EAU DECEMBER 2013

PROJECT ID: 1630-01-71
WITH: 1634-03-71

COUNTY: TREMPEALEAU

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
~~Section No.~~	~~8~~	~~Structure Plans~~
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 76



26

N

DESIGN DESIGNATION

A.A.D.T. (2014)	=	4732
A.A.D.T. (2034)	=	6372
D.H.V. (2034)	=	956
D.D.	=	62/38
T.	=	6.6%
DESIGN SPEED	=	55 MPH
ESALS	=	N/A

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

GALESVILLE - WHITEHALL

STH 95 EAST INTERSECTION

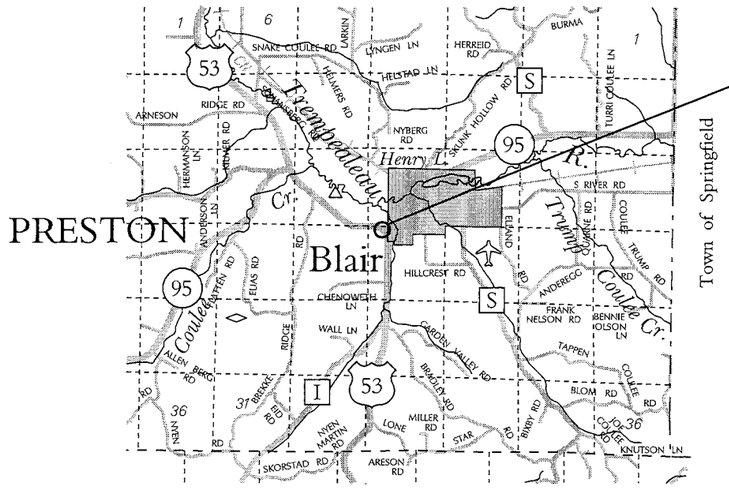
USH 53

TREMPEALEAU COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1630-01-71	———	—

STATE PROJECT NUMBER
1630-01-71

R-7-W



BEGIN PROJECT
STA. 436+00
Y = 411504.739
X = 875413.650

END PROJECT
STA. 441+90

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.108 MI.

"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), TREMPEALEAU' COUNTY."

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NW REGION
Designer	ADAM SARAUER
Project Manager	STACEY RUSCH
Regional Examiner	DAN OJIBWAY
Regional Supervisor	RICK SHERMO
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 7/24/13 (Signature)

E

FILE NAME : c:\Users\PROJECTS\D6\163001\010101_ti.dgn PLOT DATE : 25-JUL-2013 07:12 PLOT BY : DOTAAS PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 10

UTILITIES & OTHER CONTACTS

TIM HOLTAN
RIVERLAND ENERGY COOPERATIVE
P.O. BOX 277
ARCADIA, WI 54612
(608) 323-3381

MIKE LIGHTFOOT
TRI-COUNTY COMMUNICATIONS COOPERATIVE
23451 WHITEHALL ROAD
P.O. BOX 727
INDEPENDENCE, WI 54747
(715) 695-2691

KAYE CROOK
XCEL ENERGY
1003 BLACK RIVER STREET SOUTH
SPARTA, WI 54665
(608) 789-3677

DNR REGIONAL TRANSPORTATION LIAISON

ATTN: KAREN KALVELAGE
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
(608) 785-9115

DIGGERS HOTLINE

Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

ABBREVIATIONS

ACCESS POINT	A.P.	LENGTH OF CURVE	L.	SECTION	SEC.
ACRES	AC.	LIMITED HIGHWAY EASEMENT	L.H.E.	SHED	S
AHEAD	AH.	MILE	MI.	SOUTHEAST	SE
AND OTHERS	ET AL	NORTHEAST	NE	SOUTHWEST	SW
BACK	BK.	NORTHWEST	NW	STATION	STA.
BARN	B	PERMANENT	PERM.	STREET	ST.
BUILDINGS	BLDGS.	POINT OF CURVATURE	P.C.	TANGENT	TAN.
CENTRAL ANGLE	Δ	POINT OF INTERSECTION	P.I.	TAVERN	TAV.
CHANNEL CHANGE	CH. CH.	POINT OF TANGENCY	P.T.	TEMPORARY	TEMP.
COMPANY	COM.	POINT OF COMPOUND CURVE	P.C.C.	UNITED STATES COAST & GEODETIC SURVEY	U.S.C. & G.S.
CORNER	COR.	POINT OF REVERSE CURVE	P.R.C.		
CORPORATION	CORP.	POINT ON CURVE	P.O.C.	UNITED STATES GEOLOGICAL SURVEY	U.S.G.S.
COUNTY	CO.	PROJECT	PROJ.		
COUNTY TRUNK HIGHWAY	C.T.H.	PROPERTY LINE	P.L.		
CREEK	CR.	QUIT CLAIM DEED	Q.C.D.	UNITED STATES HIGHWAY	U.S.H.
DEGREE OF CURVE	D	RADIUS	R	WELL	W
GARAGE	G	RAILROAD	RR		
GOVERNMENT	GOV'T.	RAILWAY	RY		
HOUSE	H	REQUIRED	REQ'D.		
HOUSE TRAILER	H.T.	RIGHT	RT.		
INCORPORATED	INC.	RIGHT OF WAY	R/W		
IRON PIN	I.P.	ROAD	RD.		
LEFT	LT.				

GENERAL NOTES

THE LOCATIONS OF EXISTING & PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, TO BE SEEDED, FERTILIZED AND MULCHED AS DIRECTED BY THE ENGINEER. ALL OTHER DISTURBED AREAS ARE TO BE SEEDED, FERTILIZED AND MULCHED AT THE CONTRACTORS EXPENSE.

NO TREES, SHRUBS, OR PRIVATE PLANTINGS ARE TO BE REMOVED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

CURVE DATA IS BASED ON ARC DEFINITION.

BEARINGS SHOWN ON THIS PLAN ARE GROUND BEARINGS.

DISTANCES SHOWN ON THIS PLAN ARE GROUND DISTANCES.

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS EROSION CONTROL IMPLEMENTATION PLAN AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT INCLUDED IN THE EARTHWORK SUMMARY. IT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. EXACT LOCATIONS OF EBS WILL BE APPROVED BY THE ENGINEER.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE COUNTY SURVEYOR CONCERNING MONUMENT AND PROPERTY CORNER PRESERVATION.

WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE OR HMA / ASPHALTIC PAVEMENT IS MEASURED BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

SHRINKAGE OF EARTHWORK IS 20 PERCENT IN THE YARDAGE SUMMARY, UNLESS OTHERWISE NOTED.

RIGHTS-OF-ENTRY FOR CONSTRUCTION HAVE BEEN OBTAINED, WHICH RIGHTS SHALL BE EXTENDED TO THE CONTRACTOR.

PLAN ELEVATIONS = NGVD 29

EXPANSION JOINTS TO BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER.

TYPICAL FINISHED SECTIONS SHOW THE GENERAL ROADWAY FEATURES THROUGHOUT THE PROJECT. PAVMENT, SLOPES, BORDER SLOPES, ETC., MAY VARY WITHIN THE STATION LIMITS OF THE STATION SECTION.

OVERHAUL WILL NOT BE PAID ON THIS PROJECT.

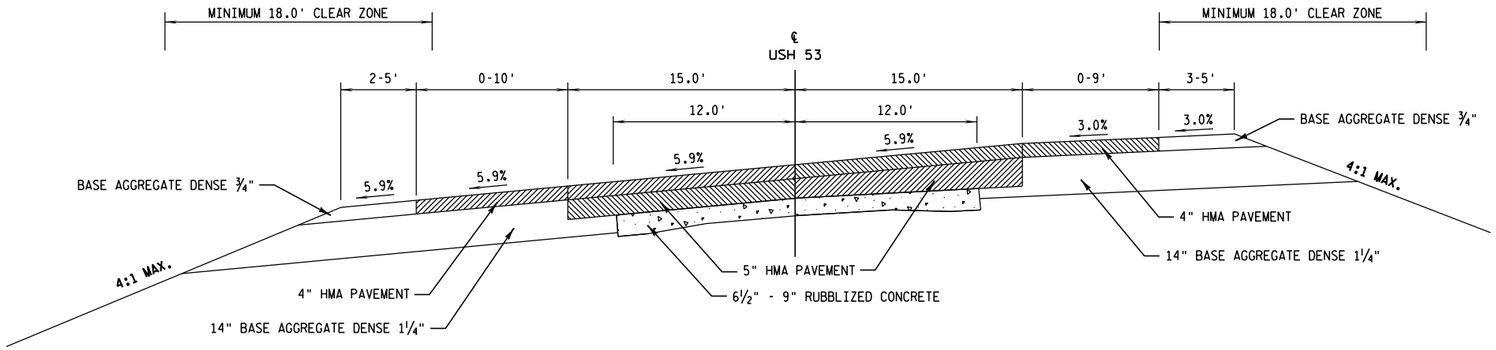
PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND THE TREMPEALEAU COUNTY HIGHWAY DEPT. WITH THE NAME AND TELEPHONE NUMBER OF A LOCAL PERSON RESPONSIBLE FOR EMERGENCY MAINTENANCE OF TRAFFIC CONTROL.

DEPTH OF SALVAGED TOPSOIL SHALL BE 4 INCHES.

CONSTRUCTION SURVEY CONTROL POINTS TO BE PROVIDED BY THE ENGINEER PRIOR TO CONSTRUCTION.

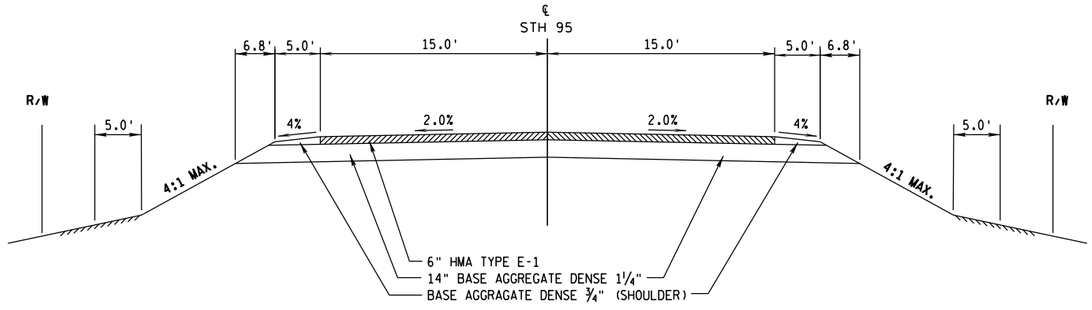
2

2



TYPICAL EXISTING SECTION

USH 53
STA 436+00 - STA 442+00

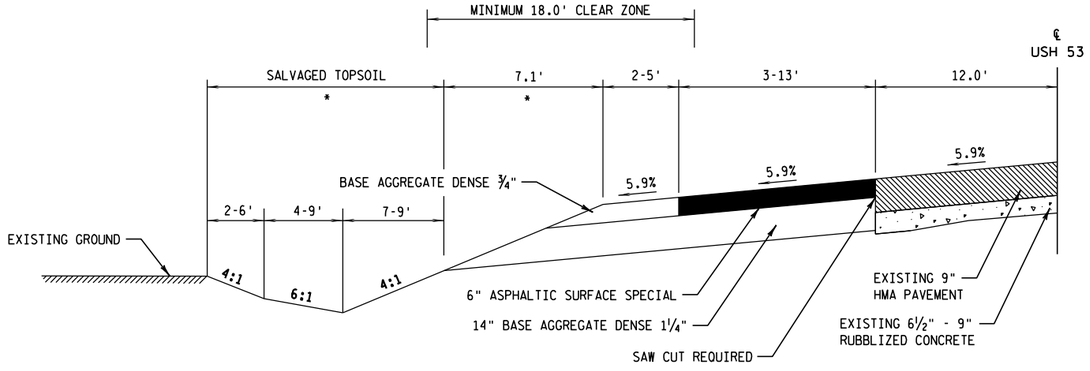


TYPICAL EXISTING SECTION

STH 95 (LINE 'A')
STA 4'A'+00 - STA 6'A'+75

PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET	E

FILE NAME : c:\Users\PROJECTS\D6\163001\020330_ts.dgn PLOT DATE : 30-JUL-2013 06:53 PLOT BY : DOTAAS PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42

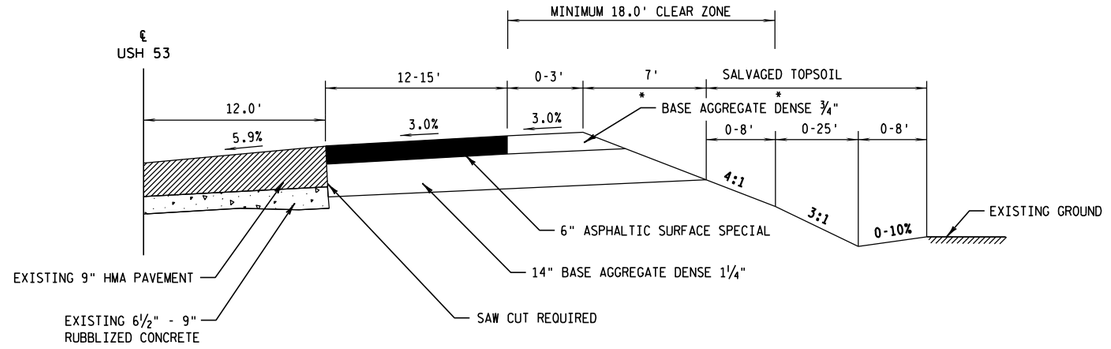


TYPICAL FINISHED HALF-SECTION

USH 53
STA 438+59 - STA 441+90

NOTES: * FERTILIZE, SEED, & MULCH

PLACE ASPALTIC SURFACE SPECIAL USING 3-INCH LIFTS.



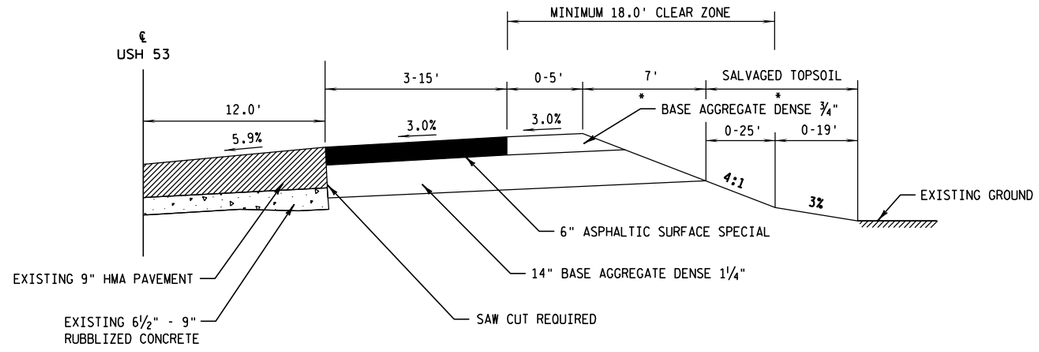
TYPICAL FINISHED HALF-SECTION

USH 53
STA 436+00 - STA 436+94

NOTES: * FERTILIZE, SEED, & MULCH

PLACE ASPALTIC SURFACE SPECIAL USING 3-INCH LIFTS.

2



TYPICAL FINISHED HALF-SECTION

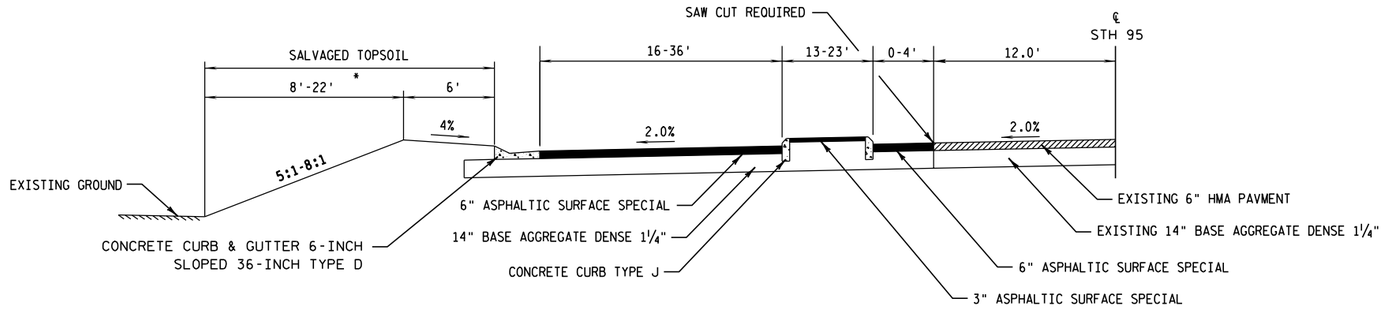
USH 53
STA 437+17 - STA 438+98

NOTES: * FERTILIZE, SEED, & MULCH

PLACE ASPALTIC SURFACE SPECIAL USING 3-INCH LIFTS.

PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET	E

2

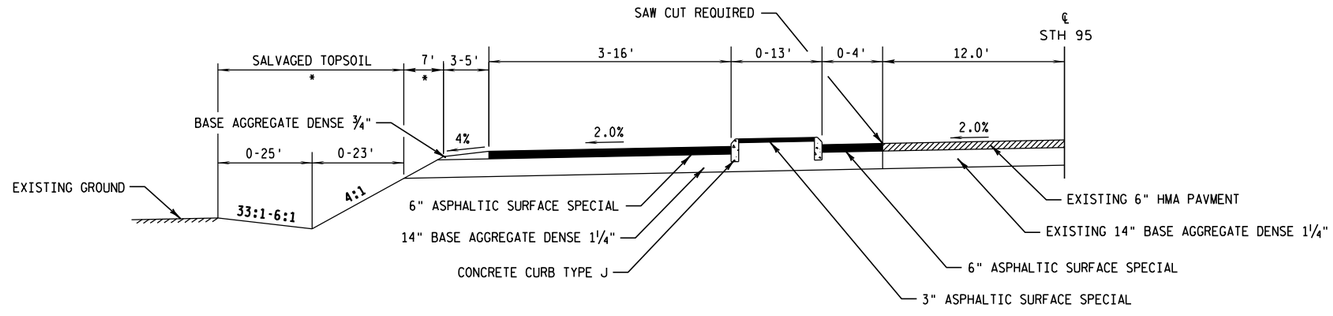


TYPICAL FINISHED HALF-SECTION

STH 95 (LINE 'A')
STA 4'A'+12 - STA 4'A'+59

NOTES: * FERTILIZE, SEED, & MULCH

PLACE ASPALTIC SURFACE SPECIAL USING 3-INCH LIFTS.



TYPICAL FINISHED HALF-SECTION

STH 95 (LINE 'A')
STA 4'A'+59 - STA 6'A'+50

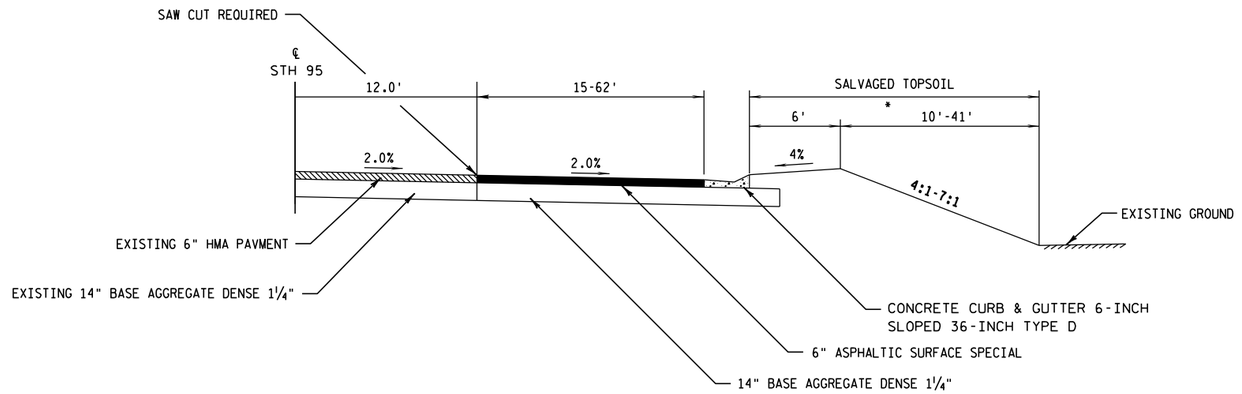
NOTES: * FERTILIZE, SEED, & MULCH

PLACE ASPALTIC SURFACE SPECIAL USING 3-INCH LIFTS.

PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET	E

FILE NAME : c:\Users\PROJECTS\D6\163001\020330_ts.dgn PLOT DATE : 30-JUL-2013 06:53 PLOT BY : DOTAAS PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42

2

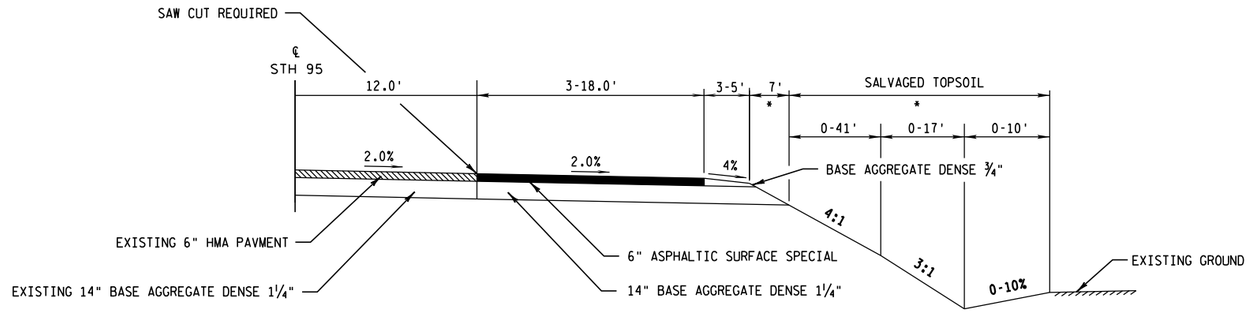


TYPICAL FINISHED HALF-SECTION

STH 95 (LINE 'A')
STA 4'A'+12 - STA 4'A'+73

NOTES: * FERTILIZE, SEED, & MULCH

PLACE ASPALTIC SURFACE SPECIAL USING 3-INCH LIFTS.



TYPICAL FINISHED HALF-SECTION

STH 95 (LINE 'A')
STA 4'A'+73 - STA 5'A'+73

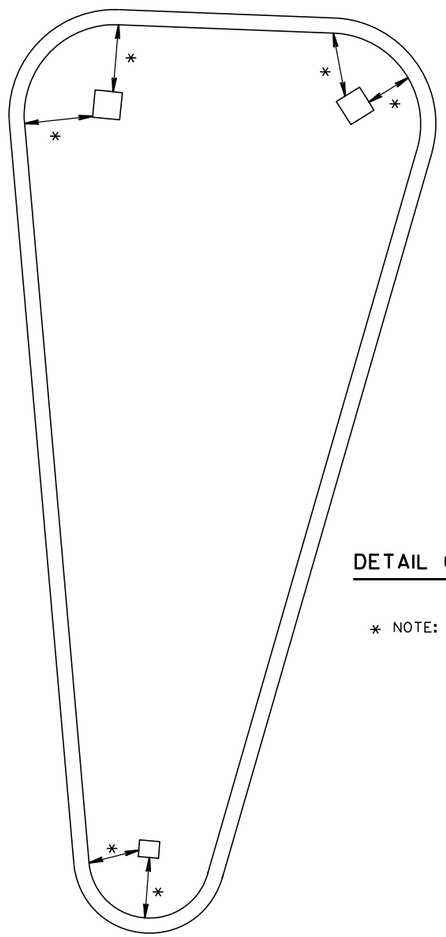
NOTES: * FERTILIZE, SEED, & MULCH

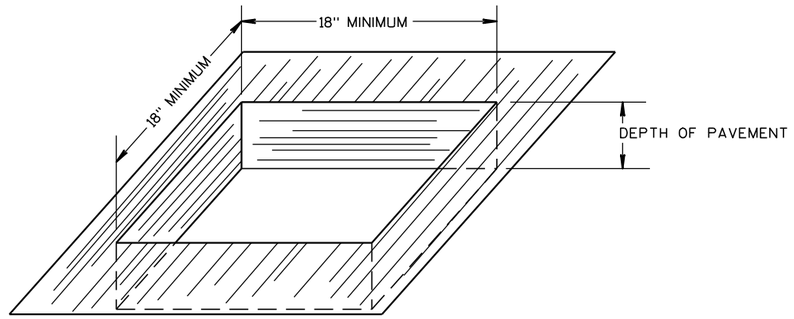
PLACE ASPALTIC SURFACE SPECIAL USING 3-INCH LIFTS.

PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL SECTIONS	SHEET	E

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WISDOT/CADDS SHEET 42

2





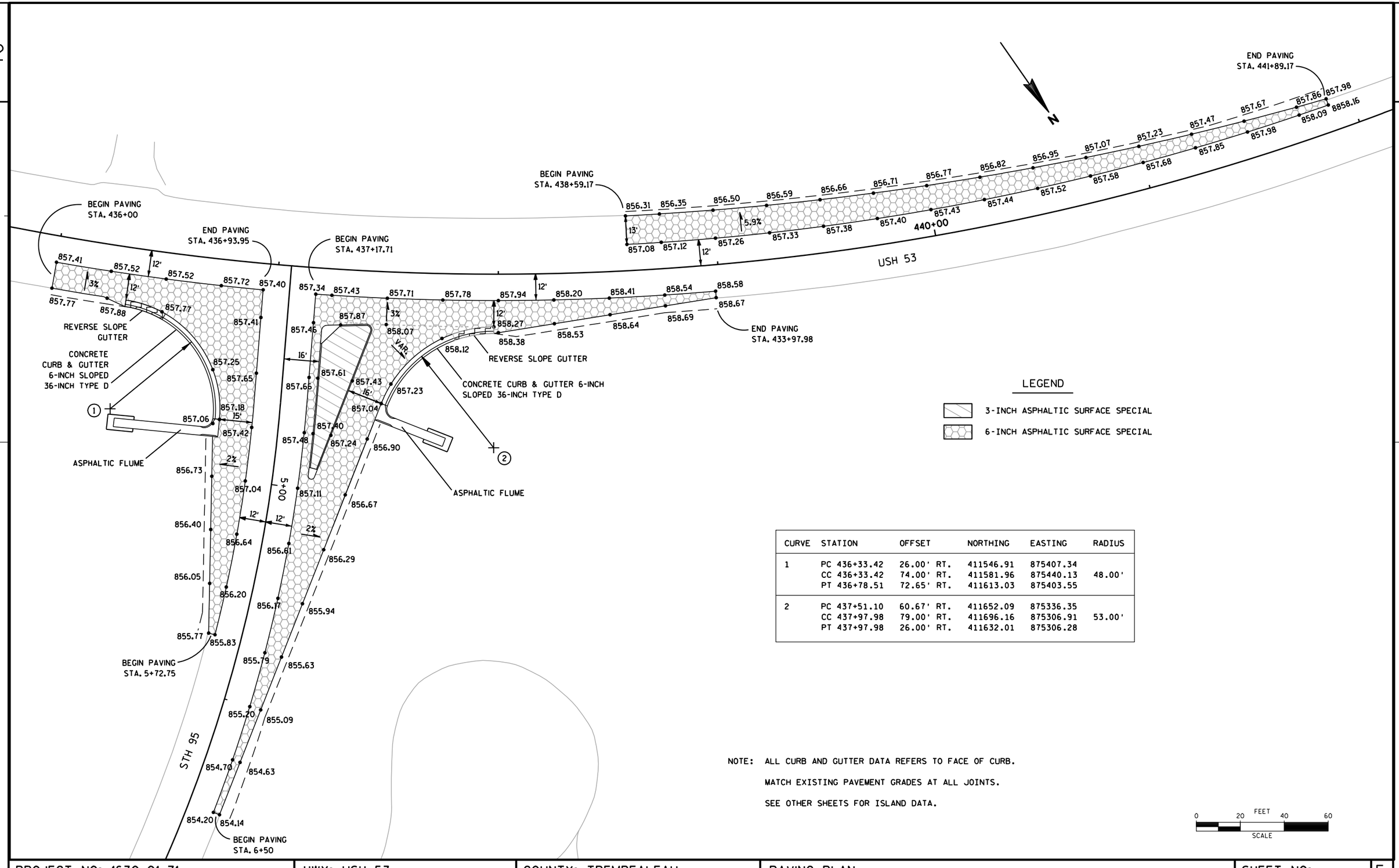
DETAIL OF OPENINGS IN ISLAND FOR SIGN PLACEMENT

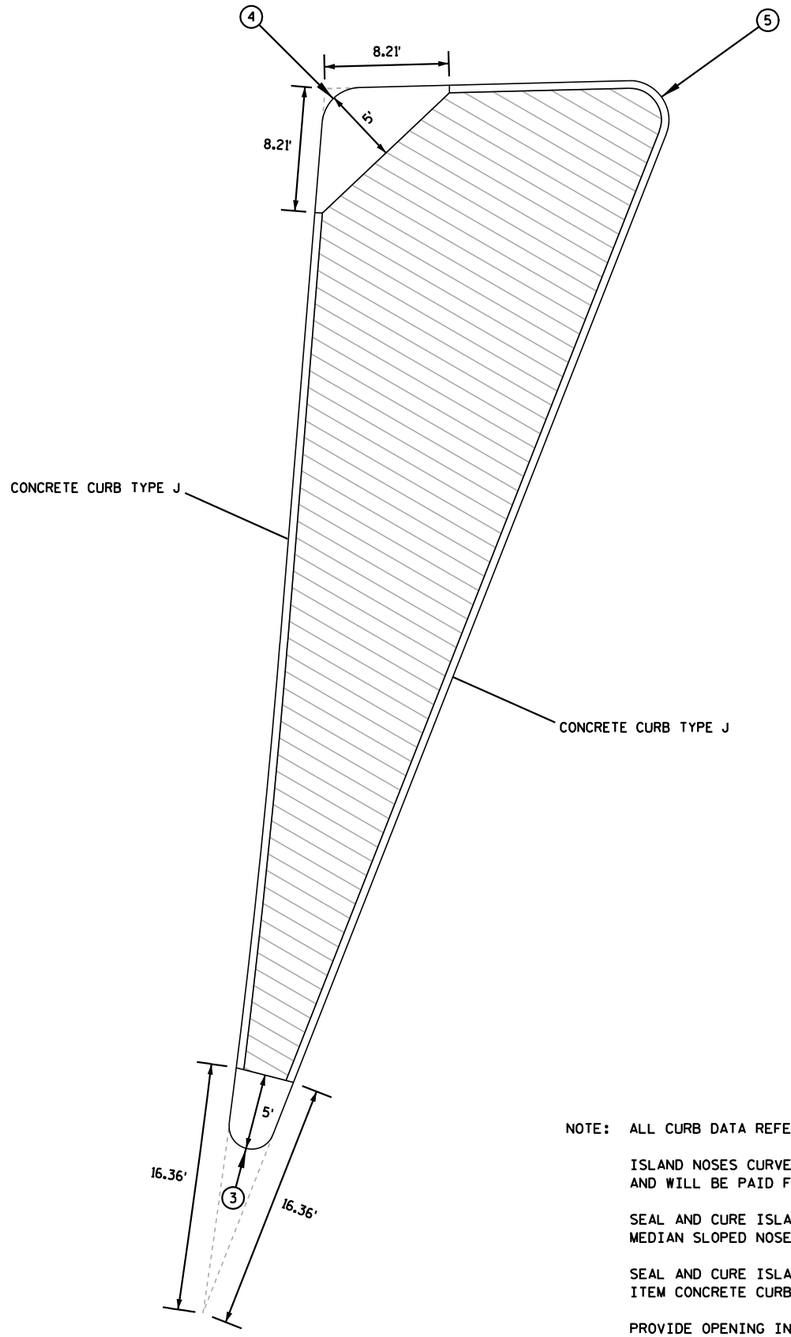
* NOTE: ALL SQUARED OPENINGS IN ISLAND FOR SIGN PLACEMENTS SHALL SHALL BE DETERMINED BY SIGN SIZE AND NUMBER. A 2' MINIMUM FROM BACK OF CURB IS REQUIRED.

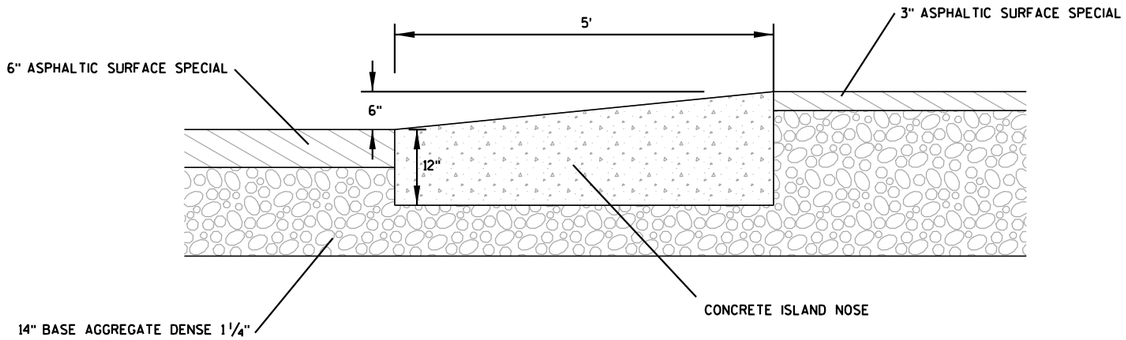
PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	CONSTRUCTION DETAILS	SHEET	E

FILE NAME : c:\Users\PROJECTS\D6\163001\021020_cd.dgn PLOT DATE : 26-JUL-2013 09:05 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42

2


N
BEGIN PAVING
STA. 436+00
END PAVING
STA. 436+93.95
BEGIN PAVING
STA. 437+17.71
BEGIN PAVING
STA. 438+59.17
END PAVING
STA. 441+89.17
END PAVING
STA. 433+97.98
USH 53
440+00
5+00
REVERSE SLOPE GUTTER
CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
ASPHALTIC FLUME
ASPHALTIC FLUME
857.41 857.52 857.52 857.72 857.40
857.77 857.88 857.77 857.41
857.25 857.65 857.18 857.06 857.42
856.73 857.04 856.40 856.64 856.05 856.20 855.77 855.83
857.34 857.43 857.71 857.78 857.94 858.20 858.41 858.54 858.58
858.27 858.38 858.53 858.64 858.69 858.67 858.12
857.87 857.45 857.61 857.65 857.43 857.23 857.04 857.40 857.48 857.24 856.90
857.11 856.67 856.61 856.29 856.17 855.94 855.79 855.63 855.20 855.09 854.70 854.63 854.20 854.14
856.31 856.35 856.50 856.59 856.66 856.71 856.77 856.82 856.95 857.07 857.23 857.47 857.67 857.86 857.98
857.08 857.12 857.26 857.33 857.38 857.40 857.43 857.44 857.52 857.58 857.68 857.85 857.98 858.09 8858.16
857.63 857.67 857.71 857.75 857.79 857.83 857.87 857.91 857.95 857.99 858.03 858.07 858.11 858.15 858.19
858.23 858.27 858.31 858.35 858.39 858.43 858.47 858.51 858.55 858.59 858.63 858.67 858.71 858.75 858.79
858.83 858.87 858.91 858.95 858.99 859.03 859.07 859.11 859.15 859.19





CONCRETE MEDIAN SLOPED NOSE DETAIL

CURVE	STATION	OFFSET	NORTHING	EASTING	RADIUS
3	PC 4+94.12	18.96' LT.	411660.60	875381.51	
	CC 4+93.76	17.50' LT.	411659.36	875382.35	1.50'
	PT 4+93.76	16.00' LT.	411658.35	875383.46	
4	PC 4+28.15	16.00' LT.	411607.58	875340.70	
	CC 4+28.15	18.50' LT.	411609.17	875338.77	2.50'
	PT 4+25.66	18.23' RT.	411607.08	875337.39	
5	PC 4+23.77	35.93' LT.	411616.86	875322.52	
	CC 4+26.35	36.21' LT.	411619.03	875323.95	2.60'
	PT 4+27.10	38.70' LT.	411621.19	875322.50	

NOTE: ALL CURB DATA REFERS TO FACE OF CURB.

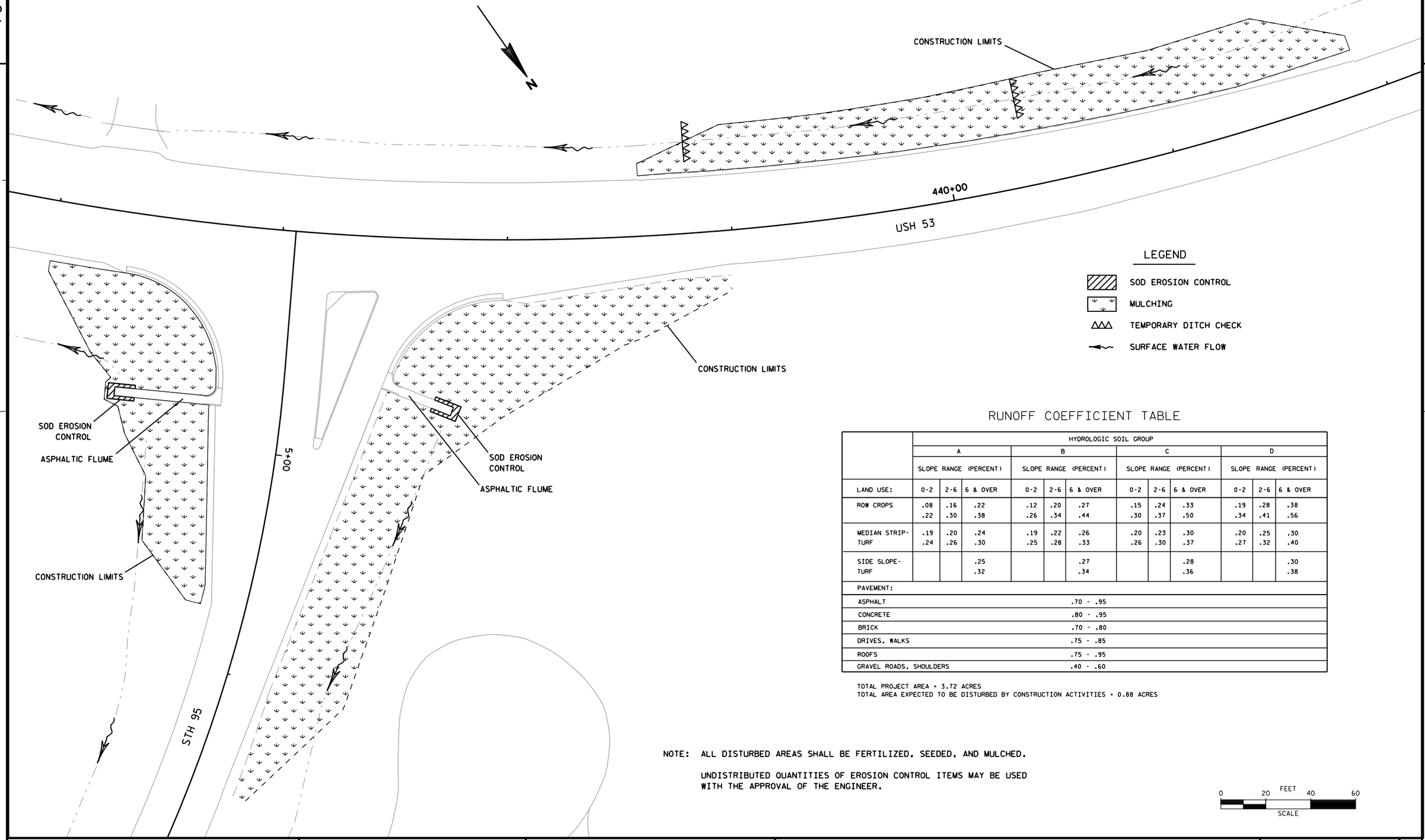
ISLAND NOSES CURVE 3 & 4 SHALL BE SLOPED AS SHOWN IN THE DETAIL AND WILL BE PAID FOR UNDER THE ITEM CONCRETE MEDIAN SLOPED NOSE.

SEAL AND CURE ISLAND NOSES, PAID FOR UNDER THE BID ITEM CONCRETE MEDIAN SLOPED NOSE CURE AND SEAL TREATMENT.

SEAL AND CURE ISLAND CURB AND GUTTER, PAID FOR UNDER THE BID ITEM CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT.

PROVIDE OPENING IN ISLAND FOR SIGN PLACEMENT AS SHOWN IN THE CONSTUCTION DETAILS.

2



LEGEND

- SOD EROSION CONTROL
- MULCHING
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 3.72 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.88 ACRES

NOTE: ALL DISTURBED AREAS SHALL BE FERTILIZED, SEEDED, AND MULCHED.

UNDISTRIBUTED QUANTITIES OF EROSION CONTROL ITEMS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.

0 20 40 60 FEET
SCALE

PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	EROSION CONTROL PLAN	SHEET NO:	E

FILE NAME : c:±Users±PROJECTS±D6±163001±022050_ec.dgn PLOT DATE : 19-DEC-2012 08:55 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

2

N

(EXISTING SIGN TO REMAIN)
D1-3
Ettrick
Blair
Hixton

430

435

440

445

USH 53

THESE SIGNS NOT SHOWN

THESE SIGNS NOT SHOWN

100
SPEED LIMIT 55
R2-1
24" X 30"

101
SOUTH 53
J4-1
24" X 36"

103
W1-7
48" X 24"

106
EAST 95 SOUTH 53
J3-2
48" X 57"

600

601

604

608

609

602

603

605

606

607

107
NORTH 53 WEST 95
J4-2
48" X 36"

105
SOUTH 53 NORTH 53 WEST 95
J3-3
72" X 57"

102
NORTH 53 WEST 95 EAST 95
J3-3
72" X 57"

104
STOP
R1-1
36" X 36"

Whitehall
Blair
Hixton
D1-3
(EXISTING SIGN TO REMAIN)

STH 95

LEGEND

100 – 199 REMOVING SIGNS TYPE II

600 – 699 REMOVING SMALL SIGN SUPPORTS

EXISTING POST(S) WITH ATTACHED SIGN(S)

0 50 FEET 100 150
SCALE

PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	EXISTING SIGNING / REMOVALS / MOVE ORIGINS	SHEET NO:	E

FILE NAME : c:±Users±PROJECTS±D6±163001±023250_ps.DGN PLOT DATE : 10-DEC-2012 10:11 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

2

N

430

435

440

445

USH 53

THESE SIGNS NOT SHOWN

THESE SIGNS NOT SHOWN

THESE SIGNS NOT SHOWN

STH 95

700
SPEED LIMIT 55
R2-1
24" X 30"

701
M3-3
24" X 12"
SOUTH 53
M1-4
24" X 24"
J4-1
24" X 36"

703
W1-7
48" X 24"

706
M3-2
24" X 12"
EAST SOUTH
95 53
M1-6
24" X 24"
M6-1
21" X 21"
M3-3
24" X 12"
M1-4
24" X 24"
M6-1
21" X 21"
J3-2
48" X 57"

(EXISTING SIGN TO REMAIN)
D1-3
Ettrick
Blair
Hixton

709
M3-1
24" X 12"
M1-4
24" X 24"
NORTH WEST
53 95
M3-4
24" X 12"
M1-6
24" X 24"
J4-2
48" X 36"

Whitehall
Blair
Hixton
D1-3
(EXISTING SIGN TO REMAIN)

M3-4
24" X 12"
M1-6
24" X 24"
M6-1
21" X 21"
702
M3-1
24" X 12"
NORTH WEST EAST
53 95 95
M3-2
24" X 12"
M1-4
24" X 24"
M1-6
24" X 24"
M6-1
21" X 21"
M6-1
21" X 21"
J3-3
72" X 57"

STOP
R1-1
36" X 36"
707

W12-1D
24" X 24"
704

STOP
R1-1
36" X 36"
705

M3-1
24" X 12"
M1-4
24" X 24"
M6-1
21" X 21"
708
M3-3
24" X 12"
M1-4
24" X 24"
M6-1
21" X 21"
SOUTH NORTH WEST
53 53 95
M3-4
24" X 12"
M1-6
24" X 24"
M6-1
21" X 21"
J3-3
72" X 57"

LEGEND

700 – 799 SIGNS REFLECTIVE TYPE II

PROPOSED POST(S) WITH ATTACHED(S)

EXISTING POST(S) WITH ATTACHED SIGN(S)

0 50 100 150 FEET
SCALE

PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	PERMANENT SIGNING PLAN	SHEET NO:	E

FILE NAME : c:±Users±PROJECTS±D6±163001±023250_ps.DGN PLOT DATE : 10-DEC-2012 10:11 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

LIGHTING UNIT NOTATION

564+50 (25.50' LT.)
III - X - 10 - 5 - AX

- STATION AND OFFSET
- LIGHTING UNIT REF. NUMBER
- BASE TYPE
- LUMINAIRE ARM LENGTH
- LED LUMINAIRE TYPE
- IES/ANSI DISTRIBUTION TYPE

LEGEND

- PROPOSED LIGHTING UNIT
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
- CONDUIT SPECIAL (2-INCH)
- PULL BOXES STEEL 24 X 42-INCH
- ELECTRICAL SERVICE METER BREAKER PEDESTAL

N

STA 435+80.00, 31.00' LT.
III - C - 15 - 5 - A1

STA 438+59.17, 31.00' LT.
III - C - 15 - 5 - A4

LPB-2

(6') STUB

(6') STUB

435

440

USH 53

LPB-1

LPB-3

STA 436+61.71, 45.80' RT.
III - C - 15 - 5 - A2

STA 437+72.96, 41.28' RT.
III - C - 15 - 5 - A3

STH 95

HO

FO

R/W

T

G

GENERAL LIGHTING NOTES:

1. ALL CONDUCTORS ON THIS PLAN SHEET SHALL BE 3-#12 UNLESS OTHERWISE NOTED.
2. PROVIDE CAPPED CONDUIT STUBS AS INDICATED.
3. LIGHTING LOCATIONS ARE TO CENTER OF THE BASE, PULL BOX, OR PEDESTAL.
4. COORDINATE SERVICE CONNECTION WITH XCEL ENERGY, REPRESENTATIVE: KAYE CROOK (608) 789-3677 EXT#14.

0 30 60 90 FEET
SCALE

PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	LIGHTING PLAN	SHEET NO:	E

FILE NAME : c:±Users±PROJECTS±D6±163001±023550_lp.dgn PLOT DATE : 08-JUL-2013 10:46 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

2

GENERAL NOTES

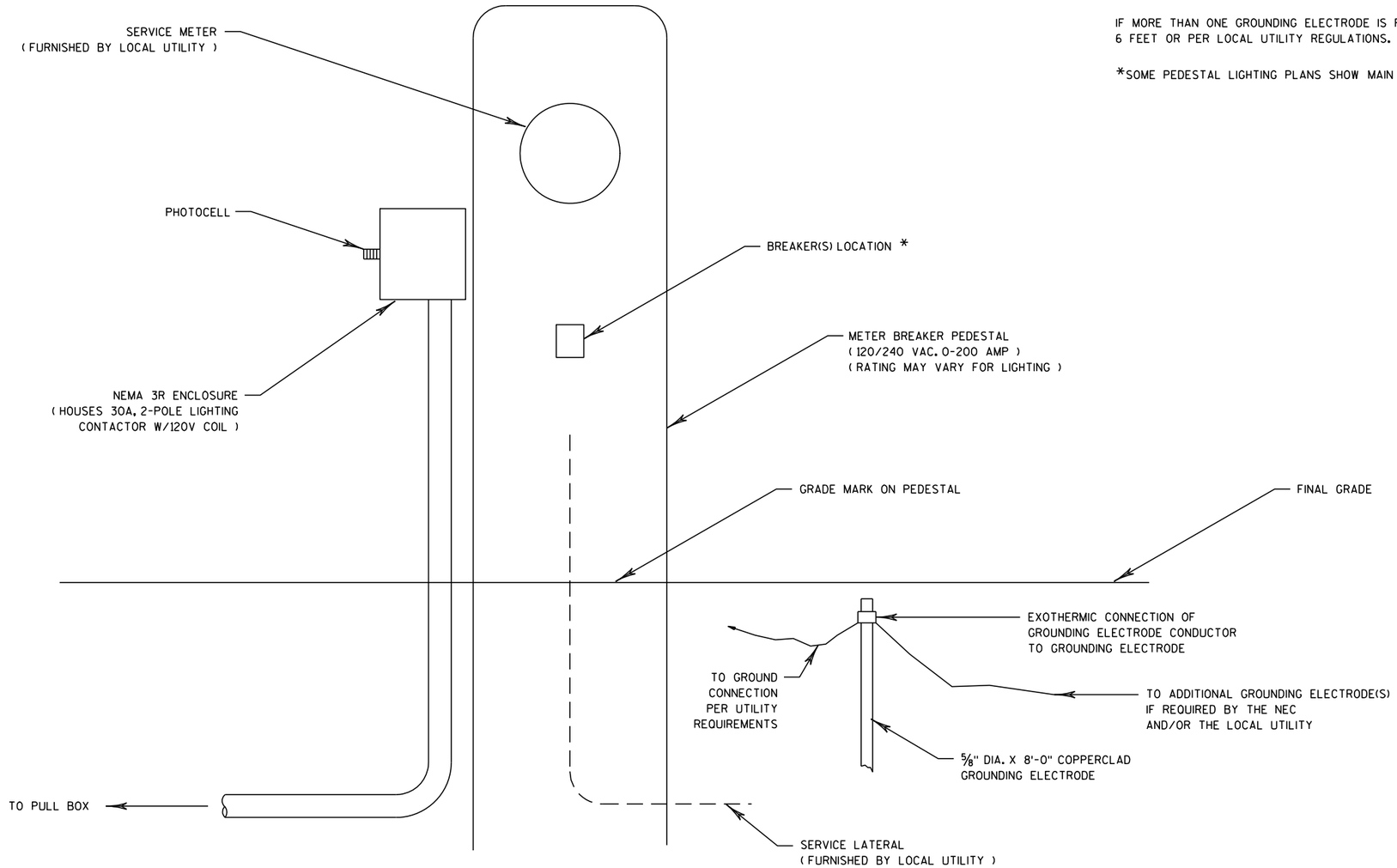
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

*SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.



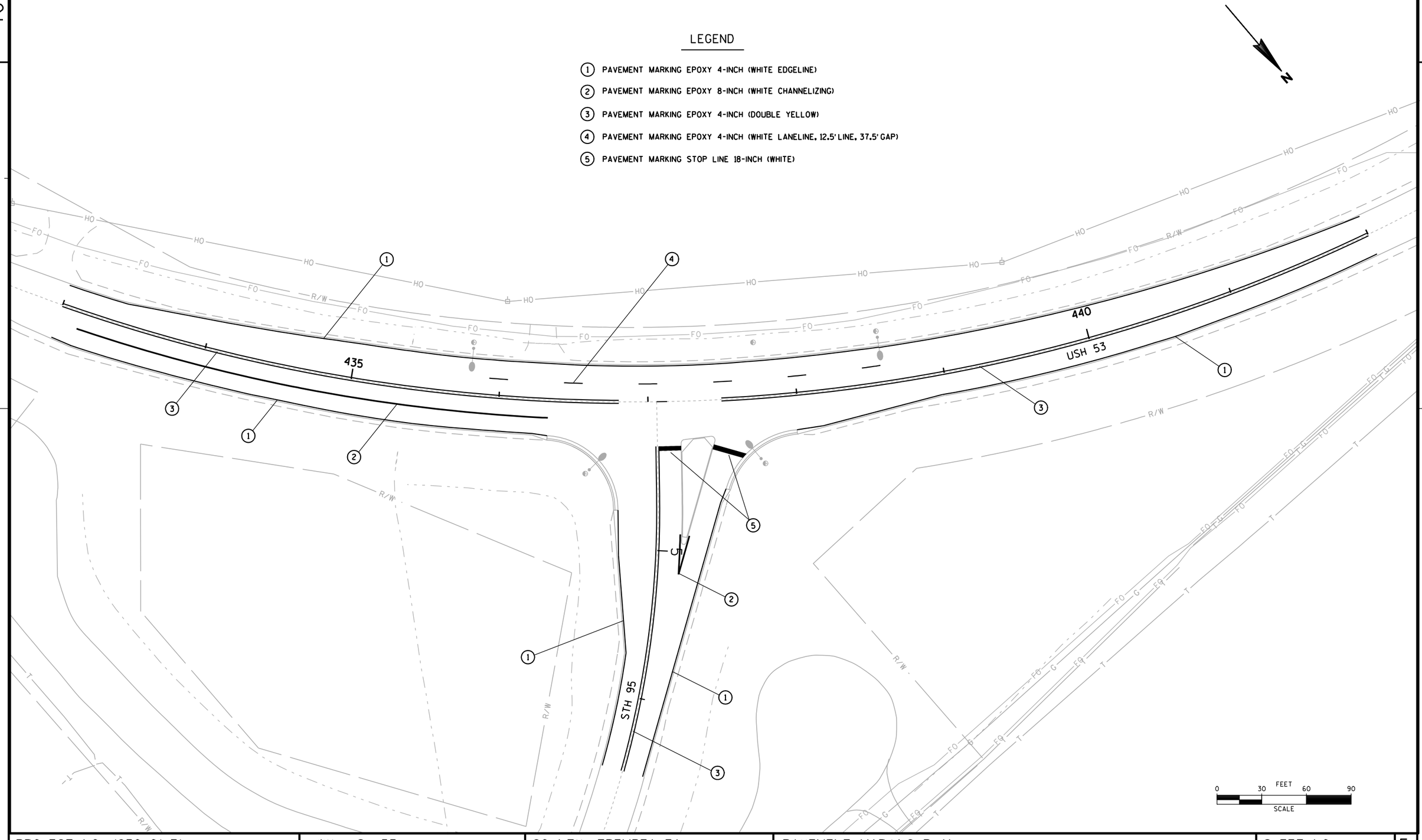
PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	ELECTRICAL SERVICE METER BREAKER PEDESTAL SPECIAL DETAIL	SHEET NO:	E

2

2

LEGEND

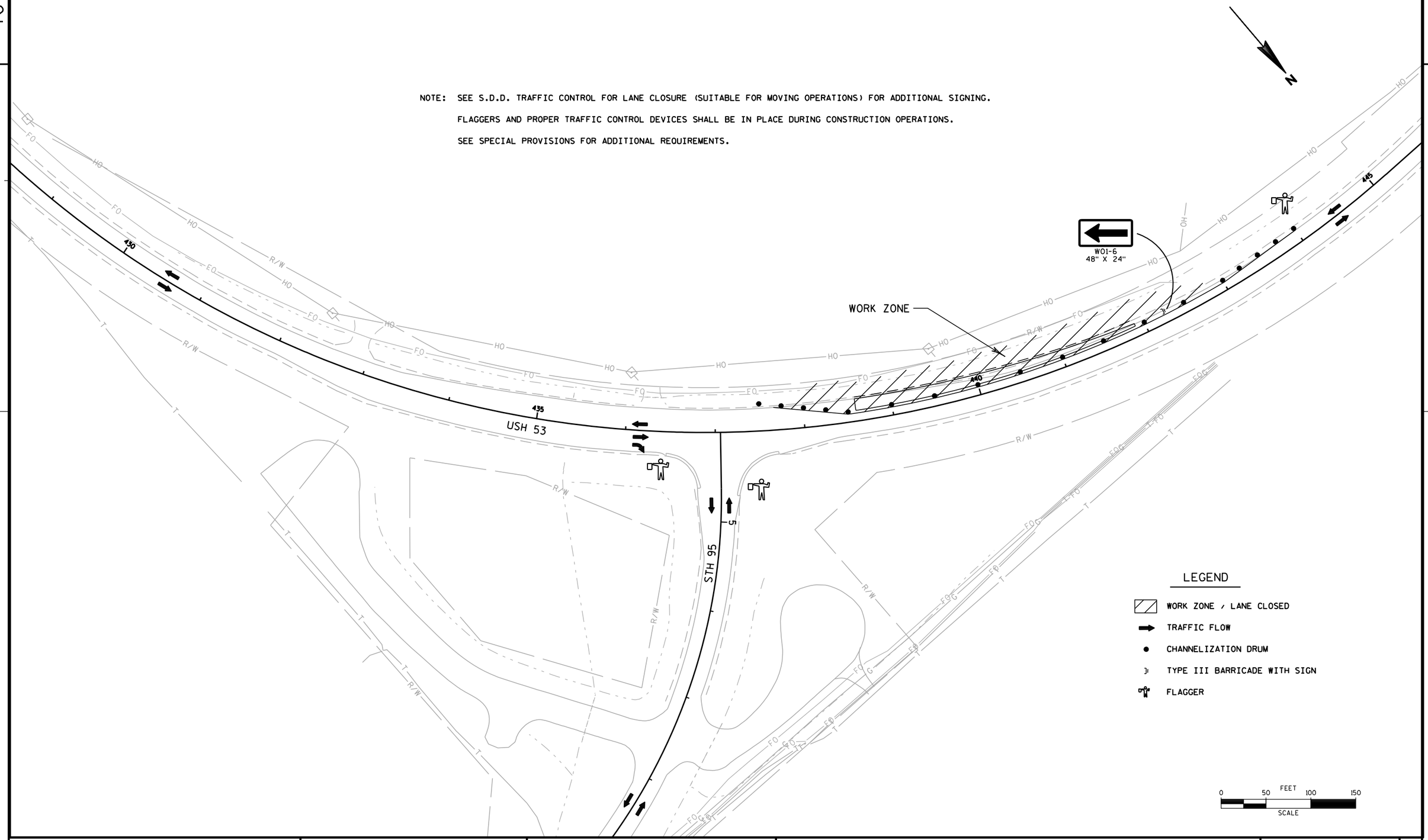
1. PAVEMENT MARKING EPOXY 4-INCH (WHITE EDGELINE)
2. PAVEMENT MARKING EPOXY 8-INCH (WHITE CHANNELIZING)
3. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. PAVEMENT MARKING EPOXY 4-INCH (WHITE LANELINE, 12.5' LINE, 37.5' GAP)
5. PAVEMENT MARKING STOP LINE 18-INCH (WHITE)



PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	PAVEMENT MARKING PLAN	SHEET NO:	E

FILE NAME : c:±Users±PROJECTS±D6±163001±024550_pm.dgn PLOT DATE : 28-NOV-2012 12:51 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

NOTE: SEE S.D.D. TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS) FOR ADDITIONAL SIGNING.
FLAGGERS AND PROPER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE DURING CONSTRUCTION OPERATIONS.
SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.



PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	TRAFFIC CONTROL PLAN (STAGE 1)	SHEET NO:	E

FILE NAME : c:±Users±PROJECTS±D6±163001±025030_tc.DGN PLOT DATE : 14-DEC-2012 12:47 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

NOTE: SEE S.D.D. TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS) FOR ADDITIONAL SIGNING.
FLAGGERS AND PROPER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE DURING CONSTRUCTION OPERATIONS.
SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

N

W01-6
48" X 24"

R4-7
24" X 30"

R4-7
24" X 30"

R4-7
24" X 30"

W01-6
48" X 24"

R4-7
24" X 30"

430

435

440

445

USH 53

STH 95

WORK ZONE

LEGEND

- WORK ZONE / LANE CLOSED
- TRAFFIC FLOW
- CHANNELIZATION DRUM
- SIGN ON PORTABLE SUPPORT
- TYPE III BARRICADE WITH SIGN
- FLAGGER

0 50 100 150 FEET
SCALE

PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	TRAFFIC CONTROL PLAN (STAGE 2)	SHEET NO: E

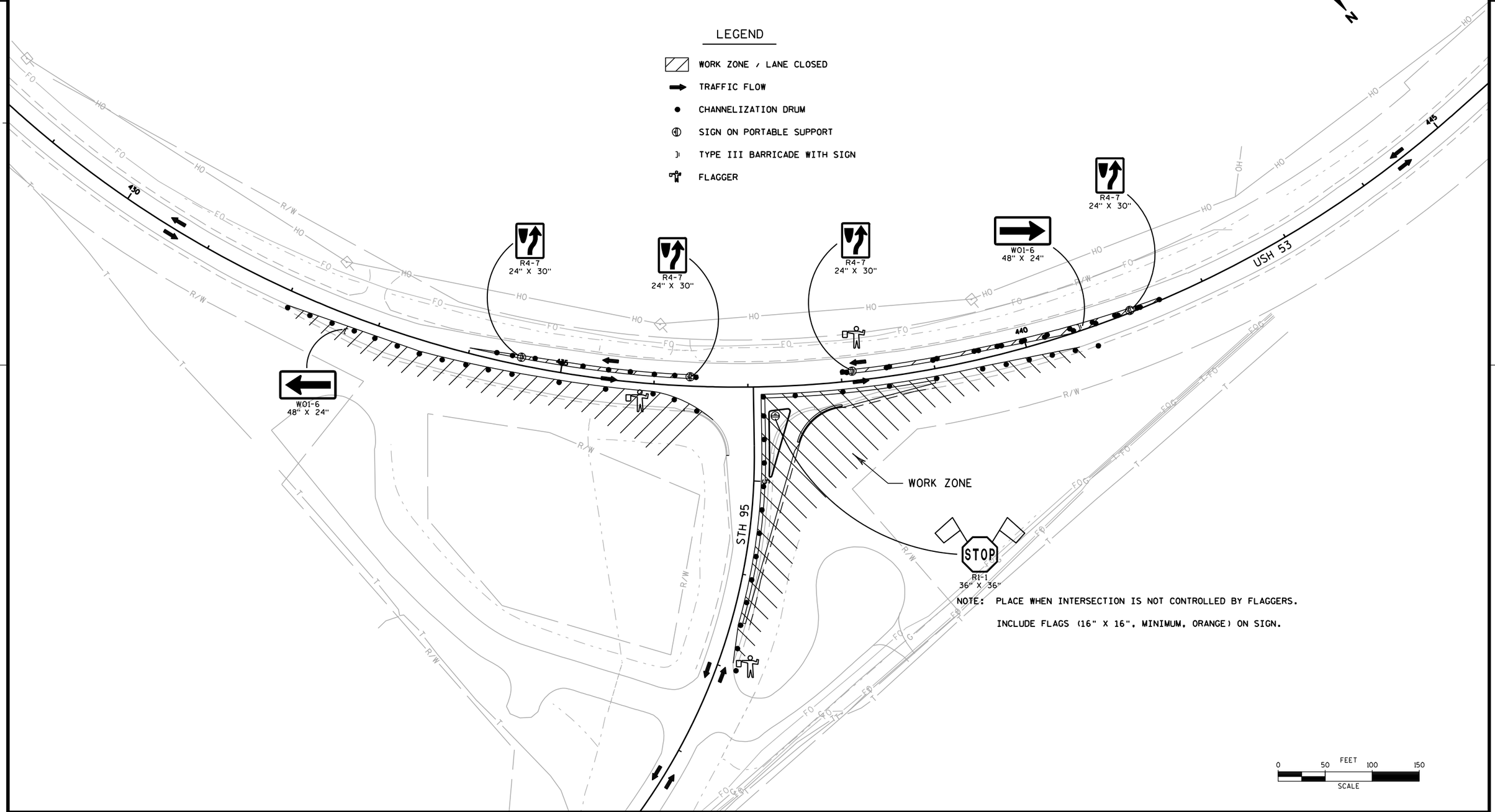
FILE NAME : c:±Users±PROJECTS±D6±163001±025030_tc.DGN PLOT DATE : 12-JUL-2013 11:14 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

NOTE: SEE S.D.D. TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS) FOR ADDITIONAL SIGNING.
FLAGGERS AND PROPER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE DURING CONSTRUCTION OPERATIONS.
SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

N

LEGEND

- WORK ZONE / LANE CLOSED
- TRAFFIC FLOW
- CHANNELIZATION DRUM
- SIGN ON PORTABLE SUPPORT
- TYPE III BARRICADE WITH SIGN
- FLAGGER



NOTE: PLACE WHEN INTERSECTION IS NOT CONTROLLED BY FLAGGERS.
INCLUDE FLAGS (16" X 16", MINIMUM, ORANGE) ON SIGN.

0 50 100 150 FEET
SCALE

PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	TRAFFIC CONTROL PLAN (STAGE 3)	SHEET NO: E

FILE NAME : c:±Users±PROJECTS±D6±163001±025030_tc.DGN PLOT DATE : 12-JUL-2013 11:14 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

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********************************************************************************
USH 53
List          C CL11,C CL13,C TC1
Layer         1
Feature       CL
********************************************************************************

CURVE CL11
        PC N    407453.00 E    875794.66        STA   394+56.70
        CC N    407664.40 E    870068.86
        PI N    407602.47 E    875800.18        STA   396+06.27
                TAN 149.57'
                DB N 2°06'52.2" E
                DA N 0°52'34.5" W
                LChord  Distance       299.05'   Bearing  N 0°37'08.9" E
                External Distance 1.95'
                Middle Ordinate 1.95'
                Radius 5729.70'
                DEG   0°59'59.9"
                DELTA  -2°59'26.7"
                LENGTH 299.08'
        PT N    407752.03 E    875797.89        STA   397+55.78
CURVE CL11
        Distance      2956.63'   Bearing  N 0°52'34.5" W
CURVE CL13
        PC N    410708.31 E    875752.67        STA   427+12.41
        CC N    410690.78 E    874606.51
        PI N    411863.91 E    875735.00        STA   438+68.14
                TAN 1155.73'
                DB N 0°52'34.5" W
                DA S 88°39'14.8" W
                LChord  Distance      1627.74'   Bearing  N 46°06'39.9" W
                External Distance 481.50'
                Middle Ordinate 339.07'
                Radius 1146.30'
                DEG   4°59'54.0"
                DELTA -90°28'10.7"
                LENGTH 1810.00'
        PT N    411836.77 E    874579.58        STA   445+22.41
CURVE CL13
        Distance       984.08'   Bearing  S 88°39'15.1" W
CURVE TC1
        PC N    411813.65 E    873595.78        STA   455+06.49
        CC N    412984.33 E    873568.27
        PI N    411803.54 E    873165.30        STA   459+37.08
                TAN 430.60'
                DB S 88°39'14.0" W
                DA N 50°58'02.9" W
                LChord  Distance       808.28'   Bearing  N 71°09'24.4" W
                External Distance 76.66'
                Middle Ordinate 71.95'
                Radius 1171.00'
                DEG   4°53'34.4"
                DELTA  40°22'43.0"
                LENGTH 825.25'
        PT N    412074.71 E    872830.82        STA   463+31.74

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********************************************************************************
STH 95
List          TC7,C KX1,KX1
Layer         1
Feature       PRL
********************************************************************************
TC7 N    411575.68 E    875335.17 Z 9999.990    STA     4+00.00
        Distance        62.45'   Bearing  N 39°26'16.2" E
CURVE KX1
        PC N    411623.91 E    875374.84        STA     4+62.45
        CC N    411211.00 E    875876.85
        PI N    411854.78 E    875564.74        STA     7+61.38
                TAN 298.93'
                DB N 39°26'16.2" E
                DA N 88°49'57.5" E
                LChord  Distance       543.17'   Bearing  N 64°08'06.9" E
                External Distance 65.44'
                Middle Ordinate 59.46'
                Radius 650.00'
                DEG   8°48'53.0"
                DELTA  49°23'41.4"
                LENGTH 560.37'
        PT N    411860.87 E    875863.61        STA    10+22.82
CURVE KX1
        Distance       173.67'   Bearing  N 88°49'57.5" E
KX1 N    411864.41 E    876037.24 Z 9999.990    STA    11+96.49
********************************************************************************
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2

DATE 22OCT13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1630-01-71 QUANTITY
0100	204.0150	REMOVING CURB & GUTTER	LF	130.000	130.000
0110	205.0100	EXCAVATION COMMON	CY	966.000	966.000
0150	208.0100	BORROW	CY	805.000	805.000
0170	213.0100	FINISHING ROADWAY (PROJECT) 01. 1630-01-71	EACH	1.000	1.000
0190	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	107.000	107.000
0200	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	1,616.000	1,616.000
0340	465.0315	ASPHALTIC FLUMES	SY	42.000	42.000
0610	601.0120	CONCRETE CURB TYPE J	LF	141.000	141.000
0620	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	137.000	137.000
0810	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01.1630-01-71	EACH	1.000	1.000
0830	619.1000	MOBILIZATION	EACH	0.080	0.080
0840	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	53.000	53.000
0850	624.0100	WATER	MGAL	2.000	2.000
0870	625.0500	SALVAGED TOPSOIL	SY	1,985.000	1,985.000
0880	627.0200	MULCHING	SY	2,541.000	2,541.000
0890	628.1504	SILT FENCE	LF	200.000	200.000
0900	628.1520	SILT FENCE MAINTENANCE	LF	200.000	200.000
0910	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	3.000	3.000
0920	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	1.000	1.000
0990	628.7504	TEMPORARY DITCH CHECKS	LF	45.000	45.000
1000	629.0210	FERTILIZER TYPE B	CWT	1.620	1.620
1010	630.0120	SEEDING MIXTURE NO. 20	LB	68.800	68.800
1030	631.1100	SOD EROSION CONTROL	SY	12.000	12.000
1050	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	1.000	1.000
1060	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	6.000	6.000
1070	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	1.000	1.000
1080	634.0620	POSTS WOOD 4X6-INCH X 20-FT	EACH	4.000	4.000
1100	637.2210	SIGNS TYPE II REFLECTIVE H	SF	113.920	113.920
1110	637.2230	SIGNS TYPE II REFLECTIVE F	SF	12.000	12.000
1130	638.2602	REMOVING SIGNS TYPE II	EACH	8.000	8.000
1140	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	10.000	10.000
1160	643.0100	TRAFFIC CONTROL (PROJECT) 01.1630-01-71	EACH	1.000	1.000
1180	643.0300	TRAFFIC CONTROL DRUMS	DAY	883.000	883.000
1190	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	26.000	26.000
1210	643.0900	TRAFFIC CONTROL SIGNS	DAY	76.000	76.000
1260	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	4,184.000	4,184.000
1270	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	377.000	377.000
1290	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	37.000	37.000
1330	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	1,004.000	1,004.000
1340	650.5000	CONSTRUCTION STAKING BASE	LF	1,004.000	1,004.000
1350	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	278.000	278.000
1410	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01.1630-01-71	LS	1.000	1.000
1420	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01.1630-01-71	LS	1.000	1.000
1440	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	1,004.000	1,004.000
1450	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	327.000	327.000
1460	652.0605	CONDUIT SPECIAL 2-INCH	LF	190.000	190.000
1470	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	3.000	3.000
1480	654.0105	CONCRETE BASES TYPE 5	EACH	4.000	4.000

3

DATE 22OCT13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1630-01-71 QUANTITY
1490	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	2,268.000	2,268.000
1500	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	4.000	4.000
1510	657.0322	POLES TYPE 5-ALUMINUM	EACH	4.000	4.000
1520	657.0715	LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 15-FT	EACH	4.000	4.000
1530	690.0150	SAWING ASPHALT	LF	1,042.000	1,042.000
1590	SPV.0060	SPECIAL 01. LED LUMINAIRE, LED-C	EACH	4.000	4.000
1610	SPV.0090	SPECIAL 01. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT	LF	278.000	278.000
1640	SPV.0105	SPECIAL 03. ELECTRICAL SERVICE METER BREAKER PEDESTAL SPECIAL	LS	1.000	1.000
1660	SPV.0165	SPECIAL 01. CONCRETE MEDIAN SLOPED NOSE CURE AND SEAL TREATMENT	SF	53.000	53.000
1700	SPV.0195	SPECIAL 01. ASPHALTIC SURFACE SPECIAL	TON	457.000	457.000

3

REMOVING CURB & GUTTER

CATEGORY	STATION TO STATION	LOCATION	204.0150 LF	REMARKS
0010	436+45 - 436+81	USH 53, RT.	58	STAGE 2
0010	437+24 - 437+70	USH 53, RT.	72	STAGE 2
		TOTAL 0010	130	

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION TO STATION	LOCATION	305.0110 TON	REMARKS
0010	438+59 - 441+89	USH 53, LT.	39	STAGE 1
0010	436+00 - 436+33	USH 53, RT.	5	STAGE 2
0010	4+73 - 5+73	STH 95, RT.	15	STAGE 2
0010	437+98 - 438+98	USH 53, RT.	16	STAGE 3
0010	4+60 - 6+50	STH 95, LT.	32	STAGE 3
		TOTAL 0010	107	

EXCAVATION COMMON

CATEGORY	STATION TO STATION	LOCATION	205.0100 CY	REMARKS
0010	438+59 - 441+89	USH 53, LT.	371	STAGE 1, SEE EARTHWORK DATA SHEETS
0010	436+00 - 436+94	USH 53, RT.	99	STAGE 2, SEE EARTHWORK DATA SHEETS
0010	4+12 - 5+73	STH 95, RT.	161	STAGE 2, SEE EARTHWORK DATA SHEETS
0010	437+18 - 438+98	USH 53, RT.	152	STAGE 3, SEE EARTHWORK DATA SHEETS
0010	4+12 - 6+50	STH 95, LT.	183	STAGE 3, SEE EARTHWORK DATA SHEETS
		TOTAL 0010	966	

BASE AGGREGATE DENSE 1 1/4-INCH

CATEGORY	STATION TO STATION	LOCATION	305.0120 TON	REMARKS
0010	438+59 - 441+89	USH 53, LT.	433	STAGE 1
0010	436+00 - 436+94	USH 53, RT.	151	STAGE 2
0010	4+11 - 5+73	STH 95, RT.	257	STAGE 2
0010	437+18 - 438+98	USH 53, RT.	272	STAGE 3
0010	4+12 - 6+50	STH 95, LT.	503	STAGE 3
		TOTAL 0010	1616	

BORROW

CATEGORY	STATION TO STATION	LOCATION	208.0100 CY	REMARKS
0010	436+00 - 436+94	USH 53, RT.	62	STAGE 2, SEE EARTHWORK DATA SHEETS
0010	4+12 - 5+73	STH 95, RT.	180	STAGE 2, SEE EARTHWORK DATA SHEETS
0010	437+18 - 438+98	USH 53, RT.	67	STAGE 3, SEE EARTHWORK DATA SHEETS
0010	4+12 - 6+50	STH 95, LT.	496	STAGE 3, SEE EARTHWORK DATA SHEETS
		TOTAL 0010	805	

ASPHALTIC FLUMES

CATEGORY	STATION	LOCATION	465.0315 SY	REMARKS
0010	4+79	STH 95, RT.	24	STAGE 2
0010	4+65	STH 95, LT.	18	STAGE 3
		TOTAL 0010	42	

FINISHING ROADWAY (1630-01-71)

CATEGORY	LOCATION	213.0100 EACH	REMARKS
0010	PROJECT 1630-01-71	1	
	TOTAL 0010	1	

CONCRETE CURB TYPE J

CATEGORY	STATION TO STATION	LOCATION	601.0120 LF	REMARKS
0010	4+24 - 4+95	STH 95, LT.	141	ISLAND, STAGE 3
		TOTAL 0010	141	

3

CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D

CATEGORY	STATION TO	STATION	LOCATION	601.0557 LF	REMARKS
0010	436+33	- 436+79	USH 53, RT.	73	STAGE 2
0010	437+51	- 437+98	USH 53, RT.	64	STAGE 3
			TOTAL 0010	137	

MAINTENANCE AND REPAIR OF HAUL ROADS (1630-01-71)

CATEGORY	LOCATION	618.0100 EACH	REMARKS
0010	PROJECT 1630-01-71	1	
	TOTAL 0010	1	

MOBILIZATION

CATEGORY	LOCATION	619.1000 EACH	REMARKS
0010	PROJECT 1630-01-71	0.07	ROADWAY
	TOTAL 0010	0.07	
0020	PROJECT 1630-01-71	0.01	STREET LIGHTING
	TOTAL 0020	0.01	

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STATION TO	STATION	LOCATION	620.0300 SF	REMARKS
0010	437+21	- 437+29	USH 53, RT.	37	ISLAND, STAGE 3
0010	4+90	- 4+95	STH 95, LT.	16	ISLAND, STAGE 3
			TOTAL 0010	53	

WATER

CATEGORY	LOCATION	624.0100 MGAL	REMARKS
0010	PROJECT 1630-01-71	2	IF APPROVED BY ENGINEER
	TOTAL 0010	2	

SALVAGED TOPSOIL

CATEGORY	STATION TO	STATION	LOCATION	625.0500 SY	REMARKS
0010	438+59	- 441+89	USH 53, LT.	519	STAGE 1
0010	436+00	- 436+65	USH 53, RT.	188	STAGE 2
0010	4+40	- 5+73	STH 95, RT.	338	STAGE 2
0010	437+60	- 438+98	USH 53, RT.	372	STAGE 3
0010	4+44	- 6+50	STH 95, LT.	568	STAGE 3
			TOTAL 0010	1985	

MULCHING

CATEGORY	STATION TO	STATION	LOCATION	627.0200 SY	REMARKS
0010	438+59	- 441+89	USH 53, LT.	769	STAGE 1
0010	436+00	- 436+65	USH 53, RT.	199	STAGE 2
0010	4+40	- 5+73	STH 95, RT.	409	STAGE 2
0010	437+60	- 438+98	USH 53, RT.	448	STAGE 3
0010	4+44	- 6+50	STH 95, LT.	716	STAGE 3
			TOTAL 0010	2541	

SILT FENCE

CATEGORY	LOCATION	628.1504 LF	REMARKS
0010	UNDISTRIBUTED	200	IF APPROVED BY ENGINEER
	TOTAL 0010	200	

3

SILT FENCE MAINTENANCE

CATEGORY	LOCATION	628.1520 LF	REMARKS
0010	UNDISTRIBUTED	200	IF APPROVED BY ENGINEER
	TOTAL 0010	200	

MOBILIZATIONS EROSION CONTROL

CATEGORY	LOCATION	628.1905 EACH	REMARKS
0010	PROJECT 1630-01-71	3	
	TOTAL 0010	3	

MOBILIZATIONS EMERGENCY EROSION CONTROL

CATEGORY	LOCATION	628.1910 EACH	REMARKS
0010	PROJECT 1630-01-71	1	
	TOTAL 0010	1	

TEMPORARY DITCH CHECKS

CATEGORY	STATION	LOCATION	628.7504 LF	REMARKS
0010	438+80	USH 53, LT.	15	STAGE 1
0010	440+35	USH 53, LT.	15	STAGE 1
0010		UNDISTRIBUTED	15	IF APPROVED BY ENGINEER
		TOTAL 0010	45	

FERTILIZER TYPE B

CATEGORY	STATION TO STATION	LOCATION	629.0210 CWT	REMARKS
0010	438+59 - 441+89	USH 53, LT.	0.49	STAGE 1
0010	436+00 - 436+65	USH 53, RT.	0.13	STAGE 2
0010	4+40 - 5+73	STH 95, RT.	0.26	STAGE 2
0010	437+60 - 438+98	USH 53, RT.	0.29	STAGE 3
0010	4+44 - 6+50	STH 95, LT.	0.45	STAGE 3
		TOTAL 0010	1.62	

SEEDING MIXTURE NO. 20

CATEGORY	STATION TO STATION	LOCATION	630.0120 LB	REMARKS
0010	438+59 - 441+89	USH 53, LT.	20.80	STAGE 1
0010	436+00 - 436+65	USH 53, RT.	5.40	STAGE 2
0010	4+40 - 5+73	STH 95, RT.	11.10	STAGE 2
0010	437+60 - 438+98	USH 53, RT.	12.10	STAGE 3
0010	4+44 - 6+50	STH 95, LT.	19.40	STAGE 3
		TOTAL 0010	68.80	

SOD EROSION CONTROL

CATEGORY	STATION	LOCATION	631.1100 SY	REMARKS
0010	4+79	STH 95, RT.	6	STAGE 2
0010	4+65	STH 95, LT.	6	STAGE 3
		TOTAL 0010	12	

POSTS WOOD

CATEGORY	SIGN #	4X6-INCH 12-FT 634.0612 EACH	4X6-INCH 16-FT 634.0616 EACH	4X6-INCH 18-FT 634.0618 EACH	4X6-INCH 20-FT 634.0620 EACH	REMARKS
0010	700	---	1	---	---	
0010	701	---	1	---	---	
0010	702	---	---	---	2	
0010	703	---	1	---	---	
0010	704	1	---	---	---	
0010	705	---	1	---	---	
0010	706	---	---	1	---	
0010	707	---	1	---	---	
0010	708	---	---	---	2	
0010	709	---	1	---	---	
		1	6	1	4	

3

SIGNS TYPE II REFLECTIVE H

CATEGORY	STATION	LOCATION	REF.#	SIGN CODE	SIZE	637.2210 SF	REMARKS
0010	434+00	USH 53, LT.	700	R2-1	24" X 30"	5.00	SPEED LIMIT 55 MPH
0010	436+00	USH 53, LT.	701	J4-1	24" X 36"	6.00	REASSURANCE ASSEMBLY
0010				M3-3	---	---	CARDINAL ROUTE MARKER, SOUTH
0010				M1-4	---	---	US ROUTE MARKER, 53
0010	436+20	USH 53, RT.	702	J3-3	72" X 57"	28.50	DIRECTIONAL ASSEMBLY
0010				M3-1	---	---	CARDINAL ROUTE MARKER, NORTH
0010				M1-4	---	---	US ROUTE MARKER, 53
0010				M6-1	---	---	ARROW, UP
0010				M3-4	---	---	CARDINAL ROUTE MARKER, WEST
0010				M1-6	---	---	STATE ROUTE MARKER, 95
0010				M6-1	---	---	ARROW, UP
0010				M3-2	---	---	CARDINAL ROUTE MARKER, EAST
0010				M1-6	---	---	STATE ROUTE MARKER, 95
0010				M6-1	---	---	ARROW, RIGHT
0010	4+32	STH 95, LT.	705	R1-1	36" X 36"	7.46	STOP
0010	437+65	USH 53, LT.	706	J3-2	48" X 57"	19.00	DIRECTIONAL ASSEMBLY
0010				M3-2	---	---	CARDINAL ROUTE MARKER, EAST
0010				M1-6	---	---	STATE ROUTE MARKER, 95
0010				M6-1	---	---	ARROW, LEFT
0010				M3-3	---	---	CARDINAL ROUTE MARKER,SOUTH
0010				M1-4	---	---	US ROUTE MARKER, 53
0010				M6-1	---	---	ARROW, UP
0010	4+40	STH 95, LT.	707	R1-1	36" X 36"	7.46	STOP
0010	4+42	STH 95, LT.	708	J3-3	72" X 57"	28.50	DIRECTIONAL ASSEMBLY
0010				M3-3	---	---	CARDINAL ROUTE MARKER, SOUTH
0010				M1-4	---	---	US ROUTE MARKER, 53
0010				M6-1	---	---	ARROW, LEFT
0010				M3-1	---	---	CARDINAL ROUTE MARKER, NORTH
0010				M1-4	---	---	US ROUTE MARKER, 53
0010				M6-1	---	---	ARROW, RIGHT
0010				M3-4	---	---	CARDINAL ROUTE MARKER, WEST
0010				M1-6	---	---	STATE ROUTE MARKER, 95
0010				M6-1	---	---	ARROW, RIGHT
0010	439+00	USH 53, RT.	709	J4-2	48" X 36"	12.00	REASSURANCE ASSEMBLY
0010				M3-1	---	---	CARDINAL ROUTE MARKER, NORTH
0010				M1-4	---	---	US ROUTE MARKER, 53
0010				M3-4	---	---	CARDINAL ROUTE MARKER, WEST
0010				M1-6	---	---	STATE ROUTE MARKER, 95
					TOTAL 0010	113.92	

SIGNS TYPE II REFLECTIVE F

CATEGORY	STATION	LOCATION	REF.#	SIGN CODE	SIZE	637.2230 SF	REMARKS
0010	437+15	USH 53, LT.	703	W1-7	48" X 24"	8.00	DOUBLE NIGHT ARROW
0010	4+85	STH 95, LT.	704	W12-1D	24" X 24"	4.00	DOUBLE DOWN ARROWS
					TOTAL 0010	12.00	

REMOVING SIGNS TYPE II

CATEGORY	STATION	LOCATION	REF.#	638.2602 EACH	REMARKS
0010	434+00	USH 53, LT.	100	1	SPEED LIMIT 55 MPH
0010	436+00	USH 53, LT.	101	1	REASSURANCE ASSEMBLY-SOUTH, 53
0010	436+20	USH 53, RT.	102	1	DIRECTIONAL ASSEMBLY-NORTH, 53, UP ARROW / WEST, 95, UP ARROW / EAST, 95, RIGHT ARROW
0010	437+15	USH 53, LT.	103	1	DOUBLE NIGHT ARROW
0010	4+63	STH 95, LT.	104	1	STOP
0010	4+63	STH 95, LT.	105	1	DIRECTIONAL ASSEMBLY-SOUTH, 53, LEFT ARROW / NORTH, 53, RIGHT ARROW / WEST, 95, RIGHT ARROW
0010	437+65	USH 53, LT.	106	1	DIRECTIONAL ASSEMBLY-EAST, 95, LEFT ARROW / SOUTH, 53, UP ARROW
0010	438+40	USH 53, RT.	107	1	REASSURANCE ASSEMBLY-NORTH, 53 / WEST, 95
0010					
			TOTAL 0010	8	

REMOVING SMALL SIGN SUPPORTS

CATEGORY	STATION	LOCATION	REF. #	638.3000 EACH	ASSOCIATED SIGNS
0010	434+00	USH 53, LT.	600	1	100
0010	436+00	USH 53, LT.	601	1	101
0010	436+20	USH 53, RT.	602, 603	2	102
0010	437+15	USH 53, LT.	604	1	103
0010	4+63	STH 95, LT.	605	1	104
0010	4+63	STH 95, LT.	606, 607	2	105
0010	437+65	USH 53, LT.	608	1	106
0010	438+40	USH 53, RT.	609	1	107
			TOTAL 0010	10	

TRAFFIC CONTROL (1630-01-71)

CATEGORY	LOCATION	643.0100 EACH	REMARKS
0010	PROJECT 1630-01-71	1	
	TOTAL 0010	1	

TRAFFIC CONTROL DRUMS

CATEGORY	STATION TO	STATION	LOCATION	QTY.	643.0300 DAY	REMARKS
0010	437+50	- 444+00	USH 53, LT.	18	72	STAGE 1
0010	432+00	- 437+00	USH 53, RT.	18	90	STAGE 2
0010	433+25	- 436+50	USH 53, LT.	19	95	STAGE 2
0010	438+50	- 441+50	USH 53, LT.	18	90	STAGE 2
0010	4+35	- 6+60	STH 95, RT.	10	50	STAGE 2
0010	432+00	- 436+50	USH 53, RT.	16	96	STAGE 3
0010	434+25	- 436+50	USH 53, LT.	19	114	STAGE 3
0010	437+15	- 440+75	USH 53, RT.	11	66	STAGE 3
0010	438+00	- 441+50	USH 53, LT.	23	138	STAGE 3
0010	4+25	- 7+00	STH 95, LT.	12	72	STAGE 3
			TOTAL 0010		883	

3

TRAFFIC CONTROL BARRICADES TYPE III

CATEGORY	STATION	LOCATION	QTY.	643.0420 DAY	REMARKS
0010	442+25	USH 53, LT.	1	4	STAGE 1
0010	432+70	USH 53, RT.	1	5	STAGE 2
0010	440+15	USH 53, LT.	1	5	STAGE 2
0010	432+70	USH 53, RT.	1	6	STAGE 3
0010	440+60	USH 53, LT.	1	6	STAGE 3
TOTAL 0010				26	

TRAFFIC CONTROL SIGNS

CATEGORY	LOCATION	QTY.	643.0900 DAY	REMARKS
0010	PROJECT 1630-01-71	1	4	STAGE 1
0010	PROJECT 1630-01-71	6	30	STAGE 2
0010	PROJECT 1630-01-71	7	42	STAGE 3
TOTAL 0010			76	

PAVEMENT MARKING EPOXY 4-INCH

CATEGORY	STATION TO STATION	LOCATION	646.0106 LF	REMARKS
0010	433+00 - 436+80	USH 53, LT. & RT.	761	DOUBLE YELLOW, CENTERLINE
0010	437+49 - 442+00	USH 53, LT. & RT.	901	DOUBLE YELLOW, CENTERLINE
0010	433+00 - 436+80	USH 53, RT.	341	WHITE EDGELINE
0010	433+00 - 442+00	USH 53, LT.	884	WHITE EDGELINE
0010	437+98 - 442+00	USH 53, RT.	408	WHITE EDGELINE
0010	435+90 - 438+59	USH 53, LT.	75	WHITE LANELINE
0010	4+30 - 6+50	STH 95, LT. & RT.	440	DOUBLE YELLOW, CENTERLINE
0010	4+59 - 6+50	STH 95, LT.	201	WHITE EDGELINE
0010	4+73 - 6+50	STH 95, RT.	173	WHITE EDGELINE
		TOTAL 0010	4184	

PAVEMENT MARKING EPOXY 8-INCH

CATEGORY	STATION TO STATION	LOCATION	646.0126 LF	REMARKS
0010	433+14 - 436+80	USH 53, RT.	323	WHITE CHANNELIZING LANELINE
0010	4+89 - 5+15	STH 95, LT.	54	WHITE CHANNELIZING LANELINE
		TOTAL 0010	377	

PAVEMENT MARKING STOP LINE EPOXY 18-INCH

CATEGORY	STATION TO STATION	LOCATION	647.0566 LF	REMARKS
0010	4+30 - 4+30	STH 95, LT.	15	FOR LEFT TURN
0010	4+31 - 4+37	STH 95, LT.	22	FOR RIGHT TURN
		TOTAL 0010	37	

CONSTRUCTION STAKING SUBGRADE

CATEGORY	STATION TO STATION	LOCATION	650.4500 LF	REMARKS
0010	438+59 - 441+89	USH 53, LT.	330	STAGE 1
0010	436+00 - 436+94	USH 53, RT.	94	STAGE 2
0010	4+11 - 5+73	STH 95, RT.	162	STAGE 2
0010	437+18 - 438+98	USH 53, RT.	180	STAGE 3
0010	4+12 - 6+50	STH 95, LT.	238	STAGE 3
		TOTAL 0010	1004	

CONSTRUCTION STAKING BASE

CATEGORY	STATION TO STATION	LOCATION	650.5000 LF	REMARKS
0010	438+59 - 441+89	USH 53, LT.	330	STAGE 1
0010	436+00 - 436+94	USH 53, RT.	94	STAGE 2
0010	4+11 - 5+73	STH 95, RT.	162	STAGE 2
0010	437+18 - 438+98	USH 53, RT.	180	STAGE 3
0010	4+12 - 6+50	STH 95, LT.	238	STAGE 3
		TOTAL 0010	1004	

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

CATEGORY	STATION TO STATION	LOCATION	650.5500 LF	REMARKS
0010	436+33 - 436+79	USH 53, RT.	73	STAGE 2
0010	437+51 - 437+98	USH 53, RT.	64	STAGE 3
0010	4+24 - 4+95	STH 95, LT.(ISLAND)	141	STAGE 3
		TOTAL 0010	278	

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (1630-01-71)

CATEGORY	LOCATION	650.8500 LS	REMARKS
0020	PROJECT 1630-01-71	1	STREET LIGHTING
	TOTAL 0020	1	

3

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CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1630-01-71)

CATEGORY	LOCATION	650.9910 LS	REMARKS
0010	PROJECT 1630-01-71	1	
	TOTAL 0010	1	

CONSTRUCTION STAKING SLOPE STAKES

CATEGORY	STATION TO STATION	LOCATION	650.9920 LF	REMARKS
0010	438+59 - 441+89	USH 53, LT.	330	STAGE 1
0010	436+00 - 436+94	USH 53, RT.	94	STAGE 2
0010	4+11 - 5+73	STH 95, RT.	162	STAGE 2
0010	437+18 - 438+98	USH 53, RT.	180	STAGE 3
0010	4+12 - 6+50	STH 95, LT.	238	STAGE 3
		TOTAL 0010	1004	

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH

CATEGORY	LOCATION	652.0225 LF	REMARKS
0020	PEDESTAL TO LPB-1	10	
0020	LPB-1 TO A2	15	
0020	LPB-2 TO A1	70	
0020	A1 TO STUB	8	
0020	LPB-2 TO A4	205	
0020	A4 TO STUB	8	
0020	LPB-3 TO A3	11	
	TOTAL 0020	327	

CONDUIT SPECIAL 2-INCH

CATEGORY	LOCATION	652.0605 LF	REMARKS
0020	LPB-1 TO LPB-2	69	
0020	LPB-1 TO LPB-3	121	
	TOTAL 0020	190	

PULL BOXES STEEL 24X42-INCH

CATEGORY	STATION	LOCATION	653.0140 EACH	REMARKS
0020	436+50	39,10' RT.	1	LPB-1
0020	436+50	31.00' LT.	1	LPB-2
0020	437+67.75	48.70' RT.	1	LPB-3
		TOTAL 0020	3	

LIGHTING UNIT ITEMS

CATEGORY	STATION	LOCATION	CONCRETE BASES TYPE 5 654.0105 EACH	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE 657.0255 EACH	POLES TYPE 5 ALUMINUM 657.0322 EACH	LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 15-FT 657.0715 EACH	LED LUMINAIRE LED-C SPV.0060.01 EACH
0020	435+80	31.00' LT.	1	1	1	1	1
0020	438+59.17	31.00' LT.	1	1	1	1	1
0020	436+61.71	45.80' RT.	1	1	1	1	1
0020	437+72.96	41.28' RT.	1	1	1	1	1
		TOTAL 0020	4	4	4	4	4

ELECTRICAL WIRE LIGHTING 12 AWG

CATEGORY	LOCATION	655.0610 LF	REMARKS
0020	PEDESTAL TO LPB-1	63	
0020	LPB-1 TO A2	69	
0020	A2	141	
0020	LPB-1 TO LPB-2	246	
0020	LPB-2 TO A1	231	
0020	A1	141	
0020	LPB-2 TO A4	636	
0020	A4	141	
0020	LPB-1 TO LPB-3	405	
0020	LPB-3 TO A3	54	
0020	A3	141	
	TOTAL 0020	2268	

3

SAWING ASPHALT

CATEGORY	STATION TO STATION	LOCATION	690.0150 LF	REMARKS
0010	438+59 - 441+89	USH 53, LT.	343	STAGE 1
0010	436+00 - 436+94	USH 53, RT.	107	STAGE 2
0010	4+11 - 5+73	STH 95, RT.	162	STAGE 2
0010	437+18 - 438+98	USH 53, RT.	185	STAGE 3
0010	4+12 - 6+50	STH 95, LT.	245	STAGE 3
		TOTAL 0010	1042	

SPECIAL(01. CONCRETE MEDIAN SLOPED NOSE CURE AND SEAL TREATMENT)

CATEGORY	STATION TO STATION	LOCATION	SPV.0165.01 SF	REMARKS
0010	437+21 - 437+29	USH 53, RT.	37	ISLAND, STAGE 3
0010	4+90 - 4+95	STH 95, LT.	16	ISLAND, STAGE 3
		TOTAL 0010	53	

3

SPECIAL(01. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT)

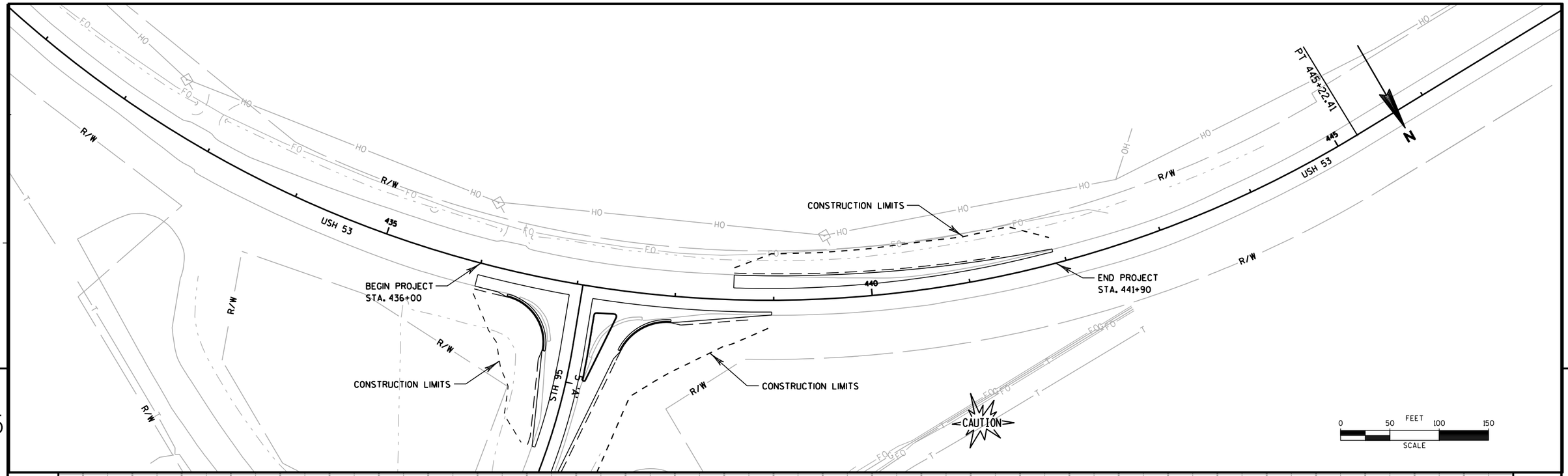
CATEGORY	STATION TO STATION	LOCATION	SPV.0090.01 LF	REMARKS
0010	4+24 - 4+95	STH 95, LT.	141	ISLAND, STAGE 3
0010	436+33 - 436+79	USH 53, RT.	73	STAGE 2
0010	437+51 - 437+98	USH 53, RT.	64	STAGE 3
		TOTAL 0010	278	

SPECIAL(01. ASPHALTIC SURFACE SPECIAL)

CATEGORY	STATION TO STATION	LOCATION	SPV.0195.01 TON	REMARKS
0010	438+59 - 441+89	USH 53, LT.	117.2	STAGE 1
0010	436+00 - 436+94	USH 53, RT.	50.2	STAGE 2
0010	4+11 - 5+73	STH 95, RT.	81.1	STAGE 2
0010	437+18 - 438+98	USH 53, RT.	81.3	STAGE 3
0010	4+12 - 6+50	STH 95, LT.	112.6	STAGE 3
0010	4+24 - 4+95	STH 95, LT.(ISLAND)	14.6	STAGE 3
		TOTAL 0010	457.0	

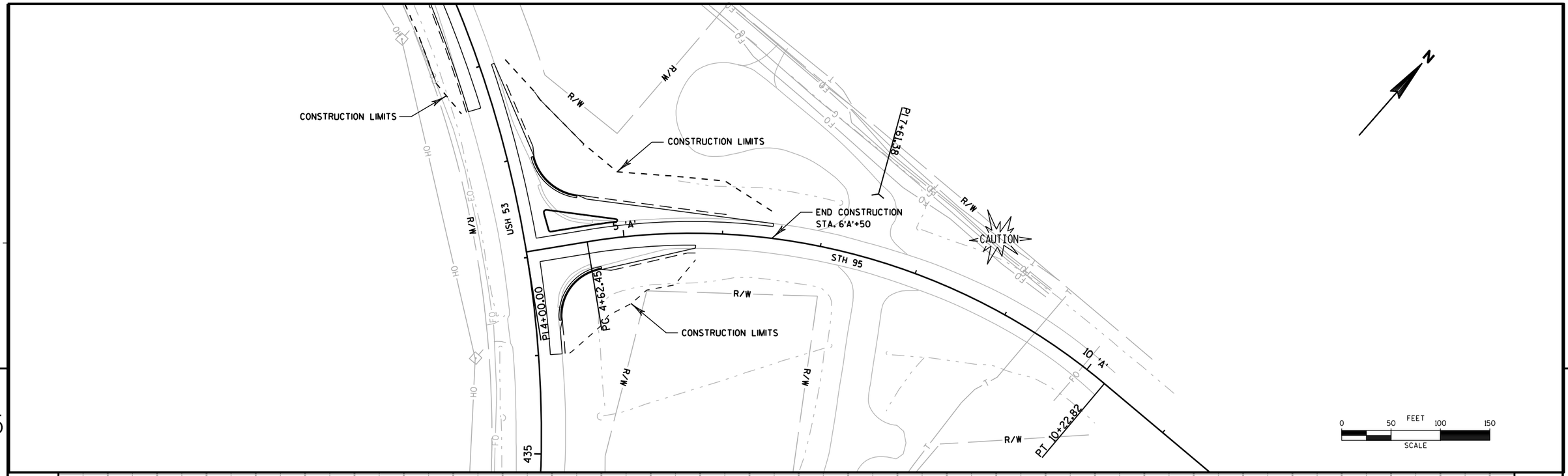
SPECIAL(03. ELECTRICAL SERVICE METER BREAKER PEDESTAL SPECIAL)

CATEGORY	STATION	LOCATION	SPV.0105.03 LS	REMARKS
0020	436+54	46.51', RT.	1	
		TOTAL 0020	1	



PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN & PROFILE (USH 53)	SHEET NO: E

FILE NAME : c:±Users±PROJECTS±D6±163001±050140_pp.DGN PLOT DATE : 13-JUL-2012 06:24 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

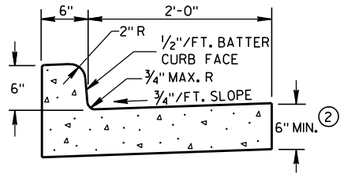


PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN & PROFILE (LINE 'A' - STH 95)	SHEET NO: E

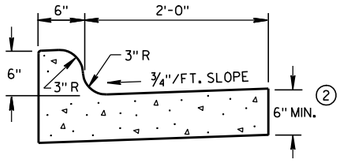
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Standard Detail Drawing List

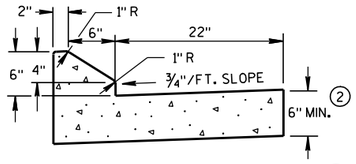
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
09B02-07	CONDUIT
09B04-10	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09E01-12D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-12G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT



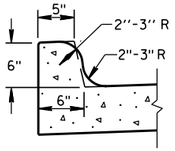
TYPES A & D (1)



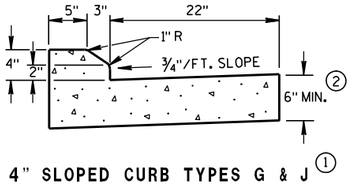
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

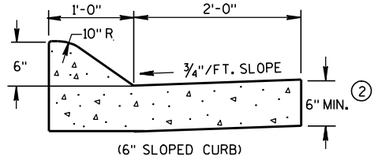


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

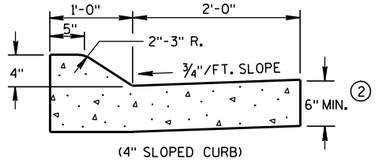


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

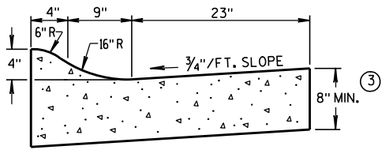


(6" SLOPED CURB)



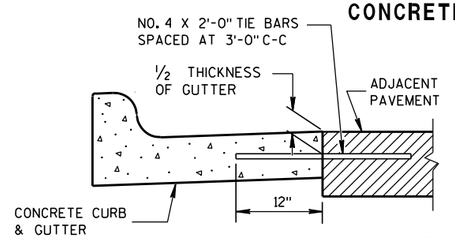
(4" SLOPED CURB)

TYPES A & D (1)

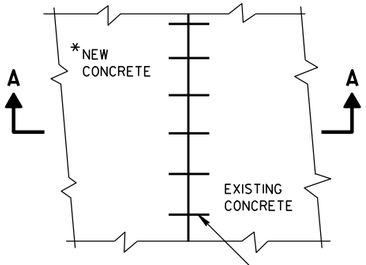


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

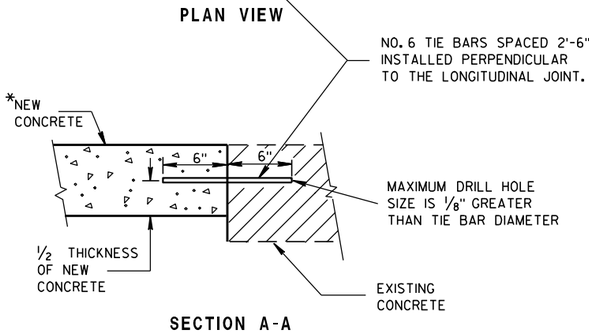


TYPICAL TIE BAR LOCATION (1)



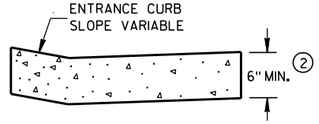
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW

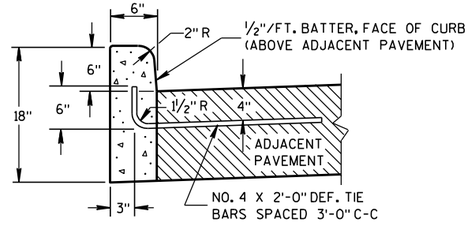


SECTION A-A

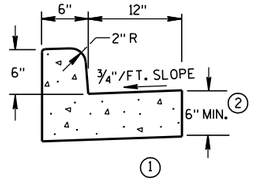
TIE BARS DRILLED INTO EXISTING PAVEMENT



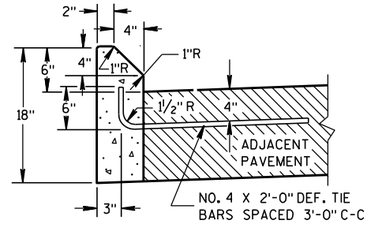
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



(1)
TYPES A & D

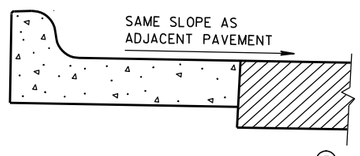


(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES G & J

CONCRETE CURB



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

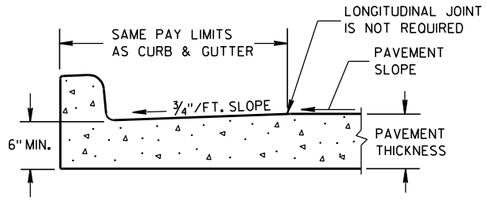
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

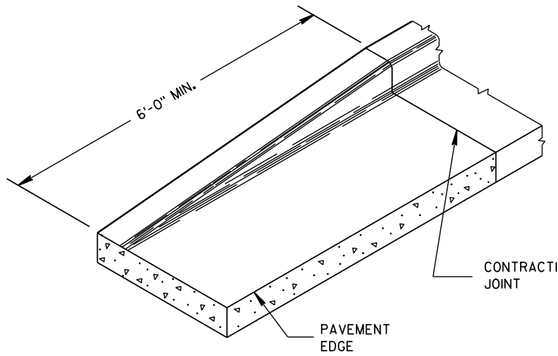
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

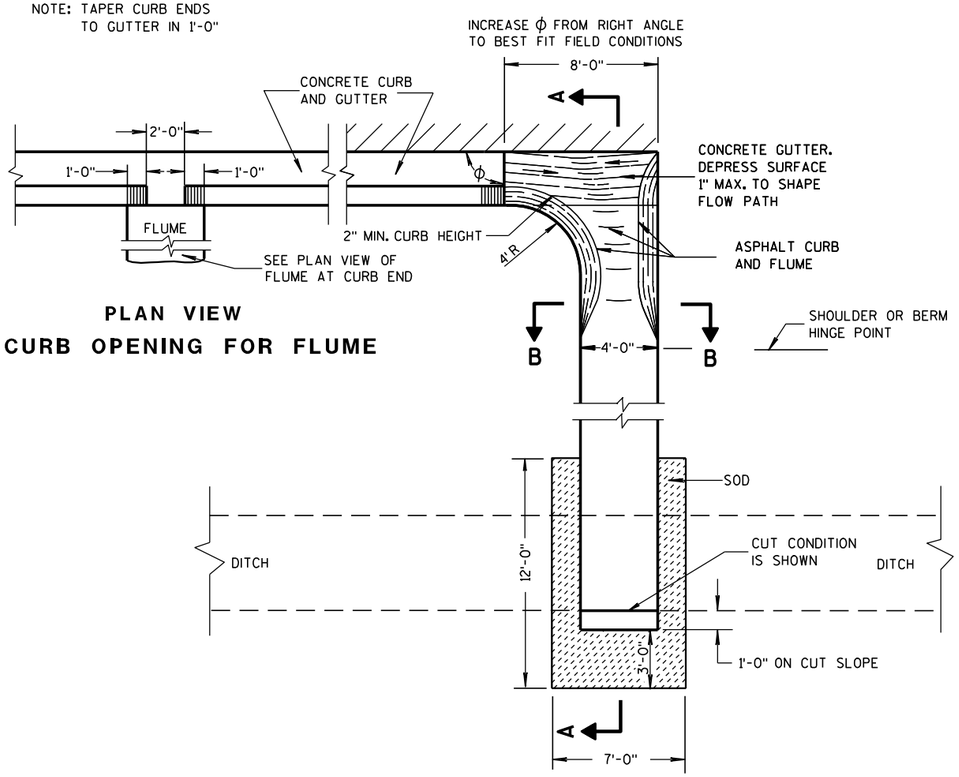
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

6

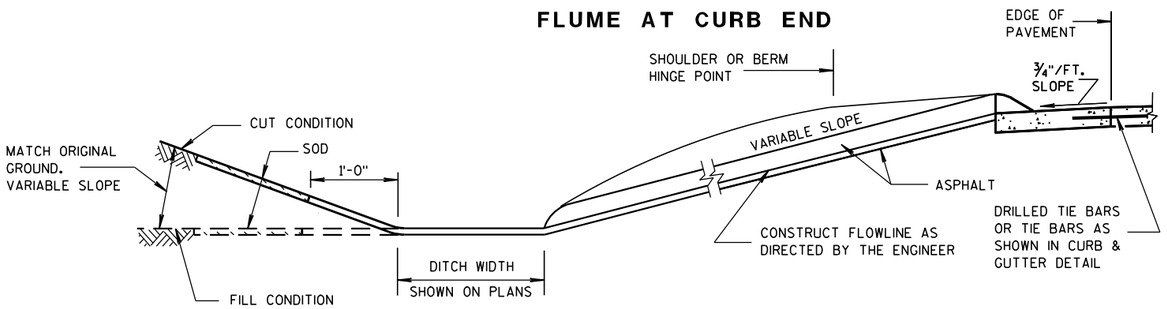
S.D.D. 8 D 1-17

ASPHALTIC FLUME

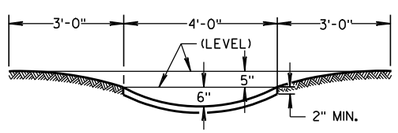


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

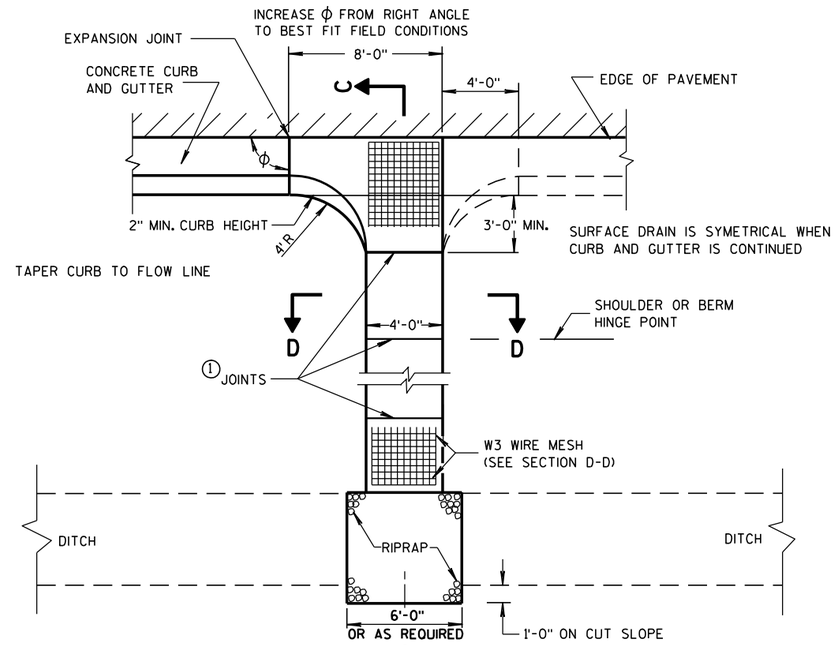
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

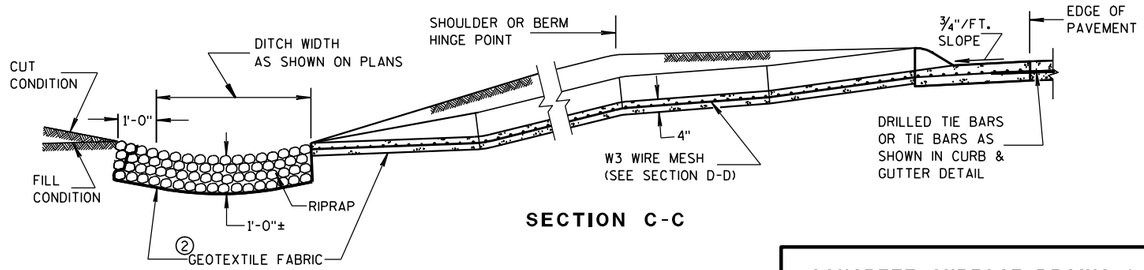
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

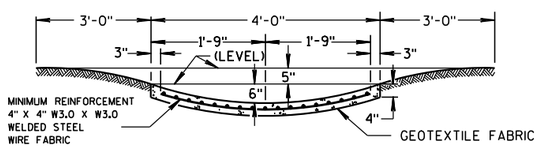
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



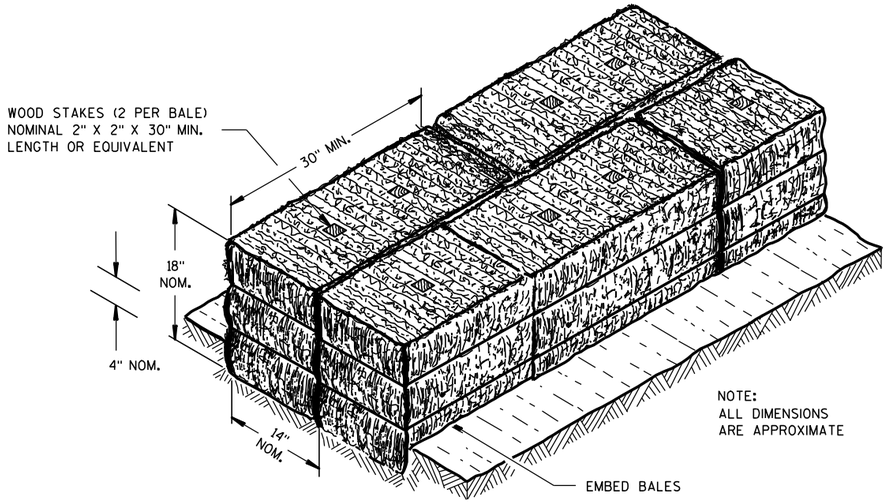
SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

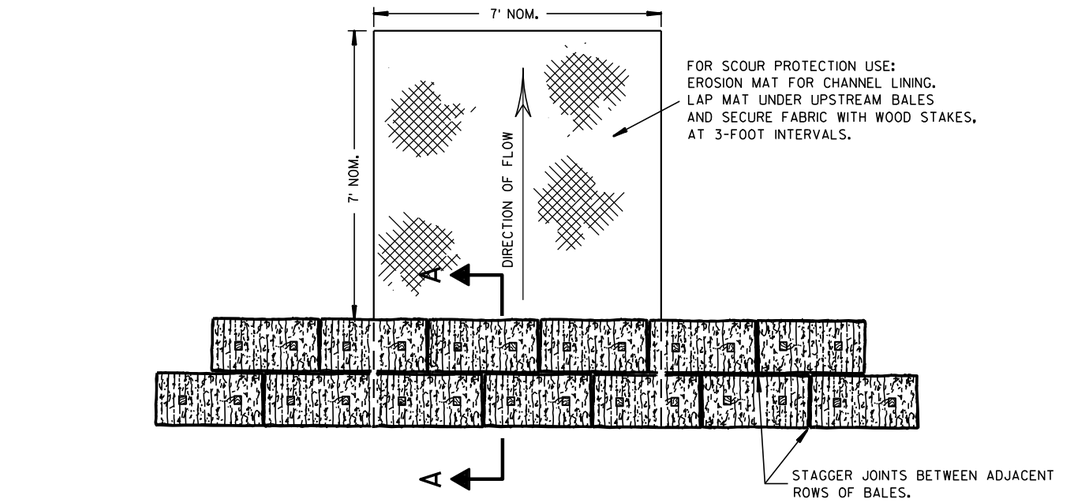
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

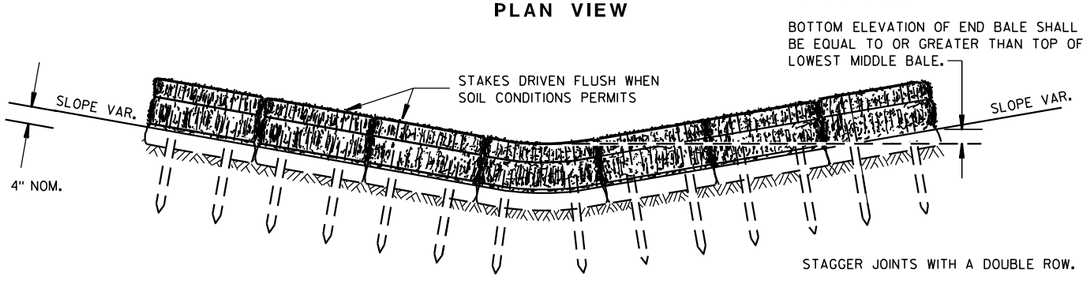
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S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



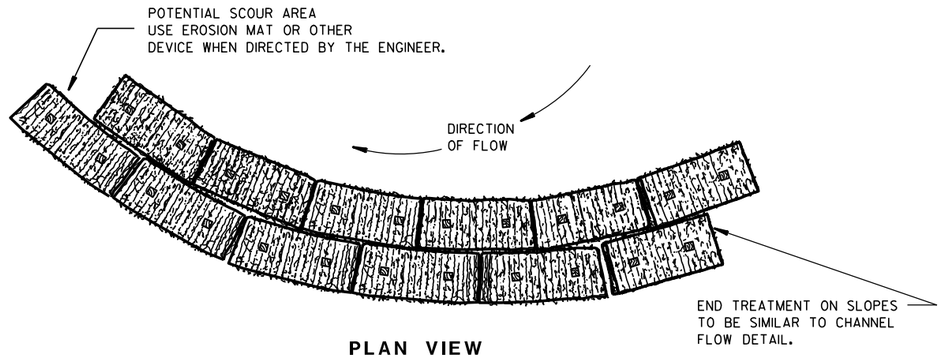
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

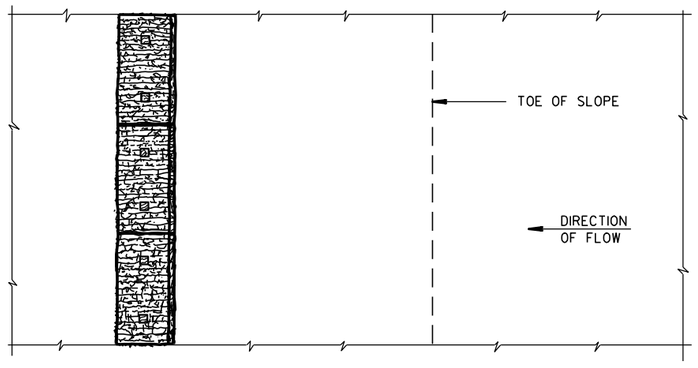
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

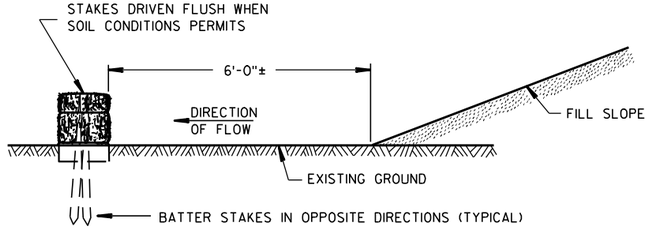


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

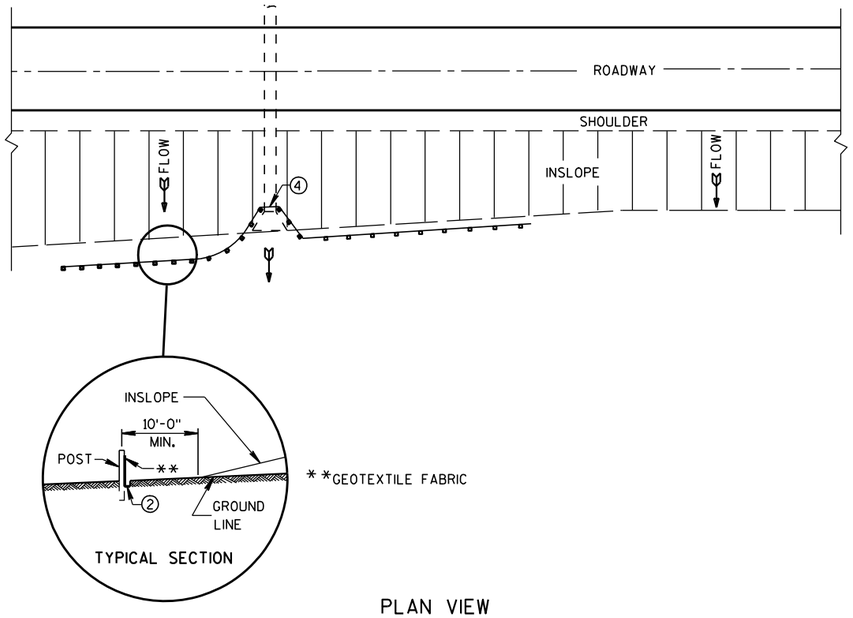
FHWA

6

S.D.D. 8 E 8-3

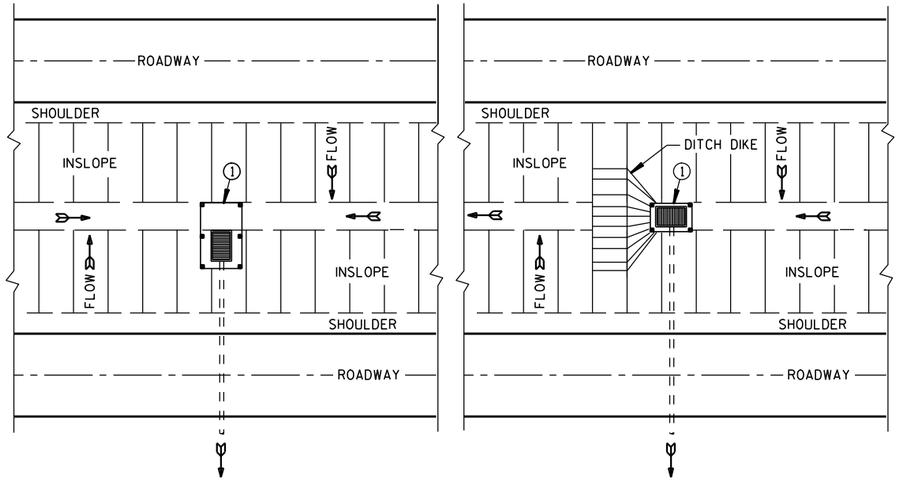
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

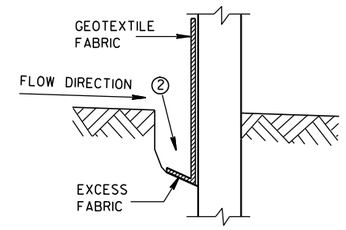
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

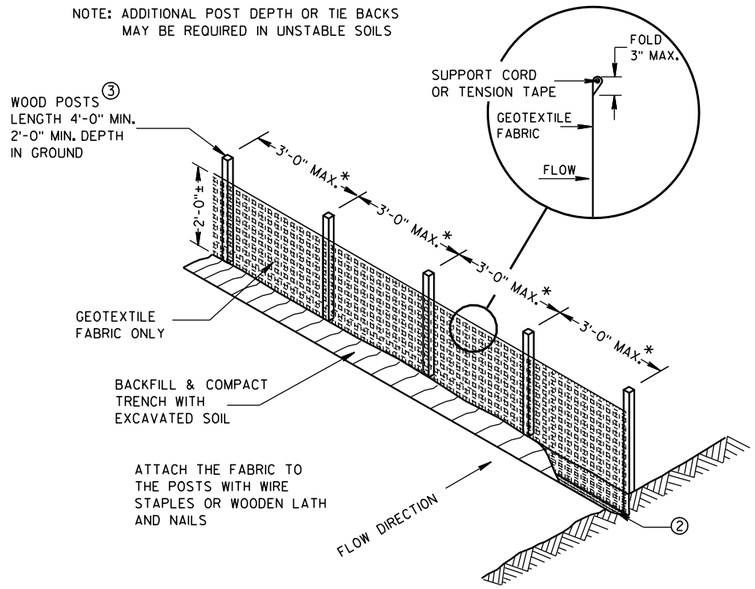
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

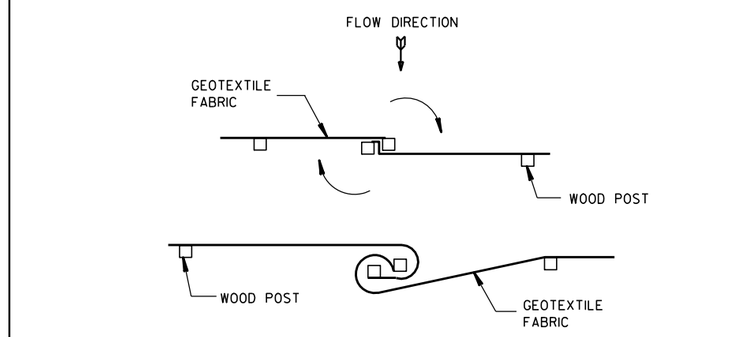


TRENCH DETAIL

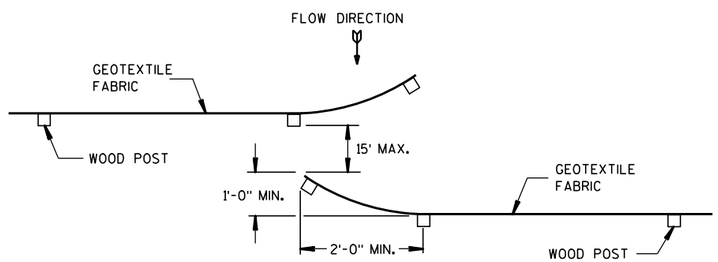


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

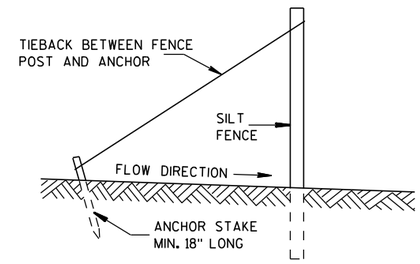


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

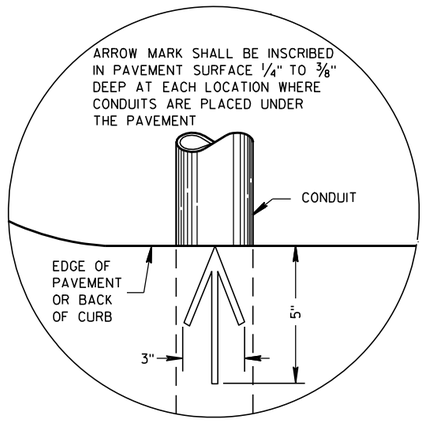
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

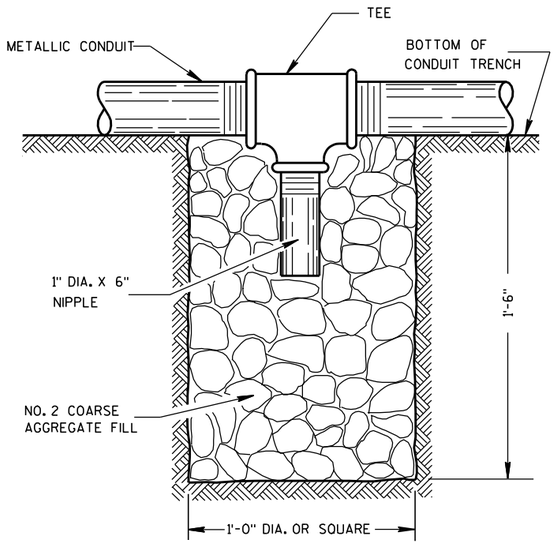
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S.D.D. 8 E 9-6



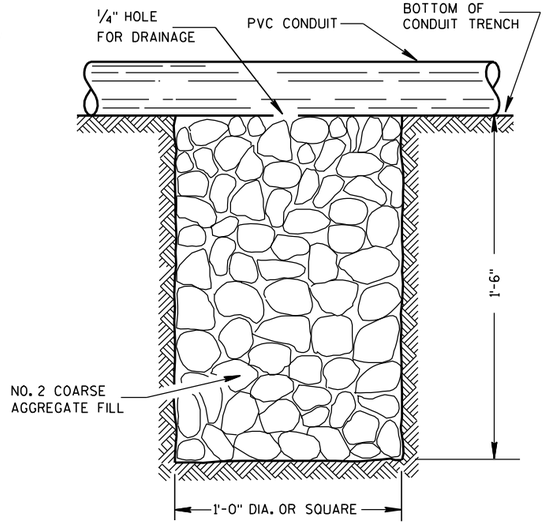
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

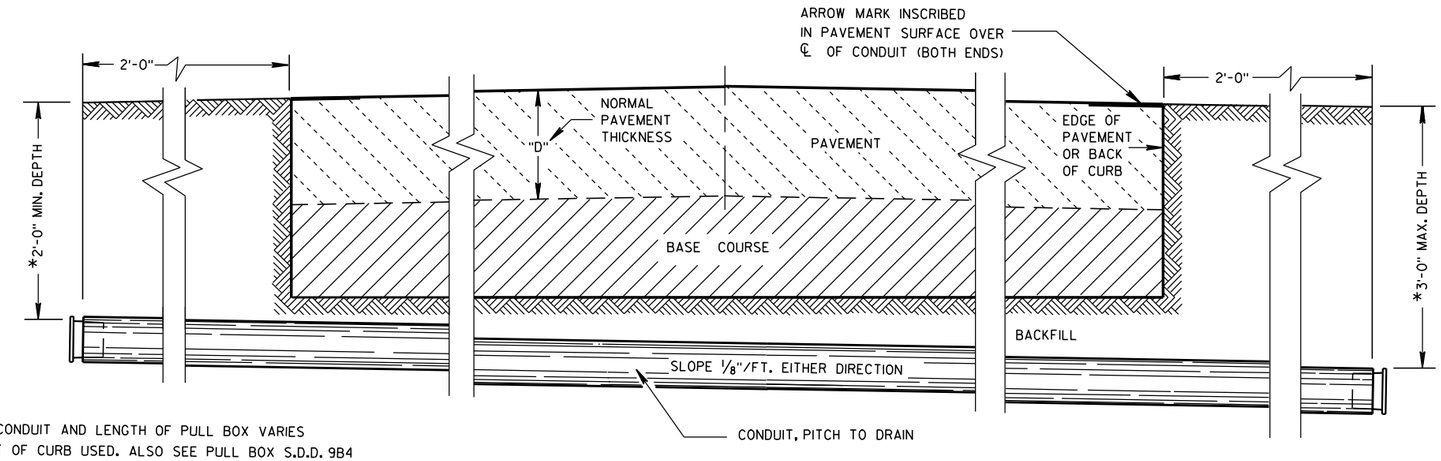
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 — DATE

/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI

FHWA — HWYS

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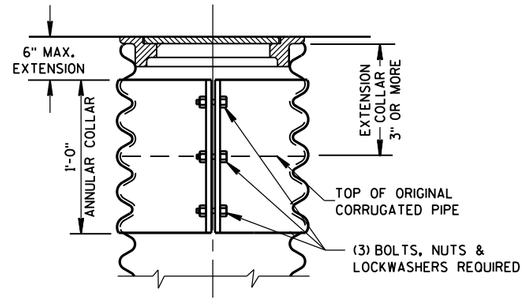
S.D.D. 9 B 2-7

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

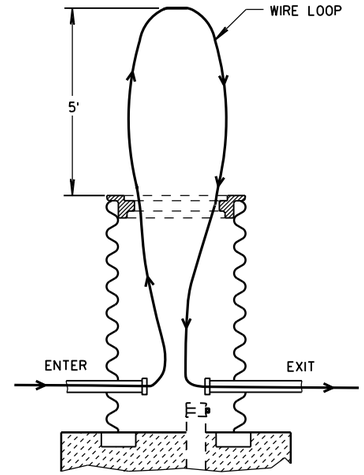
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

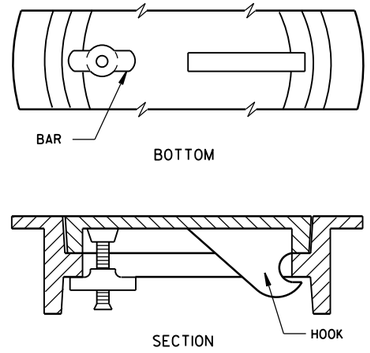
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

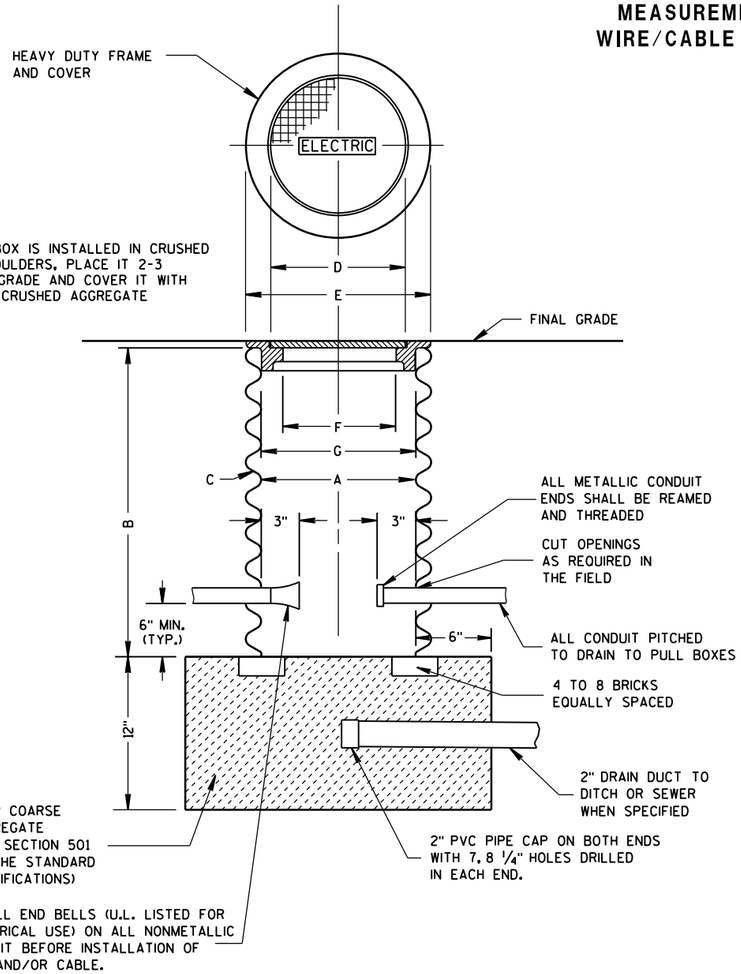


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



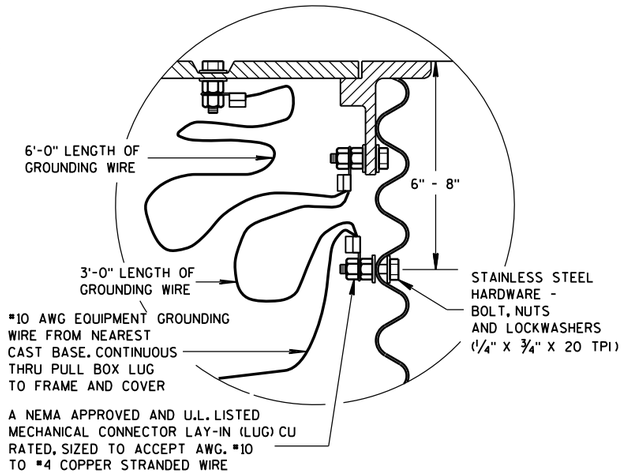
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

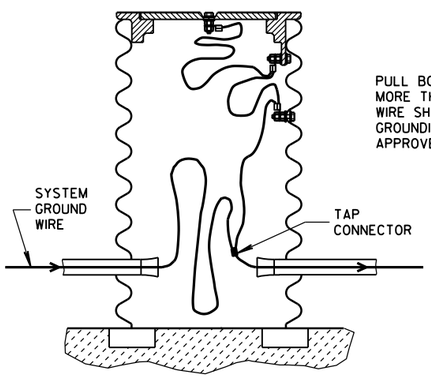


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

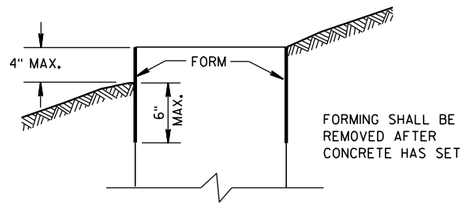
ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

PULL BOX	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
2-7-2013 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

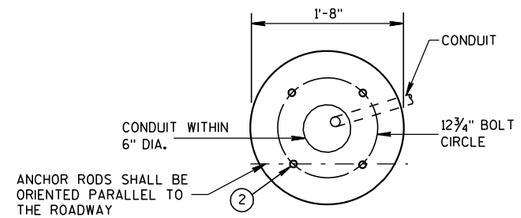
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

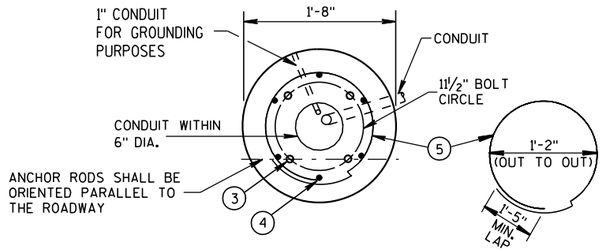
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

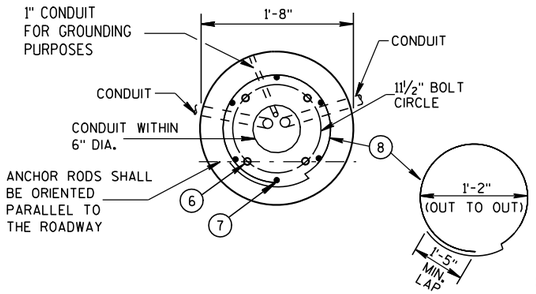
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



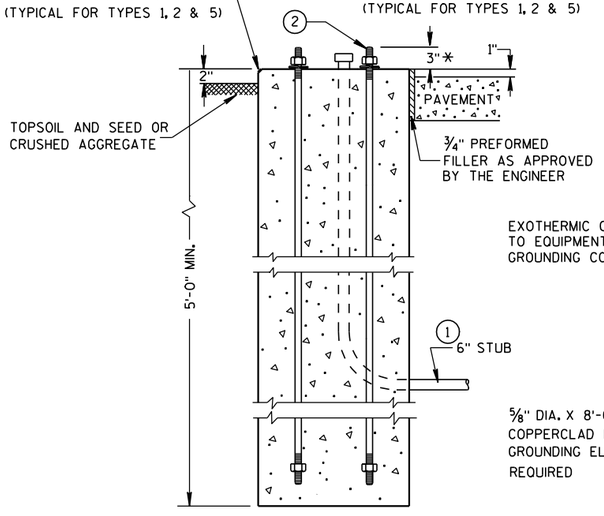




FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

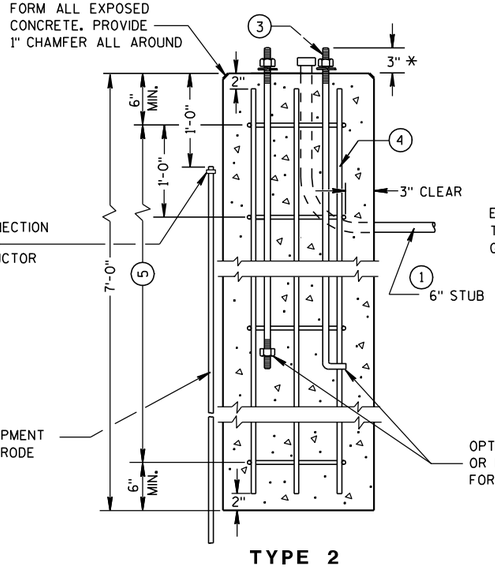
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)

HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)



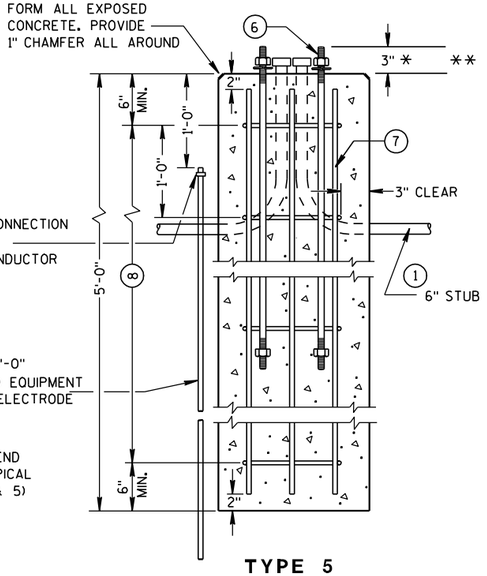
TYPE 1

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 2

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI
38
HWYS
FHWA

6
S.D.D. 9 C 2-6

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

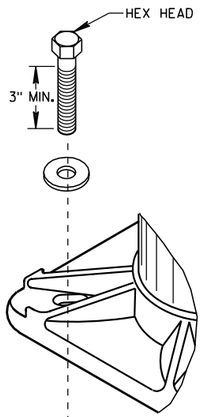
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

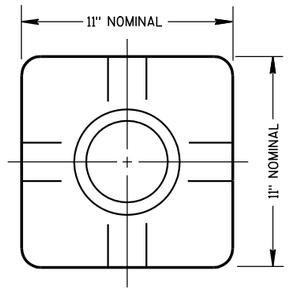
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

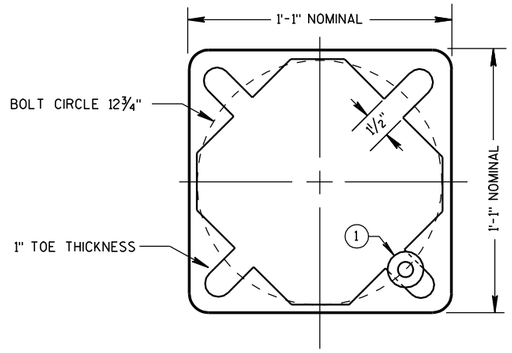
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

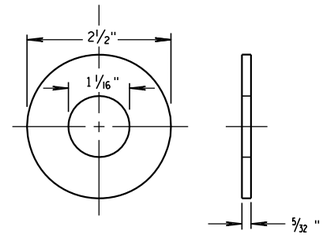




TOP VIEW
(PEDESTAL BASE)

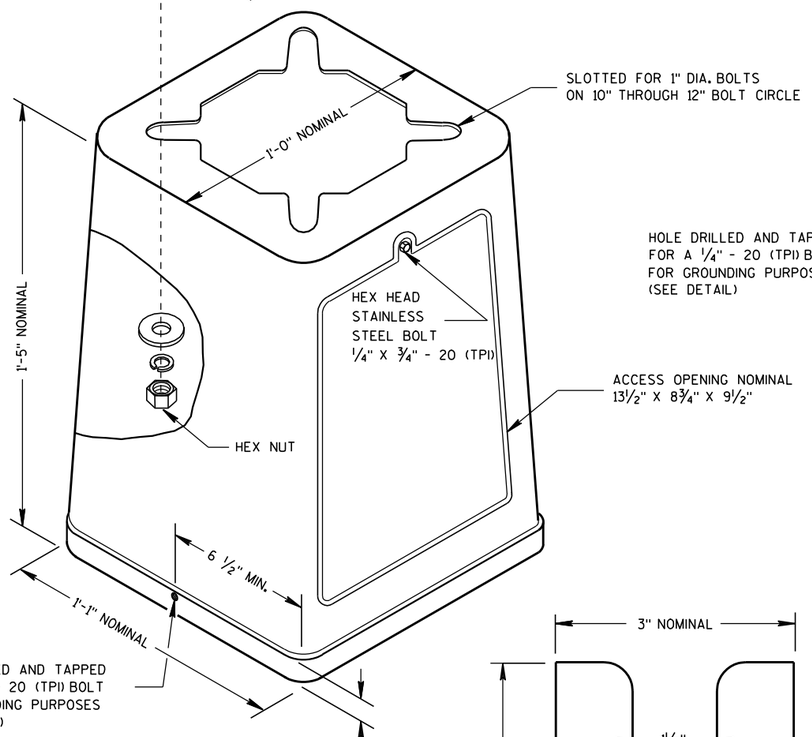


BOTTOM VIEW
(PEDESTAL BASE)

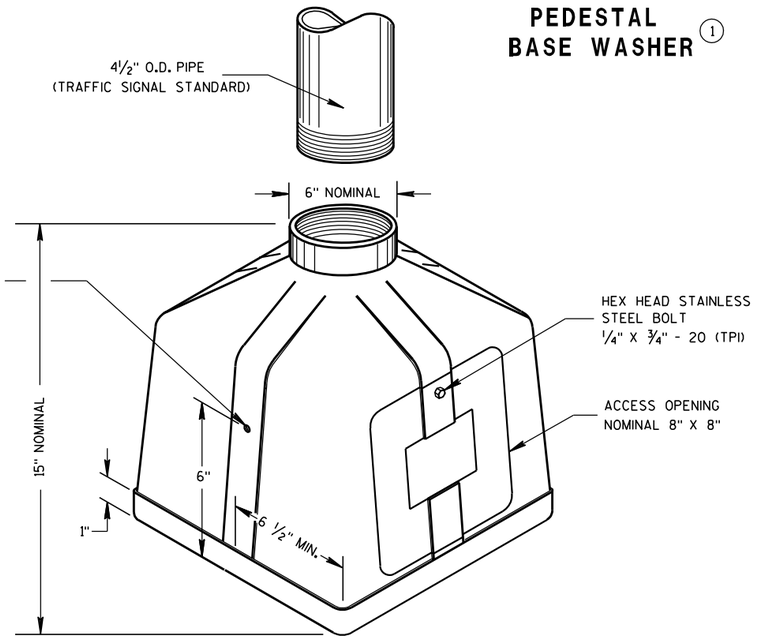


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

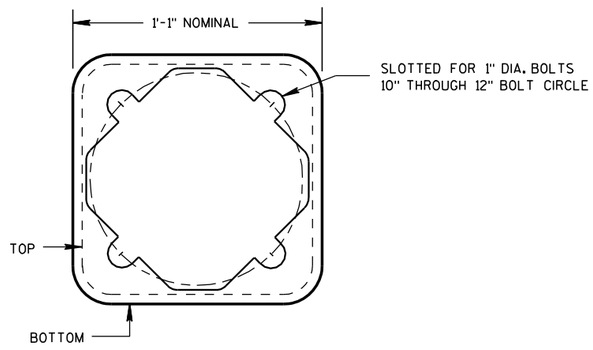


ISOMETRIC VIEW

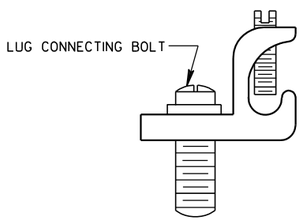


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

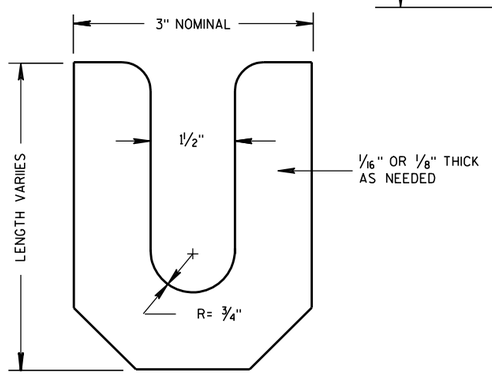


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09 — DATE
/S/ Joanna L. Rich — STATE ELECTRICAL ENGI
39
HWYS
FHWA

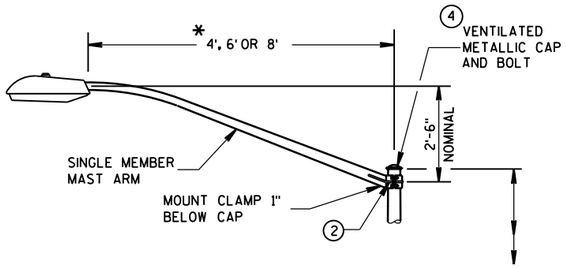
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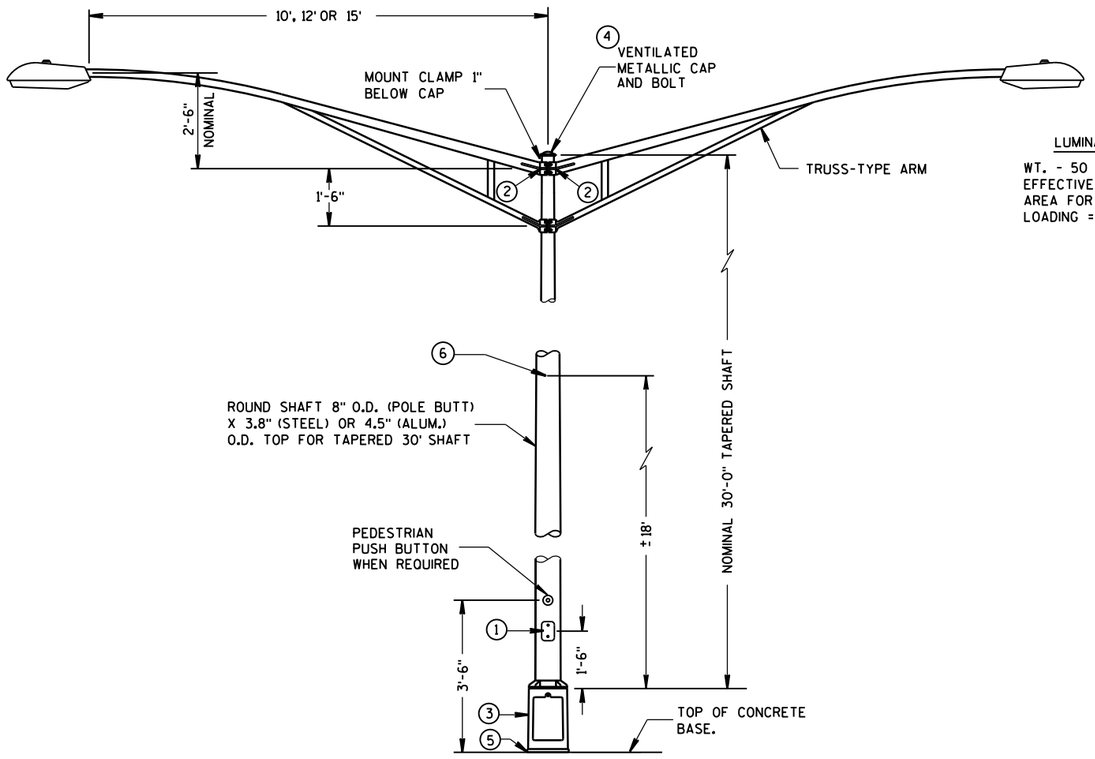
S.D.D. 9 C 3-3

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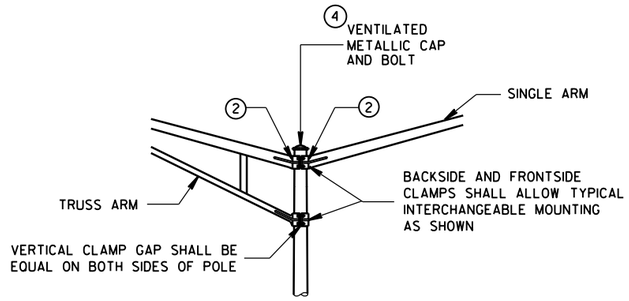
S.D.D. 9 C 3-3

*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

6

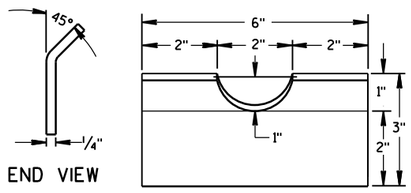
S.D.D. 9 E 1-12d

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

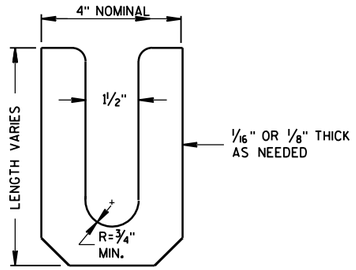
S.D.D. 9 E 1-12d



FRONT VIEW

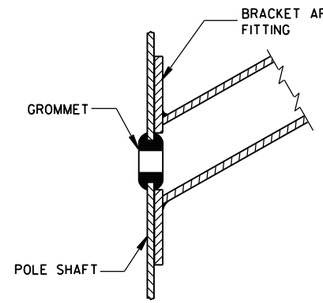
RECTANGULAR CLAMP SHIM

(4 TO A SET)

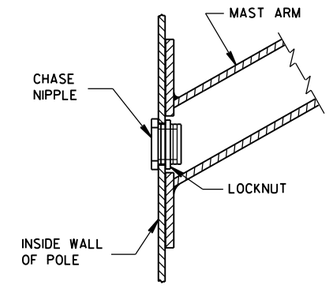


LEVELING SHIM (15)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)

(14) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")

SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".

SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".

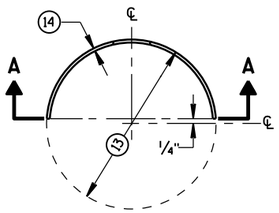
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

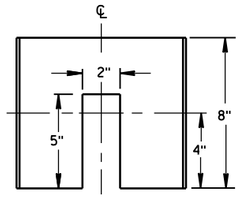
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(15) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



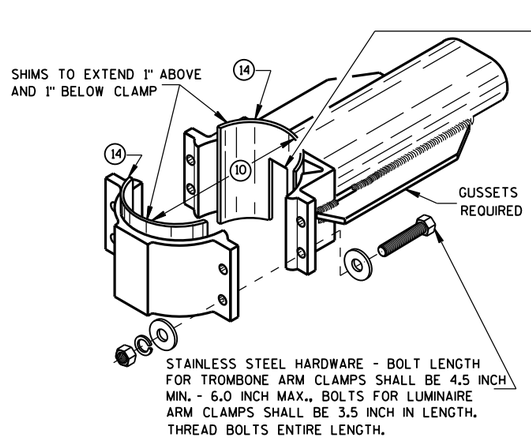
PLAN VIEW



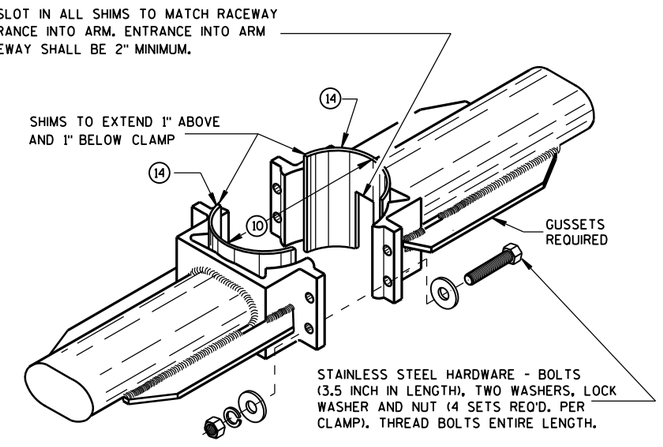
SECTION A-A

CIRCULAR CLAMP SHIM

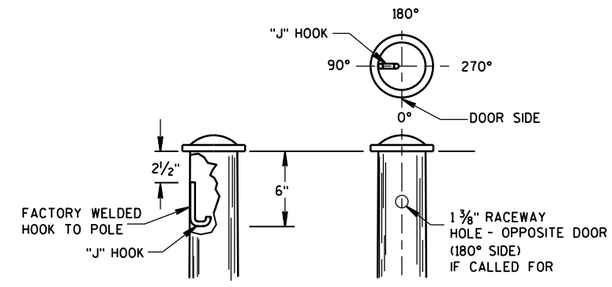
(2 TO A SET)



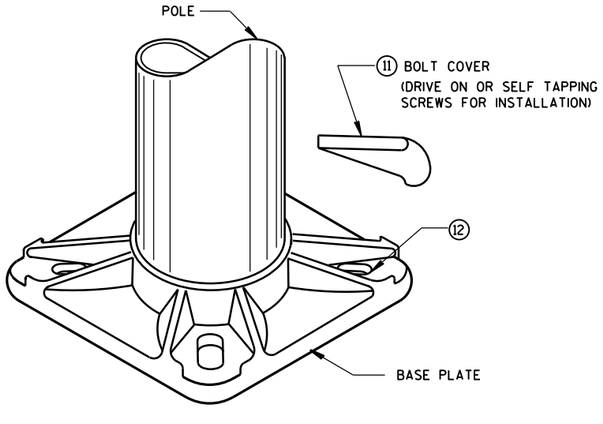
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



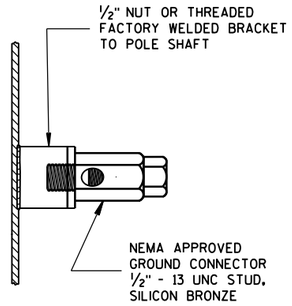
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

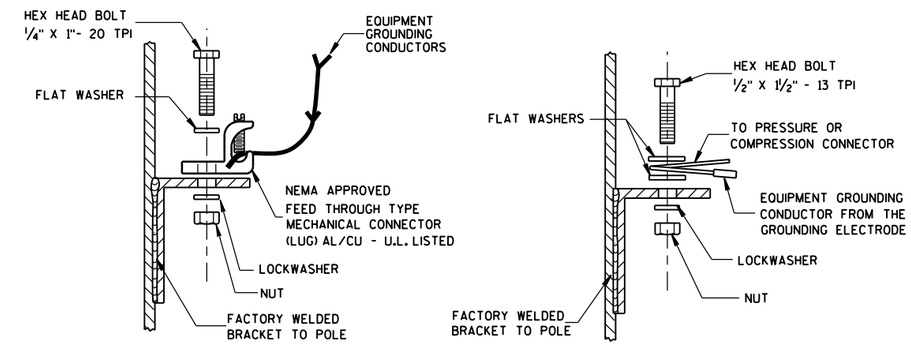


TYPICAL "J" HOOK LOCATION



BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

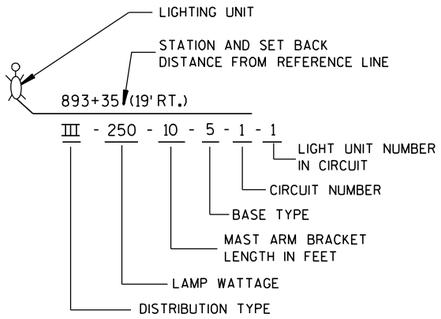
HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

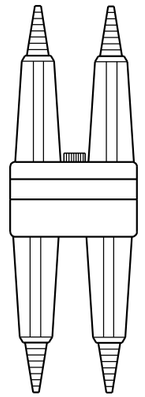
APPROVED
2/7/2013 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA

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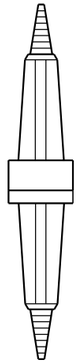
S.D.D. 9 E 1-12g



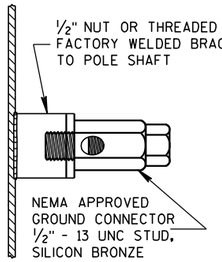
LIGHTING UNIT CODE
(TYPICAL)

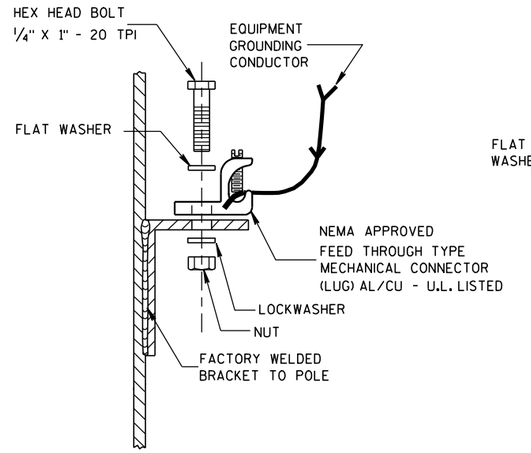


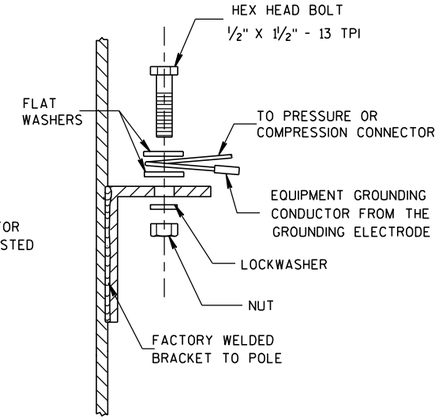
DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



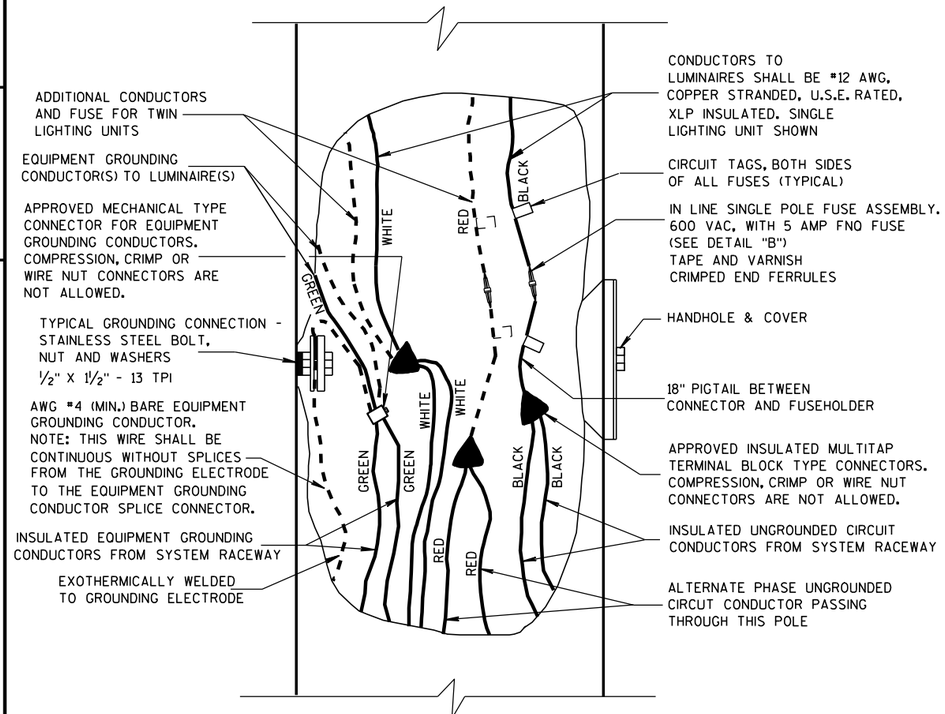
DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



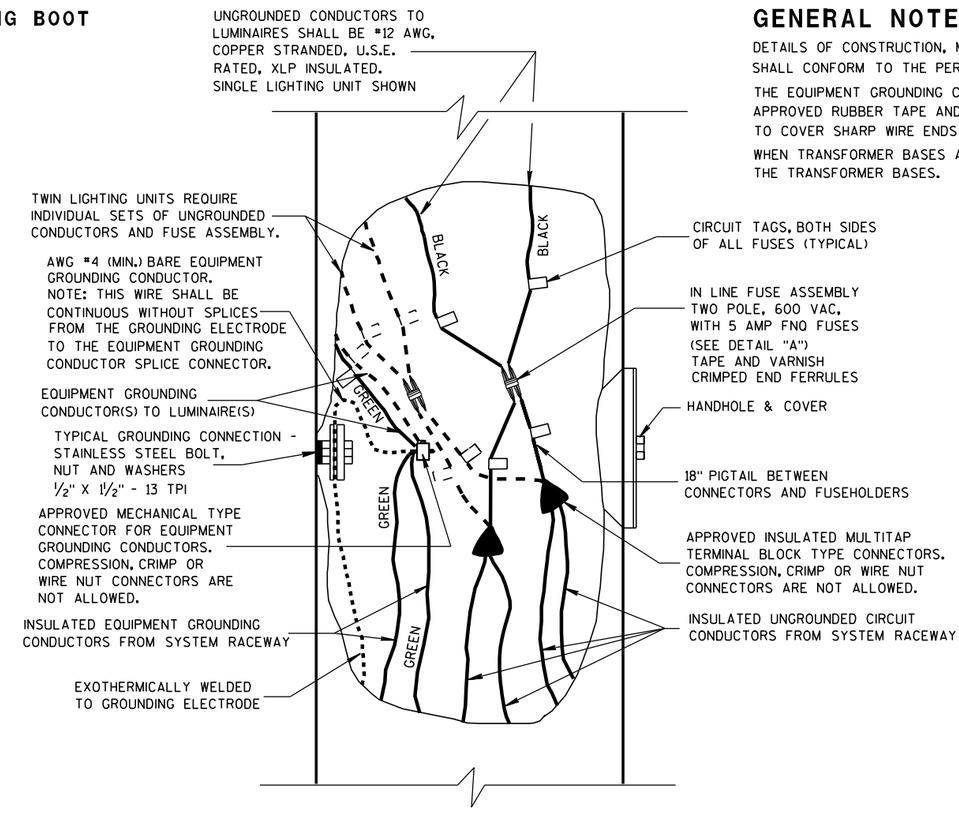




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

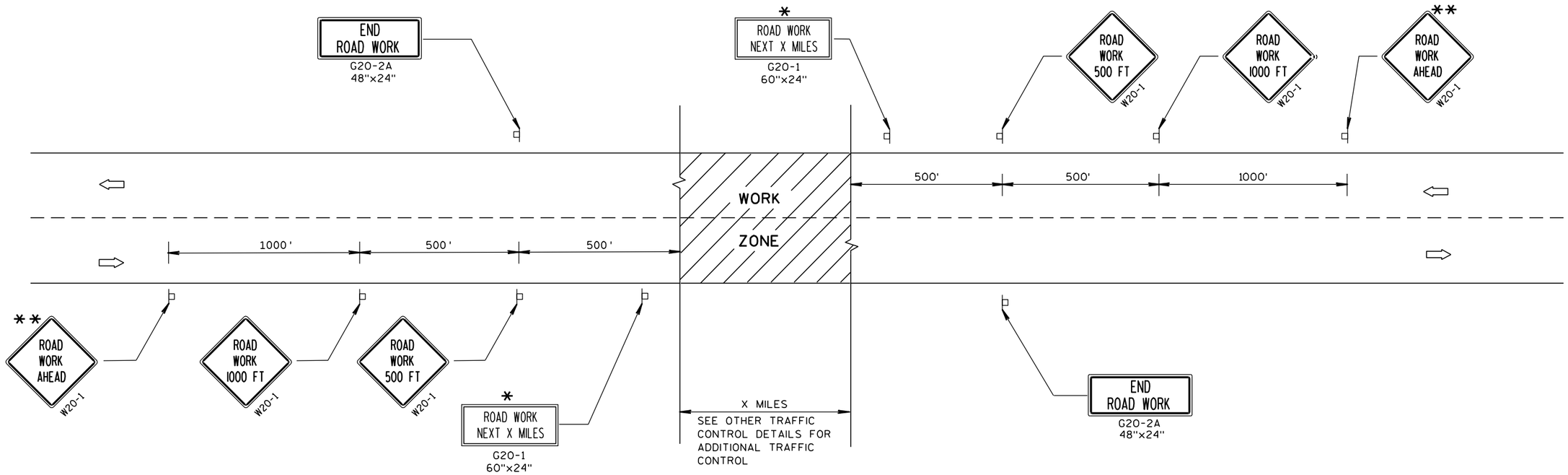
3/2/2011 — DATE

/S/ Thomas J. Gosnine — STATE ELECTRICAL ENGI

HWYS

FHWA

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S.D.D. 9 E 3-4



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

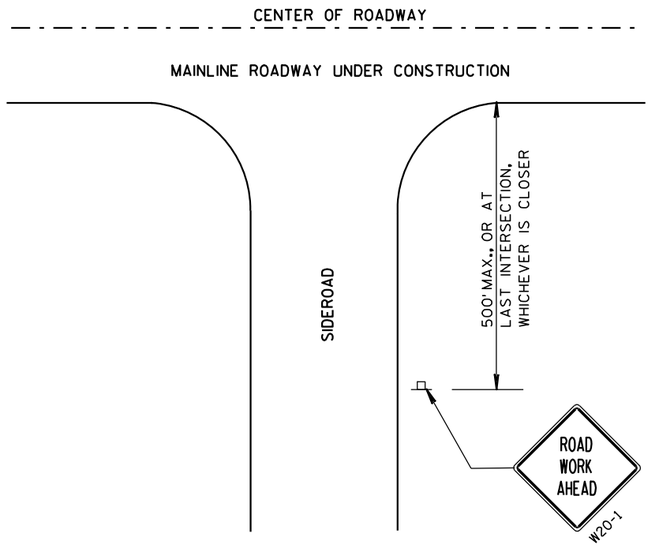
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING.

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00 DATE

/S/ Chester J. [illegible] CHIEF SIGNS AND MARK[illegible]NEER

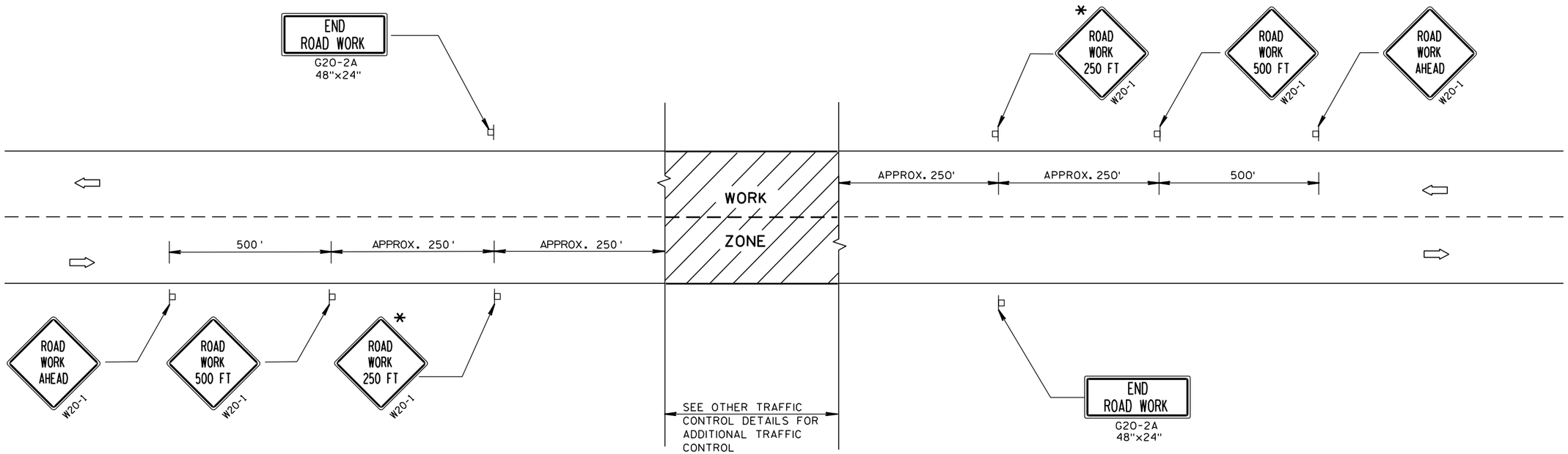
FHWA

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S.D.D. 15 C 4-1

6

S.D.D. 15 C 4-1



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

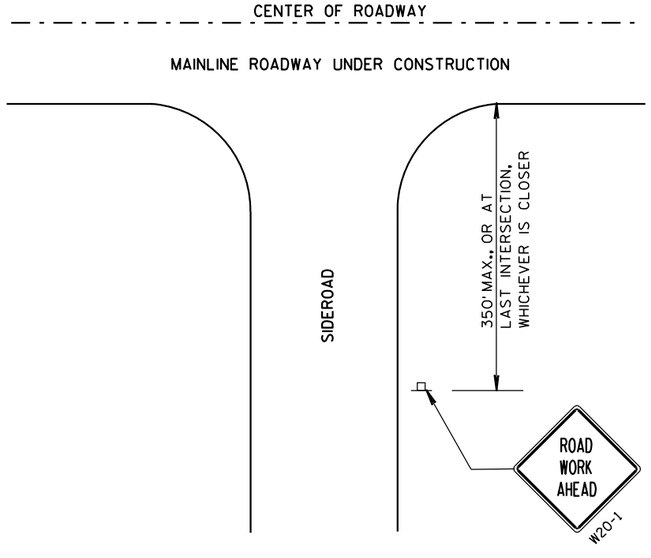
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00
DATE

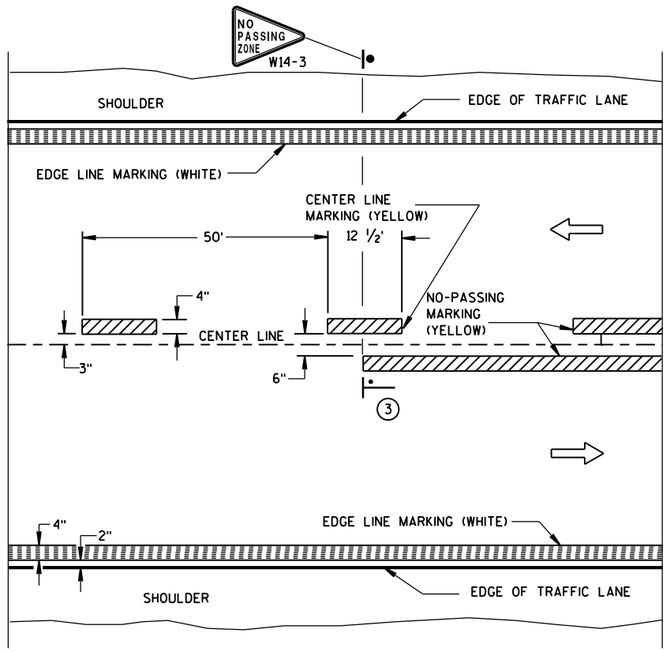
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKING ENGINEER

FHWA

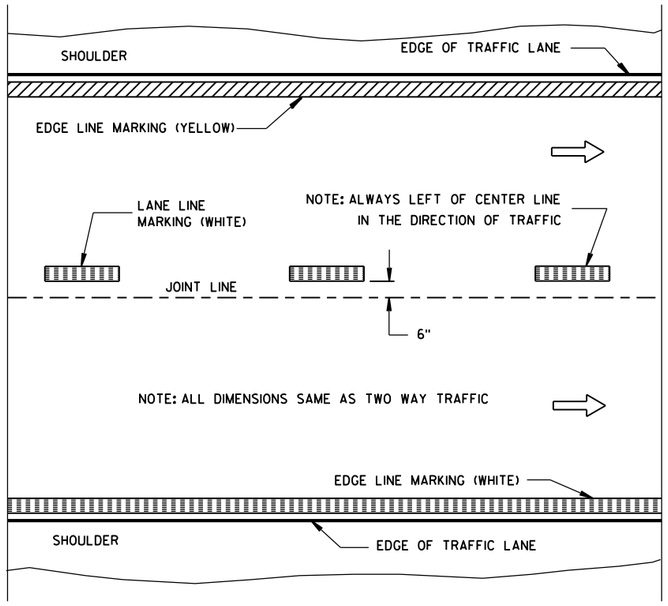
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S.D.D. 15 C 5-1

S.D.D. 15 C 5-1

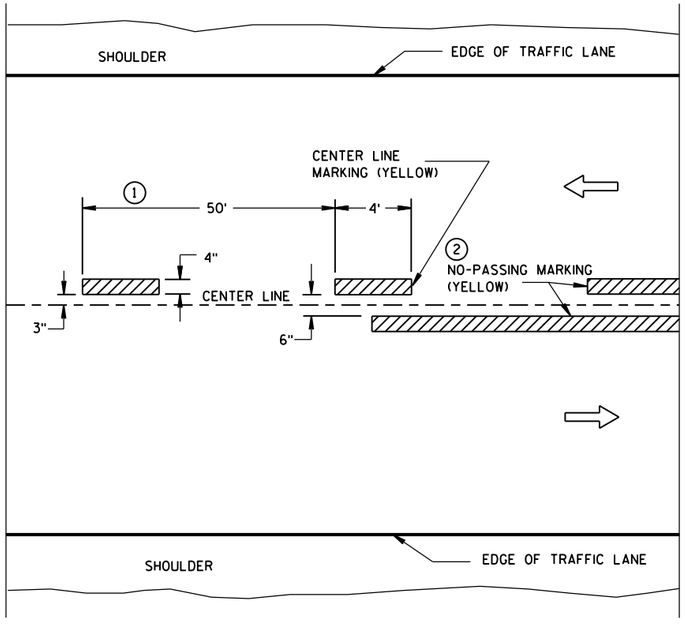


TWO WAY TRAFFIC

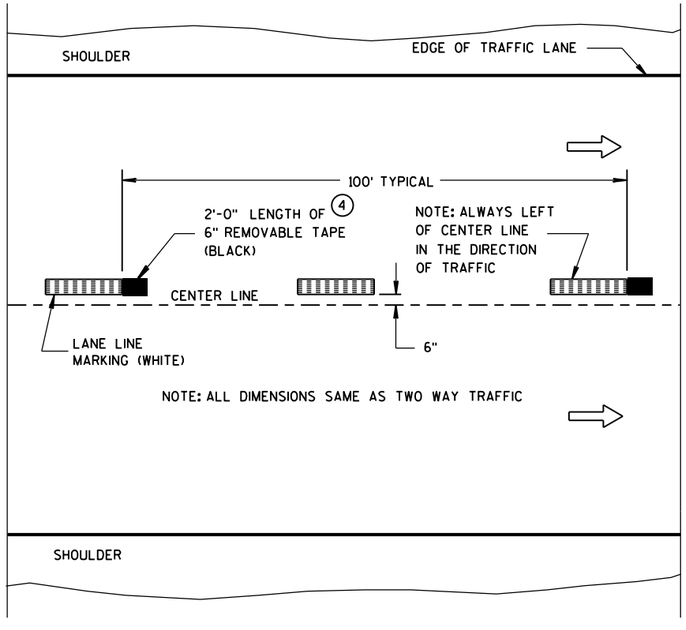


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

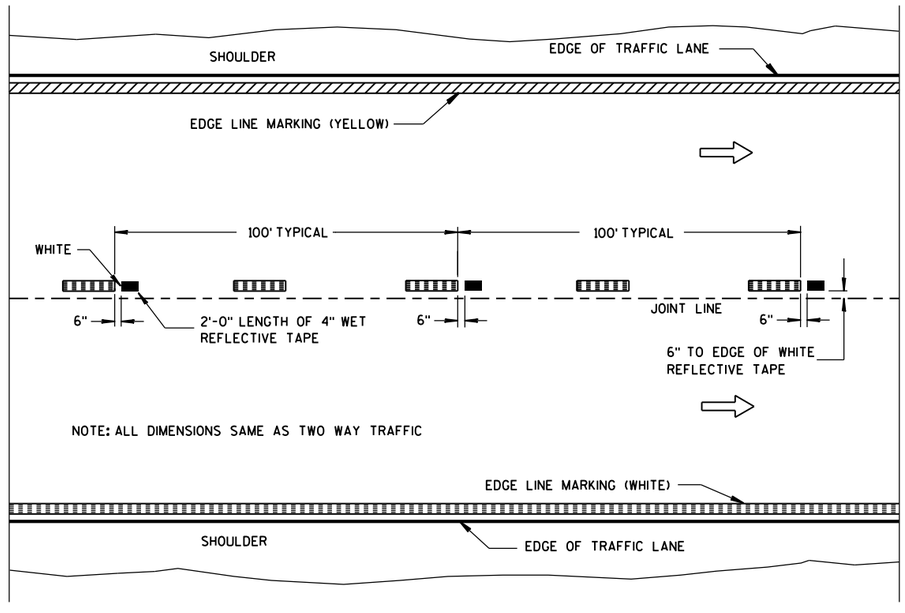
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

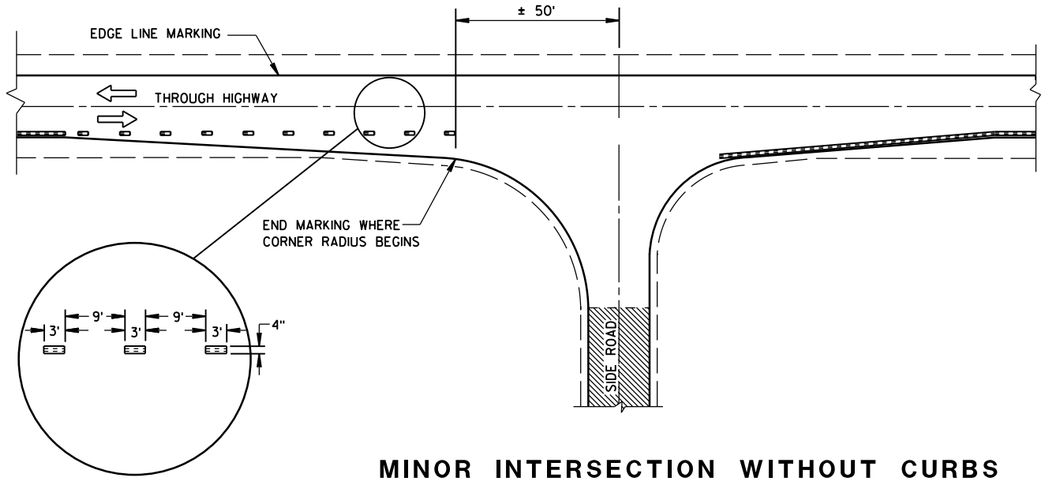
FHWA

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S.D.D. 15 C 8-16a

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S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

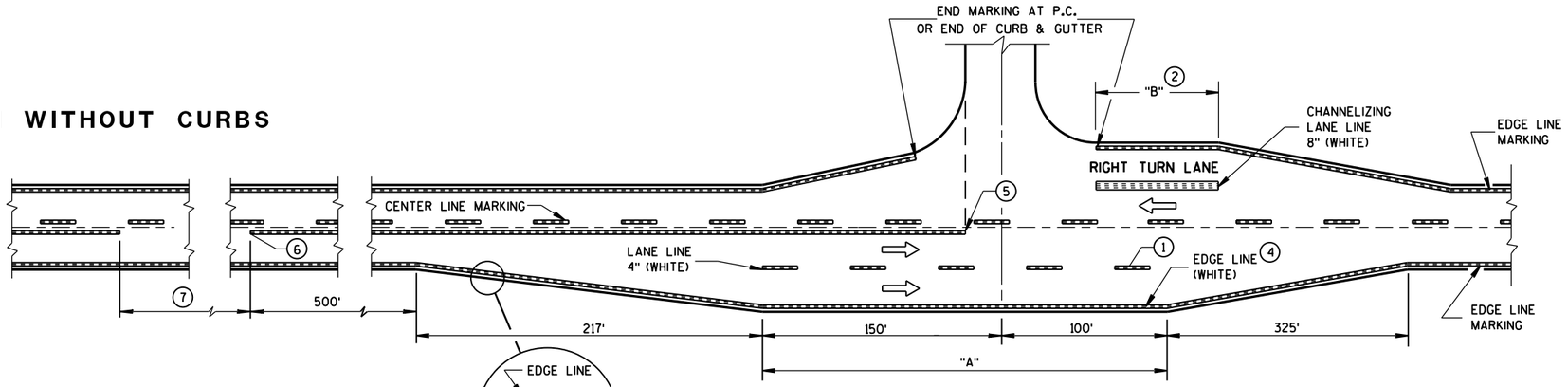
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

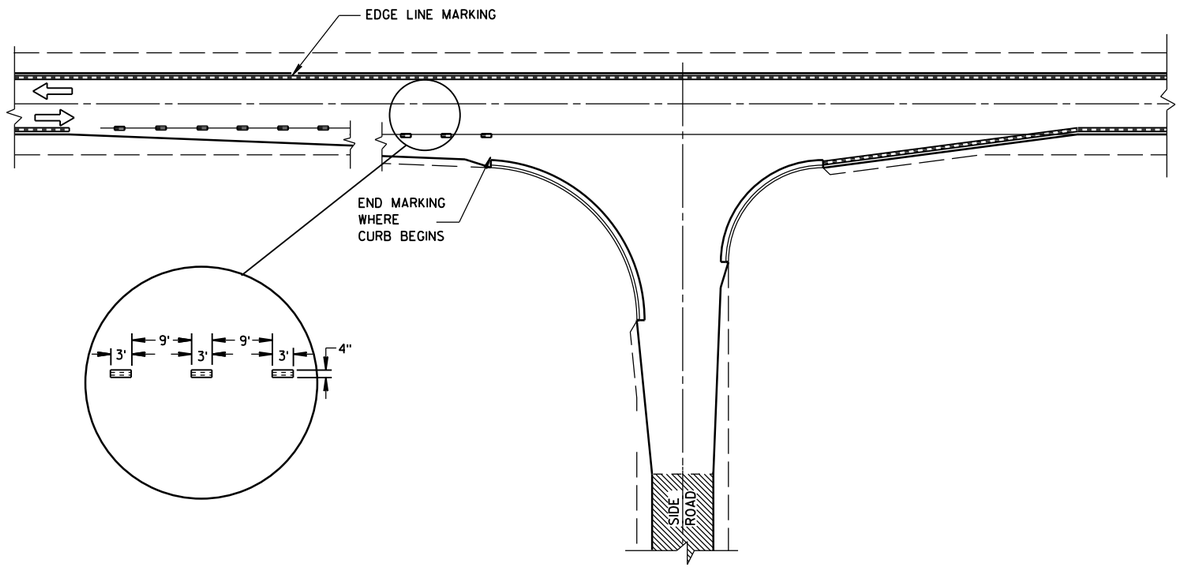
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



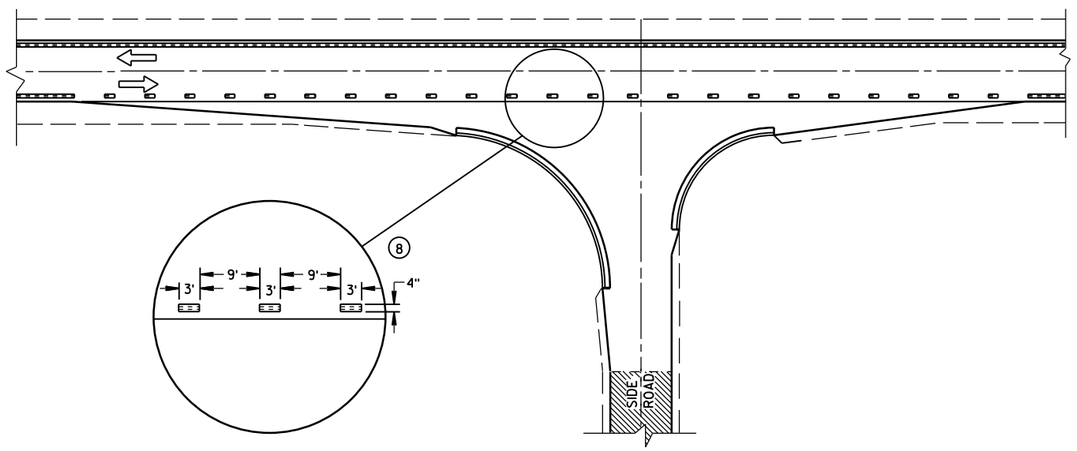
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

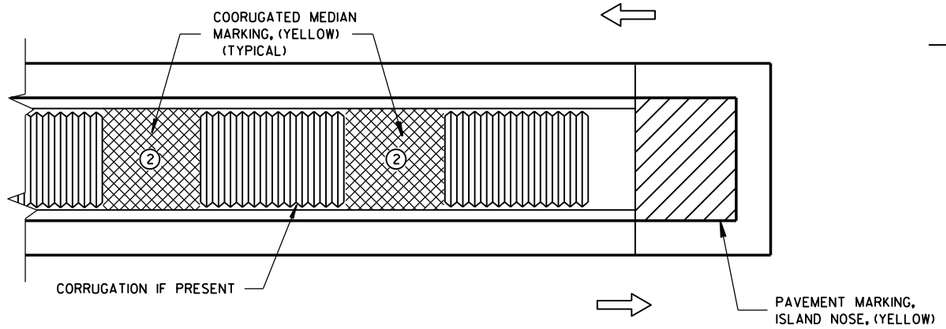
(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

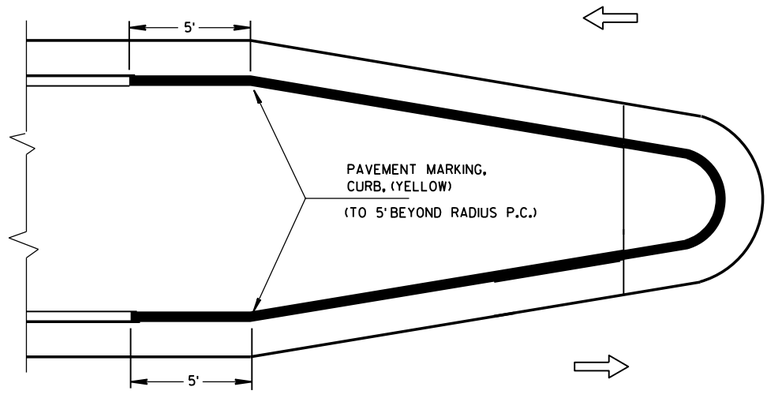
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

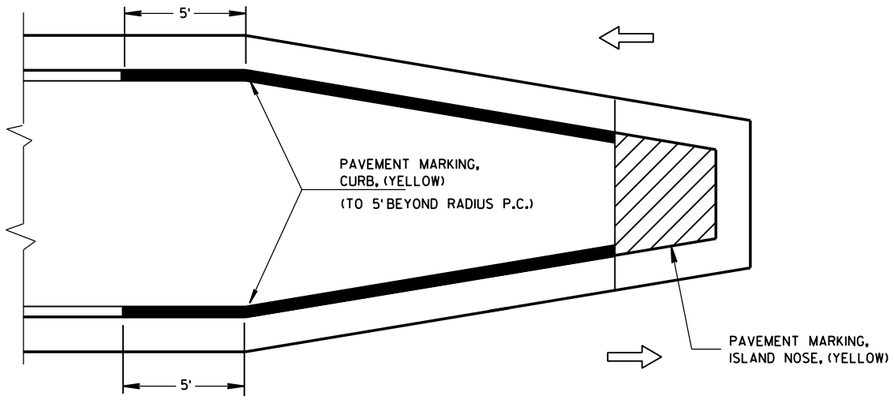
S.D.D. 15 C 8-16b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

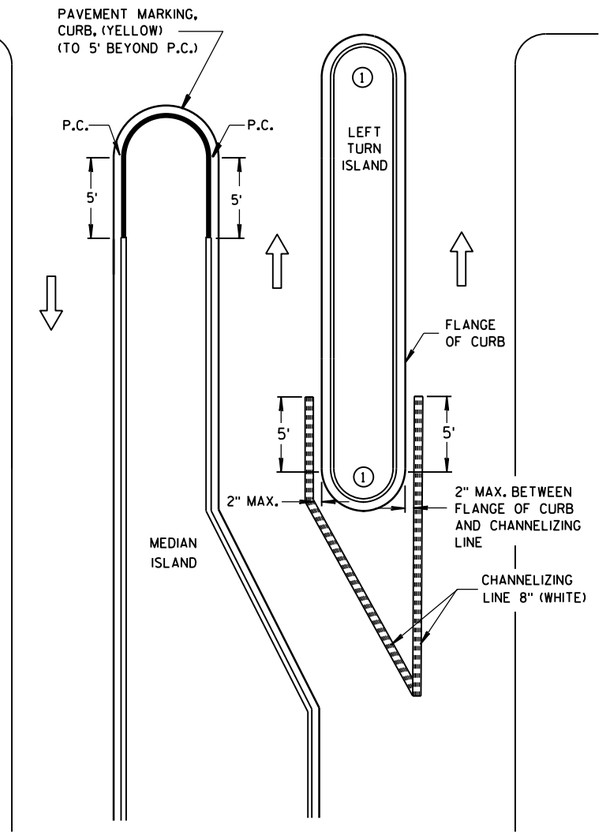


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

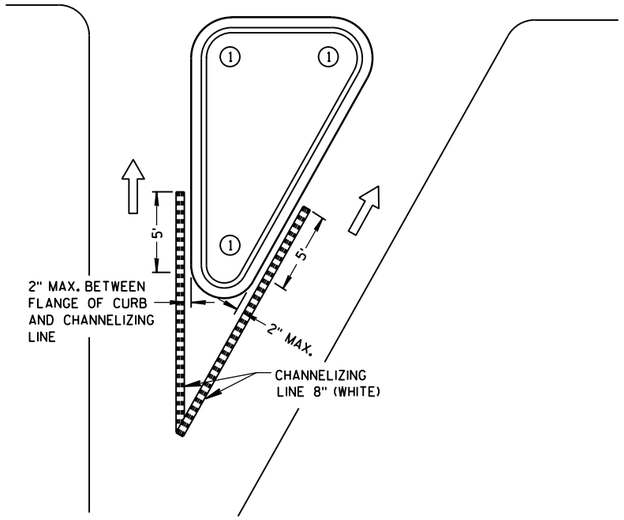


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 C 8-16f

6

S.D.D. 15 C 8-16f

TWO-LANE ROADWAY

SYMBOLS

WORK AREA

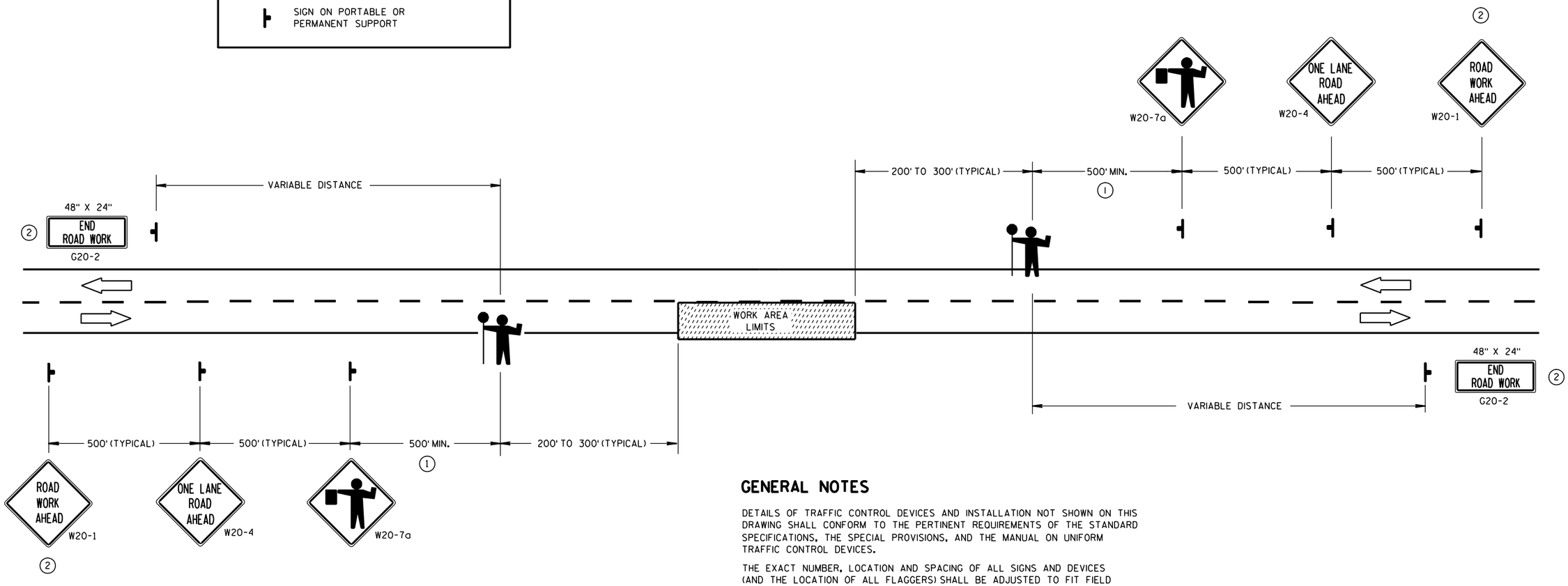
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT



W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/5/06 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

FHWA

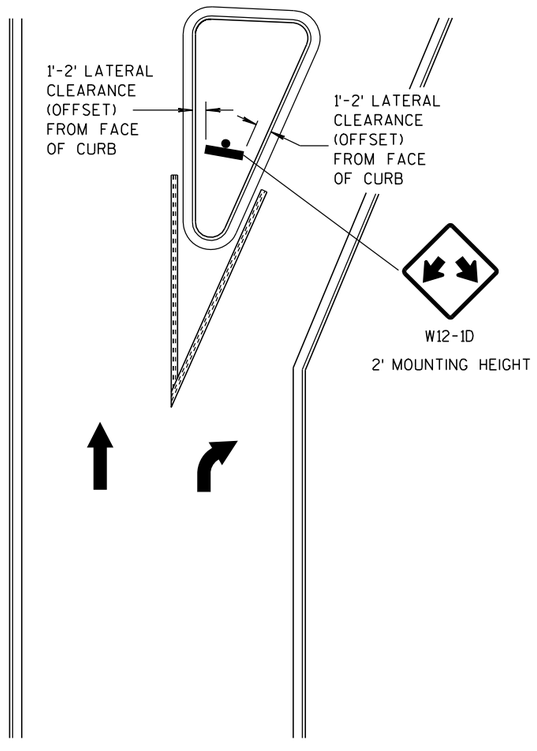
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S.D.D. 15 C 12-3

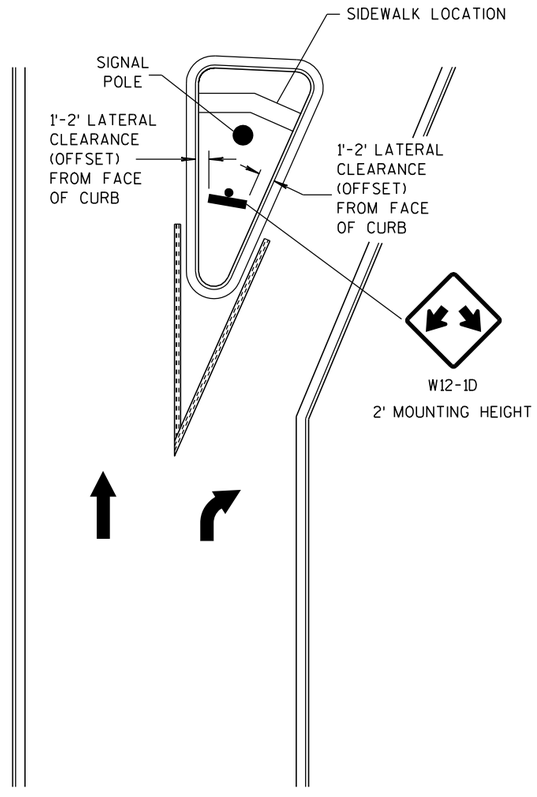
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

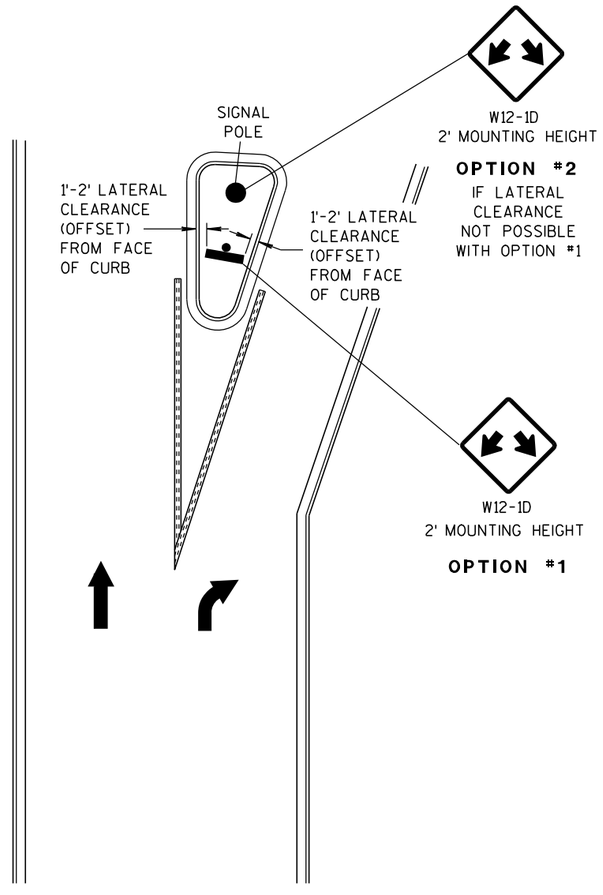
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA	

6

S.D.D. 15 C 27-1

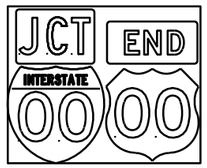
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S.D.D. 15 C 27-1

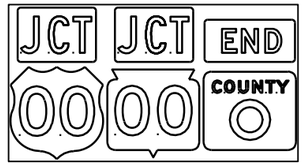
TYPICAL ASSEMBLIES



J1-1



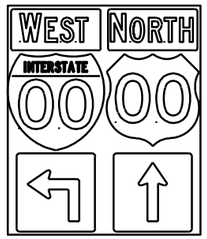
J1-2



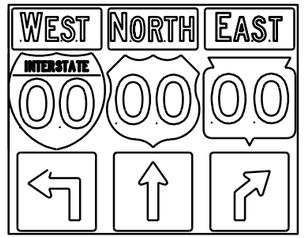
J1-3



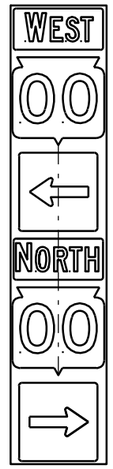
J2-1



J2-2

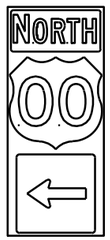


J2-3

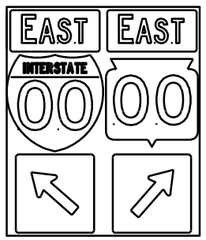


JV

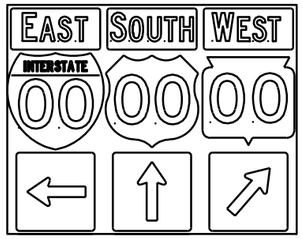
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1



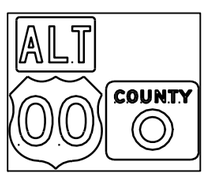
J3-2



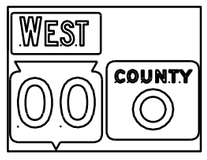
J3-3



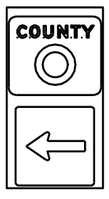
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

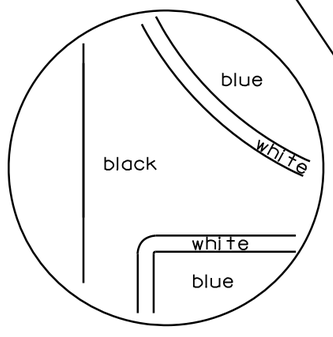


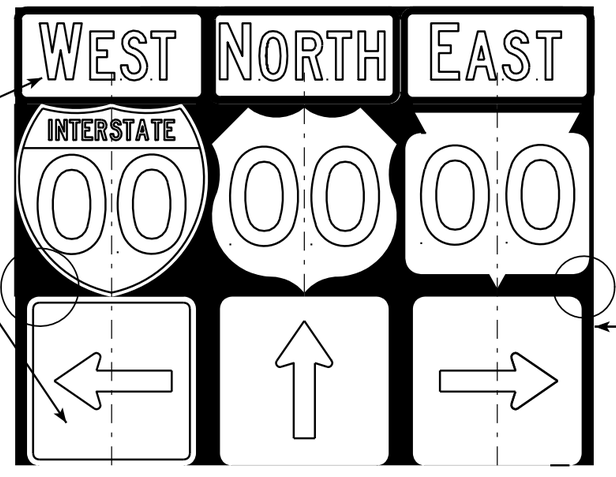
J23-1

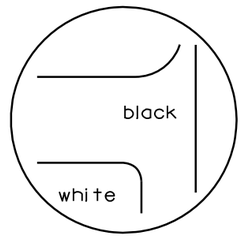


J22-1

blue background
with interstate







black background

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of interstate and non interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

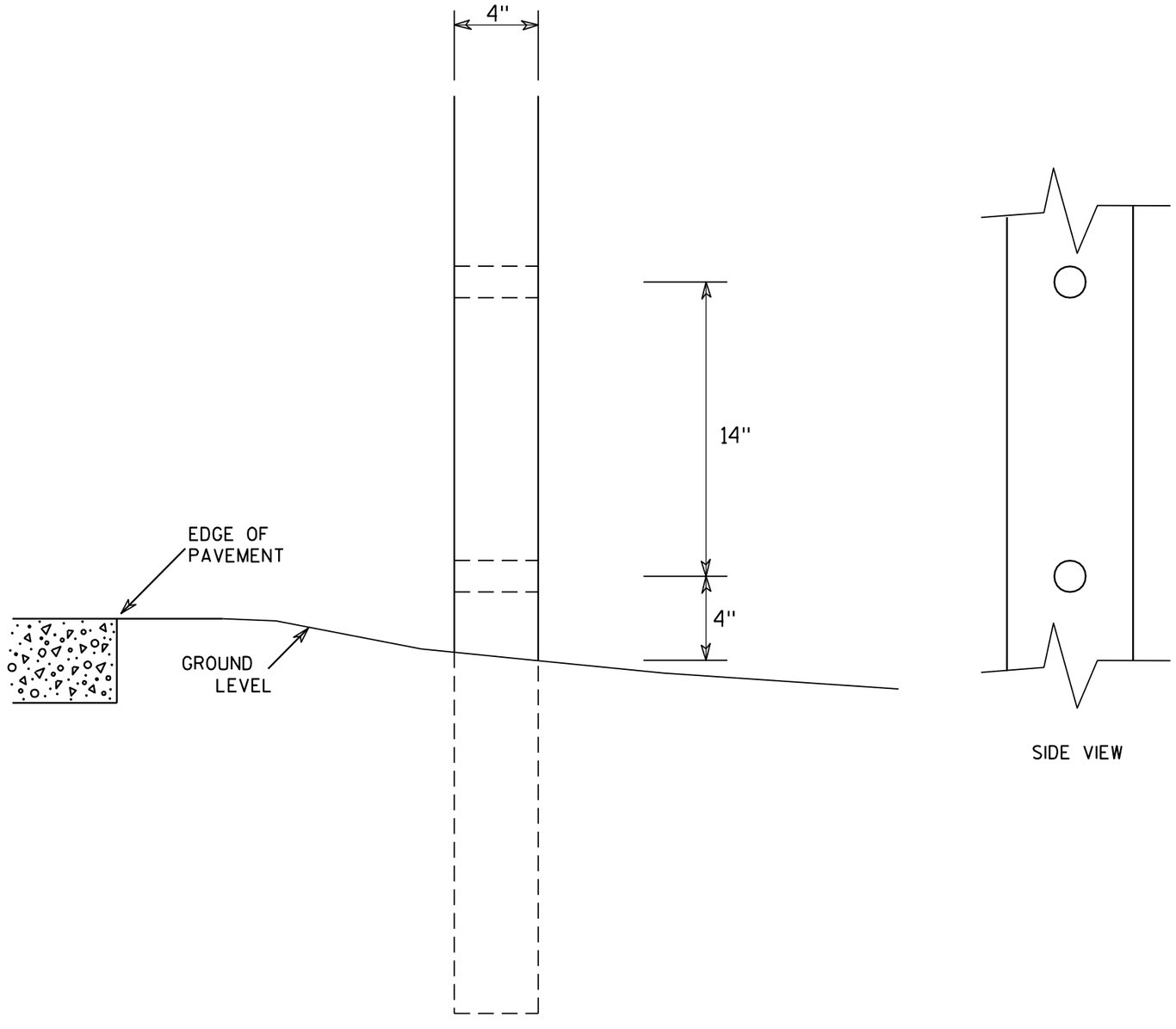
DATE 3/25/13 PLATE NO. A2-1S.7

7

7

PROJECT NO:

SHEET NO: 50 E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

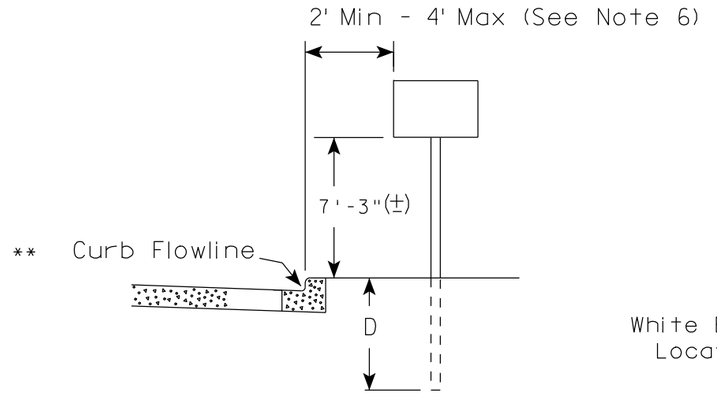
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

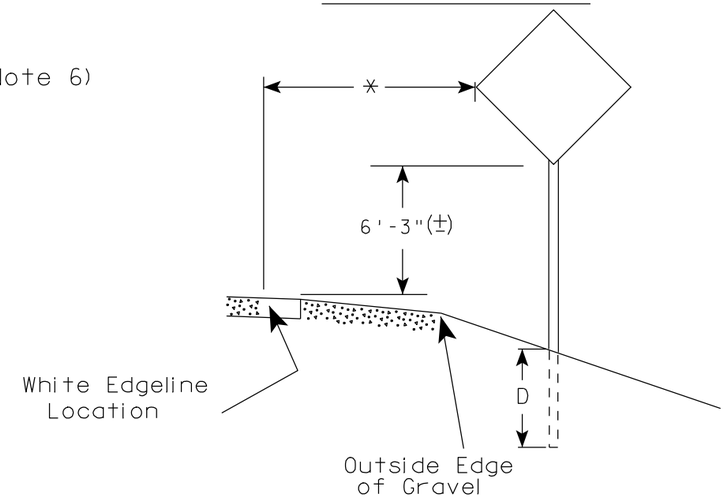
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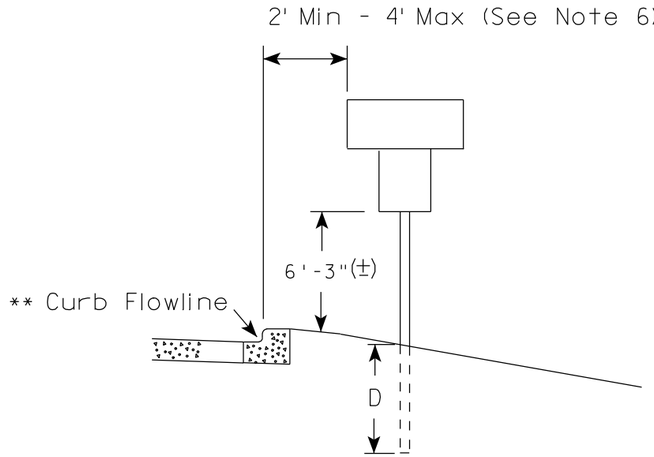
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 51	E

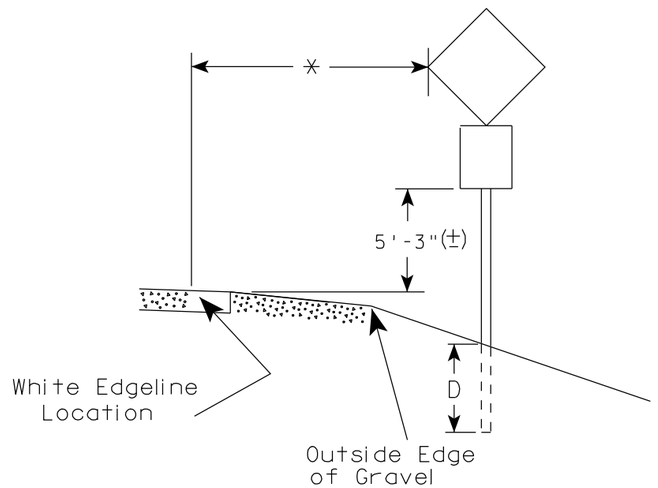
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

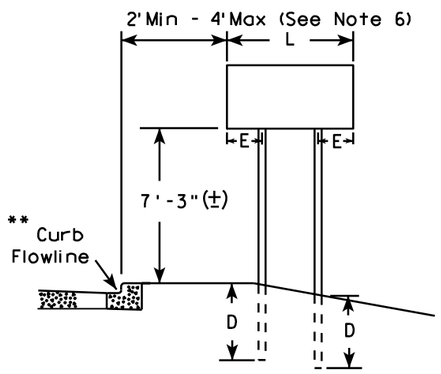
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

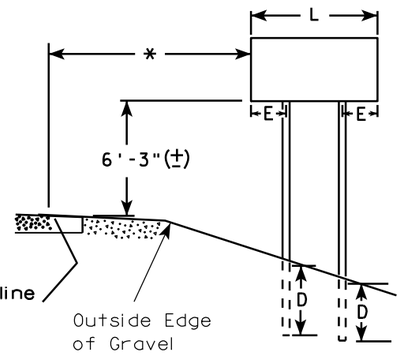
DATE 5/24/2013 PLATE NO. A4-3.17

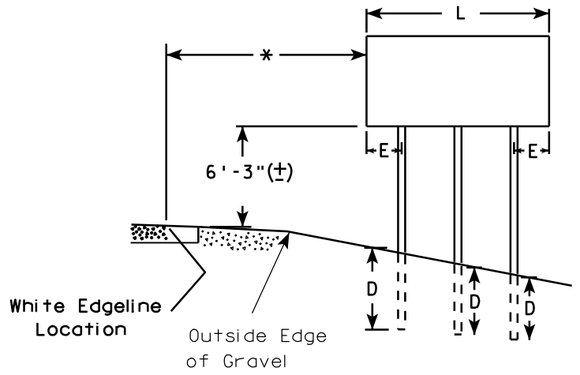
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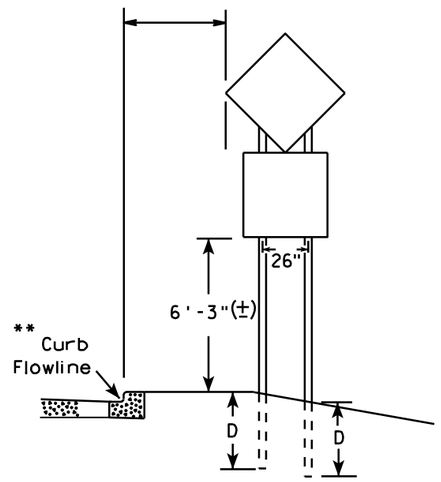
URBAN AREA



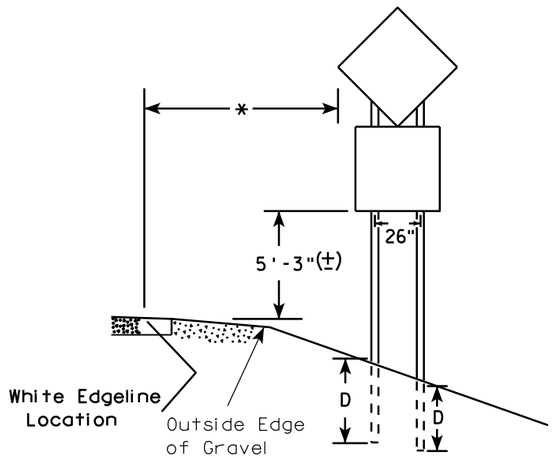
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. For multiple post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

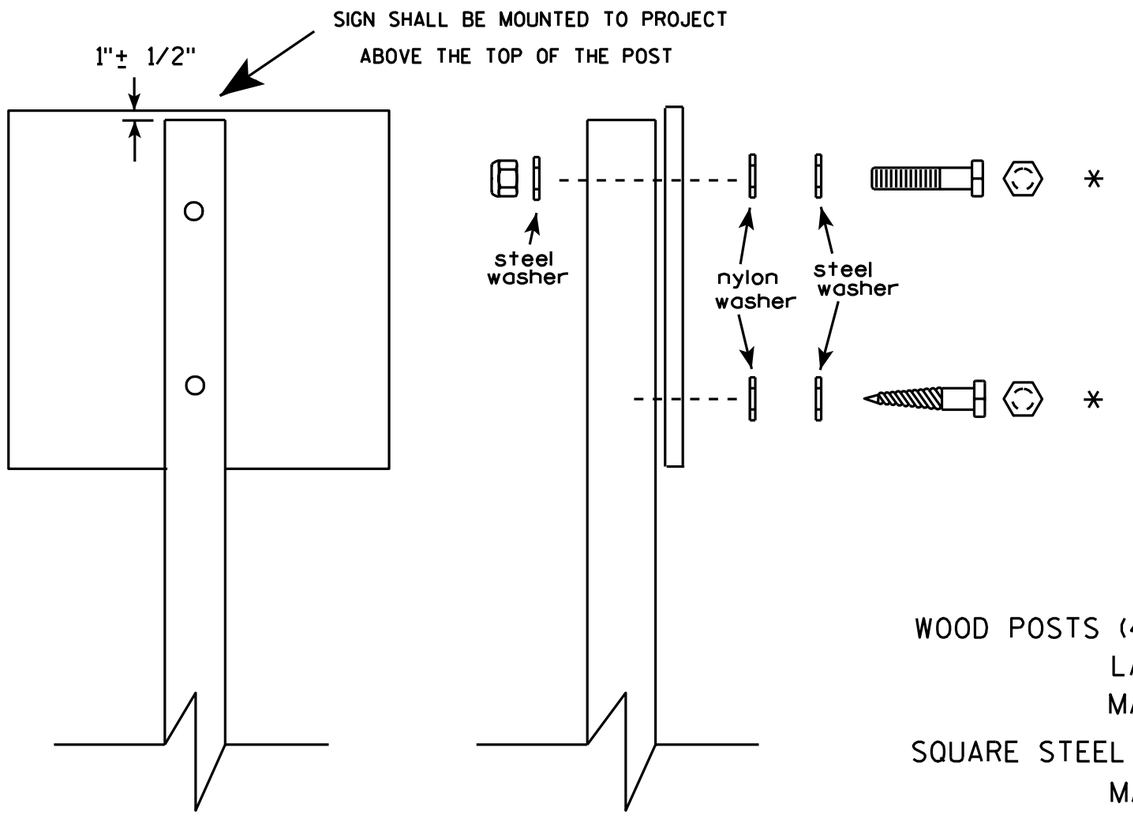
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 53	E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A44.DGN PLOT DATE : 21-SEP-2011 13:36 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 109.249131:1.000000
WISDOT/CADDS SHEET 42



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

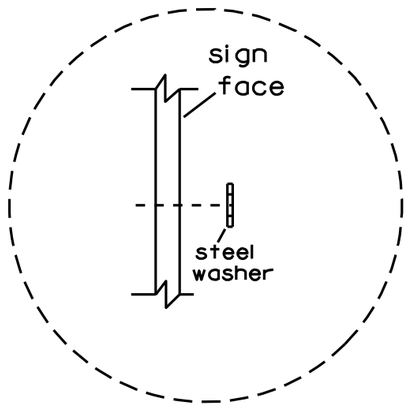
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

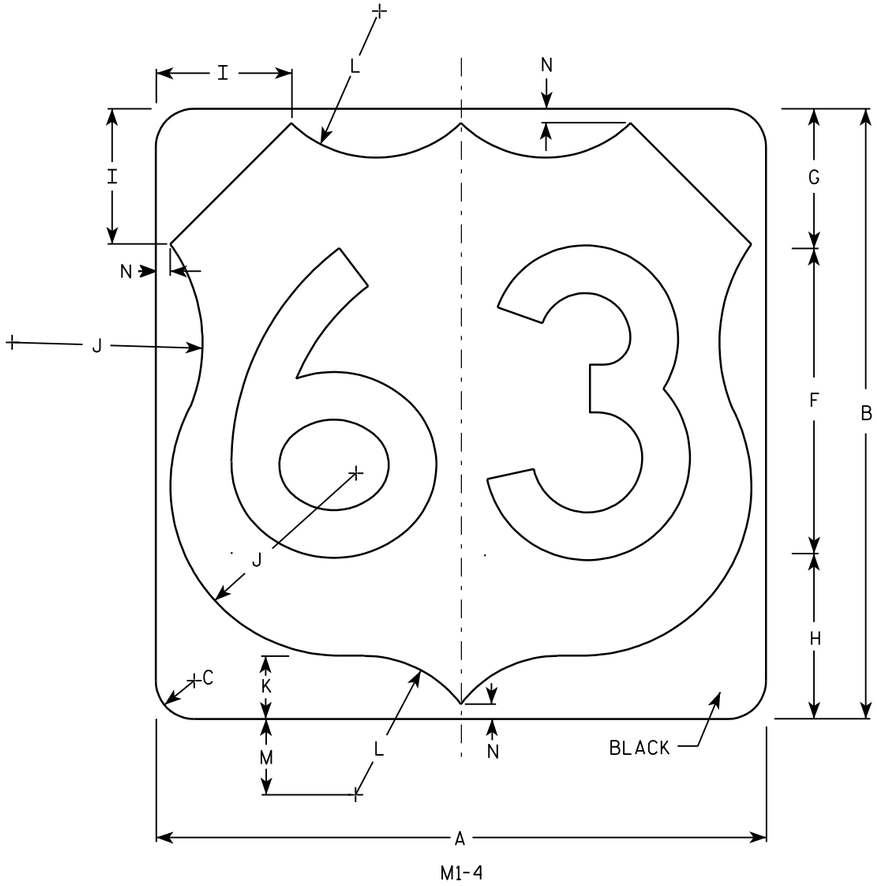
7

PROJECT NO:

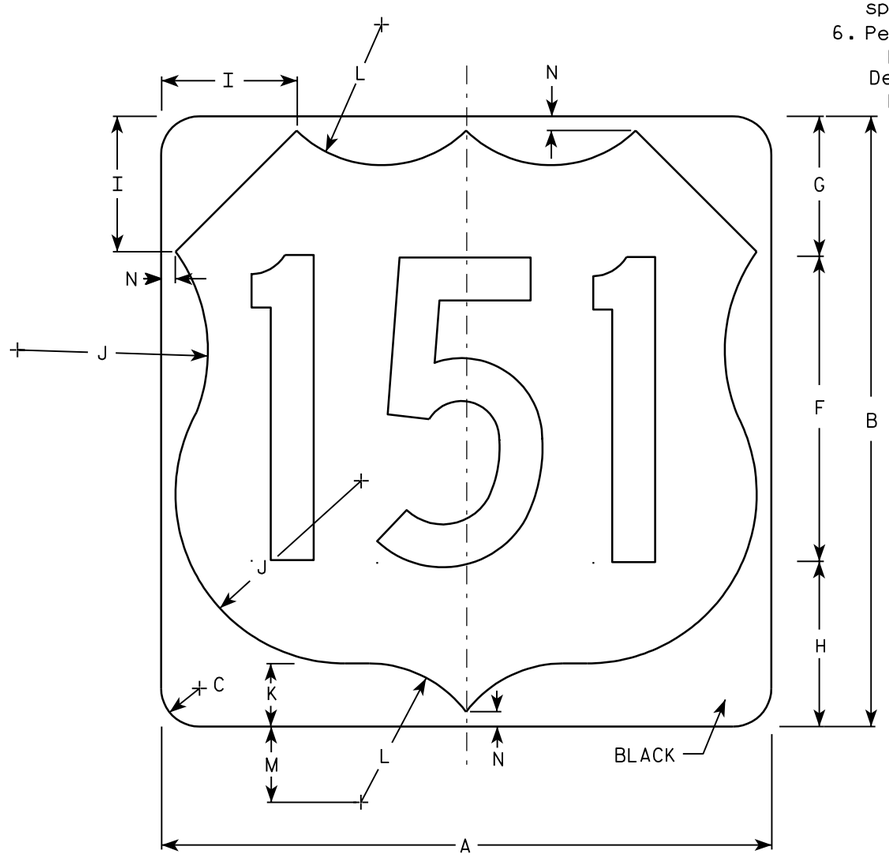
SHEET NO: 54 E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

7

7

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

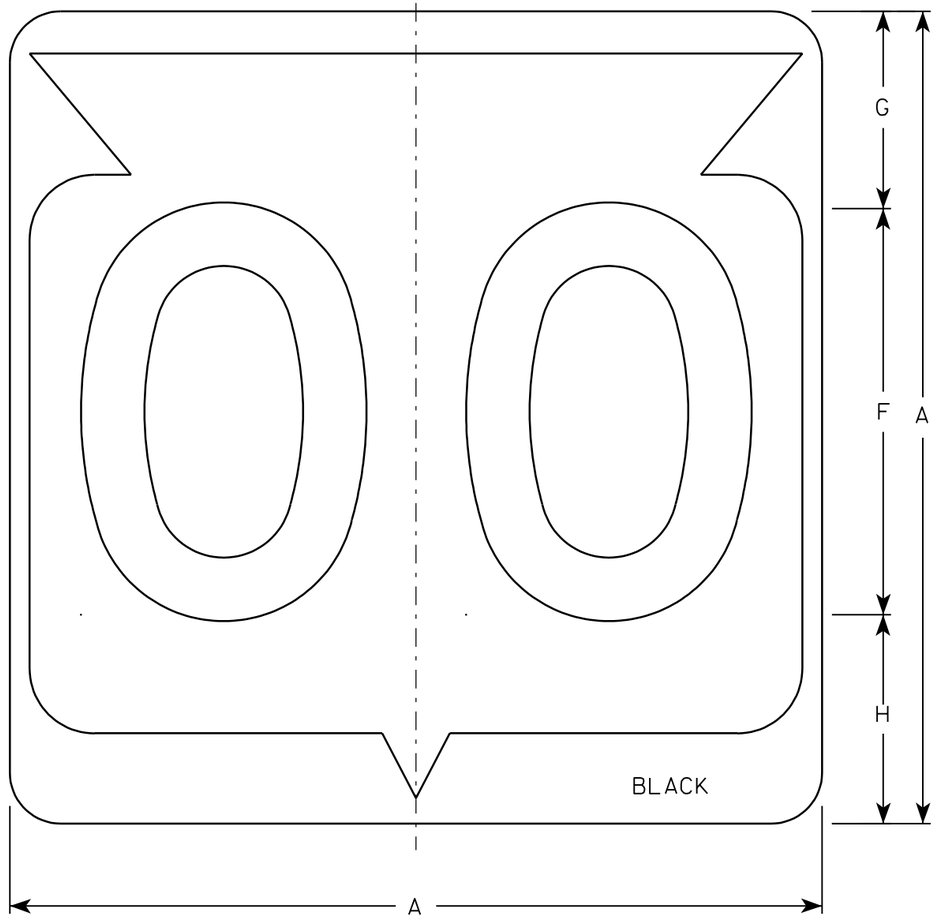
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

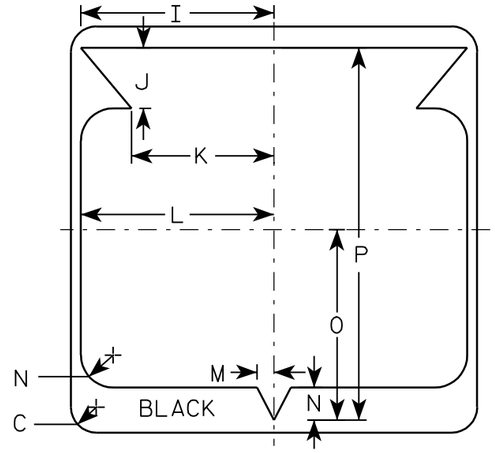
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 55	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

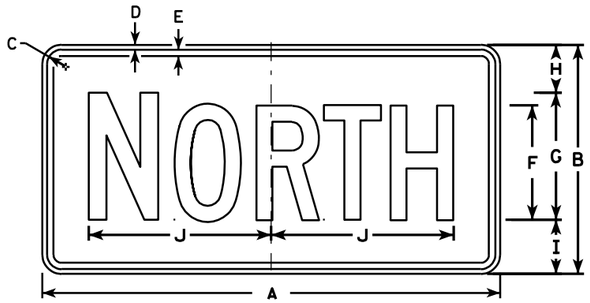
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

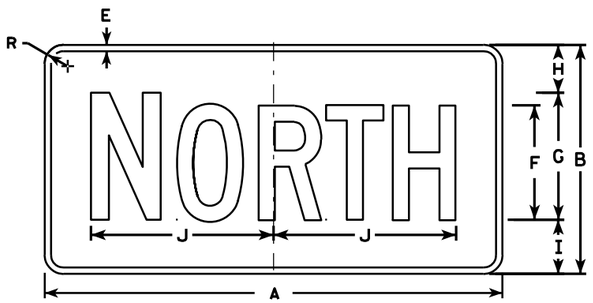
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 56	E



M3-1
MK3-1
MO3-1



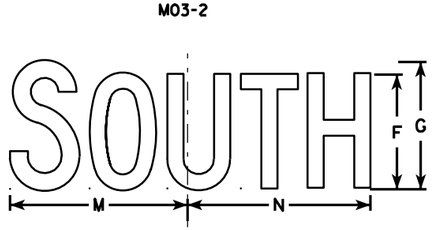
MB3-1
MG3-1
MM3-1
MN3-1



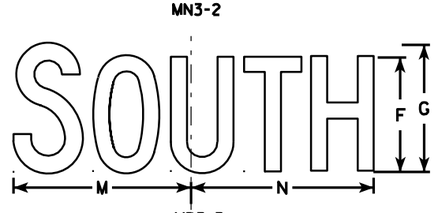
M3-2
MK3-2
MO3-2



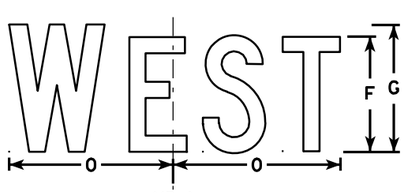
MB3-2
MG3-2
MM3-2
MN3-2



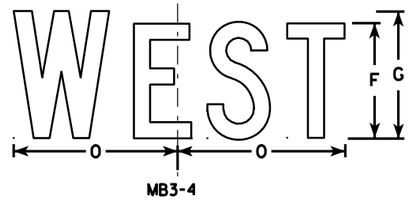
M3-3
MK3-3
MO3-3



MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green
   Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green
   Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective
   Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

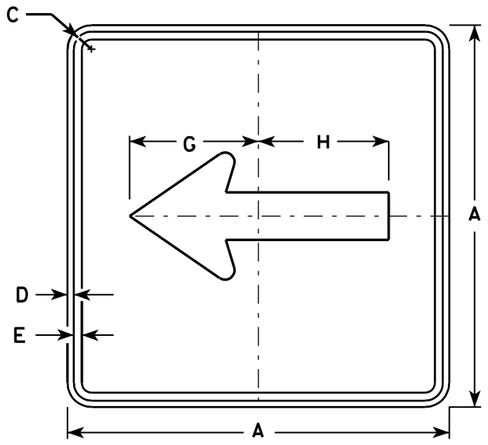
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

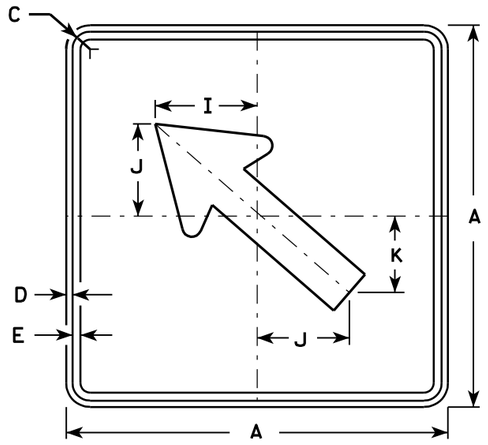
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

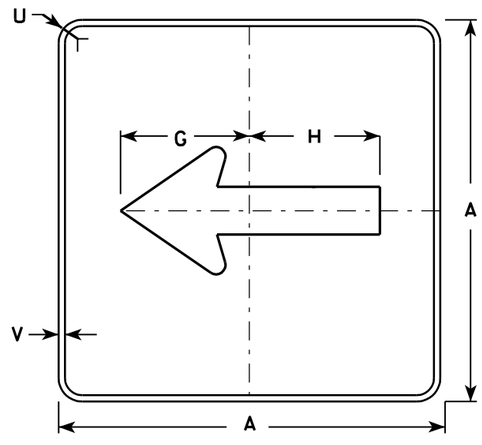
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 57	E



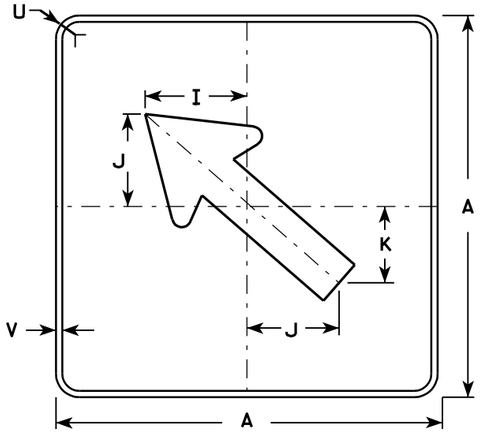
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective

   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective

   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective

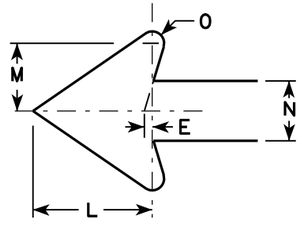
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - Yellow - Type H Reflective



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

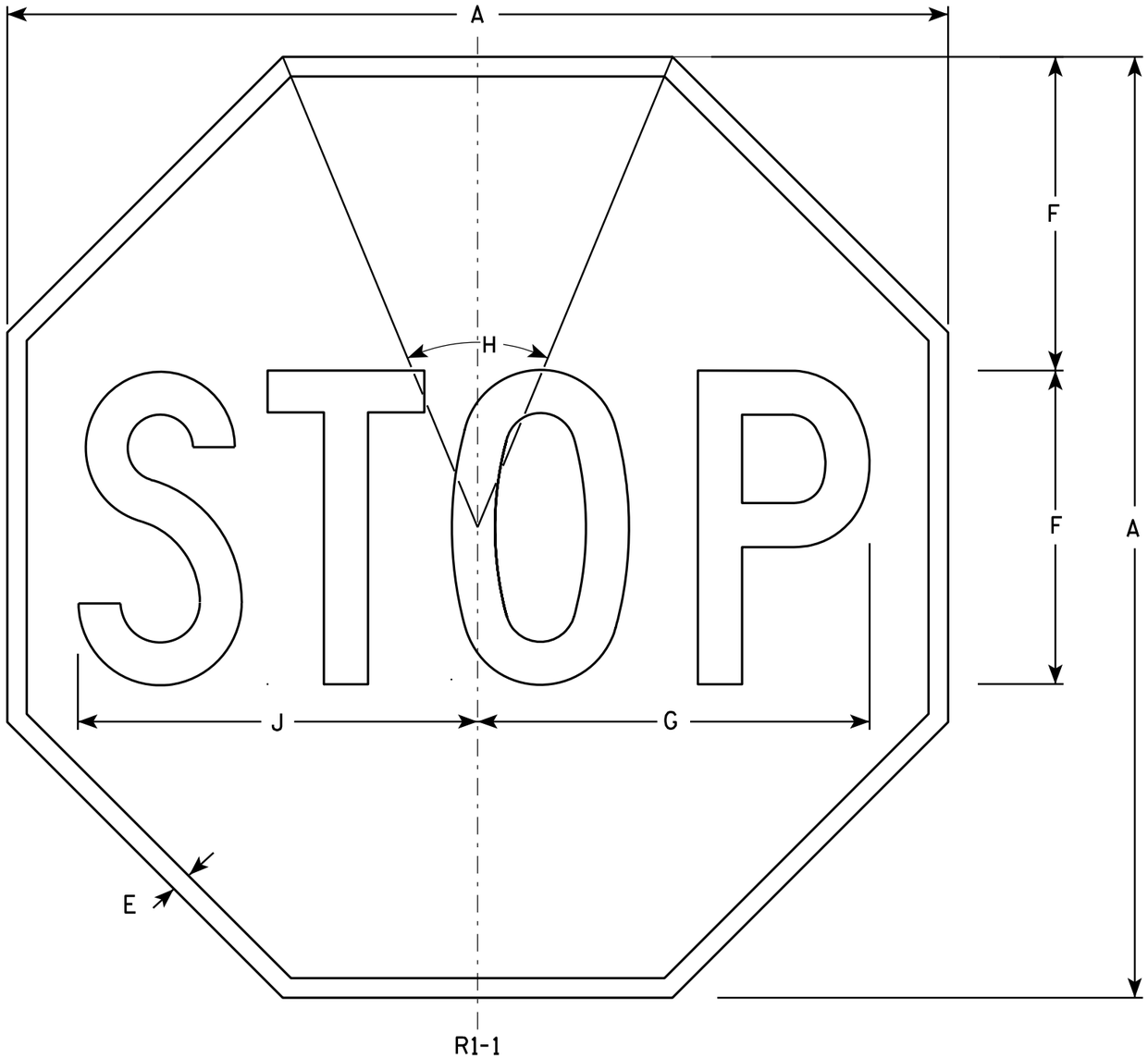
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 58	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

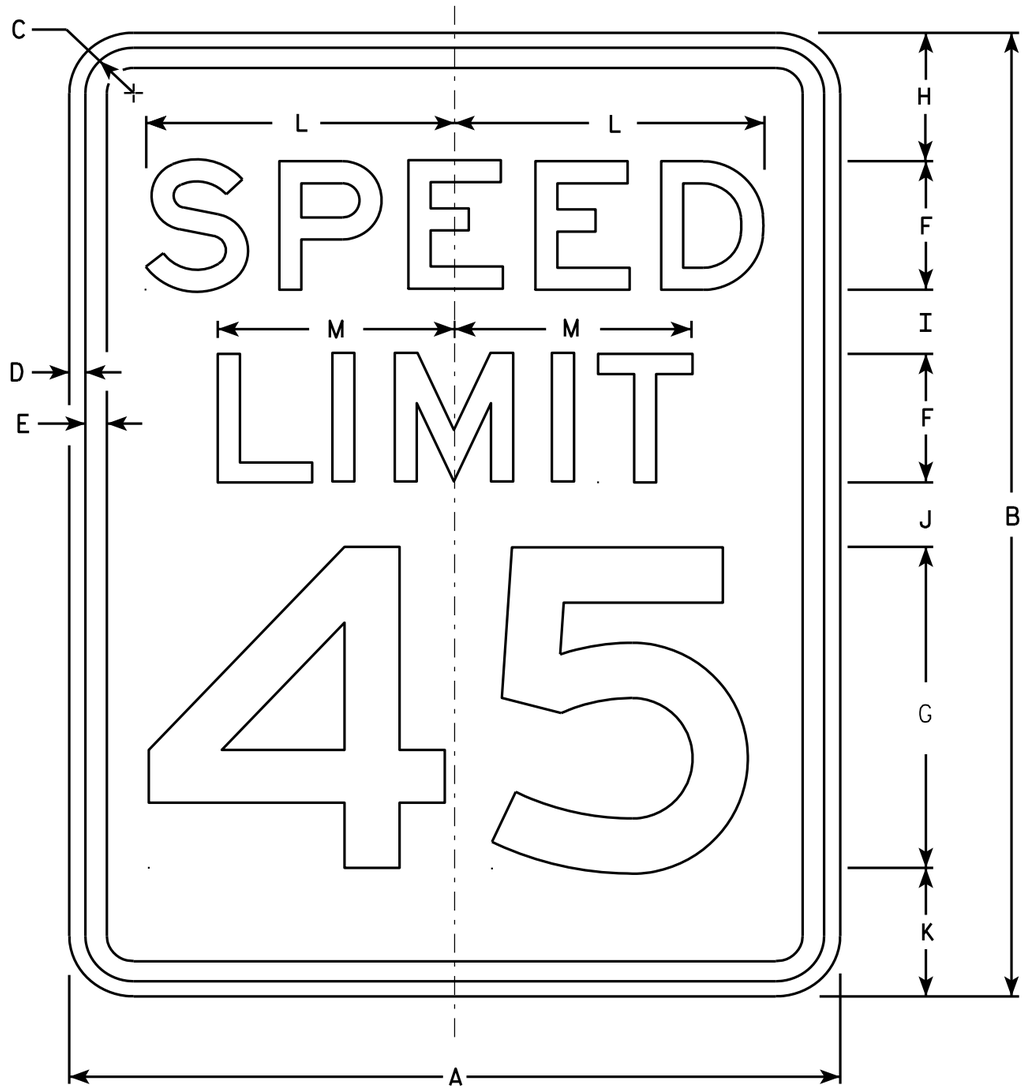
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 59	E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

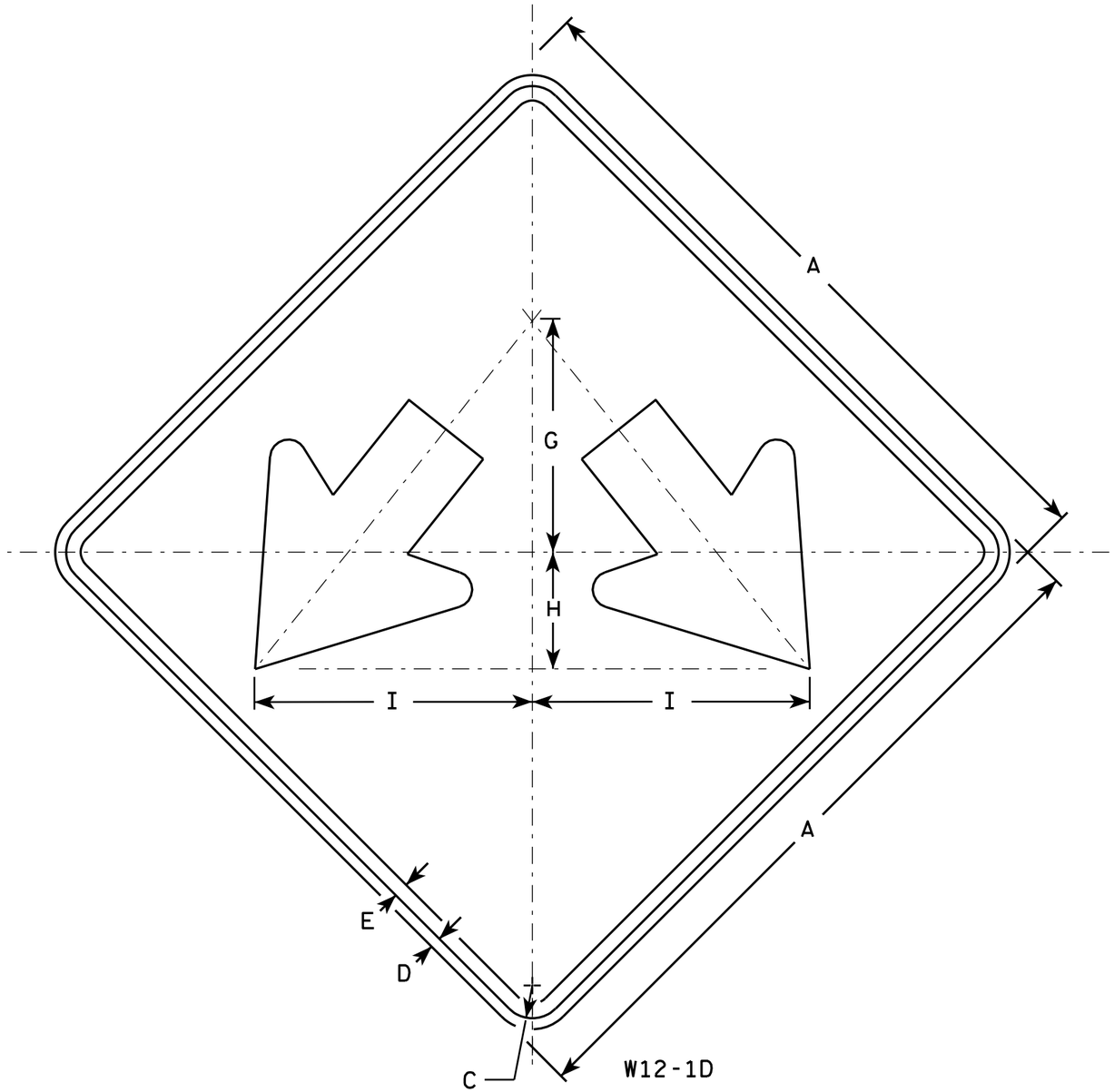
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

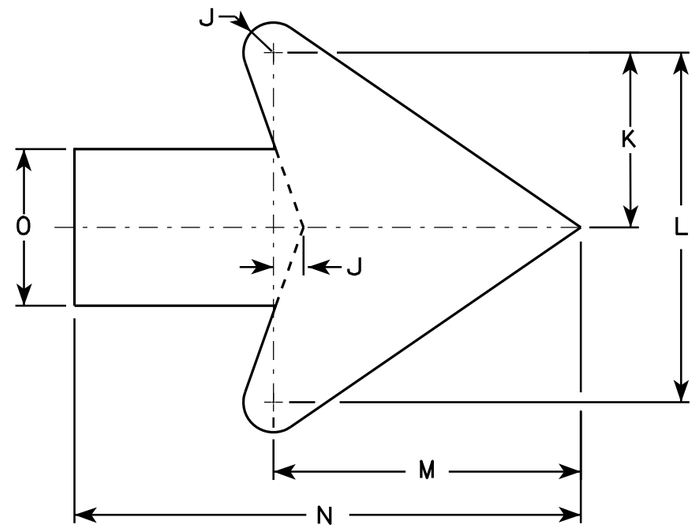
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 60	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

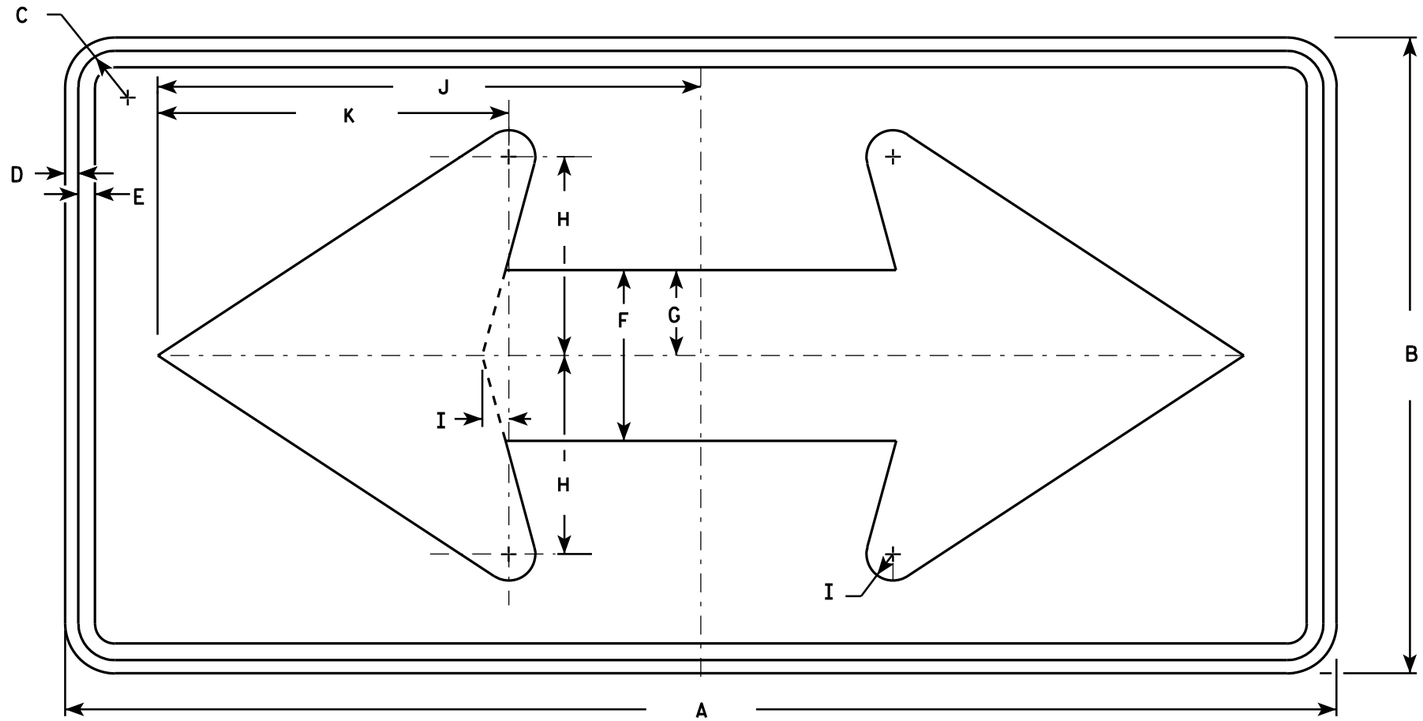
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 61	E



W1-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 62 | E

STAGE 1 - USH 53, LEFT

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
438+59.17	43859.17	0.00	31.00	0.00	0	0	0	0	0
438+97.98	43897.98	38.81	34.65	8.65	47	6	47	7	40
438+97.99	43897.99	0.01	34.59	8.65	0	0	47	7	40
439+00.00	43900.00	2.01	34.24	8.81	3	1	50	8	42
439+50.00	43950.00	50.00	31.27	10.58	61	18	110	30	81
440+00.00	44000.00	50.00	29.96	9.64	57	19	167	52	115
440+50.00	44050.00	50.00	29.39	7.99	55	16	222	72	150
441+00.00	44100.00	50.00	28.31	2.99	53	10	275	84	191
441+50.00	44150.00	50.00	32.76	2.46	57	5	332	90	242
441+89.17	44189.17	39.17	21.18	0.00	39	2	371	92	279
					371	77			

Note: Cut contains a volume of 22 C.Y. of unusable material (pavement) that are not accounted for in the mass ordinate. See Earthwork Summary.

STAGE 2 - USH 53, RIGHT

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
436+00.00	43600.00	0.00	29.90	0.00	0	0	0	0	0
436+23.42	43623.42	23.42	26.60	45.73	25	20	25	24	1
436+33.42	43633.42	10.00	26.35	109.69	10	29	34	58	-24
436+50.00	43650.00	16.58	31.20	60.72	18	52	52	121	-69
436+66.94	43666.94	16.94	46.09	0.00	24	19	76	144	-68
436+93.95	43693.95	27.01	0.00	0.00	23	0	99	144	-45
					99	120			

Note: Cut contains a volume of 17 C.Y. of unusable material (pavement and curb & gutter) that are not accounted for in the mass ordinate. See Earthwork Summary.

STAGE 2 - STH 95, RIGHT

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
4+11.94	411.94	0.00	0.00	0.00	0	0	0	0	0
4+37.76	437.76	25.82	48.31	0.00	23	0	23	0	23
4+50.00	450.00	12.24	42.10	35.64	20	8	44	10	34
4+72.75	472.75	22.75	26.89	138.28	29	73	73	98	-25
5+00.00	500.00	27.25	29.64	54.28	29	97	101	214	-113
5+18.84	518.84	18.84	23.09	44.39	18	34	120	256	-136
5+50.00	550.00	31.16	19.86	21.03	25	38	144	301	-156
5+72.75	572.75	22.75	18.71	0.00	16	9	161	311	-151
					161	260			

Note: Cut contains a volume of 30 C.Y. of unusable material (pavement and curb & gutter) that are not accounted for in the mass ordinate. See Earthwork Summary.

STAGE 3 - USH 53, RIGHT

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
437+17.71	43717.71	0.00	0.00	0.00	0	0	0	0	0
437+50.00	43750.00	32.29	39.93	0.00	24	0	24	0	24
437+97.98	43797.98	47.98	23.81	101.19	57	90	81	108	-27
438+00.00	43800.00	2.02	23.31	39.88	2	5	82	114	-32
438+50.00	43850.00	50.00	17.35	18.43	38	54	120	179	-59
438+59.16	43859.16	9.16	17.83	12.99	6	5	126	185	-60
438+59.17	43859.17	0.01	17.83	12.99	0	0	126	185	-60
438+97.98	43897.98	38.81	18.47	0.05	26	9	152	197	-45
					152	164			

Note: Cut contains a volume of 22 C.Y. of unusable material (pavement and curb & gutter) that are not accounted for in the mass ordinate. See Earthwork Summary.

STAGE 3 - STH 95, LEFT

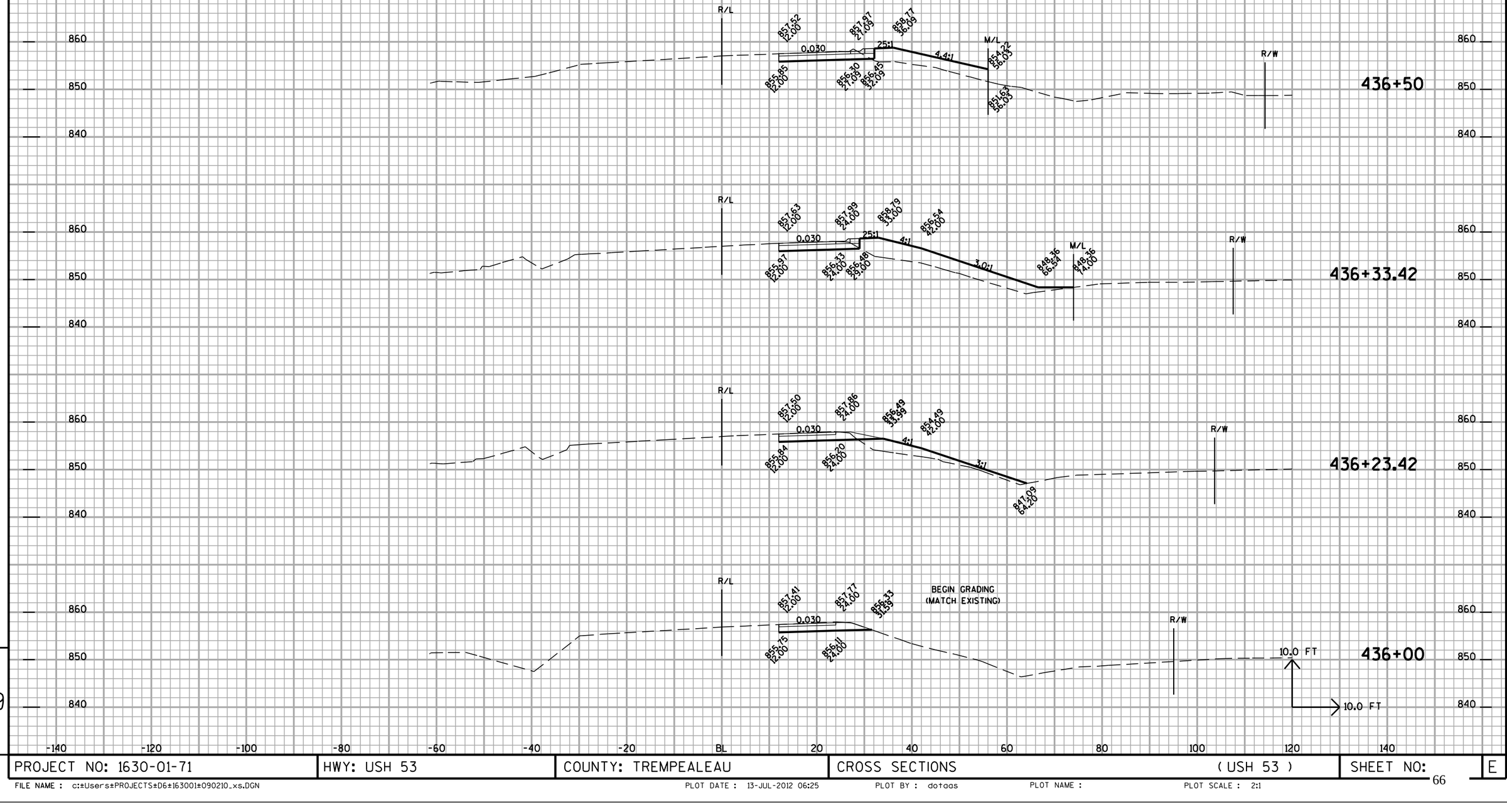
STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
4+11.95	411.95	0.00	0.00	0.00	0	0	0	0	0
4+50.00	450.00	38.05	27.68	80.41	20	57	20	68	-48
4+59.18	459.18	9.18	20.46	189.53	8	46	28	123	-95
4+73.44	473.44	14.26	17.72	141.45	10	87	38	228	-190
5+00.00	500.00	26.56	16.22	128.97	17	133	54	388	-333
5+50.00	550.00	50.00	22.41	41.81	36	158	90	577	-487
6+00.00	600.00	50.00	29.89	12.69	48	50	139	638	-499
6+50.00	650.00	50.00	17.58	0.00	44	12	183	652	-469
					183	543			

Note: Cut contains a volume of 27 C.Y. of unusable material (pavement and curb & gutter) that are not accounted for in the mass ordinate. See Earthwork Summary.

EARTHWORK SUMMARY

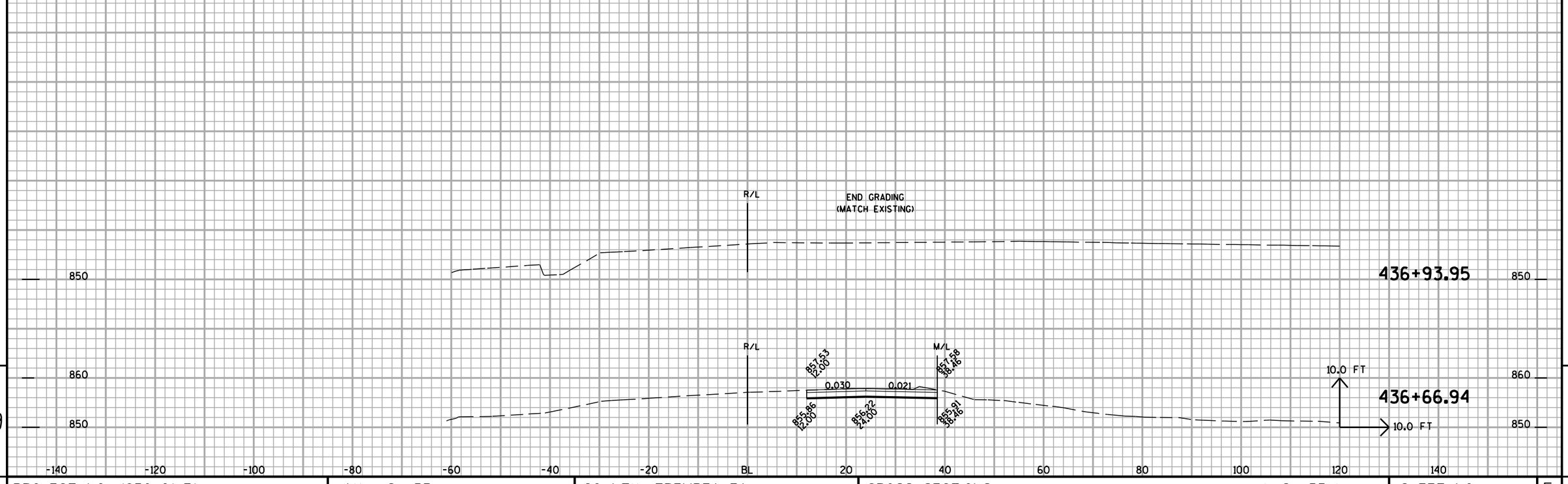
Division	From/To Station	Location	Common Excavation (1) Cut (2)	Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13) Factor	Mass Ordinate +/- (14)	Waste	Borrow (item #208.0100)	Comment:
Stage 1	438+59.17 - 441+89.17	USH 53	371	22	349	77	92	257	257	0	
Stage 1 Subtotal			371	22	349	77	92	257	257	0	
Stage 2	436+00 - 436+93.95	USH 53	99	17	82	120	144	-62	0	62	
	4+11.94 - 5+72.75	STH 95	161	30	131	260	311	-180	0	180	
Stage 2 Subtotal			260	47	213	380	455	-242	0	242	
Stage 3	437+17.71 - 438+97.98	USH 53	152	22	130	164	197	-67	0	67	
	4+11.95 - 6+50.00	STH 95	183	27	156	543	652	-496	0	496	
Stage 3 Subtotal			335	49	286	707	849	-563	0	563	
Grand Total			966	118	848	1,164	1,396	-548	257	805	
		Total Common Exc									

1) Common Excavation, Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
13) Expanded Fill Factor = 1.20. Expanded Fill = Unexpanded Fill * Fill Factor.
14) The Mass Ordinate for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.



PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS (USH 53)	SHEET NO:	E

FILE NAME : c:±Users±PROJECTS±D6±163001±090210_xs.DGN PLOT DATE : 13-JUL-2012 06:25 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

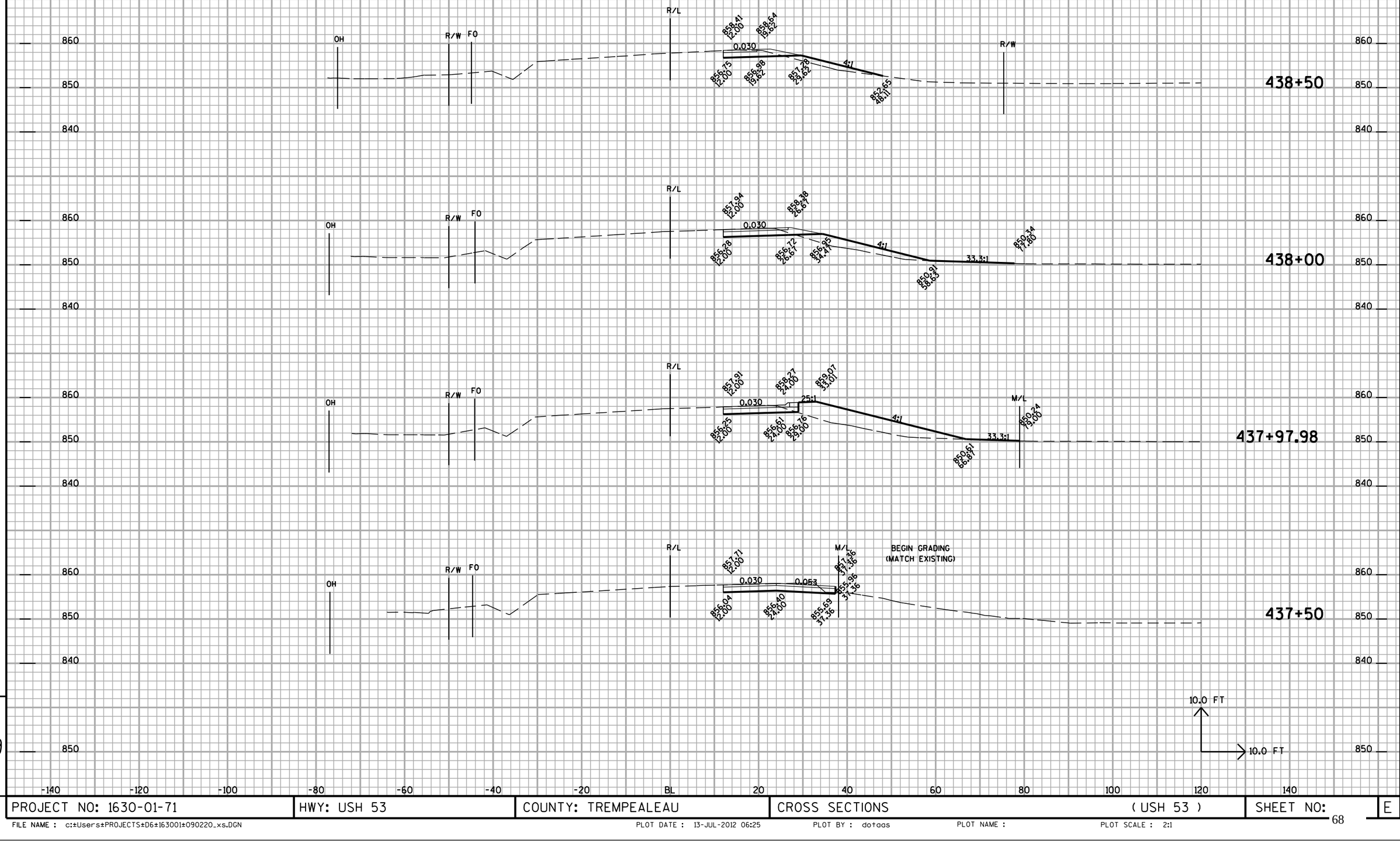


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9

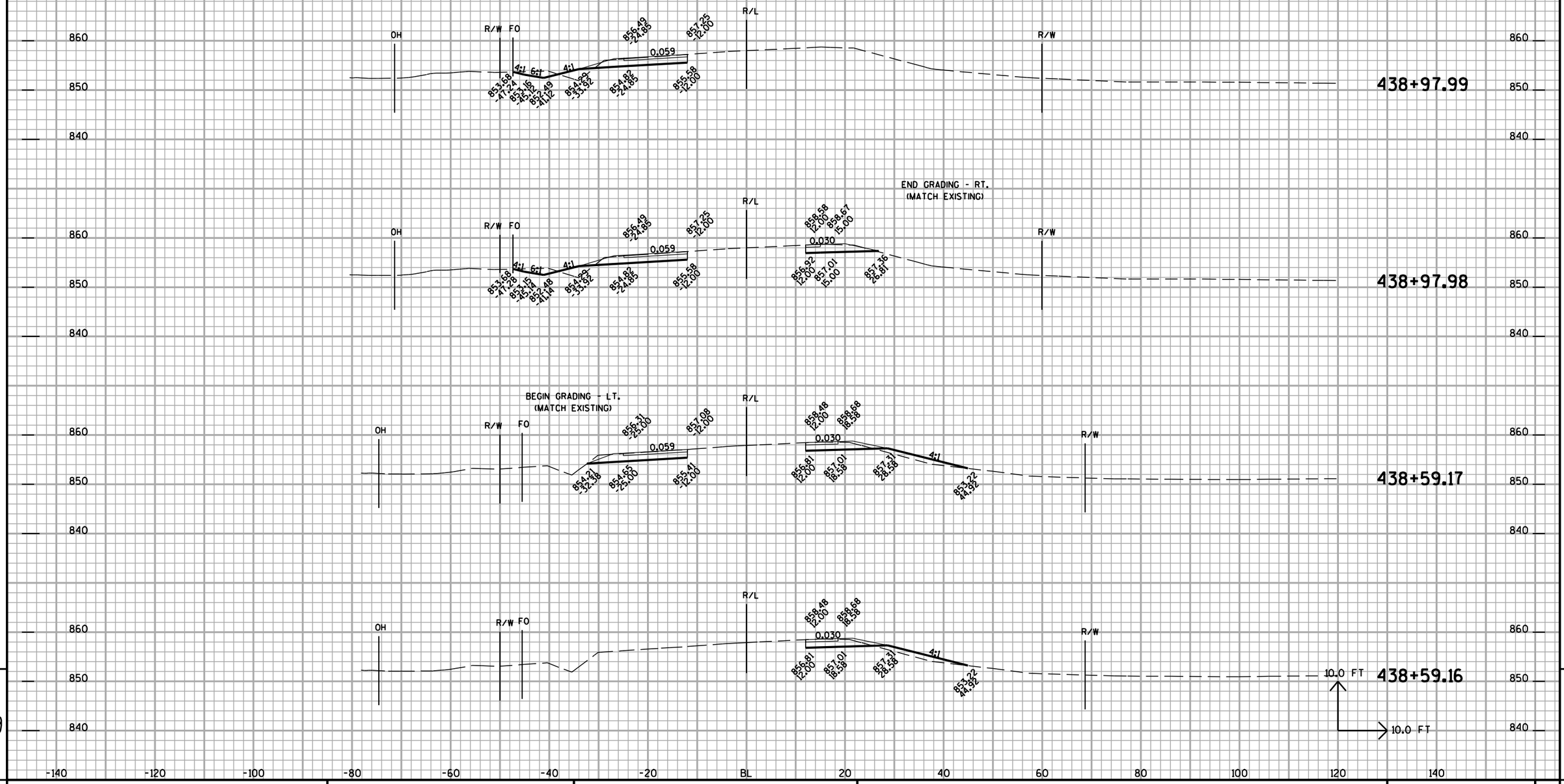
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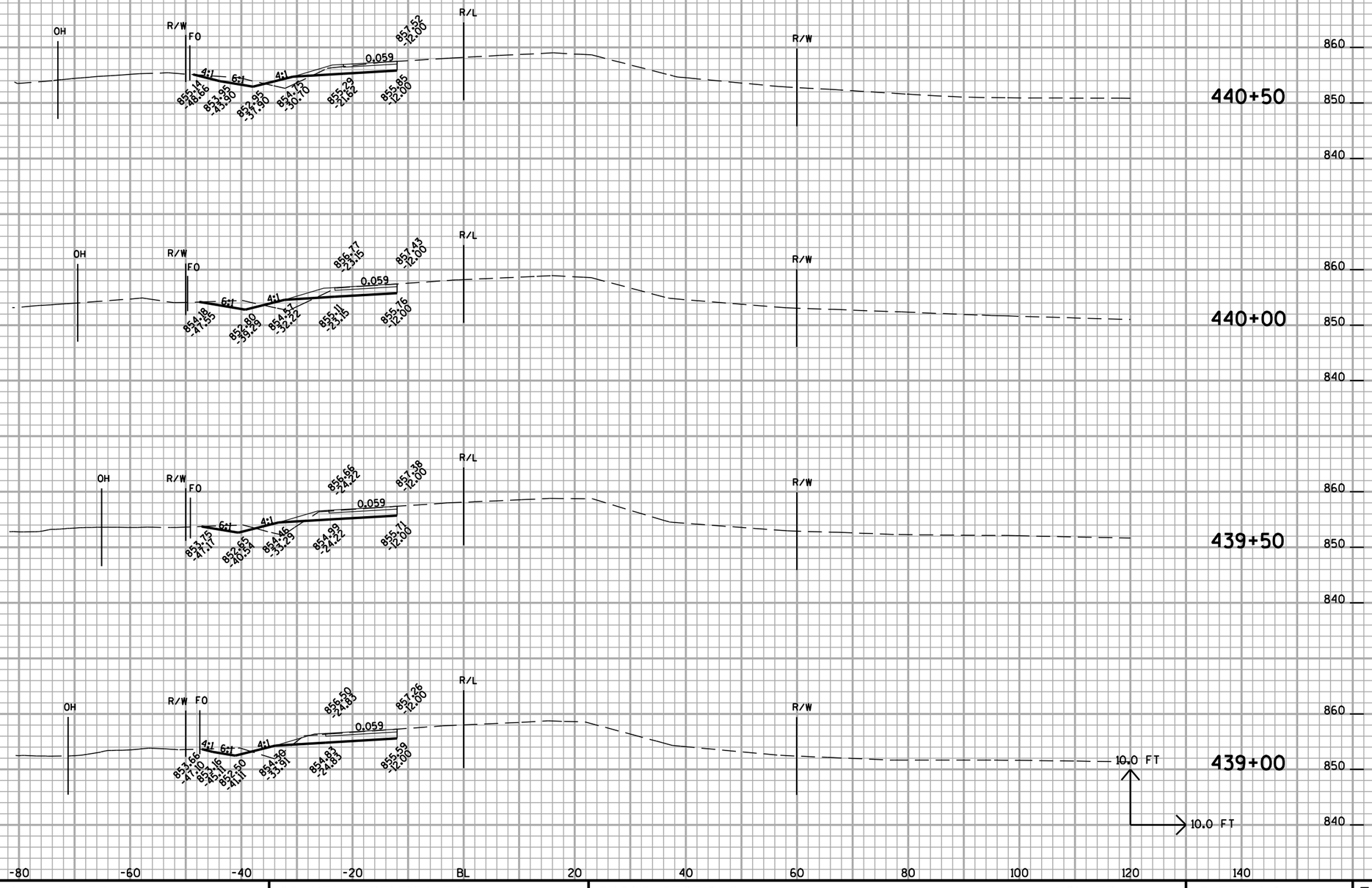
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FILE NAME : c:±Users±PROJECTS±D6±163001±090220_xs.DGN PLOT DATE : 13-JUL-2012 06:25 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1



9

PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS (USH 53)	SHEET NO:	E

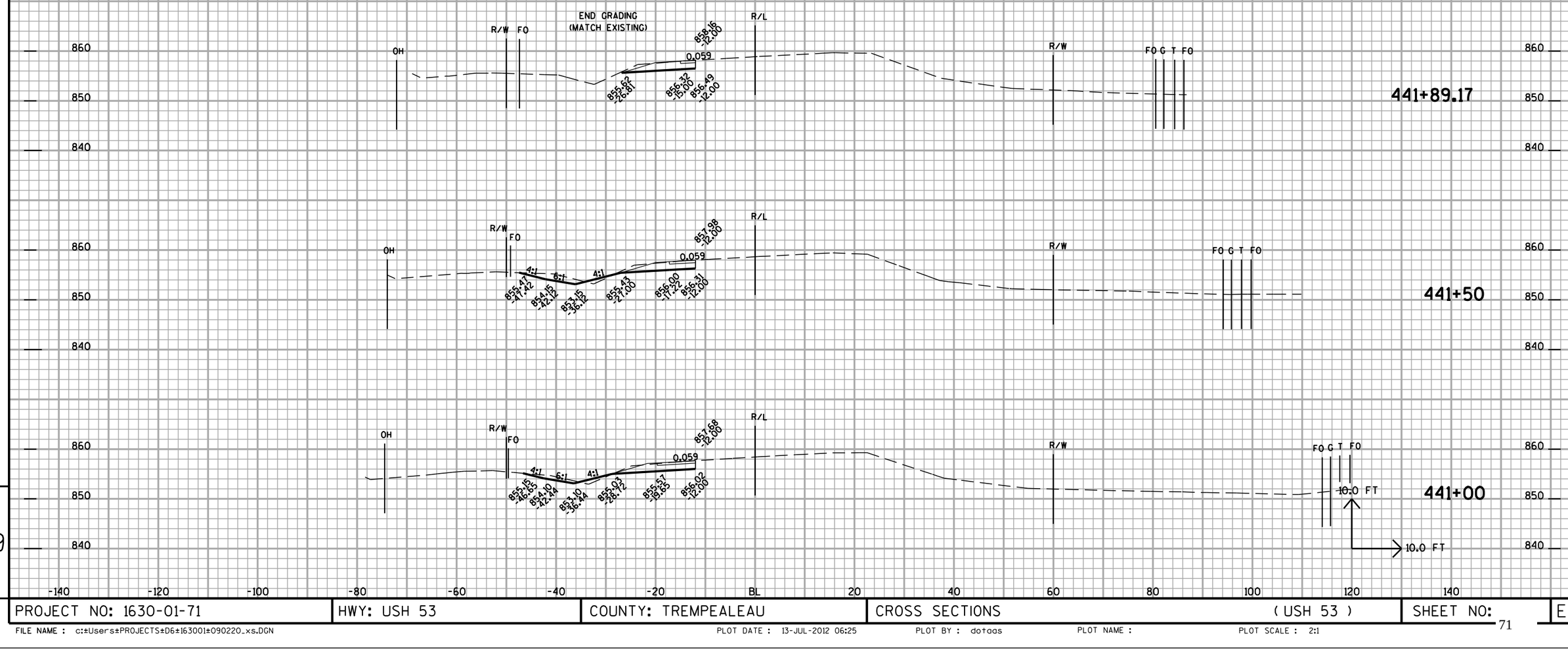


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PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS (USH 53)	SHEET NO:	E

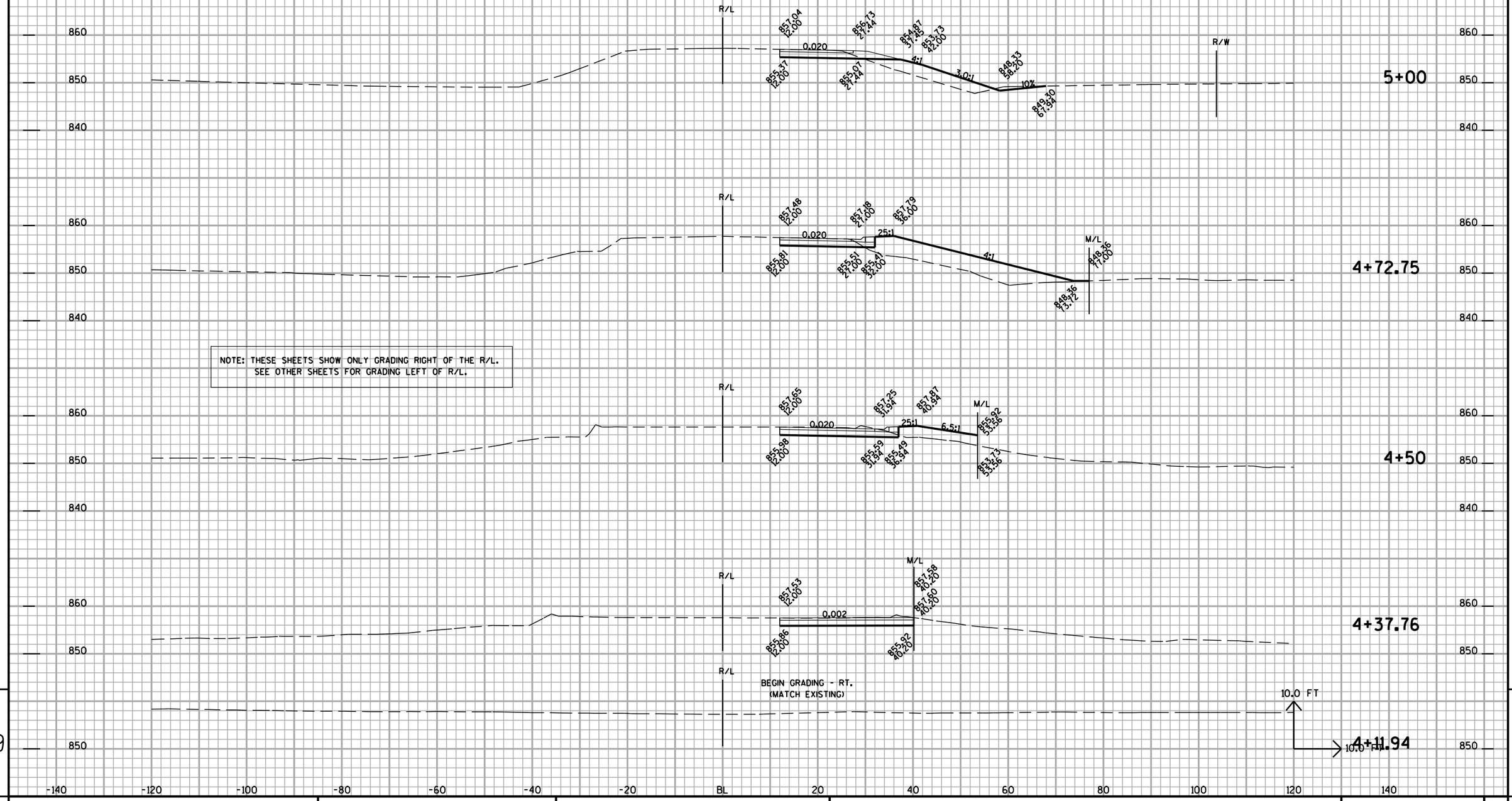
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PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS (USH 53)	SHEET NO: E

FILE NAME : c:±Users±PROJECTS±D6±163001±090220_xs.DGN PLOT DATE : 13-JUL-2012 06:25 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L.
SEE OTHER SHEETS FOR GRADING LEFT OF R/L.



