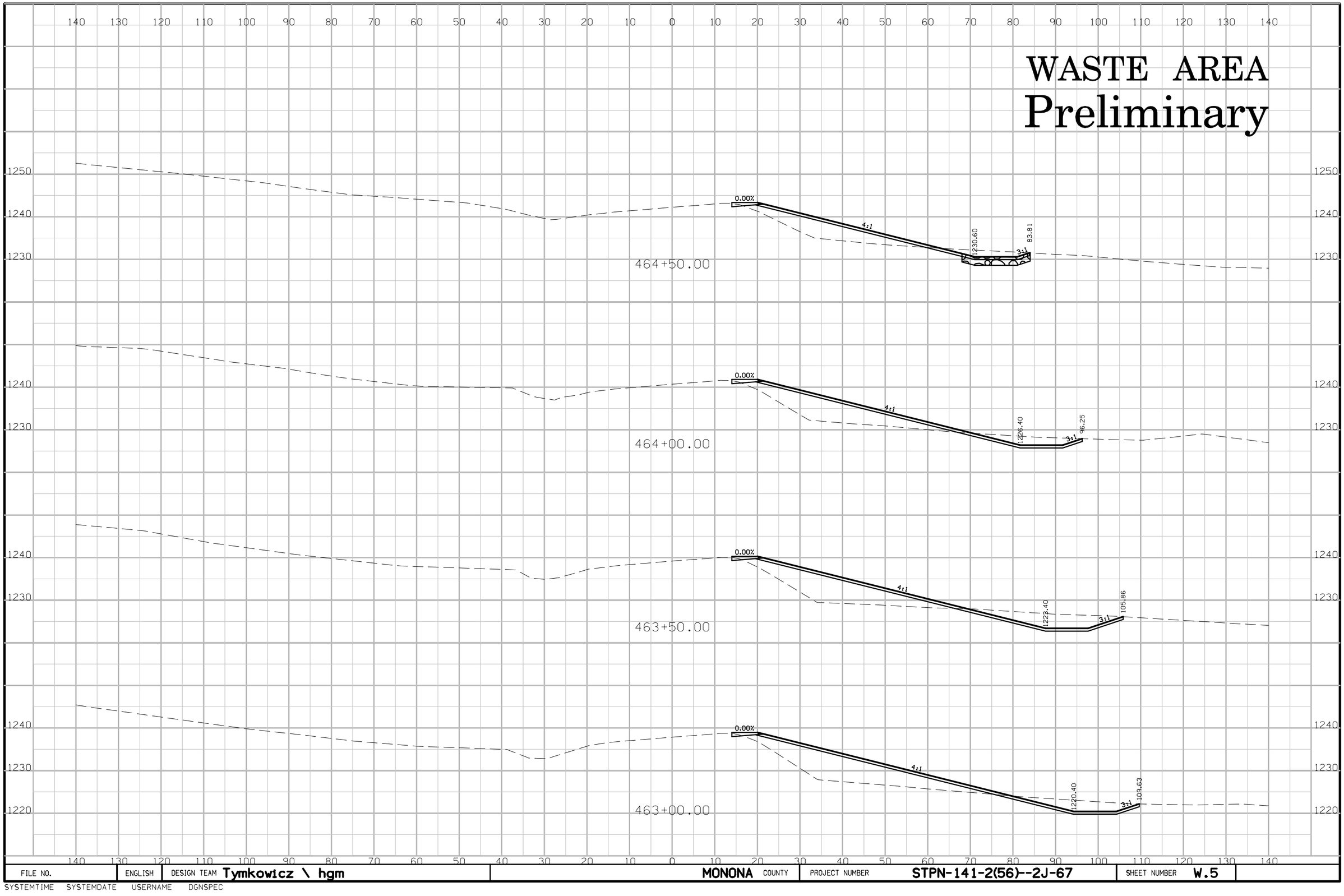
461+00.00

0.00%
4:1
1216.10
3:1
1207.30

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER W.4

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

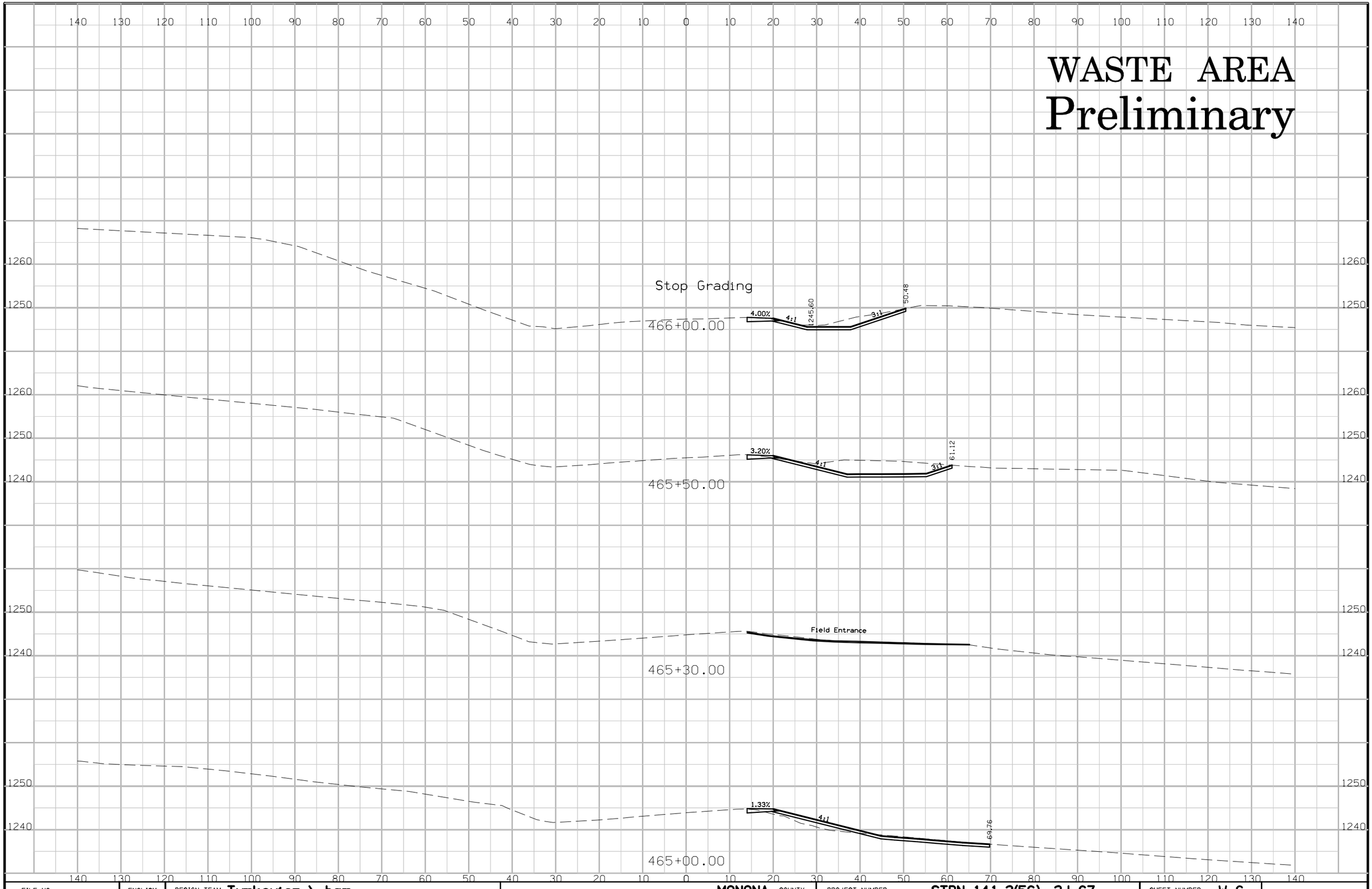
WASTE AREA
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER W.5

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

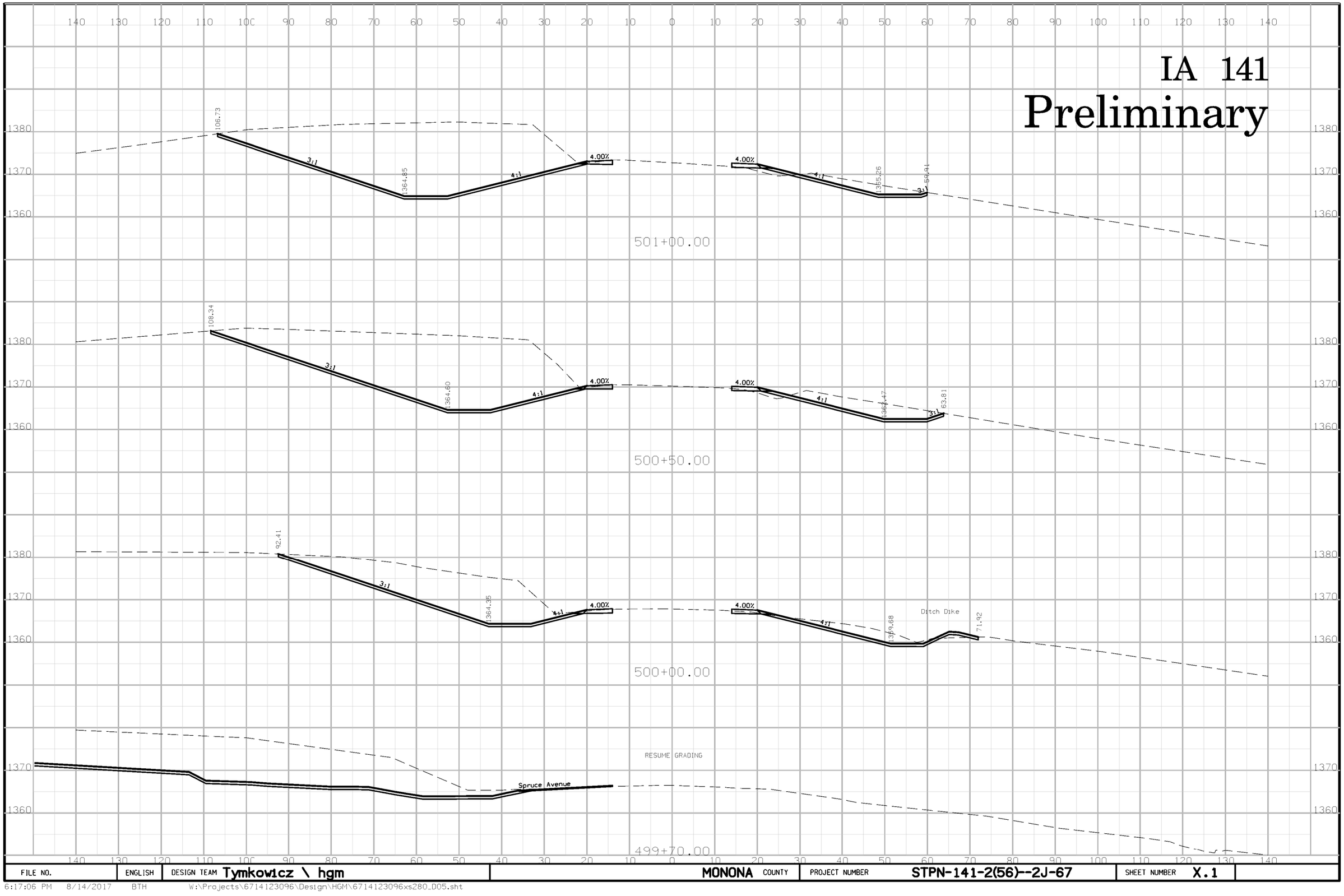
WASTE AREA
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER W.6

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.1

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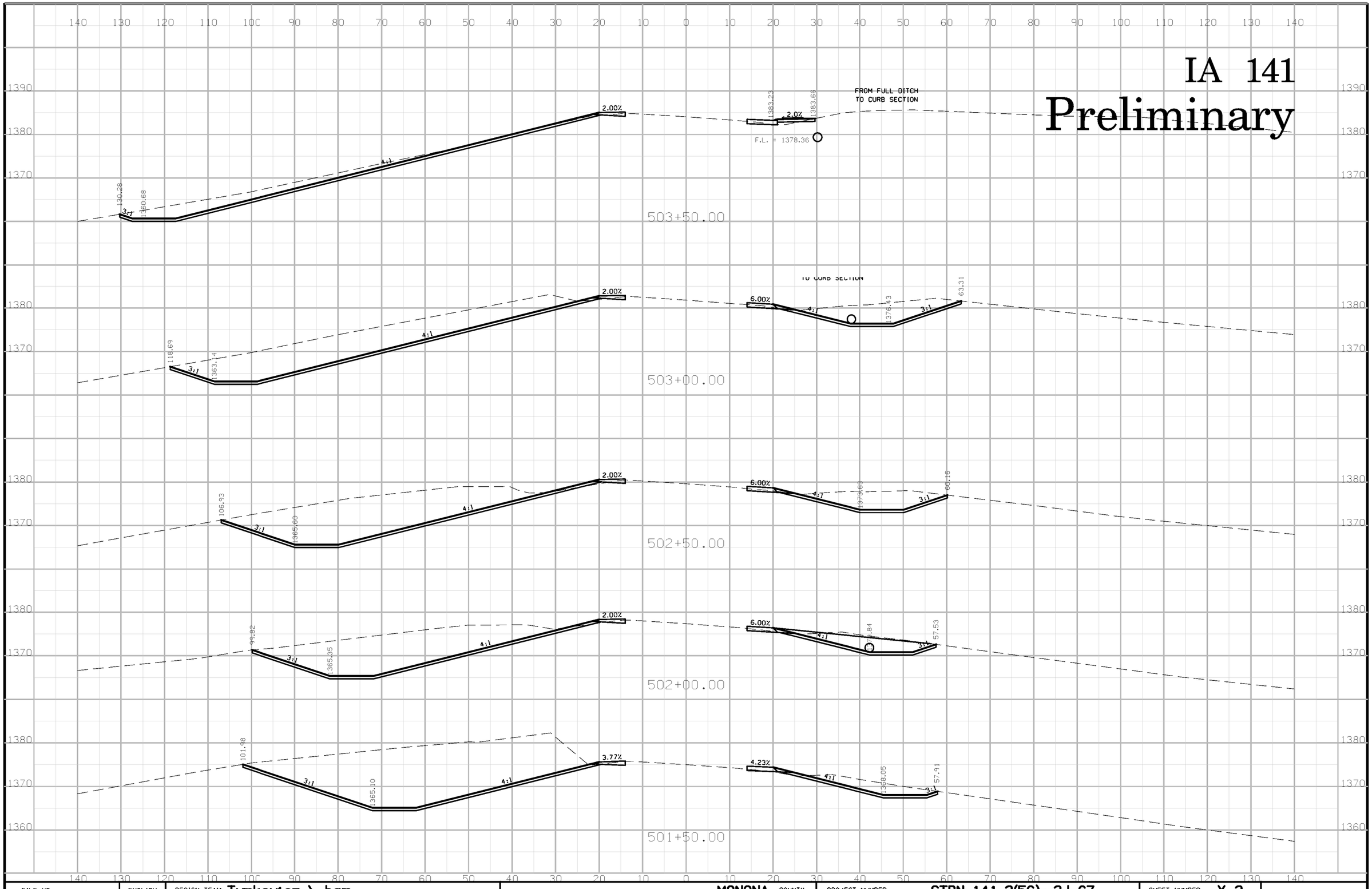
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.2

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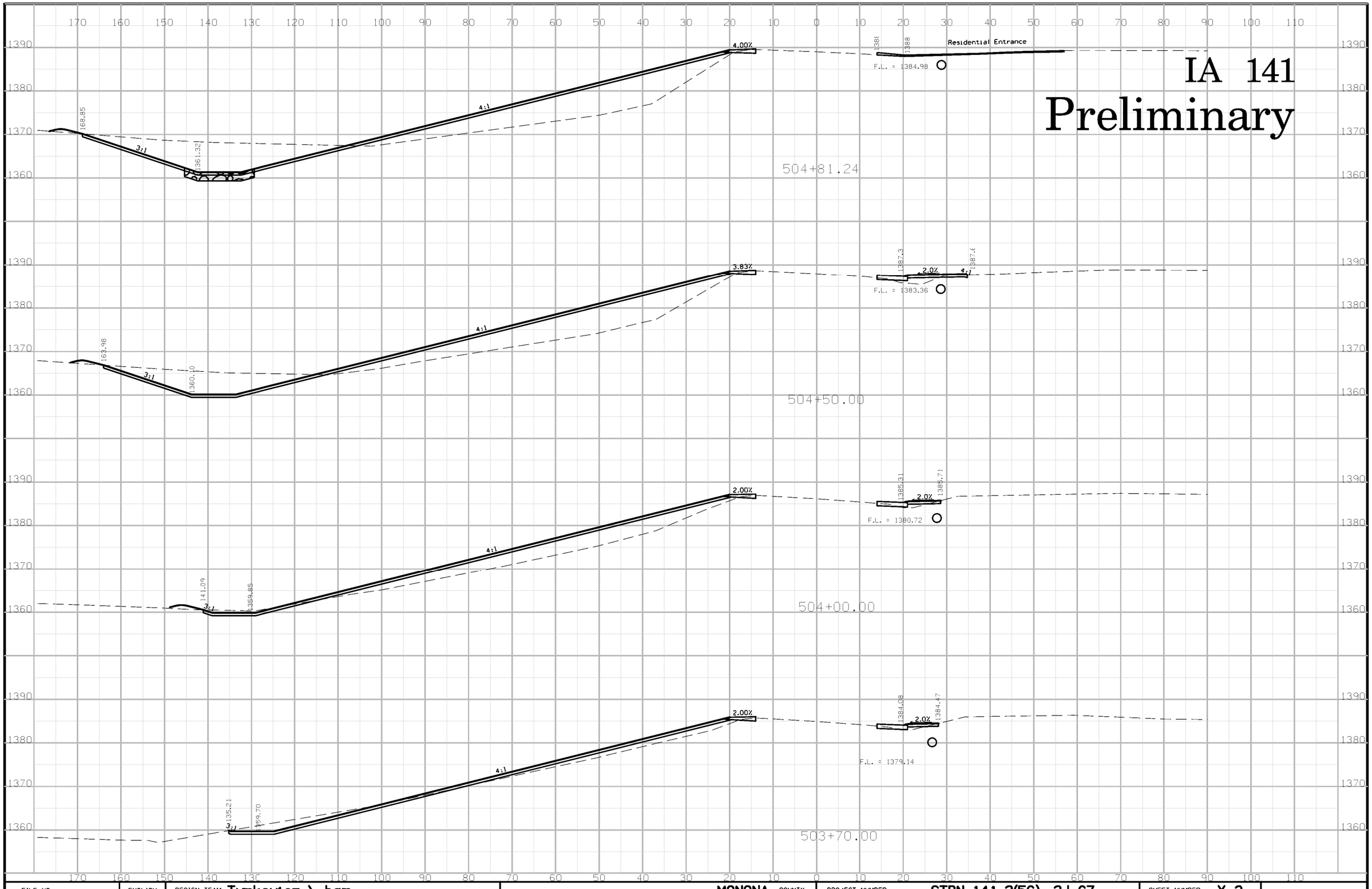
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.3

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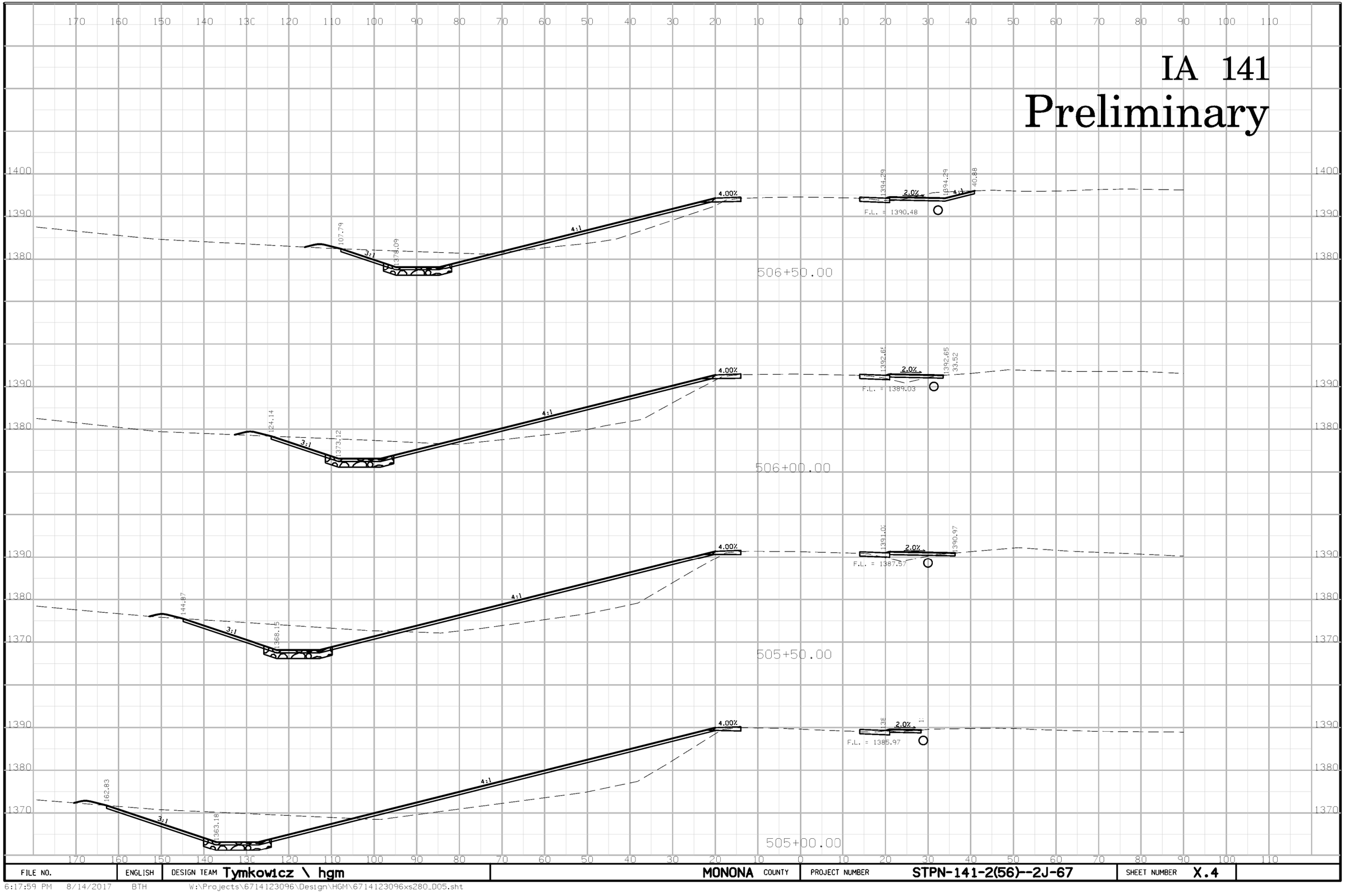
IA 141

Preliminary



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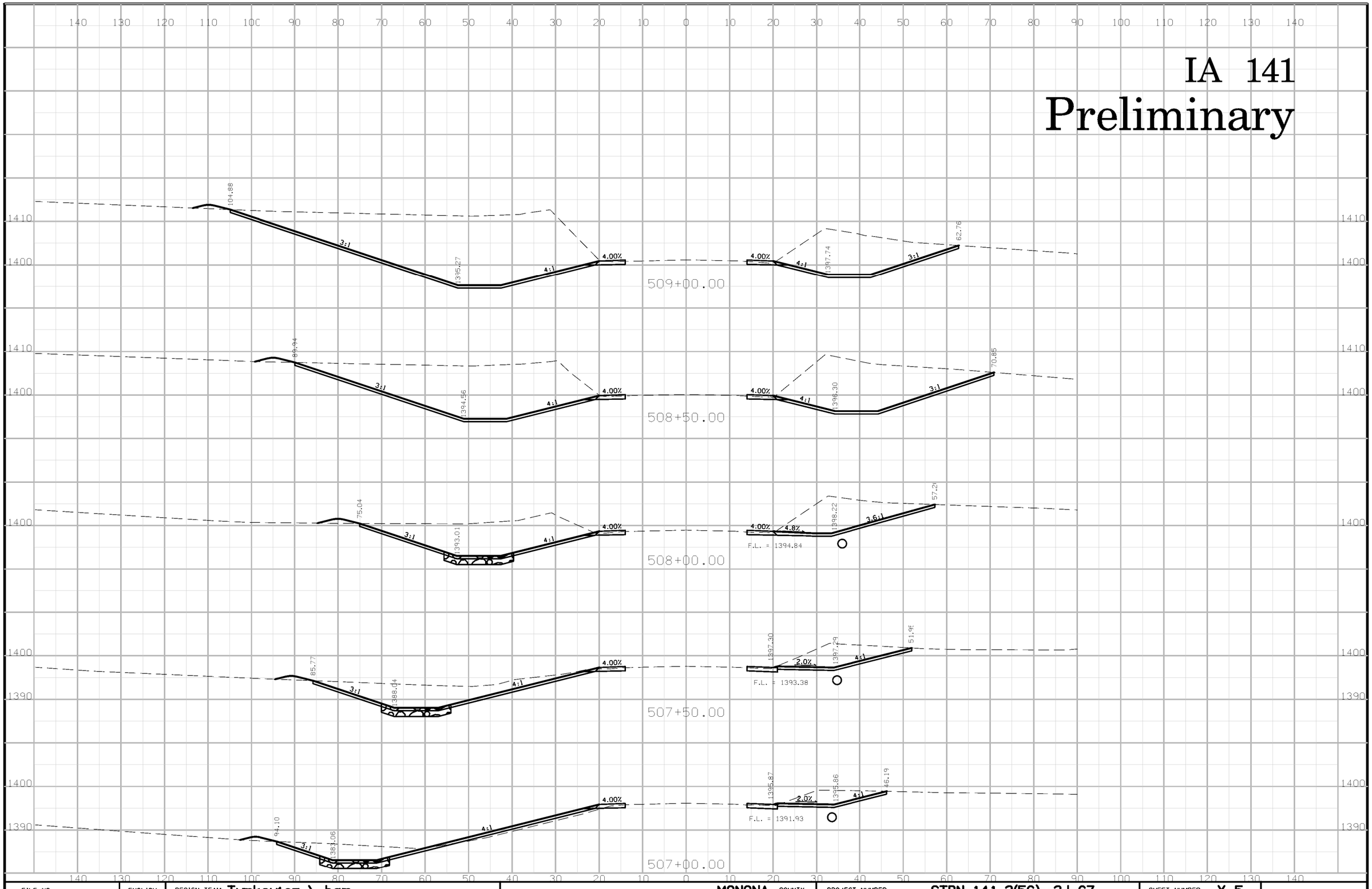
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.5