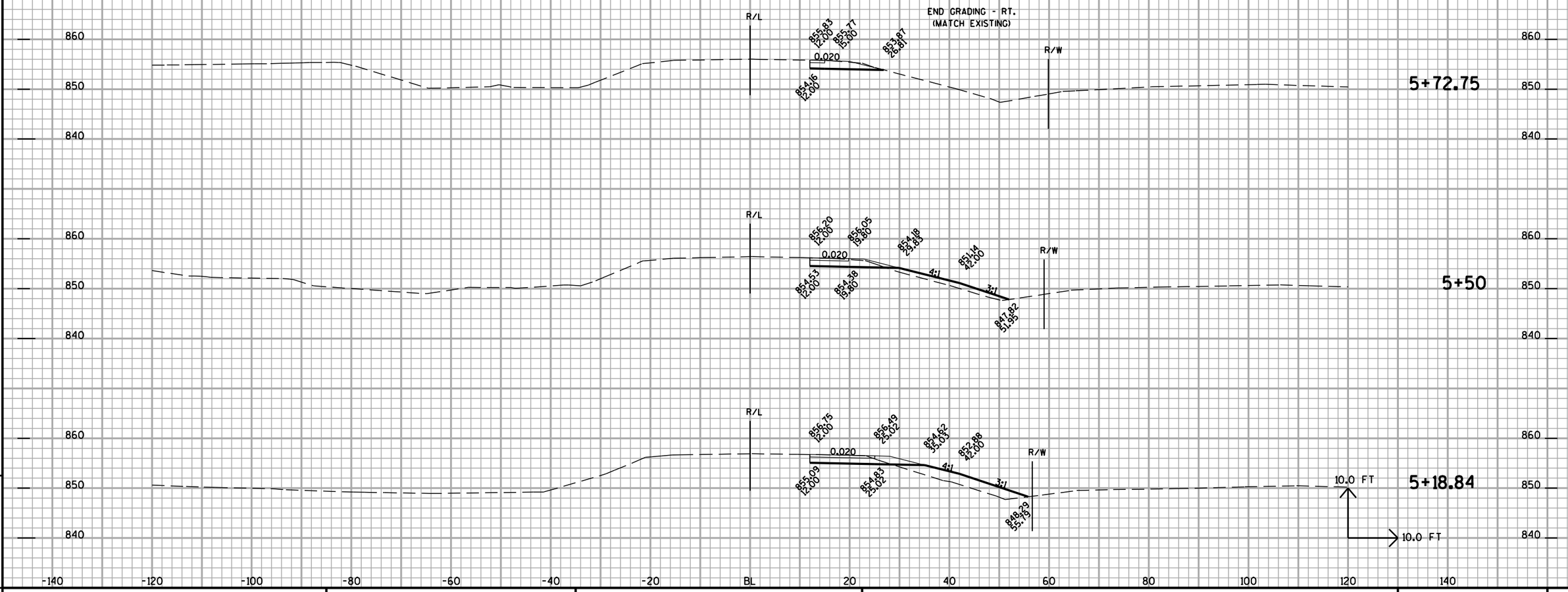
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PROJECT NO: 1630-01-71	HWY: UHS 53	COUNTY: TREMPEALEAU	CROSS SECTIONS (STH 95)	SHEET NO:	E

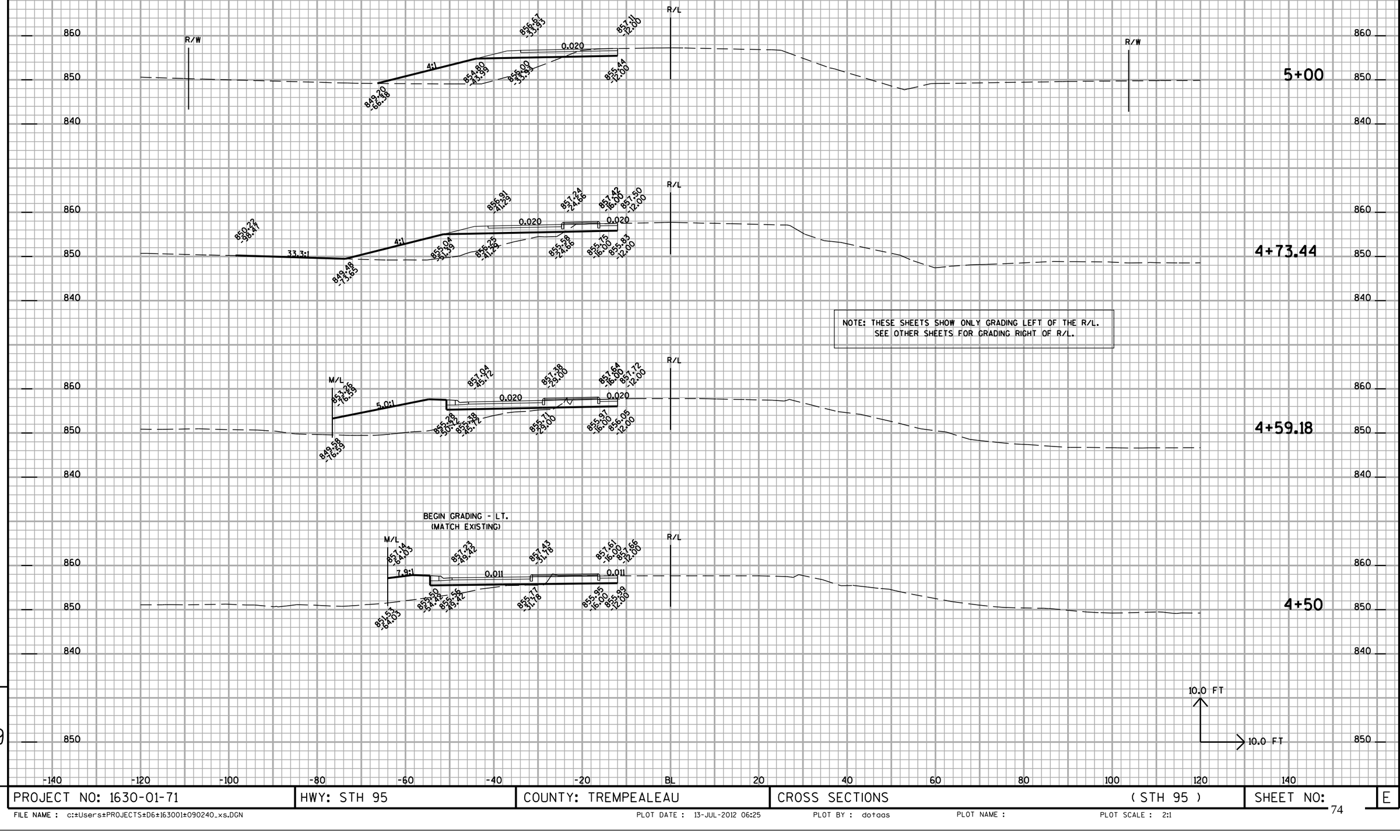
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NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L.
SEE OTHER SHEETS FOR GRADING LEFT OF R/L.



PROJECT NO: 1630-01-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS (STH 95)	SHEET NO:	E

FILE NAME : c:±Users±PROJECTS±D6±163001±090230_xs.DGN PLOT DATE : 13-JUL-2012 06:25 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

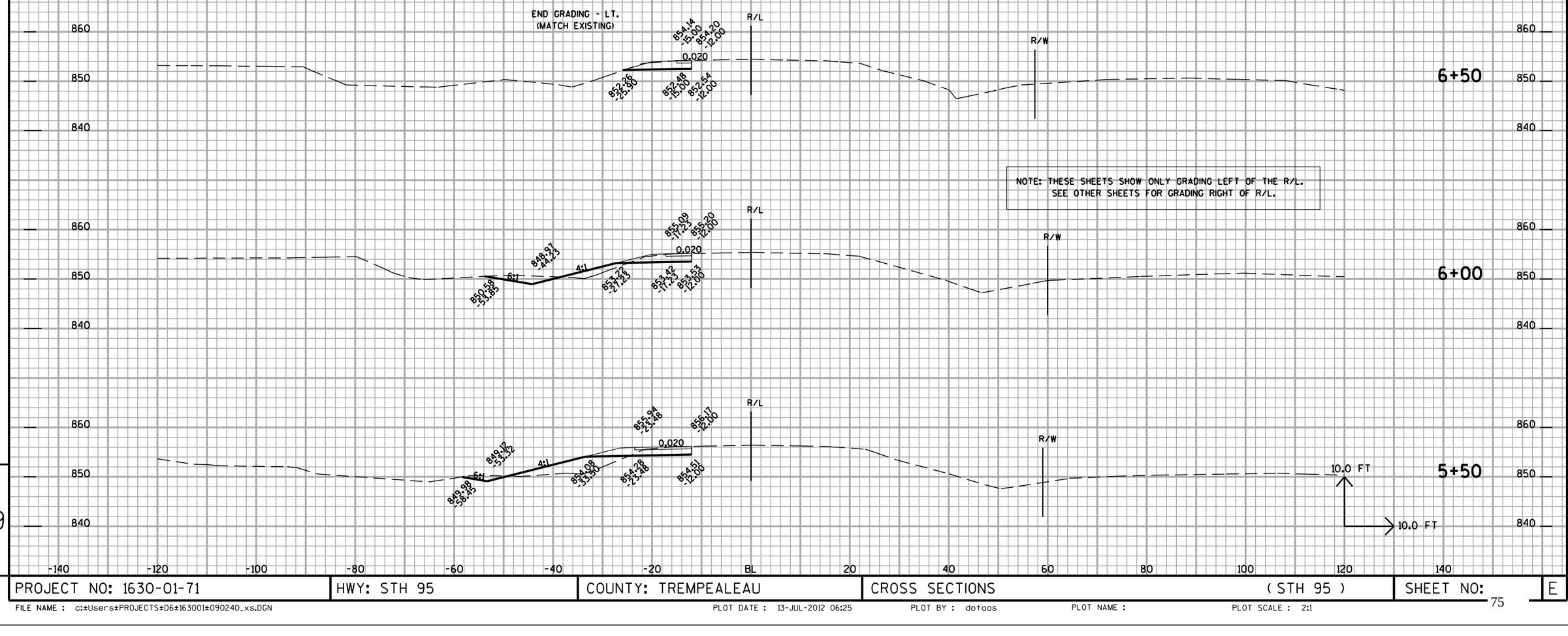


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9

PROJECT NO: 1630-01-71	HWY: STH 95	COUNTY: TREMPEALEAU	CROSS SECTIONS (STH 95)	SHEET NO:	E

FILE NAME : c:±Users±PROJECTS±D6±163001±090240_xs.DGN PLOT DATE : 13-JUL-2012 06:25 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 1630-01-71	HWY: STH 95	COUNTY: TREMPEALEAU	CROSS SECTIONS (STH 95)	SHEET NO: E

FILE NAME : c:±Users±PROJECTS±D6±163001±090240_xs.DGN PLOT DATE : 13-JUL-2012 06:25 PLOT BY : dotaas PLOT NAME : PLOT SCALE : 2:1

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

EAU DECEMBER 2013

PROJECT ID: 1634-03-71
WITH: 1630-01-71

COUNTY: TREMPEALEAU

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 476

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1634-03-71	WISC 2013524	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

GALESVILLE - BLAIR

(PRAIRIE RIDGE LN TO LUND COULEE LN)

USH 53

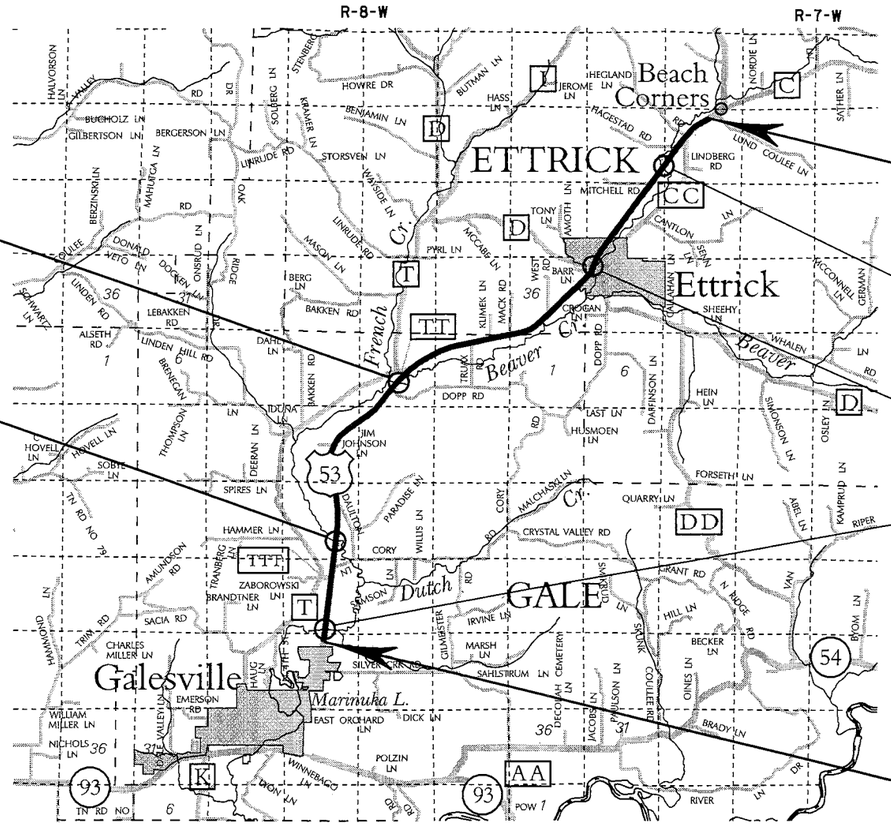
TREMPEALEAU COUNTY



26

N

STATE PROJECT NUMBER
1634-03-71



B-61-0204
STA. 212+43 - 215+01

B-61-0202
STA. 82+21 - 84+91

EXCEPTION TO NET LENGTH OF CENTERLINE
B-61-751 STA. 464+46 - 465+79

EXCEPTION TO NET LENGTH OF CENTERLINE
B-61-101 STA. 379+94 - 380+50

EXCEPTION TO NET LENGTH OF CENTERLINE
B-61-114 STA. 19+98 - 21+78

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 9.319 MI.

"Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Trempealeau County."

DESIGN DESIGNATION

A.A.D.T. (2014)	=	6155
A.A.D.T. (2034)	=	7655
D.H.V. (2034)	=	498
D.D.	=	60-40
T.	=	9.7%
DESIGN SPEED	=	60 MPH
ESALS	=	1,445,400

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NW REGION
Designer	ADAM SARAUER
Project Manager	STACEY RUSCH
Regional Examiner	DAN OJIBWAY
Regional Supervisor	RICK SHERMO
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 7/29/13 (Signature)

E

UTILITIES & OTHER CONTACTS

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CENTURYLINK
333 NORTH FRONT STREET
LA CROSSE, WI 54601
(608) 796-5543

DOUG DICKENSON
MIDWEST NATURAL GAS, INC.
3600 STH 157
P.O. BOX 429
LA CROSSE, WI 54602
(608) 781-1011

MIKE LIGHTFOOT
TRI COUNTY COMMUNICATIONS COOP., INC.
23451 WHITEHALL ROAD
P.O. BOX 727
INDEPENDENCE, WI 54747
(715) 985-6301

CHARTER COMMUNICATIONS
PERRY MCCLELLAN
1228 12TH AVENUE SOUTH
ONALASKA, WI 54650
(715) 370-7140

KURT CHILDS
DAIRYLAND POWER COOPERATIVE
3200 EAST AVENUE SOUTH
P.O. BOX 817
LA CROSSE, WI 54602
(608) 788-4000

TIM HOLTON
RIVERLAND ENERGY COOPERTIVE
625 W. MAIN STREET
P.O. BOX 277
ARCADIA, WI 54612
(608) 323-3381

DNR REGIONAL TRANSPORTATION LIAISON

ATTN: KAREN KALVELAGE
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
(608) 785-9115

DIGGERS HOTLINE

Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

ABBREVIATIONS

ACCESS POINT	A.P.	LENGTH OF CURVE	L.	SECTION	SEC.
ACRES	AC.	LIMITED HIGHWAY EASEMENT	L.H.E.	SHED	S
AHEAD	AH.	MILE	MI.	SOUTHEAST	SE
AND OTHERS	ET AL	NORTHEAST	NE	SOUTHWEST	SW
BACK	BK.	NORTHWEST	NW	STATION	STA.
BARN	B	PERMANENT	PERM.	STREET	ST.
BUILDINGS	BLDGS.	POINT OF CURVATURE	P.C.	TANGENT	TAN.
CENTRAL ANGLE	Δ	POINT OF INTERSECTION	P.I.	TAVERN	TAV.
CHANNEL CHANGE	CH. CH.	POINT OF TANGENCY	P.T.	TEMPORARY	TEMP.
COMPANY	COM.	POINT OF COMPOUND CURVE	P.C.C.	UNITED STATES COAST & GEODETIC SURVEY	U.S.C. & G.S.
CORNER	COR.	POINT OF REVERSE CURVE	P.R.C.		
CORPORATION	CORP.	POINT ON CURVE	P.O.C.		
COUNTY	CO.	PROJECT	PROJ.	UNITED STATES GEOLOGICAL SURVEY	U.S.G.S.
COUNTY TRUNK HIGHWAY	C.T.H.	PROPERTY LINE	P.L.		
CREEK	CR.	QUIT CLAIM DEED	Q.C.D.		
DEGREE OF CURVE	D	RADIUS	R	UNITED STATES HIGHWAY	U.S.H.
GARAGE	G	RAILROAD	RR	WELL	W
GOVERNMENT	GOV'T.	RAILWAY	RY		
HOUSE	H	REQUIRED	REQ'D.		
HOUSE TRAILER	H.T.	RIGHT	RT.		
INCORPORATED	INC.	RIGHT OF WAY	R/W		
IRON PIN	I.P.	ROAD	RD.		
LEFT	LT.				

GENERAL NOTES

THE LOCATIONS OF EXISTING & PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

CROSS DRAIN PIPE ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL CONCRETE PIPE SHALL HAVE THE APRON ENDWALL AND THE FIRST TWO PIPE JOINTS TIED AT THE JOINTS, (THREE JOINTS TOTAL)

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, TO BE SEEDED, FERTILIZED AND MULCHED AS DIRECTED BY THE ENGINEER. ALL OTHER DISTURBED AREAS ARE TO BE SEEDED, FERTILIZED AND MULCHED AT THE CONTRACTORS EXPENSE.

NO TREES, SHRUBS, OR PRIVATE PLANTINGS ARE TO BE REMOVED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

CURVE DATA IS BASED ON ARC DEFINITION.

BEARINGS SHOWN ON THIS PLAN ARE GROUND BEARINGS.

DISTANCES SHOWN ON THIS PLAN ARE GROUND DISTANCES.

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS EROSION CONTROL IMPLEMENTATION PLAN AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES.

THE DEPT. OF TRANSPORTATION MAY FURNISH A BENCH MARK MONUMENT MARKER TO BE INSTALLED BY THE CONTRACTOR ON EACH STRUCTURE AS DIRECTED BY THE ENGINEER.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE COUNTY SURVEYOR CONCERNING MONUMENT AND PROPERTY CORNER PRESERVATION.

ASPHALIC PAVEMENT FOR SHOULDERS UP TO 4 INCHES IN DEPTH MAY BE PLACED IN ONE LIFT.

WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE OR HMA / ASPHALTIC PAVEMENT IS MEASURED BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

SHRINKAGE OF EARTHWORK IS 20 PERCENT IN THE YARDAGE SUMMARY, UNLESS OTHERWISE NOTED.

INLET DEPTHS ARE APPROXIMATE AND MUST BE FIELD VERIFIED.

RIGHTS-OF-ENTRY FOR CONSTRUCTION HAVE BEEN OBTAINED. WHICH RIGHTS SHALL BE EXTENDED TO THE CONTRACTOR.

EXACT LOCATION AND WIDTH OF ANY DRIVEWAY ENTRANCES TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

MISCELLANEOUS REMOVAL ITEMS REQUIRING RESTORATION OF CONCRETE OR ASPHALTIC CONCRETE DRIVEWAYS, SIDEWALKS, OR SIDE STREETS SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE ENGINEER OR AS SHOWN ON THE PLANS.

PLAN ELEVATIONS = NGVD 29

EXPANSION JOINTS TO BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER.

TYPICAL FINISHED SECTIONS SHOW THE GENERAL ROADWAY FEATURES THROUGHOUT THE PROJECT. PAVEMENT, SLOPES, BORDER SLOPES, ETC., MAY VARY WITHIN THE STATION LIMITS OF THE STATION SECTION.

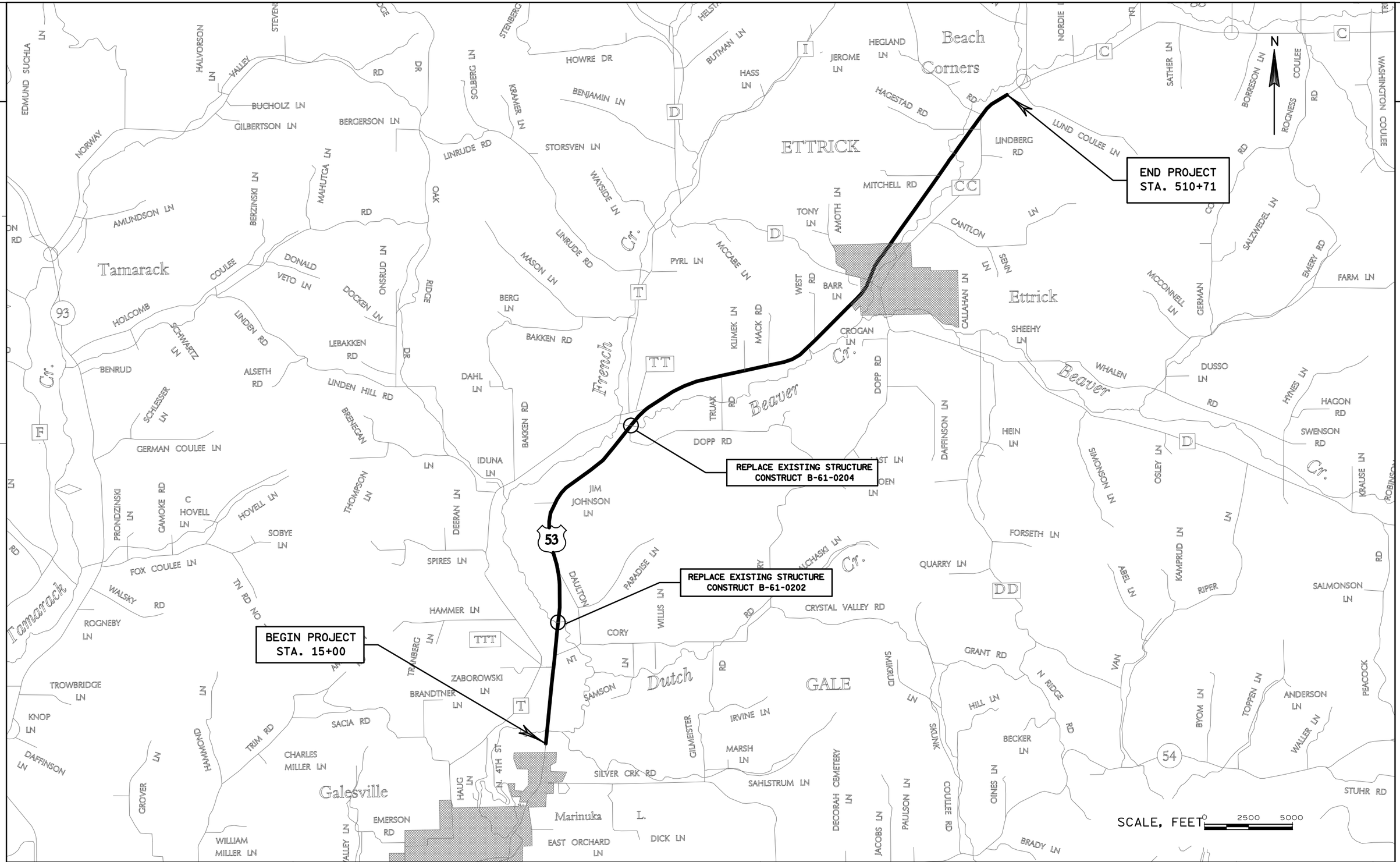
OVERHAUL WILL NOT BE PAID ON THIS PROJECT.

EARTHWORK WASTE MATERIAL SHOWN ON THE EARTHWORK SUMMARY SHALL BE HAULED FROM THE PROJECT, EXCEPT AS DIRECTED BY THE ENGINEER.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE ENGINEER, TREMPEALEAU COUNTY, TOWN OF GALE, TOWN OF ETTRICK, AND THE VILLAGE OF ETTRICK WITH THE NAME AND TELEPHONE NUMBER OF A LOCAL PERSON RESPONSIBLE FOR EMERGENCY MAINTENANCE OF TRAFFIC CONTROL.

DEPTH OF SALVAGED TOPSOIL SHALL BE 4 INCHES.

THE ITEM "CONCRETE SURFACE DRAINS" SHALL BE CONSTRUCTED AS SHOWN IN THE CONSTRUCTION DETAILS.

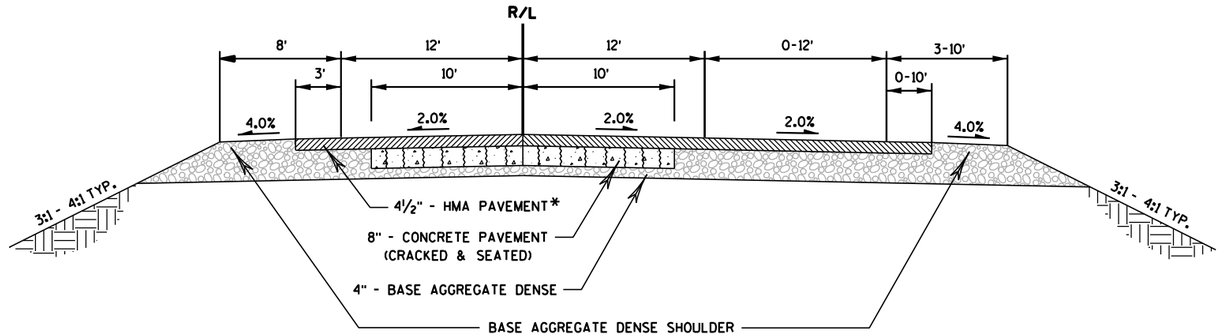


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PROJECT OVERVIEW	SHEET 3	E

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WISDOT/CADDS SHEET 42

2



TYPICAL EXISTING SECTION

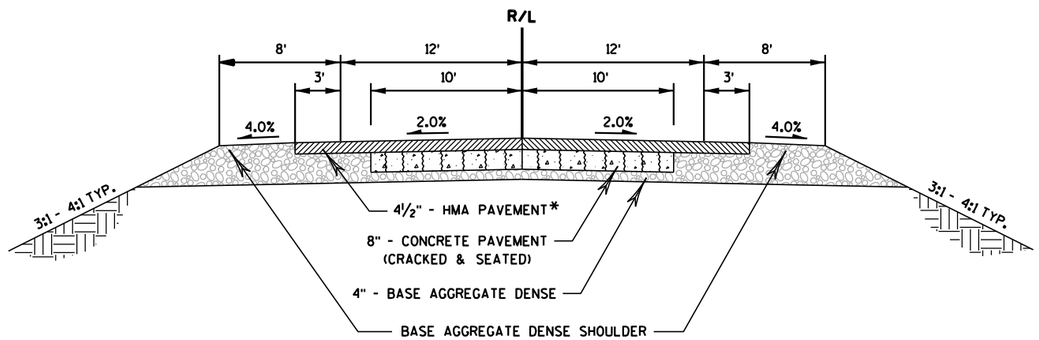
USH 53
STATION 53+92 - 60+55
STATION 222+22 - 225+40

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".

EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS

(TYPICAL SECTIONS NOT SHOWN)

B-61-114 STATION 19+98 - 21+78
B-61-005 STATION 82+66 - 84+63
B-61-391 STATION 212+79 - 214+64
B-61-101 STATION 379+94 - 380+50
B-61-751 STATION 464+46 - 465+79



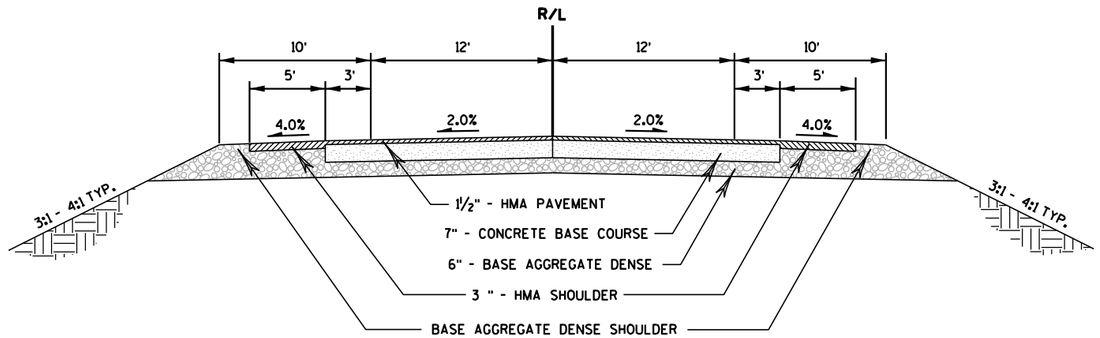
TYPICAL EXISTING SECTION

USH 53
STATION 15+00 - 18+12
STATION 26+04 - 53+92
STATION 60+55 - 81+53
STATION 85+67 - 142+00
STATION 146+19 - 212+79
STATION 214+64 - 222+22

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL EXISTING SECTIONS	SHEET	E

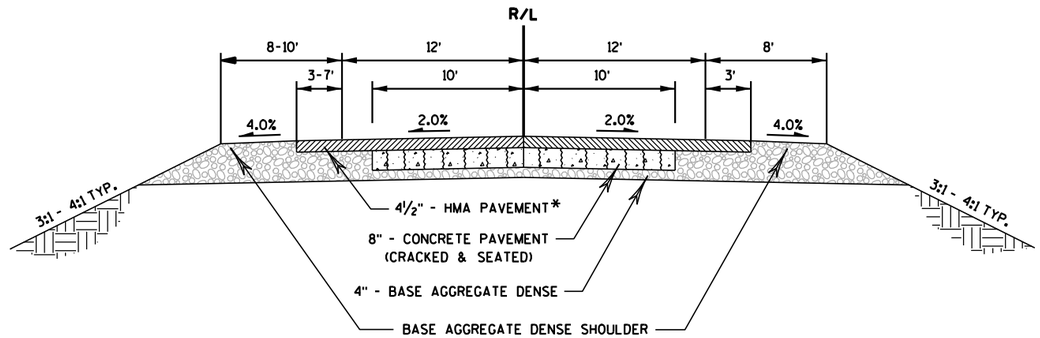
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WISDOT/CADDS SHEET 42



TYPICAL EXISTING SECTION

USH 53
STATION 19+60 - 19+98
STATION 21+78 - 22+21

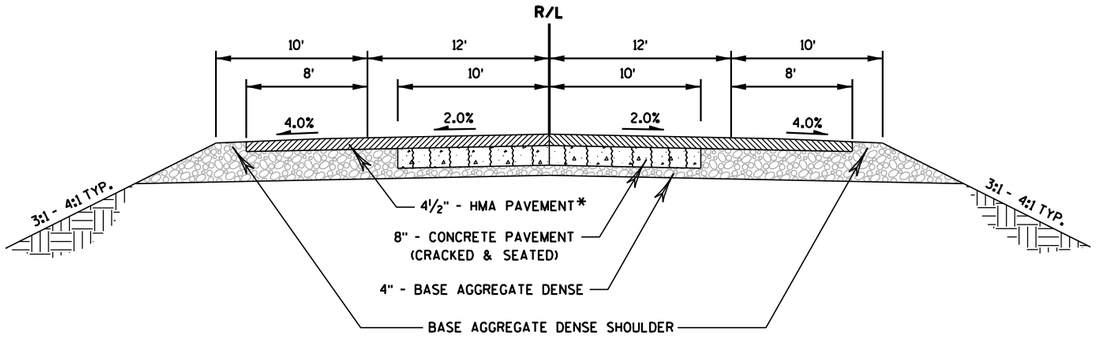
* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".



TYPICAL EXISTING SECTION

USH 53
STATION 142+00 - 146+19

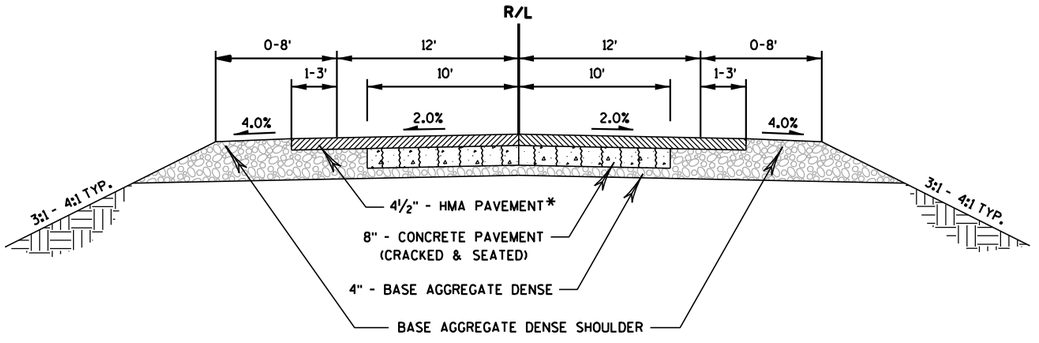
* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".



TYPICAL EXISTING SECTION

USH 53
STATION 18+12 - 19+60
STATION 22+21 - 26+04

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".

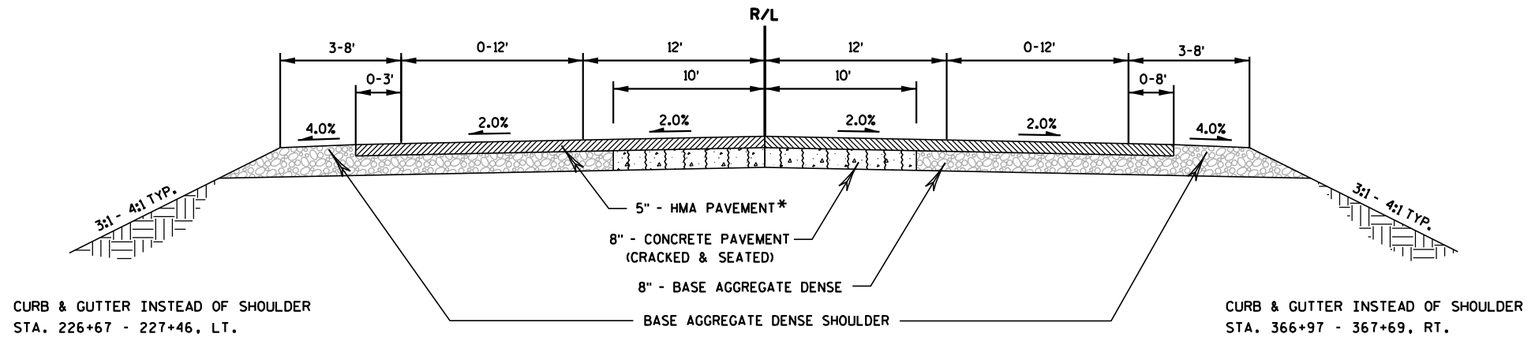


TYPICAL EXISTING SECTION

USH 53
STATION 81+53 - 82+66
STATION 84+63 - 85+67

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".

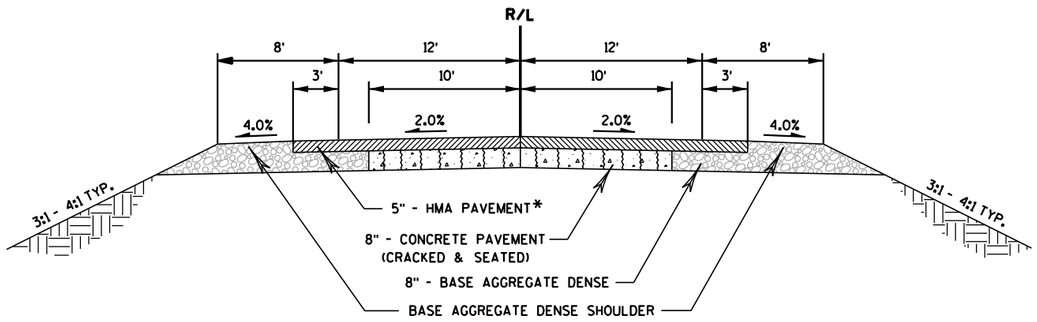
2



TYPICAL EXISTING SECTION

USH 53
STATION 225+40 - 229+82
STATION 361+92 - 371+20

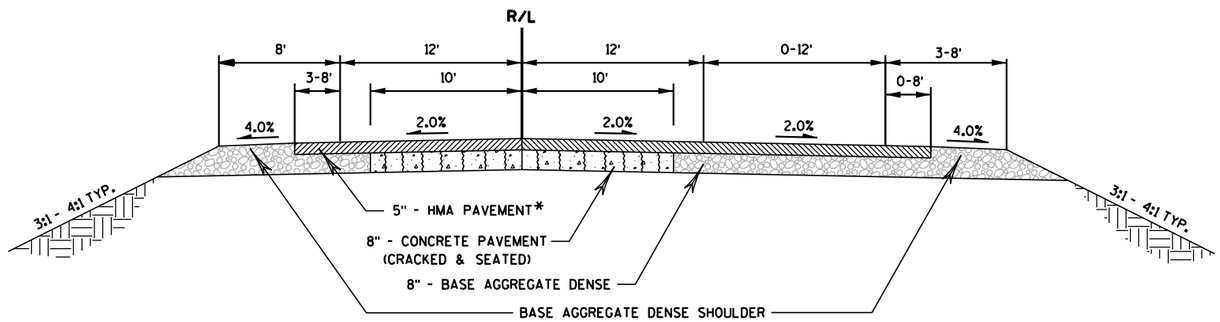
* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".



TYPICAL EXISTING SECTION

USH 53
STATION 229+82 - 361+92
STATION 371+20 - 373+59
STATION 386+31 - 464+46
STATION 465+79 - 485+33
STATION 492+75 - 509+52

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".



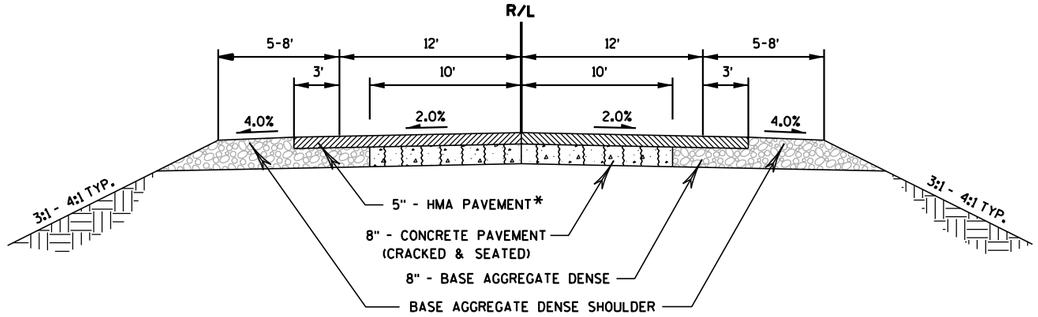
TYPICAL EXISTING SECTION

USH 53
STATION 373+59 - 379+94

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL EXISTING SECTIONS	SHEET	E

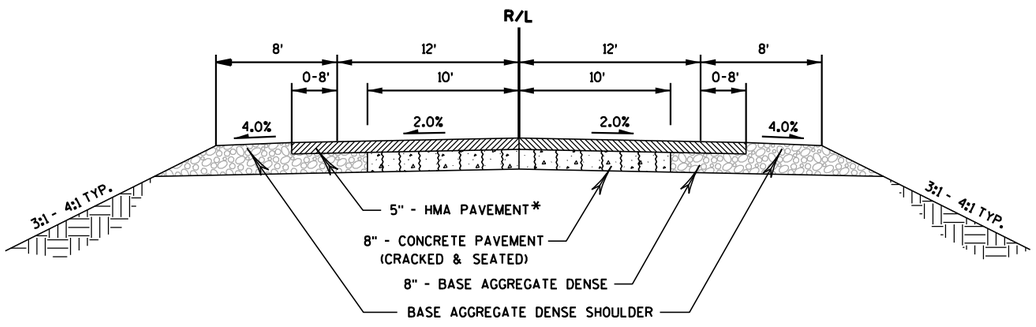
2



TYPICAL EXISTING SECTION

USH 53
STATION 509+52 - 510+71

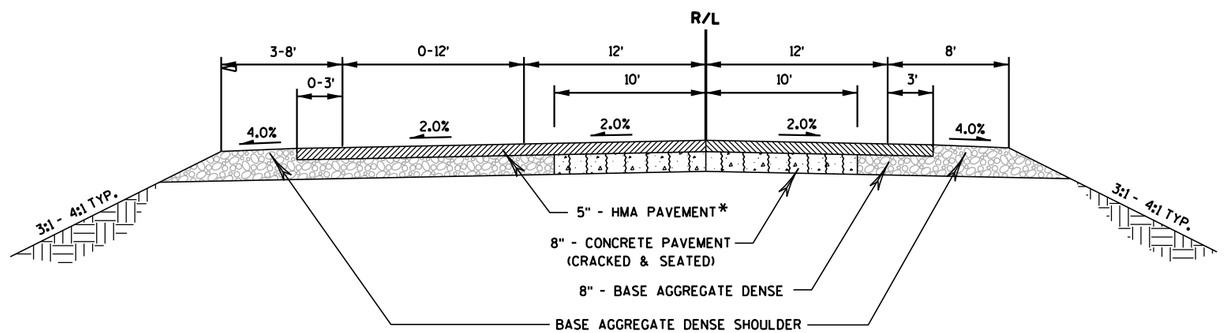
* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".



TYPICAL EXISTING SECTION

USH 53
STATION 380+50 - 386+31

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".



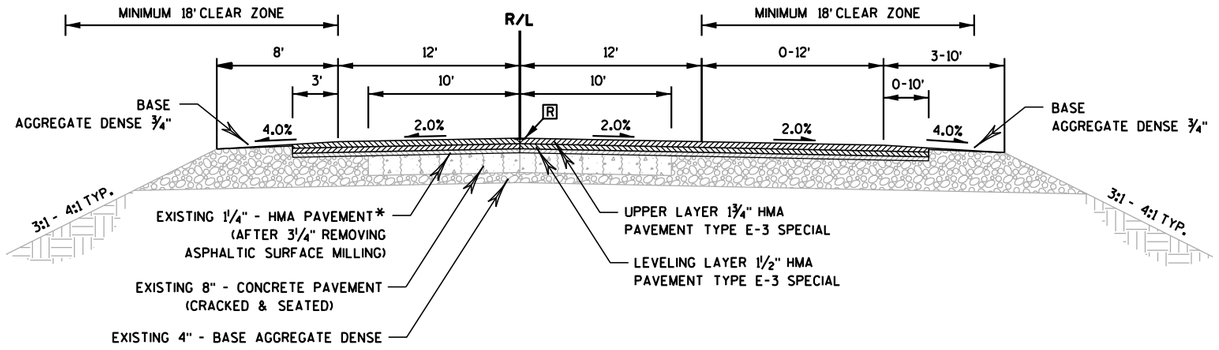
TYPICAL EXISTING SECTION

USH 53
STATION 485+33 - 492+75

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS CAN VARY FROM 4" TO 9".

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL EXISTING SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION

USH 53
STATION 53+92 - 60+55
STATION 223+00 - 225+40

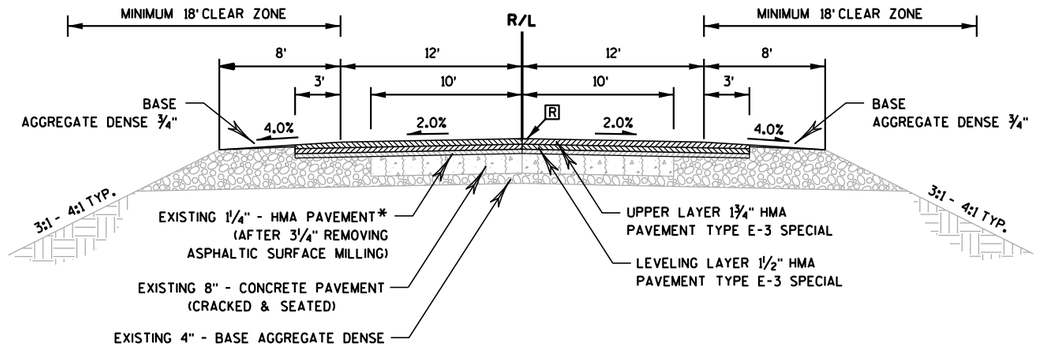
* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS AFTER THE 3.25" MILLING CAN VARY FROM 0.75" TO 5.75" .

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.

EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS

(TYPICAL SECTIONS NOT SHOWN)

B-61-114 STATION 19+98 - 21+78
B-61-005 STATION 82+66 - 84+63
B-61-391 STATION 212+79 - 214+64
B-61-101 STATION 379+94 - 380+50
B-61-751 STATION 464+46 - 465+79



TYPICAL FINISHED SECTION

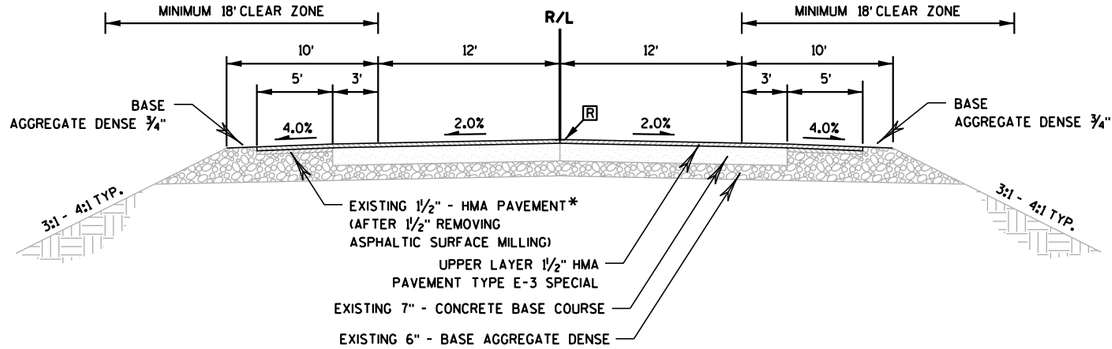
USH 53
STATION 15+00 - 18+12
STATION 26+04 - 53+92
STATION 60+55 - 66+00
STATION 95+00 - 142+00
STATION 146+19 - 209+50

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS AFTER THE 3.25" MILLING CAN VARY FROM 0.75" TO 5.75" .

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL FINISHED SECTIONS	SHEET	E

2

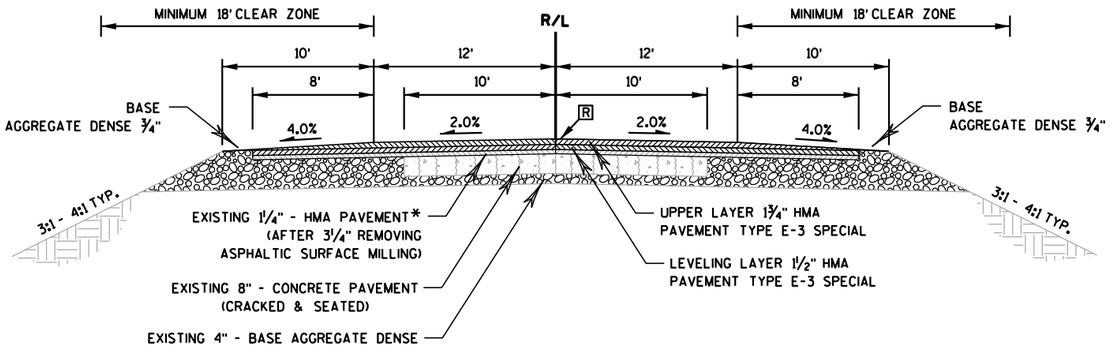


TYPICAL FINISHED SECTION

USH 53
STATION 19+60 - 19+98
STATION 21+78 - 22+21

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS AFTER THE 1.5" MILLING CAN VARY FROM 0.5" TO 5.5" .

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.



TYPICAL FINISHED SECTION

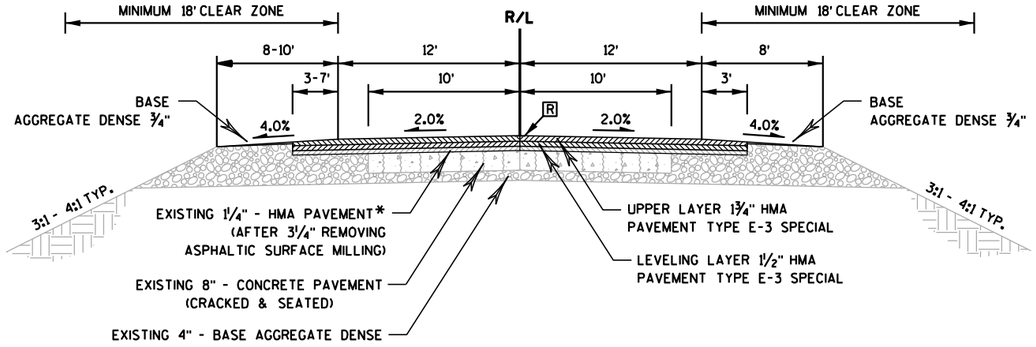
USH 53
STATION 18+12 - 19+60
STATION 22+21 - 26+04

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS AFTER THE 3.25" MILLING CAN VARY FROM 0.75" TO 5.75" .

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL FINISHED SECTIONS	SHEET	E

2

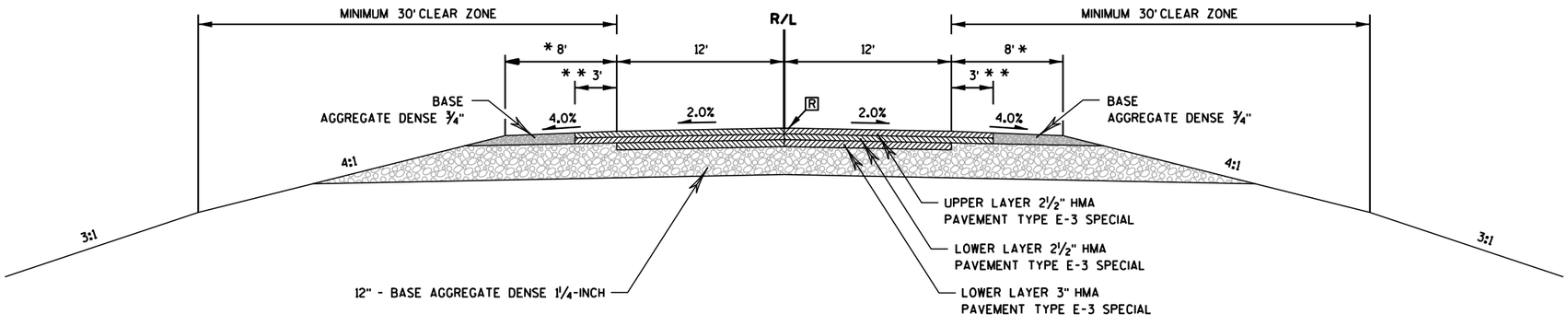


TYPICAL FINISHED SECTION

USH 53
STATION 142+00 - 146+19

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS AFTER THE 3.25" MILLING CAN VARY FROM 0.75" TO 5.75" .

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.



TYPICAL FINISHED SECTION

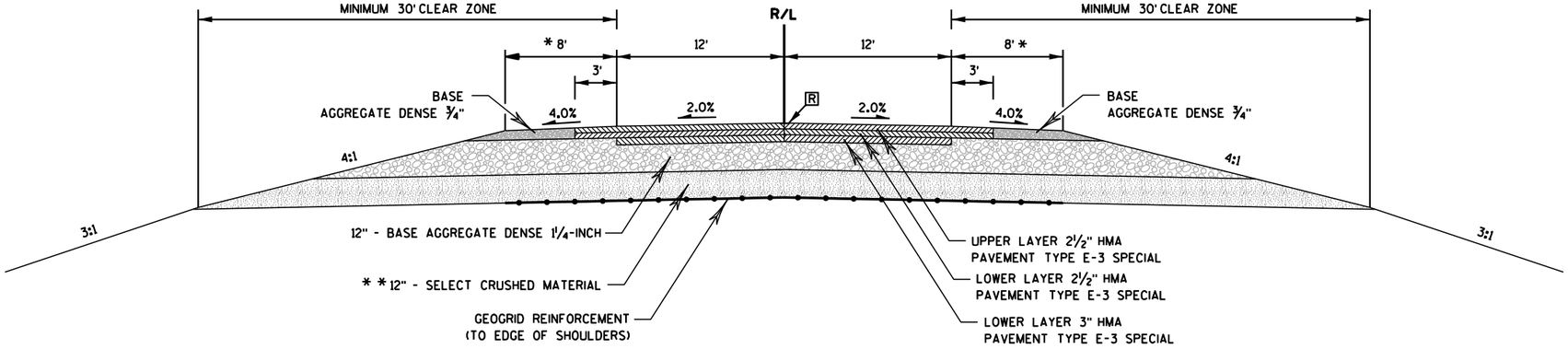
USH 53
STATION 66+00 - 68+50
STATION 93+50 - 95+00
STATION 209+50 - 211+00
STATION 221+50 - 223+00

* THE SHOULDER WIDTH SHALL BE 10 FEET NEAR STRUCTURE B-61-202 & B-61-204. SEE X-SECTIONS AND PLAN DETAILS.

** THE PAVED SHOULDER WIDTH BETWEEN DOPP ROAD AND CTH TT SHALL BE 5 FEET MINIMUM.

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.

2



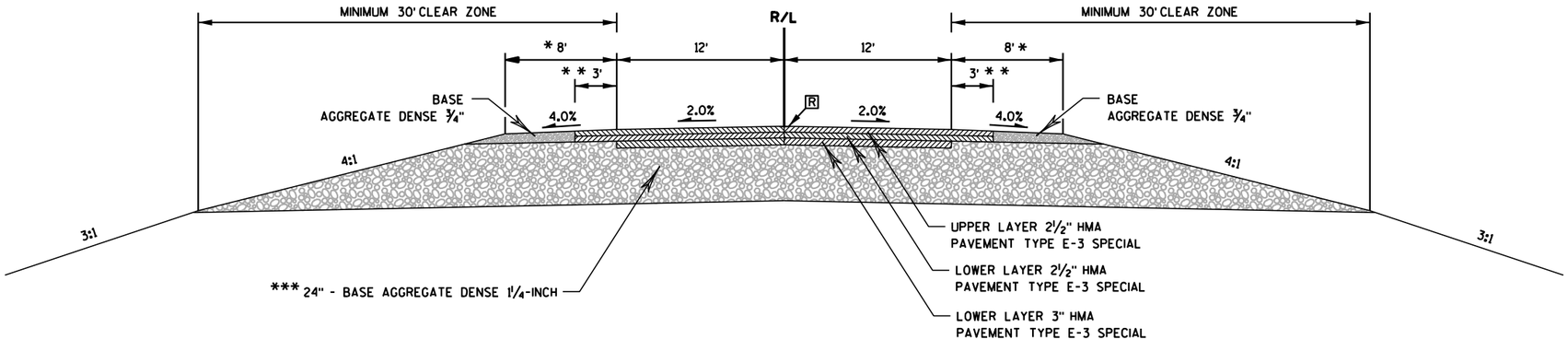
TYPICAL FINISHED SECTION

USH 53
STATION 68+50 - 82+06
STATION 85+06 - 93+50

* THE SHOULDER WIDTH SHALL BE 10 FEET NEAR STRUCTURE B-61-202. SEE X-SECTIONS AND PLAN DETAILS.

** BEGIN ZERO DEPTH TAPER FROM STA 68+50 TO FULL DEPTH SELECT CRUSHED MATERIAL FROM STA 69+00 TO 93+00. THEN TAPER TO ZERO DEPTH AT STA 93+50.

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.



TYPICAL FINISHED SECTION

USH 53
STATION 211+00 - 212+16
STATION 215+26 - 221+50

* THE SHOULDER WIDTH SHALL BE 10 FEET NEAR STRUCTURE B-61-204. SEE X-SECTIONS AND PLAN DETAILS.

** THE PAVED SHOULDER WIDTH BETWEEN DOPP ROAD AND CTH TT SHALL BE 5 FEET MINIMUM.

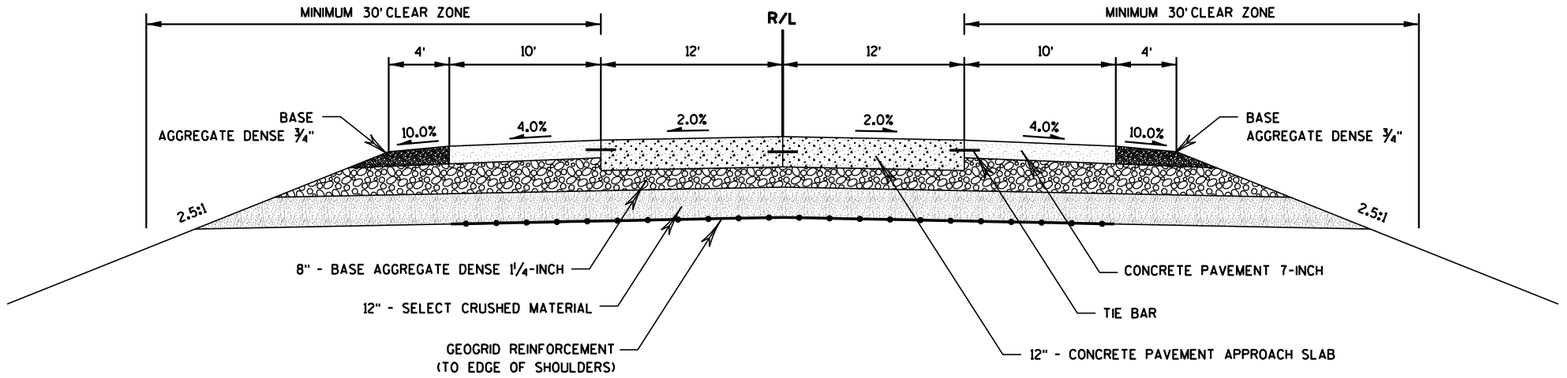
*** BEGIN 12-INCH DEPTH FROM STA 211+00 TO 24-INCH DEPTH FROM STA 211+50 TO 221+00. THEN TAPER TO 12-INCH DEPTH AT STA 221+50.

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL FINISHED SECTIONS	SHEET	E

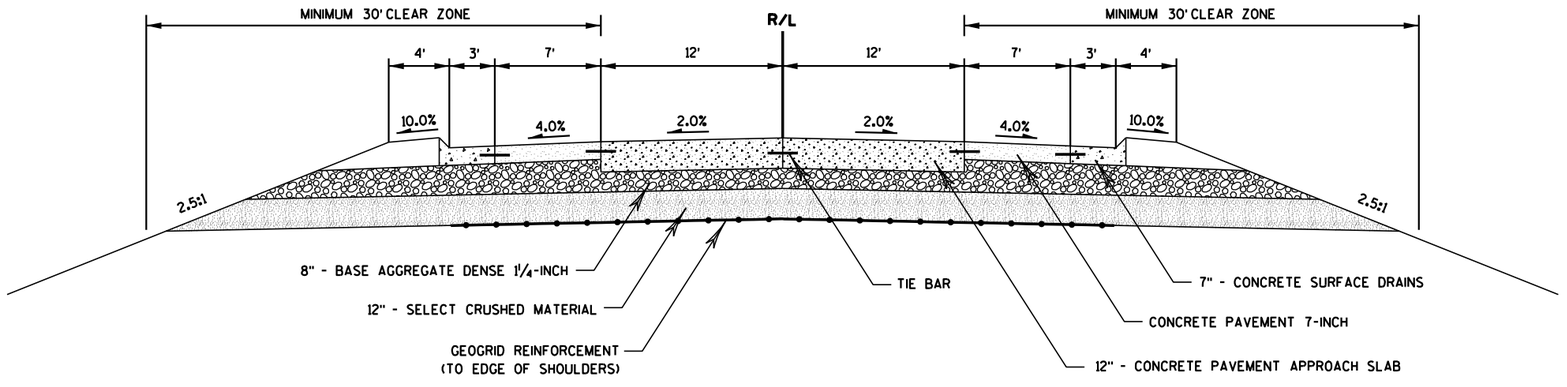
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WISDOT/CADDS SHEET 42

2



TYPICAL FINISHED SECTION

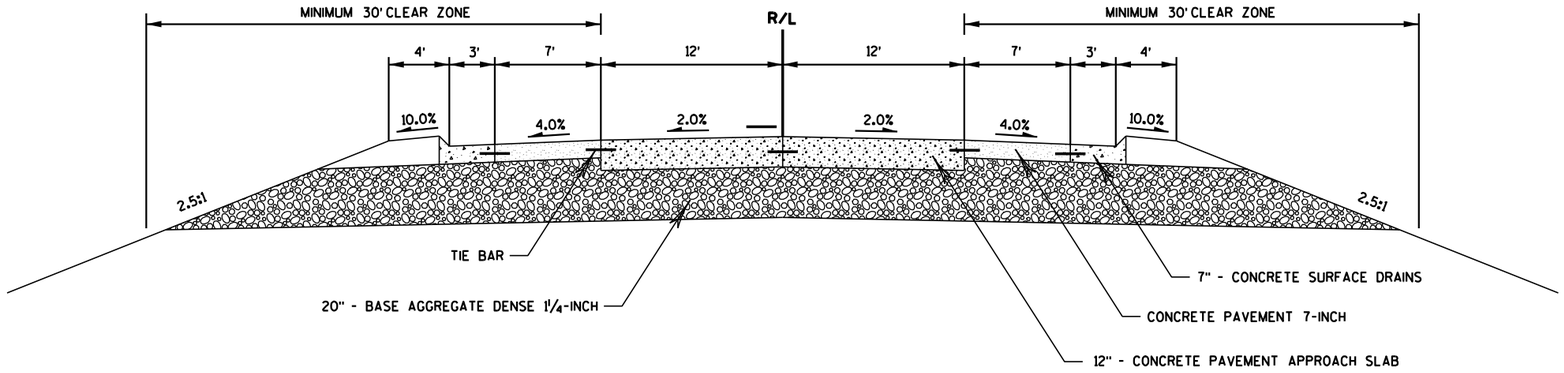
USH 53
STATION 82+06 - 82+21



TYPICAL FINISHED SECTION

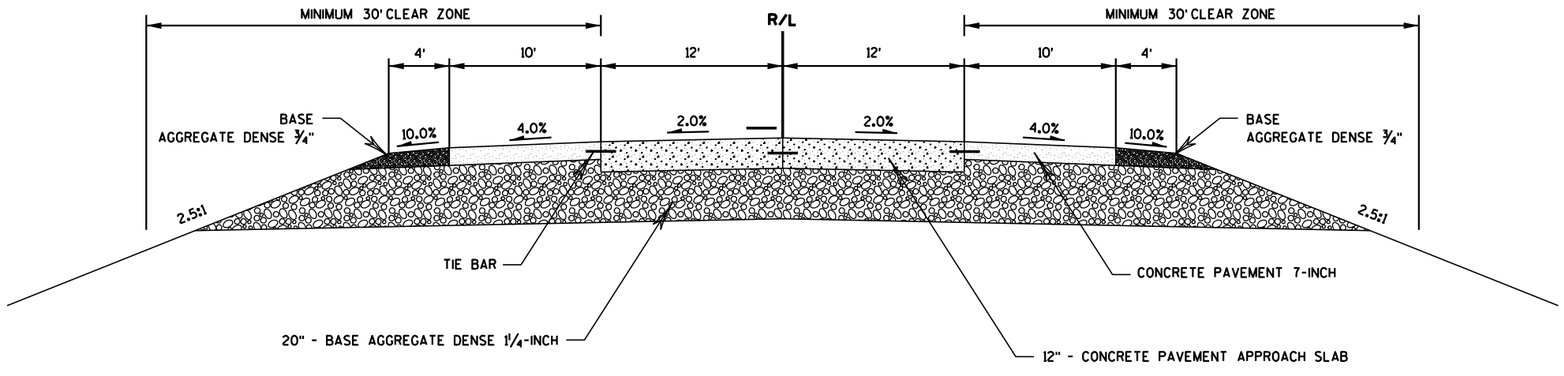
USH 53
STATION 84+91 - 85+06

2



TYPICAL FINISHED SECTION

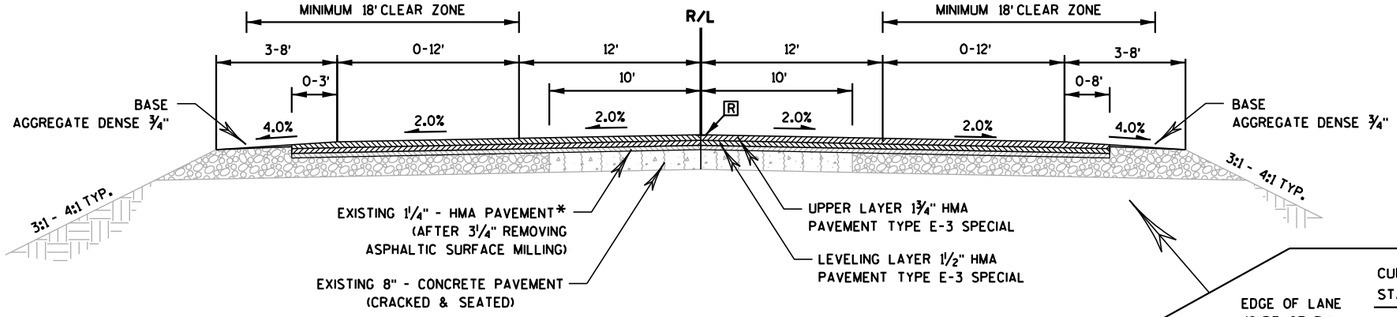
USH 53
STATION 212+16 - 212+43



TYPICAL FINISHED SECTION

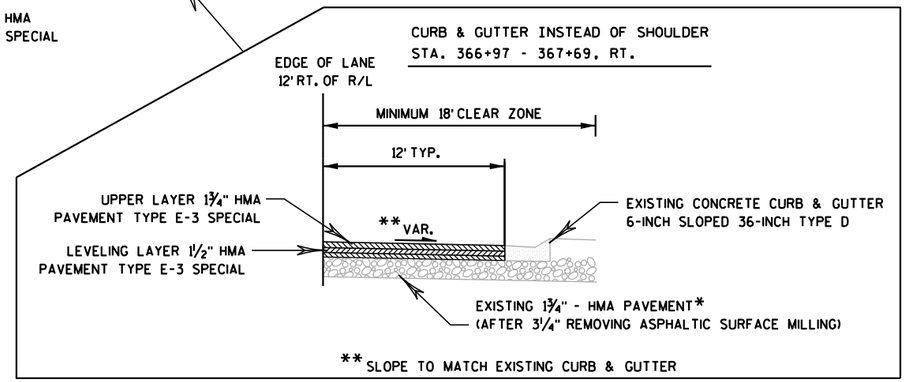
USH 53
STATION 215+01 - 215+26

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL FINISHED SECTIONS	SHEET	E



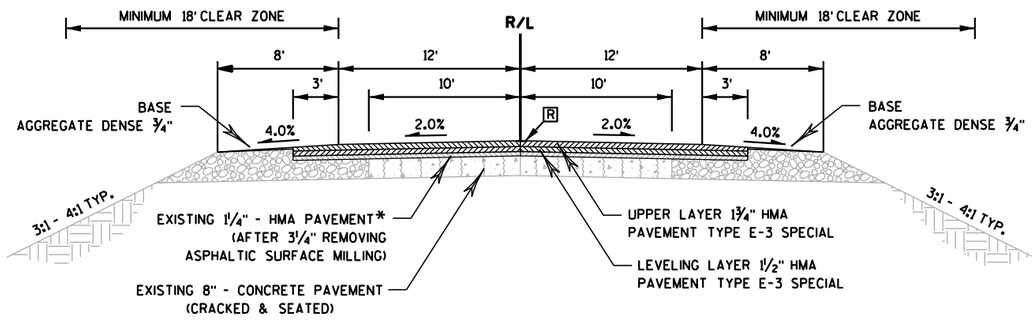
TYPICAL FINISHED SECTION

USH 53
STATION 225+40 - 229+82
STATION 361+92 - 371+20



* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS AFTER THE 3.25" MILLING CAN VARY FROM 0.75" TO 5.75" .

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.

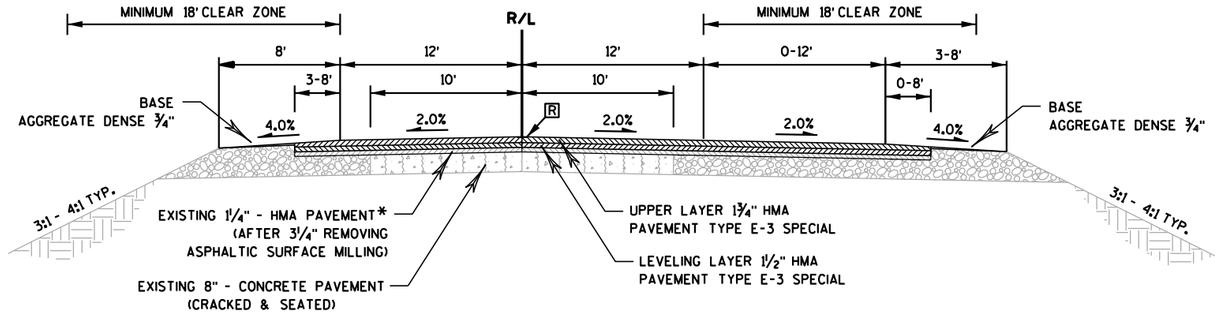


TYPICAL FINISHED SECTION

USH 53
STATION 229+82 - 361+92
STATION 371+20 - 373+59
STATION 386+31 - 464+46
STATION 465+79 - 485+33
STATION 492+75 - 509+52

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS AFTER THE 3.25" MILLING CAN VARY FROM 0.75" TO 5.75" .

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.

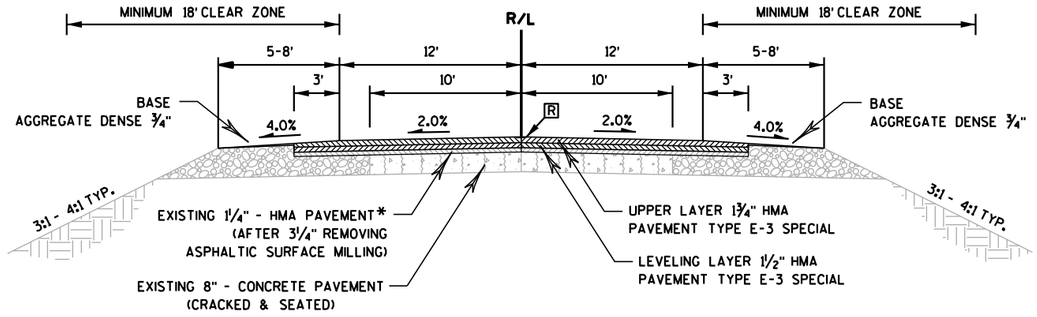


TYPICAL FINISHED SECTION

USH 53
STATION 373+59 - 379+94

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS AFTER THE 3.25" MILLING CAN VARY FROM 0.75" TO 5.75".

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.

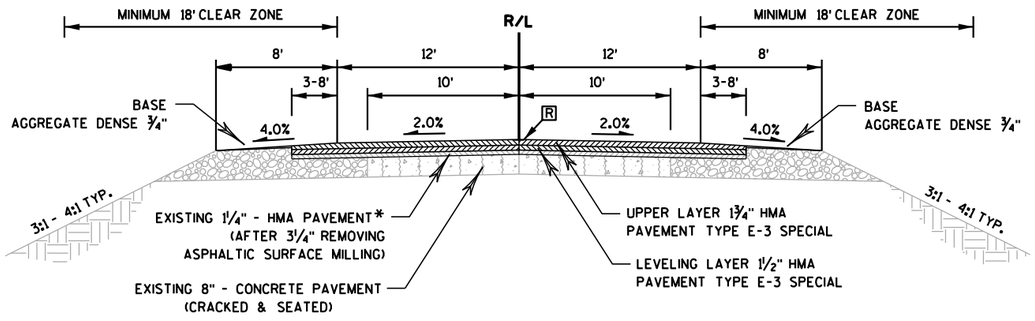


TYPICAL FINISHED SECTION

USH 53
STATION 509+52 - 510+71

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS AFTER THE 3.25" MILLING CAN VARY FROM 0.75" TO 5.75" .

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.

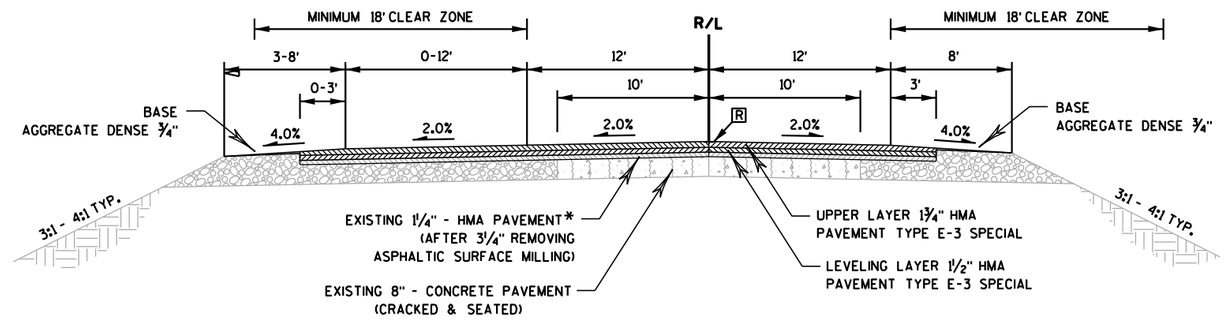


TYPICAL FINISHED SECTION

USH 53
STATION 380+50 - 386+31

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS AFTER THE 3.25" MILLING CAN VARY FROM 0.75" TO 5.75".

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.



TYPICAL FINISHED SECTION

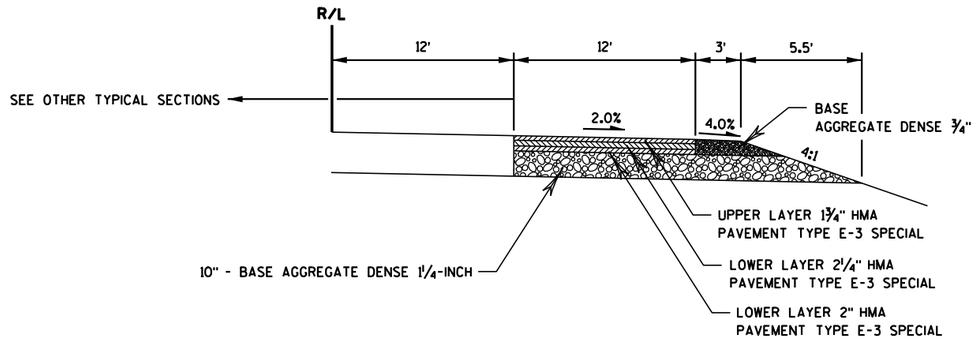
USH 53
STATION 485+33 - 492+75

* FIELD BORINGS INDICATE THAT MAINLINE ASPHALT DEPTHS AFTER THE 3.25" MILLING CAN VARY FROM 0.75" TO 5.75".

[R] ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL.

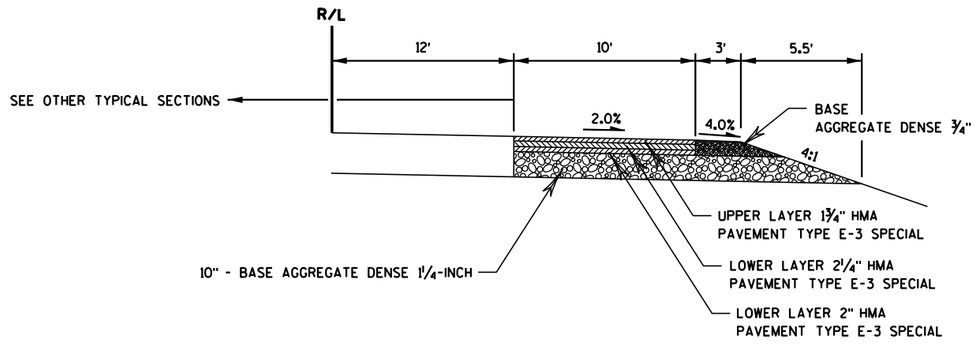
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL FINISHED SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION

USH 53 - TURN LANES
STATION 58+25 - 59+03, LT.
STATION 62+50 - 63+00, RT.
STATION 208+55 - 209+25, RT.

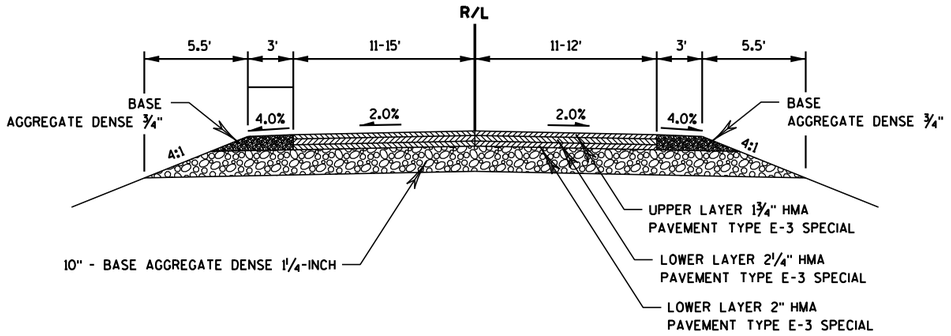


TYPICAL FINISHED SECTION

USH 53 - TURN LANES
STATION 487+17 - 488+00, RT.

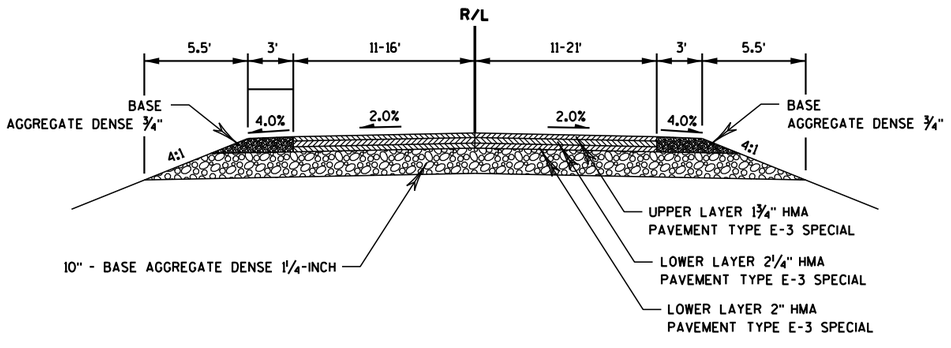
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL FINISHED SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION

CRYSTAL VALLEY RD.
STATION 11+00 - 11+31

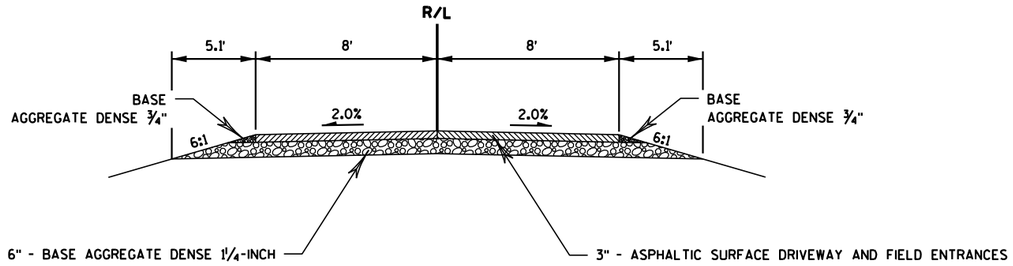


TYPICAL FINISHED SECTION

DOPP RD.
STATION 11+00 - 11+92

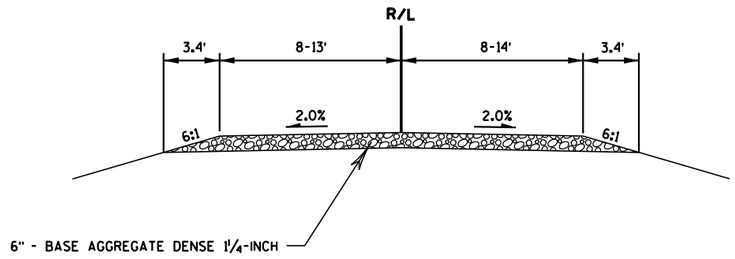
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL FINISHED SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION

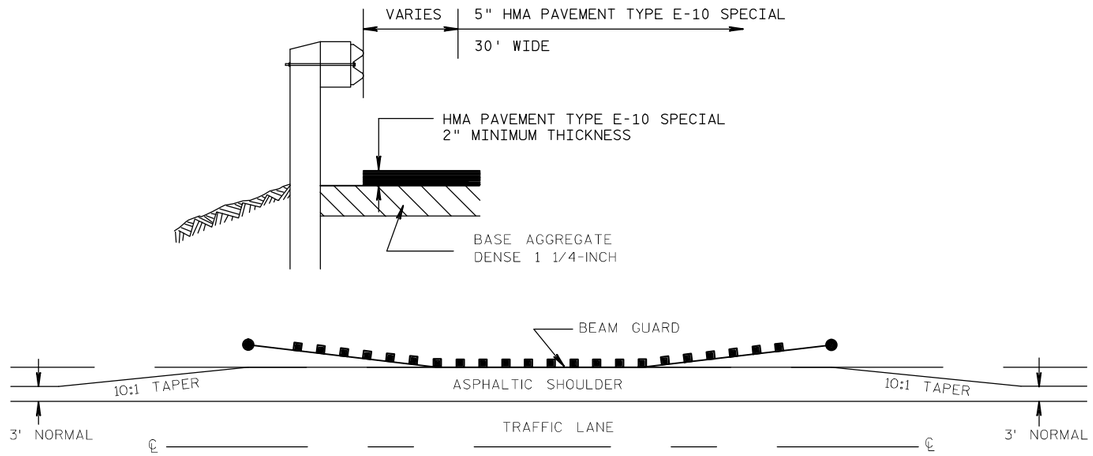
DRIVEWAY
(STA. 77+70, RT.) STATION 0+50 - 2+50
(STA. 220+07, RT.) STATION 0+40 - 0+94



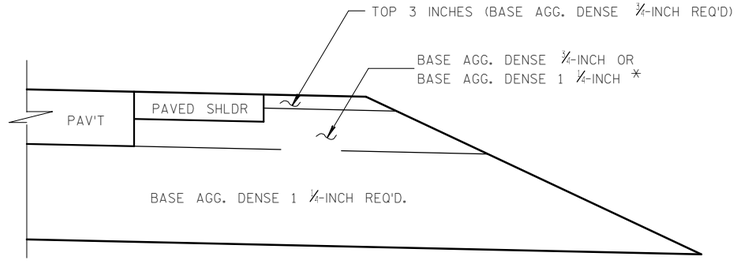
TYPICAL FINISHED SECTION

DRIVEWAY
(STA. 222+19, RT.) STATION 0+40 - 0+70

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	TYPICAL FINISHED SECTIONS	SHEET	E

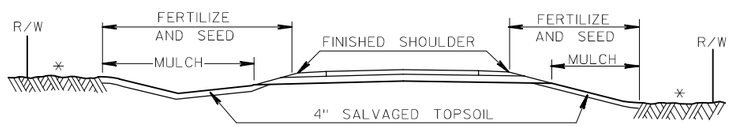


DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD



* PLAN ESTIMATE OF QUANTITIES INCLUDES THIS AREA AS THE BID ITEM BASE AGGREGATE DENSE ¾-INCH.

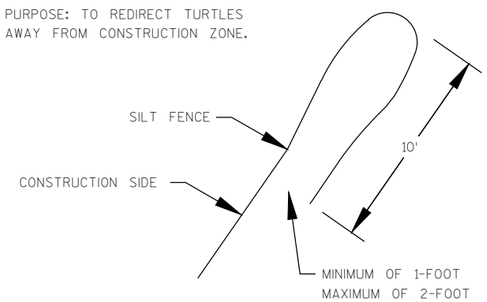
BASE AGG DENSE 1 1/4-INCH REQUIRED



* DISTURBED AREAS TO BE FERTILIZED & SEEDED

DETAIL FOR FINISHING ITEMS

PURPOSE: TO REDIRECT TURTLES AWAY FROM CONSTRUCTION ZONE.

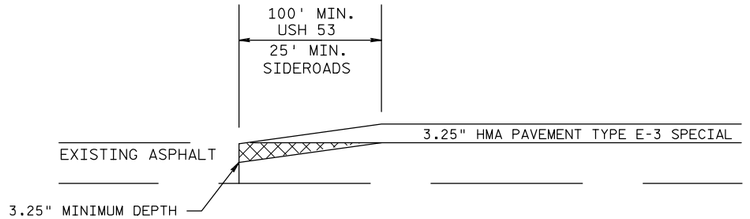


TURTLE EXCLUSION SILT FENCE
TURN-AROUND DETAIL

STA. 78+75, RT.
STA. 79+00, LT.
STA. 88+15, RT.
STA. 90+75, LT.

NOTE: TO BE PAID FOR UNDER THE ITEM 'SILT FENCE'

2

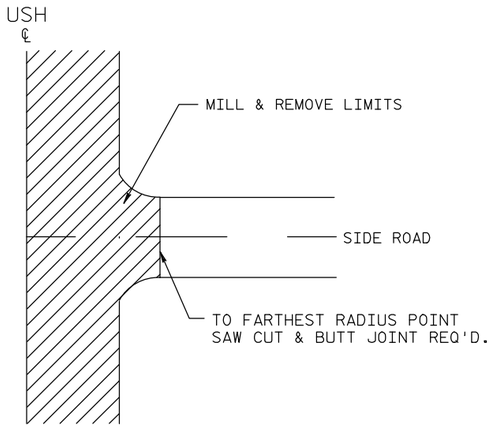


PAID FOR UNDER ITEM 'REMOVING ASPHALTIC SURFACE BUTT JOINTS'

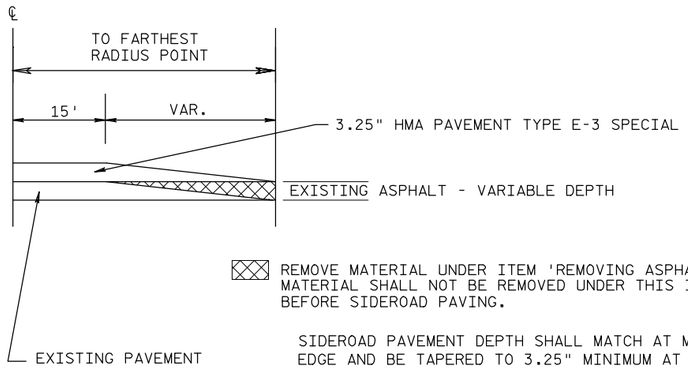
NOTES: BUTT JOINT REQUIRED AT ALL BEGIN AND END PAVING LOCATIONS.

ANY SAWCUTS USED IN THIS OPERATION WILL BE PAID FOR UNDER THE ITEM 'SAWING ASPHALT'.

BUTT JOINT



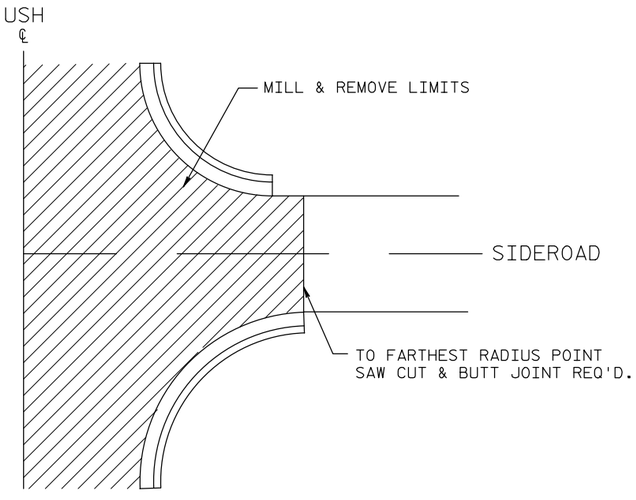
NOTE: IF THE EXISTING SIDEROAD CONSISTS OF A BASE COURSE SURFACE, THE NEW ASPHALT SHALL BE PLACED TO THE ENDS OF THE EXISTING SIDEROAD RADIUS'.



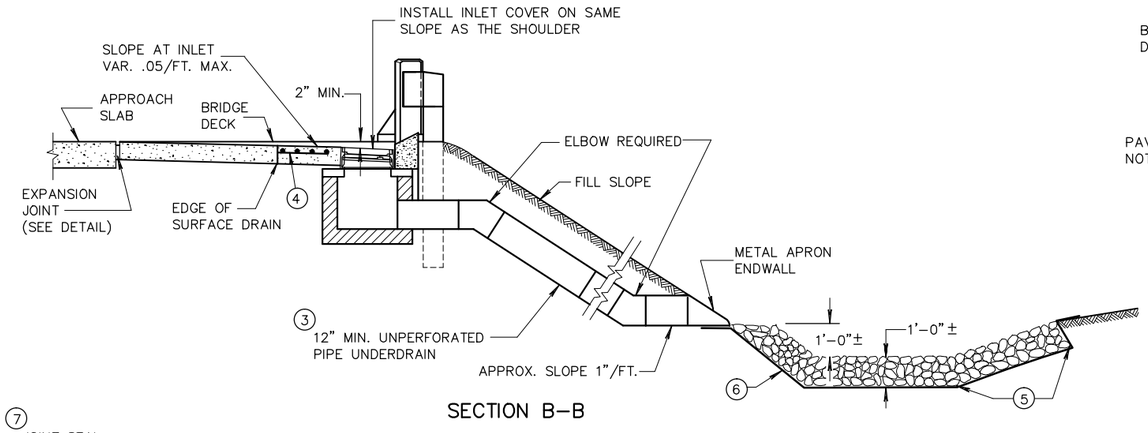
REMOVE MATERIAL UNDER ITEM 'REMOVING ASPHALT SURFACE BUTT JOINTS' MATERIAL SHALL NOT BE REMOVED UNDER THIS ITEM UNTIL 24 HOURS BEFORE SIDEROAD PAVING.

SIDEROAD PAVEMENT DEPTH SHALL MATCH AT MAINLINE PAVEMENT EDGE AND BE TAPERED TO 3.25" MINIMUM AT JOINT

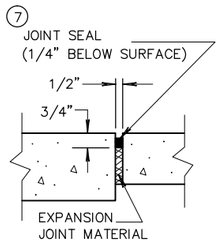
SIDE ROAD DETAIL - NO CURB & GUTTER



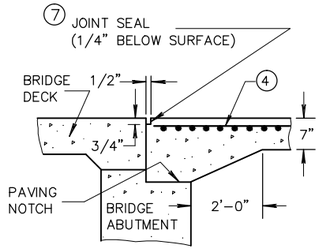
SIDEROAD DETAIL - CURB & GUTTER TO REMAIN



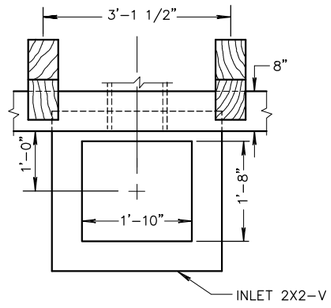
SECTION B–B



EXPANSION JOINT DETAIL



SECTION D–D



PLAN VIEW

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) NO. 4 X 2'–0" TIE BARS SPACED AT 3'–0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'–0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) THE PIPE UNDERDRAIN MAY BE ANY ONE OF THE SIX MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.

(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" – W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C–C.

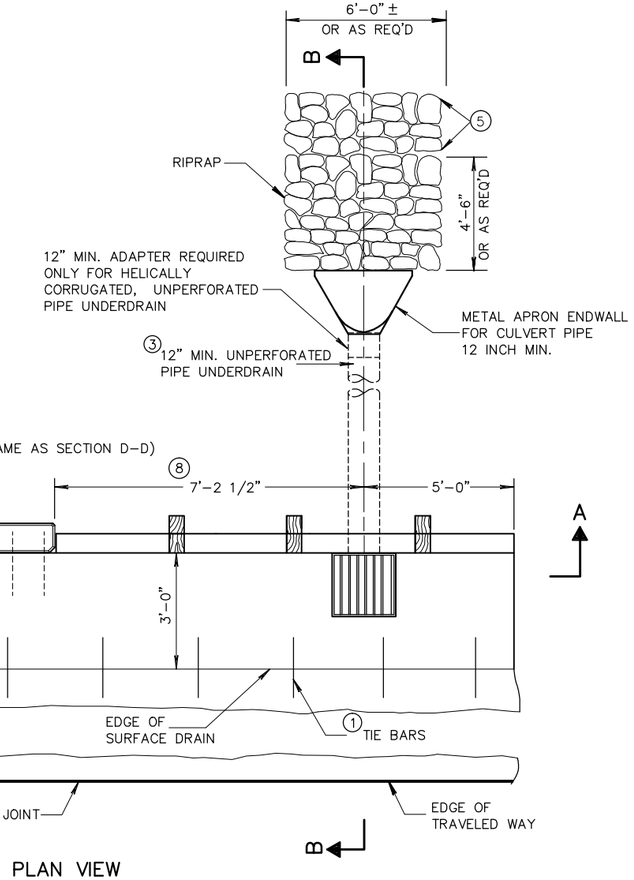
(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(6) GEOTEXTILE FABRIC, TYPE 'R"

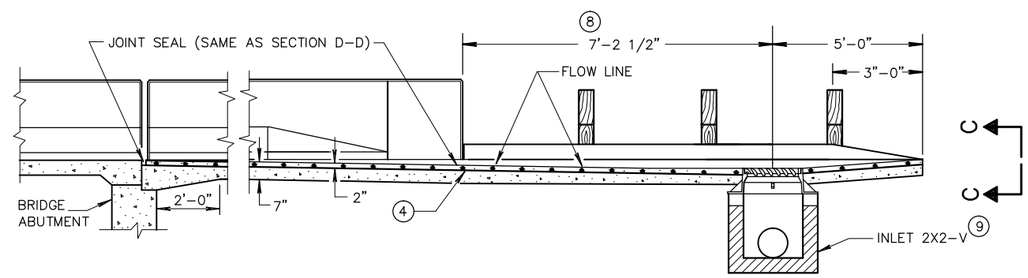
(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE MGS THRIE BEAM TRANSITION. THE TYPICAL LOCATION FOR THE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'–1 1/2", BETWEEN POST 12 & 13. SEE S.D.D. 14B45–3a.

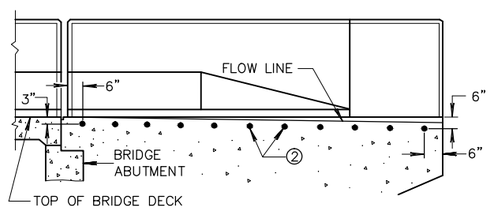
(9) SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.



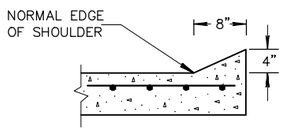
PLAN VIEW



SECTION A–A



LOCATION OF TIE BARS IN WINGWALL



SECTION C–C

CONCRETE SURFACE DRAINS
DROP INLET TYPE AT STRUCTURES

PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CONSTRUCTION DETAILS	SHEET 21	E

2

GENERAL NOTES

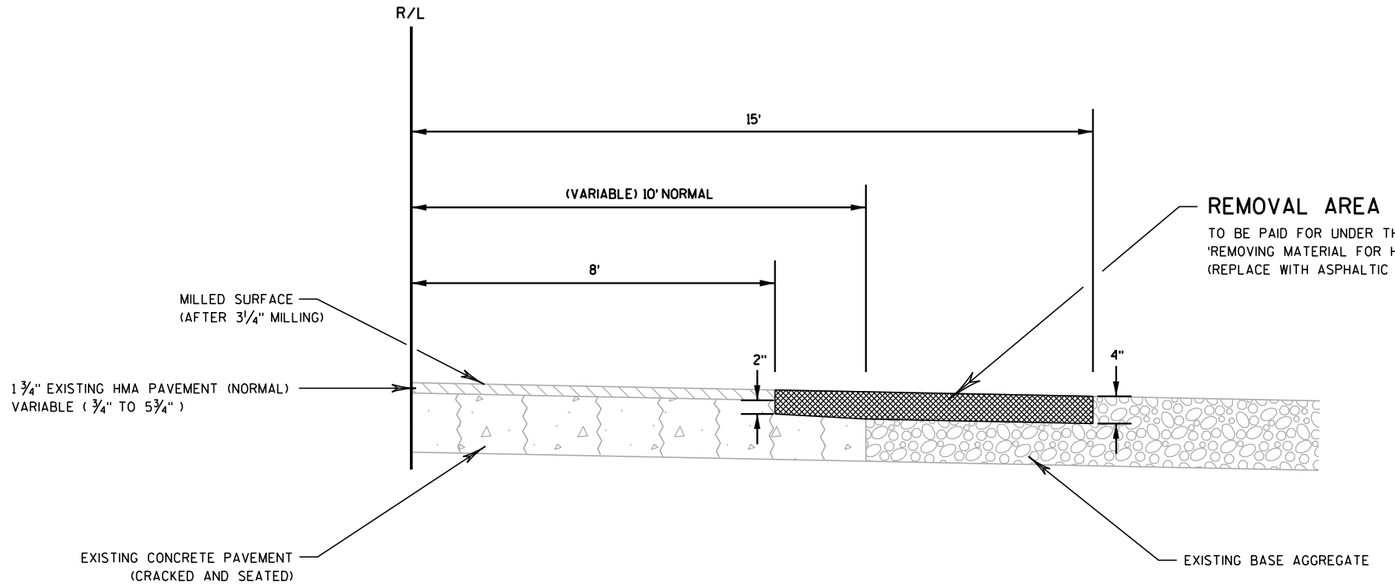
EXACT LOCATIONS OF HMA REPAIR TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

REMOVAL AREA MAY CONSIST OF ANY COMBINATION OF CONCRETE PAVEMENT, ASPHALTIC PAVEMENT, AND/OR BASE AGGREGATE.

DIMENSIONS SHOWN ON THIS DETAIL SHOW ANTICIPATED CONDITIONS. ACTUAL CONDITIONS ENCOUNTERED IN THE FIELD MAY VARY.

REMOVAL AREAS SHALL BE REPAVED EACH DAY PRIOR TO SUSPENSION OF WORK FOR THAT DAY.

ASPHALTIC SURFACE FOR HMA REPAIR MAY BE PLACED IN ONE 4-INCH LIFT.



HMA REPAIR DETAIL

MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 18+31.97, 24' RT. MGS GUARDRAIL 3 K STA. 18+85.10 – 19+47.60, 22' RT. MGS THRIE BEAM TRANSITION STA. 19+47.60 – 19+87.00, 22' RT.	MGS THRIE BEAM TRANSITION STA. 84+88.13 – 85+27.53, 22' LT. MGS GUARDRAIL 3 STA. 85+27.53 – 85+90.03, 22' LT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 86+43.16, 24' LT.	MGS GUARDRAIL TERMINAL EAT (ON TAPER) POST #1 – STA. 211+06.99, 28.03' RT. POST #5 – STA. 211+31.94, 26.37' RT. POST #9 – STA. 211+56.88, 24.70' RT. MGS GUARDRAIL 3 STA. 211+60.00, 24.49' RT. BEGIN MGS 3 STA. 211+97.42, 22' RT. (END TAPER) STA. 212+22.42, 22' RT. END MGS 3 MGS THRIE BEAM TRANSITION STA. 212+22.42 – 212+64.32, 22' RT.	MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 246+65.87, 22' RT. MGS GUARDRAIL 3 K STA. 247+19.00 – 247+69.00, 20' RT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 248+22.13, 22' RT.
MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 18+82.97, 24' LT. MGS GUARDRAIL 3 K STA. 19+36.10 – 19+48.60, 22' LT. MGS THRIE BEAM TRANSITION STA. 19+48.60 – 19+88.00, 22' LT.	MGS THRIE BEAM TRANSITION STA. 84+88.13 – 85+27.53, 22' RT. MGS GUARDRAIL 3 STA. 85+27.53 – 85+40.03, 22' RT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 85+93.16, 24' RT.	MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 211+22.37, 24' LT. MGS GUARDRAIL 3 STA. 211+75.50 – 211+88.00, 22' LT. MGS THRIE BEAM TRANSITION STA. 211+88.00 – 212+27.40, 22' LT.	STEEL PLATE BEAM GUARD EAT POST #1 – STA. 246+69.30, 22' LT. STEEL PLATE BEAM GUARD CLASS A STA. 247+19.30 – 247+81.80, 20' LT. STEEL PLATE BEAM GUARD SHORT RADIUS STA. 247+81.80 – 247+96.05, LT. STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL STA. 247+96.05, LT.
MGS THRIE BEAM TRANSITION STA. 21+88.50 – 22+27.90, 22' LT. MGS GUARDRAIL 3 K STA. 22+27.90 – 27+40.40, 22' LT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 27+93.53, 24' LT.	MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 141+50.00, 22' LT. MGS GUARDRAIL 3 K STA. 142+03.13 – 148+86.44, 20' LT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 149+39.57, 22' LT.	MGS THRIE BEAM TRANSITION STA. 214+79.68 – 215+19.08, 22' LT. MGS GUARDRAIL 3 STA. 215+19.08 – 215+81.58, 22' LT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 216+34.71, 24' LT.	STEEL PLATE BEAM GUARD EAT POST #1 – STA. 8+71.84(KLIMEK LN.), 15' LT. POST #9 – STA. 9+21.84(KLIMEK LN.), 13' LT. STEEL PLATE BEAM GUARD SHORT RADIUS STA. 287+60.80 – 288+02.96, LT. STEEL PLATE BEAM GUARD CLASS A STA. 288+02.96, 20' LT. – 288+27.96, 20' LT. STEEL PLATE BEAM GUARD EAT POST #1 – STA. 288+77.96, 22' LT.
MGS THRIE BEAM TRANSITION STA. 21+92.00 – 22+31.40, 22' RT. MGS GUARDRAIL 3 K STA. 22+31.40 – 27+43.90, 22' RT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 27+97.03, 24' RT.	MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 165+75.00, 22' RT. MGS GUARDRAIL 3 K STA. 166+28.13 – 171+90.63, 20' RT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 172+43.76, 22' RT.	MGS THRIE BEAM TRANSITION STA. 215+16.60 – 215+56.00, 22' RT. MGS GUARDRAIL 3 STA. 215+56.00 – 215+68.50, 22' RT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 216+21.63, 24' RT.	MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 287+19.97, 22' RT. MGS GUARDRAIL 3 K STA. 287+73.10 – 288+23.10, 20' RT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 288+76.23, 22' RT.
MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 80+68.85, 24' RT. MGS GUARDRAIL 3 STA. 81+21.98 – 81+84.48, 22' RT. MGS THRIE BEAM TRANSITION STA. 81+84.48 – 82+23.88, 22' RT.	MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 166+25.00, 22' LT. MGS GUARDRAIL 3 K STA. 166+78.13 – 171+53.13, 20' LT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 172+06.26, 22' LT.	MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 237+41.87, 22' LT. MGS GUARDRAIL 3 K STA. 237+95.00 – 238+45.00, 20' LT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 238+98.13, 22' LT.	
MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 81+18.85, 24' LT. MGS GUARDRAIL 3 STA. 81+71.98 – 81+84.48, 22' LT. MGS THRIE BEAM TRANSITION STA. 81+84.48 – 82+23.88, 22' LT.	MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 195+00.00, 22' RT. MGS GUARDRAIL 3 K STA. 195+53.13 – 198+28.13, 20' RT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 198+81.26, 22' RT.	MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 237+41.87, 22' RT. MGS GUARDRAIL 3 K STA. 237+95.00 – 238+45.00, 20' RT. MGS GUARDRAIL TERMINAL EAT POST #1 – STA. 238+98.13, 22' RT.	STEEL PLATE BEAM GUARD EAT POST #1 – STA. 306+05.00, 22' RT. STEEL PLATE BEAM GUARD CLASS A STA. 306+55.00 – 307+80.00, 20' RT. STEEL PLATE BEAM GUARD SHORT RADIUS STA. 307+80.00 – 307+94.25, RT. STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL STA. 307+94.25, RT.

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
STA. 307+36.05, LT.

STEEL PLATE BEAM GUARD SHORT RADIUS
STA. 307+36.05 – 307+50.30, LT.

STEEL PLATE BEAM GUARD CLASS A
STA. 307+50.30 – 307+87.80, 20' LT.

STEEL PLATE BEAM GUARD EAT
POST #1 – STA. 308+37.80, 22' LT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 313+00.00, 22' RT.

MGS GUARDRAIL 3 K
STA. 313+53.13 – 322+09.65, 20' RT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 322+62.78, 22' RT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 324+61.87, 22' LT.

MGS GUARDRAIL 3 K
STA. 325+15.00 – 325+65.00, 20' LT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 326+18.13, 22' LT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 324+61.87, 22' RT.

MGS GUARDRAIL 3 K
STA. 325+15.00 – 325+65.00, 20' RT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 326+18.13, 22' RT.

STEEL PLATE BEAM GUARD EAT
POST #1 – STA. 375+83.51, 29.77' RT.

STEEL PLATE BEAM GUARD CLASS A
STA. 376+33.51 – 376+77.73, RT.
*SHOP BEND REQ'D, RADIUS=37.85', LENGTH=57.64'
BEGIN SHOP BEND – STA. 376+40.58, 27.77' RT.
END SHOP BEND – STA. 10+71.09(CTH D), 26.87' RT.

STEEL THRIE BEAM STRUCTURE APPROACH
STA. 10+93.29 (CTH D), 21.69' RT. – 11+13.40 (CTH D), 17' RT.

STEEL THRIE BEAM STRUCTURE APPROACH
STA. 10+86.82 (CTH D), 18.57' LT. – 11+07.41 (CTH D), 17' LT.

STEEL PLATE BEAM GUARD CLASS A
STA. 377+17.30 – 379+71.45, RT.
STA. 377+66.80, 27.48' RT. (BEGIN TAPER)
STA. 378+34.19, 20.00' RT. (END TAPER)
*SHOP BEND REQ'D, RADIUS=50.0', LENGTH=57.92'
BEGIN SHOP BEND – STA. 10+58.56(CTH D), 20.71' LT.
END SHOP BEND – STA. 377+66.80, 27.48' RT.

STEEL THRIE BEAM STRUCTURE APPROACH
STA. 379+71.45 – 379+92.10, 20' RT.

MGS GUARDRAIL TERMINAL EAT (ON TAPER)
POST #1 – STA. 378+94.97, 27' LT.

MGS GUARDRAIL 3 K
STA. 379+48.10, 23.72' LT. – 379+60.60, 22.82' LT.

MGS THRIE BEAM TRANSITION
STA. 379+60.60, 22.82' LT. – 380+00.00, 20' LT.

MGS THRIE BEAM TRANSITION
STA. 380+42.00 – 380+81.40, 20' RT.

MGS GUARDRAIL 3 K
STA. 380+81.40 – 381+31.40, 20' RT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 381+84.53, 22' RT.

MGS THRIE BEAM TRANSITION
STA. 380+51.50 – 380+90.90, 20' LT.

MGS GUARDRAIL 3 K
STA. 380+90.90 – 381+65.90, 20' LT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 382+19.03, 22' LT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 392+75.00, 22' RT.

MGS GUARDRAIL 3 K
STA. 393+28.13 – 396+03.13, 20' RT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 396+56.26, 22' RT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 461+45.97, 22' RT.

MGS GUARDRAIL 3 K
STA. 461+99.10 – 463+11.60, 20' RT.
STA. 463+11.60, 20' RT. (BEGIN TAPER)
STA. 463+99.10, 17' RT. (END TAPER)

MGS THRIE BEAM TRANSITION
STA. 463+99.10 – 464+38.50, 17' RT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 462+78.97, 22' LT.

MGS GUARDRAIL 3 K
STA. 463+28.97, 20' LT. – 464+19.60, 17' LT. (ON TAPER)

MGS THRIE BEAM TRANSITION
STA. 464+19.60 – 464+59.00, 17' LT.

MGS THRIE BEAM TRANSITION
STA. 465+66.30 – 466+05.70, 17' RT.

MGS GUARDRAIL 3 K
STA. 466+05.70, 17' RT. – 466+93.20, 20' RT. (ON TAPER)

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 467+46.33, 22' RT.

MGS THRIE BEAM TRANSITION
STA. 465+87.30 – 466+26.70, 17' LT.

MGS GUARDRAIL 3 K
STA. 466+26.70, 17' LT. – 466+64.20, 19.07' LT. (ON TAPER)

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 467+17.33, 22' LT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 509+31.22, 22' LT.

MGS GUARDRAIL 3 K
STA. 509+84.35, 19.42' LT. – 510+34.35, 17' LT. (ON TAPER)

MGS THRIE BEAM TRANSITION
STA. 510+34.35 – 510+73.75, 17' LT.

MGS GUARDRAIL TERMINAL EAT
POST #1 – STA. 509+43.72, 22' RT.

MGS GUARDRAIL 3 K
STA. 509+96.85, 19.07' RT. – 510+34.35, 17' RT. (ON TAPER)

MGS THRIE BEAM TRANSITION
STA. 510+34.35 – 510+73.75, 17' RT.

PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	BEAM GUARD NOTES	SHEET 24	E

2

N

RIGHT OF WAY

BEAVER CREEK

130'

BEAVER CREEK

711 712 713 714 715 716 710 F0 G T

BEGIN STRUCTURE
STA. 82+66

USH 53

END STRUCTURE
STA. 84+63

85

USH 53

80'

BEAVER CREEK

EXISTING B-61-005

RIGHT OF WAY

BEAVER CR.

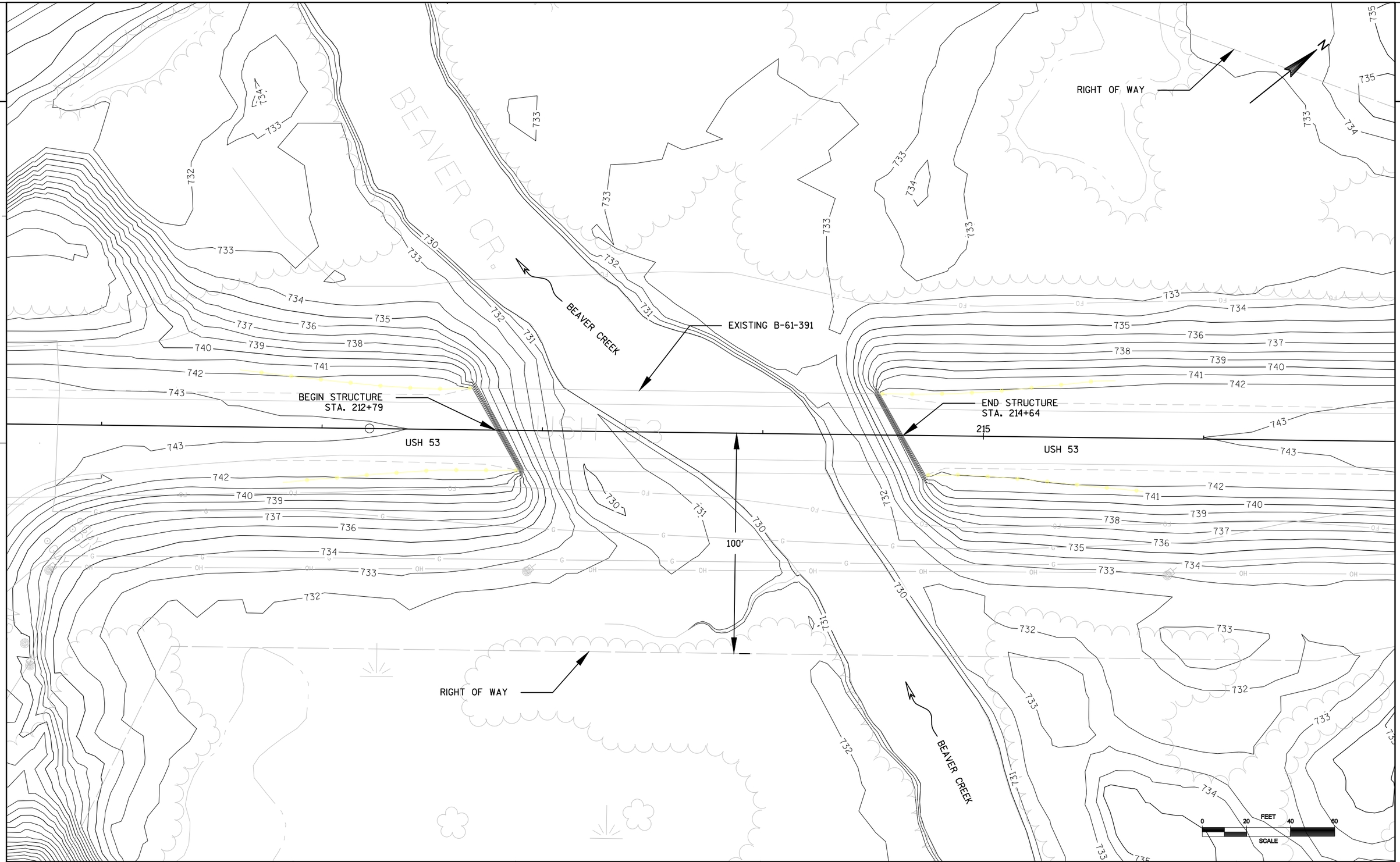
0 20 40 60 FEET
SCALE

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN: EXISTING CONTOURS (B-61-005)	SHEET 25	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\021620_CM.DWG PLOT DATE : 9/3/2008 9:36 AM PLOT BY : SARAUER, ADAM A PLOT NAME : ---------- PLOT SCALE : 1 IN:40 FT

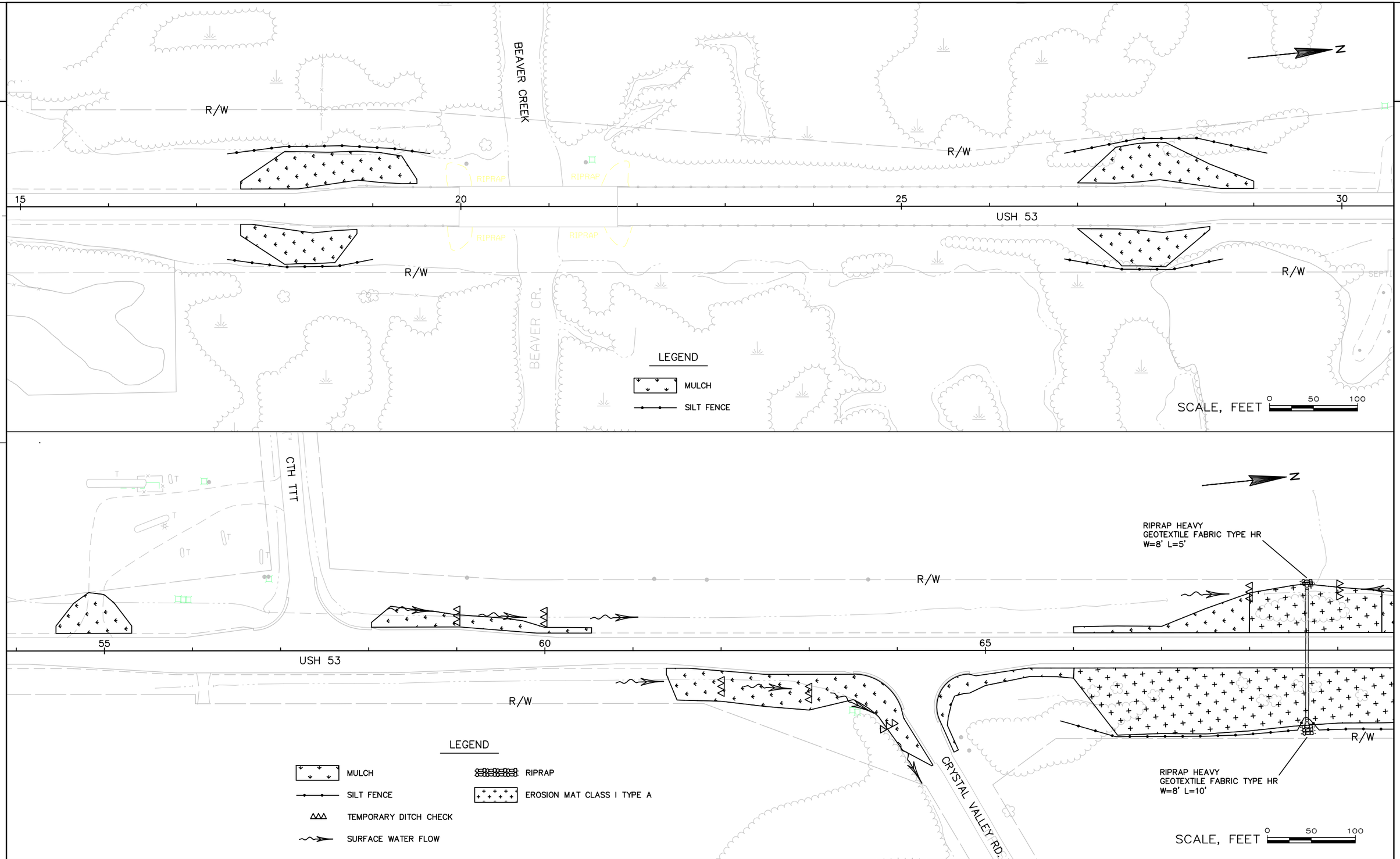
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN: EXISTING CONTOURS (B-61-391)	SHEET 26	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\021640_CM.DWG PLOT DATE : 9/3/2008 9:36 AM PLOT BY : SARAUER, ADAM A PLOT NAME : ---------- PLOT SCALE : 1 IN:40 FT



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EROSION CONTROL PLAN	SHEET 27	E

LEGEND

MULCH
SILT FENCE
TEMPORARY DITCH CHECK
SURFACE WATER FLOW
TURBIDITY BARRIERS
RIPRAP
EROSION MAT CLASS I TYPE A
EROSION MAT URBAN CLASS I TYPE B
EROSION MAT CLASS II TYPE C
INLET PROTECTION

RIPRAP HEAVY GEOTEXTILE FABRIC TYPE HR W=8' L=8'
RIPRAP HEAVY GEOTEXTILE FABRIC TYPE HR W=8' L=10'
RIPRAP MEDIUM GEOTEXTILE FABRIC TYPE R W=6' L=8'
RIPRAP MEDIUM GEOTEXTILE FABRIC TYPE R W=5' L=62'
RIPRAP MEDIUM GEOTEXTILE FABRIC TYPE R W=4' L=6'
RIPRAP HEAVY GEOTEXTILE FABRIC TYPE HR
RIPRAP MEDIUM GEOTEXTILE FABRIC TYPE R W=5' L=6'
RIPRAP MEDIUM GEOTEXTILE FABRIC TYPE R W=5' L=6'
RIPRAP HEAVY GEOTEXTILE FABRIC TYPE HR W=8' L=10'
RIPRAP MEDIUM GEOTEXTILE FABRIC TYPE R W=4' L=6'
RIPRAP HEAVY GEOTEXTILE FABRIC TYPE HR W=8' L=10'

BEAVER CREEK
BEAVER
R/W
USH 53
75
80
85
90
95
PC: 92+90.99

NOTE: CONNECT SILT FENCE TO TURBIDITY BARRIER AS DESCRIBED IN SPECIAL PROVISIONS.

SCALE, FEET 0 75 150

R/W
PT: 146+01.52
145
USH 53
140
150
PC: 152+52.80
JOHNSON LN.
SUNSET VIEW LN.
SUNSET VALLEY RD.
SEPTIC
SIGN
INL

LEGEND

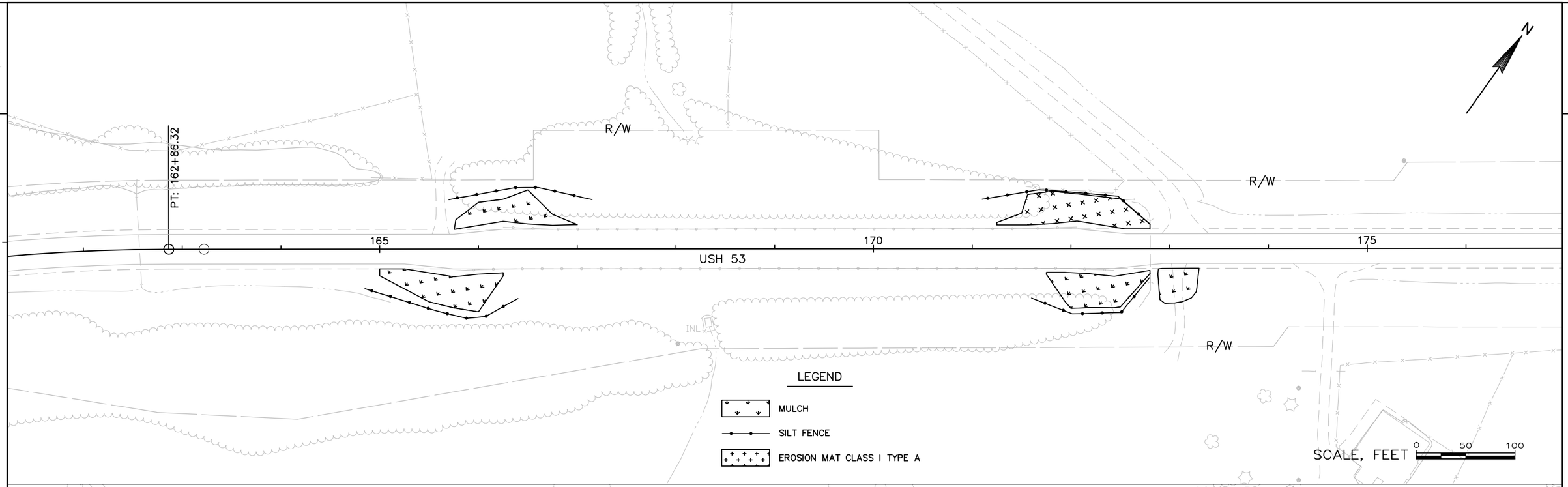
MULCH
SILT FENCE

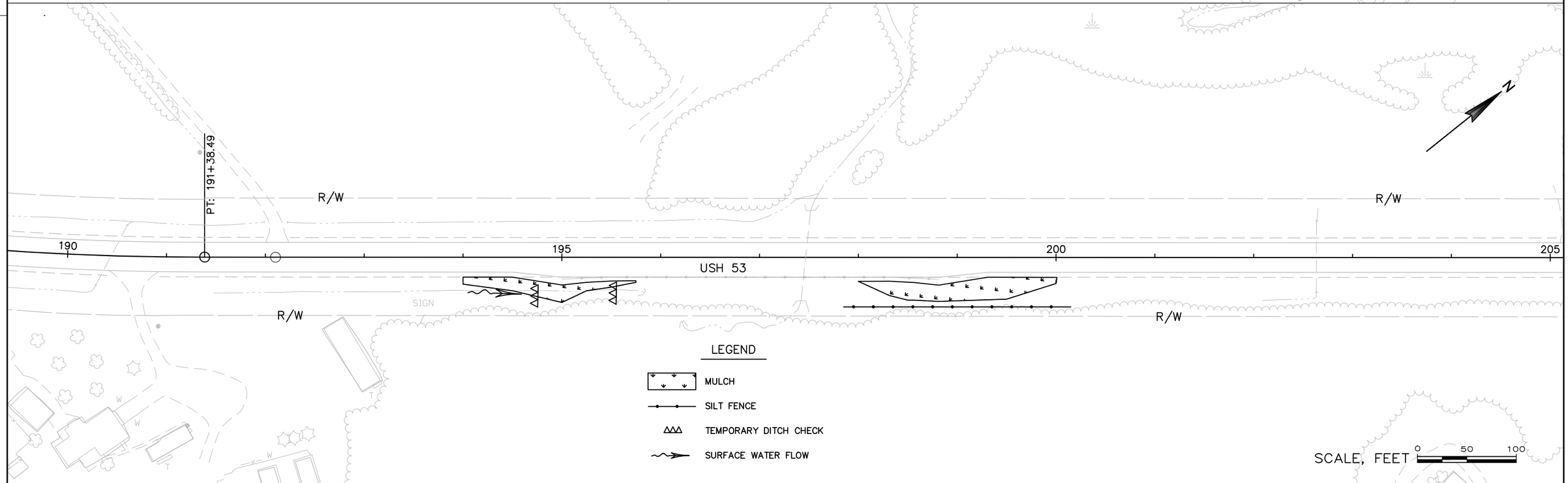
SCALE, FEET 0 50 100

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EROSION CONTROL PLAN	SHEET 28	E

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2

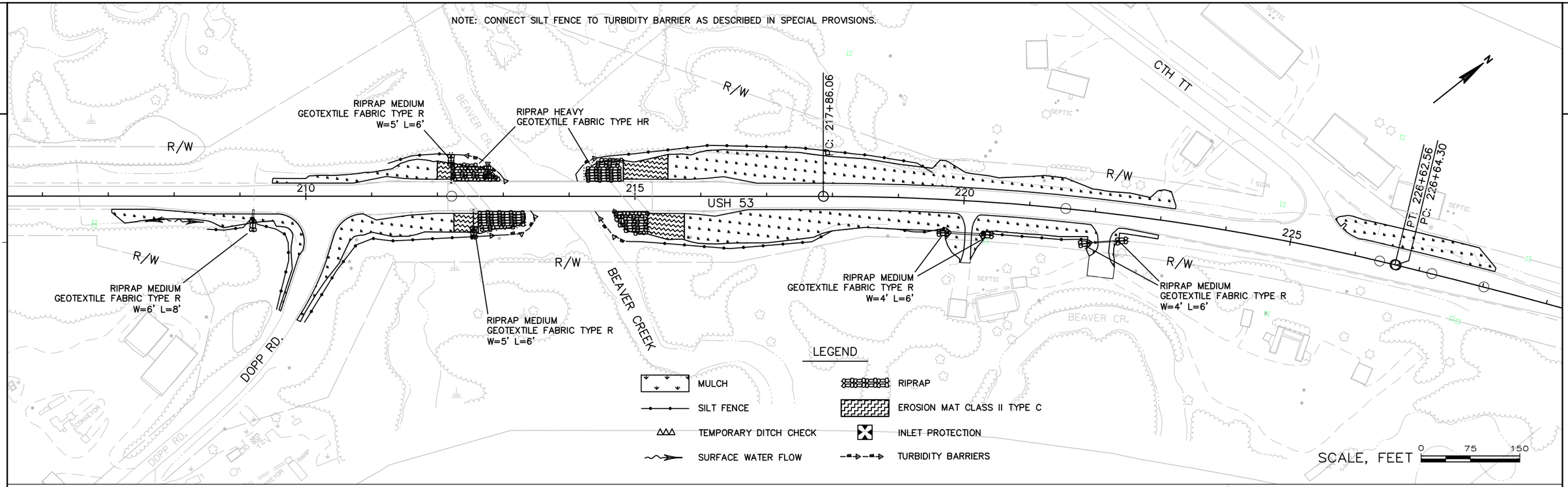


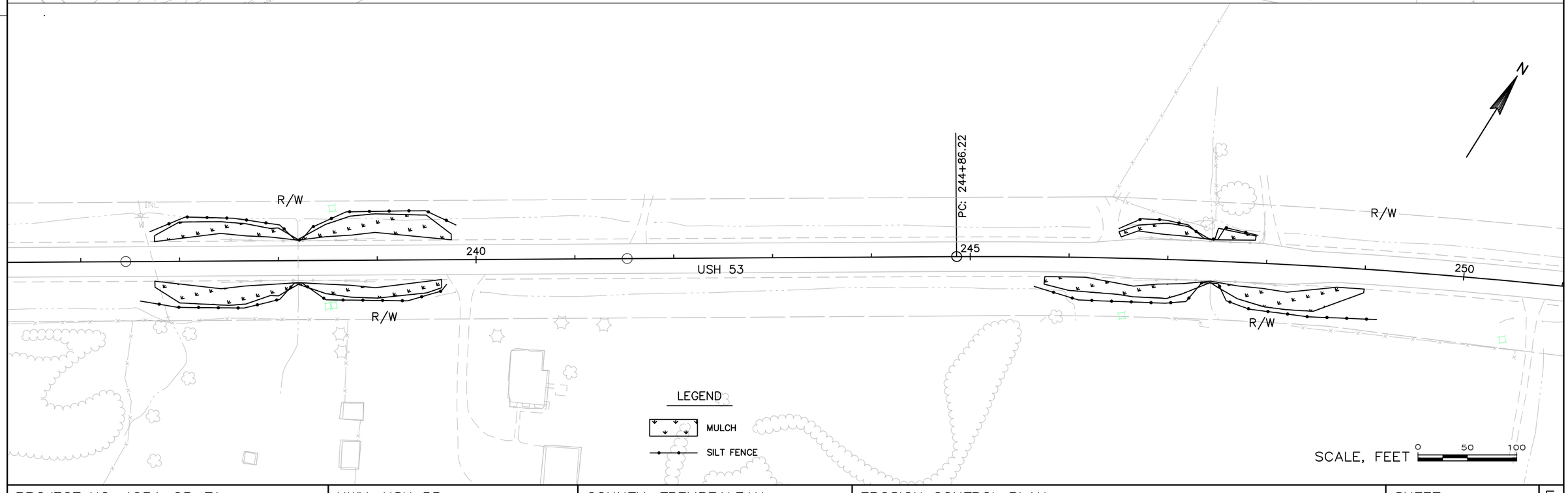


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EROSION CONTROL PLAN	SHEET 29	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\022040_EC.DWG PLOT DATE : 9/3/2008 9:36 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:100_XREF

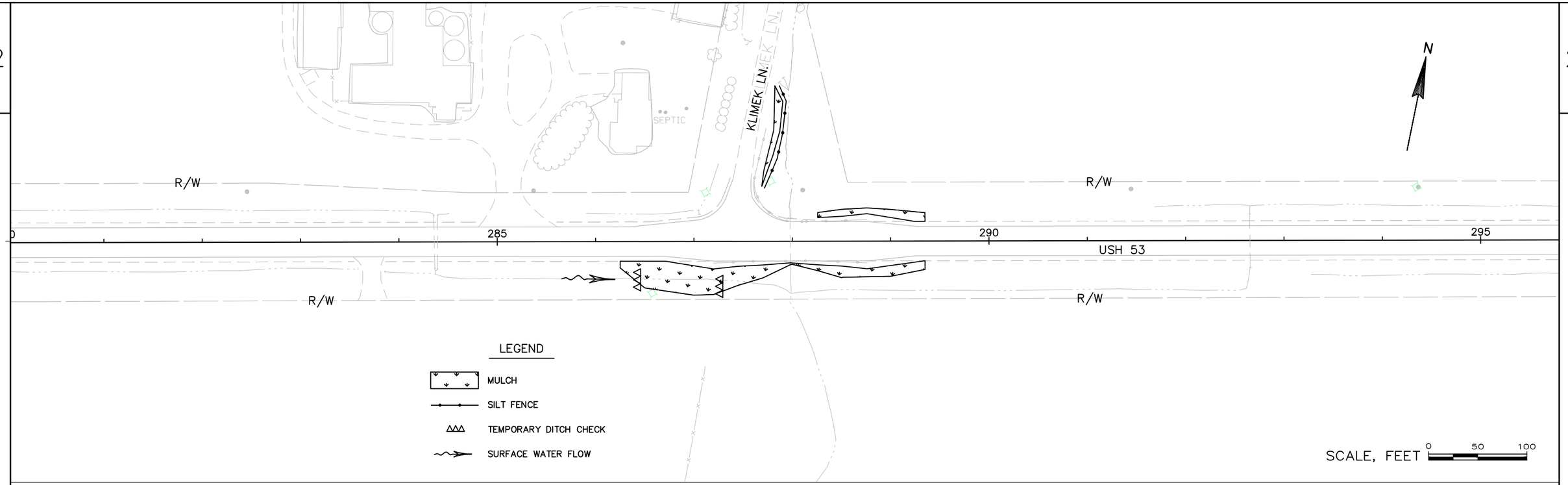
NOTE: CONNECT SILT FENCE TO TURBIDITY BARRIER AS DESCRIBED IN SPECIAL PROVISIONS.

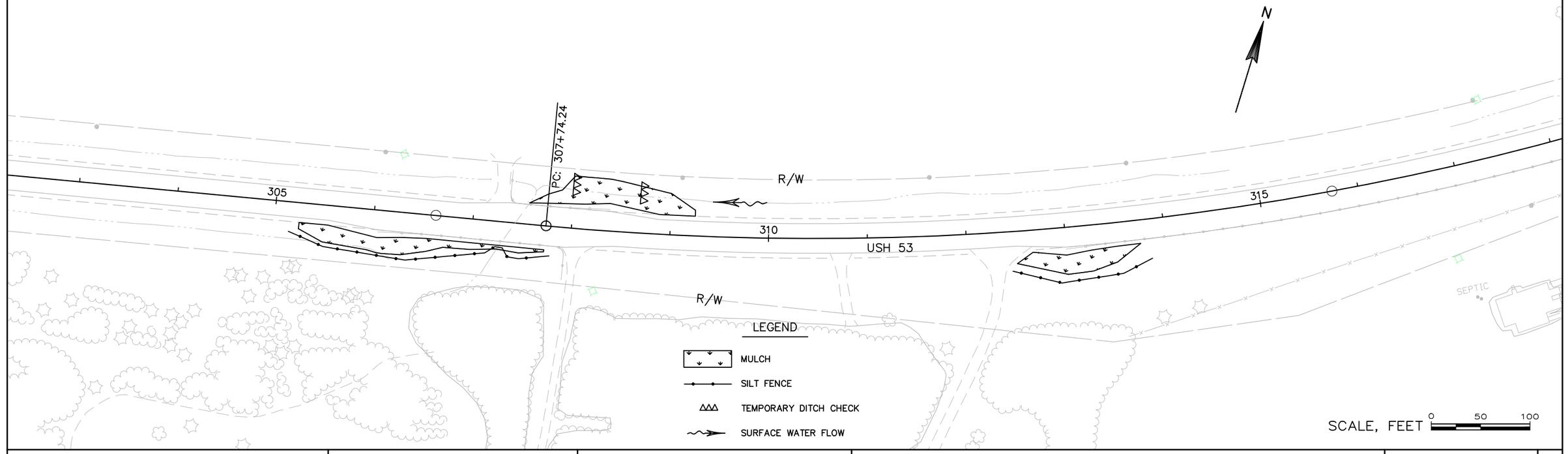




PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EROSION CONTROL PLAN	SHEET 30	E

2





PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EROSION CONTROL PLAN	SHEET 31	E

2

2

SEPTIC

R/W

PT: 324+46.89

320

325

330

USH 53

R/W

R/W

LEGEND

MULCH

SILT FENCE

SCALE, FEET 0 50 100

CTH D

R/W

PT: 379+48.26

PC: 381+80.02

375

380

385

USH 53

R/W

R/W

INL

SIGN

SIGN

RIPRAP

RIPRAP

RIPRAP

CTH D

N. BEAVER CR.

WALLS

SIGN

CANOPY

LEGEND

EROSION MAT URBAN CLASS I TYPE B

SILT FENCE

TEMPORARY DITCH CHECK

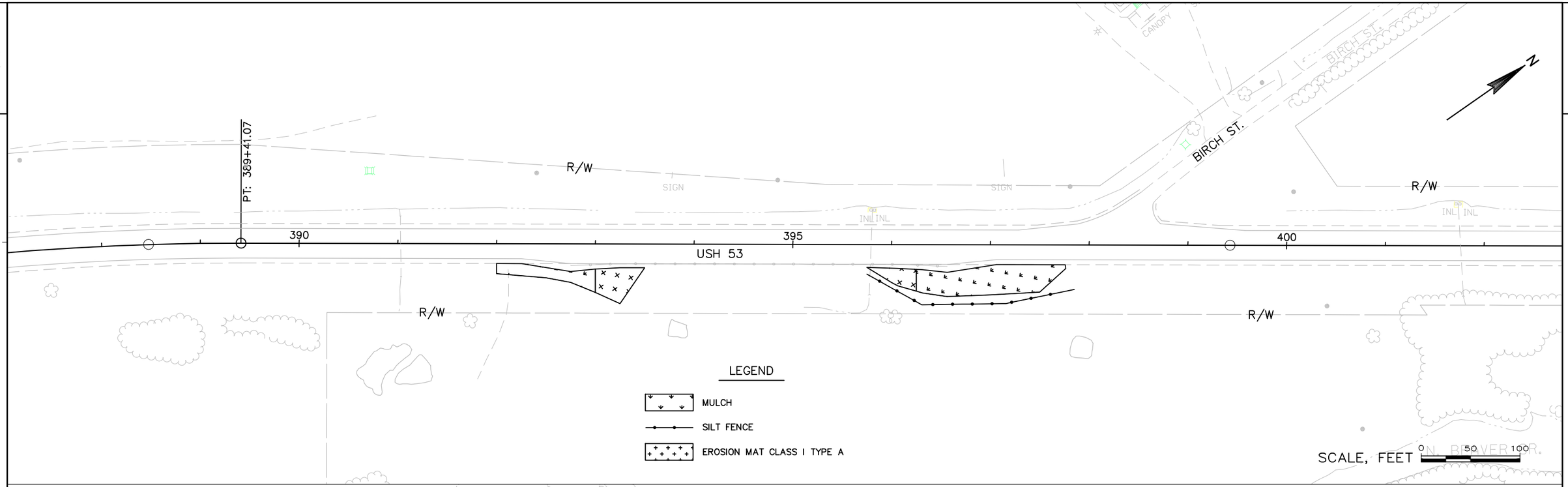
SURFACE WATER FLOW

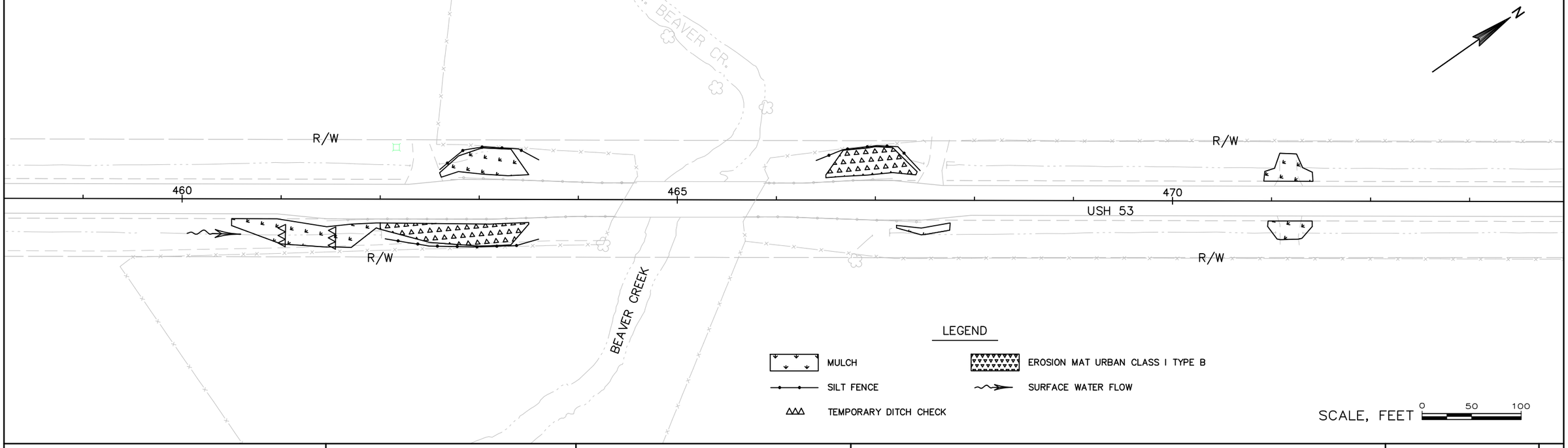
SCALE, FEET 0 50 100

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EROSION CONTROL PLAN	SHEET 32	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\022040_EC.DWG PLOT DATE : 9/3/2008 9:36 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____ PLOT SCALE : 1:100_XREF

2





PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EROSION CONTROL PLAN	SHEET 33	E

2

LEGEND

MULCH

SILT FENCE

RIPRAP

HAGESTAD LN.

SIGN

KITTLESON RD.

R/W

PC: 493+15.95

480 485 490 495

USH 53

RIPRAP MEDIUM
GEOTEXTILE FABRIC TYPE R
W=6' L=8'

CTH CC

SCALE, FEET 0 50 100

N. BEAVER CR.

PT: 502+44.22

505 510 515

PC: 516+59.75

SIGN

FOOTBRIDGE

SEPTIC

LEGEND

MULCH

TEMPORARY DITCH CHECK

SURFACE WATER FLOW

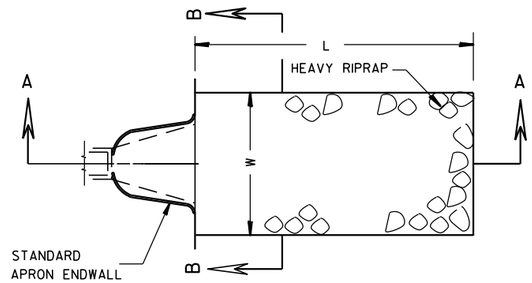
SCALE, FEET 0 50 100

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EROSION CONTROL PLAN	SHEET 34	E

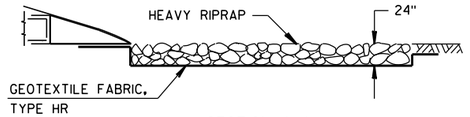
RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

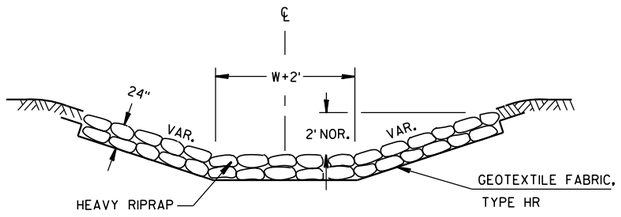
TOTAL PROJECT AREA = 182.974 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 13.797 ACRES



NOTE: SEE PLAN FOR L AND W VALUES

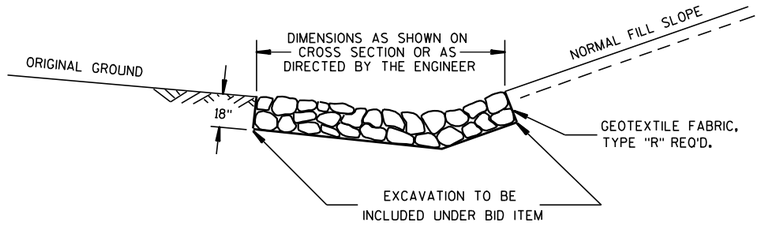


SECTION A-A

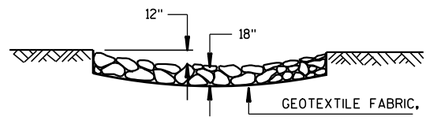


SECTION B-B

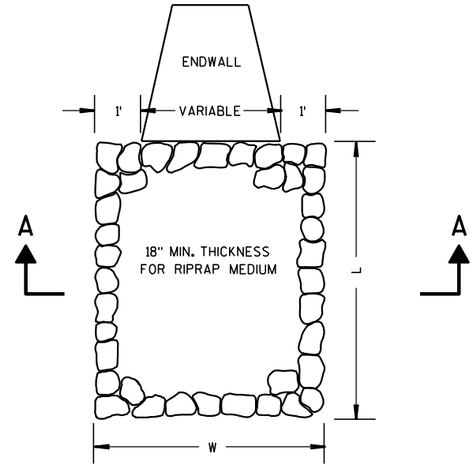
HEAVY RIPRAP AND GEOTEXTILE FABRIC
DETAIL AT APRON ENDWALLS



DETAIL FOR RIPRAP MEDIUM IN DITCHES

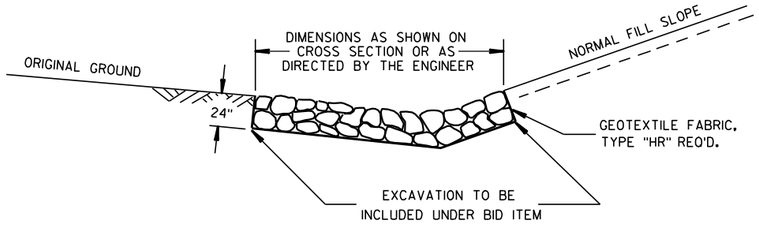


SECTION A-A

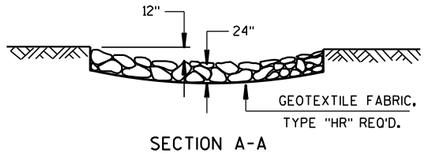


NOTE: SEE PLAN FOR L AND W VALUES

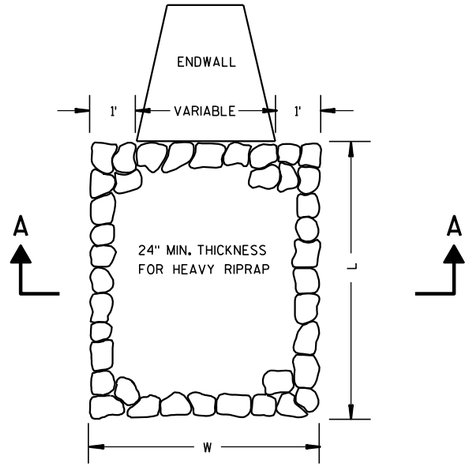
RIPRAP MEDIUM TREATMENT AT CULVERTS



DETAIL FOR HEAVY RIPRAP IN DITCHES

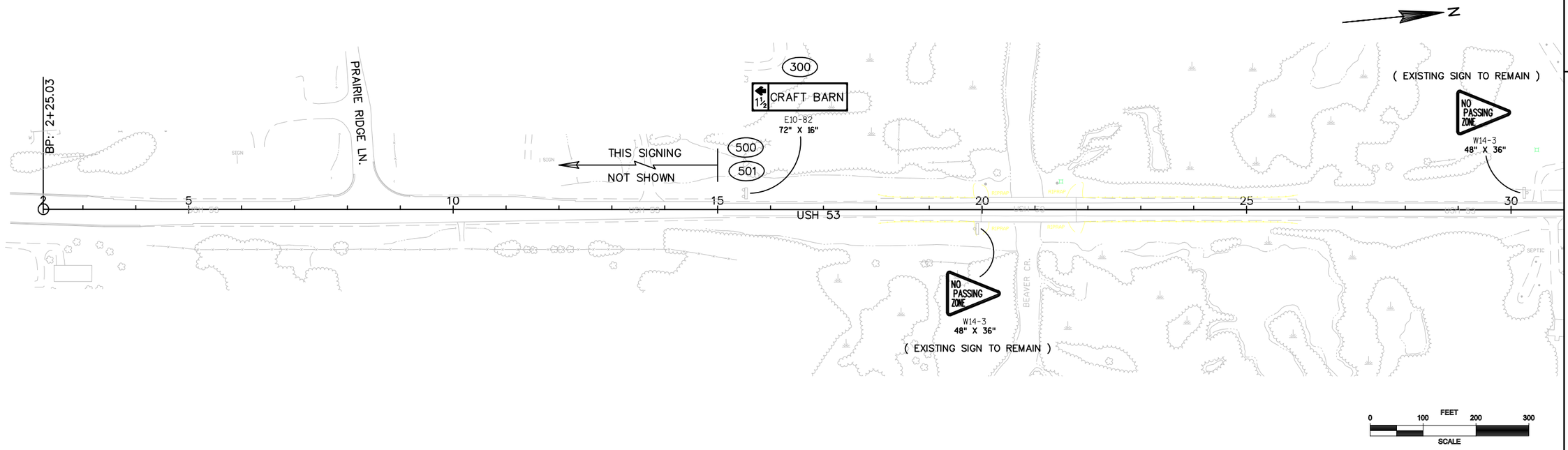


SECTION A-A



NOTE: SEE PLAN FOR L AND W VALUES

HEAVY RIPRAP TREATMENT AT CULVERTS

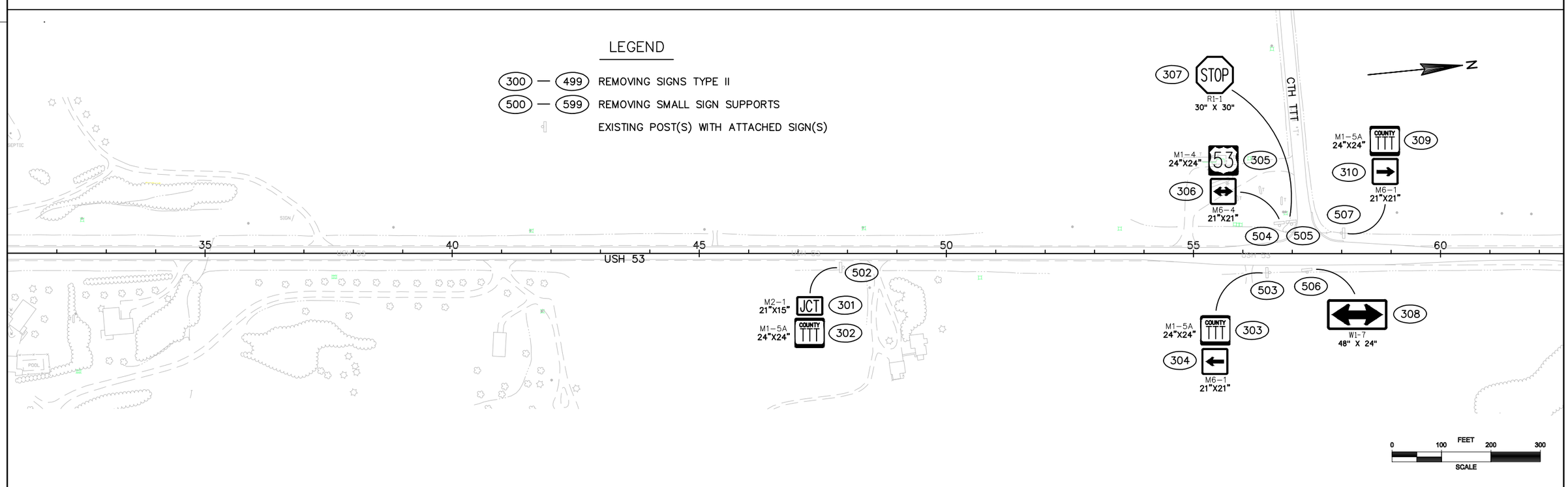


LEGEND

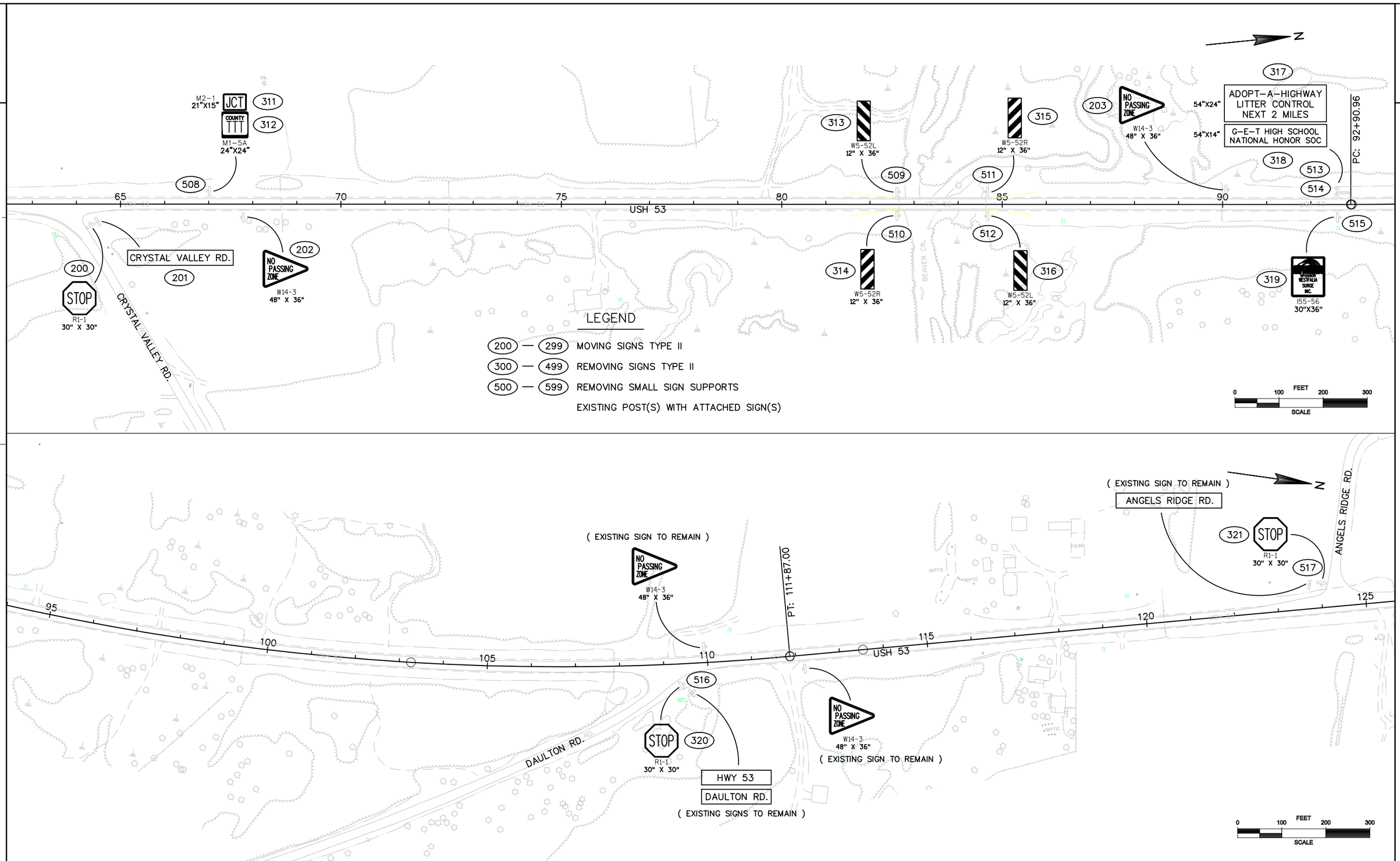
(300) — (499) REMOVING SIGNS TYPE II

(500) — (599) REMOVING SMALL SIGN SUPPORTS

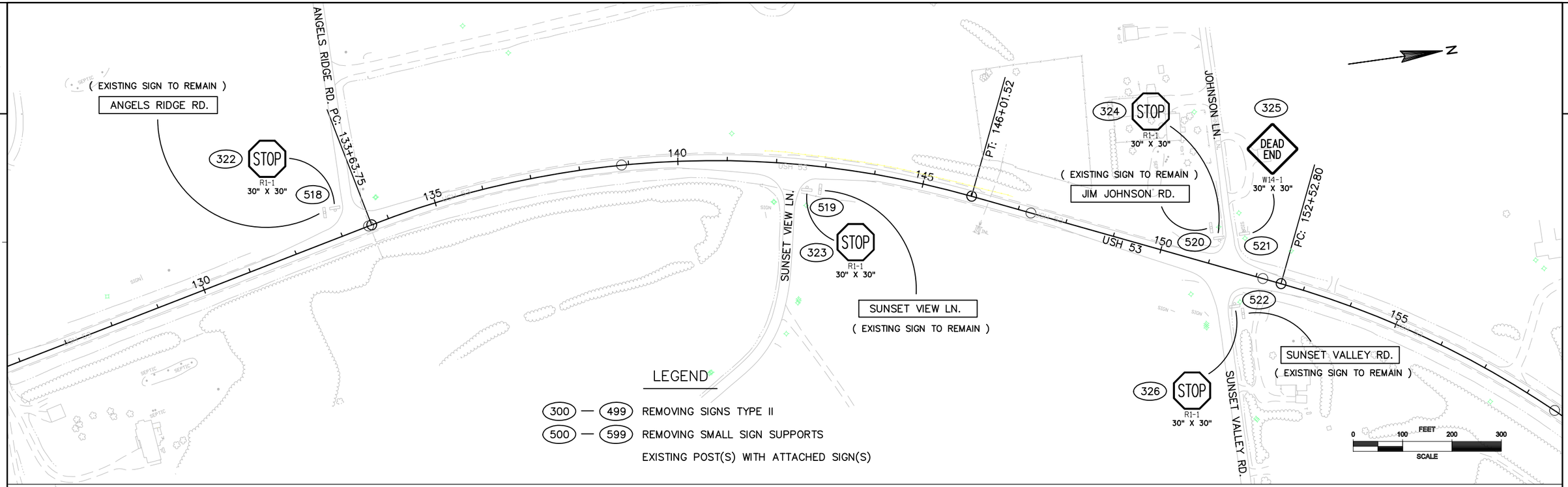
EXISTING POST(S) WITH ATTACHED SIGN(S)

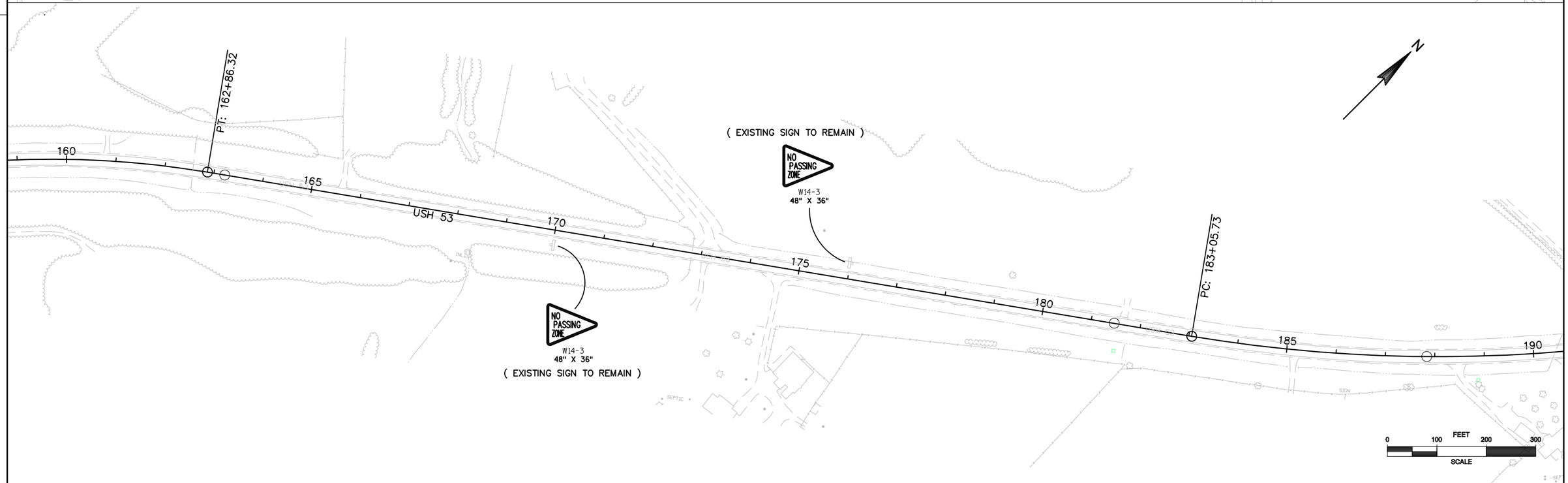


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EXISTING SIGNING / REMOVALS / MOVE ORIGINS	SHEET 37	E



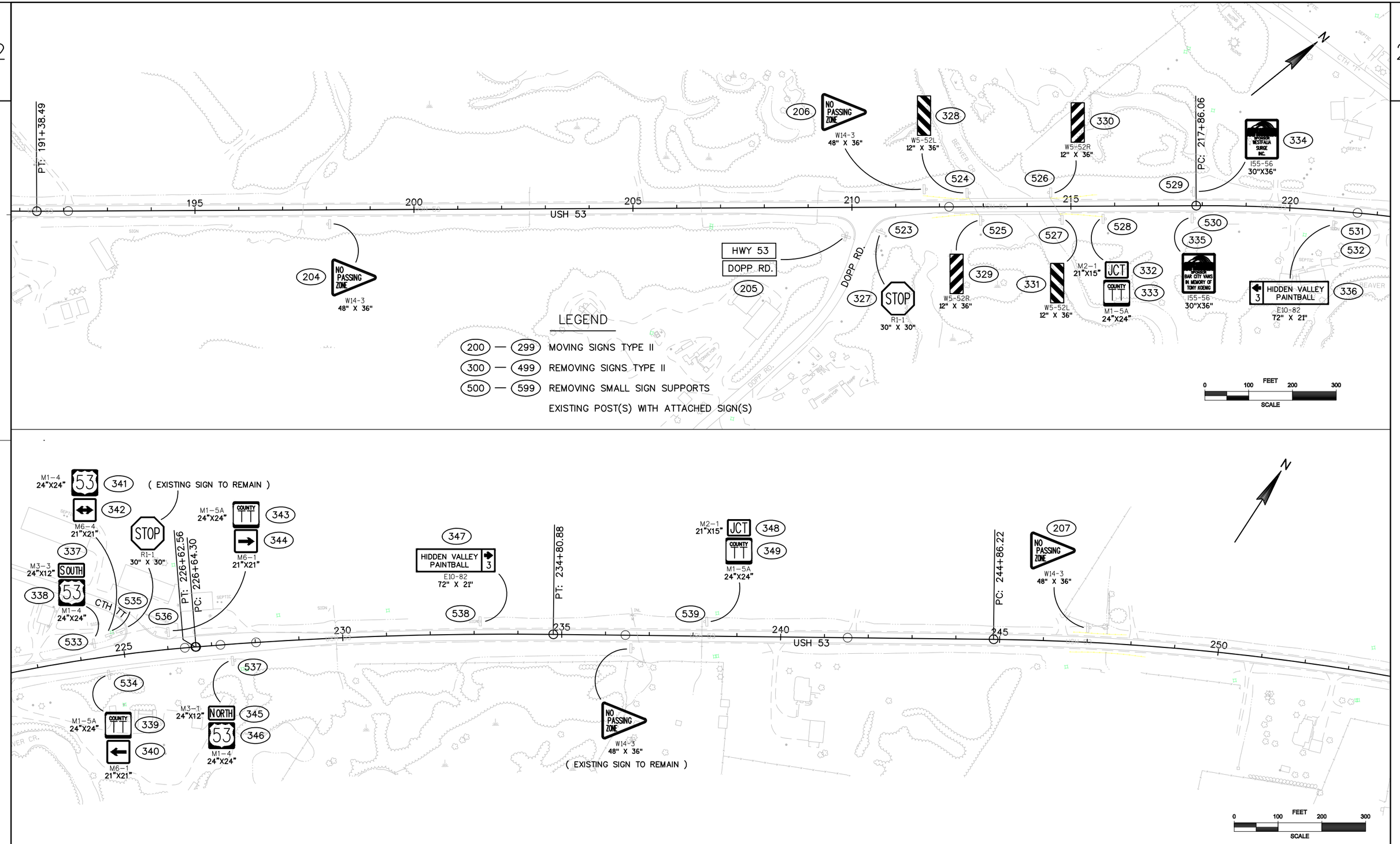
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EXISTING SIGNING / REMOVALS / MOVE ORIGINS	SHEET 38	E





PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EXISTING SIGNING / REMOVALS / MOVE ORIGINS	SHEET 39	E

2



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EXISTING SIGNING / REMOVALS / MOVE ORIGINS	SHEET 40	E

2

2

LEGEND

EXISTING POST(S) WITH ATTACHED SIGN(S)

N

PT: 265+24.22

255 260 265 270 275 280 285

USH 53

NO PASSING ZONE
W14-3
48" X 36"
(EXISTING SIGN TO REMAIN)

TRUAX RD.
(EXISTING SIGN TO REMAIN)

TRUAX RD.

STOP
R1-1
30" X 30"
(EXISTING SIGN TO REMAIN)

0 100 FEET 200 300
SCALE

(EXISTING SIGN TO REMAIN)
KLIMEK LA.

KLIMEK LN.

(EXISTING SIGN TO REMAIN)
STOP
R1-1
30" X 30"

(EXISTING SIGN TO REMAIN)
MACK RD.

(EXISTING SIGN TO REMAIN)
STOP
R1-1
30" X 30"

MACK RD.

(EXISTING SIGN TO REMAIN)
NO PASSING ZONE
W14-3
48" X 36"

N

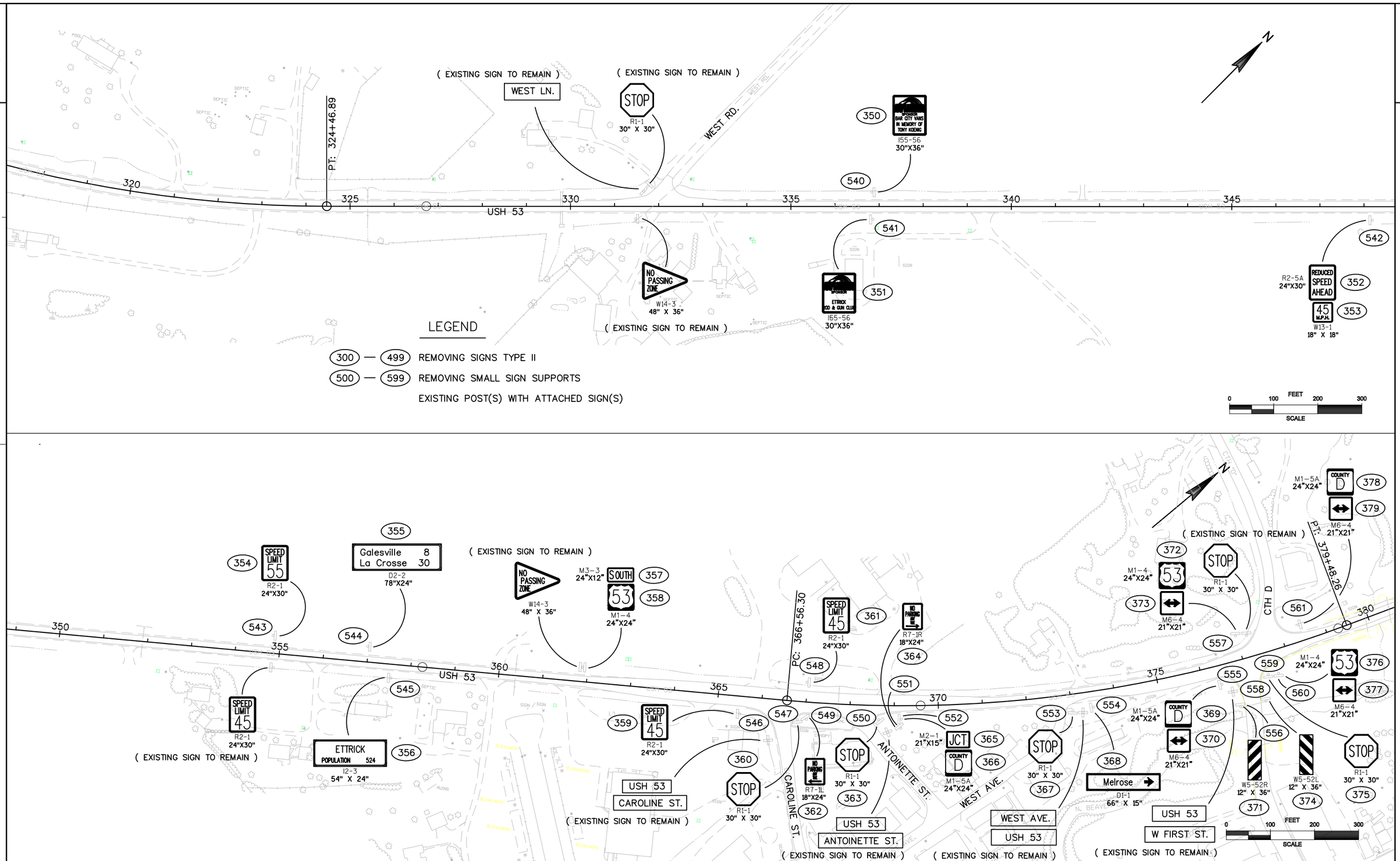
PC: 307+74.24

290 295 300 305 310 315

USH 53

0 100 FEET 200 300
SCALE

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EXISTING SIGNING / REMOVALS / MOVE ORIGINS	SHEET 41	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EXISTING SIGNING / REMOVALS / MOVE ORIGINS	SHEET 42	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\023210_PS.DWG PLOT DATE : 9/3/2008 9:36 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____ PLOT SCALE : 1 IN:200 FT

2

(EXISTING SIGN TO REMAIN)

(EXISTING SIGN TO REMAIN)

380 SPEED LIMIT 45 R2-1 24"X30"

382 Melrose D1-1 66" X 15"

W3-5 36" X 36"

M2-1 21"X15" JCT 383 COUNTY D 384 M1-5A 24"X24"

387 ETTRICK POPULATION 524 I2-3 54" X 24"

STOP R1-1 30" X 30"

BIRCH ST.

PC: 381+80.02

PT: 389+41.07

562 564 565 567

385 390 395 400 405 410

USH 53

563 SPEED LIMIT 55 381 R2-1 24"X30"

566 M3-1 24"X12" NORTH 385 53 386 M1-4 24"X24"

568 Blair 9 Whitehall 16 388 D2-2 78"X24"

208 NO PASSING ZONE W14-3 48" X 36"

N. BEAVER CR.

LEGEND

200 — 299 MOVING SIGNS TYPE II

300 — 499 REMOVING SIGNS TYPE II

500 — 599 REMOVING SMALL SIGN SUPPORTS

EXISTING POST(S) WITH ATTACHED SIGN(S)

0 100 200 300 FEET SCALE

415 420 425 430 435 440

USH 53

SEPTIC

0 100 200 300 FEET SCALE

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EXISTING SIGNING / REMOVALS / MOVE ORIGINS	SHEET 43	E

2

MITCHELL RD.

(EXISTING SIGN TO REMAIN)

MITCHELL RD.

389 STOP R1-1 30" X 30"

569

390 ETRICK ROD & GUN CLUB I55-56 30"X36"

570

571

391 ETRICK LIONS CLUB I55-56 30"X36"

393 W5-52L 12" X 36"

573

395 W5-52R 12" X 36"

575

572

392 W5-52R 12" X 36"

574

394 W5-52L 12" X 36"

445 450 455 460 465 470

USH 53

N. BEAVER CR.

N

LEGEND

300 — 499 REMOVING SIGNS TYPE II

500 — 599 REMOVING SMALL SIGN SUPPORTS

EXISTING POST(S) WITH ATTACHED SIGN(S)

0 100 200 300 FEET

SCALE

(EXISTING SIGN TO REMAIN)

KITTLESON RD.

KITTLESON RD.

405 M1-5A 24"X24" COUNTY CC

406 M6-1 21"X21"

407 STOP R1-1 30" X 30"

PC: 493+15.95

583

(EXISTING SIGN TO REMAIN)

NO PASSING ZONE W14-3 48" X 36"

582

398 STOP R1-1 30" X 30"

HAGESTAD LN.

(EXISTING SIGN TO REMAIN)

HAGESTAD LN.

577

490 495 500 505

485 USH 53

480

475

580 581

579

578 STOP R1-1 30" X 30" 399

402 STOP R1-1 30" X 30"

M1-5A 24"X24" COUNTY CC 400

401 M6-1 21"X21"

M1-4 24"X24" 53 403

404 M6-4 21"X21"

576

M2-1 21"X15" JCT 396

COUNTY CC 397

M1-5A 24"X24"

HAGESTAD LN.

CTH CC

M2-1 21"X15" JCT 408

COUNTY CC 409

M1-5A 24"X24"

584

PT: 502+44.22

N

0 100 200 300 FEET

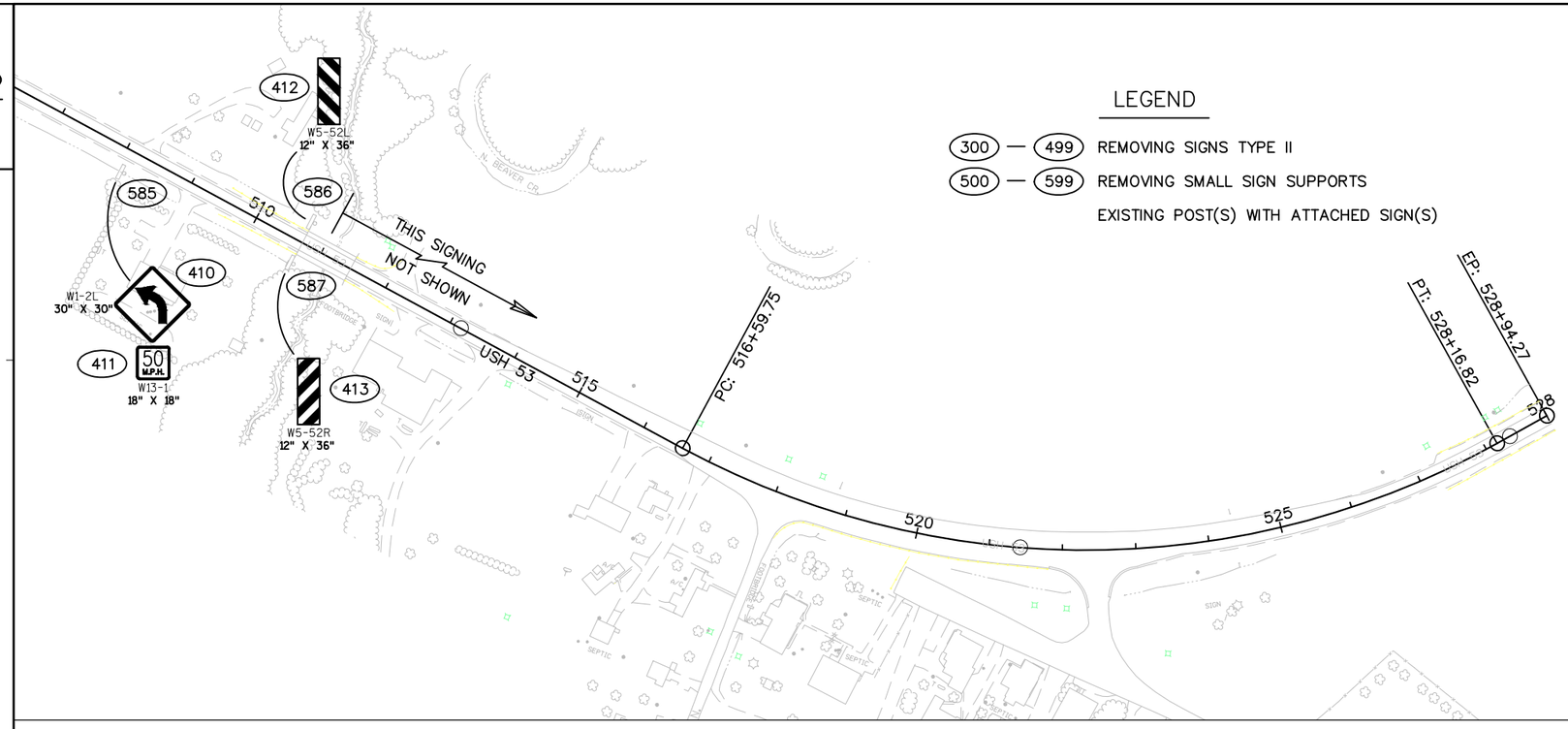
SCALE

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EXISTING SIGNING / REMOVALS / MOVE ORIGINS	SHEET 44	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\023210_PS.DWG PLOT DATE : 9/3/2008 9:36 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____ PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2



LEGEND

300 — 499 REMOVING SIGNS TYPE II

500 — 599 REMOVING SMALL SIGN SUPPORTS

EXISTING POST(S) WITH ATTACHED SIGN(S)

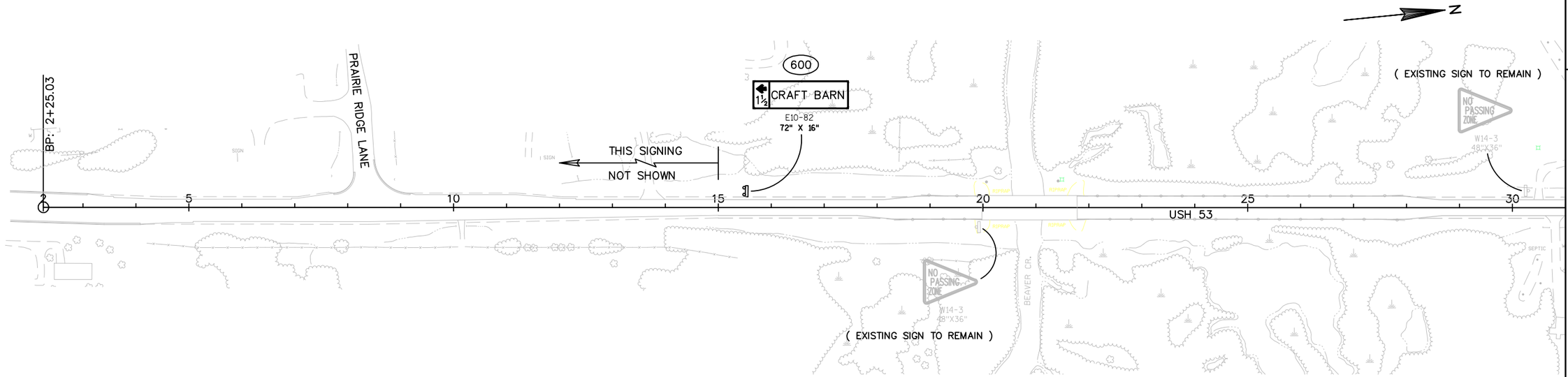
N

0 100 FEET 200 300

SCALE

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EXISTING SIGNING / REMOVALS / MOVE ORIGINS	SHEET 45	E

2

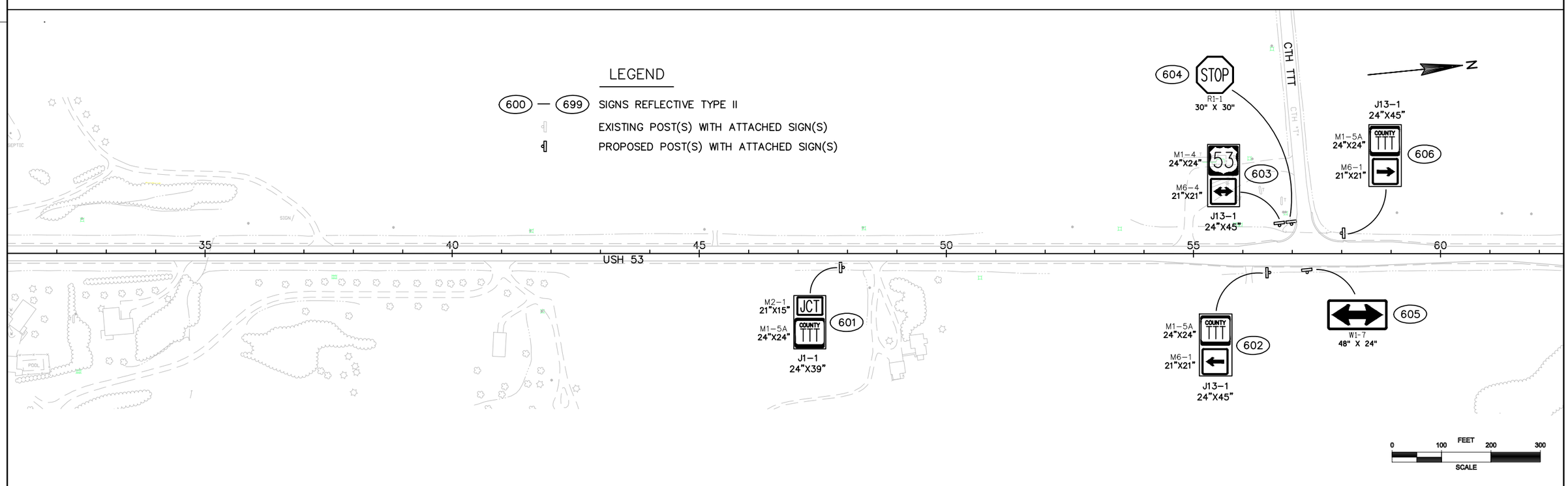


LEGEND

600 — 699 SIGNS REFLECTIVE TYPE II

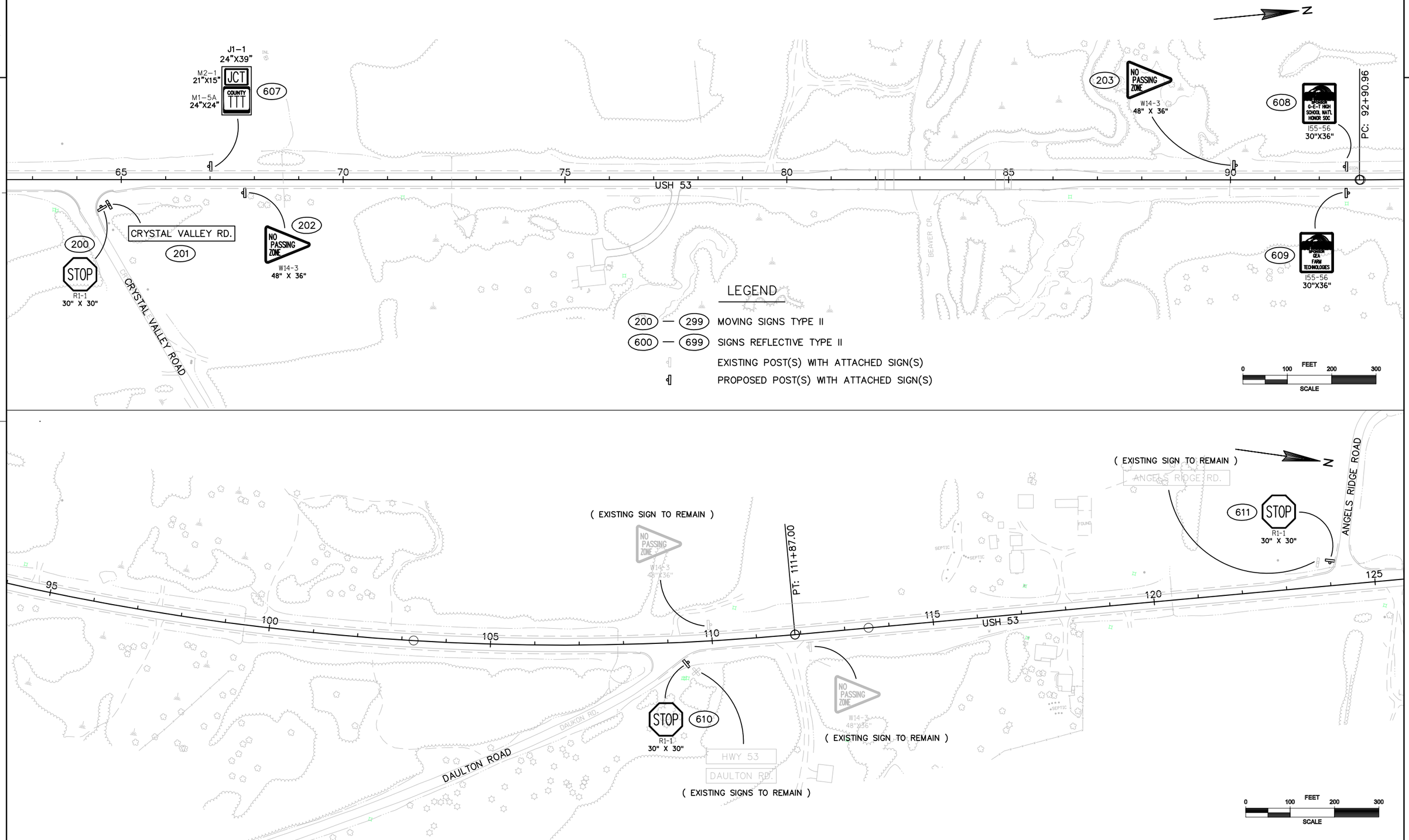
EXISTING POST(S) WITH ATTACHED SIGN(S)

PROPOSED POST(S) WITH ATTACHED SIGN(S)



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PERMANENT SIGNING PLAN	SHEET 46	E

2



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PERMANENT SIGNING PLAN	SHEET 47	E

2

(EXISTING SIGN TO REMAIN)

ANGELS RIDGE RD.

612 STOP R1-1 30" X 30"

ANGELS RIDGE RD. PC: 133+63.75

130 135 140 145 150 155

SUNSET VIEW LN.

613 STOP R1-1 30" X 30"

SUNSET VIEW LN.

(EXISTING SIGN TO REMAIN)

PT: 146+01.52

USH 53

614 STOP R1-1 30" X 30"

(EXISTING SIGN TO REMAIN)

JIM JOHNSON RD.

JOHNSON LANE

615 DEAD END W14-1 30" X 30"

PC: 152+52.80

616 STOP R1-1 30" X 30"

SUNSET VALLEY RD.

SUNSET VALLEY RD.

(EXISTING SIGN TO REMAIN)

LEGEND

600 — 699 SIGNS REFLECTIVE TYPE II

EXISTING POST(S) WITH ATTACHED SIGN(S)

PROPOSED POST(S) WITH ATTACHED SIGN(S)

0 100 FEET 200 300

SCALE

PT: 162+86.32

160 165 170 175 180 185 190

USH 53

(EXISTING SIGN TO REMAIN)

NO PASSING ZONE W14-3 48"X36"

(EXISTING SIGN TO REMAIN)

NO PASSING ZONE W14-3 48"X36"

PC: 183+05.73

0 100 FEET 200 300

SCALE

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PERMANENT SIGNING PLAN	SHEET 48	E

2

PT: 191+38.49

195 200 205 210 215 220

USH 53

PC: 217+86.06

BEAVER CR.

DOPP ROAD

204 NO PASSING ZONE W14-3 48" X 36"

206 NO PASSING ZONE W14-3 48" X 36"

HWY 53
DOPP RD.
205

617 STOP R1-1 30" X 30"

M2-1 21"X15"
M1-5A 24"X24"
JCT COUNTY T
J1-1 24"X39"
618

620
SUPERIOR BAR CITY VANS IN MEMORY OF TONY KOENIG
I55-56 30"X36"

619
SUPERIOR ECA FARM TECHNOLOGIES
I55-56 30"X36"

3 HIDDEN VALLEY PAINTBALL
E10-82 72" X 21"
621

LEGEND

200 — 299 MOVING SIGNS TYPE II

600 — 699 SIGNS REFLECTIVE TYPE II

EXISTING POST(S) WITH ATTACHED SIGN(S)

PROPOSED POST(S) WITH ATTACHED SIGN(S)

0 100 200 300 FEET
SCALE

J13-1 24"X45"
M1-4 24"X24"
M6-4 21"X21"
624

(EXISTING SIGN TO REMAIN)

STOP R1-1 30"X30"

PT: 226+62.56
PC: 226+64.30

J13-1 24"X45"
M1-5A 24"X24"
M6-1 21"X21"
COUNTY T
625

622
M3-3 24"X12"
M1-4 24"X24"
SOUTH 53
J4-1 24"X36"
CTH TT

627
HIDDEN VALLEY PAINTBALL 3
E10-82 72" X 21"

PT: 234+80.88

J1-1 24"X39"
M2-1 21"X15"
M1-5A 24"X24"
JCT COUNTY T
628

PC: 244+86.22

207 NO PASSING ZONE W14-3 48" X 36"

225 230 235 240 245 250

USH 53

M1-5A 24"X24"
M6-1 21"X21"
COUNTY T
623
J13-1 24"X45"

M3-1 24"X12"
M1-4 24"X24"
NORTH 53
626
J4-1 24"X36"

NO PASSING ZONE W14-3 48" X 36"

(EXISTING SIGN TO REMAIN)

0 100 200 300 FEET
SCALE

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PERMANENT SIGNING PLAN	SHEET 49	E

2

2

LEGEND

EXISTING POST(S) WITH ATTACHED SIGN(S)

N

PT: 265+24.22

255 260 265 270 275 280 285

USH 53

SEPTIC

SEPTIC

NO PASSING ZONE
W14-3
48"X36"
(EXISTING SIGN TO REMAIN)

TRUAX RD.
(EXISTING SIGN TO REMAIN)

TRUAX ROAD

STOP
R1-1
30"X30"
(EXISTING SIGN TO REMAIN)

0 100 FEET 200 300
SCALE

(EXISTING SIGN TO REMAIN)
KLIMEK LA.

KLIMEK LN.

(EXISTING SIGN TO REMAIN)
STOP
R1-1
30"X30"

(EXISTING SIGN TO REMAIN)
MACK RD.

(EXISTING SIGN TO REMAIN)
STOP
R1-1
30"X30"

MACK RD.

(EXISTING SIGN TO REMAIN)
NO PASSING ZONE
W14-3
48"X36"

N

PC: 307+74.24

290 295 300 305 310 315

USH 53

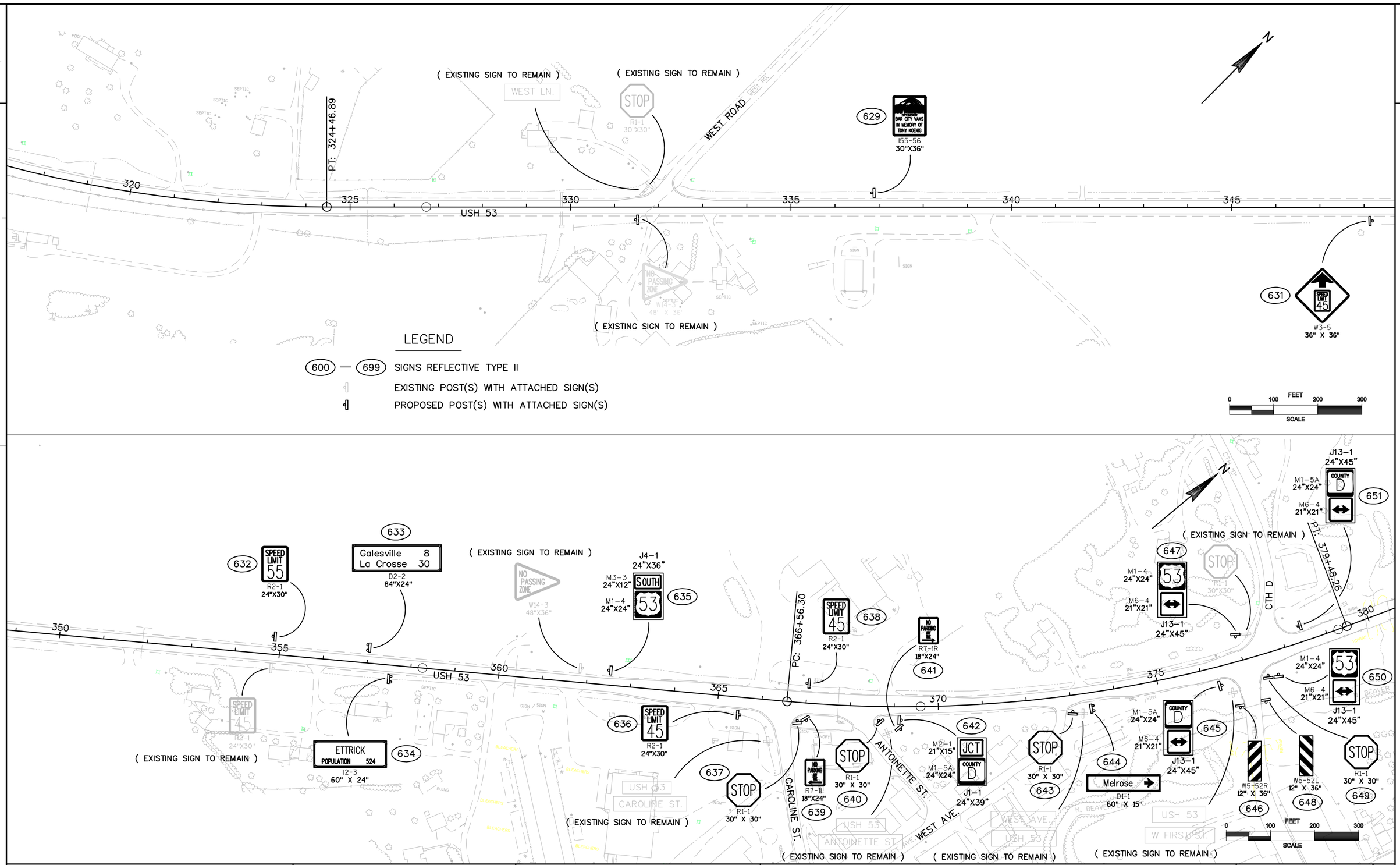
SEPTIC

TANKS

0 100 FEET 200 300
SCALE

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PERMANENT SIGNING PLAN	SHEET 50	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\023230_PS.DWG PLOT DATE : 9/3/2008 9:36 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____ PLOT SCALE : 1 IN:200 FT



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PERMANENT SIGNING PLAN	SHEET 51	E

2

(EXISTING SIGN TO REMAIN)

(EXISTING SIGN TO REMAIN)

652
SPEED LIMIT 45
R2-1
24"X30"

654
Melrose
D1-1
60" X 15"

W3-5
36"X36"

PC: 381+80.02

PT: 389+41.07

J1-1
24"X39"
M2-1
21"X15"
JCT
M1-5A
24"X24"
COUNTY D
655

657
ETTRICK
POPULATION 524
I2-3
60" X 24"

STOP
R1-1
30"X30"

BIRCH ST.

385 390 395 400 405 410

USH 53

M3-1
24"X12"
NORTH
M1-4
24"X24"
53
656
J4-1
24"X36"

Blair 9
Whitehall 16
D2-2
78"X24"
658

208
NO PASSING ZONE
W14-3
48" X 36"

653
SPEED LIMIT 55
R2-1
24"X30"

N. BEAVER CR.

LEGEND

600 — 699 SIGNS REFLECTIVE TYPE II

EXISTING POST(S) WITH ATTACHED SIGN(S)

PROPOSED POST(S) WITH ATTACHED SIGN(S)

0 100 FEET 200 300
SCALE

415 420 425 430 435 440

USH 53

SEPTIC

0 100 FEET 200 300
SCALE

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PERMANENT SIGNING PLAN	SHEET 52	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\023230_PS.DWG PLOT DATE : 9/3/2008 9:36 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____ PLOT SCALE : 1 IN:200 FT

2

MITCHELL RD.

(EXISTING SIGN TO REMAIN)

MITCHELL RD.

659 STOP R1-1 30" X 30"

445 450 455 460 465 470

USH 53

661 SPONSORED ETRNOX LIONS CLUB I55-56 30"X36"

663 W5-52L 12" X 36"

665 W5-52R 12" X 36"

662 W5-52R 12" X 36"

664 W5-52L 12" X 36"

N. BEAVER CR.

N

LEGEND

600 — 699 SIGNS REFLECTIVE TYPE II

EXISTING POST(S) WITH ATTACHED SIGN(S)

PROPOSED POST(S) WITH ATTACHED SIGN(S)

0 100 200 300 FEET SCALE

(EXISTING SIGN TO REMAIN)

KITTLESON RD.

KITTLESON RD

672 M1-5A 24"X24" COUNTY CC M6-1 21"X21" J13-1 24"X45"

673 STOP R1-1 30" X 30"

PC: 493+15.95

(EXISTING SIGN TO REMAIN)

NO PASSING ZONE W14-3 48"X36"

667 STOP R1-1 30" X 30"

HAGESTAD LN.

(EXISTING SIGN TO REMAIN)

HAGESTAD LN.

475 480 485 490 495 500 505

USH 53

668 STOP R1-1 30" X 30"

HAGESTAD LN.

CTH CC

669 M1-5A 24"X24" COUNTY CC M6-1 21"X21" J13-1 24"X45"

670 STOP R1-1 30" X 30"

671 M1-4 24"X24" 53 M6-4 21"X21" J13-1 24"X45"

666 M2-1 21"X15" JCT M1-5A 24"X24" COUNTY CC J1-1 24"X39"

674 M2-1 21"X15" JCT M1-5A 24"X24" COUNTY CC J1-1 24"X39"

PT: 502+44.22

SEPTIC

SIGN

N

0 100 200 300 FEET SCALE

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PERMANENT SIGNING PLAN	SHEET 53	E

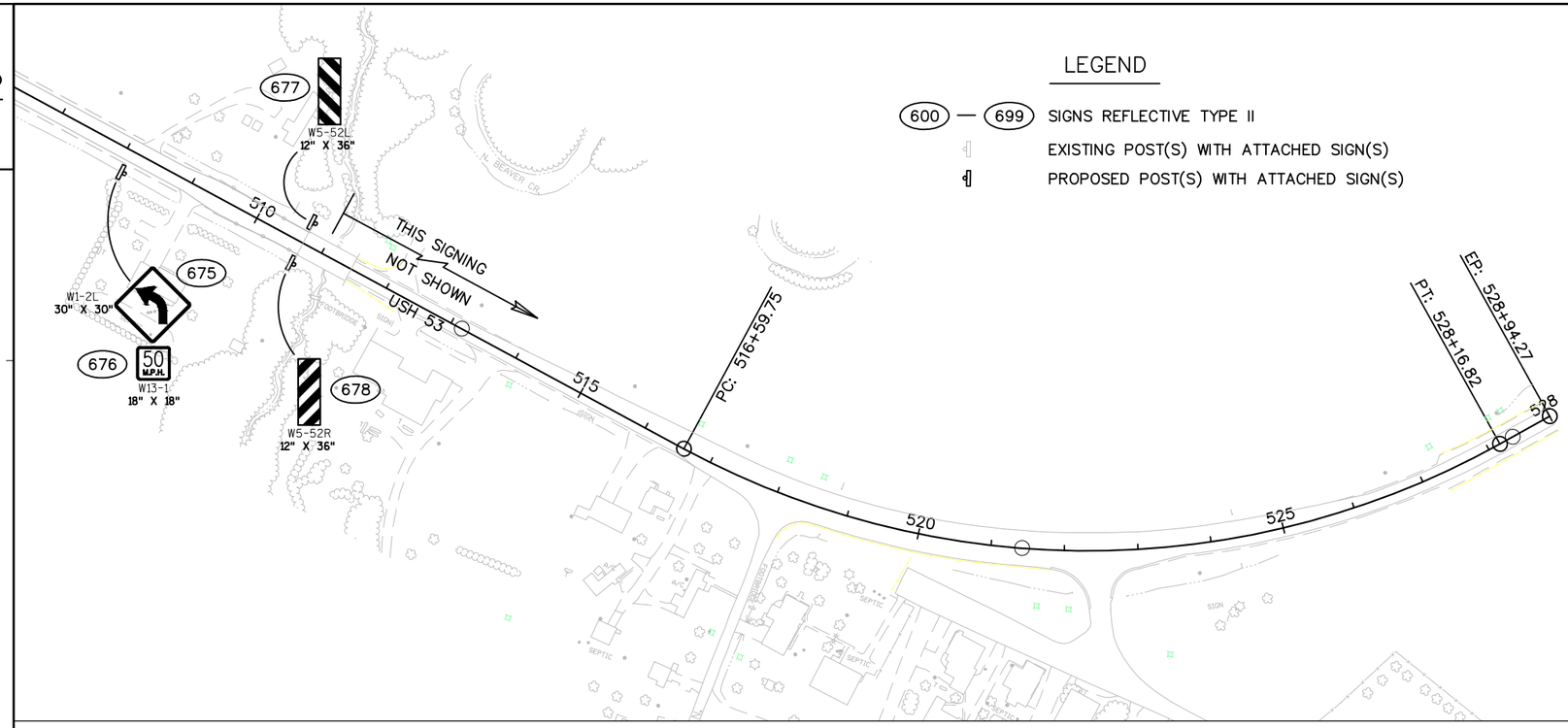
2

LEGEND

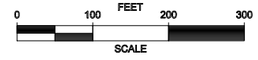
600 — 699 SIGNS REFLECTIVE TYPE II

EXISTING POST(S) WITH ATTACHED SIGN(S)

PROPOSED POST(S) WITH ATTACHED SIGN(S)







PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PERMANENT SIGNING PLAN	SHEET 54	E

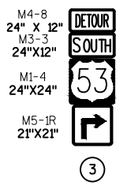
SIGNING KEY



1



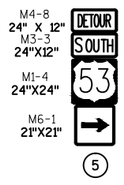
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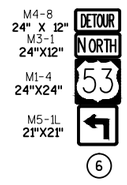
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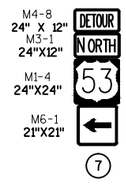
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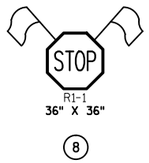
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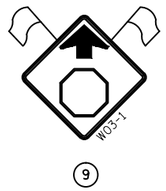
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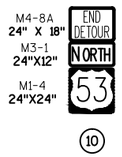
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8



9



10

(EXISTING SIGN)



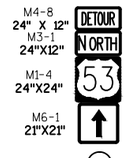
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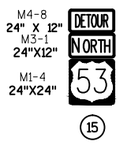
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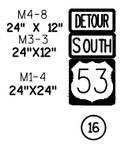
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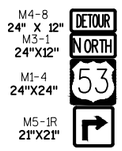
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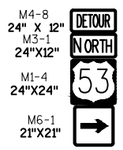
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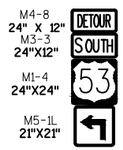
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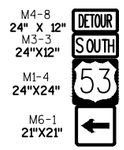
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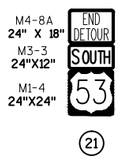
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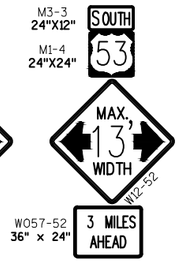
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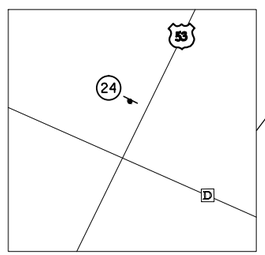


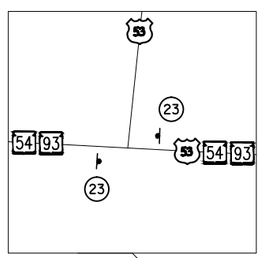
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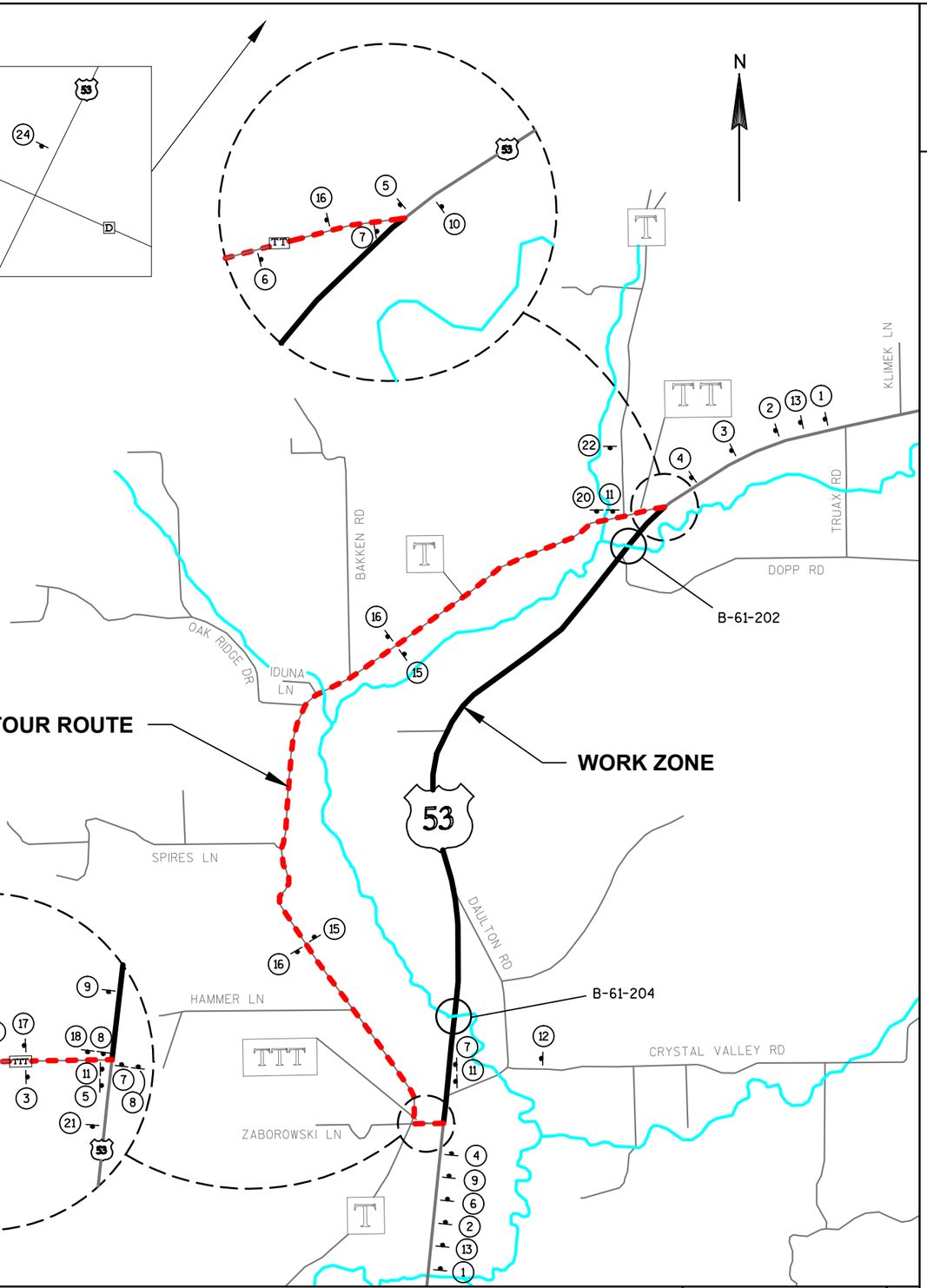
LEGEND

- POST WITH ATTACHED SIGN(S)
- FLAGS, 16" X 16" MIN. (ORANGE)

NOTE: SEE SPECIAL PROVISIONS FOR DETOUR REQUIREMENTS. COVER ANY EXISTING SIGN CONFLICTS AT THE ENGINEER'S DIRECTION. SEE S.D.D. DETOUR SIGNING FOR MAINLINE CLOSURES. SEE TRAFFIC CONTROL DETAILS FOR ADDITIONAL SIGNING.







PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	DETOUR PLAN	SHEET 55	E

Alignment: USH53-Alignment

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+25.030	340511.961	849537.386
End:	92+90.964	349532.025	850448.220

Tangent Data

Parameter	Value	Parameter	Value
Length:	9065.934	Course:	N 05° 45' 57.9672" E

Curve Point Data

Description	Station	Northing	Easting
PC:	92+90.964	349532.025	850448.220
RP:		350107.105	844753.150
PT:	111+87.002	351415.422	850325.658

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 58' 43.4808"	Type:	LEFT
Radius:	5724.031		
Length:	1896.037	Tangent:	956.783
Mid-Ord:	78.327	External:	79.413
Chord:	1887.381	Course:	N 03° 43' 23.7732" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	111+87.002	351415.422	850325.658
End:	133+63.748	353534.547	849828.128

Tangent Data

Parameter	Value	Parameter	Value
Length:	2176.747	Course:	N 13° 12' 45.5136" W

Curve Point Data

Description	Station	Northing	Easting
PC:	133+63.748	353534.547	849828.128
RP:		353972.926	851695.312
PT:	146+01.525	354745.802	849939.973

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	36° 58' 35.5893"	Type:	RIGHT
Radius:	1917.956		
Length:	1237.777	Tangent:	641.303
Mid-Ord:	98.988	External:	104.375
Chord:	1216.408	Course:	N 05° 16' 32.2810" E

Alignment: USH53-Alignment (Cont.)

Tangent Data

Description	PT Station	Northing	Easting
Start:	146+01.525	354745.802	849939.973
End:	152+52.804	355341.862	850202.418

Tangent Data

Parameter	Value	Parameter	Value
Length:	651.279	Course:	N 23° 45' 50.0756" E

Curve Point Data

Description	Station	Northing	Easting
PC:	152+52.804	355341.862	850202.418
RP:		354564.436	851968.090
PT:	162+86.324	356134.242	850846.620

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	30° 41' 38.5920"	Type:	RIGHT
Radius:	1929.245		
Length:	1033.520	Tangent:	529.484
Mid-Ord:	68.796	External:	71.340
Chord:	1021.206	Course:	N 39° 06' 39.3717" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	162+86.324	356134.242	850846.620
End:	183+05.729	357308.122	852489.787

Tangent Data

Parameter	Value	Parameter	Value
Length:	2019.405	Course:	N 54° 27' 28.6677" E

Curve Point Data

Description	Station	Northing	Easting
PC:	183+05.729	357308.122	852489.787
RP:		359775.121	850727.362
PT:	191+38.490	357878.618	853092.843

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 44' 14.5978"	Type:	LEFT
Radius:	3031.868		
Length:	832.761	Tangent:	419.018
Mid-Ord:	28.547	External:	28.818
Chord:	830.146	Course:	N 46° 35' 21.3688" E

Alignment: USH53-Alignment (Cont.)

Tangent Data

Description	PT Station	Northing	Easting
Start:	191+38.490	357878.618	853092.843
End:	217+86.059	359944.267	854748.959

Tangent Data

Parameter	Value	Parameter	Value
Length:	2647.569	Course:	N 38° 43' 14.0699" E

Curve Point Data

Description	Station	Northing	Easting
PC:	217+86.059	359944.267	854748.959
RP:		357633.921	857630.620
PT:	226+62.563	360556.968	855372.863

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 35' 49.1321"	Type:	RIGHT
Radius:	3693.463		
Length:	876.504	Tangent:	440.320
Mid-Ord:	25.970	External:	26.154
Chord:	874.448	Course:	N 45° 31' 08.6359" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	226+62.563	360556.968	855372.863
End:	226+64.303	360558.032	855374.240

Tangent Data

Parameter	Value	Parameter	Value
Length:	1.740	Course:	N 52° 19' 03.2019" E

Curve Point Data

Description	Station	Northing	Easting
PC:	226+64.303	360558.032	855374.240
RP:		353625.965	860728.558
PT:	234+80.881	361026.369	856042.804

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 20' 29.2468"	Type:	RIGHT
Radius:	8759.125		
Length:	816.578	Tangent:	408.585
Mid-Ord:	9.514	External:	9.524
Chord:	816.283	Course:	N 54° 59' 17.8254" E

Alignment: USH53-Alignment (Cont.)

Tangent Data

Description	PT Station	Northing	Easting
Start:	234+80.881	361026.369	856042.804
End:	244+86.221	361564.182	856892.195

Tangent Data

Parameter	Value	Parameter	Value
Length:	1005.340	Course:	N 57° 39' 32.4488" E

Curve Point Data

Description	Station	Northing	Easting
PC:	244+86.221	361564.182	856892.195
RP:		356806.576	859904.595
PT:	265+24.216	362322.577	858771.855

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	20° 44' 10.7777"	Type:	RIGHT
Radius:	5631.107		
Length:	2037.995	Tangent:	1030.268
Mid-Ord:	91.947	External:	93.473
Chord:	2026.890	Course:	N 68° 01' 37.8376" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	265+24.216	362322.577	858771.855
End:	307+74.243	363177.503	862935.007

Tangent Data

Parameter	Value	Parameter	Value
Length:	4250.027	Course:	N 78° 23' 43.2265" E

Curve Point Data

Description	Station	Northing	Easting
PC:	307+74.243	363177.503	862935.007
RP:		366007.813	862353.788
PT:	324+46.887	363956.636	864388.769

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	33° 10' 05.6998"	Type:	LEFT
Radius:	2889.372		
Length:	1672.644	Tangent:	860.488
Mid-Ord:	120.193	External:	125.410
Chord:	1649.386	Course:	N 61° 48' 40.3766" E

Alignment: USH53-Alignment (Cont.)

Tangent Data

Description	PT Station	Northing	Easting
Start:	324+46.887	363956.636	864388.769
End:	366+56.301	366921.321	867377.048

Tangent Data

Parameter	Value	Parameter	Value
Length:	4209.415	Course:	N 45° 13' 37.5267" E

Curve Point Data

Description	Station	Northing	Easting
PC:	366+56.301	366921.321	867377.048
RP:		368960.250	865354.218
PT:	379+48.265	368003.702	868062.370

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	25° 46' 23.9650"	Type:	LEFT
Radius:	2872.119		
Length:	1291.964	Tangent:	657.099
Mid-Ord:	72.340	External:	74.209
Chord:	1281.098	Course:	N 32° 20' 25.5442" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	379+48.265	368003.702	868062.370
End:	381+80.015	368222.221	868139.553

Tangent Data

Parameter	Value	Parameter	Value
Length:	231.750	Course:	N 19° 27' 13.5617" E

Curve Point Data

Description	Station	Northing	Easting
PC:	381+80.015	368222.221	868139.553
RP:		367295.458	870763.380
PT:	389+41.071	368896.471	868487.394

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 40' 12.7230"	Type:	RIGHT
Radius:	2782.689		
Length:	761.056	Tangent:	382.918
Mid-Ord:	25.978	External:	26.223
Chord:	758.686	Course:	N 27° 17' 19.9232" E

Alignment: USH53-Alignment (Cont.)

Tangent Data

Description	PT Station	Northing	Easting
Start:	389+41.071	368896.471	868487.394
End:	493+15.945	377382.175	874456.551

Tangent Data

Parameter	Value	Parameter	Value
Length:	10374.874	Course:	N 35° 07' 26.2848" E

Curve Point Data

Description	Station	Northing	Easting
PC:	493+15.945	377382.175	874456.551
RP:		376065.577	876328.215
PT:	502+44.215	378013.916	875127.995

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 14' 31.3455"	Type:	RIGHT
Radius:	2288.352		
Length:	928.270	Tangent:	470.606
Mid-Ord:	46.908	External:	47.890
Chord:	921.919	Course:	N 46° 44' 41.9575" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	502+44.215	378013.916	875127.995
End:	516+59.754	378756.354	876333.207

Tangent Data

Parameter	Value	Parameter	Value
Length:	1415.539	Course:	N 58° 21' 57.6303" E

Curve Point Data

Description	Station	Northing	Easting
PC:	516+59.754	378756.354	876333.207
RP:		379739.600	875727.505
PT:	528+16.823	379720.262	876882.180

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	57° 24' 23.6021"	Type:	LEFT
Radius:	1154.836		
Length:	1157.069	Tangent:	632.340
Mid-Ord:	141.908	External:	161.789
Chord:	1109.275	Course:	N 29° 39' 45.8292" E

Alignment: USH53-Alignment (Cont.)

Tangent Data

Description	PT Station	Northing	Easting
Start:	528+16.823	379720.262	876882.180
End:	528+94.272	379797.700	876883.477

Tangent Data

Parameter	Value	Parameter	Value
Length:	77.449	Course:	N 00° 57' 34.0282" E

Alignment: Crystal Valley Road

Tangent Data

Description	PT Station	Northing	Easting
Start:	10+00.000	346670.011	850159.217
End:	10+10.861	346668.920	850170.024

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.861	Course:	S 84° 14' 02.0328" E

Curve Point Data

Description	Station	Northing	Easting
PC:	10+10.861	346668.920	850170.024
RP:		346843.034	850187.606
PT:	11+04.507	346684.294	850261.270

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	30° 39' 36.1131"	Type:	LEFT
Radius:	175.000		
Length:	93.646	Tangent:	47.973
Mid-Ord:	6.227	External:	6.456
Chord:	92.532	Course:	N 80° 26' 09.9107" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	11+04.507	346684.294	850261.270
End:	15+92.812	346889.841	850704.206

Tangent Data

Parameter	Value	Parameter	Value
Length:	488.305	Course:	N 65° 06' 21.8541" E

Alignment: Dopp Road

Curve Point Data

Description	Station	Northing	Easting
PC:	9+99.997	359360.025	854280.548
RP:		358987.910	853866.480
PT:	13+87.855	359007.604	854422.837

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	39° 55' 05.2185"	Type:	RIGHT
Radius:	556.705		
Length:	387.858	Tangent:	202.174
Mid-Ord:	33.438	External:	35.574
Chord:	380.061	Course:	S 21° 59' 10.9049" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	13+87.855	359007.604	854422.837
End:	16+61.592	358734.039	854432.521

Tangent Data

Parameter	Value	Parameter	Value
Length:	273.737	Course:	S 02° 01' 38.2956" E

Alignment: Klimek Lane

Tangent Data

Description	PT Station	Northing	Easting
Start:	6+67.970	363099.470	860935.352
End:	10+00.003	362767.449	860938.208

Tangent Data

Parameter	Value	Parameter	Value
Length:	332.033	Course:	S 00° 29' 34.1387" E

Alignment: Driveway (Sta. 77+50, Rt.)

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	347998.857	850293.402
End:	0+15.013	347997.349	850308.340

Tangent Data

Parameter	Value	Parameter	Value
Length:	15.013	Course:	S 84° 14' 02.0328" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+15.013	347997.349	850308.340
RP:		347848.108	850293.270
PT:	2+35.379	347848.266	850443.270

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	84° 10' 24.4320"	Type:	RIGHT
Radius:	150.000		
Length:	220.366	Tangent:	135.472
Mid-Ord:	38.680	External:	52.121
Chord:	201.076	Course:	S 42° 08' 49.8168" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+35.379	347848.266	850443.270
End:	3+05.687	347777.958	850443.344

Tangent Data

Parameter	Value	Parameter	Value
Length:	70.308	Course:	S 00° 03' 37.6008" E

Alignment: Special Ditching (Sta. 77+50, Rt.)

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	347888.772	850461.688
End:	0+78.641	347907.229	850538.132

Tangent Data

Parameter	Value	Parameter	Value
Length:	78.641	Course:	N 76° 25' 32.8130" E

Alignment: Driveway (Sta. 94+63, Lt.)

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+00.000	349711.308	850374.265
End:	2+89.036	349702.489	850462.863

Tangent Data

Parameter	Value	Parameter	Value
Length:	89.036	Course:	S 84° 18' 55.4039" E

Alignment: Driveway (Sta. 220+07, Rt.)

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	360112.299	854892.133
End:	1+13.307	360036.209	854976.090

Tangent Data

Parameter	Value	Parameter	Value
Length:	113.307	Course:	S 47° 48' 50.5052" E

Curve Point Data

Description	Station	Northing	Easting
PC:	1+13.307	360036.209	854976.090
RP:		359852.893	854809.951
PT:	1+31.049	360023.833	854988.798

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 06' 32.3172"	Type:	RIGHT
Radius:	247.400		
Length:	17.742	Tangent:	8.875
Mid-Ord:	0.159	External:	0.159
Chord:	17.739	Course:	S 45° 45' 34.3466" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	1+31.049	360023.833	854988.798
End:	1+50.967	360009.435	855002.560

Tangent Data

Parameter	Value	Parameter	Value
Length:	19.918	Course:	S 43° 42' 18.1880" E

Alignment: Driveway (Sta. 222+19, Rt.)

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	360265.240	855038.742
End:	1+04.834	360190.553	855112.309

Tangent Data

Parameter	Value	Parameter	Value
Length:	104.834	Course:	S 44° 34' 02.5249" E

DATE 22OCT13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1634-03-71 QUANTITY
0010	201.0105	CLEARING	STA	37.000	37.000
0020	201.0205	GRUBBING	STA	37.000	37.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	10.000	10.000
0040	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 03.B-61-391	LS	1.000	1.000
0050	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 01.83+64	LS	1.000	1.000
0060	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 02. 213+71	LS	1.000	1.000
0070	204.0100	REMOVING PAVEMENT	SY	8,709.000	8,709.000
0080	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	5,031.000	5,031.000
0090	204.0125	REMOVING ASPHALTIC SURFACE MILLING	TON	28,754.000	28,754.000
0100	204.0150	REMOVING CURB & GUTTER	LF	349.000	349.000
0110	205.0100	EXCAVATION COMMON	CY	9,649.000	9,649.000
0120	205.0400	EXCAVATION MARSH	CY	490.000	490.000
0130	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 02.B-61-202	LS	1.000	1.000
0140	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 03.B-61-204	LS	1.000	1.000
0150	208.0100	BORROW	CY	45,605.000	45,605.000
0160	210.0100	BACKFILL STRUCTURE	CY	770.000	770.000
0180	213.0100	FINISHING ROADWAY (PROJECT) 02. 1634-03-71	EACH	1.000	1.000
0190	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	7,698.000	7,698.000
0200	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	21,924.000	21,924.000
0210	305.0500	SHAPING SHOULDERS	STA	902.000	902.000
0220	312.0110	SELECT CRUSHED MATERIAL	TON	8,487.000	8,487.000
0230	390.0201	BASE PATCHING ASPHALTIC	TON	180.000	180.000
0240	415.0070	CONCRETE PAVEMENT 7-INCH	SY	177.000	177.000
0250	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	227.000	227.000
0260	416.1010	CONCRETE SURFACE DRAINS	CY	4.000	4.000
0270	440.4410.S	INCENTIVE IRI RIDE	DOL	37,276.000	37,276.000
0280	455.0605	TACK COAT	GAL	10,279.000	10,279.000
0290	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	11,830.000	11,830.000
0300	465.0105	ASPHALTIC SURFACE	TON	9,804.000	9,804.000
0310	465.0110	ASPHALTIC SURFACE PATCHING	TON	50.000	50.000
0320	465.0115	ASPHALTIC SURFACE DETOURS	TON	1,447.000	1,447.000
0330	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	469.000	469.000
0350	465.0475	ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	LF	36,725.000	36,725.000
0360	502.0100	CONCRETE MASONRY BRIDGES	CY	1,764.000	1,764.000
0370	502.3200	PROTECTIVE SURFACE TREATMENT	SY	3,040.000	3,040.000
0380	503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	2,424.000	2,424.000
0390	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	31,770.000	31,770.000
0400	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	243,100.000	243,100.000
0410	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	66.000	66.000
0420	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 02.B-61-202	EACH	12.000	12.000
0430	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 03.B-61-204	EACH	20.000	20.000
0440	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	50.000	50.000
0450	520.7000	CLEANING CULVERT PIPES	EACH	43.000	43.000
0460	521.1012	APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH	EACH	4.000	4.000
0470	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	201.000	201.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1634-03-71 QUANTITY
0480	522.0312	CULVERT PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	34.000	34.000
0490	522.0315	CULVERT PIPE REINFORCED CONCRETE CLASS IV 15-INCH	LF	24.000	24.000
0500	522.0318	CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	32.000	32.000
0510	522.0324	CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	140.000	140.000
0520	522.0330	CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH	LF	148.000	148.000
0530	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	2.000	2.000
0540	522.1015	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH	EACH	2.000	2.000
0550	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	2.000	2.000
0560	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	9.000	9.000
0570	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	3.000	3.000
0580	524.0124	CULVERT PIPE SALVAGED 24-INCH	LF	8.000	8.000
0590	550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	4,780.000	4,780.000
0600	550.2104	PILING CIP CONCRETE 10 3/4 X 0.25-INCH	LF	6,840.000	6,840.000
0620	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	331.000	331.000
0630	606.0200	RIPRAP MEDIUM	CY	43.000	43.000
0640	606.0300	RIPRAP HEAVY	CY	730.000	730.000
0650	611.0654	INLET COVERS TYPE V	EACH	4.000	4.000
0660	611.3220	INLETS 2X2-FT	EACH	4.000	4.000
0670	612.0212	PIPE UNDERDRAIN UNPERFORATED 12-INCH	LF	124.000	124.000
0680	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	620.000	620.000
0690	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	36.000	36.000
0700	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	8.000	8.000
0710	614.0200	STEEL THRIE BEAM STRUCTURE APPROACH	LF	63.000	63.000
0720	614.0305	STEEL PLATE BEAM GUARD CLASS A	LF	631.000	631.000
0730	614.0345	STEEL PLATE BEAM GUARD SHORT RADIUS	LF	175.000	175.000
0740	614.0370	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	EACH	6.000	6.000
0750	614.0390	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	EACH	3.000	3.000
0760	614.0920	SALVAGED RAIL	LF	5,032.000	5,032.000
0770	614.2300	MGS GUARDRAIL 3	LF	300.000	300.000
0780	614.2330	MGS GUARDRAIL 3 K	LF	5,430.000	5,430.000
0790	614.2500	MGS THRIE BEAM TRANSITION	LF	828.000	828.000
0800	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	45.000	45.000
0820	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 02.1634-03-71	EACH	1.000	1.000
0830	619.1000	MOBILIZATION	EACH	0.920	0.920
0850	624.0100	WATER	MGAL	150.000	150.000
0860	625.0100	TOPSOIL	SY	26,869.000	26,869.000
0870	625.0500	SALVAGED TOPSOIL	SY	1,714.000	1,714.000
0880	627.0200	MULCHING	SY	21,986.000	21,986.000
0890	628.1504	SILT FENCE	LF	12,589.000	12,589.000
0900	628.1520	SILT FENCE MAINTENANCE	LF	12,589.000	12,589.000

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DATE 22OCT13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1634-03-71 QUANTITY
0910	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	15.000	15.000
0920	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	5.000	5.000
0930	628.2002	EROSION MAT CLASS I TYPE A	SY	7,960.000	7,960.000
0940	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	7,739.000	7,739.000
0950	628.2027	EROSION MAT CLASS II TYPE C	SY	1,978.000	1,978.000
0960	628.6005	TURBIDITY BARRIERS	SY	1,120.000	1,120.000
0970	628.7005	INLET PROTECTION TYPE A	EACH	4.000	4.000
0980	628.7010	INLET PROTECTION TYPE B	EACH	4.000	4.000
0990	628.7504	TEMPORARY DITCH CHECKS	LF	922.000	922.000
1000	629.0210	FERTILIZER TYPE B	CWT	22.000	22.000
1010	630.0120	SEEDING MIXTURE NO. 20	LB	943.000	943.000
1020	630.0300	SEEDING BORROW PIT	LB	130.000	130.000
1040	633.5200	MARKERS CULVERT END	EACH	1.000	1.000
1050	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	8.000	8.000
1060	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	76.000	76.000
1070	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	1.000	1.000
1090	637.1220	SIGNS TYPE I REFLECTIVE SH	SF	29.000	29.000
1100	637.2210	SIGNS TYPE II REFLECTIVE H	SF	397.060	397.060
1110	637.2230	SIGNS TYPE II REFLECTIVE F	SF	55.750	55.750
1120	638.2102	MOVING SIGNS TYPE II	EACH	9.000	9.000
1130	638.2602	REMOVING SIGNS TYPE II	EACH	114.000	114.000
1140	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	88.000	88.000
1150	642.5201	FIELD OFFICE TYPE C 01.1634-03-71	EACH	1.000	1.000
1170	643.0100	TRAFFIC CONTROL (PROJECT) 02.1634-03-71	EACH	1.000	1.000
1180	643.0300	TRAFFIC CONTROL DRUMS	DAY	4,500.000	4,500.000
1190	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	4,200.000	4,200.000
1200	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	8,600.000	8,600.000
1210	643.0900	TRAFFIC CONTROL SIGNS	DAY	11,075.000	11,075.000
1220	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 1634-03-71	EACH	1.000	1.000
1230	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	10,320.000	10,320.000
1240	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	1,179.000	1,179.000
1250	645.0130	GEOTEXTILE FABRIC TYPE R	SY	187.000	187.000
1260	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	135,508.000	135,508.000
1270	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	1,114.000	1,114.000
1280	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	87,988.000	87,988.000
1300	648.0100	LOCATING NO-PASSING ZONES	MI	13.390	13.390
1310	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	157,892.000	157,892.000
1320	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	4.000	4.000
1330	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	6,380.000	6,380.000
1340	650.5000	CONSTRUCTION STAKING BASE	LF	5,820.000	5,820.000
1350	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	331.000	331.000
1360	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	8.000	8.000
1370	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 02.B-61-0202	LS	1.000	1.000
1380	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 03.B-61-0204	LS	1.000	1.000
1390	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	186.000	186.000
1400	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	44,952.000	44,952.000
1430	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 02.1634-03-71	LS	1.000	1.000
1440	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	6,380.000	6,380.000
1530	690.0150	SAWING ASPHALT	LF	2,502.000	2,502.000

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LINE 1634-03-71

NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
1540	690.0250	SAWING CONCRETE	LF	100.000	100.000
1550	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	500.000	500.000
1560	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	10,584.000	10,584.000
1570	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	2,500.000	2,500.000
1580	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	1,440.000	1,440.000
1600	SPV.0085	SPECIAL 01. BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB	3,200.000	3,200.000
1610	SPV.0090	SPECIAL 01. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT	LF	331.000	331.000
1620	SPV.0105	SPECIAL 01. PREPARE FOUNDATION FOR ASPHALTIC PAVING	LS	1.000	1.000
1630	SPV.0105	SPECIAL 02. MATERIAL TRANSFER VEHICLE	LS	1.000	1.000
1650	SPV.0105	SPECIAL 04. MILLING AND REMOVING TEMPORARY JOINT	LS	1.000	1.000
1670	SPV.0170	SPECIAL 01. REHEATING HMA LONGITUDINAL JOINT SPECIAL	STA	489.000	489.000
1680	SPV.0180	SPECIAL 01. GEOGRID REINFORCEMENT	SY	9,797.000	9,797.000
1690	SPV.0180	SPECIAL 02. REMOVING MATERIAL FOR HMA REPAIR	SY	40,403.000	40,403.000
1710	SPV.0195	SPECIAL 02. HMA PAVEMENT TYPE E-3 SPECIAL	TON	36,006.000	36,006.000

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CLEARING

CATEGORY	STATION TO STATION	LOCATION	201.0105 STA	REMARKS
0010	27+00 - 29+00	LT. & RT.	2	
0010	66+00 - 68+00	RT.	2	
0010	68+00 - 83+00	LT. & RT.	15	
0010	0+50 - 2+50	DRIVEWAY (STA. 77+50), LT. &RT.	2	
0010	0+00 - 1+00	SPECIAL DITCHING (STA. 77+50), LT.	1	
0010	85+00 - 88+00	LT.	3	
0010	88+00 - 92+00	LT. & RT.	4	
0010	165+90 - 166+90	LT.	1	
0010	170+80 - 171+80	LT.	1	
0010	171+80 - 172+80	RT.	1	
0010	215+50 - 217+50	LT.	2	
0010	218+50 - 220+50	LT.	2	
0010	381+10 - 382+10	RT.	1	
		TOTAL 0010	37	

GRUBBING

CATEGORY	STATION TO STATION	LOCATION	201.0205 STA	REMARKS
0010	27+00 - 29+00	LT. & RT.	2	
0010	66+00 - 68+00	RT.	2	
0010	68+00 - 83+00	LT. & RT.	15	
0010	0+50 - 2+50	DRIVEWAY (STA. 77+50), LT. &RT.	2	
0010	0+00 - 1+00	SPECIAL DITCHING (STA. 77+50), LT.	1	
0010	85+00 - 88+00	LT.	3	
0010	88+00 - 92+00	LT. & RT.	4	
0010	165+90 - 166+90	LT.	1	
0010	170+80 - 171+80	LT.	1	
0010	171+80 - 172+80	RT.	1	
0010	215+50 - 217+50	LT.	2	
0010	218+50 - 220+50	LT.	2	
0010	381+10 - 382+10	RT.	1	
		TOTAL 0010	37	

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203.0100 EACH	REMARKS
0010	54+89	LT.	1	DRIVEWAY CULVERT
0010	68+65	LT. & RT.	1	30" RCCP
0010	72+45	LT. & RT.	1	24" RCCP/CMCP
0010	89+99	LT. & RT.	1	24" RCCP
0010	94+62	LT.	1	DRIVEWAY CULVERT
0010	219+67	LT.	1	DRIVEWAY CULVERT
0010	223+01	LT.	1	DRIVEWAY CULVERT
0010	0+46	DRIVEWAY (STA. 220+07), LT. & RT.	1	DRIVEWAY CULVERT
0010	0+44	DRIVEWAY (STA. 222+19), LT. & RT.	1	DRIVEWAY CULVERT
0010	227+76	LT.	1	DRIVEWAY CULVERT
		TOTAL 0010	10	

ABATEMENT OF ASBESTOS CONTAINING MATERIAL (B-61-391)

CATEGORY	STATION TO STATION	LOCATION	203.0210.S LS	REMARKS
0030	212+79 - 214+64	USH 53	1	
		TOTAL 0030	1	

REMOVING PAVEMENT

CATEGORY	STATION TO STATION	LOCATION	204.0100 SY	REMARKS
0010	66+00 - 82+66	LT. & RT.	3702	ASPHALT ON CRACKED CONCRETE
0010	84+62 - 95+00	LT. & RT.	2306	ASPHALT ON CRACKED CONCRETE
0010	209+00 - 212+85	LT. & RT.	842	ASPHALT ON CRACKED CONCRETE
0010	214+58 - 223+00	LT. & RT.	1859	ASPHALT ON CRACKED CONCRETE
		TOTAL 0010	8709	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STATION TO STATION	LOCATION	204.0115 SY	REMARKS
0010	15+00 - 16+00	USH 53	334	
0010	18+98 - 19+98	USH 53	478	B-61-114
0010	21+78 - 22+78	USH 53	485	B-61-114
0010	57+08 - 57+44	LT.	84	CTH TTT
0010	108+61 - 108+94	RT.	78	DAULTON RD.
0010	124+21 - 124+54	LT.	73	ANGELS RIDGE RD.
0010	133+21 - 133+50	LT.	63	ANGELS RIDGE RD.
0010	142+14 - 142+50	RT.	74	SUNSET VIEW LN.
0010	151+36 - 151+68	RT.	64	SUNSET VALLEY RD.
0010	151+15 - 151+45	LT.	62	JOHNSON LN.
0010	225+06 - 225+52	LT.	105	CTH TT
0010	273+64 - 274+18	RT.	90	TRUAX RD.
0010	287+29 - 287+65	LT.	68	KLIMEK LN.
0010	300+92 - 301+35	LT.	61	MACK RD.
0010	332+03 - 332+36	LT.	65	WEST RD.
0010	366+25 - 366+77	RT.	112	CAROLINE ST.
0010	368+18 - 368+60	RT.	90	ANTOINETTE ST.
0010	372+30 - 373+26	RT.	100	WEST AVE.
0010	376+78 - 377+18	RT.	104	CTH D / B-61-56
0010	377+62 - 378+02	LT.	87	CTH D
0010	378+94 - 379+98	USH 53	421	B-61-101
0010	380+46 - 381+60	USH 53	442	B-61-101
0010	398+30 - 398+70	LT.	73	BIRCH ST.
0010	449+25 - 449+63	LT.	65	MITCHELL RD.
0010	463+46 - 464+569	USH 53	352	B-61-751
0010	465+69 - 466+79	USH 53	362	B-61-751
0010	481+24 - 481+59	LT.	71	HAGESTAD LN.
0010	481+74 - 482+13	RT.	61	HAGESTAD LN.
0010	488+59 - 489+00	RT.	91	CTH CC
0010	491+48 - 491+92	LT.	86	KITTLESON RD.
0010	509+71 - 510+71	USH 53	330	B-61-236
		TOTAL 0010	5031	

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION TO STATION	LOCATION	204.0125 TON	REMARKS
0010	16+00 - 18+98	LT. & RT.	192	
0010	22+78 - 66+00	LT. & RT.	2809	
0010	95+00 - 209+50	LT. & RT.	7478	
0010	223+00 - 290+00	LT. & RT.	4349	
0010	290+00 - 378+94	LT. & RT.	6004	
0010	381+60 - 463+46	LT. & RT.	5082	
0010	466+79 - 509+71	LT. & RT.	2840	
		TOTAL 0010	28754	

REMOVING CURB & GUTTER

CATEGORY	STATION TO STATION	LOCATION	204.0150 LF	REMARKS
0010	62+96 - 64+12	RT.	133	CRYSTAL VALLEY RD.
0010	226+67 - 227+46	LT.	79	TURN LN.
0010	209+69 - 210+05	RT.	70	DOPP RD.
0010	210+46 - 211+00	RT.	67	DOPP RD.
		TOTAL 0010	349	

EXCAVATION COMMON

CATEGORY	STATION TO STATION	LOCATION	205.0100 CY	REMARKS
0010	54+45 - 55+31	LT.	134	DRIVEWAY REMOVAL
0010	58+03 - 60+53	LT.	150	TURN LANE
0010	61+38 - 63+50	RT.	430	TURN LANE
0010	10+23 - 11+31	CRYSTAL VALLEY RD., LT. & RT.	245	ROADWAY
0010	63+50 - 82+42	LT. & RT.	3557	ROADWAY / B-61-202
0010	84+70 - 95+00	LT. & RT.	2584	ROADWAY / B-61-202
0010	0+19 - 2+97	DRIVEWAY (STA. 77+50, RT.)	286	NEW DRIVEWAY
0010	0+00 - 0+63	SPECIAL DITCH (STA. 77+50, RT.)	33	DITCH GRADING
0010	2+39 - 2+62	DRIVEWAY (STA. 94+63, LT.)	1	DRIVEWAY
0010	152+02 - 152+49	RT.	21	DRIVEWAY REMOVAL
0010	153+40 - 153+66	LT.	14	DRIVEWAY REMOVAL
0010	172+88 - 173+29	RT.	72	DRIVEWAY REMOVAL
0010	207+05 - 209+50	RT.	121	TURN LANE
0010	209+50 - 212+82	LT. & RT.	570	ROADWAY / B-61-204
0010	214+62 - 223+20	LT. & RT.	606	ROADWAY / B-61-204
0010	10+21 - 11+92	DOPP RD., LT. & RT.	280	ROADWAY
0010	0+20 - 0+95	DRIVEWAY (STA. 220+07, RT.)	9	DRIVEWAY
0010	0+20 - 0+98	DRIVEWAY (STA. 222+19, RT.)	6	DRIVEWAY
0010	225+64 - 228+12	LT.	364	DRIVEWAY REMOVALS
0010	470+93 - 471+41	LT.	31	DRIVEWAY REMOVAL
0010	470+96 - 471+41	RT.	30	DRIVEWAY REMOVAL
0010	485+42 - 488+17	RT.	105	TURN LANE
		TOTAL 0010	9649	

EXCAVATION MARSH

CATEGORY	STATION TO STATION	LOCATION	205.0400 CY	REMARKS
0010	91+50 - 94+50	RT.	490	
		TOTAL 0010	490	

BORROW

CATEGORY	STATION TO STATION	LOCATION	208.0100 CY	REMARKS
0010	63+50 - 82+42	LT. & RT.	29365	ROADWAY / B-61-202
0010	84+70 - 95+00	LT. & RT.	9576	ROADWAY / B-61-202
0010	0+19 - 2+97	DRIVEWAY (STA. 77+50, RT.	789	NEW DRIVEWAY
0010	2+39 - 2+62	DRIVEWAY (STA. 94+63, LT.	10	DRIVEWAY
0010	209+50 - 212+82	LT. & RT.	226	ROADWAY / B-61-204
0010	214+62 - 223+20	LT. & RT.	5367	ROADWAY / B-61-204
0010	0+20 - 0+95	DRIVEWAY (STA. 220+07, RT	168	DRIVEWAY
0010	0+20 - 0+98	DRIVEWAY (STA. 222+19, RT	104	DRIVEWAY
		TOTAL 0010	45605	

FINISHING ROADWAY (1634-03-71)

CATEGORY	LOCATION	213.0100 EACH	REMARKS
0010	PROJECT 1634-03-71	1	
	TOTAL 0010	1	

3

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION TO STATION	LOCATION	305.0110 TON	REMARKS
0010	15+00 - 17+50	LT.	4	
0010	15+00 - 17+50	RT.	4	
0010	17+50 - 19+86	LT.	23	
0010	17+50 - 19+86	RT.	23	
0010	21+78 - 29+00	LT.	162	
0010	21+78 - 28+50	RT.	151	
0010	28+50 - 61+38	RT.	43	
0010	29+00 - 58+03	LT.	38	
0010	58+03 - 60+53	LT.	38	
0010	60+53 - 66+00	LT.	8	
0010	61+38 - 63+50	RT.	29	
0010	64+82 - 66+00	RT.	19	
0010	66+00 - 82+41	LT. & RT.	1257	
0010	84+71 - 95+00	LT. & RT.	800	
0010	95+00 - 140+40	LT.	59	
0010	95+00 - 165+00	RT.	91	
0010	140+30 - 150+50	LT.	264	
0010	150+50 - 165+77	LT.	20	
0010	165+00 - 172+80	RT.	157	
0010	165+77 - 172+80	LT.	159	
0010	172+80 - 194+00	RT.	28	
0010	172+80 - 209+50	LT.	48	
0010	194+00 - 200+00	RT.	210	
0010	200+00 - 207+05	RT.	10	
0010	207+05 - 209+50	RT.	39	
0010	209+50 - 211+00	LT. & RT.	63	
0010	211+00 - 212+82	LT. & RT.	137	
0010	214+62 - 223+00	LT. & RT.	644	
0010	223+00 - 236+75	LT.	18	
0010	223+00 - 236+75	RT.	18	
0010	236+75 - 239+75	LT.	109	
0010	236+75 - 239+65	RT.	143	
0010	239+65 - 245+75	RT.	8	
0010	239+75 - 246+50	LT.	9	
0010	245+75 - 249+00	RT.	192	
0010	246+50 - 247+96	LT.	74	
0010	247+96 - 287+61	LT.	54	
0010	249+00 - 286+25	RT.	49	
0010	286+25 - 289+35	RT.	104	
0010	287+61 - 289+35	LT.	35	
0010	289+35 - 307+36	LT.	24	
0010	289+35 - 305+25	RT.	21	
0010	305+25 - 307+94	RT.	144	
0010	307+36 - 309+25	LT.	114	
0010	307+94 - 312+50	RT.	6	
0010	309+25 - 324+20	LT.	20	
0010	312+50 - 322+80	RT.	371	
0010	322+80 - 323+75	RT.	2	
0010	323+75 - 326+75	RT.	148	
0010	324+20 - 326+75	LT.	64	
0010	326+75 - 378+50	LT.	67	
0010	326+75 - 365+65	RT.	51	
0010	368+80 - 375+60	RT.	9	
0010	375+60 - 376+78	RT.	10	
0010	377+13 - 379+90	RT.	21	
		SUBTOTAL =	6413	

BASE AGGREGATE DENSE 3/4-INCH (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	305.0110 TON	REMARKS
0010	378+50 - 379+97	LT.	112	
0010	380+46 - 382+30	RT.	69	
0010	380+54 - 383+00	LT.	77	
0010	382+30 - 392+00	RT.	13	
0010	383+00 - 462+60	LT.	104	
0010	392+00 - 397+76	RT.	280	
0010	397+76 - 460+50	RT.	82	
0010	460+50 - 464+36	RT.	128	
0010	462+60 - 464+57	LT.	41	
0010	465+69 - 467+75	RT.	21	
0010	465+89 - 467+42	LT.	26	
0010	467+42 - 508+75	LT.	54	
0010	467+75 - 485+42	RT.	23	
0010	485+42 - 488+17	RT.	47	
0010	488+17 - 509+30	RT.	28	
0010	508+75 - 510+71	LT.	44	
0010	509+30 - 510+71	RT.	19	
0010	8+36 - 9+39	KLIMEK LN., LT.	71	
0010	10+63 - 11+31	CRYSTAL VALLEY RD., LT. & RT.	10	
0010	0+20 - 2+63	DRIVEWAY STA. 77+50, RT. (LT. & RT.)	9	
0010	10+92 - 11+92	DOPP RD., LT. & RT.	25	
0010	0+20 - 0+94	DRIVEWAY STA. 220+07, RT. (LT. & RT.)	2	
		TOTAL 0010	7698	

BASE AGGREGATE DENSE 1 1/4-INCH

CATEGORY	STATION TO STATION	LOCATION	305.0120 TON	REMARKS
0010	58+03 - 60+53	LT.	246	
0010	61+38 - 66+00	RT.	428	
0010	66+00 - 82+41	LT. & RT.	7182	
0010	84+71 - 95+00	LT. & RT.	4579	
0010	207+05 - 209+50	RT.	247	
0010	209+50 - 211+00	LT. & RT.	551	
0010	211+00 - 212+82	LT. & RT.	1428	
0010	214+62 - 223+00	LT. & RT.	5757	
0010	485+42 - 488+17	RT.	243	
0010	10+24 - 11+31	CRYSTAL VALLEY RD. (LT.& RT.)	323	
0010	0+20 - 2+87	DRIVEWAY STA. 77+50, RT. (LT.& RT.)	264	
0010	10+24 - 11+92	DOPP RD. (LT. & RT.)	525	
0010	0+20 - 0+94	DRIVEWAY STA. 220+07, RT. (LT. & RT.)	66	
0010	0+20 - 0+98	DRIVEWAY STA. 222+19, RT. (LT. & RT.)	85	
		TOTAL 0010	21924	

3

SHAPING SHOULDERS

CATEGORY	STATION TO STATION	LOCATION	305.0500 STA	REMARKS
0010	15+00 - 20+00	USH 53	5	
0010	15+00 - 20+00	USH 53	5	
0010	21+00 - 66+00	USH 53	45	
0010	21+00 - 66+00	USH 53	45	
0010	95+00 - 210+00	USH 53	115	
0010	95+00 - 210+00	USH 53	115	
0010	223+00 - 380+00	USH 53	157	
0010	223+00 - 380+00	USH 53	157	
0010	380+50 - 464+50	USH 53	84	
0010	380+50 - 464+50	USH 53	84	
0010	465+71 - 510+71	USH 53	45	
0010	465+71 - 510+71	USH 53	45	
		TOTAL 0010	902	

SELECT CRUSHED MATERIAL

CATEGORY	STATION TO STATION	LOCATION	312.0110 TON	REMARKS
0010	68+50 - 82+41	LT. & RT.	5194	
0010	84+71 - 93+50	LT. & RT.	3293	
		TOTAL 0010	8487	

BASE PATCHING ASPHALTIC

CATEGORY	STATION TO STATION	LOCATION	390.0201 TON	REMARKS
0010		UNDISTRIBUTED	180	
		TOTAL 0010	180	

CONCRETE PAVEMENT 7-INCH

CATEGORY	STATION TO STATION	LOCATION	415.0070 SY	REMARKS
0010	82+05.71 - 82+21.38	LT.	18	SOUTH APPROACH B-61-202
0010	82+05.71 - 82+21.38	RT.	18	SOUTH APPROACH B-61-202
0010	84+90.63 - 85+06.30	LT.	14	NORTH APPROACH B-61-202
0010	84+90.63 - 85+06.30	RT.	14	NORTH APPROACH B-61-202
0010	212+15.81 - 212+33.29	LT.	12	SOUTH APPROACH B-61-204
0010	212+15.81 - 212+59.30	RT.	43	SOUTH APPROACH B-61-204
0010	214+82.18 - 215+26.38	LT.	45	NORTH APPROACH B-61-204
0010	215+10.71 - 215+26.38	RT.	13	NORTH APPROACH B-61-204
		TOTAL 0010	177	

CONCRETE PAVEMENT APPROACH SLAB

CATEGORY	STATION TO STATION	LOCATION	415.0410 SY	REMARKS
0010	82+05.71 - 82+21.38	LT. & RT.	42	SOUTH APPROACH B-61-202
0010	84+90.63 - 85+06.30	LT. & RT.	42	NORTH APPROACH B-61-202
0010	212+15.81 - 212+53.43	LT. & RT.	74	SOUTH APPROACH B-61-204
0010	214+90.57 - 215+26.38	LT. & RT.	69	NORTH APPROACH B-61-204
		TOTAL 0010	227	

CONCRETE SURFACE DRAINS

CATEGORY	STATION TO STATION	LOCATION	416.1010 CY	REMARKS
0010	84+90.63 - 85+02.84	LT.	1	NORTH APPROACH, B-61-202
0010	84+90.63 - 85+02.84	RT.	1	NORTH APPROACH, B-61-202
0010	212+15.81 - 212+27.42	LT.	1	SOUTH APPROACH, B-61-204
0010	212+49.61 - 212+61.82	RT.	1	SOUTH APPROACH, B-61-204
		TOTAL 0010	4	

3

TACK COAT

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 GAL	REMARKS
0010	15+00	-	19+98	LT. & RT.	87	
0010	21+78	-	66+00	LT. & RT.	853	
0010	66+00	-	82+05	LT. & RT.	268	
0010	85+06	-	95+00	LT. & RT.	166	
0010	95+00	-	148+00	LT. & RT.	997	
0010	148+00	-	209+50	LT. & RT.	1107	
0010	209+50	-	212+16	LT. & RT.	41	
0010	215+26	-	223+00	LT. & RT.	131	
0010	223+00	-	276+00	LT. & RT.	967	
0010	276+00	-	329+00	LT. & RT.	936	
0010	329+00	-	379+97	LT. & RT.	1045	
0010	380+44	-	423+00	LT. & RT.	732	
0010	423+00	-	464+56	LT. & RT.	707	
0010	465+69	-	510+71	LT. & RT.	848	
0010	10+20	-	11+32	CRYSTAL VALLEY RD., LT. & RT.	24	
0010	10+14	-	11+93	DOPP RD., LT. & RT.	36	
0010				UNDISTRIBUTED	1011	FOR HMA REPAIR
0010				DETOUR ROUTE	323	
				TOTAL 0010	10279	

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ASPHALTIC SURFACE

CATEGORY	STATION TO STATION	LOCATION	465.0105 TON	REMARKS
0010	15+00 - 35+50	LT.	358	FOR HMA REPAIR
0010	15+00 - 35+50	RT.	358	FOR HMA REPAIR
0010	95+00 - 141+50	LT.	523	FOR HMA REPAIR
0010	95+00 - 141+50	RT.	366	FOR HMA REPAIR
0010	141+50 - 209+50	LT.	1046	FOR HMA REPAIR
0010	246+50 - 299+50	LT.	140	FOR HMA REPAIR
0010	246+50 - 299+50	RT.	697	FOR HMA REPAIR
0010	299+50 - 352+50	LT.	227	FOR HMA REPAIR
0010	299+50 - 352+50	RT.	784	FOR HMA REPAIR
0010	352+50 - 377+00	LT.	87	FOR HMA REPAIR
0010	352+50 - 405+00	RT.	784	FOR HMA REPAIR
0010	405+00 - 489+00	RT.	1220	FOR HMA REPAIR
0010	457+50 - 510+71	LT.	331	FOR HMA REPAIR
0010	489+00 - 510+71	RT.	323	FOR HMA REPAIR
0010		UNDISTRIBUTED	1810	FOR HMA REPAIR
0010		UNDISTRIBUTED	750	FOR LEVELING & WEDGING
		TOTAL 0010	9804	

ASPHALTIC SURFACE PATCHING

CATEGORY	STATION TO STATION	LOCATION	465.0110 TON	REMARKS
0010		UNDISTRIBUTED	50	FOR MINOR REPAIRS, POP OUTS,
0010				& RAMPING
		TOTAL 0010	50	

ASPHALTIC SURFACE DETOURS

CATEGORY	LOCATION	465.0115 TON	REMARKS
0010	PROJECT 1634-03-71	1447	FOR DETOUR ROUTE REPAIR
	TOTAL 0010	1447	

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STATION	LOCATION	465.0120 TON	REMARKS
0010	30+50	LT.	1.6	P.E.
0010	30+81	RT.	6.8	P.E.
0010	34+52	RT.	7.1	P.E.
0010	37+30	LT.	4.2	P.E.
0010	40+98	RT.	5.6	P.E.
0010	48+59	RT.	3.3	P.E.
0010	56+12	RT.	0.7	F.E.
0010	77+50	RT.	104.9	NEW P.E.
0010	94+63	LT.	1.6	F.E.
0010	109+19	LT.	1.8	F.E.
0010	111+73	RT.	5.7	P.E.
0010	117+96	RT.	5.5	P.E.
0010	117+97	LT.	3.2	P.E.
0010	119+39	RT.	1.7	F.E.
0010	125+45	RT.	9.4	P.E.
0010	157+55	LT.	12.7	C.E.
0010	173+13	LT.	4.0	P.E.
0010	174+59	RT.	11.1	P.E.
0010	181+65	LT.	1.5	F.E.
0010	185+16	RT.	1.8	F.E.
0010	188+51	RT.	9.7	P.E.
0010	190+69	RT.	10.8	P.E.
0010	192+11	LT.	2.0	P.E.
0010	205+17	LT.	1.3	F.E.
0010	220+07	RT.	26.9	P.E. (RECONSTRUCT)
0010	220+19	RT.	2.4	P.E. (RECONSTRUCT)
0010	239+89	RT.	3.4	F.E.
0010	246+42	LT.	1.2	F.E.
0010	248+04	LT.	0.4	F.E.
0010	250+73	RT.	2.0	F.E.
0010	252+70	RT.	8.5	P.E.
0010	256+26	RT.	4.4	P.E.
0010	257+13	LT.	1.3	F.E.
0010	257+45	RT.	1.2	F.E.
0010	260+77	LT.	3.5	P.E.
0010	283+72	RT.	2.6	F.E.
0010	285+16	LT.	11.1	P.E.
0010	297+35	RT.	4.2	P.E.
0010	297+42	LT.	2.5	F.E.
0010	308+04	RT.	1.2	P.E.
0010	312+31	RT.	4.7	P.E.
0010	321+05	LT.	4.5	P.E.
0010	322+91	RT.	1.1	P.E.
0010	323+71	LT.	3.9	P.E.
0010	331+83	RT.	7.1	P.E.
0010	331+94	LT.	4.3	P.E.
0010	333+17	RT.	2.8	P.E.
0010	339+37	RT.	7.1	P.E.
0010	351+60	RT.	2.8	P.E.
0010	355+88	RT.	4.1	P.E.
0010	359+86	RT.	4.8	P.E.
0010	359+98	LT.	2.9	F.E.
0010	361+66	RT.	12.5	C.E.
0010	364+66	RT.	10.1	C.E.
0010	365+96	LT.	2.8	C.E.
		SUBTOTAL =	370.30	

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ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (CONTINUED)

CATEGORY	STATION	LOCATION	465.0120 TON	REMARKS
0010	368+84	LT.	2.5	C.E.
0010	373+24	LT.	8.8	P.E.
0010	382+65	RT.	9.9	P.E. (WAYSIDE)
0010	384+74	LT.	5.0	P.E.
0010	384+81	RT.	9.6	P.E. (WAYSIDE)
0010	407+96	RT.	5.4	P.E.
0010	410+39	LT.	5.9	P.E.
0010	416+84	LT.	1.7	F.E.
0010	416+99	RT.	11.8	P.E.
0010	426+40	LT.	3.1	F.E.
0010	426+93	RT.	2.0	F.E.
0010	433+18	LT.	1.7	F.E.
0010	436+95	RT.	2.4	F.E.
0010	450+02	RT.	3.0	F.E.
0010	462+45	LT.	1.7	F.E.
0010	467+58	LT.	2.4	F.E.
0010	499+13	RT.	11.2	P.E.
0010	499+61	LT.	2.3	P.E.
0010	508+34	LT.	2.3	P.E.
0010	509+07	RT.	6.0	P.E.
		TOTAL 0010	469.0	

ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL

CATEGORY	STATION TO STATION	LOCATION	465.0475 LF	REMARKS
0010	15+00 - 19+57	USH 53	482	
0010	22+18 - 55+24	USH 53	3306	
0010	59+24 - 62+14	USH 53	290	
0010	66+14 - 81+96	USH 53	1582	
0010	85+16 - 107+06	USH 53	2190	
0010	111+06 - 122+19	USH 53	1113	
0010	126+19 - 131+19	USH 53	500	
0010	135+19 - 140+32	USH 53	513	
0010	144+32 - 149+17	USH 53	485	
0010	153+55 - 156+55	USH 53	300	
0010	158+55 - 208+37	USH 53	4982	
0010	215+26 - 223+42	USH 53	816	
0010	227+42 - 272+02	USH 53	4460	
0010	276+02 - 285+36	USH 53	934	
0010	289+36 - 299+00	USH 53	964	
0010	303+00 - 330+08	USH 53	2708	
0010	334+08 - 352+00	USH 53	1792	
0010	400+25 - 447+65	USH 53	4740	
0010	451+65 - 464+21	USH 53	1256	
0010	466+04 - 479+60	USH 53	1356	
0010	483+87 - 486+75	USH 53	288	
0010	493+78 - 510+46	USH 53	1668	
		TOTAL 0010	36725	

CLEANING CULVERT PIPES

CATEGORY	STATION	LOCATION	520.7000 EACH	REMARKS
0010	35+09	LT. & RT.	1	30" RCCP
0010	57+28	LT. (CTH TTT)	1	
0010	107+87	LT. & RT.	2	TWIN 30" RCCP
0010	120+41	LT. & RT.	1	3.5'W X 5'H CONC. BOX CULVERT
0010	124+40	LT. (ANGELS RIDGE RD.)	1	18" CMCP
0010	125+65	LT. & RT.	1	24" RCCP
0010	133+60	LT. & RT.	1	60" RCCP
0010	172+80	LT. & RT.	1	
0010	190+44	LT. & RT.	1	24" RCCP
0010	197+47	LT. & RT.	1	10'W X 5'H CONC. BOX CULVERT
0010	202+64	LT. & RT.	1	24" RCCP
0010	209+22	LT. & RT.	1	24" RCCP
0010	225+27	LT. (CTH TT)	1	24" CMCP
0010	229+85	LT. & RT.	1	3.5'W X 5'H CONC. BOX CULVERT
0010	238+20	LT. & RT.	1	3.5'W X 5'H CONC. BOX CULVERT
0010	256+79	LT. & RT.	1	10'W X 6'H CONC. BOX CULVERT
0010	273+64	LT. & RT.	2	TWIN 30" RCCP
0010	284+38	LT. & RT.	2	TWIN 24" RCCP
0010	287+98	LT. & RT.	1	3.5'W X 5'H CONC. BOX CULVERT
0010	292+65	LT. & RT.	1	30" RCCP
0010	307+43	LT. & RT.	1	4'W X 3'H CONC. BOX CULVERT
0010	319+10	LT. & RT.	1	30" RCCP
0010	325+40	LT. & RT.	1	3.5'W X 4'H CONC. BOX CULVERT
0010	329+80	LT. & RT.	2	TWIN 30" RCCP
0010	331+87	LT. & RT.	1	30" RCCP
0010	351+89	LT. & RT.	1	24" RCCP
0010	360+36	LT. & RT.	1	3.5'W X 6'H CONC. BOX CULVERT
0010	372+69	RT. (WEST AVE.)	1	18" RCCP
0010	385+52	LT. & RT.	1	30" RCCP
0010	411+47	LT. & RT.	1	4'W X 4'H CONC. BOX CULVERT
0010	414+53	LT. & RT.	1	3.5'W X 5'H CONC. BOX CULVERT
0010	421+38	LT. & RT.	2	TWIN 24" RCCP
0010	443+32	LT. & RT.	2	TWIN 24" RCCP
0010	449+30	LT. & RT.	1	24" RCCP
0010	450+34	LT. & RT.	1	24" RCCP
0010	485+82	LT. & RT.	1	30" RCCP
0010	489+79	LT. & RT.	1	36" RCCP
		TOTAL 0010	43	

APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH

CATEGORY	STATION	LOCATION	521.1012 EACH	REMARKS
0010	84+97.84	53.83' LT.	1	
0010	84+97.84	53.88' RT.	1	
0010	212+20.82	49.40' LT.	1	
0010	212+54.61	49.40' RT.	1	
		TOTAL 0010	4	

CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH

CATEGORY	STATION	LOCATION	522.0124 LF	REMARKS
0010	0+52.89	DRIVEWAY (STA.77+50)	64	SKEW = 13.167d R.H.F., 8 JOINT TIES REQ'D.
0010	89+99.06	LT. & RT.	89	8 JOINT TIES REQ'D,
0010	209+21.41	RT.	4	2 JOINT TIES REQ'D.
0010	0+50.00	DRIVEWAY (STA.220+07)	44	8 JOINT TIES REQ'D,
		TOTAL 0010	201	

CULVERT PIPE REINFORCED CONCRETE CLASS IV 12-INCH

CATEGORY	STATION	LOCATION	522.0312 LF	REMARKS
0010	0+43.73	DRIVEWAY (STA.222+19)	34	SKEW = 10.084d R.H.F.
		TOTAL 0010	34	

CULVERT PIPE REINFORCED CONCRETE CLASS IV 15-INCH

CATEGORY	STATION	LOCATION	522.0315 LF	REMARKS
0010	2+44.84	DRIVEWAY (STA.94+63)	24	6 JOINT TIES REQ'D.
		TOTAL 0010	24	

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CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH

CATEGORY	STATION	LOCATION	522.0318 LF	REMARKS
0010	2+00.00	DRIVEWAY (STA.77+50)	32	6 JOINT TIES REQ'D.
		TOTAL 0010	32	

CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH

CATEGORY	STATION	LOCATION	522.0324 LF	REMARKS
0010	72+44.77	LT. & RT.	140	8 JOINT TIES REQ'D.
		TOTAL 0010	140	

CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH

CATEGORY	STATION	LOCATION	522.0330 LF	REMARKS
0010	68+65.01	LT. & RT.	148	8 JOINT TIES REQ'D.
		TOTAL 0010	148	

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH

CATEGORY	STATION	LOCATION	522.1012 EACH	REMARKS
0010	0+43.73	DRIVEWAY (STA.222+19)	2	4 JOINT TIES REQ'D.
		TOTAL 0010	2	

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH

CATEGORY	STATION	LOCATION	522.1015 EACH	REMARKS
0010	2+44.84	DRIVEWAY (STA.94+63)	2	4 JOINT TIES REQ'D.
		TOTAL 0010	2	

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH

CATEGORY	STATION	LOCATION	522.1018 EACH	REMARKS
0010	2+00.00	DRIVEWAY (STA.77+50)	2	4 JOINT TIES REQ'D.
		TOTAL 0010	2	

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH

CATEGORY	STATION	LOCATION	522.1024 EACH	REMARKS
0010	72+44.77	LT. & RT.	2	4 JOINT TIES REQ'D.
0010	0+52.89	DRIVEWAY (STA.77+50)	2	4 JOINT TIES REQ'D.
0010	89+99.06	LT. & RT.	2	4 JOINT TIES REQ'D.
0010	209+21.41	RT.	1	2 JOINT TIES REQ'D.
0010	0+50.00	DRIVEWAY (STA.220+07)	2	4 JOINT TIES REQ'D.
		TOTAL 0010	9	

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH

CATEGORY	STATION	LOCATION	522.1030 EACH	REMARKS
0010	68+65.01	LT. & RT.	2	4 JOINT TIES REQ'D.
0010	485+82.12	RT.	1	2 JOINT TIES REQ'D.
		TOTAL 0010	3	

3

CULVERT PIPE SALVAGED 24-INCH

CATEGORY	STATION	LOCATION	524.0124 LF	REMARKS
0010	209+21.41	RT.	8	RELAY END, 2 JOINT TIES REQ'D.
		TOTAL 0010	8	

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D

CATEGORY	STATION TO STATION	LOCATION	601.0557 LF	REMARKS
0010	63+50 - 64+06	RT.	74	CRYSTAL VALLEY RD.
0010	64+44 - 64+82	RT.	77	CRYSTAL VALLEY RD.
0010	208+55 - 209+98	RT.	82	DOPP RD.
0010	210+31 - 210+88	RT.	98	DOPP RD.
		TOTAL 0010	331	

RIPRAP MEDIUM

CATEGORY	STATION TO STATION	LOCATION	606.0200 CY	REMARKS
0010	84+95 - 85+00	LT.	2	
0010	84+95 - 85+00	RT.	2	
0010	94+39 - 94+45	LT.	1	
0010	94+80 - 94+86	LT.	1	
0010	209+17 - 209+23	RT.	3	
0010	212+18 - 212+23	LT.	2	
0010	212+52 - 212+57	RT.	2	
0010	219+71 - 219+76	RT.	1	
0010	220+33 - 220+39	RT.	1	
0010	221+88 - 221+94	RT.	1	
0010	222+40 - 222+46	RT.	1	
0010	485+79 - 485+85	RT.	3	
0010	77+05 - 77+11	RT.	1	
0010	77+87 - 77+93	RT.	1	
0010	1+97 - 2+03	DRIVEWAY (STA. 77+50, RT.), RT.	3	
0010	1+97 - 2+03	DRIVEWAY (STA. 77+50, RT.), LT.	18	
		TOTAL 0010	43	

RIPRAP HEAVY

CATEGORY	STATION TO STATION	LOCATION	606.0300 * CY	REMARKS
0010	68+61 - 68+69	RT.	6	
0010	68+61 - 68+69	LT.	6	
0010	72+41 - 72+49	RT.	6	
0010	72+41 - 72+49	LT.	5	
0010	89+95 - 90+03	RT.	6	
0010	89+95 - 90+03	LT.	6	
		TOTAL 0010	35	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

INLET COVERS TYPE V

CATEGORY	STATION	LOCATION	611.0654 EACH	REMARKS
0010	84+97.84	21.00' LT.	1	NORTH APPROACH, B-61-202
0010	84+97.84	21.00' RT.	1	NORTH APPROACH, B-61-202
0010	212+20.82	21.00' LT.	1	SOUTH APPROACH, B-61-204
0010	212+54.61	21.00' RT.	1	SOUTH APPROACH, B-61-204
		TOTAL 0010	4	

INLETS 2 X 2 - FT

CATEGORY	STATION	LOCATION	DEPTH	611.3220 EACH	REMARKS
0010	84+97.84	21.00' LT.	2.5'	1	NORTH APPROACH, B-61-202
0010	84+97.84	21.00' RT.	2.5'	1	NORTH APPROACH, B-61-202
0010	212+20.82	21.00' LT.	2.5'	1	SOUTH APPROACH, B-61-204
0010	212+54.61	21.00' RT.	2.5'	1	SOUTH APPROACH, B-61-204
			TOTAL 0010	4	

PIPE UNDERDRAIN UNPERFORATED 12-INCH

CATEGORY	STATION TO STATION	LOCATION	612.0212 LF	REMARKS
0010	84+97.84 - 84+97.84	LT.	32	
0010	84+97.84 - 84+97.84	RT.	32	
0010	212+20.82 - 212+20.82	LT.	30	
0010	212+54.61 - 212+54.61	RT.	30	
		TOTAL 0010	124	

BARRIER SYSTEM GRADING SHAPING FINISHING

CATEGORY	STATION TO STATION	LOCATION	614.0010 EACH	--- FOR INFORMATION ONLY --- EXCAVATION COMMON CY	BORROW CY	SALVAGED TOPSOIL SY	MULCHING SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 20 LB	SUBGRADE LF	BASE LF	SLOPE STAKES LF	REMARKS
0010	17+50 - 19+50	LT.	1	0	382	568	710	0.45	19.2	200	200	200	
0010	17+50 - 18+82	RT.	1	0	139	330	439	0.28	11.9	132	132	132	
0010	27+00 - 29+00	LT.	1	0	385	607	656	0.41	17.7	200	200	200	
0010	27+00 - 28+50	RT.	1	0	303	465	455	0.29	12.3	150	150	150	
0010	140+30 - 142+25	LT.	1	0	235	562	589	0.37	15.9	195	195	195	
0010	148+50 - 150+50	LT.	1	0	403	471	504	0.32	13.6	200	200	200	
0010	165+00 - 166+25	RT.	1	0	160	302	346	0.22	9.3	125	125	125	
0010	165+77 - 167+00	LT.	1	0	110	248	263	0.17	7.1	123	123	123	
0010	171+25 - 172+80	LT.	1	0	191	368	0	0.25	10.9	155	155	155	
0010	171+75 - 172+80	RT.	1	0	222	299	302	0.19	8.2	105	105	105	
0010	194+00 - 195+75	RT.	1	8	13	156	213	0.13	5.8	175	175	175	
0010	198+00 - 200+00	RT.	1	0	145	315	355	0.22	9.6	200	200	200	
0010	236+75 - 239+65	RT.	1	0	120	357	393	0.25	10.6	290	290	290	
0010	236+75 - 239+75	LT.	1	0	137	416	458	0.29	12.4	300	300	300	
0010	245+75 - 249+00	RT.	1	0	110	383	465	0.29	12.6	325	325	325	
0010	246+50 - 247+88	LT.	1	0	31	109	115	0.07	3.1	138	138	138	
0010	286+25 - 289+35	RT.	1	28	66	448	532	0.34	14.4	310	310	310	
0010	288+28 - 289+35	LT.	1	0	2	36	90	0.06	2.4	109	109	109	
0010	8+36 - 9+39	KLIMEK LN., LT.	1	0	19	36	59	0.04	1.6	103	103	103	
0010	305+25 - 307+75	RT.	1	0	67	254	301	0.19	8.1	250	250	250	
0010	307+55 - 309+25	LT.	1	12	59	316	369	0.23	10.0	170	170	170	
0010	312+50 - 313+75	RT.	1	0	106	206	211	0.13	5.7	125	125	125	
0010	321+75 - 322+80	RT.	1	0	95	160	178	0.11	4.8	105	105	105	
0010	323+75 - 326+75	RT.	1	0	175	425	456	0.29	12.3	300	300	300	
0010	324+20 - 326+75	LT.	1	0	10	118	202	0.13	5.5	255	255	255	
0010	378+50 - 379+97	LT.	1	0	64	140	0	0.11	4.8	147	147	147	
0010	381+12 - 382+30	RT.	1	0	146	290	0	0.20	8.5	118	118	118	
0010	381+69 - 383+00	LT.	1	0	32	126	0	0.10	4.5	131	131	131	
0010	392+00 - 393+50	RT.	1	0	77	245	141	0.17	7.4	150	150	150	
0010	395+75 - 397+77	RT.	1	0	252	473	422	0.31	13.4	202	202	202	
0010	460+50 - 463+50	RT.	1	19	113	515	309	0.38	16.1	300	300	300	
0010	462+60 - 463+50	LT.	1	0	102	184	191	0.12	5.2	90	90	90	
0010	466+50 - 467+42	LT.	1	0	159	210	0	0.14	5.8	92	92	92	
0010	467+22 - 467+75	RT.	1	0	2	18	36	0.02	1.0	53	53	53	
0010	509+00 - 510+00	LT.	1	0	2	34	43	0.03	1.2	100	100	100	
0010	509+30 - 509+69	RT.	1	0	1	12	15	0.01	0.4	39	39	39	
				67	4635	10202	9818	7	313	6162	6162	6162	TOTALS
		TOTAL 0010	36										

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STEEL THRIE BEAM STRUCTURE APPROACH

CATEGORY	STATION TO STATION	LOCATION	614.0200 LF	REMARKS
0010	10+86.82 - 11+07.41	CTH D, LT.	21	B-61-56
0010	379+71.45 - 379+92.10	RT.	21	B-61-101
0010	10+93.29 - 11+13.40	CTH D, RT.	21	B-61-56
		TOTAL 0010	63	

STEEL PLATE BEAM GUARD CLASS A

CATEGORY	STATION TO STATION	LOCATION	614.0305 LF	REMARKS
0010	247+19.30 - 247+81.80	LT.	62.5	CULVERT
0010	288+02.96 - 288+27.96	LT.	25.0	CULVERT
0010	306+55.00 - 307+80.00	RT.	125.0	CULVERT
0010	307+50.30 - 307+87.80	LT.	37.5	CULVERT
0010	376+33.51 - 376+77.73	RT.	87.5	B-61-56 *SHOP BEND REQ'D RADIUS = 37.85' LENGTH = 57.64'
0010	377+17.30 - 379+71.45	RT.	293.0	B-61-56 & B-61-101 *SHOP BEND REQ'D RADIUS = 50' LENGTH = 57.92'
		TOTAL 0010	631.0	

STEEL PLATE BEAM GUARD SHORT RADIUS

CATEGORY	STATION TO STATION	LOCATION	614.0345 LF	REMARKS
0010	247+81.80 - 247+96.05	LT.	31.25	8' RADIUS ALONG FIELD ENTRANCE
0010	287+60.80 - 288+02.96	LT.	81.25	36' RADIUS ALONG KLIMEK LN.
0010	307+80.00 - 307+94.25	RT.	31.25	8' RADIUS ALONG FIELD ENTRANCE
0010	307+36.05 - 307+50.30	LT.	31.25	8' RADIUS ALONG FIELD ENTRANCE
		TOTAL 0010	175.00	

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

CATEGORY	STATION TO STATION	LOCATION	614.0370 EACH	REMARKS
0010	*246+69.30 - 247+19.30	LT.	1	CULVERT
0010	*8+71.84 - 9+21.84	KLIMEK LN., LT.	1	CULVERT
0010	288+27.96 - 288+77.96*	LT.	1	CULVERT
0010	*306+05.00 - 306+55.00	RT.	1	CULVERT
0010	307+87.80 - 308+37.80*	LT.	1	CULVERT
0010	*375+83.51 - 376+33.51	RT.	1	B-61-56
		TOTAL 0010	6	

NOTE: * = LOCATION OF POST #1

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

CATEGORY	STATION TO STATION	LOCATION	614.0390 EACH	REMARKS
0010	247+96.05 - 247+96.05	LT.	1	ALONG FIELD ENTRANCE
0010	307+94.25 - 307+94.25	RT.	1	ALONG FIELD ENTRANCE
0010	307+36.05 - 307+36.05	LT.	1	ALONG FIELD ENTRANCE
		TOTAL 0010	3	

SALVAGED RAIL

CATEGORY	STATION TO STATION	LOCATION	614.0920 LF	REMARKS
0010	18+04 - 19+88	LT.	184	B-61-114
0010	18+04 - 19+86	RT.	183	B-61-114
0010	21+89 - 25+97	LT.	408	B-61-114
0010	21+91 - 25+96	RT.	404	B-61-114
0010	81+53 - 82+68	LT.	115	B-61-005
0010	81+53 - 82+68	RT.	115	B-61-005
0010	84+61 - 85+73	LT.	113	B-61-005
0010	84+61 - 85+67	RT.	107	B-61-005
0010	141+75 - 146+82	LT.	512	STEEP SLOPE
0010	211+62 - 212+70	LT.	108	B-61-391
0010	211+82 - 212+91	RT.	109	B-61-391
0010	214+51 - 215+60	LT.	109	B-61-391
0010	214+72 - 215+73	RT.	101	B-61-391
0010	235+89 - 237+47	LT.	158	CULVERT
0010	246+61 - 248+35	RT.	174	CULVERT
0010	246+67 - 247+89	LT.	122	CULVERT
0010	287+73 - 288+55	LT.	86	CULVERT
0010	307+37 - 308+22	LT.	87	CULVERT
0010	324+61 - 326+19	LT.	158	CULVERT
0010	324+61 - 326+19	RT.	158	CULVERT
0010	376+70 - 376+79	RT.	61	B-61-56
0010	377+13 - 379+92	RT.	331	B-61-101
0010	379+02 - 380+00	LT.	97	B-61-101
0010	380+44 - 381+95	RT.	150	B-61-101
0010	380+54 - 382+00	LT.	146	B-61-101
0010	463+17 - 464+38	RT.	121	B-61-751
0010	463+31 - 464+59	LT.	128	B-61-751
0010	465+67 - 466+86	RT.	119	B-61-751
0010	465+88 - 467+14	LT.	126	B-61-751
0010	509+52 - 510+73	LT.	121	B-61-236
0010	509+52 - 510+73	RT.	121	B-61-236
		TOTAL 0010	5032	

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MGS GUARDRAIL 3

CATEGORY	STATION TO STATION	LOCATION	614.2300 LF	REMARKS
0010	81+21.98 - 82+84.48	RT.	62.5	B-61-202
0010	81+71.98 - 81+84.48	LT.	12.5	B-61-202
0010	85+27.53 - 85+90.03	LT.	62.5	B-61-202
0010	85+27.53 - 85+40.03	RT.	12.5	B-61-202
0010	211+75.50 - 211+88.00	LT.	12.5	B-61-204
0010	211+60.00 - 212+22.42	RT.	62.5	B-61-204
0010	215+19.08 - 215+81.58	LT.	62.5	B-61-204
0010	215+56.00 - 215+68.50	RT.	12.5	B-61-204
		TOTAL 0010	300.0	

MGS GUARDRAIL 3 K

CATEGORY	STATION TO STATION	LOCATION	614.2330 LF	REMARKS
0010	18+85.10 - 19+47.60	RT.	62.5	B-61-114
0010	19+36.10 - 19+48.60	LT.	12.5	B-61-114
0010	22+27.90 - 27+40.40	LT.	512.5	B-61-114
0010	22+31.40 - 27+43.90	RT.	512.5	B-61-114
0010	142+03.13 - 148+86.44	LT.	687.5	STEEP SLOPE
0010	166+28.13 - 171+90.63	RT.	562.5	STEEP SLOPE
0010	166+78.13 - 171+53.13	LT.	475.0	STEEP SLOPE
0010	195+53.13 - 198+28.13	RT.	275.0	STEEP SLOPE
0010	237+95.00 - 238+45.00	LT.	50.0	CULVERT
0010	237+95.00 - 238+45.00	RT.	50.0	CULVERT
0010	247+19.00 - 247+69.00	RT.	50.0	CULVERT
0010	287+73.10 - 288+23.10	RT.	50.0	CULVERT
0010	313+53.13 - 322+09.65	RT.	862.5	STEEP SLOPE
0010	325+15.00 - 325+65.00	LT.	50.0	CULVERT
0010	325+15.00 - 325+65.00	RT.	50.0	CULVERT
0010	377+22.04 - 379+52.70	RT.	255.0	B-61-56 & B-61-101
0010	379+48.10 - 379+60.60	LT.	12.5	B-61-101
0010	380+81.40 - 381+31.40	RT.	50.0	B-61-101
0010	380+90.90 - 381+65.90	LT.	75.0	B-61-101
0010	393+28.13 - 396+03.13	RT.	275.0	STEEP SLOPE
0010	461+99.10 - 463+99.10	RT.	200.0	B-61-751
0010	463+32.10 - 464+19.60	LT.	87.5	B-61-751
0010	466+05.70 - 466+93.20	RT.	87.5	B-61-751
0010	466+26.70 - 466+64.20	LT.	37.5	B-61-751
0010	509+96.85 - 510+34.35	RT.	37.5	B-61-236
0010	509+84.35 - 510+34.35	LT.	50.0	B-61-236
		TOTAL 0010	5430.0	

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MGS THRIE BEAM TRANSITION

CATEGORY	STATION TO STATION	LOCATION	614.2500 LF	REMARKS
0010	19+47.60 - 19+87.00	RT.	39.4	B-61-114
0010	19+48.60 - 19+88.00	LT.	39.4	B-61-114
0010	21+88.50 - 22+27.90	LT.	39.4	B-61-114
0010	21+92.00 - 22+31.40	RT.	39.4	B-61-114
0010	81+84.48 - 82+23.88	RT.	39.4	B-61-202
0010	81+84.48 - 82+23.88	LT.	39.4	B-61-202
0010	84+88.13 - 85+27.53	LT.	39.4	B-61-202
0010	84+88.13 - 85+27.53	RT.	39.4	B-61-202
0010	211+88.00 - 212+27.40	LT.	39.4	B-61-204
0010	212+22.42 - 212+64.32	RT.	39.4	B-61-204
0010	214+79.68 - 215+19.08	LT.	39.4	B-61-204
0010	215+16.60 - 215+56.00	RT.	39.4	B-61-204
0010	379+60.60 - 380+00.00	LT.	39.4	B-61-101
0010	380+42.00 - 380+81.40	RT.	39.4	B-61-101
0010	380+51.50 - 380+90.90	LT.	39.4	B-61-101
0010	463+99.10 - 464+38.50	RT.	39.4	B-61-751
0010	464+19.60 - 464+59.00	LT.	39.4	B-61-751
0010	465+66.30 - 466+05.70	RT.	39.4	B-61-751
0010	465+87.30 - 466+26.70	LT.	39.4	B-61-751
0010	510+34.35 - 510+73.75	RT.	39.4	B-61-236
0010	510+34.35 - 510+73.75	LT.	39.4	B-61-236
		TOTAL 0010	828.0	

MGS GUARDRAIL TERMINAL EAT

CATEGORY	STATION	TO	STATION	LOCATION	614.2610 EACH	REMARKS
0010	*18+31.97	-	18+85.10	RT.	1	B-61-114
0010	*18+82.97	-	19+36.10	LT.	1	B-61-114
0010	27+40.40	-	27+93.53*	LT.	1	B-61-114
0010	27+43.90	-	27+97.03*	RT.	1	B-61-114
0010	*80+68.85	-	81+21.98	RT.	1	B-61-202
0010	*81+18.85	-	81+71.98	LT.	1	B-61-202
0010	85+93.16	-	86+43.16*	LT.	1	B-61-202
0010	85+43.16	-	85+93.16*	RT.	1	B-61-202
0010	*141+50.00	-	142+03.13	LT.	1	STEEP SLOPE
0010	148+86.44	-	149+39.57*	LT.	1	STEEP SLOPE
0010	*165+75.00	-	166+28.13	RT.	1	STEEP SLOPE
0010	171+90.63	-	172+43.76*	RT.	1	STEEP SLOPE
0010	*166+25.00	-	166+78.13	LT.	1	STEEP SLOPE
0010	171+53.13	-	172+06.26*	LT.	1	STEEP SLOPE
0010	*195+00.00	-	195+53.13	RT.	1	STEEP SLOPE
0010	198+28.13	-	198+81.26*	RT.	1	STEEP SLOPE
0010	*211+22.37	-	211+72.37	LT.	1	B-61-204
0010	*211+06.99	-	211+60.00	RT.	1	B-61-204
0010	215+84.71	-	216+34.71*	LT.	1	B-61-204
0010	215+71.63	-	216+21.63*	RT.	1	B-61-204
0010	*237+41.87	-	237+95.00	LT.	1	CULVERT
0010	238+45.00	-	238+98.13*	LT.	1	CULVERT
0010	*237+41.87	-	237+95.00	RT.	1	CULVERT
0010	238+45.00	-	238+98.13*	RT.	1	CULVERT
0010	*246+65.87	-	247+19.00	RT.	1	CULVERT
0010	247+69.00	-	248+22.13*	RT.	1	CULVERT
0010	*287+19.97	-	287+73.10	RT.	1	CULVERT
0010	288+23.10	-	288+76.23*	RT.	1	CULVERT
0010	*313+00.00	-	313+53.13	RT.	1	STEEP SLOPE
0010	322+09.65	-	322+62.78*	RT.	1	STEEP SLOPE
0010	*324+61.87	-	325+15.00	LT.	1	CULVERT
0010	325+65.00	-	326+18.13*	LT.	1	CULVERT
0010	*324+61.87	-	325+15.00	RT.	1	CULVERT
0010	325+65.00	-	326+18.13*	RT.	1	CULVERT
0010	*378+94.97	-	379+48.10	LT.	1	B-61-101
0010	381+31.40	-	381+84.53*	RT.	1	B-61-101
0010	381+65.90	-	382+19.03*	LT.	1	B-61-101
0010	*392+75.00	-	393+28.13	RT.	1	STEEP SLOPE
0010	396+03.13	-	396+56.26*	RT.	1	STEEP SLOPE
0010	*461+45.97	-	461+99.10	RT.	1	B-61-751
0010	*462+78.97	-	463+32.10	LT.	1	B-61-751
0010	466+93.20	-	467+46.33*	RT.	1	B-61-751
0010	466+64.20	-	467+17.13*	LT.	1	B-61-751
0010	*509+43.72	-	509+96.85	RT.	1	B-61-236
0010	*509+31.22	-	509+84.35	LT.	1	B-61-236
				TOTAL 0010	45	

NOTE: * = LOCATION OF POST #1

3

MAINTENANCE AND REPAIR OF HAUL ROADS (1634-03-71)

CATEGORY	LOCATION	618.0100 EACH	REMARKS
0010	PROJECT 1634-03-71	1	
	TOTAL 0010	1	

MOBILIZATION

CATEGORY	LOCATION	619.1000 EACH	REMARKS
0010	PROJECT 1634-03-71	0.62	ROADWAY
	TOTAL 0010	0.62	
0020	PROJECT 1634-03-71	0.15	STRUCTURE B-61-202
	TOTAL 0020	0.15	
0030	PROJECT 1634-03-71	0.15	STRUCTURE B-61-204
	TOTAL 0030	0.15	

WATER

CATEGORY	LOCATION	624.0100 MGAL	REMARKS
0010	UNDISTRIBUTED	150	
	TOTAL 0010	150	

FINISHING ITEMS

CATEGORY	STATION TO STATION	LOCATION	TOPSOIL 625.0100 SY	SALVAGED TOPSOIL 625.0500 SY	MULCHING 627.0200 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 20 630.0120 LB	REMARKS
0010	54+45 - 55+31	LT.	255	---	308	0.19	8.3	DRIVEWAY REMOVAL
0010	58+03 - 60+53	LT.	---	216	372	0.23	10.0	CTH TTT TURN LANE
0010	61+37 - 66+00	RT.	---	1234	1448	0.91	39.1	CRYSTAL VALLEY RD. INT.
0010	66+00 - 68+00	LT.	223	---	378	0.24	10.2	RECONSTRUCT FOR B-61-202
0010	66+00 70+50	RT.	2907	---	---	2.02	87.0	RECONSTRUCT FOR B-61-202
0010	68+00 69+50	LT.	740	---	---	0.53	22.9	RECONSTRUCT FOR B-61-202
0010	69+50 71+50	LT.	690	---	836	0.53	22.6	RECONSTRUCT FOR B-61-202
0010	70+50 72+00	RT.	469	---	579	0.36	15.6	RECONSTRUCT FOR B-61-202
0010	71+50 75+00	LT.	1689	---	---	1.23	52.5	RECONSTRUCT FOR B-61-202
0010	72+00 75+00	RT.	1694	---	---	1.20	51.6	RECONSTRUCT FOR B-61-202
0010	75+00 80+00	LT.	1267	---	1650	1.04	44.6	RECONSTRUCT FOR B-61-202
0010	75+00 79+00	RT.	2201	---	2490	1.57	67.2	INCLUDES NEW DRIVEWAY
0010	79+00 81+50	RT.	1168	---	---	0.88	37.7	RECONSTRUCT FOR B-61-202
0010	80+00 81+50	LT.	555	---	---	0.43	18.6	RECONSTRUCT FOR B-61-202
0010	81+50 82+21	LT.	250	---	---	0.17	7.2	RECONSTRUCT FOR B-61-202
0010	81+50 82+21	RT.	266	---	---	0.19	7.9	RECONSTRUCT FOR B-61-202
0010	84+90 85+50	LT.	195	---	---	0.13	5.8	RECONSTRUCT FOR B-61-202
0010	84+90 85+50	RT.	206	---	---	0.14	6.0	RECONSTRUCT FOR B-61-202
0010	85+50 87+00	LT.	499	---	---	0.37	16.1	RECONSTRUCT FOR B-61-202
0010	85+50 87+00	RT.	546	---	---	0.44	18.8	RECONSTRUCT FOR B-61-202
0010	87+00 95+00	LT.	2091	---	2720	1.70	73.4	RECONSTRUCT FOR B-61-202
0010	87+00 - 95+00	RT.	2012	---	2661	1.68	71.8	RECONSTRUCT FOR B-61-202
0010	152+02 - 152+49	RT.	78	---	95	0.06	2.6	DRIVEWAY REMOVAL
0010	153+39 - 153+66	LT.	51	---	61	0.04	1.6	DRIVEWAY REMOVAL
0010	172+88 173+30	RT.	117	---	143	0.09	3.9	DRIVEWAY REMOVAL
0010	207+05 - 212+25	RT.	1050	---	1319	0.83	35.6	DOPP RD. TURN LANE
0010	209+50 - 212+00	LT.	225	---	407	0.26	11.0	RECONSTRUCT FOR B-61-204
0010	212+00 - 212+25	LT.	61	---	---	0.05	1.9	RECONSTRUCT FOR B-61-204
0010	212+25 - 212+62	RT.	104	---	---	0.07	3.2	RECONSTRUCT FOR B-61-204
0010	214+82 - 215+50	LT.	246	---	---	0.15	6.2	RECONSTRUCT FOR B-61-204
0010	215+19 - 215+75	RT.	220	---	---	0.15	6.2	RECONSTRUCT FOR B-61-204
0010	215+50 - 223+20	LT.	2158	---	2664	1.68	71.9	RECONSTRUCT FOR B-61-204
0010	215+75 223+00	RT.	1930	---	2509	1.58	67.7	RECONSTRUCT FOR B-61-204
0010	225+60 - 228+12	LT.	570	---	740	0.47	20.0	DRIVEWAY REMOVALS
0010	470+93 - 471+41	LT.	75	---	105	0.07	2.8	DRIVEWAY REMOVAL
0010	470+96 - 471+41	RT.	61	---	78	0.05	2.1	DRIVEWAY REMOVAL
0010	485+41 - 488+17	RT.	---	264	423	0.27	11.4	CTH CC TURN LANE
		TOTAL 0010	26869	1714	21986	22	943	

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SILT FENCE

CATEGORY	STATION TO STATION	LOCATION	628.1504 LF	REMARKS
0010	17+35 - 19+65	LT.	231	
0010	17+35 - 19+00	RT.	167	
0010	26+85 - 29+15	LT.	235	
0010	26+85 - 28+65	RT.	182	
0010	65+85 - 70+40	RT.	473	
0010	71+75 - 74+85	LT.	319	
0010	71+85 - 75+75	RT.	406	
0010	78+75 - 82+21	RT.	348	
0010	79+00 - 82+21	LT.	321	
0010	84+90 - 90+75	LT.	592	
0010	84+90 - 88+15	RT.	326	
0010	92+00 - 95+15	RT.	318	
0010	140+15 - 142+40	LT.	236	
0010	148+35 - 150+00	LT.	218	
0010	164+85 - 166+40	RT.	164	
0010	165+70 - 167+15	LT.	148	
0010	171+10 - 172+80	LT.	182	
0010	171+60 - 172+80	RT.	139	
0010	197+85 - 200+15	RT.	230	
0010	208+50 - 209+74	RT.	252	
0010	209+86 - 212+86	RT.	354	
0010	211+25 - 212+37	LT.	114	
0010	214+57 - 219+50	LT.	501	
0010	215+11 - 218+00	RT.	294	
0010	219+00 - 219+83	RT.	98	
0010	220+27 - 222+01	RT.	201	
0010	236+60 - 239+65	RT.	329	
0010	236+70 - 239+80	LT.	332	
0010	245+65 - 249+15	RT.	371	
0010	246+50 - 247+90	LT.	156	
0010	8+35 - 9+40	KLIMEK LN., LT.	109	
0010	305+15 - 307+80	RT.	276	
0010	312+45 - 313+85	RT.	148	
0010	321+65 - 322+80	RT.	118	
0010	323+65 - 326+75	RT.	345	
0010	381+00 - 382+40	RT.	146	
0010	381+55 - 383+10	LT.	160	
0010	395+75 - 397+85	RT.	220	
0010	462+05 - 463+60	RT.	157	
0010	462+60 - 463+60	LT.	110	
0010	466+40 - 467+45	LT.	118	
0010	485+30 - 488+25	RT.	307	
0010		UNDISTRIBUTED	2138	
		TOTAL 0010	12589	

SILT FENCE MAINTENANCE

CATEGORY	LOCATION	628.1520 LF	REMARKS
0010	UNDISTRIBUTED	12589	
	TOTAL 0010	12589	

MOBILIZATIONS EROSION CONTROL

CATEGORY	LOCATION	628.1905 EACH	REMARKS
0010	PROJECT 1634-03-71	15	
	TOTAL 0010	15	

MOBILIZATIONS EMERGENCY EROSION CONTROL

CATEGORY	LOCATION	628.1910 EACH	REMARKS
0010	PROJECT 1634-03-71	5	
	TOTAL 0010	5	

EROSION MAT CLASS I TYPE A

CATEGORY	STATION TO STATION	LOCATION	628.2002 SY	REMARKS
0010	66+00 - 70+50	RT.	3227	
0010	68+00 - 69+50	LT.	849	
0010	71+50 - 75+00	LT.	1946	
0010	171+25 - 172+80	LT.	404	
0010	393+00 - 393+50	RT.	134	
0010	395+75 - 396+25	RT.	73	
0010		UNDISTRIBUTED	1327	
		TOTAL 0010	7960	

EROSION MAT URBAN CLASS I TYPE B

CATEGORY	STATION TO STATION	LOCATION	628.2008 SY	REMARKS
0010	72+00 - 75+00	RT.	1912	
0010	79+00 - 81+50	RT.	1395	
0010	80+00 - 81+50	LT.	690	
0010	85+50 - 87+00	LT.	595	
0010	85+50 - 87+00	RT.	697	
0010	378+50 - 379+99	LT.	176	
0010	381+12 - 382+30	RT.	314	
0010	381+69 - 383+00	LT.	166	
0010	462+00 - 463+50	RT.	288	
0010	466+50 - 467+42	LT.	216	
0010		UNDISTRIBUTED	1290	
		TOTAL 0010	7739	

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EROSION MAT CLASS II TYPE C

CATEGORY	STATION TO STATION	LOCATION	628.2027 SY	REMARKS
0010	81+50 - 82+21	LT.	266	
0010	81+50 - 82+21	RT.	294	
0010	84+90 - 85+50	LT.	213	
0010	84+90 - 85+50	RT.	223	
0010	212+00 - 212+25	LT.	72	
0010	212+25 - 212+62	RT.	118	
0010	214+82 - 215+50	LT.	231	
0010	215+19 - 215+75	RT.	231	
0010		UNDISTRIBUTED	330	
		TOTAL 0010	1978	

TURBIDITY BARRIERS

CATEGORY	STATION TO STATION	LOCATION	628.6005 SY	REMARKS
0010	82+21 - 82+90	LT. & RT.	241	
0010	84+50 - 84+90	LT. & RT.	233	
0010	212+37 - 213+50	LT. & RT.	333	
0010	214+00 - 215+11	LT. & RT.	313	
		TOTAL 0010	1120	

INLET PROTECTION TYPE A

CATEGORY	STATION	LOCATION	628.7005 EACH	REMARKS
0010	84+98	LT.	1	
0010	84+98	RT.	1	
0010	212+21	LT.	1	
0010	212+55	RT.	1	
		TOTAL 0010	4	

INLET PROTECTION TYPE B

CATEGORY	STATION	LOCATION	628.7010 EACH	REMARKS
0010	84+98	LT.	1	
0010	84+98	RT.	1	
0010	212+21	LT.	1	
0010	212+55	RT.	1	
		TOTAL 0010	4	

TEMPORARY DITCH CHECKS

CATEGORY	STATION	LOCATION	628.7504 LF	REMARKS
0010	59+00	LT.	16	
0010	60+00	LT.	16	
0010	62+00	RT.	16	
0010	63+00	RT.	16	
0010	63+75	RT.	16	
0010	68+00	LT.	16	
0010	69+00	LT.	16	
0010	70+00	LT.	16	
0010	70+50	RT.	16	
0010	71+00	RT.	16	
0010	75+00	LT.	16	
0010	76+50	RT.	16	
0010	78+75	LT.	16	
0010	88+75	RT.	16	
0010	89+50	RT.	16	
0010	90+50	RT.	16	
0010	91+00	LT.	16	
0010	91+25	RT.	16	
0010	91+75	LT.	16	
0010	92+50	LT.	16	
0010	194+75	RT.	16	
0010	195+50	RT.	16	
0010	207+50	RT.	16	
0010	208+50	RT.	16	
0010	210+25	LT.	16	
0010	211+00	LT.	16	
0010	218+00	RT.	16	
0010	218+75	RT.	16	
0010	219+60	LT.	16	
0010	220+25	LT.	16	
0010	221+00	LT.	16	
0010	221+75	LT.	16	
0010	222+50	LT.	16	
0010	226+00	LT.	16	
0010	226+75	LT.	16	
0010	227+50	LT.	16	
0010	286+50	RT.	16	
0010	287+25	RT.	16	
0010	308+00	LT.	16	
0010	308+75	LT.	16	
0010	378+75	LT.	16	
0010	379+25	LT.	16	
0010	461+00	RT.	16	
0010	461+50	RT.	16	
0010	509+45	RT.	16	
0010	509+75	LT.	16	
0010	1+25	DRIVEWAY (STA. 77+50, RT.), RT.	16	
0010	1+75	DRIVEWAY (STA. 77+50, RT.), RT.	16	
0010		UNDISTRIBUTED	154	
		TOTAL 0010	922	

SEEDING BORROW PIT

CATEGORY	LOCATION	630.0300 LB	REMARKS
0010	BORROW PIT	130	
	TOTAL 0010	130	

MARKERS CULVERT END

CATEGORY	STATION	LOCATION	633.5200 EACH	REMARKS
0010	209+21	RT.	1	
		TOTAL 0010	1	

POSTS WOOD

CATEGORY	SIGN #	4X6-INCH 12-FT 634.0612 EACH	4X6-INCH 16-FT 634.0616 EACH	4X6-INCH 18-FT 634.0618 EACH	REMARKS
0010	600	---	2	---	
0010	601	---	1	---	
0010	602	---	1	---	
0010	603	---	1	---	
0010	604	---	1	---	
0010	605	---	1	---	
0010	606	---	1	---	
0010	607	---	1	---	
0010	608	---	1	---	
0010	609	---	1	---	
0010	610	---	1	---	
0010	611	---	1	---	
0010	612	---	1	---	
0010	613	---	1	---	
0010	614	---	1	---	
0010	615	---	1	---	
0010	616	---	1	---	
0010	617	---	1	---	
0010	618	---	1	---	
0010	619	---	1	---	
0010	620	---	1	---	
0010	621	---	2	---	
0010	622	---	1	---	
0010	623	---	1	---	
0010	624	---	1	---	
0010	625	---	1	---	
0010	626	---	1	---	
0010	627	---	2	---	
0010	628	---	1	---	
0010	629	---	1	---	
0010	631	---	1	---	
0010	632	---	1	---	
0010	633	---	2	---	
0010	634	---	2	---	
	SUBTOTALS =	0	39	0	

POSTS WOOD

CATEGORY	SIGN #	4X6-INCH 12-FT 634.0612 EACH	4X6-INCH 16-FT 634.0616 EACH	4X6-INCH 18-FT 634.0618 EACH	REMARKS
0010	636	---	1	---	
0010	637	---	1	---	
0010	638	---	1	---	
0010	639	---	1	---	
0010	640	---	1	---	
0010	641	---	1	---	
0010	642	---	1	---	
0010	643	---	1	---	
0010	644	---	2	---	
0010	645	---	1	---	
0010	646	1	---	---	
0010	647	---	1	---	
0010	648	1	---	---	
0010	649	---	1	---	
0010	650	---	1	---	
0010	651	---	1	---	
0010	652	---	1	---	
0010	653	---	1	---	
0010	654	---	2	---	
0010	655	---	1	---	
0010	656	---	1	---	
0010	657	---	2	---	
0010	658	---	2	---	
0010	659	---	1	---	
0010	661	---	1	---	
0010	662	1	---	---	
0010	663	1	---	---	
0010	664	1	---	---	
0010	665	1	---	---	
0010	666	---	1	---	
0010	667	---	1	---	
0010	668	---	1	---	
0010	669	---	1	---	
0010	670	---	1	---	
0010	671	---	1	---	
0010	672	---	1	---	
0010	673	---	1	---	
0010	674	---	1	---	
0010	675, 676	---	---	1	
0010	677	1	---	---	
0010	678	1	---	---	
	TOTAL 0010	8	76	1	

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SIGNS TYPE I REFLECTIVE SH

CATEGORY	STATION	LOCATION	REF.#	SIGN CODE	SIZE	637.1220 SF	REMARKS
0010	15+50	LT.	600	E10-82	72" X 16"	8.00	TOURIST-ORIENTATED DIRECTIONAL SIGNS, [LA] CRAFT BARN, 1 1/2
0010	221+05	RT.	621	E10-82	72" X 21"	10.50	TOURIST-ORIENTATED DIRECTIONAL SIGNS, [LA] HIDDEN VALLEY, 3 PAINTBALL
0010	233+15	LT.	627	E10-82	72" X 21"	10.50	TOURIST-ORIENTATED DIRECTIONAL SIGNS, HIDDEN VALLEY [RA], PAINTBALL 3
					TOTAL 0010	29.00	

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SIGNS TYPE II REFLECTIVE H

CATEGORY	STATION	LOCATION	REF.#	SIGN CODE	SIZE	637.2210 SF	REMARKS
0010	47+90	RT.	601	J1-1	24" X 39"	6.50	JUNCTION ASSEMBLY
				M2-1	---	---	JUNCTION MARKER
				M1-5A	---	---	COUNTY MARKER, TTT
0010	56+50	RT.	602	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-5A	---	---	COUNTY MARKER, TTT
				M6-1	---	---	ARROW - LEFT
0010	56+95	LT.	603	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-4	---	---	US ROUTE MARKER, 53
				M6-4	---	---	DIRECTIONAL ARROWS LEFT - RIGHT
0010	57+00	LT.	604	R1-1	30" X 30"	5.18	STOP
0010	58+00	LT.	606	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-5A	---	---	COUNTY MARKER, TTT
				M6-1	---	---	ARROW - RIGHT
0010	67+00	LT.	607	J1-1	24" X 39"	6.50	JUNCTION ASSEMBLY
				M2-1	---	---	JUNCTION MARKER
				M1-5A	---	---	COUNTY MARKER, TTT
0010	92+60	LT.	608	I55-56	30" X 36"	7.50	ADOPT - A - HIGHWAY
						---	G-E-T HIGH
						---	SCHOOL NAT'L
						---	HONOR SOC
0010	92+60	RT.	609	I55-56	30" X 36"	7.50	ADOPT - A - HIGHWAY
						---	GEA
						---	FARM
						---	TECHNOLOGIES
0010	109+40	RT.	610	R1-1	30" X 30"	5.18	STOP
0010	124+00	LT.	611	R1-1	30" X 30"	5.18	STOP
0010	133+10	LT.	612	R1-1	30" X 30"	5.18	STOP
0010	142+65	RT.	613	R1-1	30" X 30"	5.18	STOP
0010	151+10	LT.	614	R1-1	30" X 30"	5.18	STOP
0010	151+70	RT.	616	R1-1	30" X 30"	5.18	STOP
0010	210+70	RT.	617	R1-1	30" X 30"	5.18	STOP
0010	215+78	RT.	618	J1-1	24" X 39"	6.50	JUNCTION ASSEMBLY
				M2-1	---	---	JUNCTION MARKER
				M1-5A	---	---	COUNTY MARKER, TT
0010	217+78	LT.	619	I55-56	30" X 36"	7.50	ADOPT - A - HIGHWAY
						---	GEA
						---	FARM
						---	TECHNOLOGIES
					SUBTOTAL =	105.94	

SIGNS TYPE II REFLECTIVE H (CONTINUED)

CATEGORY	STATION	LOCATION	REF.#	SIGN CODE	SIZE	637.2210 SF	REMARKS
0010	217+78	RT.	620	I55-56	30" X 36"	7.50	ADOPT - A - HIGHWAY
						---	BAR CITY VANS
						---	IN MEMORY OF
						---	TONY KOENIG
0010	224+40	LT.	622	J4-1	24" X 36"	6.00	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
				M3-3	---	---	CARDINAL ROUTE MARKER, SOUTH
				M1-4	---	---	US ROUTE MARKER, 53
0010	224+60	RT.	623	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-5A	---	---	COUNTY MARKER, TT
				M6-4	---	---	ARROW - LEFT
0010	224+95	LT.	624	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-4	---	---	US ROUTE MARKER, 53
				M6-4	---	---	DIRECTIONAL ARROWS LEFT - RIGHT
0010	226+00	LT.	625	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-5A	---	---	COUNTY MARKER, TT
				M6-1	---	---	ARROW - RIGHT
0010	227+50	RT.	626	J4-1	24" X 36"	6.00	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
				M3-1	---	---	CARDINAL ROUTE MARKER, NORTH
				M1-4	---	---	US ROUTE MARKER, 53
0010	238+25	LT.	628	J1-1	24" X 39"	6.50	JUNCTION ASSEMBLY
				M2-1	---	---	JUNCTION MARKER
				M1-5A	---	---	COUNTY MARKER, TT
0010	336+85	LT.	629	I55-56	30" X 36"	7.50	ADOPT - A - HIGHWAY
							BAR CITY VANS
							IN MEMORY OF
							TONY KOENIG
0010	354+85	LT.	632	R2-1	24" X 30"	5.00	SPEED LIMIT 55
0010	357+00	LT.	633	D2-2	84" X 24"	14.00	GALESVILLE 8, LA CROSSE 30
0010	357+55	RT.	634	I2-3	60" X 24"	10.00	ETTRICK, POPULATION 524
0010	361+85	LT.	635	J4-1	24" X 36"	6.00	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
				M3-3	---	---	CARDINAL ROUTE MARKER, SOUTH
				M1-4	---	---	US ROUTE MARKER, 53
0010	365+50	RT.	636	R2-1	24" X 30"	5.00	SPEED LIMIT 45
0010	366+85	RT.	637	R1-1	30" X 30"	5.18	STOP
0010	367+00	LT.	638	R2-1	24" X 30"	5.00	SPEED LIMIT 45
0010	367+05	RT.	639	R7-1L	18" X 24"	3.00	NO PARKING ANY TIME - LEFT ARROW
0010	368+65	RT.	640	R1-1	30" X 30"	5.18	STOP
0010	369+00	RT.	641	R7-1R	18" X 24"	3.00	NO PARKING ANY TIME - RIGHT ARROW
0010	369+10	RT.	642	J1-1	24" X 39"	6.50	JUNCTION ASSEMBLY
				M2-1	---	---	JUNCTION MARKER
				M1-5A	---	---	COUNTY MARKER, D
0010	373+00	RT.	643	R1-1	30" X 30"	5.18	STOP
0010	373+45	RT.	644	D1-1	60" X 15"	6.25	MELROSE [RA]
0010	376+35	RT.	645	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-5A	---	---	COUNTY MARKER, D
				M6-4	---	---	DIRECTIONAL ARROWS LEFT - RIGHT
0010	377+15	LT.	647	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-4	---	---	US ROUTE MARKER, 53
				M6-4	---	---	DIRECTIONAL ARROWS LEFT - RIGHT
0010	377+45	RT.	649	R1-1	30" X 30"	5.18	STOP
0010	377+50	RT.	650	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
					SUBTOTAL =	150.29	

SIGNS TYPE II REFLECTIVE H (CONTINUED)

CATEGORY	STATION	LOCATION	REF.#	SIGN CODE	SIZE	637.2210 SF	REMARKS
				M6-4	---	---	DIRECTIONAL ARROWS LEFT - RIGHT
0010	378+50	LT.	651	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-5A	---	---	COUNTY MARKER, D
				M6-4	---	---	DIRECTIONAL ARROWS LEFT - RIGHT
0010	381+80	LT.	652	R2-1	24" X 30"	5.00	SPEED LIMIT 45
0010	381+80	RT.	653	R2-1	24" X 30"	5.00	SPEED LIMIT 55
0010	382+90	LT.	654	D1-1	60" X 15"	6.25	[LA] MELROSE
0010	389+50	LT.	655	J1-1	24" X 39"	6.50	JUNCTION ASSEMBLY
				M2-1	---	---	JUNCTION MARKER
				M1-5A	---	---	COUNTY MARKER, D
0010	391+15	RT.	656	J4-1	24" X 36"	6.00	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
				M3-1	---	---	CARDINAL ROUTE MARKER, NORTH
				M1-4	---	---	US ROUTE MARKER, 53
0010	393+20	LT.	657	I2-3	60" X 24"	10.00	ETTRICK, POPULATION 524
0010	393+20	RT.	658	D2-2	78" X 24"	13.00	BLAIR 9, WHITEHALL 16
0010	449+25	LT.	659	R1-1	30" X 30"	5.18	STOP
0010	455+50	RT.	661	I55-56	30" X 36"	7.50	ADOPT - A - HIGHWAY ETTRICK LIONS CLUB
0010	479+15	RT.	666	J1-1	24" X 39"	6.50	JUNCTION ASSEMBLY
				M2-1	---	---	JUNCTION MARKER
				M1-5A	---	---	COUNTY MARKER, CC
0010	481+20	LT.	667	R1-1	30" X 30"	5.18	STOP
0010	482+20	RT.	668	R1-1	30" X 30"	5.18	STOP
0010	488+20	RT.	669	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-5A	---	---	COUNTY MARKER, CC
				M6-1	---	---	ARROW - RIGHT
0010	489+10	RT.	670	R1-1	30" X 30"	5.18	STOP
0010	489+15	RT.	671	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-4	---	---	US ROUTE MARKER, 53
				M6-4	---	---	DIRECTIONAL ARROWS LEFT - RIGHT
0010	489+30	LT.	672	J13-1	24" X 45"	7.50	DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
				M1-5A	---	---	COUNTY MARKER, CC
				M6-1	---	---	ARROW - LEFT
0010	491+45	LT.	673	R1-1	30" X 30"	5.18	STOP
0010	501+40	LT.	674	J1-1	24" X 39"	6.50	JUNCTION ASSEMBLY
				M2-1	---	---	JUNCTION MARKER
				M1-5A	---	---	COUNTY MARKER, CC
					TOTAL 0010	397.06	

3

SIGNS TYPE II REFLECTIVE F

CATEGORY	STATION	LOCATION	REF.#	SIGN CODE	SIZE	637.2230 SF	REMARKS
0010	57+30	RT.	605	W1-7	48" X 24"	8.00	NIGHT ARROW (DOUBLE)
0010	151+50	LT.	615	W14-1	30" X 30"	6.25	DEAD END
0010	348+15	RT.	631	W3-5	36" X 36"	9.00	SPEED LIMIT 45 AHEAD [ARROW]
0010	376+78	RT.	646	W5-52R	12" X 36"	3.00	CLEARANCE STRIPER DOWN LEFT
0010	377+14	RT.	648	W5-52L	12" X 36"	3.00	CLEARANCE STRIPER DOWN RIGHT
0010	464+36	RT.	662	W5-52R	12" X 36"	3.00	CLEARANCE STRIPER DOWN LEFT
0010	464+57	LT.	663	W5-52L	12" X 36"	3.00	CLEARANCE STRIPER DOWN RIGHT
0010	465+68	RT.	664	W5-52L	12" X 36"	3.00	CLEARANCE STRIPER DOWN RIGHT
0010	465+90	LT.	665	W5-52R	12" X 36"	3.00	CLEARANCE STRIPER DOWN LEFT
0010	508+10	RT.	675	W1-2L	30" X 30"	6.25	LEFT CURVE
0010	508+10	RT.	676	W13-1	18" X 18"	2.25	ADVISORY SPEED PLATE, 50 MPH
0010	510+71	LT.	677	W5-52L	12" X 36"	3.00	CLEARANCE STRIPER DOWN RIGHT
0010	510+71	RT.	678	W5-52R	12" X 36"	3.00	CLEARANCE STRIPER DOWN LEFT
					TOTAL 0010	55.75	

MOVING SIGNS TYPE II

CATEGORY	STATION	LOCATION	REF. #	638.2102 EACH	REMARKS
0010	64+60	RT.	200	1	STOP
0010	64+65	RT.	201	1	CRYSTAL VALLEY RD.
0010	67+75	RT.	202	1	NO PASSING ZONE
0010	90+10	LT.	203	1	NO PASSING ZONE
0010	198+05	RT.	204	1	NO PASSING ZONE
0010	209+85	RT.	205	1	HWY 53 / DOPP RD.
0010	211+63	LT.	206	1	NO PASSING ZONE
0010	247+00	LT.	207	1	NO PASSING ZONE
0010	396+50	RT.	208	1	NO PASSING ZONE
		TOTAL 0010		9	

REMOVING SIGNS TYPE II

CATEGORY	STATION	LOCATION	REF.#	638.2602 EACH	REMARKS
0010	15+50	LT.	300	1	CRAFT BARN, 1 1/2, LEFT ARROW
0010	47+90	RT.	301	1	JCT
0010	47+90	RT.	302	1	CTH TTT
0010	56+50	RT.	303	1	CTH TTT
0010	56+50	RT.	304	1	ARROW - LEFT
0010	56+95	LT.	305	1	USH 53
0010	56+95	LT.	306	1	ARROW - LEFT & RIGHT
0010	57+00	LT.	307	1	STOP
0010	57+30	RT.	308	1	NIGHT ARROW-DOUBLE
0010	58+00	LT.	309	1	CTH TTT
0010	58+00	LT.	310	1	ARROW - RIGHT
0010	67+00	LT.	311	1	JCT
0010	67+00	LT.	312	1	CTH TTT
0010	82+66	LT.	313	1	CLEARANCE STRIPER DOWN RIGHT
0010	82+66	RT.	314	1	CLEARANCE STRIPER DOWN LEFT
0010	84+63	LT.	315	1	CLEARANCE STRIPER DOWN LEFT
0010	84+63	RT.	316	1	CLEARANCE STRIPER DOWN RIGHT
0010	92+60	LT.	317	1	ADOPT - A - HIGHWAY
0010	92+60	LT.	318	1	G-E-T HIGH SCHOOL
0010	92+60	RT.	319	1	ADOPT - A - HIGHWAY
0010	109+40	RT.	320	1	STOP
0010	124+00	LT.	321	1	STOP
0010	133+10	LT.	322	1	STOP
0010	142+65	RT.	323	1	STOP
0010	151+10	LT.	324	1	STOP
0010	151+50	LT.	325	1	DEAD END
0010	151+70	RT.	326	1	STOP
0010	210+70	RT.	327	1	STOP
0010	212+68	LT.	328	1	CLEARANCE STRIPER DOWN RIGHT
0010	212+89	RT.	329	1	CLEARANCE STRIPER DOWN LEFT
0010	214+53	LT.	330	1	CLEARANCE STRIPER DOWN LEFT
0010	214+74	RT.	331	1	CLEARANCE STRIPER DOWN RIGHT
0010	215+78	RT.	332	1	JCT
0010	215+78	RT.	333	1	CTH TT
0010	217+78	LT.	334	1	ADOPT - A - HIGHWAY
		SUBTOTAL =		35	

REMOVING SIGNS TYPE II (CONTINUED)

CATEGORY	STATION	LOCATION	REF.#	638.2602 EACH	REMARKS
0010	217+78	RT.	335	1	ADOPT - A - HIGHWAY
0010	221+05	RT.	336	1	HIDDEN VALLEY PAINTBALL, 3, LEFT ARROW
0010	224+40	LT.	337	1	SOUTH
0010	224+40	LT.	338	1	USH 53
0010	224+60	RT.	339	1	CTH TT
0010	224+60	RT.	340	1	ARROW - LEFT
0010	224+95	LT.	341	1	USH 53
0010	224+95	LT.	342	1	ARROW - LEFT & RIGHT
0010	226+00	LT.	343	1	CTH TT
0010	226+00	LT.	344	1	ARROW - RIGHT
0010	227+50	RT.	345	1	NORTH
0010	227+50	RT.	346	1	USH 53
0010	233+15	LT.	347	1	HIDDEN VALLEY PAINTBALL, 3, RIGHT ARROW
0010	238+25	LT.	348	1	JCT
0010	238+25	LT.	349	1	CTH TT
0010	336+85	LT.	350	1	ADOPT - A - HIGHWAY
0010	336+85	RT.	351	1	ADOPT - A - HIGHWAY
0010	348+15	RT.	352	1	REDUCED SPEED AHEAD
0010	348+15	RT.	353	1	45 MPH
0010	354+85	LT.	354	1	SPEED LIMIT 55
0010	357+00	LT.	355	1	GALESVILLE 8, LA CROSSE 30
0010	357+55	RT.	356	1	ETTRICK, POPULATION 524
0010	361+85	LT.	357	1	SOUTH
0010	361+85	LT.	358	1	USH 53
0010	365+50	RT.	359	1	SPEED LIMIT 45
0010	366+85	RT.	360	1	STOP
0010	367+00	LT.	361	1	SPEED LIMIT 45
0010	367+05	RT.	362	1	NO PARKING ANYTIME - LEFT ARROW
0010	368+65	RT.	363	1	STOP
0010	369+00	RT.	364	1	NO PARKING ANYTIME - RIGHT ARROW
0010	369+10	RT.	365	1	JCT
0010	369+10	RT.	366	1	CTH D
0010	373+00	RT.	367	1	STOP
0010	373+45	RT.	368	1	MELROSE - ARROW RIGHT
0010	376+35	RT.	369	1	CTH D
0010	376+35	RT.	370	1	ARROW - LEFT & RIGHT
0010	376+78	RT.	371	1	CLEARANCE STRIPER DOWN RIGHT
0010	377+15	LT.	372	1	USH 53
0010	377+15	LT.	373	1	ARROW - LEFT & RIGHT
0010	377+14	RT.	374	1	CLEARANCE STRIPER DOWN RIGHT
0010	377+45	RT.	375	1	STOP
0010	377+50	RT.	376	1	USH 53
0010	377+50	RT.	377	1	ARROW - LEFT & RIGHT
0010	378+50	LT.	378	1	CTH D
0010	378+50	LT.	379	1	ARROW - LEFT & RIGHT
0010	381+80	LT.	380	1	SPEED LIMIT 45
0010	381+80	RT.	381	1	SPEED LIMIT 55
0010	382+90	LT.	382	1	MELROSE - ARROW LEFT
0010	389+50	LT.	383	1	JCT
0010	389+50	LT.	384	1	CTH D
		SUBTOTAL =		50	

REMOVING SIGNS TYPE II (CONTINUED)

CATEGORY	STATION	LOCATION	REF.#	638.2602 EACH	REMARKS
0010	391+15	RT.	385	1	NORTH
0010	391+15	RT.	386	1	USH 53
0010	393+20	LT.	387	1	ETTRICK, POPULATION 524
0010	393+20	RT.	388	1	BLAIR 9, WHITEHALL 16
0010	449+25	LT.	389	1	STOP
0010	455+50	LT.	390	1	ADOPT - A - HIGHWAY
0010	455+50	RT.	391	1	ADOPT - A - HIGHWAY
0010	464+36	RT.	392	1	CLEARANCE STRIPER DOWN LEFT
0010	464+57	LT.	393	1	CLEARANCE STRIPER DOWN RIGHT
0010	465+68	RT.	394	1	CLEARANCE STRIPER DOWN RIGHT
0010	465+90	LT.	395	1	CLEARANCE STRIPER DOWN LEFT
0010	479+15	RT.	396	1	JCT
0010	479+15	RT.	397	1	CTH CC
0010	481+20	LT.	398	1	STOP
0010	482+20	RT.	399	1	STOP
0010	488+20	RT.	400	1	CTH CC
0010	488+20	RT.	401	1	ARROW - RIGHT
0010	489+10	RT.	402	1	STOP
0010	489+15	RT.	403	1	USH 53
0010	489+15	RT.	404	1	ARROW - LEFT & RIGHT
0010	489+30	LT.	405	1	CTH CC
0010	489+30	LT.	406	1	ARROW - LEFT
0010	491+45	LT.	407	1	STOP
0010	501+40	LT.	408	1	JCT
0010	501+40	LT.	409	1	CTH CC
0010	508+10	RT.	410	1	LEFT CURVE
0010	508+10	RT.	411	1	ADVISORY SPEED 50 MPH
0010	510+71	LT.	412	1	CLEARANCE STRIPER DOWN RIGHT
0010	510+71	RT.	413	1	CLEARANCE STRIPER DOWN LEFT
		TOTAL 0010		114	

REMOVING SMALL SIGN SUPPORTS

CATEGORY	STATION	LOCATION	REF.#	638.3000 EACH	ASSOCIATED SIGNS
0010	15+50	LT.	500	1	300
0010	15+50	LT.	501	1	300
0010	47+90	RT.	502	1	301, 302
0010	56+50	RT.	503	1	303, 304
0010	56+95	LT.	504	1	305, 306
0010	57+00	LT.	505	1	307
0010	57+30	RT.	506	1	308
0010	58+00	LT.	507	1	309, 310
0010	67+00	LT.	508	1	311, 312
0010	82+66	LT.	509	1	313
0010	82+66	RT.	510	1	314
0010	84+63	LT.	511	1	315
0010	84+63	RT.	512	1	316
0010	92+60	LT.	513	1	317, 318
0010	92+60	LT.	514	1	317, 318
0010	92+60	RT.	515	1	319
0010	109+40	RT.	516	1	320
0010	124+00	LT.	517	1	321
0010	133+10	LT.	518	1	322
0010	142+65	RT.	519	1	323
0010	151+10	LT.	520	1	324
0010	151+50	LT.	521	1	325
0010	151+70	RT.	522	1	326
0010	210+70	RT.	523	1	327
0010	212+68	LT.	524	1	328
0010	212+89	RT.	525	1	329
0010	214+53	LT.	526	1	330
0010	214+74	RT.	527	1	331
0010	215+78	RT.	528	1	332, 333
0010	217+78	LT.	529	1	334
0010	217+78	RT.	530	1	335
0010	221+05	RT.	531	1	336
0010	221+05	RT.	532	1	336
0010	224+40	LT.	533	1	337, 338
0010	224+60	RT.	534	1	339, 340
0010	224+95	LT.	535	1	341, 342
0010	226+00	LT.	536	1	343, 344
0010	227+50	RT.	537	1	345, 346
0010	233+15	LT.	538	1	347
0010	238+25	LT.	539	1	348, 349
0010	336+85	LT.	540	1	350
0010	336+85	RT.	541	1	351
0010	348+15	RT.	542	1	352, 353
0010	354+85	LT.	543	1	354
0010	357+00	LT.	544	1	355
0010	357+55	RT.	545	1	356
0010	365+50	RT.	546	1	359
0010	366+85	RT.	547	1	360
0010	367+00	LT.	548	1	361
0010	367+05	RT.	549	1	362
			SUBTOTAL =	50	

REMOVING SMALL SIGN SUPPORTS (CONTINUED)

CATEGORY	STATION	LOCATION	REF.#	638.3000 EACH	ASSOCIATED SIGNS
0010	368+65	RT.	550	1	363
0010	369+00	RT.	551	1	364
0010	369+10	RT.	552	1	365, 366
0010	373+00	RT.	553	1	367
0010	373+45	RT.	554	1	368
0010	376+35	RT.	555	1	369, 370
0010	376+78	RT.	556	1	371
0010	377+15	LT.	557	1	372, 373
0010	377+14	RT.	558	1	374
0010	377+45	RT.	559	1	375
0010	377+50	RT.	560	1	376, 377
0010	378+50	LT.	561	1	378, 379
0010	381+80	LT.	562	1	380
0010	381+80	RT.	563	1	381
0010	382+90	LT.	564	1	382
0010	389+50	LT.	565	1	383, 384
0010	391+15	RT.	566	1	385, 386
0010	393+20	LT.	567	1	387
0010	393+20	RT.	568	1	388
0010	449+25	LT.	569	1	389
0010	455+50	LT.	570	1	390
0010	455+50	RT.	571	1	391
0010	464+36	RT.	572	1	392
0010	464+57	LT.	573	1	393
0010	465+68	RT.	574	1	394
0010	465+90	LT.	575	1	395
0010	479+15	RT.	576	1	396, 397
0010	481+20	LT.	577	1	398
0010	482+20	RT.	578	1	399
0010	488+20	RT.	579	1	400, 401
0010	489+10	RT.	580	1	402
0010	489+15	RT.	581	1	403, 404
0010	489+30	LT.	582	1	405, 406
0010	491+45	LT.	583	1	407
0010	501+40	LT.	584	1	408, 409
0010	508+10	RT.	585	1	410, 411
0010	510+71	LT.	586	1	412
0010	510+71	RT.	587	1	413
		TOTAL 0010		88	

FIELD OFFICE TYPE C (1634-03-71)

CATEGORY	LOCATION	642.5201 EACH	REMARKS
0010	PROJECT 1634-03-71	1	ALSO USED FOR PROJECT 1630-01-71
	TOTAL 0010	1	

TRAFFIC CONTROL (1634-03-71)

CATEGORY	LOCATION	643.0100 EACH	REMARKS
0010	PROJECT 1634-03-71	1	
	TOTAL 0010	1	

TRAFFIC CONTROL DRUMS

CATEGORY	LOCATION	643.0300 DAYS	REMARKS
0010	USH 53	3600	MOVING OPERATIONS
0010	UNDISTRIBUTED	900	
	TOTAL 0010	4500	

TRAFFIC CONTROL BARRICADES TYPE III

CATEGORY	LOCATION	643.0420 DAYS	REMARKS
0010	CTH TTT / B-61-005	720	DETAIL B
0010	CRYSTAL VALLEY RD.	320	DETAIL E & 4
0010	B-61-005 / DAULTON RD.	80	DETAIL D, E, & 4
0010	ANGELS RIDGE RD.	160	DETAIL 4
0010	ANGELS RIDGE RD.	160	DETAIL 4
0010	SUNSET VIEW LN.	160	DETAIL 4
0010	JOHNSON LN. / SUNSET VALLEY RD.	320	DETAIL 4
0010	DOPP RD. / B-61-391	720	DETAIL 4, E, & D
0010	B-61-391 / CTH TT	720	DETAIL B
0010	UNDISTRIBUTED	840	
	TOTAL 0010	4200	

TRAFFIC CONTROL WARNING LIGHTS TYPE A

CATEGORY	LOCATION	643.0705 DAYS	REMARKS
0010	CTH TTT / B-61-005	1120	DETAIL B
0010	CRYSTAL VALLEY RD.	640	DETAIL B & E
0010	B-61-005 / DAULTON RD.	1280	DETAIL D, E, & 4
0010	ANGELS RIDGE RD.	320	DETAIL 4
0010	ANGELS RIDGE RD.	320	DETAIL 4
0010	SUNSET VIEW LN.	320	DETAIL 4
0010	JOHNSON LN. / SUNSET VALLEY RD.	640	DETAIL 4
0010	DOPP RD. / B-61-391	1120	DETAIL 4, E, & D
0010	B-61-391 / CTH TT	1120	DETAIL B
0010	UNDISTRIBUTED	1720	
	TOTAL 0010	8600	

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TRAFFIC CONTROL SIGNS

CATEGORY	LOCATION	643.0900 DAYS	REMARKS
0010	BEGINNING OF PROJECT	900	ADVANCED WARNING
0010	CTH TTT / B-61-005	480	DETAIL B
0010	CRYSTAL VALLEY RD.	320	DETAIL B & E
0010	B-61-005 / DAULTON RD.	480	DETAIL 4
0010	ANGELS RIDGE RD.	160	DETAIL 4
0010	ANGELS RIDGE RD.	160	DETAIL 4
0010	SUNSET VIEW LN.	160	DETAIL 4
0010	JOHNSON LN. / SUNSET VALLEY RD.	160	DETAIL 4
0010	DOPP RD. / B-61-391	400	DETAIL 4, E, & D
0010	B-61-391 / CTH TT	320	DETAIL B
0010	TRUAX RD.	180	ADVANCED WARNING
0010	KLIMEK LN.	180	ADVANCED WARNING
0010	MACK RD.	180	ADVANCED WARNING
0010	WEST RD.	180	ADVANCED WARNING
0010	CAROLINE ST.	180	ADVANCED WARNING
0010	ANTOINETTE ST.	180	ADVANCED WARNING
0010	WEST AVE.	180	ADVANCED WARNING
0010	CTH D	360	ADVANCED WARNING
0010	BIRCH ST.	180	ADVANCED WARNING
0010	MITCHELL RD.	180	ADVANCED WARNING
0010	HAGESTAD LN.	360	ADVANCED WARNING
0010	CTH CC	180	ADVANCED WARNING
0010	KITTLESON RD.	180	ADVANCED WARNING
0010	END OF PROJECT	900	ADVANCED WARNING
0010	CTH TTT	100	ADVANCED WARNING (NO DETOUR IN PLACE)
0010	CRYSTAL VALLEY RD.	100	ADVANCED WARNING (NO DETOUR IN PLACE)
0010	DAULTON RD.	100	ADVANCED WARNING (NO DETOUR IN PLACE)
0010	ANGELS RIDGE RD.	100	ADVANCED WARNING (NO DETOUR IN PLACE)
0010	ANGELS RIDGE RD.	100	ADVANCED WARNING (NO DETOUR IN PLACE)
0010	SUNSET VIEW LN.	100	ADVANCED WARNING (NO DETOUR IN PLACE)
0010	JOHNSON LN. / SUNSET VALLEY RD.	200	ADVANCED WARNING (NO DETOUR IN PLACE)
0010	DOPP RD.	100	ADVANCED WARNING (NO DETOUR IN PLACE)
0010	CTH TT	100	ADVANCED WARNING (NO DETOUR IN PLACE)
0010	USH 53	720	MOVING OPERATIONS
0010	UNDISTRIBUTED	2215	
	TOTAL 0010	11075	

TRAFFIC CONTROL DETOUR (1634-03-71)

CATEGORY	LOCATION	643.2000 EACH	REMARKS
0010	PROJECT 1634-03-71	1	SEE DETOUR PLAN
	TOTAL 0010	1	

TRAFFIC CONTROL DETOUR SIGNS

CATEGORY	LOCATION	643.3000 DAYS	REMARKS
0010	PROJECT 1634-03-71	10320	SEE DETOUR PLAN
	TOTAL 0010	10320	

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GEOTEXTILE FABRIC TYPE HR

CATEGORY	STATION TO STATION	LOCATION	645.0120 * SY	REMARKS
0010	68+61 - 68+69	RT.	19	
0010	68+61 - 68+69	LT.	12	
0010	72+41 - 72+49	RT.	19	
0010	72+41 - 72+49	LT.	16	
0010	89+95 - 90+03	RT.	19	
0010	89+95 - 90+03	LT.	19	
		TOTAL 0010	104	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

GEOTEXTILE FABRIC TYPE R

CATEGORY	STATION TO STATION	LOCATION	645.0130 SY	REMARKS
0010	77+05 - 77+11	RT.	7	
0010	77+87 - 77+93	RT.	7	
0010	84+95 - 85+00	LT.	10	
0010	84+95 - 85+00	RT.	10	
0010	94+39 - 94+45	LT.	7	
0010	94+80 - 94+86	RT.	7	
0010	209+17 - 209+23	LT.	11	
0010	212+18 - 212+23	RT.	10	
0010	212+52 - 212+57	RT.	10	
0010	219+71 - 219+76	RT.	7	
0010	220+33 - 220+39	RT.	7	
0010	221+88 - 221+94	RT.	7	
0010	222+40 - 222+46	RT.	7	
0010	485+79 - 485+85	RT.	11	
0010	1+97 - 2+03	DRIVEWAY (STA. 77+50, RT.), RT.	11	
0010	1+97 - 2+03	DRIVEWAY (STA. 77+50, RT.), LT.	58	
		TOTAL 0010	187	

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PAVEMENT MARKING EPOXY 4-INCH

CATEGORY	STATION TO STATION	LOCATION	646.0106 LF	REMARKS
0010	15+00 - 30+28	EDGELINE, LT.	1528	WHITE
0010	15+00 - 30+28	EDGELINE, RT.	1528	WHITE
0010	30+28 - 49+30	EDGELINE, LT.	1902	WHITE
0010	30+28 - 49+30	EDGELINE, RT.	1902	WHITE
0010	49+30 - 56+69	EDGELINE, LT.	740	WHITE
0010	49+30 - 57+10	EDGELINE, RT.	780	WHITE
0010	55+81 - 58+31	LANELINE, RT.	63	WHITE (12.5'/37.5' SKIP)
0010	57+10 - 67+75	EDGELINE, RT.	935	WHITE
0010	58+03 - 67+75	EDGELINE, LT.	973	WHITE
0010	67+75 - 90+10	EDGELINE, LT.	2235	WHITE
0010	67+75 - 90+10	EDGELINE, RT.	2235	WHITE
0010	90+10 - 101+05	EDGELINE, LT.	1093	WHITE
0010	90+10 - 101+05	EDGELINE, RT.	1097	WHITE
0010	101+05 - 101+65	EDGELINE, LT.	60	WHITE
0010	101+05 - 101+65	EDGELINE, RT.	60	WHITE
0010	101+65 - 109+95	EDGELINE, LT.	828	WHITE
0010	101+65 - 107+17	EDGELINE, RT.	553	WHITE
0010	107+17 - 108+37	EDGELINE, RT.	30	WHITE (3'/9' SKIP)
0010	109+71 - 109+95	EDGELINE, LT.	25	WHITE
0010	109+95 - 112+15	EDGELINE, LT.	220	WHITE
0010	109+95 - 112+15	EDGELINE, RT.	220	WHITE
0010	112+15 - 120+80	EDGELINE, LT.	865	WHITE
0010	112+15 - 120+80	EDGELINE, RT.	865	WHITE
0010	120+80 - 123+90	EDGELINE, LT.	311	WHITE
0010	124+91 - 126+59	EDGELINE, LT.	42	WHITE (3'/9' SKIP)
0010	126+59 - 132+80	EDGELINE, LT.	621	WHITE
0010	133+79 - 134+98	EDGELINE, LT.	30	WHITE (3'/9' SKIP)
0010	134+98 - 150+99	EDGELINE, LT.	1608	WHITE
0010	151+77 - 152+85	EDGELINE, LT.	27	WHITE (3'/9' SKIP)
0010	152+85 - 159+50	EDGELINE, LT.	669	WHITE
0010	120+80 - 140+23	EDGELINE, RT.	1939	WHITE
0010	140+23 - 141+66	EDGELINE, RT.	36	WHITE (3'/9' SKIP)
0010	142+82 - 148+19	EDGELINE, RT.	535	WHITE
0010	148+19 - 150+71	EDGELINE, RT.	63	WHITE (3'/9' SKIP)
0010	151+89 - 159+50	EDGELINE, RT.	757	WHITE
0010	159+50 - 170+00	EDGELINE, LT.	1052	WHITE
0010	159+50 - 170+00	EDGELINE, RT.	1048	WHITE
0010	170+00 - 176+00	EDGELINE, LT.	600	WHITE
0010	170+00 - 176+00	EDGELINE, RT.	600	WHITE
0010	176+00 - 186+30	EDGELINE, LT.	1029	WHITE
0010	176+00 - 186+30	EDGELINE, RT.	1031	WHITE
0010	186+30 - 188+25	EDGELINE, LT.	194	WHITE
0010	186+30 - 188+25	EDGELINE, RT.	196	WHITE
0010	188+25 - 198+05	EDGELINE, LT.	979	WHITE
0010	188+25 - 198+05	EDGELINE, RT.	981	WHITE
0010	198+05 - 211+63	EDGELINE, LT.	1358	WHITE
0010	198+05 - 209+55	EDGELINE, RT.	1151	WHITE
0010	210+88 - 211+63	EDGELINE, RT.	77	WHITE
0010	211+63 - 223+00	EDGELINE, LT.	1139	WHITE
0010	211+63 - 223+00	EDGELINE, RT.	1134	WHITE
		SUBTOTAL =	39944	

PAVEMENT MARKING EPOXY 4-INCH (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	646.0106 LF	REMARKS
0010	223+00 - 224+80	EDGELINE, LT.	181	WHITE
0010	223+00 - 225+12	EDGELINE, RT.	212	WHITE
0010	223+92 - 226+42	LANELINE, RT.	63	WHITE (12.5'/37.5' SKIP)
0010	225+12 - 236+60	EDGELINE, LT.	1145	WHITE
0010	226+00 - 236+60	EDGELINE, RT.	1062	WHITE
0010	236+60 - 247+00	EDGELINE, LT.	1040	WHITE
0010	236+60 - 247+00	EDGELINE, RT.	1040	WHITE
0010	247+00 - 254+55	EDGELINE, LT.	757	WHITE
0010	247+00 - 254+55	EDGELINE, RT.	753	WHITE
0010	254+55 - 258+00	EDGELINE, LT.	346	WHITE
0010	254+55 - 258+00	EDGELINE, RT.	344	WHITE
0010	258+00 - 266+00	EDGELINE, LT.	802	WHITE
0010	258+00 - 266+00	EDGELINE, RT.	799	WHITE
0010	266+00 - 287+06	EDGELINE, LT.	2107	WHITE
0010	287+98 - 288+81	EDGELINE, LT.	21	WHITE (3'/9' SKIP)
0010	288+81 - 300+78	EDGELINE, LT.	1197	WHITE
0010	266+00 - 272+81	EDGELINE, RT.	681	WHITE
0010	272+81 - 273+53	EDGELINE, RT.	18	WHITE (3'/9' SKIP)
0010	274+48 - 301+42	EDGELINE, RT.	2695	WHITE
0010	301+42 - 302+39	EDGELINE, LT.	24	WHITE (3'/9' SKIP)
0010	302+39 - 312+25	EDGELINE, LT.	985	WHITE
0010	301+42 - 312+25	EDGELINE, RT.	1085	WHITE
0010	312+25 - 323+40	EDGELINE, LT.	1111	WHITE
0010	312+25 - 323+40	EDGELINE, RT.	1120	WHITE
0010	323+40 - 331+64	EDGELINE, LT.	824	WHITE
0010	323+40 - 331+50	EDGELINE, RT.	810	WHITE
0010	331+50 - 362+00	EDGELINE, RT.	3050	WHITE
0010	332+67 - 333+63	EDGELINE, LT.	24	WHITE (3'/9' SKIP)
0010	333+63 - 362+00	EDGELINE, LT.	2837	WHITE
0010	362+00 - 366+70	EDGELINE, LT.	470	WHITE
0010	362+00 - 365+67	EDGELINE, RT.	368	WHITE
0010	364+54 - 369+25	EDGELINE, LT.	113	WHITE (12.5'/37.5' SKIP)
0010	366+70 - 376+94	EDGELINE, LT.	1020	WHITE
0010	368+72 - 372+11	EDGELINE, RT.	275	WHITE
0010	372+11 - 372+58	EDGELINE, RT.	50	WHITE (3'/9' SKIP)
0010	373+02 - 376+41	EDGELINE, RT.	343	WHITE
0010	377+67 - 385+00	EDGELINE, RT.	734	WHITE
0010	378+22 - 385+00	EDGELINE, LT.	679	WHITE
0010	385+00 - 396+50	EDGELINE, LT.	1152	WHITE
0010	385+00 - 396+50	EDGELINE, RT.	1148	WHITE
0010	396+50 - 397+89	EDGELINE, LT.	139	WHITE
0010	398+72 - 399+92	EDGELINE, LT.	30	WHITE (3'/9' SKIP)
0010	399+92 - 449+26	EDGELINE, LT.	4934	WHITE
0010	449+98 - 450+70	EDGELINE, LT.	18	WHITE (3'/9' SKIP)
0010	450+70 - 481+10	EDGELINE, LT.	3041	WHITE
0010	482+08 - 483+04	EDGELINE, LT.	24	WHITE (3'/9' SKIP)
0010	483+04 - 485+76	EDGELINE, LT.	272	WHITE
0010	396+50 - 480+58	EDGELINE, RT.	8408	WHITE
0010	480+58 - 481+54	EDGELINE, RT.	24	WHITE (3'/9' SKIP)
0010	482+22 - 485+76	EDGELINE, RT.	355	WHITE
		SUBTOTAL =	50730	

PAVEMENT MARKING EPOXY 4-INCH (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	646.0106 LF	REMARKS
0010	485+76 - 488+97	EDGELINE, LT.	322	WHITE
0010	485+76 - 488+17	EDGELINE, RT.	22	WHITE
0010	487+76 - 491+11	LANELINE, LT.	88	WHITE (12.5'/37.5' SKIP)
0010	488+97 - 491+11	EDGELINE, LT.	214	WHITE
0010	492+33 - 493+17	EDGELINE, LT.	21	WHITE (3'/9' SKIP)
0010	493+17 - 510+71	EDGELINE, LT.	1752	WHITE
0010	489+37 - 510+71	EDGELINE, RT.	2131	WHITE
0010	DETOUR ROUTE	EDGELINE, LT.	19692	WHITE
0010	DETOUR ROUTE	EDGELINE, RT.	20592	WHITE
		TOTAL 0010	135508	

NOTE: CENTERLINE MARKINGS ARE APPROXIMATE AND "NO PASSING ZONE MARKING" SHALL BE LOCATED AND ADJUSTED AS NEEDED IN THE FIELD UNDER BID ITEM 648.0100 LOCATING NO PASSING ZONES.

PAVEMENT MARKING EPOXY 8-INCH

CATEGORY	STATION TO STATION	LOCATION	646.0126 LF	REMARKS
0010	58+03 - 59+03	LANELINE, LT.	100	WHITE CHANNELIZING
0010	62+50 - 63+50	LANELINE, RT.	100	WHITE CHANNELIZING
0010	208+55 - 209+55	LANELINE, RT.	100	WHITE CHANNELIZING
0010	226+00 - 228+09	LANELINE, LT.	209	WHITE CHANNELIZING
0010	363+67 - 365+67	LANELINE, RT.	200	WHITE CHANNELIZING
0010	374+37 - 376+41	LANELINE, RT.	205	WHITE CHANNELIZING
0010	378+22 - 379+22	LANELINE, LT.	100	WHITE CHANNELIZING
0010	487+17 - 488+17	LANELINE, RT.	100	WHITE CHANNELIZING
0010				
		TOTAL 0010	1114	

PAVEMENT MARKING SAME DAY EPOXY 4-INCH

CATEGORY	STATION TO STATION	LOCATION	646.0406 LF	REMARKS
0010	15+00 - 30+28	CENTERLINE	388	YELLOW (12.5'/37.5' SKIP)
0010	30+28 - 49+30	CENTERLINE, LT.	475	YELLOW (12.5'/37.5' SKIP)
0010	30+28 - 49+30	CENTERLINE, RT.	1902	YELLOW
0010	49+30 - 57+10	CENTERLINE	1560	DOUBLE YELLOW
0010	57+10 - 67+75	CENTERLINE, LT.	1065	YELLOW
0010	57+10 - 67+75	CENTERLINE, RT.	263	YELLOW (12.5'/37.5' SKIP)
0010	67+75 - 90+10	CENTERLINE	563	YELLOW (12.5'/37.5' SKIP)
0010	90+10 - 101+05	CENTERLINE, LT.	275	YELLOW (12.5'/37.5' SKIP)
0010	90+10 - 101+05	CENTERLINE, RT.	1095	YELLOW
0010	101+05 - 101+65	CENTERLINE	25	YELLOW (12.5'/37.5' SKIP)
0010	101+65 - 109+95	CENTERLINE, LT.	830	YELLOW
0010	101+65 - 109+95	CENTERLINE, RT.	213	YELLOW (12.5'/37.5' SKIP)
0010	109+95 - 112+15	CENTERLINE	440	DOUBLE YELLOW
0010	112+15 - 120+80	CENTERLINE, LT.	213	YELLOW (12.5'/37.5' SKIP)
0010	112+15 - 120+80	CENTERLINE, RT.	865	YELLOW
0010	120+80 - 159+50	CENTERLINE	7740	DOUBLE YELLOW
0010	159+50 - 170+00	CENTERLINE, LT.	1050	YELLOW
0010	159+50 - 170+00	CENTERLINE, RT.	263	YELLOW (12.5'/37.5' SKIP)
0010	170+00 - 176+00	CENTERLINE	150	YELLOW (12.5'/37.5' SKIP)
0010	176+00 - 186+30	CENTERLINE, LT.	263	YELLOW (12.5'/37.5' SKIP)
0010	176+00 - 186+30	CENTERLINE, RT.	1030	YELLOW
0010	186+30 - 188+25	CENTERLINE	50	YELLOW (12.5'/37.5' SKIP)
0010	188+25 - 198+05	CENTERLINE, LT.	980	YELLOW
0010	188+25 - 198+05	CENTERLINE, RT.	250	YELLOW (12.5'/37.5' SKIP)
0010	198+05 - 211+63	CENTERLINE	338	YELLOW (12.5'/37.5' SKIP)
0010	211+63 - 223+00	CENTERLINE, LT.	288	YELLOW (12.5'/37.5' SKIP)
0010	211+63 - 223+00	CENTERLINE, RT.	1137	YELLOW
0010	223+00 - 225+12	CENTERLINE	426	DOUBLE YELLOW
0010	225+12 - 236+60	CENTERLINE, LT.	1147	YELLOW
0010	225+12 - 236+60	CENTERLINE, RT.	288	YELLOW (12.5'/37.5' SKIP)
0010	236+60 - 247+00	CENTERLINE	263	YELLOW (12.5'/37.5' SKIP)
0010	247+00 - 254+55	CENTERLINE, LT.	188	YELLOW (12.5'/37.5' SKIP)
0010	247+00 - 254+55	CENTERLINE, RT.	755	YELLOW
0010	254+55 - 258+00	CENTERLINE	88	YELLOW (12.5'/37.5' SKIP)
0010	258+00 - 266+00	CENTERLINE, LT.	800	YELLOW
0010	258+00 - 266+00	CENTERLINE, RT.	200	YELLOW (12.5'/37.5' SKIP)
0010	266+00 - 301+42	CENTERLINE	888	YELLOW (12.5'/37.5' SKIP)
0010	301+42 - 312+25	CENTERLINE, LT.	275	YELLOW (12.5'/37.5' SKIP)
0010	301+42 - 312+25	CENTERLINE, RT.	1083	YELLOW
0010	312+25 - 323+40	CENTERLINE	2230	DOUBLE YELLOW
0010	323+40 - 331+50	CENTERLINE, LT.	810	YELLOW
0010	323+40 - 331+50	CENTERLINE, RT.	200	YELLOW (12.5'/37.5' SKIP)
0010	331+50 - 362+00	CENTERLINE	763	YELLOW (12.5'/37.5' SKIP)
0010	362+00 - 366+70	CENTERLINE, LT.	125	YELLOW (12.5'/37.5' SKIP)
0010	362+00 - 366+70	CENTERLINE, RT.	470	YELLOW
0010	366+70 - 385+00	CENTERLINE	3661	DOUBLE YELLOW
0010	385+00 - 396+50	CENTERLINE, LT.	1150	YELLOW
0010	385+00 - 396+50	CENTERLINE, RT.	288	YELLOW (12.5'/37.5' SKIP)
0010	396+50 - 485+76	CENTERLINE	2238	YELLOW (12.5'/37.5' SKIP)
0010	485+76 - 488+97	CENTERLINE, LT.	88	YELLOW (12.5'/37.5' SKIP)
		SUBTOTAL =	42135	

PAVEMENT MARKING SAME DAY EPOXY 4-INCH (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	646.0406 LF	REMARKS
0010	485+76 - 488+97	CENTERLINE, RT.	321	YELLOW
0010	488+97 - 510+71	CENTERLINE	4348	DOUBLE YELLOW
0010	DETOUR ROUTE	CENTERLINE	41184	DOUBLE YELLOW
		TOTAL 0010	87988	

NOTE: CENTERLINE MARKINGS ARE APPROXIMATE AND "NO PASSING ZONE MARKING" SHALL BE LOCATED AND ADJUSTED AS NEEDED IN THE FIELD UNDER BID ITEM 648.0100 LOCATING NO PASSING ZONES.

LOCATING NO-PASSING ZONES

CATEGORY	STATION TO STATION	LOCATION	648.0100 MI	REMARKS
0010	15+00 - 510+71	USH 53	9.39	
0010		DETOUR ROUTE	4.00	
		TOTAL 0010	13.39	

TEMPORARY PAVEMENT MARKING 4-INCH

CATEGORY	STATION TO STATION	LOCATION	649.0100 LF	REMARKS
0010	15+00 - 30+28	CENTERLINE	244	YELLOW (4'/46' SKIP)
0010	30+28 - 49+30	CENTERLINE, LT.	304	YELLOW (4'/46' SKIP)
0010	30+28 - 49+30	CENTERLINE, RT.	3804	YELLOW
0010	49+30 - 57+10	CENTERLINE	3120	DOUBLE YELLOW
0010	57+10 - 67+75	CENTERLINE, LT.	2130	YELLOW
0010	57+10 - 67+75	CENTERLINE, RT.	170	YELLOW (4'/46' SKIP)
0010	67+75 - 90+10	CENTERLINE	358	YELLOW (4'/46' SKIP)
0010	90+10 - 101+05	CENTERLINE, LT.	176	YELLOW (4'/46' SKIP)
0010	90+10 - 101+05	CENTERLINE, RT.	2190	YELLOW
0010	101+05 - 101+65	CENTERLINE	10	YELLOW (4'/46' SKIP)
0010	101+65 - 109+95	CENTERLINE, LT.	1660	YELLOW
0010	101+65 - 109+95	CENTERLINE, RT.	132	YELLOW (4'/46' SKIP)
0010	109+95 - 112+15	CENTERLINE	880	DOUBLE YELLOW
0010	112+15 - 120+80	CENTERLINE, LT.	138	YELLOW (4'/46' SKIP)
0010	112+15 - 120+80	CENTERLINE, RT.	1730	YELLOW
0010	120+80 - 159+50	CENTERLINE	15480	DOUBLE YELLOW
0010	159+50 - 170+00	CENTERLINE, LT.	2100	YELLOW
0010	159+50 - 170+00	CENTERLINE, RT.	168	YELLOW (4'/46' SKIP)
0010	170+00 - 176+00	CENTERLINE	96	YELLOW (4'/46' SKIP)
0010	176+00 - 186+30	CENTERLINE, LT.	165	YELLOW (4'/46' SKIP)
		SUBTOTAL =	35055	

TEMPORARY PAVEMENT MARKING 4-INCH (CONTINUED)

CATEGORY	STATION TO STATION	LOCATION	649.0100 LF	REMARKS
0010	176+00 - 186+30	CENTERLINE, RT.	2060	YELLOW
0010	186+30 - 188+25	CENTERLINE	31	YELLOW (4'/46' SKIP)
0010	188+25 - 198+05	CENTERLINE, LT.	1960	YELLOW
0010	188+25 - 198+05	CENTERLINE, RT.	157	YELLOW (4'/46' SKIP)
0010	198+05 - 211+63	CENTERLINE	217	YELLOW (4'/46' SKIP)
0010	211+63 - 223+00	CENTERLINE, LT.	182	YELLOW (4'/46' SKIP)
0010	211+63 - 223+00	CENTERLINE, RT.	2274	YELLOW
0010	223+00 - 225+12	CENTERLINE	848	DOUBLE YELLOW
0010	225+12 - 236+60	CENTERLINE, LT.	2296	YELLOW
0010	225+12 - 236+60	CENTERLINE, RT.	184	YELLOW (4'/46' SKIP)
0010	236+60 - 247+00	CENTERLINE	166	YELLOW (4'/46' SKIP)
0010	247+00 - 254+55	CENTERLINE, LT.	121	YELLOW (4'/46' SKIP)
0010	247+00 - 254+55	CENTERLINE, RT.	1510	YELLOW
0010	254+55 - 258+00	CENTERLINE	55	YELLOW (4'/46' SKIP)
0010	258+00 - 266+00	CENTERLINE, LT.	1600	YELLOW
0010	258+00 - 266+00	CENTERLINE, RT.	128	YELLOW (4'/46' SKIP)
0010	266+00 - 301+42	CENTERLINE	567	YELLOW (4'/46' SKIP)
0010	301+42 - 312+25	CENTERLINE, LT.	173	YELLOW (4'/46' SKIP)
0010	301+42 - 312+25	CENTERLINE, RT.	2166	YELLOW
0010	312+25 - 323+40	CENTERLINE	4460	DOUBLE YELLOW
0010	323+40 - 331+50	CENTERLINE, LT.	1620	YELLOW
0010	323+40 - 331+50	CENTERLINE, RT.	130	YELLOW (4'/46' SKIP)
0010	331+50 - 362+00	CENTERLINE	488	YELLOW (4'/46' SKIP)
0010	362+00 - 366+70	CENTERLINE, LT.	75	YELLOW (4'/46' SKIP)
0010	362+00 - 366+70	CENTERLINE, RT.	940	YELLOW
0010	366+70 - 385+00	CENTERLINE	3660	DOUBLE YELLOW
0010	385+00 - 396+50	CENTERLINE, LT.	2300	YELLOW
0010	385+00 - 396+50	CENTERLINE, RT.	184	YELLOW (4'/46' SKIP)
0010	396+50 - 485+76	CENTERLINE	1428	YELLOW (4'/46' SKIP)
0010	485+76 - 488+97	CENTERLINE, LT.	51	YELLOW (4'/46' SKIP)
0010	485+76 - 488+97	CENTERLINE, RT.	642	YELLOW
0010	488+97 - 510+71	CENTERLINE	8696	DOUBLE YELLOW
0010		DETOUR ROUTE, CENTERLINE	41184	DOUBLE YELLOW, PAINT PRIOR TO OPENING
0010		DETOUR ROUTE, EDGELINE, LT.	19692	WHITE, PAINT PRIOR TO OPENING
0010		DETOUR ROUTE, EDGELINE, RT.	20592	WHITE, PAINT PRIOR TO OPENING
		TOTAL 0010	157892	

NOTE: CENTERLINE MARKINGS ARE APPROXIMATE AND "NO PASSING ZONE MARKING" SHALL BE LOCATED AND ADJUSTED AS NEEDED IN THE FIELD UNDER BID ITEM 648.0100 LOCATING NO PASSING ZONES.

CONSTRUCTION STAKING STORM SEWER

CATEGORY	STATION	LOCATION	650.4000 EACH	REMARKS
0010	84+97.84	LT.	1	SEE PLAN AND PROFILE SHEETS
0010	84+97.84	RT.	1	SEE PLAN AND PROFILE SHEETS
0010	212+20.82	LT.	1	SEE PLAN AND PROFILE SHEETS
0010	212+54.61	RT.	1	SEE PLAN AND PROFILE SHEETS
		TOTAL 0010	4	

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CONSTRUCTION STAKING SUBGRADE

CATEGORY	STATION TO STATION	LOCATION	650.4500 LF	REMARKS
0010	54+45 - 55+31	LT.	86	
0010	58+03 - 60+53	LT.	250	
0010	61+37 - 66+00	RT.	463	
0010	66+00 - 82+47	LT. & RT.	1647	
0010	84+81 - 95+00	LT. & RT.	1019	
0010	152+02 - 152+49	RT.	47	
0010	153+40 - 153+66	LT.	26	
0010	172+88 - 173+29	RT.	41	
0010	207+05 - 209+50	RT.	245	
0010	209+50 - 212+83	LT. & RT.	333	
0010	214+60 - 223+00	LT. & RT.	840	
0010	223+00 - 223+20	LT.	20	
0010	225+64 - 228+13	LT.	249	
0010	470+93 - 470+96	LT.	3	
0010	470+96 - 471+41	LT. & RT.	45	
0010	485+41 - 488+17	RT.	276	
0010	10+22 - 11+32	CRYSTAL VALLEY RD., LT. & RT.	110	
0010	10+29 - 11+93	DOPP RD., LT. & RT.	164	
0010	0+20 - 2+97	DRIVEWAY (STA.77+50), LT. & RT.	277	
0010	0+00 - 0+63	SPECIAL DITCH (STA.77+50), LT. & RT.	63	
0010	2+39 - 2+62	DRIVEWAY (STA.94+63), LT. & RT.	23	
0010	0+20 - 0+95	DRIVEWAY (STA.220+07), LT. & RT.	75	
0010	0+20 - 0+98	DRIVEWAY (STA.222+19), LT. & RT.	78	
		TOTAL 0010	6380	

CONSTRUCTION STAKING BASE

CATEGORY	STATION TO STATION	LOCATION	650.5000 LF	REMARKS
0010	58+03 - 60+53	LT.	250	
0010	61+37 - 66+00	RT.	463	
0010	66+00 - 82+47	LT. & RT.	1647	
0010	84+81 - 95+00	LT. & RT.	1019	
0010	207+05 - 209+50	RT.	245	
0010	209+50 - 212+83	LT. & RT.	333	
0010	214+60 - 223+00	LT. & RT.	840	
0010	223+00 - 223+20	LT.	20	
0010	485+41 - 488+17	RT.	276	
0010	10+22 - 11+32	CRYSTAL VALLEY RD., LT & RT.	110	
0010	10+29 - 11+93	DOPP RD., LT. & RT.	164	
0010	0+20 - 2+97	DRIVEWAY (STA.77+50), LT. & RT.	277	
0010	2+39 - 2+62	DRIVEWAY (STA.94+63), LT. & RT.	23	
0010	0+20 - 0+95	DRIVEWAY (STA.220+07), LT. & RT.	75	
0010	0+20 - 0+98	DRIVEWAY (STA.222+19), LT. & RT.	78	
		TOTAL 0010	5820	

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

CATEGORY	STATION TO STATION	LOCATION	650.5500 LF	REMARKS
0010	63+50 - 64+06	RT.	74	CRYSTAL VALLEY RD.
0010	64+44 - 64+82	RT.	77	CRYSTAL VALLEY RD.
0010	209+55 - 209+98	RT.	82	DOPP RD.
0010	210+31 - 210+88	RT.	98	DOPP RD.
		TOTAL 0010	331	

CONSTRUCTION STAKING PIPE CULVERTS

CATEGORY	STATION	LOCATION	650.6000 EACH	REMARKS
0010	68+65.01	LT. & RT.	1	
0010	72+44.77	LT. & RT.	1	
0010	0+52.89	DRIVEWAY (STA.77+50)	1	
0010	2+00.00	DRIVEWAY (STA.77+50)	1	
0010	89+99.06	LT. & RT.	1	
0010	2+44.84	DRIVEWAY (STA.94+63)	1	
0010	0+50.00	DRIVEWAY (STA.220+07)	1	
0010	0+43.73	DRIVEWAY (STA.222+19)	1	
		TOTAL 0010	8	

CONSTRUCTION STAKING STRUCTURE LAYOUT (B-61-202)

CATEGORY	LOCATION	650.6500(01) LS	REMARKS
0020	PROJECT 1634-03-71	1	
	TOTAL 0020	1	

CONSTRUCTION STAKING STRUCTURE LAYOUT (B-61-204)

CATEGORY	LOCATION	650.6500(02) LS	REMARKS
0030	PROJECT 1634-03-71	1	
	TOTAL 0030	1	

CONSTRUCTION STAKING CONCRETE PAVEMENT

CATEGORY	STATION TO STATION	LOCATION	650.7000 LF	REMARKS
0010	82+05.71 - 82+21.38	LT.	16	
0010	82+05.71 - 82+21.38	RT.	16	
0010	84+90.63 - 85+06.30	LT.	16	
0010	84+90.63 - 85+06.30	RT.	16	
0010	212+15.81 - 212+33.29	LT.	18	
0010	212+15.81 - 212+59.30	RT.	44	
0010	214+82.18 - 215+26.38	LT.	44	
0010	215+10.71 - 215+26.38	RT.	16	
0010				
		TOTAL 0010	186	

3

CONSTRUCTION STAKING RESURFACING REFERENCE

CATEGORY	STATION TO STATION	LOCATION	650.8000 LF	REMARKS
0010	15+00 - 19+98	USH 53	498	
0010	21+78 - 66+00	USH 53	4422	
0010	95+00 - 209+50	USH 53	11450	
0010	223+00 - 379+94	USH 53	15694	
0010	380+50 - 464+46	USH 53	8396	
0010	465+79 - 510+71	USH 53	4492	
		TOTAL 0010	44952	

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1634-03-71)

CATEGORY	LOCATION	650.9910 LS	REMARKS
0010	PROJECT 1634-03-71	1	
	TOTAL 0010	1	

CONSTRUCTION STAKING SLOPE STAKES

CATEGORY	STATION TO STATION	LOCATION	650.9920 LF	REMARKS
0010	54+45 - 55+31	LT.	86	
0010	58+03 - 60+53	LT.	250	
0010	61+37 - 66+00	RT.	463	
0010	66+00 - 82+47	LT. & RT.	1647	
0010	84+81 - 95+00	LT. & RT.	1019	
0010	152+02 - 152+49	RT.	47	
0010	153+40 - 153+66	LT.	26	
0010	172+88 - 173+29	RT.	41	
0010	207+05 - 209+50	RT.	245	
0010	209+50 - 212+83	LT. & RT.	333	
0010	214+60 - 223+00	LT. & RT.	840	
0010	223+00 - 223+20	LT.	20	
0010	225+64 - 228+13	LT.	249	
0010	470+93 - 470+96	LT.	3	
0010	470+96 - 471+41	LT. & RT.	45	
0010	485+41 - 488+17	RT.	276	
0010	10+22 - 11+32	CRYSTAL VALLEY RD., LT. & RT.	110	
0010	10+29 - 11+93	DOPP RD., LT. & RT.	164	
0010	0+20 - 2+97	DRIVEWAY (STA.77+50), LT. & RT.	277	
0010	0+00 - 0+63	SPECIAL DITCH (STA.77+50), LT. & RT.	63	
0010	2+39 - 2+62	DRIVEWAY (STA.94+63), LT. & RT.	23	
0010	0+20 - 0+95	DRIVEWAY (STA.220+07), LT. & RT.	75	
0010	0+20 - 0+98	DRIVEWAY (STA.222+19), LT. & RT.	78	
		TOTAL 0010	6380	

SAWING ASPHALT

CATEGORY	STATION TO STATION	LOCATION	690.0150 LF	REMARKS
0010	15+00 - 15+00	LT. & RT.	10	
0010	30+72 - 30+89	RT.	17	DRIVEWAY
0010	34+44 - 34+60	RT.	16	DRIVEWAY
0010	57+10 - 57+38	LT.	28	CTH TTT
0010	58+03 - 60+53	LT.	265	CTH TTT TURN LANE
0010	61+38 - 66+00	RT.	465	CRYSTAL VALLEY RD. TURN LANE
0010	64+44 - 64+62	RT.	20	CRYSTAL VALLEY RD.
0010	66+00 - 66+00	LT. & RT.	10	
0010	95+00 - 95+00	LT. & RT.	10	
0010	108+62 - 108+74	RT.	21	DAULTON RD.
0010	117+89 - 118+02	RT.	14	DRIVEWAY
0010	124+28 - 124+49	LT.	22	ANGELS RIDGE RD.
0010	125+32 - 125+59	RT.	27	DRIVEWAY
0010	133+27 - 133+48	LT.	20	ANGELS RIDGE RD.
0010	142+22 - 142+45	RT.	22	SUNSET VIEW LN.
0010	151+48 - 151+67	RT.	21	SUNSET VALLEY RD.
0010	151+20 - 151+34	LT.	16	JOHNSON LN.
0010	157+42 - 157+68	LT.	27	DRIVEWAY
0010	174+48 - 174+70	RT.	21	DRIVEWAY
0010	188+43 - 188+58	RT.	15	DRIVEWAY
0010	190+62 - 190+76	RT.	14	DRIVEWAY
0010	207+05 - 209+50	RT.	248	DOPP RD. TURN LANE
0010	209+50 - 209+50	LT. & RT.	15	
0010	209+66 - 209+85	RT.	21	DOPP RD.
0010	219+99 - 220+15	RT.	16	DRIVEWAY
0010	223+00 - 223+00	LT. & RT.	14	
0010	225+12 - 225+38	LT.	29	CTH TT
0010	226+00 - 226+68	LT.	68	DRIVEWAY REMOVAL/TURN LANE
0010	226+27 - 227+66	LT.	140	DRIVEWAYS
0010	227+46 - 228+08	LT.	62	DRIVEWAY REMOVAL/TURN LANE
0010	252+61 - 252+78	RT.	17	DRIVEWAY
0010	273+82 - 274+03	RT.	21	TRUAX RD.
0010	331+75 - 331+92	RT.	17	DRIVEWAY
0010	331+90 - 331+97	LT.	12	DRIVEWAY
0010	361+51 - 361+82	RT.	31	DRIVEWAY
0010	364+49 - 364+83	RT.	34	DRIVEWAY
0010	366+37 - 366+71	RT.	44	CAROLINE ST.
0010	368+10 - 368+59	RT.	63	ANTOINETTE ST.
0010	372+65 - 372+86	RT.	21	WEST AVE.
0010	373+15 - 373+33	LT.	18	DRIVEWAY
0010	377+76 - 378+02	LT.	28	CTH D
0010	382+53 - 382+77	RT.	24	WAYSIDE
0010	384+69 - 384+93	RT.	24	WAYSIDE
0010	407+89 - 408+03	RT.	14	DRIVEWAY
0010	417+10 - 417+29	RT.	19	DRIVEWAY
0010	449+31 - 449+45	LT.	15	MITCHELL RD.
0010	481+26 - 481+42	LT.	19	HAGESTAD LN.
0010	485+42 - 488+17	RT.	287	CTH CC TURN LANE
0010	488+64 - 488+92	RT.	29	CTH CC
0010	491+54 - 491+78	LT.	24	KITTLESON RD.
0010	499+00 - 499+27	RT.	27	DRIVEWAY
0010	508+97 - 509+17	RT.	20	DRIVEWAY
		TOTAL 0010	2502	

3

SAWING CONCRETE

CATEGORY	STATION TO STATION	LOCATION	690.0250 LF	REMARKS
0010	15+00 - 15+00	LT. & RT.	20	
0010	66+00 - 66+00	LT. & RT.	20	
0010	95+00 - 95+00	LT. & RT.	20	
0010	209+50 - 209+50	LT. & RT.	20	
0010	223+00 - 223+00	LT. & RT.	20	
		TOTAL 0010	100	

SPECIAL(01. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT)

CATEGORY	STATION TO STATION	LOCATION	SPV.0090(01) LF	REMARKS
0010	63+50 - 64+06	RT.	74	CRYSTAL VALLEY RD.
0010	64+44 - 64+82	RT.	77	CRYSTAL VALLEY RD.
0010	208+55 - 209+98	RT.	82	DOPP RD.
0010	210+31 - 210+88	RT.	98	DOPP RD.
		TOTAL 0010	331	

SPECIAL(01. PREPARE FOUNDATION FOR ASPHALTIC PAVING)

CATEGORY	LOCATION	SPV.0105(01) LS	REMARKS
0010	PROJECT 1634-03-71	1	
	TOTAL 0010	1	

SPECIAL(02. MATERIAL TRANSFER VEHICLE)

CATEGORY	LOCATION	SPV.0105(02) LS	REMARKS
0010	PROJECT 1634-03-71	1	
	TOTAL 0010	1	

SPECIAL(04. MILLING AND REMOVING TEMPORARY JOINT)

CATEGORY	LOCATION	SPV.0105(04) LS	REMARKS
0010	PROJECT 1634-03-71	1	
	TOTAL 0010	1	

SPECIAL(01. REHEATING HMA LONGITUDINAL JOINTS SPECIAL)

CATEGORY	STATION TO STATION	LOCATION	SPV.0170(01) STA	REMARKS
0010	15+00 - 19+98	USH 53	5	
0010	21+78 - 82+48	USH 53	61	
0010	84+80 - 212+65	USH 53	128	
0010	214+78 - 379+94	USH 53	166	
0010	380+50 - 464+46	USH 53	84	
0010	465+79 - 510+71	USH 53	45	
		TOTAL 0010	489	

SPECIAL(01. GEOGRID REINFORCEMENT)

CATEGORY	STATION TO STATION	LOCATION	SPV.0180(01) SY	REMARKS
0010	69+00 - 82+41	LT. & RT.	6036	
0010	84+71 - 93+00	LT. & RT.	3761	
		TOTAL 0010	9797	

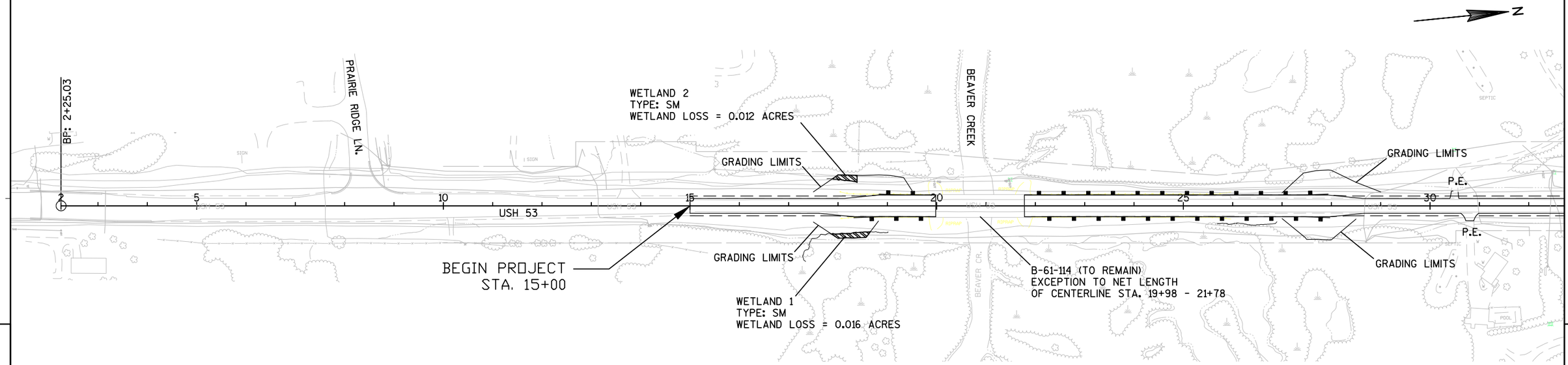
SPECIAL(02. REMOVING MATERIAL FOR HMA REPAIR)

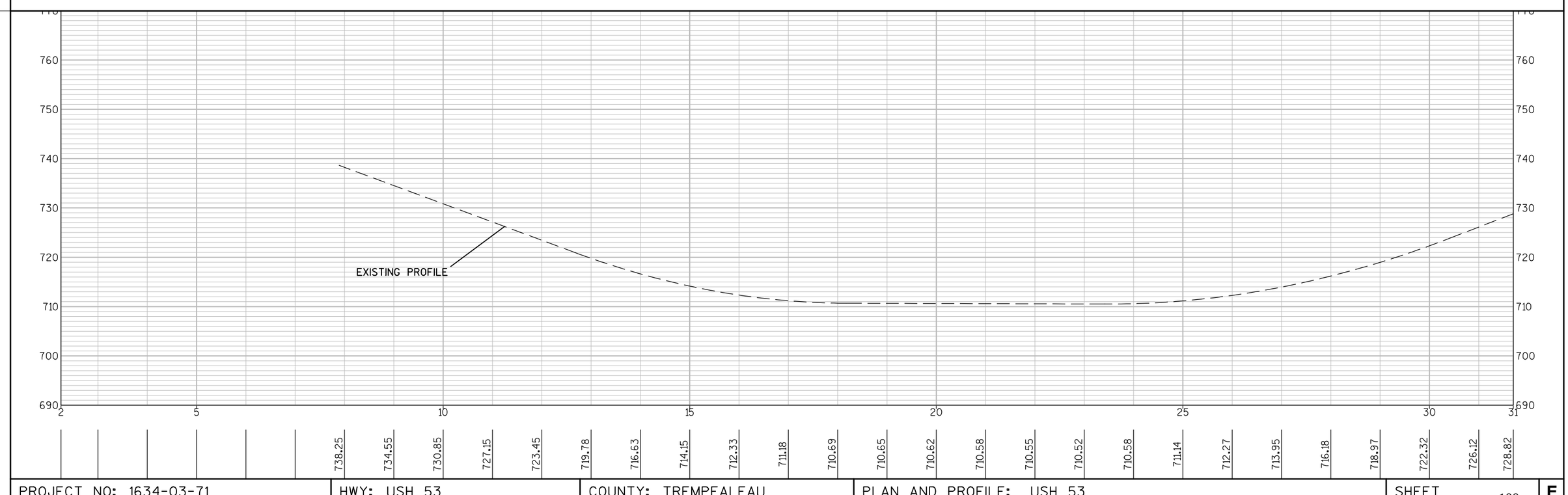
CATEGORY	STATION TO STATION	LOCATION	SPV.0180(02) SY	REMARKS
0010	15+00 - 35+50	LT.	1595	
0010	15+00 - 35+50	RT.	1595	
0010	95+00 - 141+50	LT.	2334	
0010	95+00 - 141+50	RT.	1634	
0010	141+50 - 209+50	LT.	4667	
0010	246+50 - 299+50	LT.	623	
0010	246+50 - 299+50	RT.	3112	
0010	299+50 - 352+50	LT.	1012	
0010	299+50 - 352+50	RT.	3500	
0010	352+50 - 377+00	LT.	389	
0010	352+50 - 405+00	RT.	3500	
0010	405+00 - 489+00	RT.	5445	
0010	457+50 - 510+71	LT.	1478	
0010	489+00 - 510+71	RT.	1439	
0010		UNDISTRIBUTED	8080	
		TOTAL 0010	40403	

NOTE: EXACT LOCATIONS OF HMA REPAIR TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

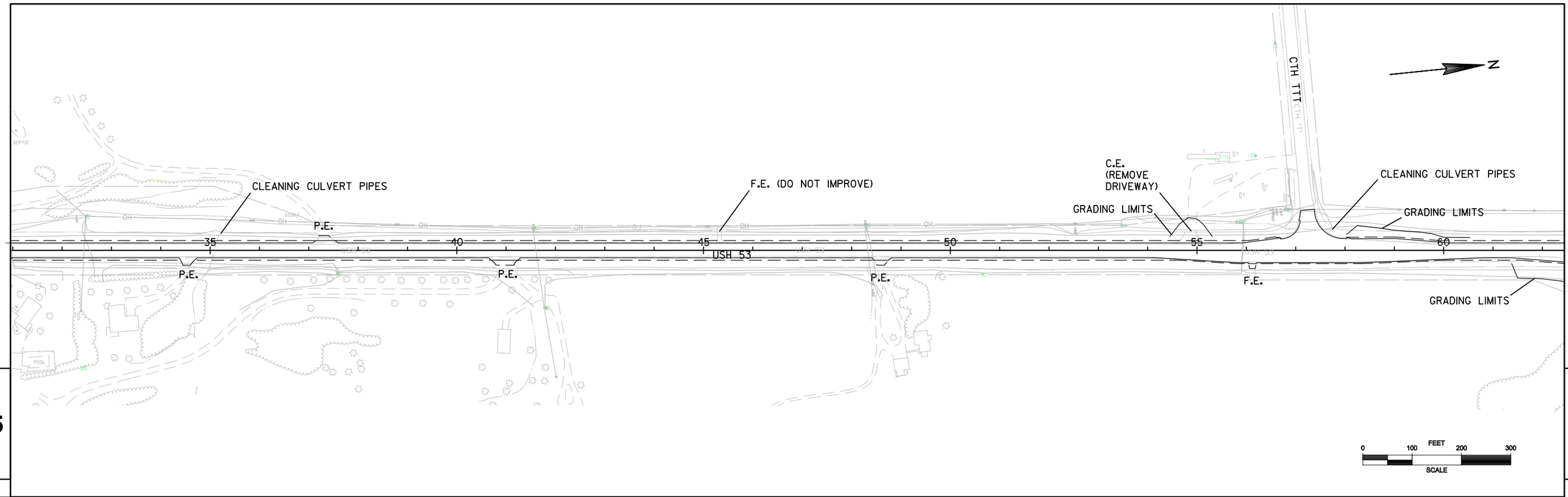
SPECIAL(02. HMA PAVEMENT TYPE E-3 SPECIAL)

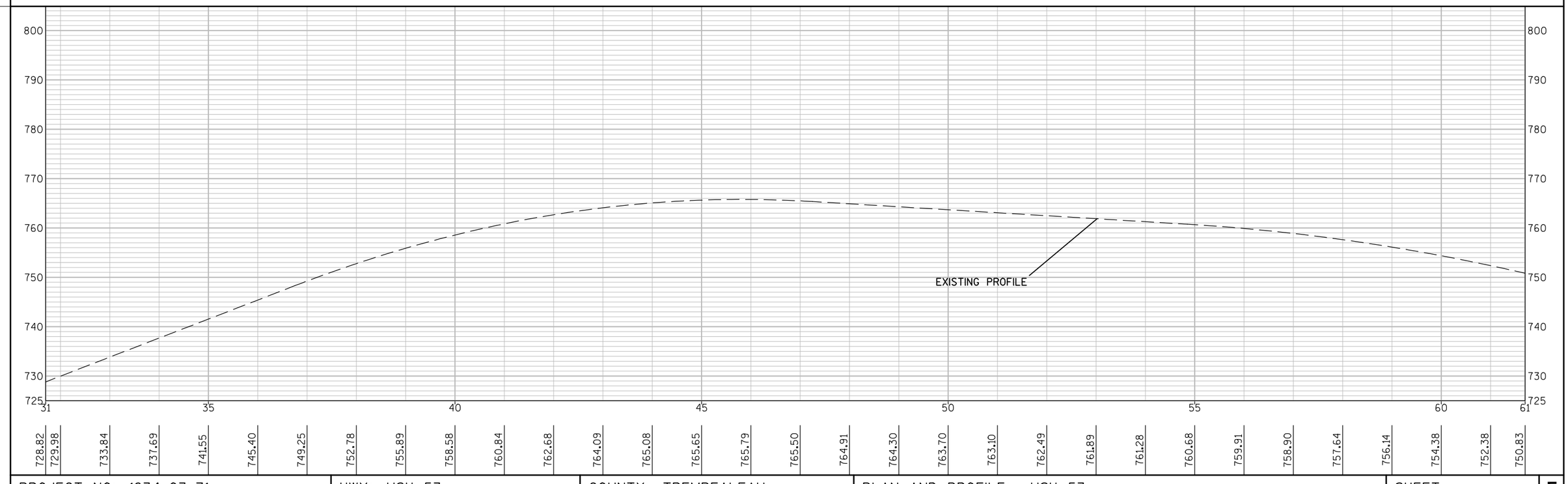
CATEGORY	STATION TO STATION	LOCATION	SPV.0195(02) TON	REMARKS
0010	15+00 - 19+98	LT. & RT.	321	
0010	21+78 - 66+00	LT. & RT.	3182	
0010	66+00 - 82+05	LT. & RT.	2259	
0010	85+06 - 95+00	LT. & RT.	1397	
0010	95+00 - 148+00	LT. & RT.	3651	
0010	148+00 - 209+50	LT. & RT.	4102	
0010	209+50 - 212+16	LT. & RT.	360	
0010	215+26 - 223+00	LT. & RT.	1132	
0010	223+00 - 276+00	LT. & RT.	3547	
0010	276+00 - 329+00	LT. & RT.	3431	
0010	329+00 - 379+97	LT. & RT.	3806	
0010	380+44 - 423+00	LT. & RT.	2673	
0010	423+00 - 464+56	LT. & RT.	2576	
0010	465+69 - 510+71	LT. & RT.	3172	
0010	10+20 - 11+32	CRYSTAL VALLEY RD., LT. & RT.	156	
0010				
0010	10+14 - 11+93	DOPP RD., LT. & RT.	241	
		TOTAL 0010	36006	





PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 100	E





PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 101	E

C.P.R.C., CLASS IV 30–INCH
STA. 68+65.01
ENTRANCE = 75' LT. ELEV. 716.36
EXIT = 85' RT. ELEV. 712.80
GRADE = 2.23%
12 JOINT TIES REQUIRED

C.P.R.C., CLASS IV 24–INCH
STA. 72+44.77
ENTRANCE = 72' LT. ELEV. 712.84
EXIT = 80' RT. ELEV. 710.34
GRADE = 1.64%
12 JOINT TIES REQUIRED

DROP INLET
STA. 84+97.84 LT.
INLETS 2X2–FT 21' LT.
TOP OF BOX = 720.74
BOX DEPTH = 2.5'
INVERT OUT = 718.34
INLET COVERS TYPE V F.L. 721.99
A.E.W. 12" = 53.83' LT. OUTFALL 711.49

WETLAND 7B
TYPE: AB
WETLAND LOSS = 0.015 ACRES

WETLAND 7A
TYPE: SS
WETLAND LOSS = 0.079 ACRES

WETLAND 7C
TYPE: M
WETLAND LOSS = 0.012 ACRES

WETLAND 6
TYPE: M
WETLAND LOSS = 0.045 ACRES

GRADING LIMITS

F.E.
(REMOVE DRIVEWAY)

GRADING LIMITS

GRADING LIMITS

USH 53

P.E.
(REMOVE DRIVEWAY)

B–61–202
(REMOVE B–61–005)

WETLAND 4
TYPE: AB
WETLAND LOSS = 0..131 ACRES

GRADING LIMITS

WETLAND 11
TYPE: M
WETLAND LOSS = 0.068 ACRES

CRYSTAL VALLEY RD.

P.E.
(CONSTRUCT NEW DRIVEWAY)

WETLAND 3
TYPE: M
WETLAND LOSS = 0.154 ACRES

DROP INLET
STA. 84+97.84 RT.
INLETS 2X2–FT 21' RT.
TOP OF BOX = 720.74
BOX DEPTH = 2.5'
INVERT OUT = 718.34
INLET COVERS TYPE V F.L. 721.99
A.E.W. 12" = 53.88' RT. OUTFALL 711.47

C.P.R.C., CLASS III 24–INCH
STA. 89+99.06
ENTRANCE = 49' RT. ELEV. 711.50
EXIT = 52' LT. ELEV. 710.76
GRADE = 0.73%
12 JOINT TIES REQUIRED

N

0 100 FEET 200 300
SCALE

STA. 65+00 (MATCH EXISTING)
VARY PAVEMENT DEPTH OVER 100 FT.
TO TRANSITION TO NEW PROFILE

−2.58%

VPI STA 66+00.00
VPI EL 740.02

VPC STA 68+30.22
VPC EL 734.07

VPI STA 69+72.72
VPI EL 730.39

VPT STA 71+15.22
VPT EL 729.67

FINISHED PROFILE

EXISTING PROFILE

−0.50%

REMOVING OLD STRUCTURE OVER WATERWAY
WITH MINIMAL DEBRIS STA. 83+64
B–61–005
LENGTH = 200 FT. WIDTH = 28.5 FT.
TYPE = DECK GIRDER, STEEL, 3 SPAN

PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 102 E

PI STATION = 102+47.75
PI X,Y = 850544.35, 350483.97
DELTA = 18°58'43"
DEGREE = 1°00'03"
TANGENT = 956.78
LENGTH = 1896.04
RADIUS = 5724.03
PC STATION = 92+90.96
PT STATION = 111+87.00
EXISTING S.E. = LT. −5.5%, RT. +0.7%
CORRECT S.E. TO 2.70%

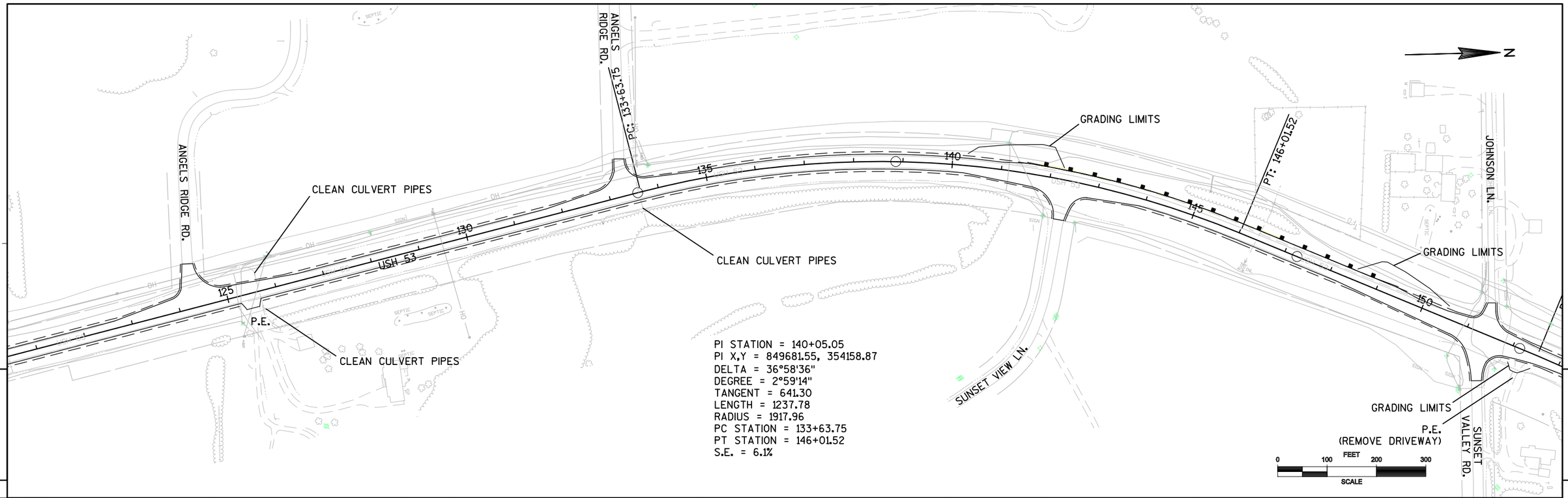
PC: 92+90.96
PT: 111+87.00
F.E.
GRADING LIMITS
F.E. (DO NOT IMPROVE)
CLEAN CULVERT PIPES
GRADING LIMITS
F.E. (DO NOT IMPROVE)
WETLAND 11
TYPE: M
WETLAND LOSS = 0.068 ACRES
USH 53
DAULTON RD.
P.E.
CLEAN CULVERT PIPES
N
0 100 FEET 200 300
SCALE

FINISHED PROFILE
VCL = 575.00
K = 311.87
STA. 96+00 (MATCH EXISTING)
VARY PAVEMENT DEPTH OVER 100 FT.
TO TRANSITION TO NEW PROFILE
VPC STA 92+66.36
VPC EL 718.83
VPI STA 95+53.86
VPI EL 717.381
VPT STA 98+41.36
VPT EL 721.23
EXISTING PROFILE

717.38 719.16 717.64 718.68 717.98 718.44 718.45 718.53 718.93 718.93 719.77 720.64 721.82 723.30 724.79 726.35 727.67 729.51 731.46 733.28 735.73 737.98 740.74 743.39 746.20 749.19 752.38 755.29 758.28 761.10 764.18 766.89 769.16 771.14 772.99 774.09

PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PLOT: USH 53	SHEET 103	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\050145_MOD1_PP.DWG PLOT DATE : 8/20/2013 7:53 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1 IN:200 FT

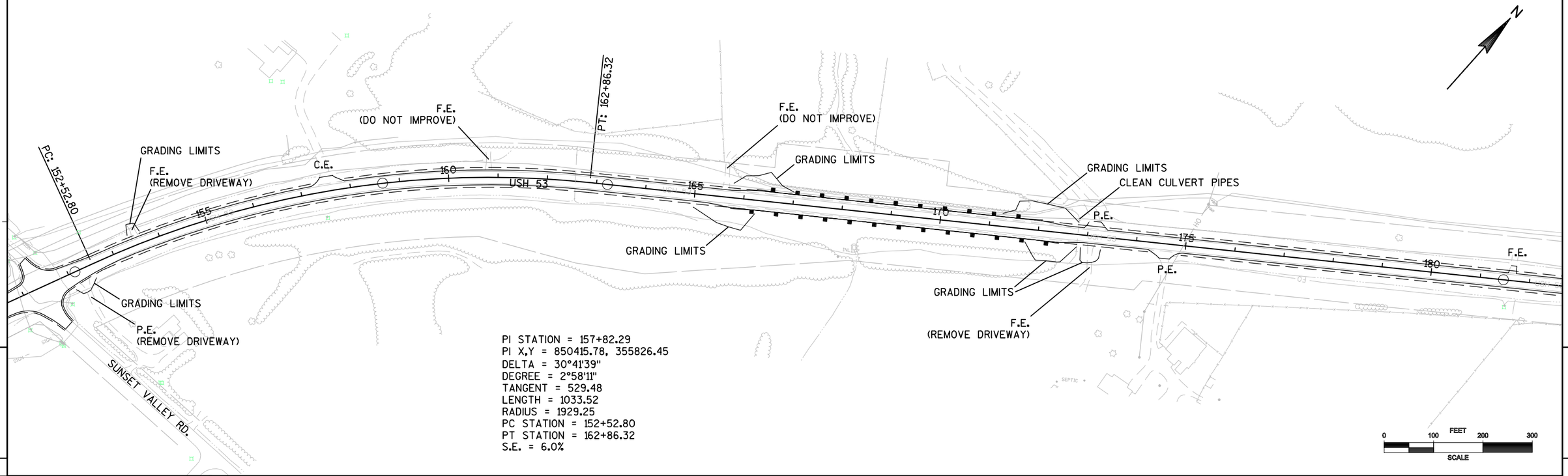


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5

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 104	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\050140_MOD1_PP.DWG PLOT DATE : 8/19/2013 12:14 PM PLOT BY : SARAUER, ADAM A PLOT NAME : ---------- PLOT SCALE : 1 IN:200 FT



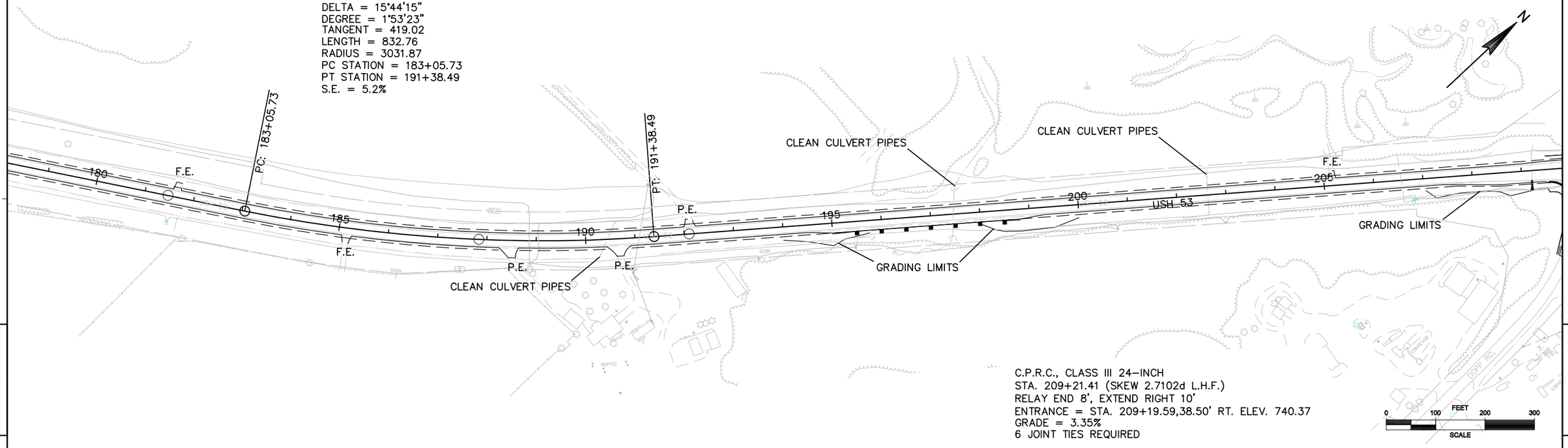
PI STATION = 157+82.29
PI X,Y = 850415.78, 355826.45
DELTA = 30°41'39"
DEGREE = 2°58'11"
TANGENT = 529.48
LENGTH = 1033.52
RADIUS = 1929.25
PC STATION = 152+52.80
PT STATION = 162+86.32
S.E. = 6.0%

0 100 FEET 200 300
SCALE

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 105	E

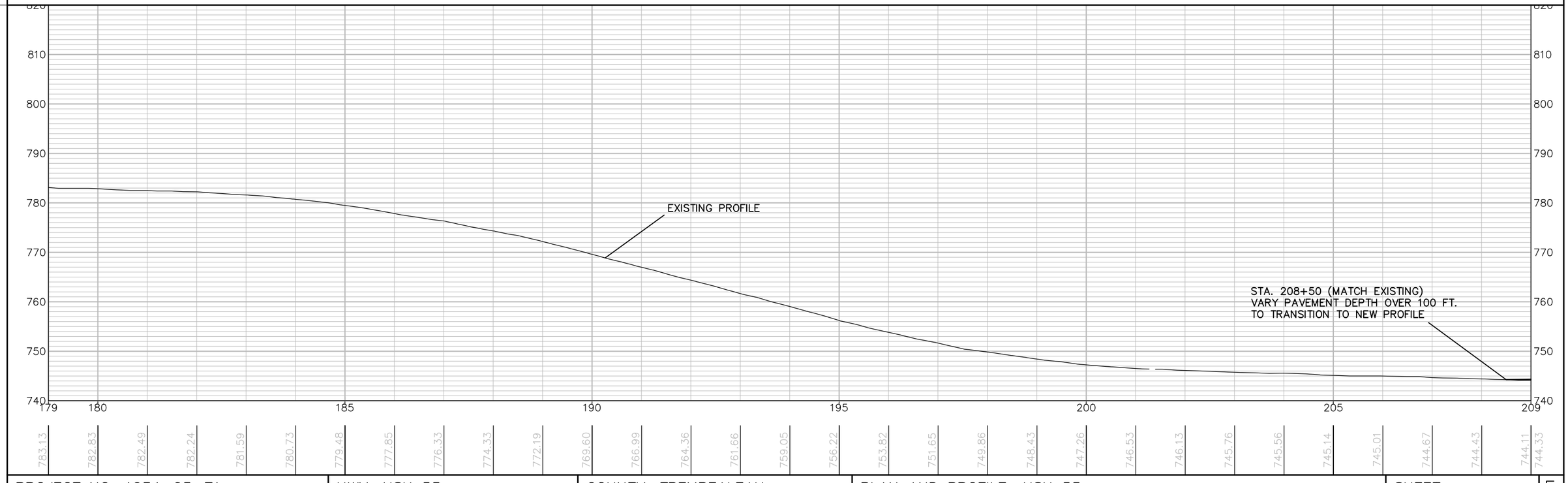
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\050140_MOD1_PP.DWG PLOT DATE : 8/19/2013 12:17 PM PLOT BY : SARAUER, ADAM A PLOT NAME : ---------- PLOT SCALE : 1 IN:200 FT

PI STATION = 187+24.75
PI X,Y = 852830.74, 357551.70
DELTA = 15°44'15"
DEGREE = 1°53'23"
TANGENT = 419.02
LENGTH = 832.76
RADIUS = 3031.87
PC STATION = 183+05.73
PT STATION = 191+38.49
S.E. = 5.2%

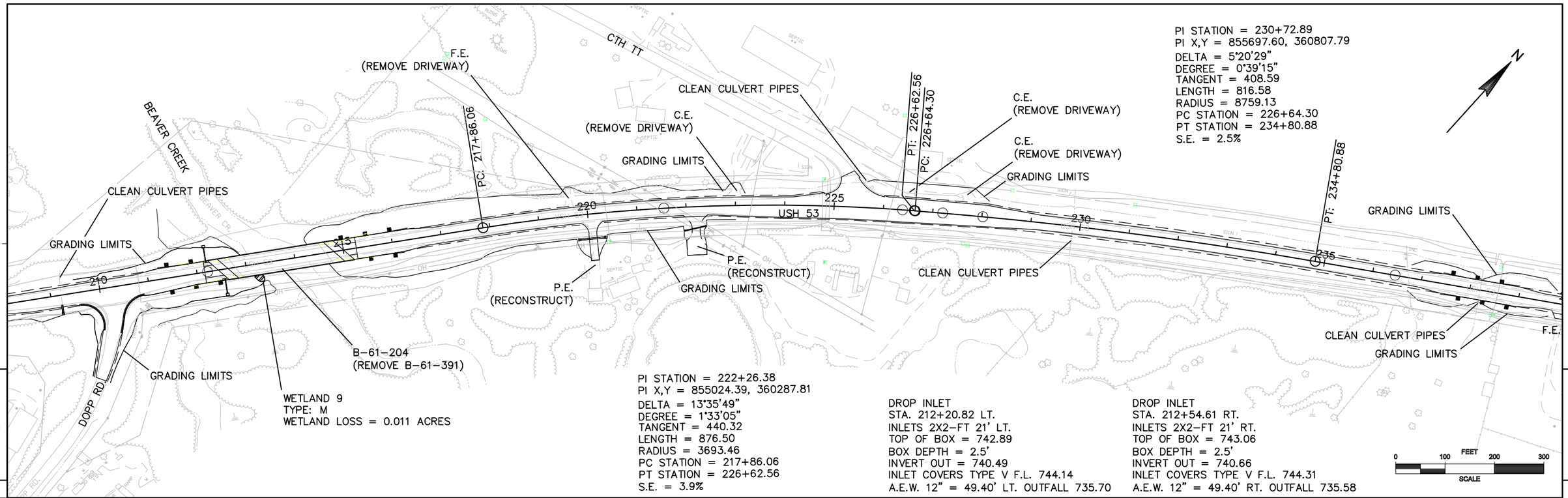


C.P.R.C., CLASS III 24-INCH
STA. 209+21.41 (SKEW 2.7102d L.H.F.)
RELAY END 8', EXTEND RIGHT 10'
ENTRANCE = STA. 209+19.59,38.50' RT. ELEV. 740.37
GRADE = 3.35%
6 JOINT TIES REQUIRED

0 100 FEET 200 300
SCALE

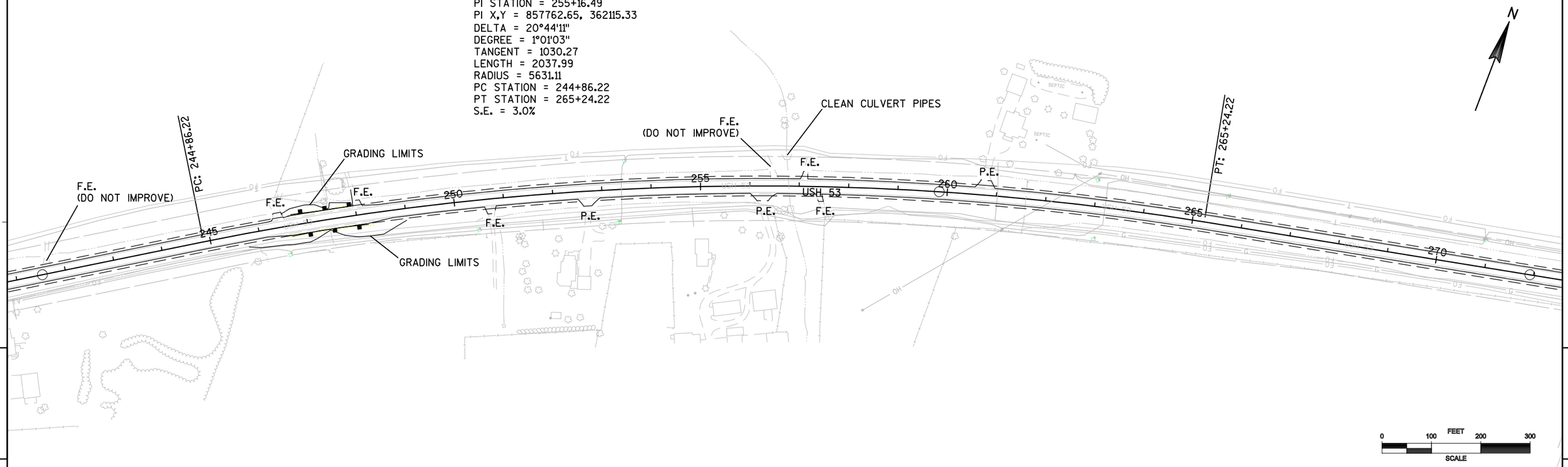


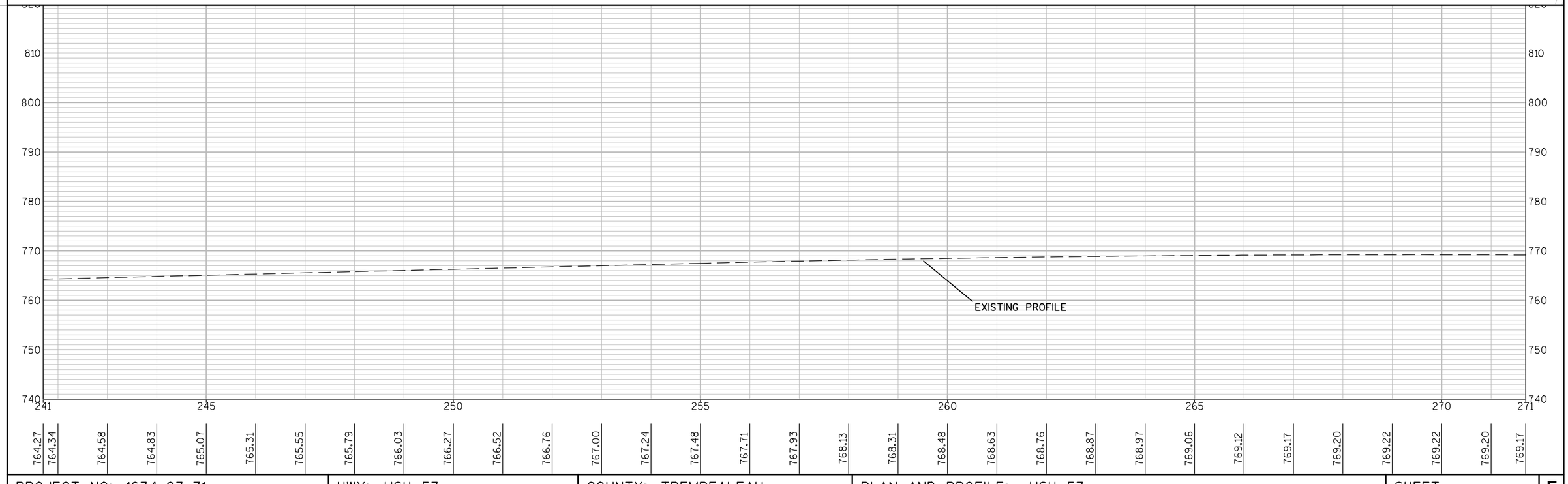
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 106 E



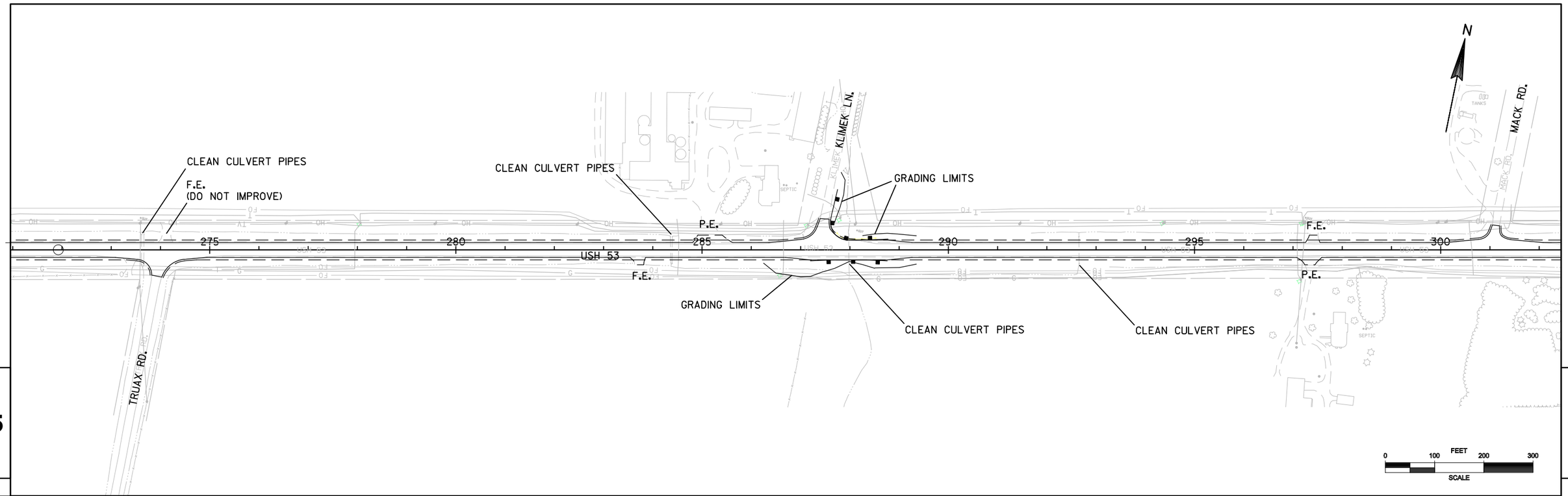
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 107 E

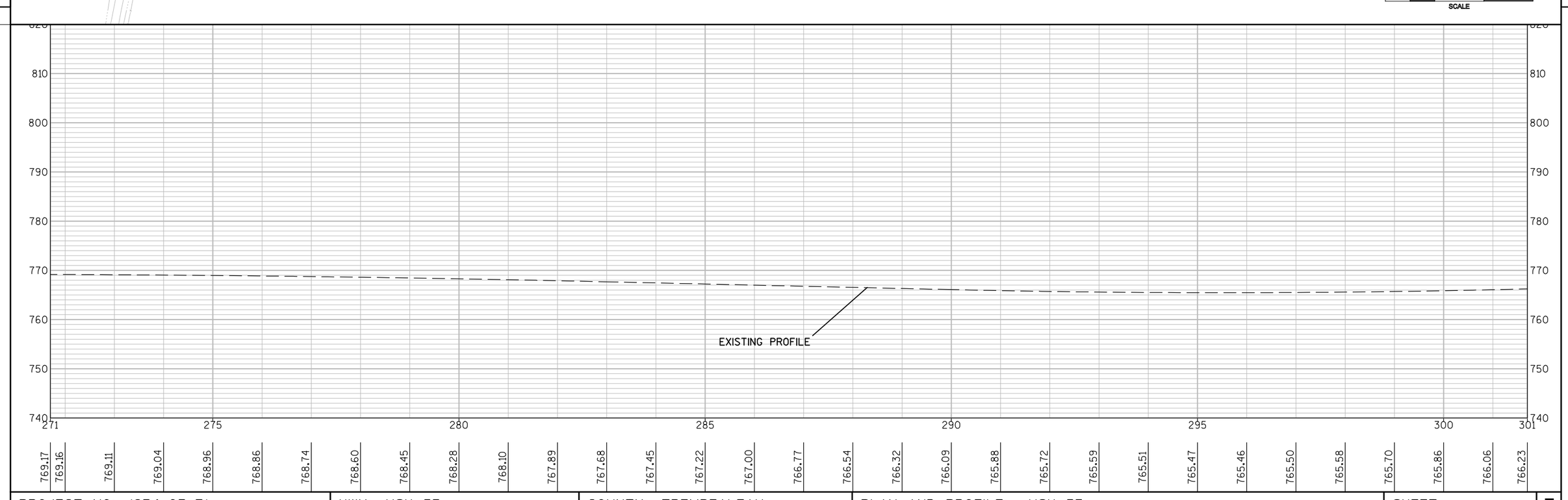
PI STATION = 255+16.49
PI X,Y = 857762.65, 362115.33
DELTA = 20°44'11"
DEGREE = 1°01'03"
TANGENT = 1030.27
LENGTH = 2037.99
RADIUS = 5631.11
PC STATION = 244+86.22
PT STATION = 265+24.22
S.E. = 3.0%





PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 108	E





PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 109	E

PI STATION = 316+34.73
PI X,Y = 863777.91, 363350.60
DELTA = 33°10'06"
DEGREE = 1°58'59"
TANGENT = 860.49
LENGTH = 1672.64
RADIUS = 2889.37
PC STATION = 307+74.24
PT STATION = 324+46.89
S.E. = 4.8%

MACK RD.
WEST RD.
N
F.E. (DO NOT IMPROVE)
PC: 307+74.24
GRADING LIMITS
CLEAN CULVERT PIPES
P.E.
F.E. (DO NOT IMPROVE)
USH 53
PT: 324+46.89
305
310
315
320
325
330

0 100 FEET 200 300
SCALE

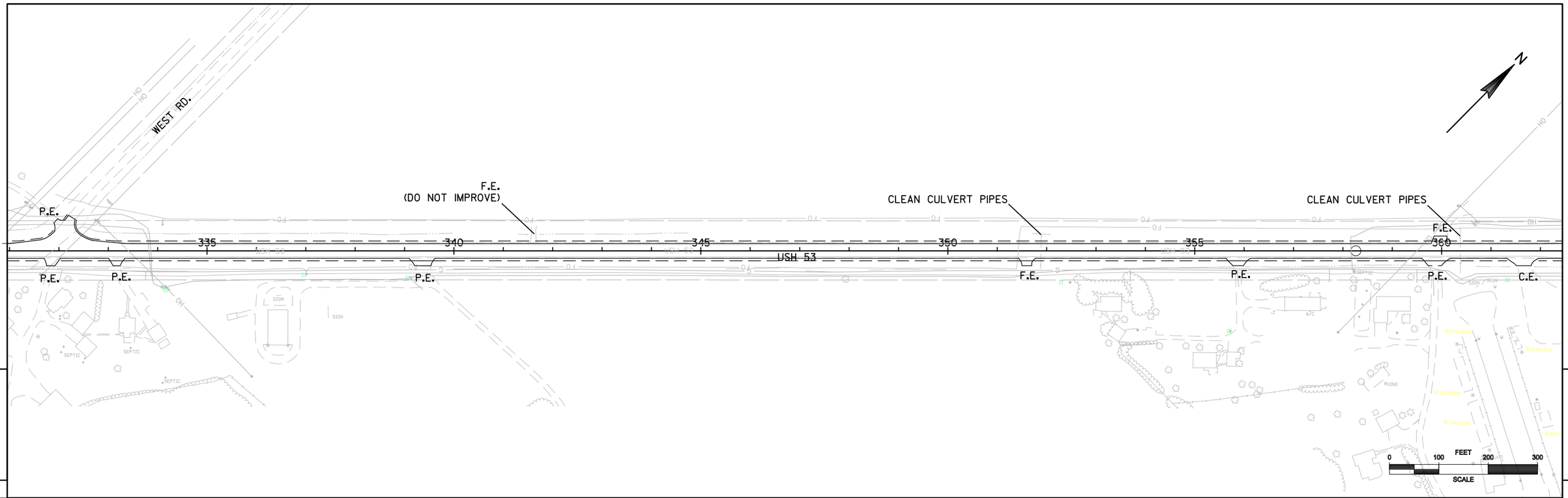
EXISTING PROFILE

820 810 800 790 780 770 760 750 740

301 305 310 315 320 325 330 331

766.23 766.30 766.58 766.91 767.25 767.59 767.90 768.14 768.33 768.52 768.72 768.91 769.10 769.29 769.48 769.67 769.86 770.05 770.25 770.45 770.67 770.90 771.13 771.37 771.60 771.83 772.06 772.30 772.53 772.76 772.99 773.16

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 110	E



5

5

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 111	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\050140_MOD1_PP.DWG PLOT DATE : 8/19/2013 12:22 PM PLOT BY : SARAUER, ADAM A PLOT NAME : ---------- PLOT SCALE : 1 IN:200 FT

PI STATION = 373+13.40
PI X,Y = 867843.53, 367384.12
DELTA = 25°46'24"
DEGREE = 1°59'42"
TANGENT = 657.10
LENGTH = 1291.96
RADIUS = 2872.12
PC STATION = 366+56.30
PT STATION = 379+48.26
S.E. = 3.1%

PI STATION = 385+62.93
PI X,Y = 868267.08, 368583.28
DELTA = 15°40'13"
DEGREE = 2°03'32"
TANGENT = 382.92
LENGTH = 761.06
RADIUS = 2782.69
PC STATION = 381+80.02
PT STATION = 389+41.07
S.E. = 4.8%

PC: 366+56.30
PT: 379+48.26
PC: 381+80.02
PT: 389+41.07
C.E.
P.E.
GRADING LIMITS
CLEAN CULVERT PIPES
B-61-101 (TO REMAIN)
EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 379+94 - 380+50
B-61-56 (TO REMAIN)
USH 53
CTH D
CAROLINE ST.
ANTOINETTE ST.
WEST AVE.
N. BEAVER CR.
BEAVER CREEK
365
370
375
380
385
390
0 100 FEET 200 300
SCALE

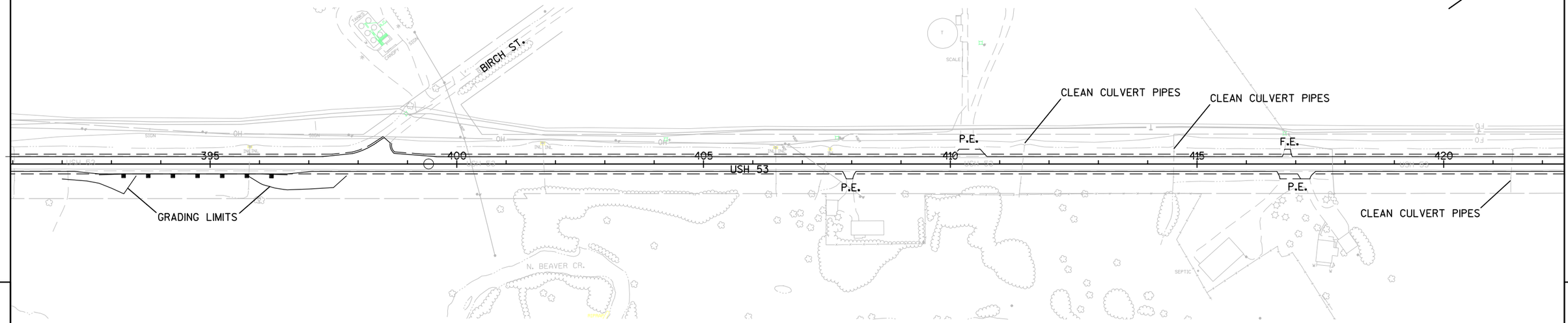
EXISTING PROFILE

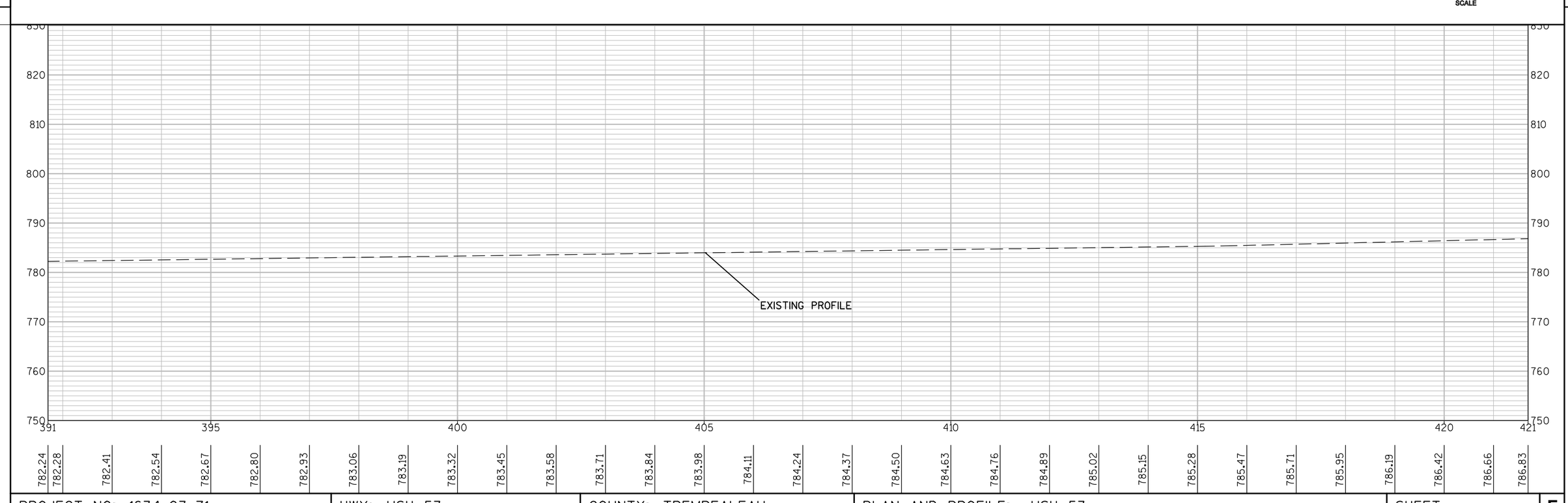
840 830 820 810 800 790 780 770 760

361 365 370 375 380 385 390 391

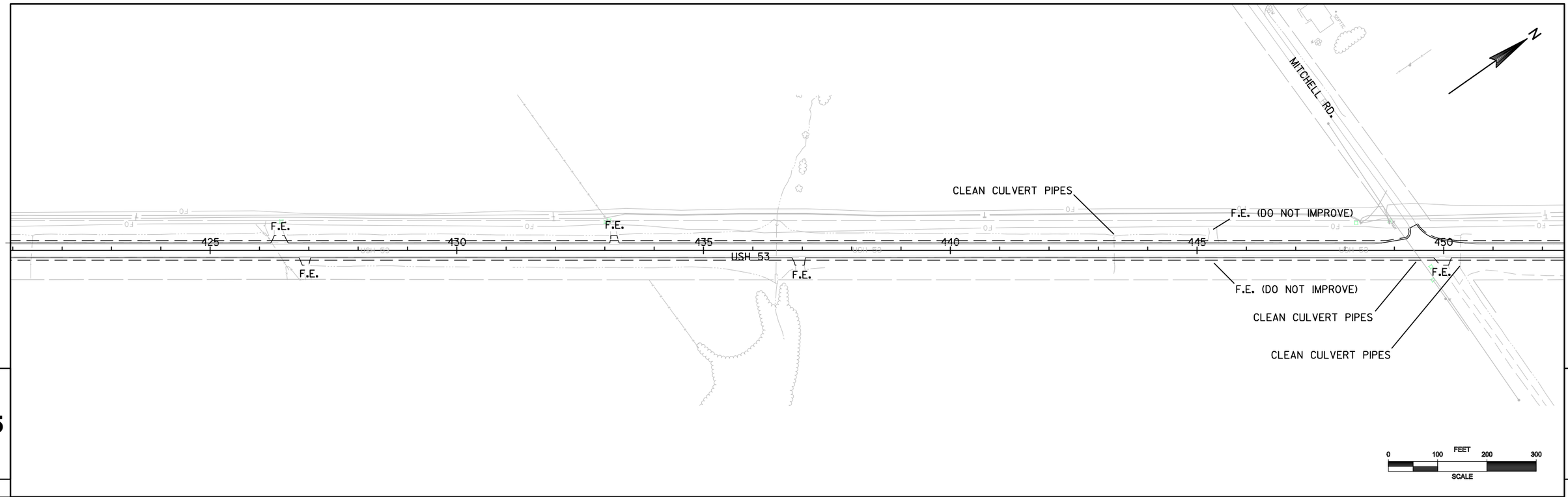
778.24 778.31 778.54 778.77 779.00 779.21 779.34 779.45 779.56 779.67 779.78 779.90 780.01 780.12 780.21 780.12 779.93 779.96 780.26 780.62 780.99 781.07 781.10 781.23 781.36 781.50 781.63 781.76 781.89 782.02 782.15 782.24

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 112	E



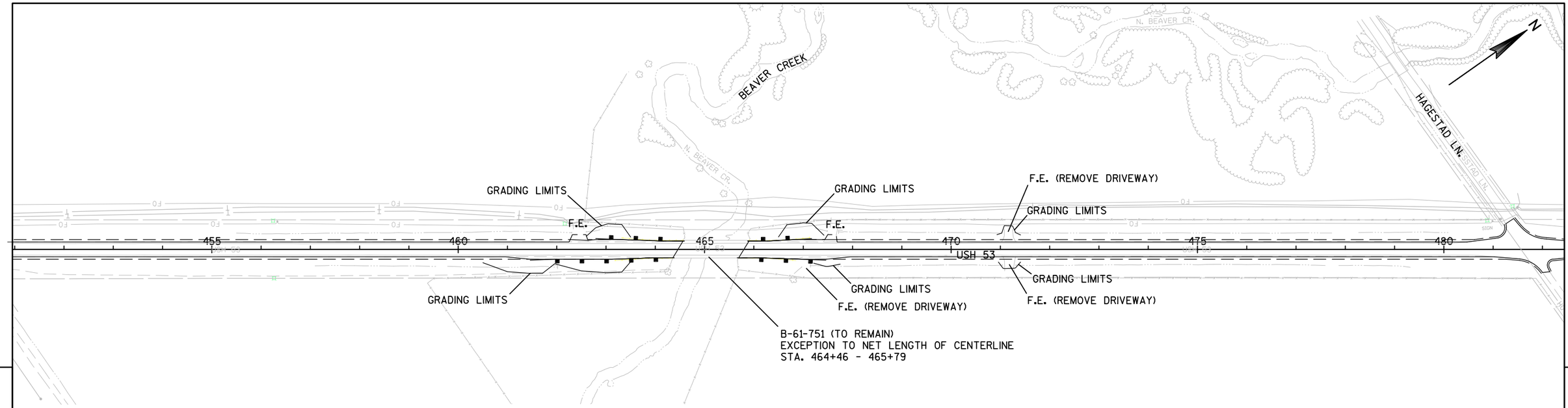


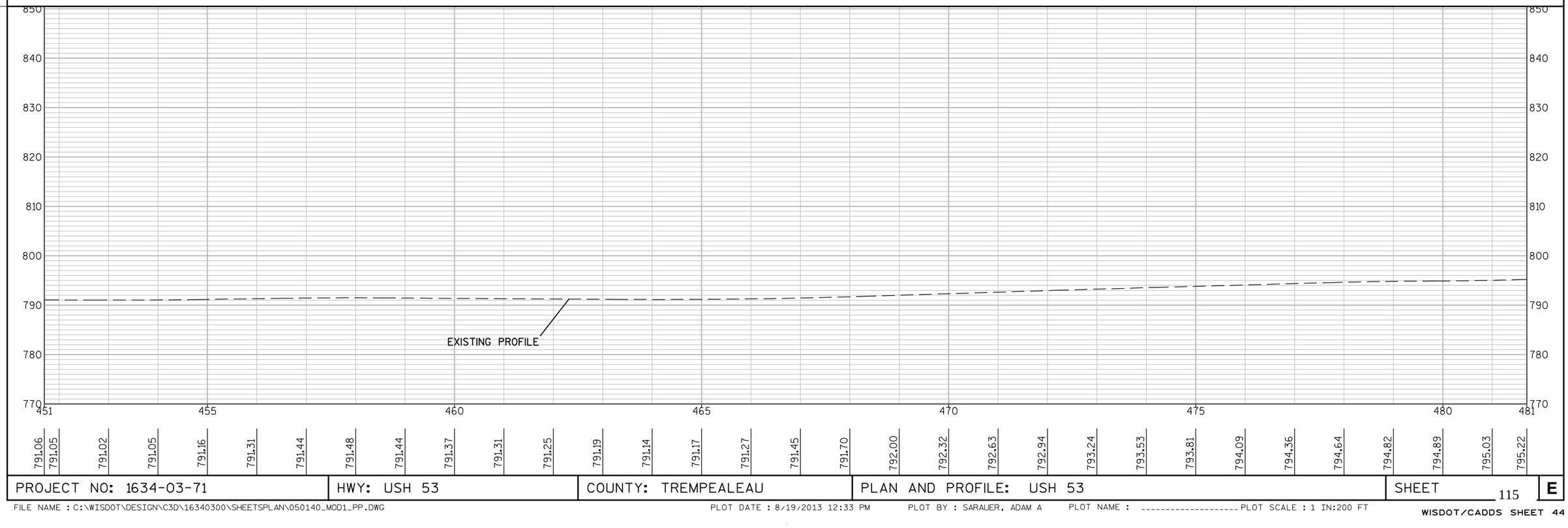
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 113	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 114	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\050140_MOD1_PP.DWG PLOT DATE : 8/19/2013 12:32 PM PLOT BY : SARAUER, ADAM A PLOT NAME : ---------- PLOT SCALE : 1 IN:200 FT





PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 115	E

ADD A.E.W. FOR C.P.R.C. 30"
STA. 485+82.12 (SKEW 1.129d L.H.F.)
ENTRANCE = STA. 485+81.44, 34.52' RT. ELEV. 792.56
GRADE = MATCH EXISTING
2 JOINT TIES REQUIRED

KITTLESON RD.

PC: 493+15.95

PT: 502+44.22

USH 53

CLEAN CULVERT PIPES

CLEAN CULVERT PIPES

GRADING LIMITS

P.E.

F.E.
(DO NOT IMPROVE)

GRADING LIMITS

BEAVER CREEK

P.E.

P.E.

GRADING LIMITS

END PROJECT
STA. 510+71

B-61-236 (TO REMAIN)

HAGESTAD LN.

CTH CC

PI STATION = 497+86.55
PI X,Y = 874727.31, 377767.09
DELTA = 23°14'31"
DEGREE = 2°30'14"
TANGENT = 470.61
LENGTH = 928.27
RADIUS = 2288.35
PC STATION = 493+15.95
PT STATION = 502+44.22
S.E. = 5.2%

0 100 200 300 FEET
SCALE

EXISTING PROFILE

860 850 840 830 820 810 800 790 780

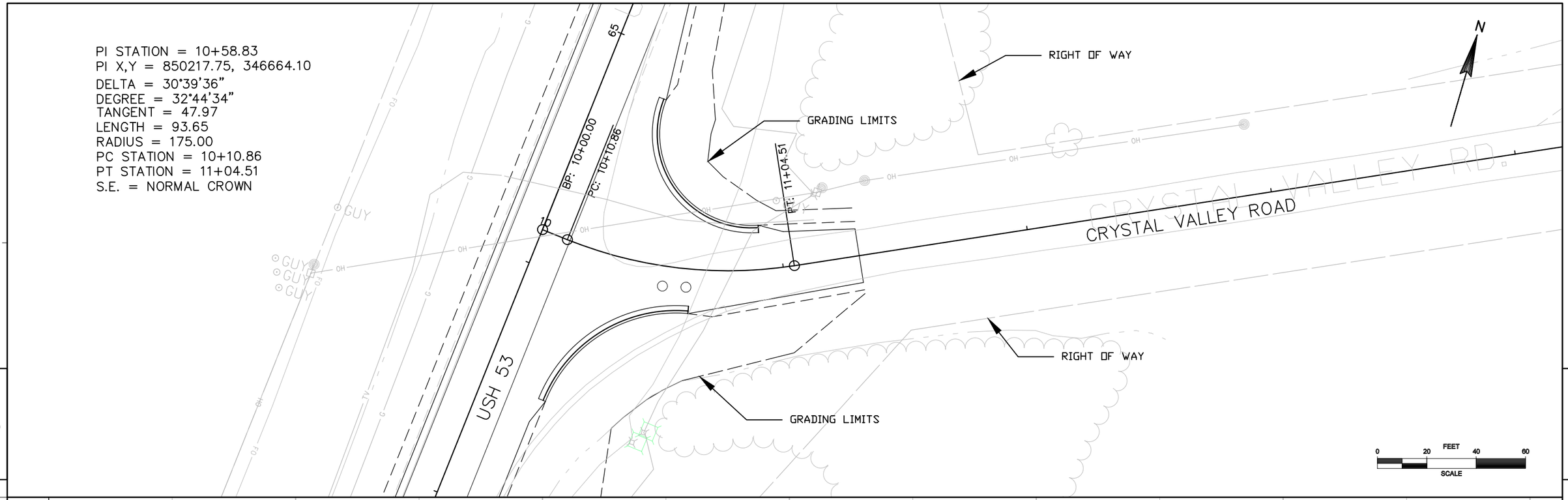
481 485 490 495 500 505 510 511

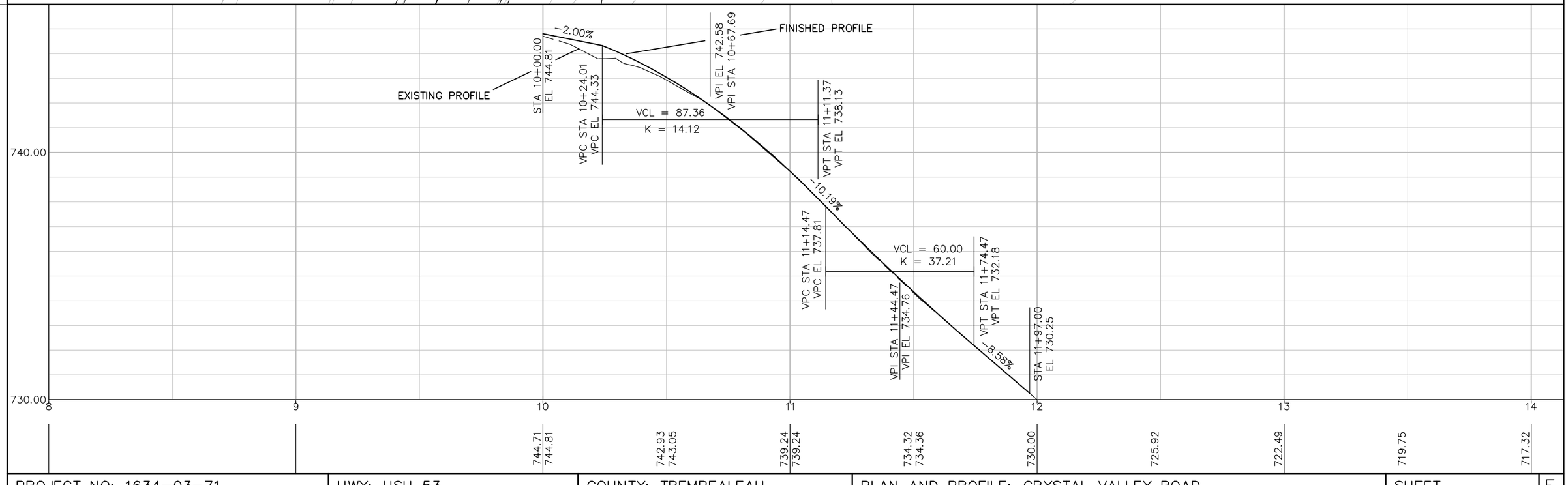
795.22 795.32 795.67 796.02 796.36 796.71 797.06 797.46 798.04 798.81 799.73 800.67 801.60 802.54 803.47 804.29 804.95 805.46 805.82 806.02 806.07 805.96 805.70 805.32 804.94 804.56 804.18 803.89 803.71 803.64 803.69 803.79

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: USH 53	SHEET 116	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\050140_MOD1_PP.DWG PLOT DATE : 8/19/2013 12:34 PM PLOT BY : SARAUER, ADAM A PLOT NAME : ---------- PLOT SCALE : 1 IN:200 FT

PI STATION = 10+58.83
PI X,Y = 850217.75, 346664.10
DELTA = 30°39'36"
DEGREE = 32°44'34"
TANGENT = 47.97
LENGTH = 93.65
RADIUS = 175.00
PC STATION = 10+10.86
PT STATION = 11+04.51
S.E. = NORMAL CROWN





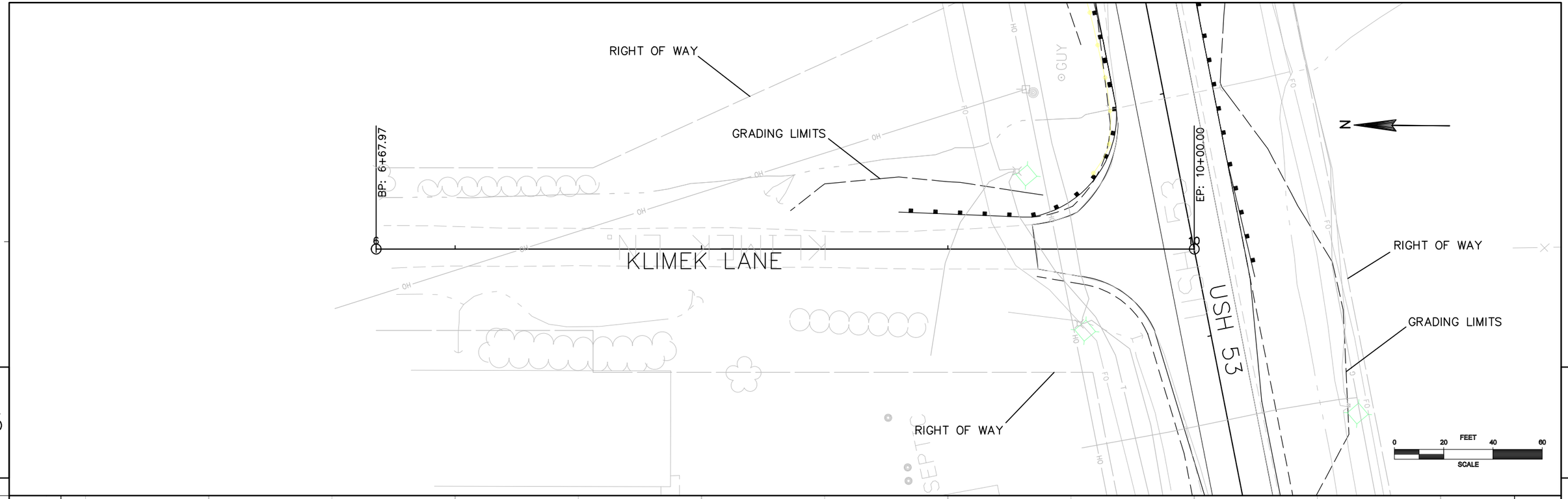
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: CRYSTAL VALLEY ROAD	SHEET 117	E

PI STATION = 12+02.17
PI X,Y = 854415.69, 359209.65
DELTA = 39°55'05"
DEGREE = 10°17'34"
TANGENT = 202.174
LENGTH = 387.858
RADIUS = 556.705
PC STATION = 10+00.00
PT STATION = 13+87.86
S.E. = NORMAL CROWN

GRADING LIMITS
GRADING LIMITS
RIGHT OF WAY
BP: 10+00.00
CONSTRUCTION LIMITS
STA. 11+92.20
DOPP ROAD
PT: 13+87.86
GRADING LIMITS
USH 53
RIGHT OF WAY
N
0 20 40 60 FEET
SCALE

FINISHED PROFILE
EXISTING PROFILE
VCL = 140.00
K = 26.31
STA 10+00.00
EL 744.11
STA 10+24.42
EL 743.65
STA 12+16.93
EL 749.82
-1.90%
0.50%
5.82%
VPC STA 10+48.97
VPC EL 743.77
VPI STA 11+18.97
VPI EL 744.12
VPT STA 11+88.97
VPT EL 748.19
750.00
740.00
738.00
8 9 10 11 12 13 14 14
743.51 744.11
743.53 743.78
744.19 744.52
745.83 746.21
748.84 748.84
751.97
755.23
758.04
760.36
760.76

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: DOPP ROAD	SHEET 118	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: KLIMEK LANE	SHEET 119	E

RIGHT OF WAY

GRADING LIMITS

DRIVEWAY
(STA. 77+50, RT.)

SPECIAL DITCHING

0+79

0+00

GRADING LIMITS

PC: 0+15.01

BP: 0+00.00

PT: 2+35.38

EP: 3+05.69

USH 53

GRADING LIMITS

GRADING LIMITS

GRADING LIMITS

REMOVE EXISTING DRIVEWAY

N

PI STATION = 1+50.49
PI X,Y = 850443.13, 347983.74
DELTA = 84°10'24"
DEGREE = 38°12'00"
TANGENT = 135.472
LENGTH = 220.366
RADIUS = 150.00'
PC STATION = 0+15.01
PT STATION = 2+35.38
S.E. = 2%

C.P.R.C., CLASS III 24-INCH
STA. 0+52.89 (SKEW 13.167d R.H.F.)
ENTRANCE = STA. 0+62.92, 33.14' RT. ELEV. 718.63
EXIT = STA. 0+45.42, 40.84' LT. ELEV. 717.53
GRADE = 1.45%
12 JOINT TIES REQUIRED

C.P.R.C., CLASS IV 18-INCH
STA. 2+00.00
ENTRANCE = 21' RT. ELEV. 711.20
EXIT = 23' LT. ELEV. 710.95
GRADE = 0.57%
10 JOINT TIES REQUIRED

0 20 FEET 40 60
SCALE

5

5

STA 0+00.00
EL 726.47

STA 0+12.00
EL 726.23

VPC STA 0+40.00
VPC EL 725.11
VPI STA 0+50.00
VPI EL 724.71
VPT STA 0+60.00
VPT EL 724.01

-2.00%

-4.00%

FINISHED PROFILE

VCL = 30.00
K = 4.08

-7.00%

EXISTING PROFILE

K = 6.67
VCL = 20.00

VPC STA 1+93.27
VPC EL 714.69
VPI STA 2+08.27
VPI EL 713.64
VPT STA 2+23.27
VPT EL 713.69

0.35%

STA 2+86.58
EL 713.91

0.13%

720.00

712.00

-1 -1 0 1 2 3 4

720.73
726.47

718.20
724.64

717.64
721.21

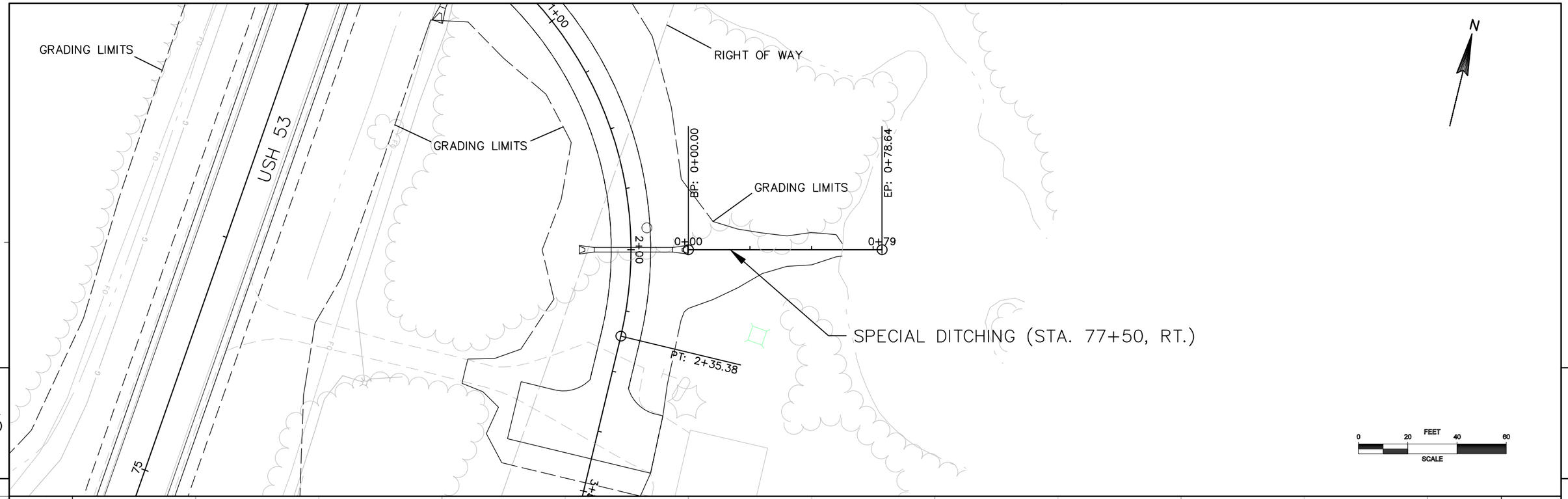
714.65
717.72

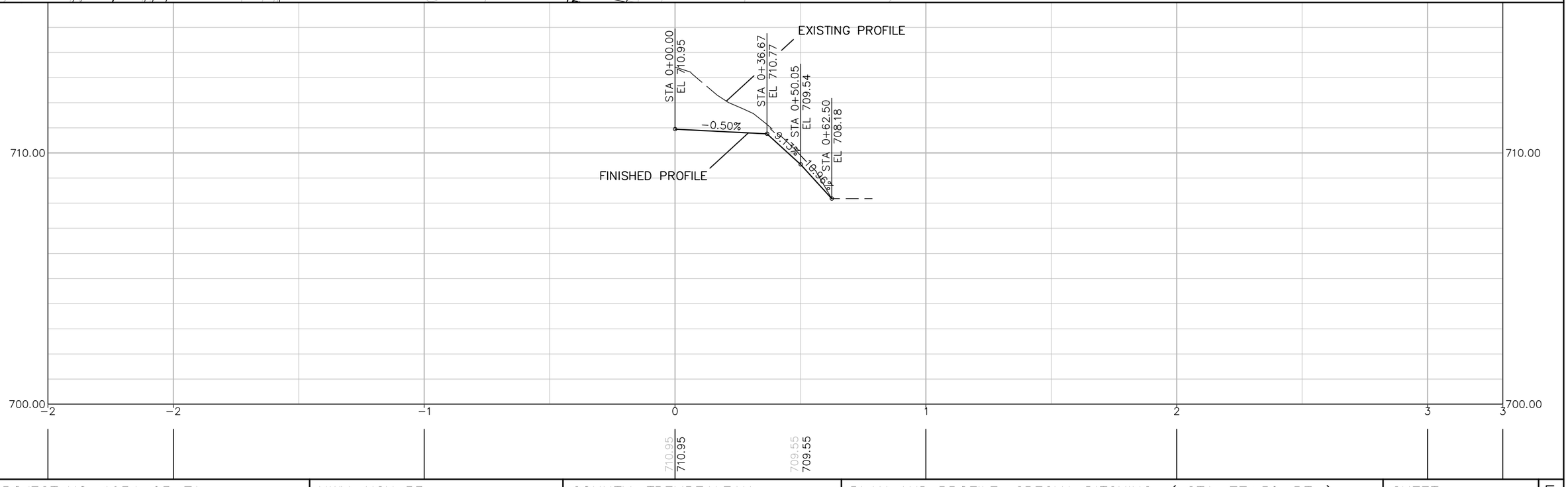
715.34
714.27

714.24
713.78

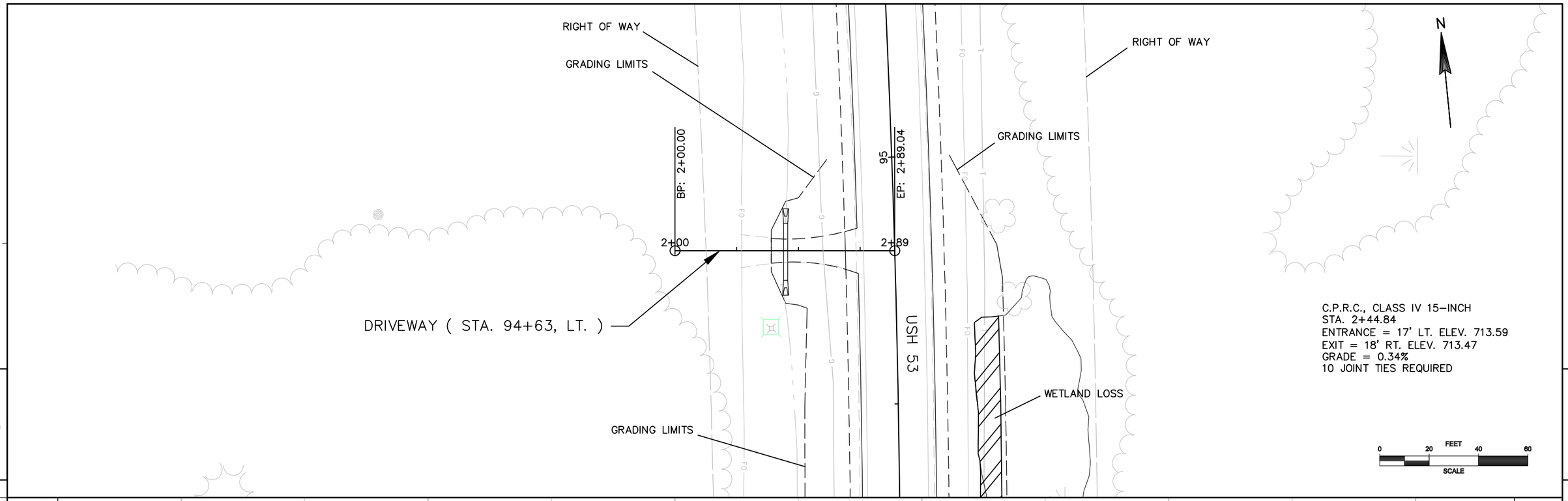
713.91

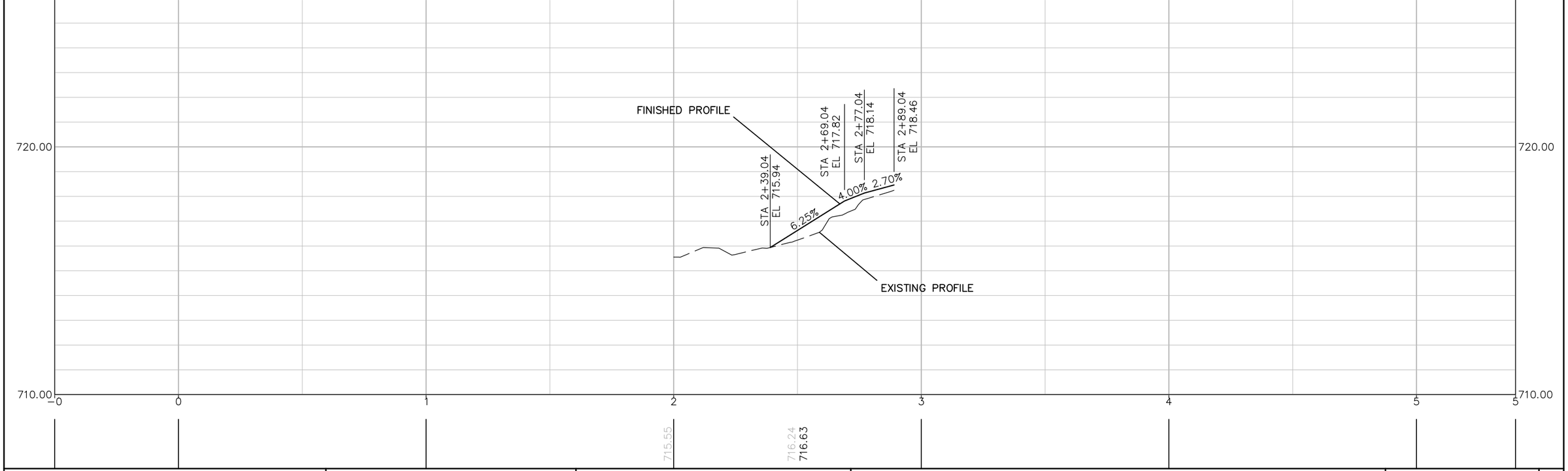
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: DRIVEWAY (STA. 77+50, RT.)	SHEET 120	E



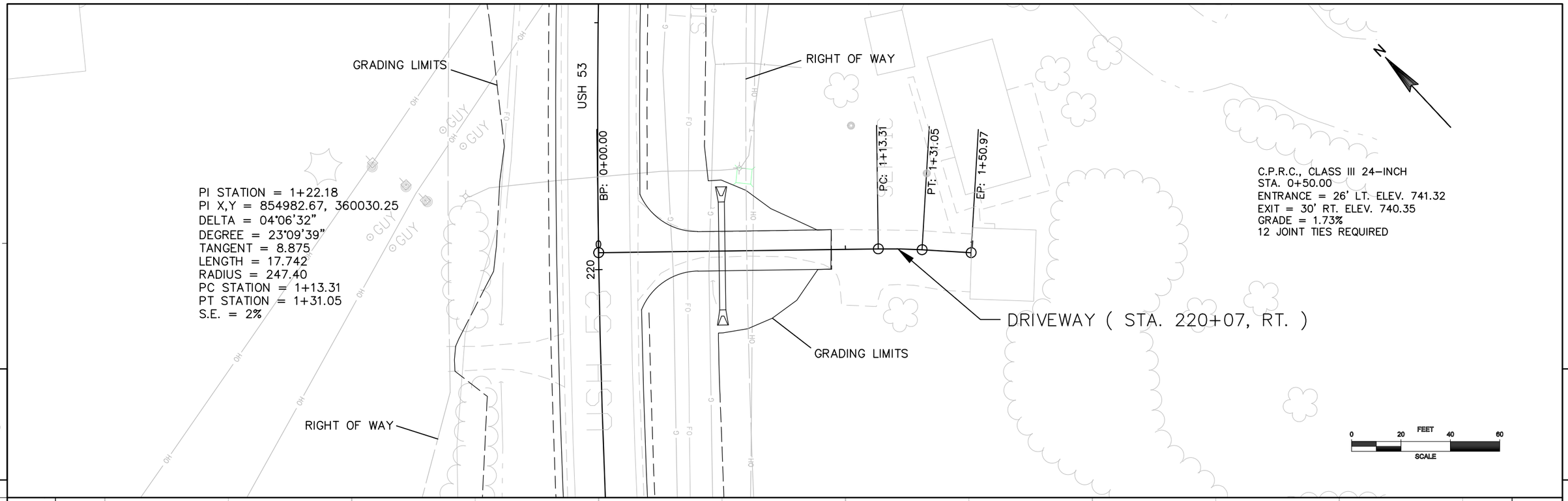


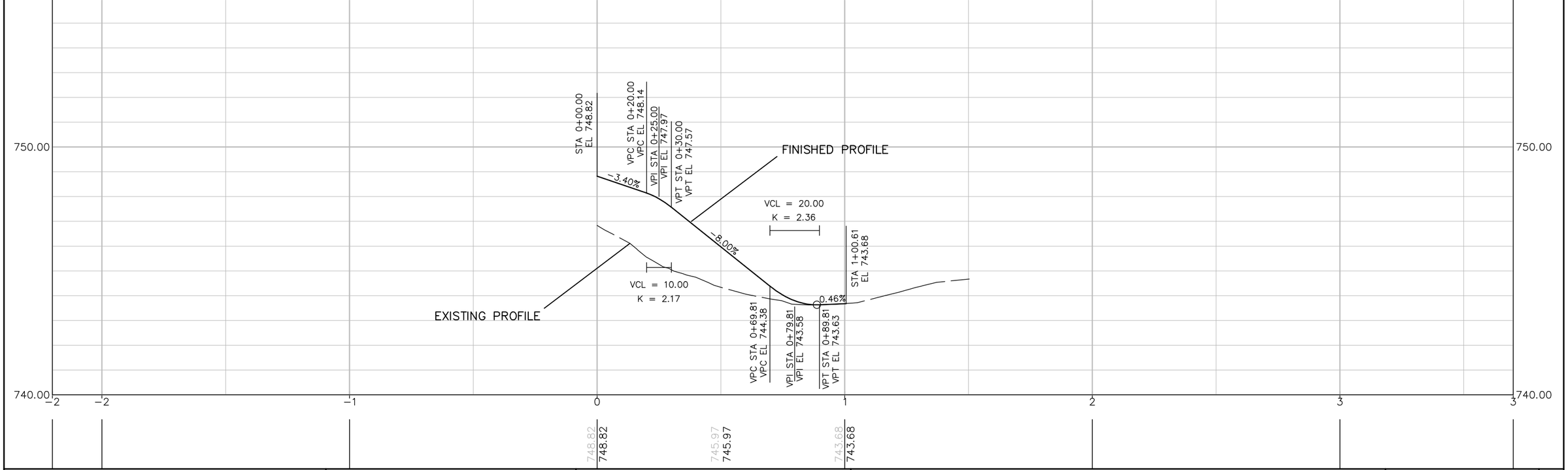
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: SPECIAL DITCHING (STA. 77+50, RT.)	SHEET 121	E



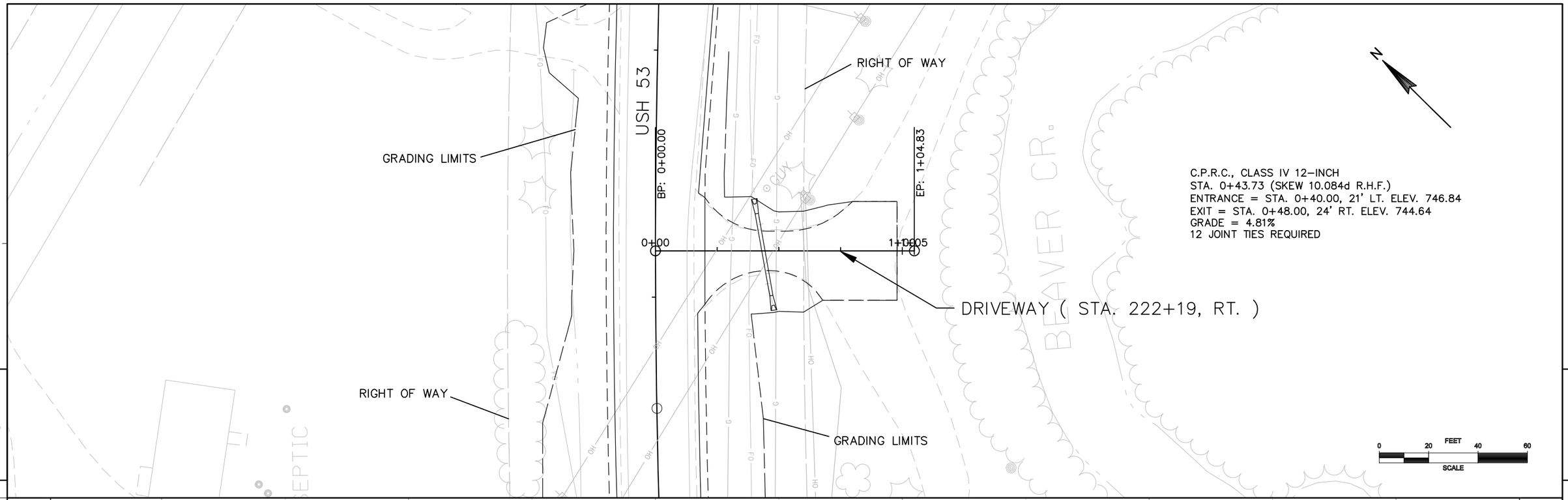


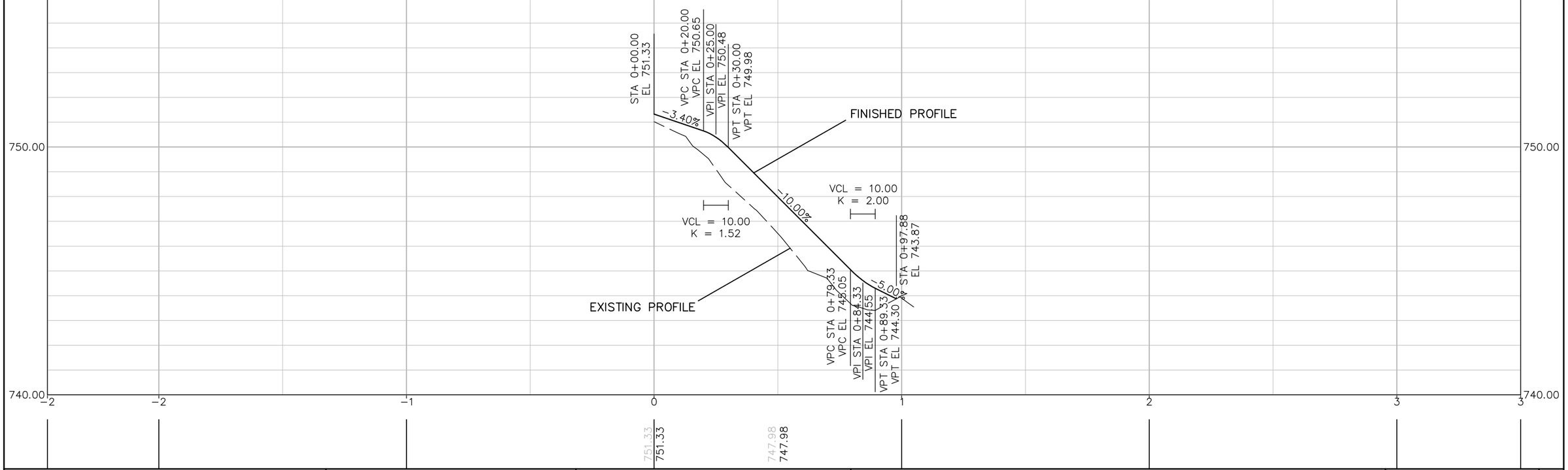
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: DRIVEWAY (STA. 94+63, LT.)	SHEET 122	E





PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: DRIVEWAY (STA. 220+07, RT.)	SHEET 123	E



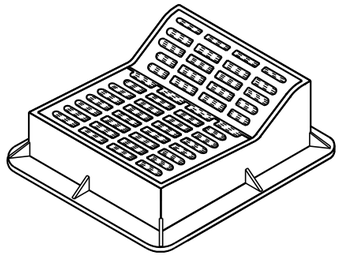


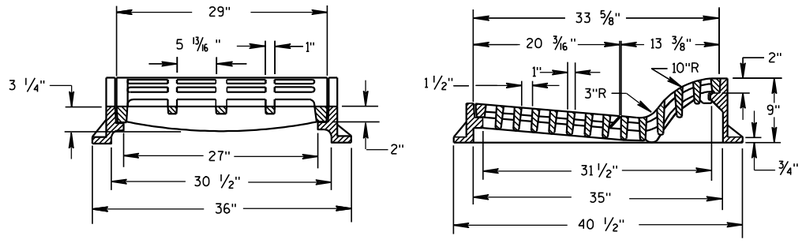
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	PLAN AND PROFILE: DRIVEWAY (STA. 222+19, RT.)	SHEET 124	E

Standard Detail Drawing List

08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B02-06	CONCRETE PAVEMENT APPROACH SLAB
13C11-11A	RURAL DOWELED CONCRETE PAVEMENT
13C11-11B	RURAL DOWELED CONCRETE PAVEMENT
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-11C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-11D	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B20-11E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B20-11F	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"
14B20-11G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-11H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B24-07A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B25-01	STEEL PLATE BEAM GUARD, CLASS "A", OVER LOW FILL CULVERTS
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-01	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-06	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

6



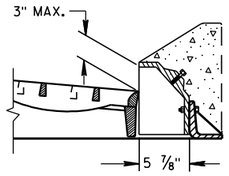


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.
GRATE.....160 LBS.
GRATE.....182 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

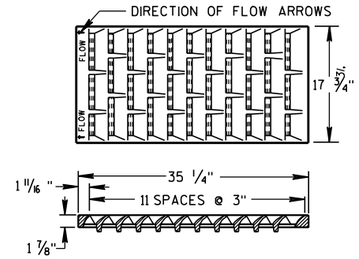
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

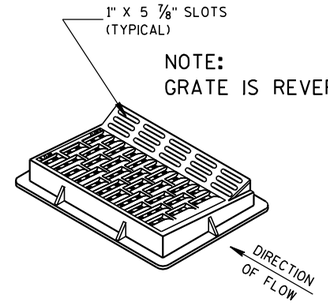
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

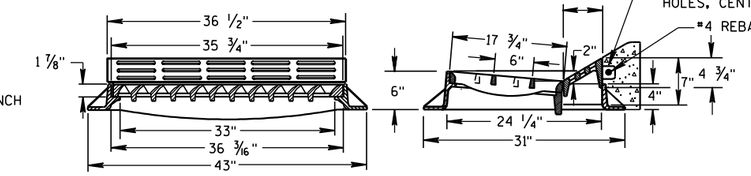
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





NOTE:
GRATE IS REVERSIBLE.

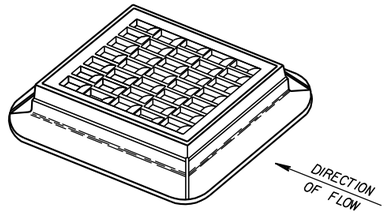


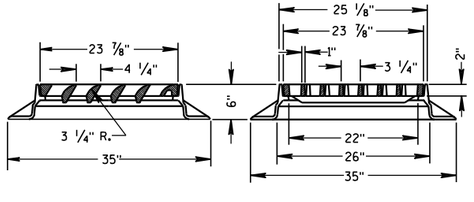
TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)
FRAME..... 181 LBS.
GRATE..... 159 LBS.
CURB BOX..... 74 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

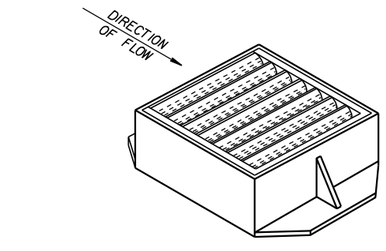


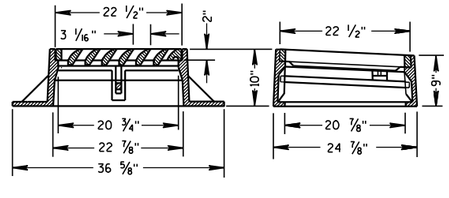


TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

FRAME.....164 LBS.
GRATE..... 169 LBS.

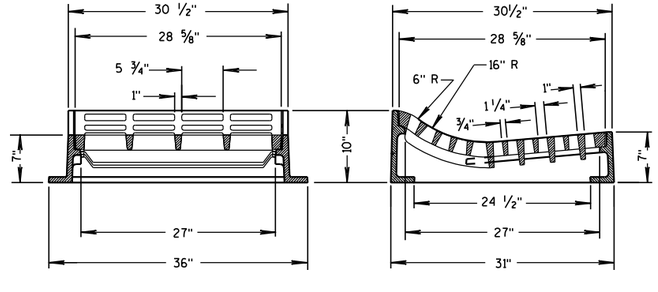




TYPE "V"

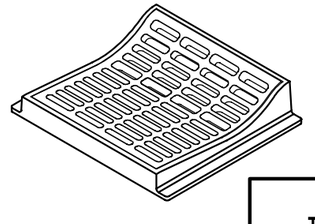
(APPROXIMATE WEIGHT 410 LBS.)

FRAME..... 269 LBS.
GRATE..... 136 LBS.
SAFETY BAR..... 5 LBS.



TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)
FRAME.....270 LBS.
GRATE.....260 LBS.
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

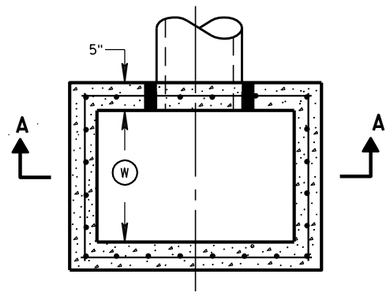
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

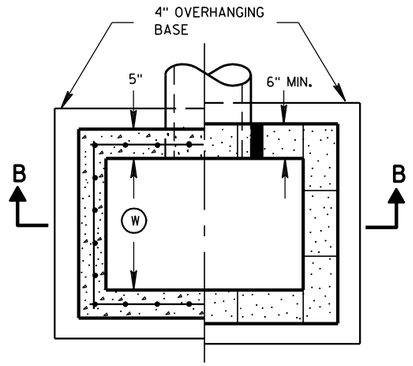
S.D.D. 8 A 5-18c

6

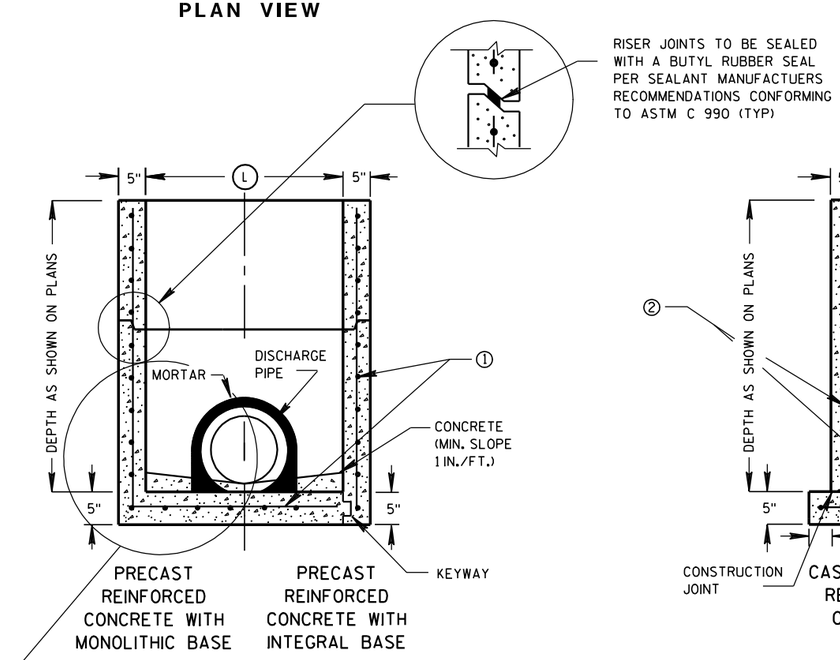
S.D.D. 8 A 5-18c



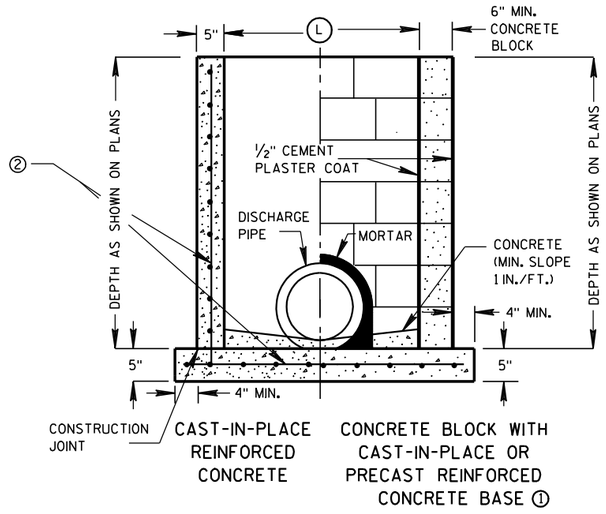
PLAN VIEW



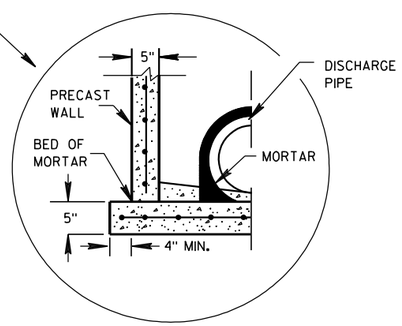
PLAN VIEW



SECTION A-A



SECTION B-B



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

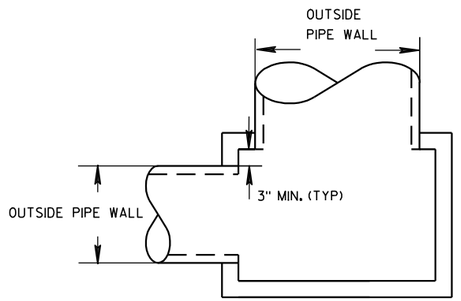
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

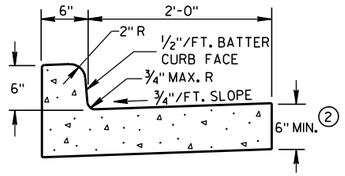
APPROVED
6/5/2012
DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS D
ENGINEER
FHWA

6

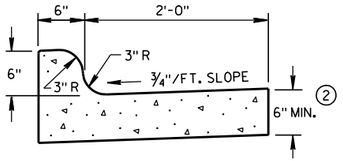
S.D.D. 8 C 7-1

6

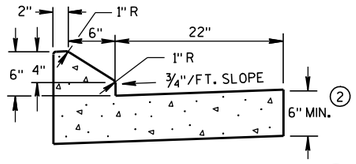
S.D.D. 8 C 7-1



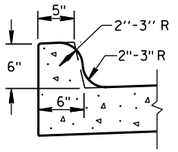
TYPES A & D (1)



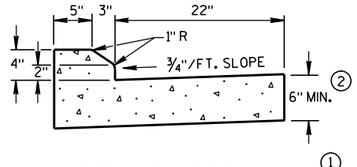
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

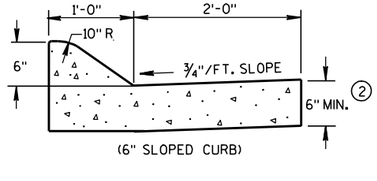


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

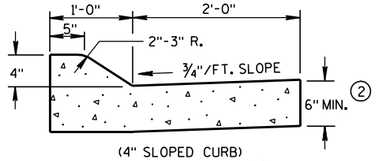


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

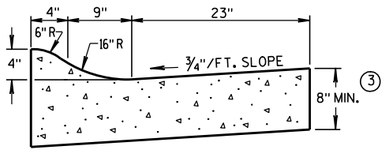


(6" SLOPED CURB)



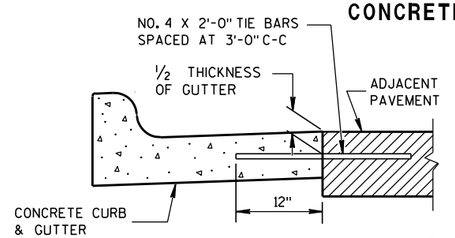
(4" SLOPED CURB)

TYPES A & D (1)

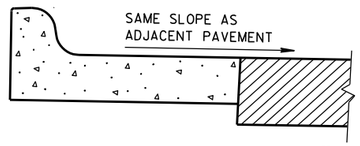


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

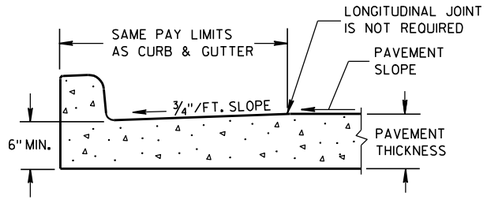
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

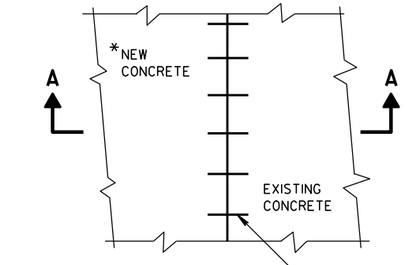
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

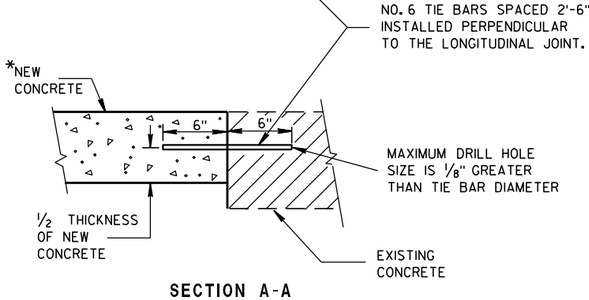


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



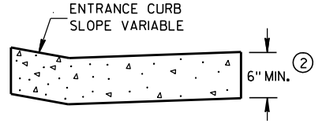
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

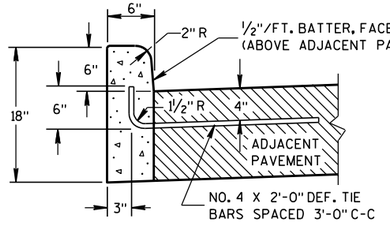


SECTION A-A

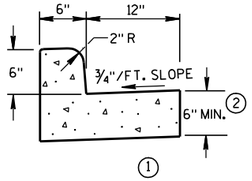
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

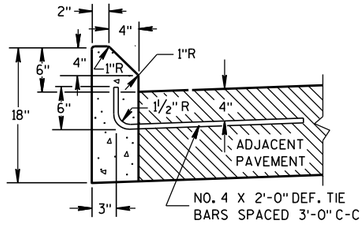


(1) TYPES A & D

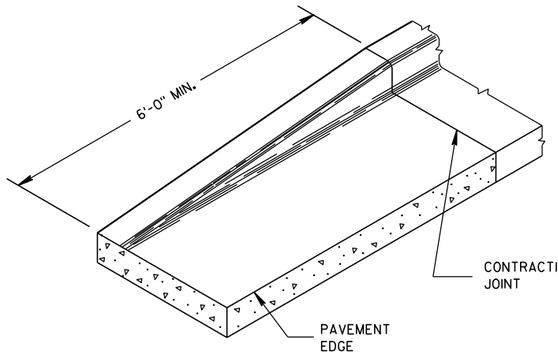


(1) TYPES A & D

CONCRETE CURB & GUTTER 18"



(1) TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

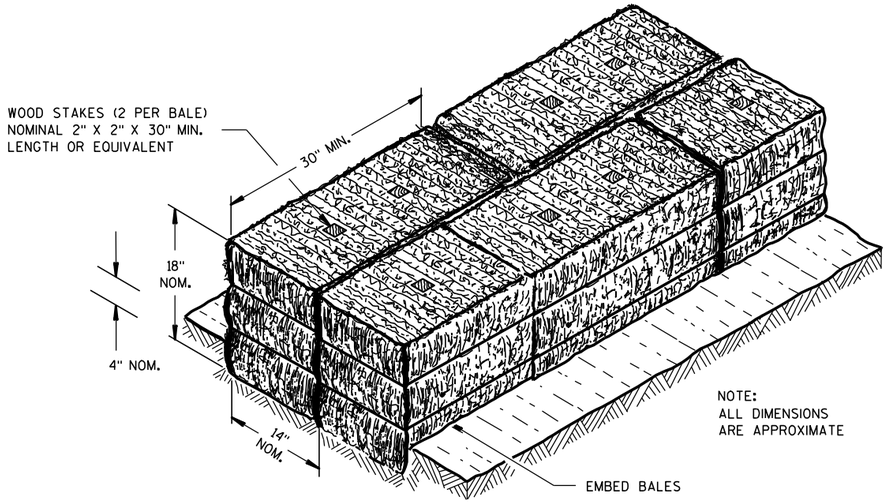
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
9/4/08 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	128 ENT

6

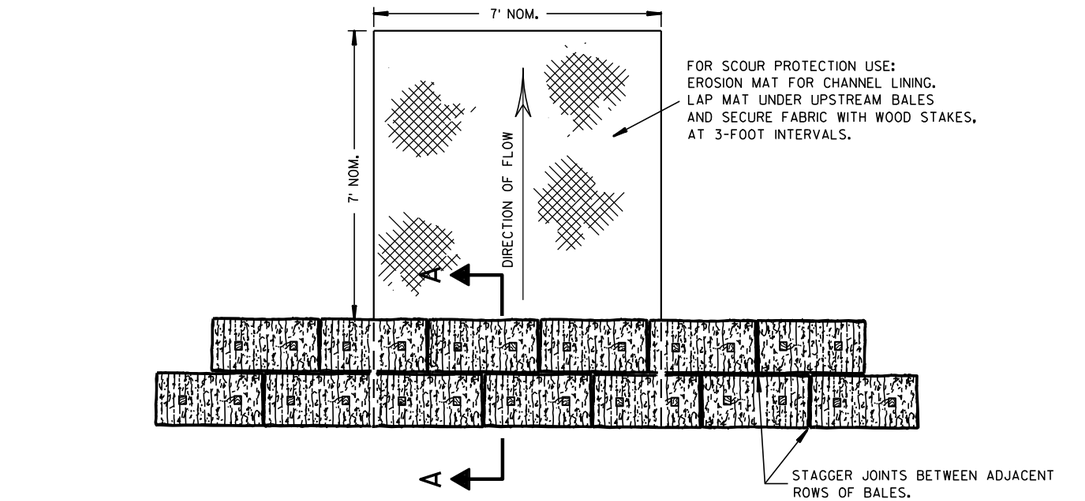
S.D.D. 8 D 1-17

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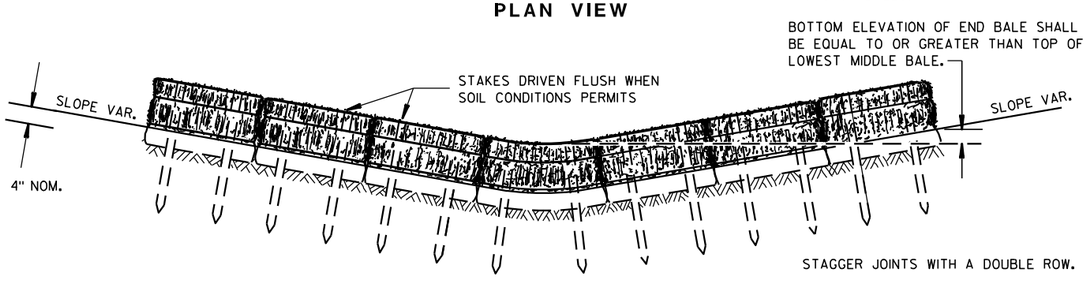
S.D.D. 8 D 1-17



SECTION A-A



PLAN VIEW



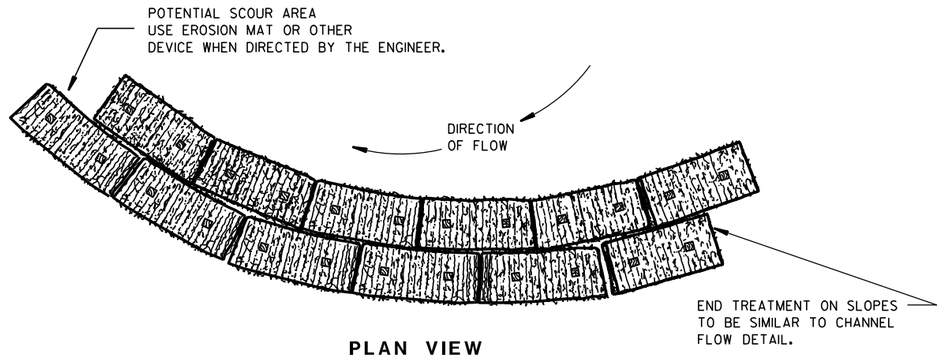
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

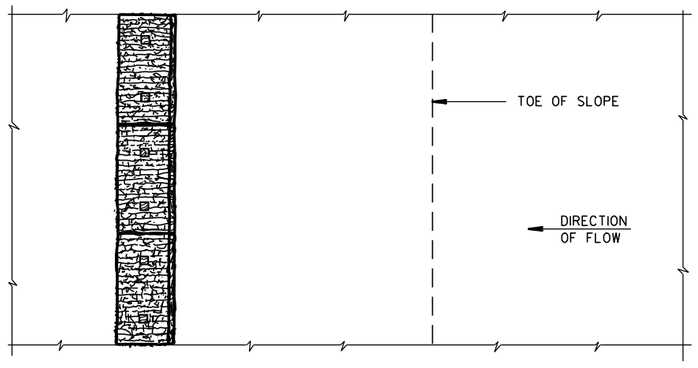
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

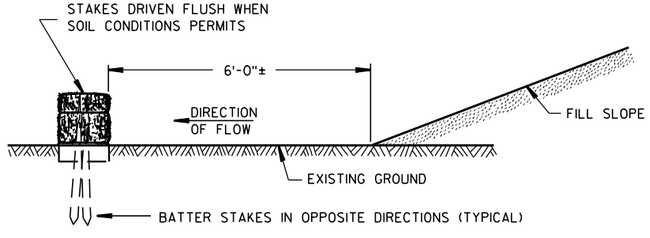


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

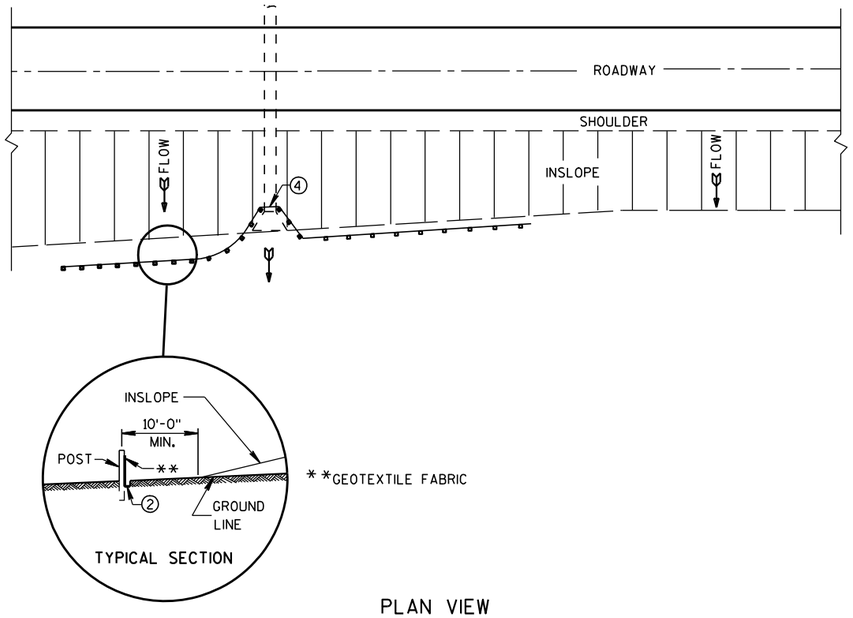
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

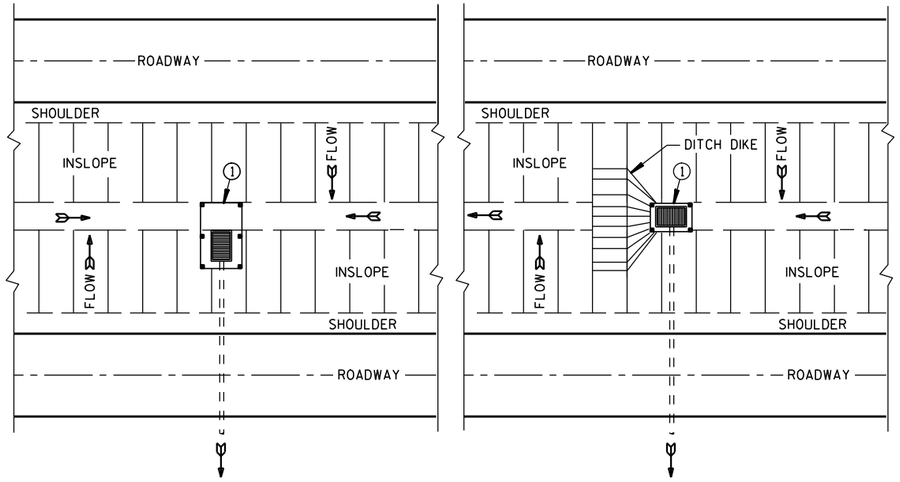
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



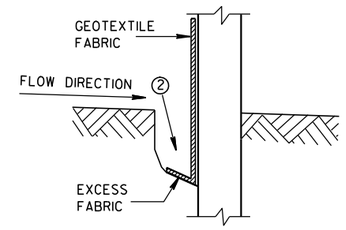
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

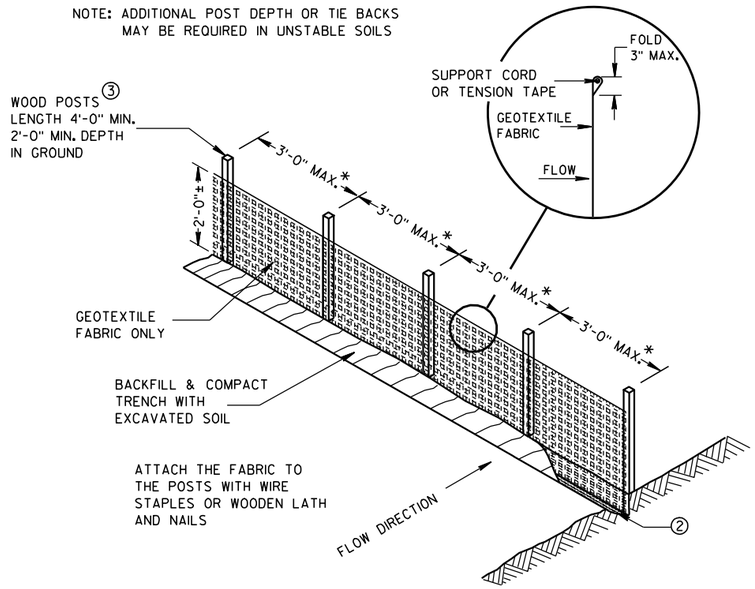
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

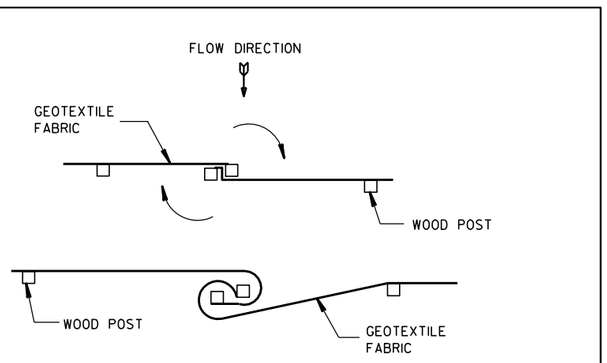
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



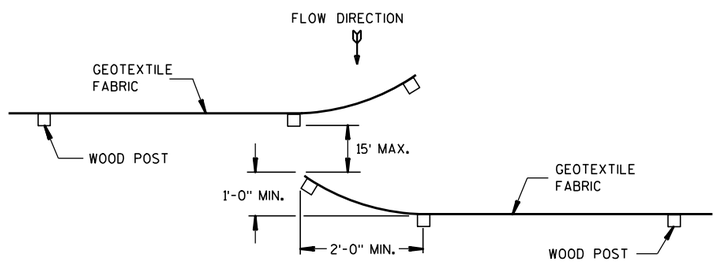
TRENCH DETAIL



SILT FENCE

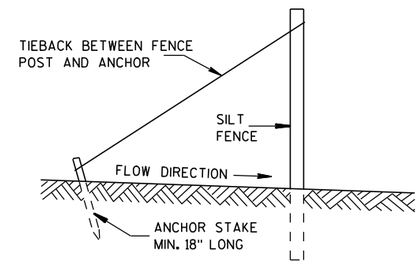


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

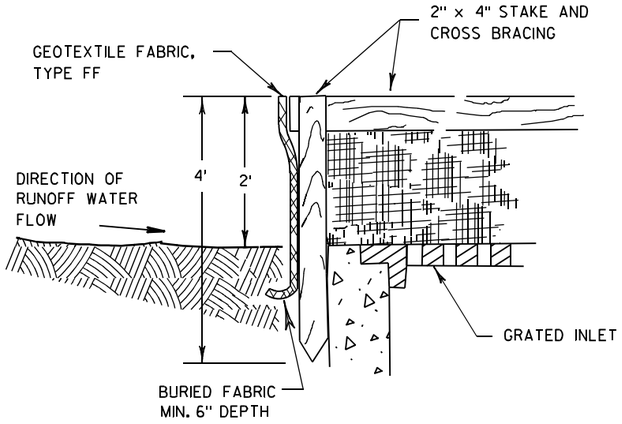
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

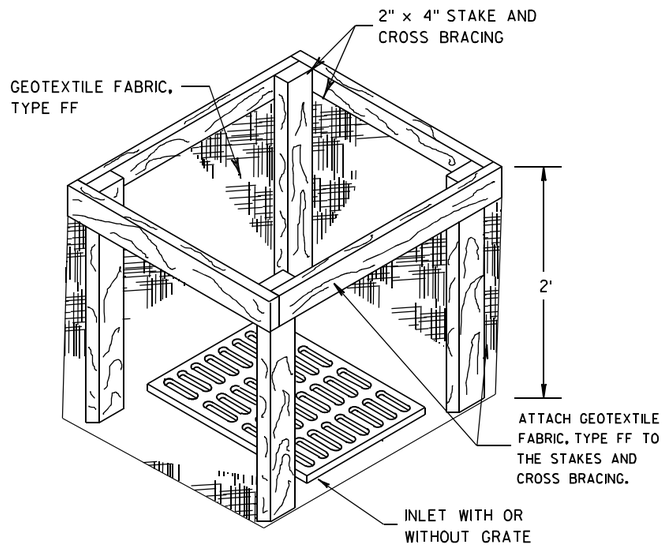
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S.D.D. 8 E 9-6

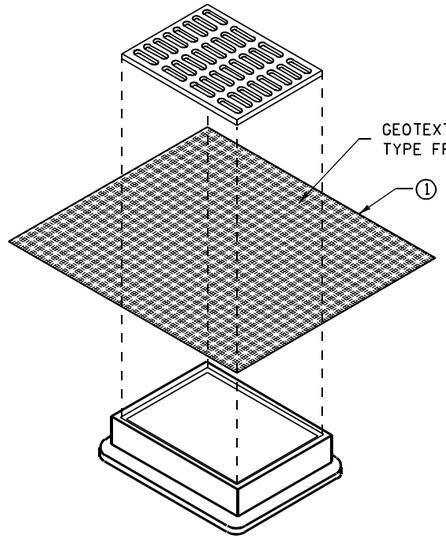
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S.D.D. 8 E 9-6



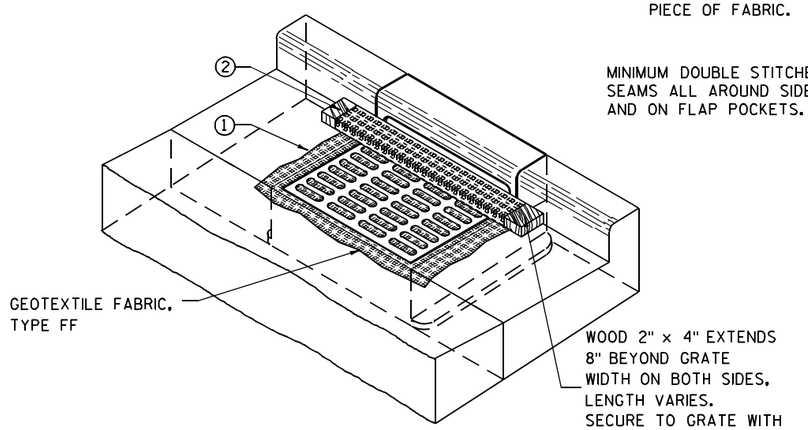


INLET PROTECTION, TYPE A

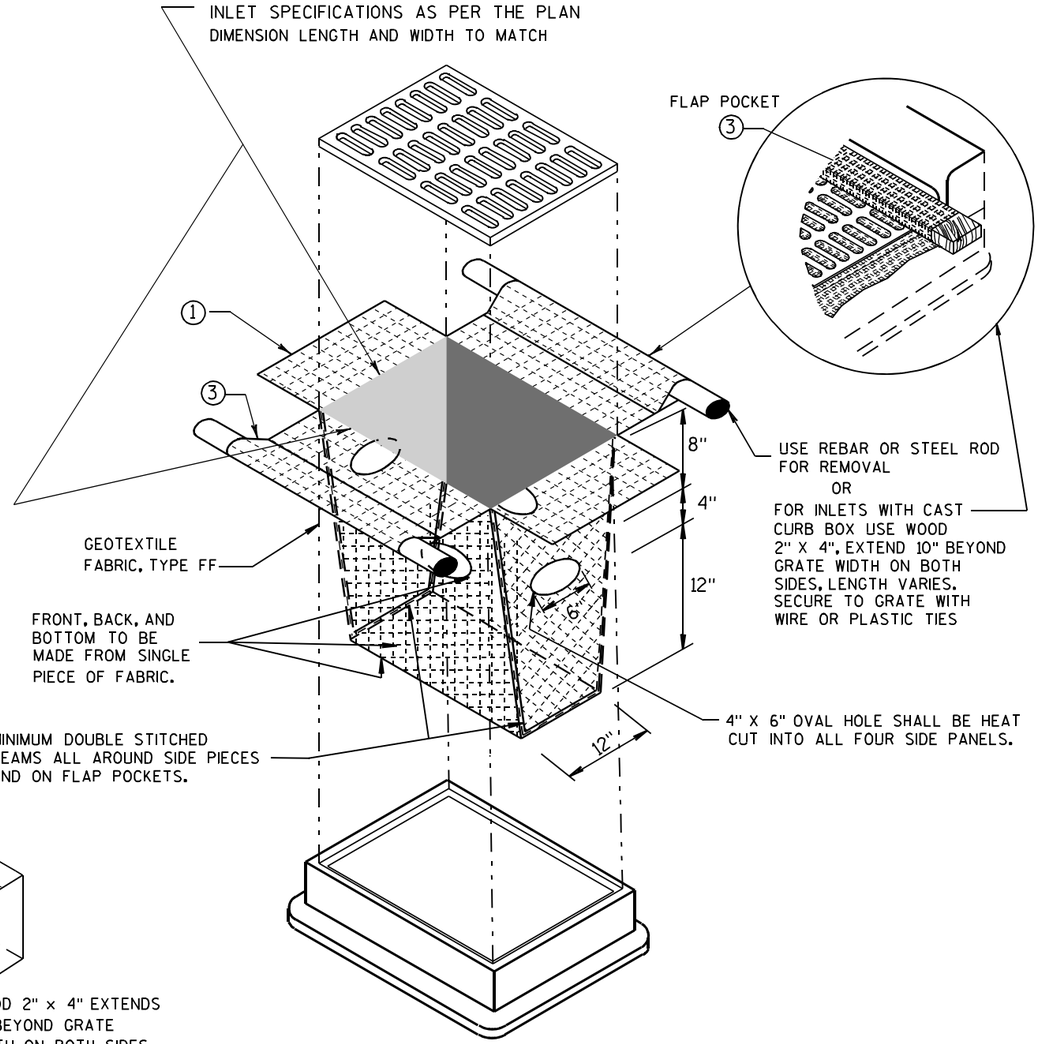


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

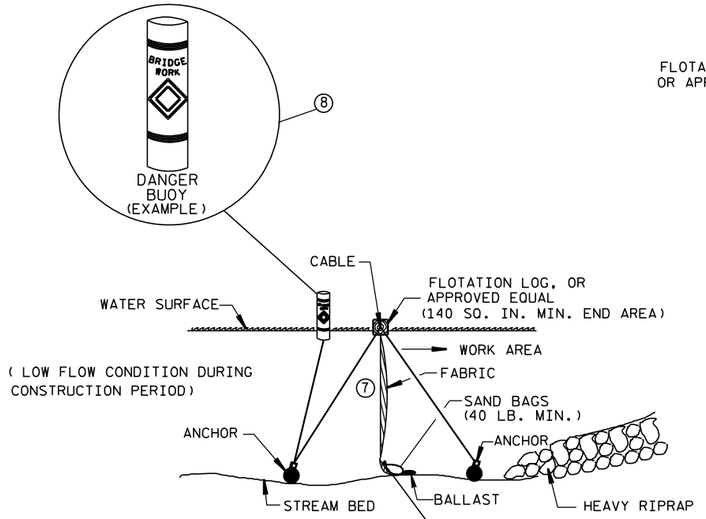
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

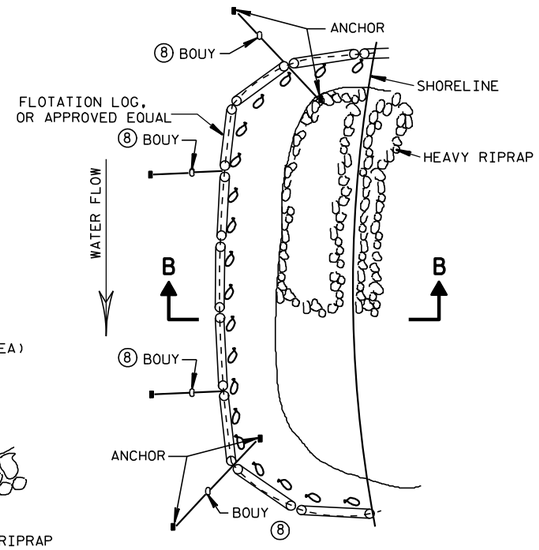
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

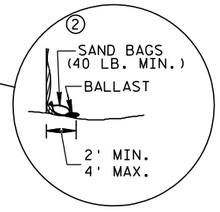
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2

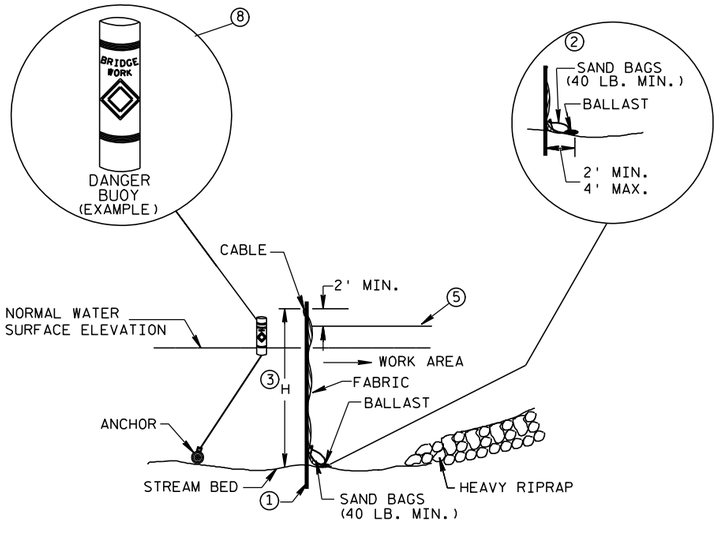


SECTION B-B

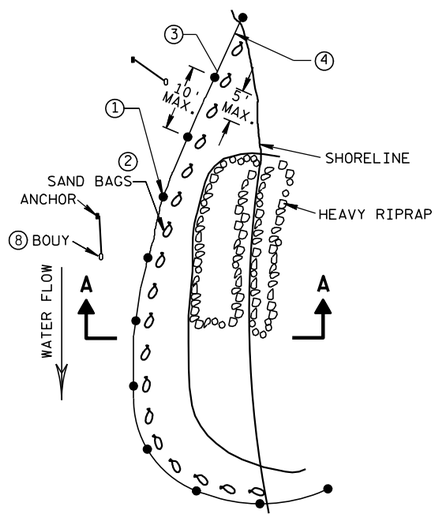




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

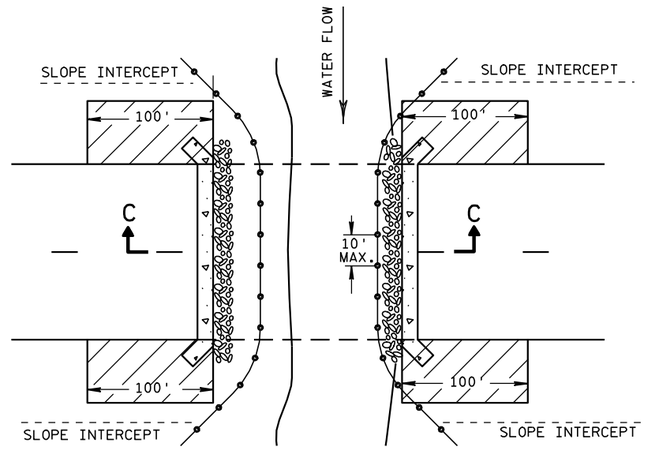
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

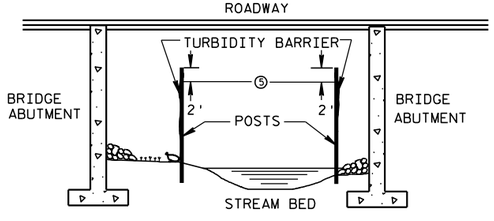
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

METAL APRON ENDWALLS

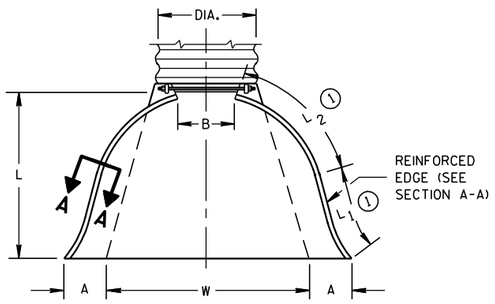
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

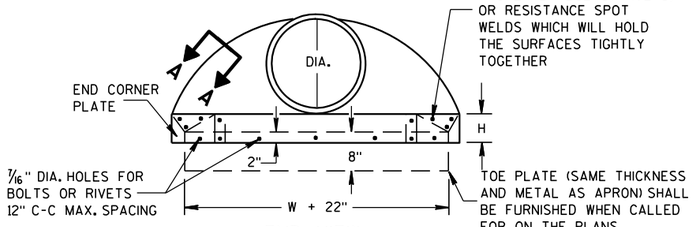
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
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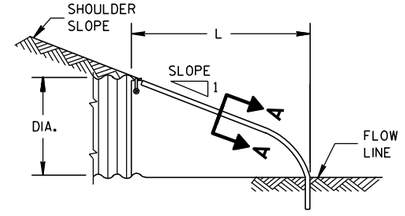
*MINIMUM
**MAXIMUM



PLAN VIEW

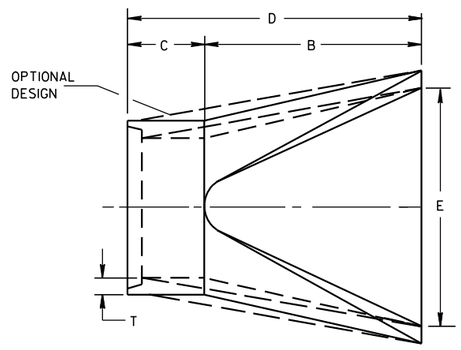


END VIEW

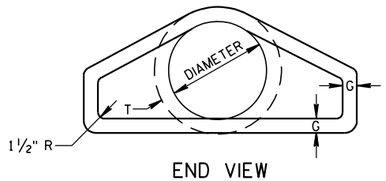


SIDE ELEVATION

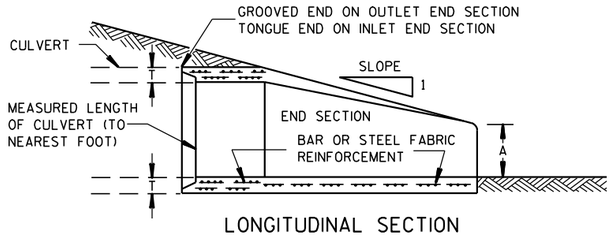
METAL ENDWALLS



PLAN

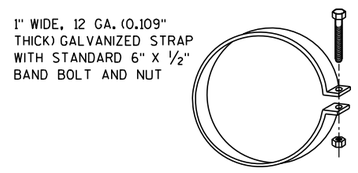


END VIEW



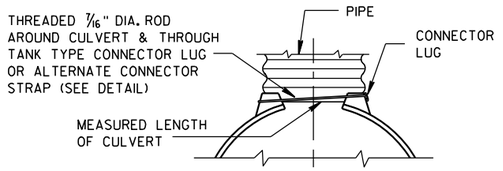
LONGITUDINAL SECTION

CONCRETE ENDWALLS

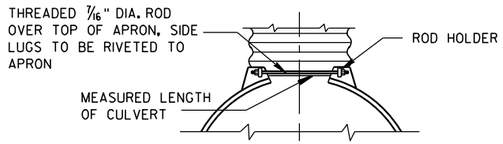


ALTERNATE FOR TYPE 1 CONNECTION

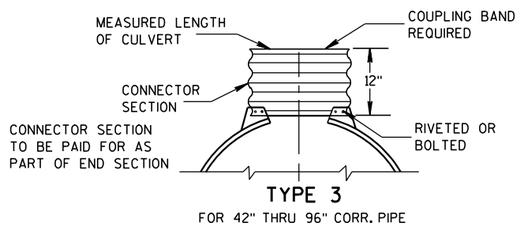
END SECTION CONNECTOR STRAP



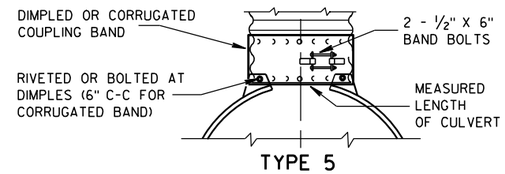
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

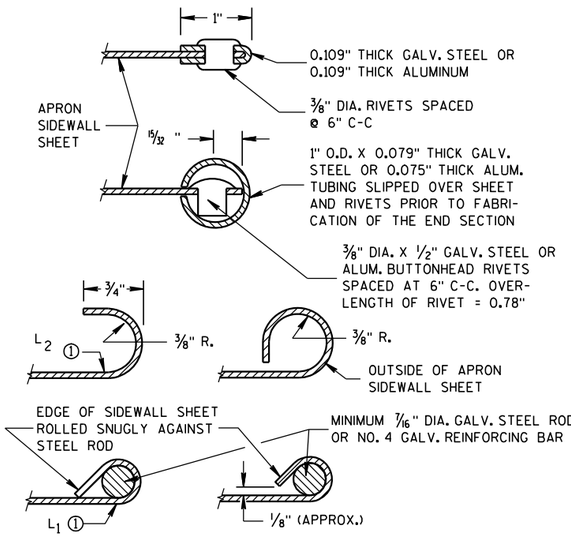
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

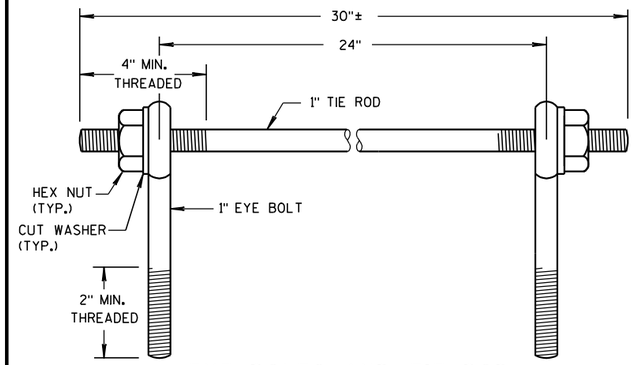
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

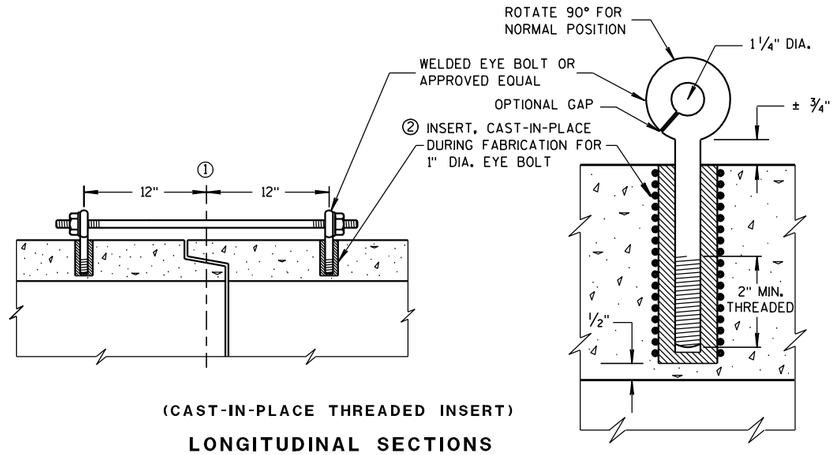
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

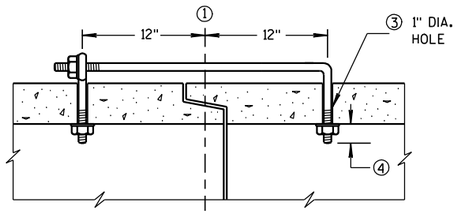
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

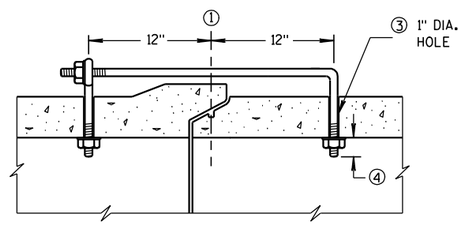
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

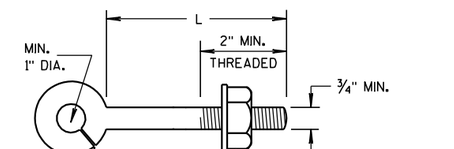


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

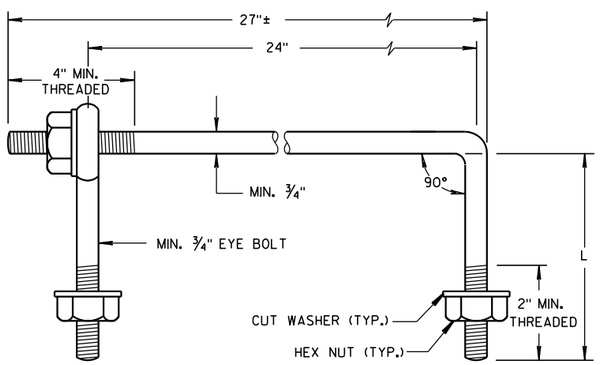
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

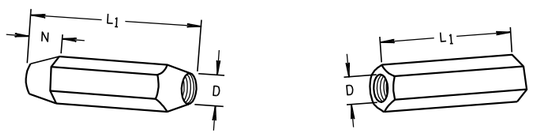
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

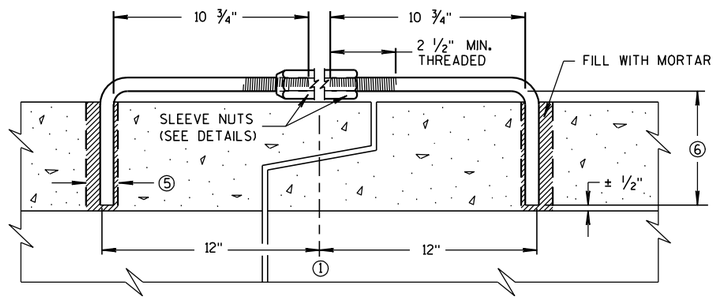
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

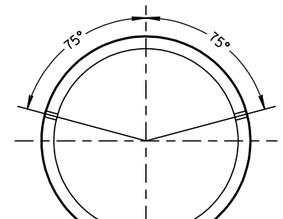
SLEEVE NUTS



LONGITUDINAL SECTION

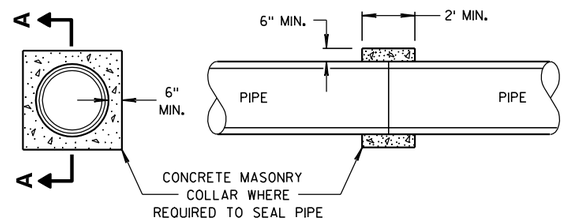
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

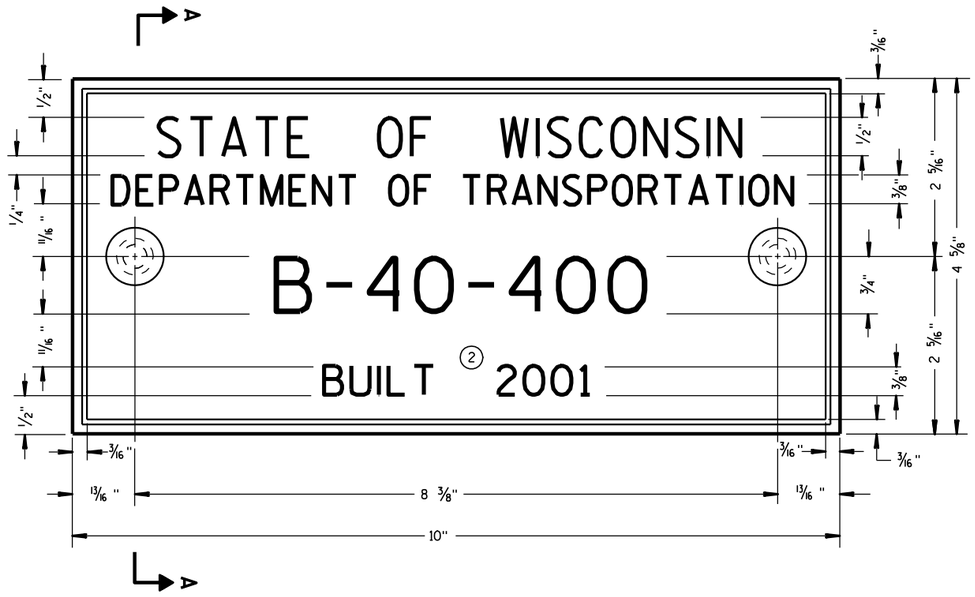
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
134
FHWA

6

S.D.D. 8 F 4-7



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

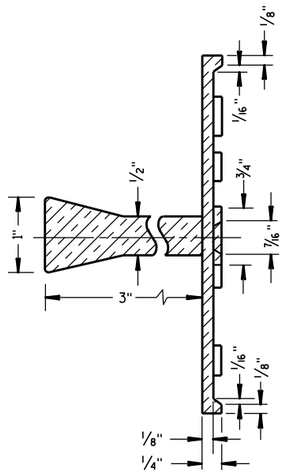
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

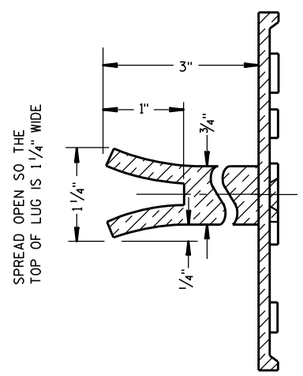
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

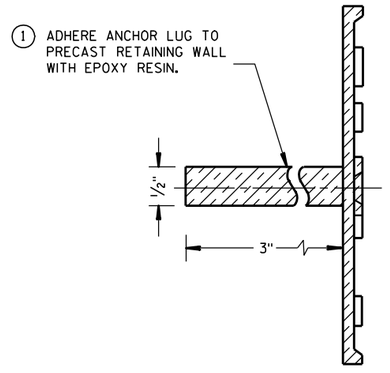
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck-- CHIEF STRUCTURAL DEVELOP ENGINEER

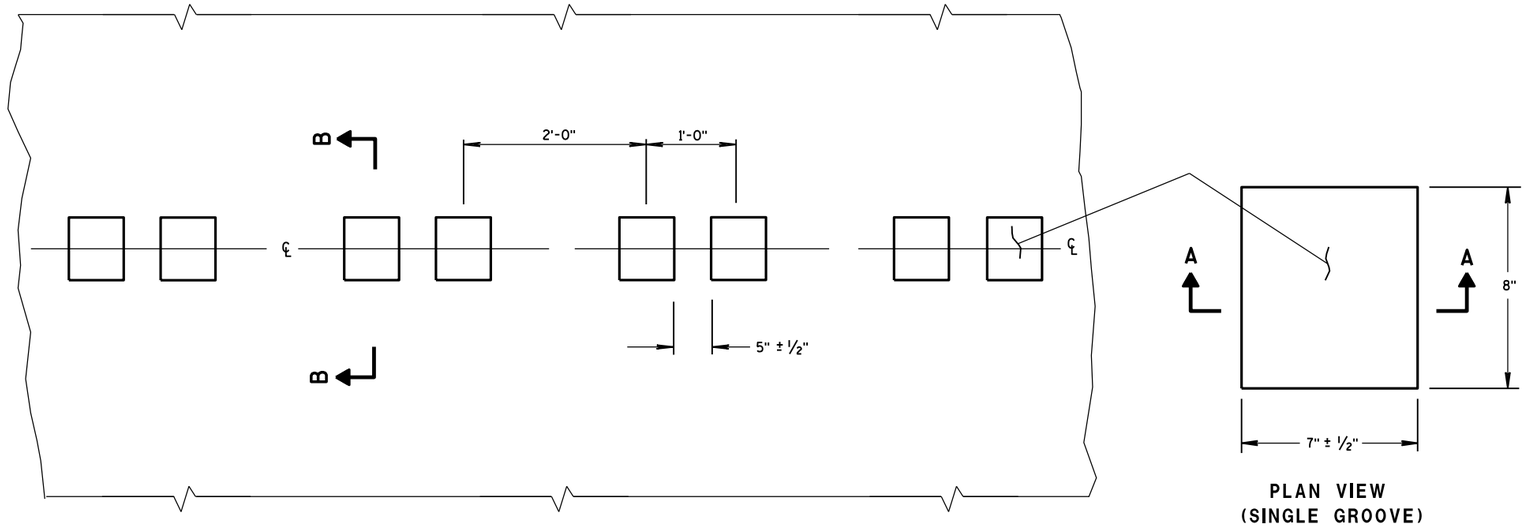
FHWA

6

S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10



PLAN VIEW
CENTER LINE WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

GENERAL NOTES

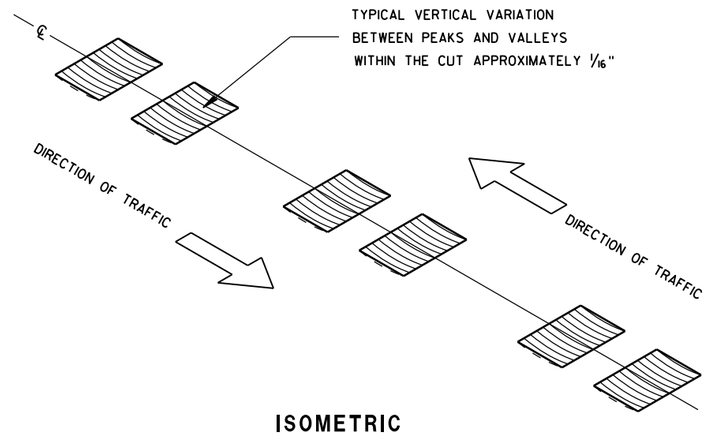
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

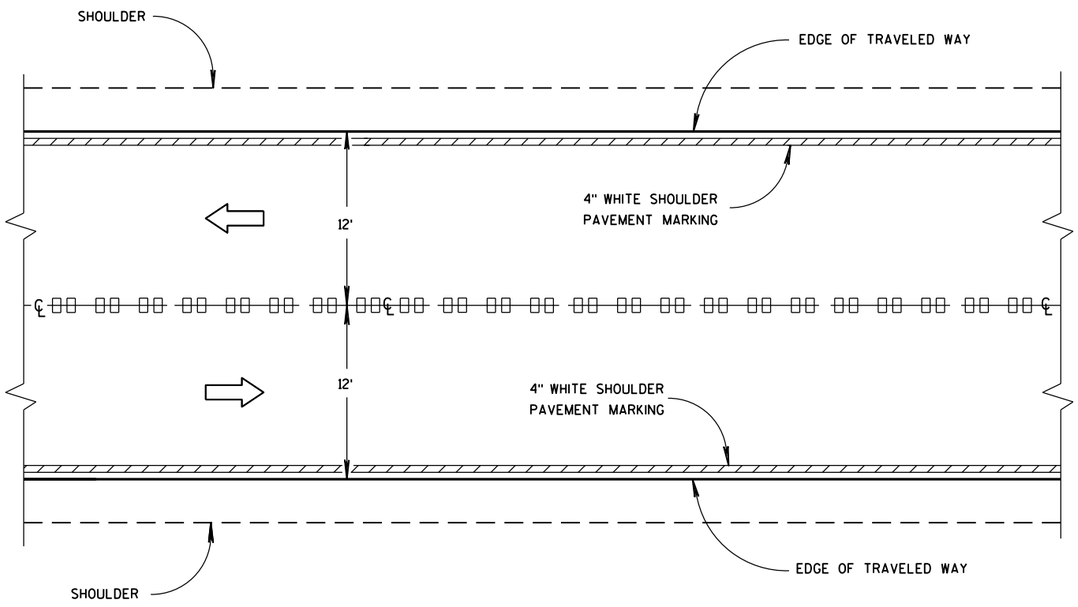
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

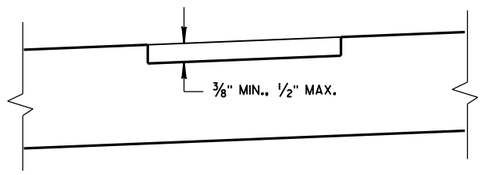
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



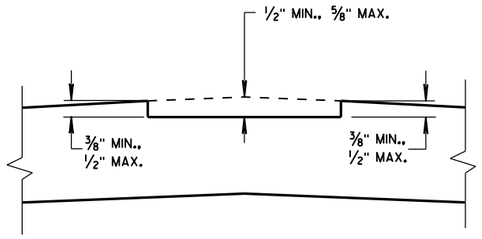
ISOMETRIC



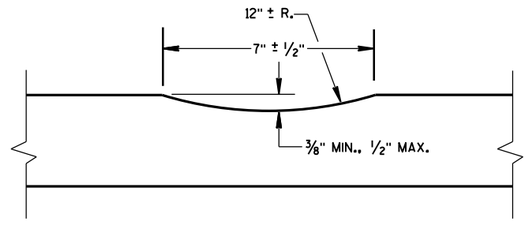
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY



SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

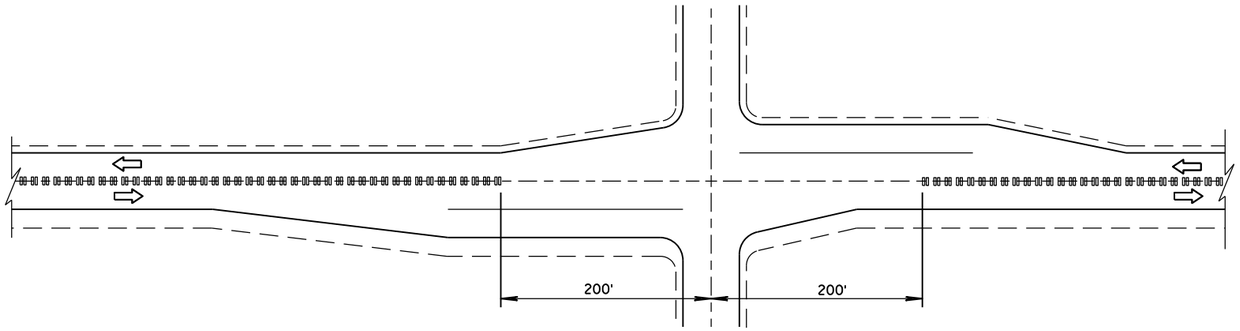
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

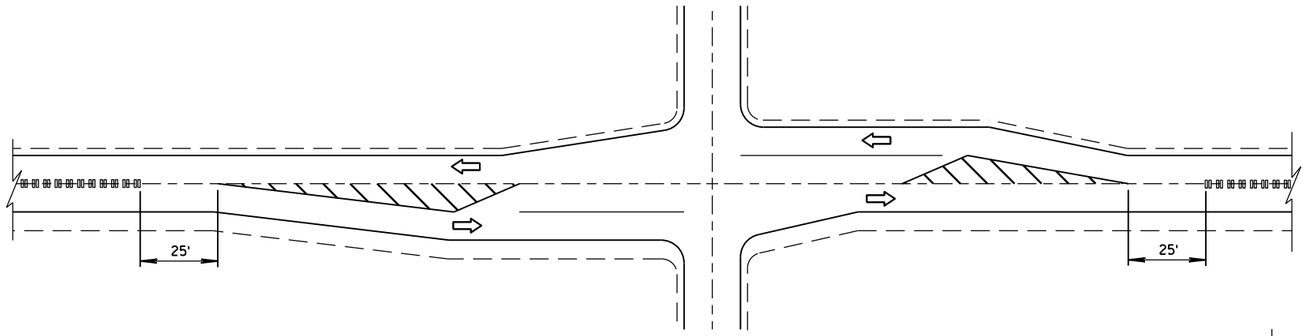
S.D.D. 13 A 11-2a

6

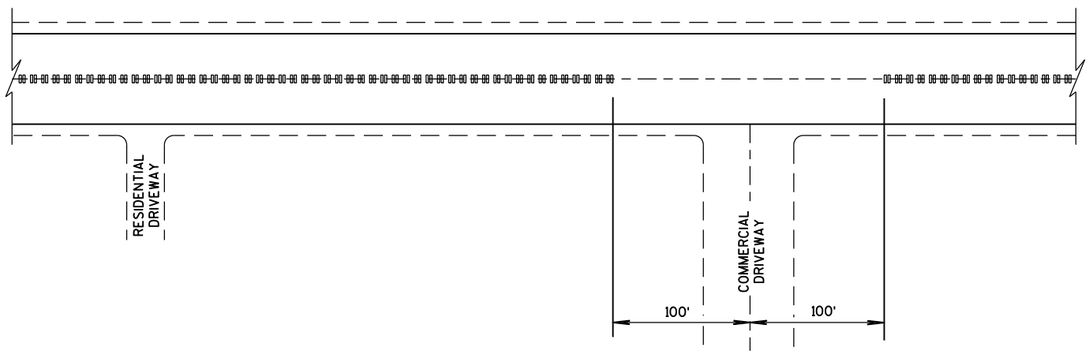
S.D.D. 13 A 11-2a



CENTER LINE GROOVES AT INTERSECTIONS

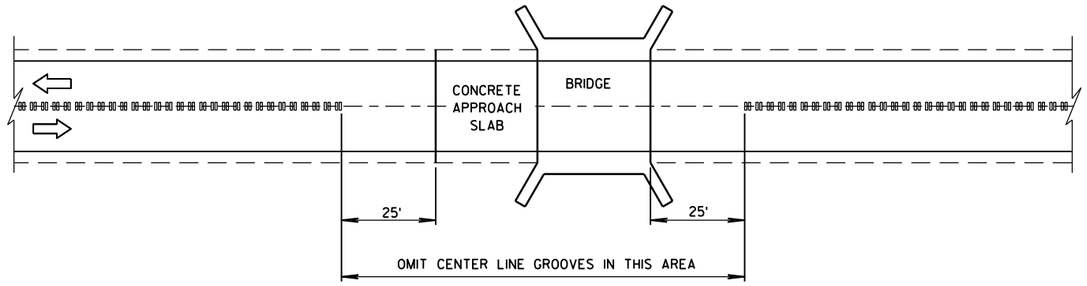


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

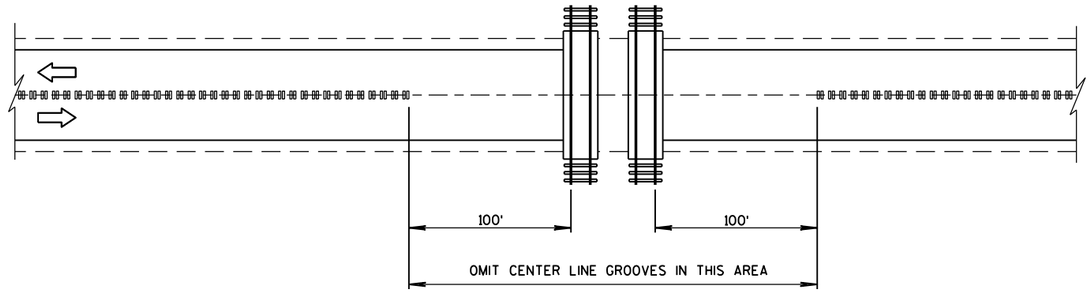


CENTER LINE GROOVES AT DRIVEWAYS (1)

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

6

S.D.D. 13 A 11-2b

6

S.D.D. 13 A 11-2b

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

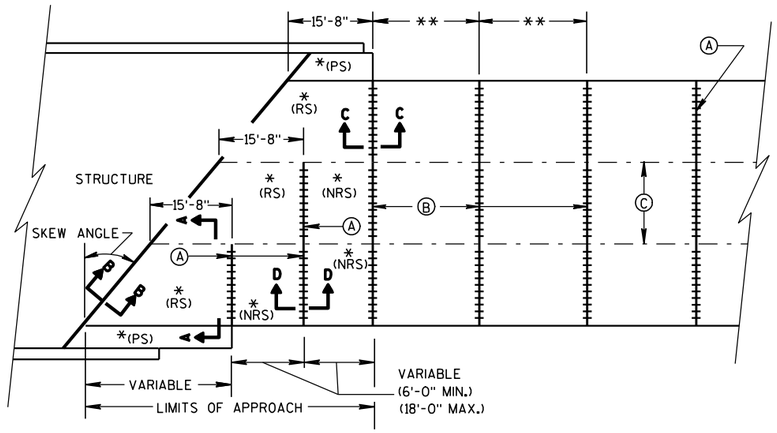
APPROVED

5/15/2013
DATE

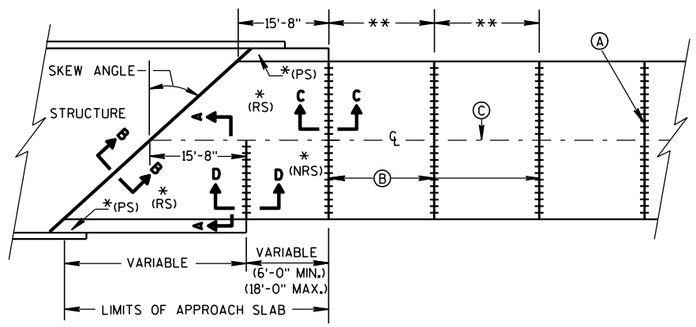
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

NT

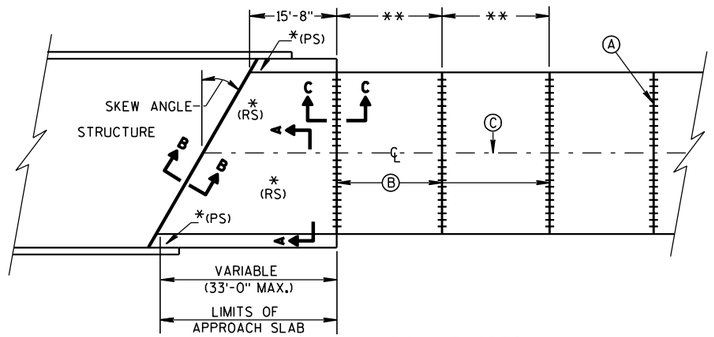
FHWA



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



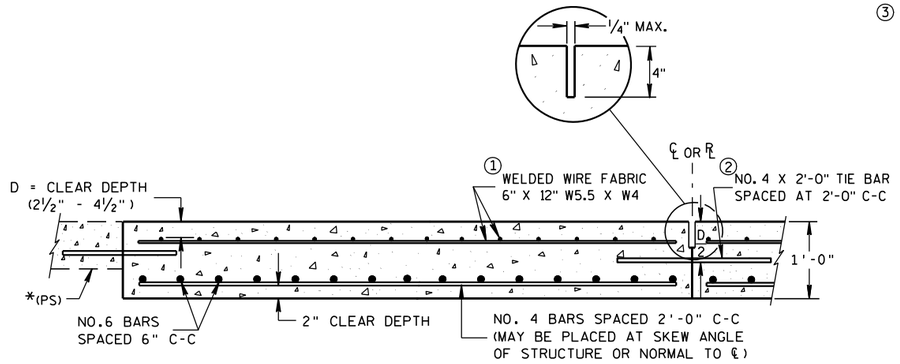
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

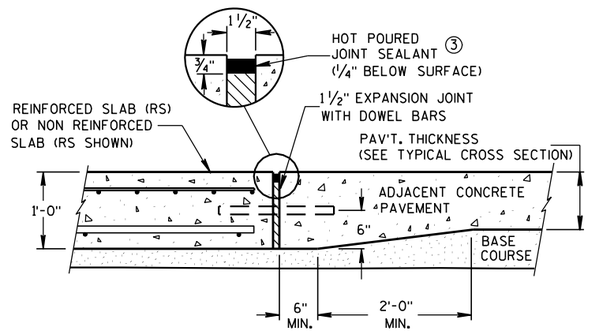
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

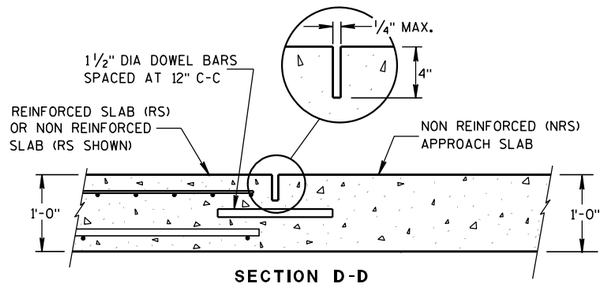
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

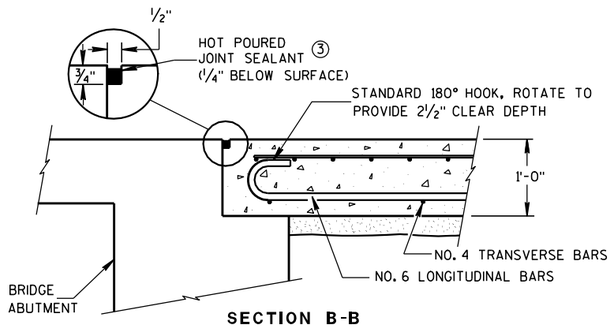
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

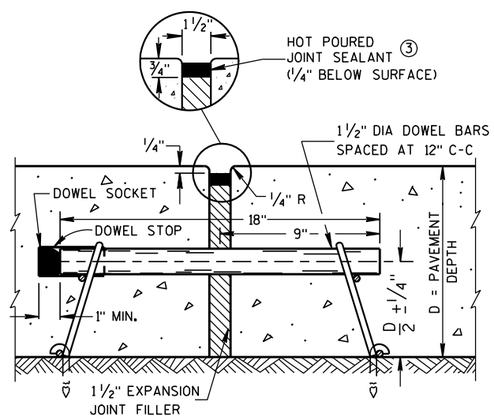
(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



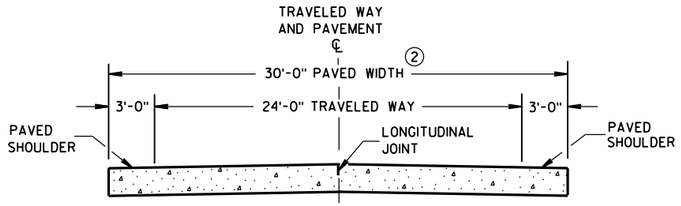
EXPANSION JOINT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

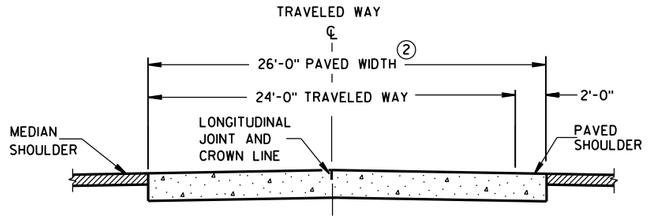
APPROVED
12/11/2009 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DE ... NEER
FHWA

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S.D.D. 13 B 2-6

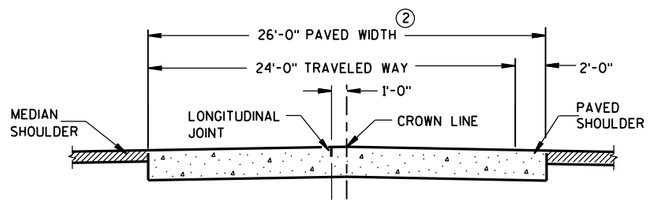


SECTION A-A ①

TWO-LANE TWO-WAY HIGHWAY



SECTION B-B



ALTERNATIVE SECTION B-B ①

DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

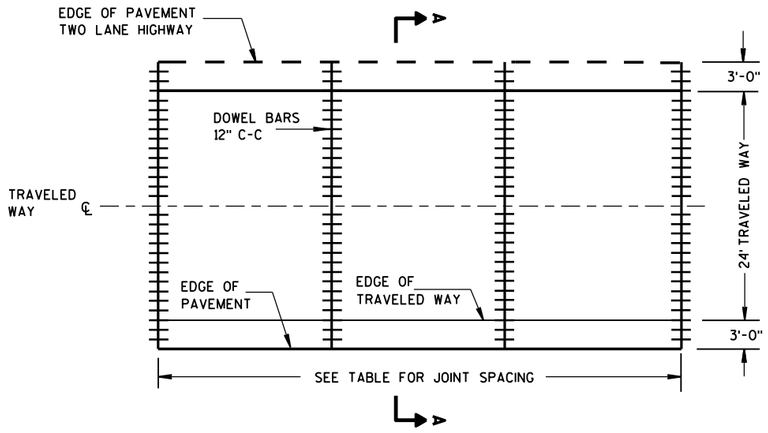
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

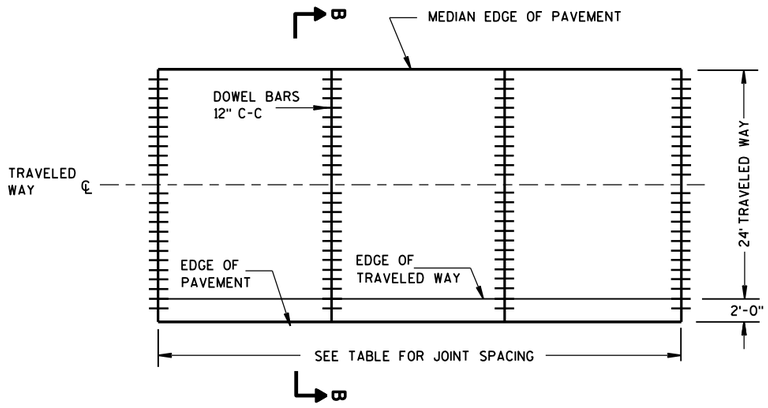
② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



CONTRACTION JOINT LAYOUT
FOR TWO-LANE TWO-WAY HIGHWAY



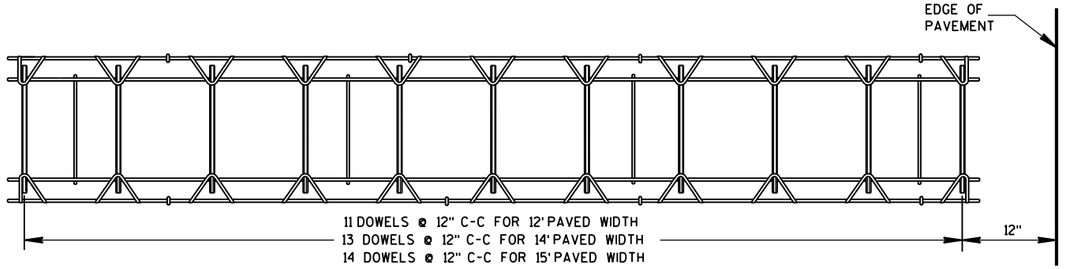
CONTRACTION JOINT LAYOUT
FOR DIVIDED HIGHWAY

RURAL DOWELED
CONCRETE PAVEMENT

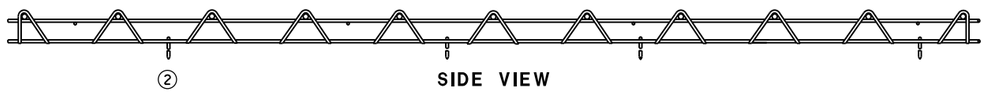
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 C 11-11a



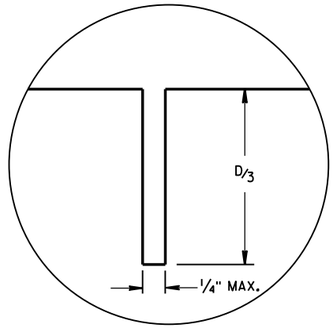
PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

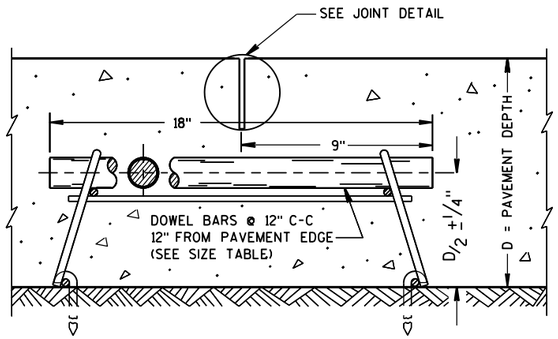
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

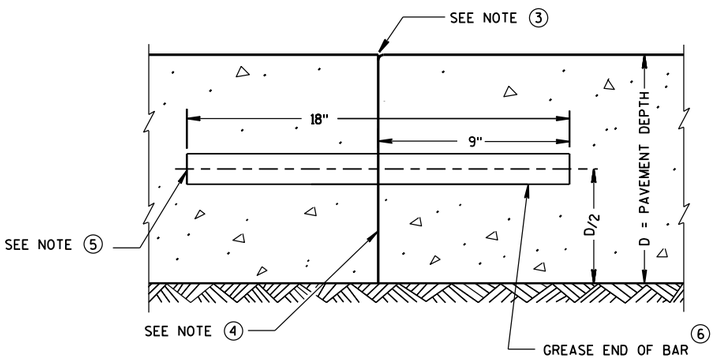
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

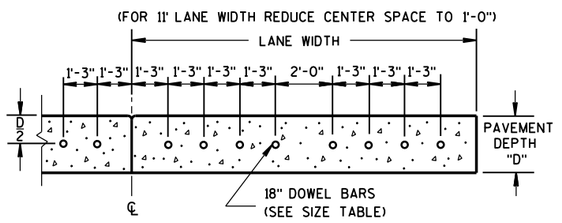
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE ENGINEER
FHWA

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S.D.D. 13 C 11-11b

6

S.D.D. 13 C 11-11b

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, AND THE APPLICABLE SPECIAL PROVISIONS.

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

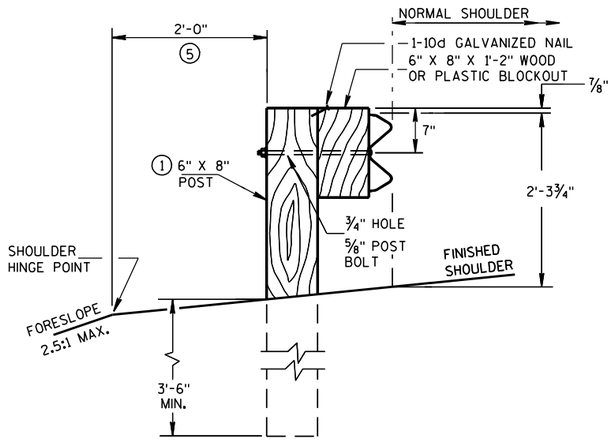
(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

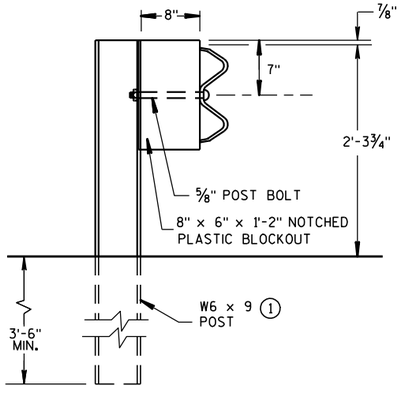
(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

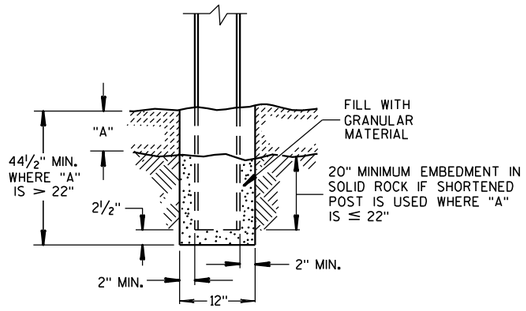
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



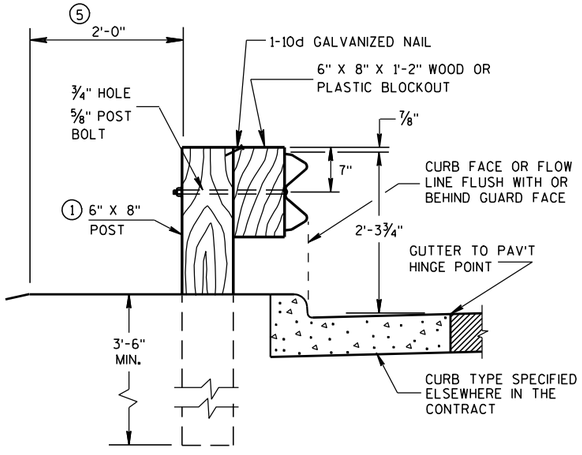
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



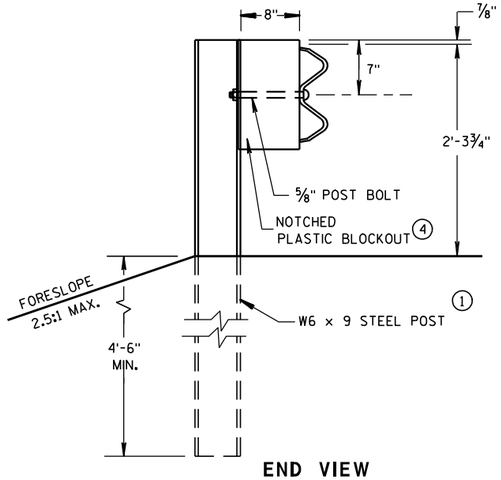
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



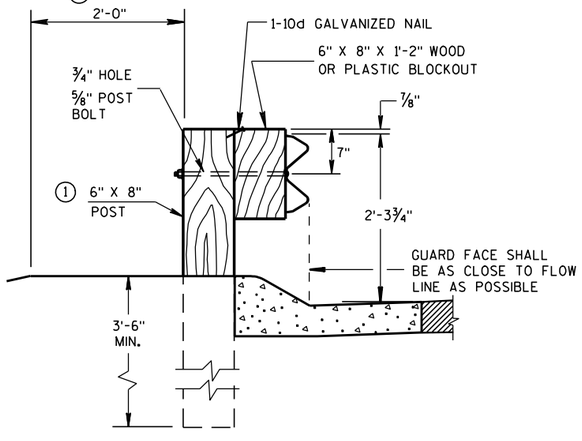
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



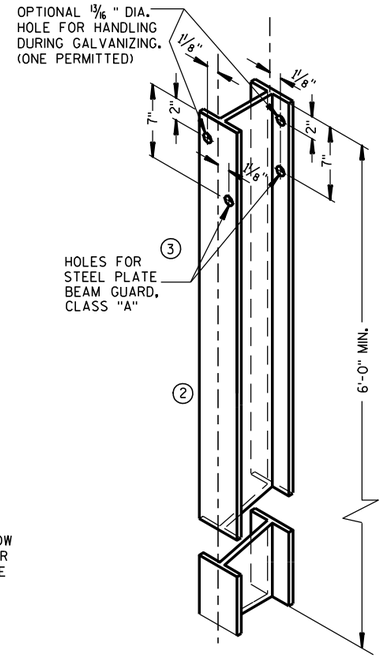
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

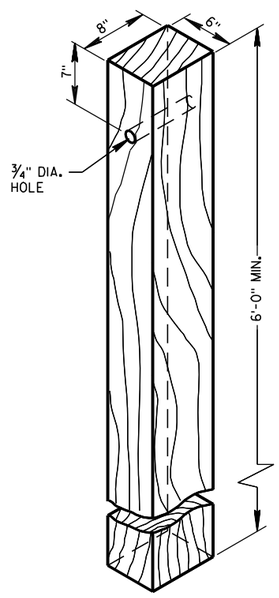


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

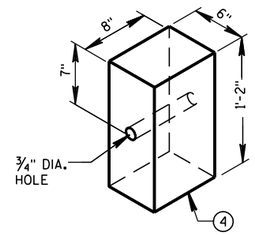


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

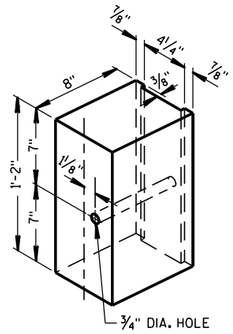
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



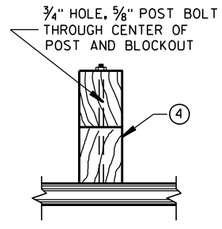
WOOD POST
(6"X8") NOMINAL



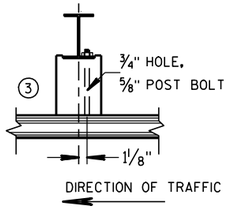
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



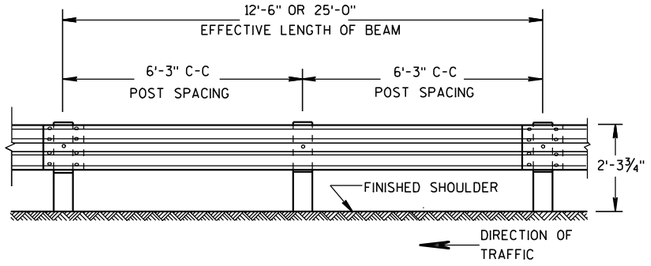
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

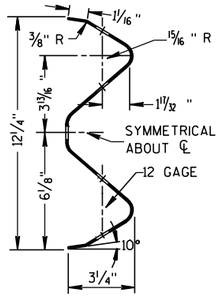
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

6
S.D.D. 14 B 15-7a

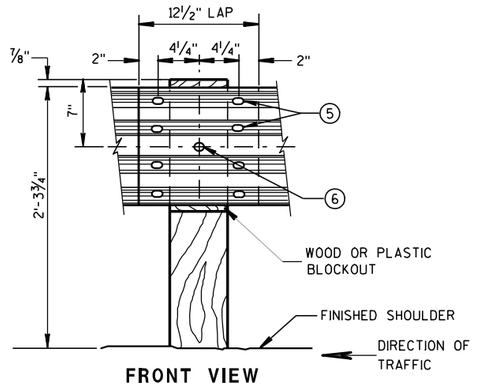


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM

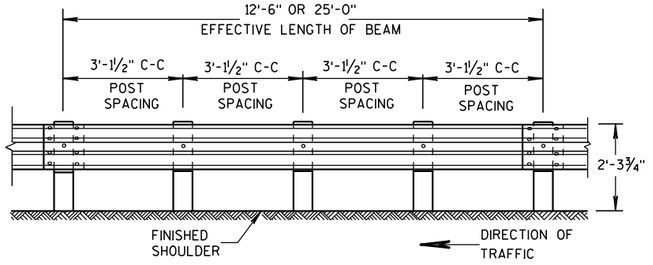


FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

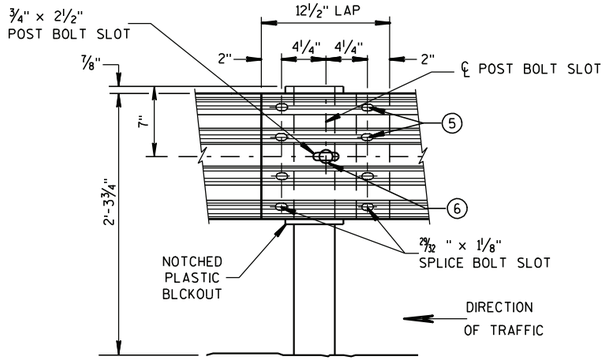
GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 8 - 5/8" ϕ X 2 " BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
6. 5/8" ϕ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.