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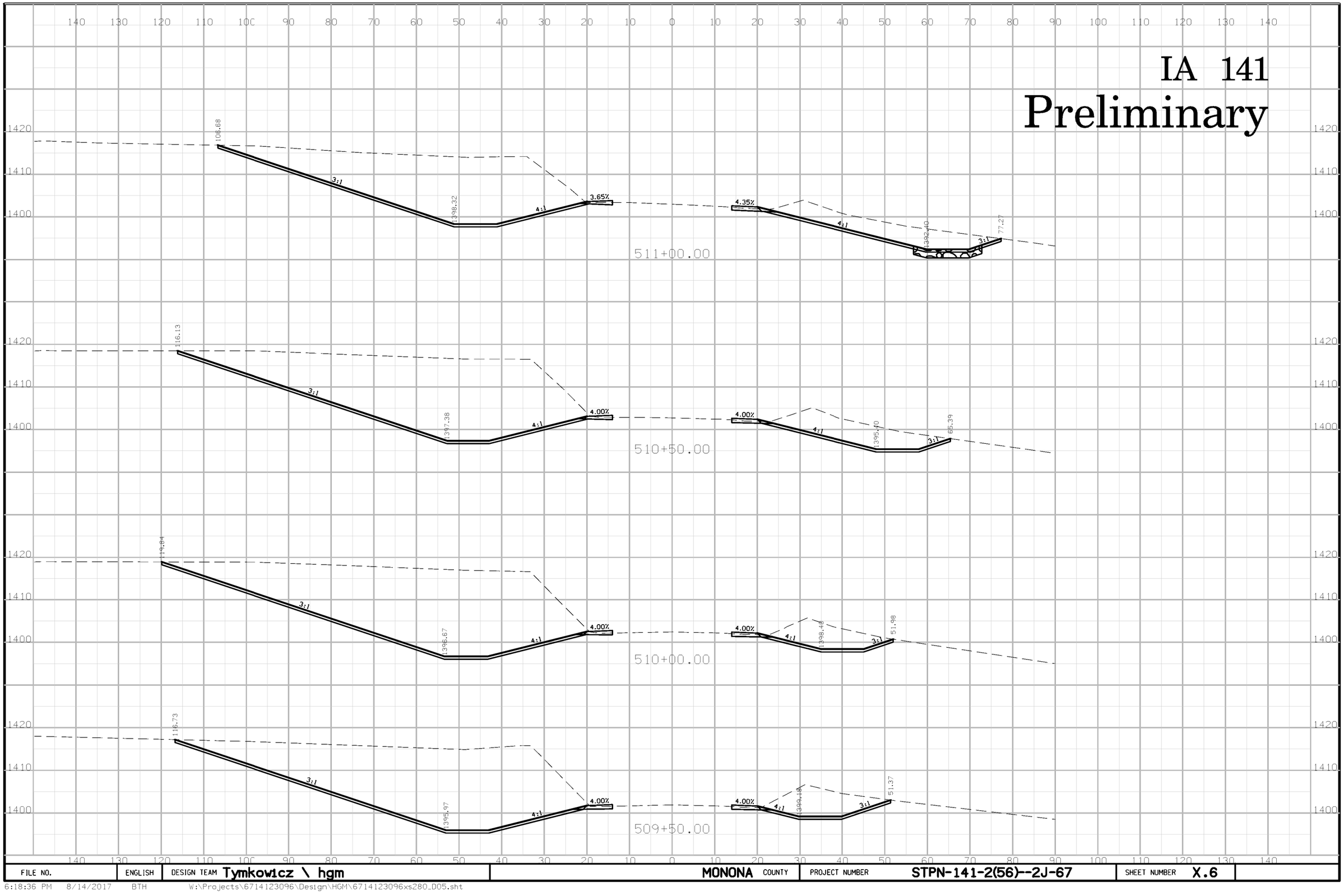
IA 141

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.6

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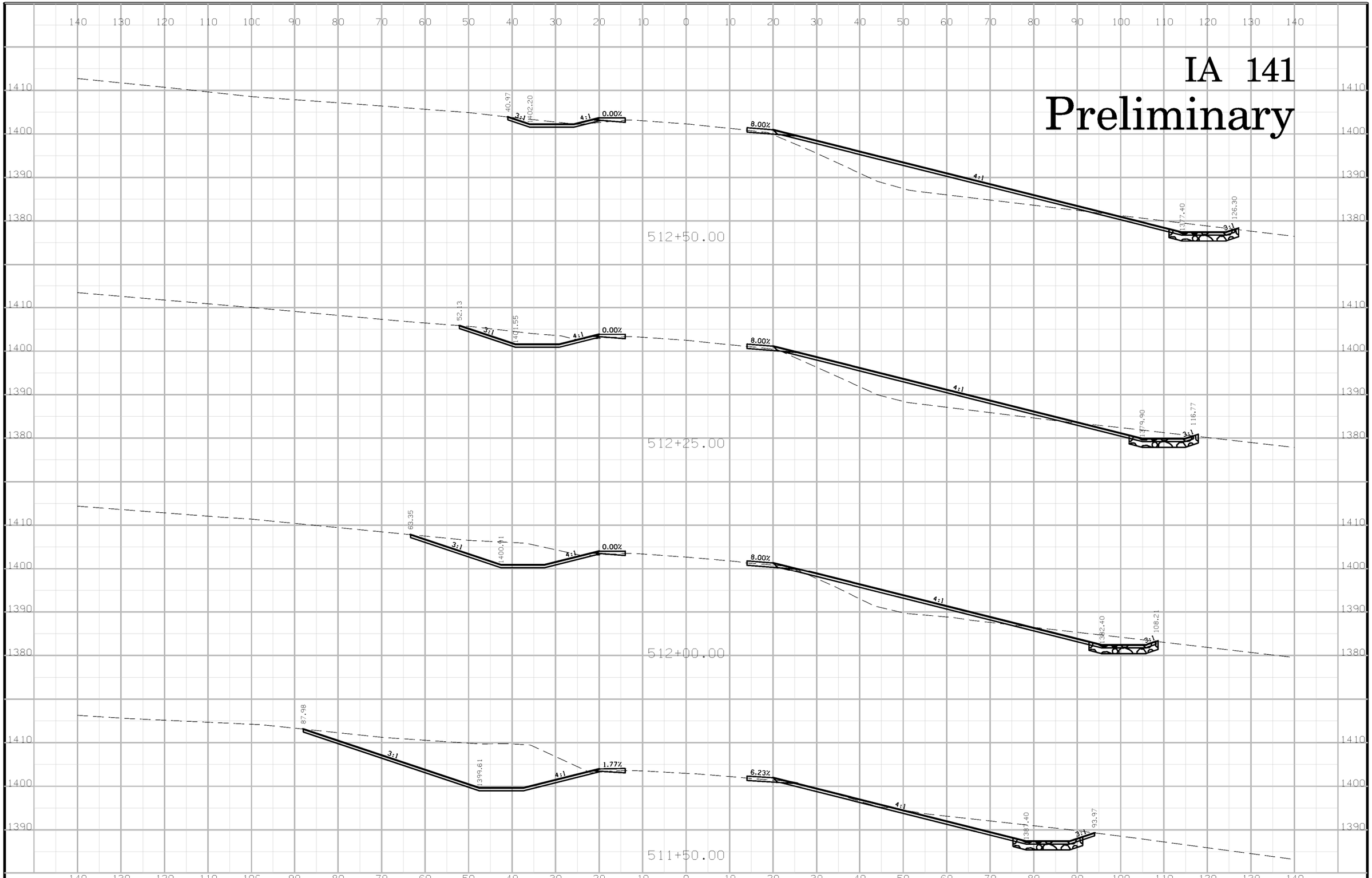
IA 141
Preliminary



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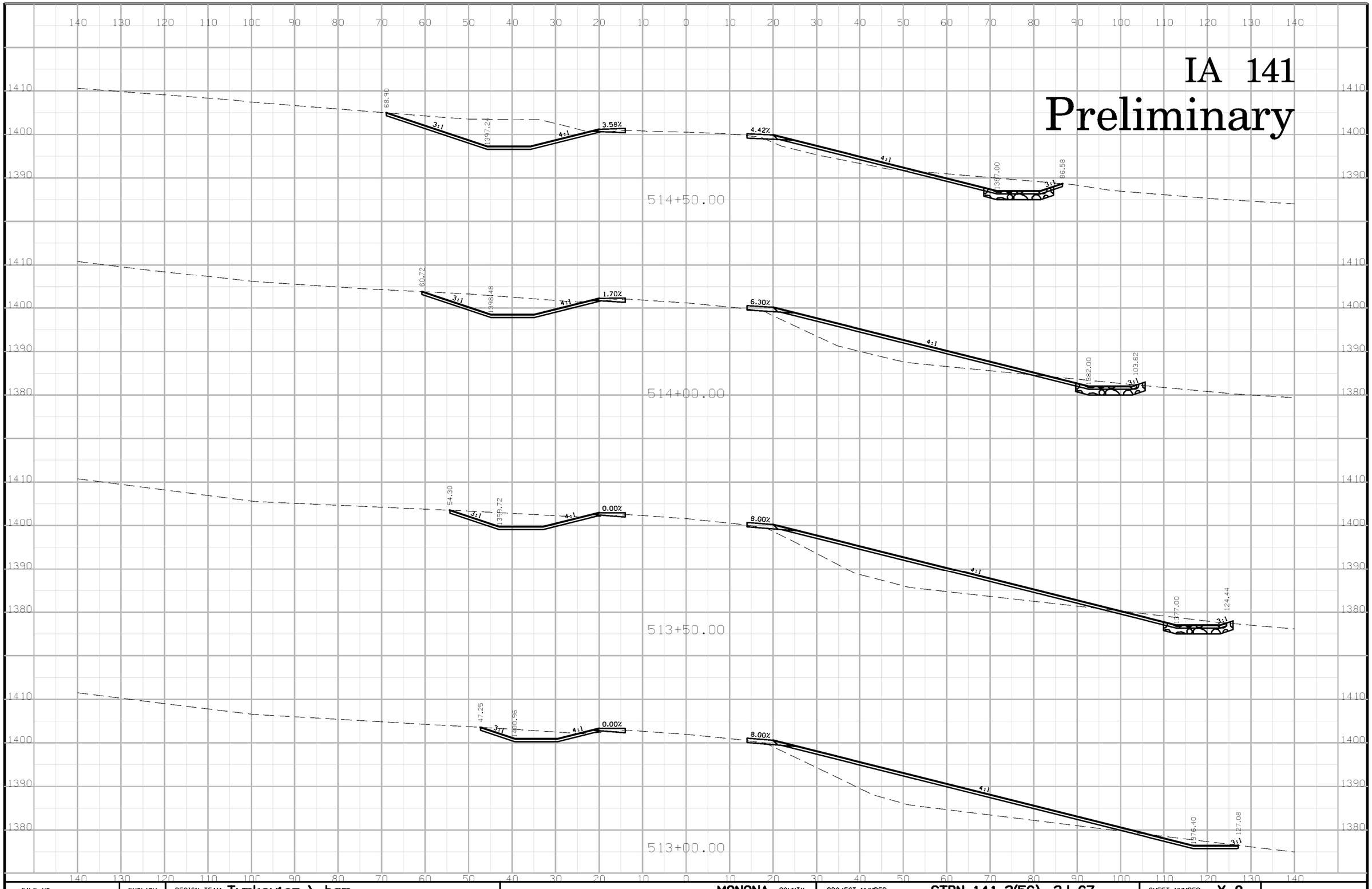
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.8

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IA 141

Preliminary

517+00.00

516+50.00

516+43.00

516+00.00

515+50.00

515+00.00

Field Entrance

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.9	

6:19:31 PM 8/14/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096xs280_D05.sht

IA 141

Preliminary

519+00.00

518+50.00

518+00.00

517+50.00

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.10	

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IA 141
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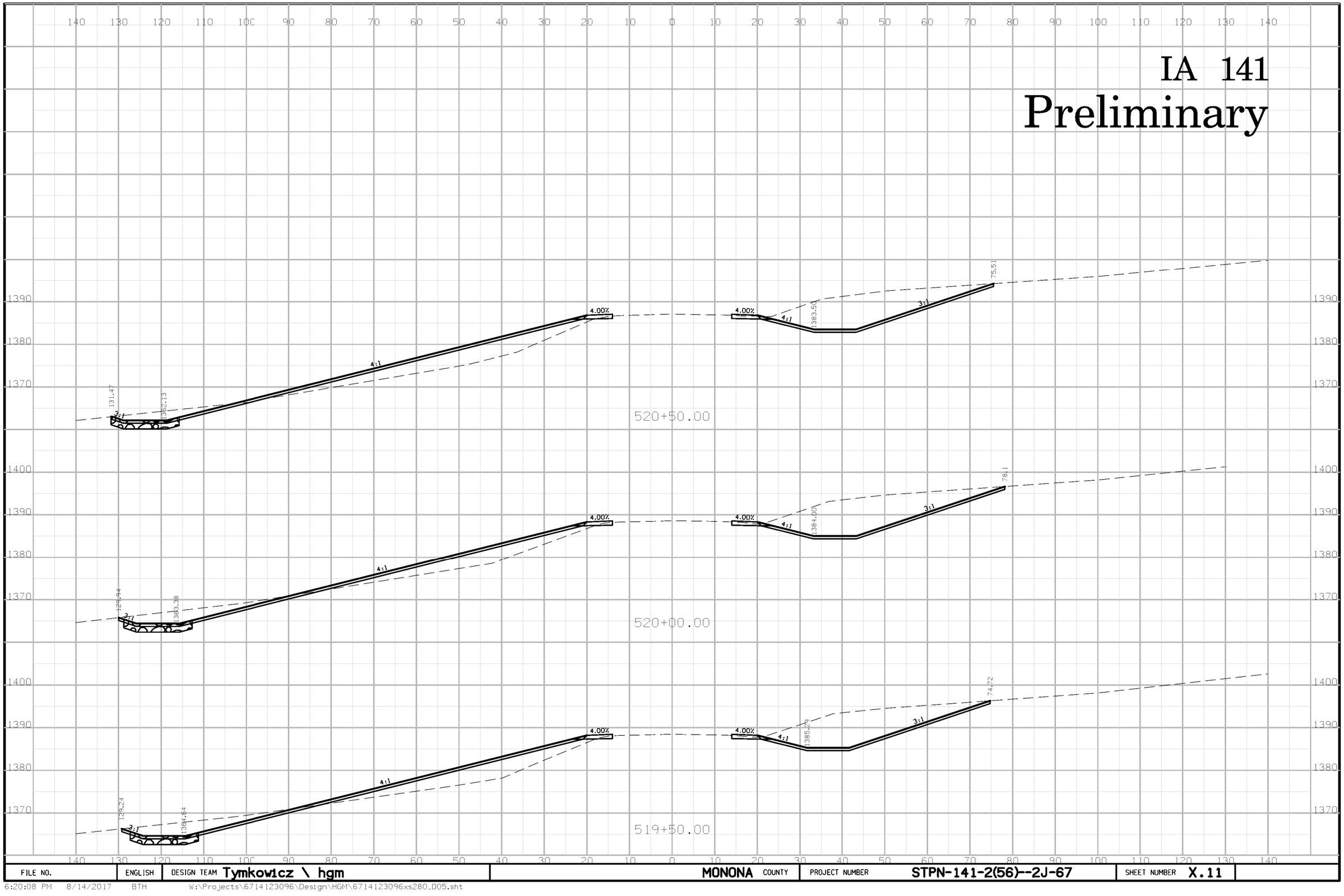

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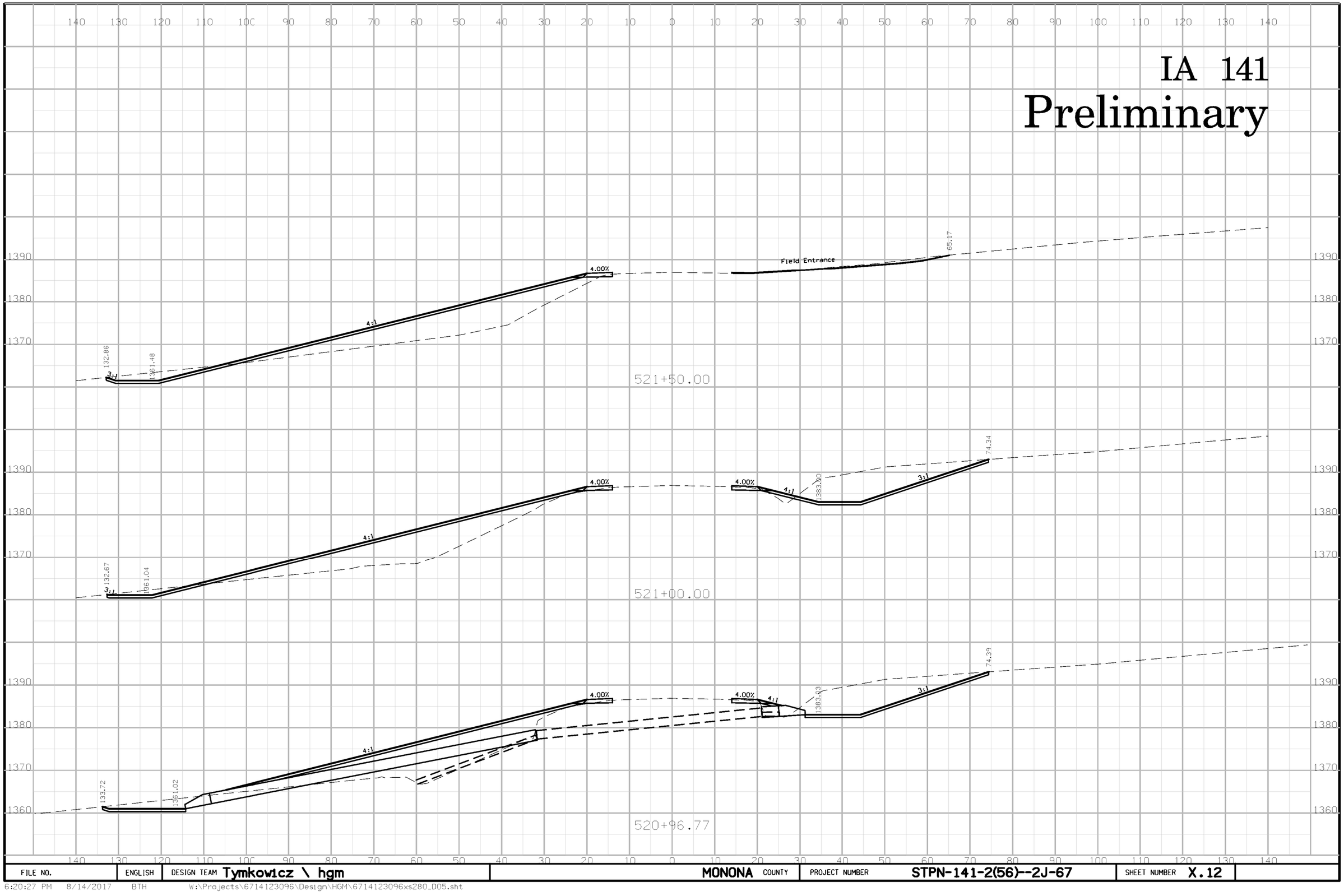
IA 141
Preliminary



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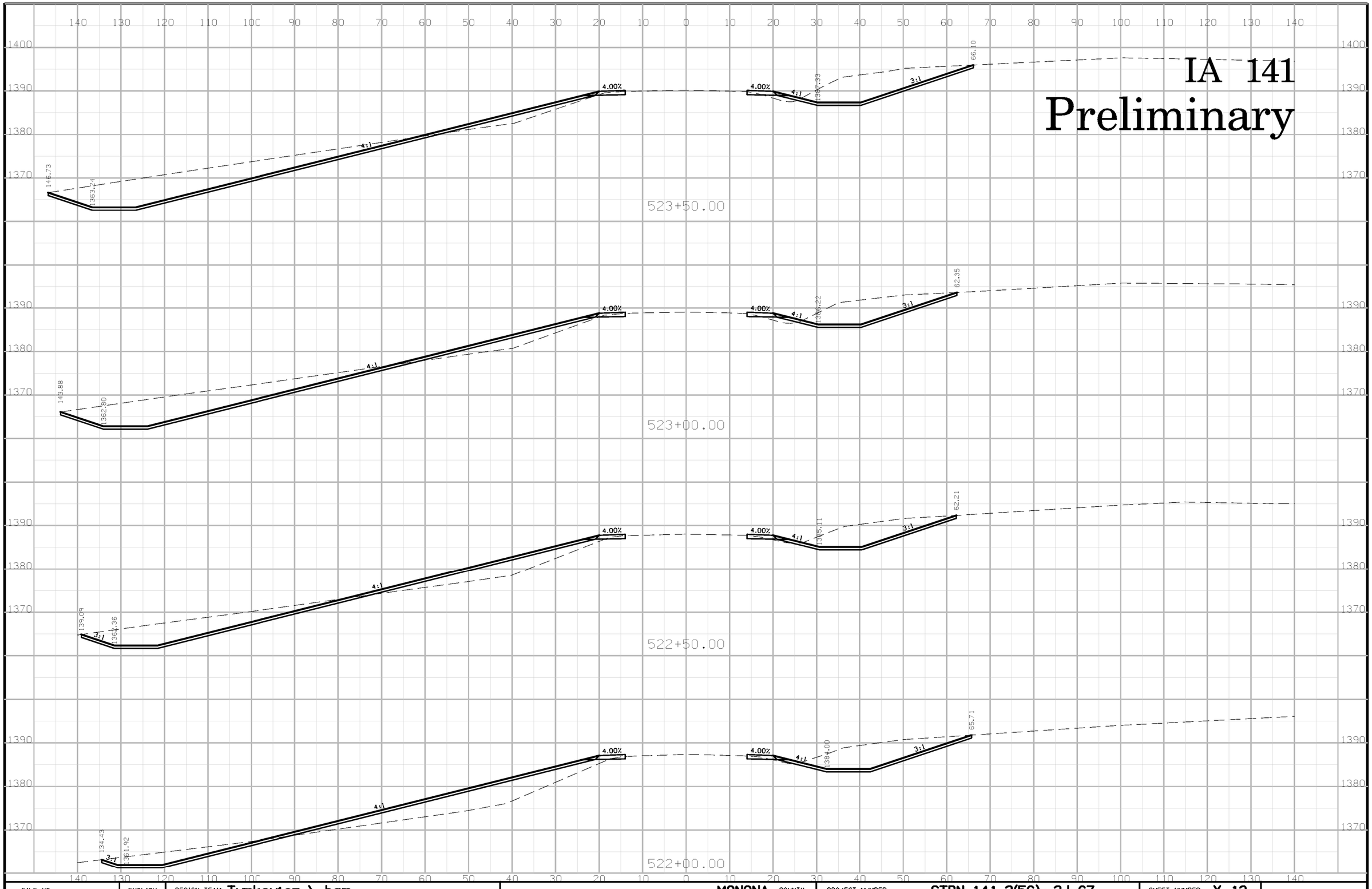
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.13

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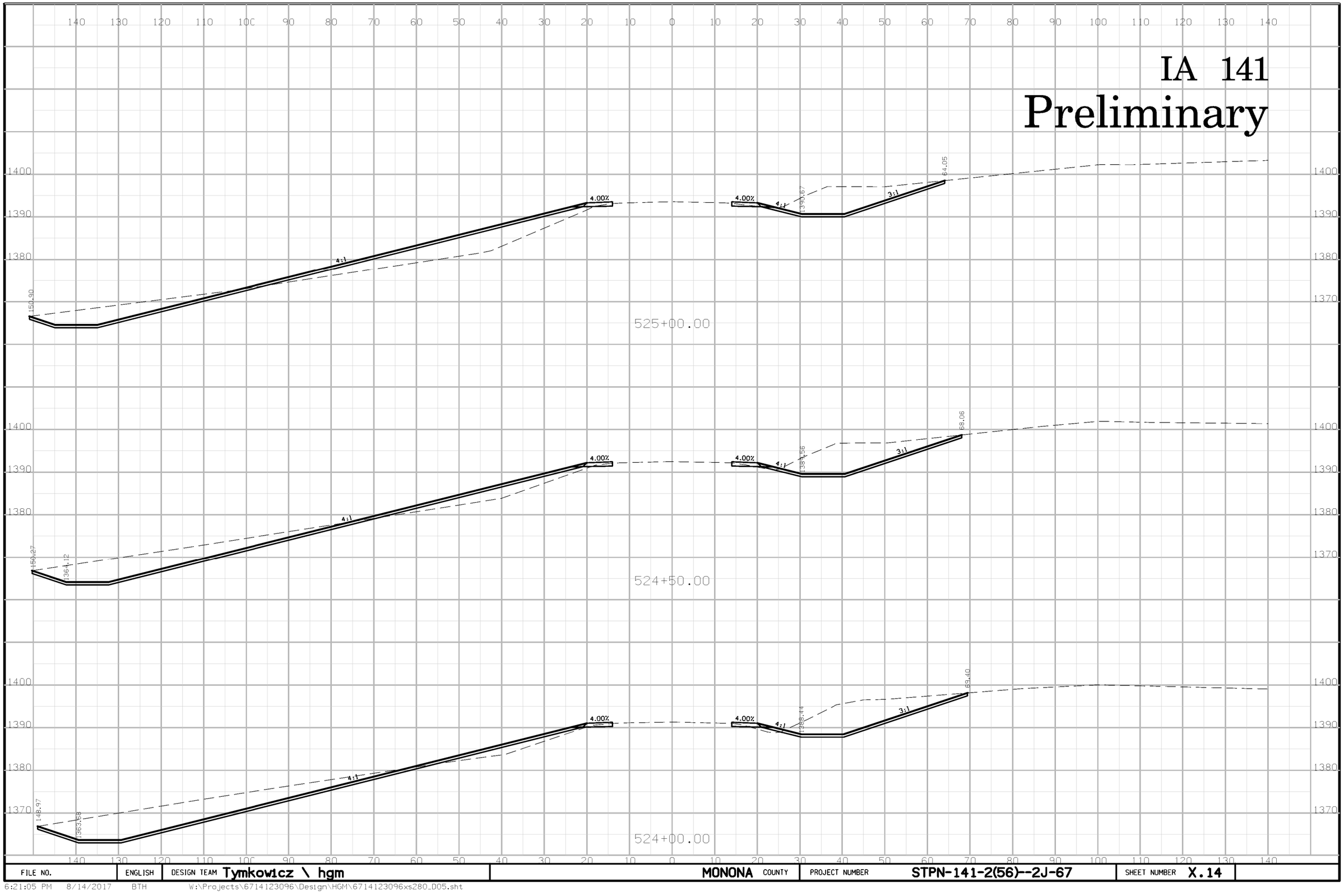
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.14