FRONT VIEW

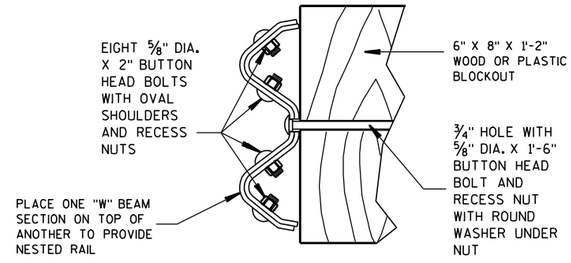
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

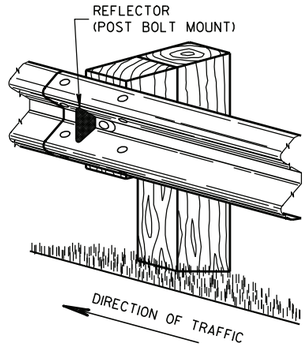


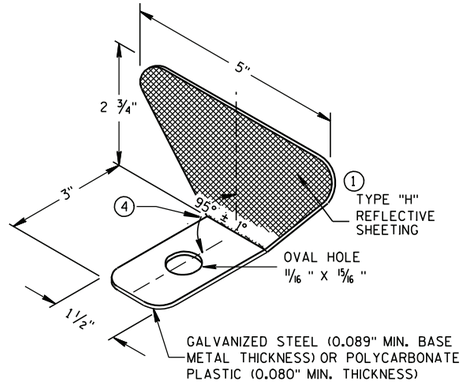
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING (2)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (3)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (4)	



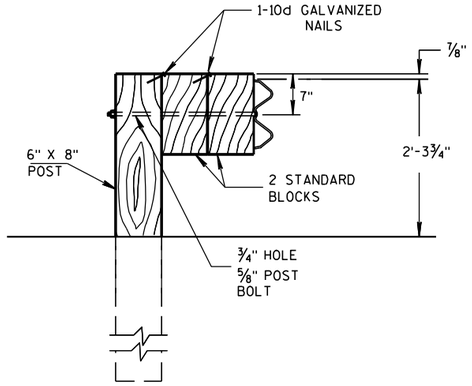


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (1)

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

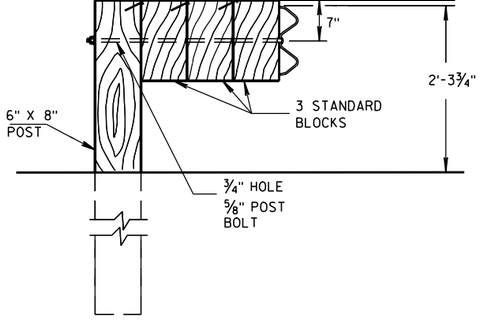
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DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

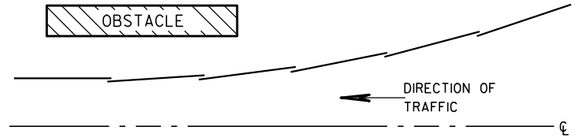


DETAIL FOR TRIPLE BLOCKS

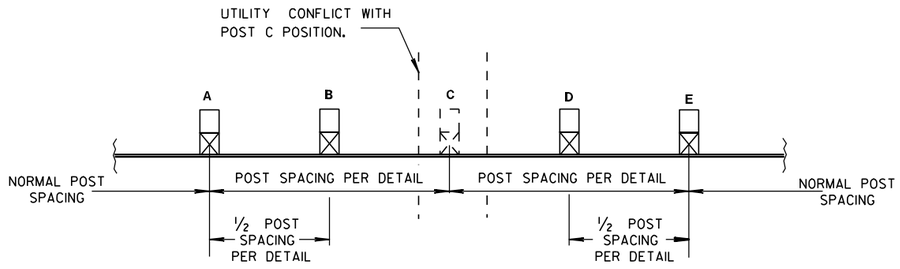
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

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5/23/11 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

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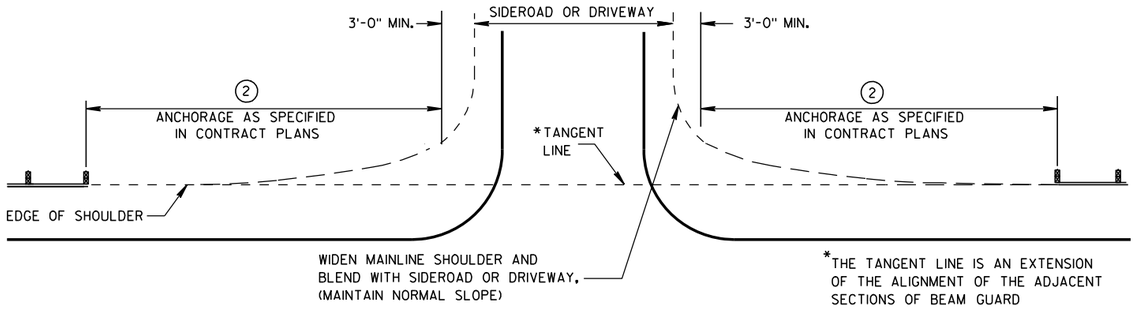
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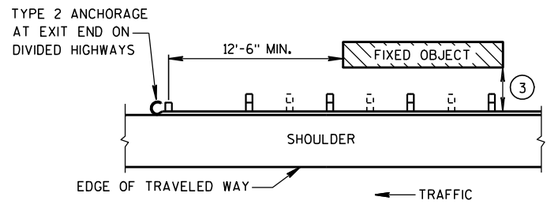
S.D.D. 14 B 15-7c

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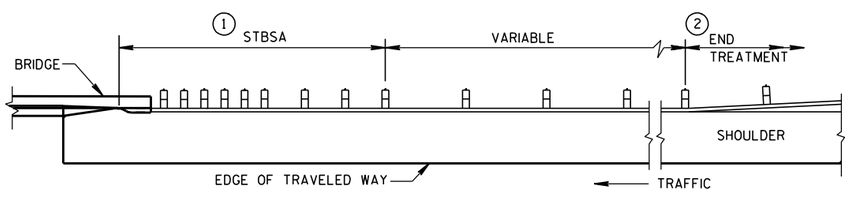
S.D.D. 14 B 15-7c



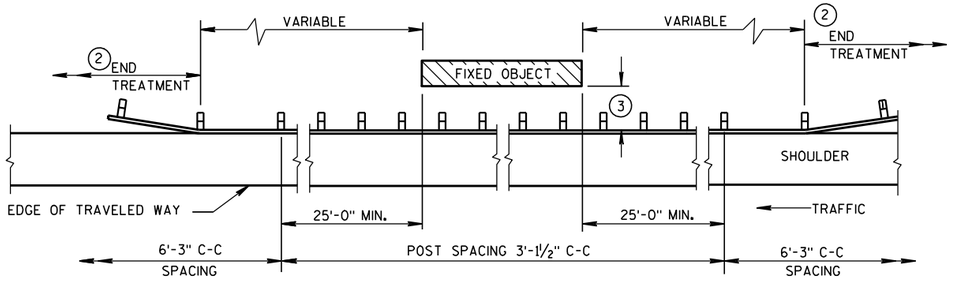
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

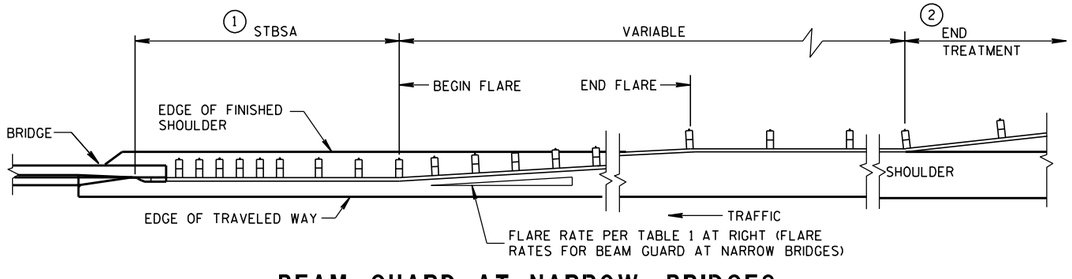


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



BEAM GUARD AT NARROW BRIDGES

(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

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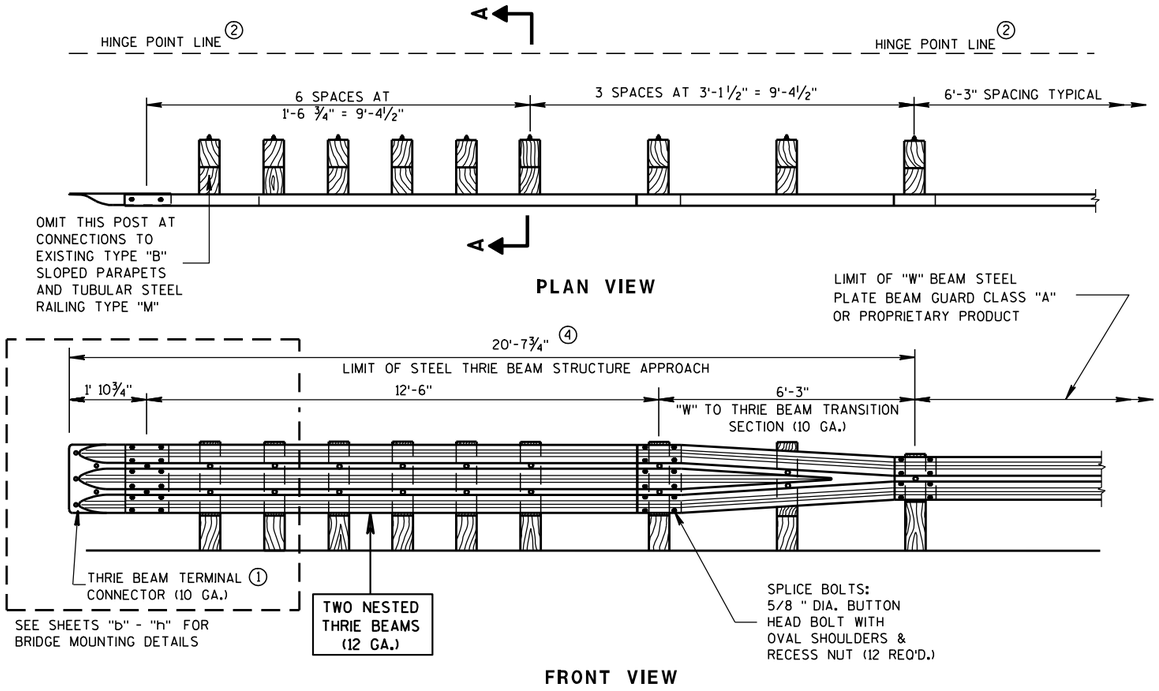
8-21-07
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

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S.D.D. 14 B 18-6a



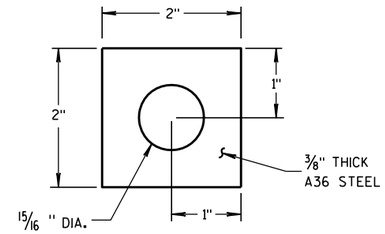


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

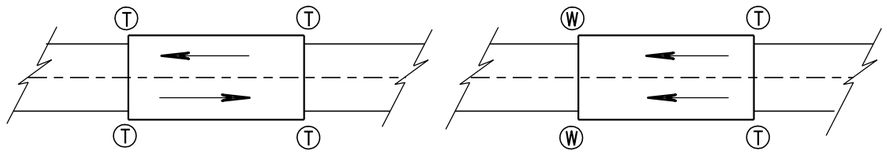
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



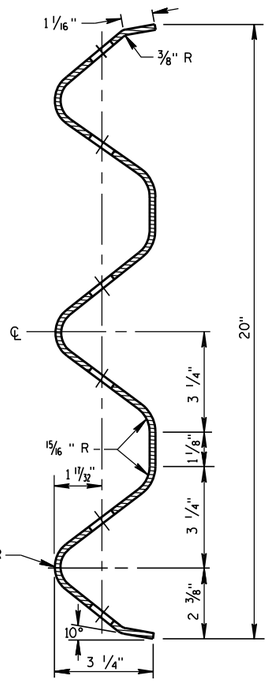
TWO WAY TRAFFIC

ONE WAY TRAFFIC

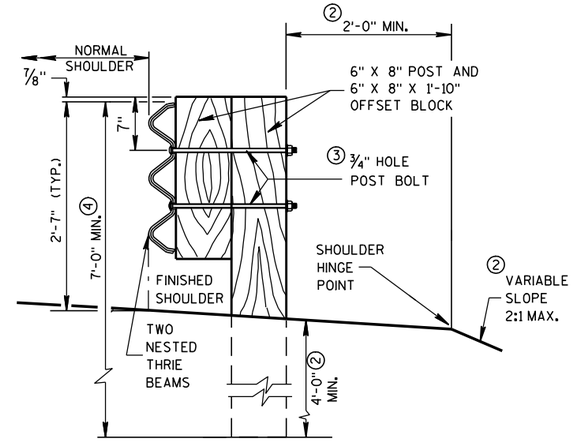
(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

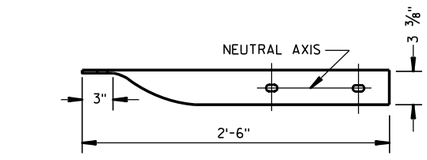
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

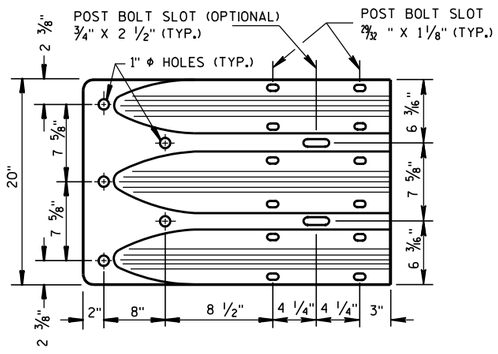


SECTION THRU THRIE BEAM RAIL ELEMENT

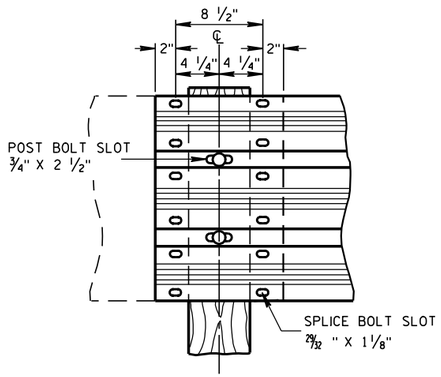


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

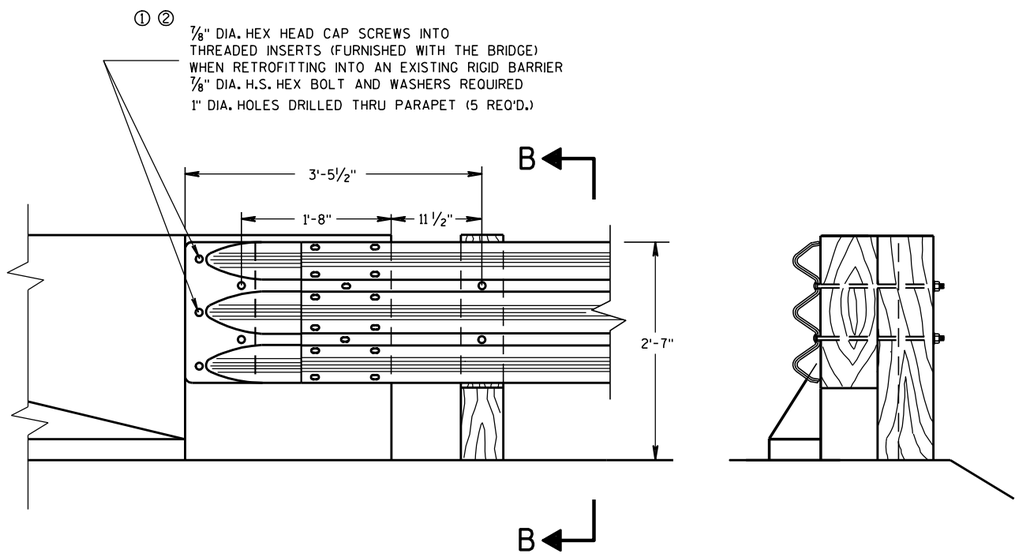
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8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

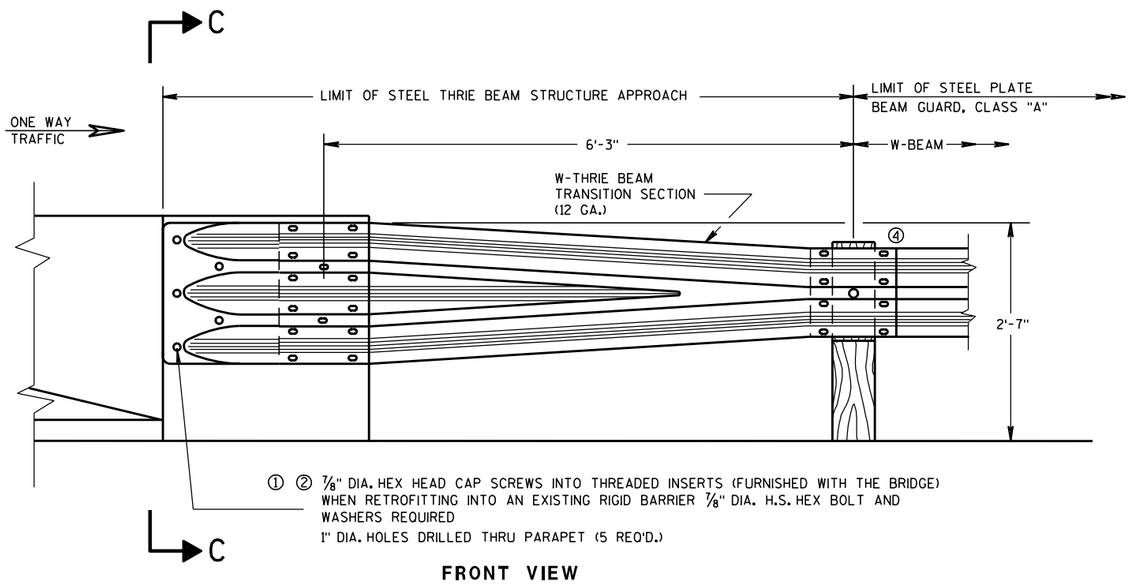
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FRONT VIEW

SECTION B-B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

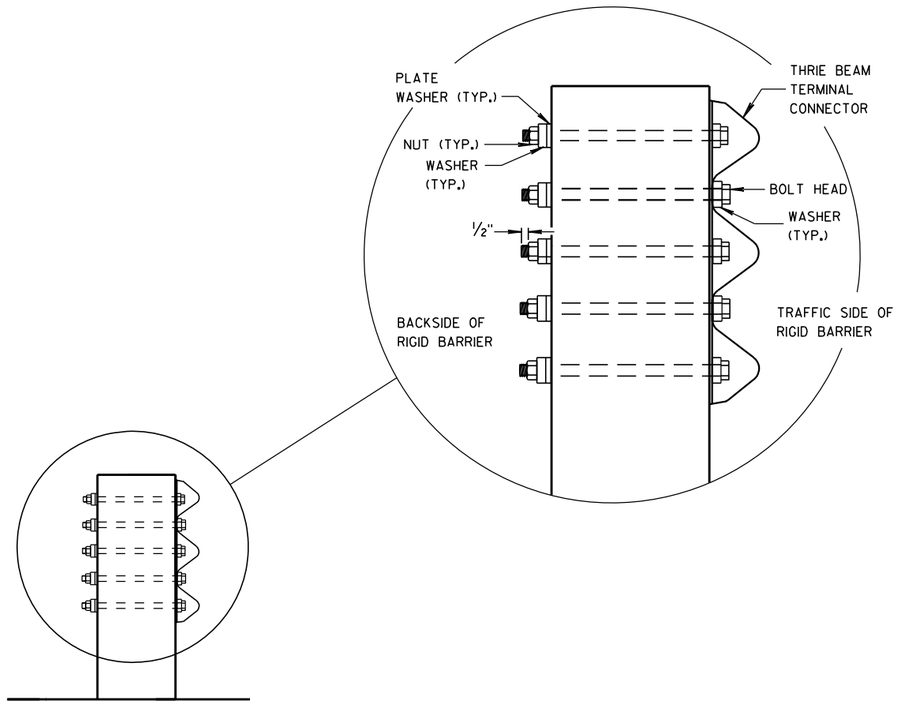
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



SECTION C-C

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

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8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

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GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

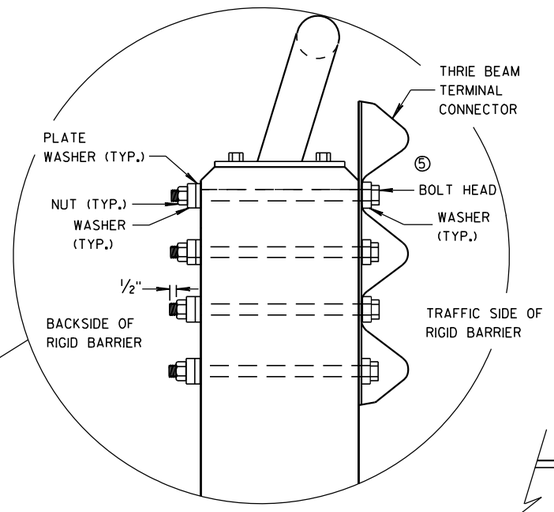
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

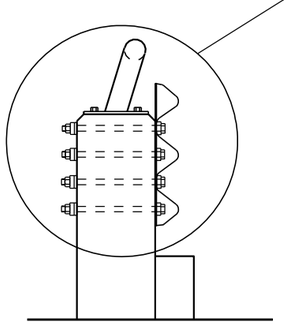
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

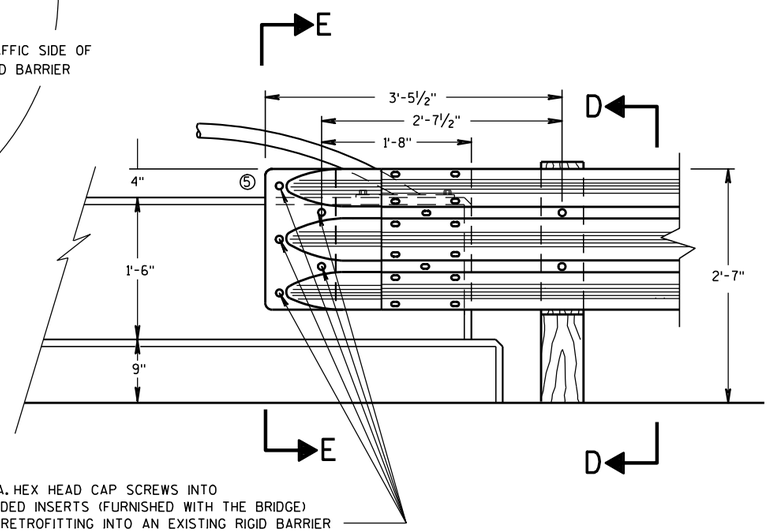
⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





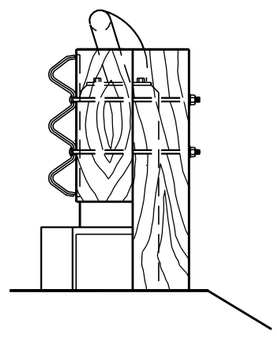
SECTION E-E



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)

FRONT VIEW

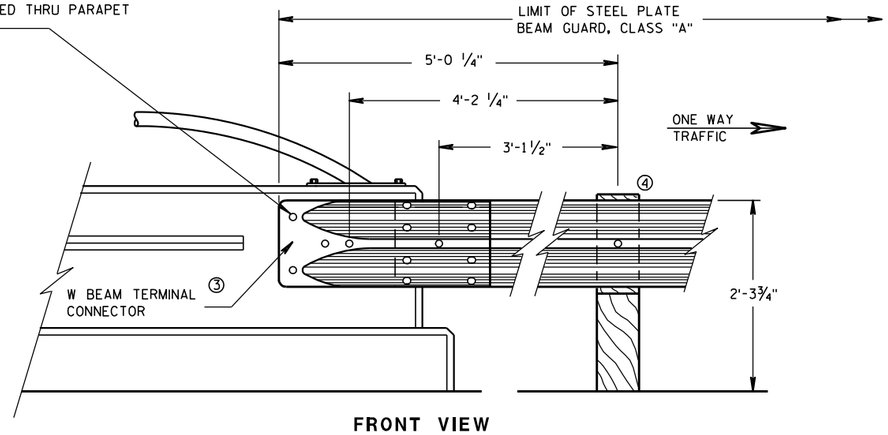


SECTION D-D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

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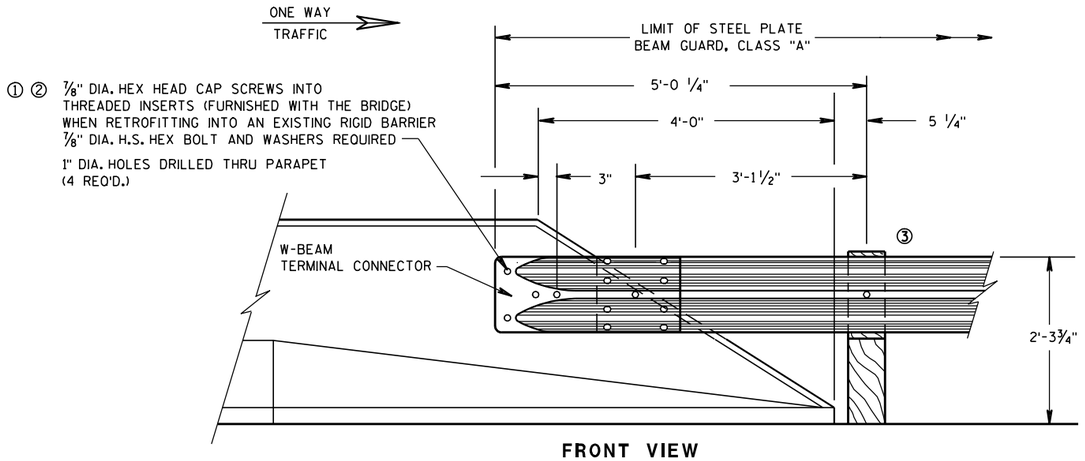
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8/31/2012 — DATE
/S/ Jerry H. Zaa — ROADWAY STANDARDS ENGINEER
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FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

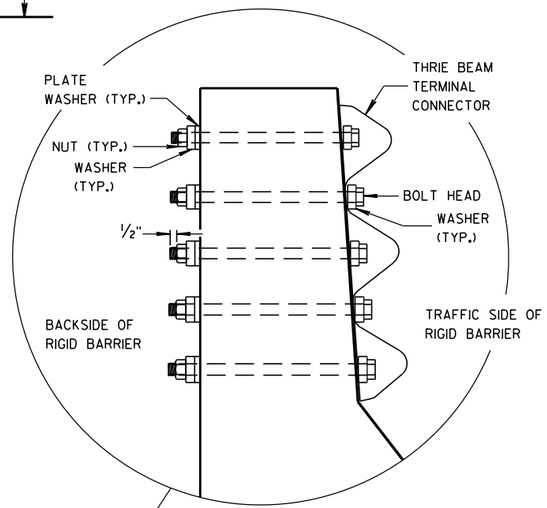
BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

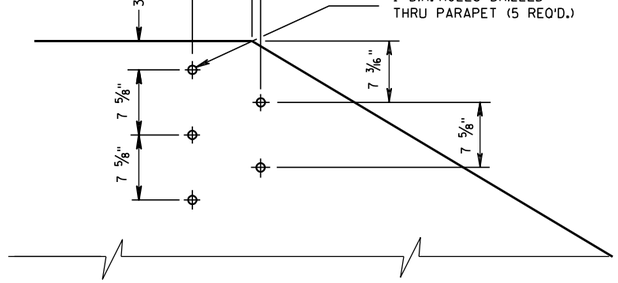
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

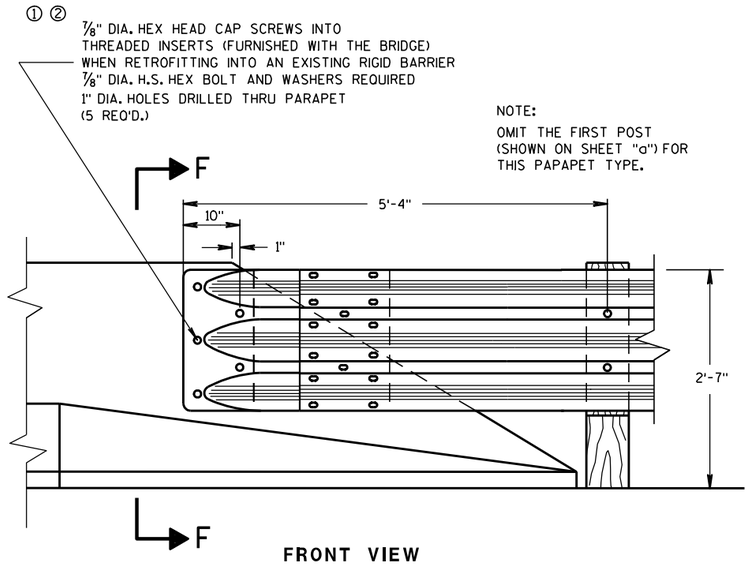
③ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

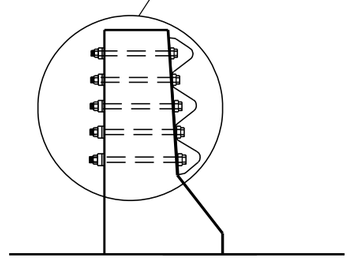




DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION F-F

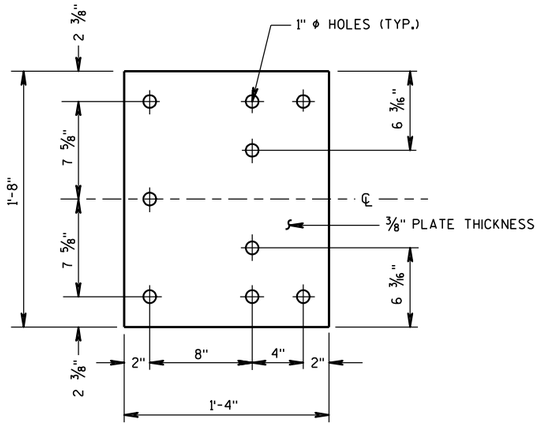
THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS

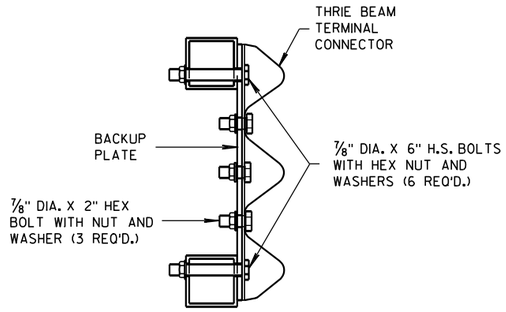
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BACK-UP PLATE DETAIL



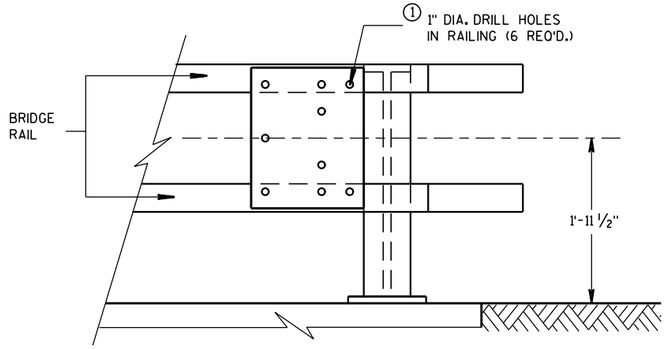
SECTION G-G

GENERAL NOTES

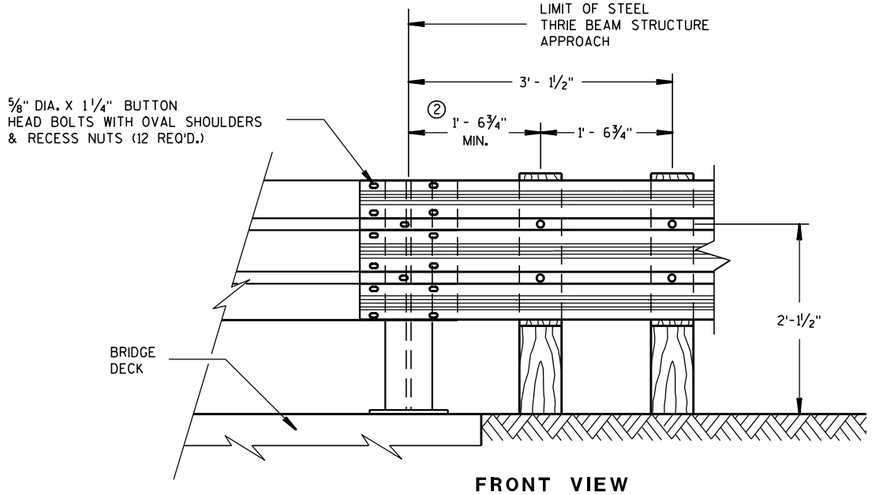
BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.

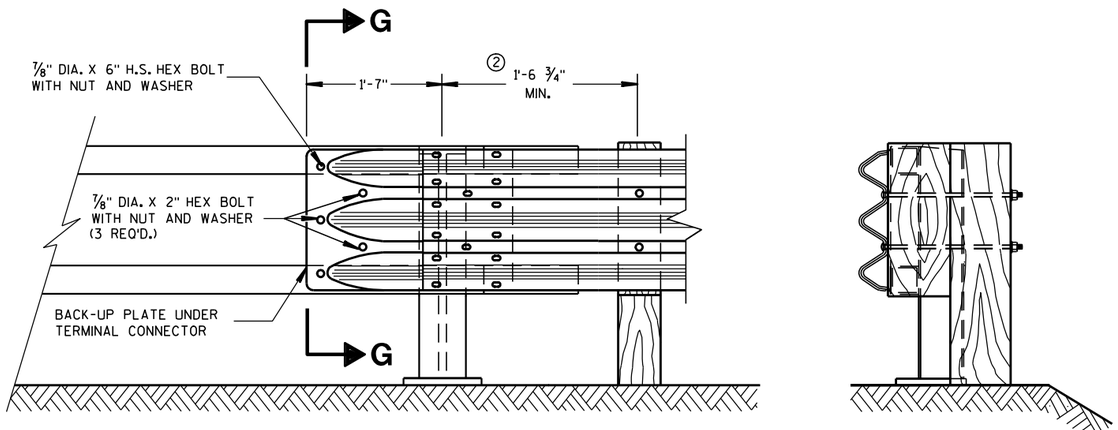


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW

END VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"

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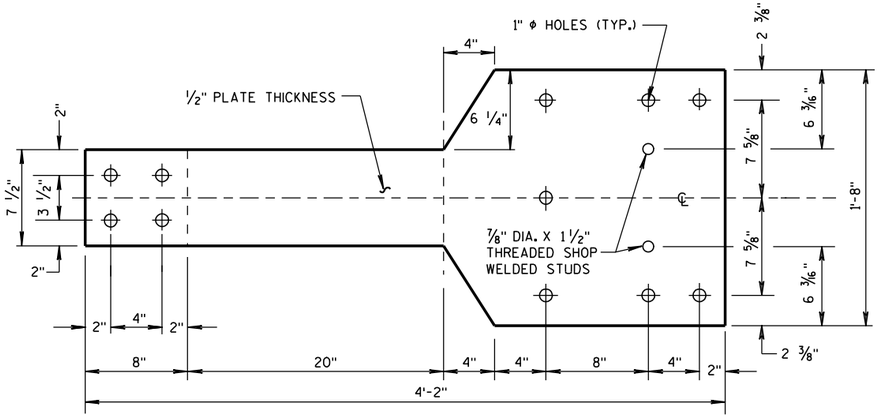
S.D.D. 14 B 20-11e

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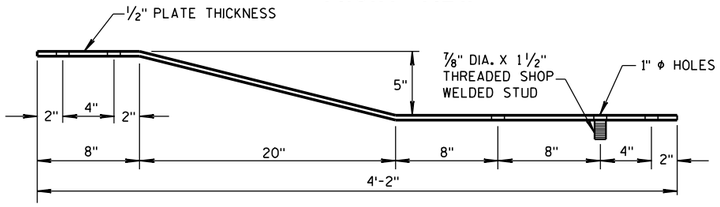
S.D.D. 14 B 20-11e

GENERAL NOTES

① VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL BE AS CLOSE AS FEASIBLE TO THE STEEL END POST.

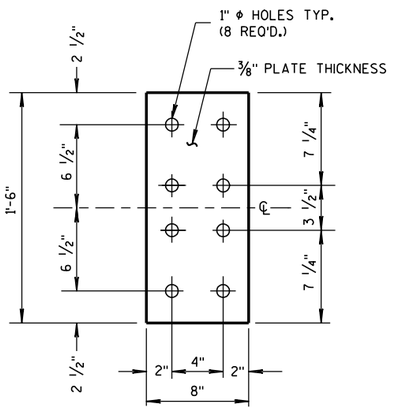


FRONT VIEW



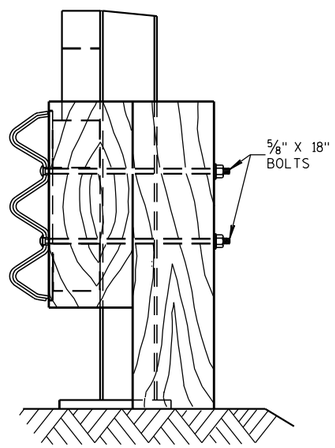
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

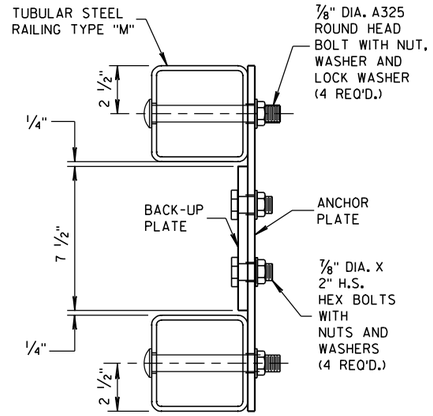


FRONT VIEW

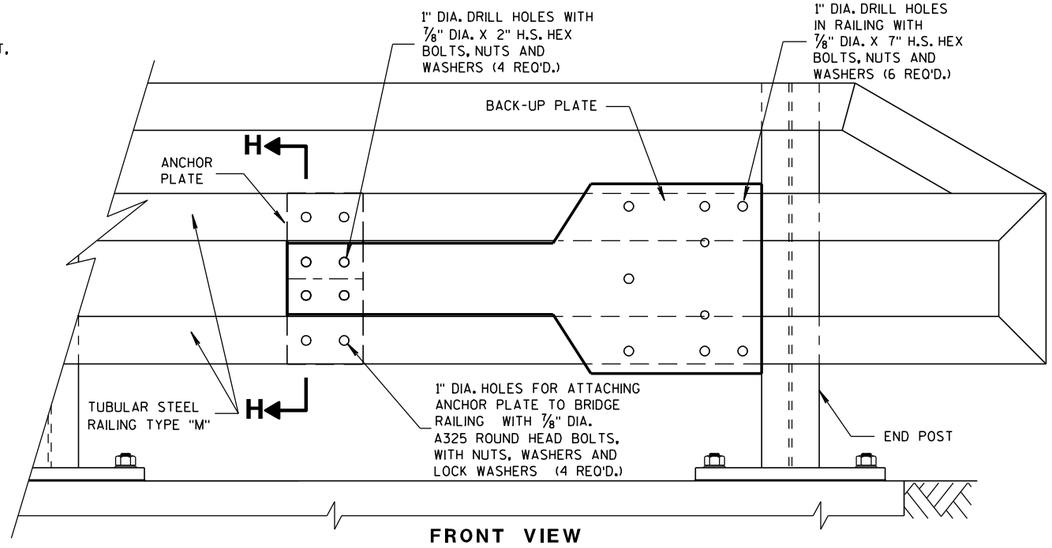
ANCHOR PLATE DETAIL, TYPE "M"



SECTION I-I

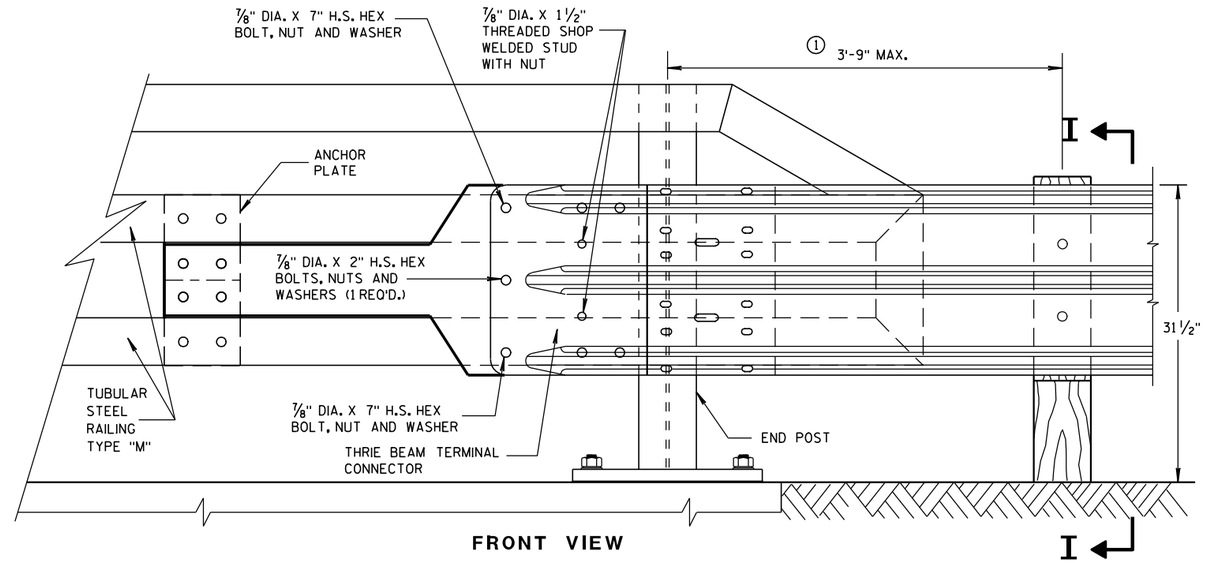


SECTION H-H

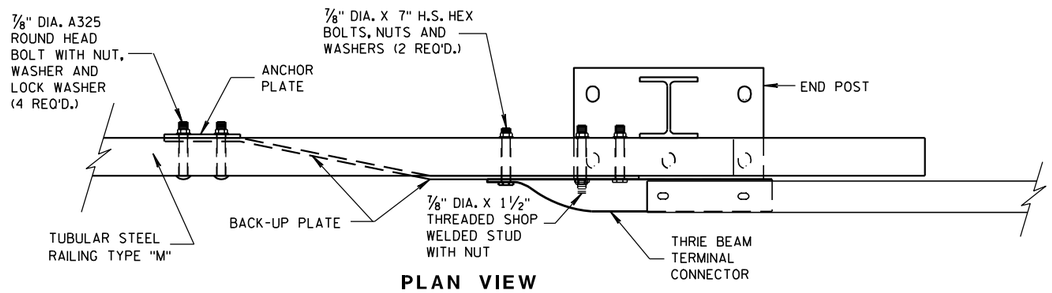


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"

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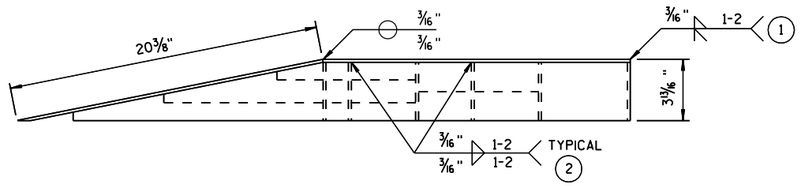
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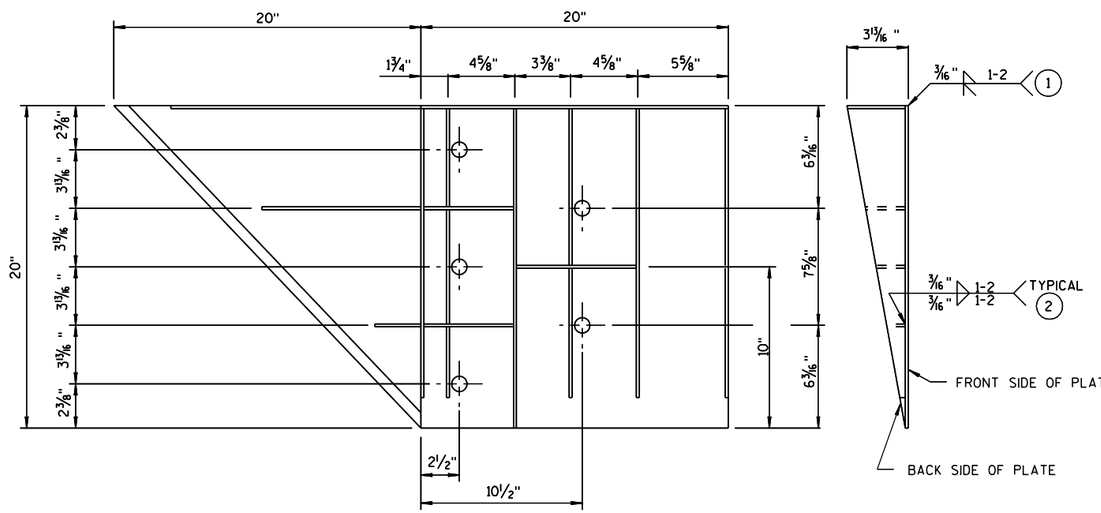
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S.D.D. 14 B 20-11f

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S.D.D. 14 B 20-11f





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

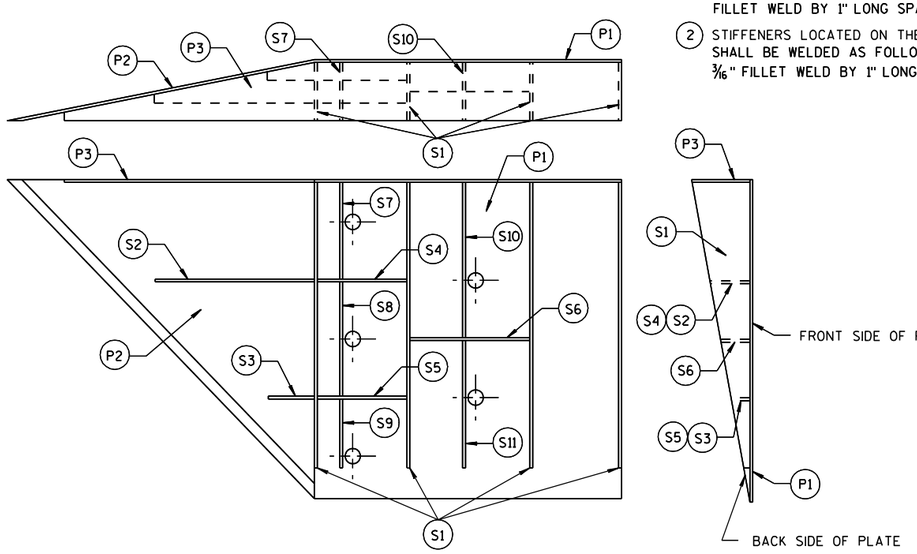


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)				
PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

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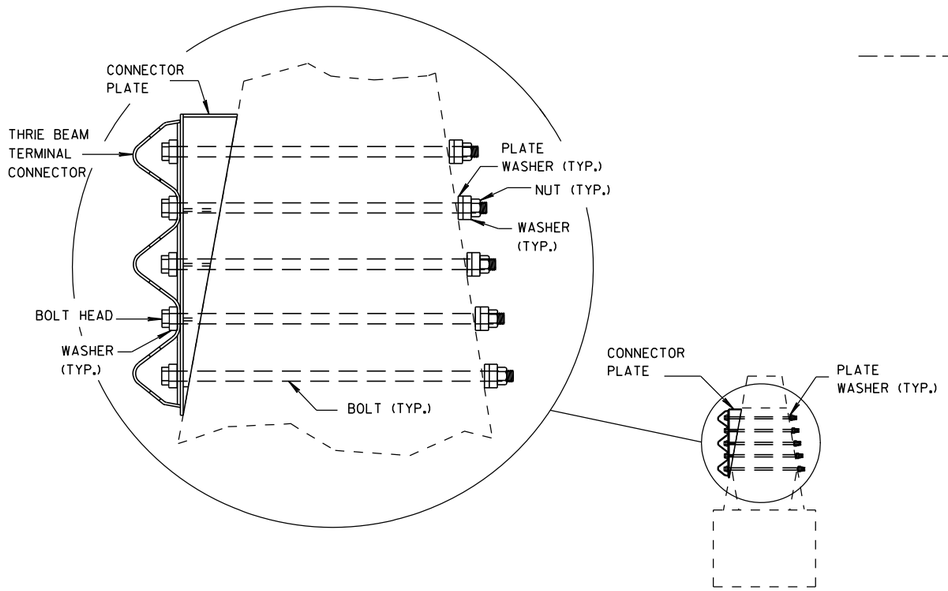
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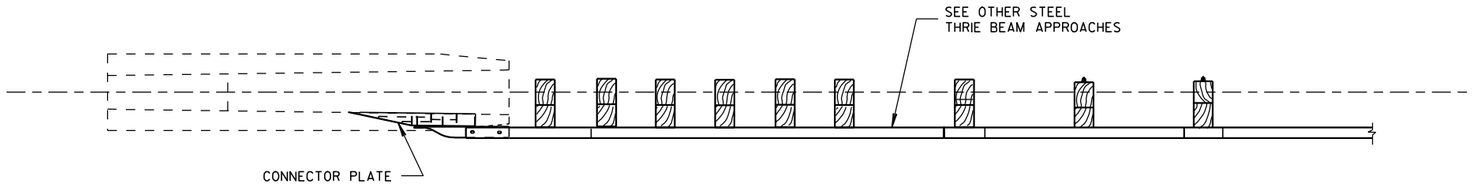
S.D.D. 14 B 20-11g

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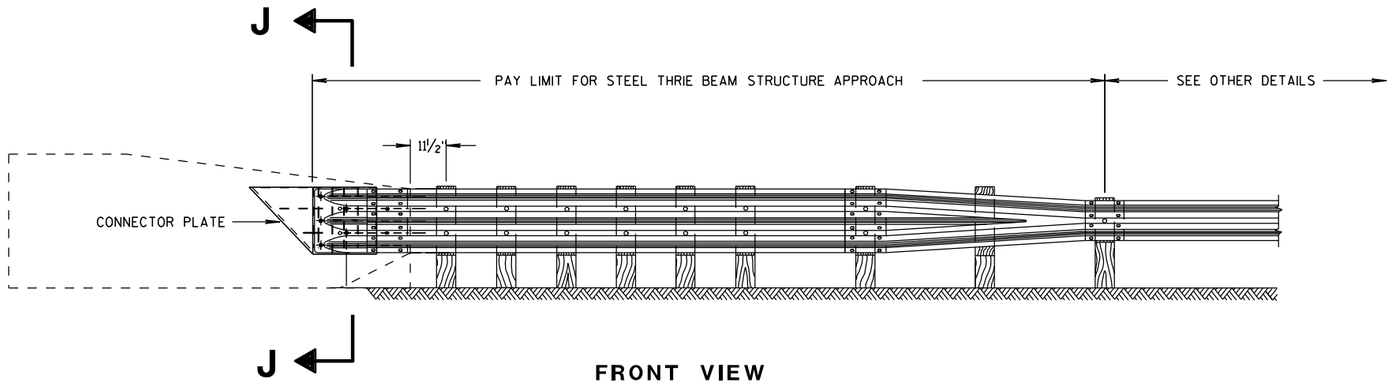
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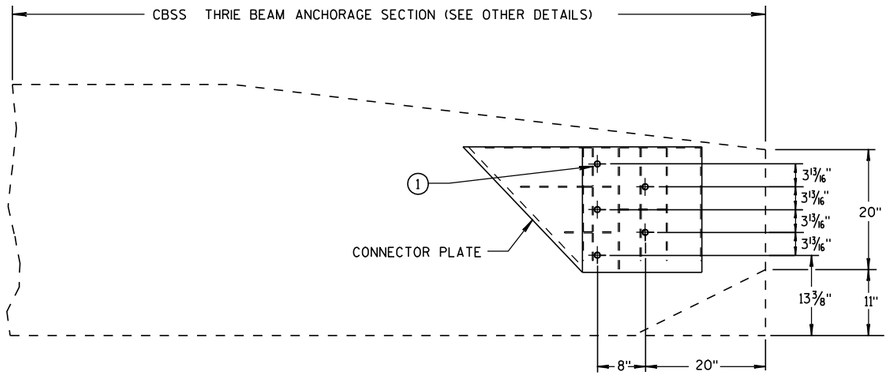
SECTION J-J



PLAN VIEW



FRONT VIEW



CONNECTOR PLATE LOCATION

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 614.

CONNECTOR PLATE, DRILLING HOLES THROUGH PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT

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BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
(1)	4	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
(2)	**	STEEL TUBE: OPTION 1 - QUANITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
(3)	2	SOIL PLATE: 2'-0" X 1'-6" X ¼" **
(4)	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
(5)	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
(6)	1	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
(7)	1	BEARING PLATE
(8)	1	BCT CABLE ASSEMBLY
(9)	1	CABLE ANCHOR BOX
(10)	1	STRUT & YOKE
(11)	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6½" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
(12)	3	STEEL PLATE BEAM: 12 GA. 13'-6½"
(13)	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
(14)	1	REFLECTIVE SHEETING TYPE H: 18" X 18"
(15)	1	E.A.T. MARKER POST

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL ⅝" ϕ X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

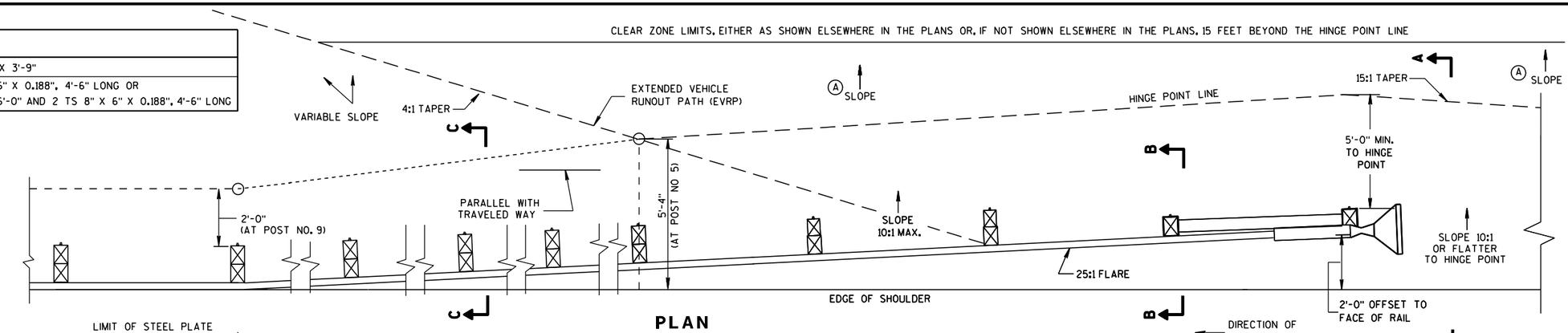
(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

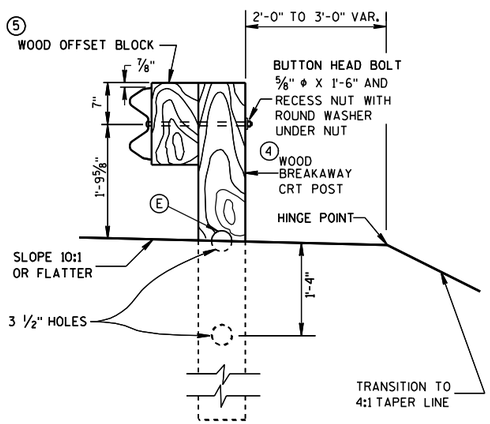
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

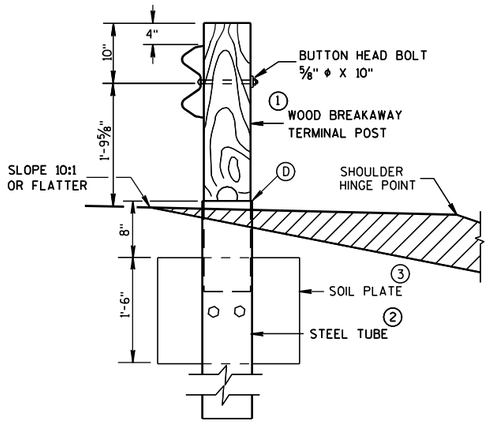
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.

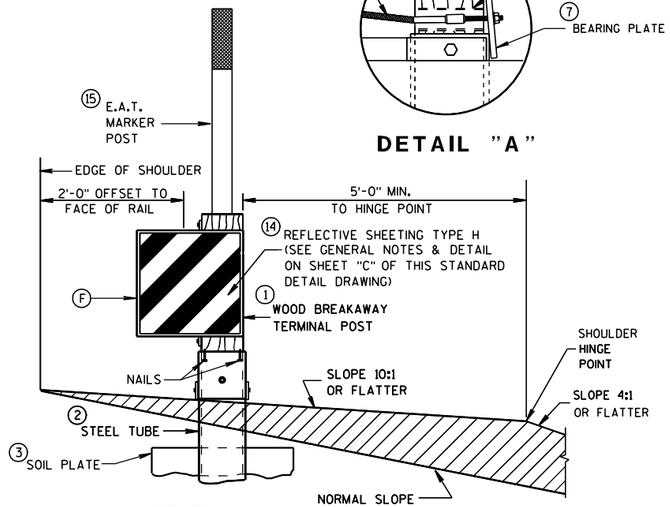




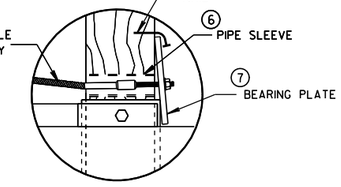
SECTION C-C
TYPICAL AT POST NOS. 6, 8



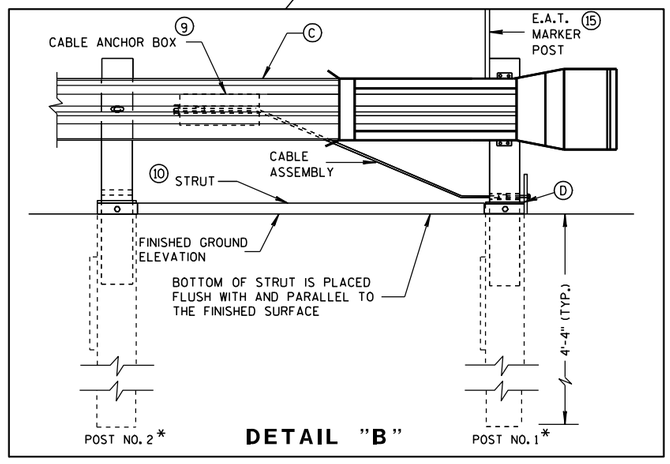
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"

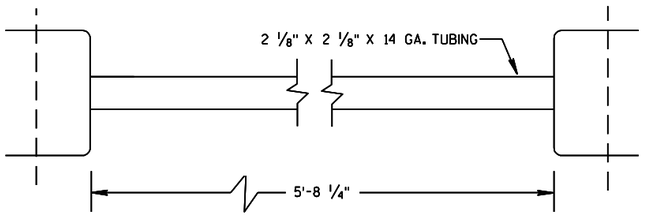


DETAIL "B"

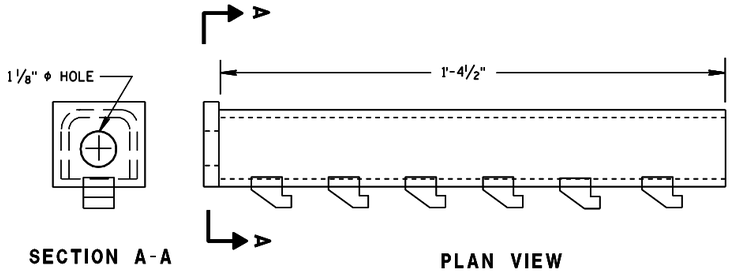
STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

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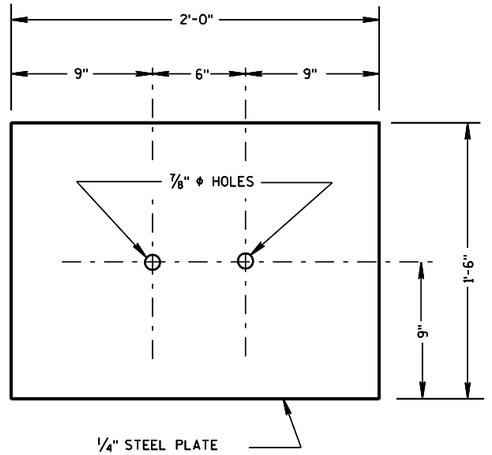
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S.D.D. 14 B 24-7a



⑩ STRUT DETAIL (SKT-350)

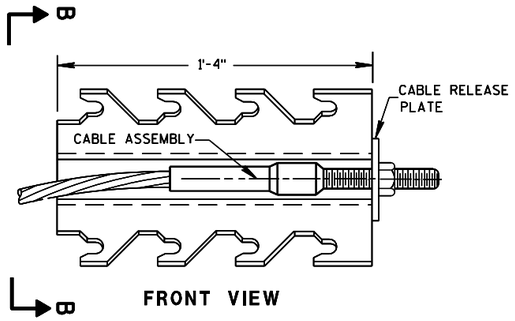


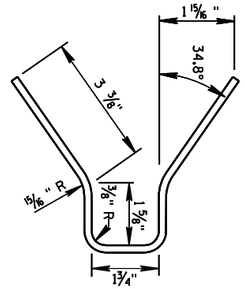
⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



③ SOIL PLATE

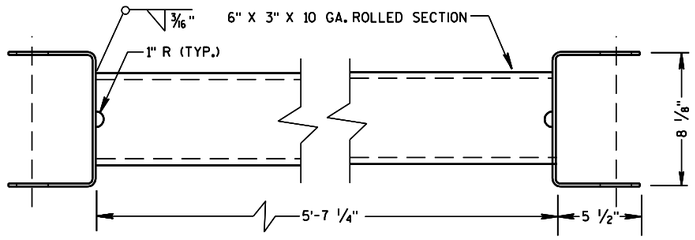
(SKT-350, ET-2000/ET-2000 PLUS)





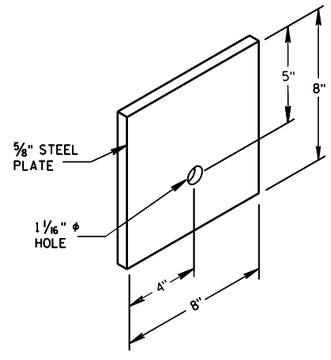
⑨ CABLE ANCHOR BOX (SKT-350)

(SKT-350)



⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)

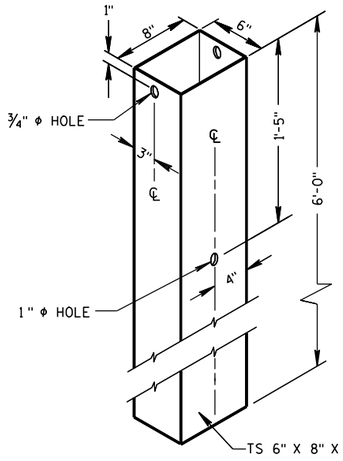


⑦ STEEL BEARING PLATE

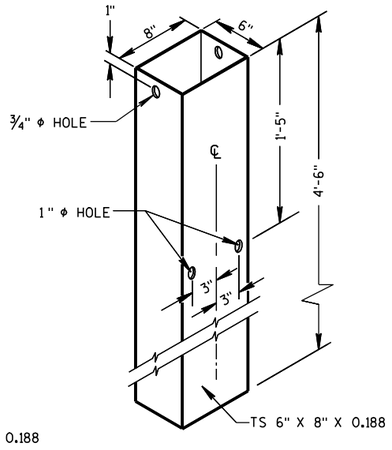
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

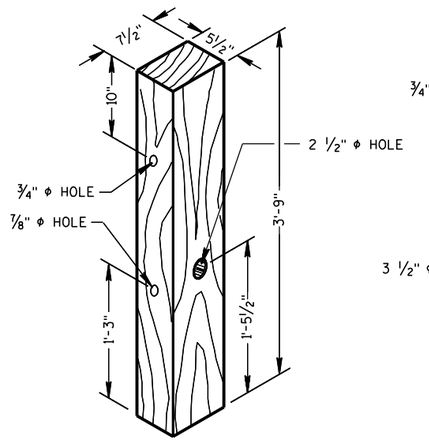
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



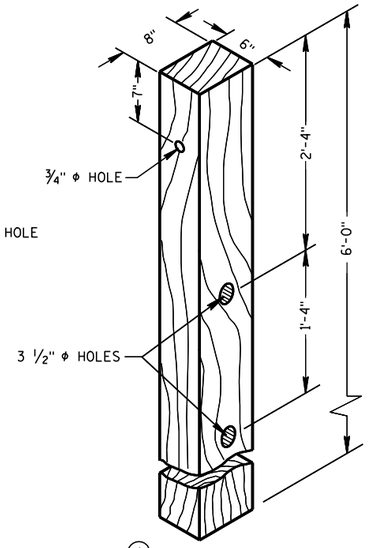
(2) 72" STEEL TUBE
(POSTS NO. 1-4



(2) 54" STEEL TUBE
(POSTS NO. 1-4



(1) TERMINAL POST
(POSTS NO. 1-4



(4) CRT POST
(POSTS NO'S 5-8

WOOD BREAKAWAY POSTS

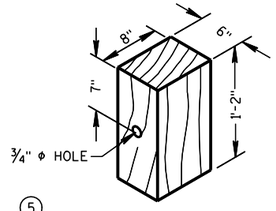
GENERAL NOTES

STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, WHICH SHALL INCLUDE HARDWARE, STEEL PLATE BEAM GUARD, POSTS, REFLECTIVE SHEETING AND INSTALLATION AS SHOWN.

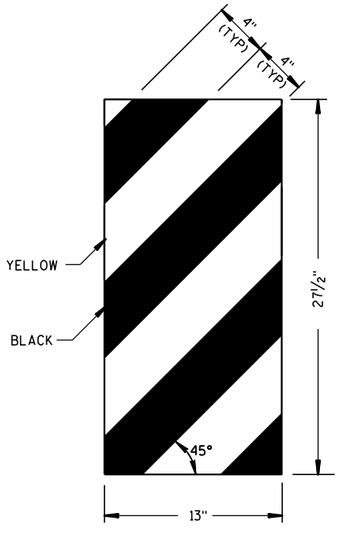
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

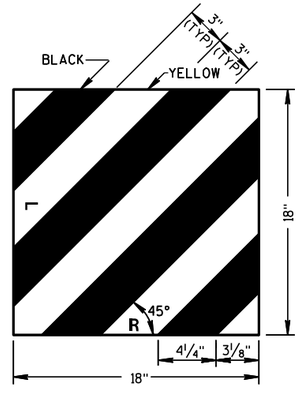
(G) ½" DIA. X 3" LAG BOLT WITH WASHER.



(5) WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

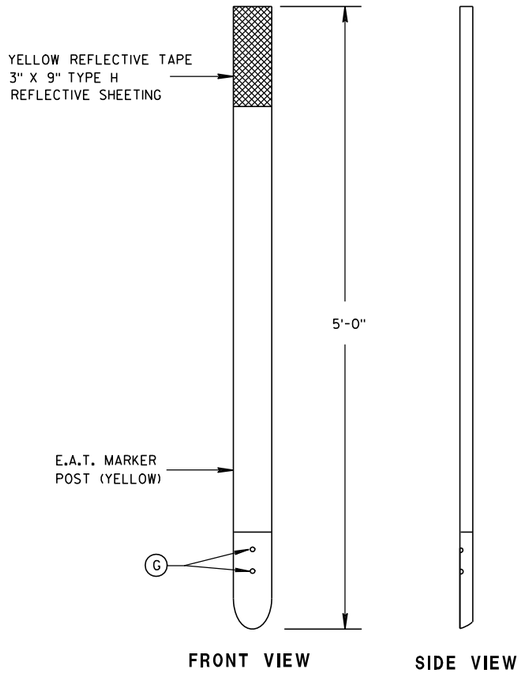


ET-2000 PLUS ONLY

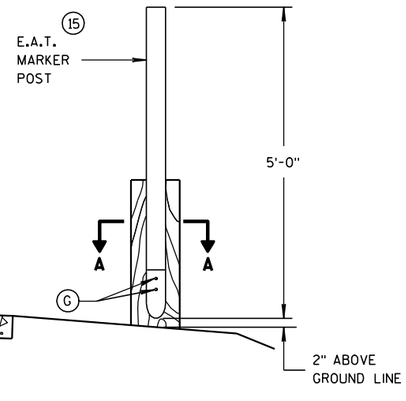


ET-2000 AND SKT-350

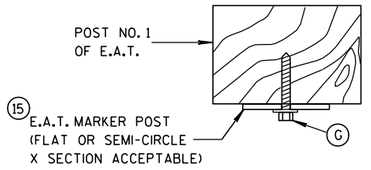
(14) REFLECTIVE SHEETING DETAILS



(15) E.A.T. MARKER POST



TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

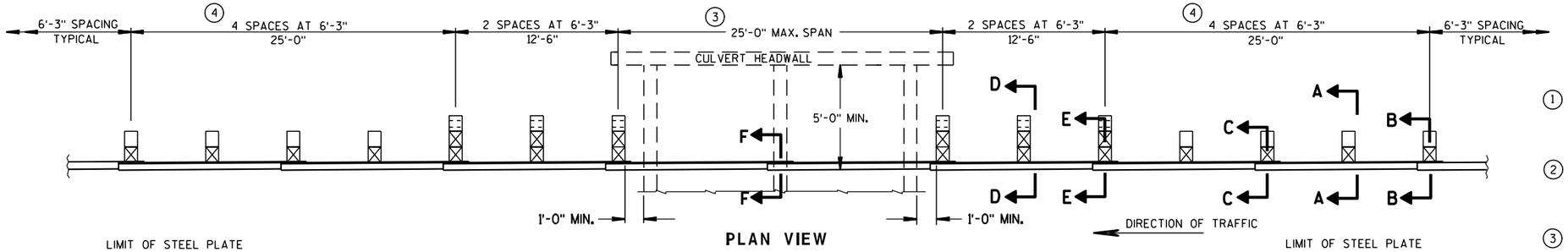
APPROVED
4-12-10
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

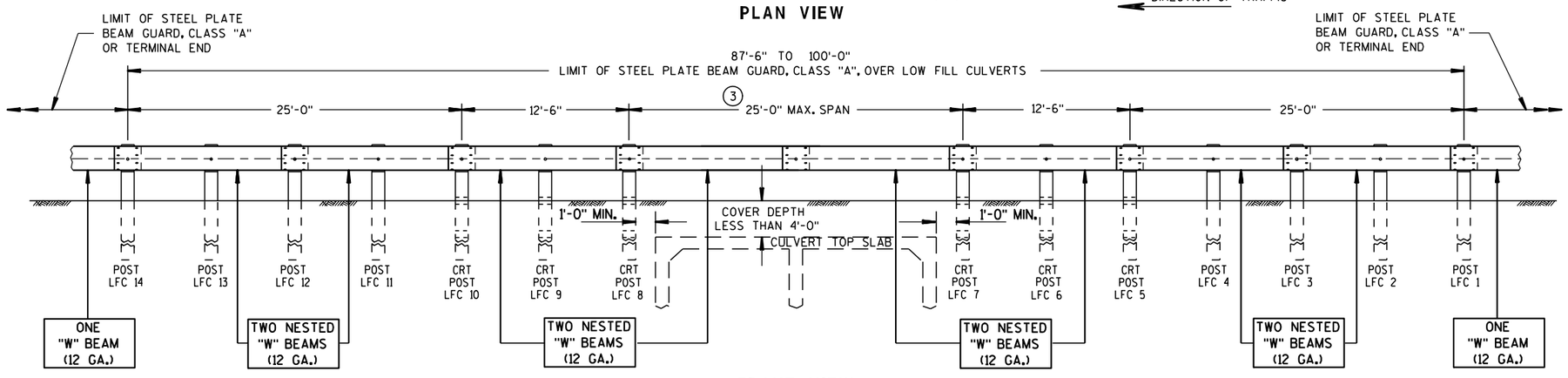
S.D.D. 14 B 24-7c

6

S.D.D. 14 B 24-7c



PLAN VIEW



FRONT VIEW

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD OVER LOW FILL CULVERTS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

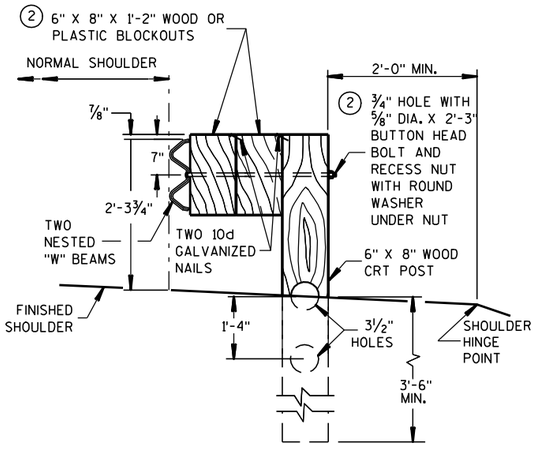
(1) MAINTAIN THE NESTING OF EACH NESTED PAIR OF "W" BEAM SECTIONS THROUGH SPLICES. ORIENTATE NESTED "W" BEAM SPLICES IN THE DIRECTION OF TRAFFIC AS THE PLAN VIEW SHOWS. SEE S.D.D. 14 B 15 FOR SPLICE INSTALLATION.

(2) THE CONTRACTOR MAY USE APPROVED PLASTIC BLOCKOUTS IN LIEU OF WOOD BLOCKOUTS. SEE S.D.D. 14 B 15 FOR TYPICAL BLOCKOUT, SPLICE AND REFLECTOR INSTALLATIONS. USE BOLT SIZES AND LENGTHS AS SHOWN ON THIS DETAIL.

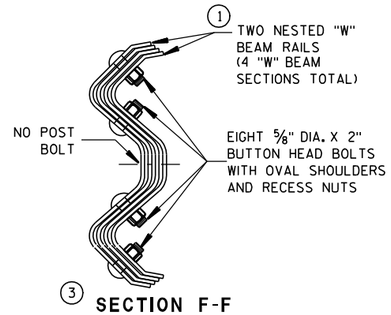
(3) PROVIDE 12'-6", 18'-9" AND 25'-0" SPANS ONLY. USE A MAXIMUM OF ONE SPLICE LOCATED ANYWHERE WITHIN THE SPAN SECTION. LOCATE ALL OTHER SPLICES AT BEAM GUARD POSTS.

(4) IN THE FIRST AND LAST 25 FOOT SECTIONS (POSTS LFC 1-4 & LFC 11-14), THE CONTRACTOR MAY USE W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS OR 6" X 8" WOOD POSTS WITH EITHER WOOD OR PLASTIC BLOCKOUTS. DO NOT MIX STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS AND WOOD POSTS WITH EITHER WOOD OR PLASTIC BLOCKOUTS IN THE SAME INSTALLATION.

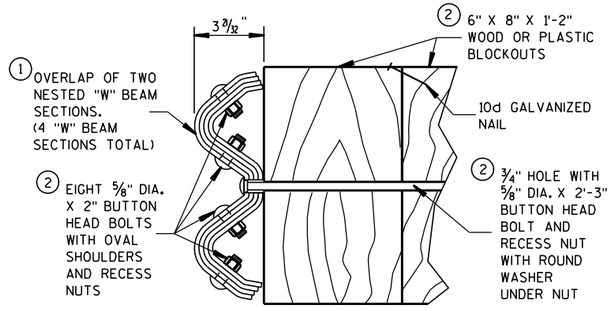
(5) WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK, THE PLAN TYPICAL SECTIONS OR DETAILS MAY SHOW, OR THE ENGINEER MAY ALLOW, THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. BUILD AS THE PLAN SHOWS OR ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST SOIL DEPTH TO 4'-6" OR MORE.



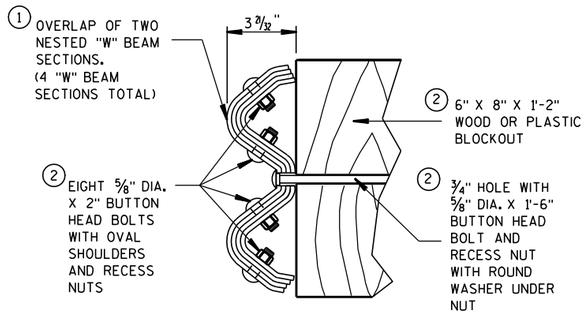
SECTION D-D
TYPICAL CRT POST LFC 6 AND 9



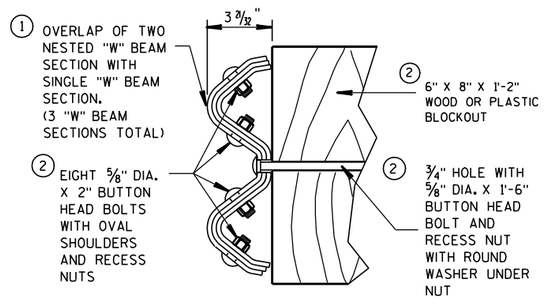
(3) SECTION F-F
BEAM SPLICE IN SPAN OVER CULVERT



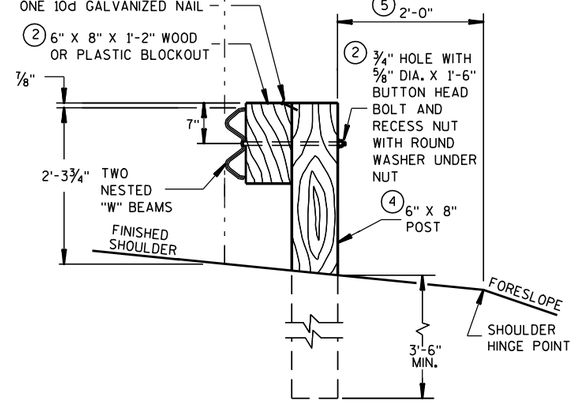
SECTION E-E
TYPICAL CRT POST LFC 5, 7, 8 AND 10



SECTION C-C
TYPICAL AT POSTS LFC 3 AND 12



SECTION B-B
TYPICAL AT POSTS LFC 1 AND 14



SECTION A-A
TYPICAL AT POST LFC 2,4,11,13

STEEL PLATE BEAM GUARD, CLASS "A", OVER LOW FILL CULVERTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

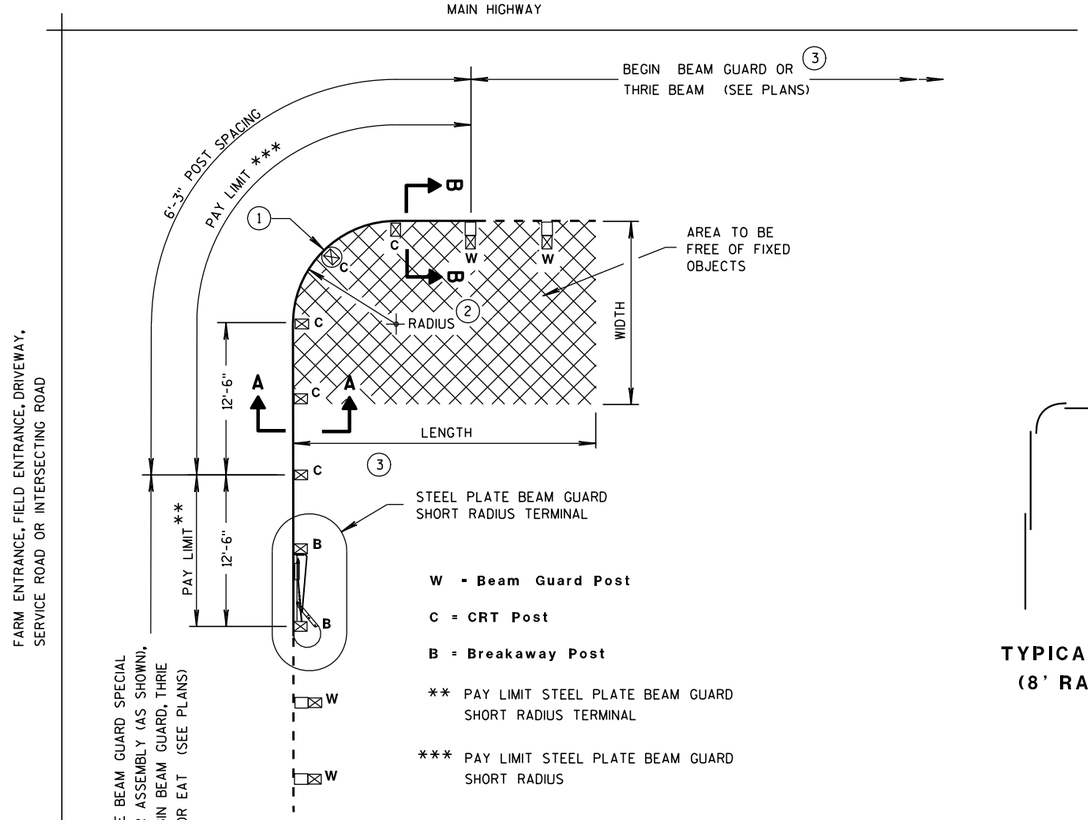
APPROVED
12/8/00 DATE
/S/ John Have... CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

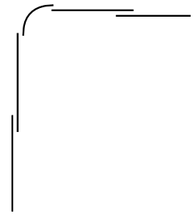
S.D.D. 14 B 25-1

6

S.D.D. 14 B 25-1



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

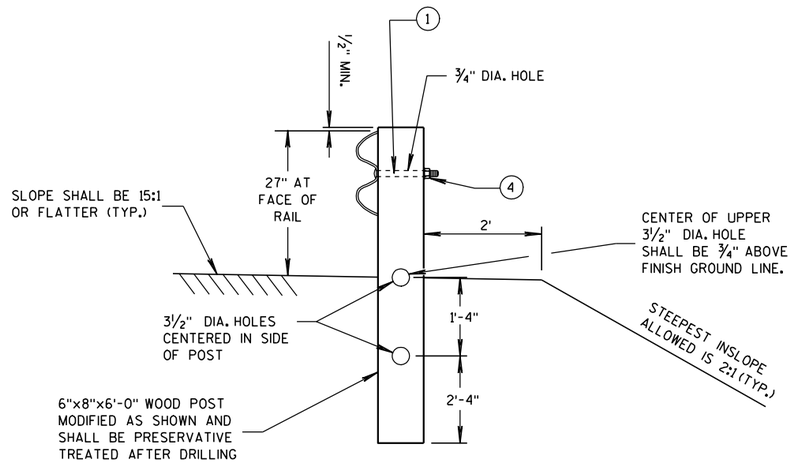
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

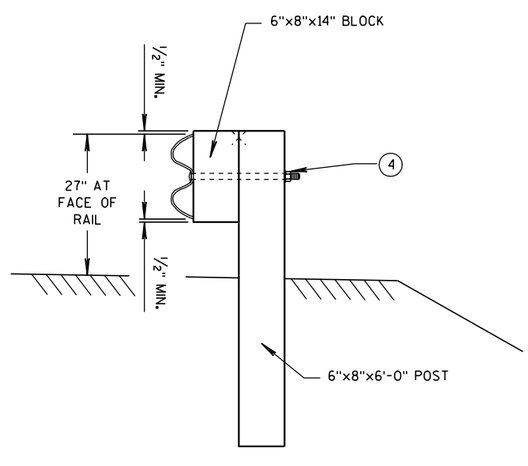
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

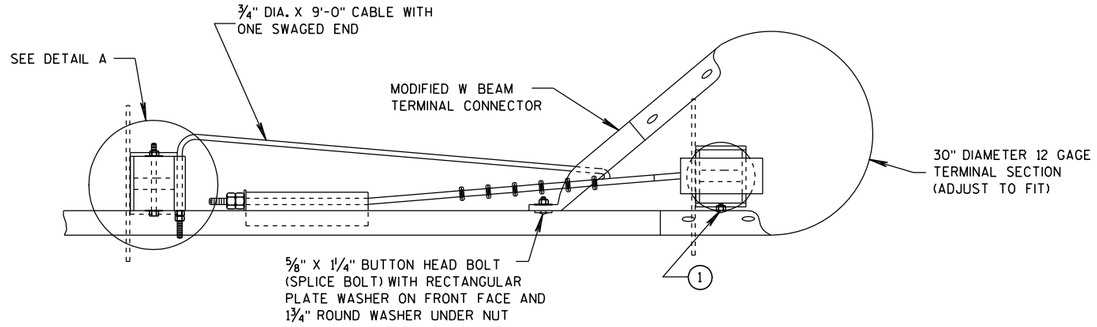
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	

6

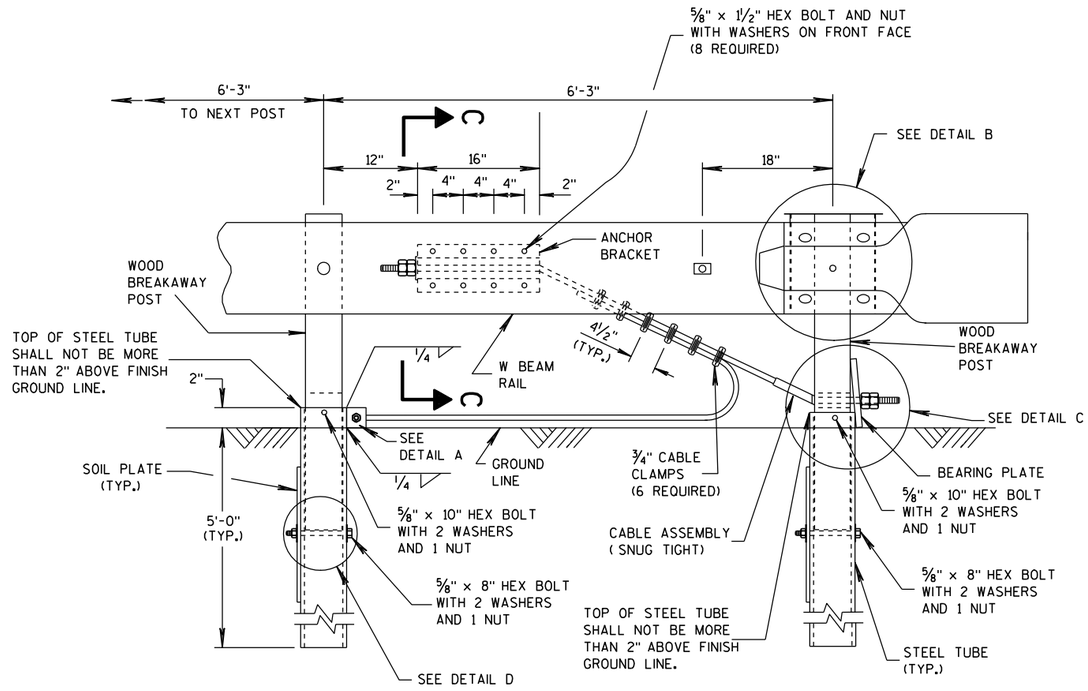
S.D.D. 14 B 27-1a

6

S.D.D. 14 B 27-1a



PLAN VIEW



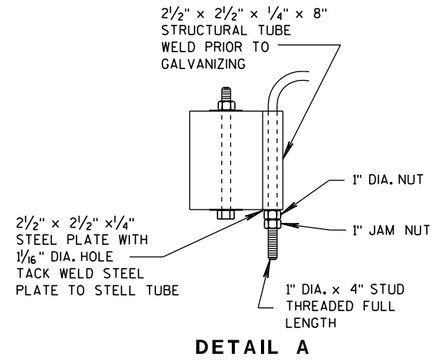
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

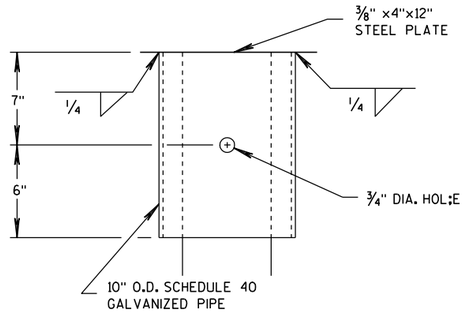
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



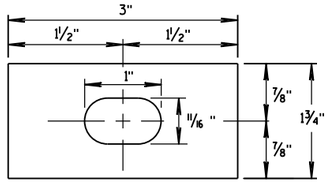
DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

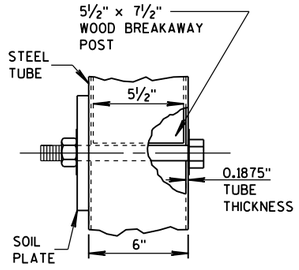
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

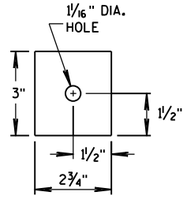
6
S.D.D. 14 B 27-1b



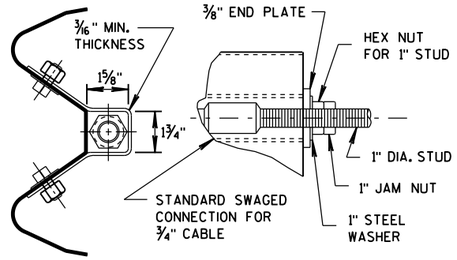
RECTANGULAR PLATE WASHER



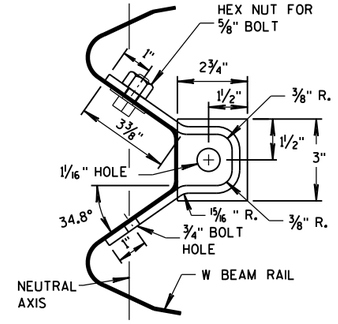
DETAIL D



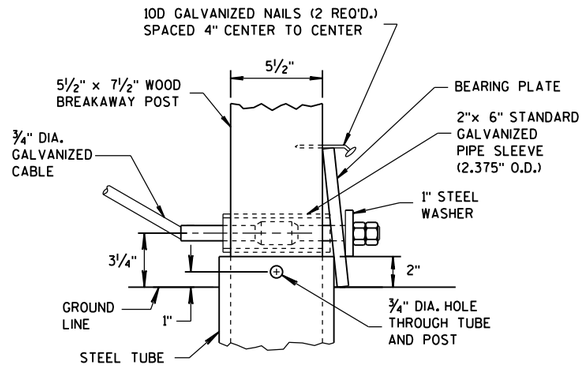
END PLATE



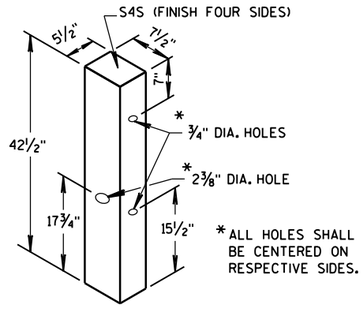
SECTION C-C
(END PLATE REMOVED)



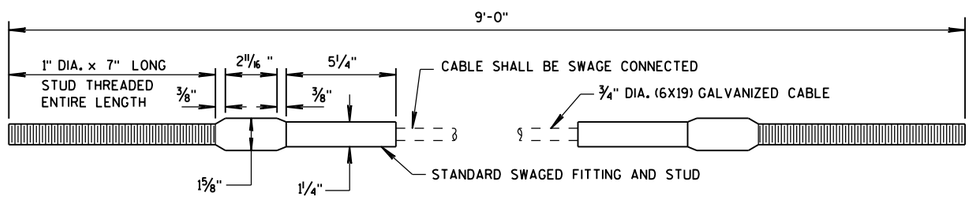
ANCHOR BRACKET



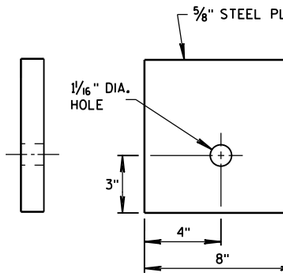
DETAIL C



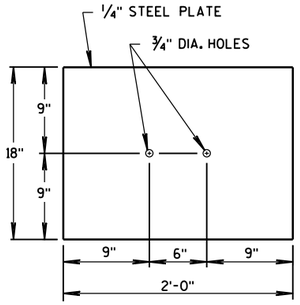
WOOD BREAKAWAY POST



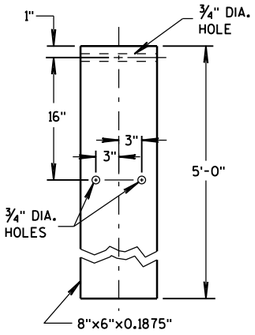
CABLE ASSEMBLY



BEARING PLATE



SOIL PLATE



STEEL TUBE

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 27-1c

6

S.D.D. 14 B 27-1c

GENERAL NOTES

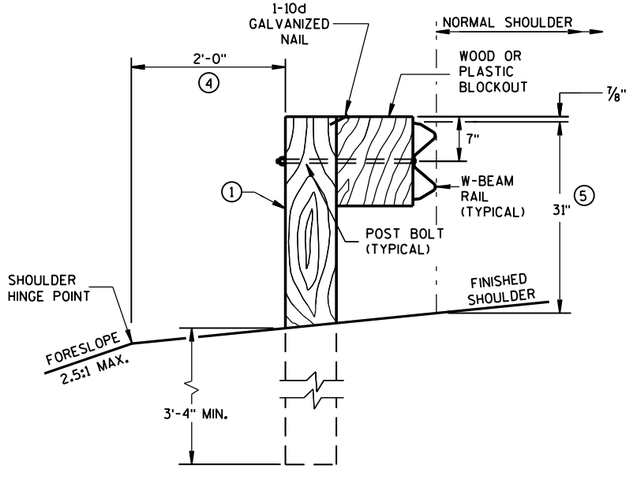
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

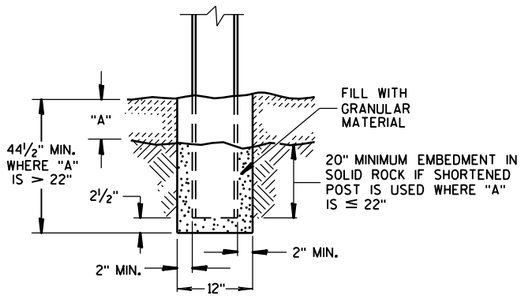
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".



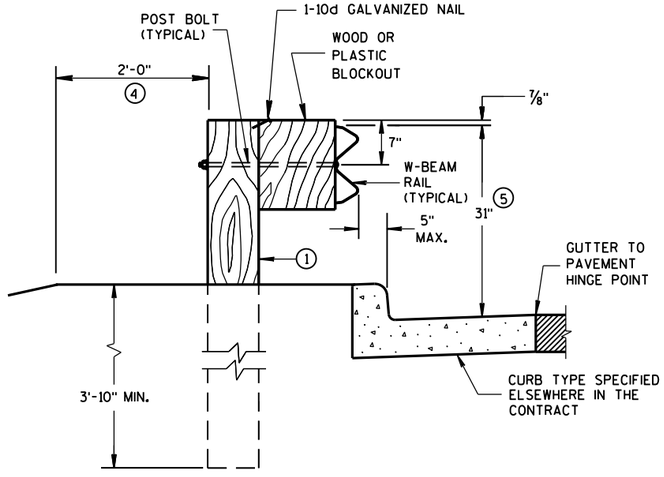
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



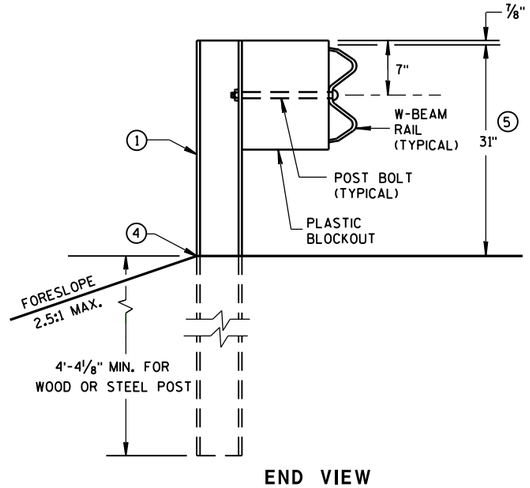
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



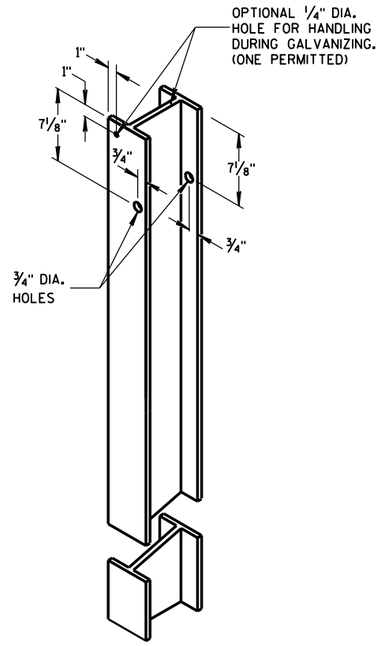
END VIEW

LOCATED ALONG A CURBED ROADWAY

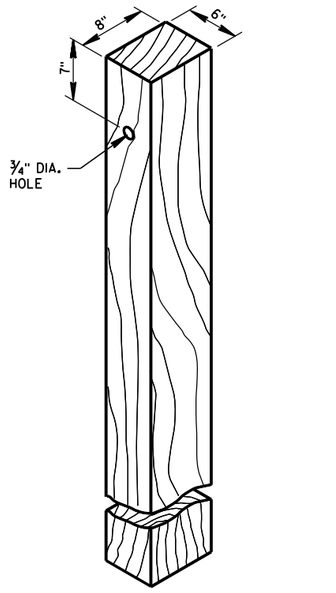


END VIEW

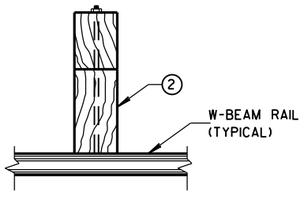
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



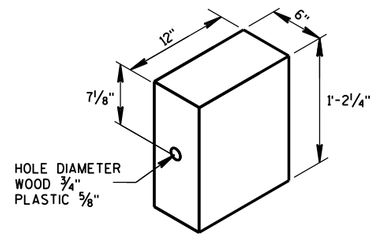
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



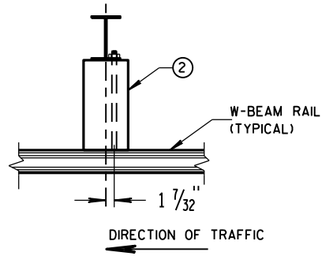
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

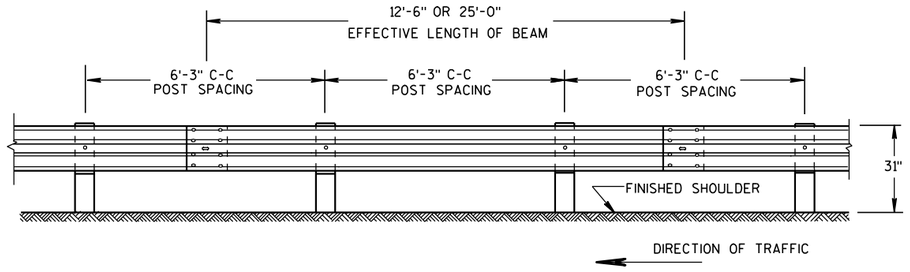


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

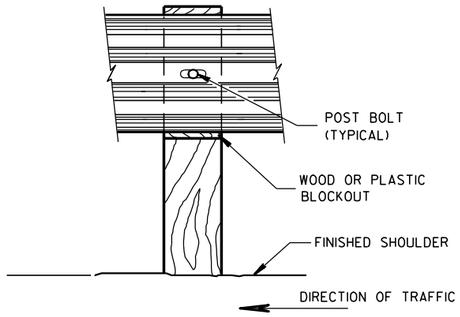
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



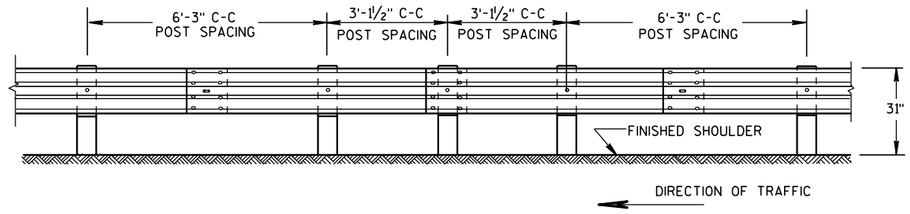
FRONT VIEW AT WOOD POST

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

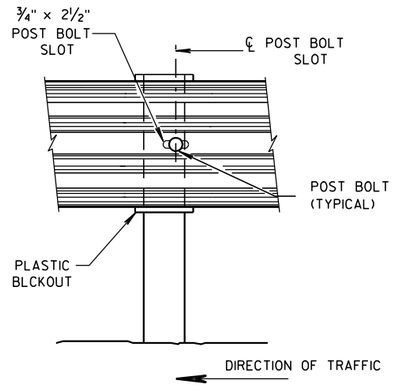
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

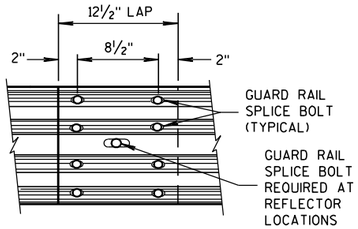


FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

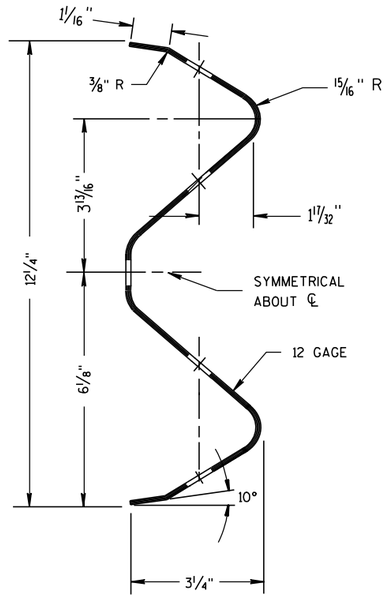


FRONT VIEW AT STEEL POST

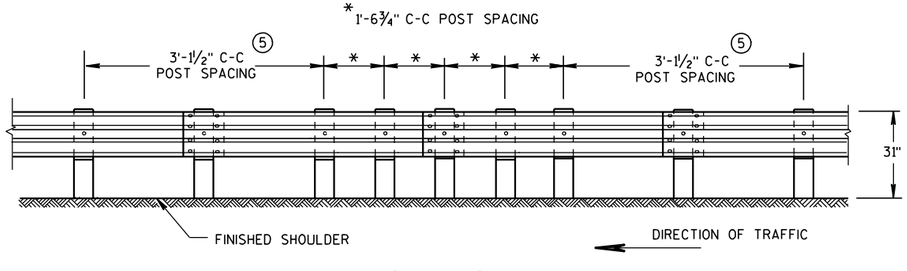


FRONT VIEW

MID-SPAN BEAM SPLICE

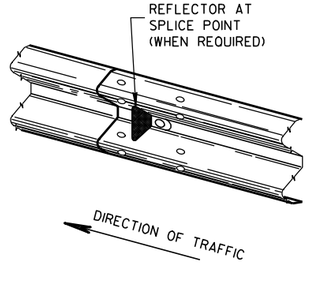


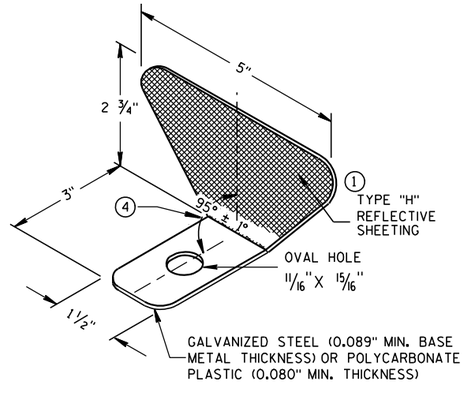
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

REFLECTOR SPACING ②

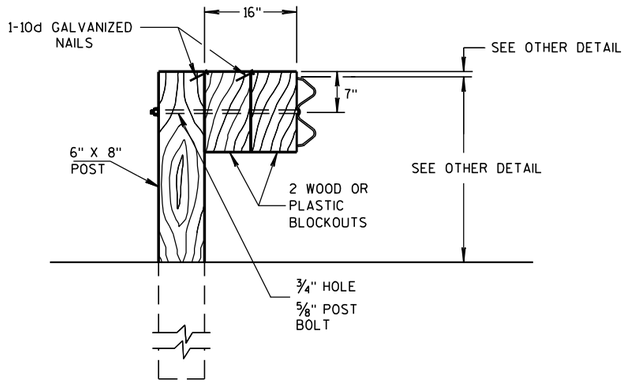
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 1 ③	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ④	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

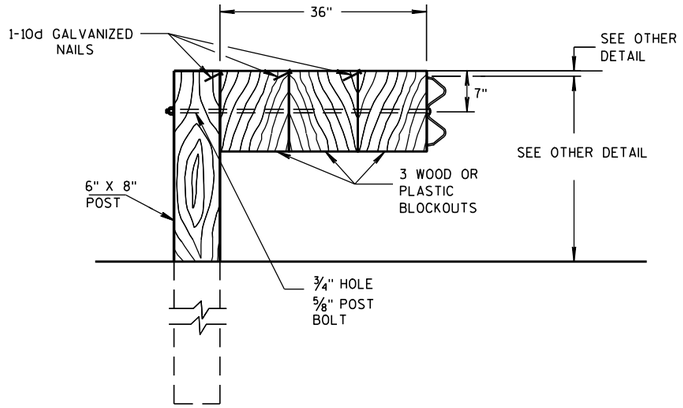
S.D.D. 14 B 42-2b

S.D.D. 14 B 42-2b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

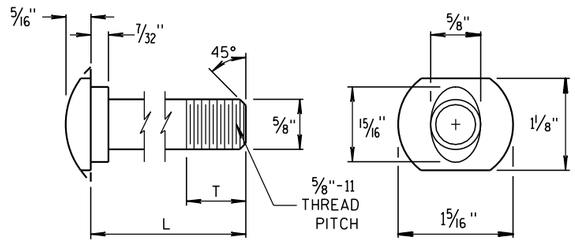


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

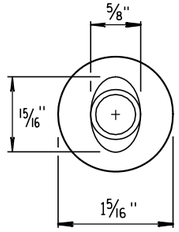
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

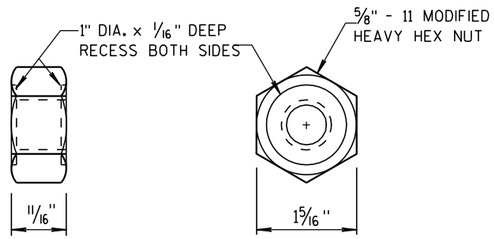


POST BOLT TABLE

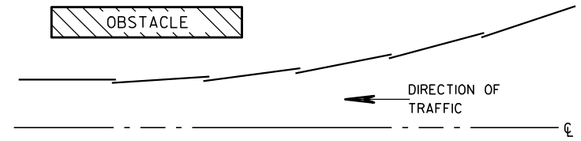
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

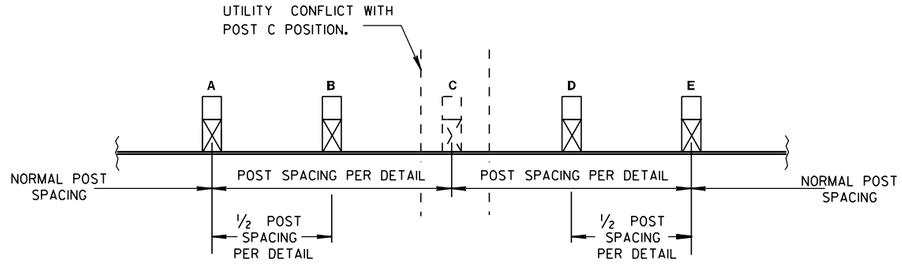


POST BOLT AND RECESS NUT

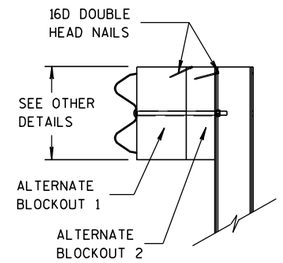


PLAN VIEW

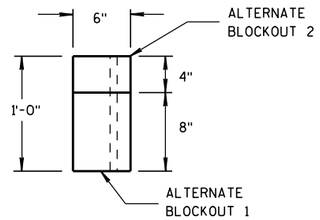
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011 DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

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S.D.D. 14 B 42-2c

6

S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

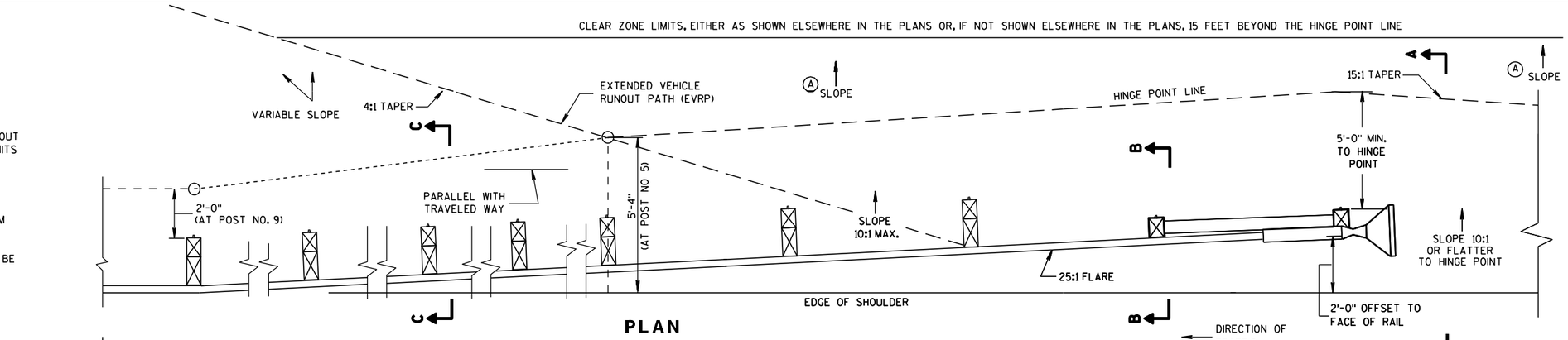
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

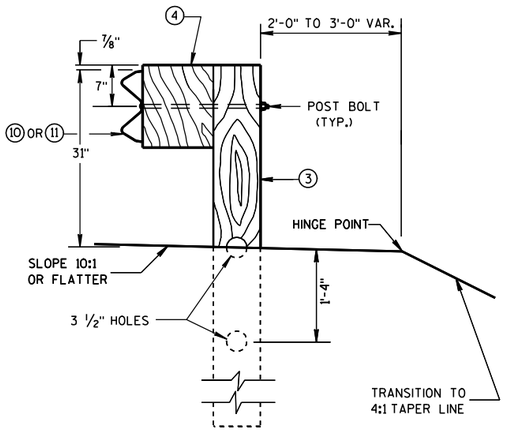
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

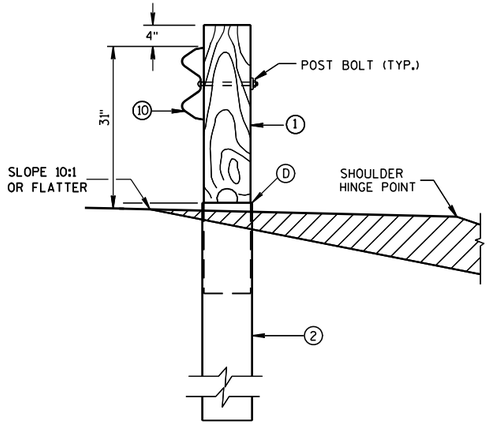
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

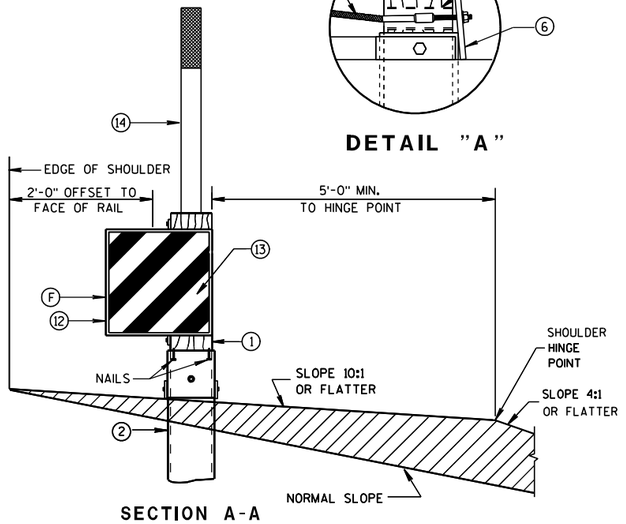




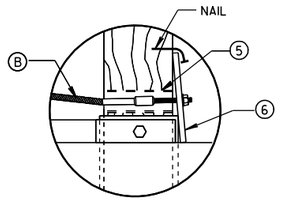
SECTION C-C
TYPICAL AT POST NOS. 3-9



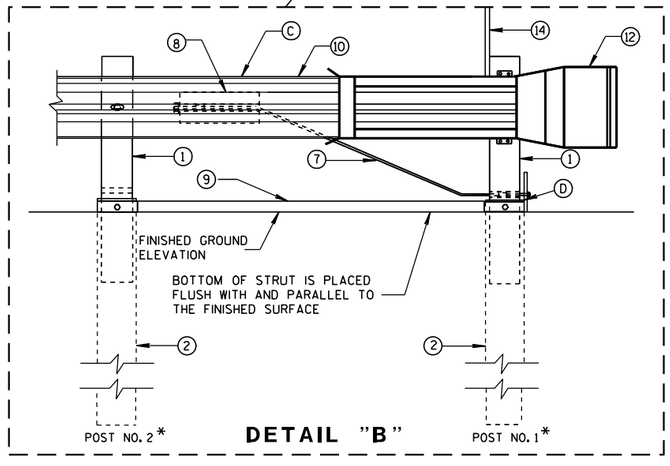
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"

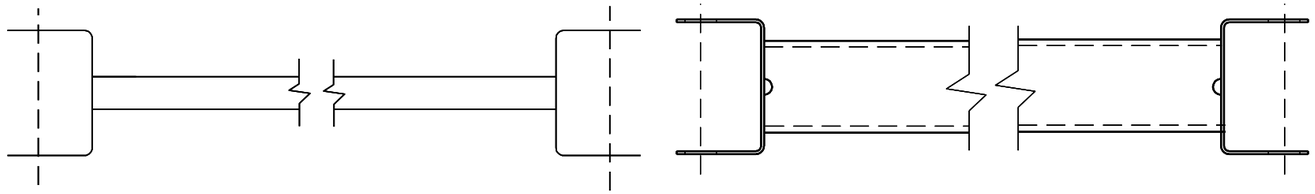


DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

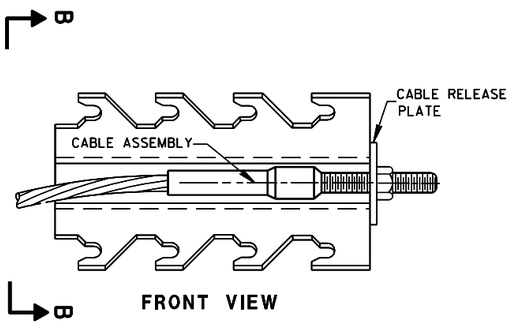
6
S.D.D. 14 B 44-1a



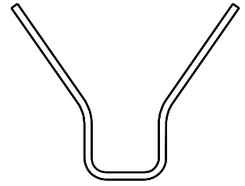
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

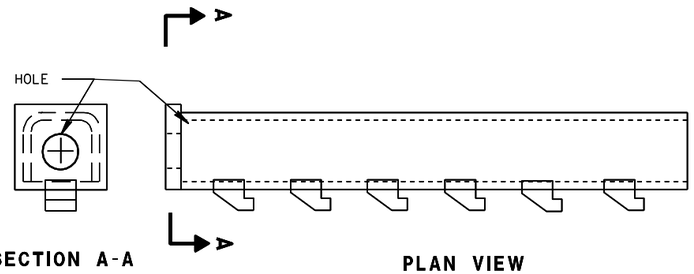
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



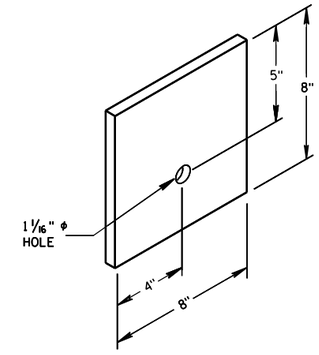
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



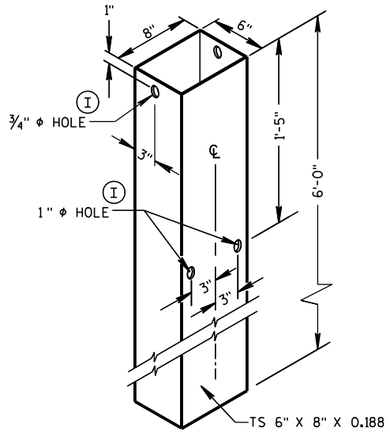
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

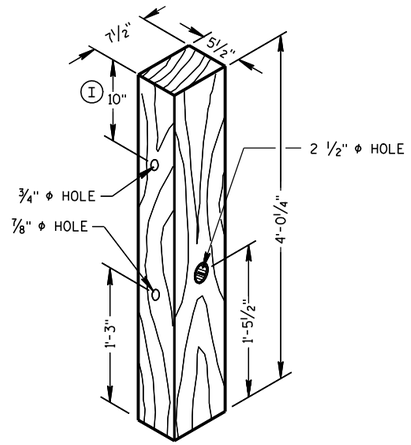
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 44-1b

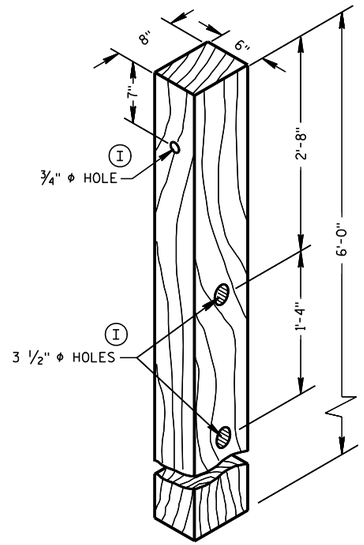


FOUNDATION TUBE (2)



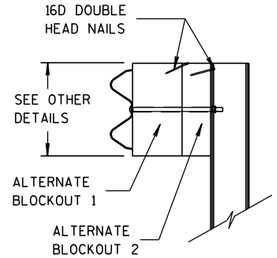
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

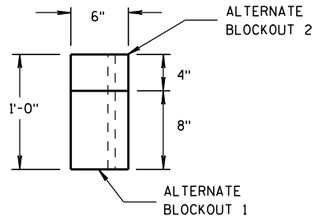


POSTS NUMBER 3-9

WOOD CRT POST (3)

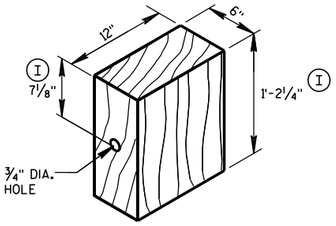


SIDE VIEW



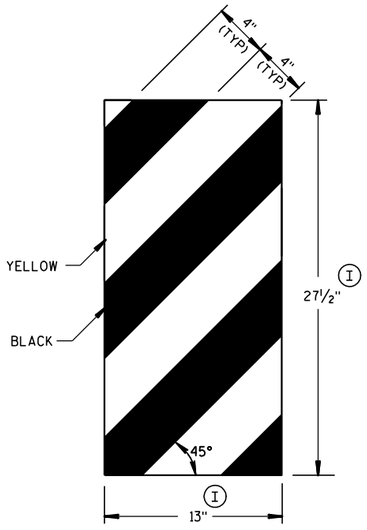
TOP VIEW

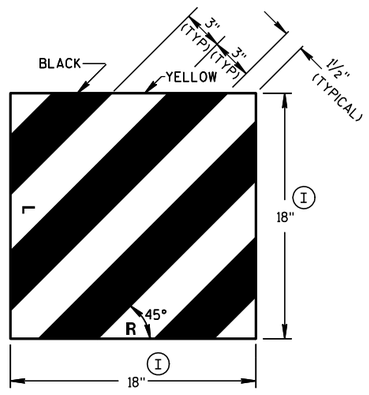
ALTERNATE WOOD BLOCKOUT DETAIL



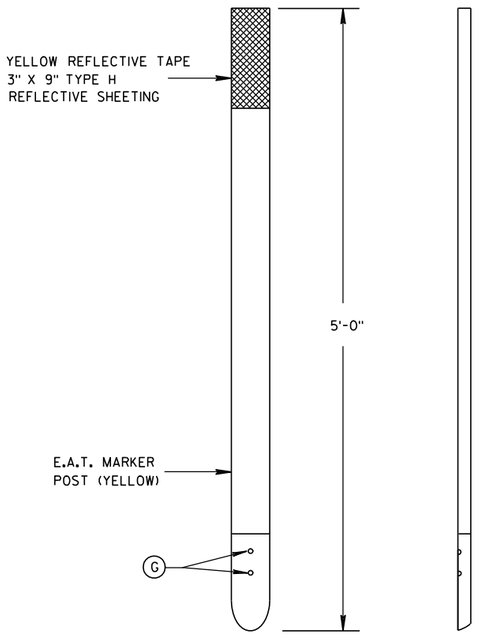
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





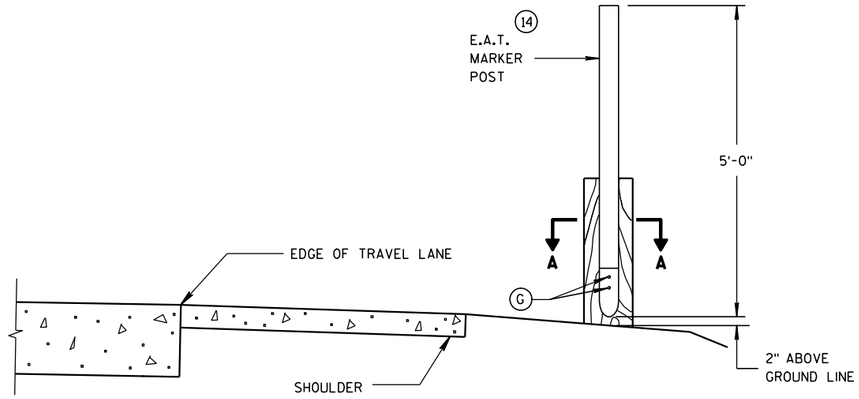
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

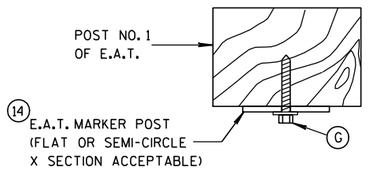
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

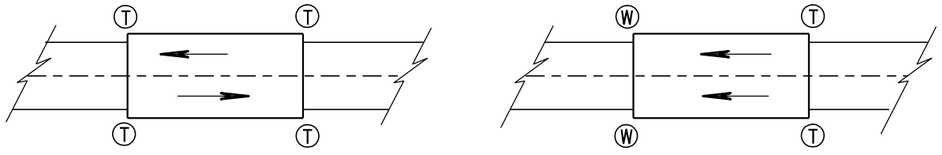
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER

FHWA

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S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

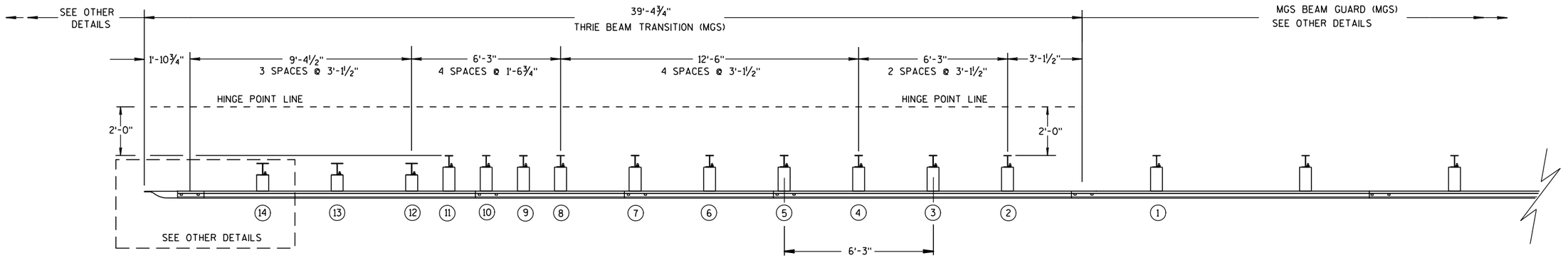
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

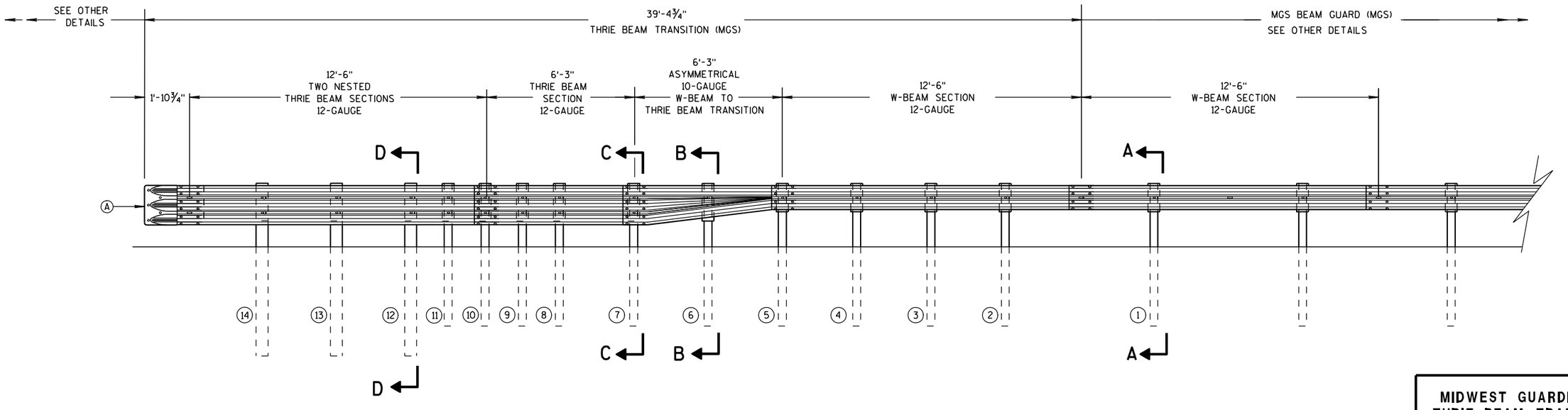
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

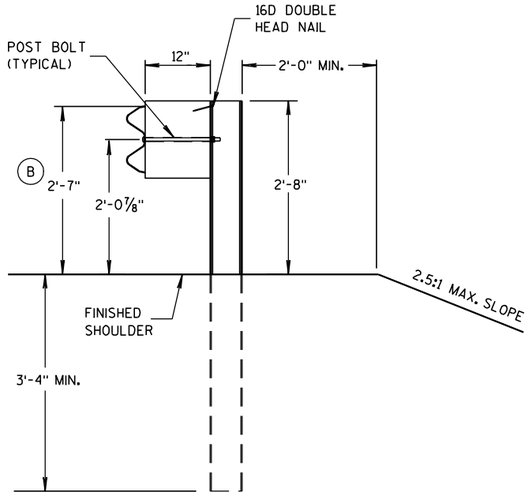
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 45-3a

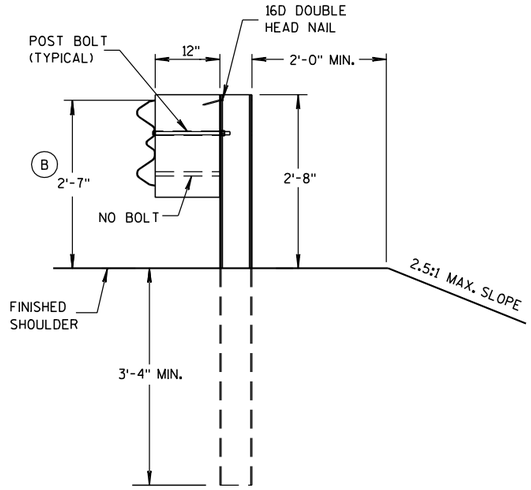
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



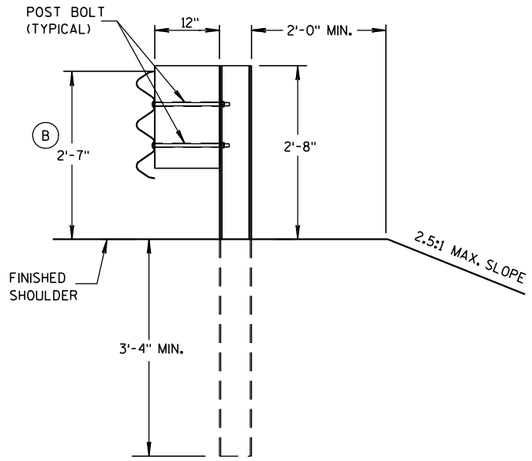
SECTION A-A

POSTS 1-5



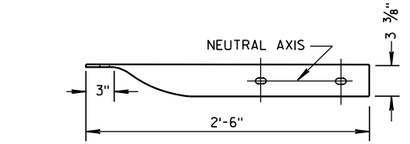
SECTION B-B

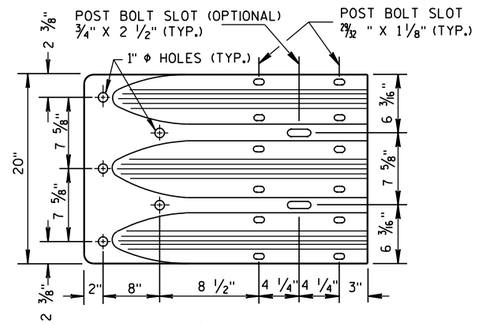
POST 6



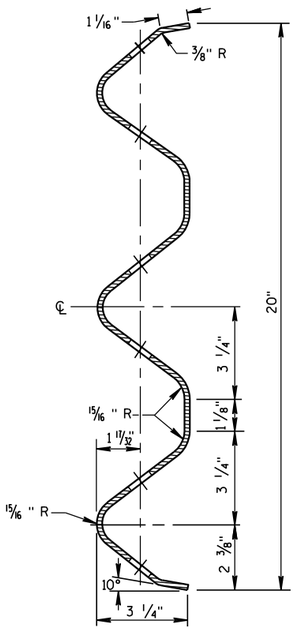
SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR



SECTION THRU THRIE BEAM RAIL ELEMENT

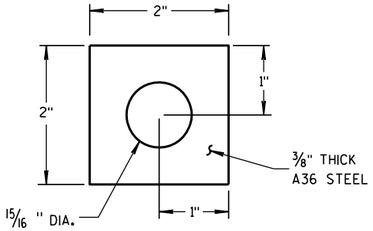
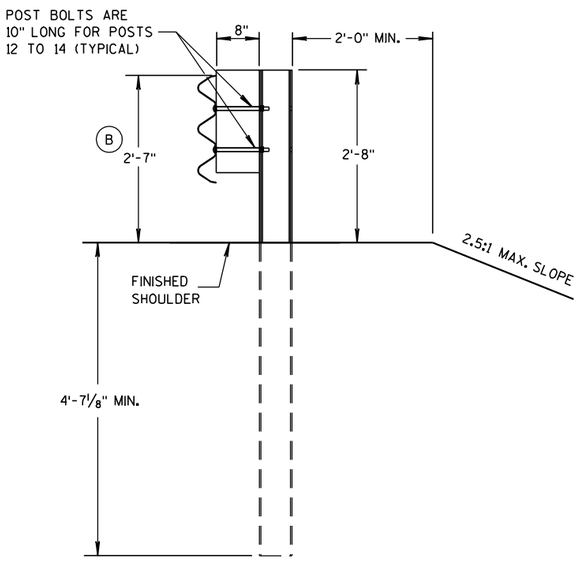
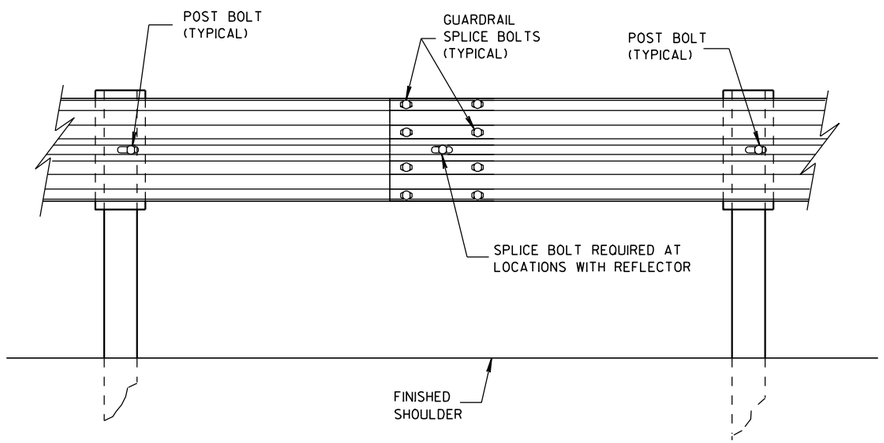


PLATE WASHER DETAIL



SECTION D-D

POSTS 12-14



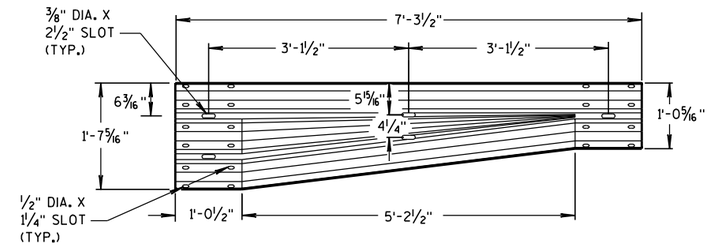
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

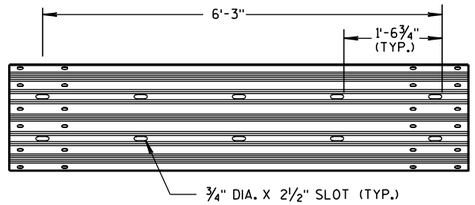
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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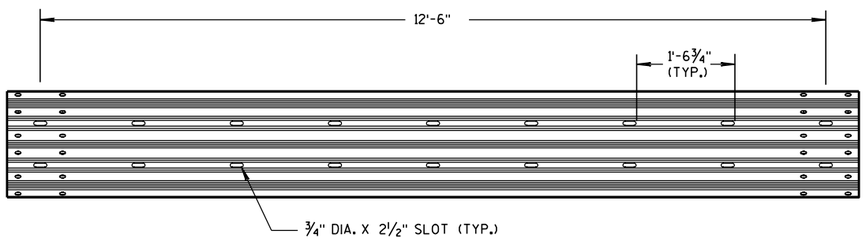
S.D.D. 14 B 45-3b



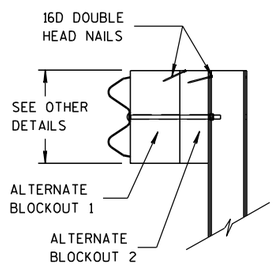
W-BEAM TO THRIE BEAM TRANSITION SECTION



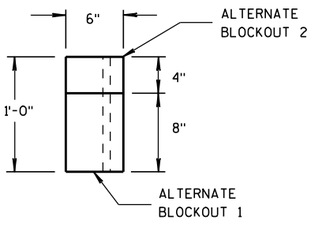
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

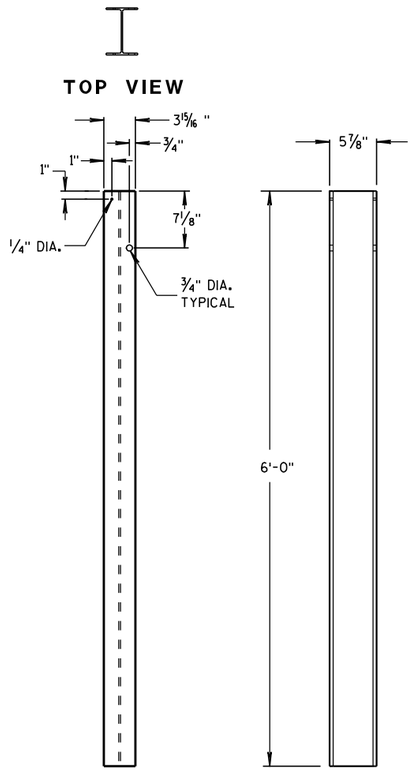


SIDE VIEW

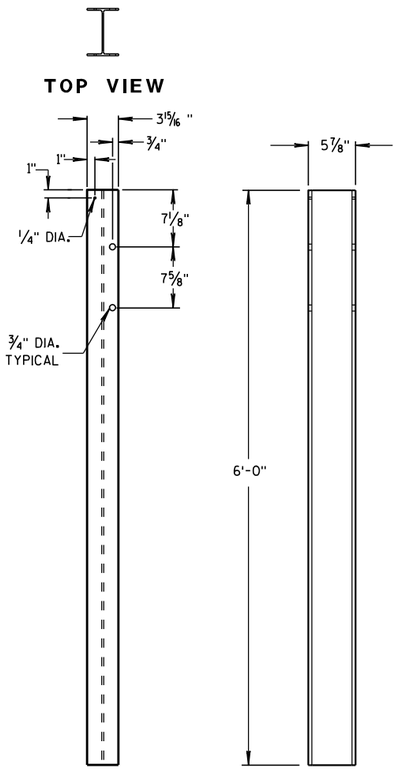


TOP VIEW

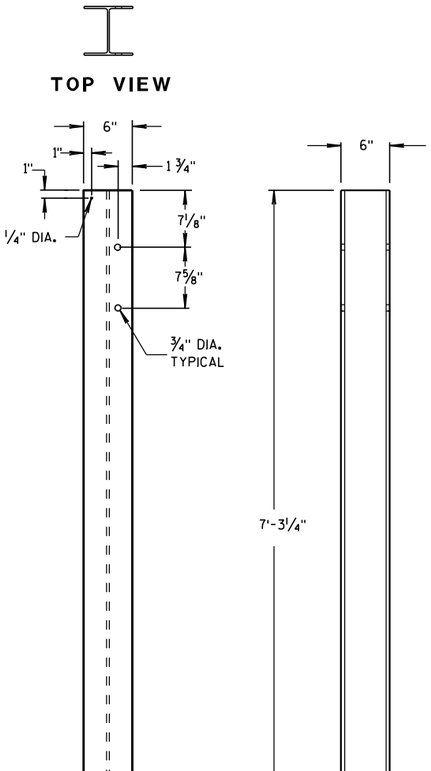
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

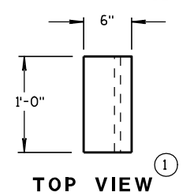


STEEL POSTS 6-11

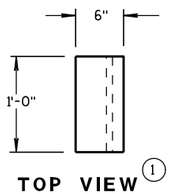


STEEL POSTS 12-14

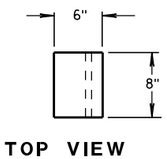
① WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



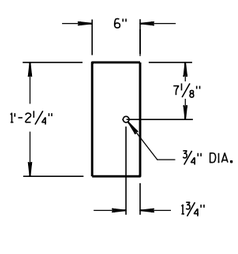
TOP VIEW ①



TOP VIEW ①

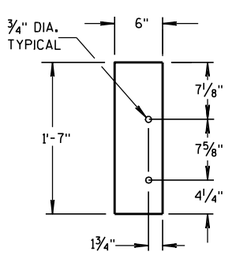


TOP VIEW



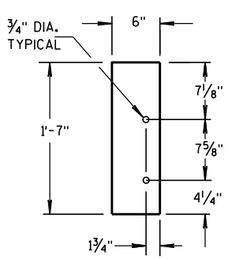
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

STEEL POST SIZES

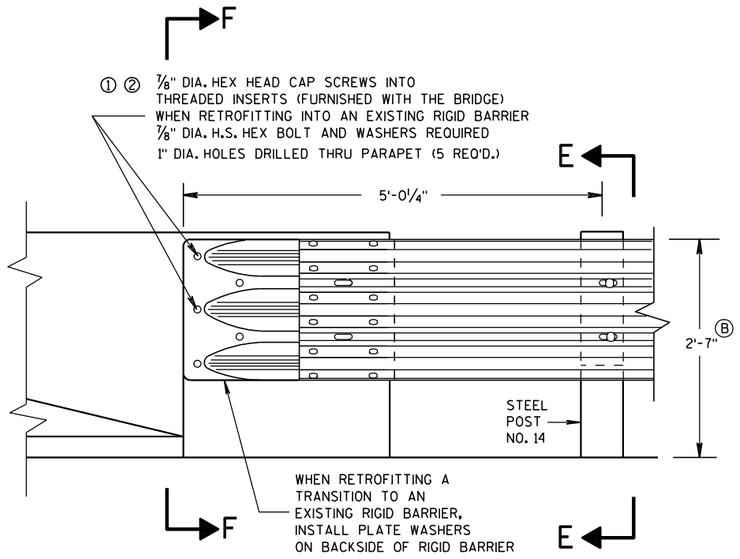
POST NUMBER	SECTION TYPE	LENGTH
①	W6x9	72"
②	W6x9	72"
③	W6x9	72"
④	W6x9	72"
⑤	W6x9	72"
⑥	W6x9	72"
⑦	W6x9	72"
⑧	W6x9	72"
⑨	W6x9	72"
⑩	W6x9	72"
⑪	W6x9	72"
⑫	W6x15	87 1/8"
⑬	W6x15	87 1/8"
⑭	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

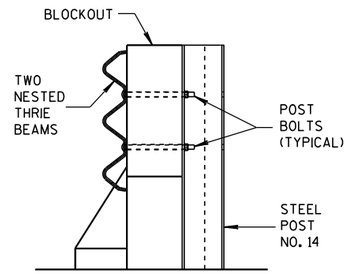
STATE OF WISCONSIN
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S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

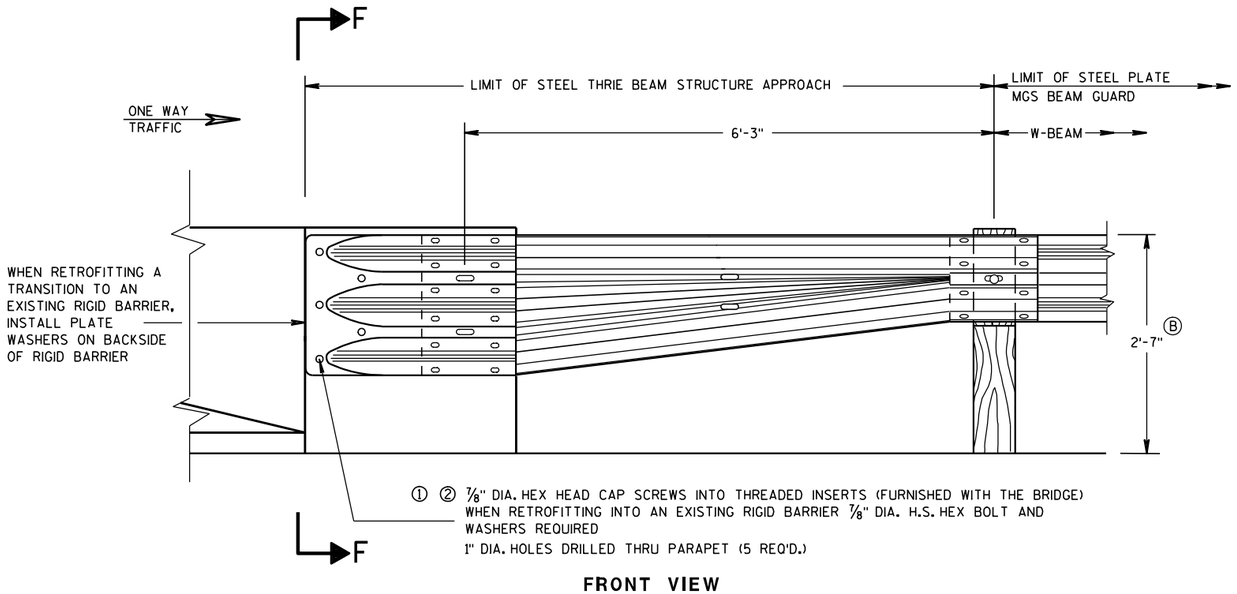
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

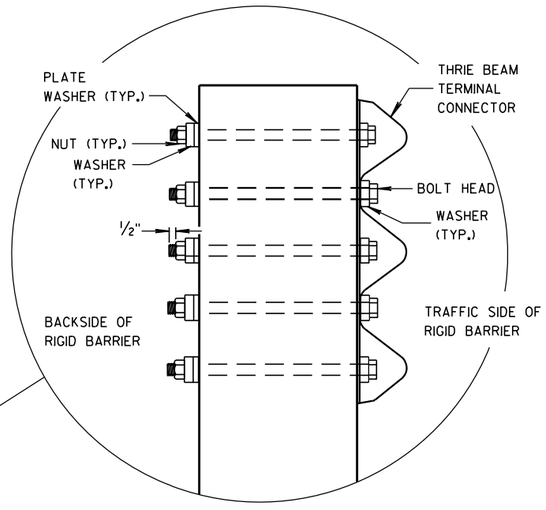
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

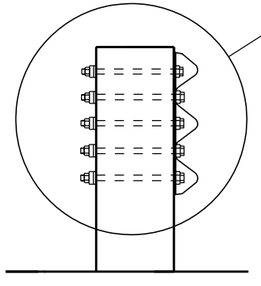
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW





SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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S.D.D. 14 B 45-3d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

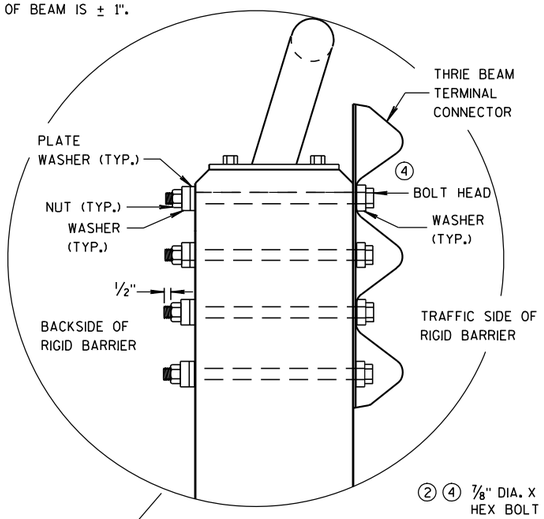
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

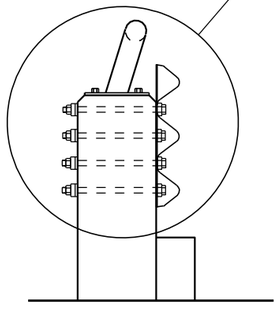
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

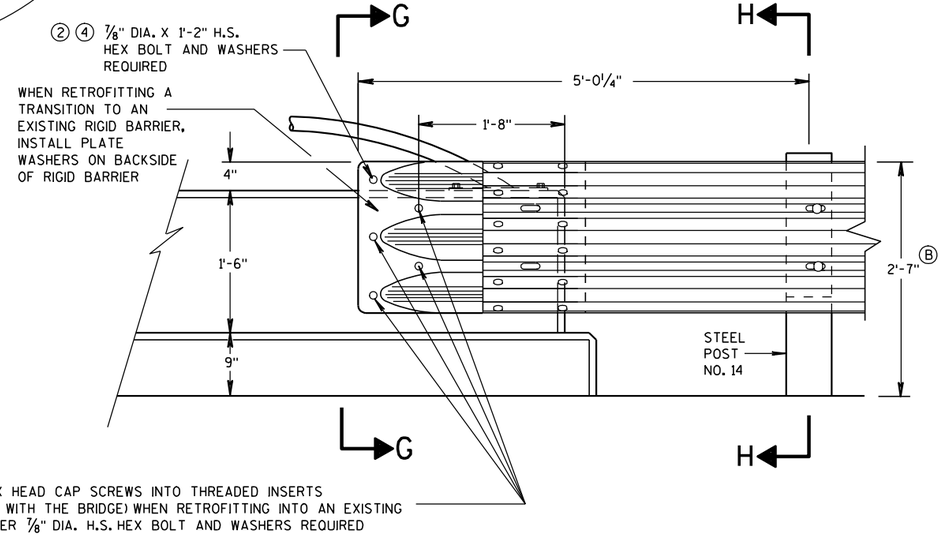
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

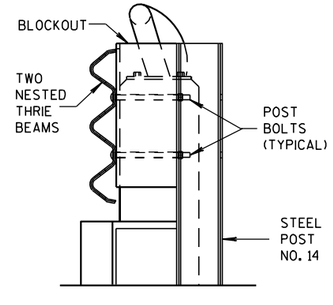




SECTION G-G

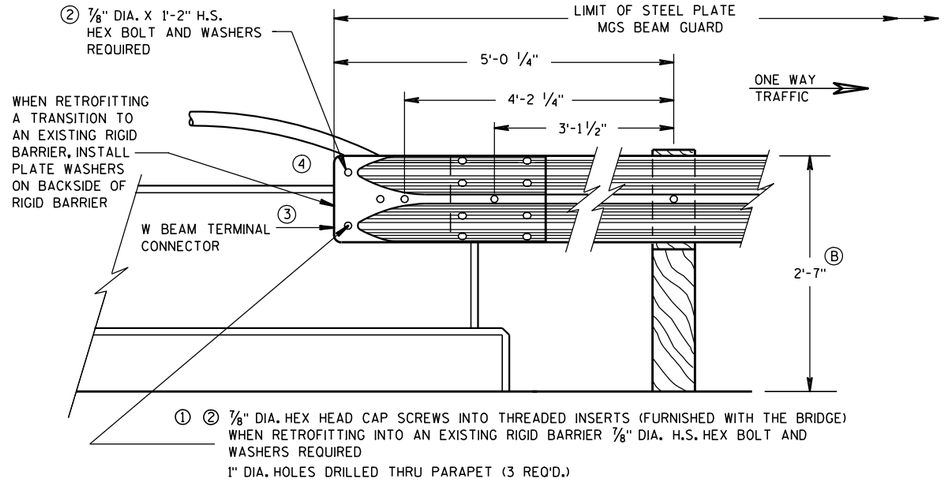


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

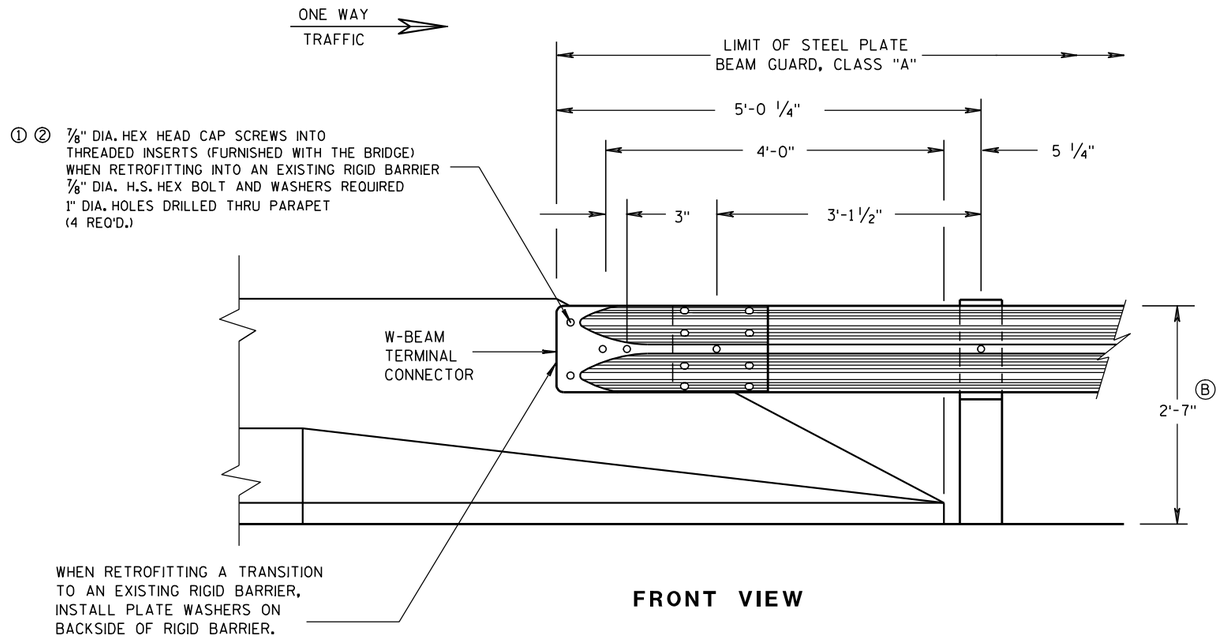


FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-31-2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

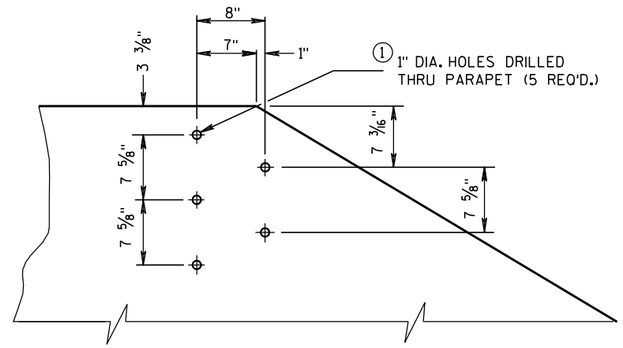
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

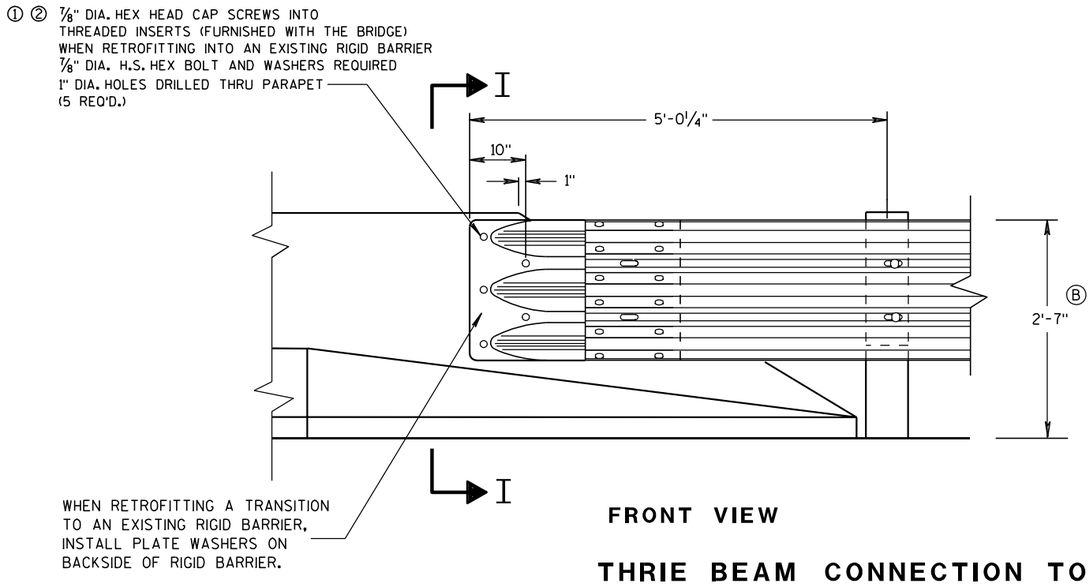
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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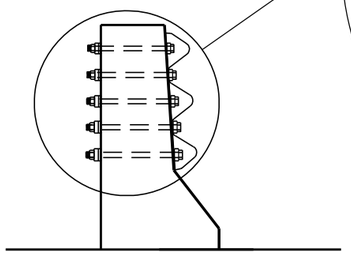
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



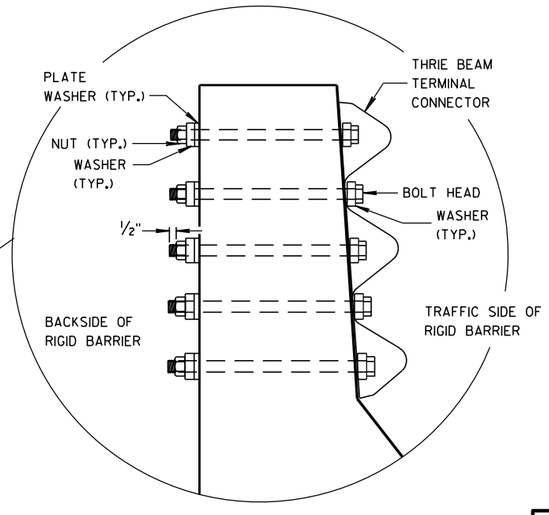
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

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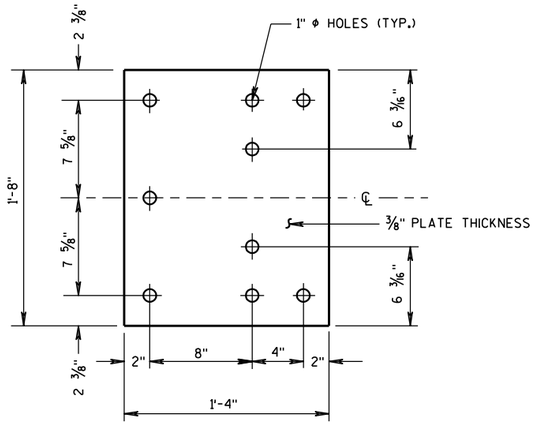
FHWA

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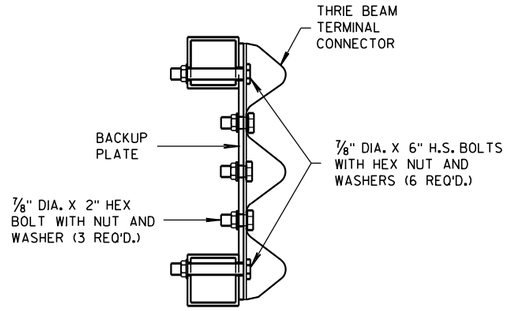
S.D.D. 14 B 45-3f

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S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL

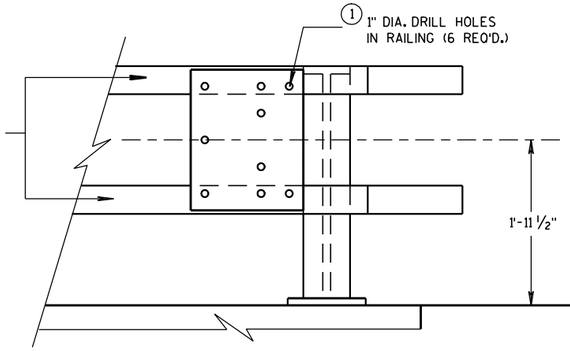


SECTION J-J

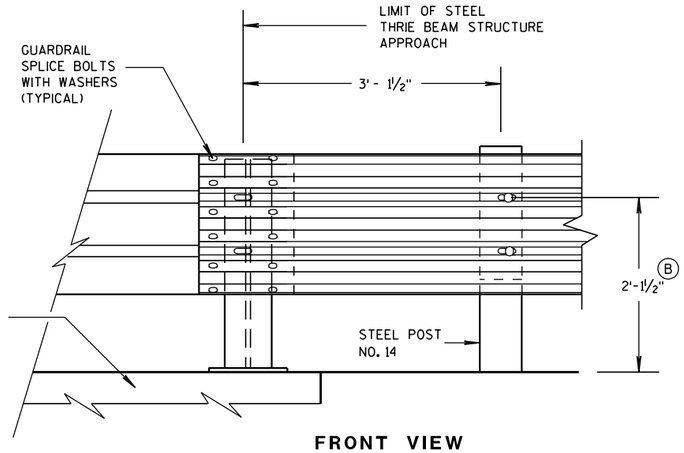
GENERAL NOTES

(1) DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(B) TOLERANCE FOR TOP OF BEAM IS ± 1".

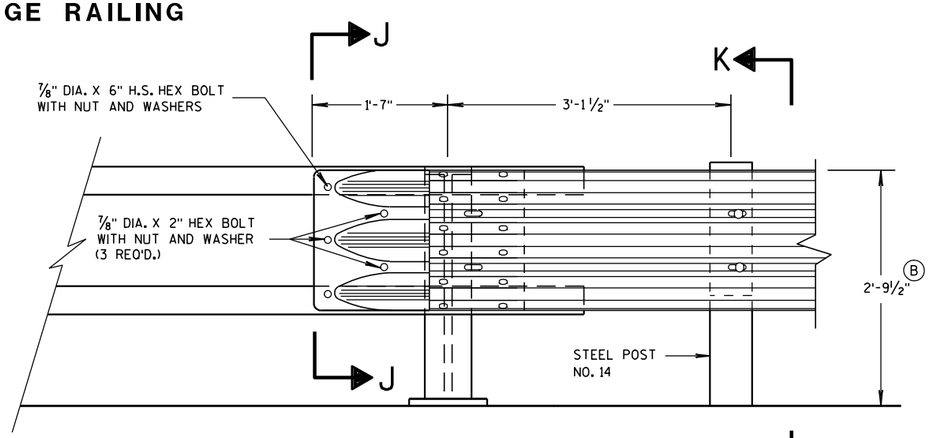


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

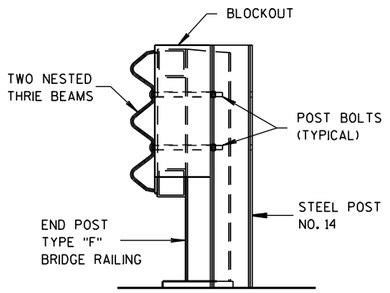


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 8/31/2012 DATE /S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA

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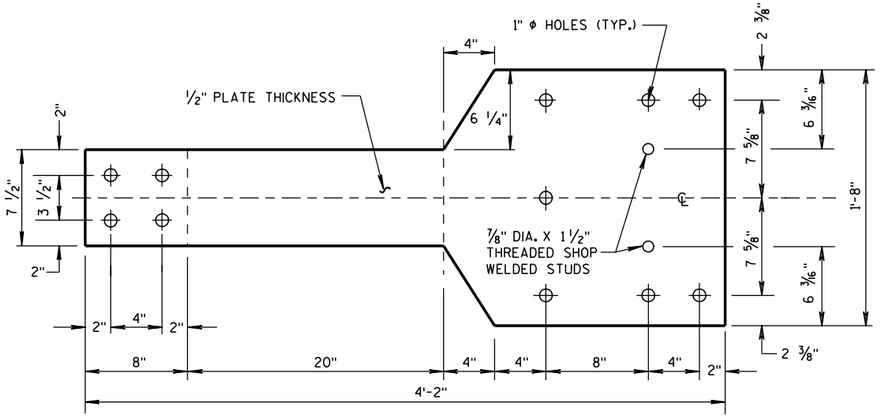
S.D.D. 14 B 45-3g

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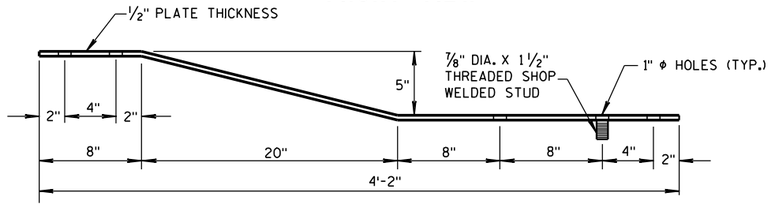
S.D.D. 14 B 45-3g

GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

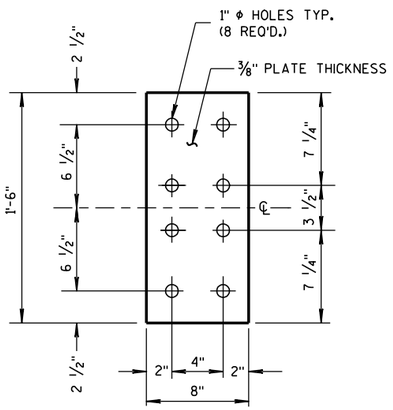


FRONT VIEW



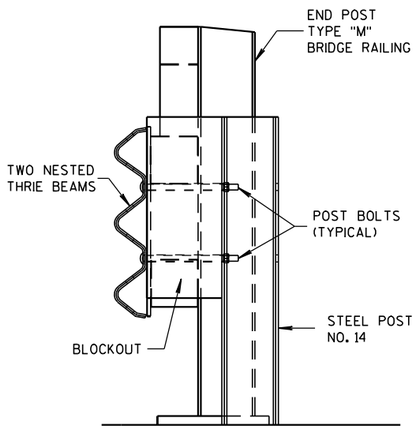
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

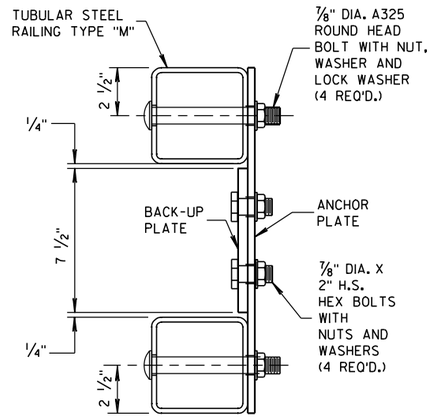


FRONT VIEW

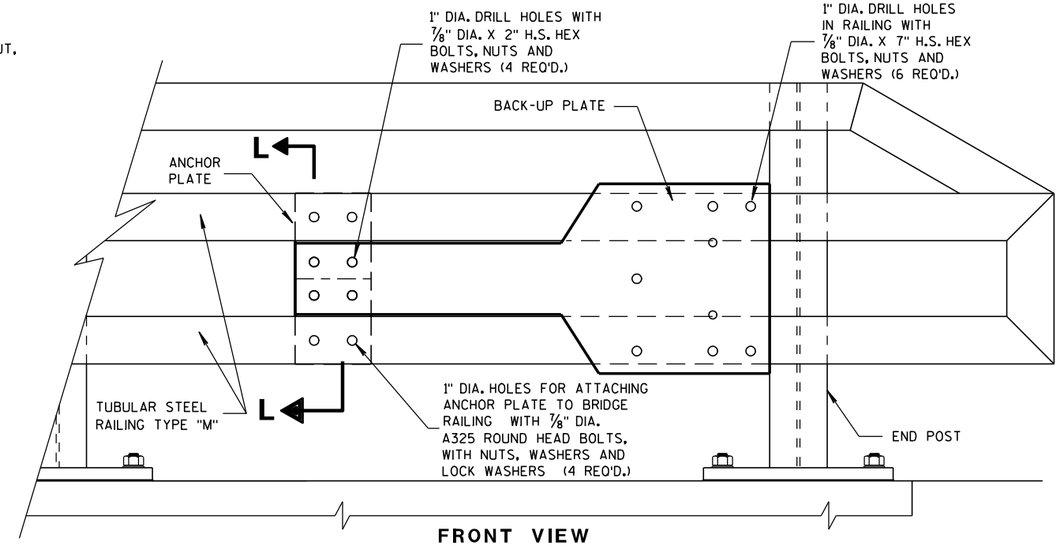
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

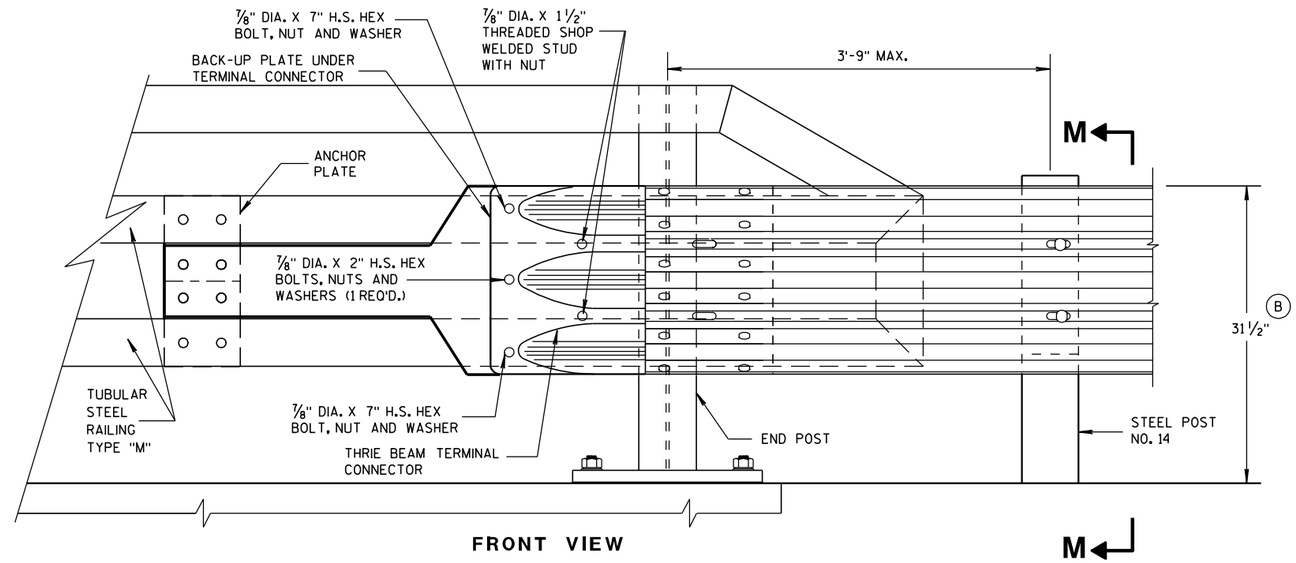


SECTION L-L

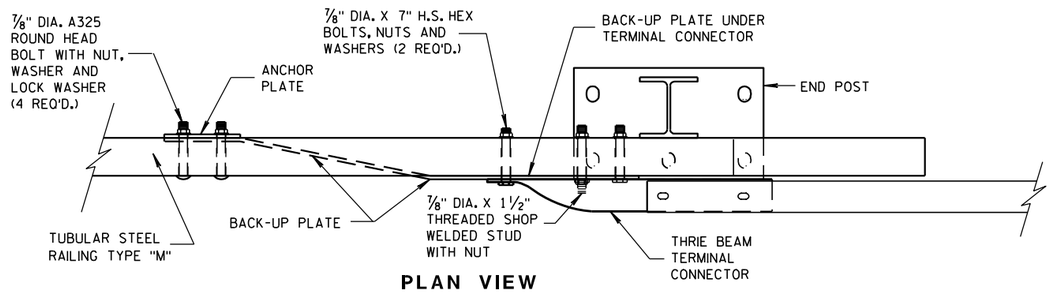


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA ENT

6

S.D. 14 B 45-3h

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S.D. 14 B 45-3h

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

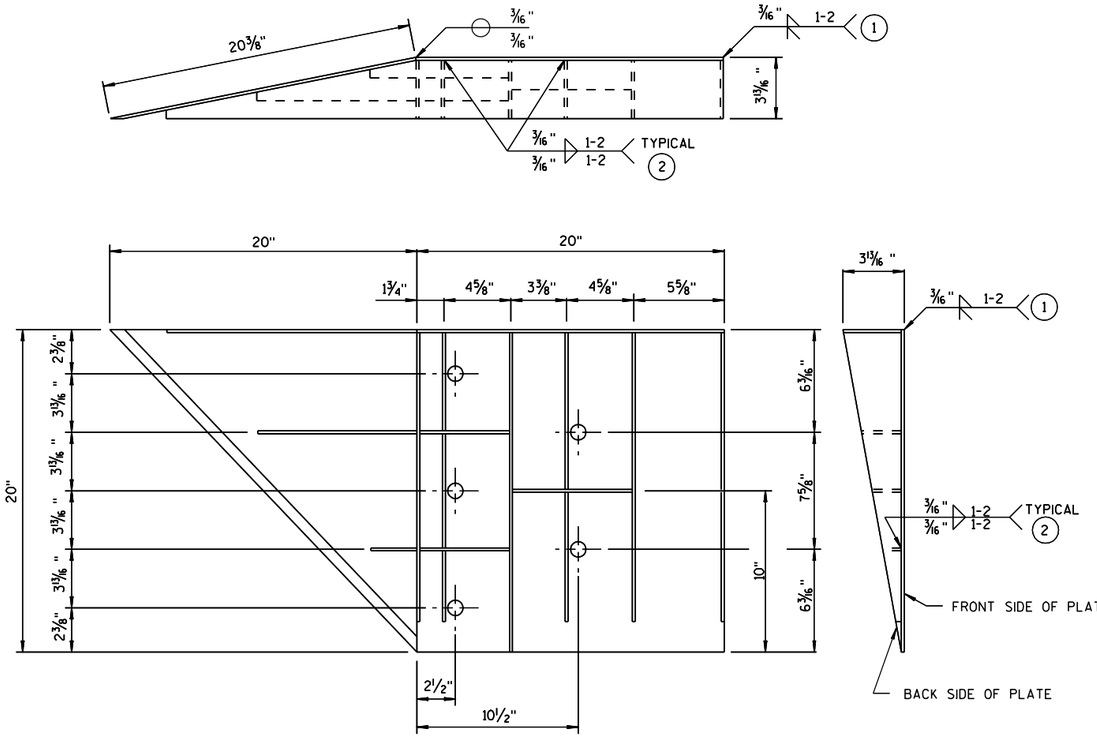
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

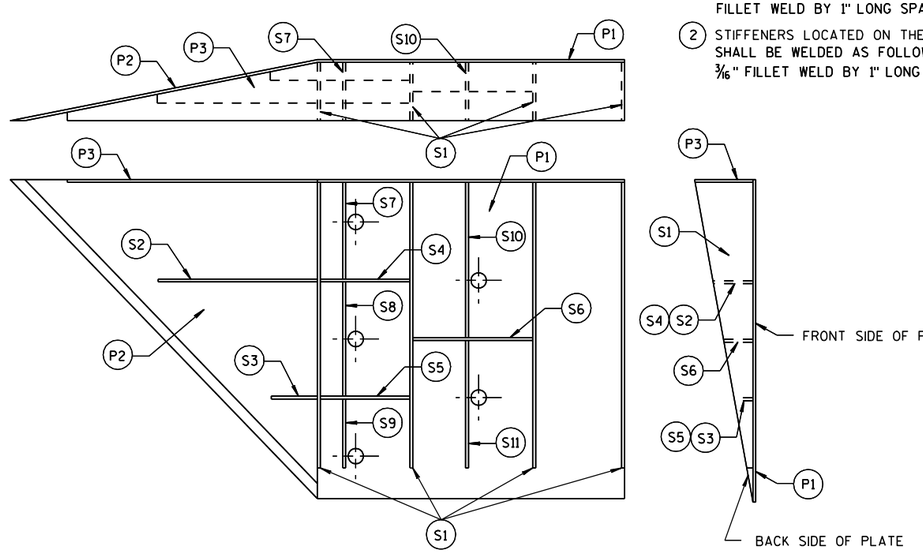


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

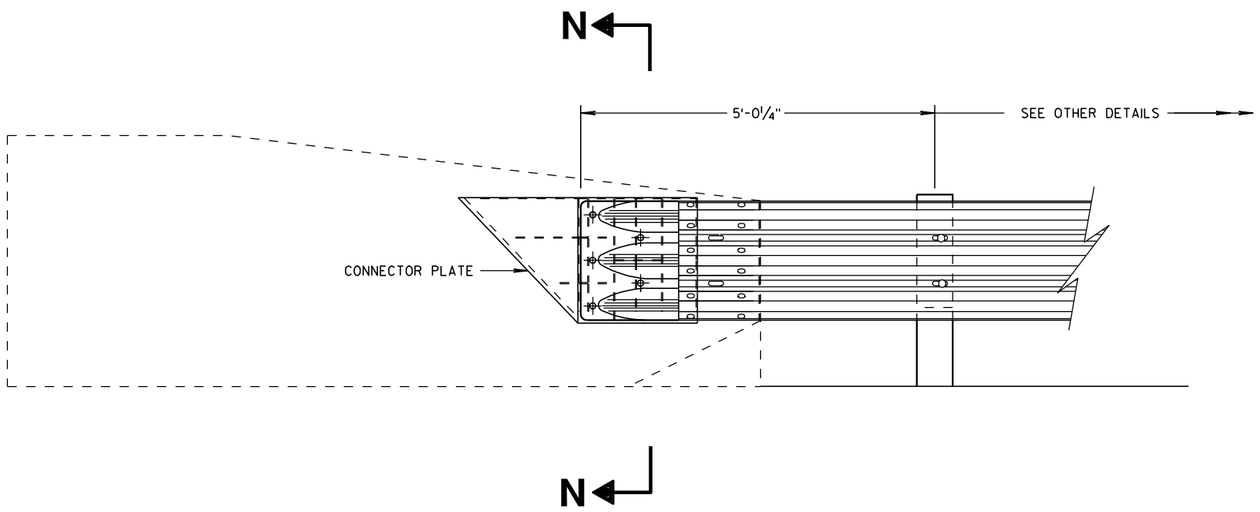
APPROVED
8/31/2012
DATE
/S/ Jerry H ----
ROADWAY STANDARDS ENGINEER
174
FHWA

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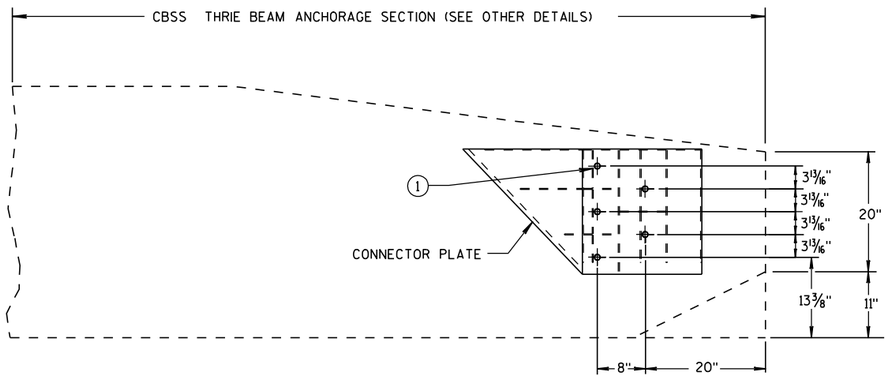
S.D.D. 14 B 45-3i

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S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

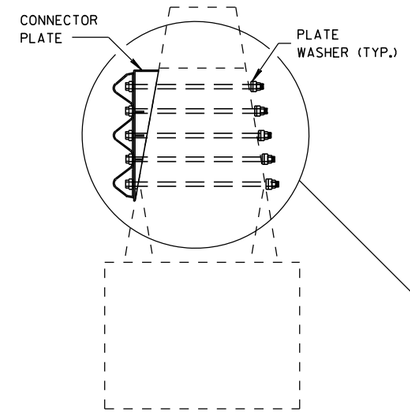


SINGLE SLOPE CONNECTION PLATE PLACEMENT

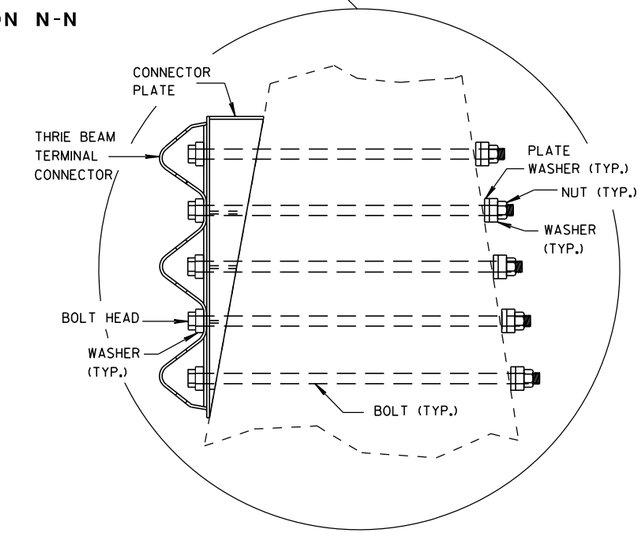
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]
ENGINEER

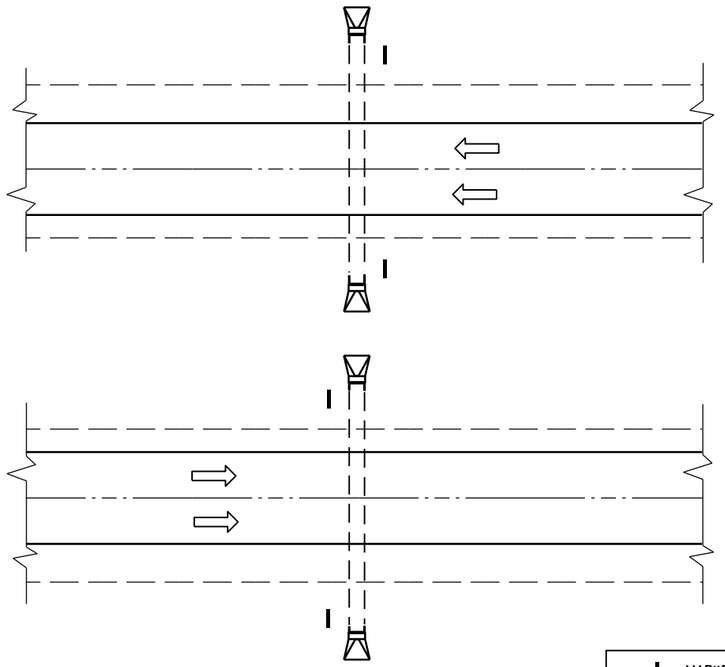
FHWA

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S.D.D. 14 B 45-3j

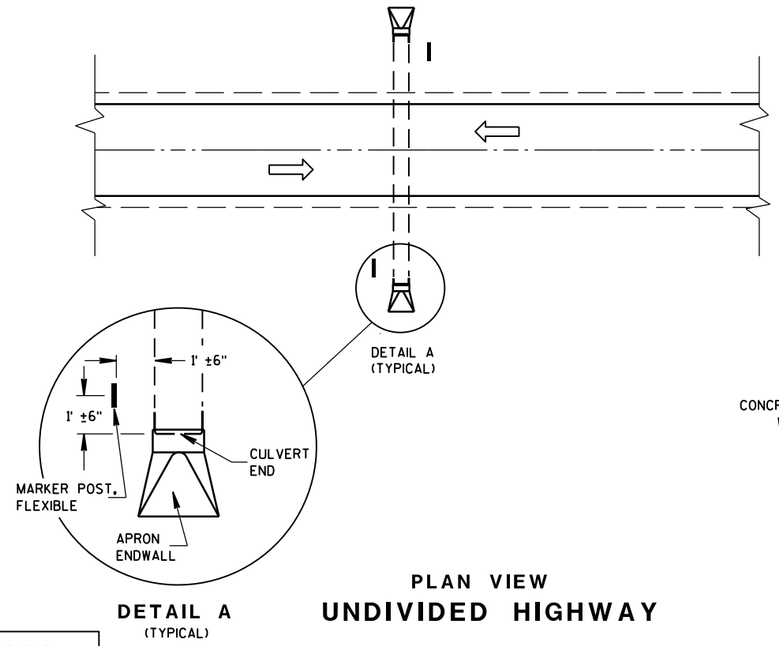
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S.D.D. 14 B 45-3j



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

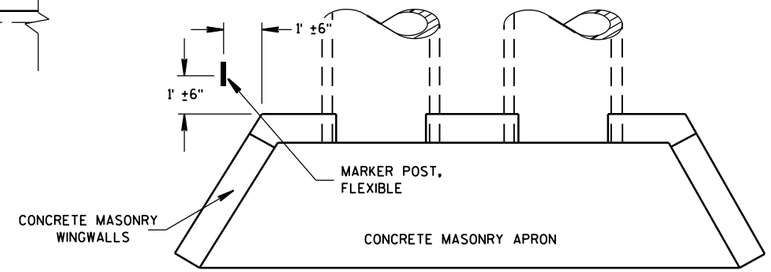
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

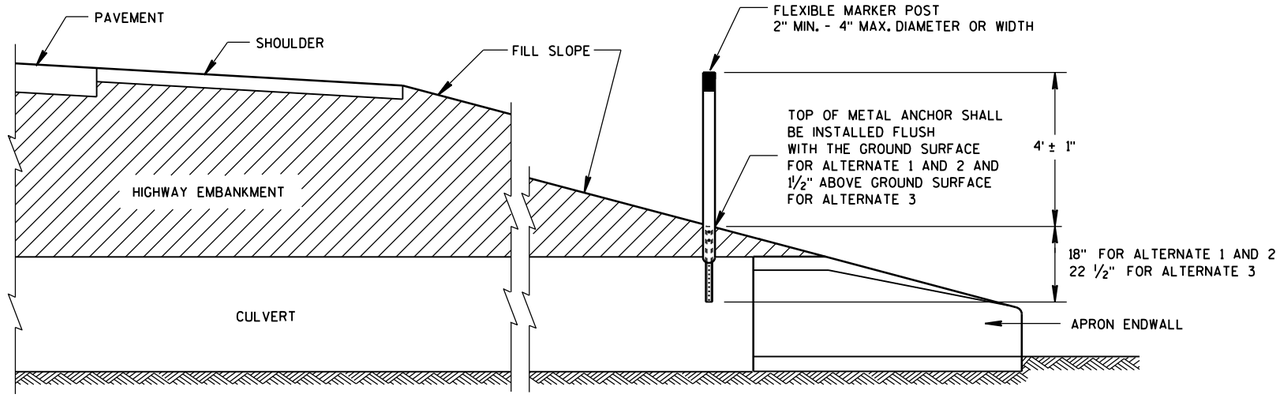
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

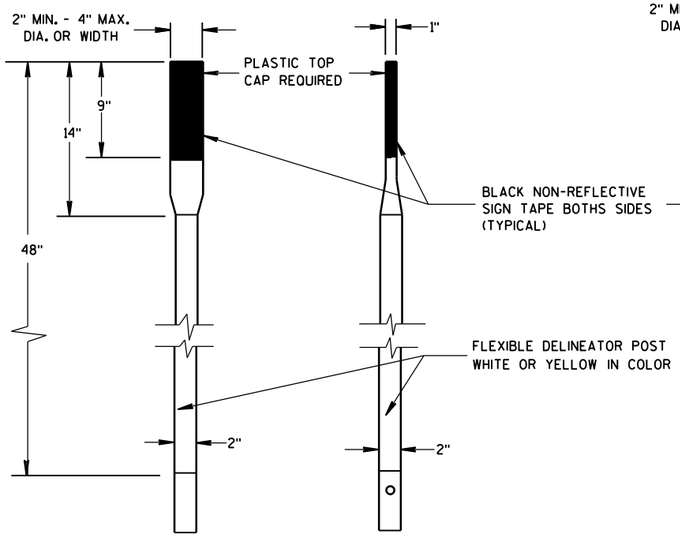
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

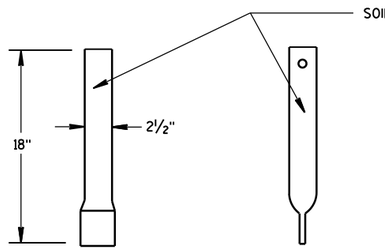
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S.D.D. 15 A 3-2a

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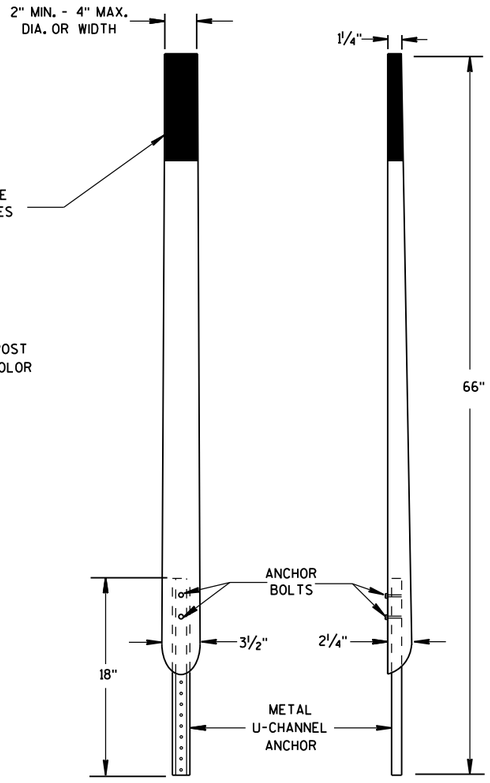
S.D.D. 15 A 3-2a





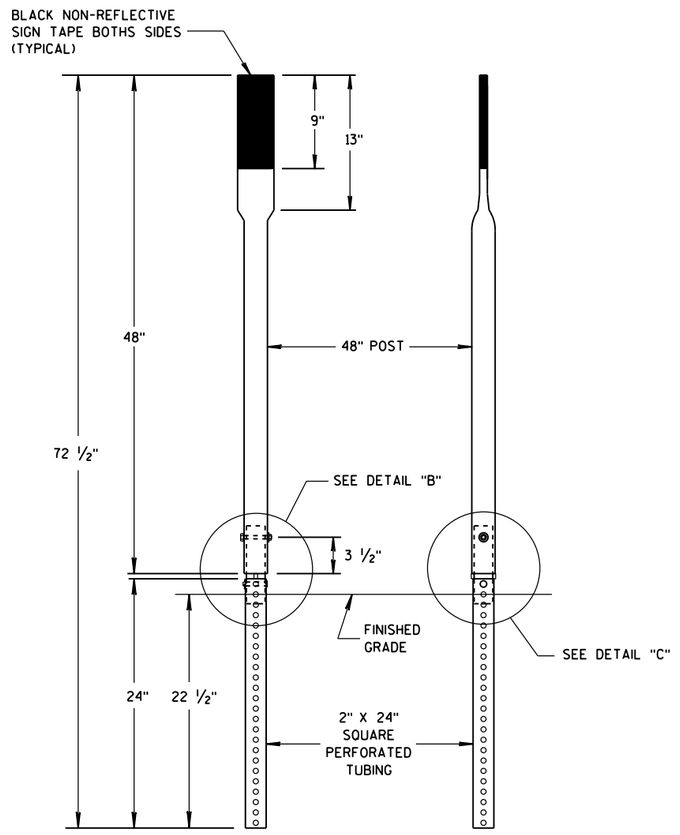
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

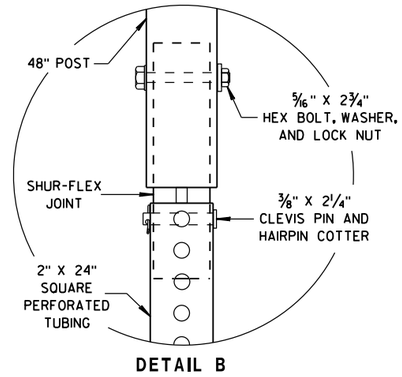
ALTERNATE 2



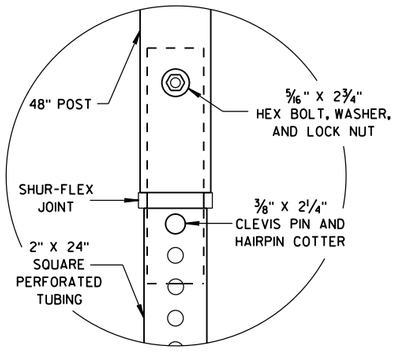
FRONT VIEW SIDE VIEW

ALTERNATE 3

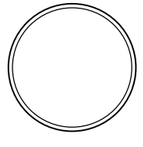
FLEXIBLE MARKER POSTS



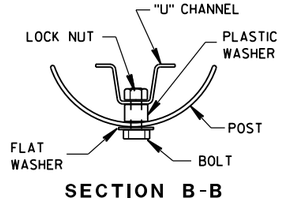
DETAIL B



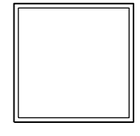
DETAIL C



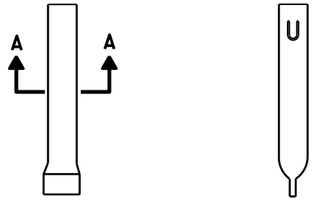
SECTION A-A



SECTION B-B

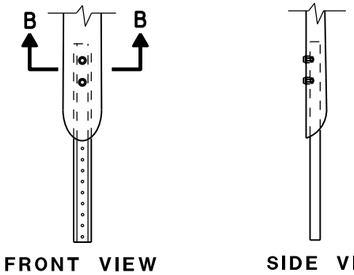


SECTION C-C



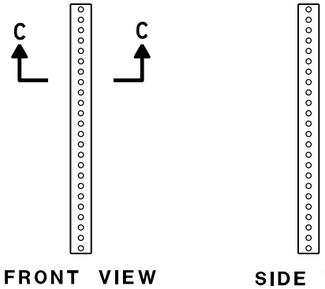
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

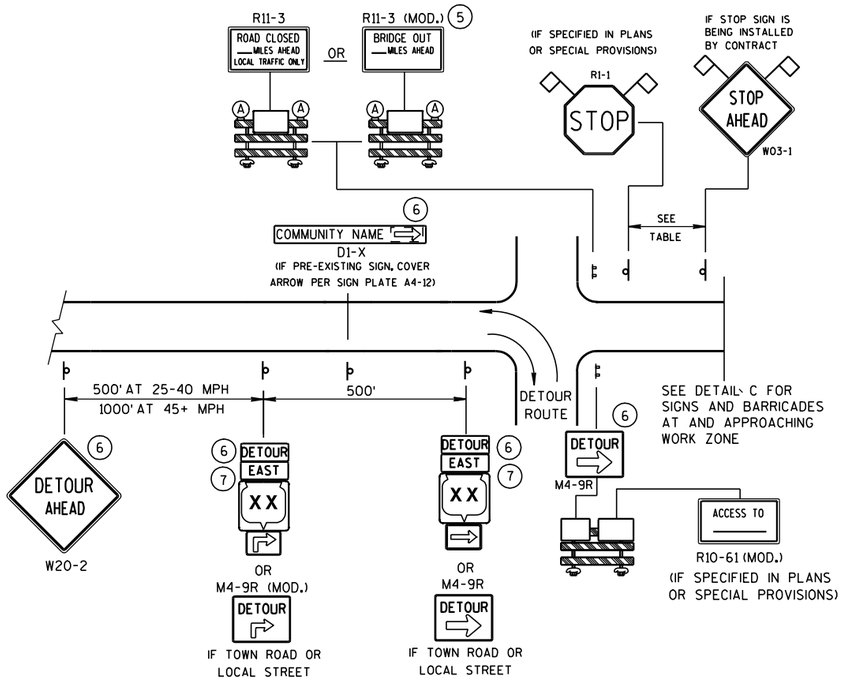
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 A 3-2b

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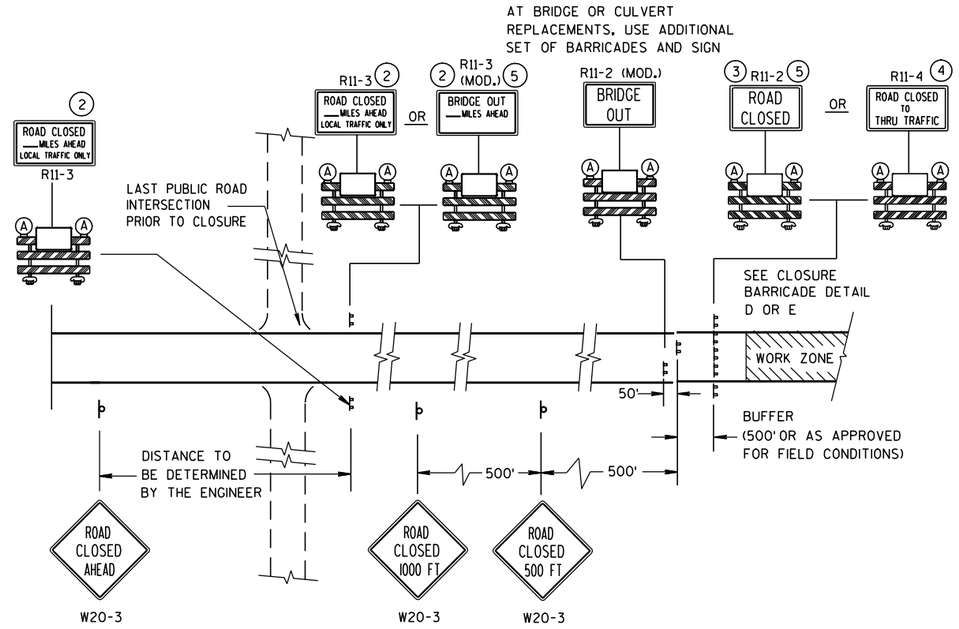
S.D.D. 15 A 3-2b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

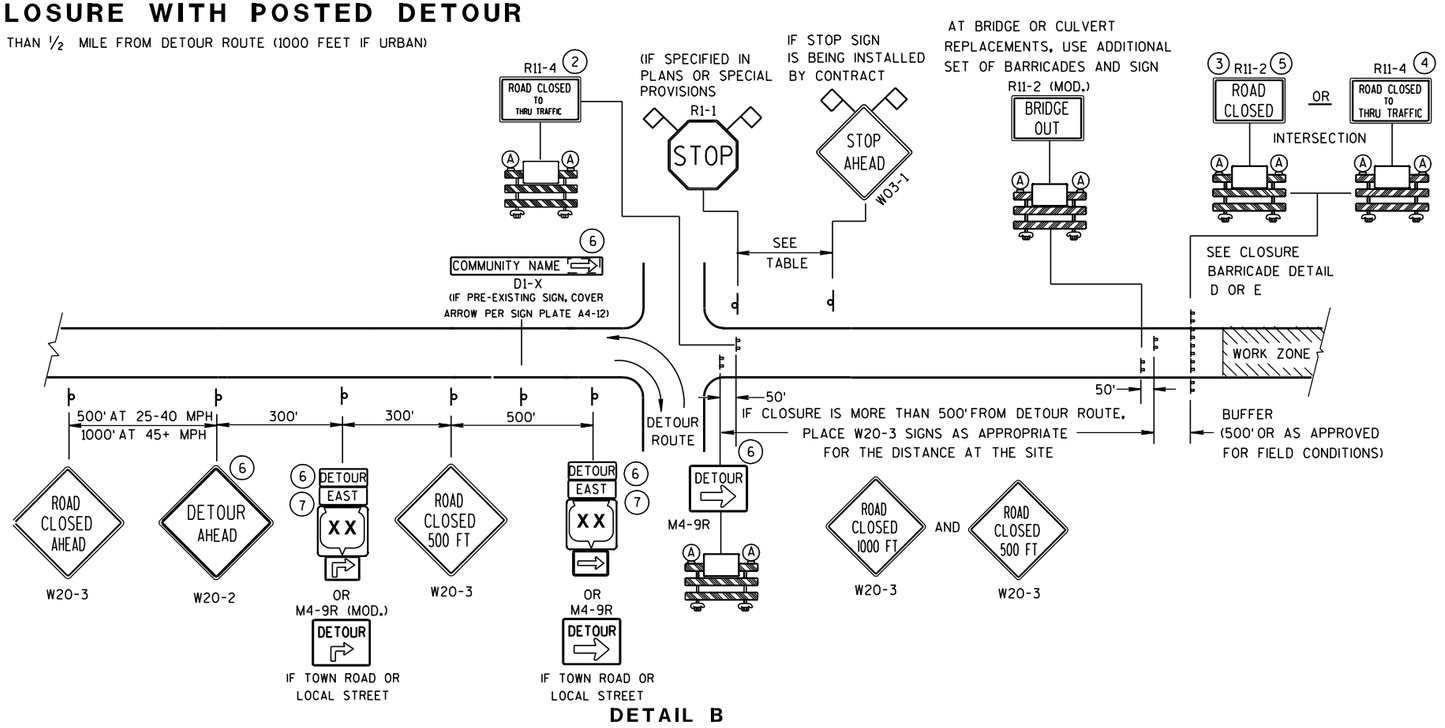


DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

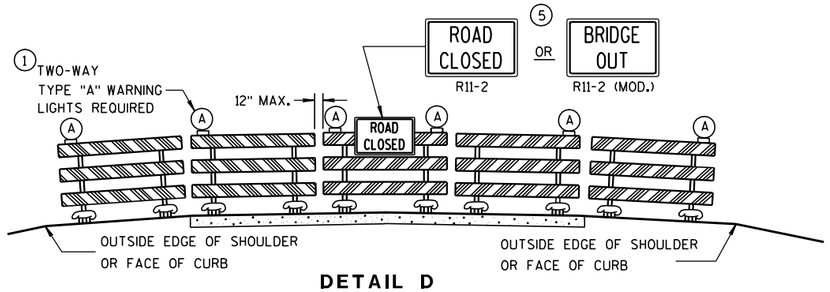
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

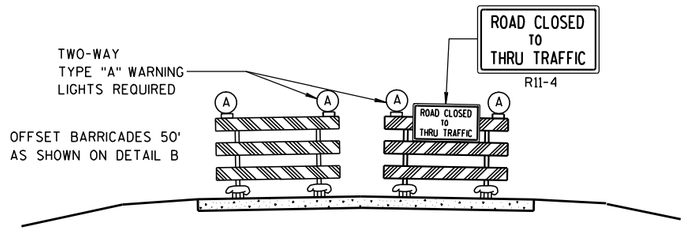
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MAR[illegible]INEER

FHWA

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S.D.D. 15 C 2-4b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

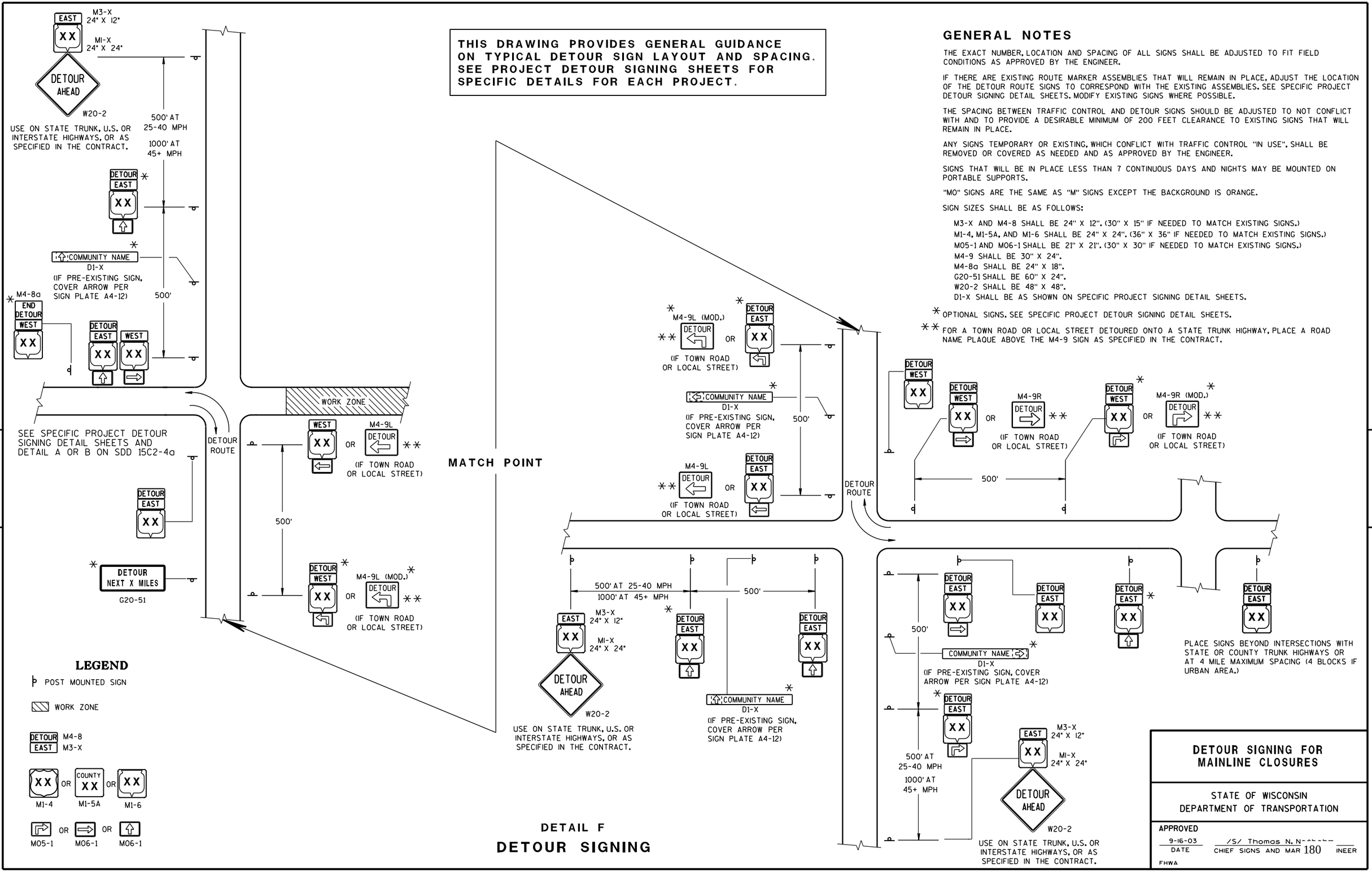
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
M4-9 SHALL BE 30" X 24".
M4-8a SHALL BE 24" X 18".
G20-51 SHALL BE 60" X 24".
W20-2 SHALL BE 48" X 48".
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



LEGEND

- POST MOUNTED SIGN
- WORK ZONE
- DETOUR EAST — M4-8, M3-X
- XX — M1-4
- COUNTY XX — M1-5A
- XX — M1-6
- MO5-1
- MO6-1
- MO6-1

DETAIL F

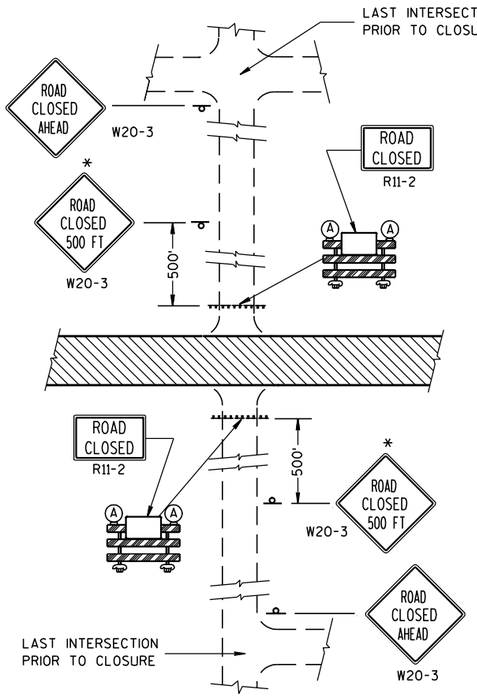
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

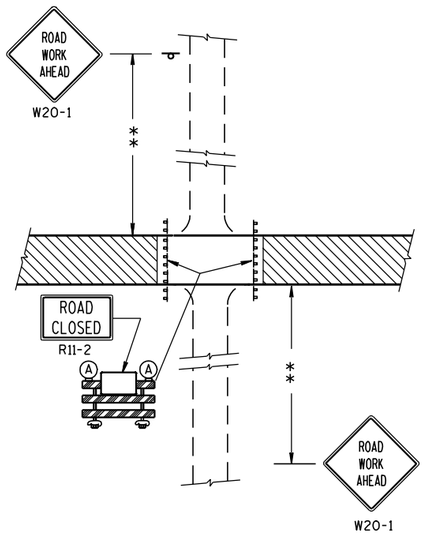
APPROVED
9-16-03 DATE
/S/ Thomas N. [illegible] CHIEF SIGNS AND MAR [illegible] INEER
FHWA

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S.D.D. 15 C 2-4c



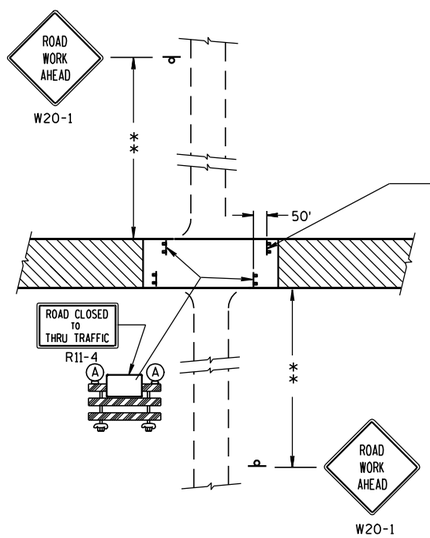
DETAIL 1

(NO ACCESS TO PROJECT)



DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).

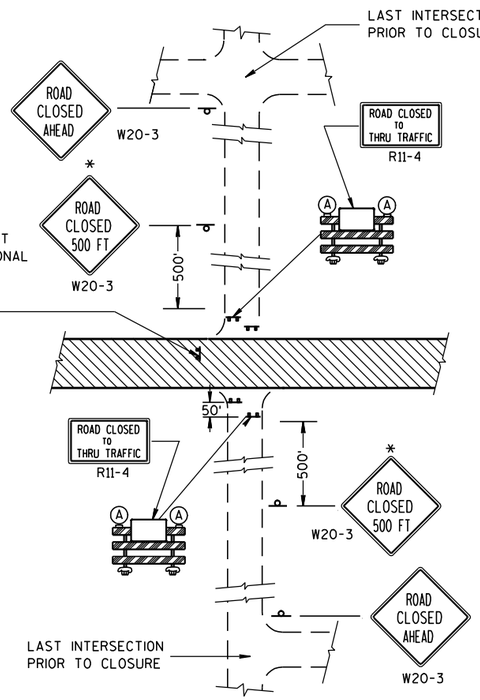


DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).

FOR BRIDGE OR CULVERT REPLACEMENT, USE ADDITIONAL SIGN ON BARRICADE

BRIDGE OUT
XX MILES AHEAD
R11-3 (MOD.)



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- POST MOUNTED WARNING SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MAR[illegible] INEER

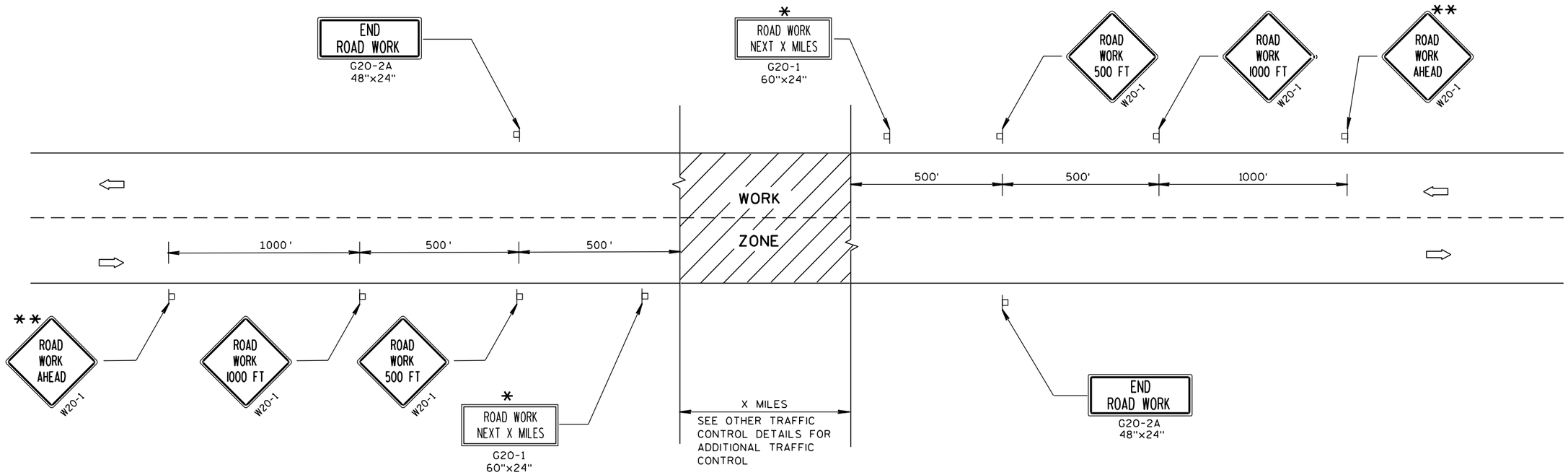
FHWA

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S.D.D. 15 C 3-1

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S.D.D. 15 C 3-1



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

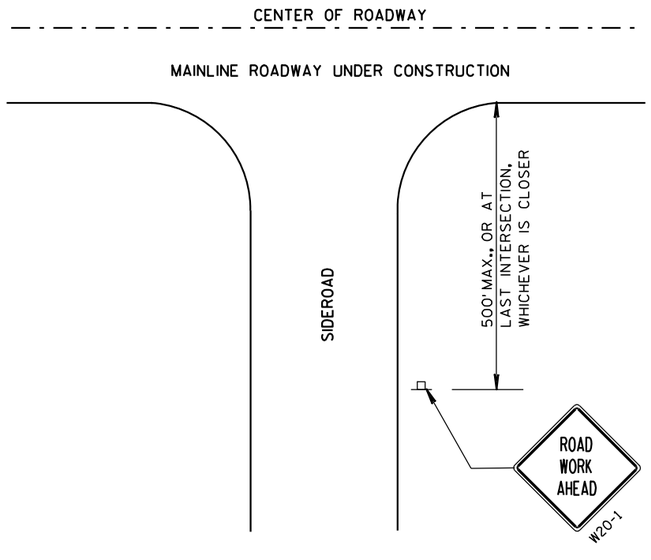
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING.

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00 DATE

/S/ Chester J. [illegible] CHIEF SIGNS AND MARKING ENGINEER

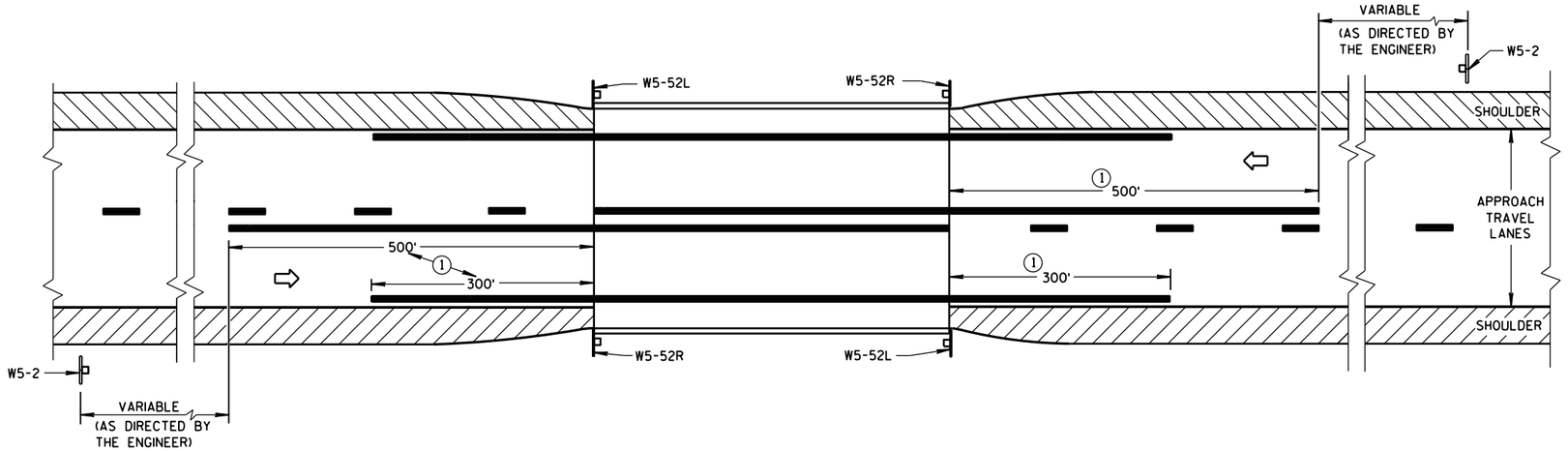
FHWA

6

S.D.D. 15 C 4-1

6

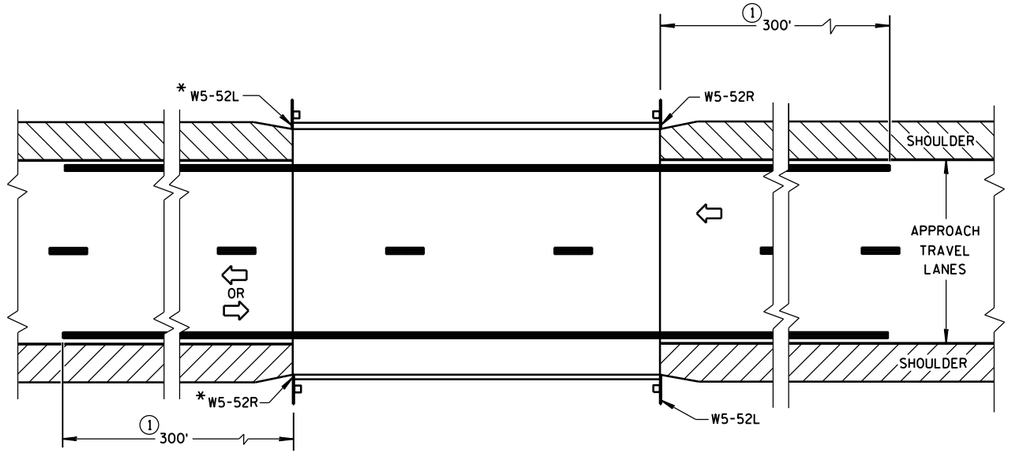
S.D.D. 15 C 4-1



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 18 FEET BUT LESS THAN 24 FEET



*OMIT ON ONE-WAY TRAVELLED WAYS

SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.

GENERAL NOTES

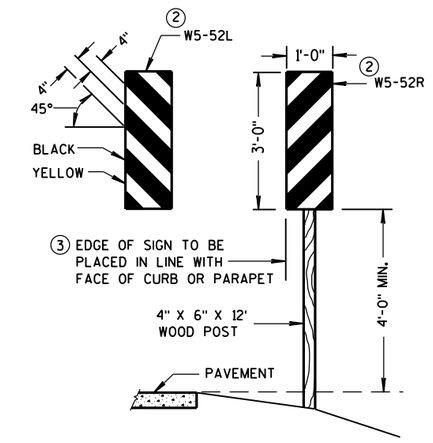
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

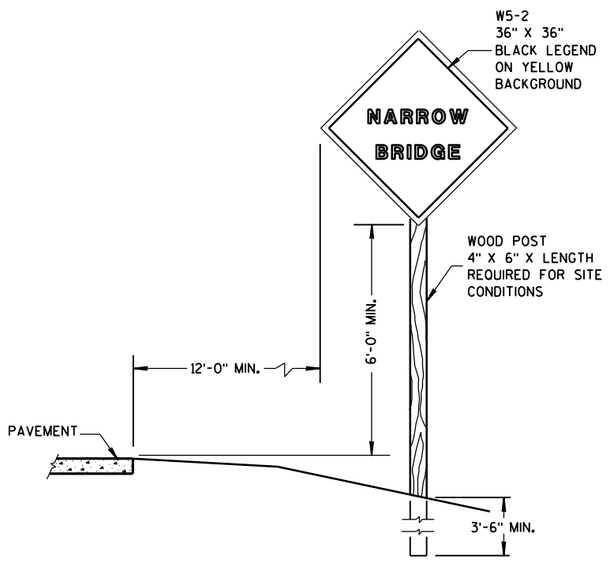
(1) MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.

(2) FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.

(3) LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.



OBJECT MARKER PLACEMENT



SIGN PLACEMENT

SIGNING & MARKING
FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

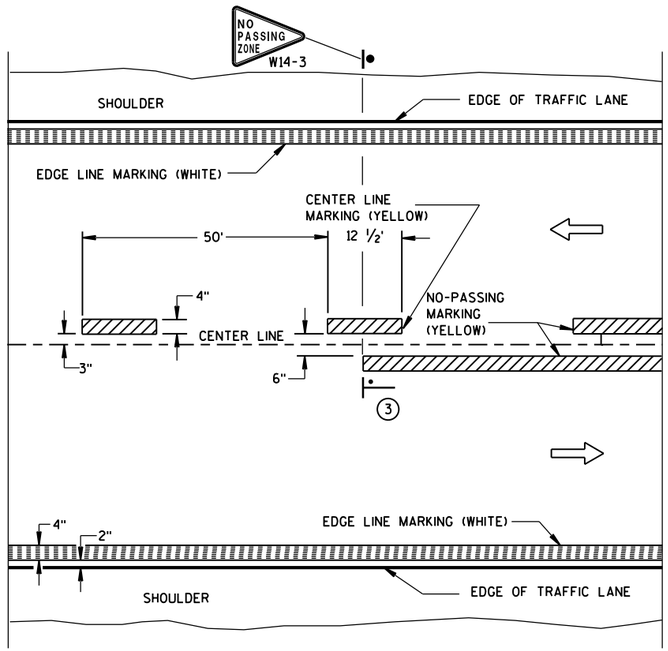
3/4/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

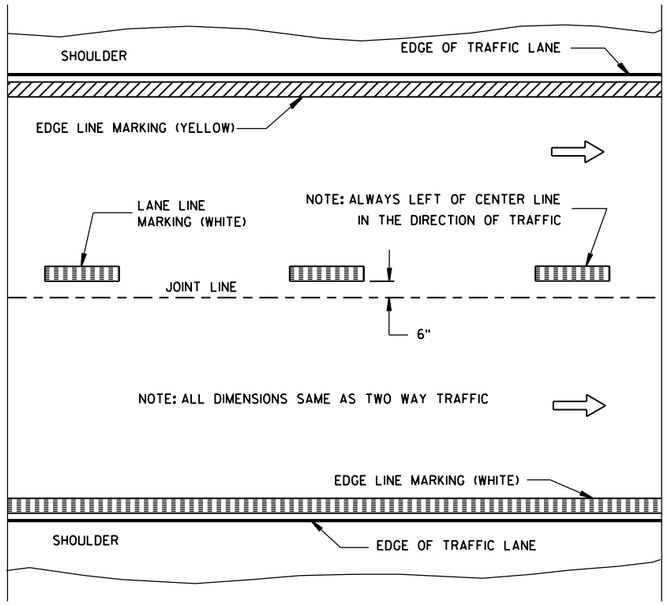
FHWA

6

S.D.D. 15 C 6-6

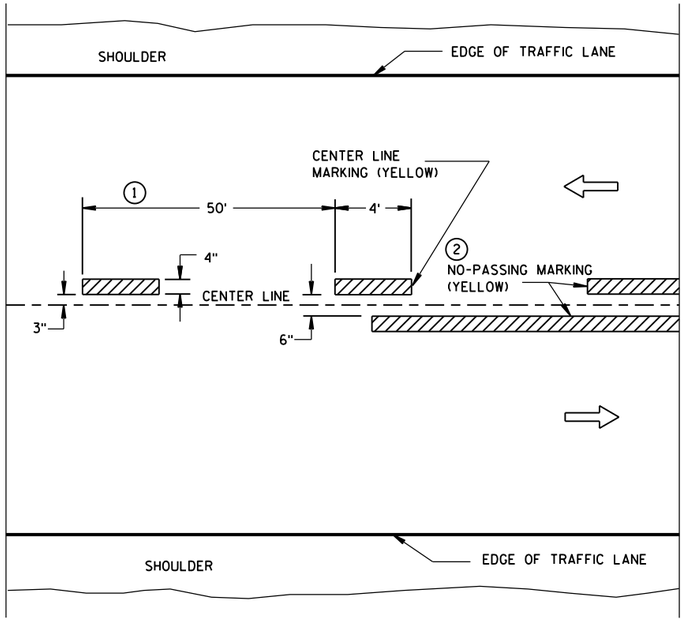


TWO WAY TRAFFIC

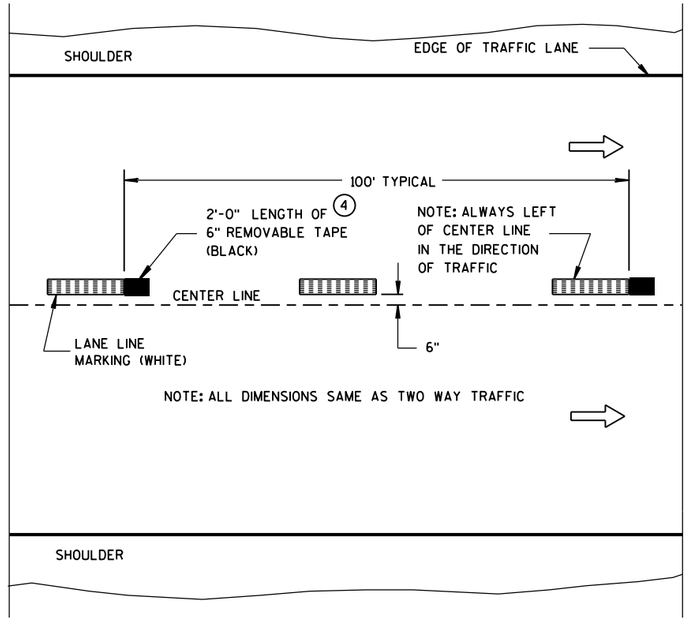


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

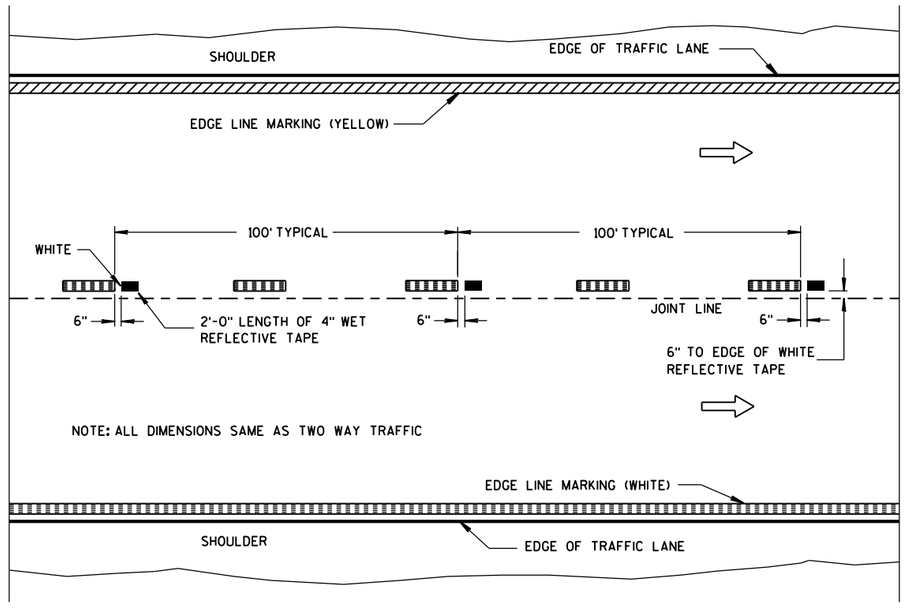
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

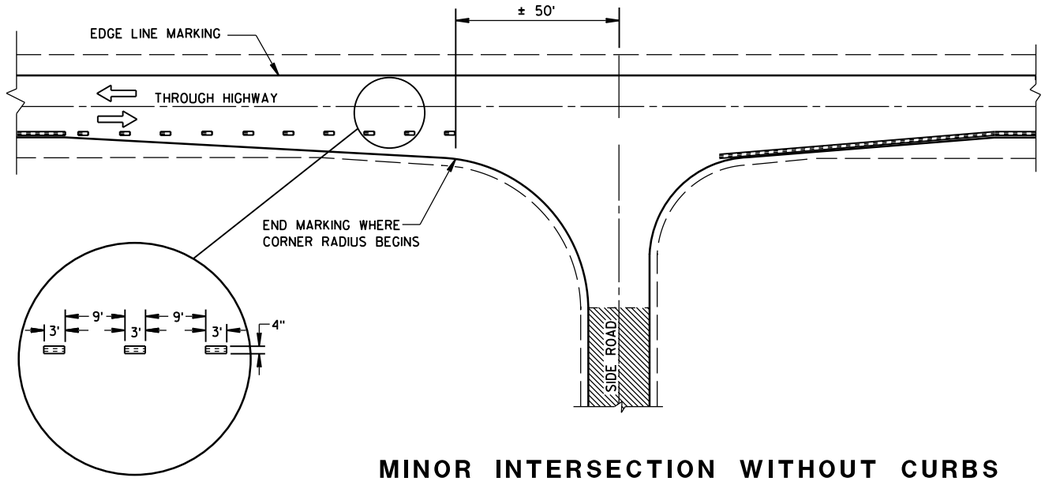
PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

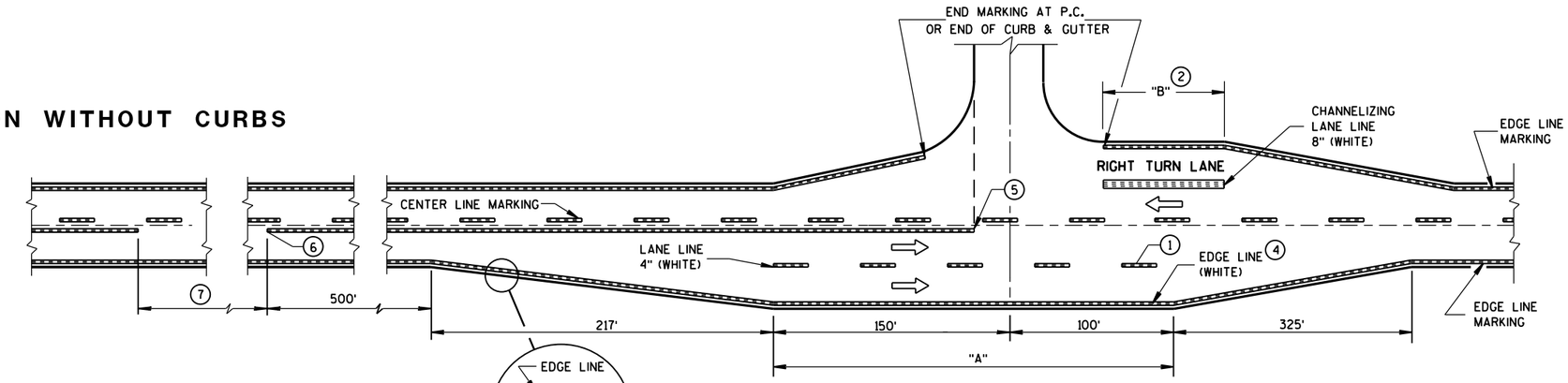
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

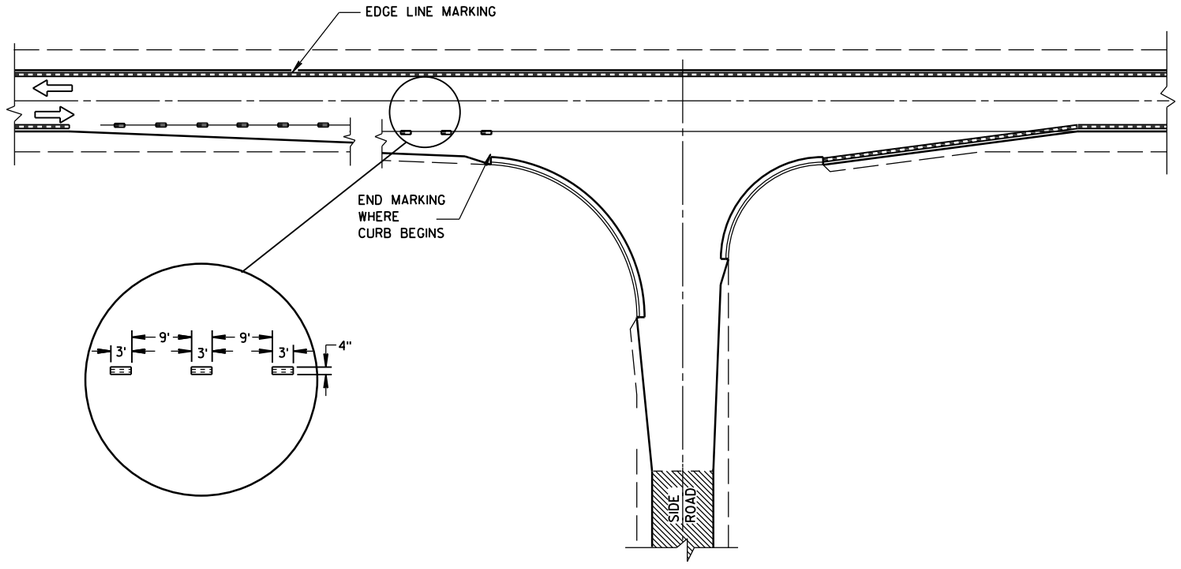
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



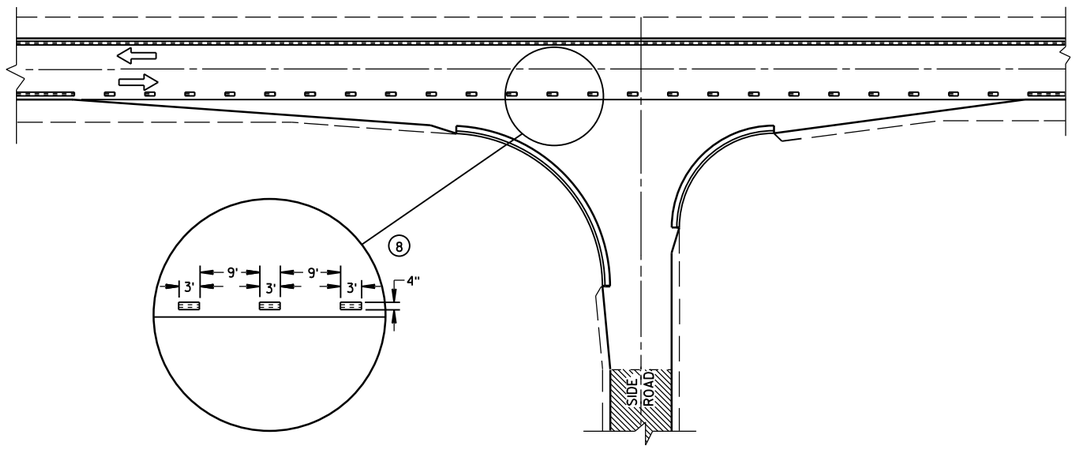
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

6

S.D.D. 15 C 8-16b

TWO-LANE ROADWAY

SYMBOLS

WORK AREA

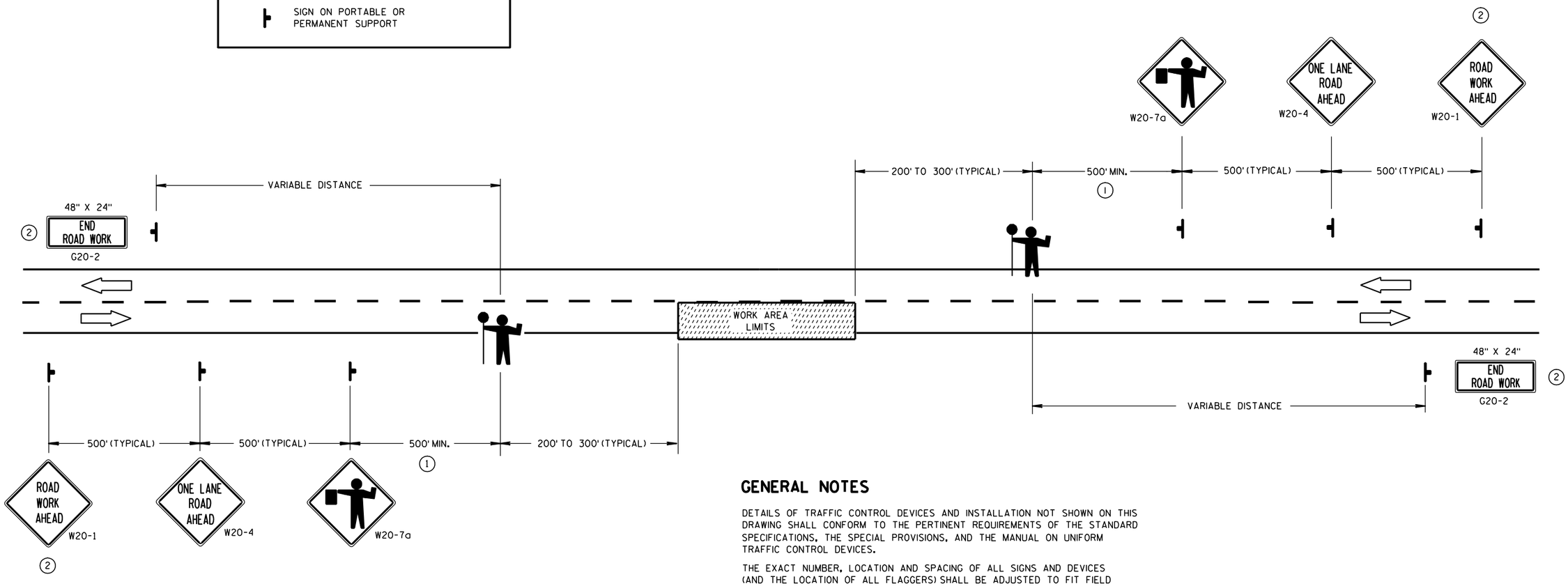
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT



W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/5/06 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 12-3

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

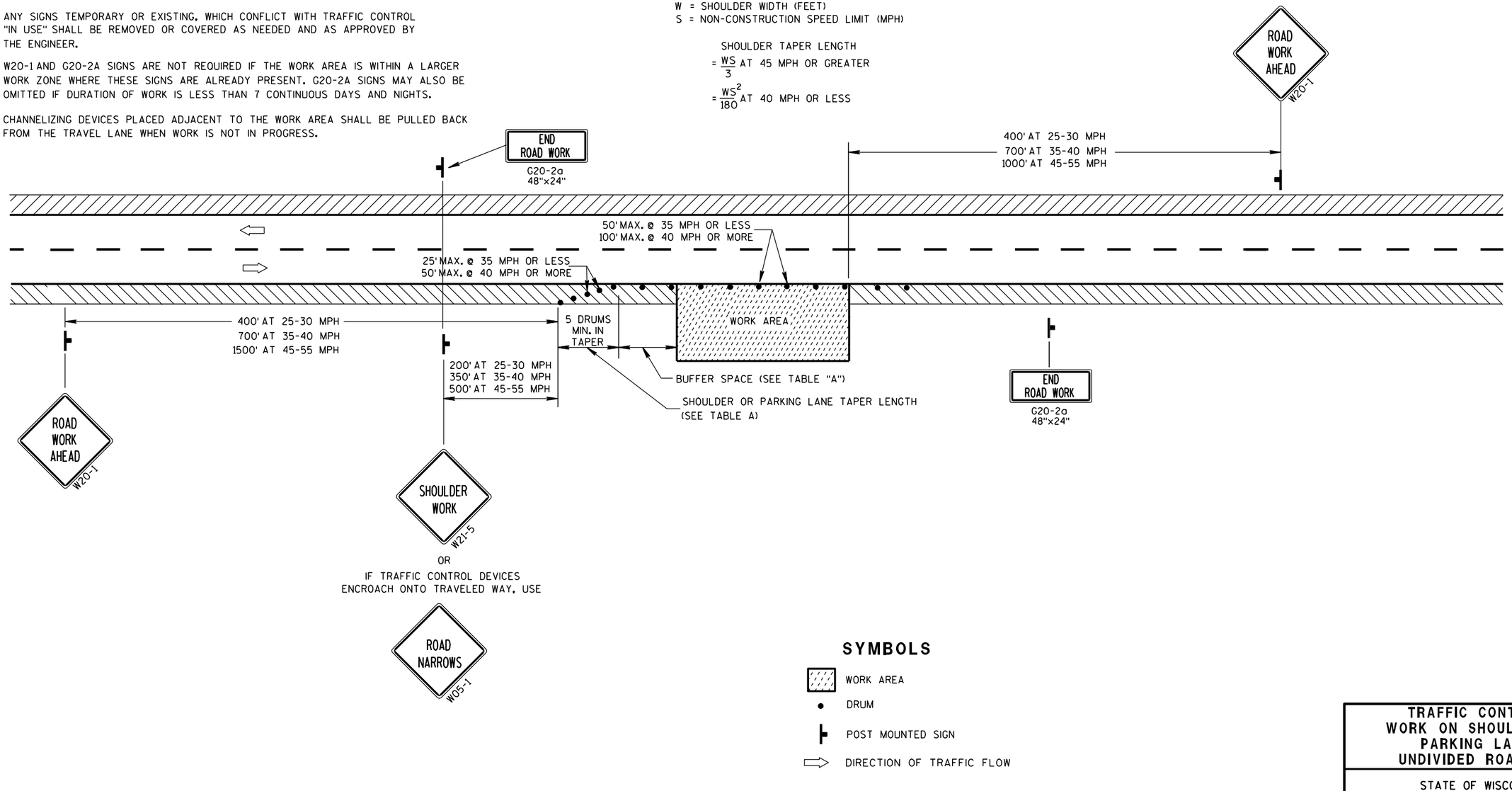
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
$= \frac{WS}{3}$ AT 45 MPH OR GREATER
$= \frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

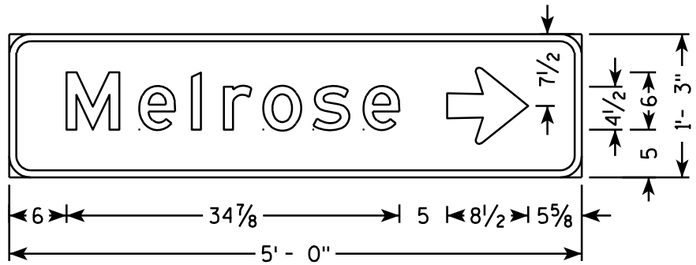
- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

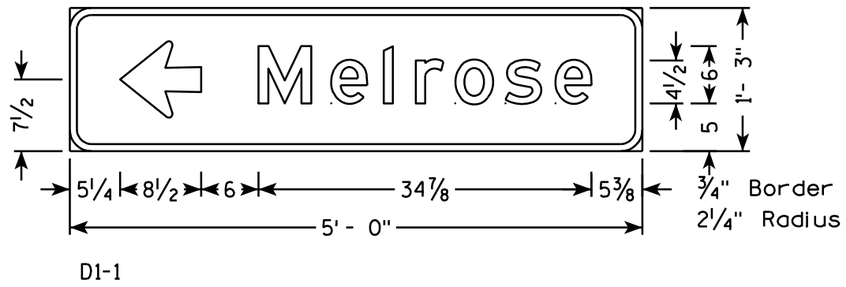
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER
FHWA

6
S.D.D. 15 D 28-1



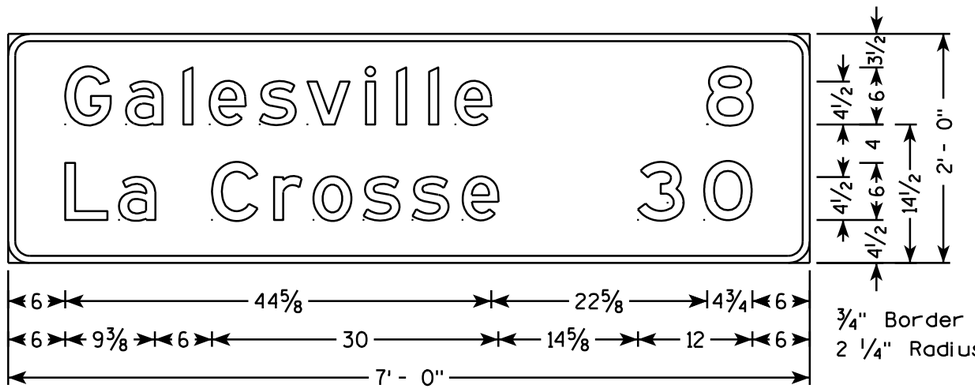
D1-1



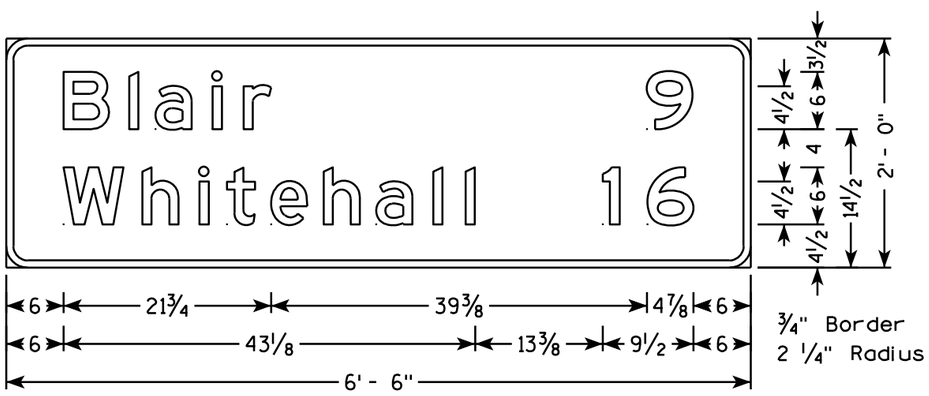
D1-1

NOTES

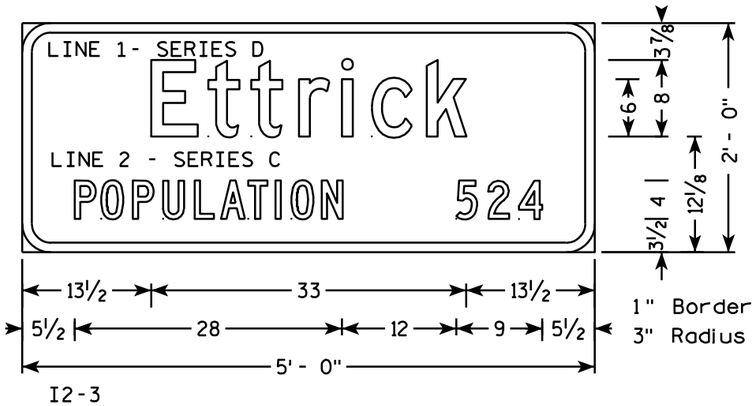
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E except as Shown



D2-2



D2-2



I2-3

7

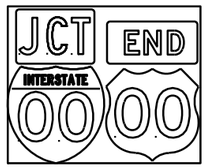
7

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	PERMANENT SIGNING	SHEET NO: 188	E

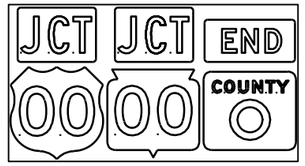
TYPICAL ASSEMBLIES



J1-1



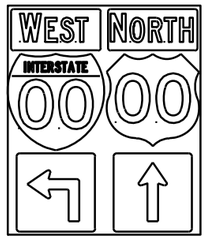
J1-2



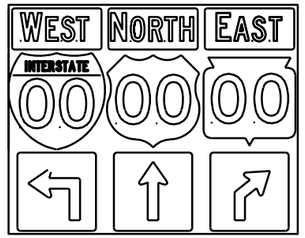
J1-3



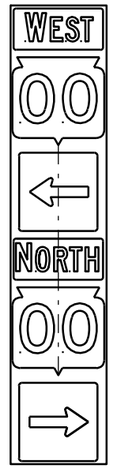
J2-1



J2-2

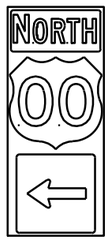


J2-3

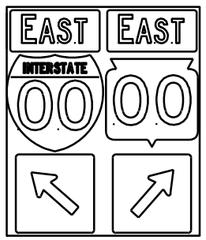


JV

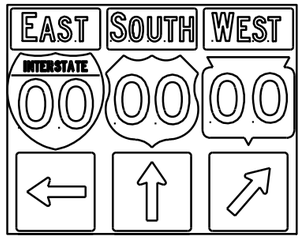
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1



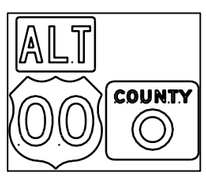
J3-2



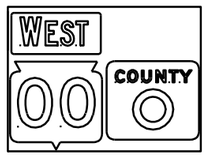
J3-3



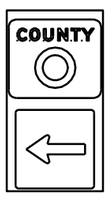
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

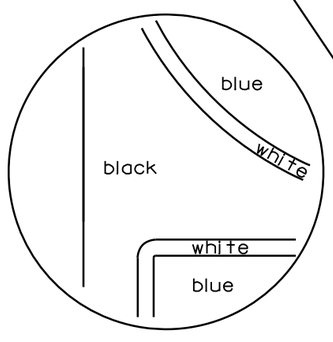


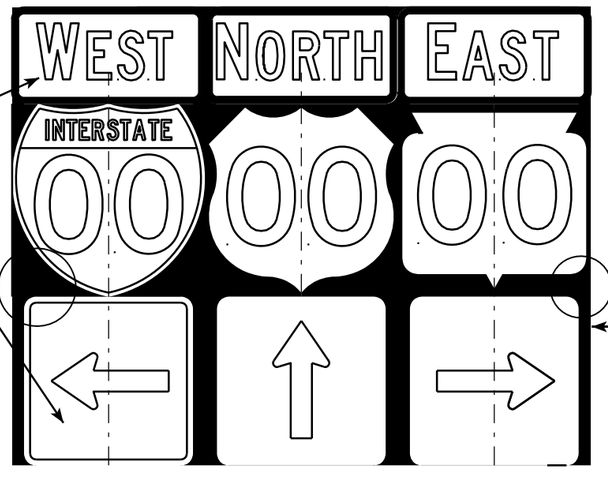
J23-1

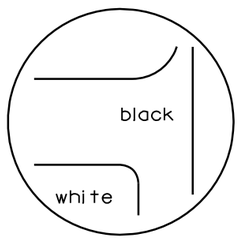


J22-1

blue background
with interstate







black background

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of interstate and non interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

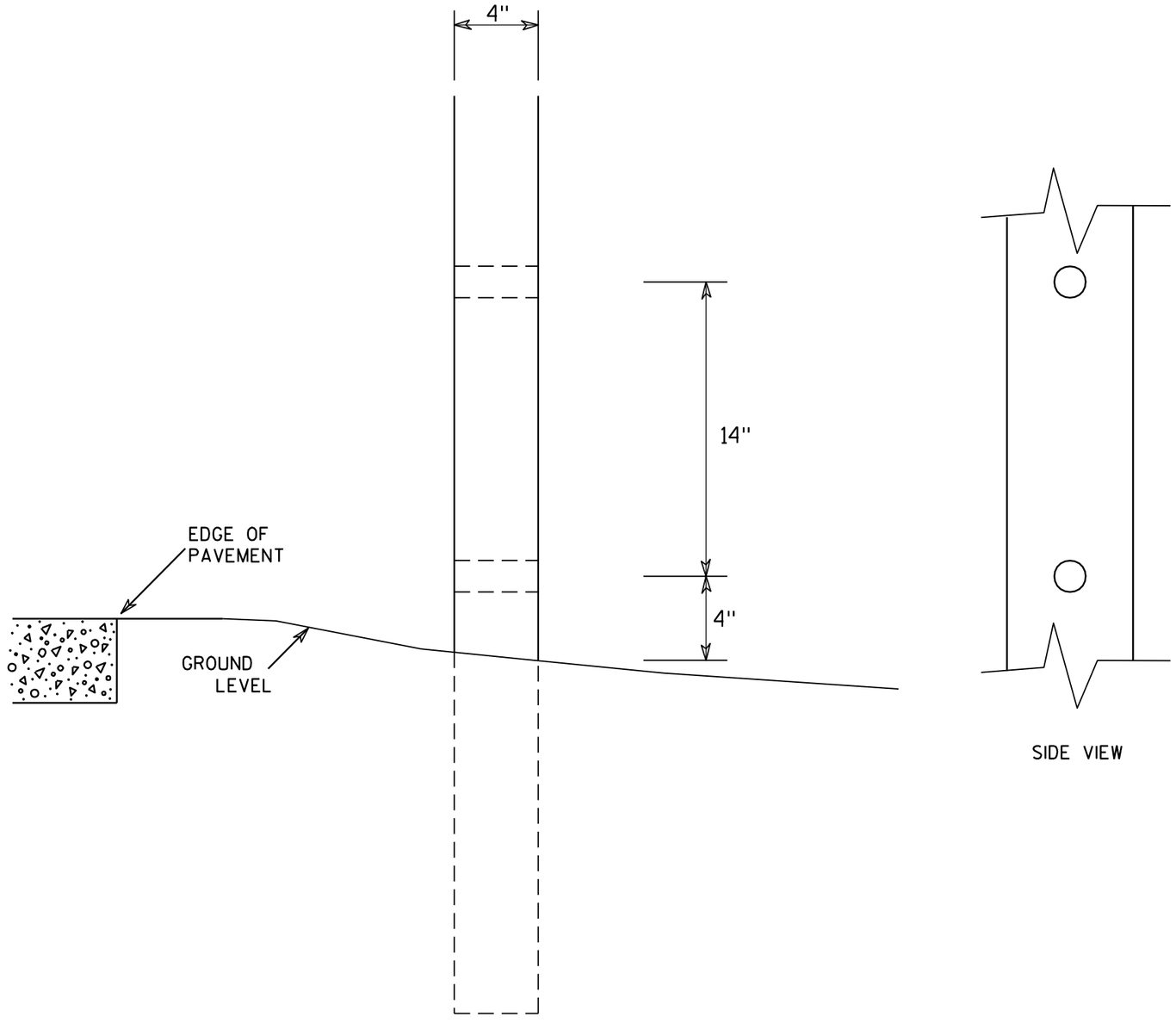
DATE 3/25/13 PLATE NO. A2-1S.7

7

7

PROJECT NO:

SHEET NO: 189 E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

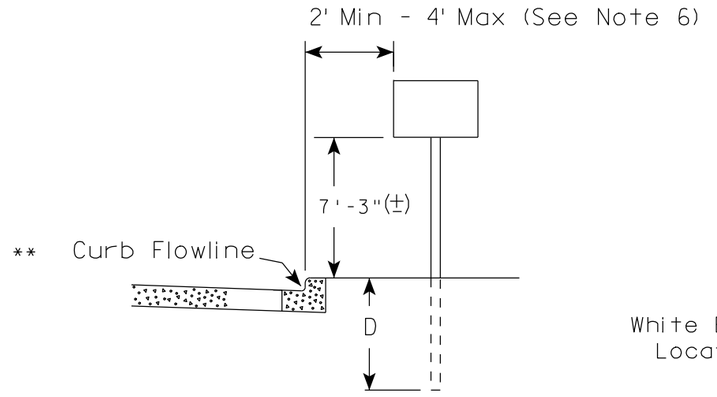
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

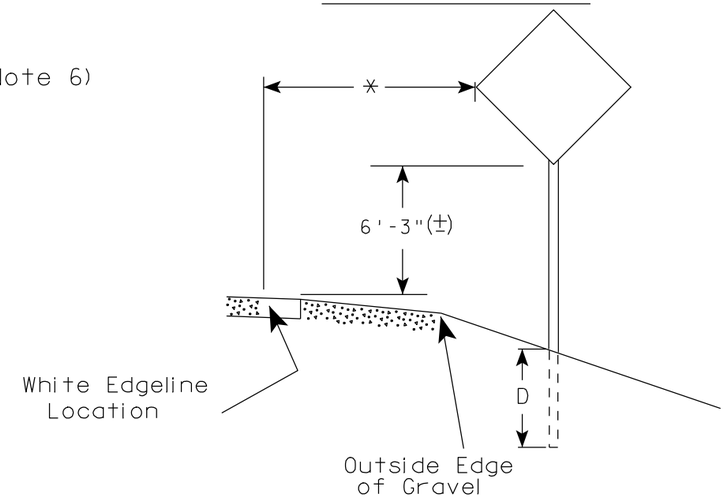
DATE 3/27/97 PLATE NO. A4-11.2

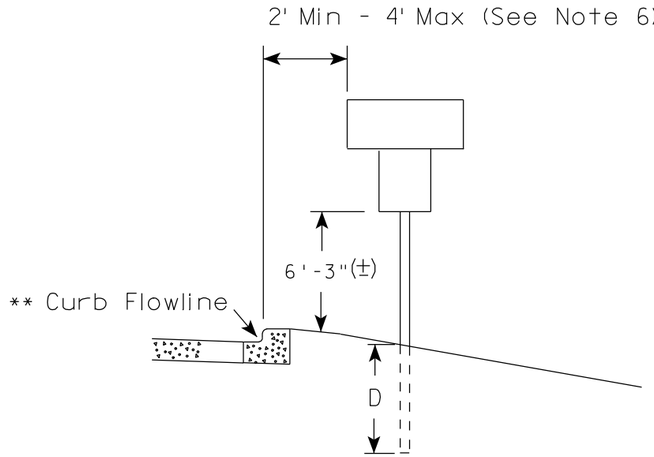
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 190	E

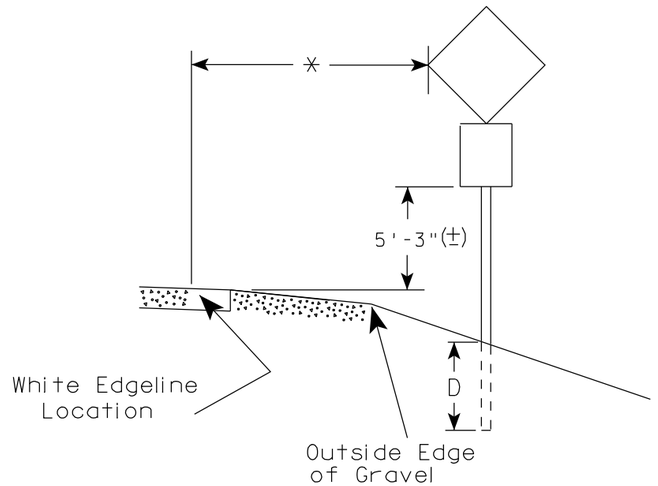
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

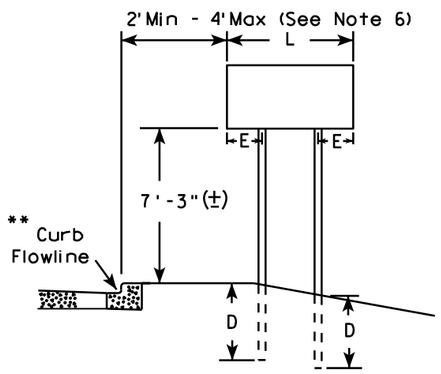
DATE 5/24/2013 PLATE NO. A4-3.17

7

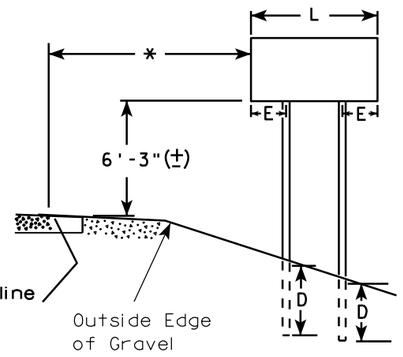
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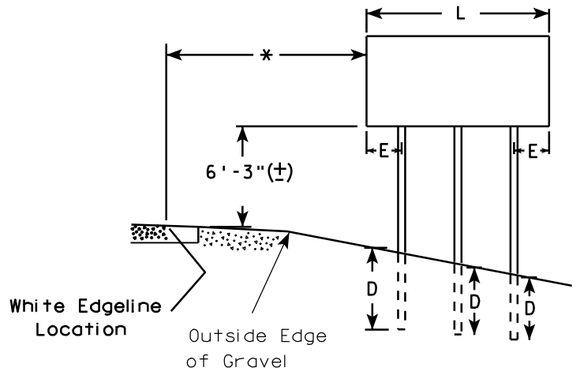
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 191	E

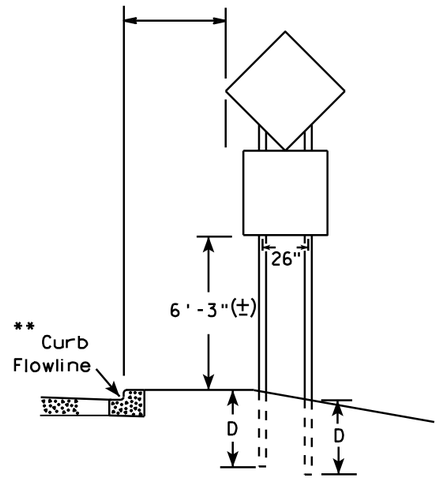
URBAN AREA



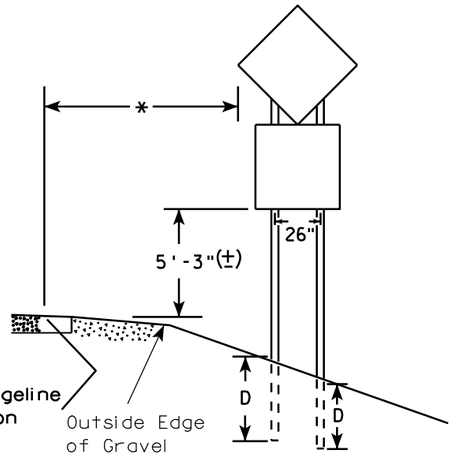
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
*** Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. For multiple post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

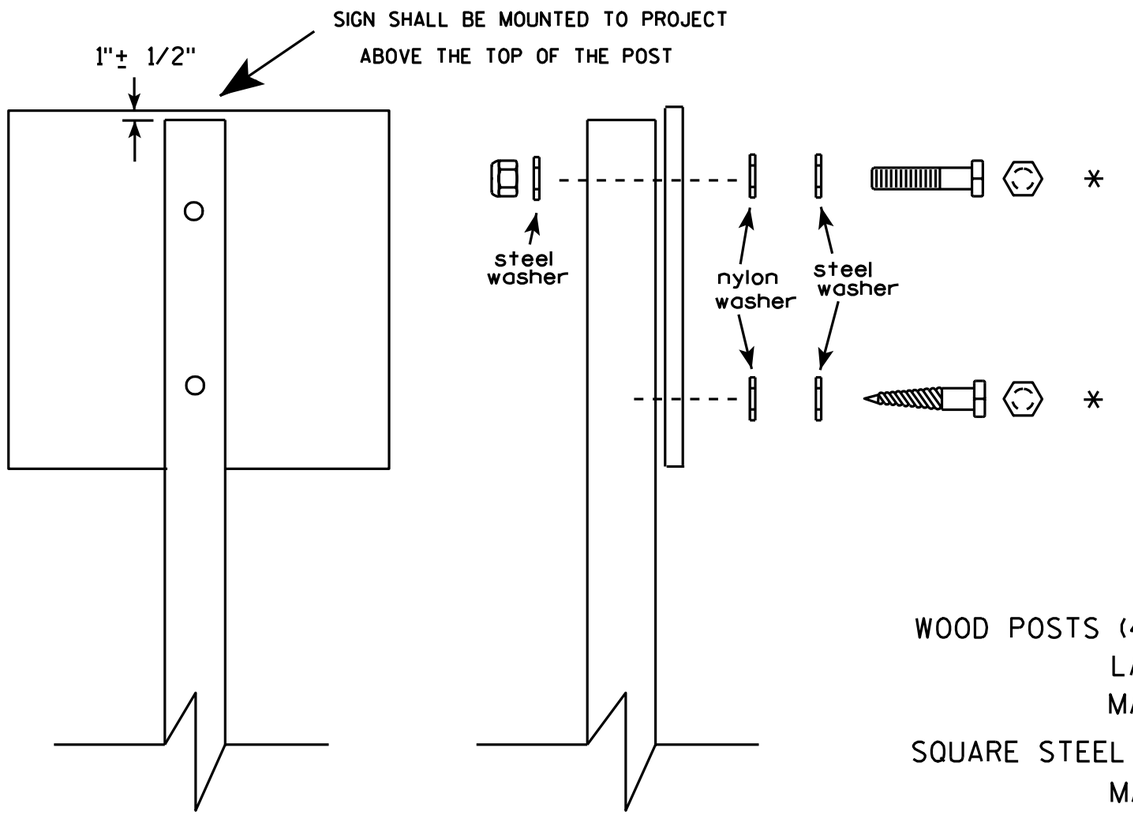
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 192	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A44.DGN PLOT DATE : 21-SEP-2011 13:36 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 109.249131:1.000000 WISDOT/CADDS SHEET 42



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

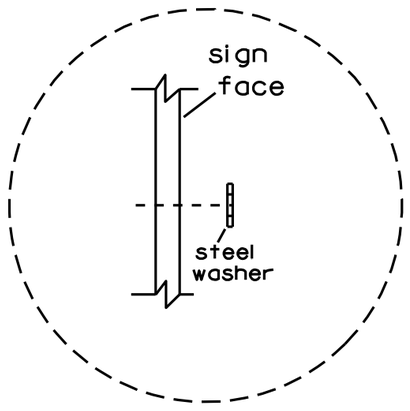
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

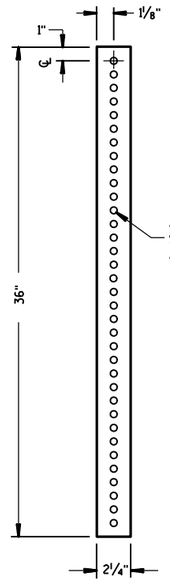
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PROJECT NO:

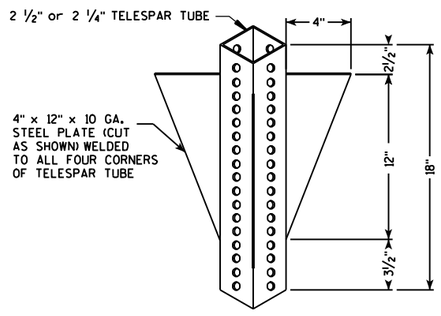
SHEET NO: 193 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

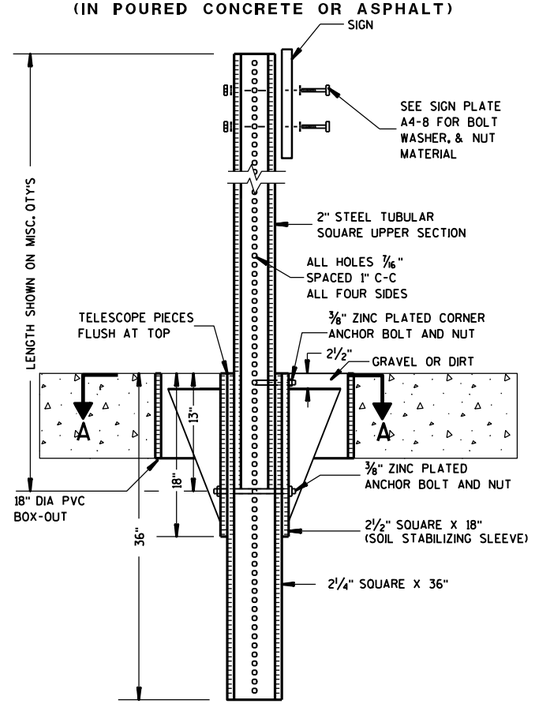
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



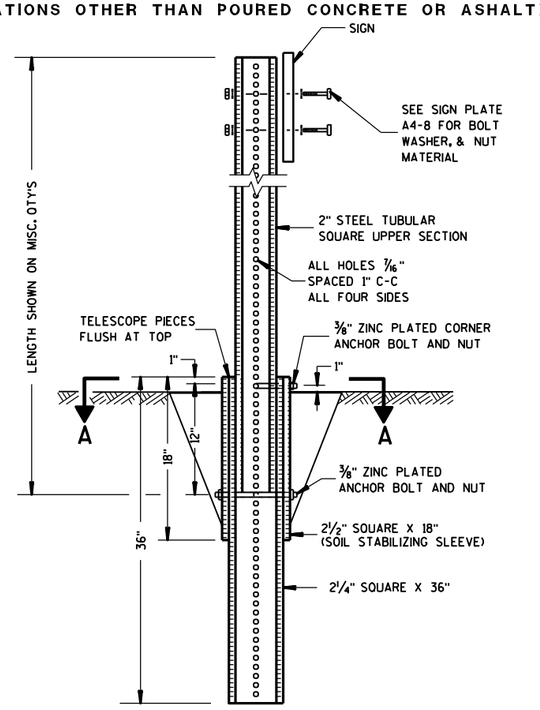
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

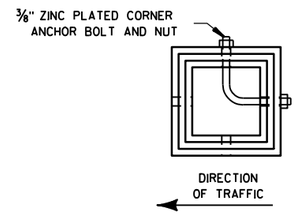


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

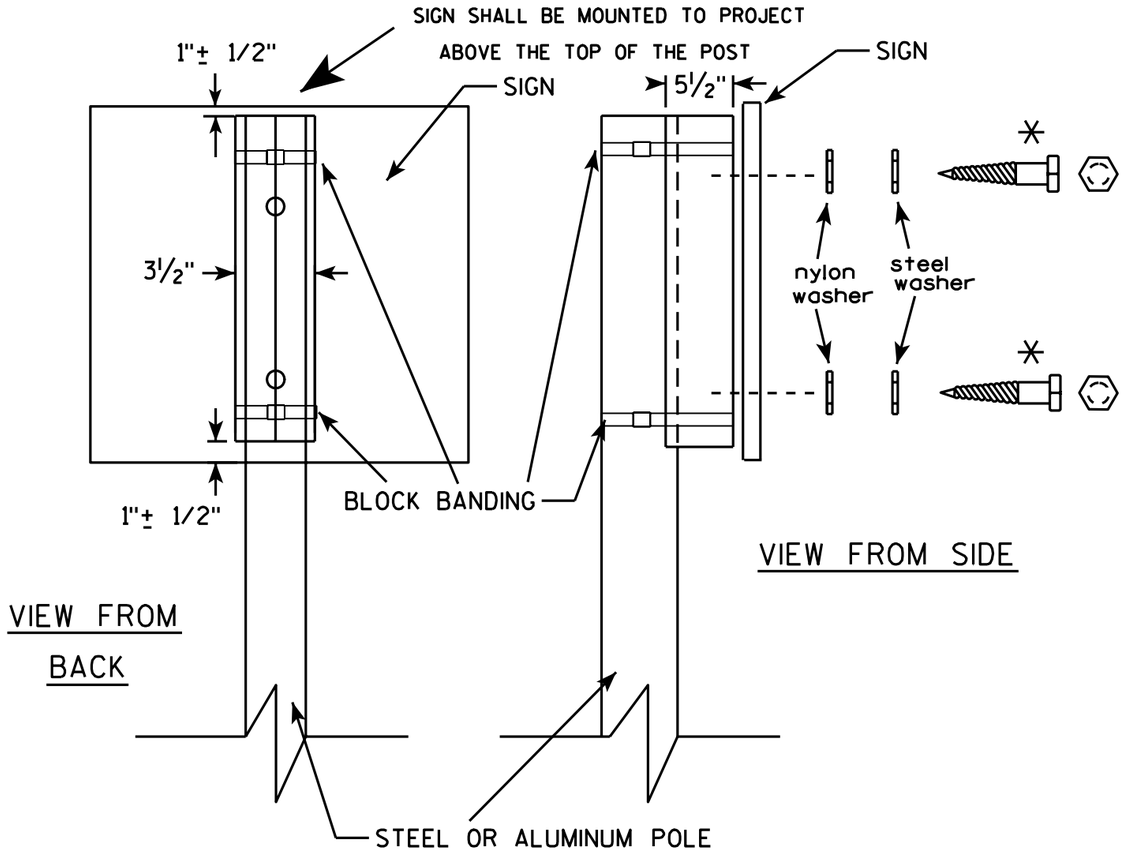
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

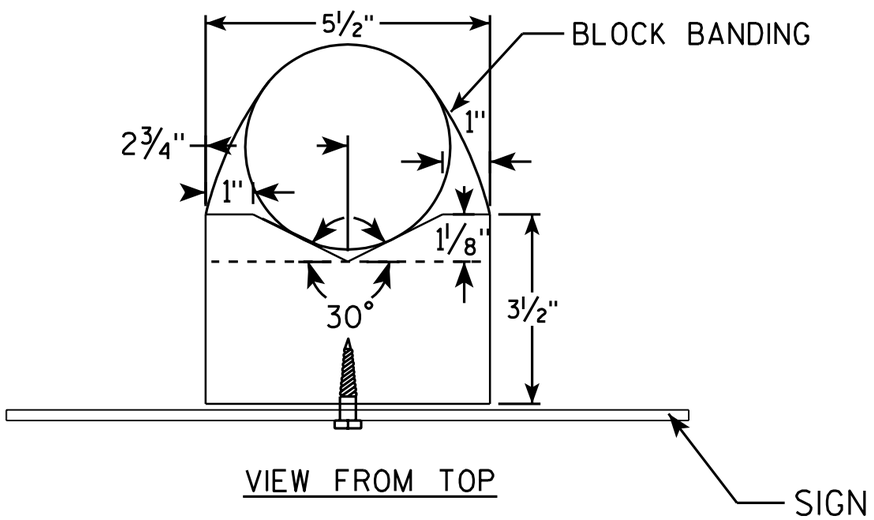
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 194	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 195 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

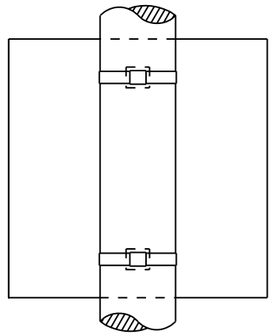
WISDOT/CADDS SHEET 42

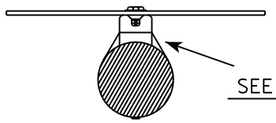
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7

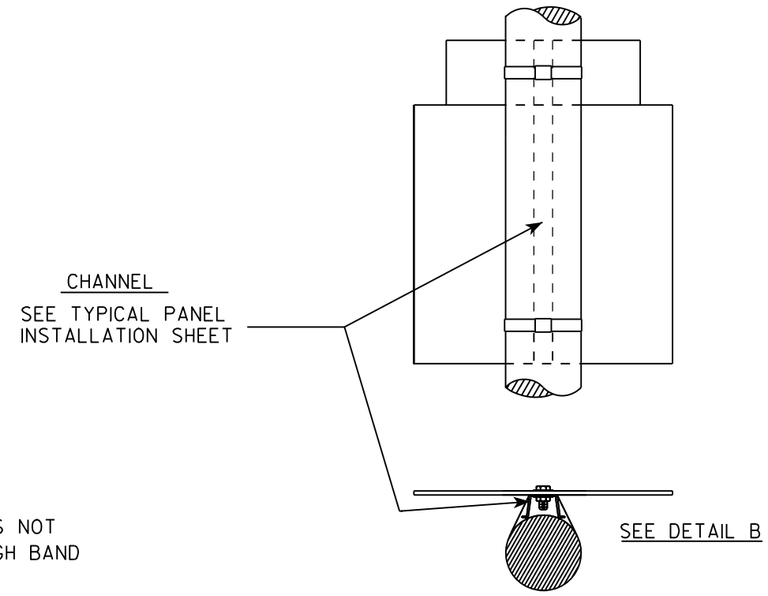
BANDING

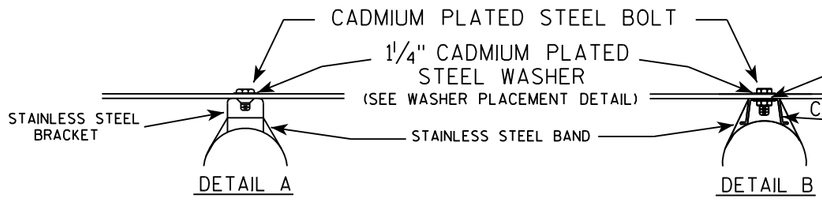
SINGLE SIGN



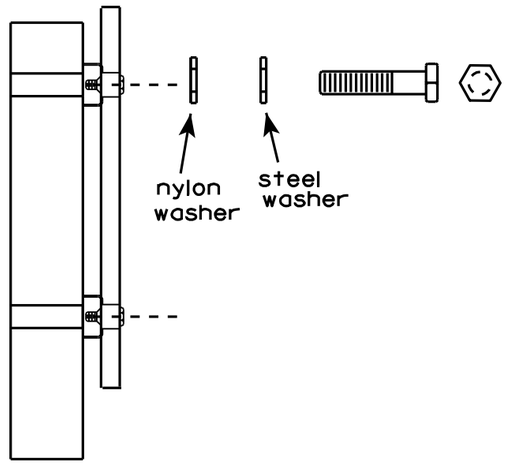


"J" ASSEMBLY





WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

STANDARD SIGN
SIGN BANDING DETAILS

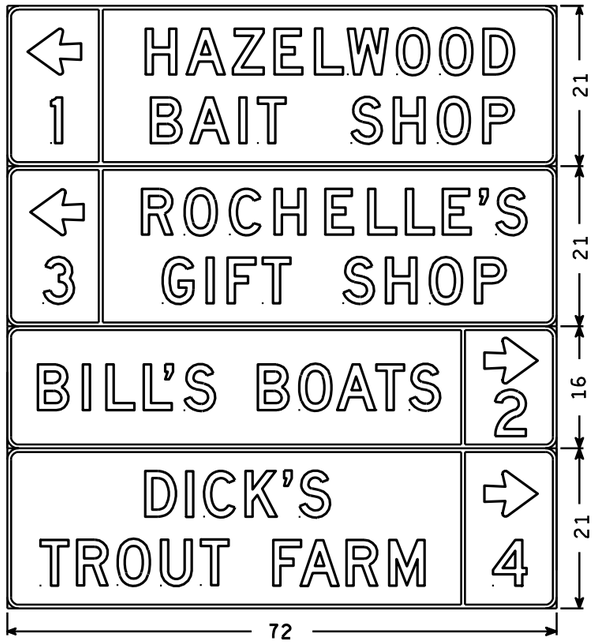
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

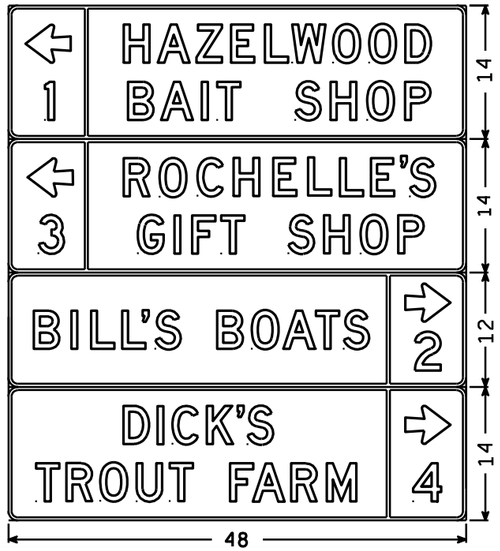
DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 196	E

RURAL LOCATIONS



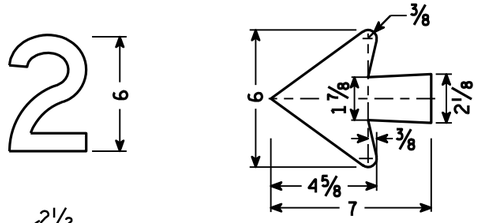
URBAN LOCATIONS

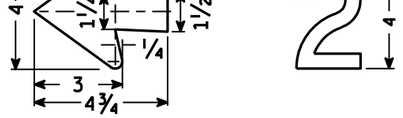


NOTES

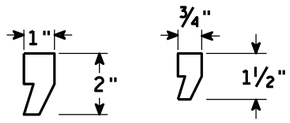
1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - Series D
4. Corners may be square or rounded but borders shall be rounded as shown.
5. Base material for these signs shall be plywood.
6. All Sign panels shall have a ½" border with a 1 1/2" radius.

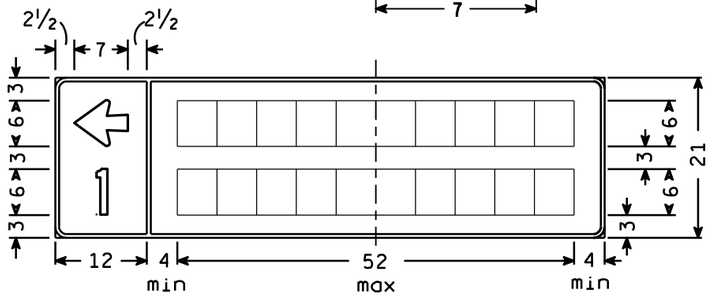
Both 6" and 4" Series D copy allow approximately 10 letters/characters per message line. The message shall be optically balanced about the centerline of the sign.