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IA 141
Preliminary

527+00.00

526+50.00

526+00.00

525+50.00

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.15	

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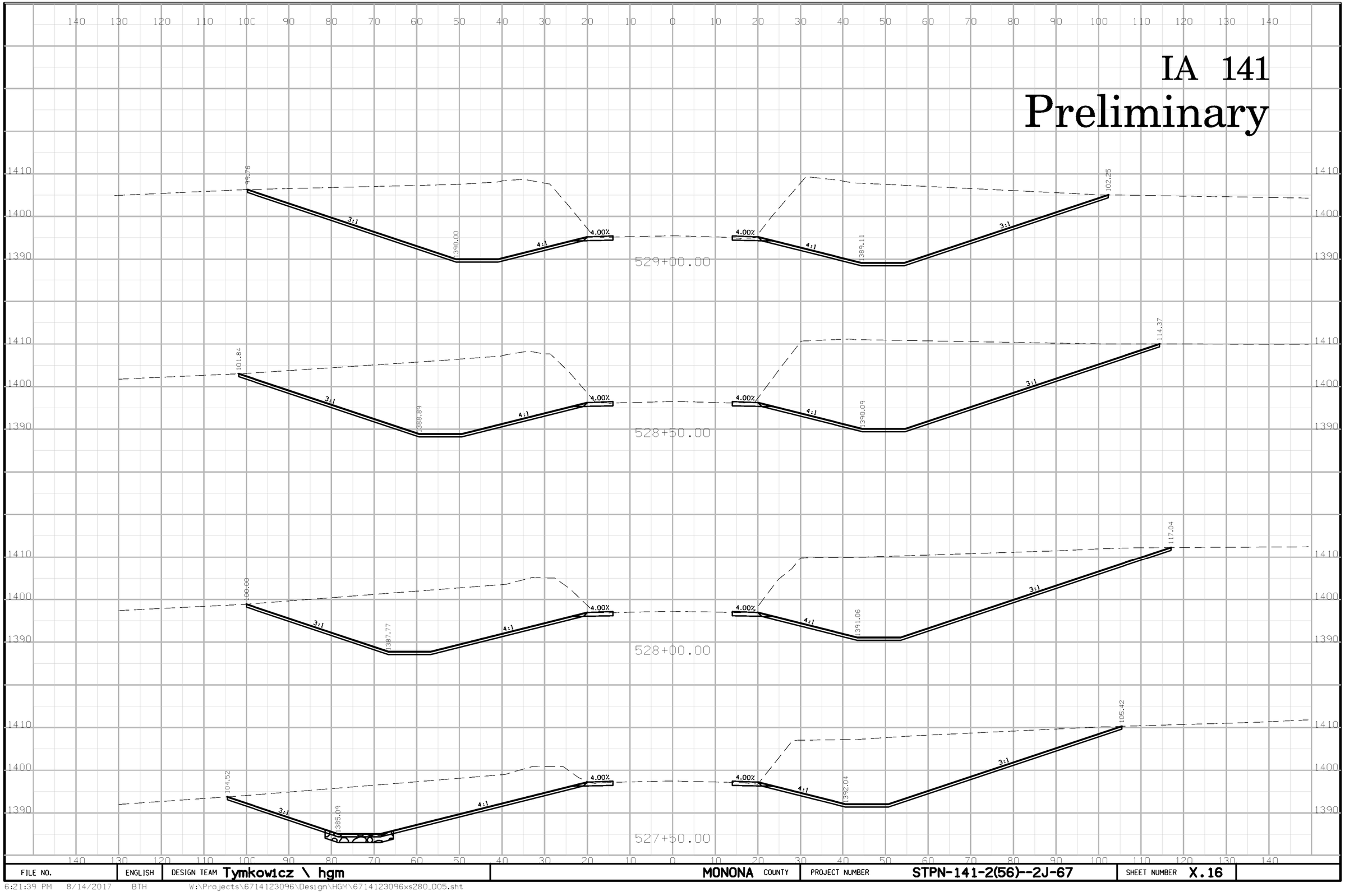
IA 141
Preliminary



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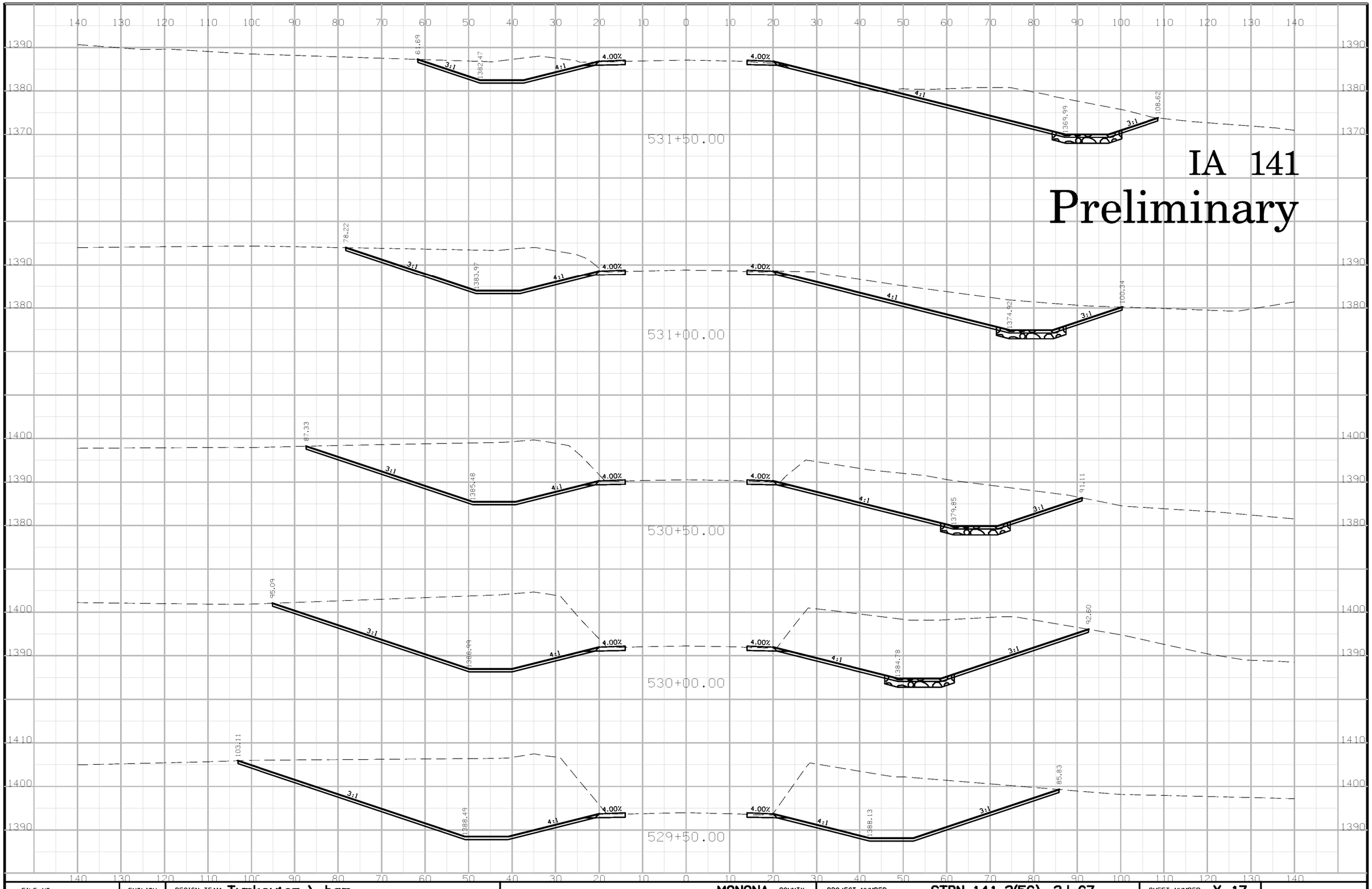

IA 141

Preliminary

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.17

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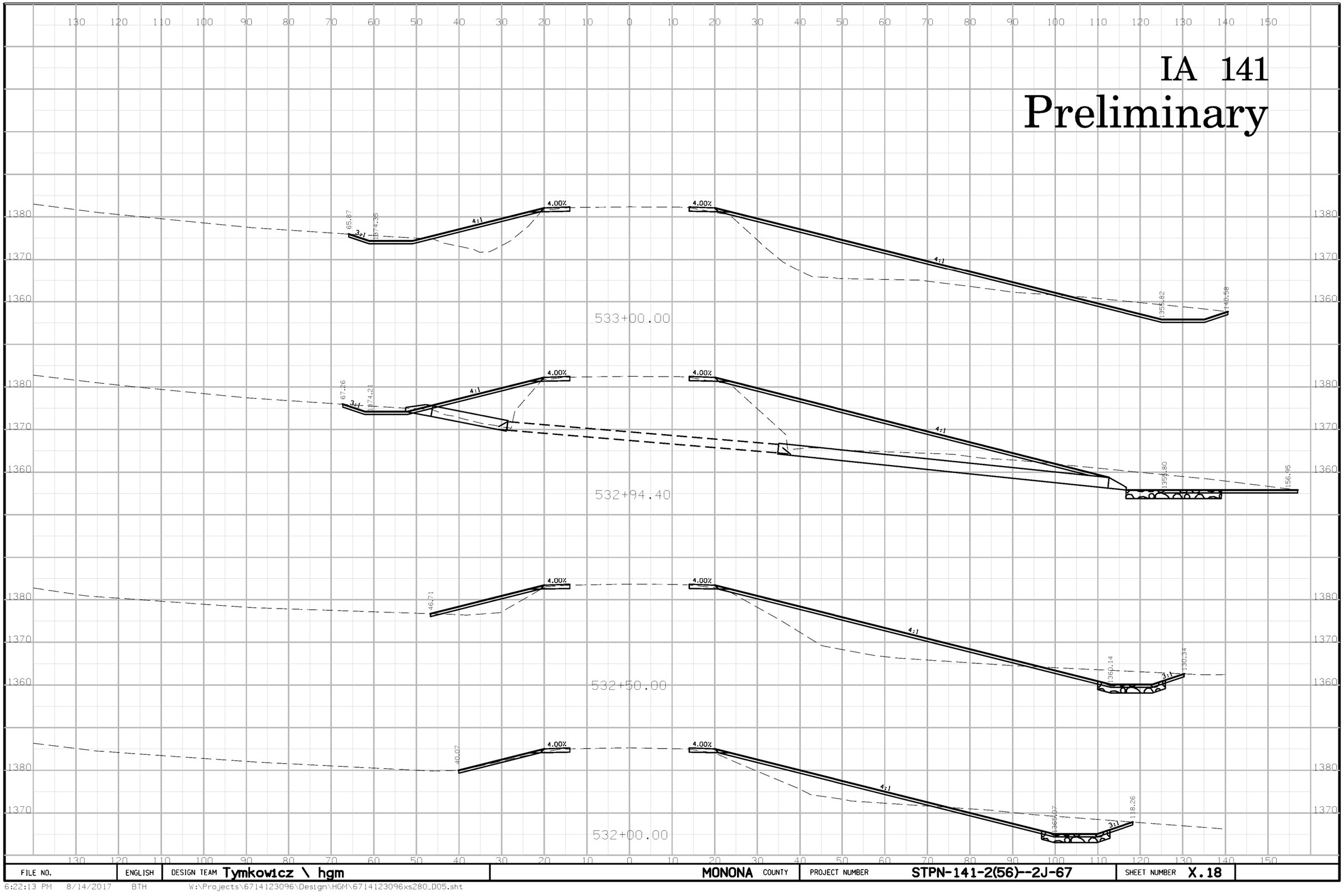
IA 141
Preliminary



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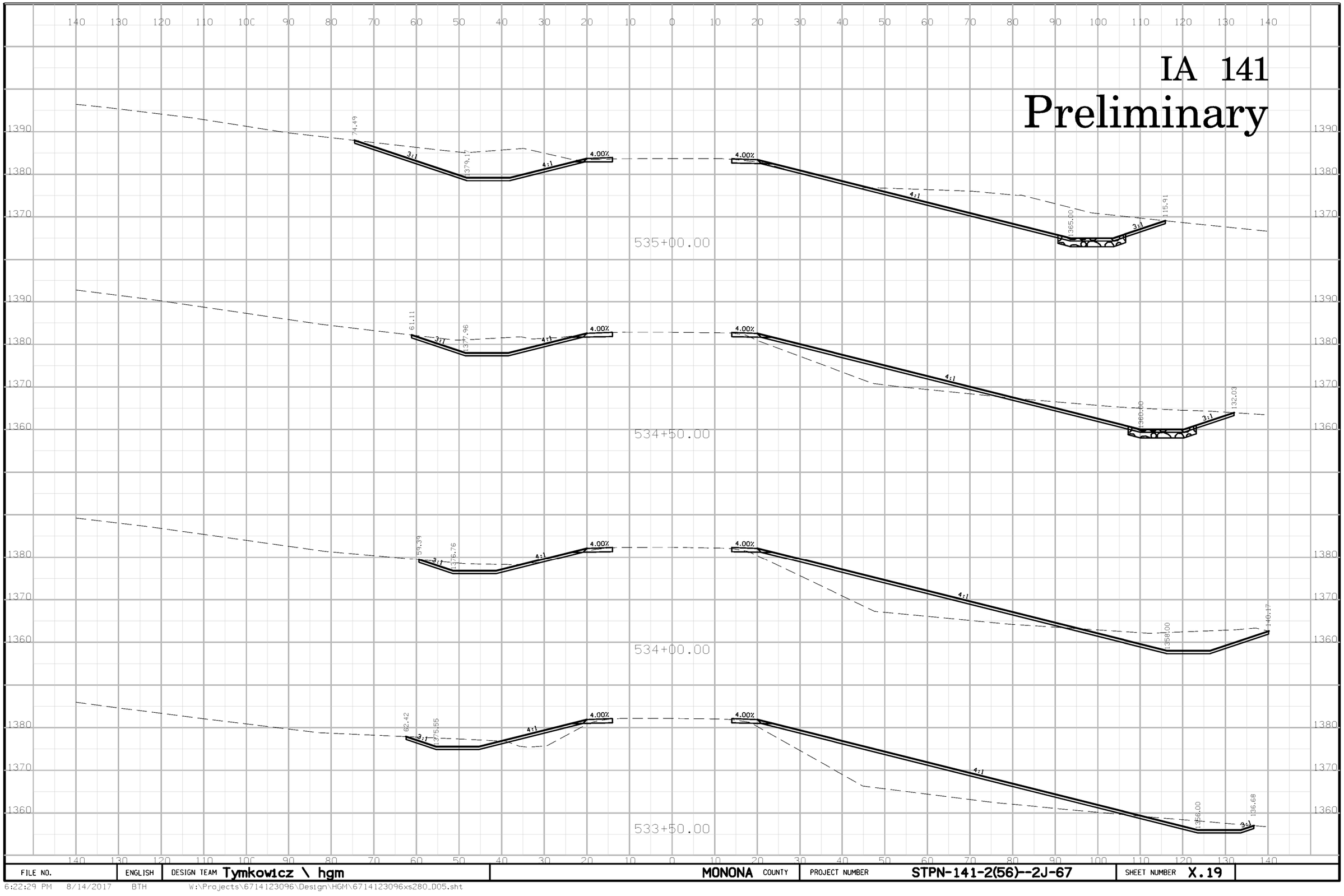
IA 141
Preliminary



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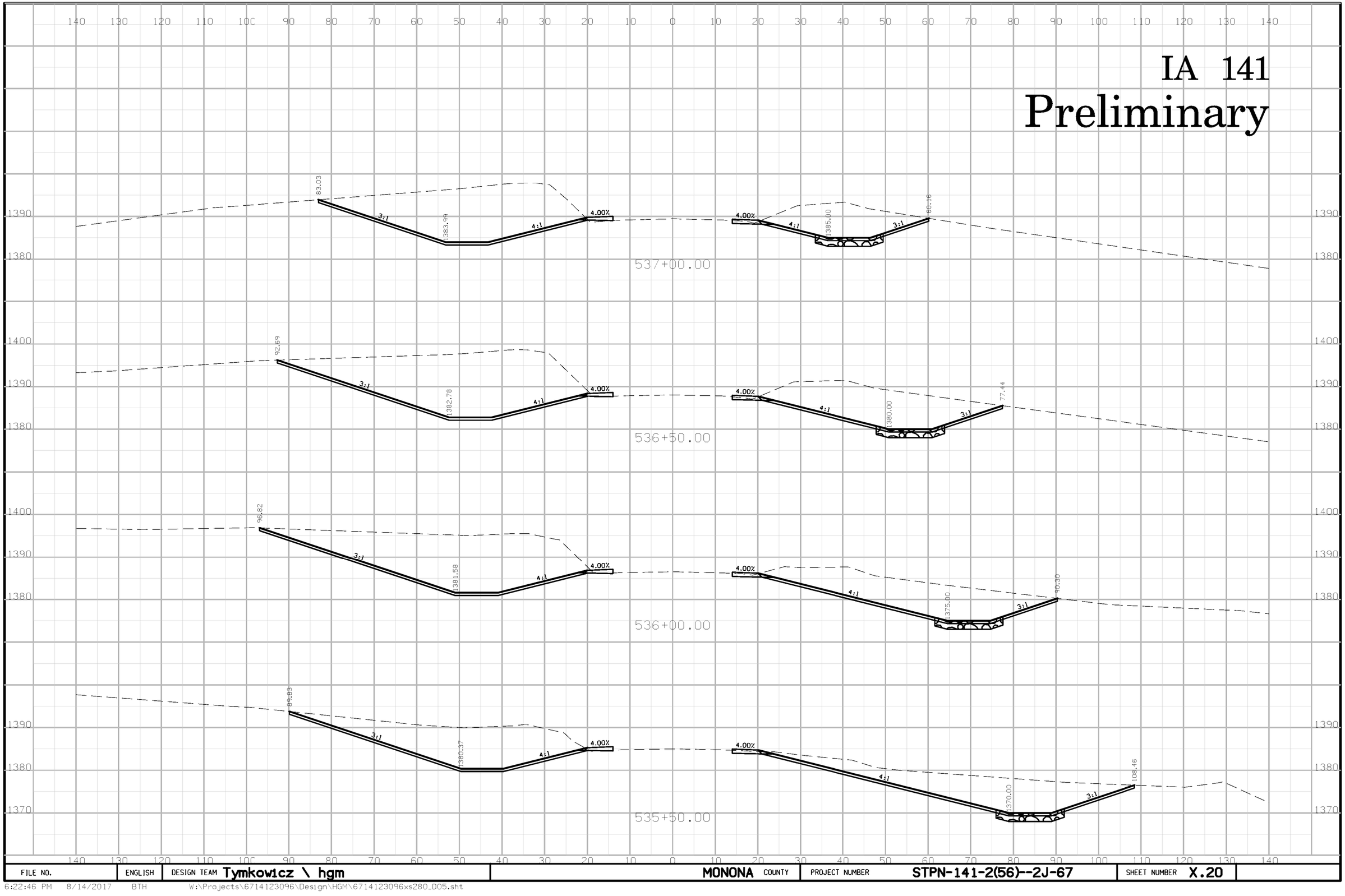
IA 141
Preliminary



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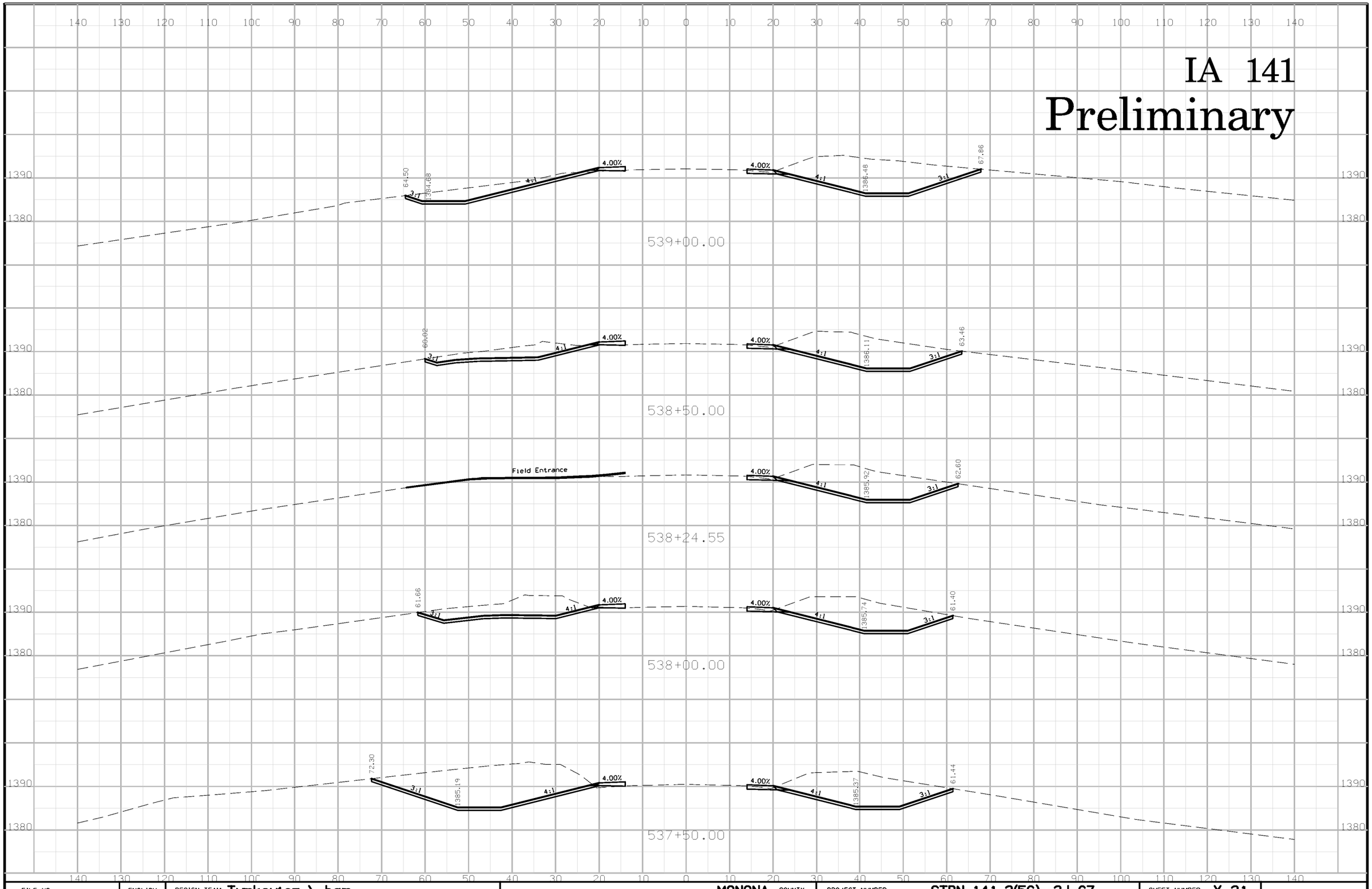
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.21

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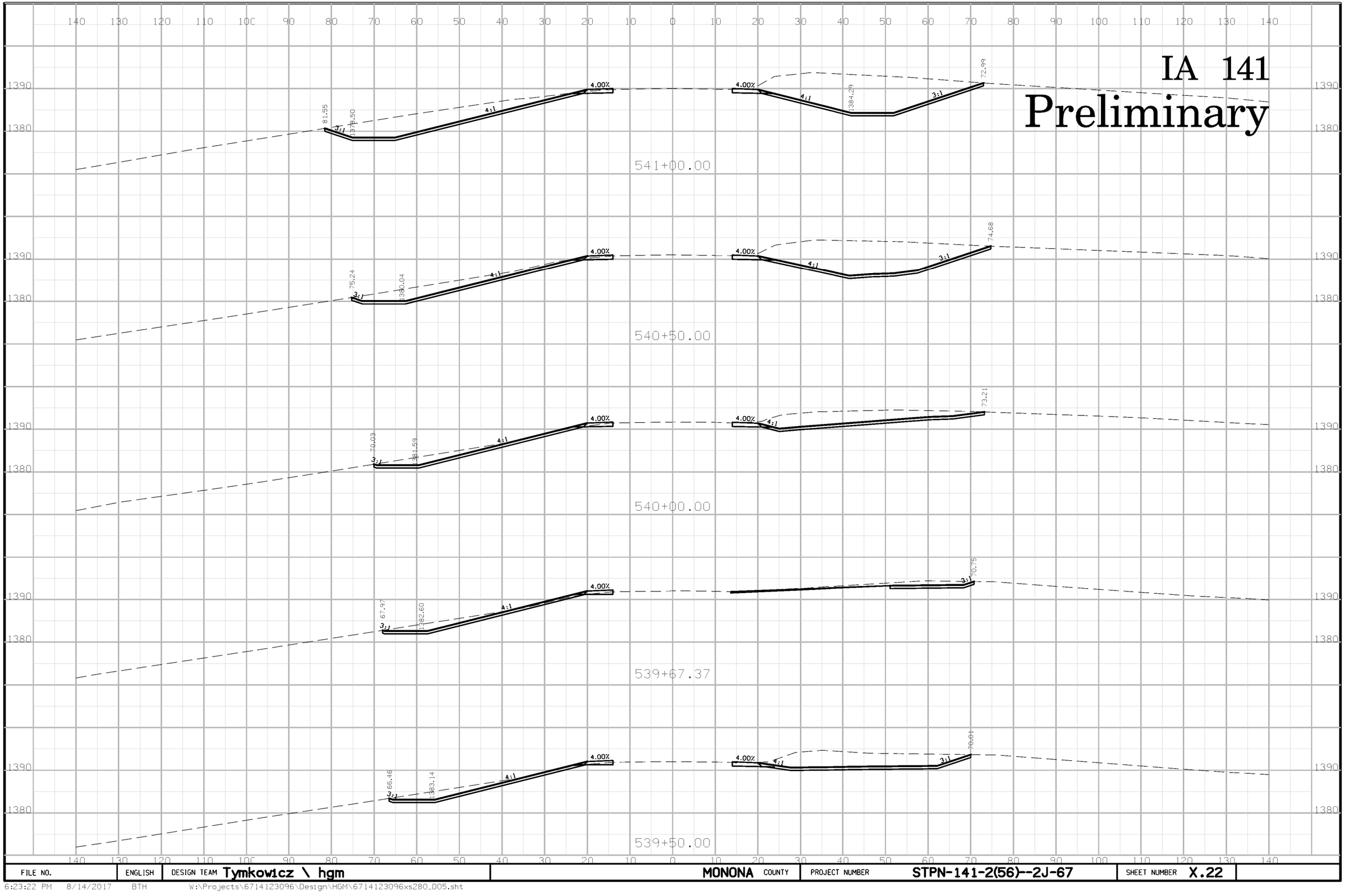
IA 141
Preliminary



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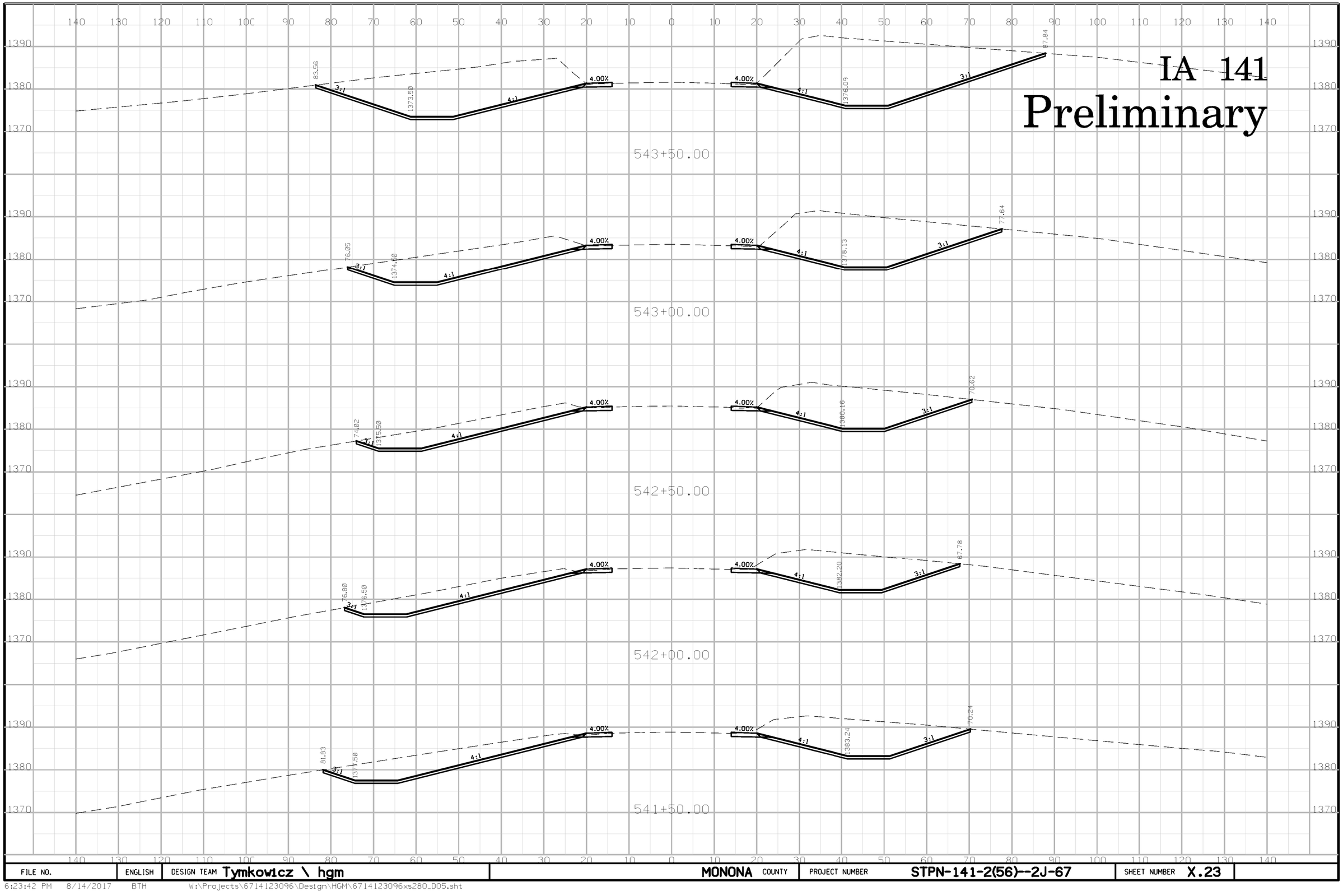
IA 141
Preliminary



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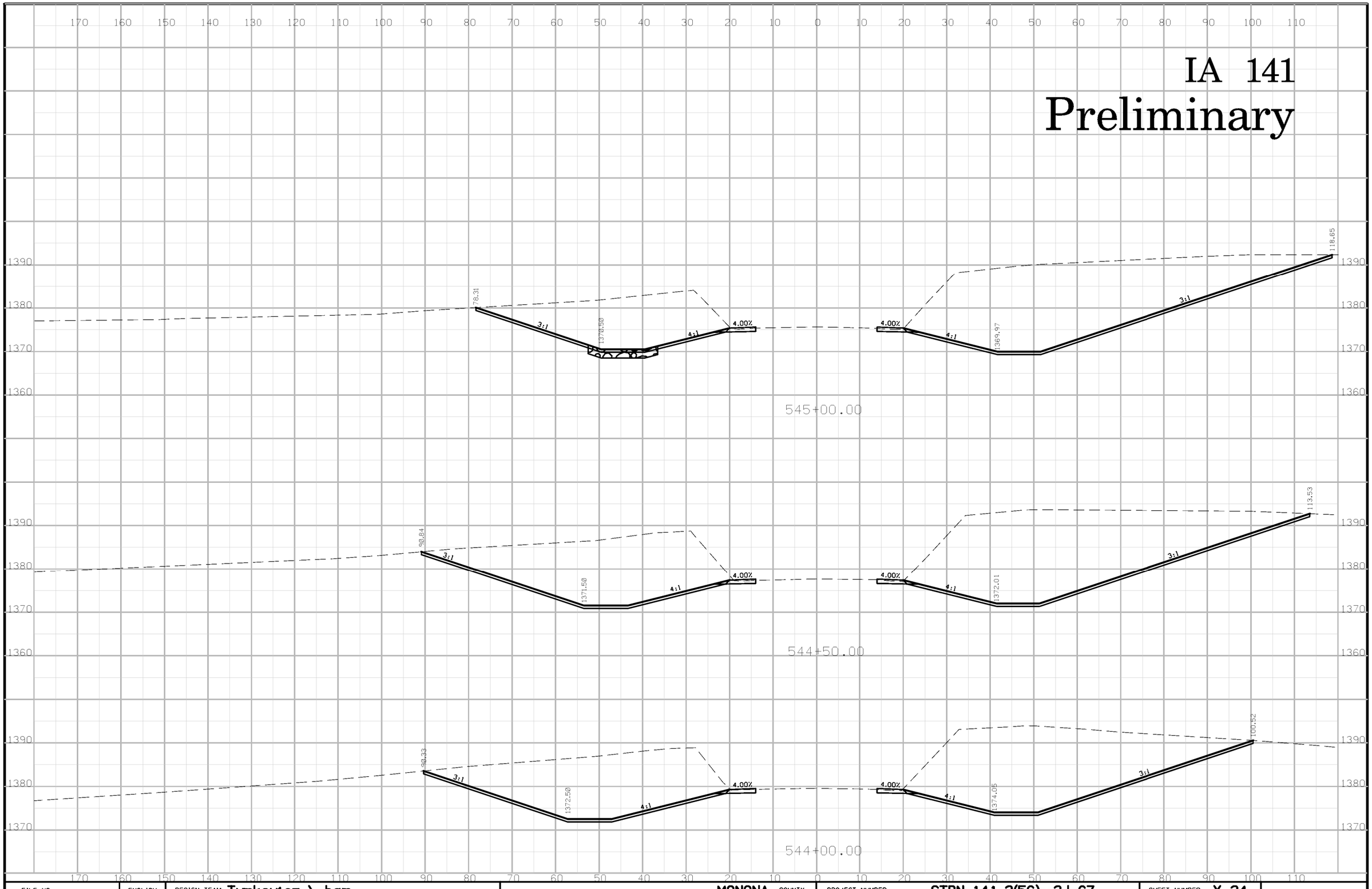
IA 141
Preliminary



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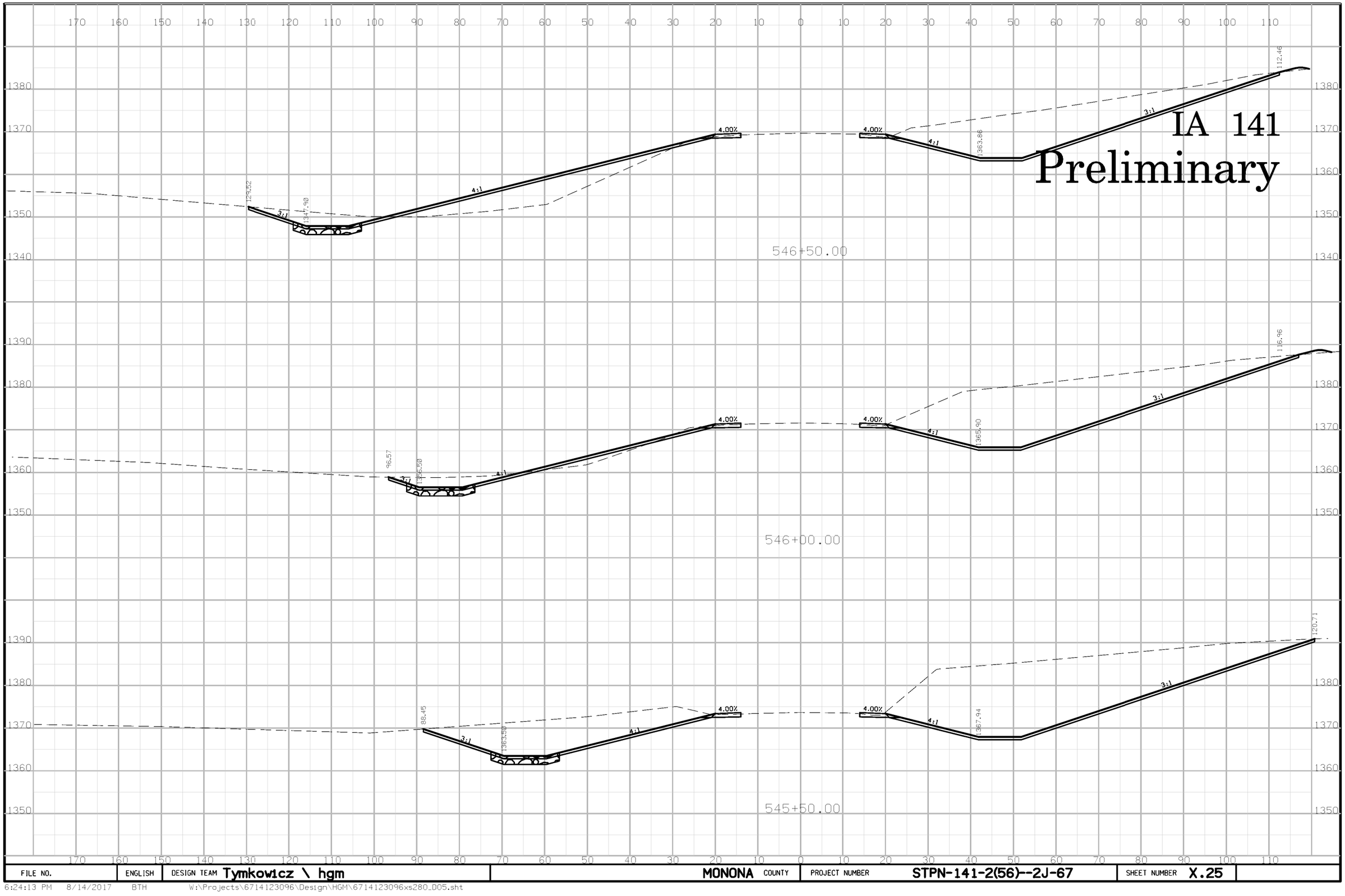
IA 141
Preliminary



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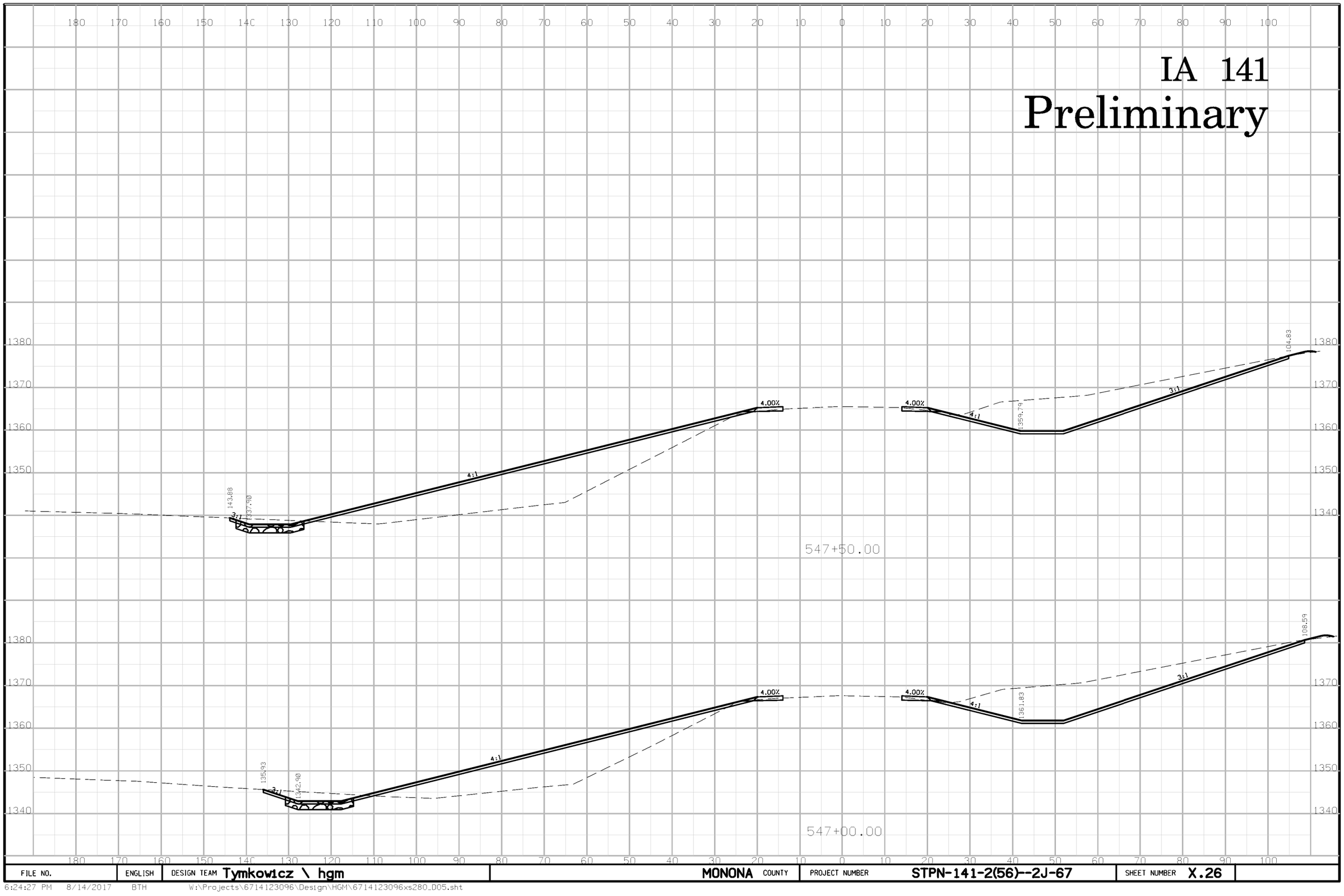
IA 141
Preliminary



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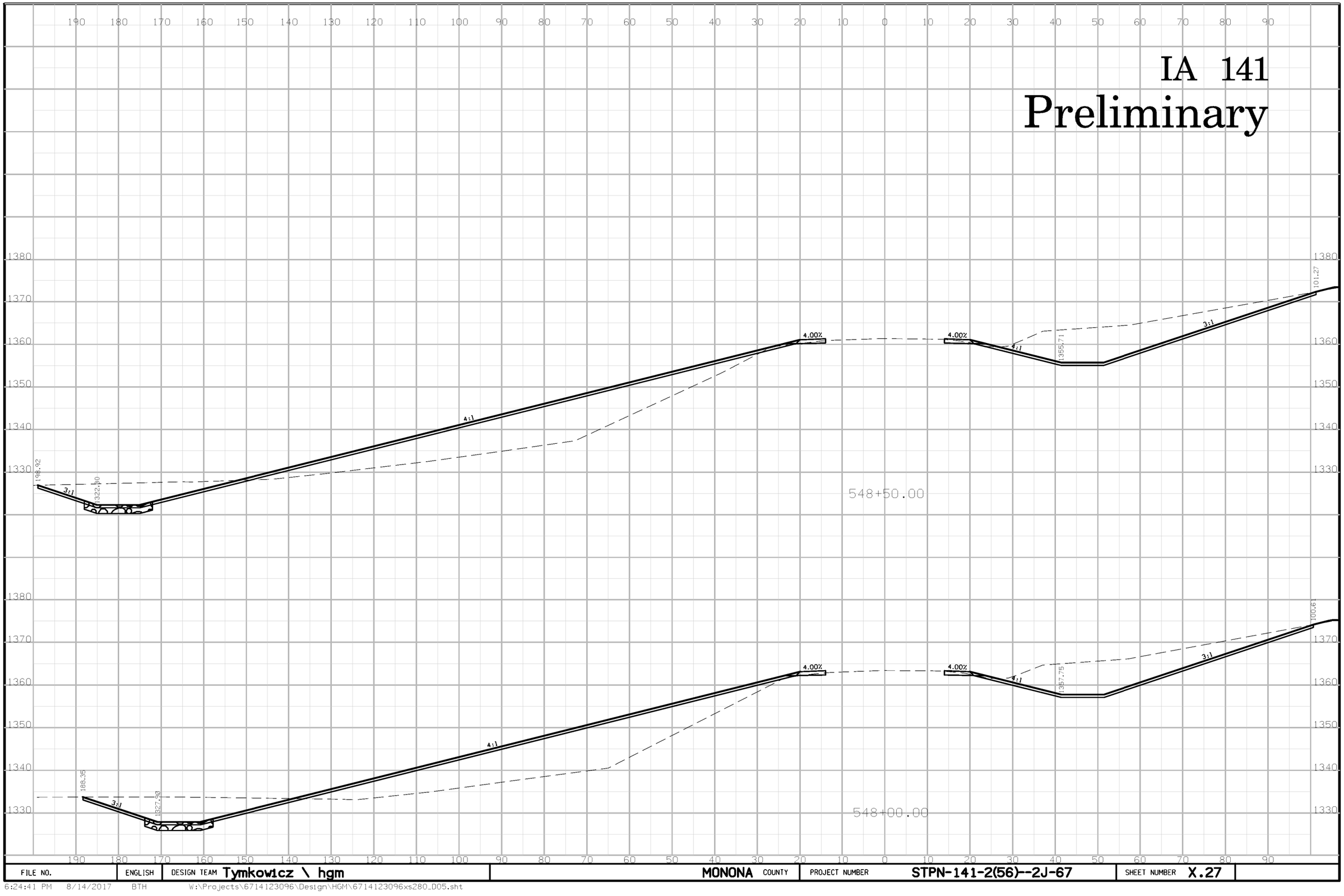
IA 141
Preliminary



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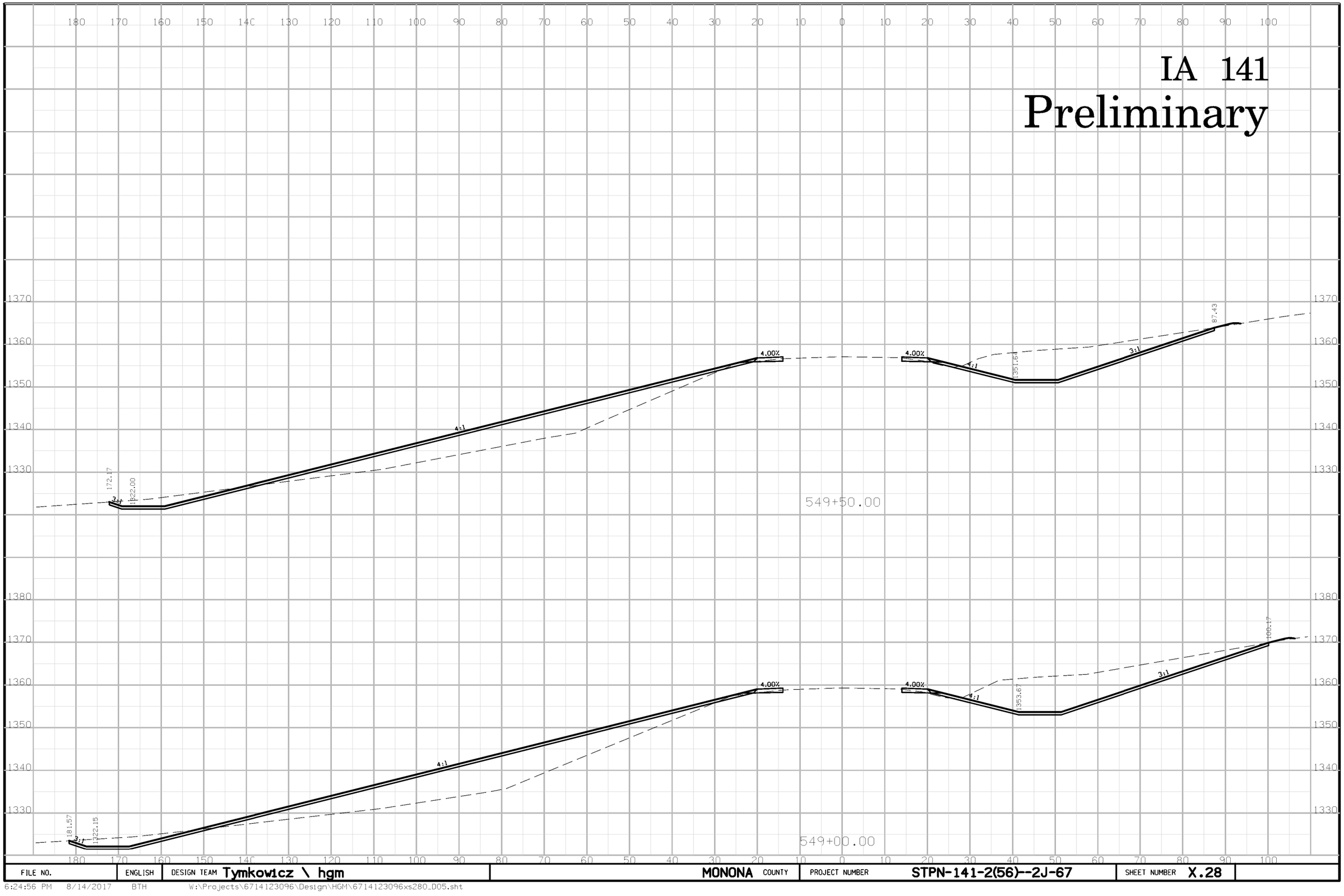
IA 141

Preliminary



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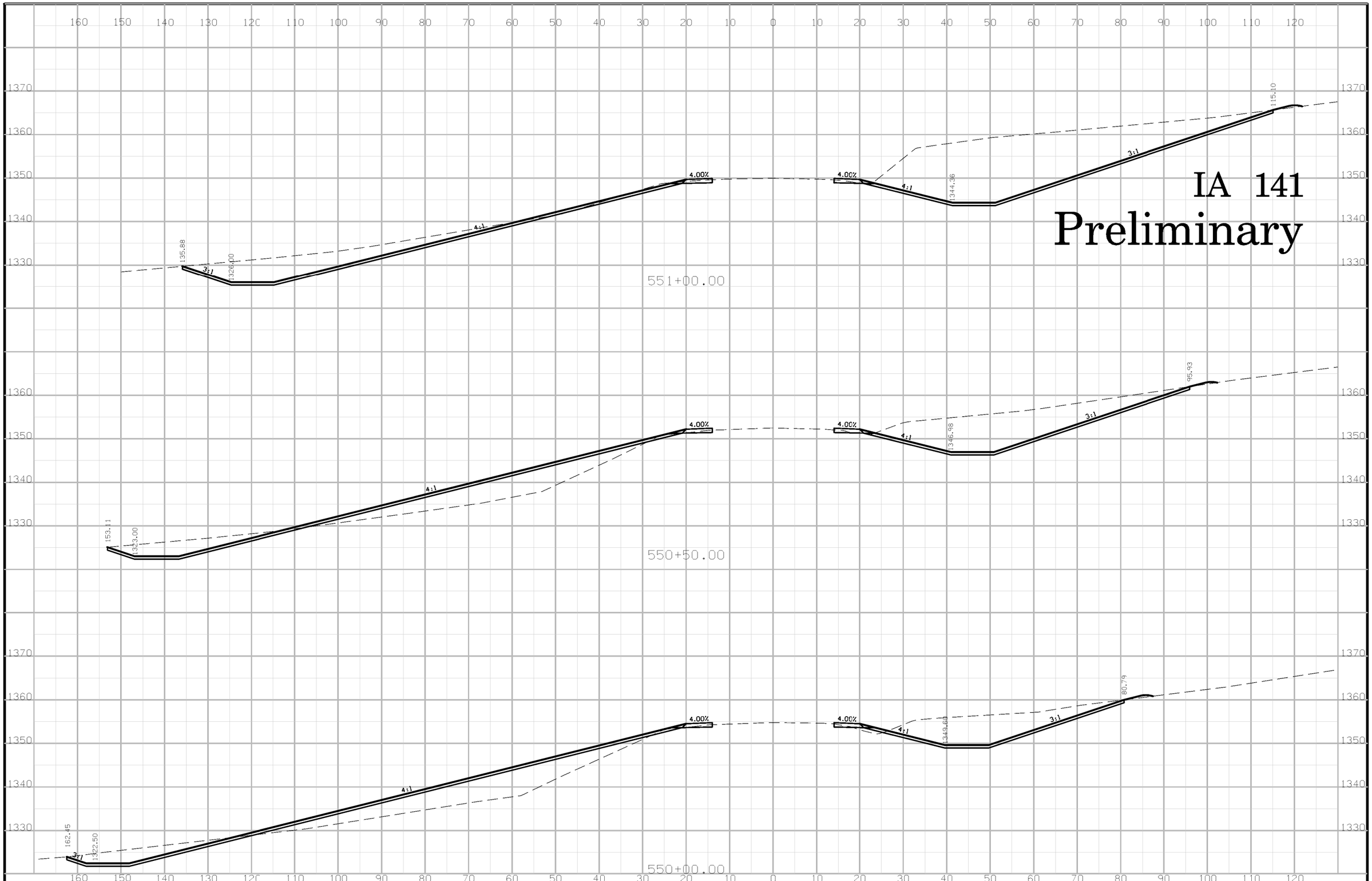