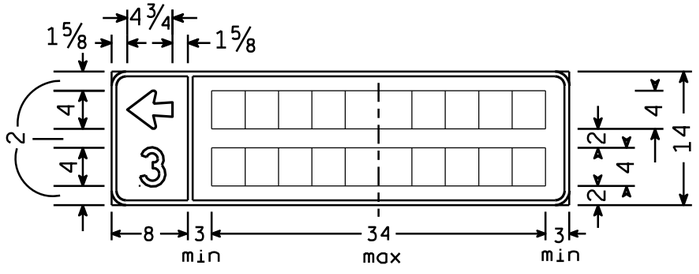


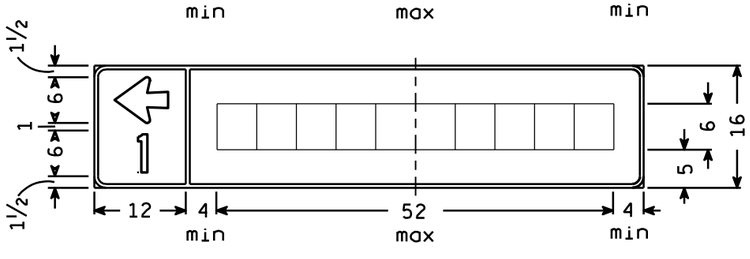


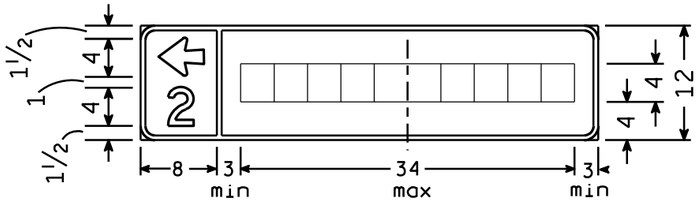
APOSTROPHE DETAIL FOR
6"Copy 4"Copy











STANDARD SIGN
E10-82

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/17/09 PLATE NO. E10-82.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 197

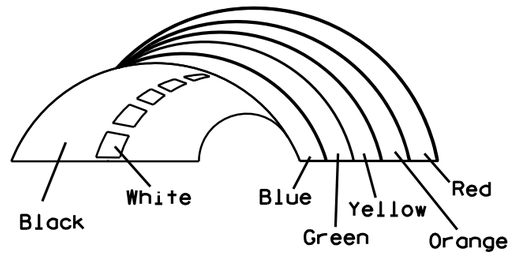


* VARIES

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
   Line 1 - Red
   Line 2 - Black
   Line 3-5 - Blue
6. Line 1 - Dutch 8011L
   Line 2 - Series E
   Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

STANDARD SIGN
I55-56

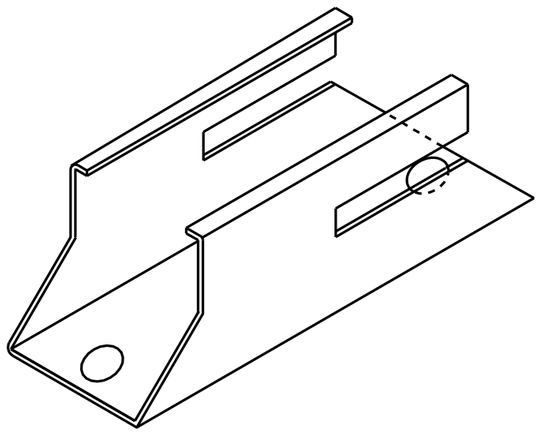
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/27/11 PLATE NO. 155-56.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 198

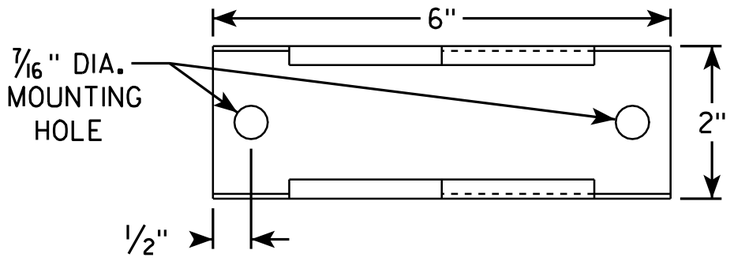
ISOMETRIC VIEW



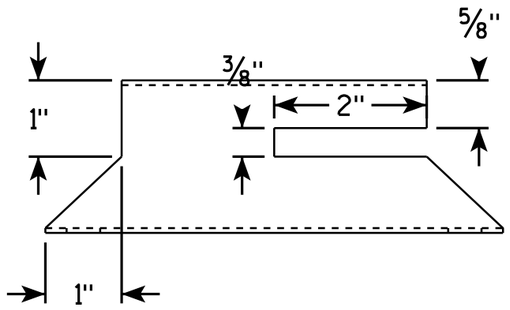
NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

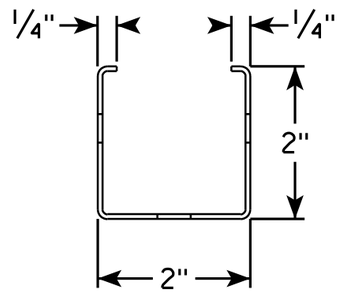
TOP VIEW



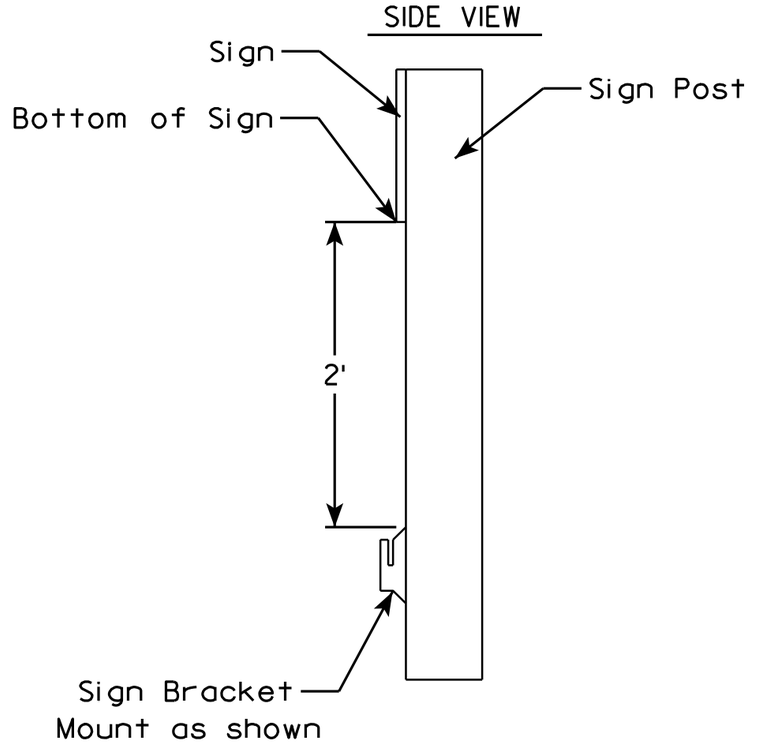
SIDE VIEW



END VIEW



SIDE VIEW



7

7

ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

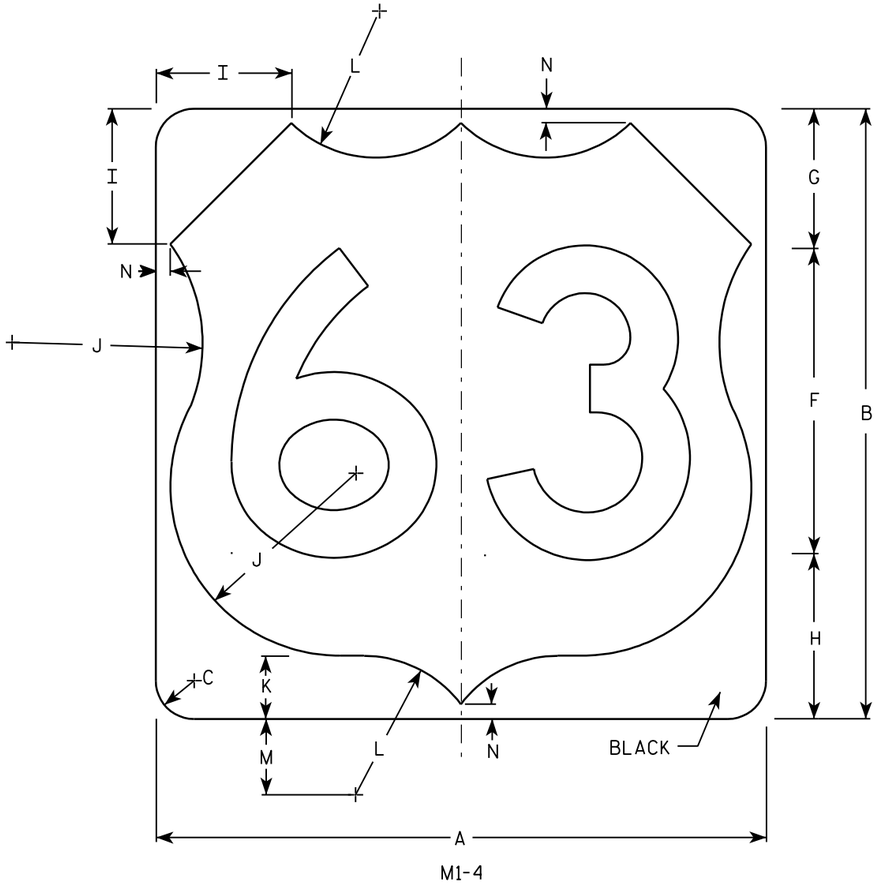
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/10 PLATE NO. I55-56B.1

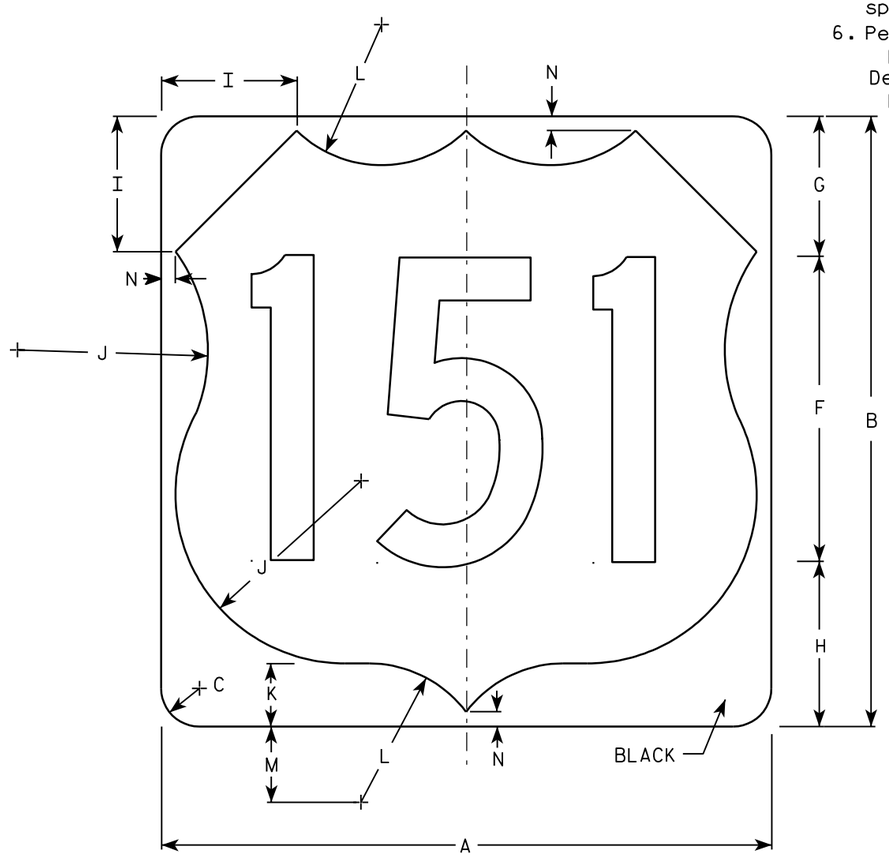
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 199	E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

7

7

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

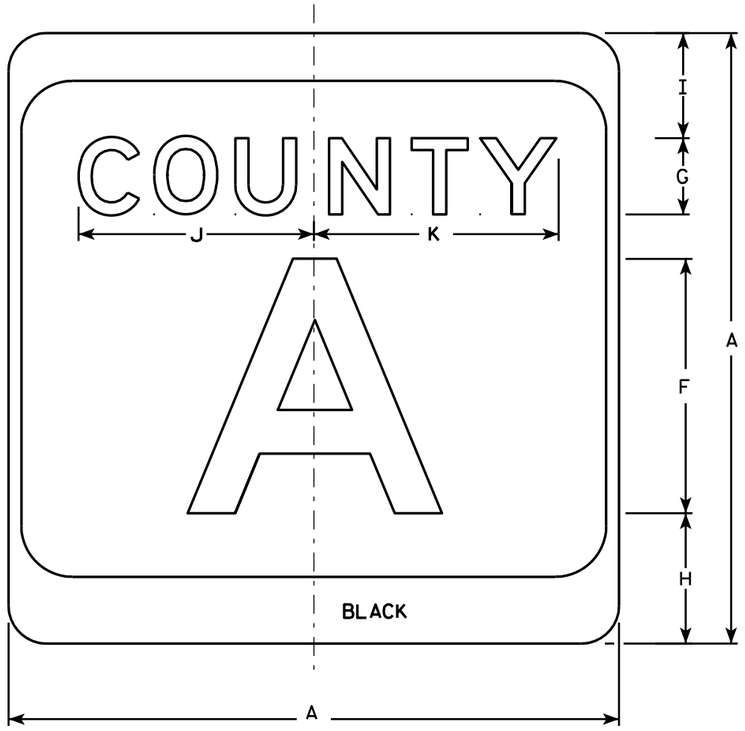
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

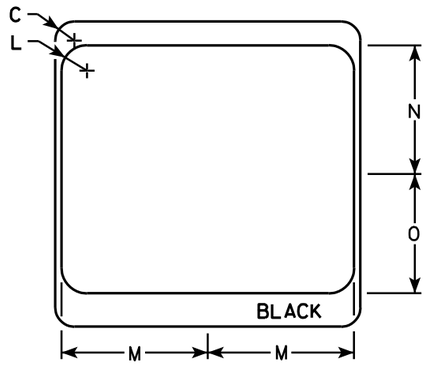
APPROVED Matthew R Rauch
for State Traffic Engineer

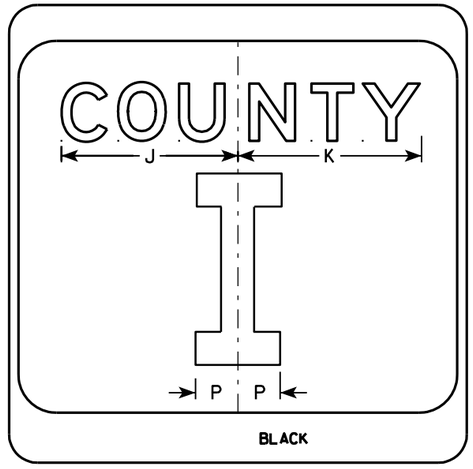
DATE 08/25/05 PLATE NO. M1-4.9

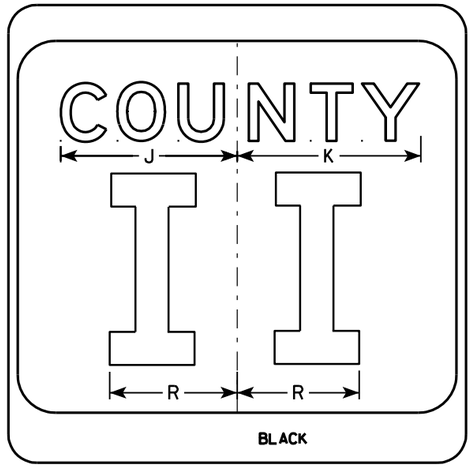
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 200	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

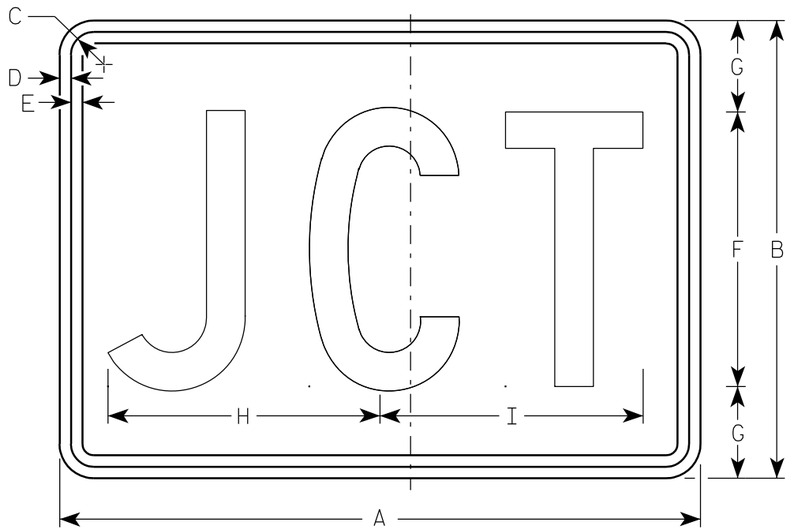
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

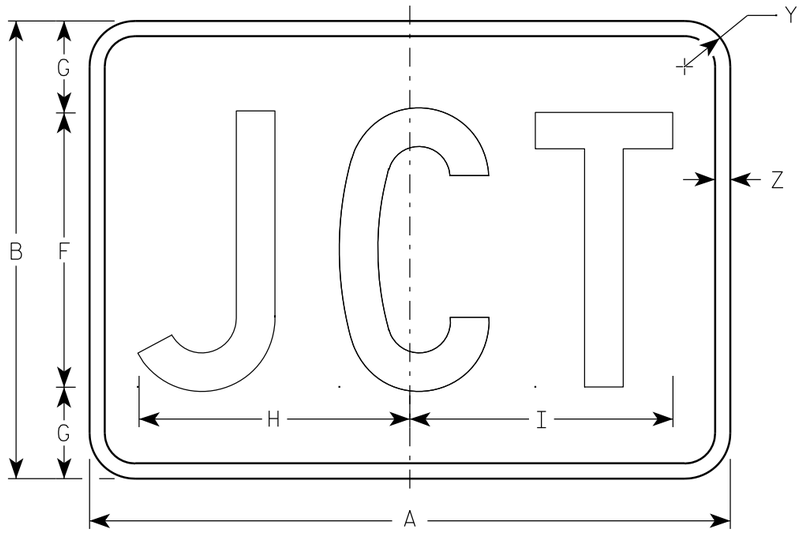
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 201 | E



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB2-1 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG2-1 Background - Green
   Message - White - Type H Reflective
   MK2-1 Background - Green
   Message - White - Type H Reflective
   MM2-1 Background - White - Type H Reflective
   Message - Green
   MN2-1 Background - Brown
   Message - White - Type H Reflective
   MR2-1 Background - Brown
   Message - Yellow - Type H Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

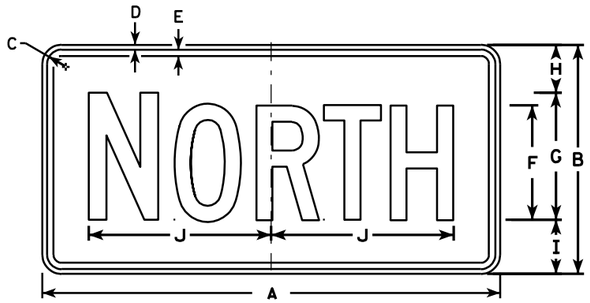
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

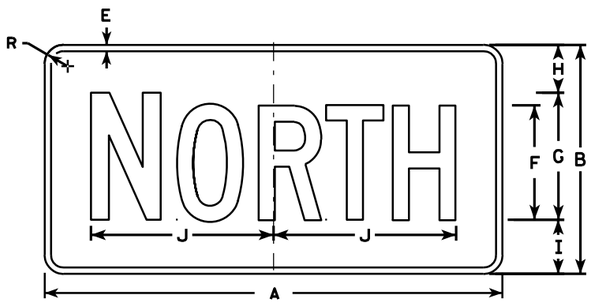
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 202	E



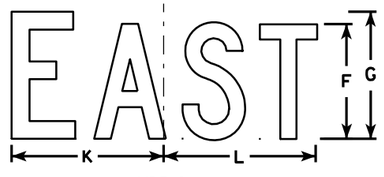
M3-1
MK3-1
MO3-1



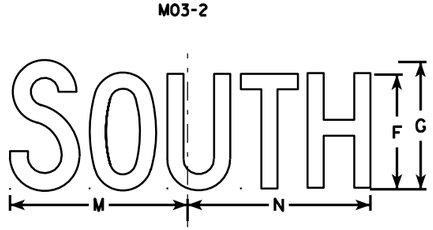
MB3-1
MG3-1
MM3-1
MN3-1



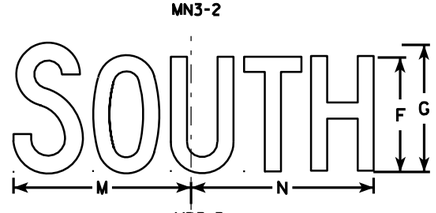
M3-2
MK3-2
MO3-2



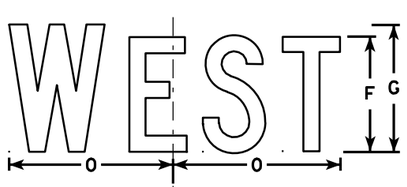
MB3-2
MG3-2
MM3-2
MN3-2



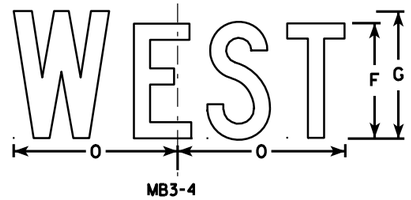
M3-3
MK3-3
MO3-3



MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective) Message - Black
   MB3-1 thru MB3-4 Background - Blue Message - White - Type H Reflective (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective Message - Green
   MN3-1 thru MN3-4 Background - Brown Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

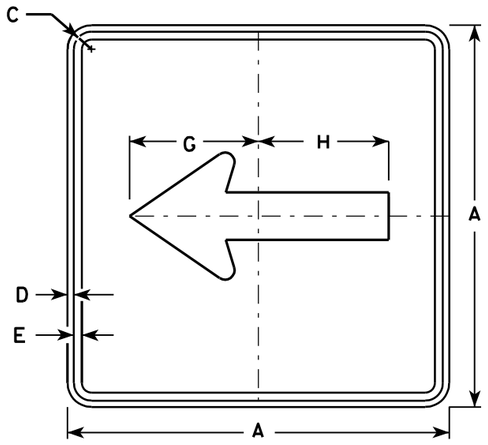
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

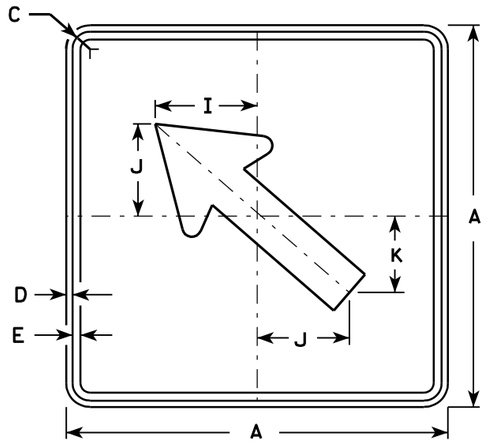
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

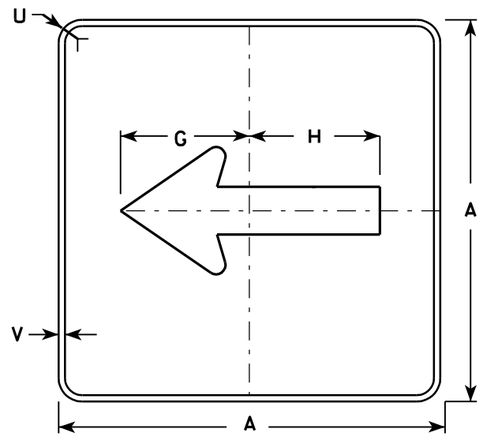
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 203	E



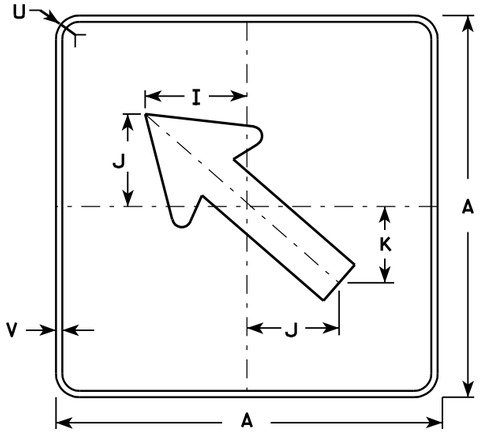
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective

   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective

   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective

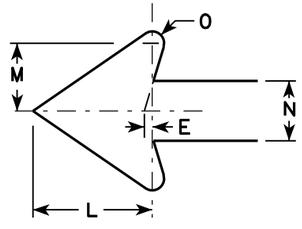
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - Yellow - Type H Reflective



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

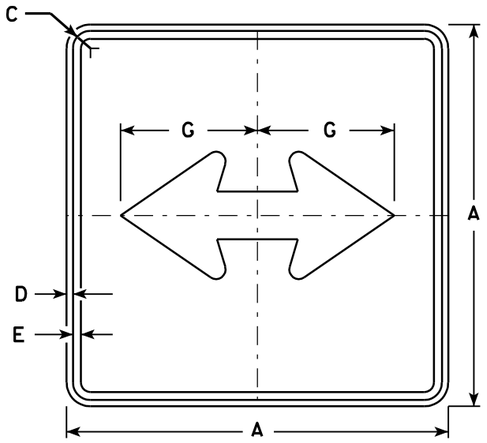
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

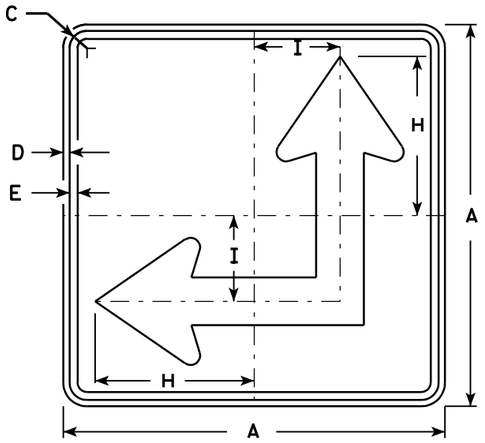
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

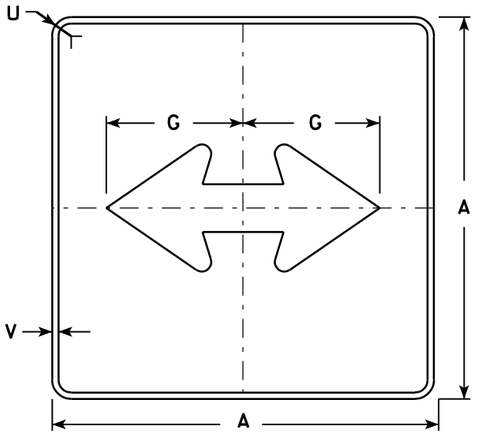
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 204	E



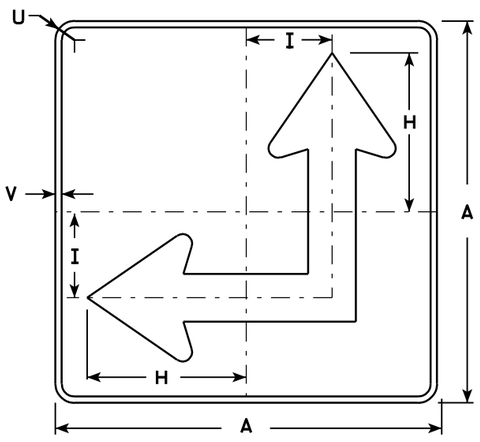
M6-4
MK6-4
MM6-4
MO6-4
MP6-4
MR6-4



M6-6
MK6-6
MM6-6
MO6-6
MP6-6
MR6-6



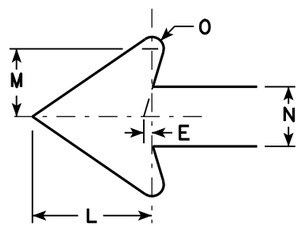
MB6-4
MG6-4
MN6-4



MB6-6
MG6-6
MN6-6

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White - Type H Reflective
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White - Type H Reflective
   MG6-4 and MG6-6 Background - Green
   Message - White - Type H Reflective
   MK6-4 and MK6-6 Background - Green
   Message - White - Type H Reflective
   MM6-4 and MM6-6 Background - White - Type H Reflective
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White - Type H Reflective
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White - Type H Reflective
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - White - Type H Reflective
5. M6-6R same as M6-6L except arrow points ahead and right.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

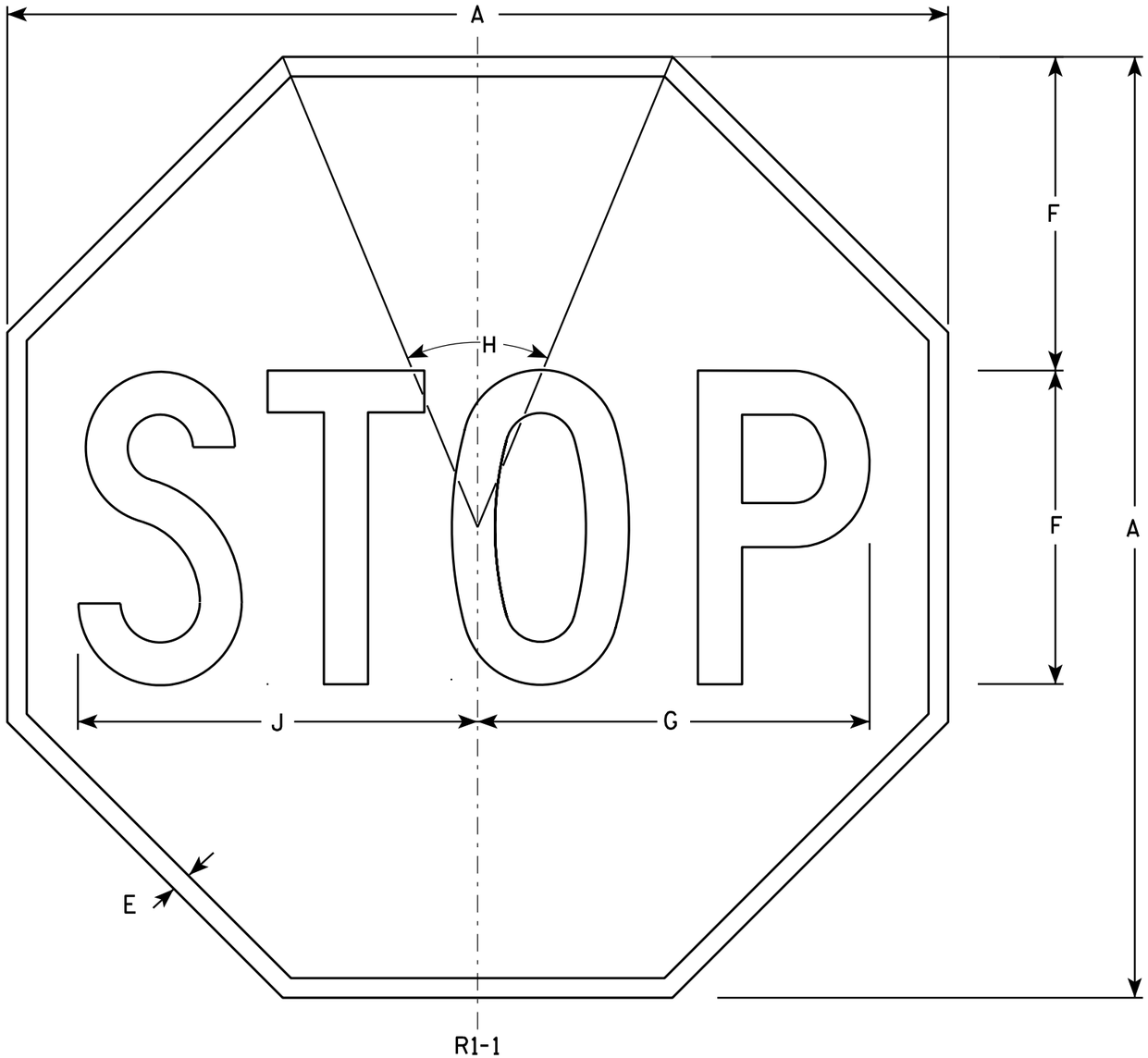
STANDARD SIGN M6-4 & M6-6 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-4.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 205 | E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

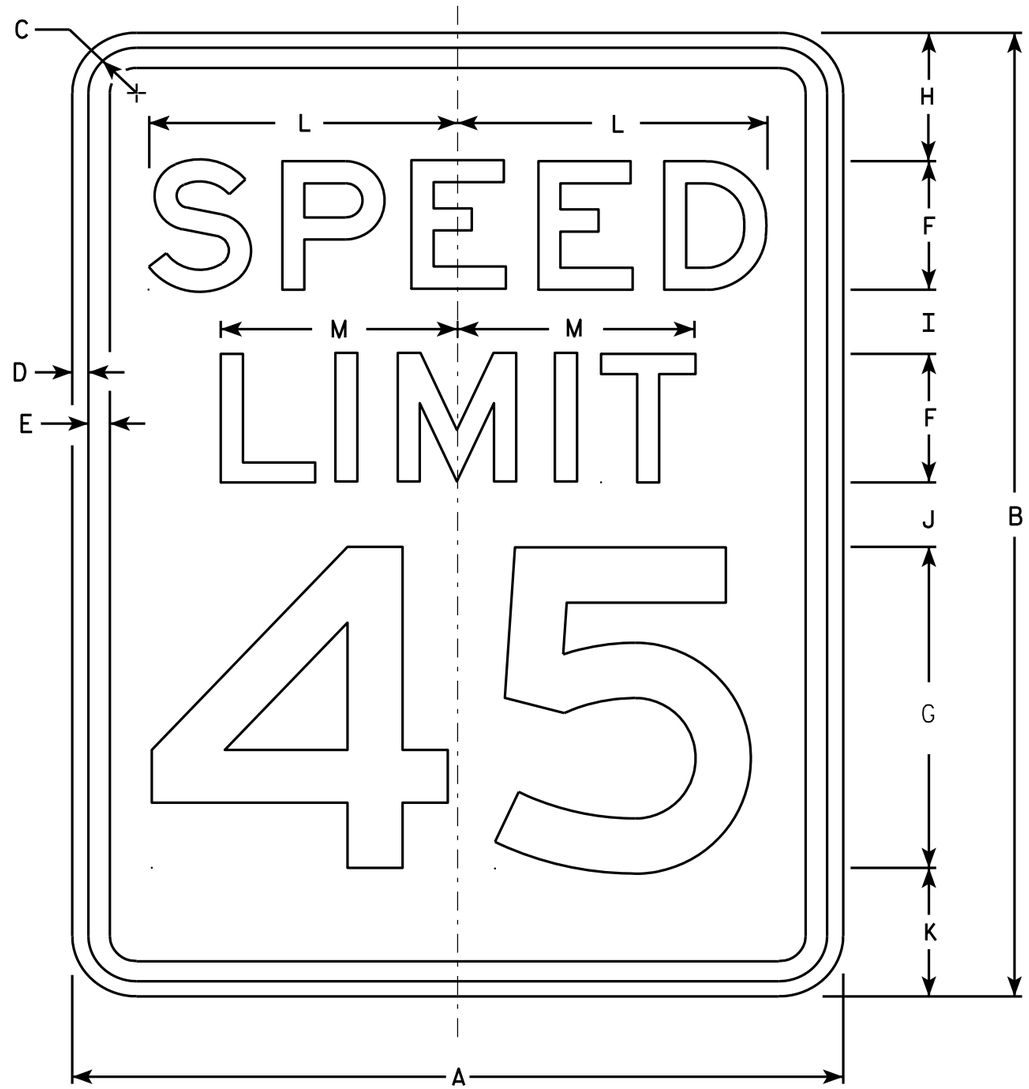
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 206	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11.DGN PLOT DATE : 02-DEC-2010 15:09 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 4.469282:1.000000

WISDOT/CADDS SHEET 42

7

7



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

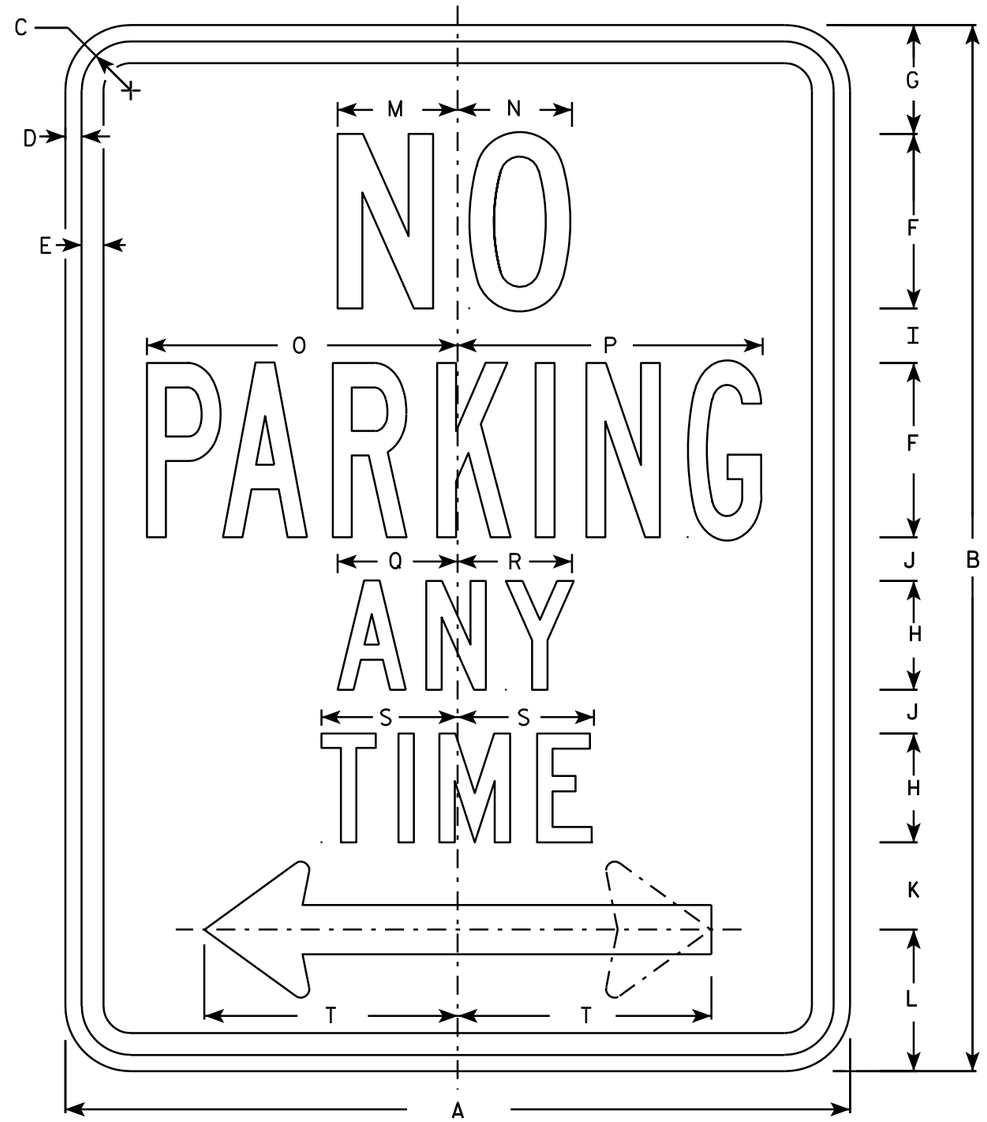
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

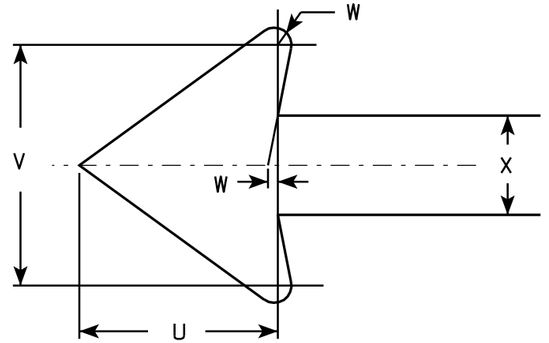
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 207	E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

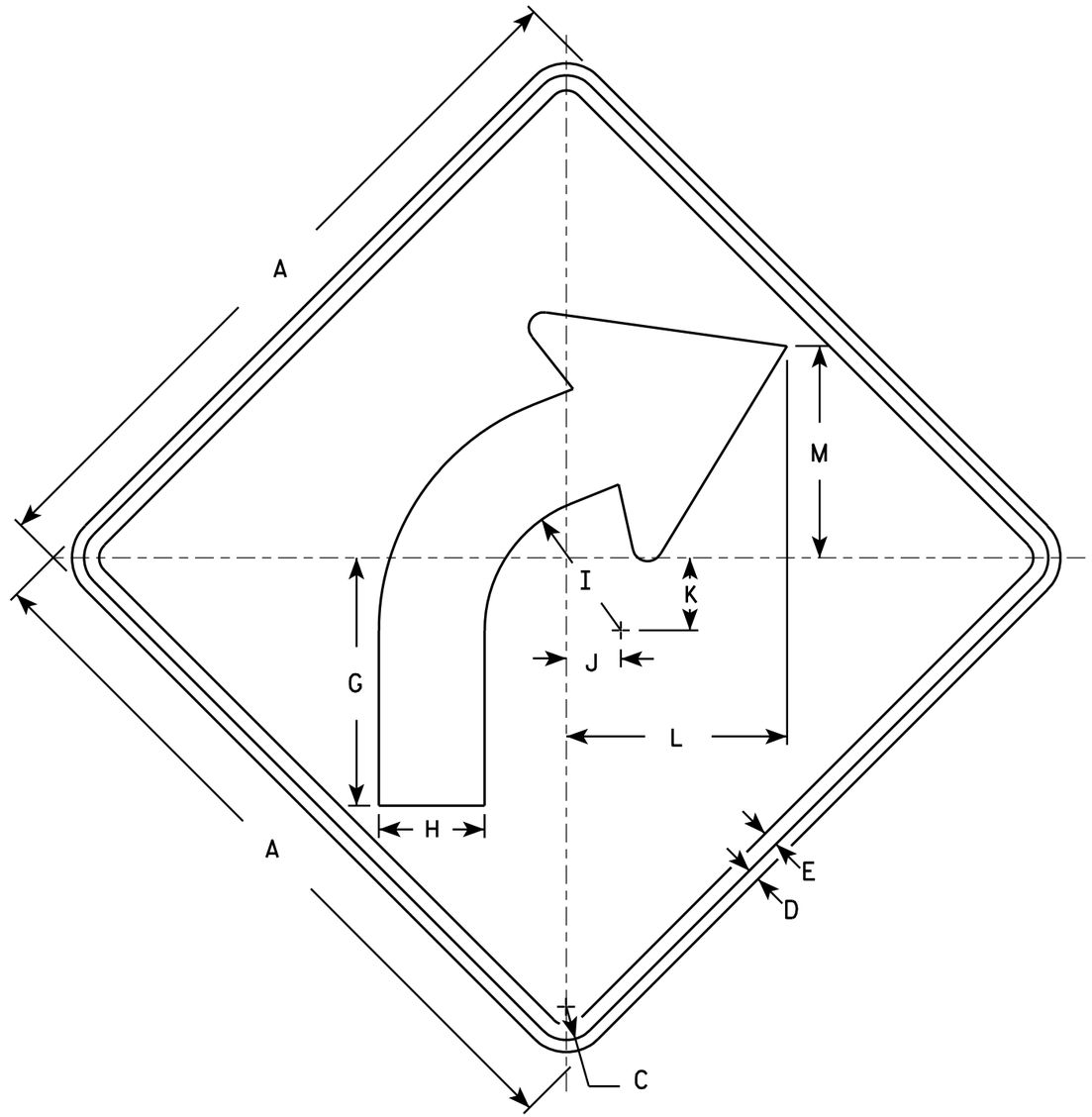
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 208	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.DGN PLOT DATE : 31-MAR-2011 09:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.476110:1.000000

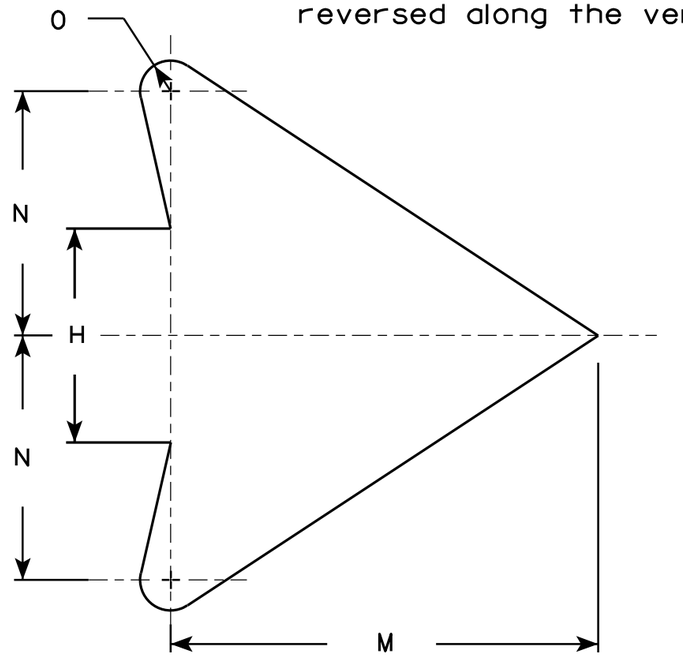
WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

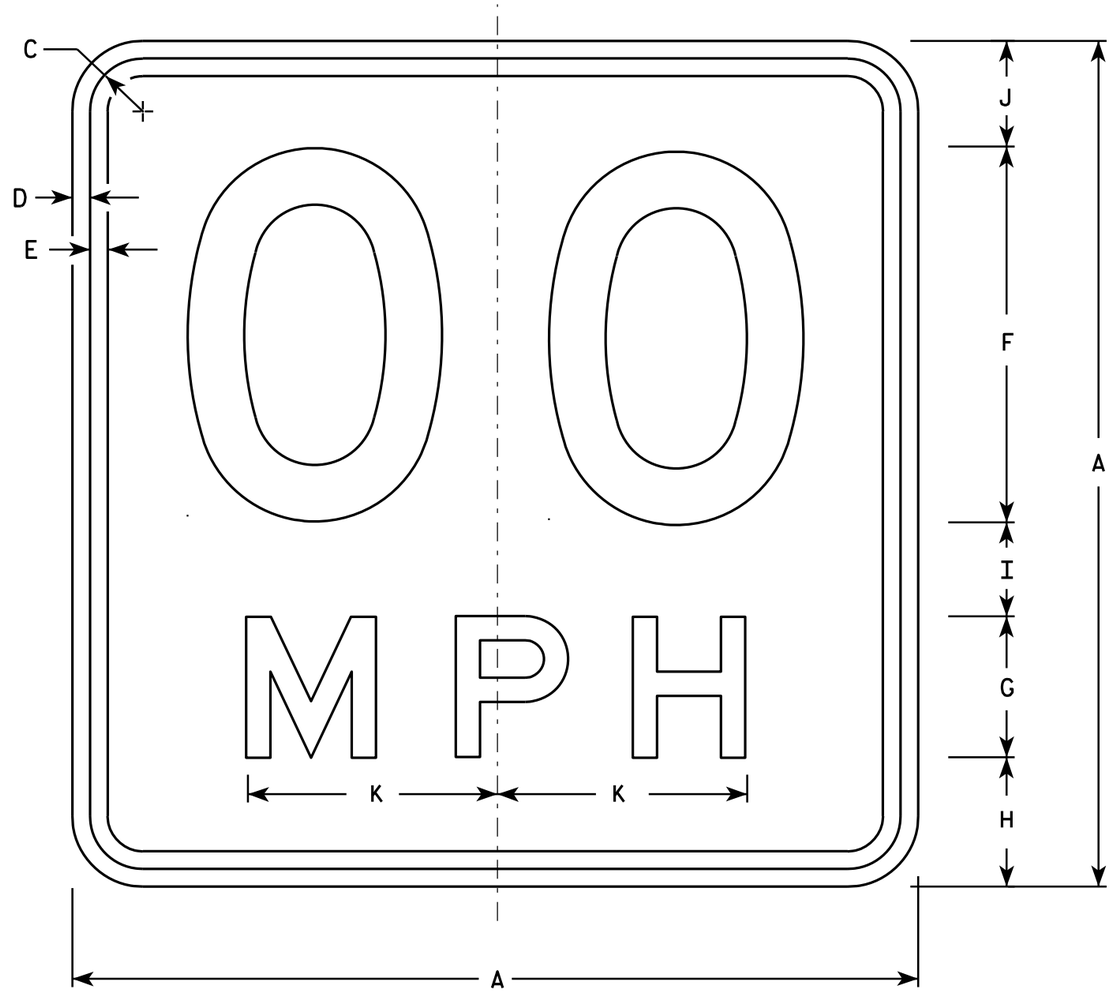
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 209	E



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

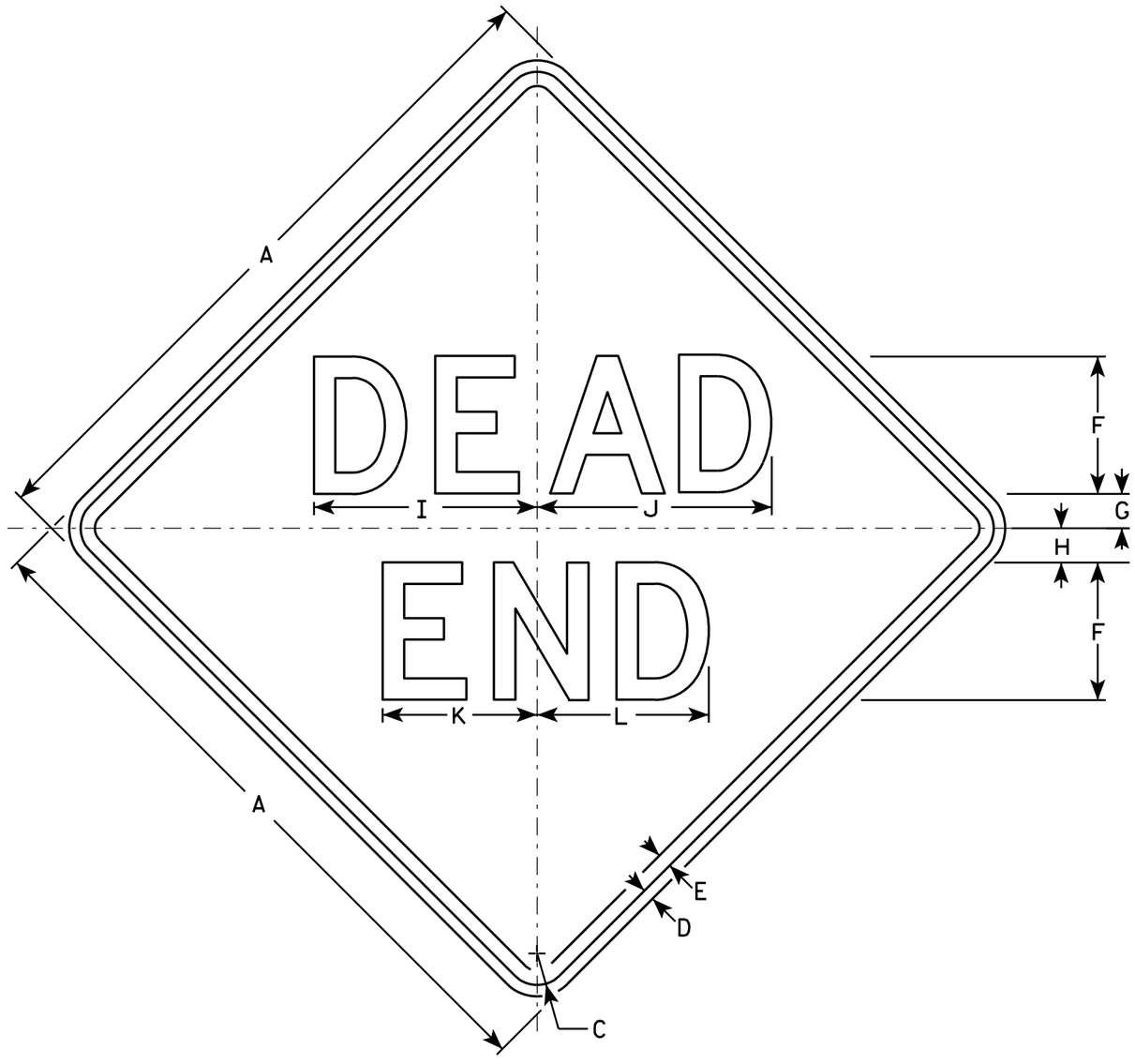
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 210 | E



W14-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

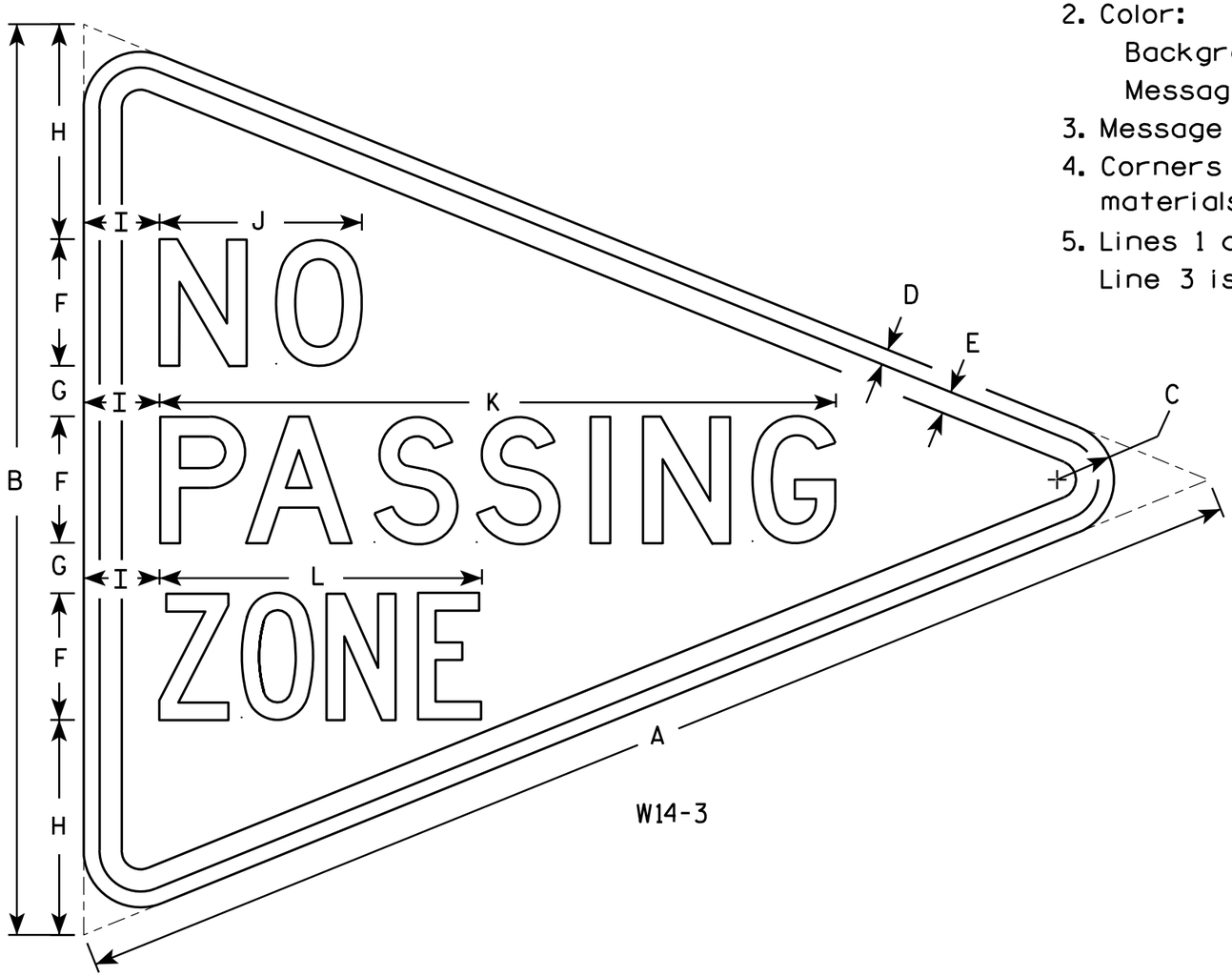
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 211	E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

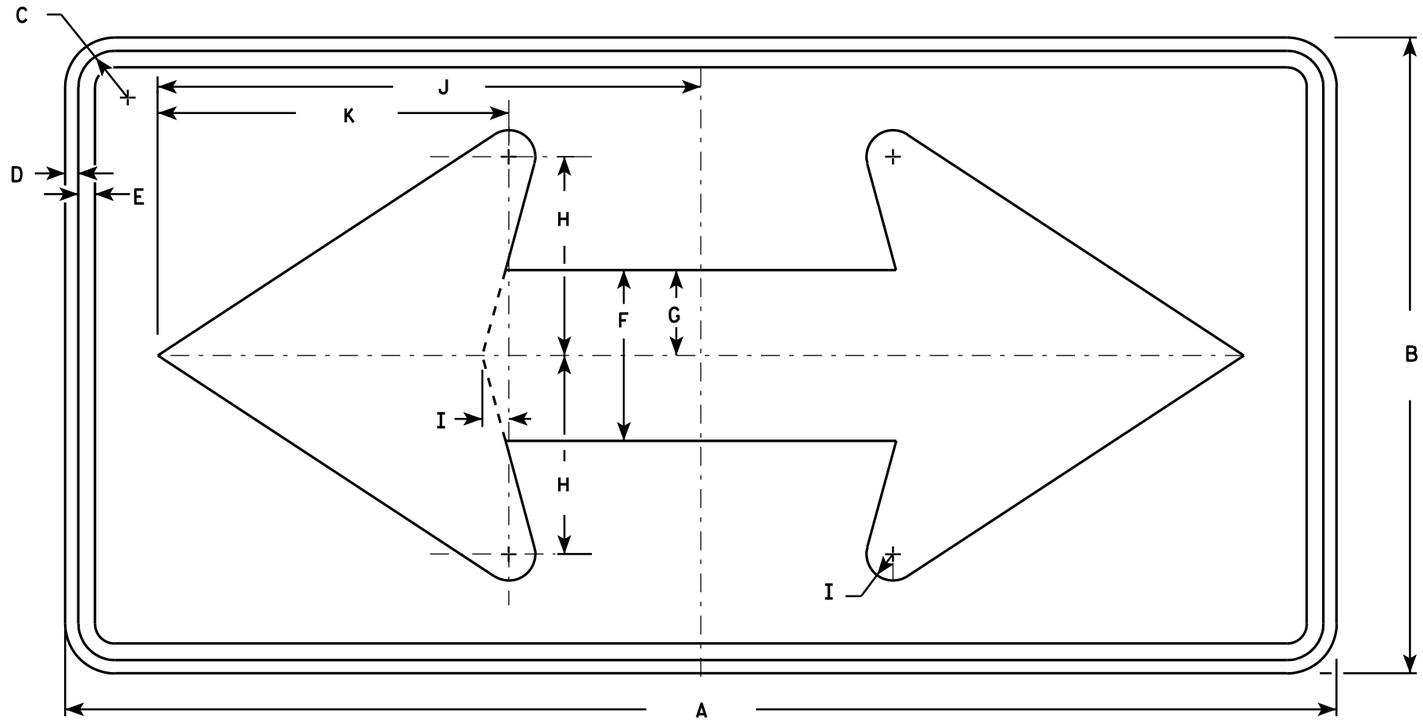
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 212	E



W1-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

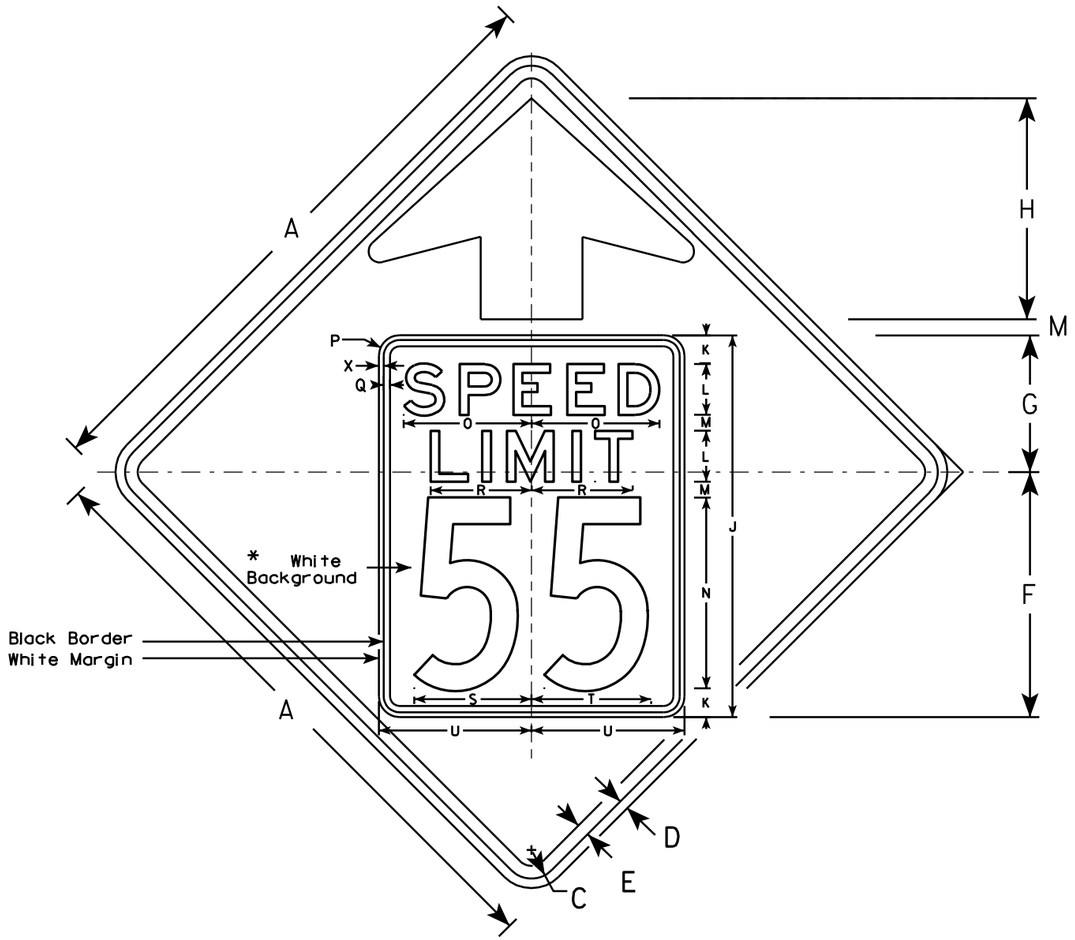
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 213 | E

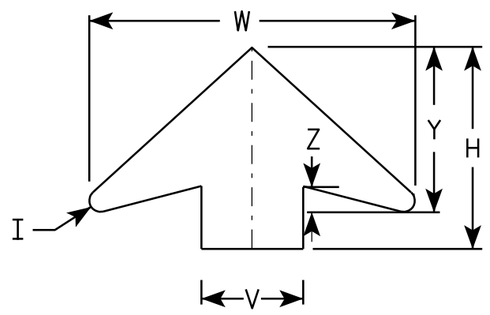


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - YELLOW*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

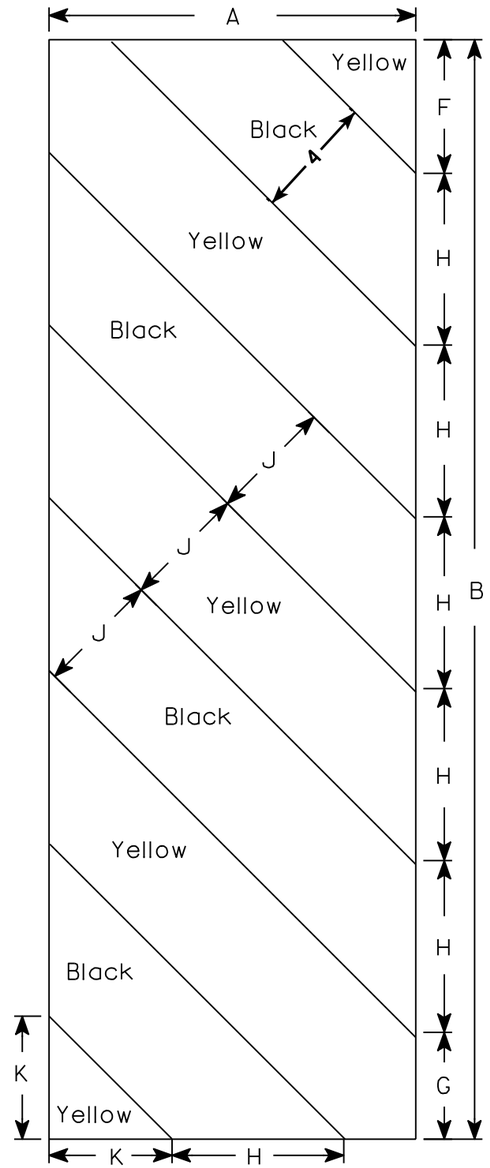
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

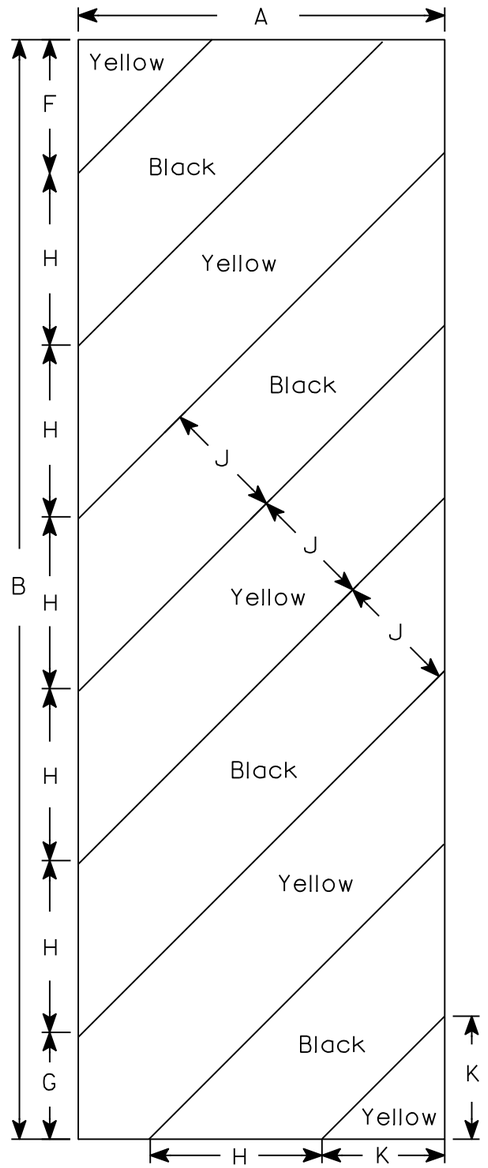
DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 214 E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

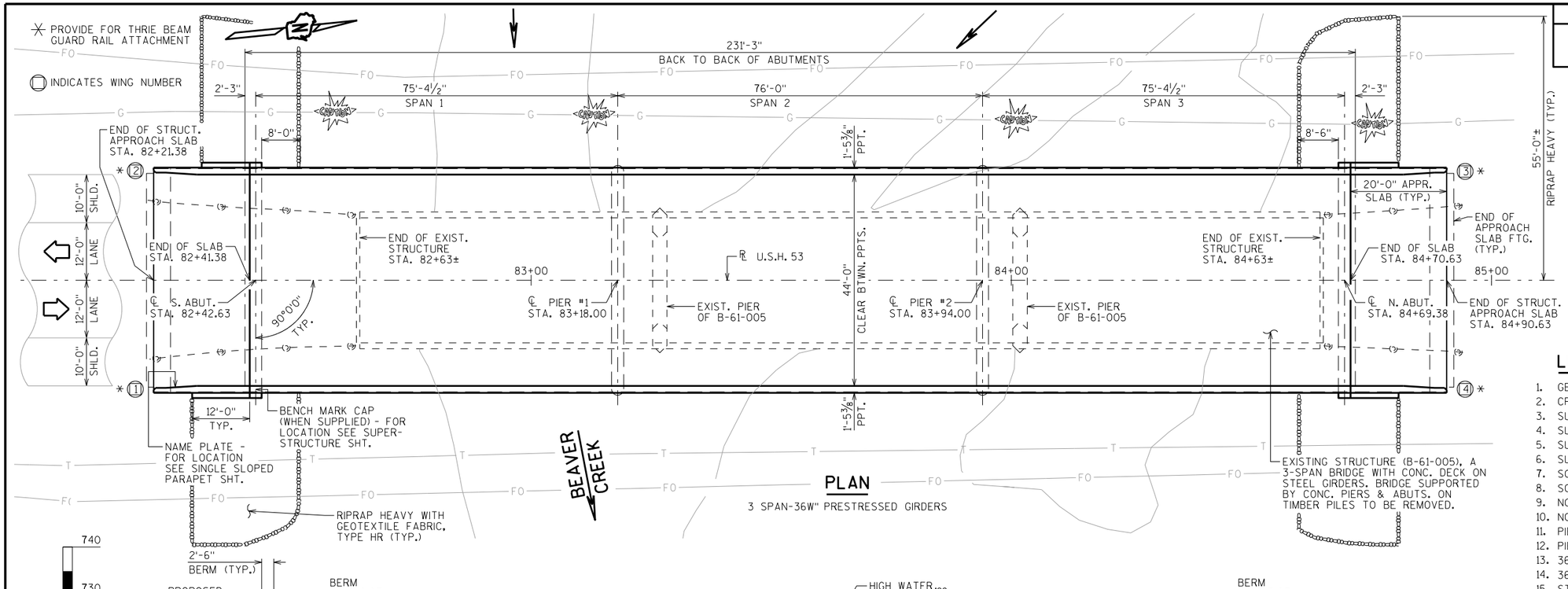
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 215 | E

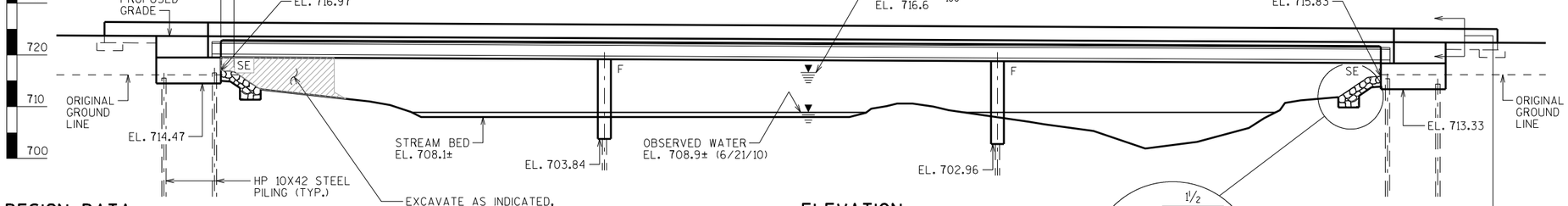
STATE PROJECT NUMBER

1634-03-71



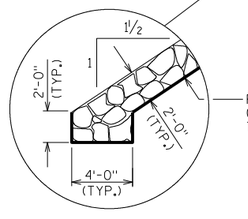
PLAN

3 SPAN-36W" PRESTRESSED GIRDERS



ELEVATION

NORMAL TO BEAVER CREEK (LOOKING UPSTREAM)



LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION 1
4. SUBSURFACE EXPLORATION 2
5. SUBSURFACE EXPLORATION 3
6. SUBSURFACE EXPLORATION 4
7. SOUTH ABUTMENT
8. SOUTH ABUTMENT DETAILS
9. NORTH ABUTMENT
10. NORTH ABUTMENT DETAILS
11. PIER 1
12. PIER 2
13. 36W" PRESTRESSED GIRDER DETAILS 1
14. 36W" PRESTRESSED GIRDER DETAILS 2
15. STEEL DIAPHRAGM
16. SUPERSTRUCTURE
17. SUPERSTRUCTURE DETAILS
18. S. ABUTMENT APPROACH SLAB
19. N. ABUTMENT APPROACH SLAB
20. SINGLE SLOPED PARAPET 32SS

DESIGN DATA

LIVE LOAD:

DESIGN RATING: HL-93

INVENTORY RATING: RF = 1.01

OPERATIONAL RATING: RF = 1.31

MAXIMUM STANDARD PERMIT VEHICLE (WIS.SPV): 240 KIPS.

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I. ALL OTHER — f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

36W" PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 8,000 P.S.I.
STRANDS- 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10X42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ** PER PILE, AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 115 FEET LONG AT BOTH S. & N. ABUTMENTS.

PIERS TO BE SUPPORTED ON HP 10X42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ** PER PILE, AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 120 FEET LONG AT PIER #1, AND 125 FEET LONG AT PIER #2.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} = 6,000 C.F.S.
VEL. = 3.67 F.P.S.
HW. = EL. 716.6
WATERWAY AREA = 1,633 SQ. FT.
DRAINAGE AREA = 125 SQ. MI.
ROAD OVERTOPPING = NA
SCOUR CRITICAL CODE = 5

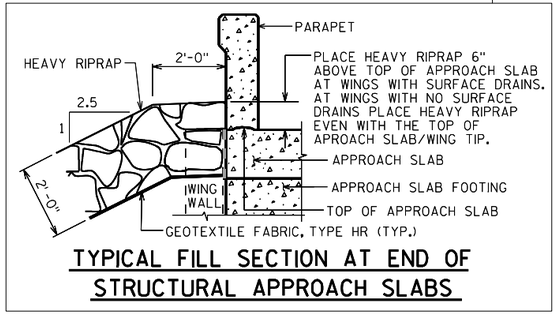
2 YEAR FREQUENCY

Q_2 = 1,450 C.F.S.
$HW._2$ = EL. 713.0

TRAFFIC VOLUME

U.S.H. 53

A.D.T. = 6,155 (2014)
A.D.T. = 7,655 (2034)
R.D.S. = 60 M.P.H.



TYPICAL FILL SECTION AT END OF STRUCTURAL APPROACH SLABS

STRUCTURE DESIGN CONTACTS:

ALEXANDER CRABTREE (608) 266-3686
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

ACCEPTED William C. Ducker LLS 9/19/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-61-202

U.S.H. 53 OVER BEAVER CREEK

COUNTY TREMPEALEAU TOWN/~~CITY/VILLAGE~~ GALE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ARC	RAC	ARC	RAC

GENERAL PLAN

SHEET 1 OF 20

216

I.D. 1634-03-00

DATE: MAY 2013

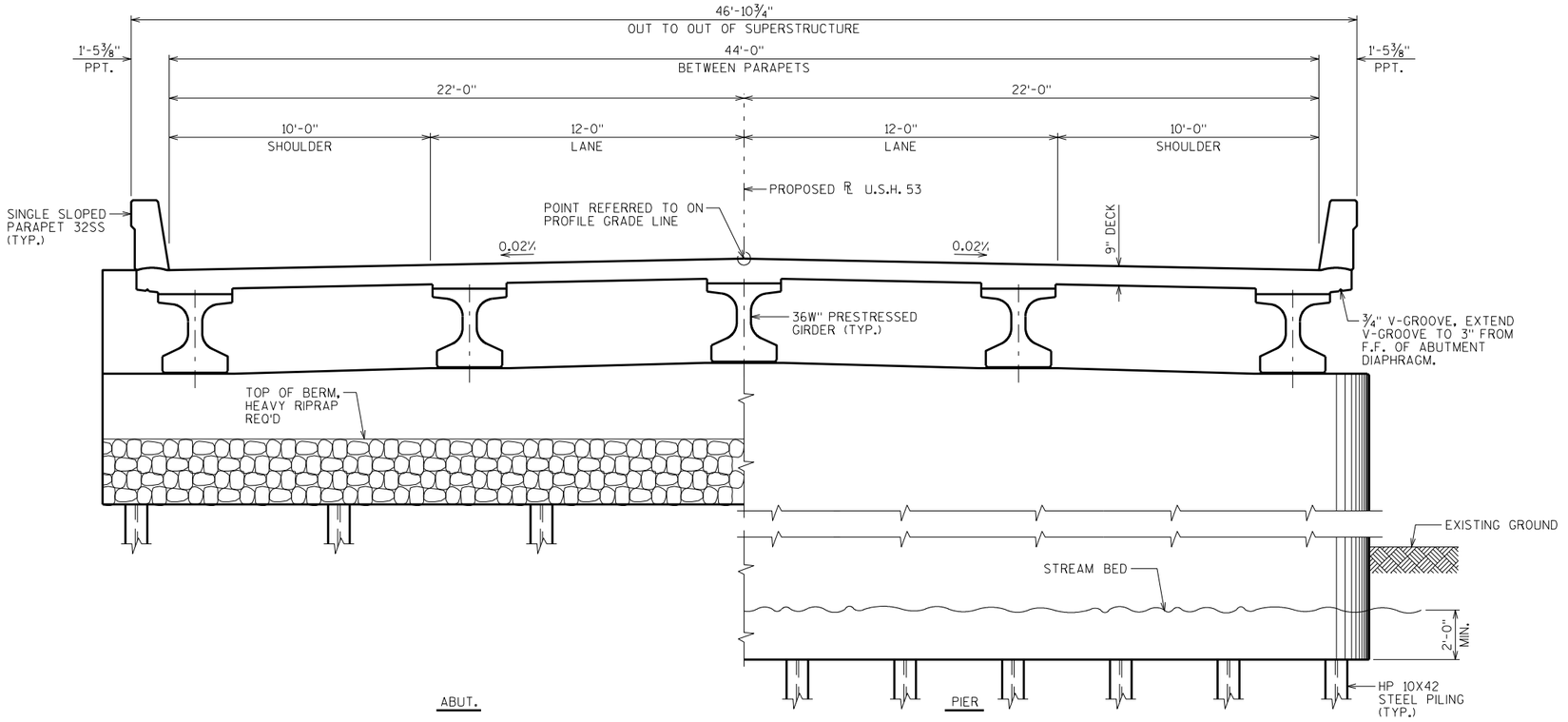
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8

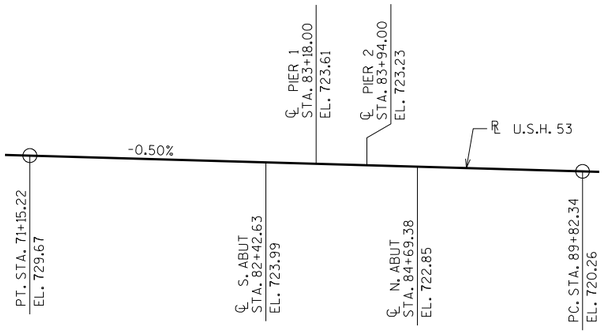
STATE PROJECT NUMBER

1634-03-71



CROSS SECTION THRU BRIDGE

(LOOKING NORTH)



PROFILE GRADE LINE U.S.H. 53

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE, THE ENTIRE TOP OF APPROACH SLAB SURFACES, THE FRONT FACE AND THE TOP OF THE PARAPETS (INCLUDING PARAPETS ON APPROACH SLAB).

THE EXISTING STREAM BED SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

AT PIERS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE FABRIC TYPE 'HR' TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	S. APPROACH SLAB	SOUTH ABUT.	NORTH ABUT.	N. APPROACH SLAB	PIER 1	PIER 2	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 83+64	LS	———	———	———	———	———	———	———	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-61-202	LS	———	———	———	———	———	———	———	1
210.0100	BACKFILL STRUCTURE	CY	———	———	170	170	———	———	———	340
502.0100	CONCRETE MASONRY BRIDGES	CY	441	64	54	55	64	67	69	814
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,310	130	———	———	130	———	———	1,570
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	1,137	———	———	———	———	———	———	1,137
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	———	———	2,810	2,810	———	3,220	3,270	12,110
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	88,960	10,580	1,470	1,460	10,580	———	———	113,050
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	———	———	5	5	———	10	10	30
506.4000	STEEL DIAPHRAGMS B-61-202	EACH	12	———	———	———	———	———	———	12
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	———	10	10	———	———	———	20
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	———	———	920	920	———	1,440	1,500	4,780
606.0300	RIPRAP HEAVY	CY	———	———	135	135	———	———	———	270
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	———	60	85	85	60	———	———	290
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	———	———	———	———	———	———	4
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	———	———	220	220	———	———	———	440
SPV.0085	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB	———	800	———	———	800	———	———	1,600
	NON-BID ITEMS									
	FILLER	SIZE	———	———	———	———	———	———	———	½", ¾" & 1½"
			———	———	———	———	———	———	———	

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY ARC | PLANS CK'D. RAC

CROSS SECTION & QUANTITIES

SHEET 2

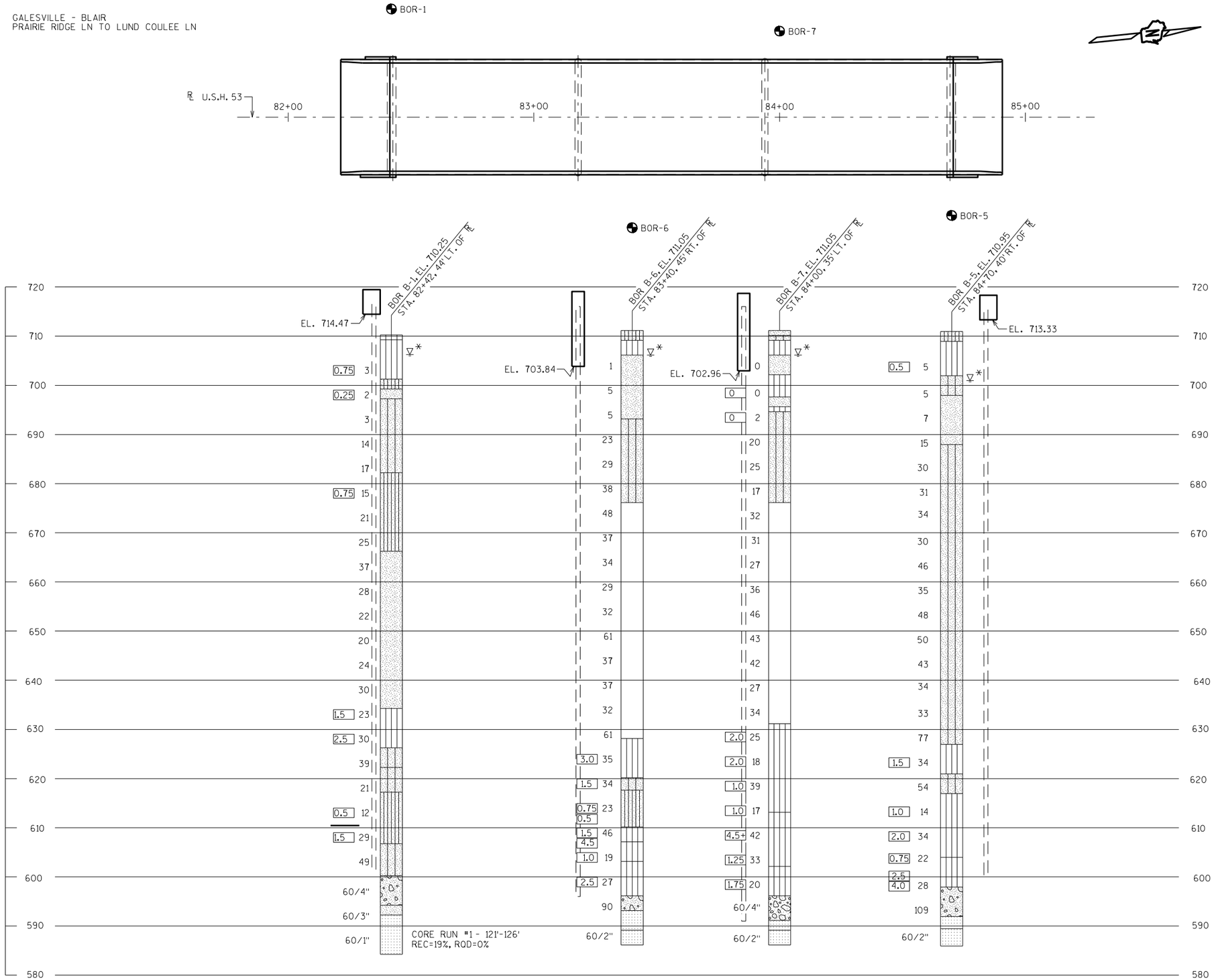
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SCALE = 2.666

8

8

GALESVILLE - BLAIR
PRAIRIE RIDGE LN TO LUND COULEE LN



* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

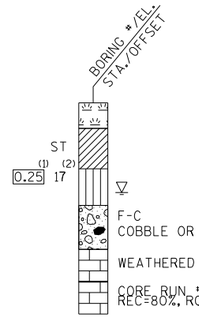
STATE PROJECT NUMBER

1634-03-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY PR/ARC | PLANS CK'D. RAC

SUBSURFACE EXPLORATION 1

SHEET 3

218

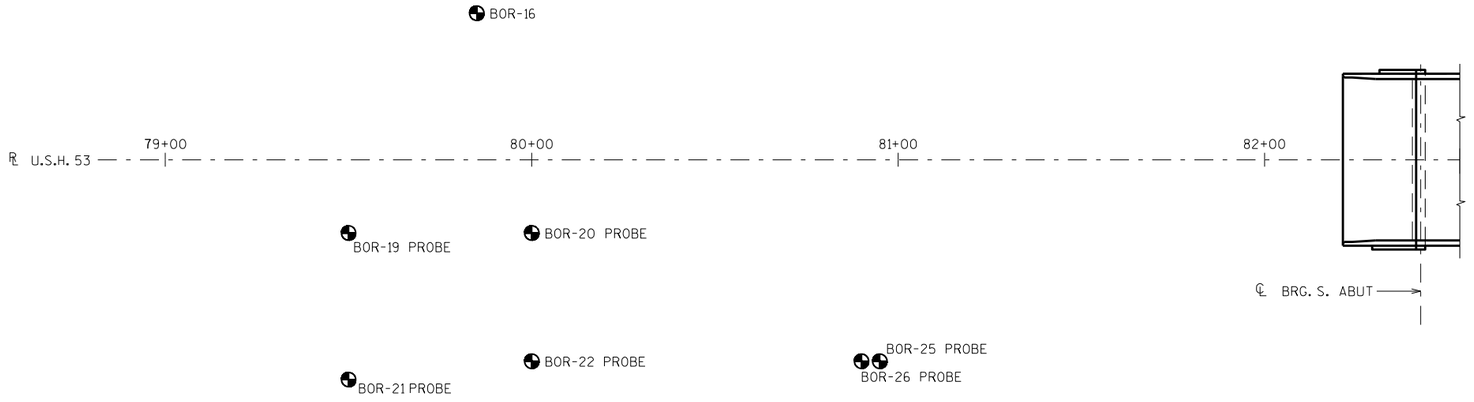
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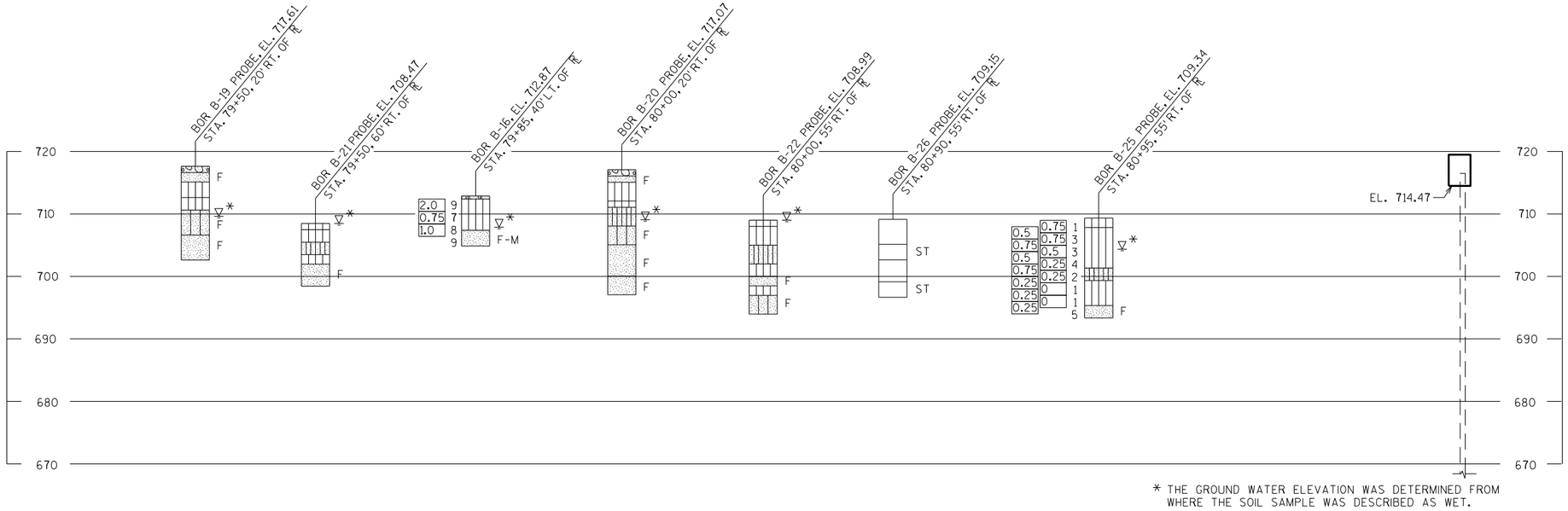
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SCALE = 10.0

GALESVILLE - BLAIR
PRAIRIE RIDGE LN TO LUND COULEE LN

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
19	10/1/12	348196.975	850332.218
21	10/1/12	348200.853	850374.067
16	9/27/12	348251.806	850277.806
20	10/1/12	348245.478	850337.374
22	10/1/12	348242.835	850376.509
26	10/2/12	348333.701	850383.121
25	10/2/12	348336.86	850383.648
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) TREMPEALEAU COUNTY			





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

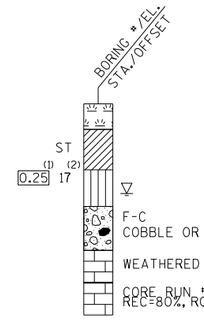
STATE PROJECT NUMBER

1634-03-71

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY PR/ARC | PLANS CK'D. RAC

SUBSURFACE EXPLORATION 2

SHEET 4

219

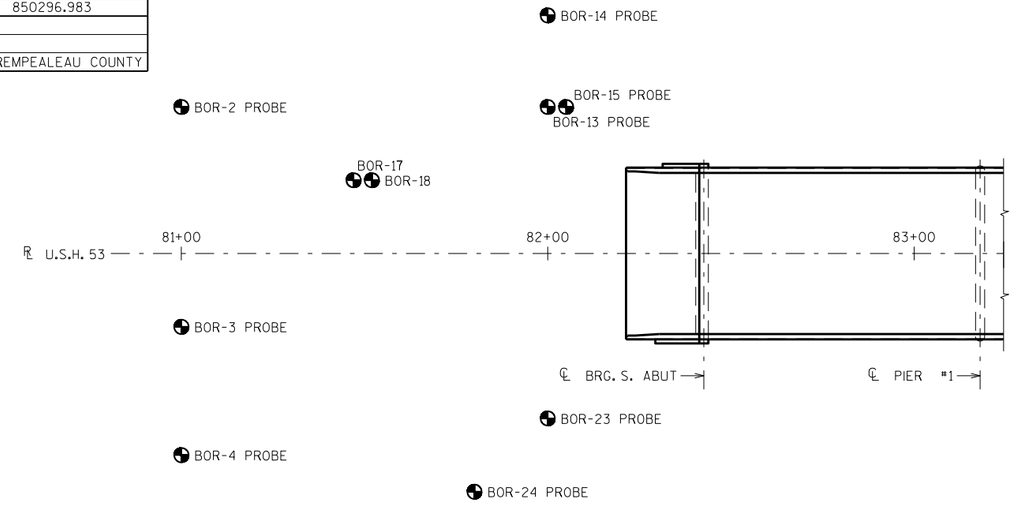
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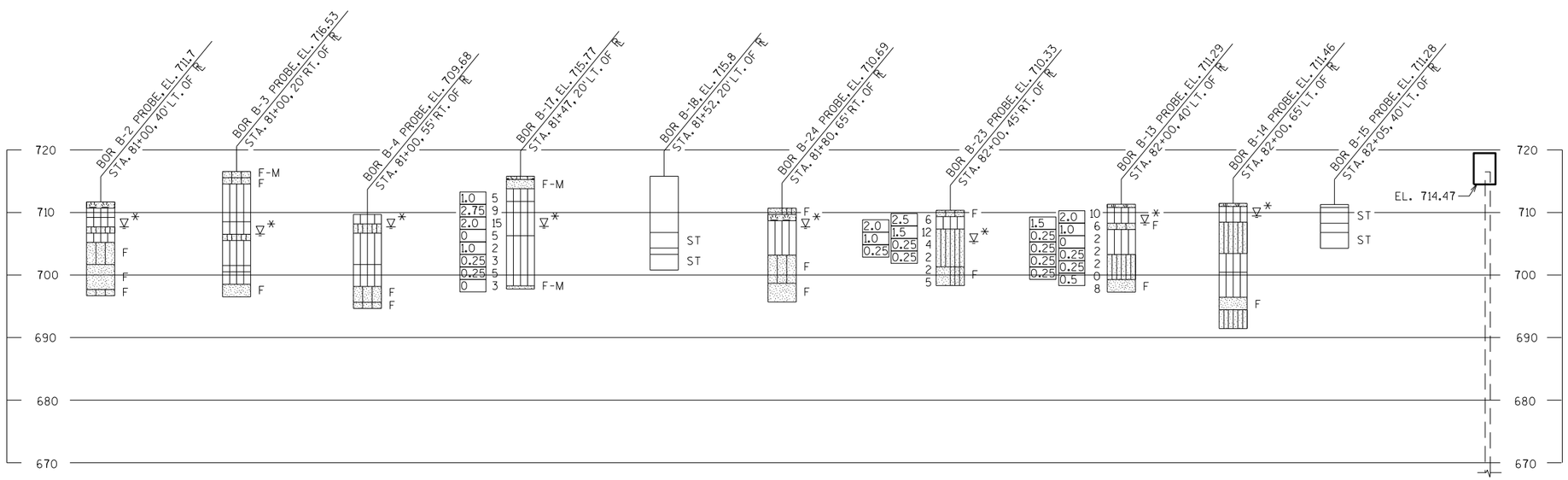
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GALESVILLE - BLAIR
PRAIRIE RIDGE LN TO LUND COULEE LN

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
2	9/12/12	348352.58	850287.256
3	9/12/12	348349.325	850307.573
4	9/12/12	348342.47	850383.704
17	9/27/12	348394.933	850312.537
18	9/27/12	348401.41	850313.144
24	10/2/12	348424.107	850399.352
23	10/1/12	348443.778	850383.26
13	9/26/12	348444.387	850298.29
14	9/26/12	348449.815	850273.393
15	9/27/12	348450.263	850296.983
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) TREMPEALEAU COUNTY			





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

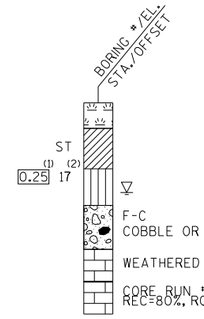
STATE PROJECT NUMBER

1634-03-71

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY PR/ARC | PLANS CK'D. RAC

SUBSURFACE EXPLORATION 3

SHEET 5

220

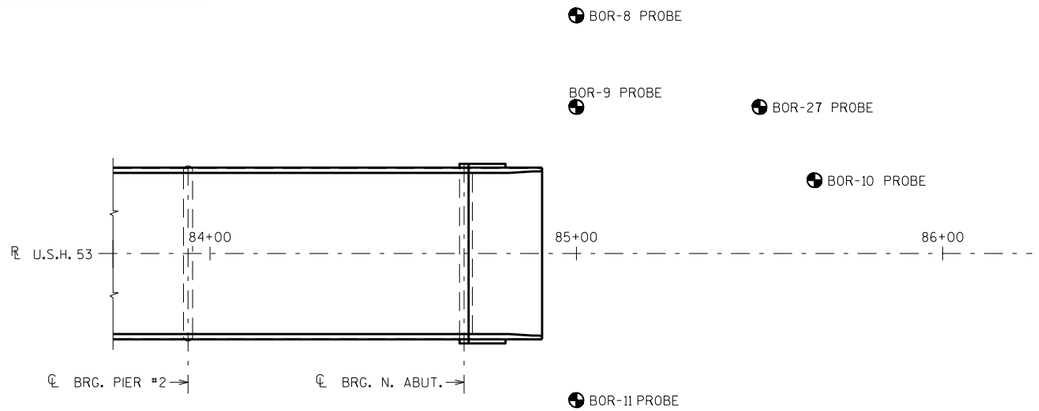
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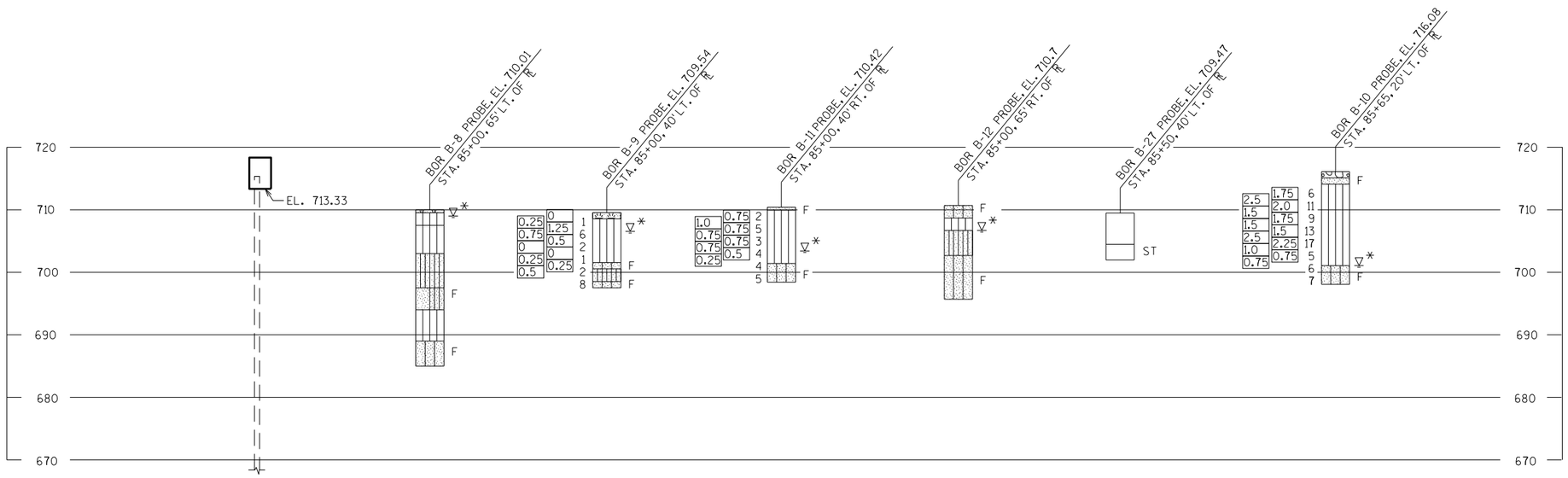
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GALESVILLE - BLAIR
PRAIRIE RIDGE LN TO LUND COULEE LN

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
8	9/26/12	348749.748	850303.466
9	9/26/12	348749.215	850326.475
11	9/26/12	348744.076	850409.966
12	9/26/12	348735.127	850433.665
27	10/2/12	348793.484	850329.497
10	9/26/12	348810.777	850355.104
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) TREMPEALEAU COUNTY			





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

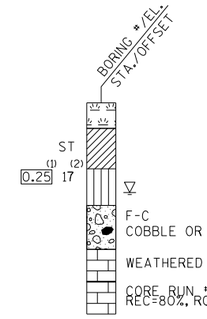
STATE PROJECT NUMBER

1634-03-71

MATERIAL SYMBOLS

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY PR/ARC | PLANS CK'D. RAC

SUBSURFACE EXPLORATION 4

SHEET 6

221

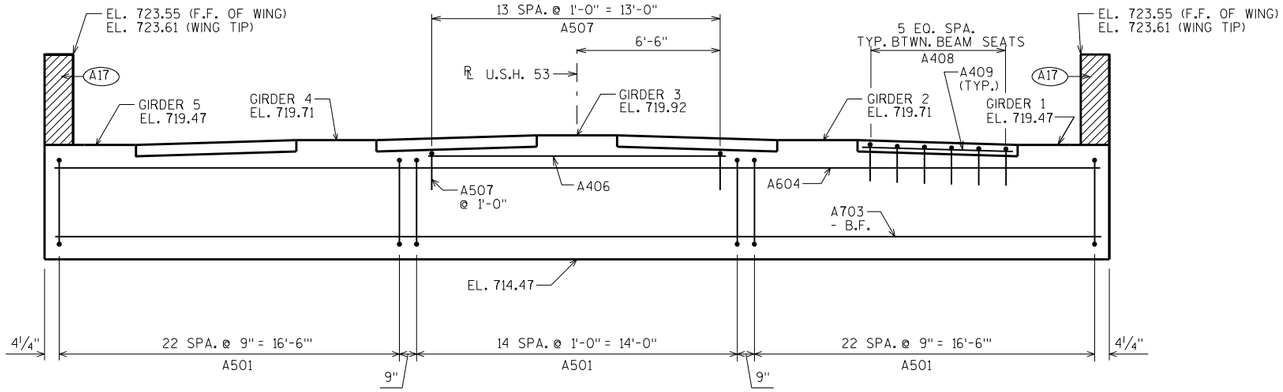
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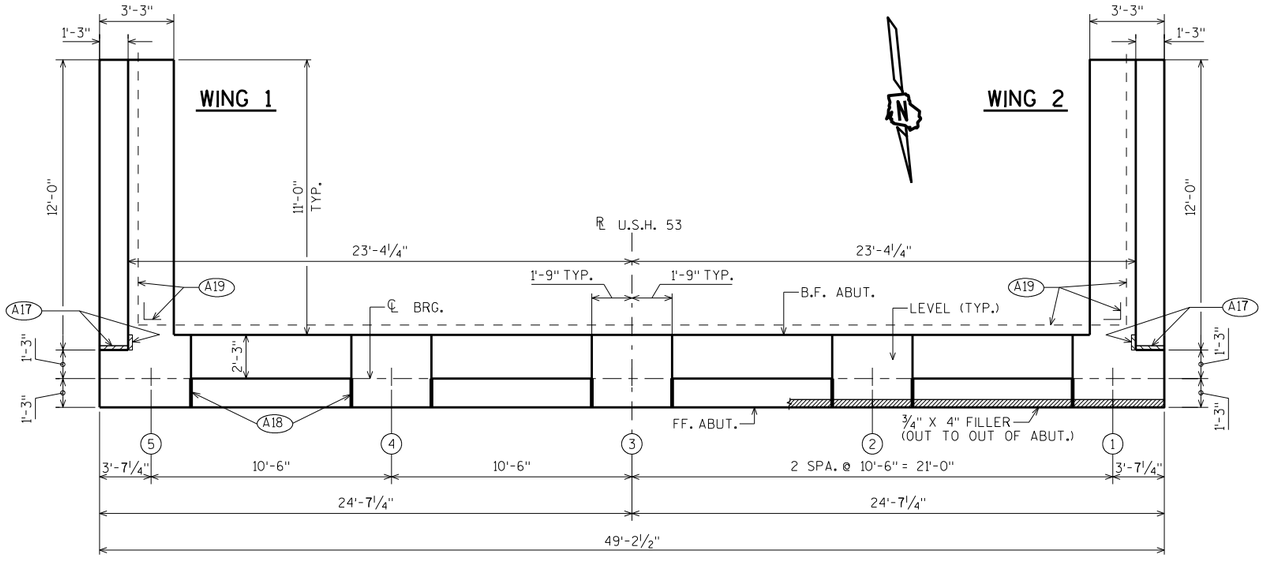
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STATE PROJECT NUMBER

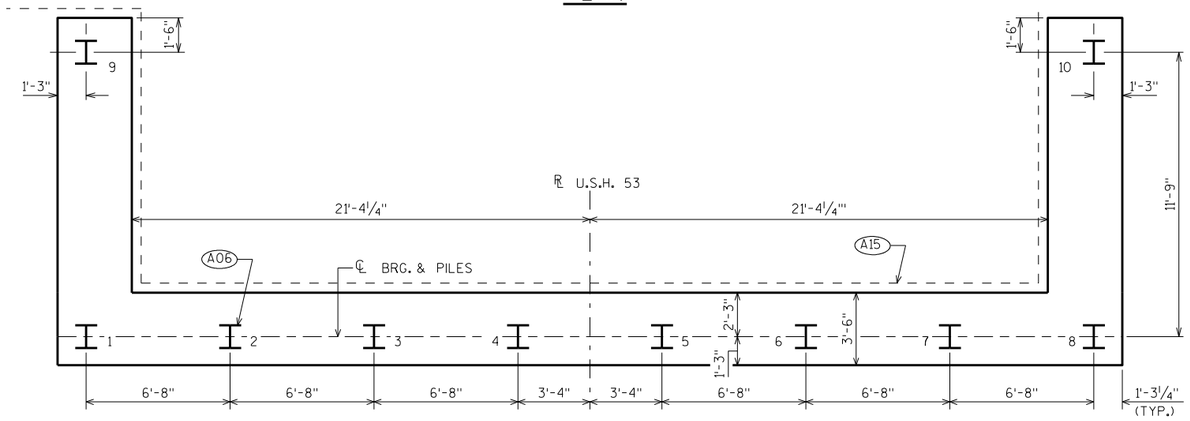
1634-03-71



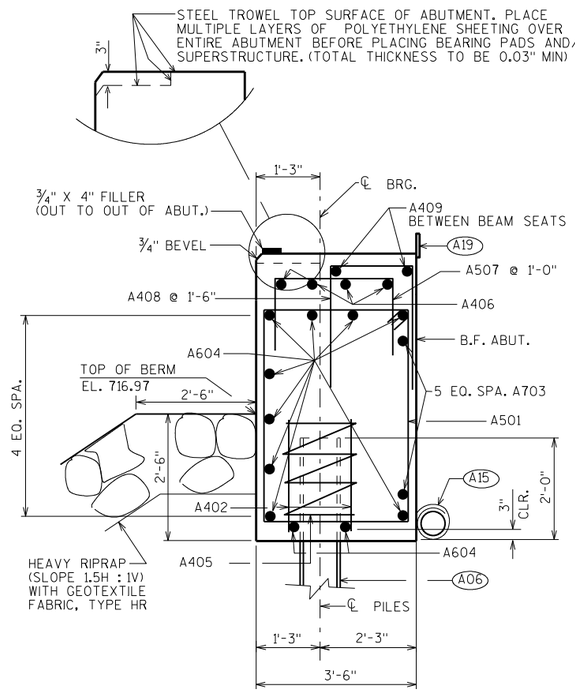
ELEVATION LOOKING SOUTH



PLAN



PILE PLAN



SECTION THRU BODY

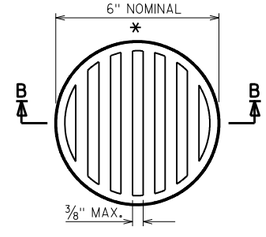
(A06) SUPPORT ABUTMENT ON HP 10 X 42 STEEL PILING, ESTIMATED 115 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

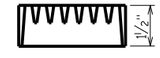
(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.



RODENT SHIELD DETAIL



SECTION B-B

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY WWR | PLANS CK'D. RAC

SOUTH ABUTMENT

SHEET 7

222

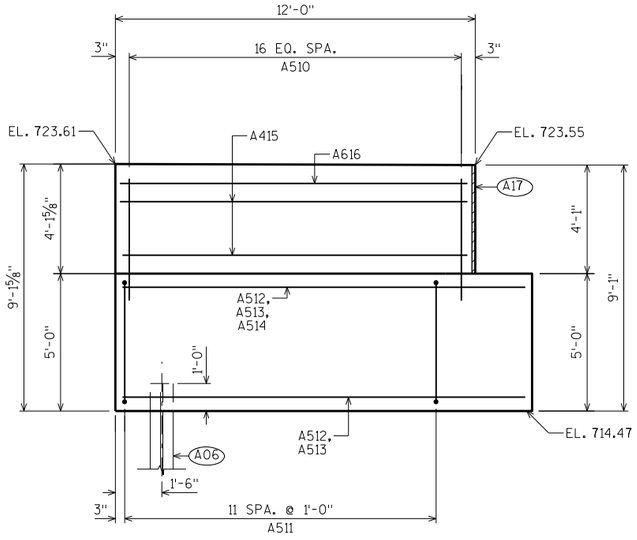
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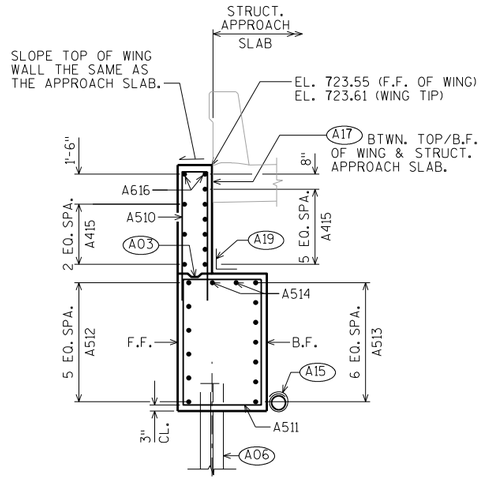
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STATE PROJECT NUMBER

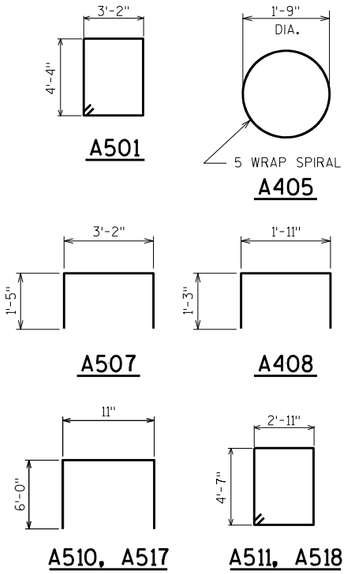
1634-03-71



WING 1 ELEVATION



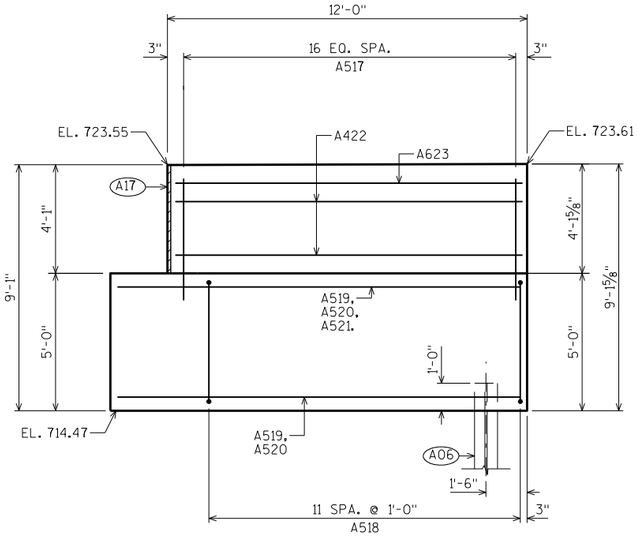
WING 1 SECTION



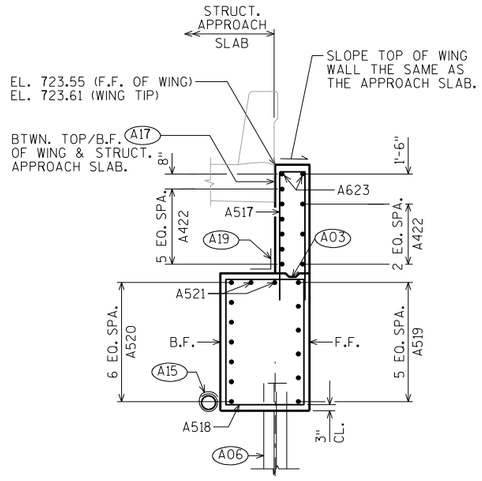
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

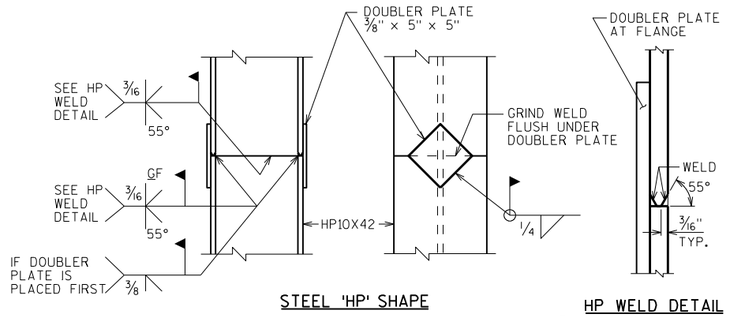
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		61	15'-8"	X		BODY-STIRRUPS
A402		16	2'-3"			PILES-2 PER PILE
A703		6	48'-9"			BODY-HORIZONTAL-B.F.
A604		11	48'-9"			BODY-HORIZONTAL
A405		8	28'-0"	X		PILES-1 PER PILE
A406		4	13'-6"			BODY-TOP-HORIZ.-UNDER GIR. 3
A507		14	5'-9"	X		BODY-TOP-VERT.-UNDER GIR. 3
A408		24	4'-3"	X		BODY-BETWEEN BEAM SEATS-VERT.
A409		8	9'-0"			BODY-BETWEEN BEAM SEATS-HORIZ.
A510	X	17	12'-8"	X		WING 1-VERTICAL
A511	X	12	15'-7"	X		WING 1-STIRRUP
A512	X	6	14'-2"			WING 1-HORIZONTAL-F.F.
A513	X	7	12'-7"			WING 1-HORIZONTAL-B.F.
A514	X	2	12'-7"			WING 1-HORIZONTAL-TOP
A415	X	9	11'-8"			WING 1-HORIZONTAL-F.F. & B.F.
A616	X	2	11'-8"			WING 1-HORIZONTAL-TOP, B.F. & F.F.
A517	X	17	12'-8"	X		WING 2-VERTICAL
A518	X	12	15'-7"	X		WING 2-STIRRUP
A519	X	6	14'-2"			WING 2-HORIZONTAL-F.F.
A520	X	7	12'-7"			WING 2-HORIZONTAL-B.F.
A521	X	2	12'-7"			WING 2-HORIZONTAL-TOP
A422	X	9	11'-8"			WING 2-HORIZONTAL-F.F. & B.F.
A623	X	2	11'-8"			WING 2-HORIZONTAL-TOP, B.F. & F.F.



WING 2 ELEVATION



WING 2 SECTION



STEEL 'HP' SHAPE

HP WELD DETAIL
FLANGE SHOWN, WEB SIMILAR

PILE DETAILS

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 X 6. (18" R.M.W. @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A06) SUPPORT ABUTMENT ON HP 10 X 42 STEEL PILING, ESTIMATED 115 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED (SEE SOUTH ABUTMENT SHEET FOR DETAILS).

(A17) 1/2" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY WWR/ARC | PLANS CK'D. RAC

SOUTH ABUTMENT DETAILS

SHEET 8

223

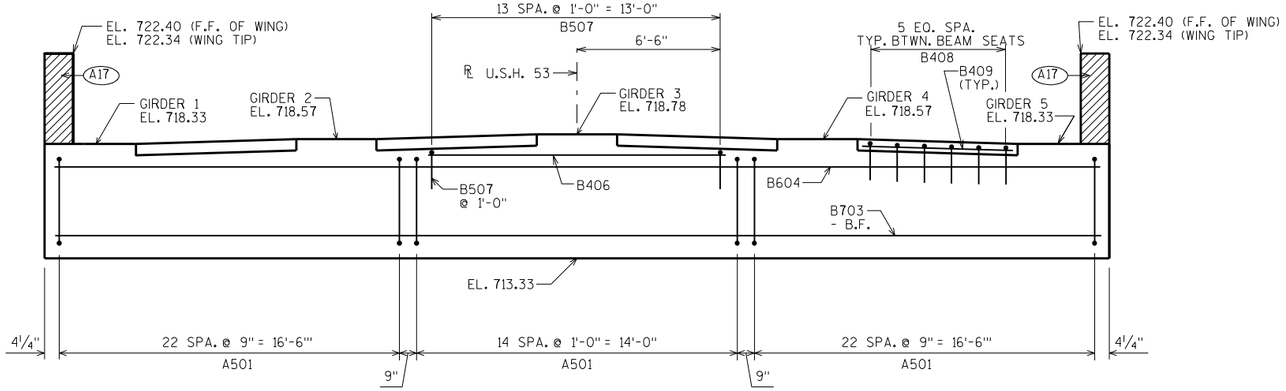
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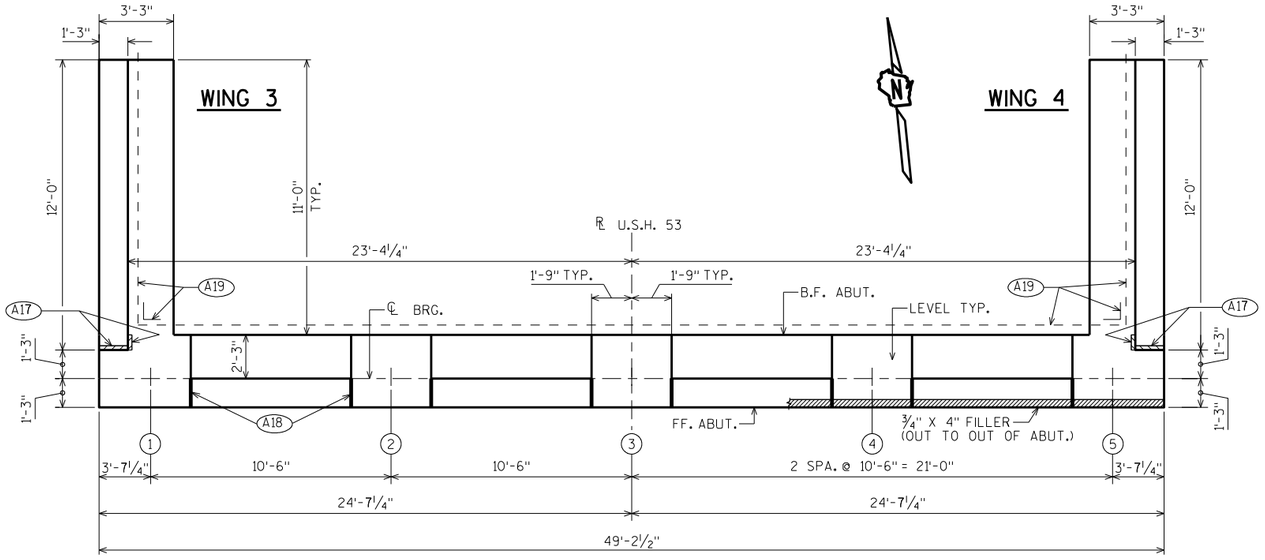
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STATE PROJECT NUMBER

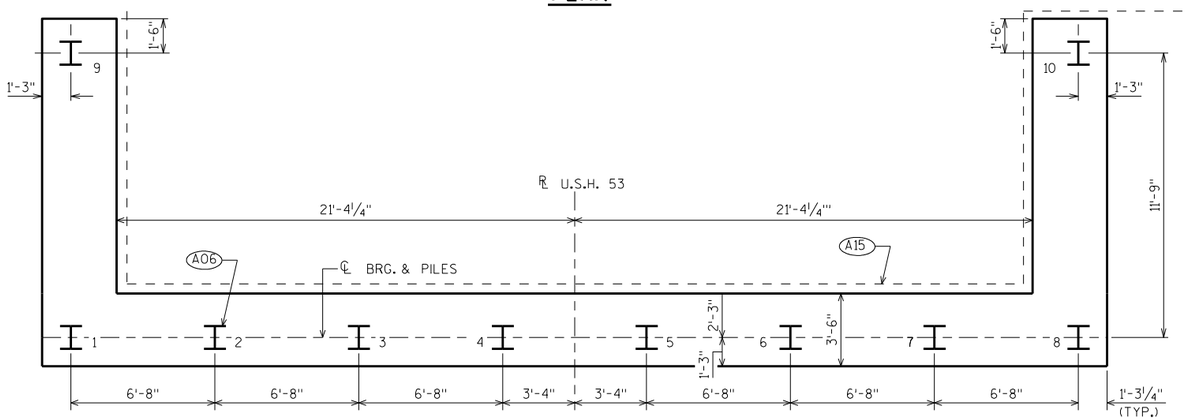
1634-03-71



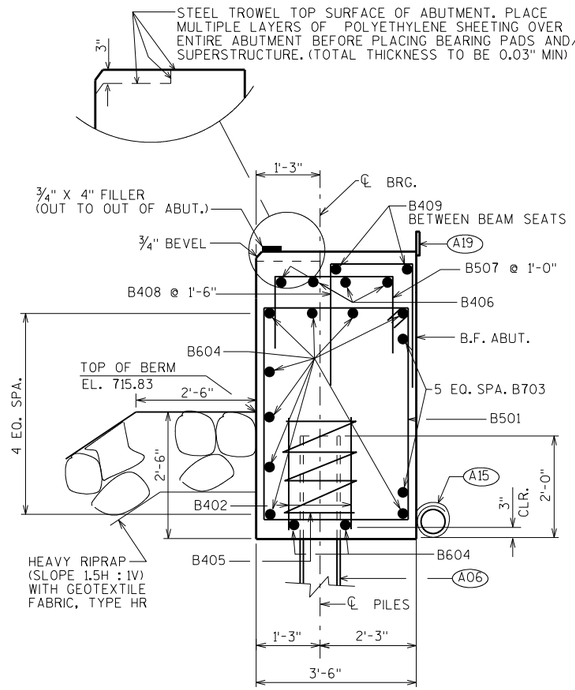
ELEVATION LOOKING NORTH



PLAN



PILE PLAN



SECTION THRU BODY

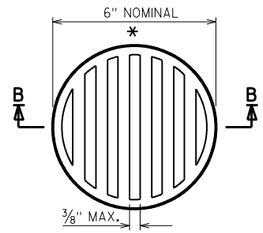
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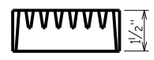
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RODENT SHIELD DETAIL



SECTION B-B

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY WWR | PLANS CK'D. RAC

NORTH ABUTMENT

SHEET 9

224

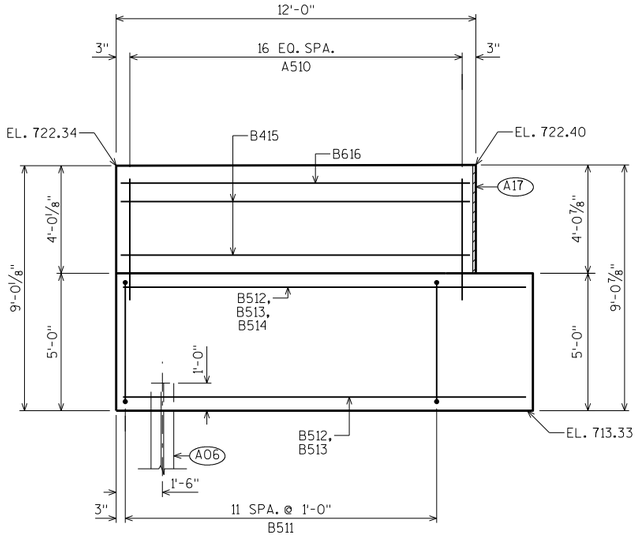
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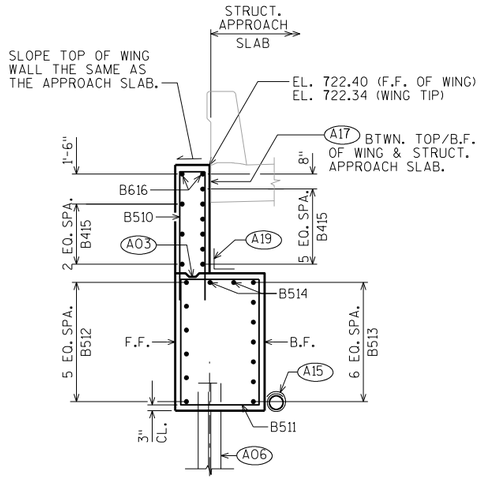
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STATE PROJECT NUMBER

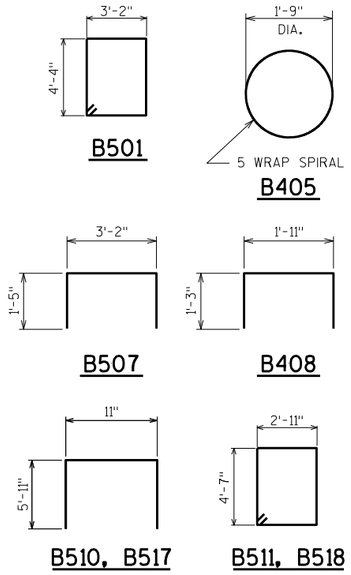
1634-03-71



WING 3 ELEVATION



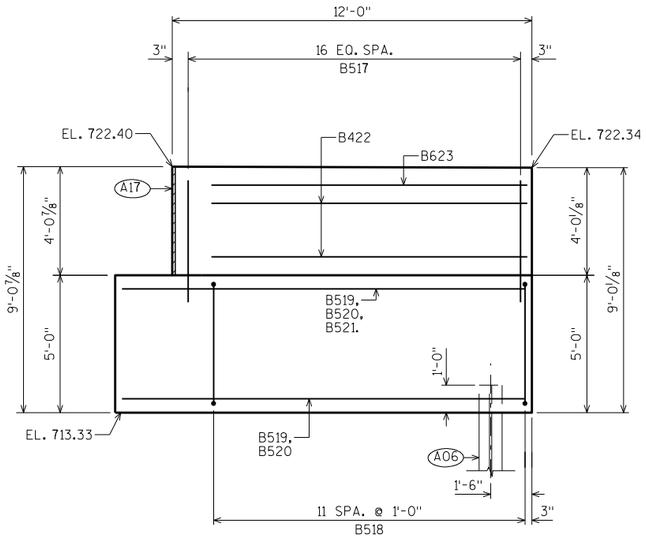
WING 3 SECTION



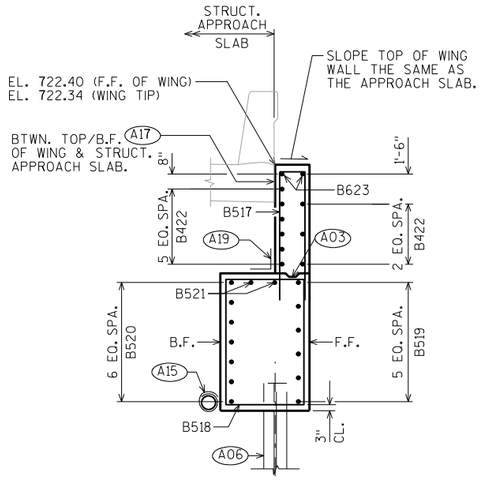
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

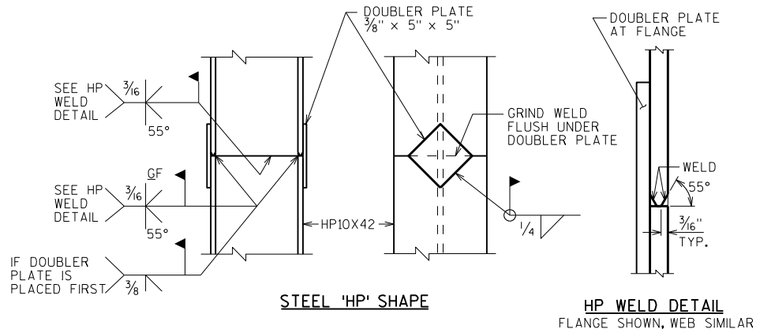
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		61	15'-8"	X		BODY-STIRRUPS
B402		16	2'-3"			PILES- 2 PER PILE
B703		6	48'-9"			BODY-HORIZONTAL-B.F.
B604		11	48'-9"			BODY-HORIZONTAL
B405		8	28'-0"	X		PILES-1 PER PILE
B406		4	13'-6"			BODY-TOP-HORIZ.-UNDER GIR. 3
B507		14	5'-9"	X		BODY-TOP-VERT.-UNDER GIR. 3
B408		24	4'-3"	X		BODY-BETWEEN BEAM SEATS-VERT.
B409		8	9'-0"			BODY-BETWEEN BEAM SEATS-HORIZ.
B510	X	17	12'-6"	X		WING 3-VERTICAL
B511	X	12	15'-7"	X		WING 3-STIRRUP
B512	X	6	14'-2"			WING 3-HORIZONTAL-F.F.
B513	X	7	12'-7"			WING 3-HORIZONTAL-B.F.
B514	X	2	12'-7"			WING 3-HORIZONTAL-TOP
B415	X	9	11'-8"			WING 3-HORIZONTAL-F.F. & B.F.
B616	X	2	11'-8"			WING 3-HORIZONTAL-TOP, B.F. & F.F.
B517	X	17	12'-6"	X		WING 4-VERTICAL
B518	X	12	15'-7"	X		WING 4-STIRRUP
B519	X	6	14'-2"			WING 4-HORIZONTAL-F.F.
B520	X	7	12'-7"			WING 4-HORIZONTAL-B.F.
B521	X	2	12'-7"			WING 4-HORIZONTAL-TOP
B422	X	9	11'-8"			WING 4-HORIZONTAL-F.F. & B.F.
B623	X	2	11'-8"			WING 4-HORIZONTAL-TOP, B.F. & F.F.



WING 4 ELEVATION



WING 4 SECTION



STEEL 'HP' SHAPE

HP WELD DETAIL
FLANGE SHOWN, WEB SIMILAR

PILE DETAILS

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 X 6. (18" R.M.W. @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A06) SUPPORT ABUTMENT ON HP 10 X 42 STEEL PILING, ESTIMATED 115 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED (SEE NORTH ABUTMENT SHEET FOR DETAILS).

(A17) 1/2" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

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STRUCTURE B-61-202

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NORTH ABUTMENT DETAILS

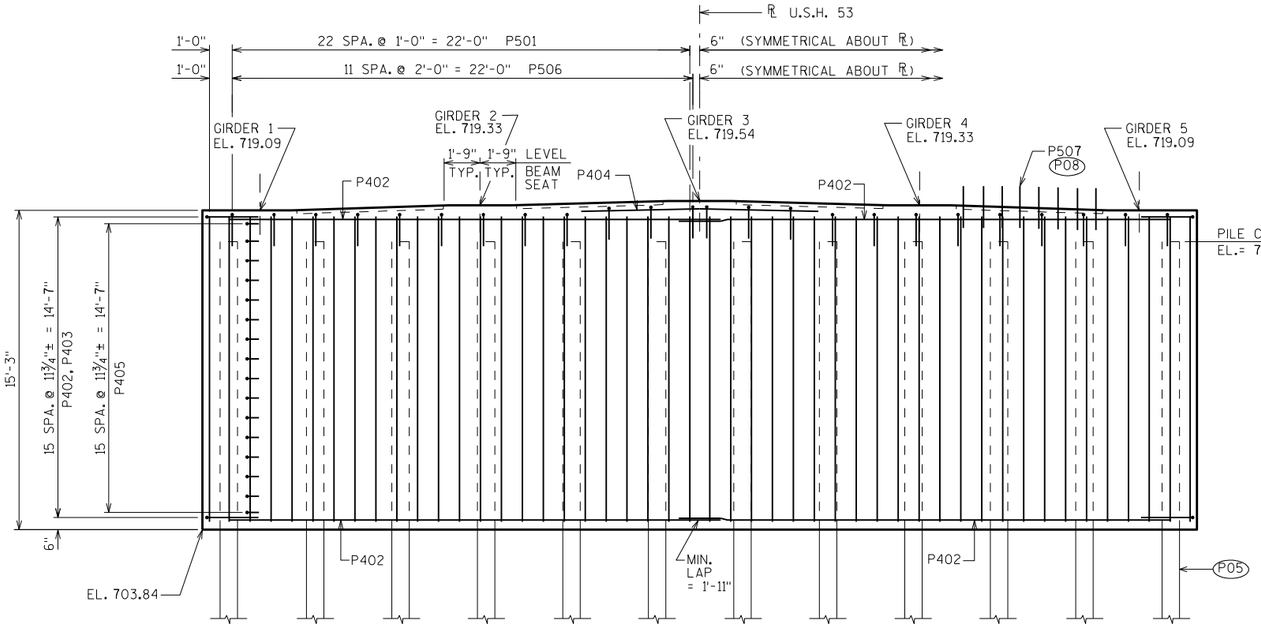
SHEET 10

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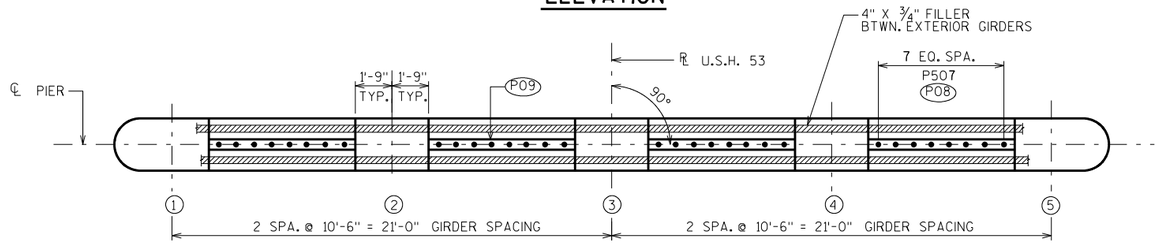
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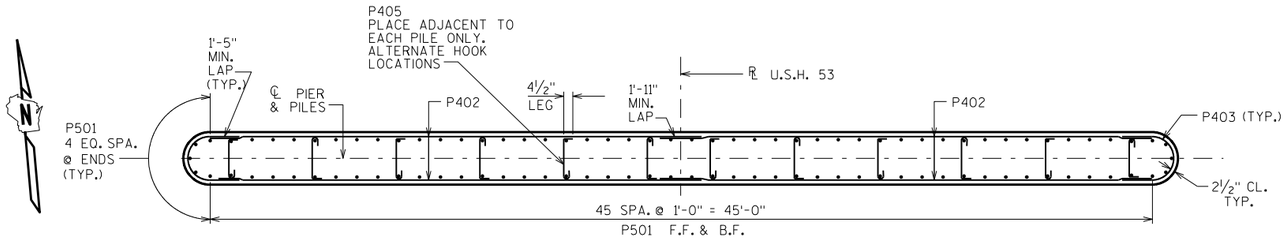
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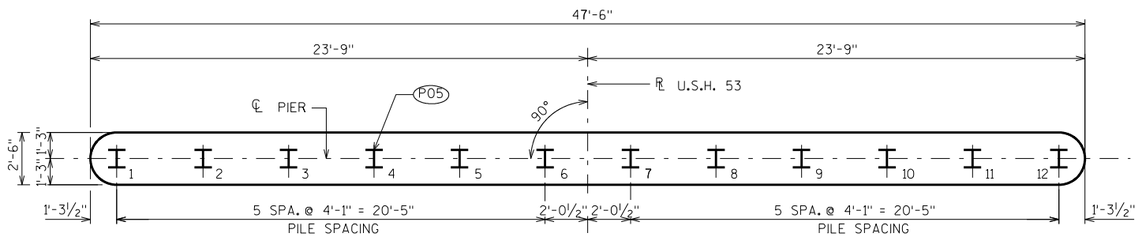
ELEVATION



PLAN

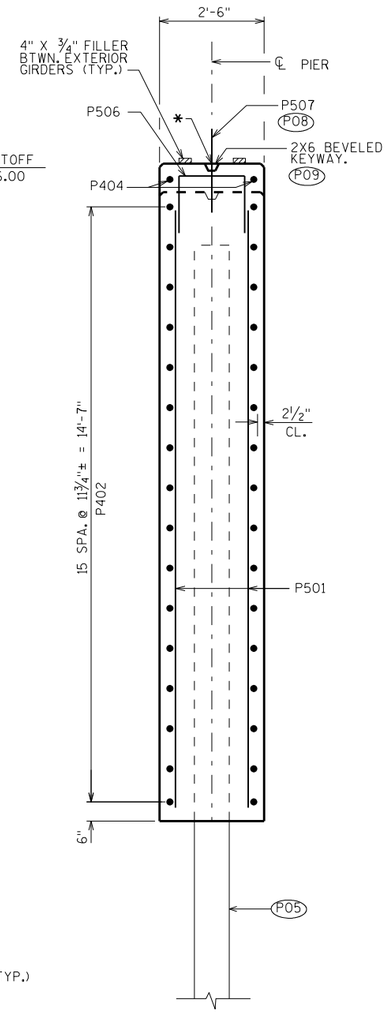


PLAN



PILE PLAN

* BEAM SEAT ELEVATIONS GIVEN HERE.

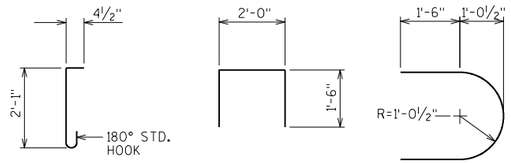


SECTION VIEW

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P501		98	14'-7"			SHAFT-VERT.
P402		64	23'-6"			SHAFT-HORIZ-F.F. & B.F.
P403		32	6'-4"	X		SHAFT-HORIZ. ENDS
P404		2	12'-4"			SHAFT-HORIZ. TOP
P405		192	3'-0"	X		SHAFT-HORIZ. TIE BARS AT PILES
P506		24	4'-9"	X		SHAFT-VERT. TOP
P507		32	2'-0"			SHAFT-VERT. DOWEL BARS



P405 P506 P403

(P05) SUPPORT PIER ON HP 10 x 42 STEEL PILING, ESTIMATED 120'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(P08) P507 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

(P09) KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2 x 6 BETWEEN BEAM SEATS.

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STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY WWR | PLANS CK'D. RAC

PIER 1

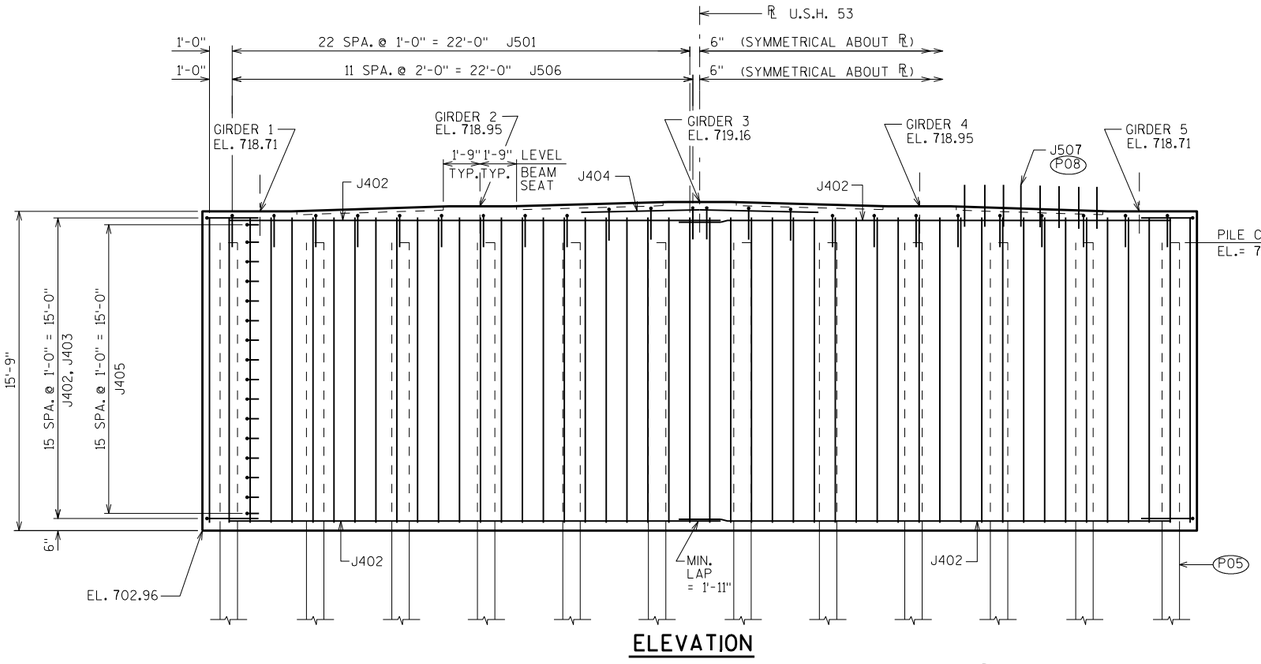
SHEET 11

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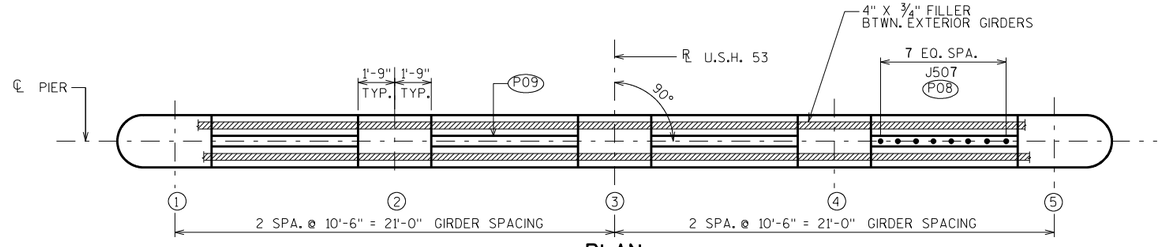
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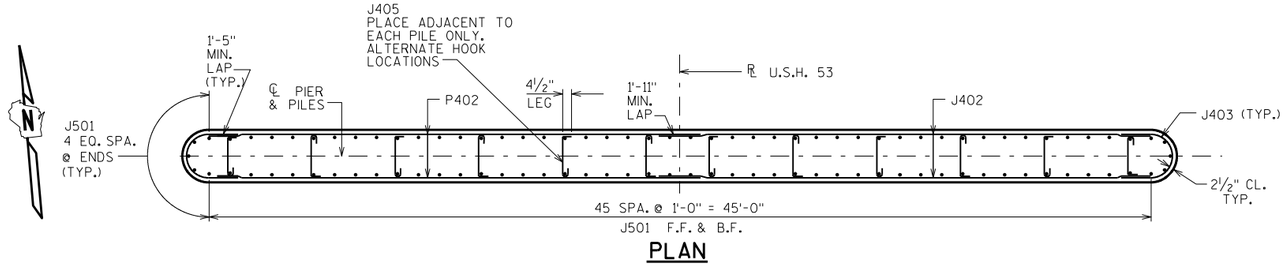
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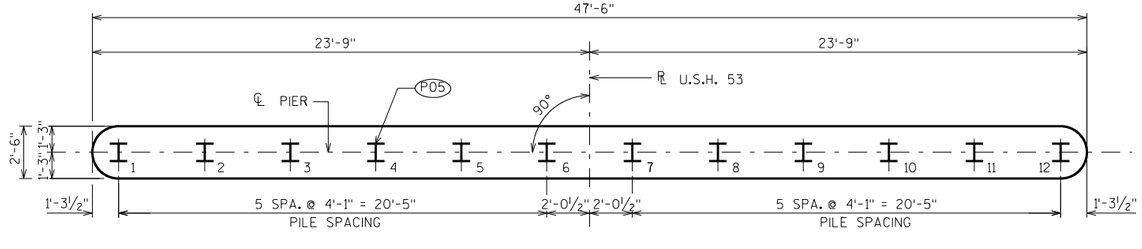
ELEVATION



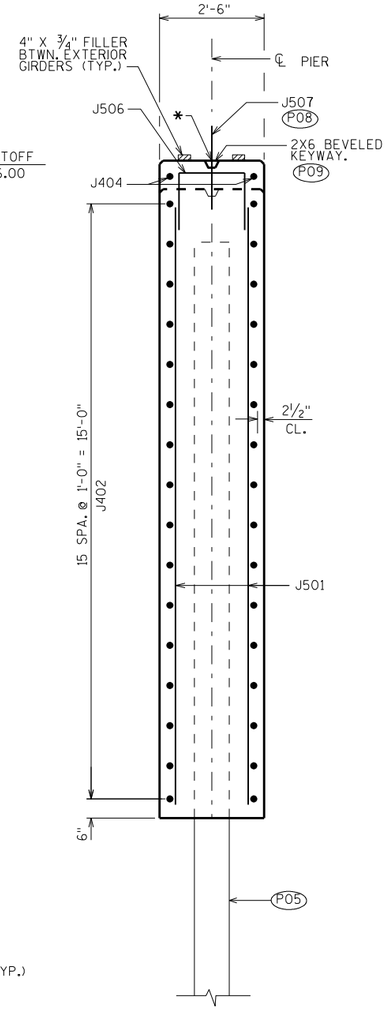
PLAN



PLAN



PILE PLAN

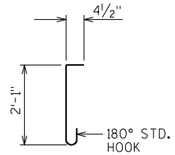


SECTION VIEW

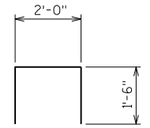
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

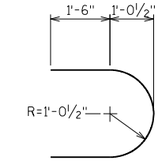
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
J501		98	15'-1"			SHAFT-VERT.
J402		64	23'-6"			SHAFT-HORIZ.
J403		32	6'-4"	X		SHAFT-HORIZ. ENDS
J404		2	12'-4"			SHAFT-HORIZ. TOP
J405		192	3'-0"	X		SHAFT-HORIZ. TIE BARS
J506		24	4'-9"	X		SHAFT-VERT. TOP
J507		32	2'-0"			SHAFT-VERT. DOWEL BARS



J405



J506



J403

(P05) SUPPORT PIER ON HP 10 X 42 STEEL PILING, ESTIMATED 125'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(P08) J507 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

(P09) KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2 x 6 BETWEEN BEAM SEATS.

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PIER 2

SHEET 12

227

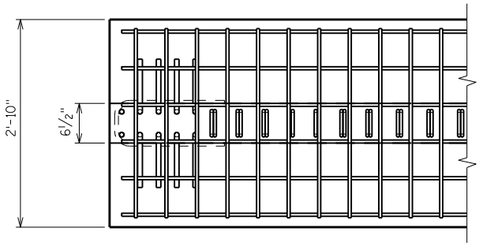
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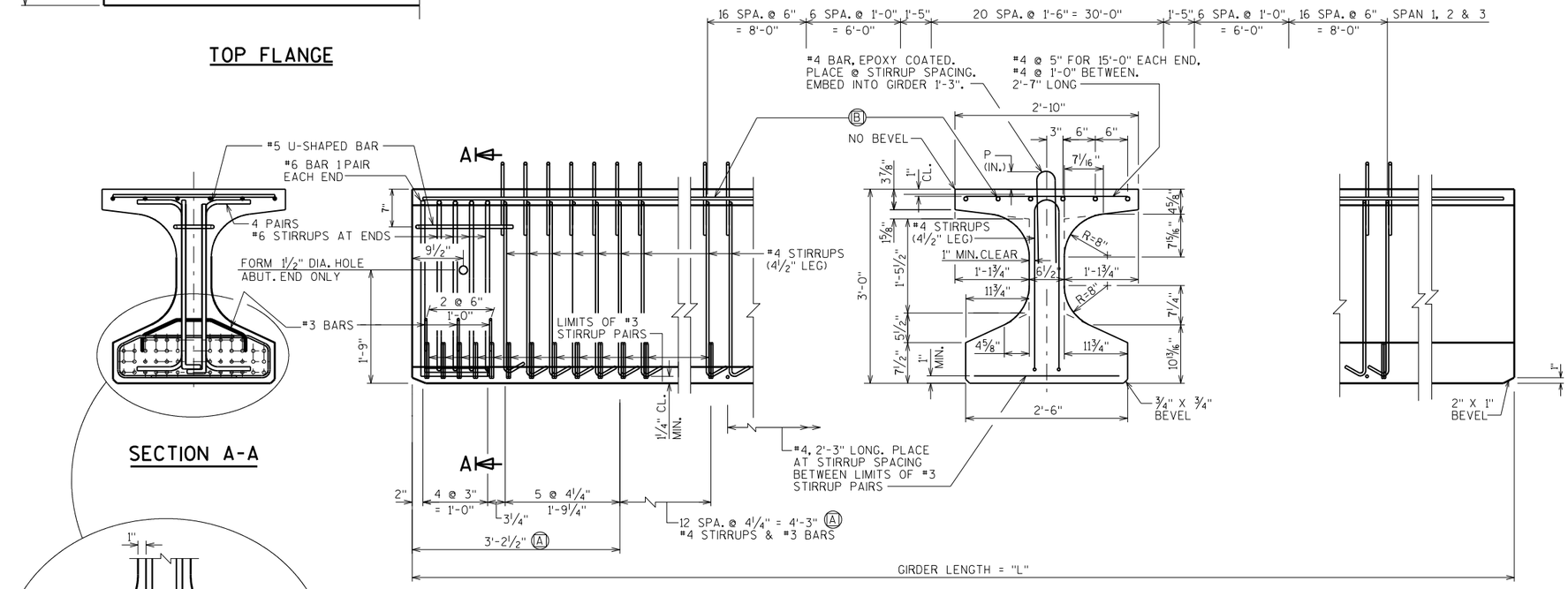
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STATE PROJECT NUMBER

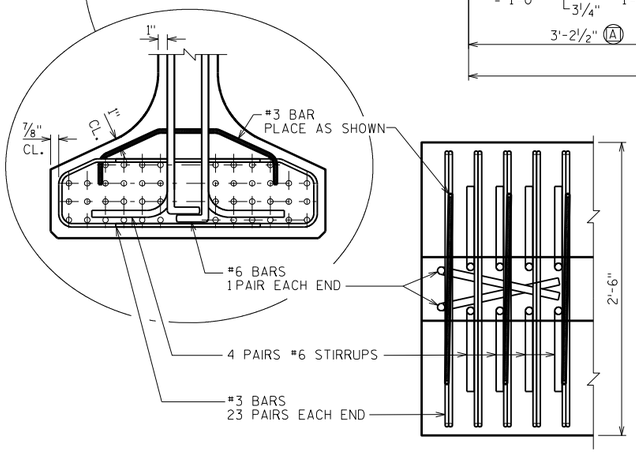
1634-03-71



TOP FLANGE



SECTION A-A



BOTTOM FLANGE

SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11" (SPAN 1, 2 &3)

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

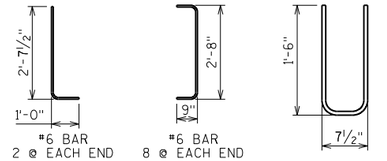
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, ONE OPTION IS AVAILABLE:

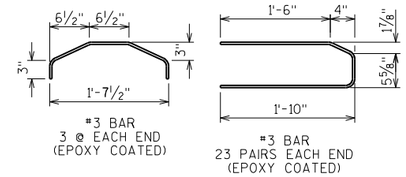
USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE 0.6" DIA. - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.





✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.)	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.)
1 & 3	1&5	75.75	0.4	0.7	0.9	1.1	1.1	1.1	0.9	0.7	0.4	8,000	7	7	7	0.60	26	6,800	32.0	11.0	14.0	4.0	---	---
1 & 3	2-4	75.75	0.5	0.9	1.2	1.4	1.5	1.4	1.2	0.9	0.5	8,000	7	7	7	0.60	26	6,800	32.0	11.0	14.0	4.0	---	---
2	1&5	75.75	0.4	0.7	0.9	1.1	1.1	1.1	0.9	0.7	0.4	8,000	7	7	7	0.60	26	6,800	32.0	11.0	14.0	4.0	---	---
2	2-4	75.75	0.5	0.9	1.2	1.5	1.5	1.5	1.2	0.9	0.5	8,000	7	7	7	0.60	26	6,800	32.0	11.0	14.0	4.0	---	---

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36W" PRESTRESSED GIRDER DETAILS 1

SHEET 13

228

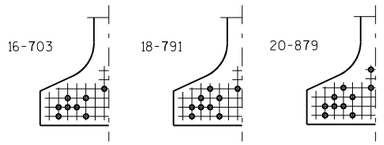
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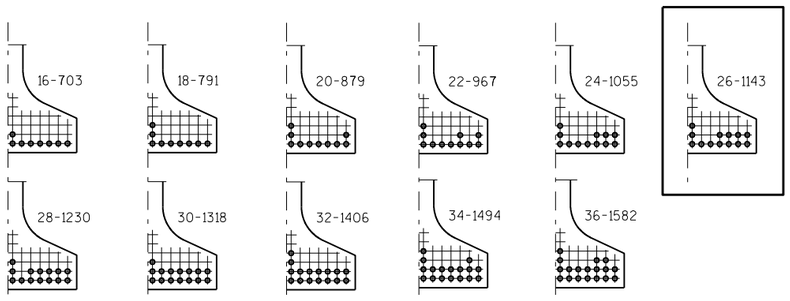
STATE PROJECT NUMBER

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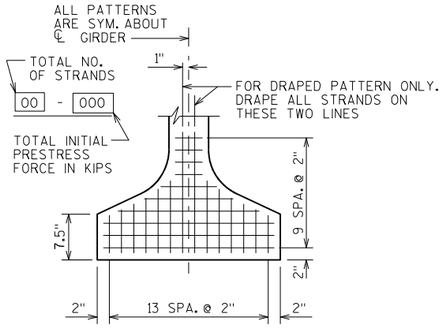
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS

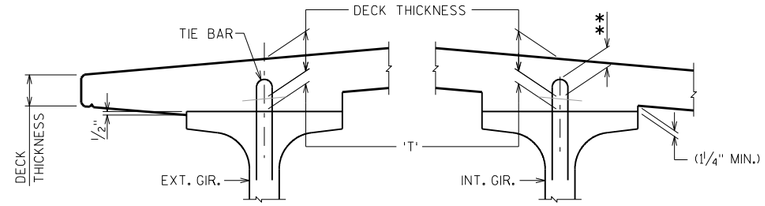


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



TYP. STRAND PATTERN



SLAB HAUNCH DETAIL

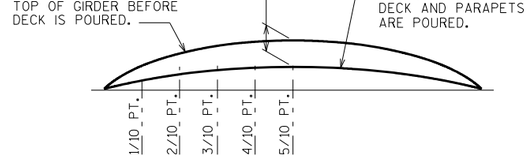
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

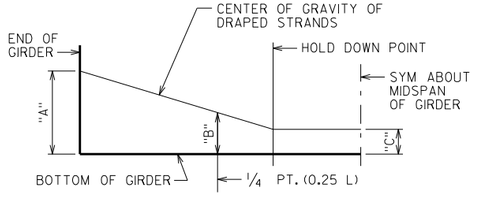
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3" (FOR INTERIOR GIRDERS) & 3¼" (FOR EXTERIOR GIRDERS) WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.)*
1	2.46
2	2.46
3	2.46

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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DRAWN BY WWR | PLANS CK'D. RAC

36W" PRESTRESSED GIRDER DETAILS 2

SHEET 14

229

8

8

SCALE = 1.0

STATE PROJECT NUMBER
1634-03-71

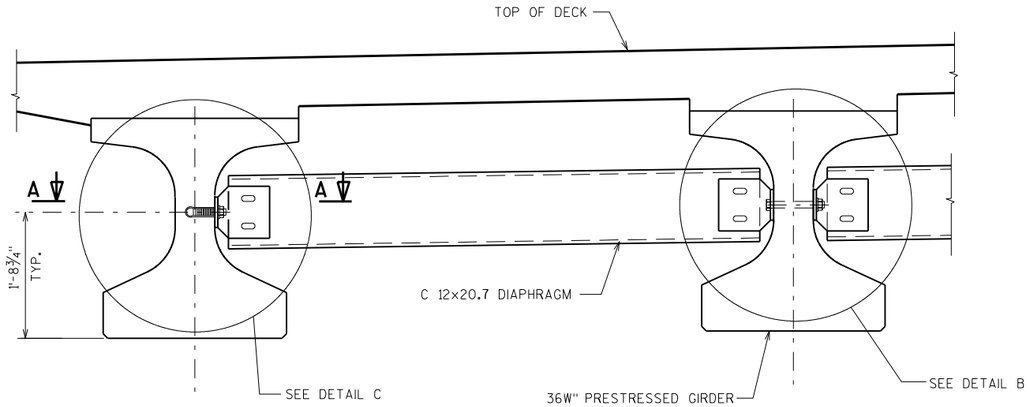
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-61-202", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

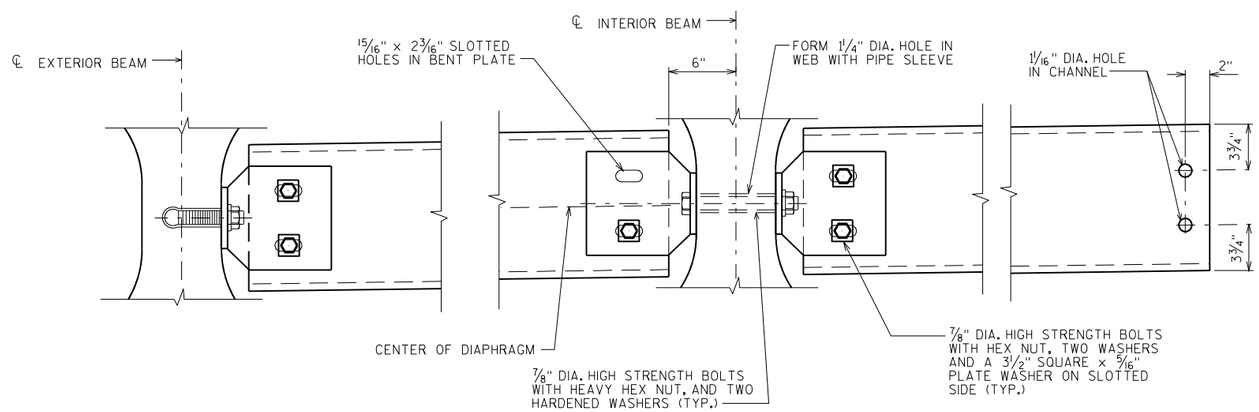
ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.



EXTERIOR GIRDER

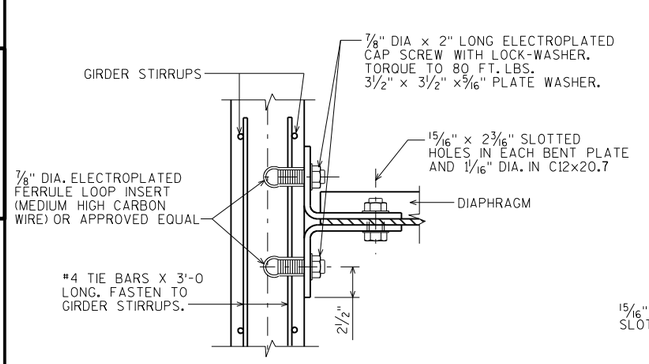
INTERIOR GIRDER

PART TRANSVERSE SECTION AT DIAPHRAGM

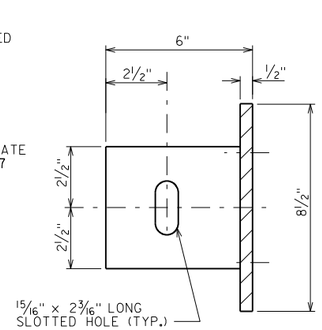


DETAIL C

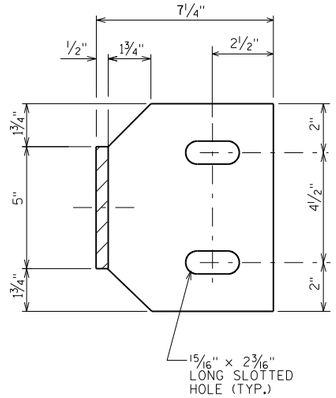
DETAIL B



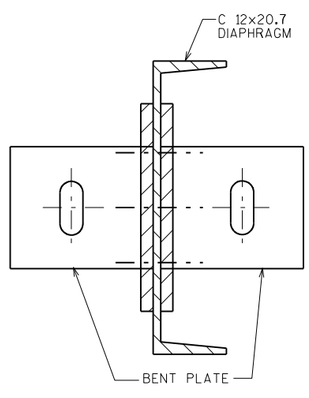
SECTION A-A
(FOR EXTERIOR ATTACHMENT)



BEAM FACE



DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY WWR | PLANS CK'D. RAC

STEEL DIAPHRAGM

SHEET 15

230

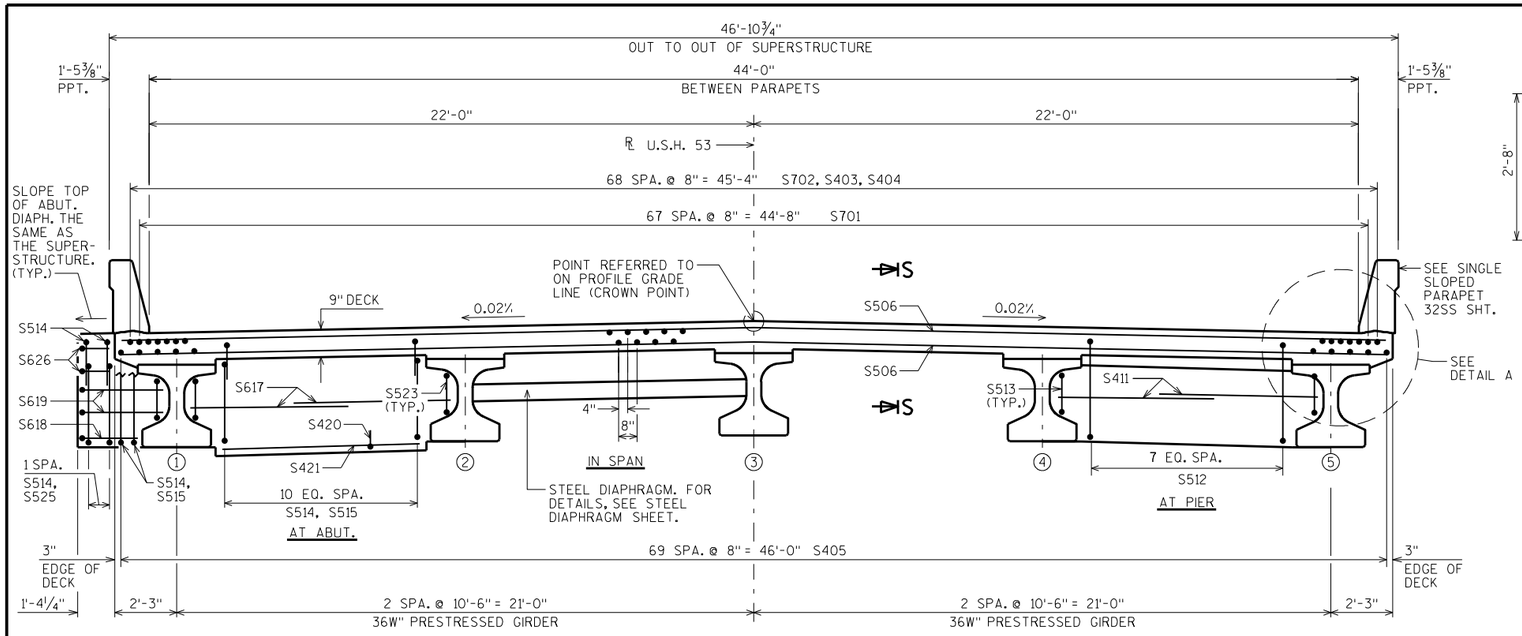
SCALE = 1.0

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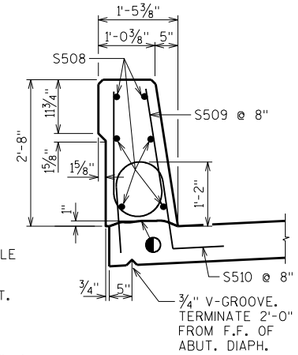
STATE PROJECT NUMBER

1634-03-71

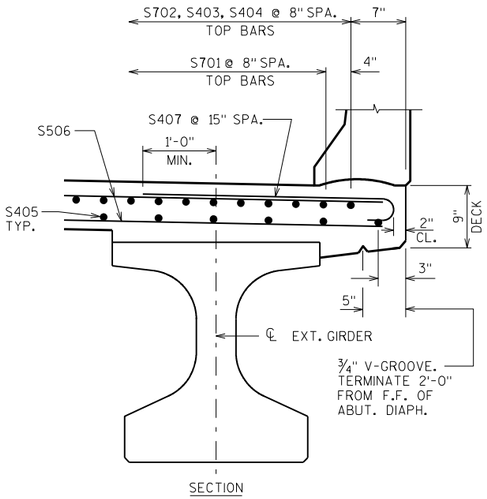


CROSS SECTION THRU ROADWAY

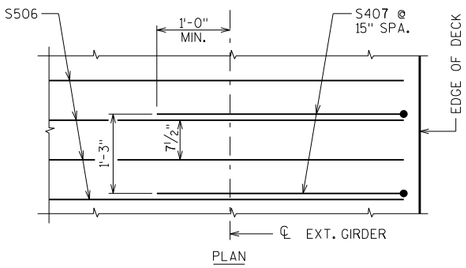
(LOOKING NORTH)



SECTION THRU PARAPET ON BRIDGE

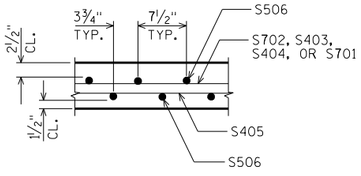


SECTION

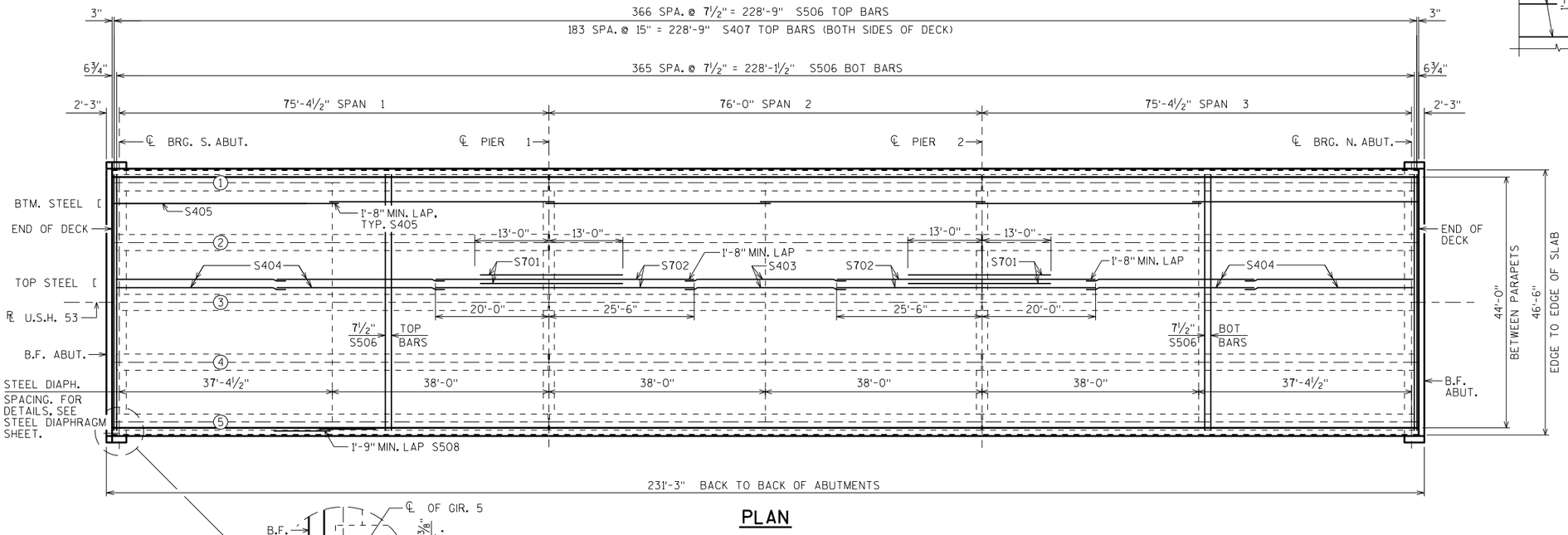


PLAN

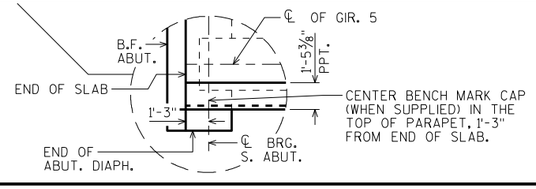
DETAIL A



SECTION S-S



PLAN



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY WWR/ARC | PLANS CK'D. RAC

SUPERSTRUCTURE | SHEET 16 | 231

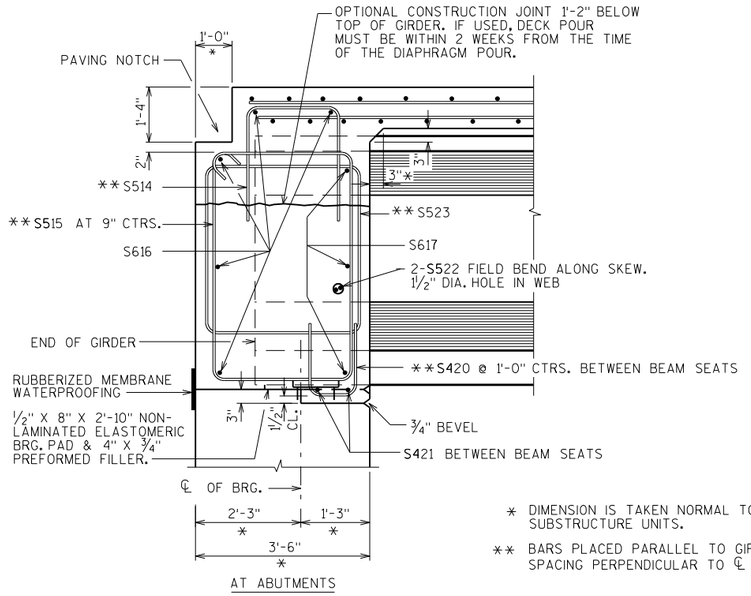
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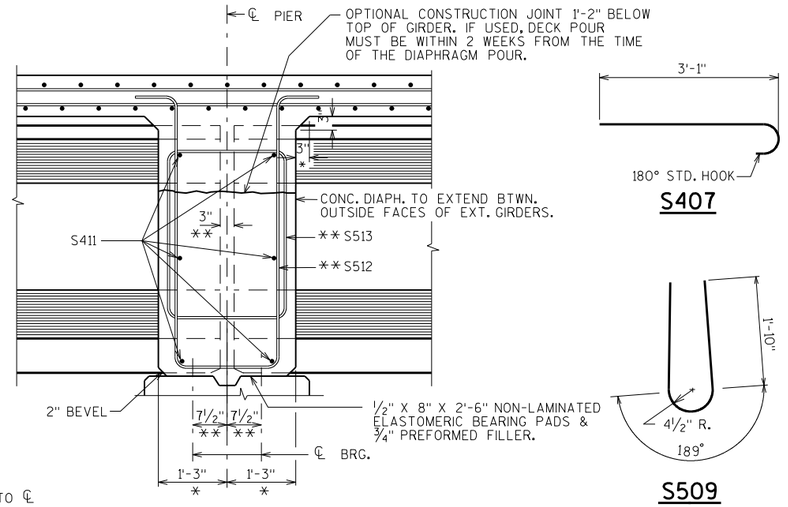
STATE PROJECT NUMBER

1634-03-71



AT ABUTMENTS

PART LONGIT. SECTION



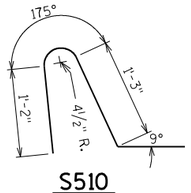
* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS

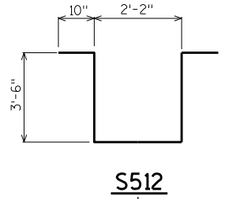
AT PIER DIAPHRAGM

S407

S509

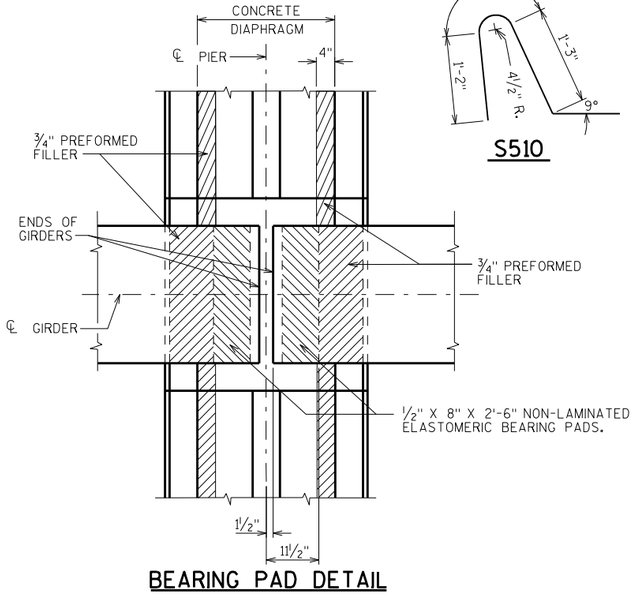


S510

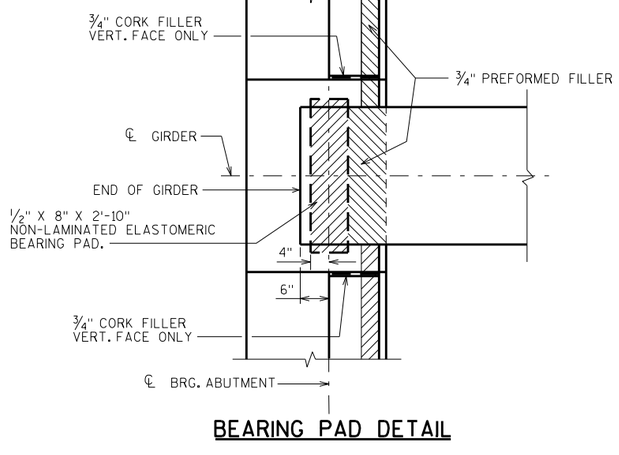


S512

S513



BEARING PAD DETAIL

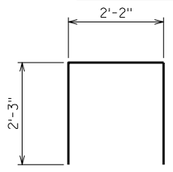


BEARING PAD DETAIL

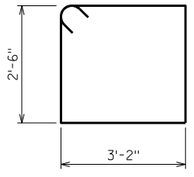
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

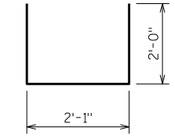
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S701	X	136	26'-0"			LONGITUDINAL CONTINUITY
S702	X	138	45'-6"			LONGITUDINAL CONTINUITY
S403	X	69	28'-4"			LONGITUDINAL TOP
S404	X	276	30'-0"			LONGITUDINAL TOP
S405	X	420	39'-7"			LONGITUDINAL BOTTOM
S506	X	733	46'-2"			TRANSVERSE TOP AND BOTTOM
S407	X	368	3'-7"	X		TRANSVERSE TOP EDGE
S508	X	48	58'-8"			PARAPET
S509	X	690	5'-0"	X		PARAPET
S510	X	690	4'-5"	X		PARAPET
S411	X	96	5'-6"			PIER DIAPHRAGM
S512	X	64	10'-4"	X		PIER DIAPHRAGM
S513	X	16	7'-8"	X		PIER DIAPHRAGM
S514	X	104	6'-5"	X		ABUT. DIAPHRAGM
S515	X	96	12'-0"	X		ABUT. DIAPHRAGM
S616	X	20	26'-0"			ABUT. DIAPHRAGM
S617	X	48	5'-10"			ABUT. DIAPHRAGM
S618	X	4	5'-9"	X		ABUT. DIAPHRAGM-END
S619	X	8	7'-9"	X		ABUT. DIAPHRAGM-END
S420	X	64	3'-3"	X		ABUT. DIAPHRAGM
S421	X	16	6'-8"			ABUT. DIAPHRAGM
S522	X	20	6'-0"			ABUT. DIAPHRAGM
S523	X	20	9'-8"	X		ABUT. DIAPHRAGM
S424	X					NOT USED
S525	X	8	9'-11"	X		ABUT. DIAPHRAGM-END
S626	X	8	3'-9"	X		ABUT. DIAPHRAGM-END



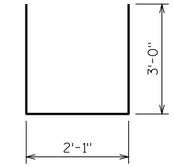
S514



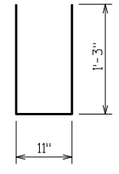
S515



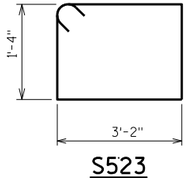
S618



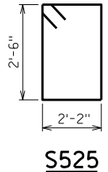
S619



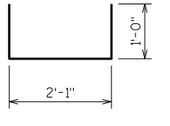
S420



S523



S525



S626

TOP OF DECK ELEVATIONS

	S. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER 1	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10
LT. E.O.D.	723.55	723.51	723.47	723.43	723.40	723.36	723.32	723.28	723.24	723.21	723.17	723.13	723.09	723.05	723.01	722.98	722.94	722.90	722.86	722.82
GIR. 1	723.57	723.53	723.49	723.45	723.42	723.38	723.34	723.30	723.26	723.23	723.19	723.15	723.11	723.07	723.03	723.00	722.96	722.92	722.88	722.84
GIR. 2	723.78	723.74	723.70	723.66	723.63	723.59	723.55	723.51	723.47	723.44	723.40	723.36	723.32	723.28	723.24	723.21	723.17	723.13	723.09	723.05
℄ / GIR. 3	723.99	723.95	723.91	723.87	723.84	723.80	723.76	723.72	723.68	723.65	723.61	723.57	723.53	723.49	723.45	723.42	723.38	723.34	723.30	723.26
GIR. 4	723.78	723.74	723.70	723.66	723.63	723.59	723.55	723.51	723.47	723.44	723.40	723.36	723.32	723.28	723.24	723.21	723.17	723.13	723.09	723.05
GIR. 5	723.57	723.53	723.49	723.45	723.42	723.38	723.34	723.30	723.26	723.23	723.19	723.15	723.11	723.07	723.03	723.00	722.96	722.92	722.88	722.84
RT. E.O.D.	723.55	723.51	723.47	723.43	723.40	723.36	723.32	723.28	723.24	723.21	723.17	723.13	723.09	723.05	723.01	722.98	722.94	722.90	722.86	722.82

	PIER 2	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	N. ABUT.
LT. E.O.D.	722.79	722.75	722.71	722.67	722.63	722.60	722.56	722.52	722.48	722.44	722.41
GIR. 1	722.81	722.77	722.73	722.69	722.65	722.62	722.58	722.54	722.50	722.46	722.43
GIR. 2	723.02	722.98	722.94	722.90	722.86	722.83	722.79	722.75	722.71	722.67	722.64
℄ / GIR. 3	723.23	723.19	723.15	723.11	723.07	723.04	723.00	722.96	722.92	722.88	722.85
GIR. 4	723.02	722.98	722.94	722.90	722.86	722.83	722.79	722.75	722.71	722.67	722.64
GIR. 5	722.81	722.77	722.73	722.69	722.65	722.62	722.58	722.54	722.50	722.46	722.43
RT. E.O.D.	722.79	722.75	722.71	722.67	722.63	722.60	722.56	722.52	722.48	722.44	722.41

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY WWR/ARC | PLANS CK'D. RAC

SUPERSTRUCTURE DETAILS

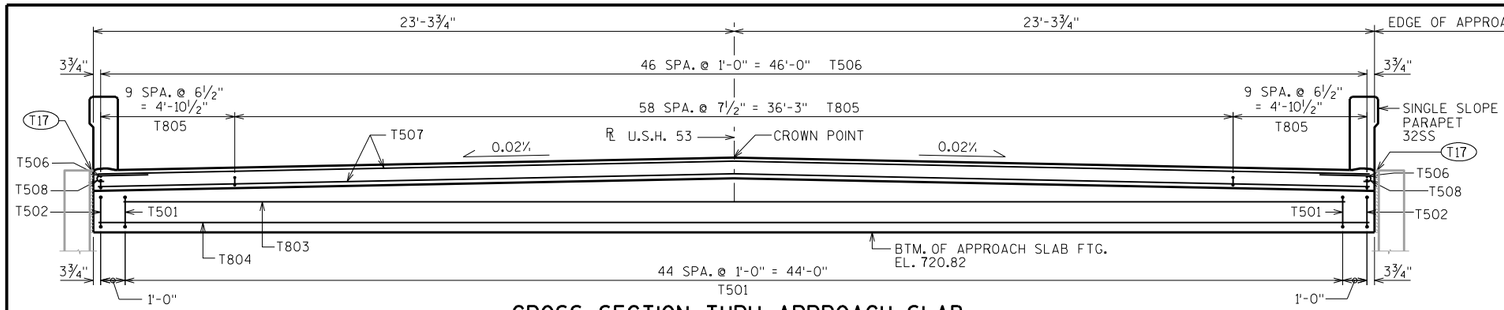
SHEET 17

232

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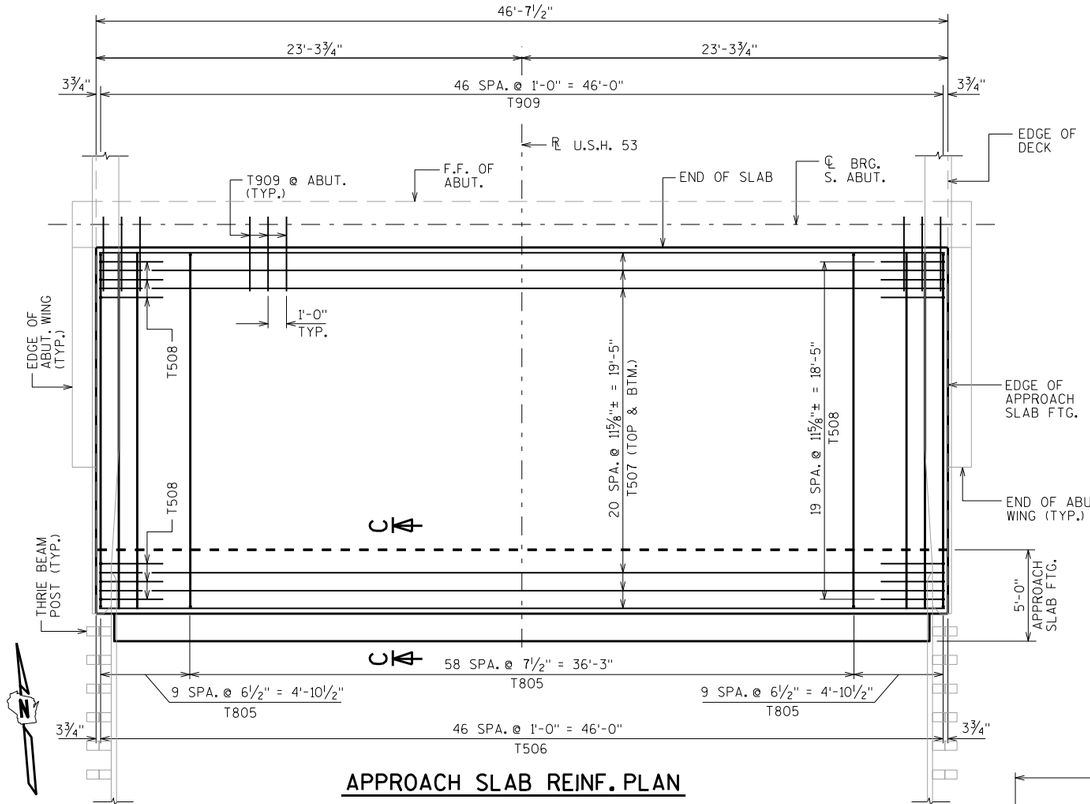
STATE PROJECT NUMBER

1634-03-71



CROSS SECTION THRU APPROACH SLAB

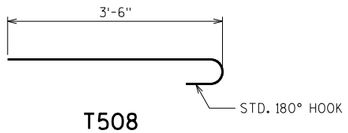
(LOOKING NORTH)



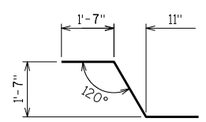
APPROACH SLAB REINF. PLAN

APPROACH SLAB FOOTING REINF. PLAN

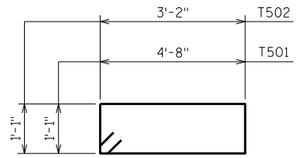
NOTE: BLOCK OUT IN APPROACH SLAB FOOTING TO ALLOW FOR THRIE BEAM POST INSTALLATION. EDGE TO EDGE OF APPROACH SLAB



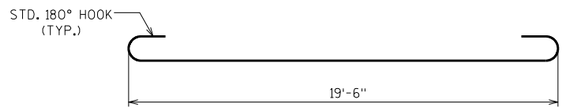
T508



T909



T501, T502



T805

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	STAINLESS STEEL	EPOXY COATED	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
T501		X	45	12'-1"	X		APPROACH SLAB FTG. - STIRRUP
T502		X	2	9'-2"	X		APPROACH SLAB FTG. - STIRRUP
T803		X	4	44'-2"			APPROACH SLAB FTG. - TRANS. - TOP & BTM.
T804		X	8	46'-3"			APPROACH SLAB FTG. - TRANS. - TOP & BTM.
T805		X	77	21'-4"	X		APPROACH SLAB - LONGIT. - BTM.
T506		X	47	19'-6"			APPROACH SLAB - LONGIT. - TOP
T507		X	42	46'-3"			APPROACH SLAB - TRANS. - TOP & BTM.
T508		X	40	4'-1"	X		APPROACH SLAB - TRANS. - TOP - WING
T909	X		47	5'-0"	X		CONC. ABUT. DIAPH. TO APPROACH SLAB

T02 STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER ENTIRE TOP OF FOOTING.

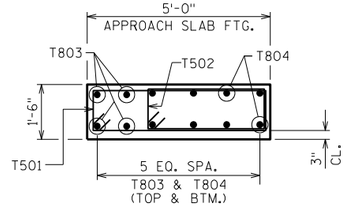
T03 PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL) OF POLYETHYLENE SHEETS OVER ENTIRE LENGTH OF THE SUBGRADE.

T15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

T17 1/2" FILLER. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

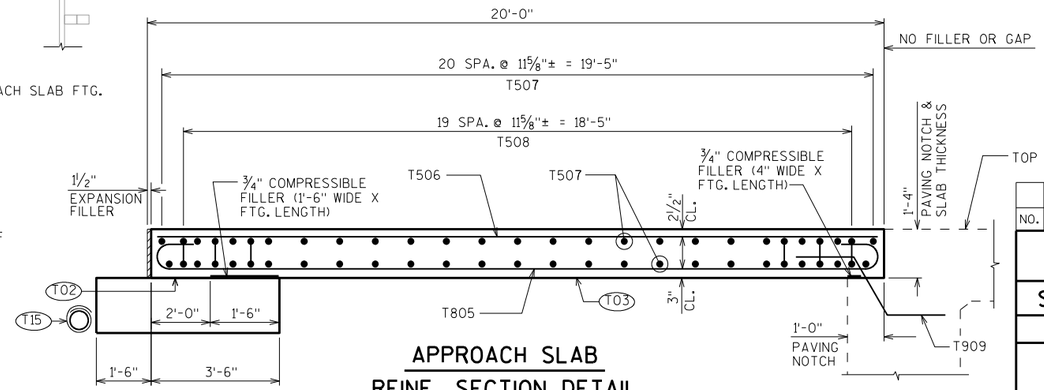
APPROACH SLAB ELEVATION TABLE

TOP OF APPROACH SLAB ELEVATIONS		
	SLAB END	B.F. ABUT.
W. EDGE GUTTERLINE	723.66	723.55
℄ U.S.H. 53 CROWN POINT	724.10	723.99
E. EDGE GUTTERLINE	723.66	723.55



SECTION C-C

(SHOWING FOOTING ONLY)



APPROACH SLAB REINF. SECTION DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY WWR | PLANS CK'D. RAC

S. ABUTMENT APPROACH SLAB

SHEET 18

233

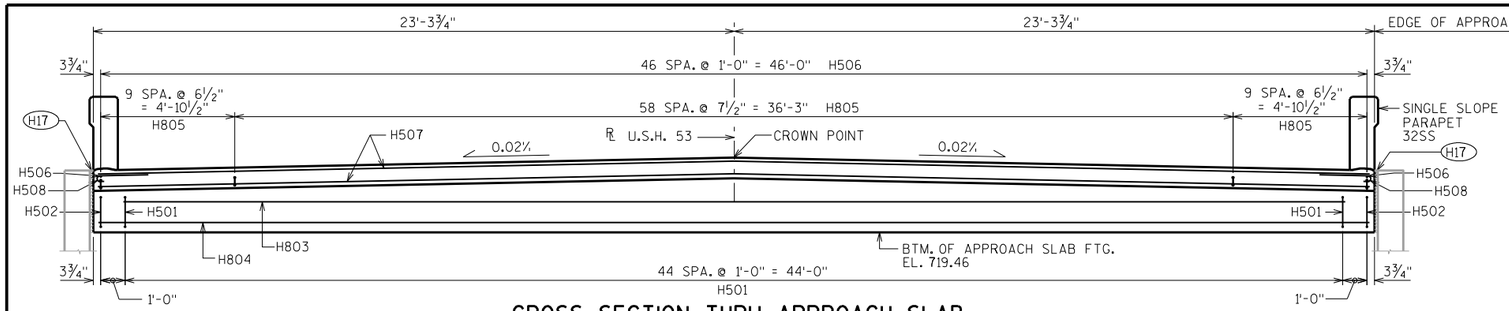
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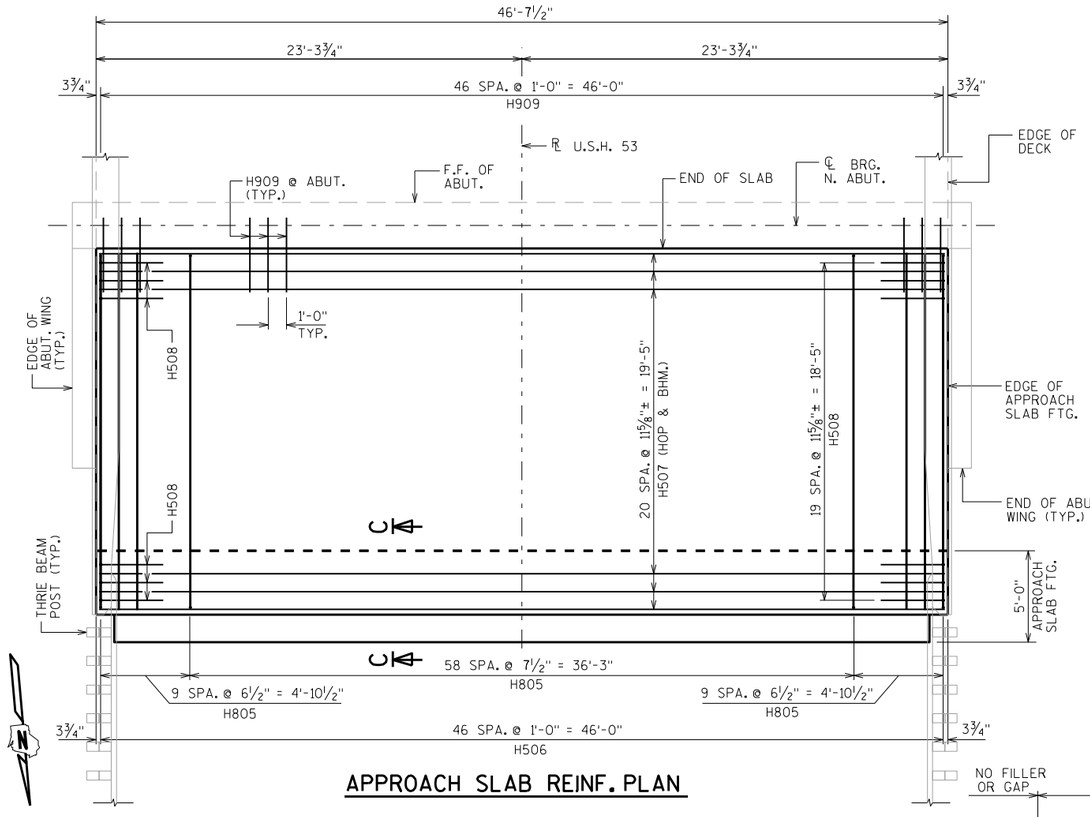
STATE PROJECT NUMBER

1634-03-71

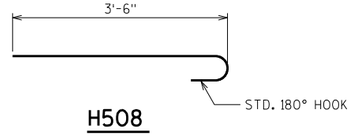


CROSS SECTION THRU APPROACH SLAB

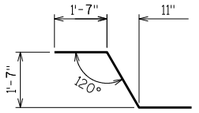
(LOOKING SOUTH)



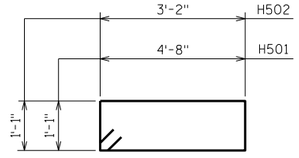
APPROACH SLAB REINF. PLAN



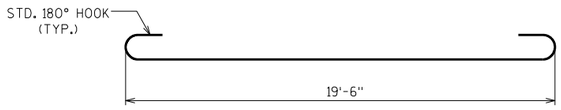
H508



H909



H501 , H502



H805

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	STAINLESS STEEL	EPOXY COATED	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
H501		X	45	12'-1"	X		APPROACH SLAB FTG. - STIRRUP
H502		X	2	9'-2"	X		APPROACH SLAB FTG. - STIRRUP
H803		X	4	44'-2"			APPROACH SLAB FTG. - TRANS. - TOP & BTM.
H804		X	8	46'-3"			APPROACH SLAB FTG. - TRANS. - TOP & BTM.
H805		X	77	21'-4"	X		APPROACH SLAB - LONGIT. - BTM.
H506		X	47	19'-6"			APPROACH SLAB - LONGIT. - TOP
H507		X	42	46'-3"			APPROACH SLAB - TRANS. - TOP & BTM.
H508		X	40	4'-1"	X		APPROACH SLAB - TRANS. - TOP - WING
H909	X		47	5'-0"	X		CONC. ABUT. DIAPH. TO APPROACH SLAB

(H02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER ENTIRE TOP OF FOOTING.

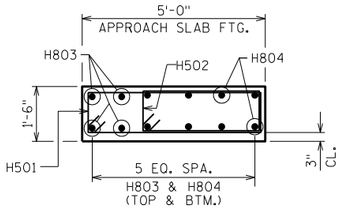
(H03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL) OF POLYETHYLENE SHEETS OVER ENTIRE LENGTH OF THE SUBGRADE.

(H15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(H17) 1/2" FILLER. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

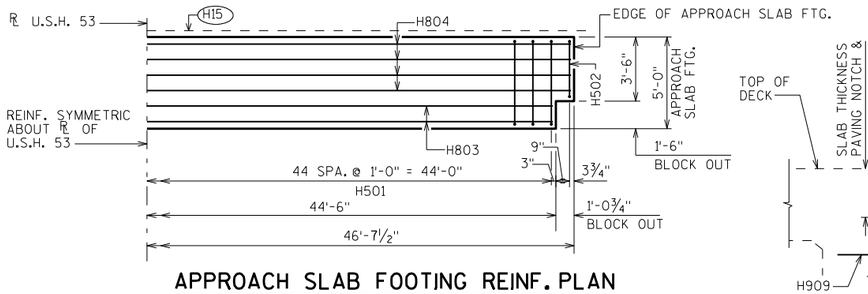
APPROACH SLAB ELEVATION TABLE

TOP OF APPROACH SLAB ELEVATIONS		
	B.F. ABUT.	SLAB END
W. EDGE GUTTERLINE	722.40	722.30
℄ U.S.H. 53 CROWN POINT	722.84	722.74
E. EDGE GUTTERLINE	722.40	722.30



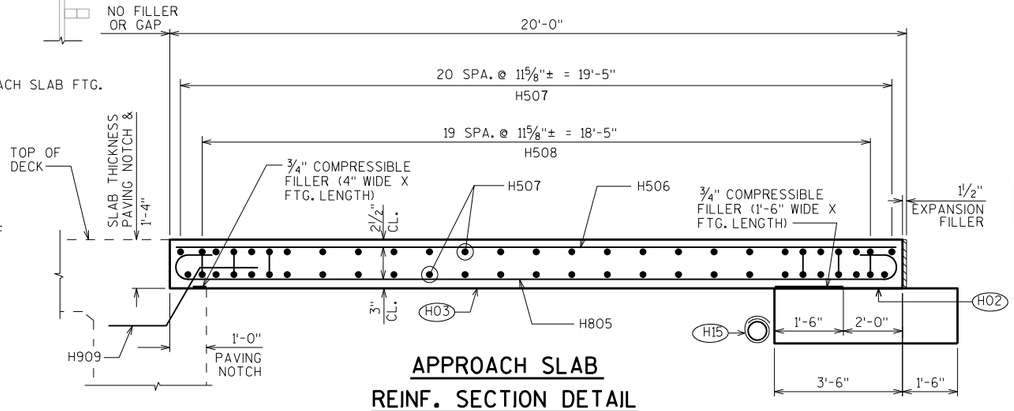
SECTION C-C

(SHOWING FOOTING ONLY)



APPROACH SLAB FOOTING REINF. PLAN

NOTE: BLOCK OUT IN APPROACH SLAB FOOTING TO ALLOW FOR THRIE BEAM POST INSTALLATION. EDGE TO EDGE OF APPROACH SLAB



APPROACH SLAB REINF. SECTION DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY WWR | PLANS CK'D. RAC

N. ABUTMENT APPROACH SLAB

SHEET 19

234

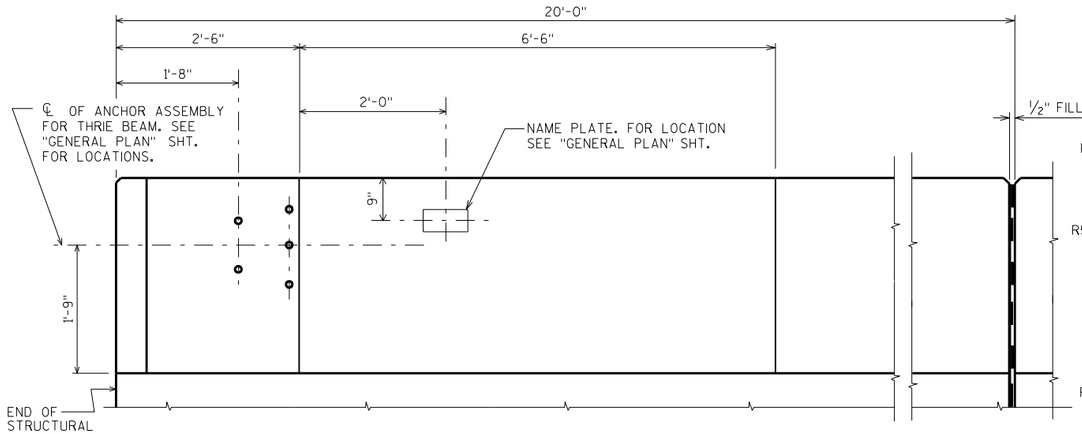
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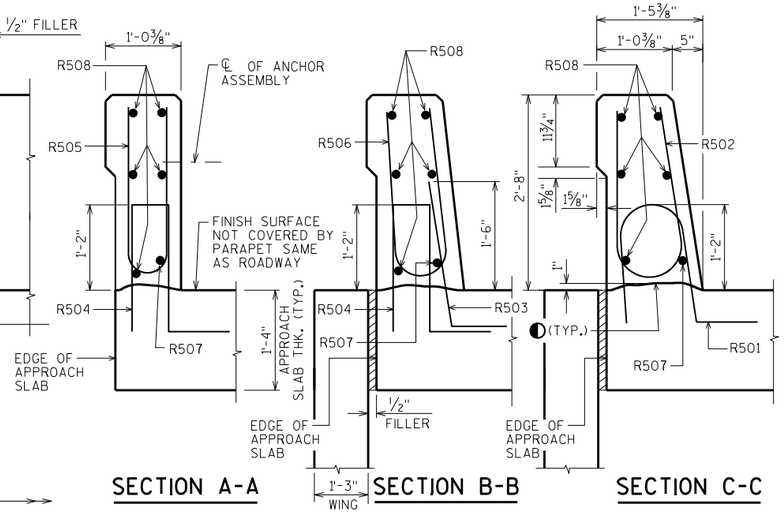
SCALE =

STATE PROJECT NUMBER

1634-03-71



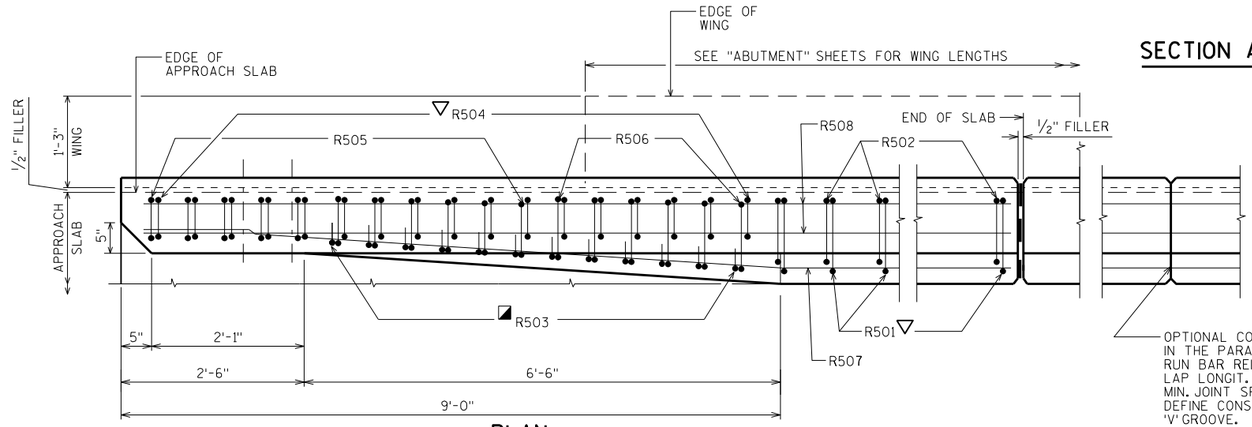
INSIDE ELEVATION



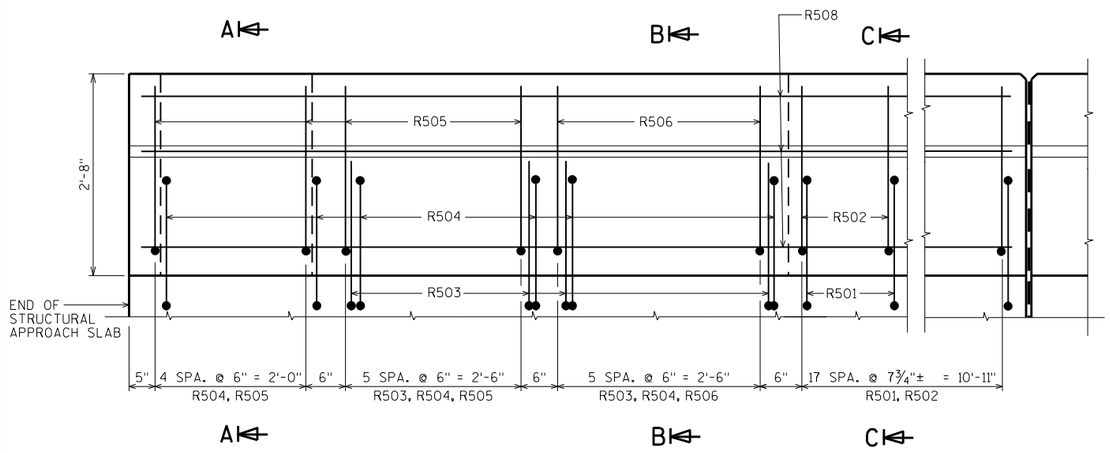
SECTION A-A

SECTION B-B

SECTION C-C



PLAN

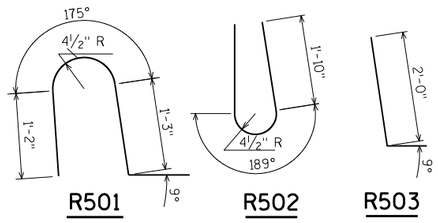


OUTSIDE ELEVATION

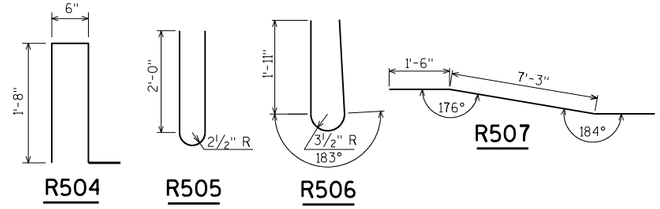
BILL OF BARS

FOR APPROACH SLAB PARAPETS

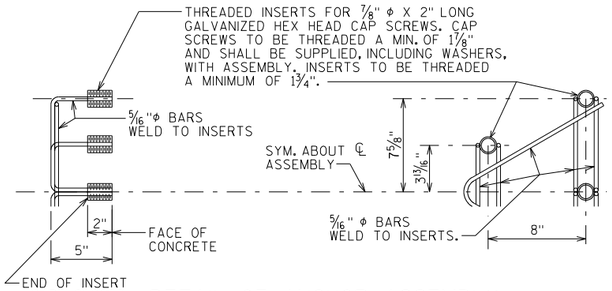
BAR MARK	COAT	SOUTH	NORTH	LENGTH	BENT	LOCATION
R501	X	36	36	4'-5"	X	PARAPET VERT.
R502	X	36	36	5'-0"	X	PARAPET VERT.
R503	X	24	24	2'-9"	X	PARAPET VERT.
R504	X	34	34	4'-4"	X	PARAPET VERT.
R505	X	22	22	4'-9"	X	PARAPET VERT.
R506	X	12	12	4'-10"	X	PARAPET VERT.
R507	X	2	2	19'-8"		PARAPET HORIZ.
R508	X	10	10	19'-8"		PARAPET HORIZ.



R501 R502 R503



R504 R505 R506 R507



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-202

DRAWN BY WWR | PLANS CK'D. RAC

SINGLE SLOPED PARAPET 32SS

SHEET 20

235

SCALE = 1

32SSWIN

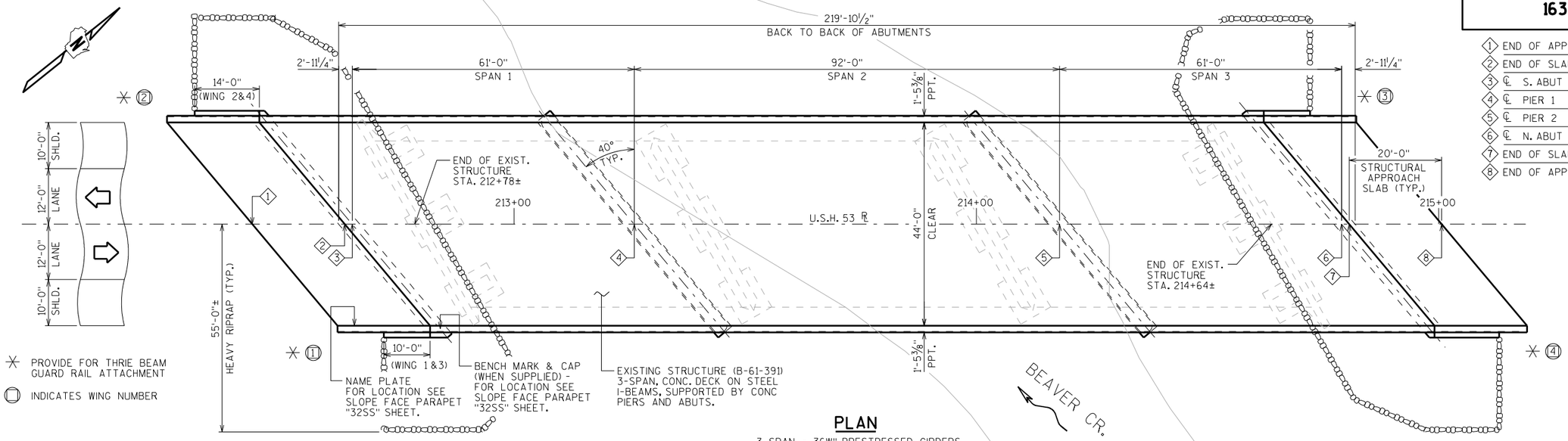
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8

STATE PROJECT NUMBER

1634-03-71

1	END OF APPR. SLAB	STA 212+43.36
2	END OF SLAB	STA 212+63.36
3	℄ S. ABUT	STA 212+65.00
4	℄ PIER 1	STA 213+26.00
5	℄ PIER 2	STA 214+18.00
6	℄ N. ABUT	STA 214+79.00
7	END OF SLAB	STA 214+80.64
8	END OF APPR. SLAB	STA 215+00.64

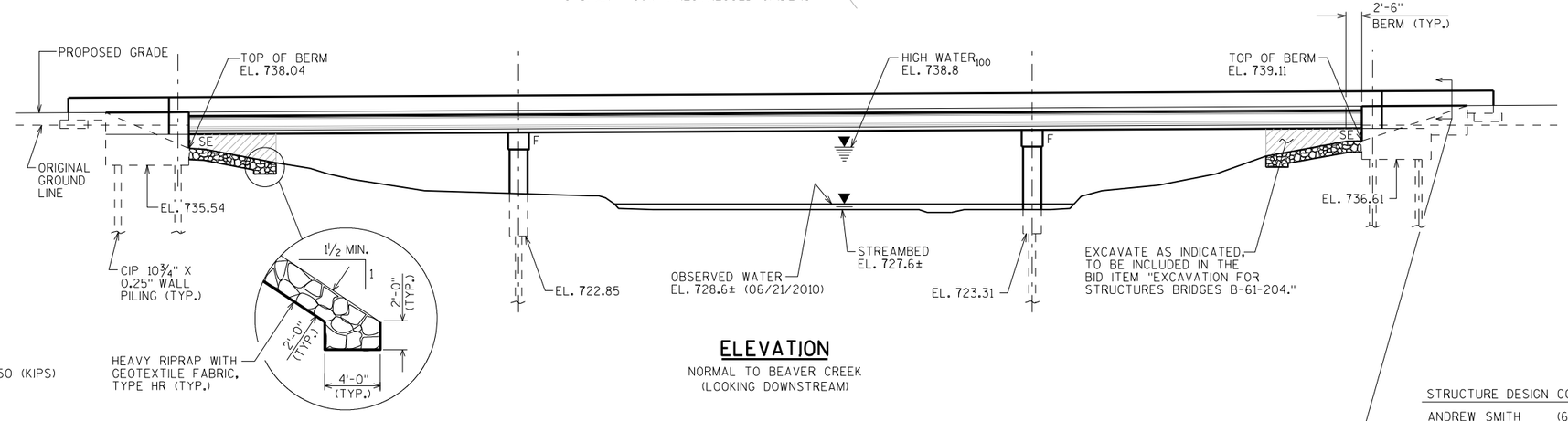


✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT

⬡ INDICATES WING NUMBER

PLAN

3 SPAN - 36W" PRESTRESSED GIRDERS



ELEVATION

NORMAL TO BEAVER CREEK
(LOOKING DOWNSTREAM)

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} =5,200 C.F.S.
VEL. =4.76 F.P.S.
HW.= EL. 738.8
WATERWAY AREA= 1,092 SQ. FT.
DRAINAGE AREA= 90.8 SQ. MI.
ROAD OVERTOPPING = NA
SCOUR CRITICAL CODE = 5

2 YEAR FREQUENCY

Q_2 =1,250 C.F.S.
$HW._2$= EL. 734.4

DESIGN DATA

LIVE LOAD:

DESIGN LOADING; HL-93
INVENTORY RATING FACTOR: RF=1.05
OPERATING RATING FACTOR: RF=1.36
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I. ALL OTHER — f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

36W" PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 8,000 P.S.I.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON CIP 10¾" X 0.25" WALL PILING
DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 130 TONS ✱✱PER PILE
AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
S. ABUT. ESTIMATED AT 95'-0" LONG.
N. ABUT. ESTIMATED AT 95'-0" LONG.

PIERS TO BE SUPPORTED ON CIP 10¾" X 0.25" WALL PILING
DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 130 TONS ✱✱PER PILE
AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
PIER 1 ESTIMATED AT 120'-0" LONG.
PIER 2 ESTIMATED AT 120'-0" LONG.

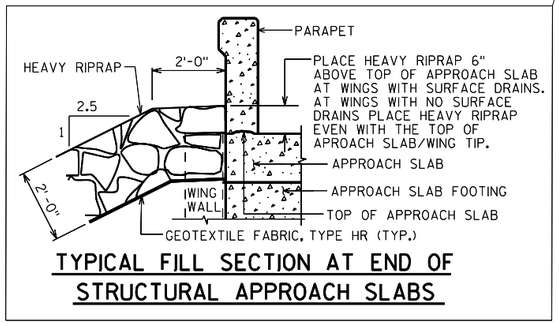
✱✱ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC VOLUME

U.S.H. 53
A.D.T.=6,155 (2014)
A.D.T.=7,655 (2034)
R.D.S.=60 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SUBSURFACE EXPLORATION
5. SOUTH ABUTMENT
6. SOUTH ABUTMENT DETAILS
7. NORTH ABUTMENT
8. NORTH ABUTMENT DETAILS
9. PIER 1
10. PIER 2
11. 36W" PRESTRESSED GIRDER DETAILS 1
12. 36W" PRESTRESSED GIRDER DETAILS 2
13. STEEL DIAPHRAGM
14. SUPERSTRUCTURE CROSS SECTION
15. SUPERSTRUCTURE
16. SUPERSTRUCTURE DETAILS
17. APPROACH SLAB DETAILS
18. SINGLE SLOPE PARAPET 32SS
19. ALTERNATE CONSTRUCTION JOINT



TYPICAL FILL SECTION AT END OF STRUCTURAL APPROACH SLABS

STRUCTURE DESIGN CONTACTS:
ANDREW SMITH (608) 266-0989
DAVID KIEKBUSCH (608) 266-5084

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher DJK 9/20/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-61-204

U.S.H. 53 OVER BEAVER CREEK

COUNTY TREMPEALEAU — TOWN/~~CITY/VILLAGE~~ GALE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ADS	EMK	DDS	ADS

GENERAL PLAN

SHEET 1 OF 19

236

I.D. 1634-03-00A

DATE: SEPT. 2013

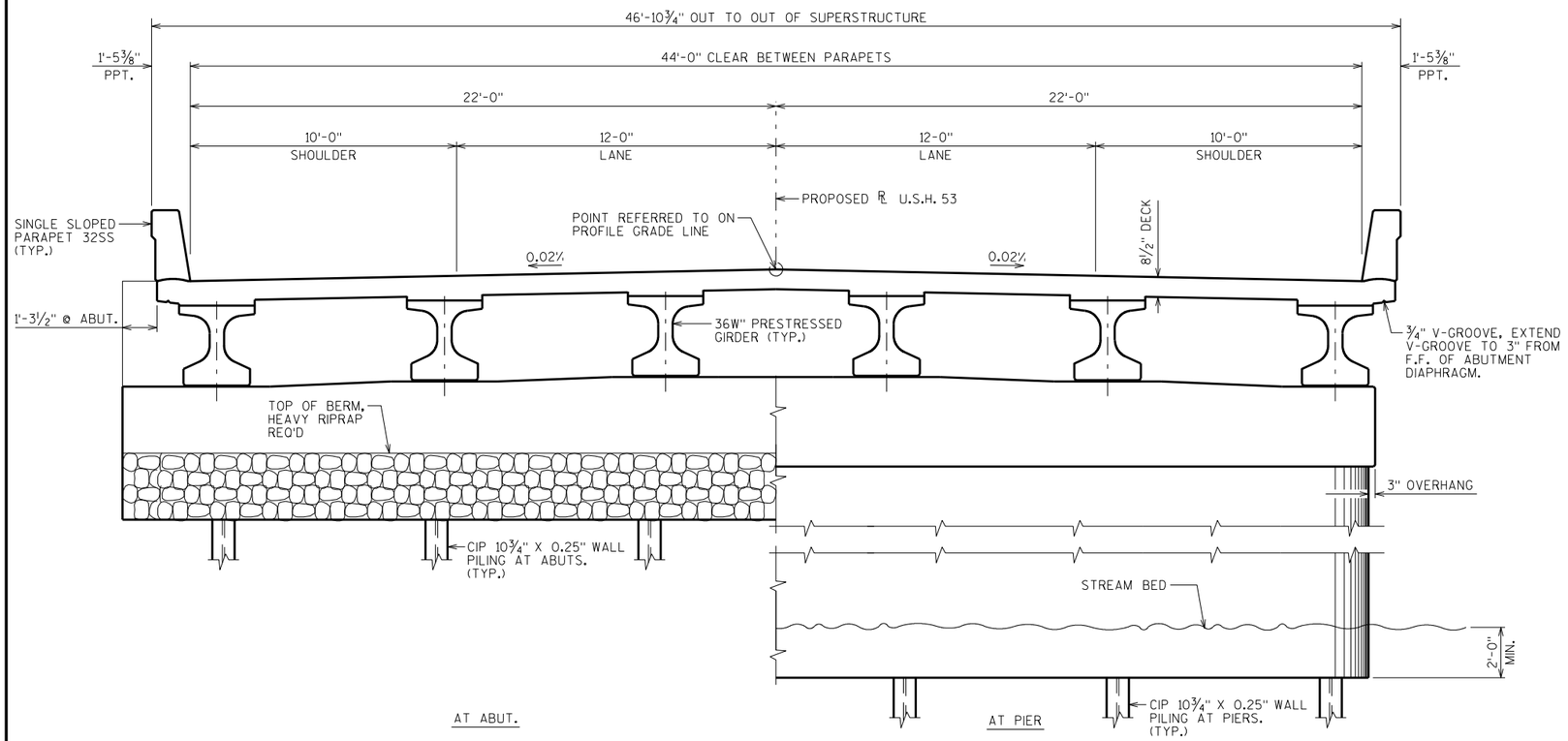
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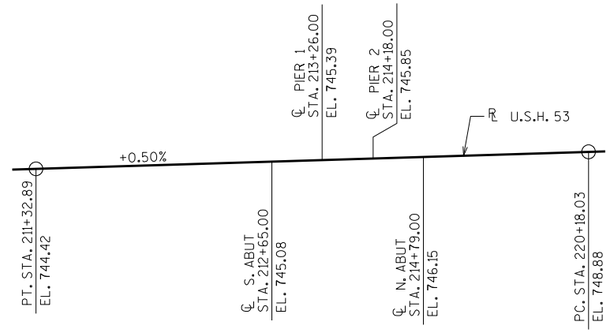
STATE PROJECT NUMBER

1634-03-71



CROSS SECTION THRU BRIDGE

(LOOKING NORTH)



PROFILE GRADE LINE U.S.H. 53

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH APPROACH SLAB	SOUTH ABUT.	PIER 1	PIER 2	NORTH ABUT.	NORTH APPROACH SLAB	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 213+71	LS	———	———	———	———	———	———	———	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-61-204	LS	———	———	———	———	———	———	———	1
210.0100	BACKFILL STRUCTURE	CY	———	———	215	———	———	215	———	430
502.0100	CONCRETE MASONRY BRIDGES	CY	438	68	60	128	128	60	68	950
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,240	115	———	———	———	———	115	1,470
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	1,287	———	———	———	———	———	———	1,287
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	———	———	3,830	6,005	6,005	3,820	———	19,660
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	85,420	12,240	1,575	———	———	1,575	12,240	130,050
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	———	———	6	12	12	6	———	36
506.4000	STEEL DIAPHRAGMS B-61-204	EACH	20	———	———	———	———	———	———	20
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	———	15	———	———	15	———	30
550.2104	PILING CIP CONCRETE 10 3/4 X 0.25-INCH	LF	———	———	1,140	2,280	2,280	1,140	———	6,840
606.0300	RIPRAP HEAVY	CY	———	———	200	———	———	225	———	425
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	———	75	90	———	———	90	75	330
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	———	2	———	———	———	———	2	4
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	———	———	300	———	———	335	———	635
SPV.0085	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB	1,600							1,600
	NON-BID ITEMS									
	FILLER	SIZE	———	———	———	———	———	———	———	½",¾"&1½"
				———	———	———	———	———	———	

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

CONCRETE FOR ABUTMENT AND PIER DIAPHRAGMS SHALL BE PLACED WITH THE DECK CONCRETE. NO OPTIONAL CONSTRUCTION JOINT IS PERMITTED.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE, THE FRONT FACE AND THE TOP OF THE PARAPET (INCLUDING PARAPETS ON ABUTMENT WINGS).

THE EXISTING STREAM BED SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

AT ABUTMENTS AND PIER(S), CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE FABRIC TYPE 'HR' TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

DRAWN BY ADS/DDS | PLANS CK'D. ADS

CROSS SECTION & QUANTITIES

SHEET 2

237

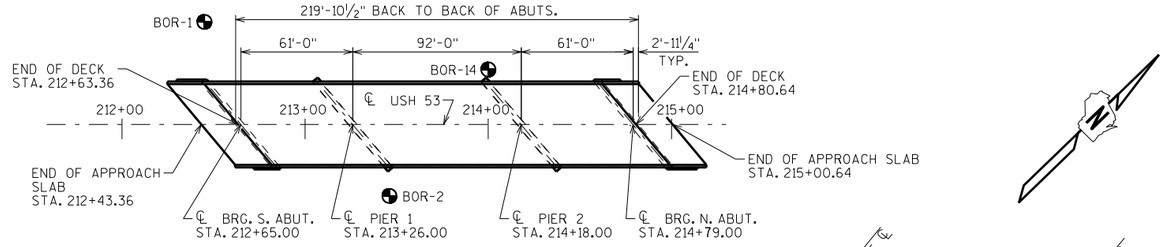
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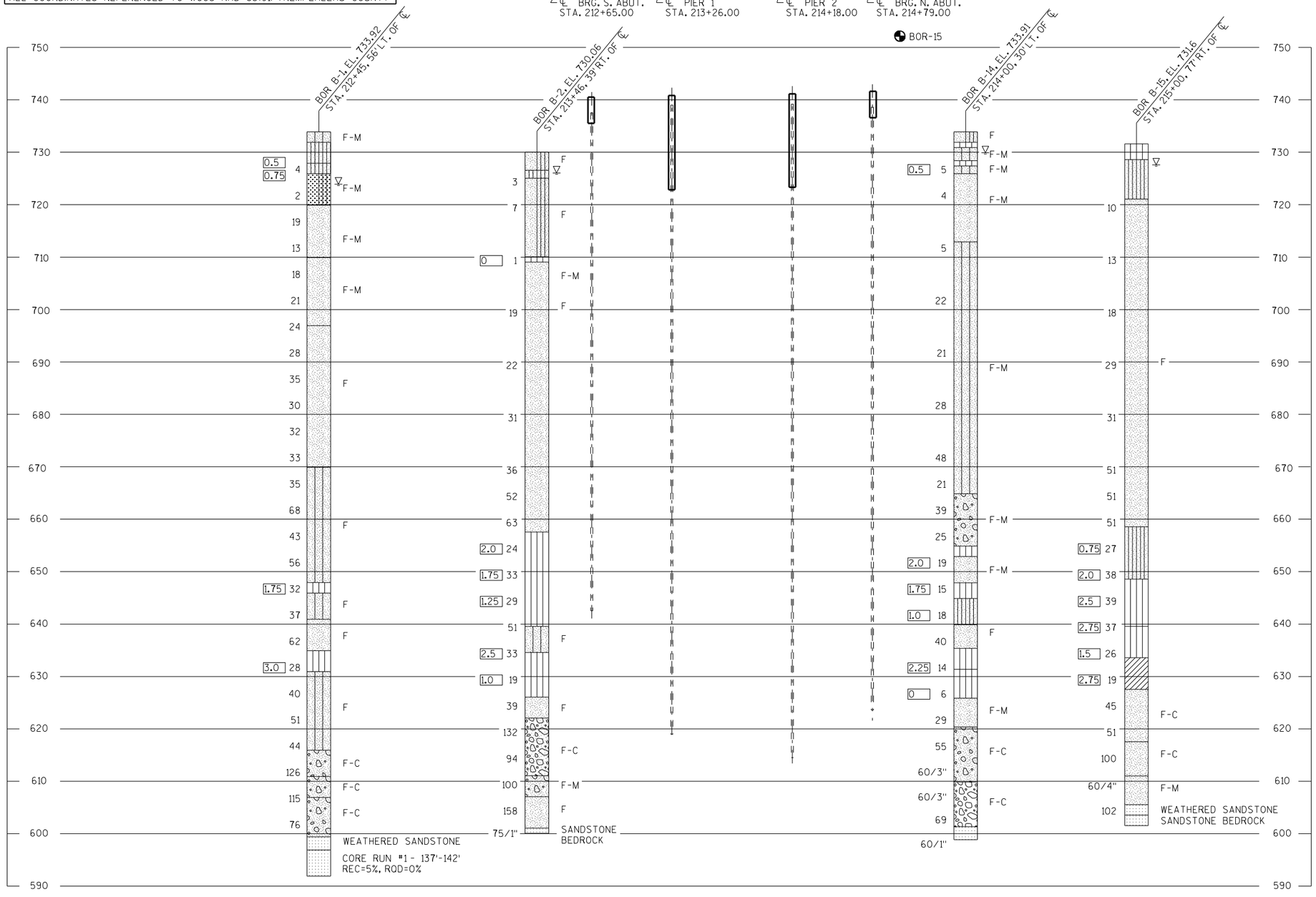
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GALESVILLE - BLAIR
PRAIRIE RIDGE LN TO LUND COULEE LN

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	10/4/2012	359556.31	854365.638
2	10/10/2012	359576.64	854501.841
14	12/19/2012	359667.37	854479.376
15	1/31/2013	359698.57	854597.299
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) TREMPEALEAU COUNTY			





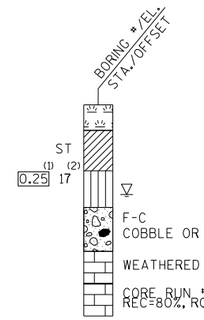
STATE PROJECT NUMBER

1634-03-71

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▼ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

DRAWN BY PR/DDS | PLANS CK'D. ADS

SUBSURFACE EXPLORATION

SHEET 3

238

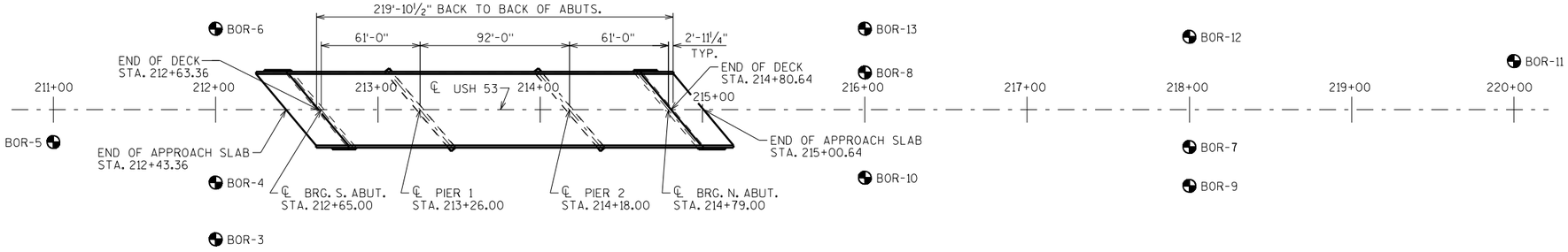
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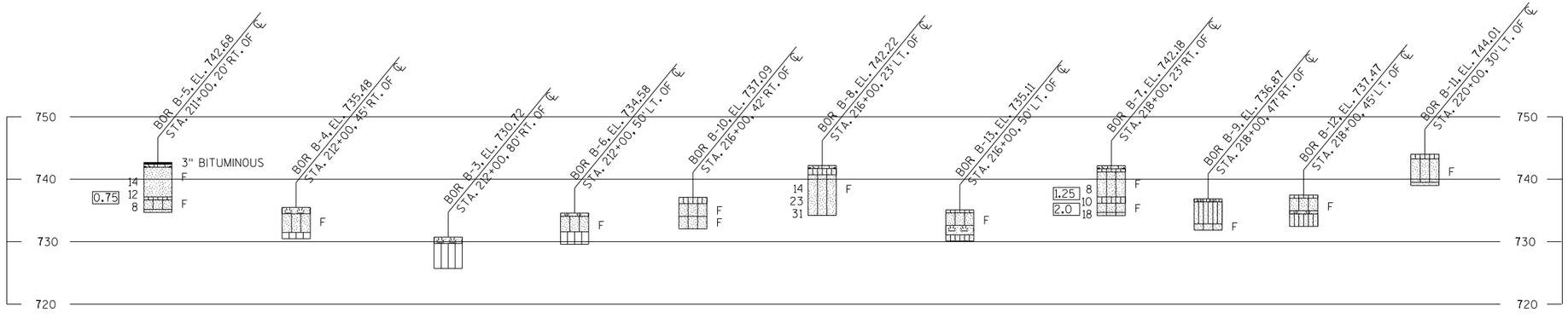
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GALESVILLE - BLAIR
PRAIRIE RIDGE LN TO LUND COULEE LN

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
3	10/10/2012	359437.71	854444.895
4	10/10/2012	359457.93	854417.574
5	10/10/2012	359396.49	854338.537
6	10/10/2012	359517.69	854342.711
7	10/10/2012	359940.63	854775.607
8	10/10/2012	359814.06	854614.777
9	10/10/2012	359924.88	854794.136
10	10/11/2012	359773.83	854665.12
11	10/11/2012	360129.191	854865.621
12	10/11/2012	359983.36	854723.61
13	10/11/2012	359830.2	854593.248
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) TREMPEALEAU COUNTY			





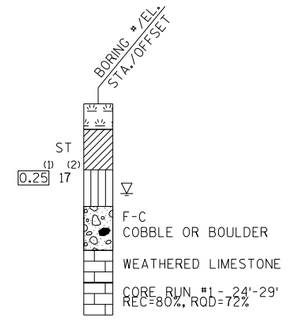
STATE PROJECT NUMBER

1634-03-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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- ▼ END OF DRILLING
- ▽ AFTER DRILLING

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204 APPROACH

DRAWN BY PR/DDS | PLANS CK'D. ADS

SUBSURFACE EXPLORATION

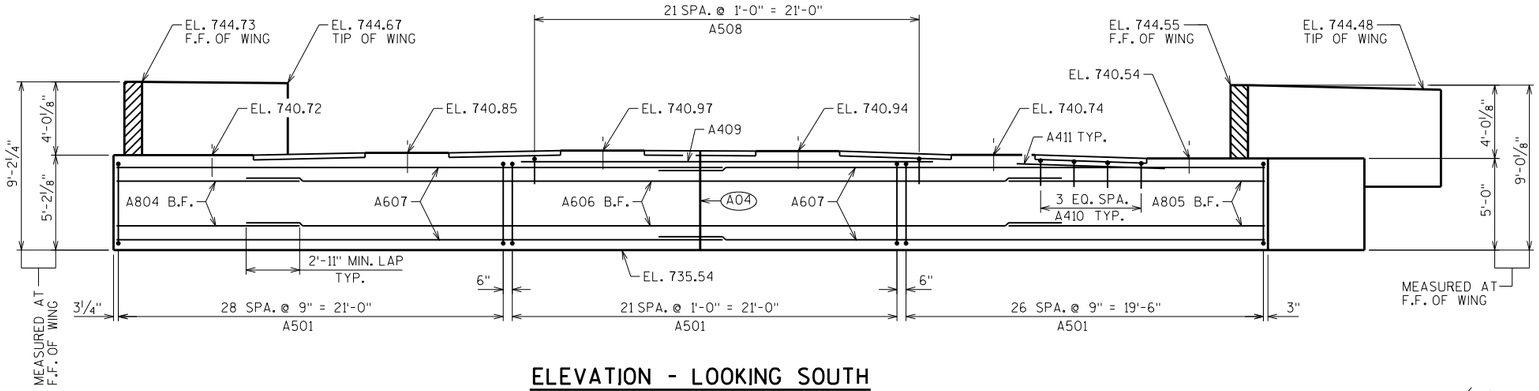
SHEET 4

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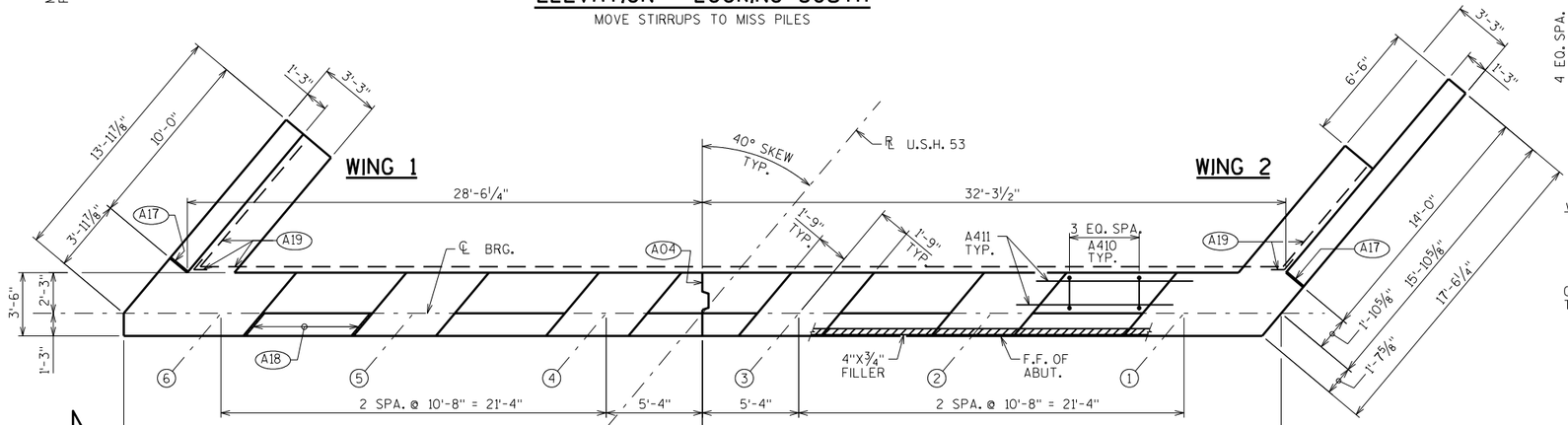
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1634-03-71

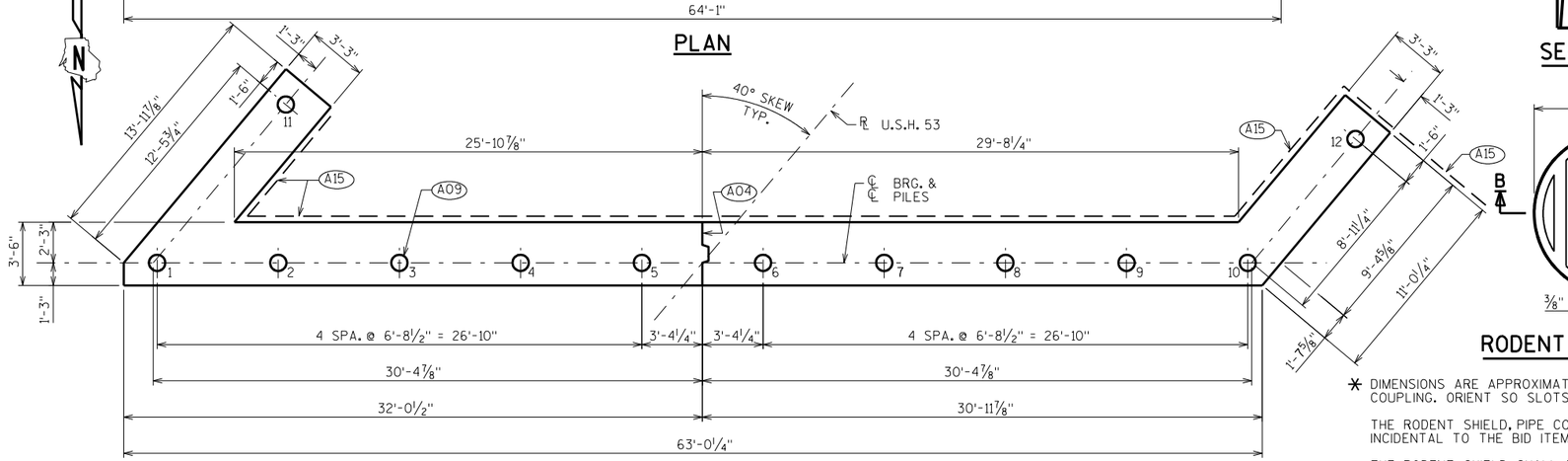


ELEVATION - LOOKING SOUTH

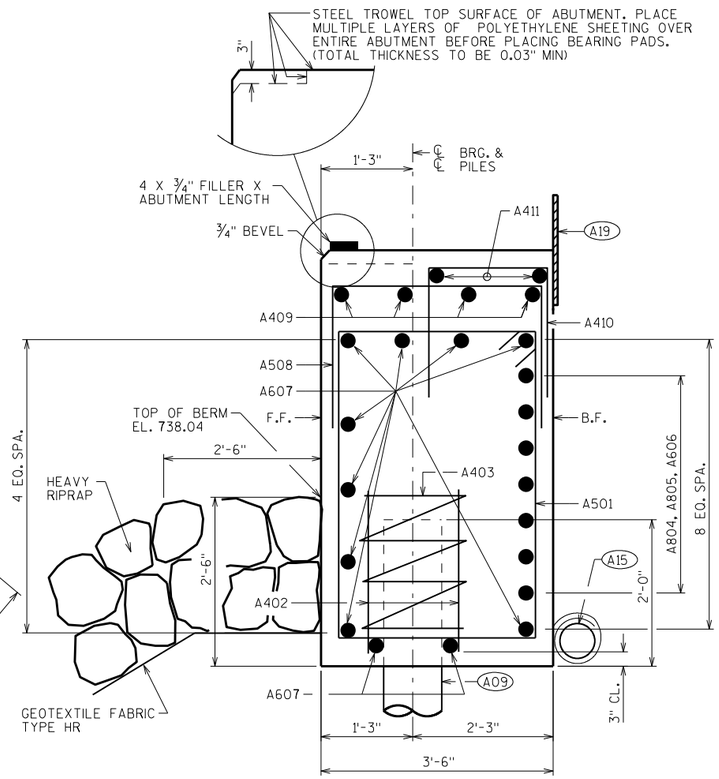
MOVE STIRRUPS TO MISS PILES



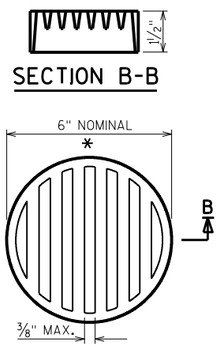
PLAN



PILE PLAN



SECTION THRU BODY



RODENT SHIELD DETAIL

(A04) VERT. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. ¾" "V" GROOVE @ THE FRONT FACE AND 18" R.M.W. @ BACKFACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.

(A09) SUPPORT ABUTMENT ON CIP 10¾" X 0.25 WALL PILING. ESTIMATED 95'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

DRAWN BY DDS | PLANS CK'D. ADS

SOUTH ABUTMENT

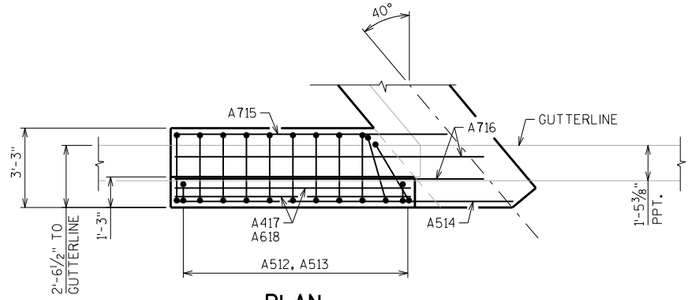
SHEET 5

240

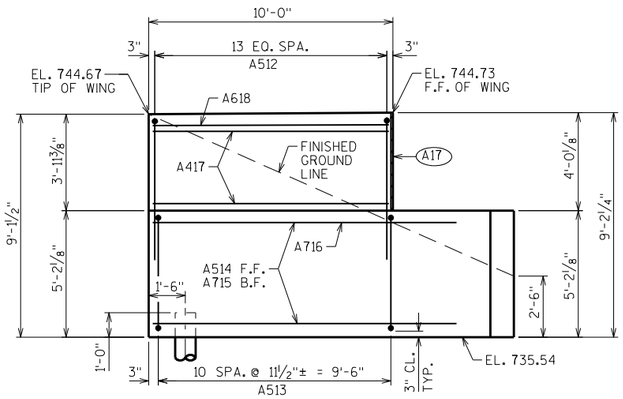
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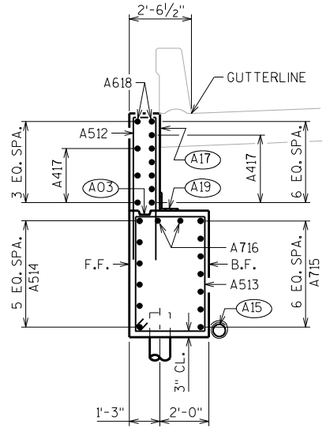
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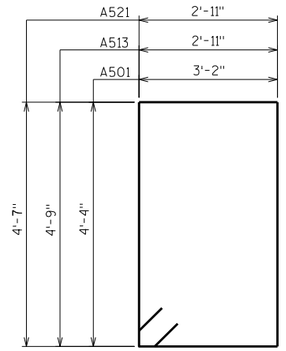
PLAN



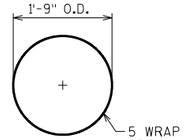
ELEVATION - WING 1



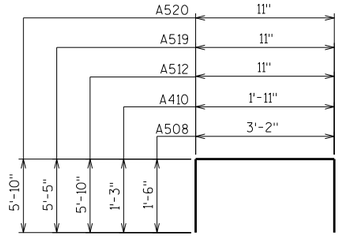
SECTION - WING 1



A501, A513, A521



A403

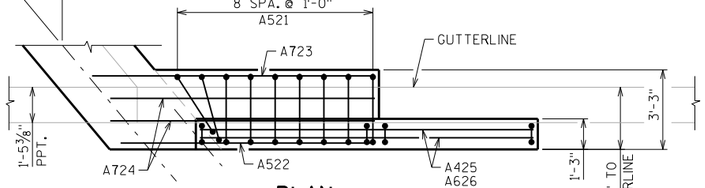


A508, A410, A512, A519, A520

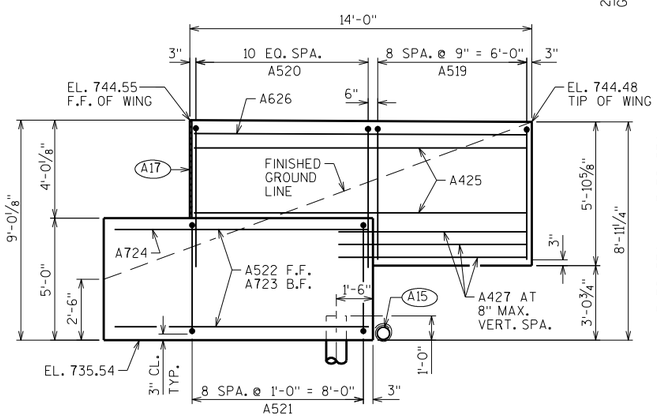
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

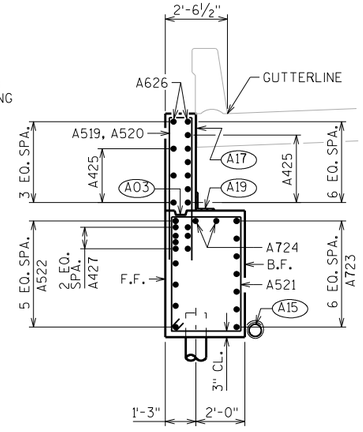
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		78	15'-8"	X		BODY - STIRRUPS
A402		20	2'-3"			BODY - VERT. - 2 PER BODY PILE
A403		10	28'-0"	X		BODY - VERT. - 1 PER BODY PILE
A804		7	10'-0"			BODY - HORIZ. - B.F.
A805		7	14'-0"			BODY - HORIZ. - B.F.
A606		7	45'-7"			BODY - HORIZ. - B.F.
A607		22	33'-4"			BODY - HORIZ.
A508		22	5'-11"	X		BODY - VERT.
A409		4	22'-2"			BODY - HORIZ. - TOP
A410		20	4'-3"	X		BODY - VERT. - BTWN. GIRDERS
A411		10	8'-9"			BODY - HORIZ. - BTWN. GIRDERS
A512	X	14	12'-4"	X		WING 1 - VERT.
A513	X	11	16'-0"	X		WING 1 - STIRRUP
A514	X	6	13'-8"			WING 1 - HORIZ. - F.F.
A715	X	7	11'-2"			WING 1 - HORIZ. - B.F.
A716	X	2	12'-8"			WING 1 - HORIZ. - TOP
A417	X	9	9'-8"			WING 1 - HORIZ.
A618	X	2	9'-8"			WING 1 - HORIZ. - TOP
A519	X	9	11'-6"	X		WING 2 - VERT.
A520	X	11	12'-4"	X		WING 2 - VERT.
A521	X	9	15'-8"	X		WING 2 - STIRRUP
A522	X	6	10'-5"			WING 2 - HORIZ. - F.F.
A723	X	7	11'-7"			WING 2 - HORIZ. - B.F.
A724	X	2	10'-10"			WING 2 - HORIZ.
A425	X	9	13'-8"			WING 2 - HORIZ. - F.F. & B.F.
A626	X	2	13'-8"			WING 2 - HORIZ. - TOP
A427	X	6	7'-9"			WING 2 - HORIZ. - F.F. & B.F.



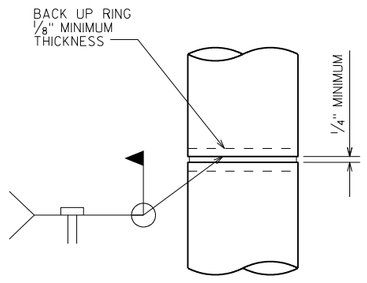
PLAN



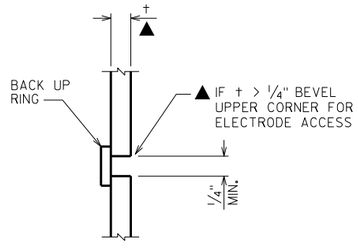
ELEVATION - WING 2



SECTION - WING 2



CAST-IN-PLACE 'PIPE PILE'



C.I.P. PILE WELD DETAIL

PILE DETAILS

A03 OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" R.M.W. @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

A17 1/2" FILLER - SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

DRAWN BY DDS | PLANS CK'D. ADS

SOUTH ABUTMENT DETAILS

SHEET 6

241

STATE PROJECT NUMBER

1634-03-71

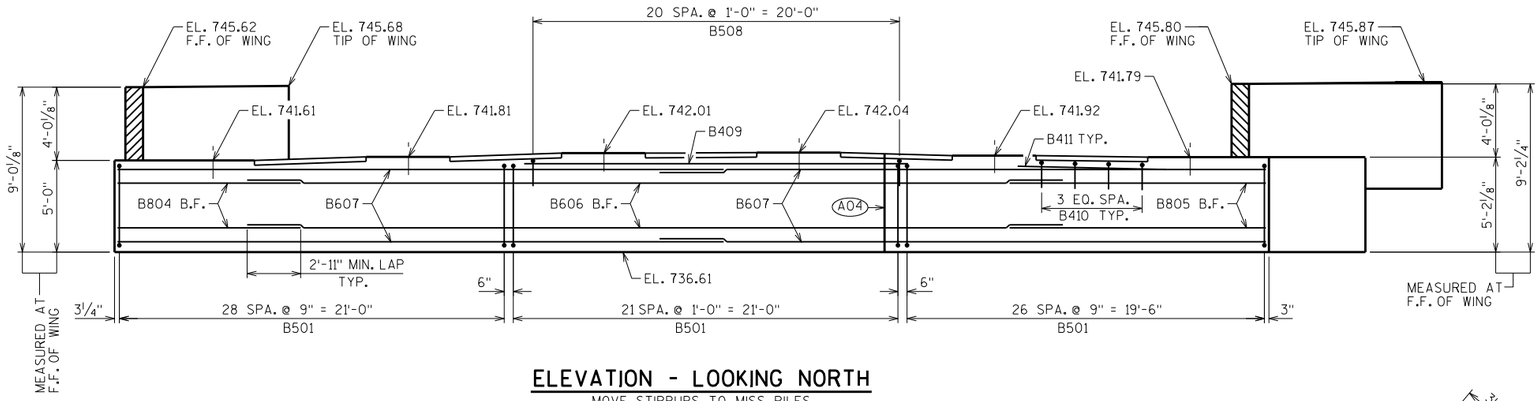
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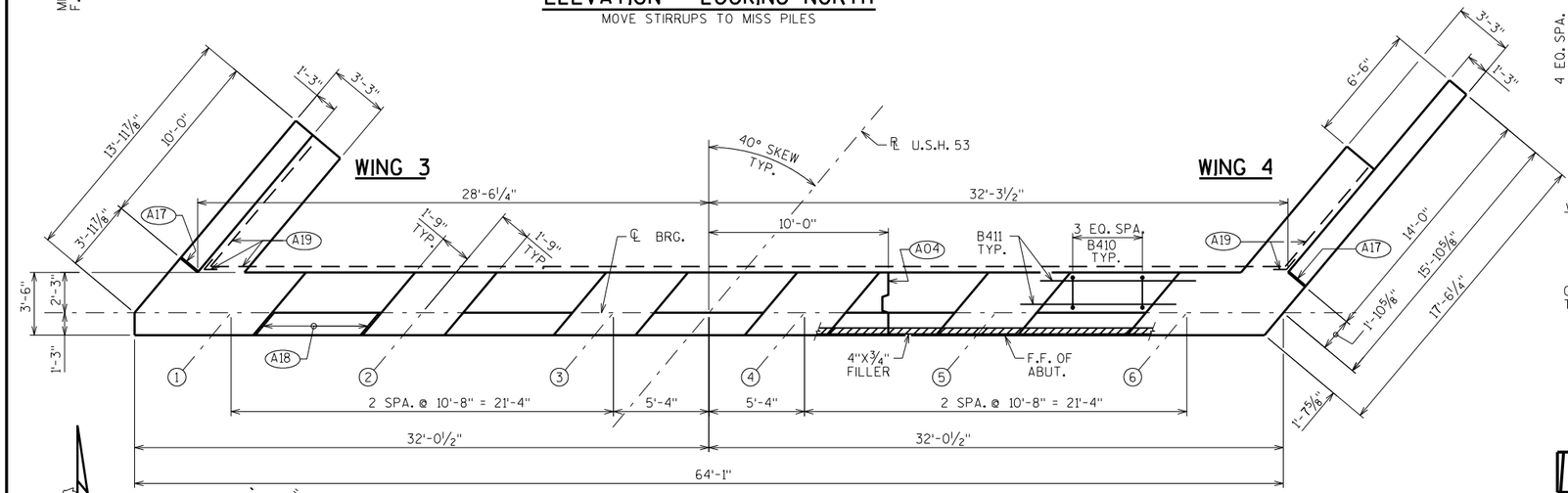
STATE PROJECT NUMBER

1634-03-71



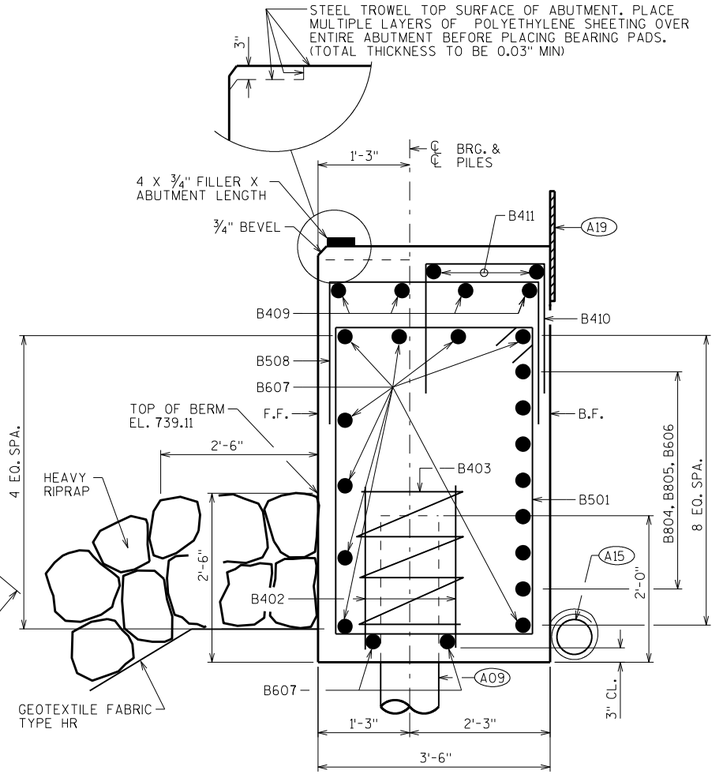
ELEVATION - LOOKING NORTH

MOVE STIRRUPS TO MISS PILES

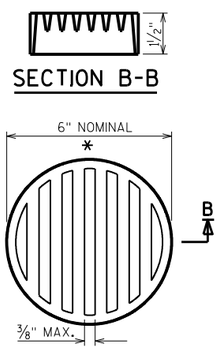


PLAN

PILE PLAN



SECTION THRU BODY



RODENT SHIELD DETAIL

(A04) VERT. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. 3/4" "V" GROOVE @ THE FRONT FACE AND 18" R.M.W. @ BACKFACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.

(A09) SUPPORT ABUTMENT ON CIP 10¾" X 0.25" WALL PILING. ESTIMATED 95'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

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* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

DRAWN BY DDS | PLANS CK'D. ADS

NORTH ABUTMENT

SHEET 7

242

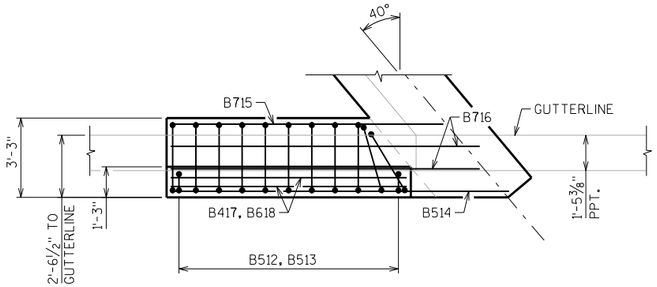
SCALE = 4

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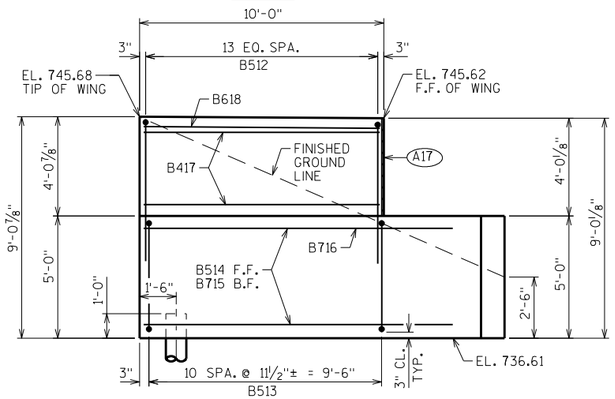
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STATE PROJECT NUMBER

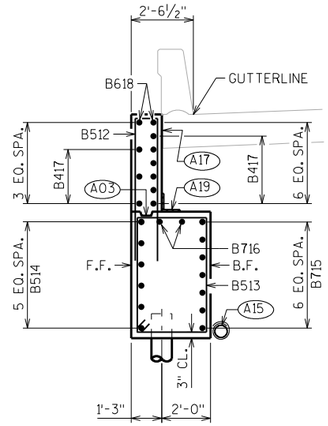
1634-03-71



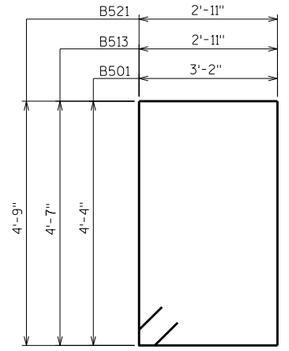
PLAN



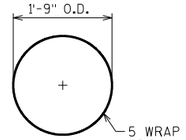
ELEVATION - WING 3



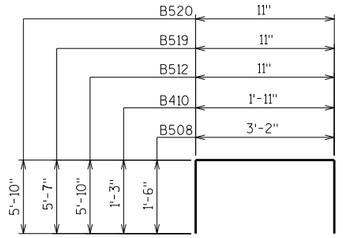
SECTION - WING 3



B501, B513, B521



B403

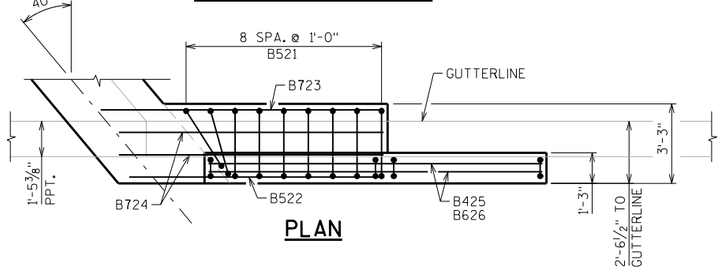


B508, B410, B512, B519, B520

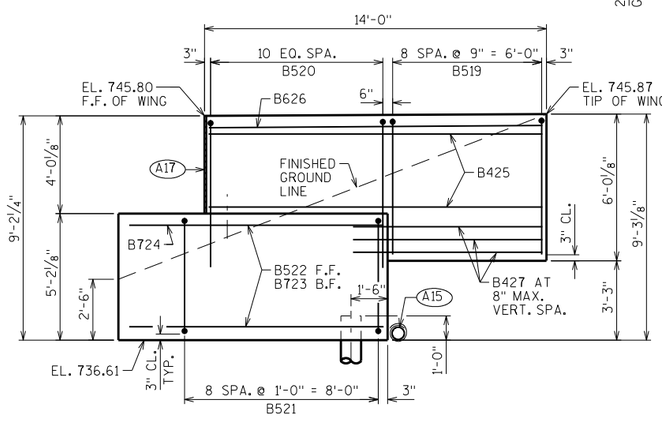
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

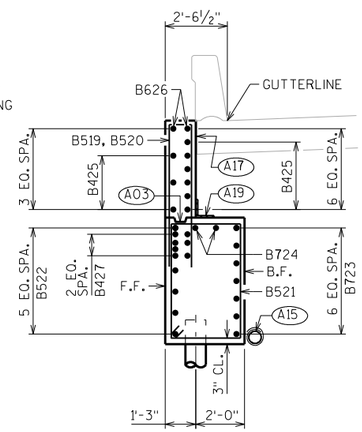
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		78	15'-8"	X		BODY - STIRRUPS
B402		20	2'-3"			BODY - VERT. - 2 PER BODY PILE
B403		10	28'-0"	X		BODY - VERT. - 1 PER BODY PILE
B804		7	10'-0"			BODY - HORIZ. - B.F.
B805		7	14'-0"			BODY - HORIZ. - B.F.
B606		7	45'-7"			BODY - HORIZ. - B.F.
B607		22	33'-4"			BODY - HORIZ.
B508		21	5'-11"	X		BODY - VERT.
B409		4	20'-11"			BODY - HORIZ. - TOP
B410		20	4'-3"	X		BODY - VERT. - BTWN. GIRDERS
B411		10	8'-9"			BODY - HORIZ. - BTWN. GIRDERS
B512	X	14	12'-4"	X		WING 3 - VERT.
B513	X	11	15'-8"	X		WING 3 - STIRRUP
B514	X	6	13'-8"			WING 3 - HORIZ. - F.F.
B715	X	7	11'-2"			WING 3 - HORIZ. - B.F.
B716	X	2	12'-8"			WING 3 - HORIZ. - TOP
B417	X	9	9'-8"			WING 3 - HORIZ.
B618	X	2	9'-8"			WING 3 - HORIZ. - TOP
B519	X	9	11'-10"	X		WING 4 - VERT.
B520	X	11	12'-4"	X		WING 4 - VERT.
B521	X	9	16'-0"	X		WING 4 - STIRRUP
B522	X	6	10'-5"			WING 4 - HORIZ. - F.F.
B723	X	7	11'-7"			WING 4 - HORIZ. - B.F.
B724	X	2	10'-10"			WING 4 - HORIZ.
B425	X	9	13'-8"			WING 4 - HORIZ. - F.F. & B.F.
B626	X	2	13'-8"			WING 4 - HORIZ. - TOP
B427	X	6	7'-9"			WING 4 - HORIZ. - F.F. & B.F.



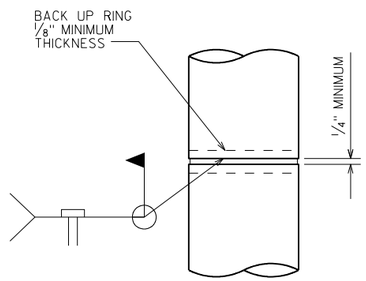
PLAN



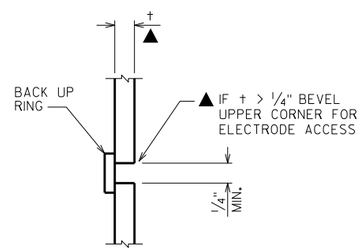
ELEVATION - WING 4



SECTION - WING 4



CAST-IN-PLACE 'PIPE PILE'



C.I.P. PILE WELD DETAIL

PILE DETAILS

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 × 6. (18" R.M.W. @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(A17) 1/2" FILLER - SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

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NORTH ABUTMENT DETAILS

SHEET 8

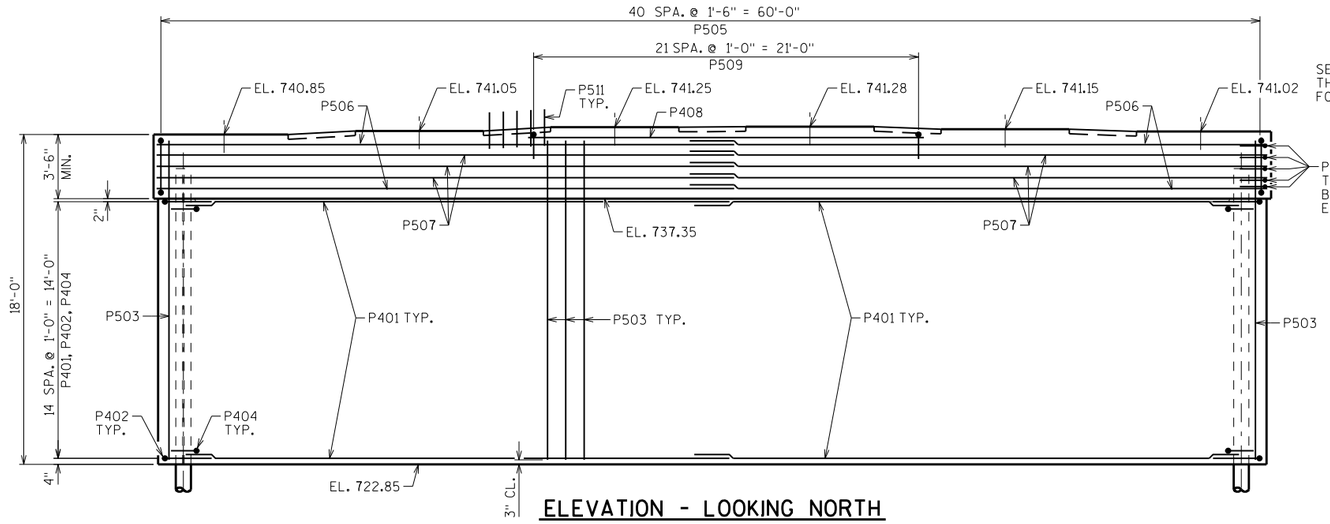
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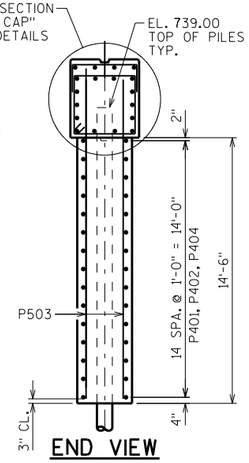
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SCALE = 3

STATE PROJECT NUMBER
1634-03-71



ELEVATION - LOOKING NORTH



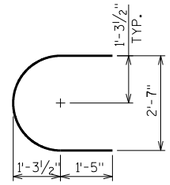
END VIEW

BILL OF BARS

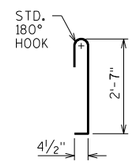
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P401		60	29'-10"			SHAFT - HORIZ. - F.F. & B.F.
P402		30	6'-0"	X		SHAFT - HORIZ. - ENDS
P503		124	17'-3"			SHAFT - VERT.
P404		285	3'-5"	X		SHAFT - HORIZ. - TIE BARS AT PILES
P505		41	13'-5"	X		CAP - STIRRUP
P506		16	31'-6"			CAP - HORIZ. - TOP & BOTTOM
P507		12	31'-6"			CAP - HORIZ. - SIDES
P408		4	21'-8"			CAP - HORIZ. - TOP
P509		22	6'-1"	X		CAP - VERT. - TOP
P510		10	5'-11"	X		CAP - HORIZ. - ENDS
P511		25	2'-0"			CAP - DOWEL BARS

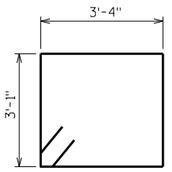
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



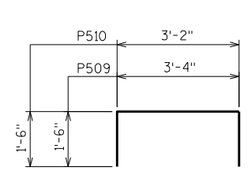
P402



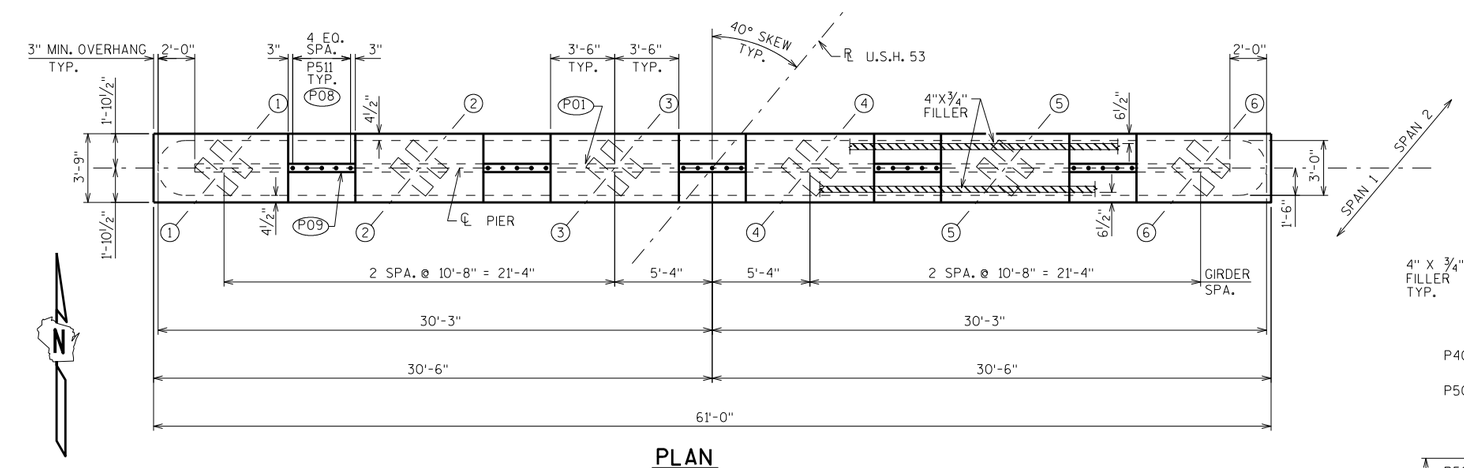
P404



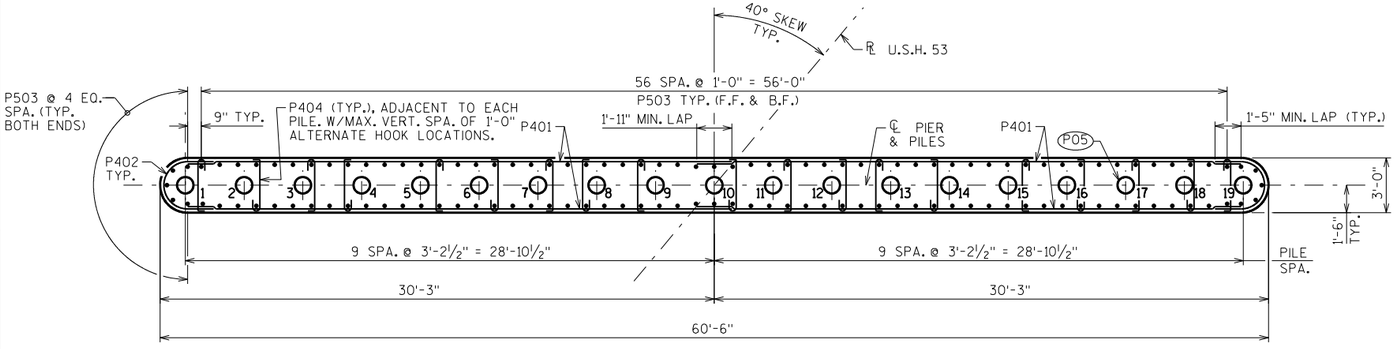
P505



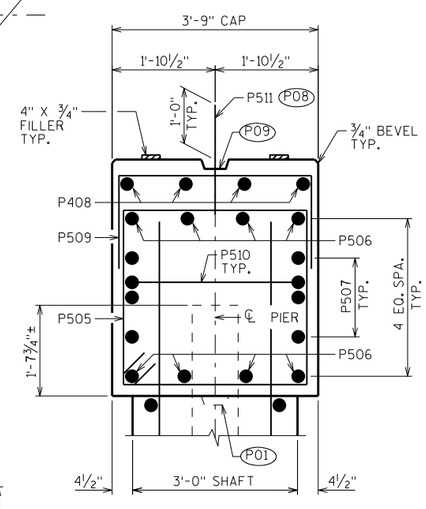
P509, P510



PLAN



PILE PLAN



SECTION THRU CAP

(P01) 56'-6" LONG CONSTRUCTION JOINT FORMED BY 2X6 BEVELED KEYWAY.

(P05) SUPPORT PIER ON CIP 10¾" X 0.25" WALL PILING, ESTIMATED 120'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE.

(P08) P511 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

(P09) KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2 × 6 BETWEEN BEAM SEATS.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

DRAWN BY DDS | PLANS CK'D. ADS

PIER 1

SHEET 9

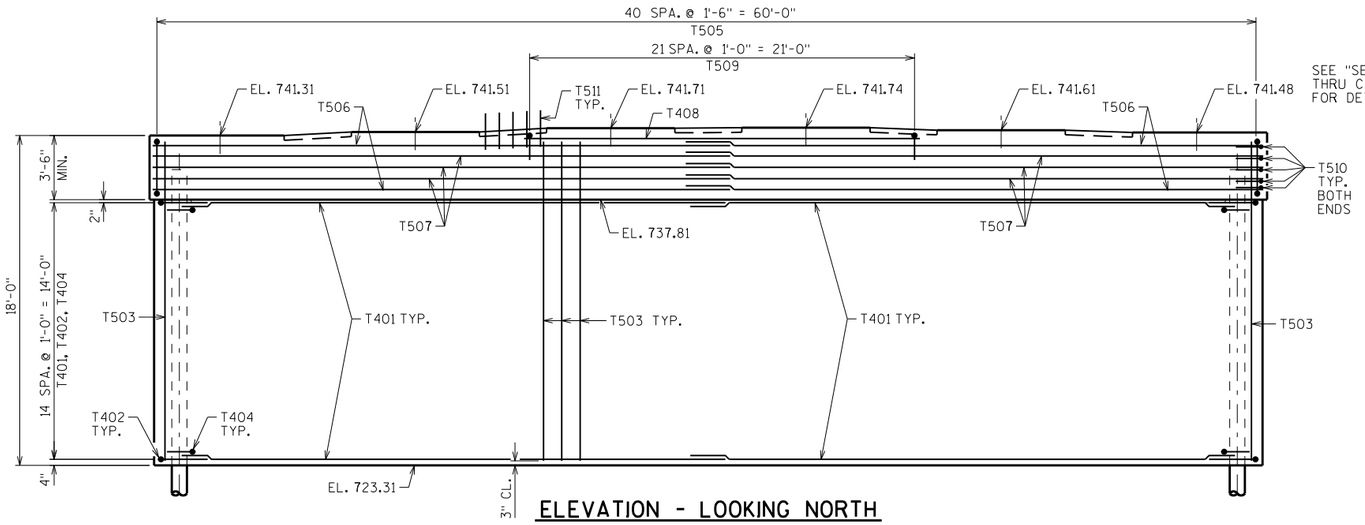
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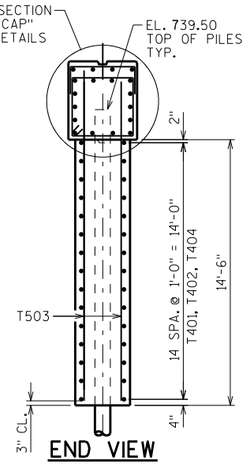
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SCALE = 4

STATE PROJECT NUMBER
1634-03-71



ELEVATION - LOOKING NORTH



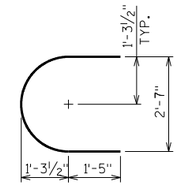
END VIEW

BILL OF BARS

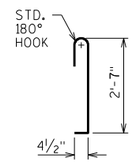
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BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
T401		60	29'-10"			SHAFT - HORIZ. - F.F. & B.F.
T402		30	6'-0"	X		SHAFT - HORIZ. - ENDS
T503		124	17'-3"			SHAFT - VERT.
T404		285	3'-5"	X		SHAFT - HORIZ. - TIE BARS AT PILES
T505		41	13'-5"	X		CAP - STIRRUP
T506		16	31'-6"			CAP - HORIZ. - TOP & BOTTOM
T507		12	31'-6"			CAP - HORIZ. - SIDES
T408		4	21'-8"			CAP - HORIZ. - TOP
T509		22	6'-1"	X		CAP - VERT. - TOP
T510		10	5'-11"	X		CAP - HORIZ. - ENDS
T511		25	2'-0"			CAP - DOWEL BARS

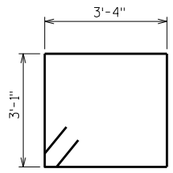
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



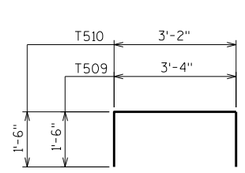
T402



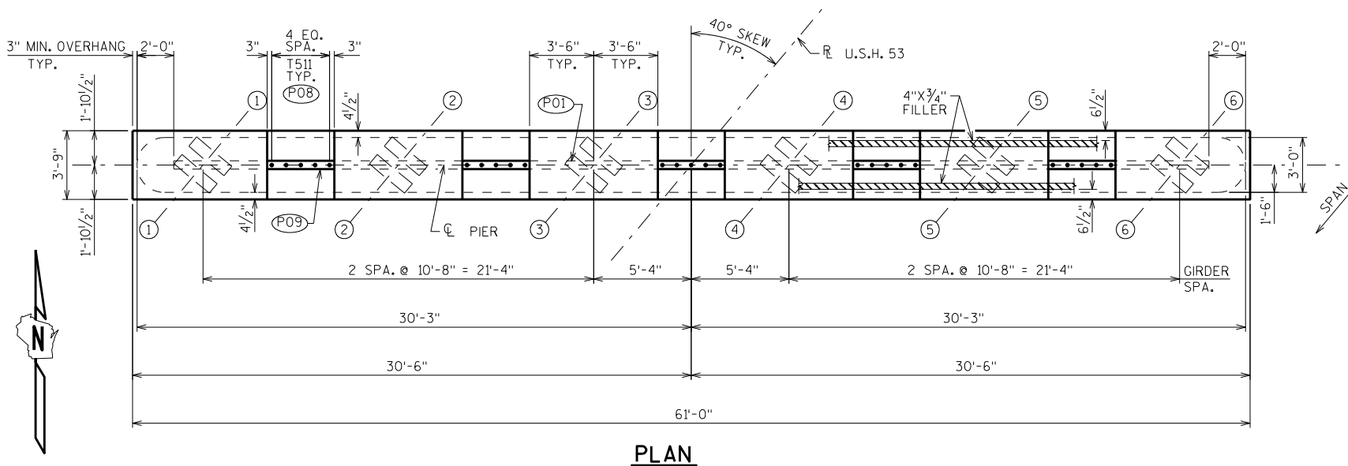
T404



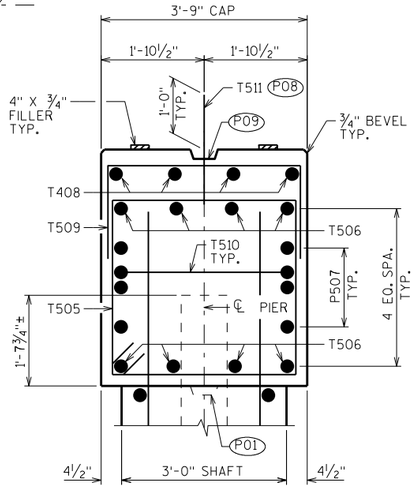
T505



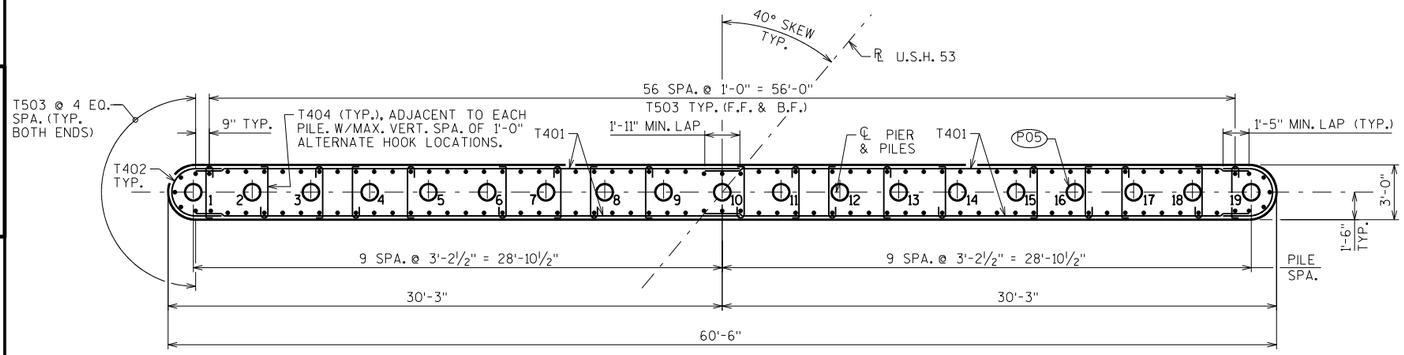
T509, T510



PLAN



SECTION THRU CAP



PILE PLAN

P01 56'-6" LONG CONSTRUCTION JOINT FORMED BY 2X6 BEVELED KEYWAY.

P05 SUPPORT PIER ON CIP 10¾" X 0.25" WALL PILING. ESTIMATED 120'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE.

P08 T511 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

P09 KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2 x 6 BETWEEN BEAM SEATS.