IA 141

Preliminary

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.29

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IA 141
Preliminary

553+00.00

552+50.00

552+00.00

551+50.00

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.30

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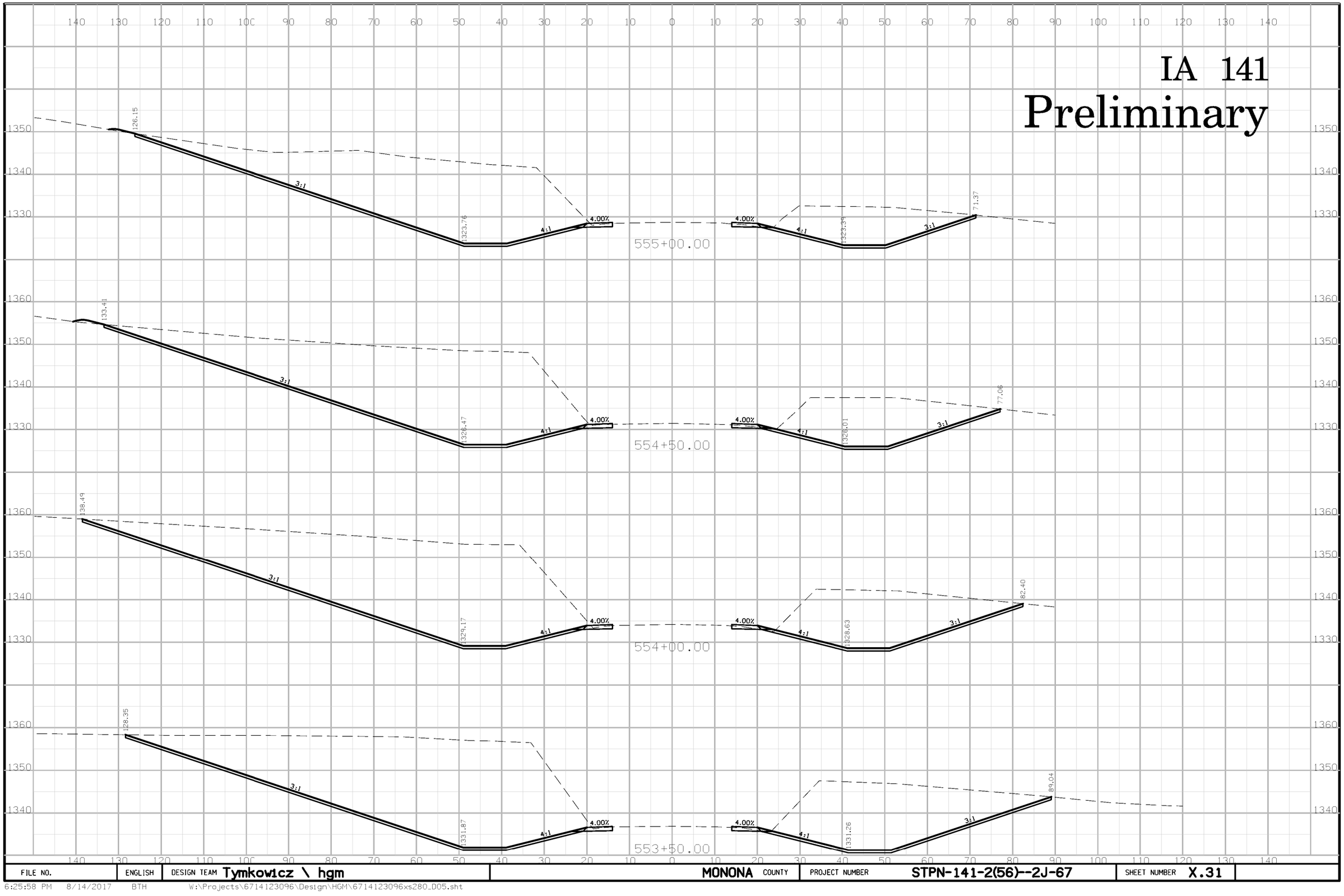
IA 141
Preliminary



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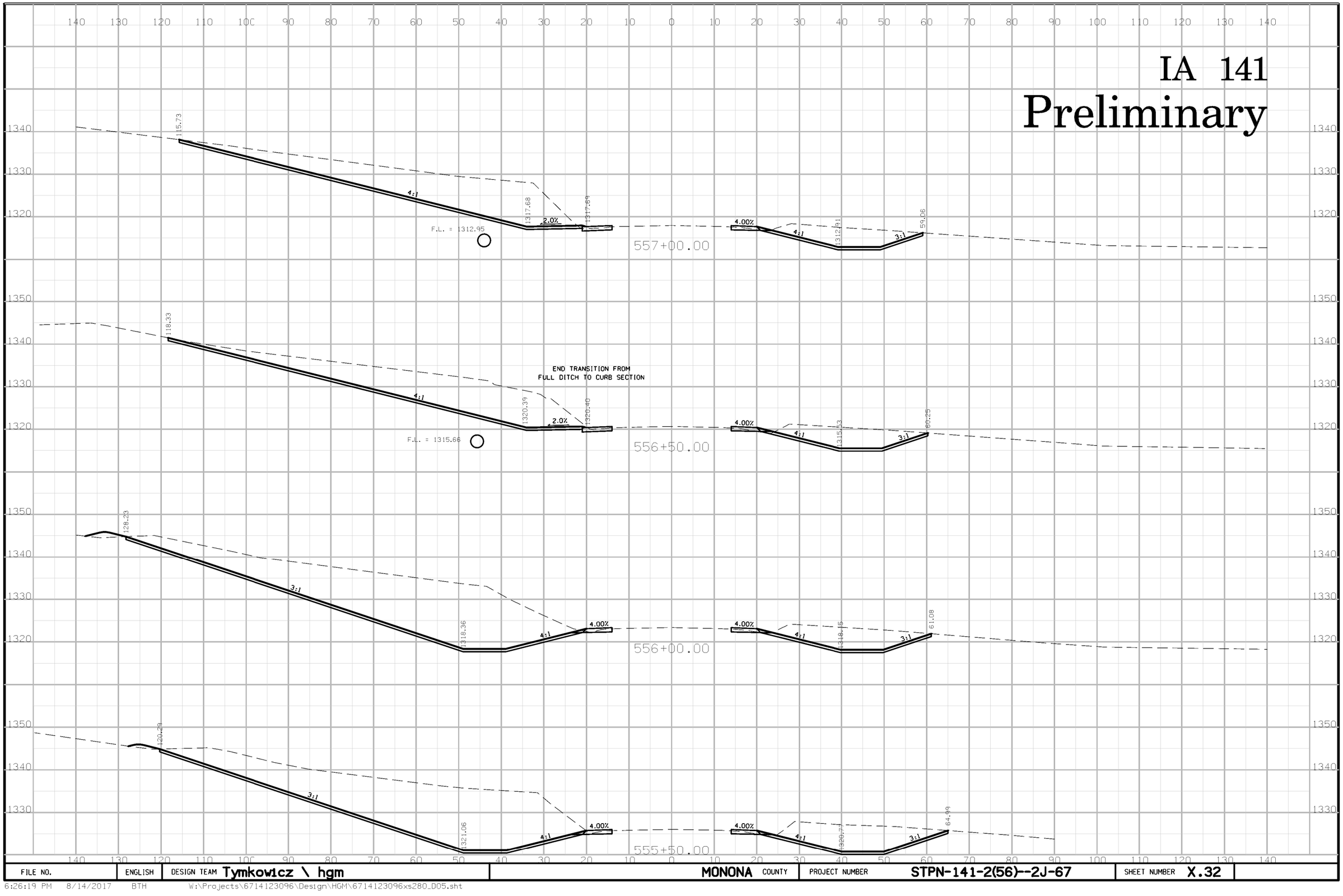
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.32	

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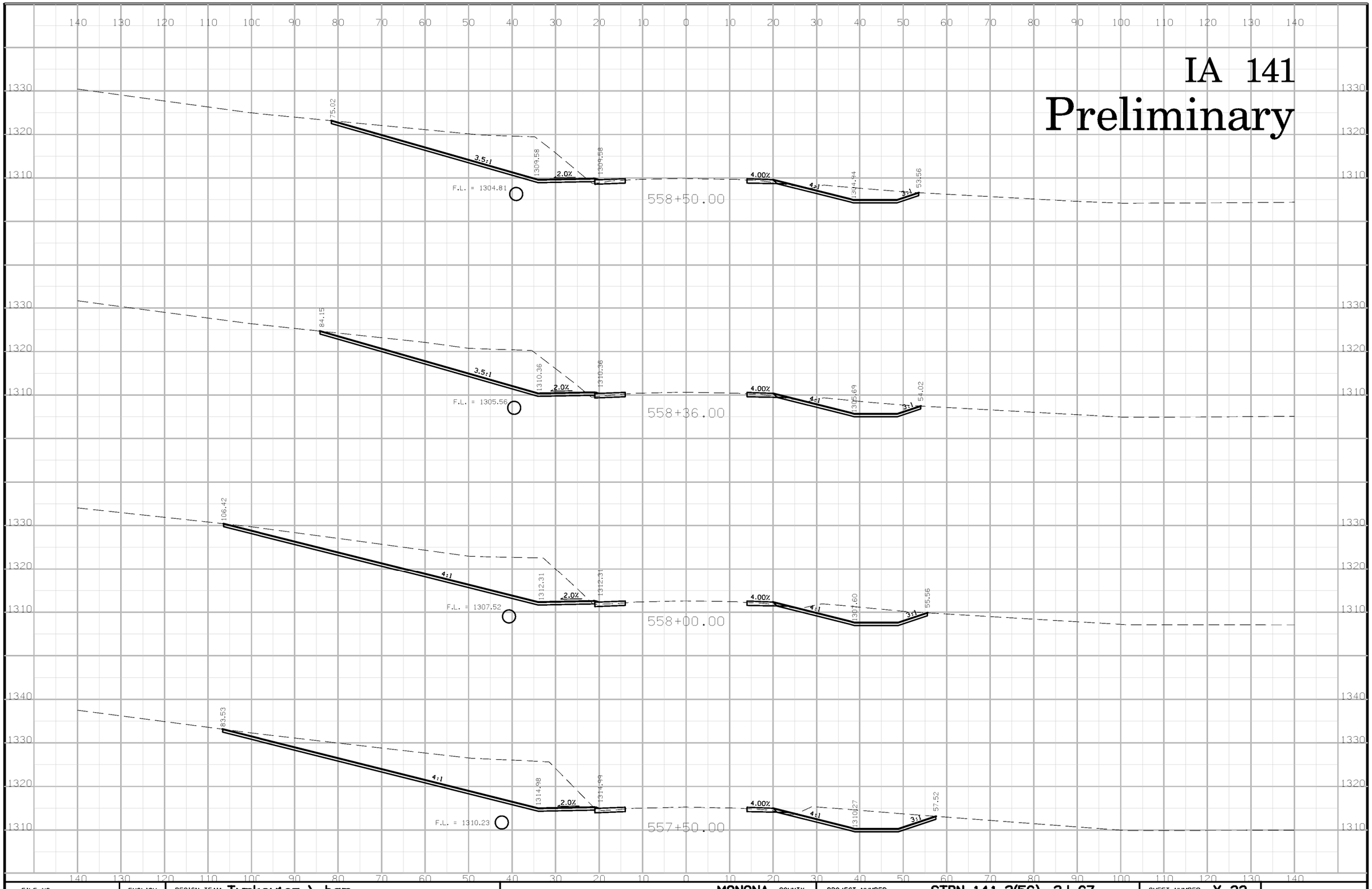
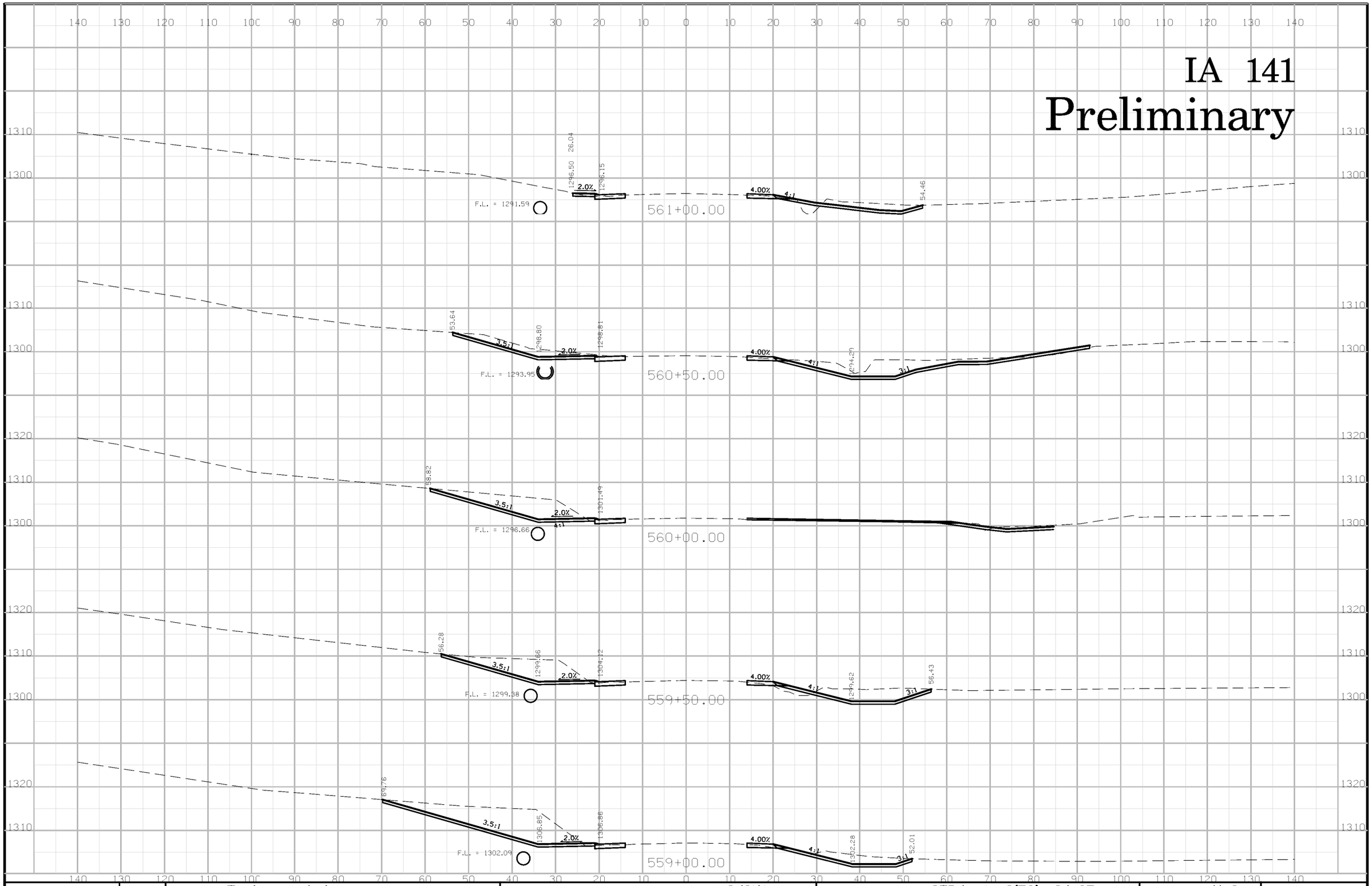
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.33

6:26:41 PM 8/14/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096xs280_D05.sht

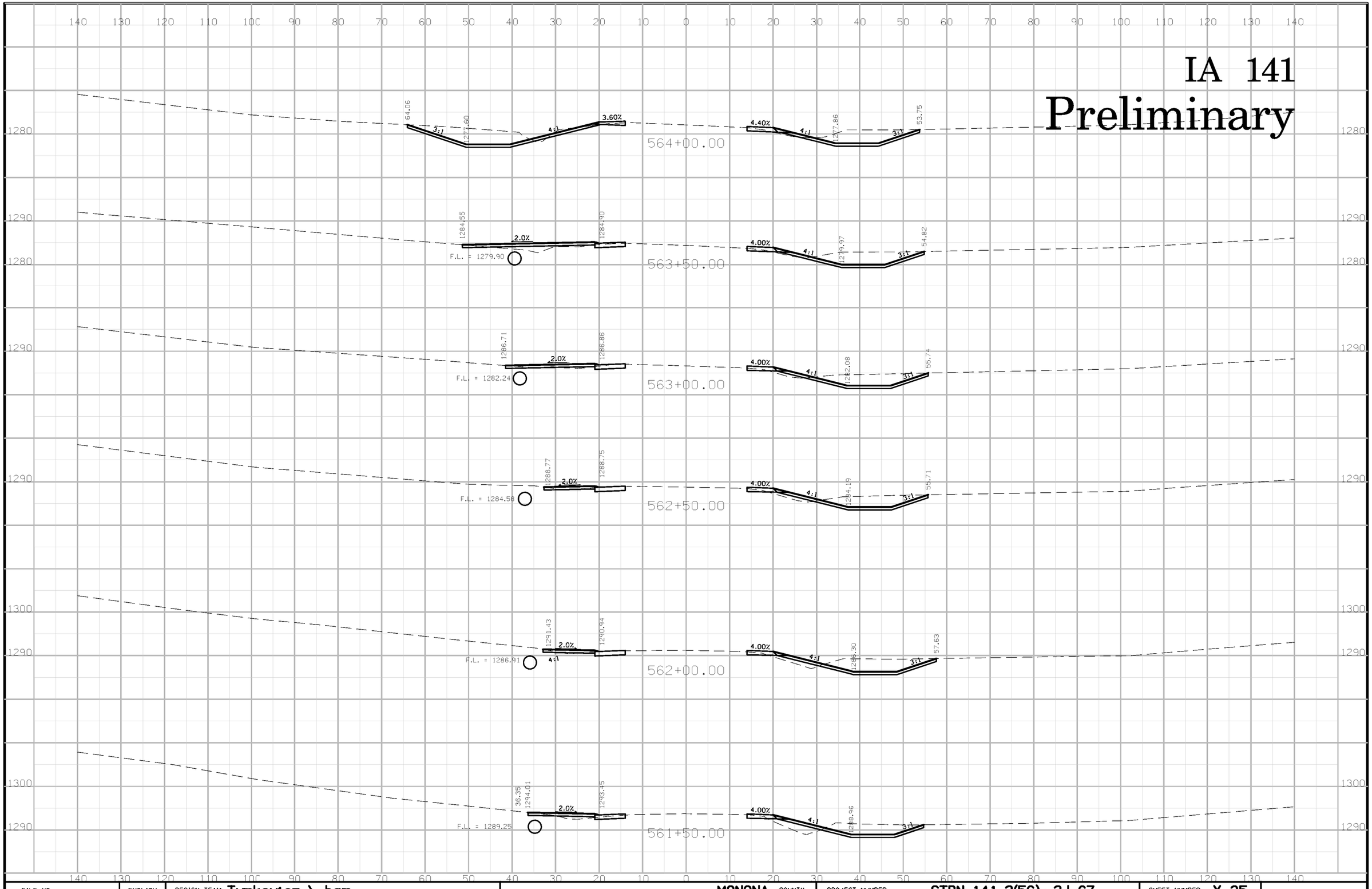
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.34

6:27:00 PM 8/14/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096xs280_D05.sht

IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.35

6:27:20 PM 8/14/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096xs280_D05.sht

IA 141
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

1280
1270

51.42 1266.60 3:1 4:1 3.60% 4.40% 4:1 1267.32 3:1 68.13
566+50.00

51.90 1268.80 3:1 4:1 3.60% 4.40% 4:1 1269.43 3:1 65.66
566+00.00

52.57 1271.00 3:1 4:1 3.60% 4.40% 4:1 1271.54 3:1 61.89
565+50.00

55.90 3.60% 4.40% 4:1 1273.64 3:1 58.42
565+00.00

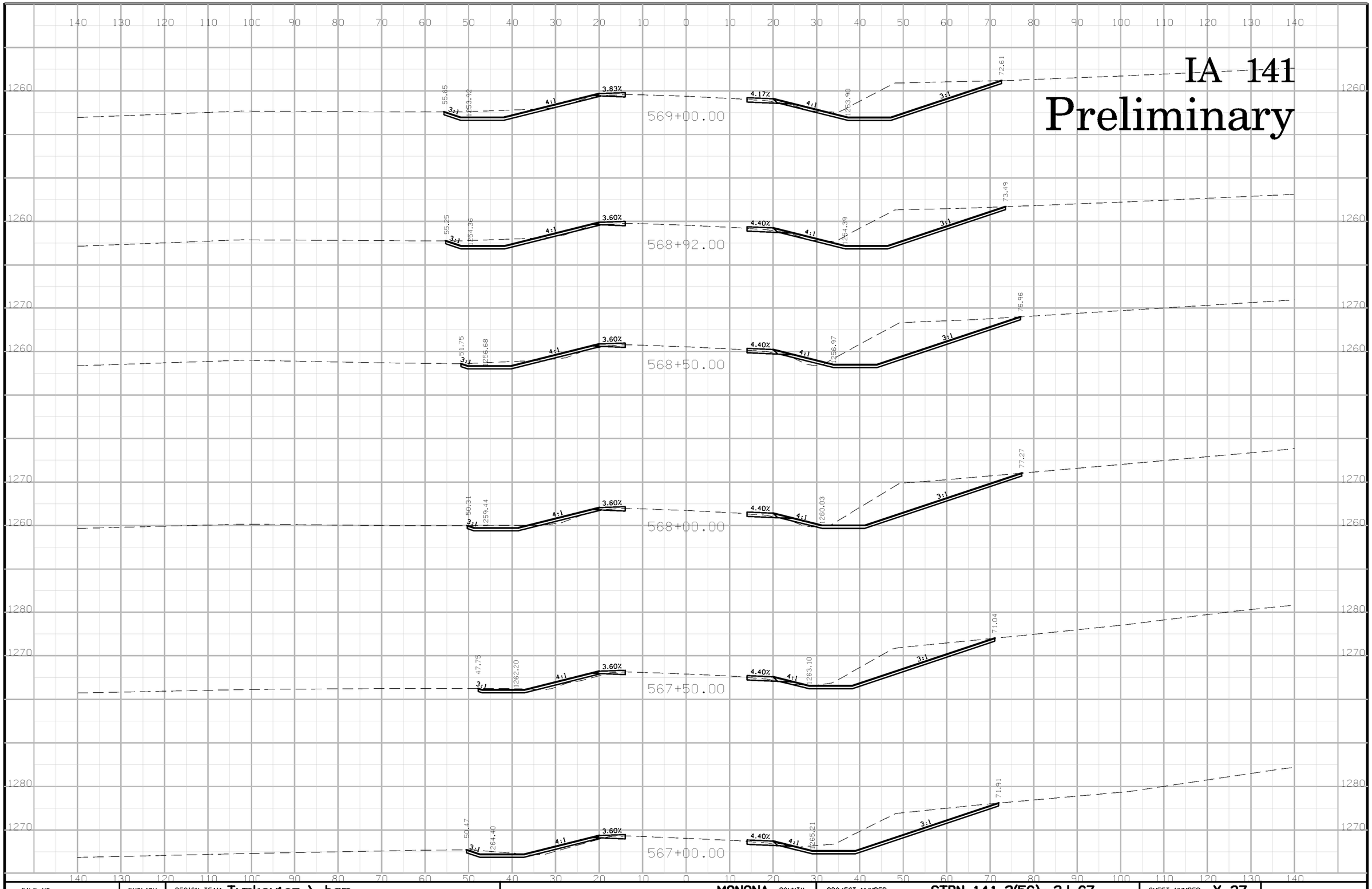
Field Entrance 4.40% 4:1 1275.04 3:1 54.40
564+67.00

58.27 3.60% 4.40% 4:1 1275.76 3:1 55.08
564+50.00

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.36

6:27:39 PM 8/14/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096xs280_D05.sht

IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.37

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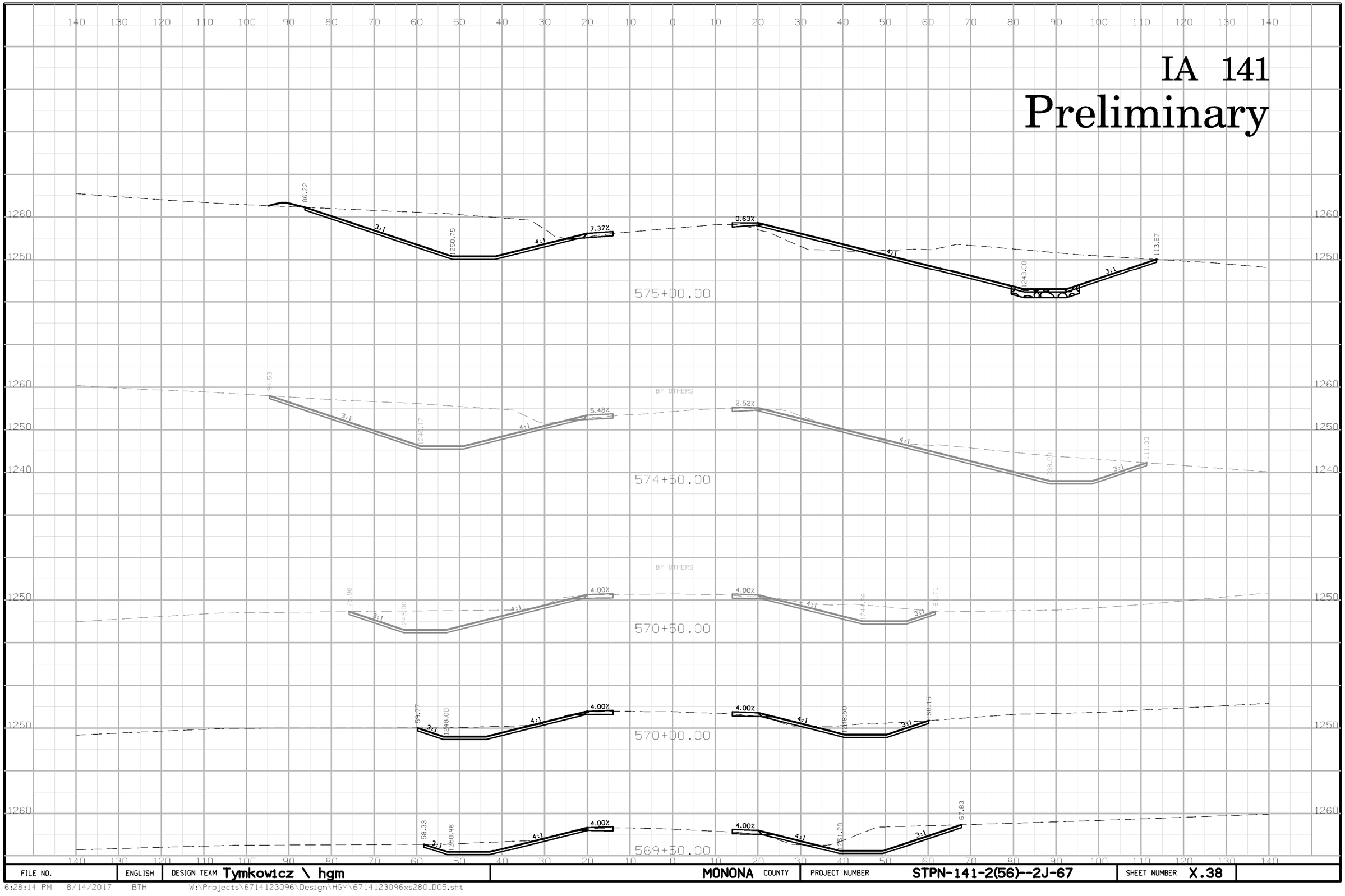
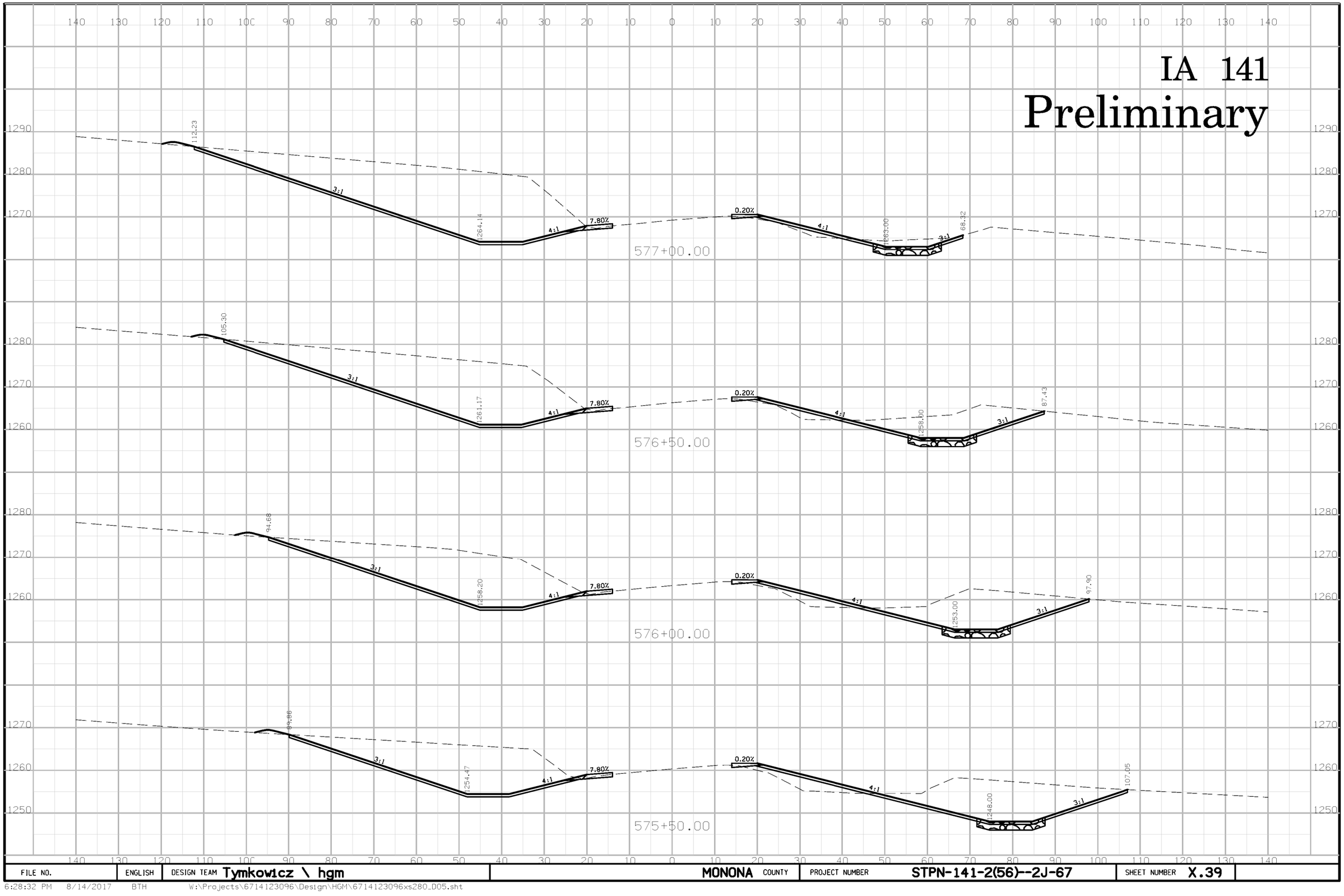
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.38

6:28:14 PM 8/14/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096xs280_D05.sht

IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.39

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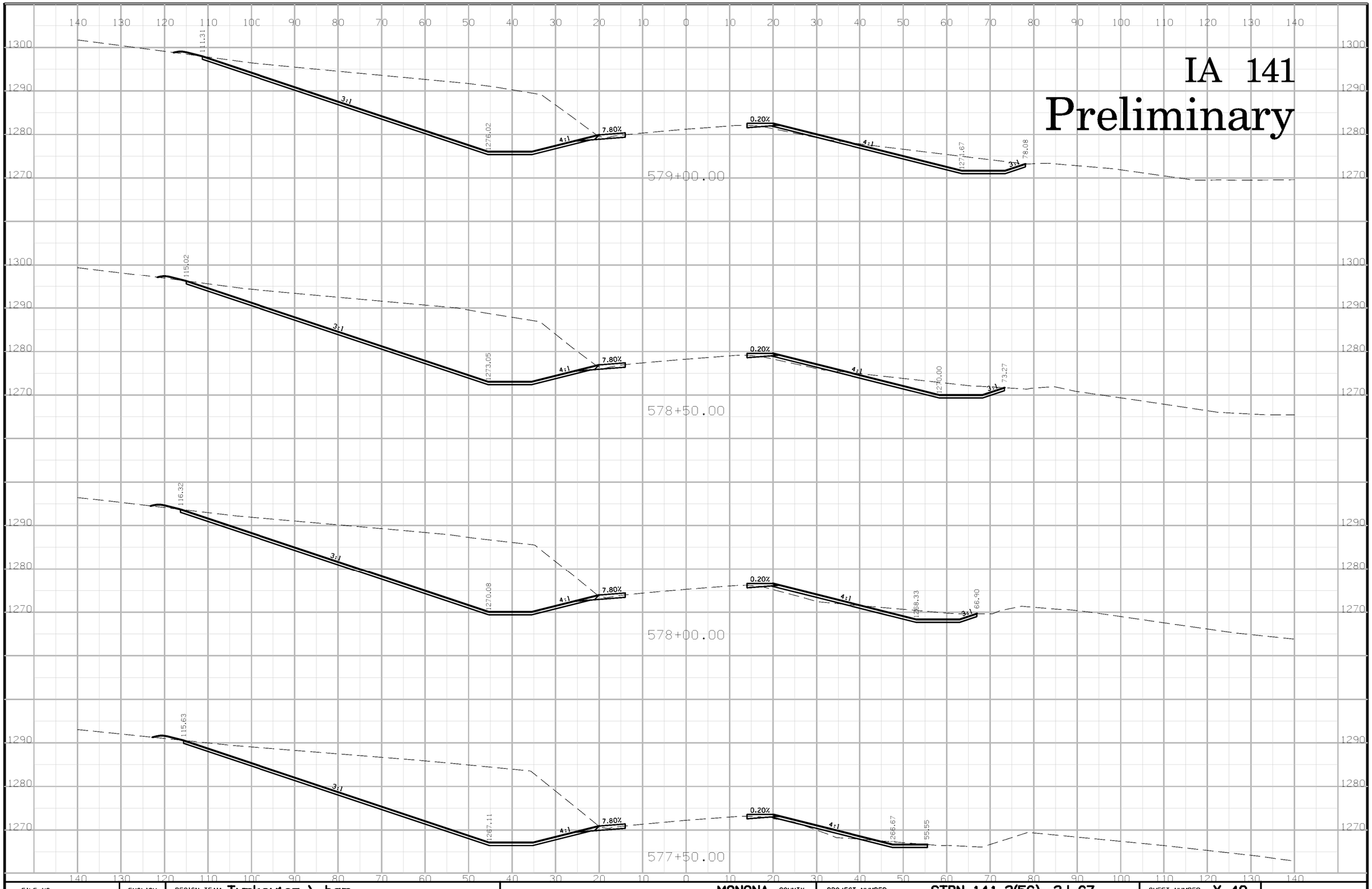
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.40

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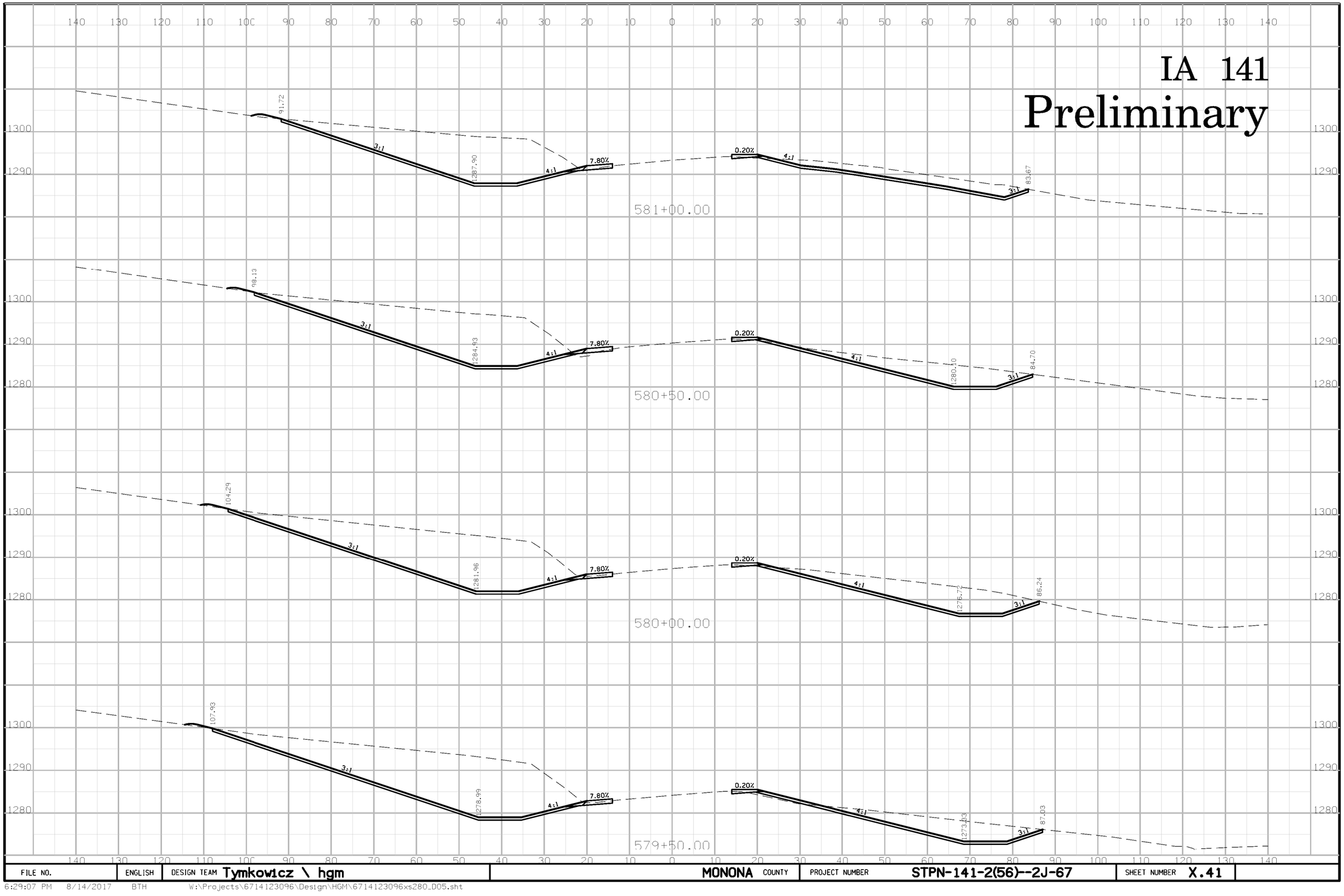
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.41

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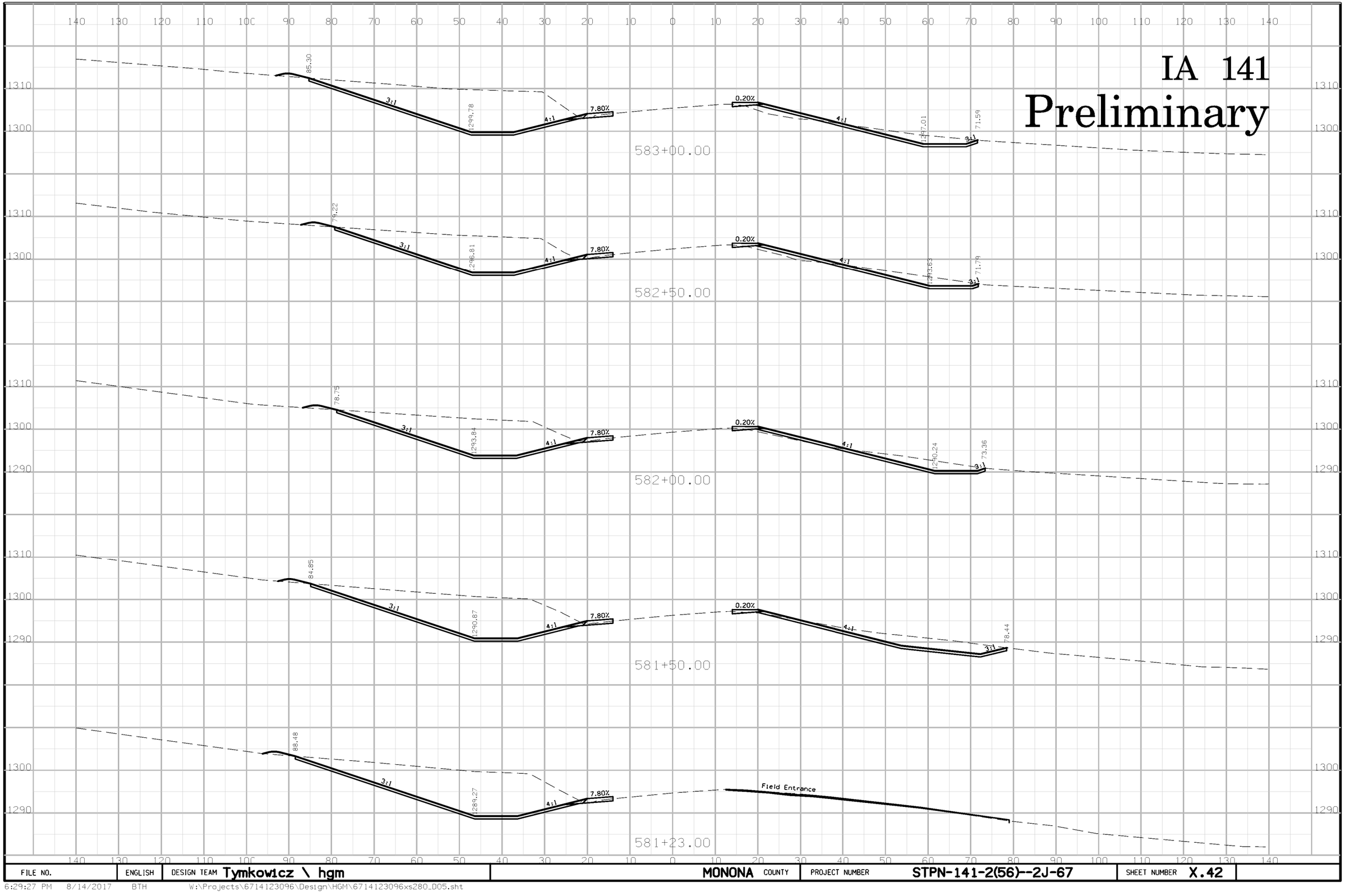
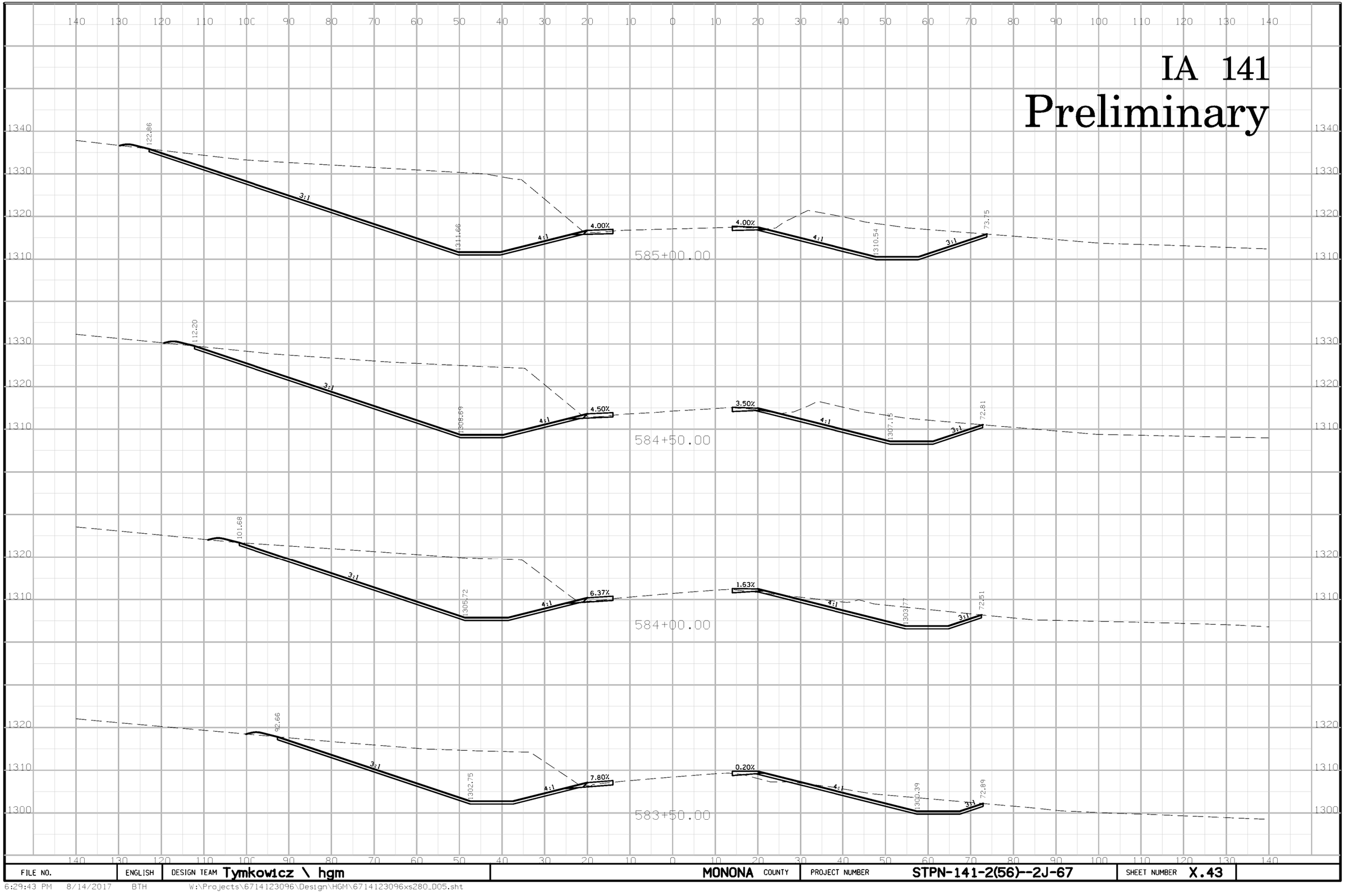
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.42

6:29:27 PM 8/14/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096xs280_D05.sht

IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.43

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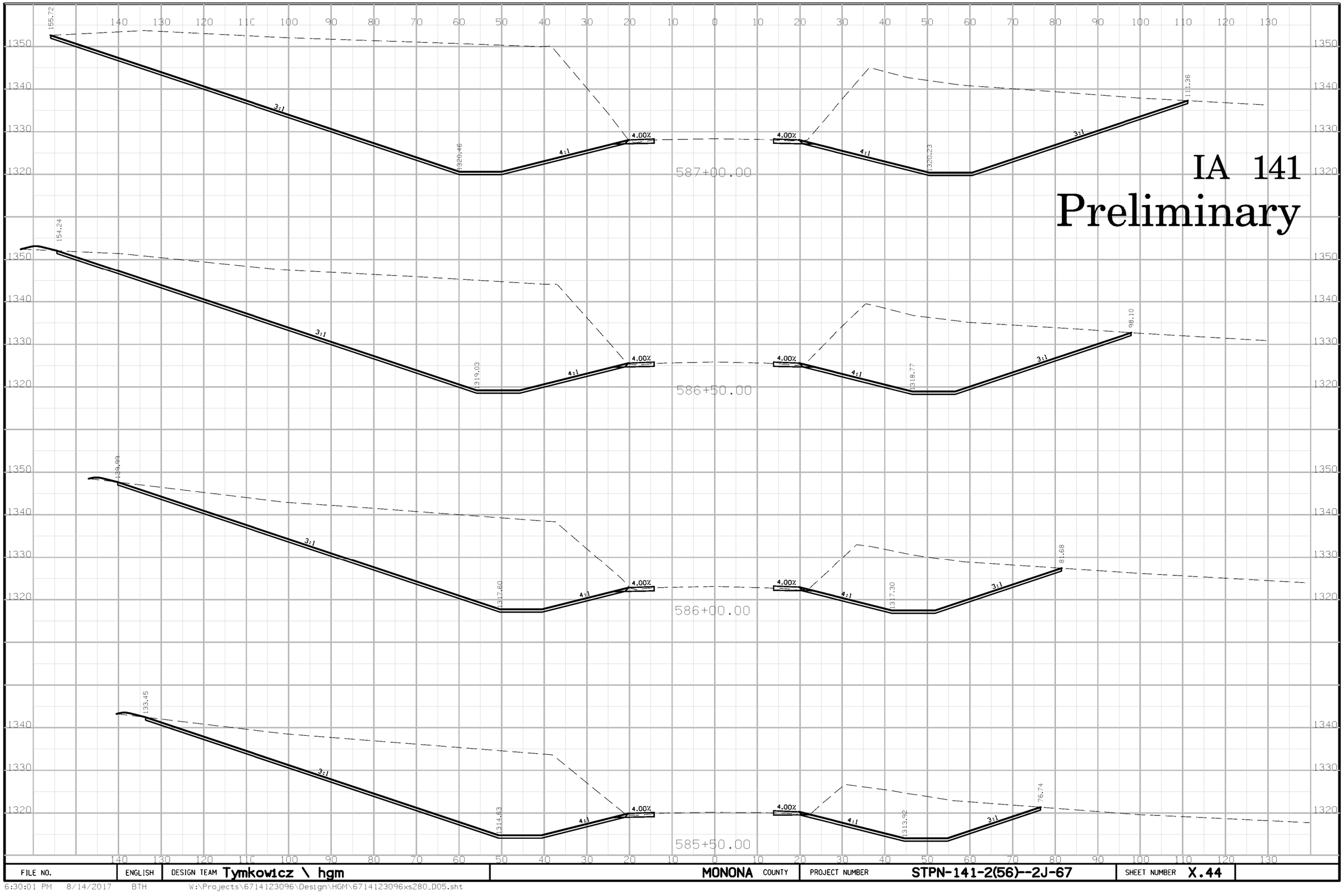

IA 141

Preliminary

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.44

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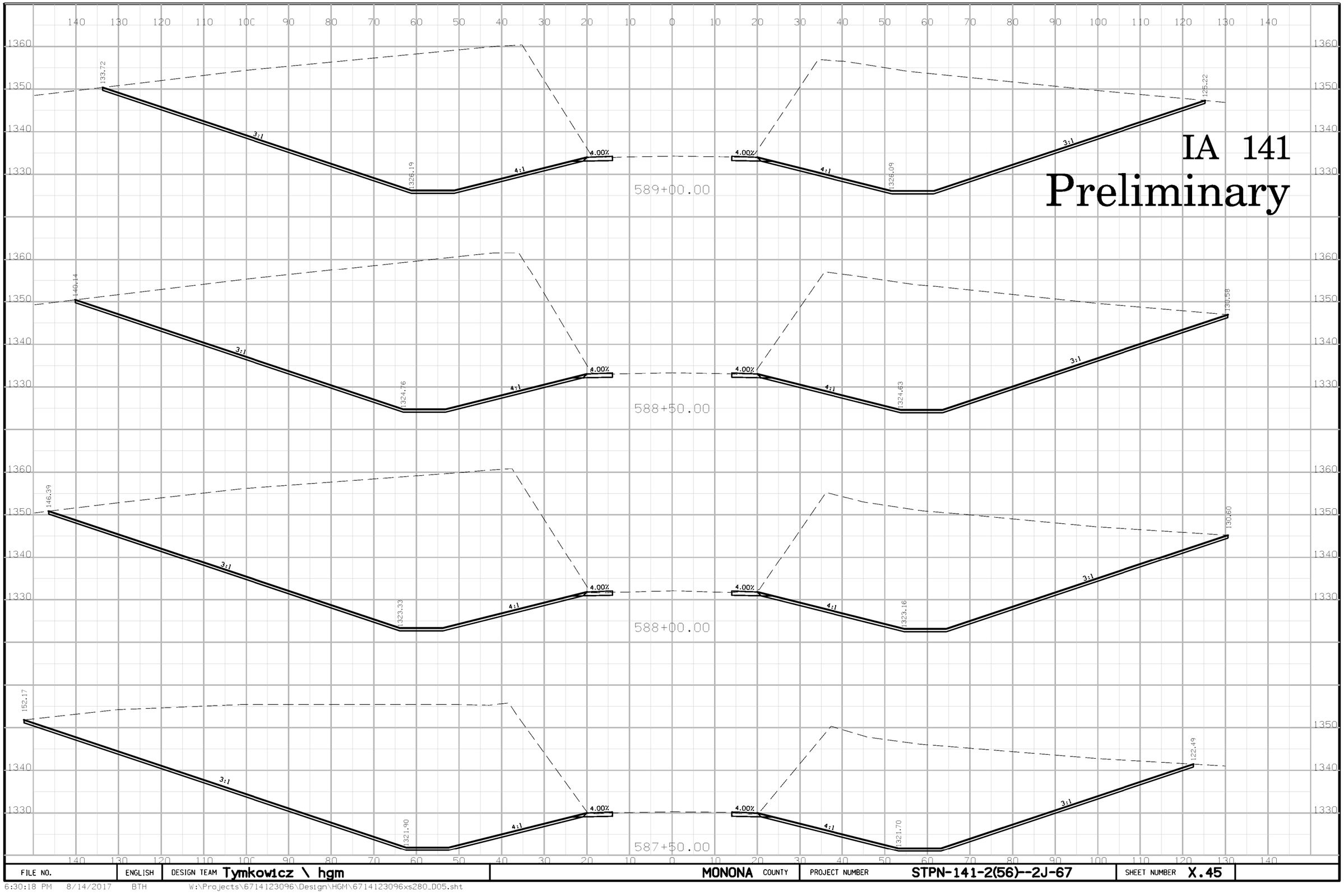
IA 141