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

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PIER 2

SHEET 10

245

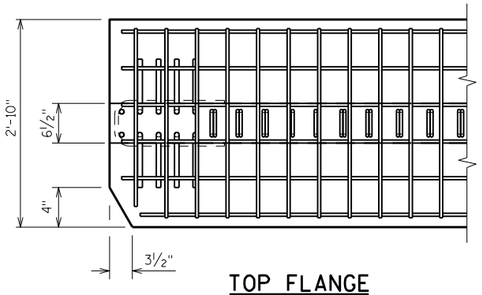
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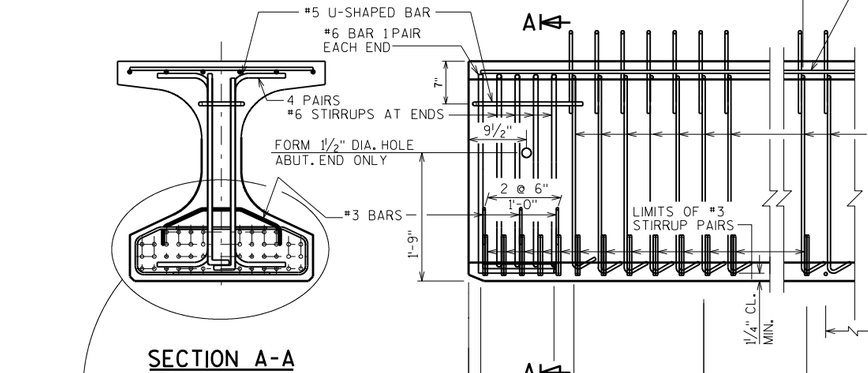
STATE PROJECT NUMBER

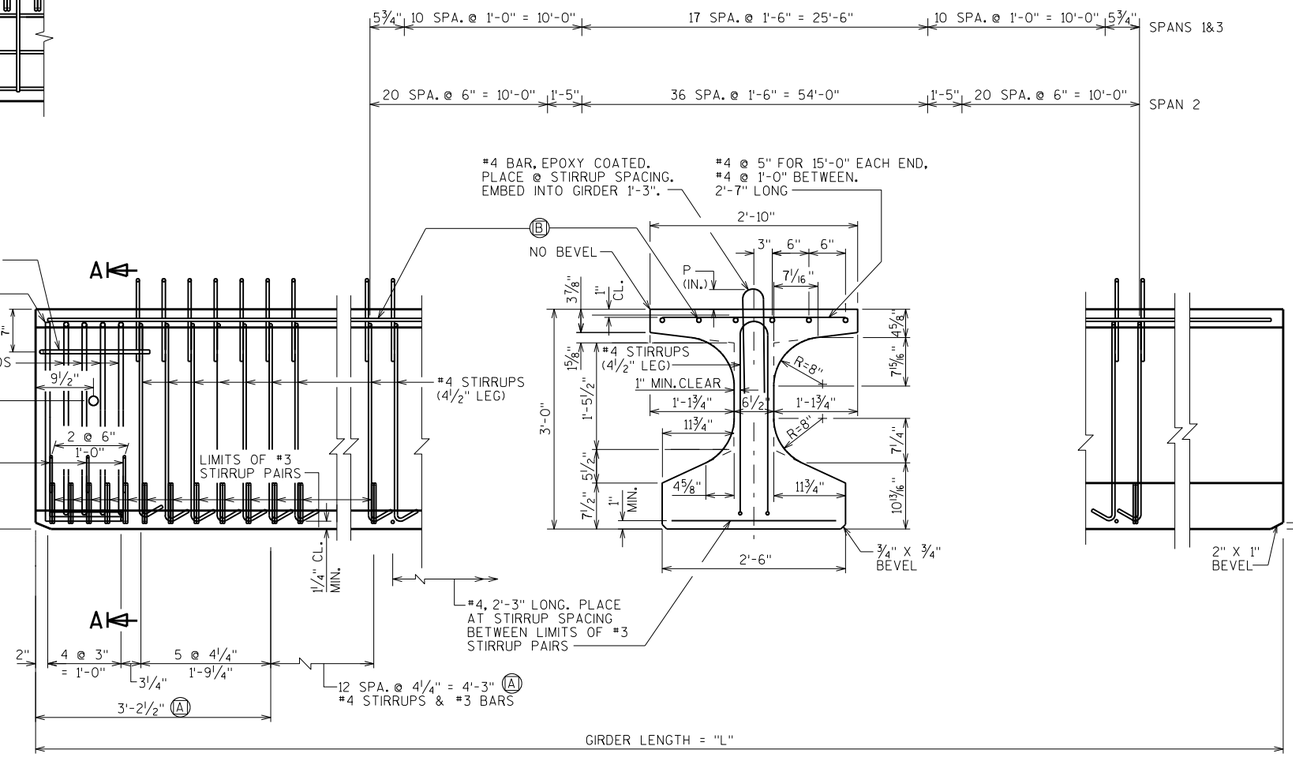
1634-03-71



TOP FLANGE

ONLY AT SPAN 1&3 GIRDERS
AT ABUTMENT ENDS ONLY

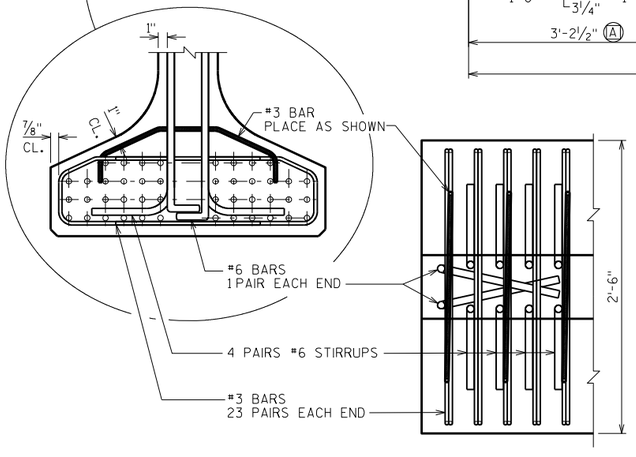




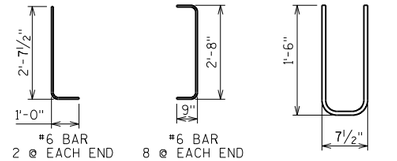
SIDE VIEW & TYP. SECTION IN SPAN

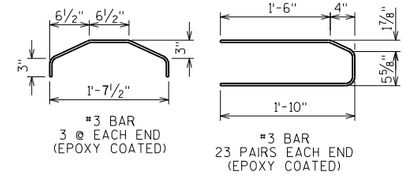
(A) DETAIL TYP. AT EACH END

(B) 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"



BOTTOM FLANGE





NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, ONE OPTION IS AVAILABLE:

USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE 0.6" DIA. -7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
1&3	ALL	61'-4½"	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	8000	8"	8"	8"	0.6							16	6400
2	ALL	91'-9"	0.8	1.5	2.1	2.4	2.5	2.4	2.1	1.5	0.8	8000	7"	7"	7"	0.6	32	6400	31	11.5	14.5	5		

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

DRAWN BY DDS | PLANS CK'D. ADS

36W" PRESTRESSED GIRDER DETAILS 1

SHEET 11

246

1-13
G36W

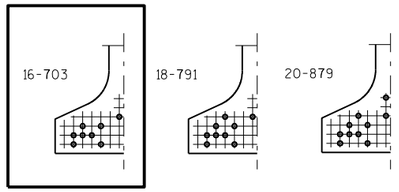
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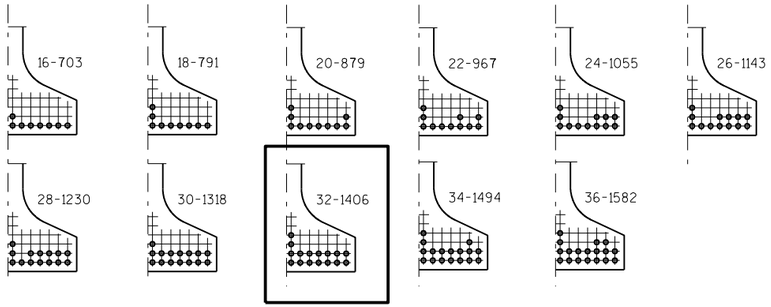
STATE PROJECT NUMBER

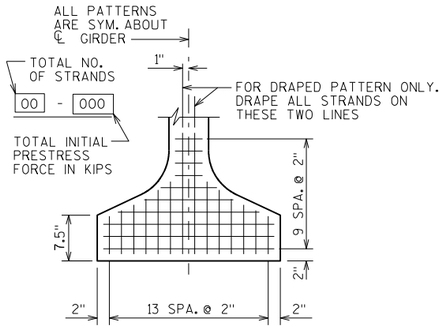
1634-03-71



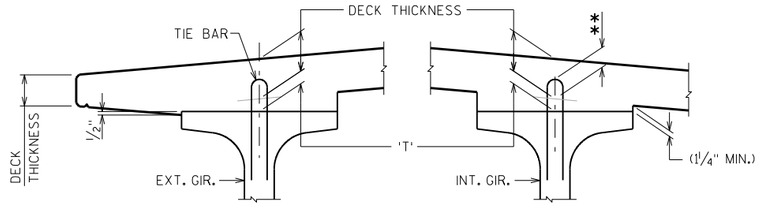
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS





TYP. STRAND PATTERN



DECK HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

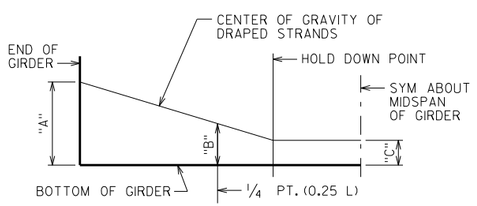
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3¼" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



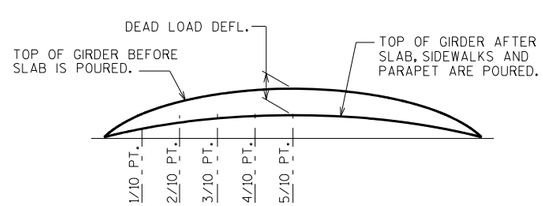
DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1,3	1.0
2	3.6

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DEAD LOAD DEFLECTION DIAGRAM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

DRAWN BY DDS | PLANS CK'D. ADS

36W" PRESTRESSED GIRDER DETAILS 2

SHEET 12

247

G36W
5-11

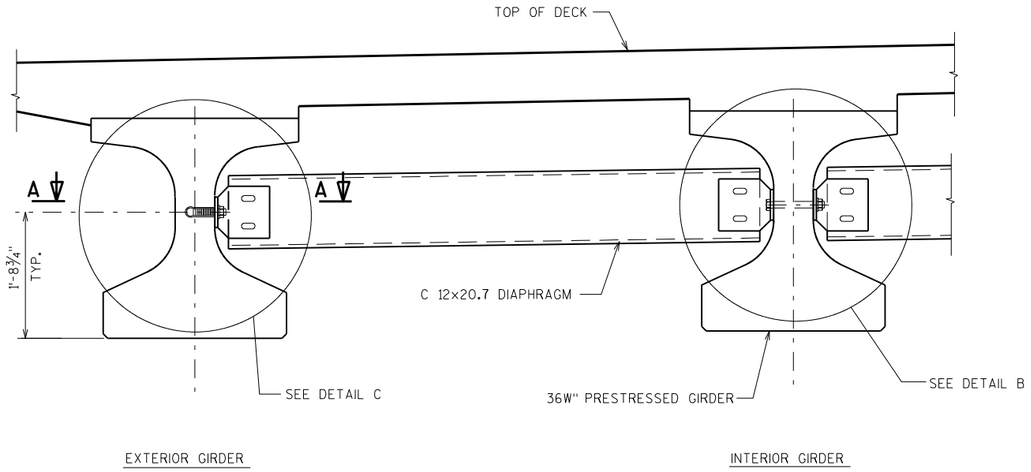
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8 19 9 5 12

8

STATE PROJECT NUMBER

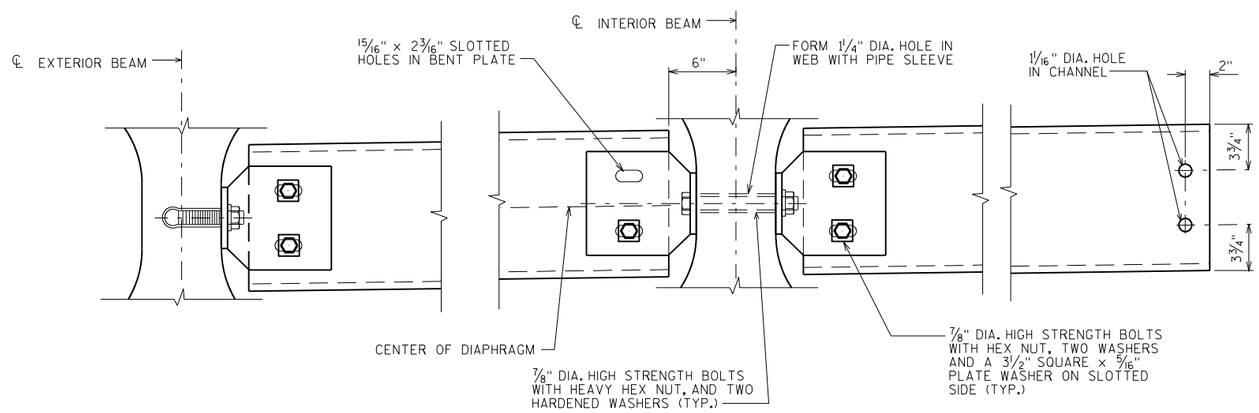
1634-03-71



EXTERIOR GIRDER

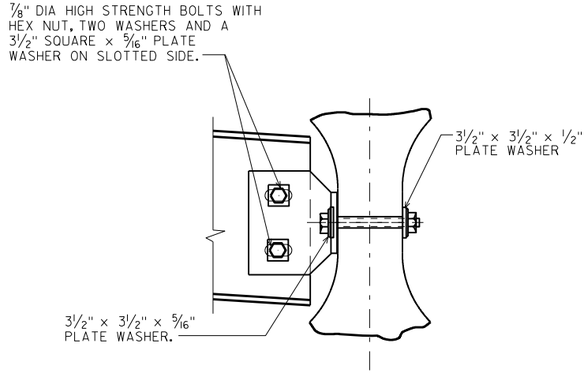
INTERIOR GIRDER

PART TRANSVERSE SECTION AT DIAPHRAGM



DETAIL C

DETAIL B



SECTION AT INTERIOR GIRDERS THRU DIAPHRAGM FOR SKEW ANGLES > 10°

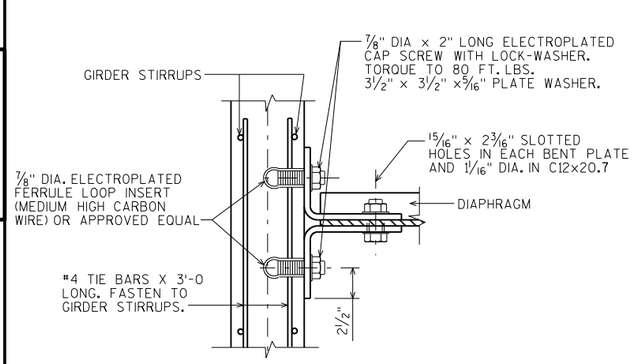
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-61-204", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

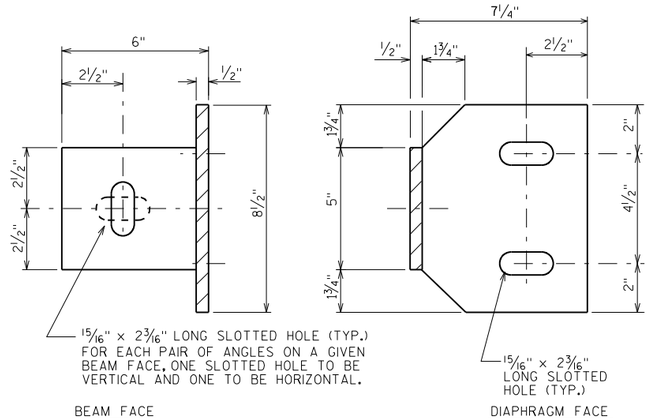
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

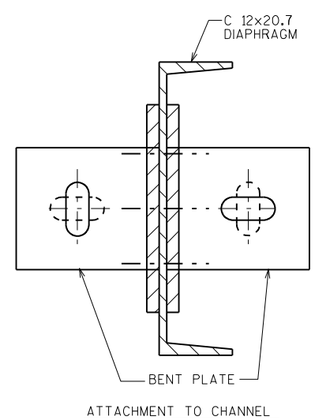
ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.



SECTION A-A

(FOR EXTERIOR ATTACHMENT)





ATTACHMENT TO CHANNEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

DRAWN BY DDS | PLANS CK'D. ADS

STEEL DIAPHRAGMS

SHEET 13

248

SCALE = 1

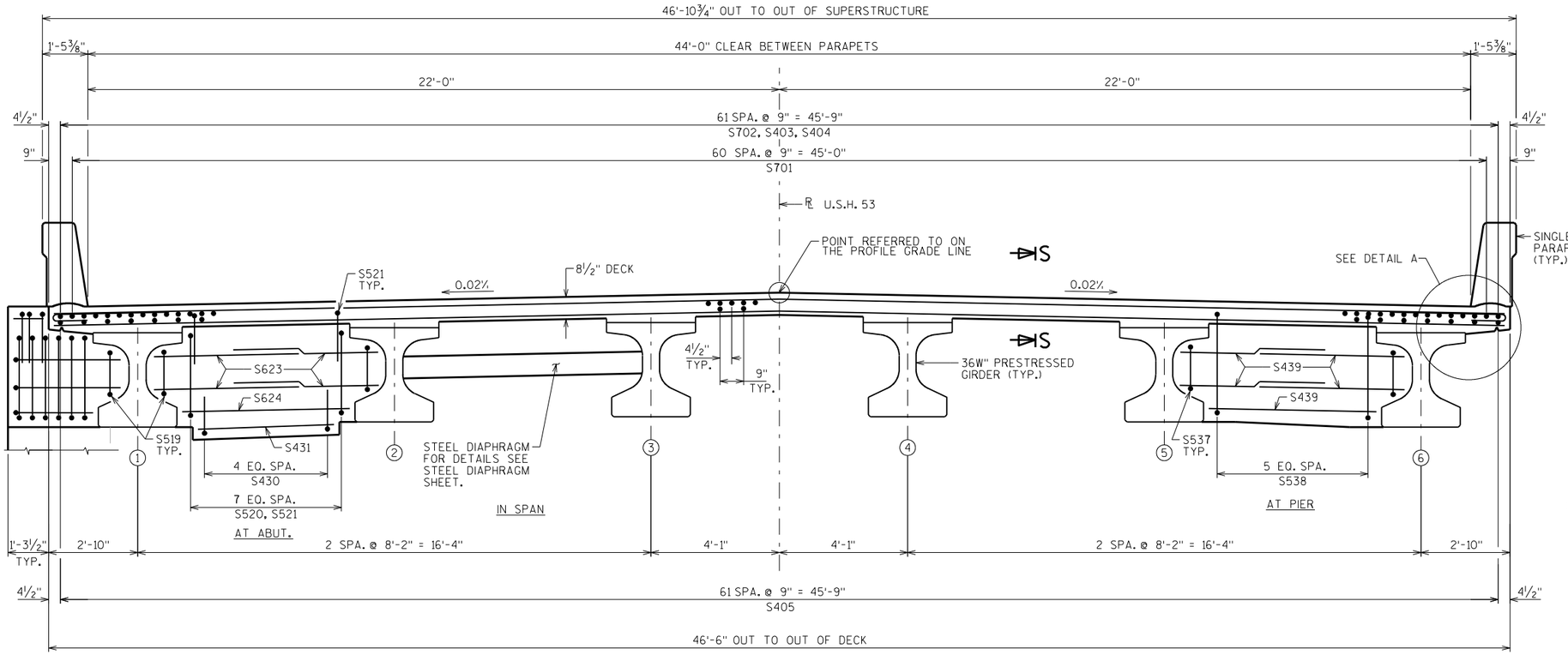
GSTDIA36W
1-13

8

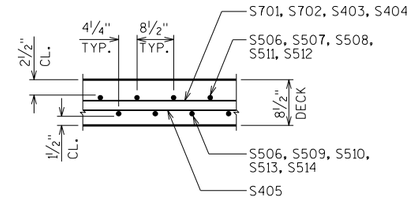
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STATE PROJECT NUMBER

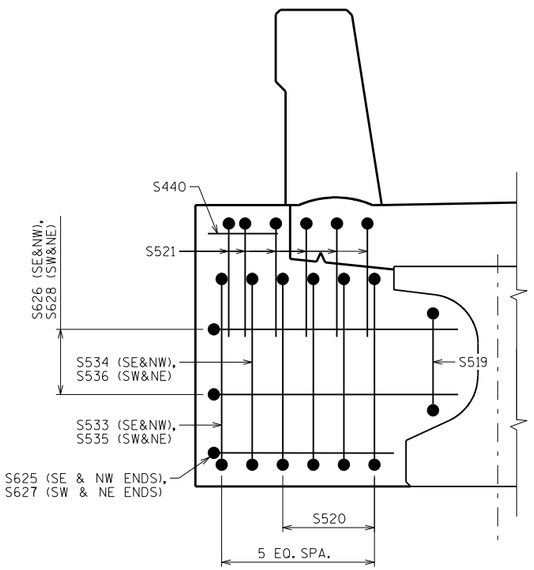
1634-03-71



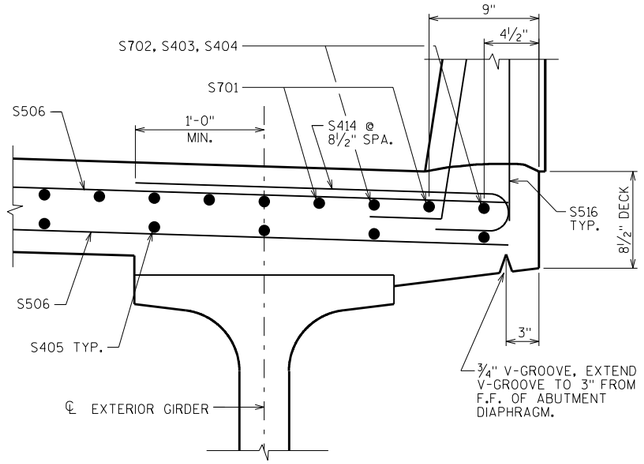
SECTION THRU ROADWAY - LOOKING NORTH



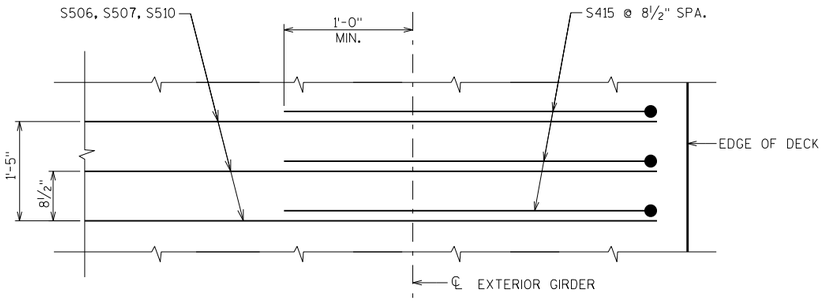
SECTION S-S



ABUT. DIAPH. END DETAILS



SECTION



PLAN

DETAIL A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

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SUPERSTRUCTURE CROSS SECTION

SHEET 14

249

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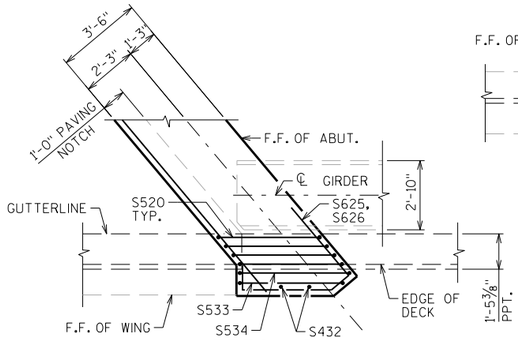
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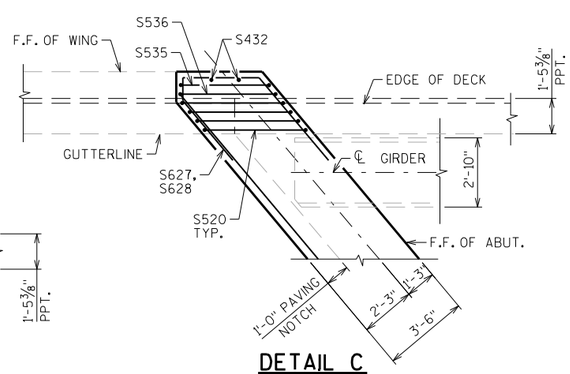
STATE PROJECT NUMBER
1634-03-71

TOP OF DECK ELEVATIONS

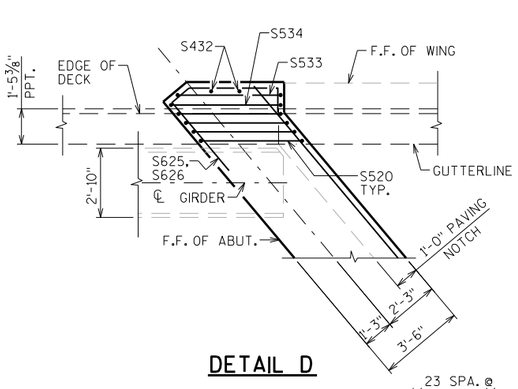
	S. ABUT ℄ BRG.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ PIER 1	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ PIER 2	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	N. ABUT ℄ BRG.
WEST EOD	744.55	744.58	744.61	744.64	744.67	744.70	744.73	744.76	744.79	744.82	744.85	744.90	744.95	744.99	745.04	745.08	745.13	745.18	745.22	745.27	745.31	745.34	745.37	745.40	745.44	745.47	745.50	745.53	745.56	745.59	745.62
GIRDER 1	744.59	744.62	744.65	744.68	744.71	744.74	744.77	744.80	744.83	744.86	744.89	744.94	744.98	745.03	745.08	745.12	745.17	745.21	745.26	745.31	745.35	745.38	745.41	745.44	745.47	745.50	745.53	745.57	745.60	745.63	745.66
GIRDER 2	744.78	744.81	744.85	744.88	744.91	744.94	744.97	745.00	745.03	745.06	745.09	745.14	745.18	745.23	745.27	745.32	745.37	745.41	745.46	745.50	745.55	745.58	745.61	745.64	745.67	745.70	745.73	745.76	745.79	745.82	745.85
GIRDER 3	744.98	745.01	745.04	745.07	745.10	745.13	745.16	745.20	745.23	745.26	745.29	745.33	745.38	745.42	745.47	745.52	745.56	745.61	745.65	745.70	745.75	745.78	745.81	745.84	745.87	745.90	745.93	745.96	745.99	746.02	746.05
CROWN ℞	745.08	745.11	745.14	745.17	745.20	745.23	745.26	745.29	745.32	745.36	745.39	745.43	745.48	745.52	745.57	745.62	745.66	745.71	745.75	745.80	745.85	745.88	745.91	745.94	745.97	746.00	746.03	746.06	746.09	746.12	746.15
GIRDER 4	745.02	745.05	745.08	745.11	745.14	745.17	745.20	745.23	745.26	745.29	745.32	745.37	745.41	745.46	745.51	745.55	745.60	745.64	745.69	745.74	745.78	745.81	745.84	745.87	745.90	745.93	745.96	745.99	746.03	746.06	746.09
GIRDER 5	744.89	744.92	744.95	744.98	745.01	745.04	745.07	745.10	745.13	745.16	745.19	745.24	745.28	745.33	745.38	745.42	745.47	745.51	745.56	745.61	745.65	745.68	745.71	745.74	745.77	745.80	745.83	745.87	745.90	745.93	745.96
GIRDER 6	744.76	744.79	744.82	744.85	744.88	744.91	744.94	744.97	745.00	745.03	745.06	745.11	745.15	745.20	745.25	745.29	745.34	745.38	745.43	745.48	745.52	745.55	745.58	745.61	745.64	745.68	745.71	745.74	745.77	745.80	745.83
EAST EOD	744.73	744.76	744.79	744.82	744.86	744.89	744.92	744.95	744.98	745.01	745.04	745.08	745.13	745.18	745.22	745.27	745.31	745.36	745.41	745.45	745.50	745.53	745.56	745.59	745.62	745.65	745.68	745.71	745.74	745.77	745.80



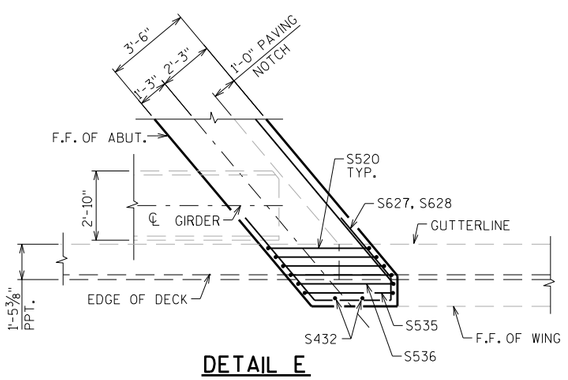
DETAIL B



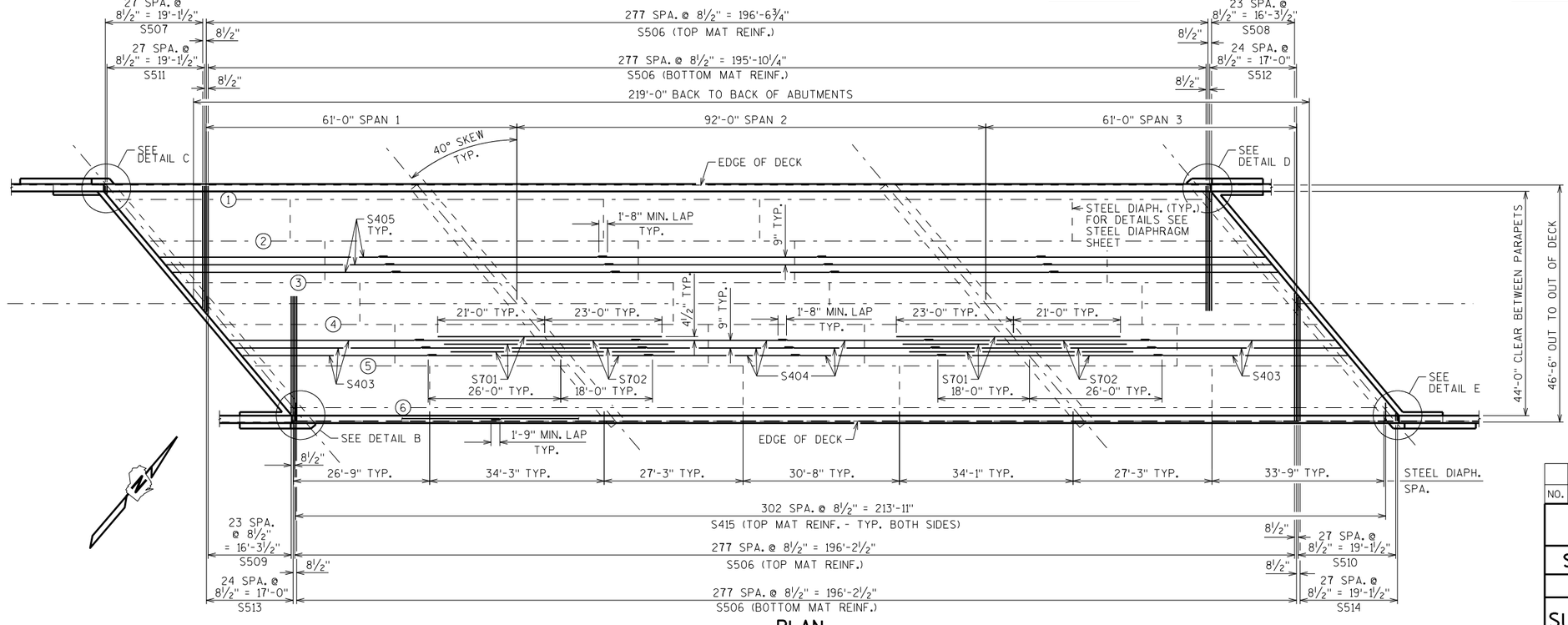
DETAIL C



DETAIL D



DETAIL E



PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

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SUPERSTRUCTURE

SHEET 15

250

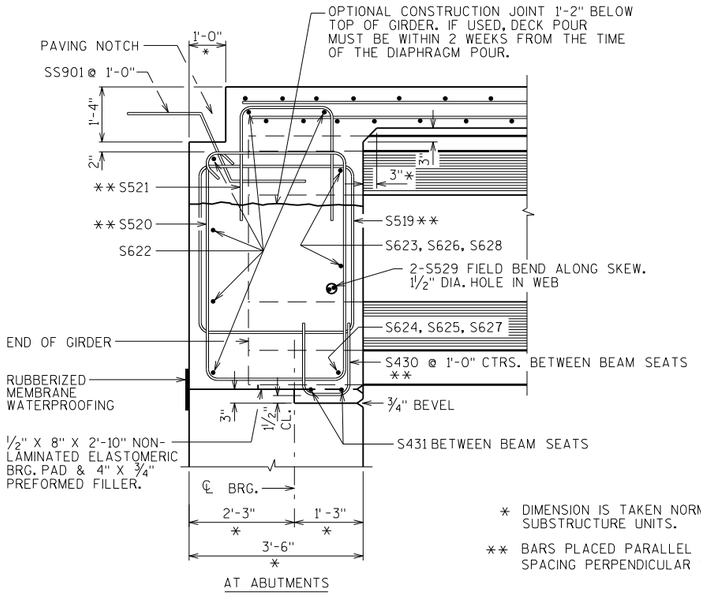
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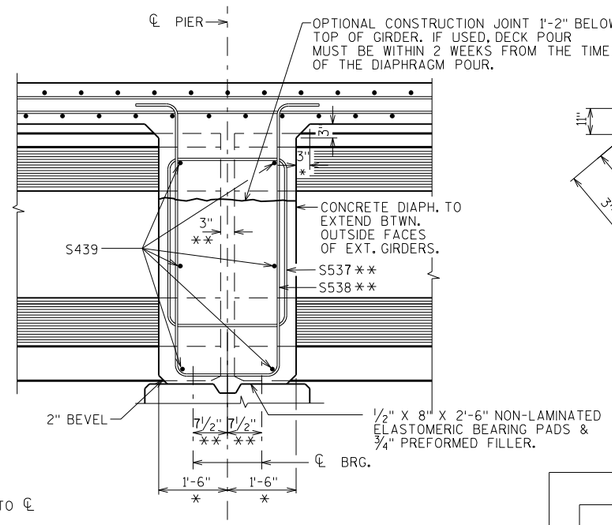
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STATE PROJECT NUMBER

1634-03-71



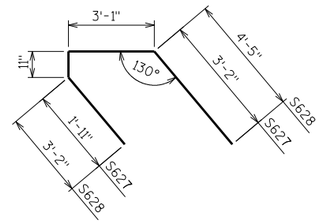
PART LONGIT. SECTION



AT PIER DIAPHRAGM

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS



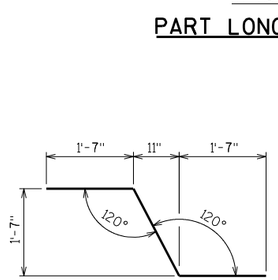
S627, S628

BILL OF BARS

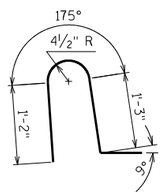
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	S701	X	122	44'-0"			CONTINUITY STEEL OVER PIERS - TOP
	S702	X	124	44'-0"			CONTINUITY STEEL OVER PIERS - TOP
	S403	X	124	38'-1"			LONGITUDINAL - TOP
	S404	X	124	30'-6"			LONGITUDINAL - TOP
	S405	X	310	44'-9"			LONGITUDINAL - BOTTOM
	S506	X	1112	24'-7"			TRANSVERSE - TOP & BOTTOM
⚠	S507	X	28	13'-0"		⚠	TRANSVERSE - TOP - SW CORNER
⚠	S508	X	24	11'-10"		⚠	TRANSVERSE - TOP - NW CORNER
⚠	S509	X	24	11'-10"		⚠	TRANSVERSE - TOP - SE CORNER
⚠	S510	X	28	13'-0"		⚠	TRANSVERSE - TOP - NE CORNER
⚠	S511	X	28	12'-7"		⚠	TRANSVERSE - BOTTOM - SW CORNER
⚠	S512	X	25	13'-4"		⚠	TRANSVERSE - BOTTOM - NW CORNER
⚠	S513	X	25	13'-4"		⚠	TRANSVERSE - BOTTOM - SE CORNER
⚠	S514	X	28	12'-7"		⚠	TRANSVERSE - BOTTOM - NE CORNER
	S415	X	606	4'-2"	X		TRANSVERSE - TOP - EDGE OF DECK
	S516	X	652	4'-5"	X		PARAPET - VERT.
	S517	X	652	5'-0"	X		PARAPET - VERT.
	S518	X	60	44'-10"			PARAPET - HORIZ.
	S519	X	24	11'-8"	X		ABUT. DIAPH. - STIRRUPS AT GIRDERS
	S520	X	96	14'-10"	X		ABUT. DIAPH. - STIRRUPS
	S521	X	104	7'-3"	X		ABUT. DIAPH. - VERT.
	S622	X	24	33'-7"			ABUT. DIAPH. - HORIZ. - B.F.
	S623	X	40	4'-5"			ABUT. DIAPH. - HORIZ. - BTWN. GIRDERS
	S624	X	20	3'-9"			ABUT. DIAPH. - HORIZ. - BTWN. GIRDERS
	S625	X	2	7'-8"	X		ABUT. DIAPH. - HORIZ. - SE & NW ENDS
	S626	X	4	8'-10"	X		ABUT. DIAPH. - HORIZ. - SE & NW ENDS
	S627	X	2	8'-10"	X		ABUT. DIAPH. - HORIZ. - SW & NE ENDS
	S628	X	4	11'-4"	X		ABUT. DIAPH. - HORIZ. - SW & NE ENDS
	S529	X	24	6'-0"			ABUT. DIAPH. - HORIZ. - THRU GIRDERS
	S430	X	50	3'-7"	X		ABUT. DIAPH. - VERT. - BTWN. GIRDERS
	S431	X	20	7'-0"			ABUT. DIAPH. - HORIZ. - BTWN. GIRDERS
	S432	X	8	3'-6"			ABUT. DIAPH. - VERT. - ENDS
	S533	X	2	15'-10"	X		ABUT. DIAPH. - STIRRUP - SE & NW ENDS
	S534	X	2	16'-6"	X		ABUT. DIAPH. - STIRRUP - SE & NW ENDS
	S535	X	2	14'-8"	X		ABUT. DIAPH. - STIRRUP - SW & NE ENDS
	S536	X	2	15'-4"	X		ABUT. DIAPH. - STIRRUP - SW & NE ENDS
	S537	X	20	10'-4"	X		PIER DIAPH. - STIRRUPS - AT GIRDERS
	S538	X	60	11'-9"	X		PIER DIAPH. - VERT.
	S439	X	120	4'-6"			PIER DIAPH. - HORIZ.
	S440	X	16	1'-2"			ABUT. DIAPH. - HORIZ. - ENDS
STAINLESS STEEL →	SS901		94	5'-0"	X		ABUT. DIAPH./APPROACH SLAB - VERT.

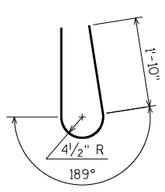
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



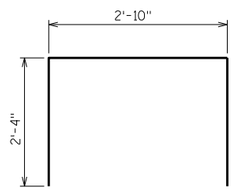
SS901
STAINLESS STEEL



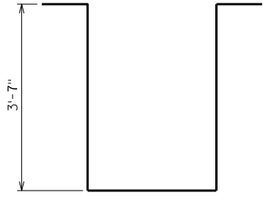
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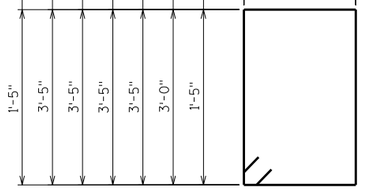
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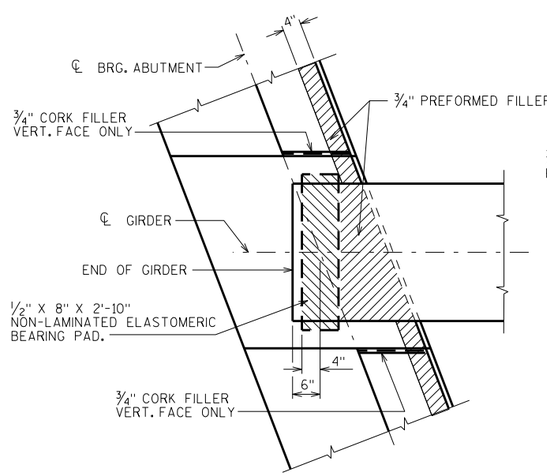
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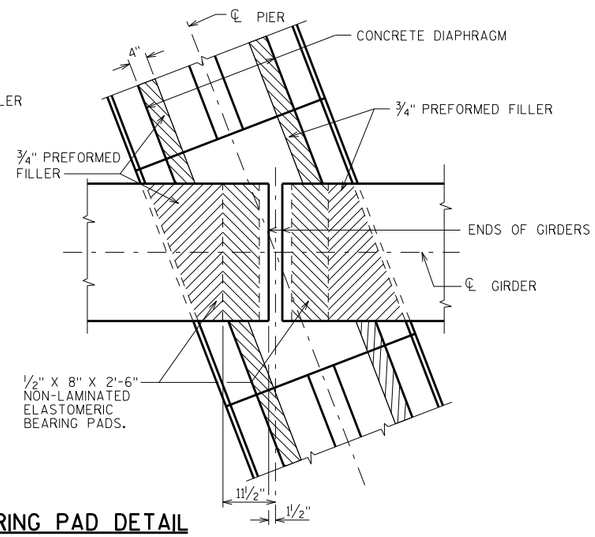


S538



S519, S520, S533, S534, S535, S536, S537



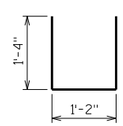


BEARING PAD DETAIL

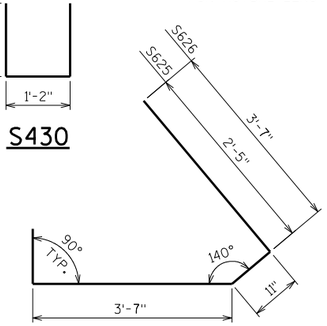
BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
S507	1 SERIES OF 28	1'-7" TO 24'-4"
S508	1 SERIES OF 24	3'-7" TO 23'-0"
S509	1 SERIES OF 24	3'-7" TO 23'-0"
S510	1 SERIES OF 28	1'-7" TO 24'-4"
S511	1 SERIES OF 28	1'-2" TO 23'-11"
S512	1 SERIES OF 25	3'-2" TO 23'-5"
S513	1 SERIES OF 25	3'-2" TO 23'-5"
S514	1 SERIES OF 28	1'-2" TO 23'-11"

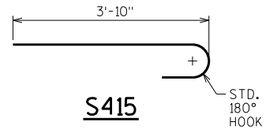
BUNDLE AND TAG EACH SERIES SEPARATELY.



S430



S625, S626



S415

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

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SUPERSTRUCTURE DETAILS

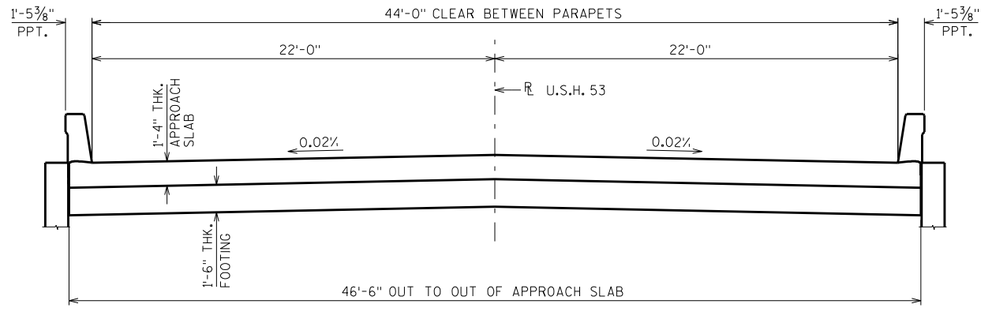
SHEET 16

251

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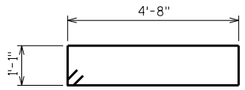
G36WDET
1-13

17 13 8 7 4 3 2 1

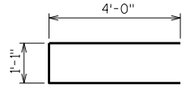


SECTION THRU ROADWAY

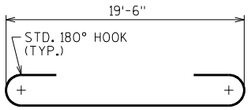
LOOKING SOUTH AT SOUTH APPROACH SLAB
LOOKING NORTH AT NORTH APPROACH SLAB



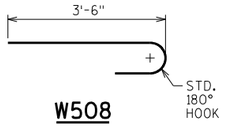
W501



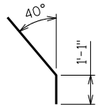
W503



W804



W508



W509

NOTE:
THE BAR QUANTITIES SHOWN IN THE BILL OF BARS REPRESENT THE BAR STEEL REQUIRED FOR BOTH APPROACH SLABS.

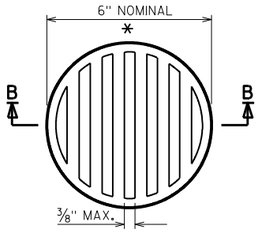
STATE PROJECT NUMBER

1634-03-71

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
W501	X	114	12'-2"	X		FOOTING - STIRRUP
W802	X	48	33'-1"			FOOTING - HORIZ.
W503	X	16	8'-10"	X		FOOTING - VERT.
W804	X	154	21'-4"	X		APPROACH SLAB - LONGIT. - BOTTOM
W505	X	84	31'-6"			APPROACH SLAB - TRANS. - BOTTOM
W506	X	84	31'-8"			APPROACH SLAB - TRANS. - TOP
W507	X	94	19'-7"			APPROACH SLAB - LONGIT. - TOP
W508	X	80	4'-1"	X		APPROACH SLAB - TRANS. - TOP - EDGE OF DECK
W509	X	16	3'-0"	X		APPROACH SLAB - TRANS. - TOP & BOTTOM

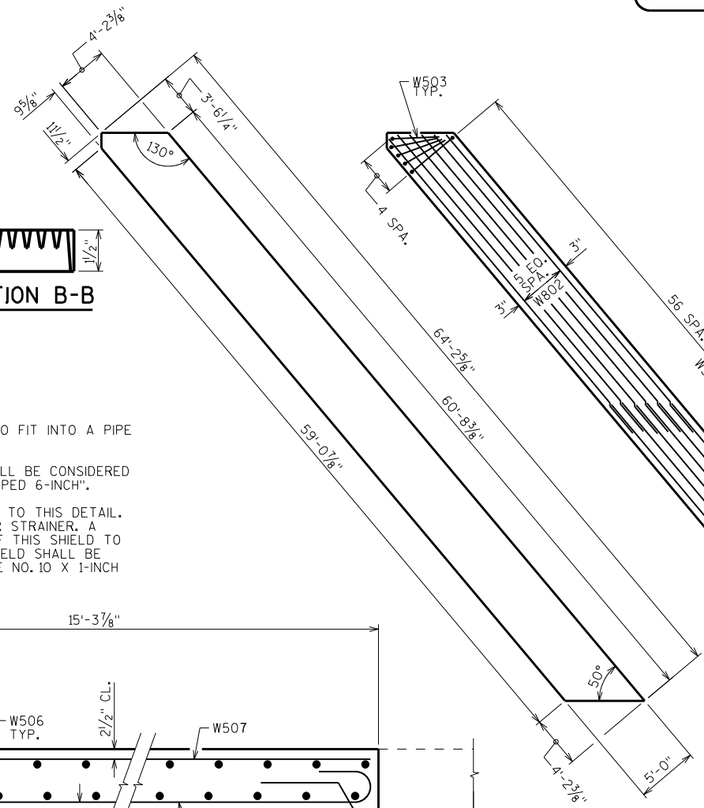


RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

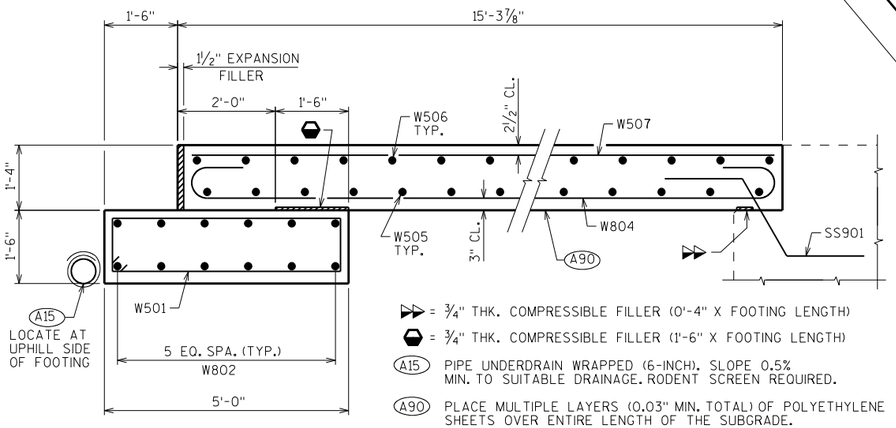


FOOTING PLAN

SHOWING REINFORCEMENT

FOOTING PLAN

SHOWING FOOTING LAYOUT/SHAPE



▶▶ = ¾" THK. COMPRESSIBLE FILLER (0'-4" X FOOTING LENGTH)

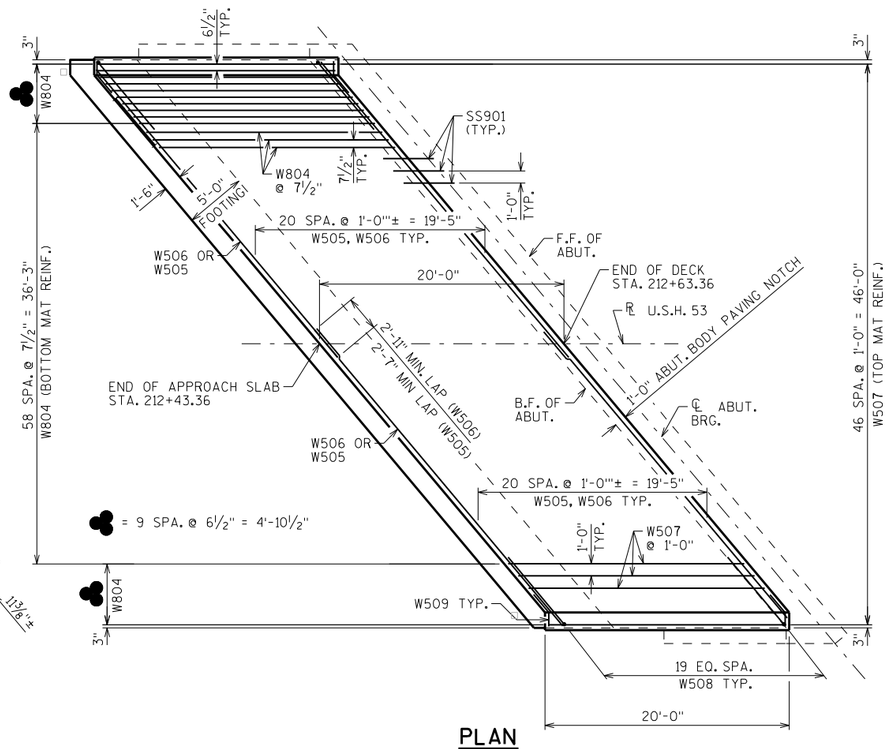
⬬ = ¾" THK. COMPRESSIBLE FILLER (1'-6" X FOOTING LENGTH)

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(A90) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL) OF POLYETHYLENE SHEETS OVER ENTIRE LENGTH OF THE SUBGRADE.

LONGITUDINAL SECTION THRU APPROACH SLAB/FOOTING

SOUTH APPROACH SLAB SHOWN
NORTH APPROACH SLAB SIMILAR



PLAN

SOUTH APPROACH SLAB SHOWN
NORTH APPROACH SLAB SIMILAR

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STRUCTURES DESIGN SECTION

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APPROACH SLAB DETAILS

SHEET 17

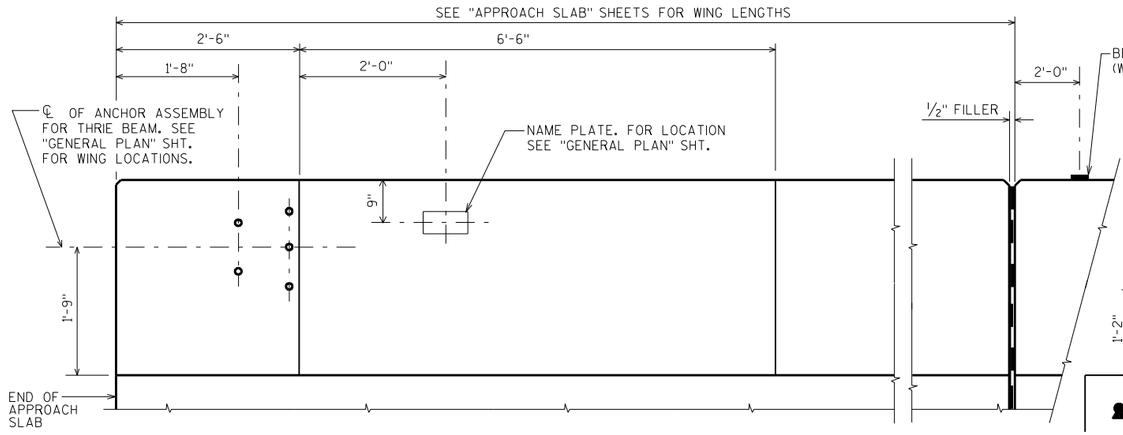
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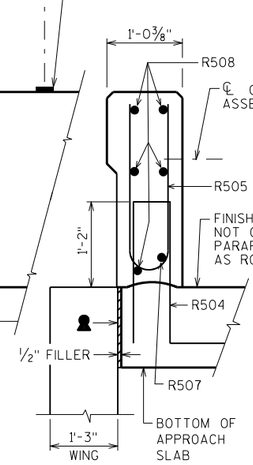
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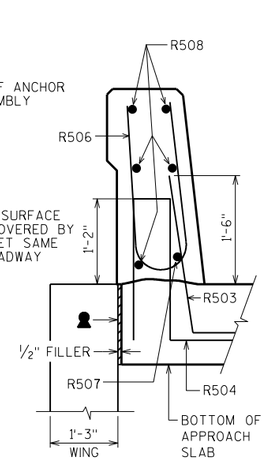


INSIDE ELEVATION

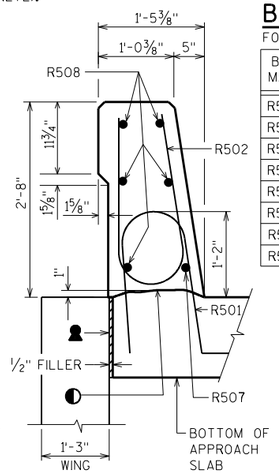
SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).



SECTION A



SECTION B

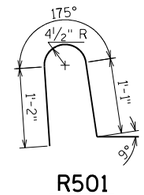


SECTION C

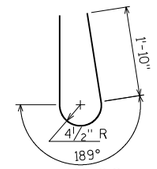
BILL OF BARS

FOR APPROACH SLAB PARAPETS

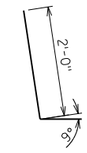
BAR MARK	COAT	S. APPR.	N. APPR.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	34	34	4-5	X		PARAPET VERT.
R502	X	34	34	5-0	X		PARAPET VERT.
R503	X	24	24	2-9	X		PARAPET VERT.
R504	X	34	34	5-7	X		PARAPET VERT.
R505	X	22	22	4-9	X		PARAPET VERT.
R506	X	12	12	4-10	X		PARAPET VERT.
R507	X	2	2	19-7	X		PARAPET HORIZ.
R508	X	10	10	19-7			PARAPET HORIZ.



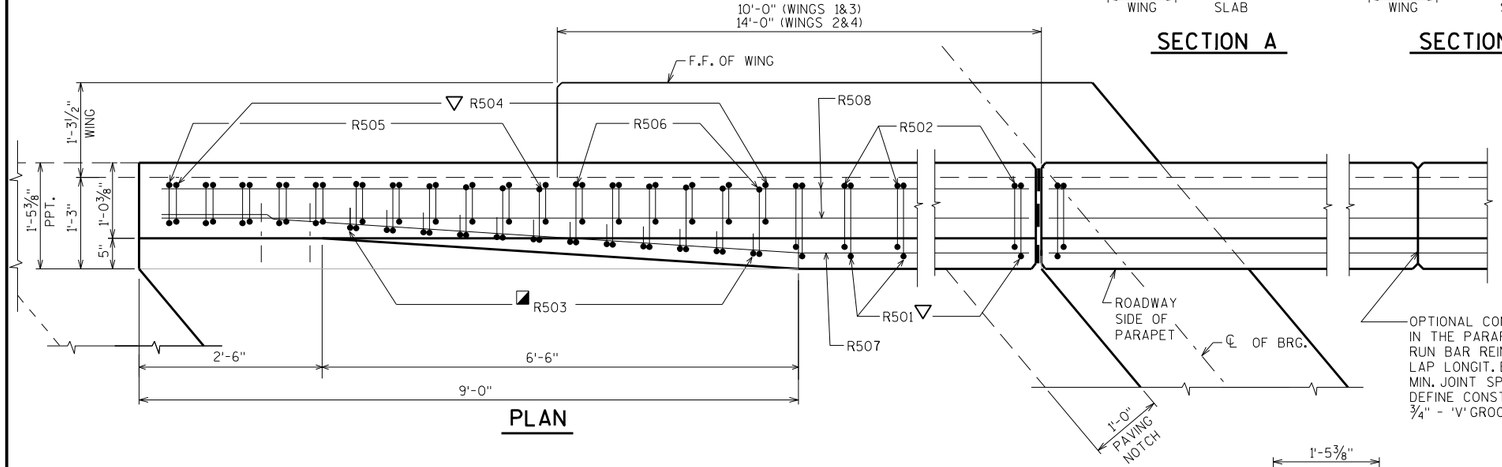
R501



R502

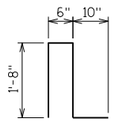


R503

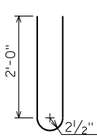


PLAN

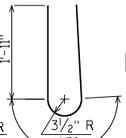
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



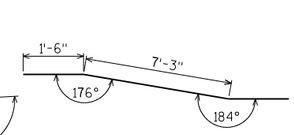
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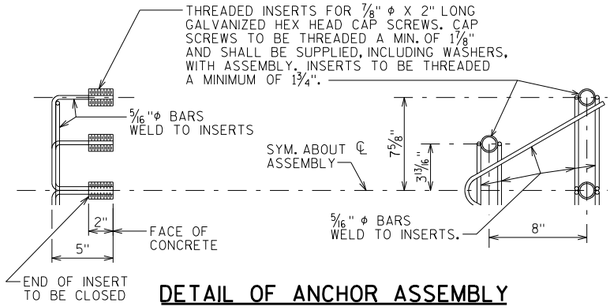
R505



R506



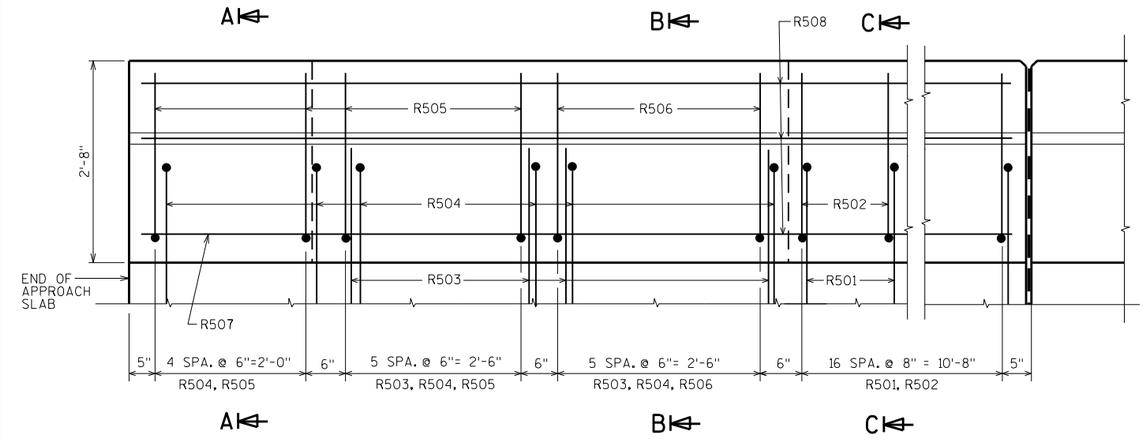
R507



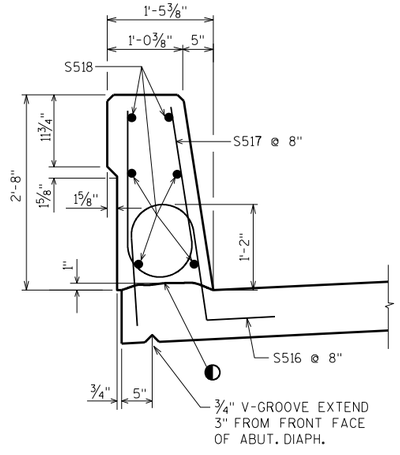
DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 OR S503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

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SINGLE SLOPE PARAPET 32SS

SHEET 18

253

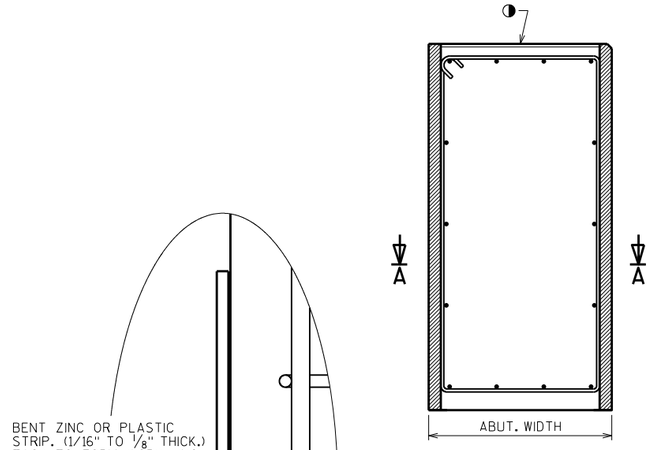
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32SSWIN

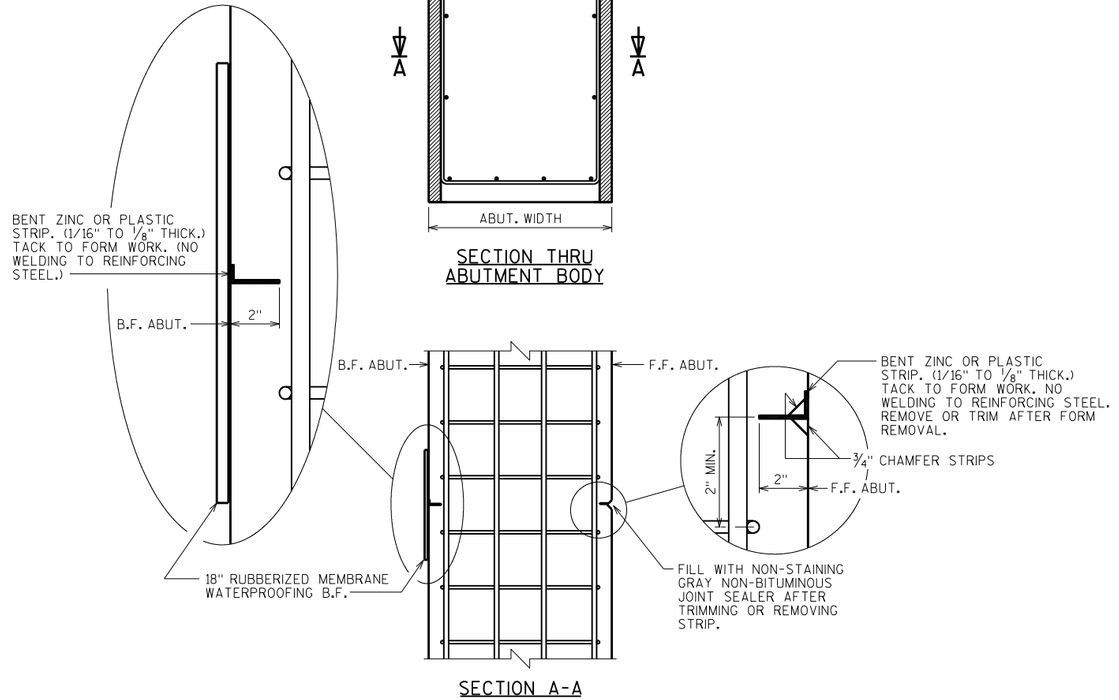
8 8

1 2 3 4 7 9 12

STATE PROJECT NUMBER
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SECTION THRU ABUTMENT BODY



SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-61-204

DRAWN BY DDS | PLANS CK'D. ADS

ALTERNATE CONSTRUCTION JOINT

SHEET 19

254

8

8

123

SCALE = 1

ALTJOINT
10-08

DRIVEWAY --- STA. 54+45 - 55+31, LT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
54+45	0.00	0.00	0.00	0	0	0	0	0.00
54+50	5.00	0.00	0.89	0	0	0	0	-0.10
54+65	15.00	22.00	0.15	6	0	6	0	5.66
54+82.08	17.08	90.58	0.00	36	0	42	1	41.21
54+98.29	16.21	82.76	0.00	52	0	94	1	93.25
55+00	1.71	78.92	0.00	5	0	99	1	98.37
55+11	11.00	32.78	0.00	23	0	122	1	121.12
55+31	20.00	0.00	0.00	12	0	134	1	133.26
			Column totals	134	0			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

TURN LANE --- STA. 58+03-60+53, LT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
58+03.03	0.00	24.48	0.00	0	0	0	0	0.00
58+25	21.97	22.04	11.38	19	5	19	6	13.37
58+50	25.00	19.38	11.72	19	11	38	18	19.71
58+75	25.00	18.33	10.58	17	10	56	31	24.79
59+00	25.00	16.71	10.47	16	10	72	42	29.32
59+03.03	3.03	16.63	10.35	2	1	74	44	29.79
59+25	21.97	16.54	7.21	13	7	87	52	34.71
59+50	25.00	15.13	4.77	15	6	102	59	42.72
59+75	25.00	13.10	2.47	13	3	115	63	51.76
60+00	25.00	12.12	0.00	12	1	127	64	62.06
60+25	25.00	12.18	0.00	11	0	138	64	73.31
60+50	25.00	11.47	0.00	11	0	149	64	84.26
60+53.03	3.03	11.47	0.00	1	0	150	64	85.55
			Column totals	150	54			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

TURN LANE --- STA. 61+38 - 63+50, RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
61+37.83	0.00	10.67	0.00	0	0	0	0	0.00
61+50	12.17	47.26	3.86	13	1	13	1	12.01
62+00	50.00	39.06	7.58	80	11	93	14	79.24
62+50	50.00	71.24	11.65	102	18	195	35	160.00
62+50.33	0.33	71.36	11.66	1	0	196	35	160.70
63+00	49.67	64.44	2.74	125	13	321	51	269.71
63+50	50.00	53.07	0.00	109	3	430	54	375.47
			Column totals	430	45			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

CRYSTAL VALLEY RD. --- 10+23 - 11+31, LT. & RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
10+22.97	0.00	153.26	0.00	0	0	0	0	0.00
10+25	2.03	26.42	0.00	7	0	7	0	6.75
10+25.25	0.25	29.52	0.00	0	0	7	0	7.01
10+50	24.75	102.96	2.95	61	1	68	2	66.11
10+56.82	6.82	83.06	18.04	23	3	91	5	86.43
10+62.82	6.00	67.63	22.38	17	4	108	10	97.78
10+75	12.18	59.64	16.79	29	9	137	21	115.89
10+91.14	16.14	52.49	6.01	34	7	170	29	141.22
11+00	8.86	52.62	8.13	17	2	187	32	155.68
11+25	25.00	48.07	0.77	47	4	234	37	197.35
11+31.14	6.14	46.56	0.00	11	0	245	37	208.01
			Column totals	245	31			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

USH 53 --- 63+50 - 82+42, LT. & RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS Note 4	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Cumulative Vol (CY) Mass Ordinate Note 3
63+50	0.00	53.07	0.00	0.00	0	0	0	0	0	0.00
63+50.33	0.33	50.77	0.20	0.00	1	0	0	1	0	0.63
63+56.33	6.00	38.82	8.66	0.00	10	1	0	11	1	9.41
63+66.33	10.00	49.15	8.54	0.00	16	3	0	27	5	21.87
63+70	3.67	48.80	7.41	0.00	7	1	0	34	6	27.23
63+80	10.00	26.47	5.59	0.00	14	2	0	47	9	38.28
63+90	10.00	24.08	0.00	0.00	9	1	0	57	10	46.40
63+99.85	9.85	11.53	0.00	0.00	6	0	0	63	10	52.89
64+00	0.15	11.52	0.00	0.00	0	0	0	63	10	52.96
64+10	10.00	11.09	0.00	0.00	4	0	0	68	10	57.14
64+20	10.00	12.17	0.00	0.00	4	0	0	72	10	61.45
64+29.94	9.94	12.42	0.00	0.00	5	0	0	76	10	65.98
64+30	0.06	12.47	0.00	0.00	0	0	0	76	10	66.01
64+40	10.00	19.66	0.00	0.00	6	0	0	82	10	71.96
64+50	10.00	21.21	0.00	0.00	8	0	0	90	10	79.52
64+65	15.00	11.90	38.56	0.00	9	11	0	99	23	75.87
64+75.8	10.80	11.20	40.60	0.00	5	16	0	104	42	61.49
64+81.8	6.00	10.95	42.12	0.00	2	9	0	106	53	52.92
65+00	18.20	10.26	11.69	0.00	7	18	0	113	75	38.31
65+50	50.00	10.88	0.71	0.00	20	11	0	133	89	44.10
65+81.8	31.80	8.98	1.19	0.00	12	1	0	145	90	54.46
66+00	18.20	71.12	1.22	0.00	27	1	0	172	91	80.48
66+50	50.00	70.82	325.69	0.00	131	303	0	303	454	-151.33
67+00	50.00	66.52	313.59	0.00	127	592	0	430	1,165	-734.47
67+50	50.00	64.54	380.30	0.00	121	642	0	552	1,936	-1,384.10
68+00	50.00	68.74	399.92	0.00	123	722	0	675	2,803	-2,127.59
68+50	50.00	72.67	415.55	0.00	131	755	0	806	3,709	-2,902.72
68+65.01	15.01	89.87	440.65	0.00	45	238	0	851	3,994	-3,143.13
69+00	34.99	124.23	344.80	0.00	139	509	0	990	4,605	-3,615.14
69+50	50.00	117.80	343.53	0.00	224	637	0	1,214	5,370	-4,155.84
70+00	50.00	104.54	354.43	0.00	206	646	0	1,420	6,145	-4,725.48
70+50	50.00	89.03	280.31	0.00	179	588	0	1,599	6,851	-5,251.51
71+00	50.00	69.82	90.30	0.00	147	343	0	1,746	7,262	-5,516.22
71+50	50.00	50.64	124.80	0.00	112	199	0	1,858	7,501	-5,643.69
72+00	50.00	27.00	448.88	0.00	72	531	0	1,930	8,139	-6,209.22
72+44.77	44.77	11.94	517.49	0.00	32	801	0	1,962	9,100	-7,138.37
72+50	5.23	10.71	518.35	0.00	2	100	0	1,964	9,221	-7,256.57
73+00	50.00	1.44	550.08	0.00	11	989	0	1,975	10,408	-8,432.46
73+50	50.00	0.00	568.32	0.00	1	1,036	0	1,977	11,650	-9,673.81
74+00	50.00	0.00	544.55	0.00	0	1,030	0	1,977	12,887	-10,910.34
74+50	50.00	0.00	476.56	0.00	0	945	0	1,977	14,022	-12,044.91
75+00	50.00	0.00	286.56	0.00	0	707	0	1,977	14,869	-12,892.82

Notes:

1 - Cut includes Salvaged/Unusable Pavement Material.

2 - Expanded Fill = Incremental Fill Volume x 1.20

3 - Cummulative Cut Volume - Expanded Fill Volume.

4 - EBS not to be used in construction and not included in Mass Ordinate.

USH 53 --- 63+50 - 82+42, LT. & RT. (Continued)

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS Note 4	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
75+50	50.00	0.00	215.43	0.00	0	465	0	1,977	15,427	-13,450.59
75+79.11	29.11	0.00	182.63	0.00	0	215	0	1,977	15,685	-13,708.09
76+00	20.89	0.00	241.32	0.00	0	164	0	1,977	15,882	-13,904.90
76+50	50.00	0.00	275.47	0.00	0	479	0	1,977	16,456	-14,479.11
77+00	50.00	0.00	302.98	0.00	0	536	0	1,977	17,098	-15,121.83
77+10.64	10.64	0.01	325.90	0.00	0	124	0	1,977	17,247	-15,270.53
77+31	20.36	0.00	212.40	0.00	0	203	0	1,977	17,491	-15,514.07
77+50	19.00	0.00	220.81	0.00	0	152	0	1,977	17,674	-15,696.98
77+69	19.00	0.01	233.78	0.00	0	160	0	1,977	17,866	-15,888.92
77+84.17	15.17	0.00	375.41	0.00	0	171	0	1,977	18,071	-16,094.28
78+00	15.83	0.00	388.37	0.00	0	224	0	1,977	18,340	-16,362.96
78+50	50.00	0.00	449.66	0.00	0	776	0	1,977	19,271	-17,294.10
78+92	42.00	0.00	408.73	0.00	0	668	0	1,977	20,072	-18,095.27
79+00	8.00	0.00	439.46	8.04	0	126	1	1,977	20,223	-18,246.06
79+18.85	18.85	0.00	579.86	141.91	0	356	52	1,977	20,650	-18,673.05
79+45.47	26.62	0.00	650.77	143.98	0	607	141	1,977	21,378	-19,401.04
79+50	4.53	0.21	649.00	149.38	0	109	25	1,977	21,509	-19,531.86
79+63.95	13.95	12.76	616.43	168.98	3	327	82	1,980	21,901	-19,920.80
79+68.85	4.90	11.95	627.81	166.39	2	113	30	1,982	22,036	-20,054.04
79+72.58	3.73	9.93	648.85	52.21	2	88	15	1,984	22,142	-20,158.35
79+83	10.42	0.38	703.29	150.42	2	261	39	1,986	22,455	-20,469.46
79+95.47	12.47	0.00	720.22	161.76	0	329	72	1,986	22,850	-20,863.84
80+00	4.53	0.00	722.50	159.54	0	121	27	1,986	22,995	-21,009.07
80+50	50.00	0.00	756.49	144.35	0	1,369	281	1,986	24,638	-22,652.40
80+68.85	18.85	0.00	773.27	143.81	0	534	101	1,986	25,279	-23,293.20
80+93.85	25.00	0.00	766.93	133.82	0	713	129	1,986	26,135	-24,148.88
81+00	6.15	0.00	766.75	130.91	0	175	30	1,986	26,344	-24,358.48
81+18.85	18.85	0.00	716.78	121.01	0	518	88	1,986	26,966	-24,979.91
81+43.85	25.00	0.00	690.33	117.51	0	651	110	1,986	27,748	-25,761.64
81+50	6.15	0.00	686.51	117.14	0	157	27	1,986	27,936	-25,949.81
81+68.85	18.85	0.00	621.92	106.73	0	457	78	1,986	28,484	-26,497.89
82+00	31.15	0.00	606.16	88.56	0	708	113	1,986	29,334	-27,348.00
82+21.38	21.38	0.00	611.60	83.40	0	482	68	1,986	29,912	-27,926.57
82+28.38	7.00	0.00	608.94	84.41	0	158	22	1,986	30,102	-28,116.43
82+29.38	1.00	0.00	493.65	86.27	0	20	3	1,986	30,127	-28,140.93
82+41.38	12.00	0.00	492.33	77.43	0	219	36	1,986	30,390	-28,403.86
				Column totals	**1,986**	**25,325**	**1,571**			

Notes:

1 - Cut includes Salvaged/Unusable Pavement Material.

2 - Expanded Fill = Incremental Fill Volume x 1.20

3 - Cummulative Cut Volume - Expanded Fill Volume.

4 - EBS not to be used in construction and not included in Mass Ordinate.

USH 53 --- STA. 84+70 - 95+00, LT. & RT.

STATION	Distance	AREA (SF) Cut	Fill	Marsh Exc	EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Fill	Marsh Exc Note 5	EBS Note 4	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
84+70.63	0.00	0.00	422.78	0.00	67.60	0	0	0	0	0	0	0.00
84+82.63	12.00	0.00	406.93	0.00	79.60	0	184	0	33	0	221	-221.26
84+83.63	1.00	0.00	513.58	0.00	79.37	0	17	0	3	0	242	-241.71
84+90.63	7.00	0.00	508.36	0.00	79.74	0	132	0	21	0	401	-400.68
84+97.84	7.21	0.00	542.17	0.00	84.68	0	140	0	22	0	569	-569.00
85+00	2.16	0.00	540.04	0.00	84.02	0	43	0	7	0	621	-620.94
85+02.84	2.84	0.00	537.02	0.00	84.89	0	57	0	9	0	689	-688.92
85+07.84	5.00	0.00	480.31	0.00	86.64	0	94	0	16	0	802	-801.95
85+43.16	35.32	0.00	483.89	0.00	110.20	0	631	0	129	0	1,559	-1,558.75
85+50	6.84	0.00	489.51	0.00	116.99	0	123	0	29	0	1,707	-1,706.70
85+68.16	18.16	0.00	492.71	0.00	126.06	0	330	0	82	0	2,103	-2,103.08
85+93.16	25.00	0.00	484.63	0.00	124.75	0	452	0	116	0	2,646	-2,646.05
86+00	6.84	0.00	490.47	0.00	127.57	0	124	0	32	0	2,794	-2,794.26
86+18.16	18.16	0.00	496.83	0.00	130.63	0	332	0	87	0	3,193	-3,192.69
86+43.16	25.00	0.00	482.27	0.00	130.14	0	453	0	121	0	3,737	-3,736.63
86+50	6.84	0.00	475.23	0.00	128.18	0	121	0	33	0	3,882	-3,882.17
87+00	50.00	0.00	407.02	0.00	125.76	0	817	0	235	0	4,862	-4,862.44
87+32.53	32.53	0.00	373.06	0.00	111.67	0	470	0	143	0	5,426	-5,426.35
87+43.16	10.63	0.00	360.12	0.00	113.42	0	144	0	44	0	5,600	-5,599.55
87+50	6.84	0.00	354.15	0.00	109.46	0	90	0	28	0	5,708	-5,708.12
87+82.53	32.53	0.00	319.80	0.00	116.55	0	406	0	136	0	6,195	-6,195.31
87+93.16	10.63	0.00	306.66	0.00	116.57	0	123	0	46	0	6,343	-6,343.29
88+00	6.84	0.00	300.34	0.00	116.70	0	77	0	30	0	6,436	-6,435.56
88+50	50.00	0.00	249.51	0.00	9.41	0	509	0	117	0	7,047	-7,046.50
89+00	50.00	0.00	222.84	0.00	0.00	0	437	0	9	0	7,571	-7,571.33
89+50	50.00	0.00	156.39	0.00	0.00	0	351	0	0	0	7,993	-7,992.69
89+99.06	49.06	74.20	143.31	0.00	0.00	67	272	0	0	67	8,319	-8,252.01
90+00	0.94	73.19	142.23	0.00	0.00	3	5	0	0	70	8,325	-8,255.41
90+50	50.00	9.32	101.66	0.00	0.78	76	226	0	1	146	8,596	-8,450.01
91+00	50.00	21.94	79.85	0.00	42.43	29	168	0	40	175	8,798	-8,622.75
91+50	50.00	41.80	59.74	15.97	36.91	59	129	15	73	234	8,953	-8,718.84
92+00	50.00	34.96	53.95	45.07	19.37	71	105	57	52	305	9,080	-8,774.09
92+50	50.00	38.70	50.10	55.69	18.04	68	96	93	35	374	9,195	-8,821.50
93+00	50.00	54.53	38.81	52.20	16.60	86	82	100	32	460	9,294	-8,833.96
93+50	50.00	24.01	35.59	46.28	8.53	73	69	91	23	533	9,377	-8,843.90
94+00	50.00	35.79	27.36	44.16	7.92	55	58	84	15	588	9,446	-8,858.47
94+39.71	39.71	47.49	20.34	19.48	7.42	61	35	47	11	649	9,489	-8,839.33
94+50	10.29	51.54	16.84	0.39	4.45	19	7	4	2	668	9,497	-8,828.96
94+63.41	13.41	57.37	15.64	0.00	0.00	27	8	0	1	695	9,507	-8,811.59
94+72.99	9.58	57.94	11.57	0.00	0.00	20	5	0	0	716	9,513	-8,796.93
94+84.64	11.65	57.86	4.01	0.00	0.00	25	3	0	0	741	9,517	-8,775.98
95+00	15.36	57.57	0.00	0.00	0.00	33	1	0	0	773	9,518	-8,744.51
					Column totals	773	7,932	490	1,811			

Notes:

1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.
4 - EBS not to be used in construction and not included in Mass Ordinate.
5 - Marsh not to be used in construction and not included in Mass Ordinate.

DRIVEWAY --- STA. 0+19 - 2+97, LT. & RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Expanded Fill 1.20	Mass Ordinate
				Note 1		Note 1	Note 2	Note 3
00+19.44	0.00	0.00	537.28	0	0	0	0	0.00
00+20.72	1.28	0.00	211.58	0	18	0	21	-21.30
00+25	4.28	0.00	265.22	0	38	0	67	-66.65
00+50	25.00	0.00	314.31	0	268	0	389	-388.61
00+59.67	9.67	0.18	219.83	0	96	0	503	-503.36
00+75	15.33	0.00	127.71	0	99	0	622	-621.70
00+100	25.00	0.00	123.36	0	116	0	761	-761.18
01+25	25.00	0.00	122.58	0	114	0	898	-897.81
01+50	25.00	0.00	83.62	0	95	0	1,012	-1,012.37
01+75	25.00	7.69	22.12	4	49	4	1,071	-1,067.55
01+90.64	15.64	77.20	0.05	25	6	28	1,079	-1,050.67
01+97.84	7.20	104.28	0.00	24	0	52	1,079	-1,026.48
02+00	2.16	116.46	0.00	9	0	61	1,079	-1,017.65
02+02.17	2.17	117.78	0.00	9	0	71	1,079	-1,008.24
02+20.48	18.31	68.14	0.00	63	0	134	1,079	-945.20
02+21.84	1.36	62.58	0.00	3	0	137	1,079	-941.91
02+25	3.16	53.58	0.00	7	0	144	1,079	-935.11
02+50	25.00	62.60	0.00	54	0	198	1,079	-881.32
02+62.81	12.81	86.32	0.00	35	0	233	1,079	-845.99
02+75	12.19	49.94	0.00	31	0	264	1,079	-815.23
02+86.58	11.58	27.88	9.80	17	2	280	1,081	-801.07
02+96.58	10.00	0.00	0.00	5	2	286	1,084	-798.08
			Column totals	286	903			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

SPECIAL DITCH --- STA. 0+00 - 0+63, LT. & RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Expanded Fill 1.20	Mass Ordinate
				Note 1		Note 1	Note 2	Note 3
00+00	0.00	38.36	0.00	0	0	0	0	0.00
00+10	10.00	36.85	0.00	14	0	14	0	13.93
00+20	10.00	18.26	0.00	10	0	24	0	24.13
00+30	10.00	8.46	0.00	5	0	29	0	29.08
00+40	10.00	3.42	0.00	2	0	31	0	31.28
00+50	10.00	3.33	0.00	1	0	33	0	32.54
00+60	10.00	1.10	0.00	1	0	33	0	33.35
00+62.5	2.50	0.05	0.00	0	0	33	0	33.41
			Column totals	33	0			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

DRIVEWAY --- STA. 2+39 - 2+62, LT. & RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
02+39.04	0.00	6.77	0.00	0	0	0	0	0.00
02+44.84	5.80	2.26	16.05	1	2	1	2	-1.10
02+50	5.16	0.77	15.87	0	3	1	6	-4.47
02+58.61	8.61	0.36	10.40	0	4	1	11	-9.32
02+62	3.39	0.51	0.00	0	1	1	12	-10.05
			Column totals	1	10			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

DRIVEWAY --- STA. 152+02 - 152+49, RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
152+02	0.00	0.00	0.00	0	0	0	0	0.00
152+12.05	10.05	8.34	0.00	2	0	2	0	1.55
152+19.45	7.40	23.76	0.00	4	0	6	0	5.95
152+28.35	8.89	24.82	0.00	8	0	14	0	13.95
152+39.2	10.85	6.55	0.00	6	0	20	0	20.25
152+49	9.80	0.00	0.00	1	0	21	0	21.44
			Column totals	21	0			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

DRIVEWAY --- STA. 153+40 - 153+66, LT.

		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut	Expanded Fill	Mass Ordinate
						1.00	1.20	
				Note 1		Note 1	Note 2	Note 3
153+40.25	0.00	0.01	0.00	0	0	0	0	0.00
153+45.7	5.44	18.97	0.00	2	0	2	0	1.91
153+48.72	3.03	22.22	0.00	2	0	4	0	4.22
153+58.35	9.62	17.36	0.00	7	0	11	0	11.27
153+61.39	3.04	13.23	0.00	2	0	13	0	12.99
153+66	4.61	0.00	0.00	1	0	14	0	14.12
			Column totals	14	0			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

DRIVEWAY --- STA. 172+88 - 173+29, RT.

		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut	Expanded Fill	Mass Ordinate
						1.00	1.20	
				Note 1	Note 3	Note 1		Note 8
172+88	0.00	0.00	0.00	0	0	0	0	0.00
172+90	2.00	8.87	0.96	0	0	0	0	0.29
172+95	5.00	54.62	0.00	6	0	6	0	6.06
173+04.77	9.77	71.30	0.00	23	0	29	0	28.84
173+12.83	8.06	66.59	0.00	21	0	50	0	49.42
173+22	9.17	33.60	0.00	17	0	67	0	66.44
173+27	5.00	14.50	0.00	4	0	71	0	70.89
173+29	2.00	0.00	0.00	1	0	72	0	71.43
			Column totals	72	0			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

TURN LANE --- STA. 207+05 - 209+50, RT.

		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut	Expanded Fill	Mass Ordinate
						1.00	1.20	
				Note 1		Note 1	Note 2	Note 3
207+05.2	0.00	10.18	0.00	0	0	0	0	0.00
207+25	19.80	9.88	8.43	7	3	7	4	3.65
207+42.7	17.70	9.76	5.93	6	5	14	9	4.44
207+50	7.30	9.76	4.79	3	1	16	11	5.34
207+75	25.00	9.72	3.85	9	4	25	16	9.55
208+00	25.00	9.60	4.66	9	4	34	21	13.76
208+25	25.00	11.00	6.53	10	5	44	27	17.09
208+50	25.00	11.28	11.68	10	8	54	37	17.29
208+55.2	5.20	10.99	13.44	2	2	56	40	16.53
208+75	19.80	11.04	16.90	8	11	64	53	11.26
209+00	25.00	11.82	14.22	11	14	75	70	4.55
209+19.77	19.77	12.58	17.34	9	12	84	84	-0.38
209+25	5.23	12.65	12.22	2	3	86	88	-1.38
209+50	25.00	62.58	4.77	35	8	121	97	24.01
			Column totals	121	81			

Notes:

1 - Cut includes Salvaged/Unusable Pavement Material.

2 - Expanded Fill = Incremental Fill Volume x 1.20

3 - Cummulative Cut Volume - Expanded Fill Volume.

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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EARTHWORK DATA	SHEET: 263	E

FILE NAME : N:\PDS\...\030200_mq.pptx PLOT DATE : June 14, 1911 PLOT BY : A.R.H. PLOT NAME : PLOT SCALE : 1:1

USH 53 --- STA. 209+50 - 212+82, LT. & RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
209+50	0.00	62.58	4.77	0	0	0	0	0.00
209+51	1.00	62.50	4.58	2	0	2	0	2.11
209+55.2	4.20	62.40	30.78	10	3	12	4	8.52
209+61.2	6.00	63.02	28.85	14	7	26	11	14.51
209+70	8.80	65.02	26.61	21	9	47	22	24.53
209+72.37	2.37	65.33	26.23	6	2	53	25	27.47
209+75	2.63	65.54	26.01	6	3	59	28	30.79
209+80	5.00	67.25	22.63	12	5	71	34	37.68
209+90	10.00	73.36	0.64	26	4	97	39	58.55
210+00	10.00	63.34	1.05	25	0	123	39	83.49
210+10	10.00	54.39	1.38	22	0	144	40	104.75
210+20	10.00	53.38	1.66	20	1	164	40	124.03
210+30	10.00	51.73	1.75	19	1	184	41	142.74
210+40	10.00	49.02	1.46	19	1	202	42	160.68
210+50	10.00	46.39	1.50	18	1	220	42	177.69
210+60	10.00	54.43	1.82	19	1	239	43	195.62
210+70	10.00	46.19	18.17	19	4	257	48	209.82
210+72.37	2.37	44.32	25.10	4	2	261	50	211.51
210+77.1	4.73	41.22	35.50	7	5	269	56	212.63
210+81.5	4.40	39.68	37.82	7	6	275	63	212.06
210+82.37	0.87	39.45	39.63	1	1	277	65	211.83
210+87.5	5.13	38.46	52.13	7	9	284	75	208.77
211+00	12.50	38.90	49.52	18	24	302	104	198.44
211+06.99	6.99	40.94	64.45	10	15	312	121	191.07
211+22.37	15.38	47.71	77.39	25	40	338	170	167.84
211+31.94	9.57	52.70	81.14	18	28	355	204	151.92
211+47.37	15.43	60.96	84.62	32	47	388	260	127.57
211+50	2.63	62.59	76.79	6	8	394	270	124.15
211+56.88	6.88	59.63	60.12	16	17	410	291	118.79
211+72.37	15.49	52.87	57.98	32	34	442	331	110.41
211+97.42	25.05	42.65	68.02	44	58	486	402	84.59
212+00	2.58	41.82	69.41	4	7	490	409	80.74
212+10.81	10.81	38.86	70.87	16	28	506	443	63.20
212+15.81	5.00	37.14	95.32	7	15	513	462	51.77
212+20.82	5.01	35.56	90.66	7	17	520	482	37.81
212+24.9	4.08	34.17	72.46	5	12	525	497	28.29
212+29.9	5.00	32.17	70.60	6	13	531	513	18.53
212+30.9	1.00	42.12	39.54	1	2	533	515	17.46
212+44.9	14.00	34.38	32.63	20	19	553	538	14.84
212+49.61	4.71	21.00	58.02	5	8	558	547	10.18
212+50	0.39	20.68	58.11	0	1	558	548	9.48
212+54.61	4.61	16.80	59.34	3	10	561	560	0.65
212+61.82	7.21	10.88	45.70	4	14	565	577	-12.49
212+63.36	1.54	9.71	46.42	1	3	565	580	-15.06
212+70.82	7.46	4.66	49.94	2	13	567	596	-29.05
212+71.82	1.00	8.53	11.63	0	1	568	598	-30.17
212+81.82	10.00	6.76	15.53	3	5	570	604	-33.38
			Column totals	570	503			

Notes:

1 - Cut includes Salvaged/Unusable Pavement Material.

2 - Expanded Fill = Incremental Fill Volume x 1.20

3 - Cummulative Cut Volume - Expanded Fill Volume.

USH 53 --- STA. 214+62 - 223+20, LT. & RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
214+62.18	0.00	1.96	22.95	0	0	0	0	0.00
214+72.18	10.00	1.28	35.92	1	11	1	13	-12.48
214+73.18	1.00	0.00	84.50	0	2	1	16	-15.13
214+80.64	7.46	0.00	94.20	0	25	1	45	-44.76
214+82.18	1.54	0.00	96.25	0	5	1	52	-51.28
214+99.1	16.92	0.53	142.22	0	75	1	142	-140.77
215+00	0.90	0.45	142.39	0	5	1	147	-146.45
215+13.1	13.10	1.47	152.75	0	72	1	233	-231.89
215+14.1	1.00	0.00	207.22	0	7	1	241	-239.87
215+19.1	5.00	0.00	210.36	0	39	1	288	-286.26
215+50	30.90	0.00	252.38	0	265	1	605	-604.01
215+71.63	21.63	0.00	247.89	0	200	1	846	-844.48
215+84.71	13.08	0.00	273.10	0	126	1	997	-995.91
215+96.63	11.92	0.00	321.75	0	131	1	1,155	-1,153.48
216+00	3.37	0.00	332.38	0	41	1	1,204	-1,202.47
216+09.71	9.71	0.00	361.56	0	125	1	1,354	-1,352.21
216+21.63	11.92	0.00	381.00	0	164	1	1,550	-1,548.90
216+34.71	13.08	0.00	391.70	0	187	1	1,775	-1,773.50
216+50	15.29	0.00	392.30	0	222	1	2,041	-2,039.89
217+00	50.00	0.00	374.19	0	710	1	2,893	-2,891.55
217+50	50.00	0.00	344.92	0	666	1	3,692	-3,690.56
217+71.63	21.63	0.00	317.07	0	265	1	4,010	-4,008.76
217+84.71	13.08	0.00	288.18	0	147	1	4,186	-4,184.69
218+00	15.29	0.00	262.51	0	156	1	4,373	-4,371.80
218+50	50.00	0.00	201.55	0	430	1	4,889	-4,887.41
219+00	50.00	0.00	149.10	0	325	1	5,278	-5,277.02
219+50	50.00	0.60	86.22	1	218	2	5,540	-5,537.94
219+60.44	10.44	26.54	45.34	5	25	7	5,570	-5,563.22
219+65	4.56	37.73	43.38	5	7	13	5,579	-5,566.78
219+70.3	5.30	38.20	42.22	7	8	20	5,589	-5,569.41
219+73.19	2.89	28.52	44.18	4	5	24	5,595	-5,571.39
219+98.79	25.60	13.68	29.84	20	35	44	5,637	-5,593.50
220+00	1.21	14.21	29.37	1	1	44	5,639	-5,594.47
220+10	10.00	18.76	25.07	6	10	50	5,651	-5,600.46
220+14.88	4.88	14.52	24.99	3	5	53	5,656	-5,602.88
220+35.7	20.82	0.00	57.30	6	32	59	5,694	-5,635.35
220+50	14.30	38.69	25.79	10	22	69	5,721	-5,651.51
221+00	50.00	67.81	21.15	99	43	168	5,773	-5,605.05
221+18.51	18.51	63.65	17.85	45	13	213	5,789	-5,576.03
221+50	31.49	43.54	14.75	63	19	275	5,812	-5,536.34
221+92.93	42.93	46.43	6.88	72	17	347	5,832	-5,485.44
222+00	7.07	47.64	4.84	12	2	359	5,834	-5,474.96
222+10.7	10.70	46.84	2.56	19	1	378	5,836	-5,458.00
222+19	8.30	48.88	2.13	15	1	393	5,837	-5,444.16
222+26.78	7.78	49.96	2.38	14	1	407	5,838	-5,430.70
222+40.71	13.93	56.57	4.51	27	2	434	5,840	-5,405.35
222+50	9.29	58.30	4.97	20	2	454	5,842	-5,387.54
222+80	30.00	63.49	1.79	68	4	522	5,846	-5,324.38
222+90	10.00	79.90	0.00	27	0	548	5,847	-5,298.23
223+00	10.00	95.88	0.00	33	0	581	5,847	-5,265.67
223+10	10.00	19.58	0.00	21	0	602	5,847	-5,244.29
223+20	10.00	0.00	0.00	4	0	606	5,847	-5,240.66
			Column totals	606	4,872			

Notes:

1 - Cut includes Salvaged/Unusable Pavement Material.

2 - Expanded Fill = Incremental Fill Volume x 1.20

3 - Cummulative Cut Volume - Expanded Fill Volume.

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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	EARTHWORK DATA	SHEET: 265	E

FILE NAME : N:\PDS\...\030200_mq.pptx PLOT DATE : June 14, 1911 PLOT BY : A.R.H. PLOT NAME : PLOT SCALE : 1:1

DOPP RD. --- STA. 10+21 - 11+92, LT. & RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
10+20.98	0.00	106.75	0.00	0	0	0	0	0.00
10+25	4.02	22.32	0.00	10	0	10	0	9.61
10+50	25.00	68.65	10.86	42	5	52	6	45.69
10+58.19	8.19	63.75	23.61	20	5	72	12	59.49
10+75	16.81	52.64	42.04	36	20	108	37	71.20
10+92.2	17.20	41.81	38.68	30	26	138	68	70.44
11+00	7.80	45.26	0.00	13	6	151	74	76.31
11+25	25.00	38.24	0.00	39	0	189	74	114.97
11+50	25.00	31.62	0.08	32	0	222	74	147.26
11+75	25.00	38.41	0.00	32	0	254	74	179.63
11+92.2	17.20	41.74	0.00	26	0	280	74	205.16
			Column totals	280	62			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

DRIVEWAY --- STA. 0+20 - 0+95, LT. & RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
00+20	0.00	0.00	29.34	0	0	0	0	0.00
00+30	10.00	0.00	64.97	0	17	0	21	-20.96
00+40	10.00	0.00	97.45	0	30	0	57	-57.05
00+44.79	4.79	0.00	106.68	0	18	0	79	-78.78
00+46	1.21	0.00	110.10	0	5	0	85	-84.61
00+48.08	2.08	0.00	104.34	0	8	0	95	-94.52
00+50	1.92	0.00	99.80	0	7	0	103	-103.23
00+60	10.00	0.00	66.18	0	31	0	140	-140.12
00+70	10.00	2.47	27.92	0	17	0	161	-160.57
00+80	10.00	11.00	4.94	2	6	3	168	-165.38
00+88.73	8.73	11.86	0.00	4	1	7	169	-162.64
00+90	1.27	11.95	0.00	1	0	7	169	-162.08
00+94.33	4.33	11.98	0.00	2	0	9	169	-160.16
			Column totals	9	141			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

DRIVEWAY --- STA. 0+20 - 0+98, LT. & RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
00+20	0.00	0.00	7.31	0	0	0	0	0.00
00+27.97	7.97	0.00	31.58	0	6	0	7	-6.89
00+30	2.03	0.00	35.43	0	3	0	10	-9.91
00+38.76	8.76	0.00	42.31	0	13	0	25	-25.05
00+40	1.24	0.00	128.30	0	4	0	30	-29.75
00+48	8.00	0.00	34.28	0	24	0	59	-58.65
00+50	2.00	0.00	34.74	0	3	0	62	-61.72
00+60	10.00	0.00	43.72	0	15	0	79	-79.15
00+67.76	7.76	1.19	27.58	0	10	0	91	-91.28
00+70	2.24	1.34	26.16	0	2	0	94	-93.85
00+80	10.00	4.33	16.80	1	8	1	104	-102.35
00+90	10.00	5.09	6.36	2	4	3	109	-105.75
00+97.88	7.88	16.41	0.00	3	1	6	110	-103.73
			Column totals	6	92			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

DRIVEWAY --- STA. 225+64 - 228+12, LT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
225+64.51	0.00	0.00	0.00	0	0	0	0	0.00
225+77.61	13.10	1.95	0.00	0	0	0	0	0.47
225+84.09	6.48	11.73	0.00	2	0	2	0	2.11
226+00.2	16.12	14.72	0.00	8	0	10	0	10.01
226+00.3	0.10	27.00	0.00	0	0	10	0	10.09
226+08.64	8.34	29.88	0.00	9	0	19	0	18.87
226+27.51	18.87	44.02	0.00	26	0	45	0	44.70
226+60.41	32.90	50.80	0.00	58	0	102	0	102.47
226+67.62	7.21	54.43	0.00	14	0	117	0	116.52
227+00	32.38	59.13	0.00	68	0	185	0	184.61
227+25	25.00	52.49	0.00	52	0	236	0	236.29
227+49.75	24.75	42.95	0.00	44	0	280	0	280.03
227+59.65	9.90	47.43	0.00	17	0	297	0	296.60
227+80.44	20.79	45.81	0.00	36	0	332	0	332.50
228+12.33	31.89	6.77	0.00	31	0	364	0	363.55
			Column totals	364	0			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

DRIVEWAY --- STA. 470+93 - 471+41, LT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
470+93	0.00	0.00	0.00	0	0	0	0	0.00
471+02.9	9.90	2.64	0.38	0	0	0	0	0.40
471+08.27	5.36	31.22	0.00	3	0	4	0	3.72
471+24.96	16.70	36.75	0.00	21	0	25	0	24.74
471+31.3	6.34	5.17	0.00	5	0	30	0	29.66
471+41	9.70	0.00	0.00	1	0	31	0	30.59
			Column totals	31	0			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

DRIVEWAY --- STA. 470+96 - 471+41, RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
470+96	0.00	0.01	0.12	0	0	0	0	0.00
471+05.52	9.52	17.14	0.00	3	0	3	0	3.00
471+08.68	3.16	31.99	0.00	3	0	6	0	5.88
471+27.09	18.41	26.97	0.00	20	0	26	0	25.97
471+30.75	3.66	7.04	0.05	2	0	28	0	28.27
471+41	10.25	0.00	0.00	1	0	30	0	29.60
			Column totals	30	0			

Notes:
1 - Cut includes Salvaged/Unusable Pavement Material.
2 - Expanded Fill = Incremental Fill Volume x 1.20
3 - Cummulative Cut Volume - Expanded Fill Volume.

TURN LANE --- STA. 485+42 - 488+17, RT.

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 2	Mass Ordinate Note 3
485+41.66	0.00	6.98	0.00	0	0	0	0	0.00
485+50	8.34	7.00	0.39	2	0	2	0	2.09
485+66.66	16.66	6.45	7.17	4	2	6	3	3.44
485+75	8.34	6.18	7.82	2	2	8	6	2.62
485+81.59	6.59	6.43	6.54	2	2	10	8	2.05
486+00	18.41	7.34	4.76	5	4	14	12	2.12
486+25	25.00	7.48	3.88	7	4	21	17	4.17
486+50	25.00	7.96	4.04	7	4	28	22	6.92
486+75	25.00	8.52	5.50	8	4	36	27	9.25
487+00	25.00	9.36	7.82	8	6	44	34	10.12
487+16.66	16.66	10.46	10.13	6	6	51	41	9.59
487+25	8.34	11.79	10.03	3	3	54	45	9.29
487+31.29	6.29	11.91	9.97	3	2	57	47	9.26
487+50	18.71	13.29	9.24	9	7	65	55	10.00
487+75	25.00	14.90	5.90	13	7	79	64	14.64
488+00	25.00	16.42	1.92	15	4	93	68	24.79
488+16.66	16.66	21.85	0.00	12	1	105	69	35.89
			Column totals	105	57			

Notes:

1 - Cut includes Salvaged/Unusable Pavement Material.

2 - Expanded Fill = Incremental Fill Volume x 1.20

3 - Cummulative Cut Volume - Expanded Fill Volume.

9

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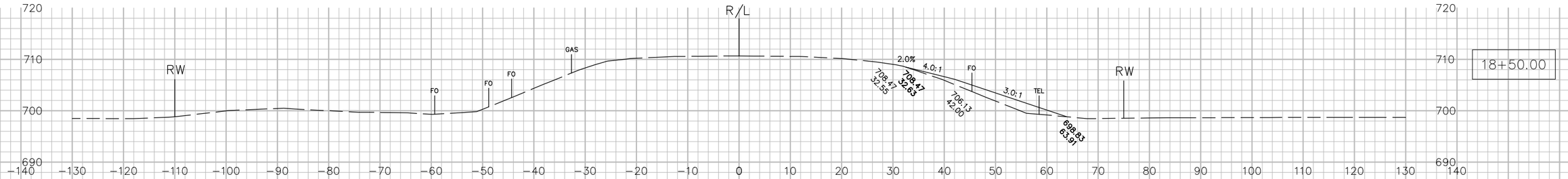
EARTHWORK SUMMARY

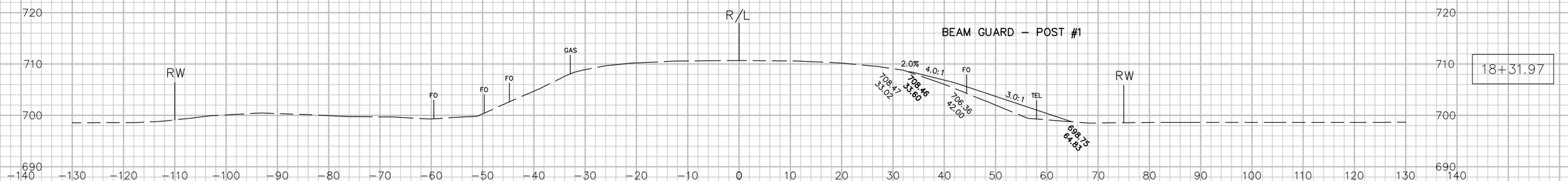
Division	Station - Station	Location	Common Excavation (1)	(item # 205.0100)	Salvaged/Unusable Pavement Material (4)	Available Material (5)	Marsh Excavation (6)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate + / - (14)	Waste (15)	Borrow (15)
			Cut (2)	EBS Excavation (3)			(item #205.0500)		Factor 1.20			(item #208.0100)
Division 1												
Driveway	54+45 - 55+31	LT.	134	0	0	134	0	0	1	133	133	0
Turn Lane	58+03 - 60+53	LT.	150	0	40	110	0	54	64	46	46	0
Turn Lane	61+38 - 63+50	RT.	430	0	38	392	0	45	54	338	338	0
Crystal Valley Rd.	10+23 - 11+31	LT. & RT.	245	0	77	168	0	31	37	131	131	0
USH 53	63+50 - 82+42	LT. & RT.	1,986	1,571	1,608	378	0	25,325	30,390	-30,012	0	29,364
USH 53	84+70 - 95+00	LT. & RT.	773	1,811	938	-165	490	7,932	9,518	-9,683	0	9,576
Driveway	0+19 - 2+97	LT. & RT.	286	0	24	262	0	903	1,084	-822	0	789
Special Ditch	0+00 - 0+63	LT. & RT.	33	0	0	33	0	0	0	33	33	0
Driveway	2+39 - 2+62	LT. & RT.	1	0	0	1	0	10	12	-11	0	11
Driveway	152+02 - 152+49	RT.	21	0	0	21	0	0	0	21	21	0
Driveway	153+40 - 153+66	LT.	14	0	0	14	0	0	0	14	14	0
Driveway	172+88 - 173+29	RT.	72	0	0	72	0	0	0	72	72	0
Turn Lane	207+05 - 209+50	RT.	121	0	23	98	0	81	97	1	1	0
USH 53	209+50 - 212+82	LT. & RT.	570	0	300	270	0	503	604	-334	0	226
USH 53	214+62 - 223+20	LT. & RT.	606	0	543	63	0	4,872	5,847	-5,784	0	5,366
Dopp Rd.	10+21 - 11+92	LT. & RT.	280	0	99	181	0	62	74	107	107	0
Driveway	0+20 - 0+95	LT. & RT.	9	0	8	1	0	141	169	-168	0	168
Driveway	0+20 - 0+98	LT. & RT.	6	0	0	6	0	92	110	-104	0	104
Driveway	225+64 - 228+12	LT.	364	0	28	336	0	0	0	336	336	0
Driveway	470+93 - 471+41	LT.	31	0	0	31	0	0	0	31	31	0
Driveway	470+96 - 471+41	RT.	30	0	0	30	0	0	0	30	30	0
Turn Lane	485+42 - 488+17	RT.	105	0	15	90	0	57	69	21	21	0
Division 1 Subtotal			6,267	3,382	3,741	2,526	490	40,108	48,130	-45,604	0	45,604
Grand Total			6,267	3,382	3,741	2,526	490	40,108	48,130	-45,604	0	45,604
		Total Common Exc		9,649								

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Borrow, or Cut. EBS material not to be used in construction.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Marsh Excavation - to be backfilled with Borrow, or Cut. Marsh material not to be used in construction.
13) Expanded Fill. Factor = 1.20

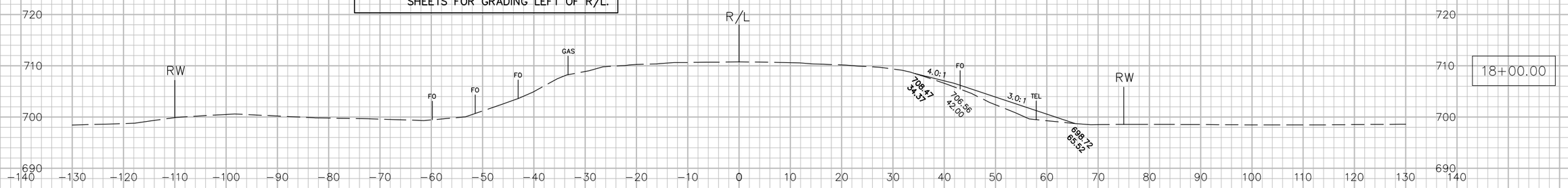
Expanded Fill = (Unexpanded Fill) * Fill Factor

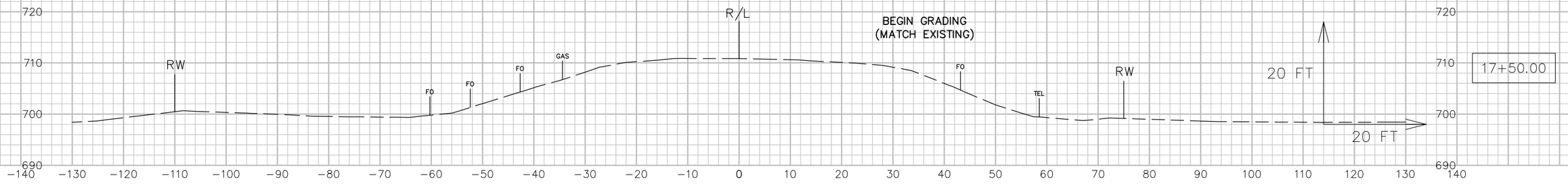
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
15) Calculations show Waste Material from one location to be utilized in a nearby location which requires borrow.





NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

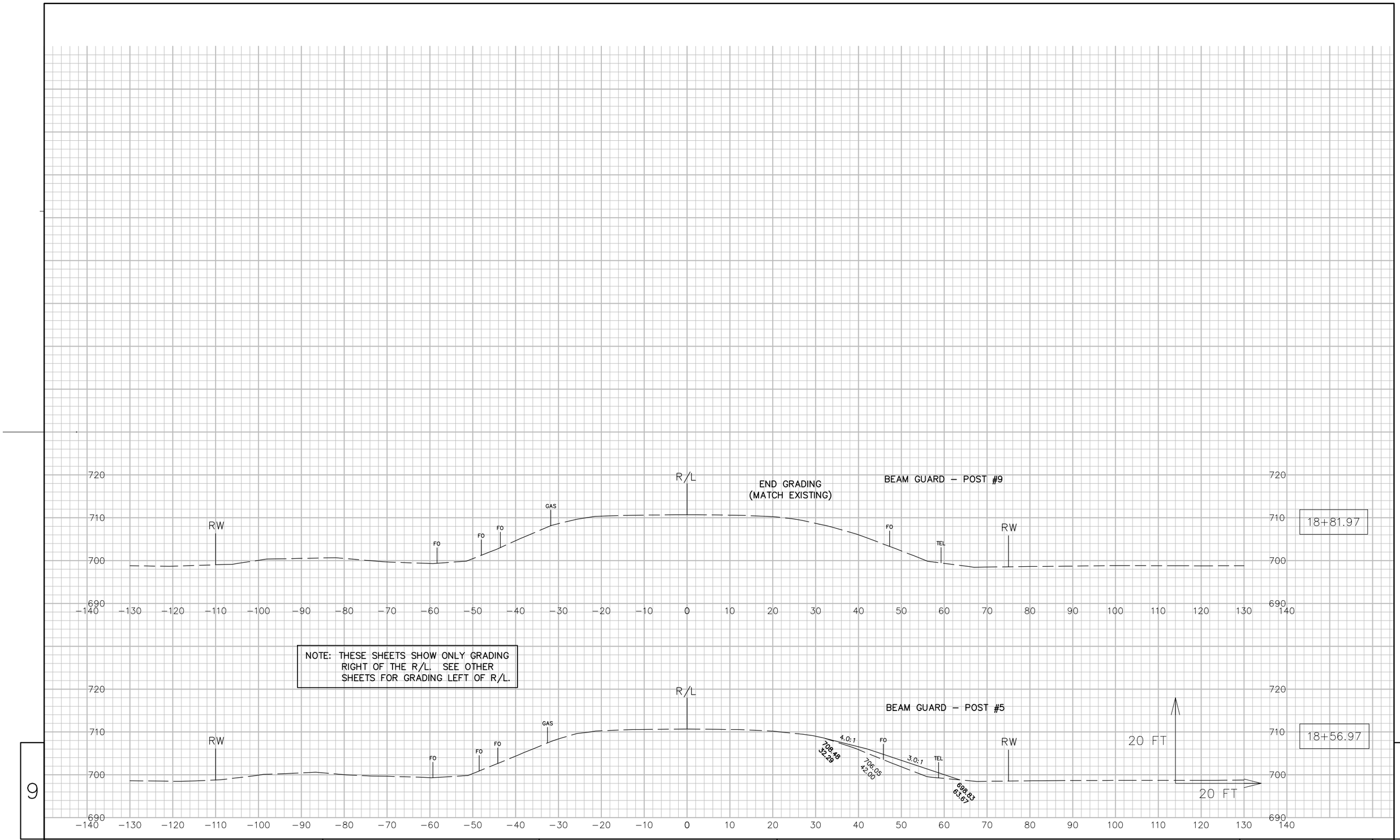




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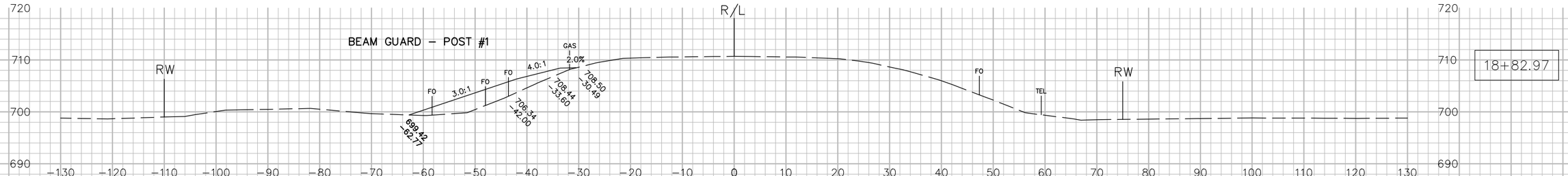
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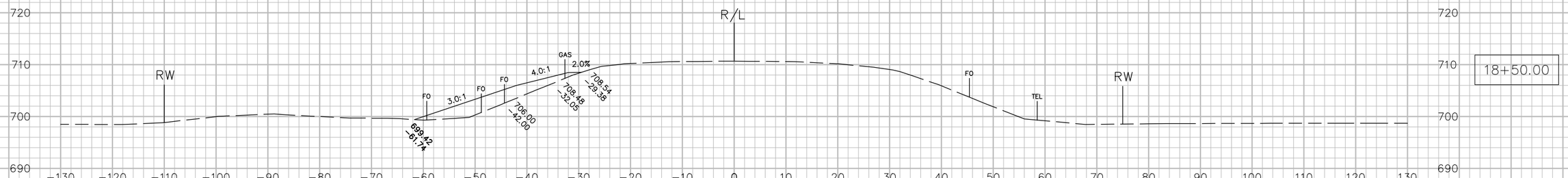
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 271	E



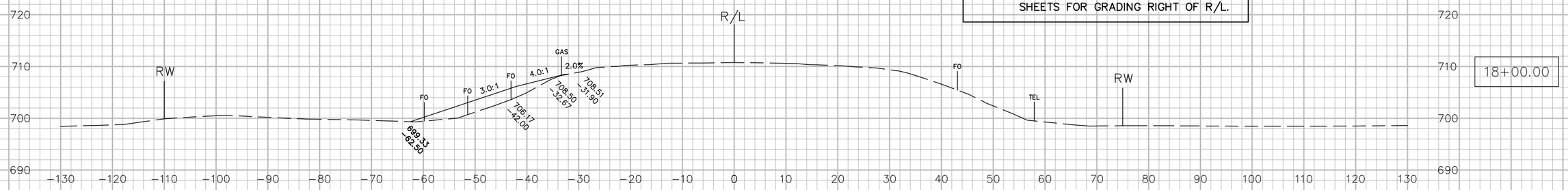
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 272	E

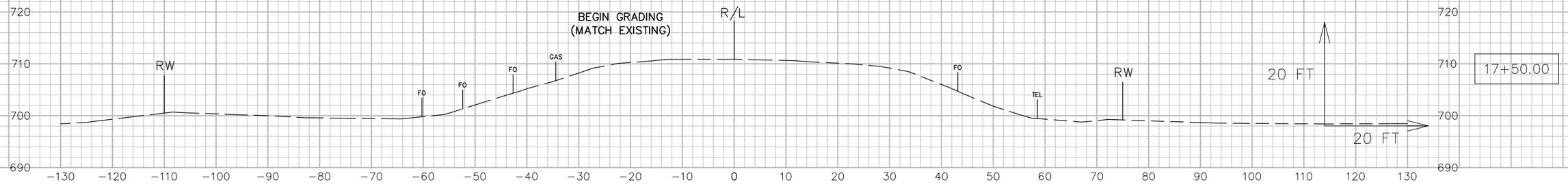
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NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.





9

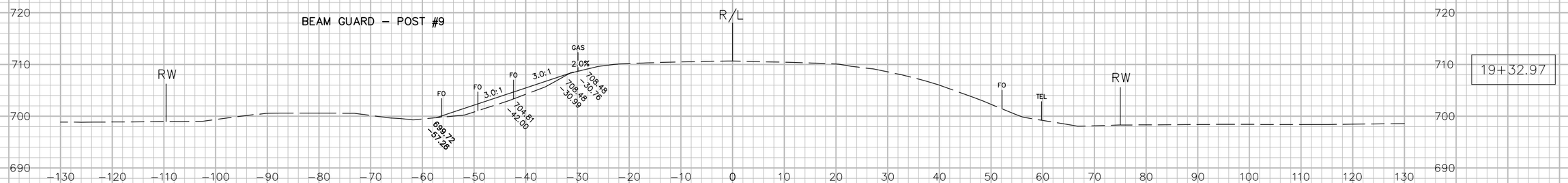
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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 273	E

END GRADING
(MATCH EXISTING)

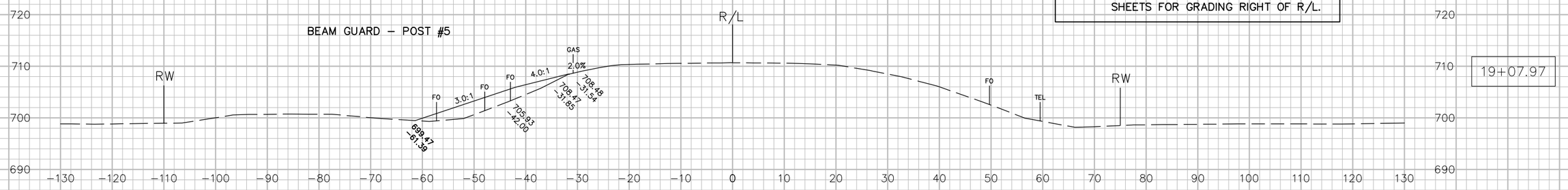


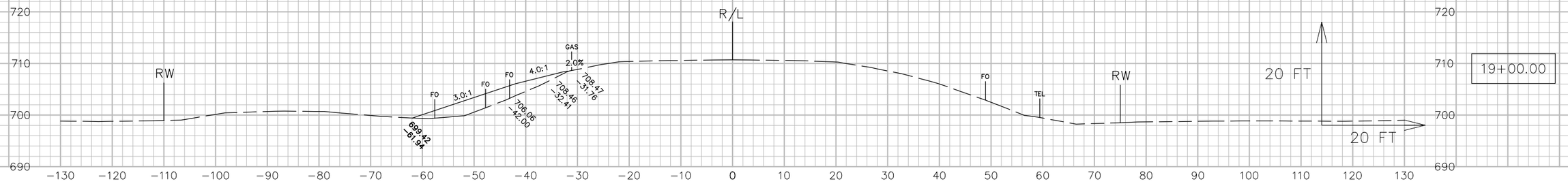
BEAM GUARD – POST #9



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BEAM GUARD – POST #5

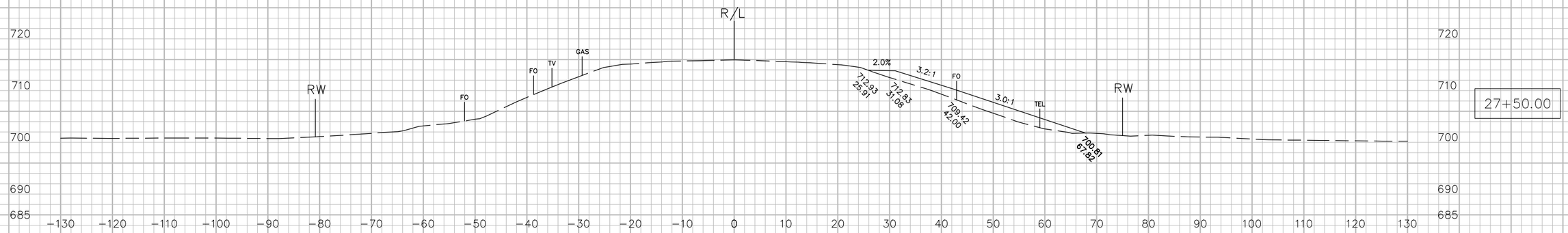




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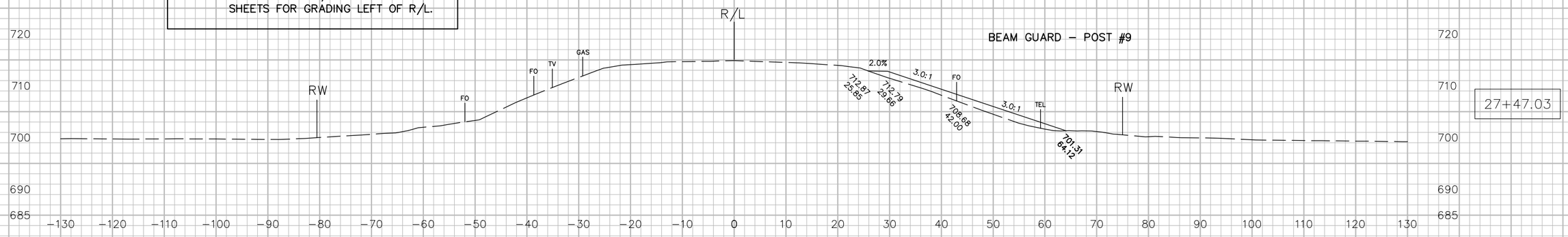
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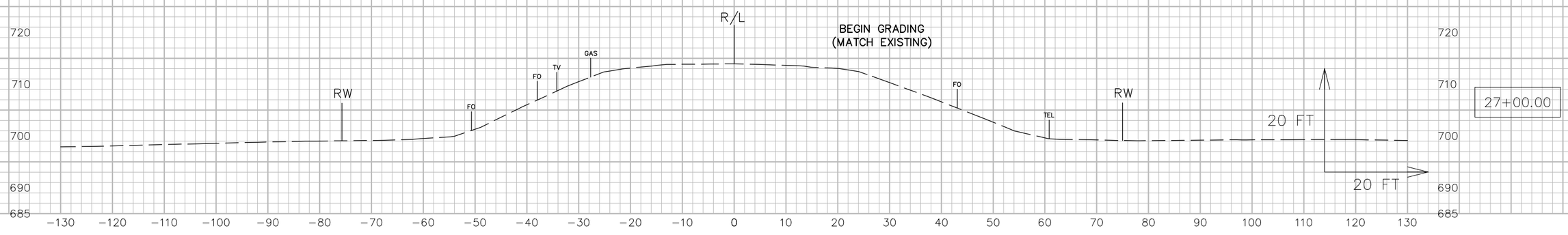
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 274	E



NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

BEAM GUARD – POST #9

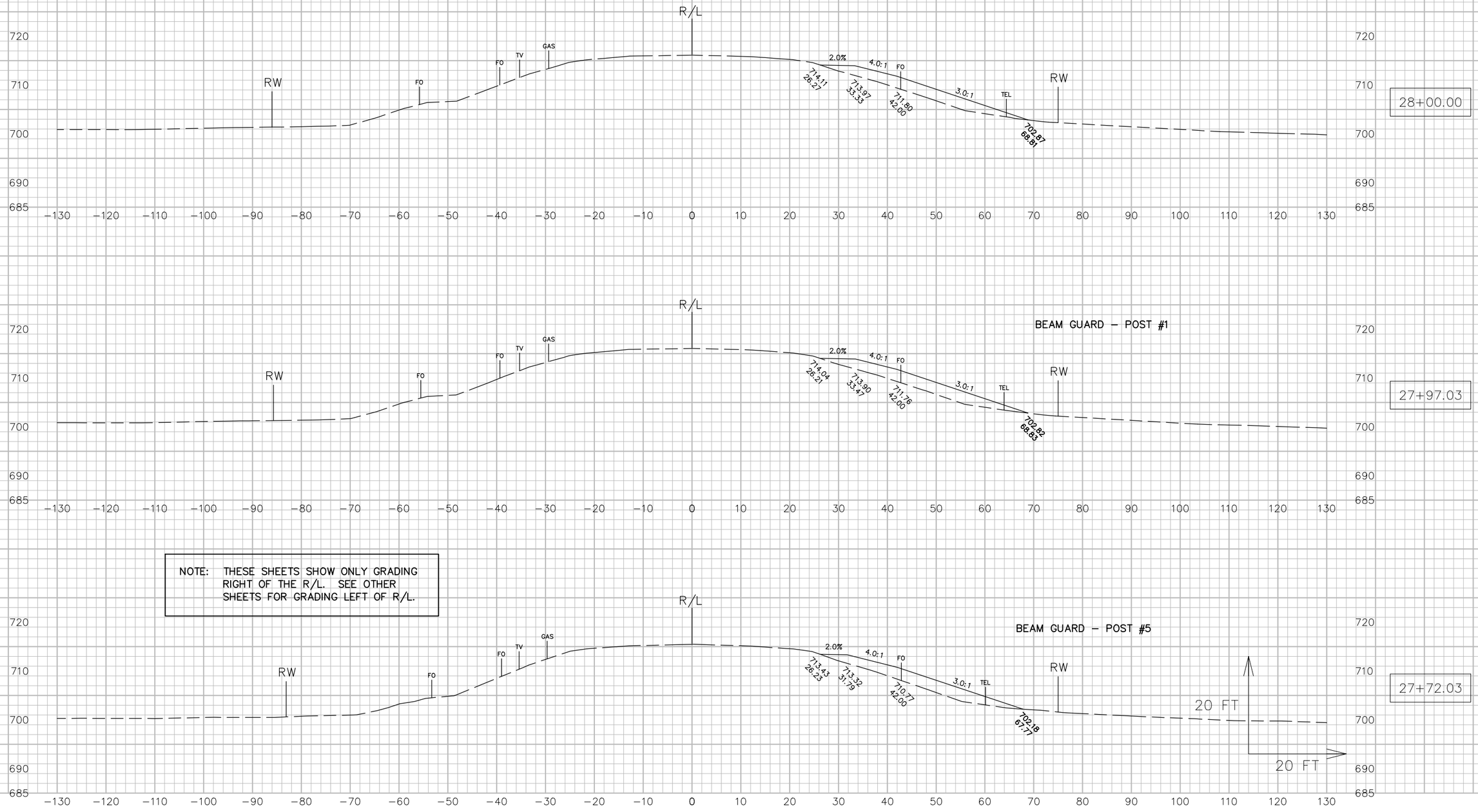




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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 275	E



BEAM GUARD – POST #1

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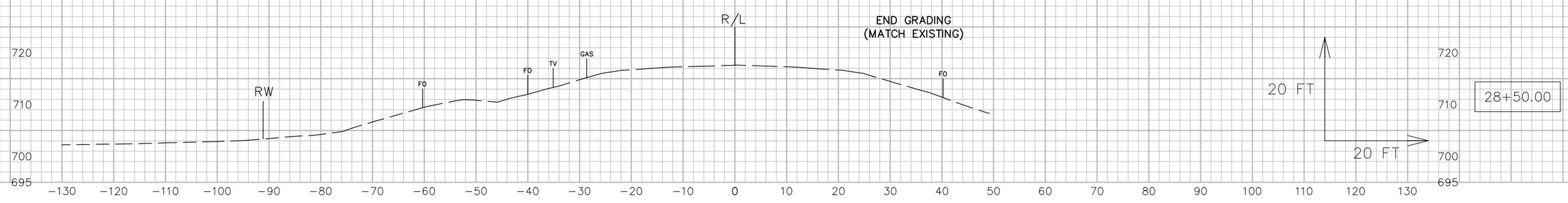
BEAM GUARD – POST #5

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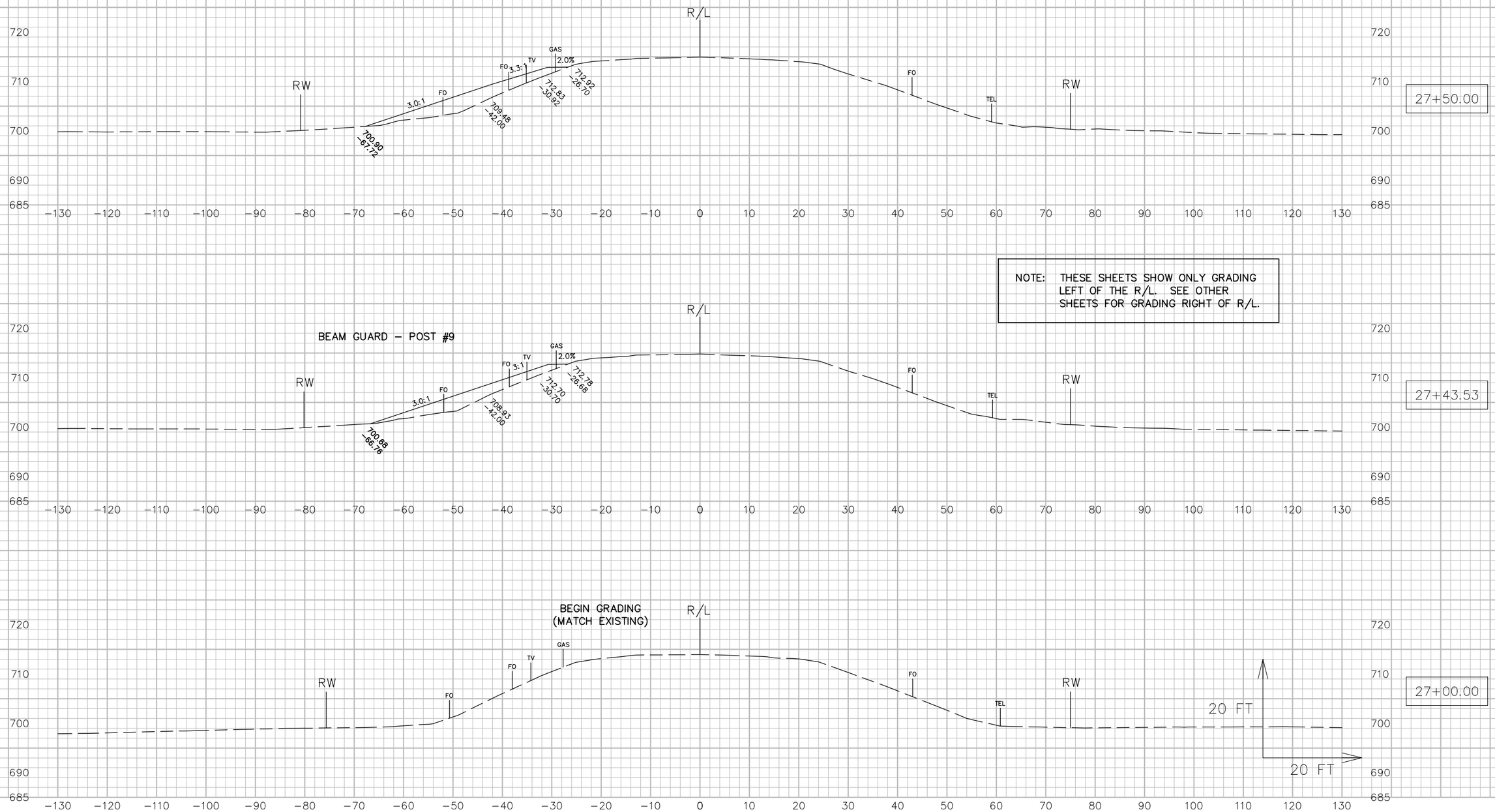
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 276	E

NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − RT.)	SHEET 277	E

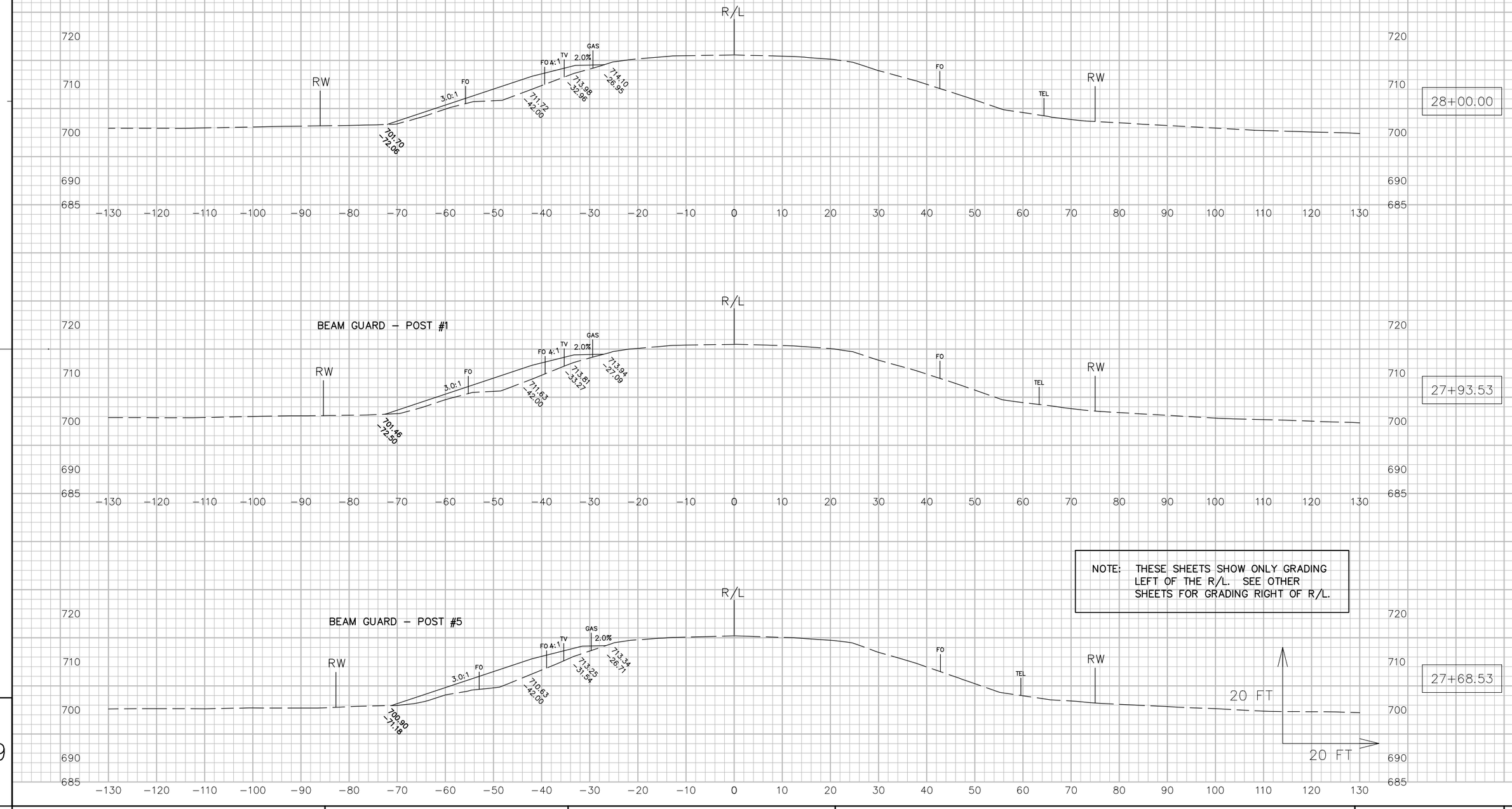


NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 278	E



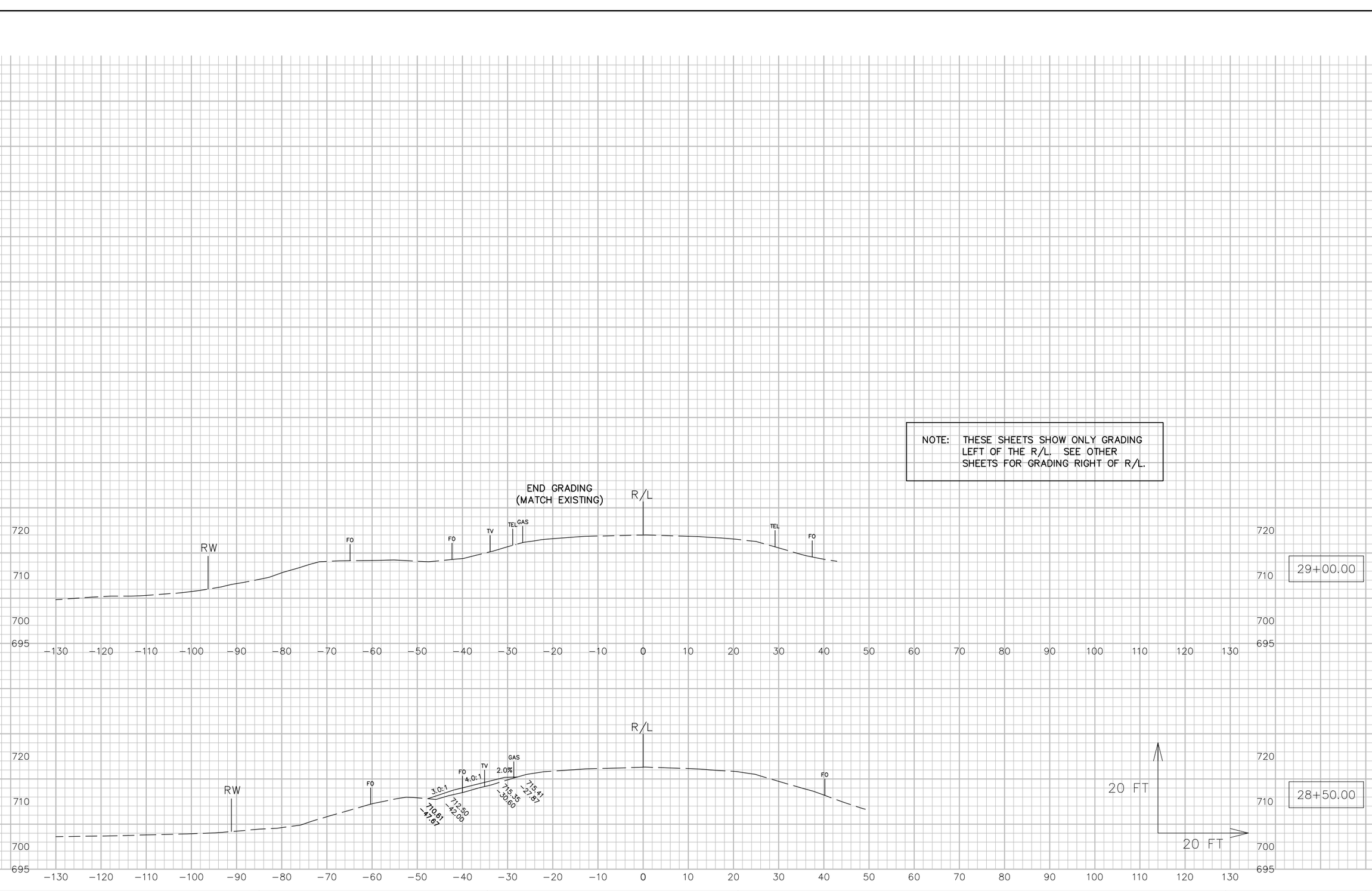
NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 279	E

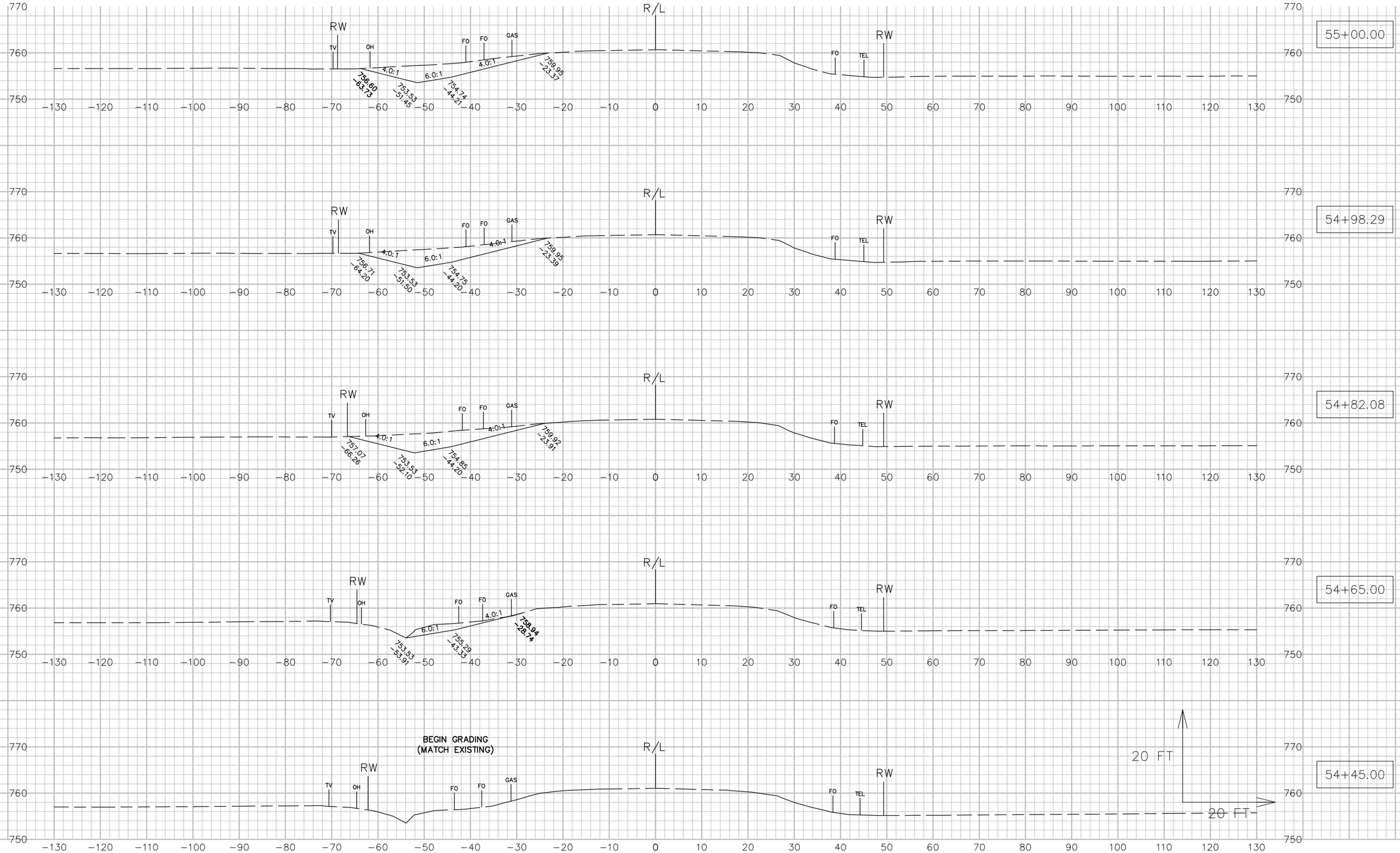
NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.



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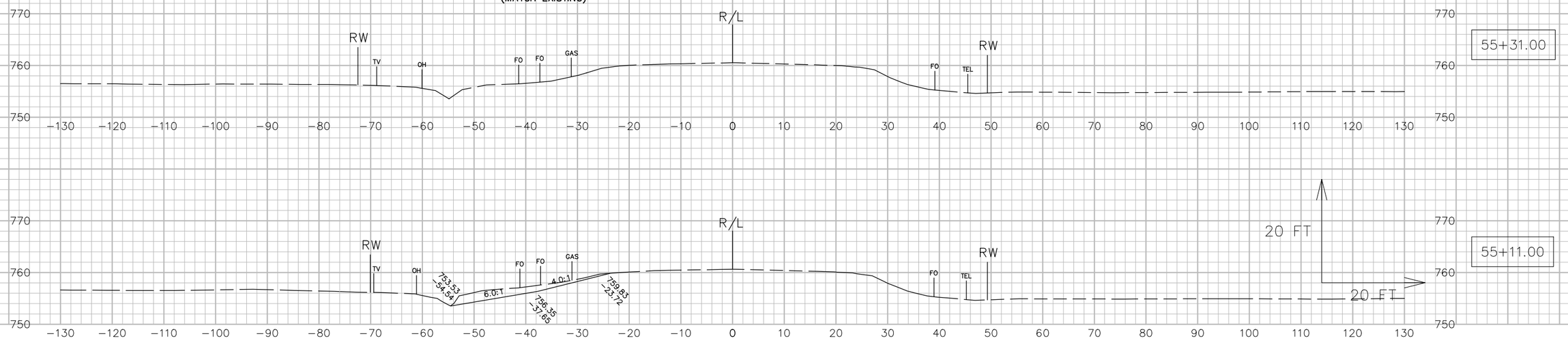
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − LT.)	SHEET 280	E

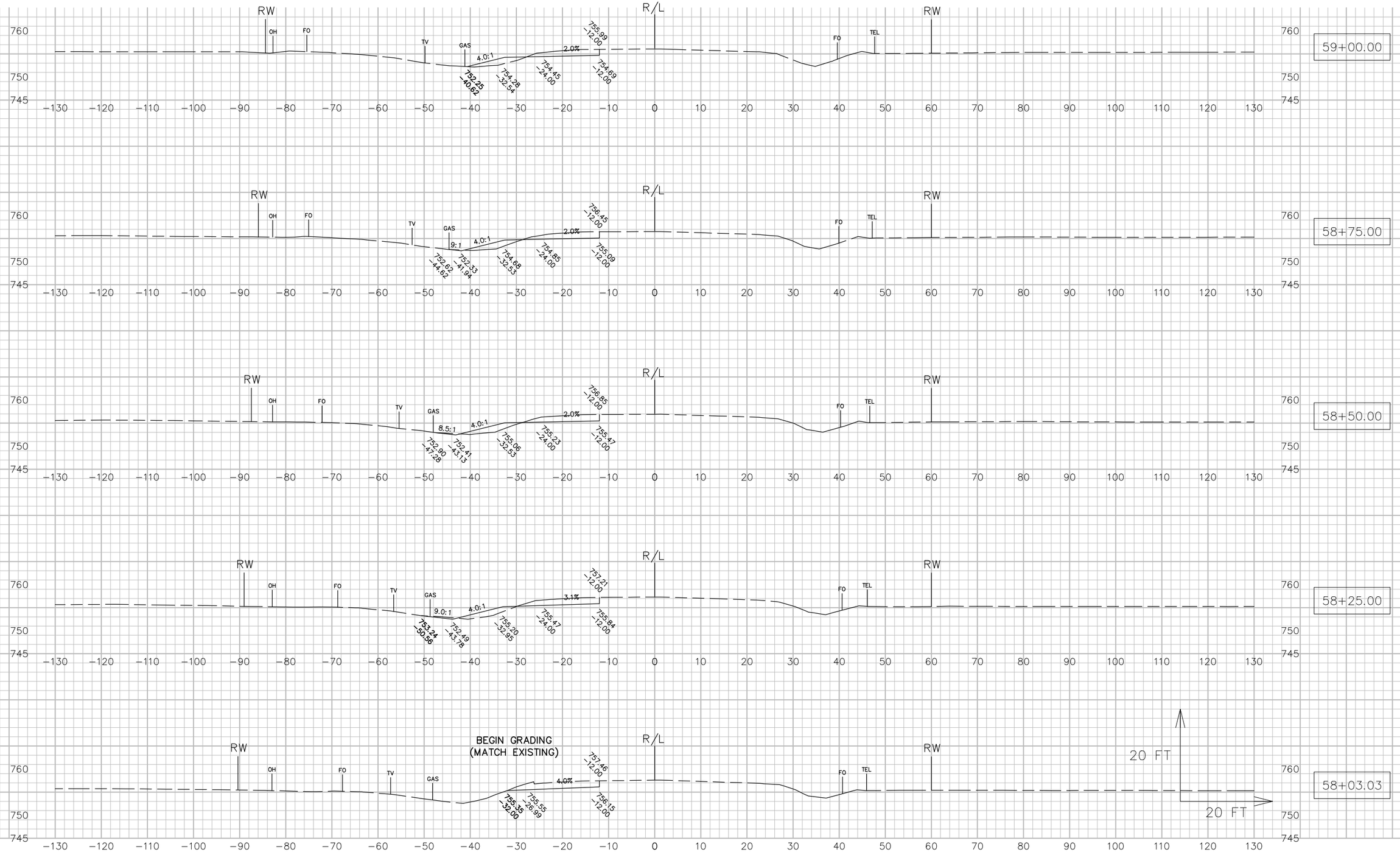


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL – LT.)	SHEET 281	E

END GRADING
(MATCH EXISTING)



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL − LT.)	SHEET 282	E

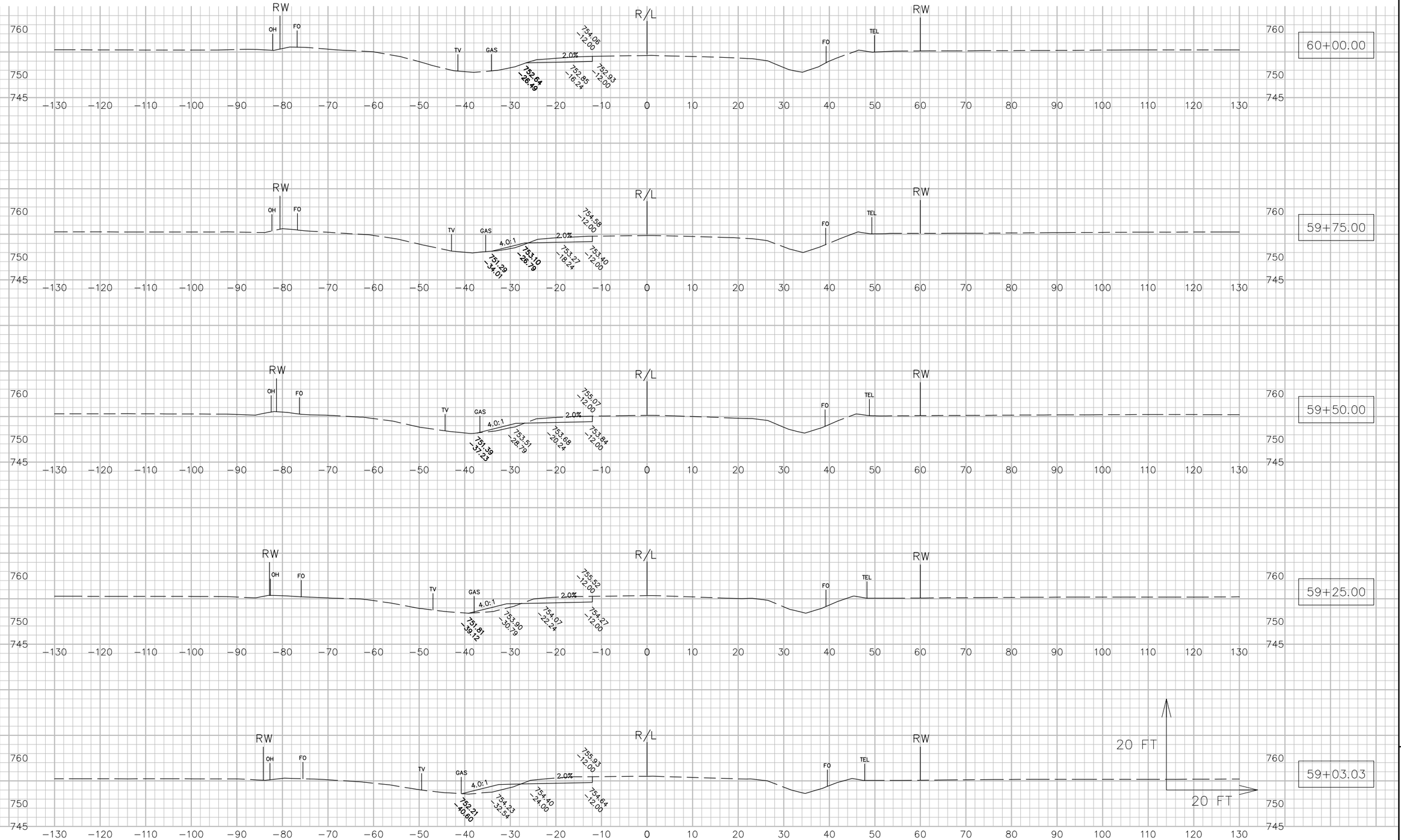


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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CTH TTT – TURN LANE)	SHEET 283	E

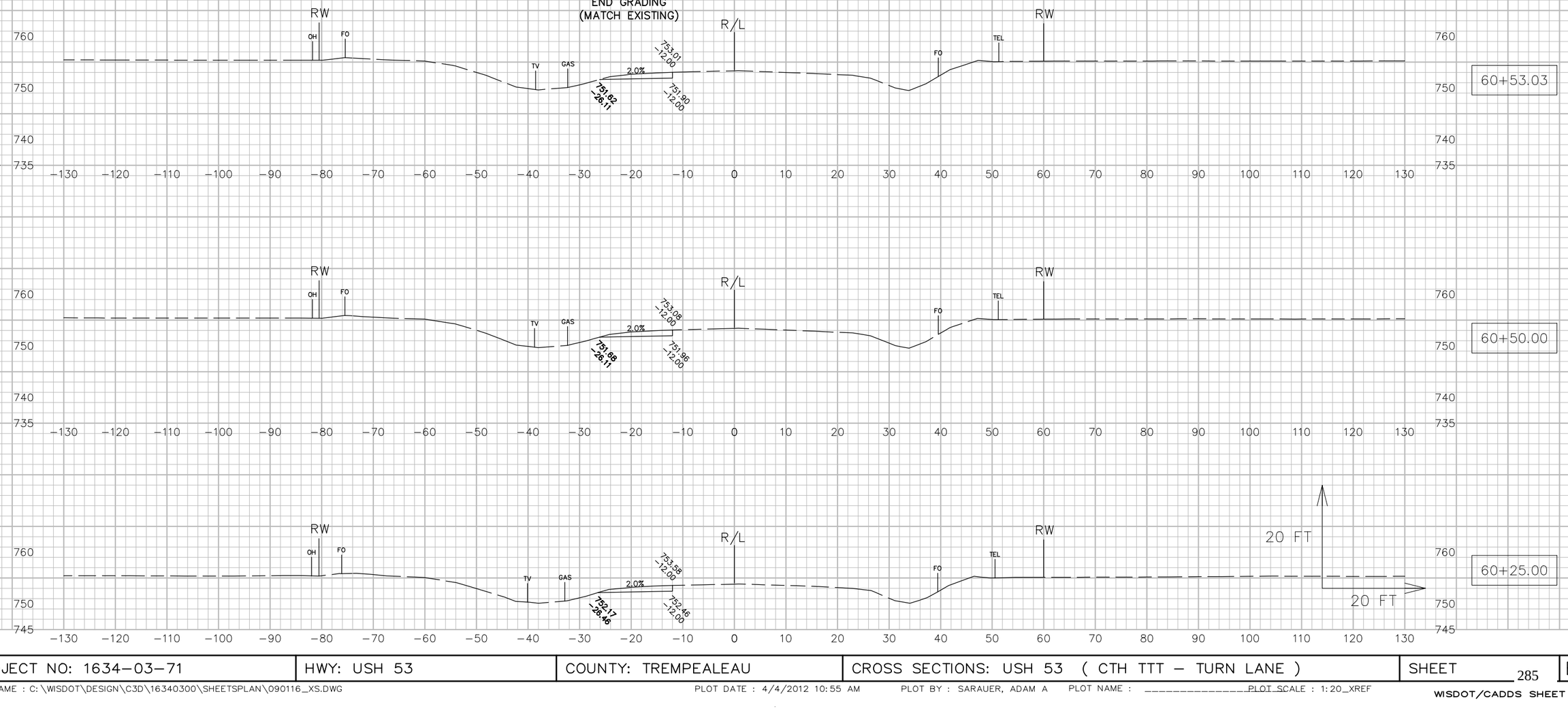
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090116_XS.DWG PLOT DATE : 4/4/2012 10:53 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



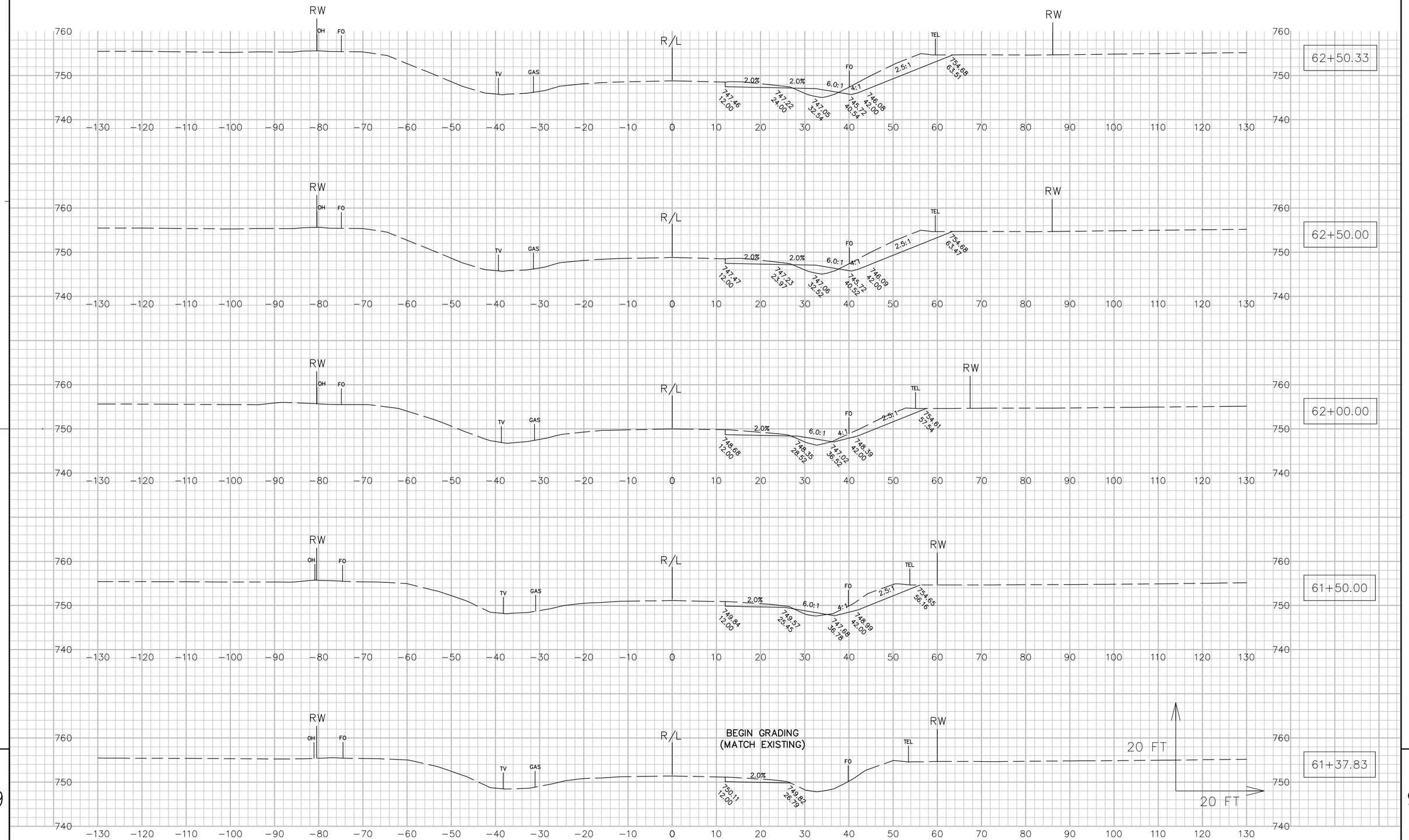
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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CTH TTT – TURN LANE)	SHEET 284	E



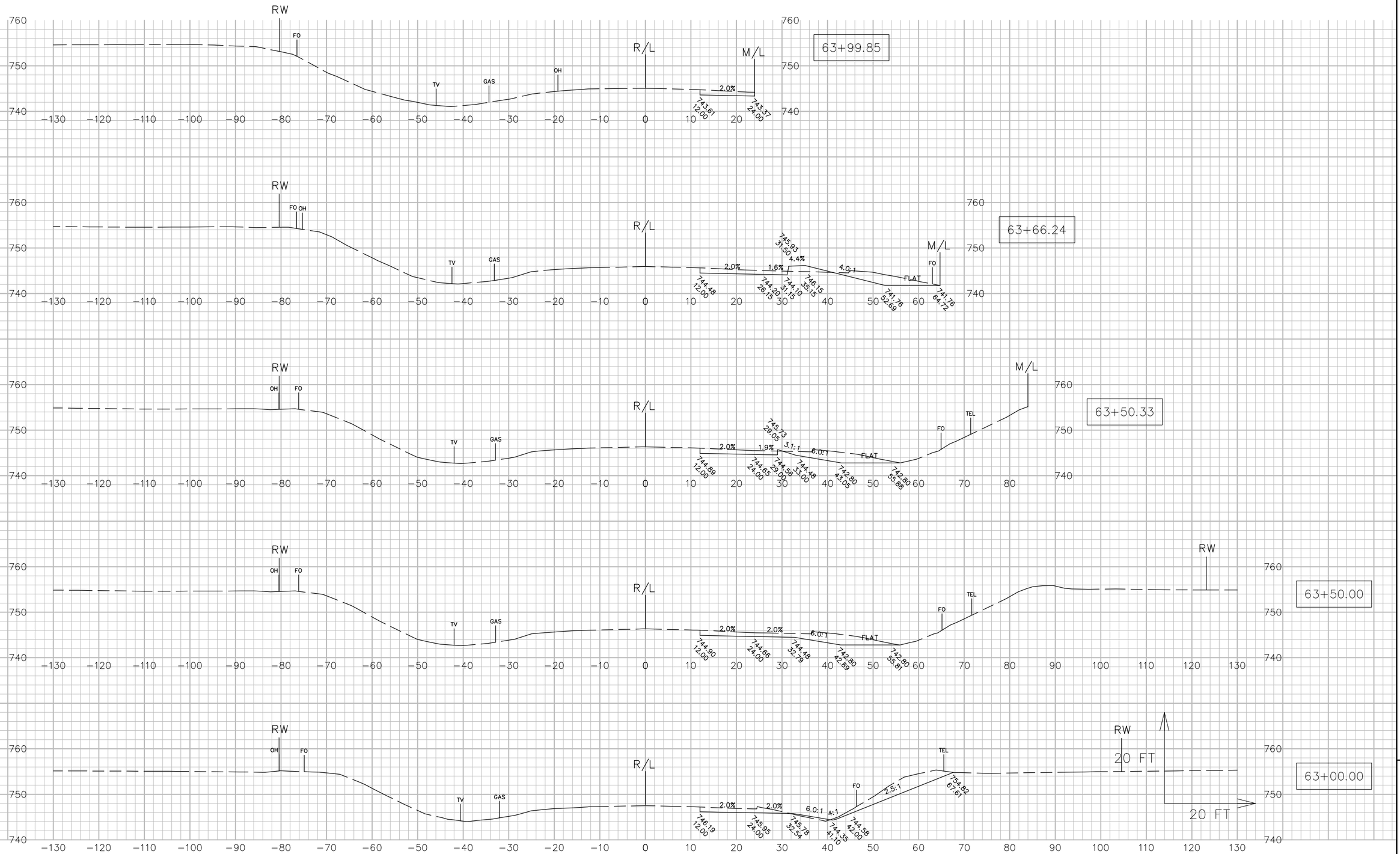
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CTH TTT – TURN LANE)	SHEET 285	E



9

9

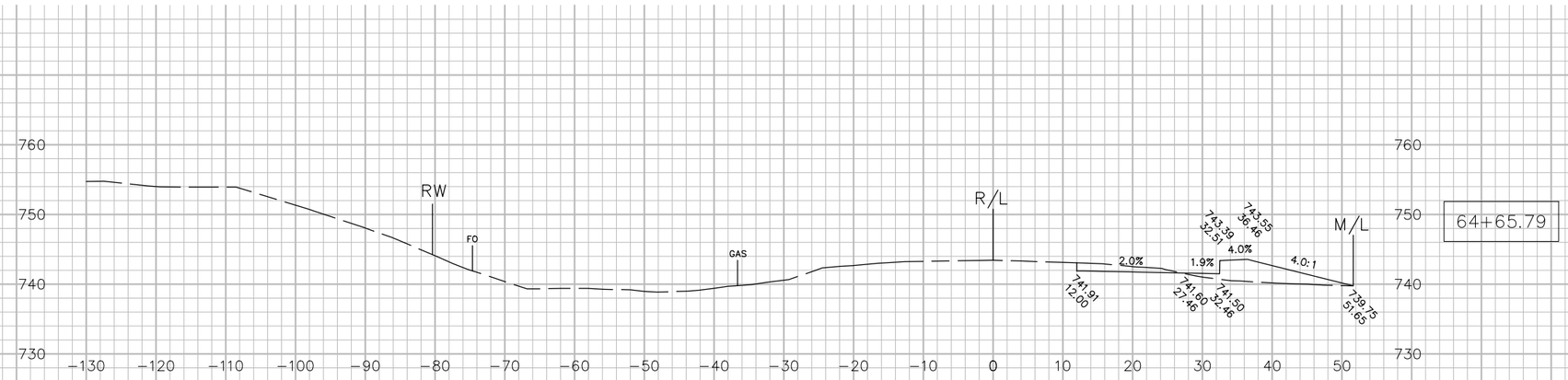
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CRYSTAL VALLEY RD. INTERSECTION)	SHEET 286	E



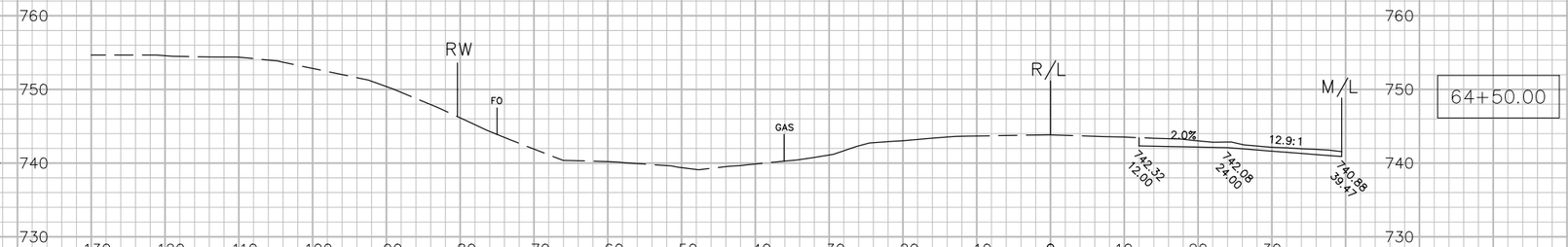
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9

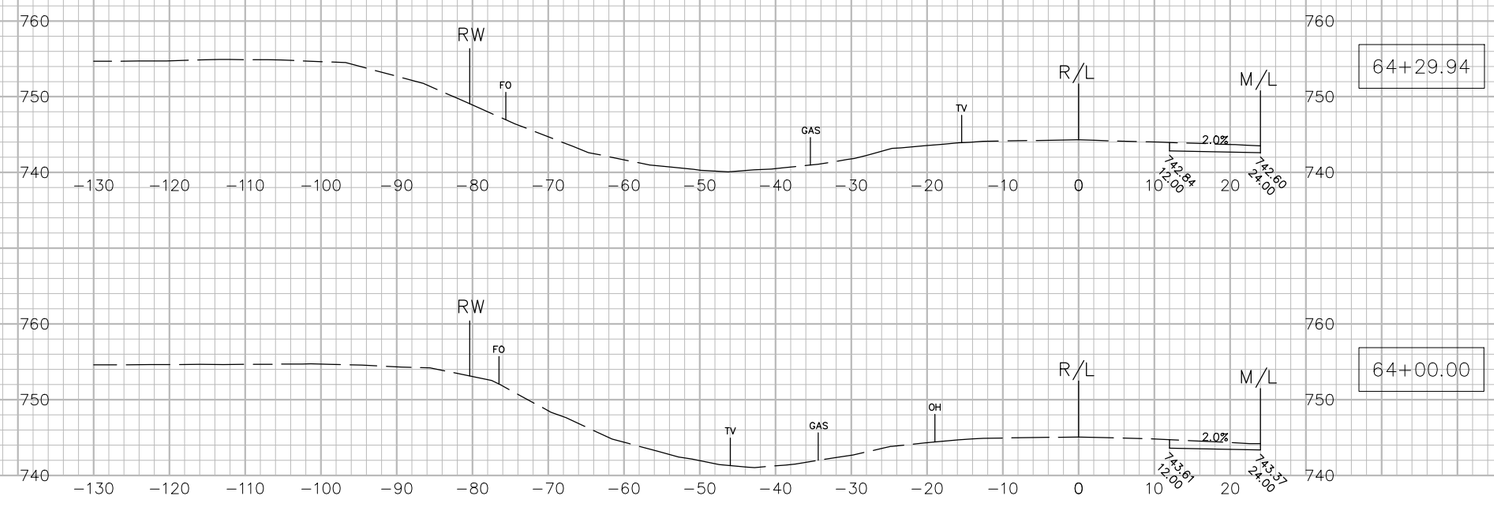
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CRYSTAL VALLEY RD. INTERSECTION)	SHEET 287	E



64+65.79

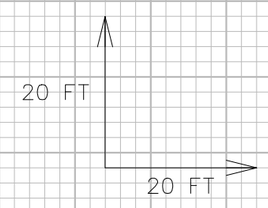


64+50.00



64+29.94

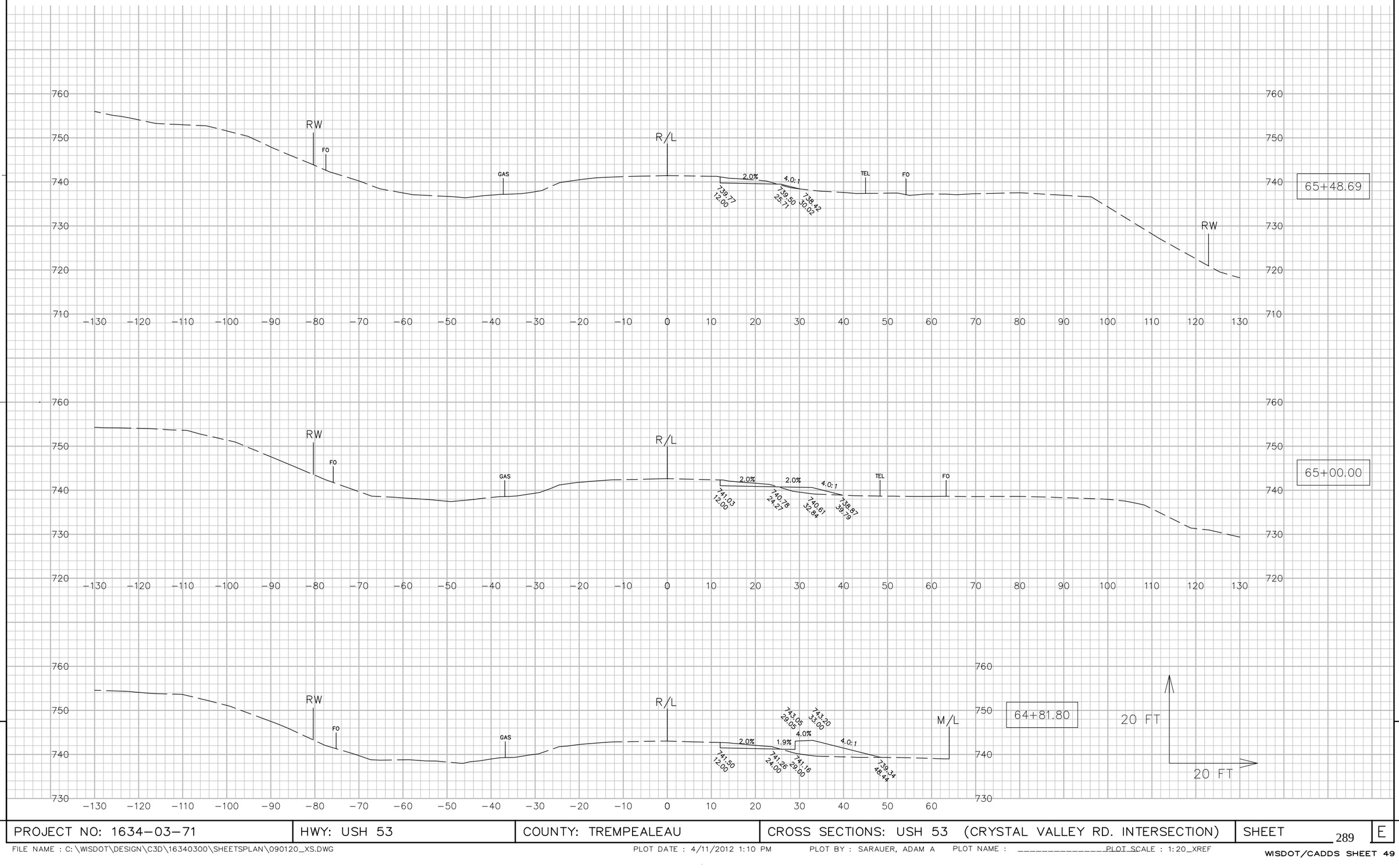
64+00.00



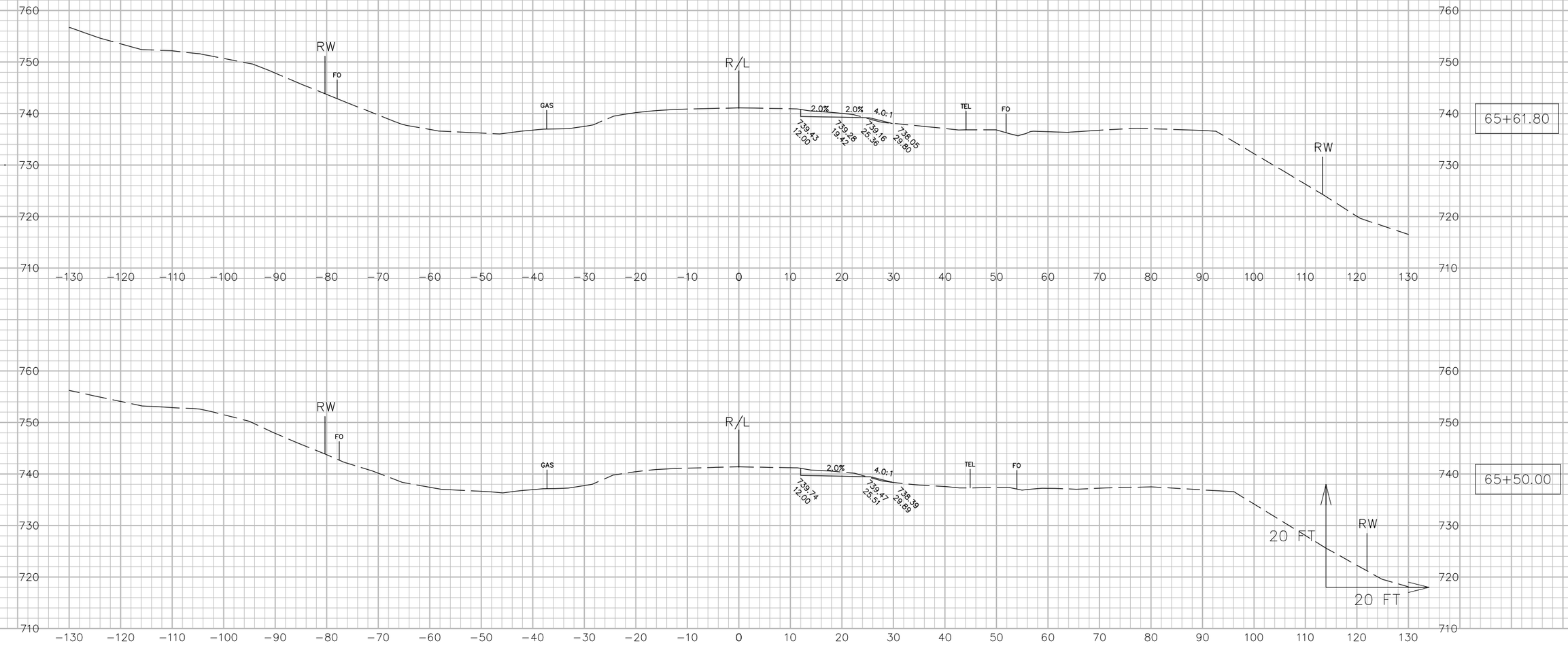
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CRYSTAL VALLEY RD. INTERSECTION)	SHEET 288	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CRYSTAL VALLEY RD. INTERSECTION)	SHEET 289	E

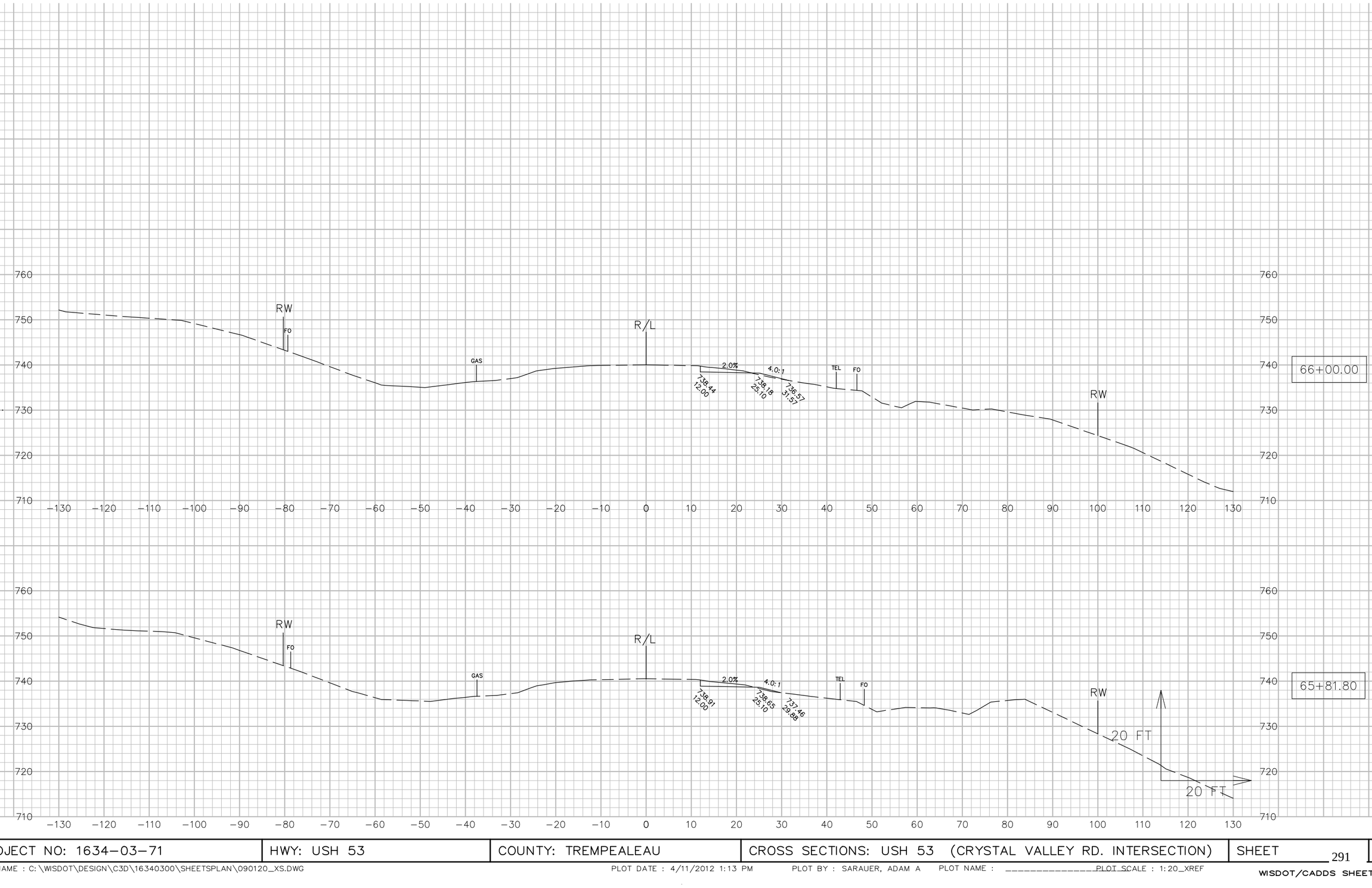


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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CRYSTAL VALLEY RD. INTERSECTION)	SHEET 290	E

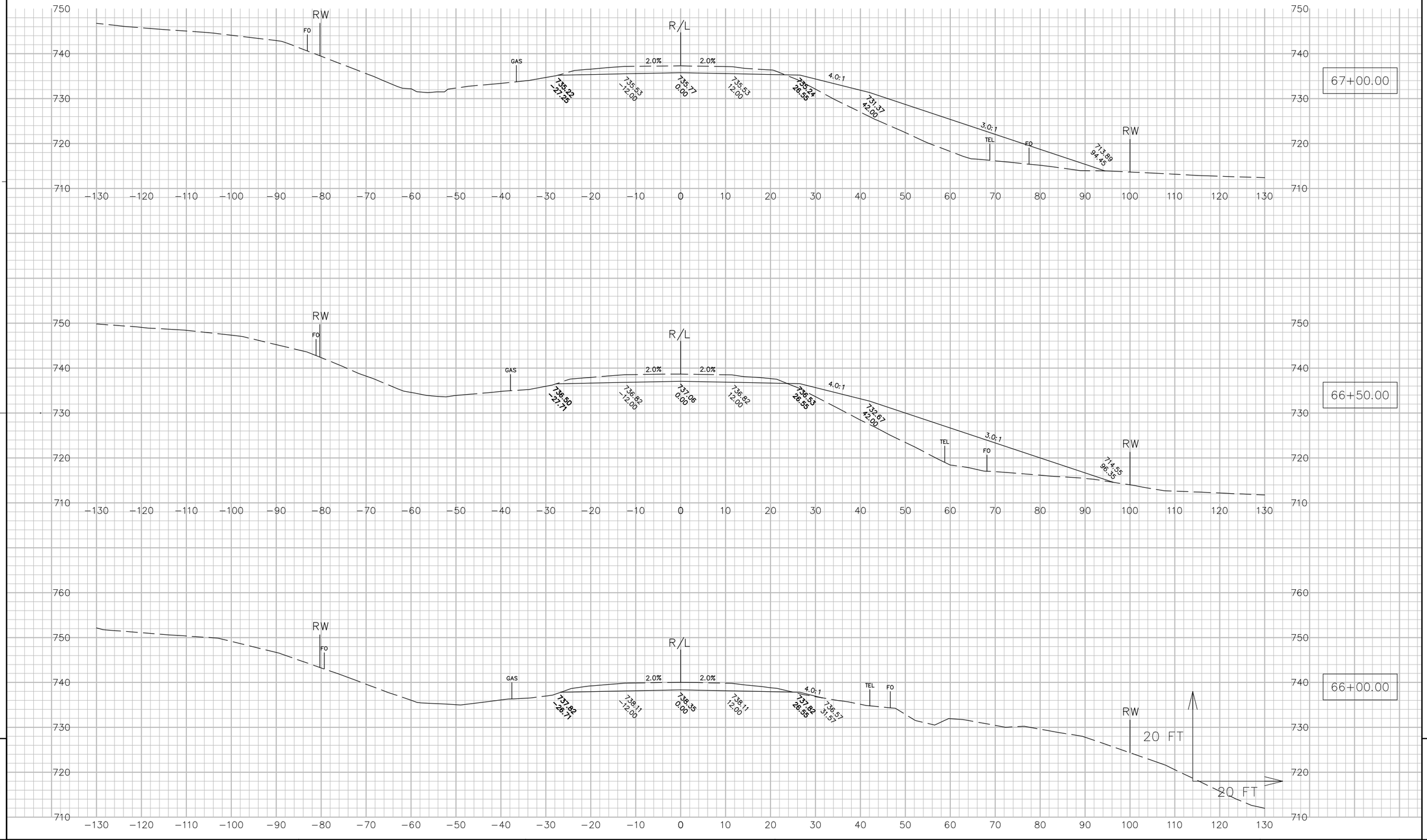
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090120_XS.DWG PLOT DATE : 4/11/2012 1:12 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



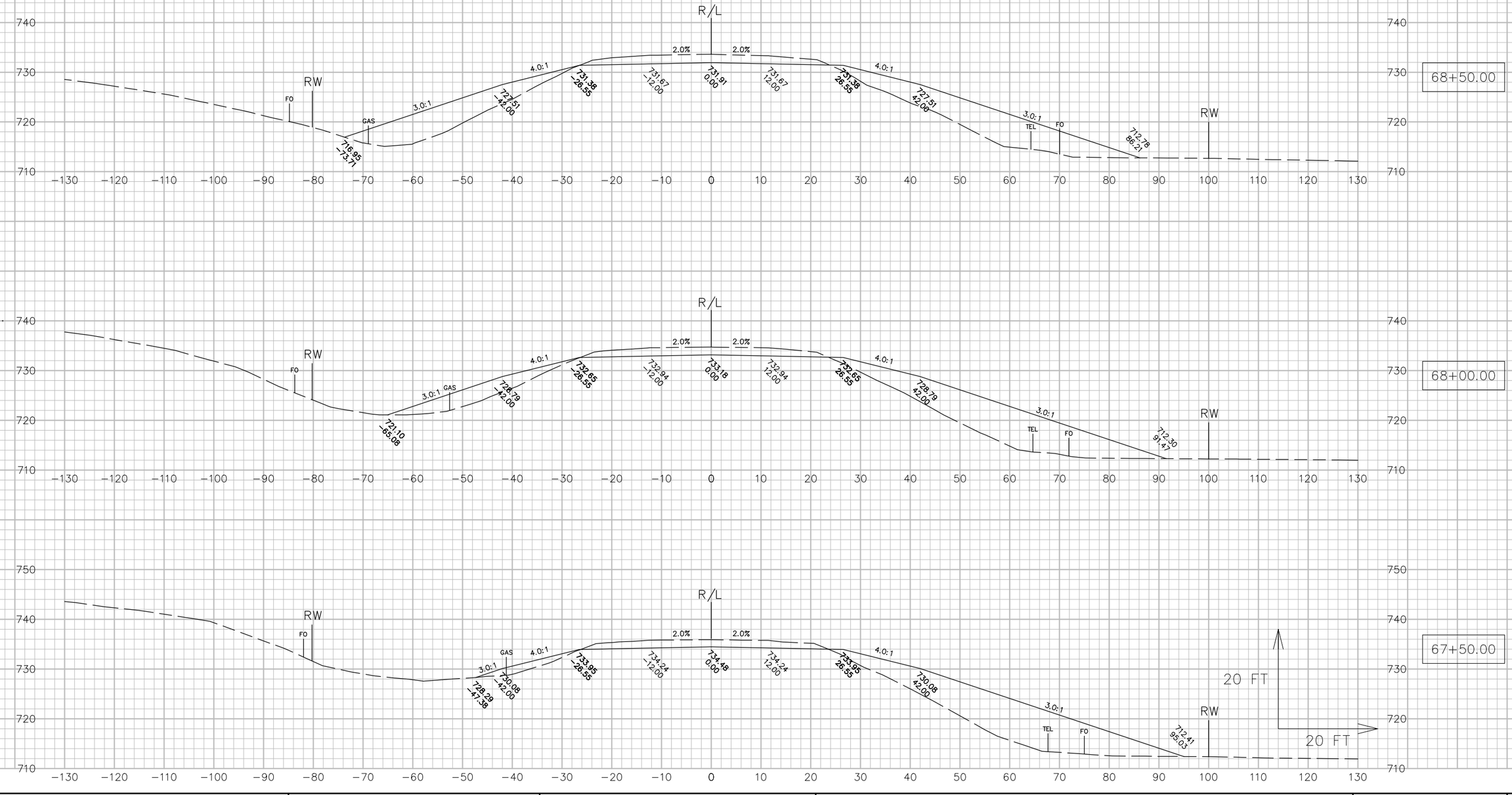
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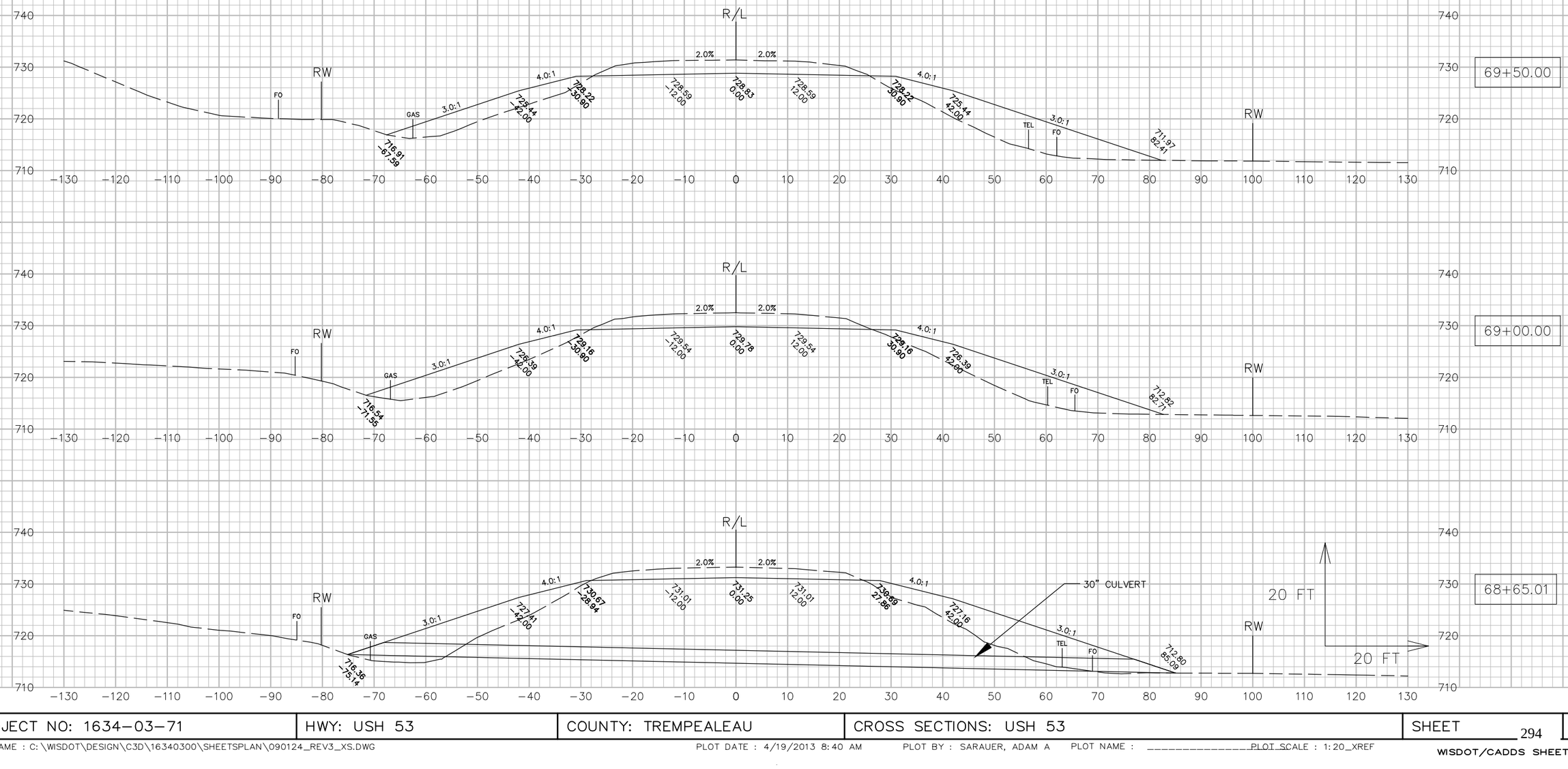
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CRYSTAL VALLEY RD. INTERSECTION)	SHEET 291	E



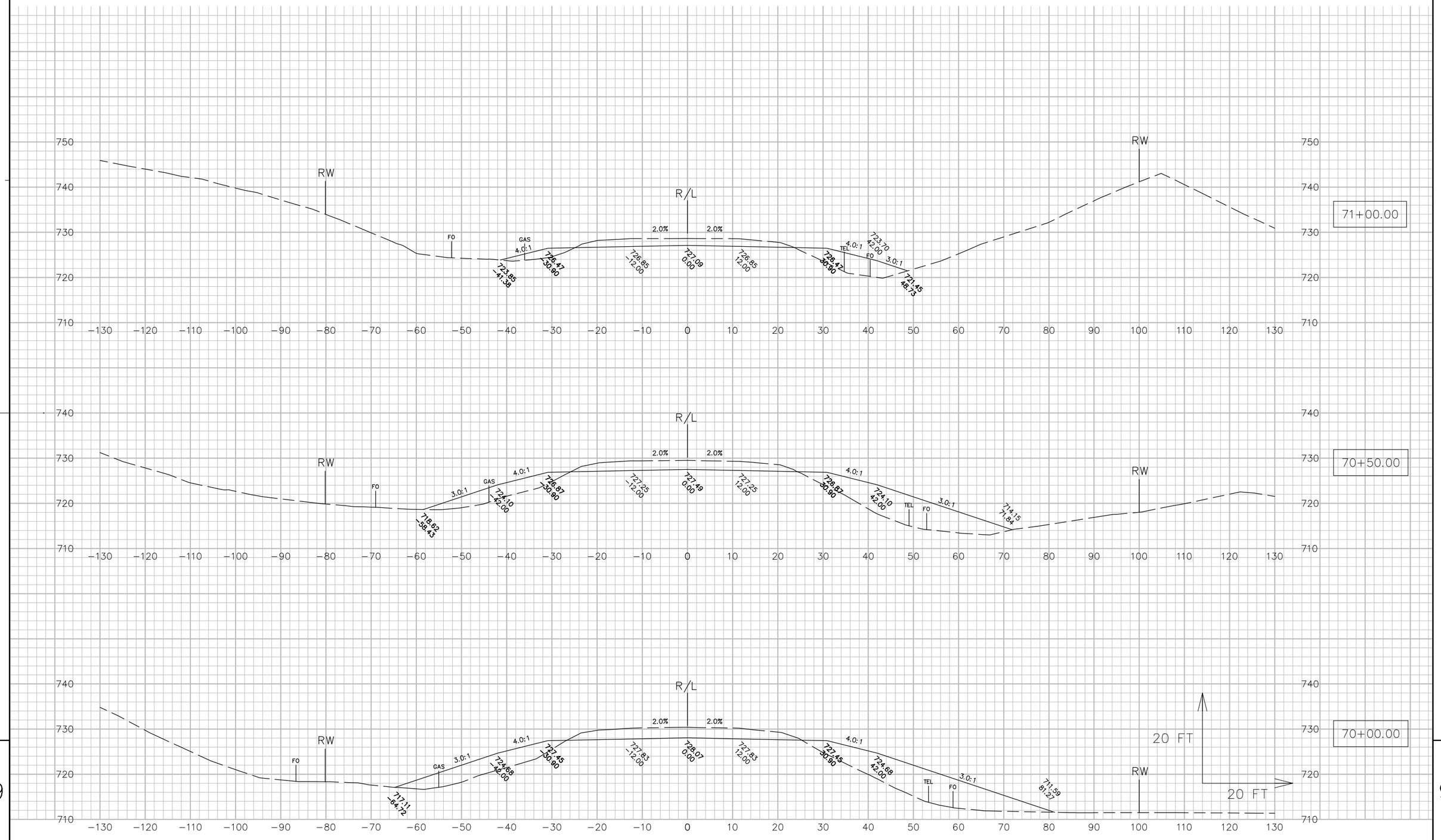
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 292	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 293	E

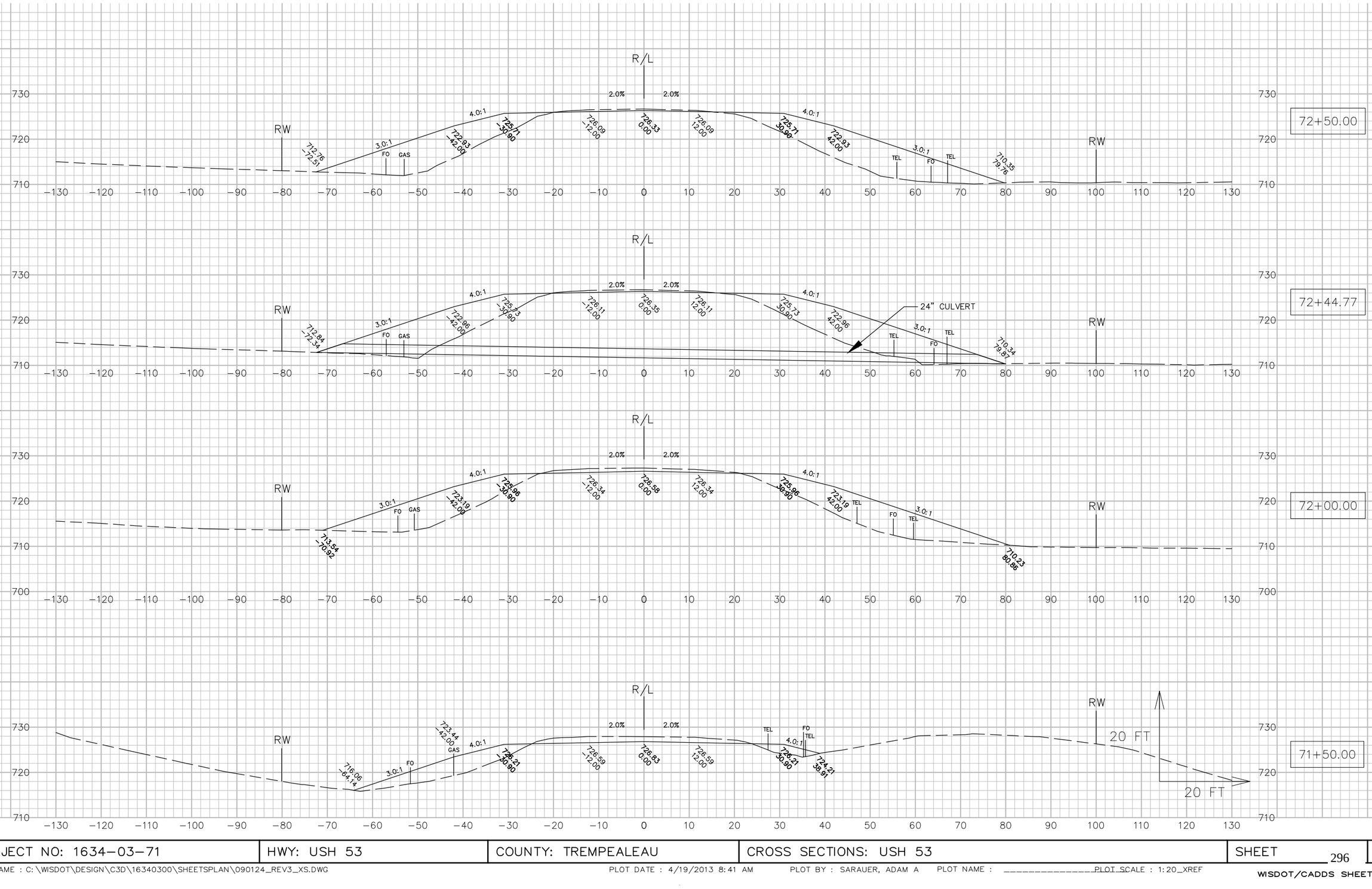


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 294	E



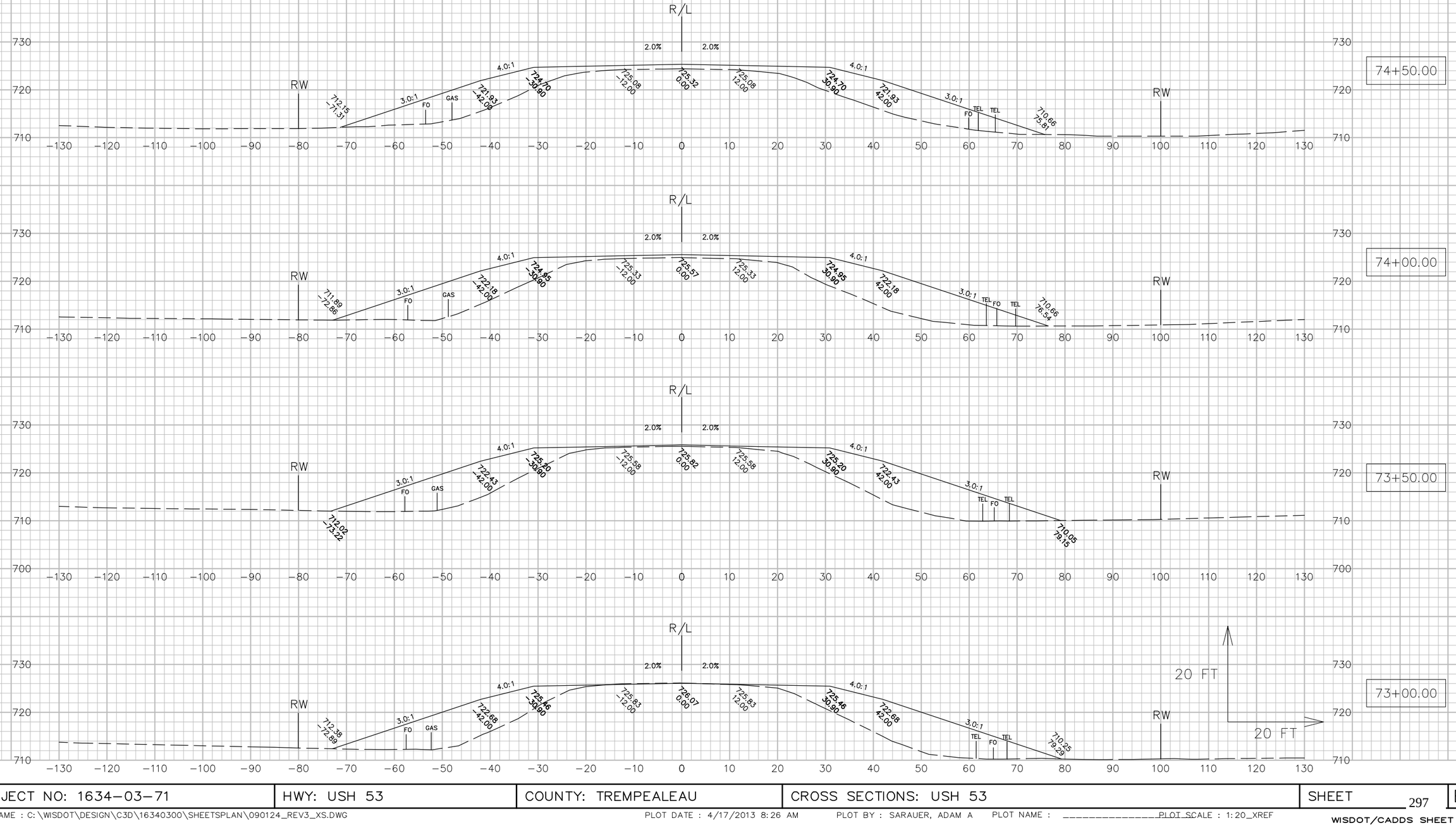
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:25 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

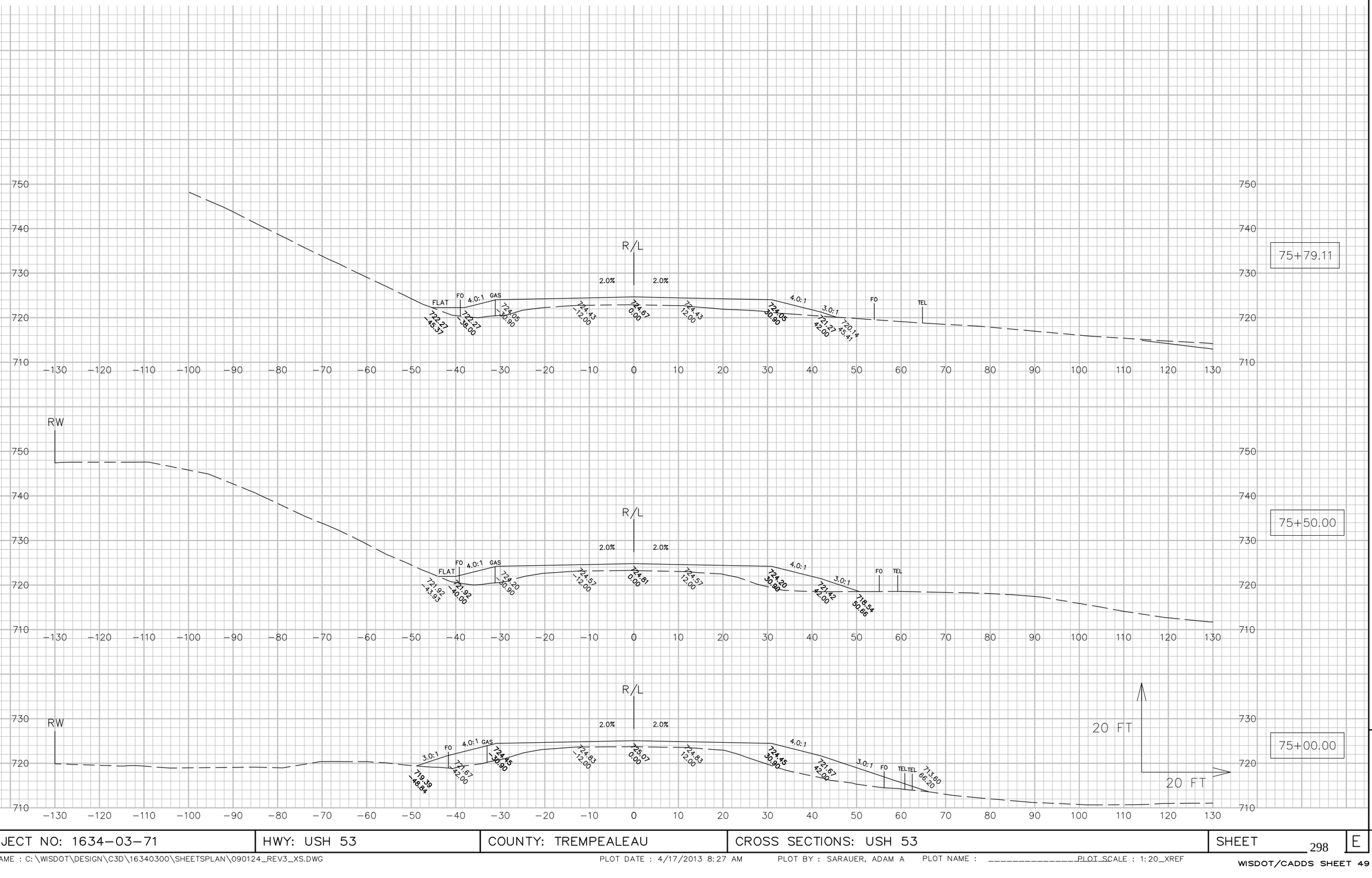


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 296	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/19/2013 8:41 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

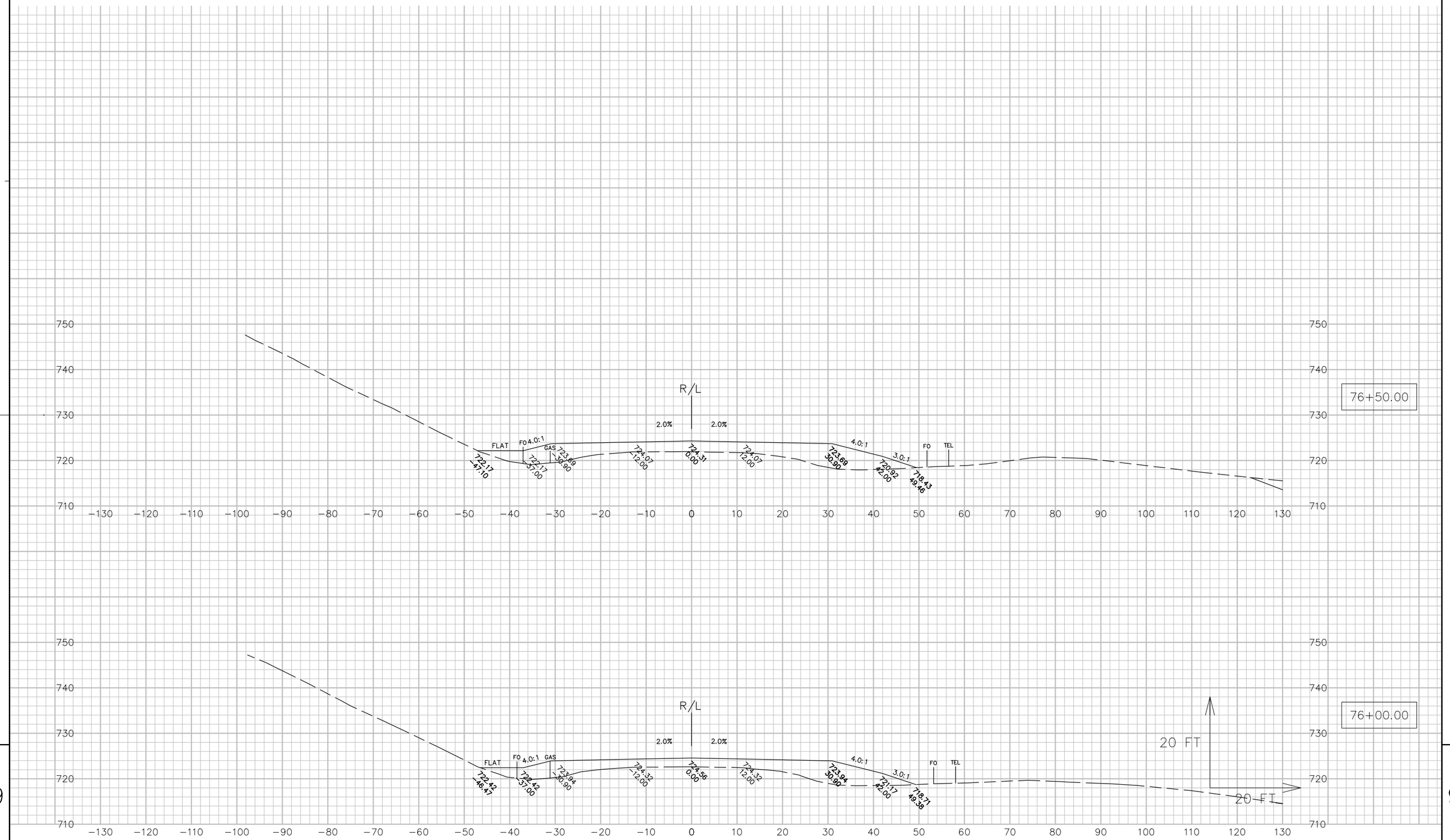


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 297	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 298	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:27 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

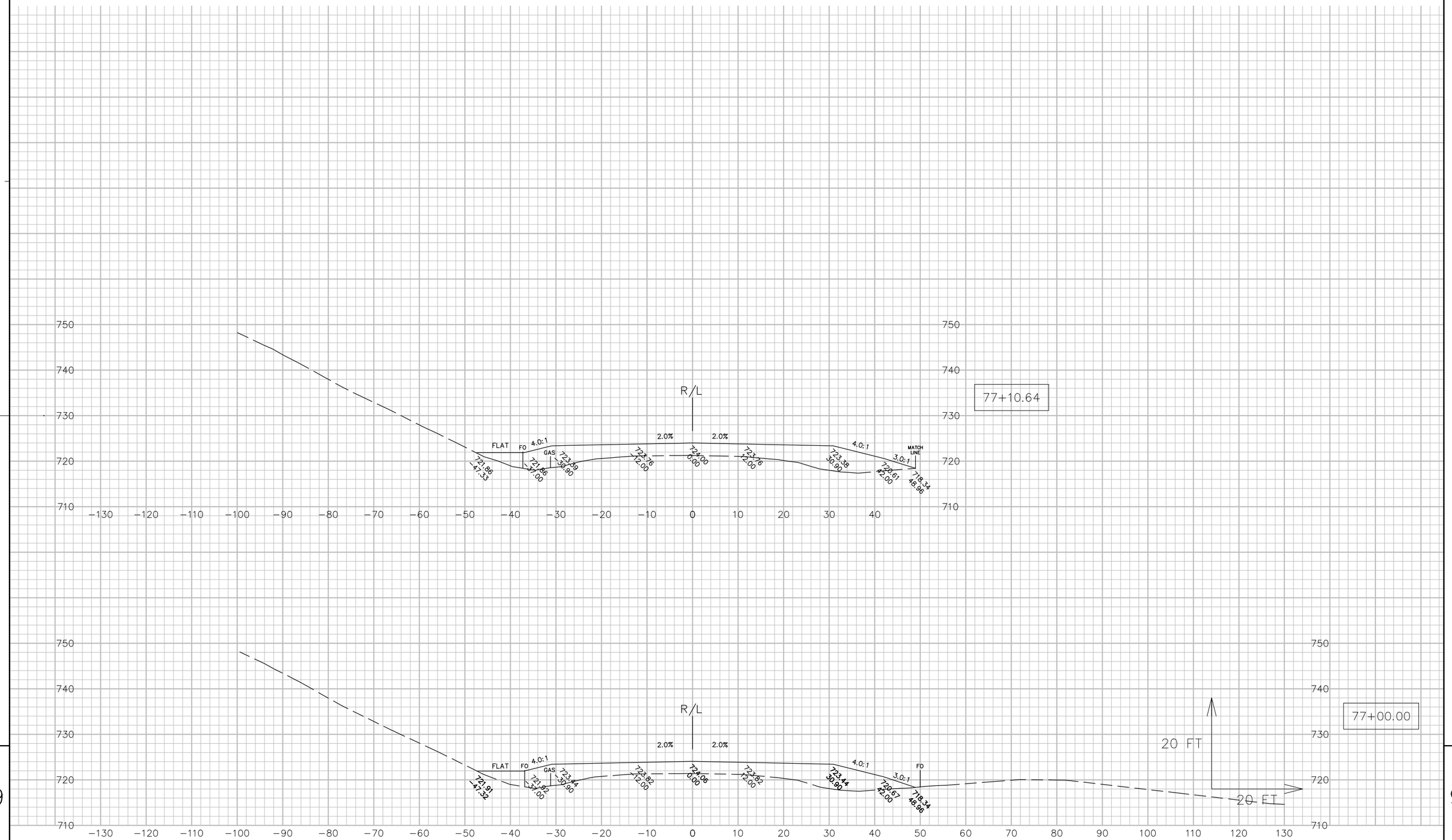


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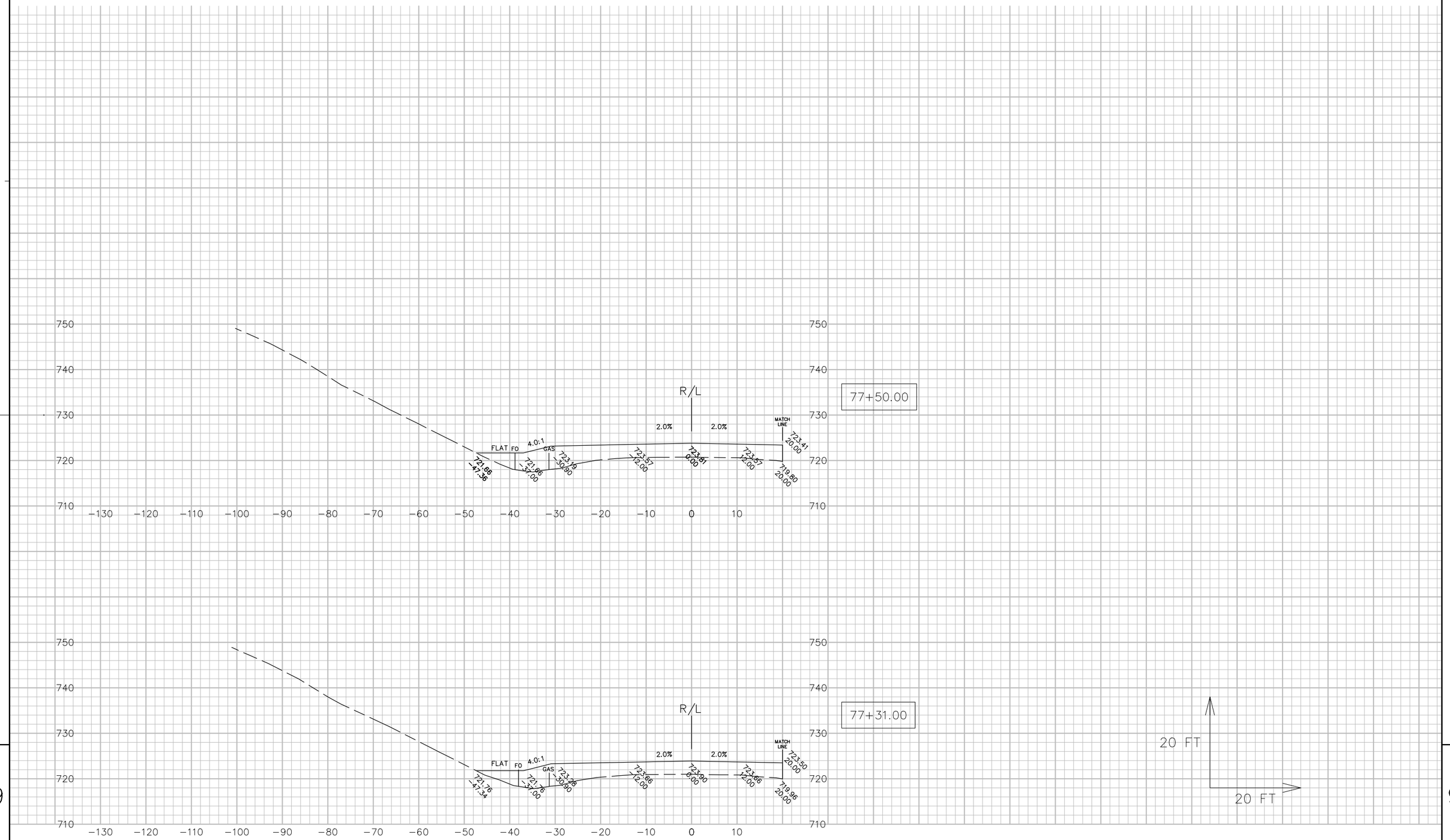
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 299	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:28 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



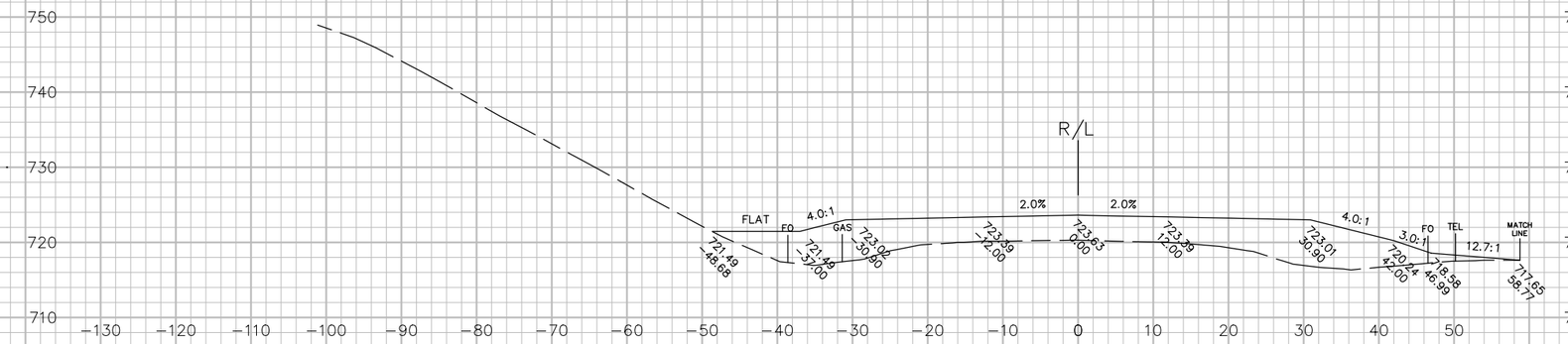
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 300	E



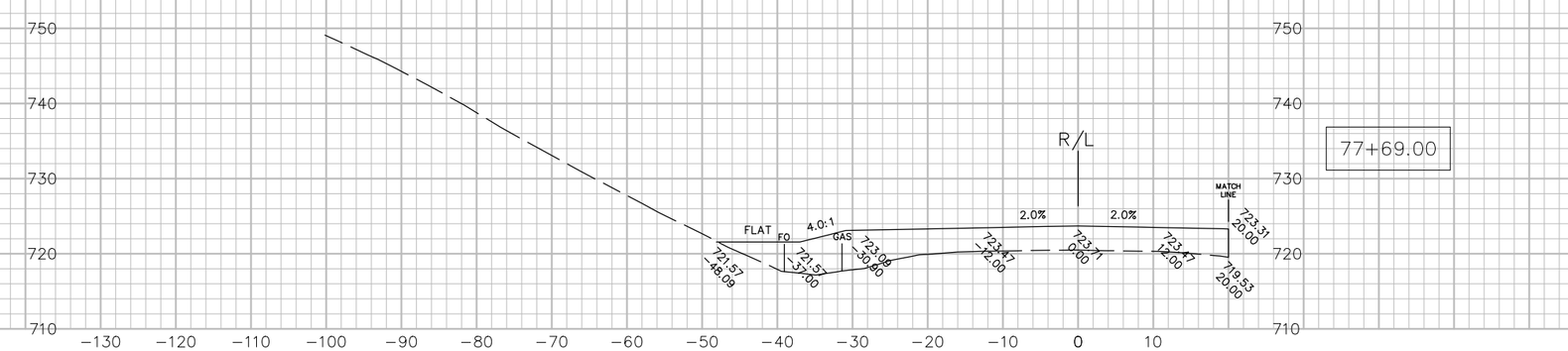
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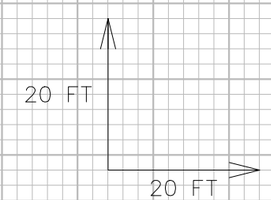
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 301	E



77+84.17



77+69.00

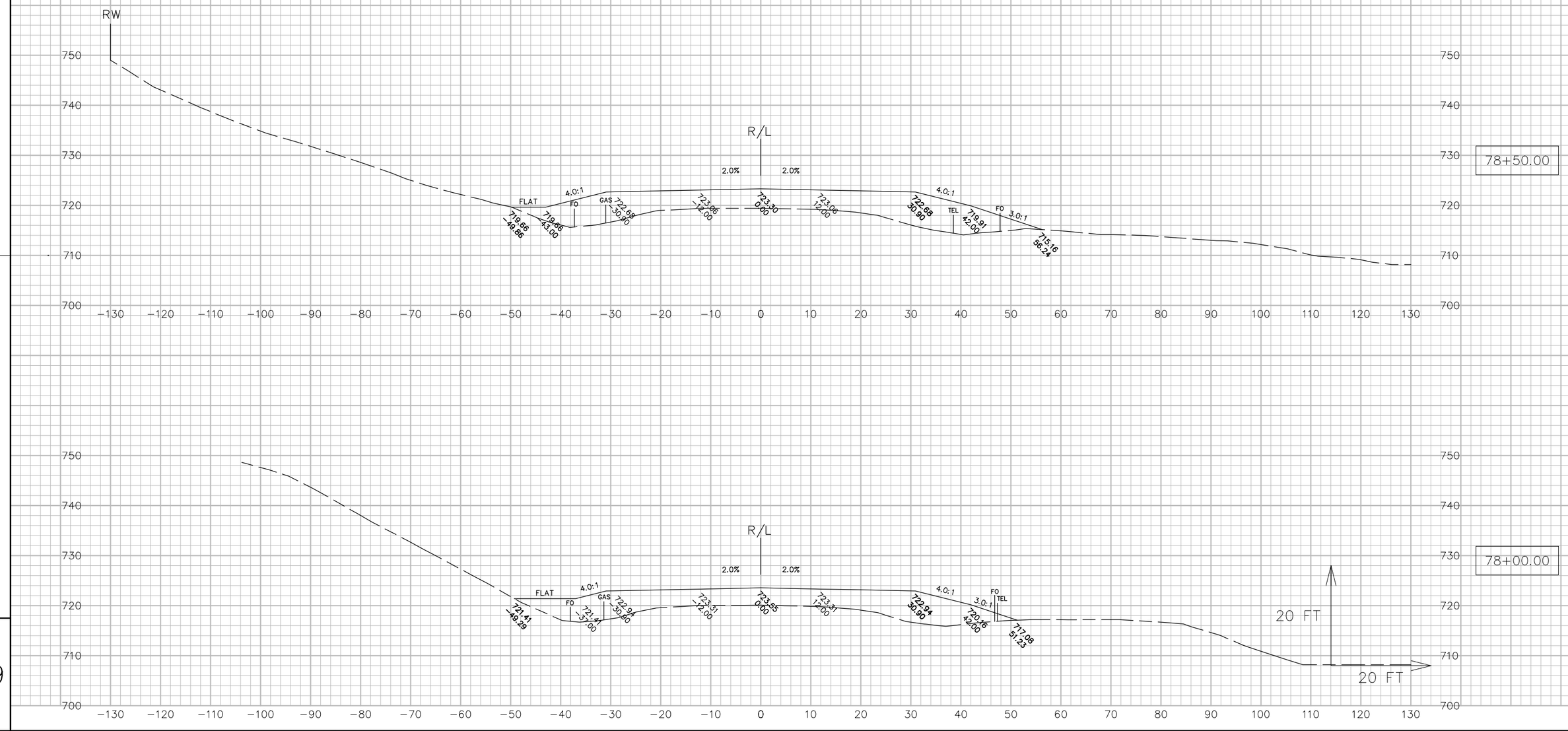


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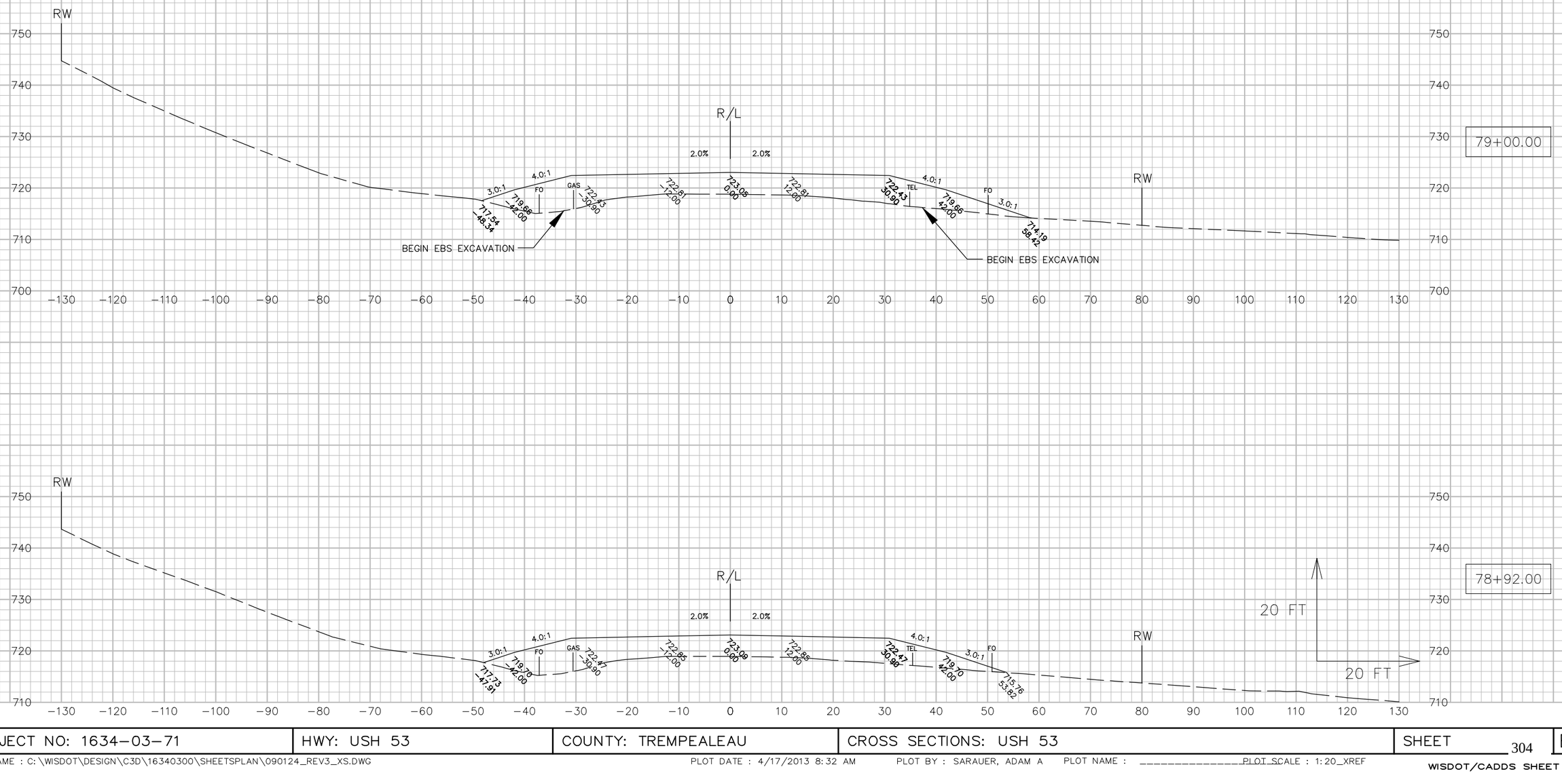
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 302	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:30 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



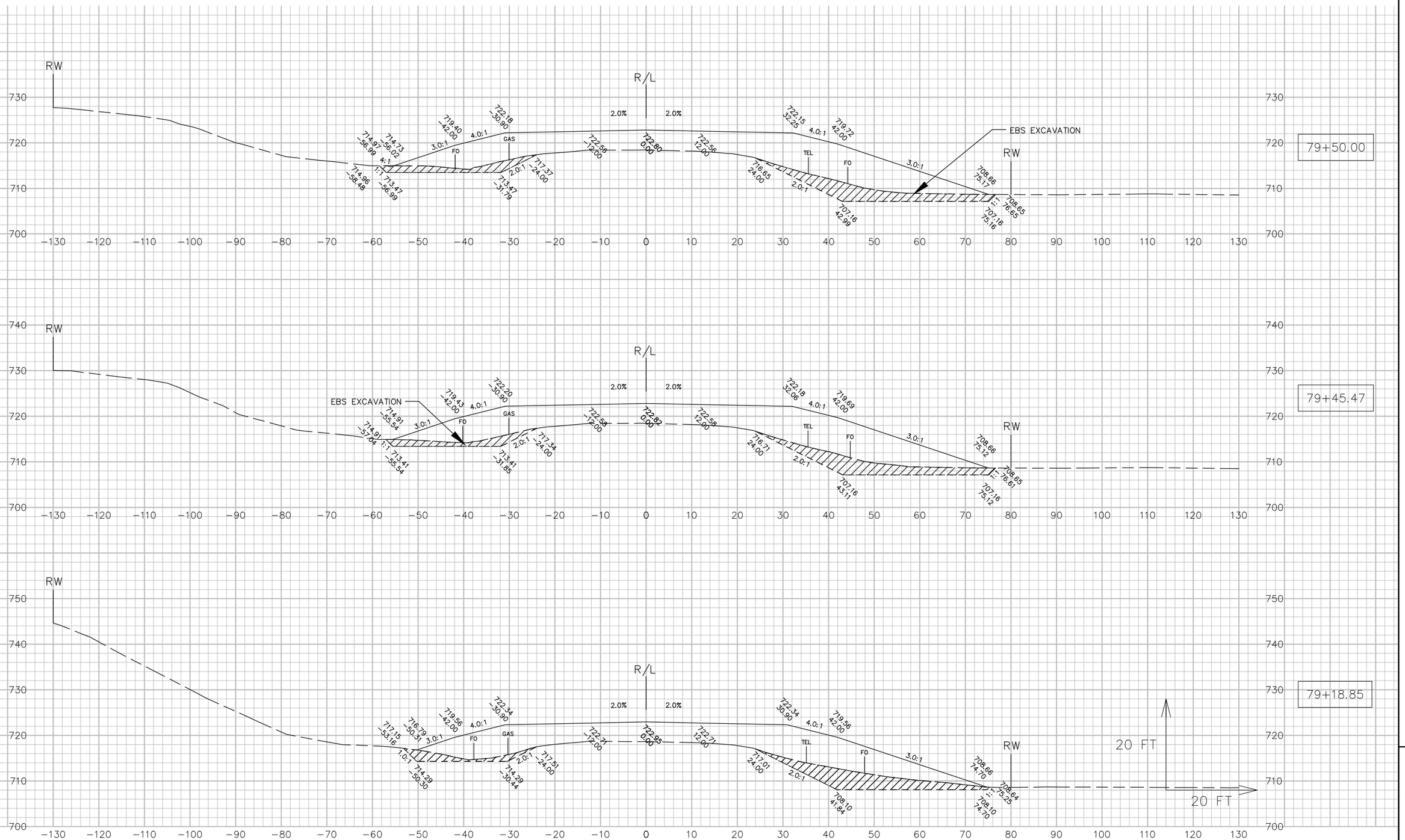
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 303	E



9

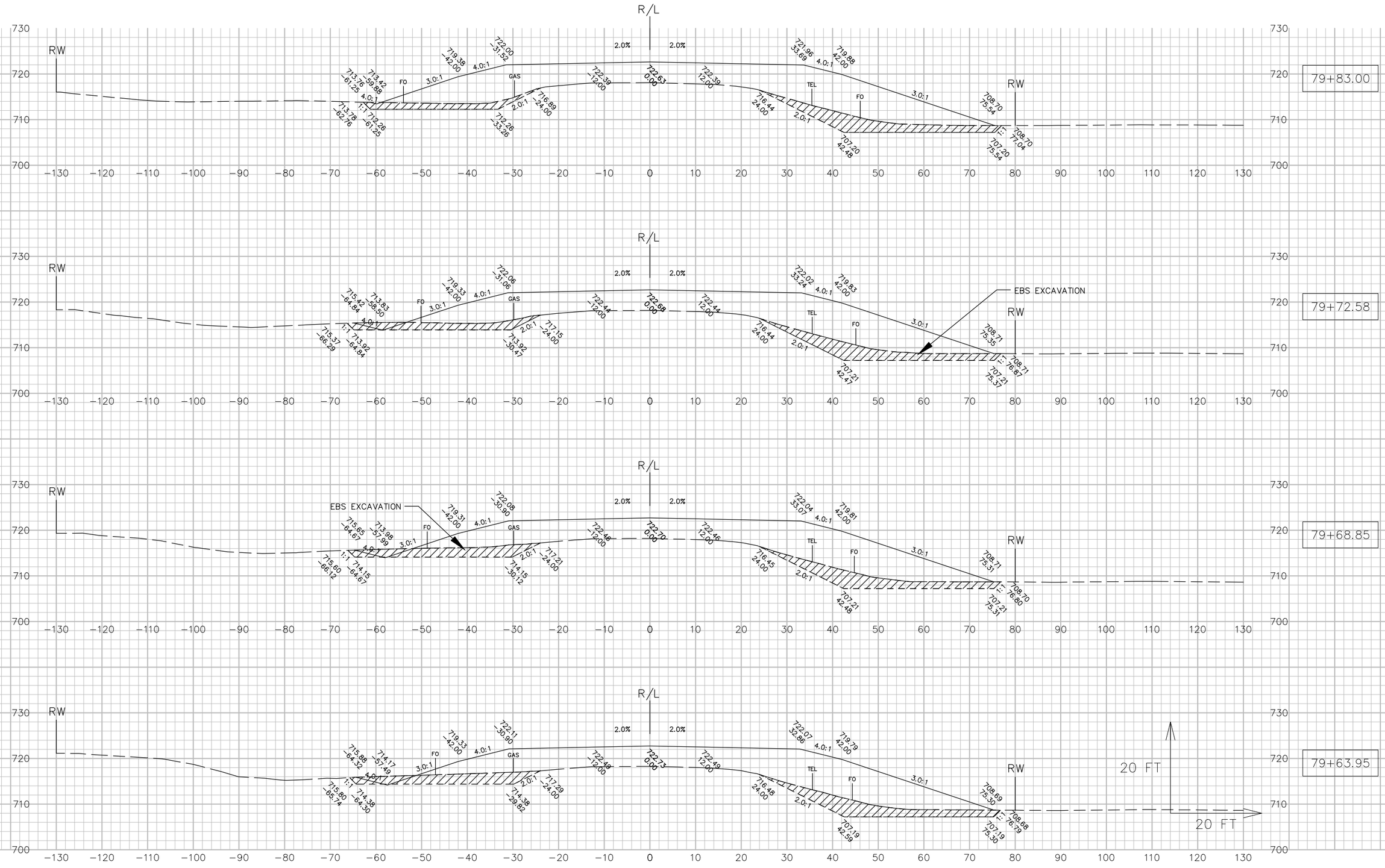
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 304	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:32 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____ PLOT SCALE : 1:20 XREF



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 305	E

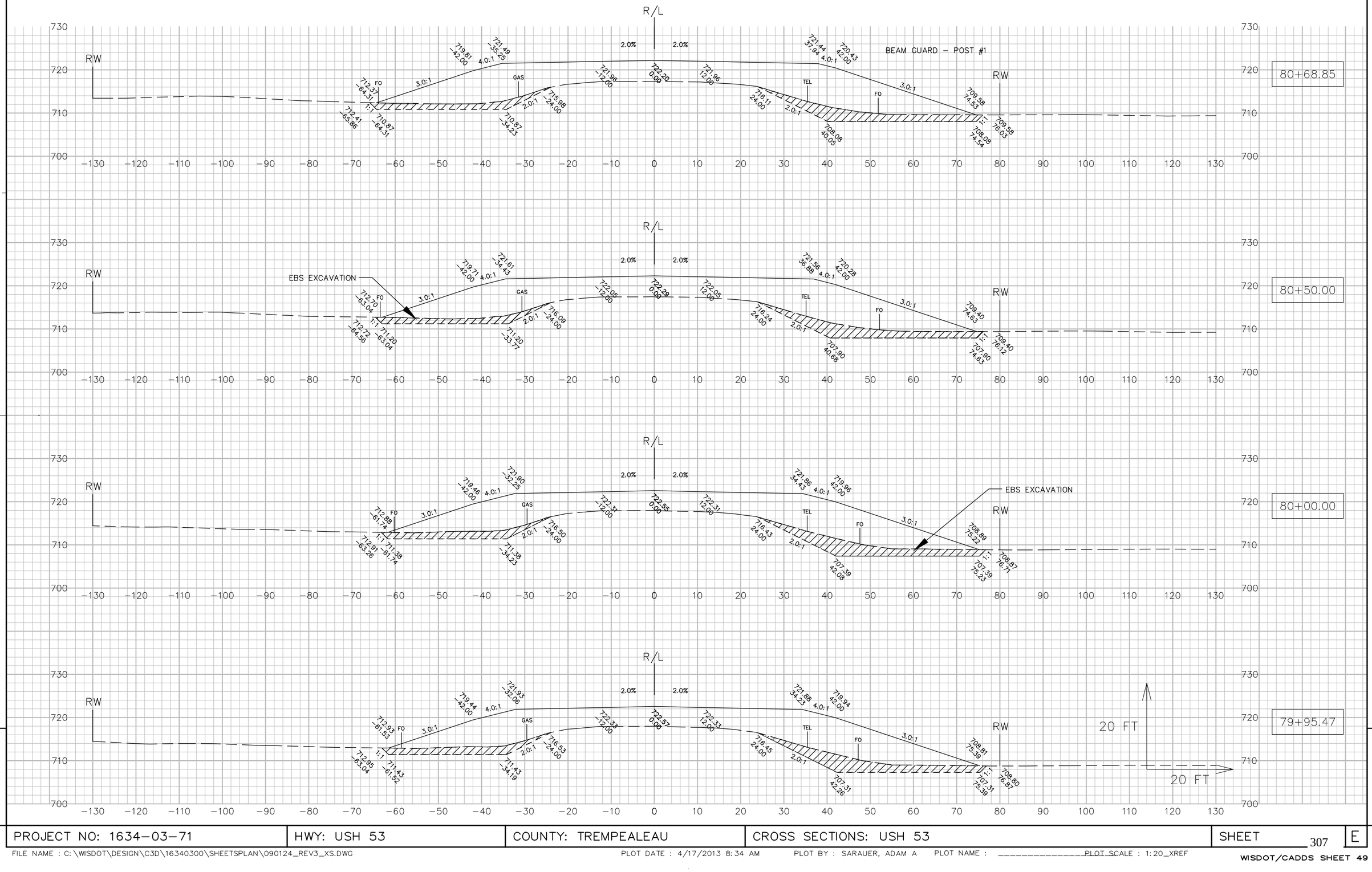
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:33 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 306	E

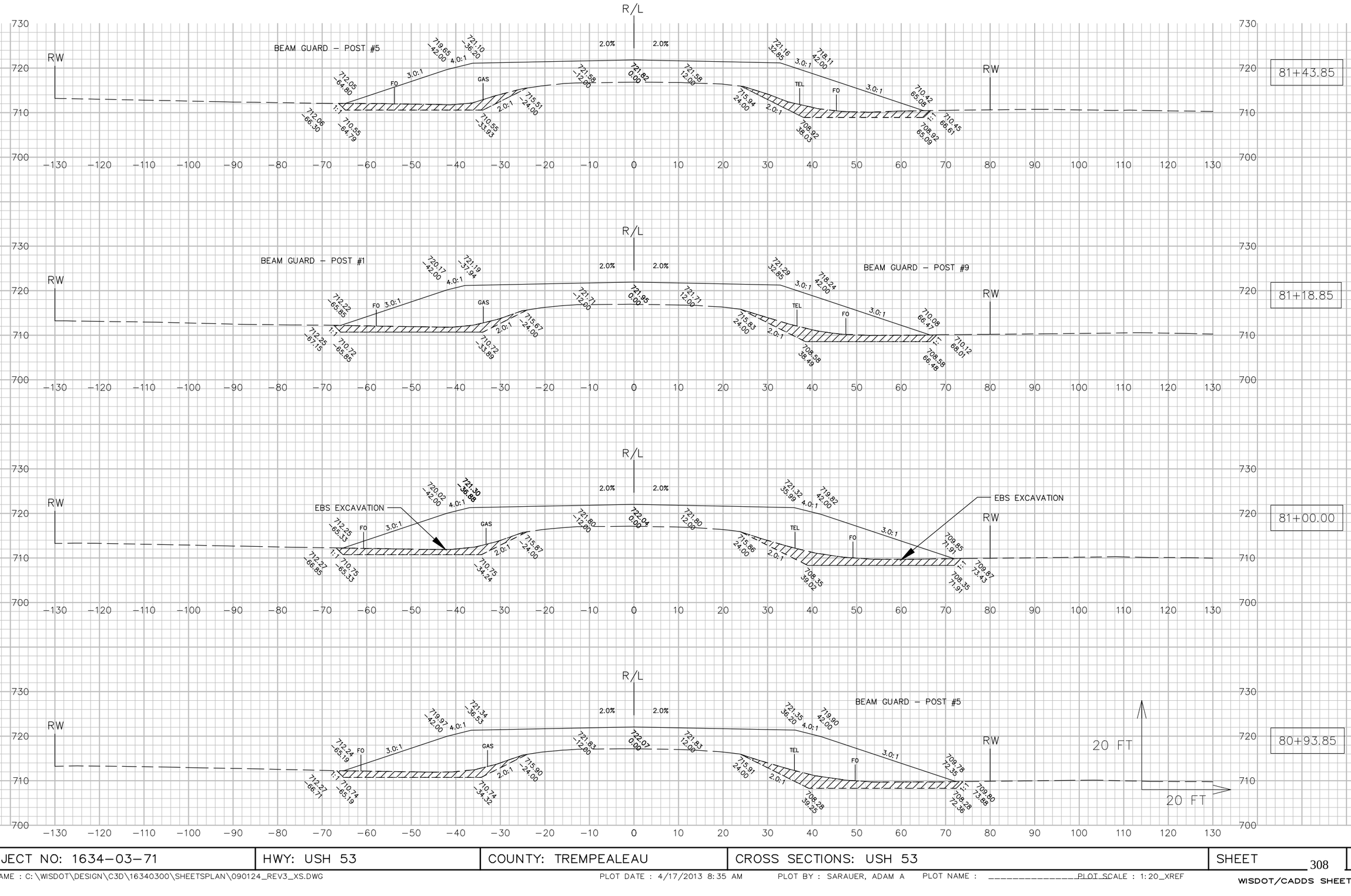
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:33 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

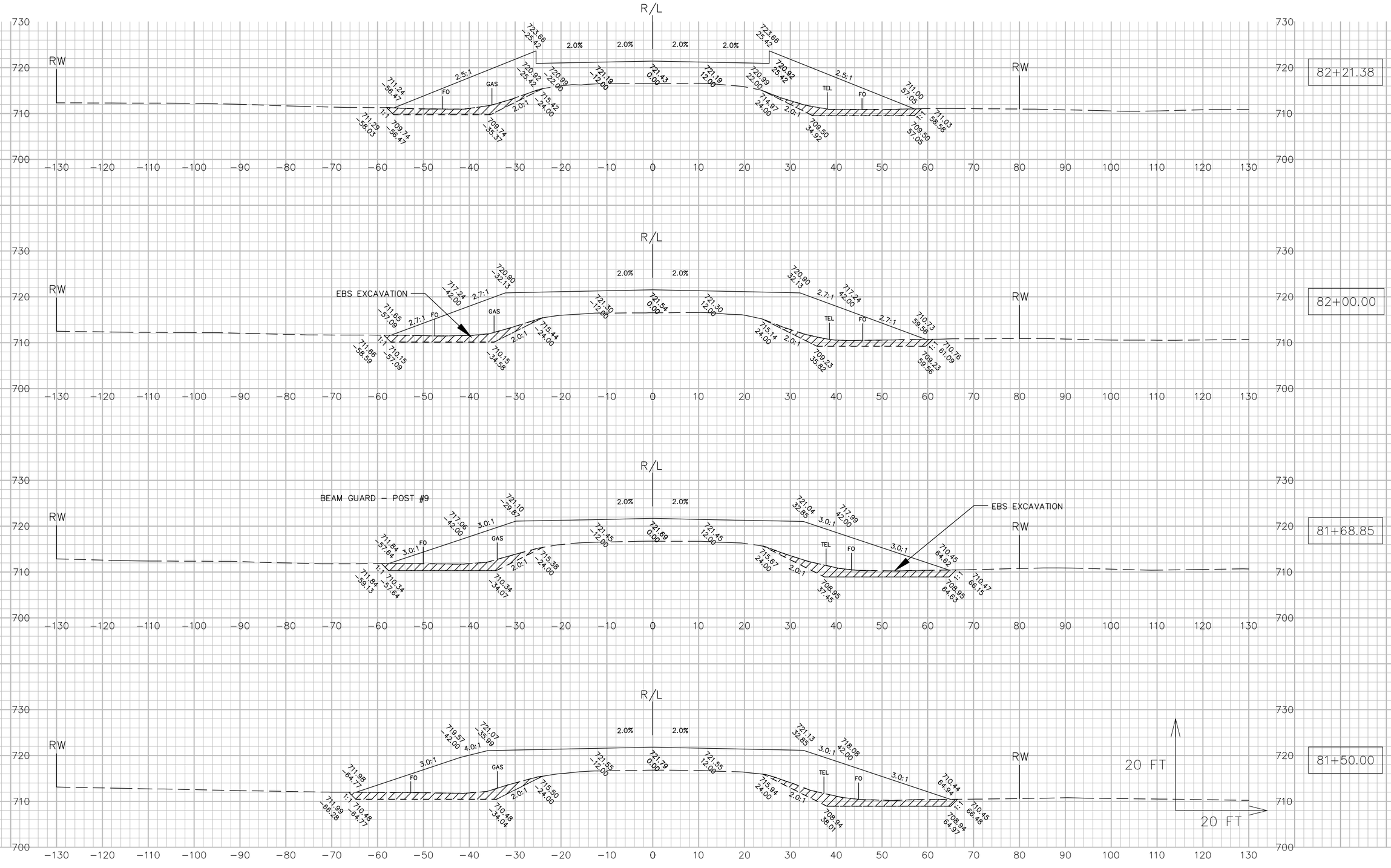


PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 307	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:34 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

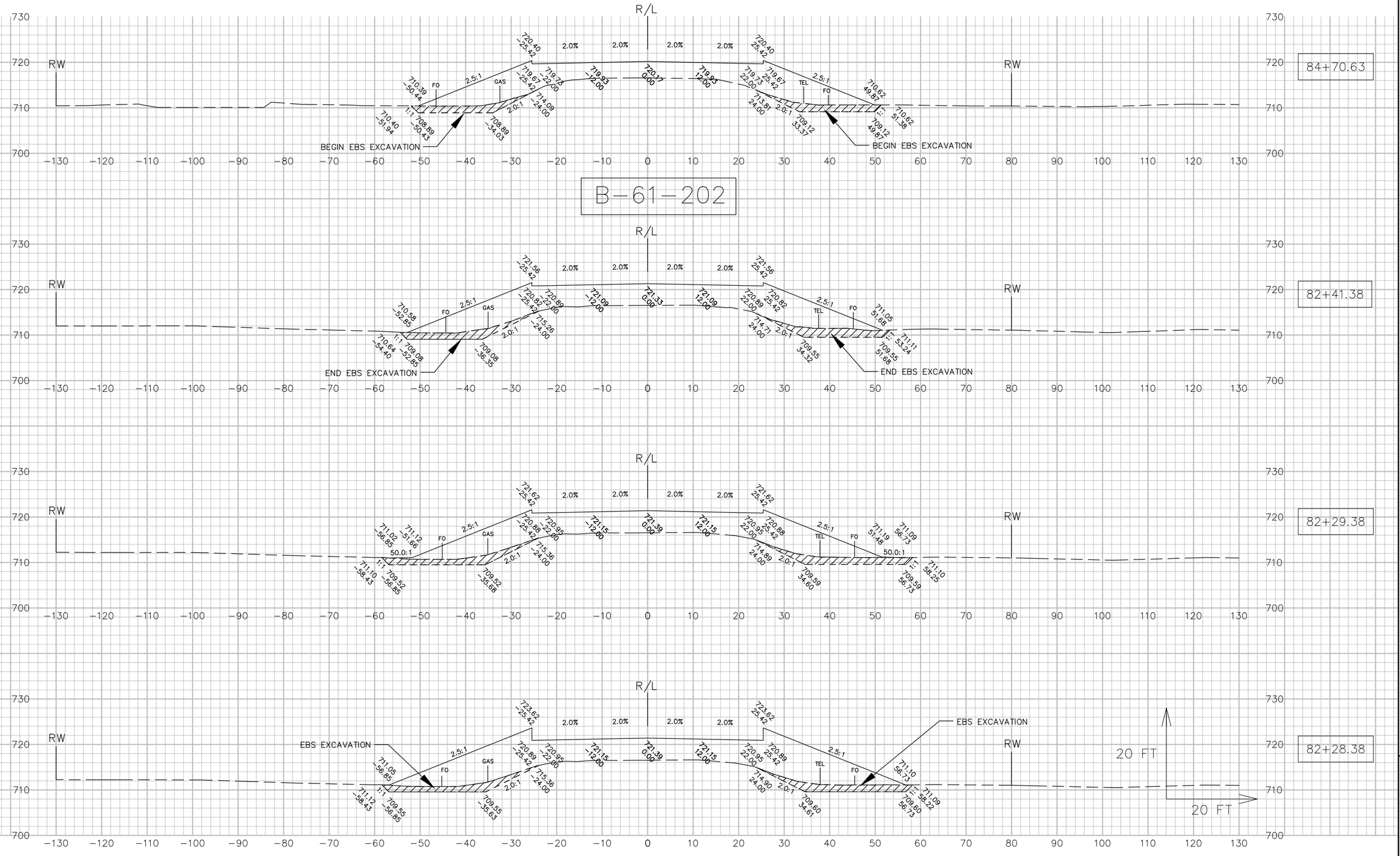


PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 308	E

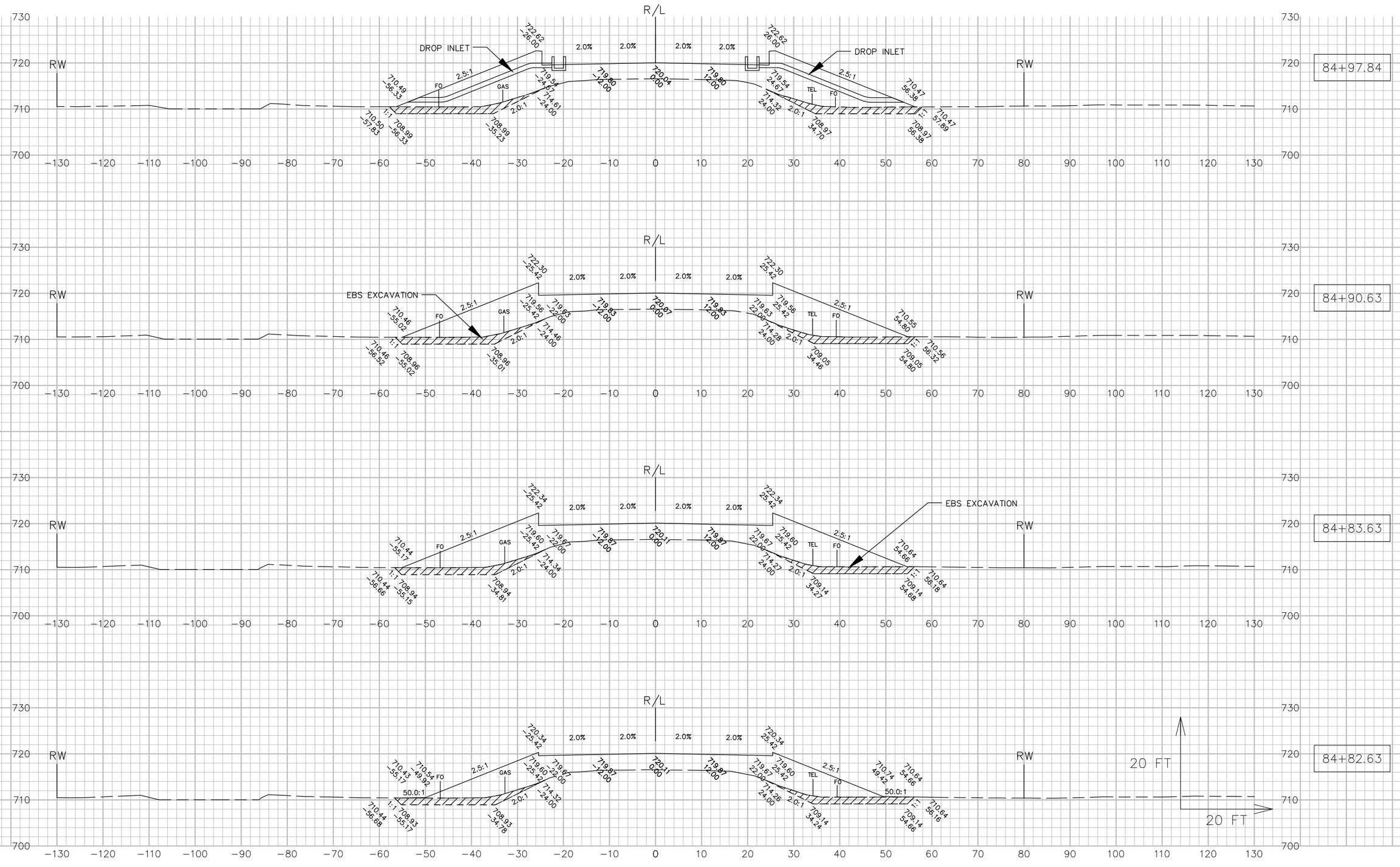


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 309	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:36 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

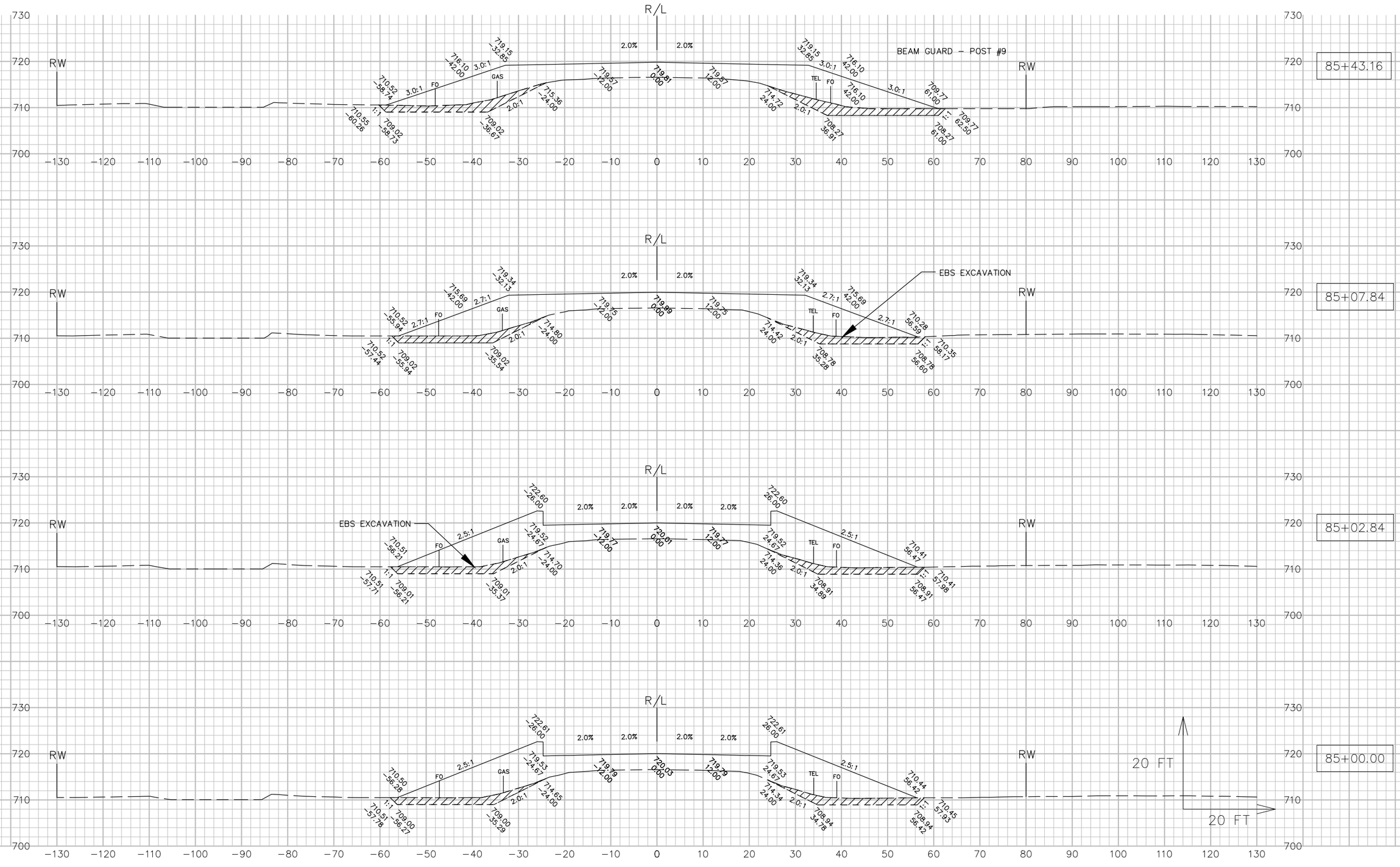


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 310	E



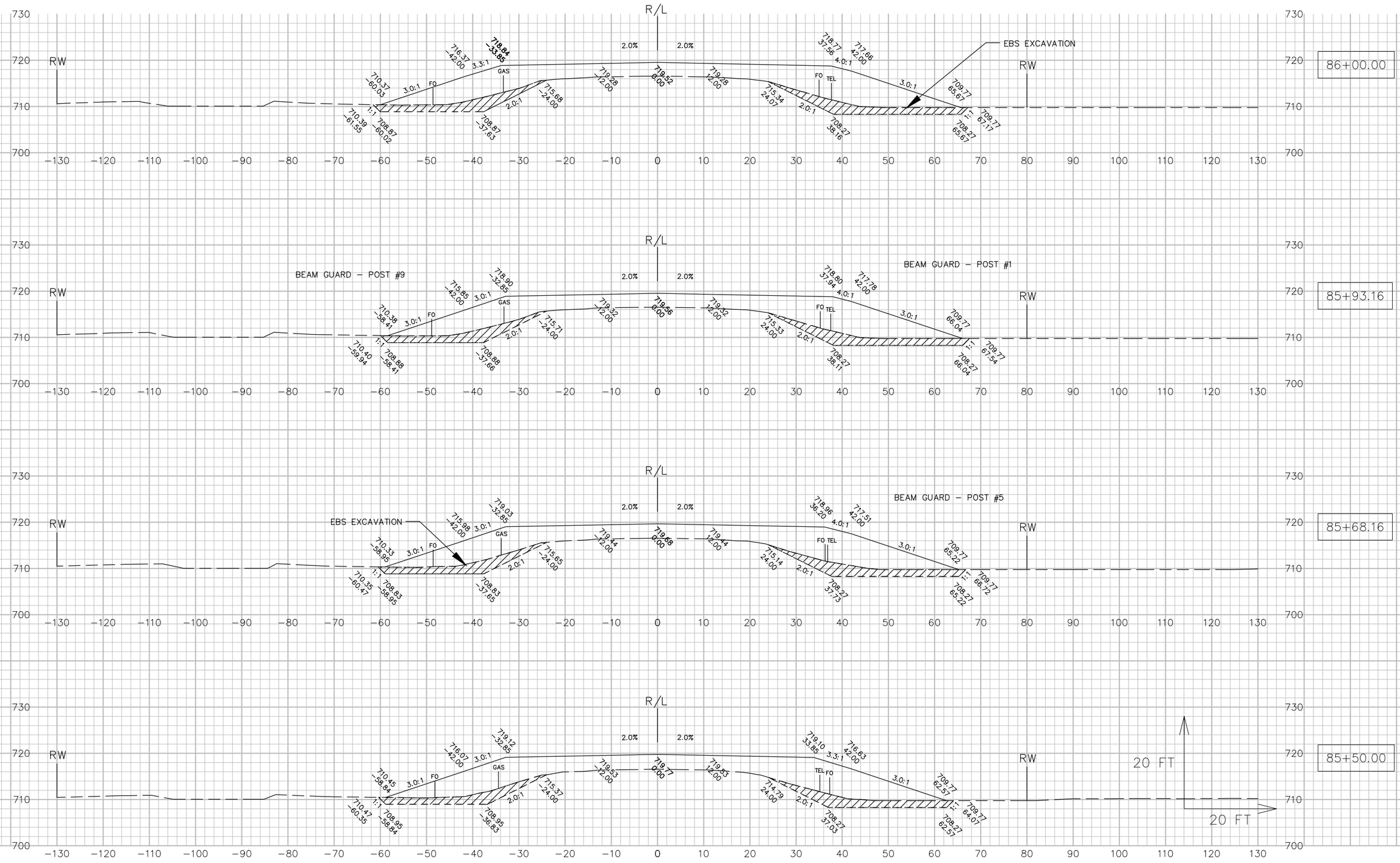
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 311	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/19/2013 8:43 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 312	E

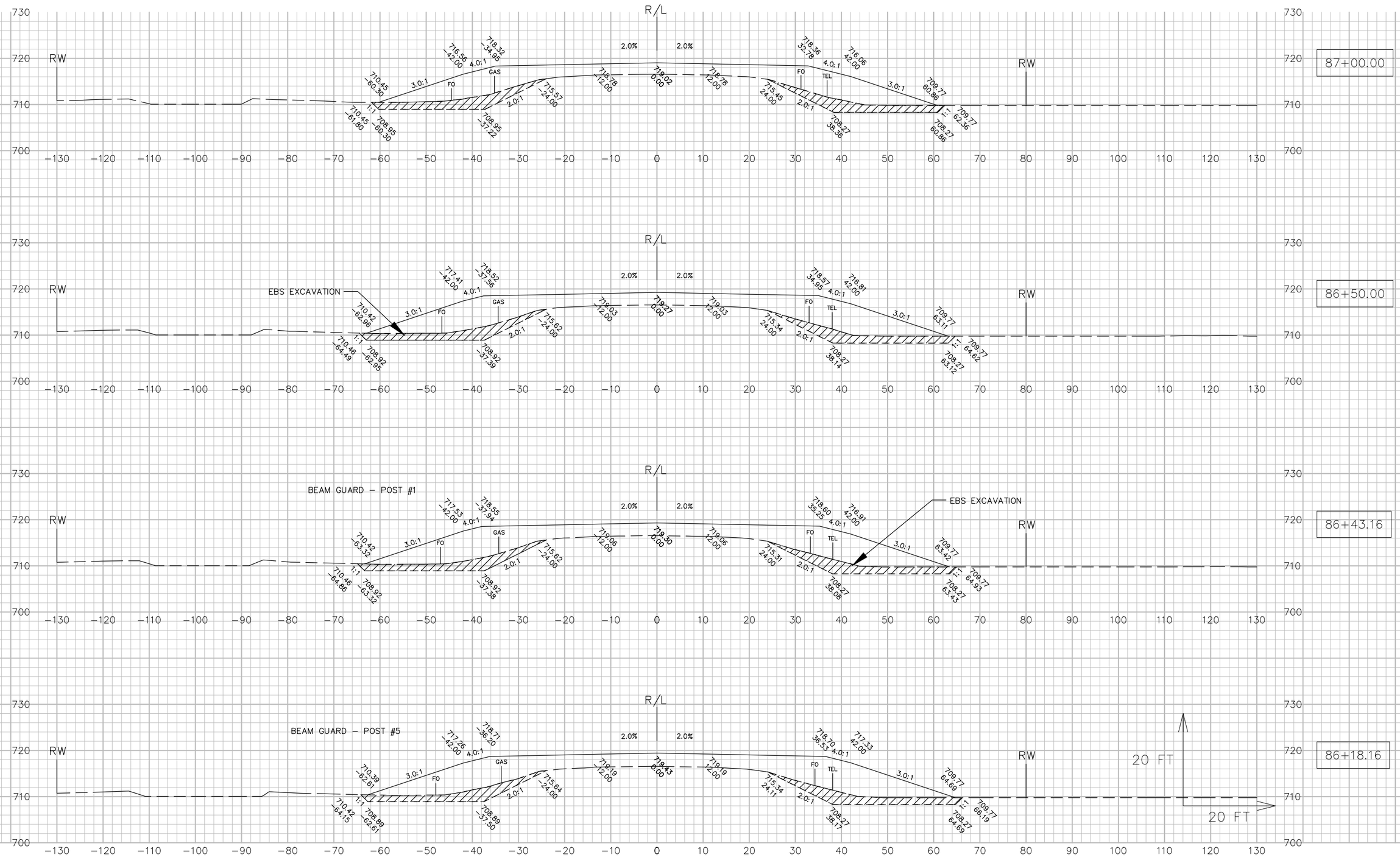
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:47 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 313 E

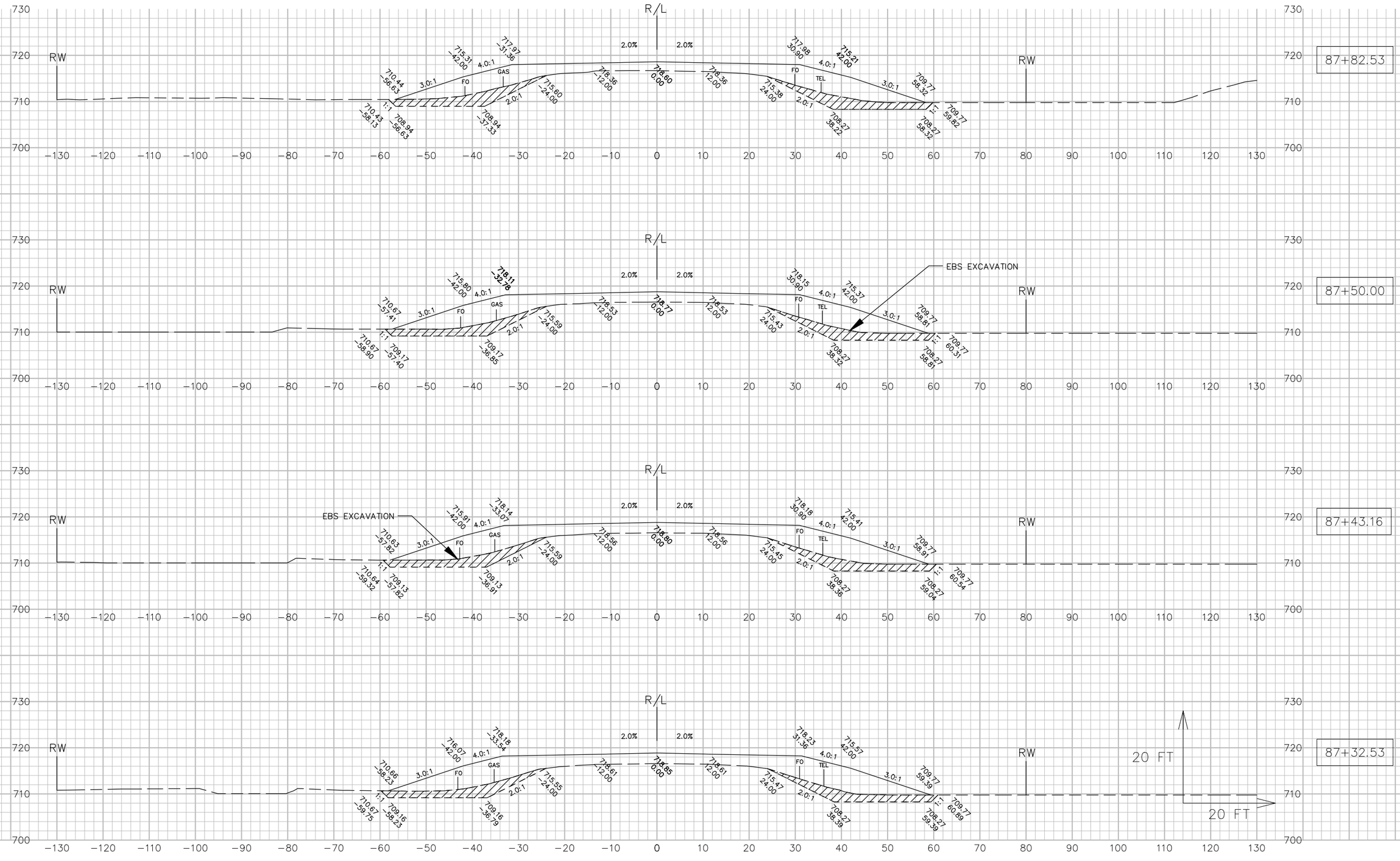
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:48 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 314	E

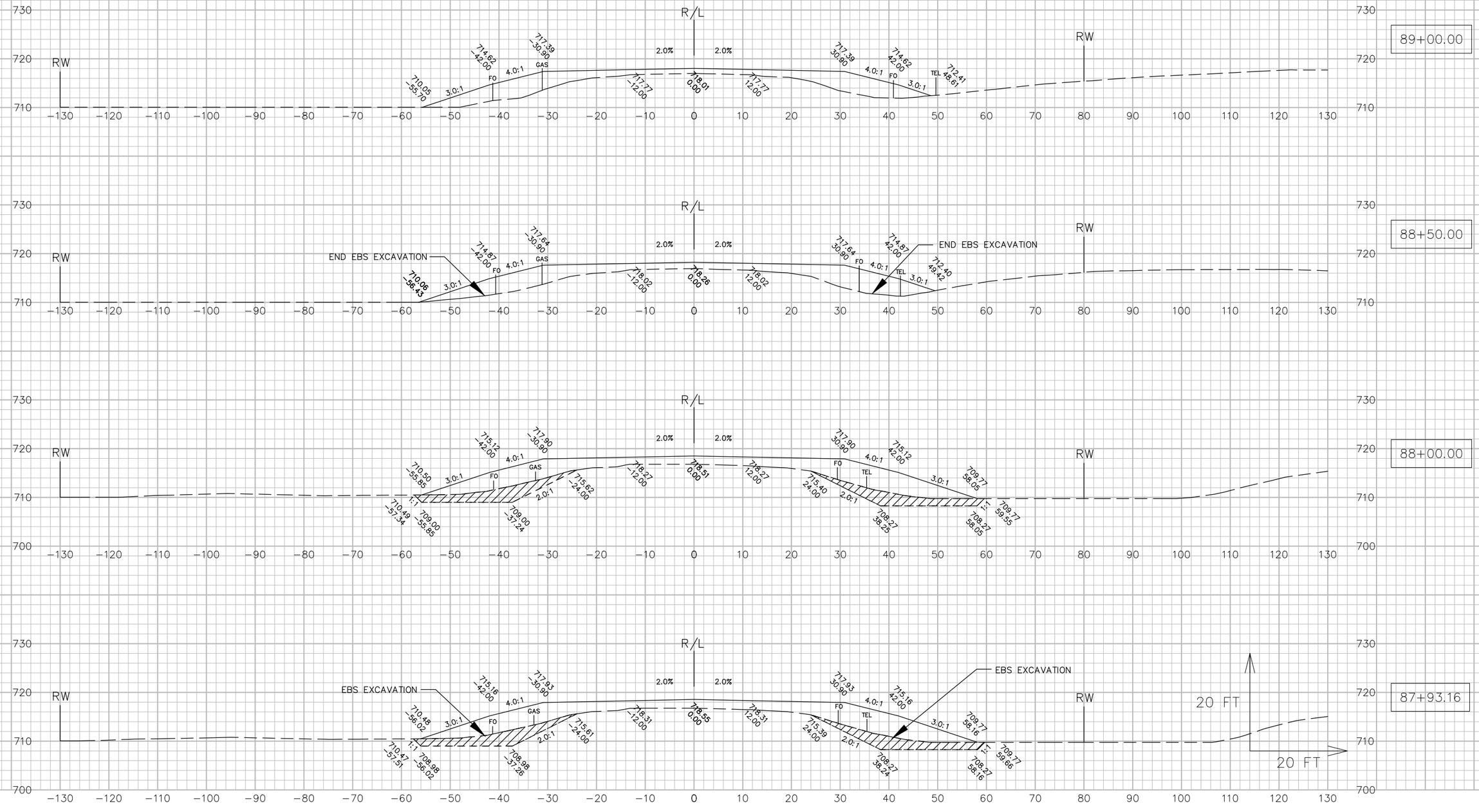
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:49 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



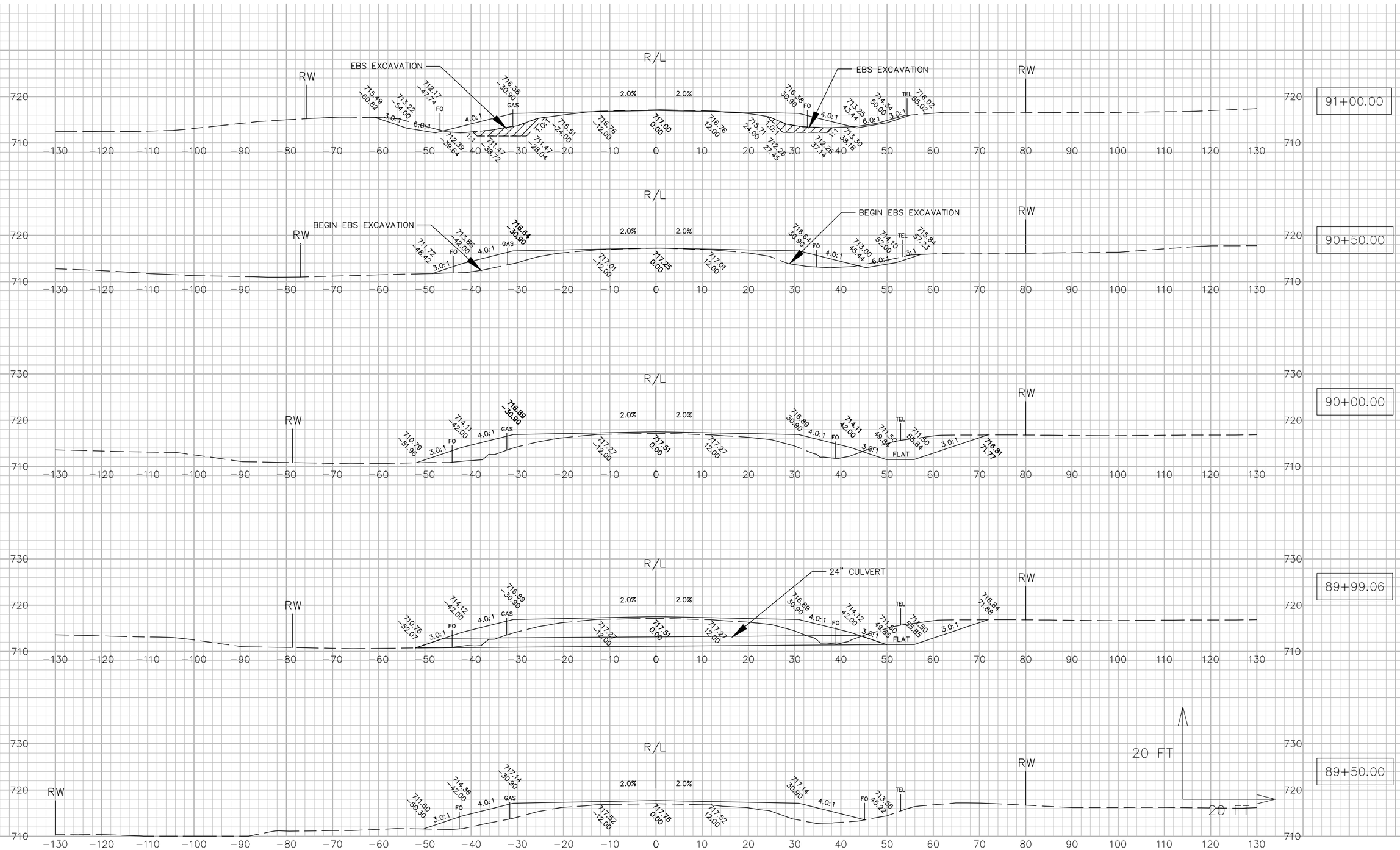
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 315	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:50 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