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.45

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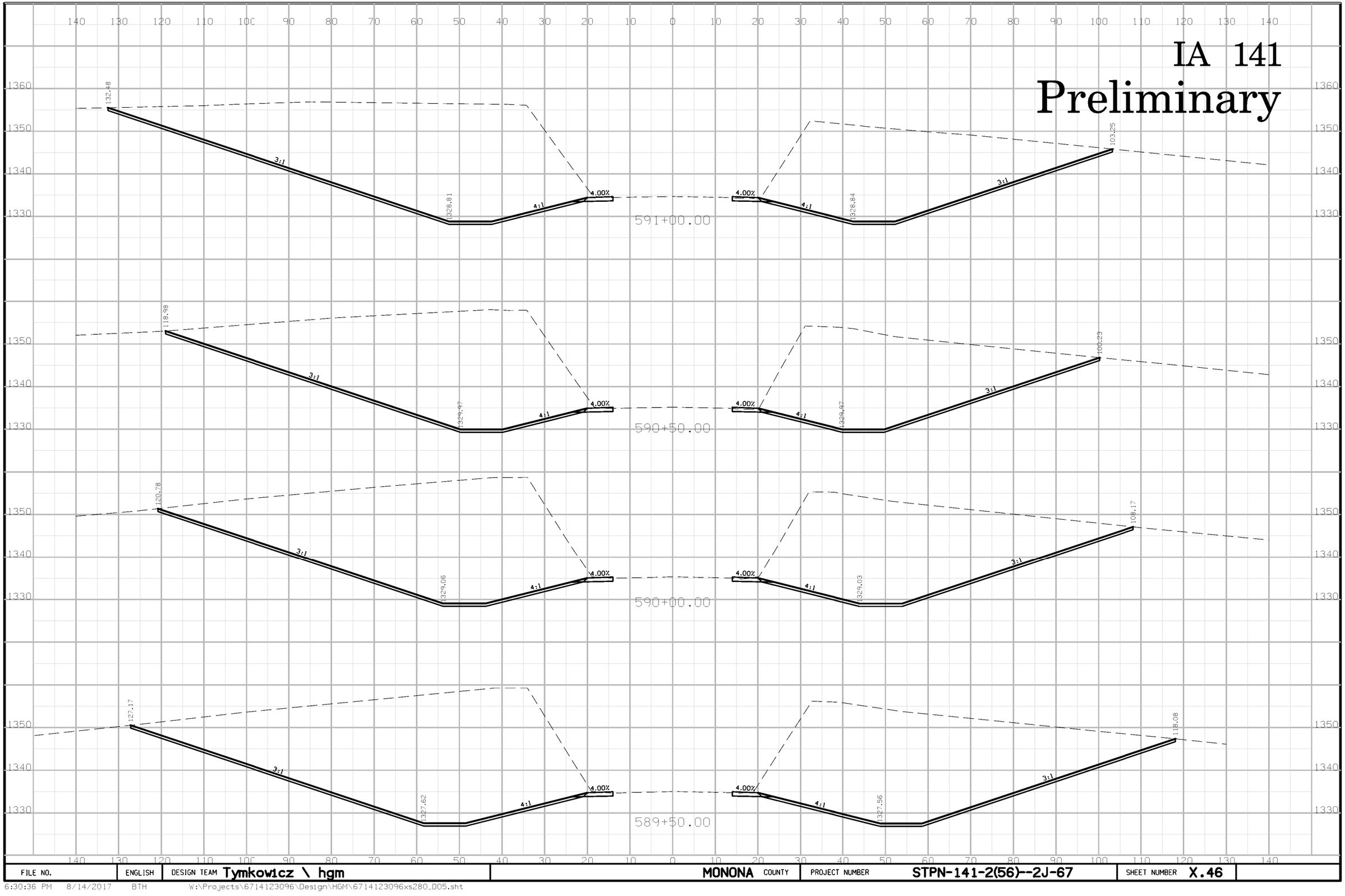
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.46

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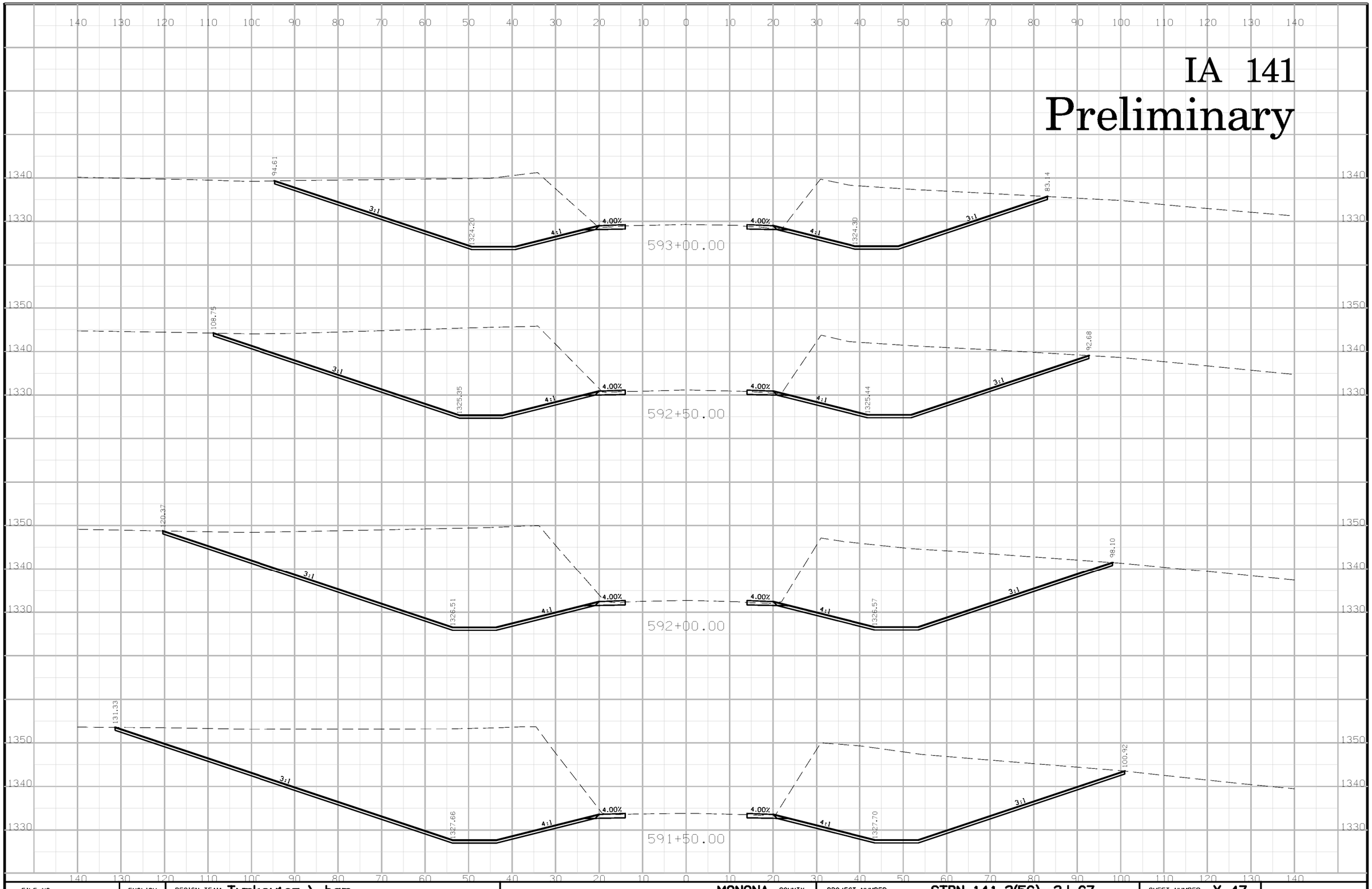
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.47

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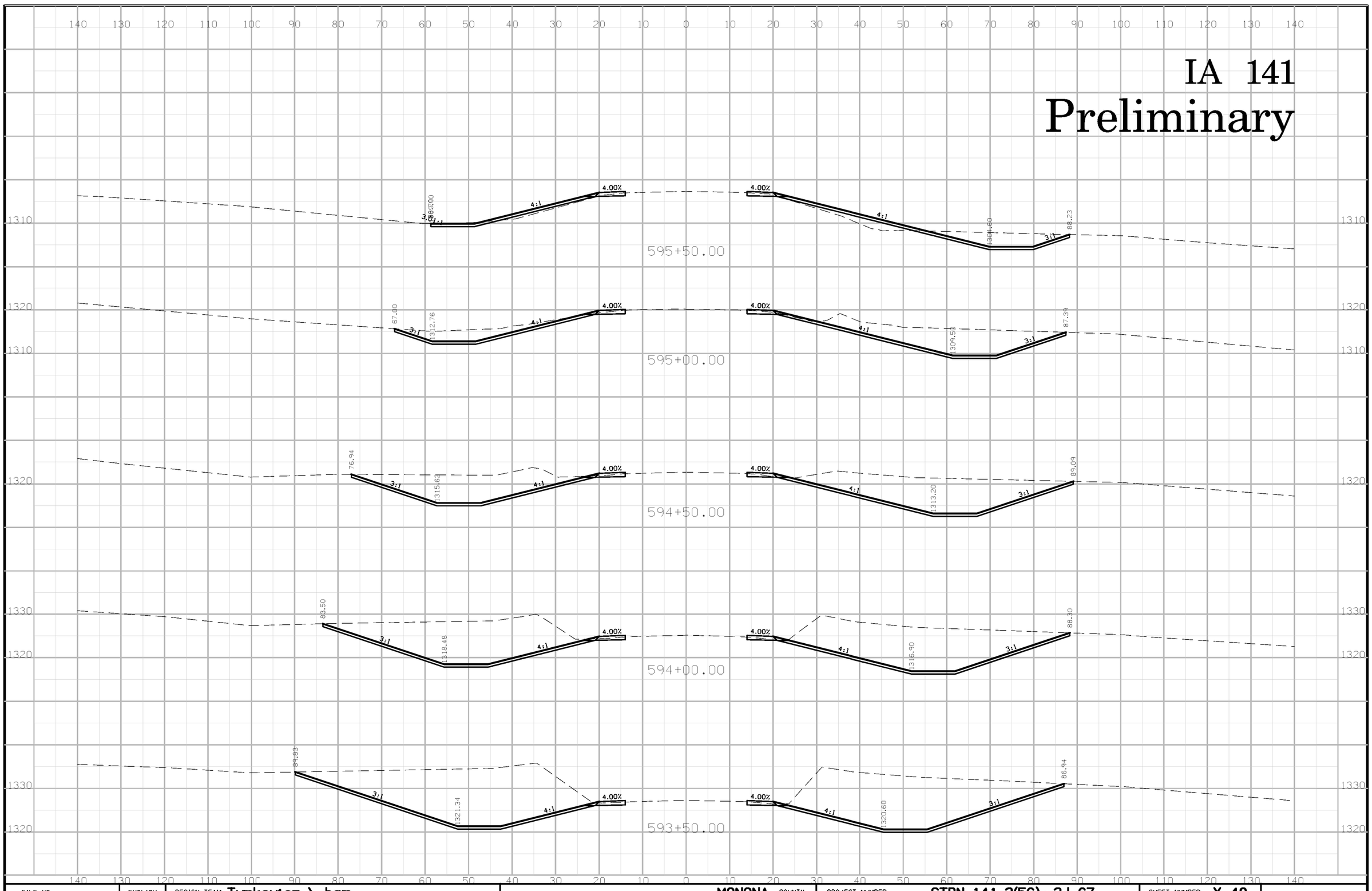
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.48

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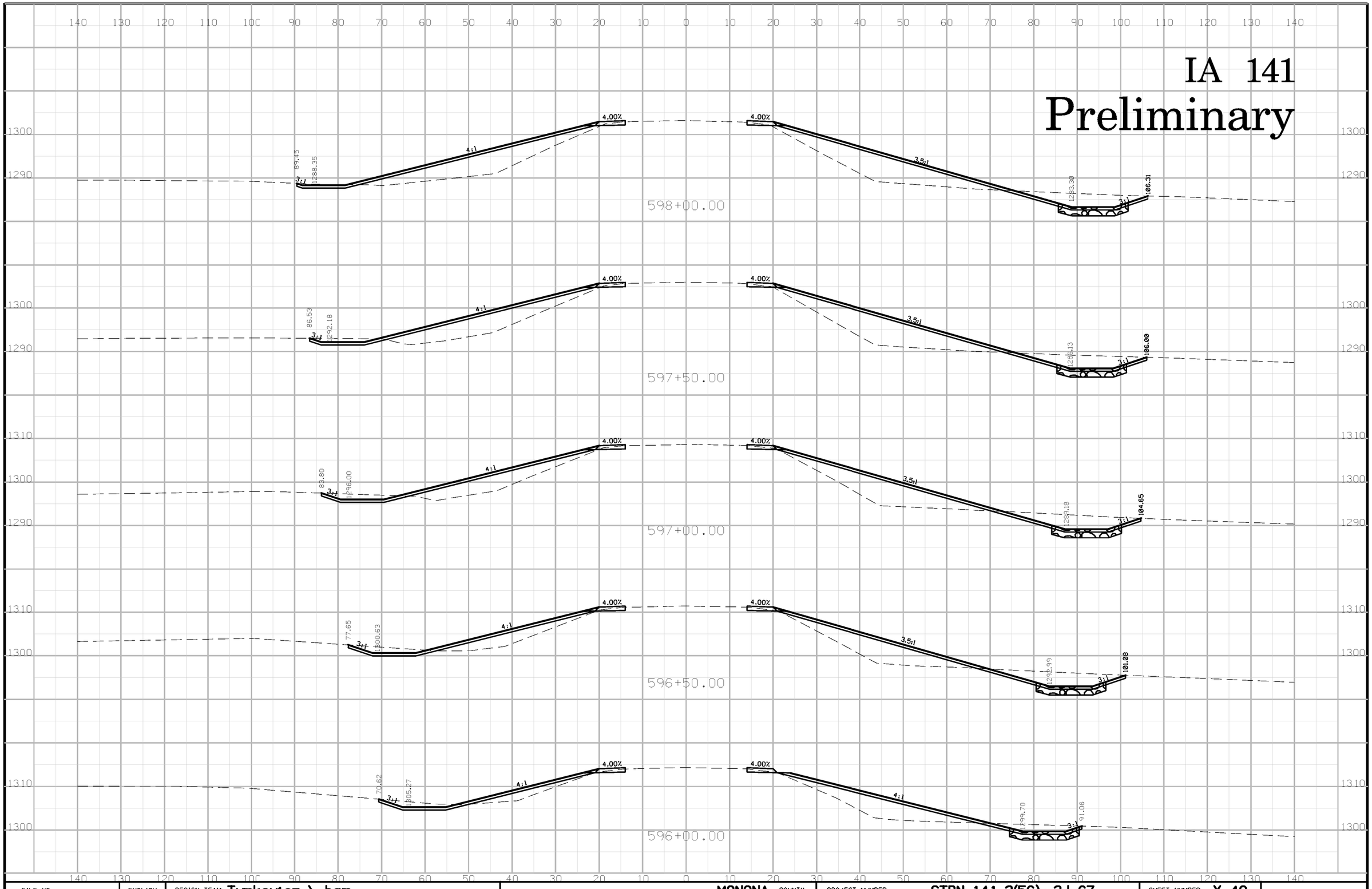
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.49

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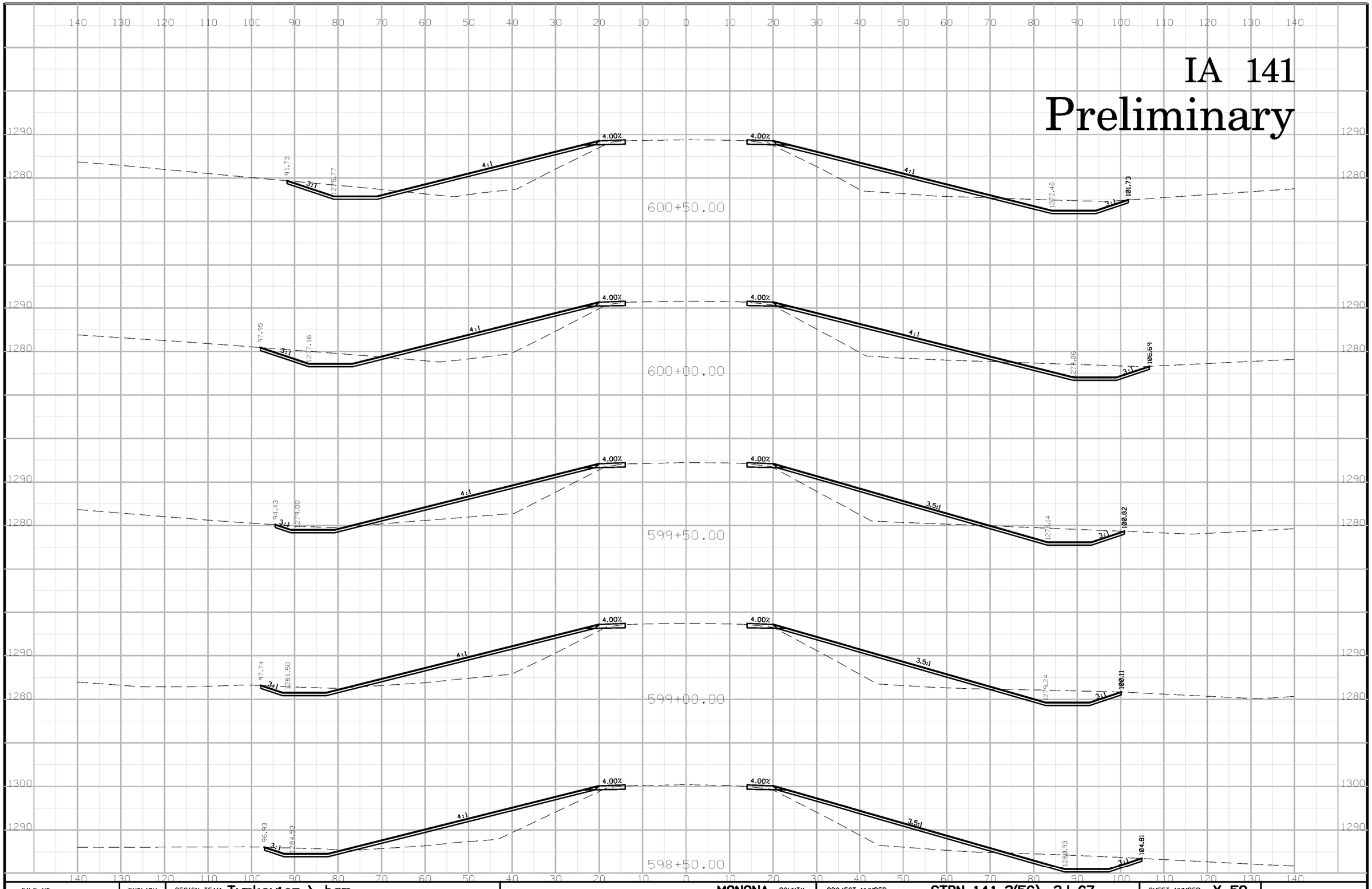
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.50

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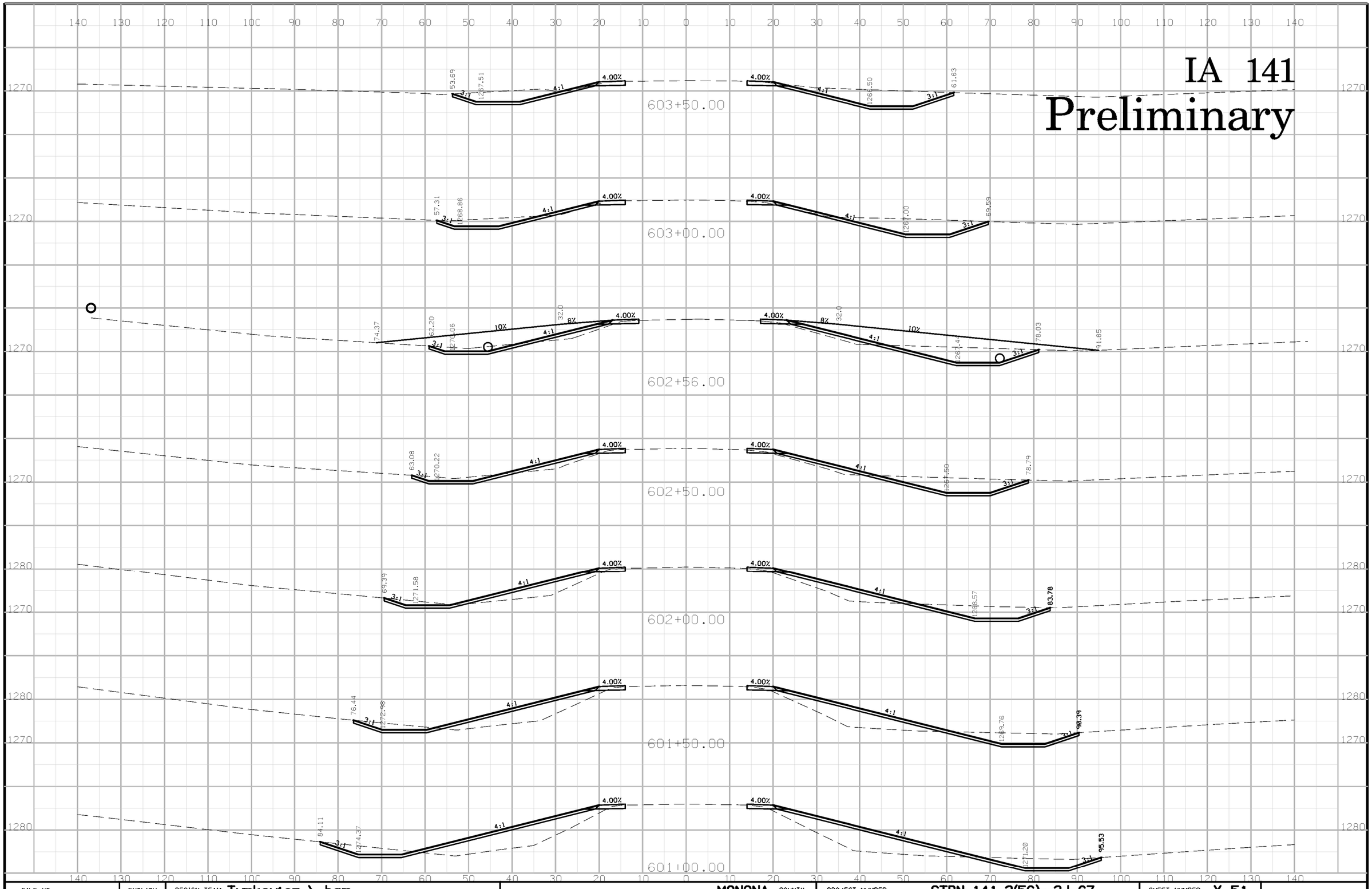
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.51

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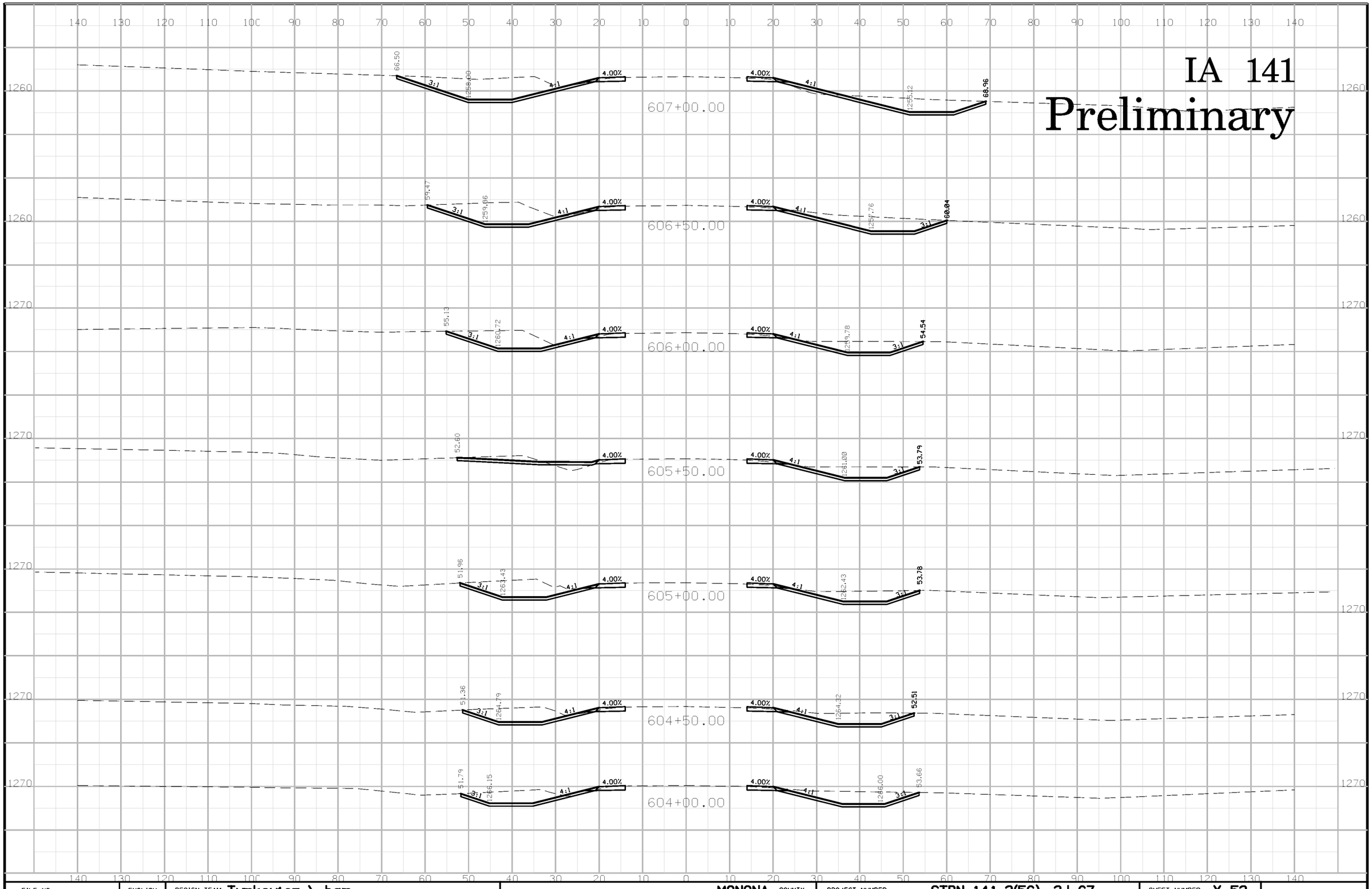
IA 141
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.52