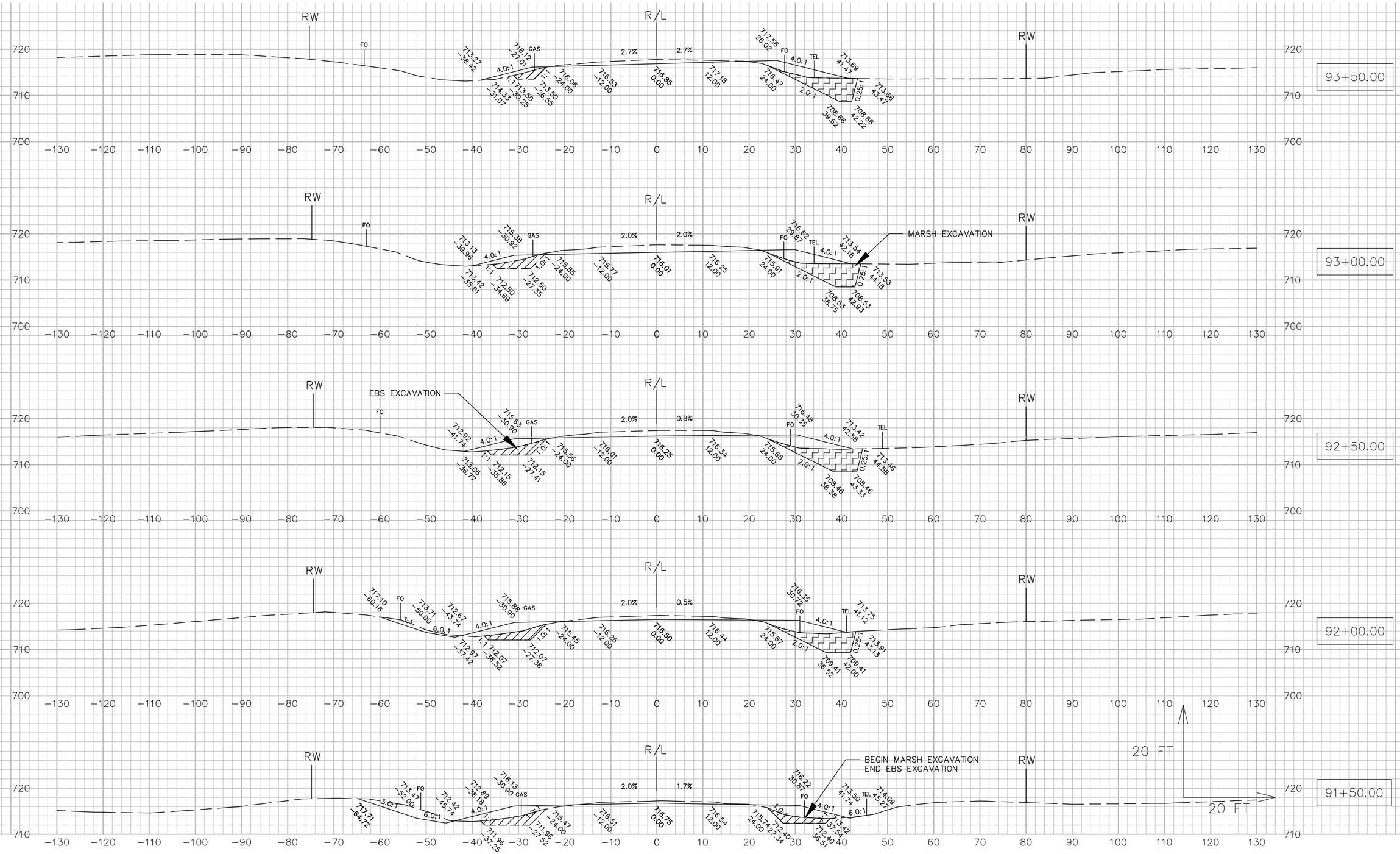
WISDOT/CADDS SHEET 49



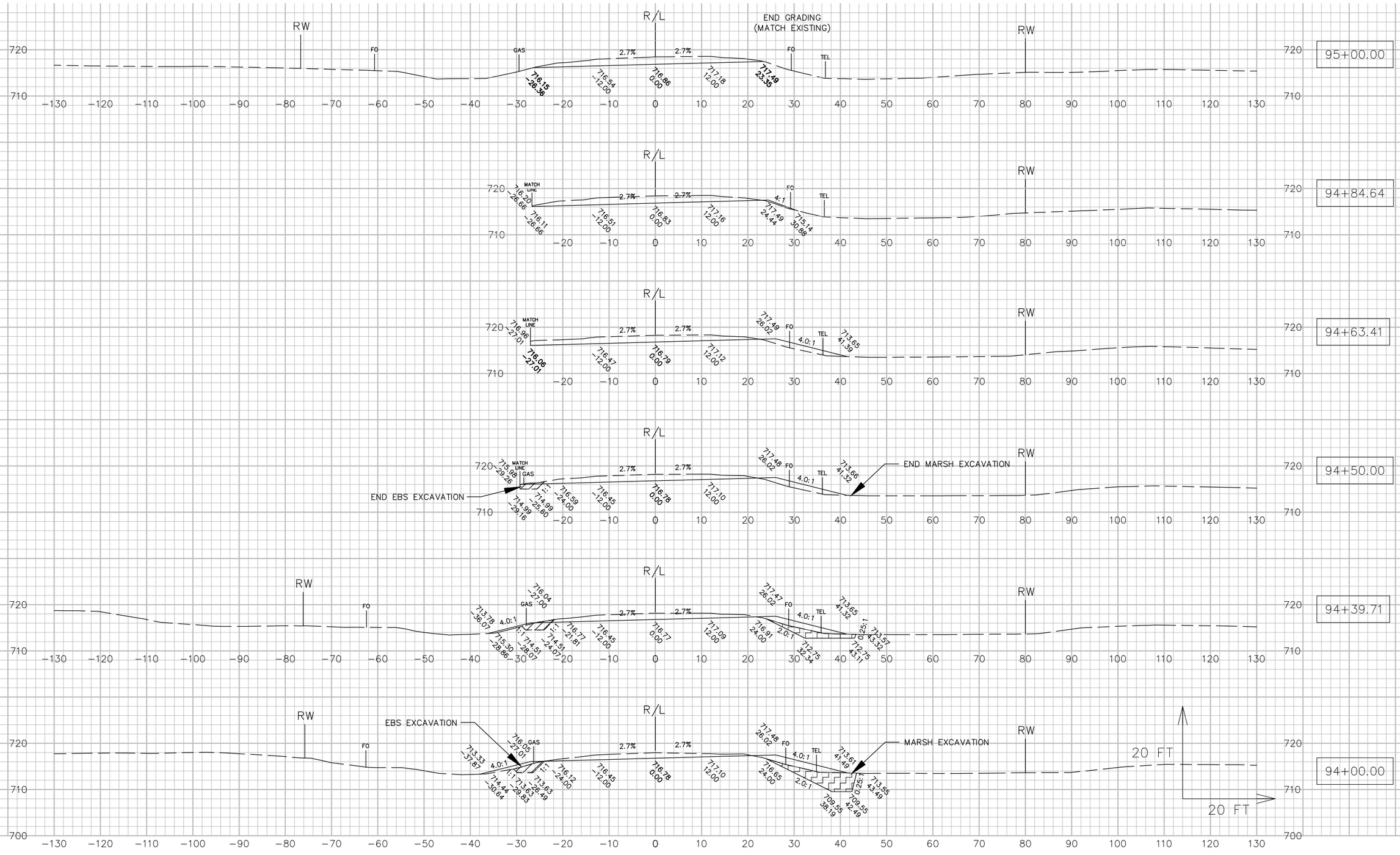
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 316	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 317	E

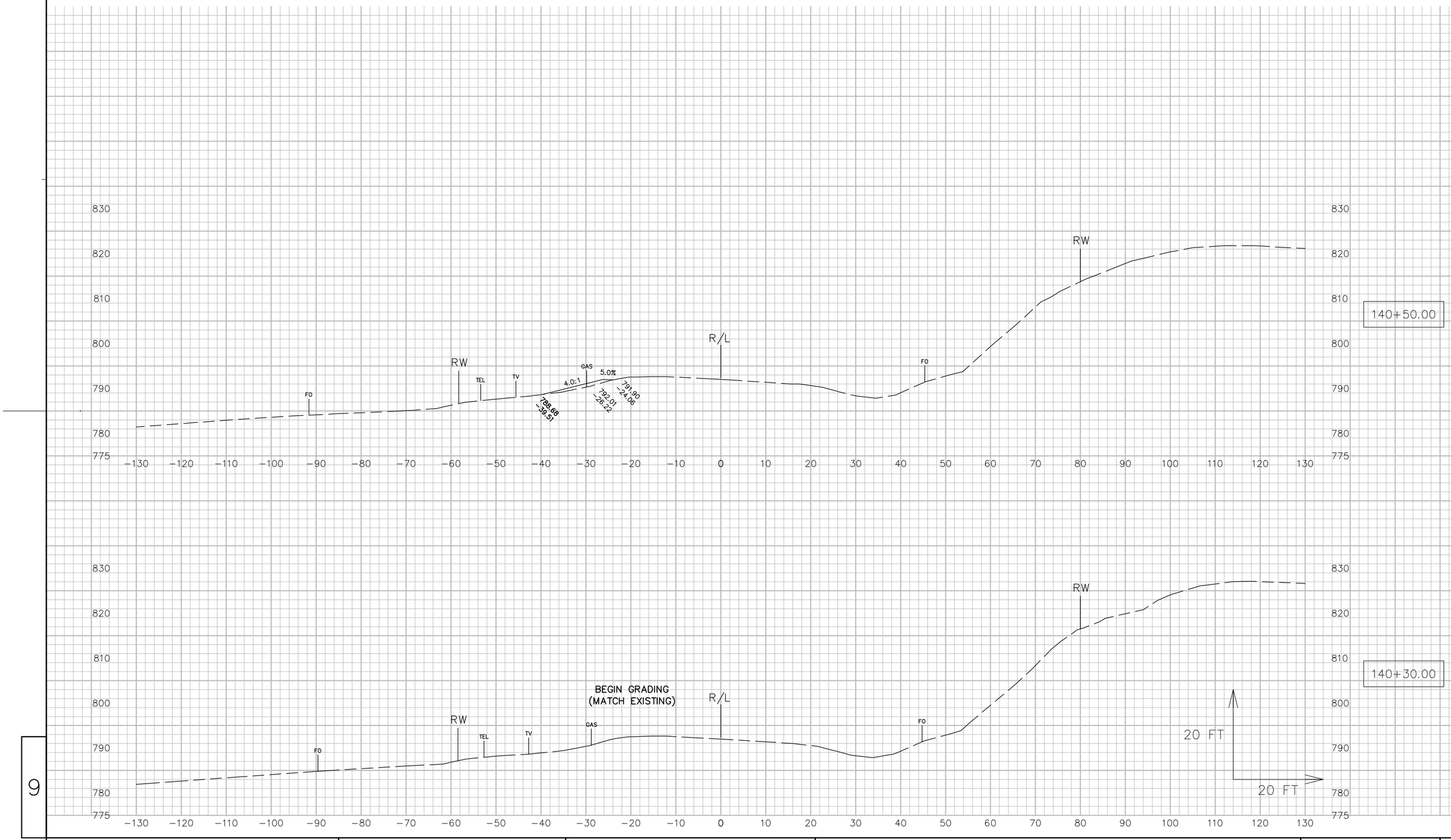


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 318 E



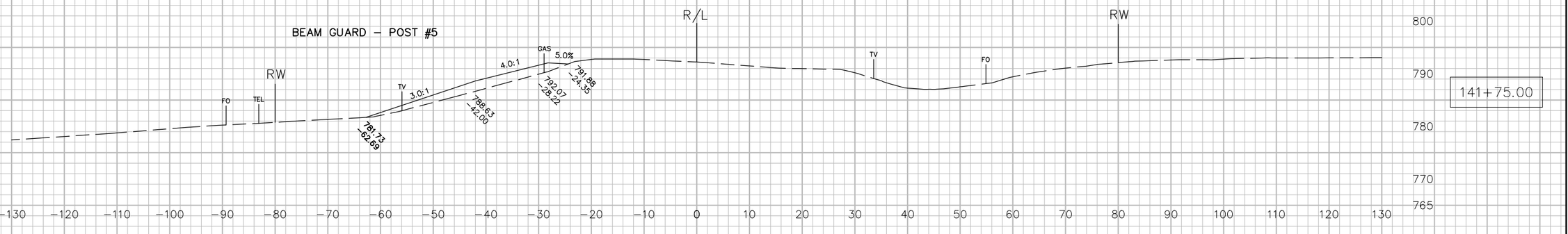
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 319	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090124_REV3_XS.DWG PLOT DATE : 4/17/2013 8:53 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

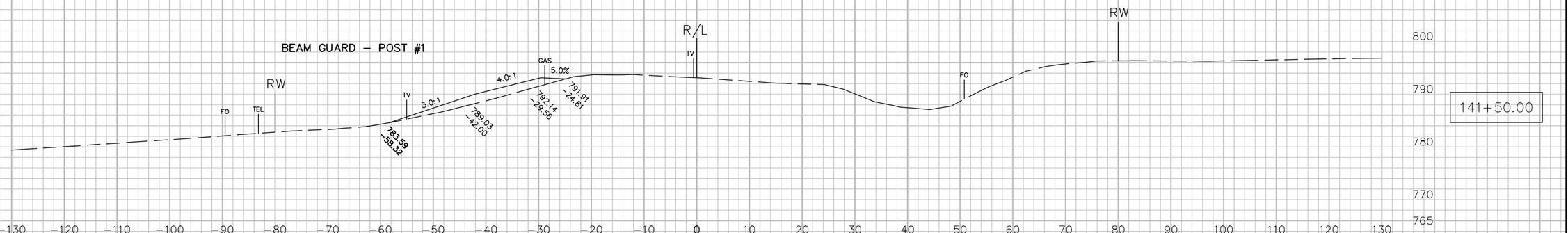


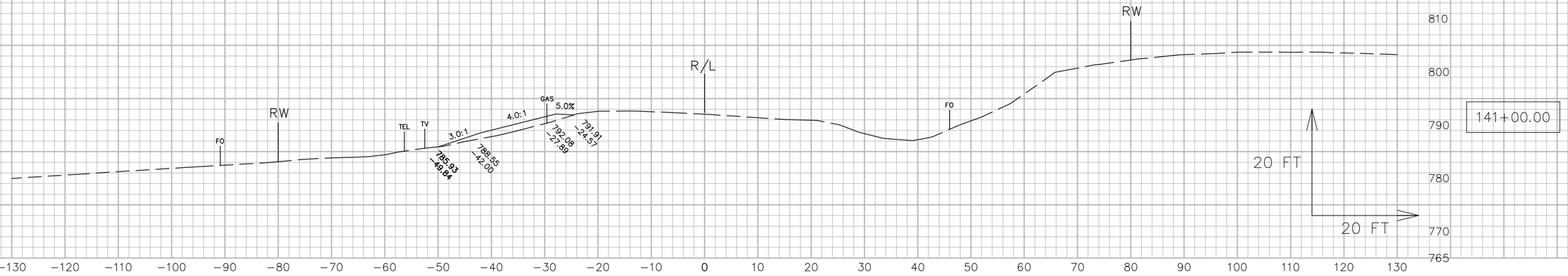
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 320	E

BEAM GUARD – POST #5



BEAM GUARD – POST #1





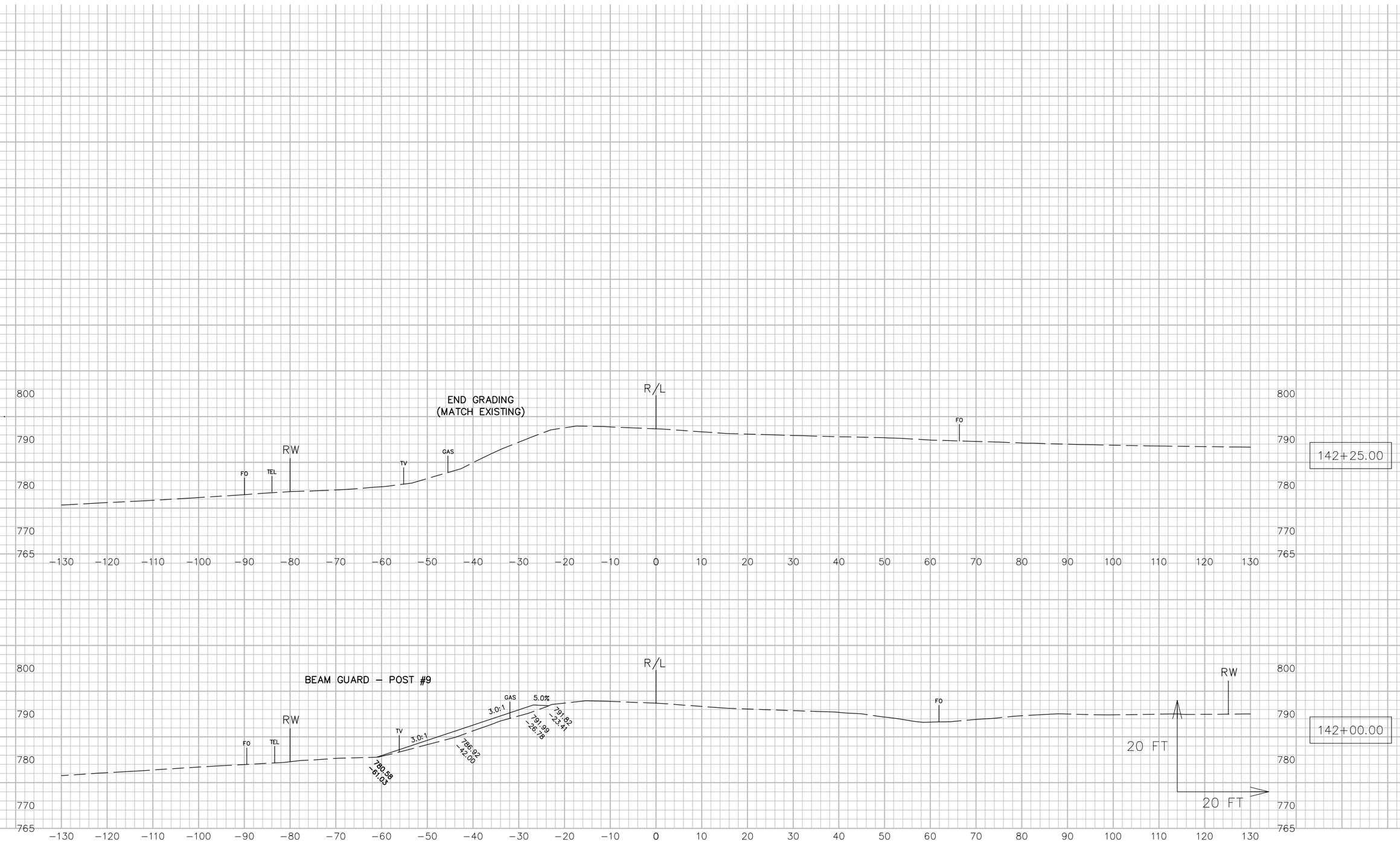
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9

PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 321	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090130_XS.DWG PLOT DATE : 4/4/2012 10:33 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

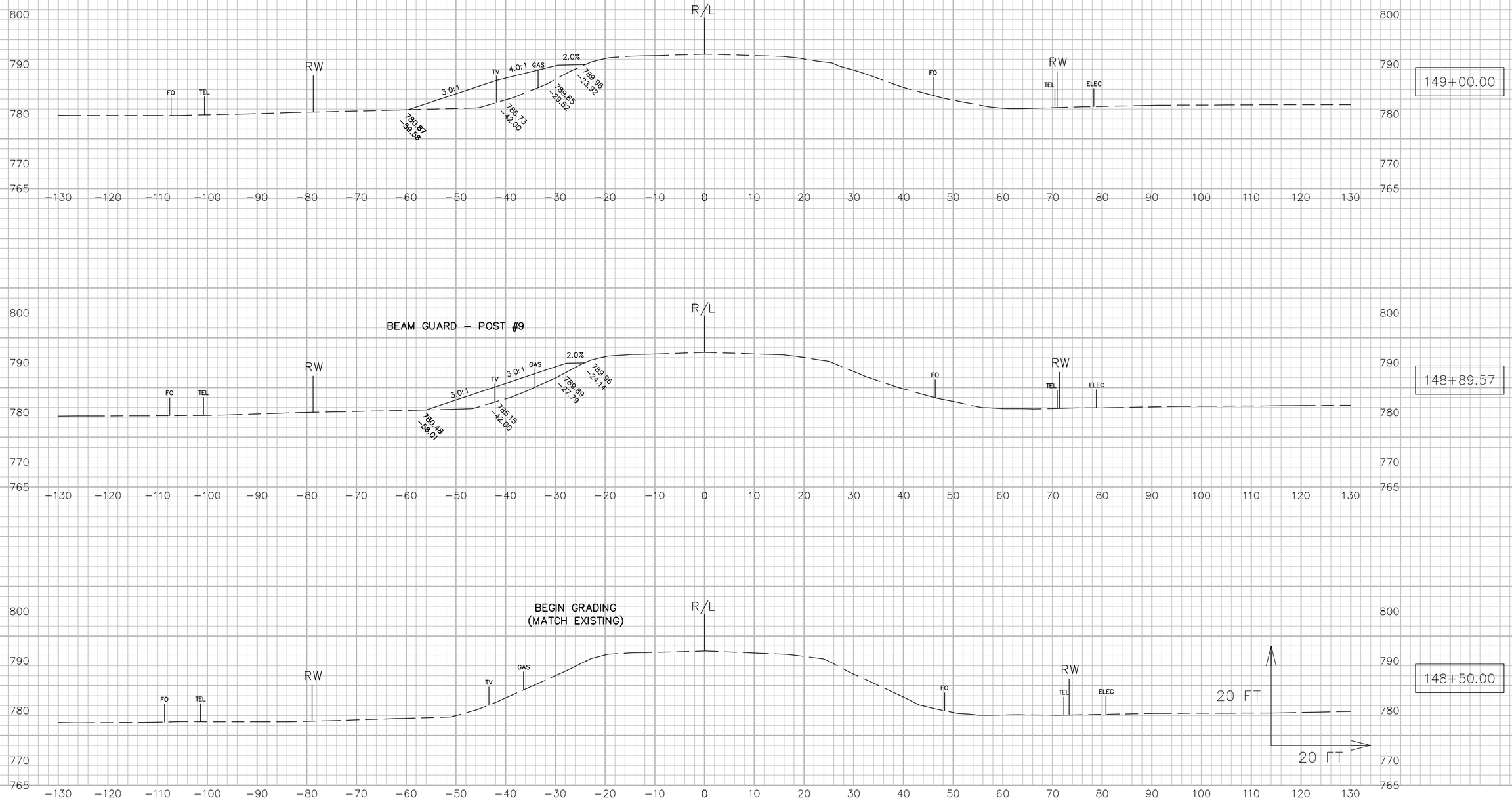
WISDOT/CADDS SHEET 49



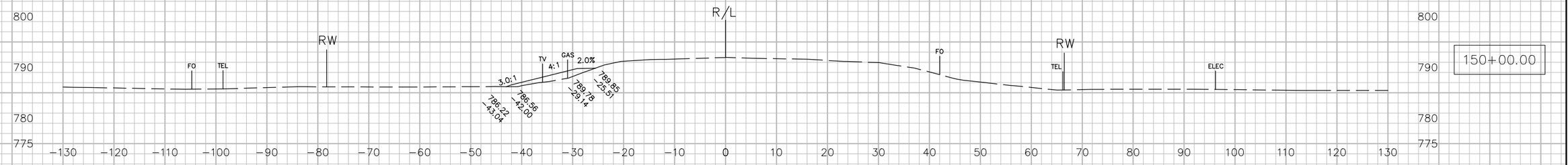
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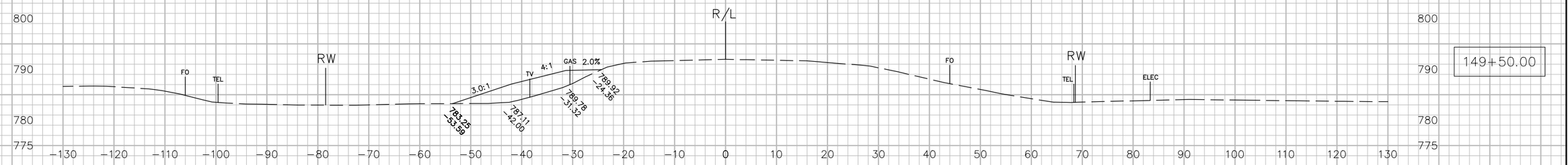
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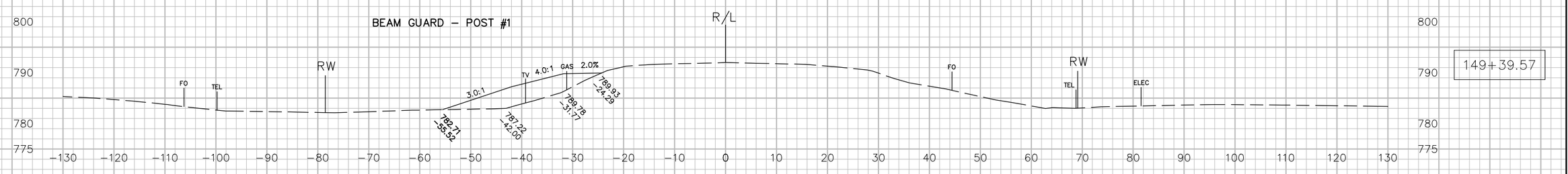
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 322	E



PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 323	E

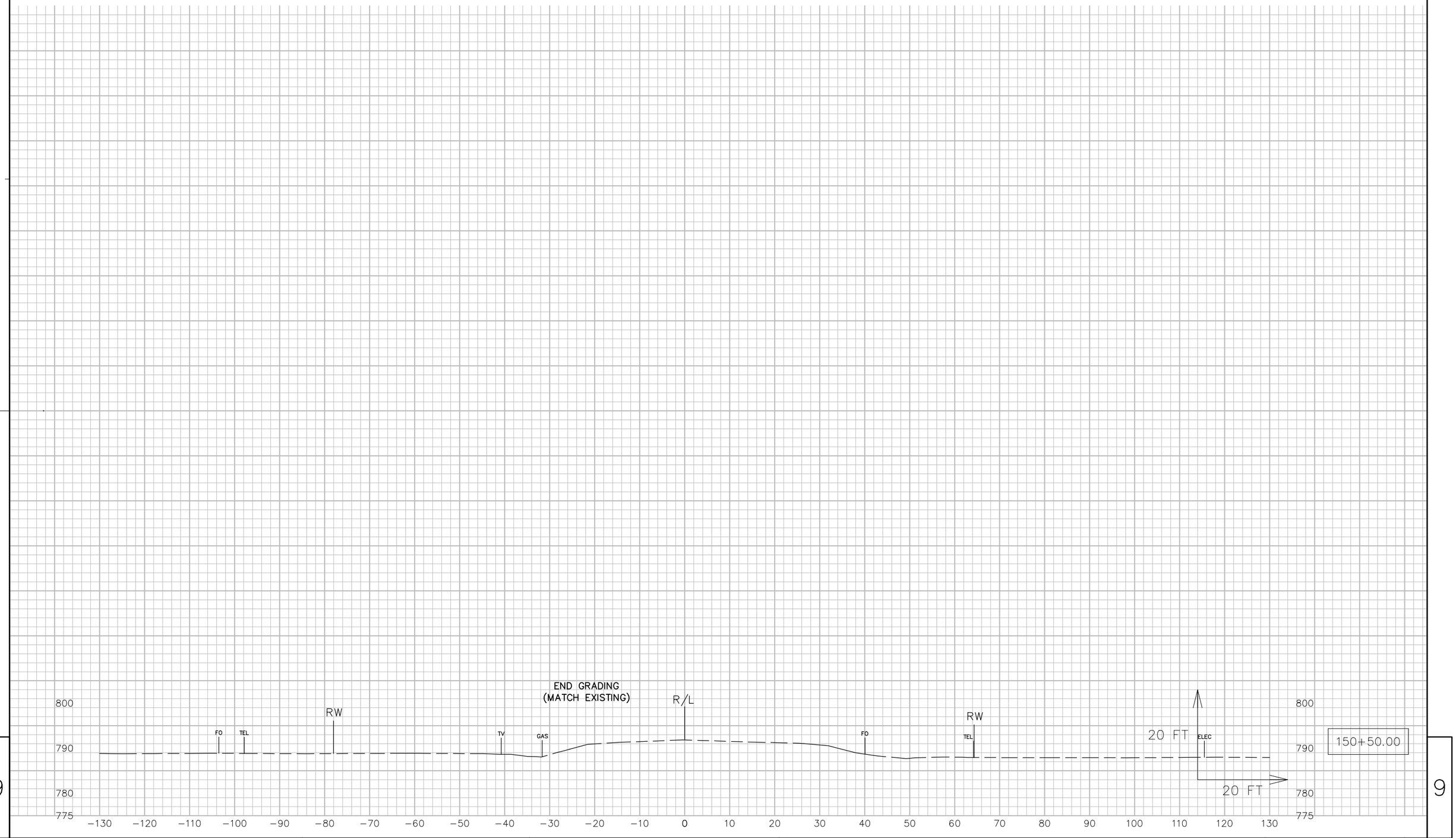






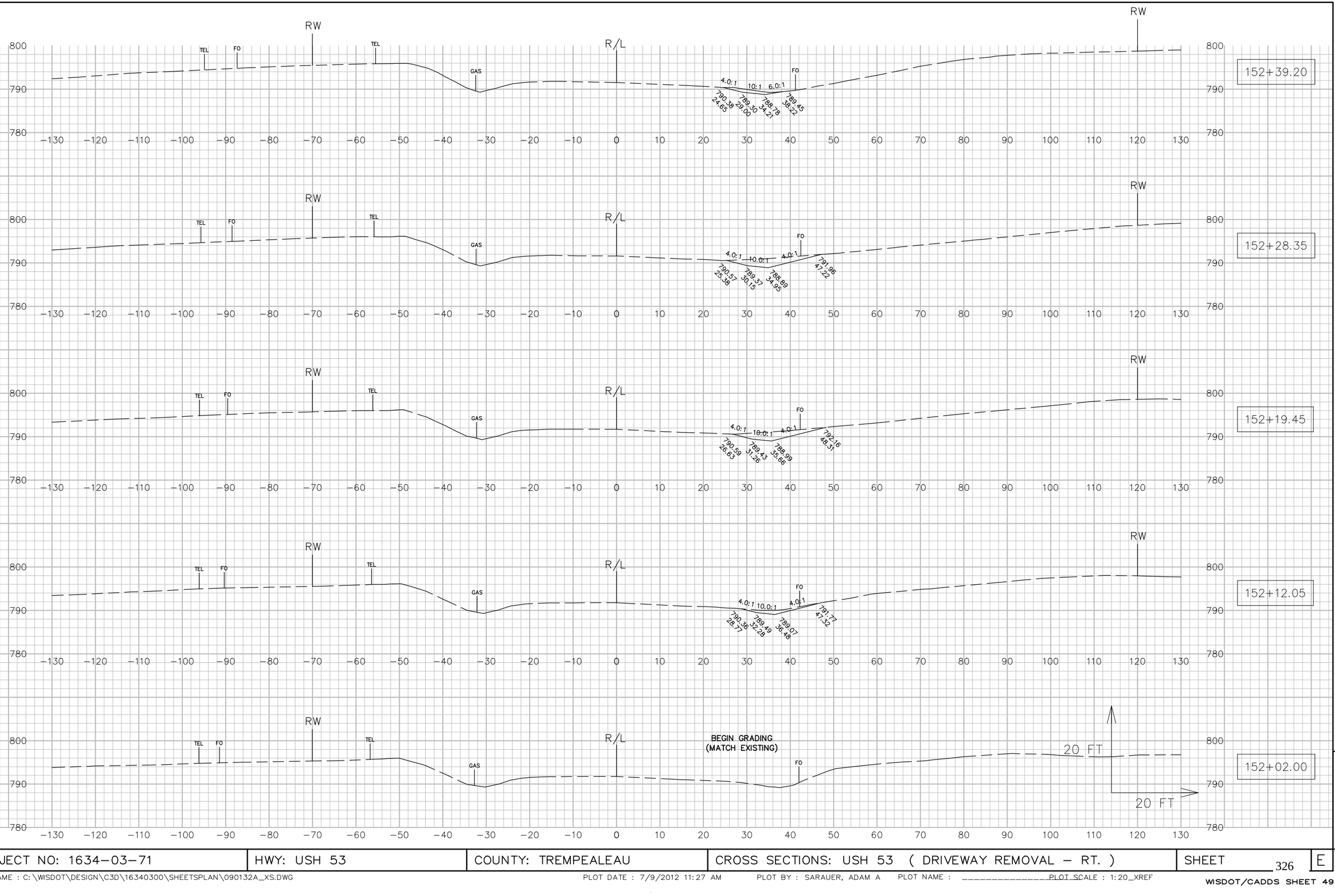


PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 324	E

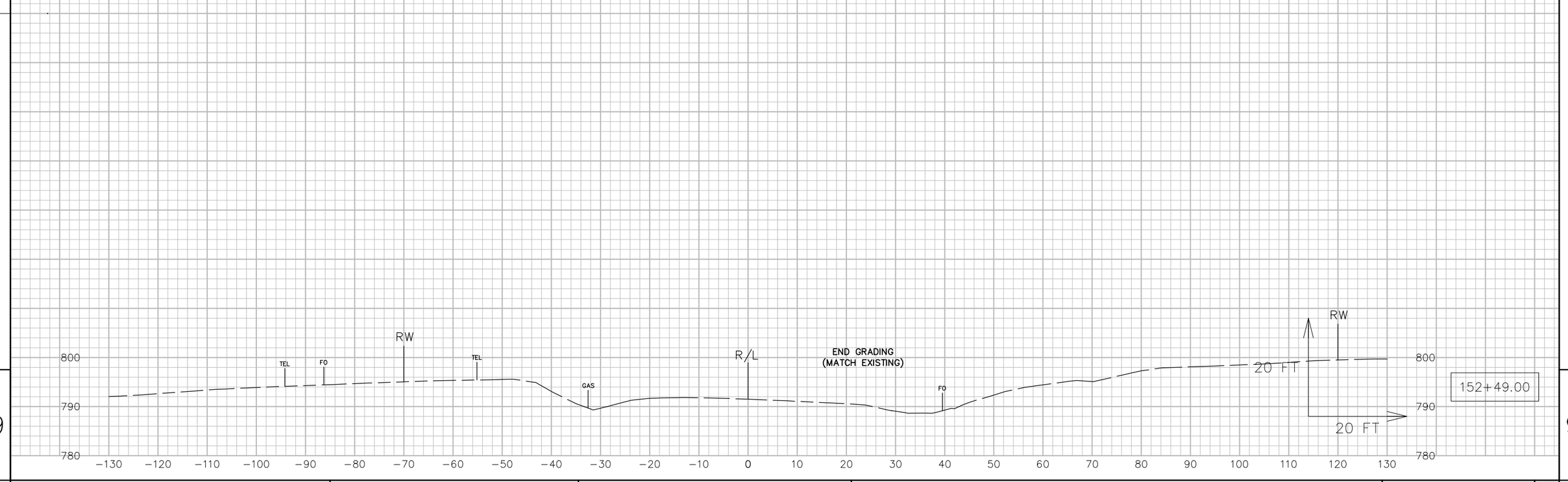


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − LT.)	SHEET 325	E

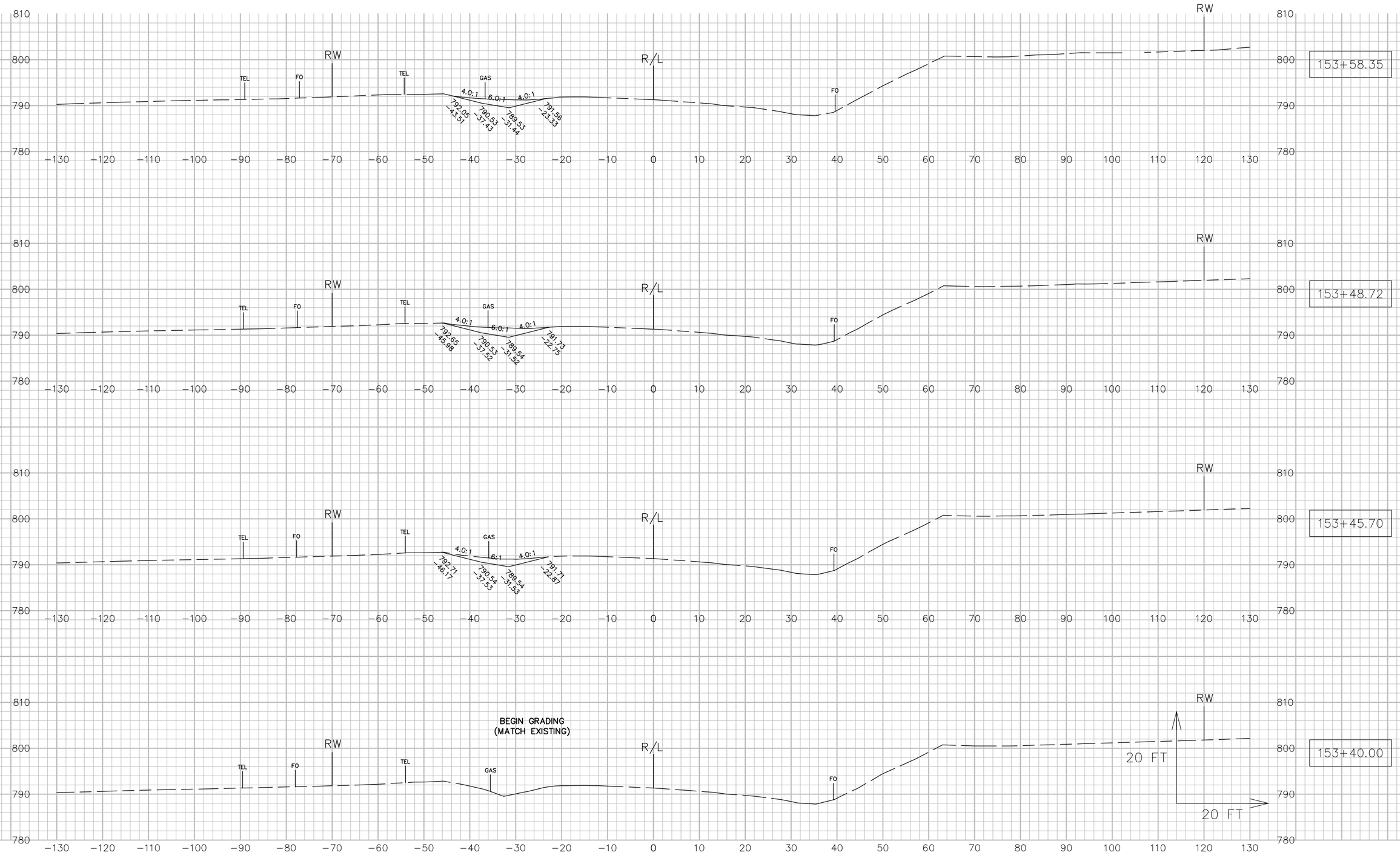
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090131_XS.DWG PLOT DATE : 4/4/2012 10:04 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



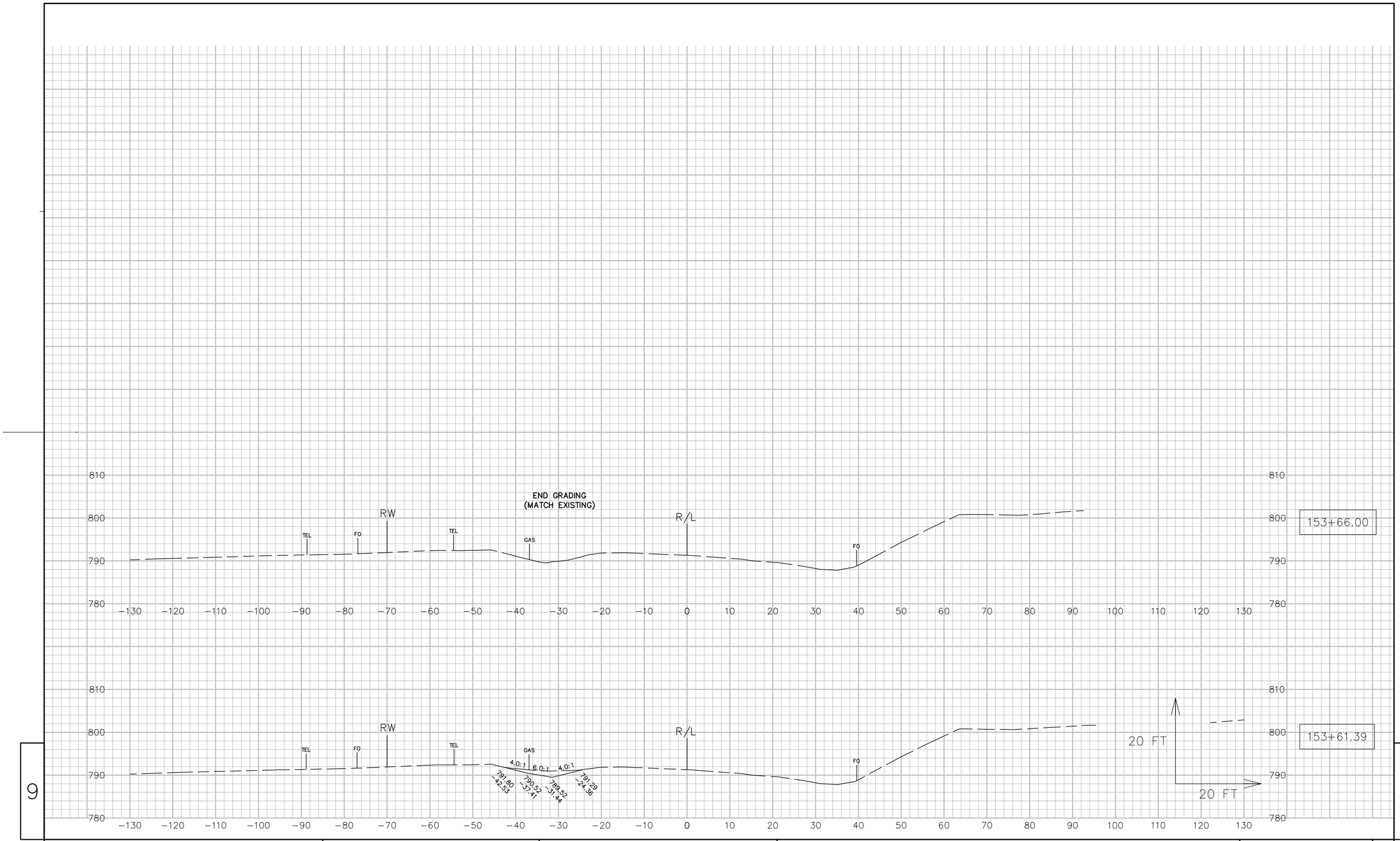
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL – RT.)	SHEET 326	E



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL − RT.)	SHEET 327	E



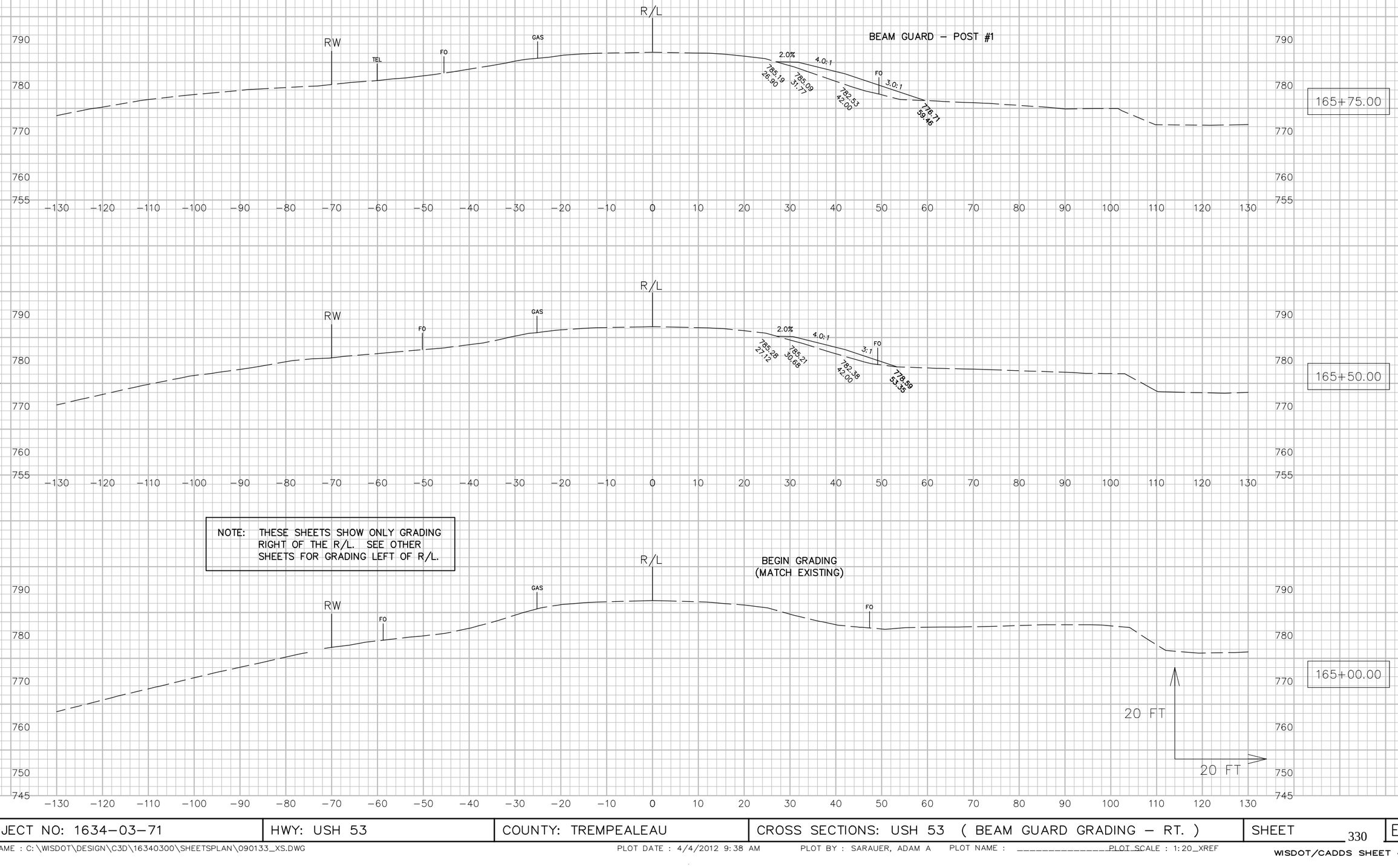
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL − LT.)	SHEET 328	E



9

9

PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL − LT.)	SHEET 329	E

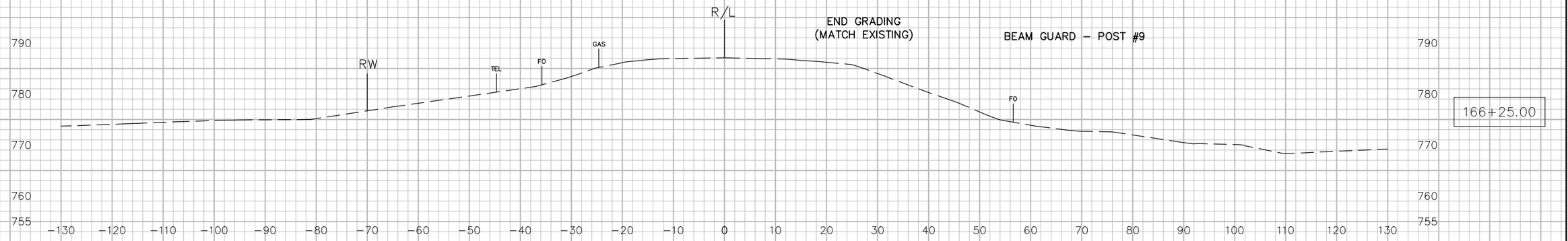


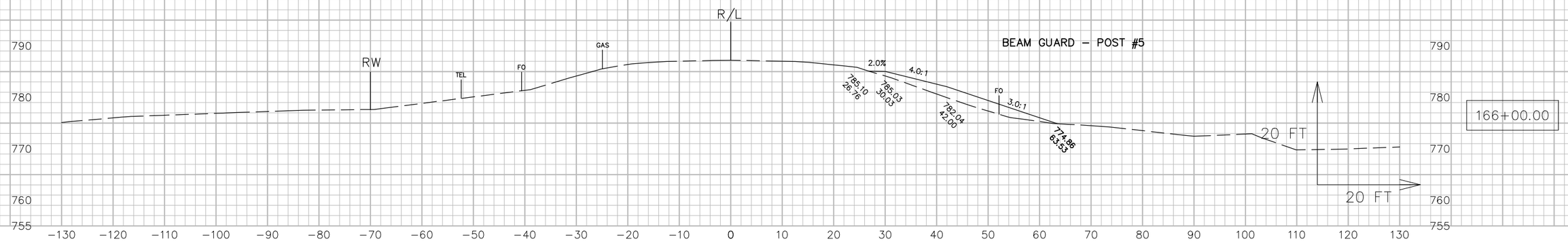
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 330	E

NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.



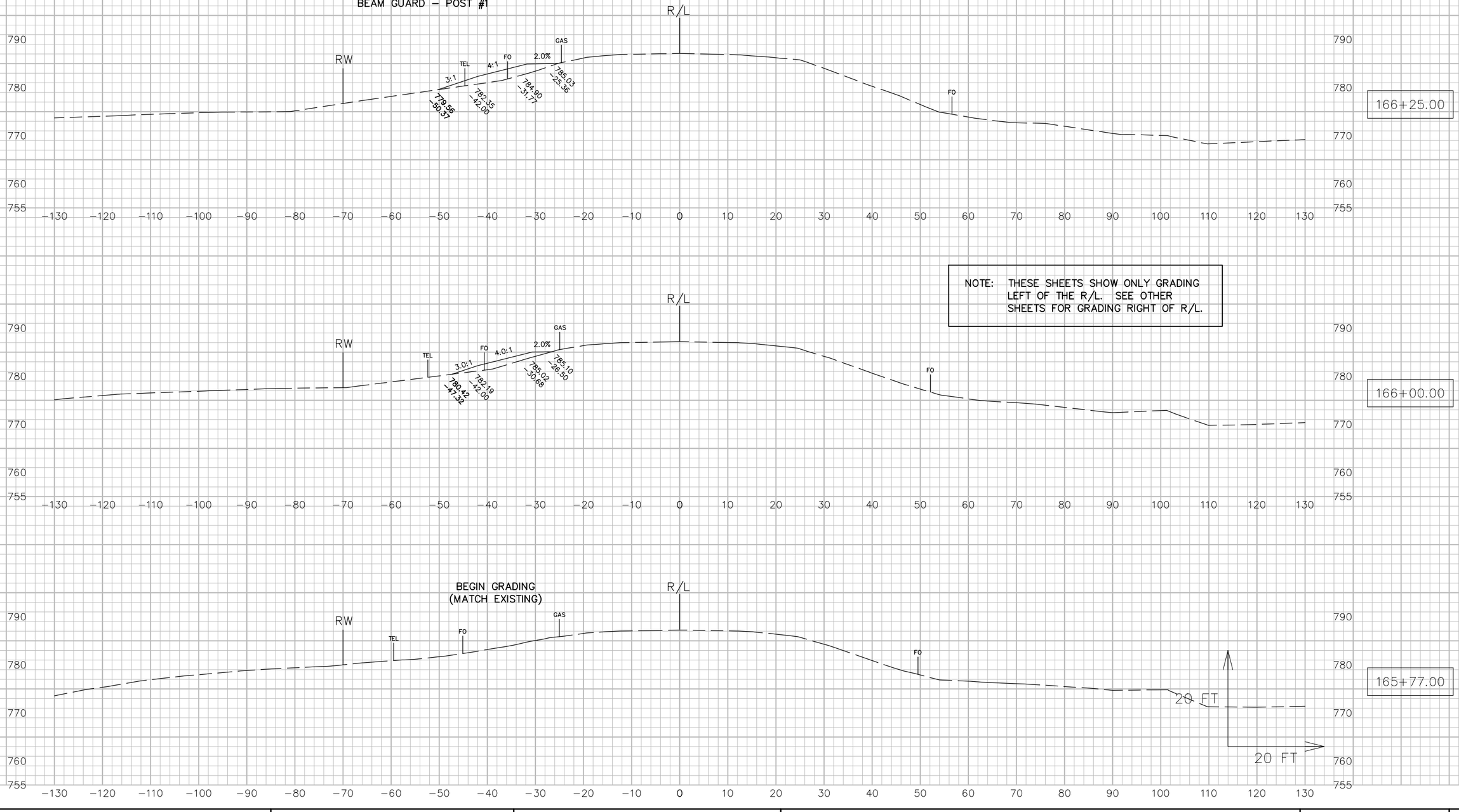


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9

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 331	E

BEAM GUARD – POST #1



NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

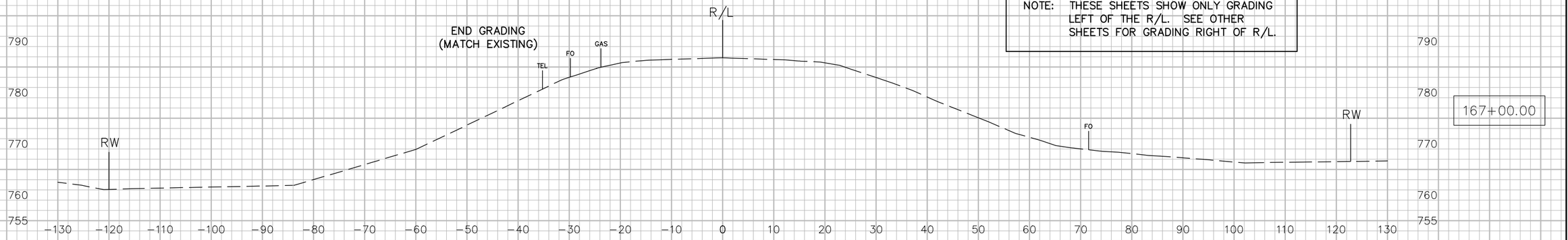
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 332	E

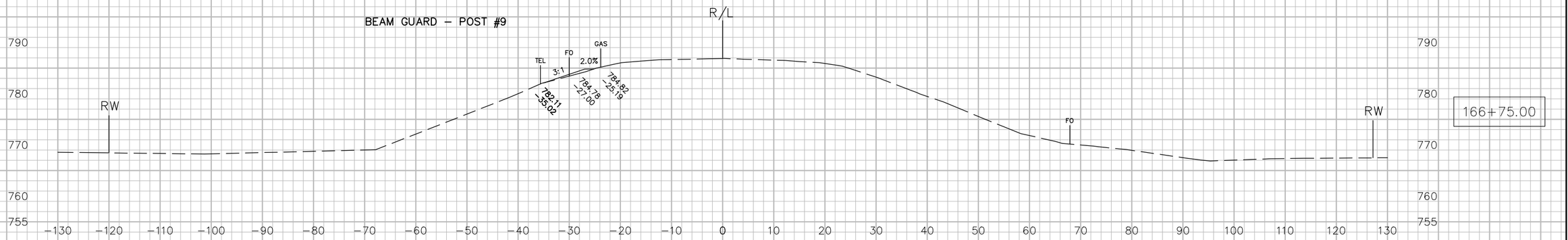
NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

END GRADING
(MATCH EXISTING)



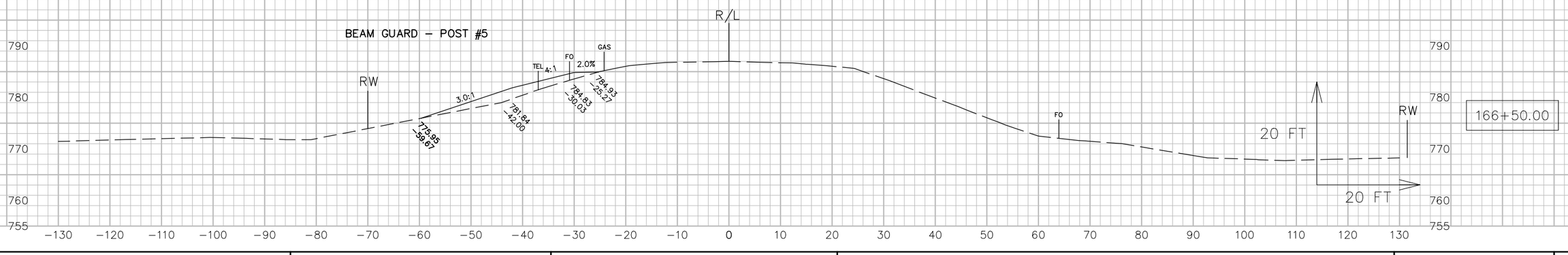
167+00.00

BEAM GUARD – POST #9



166+75.00

BEAM GUARD – POST #5



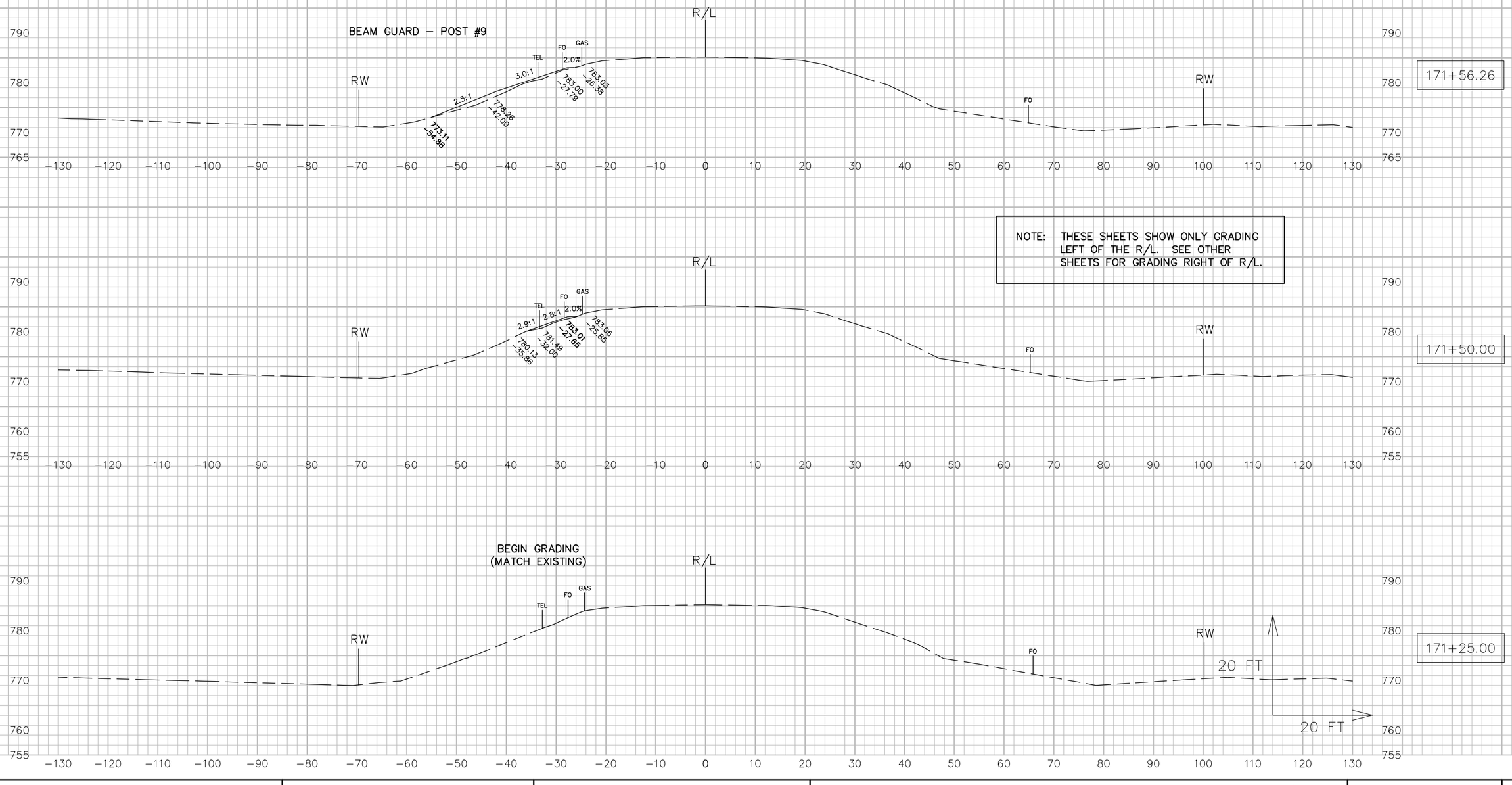
166+50.00

9

9

PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 333	E

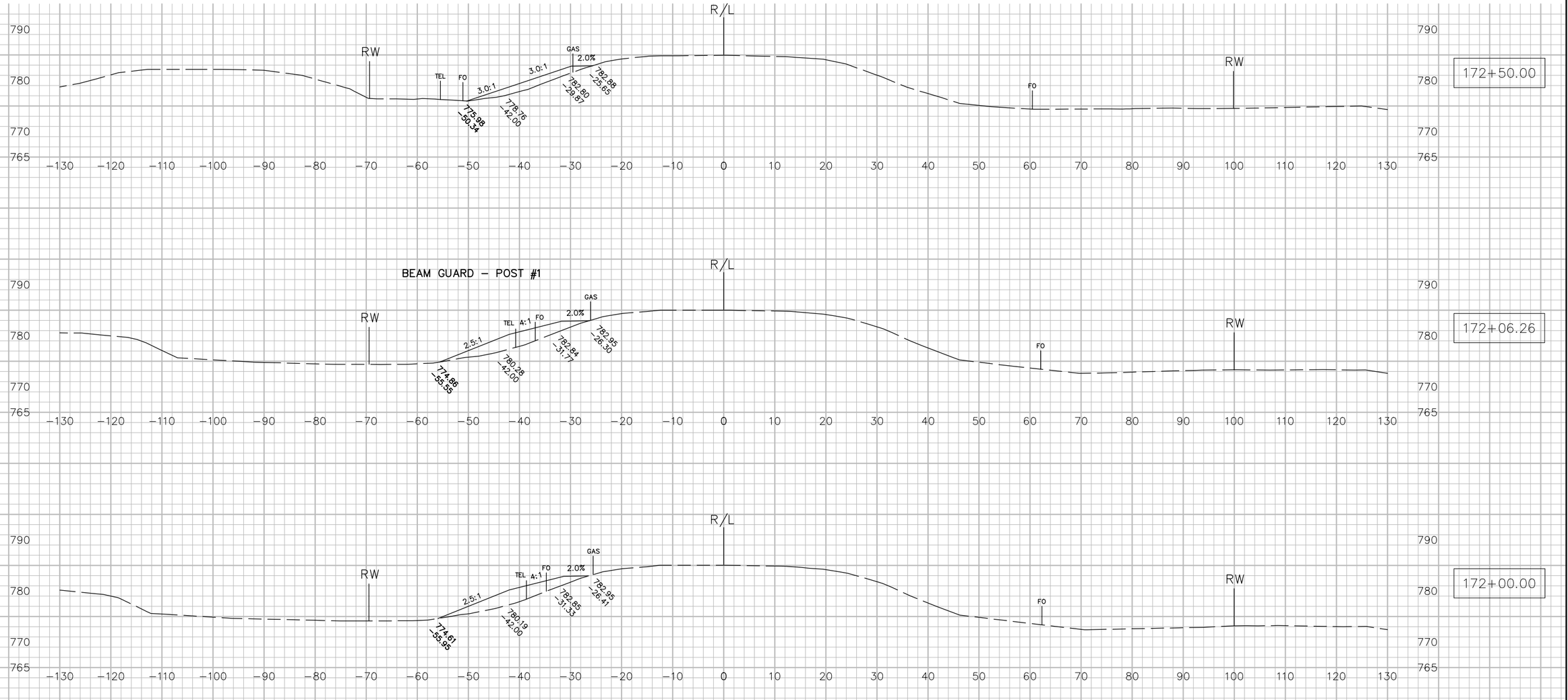
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9

9

PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 334	E



NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

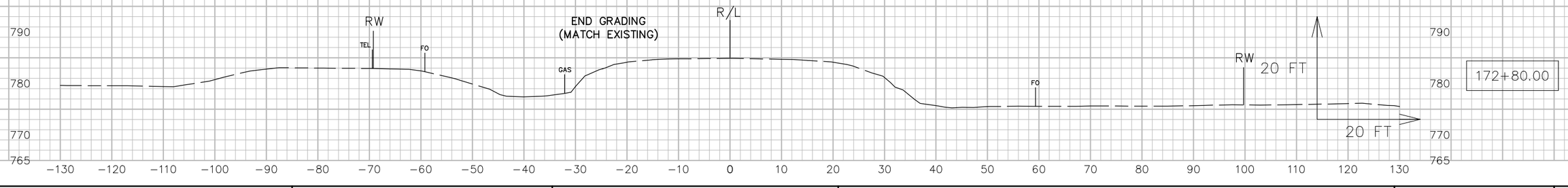


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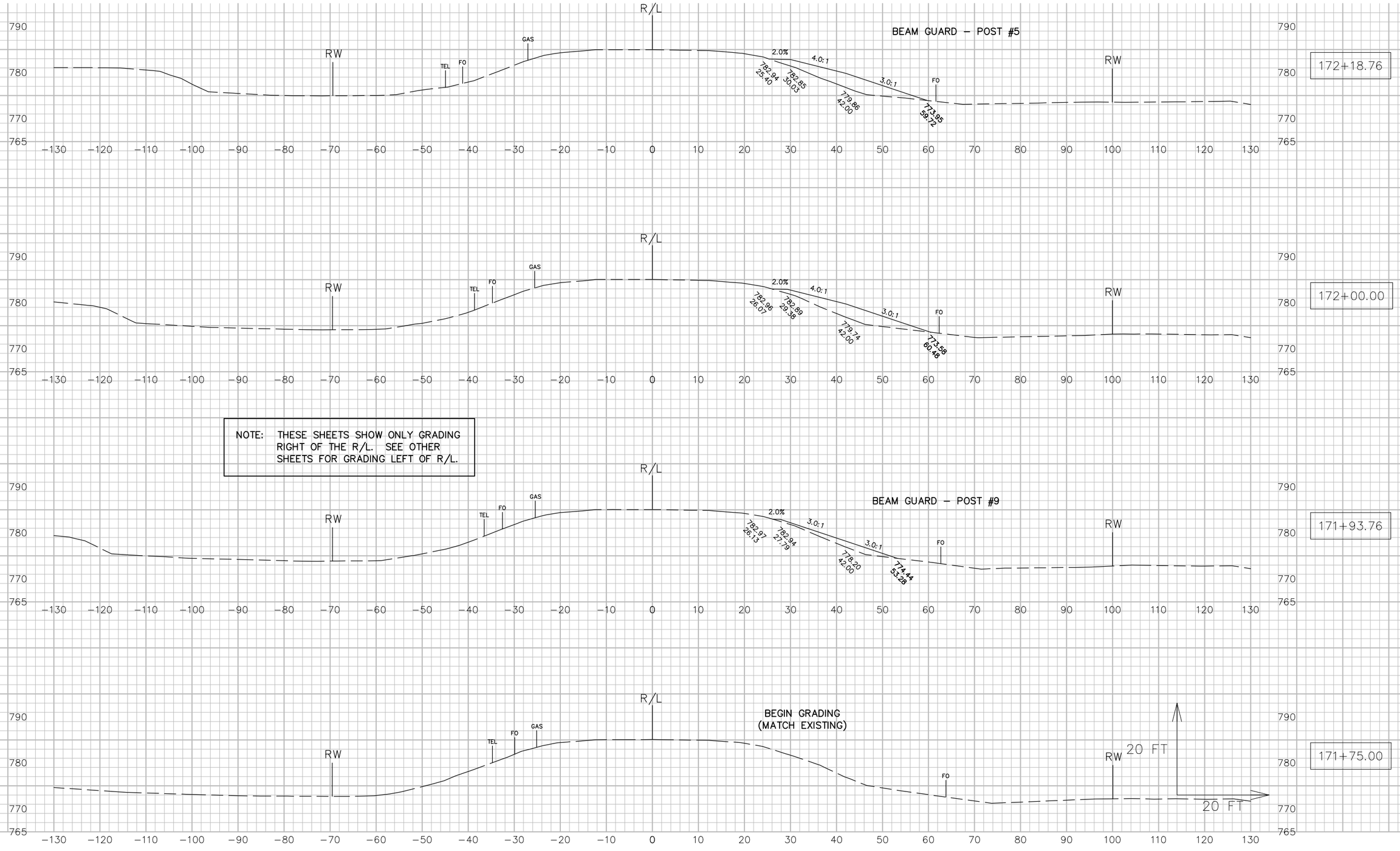
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 335	E

NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

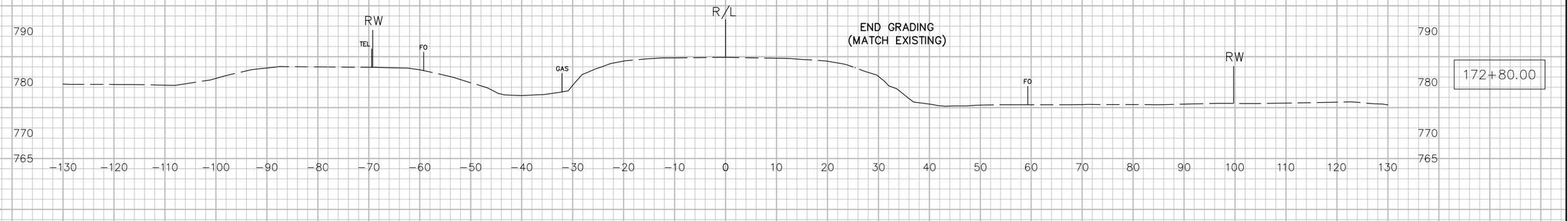


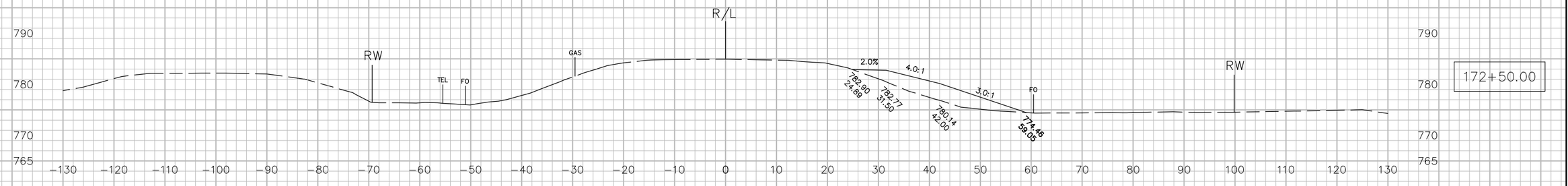
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − LT.)	SHEET 336	E



PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 337	E

NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.



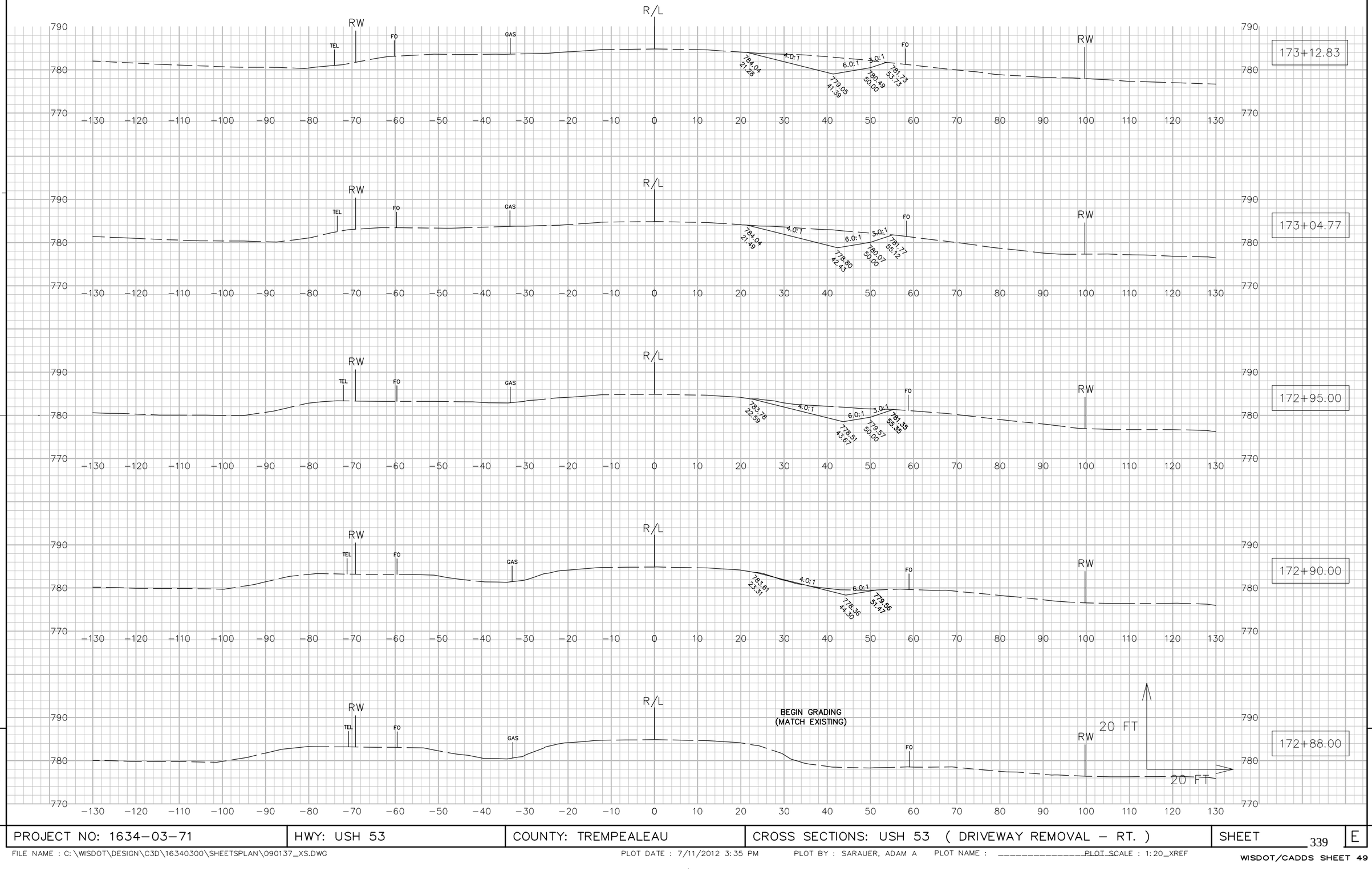




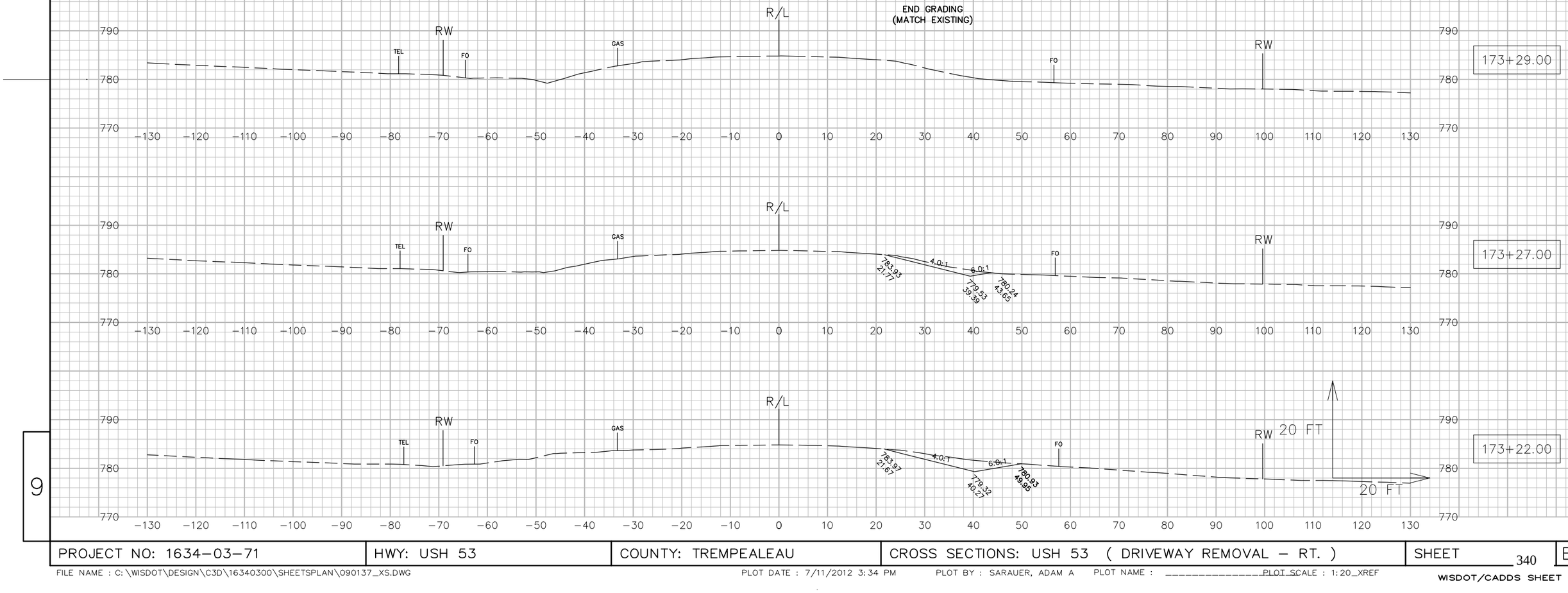
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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 338	E



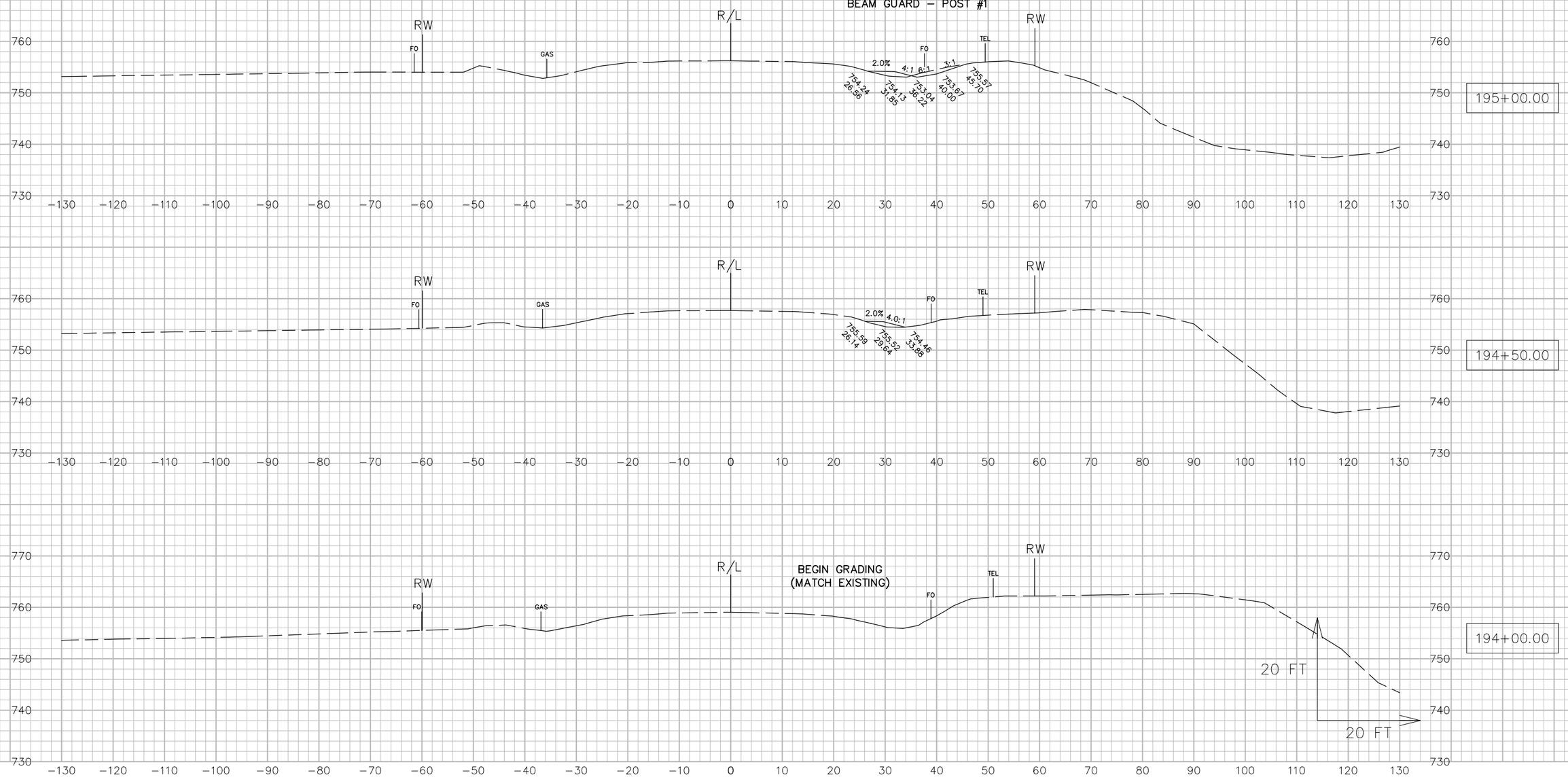
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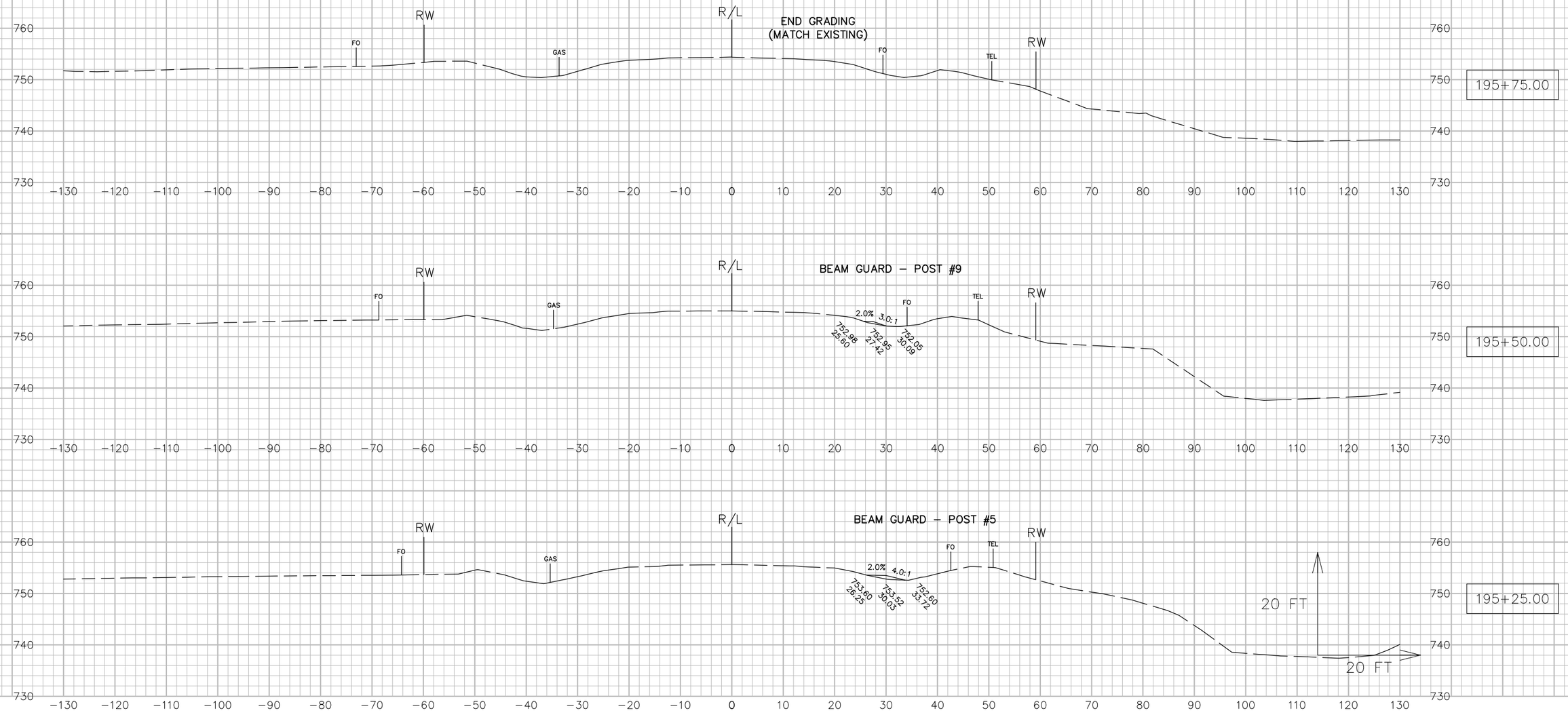
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL − RT.)	SHEET 340	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090137_XS.DWG PLOT DATE : 7/11/2012 3:34 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

BEAM GUARD – POST #1

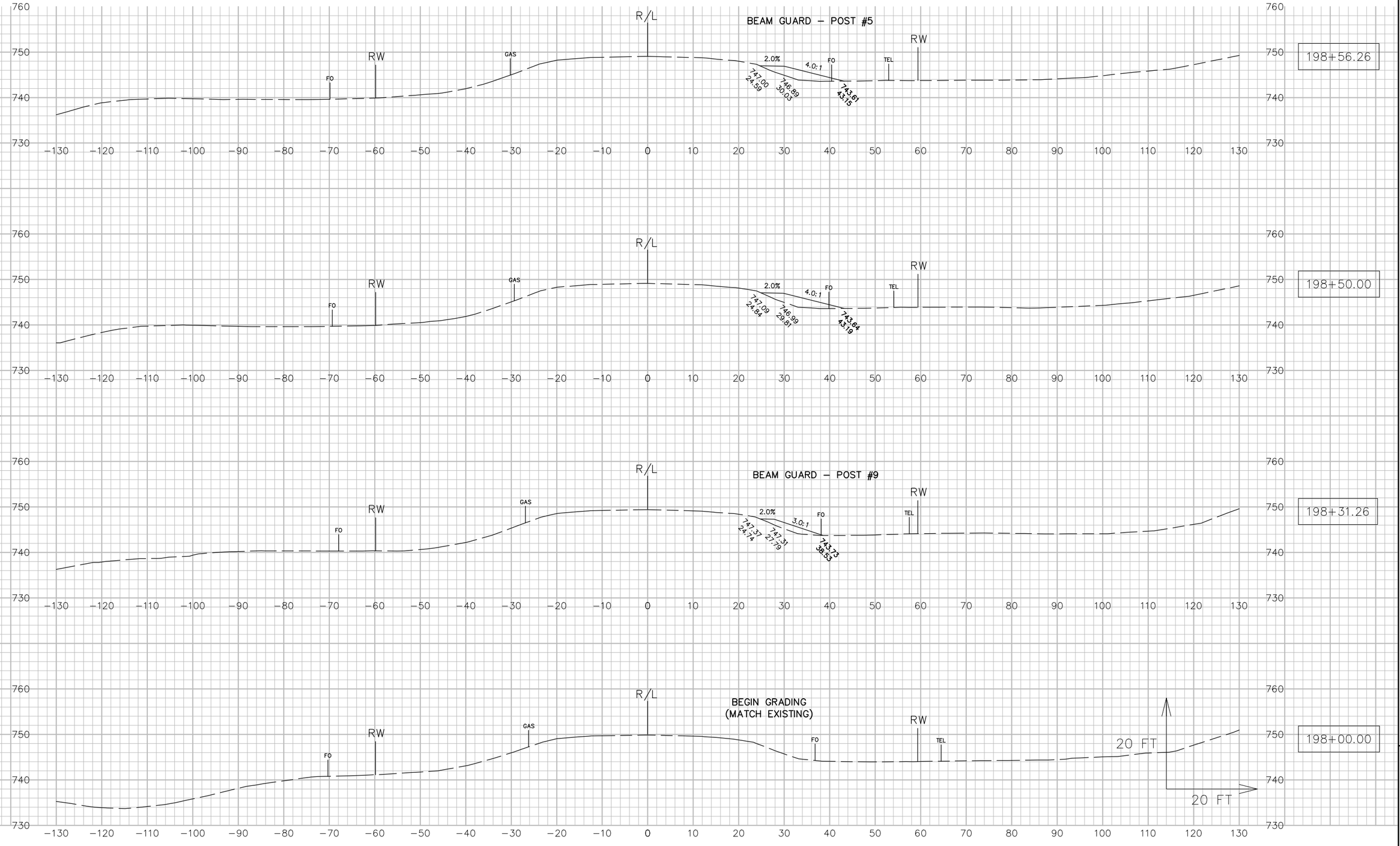


PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 341	E

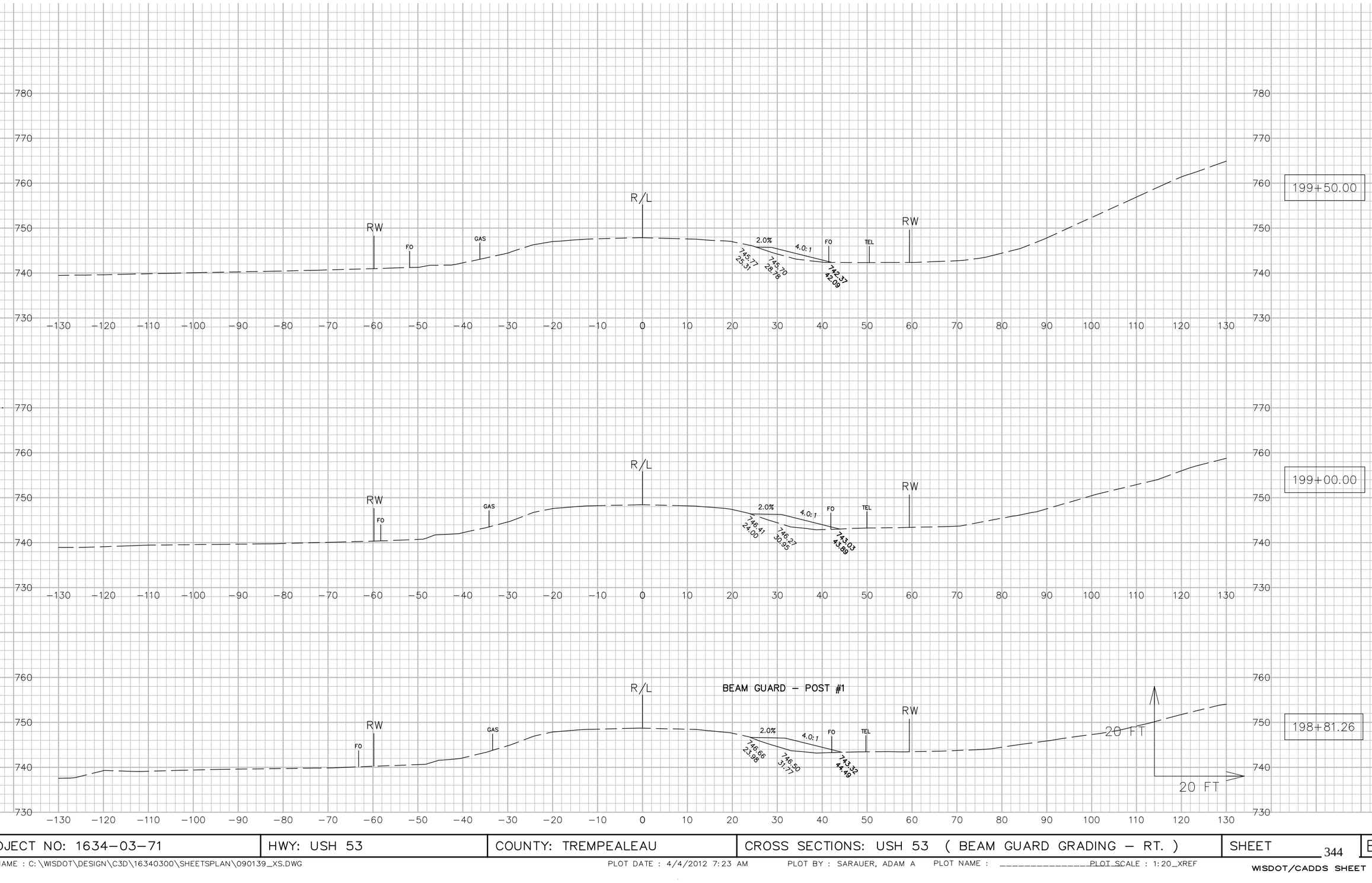


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 342	E

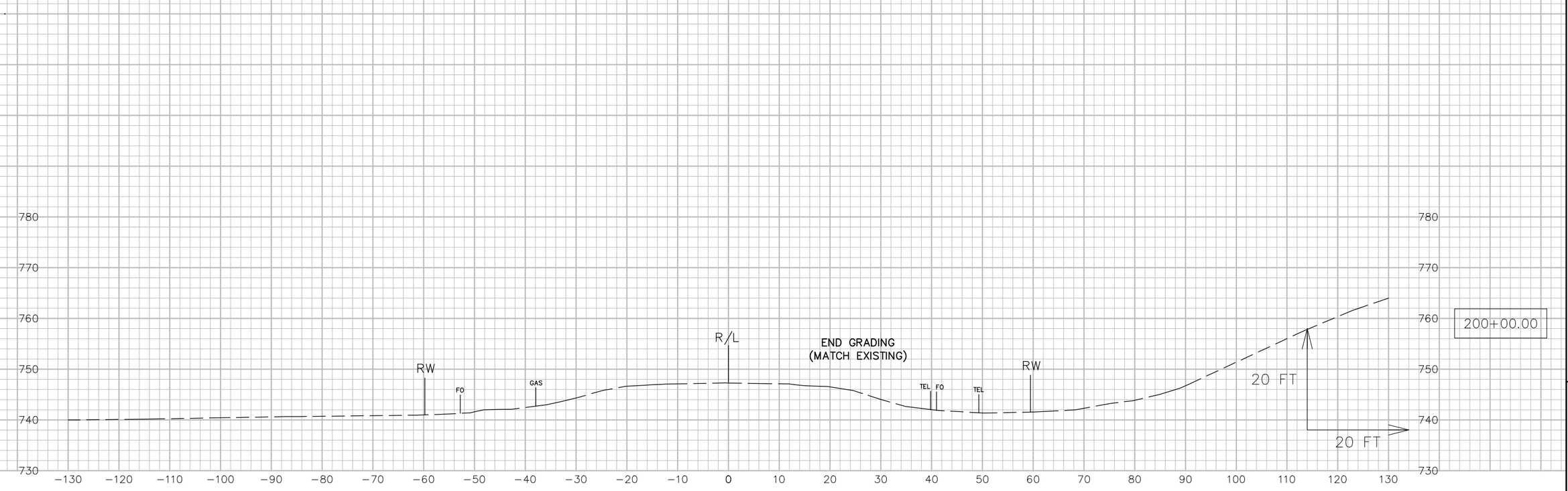
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090138_XS.DWG PLOT DATE : 4/4/2012 7:38 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



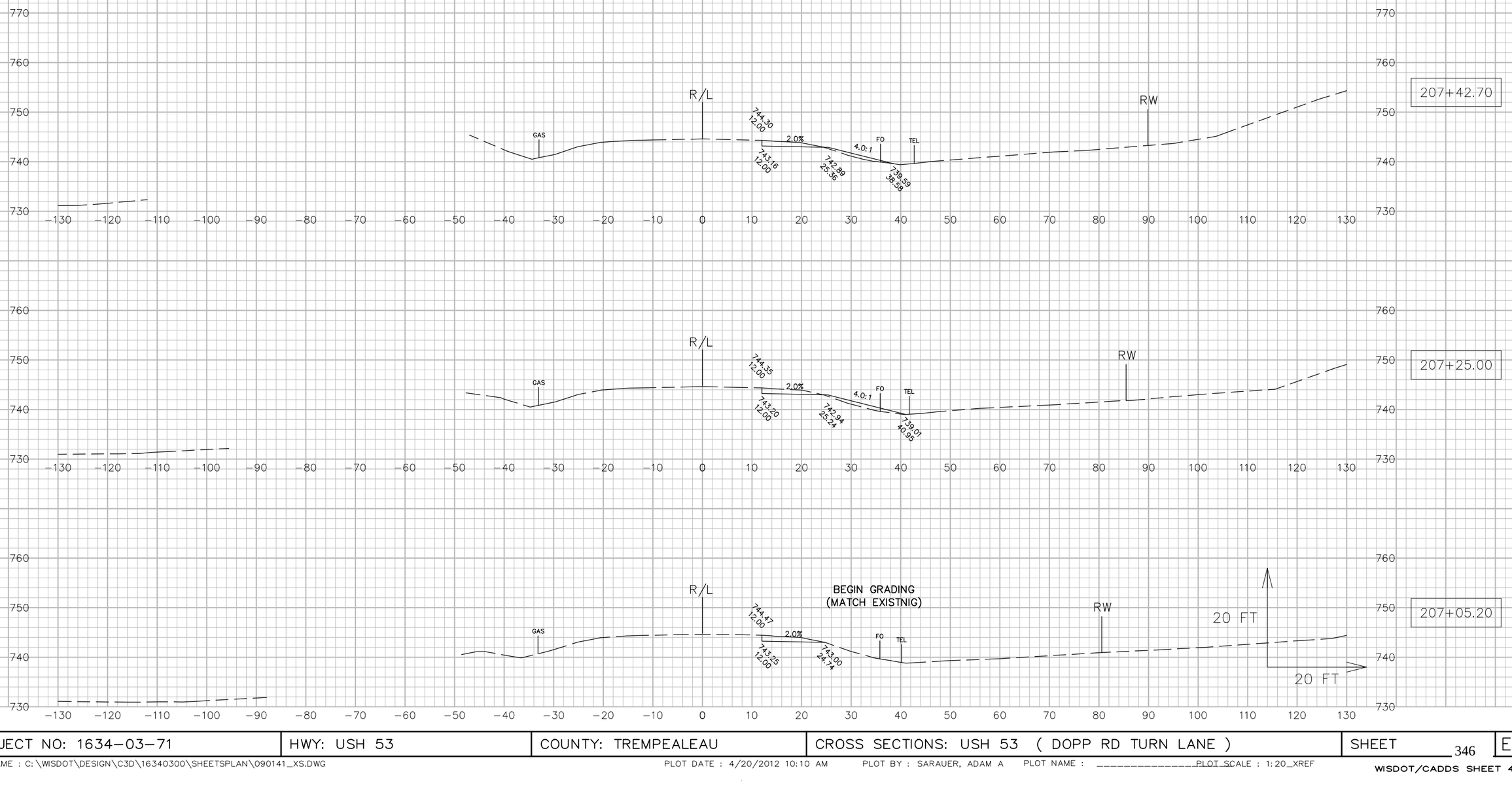
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 343	E



PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 344	E

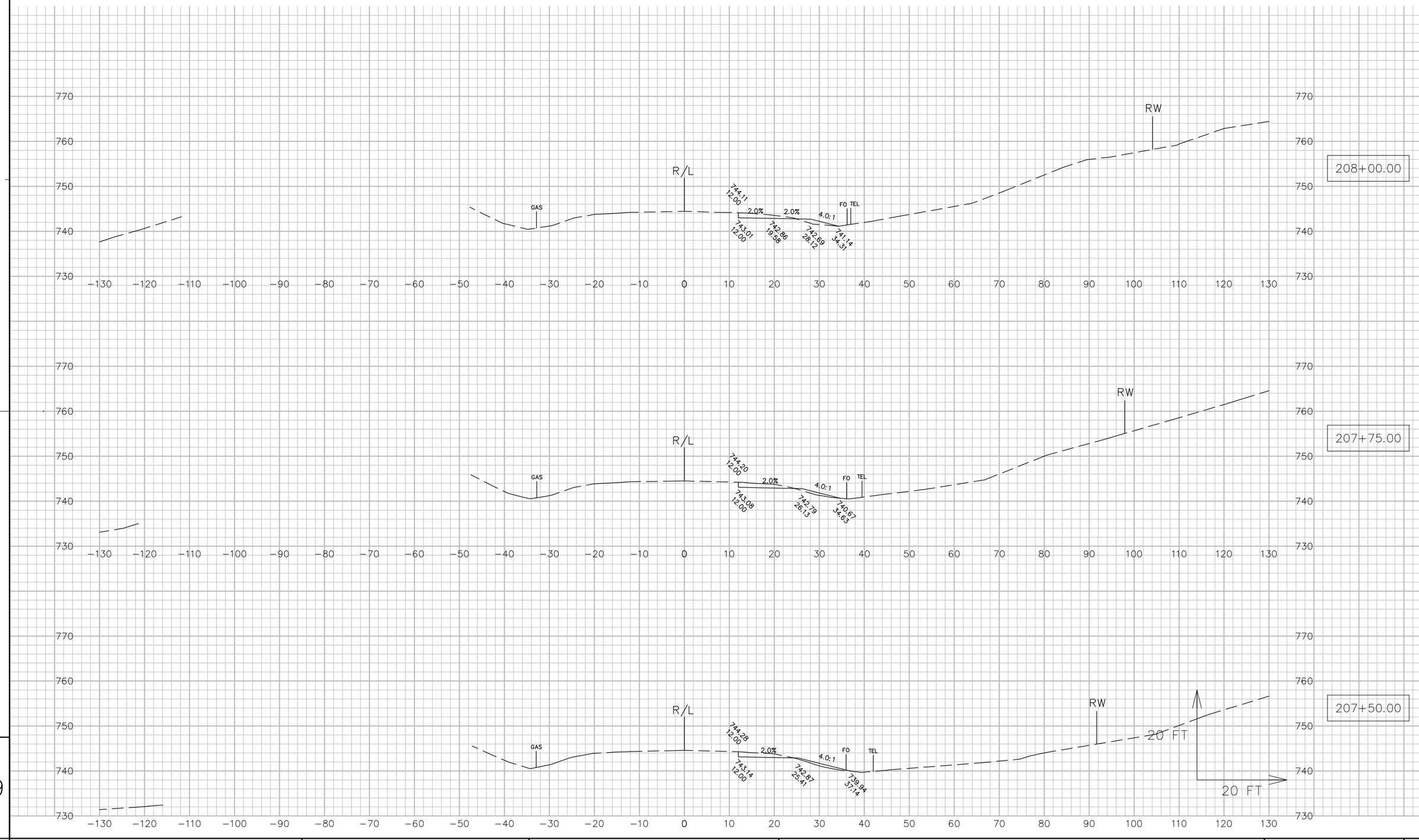


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − RT.)	SHEET 345	E



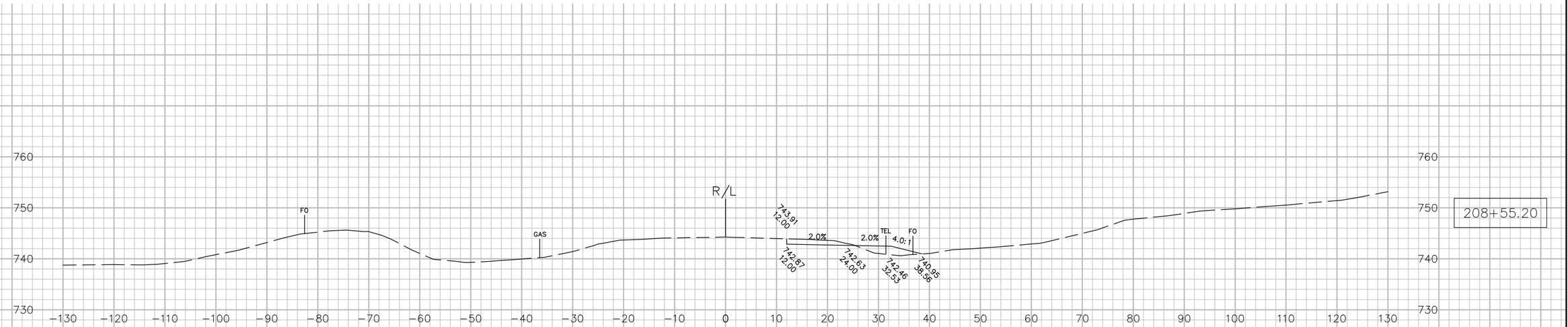
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DOPP RD TURN LANE)	SHEET 346	E

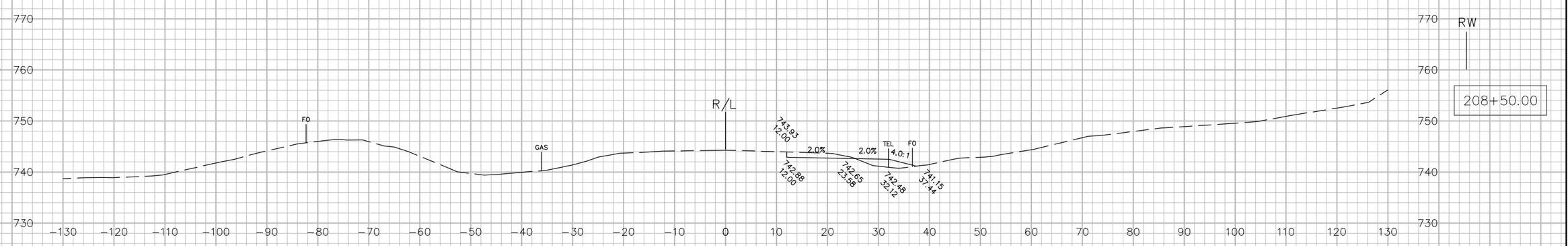
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090141_XS.DWG PLOT DATE : 4/20/2012 10:10 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

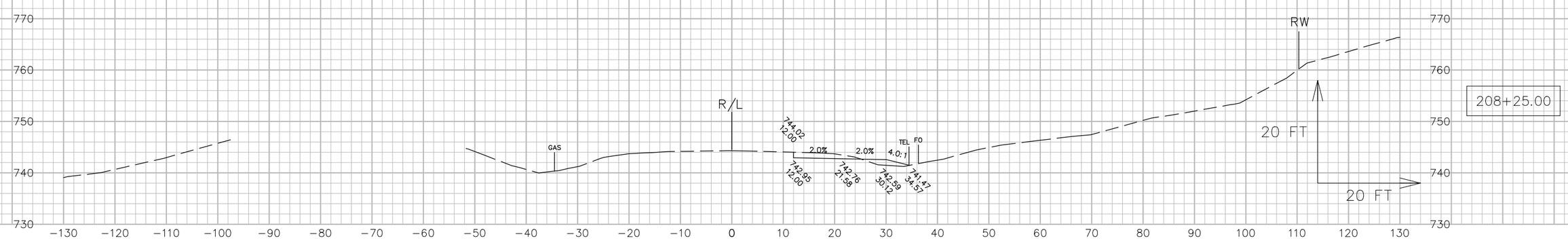


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DOPP RD TURN LANE)	SHEET 347	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090141_XS.DWG PLOT DATE : 4/20/2012 10:12 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



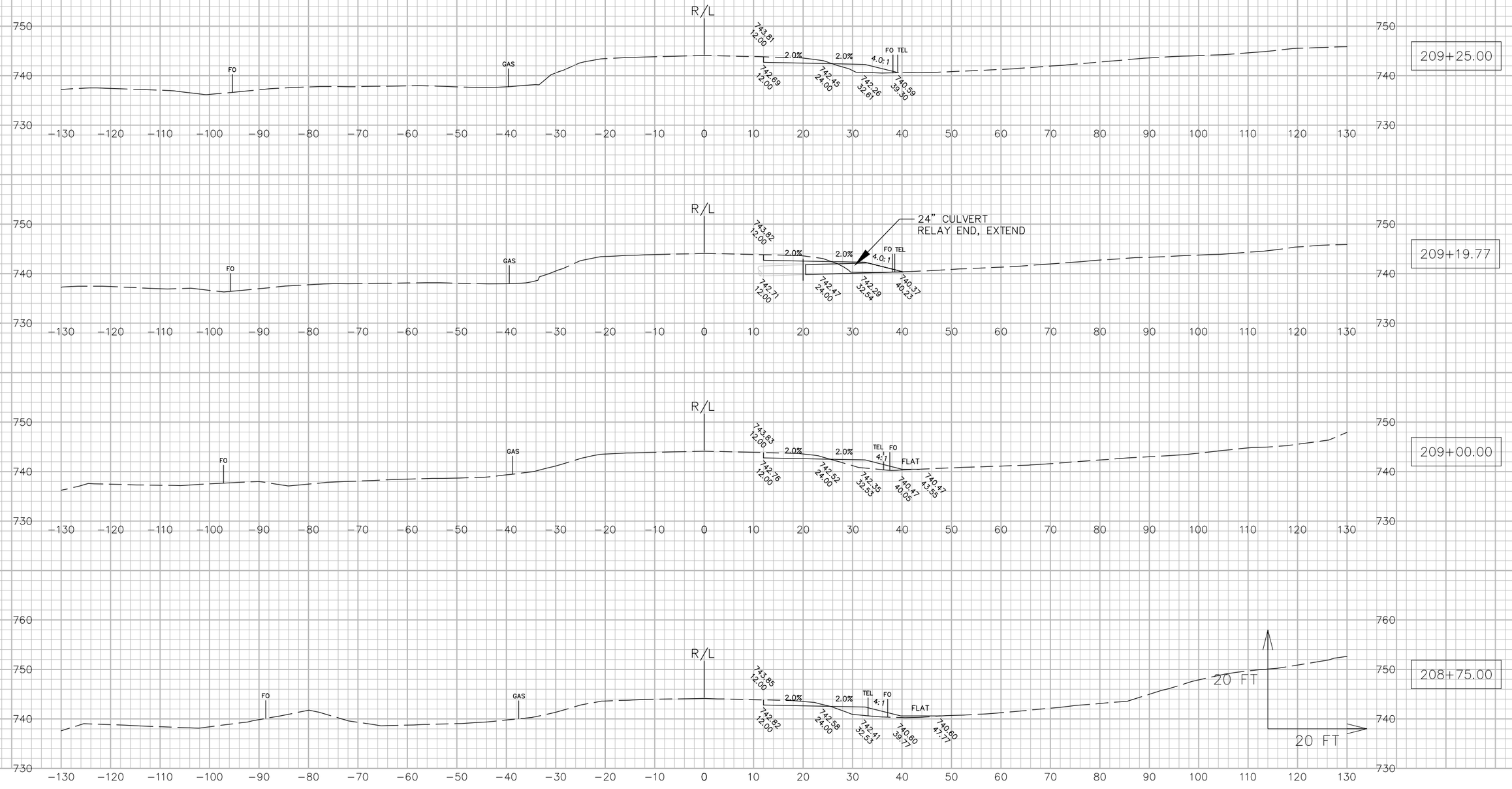




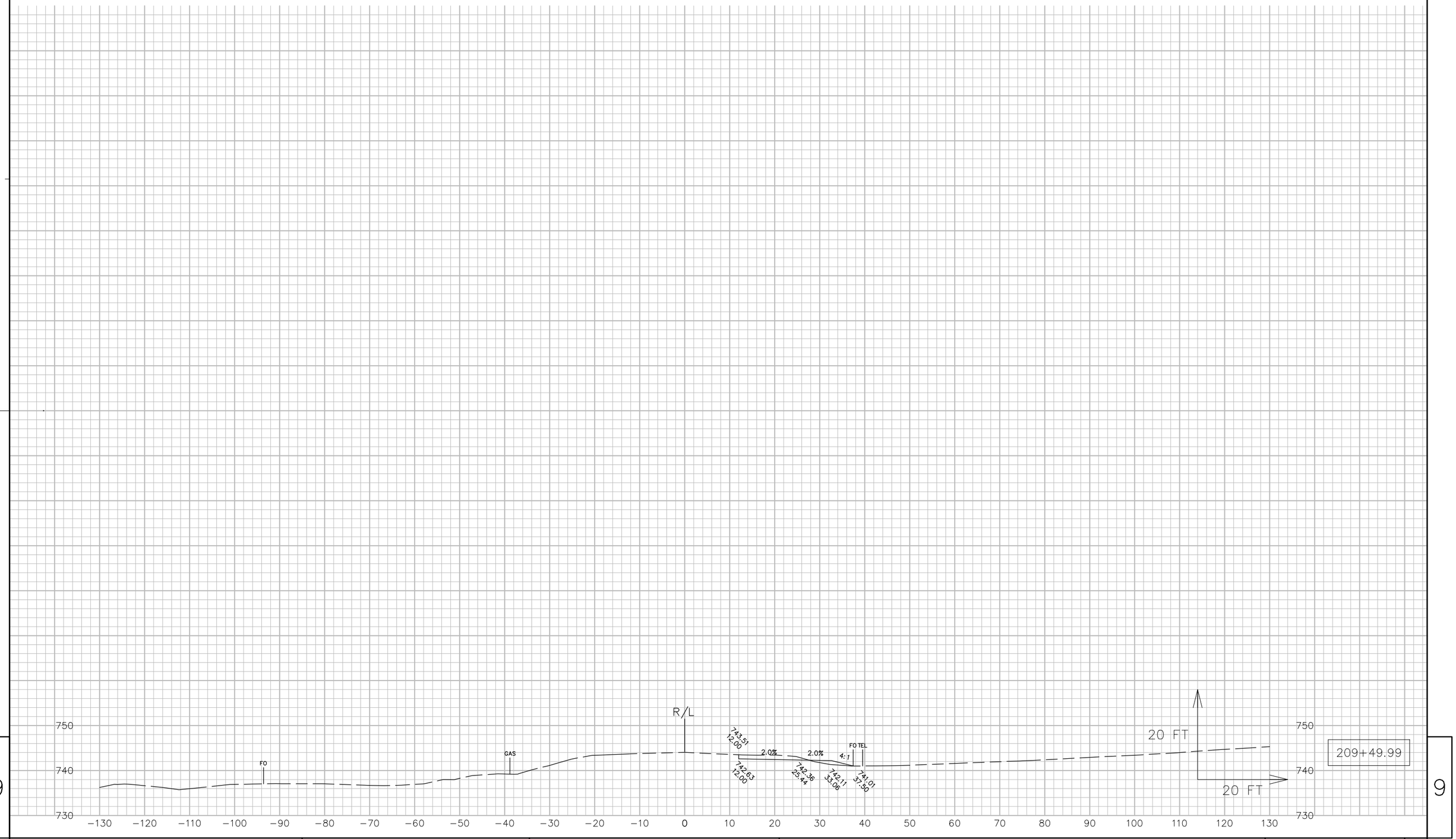
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9

PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DOPP RD TURN LANE)	SHEET 348	E



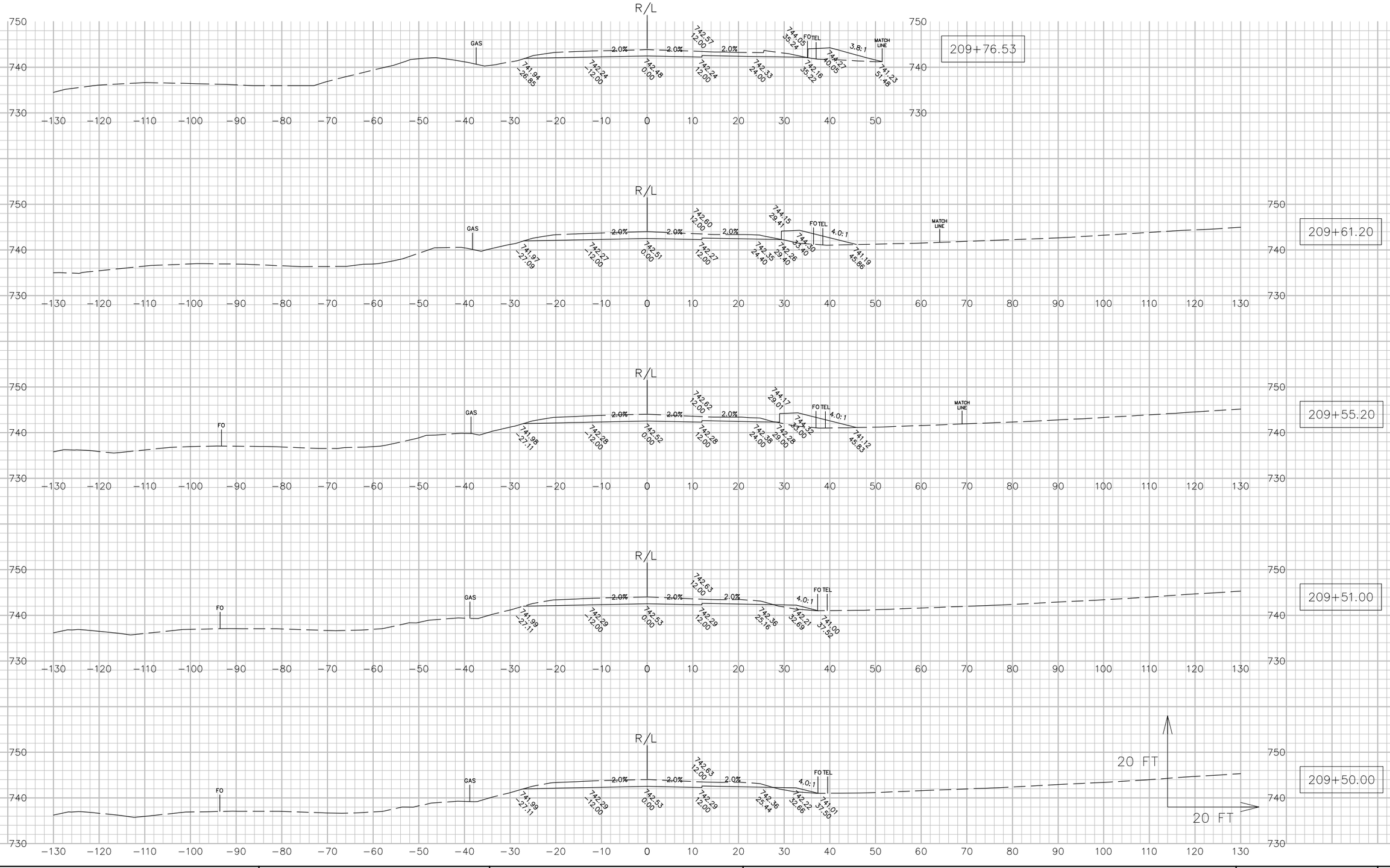
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DOPP RD TURN LANE)	SHEET 349	E



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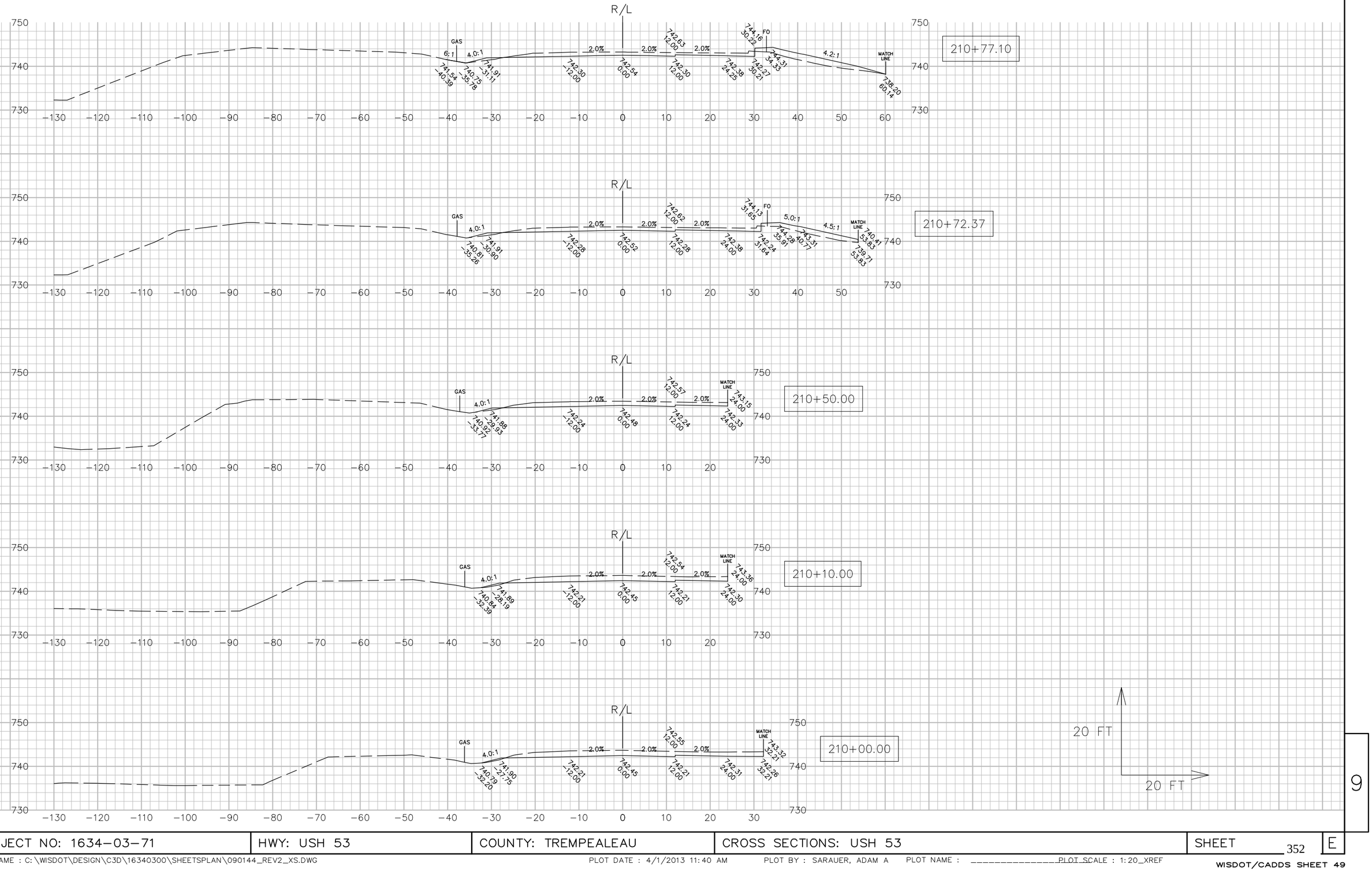
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DOPP RD TURN LANE)	SHEET 350	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 351	E

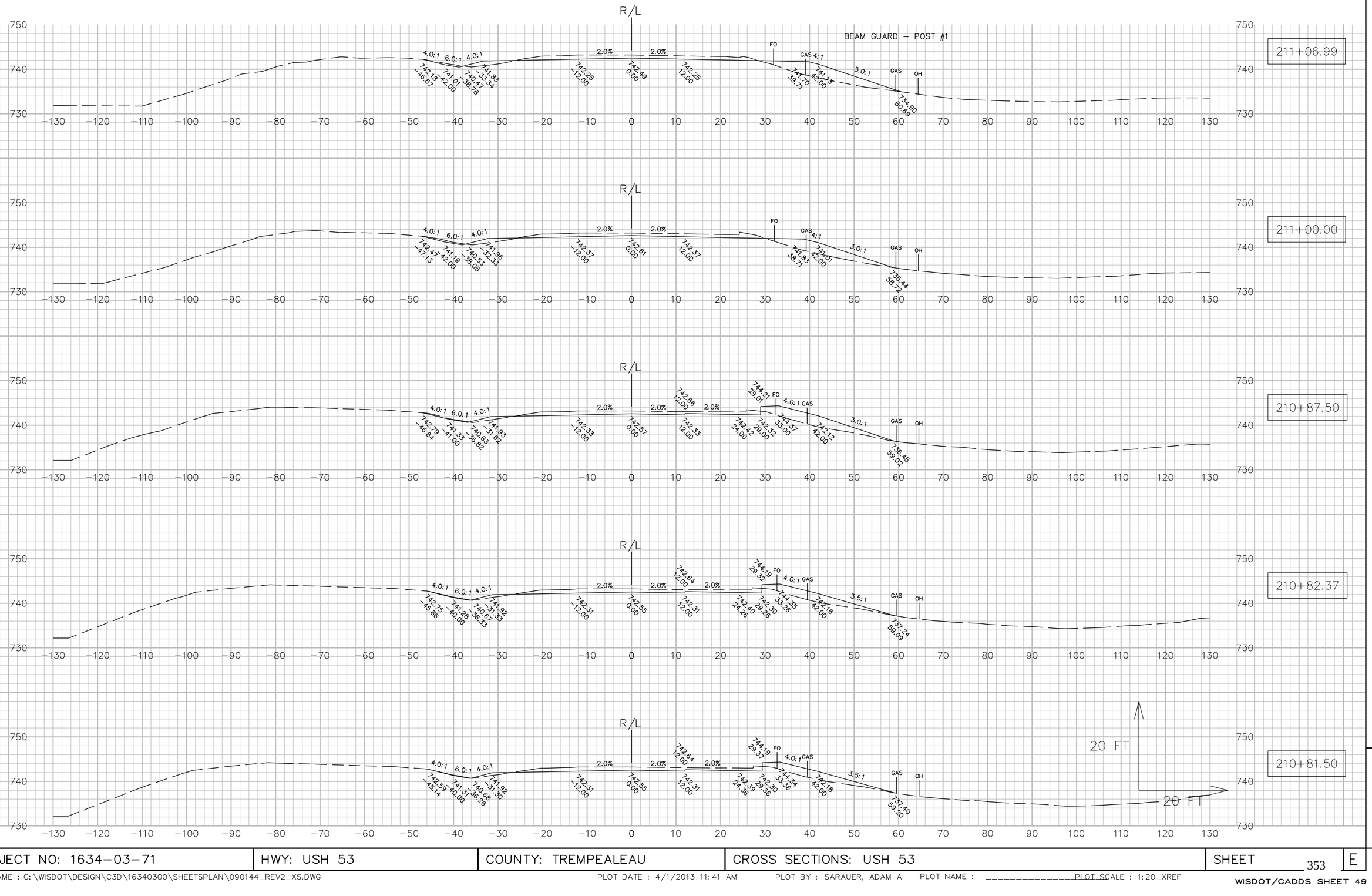
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090144_REV2_XS.DWG PLOT DATE : 4/1/2013 11:39 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



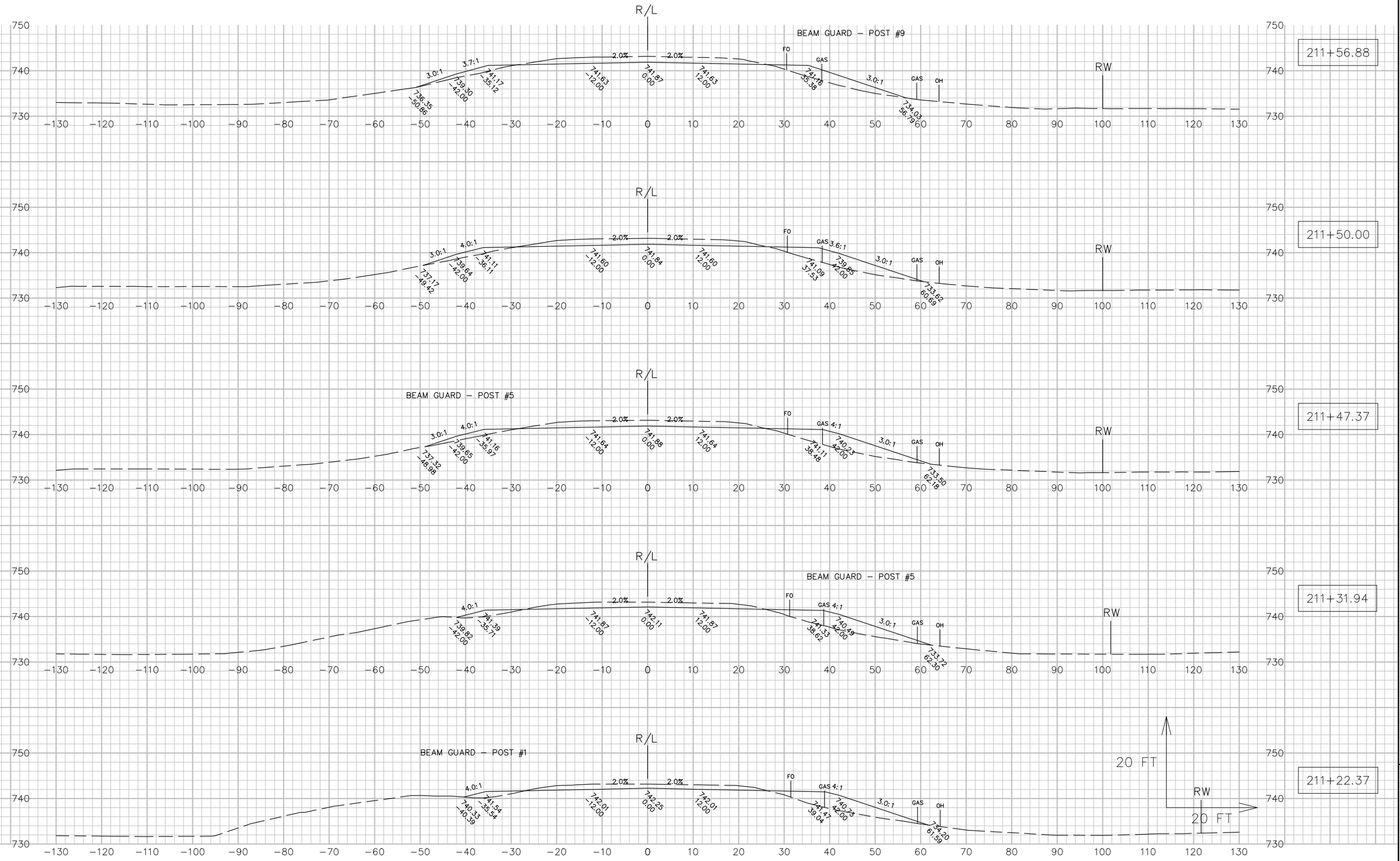
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9

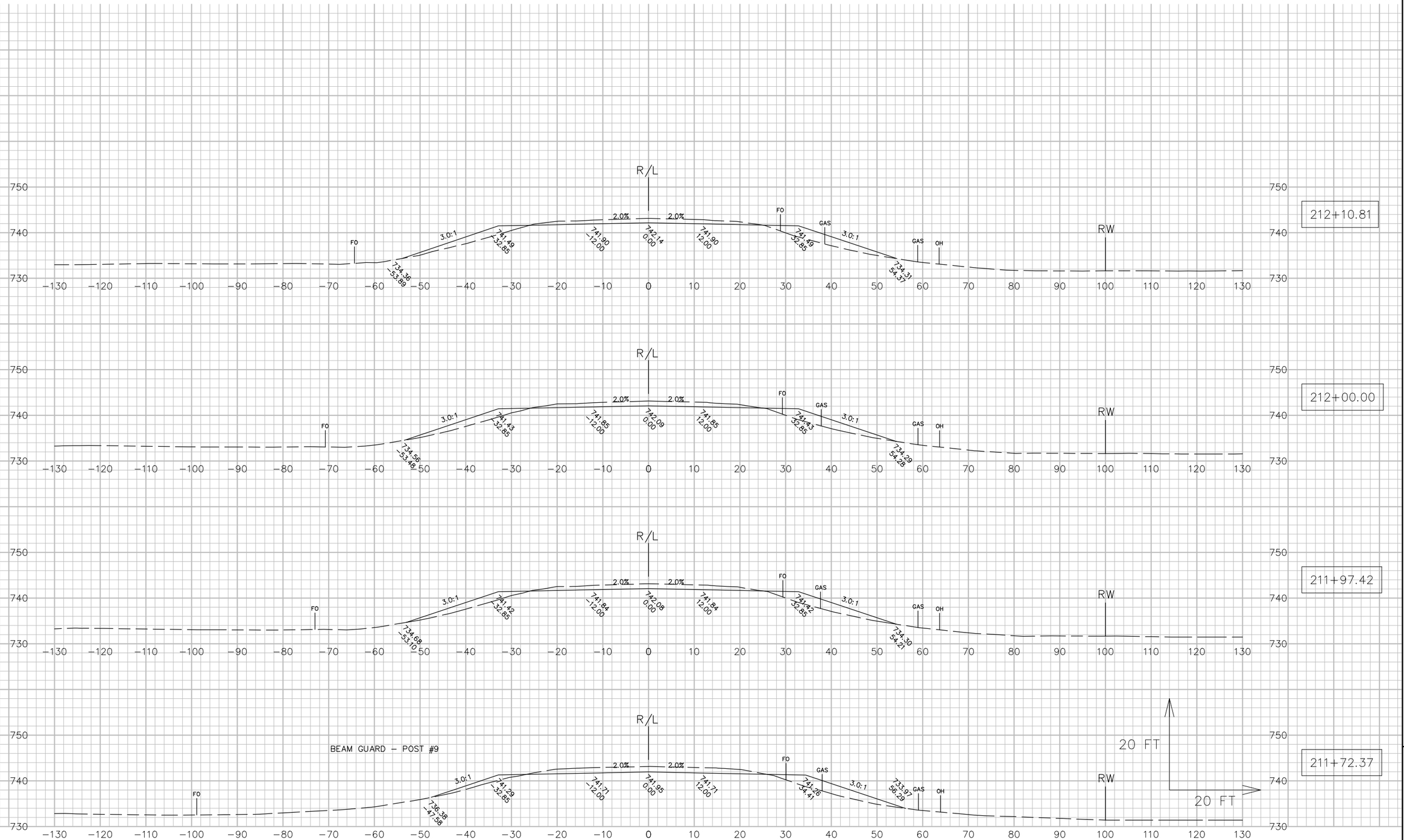
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 352	E



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 353	E

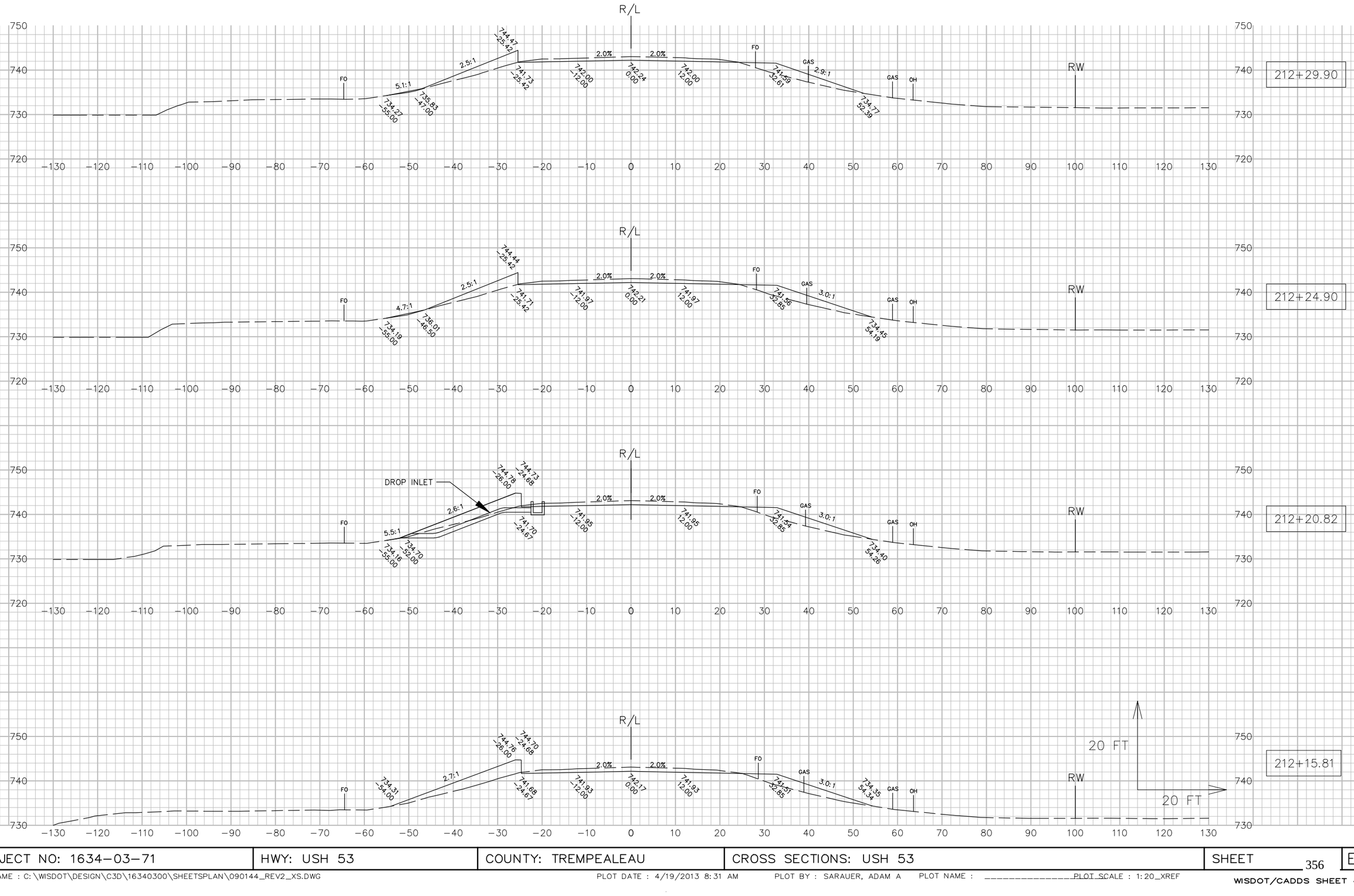


PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 354	E

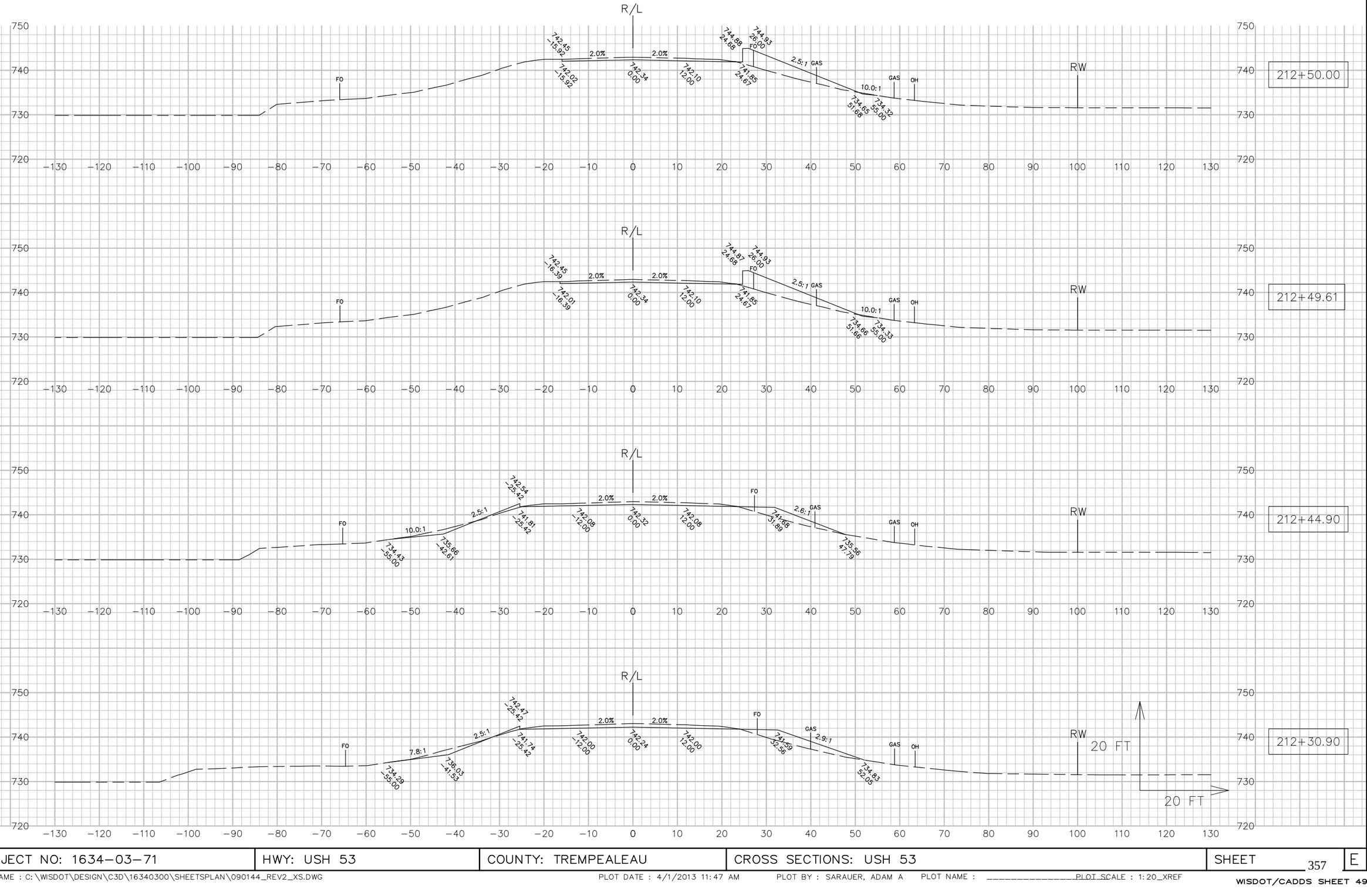


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 355	E

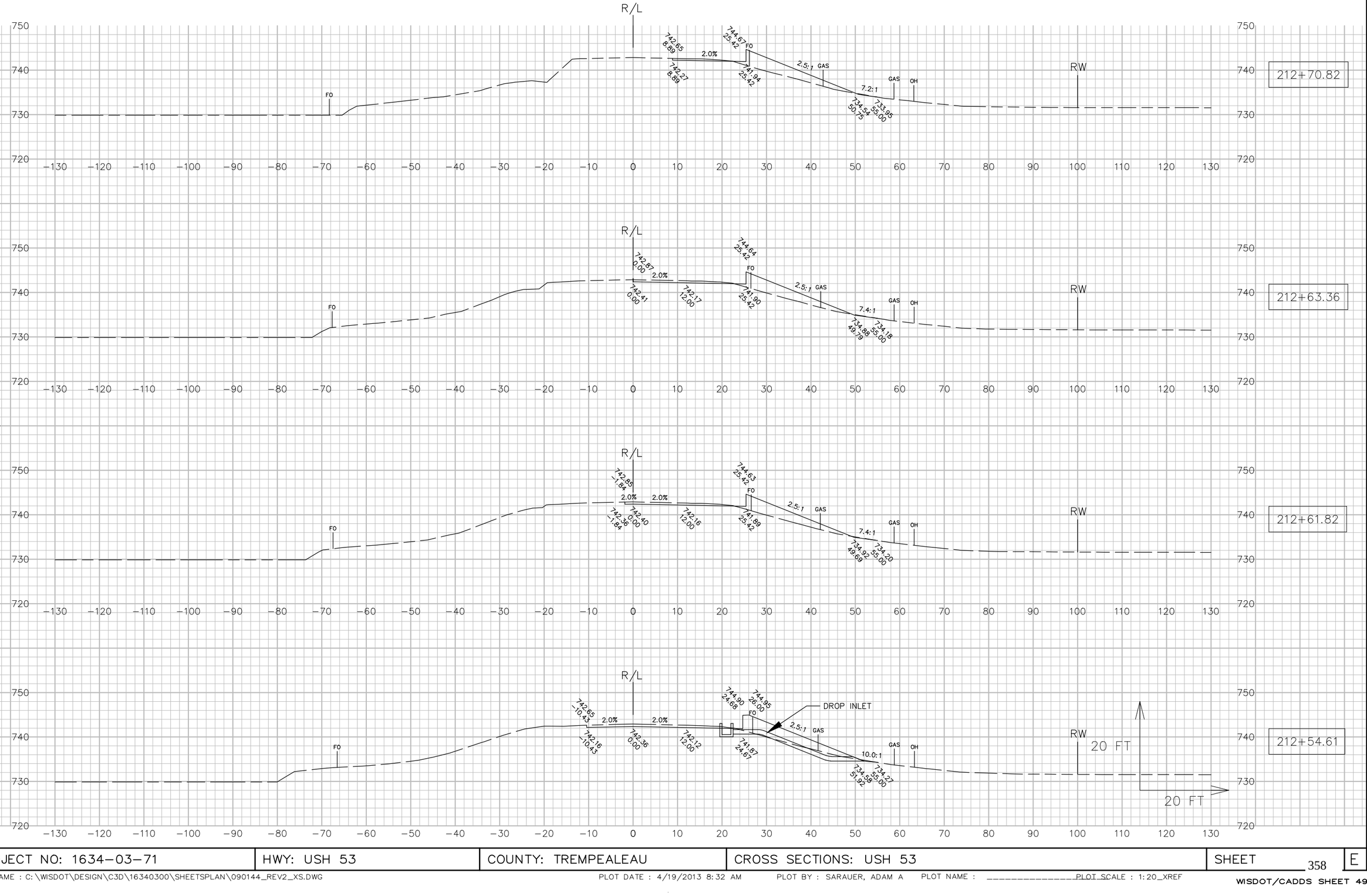
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090144_REV2_XS.DWG PLOT DATE : 4/1/2013 11:45 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



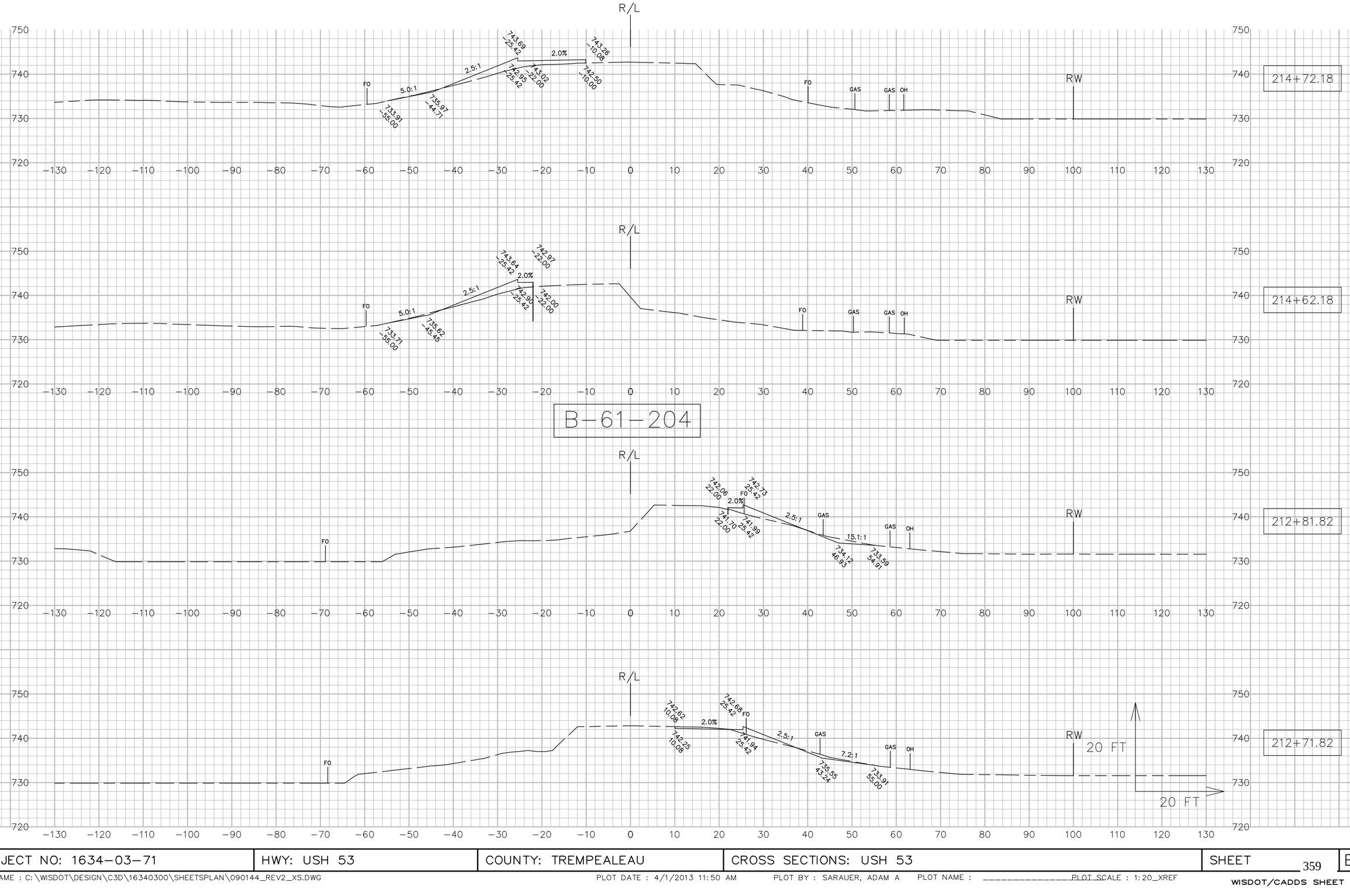
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 356	E



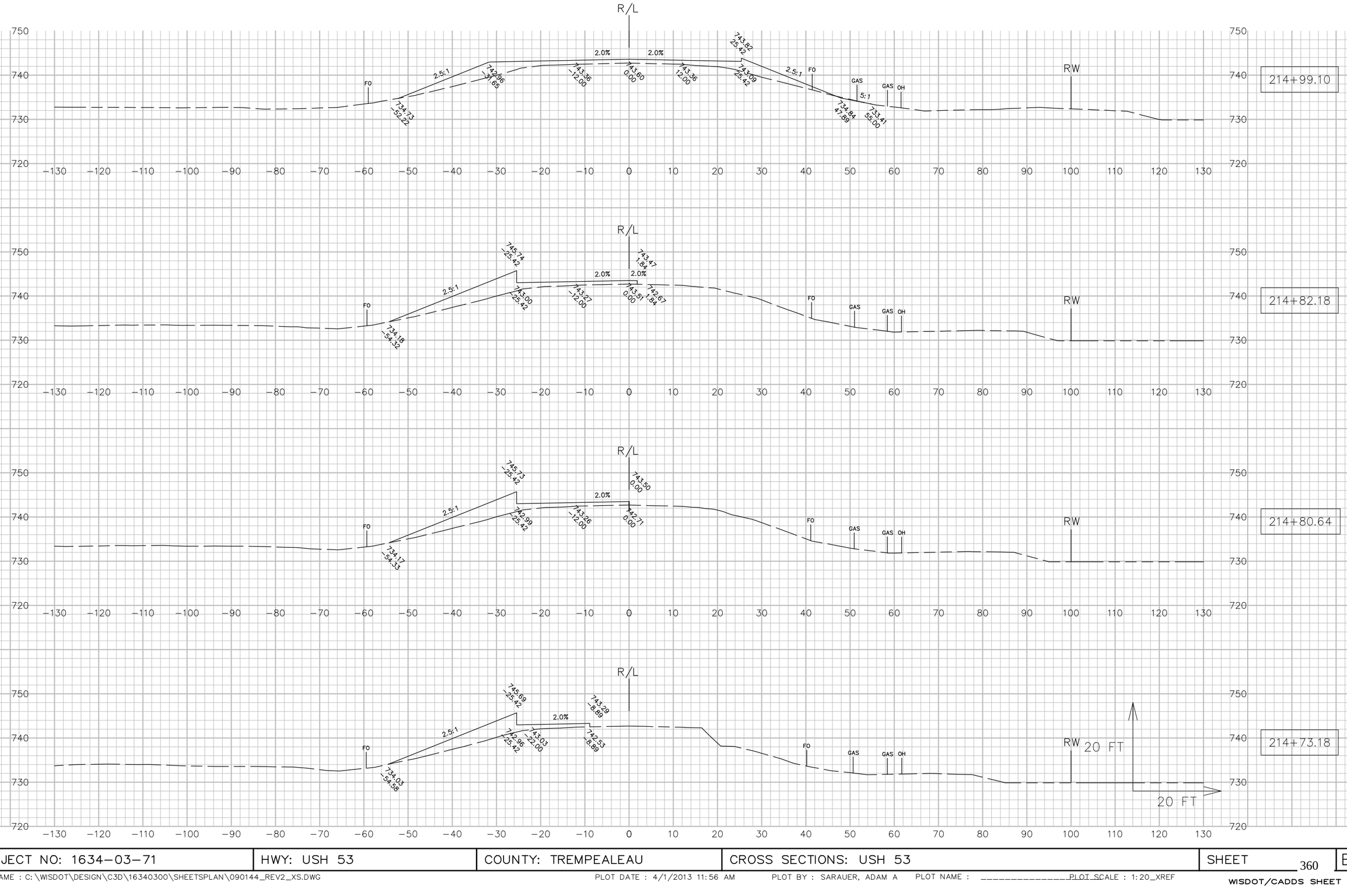
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 357	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 358	E

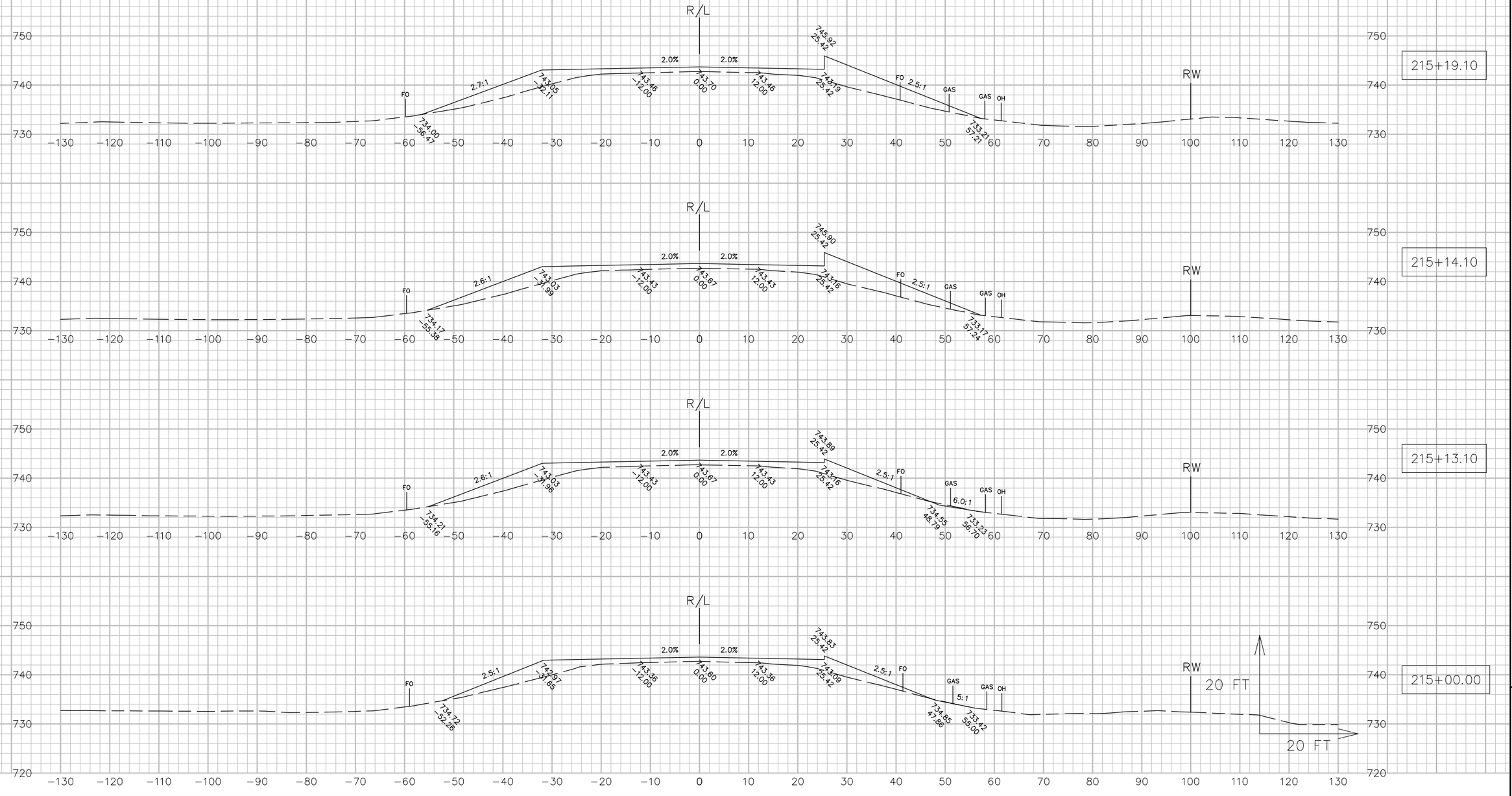


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 359	E

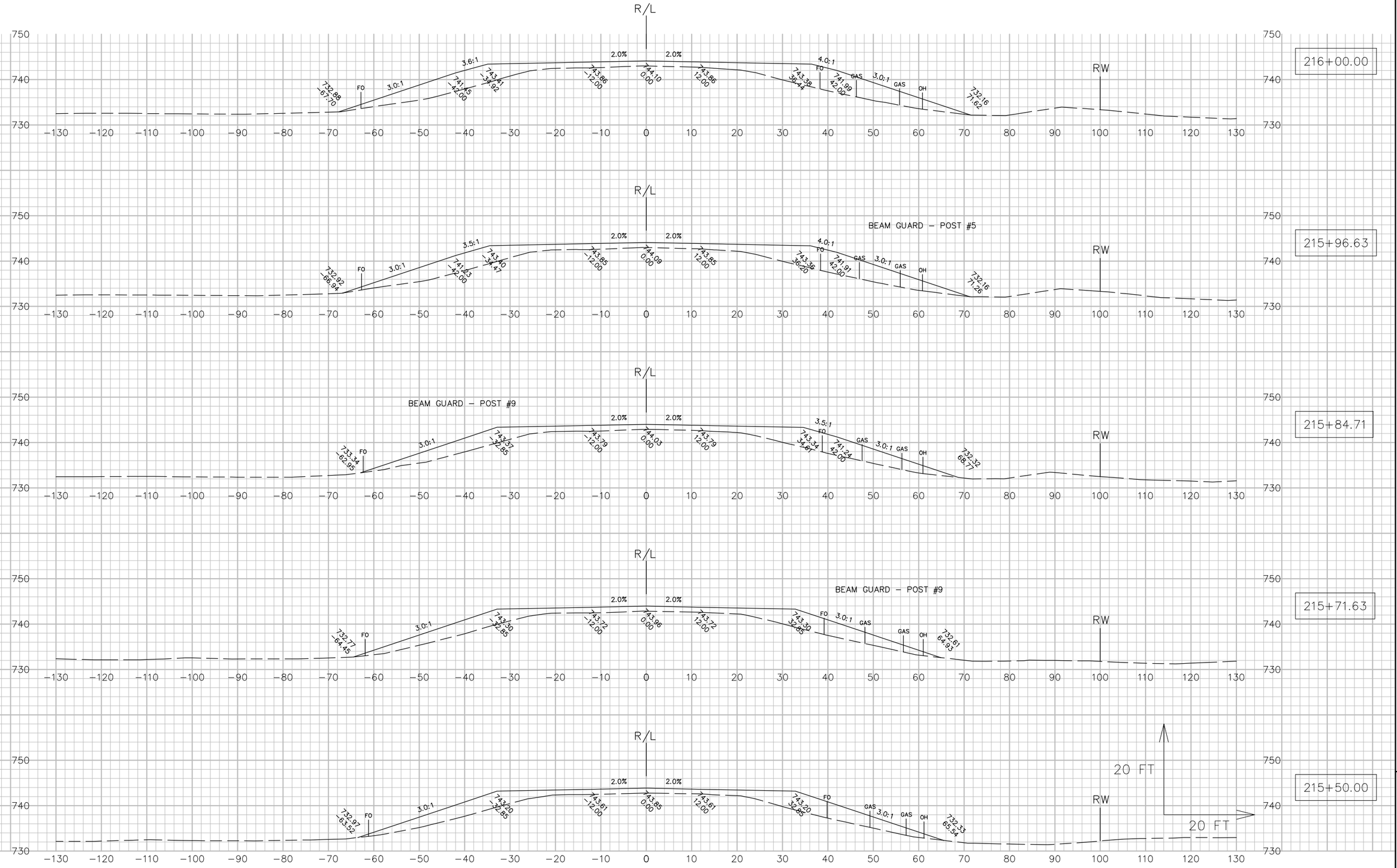


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 360	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090144_REV2_XS.DWG PLOT DATE : 4/1/2013 11:56 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

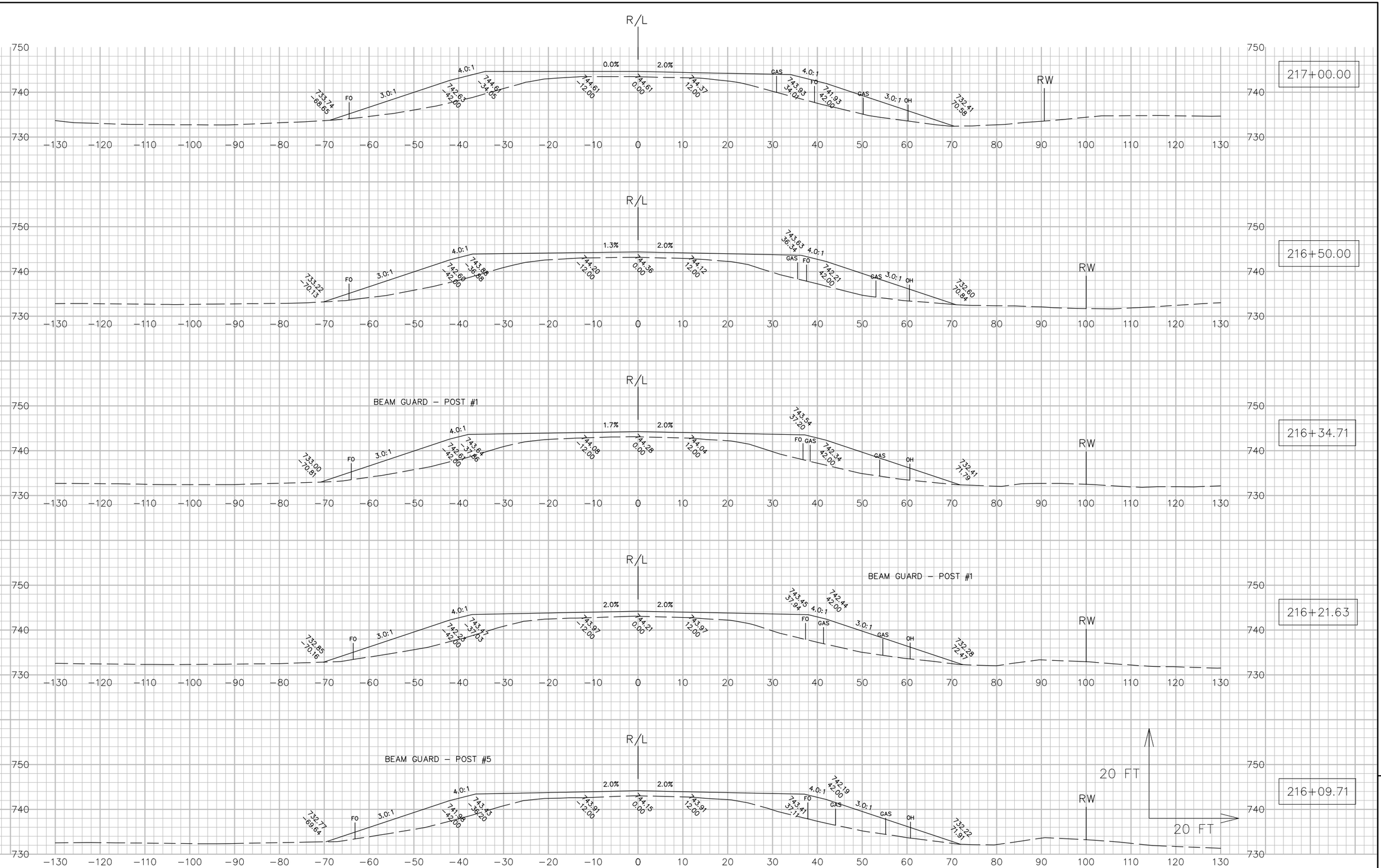


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 361	E



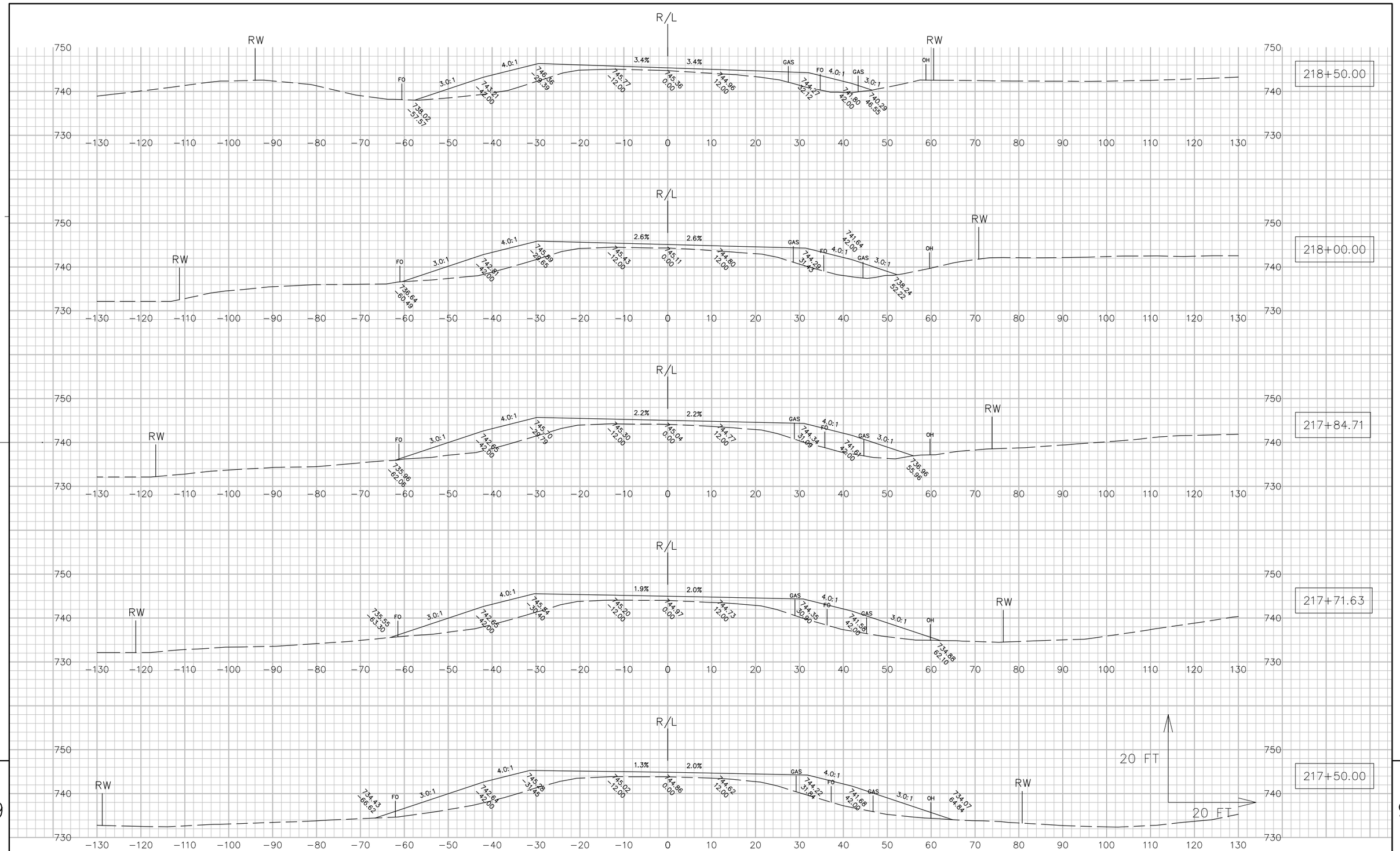
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 362	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090144_REV2_XS.DWG PLOT DATE : 4/1/2013 12:26 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____ PLOT SCALE : 1:20_XREF



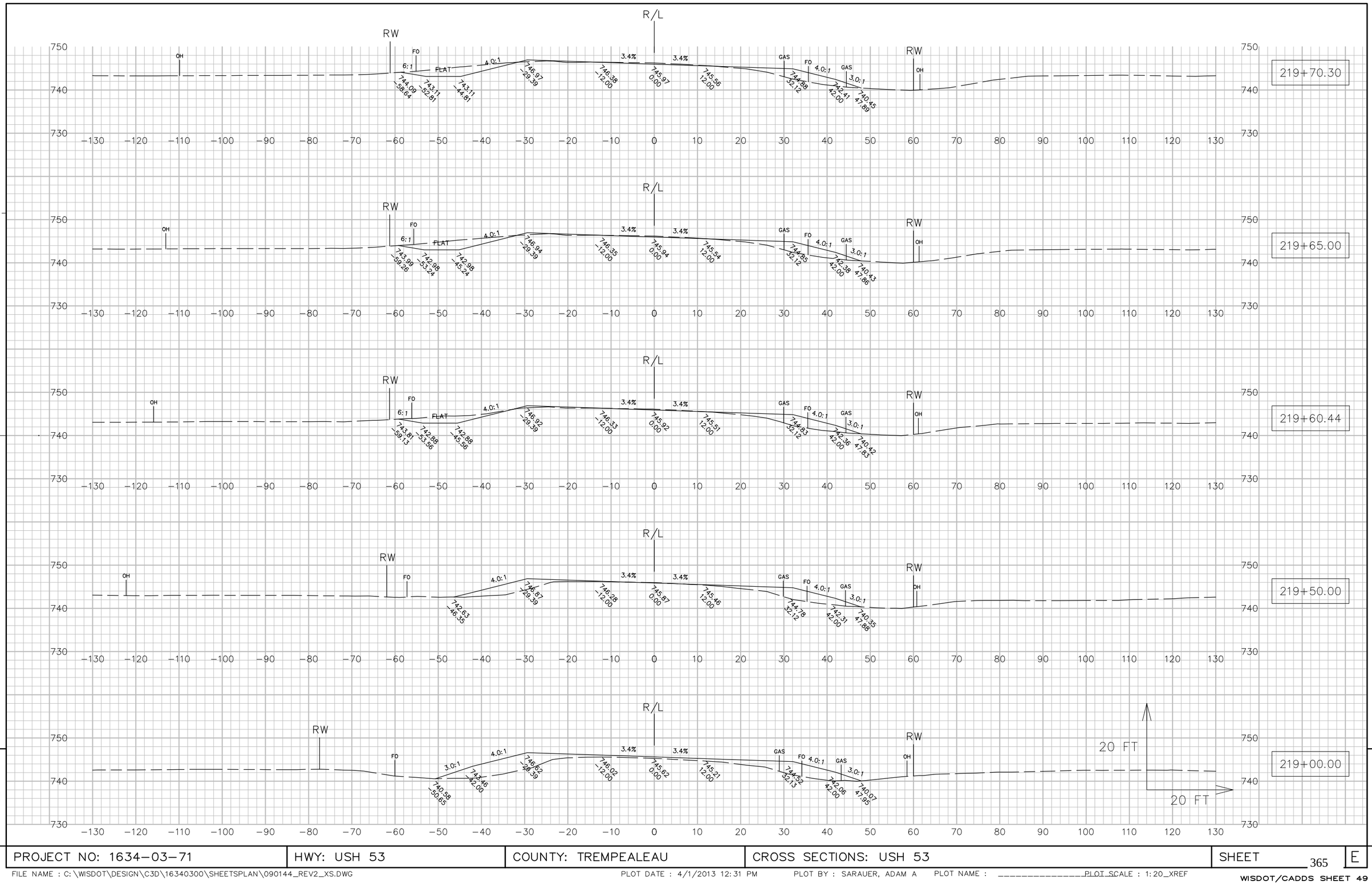
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 363	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090144_REV2_XS.DWG PLOT DATE : 4/1/2013 12:28 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

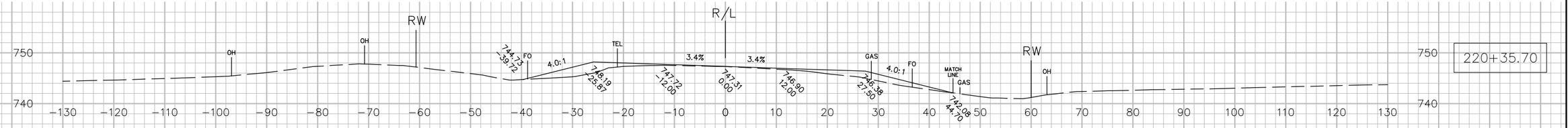


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 364	E

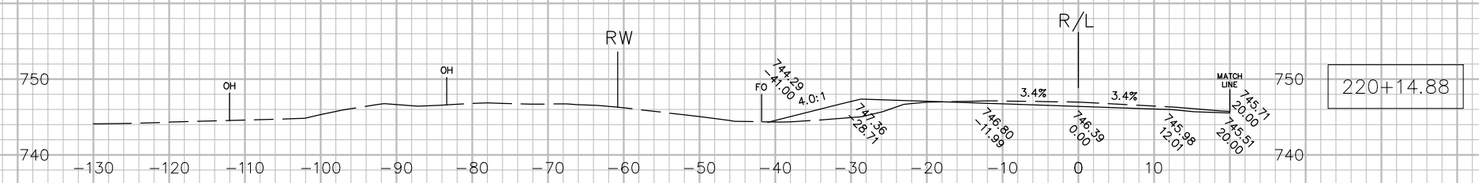
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090144_REV2_XS.DWG PLOT DATE : 4/1/2013 12:29 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



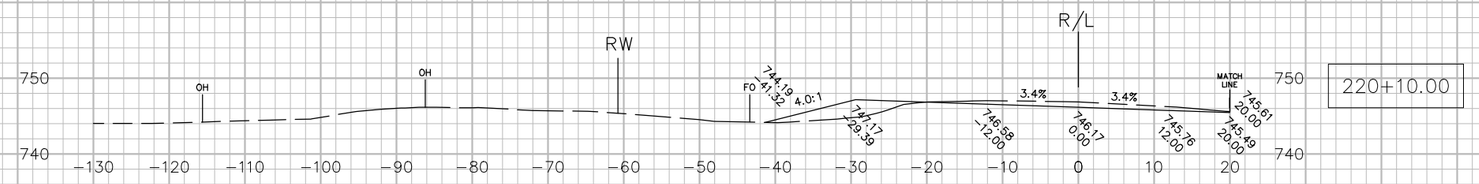
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 365	E



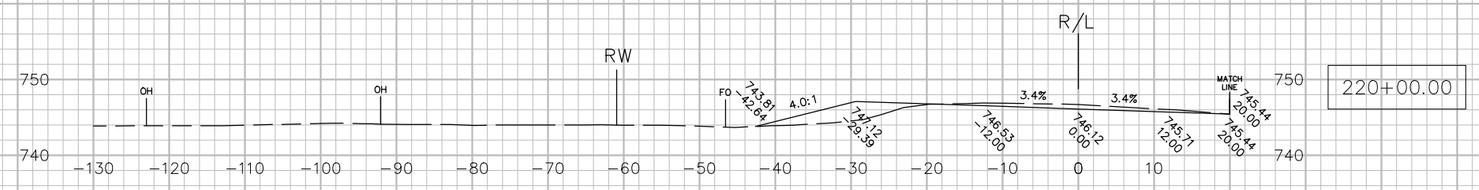
220+35.70



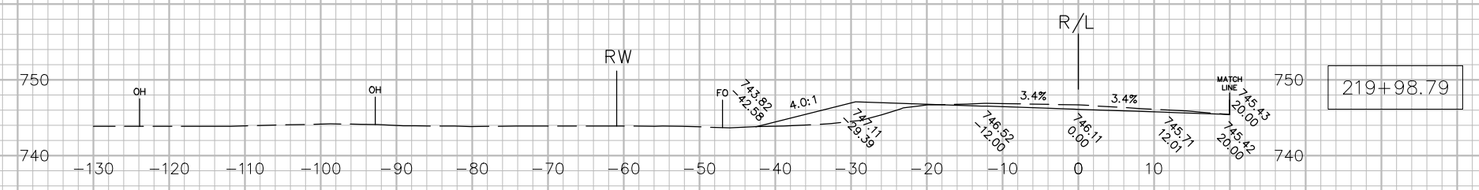
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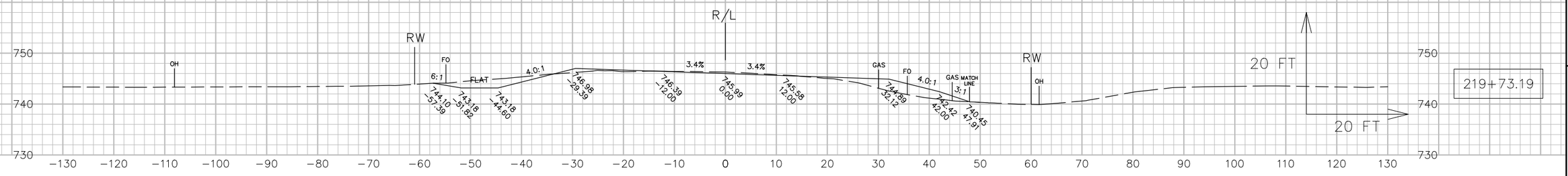
220+10.00



220+00.00



219+98.79

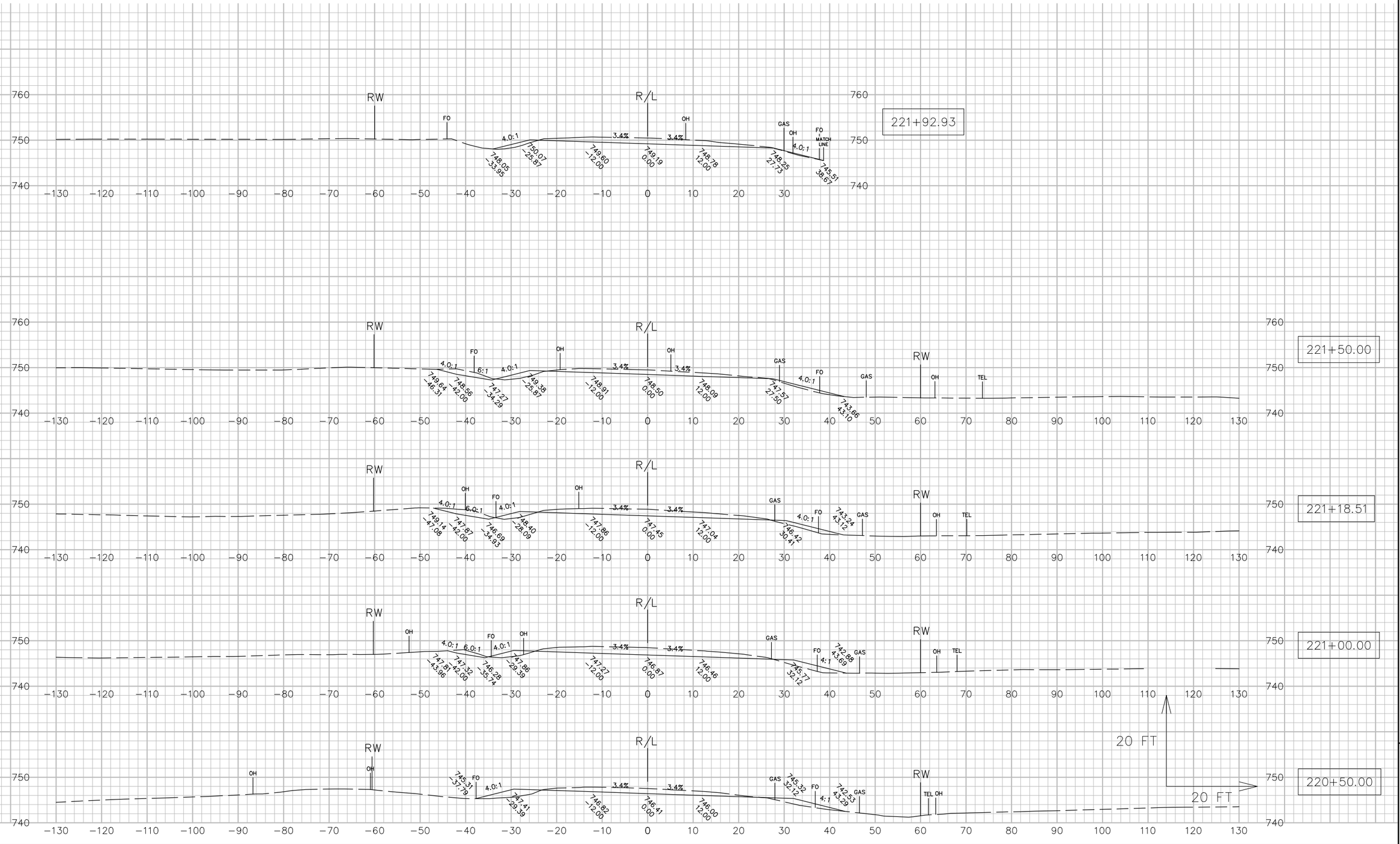


219+73.19

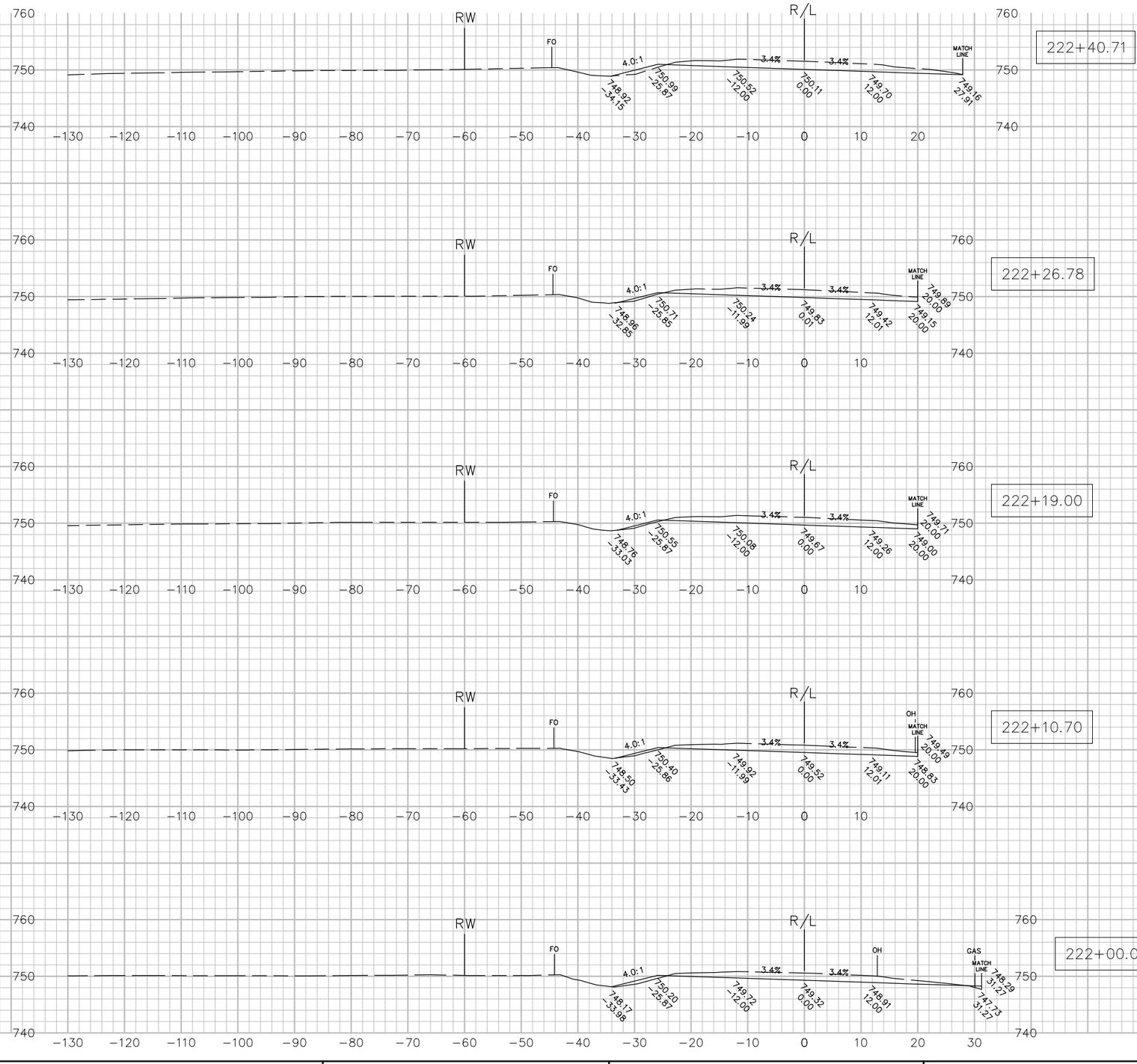
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9

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 366	E



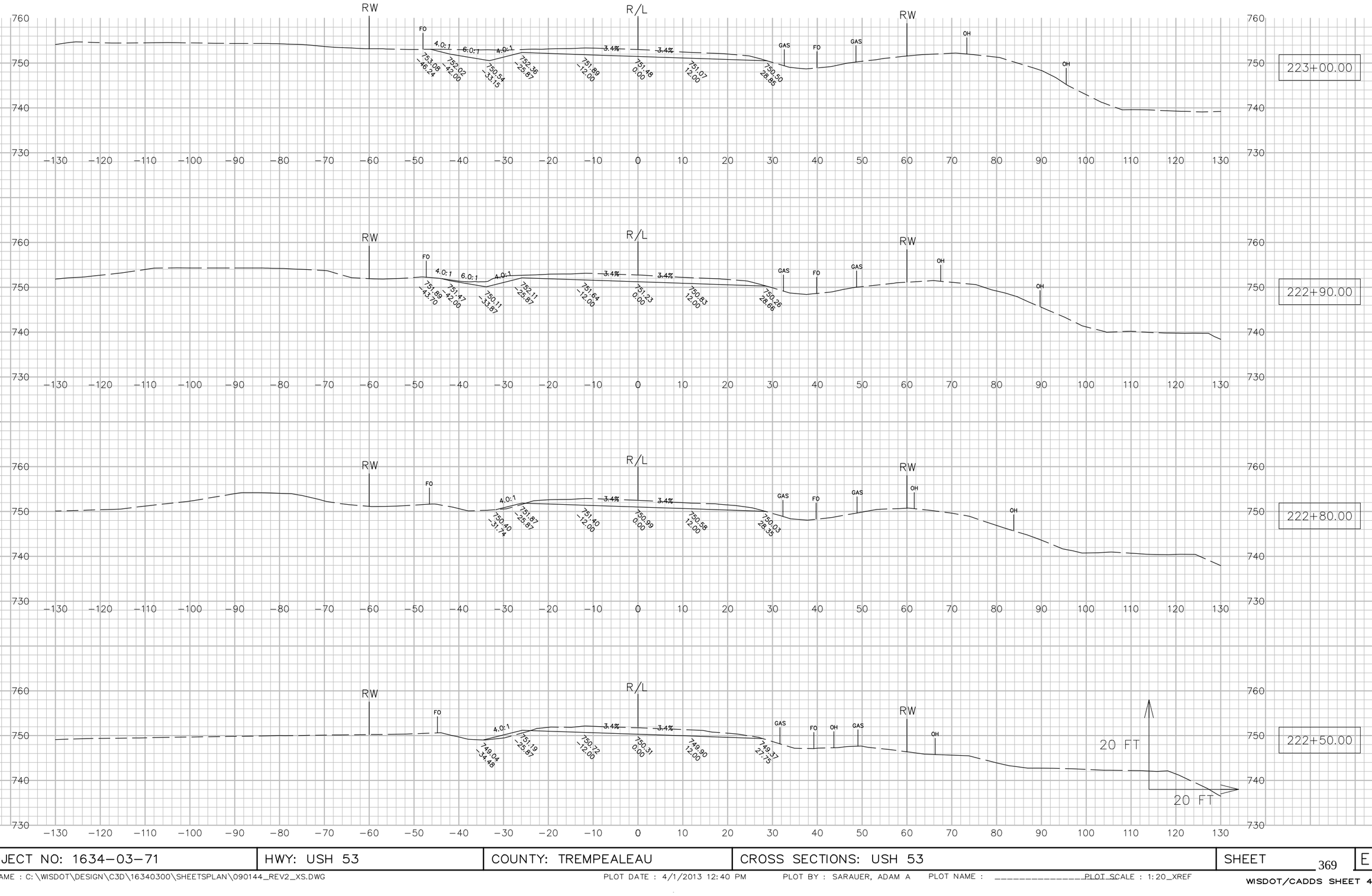
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 367	E



9

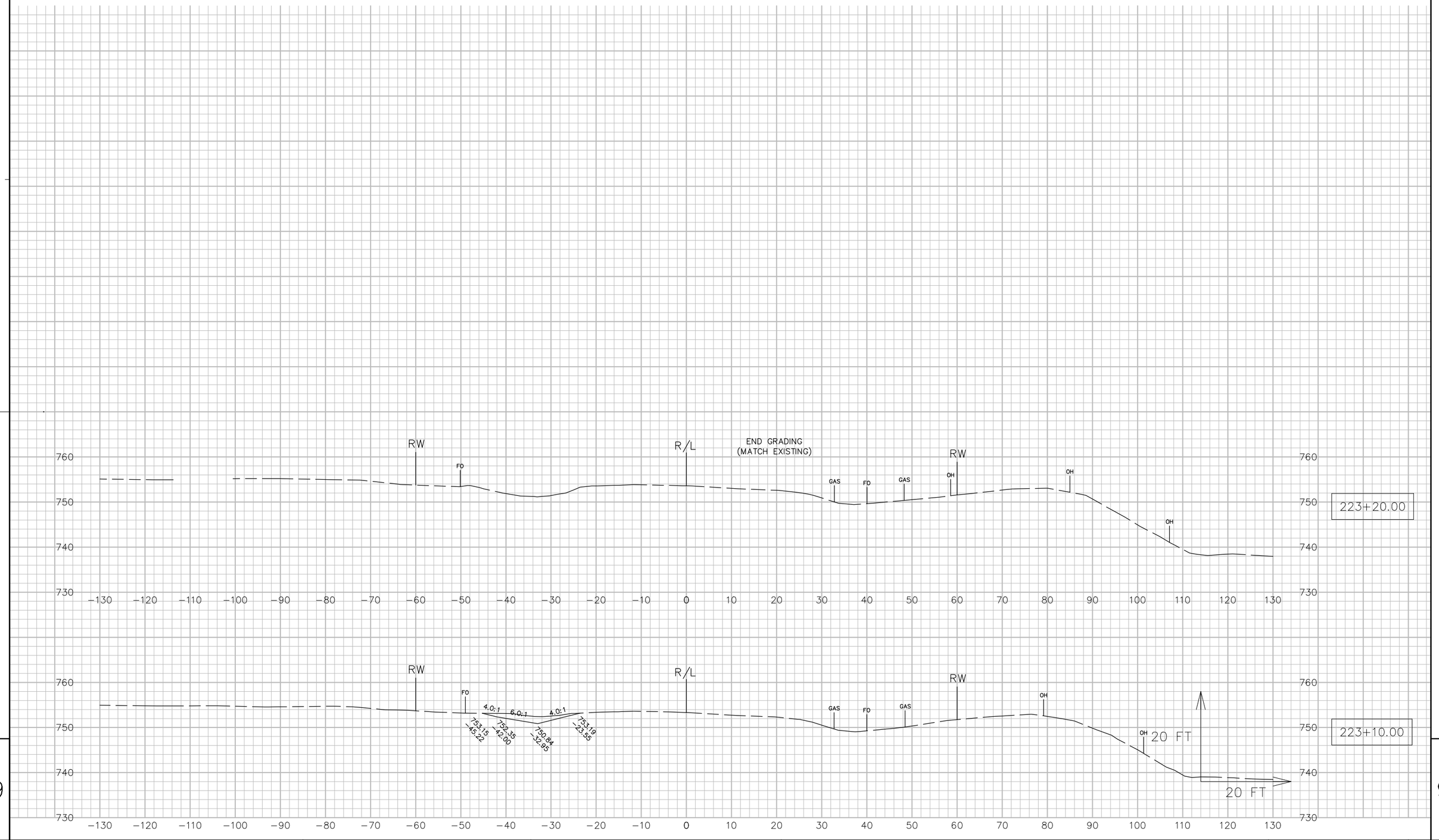
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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 368	E

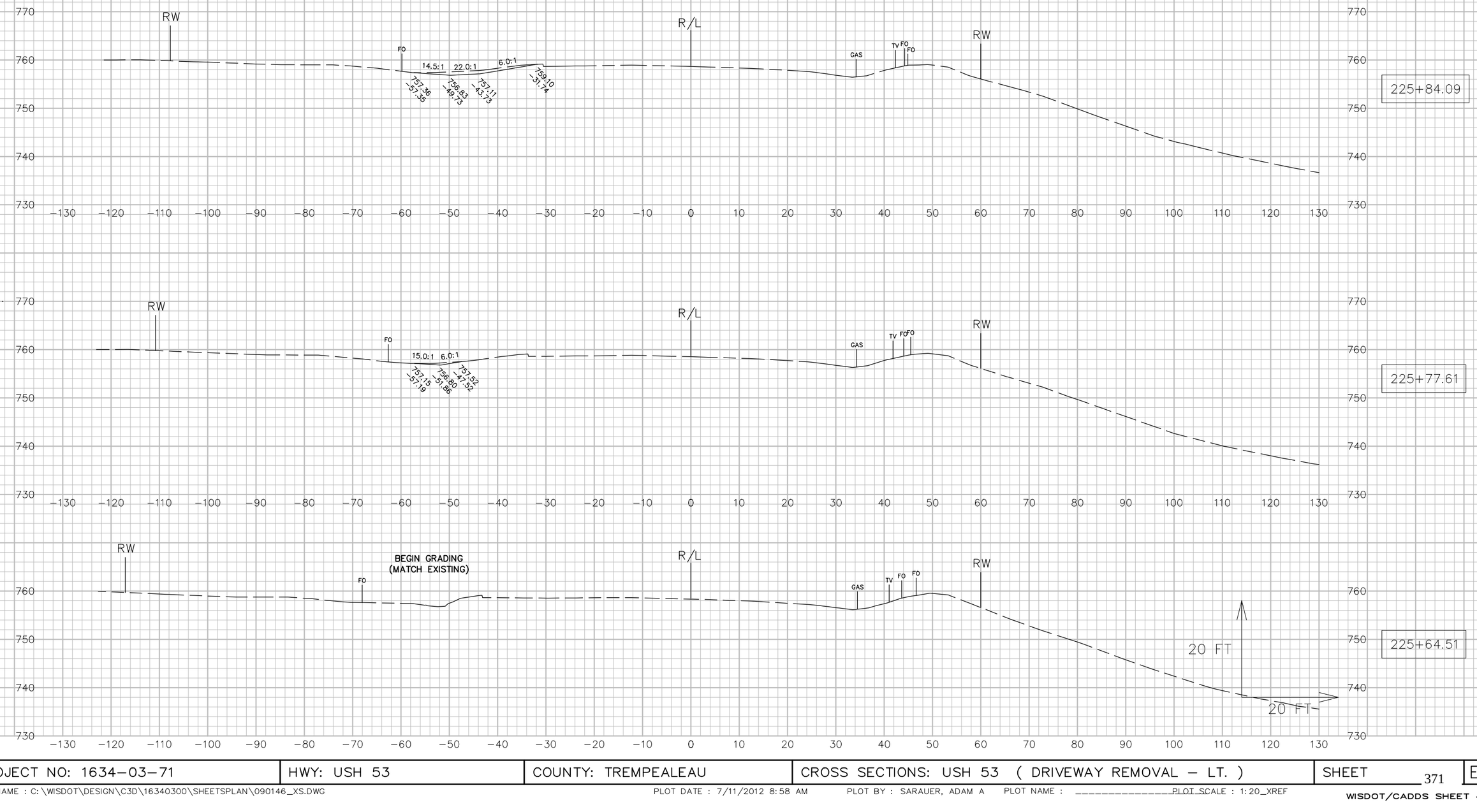


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 369	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090144_REV2_XS.DWG PLOT DATE : 4/1/2013 12:40 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53	SHEET 370	E

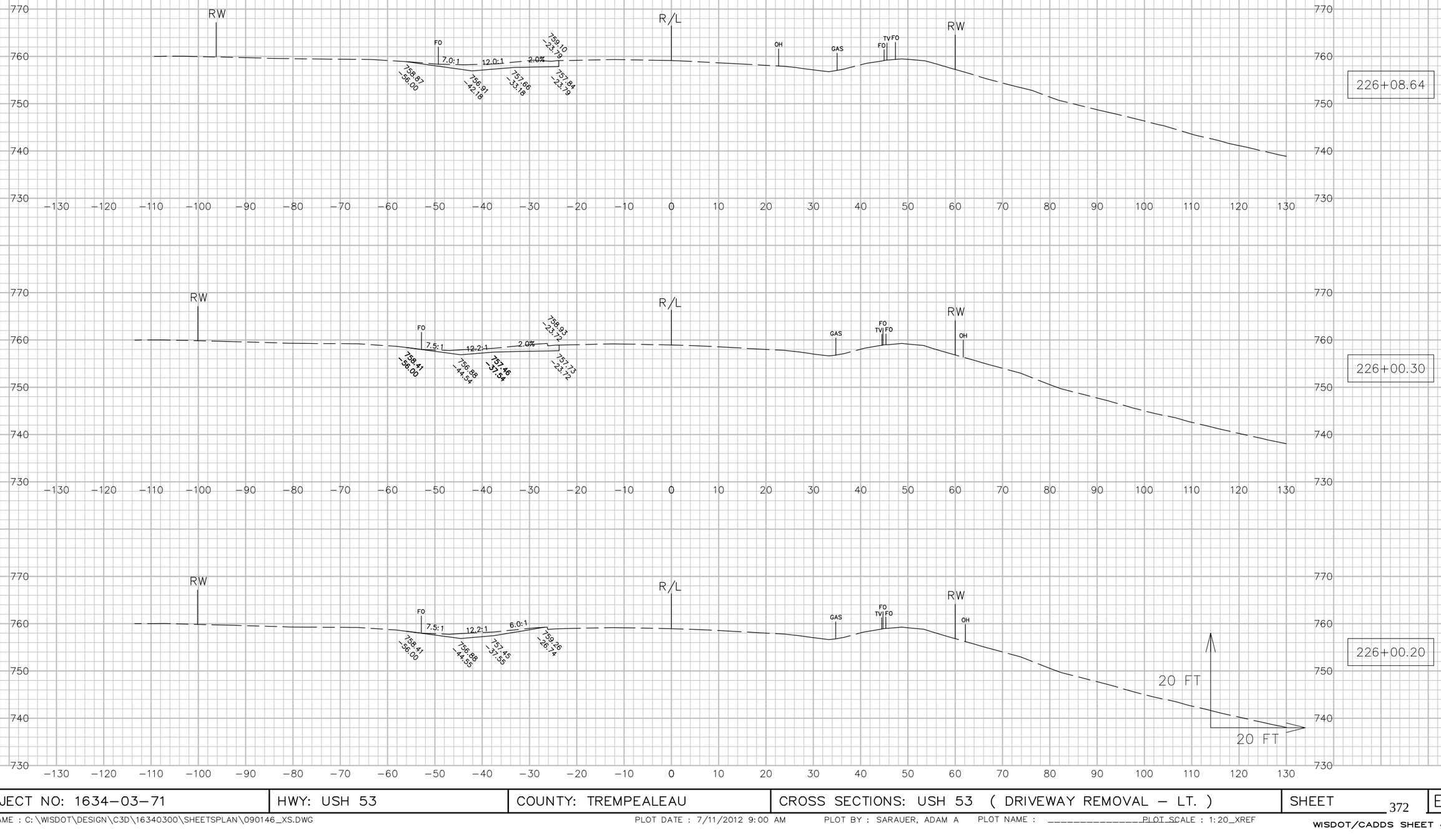


9

9

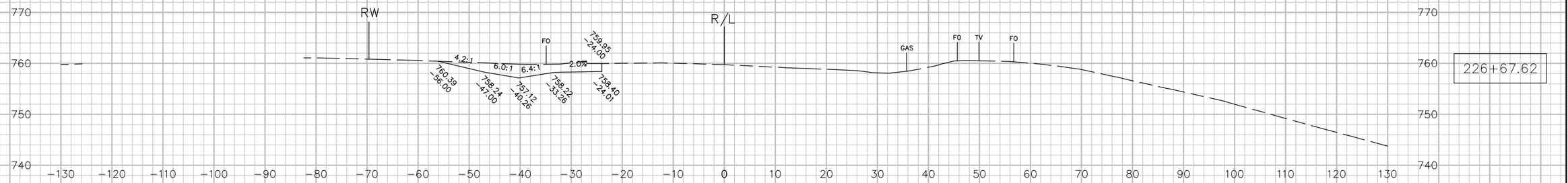
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL – LT.)	SHEET 371	E

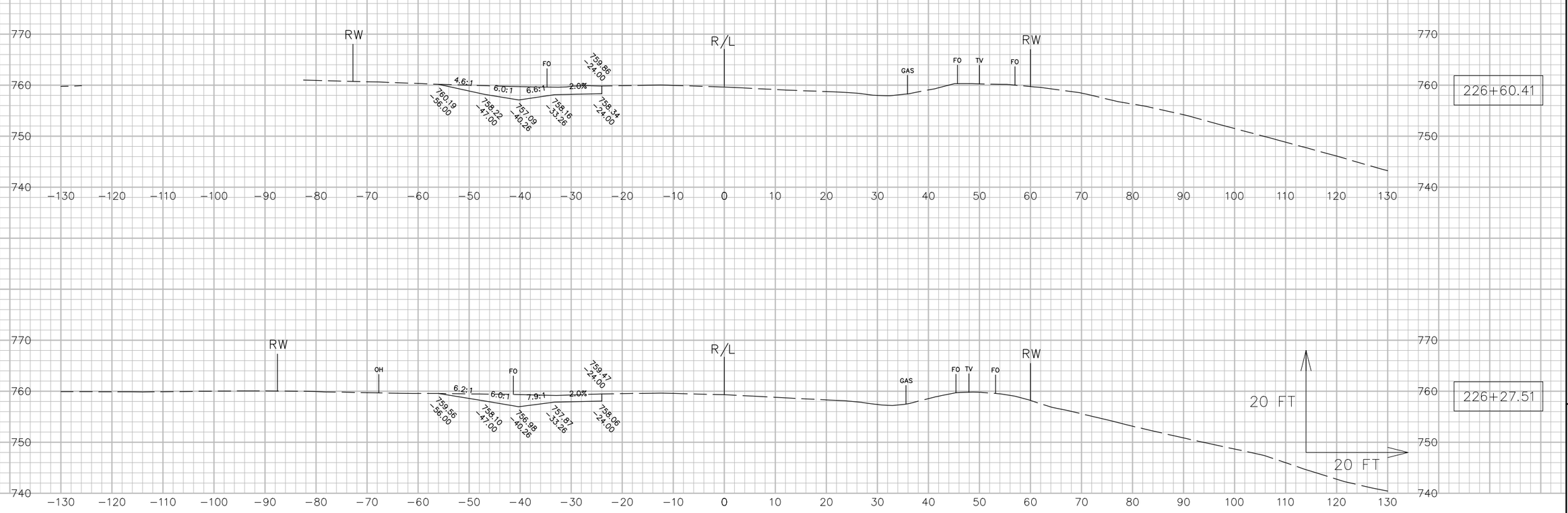
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090146_XS.DWG PLOT DATE : 7/11/2012 8:58 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL – LT.)	SHEET 372	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090146_XS.DWG PLOT DATE : 7/11/2012 9:00 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



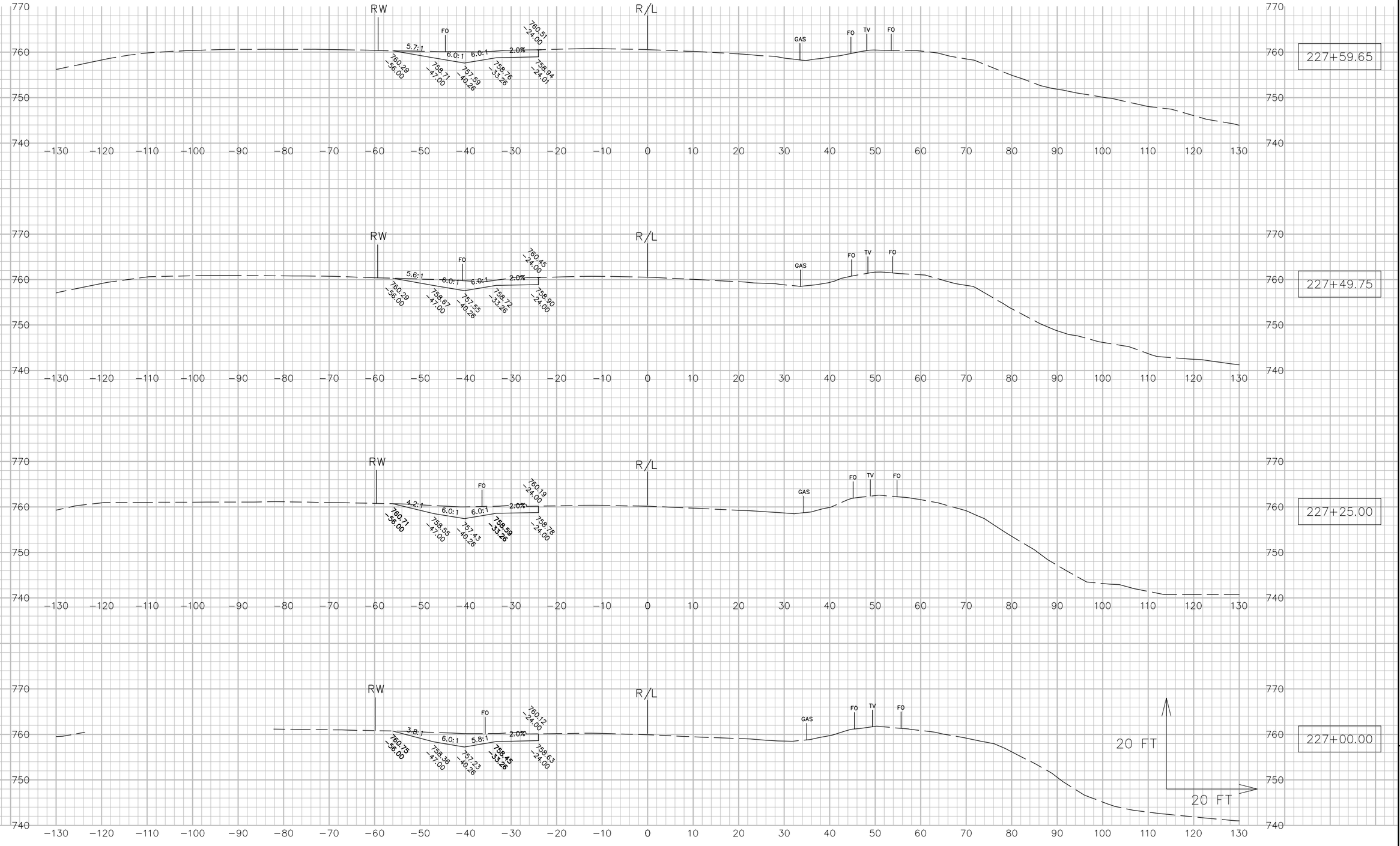


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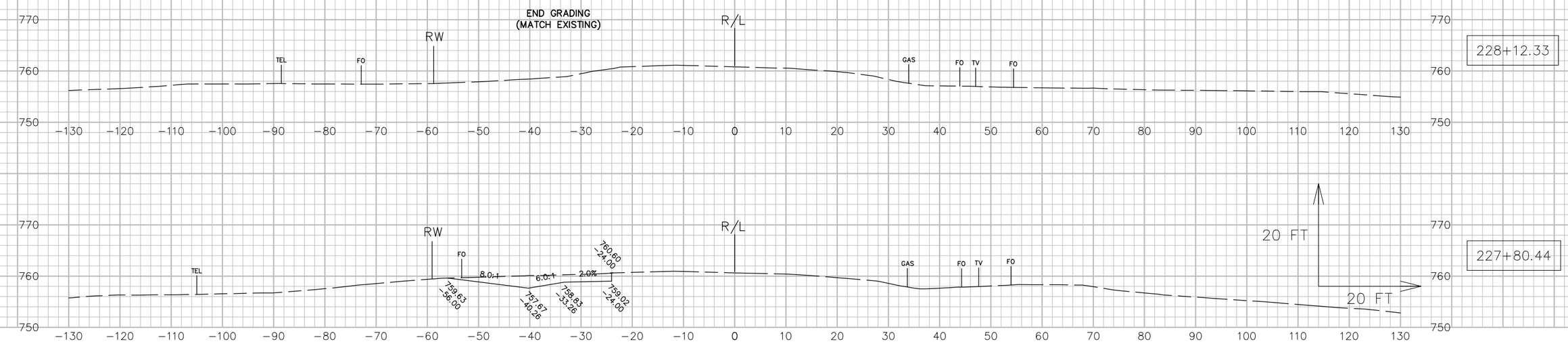
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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL – LT.)	SHEET 373	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090146_XS.DWG PLOT DATE : 7/11/2012 9:05 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

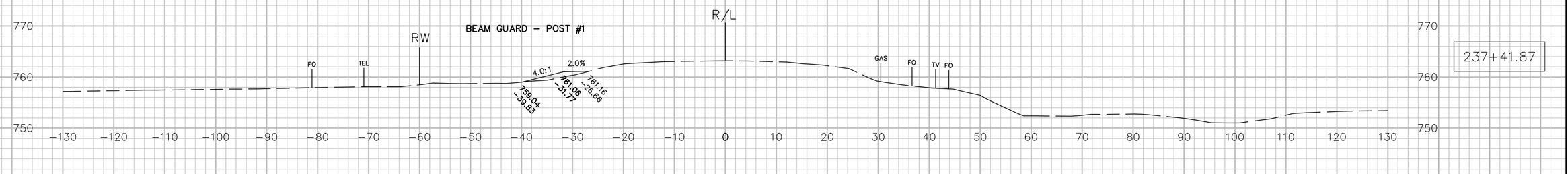


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL − LT.)	SHEET 374	E

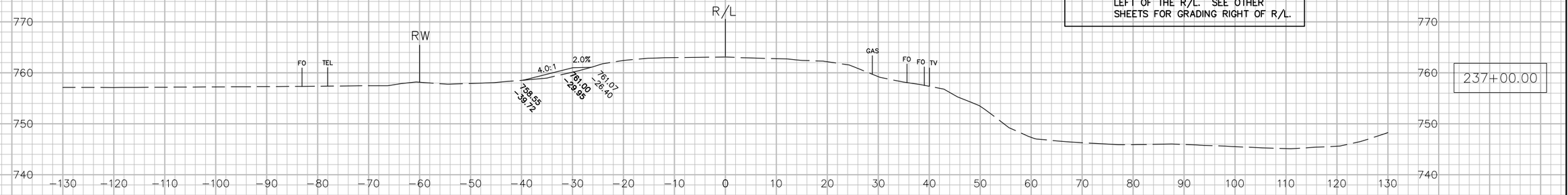


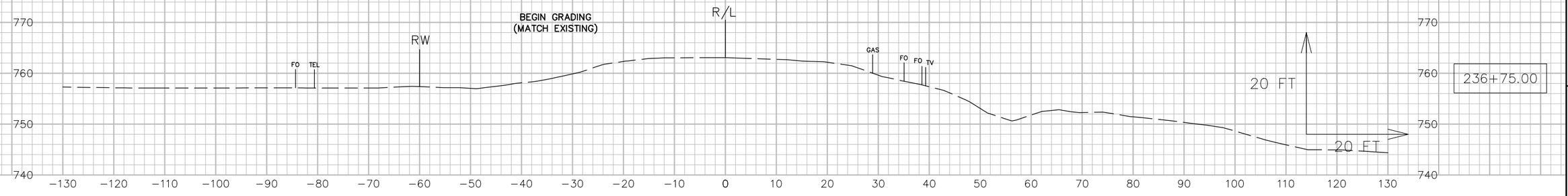
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL – LT.)	SHEET 375	E





NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

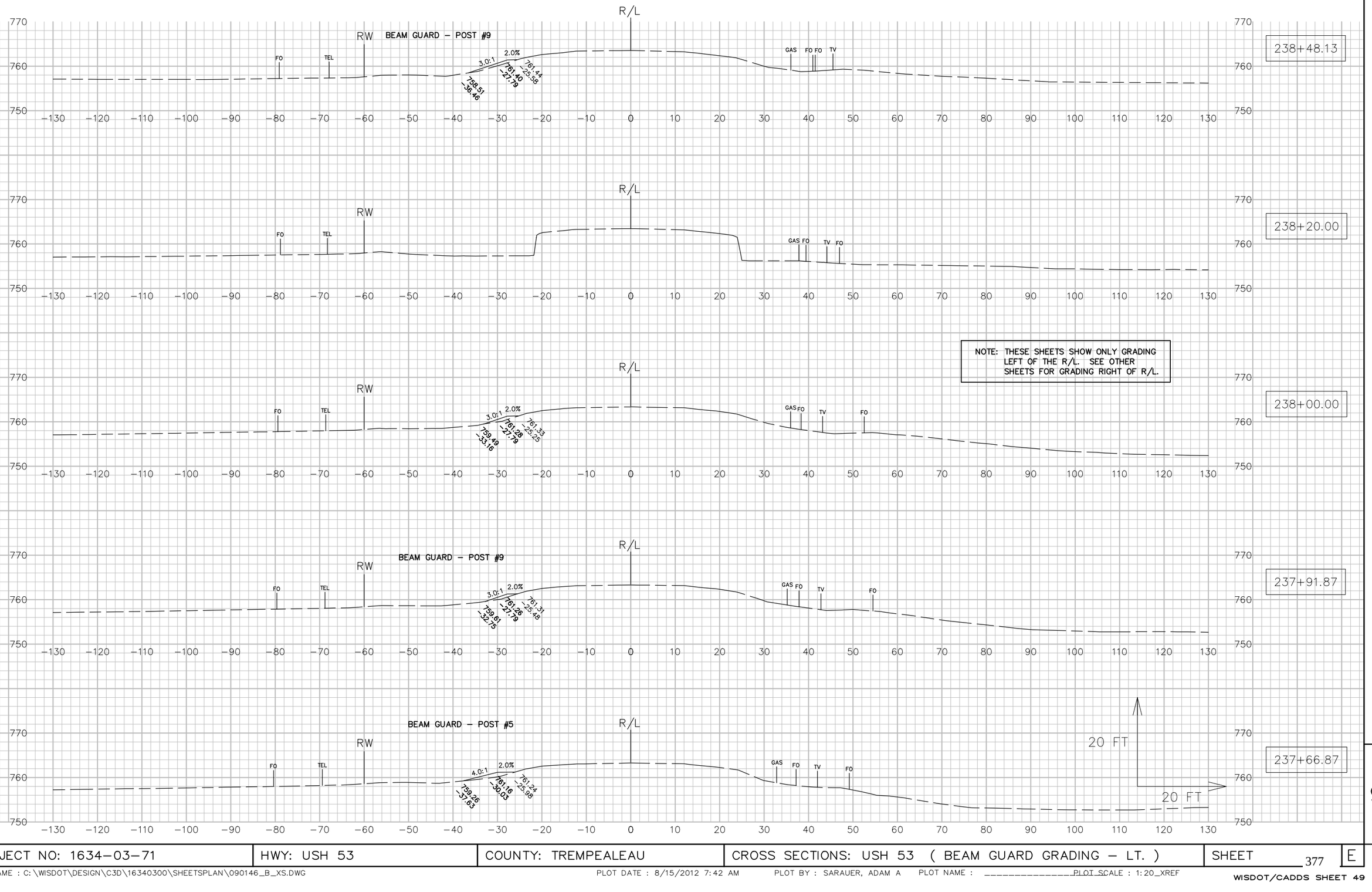




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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING - LT.)	SHEET 376	E

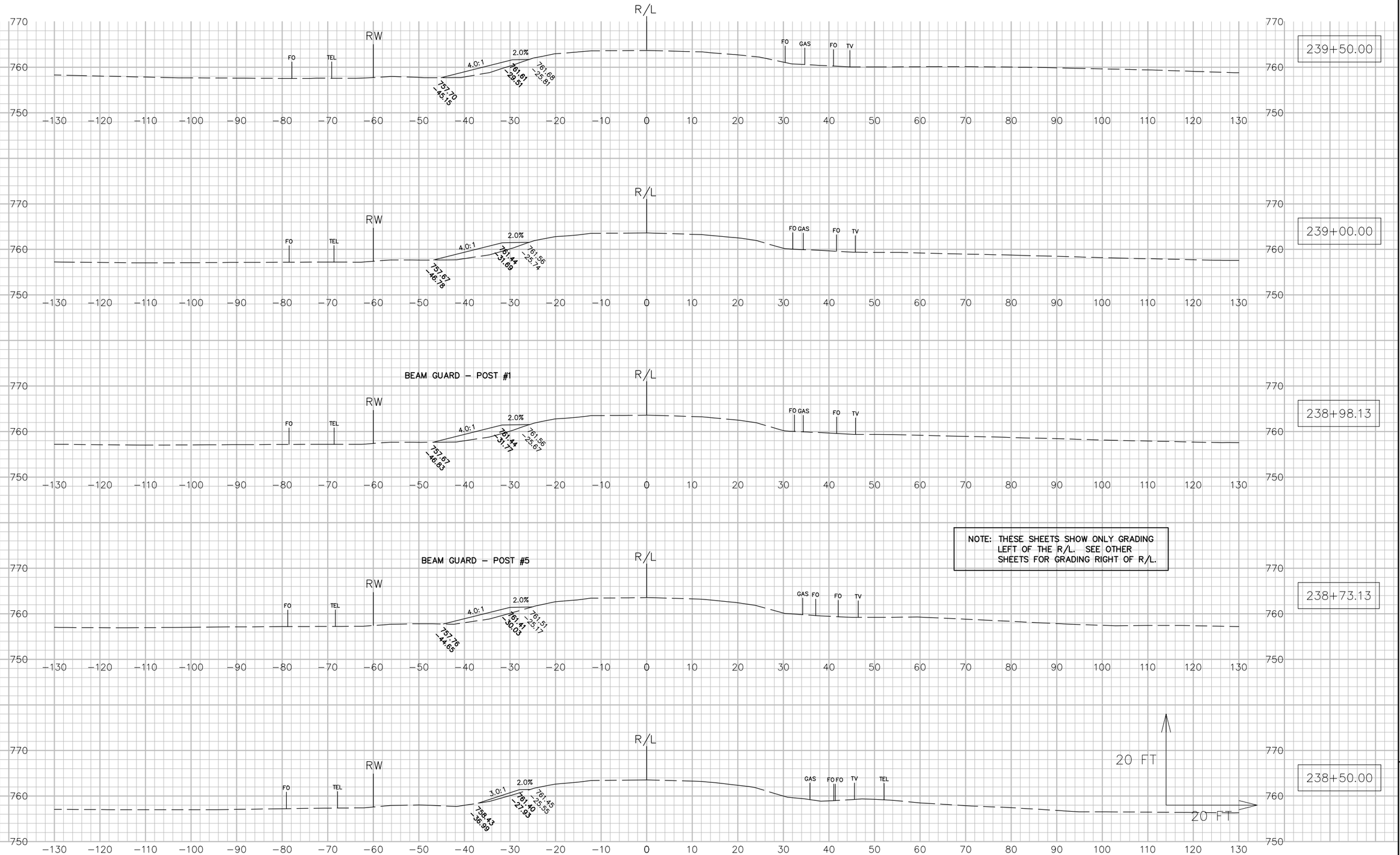


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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 377	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090146_B_XS.DWG PLOT DATE : 8/15/2012 7:42 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



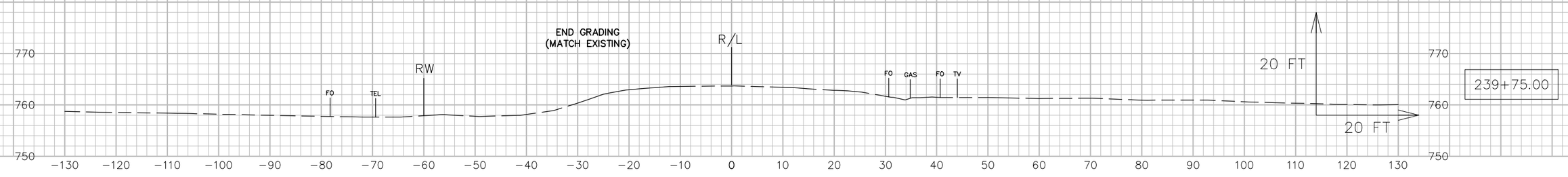
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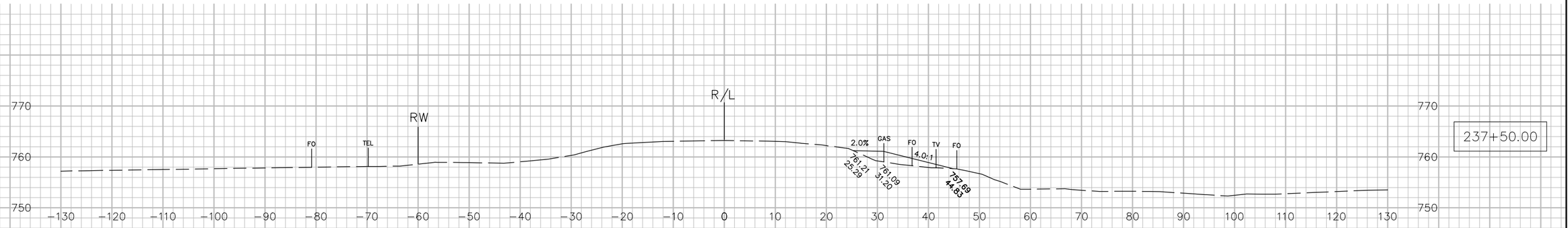
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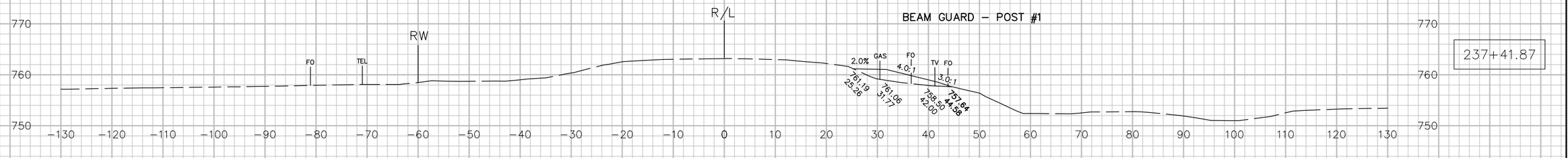
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NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

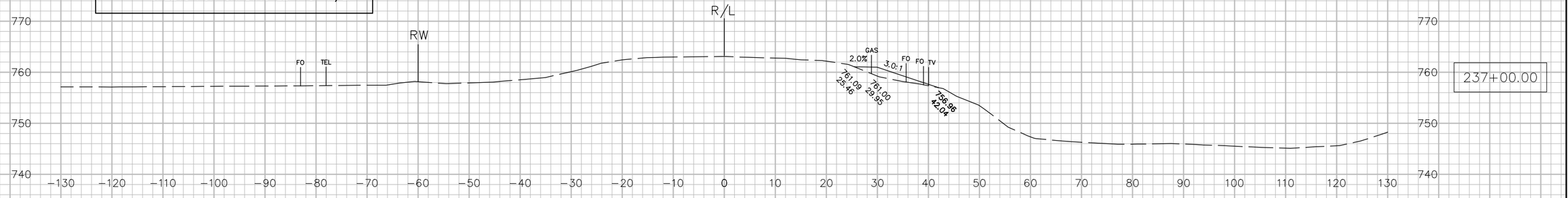


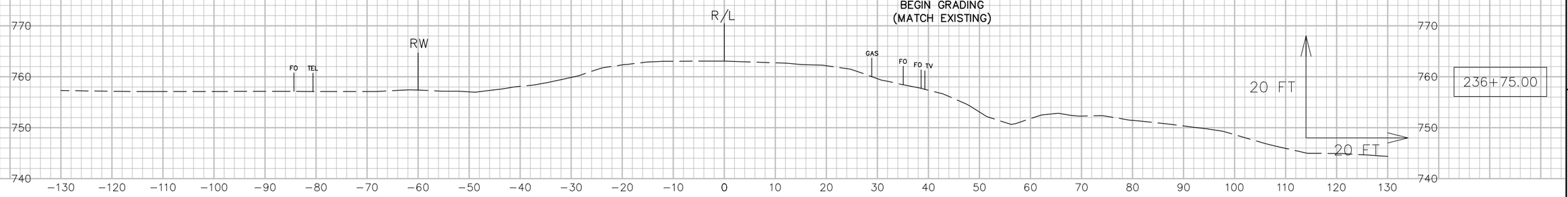
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − LT.)	SHEET 379	E





NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

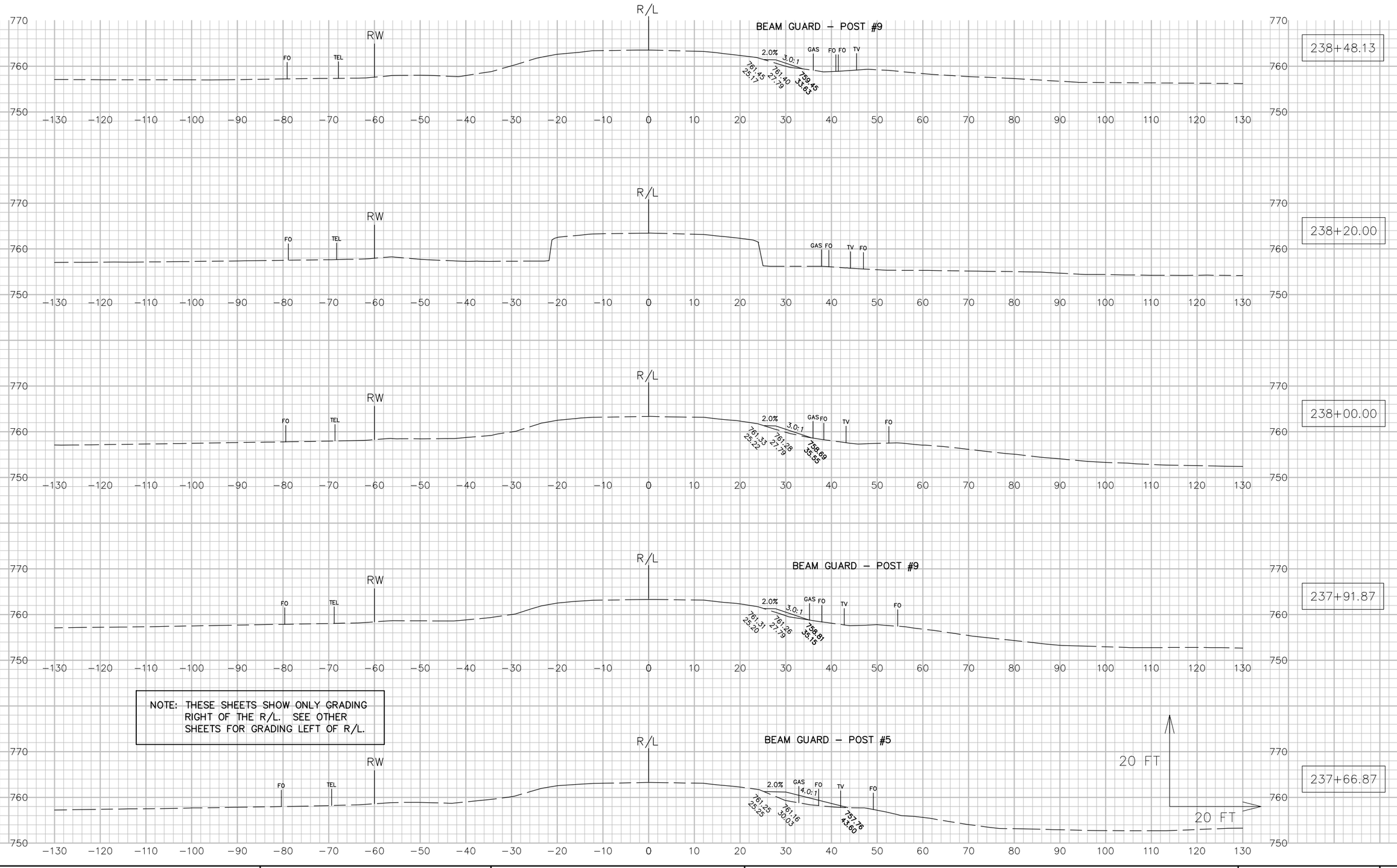




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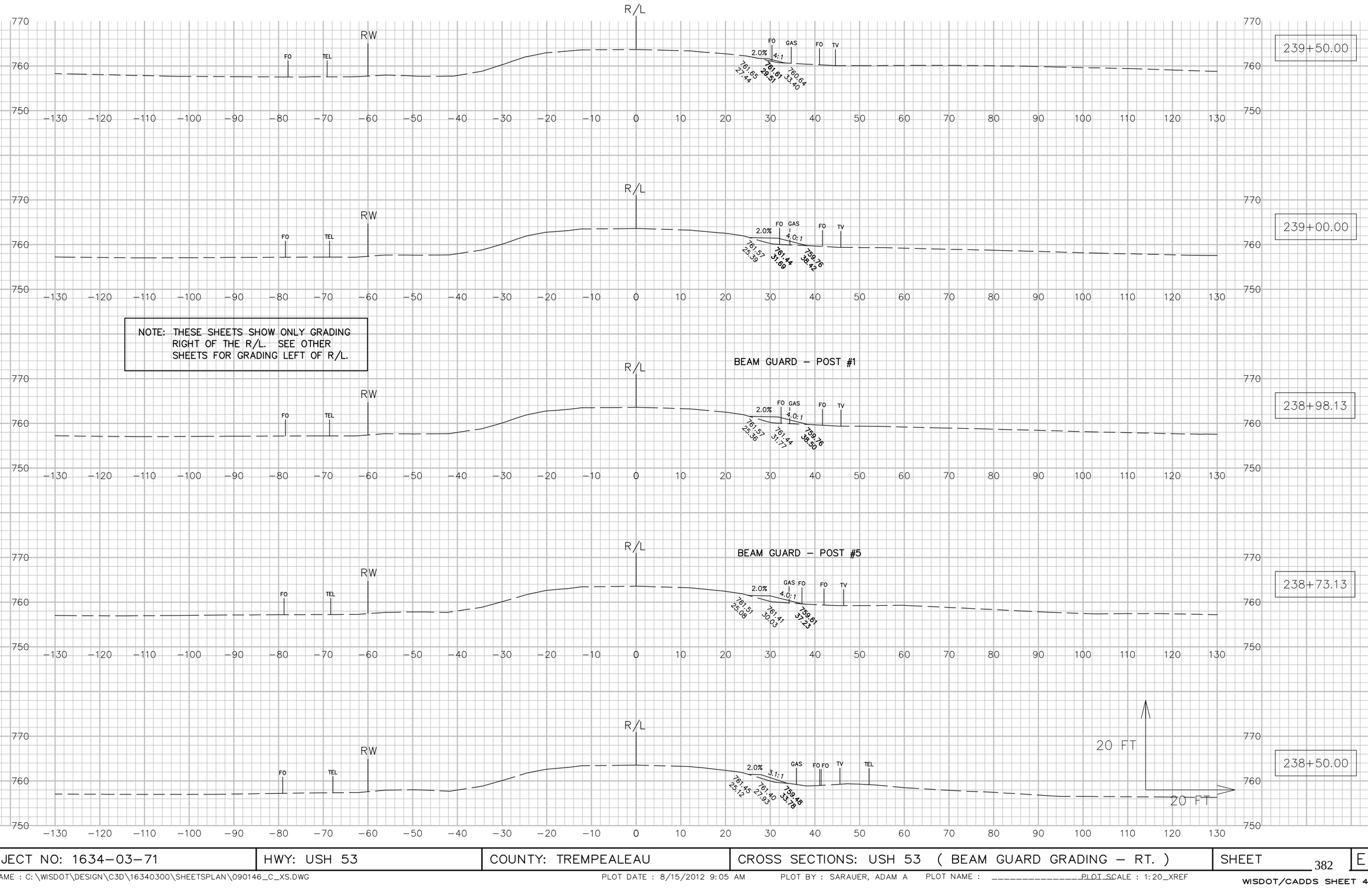
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 380	E



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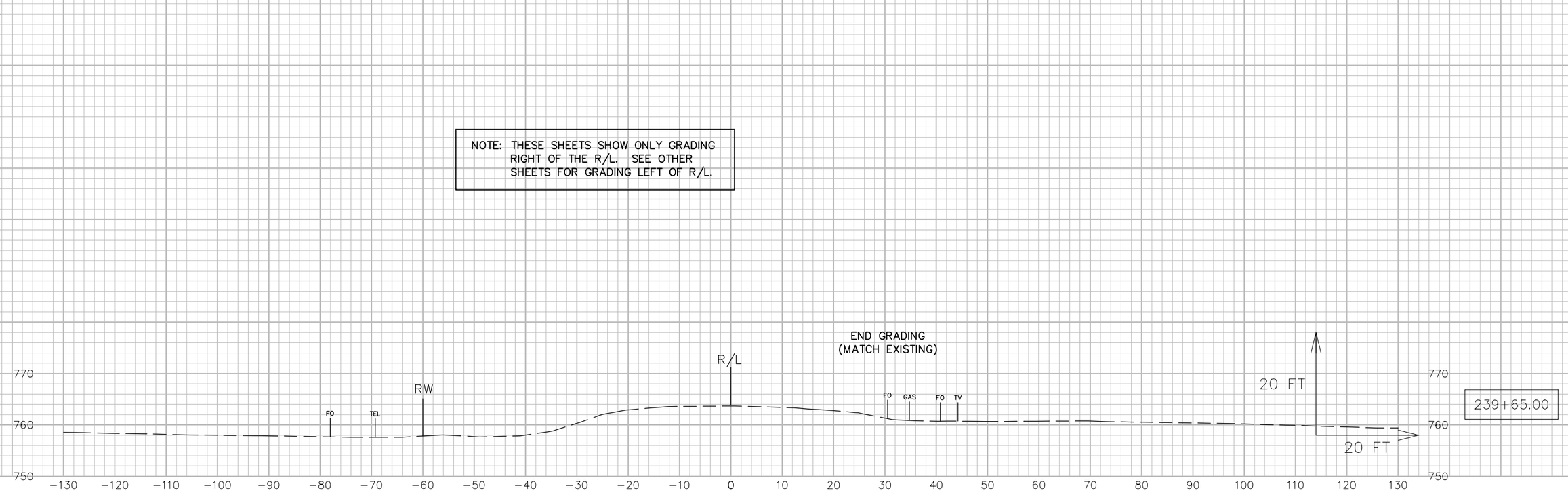
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 381	E



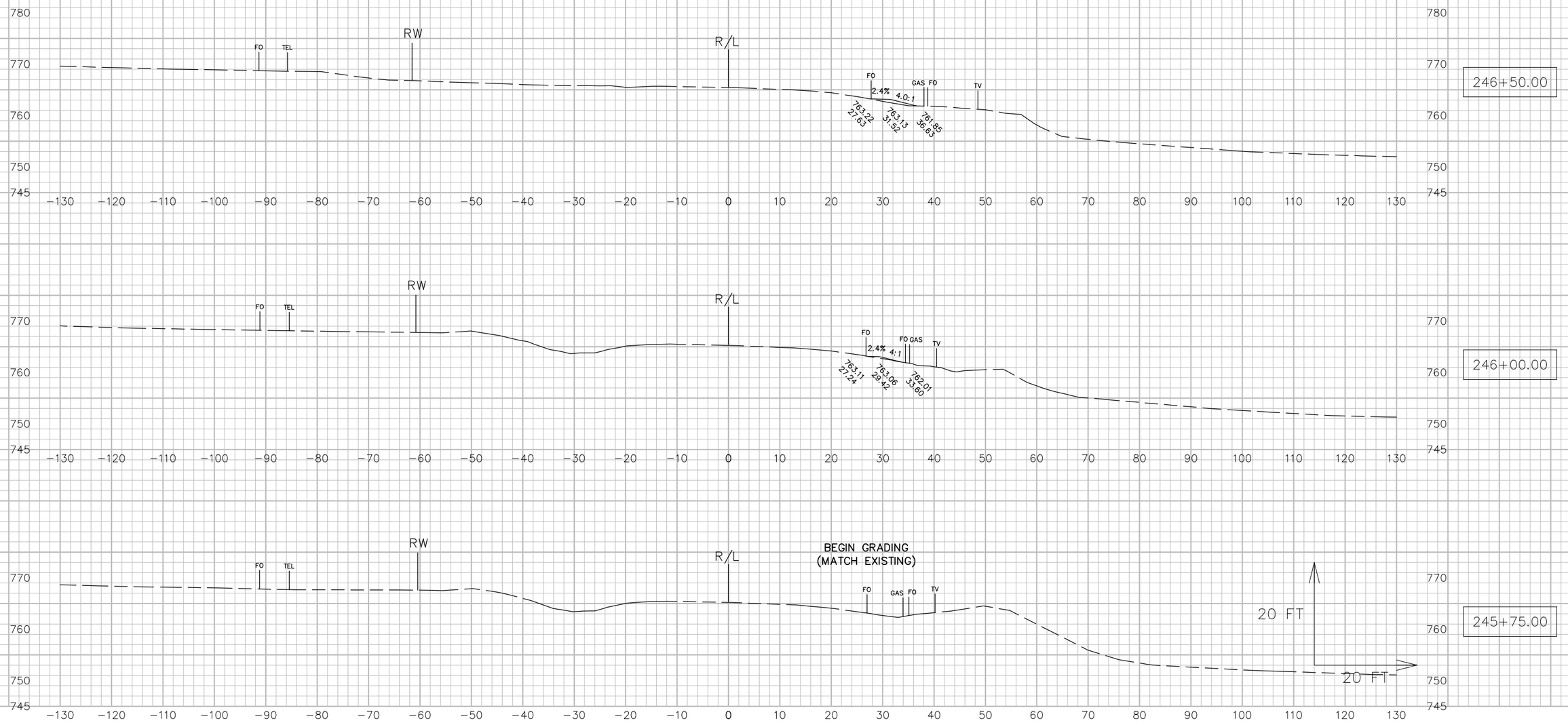
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 382	E

NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

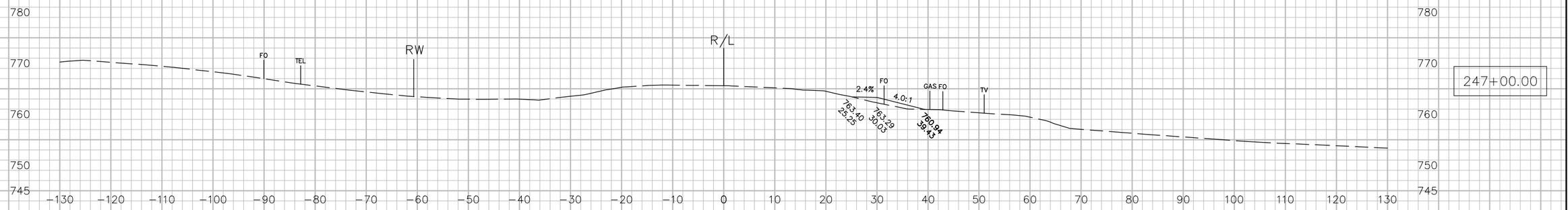


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − RT.)	SHEET 383	E

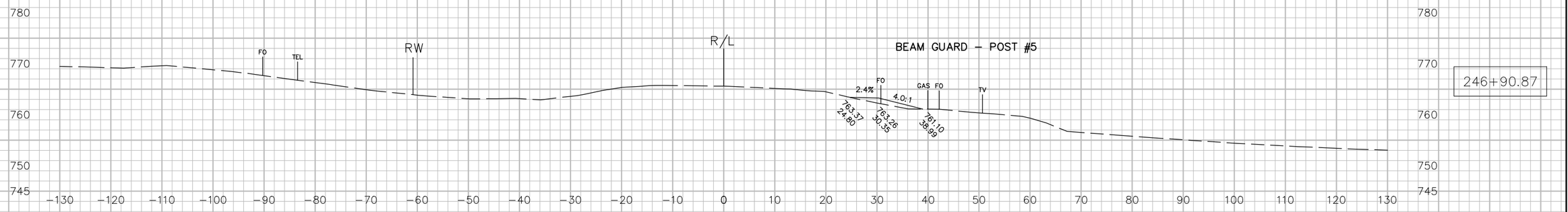
NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

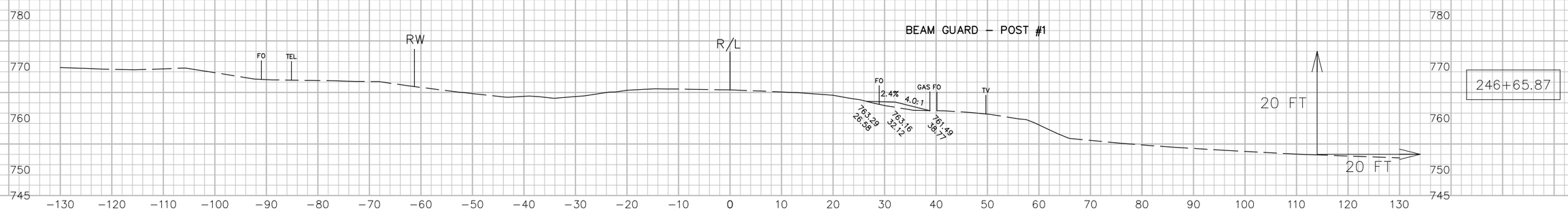


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − RT.)	SHEET 384	E



NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

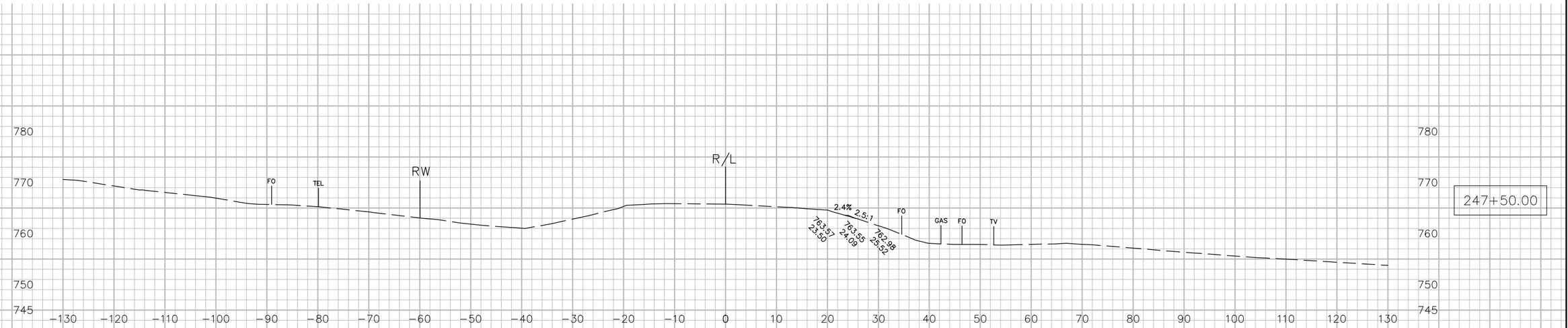


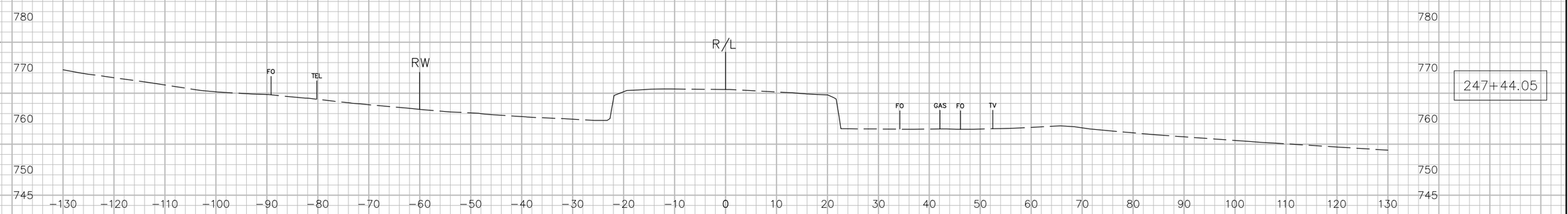


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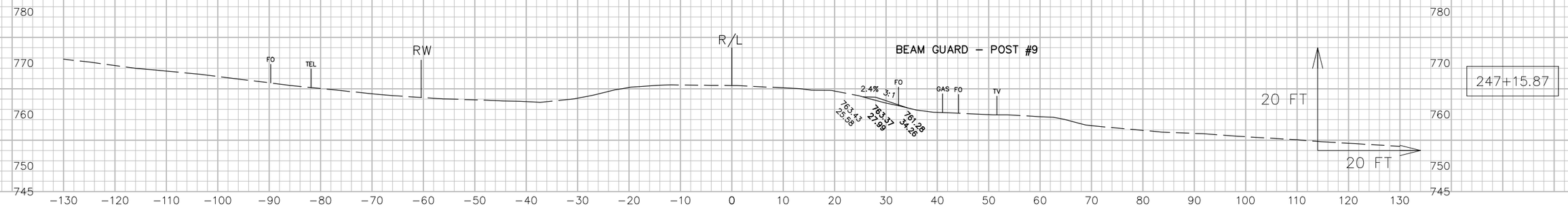
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 385	E





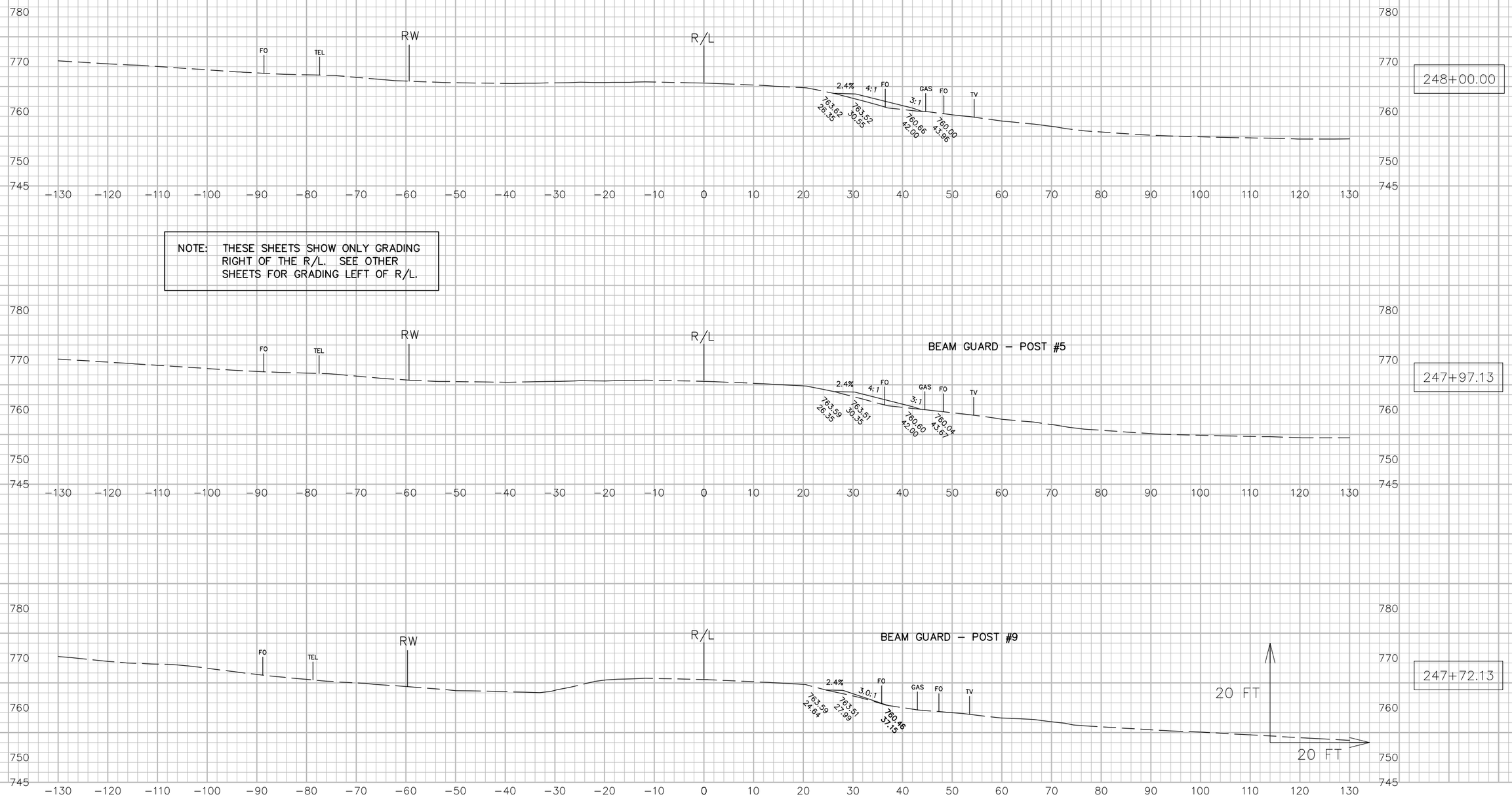
NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.



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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 386	E

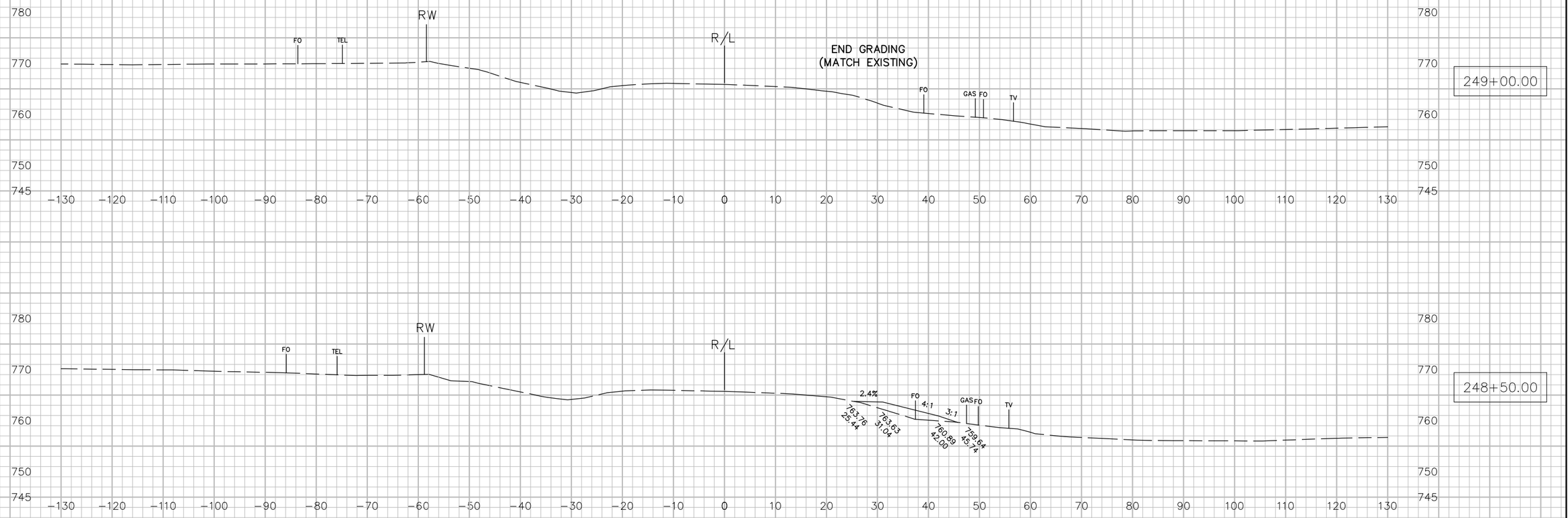


NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

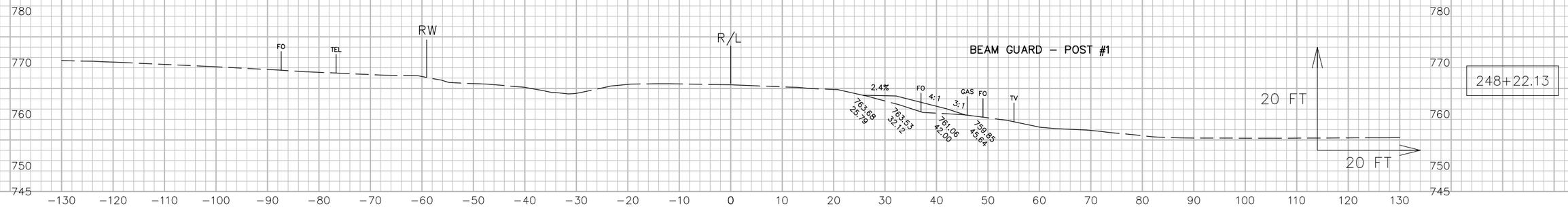
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 387	E



NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

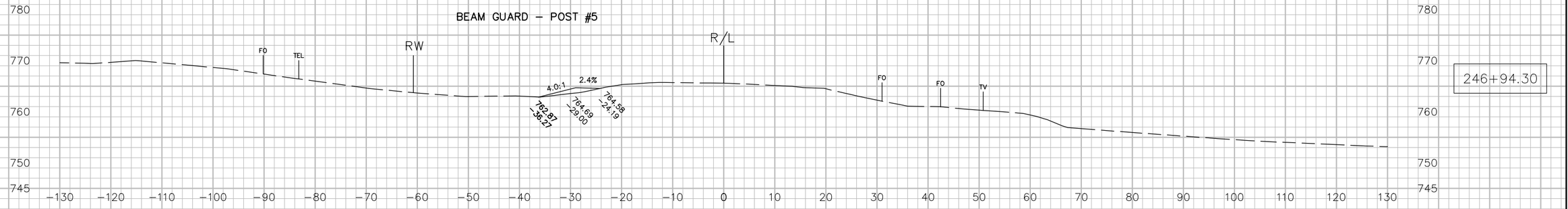


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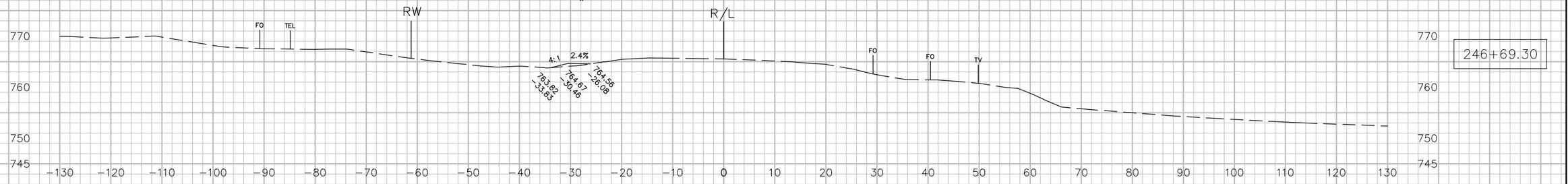
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 388	E

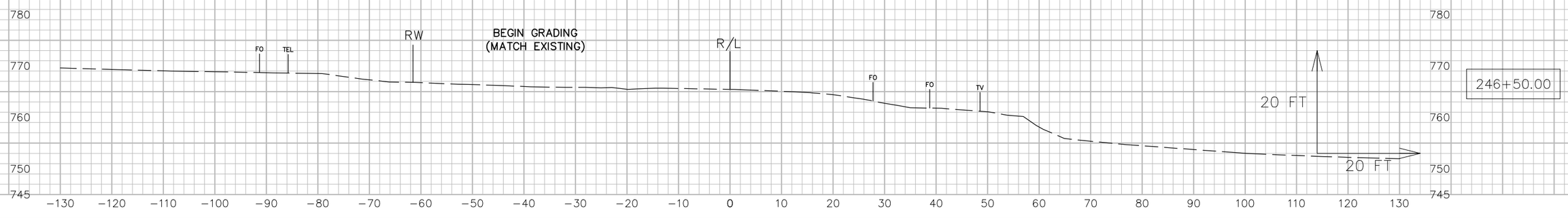
BEAM GUARD – POST #5



NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

BEAM GUARD – POST #1

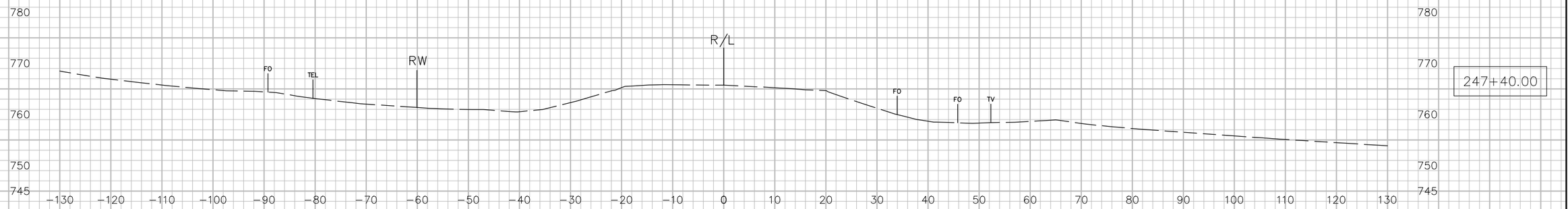




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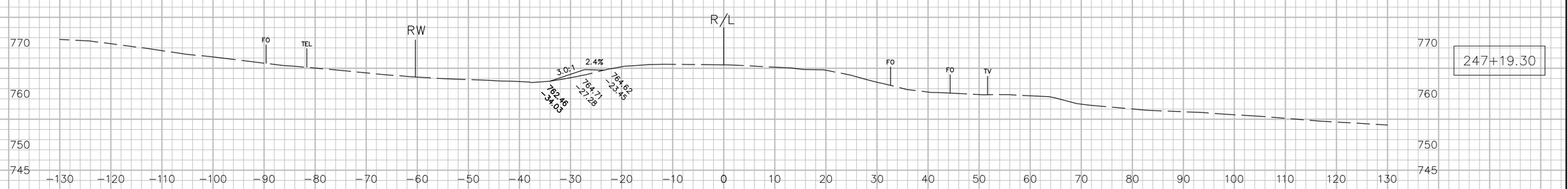
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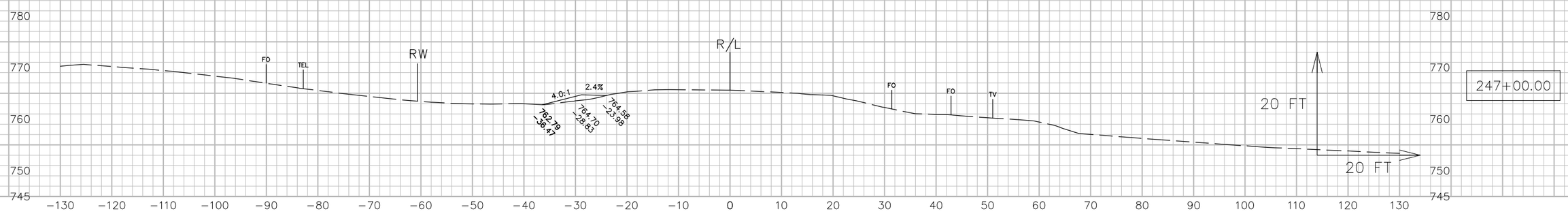
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 389	E



NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

BEAM GUARD – POST #9

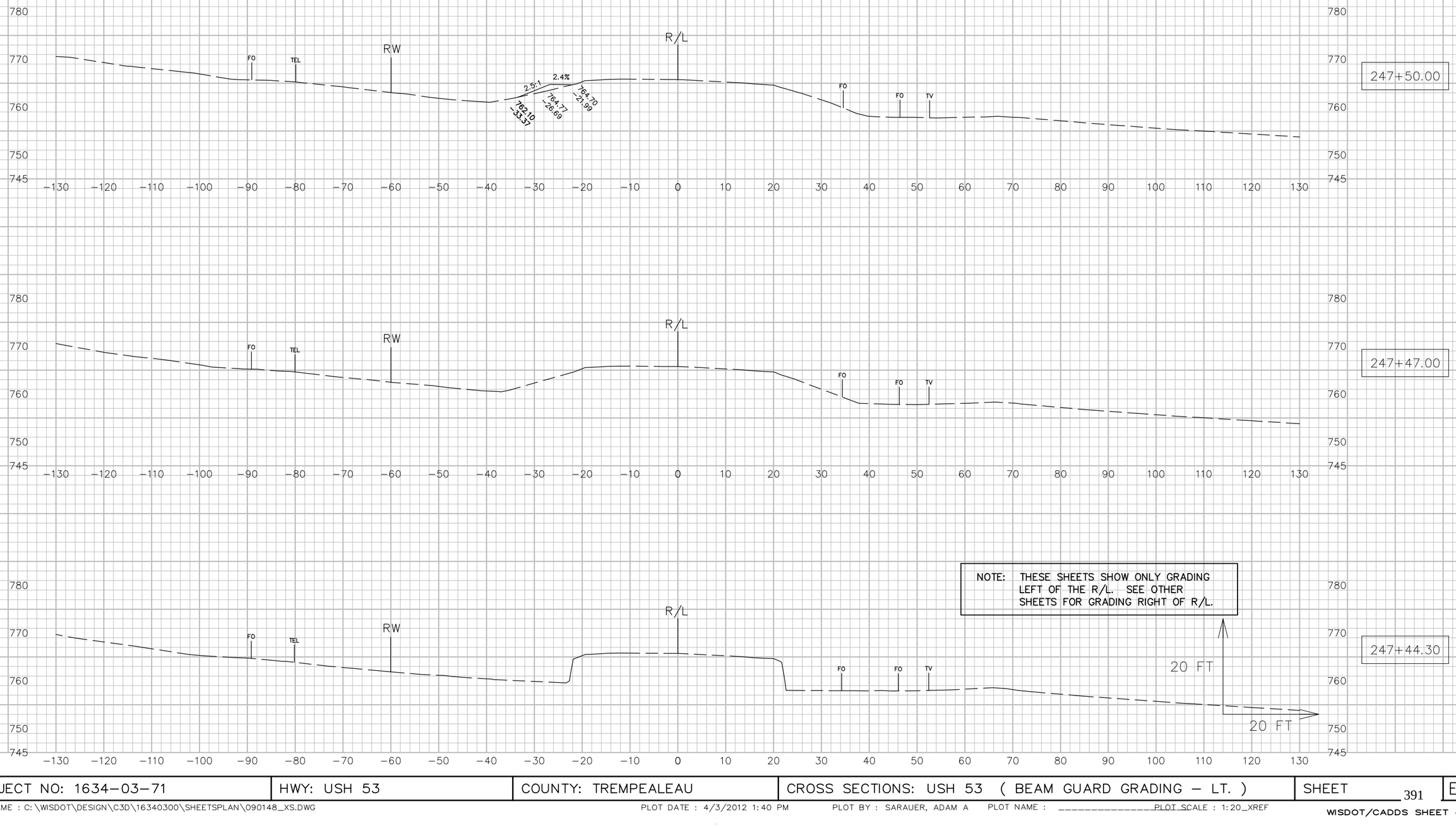




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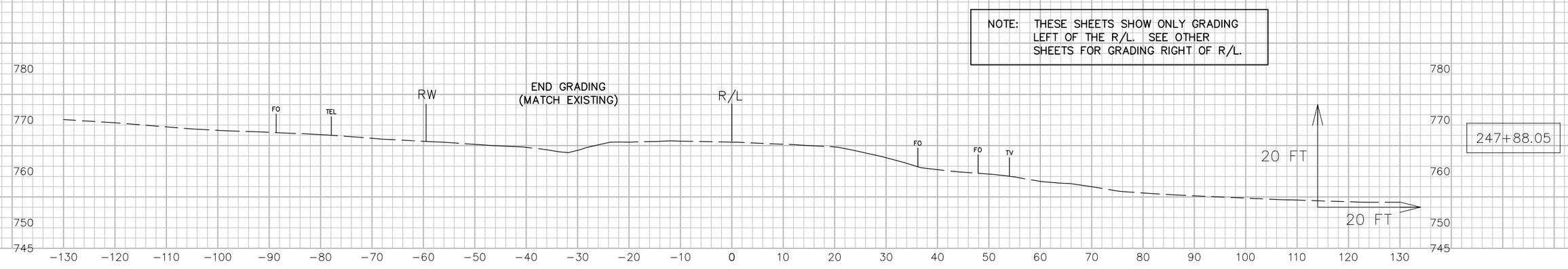
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 390	E

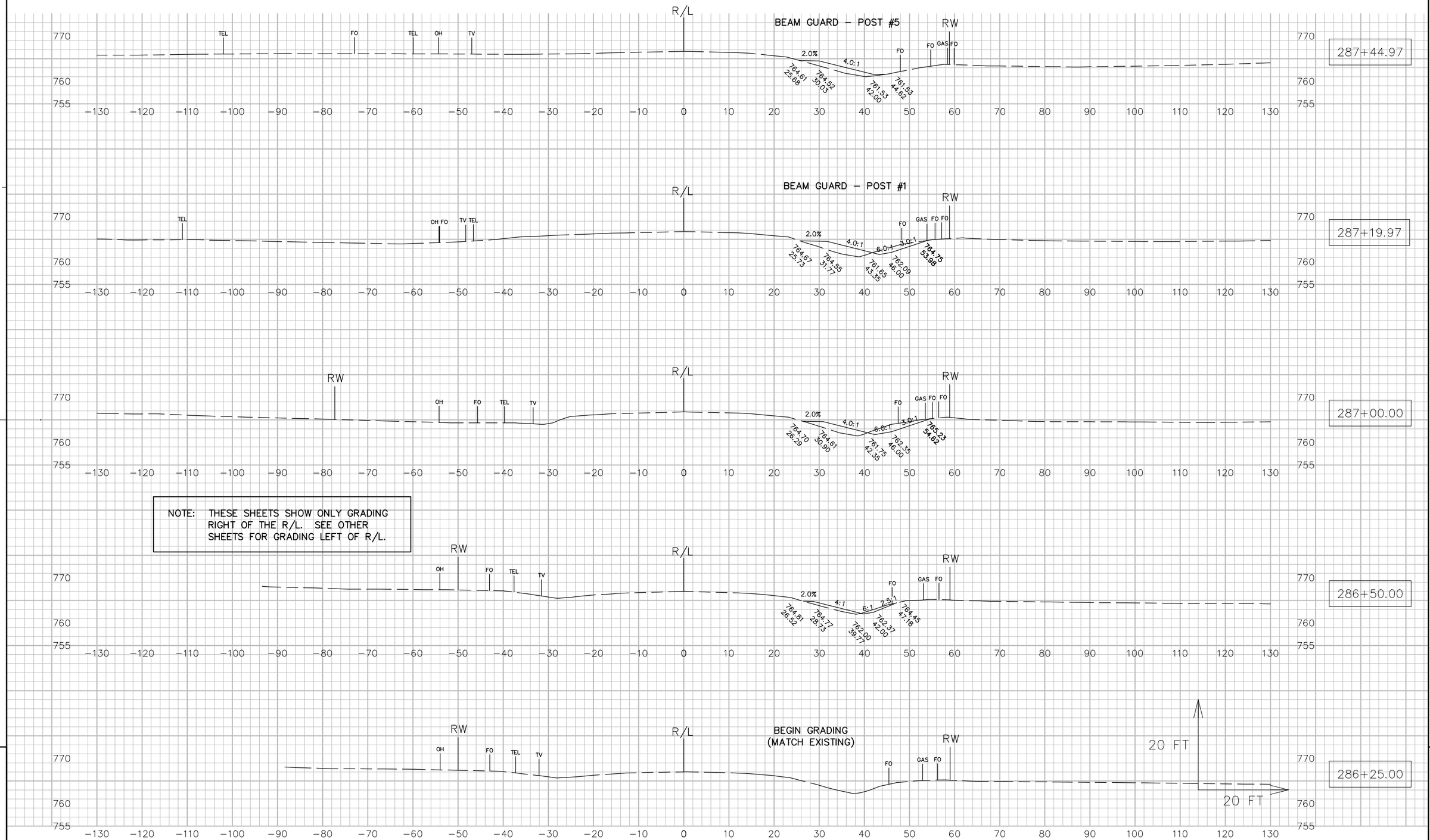


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 391	E

NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − LT.)	SHEET 392	E

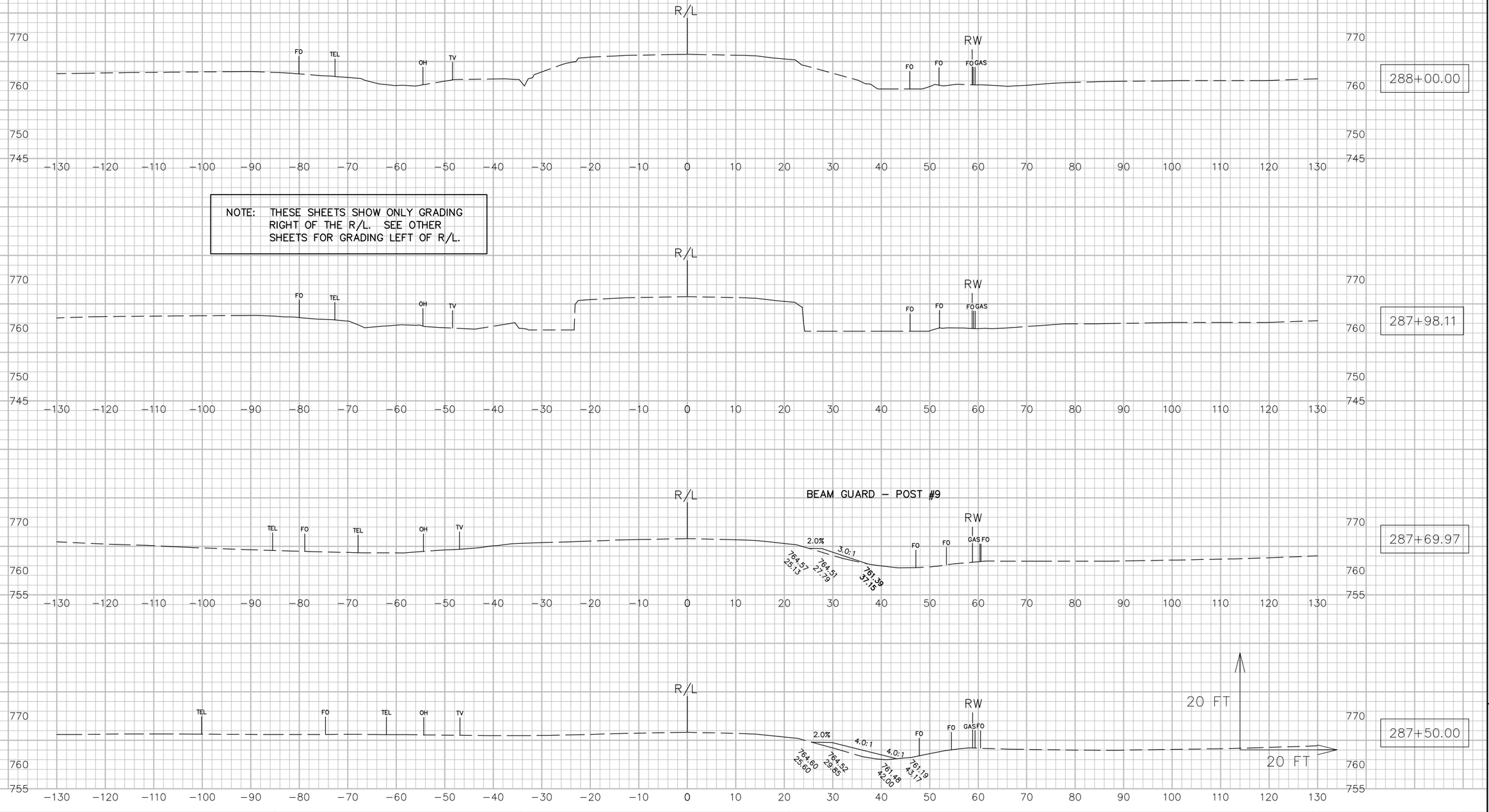


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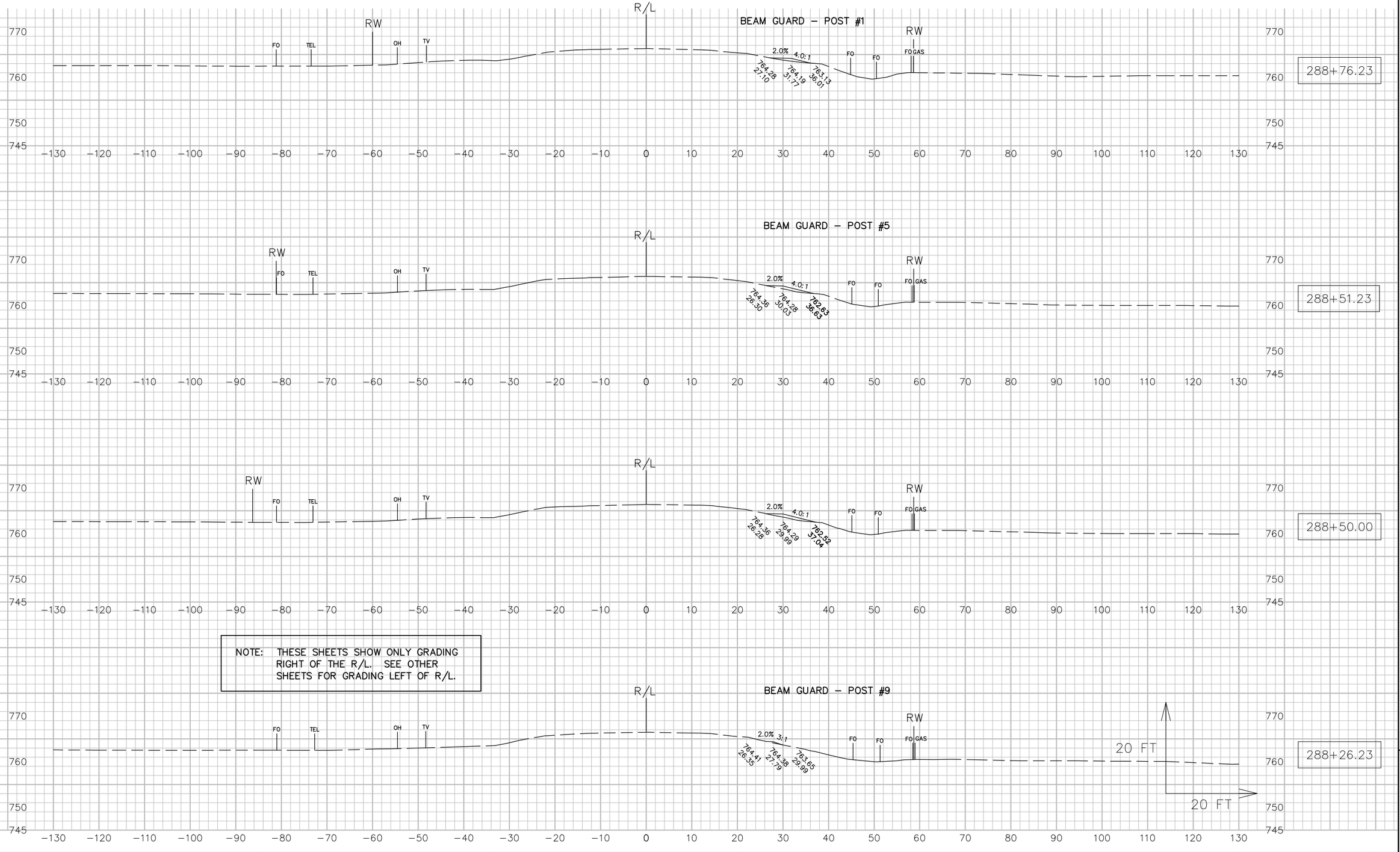
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 393	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090151_XS.DWG PLOT DATE : 4/3/2012 1:15 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING - RT.)	SHEET 394	E



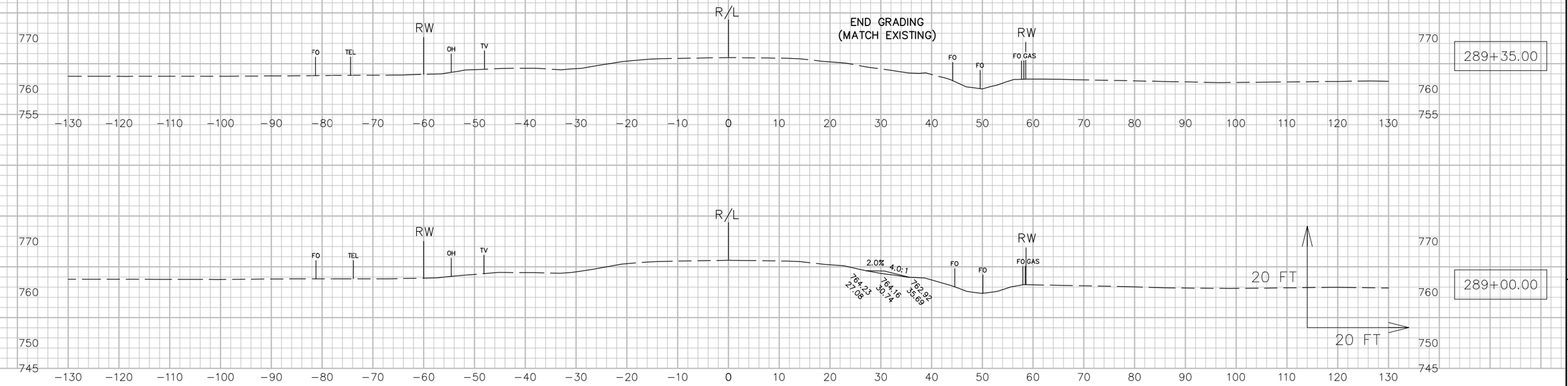
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 395	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090151_XS.DWG PLOT DATE : 4/3/2012 1:17 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

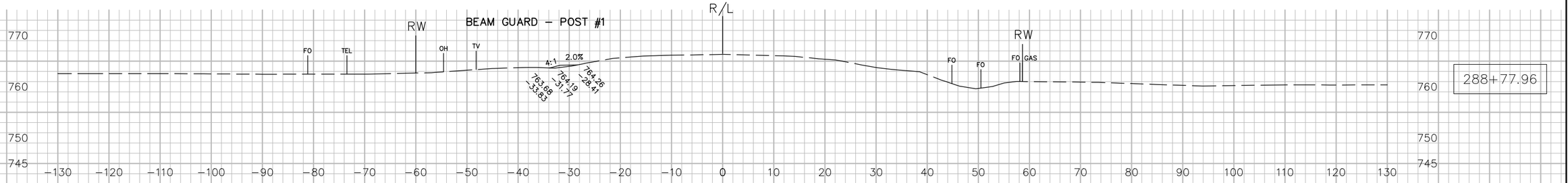


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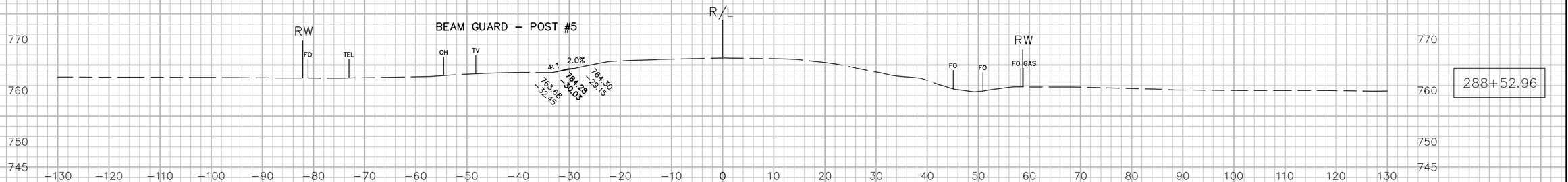
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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 396	E

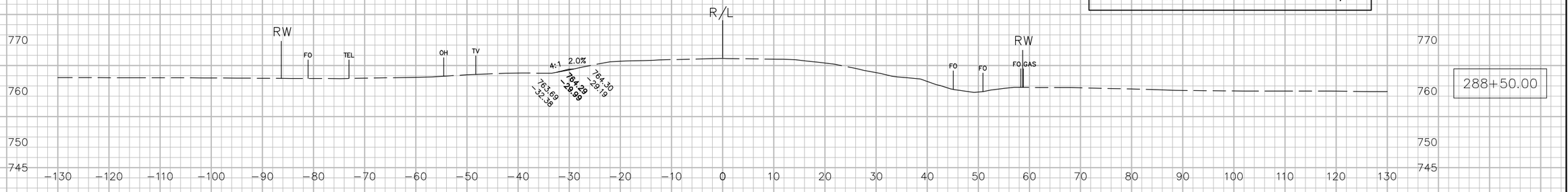
BEAM GUARD – POST #1



BEAM GUARD – POST #5

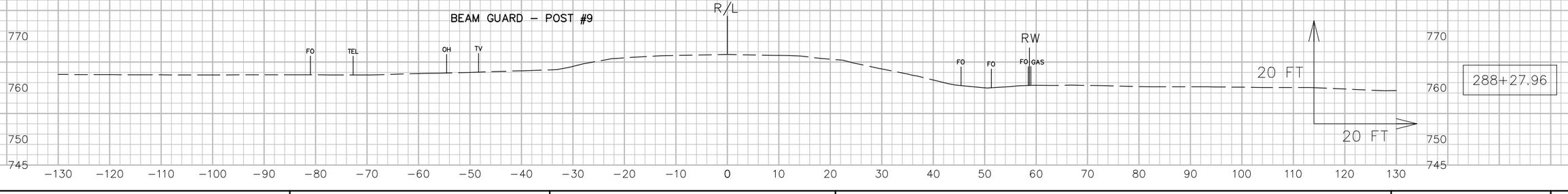


NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L, SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.



BEGIN GRADING
(MATCH EXISTING)

BEAM GUARD – POST #9

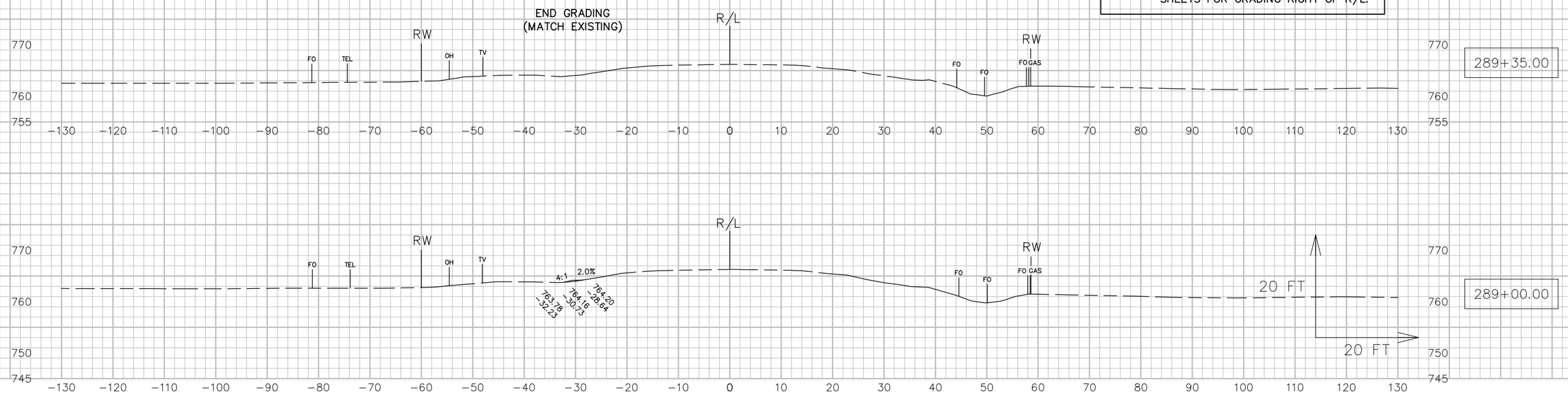


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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 397	E

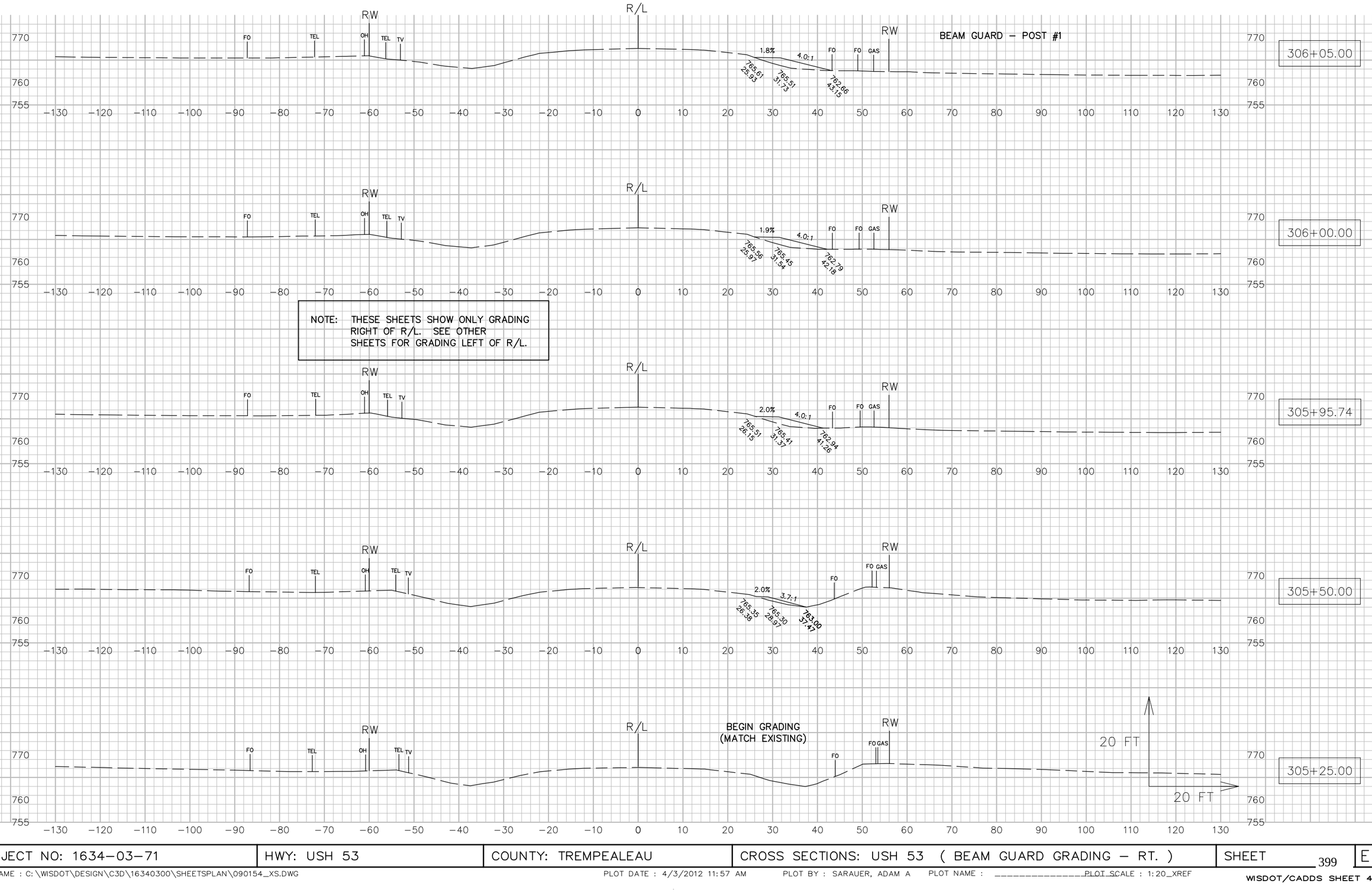
NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L, SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.



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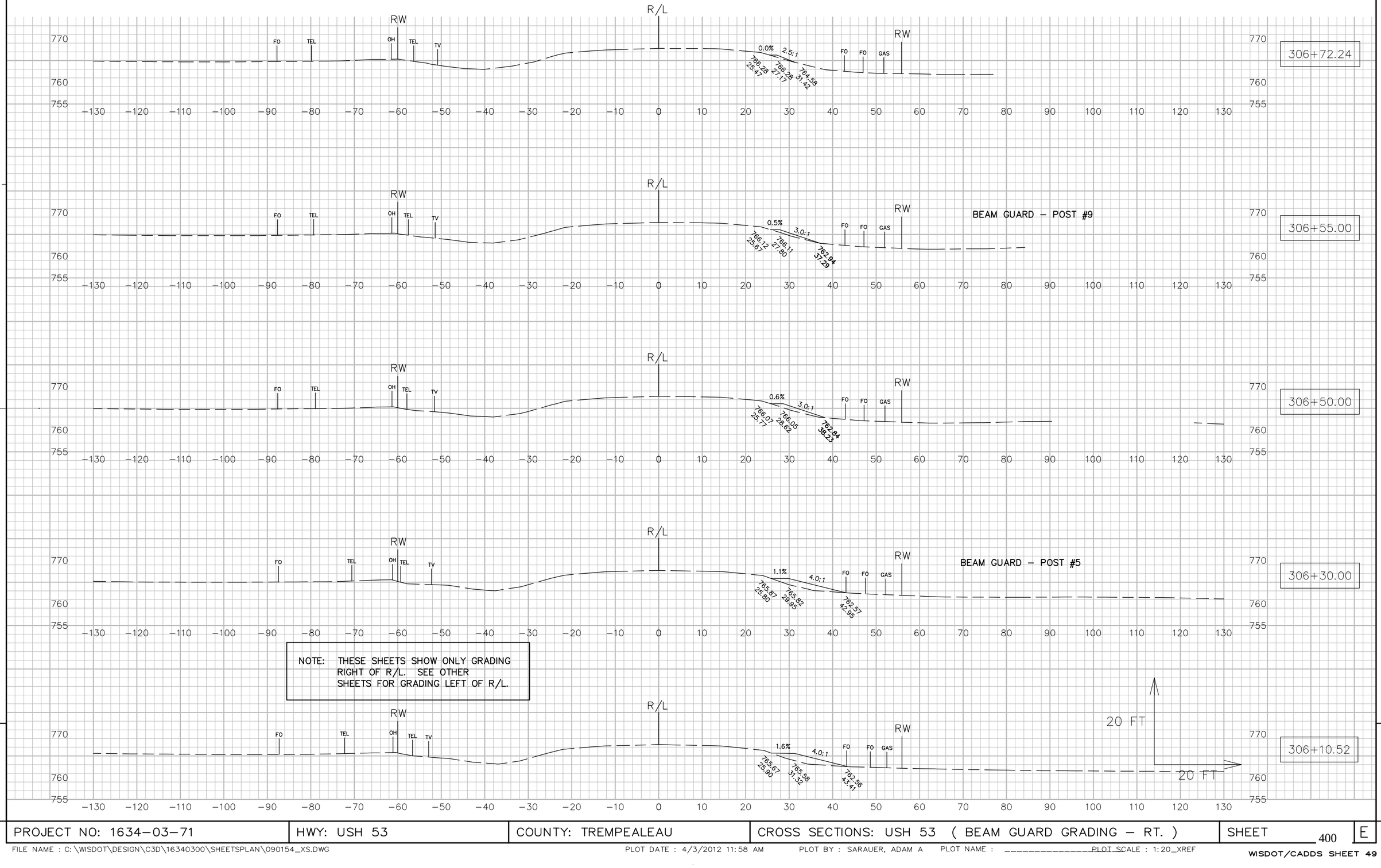
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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 398	E



NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 399	E



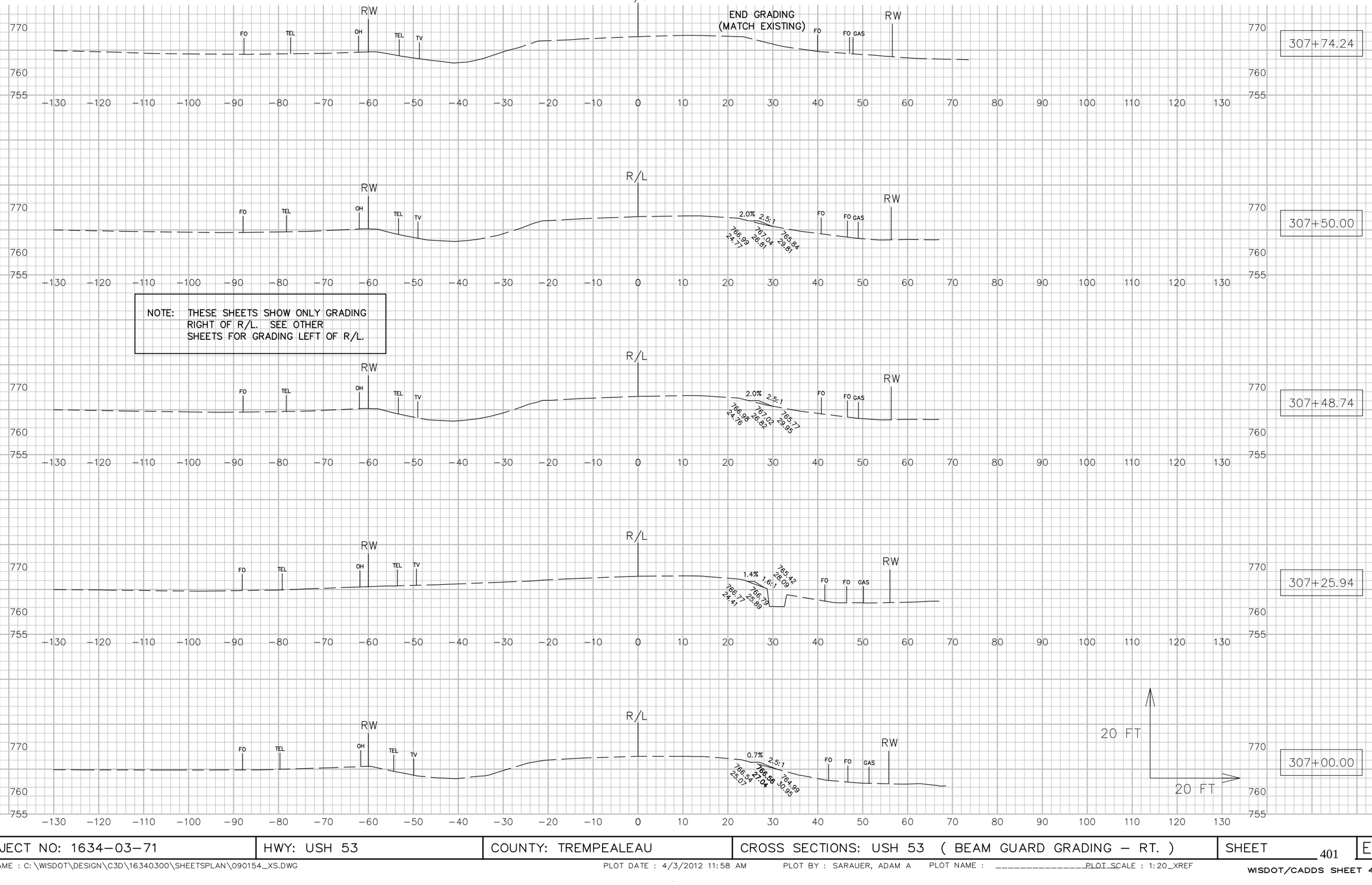
NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

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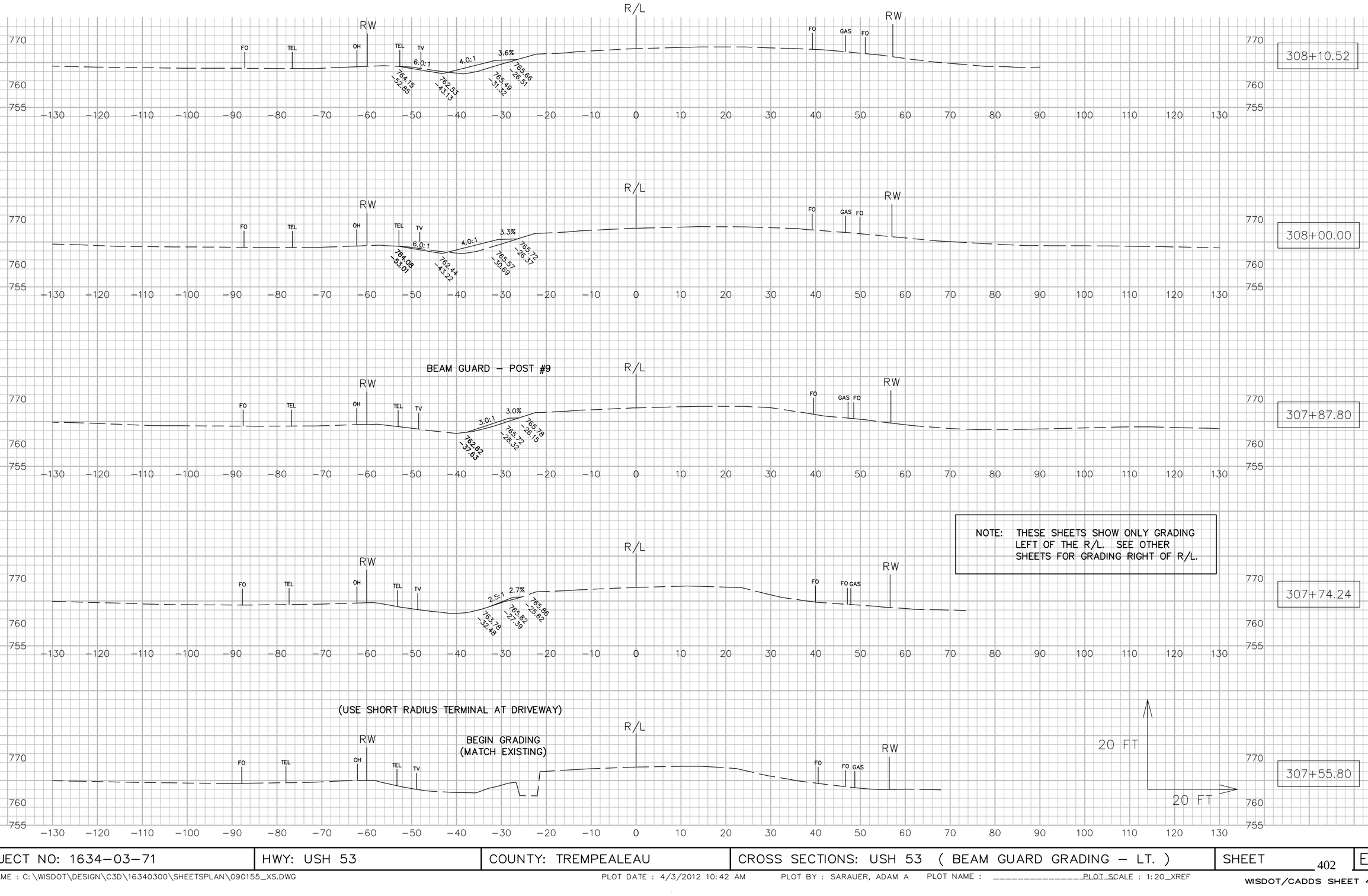
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 400	E

(USE SHORT RADIUS TERMINAL AT DRIVEWAY)

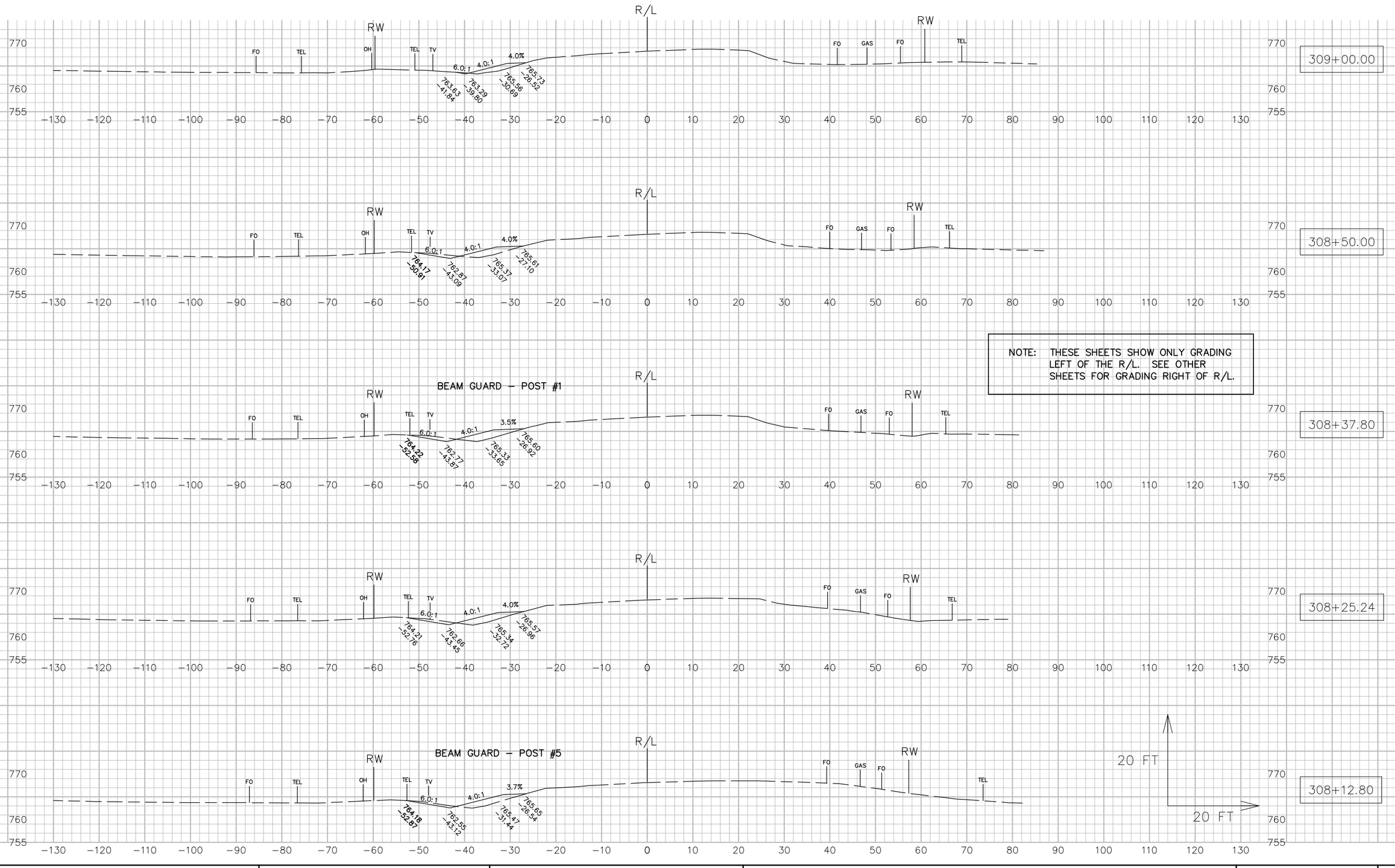


NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − RT.)	SHEET 401	E



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 402	E

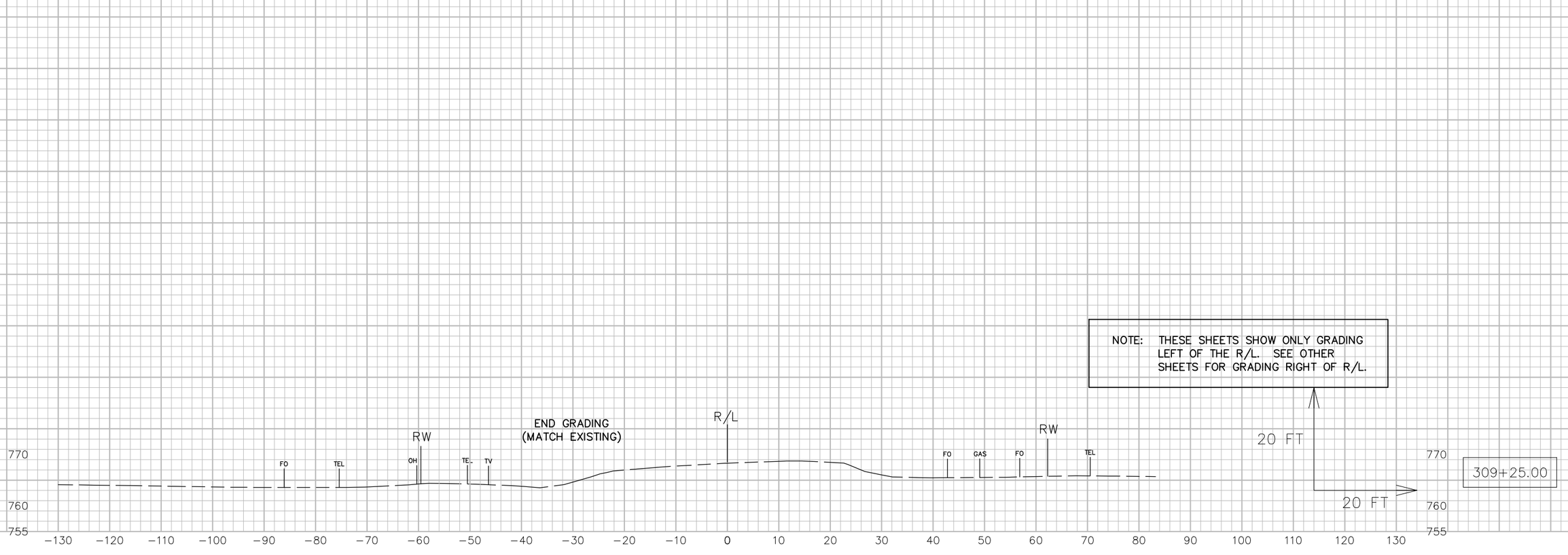


NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

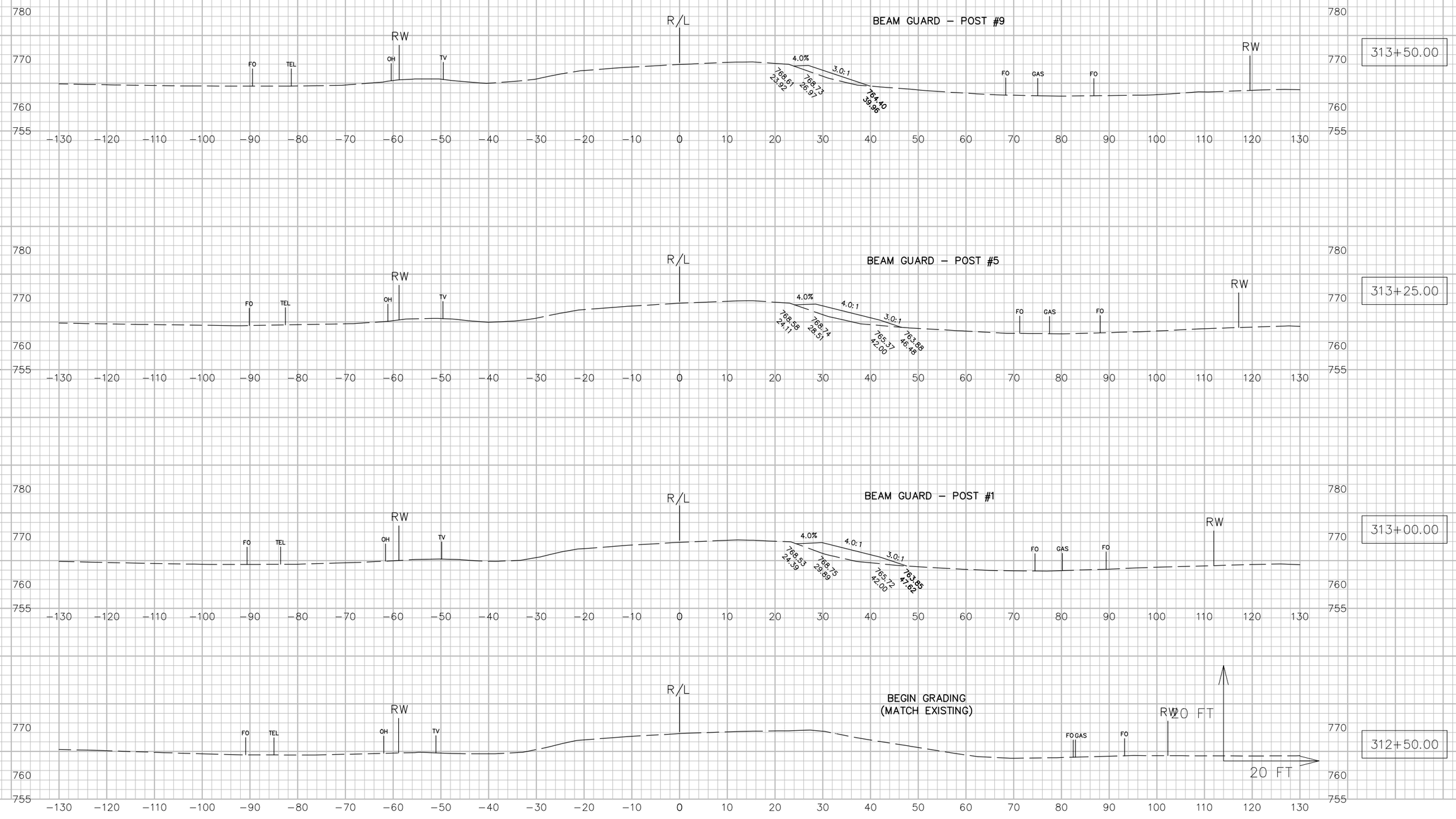
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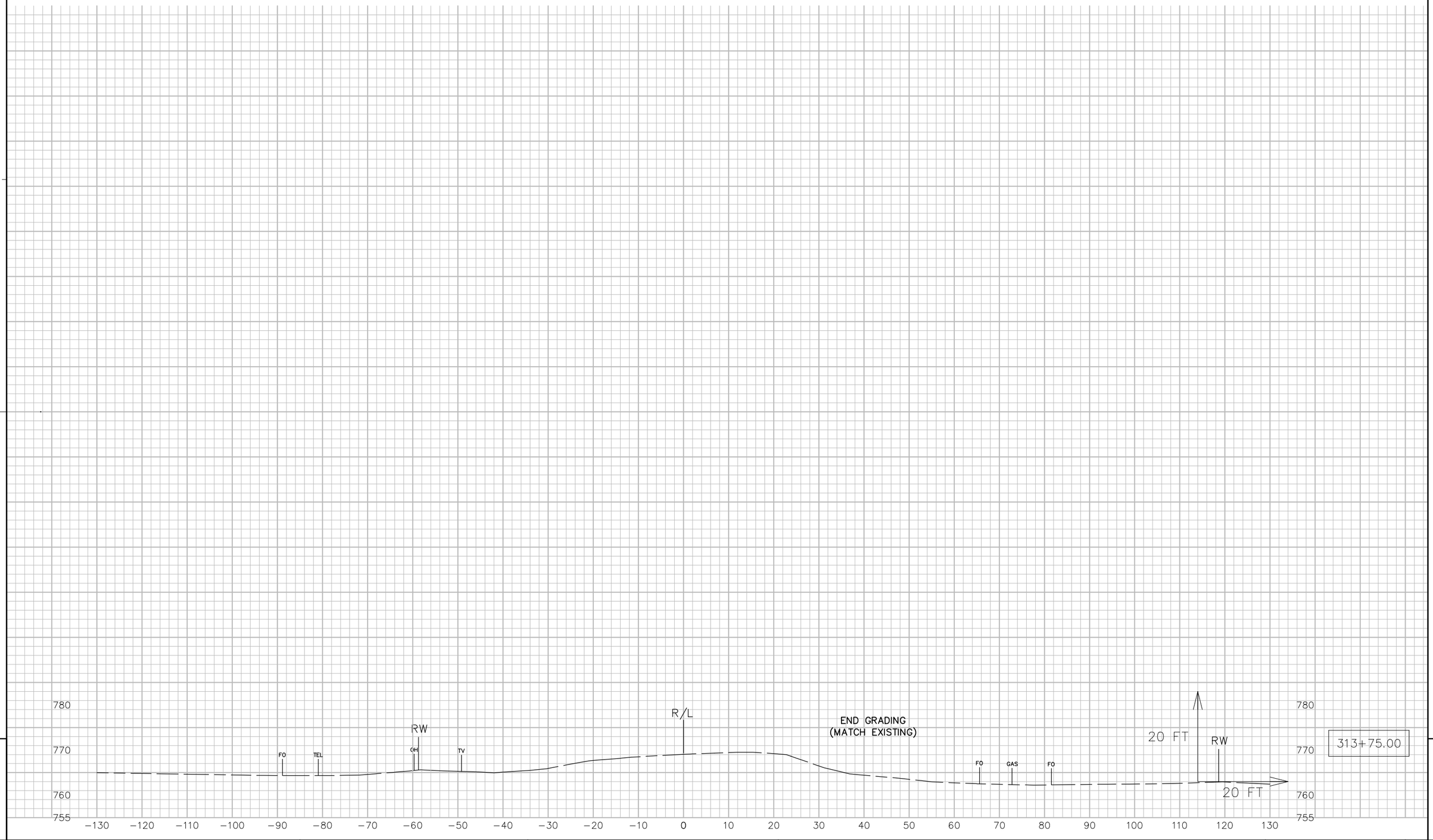
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 403	E



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − LT.)	SHEET 404	E



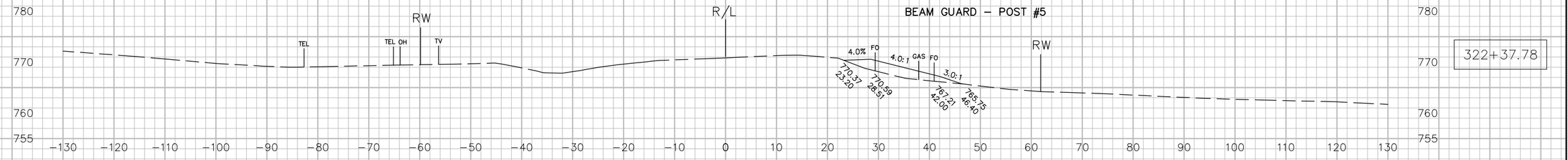
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 405	E

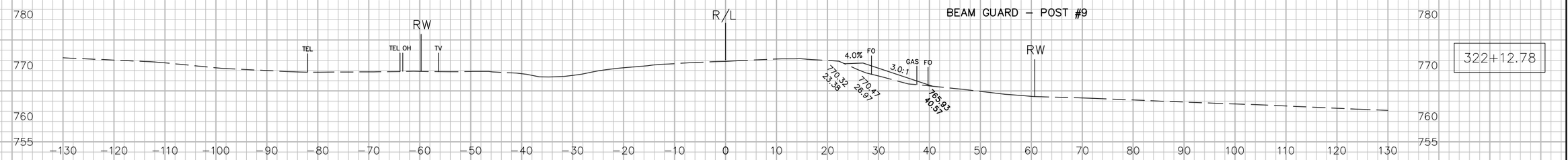


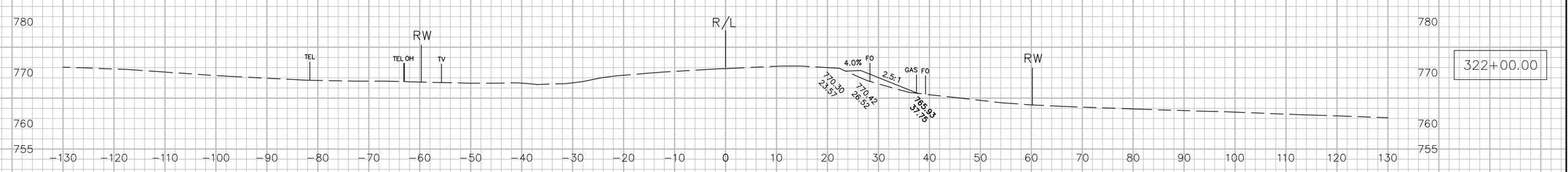
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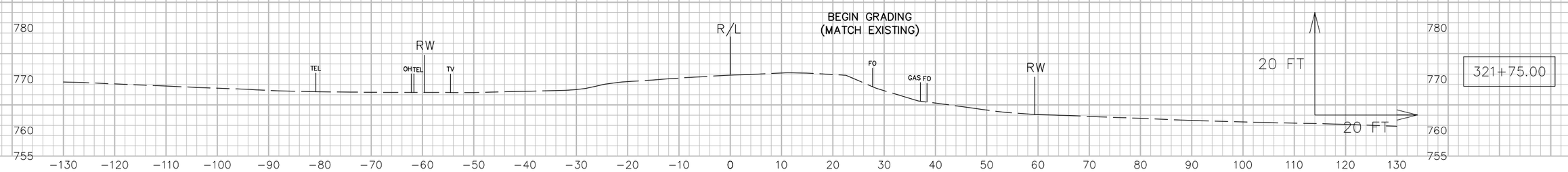
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − RT.)	SHEET 406	E







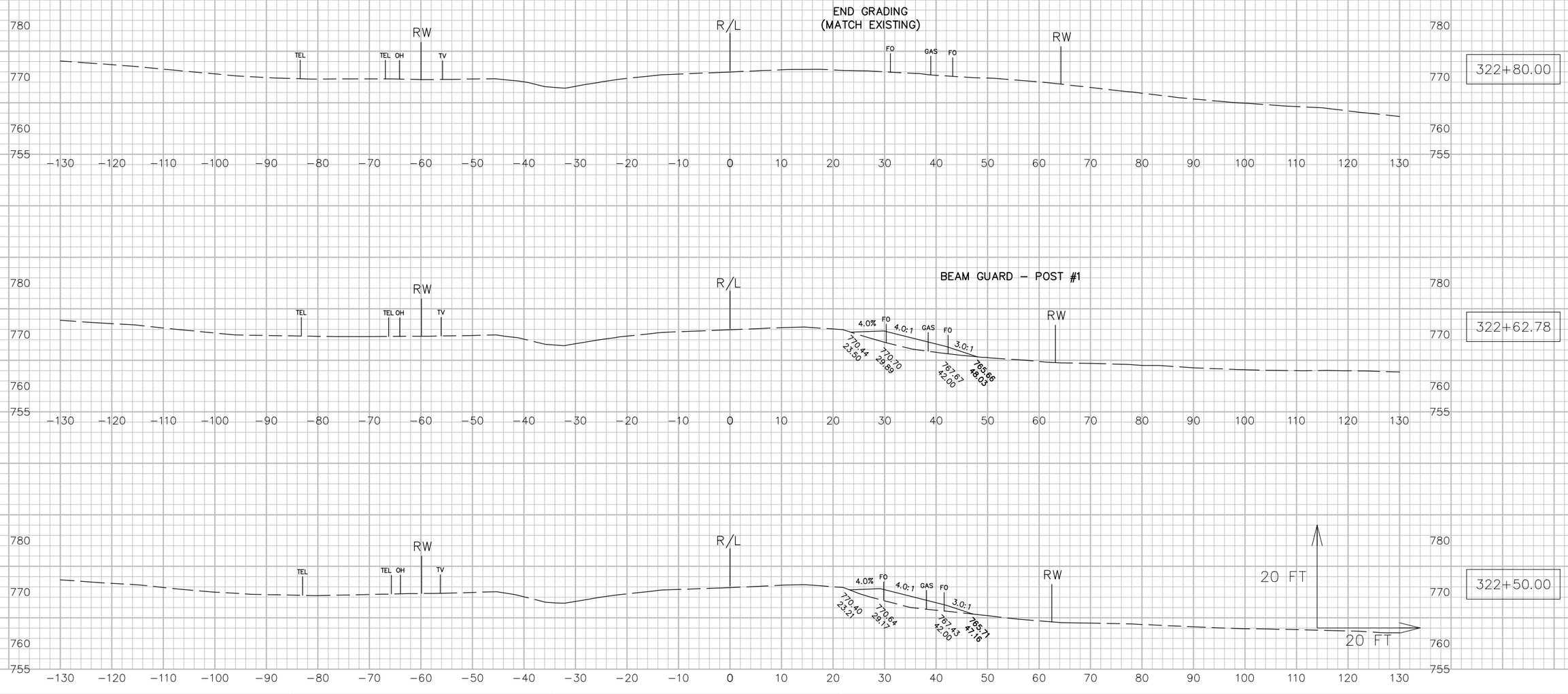


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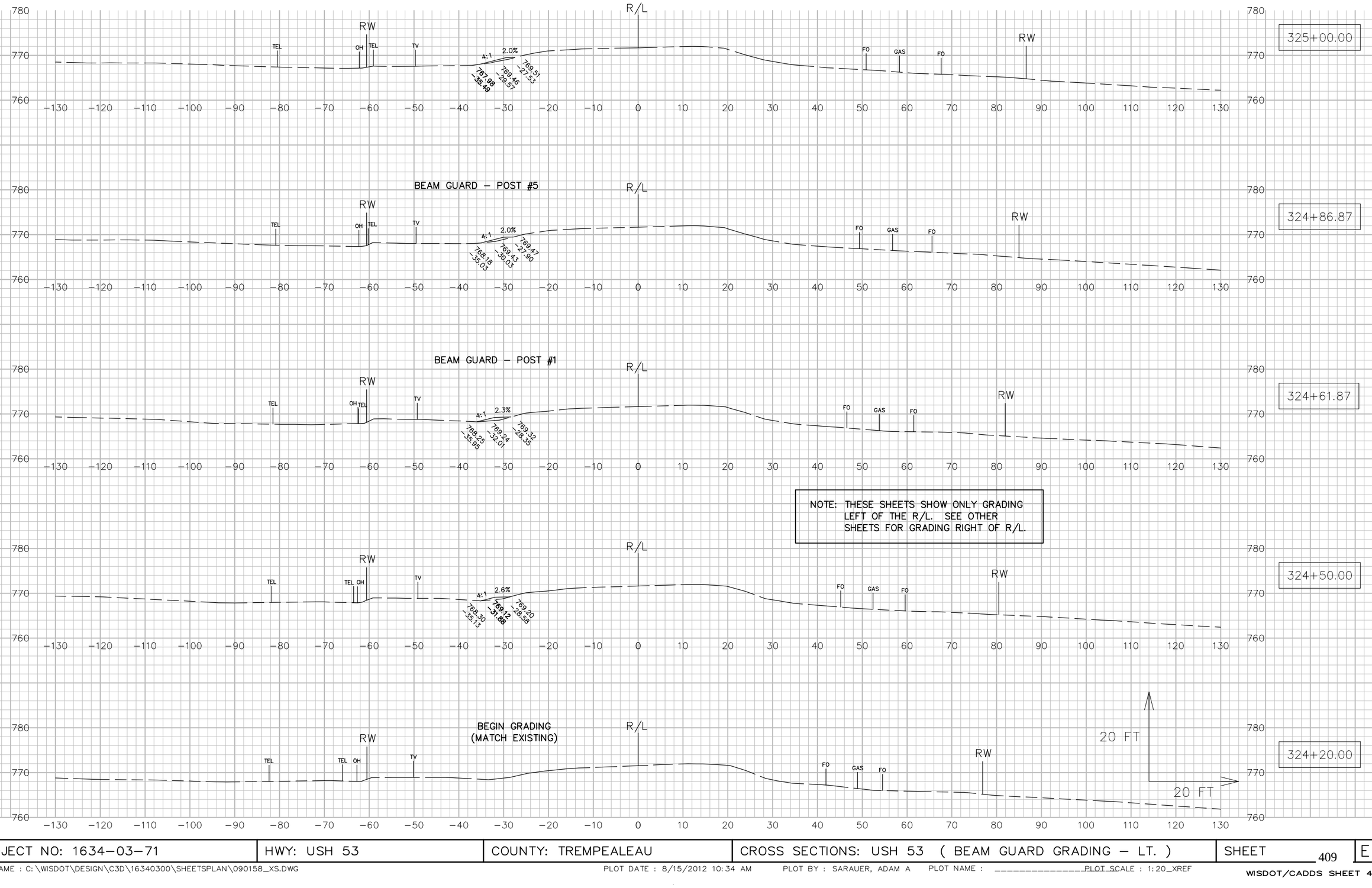
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 407	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090157_XS.DWG PLOT DATE : 4/2/2012 1:31 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 408	E



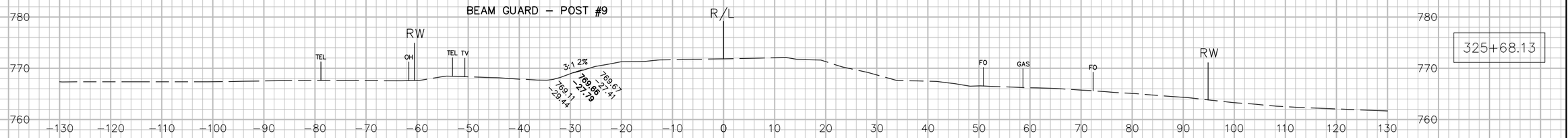
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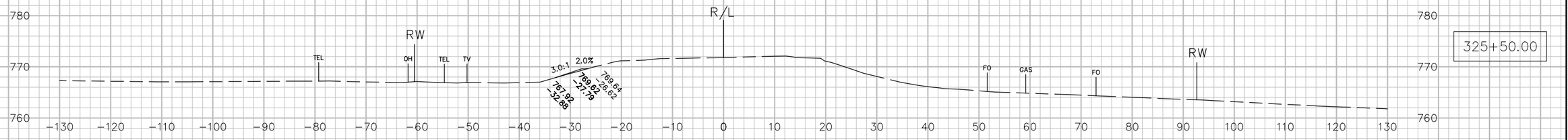
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 409	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090158_XS.DWG PLOT DATE : 8/15/2012 10:34 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____ PLOT SCALE : 1:20_XREF

NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.



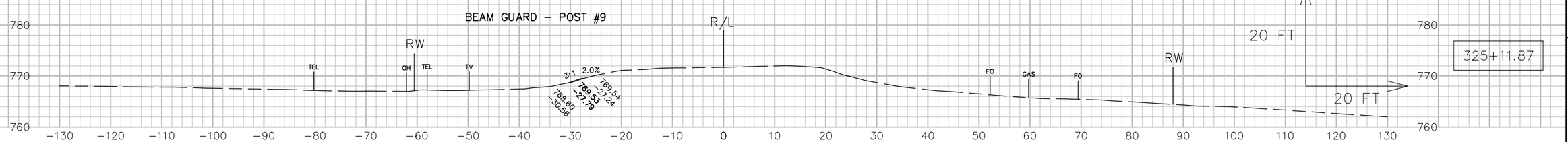
325+68.13



325+50.00



325+40.00

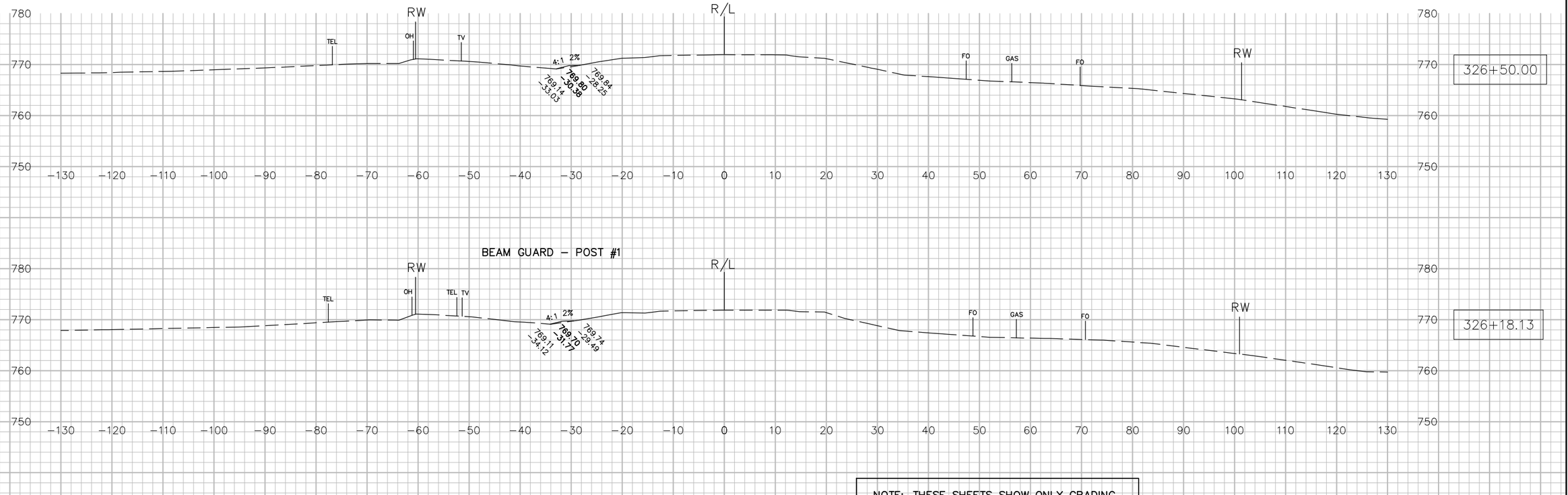


325+11.87

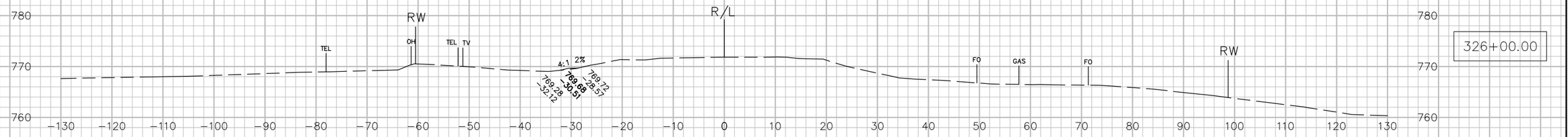
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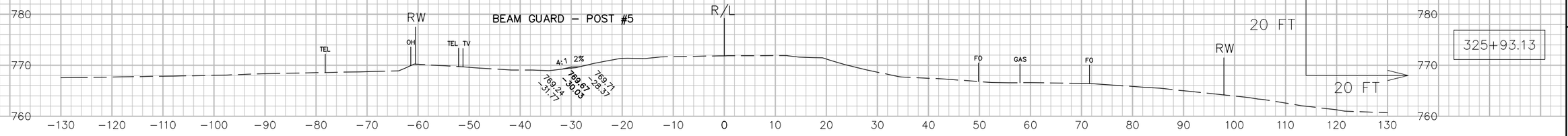
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 410	E



NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.



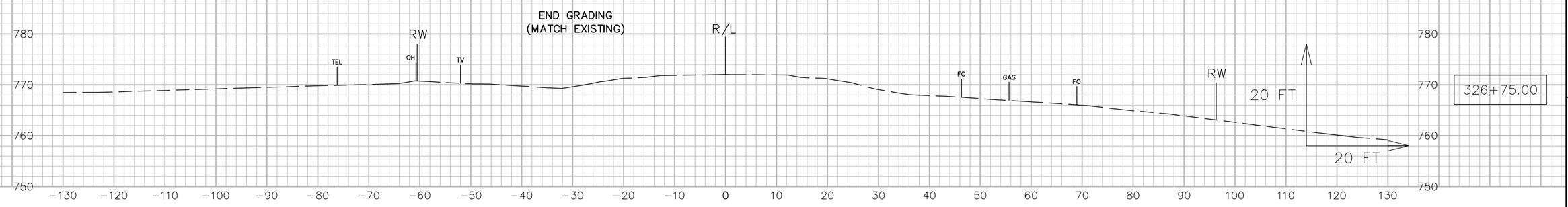


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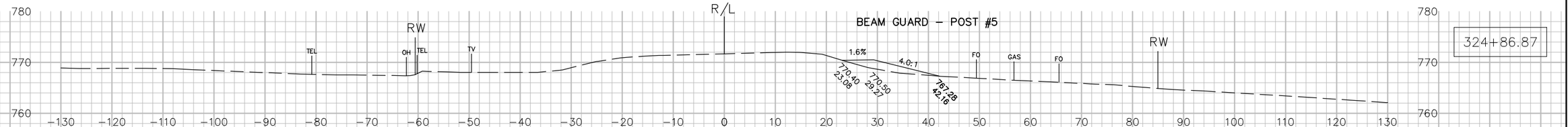
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 411	E

NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

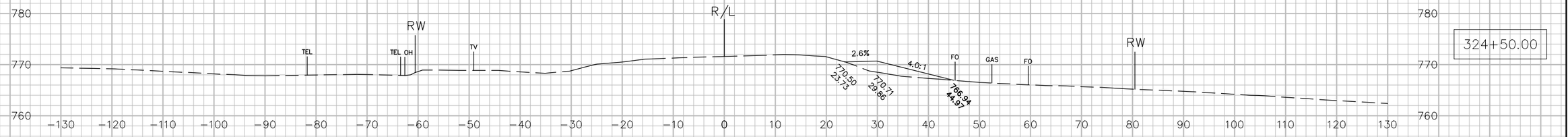


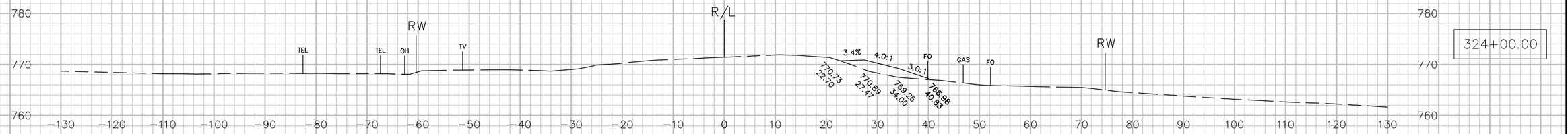
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − LT.)	SHEET 412	E

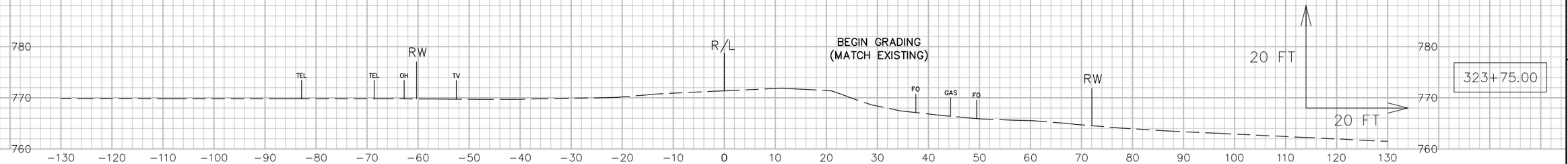




NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.



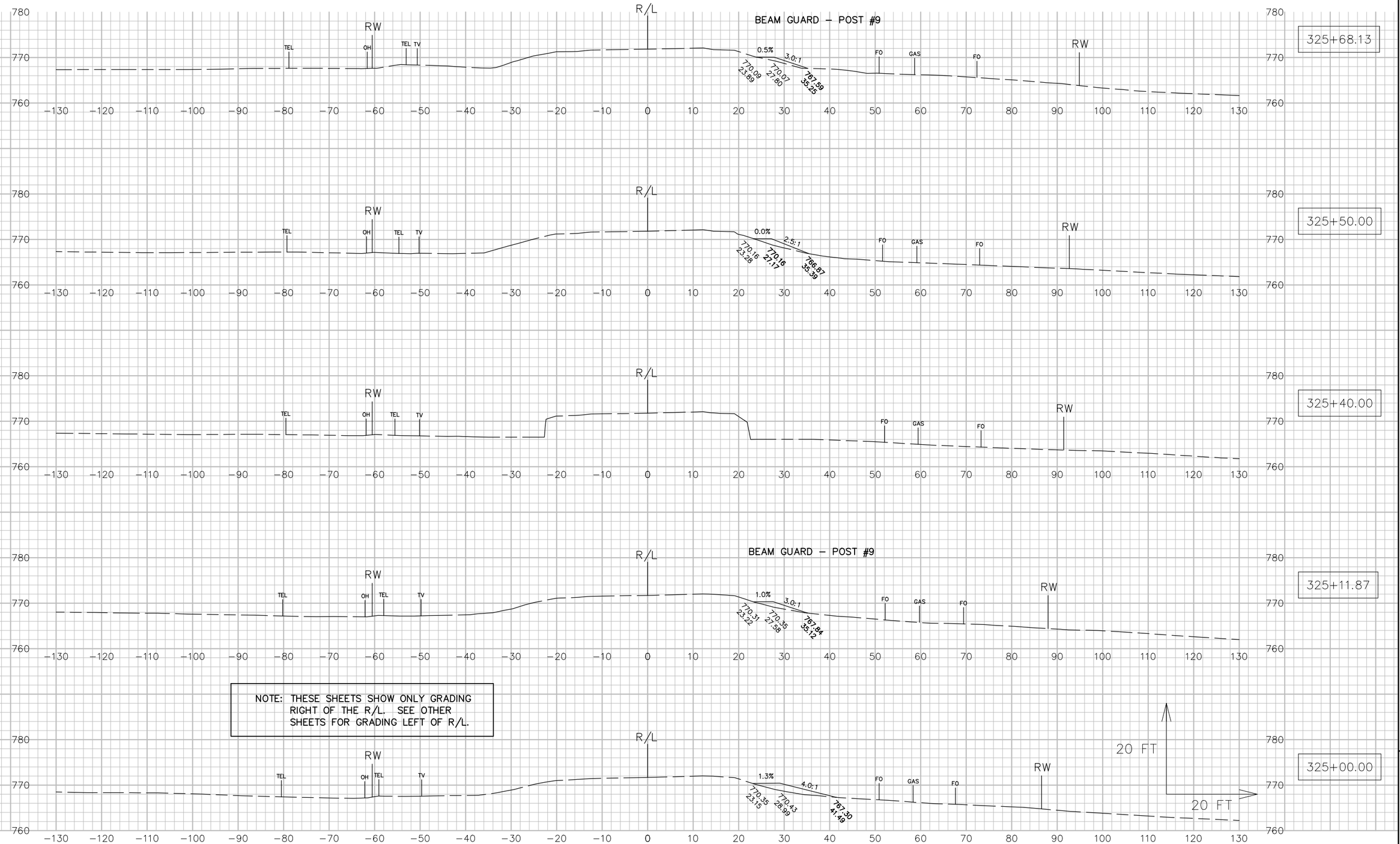




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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 413	E



NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

20 FT

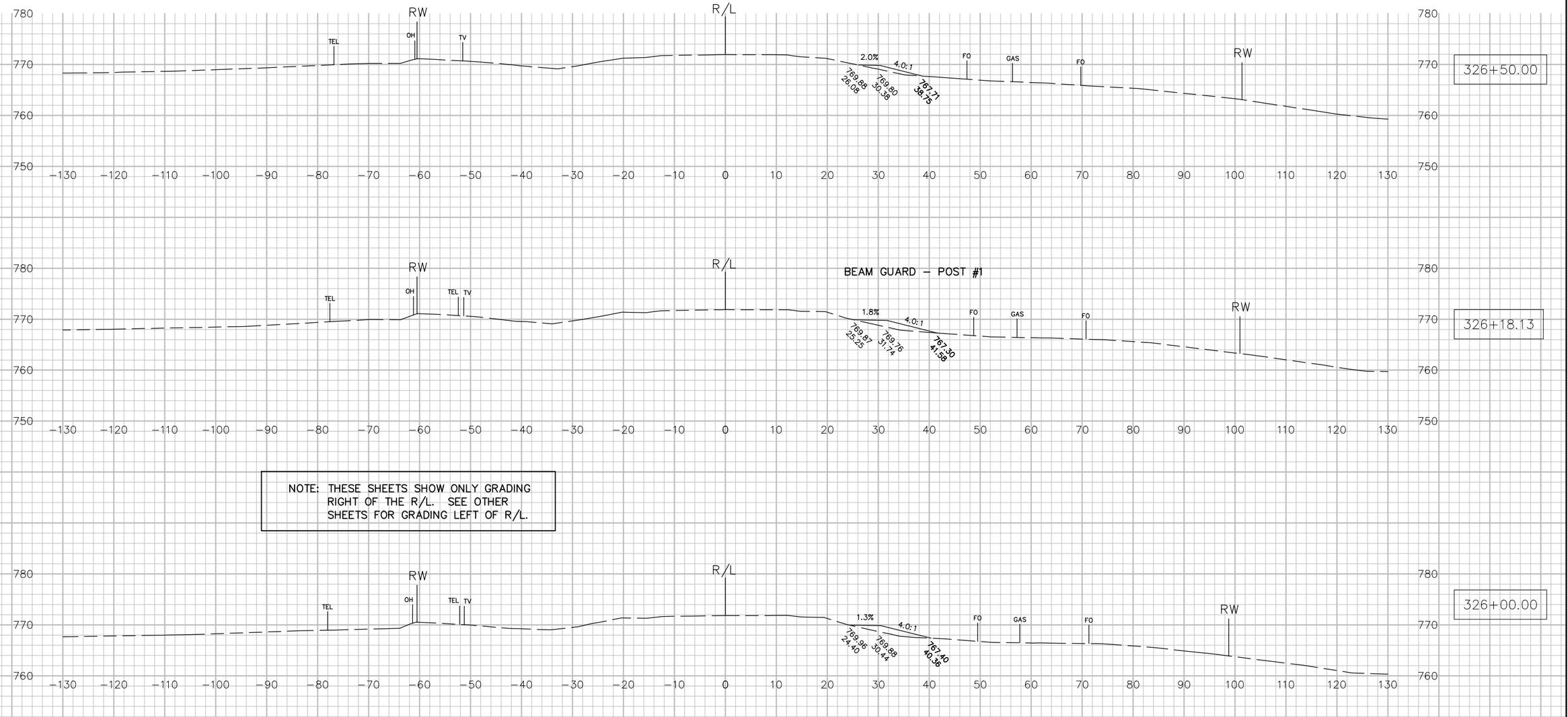
20 FT

9

9

PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 414	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090159_XS.DWG PLOT DATE : 8/15/2012 12:39 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

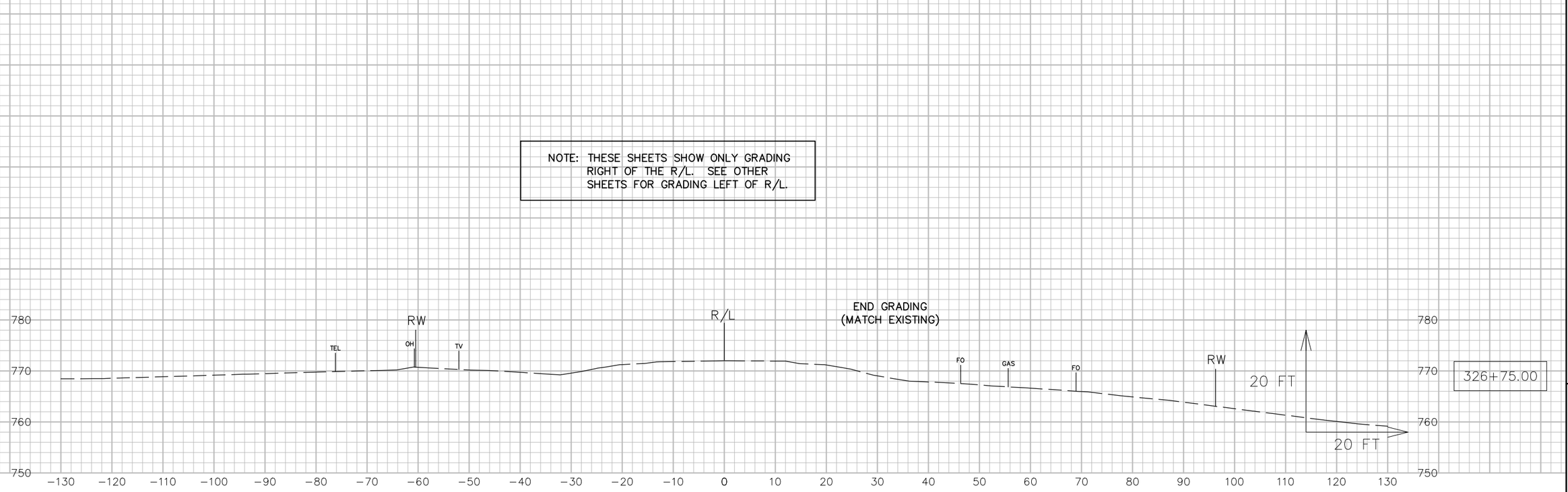


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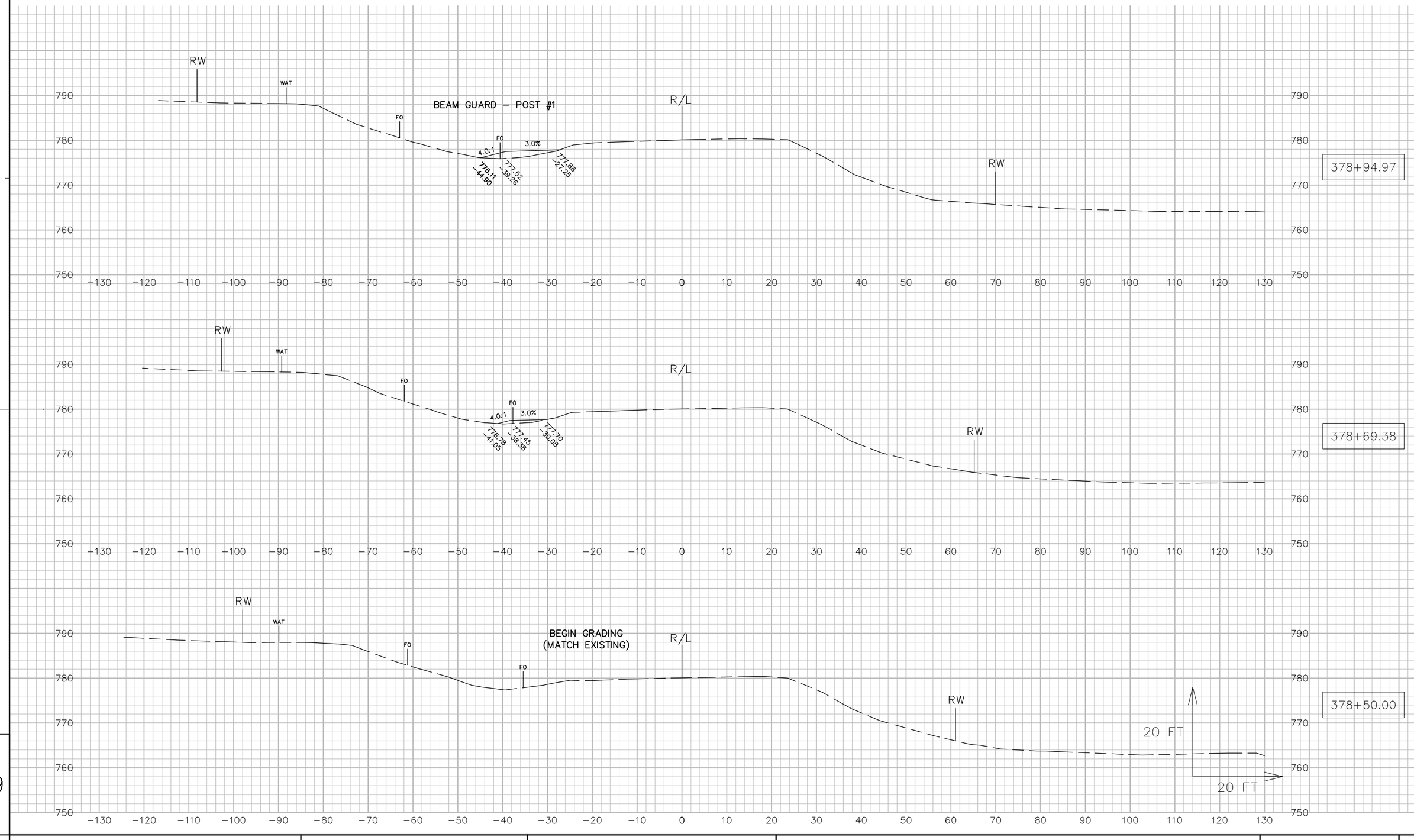
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 415	E

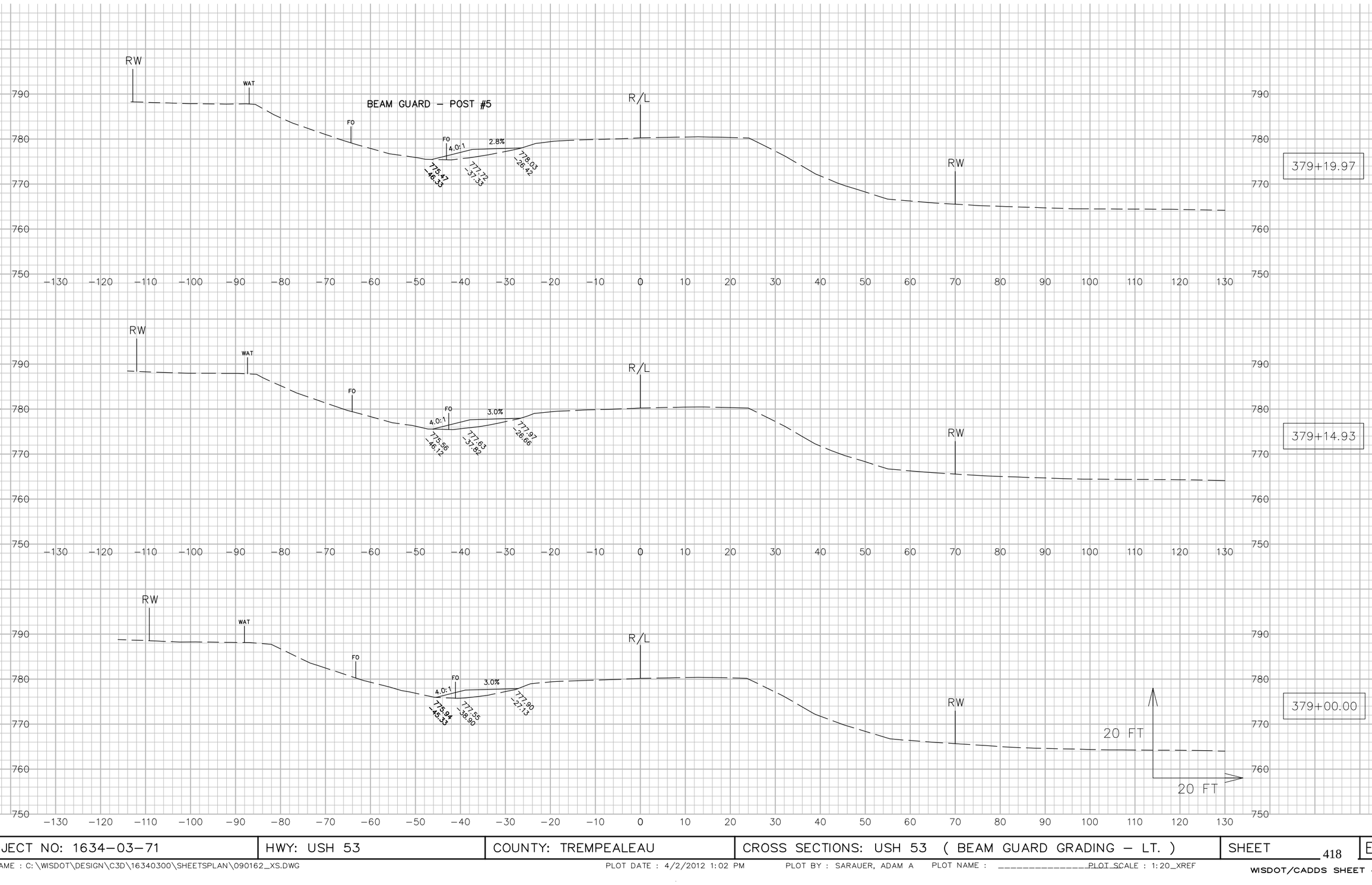
NOTE: THESES SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − RT.)	SHEET 416	E

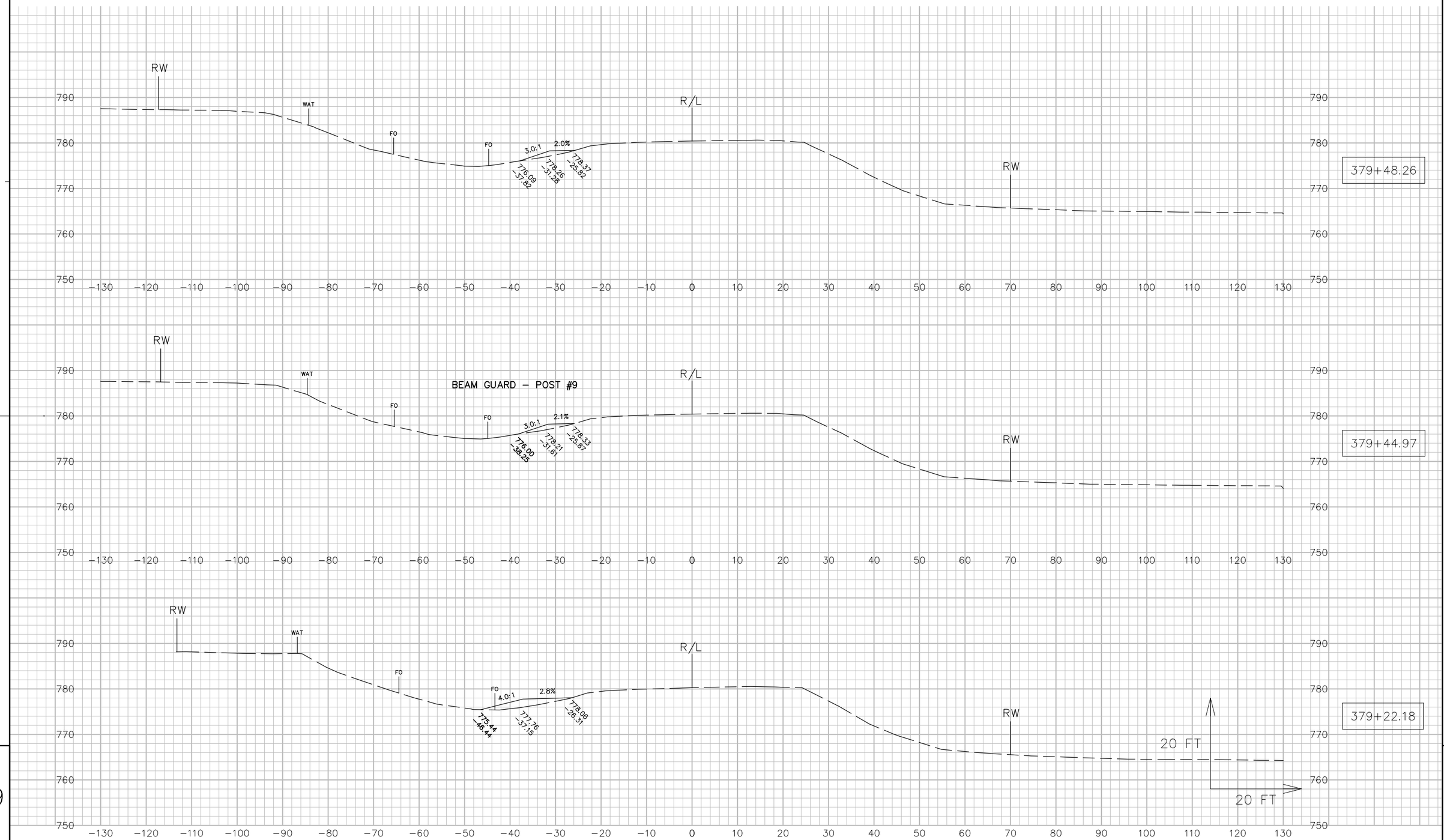


PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 417	E

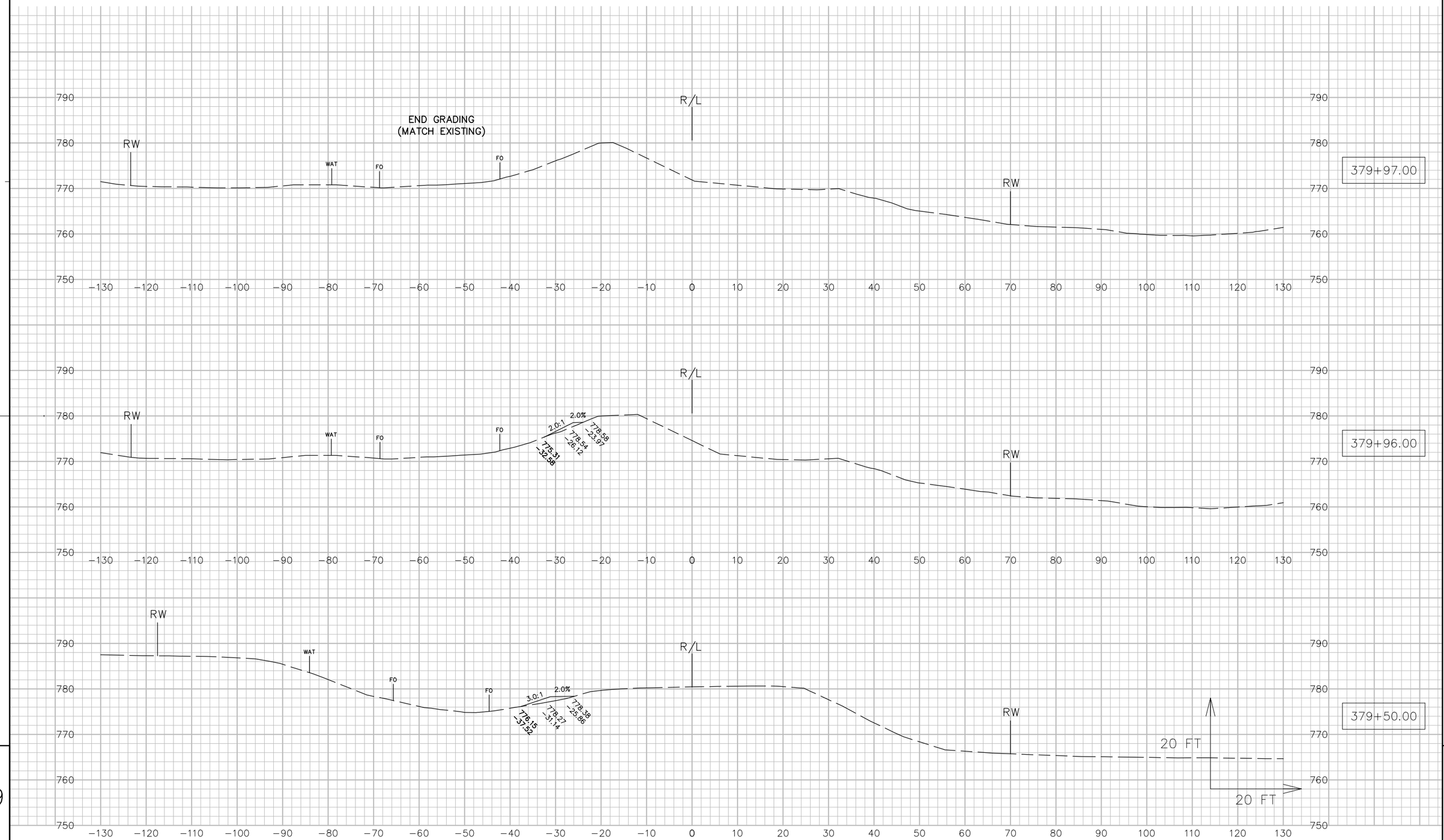


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − LT.)	SHEET 418	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090162_XS.DWG PLOT DATE : 4/2/2012 1:02 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____ PLOT SCALE : 1:20_XREF

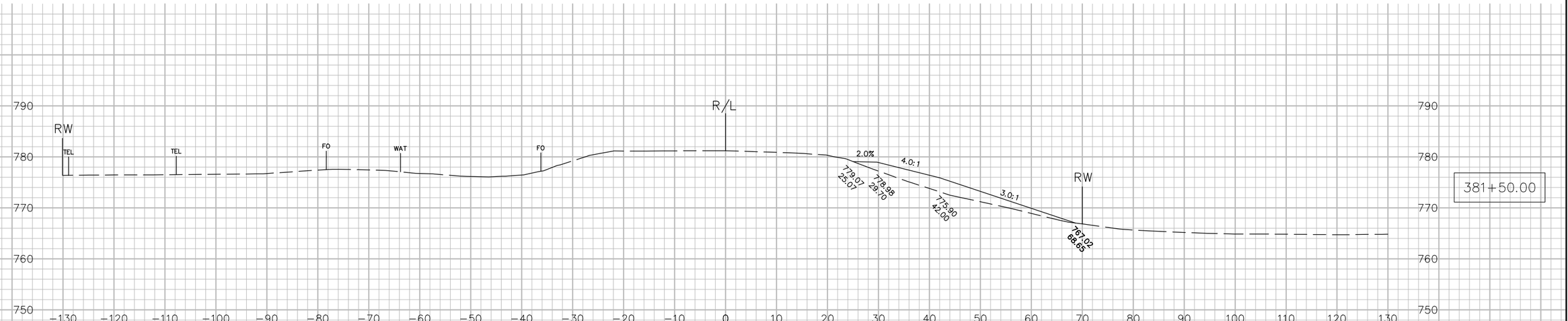


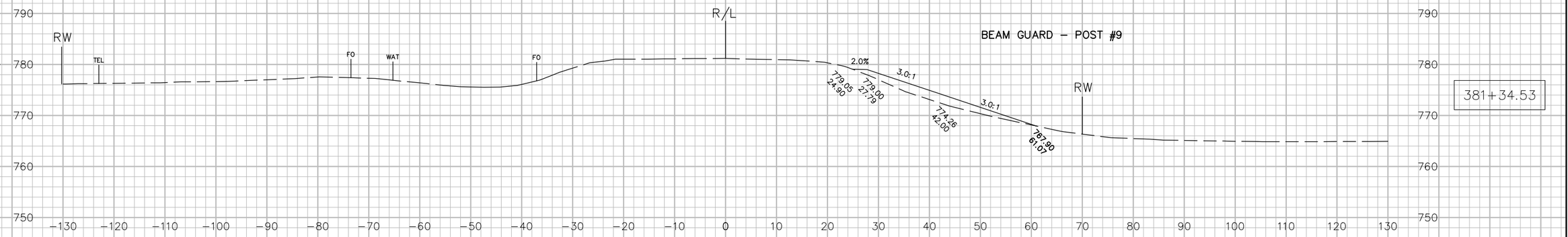
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 419	E



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − LT.)	SHEET 420	E

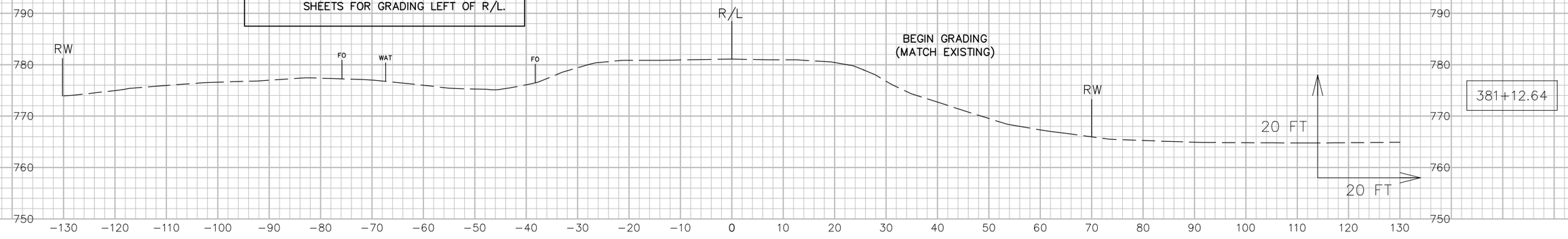
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BEAM GUARD – POST #9

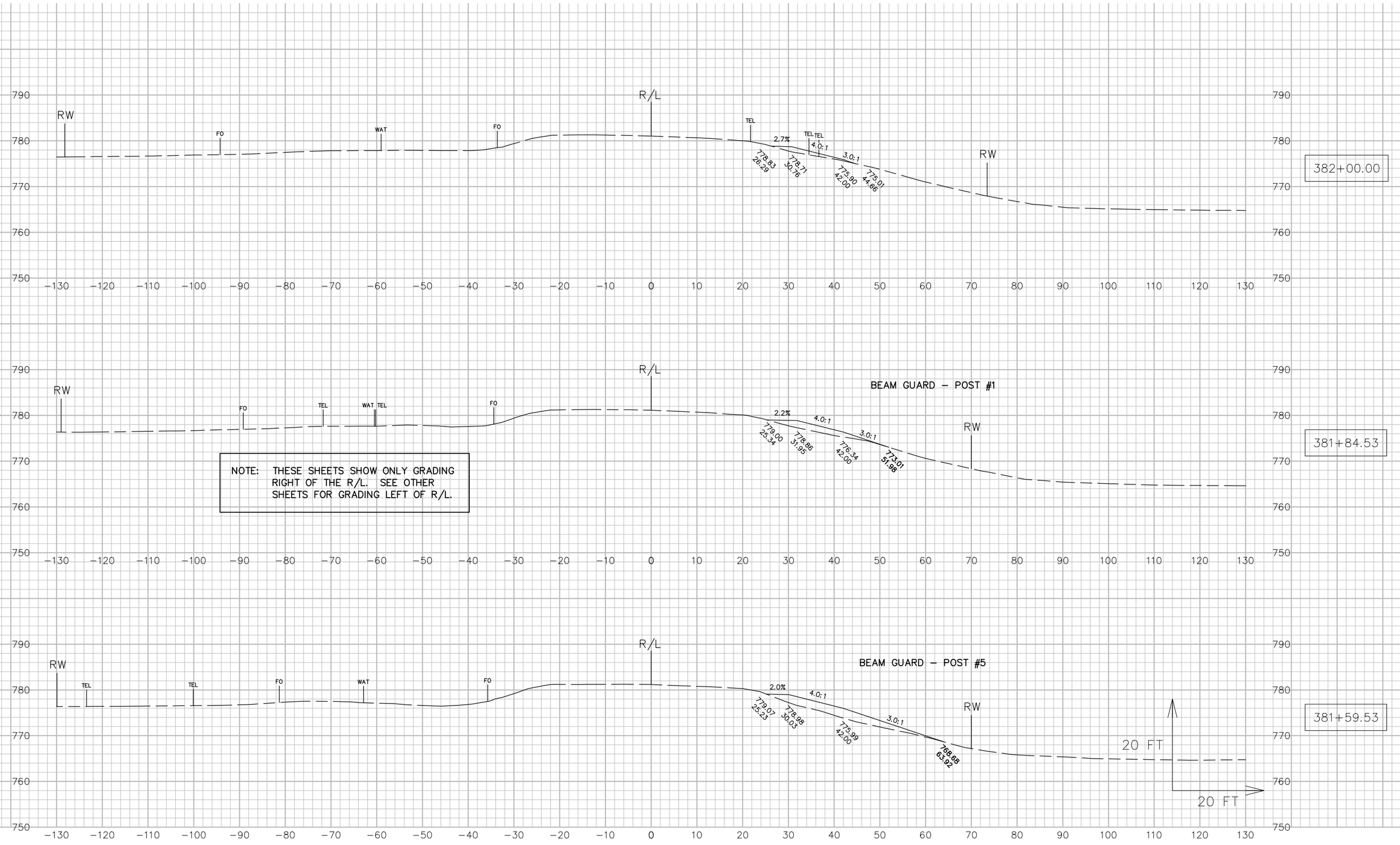
NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.



9

9

PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 421	E



BEAM GUARD – POST #1

NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

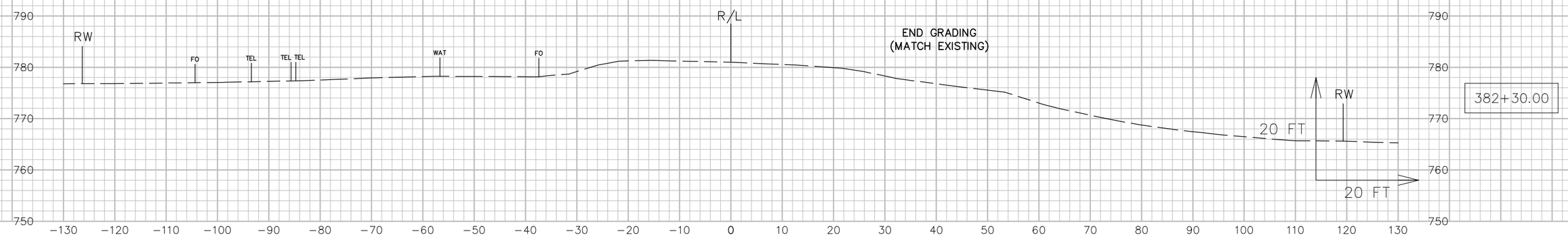
BEAM GUARD – POST #5

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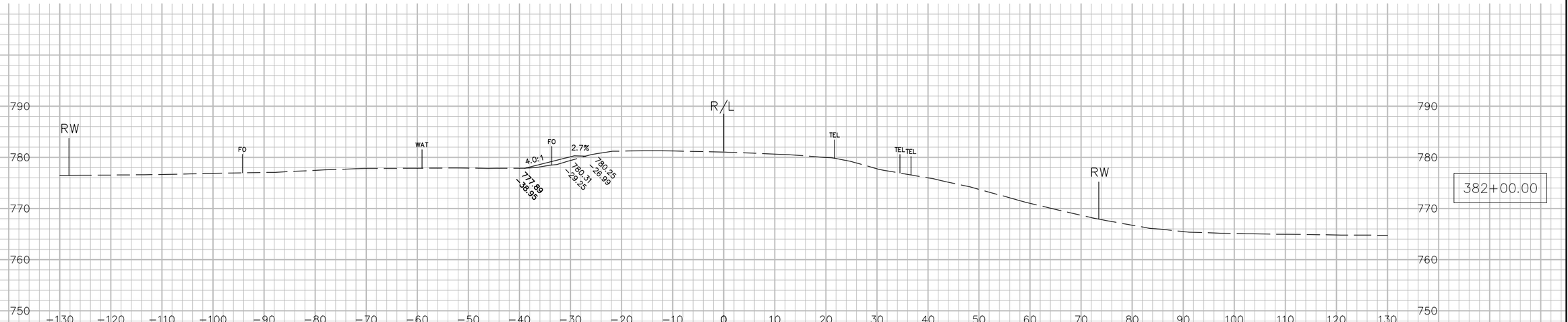
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 422	E

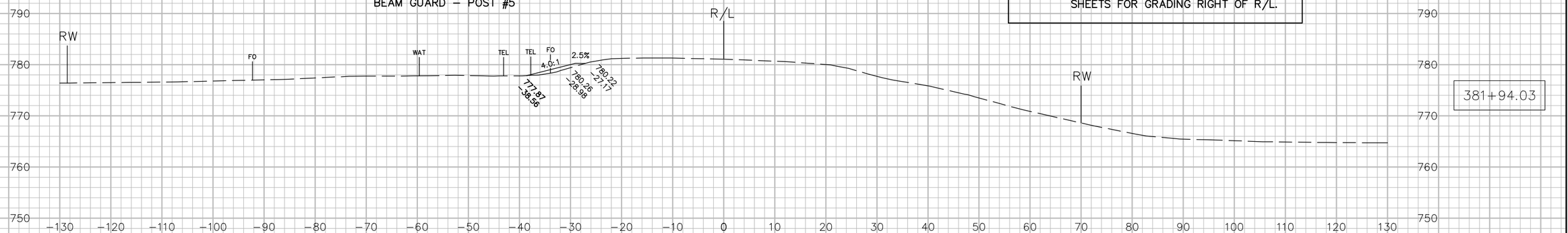
NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

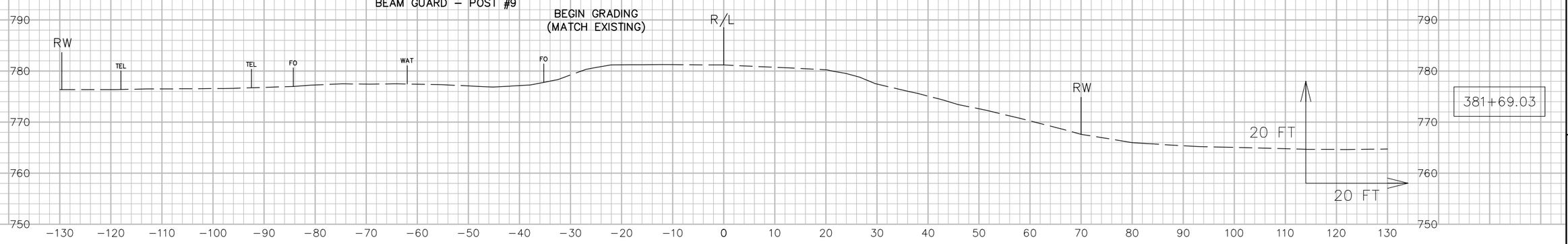


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − RT.)	SHEET 423	E



NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

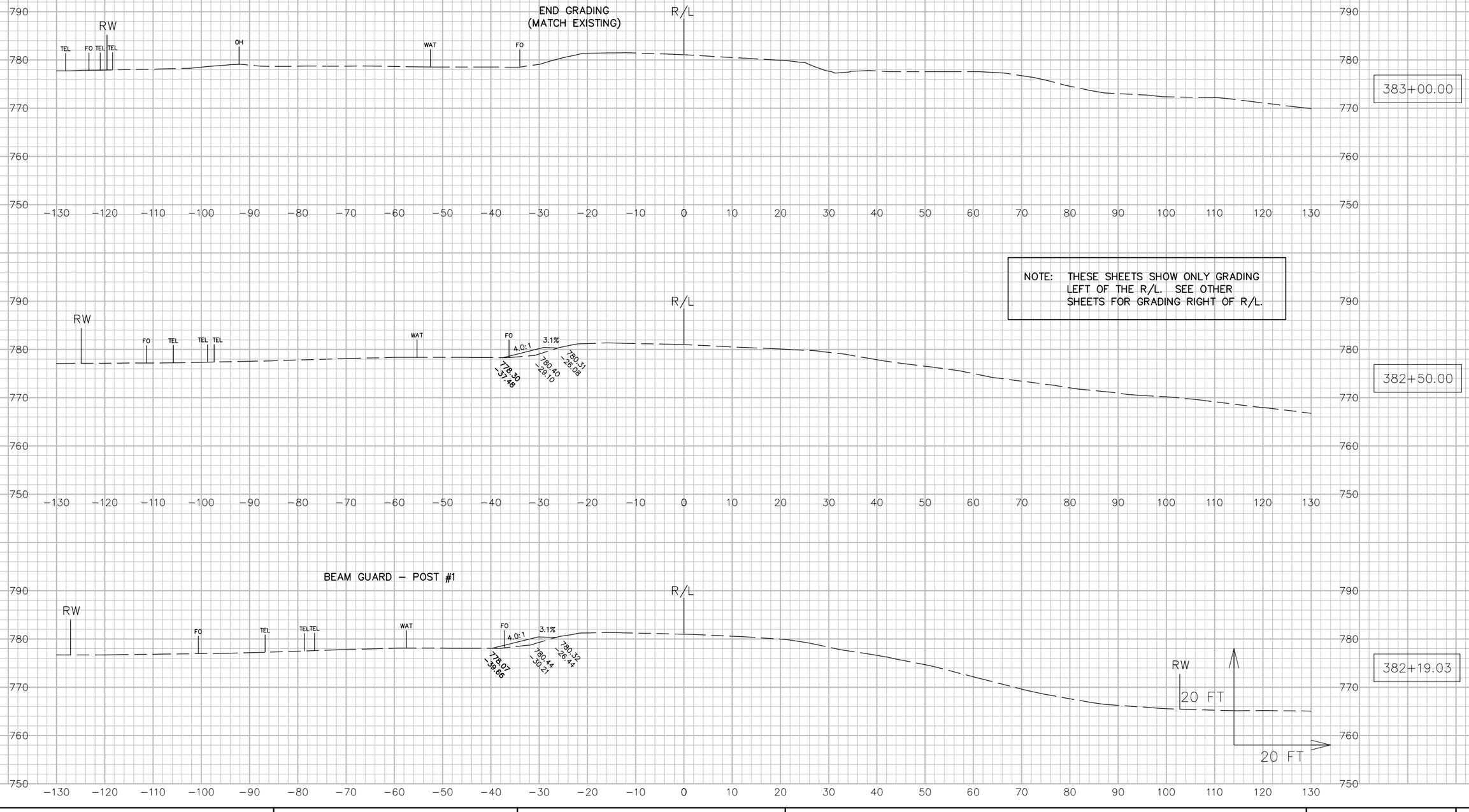




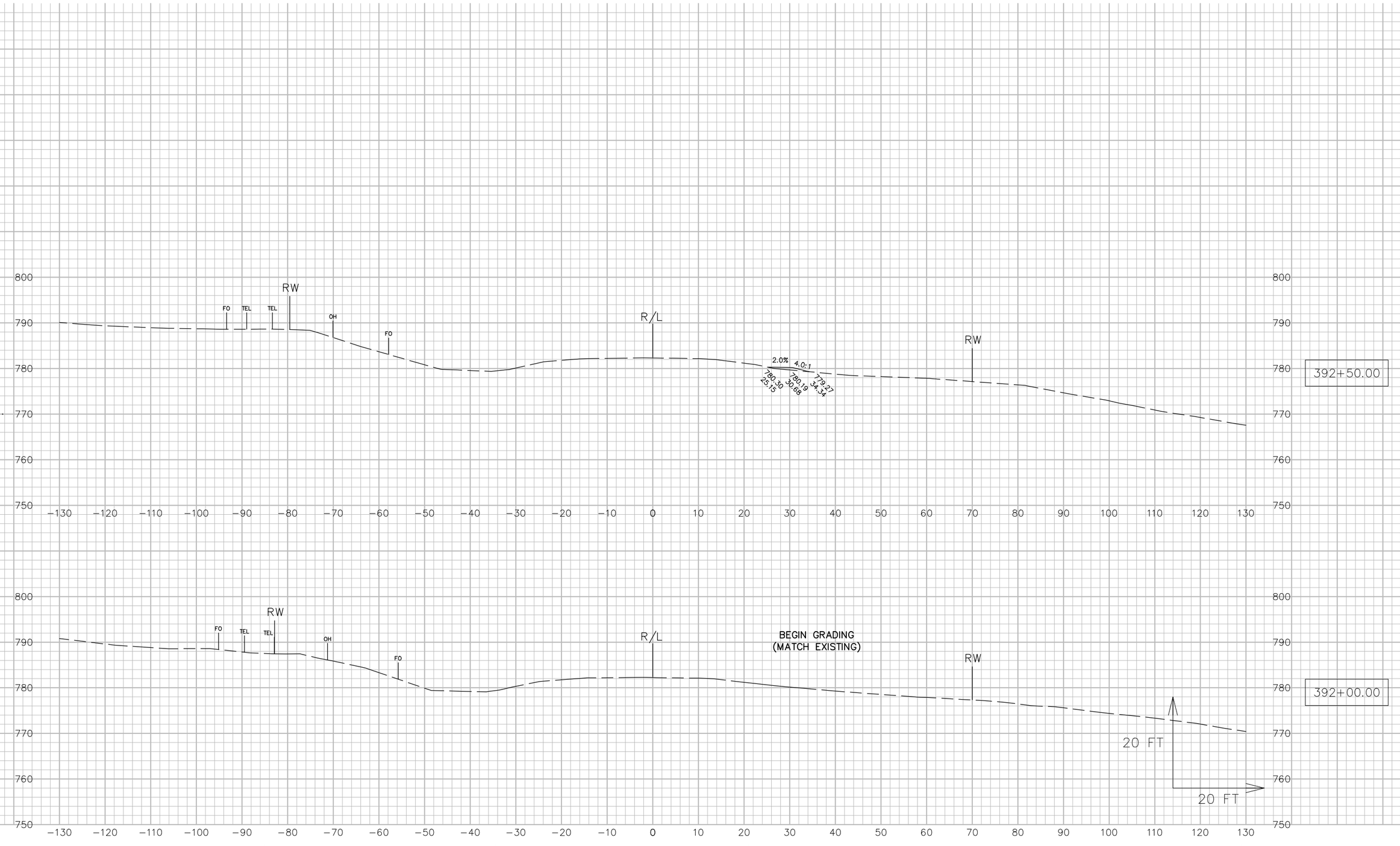
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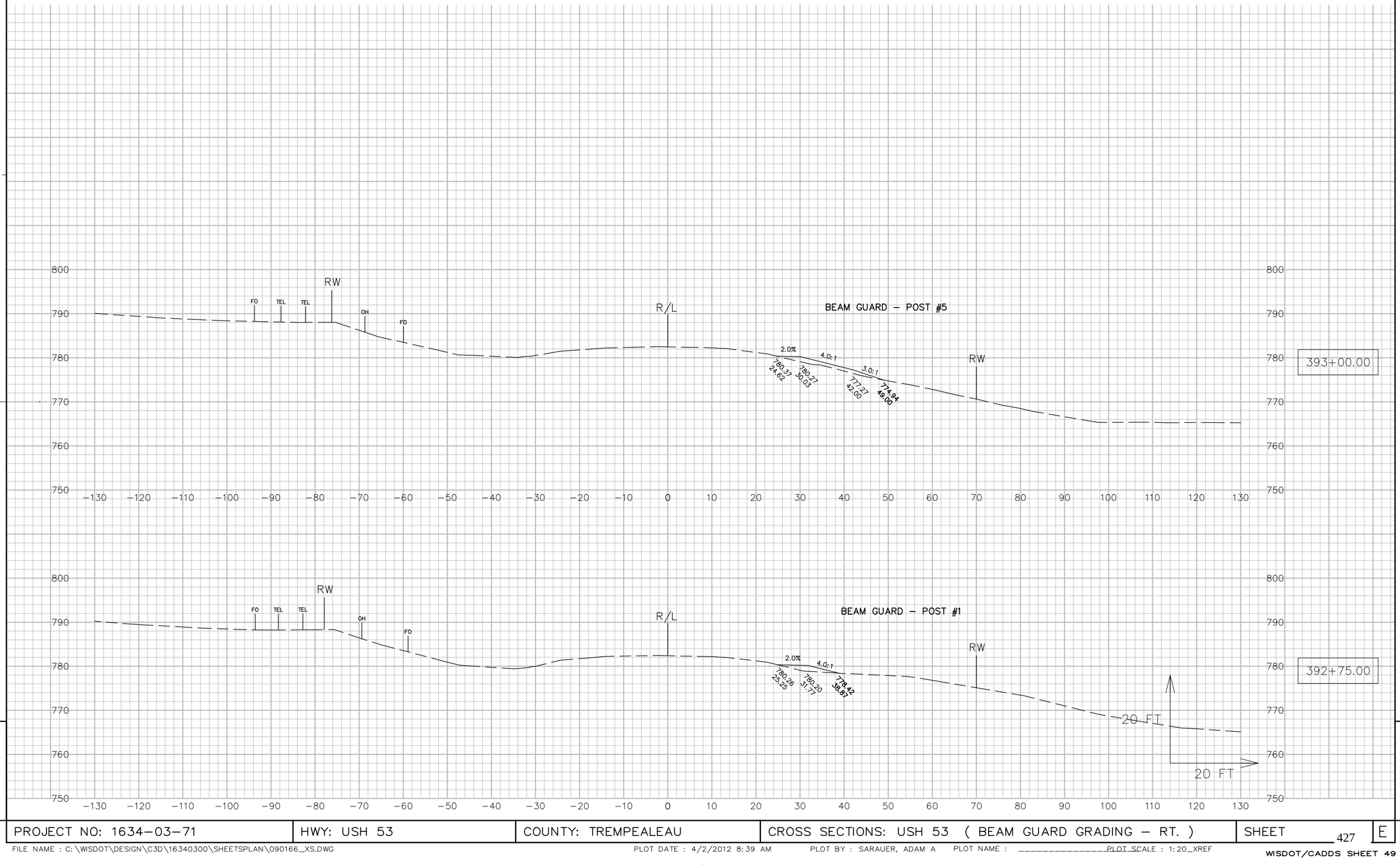
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 424	E



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 425	E



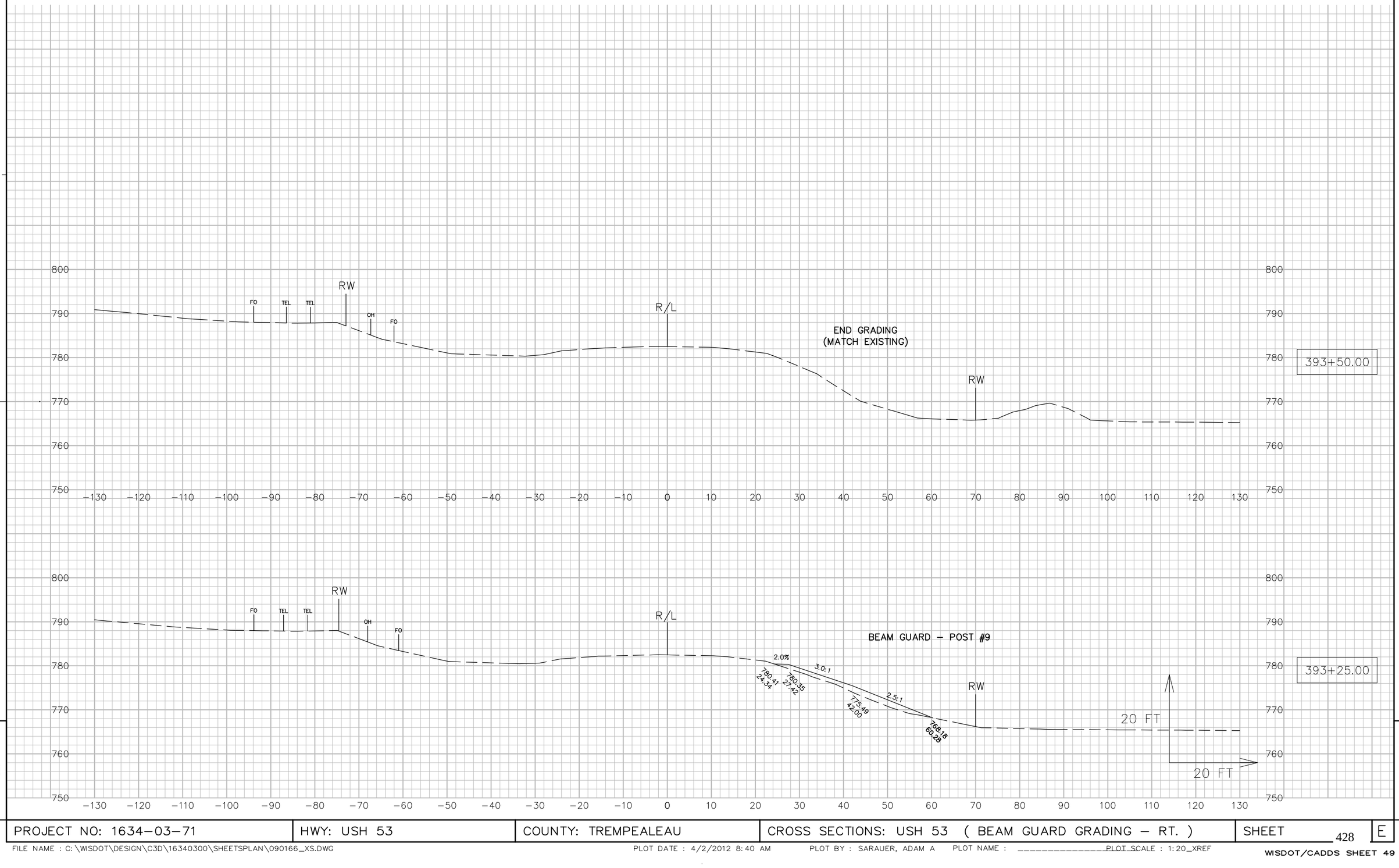
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 426	E



9

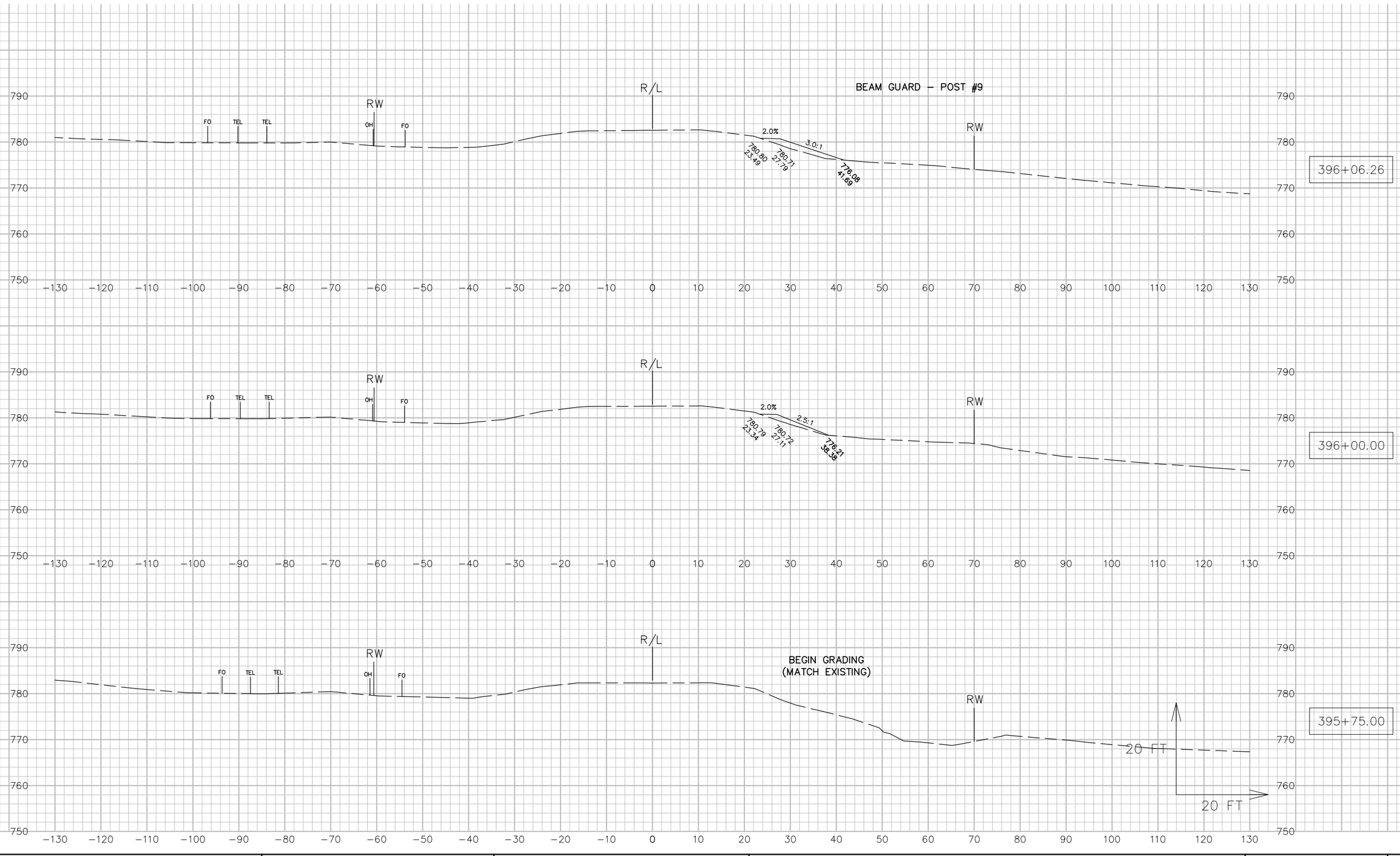
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 427	E



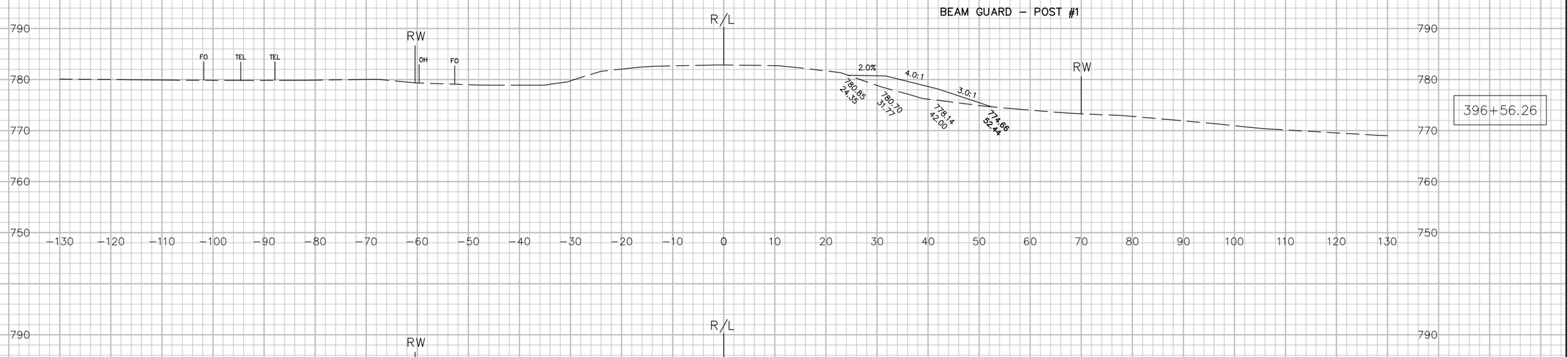
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 428	E

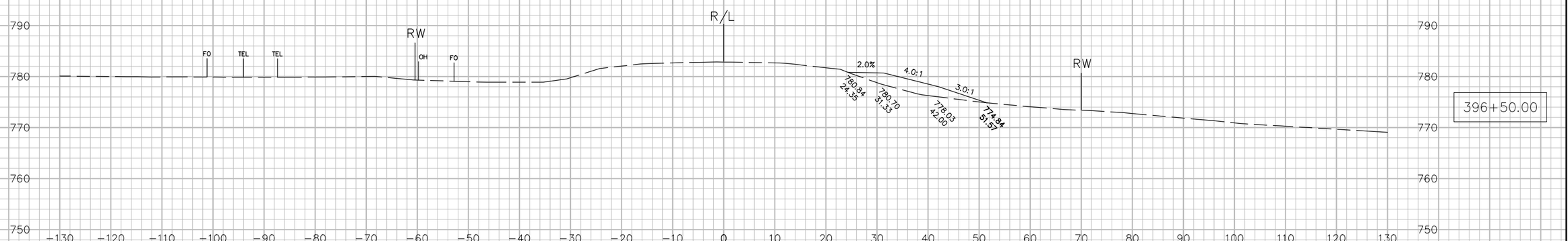
BEAM GUARD – POST #9



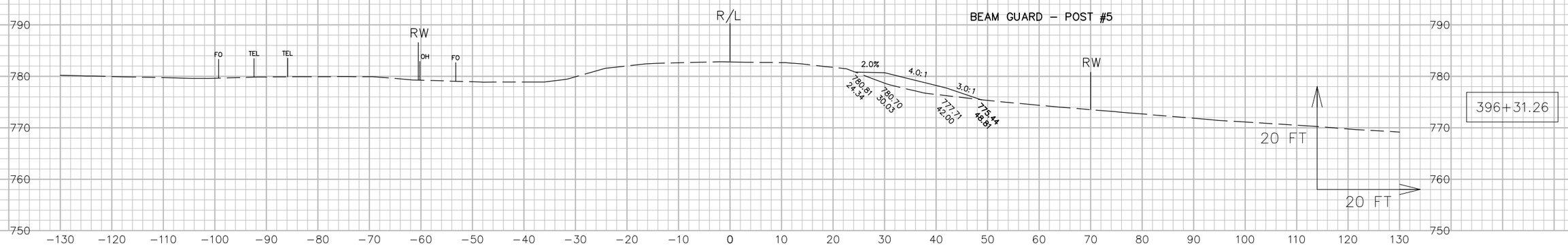
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 429	E

BEAM GUARD – POST #1





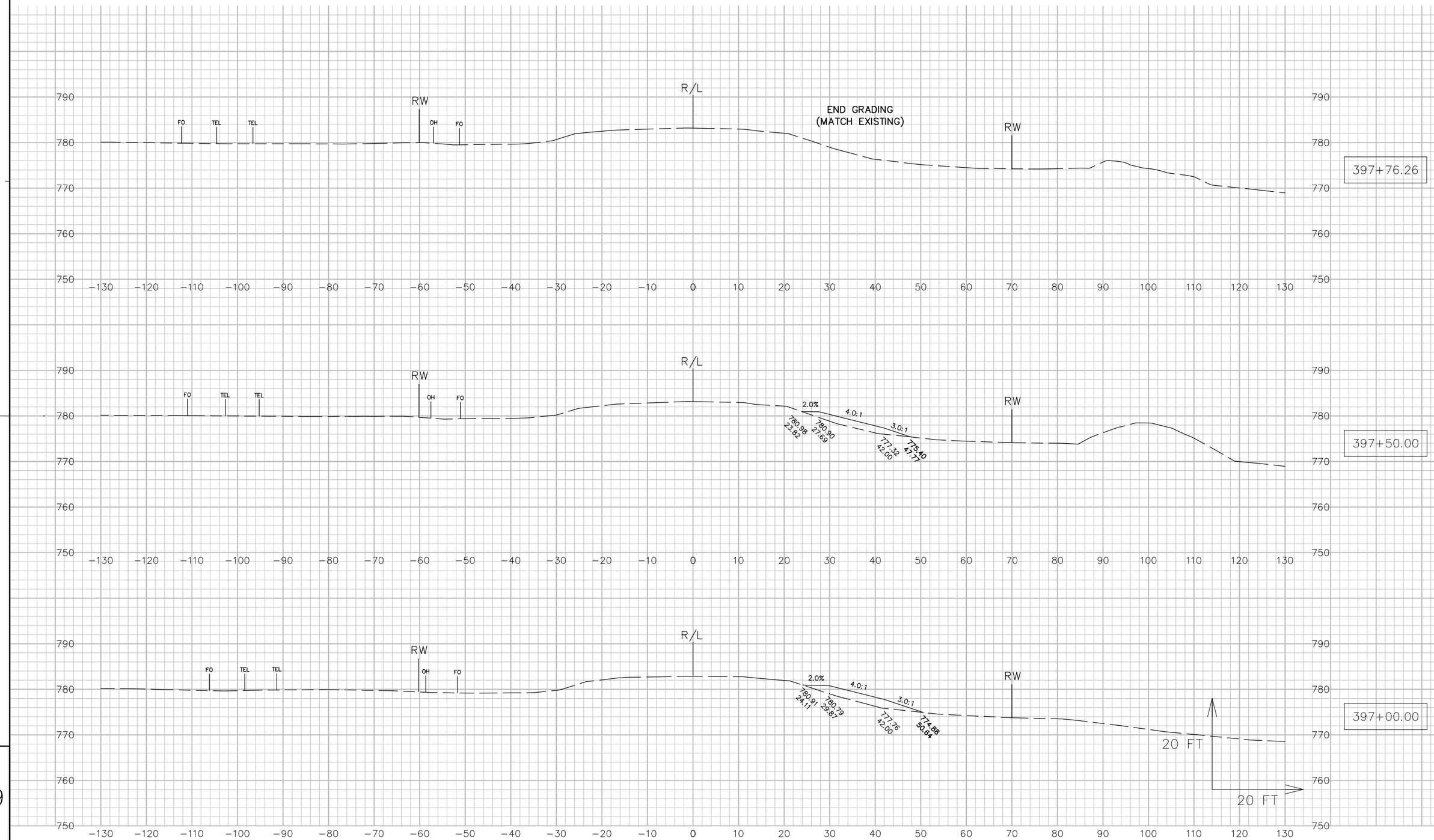
BEAM GUARD – POST #5



9

9

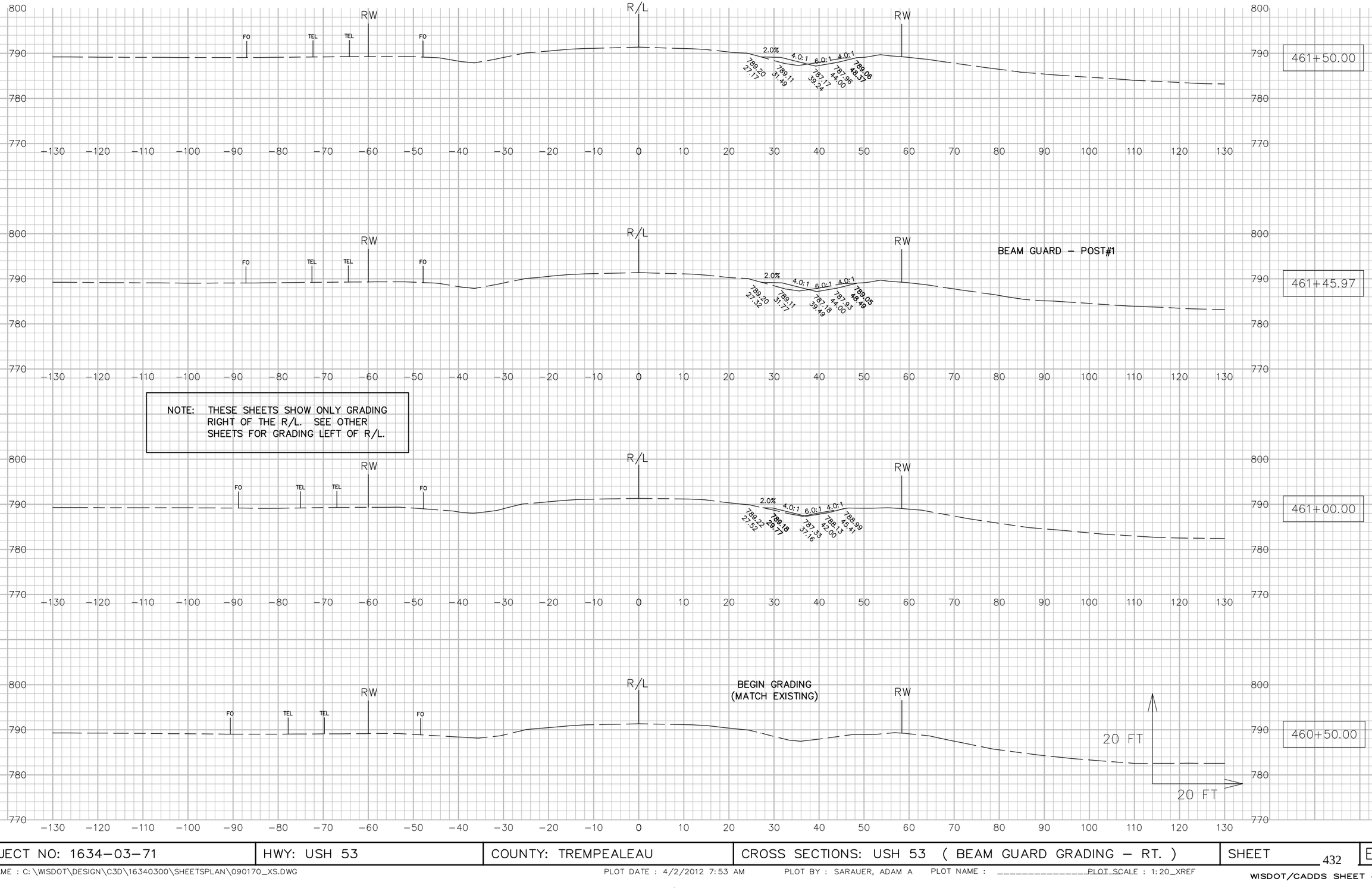
PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 430	E



9

9

PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − RT.)	SHEET 431	E

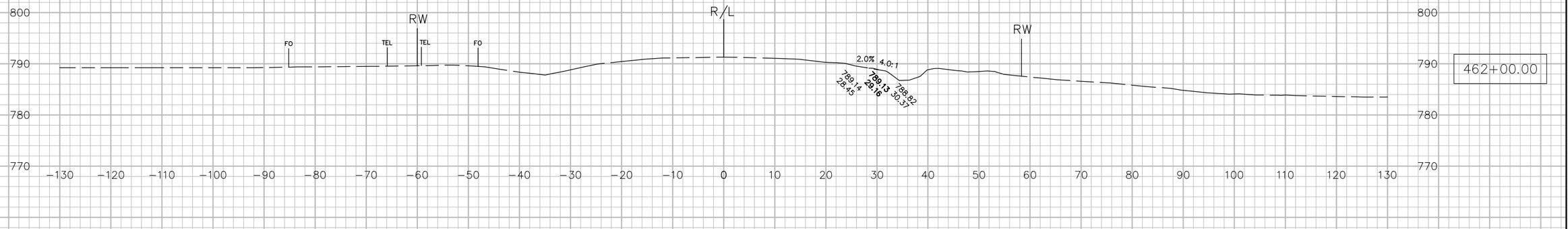


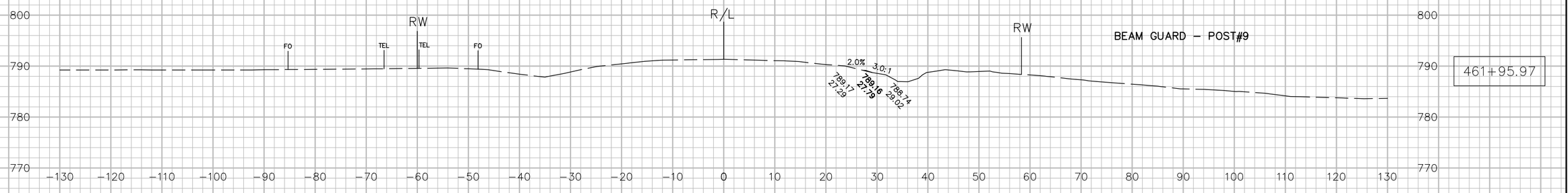
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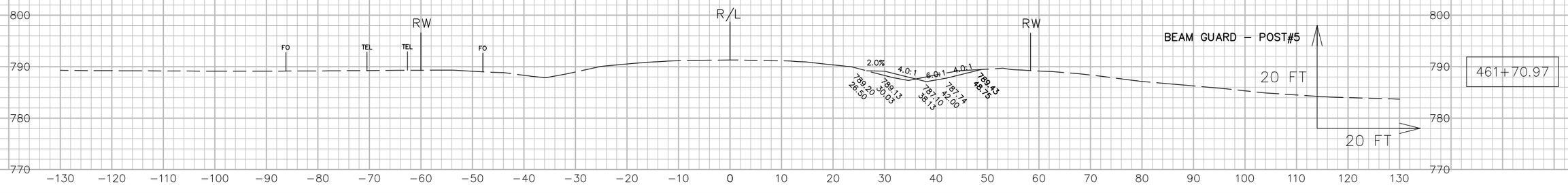
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 432	E

NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

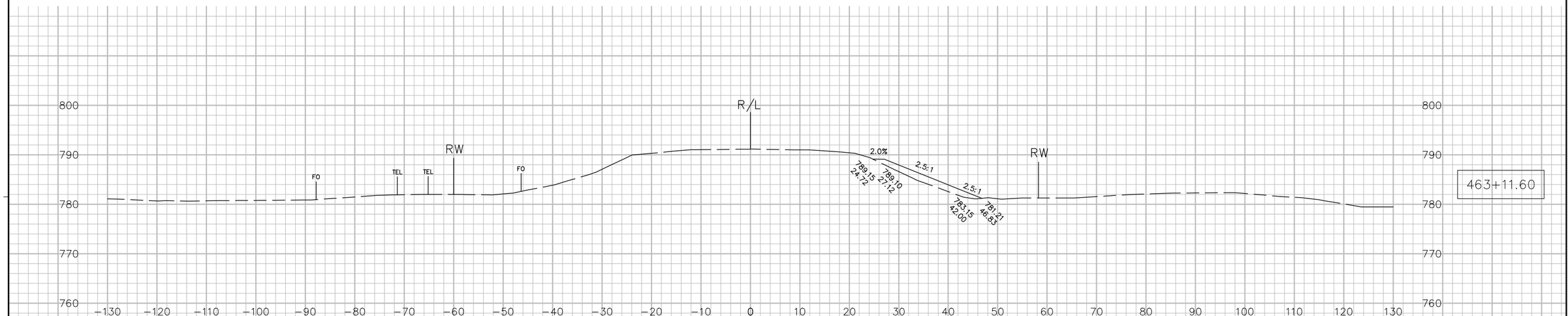


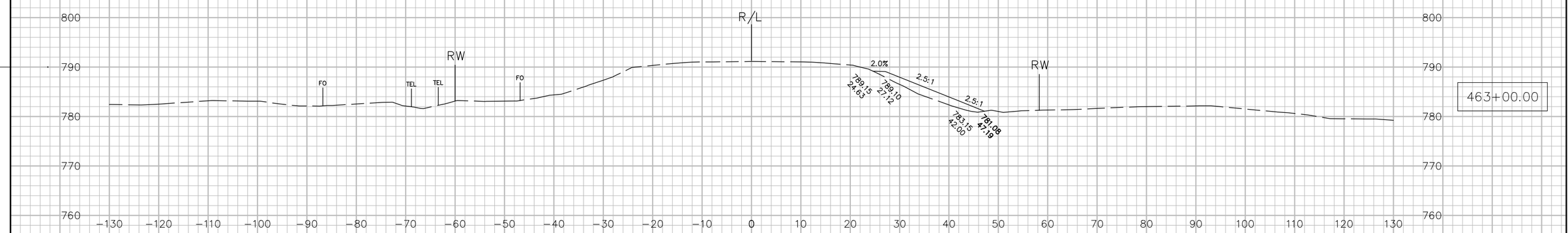


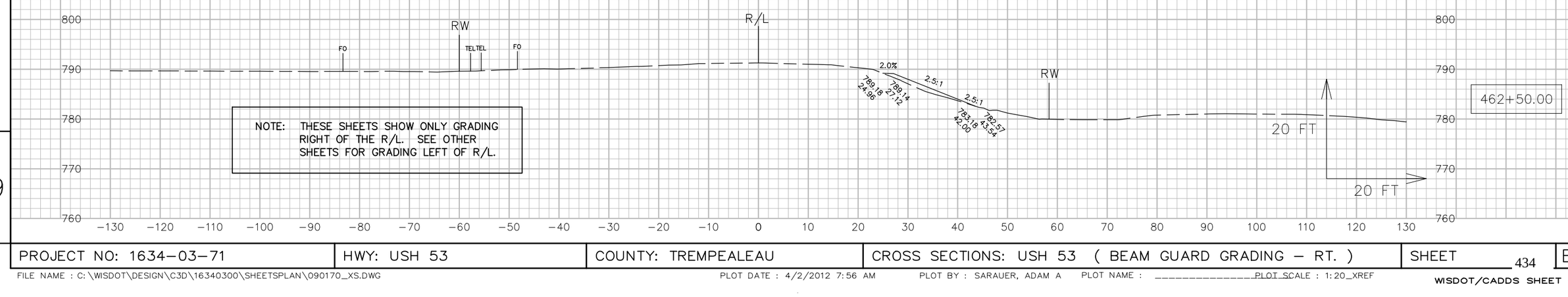


PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 433	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090170_XS.DWG PLOT DATE : 4/2/2012 7:54 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF







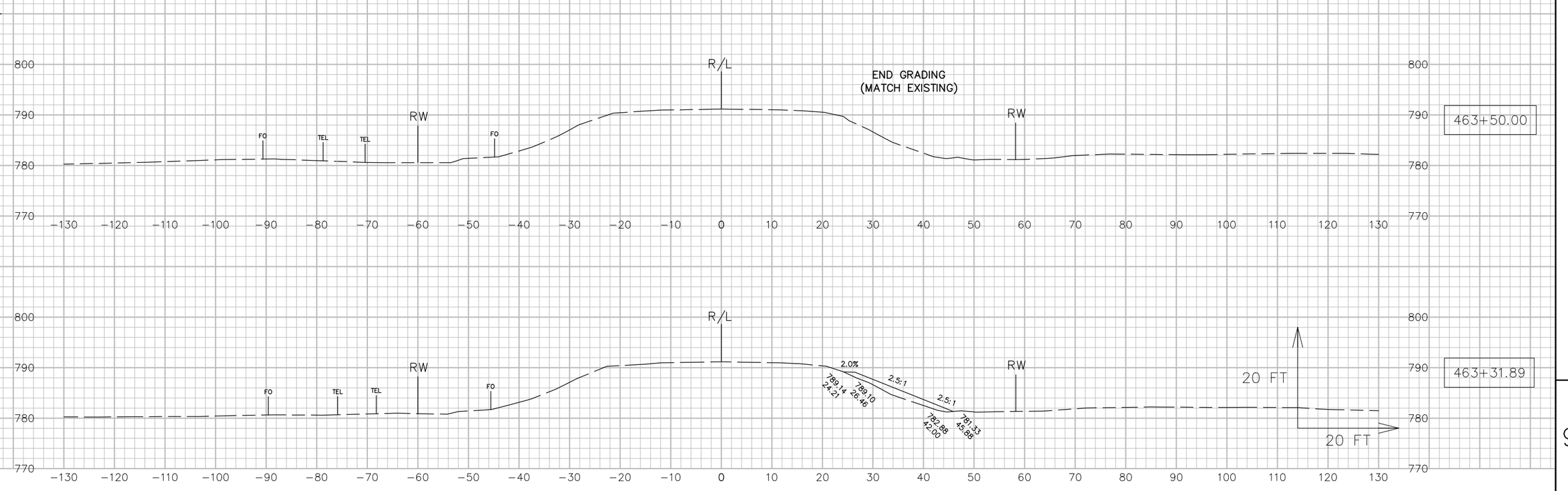
NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

9

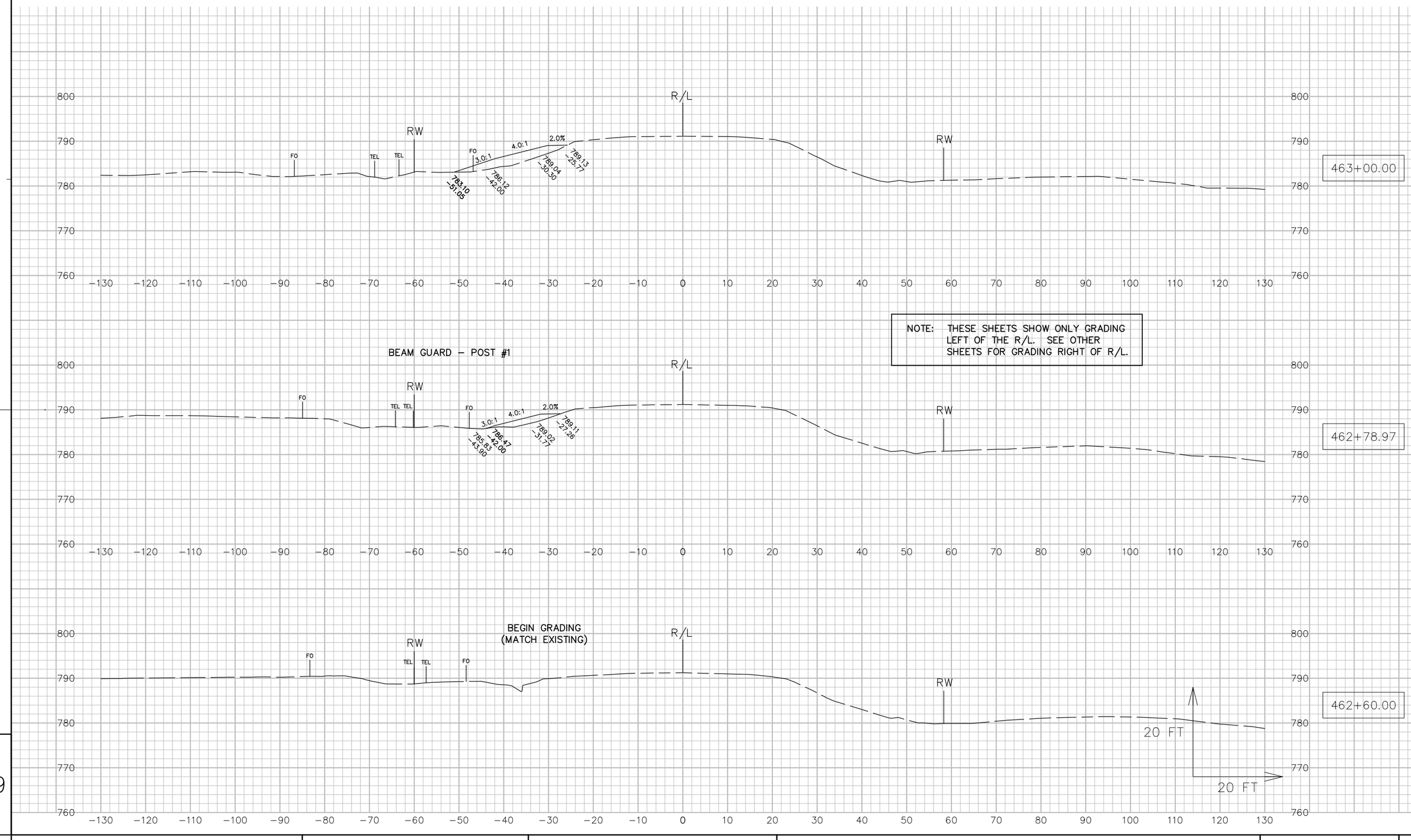
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − RT.)	SHEET 434	E

NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − RT.)	SHEET 435	E

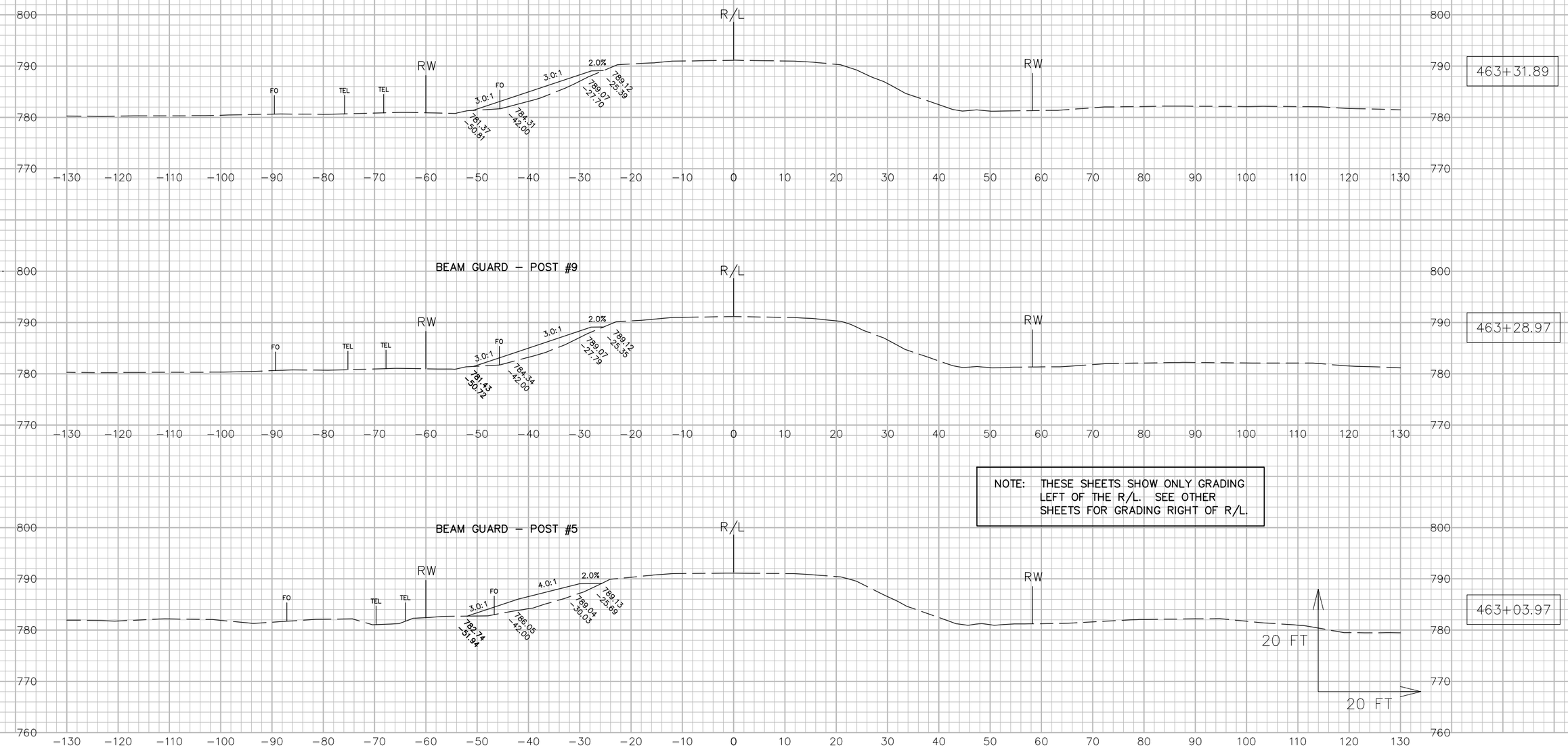


NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

9

9

PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 436	E



9

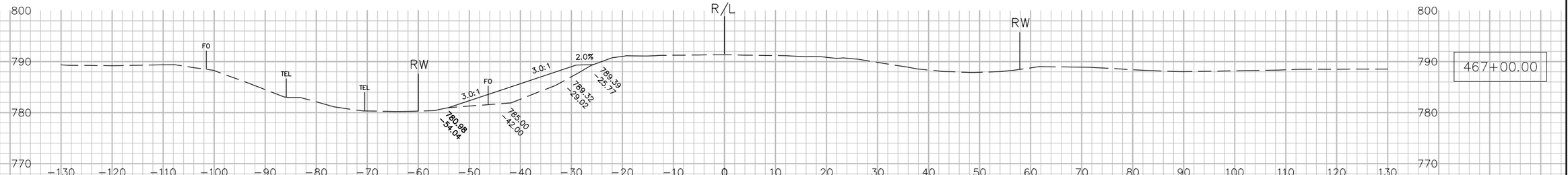
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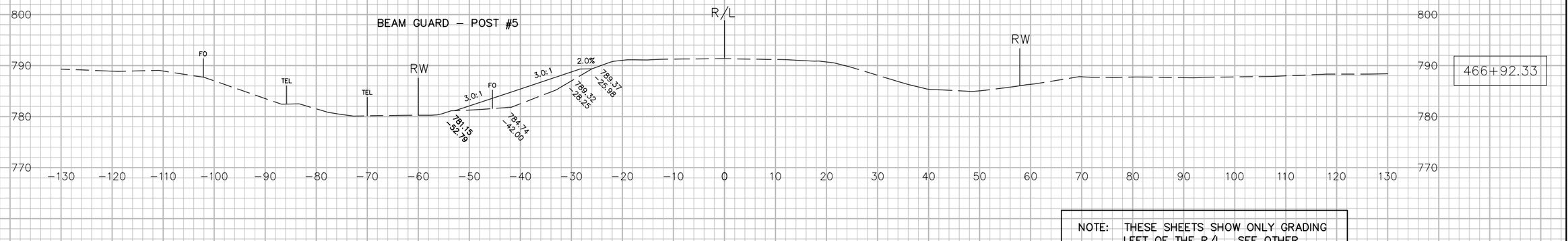
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING — LT.)	SHEET 437	E

NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

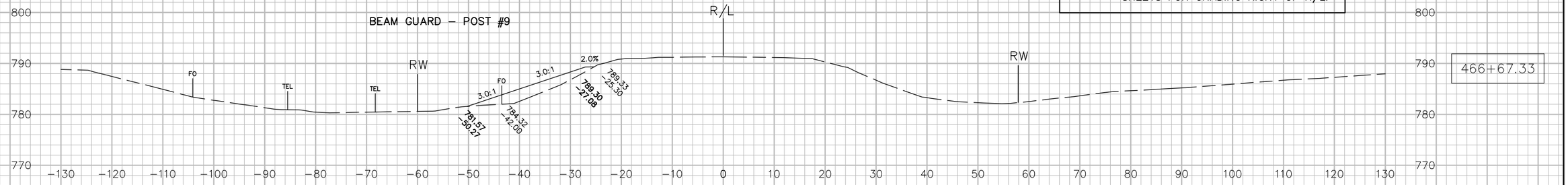


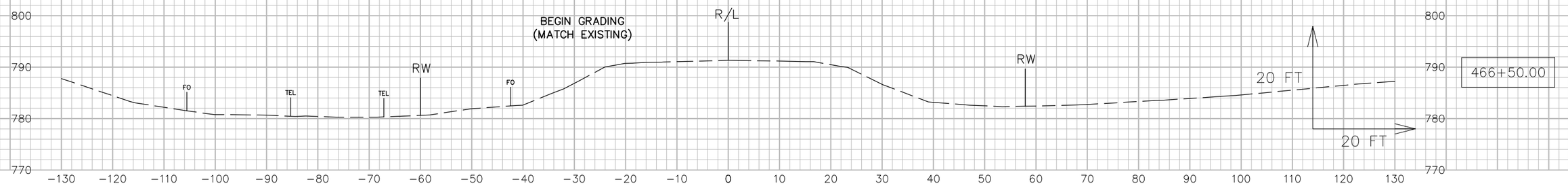
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − LT.)	SHEET 438	E





NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.



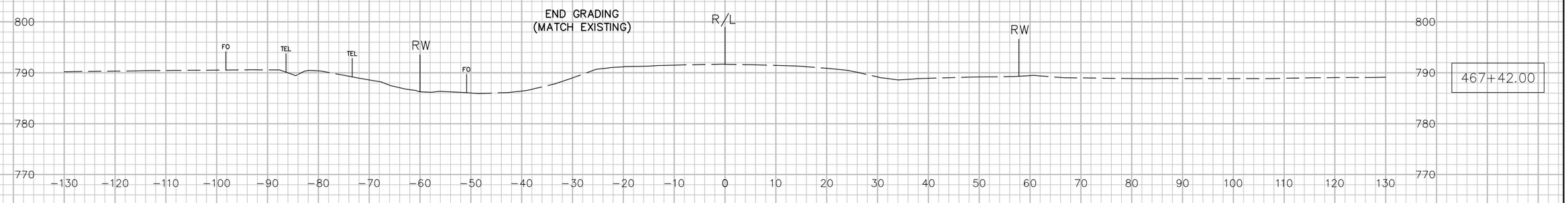


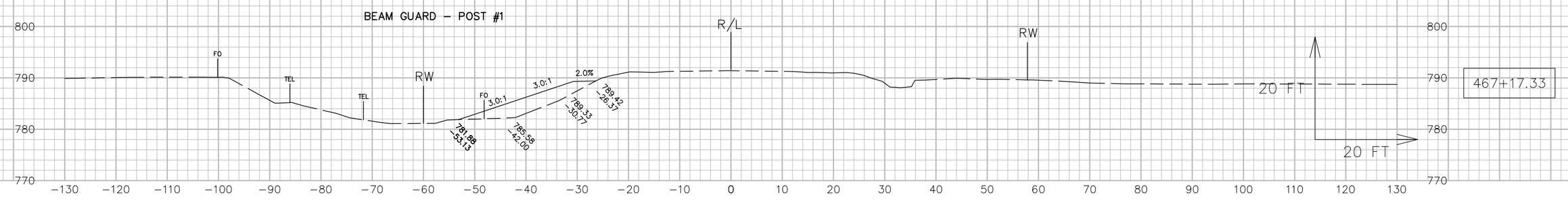
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 439	E

NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

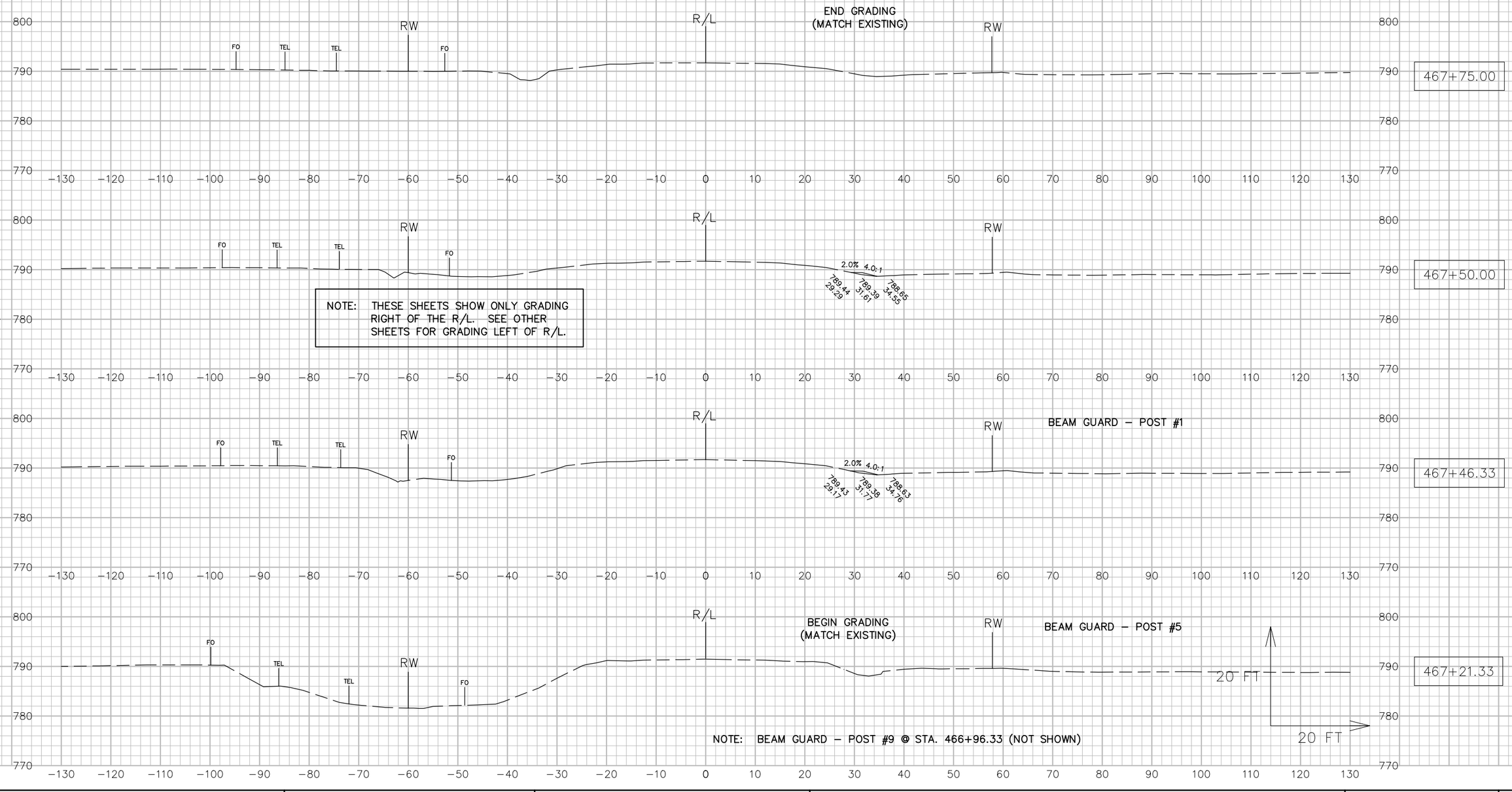




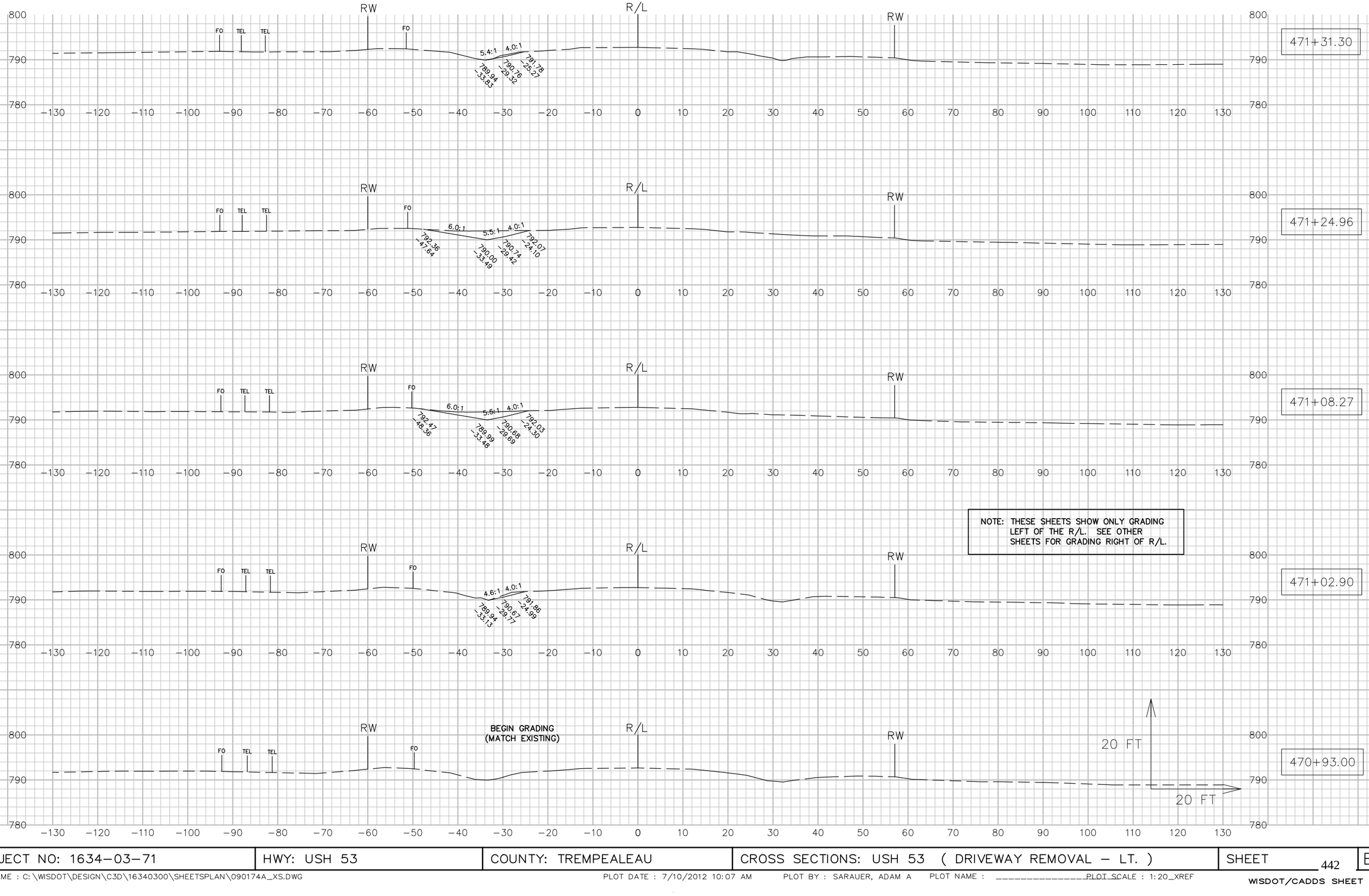
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 440	E



PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 441	E

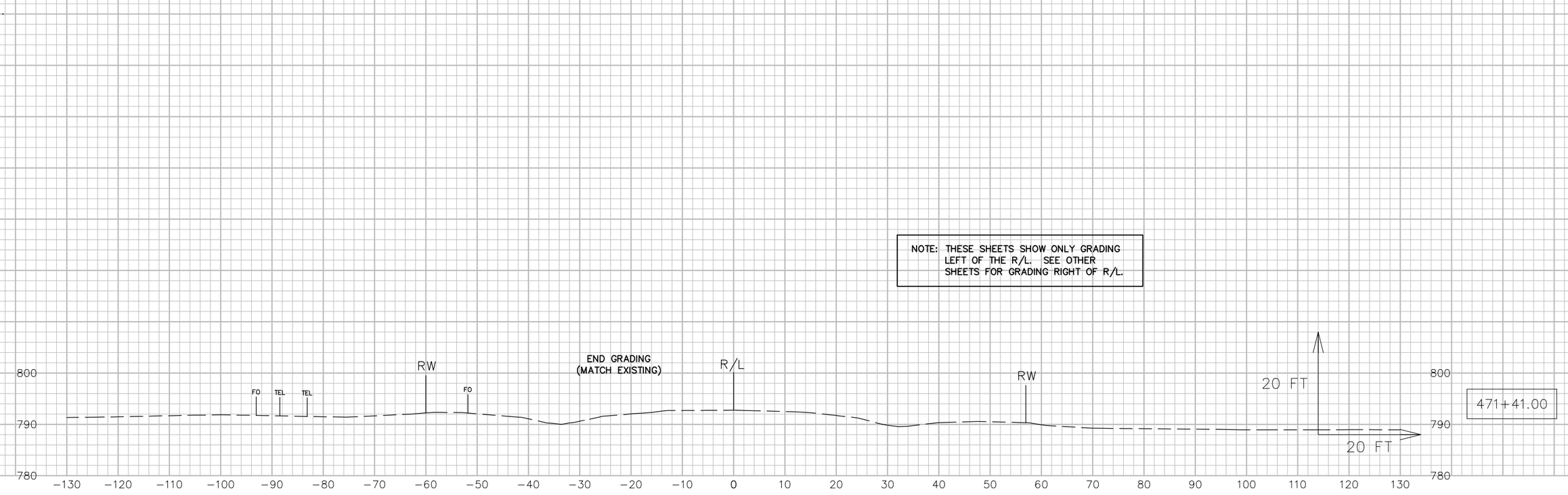


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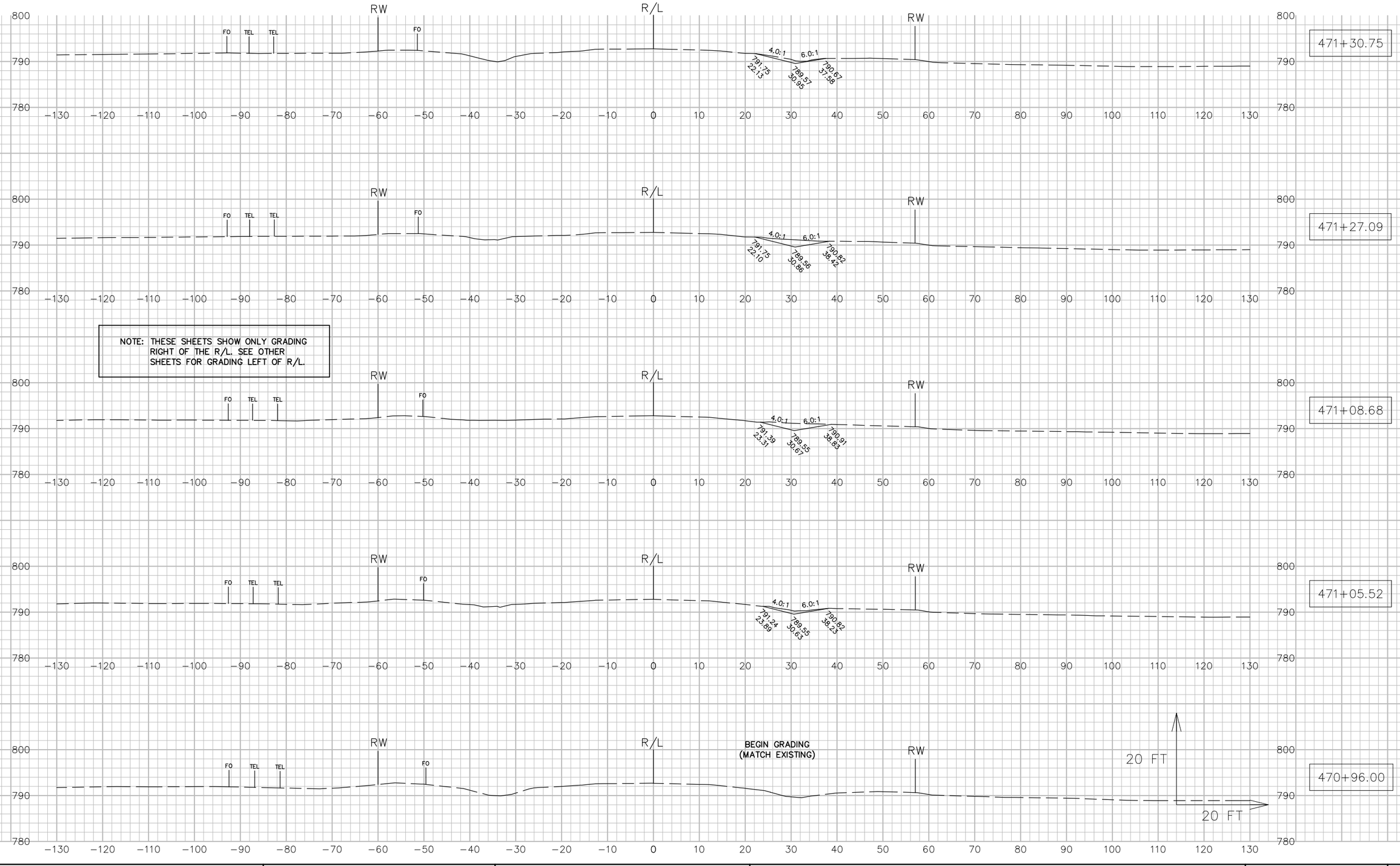
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL − LT.)	SHEET 442	E

NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.

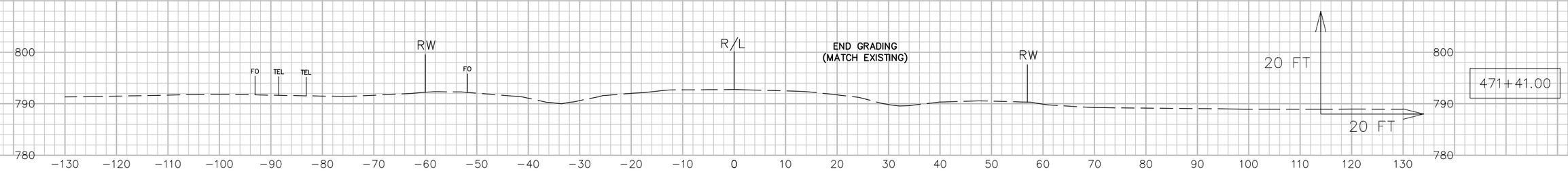


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL – LT.)	SHEET 443	E

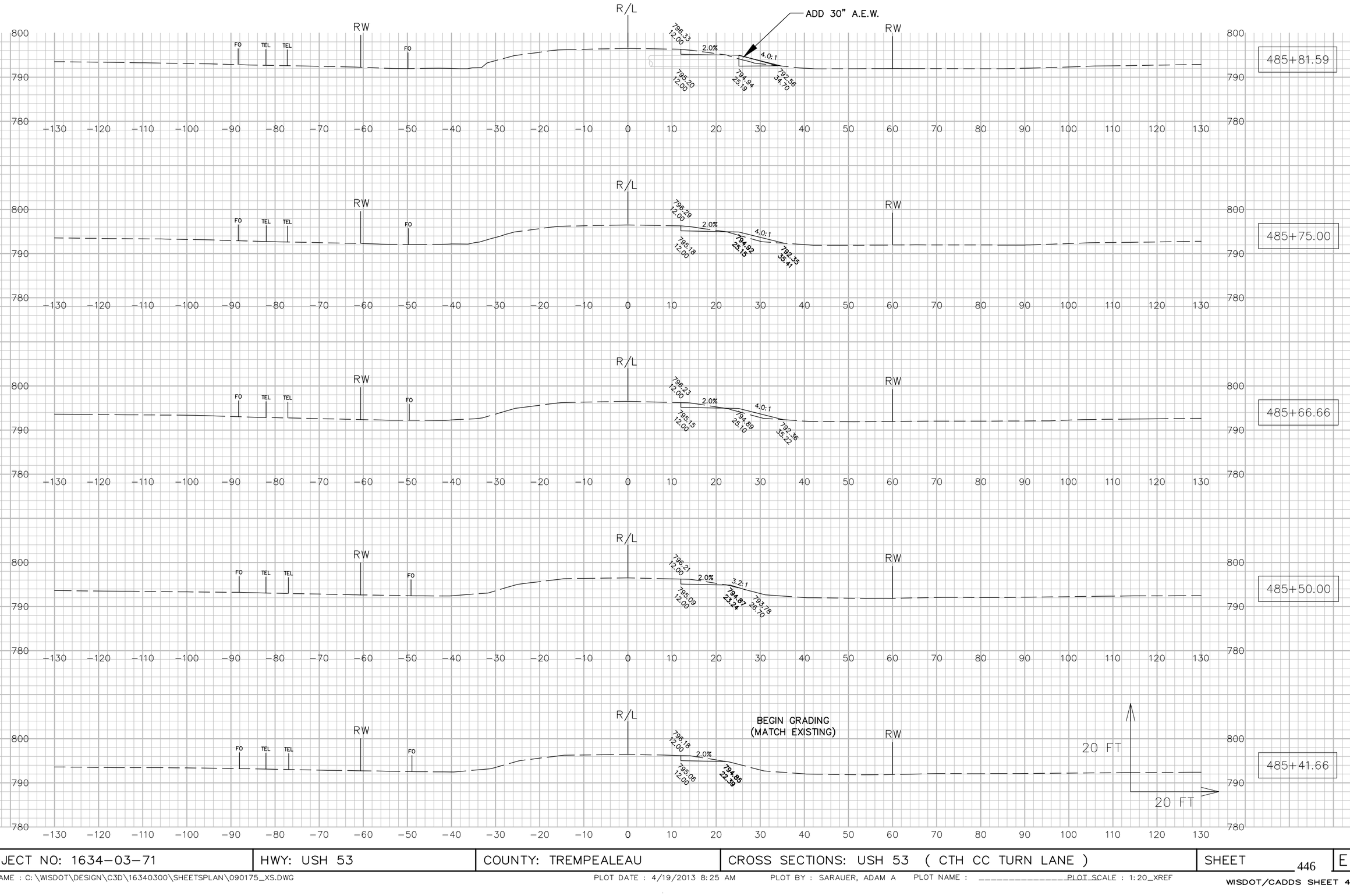


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL – RT.)	SHEET 444	E

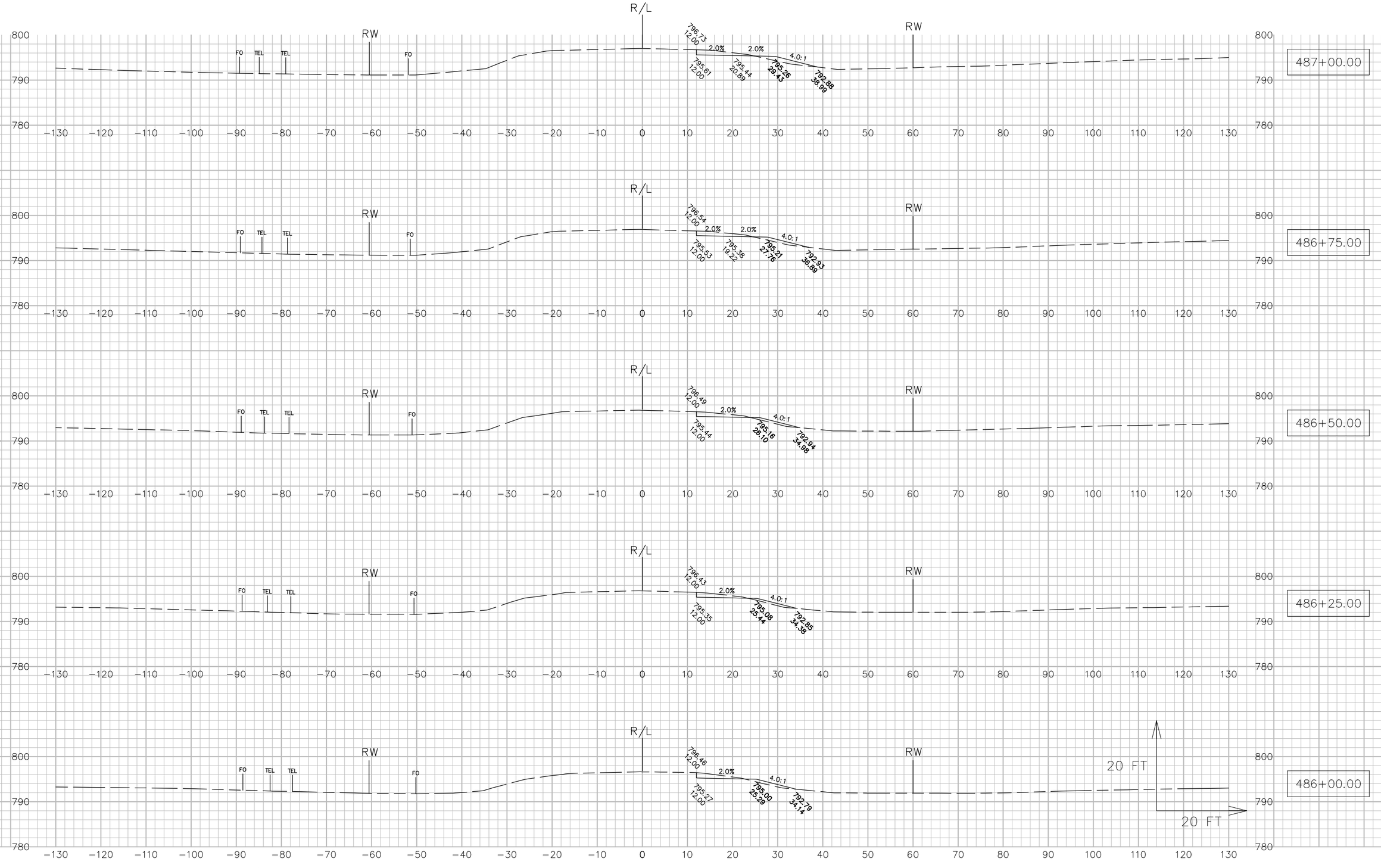
NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.



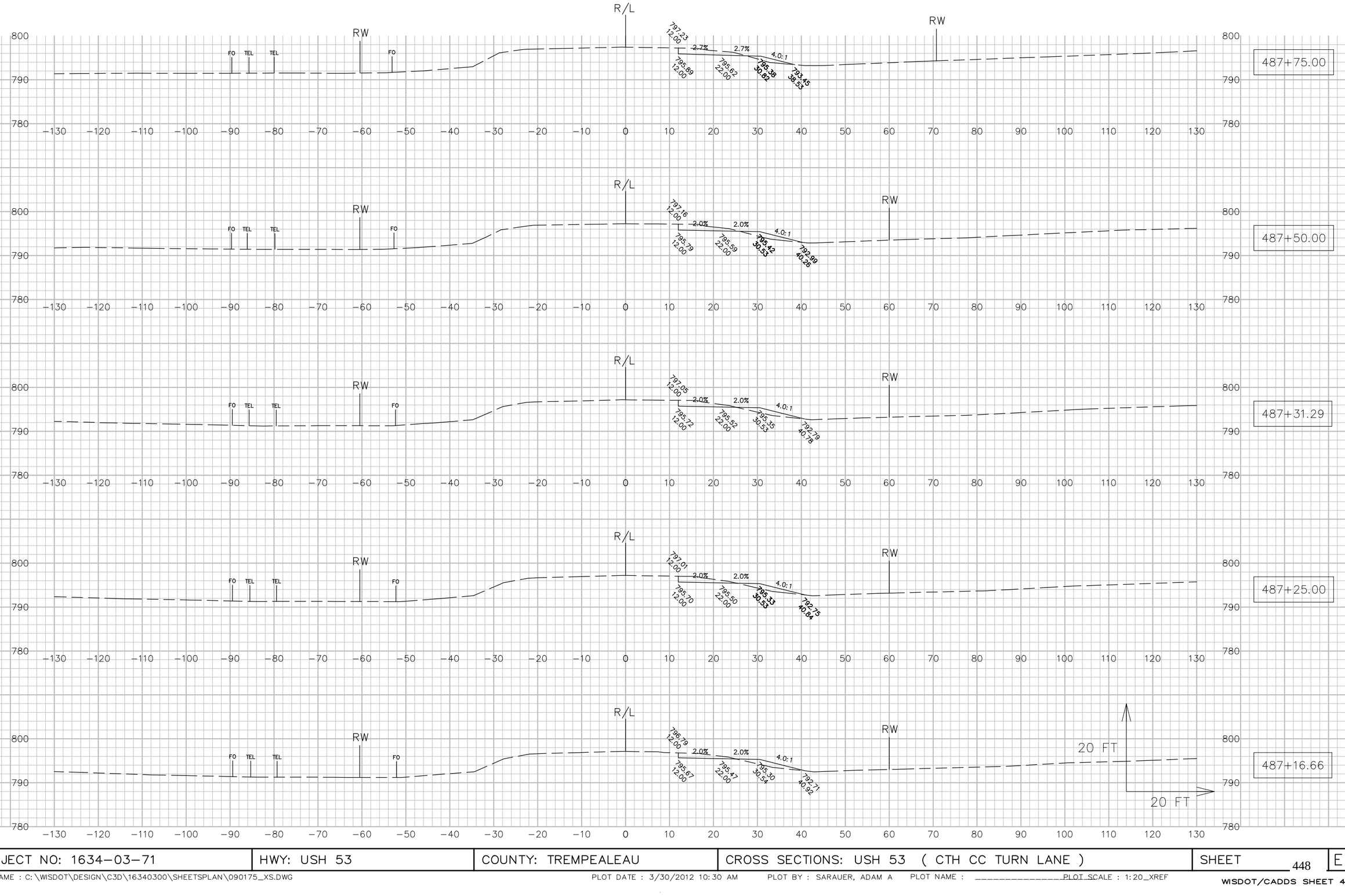
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (DRIVEWAY REMOVAL − RT.)	SHEET 445	E



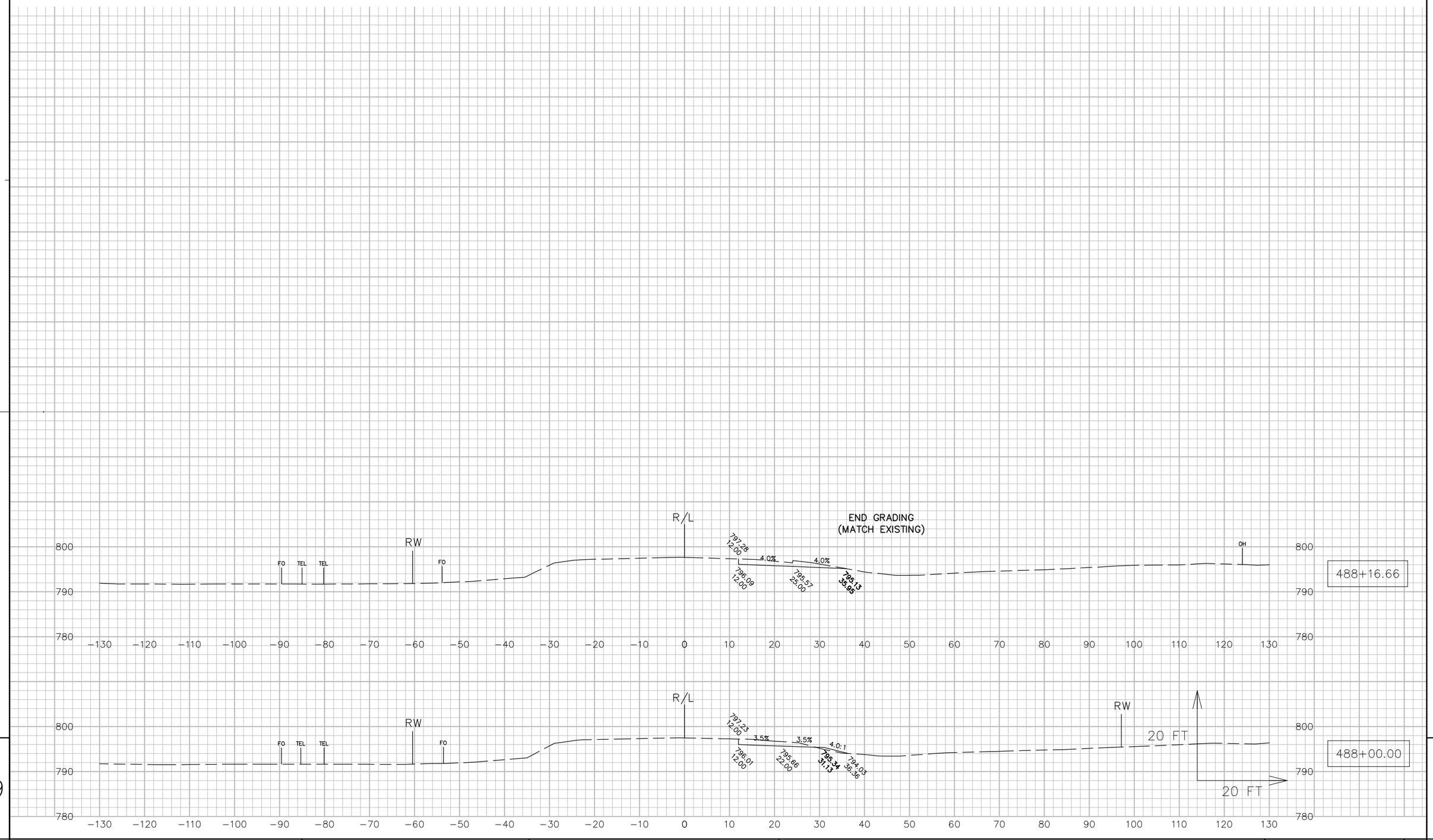
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CTH CC TURN LANE)	SHEET 446	E



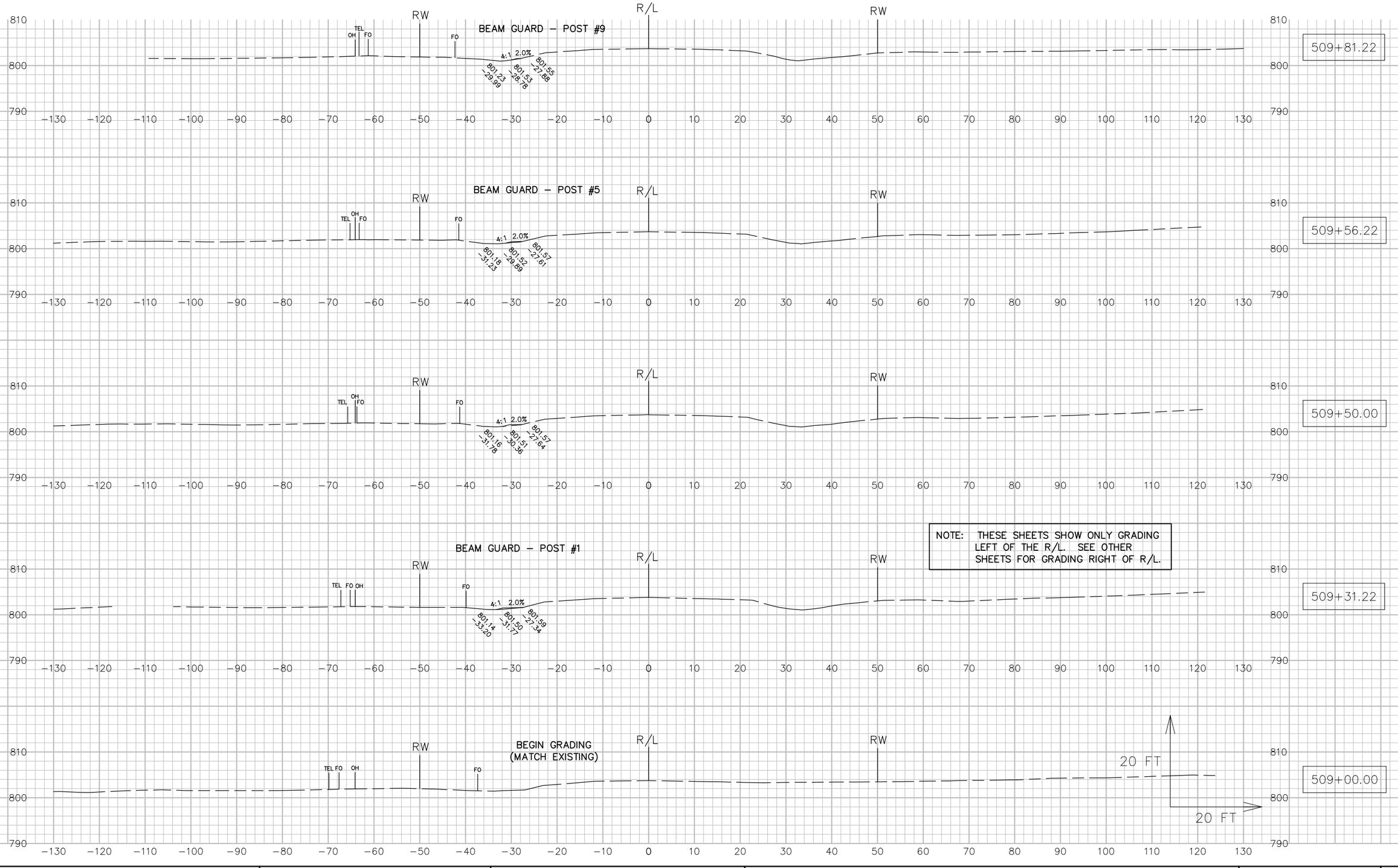
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CTH CC TURN LANE)	SHEET 447	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CTH CC TURN LANE)	SHEET 448	E



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (CTH CC TURN LANE)	SHEET 449	E

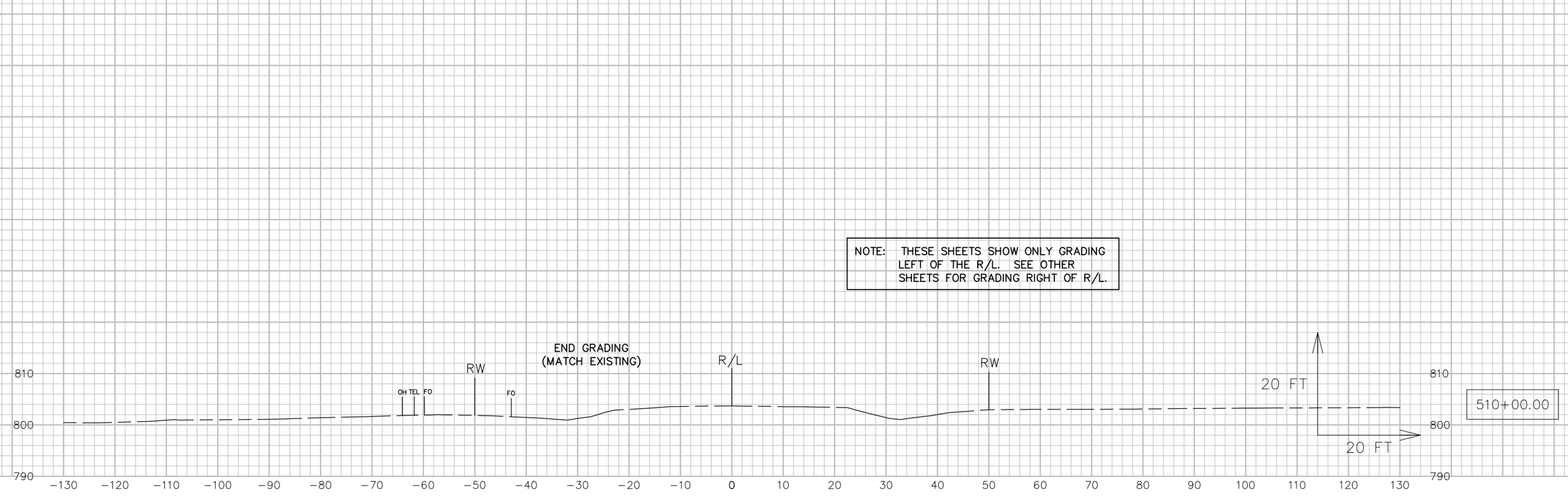


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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – LT.)	SHEET 450	E

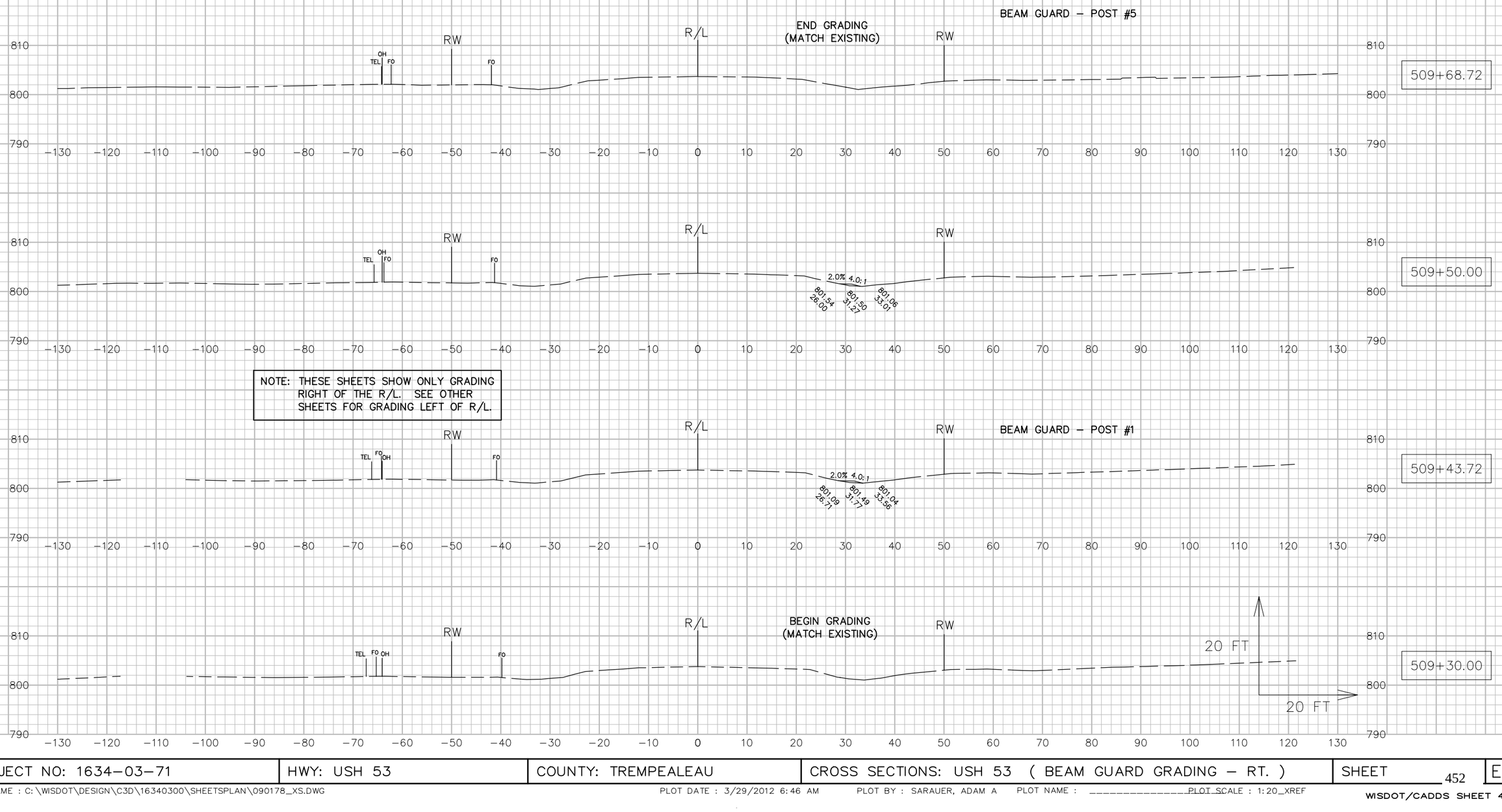
NOTE: THESE SHEETS SHOW ONLY GRADING LEFT OF THE R/L. SEE OTHER SHEETS FOR GRADING RIGHT OF R/L.



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING − LT.)	SHEET 451	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090177_XS.DWG PLOT DATE : 10/22/2012 1:40 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

NOTE: BEAM GUARD – POST #9 @ STA. 509+93.72 (NOT SHOWN)

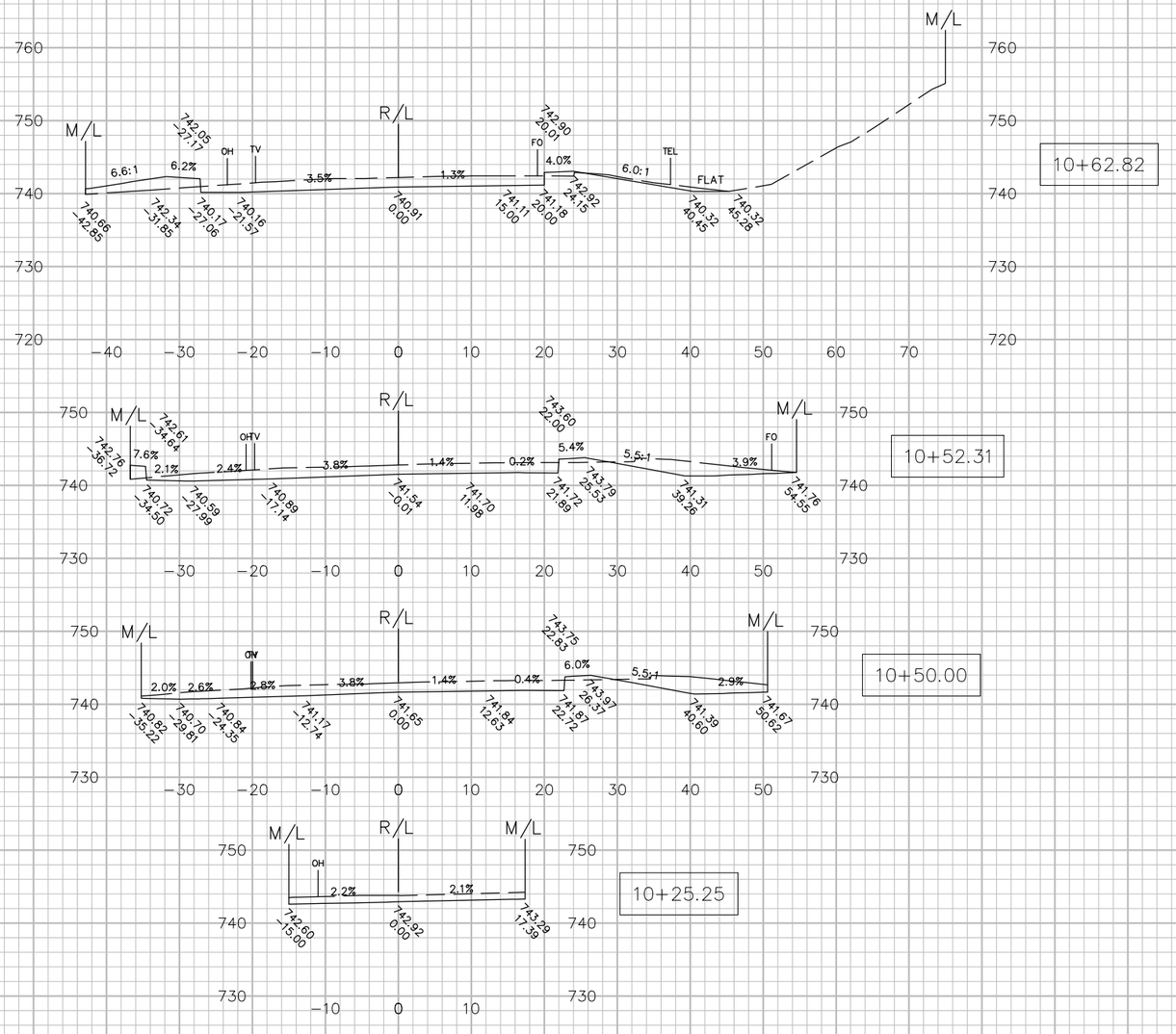


NOTE: THESE SHEETS SHOW ONLY GRADING RIGHT OF THE R/L. SEE OTHER SHEETS FOR GRADING LEFT OF R/L.

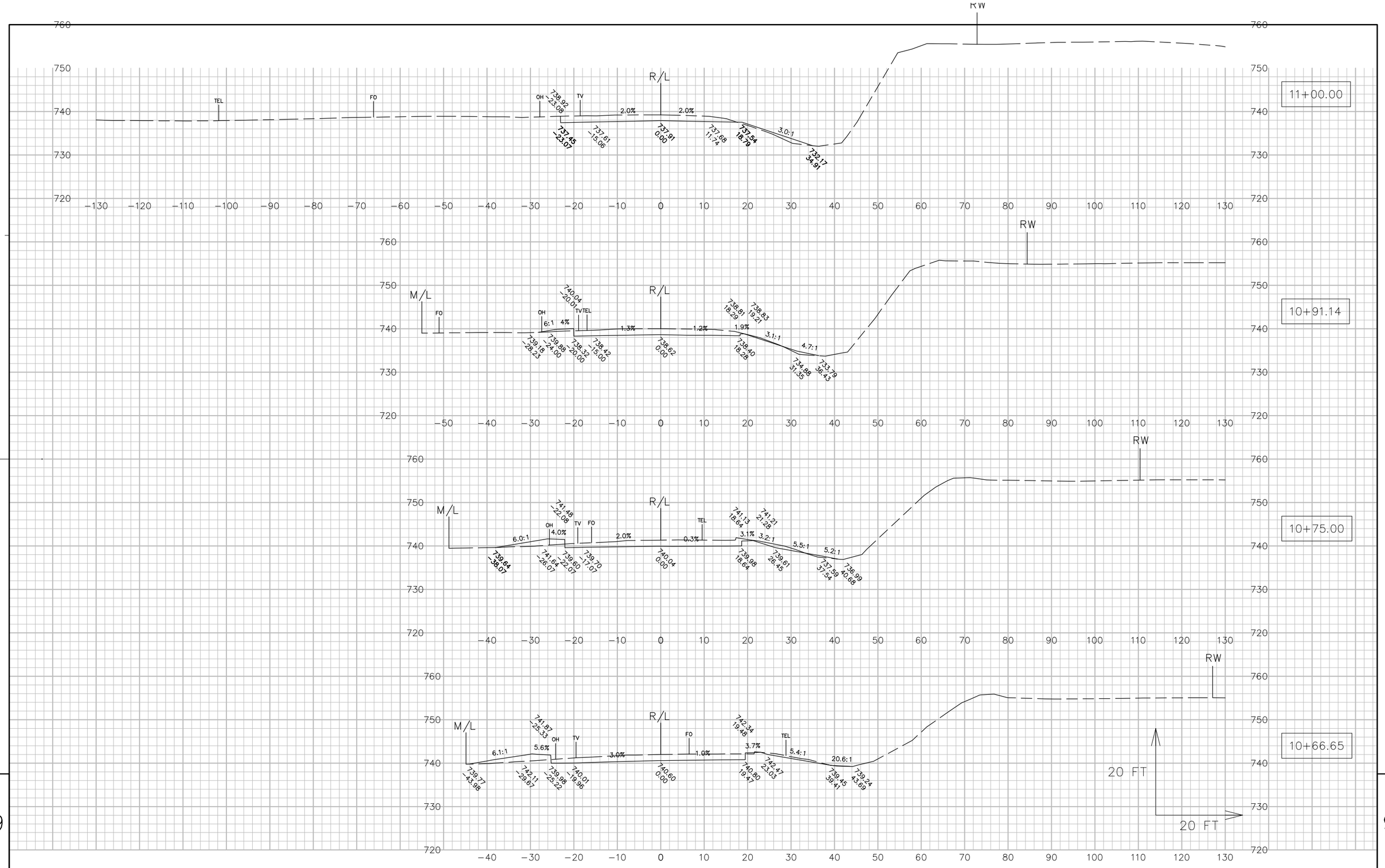
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PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: USH 53 (BEAM GUARD GRADING – RT.)	SHEET 452	E

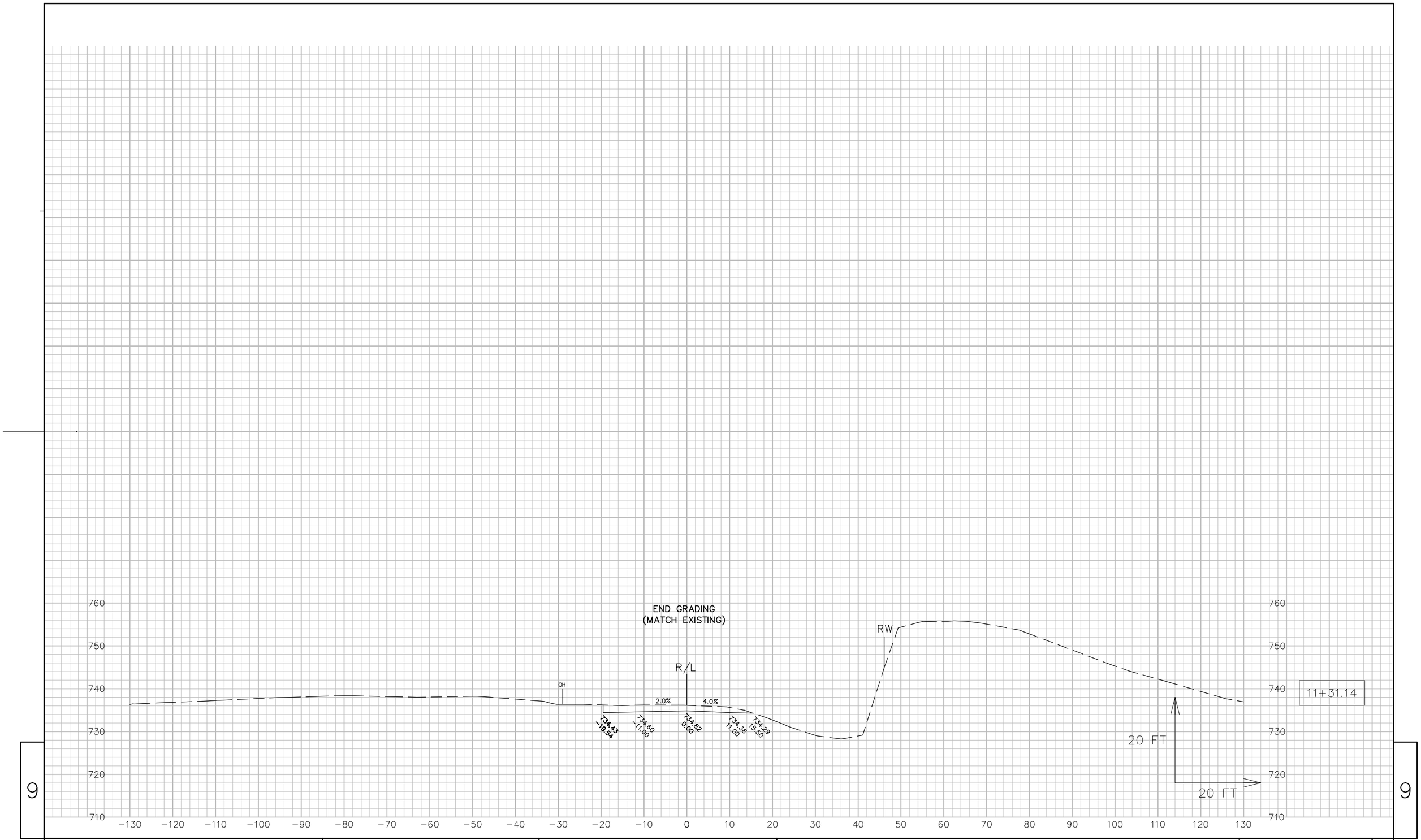


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: CRYSTAL VALLEY ROAD	SHEET 453	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: CRYSTAL VALLEY ROAD	SHEET 454	E

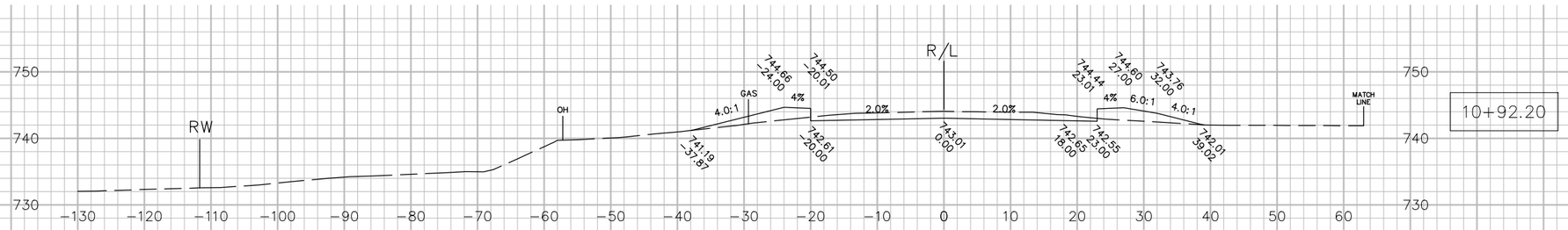
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090185_XS.DWG PLOT DATE : 4/11/2012 4:54 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF



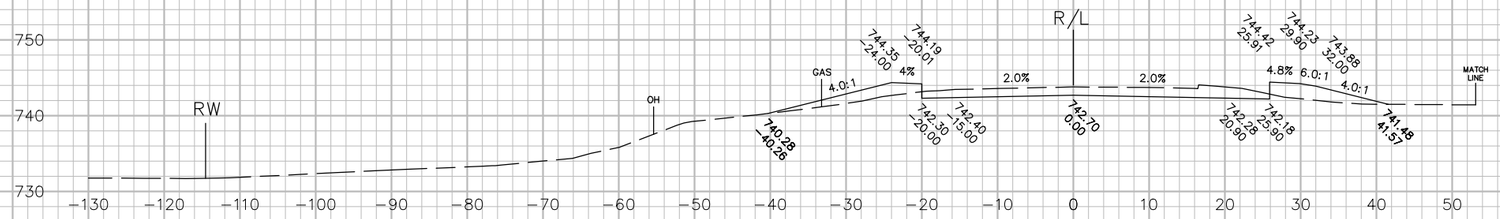
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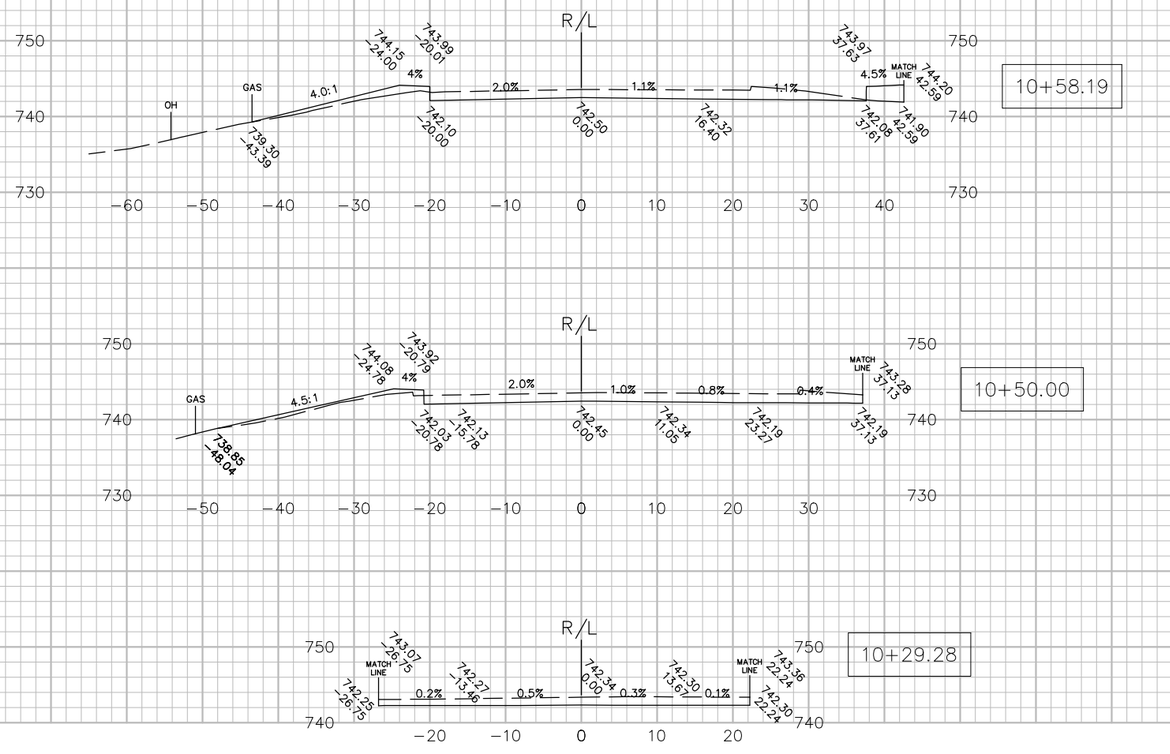
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: CRYSTAL VALLEY ROAD	SHEET 455	E



10+92.20



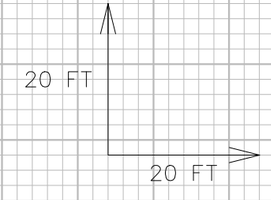
10+75.00



10+58.19

10+50.00

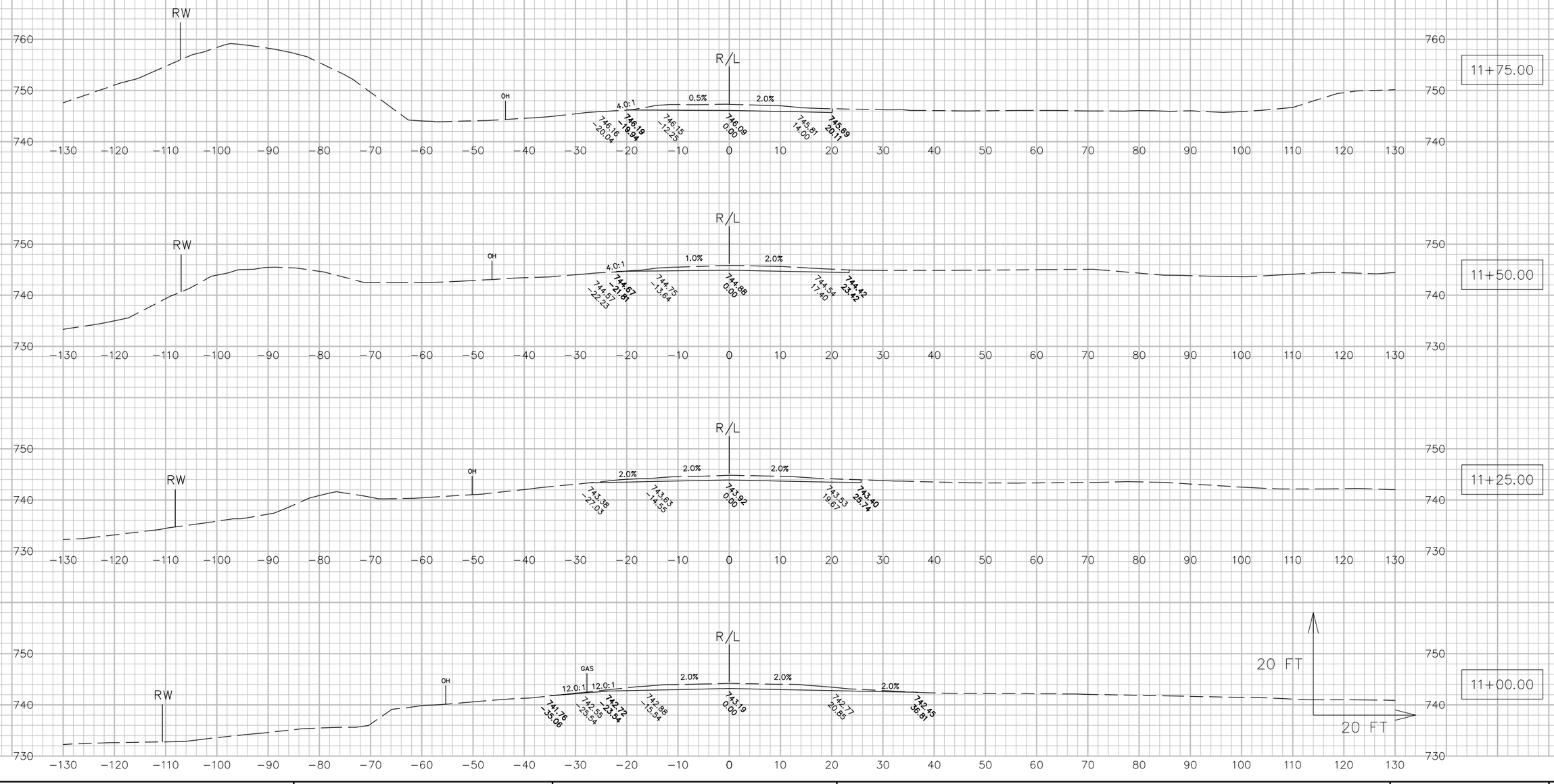
10+29.28



9

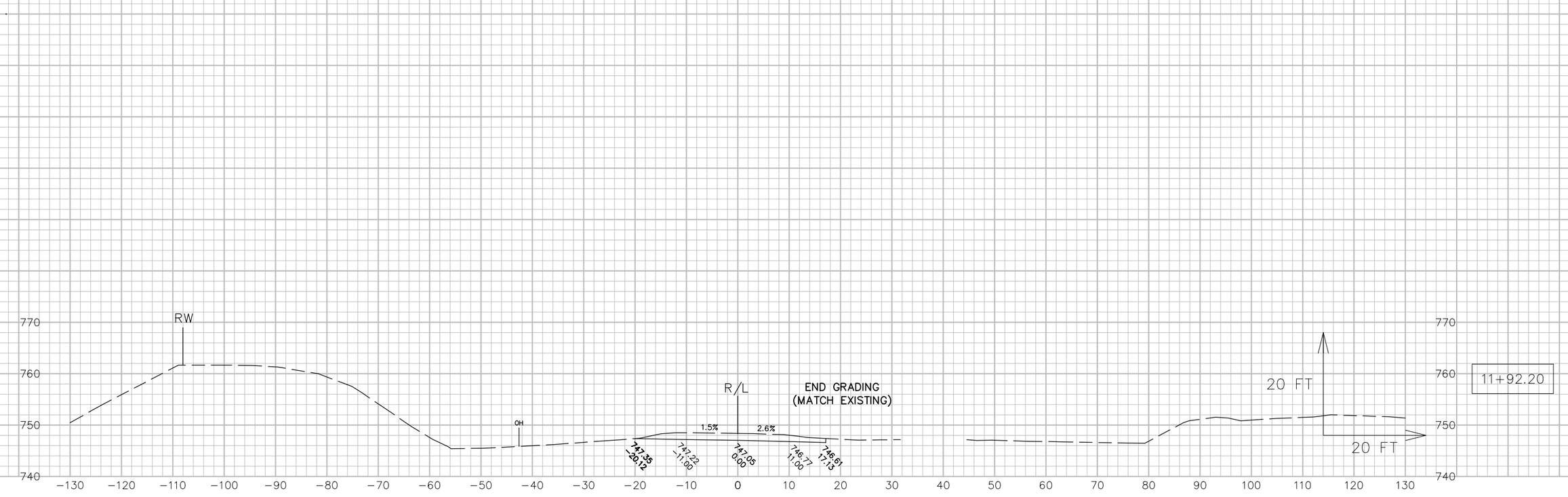
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DOPP ROAD	SHEET 456	E

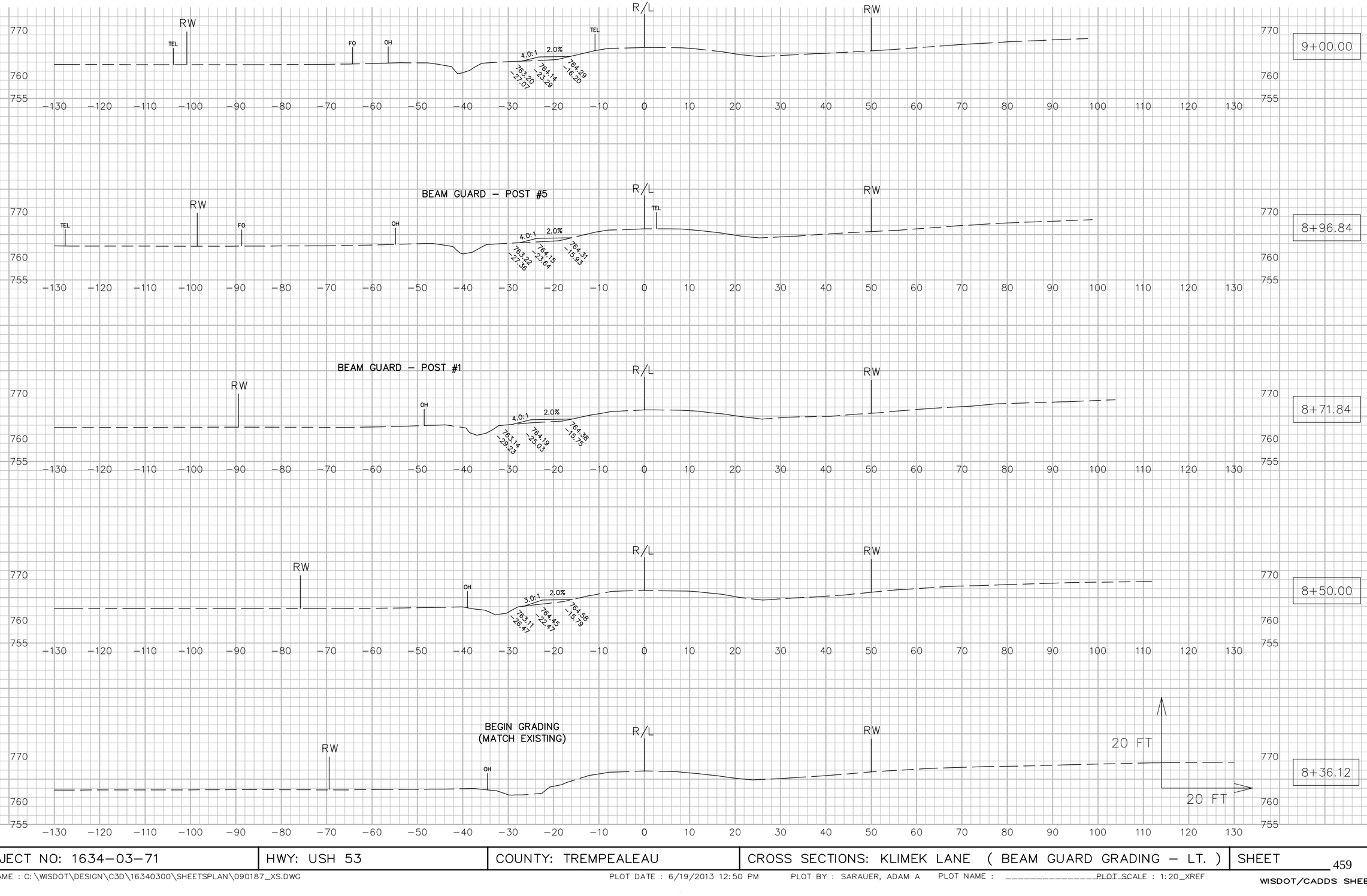


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DOPP ROAD	SHEET 457	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090186_XS.DWG PLOT DATE : 5/9/2012 1:42 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

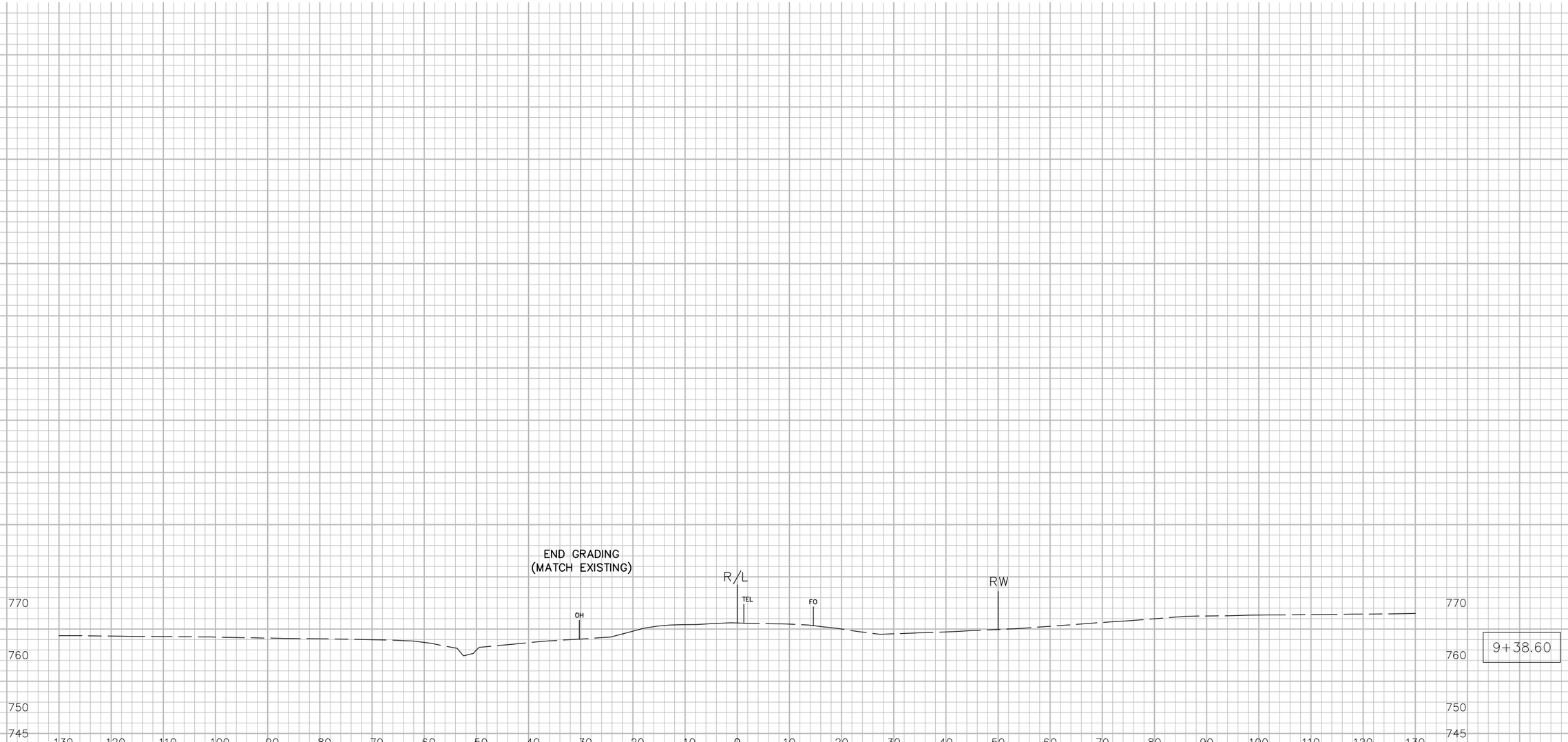


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DOPP ROAD	SHEET 458	E

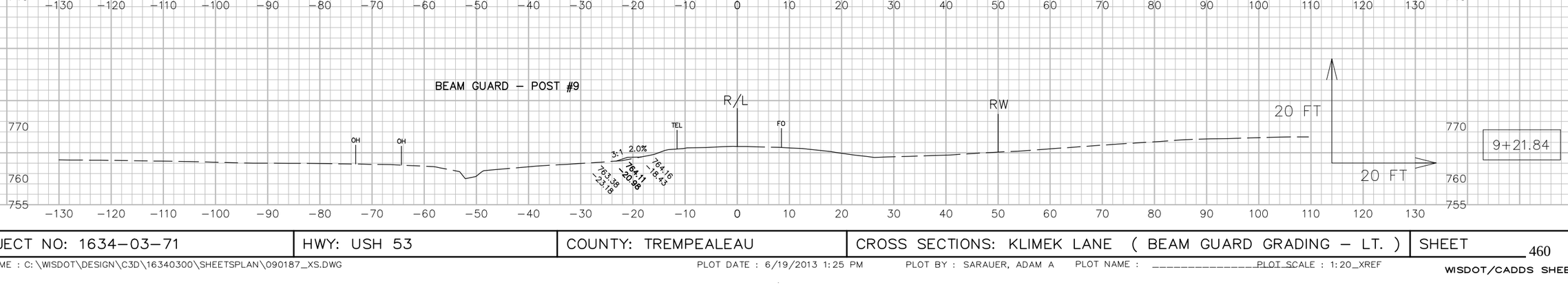


PROJECT NO: 1634–03–71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: KLIMEK LANE (BEAM GUARD GRADING – LT.)	SHEET 459	E

END GRADING
(MATCH EXISTING)



BEAM GUARD – POST #9

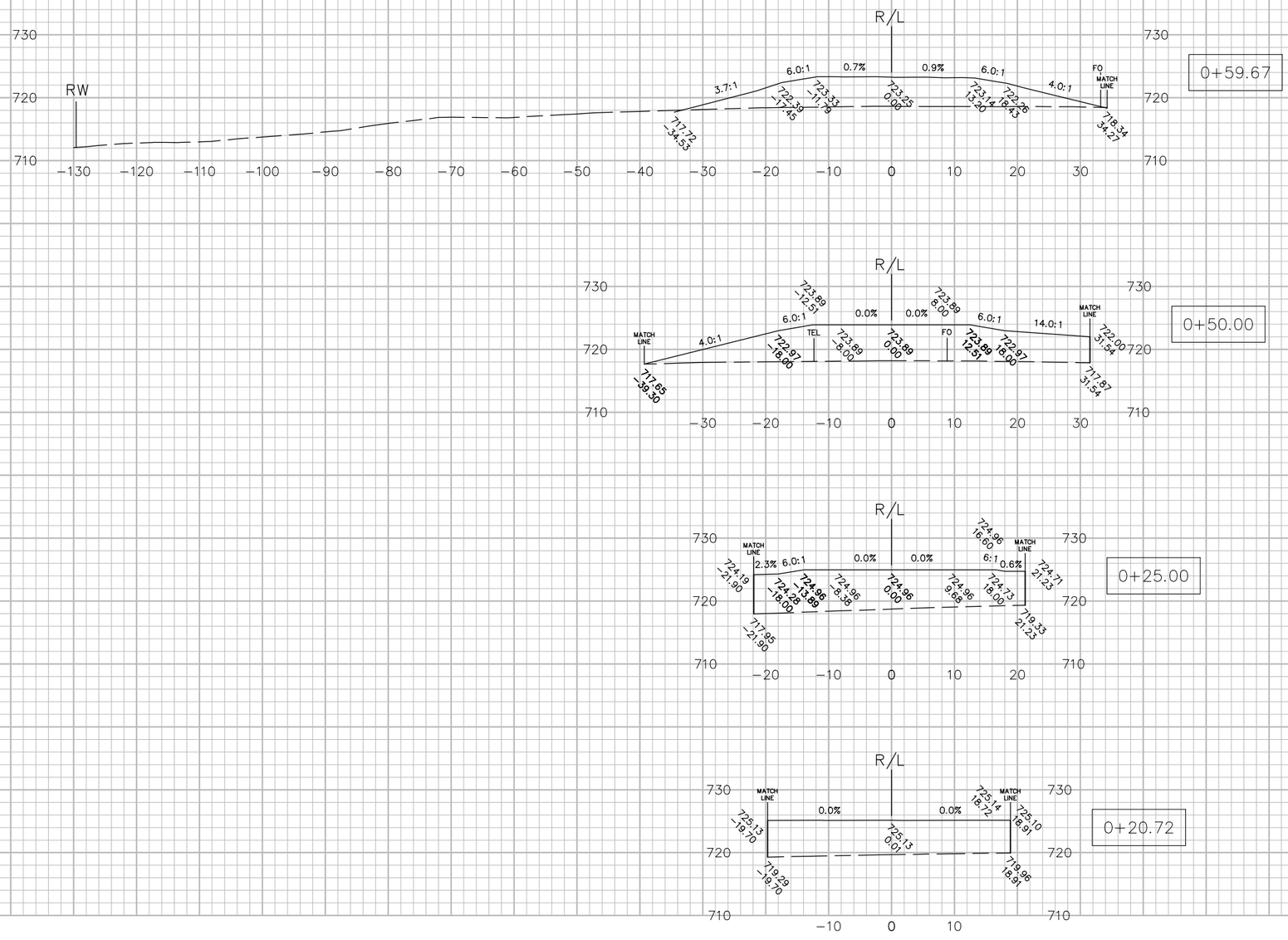


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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: KLIMEK LANE (BEAM GUARD GRADING – LT.)	SHEET 460	E

FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090187_XS.DWG PLOT DATE : 6/19/2013 1:25 PM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

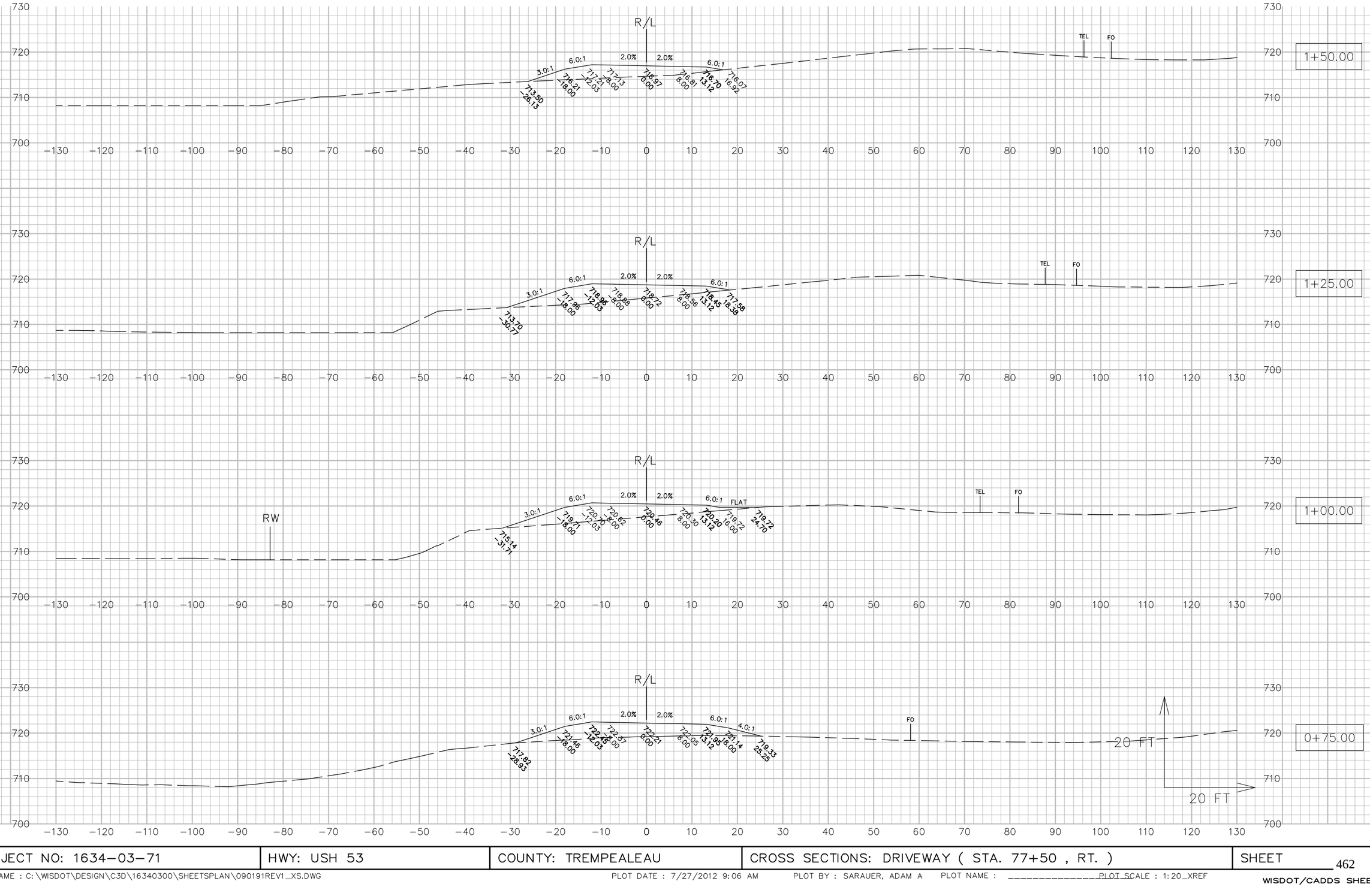


24" CULVERT
STA. 0+52.89 SKEW 13.167d R.H.F.

9

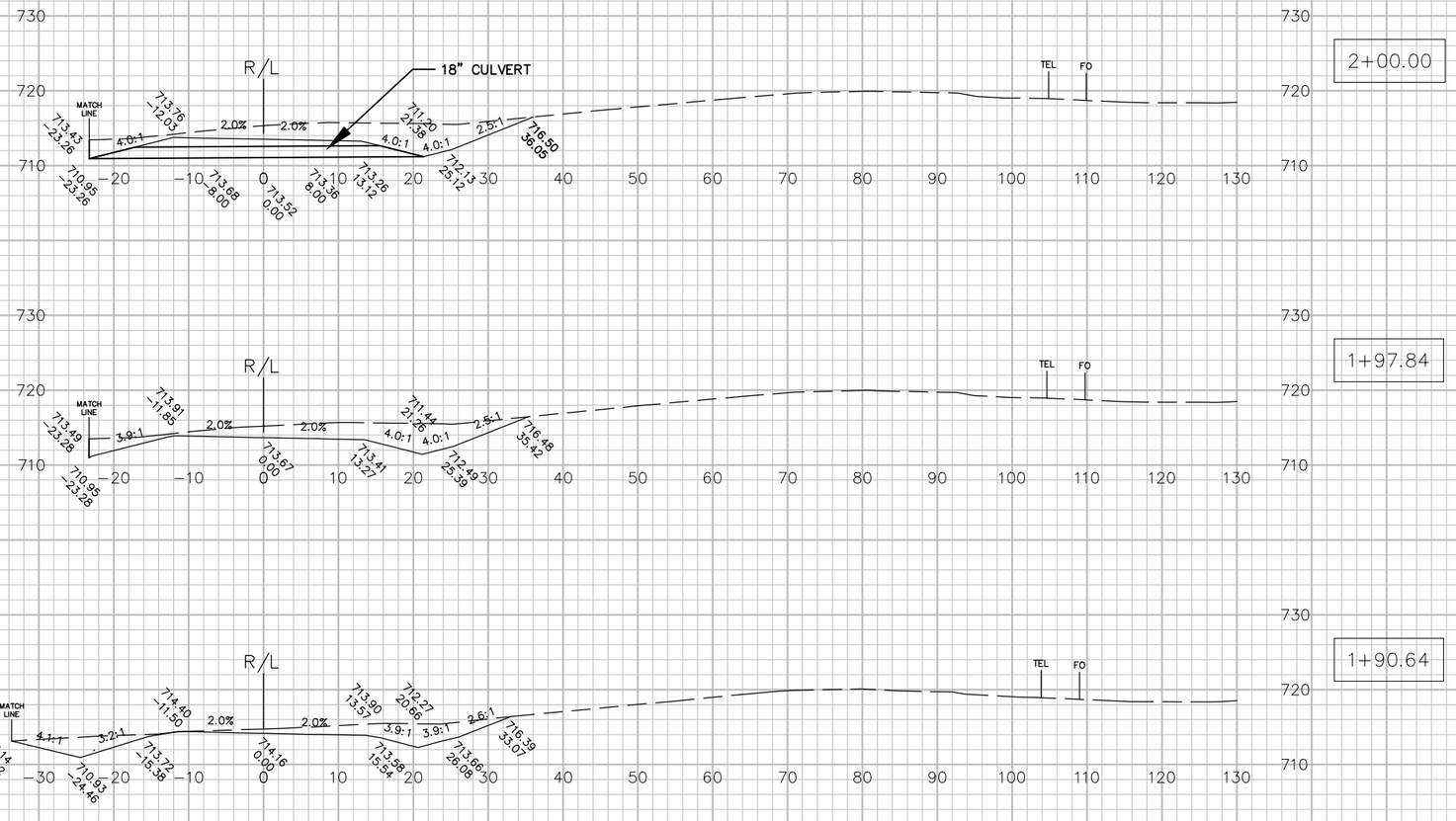
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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 77+50 , RT.)	SHEET 461	E

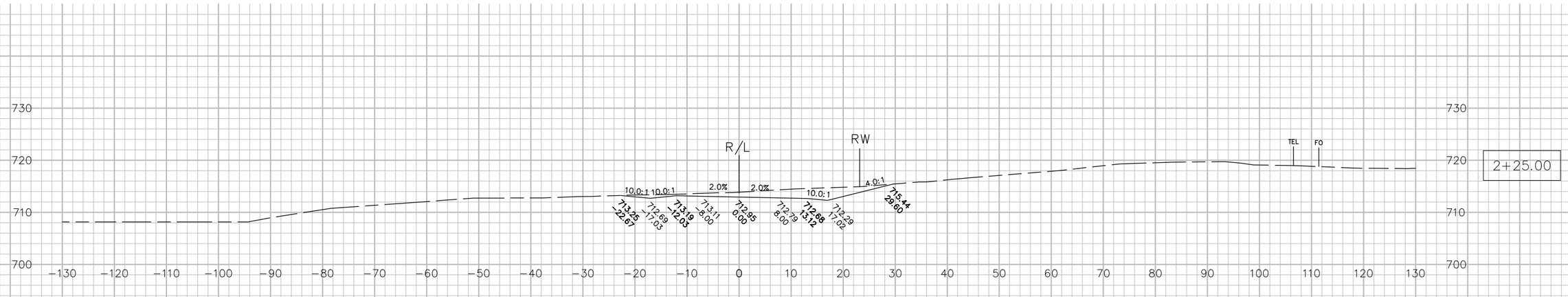


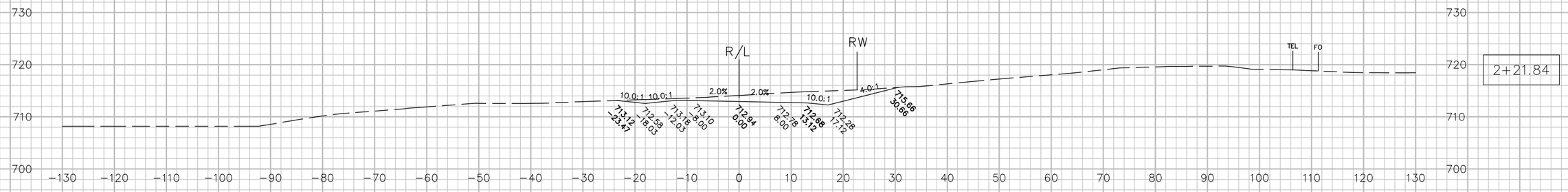
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 77+50 , RT.)	SHEET 462	E

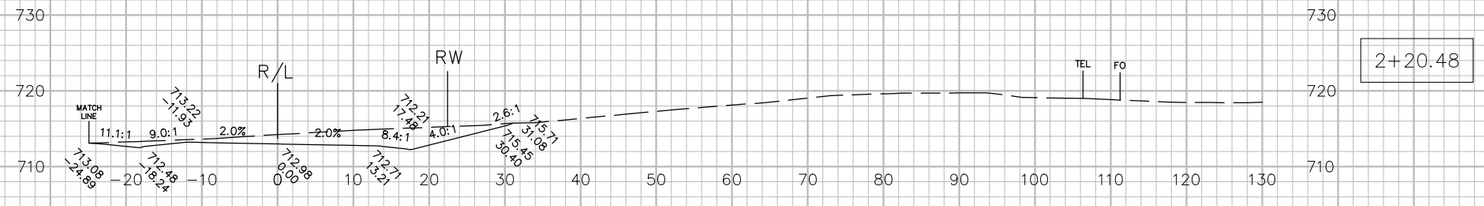
FILE NAME : C:\WISDOT\DESIGN\C3D\16340300\SHEETSPLAN\090191REV1_XS.DWG PLOT DATE : 7/27/2012 9:06 AM PLOT BY : SARAUER, ADAM A PLOT NAME : _____PLOT SCALE : 1:20_XREF

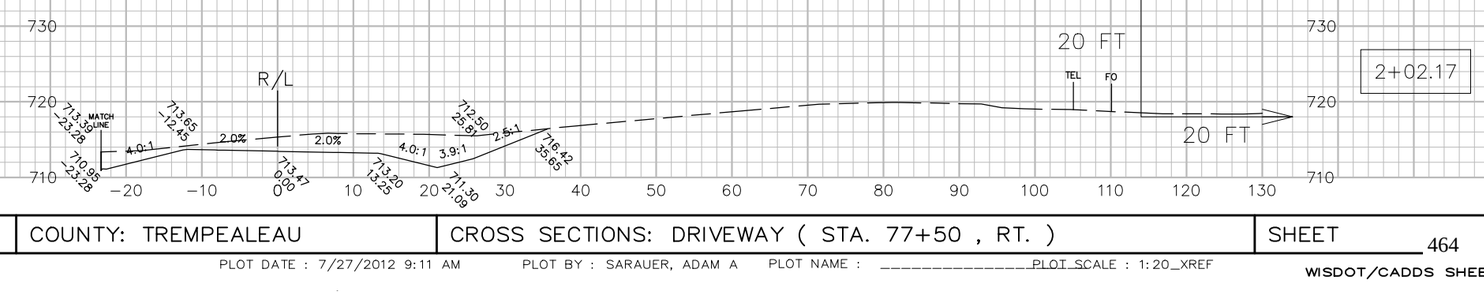


PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 77+50 , RT.)	SHEET 463	E





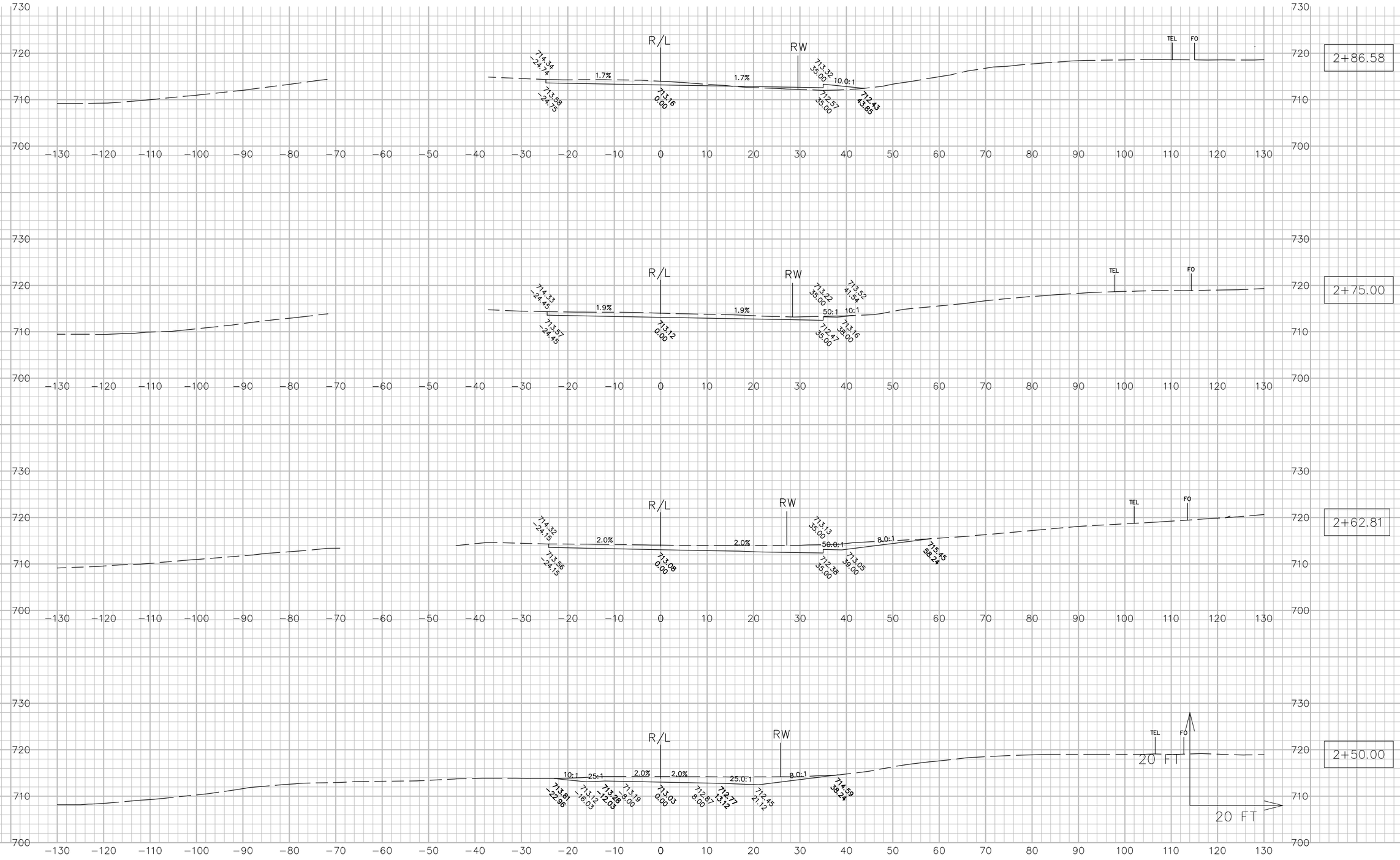




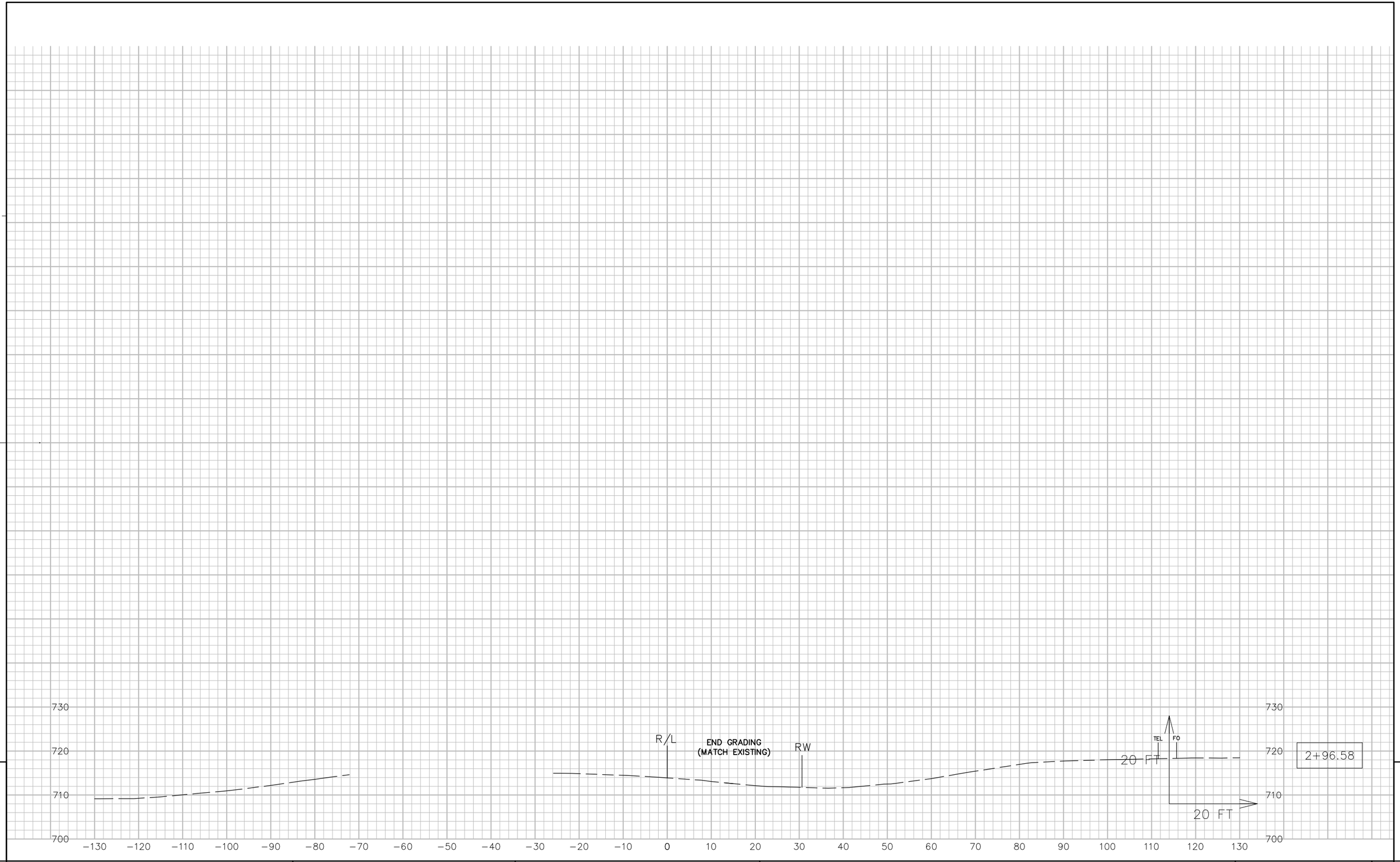
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PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 77+50 , RT.)	SHEET 464	E



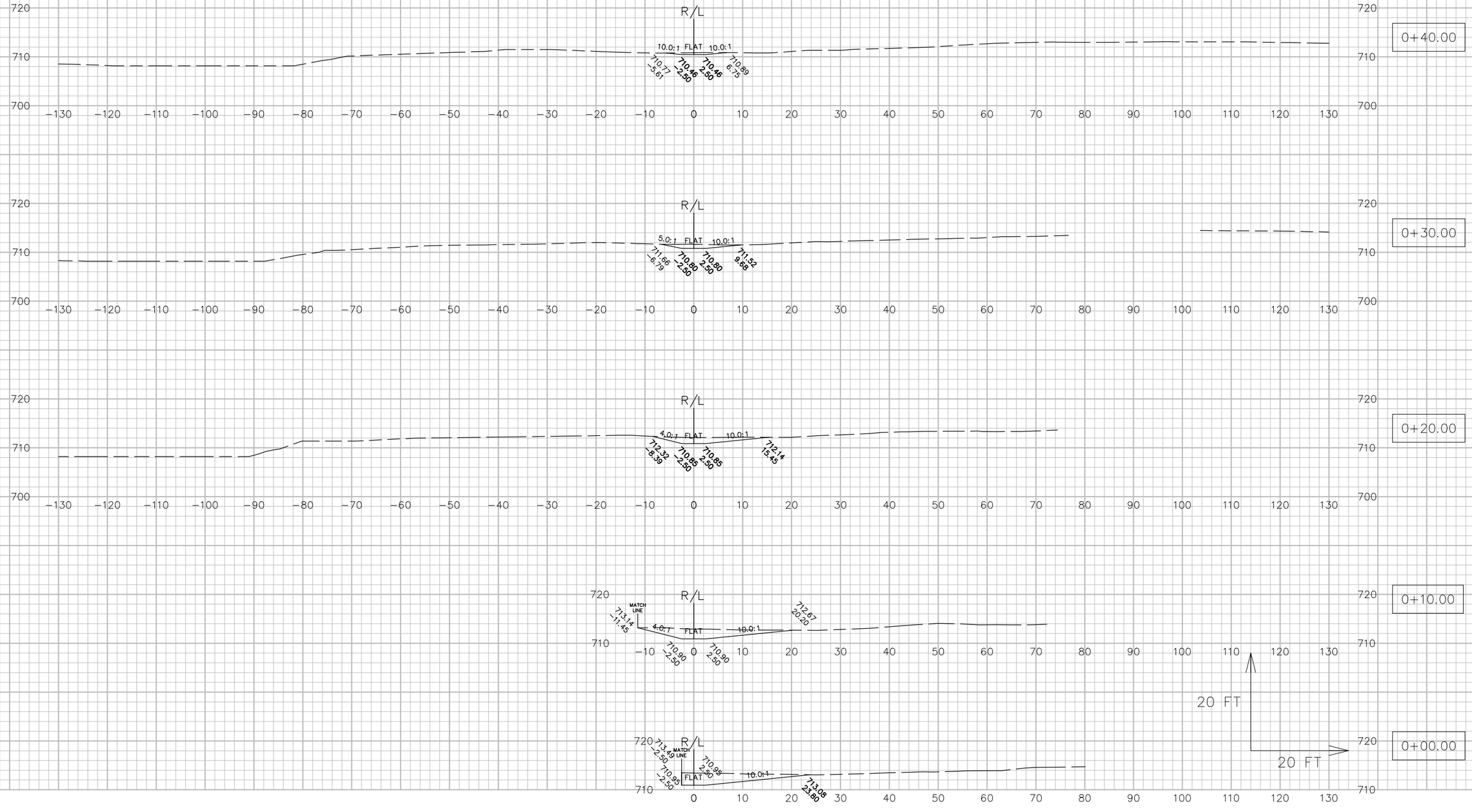
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 77+50 , RT.)	SHEET 465	E



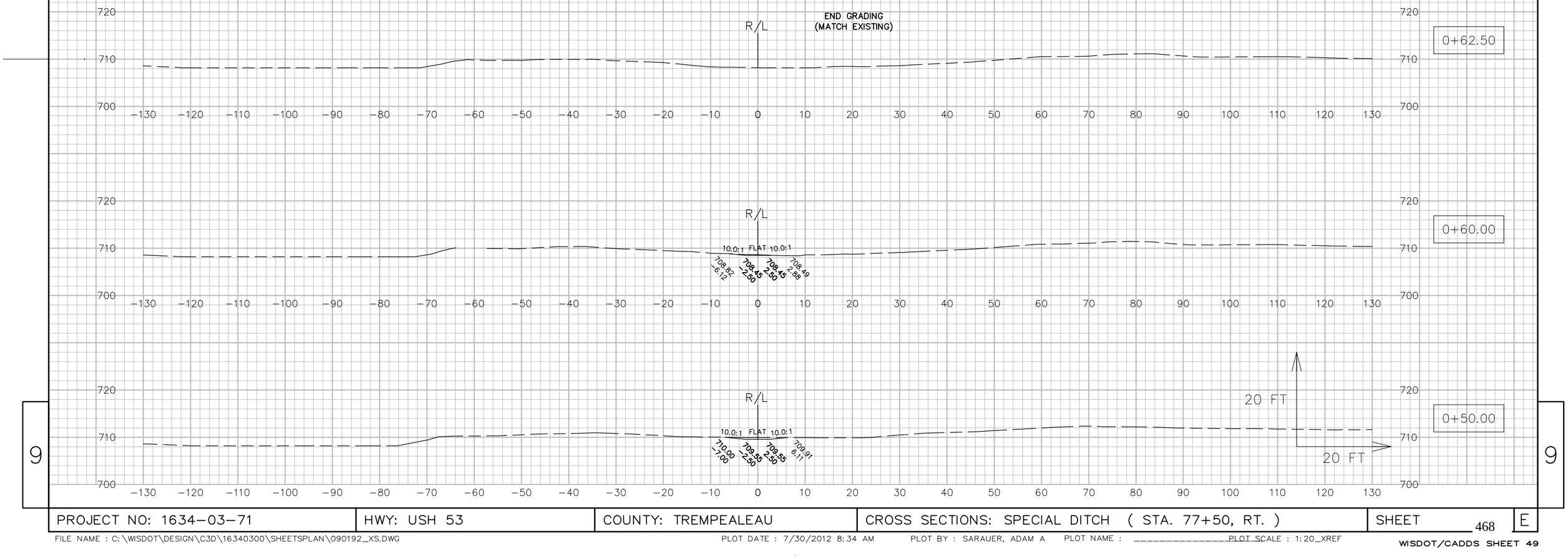
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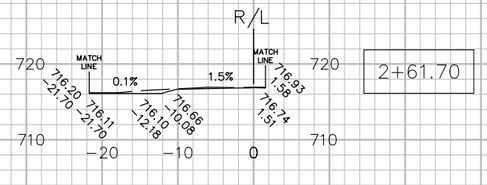
PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 77+50 , RT.)	SHEET 466	E

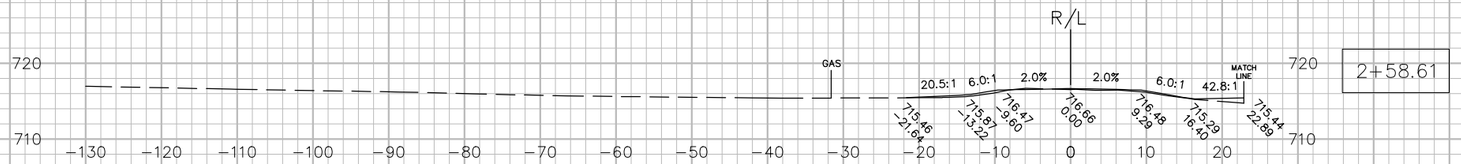


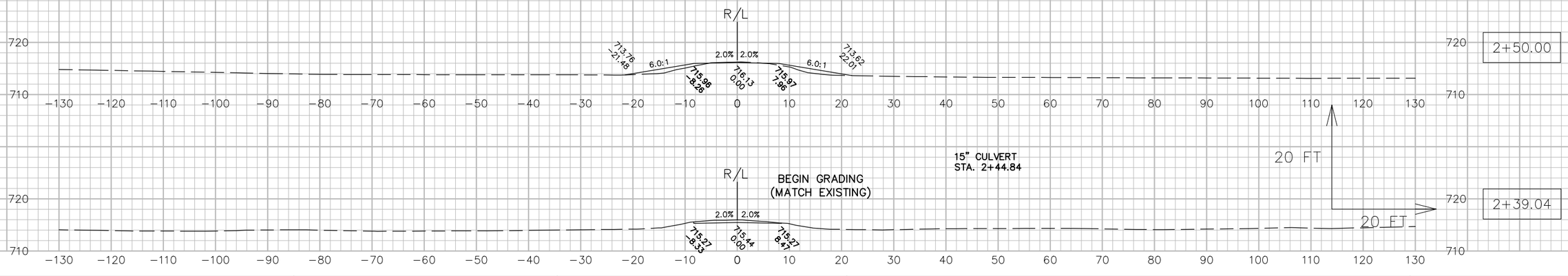
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: SPECIAL DITCH (STA. 77+50, RT.)	SHEET 467	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: SPECIAL DITCH (STA. 77+50, RT.)	SHEET 468	E



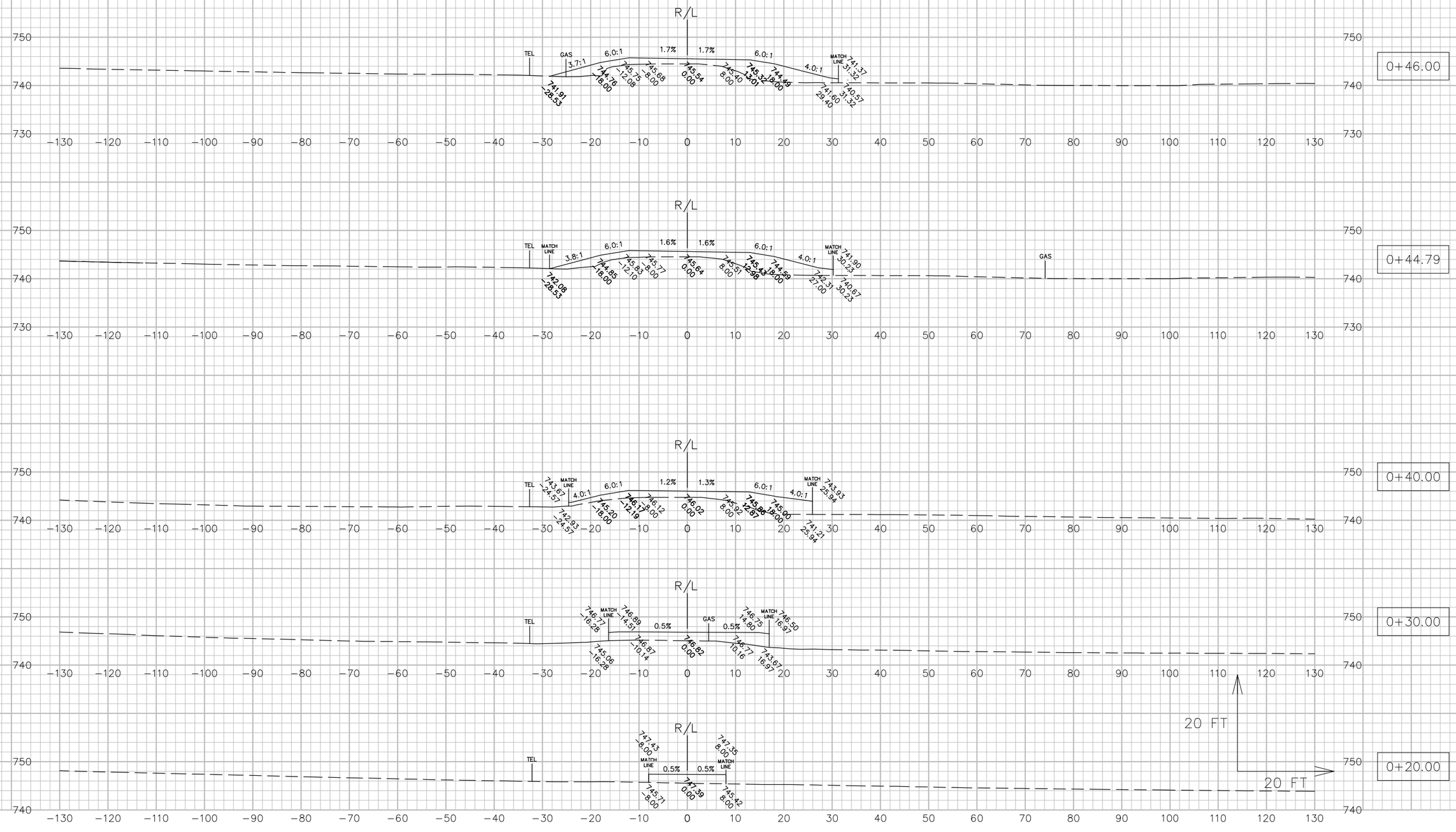




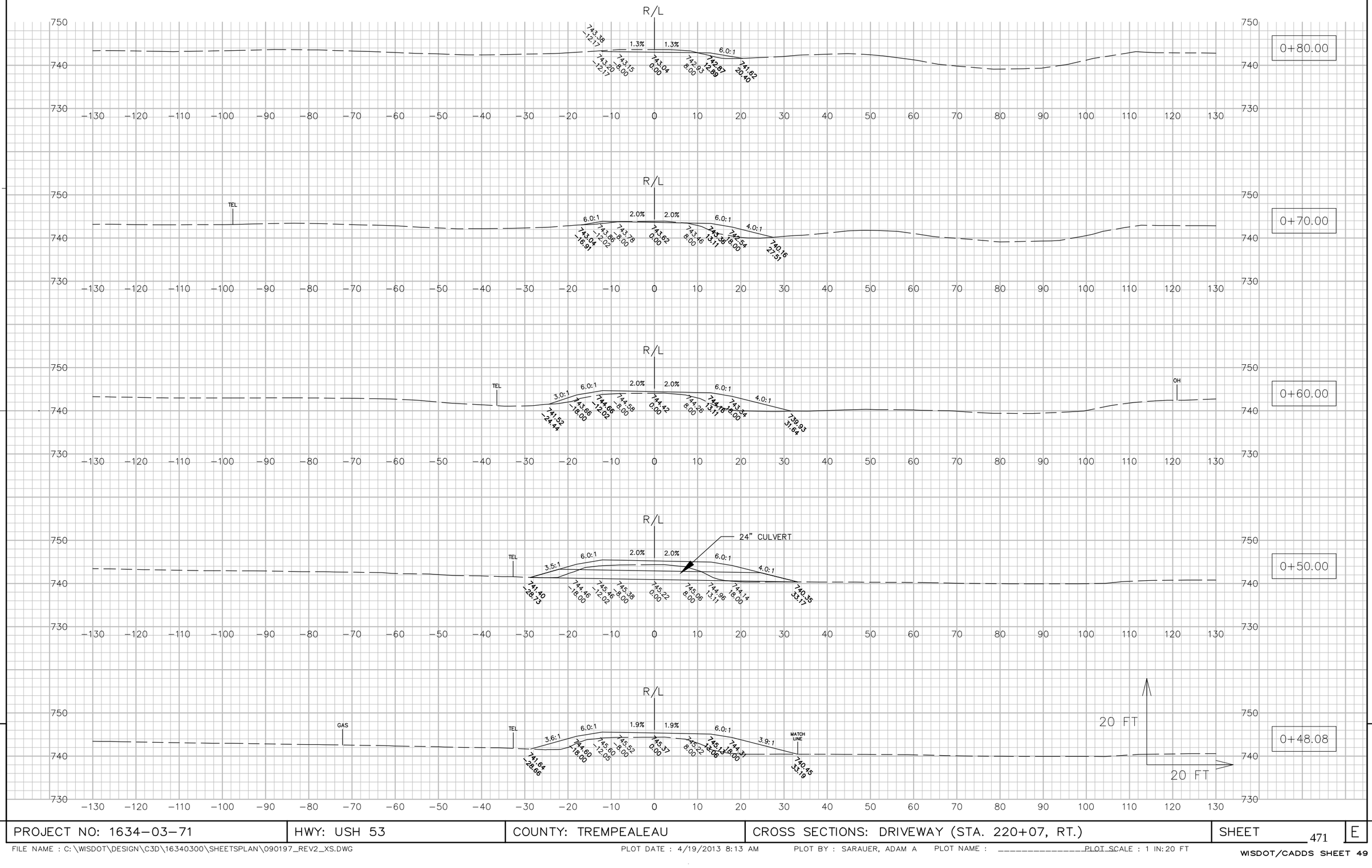
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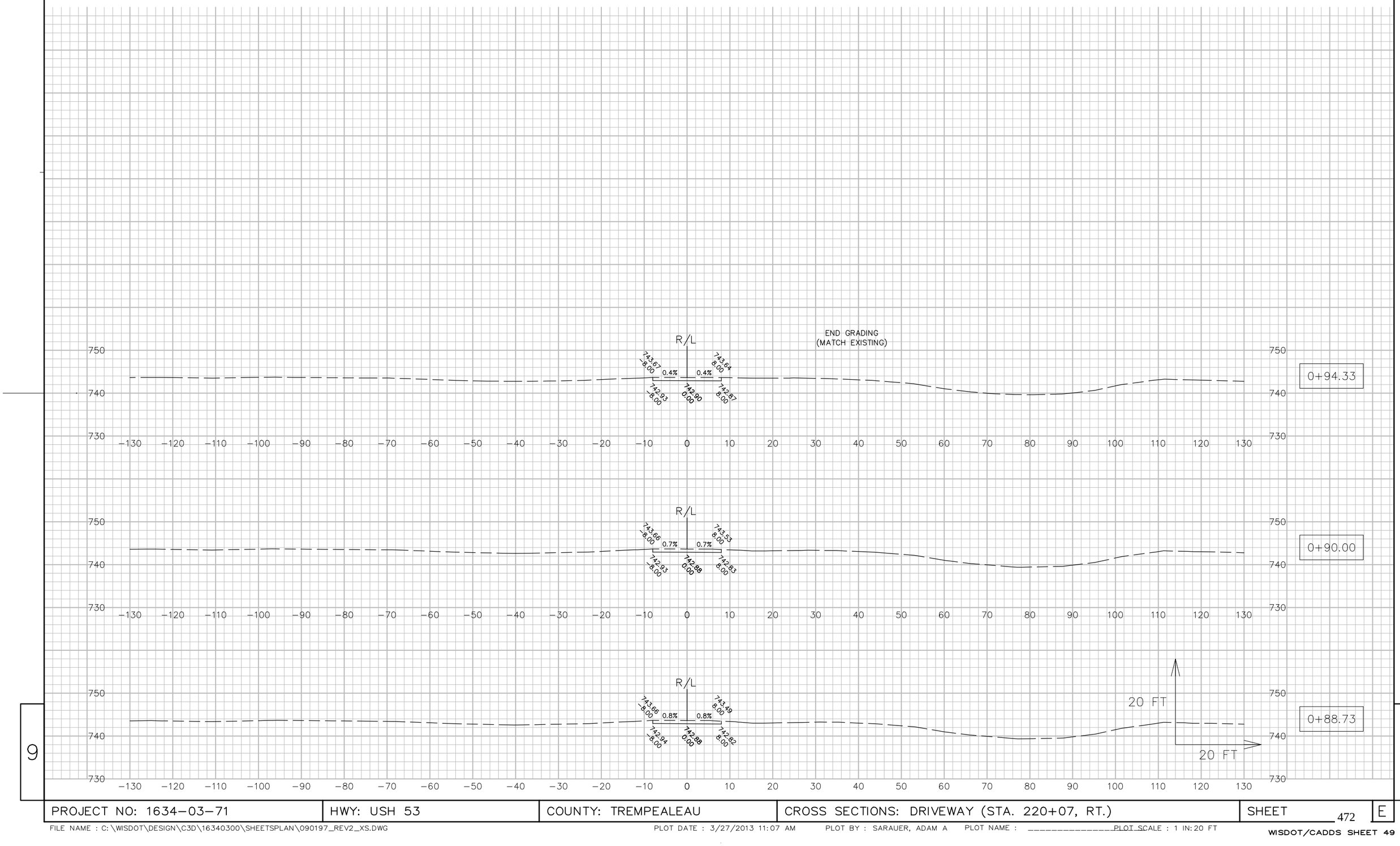
PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 94+63, LT.)	SHEET 469	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 220+07, RT.)	SHEET 470	E



PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 220+07, RT.)	SHEET 471	E

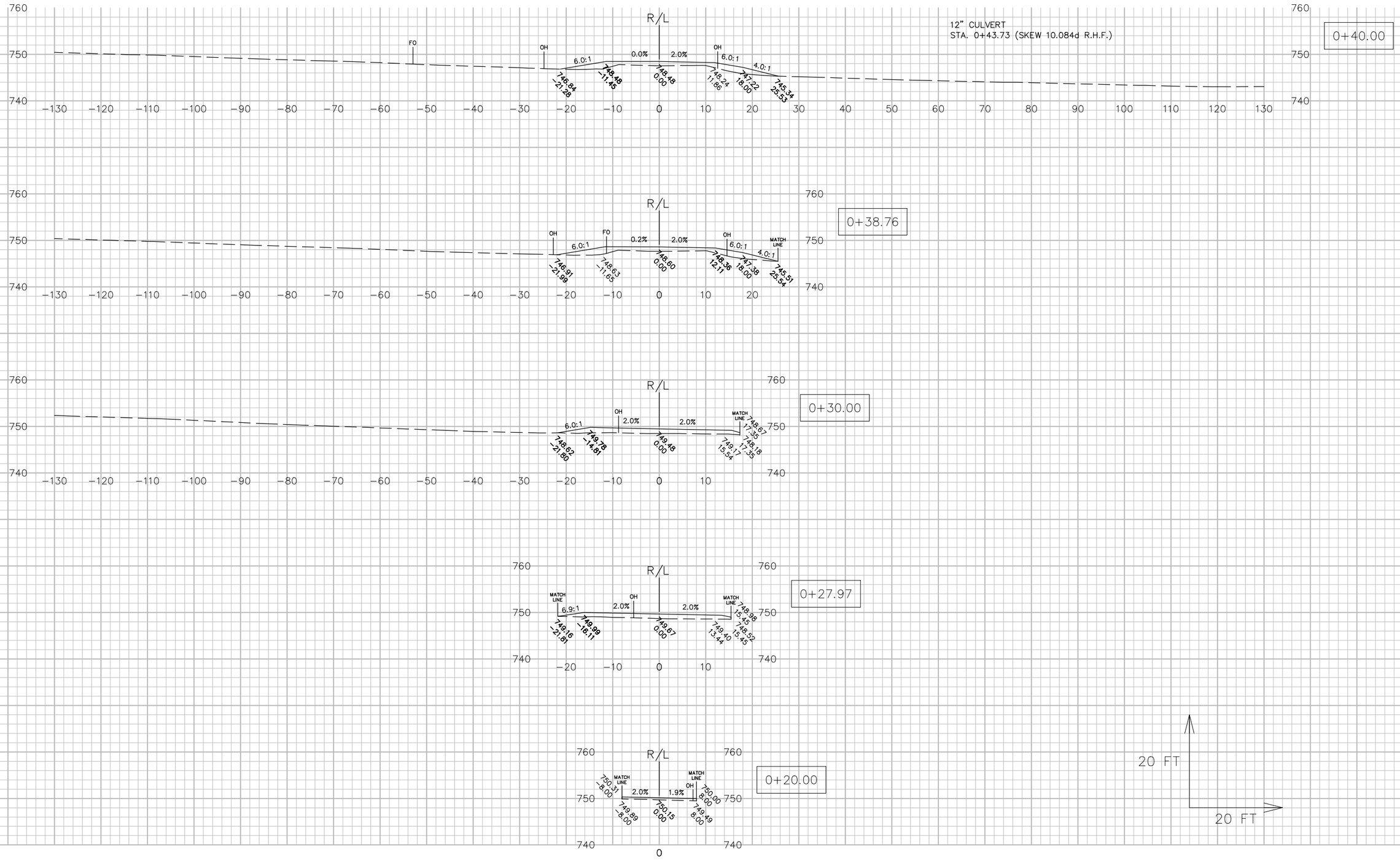


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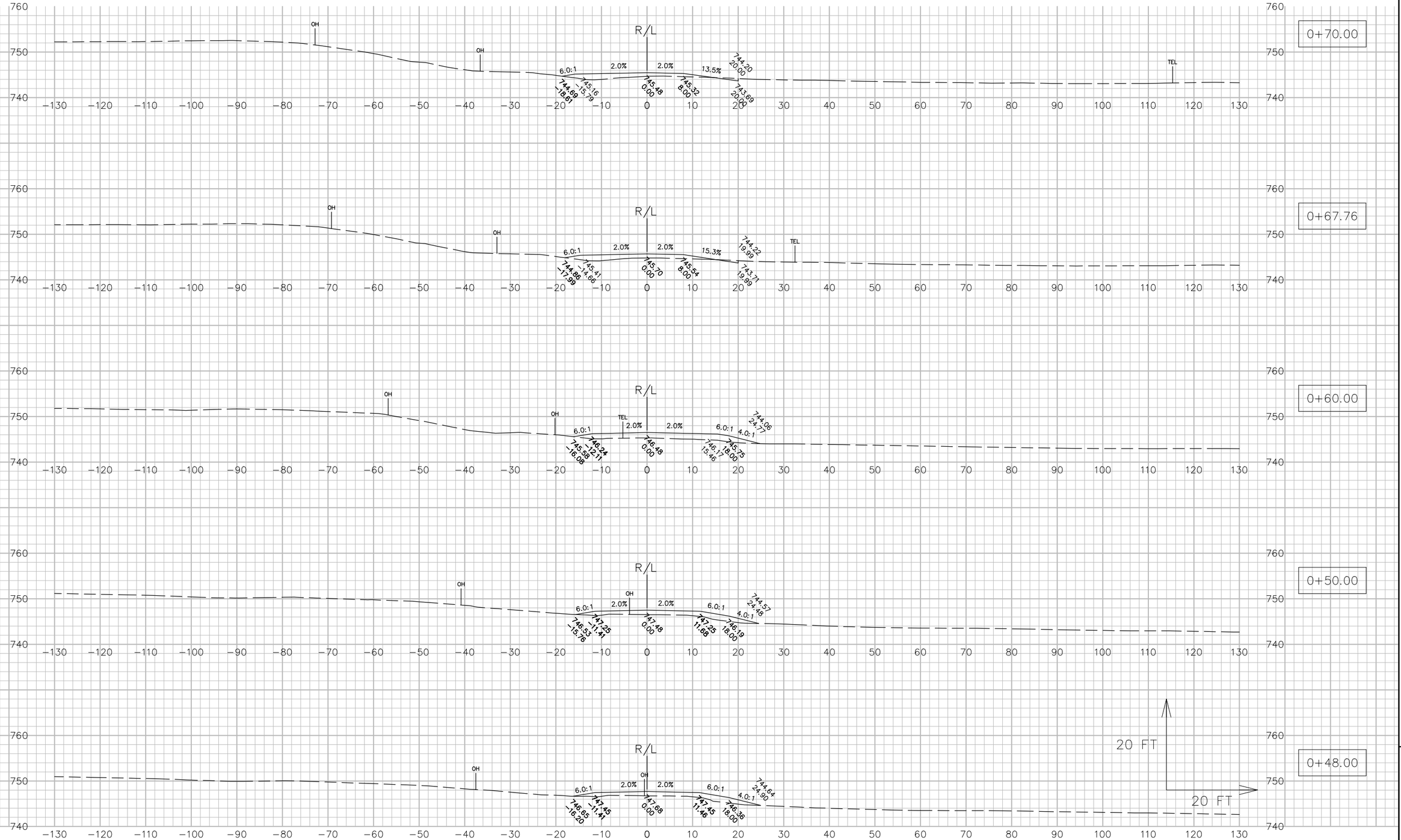
9

PROJECT NO: 1634−03−71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 220+07, RT.)	SHEET 472	E

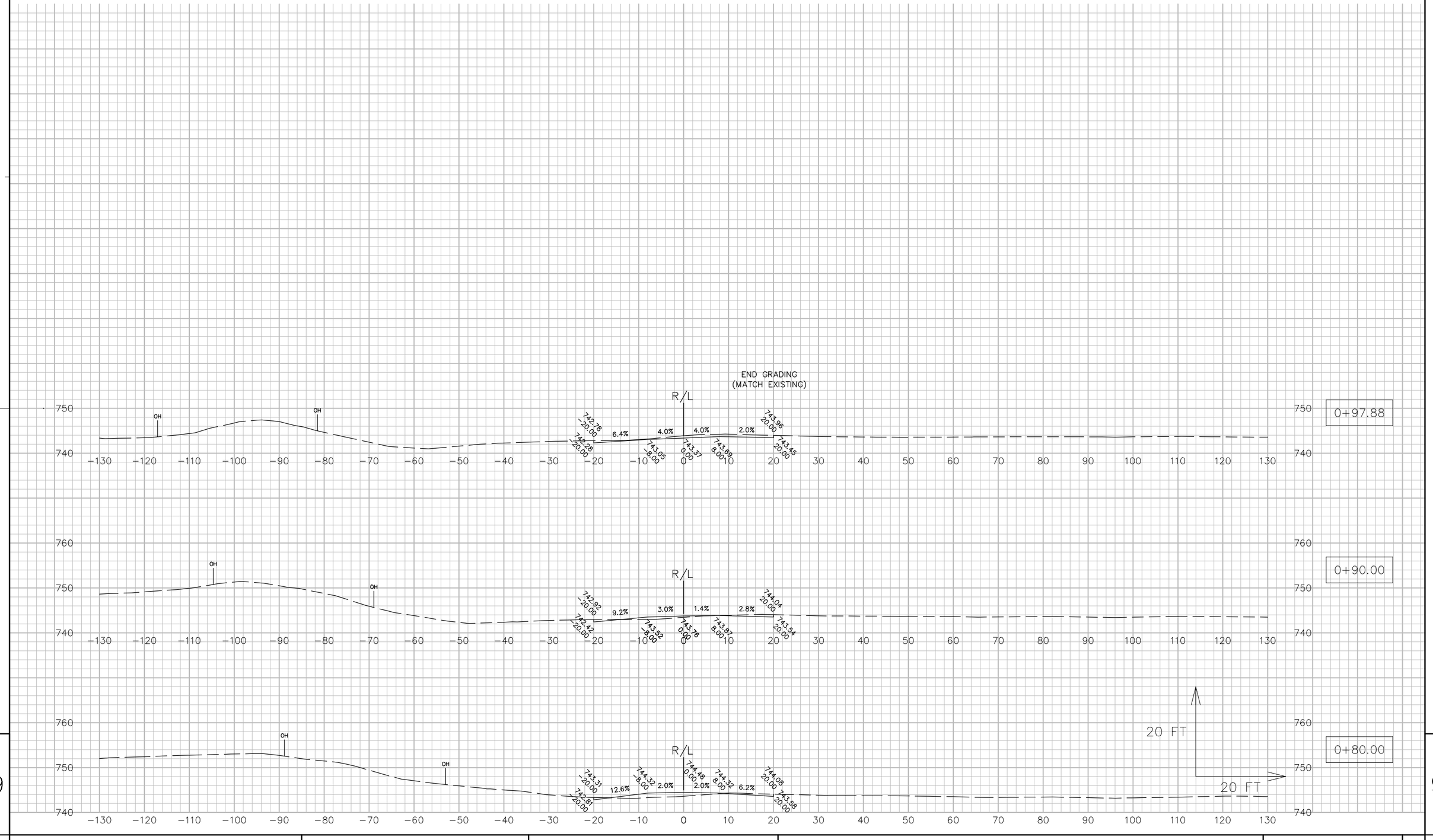
12" CULVERT
STA. 0+43.73 (SKEW 10.084d R.H.F.)



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 222+19, RT.)	SHEET 473	E



PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 222+19, RT.)	SHEET 474	E



9

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PROJECT NO: 1634-03-71	HWY: USH 53	COUNTY: TREMPEALEAU	CROSS SECTIONS: DRIVEWAY (STA. 222+19, RT.)	SHEET 475	E

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