6:38:08 PM 8/14/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096xs280_D05.sht

IA 141
Preliminary

609+50.00

52.79 3:1 1254.42 4:1 4.00%

4.00% 4:1 59.79

609+00.00

73.35 1256.48 4:1 4.00%

4:1 65.80 1250.44

608+65.91

87.48 3:1 1254.66 4:1 4.00% safety guard

4.00% projection 4:1 Scour Stop Scour Stop 1250.22

608+50.00

81.25 3:1 1255.31 4:1 4.00%

4.00% Tie-in to existing slope 4:1 1253.20 65.79

608+00.00

64.23 3:1 1257.39 4:1 4.00%

4.00% 4:1 1253.70 66.61

607+50.00

65.70 3:1 1257.00 4:1 4.00%

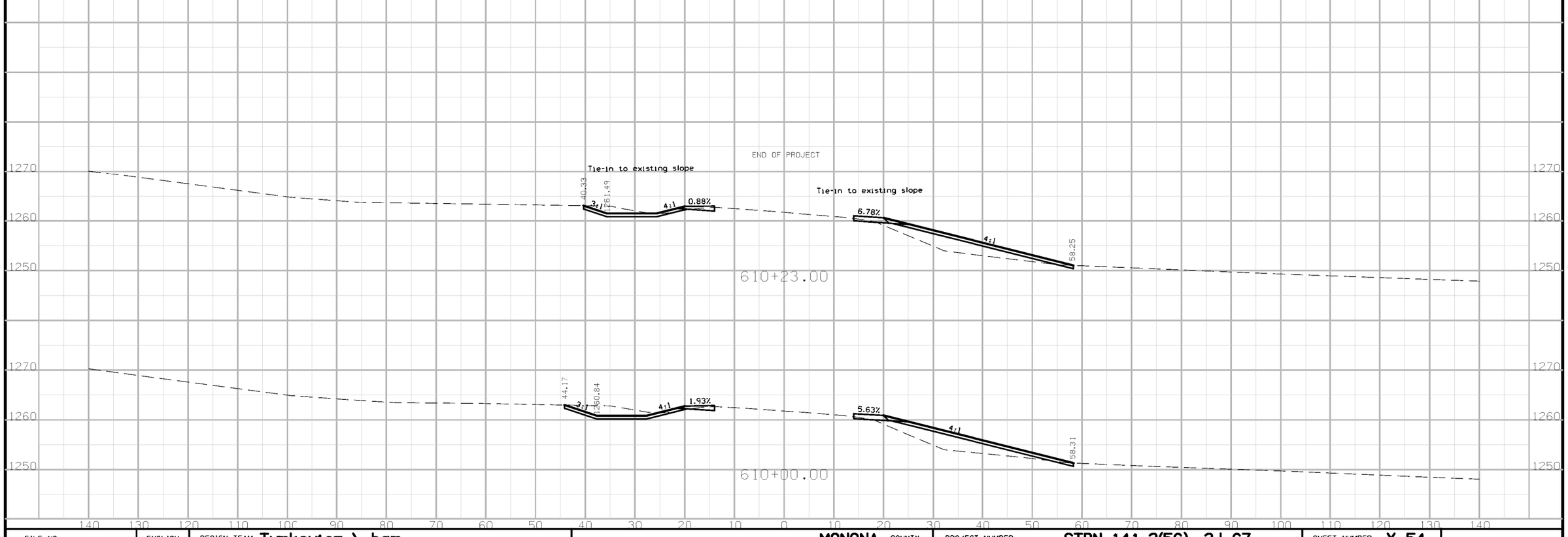
4.00% 4:1 1254.20 67.74

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.53

6:33:02 PM 8/14/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096xs280_D05.sht

IA 141

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER X.54

6:33:19 PM 8/14/2017 BTH W:\Projects\6714123096\Design\HGM\6714123096xs280_D05.sht

SPRUCE AVE
Preliminary

1499+75.00

ML 141 Ditch Bottom

1364.03

1499+00.00

ML 141 Side Slope

1498+75.00

Ditch Dike

ML 141 Ditch Bottom

1498+50.00

Ditch Dike

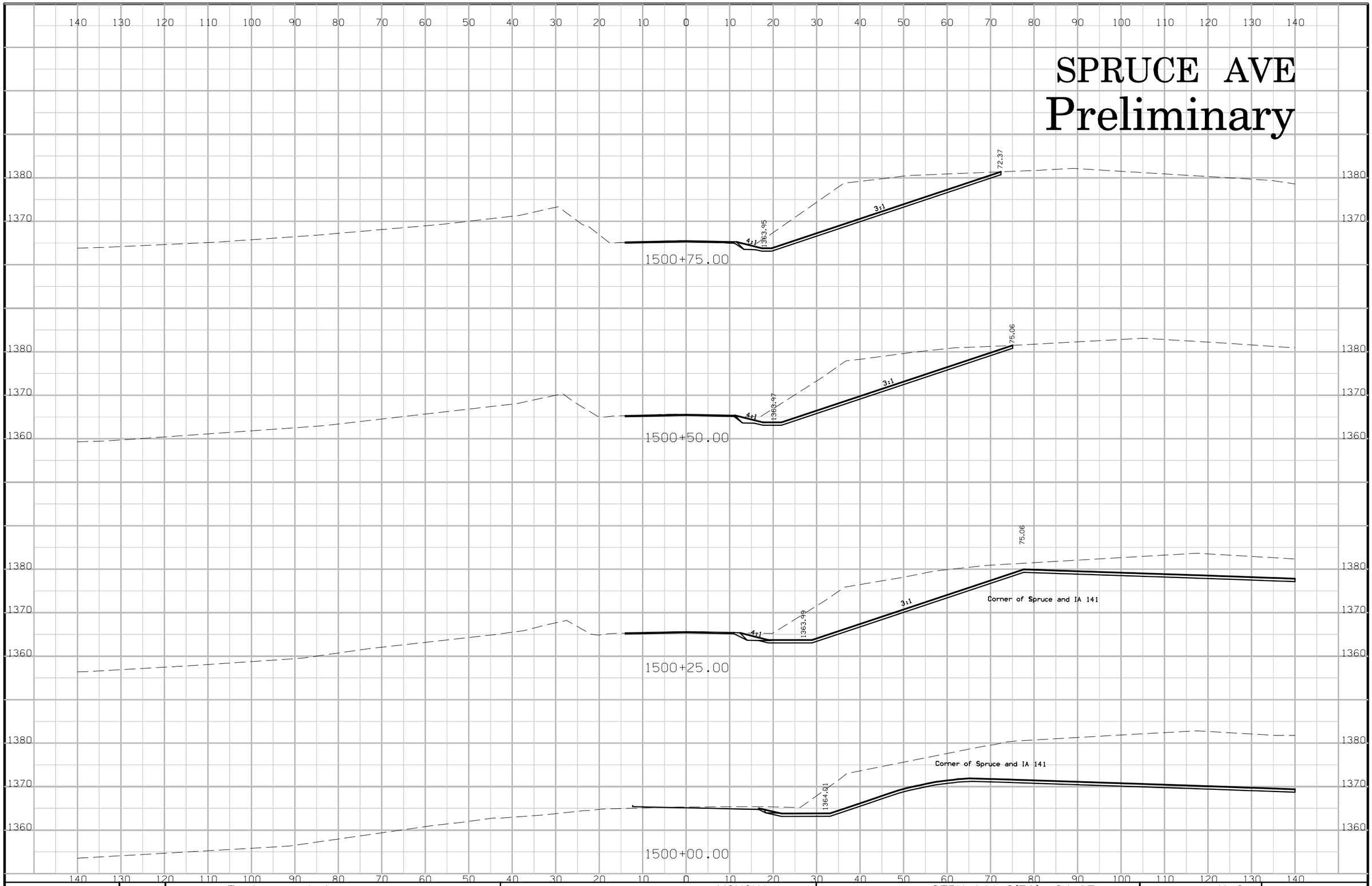
1498+25.00

Ditch Dike

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER Y.1

1:28:26 PM 11/9/2016 SLR W:\Projects\6714123096\Design\HGM\6714123096xs280_D05_SpruceAve.sht

SPRUCE AVE
Preliminary

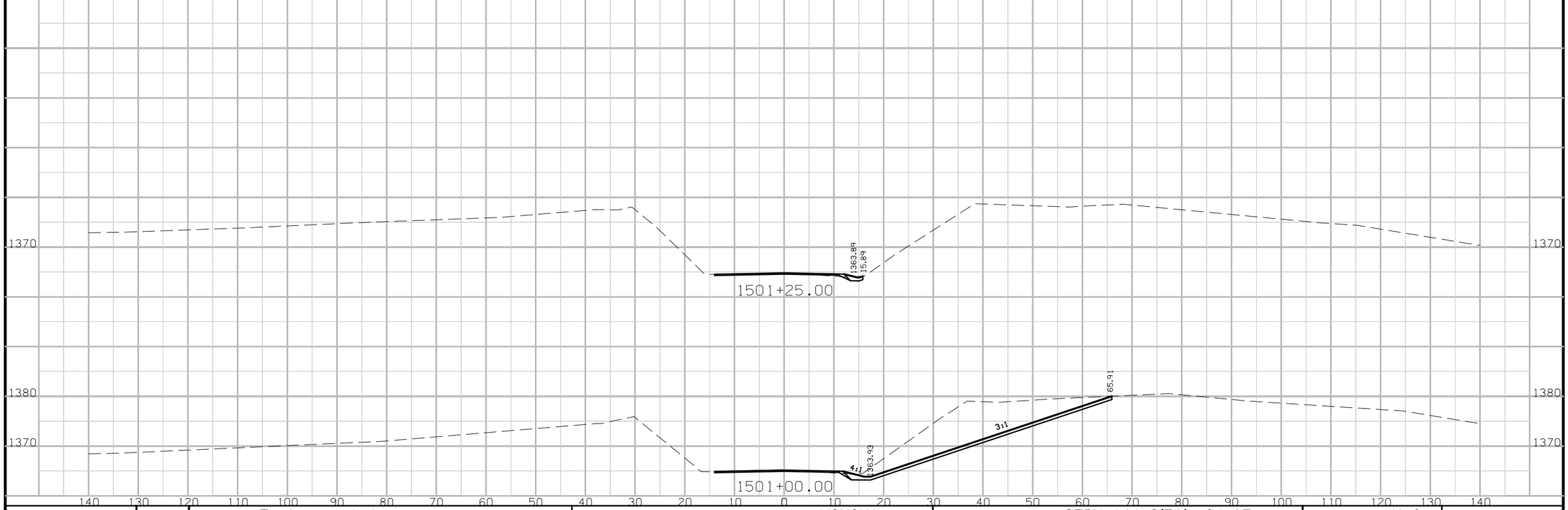


FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER Y.2

1:28:26 PM 11/9/2016 SLR W:\Projects\6714123096\Design\HGM\6714123096xs280_D05_SpruceAve.sht

SPRUCE AVE

Preliminary

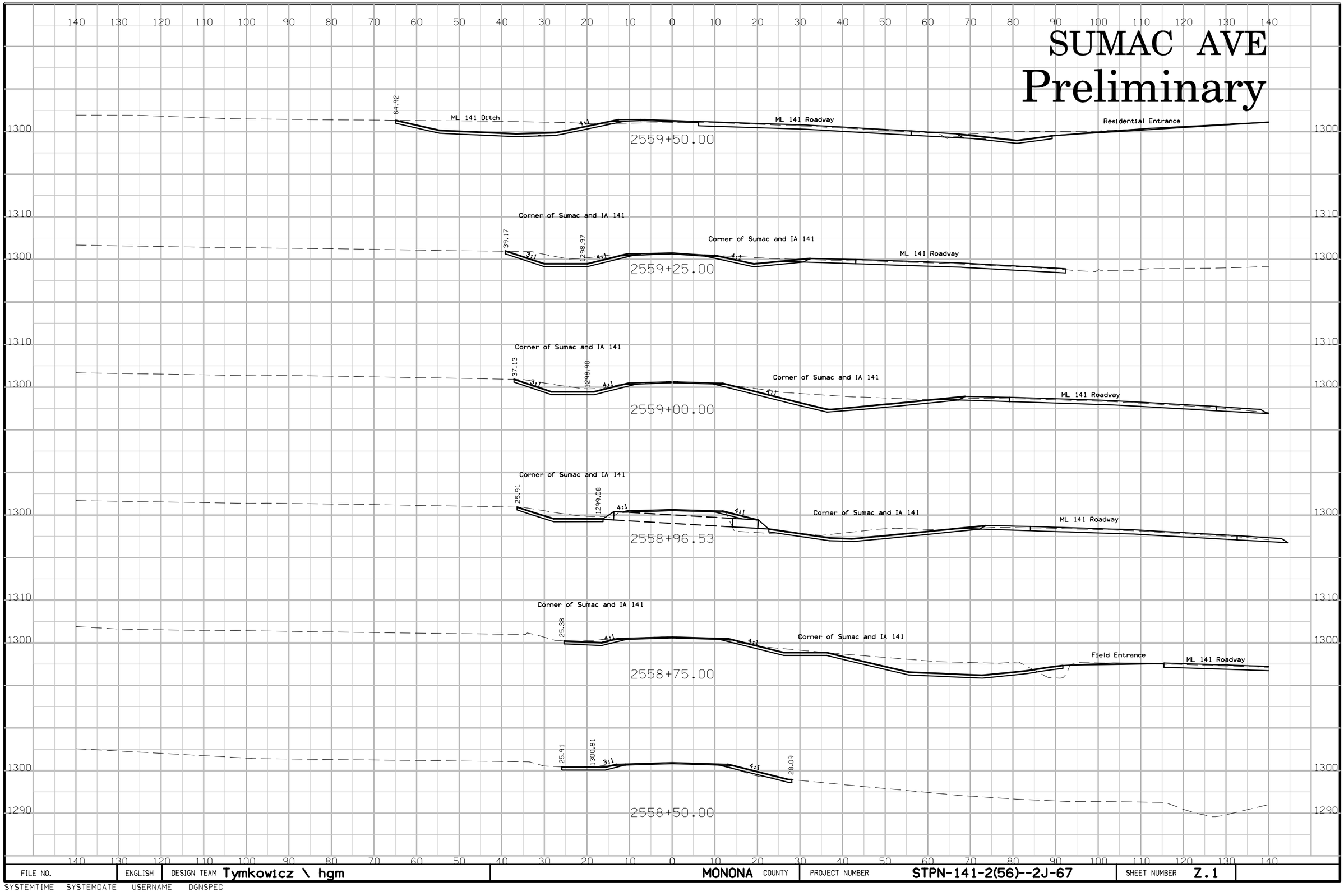


FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER Y.3

1:28:27 PM 11/9/2016 SLR W:\Projects\6714123096\Design\HGM\6714123096xs280_D05_SpruceAve.sht

SUMAC AVE

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER Z.1

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

SPRUCE AVE
Preliminary

1499+75.00

ML 141 Ditch Bottom

1364.03

1499+00.00

ML 141 Side Slope

1498+75.00

Ditch Dike

ML 141 Ditch Bottom

1498+50.00

Ditch Dike

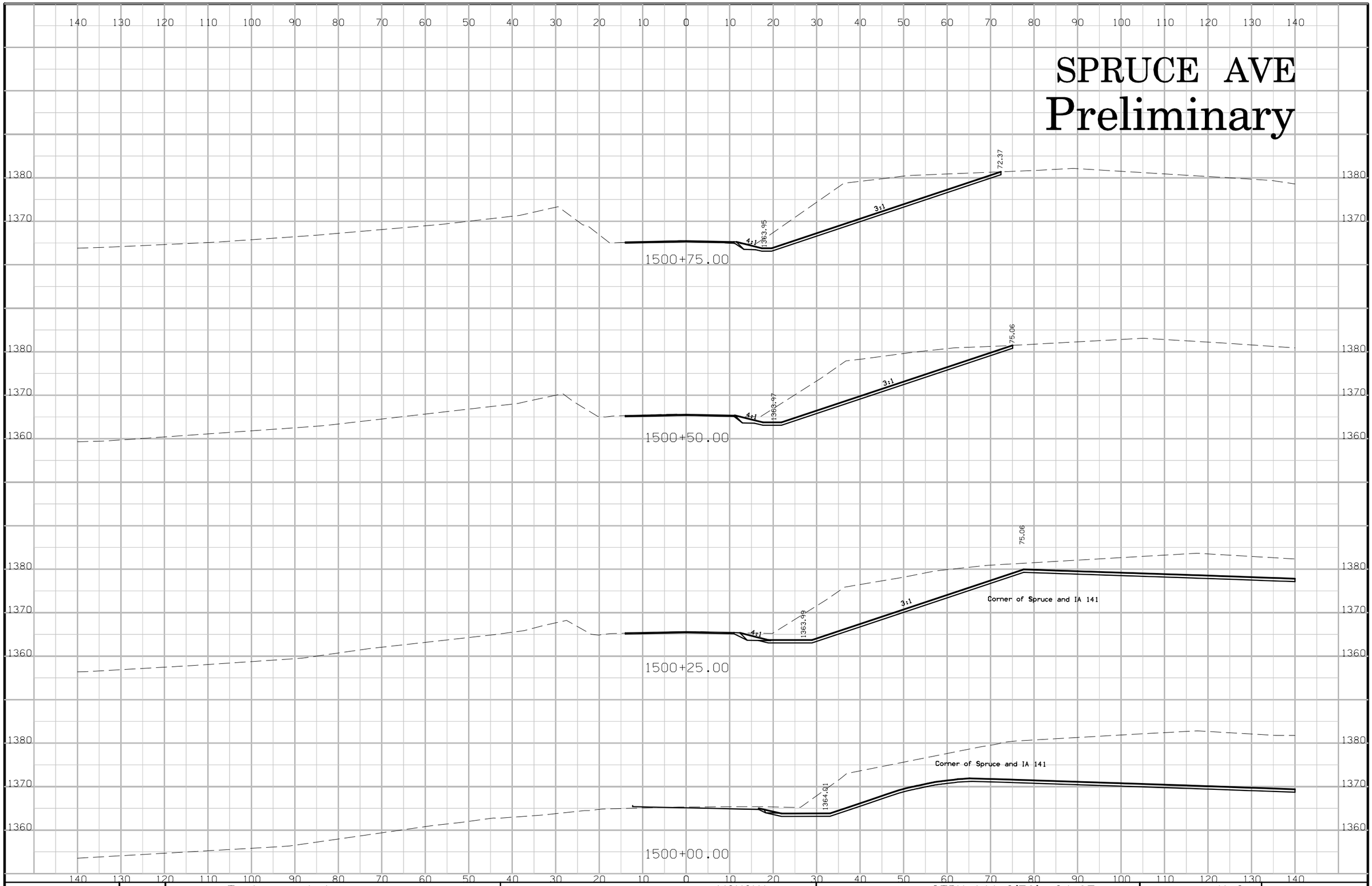
1498+25.00

Ditch Dike

FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER Y.1

1:28:26 PM 11/9/2016 SLR W:\Projects\6714123096\Design\HGM\6714123096xs280_D05_SpruceAve.sht

SPRUCE AVE
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER Y.2

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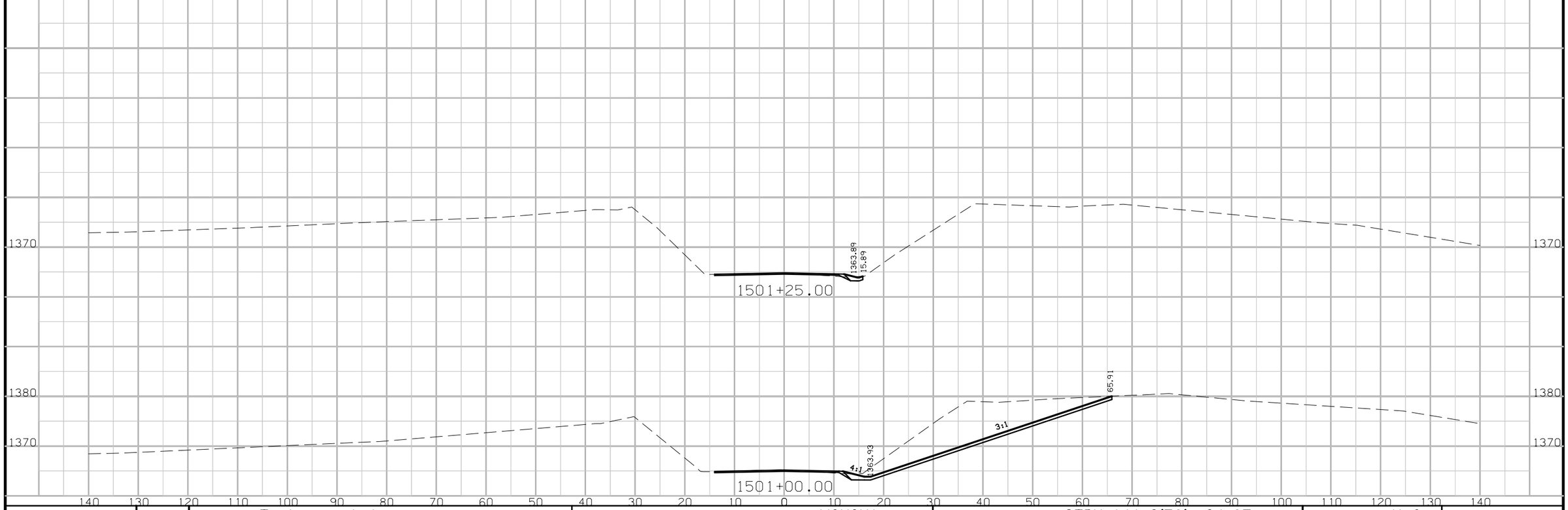
SPRUCE AVE

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER Y.3

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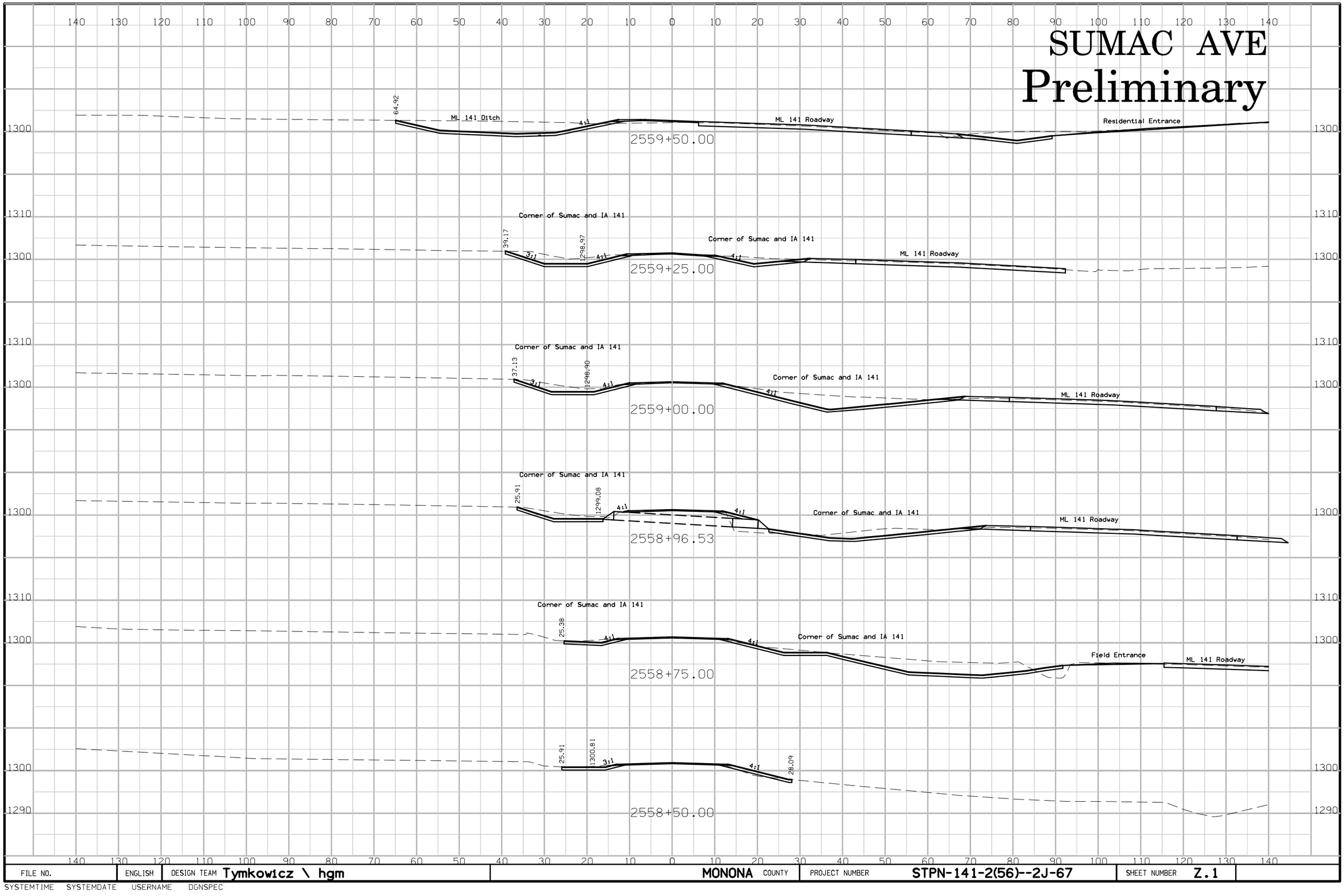
SUMAC AVE

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Tymkowicz \ hgm	MONONA COUNTY	PROJECT NUMBER STPN-141-2(56)--2J-67	SHEET NUMBER Z.1

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC